Vapor Intrusion Investigation and Sub-Slab Depressurization-System Operation August 2010 Monitoring Report Lockheed Martin Middle River Complex 2323 Eastern Boulevard Middle River, Maryland

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TABLE OF CONTENTS

Section **Page**

ACRONYMS v

1 INTRODUCTION 1-1

2 SITE BACKGROUND 2-1

2.1 SITE HISTORY 2-1

2.2 HISTORIC INDOOR-AIR-QUALITY RESULTS 2-1

3 2010 INDOOR-AIR-QUALITY AND VAPOR-INTRUSION INVESTIGATION ROUND 9 3-1

3.1 INVESTIGATION APPROACH AND GUIDANCE 3-1

3.2 IAQ AND SUB-SLAB-VAPOR SAMPLING AND ANALYSIS 3-2

3.2.1 IAQ and SV Sampling Events 3-2

3.2.2 Sampling and Analysis 3-5

3.3 DATA ANALYSIS 3-7

3.3.1 Round 9 Data Analysis 3-8

3.3.2 Round 9 Summary 3-19

4 SUB-SLAB-DEPRESSURIZATION-SYSTEM DATA ANALYSIS 4-1

4.1 SUB-SLAB-VAPOR MONITORING POINTS 4-1

4.2 SSD-SYSTEM INFLUENT-VAPOR SAMPLES 4-2

5 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS 5-1

5.1 SUMMARY AND CONCLUSIONS 5-1

5.2 RECOMMENDATIONS 5-4

6 REFERENCES 6-1

APPENDICES

APPENDIX A— CHAIN OF CUSTODY

APPENDIX B— METHOD DETECTION-LIMITS

APPENDIX C— LABORATORY ANALYTICAL REPORTS

APPENDIX D— DATA-VALIDATION REPORTS

APPENDIX E— COMPARISON TO BACKGROUND

APPENDIX F— HISTORICAL-DATA TABLES AND PLOTS

APPENDIX G— SSD-SYSTEM REMEDIAL-ACTION PROGRESS REPORT # 5

LIST OF FIGURES
(Figures appear at the end of each section)

Figure 3-1 IAQ Background Sampling Locations, Round 9, August 2010

Figure 3-2 Indoor Air and Sub-Slab Vapor Monitoring Locations for Building A, Round 9, August 2010

Figure 3-3 Indoor Air and Sub-Slab Vapor Monitoring Locations for Building B, Round 9, August 2010

Figure 3-4 Indoor Air and Sub-Slab Vapor Monitoring Locations for Building C, Round 9, August 2010

Figure 3-5 Indoor Air and Sub-Slab Vapor Results Greater than Screening Levels, Building A, Round 9, August 2010

Figure 3-6 Indoor Air and Sub-Slab Vapor Results Greater than Screening Levels, Building B, Round 9, August 2010

Figure 3-7 Indoor Air and Sub-Slab Vapor Results Greater than Screening Levels, Building C, Round 9, August 2010

LIST OF TABLES
(Tables appear at the end of each section)

Table 3-1	IAQ Background Sample Sampling Results, August 2010
Table 3-2	IAQ Sampling Results, Building A, August 2010
Table 3-3	Sub Slab Vapor Sampling, Building A, August 2010
Table 3-4	Co-Located Sub Slab Vapor and IAQ Sampling Results, Building A, August 2010
Table 3-5	IAQ Sample Results, Building B, August 2010
Table 3-6	Sub-Slab Vapor Sample Results, Building B, August 2010
Table 3-7	Co-Located Sub-Slab Vapor and IAQ Sampling Results, Building B, August 2010
Table 3-8	IAQ Sample Results, Building C, August 2010
Table 3-9	Sub-Slab Vapor Sampling Results, Building C, August 2010
Table 3-10	Co-Located Sub-Slab Vapor and IAQ Sample Results, Building C, August 2010
Table 4-1	Summary of Positive Detects for Vapor Samples, Building A Plating Shop
Table 4-2	Summary of Positive Detects for Vapor Samples, Building C Basement Area
Table 4-3	Summary of Positive Detects for Vapor Samples, Buildings A and C SSD Extraction Points

ACRONYMS

B	laboratory-blank contamination
ca	carcinogenic
COC	chemical(s) of concern
D	sampling result obtained from the analysis of a dilution
DCA	dichloroethane
DCE	dichloroethene
E	estimated result; result concentration exceeds the calibration range
GAC	granular activated-carbon
GC/MS	gas chromatography/mass spectrometry
IAQ	indoor-air quality
ISG	interior soil-gas
J	compound positively identified but quantitation is estimated
Lockheed Martin	Lockheed Martin Corporation
MDE	Maryland Department of the Environment
$\mu g/m^3$	microgram(s) per cubic meter
MRC	Middle River Complex
nc	non-carcinogenic
PCE	tetrachloroethene
SSD	sub-slab depressurization
SV	sub-slab vapor
TCA	trichloroethane
TCE	trichloroethene
U	not detected
UJ	not detected; quantitation limit estimated
USEPA	United States Environmental Protection Agency
VCP	MDE's "Voluntary Cleanup Program"
VLS	vertical-launch system
VMP	vapor-monitoring point
VOC	volatile organic compound

Section 1
Introduction

Tetra Tech, Inc. has prepared this report on behalf of Lockheed Martin Corporation (Lockheed Martin) to document the second round of calendar-year 2010 indoor-air-quality (IAQ) and sub-slab-vapor (SV) sampling at Lockheed Martin's Middle River Complex (MRC) in Middle River, Maryland. It presents the results from Round 9 (August 2010) of IAQ and SV monitoring at Buildings A, B, and C, and at background locations. This report also includes an update on operation of the two sub-slab depressurization (SSD) vapor-intrusion-mitigation systems (installed in 2008) beneath the Building A Plating Shop and beneath the south end of the Building C Basement.

This ongoing investigation evaluates whether volatile organic compounds (VOCs) in sub-slab vapors associated with soil and groundwater chemicals of concern (COC) at the site might be migrating into indoor air at MRC facilities. The second 2010 sampling continues investigations previously described in the following reports:

- *Indoor-Air-Quality-Investigation of Buildings A, B, C, and the (Vertical-Launch System) VLS (facility), Lockheed Martin Middle River Complex, 2323 Eastern Boulevard Middle River, Maryland* (Tetra Tech, 2007)
- *Indoor-Air-Quality-Investigation Round Three, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard Middle River, Maryland* (Tetra Tech, 2008a)
- *Indoor-Air-Quality-Investigation 2008 Summary Report, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard Middle River, Maryland* (Tetra Tech, 2008b)
- *Vapor-Intrusion Investigation and Sub-Slab-Depressurization-System Operation 2009 Summary Report Lockheed Martin Middle River Complex, 2323 Eastern Boulevard Middle River, Maryland* (Tetra Tech, 2010a)
- *Indoor-Air-Quality-Investigation February 2010 Summary Report, Lockheed Martin Middle River Complex, 2323 Eastern Boulevard Middle River, Maryland* (Tetra Tech, 2010b)

This report is organized as follows:

Section 2—Site Background: Briefly describes the history and condition of the site and previous investigations.

Section 3— 2010 Indoor-Air-Quality and Vapor-Intrusion Investigation Round 9: Presents the technical approach to the investigation, describes the sampling and analyses performed, and discusses the Round 9 results, as well as the data collected during SSD operation.

Section 4—Sub-Slab-Depressurization-System Data Analysis: Analyzes data from the sub-slab-vapor monitoring points and sub-slab-depressurization system influent-vapor.

Section 5—Conclusions and Recommendations: Presents conclusions based on the findings of the Round 9 sampling results and recommendations for future investigation.

Section 6—References: Lists the references used in this report.

Section 2
Site Background

2.1 SITE HISTORY

The Lockheed Martin-owned MRC land parcels are undergoing extensive site-characterization studies to support remedial decisions under the Maryland Department of the Environment's (MDE) "Voluntary Cleanup Program" (VCP). Ongoing environmental characterization of the MRC has identified subsurface soil and groundwater contamination from VOCs under or near occupied workspaces (Tetra Tech, 2006a). If a complete pathway exists from the subsurface into a building, these compounds could potentially volatilize and migrate into the workspace. Other, non-subsurface sources could also potentially affect indoor-air contaminant concentrations, including indoor emissions from process chemicals, building materials, and other sources, as well as ambient (outdoor) air contributions (i.e., confounding sources).

In February 2006, Lockheed Martin sampled sub-slab vapor from beneath the Building A Basement and Plating Shop and beneath the southern section of the Building C Basement (Tetra Tech, 2006a). These locations were selected because VOC contamination has been observed in underlying groundwater. Analytical results from the sub-slab-vapor sampling, as well as other site-specific information, were used as inputs for a human-health risk assessment model (Johnson and Ettinger model). The model estimates that these risks are at or below MDE and U.S. Environmental Protection Agency (USEPA) threshold values. However, because of uncertainties inherent in modeling, a supplemental IAQ investigation was proposed to confirm the presence or absence of VOC contaminants in indoor air associated with subsurface VOC contamination.

2.2 HISTORIC INDOOR-AIR-QUALITY RESULTS

Eight rounds of IAQ monitoring were completed for MRC Buildings A, B, and C in December 2006, April 2007, October 2007, March 2008, August 2008, July 2009, October 2009, and February 2010. The results of one round of sampling for the VLS facility (in December 2006) indicate no

need for additional sampling. The results of the analyses for Buildings A, B, and C (included in Appendix F) indicate that numerous COC identified in the subsurface were also detected in background and IAQ samples.

The IAQ data were compared to risk-based screening levels that were derived using conservative USEPA default exposure-assumptions and toxicity values. Screening-level concentrations are based on the regulatorily acceptable risk levels described in MDE's VCP guidance (i.e., 10^{-5}, or a one-in-10,000 excess lifetime-cancer risk). One COC, trichloroethene (TCE), was compared to a range of risk-based screening values due to uncertainty associated with its toxicity. These values were derived from the USEPA toxicity criteria currently used by MDE.

The results of these analyses indicate that most of the VOCs detected in IAQ samples are probably not associated with sub-slab vapor intrusion. Migration of sub-slab vapors into indoor air may be occurring in limited locations. The presence of TCE in IAQ samples may be associated with sub-slab vapor migration at the Building A Plating Shop and in the Building C Basement, since it co-occurred with a marker chemical (cis-1,2-dichloroethene) found only in sub-slab vapor samples.

Mitigation has been recommended for locations where chemicals in sub-slab vapor are known to be at high concentrations, based on the results of the first three rounds of sampling. Additional IAQ and SV sampling has also been recommended to address areas of uncertainty identified during subsequent rounds of sampling. In response to these recommendations, a sub-slab-vapor mitigation system was designed and installed from March 12–29, 2008 beneath the Building A Plating Shop and beneath the south end of the Building C Basement, with full system start-up completed on March 31, 2008. IAQ and SV sampling continue to date.

Section 3
2010 Indoor-Air-Quality and Vapor-Intrusion Investigation Round 9

3.1 INVESTIGATION APPROACH AND GUIDANCE

The IAQ-SV investigation seeks to evaluate whether VOCs in sub-slab vapors associated with soil and groundwater contamination at the site might be migrating into indoor air at MRC facilities. Key aspects of the investigative methodology include:

- Site reconnaissance by Tetra Tech industrial hygienists to identify IAQ sampling locations
- Development of a site-specific sampling plan based on information obtained during site reconnaissance and from reviews of historical information and reports
- Inspection of sampling locations before fieldwork to identify changes in operations or building conditions
- Sampling and analysis using methods designed to measure low VOC concentrations in air
- Interpretation of results

Relevant guidance used to develop and perform the investigation includes:

- "Draft Guidance for Evaluating the Vapor-Intrusion-to-Indoor-Air Pathway from Groundwater and Soils." Docket ID No. RCRA-2002-0033 *Federal Register*: November 29, 2002 (Volume 67, Number 230) (USEPA, 2002)
- *Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air, Second Edition.* "Compendium Method TO-15: Determination of VOCs in Air Collected in Specially-Prepared Canisters and Analyzed by Gas Chromatography/Mass Spectrometry (GC/MS)." Center for Environmental Research Information Office of Research and Development, U.S. Environmental Protection Agency. Cincinnati, Ohio 45268. January 1999. (USEPA/625/R-96/010b) (USEPA, 1999)

- *Voluntary Cleanup Program Guidance Document*. Environmental Restoration and Redevelopment Program, Maryland Department of the Environment. March 17, 2006 (MDE, 2006)

3.2 IAQ AND SUB-SLAB-VAPOR SAMPLING AND ANALYSIS

3.2.1 IAQ and SV Sampling Events

Table 3-1 of the *IAQ Assessment Work Plan* (Tetra Tech, 2006b) presents the locations originally selected for IAQ sampling at the Middle River Complex. These locations have been shifted over time due to changes in the facility's layout and operations, and based on the results of each round of sampling. Locations for the installation of new vapor monitoring points (VMPs), as well as existing locations to be sampled during Round 9, were identified during development of the *Work Plan Addendum Indoor Air and Sub-Slab Sampling Round 9* (Tetra Tech, 2010c).

Fourteen new sub-slab-vapor monitoring points (VMPs) were proposed for installation before the Round 9 sampling event. Of the 14 proposed locations, 12 new VMPs were installed. Two of the proposed locations are inaccessible. The new VMPs were installed beneath key areas of each building to establish a grid-like pattern of monitoring points across Buildings A, B, and C, with approximately 200 feet between each grid line. However, if existing data indicated that contamination existed in a particular area, a VMP was installed there regardless of whether or not it was on the proposed grid.

The 12 new VMPs were installed in July 2010. This includes two new VMPs in the basement of Building A, three new VMPs on the first floor of Building A, four new VMPs on the first floor of Building B, one new VMP in the Fire Coat building south of Building B, and two new VMPs in the basement of Building C. All VMPs are stainless-steel soil-vapor probes installed into soils beneath the concrete building slabs.

A bentonite seal was installed above the sampling zone. Quick setting, contaminant-free Portland cement seals the installation at the surface. The sampling train is also sealed at the surface with non-VOC-containing modeling clay. Sample tubing was closed using Swagelok® fittings (to prevent atmospheric infiltration). Sampling locations were finished to grade with flush-mounted protective monuments.

Leak testing was done using helium as a tracer gas to evaluate possible atmospheric infiltration. Helium was introduced into a five-gallon bucket sealed to the floor with non-VOC-containing modeling clay and positioned over the sampling location. The bucket was equipped with an outlet for the Teflon® sampling tubing. A direct-reading field instrument (Model MGD-2002 Multi-Gas Leak Locator) monitored the sampling tube for helium. All new VMP locations were found to be tight, with no indication of atmospheric infiltration.

The same grid-like pattern of monitoring points across Buildings A, B, and C previously used for Round 8 were sampled again. The locations of the new VMPs that were installed and sampled, the existing VMPs that were sampled, as well as historical VMP locations, are shown in Figures 3-2, 3-3, and 3-4. Sampled VMPs are designated by large light-blue globes, whereas un-sampled (historical) locations are designated by a smaller lavender globe.

VMPs were inspected the week before fieldwork was scheduled to begin to leave adequate time to repair any damaged locations. The cover and cement surrounding VMP SV-A-6 were observed to be crushed just below the floor level. Upon closer inspection, the tubing and subsurface seal were found to be intact, and therefore a sample was collected at this VMP. Heavy vehicular traffic (forklifts, carts) in this area is most likely the cause of this damage. This VMP is at the east-central side of Building A, near the autoclaves. No other VMP damage was identified.

IAQ samples were co-located with VMP locations to evaluate possible relationships between sub-slab and IAQ results. IAQ sampling locations were also selected to further evaluate areas where elevated results had been previously reported. Figure 3-1 illustrates the background locations sampled during Round 9. Figure 3-2 illustrates the first-floor and basement sampling-locations for Building A. Figure 3-3 illustrates first-floor and basement sampling-locations in Building B and Fire Coat building. Figure 3-4 illustrates basement sampling-locations in Building C.

For data organization and interpretation, each building was broken into areas encompassing multiple sampling locations. A table identifying which sampling locations are in each area is included with the historical-data tables in Appendix F. These areas are:

- Building A north (AN)
- Building A central (AC)
- Building A south (AS)
- Building A Plating Shop (APS)
- Building A Basement north (ABN)
- Building A Basement south (ABS)
- Building B north (BN)
- Building B central (BC)
- Building B south (BS)
- Building B Basement north (BBN)
- Building B Utility Tunnel north (BUN)
- Building B Utility Tunnel center (BUC)
- Building B Utility Tunnel south (BUS)
- Building C north (CN)
- Building C central (CC)
- Building C south (CS)
- Building C Basement north (CBN)
- Building C Basement center (CBC)
- Building C Basement south (CBS)
- Fire Coat building (FC)

Round 9— Round 9 sampling was performed on August 30–31, 2010. It entailed collection and analysis of 33 IAQ samples and 35 SV samples (including duplicates) from interior locations at Buildings A, B, and C. Ambient-air samples were collected from four background locations. Round 9 sampling locations are identified by the number "9" at the end of the sample name on the figures and relevant tables. As in Round 8, sampling focused on IAQ sampling locations in Buildings A, B, and C that have had historical concentrations of TCE greater than 1 $\mu g/m^3$ or SV concentrations greater than screening levels.

Attempts were made to collect samples from the same locations used in previous rounds of air sampling. Several changes in MRC site operations and facility configuration affected the final locations for several samples collected during this round. The following observations were recorded for the August 2010 sampling:

- The exterior door at the southwest end of Building A near sampling location SV-A-7-9/IAQ-A8-9 was open during the sampling period
- Sampling location SV-22-A-9 was placed inside a pressurized (air-conditioned) space east of the Building A Plating Shop
- The large exterior bay-doors on the entire southern side of Building B were open during the sampling period. More activity was observed than in the previous round of sampling. Floor fans were observed being used for localized ventilation.
- Personnel were observed applying sealant to thrust-reverser assemblies approximately 25-feet northeast of sampling location SV-B-4-9/IAQ-B12-9. Bottles of acetone were observed on the workers' work carts. Four freshly painted/coated cylindrical cowlings were

observed near sampling location SV-25-B-9/IAQ-B15-9, in the central portion of Building B near column GK19. One of the cowlings was marked "wet."

- A closed plastic storage container marked "clean acetone rags" was observed adjacent to sampling location SV-26-B-9/IAQ-B16-9 in Building B, between columns GH-13 and GJ-13. Some assembly work and desktop work was observed, but no coating or painting was seen. No odors were perceptible from the storage container or the rags.

- Sampling location SV-30-FC-9/IAQ-FC30-9 is in the northern portion of the Fire Coat building; strong solvent odors were noted throughout the sampling period. Spray coating was underway in the paint booth at the southern side of the Fire Coat building during the sampling period. The spray booth has a dedicated ventilation and exhaust system, but its front is open to the rest of the building. All doors to the Fire Coat building were open during the sampling period and floor fans were observed providing localized ventilation.

- Sampling location SV-C-7-9/IAQ-C12-9 was moved approximately 15 feet southwest from its original proposed position due to site utilities

- The exterior bay door on the southeast side of the Building C Basement near sampling location ISG-01-9/IAQ-C19-9 was open during the sampling period

- The average outdoor temperature during the two-day sampling event was 80° Fahrenheit (F) for both August 30 and 31. The maximum temperature on both days was 93°F, which was a record for each day. Barometric pressure dropped during the sampling event, from 30.27 inches of mercury on the 30th to 30.10 inches on the 31st. Winds were from the west-northwest on the 30th, with an average speed of eight miles per hour through early on the 31st, then died and shifted to the east-southeast late on the 31st.

3.2.2 Sampling and Analysis

Sampling was performed in accordance with the methods described in the *IAQ Assessment Work Plan* (Tetra Tech, 2006b) and the *Work Plan Addendum, Indoor-Air and Sub-Slab Sampling Round 9* (Tetra Tech, 2010c). IAQ and sub-slab sampling and analysis were in accordance with USEPA's "Method Toxic Organic 15" (TO-15) for collection and analysis of VOCs (USEPA, 1999). Sub-slab soil-vapor samples were likewise collected in accordance with standard operating procedures developed by the USEPA Environmental Response Team for soil-vapor sampling (USEPA, 1996), as well as methodologies developed by the USEPA Office of Research and Development (USEPA, 2004). IAQ and background-air samples were collected over a six-to-eight hour period, whereas SV samples were collected over a one-hour period.

The facility-wide characterization now underway as part of the VCP has identified a list of chemicals as potential concerns for vapor intrusion at MRC, and for which all samples have

historically been analyzed. The analytical list historically used for indoor air sampling and sub-slab sampling at the MRC was amended beginning in sampling Round 9 with the addition of 1,1,1-trichloroethane, 1,1,2-trichloroethane, and chlorodifluoromethane (Freon 22). Trichloroethane was proposed for inclusion to help provide information on the source(s) of 1,1-dichloroethane and 1,2-dichloroethane in sub-slab samples, as they are not naturally occurring but are instead breakdown products of trichloroethane. Chlorodifluoromethane was proposed because it is an emerging chemical of concern in groundwater at the Middle River Complex. The current list of chemicals, agreed upon in 2010, includes:

- benzene
- chloroform
- 1,1-dichloroethane
- trans-1,2-dichloroethene
- methyltertiary-butyl ether
- toluene
- 1,2,4-trichlorobenzene
- vinyl chloride
- 1,1,1-trichloroethane
- 1,1,2-trichloroethane
- carbon tetrachloride
- dichlorodifluoromethane
- cis-1,2-dichloroethene
- ethylbenzene
- tetrachloroethene
- total xylenes
- trichloroethene
- naphthalene
- chlorodifluoromethane

All samples were submitted to TestAmerica laboratories in Knoxville, Tennessee for analysis by gas chromatography/mass spectroscopy with cryogenic concentration (as described in sections 9 and 10 of USEPA Method TO-15 [USEPA, 1999]). TestAmerica is certified in USEPA "Method TO-15" analysis and meets all quality assurance/quality control requirements specified in the TO-15 methodology. All samples were stored at ambient temperatures and shipped via overnight carrier to the laboratory within 24 hours of collection. All samples were submitted and analyzed within the method's specified holding time. All appropriate chain-of-custody documentation was completed for each sample (see Appendix A). A table of method detection-limits is included in Appendix B. Appendix C contains the laboratory analytical reports.

Analytical data were qualified (i.e., application of *U, B, J, JB, D,* and *E* qualifiers) in accordance with USEPA *Functional Guidelines*. Attaching data qualifiers to analytical results signifies a quality control non-compliance. After validation, the following qualifiers were assigned to

non-conforming data (i.e. data that were affected by technical limitations during laboratory analysis):

- *B*, indicating laboratory blank contamination
- *J*, indicating an estimated result where the result was less than the reporting limit
- *D*, indicating the result was obtained from the analysis of a dilution
- *E*, indicating an estimated result where the result was greater than the calibration limit
- *U*, indicating the chemical was not detected at the numerical detection-limit (sample-specific quantitation limit)

Data-validation reports are included in Appendix D.

3.3 DATA ANALYSIS

IAQ-sampling analytical results for all compounds except TCE were compared to screening levels for industrial air set forth in EPA's *Regional Screening Levels for Chemical Contaminants at Superfund Sites* (USEPA, 2009). The lowest of the carcinogenic (*ca*) or non-carcinogenic (*nc*) values for the COC were used for the screening. Carcinogenic risk was evaluated at the 1×10^{-5} (one-in-100,000) risk level, in accordance with MDE requirements. For TCE only, instead of the USEPA value, MDE has specified 25 µg/m^3 as the screening level in industrial air (MDE, 2009).

SV sampling results were compared to sub-slab-vapor screening values derived in accordance with methods discussed in Appendix D of USEPA 2002. Sub-slab-vapor screening values were calculated by dividing the indoor-air screening levels (USEPA, 2008) by a conservative attenuation factor of 0.1 (obtained from USEPA 2002). The sub-slab-vapor screening value for TCE was calculated by dividing the MDE IAQ screening-level by the attenuation factor of 0.1. The attenuation factor represents the factor by which subsurface-vapor concentrations migrating into indoor-air spaces are reduced due to diffusive, advective, and/or other attenuating mechanisms. Simply stated, the attenuation factor is the ratio of the indoor-air concentration of a constituent to its subsurface-vapor concentration under a conservative vapor-intrusion scenario.

Figures illustrating the spatial distribution of Round 9 TCE concentrations, as well as historical TCE concentrations at Buildings A, B, and C, are included at the beginning of Appendix F. Two figures are presented for each building: one illustrating the IAQ results, and one illustrating the SV

results. Each figure has a color-coded scale corresponding to the range of detected TCE concentrations. Historical-concentration time-trend plots for TCE, PCE, cis-1,2 DCE, and ethylbenzene in SV and IAQ samples at known source-locations (i.e., Building A Plating Shop and Building C Basement) are included in Appendix F.

3.3.1 Round 9 Data Analysis

3.3.1.1 Background IAQ Samples

Analytical results for the Round 9 IAQ samples collected at background locations for the MRC are included in Table 3-1. These samples were collected from the same four locations used in previous rounds of IAQ sampling, including the northeast, northwest, southeast, and southwest fence lines, and as far from MRC operations as possible to reduce possible influences (Figure 3-1). Methylene chloride was detected in all four background samples, but its results were *B*-qualified in all but one sample (BCK-4-9). The *B* flag indicates that methylene chloride was also detected in the laboratory method blank at a reportable level, and thus the methylene chloride in these background samples may be due to laboratory contamination.

Seven compounds of concern were detected in every background sample at concentrations far less than their corresponding screening guidelines:

- carbon tetrachloride
- dichlorofluoromethane
- naphthalene
- chloroform
- ethylbenzene
- tetrachloroethene
- total xylenes

Several of the background results for these compounds were *J*-qualified, indicating an estimated low result. All four results for dichlorofluoromethane and tertrachloroethene are estimated, whereas carbon tetrachloride has one estimated result, naphthalene and total xylenes have two estimated results each, and the other compounds listed previously have three estimated results each.

Benzene, chlorodifluoromethane, and toluene were also detected in all background samples at concentrations less than their screening values, and their results were not qualified as estimated. 1,1,1-Trichloroethane was detected and *J*-qualified in three background samples at concentrations

below its screening level, but was reported as not detected at sampling location BCK-1-9. 1,2,4-Trichlorobenzene was detected at sampling location BCK-1-9, but its result was also *J*-qualified and well below its screening level. Likewise, both samples that contained 1,2-dichloroethane (BCK-3-9 and BCK-4-9) listed estimated results below that compound's screening level. 1,1,2-Trichloroethane, 1,1-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, methyl tert-butyl ether, trans-1,2-dichloroethene, trichloroethene (TCE), and vinyl chloride were not detected at any of the background locations.

COC detected in background samples that were also detected in IAQ samples include:

- benzene
- chlorodifluoromethane
- 1,2-dichloroethane
- ethylbenzene
- naphthalene
- Toluene
- xylenes
- carbon tetrachloride
- chloroform
- dichlorodifluoromethane
- methylene chloride
- 1,1,1-trichloroethane
- tetrachloroethene (PCE)

A comparison of maximum Round 9 background concentrations to Round 9 indoor-air concentrations (including duplicates) is included in Appendix E. It indicates that for many compounds detected both in background and interior samples, the indoor-air concentrations are greater than background at interior sampling locations: chlorodifluoromethane (26 of 33), ethylbenzene (20 of 33), tetrachloroethene (12 of 33), chloroform (11 of 33), naphthalene (five of 33), toluene (26 of 33), and xylenes (18 of 33). This indicates that during Round 9, interior and/or sub-slab sources appear to be contributing more contaminants to indoor air than background sources.

3.3.1.2 Building A IAQ Samples

Results of the Round 9 IAQ samples collected in Building A are included in Table 3-2. Twelve IAQ samples were collected from interior locations in Building A. Figure 3-2 illustrates the

Building A sampling locations. Figure 3-5 shows where analytical results exceed screening levels. These data indicate the following:

- As shown in Table 3-2, TCE was detected in Building A indoor air, but at concentrations well below its screening level of 25 µg/m^3. The highest concentration of TCE (5.4 µg/m^3) was detected at sampling location IAQ-A12-9, in the southern portion of the Building A basement south of the Plating Shop on the first floor of Building A. IAQ-12-9 is the southernmost IAQ sample collected in the Building A Basement. No personnel or ongoing operations were observed at this location.

- Tetrachloroethene (PCE) was detected in one IAQ sample with a concentration greater than its screening value (21 µg/m^3). Sampling location IAQ-A13-9, at the northwest corner of the Building A Basement, had a PCE concentration of 25 µg/m^3. IAQ-A13-9 is the northernmost sample collected in the Building A Basement. No personnel or ongoing operations were observed at this location.

- Naphthalene was detected in six samples, two of which had concentrations greater than its screening level of 3.6 µg/m^3, in sample IAQ-A6-9 at a level only slightly above its screening level (3.7 µg/m^3), and in sample IAQ-A13-9 at a concentration of 5 µg/m^3. Sample IAQ-A6-9 was collected in the Building A Basement beneath the Plating Shop. Sample IAQ-A13-9 was collected at the northwestern corner of the Building A Basement.

- No other chemicals were found at concentrations in excess of their screening levels.

3.3.1.3 Building A SV Samples

Results of the Round 9 SV samples collected in Building A are included in Table 3-3. Thirteen SV samples and one duplicate were collected from beneath the slab in Building A. Figure 3-2 illustrates the Building A SV sampling locations. Figure 3-5 shows where analytical results exceed screening levels. To be conservative, the figure shows the higher of the original or duplicate result, where applicable. Table 3-4 contains a side-by-side listing of the results of the SV and co-located IAQ samples collected in Building A. These data indicate the following:

- As shown in Table 3-3, TCE exceeds its screening level of 250 µg/m^3 at three locations: SV-A-6-9 (4,800 µg/m^3), SV-15-A-9 (1,300 µg/m^3), and at SV-18-A-9 (64,000 µg/m^3). SV-A-6-9 was collected on the east central side of Building A, north of the autoclaves, near column B-24; sample SV-15-A-9 was collected in the Building A Plating Shop; and sample SV-18-A-9 was collected in the Building A Basement beneath the Plating Shop, near column D-20. As shown in Figure 3-5, only sample SV-15-A is within the radius of influence of the Building A Plating Shop SSD system. These locations had TCE concentrations above the screening level during the previous round of sampling. TCE concentrations at sampling locations SV-A-6 and SV-A-18 increased since the previous

round (Round 8) collected in February 2010, while the TCE concentration at sampling location SV-1A-15 decreased since the previous round.

- Sample SV-18-A-9 also had a 1,1-dichloroethene (1,1-DCE) concentration of 33,000 µg/m^3, exceeding its screening value of 8,800 µg/m^3, and a 1,2-dichloroethane concentration of 750 µg/m^3, exceeding its screening level of 47 µg/m^3. All other COC were reported as not detected in the sample. However, note that sample SV-18-A-9 was diluted before quantification, and the detection limits for six of the COC are greater than their respective risk-based screening guidelines, as follows: naphthalene—detection limit 400 µg/m^3 (screening level 36 µg/m^3), 1,1,2-trichloroethane—detection limit 240 µg/m^3 (screening level 77 µg/m^3), carbon tetrachloride—detection limit 200 µg/m^3 (screening level 80 µg/m^3), 1,2,4-trichlorobenzene—detection limit 610 µg/m^3 (screening level 180 µg/m^3), chloroform—detection limit 150 µg/m^3 (screening level 53 µg/m^3), and PCE—detection limit 230 µg/m^3 (screening level 210 µg/m^3). Thus, although the results listed for these six constituents are reported as not detected, they may still be in the sample at levels above their respective risk-based screening levels.

- Naphthalene was detected in two samples at a concentration above its risk-based screening level of 36 µg/m^3: in sample SV-21-A-9 (550 µg/m^3), and in sample SV-23-A-9 (76 µg/m^3). Sample SV-21-A-9 was collected on the first floor on the north central side of Building A, whereas sample SV-23-A-9 was collected in the south-central portion of Building A, east of the Building A Plating Shop and west of the autoclaves on the main eastern north-south corridor.

- Elevated concentrations of ethylbenzene (590 µg/m^3) and total xylenes (5,100 µg/m^3) were also detected in sample SV-23-A-9, above their screening levels of 490 µg/m^3 and 4,400 µg/m^3, respectively.

- As shown in Table 3-4, at no locations where contaminant concentrations in SV exceed screening levels were the concentrations of the same contaminants above screening levels in corresponding IAQ samples.

- 1,1-DCE, a chemical marker of possible sub-slab-vapor intrusion, was found in two co-located sub-slab-vapor and IAQ samples: SV-18-A-9 and IAQ-A6-9, and co-located samples SV-19-A-9 and IAQ-A12-9. SV-18-A-9 and its co-located IAQ sample were collected in the Building A Basement beneath the Plating Shop, whereas sample SV-19-A-9 was collected in the southwestern portion of the Building A Basement.

- 1,1-DCE was also detected in samples SV-15-A-9, SV-A-7-9, SV-22-A-9, and IAQ-A13-9, but not in their co-located IAQ or SV samples. SV-A-6-9 was collected on the east central side of Building A, north of the autoclaves, near column B-24, SV-15-A-9 was collected in the Building A Plating Shop, and sample SV-22-A-9 was collected in the air conditioned lay-up room, due east of the Plating Shop. Sample IAQ-A13-9 was collected at the northwest corner of the Building A Basement.

- cis-1,2-Dichloroethene (cis-1,2-DCE), another chemical marker of possible sub-slab-vapor intrusion, was found in the same two co-located sub-slab vapor and IAQ sample pairs in

which 1,1-DCE was detected: samples SV-18-A-9 and IAQ-A6-9, and samples SV-19-A-9 and IAQ-A12-9, both of which were collected in the Building A Basement.

- cis-1,2-DCE was also detected in samples SV-A6-9, SV-15-A-9, and SV-20-A-9, but not in their co-located IAQ samples.

3.3.1.4 Building B IAQ Samples

Results of the Round 9 IAQ samples collected in Building B are included in Table 3-5. Seven IAQ samples were collected from interior locations in Building B. Figure 3-3 illustrates the Building B sampling locations. Figure 3-6 shows where analytical results exceed screening levels. These data indicate the following:

- As shown in Table 3-5, TCE was detected in four of seven samples collected at Building B, but at concentrations well below its screening level of 25 µg/m^3. The highest concentration of TCE (2.1 µg/m^3) was detected in sample IAQ-B15-9, collected at the southeastern portion of Building B in the thrust-reverser assembly area. No other chemicals were found at concentrations in excess of their screening levels.

3.3.1.5 Building B SV Samples

Results of the Round 9 SV samples collected in Building B are included in Table 3-6. Eight SV samples (including one duplicate) were collected from beneath the slab in Building B. Figure 3-3 illustrates the Building B SV sampling locations. Figure 3-6 shows where analytical results exceed screening levels. Table 3-7 contains a parallel listing of the results of the SV and co-located IAQ samples collected in Building B. These data indicate the following:

- As shown in Table 3-6, TCE was detected beneath Building B, but at concentrations below its screening level of 250 µg/m^3. The highest concentration of TCE (220 µg/m^3) was detected in sample SV-27-B-9, collected in the west-central portion of Building B, between columns GA-13 and GC-13, just south of the composite perforating-drill operations.

- Naphthalene exceeds its screening level (36 µg/m^3) at several sampling locations: at SV-24-B-9 (74 µg/m^3), SV-26-B-9 (49 µg/m^3), and in SV-30-FC-9 (70 µg/m^3). Naphthalene was also detected in the duplicate (only) of sample SV-27-B-9 (i.e., in sample SV-27-B-9-D) at a concentration of 260 µg/m^3. Sample SV-26-B-9 was collected between columns GH-13 and GJ-13, and SV-27-B-9 was collected between columns GA-13 and GC-13. These locations are in the east-central and west-central portion of Building B, respectively, at either end of the central east-west corridor in Building B. Sample SV-24-B-9 was collected at the center aisle at column GC-21, due south of the Composite Machining Center in the southern portion of Building B.

- Sample SV-30-FC was collected in the northern portion of the Fire Coat building, south of Building B. As previously discussed in section 3.2.1, spray coating operations were underway during the sampling period in the paint booth just south of the sampling location.

- As shown in Table 3-7, in no locations where contaminant concentrations in SV exceed screening levels were concentrations of the same contaminants detected above screening levels in corresponding IAQ samples.

- A chemical marker of possible sub-slab-vapor intrusion, 1,1-DCE, was detected at low levels in SV sample SV-27-B-9 (1.1 µg/m^3, *J*-qualified) and its duplicate SV-27-B-9-D (0.99 µg/m^3). 1,1-DCE was not detected in the co-located IAQ sample for this location, IAQ-B17-9. This location is in the west central portion of Building B just south of the composite perforation-drill operations.

- cis-1,2-DCE, another chemical marker of possible sub-slab-vapor intrusion, was detected at low levels in two SV samples (SV-30-FC-9 and ISG-10-B-9) and in one IAQ sample (IAQ-B15-9), but was not detected in the co-located (IAQ or SV) samples associated with each of these locations. ISG-10-B-9 was collected in the northeast portion of Building B, whereas IAQ-B15-9 was collected in the southeast portion. Sample SV-30-FC-9 was collected in the Fire Coat building, south of Building B.

3.3.1.6 Building C IAQ Samples

Results of the Round 9 IAQ samples collected in Building C are included in Table 3-8. Fourteen IAQ samples were collected from interior locations in Building C. Figure 3-4 illustrates the Building C sampling locations. Figure 3-7 shows where analytical results exceed screening levels. These data indicate the following:

- As shown in Table 3-8, TCE was detected in five samples in Building C, but at concentrations below its screening level of 25 µg/m^3. The highest concentration of TCE was detected in sample IAQ-C19-9 (1.4 µg/m^3), which was collected at the southeast corner of the Building C Basement. Concentrations of TCE in the other samples in which it was positively detected range from 0.16 µg/m^3 (*J*-qualified) in IAQ-C12-9 to 0.76 µg/m^3 in sample IAQ-C8-9.

- An increased number of positively detected COC were observed in the following samples: IAQ-C12-9 (16 COC), IAQ-C19-9 (14 COC), and IAQ-C8-9 and IAQ-C17-9 (12 COC each). Sampling location IAQ-C19-9 is at the southeast corner of the Building C Basement and IAQ-C17-9 was collected in the east-central portion of the Building C Basement. Sample IAQ-C8-9 was collected in the west-central portion of the Building C Basement, northwest of sampling location IAQ-C17-9. Sample IAQ-C12-9 was collected in the northern portion of Building C, along the eastern wall of the building. Although these samples indicate an increased number of COC in indoor air, none of the compounds of concern were detected at concentrations above their respective screening levels.

- Note that the detection limit listed for naphthalene in sample IAQ-C9-9 (4.7 µg/m^3) is higher than its risk-based screening level of 3.6 µg/m^3. Therefore, although naphthalene is listed as not detected at 4.7 µg/m^3, it may be at a concentration higher than its risk-based screening level.

- No other chemicals were found at concentrations in excess of their screening levels.

3.3.1.7 Building C SV Samples

Results of the Round 9 SV samples collected in Building C are included in Table 3-9. Fourteen SV samples were collected from beneath the slab in Building C. Figure 3-4 illustrates the Building C SV sampling locations. Figure 3-7 shows where analytical results exceed screening levels. Table 3-10 contains a side-by-side listing of the results of the SV and co-located IAQ samples collected in Building C. These data indicate the following:

- As shown in Table 3-9, TCE was detected in all but one (ISG-14-C-9) of the 14 sub-slab vapor samples collected in Building C, but its concentrations exceed its screening level of 250 µg/m^3 in only five of these samples: SV-C-4-9 (270 µg/m^3), ISG-3-C-9 (370 µg/m^3), SV-1-C-9 (620 µg/m^3), SV-C-3-9 (2200 µg/m^3), and SV-28-C-9 (2800 µg/m^3). Sampling location SV-1-C-9 is centrally located on the southern wall of the Building C Basement, near column R-35. Sampling location SV-C-4-9 is in the south-central portion of Building C, whereas sample ISG-3-C-9 was collected southwest of that location, at the end of the east-west utility tunnel leading from Building B.

  The two highest concentrations of TCE were collected from SV-C-3-9 and SV-28-C-9. SV-C-3-9 is in the east-central portion of the Building C Basement, near column T-16, on the main north-south corridor. Sampling location SV-28-C-9 is a new location installed before the beginning of Round 9. It is in the south-central portion of the Building C Basement, southwest of SV-C-3-9 and northeast of SV-C-4-9. It was installed at this location to fill the data gap between these other two points.

- Naphthalene exceeds its screening level (36 µg/m^3) in three SV samples: ISG-01-9 (130 µg/m^3, *J*-qualified), SV-28-C-9 (400 µg/m^3, *J*-qualified), and SV-29-C-9 (210 µg/m^3). SV-28-C-9 was collected in the south-central portion of Building C, whereas SV-29-C-9 was collected in the northeast corner of the Building C Basement. ISG-01-C-9 was collected at the southeastern corner of the Building C Basement.

- Six COC in sample SV-28-C-9 were detected above their risk-based screening levels. In addition to naphthalene and TCE (discussed earlier), these COC, their reported concentrations, and their respective risk-based screening levels are: 1,1-dichloroethane (at 4,400 µg/m^3; screening level 770 µg/m^3), chloroform (at 87 µg/m^3; screening level 53 µg/m^3), ethylbenzene (at 590 µg/m^3; screening level 490 µg/m^3), and total xylenes (at 4,900 µg/m^3; screening level 4,400 µg/m^3). As previously mentioned, this location was installed to fill a data gap between two locations (SV-C-3, SV-C-4) that had previously reported elevated concentrations of COC.

- No chemical markers of possible sub-slab-vapor intrusion were found in either of the co-located sub-slab vapor and IAQ sample pairs. 1,1-DCE was found in three SV samples, ISG-11-C-9 (0.067 µg/m^3, *J*-qualified), SV-C-3-9 (3 µg/m^3, *J*-qualified), and SV-28-C-9 (1,200 µg/m^3), but was reported as "not detected' in the corresponding IAQ samples IAQ-C15-9, IAQ-C9-9 and IAQ-C-17-9, respectively. cis-1,2-DCE was detected in six SV samples and one IAQ sample, but not in the corresponding co-located samples, as follows: IAQ-C19-9, ISG-3-C-9, ISG-11-C-9, SV-C-3-9, SV-C-4-9, SV-1-C-9, and SV-28-C-9. Note that all of the samples in which cis-1,2-DCE was detected were collected near the perimeter walls of Building C, and thus may be influenced by air flow in the building.

- As shown in Table 3-10, no locations where contaminant concentrations in SV exceed screening levels had concentrations of the same contaminants above screening levels in corresponding IAQ samples.

3.3.1.8 Comparison of TCE Results to Historical Data Set

As discussed in section 3-3, historical-concentration time-trend plots for TCE, PCE, cis-1,2 DCE, and ethylbenzene in SV and IAQ samples at known source-locations (i.e., Building A Plating Shop and southern portion of the Building C Basement) were generated and are included in Appendix F. Historical detections of TCE in SV and IAQ samples are also depicted in the figures included in Appendix F. A review of these plots and associated data indicates the following:

Building A Plating Shop—

- The soil-vapor concentration of TCE shows a decrease from the previous round at location SV-15 (from 3200 µg/m^3 in Round 8 to 1300 µg/m^3 in Round 9). This concentration exceeds the screening level of 250 µg/m^3. Concentrations measured during previous rounds had demonstrated drops between Rounds 5–8: Round 5 (November 2008): 12,361 µg/m^3; Round 6 (July 2008): 16 µg/m^3; and Round 7 (October 2009): 8.1 µg/m^3. However, a sharp increase was seen in Round 8 (February 2010). Although the cause of this rise is unknown, concentrations at this location appear to be dropping toward previously reported levels. At location SV-18-A, concentrations increased between Rounds 8 and 9 (from 19,000 µg/m^3 to 64,000 µg/m^3, respectively). This increase results in TCE levels similar to the concentration detected in Round 7 in October 2008 (63,000 µg/m^3). At the time of the Round 9 sampling, location SV-18-A was outside the Building A Plating Shop SSD system radius of influence, and as such has not demonstrated the same decrease in contaminant concentrations as other VMPs within the system's radius of influence. The current expansion of the Building A Plating Shop SSD system will capture this location and future monitoring will provide data on anticipated drops in contaminant concentrations.
- In general, TCE concentrations in sub-slab vapor at the Plating Shop have dropped since 2006. Since the beginning of sub-slab-vapor sampling in 2006, the highest concentrations of TCE have typically been found during winter sampling events. This may be related to a "stack effect" during the heating season, where the air flow that results from warm air rising creates a positive pressure area at the top of a building and a negative pressure area

at the bottom. When the pressure in the lowest portion of the building is lower than the pressure in the soil below the building, sub-slab vapor flows advectively into the building through cracks or openings.

- An increase in TCE concentration was observed at sampling location IAQ-A6 between Round 8 (0.82 µg/m^3) and Round 9 (4.6 µg/m^3). This sampling location is in the Building A Basement below the Plating Shop, co-located with SV sampling location SV-18. Increases in TCE concentrations in indoor air may be associated with increases in sub-slab vapor concentrations. A very low concentration of TCE (0.23 µg/m^3) was detected at sampling location IAQ-A5 during the last sampling event (Round 8), but no TCE was detected there during Round 9. The Round 8 TCE concentration is the only detection of TCE at IAQ-A5 since sampling began at this location during Round 6 (July, 2009). This variation in concentration at IAQ-A5 is most likely due to fluctuations from changes in ambient environmental conditions.

- PCE was not detected at sampling location SV-15 during Rounds 8 or 9. PCE was last detected at SV-15 during Round 6 in July 2009 (0.26 µg/m^3). Overall, PCE concentrations in sub-slab vapor at the Plating Shop have dropped over time. As previously discussed in section 3.3.1.3, the detection limit for PCE at sampling location SV-18 was elevated (230 µg/m^3) due to dilution of the sample by the laboratory and PCE was reported as not detected at a concentration greater than its screening level (210 µg/m^3). Thus, although the result is reported as not detected, PCE may still be in the sample at levels above its screening level. The last time PCE was detected at location SV-18 was during Round 2 in December of 2006 (91.2 µg/m^3).

- PCE was reported at very low levels in all Building A indoor air samples collected during Round 9, except in sample IAQ-A13, where it was detected at a concentration of 25 µg/m^3. This location is in the northwestern corner of the Building A Basement and this result is probably unrelated to the Plating Shop.

- Results for cis-1,2-DCE in sub-slab vapor are similar to those for TCE, with increased concentrations at locations SV-A6, SV-15A, and SV-18A, but decreased concentrations at other locations. No screening level for cis-1,2-DCE is currently available. Concentrations measured during previous sampling rounds at SV-15A show drops in concentrations between Round 5 (November 2008—20,221 µg/m^3), Round 6 (July 2008—83 µg/m^3), and Round 7 (October 2009—36 µg/m^3), but then increase in Round 8 (February 2010—4,400 µg/m^3). The cis-1,2-DCE result at SV-15A during the current round of sampling has decreased (1,800 µg/m^3) as compared to the last sampling round, but remains elevated when compared to historical results. At location SV-18, the concentration of cis-1,2-DCE initially increased from Round 1 in March 2006 (2,040 µg/m^3) to Round 3 in October 2007 (249,784 µg/m^3), but has consistently shown lower concentrations since that time. During Round 9, the concentration of cis-1,2-DCE at SV-18 was 3,200 µg/m^3. The behavior of cis-1, 2-DCE at this location appears to follow that of TCE, with parallel increases and decreases over time.

- During Round 9, cis-1,2-DCE was detected at a very low concentration in indoor-air sample IAQ-A6 (0.56 µg/m^3) (co-located with sample SV-18 in the Building A Basement),

but not in sample IAQ-A5 (co-located with sample SV-15 in the Building A Plating Shop). cis-1,2-DCE was not detected in any indoor air sample collected at the Building A Plating Shop during Round 8. The last time it was detected was during Round 6 in July 2009 (0.23 µg/m^3). cis-1,2-DCE has never been detected at any location during two consecutive rounds of monitoring since monitoring began in 2006. The highest concentration of cis-1,2-DCE in indoor air at the Plating Shop was reported during Round 3 in October 2007. This was also the round when the highest concentrations of cis-1,2-DCE were reported in sub-slab-vapor samples SV-14, SV-15, and SV-18.

- The concentration of ethylbenzene in sub-slab vapor exceeds its screening level of 490 µg/m^3 at sampling location SV-23-A (590 µg/m^3). This is a new location installed before Round 9, so no comparison to previous rounds of sampling can be made. It is east of the Plating Shop and west of the autoclaves, along the main north-south corridor. Whether the ethylbenzene detected at this location is associated with the Plating Shop contamination is unknown. Ethylbenzene at sampling location SV-18-A was reported at a high concentration during the last sampling round in February 2010 (8,100 µg/m^3), but was reported as not detected during Round 9. It had been reported as not detected in all previous rounds at this location since Round 1 in March 2006 (0.8 µg/m^3). Sampling location SV-15 reported ethylbenzene as non-detected in Rounds 8 and 9 after two consecutive rounds of low detections in Rounds 6 and 7 (1.2 µg/m^3 and 4.6 µg/m^3, respectively). The only positive detection of ethylbenzene at this location before Round 6 was during Round 1 in March 2006 (794 µg/m^3), which was above the applicable screening level.

- Low levels of ethylbenzene continue to be detected in indoor air at the Plating Shop. At sampling location IAQ-A6, in the Building A Basement below the Plating Shop, low concentrations have continued through the past three rounds, but a slight increase was noted during this round, as follows: Round 9 (1.1 µg/m^3), Round 8 (0.16 µg/m^3), Round 7 (0.52 µg/m^3), and Round 6 (0.7 µg/m^3). A small increase in ethylbenzene concentration was also noted at sampling location IAQ-A5 collected in the building A Plating Shop (2.1 µg/m^3), as compared to the concentration detected Round 8 results (0.47 µg/m^3), but is lower when compared to Round 7 (6.3 µg/m^3). The Round 7 results show higher concentrations than the Round 6 results (1.5 µg/m^3); however, the highest reported concentrations of ethylbenzene in indoor air were detected in Round 3 (October, 2007) and have been lower since then.

Building C Basement—

- Round 9 concentrations of TCE in sub-slab vapor at the southern part of the Building C Basement are slightly higher than in the previous round of monitoring. The TCE concentration at sampling location SV-1-C (620 µg/m^3) is the highest detected in sub-slab vapor at the Building C Basement during this sampling round, but this is also the location that has exhibited the highest historical concentrations since monitoring began in 2006, and it may have been closest to the source. These changes may be associated with fluctuations in ambient environmental conditions. This location is within the radius of influence of the Building C SSD system.

  The concentration of TCE at sampling location SV-1-C has not fluctuated exceedingly through Rounds 6, 7, 8, and 9 (270 µg/m^3, 330 µg/m^3, 230 µg/m^3, 620 µg/m^3,

respectively), which may indicate that the SSD system has reached or is close to reaching its maximum removal efficiency for TCE at this location. TCE results at sampling locations SV-5-C (2.6 µg/m^3) and SV-C-5 (0.29 µg/m^3) continue to show very low concentrations and have shown little change in the last few rounds of sampling. TCE was reported at a concentration of 0.49 µg/m^3 at sampling location SV-7-C. These locations are outside the radius of influence of the Building C SSD system. In general, when detected, TCE concentrations have been progressively lower over time. A rise in concentrations of TCE in SV during heating season is not as evident in the Building C Basement as at the Building A Plating Shop. This may be due to differences in construction characteristics, heating, and/or ventilation.

- The concentration of TCE is above its screening level (250 µg/m^3) in five locations beneath Building C: ISG-01 (370 µg/m^3), SV-1 (620 µg/m^3), SV-28 (2,800 µg/m^3), SV-C-3 (2,200 µg/m^3), and SV-C-4 (270 µg/m^3). These locations are outside of the SSD system's radius of influence. As previously discussed, sampling location SV-28 is a new VMP installed before Round 9. Its results indicate TCE contamination along a northeast to southwest transect through the central part of the Building C Basement, north of the known source area at the southern end of the basement. As this is a new sample, no historical data are available by which to evaluate historical trends.

- IAQ results for TCE in Round 9 are lower than in all previous rounds. TCE was not detected in nine of the 14 IAQ samples collected in the Building C Basement. The positive detects reported, ranging from 0.16 µg/m^3 (estimated, at IAQ-C12) to 1.4 µg/m^3 (at IAQ-C19), are all very low and much less than the screening level.

- Soil-vapor concentrations of PCE in sub-slab vapor at the southern part of the Building C Basement are higher than in previous rounds, with the highest concentrations reported at location SV-C-5 (110 µg/m^3). It is a little more than two times higher than the concentration detected there in Round 8 (48 µg/m^3), and is also higher than the reported Round 7 and Round 6 concentrations (94 µg/m^3 and 64 µg/m^3, respectively). This sampling location is at the northeast corner of the southern part of the Building C Basement, outside of the radius of influence of the SSD system. The concentration of PCE at sampling location SV-1 (6.2 µg/m^3) has increased as compared to Rounds 6, 7, and 8 (3,3 µg/m^3, 3 µg/m^3, and 3.6 µg/m^3, respectively). This location is within the radius of influence of the Building C SSD-system. PCE was detected in 10 other sampling locations (for 11 detects in 14 samples), ranging from 0.25 µg/m^3 (SV-C7) to 93 µg/m^3 (ISG-11-C) at locations outside of the SSD system radius of influence.

- The concentration of PCE in IAQ samples continues to be low (0.22 to 7.7 µg/m^3). The fluctuation of PCE concentrations in indoor air appears to be seasonally related, with higher levels detected in warmer weather (i.e., samples collected during summer sampling episodes). Overall, the concentration of PCE in indoor air has decreased since monitoring began in 2006 and no concentrations have exceeded the applicable screening level.

- cis-1,2-DCE was detected in six of 14 SV samples collected in the Building C Basement. The Round 9 concentration of cis-1,2-DCE at sampling location SV-1 (360 µg/m^3) is higher than that reported in Rounds 8 and 7 (300 µg/m^3 and 230 µg/m^3, respectively). The

concentration of cis-1,2-DCE at sampling location SV-1 remained relatively constant between Rounds 6 (270 µg/m^3), 7 (230 µg/m^3), and 8 (300 µg/m^3), which may indicate that the SSD system is close to reaching its maximum removal efficiency for cis-1,2-DCE at this location. Concentrations of cis-1,2-DCE are much lower than concentrations detected when monitoring began in 2006. The behavior of cis-1, 2-DCE at this location appears to follow that of TCE, with parallel increases and decreases over time.

- cis-1,2-DCE was not detected in any IAQ sample collected at the southern portion of the Building C Basement. cis-1,2-DCE has been sparsely detected in IAQ samples at this area since monitoring began in 2006.

- Ethylbenzene was reported as not detected in two of 14 SV samples collected in the Building C basement during Round 9. The highest concentration of ethylbenzene (590 µg/m^3, above its screening level of 490 µg/m^3) was found at sampling location SV-28-C, at the northeastern aspect of the southern part of the basement outside of the SSD system radius of influence. Elsewhere, ethylbenzene was found at low concentrations in the sub-slab, ranging from 0.41 µg/m^3 (SV-5) to 86 µg/m^3 (SV-29-C). This is the first round in which ethylbenzene was detected above screening levels. When detected, overall ethylbenzene concentrations have been progressively lower over time.

- Ethylbenzene was detected in all Round 9 IAQ samples collected at the southern portion of the Building C Basement. Ethylbenzene concentrations range from 0.57 µg/m^3 to 1.7 µg/m^3, much lower than its screening level of 49 µg/m^3. Although slight increases in ethylbenzene concentrations were detected in samples IAQ-C-1 and IAQ-C-5 since Round 8 in February 2010, overall concentrations of ethylbenzene in IAQ samples collected in the southern portion of the Building C Basement have been consistently lower since Round 6 in July of 2009.

3.3.2 Round 9 Summary

In summary, analytical results for the Round 9 IAQ and SV samples collected in Buildings A, B, and C indicate the following:

- TCE was found in IAQ samples in Buildings A, B, and C, but at concentrations below its screening level. During Round 9, the highest TCE concentrations were found in Building A at sampling locations IAQ-A6-9 (4.5 µg/m^3) and IAQ-A12-9 (5.4 µg/m^3), in the Building A Basement. During the previous sampling round (Round 8) in February of 2010, the highest TCE concentration was found in the northern portion of the Building B Basement. Overall, average TCE concentrations in Round 9 IAQ samples are higher than those measured in the 2009 rounds of sampling. The mean concentration of the positively detected TCE results in Round 9 (1.2 µg/m^3) is higher than the mean concentration of positive TCE results in Round 8 (0.4 µg/m^3) and in Rounds 6 and 7 (0.6 µg/m^3). This may be due to the addition of sampling points to further delineate known areas of subsurface contamination that may be more subject to sub-slab-vapor intrusion. The maximum TCE detection in 2010 is 5.4 µg/m^3, whereas the maximum in the 2009 rounds was 12 µg/m^3. The Round 9 and historical data appear in Appendix F.

- TCE was detected at concentrations above its SV screening level (250 µg/m^3) in three SV samples collected in Building A: SV-18-A-9 (64,000 µg/m^3), SV-15-A-9 (1,300 µg/m^3), and SV-A-6-9 (4,800 µg/m^3). Sampling location SV-15-A-9 is associated with the Plating Shop, sampling location SV-A-6-9 is east of the Plating Shop in the main north-south hallway across from the Bonding Lay-Up Room, and SV-18-A-9 was collected in the Building A Basement underneath the Plating Shop. All three locations have a history of TCE concentrations greater than its screening level during previous rounds of monitoring.

- SV-18-A-9 was collected in the Building A Basement, an area of known subsurface contamination. Sampling location SV-18 has shown persistently elevated concentrations of TCE and other subsurface contaminants, including cis-1,2-DCE and 1,1-DCE, which was detected at a concentration (32,000 µg/m^3), in excess of its SV screening level. Sampling location SV-18-A-9 also exhibited an elevated concentration of 1,2-DCA (750 µg/m^3), in excess of its screening level (47 µg/m^3). As illustrated in Appendix F, TCE and cis-1,2-DCE concentrations increased at this location in Round 9 compared to Round 8; however, although they have fluctuated slightly over the last four sampling rounds, overall, concentrations have decreased since monitoring began. Sampling locations SV-19-A and SV-20-A were installed before Round 9 to help characterize the extent of TCE in sub-slab vapor around sampling location SV-18-A. Low concentrations of TCE (as well as other COC) were found in sample SV-19-A-9 (8.5 µg/m^3) and SV-20-A-9 (3 µg/m^3), indicating the elevated sub-slab contamination may not extend to the northernmost and southernmost aspects of the Building A.

- SV-15-A-9 is in the Building A Plating Shop and has historically had TCE concentrations in excess of its screening level; however, concentrations in sub-slab vapor have decreased over time since it was first sampled in 2006 (154,000 µg/m^3). This decrease is most likely associated with the operation of the Building A Plating Shop SSD system. During the last sampling round (Round 8) in February 2010, this location exhibited a two orders-of-magnitude increase in concentrations of TCE, 1,1-DCE, and cis-1,2-DCE as compared to SV data from the two previous sampling events (Rounds 6 and 7), collected in 2009. The concentration of TCE collected during Round 9 (1,300 µg/m^3) is approximately one-third less than that found during Round 8 (3,600 µg/m^3). The cause of the increase in TCE concentration between October of 2009 and February of 2010 is unknown; however, the concentration has dropped since that time.

- Sampling location SV-A-6-9 is east of the Plating Shop in the main north-south hallway, across from the Bonding Lay-Up Room. This sampling location is the farthest east of the Plating Shop in Building A. The detected concentration of TCE in Round 9 (4,800 µg/m^3) is higher than that detected in Round 8 (2,000 µg/m^3), Round 7 (1,900 µg/m^3), and Round 6 (2,600 µg/m^3). Sampling location SV-23-A-9 was installed before Round 9 to fill a data gap around this location. TCE was found at a much lower concentration at sampling location SV-23-A-9 (7.9 µg/m^3). This may indicate that sub-slab TCE concentrations in excess of its screening level may not extend southeast of location SV-A-6 (however, ethylbenzene, xylene, and naphthalene were found at concentrations exceeding their SV screening levels). A low level of TCE (7.4 µg/m^3) was detected in sample SV-22-A-9, which was collected northwest of sample SV-A-6, and is between that location and the Plating Shop. This sampling location is in a work area supplied with conditioned air, so the

positively pressurized environment may inhibit sub-slab vapor migration. TCE was also detected at a low level (3.5 µg/m^3) at sampling location SV-23-A-9, which is southwest of SV-A-6. The high levels of TCE in sampling location SV-A-6 appear to be bounded by areas of lower concentrations, and therefore may be due to a localized source; however, the extent of SV contamination in this area has not yet been bounded due to a data gap in the immediate area to the north, south, and east. Additional samples between grid points will be necessary to further delineate sub-slab contamination at this location.

- TCE was also detected at Building C at five SV sampling locations at concentrations above its screening level: ISG-3-C-9 (370 µg/m^3), SV-1-C-9 (620 µg/m^3), SV-28-C-9 (2,800 µg/m^3), SV-C-3-9 (2,200 µg/m^3), and SV-C-4-9 (270 µg/m^3). All of these sampling points are in the central and southern portions of the Building C Basement. Sampling location SV-28-C-9 is new and was installed before this round of sampling to fill a data gap between sampling locations SV-C-3 and SV-C-4, where TCE had previously been detected.

- Overall, the average concentration of TCE in sub-slab vapor is lower in Round 9 than in Rounds 7 and 8, except at sampling location SV-18-A (in the Building A Basement) and sampling location SV-1-C-9 (at the southernmost part of Building C Basement). Both of these areas are over known sub-slab contamination and have consistently exhibited TCE concentrations above the TCE screening level.

- Two samples collected during Round 9 (SV-18-A-9 and IAQ-C9-9) had elevated laboratory detection-limits due to dilution of the samples. These detection limits are above the screening levels for several of the COC, and therefore data for these locations is compromised.

- IAQ-A6-9 and IAQ-A13-9 are the only Building A indoor air samples in which COC were detected above their screening levels. Only two compounds met these criteria, and they exceed their respective guidelines only slightly, as follows: at IAQ-A13-9, naphthalene was detected at 5 µg/m^3 (screening level 3.6 µg/m^3) and PCE was detected at 25 µg/m^3 (screening level 21 µg/m^3); and at sampling location IAQ-A6-9, naphthalene was detected at 3.7 µg/m^3 (screening level 3.6 µg/m^3). Both of these samples were collected in the Building A Basement.

- None of the IAQ samples from Building B or Building C had COC at concentrations above their respective screening levels.

- Naphthalene is the only COC detected in Building B SV samples at concentrations exceeding its SV screening level of 36 µg/m^3: SV-24-B-9 (74 µg/m^3), SV-26-B-9 (49 µg/m^3), the duplicate of SV-27-B-9 (i.e., SV-27-B-9-D, 260 µg/m^3), and SV-30-FC-9 (70 µg/m^3). Sample SV-30-FC-9 was collected in the Fire Coat building south of Building B, just north of the paint booth. All other samples cited above were collected in the southern half of Building B.

- Building A and Building C also had SV concentrations of naphthalene above its screening level of 36 µg/m^3. Building A sampling locations SV-21-A-9 and SV-23-A-9 had naphthalene results of 550 µg/m^3 and 76 µg/m^3, respectively, whereas Building C had three

sampling locations [ISG-01-9 (130 µg/m^3), SV-28-C-9 (400 µg/m^3), and SV-29-C-9 (210 µg/m^3)] where naphthalene exceeds its screening guideline.

- Ethylbenzene exceeds its screening level of 490 µg/m^3 in two SV samples collected during Round 9: in Building A sample SV-23-A-9 and in Building C sample SV-28-C-9 (both with detected concentrations of 590 µg/m^3).

- Chemical markers of possible SV intrusion were found at low concentrations in only two co-located IAQ and SV samples in Building A: in sample SV-18-A-9 and its co-located sample IAQ-A6-9, and in sample SV-19-A-9 and its co-located sample IAQ-A-8-9. Sample pair SV-18-A and IAQ-A6 was collected from a location where chlorinated solvent contamination in excess of screening levels is known to be present (Building A Basement, below the Plating Shop). The latter co-located sample pair was collected in the Building A Basement, south of SV-18-A and the Plating Shop location.

- Chemical markers of possible SV intrusion were found at low concentrations in many SV and IAQ samples in Buildings A, B, and C, but not in their co-located IAQ or SV samples. Since the chemical markers are absent in these co-located samples, the source of these chemicals is uncertain, and whether they were transported to these locations via ventilation or other mechanism is also unknown.

- Since SV sampling began in 2006, the highest concentrations of COC at the Building A Plating Shop have typically been found during the winter sampling events. This may be related to a "stack effect" associated with the building construction and ventilation. Sub-slab concentrations of TCE at the southern portion of the Building C Basement do not show the same type of relationship. This may be due to differences in the building and ventilation characteristics at Building C. Concentrations of TCE and cis-1,2-DCE in sub-slab vapor at the southern portion of the Building C Basement have remained relatively consistent across the last four rounds of sampling. This may indicate that the Building C SSD system has reached or is close to reaching its maximum removal efficiency for these compounds.

TABLE 3-1

IAQ BACKGROUND SAMPLE RESULTS, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	OSHA PEL (ug/m^3)	Industrial Air Screening Level (ug/m^3)	Key
BCK-1-9	1,1,1-Trichloroethane	0.065	U	1.90E+06	22000	nc
BCK-1-9	1,1,2-Trichloroethane	0.11	U	4.50E+04	7.7	ca
BCK-1-9	1,1-Dichloroethane	0.04	U	4.00E+05	77	ca
BCK-1-9	1,1-Dichloroethene	0.052	U	----	880	nc
BCK-1-9	1,2,4-Trichlorobenzene	0.41	J	4.00E+04[N]	18	nc
BCK-1-9	1,2-Dichloroethane	0.077	U	4.00E+05	4.7	ca
BCK-1-9	Benzene	0.43		3.19E+02	16	ca
BCK-1-9	Carbon Tetrachloride	0.49	J	6.29E+04	20	ca
BCK-1-9	Chlorodifluoromethane	1.3		3.59E+06	220000	nc
BCK-1-9	Chloroform	0.11	J	2.40E+05	5.3	ca
BCK-1-9	Cis-1,2-Dichloroethene	0.095	U	7.90E+05	----	----
BCK-1-9	Dichlorodifluoromethane	2.6	J	4.95E+06	880	nc
BCK-1-9	Ethylbenzene	0.33	J	4.35E+05	49	ca
BCK-1-9	Methyl Tert-Butyl Ether	0.25	U	1.80E+05[A]	470	ca
BCK-1-9	Methylene Chloride	1	B	8.70E+04	260	ca
BCK-1-9	Naphthalene	1.6		5.00E+01	3.6	ca
BCK-1-9	Tetrachloroethene	0.23	J	6.78E+05	21	ca
BCK-1-9	Toluene	1.1		7.54E+05	22000	nc
BCK-1-9	Total Xylenes	1.36		4.34E+05	440	nc
BCK-1-9	Trans-1,2-Dichloroethene	0.079	U	7.90E+05	260	nc
BCK-1-9	Trichloroethene	0.075	U	5.37E+05	25[M]	ca
BCK-1-9	Vinyl Chloride	0.074	U	2.16E+04	28	ca
BCK-2-9	1,1,1-Trichloroethane	0.095	J	1.90E+06	22000	nc
BCK-2-9	1,1,2-Trichloroethane	0.11	U	4.50E+04	7.7	ca
BCK-2-9	1,1-Dichloroethane	0.04	U	4.00E+05	77	ca
BCK-2-9	1,1-Dichloroethene	0.052	U	----	880	nc
BCK-2-9	1,2,4-Trichlorobenzene	0.29	U	4.00E+04[N]	18	nc
BCK-2-9	1,2-Dichloroethane	0.077	U	4.00E+05	4.7	ca
BCK-2-9	Benzene	0.47		3.19E+02	16	ca
BCK-2-9	Carbon Tetrachloride	0.54		6.29E+04	20	ca
BCK-2-9	Chlorodifluoromethane	1.6		3.59E+06	220000	nc
BCK-2-9	Chloroform	0.13	J	2.40E+05	5.3	ca
BCK-2-9	Cis-1,2-Dichloroethene	0.095	U	7.90E+05	----	----
BCK-2-9	Dichlorodifluoromethane	2.8	J	4.95E+06	880	nc
BCK-2-9	Ethylbenzene	0.25	J	4.35E+05	49	ca

TABLE 3-1

IAQ BACKGROUND SAMPLE RESULTS, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	OSHA PEL (ug/m^3)	Industrial Air Screening Level (ug/m^3)	Key
BCK-2-9	Methyl Tert-Butyl Ether	0.25	U	1.80E+05[A]	470	ca
BCK-2-9	Methylene Chloride	1.4	B	8.70E+04	260	ca
BCK-2-9	Naphthalene	0.25	J	5.00E+01	3.6	ca
BCK-2-9	Tetrachloroethene	0.31	J	6.78E+05	21	ca
BCK-2-9	Toluene	2.6		7.54E+05	22000	nc
BCK-2-9	Total Xylenes	0.9	J	4.34E+05	440	nc
BCK-2-9	Trans-1,2-Dichloroethene	0.079	U	7.90E+05	260	nc
BCK-2-9	Trichloroethene	0.075	U	5.37E+05	25[M]	ca
BCK-2-9	Vinyl Chloride	0.074	U	2.16E+04	28	ca
BCK-3-9	1,1,1-Trichloroethane	0.081	J	1.90E+06	22000	nc
BCK-3-9	1,1,2-Trichloroethane	0.11	U	4.50E+04	7.7	ca
BCK-3-9	1,1-Dichloroethane	0.04	U	4.00E+05	77	ca
BCK-3-9	1,1-Dichloroethene	0.052	U	----	880	nc
BCK-3-9	1,2,4-Trichlorobenzene	0.29	U	4.00E+04[N]	18	nc
BCK-3-9	1,2-Dichloroethane	0.24	J	4.00E+05	4.7	ca
BCK-3-9	Benzene	0.48		3.19E+02	16	ca
BCK-3-9	Carbon Tetrachloride	0.6		6.29E+04	20	ca
BCK-3-9	Chlorodifluoromethane	1.7		3.59E+06	220000	nc
BCK-3-9	Chloroform	0.14	J	2.40E+05	5.3	ca
BCK-3-9	Cis-1,2-Dichloroethene	0.095	U	7.90E+05	----	----
BCK-3-9	Dichlorodifluoromethane	2.7	J	4.95E+06	880	nc
BCK-3-9	Ethylbenzene	0.24	J	4.35E+05	49	ca
BCK-3-9	Methyl Tert-Butyl Ether	0.25	U	1.80E+05[A]	470	ca
BCK-3-9	Methylene Chloride	1.4	B	8.70E+04	260	ca
BCK-3-9	Naphthalene	0.21	J	5.00E+01	3.6	ca
BCK-3-9	Tetrachloroethene	0.18	J	6.78E+05	21	ca
BCK-3-9	Toluene	1.3		7.54E+05	22000	nc
BCK-3-9	Total Xylenes	0.95	J	4.34E+05	440	nc
BCK-3-9	Trans-1,2-Dichloroethene	0.079	U	7.90E+05	260	nc
BCK-3-9	Trichloroethene	0.075	U	5.37E+05	25[M]	ca
BCK-3-9	Vinyl Chloride	0.074	U	2.16E+04	28	ca
BCK-4-9	1,1,1-Trichloroethane	0.095	J	1.90E+06	22000	nc
BCK-4-9	1,1,2-Trichloroethane	0.11	U	4.50E+04	7.7	ca
BCK-4-9	1,1-Dichloroethane	0.04	U	4.00E+05	77	ca

TABLE 3-1

IAQ BACKGROUND SAMPLE RESULTS, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	OSHA PEL (ug/m^3)	Industrial Air Screening Level (ug/m^3)	Key
BCK-4-9	1,1-Dichloroethene	0.052	U	----	880	nc
BCK-4-9	1,2,4-Trichlorobenzene	0.29	U	4.00E+04^N	18	nc
BCK-4-9	1,2-Dichloroethane	0.11	J	4.00E+05	4.7	ca
BCK-4-9	Benzene	1.1		3.19E+02	16	ca
BCK-4-9	Carbon Tetrachloride	0.8		6.29E+04	20	ca
BCK-4-9	Chlorodifluoromethane	4.7		3.59E+06	220000	nc
BCK-4-9	Chloroform	0.48		2.40E+05	5.3	ca
BCK-4-9	Cis-1,2-Dichloroethene	0.095	U	7.90E+05	----	----
BCK-4-9	Dichlorodifluoromethane	3.2	J	4.95E+06	880	nc
BCK-4-9	Ethylbenzene	0.87		4.35E+05	49	ca
BCK-4-9	Methyl Tert-Butyl Ether	0.25	U	1.80E+05^A	470	ca
BCK-4-9	Methylene Chloride	19		8.70E+04	260	ca
BCK-4-9	Naphthalene	2		5.00E+01	3.6	ca
BCK-4-9	Tetrachloroethene	0.27	J	6.78E+05	21	ca
BCK-4-9	Toluene	6.1		7.54E+05	22000	nc
BCK-4-9	Total Xylenes	4.2		4.34E+05	440	nc
BCK-4-9	Trans-1,2-Dichloroethene	0.079	U	7.90E+05	260	nc
BCK-4-9	Trichloroethene	0.075	U	5.37E+05	25^M	ca
BCK-4-9	Vinyl Chloride	0.074	U	2.16E+04	28	ca

Notes: Shaded cells indicate a concentration greater than risk-based screening level

ug/m^3 = micrograms per cubic meter

nc = screening value based on noncarcinogenic hazard index = 1 U = nondetect J = estimated value

ca = screening value based on 1x 10^5 carcinogenic risk -- = not available B = present in laboratory blank

OSHA PEL = Occupational Safety and Health Administration Pemissible Exposure Limit

N = National Institute for Occupational Safety and Health Recommended Exposure Limit

A = American Council of Governmental Industrial Hygienists Theshold Limit Value

M = Maryland Department of the Environment's screening level for trichloroethene

Industrial Air Screening Levels from USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites Apr-09

TABLE 3-2

IAQ SAMPLE RESULTS, BUILDING A, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND
PAGE 1 OF 6

Sample ID	Analyte	Result (ug/m^3)	Qualifier	OSHA PEL (ug/m^3)	Industrial Air Screening Level (ug/m^3)	Key
IAQ-A-4-9	1,1,1-Trichloroethane	0.14	B	1.90E+06	22000	nc
IAQ-A-4-9	1,1,2-Trichloroethane	0.14	U	4.50E+04	7.7	ca
IAQ-A-4-9	1,1-Dichloroethane	0.066	J	4.00E+05	77	ca
IAQ-A-4-9	1,1-Dichloroethene	0.064	U	----	880	nc
IAQ-A-4-9	1,2,4-Trichlorobenzene	0.36	U	4.00E+04[N]	18	nc
IAQ-A-4-9	1,2-Dichloroethane	0.12	J	4.00E+05	4.7	ca
IAQ-A-4-9	Benzene	0.7		3.19E+02	16	ca
IAQ-A-4-9	Carbon Tetrachloride	0.59	J	6.29E+04	20	ca
IAQ-A-4-9	Chlorodifluoromethane	10		3.59E+06	220000	nc
IAQ-A-4-9	Chloroform	0.56		2.40E+05	5.3	ca
IAQ-A-4-9	Cis-1,2-Dichloroethene	0.12	U	7.90E+05	----	----
IAQ-A-4-9	Dichlorodifluoromethane	2.7		4.95E+06	880	nc
IAQ-A-4-9	Ethylbenzene	2		4.35E+05	49	ca
IAQ-A-4-9	Methyl Tert-Butyl Ether	0.31	U	1.80E+05[A]	470	ca
IAQ-A-4-9	Methylene Chloride	1.6	B	8.70E+04	260	ca
IAQ-A-4-9	Naphthalene	0.24	U	5.00E+01	3.6	ca
IAQ-A-4-9	Tetrachloroethene	0.51	J	6.78E+05	21	ca
IAQ-A-4-9	Toluene	69		7.54E+05	22000	nc
IAQ-A-4-9	Total Xylenes	7.4		4.34E+05	440	nc
IAQ-A-4-9	Trans-1,2-Dichloroethene	0.099	U	7.90E+05	260	nc
IAQ-A-4-9	Trichloroethene	0.18	J	5.37E+05	25[M]	ca
IAQ-A-4-9	Vinyl Chloride	0.093	U	2.16E+04	28	ca
IAQ-A5-9	1,1,1-Trichloroethane	0.16	B	1.90E+06	22000	nc
IAQ-A5-9	1,1,2-Trichloroethane	0.29	U	4.50E+04	7.7	ca
IAQ-A5-9	1,1-Dichloroethane	0.1	U	4.00E+05	77	ca
IAQ-A5-9	1,1-Dichloroethene	0.13	U	----	880	nc
IAQ-A5-9	1,2,4-Trichlorobenzene	0.72	U	4.00E+04[N]	18	nc
IAQ-A5-9	1,2-Dichloroethane	0.19	U	4.00E+05	4.7	ca
IAQ-A5-9	Benzene	0.6	J	3.19E+02	16	ca
IAQ-A5-9	Carbon Tetrachloride	0.48	J	6.29E+04	20	ca
IAQ-A5-9	Chlorodifluoromethane	32		3.59E+06	220000	nc
IAQ-A5-9	Chloroform	0.36	J	2.40E+05	5.3	ca
IAQ-A5-9	Cis-1,2-Dichloroethene	0.24	U	7.90E+05	----	----
IAQ-A5-9	Dichlorodifluoromethane	2.5		4.95E+06	880	nc
IAQ-A5-9	Ethylbenzene	2.1		4.35E+05	49	ca
IAQ-A5-9	Methyl Tert-Butyl Ether	0.61	U	1.80E+05[A]	470	ca
IAQ-A5-9	Methylene Chloride	3.4	B	8.70E+04	260	ca
IAQ-A5-9	Naphthalene	0.47	U	5.00E+01	3.6	ca
IAQ-A5-9	Tetrachloroethene	0.31	J	6.78E+05	21	ca
IAQ-A5-9	Toluene	130		7.54E+05	22000	nc
IAQ-A5-9	Total Xylenes	7.5		4.34E+05	440	nc
IAQ-A5-9	Trans-1,2-Dichloroethene	0.2	U	7.90E+05	260	nc
IAQ-A5-9	Trichloroethene	0.19	U	5.37E+05	25[M]	ca
IAQ-A5-9	Vinyl Chloride	0.19	U	2.16E+04	28	ca

TABLE 3-2

IAQ SAMPLE RESULTS, BUILDING A, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	OSHA PEL (ug/m^3)	Industrial Air Screening Level (ug/m^3)	Key
IAQ-A6-9	1,1,1-Trichloroethane	0.22	B	1.90E+06	22000	nc
IAQ-A6-9	1,1,2-Trichloroethane	0.23	U	4.50E+04	7.7	ca
IAQ-A6-9	1,1-Dichloroethane	0.15	J	4.00E+05	77	ca
IAQ-A6-9	1,1-Dichloroethene	1.5		----	880	nc
IAQ-A6-9	1,2,4-Trichlorobenzene	0.58	U	4.00E+04[N]	18	nc
IAQ-A6-9	1,2-Dichloroethane	0.15	U	4.00E+05	4.7	ca
IAQ-A6-9	Benzene	1.2		3.19E+02	16	ca
IAQ-A6-9	Carbon Tetrachloride	0.57	J	6.29E+04	20	ca
IAQ-A6-9	Chlorodifluoromethane	3		3.59E+06	220000	nc
IAQ-A6-9	Chloroform	1.9		2.40E+05	5.3	ca
IAQ-A6-9	Cis-1,2-Dichloroethene	0.55	J	7.90E+05	----	----
IAQ-A6-9	Dichlorodifluoromethane	2.8		4.95E+06	880	nc
IAQ-A6-9	Ethylbenzene	1.1		4.35E+05	49	ca
IAQ-A6-9	Methyl Tert-Butyl Ether	0.49	U	1.80E+05[A]	470	ca
IAQ-A6-9	Methylene Chloride	1.7	B	8.70E+04	260	ca
IAQ-A6-9	Naphthalene	3.7		5.00E+01	3.6	ca
IAQ-A6-9	Tetrachloroethene	0.27	J	6.78E+05	21	ca
IAQ-A6-9	Toluene	36		7.54E+05	22000	nc
IAQ-A6-9	Total Xylenes	4.4		4.34E+05	440	nc
IAQ-A6-9	Trans-1,2-Dichloroethene	0.16	U	7.90E+05	260	nc
IAQ-A6-9	Trichloroethene	4.5		5.37E+05	25[M]	ca
IAQ-A6-9	Vinyl Chloride	0.15	U	2.16E+04	28	ca
IAQ-A8-9	1,1,1-Trichloroethane	0.16	U	1.90E+06	22000	nc
IAQ-A8-9	1,1,2-Trichloroethane	0.29	U	4.50E+04	7.7	ca
IAQ-A8-9	1,1-Dichloroethane	0.1	U	4.00E+05	77	ca
IAQ-A8-9	1,1-Dichloroethene	0.13	U	----	880	nc
IAQ-A8-9	1,2,4-Trichlorobenzene	0.72	U	4.00E+04[N]	18	nc
IAQ-A8-9	1,2-Dichloroethane	0.19	U	4.00E+05	4.7	ca
IAQ-A8-9	Benzene	0.71		3.19E+02	16	ca
IAQ-A8-9	Carbon Tetrachloride	0.52	J	6.29E+04	20	ca
IAQ-A8-9	Chlorodifluoromethane	3.8		3.59E+06	220000	nc
IAQ-A8-9	Chloroform	0.28	J	2.40E+05	5.3	ca
IAQ-A8-9	Cis-1,2-Dichloroethene	0.24	U	7.90E+05	----	----
IAQ-A8-9	Dichlorodifluoromethane	2.8		4.95E+06	880	nc
IAQ-A8-9	Ethylbenzene	2.8		4.35E+05	49	ca
IAQ-A8-9	Methyl Tert-Butyl Ether	0.61	U	1.80E+05[A]	470	ca
IAQ-A8-9	Methylene Chloride	1.2	B	8.70E+04	260	ca
IAQ-A8-9	Naphthalene	0.47	U	5.00E+01	3.6	ca
IAQ-A8-9	Tetrachloroethene	0.45	J	6.78E+05	21	ca
IAQ-A8-9	Toluene	130		7.54E+05	22000	nc
IAQ-A8-9	Total Xylenes	10.1		4.34E+05	440	nc
IAQ-A8-9	Trans-1,2-Dichloroethene	0.2	U	7.90E+05	260	nc
IAQ-A8-9	Trichloroethene	0.49	J	5.37E+05	25[M]	ca
IAQ-A8-9	Vinyl Chloride	0.19	U	2.16E+04	28	ca

TABLE 3-2

IAQ SAMPLE RESULTS, BUILDING A, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	OSHA PEL (ug/m^3)	Industrial Air Screening Level (ug/m^3)	Key
IAQ-A9-9	1,1,1-Trichloroethane	0.52	B	1.90E+06	22000	nc
IAQ-A9-9	1,1,2-Trichloroethane	0.57	U	4.50E+04	7.7	ca
IAQ-A9-9	1,1-Dichloroethane	0.2	U	4.00E+05	77	ca
IAQ-A9-9	1,1-Dichloroethene	0.26	U	----	880	nc
IAQ-A9-9	1,2,4-Trichlorobenzene	1.4	U	4.00E+04[N]	18	nc
IAQ-A9-9	1,2-Dichloroethane	0.38	U	4.00E+05	4.7	ca
IAQ-A9-9	Benzene	0.88	J	3.19E+02	16	ca
IAQ-A9-9	Carbon Tetrachloride	0.53	J	6.29E+04	20	ca
IAQ-A9-9	Chlorodifluoromethane	24		3.59E+06	220000	nc
IAQ-A9-9	Chloroform	0.46	J	2.40E+05	5.3	ca
IAQ-A9-9	Cis-1,2-Dichloroethene	0.48	U	7.90E+05	----	----
IAQ-A9-9	Dichlorodifluoromethane	4.4		4.95E+06	880	nc
IAQ-A9-9	Ethylbenzene	9.5		4.35E+05	49	ca
IAQ-A9-9	Methyl Tert-Butyl Ether	1.2	U	1.80E+05[A]	470	ca
IAQ-A9-9	Methylene Chloride	2.5	B	8.70E+04	260	ca
IAQ-A9-9	Naphthalene	0.94	U	5.00E+01	3.6	ca
IAQ-A9-9	Tetrachloroethene	0.57	J	6.78E+05	21	ca
IAQ-A9-9	Toluene	200		7.54E+05	22000	nc
IAQ-A9-9	Total Xylenes	53		4.34E+05	440	nc
IAQ-A9-9	Trans-1,2-Dichloroethene	0.4	U	7.90E+05	260	nc
IAQ-A9-9	Trichloroethene	0.38	U	5.37E+05	25[M]	ca
IAQ-A9-9	Vinyl Chloride	0.37	U	2.16E+04	28	ca
IAQ-A11-9	1,1,1-Trichloroethane	0.099	J	1.90E+06	22000	nc
IAQ-A11-9	1,1,2-Trichloroethane	0.11	U	4.50E+04	7.7	ca
IAQ-A11-9	1,1-Dichloroethane	0.04	U	4.00E+05	77	ca
IAQ-A11-9	1,1-Dichloroethene	0.052	U	----	880	nc
IAQ-A11-9	1,2,4-Trichlorobenzene	0.29	U	4.00E+04[N]	18	nc
IAQ-A11-9	1,2-Dichloroethane	0.077	U	4.00E+05	4.7	ca
IAQ-A11-9	Benzene	0.55		3.19E+02	16	ca
IAQ-A11-9	Carbon Tetrachloride	0.72		6.29E+04	20	ca
IAQ-A11-9	Chlorodifluoromethane	3.6		3.59E+06	220000	nc
IAQ-A11-9	Chloroform	0.76		2.40E+05	5.3	ca
IAQ-A11-9	Cis-1,2-Dichloroethene	0.095	U	7.90E+05	----	----
IAQ-A11-9	Dichlorodifluoromethane	2.4		4.95E+06	880	nc
IAQ-A11-9	Ethylbenzene	0.99		4.35E+05	49	ca
IAQ-A11-9	Methyl Tert-Butyl Ether	0.25	U	1.80E+05[A]	470	ca
IAQ-A11-9	Methylene Chloride	0.92	B	8.70E+04	260	ca
IAQ-A11-9	Naphthalene	1.9	J	5.00E+01	3.6	ca
IAQ-A11-9	Tetrachloroethene	0.38	J	6.78E+05	21	ca
IAQ-A11-9	Toluene	26		7.54E+05	22000	nc
IAQ-A11-9	Total Xylenes	3.85		4.34E+05	440	nc
IAQ-A11-9	Trans-1,2-Dichloroethene	0.079	U	7.90E+05	260	nc
IAQ-A11-9	Trichloroethene	0.29		5.37E+05	25[M]	ca
IAQ-A11-9	Vinyl Chloride	0.074	U	2.16E+04	28	ca

TABLE 3-2

IAQ SAMPLE RESULTS, BUILDING A, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	OSHA PEL (ug/m^3)	Industrial Air Screening Level (ug/m^3)	Key
IAQ-A12-9	1,1,1-Trichloroethane	0.19	B	1.90E+06	22000	nc
IAQ-A12-9	1,1,2-Trichloroethane	0.29	U	4.50E+04	7.7	ca
IAQ-A12-9	1,1-Dichloroethane	0.1	U	4.00E+05	77	ca
IAQ-A12-9	1,1-Dichloroethene	0.96		----	880	nc
IAQ-A12-9	1,2,4-Trichlorobenzene	0.72	U	4.00E+04[N]	18	nc
IAQ-A12-9	1,2-Dichloroethane	0.19	U	4.00E+05	4.7	ca
IAQ-A12-9	Benzene	0.71		3.19E+02	16	ca
IAQ-A12-9	Carbon Tetrachloride	0.54	J	6.29E+04	20	ca
IAQ-A12-9	Chlorodifluoromethane	3.7		3.59E+06	220000	nc
IAQ-A12-9	Chloroform	1		2.40E+05	5.3	ca
IAQ-A12-9	Cis-1,2-Dichloroethene	0.3	J	7.90E+05	----	----
IAQ-A12-9	Dichlorodifluoromethane	2.7		4.95E+06	880	nc
IAQ-A12-9	Ethylbenzene	1.3		4.35E+05	49	ca
IAQ-A12-9	Methyl Tert-Butyl Ether	0.61	U	1.80E+05[A]	470	ca
IAQ-A12-9	Methylene Chloride	1.5	B	8.70E+04	260	ca
IAQ-A12-9	Naphthalene	0.75	J	5.00E+01	3.6	ca
IAQ-A12-9	Tetrachloroethene	0.36	J	6.78E+05	21	ca
IAQ-A12-9	Toluene	56		7.54E+05	22000	nc
IAQ-A12-9	Total Xylenes	4.8		4.34E+05	440	nc
IAQ-A12-9	Trans-1,2-Dichloroethene	0.2	U	7.90E+05	260	nc
IAQ-A12-9	Trichloroethene	5.4		5.37E+05	25[M]	ca
IAQ-A12-9	Vinyl Chloride	0.19	U	2.16E+04	28	ca
IAQ-A13-9	1,1,1-Trichloroethane	0.068	B	1.90E+06	22000	nc
IAQ-A13-9	1,1,2-Trichloroethane	0.46		4.50E+04	7.7	ca
IAQ-A13-9	1,1-Dichloroethane	0.04	U	4.00E+05	77	ca
IAQ-A13-9	1,1-Dichloroethene	0.099	J	----	880	nc
IAQ-A13-9	1,2,4-Trichlorobenzene	0.29	U	4.00E+04[N]	18	nc
IAQ-A13-9	1,2-Dichloroethane	0.19	J	4.00E+05	4.7	ca
IAQ-A13-9	Benzene	0.61		3.19E+02	16	ca
IAQ-A13-9	Carbon Tetrachloride	1.8		6.29E+04	20	ca
IAQ-A13-9	Chlorodifluoromethane	2.7		3.59E+06	220000	nc
IAQ-A13-9	Chloroform	4.1		2.40E+05	5.3	ca
IAQ-A13-9	Cis-1,2-Dichloroethene	0.095	U	7.90E+05	----	----
IAQ-A13-9	Dichlorodifluoromethane	2.4		4.95E+06	880	nc
IAQ-A13-9	Ethylbenzene	0.61		4.35E+05	49	ca
IAQ-A13-9	Methyl Tert-Butyl Ether	0.25	U	1.80E+05[A]	470	ca
IAQ-A13-9	Methylene Chloride	2	B	8.70E+04	260	ca
IAQ-A13-9	Naphthalene	5		5.00E+01	3.6	ca
IAQ-A13-9	Tetrachloroethene	25		6.78E+05	21	ca
IAQ-A13-9	Toluene	12		7.54E+05	22000	nc
IAQ-A13-9	Total Xylenes	2.44		4.34E+05	440	nc
IAQ-A13-9	Trans-1,2-Dichloroethene	0.079	U	7.90E+05	260	nc
IAQ-A13-9	Trichloroethene	1.2		5.37E+05	25[M]	ca
IAQ-A13-9	Vinyl Chloride	0.074	U	2.16E+04	28	ca

TABLE 3-2

IAQ SAMPLE RESULTS, BUILDING A, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	OSHA PEL (ug/m^3)	Industrial Air Screening Level (ug/m^3)	Key
IAQ-A14-9	1,1,1-Trichloroethane	0.076	B	1.90E+06	22000	nc
IAQ-A14-9	1,1,2-Trichloroethane	0.11	U	4.50E+04	7.7	ca
IAQ-A14-9	1,1-Dichloroethane	0.04	U	4.00E+05	77	ca
IAQ-A14-9	1,1-Dichloroethene	0.052	U	----	880	nc
IAQ-A14-9	1,2,4-Trichlorobenzene	0.29	U	4.00E+04[N]	18	nc
IAQ-A14-9	1,2-Dichloroethane	0.077	U	4.00E+05	4.7	ca
IAQ-A14-9	Benzene	0.54		3.19E+02	16	ca
IAQ-A14-9	Carbon Tetrachloride	0.51		6.29E+04	20	ca
IAQ-A14-9	Chlorodifluoromethane	5.4		3.59E+06	220000	nc
IAQ-A14-9	Chloroform	0.22	J	2.40E+05	5.3	ca
IAQ-A14-9	Cis-1,2-Dichloroethene	0.095	U	7.90E+05	----	----
IAQ-A14-9	Dichlorodifluoromethane	2.6		4.95E+06	880	nc
IAQ-A14-9	Ethylbenzene	0.93		4.35E+05	49	ca
IAQ-A14-9	Methyl Tert-Butyl Ether	0.25	U	1.80E+05[A]	470	ca
IAQ-A14-9	Methylene Chloride	0.86	B	8.70E+04	260	ca
IAQ-A14-9	Naphthalene	0.73	J	5.00E+01	3.6	ca
IAQ-A14-9	Tetrachloroethene	0.3	J	6.78E+05	21	ca
IAQ-A14-9	Toluene	28		7.54E+05	22000	nc
IAQ-A14-9	Total Xylenes	2.8		4.34E+05	440	nc
IAQ-A14-9	Trans-1,2-Dichloroethene	0.079	U	7.90E+05	260	nc
IAQ-A14-9	Trichloroethene	0.075	U	5.37E+05	25[M]	ca
IAQ-A14-9	Vinyl Chloride	0.074	U	2.16E+04	28	ca
IAQ-A15-9	1,1,1-Trichloroethane	0.065	U	1.90E+06	22000	nc
IAQ-A15-9	1,1,2-Trichloroethane	0.11	U	4.50E+04	7.7	ca
IAQ-A15-9	1,1-Dichloroethane	0.04	U	4.00E+05	77	ca
IAQ-A15-9	1,1-Dichloroethene	0.052	U	----	880	nc
IAQ-A15-9	1,2,4-Trichlorobenzene	0.29	U	4.00E+04[N]	18	nc
IAQ-A15-9	1,2-Dichloroethane	0.077	U	4.00E+05	4.7	ca
IAQ-A15-9	Benzene	0.6		3.19E+02	16	ca
IAQ-A15-9	Carbon Tetrachloride	0.5	J	6.29E+04	20	ca
IAQ-A15-9	Chlorodifluoromethane	2.1		3.59E+06	220000	nc
IAQ-A15-9	Chloroform	0.19	J	2.40E+05	5.3	ca
IAQ-A15-9	Cis-1,2-Dichloroethene	0.095	U	7.90E+05	----	----
IAQ-A15-9	Dichlorodifluoromethane	2.4		4.95E+06	880	nc
IAQ-A15-9	Ethylbenzene	0.68		4.35E+05	49	ca
IAQ-A15-9	Methyl Tert-Butyl Ether	0.25	U	1.80E+05[A]	470	ca
IAQ-A15-9	Methylene Chloride	0.94	B	8.70E+04	260	ca
IAQ-A15-9	Naphthalene	0.98	J	5.00E+01	3.6	ca
IAQ-A15-9	Tetrachloroethene	0.34	J	6.78E+05	21	ca
IAQ-A15-9	Toluene	6.8		7.54E+05	22000	nc
IAQ-A15-9	Total Xylenes	2.67		4.34E+05	440	nc
IAQ-A15-9	Trans-1,2-Dichloroethene	0.079	U	7.90E+05	260	nc
IAQ-A15-9	Trichloroethene	0.075	U	5.37E+05	25[M]	ca
IAQ-A15-9	Vinyl Chloride	0.074	U	2.16E+04	28	ca

TABLE 3-2

IAQ SAMPLE RESULTS, BUILDING A, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	OSHA PEL (ug/m^3)	Industrial Air Screening Level (ug/m^3)	Key
IAQ-A16-9	1,1,1-Trichloroethane	0.5	J	1.90E+06	22000	nc
IAQ-A16-9	1,1,2-Trichloroethane	0.29	U	4.50E+04	7.7	ca
IAQ-A16-9	1,1-Dichloroethane	0.1	U	4.00E+05	77	ca
IAQ-A16-9	1,1-Dichloroethene	0.13	U	----	880	nc
IAQ-A16-9	1,2,4-Trichlorobenzene	0.72	U	4.00E+04[N]	18	nc
IAQ-A16-9	1,2-Dichloroethane	0.19	U	4.00E+05	4.7	ca
IAQ-A16-9	Benzene	0.54	J	3.19E+02	16	ca
IAQ-A16-9	Carbon Tetrachloride	0.43	J	6.29E+04	20	ca
IAQ-A16-9	Chlorodifluoromethane	8.2		3.59E+06	220000	nc
IAQ-A16-9	Chloroform	0.4	J	2.40E+05	5.3	ca
IAQ-A16-9	Cis-1,2-Dichloroethene	0.24	U	7.90E+05	----	----
IAQ-A16-9	Dichlorodifluoromethane	2.4		4.95E+06	880	nc
IAQ-A16-9	Ethylbenzene	1.5		4.35E+05	49	ca
IAQ-A16-9	Methyl Tert-Butyl Ether	0.61	U	1.80E+05[A]	470	ca
IAQ-A16-9	Methylene Chloride	1.3	B	8.70E+04	260	ca
IAQ-A16-9	Naphthalene	0.47	U	5.00E+01	3.6	ca
IAQ-A16-9	Tetrachloroethene	0.45	J	6.78E+05	21	ca
IAQ-A16-9	Toluene	49		7.54E+05	22000	nc
IAQ-A16-9	Total Xylenes	6.2		4.34E+05	440	nc
IAQ-A16-9	Trans-1,2-Dichloroethene	0.2	U	7.90E+05	260	nc
IAQ-A16-9	Trichloroethene	0.19	U	5.37E+05	25[M]	ca
IAQ-A16-9	Vinyl Chloride	0.19	U	2.16E+04	28	ca
IAQ-A17-9	1,1,1-Trichloroethane	0.16	U	1.90E+06	22000	nc
IAQ-A17-9	1,1,2-Trichloroethane	0.29	U	4.50E+04	7.7	ca
IAQ-A17-9	1,1-Dichloroethane	0.1	U	4.00E+05	77	ca
IAQ-A17-9	1,1-Dichloroethene	0.13	U	----	880	nc
IAQ-A17-9	1,2,4-Trichlorobenzene	0.72	U	4.00E+04[N]	18	nc
IAQ-A17-9	1,2-Dichloroethane	0.19	U	4.00E+05	4.7	ca
IAQ-A17-9	Benzene	0.56	J	3.19E+02	16	ca
IAQ-A17-9	Carbon Tetrachloride	0.47	J	6.29E+04	20	ca
IAQ-A17-9	Chlorodifluoromethane	4.8		3.59E+06	220000	nc
IAQ-A17-9	Chloroform	0.7	J	2.40E+05	5.3	ca
IAQ-A17-9	Cis-1,2-Dichloroethene	0.24	U	7.90E+05	----	----
IAQ-A17-9	Dichlorodifluoromethane	2.5		4.95E+06	880	nc
IAQ-A17-9	Ethylbenzene	2.2		4.35E+05	49	ca
IAQ-A17-9	Methyl Tert-Butyl Ether	0.61	U	1.80E+05[A]	470	ca
IAQ-A17-9	Methylene Chloride	2.6	B	8.70E+04	260	ca
IAQ-A17-9	Naphthalene	0.47	U	5.00E+01	3.6	ca
IAQ-A17-9	Tetrachloroethene	0.34	J	6.78E+05	21	ca
IAQ-A17-9	Toluene	140		7.54E+05	22000	nc
IAQ-A17-9	Total Xylenes	7.4		4.34E+05	440	nc
IAQ-A17-9	Trans-1,2-Dichloroethene	0.2	U	7.90E+05	260	nc
IAQ-A17-9	Trichloroethene	0.44	J	5.37E+05	25[M]	ca
IAQ-A17-9	Vinyl Chloride	0.19	U	2.16E+04	28	ca

Notes: Shaded cells indicate a concentration greater than risk-based screening level

ug/m^3 = micrograms per cubic meter

nc = screening value based on noncarcinogenic hazard index = 1

ca = screening value based on 1x 10^{-5} carcinogenic risk

U = nondetect

-- = not available

J = estimated value

B = present in laboratory blank

OSHA PEL = Occupational Safety and Health Administration Pemissible Exposure Limit

N = National Institute for Occupational Safety and Health Recommended Exposure Limit

A = American Council of Governmental Industrial Hygienists Theshold Limit Value

M = Maryland Department of the Environment's screening level for trichloroethene

Industrial Air Screening Levels from USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites Apr-09

TABLE 3-3

SUB SLAB VAPOR SAMPLING, BUILDING A, AUGUST 2010
LCOKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	Target Shallow Soil Gas Concentration [(1)] (ug/m^3)
SV-A3-9	1,1,1-Trichloroethane	1.1		220000
SV-A3-9	1,1,2-Trichloroethane	0.11	U	77
SV-A3-9	1,1-Dichloroethane	0.04	U	770
SV-A3-9	1,1-Dichloroethene	0.052	U	8800
SV-A3-9	1,2,4-Trichlorobenzene	0.29	U	180
SV-A3-9	1,2-Dichloroethane	0.077	U	47
SV-A3-9	Benzene	0.57		160
SV-A3-9	Carbon Tetrachloride	0.5	J	200
SV-A3-9	Chlorodifluoromethane	6.2		8800
SV-A3-9	Chloroform	1.1		53
SV-A3-9	Cis-1,2-Dichloroethene	0.095	U	----
SV-A3-9	Dichlorodifluoromethane	2.5		8800
SV-A3-9	Ethylbenzene	0.57		490
SV-A3-9	Methyl Tert-Butyl Ether	0.25	U	4700
SV-A3-9	Methylene Chloride	0.6	B	2600
SV-A3-9	Naphthalene	0.27	J	36
SV-A3-9	Tetrachloroethene	0.48	J	210
SV-A3-9	Toluene	3.6		220000
SV-A3-9	Total Xylenes	1.17		4400
SV-A3-9	Trans-1,2-Dichloroethene	0.079	U	2600
SV-A3-9	Trichloroethene	3.5		250^M
SV-A3-9	Vinyl Chloride	0.074	U	280
SV-A6-9	1,1,1-Trichloroethane	11	U	220000
SV-A6-9	1,1,2-Trichloroethane	20	U	77
SV-A6-9	1,1-Dichloroethane	7	U	770
SV-A6-9	1,1-Dichloroethene	9	U	8800
SV-A6-9	1,2,4-Trichlorobenzene	50	U	180
SV-A6-9	1,2-Dichloroethane	13	U	47
SV-A6-9	Benzene	13	U	160
SV-A6-9	Carbon Tetrachloride	16	U	200
SV-A6-9	Chlorodifluoromethane	20	J	8800
SV-A6-9	Chloroform	13	J	53
SV-A6-9	Cis-1,2-Dichloroethene	2000		----
SV-A6-9	Dichlorodifluoromethane	23	U	8800
SV-A6-9	Ethylbenzene	20	U	490
SV-A6-9	Methyl Tert-Butyl Ether	43	U	4700
SV-A6-9	Methylene Chloride	28	B	2600
SV-A6-9	Naphthalene	33	U	36
SV-A6-9	Tetrachloroethene	20	J	210
SV-A6-9	Toluene	14	U	220000
SV-A6-9	Total Xylenes	56	U	4400
SV-A6-9	Trans-1,2-Dichloroethene	430		2600
SV-A6-9	Trichloroethene	**4800**		250^M

TABLE 3-3

SUB SLAB VAPOR SAMPLING, BUILDING A, AUGUST 2010
LCOKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	Target Shallow Soil Gas Concentration [(1)] (ug/m^3)
SV-A6-9	Vinyl Chloride	13	U	280
SV-A-7-9	1,1,1-Trichloroethane	20		220000
SV-A-7-9	1,1,2-Trichloroethane	0.29	U	77
SV-A-7-9	1,1-Dichloroethane	0.71	J	770
SV-A-7-9	1,1-Dichloroethene	1.1		8800
SV-A-7-9	1,2,4-Trichlorobenzene	0.72	U	180
SV-A-7-9	1,2-Dichloroethane	0.19	U	47
SV-A-7-9	Benzene	0.78		160
SV-A-7-9	Carbon Tetrachloride	0.55	J	200
SV-A-7-9	Chlorodifluoromethane	3.4		8800
SV-A-7-9	Chloroform	1.9		53
SV-A-7-9	Cis-1,2-Dichloroethene	0.24	U	----
SV-A-7-9	Dichlorodifluoromethane	2.6		8800
SV-A-7-9	Ethylbenzene	1.9		490
SV-A-7-9	Methyl Tert-Butyl Ether	0.61	U	4700
SV-A-7-9	Methylene Chloride	6		2600
SV-A-7-9	Naphthalene	0.47	U	36
SV-A-7-9	Tetrachloroethene	7.6		210
SV-A-7-9	Toluene	69		220000
SV-A-7-9	Total Xylenes	7.9		4400
SV-A-7-9	Trans-1,2-Dichloroethene	0.2	U	2600
SV-A-7-9	Trichloroethene	11		250[M]
SV-A-7-9	Vinyl Chloride	0.19	U	280
SV-A-8-9	1,1,1-Trichloroethane	1.3		220000
SV-A-8-9	1,1,2-Trichloroethane	0.29	U	77
SV-A-8-9	1,1-Dichloroethane	0.1	U	770
SV-A-8-9	1,1-Dichloroethene	0.13	U	8800
SV-A-8-9	1,2,4-Trichlorobenzene	0.72	U	180
SV-A-8-9	1,2-Dichloroethane	0.19	U	47
SV-A-8-9	Benzene	0.26	J	160
SV-A-8-9	Carbon Tetrachloride	0.93	J	200
SV-A-8-9	Chlorodifluoromethane	13		8800
SV-A-8-9	Chloroform	1.5		53
SV-A-8-9	Cis-1,2-Dichloroethene	0.24	U	----
SV-A-8-9	Dichlorodifluoromethane	2.8		8800
SV-A-8-9	Ethylbenzene	28		490
SV-A-8-9	Methyl Tert-Butyl Ether	0.61	U	4700
SV-A-8-9	Methylene Chloride	1.2	B	2600
SV-A-8-9	Naphthalene	0.49	J	36
SV-A-8-9	Tetrachloroethene	0.99	J	210
SV-A-8-9	Toluene	45		220000
SV-A-8-9	Total Xylenes	131		4400
SV-A-8-9	Trans-1,2-Dichloroethene	0.2	U	2600

TABLE 3-3

SUB SLAB VAPOR SAMPLING, BUILDING A, AUGUST 2010
LCOKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	Target Shallow Soil Gas Concentration [(1)] (ug/m^3)
SV-A-8-9	Trichloroethene	0.19	U	250[M]
SV-A-8-9	Vinyl Chloride	0.19	U	280
SV-15-A-9	1,1,1-Trichloroethane	1200		220000
SV-15-A-9	1,1,2-Trichloroethane	5.2	U	77
SV-15-A-9	1,1-Dichloroethane	58		770
SV-15-A-9	1,1-Dichloroethene	1200		8800
SV-15-A-9	1,2,4-Trichlorobenzene	13	U	180
SV-15-A-9	1,2-Dichloroethane	3.5	U	47
SV-15-A-9	Benzene	3.3	U	160
SV-15-A-9	Carbon Tetrachloride	4.3	U	200
SV-15-A-9	Chlorodifluoromethane	6.5	J	8800
SV-15-A-9	Chloroform	5.5	J	53
SV-15-A-9	Cis-1,2-Dichloroethene	1800		----
SV-15-A-9	Dichlorodifluoromethane	6.1	U	8800
SV-15-A-9	Ethylbenzene	5.3	U	490
SV-15-A-9	Methyl Tert-Butyl Ether	11	U	4700
SV-15-A-9	Methylene Chloride	8.1	B	2600
SV-15-A-9	Naphthalene	8.6	U	36
SV-15-A-9	Tetrachloroethene	4.9	U	210
SV-15-A-9	Toluene	14		220000
SV-15-A-9	Total Xylenes	14.6	U	4400
SV-15-A-9	Trans-1,2-Dichloroethene	99		2600
SV-15-A-9	Trichloroethene	**1300**		250[M]
SV-15-A-9	Vinyl Chloride	9.8		280
SV-16-A-9	1,1,1-Trichloroethane	5.7	J	220000
SV-16-A-9	1,1,2-Trichloroethane	3.4	U	77
SV-16-A-9	1,1-Dichloroethane	40		770
SV-16-A-9	1,1-Dichloroethene	770		8800
SV-16-A-9	1,2,4-Trichlorobenzene	8.6	U	180
SV-16-A-9	1,2-Dichloroethane	2.3	U	47
SV-16-A-9	Benzene	2.2	U	160
SV-16-A-9	Carbon Tetrachloride	2.8	U	200
SV-16-A-9	Chlorodifluoromethane	3.2	J	8800
SV-16-A-9	Chloroform	2.2	U	53
SV-16-A-9	Cis-1,2-Dichloroethene	88		----
SV-16-A-9	Dichlorodifluoromethane	4	U	8800
SV-16-A-9	Ethylbenzene	3.5	U	490
SV-16-A-9	Methyl Tert-Butyl Ether	7.3	U	4700
SV-16-A-9	Methylene Chloride	5.9	B	2600
SV-16-A-9	Naphthalene	5.6	U	36
SV-16-A-9	Tetrachloroethene	3.2	U	210
SV-16-A-9	Toluene	7.9	J	220000

TABLE 3-3

SUB SLAB VAPOR SAMPLING, BUILDING A, AUGUST 2010
LCOKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	Target Shallow Soil Gas Concentration [(1)] (ug/m^3)
SV-16-A-9	Total Xylenes	9.5	U	4400
SV-16-A-9	Trans-1,2-Dichloroethene	9.7		2600
SV-16-A-9	Trichloroethene	130		250[M]
SV-16-A-9	Vinyl Chloride	6.4		280
SV-16-A-9-D	1,1,1-Trichloroethane	7	B	220000
SV-16-A-9-D	1,1,2-Trichloroethane	3.4	U	77
SV-16-A-9-D	1,1-Dichloroethane	52		770
SV-16-A-9-D	1,1-Dichloroethene	890		8800
SV-16-A-9-D	1,2,4-Trichlorobenzene	8.7	U	180
SV-16-A-9-D	1,2-Dichloroethane	2.3	U	47
SV-16-A-9-D	Benzene	2.2	U	160
SV-16-A-9-D	Carbon Tetrachloride	2.8	U	200
SV-16-A-9-D	Chlorodifluoromethane	3.8	J	8800
SV-16-A-9-D	Chloroform	2.5	J	53
SV-16-A-9-D	Cis-1,2-Dichloroethene	110		----
SV-16-A-9-D	Dichlorodifluoromethane	4	U	8800
SV-16-A-9-D	Ethylbenzene	3.5	U	490
SV-16-A-9-D	Methyl Tert-Butyl Ether	7.4	U	4700
SV-16-A-9-D	Methylene Chloride	6.7	B	2600
SV-16-A-9-D	Naphthalene	5.7	U	36
SV-16-A-9-D	Tetrachloroethene	3.3	U	210
SV-16-A-9-D	Toluene	12	B	220000
SV-16-A-9-D	Total Xylenes	9.6	U	4400
SV-16-A-9-D	Trans-1,2-Dichloroethene	11		2600
SV-16-A-9-D	Trichloroethene	160		250[M]
SV-16-A-9-D	Vinyl Chloride	7.4		280
SV-18-A-9	1,1,1-Trichloroethane	280	J	220000
SV-18-A-9	1,1,2-Trichloroethane	**240**	**U**	77
SV-18-A-9	1,1-Dichloroethane	660	J	770
SV-18-A-9	1,1-Dichloroethene	**32000**		8800
SV-18-A-9	1,2,4-Trichlorobenzene	**610**	**U**	180
SV-18-A-9	1,2-Dichloroethane	**750**		47
SV-18-A-9	Benzene	150	U	160
SV-18-A-9	Carbon Tetrachloride	200	U	200
SV-18-A-9	Chlorodifluoromethane	110	U	8800
SV-18-A-9	Chloroform	**150**	**U**	53
SV-18-A-9	Cis-1,2-Dichloroethene	3200		----
SV-18-A-9	Dichlorodifluoromethane	280	U	8800
SV-18-A-9	Ethylbenzene	250	U	490
SV-18-A-9	Methyl Tert-Butyl Ether	520	U	4700
SV-18-A-9	Methylene Chloride	540	B	2600
SV-18-A-9	Naphthalene	**400**	**U**	36
SV-18-A-9	Tetrachloroethene	**230**	**U**	210

TABLE 3-3

SUB SLAB VAPOR SAMPLING, BUILDING A, AUGUST 2010
LCOKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	Target Shallow Soil Gas Concentration [(1)] (ug/m^3)
SV-18-A-9	Toluene	170	U	220000
SV-18-A-9	Total Xylenes	680	U	4400
SV-18-A-9	Trans-1,2-Dichloroethene	170	U	2600
SV-18-A-9	Trichloroethene	**64000**		250[M]
SV-18-A-9	Vinyl Chloride	160	U	280
SV-19-A-9	1,1,1-Trichloroethane	0.18	J	220000
SV-19-A-9	1,1,2-Trichloroethane	0.24	U	77
SV-19-A-9	1,1-Dichloroethane	0.78		770
SV-19-A-9	1,1-Dichloroethene	2.1		8800
SV-19-A-9	1,2,4-Trichlorobenzene	0.61	U	180
SV-19-A-9	1,2-Dichloroethane	0.16	U	47
SV-19-A-9	Benzene	0.5	J	160
SV-19-A-9	Carbon Tetrachloride	0.46	J	200
SV-19-A-9	Chlorodifluoromethane	2		8800
SV-19-A-9	Chloroform	0.66	J	53
SV-19-A-9	Cis-1,2-Dichloroethene	0.37	J	----
SV-19-A-9	Dichlorodifluoromethane	2.4		8800
SV-19-A-9	Ethylbenzene	2.1		490
SV-19-A-9	Methyl Tert-Butyl Ether	0.51	U	4700
SV-19-A-9	Methylene Chloride	0.87	B	2600
SV-19-A-9	Naphthalene	8	J	36
SV-19-A-9	Tetrachloroethene	0.53	J	210
SV-19-A-9	Toluene	55		220000
SV-19-A-9	Total Xylenes	9.1		4400
SV-19-A-9	Trans-1,2-Dichloroethene	0.17	U	2600
SV-19-A-9	Trichloroethene	8.5		250[M]
SV-19-A-9	Vinyl Chloride	0.16	U	280
SV-20-A-9	1,1,1-Trichloroethane	0.094	J	220000
SV-20-A-9	1,1,2-Trichloroethane	0.11	U	77
SV-20-A-9	1,1-Dichloroethane	0.04	U	770
SV-20-A-9	1,1-Dichloroethene	0.052	U	8800
SV-20-A-9	1,2,4-Trichlorobenzene	0.29	U	180
SV-20-A-9	1,2-Dichloroethane	0.077	U	47
SV-20-A-9	Benzene	1.4		160
SV-20-A-9	Carbon Tetrachloride	0.74		200
SV-20-A-9	Chlorodifluoromethane	2.7		8800
SV-20-A-9	Chloroform	1.3		53
SV-20-A-9	Cis-1,2-Dichloroethene	0.1	J	----
SV-20-A-9	Dichlorodifluoromethane	2.7		8800
SV-20-A-9	Ethylbenzene	2.9		490
SV-20-A-9	Methyl Tert-Butyl Ether	0.25	U	4700
SV-20-A-9	Methylene Chloride	1.1	B	2600
SV-20-A-9	Naphthalene	9.9	J	36

TABLE 3-3

SUB SLAB VAPOR SAMPLING, BUILDING A, AUGUST 2010
LCOKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	Target Shallow Soil Gas Concentration [(1)] (ug/m^3)
SV-20-A-9	Tetrachloroethene	0.45	J	210
SV-20-A-9	Toluene	12		220000
SV-20-A-9	Total Xylenes	14.5		4400
SV-20-A-9	Trans-1,2-Dichloroethene	0.079	U	2600
SV-20-A-9	Trichloroethene	3		250[M]
SV-20-A-9	Vinyl Chloride	0.074	U	280
SV-21-A-9	1,1,1-Trichloroethane	4.8		220000
SV-21-A-9	1,1,2-Trichloroethane	1.1	U	77
SV-21-A-9	1,1-Dichloroethane	0.4	U	770
SV-21-A-9	1,1-Dichloroethene	0.52	U	8800
SV-21-A-9	1,2,4-Trichlorobenzene	2.9	U	180
SV-21-A-9	1,2-Dichloroethane	0.77	U	47
SV-21-A-9	Benzene	3.1		160
SV-21-A-9	Carbon Tetrachloride	0.94	U	200
SV-21-A-9	Chlorodifluoromethane	3.9		8800
SV-21-A-9	Chloroform	2.9	J	53
SV-21-A-9	Cis-1,2-Dichloroethene	0.95	U	----
SV-21-A-9	Dichlorodifluoromethane	2.6	J	8800
SV-21-A-9	Ethylbenzene	23		490
SV-21-A-9	Methyl Tert-Butyl Ether	2.5	U	4700
SV-21-A-9	Methylene Chloride	2.7	B	2600
SV-21-A-9	Naphthalene	**550**	J	36
SV-21-A-9	Tetrachloroethene	1.1	U	210
SV-21-A-9	Toluene	78		220000
SV-21-A-9	Total Xylenes	148		4400
SV-21-A-9	Trans-1,2-Dichloroethene	0.79	U	2600
SV-21-A-9	Trichloroethene	7.9		250[M]
SV-21-A-9	Vinyl Chloride	0.74	U	280
SV-22-A-9	1,1,1-Trichloroethane	1.4	J	220000
SV-22-A-9	1,1,2-Trichloroethane	0.57	U	77
SV-22-A-9	1,1-Dichloroethane	0.2	U	770
SV-22-A-9	1,1-Dichloroethene	0.89	J	8800
SV-22-A-9	1,2,4-Trichlorobenzene	1.4	U	180
SV-22-A-9	1,2-Dichloroethane	0.38	U	47
SV-22-A-9	Benzene	5.2		160
SV-22-A-9	Carbon Tetrachloride	1.5	J	200
SV-22-A-9	Chlorodifluoromethane	2.8		8800
SV-22-A-9	Chloroform	3.8		53
SV-22-A-9	Cis-1,2-Dichloroethene	0.48	U	----
SV-22-A-9	Dichlorodifluoromethane	2.6		8800
SV-22-A-9	Ethylbenzene	120		490
SV-22-A-9	Methyl Tert-Butyl Ether	1.2	U	4700
SV-22-A-9	Methylene Chloride	2.5	B	2600

TABLE 3-3

SUB SLAB VAPOR SAMPLING, BUILDING A, AUGUST 2010
LCOKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	Target Shallow Soil Gas Concentration [(1)] (ug/m^3)
SV-22-A-9	Naphthalene	29	J	36
SV-22-A-9	Tetrachloroethene	3		210
SV-22-A-9	Toluene	74		220000
SV-22-A-9	Total Xylenes	600		4400
SV-22-A-9	Trans-1,2-Dichloroethene	0.4	U	2600
SV-22-A-9	Trichloroethene	7.4		250[M]
SV-22-A-9	Vinyl Chloride	0.37	U	280
SV-23-A-9	1,1,1-Trichloroethane	3	U	220000
SV-23-A-9	1,1,2-Trichloroethane	5.2	U	77
SV-23-A-9	1,1-Dichloroethane	1.8	U	770
SV-23-A-9	1,1-Dichloroethene	2.3	U	8800
SV-23-A-9	1,2,4-Trichlorobenzene	13	U	180
SV-23-A-9	1,2-Dichloroethane	3.5	U	47
SV-23-A-9	Benzene	3.3	U	160
SV-23-A-9	Carbon Tetrachloride	4.3	U	200
SV-23-A-9	Chlorodifluoromethane	13		8800
SV-23-A-9	Chloroform	5.6	J	53
SV-23-A-9	Cis-1,2-Dichloroethene	4.3	U	----
SV-23-A-9	Dichlorodifluoromethane	6.1	U	8800
SV-23-A-9	Ethylbenzene	**590**		490
SV-23-A-9	Methyl Tert-Butyl Ether	11	U	4700
SV-23-A-9	Methylene Chloride	13	B	2600
SV-23-A-9	Naphthalene	**76**	J	36
SV-23-A-9	Tetrachloroethene	4.9	U	210
SV-23-A-9	Toluene	30		220000
SV-23-A-9	Total Xylenes	**5100**		4400
SV-23-A-9	Trans-1,2-Dichloroethene	3.6	U	2600
SV-23-A-9	Trichloroethene	3.5	J	250[M]
SV-23-A-9	Vinyl Chloride	3.4	U	280

Notes: Shaded cells indicate a concentration greater than risk-based screening level

ug/m^3 = micrograms per cubic meter
J = estimated value
B = present in laboratory blank
U = nondetect
-- = not available
SV = Sub-slab vapor

(1) Screening values derived in accordance with Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (November 2002). Screening values = EPA Industrial Air Screening Values divided by an attenuation factor of 0.1, and correspond to a target cancer risk level of 1.0E-05.

M = screening value based on MDE IAQ target concentration of 25 ug/m^3 divided by an attenuation factor of 0.1

TABLE 3-4

CO-LOCATED SUB SLAB VAPOR AND IAQ AMPLING RESULTS, BUILDING A, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Analyte	Sub-Slab Vapor Sample ID	Result (ug/m^3)	Qualifier	Co-Located IAQ Sample ID	Result (ug/m^3)	Qualifier
1,1,1-Trichloroethane	SV-A6-9	11	U	IAQ-A-4-9	0.14	B
1,1,2-Trichloroethane	SV-A6-9	20	U	IAQ-A-4-9	0.14	U
1,1-Dichloroethane	SV-A6-9	7	U	IAQ-A-4-9	0.066	J
1,1-Dichloroethene	SV-A6-9	9	U	IAQ-A-4-9	0.064	U
1,2,4-Trichlorobenzene	SV-A6-9	50	U	IAQ-A-4-9	0.36	U
1,2-Dichloroethane	SV-A6-9	13	U	IAQ-A-4-9	0.12	J
Benzene	SV-A6-9	13	U	IAQ-A-4-9	0.7	
Carbon Tetrachloride	SV-A6-9	16	U	IAQ-A-4-9	0.59	J
Chlorodifluoromethane	SV-A6-9	20	J	IAQ-A-4-9	10	
Chloroform	SV-A6-9	13	J	IAQ-A-4-9	0.56	
Cis-1,2-Dichloroethene	SV-A6-9	2000		IAQ-A-4-9	0.12	U
Dichlorodifluoromethane	SV-A6-9	23	U	IAQ-A-4-9	2.7	
Ethylbenzene	SV-A6-9	20	U	IAQ-A-4-9	2	
Methyl Tert-Butyl Ether	SV-A6-9	43	U	IAQ-A-4-9	0.31	U
Methylene Chloride	SV-A6-9	28	B	IAQ-A-4-9	1.6	B
Naphthalene	SV-A6-9	33	U	IAQ-A-4-9	0.24	U
Tetrachloroethene	SV-A6-9	20	J	IAQ-A-4-9	0.51	J
Toluene	SV-A6-9	14	U	IAQ-A-4-9	69	
Total Xylenes	SV-A6-9	56	U	IAQ-A-4-9	7.4	
Trans-1,2-Dichloroethene	SV-A6-9	430		IAQ-A-4-9	0.099	U
Trichloroethene	SV-A6-9	**4800**		IAQ-A-4-9	0.18	J
Vinyl Chloride	SV-A6-9	13	U	IAQ-A-4-9	0.093	U
1,1,1-Trichloroethane	SV-15-A-9	1200		IAQ-A5-9	0.16	B
1,1,2-Trichloroethane	SV-15-A-9	5.2	U	IAQ-A5-9	0.29	U
1,1-Dichloroethane	SV-15-A-9	58		IAQ-A5-9	0.1	U
1,1-Dichloroethene	SV-15-A-9	1200		IAQ-A5-9	0.13	U
1,2,4-Trichlorobenzene	SV-15-A-9	13	U	IAQ-A5-9	0.72	U
1,2-Dichloroethane	SV-15-A-9	3.5	U	IAQ-A5-9	0.19	U
Benzene	SV-15-A-9	3.3	U	IAQ-A5-9	0.6	J
Carbon Tetrachloride	SV-15-A-9	4.3	U	IAQ-A5-9	0.48	J
Chlorodifluoromethane	SV-15-A-9	6.5	J	IAQ-A5-9	32	
Chloroform	SV-15-A-9	5.5	J	IAQ-A5-9	0.36	J
Cis-1,2-Dichloroethene	SV-15-A-9	1800		IAQ-A5-9	0.24	U
Dichlorodifluoromethane	SV-15-A-9	6.1	U	IAQ-A5-9	2.5	
Ethylbenzene	SV-15-A-9	5.3	U	IAQ-A5-9	2.1	
Methyl Tert-Butyl Ether	SV-15-A-9	11	U	IAQ-A5-9	0.61	U
Methylene Chloride	SV-15-A-9	8.1	B	IAQ-A5-9	3.4	B
Naphthalene	SV-15-A-9	8.6	U	IAQ-A5-9	0.47	U
Tetrachloroethene	SV-15-A-9	4.9	U	IAQ-A5-9	0.31	J
Toluene	SV-15-A-9	14		IAQ-A5-9	130	
Total Xylenes	SV-15-A-9	14.6	U	IAQ-A5-9	7.5	
Trans-1,2-Dichloroethene	SV-15-A-9	99		IAQ-A5-9	0.2	U
Trichloroethene	SV-15-A-9	**1300**		IAQ-A5-9	0.19	U
Vinyl Chloride	SV-15-A-9	9.8		IAQ-A5-9	0.19	U
1,1,1-Trichloroethane	SV-18-A-9	280	J	IAQ-A6-9	0.22	B
1,1,2-Trichloroethane	SV-18-A-9	**240**	U	IAQ-A6-9	0.23	U
1,1-Dichloroethane	SV-18-A-9	660	J	IAQ-A6-9	0.15	J
1,1-Dichloroethene	SV-18-A-9	**32000**		IAQ-A6-9	1.5	
1,2,4-Trichlorobenzene	SV-18-A-9	**610**	U	IAQ-A6-9	0.58	U
1,2-Dichloroethane	SV-18-A-9	**750**		IAQ-A6-9	0.15	U

TABLE 3-4

CO-LOCATED SUB SLAB VAPOR AND IAQ AMPLING RESULTS, BUILDING A, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Analyte	Sub-Slab Vapor Sample ID	Result (ug/m^3)	Qualifier	Co-Located IAQ Sample ID	Result (ug/m^3)	Qualifier
Benzene	SV-18-A-9	150	U	IAQ-A6-9	1.2	
Carbon Tetrachloride	SV-18-A-9	**200**	U	IAQ-A6-9	0.57	J
Chlorodifluoromethane	SV-18-A-9	110	U	IAQ-A6-9	3	
Chloroform	SV-18-A-9	**150**	U	IAQ-A6-9	1.9	
Cis-1,2-Dichloroethene	SV-18-A-9	3200		IAQ-A6-9	0.55	J
Dichlorodifluoromethane	SV-18-A-9	280	U	IAQ-A6-9	2.8	
Ethylbenzene	SV-18-A-9	250	U	IAQ-A6-9	1.1	
Methyl Tert-Butyl Ether	SV-18-A-9	520	U	IAQ-A6-9	0.49	U
Methylene Chloride	SV-18-A-9	540	B	IAQ-A6-9	1.7	B
Naphthalene	SV-18-A-9	**400**	U	IAQ-A6-9	**3.7**	
Tetrachloroethene	SV-18-A-9	**230**	U	IAQ-A6-9	0.27	J
Toluene	SV-18-A-9	170	U	IAQ-A6-9	36	
Total Xylenes	SV-18-A-9	680	U	IAQ-A6-9	4.4	
Trans-1,2-Dichloroethene	SV-18-A-9	170	U	IAQ-A6-9	0.16	U
Trichloroethene	SV-18-A-9	**64000**		IAQ-A6-9	4.5	
Vinyl Chloride	SV-18-A-9	160	U	IAQ-A6-9	0.15	U
1,1,1-Trichloroethane	SV-A-7-9	20		IAQ-A8-9	0.16	U
1,1,2-Trichloroethane	SV-A-7-9	0.29	U	IAQ-A8-9	0.29	U
1,1-Dichloroethane	SV-A-7-9	0.71	J	IAQ-A8-9	0.1	U
1,1-Dichloroethene	SV-A-7-9	1.1		IAQ-A8-9	0.13	U
1,2,4-Trichlorobenzene	SV-A-7-9	0.72	U	IAQ-A8-9	0.72	U
1,2-Dichloroethane	SV-A-7-9	0.19	U	IAQ-A8-9	0.19	U
Benzene	SV-A-7-9	0.78		IAQ-A8-9	0.71	
Carbon Tetrachloride	SV-A-7-9	0.55	J	IAQ-A8-9	0.52	J
Chlorodifluoromethane	SV-A-7-9	3.4		IAQ-A8-9	3.8	
Chloroform	SV-A-7-9	1.9		IAQ-A8-9	0.28	J
Cis-1,2-Dichloroethene	SV-A-7-9	0.24	U	IAQ-A8-9	0.24	U
Dichlorodifluoromethane	SV-A-7-9	2.6		IAQ-A8-9	2.8	
Ethylbenzene	SV-A-7-9	1.9		IAQ-A8-9	2.8	
Methyl Tert-Butyl Ether	SV-A-7-9	0.61	U	IAQ-A8-9	0.61	U
Methylene Chloride	SV-A-7-9	6		IAQ-A8-9	1.2	B
Naphthalene	SV-A-7-9	0.47	U	IAQ-A8-9	0.47	U
Tetrachloroethene	SV-A-7-9	7.6		IAQ-A8-9	0.45	J
Toluene	SV-A-7-9	69		IAQ-A8-9	130	
Total Xylenes	SV-A-7-9	7.9		IAQ-A8-9	10.1	
Trans-1,2-Dichloroethene	SV-A-7-9	0.2	U	IAQ-A8-9	0.2	U
Trichloroethene	SV-A-7-9	11		IAQ-A8-9	0.49	J
Vinyl Chloride	SV-A-7-9	0.19	U	IAQ-A8-9	0.19	U
1,1,1-Trichloroethane	SV-A-8-9	1.3		IAQ-A9-9	0.52	B
1,1,2-Trichloroethane	SV-A-8-9	0.29	U	IAQ-A9-9	0.57	U
1,1-Dichloroethane	SV-A-8-9	0.1	U	IAQ-A9-9	0.2	U
1,1-Dichloroethene	SV-A-8-9	0.13	U	IAQ-A9-9	0.26	U
1,2,4-Trichlorobenzene	SV-A-8-9	0.72	U	IAQ-A9-9	1.4	U
1,2-Dichloroethane	SV-A-8-9	0.19	U	IAQ-A9-9	0.38	U
Benzene	SV-A-8-9	0.26	J	IAQ-A9-9	0.88	J
Carbon Tetrachloride	SV-A-8-9	0.93	J	IAQ-A9-9	0.53	J
Chlorodifluoromethane	SV-A-8-9	13		IAQ-A9-9	24	
Chloroform	SV-A-8-9	1.5		IAQ-A9-9	0.46	J
Cis-1,2-Dichloroethene	SV-A-8-9	0.24	U	IAQ-A9-9	0.48	U
Dichlorodifluoromethane	SV-A-8-9	2.8		IAQ-A9-9	4.4	
Ethylbenzene	SV-A-8-9	28		IAQ-A9-9	9.5	

TABLE 3-4

CO-LOCATED SUB SLAB VAPOR AND IAQ AMPLING RESULTS, BUILDING A, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Analyte	Sub-Slab Vapor Sample ID	Result (ug/m^3)	Qualifier	Co-Located IAQ Sample ID	Result (ug/m^3)	Qualifier
Methyl Tert-Butyl Ether	SV-A-8-9	0.61	U	IAQ-A9-9	1.2	U
Methylene Chloride	SV-A-8-9	1.2	B	IAQ-A9-9	2.5	B
Naphthalene	SV-A-8-9	0.49	J	IAQ-A9-9	0.94	U
Tetrachloroethene	SV-A-8-9	0.99	J	IAQ-A9-9	0.57	J
Toluene	SV-A-8-9	45		IAQ-A9-9	200	
Total Xylenes	SV-A-8-9	131		IAQ-A9-9	53	
Trans-1,2-Dichloroethene	SV-A-8-9	0.2	U	IAQ-A9-9	0.4	U
Trichloroethene	SV-A-8-9	0.19	U	IAQ-A9-9	0.38	U
Vinyl Chloride	SV-A-8-9	0.19	U	IAQ-A9-9	0.37	U
1,1,1-Trichloroethane	SV-A3-9	1.1		IAQ-A11-9	0.099	J
1,1,2-Trichloroethane	SV-A3-9	0.11	U	IAQ-A11-9	0.11	U
1,1-Dichloroethane	SV-A3-9	0.04	U	IAQ-A11-9	0.04	U
1,1-Dichloroethene	SV-A3-9	0.052	U	IAQ-A11-9	0.052	U
1,2,4-Trichlorobenzene	SV-A3-9	0.29	U	IAQ-A11-9	0.29	U
1,2-Dichloroethane	SV-A3-9	0.077	U	IAQ-A11-9	0.077	U
Benzene	SV-A3-9	0.57		IAQ-A11-9	0.55	
Carbon Tetrachloride	SV-A3-9	0.5	J	IAQ-A11-9	0.72	
Chlorodifluoromethane	SV-A3-9	6.2		IAQ-A11-9	3.6	
Chloroform	SV-A3-9	1.1		IAQ-A11-9	0.76	
Cis-1,2-Dichloroethene	SV-A3-9	0.095	U	IAQ-A11-9	0.095	U
Dichlorodifluoromethane	SV-A3-9	2.5		IAQ-A11-9	2.4	
Ethylbenzene	SV-A3-9	0.57		IAQ-A11-9	0.99	
Methyl Tert-Butyl Ether	SV-A3-9	0.25	U	IAQ-A11-9	0.25	U
Methylene Chloride	SV-A3-9	0.6	B	IAQ-A11-9	0.92	B
Naphthalene	SV-A3-9	0.27	J	IAQ-A11-9	1.9	J
Tetrachloroethene	SV-A3-9	0.48	J	IAQ-A11-9	0.38	J
Toluene	SV-A3-9	3.6		IAQ-A11-9	26	
Total Xylenes	SV-A3-9	1.17		IAQ-A11-9	3.85	
Trans-1,2-Dichloroethene	SV-A3-9	0.079	U	IAQ-A11-9	0.079	U
Trichloroethene	SV-A3-9	3.5		IAQ-A11-9	0.29	
Vinyl Chloride	SV-A3-9	0.074	U	IAQ-A11-9	0.074	U
1,1,1-Trichloroethane	SV-19-A-9	0.18	J	IAQ-A12-9	0.19	B
1,1,2-Trichloroethane	SV-19-A-9	0.24	U	IAQ-A12-9	0.29	U
1,1-Dichloroethane	SV-19-A-9	0.78		IAQ-A12-9	0.1	U
1,1-Dichloroethene	SV-19-A-9	2.1		IAQ-A12-9	0.96	
1,2,4-Trichlorobenzene	SV-19-A-9	0.61	U	IAQ-A12-9	0.72	U
1,2-Dichloroethane	SV-19-A-9	0.16	U	IAQ-A12-9	0.19	U
Benzene	SV-19-A-9	0.5	J	IAQ-A12-9	0.71	
Carbon Tetrachloride	SV-19-A-9	0.46	J	IAQ-A12-9	0.54	J
Chlorodifluoromethane	SV-19-A-9	2		IAQ-A12-9	3.7	
Chloroform	SV-19-A-9	0.66	J	IAQ-A12-9	1	
Cis-1,2-Dichloroethene	SV-19-A-9	0.37	J	IAQ-A12-9	0.3	J
Dichlorodifluoromethane	SV-19-A-9	2.4		IAQ-A12-9	2.7	
Ethylbenzene	SV-19-A-9	2.1		IAQ-A12-9	1.3	
Methyl Tert-Butyl Ether	SV-19-A-9	0.51	U	IAQ-A12-9	0.61	U
Methylene Chloride	SV-19-A-9	0.87	B	IAQ-A12-9	1.5	B
Naphthalene	SV-19-A-9	8	J	IAQ-A12-9	0.75	J
Tetrachloroethene	SV-19-A-9	0.53	J	IAQ-A12-9	0.36	J
Toluene	SV-19-A-9	55		IAQ-A12-9	56	
Total Xylenes	SV-19-A-9	9.1		IAQ-A12-9	4.8	
Trans-1,2-Dichloroethene	SV-19-A-9	0.17	U	IAQ-A12-9	0.2	U

TABLE 3-4

CO-LOCATED SUB SLAB VAPOR AND IAQ AMPLING RESULTS, BUILDING A, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Analyte	Sub-Slab Vapor Sample ID	Result (ug/m^3)	Qualifier	Co-Located IAQ Sample ID	Result (ug/m^3)	Qualifier
Trichloroethene	SV-19-A-9	8.5		IAQ-A12-9	5.4	
Vinyl Chloride	SV-19-A-9	0.16	U	IAQ-A12-9	0.19	U
1,1,1-Trichloroethane	SV-20-A-9	0.094	J	IAQ-A13-9	0.068	B
1,1,2-Trichloroethane	SV-20-A-9	0.11	U	IAQ-A13-9	0.46	
1,1-Dichloroethane	SV-20-A-9	0.04	U	IAQ-A13-9	0.04	U
1,1-Dichloroethene	SV-20-A-9	0.052	U	IAQ-A13-9	0.099	J
1,2,4-Trichlorobenzene	SV-20-A-9	0.29	U	IAQ-A13-9	0.29	U
1,2-Dichloroethane	SV-20-A-9	0.077	U	IAQ-A13-9	0.19	J
Benzene	SV-20-A-9	1.4		IAQ-A13-9	0.61	
Carbon Tetrachloride	SV-20-A-9	0.74		IAQ-A13-9	1.8	
Chlorodifluoromethane	SV-20-A-9	2.7		IAQ-A13-9	2.7	
Chloroform	SV-20-A-9	1.3		IAQ-A13-9	4.1	
Cis-1,2-Dichloroethene	SV-20-A-9	0.1	J	IAQ-A13-9	0.095	U
Dichlorodifluoromethane	SV-20-A-9	2.7		IAQ-A13-9	2.4	
Ethylbenzene	SV-20-A-9	2.9		IAQ-A13-9	0.61	
Methyl Tert-Butyl Ether	SV-20-A-9	0.25	U	IAQ-A13-9	0.25	U
Methylene Chloride	SV-20-A-9	1.1	B	IAQ-A13-9	2	B
Naphthalene	SV-20-A-9	9.9	J	IAQ-A13-9	**5**	
Tetrachloroethene	SV-20-A-9	0.45	J	IAQ-A13-9	**25**	
Toluene	SV-20-A-9	12		IAQ-A13-9	12	
Total Xylenes	SV-20-A-9	14.5		IAQ-A13-9	2.44	
Trans-1,2-Dichloroethene	SV-20-A-9	0.079	U	IAQ-A13-9	0.079	U
Trichloroethene	SV-20-A-9	3		IAQ-A13-9	1.2	
Vinyl Chloride	SV-20-A-9	0.074	U	IAQ-A13-9	0.074	U
1,1,1-Trichloroethane	SV-21-A-9	4.8		IAQ-A14-9	0.076	B
1,1,2-Trichloroethane	SV-21-A-9	1.1	U	IAQ-A14-9	0.11	U
1,1-Dichloroethane	SV-21-A-9	0.4	U	IAQ-A14-9	0.04	U
1,1-Dichloroethene	SV-21-A-9	0.52	U	IAQ-A14-9	0.052	U
1,2,4-Trichlorobenzene	SV-21-A-9	2.9	U	IAQ-A14-9	0.29	U
1,2-Dichloroethane	SV-21-A-9	0.77	U	IAQ-A14-9	0.077	U
Benzene	SV-21-A-9	3.1		IAQ-A14-9	0.54	
Carbon Tetrachloride	SV-21-A-9	0.94	U	IAQ-A14-9	0.51	
Chlorodifluoromethane	SV-21-A-9	3.9		IAQ-A14-9	5.4	
Chloroform	SV-21-A-9	2.9	J	IAQ-A14-9	0.22	J
Cis-1,2-Dichloroethene	SV-21-A-9	0.95	U	IAQ-A14-9	0.095	U
Dichlorodifluoromethane	SV-21-A-9	2.6	J	IAQ-A14-9	2.6	
Ethylbenzene	SV-21-A-9	23		IAQ-A14-9	0.93	
Methyl Tert-Butyl Ether	SV-21-A-9	2.5	U	IAQ-A14-9	0.25	U
Methylene Chloride	SV-21-A-9	2.7	B	IAQ-A14-9	0.86	B
Naphthalene	SV-21-A-9	**550**	J	IAQ-A14-9	0.73	J
Tetrachloroethene	SV-21-A-9	1.1	U	IAQ-A14-9	0.3	J
Toluene	SV-21-A-9	78		IAQ-A14-9	28	
Total Xylenes	SV-21-A-9	148		IAQ-A14-9	2.8	
Trans-1,2-Dichloroethene	SV-21-A-9	0.79	U	IAQ-A14-9	0.079	U
Trichloroethene	SV-21-A-9	7.9		IAQ-A14-9	0.075	U
Vinyl Chloride	SV-21-A-9	0.74	U	IAQ-A14-9	0.074	U
1,1,1-Trichloroethane	SV-22-A-9	1.4	J	IAQ-A15-9	0.065	U
1,1,2-Trichloroethane	SV-22-A-9	0.57	U	IAQ-A15-9	0.11	U
1,1-Dichloroethane	SV-22-A-9	0.2	U	IAQ-A15-9	0.04	U
1,1-Dichloroethene	SV-22-A-9	0.89	J	IAQ-A15-9	0.052	U

TABLE 3-4

CO-LOCATED SUB SLAB VAPOR AND IAQ AMPLING RESULTS, BUILDING A, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Analyte	Sub-Slab Vapor Sample ID	Result (ug/m^3)	Qualifier	Co-Located IAQ Sample ID	Result (ug/m^3)	Qualifier
1,2,4-Trichlorobenzene	SV-22-A-9	1.4	U	IAQ-A15-9	0.29	U
1,2-Dichloroethane	SV-22-A-9	0.38	U	IAQ-A15-9	0.077	U
Benzene	SV-22-A-9	5.2		IAQ-A15-9	0.6	
Carbon Tetrachloride	SV-22-A-9	1.5	J	IAQ-A15-9	0.5	J
Chlorodifluoromethane	SV-22-A-9	2.8		IAQ-A15-9	2.1	
Chloroform	SV-22-A-9	3.8		IAQ-A15-9	0.19	J
Cis-1,2-Dichloroethene	SV-22-A-9	0.48	U	IAQ-A15-9	0.095	U
Dichlorodifluoromethane	SV-22-A-9	2.6		IAQ-A15-9	2.4	
Ethylbenzene	SV-22-A-9	120		IAQ-A15-9	0.68	
Methyl Tert-Butyl Ether	SV-22-A-9	1.2	U	IAQ-A15-9	0.25	U
Methylene Chloride	SV-22-A-9	2.5	B	IAQ-A15-9	0.94	B
Naphthalene	SV-22-A-9	29	J	IAQ-A15-9	0.98	J
Tetrachloroethene	SV-22-A-9	3		IAQ-A15-9	0.34	J
Toluene	SV-22-A-9	74		IAQ-A15-9	6.8	
Total Xylenes	SV-22-A-9	600		IAQ-A15-9	2.67	
Trans-1,2-Dichloroethene	SV-22-A-9	0.4	U	IAQ-A15-9	0.079	U
Trichloroethene	SV-22-A-9	7.4		IAQ-A15-9	0.075	U
Vinyl Chloride	SV-22-A-9	0.37	U	IAQ-A15-9	0.074	U
1,1,1-Trichloroethane	SV-23-A-9	3	U	IAQ-A16-9	0.5	J
1,1,2-Trichloroethane	SV-23-A-9	5.2	U	IAQ-A16-9	0.29	U
1,1-Dichloroethane	SV-23-A-9	1.8	U	IAQ-A16-9	0.1	U
1,1-Dichloroethene	SV-23-A-9	2.3	U	IAQ-A16-9	0.13	U
1,2,4-Trichlorobenzene	SV-23-A-9	13	U	IAQ-A16-9	0.72	U
1,2-Dichloroethane	SV-23-A-9	3.5	U	IAQ-A16-9	0.19	U
Benzene	SV-23-A-9	3.3	U	IAQ-A16-9	0.54	J
Carbon Tetrachloride	SV-23-A-9	4.3	U	IAQ-A16-9	0.43	J
Chlorodifluoromethane	SV-23-A-9	13		IAQ-A16-9	8.2	
Chloroform	SV-23-A-9	5.6	J	IAQ-A16-9	0.4	J
Cis-1,2-Dichloroethene	SV-23-A-9	4.3	U	IAQ-A16-9	0.24	U
Dichlorodifluoromethane	SV-23-A-9	6.1	U	IAQ-A16-9	2.4	
Ethylbenzene	SV-23-A-9	**590**		IAQ-A16-9	1.5	
Methyl Tert-Butyl Ether	SV-23-A-9	11	U	IAQ-A16-9	0.61	U
Methylene Chloride	SV-23-A-9	13	B	IAQ-A16-9	1.3	B
Naphthalene	SV-23-A-9	**76**	J	IAQ-A16-9	0.47	U
Tetrachloroethene	SV-23-A-9	4.9	U	IAQ-A16-9	0.45	J
Toluene	SV-23-A-9	30		IAQ-A16-9	49	
Total Xylenes	SV-23-A-9	**5100**		IAQ-A16-9	6.2	
Trans-1,2-Dichloroethene	SV-23-A-9	3.6	U	IAQ-A16-9	0.2	U
Trichloroethene	SV-23-A-9	3.5	J	IAQ-A16-9	0.19	U
Vinyl Chloride	SV-23-A-9	3.4	U	IAQ-A16-9	0.19	U

Notes:

ug/m^3 = micrograms per cubic meter
B = present in laboratory blank
U = nondetect
J = estimated value

Grey-shaded cells indicate a concentration greater than risk-based screening level

TABLE 3-5

IAQ SAMPLE RESULTS, BUILDING B, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	OSHA PEL (ug/m^3)	Industrial Air Screening Level (ug/m^3)	Key
IAQ-B2-9	1,1,1-Trichloroethane	0.22	J	1.90E+06	22000	nc
IAQ-B2-9	1,1,2-Trichloroethane	0.29	U	4.50E+04	7.7	ca
IAQ-B2-9	1,1-Dichloroethane	0.1	U	4.00E+05	77	ca
IAQ-B2-9	1,1-Dichloroethene	0.13	U	----	880	nc
IAQ-B2-9	1,2,4-Trichlorobenzene	0.72	U	4.00E+04N	18.0	nc
IAQ-B2-9	1,2-Dichloroethane	0.19	U	4.00E+05	4.7	ca
IAQ-B2-9	Benzene	0.91		3.19E+02	16	ca
IAQ-B2-9	Carbon Tetrachloride	0.57	J	6.29E+04	20	ca
IAQ-B2-9	Chlorodifluoromethane	230		3590000	220000	nc
IAQ-B2-9	Chloroform	0.42	J	2.40E+05	5.3	ca
IAQ-B2-9	Cis-1,2-Dichloroethene	0.24	U	7.90E+05	----	----
IAQ-B2-9	Dichlorodifluoromethane	2.7		4.95E+06	880	nc
IAQ-B2-9	Ethylbenzene	1.6		4.35E+05	49	ca
IAQ-B2-9	Methyl Tert-Butyl Ether	0.61	U	1.80E+05A	470	ca
IAQ-B2-9	Methylene Chloride	94		8.70E+04	260	ca
IAQ-B2-9	Naphthalene	2.3	J	5.00E+01	3.6	ca
IAQ-B2-9	Tetrachloroethene	0.28	J	6.78E+05	21	ca
IAQ-B2-9	Toluene	13		7.54E+05	22000	nc
IAQ-B2-9	Total Xylenes	6.2		4.34E+05	440	nc
IAQ-B2-9	Trans-1,2-Dichloroethene	0.2	U	7.90E+05	260	nc
IAQ-B2-9	Trichloroethene	0.67		5.37E+05	25^M	ca
IAQ-B2-9	Vinyl Chloride	0.19	U	2.16E+04	28	ca
IAQ-B12-9	1,1,1-Trichloroethane	0.23	U	1.90E+06	22000	nc
IAQ-B12-9	1,1,2-Trichloroethane	0.41	U	4.50E+04	7.7	ca
IAQ-B12-9	1,1-Dichloroethane	0.14	U	4.00E+05	77	ca
IAQ-B12-9	1,1-Dichloroethene	0.18	U	----	880	nc
IAQ-B12-9	1,2,4-Trichlorobenzene	1	U	4.00E+04N	18.0	nc
IAQ-B12-9	1,2-Dichloroethane	0.27	U	4.00E+05	4.7	ca
IAQ-B12-9	Benzene	0.4	J	3.19E+02	16	ca
IAQ-B12-9	Carbon Tetrachloride	0.45	J	6.29E+04	20	ca
IAQ-B12-9	Chlorodifluoromethane	11		3590000	220000	nc
IAQ-B12-9	Chloroform	0.26	U	2.40E+05	5.3	ca
IAQ-B12-9	Cis-1,2-Dichloroethene	0.34	U	7.90E+05	----	----
IAQ-B12-9	Dichlorodifluoromethane	2.5		4.95E+06	880	nc
IAQ-B12-9	Ethylbenzene	1	J	4.35E+05	49	ca
IAQ-B12-9	Methyl Tert-Butyl Ether	0.87	U	1.80E+05A	470	ca
IAQ-B12-9	Methylene Chloride	1.2	B	8.70E+04	260	ca
IAQ-B12-9	Naphthalene	0.67	U	5.00E+01	3.6	ca
IAQ-B12-9	Tetrachloroethene	0.39	U	6.78E+05	21	ca
IAQ-B12-9	Toluene	47		7.54E+05	22000	nc
IAQ-B12-9	Total Xylenes	2.51	J	4.34E+05	440	nc
IAQ-B12-9	Trans-1,2-Dichloroethene	0.28	U	7.90E+05	260	nc
IAQ-B12-9	Trichloroethene	0.27	U	5.37E+05	25M	ca
IAQ-B12-9	Vinyl Chloride	0.26	U	2.16E+04	28	ca

TABLE 3-5

IAQ SAMPLE RESULTS, BUILDING B, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	OSHA PEL (ug/m^3)	Industrial Air Screening Level (ug/m^3)	Key
IAQ-B14-9	1,1,1-Trichloroethane	0.16	U	1.90E+06	22000	nc
IAQ-B14-9	1,1,2-Trichloroethane	0.29	U	4.50E+04	7.7	ca
IAQ-B14-9	1,1-Dichloroethane	0.1	U	4.00E+05	77	ca
IAQ-B14-9	1,1-Dichloroethene	0.13	U	----	880	nc
IAQ-B14-9	1,2,4-Trichlorobenzene	0.72	U	4.00E+04N	18.0	nc
IAQ-B14-9	1,2-Dichloroethane	0.19	U	4.00E+05	4.7	ca
IAQ-B14-9	Benzene	0.38	J	3.19E+02	16	ca
IAQ-B14-9	Carbon Tetrachloride	0.52	J	6.29E+04	20	ca
IAQ-B14-9	Chlorodifluoromethane	13		3590000	220000	nc
IAQ-B14-9	Chloroform	0.32	J	2.40E+05	5.3	ca
IAQ-B14-9	Cis-1,2-Dichloroethene	0.24	U	7.90E+05	----	----
IAQ-B14-9	Dichlorodifluoromethane	2.6		4.95E+06	880	nc
IAQ-B14-9	Ethylbenzene	1.6		4.35E+05	49	ca
IAQ-B14-9	Methyl Tert-Butyl Ether	0.61	U	1.80E+05A	470	ca
IAQ-B14-9	Methylene Chloride	1.1	B	8.70E+04	260	ca
IAQ-B14-9	Naphthalene	0.47	U	5.00E+01	3.6	ca
IAQ-B14-9	Tetrachloroethene	0.27	U	6.78E+05	21	ca
IAQ-B14-9	Toluene	46		7.54E+05	22000	nc
IAQ-B14-9	Total Xylenes	6.4		4.34E+05	440	nc
IAQ-B14-9	Trans-1,2-Dichloroethene	0.2	U	7.90E+05	260	nc
IAQ-B14-9	Trichloroethene	0.19	U	5.37E+05	25M	ca
IAQ-B14-9	Vinyl Chloride	0.19	U	2.16E+04	28	ca
IAQ-B15-9	1,1,1-Trichloroethane	0.12	J	1.90E+06	22000	nc
IAQ-B15-9	1,1,2-Trichloroethane	0.11	U	4.50E+04	7.7	ca
IAQ-B15-9	1,1-Dichloroethane	0.04	U	4.00E+05	77	ca
IAQ-B15-9	1,1-Dichloroethene	0.052	U	----	880	nc
IAQ-B15-9	1,2,4-Trichlorobenzene	0.29	U	4.00E+04N	18.0	nc
IAQ-B15-9	1,2-Dichloroethane	0.077	U	4.00E+05	4.7	ca
IAQ-B15-9	Benzene	0.73		3.19E+02	16	ca
IAQ-B15-9	Carbon Tetrachloride	0.78		6.29E+04	20	ca
IAQ-B15-9	Chlorodifluoromethane	12		3590000	220000	nc
IAQ-B15-9	Chloroform	0.68		2.40E+05	5.3	ca
IAQ-B15-9	Cis-1,2-Dichloroethene	0.88		7.90E+05	----	----
IAQ-B15-9	Dichlorodifluoromethane	2.5		4.95E+06	880	nc
IAQ-B15-9	Ethylbenzene	0.9		4.35E+05	49	ca
IAQ-B15-9	Methyl Tert-Butyl Ether	0.25	U	1.80E+05A	470	ca
IAQ-B15-9	Methylene Chloride	3		8.70E+04	260	ca
IAQ-B15-9	Naphthalene	0.47	J	5.00E+01	3.6	ca
IAQ-B15-9	Tetrachloroethene	5.3		6.78E+05	21	ca
IAQ-B15-9	Toluene	28		7.54E+05	22000	nc
IAQ-B15-9	Total Xylenes	3.7		4.34E+05	440	nc
IAQ-B15-9	Trans-1,2-Dichloroethene	0.12	J	7.90E+05	260	nc
IAQ-B15-9	Trichloroethene	2.1		5.37E+05	25M	ca
IAQ-B15-9	Vinyl Chloride	0.14	J	2.16E+04	28	ca

TABLE 3-5

IAQ SAMPLE RESULTS, BUILDING B, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	OSHA PEL (ug/m^3)	Industrial Air Screening Level (ug/m^3)	Key
IAQ-B16-9	1,1,1-Trichloroethane	0.095	J	1.90E+06	22000	nc
IAQ-B16-9	1,1,2-Trichloroethane	0.11	U	4.50E+04	7.7	ca
IAQ-B16-9	1,1-Dichloroethane	0.04	U	4.00E+05	77	ca
IAQ-B16-9	1,1-Dichloroethene	0.052	U	----	880	nc
IAQ-B16-9	1,2,4-Trichlorobenzene	0.29	U	4.00E+04N	18.0	nc
IAQ-B16-9	1,2-Dichloroethane	0.077	U	4.00E+05	4.7	ca
IAQ-B16-9	Benzene	0.41		3.19E+02	16	ca
IAQ-B16-9	Carbon Tetrachloride	0.49	J	6.29E+04	20	ca
IAQ-B16-9	Chlorodifluoromethane	9.2		3590000	220000	nc
IAQ-B16-9	Chloroform	0.32	J	2.40E+05	5.3	ca
IAQ-B16-9	Cis-1,2-Dichloroethene	0.095	U	7.90E+05	----	----
IAQ-B16-9	Dichlorodifluoromethane	2.6	J	4.95E+06	880	nc
IAQ-B16-9	Ethylbenzene	0.94		4.35E+05	49	ca
IAQ-B16-9	Methyl Tert-Butyl Ether	0.25	U	1.80E+05A	470	ca
IAQ-B16-9	Methylene Chloride	3		8.70E+04	260	ca
IAQ-B16-9	Naphthalene	0.95	J	5.00E+01	3.6	ca
IAQ-B16-9	Tetrachloroethene	0.12	J	6.78E+05	21	ca
IAQ-B16-9	Toluene	21		7.54E+05	22000	nc
IAQ-B16-9	Total Xylenes	3.99		4.34E+05	440	nc
IAQ-B16-9	Trans-1,2-Dichloroethene	0.079	U	7.90E+05	260	nc
IAQ-B16-9	Trichloroethene	0.081	J	5.37E+05	25M	ca
IAQ-B16-9	Vinyl Chloride	0.074	U	2.16E+04	28	ca
IAQ-B17-9	1,1,1-Trichloroethane	0.094	J	1.90E+06	22000	nc
IAQ-B17-9	1,1,2-Trichloroethane	0.11	U	4.50E+04	7.7	ca
IAQ-B17-9	1,1-Dichloroethane	0.04	U	4.00E+05	77	ca
IAQ-B17-9	1,1-Dichloroethene	0.052	U	----	880	nc
IAQ-B17-9	1,2,4-Trichlorobenzene	0.29	U	4.00E+04N	18.0	nc
IAQ-B17-9	1,2-Dichloroethane	0.077	U	4.00E+05	4.7	ca
IAQ-B17-9	Benzene	0.44		3.19E+02	16	ca
IAQ-B17-9	Carbon Tetrachloride	0.44	J	6.29E+04	20	ca
IAQ-B17-9	Chlorodifluoromethane	9.9		3590000	220000	nc
IAQ-B17-9	Chloroform	0.47		2.40E+05	5.3	ca
IAQ-B17-9	Cis-1,2-Dichloroethene	0.095	U	7.90E+05	----	----
IAQ-B17-9	Dichlorodifluoromethane	2.9	J	4.95E+06	880	nc
IAQ-B17-9	Ethylbenzene	0.45		4.35E+05	49	ca
IAQ-B17-9	Methyl Tert-Butyl Ether	0.25	U	1.80E+05A	470	ca
IAQ-B17-9	Methylene Chloride	1	B	8.70E+04	260	ca
IAQ-B17-9	Naphthalene	0.7	J	5.00E+01	3.6	ca
IAQ-B17-9	Tetrachloroethene	0.13	J	6.78E+05	21	ca
IAQ-B17-9	Toluene	13		7.54E+05	22000	nc
IAQ-B17-9	Total Xylenes	1.62		4.34E+05	440	nc
IAQ-B17-9	Trans-1,2-Dichloroethene	0.079	U	7.90E+05	260	nc
IAQ-B17-9	Trichloroethene	0.19	J	5.37E+05	25M	ca
IAQ-B17-9	Vinyl Chloride	0.074	U	2.16E+04	28	ca

TABLE 3-5

IAQ SAMPLE RESULTS, BUILDING B, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	OSHA PEL (ug/m^3)	Industrial Air Screening Level (ug/m^3)	Key
IAQ-FC-30-9	1,1,1-Trichloroethane	0.94	U	1.90E+06	22000	nc
IAQ-FC-30-9	1,1,2-Trichloroethane	1.6	U	4.50E+04	7.7	ca
IAQ-FC-30-9	1,1-Dichloroethane	0.58	U	4.00E+05	77	ca
IAQ-FC-30-9	1,1-Dichloroethene	0.74	U	----	880	nc
IAQ-FC-30-9	1,2,4-Trichlorobenzene	4.1	U	4.00E+04N	18.0	nc
IAQ-FC-30-9	1,2-Dichloroethane	1.1	U	4.00E+05	4.7	ca
IAQ-FC-30-9	Benzene	1.1	U	3.19E+02	16	ca
IAQ-FC-30-9	Carbon Tetrachloride	1.3	U	6.29E+04	20	ca
IAQ-FC-30-9	Chlorodifluoromethane	5.9		3590000	220000	nc
IAQ-FC-30-9	Chloroform	1	U	2.40E+05	5.3	ca
IAQ-FC-30-9	Cis-1,2-Dichloroethene	1.4	U	7.90E+05	----	----
IAQ-FC-30-9	Dichlorodifluoromethane	2.9	J	4.95E+06	880	nc
IAQ-FC-30-9	Ethylbenzene	5		4.35E+05	49	ca
IAQ-FC-30-9	Methyl Tert-Butyl Ether	3.5	U	1.80E+05A	470	ca
IAQ-FC-30-9	Methylene Chloride	4.9	B	8.70E+04	260	ca
IAQ-FC-30-9	Naphthalene	2.7	U	5.00E+01	3.6	ca
IAQ-FC-30-9	Tetrachloroethene	1.6	U	6.78E+05	21	ca
IAQ-FC-30-9	Toluene	630		7.54E+05	22000	nc
IAQ-FC-30-9	Total Xylenes	12.2	J	4.34E+05	440	nc
IAQ-FC-30-9	Trans-1,2-Dichloroethene	1.1	U	7.90E+05	260	nc
IAQ-FC-30-9	Trichloroethene	1.1	U	5.37E+05	25M	ca
IAQ-FC-30-9	Vinyl Chloride	1.1	U	2.16E+04	28	ca

Notes: Shaded cells indicate concentrations greater than risk-based screening level

ug/m3 = micrograms per cubic meter

nc = screening value based on noncarcinogenic hazard index = 1 U = nondetect J = estimated value

ca = screening value based on 1x 10^{-5} carcinogenic risk -- = not available B = present in laboratory blank

OSHA PEL = Occupational Safety and Health Administration Pemissible Exposure Limit

N = National Institute for Occupational Safety and Health Recommended Exposure Limit

A = American Council of Governmental Industrial Hygienists Theshold Limit Value

M = Maryland Department of the Environment's screening level for trichloroethene

Industrial Air Screening Levels from USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites Apr-09

TABLE 3-6

SUB-SLAB VAPOR SAMPLE RESULTS, BUILDING B, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND
PAGE 1 OF 5

Sample ID	Analyte	Result (ug/m^3)	Qualifier	Target Shallow Gas Concentration[(1)] (ug/m^3)
ISG-10-B-9	1,1,1-Trichloroethane	1.6	J	220000
ISG-10-B-9	1,1,2-Trichloroethane	0.57	U	77
ISG-10-B-9	1,1-Dichloroethane	0.2	U	770
ISG-10-B-9	1,1-Dichloroethene	0.26	U	8800
ISG-10-B-9	1,2,4-Trichlorobenzene	1.4	U	180
ISG-10-B-9	1,2-Dichloroethane	0.38	U	47
ISG-10-B-9	Benzene	0.37	U	160
ISG-10-B-9	Carbon Tetrachloride	0.47	U	200
ISG-10-B-9	Chlorodifluoromethane	150		8800
ISG-10-B-9	Chloroform	0.61	J	53
ISG-10-B-9	Cis-1,2-Dichloroethene	0.93	J	----
ISG-10-B-9	Dichlorodifluoromethane	2.5		8800
ISG-10-B-9	Ethylbenzene	1	J	490
ISG-10-B-9	Methyl Tert-Butyl Ether	1.2	U	4700
ISG-10-B-9	Methylene Chloride	5.9	B	2600
ISG-10-B-9	Naphthalene	6.9		36
ISG-10-B-9	Tetrachloroethene	3		210
ISG-10-B-9	Toluene	7.6		220000
ISG-10-B-9	Total Xylenes	6.7		4400
ISG-10-B-9	Trans-1,2-Dichloroethene	0.4	U	2600
ISG-10-B-9	Trichloroethene	72		250^M
ISG-10-B-9	Vinyl Chloride	0.37	U	280
SV-B-4-9	1,1,1-Trichloroethane	1.4	J	220000
SV-B-4-9	1,1,2-Trichloroethane	1.1	U	77
SV-B-4-9	1,1-Dichloroethane	0.4	U	770
SV-B-4-9	1,1-Dichloroethene	0.52	U	8800
SV-B-4-9	1,2,4-Trichlorobenzene	2.9	U	180
SV-B-4-9	1,2-Dichloroethane	0.77	U	47
SV-B-4-9	Benzene	0.73	U	160
SV-B-4-9	Carbon Tetrachloride	1.4	J	200
SV-B-4-9	Chlorodifluoromethane	8.7		8800
SV-B-4-9	Chloroform	0.73	U	53
SV-B-4-9	Cis-1,2-Dichloroethene	0.95	U	----
SV-B-4-9	Dichlorodifluoromethane	2.7	J	8800
SV-B-4-9	Ethylbenzene	90		490
SV-B-4-9	Methyl Tert-Butyl Ether	2.5	U	4700
SV-B-4-9	Methylene Chloride	3.2	B	2600
SV-B-4-9	Naphthalene	4.9	J	36
SV-B-4-9	Tetrachloroethene	1.7	**J**	210
SV-B-4-9	Toluene	56		220000
SV-B-4-9	Total Xylenes	600		4400
SV-B-4-9	Trans-1,2-Dichloroethene	0.79	U	2600

TABLE 3-6

SUB-SLAB VAPOR SAMPLE RESULTS, BUILDING B, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND
PAGE 2 OF 5

Sample ID	Analyte	Result (ug/m^3)	Qualifier	Target Shallow Gas Concentration[(1)] (ug/m^3)
SV-B-4-9	Trichloroethene	2.2		250[M]
SV-B-4-9	Vinyl Chloride	0.74	U	280
SV-24-B-9	1,1,1-Trichloroethane	1.2	U	220000
SV-24-B-9	1,1,2-Trichloroethane	2.1	U	77
SV-24-B-9	1,1-Dichloroethane	0.74	U	770
SV-24-B-9	1,1-Dichloroethene	0.94	U	8800
SV-24-B-9	1,2,4-Trichlorobenzene	5.3	U	180
SV-24-B-9	1,2-Dichloroethane	1.4	U	47
SV-24-B-9	Benzene	1.5	J	160
SV-24-B-9	Carbon Tetrachloride	1.7	U	200
SV-24-B-9	Chlorodifluoromethane	15		8800
SV-24-B-9	Chloroform	1.3	U	53
SV-24-B-9	Cis-1,2-Dichloroethene	1.7	U	----
SV-24-B-9	Dichlorodifluoromethane	3.4	J	8800
SV-24-B-9	Ethylbenzene	290		490
SV-24-B-9	Methyl Tert-Butyl Ether	4.5	U	4700
SV-24-B-9	Methylene Chloride	19	B	2600
SV-24-B-9	Naphthalene	**74**		36
SV-24-B-9	Tetrachloroethene	2	U	210
SV-24-B-9	Toluene	62		220000
SV-24-B-9	Total Xylenes	1800		4400
SV-24-B-9	Trans-1,2-Dichloroethene	1.4	U	2600
SV-24-B-9	Trichloroethene	1.4	U	250[M]
SV-24-B-9	Vinyl Chloride	1.3	U	280
SV-25-B-9	1,1,1-Trichloroethane	18		220000
SV-25-B-9	1,1,2-Trichloroethane	4.4	U	77
SV-25-B-9	1,1-Dichloroethane	1.6	U	770
SV-25-B-9	1,1-Dichloroethene	2	U	8800
SV-25-B-9	1,2,4-Trichlorobenzene	11	U	180
SV-25-B-9	1,2-Dichloroethane	3	U	47
SV-25-B-9	Benzene	2.8	U	160
SV-25-B-9	Carbon Tetrachloride	3.6	U	200
SV-25-B-9	Chlorodifluoromethane	8.6	J	8800
SV-25-B-9	Chloroform	2.8	U	53
SV-25-B-9	Cis-1,2-Dichloroethene	3.7	U	----
SV-25-B-9	Dichlorodifluoromethane	5.1	U	8800
SV-25-B-9	Ethylbenzene	220		490
SV-25-B-9	Methyl Tert-Butyl Ether	9.4	U	4700
SV-25-B-9	Methylene Chloride	7.4	B	2600
SV-25-B-9	Naphthalene	13	J	36
SV-25-B-9	Tetrachloroethene	4.2	U	210
SV-25-B-9	Toluene	22		220000

TABLE 3-6

SUB-SLAB VAPOR SAMPLE RESULTS, BUILDING B, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	Target Shallow Gas Concentration[(1)] (ug/m^3)
SV-25-B-9	Total Xylenes	1790		4400
SV-25-B-9	Trans-1,2-Dichloroethene	3.1	U	2600
SV-25-B-9	Trichloroethene	4.6	J	250[M]
SV-25-B-9	Vinyl Chloride	2.9	U	280
SV-26-B-9	1,1,1-Trichloroethane	6.6		220000
SV-26-B-9	1,1,2-Trichloroethane	0.11	U	77
SV-26-B-9	1,1-Dichloroethane	0.04	U	770
SV-26-B-9	1,1-Dichloroethene	0.052	U	8800
SV-26-B-9	1,2,4-Trichlorobenzene	0.29	U	180
SV-26-B-9	1,2-Dichloroethane	0.077	U	47
SV-26-B-9	Benzene	1.8		160
SV-26-B-9	Carbon Tetrachloride	61		200
SV-26-B-9	Chlorodifluoromethane	3.5		8800
SV-26-B-9	Chloroform	27		53
SV-26-B-9	Cis-1,2-Dichloroethene	0.095	U	----
SV-26-B-9	Dichlorodifluoromethane	7.3		8800
SV-26-B-9	Ethylbenzene	5.9		490
SV-26-B-9	Methyl Tert-Butyl Ether	0.25	U	4700
SV-26-B-9	Methylene Chloride	0.85	B	2600
SV-26-B-9	Naphthalene	**49**		36
SV-26-B-9	Tetrachloroethene	13		210
SV-26-B-9	Toluene	3.3		220000
SV-26-B-9	Total Xylenes	39		4400
SV-26-B-9	Trans-1,2-Dichloroethene	0.079	U	2600
SV-26-B-9	Trichloroethene	80		250[M]
SV-26-B-9	Vinyl Chloride	0.074	U	280
SV-27-B-9	1,1,1-Trichloroethane	390		220000
SV-27-B-9	1,1,2-Trichloroethane	0.57	U	77
SV-27-B-9	1,1-Dichloroethane	1.6		770
SV-27-B-9	1,1-Dichloroethene	1.1	J	8800
SV-27-B-9	1,2,4-Trichlorobenzene	1.4	U	180
SV-27-B-9	1,2-Dichloroethane	0.84	J	47
SV-27-B-9	Benzene	3.1	J	160
SV-27-B-9	Carbon Tetrachloride	5.3		200
SV-27-B-9	Chlorodifluoromethane	7.8		8800
SV-27-B-9	Chloroform	1.4	J	53
SV-27-B-9	Cis-1,2-Dichloroethene	0.48	U	----
SV-27-B-9	Dichlorodifluoromethane	12	J	8800
SV-27-B-9	Ethylbenzene	1.5	J	490
SV-27-B-9	Methyl Tert-Butyl Ether	1.2	U	4700
SV-27-B-9	Methylene Chloride	5.9	B	2600
SV-27-B-9	Naphthalene	0.94	UJ	36

TABLE 3-6

SUB-SLAB VAPOR SAMPLE RESULTS, BUILDING B, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	Target Shallow Gas Concentration[(1)] (ug/m^3)
SV-27-B-9	Tetrachloroethene	90		210
SV-27-B-9	Toluene	1.9		220000
SV-27-B-9	Total Xylenes	3.8	J	4400
SV-27-B-9	Trans-1,2-Dichloroethene	0.4	U	2600
SV-27-B-9	Trichloroethene	220		250[M]
SV-27-B-9	Vinyl Chloride	0.37	U	280
SV-27-B-9-D	1,1,1-Trichloroethane	380		220000
SV-27-B-9-D	1,1,2-Trichloroethane	0.29	U	77
SV-27-B-9-D	1,1-Dichloroethane	1.4		770
SV-27-B-9-D	1,1-Dichloroethene	0.99		8800
SV-27-B-9-D	1,2,4-Trichlorobenzene	0.72	U	180
SV-27-B-9-D	1,2-Dichloroethane	0.19	U	47
SV-27-B-9-D	Benzene	0.27	J	160
SV-27-B-9-D	Carbon Tetrachloride	5.9		200
SV-27-B-9-D	Chlorodifluoromethane	6.9		8800
SV-27-B-9-D	Chloroform	1.3		53
SV-27-B-9-D	Cis-1,2-Dichloroethene	0.24	U	----
SV-27-B-9-D	Dichlorodifluoromethane	1.7	J	8800
SV-27-B-9-D	Ethylbenzene	8		490
SV-27-B-9-D	Methyl Tert-Butyl Ether	0.61	U	4700
SV-27-B-9-D	Methylene Chloride	1.3	B	2600
SV-27-B-9-D	Naphthalene	**260**	J	36
SV-27-B-9-D	Tetrachloroethene	140		210
SV-27-B-9-D	Toluene	4.5		220000
SV-27-B-9-D	Total Xylenes	68	J	4400
SV-27-B-9-D	Trans-1,2-Dichloroethene	0.2	U	2600
SV-27-B-9-D	Trichloroethene	140		250[M]
SV-27-B-9-D	Vinyl Chloride	0.19	U	280
SV-30-FC-9	1,1,1-Trichloroethane	1.6	U	220000
SV-30-FC-9	1,1,2-Trichloroethane	2.9	U	77
SV-30-FC-9	1,1-Dichloroethane	1	U	770
SV-30-FC-9	1,1-Dichloroethene	1.3	U	8800
SV-30-FC-9	1,2,4-Trichlorobenzene	7.2	U	180
SV-30-FC-9	1,2-Dichloroethane	1.9	U	47
SV-30-FC-9	Benzene	1.8	U	160
SV-30-FC-9	Carbon Tetrachloride	2.4	U	200
SV-30-FC-9	Chlorodifluoromethane	1.3	U	8800
SV-30-FC-9	Chloroform	1.8	U	53
SV-30-FC-9	Cis-1,2-Dichloroethene	11		----
SV-30-FC-9	Dichlorodifluoromethane	3.3	U	8800
SV-30-FC-9	Ethylbenzene	10		490
SV-30-FC-9	Methyl Tert-Butyl Ether	6.1	U	4700

TABLE 3-6

SUB-SLAB VAPOR SAMPLE RESULTS, BUILDING B, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND
PAGE 5 OF 5

Sample ID	Analyte	Result (ug/m^3)	Qualifier	Target Shallow Gas Concentration[(1)] (ug/m^3)
SV-30-FC-9	Methylene Chloride	5	B	2600
SV-30-FC-9	Naphthalene	**70**		36
SV-30-FC-9	Tetrachloroethene	2.7	U	210
SV-30-FC-9	Toluene	690		220000
SV-30-FC-9	Total Xylenes	49		4400
SV-30-FC-9	Trans-1,2-Dichloroethene	2	U	2600
SV-30-FC-9	Trichloroethene	21		250^M
SV-30-FC-9	Vinyl Chloride	1.9	U	280

Notes: Shaded cells indicate concentrations greater than risk-based screening levels

U = nondetect J = estimated ---- = not available ug/m^3 - micrograms per cubic meter

SV - Sub-slab vapor B = blank contaminated E = estimated; concentration exceeds calibration range

(1) Screening values derived in accordance with Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils November 2002. Sceening values = EPA Industrial Air Screening Values ÷ 0.1 attenuation factor and correspond to a target cancer risk level of 1.0E-05.

M = screening value based on MDE IAQ target concentration of 25 ug/m3 divided by attenuation factor of 0.1

TABLE 3-7

CO-LOCATED
SUB-SLAB VAPOR AND IAQ SAMPLE RESULTS, BUILDING B, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Analyte	Sub-Slab Vapor Sample ID	Result (ug/m^3)	Qualifier	Co-Located IAQ Sample ID	Result (ug/m^3)	Qualifier
1,1,1-Trichloroethane	SV-B-4-9	1.4	J	IAQ-B12-9	0.23	U
1,1,2-Trichloroethane	SV-B-4-9	1.1	U	IAQ-B12-9	0.41	U
1,1-Dichloroethane	SV-B-4-9	0.4	U	IAQ-B12-9	0.14	U
1,1-Dichloroethene	SV-B-4-9	0.52	U	IAQ-B12-9	0.18	U
1,2,4-Trichlorobenzene	SV-B-4-9	2.9	U	IAQ-B12-9	1	U
1,2-Dichloroethane	SV-B-4-9	0.77	U	IAQ-B12-9	0.27	U
Benzene	SV-B-4-9	0.73	U	IAQ-B12-9	0.4	J
Carbon Tetrachloride	SV-B-4-9	1.4	J	IAQ-B12-9	0.45	J
Chlorodifluoromethane	SV-B-4-9	8.7		IAQ-B12-9	11	
Chloroform	SV-B-4-9	0.73	U	IAQ-B12-9	0.26	U
Cis-1,2-Dichloroethene	SV-B-4-9	0.95	U	IAQ-B12-9	0.34	U
Dichlorodifluoromethane	SV-B-4-9	2.7	J	IAQ-B12-9	2.5	
Ethylbenzene	SV-B-4-9	90		IAQ-B12-9	1	J
Methyl Tert-Butyl Ether	SV-B-4-9	2.5	U	IAQ-B12-9	0.87	U
Methylene Chloride	SV-B-4-9	3.2	B	IAQ-B12-9	1.2	B
Naphthalene	SV-B-4-9	4.9	J	IAQ-B12-9	0.67	U
Tetrachloroethene	SV-B-4-9	**1.7**	J	IAQ-B12-9	0.39	U
Toluene	SV-B-4-9	56		IAQ-B12-9	47	
Total Xylenes	SV-B-4-9	600		IAQ-B12-9	2.51	J
Trans-1,2-Dichloroethene	SV-B-4-9	0.79	U	IAQ-B12-9	0.28	U
Trichloroethene	SV-B-4-9	2.2		IAQ-B12-9	0.27	U
Vinyl Chloride	SV-B-4-9	0.74	U	IAQ-B12-9	0.26	U

TABLE 3-7

CO-LOCATED
SUB-SLAB VAPOR AND IAQ SAMPLE RESULTS, BUILDING B, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Analyte	Sub-Slab Vapor Sample ID	Result (ug/m^3)	Qualifier	Co-Located IAQ Sample ID	Result (ug/m^3)	Qualifier
1,1,1-Trichloroethane	ISG-10-B-9	1.6	J	IAQ-B2-9	0.22	J
1,1,2-Trichloroethane	ISG-10-B-9	0.57	U	IAQ-B2-9	0.29	U
1,1-Dichloroethane	ISG-10-B-9	0.2	U	IAQ-B2-9	0.1	U
1,1-Dichloroethene	ISG-10-B-9	0.26	U	IAQ-B2-9	0.13	U
1,2,4-Trichlorobenzene	ISG-10-B-9	1.4	U	IAQ-B2-9	0.72	U
1,2-Dichloroethane	ISG-10-B-9	0.38	U	IAQ-B2-9	0.19	U
Benzene	ISG-10-B-9	0.37	U	IAQ-B2-9	0.91	
Carbon Tetrachloride	ISG-10-B-9	0.47	U	IAQ-B2-9	0.57	J
Chlorodifluoromethane	ISG-10-B-9	150		IAQ-B2-9	230	
Chloroform	ISG-10-B-9	0.61	J	IAQ-B2-9	0.42	J
Cis-1,2-Dichloroethene	ISG-10-B-9	0.93	J	IAQ-B2-9	0.24	U
Dichlorodifluoromethane	ISG-10-B-9	2.5		IAQ-B2-9	2.7	
Ethylbenzene	ISG-10-B-9	1	J	IAQ-B2-9	1.6	
Methyl Tert-Butyl Ether	ISG-10-B-9	1.2	U	IAQ-B2-9	0.61	U
Methylene Chloride	ISG-10-B-9	5.9	B	IAQ-B2-9	94	
Naphthalene	ISG-10-B-9	6.9		IAQ-B2-9	2.3	J
Tetrachloroethene	ISG-10-B-9	3		IAQ-B2-9	0.28	J
Toluene	ISG-10-B-9	7.6		IAQ-B2-9	13	
Total Xylenes	ISG-10-B-9	6.7		IAQ-B2-9	6.2	
Trans-1,2-Dichloroethene	ISG-10-B-9	0.4	U	IAQ-B2-9	0.2	U
Trichloroethene	ISG-10-B-9	72		IAQ-B2-9	0.67	
Vinyl Chloride	ISG-10-B-9	0.37	U	IAQ-B2-9	0.19	U

TABLE 3-7

CO-LOCATED
SUB-SLAB VAPOR AND IAQ SAMPLE RESULTS, BUILDING B, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Analyte	Sub-Slab Vapor Sample ID	Result (ug/m^3)	Qualifier	Co-Located IAQ Sample ID	Result (ug/m^3)	Qualifier
1,1,1-Trichloroethane	SV-24-B-9	1.2	U	IAQ-B14-9	0.16	U
1,1,2-Trichloroethane	SV-24-B-9	2.1	U	IAQ-B14-9	0.29	U
1,1-Dichloroethane	SV-24-B-9	0.74	U	IAQ-B14-9	0.1	U
1,1-Dichloroethene	SV-24-B-9	0.94	U	IAQ-B14-9	0.13	U
1,2,4-Trichlorobenzene	SV-24-B-9	5.3	U	IAQ-B14-9	0.72	U
1,2-Dichloroethane	SV-24-B-9	1.4	U	IAQ-B14-9	0.19	U
Benzene	SV-24-B-9	1.5	J	IAQ-B14-9	0.38	J
Carbon Tetrachloride	SV-24-B-9	1.7	U	IAQ-B14-9	0.52	J
Chlorodifluoromethane	SV-24-B-9	15		IAQ-B14-9	13	
Chloroform	SV-24-B-9	1.3	U	IAQ-B14-9	0.32	J
Cis-1,2-Dichloroethene	SV-24-B-9	1.7	U	IAQ-B14-9	0.24	U
Dichlorodifluoromethane	SV-24-B-9	3.4	J	IAQ-B14-9	2.6	
Ethylbenzene	SV-24-B-9	290		IAQ-B14-9	1.6	
Methyl Tert-Butyl Ether	SV-24-B-9	4.5	U	IAQ-B14-9	0.61	U
Methylene Chloride	SV-24-B-9	19	B	IAQ-B14-9	1.1	B
Naphthalene	SV-24-B-9	**74**		IAQ-B14-9	0.47	U
Tetrachloroethene	SV-24-B-9	**2**	U	IAQ-B14-9	0.27	U
Toluene	SV-24-B-9	62		IAQ-B14-9	46	
Total Xylenes	SV-24-B-9	1800		IAQ-B14-9	6.4	
Trans-1,2-Dichloroethene	SV-24-B-9	1.4	U	IAQ-B14-9	0.2	U
Trichloroethene	SV-24-B-9	1.4	U	IAQ-B14-9	0.19	U
Vinyl Chloride	SV-24-B-9	1.3	U	IAQ-B14-9	0.19	U

TABLE 3-7

CO-LOCATED
SUB-SLAB VAPOR AND IAQ SAMPLE RESULTS, BUILDING B, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Analyte	Sub-Slab Vapor Sample ID	Result (ug/m^3)	Qualifier	Co-Located IAQ Sample ID	Result (ug/m^3)	Qualifier
1,1,1-Trichloroethane	SV-25-B-9	18		IAQ-B15-9	0.12	J
1,1,2-Trichloroethane	SV-25-B-9	4.4	U	IAQ-B15-9	0.11	U
1,1-Dichloroethane	SV-25-B-9	1.6	U	IAQ-B15-9	0.04	U
1,1-Dichloroethene	SV-25-B-9	2	U	IAQ-B15-9	0.052	U
1,2,4-Trichlorobenzene	SV-25-B-9	11	U	IAQ-B15-9	0.29	U
1,2-Dichloroethane	SV-25-B-9	3	U	IAQ-B15-9	0.077	U
Benzene	SV-25-B-9	2.8	U	IAQ-B15-9	0.73	
Carbon Tetrachloride	SV-25-B-9	3.6	U	IAQ-B15-9	0.78	
Chlorodifluoromethane	SV-25-B-9	8.6	J	IAQ-B15-9	12	
Chloroform	SV-25-B-9	2.8	U	IAQ-B15-9	0.68	
Cis-1,2-Dichloroethene	SV-25-B-9	3.7	U	IAQ-B15-9	0.88	
Dichlorodifluoromethane	SV-25-B-9	5.1	U	IAQ-B15-9	2.5	
Ethylbenzene	SV-25-B-9	220		IAQ-B15-9	0.9	
Methyl Tert-Butyl Ether	SV-25-B-9	9.4	U	IAQ-B15-9	0.25	U
Methylene Chloride	SV-25-B-9	7.4	B	IAQ-B15-9	3	
Naphthalene	SV-25-B-9	13	J	IAQ-B15-9	0.47	J
Tetrachloroethene	SV-25-B-9	**4.2**	U	IAQ-B15-9	5.3	
Toluene	SV-25-B-9	22		IAQ-B15-9	28	
Total Xylenes	SV-25-B-9	1790		IAQ-B15-9	3.7	
Trans-1,2-Dichloroethene	SV-25-B-9	3.1	U	IAQ-B15-9	0.12	J
Trichloroethene	SV-25-B-9	4.6	J	IAQ-B15-9	2.1	
Vinyl Chloride	SV-25-B-9	2.9	U	IAQ-B15-9	0.14	J

TABLE 3-7

CO-LOCATED
SUB-SLAB VAPOR AND IAQ SAMPLE RESULTS, BUILDING B, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Analyte	Sub-Slab Vapor Sample ID	Result (ug/m^3)	Qualifier	Co-Located IAQ Sample ID	Result (ug/m^3)	Qualifier
1,1,1-Trichloroethane	SV-26-B-9	6.6		IAQ-B16-9	0.095	J
1,1,2-Trichloroethane	SV-26-B-9	0.11	U	IAQ-B16-9	0.11	U
1,1-Dichloroethane	SV-26-B-9	0.04	U	IAQ-B16-9	0.04	U
1,1-Dichloroethene	SV-26-B-9	0.052	U	IAQ-B16-9	0.052	U
1,2,4-Trichlorobenzene	SV-26-B-9	0.29	U	IAQ-B16-9	0.29	U
1,2-Dichloroethane	SV-26-B-9	0.077	U	IAQ-B16-9	0.077	U
Benzene	SV-26-B-9	1.8		IAQ-B16-9	0.41	
Carbon Tetrachloride	SV-26-B-9	61		IAQ-B16-9	0.49	J
Chlorodifluoromethane	SV-26-B-9	3.5		IAQ-B16-9	9.2	
Chloroform	SV-26-B-9	27		IAQ-B16-9	0.32	J
Cis-1,2-Dichloroethene	SV-26-B-9	0.095	U	IAQ-B16-9	0.095	U
Dichlorodifluoromethane	SV-26-B-9	7.3		IAQ-B16-9	2.6	J
Ethylbenzene	SV-26-B-9	5.9		IAQ-B16-9	0.94	
Methyl Tert-Butyl Ether	SV-26-B-9	0.25	U	IAQ-B16-9	0.25	U
Methylene Chloride	SV-26-B-9	0.85	B	IAQ-B16-9	3	
Naphthalene	SV-26-B-9	**49**		IAQ-B16-9	0.95	J
Tetrachloroethene	SV-26-B-9	13		IAQ-B16-9	0.12	J
Toluene	SV-26-B-9	3.3		IAQ-B16-9	21	
Total Xylenes	SV-26-B-9	39		IAQ-B16-9	3.99	
Trans-1,2-Dichloroethene	SV-26-B-9	0.079	U	IAQ-B16-9	0.079	U
Trichloroethene	SV-26-B-9	80		IAQ-B16-9	0.081	J
Vinyl Chloride	SV-26-B-9	0.074	U	IAQ-B16-9	0.074	U

TABLE 3-7

CO-LOCATED
SUB-SLAB VAPOR AND IAQ SAMPLE RESULTS, BUILDING B, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Analyte	Sub-Slab Vapor Sample ID	Result (ug/m^3)	Qualifier	Co-Located IAQ Sample ID	Result (ug/m^3)	Qualifier			
1,1,1-Trichloroethane	SV-27-B-9	390		IAQ-B17-9	0.094	J	SV-27-B-9-D	380	
1,1,2-Trichloroethane	SV-27-B-9	0.57	U	IAQ-B17-9	0.11	U	SV-27-B-9-D	0.29	U
1,1-Dichloroethane	SV-27-B-9	1.6		IAQ-B17-9	0.04	U	SV-27-B-9-D	1.4	
1,1-Dichloroethene	SV-27-B-9	1.1	J	IAQ-B17-9	0.052	U	SV-27-B-9-D	0.99	
1,2,4-Trichlorobenzene	SV-27-B-9	1.4	U	IAQ-B17-9	0.29	U	SV-27-B-9-D	0.72	U
1,2-Dichloroethane	SV-27-B-9	0.84	J	IAQ-B17-9	0.077	U	SV-27-B-9-D	0.19	U
Benzene	SV-27-B-9	3.1	J	IAQ-B17-9	0.44		SV-27-B-9-D	0.27	J
Carbon Tetrachloride	SV-27-B-9	5.3		IAQ-B17-9	0.44	J	SV-27-B-9-D	5.9	
Chlorodifluoromethane	SV-27-B-9	7.8		IAQ-B17-9	9.9		SV-27-B-9-D	6.9	
Chloroform	SV-27-B-9	1.4	J	IAQ-B17-9	0.47		SV-27-B-9-D	1.3	
Cis-1,2-Dichloroethene	SV-27-B-9	0.48	U	IAQ-B17-9	0.095	U	SV-27-B-9-D	0.24	U
Dichlorodifluoromethane	SV-27-B-9	12	J	IAQ-B17-9	2.9	J	SV-27-B-9-D	1.7	J
Ethylbenzene	SV-27-B-9	1.5	J	IAQ-B17-9	0.45		SV-27-B-9-D	8	
Methyl Tert-Butyl Ether	SV-27-B-9	1.2	U	IAQ-B17-9	0.25	U	SV-27-B-9-D	0.61	U
Methylene Chloride	SV-27-B-9	5.9	B	IAQ-B17-9	1	B	SV-27-B-9-D	1.3	B
Naphthalene	SV-27-B-9	0.94	U J	IAQ-B17-9	0.7	J	SV-27-B-9-D	**260**	J
Tetrachloroethene	SV-27-B-9	90		IAQ-B17-9	0.13	J	SV-27-B-9-D	140	
Toluene	SV-27-B-9	1.9		IAQ-B17-9	13		SV-27-B-9-D	4.5	
Total Xylenes	SV-27-B-9	3.8	J	IAQ-B17-9	1.62		SV-27-B-9-D	68	J
Trans-1,2-Dichloroethene	SV-27-B-9	0.4	U	IAQ-B17-9	0.079	U	SV-27-B-9-D	0.2	U
Trichloroethene	SV-27-B-9	220		IAQ-B17-9	0.19	J	SV-27-B-9-D	140	
Vinyl Chloride	SV-27-B-9	0.37	U	IAQ-B17-9	0.074	U	SV-27-B-9-D	0.19	U

TABLE 3-7

CO-LOCATED
SUB-SLAB VAPOR AND IAQ SAMPLE RESULTS, BUILDING B, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Analyte	Sub-Slab Vapor Sample ID	Result (ug/m^3)	Qualifier	Co-Located IAQ Sample ID	Result (ug/m^3)	Qualifier
1,1,1-Trichloroethane	SV-30-FC-9	1.6	U	IAQ-FC-30-9	0.94	U
1,1,2-Trichloroethane	SV-30-FC-9	2.9	U	IAQ-FC-30-9	1.6	U
1,1-Dichloroethane	SV-30-FC-9	1	U	IAQ-FC-30-9	0.58	U
1,1-Dichloroethene	SV-30-FC-9	1.3	U	IAQ-FC-30-9	0.74	U
1,2,4-Trichlorobenzene	SV-30-FC-9	7.2	U	IAQ-FC-30-9	4.1	U
1,2-Dichloroethane	SV-30-FC-9	1.9	U	IAQ-FC-30-9	1.1	U
Benzene	SV-30-FC-9	1.8	U	IAQ-FC-30-9	1.1	U
Carbon Tetrachloride	SV-30-FC-9	2.4	U	IAQ-FC-30-9	1.3	U
Chlorodifluoromethane	SV-30-FC-9	1.3	U	IAQ-FC-30-9	5.9	
Chloroform	SV-30-FC-9	1.8	U	IAQ-FC-30-9	1	U
Cis-1,2-Dichloroethene	SV-30-FC-9	11		IAQ-FC-30-9	1.4	U
Dichlorodifluoromethane	SV-30-FC-9	3.3	U	IAQ-FC-30-9	2.9	J
Ethylbenzene	SV-30-FC-9	10		IAQ-FC-30-9	5	
Methyl Tert-Butyl Ether	SV-30-FC-9	6.1	U	IAQ-FC-30-9	3.5	U
Methylene Chloride	SV-30-FC-9	5	B	IAQ-FC-30-9	4.9	B
Naphthalene	SV-30-FC-9	**70**		IAQ-FC-30-9	2.7	U
Tetrachloroethene	SV-30-FC-9	2.7	U	IAQ-FC-30-9	1.6	U
Toluene	SV-30-FC-9	690		IAQ-FC-30-9	630	
Total Xylenes	SV-30-FC-9	49		IAQ-FC-30-9	12.2	J
Trans-1,2-Dichloroethene	SV-30-FC-9	2	U	IAQ-FC-30-9	1.1	U
Trichloroethene	SV-30-FC-9	21		IAQ-FC-30-9	1.1	U
Vinyl Chloride	SV-30-FC-9	1.9	U	IAQ-FC-30-9	1.1	U

Notes:

SV - Sub-slab vapor IAQ = indoor Air Quality
ug/m^3 - micrograms per cubic meter
J = estimated B = blank contaminated
U = nondetect

Gray shaded cells indicate results that exceed screening value

TABLE 3-8

IAQ SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	OSHA PEL (ug/m^3)	Industrial Air Screening Level (ug/m^3)	Key
IAQ-C1-9	1,1,1-Trichloroethane	0.15	J	1.90E+06	22000	nc
IAQ-C1-9	1,1,2-Trichloroethane	0.23	U	4.50E+04	7.7	ca
IAQ-C1-9	1,1-Dichloroethane	0.081	U	4.00E+05	77	ca
IAQ-C1-9	1,1-Dichloroethene	0.1	U	----	880	nc
IAQ-C1-9	1,2,4-Trichlorobenzene	0.58	U	4.00E+04[N]	18.0	nc
IAQ-C1-9	1,2-Dichloroethane	0.15	U	4.00E+05	4.7	ca
IAQ-C1-9	Benzene	0.41	J	3.19E+02	16	ca
IAQ-C1-9	Carbon Tetrachloride	0.56	J	6.29E+04	20	ca
IAQ-C1-9	Chlorodifluoromethane	52		3590000	220000	nc
IAQ-C1-9	Chloroform	0.17	J	2.40E+05	5.3	ca
IAQ-C1-9	Cis-1,2-Dichloroethene	0.19	U	7.90E+05	----	----
IAQ-C1-9	Dichlorodifluoromethane	2.6		4.95E+06	880	nc
IAQ-C1-9	Ethylbenzene	0.57	J	4.35E+05	49	ca
IAQ-C1-9	Methyl Tert-Butyl Ether	0.49	U	1.80E+05[A]	470	ca
IAQ-C1-9	Methylene Chloride	2.5	B	8.70E+04	260	ca
IAQ-C1-9	Naphthalene	0.81	J	5.00E+01	3.6	ca
IAQ-C1-9	Tetrachloroethene	0.22	U	6.78E+05	21	ca
IAQ-C1-9	Toluene	3.3		7.54E+05	22000	nc
IAQ-C1-9	Total Xylenes	3.14		4.34E+05	440	nc
IAQ-C1-9	Trans-1,2-Dichloroethene	0.16	U	7.90E+05	260	nc
IAQ-C1-9	Trichloroethene	0.15	U	5.37E+05	25[M]	ca
IAQ-C1-9	Vinyl Chloride	0.15	U	2.16E+04	28	ca
IAQ-C2-9	1,1,1-Trichloroethane	0.33	J	1.90E+06	22000	nc
IAQ-C2-9	1,1,2-Trichloroethane	0.57	U	4.50E+04	7.7	ca
IAQ-C2-9	1,1-Dichloroethane	0.2	U	4.00E+05	77	ca
IAQ-C2-9	1,1-Dichloroethene	0.26	U	----	880	nc
IAQ-C2-9	1,2,4-Trichlorobenzene	1.4	U	4.00E+04[N]	18.0	nc
IAQ-C2-9	1,2-Dichloroethane	0.38	U	4.00E+05	4.7	ca
IAQ-C2-9	Benzene	0.63	J	3.19E+02	16	ca
IAQ-C2-9	Carbon Tetrachloride	0.54	J	6.29E+04	20	ca
IAQ-C2-9	Chlorodifluoromethane	190		3590000	220000	nc
IAQ-C2-9	Chloroform	0.37	U	2.40E+05	5.3	ca
IAQ-C2-9	Cis-1,2-Dichloroethene	0.48	U	7.90E+05	----	----
IAQ-C2-9	Dichlorodifluoromethane	2.6		4.95E+06	880	nc
IAQ-C2-9	Ethylbenzene	0.86	J	4.35E+05	49	ca
IAQ-C2-9	Methyl Tert-Butyl Ether	1.2	U	1.80E+05[A]	470	ca
IAQ-C2-9	Methylene Chloride	4.9	B	8.70E+04	260	ca
IAQ-C2-9	Naphthalene	0.94	U	5.00E+01	3.6	ca
IAQ-C2-9	Tetrachloroethene	0.54	U	6.78E+05	21	ca
IAQ-C2-9	Toluene	6.4		7.54E+05	22000	nc
IAQ-C2-9	Total Xylenes	4.7	J	4.34E+05	440	nc
IAQ-C2-9	Trans-1,2-Dichloroethene	0.4	U	7.90E+05	260	nc
IAQ-C2-9	Trichloroethene	0.38	U	5.37E+05	25[M]	ca
IAQ-C2-9	Vinyl Chloride	0.37	U	2.16E+04	28	ca

TABLE 3-8

IAQ SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	OSHA PEL (ug/m^3)	Industrial Air Screening Level (ug/m^3)	Key
IAQ-C5-9	1,1,1-Trichloroethane	0.56	J	1.90E+06	22000	nc
IAQ-C5-9	1,1,2-Trichloroethane	0.72	U	4.50E+04	7.7	ca
IAQ-C5-9	1,1-Dichloroethane	0.25	U	4.00E+05	77	ca
IAQ-C5-9	1,1-Dichloroethene	0.32	U	----	880	nc
IAQ-C5-9	1,2,4-Trichlorobenzene	1.8	U	4.00E+04[N]	18.0	nc
IAQ-C5-9	1,2-Dichloroethane	0.48	U	4.00E+05	4.7	ca
IAQ-C5-9	Benzene	0.7	J	3.19E+02	16	ca
IAQ-C5-9	Carbon Tetrachloride	0.59	U	6.29E+04	20	ca
IAQ-C5-9	Chlorodifluoromethane	300		3590000	220000	nc
IAQ-C5-9	Chloroform	0.55	J	2.40E+05	5.3	ca
IAQ-C5-9	Cis-1,2-Dichloroethene	0.59	U	7.90E+05	----	----
IAQ-C5-9	Dichlorodifluoromethane	2.7		4.95E+06	880	nc
IAQ-C5-9	Ethylbenzene	1	J	4.35E+05	49	ca
IAQ-C5-9	Methyl Tert-Butyl Ether	1.5	U	1.80E+05[A]	470	ca
IAQ-C5-9	Methylene Chloride	6.1		8.70E+04	260	ca
IAQ-C5-9	Naphthalene	1.2	U	5.00E+01	3.6	ca
IAQ-C5-9	Tetrachloroethene	0.68	U	6.78E+05	21	ca
IAQ-C5-9	Toluene	8.9		7.54E+05	22000	nc
IAQ-C5-9	Total Xylenes	5.5	J	4.34E+05	440	nc
IAQ-C5-9	Trans-1,2-Dichloroethene	0.5	U	7.90E+05	260	nc
IAQ-C5-9	Trichloroethene	0.47	U	5.37E+05	25[M]	ca
IAQ-C5-9	Vinyl Chloride	0.46	U	2.16E+04	28	ca
IAQ-C6-9	1,1,1-Trichloroethane	0.33	U	1.90E+06	22000	nc
IAQ-C6-9	1,1,2-Trichloroethane	0.57	U	4.50E+04	7.7	ca
IAQ-C6-9	1,1-Dichloroethane	0.2	U	4.00E+05	77	ca
IAQ-C6-9	1,1-Dichloroethene	0.26	U	----	880	nc
IAQ-C6-9	1,2,4-Trichlorobenzene	1.4	U	4.00E+04[N]	18.0	nc
IAQ-C6-9	1,2-Dichloroethane	0.38	U	4.00E+05	4.7	ca
IAQ-C6-9	Benzene	0.58	J	3.19E+02	16	ca
IAQ-C6-9	Carbon Tetrachloride	0.52	J	6.29E+04	20	ca
IAQ-C6-9	Chlorodifluoromethane	180		3590000	220000	nc
IAQ-C6-9	Chloroform	0.37	U	2.40E+05	5.3	ca
IAQ-C6-9	Cis-1,2-Dichloroethene	0.48	U	7.90E+05	----	----
IAQ-C6-9	Dichlorodifluoromethane	2.9		4.95E+06	880	nc
IAQ-C6-9	Ethylbenzene	0.67	J	4.35E+05	49	ca
IAQ-C6-9	Methyl Tert-Butyl Ether	1.2	U	1.80E+05[A]	470	ca
IAQ-C6-9	Methylene Chloride	6.3		8.70E+04	260	ca
IAQ-C6-9	Naphthalene	0.94	U	5.00E+01	3.6	ca
IAQ-C6-9	Tetrachloroethene	0.54	U	6.78E+05	21	ca
IAQ-C6-9	Toluene	5.2		7.54E+05	22000	nc
IAQ-C6-9	Total Xylenes	3.38	J	4.34E+05	440	nc
IAQ-C6-9	Trans-1,2-Dichloroethene	0.4	U	7.90E+05	260	nc
IAQ-C6-9	Trichloroethene	0.38	U	5.37E+05	25[M]	ca
IAQ-C6-9	Vinyl Chloride	0.37	U	2.16E+04	28	ca

TABLE 3-8

IAQ SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	OSHA PEL (ug/m^3)	Industrial Air Screening Level (ug/m^3)	Key
IAQ-C7-9	1,1,1-Trichloroethane	0.68	J	1.90E+06	22000	nc
IAQ-C7-9	1,1,2-Trichloroethane	1.1	U	4.50E+04	7.7	ca
IAQ-C7-9	1,1-Dichloroethane	0.4	U	4.00E+05	77	ca
IAQ-C7-9	1,1-Dichloroethene	0.52	U	----	880	nc
IAQ-C7-9	1,2,4-Trichlorobenzene	2.9	U	4.00E+04[N]	18.0	nc
IAQ-C7-9	1,2-Dichloroethane	0.77	U	4.00E+05	4.7	ca
IAQ-C7-9	Benzene	0.88	J	3.19E+02	16	ca
IAQ-C7-9	Carbon Tetrachloride	0.94	U	6.29E+04	20	ca
IAQ-C7-9	Chlorodifluoromethane	380		3590000	220000	nc
IAQ-C7-9	Chloroform	0.73	U	2.40E+05	5.3	ca
IAQ-C7-9	Cis-1,2-Dichloroethene	0.95	U	7.90E+05	----	----
IAQ-C7-9	Dichlorodifluoromethane	2.8	J	4.95E+06	880	nc
IAQ-C7-9	Ethylbenzene	1.3	J	4.35E+05	49	ca
IAQ-C7-9	Methyl Tert-Butyl Ether	2.5	U	1.80E+05[A]	470	ca
IAQ-C7-9	Methylene Chloride	8.6		8.70E+04	260	ca
IAQ-C7-9	Naphthalene	2.3	J	5.00E+01	3.6	ca
IAQ-C7-9	Tetrachloroethene	1.1	U	6.78E+05	21	ca
IAQ-C7-9	Toluene	12		7.54E+05	22000	nc
IAQ-C7-9	Total Xylenes	7.5	J	4.34E+05	440	nc
IAQ-C7-9	Trans-1,2-Dichloroethene	0.79	U	7.90E+05	260	nc
IAQ-C7-9	Trichloroethene	0.75	U	5.37E+05	25[M]	ca
IAQ-C7-9	Vinyl Chloride	0.74	U	2.16E+04	28	ca
IAQ-C8-9	1,1,1-Trichloroethane	0.66	J	1.90E+06	22000	nc
IAQ-C8-9	1,1,2-Trichloroethane	0.29	U	4.50E+04	7.7	ca
IAQ-C8-9	1,1-Dichloroethane	0.1	U	4.00E+05	77	ca
IAQ-C8-9	1,1-Dichloroethene	0.13	U	----	880	nc
IAQ-C8-9	1,2,4-Trichlorobenzene	0.72	U	4.00E+04[N]	18.0	nc
IAQ-C8-9	1,2-Dichloroethane	0.19	U	4.00E+05	4.7	ca
IAQ-C8-9	Benzene	0.86		3.19E+02	16	ca
IAQ-C8-9	Carbon Tetrachloride	0.57	J	6.29E+04	20	ca
IAQ-C8-9	Chlorodifluoromethane	430		3590000	220000	nc
IAQ-C8-9	Chloroform	0.62	J	2.40E+05	5.3	ca
IAQ-C8-9	Cis-1,2-Dichloroethene	0.24	U	7.90E+05	----	----
IAQ-C8-9	Dichlorodifluoromethane	2.7		4.95E+06	880	nc
IAQ-C8-9	Ethylbenzene	1.6		4.35E+05	49	ca
IAQ-C8-9	Methyl Tert-Butyl Ether	0.61	U	1.80E+05[A]	470	ca
IAQ-C8-9	Methylene Chloride	5.3		8.70E+04	260	ca
IAQ-C8-9	Naphthalene	0.97	J	5.00E+01	3.6	ca
IAQ-C8-9	Tetrachloroethene	0.27	U	6.78E+05	21	ca
IAQ-C8-9	Toluene	16		7.54E+05	22000	nc
IAQ-C8-9	Total Xylenes	8.8		4.34E+05	440	nc
IAQ-C8-9	Trans-1,2-Dichloroethene	0.2	U	7.90E+05	260	nc
IAQ-C8-9	Trichloroethene	0.76		5.37E+05	25[M]	ca
IAQ-C8-9	Vinyl Chloride	0.19	U	2.16E+04	28	ca

TABLE 3-8

IAQ SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	OSHA PEL (ug/m^3)	Industrial Air Screening Level (ug/m^3)	Key
IAQ-C9-9	1,1,1-Trichloroethane	1.6	U	1.90E+06	22000	nc
IAQ-C9-9	1,1,2-Trichloroethane	2.9	U	4.50E+04	7.7	ca
IAQ-C9-9	1,1-Dichloroethane	1	U	4.00E+05	77	ca
IAQ-C9-9	1,1-Dichloroethene	1.3	U	----	880	nc
IAQ-C9-9	1,2,4-Trichlorobenzene	7.2	U	4.00E+04[N]	18.0	nc
IAQ-C9-9	1,2-Dichloroethane	1.9	U	4.00E+05	4.7	ca
IAQ-C9-9	Benzene	1.8	U	3.19E+02	16	ca
IAQ-C9-9	Carbon Tetrachloride	2.4	U	6.29E+04	20	ca
IAQ-C9-9	Chlorodifluoromethane	960		3590000	220000	nc
IAQ-C9-9	Chloroform	1.8	U	2.40E+05	5.3	ca
IAQ-C9-9	Cis-1,2-Dichloroethene	2.4	U	7.90E+05	----	----
IAQ-C9-9	Dichlorodifluoromethane	3.3	U	4.95E+06	880	nc
IAQ-C9-9	Ethylbenzene	2.9	U	4.35E+05	49	ca
IAQ-C9-9	Methyl Tert-Butyl Ether	6.1	U	1.80E+05[A]	470	ca
IAQ-C9-9	Methylene Chloride	17	J	8.70E+04	260	ca
IAQ-C9-9	Naphthalene	**4.7**	U	5.00E+01	3.6	ca
IAQ-C9-9	Tetrachloroethene	2.7	U	6.78E+05	21	ca
IAQ-C9-9	Toluene	6.1	J	7.54E+05	22000	nc
IAQ-C9-9	Total Xylenes	9.1	J	4.34E+05	440	nc
IAQ-C9-9	Trans-1,2-Dichloroethene	2	U	7.90E+05	260	nc
IAQ-C9-9	Trichloroethene	1.9	U	5.37E+05	25[M]	ca
IAQ-C9-9	Vinyl Chloride	1.9	U	2.16E+04	28	ca
IAQ-C10-9	1,1,1-Trichloroethane	0.65	U	1.90E+06	22000	nc
IAQ-C10-9	1,1,2-Trichloroethane	1.1	U	4.50E+04	7.7	ca
IAQ-C10-9	1,1-Dichloroethane	0.4	U	4.00E+05	77	ca
IAQ-C10-9	1,1-Dichloroethene	0.52	U	----	880	nc
IAQ-C10-9	1,2,4-Trichlorobenzene	2.9	U	4.00E+04[N]	18.0	nc
IAQ-C10-9	1,2-Dichloroethane	0.77	U	4.00E+05	4.7	ca
IAQ-C10-9	Benzene	0.78	J	3.19E+02	16	ca
IAQ-C10-9	Carbon Tetrachloride	0.94	U	6.29E+04	20	ca
IAQ-C10-9	Chlorodifluoromethane	430		3590000	220000	nc
IAQ-C10-9	Chloroform	0.73	U	2.40E+05	5.3	ca
IAQ-C10-9	Cis-1,2-Dichloroethene	0.95	U	7.90E+05	----	----
IAQ-C10-9	Dichlorodifluoromethane	3.3	J	4.95E+06	880	nc
IAQ-C10-9	Ethylbenzene	1.2	U	4.35E+05	49	ca
IAQ-C10-9	Methyl Tert-Butyl Ether	2.5	U	1.80E+05[A]	470	ca
IAQ-C10-9	Methylene Chloride	13		8.70E+04	260	ca
IAQ-C10-9	Naphthalene	3.1	J	5.00E+01	3.6	ca
IAQ-C10-9	Tetrachloroethene	1.1	U	6.78E+05	21	ca
IAQ-C10-9	Toluene	5.3		7.54E+05	22000	nc
IAQ-C10-9	Total Xylenes	4	J	4.34E+05	440	nc
IAQ-C10-9	Trans-1,2-Dichloroethene	0.79	U	7.90E+05	260	nc
IAQ-C10-9	Trichloroethene	0.75	U	5.37E+05	25[M]	ca
IAQ-C10-9	Vinyl Chloride	0.74	U	2.16E+04	28	ca

TABLE 3-8

IAQ SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	OSHA PEL (ug/m^3)	Industrial Air Screening Level (ug/m^3)	Key
IAQ-C12-9	1,1,1-Trichloroethane	0.15	J	1.90E+06	22000	nc
IAQ-C12-9	1,1,2-Trichloroethane	0.15	J	4.50E+04	7.7	ca
IAQ-C12-9	1,1-Dichloroethane	0.079	J	4.00E+05	77	ca
IAQ-C12-9	1,1-Dichloroethene	0.062	J	----	880	nc
IAQ-C12-9	1,2,4-Trichlorobenzene	0.29	U	4.00E+04[N]	18.0	nc
IAQ-C12-9	1,2-Dichloroethane	0.14	J	4.00E+05	4.7	ca
IAQ-C12-9	Benzene	1		3.19E+02	16	ca
IAQ-C12-9	Carbon Tetrachloride	0.62		6.29E+04	20	ca
IAQ-C12-9	Chlorodifluoromethane	17		3590000	220000	nc
IAQ-C12-9	Chloroform	0.24	J	2.40E+05	5.3	ca
IAQ-C12-9	Cis-1,2-Dichloroethene	0.095	U	7.90E+05	----	----
IAQ-C12-9	Dichlorodifluoromethane	2.7		4.95E+06	880	nc
IAQ-C12-9	Ethylbenzene	0.63		4.35E+05	49	ca
IAQ-C12-9	Methyl Tert-Butyl Ether	0.25	U	1.80E+05[A]	470	ca
IAQ-C12-9	Methylene Chloride	1.4	B	8.70E+04	260	ca
IAQ-C12-9	Naphthalene	0.91	J	5.00E+01	3.6	ca
IAQ-C12-9	Tetrachloroethene	0.39	J	6.78E+05	21	ca
IAQ-C12-9	Toluene	1.8		7.54E+05	22000	nc
IAQ-C12-9	Total Xylenes	3.03		4.34E+05	440	nc
IAQ-C12-9	Trans-1,2-Dichloroethene	0.079	U	7.90E+05	260	nc
IAQ-C12-9	Trichloroethene	0.16	J	5.37E+05	25[M]	ca
IAQ-C12-9	Vinyl Chloride	0.074	U	2.16E+04	28	ca
IAQ-C14-9	1,1,1-Trichloroethane	0.26	J	1.90E+06	22000	nc
IAQ-C14-9	1,1,2-Trichloroethane	0.29	U	4.50E+04	7.7	ca
IAQ-C14-9	1,1-Dichloroethane	0.1	U	4.00E+05	77	ca
IAQ-C14-9	1,1-Dichloroethene	0.13	U	----	880	nc
IAQ-C14-9	1,2,4-Trichlorobenzene	0.72	U	4.00E+04[N]	18.0	nc
IAQ-C14-9	1,2-Dichloroethane	0.19	U	4.00E+05	4.7	ca
IAQ-C14-9	Benzene	1.1		3.19E+02	16	ca
IAQ-C14-9	Carbon Tetrachloride	0.48	J	6.29E+04	20	ca
IAQ-C14-9	Chlorodifluoromethane	530		3590000	220000	nc
IAQ-C14-9	Chloroform	0.44	J	2.40E+05	5.3	ca
IAQ-C14-9	Cis-1,2-Dichloroethene	0.24	U	7.90E+05	----	----
IAQ-C14-9	Dichlorodifluoromethane	2.6		4.95E+06	880	nc
IAQ-C14-9	Ethylbenzene	1.1		4.35E+05	49	ca
IAQ-C14-9	Methyl Tert-Butyl Ether	0.61	U	1.80E+05[A]	470	ca
IAQ-C14-9	Methylene Chloride	11	B	8.70E+04	260	ca
IAQ-C14-9	Naphthalene	1.7	J	5.00E+01	3.6	ca
IAQ-C14-9	Tetrachloroethene	0.27	U	6.78E+05	21	ca
IAQ-C14-9	Toluene	7.6		7.54E+05	22000	nc
IAQ-C14-9	Total Xylenes	5.2		4.34E+05	440	nc
IAQ-C14-9	Trans-1,2-Dichloroethene	0.2	U	7.90E+05	260	nc
IAQ-C14-9	Trichloroethene	0.2	J	5.37E+05	25[M]	ca
IAQ-C14-9	Vinyl Chloride	0.19	U	2.16E+04	28	ca

TABLE 3-8

IAQ SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	OSHA PEL (ug/m^3)	Industrial Air Screening Level (ug/m^3)	Key
IAQ-C15-9	1,1,1-Trichloroethane	0.16	U	1.90E+06	22000	nc
IAQ-C15-9	1,1,2-Trichloroethane	0.29	U	4.50E+04	7.7	ca
IAQ-C15-9	1,1-Dichloroethane	0.1	U	4.00E+05	77	ca
IAQ-C15-9	1,1-Dichloroethene	0.13	U	----	880	nc
IAQ-C15-9	1,2,4-Trichlorobenzene	0.72	U	4.00E+04[N]	18.0	nc
IAQ-C15-9	1,2-Dichloroethane	0.19	U	4.00E+05	4.7	ca
IAQ-C15-9	Benzene	0.86		3.19E+02	16	ca
IAQ-C15-9	Carbon Tetrachloride	0.45	J	6.29E+04	20	ca
IAQ-C15-9	Chlorodifluoromethane	210		3590000	220000	nc
IAQ-C15-9	Chloroform	0.3	J	2.40E+05	5.3	ca
IAQ-C15-9	Cis-1,2-Dichloroethene	0.24	U	7.90E+05	----	----
IAQ-C15-9	Dichlorodifluoromethane	2.5		4.95E+06	880	nc
IAQ-C15-9	Ethylbenzene	0.72	J	4.35E+05	49	ca
IAQ-C15-9	Methyl Tert-Butyl Ether	0.61	U	1.80E+05[A]	470	ca
IAQ-C15-9	Methylene Chloride	5.2		8.70E+04	260	ca
IAQ-C15-9	Naphthalene	1	J	5.00E+01	3.6	ca
IAQ-C15-9	Tetrachloroethene	0.27	U	6.78E+05	21	ca
IAQ-C15-9	Toluene	4.3		7.54E+05	22000	nc
IAQ-C15-9	Total Xylenes	3.49		4.34E+05	440	nc
IAQ-C15-9	Trans-1,2-Dichloroethene	0.2	U	7.90E+05	260	nc
IAQ-C15-9	Trichloroethene	0.19	U	5.37E+05	25[M]	ca
IAQ-C15-9	Vinyl Chloride	0.19	U	2.16E+04	28	ca
IAQ-C17-9	1,1,1-Trichloroethane	0.77	J	1.90E+06	22000	nc
IAQ-C17-9	1,1,2-Trichloroethane	0.29	U	4.50E+04	7.7	ca
IAQ-C17-9	1,1-Dichloroethane	0.1	U	4.00E+05	77	ca
IAQ-C17-9	1,1-Dichloroethene	0.13	U	----	880	nc
IAQ-C17-9	1,2,4-Trichlorobenzene	0.72	U	4.00E+04[N]	18.0	nc
IAQ-C17-9	1,2-Dichloroethane	0.19	U	4.00E+05	4.7	ca
IAQ-C17-9	Benzene	0.84		3.19E+02	16	ca
IAQ-C17-9	Carbon Tetrachloride	0.55	J	6.29E+04	20	ca
IAQ-C17-9	Chlorodifluoromethane	560		3590000	220000	nc
IAQ-C17-9	Chloroform	0.59	J	2.40E+05	5.3	ca
IAQ-C17-9	Cis-1,2-Dichloroethene	0.24	U	7.90E+05	----	----
IAQ-C17-9	Dichlorodifluoromethane	2.7		4.95E+06	880	nc
IAQ-C17-9	Ethylbenzene	1.7		4.35E+05	49	ca
IAQ-C17-9	Methyl Tert-Butyl Ether	0.61	U	1.80E+05[A]	470	ca
IAQ-C17-9	Methylene Chloride	6.8		8.70E+04	260	ca
IAQ-C17-9	Naphthalene	0.47	U	5.00E+01	3.6	ca
IAQ-C17-9	Tetrachloroethene	0.27	J	6.78E+05	21	ca
IAQ-C17-9	Toluene	12		7.54E+05	22000	nc
IAQ-C17-9	Total Xylenes	8.7		4.34E+05	440	nc
IAQ-C17-9	Trans-1,2-Dichloroethene	0.2	U	7.90E+05	260	nc
IAQ-C17-9	Trichloroethene	0.58		5.37E+05	25[M]	ca
IAQ-C17-9	Vinyl Chloride	0.19	U	2.16E+04	28	ca

TABLE 3-8

IAQ SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	OSHA PEL (ug/m^3)	Industrial Air Screening Level (ug/m^3)	Key
IAQ-C18-9	1,1,1-Trichloroethane	0.65	U	1.90E+06	22000	nc
IAQ-C18-9	1,1,2-Trichloroethane	1.1	U	4.50E+04	7.7	ca
IAQ-C18-9	1,1-Dichloroethane	0.4	U	4.00E+05	77	ca
IAQ-C18-9	1,1-Dichloroethene	0.52	U	----	880	nc
IAQ-C18-9	1,2,4-Trichlorobenzene	2.9	U	4.00E+04[N]	18.0	nc
IAQ-C18-9	1,2-Dichloroethane	0.77	U	4.00E+05	4.7	ca
IAQ-C18-9	Benzene	1.2	J	3.19E+02	16	ca
IAQ-C18-9	Carbon Tetrachloride	0.94	U	6.29E+04	20	ca
IAQ-C18-9	Chlorodifluoromethane	260		3590000	220000	nc
IAQ-C18-9	Chloroform	0.73	U	2.40E+05	5.3	ca
IAQ-C18-9	Cis-1,2-Dichloroethene	0.95	U	7.90E+05	----	----
IAQ-C18-9	Dichlorodifluoromethane	2.5	J	4.95E+06	880	nc
IAQ-C18-9	Ethylbenzene	1.2	U	4.35E+05	49	ca
IAQ-C18-9	Methyl Tert-Butyl Ether	2.5	U	1.80E+05[A]	470	ca
IAQ-C18-9	Methylene Chloride	4.2	B	8.70E+04	260	ca
IAQ-C18-9	Naphthalene	1.9	U	5.00E+01	3.6	ca
IAQ-C18-9	Tetrachloroethene	1.1	U	6.78E+05	21	ca
IAQ-C18-9	Toluene	3.6		7.54E+05	22000	nc
IAQ-C18-9	Total Xylenes	3.2	U	4.34E+05	440	nc
IAQ-C18-9	Trans-1,2-Dichloroethene	0.79	U	7.90E+05	260	nc
IAQ-C18-9	Trichloroethene	0.75	U	5.37E+05	25[M]	ca
IAQ-C18-9	Vinyl Chloride	0.74	U	2.16E+04	28	ca
IAQ-C19-9	1,1,1-Trichloroethane	0.15	J	1.90E+06	22000	nc
IAQ-C19-9	1,1,2-Trichloroethane	0.11	U	4.50E+04	7.7	ca
IAQ-C19-9	1,1-Dichloroethane	0.04	U	4.00E+05	77	ca
IAQ-C19-9	1,1-Dichloroethene	0.052	U	----	880	nc
IAQ-C19-9	1,2,4-Trichlorobenzene	0.29	U	4.00E+04[N]	18.0	nc
IAQ-C19-9	1,2-Dichloroethane	3		4.00E+05	4.7	ca
IAQ-C19-9	Benzene	0.48		3.19E+02	16	ca
IAQ-C19-9	Carbon Tetrachloride	0.54		6.29E+04	20	ca
IAQ-C19-9	Chlorodifluoromethane	2.8		3590000	220000	nc
IAQ-C19-9	Chloroform	1.9		2.40E+05	5.3	ca
IAQ-C19-9	Cis-1,2-Dichloroethene	0.25	J	7.90E+05	----	----
IAQ-C19-9	Dichlorodifluoromethane	2.6		4.95E+06	880	nc
IAQ-C19-9	Ethylbenzene	0.74		4.35E+05	49	ca
IAQ-C19-9	Methyl Tert-Butyl Ether	0.25	U	1.80E+05[A]	470	ca
IAQ-C19-9	Methylene Chloride	0.97	B	8.70E+04	260	ca
IAQ-C19-9	Naphthalene	0.19	U	5.00E+01	3.6	ca
IAQ-C19-9	Tetrachloroethene	7.7		6.78E+05	21	ca
IAQ-C19-9	Toluene	3.9		7.54E+05	22000	nc
IAQ-C19-9	Total Xylenes	2.84		4.34E+05	440	nc
IAQ-C19-9	Trans-1,2-Dichloroethene	2.1		7.90E+05	260	nc
IAQ-C19-9	Trichloroethene	1.4		5.37E+05	25[M]	ca
IAQ-C19-9	Vinyl Chloride	0.074	U	2.16E+04	28	ca

Notes: Grey shaded cells indicate concentration greater than risk-based screening level

Cells tinted black indicate sample MDL exceeded risk-based screening level for that COC

ca = screening value based on 1x 10^{-5} carcinogenic risk U = nondetect -- = not available ug/m3 = micrograms per cubic meter

nc = screening value based on noncarcinogenic hazard index = 1 A = American Council of Governmental Industrial Hygienists Threshold Limit Value

OSHA PEL = Occupational Safety and Health Administration Permissible Exposure Limit M = MDE screening level for trichloroethene

N = National Institute for Occupational Safety and Health Recommended Exposure Limit

Industrial Air Screening Levels from USEPA Regional Screening Levels for Chemical Contaminants at Superfund Sites Apr-09

TABLE 3-9

SUB-SLAB VAPOR SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	Target Shallow Soil Gas Concentration[(1)]
ISG-01-9	1,1,1-Trichloroethane	0.37	J	220000
ISG-01-9	1,1,2-Trichloroethane	0.57	U	77
ISG-01-9	1,1-Dichloroethane	0.2	U	770
ISG-01-9	1,1-Dichloroethene	0.26	U	8800
ISG-01-9	1,2,4-Trichlorobenzene	1.4	U	88
ISG-01-9	1,2-Dichloroethane	0.38	U	47
ISG-01-9	Benzene	0.57	J	160
ISG-01-9	Carbon Tetrachloride	1.7	J	200
ISG-01-9	Chlorodifluoromethane	1.8		2200000
ISG-01-9	Chloroform	0.44	J	53
ISG-01-9	Cis-1,2-Dichloroethene	0.48	U	----
ISG-01-9	Dichlorodifluoromethane	2.5		8800
ISG-01-9	Ethylbenzene	1.3	J	490
ISG-01-9	Methyl Tert-Butyl Ether	1.2	U	4700
ISG-01-9	Methylene Chloride	1.8	J	2600
ISG-01-9	Naphthalene	**130**	J	36
ISG-01-9	Tetrachloroethene	18		210
ISG-01-9	Toluene	14		220000
ISG-01-9	Total Xylenes	8.1		4400
ISG-01-9	Trans-1,2-Dichloroethene	2.6		2600
ISG-01-9	Trichloroethene	10		250^{M}
ISG-01-9	Vinyl Chloride	0.37	U	280
ISG-3-C-9	1,1,1-Trichloroethane	3.2	J	220000
ISG-3-C-9	1,1,2-Trichloroethane	1.1	U	77
ISG-3-C-9	1,1-Dichloroethane	0.4	U	770
ISG-3-C-9	1,1-Dichloroethene	0.52	U	8800
ISG-3-C-9	1,2,4-Trichlorobenzene	2.9	U	88
ISG-3-C-9	1,2-Dichloroethane	0.77	U	47
ISG-3-C-9	Benzene	0.73	U	160
ISG-3-C-9	Carbon Tetrachloride	3.4	J	200
ISG-3-C-9	Chlorodifluoromethane	7.8		2200000
ISG-3-C-9	Chloroform	16		53
ISG-3-C-9	Cis-1,2-Dichloroethene	1.9	J	----
ISG-3-C-9	Dichlorodifluoromethane	2.8	J	8800
ISG-3-C-9	Ethylbenzene	1.6	J	490
ISG-3-C-9	Methyl Tert-Butyl Ether	2.5	U	4700
ISG-3-C-9	Methylene Chloride	1.9	J	2600
ISG-3-C-9	Naphthalene	4	J	36
ISG-3-C-9	Tetrachloroethene	12		210
ISG-3-C-9	Toluene	11		220000
ISG-3-C-9	Total Xylenes	16.8		4400
ISG-3-C-9	Trans-1,2-Dichloroethene	0.79	U	2600
ISG-3-C-9	Trichloroethene	**370**		250^{M}
ISG-3-C-9	Vinyl Chloride	0.74	U	280

TABLE 3-9

SUB-SLAB VAPOR SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	Target Shallow Soil Gas Concentration[(1)]
ISG-11-C-9	1,1,1-Trichloroethane	1		220000
ISG-11-C-9	1,1,2-Trichloroethane	0.11	U	77
ISG-11-C-9	1,1-Dichloroethane	0.43		770
ISG-11-C-9	1,1-Dichloroethene	0.067	J	8800
ISG-11-C-9	1,2,4-Trichlorobenzene	0.29	U	88
ISG-11-C-9	1,2-Dichloroethane	2.4		47
ISG-11-C-9	Benzene	0.46		160
ISG-11-C-9	Carbon Tetrachloride	1.1		200
ISG-11-C-9	Chlorodifluoromethane	2.6		2200000
ISG-11-C-9	Chloroform	5.6		53
ISG-11-C-9	Cis-1,2-Dichloroethene	0.44		----
ISG-11-C-9	Dichlorodifluoromethane	78		8800
ISG-11-C-9	Ethylbenzene	2.4		490
ISG-11-C-9	Methyl Tert-Butyl Ether	0.25	U	4700
ISG-11-C-9	Methylene Chloride	32		2600
ISG-11-C-9	Naphthalene	15		36
ISG-11-C-9	Tetrachloroethene	93		210
ISG-11-C-9	Toluene	43		220000
ISG-11-C-9	Total Xylenes	15.5		4400
ISG-11-C-9	Trans-1,2-Dichloroethene	0.36		2600
ISG-11-C-9	Trichloroethene	6.3		250^{M}
ISG-11-C-9	Vinyl Chloride	0.074	U	280
ISG-14-C-9	1,1,1-Trichloroethane	7.7	J	220000
ISG-14-C-9	1,1,2-Trichloroethane	5.7	U	77
ISG-14-C-9	1,1-Dichloroethane	2	U	770
ISG-14-C-9	1,1-Dichloroethene	2.6	U	8800
ISG-14-C-9	1,2,4-Trichlorobenzene	14	U	88
ISG-14-C-9	1,2-Dichloroethane	3.8	U	47
ISG-14-C-9	Benzene	5.7	J	160
ISG-14-C-9	Carbon Tetrachloride	4.7	U	200
ISG-14-C-9	Chlorodifluoromethane	130		2200000
ISG-14-C-9	Chloroform	3.7	U	53
ISG-14-C-9	Cis-1,2-Dichloroethene	4.8	U	----
ISG-14-C-9	Dichlorodifluoromethane	6.7	U	8800
ISG-14-C-9	Ethylbenzene	15	J	490
ISG-14-C-9	Methyl Tert-Butyl Ether	12	U	4700
ISG-14-C-9	Methylene Chloride	24	J	2600
ISG-14-C-9	Naphthalene	15	J	36
ISG-14-C-9	Tetrachloroethene	5.4	U	210
ISG-14-C-9	Toluene	1700		220000
ISG-14-C-9	Total Xylenes	95		4400
ISG-14-C-9	Trans-1,2-Dichloroethene	4	U	2600
ISG-14-C-9	Trichloroethene	3.8	U	250^{M}
ISG-14-C-9	Vinyl Chloride	3.7	U	280

TABLE 3-9

SUB-SLAB VAPOR SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	Target Shallow Soil Gas Concentration[(1)]
SV-1-C-9	1,1,1-Trichloroethane	2.1	J	220000
SV-1-C-9	1,1,2-Trichloroethane	2.9	U	77
SV-1-C-9	1,1-Dichloroethane	1	U	770
SV-1-C-9	1,1-Dichloroethene	1.3	U	8800
SV-1-C-9	1,2,4-Trichlorobenzene	7.2	U	88
SV-1-C-9	1,2-Dichloroethane	1.9	U	47
SV-1-C-9	Benzene	1.8	U	160
SV-1-C-9	Carbon Tetrachloride	2.4	U	200
SV-1-C-9	Chlorodifluoromethane	7.5		2200000
SV-1-C-9	Chloroform	18		53
SV-1-C-9	Cis-1,2-Dichloroethene	360		----
SV-1-C-9	Dichlorodifluoromethane	3.3	U	8800
SV-1-C-9	Ethylbenzene	2.9	U	490
SV-1-C-9	Methyl Tert-Butyl Ether	6.1	U	4700
SV-1-C-9	Methylene Chloride	7.4	J	2600
SV-1-C-9	Naphthalene	4.7	U	36
SV-1-C-9	Tetrachloroethene	6.2	J	210
SV-1-C-9	Toluene	2	U	220000
SV-1-C-9	Total Xylenes	18.6	J	4400
SV-1-C-9	Trans-1,2-Dichloroethene	88		2600
SV-1-C-9	Trichloroethene	**620**		250^{M}
SV-1-C-9	Vinyl Chloride	1.9	U	280
SV-5-C-9	1,1,1-Trichloroethane	4.6		220000
SV-5-C-9	1,1,2-Trichloroethane	0.11	U	77
SV-5-C-9	1,1-Dichloroethane	0.12	J	770
SV-5-C-9	1,1-Dichloroethene	0.052	U	8800
SV-5-C-9	1,2,4-Trichlorobenzene	0.29	U	88
SV-5-C-9	1,2-Dichloroethane	0.077	U	47
SV-5-C-9	Benzene	0.39		160
SV-5-C-9	Carbon Tetrachloride	0.61		200
SV-5-C-9	Chlorodifluoromethane	6.1		2200000
SV-5-C-9	Chloroform	13		53
SV-5-C-9	Cis-1,2-Dichloroethene	0.095	U	----
SV-5-C-9	Dichlorodifluoromethane	0.73		8800
SV-5-C-9	Ethylbenzene	0.41		490
SV-5-C-9	Methyl Tert-Butyl Ether	0.25	U	4700
SV-5-C-9	Methylene Chloride	0.58	J	2600
SV-5-C-9	Naphthalene	0.29	J	36
SV-5-C-9	Tetrachloroethene	110		210
SV-5-C-9	Toluene	0.56		220000
SV-5-C-9	Total Xylenes	1.64		4400
SV-5-C-9	Trans-1,2-Dichloroethene	0.079	U	2600
SV-5-C-9	Trichloroethene	2.6		250^{M}
SV-5-C-9	Vinyl Chloride	0.074	U	280

TABLE 3-9

SUB-SLAB VAPOR SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	Target Shallow Soil Gas Concentration[(1)]
SV-28-C-9	1,1,1-Trichloroethane	1000		220000
SV-28-C-9	1,1,2-Trichloroethane	20	U	77
SV-28-C-9	1,1-Dichloroethane	**4400**		770
SV-28-C-9	1,1-Dichloroethene	1200		8800
SV-28-C-9	1,2,4-Trichlorobenzene	50	U	88
SV-28-C-9	1,2-Dichloroethane	13	U	47
SV-28-C-9	Benzene	13	U	160
SV-28-C-9	Carbon Tetrachloride	16	U	200
SV-28-C-9	Chlorodifluoromethane	31	J	2200000
SV-28-C-9	Chloroform	**87**		53
SV-28-C-9	Cis-1,2-Dichloroethene	83		----
SV-28-C-9	Dichlorodifluoromethane	23	U	8800
SV-28-C-9	Ethylbenzene	**590**		490
SV-28-C-9	Methyl Tert-Butyl Ether	42	U	4700
SV-28-C-9	Methylene Chloride	20	J	2600
SV-28-C-9	Naphthalene	**400**	J	36
SV-28-C-9	Tetrachloroethene	19	U	210
SV-28-C-9	Toluene	52		220000
SV-28-C-9	Total Xylenes	**4900**		4400
SV-28-C-9	Trans-1,2-Dichloroethene	14	U	2600
SV-28-C-9	Trichloroethene	**2800**		250^{M}
SV-28-C-9	Vinyl Chloride	13	U	280
SV-29-C-9	1,1,1-Trichloroethane	0.16	U	220000
SV-29-C-9	1,1,2-Trichloroethane	0.29	U	77
SV-29-C-9	1,1-Dichloroethane	0.1	U	770
SV-29-C-9	1,1-Dichloroethene	0.13	U	8800
SV-29-C-9	1,2,4-Trichlorobenzene	0.72	U	88
SV-29-C-9	1,2-Dichloroethane	0.19	U	47
SV-29-C-9	Benzene	2.3		160
SV-29-C-9	Carbon Tetrachloride	0.56	J	200
SV-29-C-9	Chlorodifluoromethane	330		2200000
SV-29-C-9	Chloroform	1.4		53
SV-29-C-9	Cis-1,2-Dichloroethene	0.24	U	----
SV-29-C-9	Dichlorodifluoromethane	3		8800
SV-29-C-9	Ethylbenzene	86		490
SV-29-C-9	Methyl Tert-Butyl Ether	0.61	U	4700
SV-29-C-9	Methylene Chloride	2.1	B	2600
SV-29-C-9	Naphthalene	**210**		36
SV-29-C-9	Tetrachloroethene	0.54	J	210
SV-29-C-9	Toluene	17		220000
SV-29-C-9	Total Xylenes	800		4400
SV-29-C-9	Trans-1,2-Dichloroethene	0.2	U	2600
SV-29-C-9	Trichloroethene	2		250^{M}
SV-29-C-9	Vinyl Chloride	0.19	U	280

TABLE 3-9

SUB-SLAB VAPOR SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	Target Shallow Soil Gas Concentration[(1)]
SV-C1-9	1,1,1-Trichloroethane	0.65	U	220000
SV-C1-9	1,1,2-Trichloroethane	1.1	U	77
SV-C1-9	1,1-Dichloroethane	0.4	U	770
SV-C1-9	1,1-Dichloroethene	0.52	U	8800
SV-C1-9	1,2,4-Trichlorobenzene	2.9	U	88
SV-C1-9	1,2-Dichloroethane	0.77	U	47
SV-C1-9	Benzene	2	J	160
SV-C1-9	Carbon Tetrachloride	0.94	U	200
SV-C1-9	Chlorodifluoromethane	300		2200000
SV-C1-9	Chloroform	0.73	U	53
SV-C1-9	Cis-1,2-Dichloroethene	0.95	U	----
SV-C1-9	Dichlorodifluoromethane	2.7	J	8800
SV-C1-9	Ethylbenzene	1.2	U	490
SV-C1-9	Methyl Tert-Butyl Ether	2.5	U	4700
SV-C1-9	Methylene Chloride	3.5	B	2600
SV-C1-9	Naphthalene	1.9	U	36
SV-C1-9	Tetrachloroethene	1.5	J	210
SV-C1-9	Toluene	6.4		220000
SV-C1-9	Total Xylenes	5.8	J	4400
SV-C1-9	Trans-1,2-Dichloroethene	0.79	U	2600
SV-C1-9	Trichloroethene	2.6		250^{M}
SV-C1-9	Vinyl Chloride	0.74	U	280
SV-C-2-9	1,1,1-Trichloroethane	3.7		220000
SV-C-2-9	1,1,2-Trichloroethane	0.29	U	77
SV-C-2-9	1,1-Dichloroethane	0.1	U	770
SV-C-2-9	1,1-Dichloroethene	0.13	U	8800
SV-C-2-9	1,2,4-Trichlorobenzene	0.72	U	88
SV-C-2-9	1,2-Dichloroethane	0.19	U	47
SV-C-2-9	Benzene	0.7		160
SV-C-2-9	Carbon Tetrachloride	0.56	J	200
SV-C-2-9	Chlorodifluoromethane	120		2200000
SV-C-2-9	Chloroform	0.98		53
SV-C-2-9	Cis-1,2-Dichloroethene	0.24	U	----
SV-C-2-9	Dichlorodifluoromethane	2		8800
SV-C-2-9	Ethylbenzene	2.3		490
SV-C-2-9	Methyl Tert-Butyl Ether	0.61	U	4700
SV-C-2-9	Methylene Chloride	0.88	J	2600
SV-C-2-9	Naphthalene	0.47	U	36
SV-C-2-9	Tetrachloroethene	1.3		210
SV-C-2-9	Toluene	3.2		220000
SV-C-2-9	Total Xylenes	3.1		4400
SV-C-2-9	Trans-1,2-Dichloroethene	0.2	U	2600
SV-C-2-9	Trichloroethene	7.2		250^{M}
SV-C-2-9	Vinyl Chloride	0.19	U	280

TABLE 3-9

SUB-SLAB VAPOR SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	Target Shallow Soil Gas Concentration[(1)]
SV-C-3-9	1,1,1-Trichloroethane	14	J	220000
SV-C-3-9	1,1,2-Trichloroethane	5.7	U	77
SV-C-3-9	1,1-Dichloroethane	87		770
SV-C-3-9	1,1-Dichloroethene	3	J	8800
SV-C-3-9	1,2,4-Trichlorobenzene	14	U	88
SV-C-3-9	1,2-Dichloroethane	3.8	U	47
SV-C-3-9	Benzene	3.7	U	160
SV-C-3-9	Carbon Tetrachloride	4.7	U	200
SV-C-3-9	Chlorodifluoromethane	190		2200000
SV-C-3-9	Chloroform	67		53
SV-C-3-9	Cis-1,2-Dichloroethene	140		----
SV-C-3-9	Dichlorodifluoromethane	6.7	U	8800
SV-C-3-9	Ethylbenzene	53		490
SV-C-3-9	Methyl Tert-Butyl Ether	12	U	4700
SV-C-3-9	Methylene Chloride	12	J	2600
SV-C-3-9	Naphthalene	9.4	U	36
SV-C-3-9	Tetrachloroethene	25	J	210
SV-C-3-9	Toluene	7.6	J	220000
SV-C-3-9	Total Xylenes	240		4400
SV-C-3-9	Trans-1,2-Dichloroethene	17		2600
SV-C-3-9	Trichloroethene	**2200**		250^{M}
SV-C-3-9	Vinyl Chloride	3.7	U	280
SV-C-4-9	1,1,1-Trichloroethane	0.54	J	220000
SV-C-4-9	1,1,2-Trichloroethane	0.57	U	77
SV-C-4-9	1,1-Dichloroethane	0.2	U	770
SV-C-4-9	1,1-Dichloroethene	0.26	U	8800
SV-C-4-9	1,2,4-Trichlorobenzene	1.4	U	88
SV-C-4-9	1,2-Dichloroethane	0.38	U	47
SV-C-4-9	Benzene	1.3		160
SV-C-4-9	Carbon Tetrachloride	0.66	J	200
SV-C-4-9	Chlorodifluoromethane	49		2200000
SV-C-4-9	Chloroform	2.8		53
SV-C-4-9	Cis-1,2-Dichloroethene	73		----
SV-C-4-9	Dichlorodifluoromethane	2.7		8800
SV-C-4-9	Ethylbenzene	2.9		490
SV-C-4-9	Methyl Tert-Butyl Ether	1.2	U	4700
SV-C-4-9	Methylene Chloride	3.3	J	2600
SV-C-4-9	Naphthalene	3.2	J	36
SV-C-4-9	Tetrachloroethene	0.54	U	210
SV-C-4-9	Toluene	9.2		220000
SV-C-4-9	Total Xylenes	24		4400
SV-C-4-9	Trans-1,2-Dichloroethene	1.4	J	2600
SV-C-4-9	Trichloroethene	**270**		250^{M}
SV-C-4-9	Vinyl Chloride	0.37	U	280

TABLE 3-9

SUB-SLAB VAPOR SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Sample ID	Analyte	Result (ug/m^3)	Qualifier	Target Shallow Soil Gas Concentration[(1)]
SV-C-5-9	1,1,1-Trichloroethane	0.2	J	220000
SV-C-5-9	1,1,2-Trichloroethane	0.11	U	77
SV-C-5-9	1,1-Dichloroethane	0.04	U	770
SV-C-5-9	1,1-Dichloroethene	0.052	U	8800
SV-C-5-9	1,2,4-Trichlorobenzene	0.29	U	88
SV-C-5-9	1,2-Dichloroethane	0.077	U	47
SV-C-5-9	Benzene	0.59		160
SV-C-5-9	Carbon Tetrachloride	0.57		200
SV-C-5-9	Chlorodifluoromethane	15		2200000
SV-C-5-9	Chloroform	0.25	J	53
SV-C-5-9	Cis-1,2-Dichloroethene	0.095	U	----
SV-C-5-9	Dichlorodifluoromethane	2.5		8800
SV-C-5-9	Ethylbenzene	0.94		490
SV-C-5-9	Methyl Tert-Butyl Ether	0.25	U	4700
SV-C-5-9	Methylene Chloride	1.3		2600
SV-C-5-9	Naphthalene	1.4	J	36
SV-C-5-9	Tetrachloroethene	0.29	J	210
SV-C-5-9	Toluene	3		220000
SV-C-5-9	Total Xylenes	5.5		4400
SV-C-5-9	Trans-1,2-Dichloroethene	0.079	U	2600
SV-C-5-9	Trichloroethene	0.29		250[M]
SV-C-5-9	Vinyl Chloride	0.074	U	280
SV-C7-9	1,1,1-Trichloroethane	0.065	U	220000
SV-C7-9	1,1,2-Trichloroethane	0.11	U	77
SV-C7-9	1,1-Dichloroethane	0.04	U	770
SV-C7-9	1,1-Dichloroethene	0.052	U	8800
SV-C7-9	1,2,4-Trichlorobenzene	0.29	U	88
SV-C7-9	1,2-Dichloroethane	0.077	U	47
SV-C7-9	Benzene	0.68		160
SV-C7-9	Carbon Tetrachloride	0.51		200
SV-C7-9	Chlorodifluoromethane	5.6		2200000
SV-C7-9	Chloroform	0.2	J	53
SV-C7-9	Cis-1,2-Dichloroethene	0.095	U	----
SV-C7-9	Dichlorodifluoromethane	2.4		8800
SV-C7-9	Ethylbenzene	0.68		490
SV-C7-9	Methyl Tert-Butyl Ether	0.25	U	4700
SV-C7-9	Methylene Chloride	0.49	B	2600
SV-C7-9	Naphthalene	0.74	J	36
SV-C7-9	Tetrachloroethene	0.25	J	210
SV-C7-9	Toluene	2		220000
SV-C7-9	Total Xylenes	3.15		4400
SV-C7-9	Trans-1,2-Dichloroethene	0.079	U	2600
SV-C7-9	Trichloroethene	0.49		250[M]
SV-C7-9	Vinyl Chloride	0.074	U	280

Notes: Shaded cells indicate a concentration greater than risk-based screening level

U = nondetect J = estimated ---- = not available ug/m^3 - micrograms per cubic meter

SV - Sub-slab vapor B = blank contaminated

(1) Screening values derived in accordance with Draft Guidance for Evaluating the Vapor Intrusion to Indoor Air Pathway from Groundwater and Soils (November 2002). Screening values = EPA Industrial Air Screening Values divided by an attenuation factor of 0.1, and correspond to a target cancer risk level of 1.0E-05.

M = screening value based on MDE IAQ target concentration of 25 ug/m^3 divided by an attenuation factor of 0.1

TABLE 3-10

CO-LOCATED SUB-SLAB VAPOR AND IAQ SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Analyte	Sub-Slab Vapor Sample ID	Result (ug/m^3)	Qualifier	Co-Located IAQ Sample ID	Result (ug/m^3)	Qualifier
1,1,1-Trichloroethane	ISG-01-9	0.37	J	IAQ-C19-9	0.15	J
1,1,2-Trichloroethane	ISG-01-9	0.57	U	IAQ-C19-9	0.11	U
1,1-Dichloroethane	ISG-01-9	0.2	U	IAQ-C19-9	0.04	U
1,1-Dichloroethene	ISG-01-9	0.26	U	IAQ-C19-9	0.052	U
1,2,4-Trichlorobenzene	ISG-01-9	1.4	U	IAQ-C19-9	0.29	U
1,2-Dichloroethane	ISG-01-9	0.38	U	IAQ-C19-9	3	
Benzene	ISG-01-9	0.57	J	IAQ-C19-9	0.48	
Carbon Tetrachloride	ISG-01-9	1.7	J	IAQ-C19-9	0.54	
Chlorodifluoromethane	ISG-01-9	1.8		IAQ-C19-9	2.8	
Chloroform	ISG-01-9	0.44	J	IAQ-C19-9	1.9	
Cis-1,2-Dichloroethene	ISG-01-9	0.48	U	IAQ-C19-9	0.25	J
Dichlorodifluoromethane	ISG-01-9	2.5		IAQ-C19-9	2.6	
Ethylbenzene	ISG-01-9	1.3	J	IAQ-C19-9	0.74	
Methyl Tert-Butyl Ether	ISG-01-9	1.2	U	IAQ-C19-9	0.25	U
Methylene Chloride	ISG-01-9	1.8	J	IAQ-C19-9	0.97	B
Naphthalene	ISG-01-9	**130**	J	IAQ-C19-9	0.19	U
Tetrachloroethene	ISG-01-9	18		IAQ-C19-9	7.7	
Toluene	ISG-01-9	14		IAQ-C19-9	3.9	
Total Xylenes	ISG-01-9	8.1		IAQ-C19-9	2.84	
Trans-1,2-Dichloroethene	ISG-01-9	2.6		IAQ-C19-9	2.1	
Trichloroethene	ISG-01-9	10		IAQ-C19-9	1.4	
Vinyl Chloride	ISG-01-9	0.37	U	IAQ-C19-9	0.074	U
1,1,1-Trichloroethane	ISG-3-C-9	3.2	J	IAQ-C5-9	0.56	J
1,1,2-Trichloroethane	ISG-3-C-9	1.1	U	IAQ-C5-9	0.72	U
1,1-Dichloroethane	ISG-3-C-9	0.4	U	IAQ-C5-9	0.25	U
1,1-Dichloroethene	ISG-3-C-9	0.52	U	IAQ-C5-9	0.32	U
1,2,4-Trichlorobenzene	ISG-3-C-9	2.9	U	IAQ-C5-9	1.8	U
1,2-Dichloroethane	ISG-3-C-9	0.77	U	IAQ-C5-9	0.48	U
Benzene	ISG-3-C-9	0.73	U	IAQ-C5-9	0.7	J
Carbon Tetrachloride	ISG-3-C-9	3.4	J	IAQ-C5-9	0.59	U
Chlorodifluoromethane	ISG-3-C-9	7.8		IAQ-C5-9	300	
Chloroform	ISG-3-C-9	16		IAQ-C5-9	0.55	J
Cis-1,2-Dichloroethene	ISG-3-C-9	1.9	J	IAQ-C5-9	0.59	U
Dichlorodifluoromethane	ISG-3-C-9	2.8	J	IAQ-C5-9	2.7	
Ethylbenzene	ISG-3-C-9	1.6	J	IAQ-C5-9	1	J
Methyl Tert-Butyl Ether	ISG-3-C-9	2.5	U	IAQ-C5-9	1.5	U
Methylene Chloride	ISG-3-C-9	1.9	J	IAQ-C5-9	6.1	
Naphthalene	ISG-3-C-9	4	J	IAQ-C5-9	1.2	U
Tetrachloroethene	ISG-3-C-9	12		IAQ-C5-9	0.68	U
Toluene	ISG-3-C-9	11		IAQ-C5-9	8.9	
Total Xylenes	ISG-3-C-9	16.8		IAQ-C5-9	5.5	J
Trans-1,2-Dichloroethene	ISG-3-C-9	0.79	U	IAQ-C5-9	0.5	U
Trichloroethene	ISG-3-C-9	**370**		IAQ-C5-9	0.47	U
Vinyl Chloride	ISG-3-C-9	0.74	U	IAQ-C5-9	0.46	U

TABLE 3-10

CO-LOCATED SUB-SLAB VAPOR AND IAQ SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Analyte	Sub-Slab Vapor Sample ID	Result (ug/m^3)	Qualifier	Co-Located IAQ Sample ID	Result (ug/m^3)	Qualifier
1,1,1-Trichloroethane	ISG-11-C-9	1		IAQ-C15-9	0.16	U
1,1,2-Trichloroethane	ISG-11-C-9	0.11	U	IAQ-C15-9	0.29	U
1,1-Dichloroethane	ISG-11-C-9	0.43		IAQ-C15-9	0.1	U
1,1-Dichloroethene	ISG-11-C-9	0.067	J	IAQ-C15-9	0.13	U
1,2,4-Trichlorobenzene	ISG-11-C-9	0.29	U	IAQ-C15-9	0.72	U
1,2-Dichloroethane	ISG-11-C-9	2.4		IAQ-C15-9	0.19	U
Benzene	ISG-11-C-9	0.46		IAQ-C15-9	0.86	
Carbon Tetrachloride	ISG-11-C-9	1.1		IAQ-C15-9	0.45	J
Chlorodifluoromethane	ISG-11-C-9	2.6		IAQ-C15-9	210	
Chloroform	ISG-11-C-9	5.6		IAQ-C15-9	0.3	J
Cis-1,2-Dichloroethene	ISG-11-C-9	0.44		IAQ-C15-9	0.24	U
Dichlorodifluoromethane	ISG-11-C-9	78		IAQ-C15-9	2.5	
Ethylbenzene	ISG-11-C-9	2.4		IAQ-C15-9	0.72	J
Methyl Tert-Butyl Ether	ISG-11-C-9	0.25	U	IAQ-C15-9	0.61	U
Methylene Chloride	ISG-11-C-9	32		IAQ-C15-9	5.2	
Naphthalene	ISG-11-C-9	15		IAQ-C15-9	1	J
Tetrachloroethene	ISG-11-C-9	93		IAQ-C15-9	0.27	U
Toluene	ISG-11-C-9	43		IAQ-C15-9	4.3	
Total Xylenes	ISG-11-C-9	15.5		IAQ-C15-9	3.49	
Trans-1,2-Dichloroethene	ISG-11-C-9	0.36		IAQ-C15-9	0.2	U
Trichloroethene	ISG-11-C-9	6.3		IAQ-C15-9	0.19	U
Vinyl Chloride	ISG-11-C-9	0.074	U	IAQ-C15-9	0.19	U
1,1,1-Trichloroethane	ISG-14-C-9	7.7	J	IAQ-C10-9	0.65	U
1,1,2-Trichloroethane	ISG-14-C-9	5.7	U	IAQ-C10-9	1.1	U
1,1-Dichloroethane	ISG-14-C-9	2	U	IAQ-C10-9	0.4	U
1,1-Dichloroethene	ISG-14-C-9	2.6	U	IAQ-C10-9	0.52	U
1,2,4-Trichlorobenzene	ISG-14-C-9	14	U	IAQ-C10-9	2.9	U
1,2-Dichloroethane	ISG-14-C-9	3.8	U	IAQ-C10-9	0.77	U
Benzene	ISG-14-C-9	5.7	J	IAQ-C10-9	0.78	J
Carbon Tetrachloride	ISG-14-C-9	4.7	U	IAQ-C10-9	0.94	U
Chlorodifluoromethane	ISG-14-C-9	130		IAQ-C10-9	430	
Chloroform	ISG-14-C-9	3.7	U	IAQ-C10-9	0.73	U
Cis-1,2-Dichloroethene	ISG-14-C-9	4.8	U	IAQ-C10-9	0.95	U
Dichlorodifluoromethane	ISG-14-C-9	6.7	U	IAQ-C10-9	3.3	J
Ethylbenzene	ISG-14-C-9	15	J	IAQ-C10-9	1.2	U
Methyl Tert-Butyl Ether	ISG-14-C-9	12	U	IAQ-C10-9	2.5	U
Methylene Chloride	ISG-14-C-9	24	J	IAQ-C10-9	13	
Naphthalene	ISG-14-C-9	15	J	IAQ-C10-9	3.1	J
Tetrachloroethene	ISG-14-C-9	5.4	U	IAQ-C10-9	1.1	U
Toluene	ISG-14-C-9	1700		IAQ-C10-9	5.3	
Total Xylenes	ISG-14-C-9	95		IAQ-C10-9	4	J
Trans-1,2-Dichloroethene	ISG-14-C-9	4	U	IAQ-C10-9	0.79	U
Trichloroethene	ISG-14-C-9	3.8	U	IAQ-C10-9	0.75	U
Vinyl Chloride	ISG-14-C-9	3.7	U	IAQ-C10-9	0.74	U

TABLE 3-10

CO-LOCATED SUB-SLAB VAPOR AND IAQ SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Analyte	Sub-Slab Vapor Sample ID	Result (ug/m^3)	Qualifier	Co-Located IAQ Sample ID	Result (ug/m^3)	Qualifier
1,1,1-Trichloroethane	SV-C1-9	0.65	U	IAQ-C14-9	0.26	J
1,1,2-Trichloroethane	SV-C1-9	1.1	U	IAQ-C14-9	0.29	U
1,1-Dichloroethane	SV-C1-9	0.4	U	IAQ-C14-9	0.1	U
1,1-Dichloroethene	SV-C1-9	0.52	U	IAQ-C14-9	0.13	U
1,2,4-Trichlorobenzene	SV-C1-9	2.9	U	IAQ-C14-9	0.72	U
1,2-Dichloroethane	SV-C1-9	0.77	U	IAQ-C14-9	0.19	U
Benzene	SV-C1-9	2	J	IAQ-C14-9	1.1	
Carbon Tetrachloride	SV-C1-9	0.94	U	IAQ-C14-9	0.48	J
Chlorodifluoromethane	SV-C1-9	300		IAQ-C14-9	530	
Chloroform	SV-C1-9	0.73	U	IAQ-C14-9	0.44	J
Cis-1,2-Dichloroethene	SV-C1-9	0.95	U	IAQ-C14-9	0.24	U
Dichlorodifluoromethane	SV-C1-9	2.7	J	IAQ-C14-9	2.6	
Ethylbenzene	SV-C1-9	1.2	U	IAQ-C14-9	1.1	
Methyl Tert-Butyl Ether	SV-C1-9	2.5	U	IAQ-C14-9	0.61	U
Methylene Chloride	SV-C1-9	3.5	B	IAQ-C14-9	11	B
Naphthalene	SV-C1-9	1.9	U	IAQ-C14-9	1.7	J
Tetrachloroethene	SV-C1-9	1.5	J	IAQ-C14-9	0.27	U
Toluene	SV-C1-9	6.4		IAQ-C14-9	7.6	
Total Xylenes	SV-C1-9	5.8	J	IAQ-C14-9	5.2	
Trans-1,2-Dichloroethene	SV-C1-9	0.79	U	IAQ-C14-9	0.2	U
Trichloroethene	SV-C1-9	2.6		IAQ-C14-9	0.2	J
Vinyl Chloride	SV-C1-9	0.74	U	IAQ-C14-9	0.19	U
1,1,1-Trichloroethane	SV-C-2-9	3.7		IAQ-C8-9	0.66	J
1,1,2-Trichloroethane	SV-C-2-9	0.29	U	IAQ-C8-9	0.29	U
1,1-Dichloroethane	SV-C-2-9	0.1	U	IAQ-C8-9	0.1	U
1,1-Dichloroethene	SV-C-2-9	0.13	U	IAQ-C8-9	0.13	U
1,2,4-Trichlorobenzene	SV-C-2-9	0.72	U	IAQ-C8-9	0.72	U
1,2-Dichloroethane	SV-C-2-9	0.19	U	IAQ-C8-9	0.19	U
Benzene	SV-C-2-9	0.7		IAQ-C8-9	0.86	
Carbon Tetrachloride	SV-C-2-9	0.56	J	IAQ-C8-9	0.57	J
Chlorodifluoromethane	SV-C-2-9	120		IAQ-C8-9	430	
Chloroform	SV-C-2-9	0.98		IAQ-C8-9	0.62	J
Cis-1,2-Dichloroethene	SV-C-2-9	0.24	U	IAQ-C8-9	0.24	U
Dichlorodifluoromethane	SV-C-2-9	2		IAQ-C8-9	2.7	
Ethylbenzene	SV-C-2-9	2.3		IAQ-C8-9	1.6	
Methyl Tert-Butyl Ether	SV-C-2-9	0.61	U	IAQ-C8-9	0.61	U
Methylene Chloride	SV-C-2-9	0.88	J	IAQ-C8-9	5.3	
Naphthalene	SV-C-2-9	0.47	U	IAQ-C8-9	0.97	J
Tetrachloroethene	SV-C-2-9	1.3		IAQ-C8-9	0.27	U
Toluene	SV-C-2-9	3.2		IAQ-C8-9	16	
Total Xylenes	SV-C-2-9	3.1		IAQ-C8-9	8.8	
Trans-1,2-Dichloroethene	SV-C-2-9	0.2	U	IAQ-C8-9	0.2	U
Trichloroethene	SV-C-2-9	7.2		IAQ-C8-9	0.76	
Vinyl Chloride	SV-C-2-9	0.19	U	IAQ-C8-9	0.19	U

TABLE 3-10

CO-LOCATED SUB-SLAB VAPOR AND IAQ SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Analyte	Sub-Slab Vapor Sample ID	Result (ug/m^3)	Qualifier	Co-Located IAQ Sample ID	Result (ug/m^3)	Qualifier
1,1,1-Trichloroethane	SV-C-3-9	14	J	IAQ-C9-9	1.6	U
1,1,2-Trichloroethane	SV-C-3-9	5.7	U	IAQ-C9-9	2.9	U
1,1-Dichloroethane	SV-C-3-9	87		IAQ-C9-9	1	U
1,1-Dichloroethene	SV-C-3-9	3	J	IAQ-C9-9	1.3	U
1,2,4-Trichlorobenzene	SV-C-3-9	14	U	IAQ-C9-9	7.2	U
1,2-Dichloroethane	SV-C-3-9	3.8	U	IAQ-C9-9	1.9	U
Benzene	SV-C-3-9	3.7	U	IAQ-C9-9	1.8	U
Carbon Tetrachloride	SV-C-3-9	4.7	U	IAQ-C9-9	2.4	U
Chlorodifluoromethane	SV-C-3-9	190		IAQ-C9-9	960	
Chloroform	SV-C-3-9	67		IAQ-C9-9	1.8	U
Cis-1,2-Dichloroethene	SV-C-3-9	140		IAQ-C9-9	2.4	U
Dichlorodifluoromethane	SV-C-3-9	6.7	U	IAQ-C9-9	3.3	U
Ethylbenzene	SV-C-3-9	53		IAQ-C9-9	2.9	U
Methyl Tert-Butyl Ether	SV-C-3-9	12	U	IAQ-C9-9	6.1	U
Methylene Chloride	SV-C-3-9	12	J	IAQ-C9-9	17	J
Naphthalene	SV-C-3-9	9.4	U	IAQ-C9-9	**4.7**	U
Tetrachloroethene	SV-C-3-9	**25**	J	IAQ-C9-9	2.7	U
Toluene	SV-C-3-9	7.6	J	IAQ-C9-9	6.1	J
Total Xylenes	SV-C-3-9	240		IAQ-C9-9	9.1	J
Trans-1,2-Dichloroethene	SV-C-3-9	17		IAQ-C9-9	2	U
Trichloroethene	SV-C-3-9	**2200**		IAQ-C9-9	1.9	U
Vinyl Chloride	SV-C-3-9	3.7	U	IAQ-C9-9	1.9	U
1,1,1-Trichloroethane	SV-C-4-9	0.54	J	IAQ-C7-9	0.68	J
1,1,2-Trichloroethane	SV-C-4-9	0.57	U	IAQ-C7-9	1.1	U
1,1-Dichloroethane	SV-C-4-9	0.2	U	IAQ-C7-9	0.4	U
1,1-Dichloroethene	SV-C-4-9	0.26	U	IAQ-C7-9	0.52	U
1,2,4-Trichlorobenzene	SV-C-4-9	1.4	U	IAQ-C7-9	2.9	U
1,2-Dichloroethane	SV-C-4-9	0.38	U	IAQ-C7-9	0.77	U
Benzene	SV-C-4-9	1.3		IAQ-C7-9	0.88	J
Carbon Tetrachloride	SV-C-4-9	0.66	J	IAQ-C7-9	0.94	U
Chlorodifluoromethane	SV-C-4-9	49		IAQ-C7-9	380	
Chloroform	SV-C-4-9	2.8		IAQ-C7-9	0.73	U
Cis-1,2-Dichloroethene	SV-C-4-9	73		IAQ-C7-9	0.95	U
Dichlorodifluoromethane	SV-C-4-9	2.7		IAQ-C7-9	2.8	J
Ethylbenzene	SV-C-4-9	2.9		IAQ-C7-9	1.3	J
Methyl Tert-Butyl Ether	SV-C-4-9	1.2	U	IAQ-C7-9	2.5	U
Methylene Chloride	SV-C-4-9	3.3	J	IAQ-C7-9	8.6	
Naphthalene	SV-C-4-9	3.2	J	IAQ-C7-9	2.3	J
Tetrachloroethene	SV-C-4-9	0.54	U	IAQ-C7-9	1.1	U
Toluene	SV-C-4-9	9.2		IAQ-C7-9	12	
Total Xylenes	SV-C-4-9	24		IAQ-C7-9	7.5	J
Trans-1,2-Dichloroethene	SV-C-4-9	1.4	J	IAQ-C7-9	0.79	U
Trichloroethene	SV-C-4-9	**270**		IAQ-C7-9	0.75	U
Vinyl Chloride	SV-C-4-9	0.37	U	IAQ-C7-9	0.74	U

TABLE 3-10

CO-LOCATED SUB-SLAB VAPOR AND IAQ SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Analyte	Sub-Slab Vapor Sample ID	Result (ug/m^3)	Qualifier	Co-Located IAQ Sample ID	Result (ug/m^3)	Qualifier
1,1,1-Trichloroethane	SV-C-5-9	0.2	J	IAQ-C6-9	0.33	U
1,1,2-Trichloroethane	SV-C-5-9	0.11	U	IAQ-C6-9	0.57	U
1,1-Dichloroethane	SV-C-5-9	0.04	U	IAQ-C6-9	0.2	U
1,1-Dichloroethene	SV-C-5-9	0.052	U	IAQ-C6-9	0.26	U
1,2,4-Trichlorobenzene	SV-C-5-9	0.29	U	IAQ-C6-9	1.4	U
1,2-Dichloroethane	SV-C-5-9	0.077	U	IAQ-C6-9	0.38	U
Benzene	SV-C-5-9	0.59		IAQ-C6-9	0.58	J
Carbon Tetrachloride	SV-C-5-9	0.57		IAQ-C6-9	0.52	J
Chlorodifluoromethane	SV-C-5-9	15		IAQ-C6-9	180	
Chloroform	SV-C-5-9	0.25	J	IAQ-C6-9	0.37	U
Cis-1,2-Dichloroethene	SV-C-5-9	0.095	U	IAQ-C6-9	0.48	U
Dichlorodifluoromethane	SV-C-5-9	2.5		IAQ-C6-9	2.9	
Ethylbenzene	SV-C-5-9	0.94		IAQ-C6-9	0.67	J
Methyl Tert-Butyl Ether	SV-C-5-9	0.25	U	IAQ-C6-9	1.2	U
Methylene Chloride	SV-C-5-9	1.3		IAQ-C6-9	6.3	
Naphthalene	SV-C-5-9	1.4	J	IAQ-C6-9	0.94	U
Tetrachloroethene	SV-C-5-9	0.29	J	IAQ-C6-9	0.54	U
Toluene	SV-C-5-9	3		IAQ-C6-9	5.2	
Total Xylenes	SV-C-5-9	5.5		IAQ-C6-9	3.38	J
Trans-1,2-Dichloroethene	SV-C-5-9	0.079	U	IAQ-C6-9	0.4	U
Trichloroethene	SV-C-5-9	0.29		IAQ-C6-9	0.38	U
Vinyl Chloride	SV-C-5-9	0.074	U	IAQ-C6-9	0.37	U
1,1,1-Trichloroethane	SV-C7-9	0.065	U	IAQ-C14-9	0.26	J
1,1,2-Trichloroethane	SV-C7-9	0.11	U	IAQ-C14-9	0.29	U
1,1-Dichloroethane	SV-C7-9	0.04	U	IAQ-C14-9	0.1	U
1,1-Dichloroethene	SV-C7-9	0.052	U	IAQ-C14-9	0.13	U
1,2,4-Trichlorobenzene	SV-C7-9	0.29	U	IAQ-C14-9	0.72	U
1,2-Dichloroethane	SV-C7-9	0.077	U	IAQ-C14-9	0.19	U
Benzene	SV-C7-9	0.68		IAQ-C14-9	1.1	
Carbon Tetrachloride	SV-C7-9	0.51		IAQ-C14-9	0.48	J
Chlorodifluoromethane	SV-C7-9	5.6		IAQ-C14-9	530	
Chloroform	SV-C7-9	0.2	J	IAQ-C14-9	0.44	J
Cis-1,2-Dichloroethene	SV-C7-9	0.095	U	IAQ-C14-9	0.24	U
Dichlorodifluoromethane	SV-C7-9	2.4		IAQ-C14-9	2.6	
Ethylbenzene	SV-C7-9	0.68		IAQ-C14-9	1.1	
Methyl Tert-Butyl Ether	SV-C7-9	0.25	U	IAQ-C14-9	0.61	U
Methylene Chloride	SV-C7-9	0.49	B	IAQ-C14-9	11	B
Naphthalene	SV-C7-9	0.74	J	IAQ-C14-9	1.7	J
Tetrachloroethene	SV-C7-9	0.25	J	IAQ-C14-9	0.27	U
Toluene	SV-C7-9	2		IAQ-C14-9	7.6	
Total Xylenes	SV-C7-9	3.15		IAQ-C14-9	5.2	
Trans-1,2-Dichloroethene	SV-C7-9	0.079	U	IAQ-C14-9	0.2	U
Trichloroethene	SV-C7-9	0.49		IAQ-C14-9	0.2	J
Vinyl Chloride	SV-C7-9	0.074	U	IAQ-C14-9	0.19	U

TABLE 3-10

CO-LOCATED SUB-SLAB VAPOR AND IAQ SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Analyte	Sub-Slab Vapor Sample ID	Result (ug/m^3)	Qualifier	Co-Located IAQ Sample ID	Result (ug/m^3)	Qualifier
1,1,1-Trichloroethane	SV-1-C-9	2.1	J	IAQ-C1-9	0.15	J
1,1,2-Trichloroethane	SV-1-C-9	2.9	U	IAQ-C1-9	0.23	U
1,1-Dichloroethane	SV-1-C-9	1	U	IAQ-C1-9	0.081	U
1,1-Dichloroethene	SV-1-C-9	1.3	U	IAQ-C1-9	0.1	U
1,2,4-Trichlorobenzene	SV-1-C-9	7.2	U	IAQ-C1-9	0.58	U
1,2-Dichloroethane	SV-1-C-9	1.9	U	IAQ-C1-9	0.15	U
Benzene	SV-1-C-9	1.8	U	IAQ-C1-9	0.41	J
Carbon Tetrachloride	SV-1-C-9	2.4	U	IAQ-C1-9	0.56	J
Chlorodifluoromethane	SV-1-C-9	7.5		IAQ-C1-9	52	
Chloroform	SV-1-C-9	18		IAQ-C1-9	0.17	J
Cis-1,2-Dichloroethene	SV-1-C-9	360		IAQ-C1-9	0.19	U
Dichlorodifluoromethane	SV-1-C-9	3.3	U	IAQ-C1-9	2.6	
Ethylbenzene	SV-1-C-9	2.9	U	IAQ-C1-9	0.57	J
Methyl Tert-Butyl Ether	SV-1-C-9	6.1	U	IAQ-C1-9	0.49	U
Methylene Chloride	SV-1-C-9	7.4	J	IAQ-C1-9	2.5	B
Naphthalene	SV-1-C-9	4.7	U	IAQ-C1-9	0.81	J
Tetrachloroethene	SV-1-C-9	6.2	J	IAQ-C1-9	0.22	U
Toluene	SV-1-C-9	2	U	IAQ-C1-9	3.3	
Total Xylenes	SV-1-C-9	18.6	J	IAQ-C1-9	3.14	
Trans-1,2-Dichloroethene	SV-1-C-9	88		IAQ-C1-9	0.16	U
Trichloroethene	SV-1-C-9	**620**		IAQ-C1-9	0.15	U
Vinyl Chloride	SV-1-C-9	1.9	U	IAQ-C1-9	0.15	U
1,1,1-Trichloroethane	SV-5-C-9	4.6		IAQ-C2-9	0.33	J
1,1,2-Trichloroethane	SV-5-C-9	0.11	U	IAQ-C2-9	0.57	U
1,1-Dichloroethane	SV-5-C-9	0.12	J	IAQ-C2-9	0.2	U
1,1-Dichloroethene	SV-5-C-9	0.052	U	IAQ-C2-9	0.26	U
1,2,4-Trichlorobenzene	SV-5-C-9	0.29	U	IAQ-C2-9	1.4	U
1,2-Dichloroethane	SV-5-C-9	0.077	U	IAQ-C2-9	0.38	U
Benzene	SV-5-C-9	0.39		IAQ-C2-9	0.63	J
Carbon Tetrachloride	SV-5-C-9	0.61		IAQ-C2-9	0.54	J
Chlorodifluoromethane	SV-5-C-9	6.1		IAQ-C2-9	190	
Chloroform	SV-5-C-9	13		IAQ-C2-9	0.37	U
Cis-1,2-Dichloroethene	SV-5-C-9	0.095	U	IAQ-C2-9	0.48	U
Dichlorodifluoromethane	SV-5-C-9	0.73		IAQ-C2-9	2.6	
Ethylbenzene	SV-5-C-9	0.41		IAQ-C2-9	0.86	J
Methyl Tert-Butyl Ether	SV-5-C-9	0.25	U	IAQ-C2-9	1.2	U
Methylene Chloride	SV-5-C-9	0.58	J	IAQ-C2-9	4.9	B
Naphthalene	SV-5-C-9	0.29	J	IAQ-C2-9	0.94	U
Tetrachloroethene	SV-5-C-9	110		IAQ-C2-9	0.54	U
Toluene	SV-5-C-9	0.56		IAQ-C2-9	6.4	
Total Xylenes	SV-5-C-9	1.64		IAQ-C2-9	4.7	J
Trans-1,2-Dichloroethene	SV-5-C-9	0.079	U	IAQ-C2-9	0.4	U
Trichloroethene	SV-5-C-9	2.6		IAQ-C2-9	0.38	U
Vinyl Chloride	SV-5-C-9	0.074	U	IAQ-C2-9	0.37	U

TABLE 3-10

CO-LOCATED SUB-SLAB VAPOR AND IAQ SAMPLE RESULTS, BUILDING C, AUGUST 2010
LOCKHEED MARTIN MIDDLE RIVER COMPLEX
MIDDLE RIVER, MARYLAND

Analyte	Sub-Slab Vapor Sample ID	Result (ug/m^3)	Qualifier	Co-Located IAQ Sample ID	Result (ug/m^3)	Qualifier
1,1,1-Trichloroethane	SV-28-C-9	1000		IAQ-C17-9	0.77	J
1,1,2-Trichloroethane	SV-28-C-9	20	U	IAQ-C17-9	0.29	U
1,1-Dichloroethane	SV-28-C-9	**4400**		IAQ-C17-9	0.1	U
1,1-Dichloroethene	SV-28-C-9	1200		IAQ-C17-9	0.13	U
1,2,4-Trichlorobenzene	SV-28-C-9	50	U	IAQ-C17-9	0.72	U
1,2-Dichloroethane	SV-28-C-9	13	U	IAQ-C17-9	0.19	U
Benzene	SV-28-C-9	13	U	IAQ-C17-9	0.84	
Carbon Tetrachloride	SV-28-C-9	16	U	IAQ-C17-9	0.55	J
Chlorodifluoromethane	SV-28-C-9	31	J	IAQ-C17-9	560	
Chloroform	SV-28-C-9	**87**		IAQ-C17-9	0.59	J
Cis-1,2-Dichloroethene	SV-28-C-9	83		IAQ-C17-9	0.24	U
Dichlorodifluoromethane	SV-28-C-9	23	U	IAQ-C17-9	2.7	
Ethylbenzene	SV-28-C-9	**590**		IAQ-C17-9	1.7	
Methyl Tert-Butyl Ether	SV-28-C-9	42	U	IAQ-C17-9	0.61	U
Methylene Chloride	SV-28-C-9	20	J	IAQ-C17-9	6.8	
Naphthalene	SV-28-C-9	**400**	J	IAQ-C17-9	0.47	U
Tetrachloroethene	SV-28-C-9	**19**	U	IAQ-C17-9	0.27	J
Toluene	SV-28-C-9	52		IAQ-C17-9	12	
Total Xylenes	SV-28-C-9	**4900**		IAQ-C17-9	8.7	
Trans-1,2-Dichloroethene	SV-28-C-9	14	U	IAQ-C17-9	0.2	U
Trichloroethene	SV-28-C-9	**2800**		IAQ-C17-9	0.58	
Vinyl Chloride	SV-28-C-9	13	U	IAQ-C17-9	0.19	U
1,1,1-Trichloroethane	SV-29-C-9	0.16	U	IAQ-C18-9	0.65	U
1,1,2-Trichloroethane	SV-29-C-9	0.29	U	IAQ-C18-9	1.1	U
1,1-Dichloroethane	SV-29-C-9	0.1	U	IAQ-C18-9	0.4	U
1,1-Dichloroethene	SV-29-C-9	0.13	U	IAQ-C18-9	0.52	U
1,2,4-Trichlorobenzene	SV-29-C-9	0.72	U	IAQ-C18-9	2.9	U
1,2-Dichloroethane	SV-29-C-9	0.19	U	IAQ-C18-9	0.77	U
Benzene	SV-29-C-9	2.3		IAQ-C18-9	1.2	J
Carbon Tetrachloride	SV-29-C-9	0.56	J	IAQ-C18-9	0.94	U
Chlorodifluoromethane	SV-29-C-9	330		IAQ-C18-9	260	
Chloroform	SV-29-C-9	1.4		IAQ-C18-9	0.73	U
Cis-1,2-Dichloroethene	SV-29-C-9	0.24	U	IAQ-C18-9	0.95	U
Dichlorodifluoromethane	SV-29-C-9	3		IAQ-C18-9	2.5	J
Ethylbenzene	SV-29-C-9	86		IAQ-C18-9	1.2	U
Methyl Tert-Butyl Ether	SV-29-C-9	0.61	U	IAQ-C18-9	2.5	U
Methylene Chloride	SV-29-C-9	2.1	B	IAQ-C18-9	4.2	B
Naphthalene	SV-29-C-9	**210**		IAQ-C18-9	1.9	U
Tetrachloroethene	SV-29-C-9	0.54	J	IAQ-C18-9	1.1	U
Toluene	SV-29-C-9	17		IAQ-C18-9	3.6	
Total Xylenes	SV-29-C-9	800		IAQ-C18-9	3.2	U
Trans-1,2-Dichloroethene	SV-29-C-9	0.2	U	IAQ-C18-9	0.79	U
Trichloroethene	SV-29-C-9	2		IAQ-C18-9	0.75	U
Vinyl Chloride	SV-29-C-9	0.19	U	IAQ-C18-9	0.74	U

Notes:

ug/m3 - micrograms per cubic meter

SV - Sub-slab vapor IAQ = indoor Air Quality

J = estimated B = blank contaminated
U = nondetect

Gray shaded cells indicate results that exceed screening value



MARTIN STATE AIRPORT

FIGURE 3-1

IAQ BACKGROUND SAMPLING LOCATIONS
ROUND 9 AUGUST 2010

LEGEND

- BACKGROUND SAMPLING LOCATION
- WATER

Lockheed Martin Middle River Complex
Middle River, Maryland

0 100 200 300 400 Feet

N

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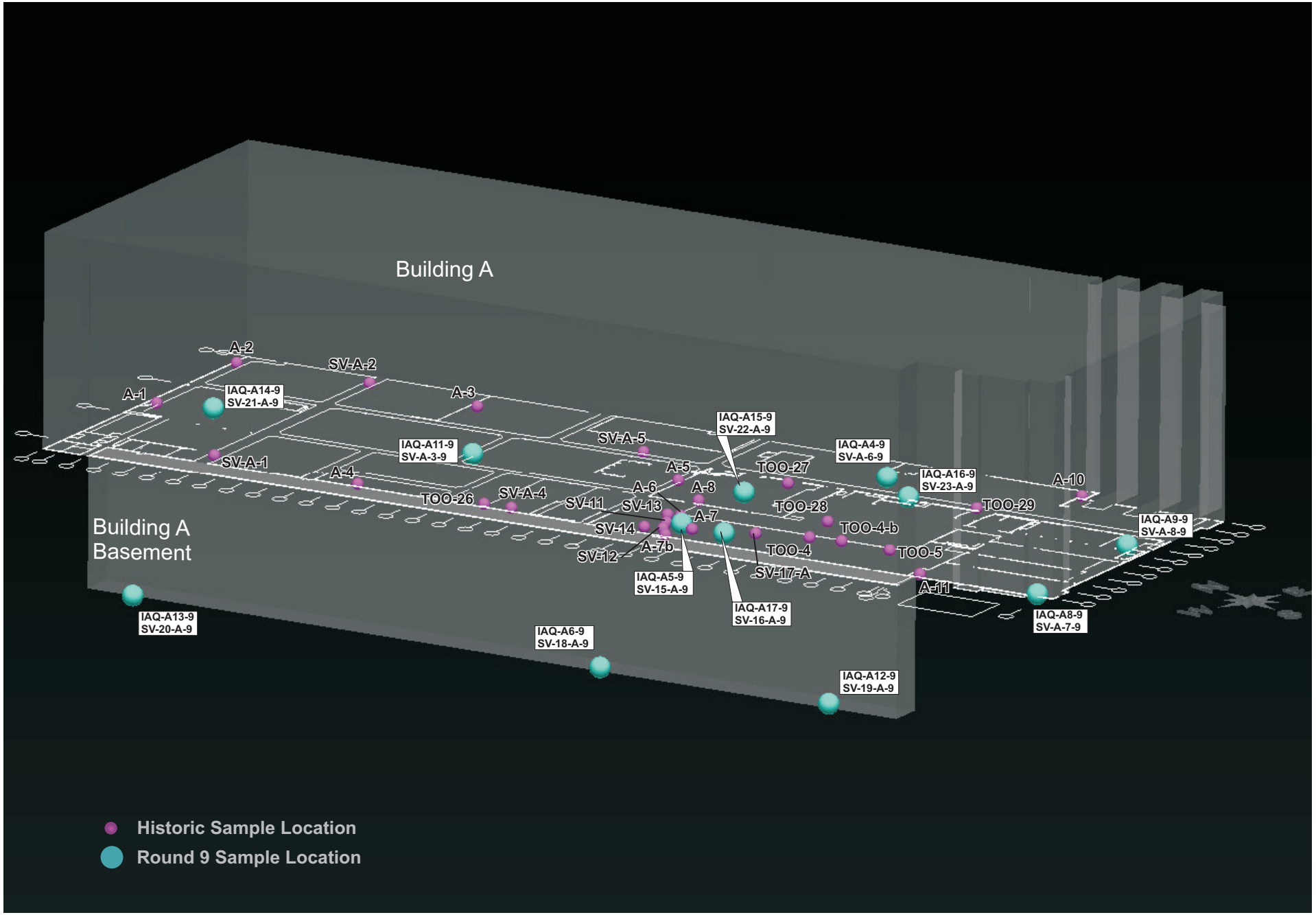
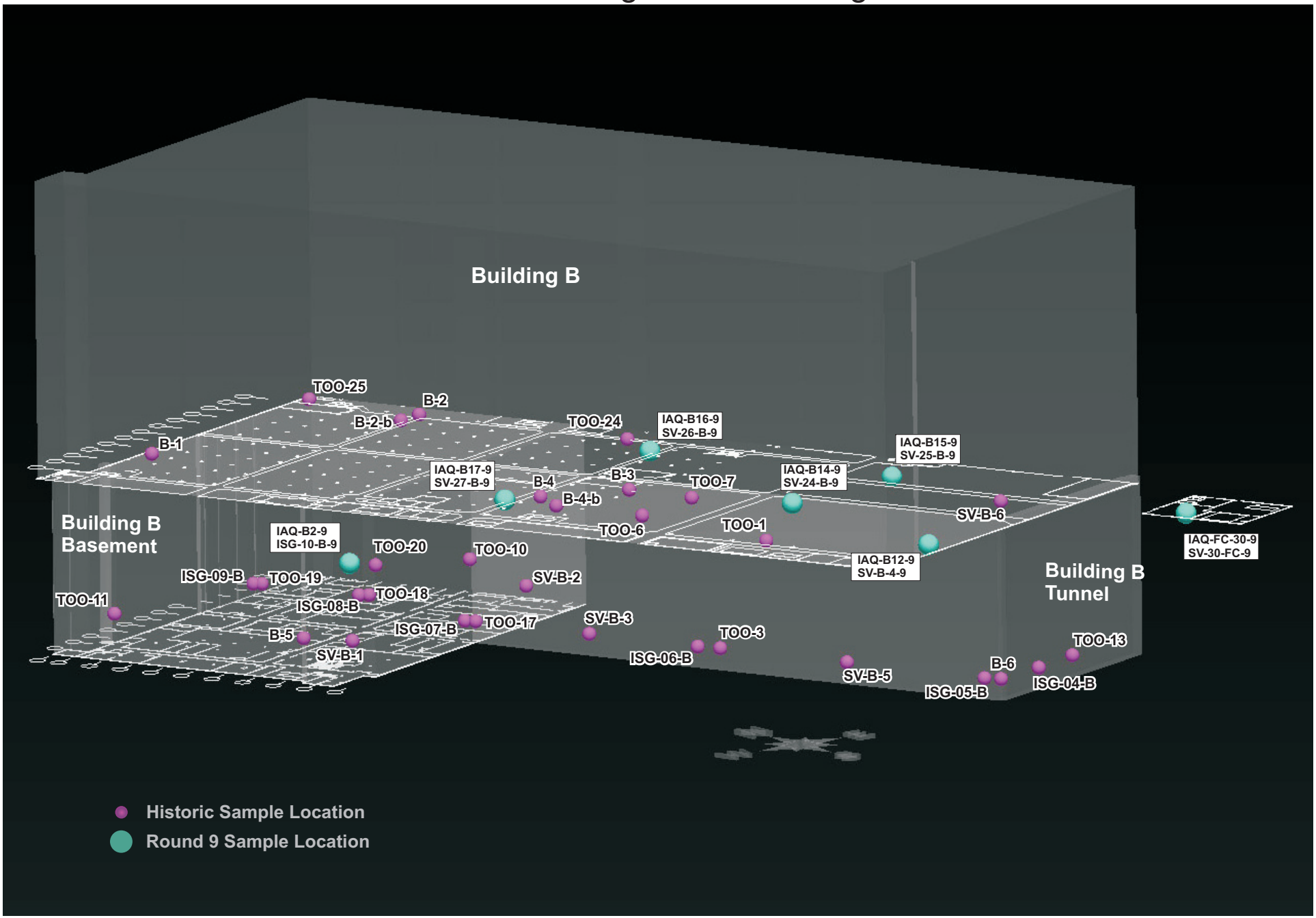
Figure 3-2
Indoor Air and Sub-Slab Vapor Monitoring Locations for Building A Round 9 August 2010



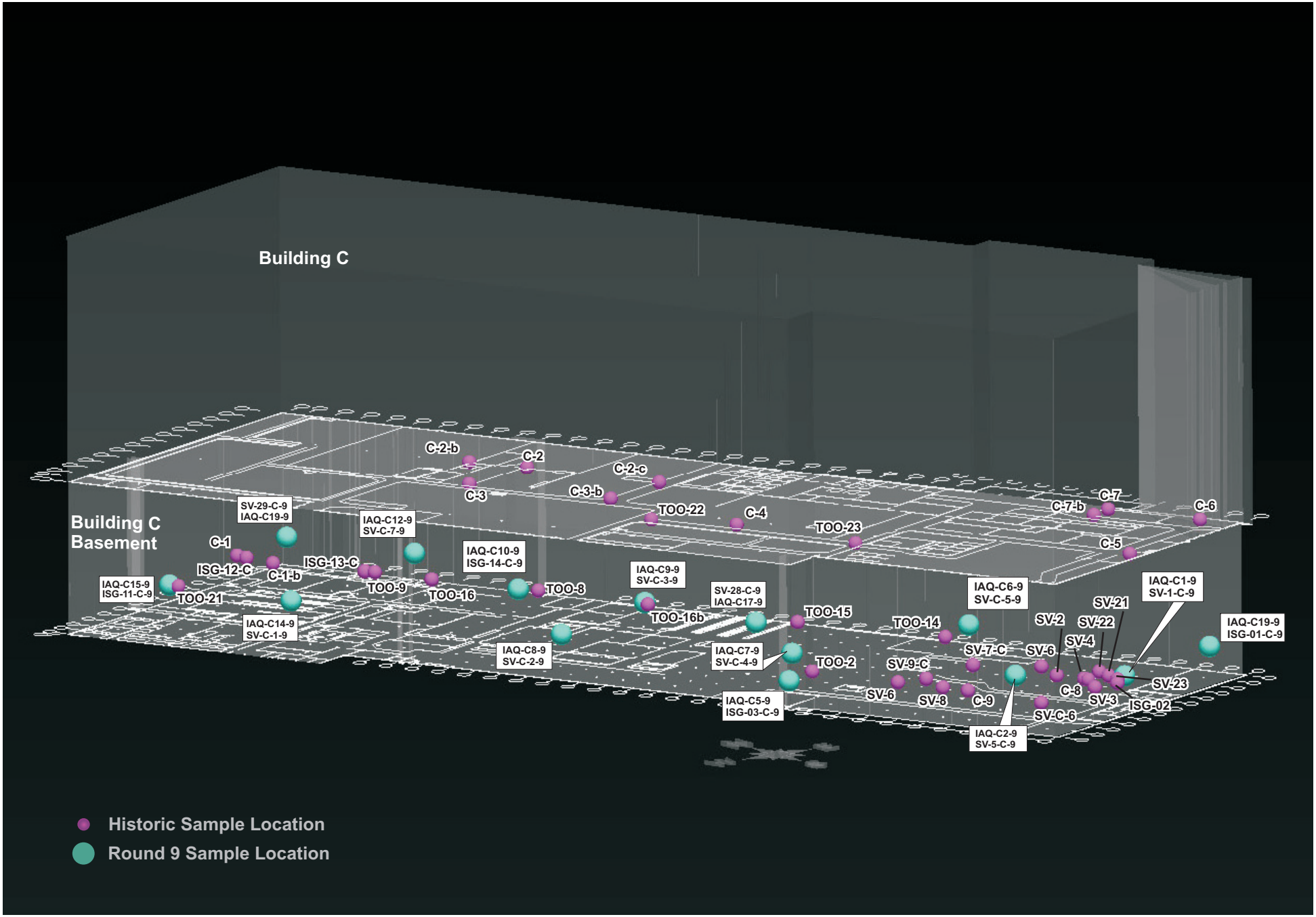
K:\GProject\MartinStateAirport-LMC\GeoData\MVS\Building A Sample Locations Round 9_Figure 3-2.cdr

Figure 3-3
Indoor Air and Sub-Slab Vapor Monitoring Locations for Building B Round 9 August 2010



K:\GProject\MartinStateAirport-LMC\GeoData\MVS\Building B Sample Locations Round 9_Figure 3-3.cdr

Figure 3-4
Indoor Air and Sub-Slab Vapor Monitoring Locations for Building C Round 9 August 2010



K:\GProject\MartinStateAirport-LMC\GeoData\MVS\Building C Sample Locations Round 9_Figure 3-4.cdr

Figure 3-5

Indoor Air and Sub-Slab Vapor Results Greater Than Screening Levels Building A Round 9 August 2010

Legend

- New Round 9 Sample Location Basement
- New Round 9 Sample Location First Floor
- IAQ, Basement
- IAQ, 1st Floor
- SV/ISG
- SG Exterior
- SSD Radius of Influence
- Buildings A, B, and C
- Building B and C Basement
- SSD Vapor Extraction Trench
- SSD Treatment Unit
- Sampling of Pre-existing Location

Round 9 Exceedance

concentrations in ug/m^3

IAQ - Indoor Air Quality
SV - Sub-Slab Vapor

SG-21
SG-22
A-1
A-2
IAQ-A13-9
Naphthalene 5
Tetrachloroethene 25
IAQ-A14-9
SV-21-A-9
Naphthalene 550
SV-20-A-9
SV-A-1
SV-A-2
A-3
SG-20
A-4
SV-A-3-9
IAQ-A11-9
TOO-26
SV-A-4
SV-A-5
SV-18-A-9
1,1- Dichloroethene 32000
1,2- Dichloroethane 750
Trichloroethene 64000
SG-19
IAQ-A6-9
Naphthalene 3.7
A-5
SV-13
SV-14
SV-11
A-8
SV-22-A-9
IAQ-A15-9
SG-18
A-6
SV-12
A-7-b
A-7
IAQ-A5-9
SV-15-A-9
Trichloroethene 1300
TOO-27
SV-16-A-9
IAQ-A17-9
SV-17-A
IAQ-A4-9
SV-A-6-9
Trichloroethene 4800
TOO-28
TOO-4
SG-17
IAQ-A16-9
SV-23-A-9
Ethylbenzene 590
Naphthalene 76
Total Xylenes 5100
TOO-4-b
TOO-5
TOO-29
SV-19-A-9
IAQ-A12-9
SG-13
A-10
A-11
BND6
BND6
BND6
MAINTGAR
IAQ-A9-9
SV-A-8-9
SV-A-7-9
IAQ-A8-9
SG-15

N

0 25 50 75 100 Feet

Lockheed Martin Middle River Complex
Middle River, Maryland

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Figure 3-6

Indoor Air and Sub-Slab Vapor Results Greater Than Screening Levels Building B Round 9 August 2010

SG-22
SG-23
SG-24
TOO-11
B-1
TOO-25
ISG-09
TOO-19
ISG-10-B-9
IAQ-B2-9
TOO-20
B-2
B-2-b
ISG-08
TOO-10
TOO-18
B-5
SV-B-1
ISG-07
SV-B-2
TOO-17
SV-27-B-9-D
Naphthalene 260
IAQ-B17-9
SV-26-B-9
Naphthalene 74
IAQ-B16-9
TOO-24
SV-B-3
B-4-b
B-4
B-3
ISG-06
TOO-6
TOO-7
TOO-3
SV-24-B-9
Naphthalene 74
IAQ-B14-9
SV-25-B-9
IAQ-B15-9
SV-B-5
TOO-1
SV-B-6
IAQ-B12-9
SV-B-4-9
ISG-05
ISG-04
B-6
TOO-13
SG-12
SG-11
SG-13
SV-30-FC-9
Naphthalene 70
IAQ-FC-30-9
SG-10
Fire Coat Building
SG-14
BND6
BND6
BND6

Legend

- New Round 9 Sample Location Basement
- New Round 9 Sample Location First Floor
- IAQ, Basement
- IAQ, 1st Floor
- SV/ISG
- Tunnel
- Buildings A, B, and C
- Building B and C Basement
- Sampling of Pre-existing Location
- Round 9 Exceedance

concentrations in ug/m^3

IAQ - Indoor Air Quality
SV - Sub-Slab Vapor
ISG - Interior Soil Gas

N

0 10 20 40 60 80 Feet

Lockheed Martin Middle River Complex
Middle River, Maryland

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Figure 3-7

Indoor Air and Sub-Slab Vapor Results Greater Than Screening Levels Building C Round 9 August 2010

SG-24
SG-25
SV-29-C-9
Naphthalene 210
C-1
IAQ-C18-9
ISG-11-C-9
ISG-12
IAQ-C15-9
TOO-21
DESCENT
C-1-b
SV-C-1-9
IAQ-C14-9
ISG-13
SV-C-7-9
SG-02
IAQ-C12-9
TOO-9
TOO-16
C-2-b
IAQ-C10-9
SG-03B
ISG-14-C-9
C-3
C-2
TOO-8
SV-C-3-9
Trichloroethene 2200
IAQ-C9-9
SV-C-2-9
TOO-16-b
SG-04
IAQ-C8-9
C-3-b
C-2-c
SV-28-C-9
1,1-Dichloroethane 4400
Chloroform 87
Ethylbenzene 590
Naphthalene 400
Total Xylenes 4900
Trichloroethene 2800
TOO-22
IAQ-C17-9
TOO-15
C-4
SV-C-4-9
Trichloroethene 270
IAQ-C7-9
ISG-03-C-9
Trichloroethene 370
IAQ-C5-9
TOO-2
SV-C-5-9
TOO-14
TOO-23
IAQ-C6-9
SG-06
SG-10
SV-10
SV-9
SV-7
C-7-b
C-7
SV-8
SV-5-C-9
SV-6
SG-07
C-9
IAQ-C2-9
SV-2
ISG-01-C-9
Naphthalene 130
SV-4
SV-22
SV-1-C-9
Trichloroethene 620
C-6
SV-21
C-8
SV-C-6
SV-23
SV-3
ISG-02
C-5
IAQ-C1-9
IAQ-C19-9
SG-09

Legend

- New Round 9 Sample Location Basement
- New Round 9 Sample Location First Floor
- IAQ, Basement
- IAQ, 1st Floor
- SV/ISG
- SG Exterior
- SSD Radius of Influence
- Tunnel
- Buildings A, B, and C
- Building B and C Basement
- Sampling of Pre-existing Location
- SSD Treatment Unit
- Round 9 Exceedance

concentrations in ug/m^3

IAQ - Indoor Air Quality
SV - Sub-Slab Vapor
ISG - Interior Soil Gas

N

0 12.5 25 50 75 100 Feet

Lockheed Martin Middle River Complex
Middle River, Maryland

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Section 4
Sub-Slab Depressurization-System Data Analysis

4.1 SUB-SLAB-VAPOR MONITORING POINTS

No sub-slab-vapor monitoring points were sampled as part of the Building A Plating Shop and Building C Basement SSD-systems operation in 2010. However, sub-slab samples collected during the August 2010 IAQ investigations include three vapor-monitoring points within 100 feet of the Building A SSD-system extraction trenches (SV-15, SV-16, and SV-18), and two vapor-monitoring points within 100 feet of the Building C SSD-system extraction points (SV-1 and SV-5)—see Appendix G, Figures 8 and 9. Sampling locations SV-15, SV-18, and SV-1 had some of the highest concentrations of TCE detected in the site characterization study (Tetra Tech, 2006) and are considered to be in the core of the affected areas at Building A (SV-15), Building A Basement (SV-18), and Building C (SV-1). SV-5 had much lower TCE concentrations and is considered at the edge of the affected area in Building C. SV-16 had moderately high TCE concentrations detected in the site characterization study.

Tables 4-1 and 4-2 summarize the detected concentrations of target VOCs in the sub-slab-vapor samples collected in 2010 at the Building A Plating Shop and Building C Basement, respectively. Sub-slab-vapor samples were previously collected in March 2006 [as part of the site characterization study (Tetra Tech, 2006a)], December 2006, April 2007, October 2007 [as part of the indoor-air-quality investigation (Tetra Tech 2007, 2008a, and 2008b)], and July 2008 and November 2008 [as part of the operation of the SSD systems (Tetra Tech, 2008c)] and October 2009 (as part of the IAQ investigations). Tables 4-1 and 4-2 also include historical data for these sub-slab-vapor sampling locations to provide data on contaminant concentrations over time. The tables also report the percent change in contaminant concentrations from the initial April 2007 sampling to the most recent August 2010, October 2009, or November 2008 sampling events. For

sub-slab-vapor sampling locations for which the April 2007 data are not available, the most recent data collected before system start-up were used.

As illustrated in Tables 4-1 and 4-2, the August 2010 concentrations of TCE and other VOCs at SV-15 in Building A and SV-1 in Building C are considerably lower than the concentrations measured before start-up of the SSD systems on March 31, 2008. Concentrations detected at SV-16 in the August 2010 sampling have also decreased considerably compared to concentrations measured before the SSD system start-up. Results from SV-18 (in the Building A Basement) show decreased concentrations of TCE and other VOCs as compared to the April 2008 sampling results, but concentrations remain relatively elevated. SV-18 is not expected to be significantly influenced by the system extraction because it is in the Building A basement and more than 10 feet deeper than the Building A SSD-system.

Three additional vapor-monitoring points were added to each of the Building A and Building C SSD systems in January and February 2010. These new locations (SV-1A, SV-2A, SV-3A, SV-1C, SV-1B, and SV-1C) are shown in Figures 8 and 9 of Appendix G. These points are checked biweekly (along with the other nearby points) for vacuum influence from the SSD-systems. Three selected points at each system are monitored monthly for 24-hour continuous-vacuum-influence readings. The 24-hour monitoring results confirm the findings of the multiple biweekly checks, showing that vacuum influence is widespread and consistent. Vacuum levels typically stay within a 0.02" water column range during the 24 hours, as discussed in section 2.3 of Appendix G (vacuum data are included in Appendix C of the Appendix G progress report).

Two extraction trenches in the Building A basement near SV-18 are scheduled for construction in October 2010. They will be connected to the Building A SSD-system and extraction will begin in November 2010. Five additional vapor-monitoring points will be added in the Building A basement to monitor induced vacuum. Continued decline of sub-slab concentrations at the Building C SSD-system indicates that the system is working effectively.

4.2 SSD-SYSTEM INFLUENT-VAPOR SAMPLES

SSD-system-vapor samples were collected monthly in 2010 as part of the Building A Plating Shop and Building C Basement systems operation. VOC concentrations in the granular activated-carbon (GAC) influent, midpoint (after the lead unit), and effluent (after the second unit) are monitored to

determine when the midpoint concentration reaches 15% of the influent, so change-out of the lead GAC unit can be scheduled. Collecting these samples also allows monitoring of trends in system-influent concentrations over time. Samples were collected directly from the sampling ports at the influent, mid-point, and effluent of the carbon units for both SSD systems by connecting a clean one-liter SUMMA® canister to the Teflon® tubing of each sampling port and opening the valve for approximately one minute. Samples were submitted to TestAmerica Laboratories, Inc. for VOC analysis by EPA Method TO-15.

Table 4-3 summarizes the detected concentrations of target VOCs in the influent-vapor samples collected from system start-up in March 2008 through September 2010 for both SSD systems. This table also reports the percent change in contaminant concentrations from the initial March 2008 to the most recent September 2010 sampling events. Figures 10 and 11 in Appendix G illustrate these results.

As shown in Table 4-3, the September 2010 concentrations of TCE and other VOCs for both systems are considerably lower than concentrations measured in March 2008, at start-up of the SSD systems, reflecting a 94% or higher reduction in individual VOC concentrations (not including toluene, which was detected at relatively low concentrations and has decreased 91%). Since system start-up on March 31, 2008, total VOCs have decreased from 94,310 µg/m^3 to 2334 µg/m^3 (or 97.5%) in the Building A system influent, and from 31,170 µg/m^3 to 103 µg/m^3 (or 99.7%) in the Building C system influent. The reported concentrations were used to calculate mass removal rates for the period of January 2010 through September 2010.

Currently, for 2010, removal rates range from 0.017–0.042 lbs/day of VOCs in Building A, totaling 7.9 lbs for 2010 thus far (January–September). In Building C, mass-removal rates range from 0.0006–0.0037 lbs/day VOCs, totaling 0.33 lbs for 2010 thus far (January–September). Cumulative-removal totals from system start-up to September 2010 are 56.2 and 4.5 pounds of VOCs in Buildings A and C, respectively.

The SSD systems are performing as designed. Each system has induced vacuum-influence over an approximate 80-foot by 80-foot area encompassing most of the SV-monitoring points that have exhibited VOCs at relatively elevated levels (see Figures 8 and 9 in Appendix G). The systems have removed VOC mass and treated emissions with GAC. GAC removal efficiency is typically better

for higher vapor concentrations. During the lifespan of system operation, 21 200-lb GAC units have been used for the Building A system and eight have been used for the Building C system.

Approximately 74 lbs of GAC have been used per pound of VOCs removed by the Building A system, and 353 pounds of GAC have been used per pound of VOCs removed by the Building C system. These efficiencies are as expected for the low-influent VOC concentrations. GAC removal is typically greater for high vapor concentrations. GAC units are changed on the Building A system approximately every two months, and on the Building C system approximately every four months. Further information regarding system performance can be found in the *Remedial Action Progress Reports*. The sixth progress report, for the period from April 1, 2010 to September 30, 2010, is included as Appendix G.

Table 4-1

Summary of Positive Detects for Vapor Samples
Building A Plating Shop
Lockheed Martin, Middle River Complex
Middle River, Maryland

Volatiles (ug/m3)	**SV-11**						**SV-12**					
Sample ID:	SV-11	SV-11	SV-11	SV-11	Δ	%Δ	SV-12	SV-12	SV-12	SV-12	Δ	%Δ
Sample Date:	Mar-06	Jul-08	Nov-08	Oct-09	(Mar-06 to	(Mar-06 to	Mar-06	Jul-08	Nov-08	Oct-09	(Mar-06 to	(Mar-06 to
Location:	BLDG A	BLDG A	BLDG A	BLDG A	Nov-08)	Nov-08)	BLDG A	BLDG A	BLDG A	BLDG A	Nov-08)	Nov-08)
1,1-Dichloroethane	8070	12000	4600	NS	**-3470.0**	**-43.0**	26900	2400	11000	NS	**-15900.0**	**-59.1**
1,1-Dichloroethene	--	3900	1900	NS	NA	NA	--	1800	9900	NS	NA	NA
1,1,1-Trichloroethane	--	--	--	NS	NA	NA	--	780	3700	NS	NA	NA
1,2,4-Trichlorobenzene	--	--	--	NS	NA	NA	--	--	--	NS	NA	NA
Chloroethane	--	460	--	NS	NA	NA	--	--	--	NS	NA	NA
Methylene chloride	--	--	4800	NS	NA	NA	--		--	NS	NA	NA
Benzene	257 J	--	--	NS	NA	NA	60.6 J	--	--	NS	NA	NA
Carbon tetrachloride	--	--	--	NS	NA	NA	7.9 J	--	--	NS	NA	NA
Chloroform	10.7 J	--	--	NS	NA	NA	54.5 J	--	--	NS	NA	NA
cis-1,2-Dichloroethene	163000 J	79000	31000	NS	**-132000.0**	**-81.0**	18800	1200	2900	NS	**-15900.0**	**-84.6**
Dichlorodifluoromethane	--	--	--	NS	NA	NA	--	--	--	NS	NA	NA
Ethylbenzene	75.9	--	--	NS	NA	NA	44 J	--	--	NS	NA	NA
Methyl tert-butyl ether	425 J	--	NA	NS	NA	NA	206 J	--	NA	NS	NA	NA
Tetrachloroethene	387	--	--	NS	NA	NA	181 J	--	--	NS	NA	NA
Toluene	309	500	--	NS	NA	NA	119 J	--	--	NS	NA	NA
Total Xylenes	227	--	--	NS	NA	NA	340 J	--	--	NS	NA	NA
trans-1,2-Dichloroethene	1980 J	--	--	NS	NA	NA	240 J	--	--	NS	NA	NA
Trichloroethene	2150 J	2800	850	NS	**-1300.0**	**-60.5**	81400	3500	6800	NS	**-74600.0**	**-91.6**
Vinyl chloride	727 J	--	--	NS	NA	NA	42 J	--	--	NS	NA	NA

SV - soil vapor
J - estimated
-- - not detected

NA - not applicable
%Δ - Percentage increase or decrease pre- versus post-remediation

Table 4-1

Summary of Positive Detects for Vapor Samples
Building A Plating Shop
Lockheed Martin, Middle River Complex
Middle River, Maryland

Volatiles (ug/m3)	**SV-13**									
Sample ID:	SV-13	SV-13	SV-13D	SV-13	SV-13	SV-13	SV-13	SV-13	Δ (Apr-07 to Nov-08)	%Δ (Apr-07 to Nov-08)
Sample Date:	Mar-06	Dec-06	Dec-06	Apr-07	Oct-07	Jul-08	Nov-08	Oct-09		
Location:	BLDG A	BLDG A	BLDG A	BLDG A	BLDG A	BLDG A	BLDG A	BLDG A		
1,1-Dichloroethane	17900	9080	9360	11000	3400	200	--	NS	NA	NA
1,1-Dichloroethene	--	--	--	--	--	520	16	NS	NA	NA
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	NS	NA	NA
1,1,1-Trichloroethane	--	--	--	--	--	550	--	NS	NA	NA
Methylene chloride	--	--	--	--	--	--	20	NS	NA	NA
Benzene	61.2 J	81.6	88.3	--	--	--	--	NS	NA	NA
Carbon tetrachloride	--	--	--	--	--	--	--	NS	NA	NA
Chloroform	59.1	84.7 J	95.6 J	64.5 J	--	--	--	NS	NA	NA
cis-1,2-Dichloroethene	230000 J	242000	234000	292000	15000	3800	47	NS	**-291953.0**	**-99.98**
Dichlorodifluoromethane	--	--	--	--	--	--	--	NS	NA	NA
Ethylbenzene	26.8 B	--	--	--	--	--	--	NS	NA	NA
Methyl tert-butyl ether	155 J	--	--	--	--	NA	NA	NS	NA	NA
Tetrachloroethene	215	178	195	166 J	--	--	--	NS	NA	NA
Toluene	69.5	--	--	--	1100	--	170	NS	***+ 101.0***	**144.60**
Total Xylenes	82.9 J	--	--	--	--	--	15	NS	***- 67.9***	**-81.91**
trans-1,2-Dichloroethene	1190 J	3160	3470	4650	--	--	--	NS	NA	NA
Trichloroethene	270000 J	369000	352000	326000	820	4700	46	NS	**- 325954.0**	**-99.99**
Vinyl chloride	182 J	618	701	549	--	--	--	NS	NA	NA

SV - soil vapor
D - duplicate
J - estimated
-- - not detected (below detection limit)

NA - not applicable
Δ - increase or decrease pre- versis post-remediation
italicized - April 2007 data not available. Calculation uses next available data prior to system chart

Table 4-1

Summary of Positive Detects for Vapor Samples
Building A Plating Shop
Lockheed Martin, Middle River Complex
Middle River, Maryland

Volatiles (ug/m3)	**SV-15**										
Sample ID:	SV-15	SV-15	SV-15	SV-15	SV-15D	SV-15	SV-15	SV-15	SV-15	Δ (Apr-07 to Oct-09)	%Δ (Apr-07 to Oct-09)
Sample Date:	Mar-06	Dec-06	Apr-07	Oct-07	Oct-07	Jul-08	Nov-08	Oct-09	Oct-10		
Location:	BLDG A	BLDG A	BLDG A	BLDG A	BLDG A	BLDG A	BLDG A	BLDG A	BLDG A		
1,1-Dichloroethane	27700 J	2160	6010	5700	7600	320	480	0.43 J	58	**-5952**	**-99.03**
1,1-Dichloroethene	--	--	--	--	--	3400	6400	3.4	1200	NA	NA
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	--	NA	NA
1,1,1-Trichloroethane	--	--	--	--	--	9800	2500	--	--	NA	NA
Benzene	50.6 J	21.7 J	--	--	--	--	--	--	--	NA	NA
Carbon tetrachloride	6.3 J	--	--	--	--	--	--	--	--	NA	NA
Chloroform	63.4 J	67.7	109	--	--	--	--	--	-- J	NA	NA
cis-1,2-Dichloroethene	118000 J	83800	167000	140000	190000	7800	20000	36	1800	**-165200**	**-98.92**
Dichlorodifluoromethane	--	--	--	--	--	--	--	3.2 J	--	NA	NA
Ethylbenzene	794 J	43.4 J	--	--	--	--	--	4.6	--	NA	NA
Methyl tert-butyl ether	1050 J	18.8 J	--	--	--	NA	NA	--	--	NA	NA
Tetrachloroethene	346 J	54.9 J	98.5	--	--	--	--	--	--	NA	NA
Toluene	431 J	16 J	14.8 J	--	--	--	480	210	14	**-0.8**	**-5.41**
Total Xylenes	5150 J	--	--	--	--	--	310	13.9	0.7	**-5149.3**	**-99.986**
trans-1,2-Dichloroethene	1370 J	1430	4660	2100	3200	--	--	--	99	**-4561**	**-97.876**
Trichloroethene	154000 J	161000	326000	150000	220000	17000	12000	8.1	1300	**-324700**	**-99.601**
Vinyl chloride	100 J	210	491	--	--	--	--	--	9.8	**-481.2**	**-98.004**

SV - soil vapor
D - duplicate
J - estimated
-- - not detected (below detection limit)
NA - not applicable
Δ - increase or decrease pre- versis post-remediation
U - nondetect
italicized - April 2007 data not available. Calculation uses next available data prior to system chart

Table 4-1

Summary of Positive Detects for Vapor Samples
Building A Plating Shop
Lockheed Martin, Middle River Complex
Middle River, Maryland

Volatiles (ug/m3)	**SV-16**						**SV-17**				
Sample ID:	SV-16	SV-16	SV-16	SV-16	Δ (Apr-07 to Oct -10)	%Δ (Apr-07 to Nov-08)	SV-17	SV-17	SV-17	Δ (Apr-07 to Oct-09)	%Δ (Apr-07 to Oct-09)
Sample Date:	Mar-06	Jul-08	Nov-08	Oct-10			Mar-06	Nov-08	Oct-09		
Location:	BLDG A	BLDG A	BLDG A	BLDG A			BLDG A	BLDG A	BLDG A		
1,1-Dichloroethane	42700 J	180	1400	40	**-42660**	**99.9**	5.6	47	6.7	**+ 1.1**	**19.6**
1,1-Dichloroethene	--	2100	18000	770	**-1330**	**63.3**	--	38	6	NA	NA
1,2,4-Trichlorobenzene	--	--	--	--	NA	NA	--	--	--	NA	NA
Chloroethane	--	--	53		NA	NA	--	--	--	NA	NA
1,1,1-Trichloroethane	--	67	420	5.7 J	**-61.3**	**91.5**	--	21	--	NA	NA
Benzene	46.1 J	--	--	--	NA	NA	0.9 J	--	0.41	**+ 0.5**	**-54.4**
Carbon tetrachloride	10.7 J	--	--	--	NA	NA	0.8 J	--	0.53	**- 0.3**	**-33.8**
Chloroform	47.4 J	--	--	--	NA	NA	1.1 J	78	27	**+ 25.9**	**2354.5**
cis-1,2-Dichloroethene	5820	710	3000	88	**-5732**	**98.5**	43.8	8	2.4	**- 41.4**	**-94.5**
Dichlorodifluoromethane	--	--	--		NA	NA	2.8	--	2.8	0	**0.0**
Ethylbenzene	19.2 B	--	--	--	NA	NA	0.5 B	--	3.3	**+ 2.8**	**560.0**
Methyl tert-butyl ether	1490 J	--	--	--	NA	NA	0.7 J	NA	0.51 J	**- 0.2**	**-27.1**
Tetrachloroethene	514 J	--	--	--	NA	NA	0.7 J	--	0.81	**+ 0.1**	**15.7**
Toluene	30.8 B	--	--	7.9 J	**-22.9**	**74.4**	2.3	--	58	**+ 55.7**	**2421.7**
Total Xylenes	68.1 J	--	--	--	NA	NA	1.7 J	--	11.3	**+ 9.6**	**564.7**
trans-1,2-Dichloroethene	297 J	--	--	9.7	**-287.3**	**96.7**	0.7 J	--	0.2 J	**- 0.5**	**-71.4**
Trichloroethene	6870	1300	3700	130	**-6740**	**98.1**	60.4	310	67	**+ 6.6**	**10.9**
Vinyl chloride	124 J	--	63	6.4	**-117.6**	**94.8**	--	--	0.1 J	NA	NA

SV - soil vapor
J - estimated
B - blank contamination
-- - not detected

NA - not applicable
NS - not sampled
Δ - increase or decrease pre- versis post-remediation
italicized - April 2007 data not available. Calculation uses next available data prior to system chart

Table 4-1

Summary of Positive Detects for Vapor Samples
Building A Plating Shop
Lockheed Martin, Middle River Complex
Middle River, Maryland

Volatiles (ug/m3)	**SV-18**									
Sample ID:	SV-18	SV-18	SV-18	SV-18	SV-18D	SV-18	SV-18	SV-18	Δ (Apr-07 to Oct-10)	%Δ (Apr-07 to Oct-10)
Sample Date:	Mar-06	Dec-06	Apr-07	Oct-07	Oct-07	Nov-08	Oct-09	Oct-10		
Location:	BLDG A	BLDG A	BLDG A	BLDG A	BLDG A	BLDG A	BLDG A	BLDG A		
1,1-Dichloroethane	9550 J	1750	78600	10	76000	44000	1100	750	**-77850**	**-99.0**
1,1-Dichloroethene	--	--	--	--	--	1500000	43000	32000	-1468000	**-97.9**
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--	--	NA	NA
Benzene	1.5 J	--	--	--	--	--	--	--	NA	NA
Carbon tetrachloride	1.8 J	17.3	337	--	--	--	--	--	NA	NA
Chloroform	5.7	8.8 J	316	--	--	--	--	--	NA	NA
cis-1,2-Dichloroethene	2040 J	6270	232000	30	250000	170000	4400	3200	**-228800**	**-98.1**
Dichlorodifluoromethane	--	--	--	--	--	--	--	--	NA	NA
Ethylbenzene	0.8 J	--	--	--	--	--	--	--	NA	NA
Methyl tert-butyl ether	14.4	5.3 J	--	--	--	--	--	--	NA	NA
Tetrachloroethene	9.9	91.2	4470	--	--	--	--	--	NA	NA
Toluene	1.6 B	2.1 J	29.6 J	--	--	--	--	--	NA	NA
Total Xylenes	2.5 J	--	--	--	--	--	500	--	NA	NA
trans-1,2-Dichloroethene	15.4	113	4160	--	--	--	--	--	NA	NA
Trichloroethene	20900 J	162000	6200000	330	3900000	2700000	63000	64000	**-6136000**	**-99.0**
Vinyl chloride	7	91.2	1850	--	--	--	--	--	NA	NA

SV - soil vapor
D - duplicate
J - estimated
-- not detected, below detection limit

NS - not sampled
NA - not applicable
Δ - increase or decrease pre- versis post-remediation
italicized - April 2007 data not available. Calculation uses next available data prior to system chart

Table 4-2

Summary of Positive Detects for Vapor Samples
Building C Basement Area
Lockheed Martin, Middle River Complex
Middle River, Maryland

Volatiles (ug/m3)	**SV-1**										
Sample ID:	SV-1	SV-1D	SV-1	SV-1	SV-1	SV-1	SV-1	SV-1	SV-1	Δ (Apr-07 to Oct-09)	%Δ (Apr-07 to Oct-09)
Sample Date:	Mar-06	Mar-06	Dec-06	Apr-07	Oct-07	Jul-08	Nov-08	Oct-09	Aug-10		
Location:	BLDG C	BLDG C	BLDG C	BLDG C	BLDG C	BLDG C	BLDG C	BLDG C	BLDG C		
1,1-Dichloroethane	5410	2960	--	--	--	--	--		--	NA	NA
1,1-Dichloroethene	--	--	--	--	--	24	39	1 J	--	NA	NA
1,2,4-Trichlorobenzene	--	--	--	--	--	--	--		--	NA	NA
Benzene	--	33.4 J	--	--	--	--	--		--	NA	NA
Carbon tetrachloride	--	--	--	--	--	--	--		--	NA	NA
Chloroform	86.8 J	56.8 J	--	--	--	--	--	7.4	18	**-38.8**	**-68.31**
cis-1,2-Dichloroethene	792000 J	840000 J	481000	1550000	260000	1100	3300	230	360	**-1549640.0**	**-99.98**
Dichlorodifluoromethane	--	--	--	--	--	--	--	2.2 J	--	NA	NA
Ethylbenzene	39.3 B	34.8 B	--	--	--	--	--		--	NA	NA
Methyl tert-butyl ether	332	238	--	--	--	NA	NA		--	NA	NA
Styrene	--	--	--	--	--	13	--		--	NA	NA
Tetrachloroethene	107 J	100 J	158 J	136 J	--	--	--	3 J	6.2 J	**-129.8**	**-95.44**
Toluene	103 B	86.8	--	--	--	--	--		--	NA	NA
Total Xylenes	68.7 J	81.5 J	--	--	--	--	--	3.2	18.6	**-62.9**	**-77.18**
trans-1,2-Dichloroethene	5180	2580	5200	5930	3500	--	--	49	88	**-5842.0**	**-98.52**
Trichloroethene	19200	16400 J	19600	21100	8500	450	850	330	620	**-20480.0**	**-97.06**
Vinyl chloride	1320	542	761	578	--	58	40	--	--	NA	NA

SV - soil vapor
D - duplicate
J - estimated
B - blank contamination
-- not detected

NA - not applicable
Δ - increase or decrease pre- versis post-remediation
italicized - April 2007 data not available. Calculation uses next available data prior to system chart

Table 4-2

Summary of Positive Detects for Vapor Samples
Building C Basement Area
Lockheed Martin, Middle River Complex
Middle River, Maryland

Volatiles (ug/m3)	**SV-2**					**SV-3**				
Sample ID:	SV-2	SV-2	SV-2	Δ	%Δ	SV-3	SV-3	SV-3	Δ	%Δ
Sample Date:	Mar-06	Jul-08	Nov-08	(Mar-06 to Nov-08)	(Mar-06 to Nov-08)	Mar-06	Jul-08	Nov-08	(Mar-06 to Nov-08)	(Mar-06 to Nov-08)
Location:	BLDG C	BLDG C	BLDG C			BLDG C	BLDG C	BLDG C		
1,1-Dichloroethane	10.6 B	--	--	NA	NA	3.4 B	--	--	NA	NA
1,2,4-Trichlorobenzene	--	--	--	NA	NA	--	--	--	NA	NA
Methylene chloride	--	44	--	NA	NA	--	--	--	NA	NA
Benzene	18.3 J	--	8.4	**- 9.9**	**-54.1**	6.7 J	64	--	NA	NA
Carbon tetrachloride	--	--	--	NA	NA	1.8 J	--	--	NA	NA
Chloroform	552 J	--	18	**- 534**	**-96.7**	66	--	--	NA	NA
cis-1,2-Dichloroethene	320 J	22	350	**+ 30**	**9.4**	93	--	8.5	**- 84.5**	**-90.9**
Dichlorodifluoromethane	4.5 J	--	--	NA	NA	--	--	--	NA	NA
Ethylbenzene	38.2 J	--	--	NA	NA	19	--	--	NA	NA
Methyl tert-butyl ether	1000	NA	NA	NA	NA	469	--	--	NA	NA
Tetrachloroethene	174 J	--	--	NA	NA	388	--	14	**- 374**	**-96.4**
Toluene	65.9 J	14	--	NA	NA	18.8	--	NA	NA	NA
Total Xylenes	95.5 J	--	--	NA	NA	70.9	--	--	NA	NA
trans-1,2-Dichloroethene	20.9 J	--	--	NA	NA	24.4	--	--	NA	NA
Trichloroethene	408 J	55	770	**+ 362**	**88.7**	2130	49	60	**- 2070**	**-97.2**
Vinyl chloride	15.9 J	--	--	NA	NA	--	--	--	NA	NA

SV - soil vapor
B - blank contamination
J - estimated
-- not detected (below detection limit)

NA - not applicable
Δ - increase or decrease pre- versis post-remediation

Table 4-2

Summary of Positive Detects for Vapor Samples
Building C Basement Area
Lockheed Martin Corporation, Middle River Complex
Middle River, Maryland

Volatiles (ug/m3)	**SV-4**							
Sample ID:	SV-4	SV-4	SV-4	SV-4	SV-4	SV-4	Δ (Apr-07 to Nov-08)	%Δ (Apr-07 to Nov-08)
Sample Date:	Mar-06	Dec-06	Apr-07	Oct-07	Jul-08	Nov-08		
Location:	BLDG C	BLDG C	BLDG C	BLDG C	BLDG C	BLDG C		
1,1-Dichloroethane	1010	--	--	--	--	--	NA	NA
1,1-Dichloroethene	--	--	--	--	9.7	9.9	NA	NA
1,2,4-Trichlorobenzene	--	--	--	--	--	--	NA	NA
Methylene chloride	--	--	--	--	--	36	NA	NA
Benzene	51.2	50	71.2	--	--	--	NA	NA
Carbon tetrachloride	--	--	--	--	--	--	NA	NA
Chloroform	131	7 J	--	--	270	240	***+ 233***	***3328.6***
cis-1,2-Dichloroethene	65800	79300	58100	11000	650	520	**- 57580**	**-99.1**
Dichlorodifluoromethane	--	--	--	--	--	--	NA	NA
Ethylbenzene	58.9	4.3 J	4 J	--	--	--	NA	NA
Methyl tert-butyl ether	420	--	--	--	--	NA	NA	NA
Tetrachloroethene	72.1	33.9	33.8 J	--	--	--	NA	NA
Toluene	211	51.2	72.1	210	--	--	NA	NA
Total Xylenes	264	--	--	--	--	--	NA	NA
trans-1,2-Dichloroethene	1020	661	759	140	--	--	NA	NA
Trichloroethene	14400	28300	16500	2700	430	300	**- 16200**	**-98.2**
Vinyl chloride	663	381	609	--	16	13	**- 596**	**-97.9**

SV - soil vapor
D - duplicate
J - estimated
-- - not detected

NA - not applicable
Δ - increase or decrease pre- versis post-remediation
italicized - April 2007 data not available. Calculation uses next available data prior to

Table 4-2

Summary of Positive Detects for Vapor Samples
Building C Basement Area
Lockheed Martin, Middle River Complex
Middle River, Maryland

Volatiles (ug/m3)	**SV-5**						**SV-6**			
Sample ID:	SV-5	SV-5	SV-5	SV-5	Δ (Mar-06 to Aug-10)	%Δ (Mar-06 to Aug-10)	SV-6	SV-6	Δ (Mar-06 to Nov-08)	%Δ (Mar-06 to Nov-08)
Sample Date:	Mar-06	Nov-08	Oct-09	Aug-10			Mar-06	Nov-08		
Location:	BLDG C	BLDG C	BLDG C	BLDG C			BLDG C	BLDG C		
1,1-Dichloroethane	--	--	--	0.12 J	NA	NA	0.5 B	--	NA	NA
1,2,4-Trichlorobenzene	--	--	--	--	NA	NA	--	--	NA	NA
1,2,4-Trimethylbenzene	--	--	--	--	NA	NA	--	12	NA	NA
Benzene	9 J	--	0.36	0.39	**-8.61**	**-95.7**	23.5 J	--	NA	NA
Trichlorofluormethane	--	19	--	--	NA	NA	--	--	NA	NA
Methylene chloride	--	--	--	0.58 J	NA	NA	--	52	NA	NA
Carbon tetrachloride	0.9 J	--	0.44 J	0.61	**-0.29**	**-32.2**	1.4 J	--	NA	NA
Chloroform	286	15	8.5	13	**-273**	**-95.5**	390	--	NA	NA
cis-1,2-Dichloroethene	0.8 B	--	--	--	NA	NA	2.7 B	--	NA	NA
Dichlorodifluoromethane	3.1 J	--	3.7	0.73	**-2.37**	**-76.5**	2.6 J	--	NA	NA
Ethylbenzene	93.6 J	--	0.24 J	0.41	**-93.19**	**-99.6**	164 J	--	NA	NA
Methyl tert-butyl ether	572	NA	--	--	NA	NA	416	NA	NA	NA
Tetrachloroethene	82.9 J	64	66	110	**27.1**	**32.7**	76.3 J	42	**- 34.3**	**-45.0**
Toluene	157 J	--	0.53	0.56	**-156.44**	**-99.6**	249	--	NA	NA
Total Xylenes	407 J	--	1.08	1.64 J	**-405.36**	**-99.6**	935	--	NA	NA
trans-1,2-Dichloroethene	--	--	--	--	NA	NA	--	--	NA	NA
Trichloroethene	2 B	--	0.94	2.6	**0.6**	**30.0**	5.1 B	--	NA	NA
Vinyl chloride	--	--	--	--	NA	NA	--	--	NA	NA

SV - soil vapor
D - duplicate
J - estimated
-- - not detected

Table 4-3

Summary of Positive Detects for Vapor Samples
Buildings A and C SSD Extraction Points
Lockheed Martin, Middle River Complex
Middle River, Maryland

Volatiles (ug/m3)	Building A								Building C							
Sample ID:	Influent	Influent	Influent	Influent	Influent	Influent	Influent	%Δ	Influent	Influent	Influent	Influent	Influent	Influent	Influent	%Δ
Sample Date:	Mar-08	Jul-08	Nov-08	Oct-09	Dec-09	Apr-10	Sep-10	(Mar-08 to	Mar-08	Jul-08	Nov-08	Oct-09	Dec-09	Apr-10	Sep-10	(Mar-08 to
Location:	BLDG A	BLDG A	BLDG A	BLDG A	BLDG A	BLDG A	BLDG A	Sept.-10)	BLDG C	BLDG C	BLDG C	BLDG C	BLDG C	BLDG C	BLDG C	Sept.-10)
1,1-Dichloroethane	2,100	110	300	64	48	41	35	**-98.3**	--	--	--	--	--	--	--	NA
1,1-Dichloroethene	7,900	430	1100	210	180	160	150	**-98.1**	--	--	--	--	--	--	--	NA
1,1,1-Trichloroethane	30000	3200	6500	1500	1100	1100	860	**-97.1**	--	--	--	--	--	--	--	NA
1,2,4-Trimethylbenzene	--	--	--	--	--	--	--	NA	990	45	--	--	--	--	--	**-99.0**
1,3,5-Trimethylbenzene	--	--	--	--	--	--	--	NA	740	36	--	--	--	--	--	**-98.7**
Benzene	--	--	--	--	--	--	--	NA	--	--	--	--	--	--	--	NA
cis-1,2-Dichloroethene	8300	350	1300	230	190	160	140	**-98.3**	25000	1300	390	200	96	110	70	**-99.7**
Ethylbenzene	300	--	--	--	--	--	--	**-97.1**	320	--	--	--	--	--	--	**-97.3**
Methylene Chloride	--	--	--	--	--	--	--	NA	--	--	--	--	--	--	--	NA
m-Xylene & p-Xylene	1100	--	--	9.7	--	--	--	**-99.2**	1100	--	--	--	8.7	--	--	**-99.2**
o-Xylene	280	--	--	--	--	--	--	**-96.9**	370	--	--	--	--	--	--	**-97.6**
Tetrachloroethene	--	--	--	--	--	--	--	NA	--	14	--	--	--	--	--	NA
Toluene	330	--	72	20	39	--	29	**-91.2**	--	--	--	--	26	--	--	NA
Trichloroethene	44000	3700	7200	1400	1300	1000	1100	**-97.5**	550	440	110	64	45	39	33	**-94.0**
Trichlorofluoromethane	--	--	--	--	--	--	20	**NA**	--	--	--	--	--	--	--	NA
Vinyl Chloride	--	--	--	--	--	--	--	**NA**	2100	35	17	--	--	--	--	**-99.8**

SV - soil vapor
D - duplicate
J - estimated
-- - not detected

NA - not applicable
%Δ - Percentage increase or decrease pre- versus post-remediation

Section 5
Summary, Conclusions, and Recommendations

5.1 SUMMARY AND CONCLUSIONS

Tetra Tech has completed the second of two rounds of vapor-intrusion monitoring (Round 9) to be performed in 2010 in Buildings A, B, and C at Lockheed Martin's Middle River Complex in Middle River, Maryland. This ongoing investigation seeks to evaluate whether VOCs in sub-slab vapors associated with soil and groundwater COC at the site might be migrating into indoor air at MRC facilities. The data set analyzed is comprised of air and sub-slab-vapor samples collected in August 2010. Indoor air and sub-slab-vapor samples were collected from interior locations in Buildings A, B, and C. Ambient air samples were collected at four background locations around the perimeter of the MRC. All data were validated to assure compliance with analytical method requirements.

The IAQ data (except TCE results) were compared to risk-based screening levels at the 10^{-5} risk level for industrial air, as set forth in USEPA's *Regional Screening Levels for Chemical Contaminants at Superfund Sites* (USEPA, 2008). TCE results were compared to the MDE-specified screening level of 25 µg/m^3. The SV data were compared to screening values derived using EPA methods as described in *Draft Guidance for Evaluating the Vapor Intrusion to Indoor-Air Pathway from Groundwater and Soils* (USEPA, 2002) by application of a 0.1 attenuation factor to the IAQ screening-values.

Results of the Round 9 IAQ/SV monitoring lead to the following conclusions:

1. In 2010, TCE continues to be detected in indoor air; however, it was not found in any IAQ sample at concentrations exceeding its IAQ screening value of 25 µg/m^3. Overall indoor air concentrations of TCE are lower in Round 9 than those observed in the three previous sampling rounds (from February of this year and in 2009).

2. The sampling locations exhibiting the maximum IAQ TCE concentrations (although below the IAQ screening level) in Buildings A, B, and C are at different locations than during the previous round of sampling (Round 8). Two of the sampling locations (IAQ-A12 and IAQ-B15) are new and were sampled for the first time during Round 9. The Building C location where the highest IAQ concentration of TCE was reported (IAQ-C19) is co-located with a VMP installed during the Block I Phase II investigation (Tetra Tech, 2009b), but where no IAQ sample had previously been collected (east of the known TCE contamination beneath the southern portion of the Building C Basement). The other locations where the highest concentrations of TCE in indoor air were detected do not appear to be spatially correlated with known sources of sub-slab TCE contamination.

3. Indoor air concentrations of naphthalene exceed its screening level in two samples collected in Building A (IAQ-A6 and IAQ-A13), in the Building A Basement along the building's west wall. PCE was also detected above its screening level in one sample: IAQ-A13. This sample was collected from the northwest corner of the Building A Basement. No other chemicals exceed their screening levels in IAQ samples. IAQ exceedences will continue to be evaluated in future monitoring rounds (see Recommendation #1 below).

4. TCE was detected at concentrations above its SV screening level of 250 $\mu g/m^3$ in three SV samples collected in Building A: SV-18-A-9, SV-15-A-9, and SV-A-6-9. Sampling location SV-15-A-9 is on the floor of the Building A Plating Shop, where elevated contaminant concentrations are known to be in the sub-slab. Sampling location SV-18-A-9 has consistently demonstrated elevated concentrations of TCE, most likely associated with the Plating Shop source area. SV-A-6-9 is the SV location farthest east of the Plating Shop in Building A. Installation and sampling of additional VMPs southwest and northwest of SV-A-6 have not definitively established whether the TCE found at SV-A-6-9 is associated with the same source as the Building A Plating Shop. Additional VMPs and sampling may be required to address this uncertainty. This will be addressed during the next sampling event (see Recommendation #3). The historical data plots found in Appendix F show overall general decreases in TCE SV concentrations at the Building A Plating Shop.

5. TCE was not detected at concentrations above its SV screening level in any SV samples collected in Building B.

6. TCE was detected above its screening level in five samples collected in the Building C basement, where sub-slab contamination is known to exist. The results from sampling location SV-28-C (installed before Round 9 to fill a data gap between sampling locations SV-C-3 and SV-C-4) indicate TCE contamination along a northeast to southwest transect from locations SV-C-3 through SV-C-4, and possibly to ISG-03-C on the west side of the Building C Basement. Additional VMPs and sampling may be required to better characterize this contamination and whether it is associated with a separate source than the known source at the southern end of the Building C Basement. This will be addressed during the next sampling event (see Recommendation #4).

7. Overall TCE concentrations in SV are slightly higher in Round 9 than in Round 8, but are similar to those detected in Round 7. This fluctuation may be due to seasonal variation of site conditions.

8. Naphthalene exceeds its SV screening level at nine locations during Round 9, at concentrations ranging from 49–550 µg/m^3. In the absence of an EPA promulgated risk-based concentration for naphthalene, the EPA "Regional Screening Levels" (used to interpret the IAQ and SV results) default to a very low value (3.6 µg/m^3) developed by the California EPA, the only state that has developed an inhalation-unit risk value for naphthalene. Naphthalene concentrations will continue to be evaluated during future monitoring rounds (see Recommendation #1, below).

9. Chemical markers of possible SV intrusion (i.e., chlorinated-solvent degradation products) were found at low concentrations in two co-located IAQ and SV samples in Building A. Both of these samples were collected from a location where sub-slab contamination in excess of screening levels is known to exist (Building A Plating Shop). Chlorinated degradation-products were also found at low concentrations in several samples collected from Buildings A, B, and C, but were not detected in their co-located samples. That is, if the chemical markers were detected in IAQ samples, they were not detected in co-located SV samples, and vice-versa. Pathways for migration of these chemical markers into indoor air are unknown, but will continue to be explored in future monitoring rounds (see Recommendation #1).

10. The SSD-mitigation systems appear to be operating as designed and appear effective in removing sub-slab VOCs and in mitigating SV intrusion in the two known source areas of sub-slab-vapor contamination. Overall reductions in SV and IAQ COC concentrations have been observed since the system began operation in March 2008.

    Monitoring will continue at these locations (Buildings A and C) in subsequent rounds to evaluate the effectiveness of the SSD system (see Recommendation #1). The results will be used to evaluate reduction of the known sources, to identify new sources if present, and to recommend additional mitigation as necessary. An update of the site chemical-inventory should also be performed to better characterize alternate VOC sources (see Recommendation #7). The extent of TCE contamination in sub-slab vapor beneath Building A is not fully delineated. This will continue to be evaluated (see Recommendation #5).

11. Increases in sub-slab concentrations of TCE and cis-1,2-DCE at sampling location SV-15-A-9 (which is within the Building A Plating Shop SSD system radius of influence) suggest a need to continue evaluating whether an increased extraction rate at the south leg of the system may be warranted (see Recommendations #5 and #6).

12. Concentrations of TCE and cis-1,2-DCE in SV at the southern portion of the Building C Basement have remained relatively consistent across the last three rounds of sampling. This may indicate that the Building C SSD system has reached or is close to reaching its maximum removal efficiency for these compounds.

5.2 RECOMMENDATIONS

Results of the August 2010 Round 9 IAQ/SV monitoring at Buildings A, B, and C lead us to make the following recommendations:

1. We recommend continuing semi-annual IAQ/SV monitoring to evaluate the potential for vapor intrusion and the performance of the existing mitigation systems.

2. We recommend installation of additional VMPs at the MRC to help complete the overall facility sub-slab-vapor sampling grid. Planned installation of additional VMPs will result in a facility-wide sampling network based on an approximately 200-foot by 200-foot grid.

3. The spatial extent of sub-slab vapors with concentrations in excess of screening levels has not been fully delineated around sampling location SV-A-6. No VMPs are east or north of this location, and only one VMP lies southwest. We recommend that sub-slab sampling locations east and north of this location be included as part of the overall SV sampling grid being installed at the MRC to evaluate whether the source of sub-slab contamination is the same as the Plating Shop or whether another source may be present.

4. The SV results from the new VMP installed in the Building C Basement (SV-28-C) indicate sub-slab TCE contamination along a northeast to southwest transect. This may be associated with the former Patriot plating line. Whether sub-slab-vapor contamination in the Building C Basement results from only one source is uncertain. Additional VMPs will be needed to further characterize this area and to distinguish whether an additional source is responsible for this contamination. We recommend that at least one additional VMP be installed northeast of location SV-C-3, toward the east wall of the Building C Basement, and at least one additional VMP be located southeast of SV-C-28 between it and location SV-C-4, in the central portion of the basement, as part of the overall SV sampling grid being installed at the MRC.

5. The current expansion of the Building A Plating Shop SSD to capture sampling location SV-A-18 is near completion. The results from two new VMPs installed before Round 9 at either end of the Building A Basement do not indicate elevated concentrations of contaminants above screening levels. If building conditions allow, we recommend installation of two additional VMPs between the new SSD expansion and SV-20-A to the north and SV-19-A to the south as part of the MRC SV sampling grid to better define the extent of sub-slab-vapor contamination in this area.

6. We further recommend evaluating whether increasing the extraction rate on the southern leg of the Building A Plating Shop SSD-system might address the rise in TCE and cis-1,2-DCE concentrations at sampling location SV-15-A-9.

7. We also recommend updating the site chemical-inventory to identify possible sources of chemicals found in indoor air, particularly those not also found in sub-slab vapor.

Section 6
References

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APPENDIX A—CHAIN OF CUSTODY

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5815 Middlebrook Pike
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Canister Samples Chain of Custody Record

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:	1 of 9 COCs
Company: TetraTech, NUS	Phone (770) 413-0965 Ext. 232		
Address: 20251 Century Blvd.	Site Contact: Tony Apanavage (301) 233-8230		
City/State/Zip Germantown, MD	TAL Contact:		
Phone (301) 528-3032			
FAX: (301) 528-3000			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112ic02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, 'Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
ISG-14-C-9	8/30/10	0913	1041	-29.5	-3.5	K-116	6641	X											
SV-C-3-9	"	0919	1046	-30	0.0	K-414	6645	"											
SV-C-5-9		0924	1051	-29	-2.5	K-334	7785	"											
ISG-3-C-9		0932	1058	-30	-5.0	K-429	8770	"											
SV-C-4-9		0936	1102	-29	-3.0	K-416	04173	"											
SV-C-2-9	↓	0943	1119	-30	-0.5	K-423	6359	↓											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by:	Date/Time:	Received by:
Relinquished by:	Date/Time:	Received by:

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FAX: (301) 528-3066			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 1121C 02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SV-28-C-9	8/30/10	0951	1108	-30	-5.0	K-434	1147												
SV-1-C-9		1009	1139	-30	-3.5	K-373	12188												
SV-5-C-9		1014	1145	-30	-3.0	K-412	S-1528												
ISG-01-9		1018	1137	-30	-6.0	K-131	1407												

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by:	Date/Time:	Received by:
Relinquished by:	Date/Time:	Received by:

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City/State/Zip: Germantown, MD	TAL Contact:		
Phone: (301)528-3020			
FAX: (301)528-3000			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112102757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-C10-9	8/30/10	0912	1651	-30	-7.5	K-497	1524	X											
IAQ-C9-9		0918	1654	-30	-7.0	K-383	04741												
IAQ-C6-9		0924	1704	-29.5	-7.5	K-495	06576												
IAQ-C5-9		0930	1710	-30	-7.0	K-489	1350												
IAQ-C7-9		0936	1712	-30	-4.0	K-438	06619												
IAQ-C8-9	↓	0941	1714	-29.5	0.0	K-496	06348	↓											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by:	Date/Time:	Received by:
Relinquished by:	Date/Time:	Received by:

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Company: TetraTech, NUS	Phone: (770) 413-0965 Ext. 232	
Address: 10251 Century Blvd	Site Contact: Tony Apanavage (301) 233-8230	
City/State/Zip Germantown, MD	TAL Contact:	
Phone: (301) 528-3022		
FAX: (301) 528-3000		
Project Name: MRC - IAQ Sampling	**Analysis Turnaround Time**	
Site/location: LMC - MRC	Standard (Specify)	
PO # 112c02757	Rush (Specify)	

4 of 9 COCs

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-C17-9	8/30/10	0949	1721	-30	-7.0	K-150	9338	X											
IAQ-C1-9		1007	1724	-30	-8.0	K-113B	12820												
IAQ-C2-9		1012	1730	-30	-8.5	K-493	0120												
IAQ-C19-9		1025	1745	-30	-7.5	K-490	6574												

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by:	Date/Time:	Received by:
Relinquished by:	Date/Time:	Received by:

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Company: TetraTech, NUS	Phone: (770)413-0965 EXT. 232		
Address: 20251 Century Blvd.	Site Contact: Tony Aparicio (301)233-8230		
City/State/Zip: Germantown, MD	TAL Contact:		
Phone: (301) 528-3022			
FAX: (301) 528-3000			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112ICO3757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SV-B-4-9	8/30/10	1028	1143	-28	0.0	K-389	7498	X											
SV-24-B-9		1036	1146	-30	0.0	K-385	04426												
SV-25-B-9		1045	1148	-30	0.0	K-099	03775												
SV-27-B-9		1058	1400	-30	0.0	K-156	12822												
SV-26-B-9		1205	1205	-28	0.0	K-096	6378												

Sampled by :

Temperature (Fahrenheit)			
	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)			
	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by:	Date/Time:	Received by:
Relinquished by:	Date/Time:	Received by:

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Address: 20251 Century Blvd	Site Contact: Tony Apanavage (301) 233-8230		
City/State/Zip Germantown, MD	TAL Contact:		
Phone: (301) 528-3092			
FAX: (301) 528-3000			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112IC02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SV-29-C-9	8/30/10	0915	1118	-30	0.0	K-453	9318	X											
SV-C-7-9		0926	1124	-30	0.0	K-295	3863												
SV-C1-9		0932	1127	-28	0.0	K-117	12649												
ISG-11-C-9		0937	1128	-30	0.0	K-436	8772												
ISG-10-B-9		0947	1131	-30	0.0	K-253	6636												
SV-30-FC-9	↓	1015	1138	N/A	0.0	K-365	1007N	↓											

Sampled by :

Temperature (Fahrenheit)		
	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)		
	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:	
Samples Relinquished by:	Date/Time:	Received by:	
Relinquished by:	Date/Time:	Received by:	

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Address: 20251 Century Blvd	Site Contact: Tony Apanavage (301) 233-8230		
City/State/Zip Germantown, MD	TAL Contact:		
Phone: (301) 528-3022			
FAX: (301) 528-3000			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112rc02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-C18-9	8/30/10	0915	1651	N/A	N/A	K-310	11408	X											
IAQ-C16-9		0926	1655	-30	-5	K-[illegible]	1489												
IAQ-C14-9		[illegible]	1657	-30	-4	K-[illegible]	3863												
~~IAQ-C15-9~~ IAQ-C15-9		0937	1654	-30	-4	K-333	1134												
IAQ-B2-9		0947	1700	-30	-9	K-335	7472												
IAQ-FC-30-9	↓	1015	1705	-30	-7	K-421	0008	↓											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by:	Date/Time:	Received by:
Relinquished by:	Date/Time:	Received by:

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Canister Samples Chain of Custody Record

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THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:	8 of 9 COCs
Company: TetraTech, NUS	Phone: (770) 413-0965 Ext. 232		
Address: 20251 Century Blvd	Site Contact: Tony Aparavage (301) 233-8230		
City/State/Zip: Germantown, MD	TAL Contact:		
Phone: (301) 528-3032			
FAX: (301) 528-3500			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112ic02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-B12-9	8/30/10	1028	1705	-30	-7	K-307	93175	X											
IAQ-B14-9		1036	1730	-30	-7	K-451	4499N												
IAQ-B17-9		1058	1733	-30	-10	K-313	12539												
IAQ-B15-9		1045	1735	-30	-5	K-384	1145												
IAQ-B16-9		1105	1835	-30	-5	K-149	7455												
SV-DUP-1-9	↓	N/A		-30		N/A	1411	↓											

Sampled by :	Temperature (Fahrenheit)	Interior	Ambient	
	Start			
	Stop			
	Pressure (inches of Hg)	**Interior**	**Ambient**	
	Start			
	Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by:	Date/Time:	Received by:
Relinquished by:	Date/Time:	Received by:

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samjeks	Sampled By:	9 of 9 COCs
Company: Tetra Tech, NUS	Phone: (770) 413-0965 Ext. 232		
Address: 20251	Site Contact: Tony Apanavage (301) 233-8230		
City/State/Zip: Germantown, MD	TAL Contact:		
Phone: (301) 528-3022			
FAX: (301) 528-3000			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112TC02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, 'Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
BCK-1-9	8/30/10	0800	1622	-30	-5.0	K-283	6234	X											
BCK-2-9		0807	1626	-30	0	K-256	7475												
BCK-3-9		0812	1632	-30	0	K-491	6376												
BCK-4-9		0820	1635	-29	-4	K-095	1143												

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by:	Date/Time:	Received by:
Relinquished by:	Date/Time:	Received by:

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:	1 of 5 COCs
Company: TetraTech, NUS	Phone: 770-413-0965		
Address: 20251 Century Blvd.	Site Contact: Tony Apanavage (301) 528-3021		
City/State/Zip Germantown, MD	TAL Contact:		
Phone: (301) 528-3021			
FAX: (301) 528-3550			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112IC02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SV-18-A-9	5/31/10	0723	0859	-30	0.0	K-287	03854	X											
SV-19-A-9		1023	1126	-30	-15.5	K-269	12404												
SV-22-A-9		0846	0945	-30	-9.0	K-098	9202												
SV-A-8-9		0839	1006	-28	-4.0	K-424	S-1502												
SV-A-7-9		0747	0905	-29	0.0	K-242	93168												
SV-16-A-9		0800	0910	-30	-10	K-368	12521												

Sampled by :	Temperature (Fahrenheit)	Interior	Ambient
	Start		
	Stop		

	Pressure (inches of Hg)	Interior	Ambient
	Start		
	Stop		

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by:	Date/Time:	Received by:
Relinquished by:	Date/Time:	Received by:

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:	2 of 5 COCs
Company: TetraTech, NUS	Phone: (770) 413-0965		
Address: 20251 Century Blvd	Site Contact: Tony Apanavage (301) 528-3021		
City/State/Zip: Germantown, MD	TAL Contact:		
Phone: (301) 528-3025			
FAX: (301) 528-3000			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 1121c02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type: Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SV-15-A-9	8/31/10	0855	1013	-30	-7.0	K-293	1010	X										
SV-A3-9		0726	0903	N/A	N/A	K-359	7480											
SV-A6-9		0742	0906	-29	-6.0	K-330	1364											
SV-23-A-9		0746	0908	-30	-5.0	K-225	7492											
SV-20-A-9		0804	0914	-30	-5.0	K-325	6601											
SV-21-A-9	↓	0833	0935	-30	-8.0	K-381	8768	↓										

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by:	Date/Time:	Received by:
Relinquished by:	Date/Time:	Received by:

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:	3 of 5 COCs
Company: Tetra Tech NUS	Phone: 770-413-0965		
Address: 20251 Century Blvd	Site Contact: Tony Apanavage (301)528-3021		
City/State/Zip Germantown, MD	TAL Contact:		
Phone: 301 515-3022			
FAX: 301 528 3000			
Project Name: MRC IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112ICO 2757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-B15-9	8/30/10	1045	1737	-30	-12	K384	1145	X											
IAQ-A11-9	8/31/10	0726	1533	NA	-5	K-187	92084	↓											
IAQ-A-4-9	↓	0742	1535	-30	-5	K-502	1142												
IAQ-A16-9		0746	1536	-30	-6	K-447	04165												
IAQ-A13-9		0804	1540	-30	-6	K-337	7488												
IAQ-A14-9	↓	0830	1542	-30	-7	K-500	93089	↓											

Sampled by :

Temperature (Fahrenheit)		
	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)		
	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:	
Samples Relinquished by:	Date/Time:	Received by:	
Relinquished by:	Date/Time:	Received by:	

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:	4 of 5 COCs
Company: TetraTech, NUS	Phone: (770) 413-0965		
Address: 20251 Century Blvd	Site Contact: Tony Apanavage (301) 528-3021		
City/State/Zip: Germantown, MD	TAL Contact:		
Phone: (301) 528-3022			
FAX: (301) 528-3000			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112IC02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-A6-9	8/31/10	0723	1532	-30	0.0	K-499	12440	X											
IAQ-A12-9		0728	1533	-30	-4.0	K-494	12574												
IAQ-A15-9		0734	1536	-30	-5.5	K-492	4497N												
IAQ-A9-9		0739	1538	-30	-8.0	K-403	93212												
IAQ-A8-9		0745	1540	-29	-5.5	K-498	12181												
IAQ-A17-9	↓	0759	1544	-30	-7.0	K-112	6026	↓											

Sampled by :	Temperature (Fahrenheit)			
		Interior	Ambient	
	Start			
	Stop			

	Pressure (inches of Hg)			
		Interior	Ambient	
	Start			
	Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by:	Date/Time:	Received by:
Relinquished by:	Date/Time:	Received by:

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:	5 of 5 COCs
Company: TetraTech, NUS	Phone: (770) 413-0965		
Address: 20251 Century Blvd.	Site Contact: Tony Apencoage (301) 528-3021		
City/State/Zip: Germantown, MD	TAL Contact:		
Phone: (301) 528-3022			
FAX: (301) 528-3000			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 1121C02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	*Sample Type*	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-A5-9	8/31/10	0854		-30		K-189	02795	X											
SV-DUP-2-9	↓	0800	0910	-30	-10	K-368	12591	↓											

Sampled by :	Temperature (Fahrenheit)			
		Interior	Ambient	
	Start			
	Stop			

	Pressure (inches of Hg)			
		Interior	Ambient	
	Start			
	Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time:	Canisters Received by:
Samples Relinquished by:	Date/Time:	Received by:
Relinquished by:	Date/Time:	Received by:

APPENDIX B—METHOD DETECTION-LIMITS

Compound	RL(ppbv)	RL(ug/m3)	CAS#
1,1-Dichloroethene	0.08	0.317	75-35-4
1,2-Dichloroethane	0.08	0.324	107-06-2
Methylene chloride	0.2	0.695	75-09-2
Naphthalene	0.2	1.048	91-20-3
Benzene	0.08	0.256	71-43-2
Carbon tetrachloride	0.08	0.503	56-23-5
Chloroform	0.08	0.391	67-66-3
Dichlorodifluoromethane	0.08	0.396	75-71-8
1,1-Dichloroethane	0.08	0.324	75-34-3
cis-1,2-Dichloroethene	0.08	0.317	156-59-2
trans-1,2-Dichloroethene	0.08	0.317	156-60-5
Ethylbenzene	0.08	0.347	100-41-4
Methyl tert-butyl ether	0.4	1.442	1634-04-4
Tetrachloroethene	0.08	0.543	127-18-4
Toluene	0.08	0.301	108-88-3
1,2,4-Trichlorobenzene	0.4	2.969	120-82-1
Trichloroethene	0.04	0.215	79-01-6
Vinyl chloride	0.08	0.204	75-01-4
m-Xylene & p-Xylene	0.08	0.347	136777-61-2
o-Xylene	0.08	0.347	95-47-6
Chlorodifluoromethane	0.08	0.283	75-45-6
1,1,1-Trichloroethane	0.08	0.436	71-55-6
1,1,2-Trichloroethane	0.08	0.436	79-00-5

APPENDIX C—LABORATORY ANALYTICAL REPORTS

Tetra Tech NUS, Inc

Client Sample ID: ISG-14-C-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 001 **Work Order #** L6G9D1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/09/2010
Prep Batch #.....: 0252108
Dilution Factor.: 50 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**1.8**	**4.0**	**1.2**	**5.7 J**	**13**	**3.7**
Carbon tetrachloride	ND	4.0	0.75	ND	25	4.7
Chlorodifluoromethane	**36**	**4.0**	**0.75**	**130**	**14**	**2.7**
Chloroform	ND	4.0	0.75	ND	20	3.7
Dichlorodifluoromethane	ND	4.0	1.4	ND	20	6.7
1,1-Dichloroethane	ND	4.0	0.50	ND	16	2.0
1,2-Dichloroethane	ND	4.0	0.95	ND	16	3.8
cis-1,2-Dichloroethene	ND	4.0	1.2	ND	16	4.8
trans-1,2-Dichloroethene	ND	4.0	1.0	ND	16	4.0
1,1-Dichloroethene	ND	4.0	0.65	ND	16	2.6
Ethylbenzene	**3.5**	**4.0**	**1.4**	**15 J**	**17**	**5.9**
Methylene chloride	**6.8**	**10**	**0.90**	**24 J**	**35**	**3.1**
Methyl tert-butyl ether	ND	20	3.4	ND	72	12
Naphthalene	**2.9**	**10**	**1.8**	**15 J**	**52**	**9.4**
Tetrachloroethene	ND	4.0	0.80	ND	27	5.4
Toluene	**460**	**4.0**	**1.0**	**1700**	**15**	**4.0**
1,2,4-Trichlorobenzene	ND	20	2.0	ND	150	14
1,1,1-Trichloroethane	**1.4**	**4.0**	**0.60**	**7.7 J**	**22**	**3.3**
1,1,2-Trichloroethane	ND	4.0	1.0	ND	22	5.7
Trichloroethene	ND	2.0	0.70	ND	11	3.8
Vinyl chloride	ND	4.0	1.4	ND	10	3.7
m-Xylene & p-Xylene	**14**	**4.0**	**2.5**	**62**	**17**	**11**
o-Xylene	**7.6**	**4.0**	**1.2**	**33**	**17**	**5.2**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-C-3-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 002 **Work Order #** L6G9E1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 50 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	4.0	1.2	ND	13	3.7
Carbon tetrachloride	ND	4.0	0.75	ND	25	4.7
Chlorodifluoromethane	**53**	**4.0**	**0.75**	**190**	**14**	**2.7**
Chloroform	**14**	**4.0**	**0.75**	**67**	**20**	**3.7**
Dichlorodifluoromethane	ND	4.0	1.4	ND	20	6.7
1,1-Dichloroethane	**21**	**4.0**	**0.50**	**87**	**16**	**2.0**
1,2-Dichloroethane	ND	4.0	0.95	ND	16	3.8
cis-1,2-Dichloroethene	**34**	**4.0**	**1.2**	**140**	**16**	**4.8**
trans-1,2-Dichloroethene	**4.4**	**4.0**	**1.0**	**17**	**16**	**4.0**
1,1-Dichloroethene	**0.75**	**4.0**	**0.65**	**3.0 J**	**16**	**2.6**
Ethylbenzene	**12**	**4.0**	**1.4**	**53**	**17**	**5.9**
Methylene chloride	**3.6**	**10**	**0.90**	**12 J**	**35**	**3.1**
Methyl tert-butyl ether	ND	20	3.4	ND	72	12
Naphthalene	ND	10	1.8	ND	52	9.4
Tetrachloroethene	**3.7**	**4.0**	**0.80**	**25 J**	**27**	**5.4**
Toluene	**2.0**	**4.0**	**1.0**	**7.6 J**	**15**	**4.0**
1,2,4-Trichlorobenzene	ND	20	2.0	ND	150	14
1,1,1-Trichloroethane	**2.7**	**4.0**	**0.60**	**14 J**	**22**	**3.3**
1,1,2-Trichloroethane	ND	4.0	1.0	ND	22	5.7
Trichloroethene	**400**	**2.0**	**0.70**	**2200**	**11**	**3.8**
Vinyl chloride	ND	4.0	1.4	ND	10	3.7
m-Xylene & p-Xylene	**25**	**4.0**	**2.5**	**110**	**17**	**11**
o-Xylene	**29**	**4.0**	**1.2**	**130**	**17**	**5.2**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	104	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-C-5-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 003 **Work Order #** L6G9G1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 1 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.18**	**0.080**	**0.023**	**0.59**	**0.26**	**0.073**
Carbon tetrachloride	**0.090**	**0.080**	**0.015**	**0.57**	**0.50**	**0.094**
Chlorodifluoromethane	**4.4**	**0.080**	**0.015**	**15**	**0.28**	**0.053**
Chloroform	**0.050**	**0.080**	**0.015**	**0.25 J**	**0.39**	**0.073**
Dichlorodifluoromethane	**0.51**	**0.080**	**0.027**	**2.5**	**0.40**	**0.13**
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	**0.22**	**0.080**	**0.027**	**0.94**	**0.35**	**0.12**
Methylene chloride	**0.37**	**0.20**	**0.018**	**1.3**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	**0.27**	**0.20**	**0.036**	**1.4**	**1.0**	**0.19**
Tetrachloroethene	**0.042**	**0.080**	**0.016**	**0.29 J**	**0.54**	**0.11**
Toluene	**0.81**	**0.080**	**0.021**	**3.0**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	**0.037**	**0.080**	**0.012**	**0.20 J**	**0.44**	**0.065**
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	**0.053**	**0.040**	**0.014**	**0.29**	**0.21**	**0.075**
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	**0.82**	**0.080**	**0.050**	**3.6**	**0.35**	**0.22**
o-Xylene	**0.43**	**0.080**	**0.024**	**1.9**	**0.35**	**0.10**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	99	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: ISG-3-C-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 004 **Work Order #** L6G9H1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.80	0.23	ND	2.6	0.73
Carbon tetrachloride	**0.55**	**0.80**	**0.15**	**3.4 J**	**5.0**	**0.94**
Chlorodifluoromethane	**2.2**	**0.80**	**0.15**	**7.8**	**2.8**	**0.53**
Chloroform	**3.3**	**0.80**	**0.15**	**16**	**3.9**	**0.73**
Dichlorodifluoromethane	**0.56**	**0.80**	**0.27**	**2.8 J**	**4.0**	**1.3**
1,1-Dichloroethane	ND	0.80	0.10	ND	3.2	0.40
1,2-Dichloroethane	ND	0.80	0.19	ND	3.2	0.77
cis-1,2-Dichloroethene	**0.47**	**0.80**	**0.24**	**1.9 J**	**3.2**	**0.95**
trans-1,2-Dichloroethene	ND	0.80	0.20	ND	3.2	0.79
1,1-Dichloroethene	ND	0.80	0.13	ND	3.2	0.52
Ethylbenzene	**0.37**	**0.80**	**0.27**	**1.6 J**	**3.5**	**1.2**
Methylene chloride	**0.54**	**2.0**	**0.18**	**1.9 J**	**6.9**	**0.63**
Methyl tert-butyl ether	ND	4.0	0.68	ND	14	2.5
Naphthalene	**0.75**	**2.0**	**0.36**	**4.0 J**	**10**	**1.9**
Tetrachloroethene	**1.8**	**0.80**	**0.16**	**12**	**5.4**	**1.1**
Toluene	**3.0**	**0.80**	**0.21**	**11**	**3.0**	**0.79**
1,2,4-Trichlorobenzene	ND	4.0	0.39	ND	30	2.9
1,1,1-Trichloroethane	**0.59**	**0.80**	**0.12**	**3.2 J**	**4.4**	**0.65**
1,1,2-Trichloroethane	ND	0.80	0.21	ND	4.4	1.1
Trichloroethene	**70**	**0.40**	**0.14**	**370**	**2.1**	**0.75**
Vinyl chloride	ND	0.80	0.29	ND	2.0	0.74
m-Xylene & p-Xylene	**1.8**	**0.80**	**0.50**	**7.9**	**3.5**	**2.2**
o-Xylene	**2.1**	**0.80**	**0.24**	**8.9**	**3.5**	**1.0**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-C-4-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 005 **Work Order #** L6G9J1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 5 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.42**	**0.40**	**0.12**	**1.3**	**1.3**	**0.37**
Carbon tetrachloride	**0.10**	**0.40**	**0.075**	**0.66 J**	**2.5**	**0.47**
Chlorodifluoromethane	**14**	**0.40**	**0.075**	**49**	**1.4**	**0.27**
Chloroform	**0.58**	**0.40**	**0.075**	**2.8**	**2.0**	**0.37**
Dichlorodifluoromethane	**0.55**	**0.40**	**0.14**	**2.7**	**2.0**	**0.67**
1,1-Dichloroethane	ND	0.40	0.050	ND	1.6	0.20
1,2-Dichloroethane	ND	0.40	0.095	ND	1.6	0.38
cis-1,2-Dichloroethene	**18**	**0.40**	**0.12**	**73**	**1.6**	**0.48**
trans-1,2-Dichloroethene	**0.34**	**0.40**	**0.10**	**1.4 J**	**1.6**	**0.40**
1,1-Dichloroethene	ND	0.40	0.065	ND	1.6	0.26
Ethylbenzene	**0.68**	**0.40**	**0.14**	**2.9**	**1.7**	**0.59**
Methylene chloride	**0.95**	**1.0**	**0.090**	**3.3 J**	**3.5**	**0.31**
Methyl tert-butyl ether	ND	2.0	0.34	ND	7.2	1.2
Naphthalene	**0.61**	**1.0**	**0.18**	**3.2 J**	**5.2**	**0.94**
Tetrachloroethene	ND	0.40	0.080	ND	2.7	0.54
Toluene	**2.4**	**0.40**	**0.10**	**9.2**	**1.5**	**0.40**
1,2,4-Trichlorobenzene	ND	2.0	0.20	ND	15	1.4
1,1,1-Trichloroethane	**0.098**	**0.40**	**0.060**	**0.54 J**	**2.2**	**0.33**
1,1,2-Trichloroethane	ND	0.40	0.10	ND	2.2	0.57
Trichloroethene	**50**	**0.20**	**0.070**	**270**	**1.1**	**0.38**
Vinyl chloride	ND	0.40	0.14	ND	1.0	0.37
m-Xylene & p-Xylene	**3.2**	**0.40**	**0.25**	**14**	**1.7**	**1.1**
o-Xylene	**2.3**	**0.40**	**0.12**	**10**	**1.7**	**0.52**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	104	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-C-2-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 006 **Work Order #** L6G9K1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 2.5 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.22**	**0.20**	**0.058**	**0.70**	**0.64**	**0.18**
Carbon tetrachloride	**0.088**	**0.20**	**0.038**	**0.56 J**	**1.3**	**0.24**
Chlorodifluoromethane	**33**	**0.20**	**0.038**	**120**	**0.71**	**0.13**
Chloroform	**0.20**	**0.20**	**0.038**	**0.98**	**0.98**	**0.18**
Dichlorodifluoromethane	**0.40**	**0.20**	**0.068**	**2.0**	**0.99**	**0.33**
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	**0.53**	**0.20**	**0.068**	**2.3**	**0.87**	**0.29**
Methylene chloride	**0.25**	**0.50**	**0.045**	**0.88 J**	**1.7**	**0.16**
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	ND	0.50	0.090	ND	2.6	0.47
Tetrachloroethene	**0.20**	**0.20**	**0.040**	**1.3**	**1.4**	**0.27**
Toluene	**0.85**	**0.20**	**0.052**	**3.2**	**0.75**	**0.20**
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	**0.68**	**0.20**	**0.030**	**3.7**	**1.1**	**0.16**
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	**1.3**	**0.10**	**0.035**	**7.2**	**0.54**	**0.19**
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	**0.44**	**0.20**	**0.12**	**1.9**	**0.87**	**0.54**
o-Xylene	**0.28**	**0.20**	**0.060**	**1.2**	**0.87**	**0.26**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-28-C-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 007 **Work Order #** L6G9L1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 172.73 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	14	4.0	ND	44	13
Carbon tetrachloride	ND	14	2.6	ND	87	16
Chlorodifluoromethane	**8.7**	**14**	**2.6**	**31 J**	**49**	**9.2**
Chloroform	**18**	**14**	**2.6**	**87**	**67**	**13**
Dichlorodifluoromethane	ND	14	4.7	ND	68	23
1,1-Dichloroethane	**1100**	**14**	**1.7**	**4400**	**56**	**7.0**
1,2-Dichloroethane	ND	14	3.3	ND	56	13
cis-1,2-Dichloroethene	**21**	**14**	**4.1**	**83**	**55**	**16**
trans-1,2-Dichloroethene	ND	14	3.5	ND	55	14
1,1-Dichloroethene	**290**	**14**	**2.2**	**1200**	**55**	**8.9**
Ethylbenzene	**140**	**14**	**4.7**	**590**	**60**	**20**
Methylene chloride	**5.7**	**35**	**3.1**	**20 J**	**120**	**11**
Methyl tert-butyl ether	ND	69	12	ND	250	42
Naphthalene	**76**	**35**	**6.2**	**400**	**180**	**33**
Tetrachloroethene	ND	14	2.8	ND	94	19
Toluene	**14**	**14**	**3.6**	**52**	**52**	**14**
1,2,4-Trichlorobenzene	ND	69	6.7	ND	510	50
1,1,1-Trichloroethane	**180**	**14**	**2.1**	**1000**	**75**	**11**
1,1,2-Trichloroethane	ND	14	3.6	ND	75	20
Trichloroethene	**530**	**6.9**	**2.4**	**2800**	**37**	**13**
Vinyl chloride	ND	14	5.0	ND	35	13
m-Xylene & p-Xylene	**840**	**14**	**8.6**	**3700**	**60**	**38**
o-Xylene	**290**	**14**	**4.1**	**1200**	**60**	**18**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-1-C-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 008 **Work Order #** L6G9M1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 25 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	2.0	0.58	ND	6.4	1.8
Carbon tetrachloride	ND	2.0	0.38	ND	13	2.4
Chlorodifluoromethane	**2.1**	**2.0**	**0.38**	**7.5**	**7.1**	**1.3**
Chloroform	**3.7**	**2.0**	**0.38**	**18**	**9.8**	**1.8**
Dichlorodifluoromethane	ND	2.0	0.68	ND	9.9	3.3
1,1-Dichloroethane	ND	2.0	0.25	ND	8.1	1.0
1,2-Dichloroethane	ND	2.0	0.48	ND	8.1	1.9
cis-1,2-Dichloroethene	**90**	**2.0**	**0.60**	**360**	**7.9**	**2.4**
trans-1,2-Dichloroethene	**22**	**2.0**	**0.50**	**88**	**7.9**	**2.0**
1,1-Dichloroethene	ND	2.0	0.32	ND	7.9	1.3
Ethylbenzene	ND	2.0	0.68	ND	8.7	2.9
Methylene chloride	**2.1**	**5.0**	**0.45**	**7.4 J**	**17**	**1.6**
Methyl tert-butyl ether	ND	10	1.7	ND	36	6.1
Naphthalene	ND	5.0	0.90	ND	26	4.7
Tetrachloroethene	**0.91**	**2.0**	**0.40**	**6.2 J**	**14**	**2.7**
Toluene	ND	2.0	0.52	ND	7.5	2.0
1,2,4-Trichlorobenzene	ND	10	0.98	ND	74	7.2
1,1,1-Trichloroethane	**0.38**	**2.0**	**0.30**	**2.1 J**	**11**	**1.6**
1,1,2-Trichloroethane	ND	2.0	0.52	ND	11	2.9
Trichloroethene	**120**	**1.0**	**0.35**	**620**	**5.4**	**1.9**
Vinyl chloride	ND	2.0	0.72	ND	5.1	1.9
m-Xylene & p-Xylene	**3.1**	**2.0**	**1.2**	**13**	**8.7**	**5.4**
o-Xylene	**1.3**	**2.0**	**0.60**	**5.6 J**	**8.7**	**2.6**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-5-C-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 009 **Work Order #** L6G9N1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 1 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.12**	**0.080**	**0.023**	**0.39**	**0.26**	**0.073**
Carbon tetrachloride	**0.097**	**0.080**	**0.015**	**0.61**	**0.50**	**0.094**
Chlorodifluoromethane	**1.7**	**0.080**	**0.015**	**6.1**	**0.28**	**0.053**
Chloroform	**2.6**	**0.080**	**0.015**	**13**	**0.39**	**0.073**
Dichlorodifluoromethane	**0.15**	**0.080**	**0.027**	**0.73**	**0.40**	**0.13**
1,1-Dichloroethane	**0.029**	**0.080**	**0.010**	**0.12 J**	**0.32**	**0.040**
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	**0.094**	**0.080**	**0.027**	**0.41**	**0.35**	**0.12**
Methylene chloride	**0.17**	**0.20**	**0.018**	**0.58 J**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	**0.054**	**0.20**	**0.036**	**0.29 J**	**1.0**	**0.19**
Tetrachloroethene	**16**	**0.080**	**0.016**	**110**	**0.54**	**0.11**
Toluene	**0.15**	**0.080**	**0.021**	**0.56**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	**0.84**	**0.080**	**0.012**	**4.6**	**0.44**	**0.065**
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	**0.49**	**0.040**	**0.014**	**2.6**	**0.21**	**0.075**
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	**0.24**	**0.080**	**0.050**	**1.0**	**0.35**	**0.22**
o-Xylene	**0.15**	**0.080**	**0.024**	**0.64**	**0.35**	**0.10**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	106	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: ISG-01-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 010 **Work Order #** L6G9P1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 5 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.18**	**0.40**	**0.12**	**0.57 J**	**1.3**	**0.37**
Carbon tetrachloride	**0.27**	**0.40**	**0.075**	**1.7 J**	**2.5**	**0.47**
Chlorodifluoromethane	**0.50**	**0.40**	**0.075**	**1.8**	**1.4**	**0.27**
Chloroform	**0.090**	**0.40**	**0.075**	**0.44 J**	**2.0**	**0.37**
Dichlorodifluoromethane	**0.50**	**0.40**	**0.14**	**2.5**	**2.0**	**0.67**
1,1-Dichloroethane	ND	0.40	0.050	ND	1.6	0.20
1,2-Dichloroethane	ND	0.40	0.095	ND	1.6	0.38
cis-1,2-Dichloroethene	ND	0.40	0.12	ND	1.6	0.48
trans-1,2-Dichloroethene	**0.65**	**0.40**	**0.10**	**2.6**	**1.6**	**0.40**
1,1-Dichloroethene	ND	0.40	0.065	ND	1.6	0.26
Ethylbenzene	**0.30**	**0.40**	**0.14**	**1.3 J**	**1.7**	**0.59**
Methylene chloride	**0.53**	**1.0**	**0.090**	**1.8 J**	**3.5**	**0.31**
Methyl tert-butyl ether	ND	2.0	0.34	ND	7.2	1.2
Naphthalene	**24**	**1.0**	**0.18**	**130**	**5.2**	**0.94**
Tetrachloroethene	**2.7**	**0.40**	**0.080**	**18**	**2.7**	**0.54**
Toluene	**3.7**	**0.40**	**0.10**	**14**	**1.5**	**0.40**
1,2,4-Trichlorobenzene	ND	2.0	0.20	ND	15	1.4
1,1,1-Trichloroethane	**0.068**	**0.40**	**0.060**	**0.37 J**	**2.2**	**0.33**
1,1,2-Trichloroethane	ND	0.40	0.10	ND	2.2	0.57
Trichloroethene	**1.9**	**0.20**	**0.070**	**10**	**1.1**	**0.38**
Vinyl chloride	ND	0.40	0.14	ND	1.0	0.37
m-Xylene & p-Xylene	**1.2**	**0.40**	**0.25**	**5.2**	**1.7**	**1.1**
o-Xylene	**0.67**	**0.40**	**0.12**	**2.9**	**1.7**	**0.52**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C10-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 011 **Work Order #** L6G9Q1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.24**	**0.80**	**0.23**	**0.78 J**	**2.6**	**0.73**
Carbon tetrachloride	ND	0.80	0.15	ND	5.0	0.94
Chlorodifluoromethane	**120**	**0.80**	**0.15**	**430**	**2.8**	**0.53**
Chloroform	ND	0.80	0.15	ND	3.9	0.73
Dichlorodifluoromethane	**0.67**	**0.80**	**0.27**	**3.3 J**	**4.0**	**1.3**
1,1-Dichloroethane	ND	0.80	0.10	ND	3.2	0.40
1,2-Dichloroethane	ND	0.80	0.19	ND	3.2	0.77
cis-1,2-Dichloroethene	ND	0.80	0.24	ND	3.2	0.95
trans-1,2-Dichloroethene	ND	0.80	0.20	ND	3.2	0.79
1,1-Dichloroethene	ND	0.80	0.13	ND	3.2	0.52
Ethylbenzene	ND	0.80	0.27	ND	3.5	1.2
Methylene chloride	**3.7**	**2.0**	**0.18**	**13**	**6.9**	**0.63**
Methyl tert-butyl ether	ND	4.0	0.68	ND	14	2.5
Naphthalene	**0.58**	**2.0**	**0.36**	**3.1 J**	**10**	**1.9**
Tetrachloroethene	ND	0.80	0.16	ND	5.4	1.1
Toluene	**1.4**	**0.80**	**0.21**	**5.3**	**3.0**	**0.79**
1,2,4-Trichlorobenzene	ND	4.0	0.39	ND	30	2.9
1,1,1-Trichloroethane	ND	0.80	0.12	ND	4.4	0.65
1,1,2-Trichloroethane	ND	0.80	0.21	ND	4.4	1.1
Trichloroethene	ND	0.40	0.14	ND	2.1	0.75
Vinyl chloride	ND	0.80	0.29	ND	2.0	0.74
m-Xylene & p-Xylene	**0.65**	**0.80**	**0.50**	**2.8 J**	**3.5**	**2.2**
o-Xylene	**0.27**	**0.80**	**0.24**	**1.2 J**	**3.5**	**1.0**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	100	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C9-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 012 **Work Order #** L6G9R1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 25 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	2.0	0.58	ND	6.4	1.8
Carbon tetrachloride	ND	2.0	0.38	ND	13	2.4
Chlorodifluoromethane	**270**	**2.0**	**0.38**	**960**	**7.1**	**1.3**
Chloroform	ND	2.0	0.38	ND	9.8	1.8
Dichlorodifluoromethane	ND	2.0	0.68	ND	9.9	3.3
1,1-Dichloroethane	ND	2.0	0.25	ND	8.1	1.0
1,2-Dichloroethane	ND	2.0	0.48	ND	8.1	1.9
cis-1,2-Dichloroethene	ND	2.0	0.60	ND	7.9	2.4
trans-1,2-Dichloroethene	ND	2.0	0.50	ND	7.9	2.0
1,1-Dichloroethene	ND	2.0	0.32	ND	7.9	1.3
Ethylbenzene	ND	2.0	0.68	ND	8.7	2.9
Methylene chloride	**4.8**	**5.0**	**0.45**	**17 J**	**17**	**1.6**
Methyl tert-butyl ether	ND	10	1.7	ND	36	6.1
Naphthalene	ND	5.0	0.90	ND	26	4.7
Tetrachloroethene	ND	2.0	0.40	ND	14	2.7
Toluene	**1.6**	**2.0**	**0.52**	**6.1 J**	**7.5**	**2.0**
1,2,4-Trichlorobenzene	ND	10	0.98	ND	74	7.2
1,1,1-Trichloroethane	ND	2.0	0.30	ND	11	1.6
1,1,2-Trichloroethane	ND	2.0	0.52	ND	11	2.9
Trichloroethene	ND	1.0	0.35	ND	5.4	1.9
Vinyl chloride	ND	2.0	0.72	ND	5.1	1.9
m-Xylene & p-Xylene	**1.5**	**2.0**	**1.2**	**6.5 J**	**8.7**	**5.4**
o-Xylene	ND	2.0	0.60	ND	8.7	2.6

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C6-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 013 **Work Order #** L6G9V1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 5 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.18**	**0.40**	**0.12**	**0.58 J**	**1.3**	**0.37**
Carbon tetrachloride	**0.083**	**0.40**	**0.075**	**0.52 J**	**2.5**	**0.47**
Chlorodifluoromethane	**50**	**0.40**	**0.075**	**180**	**1.4**	**0.27**
Chloroform	ND	0.40	0.075	ND	2.0	0.37
Dichlorodifluoromethane	**0.59**	**0.40**	**0.14**	**2.9**	**2.0**	**0.67**
1,1-Dichloroethane	ND	0.40	0.050	ND	1.6	0.20
1,2-Dichloroethane	ND	0.40	0.095	ND	1.6	0.38
cis-1,2-Dichloroethene	ND	0.40	0.12	ND	1.6	0.48
trans-1,2-Dichloroethene	ND	0.40	0.10	ND	1.6	0.40
1,1-Dichloroethene	ND	0.40	0.065	ND	1.6	0.26
Ethylbenzene	**0.15**	**0.40**	**0.14**	**0.67 J**	**1.7**	**0.59**
Methylene chloride	**1.8**	**1.0**	**0.090**	**6.3**	**3.5**	**0.31**
Methyl tert-butyl ether	ND	2.0	0.34	ND	7.2	1.2
Naphthalene	ND	1.0	0.18	ND	5.2	0.94
Tetrachloroethene	ND	0.40	0.080	ND	2.7	0.54
Toluene	**1.4**	**0.40**	**0.10**	**5.2**	**1.5**	**0.40**
1,2,4-Trichlorobenzene	ND	2.0	0.20	ND	15	1.4
1,1,1-Trichloroethane	ND	0.40	0.060	ND	2.2	0.33
1,1,2-Trichloroethane	ND	0.40	0.10	ND	2.2	0.57
Trichloroethene	ND	0.20	0.070	ND	1.1	0.38
Vinyl chloride	ND	0.40	0.14	ND	1.0	0.37
m-Xylene & p-Xylene	**0.55**	**0.40**	**0.25**	**2.4**	**1.7**	**1.1**
o-Xylene	**0.23**	**0.40**	**0.12**	**0.98 J**	**1.7**	**0.52**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C5-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 014 **Work Order #** L6G9W1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 6.25 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.22**	**0.50**	**0.14**	**0.70 J**	**1.6**	**0.46**
Carbon tetrachloride	ND	0.50	0.094	ND	3.1	0.59
Chlorodifluoromethane	**84**	**0.50**	**0.094**	**300**	**1.8**	**0.33**
Chloroform	**0.11**	**0.50**	**0.094**	**0.55 J**	**2.4**	**0.46**
Dichlorodifluoromethane	**0.55**	**0.50**	**0.17**	**2.7**	**2.5**	**0.83**
1,1-Dichloroethane	ND	0.50	0.062	ND	2.0	0.25
1,2-Dichloroethane	ND	0.50	0.12	ND	2.0	0.48
cis-1,2-Dichloroethene	ND	0.50	0.15	ND	2.0	0.59
trans-1,2-Dichloroethene	ND	0.50	0.12	ND	2.0	0.50
1,1-Dichloroethene	ND	0.50	0.081	ND	2.0	0.32
Ethylbenzene	**0.24**	**0.50**	**0.17**	**1.0 J**	**2.2**	**0.73**
Methylene chloride	**1.7**	**1.2**	**0.11**	**6.1**	**4.3**	**0.39**
Methyl tert-butyl ether	ND	2.5	0.42	ND	9.0	1.5
Naphthalene	ND	1.2	0.22	ND	6.6	1.2
Tetrachloroethene	ND	0.50	0.10	ND	3.4	0.68
Toluene	**2.4**	**0.50**	**0.13**	**8.9**	**1.9**	**0.49**
1,2,4-Trichlorobenzene	ND	2.5	0.24	ND	19	1.8
1,1,1-Trichloroethane	**0.10**	**0.50**	**0.075**	**0.56 J**	**2.7**	**0.41**
1,1,2-Trichloroethane	ND	0.50	0.13	ND	2.7	0.72
Trichloroethene	ND	0.25	0.088	ND	1.3	0.47
Vinyl chloride	ND	0.50	0.18	ND	1.3	0.46
m-Xylene & p-Xylene	**0.89**	**0.50**	**0.31**	**3.9**	**2.2**	**1.4**
o-Xylene	**0.38**	**0.50**	**0.15**	**1.6 J**	**2.2**	**0.65**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C7-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 015 **Work Order #** L6G9X1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/09/2010
Prep Batch #.....: 0252108
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.28**	**0.80**	**0.23**	**0.88 J**	**2.6**	**0.73**
Carbon tetrachloride	ND	0.80	0.15	ND	5.0	0.94
Chlorodifluoromethane	**110**	**0.80**	**0.15**	**380**	**2.8**	**0.53**
Chloroform	ND	0.80	0.15	ND	3.9	0.73
Dichlorodifluoromethane	**0.57**	**0.80**	**0.27**	**2.8 J**	**4.0**	**1.3**
1,1-Dichloroethane	ND	0.80	0.10	ND	3.2	0.40
1,2-Dichloroethane	ND	0.80	0.19	ND	3.2	0.77
cis-1,2-Dichloroethene	ND	0.80	0.24	ND	3.2	0.95
trans-1,2-Dichloroethene	ND	0.80	0.20	ND	3.2	0.79
1,1-Dichloroethene	ND	0.80	0.13	ND	3.2	0.52
Ethylbenzene	**0.31**	**0.80**	**0.27**	**1.3 J**	**3.5**	**1.2**
Methylene chloride	**2.5**	**2.0**	**0.18**	**8.6**	**6.9**	**0.63**
Methyl tert-butyl ether	ND	4.0	0.68	ND	14	2.5
Naphthalene	**0.45**	**2.0**	**0.36**	**2.3 J**	**10**	**1.9**
Tetrachloroethene	ND	0.80	0.16	ND	5.4	1.1
Toluene	**3.2**	**0.80**	**0.21**	**12**	**3.0**	**0.79**
1,2,4-Trichlorobenzene	ND	4.0	0.39	ND	30	2.9
1,1,1-Trichloroethane	**0.12**	**0.80**	**0.12**	**0.68 J**	**4.4**	**0.65**
1,1,2-Trichloroethane	ND	0.80	0.21	ND	4.4	1.1
Trichloroethene	ND	0.40	0.14	ND	2.1	0.75
Vinyl chloride	ND	0.80	0.29	ND	2.0	0.74
m-Xylene & p-Xylene	**1.2**	**0.80**	**0.50**	**5.3**	**3.5**	**2.2**
o-Xylene	**0.50**	**0.80**	**0.24**	**2.2 J**	**3.5**	**1.0**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C8-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 016 **Work Order #** L6G901AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/09/2010
Prep Batch #.....: 0252108
Dilution Factor.: 2.5 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.27**	**0.20**	**0.058**	**0.86**	**0.64**	**0.18**
Carbon tetrachloride	**0.091**	**0.20**	**0.038**	**0.57 J**	**1.3**	**0.24**
Chlorodifluoromethane	**110**	**0.20**	**0.038**	**380 E**	**0.71**	**0.13**
Chloroform	**0.13**	**0.20**	**0.038**	**0.62 J**	**0.98**	**0.18**
Dichlorodifluoromethane	**0.55**	**0.20**	**0.068**	**2.7**	**0.99**	**0.33**
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	**0.36**	**0.20**	**0.068**	**1.6**	**0.87**	**0.29**
Methylene chloride	**1.5**	**0.50**	**0.045**	**5.3**	**1.7**	**0.16**
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	**0.18**	**0.50**	**0.090**	**0.97 J**	**2.6**	**0.47**
Tetrachloroethene	ND	0.20	0.040	ND	1.4	0.27
Toluene	**4.2**	**0.20**	**0.052**	**16**	**0.75**	**0.20**
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	**0.12**	**0.20**	**0.030**	**0.66 J**	**1.1**	**0.16**
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	**0.14**	**0.10**	**0.035**	**0.76**	**0.54**	**0.19**
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	**1.4**	**0.20**	**0.12**	**6.2**	**0.87**	**0.54**
o-Xylene	**0.60**	**0.20**	**0.060**	**2.6**	**0.87**	**0.26**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	105	60 - 140

Qualifiers

E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C8-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 016	**Work Order #**	L6G902AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	10	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Chlorodifluoromethane	**120**	**0.80**	**0.15**	**430 D**	**2.8**	**0.53**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	106	60 - 140

Qualifiers

D Result was obtained from the analysis of a dilution.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C17-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 017 **Work Order #** L6G911AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/09/2010
Prep Batch #.....: 0252108
Dilution Factor.: 2.5 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.26**	**0.20**	**0.058**	**0.84**	**0.64**	**0.18**
Carbon tetrachloride	**0.088**	**0.20**	**0.038**	**0.55 J**	**1.3**	**0.24**
Chlorodifluoromethane	**130**	**0.20**	**0.038**	**460 E**	**0.71**	**0.13**
Chloroform	**0.12**	**0.20**	**0.038**	**0.59 J**	**0.98**	**0.18**
Dichlorodifluoromethane	**0.54**	**0.20**	**0.068**	**2.7**	**0.99**	**0.33**
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	**0.38**	**0.20**	**0.068**	**1.7**	**0.87**	**0.29**
Methylene chloride	**2.0**	**0.50**	**0.045**	**6.8**	**1.7**	**0.16**
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	ND	0.50	0.090	ND	2.6	0.47
Tetrachloroethene	**0.040**	**0.20**	**0.040**	**0.27 J**	**1.4**	**0.27**
Toluene	**3.3**	**0.20**	**0.052**	**12**	**0.75**	**0.20**
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	**0.14**	**0.20**	**0.030**	**0.77 J**	**1.1**	**0.16**
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	**0.11**	**0.10**	**0.035**	**0.58**	**0.54**	**0.19**
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	**1.4**	**0.20**	**0.12**	**6.3**	**0.87**	**0.54**
o-Xylene	**0.55**	**0.20**	**0.060**	**2.4**	**0.87**	**0.26**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C17-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 017	**Work Order #**	L6G912AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	20	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Chlorodifluoromethane	**160**	**1.6**	**0.30**	**560 D**	**5.7**	**1.1**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

D Result was obtained from the analysis of a dilution.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C1-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 018 **Work Order #** L6G921AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/09/2010 **Analysis Date...** 09/10/2010
Prep Batch #.....: 0253092
Dilution Factor.: 2 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.13**	**0.16**	**0.046**	**0.41 J**	**0.51**	**0.15**
Carbon tetrachloride	**0.088**	**0.16**	**0.030**	**0.56 J**	**1.0**	**0.19**
Chlorodifluoromethane	**15**	**0.16**	**0.030**	**52**	**0.57**	**0.11**
Chloroform	**0.036**	**0.16**	**0.030**	**0.17 J**	**0.78**	**0.15**
Dichlorodifluoromethane	**0.52**	**0.16**	**0.054**	**2.6**	**0.79**	**0.27**
1,1-Dichloroethane	ND	0.16	0.020	ND	0.65	0.081
1,2-Dichloroethane	ND	0.16	0.038	ND	0.65	0.15
cis-1,2-Dichloroethene	ND	0.16	0.048	ND	0.63	0.19
trans-1,2-Dichloroethene	ND	0.16	0.040	ND	0.63	0.16
1,1-Dichloroethene	ND	0.16	0.026	ND	0.63	0.10
Ethylbenzene	**0.13**	**0.16**	**0.054**	**0.57 J**	**0.69**	**0.23**
Methylene chloride	**0.71**	**0.40**	**0.036**	**2.5 B**	**1.4**	**0.13**
Methyl tert-butyl ether	ND	0.80	0.14	ND	2.9	0.49
Naphthalene	**0.16**	**0.40**	**0.072**	**0.81 J**	**2.1**	**0.38**
Tetrachloroethene	ND	0.16	0.032	ND	1.1	0.22
Toluene	**0.87**	**0.16**	**0.042**	**3.3**	**0.60**	**0.16**
1,2,4-Trichlorobenzene	ND	0.80	0.078	ND	5.9	0.58
1,1,1-Trichloroethane	**0.028**	**0.16**	**0.024**	**0.15 J**	**0.87**	**0.13**
1,1,2-Trichloroethane	ND	0.16	0.042	ND	0.87	0.23
Trichloroethene	ND	0.080	0.028	ND	0.43	0.15
Vinyl chloride	ND	0.16	0.058	ND	0.41	0.15
m-Xylene & p-Xylene	**0.51**	**0.16**	**0.10**	**2.2**	**0.69**	**0.43**
o-Xylene	**0.22**	**0.16**	**0.048**	**0.94**	**0.69**	**0.21**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	107	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C2-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 019 **Work Order #** L6G951AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/09/2010 **Analysis Date...** 09/09/2010
Prep Batch #.....: 0253092
Dilution Factor.: 5 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.20**	**0.40**	**0.12**	**0.63 J**	**1.3**	**0.37**
Carbon tetrachloride	**0.086**	**0.40**	**0.075**	**0.54 J**	**2.5**	**0.47**
Chlorodifluoromethane	**54**	**0.40**	**0.075**	**190**	**1.4**	**0.27**
Chloroform	ND	0.40	0.075	ND	2.0	0.37
Dichlorodifluoromethane	**0.53**	**0.40**	**0.14**	**2.6**	**2.0**	**0.67**
1,1-Dichloroethane	ND	0.40	0.050	ND	1.6	0.20
1,2-Dichloroethane	ND	0.40	0.095	ND	1.6	0.38
cis-1,2-Dichloroethene	ND	0.40	0.12	ND	1.6	0.48
trans-1,2-Dichloroethene	ND	0.40	0.10	ND	1.6	0.40
1,1-Dichloroethene	ND	0.40	0.065	ND	1.6	0.26
Ethylbenzene	**0.20**	**0.40**	**0.14**	**0.86 J**	**1.7**	**0.59**
Methylene chloride	**1.4**	**1.0**	**0.090**	**4.9 B**	**3.5**	**0.31**
Methyl tert-butyl ether	ND	2.0	0.34	ND	7.2	1.2
Naphthalene	ND	1.0	0.18	ND	5.2	0.94
Tetrachloroethene	ND	0.40	0.080	ND	2.7	0.54
Toluene	**1.7**	**0.40**	**0.10**	**6.4**	**1.5**	**0.40**
1,2,4-Trichlorobenzene	ND	2.0	0.20	ND	15	1.4
1,1,1-Trichloroethane	**0.060**	**0.40**	**0.060**	**0.33 J**	**2.2**	**0.33**
1,1,2-Trichloroethane	ND	0.40	0.10	ND	2.2	0.57
Trichloroethene	ND	0.20	0.070	ND	1.1	0.38
Vinyl chloride	ND	0.40	0.14	ND	1.0	0.37
m-Xylene & p-Xylene	**0.77**	**0.40**	**0.25**	**3.3**	**1.7**	**1.1**
o-Xylene	**0.31**	**0.40**	**0.12**	**1.4 J**	**1.7**	**0.52**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C19-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 020 **Work Order #** L6G961AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/09/2010 **Analysis Date...** 09/10/2010
Prep Batch #.....: 0253092
Dilution Factor.: 1 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.15**	**0.080**	**0.023**	**0.48**	**0.26**	**0.073**
Carbon tetrachloride	**0.087**	**0.080**	**0.015**	**0.54**	**0.50**	**0.094**
Chlorodifluoromethane	**0.80**	**0.080**	**0.015**	**2.8**	**0.28**	**0.053**
Chloroform	**0.38**	**0.080**	**0.015**	**1.9**	**0.39**	**0.073**
Dichlorodifluoromethane	**0.53**	**0.080**	**0.027**	**2.6**	**0.40**	**0.13**
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	**0.74**	**0.080**	**0.019**	**3.0**	**0.32**	**0.077**
cis-1,2-Dichloroethene	**0.063**	**0.080**	**0.024**	**0.25 J**	**0.32**	**0.095**
trans-1,2-Dichloroethene	**0.53**	**0.080**	**0.020**	**2.1**	**0.32**	**0.079**
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	**0.17**	**0.080**	**0.027**	**0.74**	**0.35**	**0.12**
Methylene chloride	**0.28**	**0.20**	**0.018**	**0.97 B**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	ND	0.20	0.036	ND	1.0	0.19
Tetrachloroethene	**1.1**	**0.080**	**0.016**	**7.7**	**0.54**	**0.11**
Toluene	**1.0**	**0.080**	**0.021**	**3.9**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	**0.028**	**0.080**	**0.012**	**0.15 J**	**0.44**	**0.065**
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	**0.25**	**0.040**	**0.014**	**1.4**	**0.21**	**0.075**
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	**0.50**	**0.080**	**0.050**	**2.2**	**0.35**	**0.22**
o-Xylene	**0.15**	**0.080**	**0.024**	**0.64**	**0.35**	**0.10**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H0I090000 - 108B **Work Order #** L6N851AA **Matrix.....:** AIR

	08/30/2010	**Date Received..:**	09/02/2010
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010
Prep Batch #.....:	0252108		
Dilution Factor.:	1	**Method.....:**	TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.080	0.023	ND	0.26	0.073
Carbon tetrachloride	ND	0.080	0.015	ND	0.50	0.094
Chlorodifluoromethane	ND	0.080	0.015	ND	0.28	0.053
Chloroform	ND	0.080	0.015	ND	0.39	0.073
Dichlorodifluoromethane	ND	0.080	0.027	ND	0.40	0.13
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	ND	0.080	0.027	ND	0.35	0.12
Methylene chloride	ND	0.20	0.018	ND	0.69	0.063
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	ND	0.20	0.036	ND	1.0	0.19
Tetrachloroethene	ND	0.080	0.016	ND	0.54	0.11
Toluene	ND	0.080	0.021	ND	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	ND	0.080	0.012	ND	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	ND	0.040	0.014	ND	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	ND	0.080	0.050	ND	0.35	0.22
o-Xylene	ND	0.080	0.024	ND	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	99	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0I090000 - 108C **Work Order #** L6N851AC **Matrix.....:** AIR

	08/30/2010	**Date Received..:**	09/02/2010
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010
Prep Batch #.....:	0252108		
Dilution Factor.:	1	**Method.....:**	TO-15

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Benzene	5.00	4.10	16	13	82	70 - 130
Carbon tetrachloride	5.00	5.57	31	35	111	70 - 130
Chlorodifluoromethane	5.00	4.95	18	18	99	60 - 140
Chloroform	5.00	5.17	24	25	103	70 - 130
Dichlorodifluoromethane	5.00	4.98	25	25	100	60 - 140
1,1-Dichloroethane	5.00	4.88	20	20	98	70 - 130
1,2-Dichloroethane	5.00	5.01	20	20	100	70 - 130
cis-1,2-Dichloroethene	5.00	4.80	20	19	96	70 - 130
trans-1,2-Dichloroethene	5.00	4.75	20	19	95	70 - 130
1,1-Dichloroethene	5.00	4.68	20	19	94	70 - 130
Ethylbenzene	5.00	4.73	22	21	95	70 - 130
Methylene chloride	5.00	4.32	17	15	86	70 - 130
Methyl tert-butyl ether	5.00	5.23	18	19	105	60 - 140
Naphthalene	5.00	3.42	26	18	68	60 - 140
Tetrachloroethene	5.00	4.48	34	30	90	70 - 130
Toluene	5.00	4.40	19	17	88	70 - 130
1,2,4-Trichlorobenzene	5.00	3.78	37	28	76	60 - 140
1,1,1-Trichloroethane	5.00	5.63	27	31	113	70 - 130
1,1,2-Trichloroethane	5.00	4.48	27	24	90	70 - 130
Trichloroethene	5.00	4.50	27	24	90	70 - 130
Vinyl chloride	5.00	5.11	13	13	102	70 - 130
m-Xylene & p-Xylene	10.0	9.58	43	42	96	70 - 130
o-Xylene	5.00	4.80	22	21	96	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H0I100000 - 092B **Work Order #** L6RJX1AA **Matrix.....:** AIR

	08/30/2010	**Date Received..:**	09/02/2010
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010
Prep Batch #.....:	0253092		
Dilution Factor.:	1	**Method.....:**	TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.080	0.023	ND	0.26	0.073
Carbon tetrachloride	ND	0.080	0.015	ND	0.50	0.094
Chlorodifluoromethane	ND	0.080	0.015	ND	0.28	0.053
Chloroform	ND	0.080	0.015	ND	0.39	0.073
Dichlorodifluoromethane	ND	0.080	0.027	ND	0.40	0.13
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	ND	0.080	0.027	ND	0.35	0.12
Methylene chloride	**0.10**	**0.20**	**0.018**	**0.36 J**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	ND	0.20	0.036	ND	1.0	0.19
Tetrachloroethene	ND	0.080	0.016	ND	0.54	0.11
Toluene	ND	0.080	0.021	ND	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	ND	0.080	0.012	ND	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	ND	0.040	0.014	ND	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	ND	0.080	0.050	ND	0.35	0.22
o-Xylene	ND	0.080	0.024	ND	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0I100000 - 092C **Work Order #** L6RJX1AC **Matrix.....:** AIR

	08/30/2010	**Date Received..:**	09/02/2010
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010
Prep Batch #.....:	0253092		
Dilution Factor.:	1	**Method.....:**	TO-15

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Benzene	5.00	3.83	16	12	77	70 - 130
Carbon tetrachloride	5.00	5.31	31	33	106	70 - 130
Chlorodifluoromethane	5.00	5.35	18	19	107	60 - 140
Chloroform	5.00	4.82	24	24	96	70 - 130
Dichlorodifluoromethane	5.00	5.38	25	27	108	60 - 140
1,1-Dichloroethane	5.00	4.55	20	18	91	70 - 130
1,2-Dichloroethane	5.00	4.94	20	20	99	70 - 130
cis-1,2-Dichloroethene	5.00	4.41	20	17	88	70 - 130
trans-1,2-Dichloroethene	5.00	4.48	20	18	90	70 - 130
1,1-Dichloroethene	5.00	4.67	20	19	93	70 - 130
Ethylbenzene	5.00	4.42	22	19	88	70 - 130
Methylene chloride	5.00	4.13	17	14	83	70 - 130
Methyl tert-butyl ether	5.00	4.70	18	17	94	60 - 140
Naphthalene	5.00	3.79	26	20	76	60 - 140
Tetrachloroethene	5.00	4.11	34	28	82	70 - 130
Toluene	5.00	4.16	19	16	83	70 - 130
1,2,4-Trichlorobenzene	5.00	3.98	37	30	80	60 - 140
1,1,1-Trichloroethane	5.00	5.22	27	28	104	70 - 130
1,1,2-Trichloroethane	5.00	4.18	27	23	84	70 - 130
Trichloroethene	5.00	3.85	27	21	77	70 - 130
Vinyl chloride	5.00	4.73	13	12	95	70 - 130
m-Xylene & p-Xylene	10.0	8.90	43	39	89	70 - 130
o-Xylene	5.00	4.46	22	19	89	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	106	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

H0I030404 Analytical Report 1

Sample Receipt Documentation 34

Volatiles 41
Raw Sample Data 42
Standards Data 414
Initial Calibration J072810I.pdf 415
Continuing Calibration J090810.pdf..... 480
Continuing Calibration J090910.pdf..... 494
Raw QC Data 511
Miscellaneous Data..... 541

Sample Receipt Documentation 549

Total Number of Pages 555

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 112IC02757

MRC-IAQ Sampling, LMC-MRC

Lot #: H0I030404

Rick Samuels

Tetra Tech NUS Inc
2171 West Park Court
Suite E
Stone Mountain, GA 30087

TESTAMERICA LABORATORIES, INC.

Terry Wasmund
Project Manager

September 17, 2010

ANALYTICAL METHODS SUMMARY

H0I030404

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO15	EPA-2 TO-15

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H0I030404

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L6G9D	001	ISG-14-C-9	08/30/10	10:41
L6G9E	002	SV-C-3-9	08/30/10	10:46
L6G9G	003	SV-C-5-9	08/30/10	10:51
L6G9H	004	ISG-3-C-9	08/30/10	10:58
L6G9J	005	SV-C-4-9	08/30/10	11:02
L6G9K	006	SV-C-2-9	08/30/10	11:19
L6G9L	007	SV-28-C-9	08/30/10	11:08
L6G9M	008	SV-1-C-9	08/30/10	11:39
L6G9N	009	SV-5-C-9	08/30/10	11:45
L6G9P	010	ISG-01-9	08/30/10	11:37
L6G9Q	011	IAQ-C10-9	08/30/10	16:51
L6G9R	012	IAQ-C9-9	08/30/10	16:54
L6G9V	013	IAQ-C6-9	08/30/10	17:04
L6G9W	014	IAQ-C5-9	08/30/10	17:10
L6G9X	015	IAQ-C7-9	08/30/10	17:12
L6G90	016	IAQ-C8-9	08/30/10	17:14
L6G91	017	IAQ-C17-9	08/30/10	17:21
L6G92	018	IAQ-C1-9	08/30/10	17:24
L6G95	019	IAQ-C2-9	08/30/10	17:30
L6G96	020	IAQ-C19-9	08/30/10	17:45

NOTE(S) :

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H01030404

The results reported herein are applicable to the samples submitted for analysis only.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

The chain of custody listed the Summa canister ID for sample ISG-3-C-9 as 8770; however, the can ID should be 12455.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria. Even though the calibration verification analyzed on 9/8/10 exhibited a % difference of > 30% for napthalene, the results were within the LCS acceptance limits.

The concentration of chlorodifluoromethane in samples IAQ-C8-9 and IAQ-C17-9 exceeded the calibration level of the instrument. The sample was analyzed at a dilution to bring the concentration of the compound into the instrument calibration range. The results for both analyses are reported in order to provide the lowest possible reporting limits.

TestAmerica Knoxville maintains the following certifications, approvals and accreditations: Arkansas DEQ Lab #88-0688, California DHS ELAP Cert. #2423, Colorado DPHE, Connecticut DPH Lab #PH-0223, Florida DOH Lab #E87177, Georgia DNR Lab #906, Hawaii DOH, Illinois EPA Lab #200012, Indiana DOH Lab #C-TN-02, Iowa DNR Lab #375, Kansas DHE Cert. #E-10349, Kentucky DEP Lab #90101, Louisiana DEQ Cert. #03079, Louisiana DOHH, Maryland DOE Cert. #277, Michigan DEQ Lab #9933, Nevada DEP, New Jersey DEP Lab #TN001, New York DOH Lab #10781, North Carolina DPH Lab #21705, North Carolina DEHNR Cert. #64, Ohio EPA VAP Lab #CL0059, Oklahoma DEQ Lab #9415, Pennsylvania DEP Lab #68-00576, South Carolina DHEC Cert #84001001, Tennessee DOH Lab #02014, Texas CEQ, Utah DOH Lab # QUAN3, Virginia DGS Lab #00165, Washington DOE Lab #C1314, West Virginia DEP Cert. #345, West Virginia DHHR Cert #9955C, Wisconsin DNR Lab #998044300, Naval Facilities Engineering Service Center and USDA Soil Permit #S-46424. This list of approvals is subject to change and does not imply that laboratory certification is available for all parameters reported in this environmental sample data report.

EDD Checker
Ticket Key Reference

TETRA TECH ISG
TtNUS, Information Systems Group

Completion Ticket

On 9/15/2010 at 3:50 PM the following files were submitted to Tetra Tech by annette.ribet@testamericainc.com with T/

H0I03404A1.txt
H0I03404A3.txt

If you need to identify this session at a later date refer to Ticket Key:

2010915_1146358_ledd_TAK

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Print this Page Back To Upload

Sample Data Summary

Tetra Tech NUS, Inc

Client Sample ID: ISG-14-C-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 001	**Work Order #**	L6G9D1AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	50	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**1.8**	**4.0**	**1.2**	**5.7 J**	**13**	**3.7**
Carbon tetrachloride	ND	4.0	0.75	ND	25	4.7
Chlorodifluoromethane	**36**	**4.0**	**0.75**	**130**	**14**	**2.7**
Chloroform	ND	4.0	0.75	ND	20	3.7
Dichlorodifluoromethane	ND	4.0	1.4	ND	20	6.7
1,1-Dichloroethane	ND	4.0	0.50	ND	16	2.0
1,2-Dichloroethane	ND	4.0	0.95	ND	16	3.8
cis-1,2-Dichloroethene	ND	4.0	1.2	ND	16	4.8
trans-1,2-Dichloroethene	ND	4.0	1.0	ND	16	4.0
1,1-Dichloroethene	ND	4.0	0.65	ND	16	2.6
Ethylbenzene	**3.5**	**4.0**	**1.4**	**15 J**	**17**	**5.9**
Methylene chloride	**6.8**	**10**	**0.90**	**24 J**	**35**	**3.1**
Methyl tert-butyl ether	ND	20	3.4	ND	72	12
Naphthalene	**2.9**	**10**	**1.8**	**15 J**	**52**	**9.4**
Tetrachloroethene	ND	4.0	0.80	ND	27	5.4
Toluene	**460**	**4.0**	**1.0**	**1700**	**15**	**4.0**
1,2,4-Trichlorobenzene	ND	20	2.0	ND	150	14
1,1,1-Trichloroethane	**1.4**	**4.0**	**0.60**	**7.7 J**	**22**	**3.3**
1,1,2-Trichloroethane	ND	4.0	1.0	ND	22	5.7
Trichloroethene	ND	2.0	0.70	ND	11	3.8
Vinyl chloride	ND	4.0	1.4	ND	10	3.7
m-Xylene & p-Xylene	**14**	**4.0**	**2.5**	**62**	**17**	**11**
o-Xylene	**7.6**	**4.0**	**1.2**	**33**	**17**	**5.2**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-C-3-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 002	Work Order #	L6G9E1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	50	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	4.0	1.2	ND	13	3.7
Carbon tetrachloride	ND	4.0	0.75	ND	25	4.7
Chlorodifluoromethane	**53**	**4.0**	**0.75**	**190**	**14**	**2.7**
Chloroform	**14**	**4.0**	**0.75**	**67**	**20**	**3.7**
Dichlorodifluoromethane	ND	4.0	1.4	ND	20	6.7
1,1-Dichloroethane	**21**	**4.0**	**0.50**	**87**	**16**	**2.0**
1,2-Dichloroethane	ND	4.0	0.95	ND	16	3.8
cis-1,2-Dichloroethene	**34**	**4.0**	**1.2**	**140**	**16**	**4.8**
trans-1,2-Dichloroethene	**4.4**	**4.0**	**1.0**	**17**	**16**	**4.0**
1,1-Dichloroethene	**0.75**	**4.0**	**0.65**	**3.0 J**	**16**	**2.6**
Ethylbenzene	**12**	**4.0**	**1.4**	**53**	**17**	**5.9**
Methylene chloride	**3.6**	**10**	**0.90**	**12 J**	**35**	**3.1**
Methyl tert-butyl ether	ND	20	3.4	ND	72	12
Naphthalene	ND	10	1.8	ND	52	9.4
Tetrachloroethene	**3.7**	**4.0**	**0.80**	**25 J**	**27**	**5.4**
Toluene	**2.0**	**4.0**	**1.0**	**7.6 J**	**15**	**4.0**
1,2,4-Trichlorobenzene	ND	20	2.0	ND	150	14
1,1,1-Trichloroethane	**2.7**	**4.0**	**0.60**	**14 J**	**22**	**3.3**
1,1,2-Trichloroethane	ND	4.0	1.0	ND	22	5.7
Trichloroethene	**400**	**2.0**	**0.70**	**2200**	**11**	**3.8**
Vinyl chloride	ND	4.0	1.4	ND	10	3.7
m-Xylene & p-Xylene	**25**	**4.0**	**2.5**	**110**	**17**	**11**
o-Xylene	**29**	**4.0**	**1.2**	**130**	**17**	**5.2**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	104	60 - 140

Qualifiers

J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-C-5-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 003	Work Order #	L6G9G1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.18**	**0.080**	**0.023**	**0.59**	**0.26**	**0.073**
Carbon tetrachloride	**0.090**	**0.080**	**0.015**	**0.57**	**0.50**	**0.094**
Chlorodifluoromethane	**4.4**	**0.080**	**0.015**	**15**	**0.28**	**0.053**
Chloroform	**0.050**	**0.080**	**0.015**	**0.25 J**	**0.39**	**0.073**
Dichlorodifluoromethane	**0.51**	**0.080**	**0.027**	**2.5**	**0.40**	**0.13**
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	**0.22**	**0.080**	**0.027**	**0.94**	**0.35**	**0.12**
Methylene chloride	**0.37**	**0.20**	**0.018**	**1.3**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	**0.27**	**0.20**	**0.036**	**1.4**	**1.0**	**0.19**
Tetrachloroethene	**0.042**	**0.080**	**0.016**	**0.29 J**	**0.54**	**0.11**
Toluene	**0.81**	**0.080**	**0.021**	**3.0**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	**0.037**	**0.080**	**0.012**	**0.20 J**	**0.44**	**0.065**
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	**0.053**	**0.040**	**0.014**	**0.29**	**0.21**	**0.075**
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	**0.82**	**0.080**	**0.050**	**3.6**	**0.35**	**0.22**
o-Xylene	**0.43**	**0.080**	**0.024**	**1.9**	**0.35**	**0.10**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	99	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: ISG-3-C-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 004	**Work Order #**	L6G9H1AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	10	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.80	0.23	ND	2.6	0.73
Carbon tetrachloride	**0.55**	**0.80**	**0.15**	**3.4 J**	**5.0**	**0.94**
Chlorodifluoromethane	**2.2**	**0.80**	**0.15**	**7.8**	**2.8**	**0.53**
Chloroform	**3.3**	**0.80**	**0.15**	**16**	**3.9**	**0.73**
Dichlorodifluoromethane	**0.56**	**0.80**	**0.27**	**2.8 J**	**4.0**	**1.3**
1,1-Dichloroethane	ND	0.80	0.10	ND	3.2	0.40
1,2-Dichloroethane	ND	0.80	0.19	ND	3.2	0.77
cis-1,2-Dichloroethene	**0.47**	**0.80**	**0.24**	**1.9 J**	**3.2**	**0.95**
trans-1,2-Dichloroethene	ND	0.80	0.20	ND	3.2	0.79
1,1-Dichloroethene	ND	0.80	0.13	ND	3.2	0.52
Ethylbenzene	**0.37**	**0.80**	**0.27**	**1.6 J**	**3.5**	**1.2**
Methylene chloride	**0.54**	**2.0**	**0.18**	**1.9 J**	**6.9**	**0.63**
Methyl tert-butyl ether	ND	4.0	0.68	ND	14	2.5
Naphthalene	**0.75**	**2.0**	**0.36**	**4.0 J**	**10**	**1.9**
Tetrachloroethene	**1.8**	**0.80**	**0.16**	**12**	**5.4**	**1.1**
Toluene	**3.0**	**0.80**	**0.21**	**11**	**3.0**	**0.79**
1,2,4-Trichlorobenzene	ND	4.0	0.39	ND	30	2.9
1,1,1-Trichloroethane	**0.59**	**0.80**	**0.12**	**3.2 J**	**4.4**	**0.65**
1,1,2-Trichloroethane	ND	0.80	0.21	ND	4.4	1.1
Trichloroethene	**70**	**0.40**	**0.14**	**370**	**2.1**	**0.75**
Vinyl chloride	ND	0.80	0.29	ND	2.0	0.74
m-Xylene & p-Xylene	**1.8**	**0.80**	**0.50**	**7.9**	**3.5**	**2.2**
o-Xylene	**2.1**	**0.80**	**0.24**	**8.9**	**3.5**	**1.0**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-C-4-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 005	**Work Order #**	L6G9J1AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	5	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.42**	**0.40**	**0.12**	**1.3**	**1.3**	**0.37**
Carbon tetrachloride	**0.10**	**0.40**	**0.075**	**0.66 J**	**2.5**	**0.47**
Chlorodifluoromethane	**14**	**0.40**	**0.075**	**49**	**1.4**	**0.27**
Chloroform	**0.58**	**0.40**	**0.075**	**2.8**	**2.0**	**0.37**
Dichlorodifluoromethane	**0.55**	**0.40**	**0.14**	**2.7**	**2.0**	**0.67**
1,1-Dichloroethane	ND	0.40	0.050	ND	1.6	0.20
1,2-Dichloroethane	ND	0.40	0.095	ND	1.6	0.38
cis-1,2-Dichloroethene	**18**	**0.40**	**0.12**	**73**	**1.6**	**0.48**
trans-1,2-Dichloroethene	**0.34**	**0.40**	**0.10**	**1.4 J**	**1.6**	**0.40**
1,1-Dichloroethene	ND	0.40	0.065	ND	1.6	0.26
Ethylbenzene	**0.68**	**0.40**	**0.14**	**2.9**	**1.7**	**0.59**
Methylene chloride	**0.95**	**1.0**	**0.090**	**3.3 J**	**3.5**	**0.31**
Methyl tert-butyl ether	ND	2.0	0.34	ND	7.2	1.2
Naphthalene	**0.61**	**1.0**	**0.18**	**3.2 J**	**5.2**	**0.94**
Tetrachloroethene	ND	0.40	0.080	ND	2.7	0.54
Toluene	**2.4**	**0.40**	**0.10**	**9.2**	**1.5**	**0.40**
1,2,4-Trichlorobenzene	ND	2.0	0.20	ND	15	1.4
1,1,1-Trichloroethane	**0.098**	**0.40**	**0.060**	**0.54 J**	**2.2**	**0.33**
1,1,2-Trichloroethane	ND	0.40	0.10	ND	2.2	0.57
Trichloroethene	**50**	**0.20**	**0.070**	**270**	**1.1**	**0.38**
Vinyl chloride	ND	0.40	0.14	ND	1.0	0.37
m-Xylene & p-Xylene	**3.2**	**0.40**	**0.25**	**14**	**1.7**	**1.1**
o-Xylene	**2.3**	**0.40**	**0.12**	**10**	**1.7**	**0.52**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	104	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-C-2-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 006	Work Order #	L6G9K1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	2.5	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.22**	**0.20**	**0.058**	**0.70**	**0.64**	**0.18**
Carbon tetrachloride	**0.088**	**0.20**	**0.038**	**0.56 J**	**1.3**	**0.24**
Chlorodifluoromethane	**33**	**0.20**	**0.038**	**120**	**0.71**	**0.13**
Chloroform	**0.20**	**0.20**	**0.038**	**0.98**	**0.98**	**0.18**
Dichlorodifluoromethane	**0.40**	**0.20**	**0.068**	**2.0**	**0.99**	**0.33**
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	**0.53**	**0.20**	**0.068**	**2.3**	**0.87**	**0.29**
Methylene chloride	**0.25**	**0.50**	**0.045**	**0.88 J**	**1.7**	**0.16**
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	ND	0.50	0.090	ND	2.6	0.47
Tetrachloroethene	**0.20**	**0.20**	**0.040**	**1.3**	**1.4**	**0.27**
Toluene	**0.85**	**0.20**	**0.052**	**3.2**	**0.75**	**0.20**
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	**0.68**	**0.20**	**0.030**	**3.7**	**1.1**	**0.16**
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	**1.3**	**0.10**	**0.035**	**7.2**	**0.54**	**0.19**
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	**0.44**	**0.20**	**0.12**	**1.9**	**0.87**	**0.54**
o-Xylene	**0.28**	**0.20**	**0.060**	**1.2**	**0.87**	**0.26**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-28-C-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 007	**Work Order #**	L6G9L1AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	172.73	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	14	4.0	ND	44	13
Carbon tetrachloride	ND	14	2.6	ND	87	16
Chlorodifluoromethane	**8.7**	**14**	**2.6**	**31 J**	**49**	**9.2**
Chloroform	**18**	**14**	**2.6**	**87**	**67**	**13**
Dichlorodifluoromethane	ND	14	4.7	ND	68	23
1,1-Dichloroethane	**1100**	**14**	**1.7**	**4400**	**56**	**7.0**
1,2-Dichloroethane	ND	14	3.3	ND	56	13
cis-1,2-Dichloroethene	**21**	**14**	**4.1**	**83**	**55**	**16**
trans-1,2-Dichloroethene	ND	14	3.5	ND	55	14
1,1-Dichloroethene	**290**	**14**	**2.2**	**1200**	**55**	**8.9**
Ethylbenzene	**140**	**14**	**4.7**	**590**	**60**	**20**
Methylene chloride	**5.7**	**35**	**3.1**	**20 J**	**120**	**11**
Methyl tert-butyl ether	ND	69	12	ND	250	42
Naphthalene	**76**	**35**	**6.2**	**400**	**180**	**33**
Tetrachloroethene	ND	14	2.8	ND	94	19
Toluene	**14**	**14**	**3.6**	**52**	**52**	**14**
1,2,4-Trichlorobenzene	ND	69	6.7	ND	510	50
1,1,1-Trichloroethane	**180**	**14**	**2.1**	**1000**	**75**	**11**
1,1,2-Trichloroethane	ND	14	3.6	ND	75	20
Trichloroethene	**530**	**6.9**	**2.4**	**2800**	**37**	**13**
Vinyl chloride	ND	14	5.0	ND	35	13
m-Xylene & p-Xylene	**840**	**14**	**8.6**	**3700**	**60**	**38**
o-Xylene	**290**	**14**	**4.1**	**1200**	**60**	**18**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-1-C-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 008	Work Order #	L6G9M1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	25	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	2.0	0.58	ND	6.4	1.8
Carbon tetrachloride	ND	2.0	0.38	ND	13	2.4
Chlorodifluoromethane	**2.1**	**2.0**	**0.38**	**7.5**	**7.1**	**1.3**
Chloroform	**3.7**	**2.0**	**0.38**	**18**	**9.8**	**1.8**
Dichlorodifluoromethane	ND	2.0	0.68	ND	9.9	3.3
1,1-Dichloroethane	ND	2.0	0.25	ND	8.1	1.0
1,2-Dichloroethane	ND	2.0	0.48	ND	8.1	1.9
cis-1,2-Dichloroethene	**90**	**2.0**	**0.60**	**360**	**7.9**	**2.4**
trans-1,2-Dichloroethene	**22**	**2.0**	**0.50**	**88**	**7.9**	**2.0**
1,1-Dichloroethene	ND	2.0	0.32	ND	7.9	1.3
Ethylbenzene	ND	2.0	0.68	ND	8.7	2.9
Methylene chloride	**2.1**	**5.0**	**0.45**	**7.4 J**	**17**	**1.6**
Methyl tert-butyl ether	ND	10	1.7	ND	36	6.1
Naphthalene	ND	5.0	0.90	ND	26	4.7
Tetrachloroethene	**0.91**	**2.0**	**0.40**	**6.2 J**	**14**	**2.7**
Toluene	ND	2.0	0.52	ND	7.5	2.0
1,2,4-Trichlorobenzene	ND	10	0.98	ND	74	7.2
1,1,1-Trichloroethane	**0.38**	**2.0**	**0.30**	**2.1 J**	**11**	**1.6**
1,1,2-Trichloroethane	ND	2.0	0.52	ND	11	2.9
Trichloroethene	**120**	**1.0**	**0.35**	**620**	**5.4**	**1.9**
Vinyl chloride	ND	2.0	0.72	ND	5.1	1.9
m-Xylene & p-Xylene	**3.1**	**2.0**	**1.2**	**13**	**8.7**	**5.4**
o-Xylene	**1.3**	**2.0**	**0.60**	**5.6 J**	**8.7**	**2.6**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-5-C-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 009	Work Order #	L6G9N1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.12**	**0.080**	**0.023**	**0.39**	**0.26**	**0.073**
Carbon tetrachloride	**0.097**	**0.080**	**0.015**	**0.61**	**0.50**	**0.094**
Chlorodifluoromethane	**1.7**	**0.080**	**0.015**	**6.1**	**0.28**	**0.053**
Chloroform	**2.6**	**0.080**	**0.015**	**13**	**0.39**	**0.073**
Dichlorodifluoromethane	**0.15**	**0.080**	**0.027**	**0.73**	**0.40**	**0.13**
1,1-Dichloroethane	**0.029**	**0.080**	**0.010**	**0.12 J**	**0.32**	**0.040**
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	**0.094**	**0.080**	**0.027**	**0.41**	**0.35**	**0.12**
Methylene chloride	**0.17**	**0.20**	**0.018**	**0.58 J**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	**0.054**	**0.20**	**0.036**	**0.29 J**	**1.0**	**0.19**
Tetrachloroethene	**16**	**0.080**	**0.016**	**110**	**0.54**	**0.11**
Toluene	**0.15**	**0.080**	**0.021**	**0.56**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	**0.84**	**0.080**	**0.012**	**4.6**	**0.44**	**0.065**
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	**0.49**	**0.040**	**0.014**	**2.6**	**0.21**	**0.075**
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	**0.24**	**0.080**	**0.050**	**1.0**	**0.35**	**0.22**
o-Xylene	**0.15**	**0.080**	**0.024**	**0.64**	**0.35**	**0.10**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	106	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: ISG-01-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 010	**Work Order #**	L6G9P1AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	5	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.18**	**0.40**	**0.12**	**0.57 J**	**1.3**	**0.37**
Carbon tetrachloride	**0.27**	**0.40**	**0.075**	**1.7 J**	**2.5**	**0.47**
Chlorodifluoromethane	**0.50**	**0.40**	**0.075**	**1.8**	**1.4**	**0.27**
Chloroform	**0.090**	**0.40**	**0.075**	**0.44 J**	**2.0**	**0.37**
Dichlorodifluoromethane	**0.50**	**0.40**	**0.14**	**2.5**	**2.0**	**0.67**
1,1-Dichloroethane	ND	0.40	0.050	ND	1.6	0.20
1,2-Dichloroethane	ND	0.40	0.095	ND	1.6	0.38
cis-1,2-Dichloroethene	ND	0.40	0.12	ND	1.6	0.48
trans-1,2-Dichloroethene	**0.65**	**0.40**	**0.10**	**2.6**	**1.6**	**0.40**
1,1-Dichloroethene	ND	0.40	0.065	ND	1.6	0.26
Ethylbenzene	**0.30**	**0.40**	**0.14**	**1.3 J**	**1.7**	**0.59**
Methylene chloride	**0.53**	**1.0**	**0.090**	**1.8 J**	**3.5**	**0.31**
Methyl tert-butyl ether	ND	2.0	0.34	ND	7.2	1.2
Naphthalene	**24**	**1.0**	**0.18**	**130**	**5.2**	**0.94**
Tetrachloroethene	**2.7**	**0.40**	**0.080**	**18**	**2.7**	**0.54**
Toluene	**3.7**	**0.40**	**0.10**	**14**	**1.5**	**0.40**
1,2,4-Trichlorobenzene	ND	2.0	0.20	ND	15	1.4
1,1,1-Trichloroethane	**0.068**	**0.40**	**0.060**	**0.37 J**	**2.2**	**0.33**
1,1,2-Trichloroethane	ND	0.40	0.10	ND	2.2	0.57
Trichloroethene	**1.9**	**0.20**	**0.070**	**10**	**1.1**	**0.38**
Vinyl chloride	ND	0.40	0.14	ND	1.0	0.37
m-Xylene & p-Xylene	**1.2**	**0.40**	**0.25**	**5.2**	**1.7**	**1.1**
o-Xylene	**0.67**	**0.40**	**0.12**	**2.9**	**1.7**	**0.52**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C10-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 011	Work Order #	L6G9Q1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	10	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.24**	**0.80**	**0.23**	**0.78 J**	**2.6**	**0.73**
Carbon tetrachloride	ND	0.80	0.15	ND	5.0	0.94
Chlorodifluoromethane	**120**	**0.80**	**0.15**	**430**	**2.8**	**0.53**
Chloroform	ND	0.80	0.15	ND	3.9	0.73
Dichlorodifluoromethane	**0.67**	**0.80**	**0.27**	**3.3 J**	**4.0**	**1.3**
1,1-Dichloroethane	ND	0.80	0.10	ND	3.2	0.40
1,2-Dichloroethane	ND	0.80	0.19	ND	3.2	0.77
cis-1,2-Dichloroethene	ND	0.80	0.24	ND	3.2	0.95
trans-1,2-Dichloroethene	ND	0.80	0.20	ND	3.2	0.79
1,1-Dichloroethene	ND	0.80	0.13	ND	3.2	0.52
Ethylbenzene	ND	0.80	0.27	ND	3.5	1.2
Methylene chloride	**3.7**	**2.0**	**0.18**	**13**	**6.9**	**0.63**
Methyl tert-butyl ether	ND	4.0	0.68	ND	14	2.5
Naphthalene	**0.58**	**2.0**	**0.36**	**3.1 J**	**10**	**1.9**
Tetrachloroethene	ND	0.80	0.16	ND	5.4	1.1
Toluene	**1.4**	**0.80**	**0.21**	**5.3**	**3.0**	**0.79**
1,2,4-Trichlorobenzene	ND	4.0	0.39	ND	30	2.9
1,1,1-Trichloroethane	ND	0.80	0.12	ND	4.4	0.65
1,1,2-Trichloroethane	ND	0.80	0.21	ND	4.4	1.1
Trichloroethene	ND	0.40	0.14	ND	2.1	0.75
Vinyl chloride	ND	0.80	0.29	ND	2.0	0.74
m-Xylene & p-Xylene	**0.65**	**0.80**	**0.50**	**2.8 J**	**3.5**	**2.2**
o-Xylene	**0.27**	**0.80**	**0.24**	**1.2 J**	**3.5**	**1.0**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	100	60 - 140

Qualifiers

J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C9-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 012	**Work Order #**	L6G9R1AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	25	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	2.0	0.58	ND	6.4	1.8
Carbon tetrachloride	ND	2.0	0.38	ND	13	2.4
Chlorodifluoromethane	**270**	**2.0**	**0.38**	**960**	**7.1**	**1.3**
Chloroform	ND	2.0	0.38	ND	9.8	1.8
Dichlorodifluoromethane	ND	2.0	0.68	ND	9.9	3.3
1,1-Dichloroethane	ND	2.0	0.25	ND	8.1	1.0
1,2-Dichloroethane	ND	2.0	0.48	ND	8.1	1.9
cis-1,2-Dichloroethene	ND	2.0	0.60	ND	7.9	2.4
trans-1,2-Dichloroethene	ND	2.0	0.50	ND	7.9	2.0
1,1-Dichloroethene	ND	2.0	0.32	ND	7.9	1.3
Ethylbenzene	ND	2.0	0.68	ND	8.7	2.9
Methylene chloride	**4.8**	**5.0**	**0.45**	**17 J**	**17**	**1.6**
Methyl tert-butyl ether	ND	10	1.7	ND	36	6.1
Naphthalene	ND	5.0	0.90	ND	26	4.7
Tetrachloroethene	ND	2.0	0.40	ND	14	2.7
Toluene	**1.6**	**2.0**	**0.52**	**6.1 J**	**7.5**	**2.0**
1,2,4-Trichlorobenzene	ND	10	0.98	ND	74	7.2
1,1,1-Trichloroethane	ND	2.0	0.30	ND	11	1.6
1,1,2-Trichloroethane	ND	2.0	0.52	ND	11	2.9
Trichloroethene	ND	1.0	0.35	ND	5.4	1.9
Vinyl chloride	ND	2.0	0.72	ND	5.1	1.9
m-Xylene & p-Xylene	**1.5**	**2.0**	**1.2**	**6.5 J**	**8.7**	**5.4**
o-Xylene	ND	2.0	0.60	ND	8.7	2.6

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C6-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 013	**Work Order #**	L6G9V1AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	5	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.18**	**0.40**	**0.12**	**0.58 J**	**1.3**	**0.37**
Carbon tetrachloride	**0.083**	**0.40**	**0.075**	**0.52 J**	**2.5**	**0.47**
Chlorodifluoromethane	**50**	**0.40**	**0.075**	**180**	**1.4**	**0.27**
Chloroform	ND	0.40	0.075	ND	2.0	0.37
Dichlorodifluoromethane	**0.59**	**0.40**	**0.14**	**2.9**	**2.0**	**0.67**
1,1-Dichloroethane	ND	0.40	0.050	ND	1.6	0.20
1,2-Dichloroethane	ND	0.40	0.095	ND	1.6	0.38
cis-1,2-Dichloroethene	ND	0.40	0.12	ND	1.6	0.48
trans-1,2-Dichloroethene	ND	0.40	0.10	ND	1.6	0.40
1,1-Dichloroethene	ND	0.40	0.065	ND	1.6	0.26
Ethylbenzene	**0.15**	**0.40**	**0.14**	**0.67 J**	**1.7**	**0.59**
Methylene chloride	**1.8**	**1.0**	**0.090**	**6.3**	**3.5**	**0.31**
Methyl tert-butyl ether	ND	2.0	0.34	ND	7.2	1.2
Naphthalene	ND	1.0	0.18	ND	5.2	0.94
Tetrachloroethene	ND	0.40	0.080	ND	2.7	0.54
Toluene	**1.4**	**0.40**	**0.10**	**5.2**	**1.5**	**0.40**
1,2,4-Trichlorobenzene	ND	2.0	0.20	ND	15	1.4
1,1,1-Trichloroethane	ND	0.40	0.060	ND	2.2	0.33
1,1,2-Trichloroethane	ND	0.40	0.10	ND	2.2	0.57
Trichloroethene	ND	0.20	0.070	ND	1.1	0.38
Vinyl chloride	ND	0.40	0.14	ND	1.0	0.37
m-Xylene & p-Xylene	**0.55**	**0.40**	**0.25**	**2.4**	**1.7**	**1.1**
o-Xylene	**0.23**	**0.40**	**0.12**	**0.98 J**	**1.7**	**0.52**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C5-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 014	**Work Order #**	L6G9W1AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	6.25	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.22**	**0.50**	**0.14**	**0.70 J**	**1.6**	**0.46**
Carbon tetrachloride	ND	0.50	0.094	ND	3.1	0.59
Chlorodifluoromethane	**84**	**0.50**	**0.094**	**300**	**1.8**	**0.33**
Chloroform	**0.11**	**0.50**	**0.094**	**0.55 J**	**2.4**	**0.46**
Dichlorodifluoromethane	**0.55**	**0.50**	**0.17**	**2.7**	**2.5**	**0.83**
1,1-Dichloroethane	ND	0.50	0.062	ND	2.0	0.25
1,2-Dichloroethane	ND	0.50	0.12	ND	2.0	0.48
cis-1,2-Dichloroethene	ND	0.50	0.15	ND	2.0	0.59
trans-1,2-Dichloroethene	ND	0.50	0.12	ND	2.0	0.50
1,1-Dichloroethene	ND	0.50	0.081	ND	2.0	0.32
Ethylbenzene	**0.24**	**0.50**	**0.17**	**1.0 J**	**2.2**	**0.73**
Methylene chloride	**1.7**	**1.2**	**0.11**	**6.1**	**4.3**	**0.39**
Methyl tert-butyl ether	ND	2.5	0.42	ND	9.0	1.5
Naphthalene	ND	1.2	0.22	ND	6.6	1.2
Tetrachloroethene	ND	0.50	0.10	ND	3.4	0.68
Toluene	**2.4**	**0.50**	**0.13**	**8.9**	**1.9**	**0.49**
1,2,4-Trichlorobenzene	ND	2.5	0.24	ND	19	1.8
1,1,1-Trichloroethane	**0.10**	**0.50**	**0.075**	**0.56 J**	**2.7**	**0.41**
1,1,2-Trichloroethane	ND	0.50	0.13	ND	2.7	0.72
Trichloroethene	ND	0.25	0.088	ND	1.3	0.47
Vinyl chloride	ND	0.50	0.18	ND	1.3	0.46
m-Xylene & p-Xylene	**0.89**	**0.50**	**0.31**	**3.9**	**2.2**	**1.4**
o-Xylene	**0.38**	**0.50**	**0.15**	**1.6 J**	**2.2**	**0.65**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C7-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 015	Work Order #	L6G9X1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/09/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	10	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.28**	**0.80**	**0.23**	**0.88 J**	**2.6**	**0.73**
Carbon tetrachloride	ND	0.80	0.15	ND	5.0	0.94
Chlorodifluoromethane	**110**	**0.80**	**0.15**	**380**	**2.8**	**0.53**
Chloroform	ND	0.80	0.15	ND	3.9	0.73
Dichlorodifluoromethane	**0.57**	**0.80**	**0.27**	**2.8 J**	**4.0**	**1.3**
1,1-Dichloroethane	ND	0.80	0.10	ND	3.2	0.40
1,2-Dichloroethane	ND	0.80	0.19	ND	3.2	0.77
cis-1,2-Dichloroethene	ND	0.80	0.24	ND	3.2	0.95
trans-1,2-Dichloroethene	ND	0.80	0.20	ND	3.2	0.79
1,1-Dichloroethene	ND	0.80	0.13	ND	3.2	0.52
Ethylbenzene	**0.31**	**0.80**	**0.27**	**1.3 J**	**3.5**	**1.2**
Methylene chloride	**2.5**	**2.0**	**0.18**	**8.6**	**6.9**	**0.63**
Methyl tert-butyl ether	ND	4.0	0.68	ND	14	2.5
Naphthalene	**0.45**	**2.0**	**0.36**	**2.3 J**	**10**	**1.9**
Tetrachloroethene	ND	0.80	0.16	ND	5.4	1.1
Toluene	**3.2**	**0.80**	**0.21**	**12**	**3.0**	**0.79**
1,2,4-Trichlorobenzene	ND	4.0	0.39	ND	30	2.9
1,1,1-Trichloroethane	**0.12**	**0.80**	**0.12**	**0.68 J**	**4.4**	**0.65**
1,1,2-Trichloroethane	ND	0.80	0.21	ND	4.4	1.1
Trichloroethene	ND	0.40	0.14	ND	2.1	0.75
Vinyl chloride	ND	0.80	0.29	ND	2.0	0.74
m-Xylene & p-Xylene	**1.2**	**0.80**	**0.50**	**5.3**	**3.5**	**2.2**
o-Xylene	**0.50**	**0.80**	**0.24**	**2.2 J**	**3.5**	**1.0**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C8-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 016	Work Order #	L6G901AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/09/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	2.5	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.27**	**0.20**	**0.058**	**0.86**	**0.64**	**0.18**
Carbon tetrachloride	**0.091**	**0.20**	**0.038**	**0.57 J**	**1.3**	**0.24**
Chlorodifluoromethane	**110**	**0.20**	**0.038**	**380 E**	**0.71**	**0.13**
Chloroform	**0.13**	**0.20**	**0.038**	**0.62 J**	**0.98**	**0.18**
Dichlorodifluoromethane	**0.55**	**0.20**	**0.068**	**2.7**	**0.99**	**0.33**
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	**0.36**	**0.20**	**0.068**	**1.6**	**0.87**	**0.29**
Methylene chloride	**1.5**	**0.50**	**0.045**	**5.3**	**1.7**	**0.16**
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	**0.18**	**0.50**	**0.090**	**0.97 J**	**2.6**	**0.47**
Tetrachloroethene	ND	0.20	0.040	ND	1.4	0.27
Toluene	**4.2**	**0.20**	**0.052**	**16**	**0.75**	**0.20**
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	**0.12**	**0.20**	**0.030**	**0.66 J**	**1.1**	**0.16**
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	**0.14**	**0.10**	**0.035**	**0.76**	**0.54**	**0.19**
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	**1.4**	**0.20**	**0.12**	**6.2**	**0.87**	**0.54**
o-Xylene	**0.60**	**0.20**	**0.060**	**2.6**	**0.87**	**0.26**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	105	60 - 140

Qualifiers

E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C8-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 016	**Work Order #**	L6G902AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	10	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Chlorodifluoromethane	**120**	**0.80**	**0.15**	**430 D**	**2.8**	**0.53**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	106	60 - 140

Qualifiers

D	Result was obtained from the analysis of a dilution.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C17-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 017	**Work Order #**	L6G911AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	2.5	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.26**	**0.20**	**0.058**	**0.84**	**0.64**	**0.18**
Carbon tetrachloride	**0.088**	**0.20**	**0.038**	**0.55 J**	**1.3**	**0.24**
Chlorodifluoromethane	**130**	**0.20**	**0.038**	**460 E**	**0.71**	**0.13**
Chloroform	**0.12**	**0.20**	**0.038**	**0.59 J**	**0.98**	**0.18**
Dichlorodifluoromethane	**0.54**	**0.20**	**0.068**	**2.7**	**0.99**	**0.33**
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	**0.38**	**0.20**	**0.068**	**1.7**	**0.87**	**0.29**
Methylene chloride	**2.0**	**0.50**	**0.045**	**6.8**	**1.7**	**0.16**
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	ND	0.50	0.090	ND	2.6	0.47
Tetrachloroethene	**0.040**	**0.20**	**0.040**	**0.27 J**	**1.4**	**0.27**
Toluene	**3.3**	**0.20**	**0.052**	**12**	**0.75**	**0.20**
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	**0.14**	**0.20**	**0.030**	**0.77 J**	**1.1**	**0.16**
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	**0.11**	**0.10**	**0.035**	**0.58**	**0.54**	**0.19**
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	**1.4**	**0.20**	**0.12**	**6.3**	**0.87**	**0.54**
o-Xylene	**0.55**	**0.20**	**0.060**	**2.4**	**0.87**	**0.26**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C17-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 017	**Work Order #**	L6G912AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	20	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Chlorodifluoromethane	**160**	**1.6**	**0.30**	**560 D**	**5.7**	**1.1**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

D Result was obtained from the analysis of a dilution.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C1-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 018	**Work Order #**	L6G921AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/10/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	2	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.13**	**0.16**	**0.046**	**0.41 J**	**0.51**	**0.15**
Carbon tetrachloride	**0.088**	**0.16**	**0.030**	**0.56 J**	**1.0**	**0.19**
Chlorodifluoromethane	**15**	**0.16**	**0.030**	**52**	**0.57**	**0.11**
Chloroform	**0.036**	**0.16**	**0.030**	**0.17 J**	**0.78**	**0.15**
Dichlorodifluoromethane	**0.52**	**0.16**	**0.054**	**2.6**	**0.79**	**0.27**
1,1-Dichloroethane	ND	0.16	0.020	ND	0.65	0.081
1,2-Dichloroethane	ND	0.16	0.038	ND	0.65	0.15
cis-1,2-Dichloroethene	ND	0.16	0.048	ND	0.63	0.19
trans-1,2-Dichloroethene	ND	0.16	0.040	ND	0.63	0.16
1,1-Dichloroethene	ND	0.16	0.026	ND	0.63	0.10
Ethylbenzene	**0.13**	**0.16**	**0.054**	**0.57 J**	**0.69**	**0.23**
Methylene chloride	**0.71**	**0.40**	**0.036**	**2.5 B**	**1.4**	**0.13**
Methyl tert-butyl ether	ND	0.80	0.14	ND	2.9	0.49
Naphthalene	**0.16**	**0.40**	**0.072**	**0.81 J**	**2.1**	**0.38**
Tetrachloroethene	ND	0.16	0.032	ND	1.1	0.22
Toluene	**0.87**	**0.16**	**0.042**	**3.3**	**0.60**	**0.16**
1,2,4-Trichlorobenzene	ND	0.80	0.078	ND	5.9	0.58
1,1,1-Trichloroethane	**0.028**	**0.16**	**0.024**	**0.15 J**	**0.87**	**0.13**
1,1,2-Trichloroethane	ND	0.16	0.042	ND	0.87	0.23
Trichloroethene	ND	0.080	0.028	ND	0.43	0.15
Vinyl chloride	ND	0.16	0.058	ND	0.41	0.15
m-Xylene & p-Xylene	**0.51**	**0.16**	**0.10**	**2.2**	**0.69**	**0.43**
o-Xylene	**0.22**	**0.16**	**0.048**	**0.94**	**0.69**	**0.21**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	107	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C2-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 019	**Work Order #**	L6G951AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	5	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.20**	**0.40**	**0.12**	**0.63 J**	**1.3**	**0.37**
Carbon tetrachloride	**0.086**	**0.40**	**0.075**	**0.54 J**	**2.5**	**0.47**
Chlorodifluoromethane	**54**	**0.40**	**0.075**	**190**	**1.4**	**0.27**
Chloroform	ND	0.40	0.075	ND	2.0	0.37
Dichlorodifluoromethane	**0.53**	**0.40**	**0.14**	**2.6**	**2.0**	**0.67**
1,1-Dichloroethane	ND	0.40	0.050	ND	1.6	0.20
1,2-Dichloroethane	ND	0.40	0.095	ND	1.6	0.38
cis-1,2-Dichloroethene	ND	0.40	0.12	ND	1.6	0.48
trans-1,2-Dichloroethene	ND	0.40	0.10	ND	1.6	0.40
1,1-Dichloroethene	ND	0.40	0.065	ND	1.6	0.26
Ethylbenzene	**0.20**	**0.40**	**0.14**	**0.86 J**	**1.7**	**0.59**
Methylene chloride	**1.4**	**1.0**	**0.090**	**4.9 B**	**3.5**	**0.31**
Methyl tert-butyl ether	ND	2.0	0.34	ND	7.2	1.2
Naphthalene	ND	1.0	0.18	ND	5.2	0.94
Tetrachloroethene	ND	0.40	0.080	ND	2.7	0.54
Toluene	**1.7**	**0.40**	**0.10**	**6.4**	**1.5**	**0.40**
1,2,4-Trichlorobenzene	ND	2.0	0.20	ND	15	1.4
1,1,1-Trichloroethane	**0.060**	**0.40**	**0.060**	**0.33 J**	**2.2**	**0.33**
1,1,2-Trichloroethane	ND	0.40	0.10	ND	2.2	0.57
Trichloroethene	ND	0.20	0.070	ND	1.1	0.38
Vinyl chloride	ND	0.40	0.14	ND	1.0	0.37
m-Xylene & p-Xylene	**0.77**	**0.40**	**0.25**	**3.3**	**1.7**	**1.1**
o-Xylene	**0.31**	**0.40**	**0.12**	**1.4 J**	**1.7**	**0.52**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C19-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 020	Work Order #	L6G961AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/09/2010	Analysis Date...	09/10/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.15**	**0.080**	**0.023**	**0.48**	**0.26**	**0.073**
Carbon tetrachloride	**0.087**	**0.080**	**0.015**	**0.54**	**0.50**	**0.094**
Chlorodifluoromethane	**0.80**	**0.080**	**0.015**	**2.8**	**0.28**	**0.053**
Chloroform	**0.38**	**0.080**	**0.015**	**1.9**	**0.39**	**0.073**
Dichlorodifluoromethane	**0.53**	**0.080**	**0.027**	**2.6**	**0.40**	**0.13**
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	**0.74**	**0.080**	**0.019**	**3.0**	**0.32**	**0.077**
cis-1,2-Dichloroethene	**0.063**	**0.080**	**0.024**	**0.25 J**	**0.32**	**0.095**
trans-1,2-Dichloroethene	**0.53**	**0.080**	**0.020**	**2.1**	**0.32**	**0.079**
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	**0.17**	**0.080**	**0.027**	**0.74**	**0.35**	**0.12**
Methylene chloride	**0.28**	**0.20**	**0.018**	**0.97 B**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	ND	0.20	0.036	ND	1.0	0.19
Tetrachloroethene	**1.1**	**0.080**	**0.016**	**7.7**	**0.54**	**0.11**
Toluene	**1.0**	**0.080**	**0.021**	**3.9**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	**0.028**	**0.080**	**0.012**	**0.15 J**	**0.44**	**0.065**
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	**0.25**	**0.040**	**0.014**	**1.4**	**0.21**	**0.075**
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	**0.50**	**0.080**	**0.050**	**2.2**	**0.35**	**0.22**
o-Xylene	**0.15**	**0.080**	**0.024**	**0.64**	**0.35**	**0.10**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample #	H0I090000 - 108B	**Work Order #**	L6N851AA	**Matrix.....:**	AIR
	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	1	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.080	0.023	ND	0.26	0.073
Carbon tetrachloride	ND	0.080	0.015	ND	0.50	0.094
Chlorodifluoromethane	ND	0.080	0.015	ND	0.28	0.053
Chloroform	ND	0.080	0.015	ND	0.39	0.073
Dichlorodifluoromethane	ND	0.080	0.027	ND	0.40	0.13
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	ND	0.080	0.027	ND	0.35	0.12
Methylene chloride	ND	0.20	0.018	ND	0.69	0.063
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	ND	0.20	0.036	ND	1.0	0.19
Tetrachloroethene	ND	0.080	0.016	ND	0.54	0.11
Toluene	ND	0.080	0.021	ND	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	ND	0.080	0.012	ND	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	ND	0.040	0.014	ND	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	ND	0.080	0.050	ND	0.35	0.22
o-Xylene	ND	0.080	0.024	ND	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	99	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample #	H0I090000 - 108C	**Work Order #**	L6N851AC	**Matrix.....:**	AIR
	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	1	**Method.....:**	TO-15		

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Benzene	5.00	4.10	16	13	82	70 - 130
Carbon tetrachloride	5.00	5.57	31	35	111	70 - 130
Chlorodifluoromethane	5.00	4.95	18	18	99	60 - 140
Chloroform	5.00	5.17	24	25	103	70 - 130
Dichlorodifluoromethane	5.00	4.98	25	25	100	60 - 140
1,1-Dichloroethane	5.00	4.88	20	20	98	70 - 130
1,2-Dichloroethane	5.00	5.01	20	20	100	70 - 130
cis-1,2-Dichloroethene	5.00	4.80	20	19	96	70 - 130
trans-1,2-Dichloroethene	5.00	4.75	20	19	95	70 - 130
1,1-Dichloroethene	5.00	4.68	20	19	94	70 - 130
Ethylbenzene	5.00	4.73	22	21	95	70 - 130
Methylene chloride	5.00	4.32	17	15	86	70 - 130
Methyl tert-butyl ether	5.00	5.23	18	19	105	60 - 140
Naphthalene	5.00	3.42	26	18	68	60 - 140
Tetrachloroethene	5.00	4.48	34	30	90	70 - 130
Toluene	5.00	4.40	19	17	88	70 - 130
1,2,4-Trichlorobenzene	5.00	3.78	37	28	76	60 - 140
1,1,1-Trichloroethane	5.00	5.63	27	31	113	70 - 130
1,1,2-Trichloroethane	5.00	4.48	27	24	90	70 - 130
Trichloroethene	5.00	4.50	27	24	90	70 - 130
Vinyl chloride	5.00	5.11	13	13	102	70 - 130
m-Xylene & p-Xylene	10.0	9.58	43	42	96	70 - 130
o-Xylene	5.00	4.80	22	21	96	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample #	H0I100000 - 092B	**Work Order #**	L6RJX1AA	**Matrix.....:**	AIR
	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	1	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.080	0.023	ND	0.26	0.073
Carbon tetrachloride	ND	0.080	0.015	ND	0.50	0.094
Chlorodifluoromethane	ND	0.080	0.015	ND	0.28	0.053
Chloroform	ND	0.080	0.015	ND	0.39	0.073
Dichlorodifluoromethane	ND	0.080	0.027	ND	0.40	0.13
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	ND	0.080	0.027	ND	0.35	0.12
Methylene chloride	**0.10**	**0.20**	**0.018**	**0.36 J**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	ND	0.20	0.036	ND	1.0	0.19
Tetrachloroethene	ND	0.080	0.016	ND	0.54	0.11
Toluene	ND	0.080	0.021	ND	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	ND	0.080	0.012	ND	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	ND	0.040	0.014	ND	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	ND	0.080	0.050	ND	0.35	0.22
o-Xylene	ND	0.080	0.024	ND	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample #	H0I100000 - 092C	**Work Order #**	L6RJX1AC	**Matrix.....:**	AIR
	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	1	**Method.....:**	TO-15		

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Benzene	5.00	3.83	16	12	77	70 - 130
Carbon tetrachloride	5.00	5.31	31	33	106	70 - 130
Chlorodifluoromethane	5.00	5.35	18	19	107	60 - 140
Chloroform	5.00	4.82	24	24	96	70 - 130
Dichlorodifluoromethane	5.00	5.38	25	27	108	60 - 140
1,1-Dichloroethane	5.00	4.55	20	18	91	70 - 130
1,2-Dichloroethane	5.00	4.94	20	20	99	70 - 130
cis-1,2-Dichloroethene	5.00	4.41	20	17	88	70 - 130
trans-1,2-Dichloroethene	5.00	4.48	20	18	90	70 - 130
1,1-Dichloroethene	5.00	4.67	20	19	93	70 - 130
Ethylbenzene	5.00	4.42	22	19	88	70 - 130
Methylene chloride	5.00	4.13	17	14	83	70 - 130
Methyl tert-butyl ether	5.00	4.70	18	17	94	60 - 140
Naphthalene	5.00	3.79	26	20	76	60 - 140
Tetrachloroethene	5.00	4.11	34	28	82	70 - 130
Toluene	5.00	4.16	19	16	83	70 - 130
1,2,4-Trichlorobenzene	5.00	3.98	37	30	80	60 - 140
1,1,1-Trichloroethane	5.00	5.22	27	28	104	70 - 130
1,1,2-Trichloroethane	5.00	4.18	27	23	84	70 - 130
Trichloroethene	5.00	3.85	27	21	77	70 - 130
Vinyl chloride	5.00	4.73	13	12	95	70 - 130
m-Xylene & p-Xylene	10.0	8.90	43	39	89	70 - 130
o-Xylene	5.00	4.46	22	19	89	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	106	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Sample Receipt Documentation

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

HDI 030404

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:
Company: TetraTech, NUS	Phone: (770) 413-0965 Ext. 232	
Address: 20251 Century Blvd.	Site Contact: Tony Apanavage (301) 233-8230	
City/State/Zip: Germantown MD	TAL Contact:	
Phone: (301) 528-3032		
FAX: (301) 528-3000		
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time	
Site/location: LMC-MRC	Standard (Specify)	
PO # 1121c02757	Rush (Specify)	

1 of 9 COCs

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
ISG-14-C-9	8/30/10	0913	1041	-29.5	-3.5	K-116	6641	X											
SV-C-3-9		0919	1046	-30	0.0	K-414	6645												
SV-C-5-9		0924	1051	-29	-2.5	K-334	7785												
1455 ISG-3-C-9		0932	1058	-30	-5.0	K-429	8770												
SV-C-4-9		0936	1102	-29	-3.0	K-416	04173												
SV-C-2-9	↓	0943	1119	-30	-0.5	K-423	6359	↓											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

REC. AT AMBIENT
CUSTODY SEALS INTACT
14 BOXES RH 9/3/10
FED EX # 796205786887
796205813336

Special Instructions/QC Requirements & Comments:

80 CANS / 80 FLOWS

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 1030	Canisters Received by:	
Samples Relinquished by:	Date/Time: 9/1/10 1220	Received by: Ryan Henley	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

HDI 130404

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:	2 of 9 COCs
Company: TetraTech, NUS	Phone (770) 413-0965 Ext. 232		
Address: 20251 Century Blvd.	Site Contact: Tony Aparavage (301) 233-8230		
City/State/Zip Germantown, MD	TAL Contact:		
Phone: (301) 528-3022			
FAX: (301) 528-3090			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112IC 02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SV-28-C-9	8/30/10	0951	1108	-30	-5.0	K-434	1147												
SV-1-C-9		1009	1139	-30	-3.5	K-373	12188												
SV-5-C-9		1014	1145	-30	-3.0	K-412	S-1538												
IS6-01-9		1018	1137	-30	-6.0	K-131	1407												

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10/1030	Canisters Received by:	
Samples Relinquished by:	Date/Time: 9/1/10/1220	Received by: Ryan Henry	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

HOI 030404

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** Rick Samuels	**Sampled By:**
Company: TetraTech, NUS	Phone: (770)413-0965 Ext. 232	
Address: 20251 Century Blvd.	Site Contact: Tony Apanavage (301)233-8230	
City/State/Zip: Germantown, MD	TAL Contact:	
Phone: (301)528-3000		
FAX: (301)528-3000		
Project Name: MRC - IAQ Sampling	**Analysis Turnaround Time**	
Site/location: LMC - MRC	Standard (Specify)	
PO # 1121C02757	Rush (Specify)	

3 of 9 COCs

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-C10-9	8/30/10	0912	1651	-30	-7.5	K-497	1524	X											
IAQ-C9-9		0918	1654	-30	-7.0	K-383	04741												
IAQ-C6-9		0924	1704	-29.5	-7.5	K-495	6576												
IAQ-C5-9		0930	1710	-30	-7.0	K-489	1350												
IAQ-C7-9		0936	1712	-30	-4.0	K-438	6619												
IAQ-C8-9	↓	0941	1714	-29.5	0.0	K-496	6348	↓											

Sampled by :

Temperature (Fahrenheit)			
	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)			
	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 1030	Canisters Received by: Rick Shepard	
Samples Relinquished by: Rick Shepard	Date/Time: 9/1/10 1220	Received by: Ryan Henry	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

170D304404

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:	4 of 9 COCs
Company: TetraTech, NUS	Phone: (770) 413-0965 Ext. 232		
Address: 10251 Century Blvd	Site Contact: Tony Apanavage (301) 233-8230		
City/State/Zip Germantown, MD	TAL Contact:		
Phone: (301) 528-3022			
FAX: (301) 528-3000			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112ic02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-C17-9	8/30/10	0949	1721	-30	-7.0	K-150	9338	X											
IAQ-C1-9		1007	1724	-30	-8.0	K-113B	12820												
IAQ-C2-9		1012	1730	-30	-8.5	K-493	0120												
IAQ-C19-9		1025	1745	-30	-7.5	K-490	6574												

Sampled by :

Temperature (Fahrenheit)		
	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)		
	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 / 1030	Canisters Received by: Paul Hyland	
Samples Relinquished by: Paul Hyland	Date/Time: 9/1/10 / 1220	Received by: Ryan Henry	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H0I 030404

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☑ **1g** Other:	1g - 'ISG-3-C-9' LISTS CAN ID ON COC AS 8770, CAN ID SHOULD BE 12455.
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C; NC, 1668, 1613B: 0-4°C; VOST: 10°C; MA: 2-6 °C)			✓	☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓			

Quote #: 80274 PM Instructions: _____

Sample Receiving Associate: Ryan Henry Date: 9/3/10

QA026R21.doc, 090409

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H0I030404*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
~ 9/3/10	NA	28.81	L6G9D	6641	-2.1													8770
			L6G9E	6645	-0.9													8726
			L6G9G	7785	-1.3													8778
			L6G9H	12455	-3.6													8770
			L6G9J	04173	-2.6													8774
			L6G9K	6359	-0.4													↓
			L6G9L	1147	-3.4	-	AW 9-8-10	I	29.08 ~~4.5~~ 9/8/10 H	-4.3	32.0							8778
			L6G9M	12188	-2.1													8772
			L6G9N	S1528	-2.0													↓
			L6G9P	1407	-5.2													8769
			L6G9Q	1524	-6.3													8796
			L6G9R	04741	-5.7													8789
			L6G9V	6576	-6.8													↓
			L6G9W	1350	-6.0													8794
			L6G9X	6619	-4.1													8796
			L6G90	6348	-0.7													8795
			L6G91	93286	-5.8													↓
			L6G92	12820	-7.1													8794
			L6G95	0120	-7.4													8796
↓	↓	↓	L6G96	6574	-6.2													8793

Volatiles

Raw Sample Data

Tetra Tech NUS, Inc

Client Sample ID: ISG-14-C-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 001 **Work Order #** L6G9D1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/09/2010
Prep Batch #.....: 0252108
Dilution Factor.: 50 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**1.8**	**4.0**	**1.2**	**5.7 J**	**13**	**3.7**
Carbon tetrachloride	ND	4.0	0.75	ND	25	4.7
Chlorodifluoromethane	**36**	**4.0**	**0.75**	**130**	**14**	**2.7**
Chloroform	ND	4.0	0.75	ND	20	3.7
Dichlorodifluoromethane	ND	4.0	1.4	ND	20	6.7
1,1-Dichloroethane	ND	4.0	0.50	ND	16	2.0
1,2-Dichloroethane	ND	4.0	0.95	ND	16	3.8
cis-1,2-Dichloroethene	ND	4.0	1.2	ND	16	4.8
trans-1,2-Dichloroethene	ND	4.0	1.0	ND	16	4.0
1,1-Dichloroethene	ND	4.0	0.65	ND	16	2.6
Ethylbenzene	**3.5**	**4.0**	**1.4**	**15 J**	**17**	**5.9**
Methylene chloride	**6.8**	**10**	**0.90**	**24 J**	**35**	**3.1**
Methyl tert-butyl ether	ND	20	3.4	ND	72	12
Naphthalene	**2.9**	**10**	**1.8**	**15 J**	**52**	**9.4**
Tetrachloroethene	ND	4.0	0.80	ND	27	5.4
Toluene	**460**	**4.0**	**1.0**	**1700**	**15**	**4.0**
1,2,4-Trichlorobenzene	ND	20	2.0	ND	150	14
1,1,1-Trichloroethane	**1.4**	**4.0**	**0.60**	**7.7 J**	**22**	**3.3**
1,1,2-Trichloroethane	ND	4.0	1.0	ND	22	5.7
Trichloroethene	ND	2.0	0.70	ND	11	3.8
Vinyl chloride	ND	4.0	1.4	ND	10	3.7
m-Xylene & p-Xylene	**14**	**4.0**	**2.5**	**62**	**17**	**11**
o-Xylene	**7.6**	**4.0**	**1.2**	**33**	**17**	**5.2**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9dr.d
Report Date: 10-Sep-2010 14:28

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/l6g9dr.d
Lab Smp Id: L6G9D1AA Client Smp ID: ISG-14-C-9
Inj Date : 09-SEP-2010 02:34
Operator : 7126 Inst ID: mj.i
Smp Info : L6G9D1AA,50,0,,,
Misc Info : J090810,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 10-Sep-2010 14:16 barlozha Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 1
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	50.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
*	1 Bromochloromethane	128	9.480	9.479	(1.000)	190549	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.643	11.642	(1.000)	932270	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.301	16.300	(1.000)	801748	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.915	17.914	(1.099)	622701	4.09208	4.092
	7 Chlorodifluoromethane	67	3.912	3.901	(0.413)	17492	0.72589	36.29
	31 Methylene Chloride	84	6.796	6.784	(0.717)	8441	0.13614	6.807
	44 1,1,1-Trichloroethane	97	10.545	10.544	(1.112)	4046	0.02808	1.404
	48 Benzene	78	11.132	11.125	(0.956)	6977	0.03541	1.770
	61 Toluene	91	14.359	14.358	(0.881)	1745690	9.24551	462.3
	62 1,1,2-Trichloroethane	97	14.634	14.428	(0.898)	57167	0.84427	42.21
	69 Ethylbenzene	91	16.624	16.623	(1.020)	15022	0.06939	3.469
	70 m&p-Xylene	91	16.780	16.784	(1.029)	46587	0.28454	14.23
	74 o-Xylene	91	17.313	17.306	(1.062)	25764	0.15128	7.564
	96 Napthalene	128	21.600	21.594	(1.325)	9594	0.05814	2.907

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9dr.d
Report Date: 10-Sep-2010 14:28

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9dr.d
Lab Smp Id: L6G9D1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: ISG-14-C-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	190549	-2.32
2 1,4-Difluorobenze	936174	557024	1315324	932270	-0.42
3 Chlorobenzene-d5	815161	485021	1145301	801748	-1.65

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.48	0.01
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.01
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9dr.d
Report Date: 10-Sep-2010 14:28

TestAmerica Knoxville

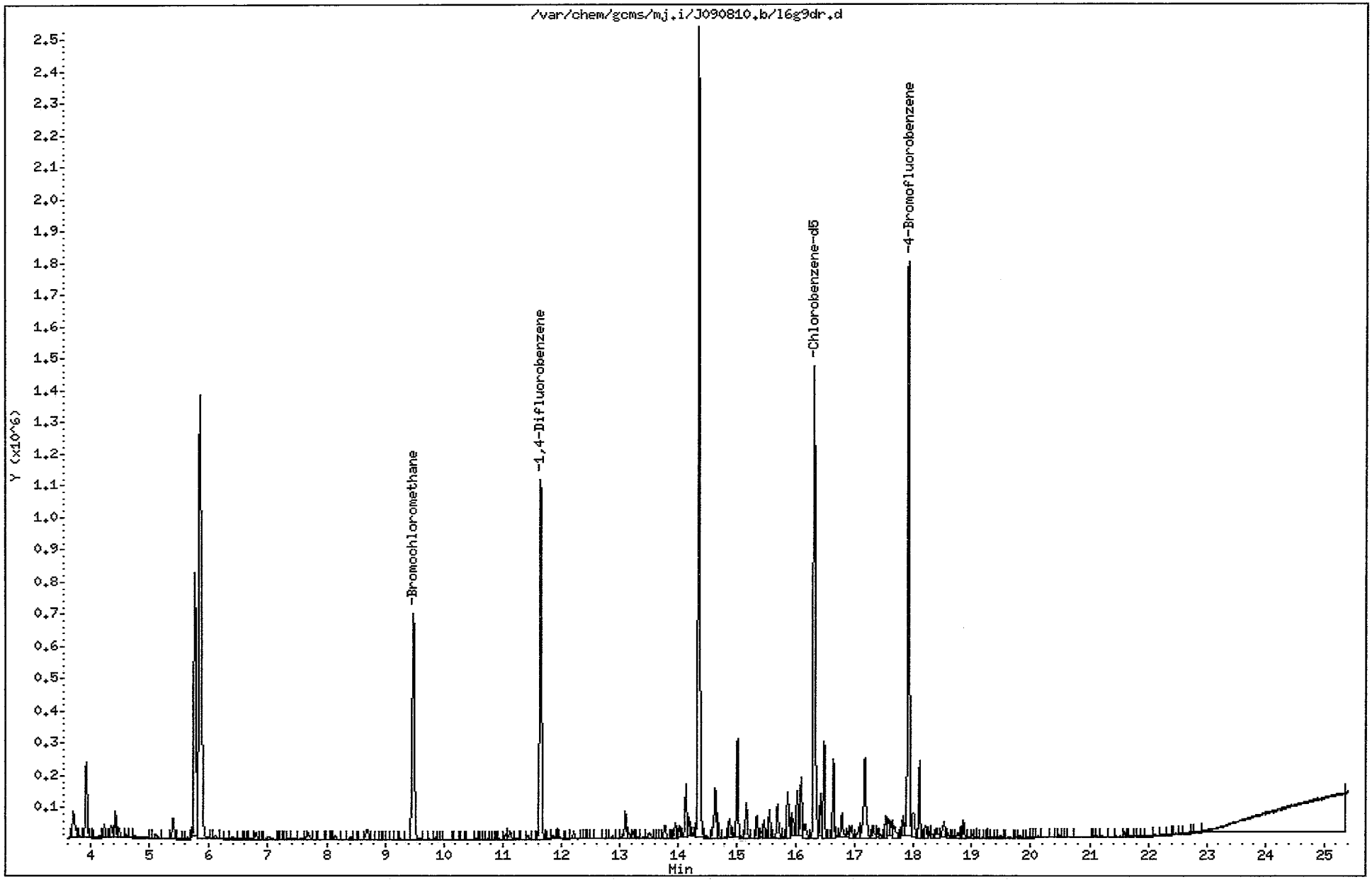
RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9D1AA
Client Smp ID: ISG-14-C-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.092	102.30	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/16g9dr.d
Date : 09-SEP-2010 02:34
Client ID: ISG-14-C-9
Sample Info: L6G9D1AA,50,0,,,
Purge Volume: 500.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 7126
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J090810.b/16g9dr.d

Date : 09-SEP-2010 02:34

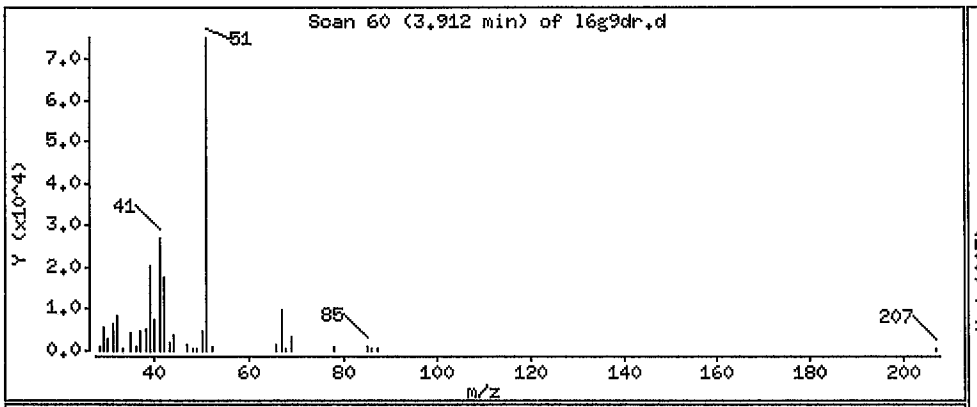
Client ID: ISG-14-C-9 Instrument: mj.i

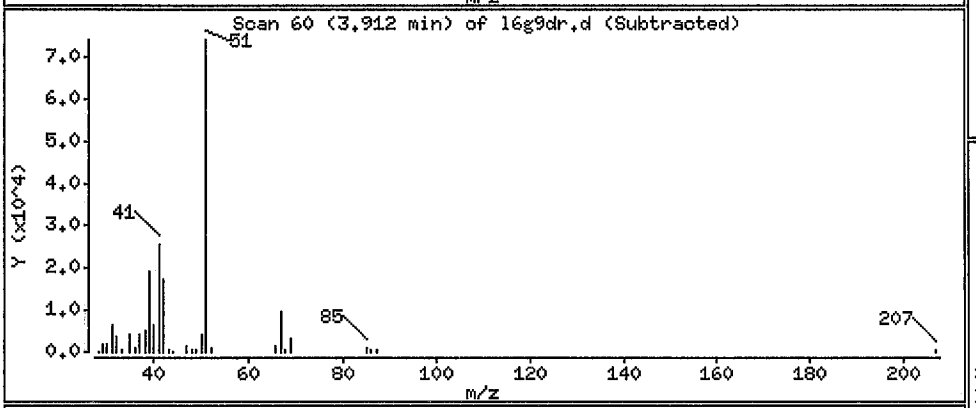
Sample Info: L6G9D1AA,50,0,,,

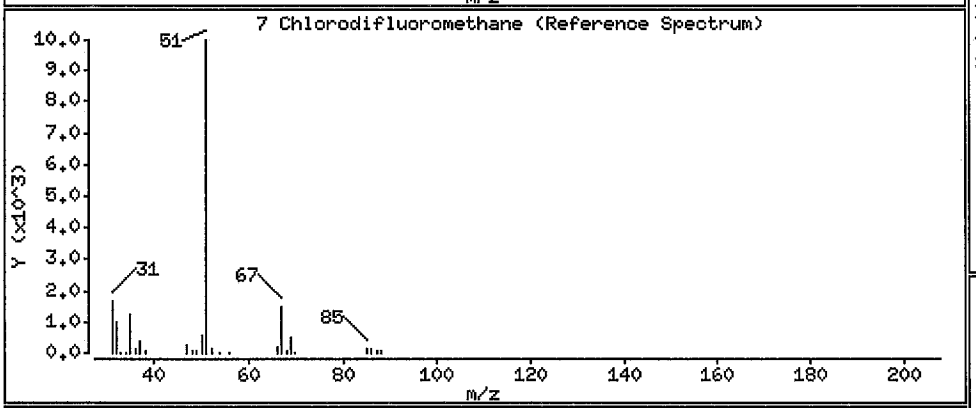
Purge Volume: 500.0 Operator: 7126

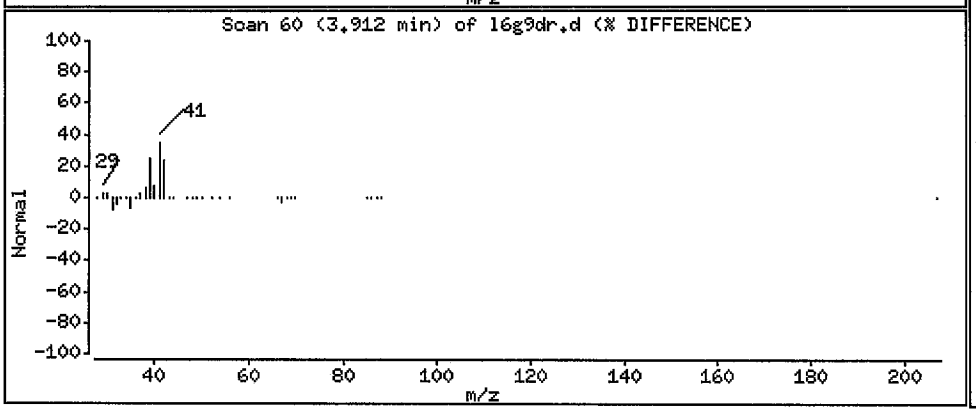
Column phase: Rtx-5 Column diameter: 0.32

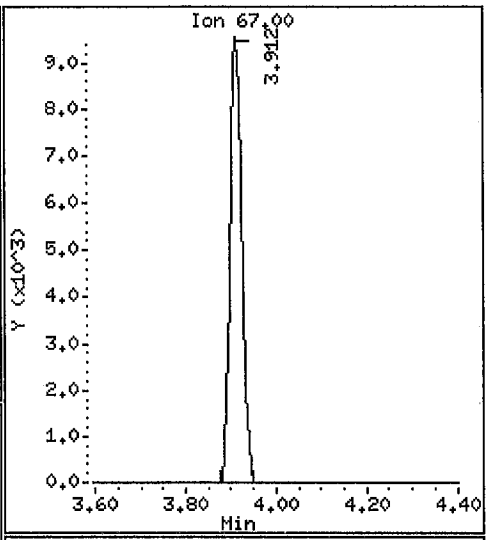
7 Chlorodifluoromethane Concentration: 36.29 ppb(v/v)

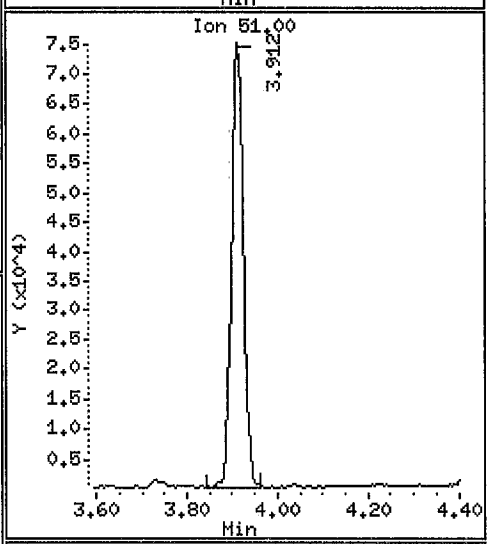


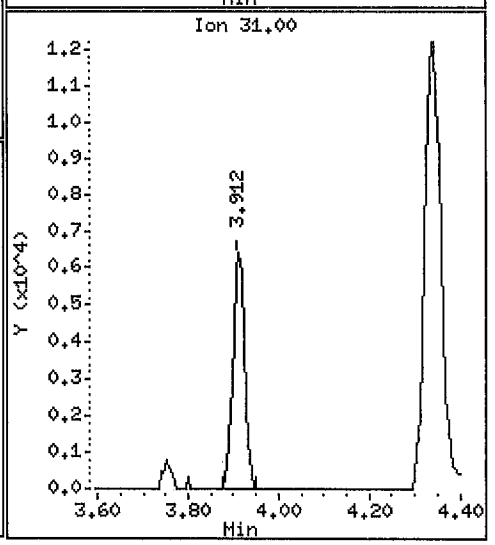












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9dr.d

Date : 09-SEP-2010 02:34

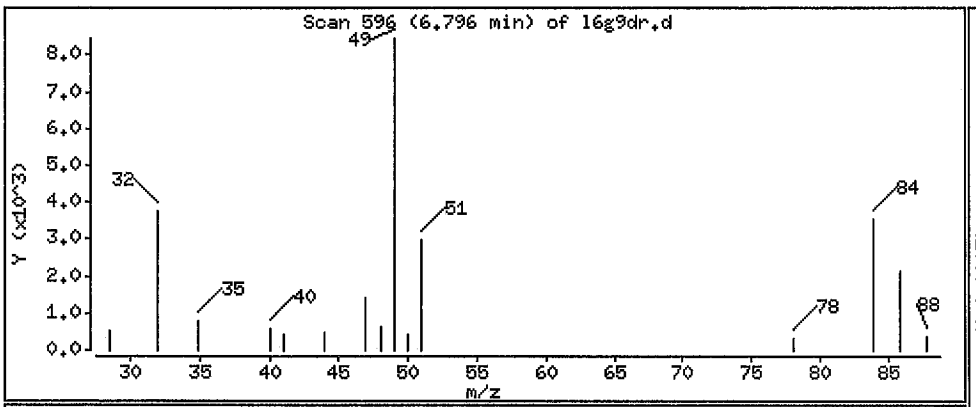
Client ID: ISG-14-C-9 Instrument: mj.i

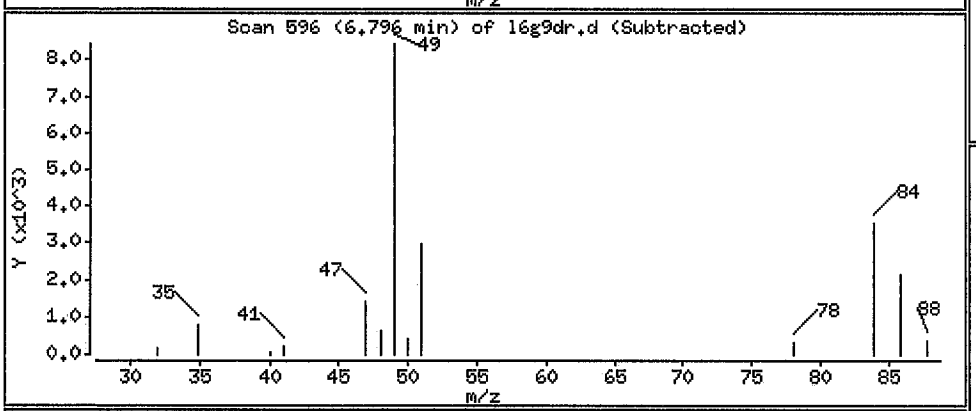
Sample Info: L6G9D1AA,50,0,,,

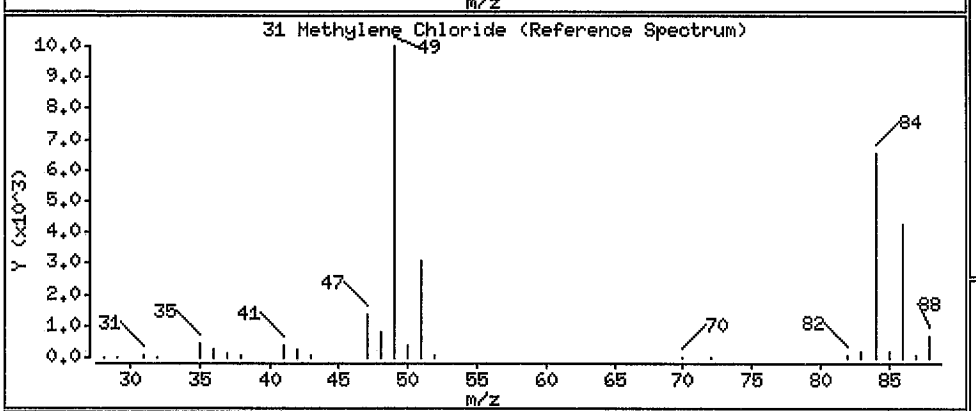
Purge Volume: 500.0 Operator: 7126

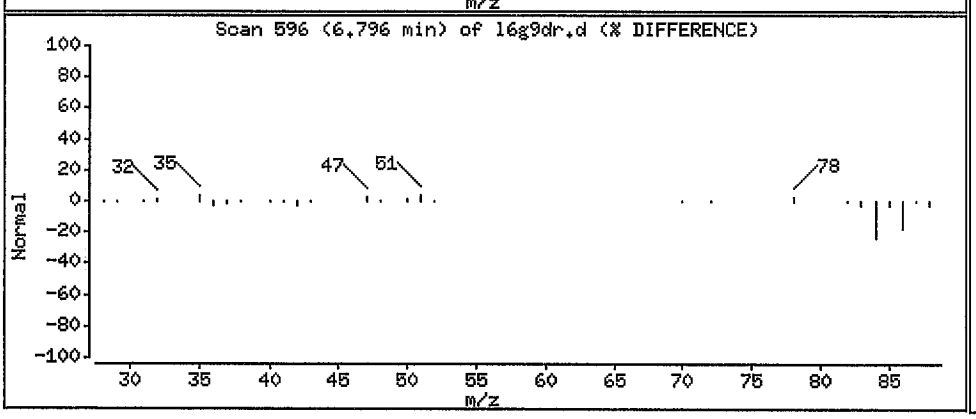
Column phase: Rtx-5 Column diameter: 0.32

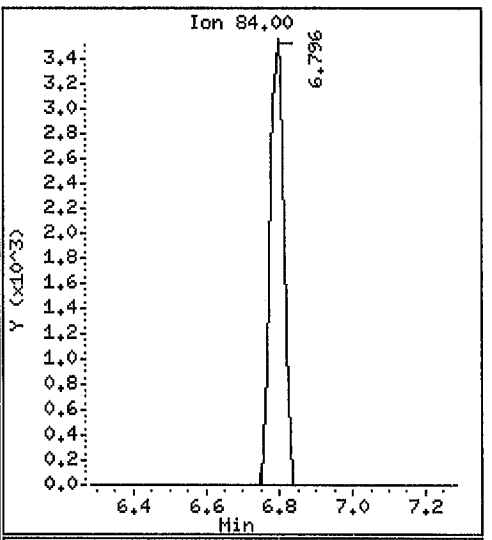
31 Methylene Chloride Concentration: 6.807 ppb(v/v)

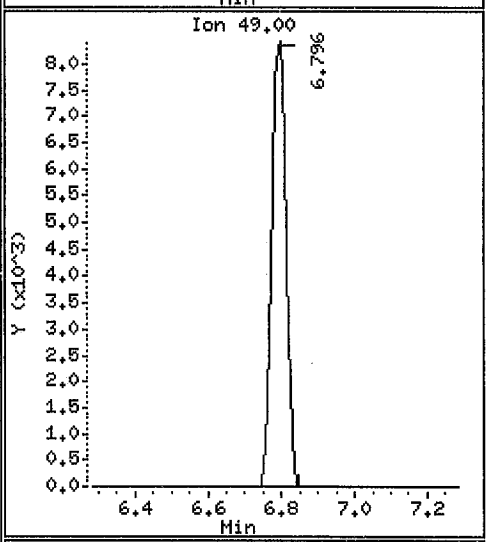


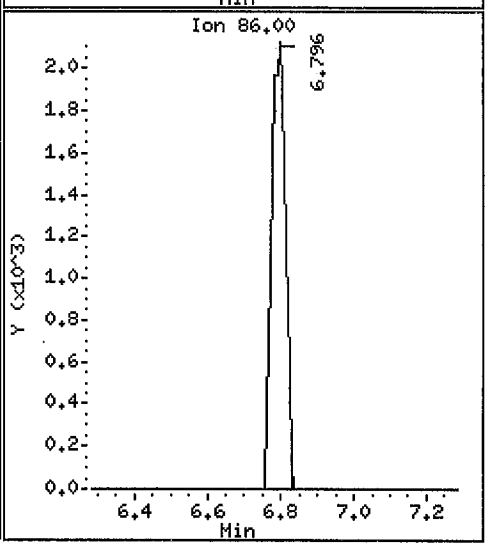












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9dr.d

Date : 09-SEP-2010 02:34

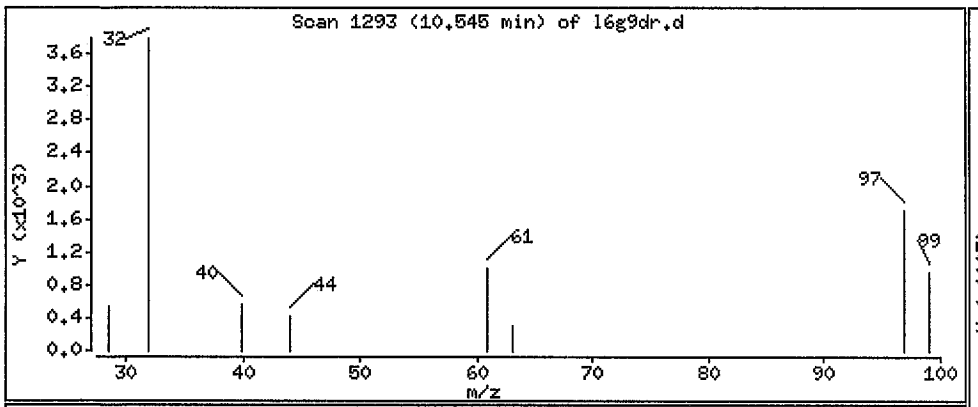
Client ID: ISG-14-C-9 Instrument: mj.i

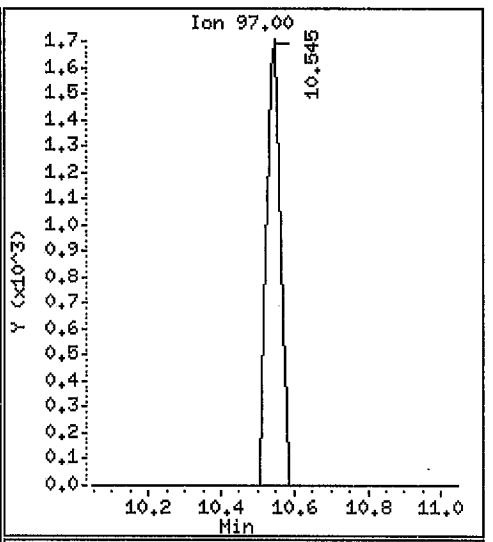
Sample Info: L6G9D1AA,50,0,,,

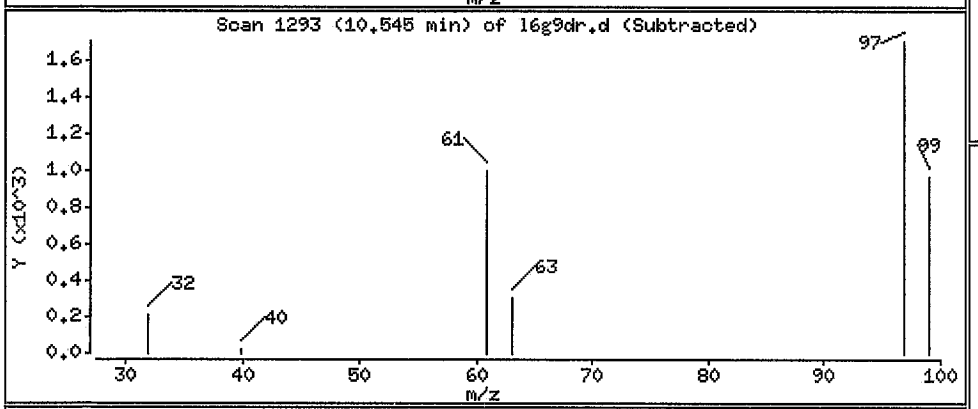
Purge Volume: 500.0 Operator: 7126

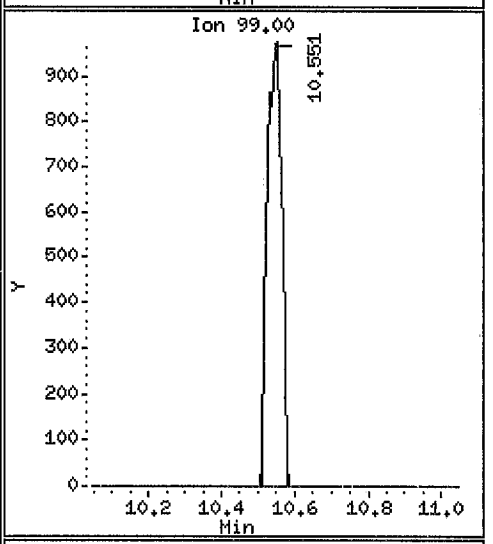
Column phase: Rtx-5 Column diameter: 0.32

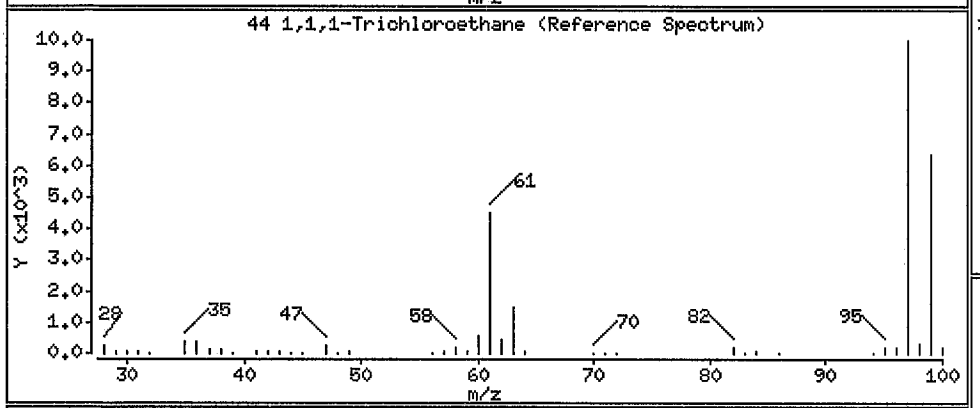
44 1,1,1-Trichloroethane Concentration: 1.404 ppb(v/v)

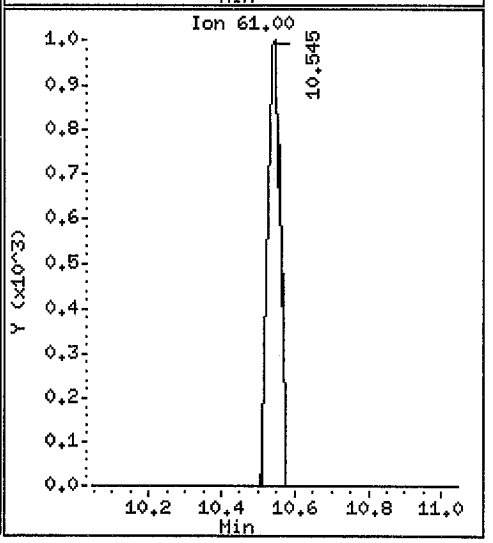


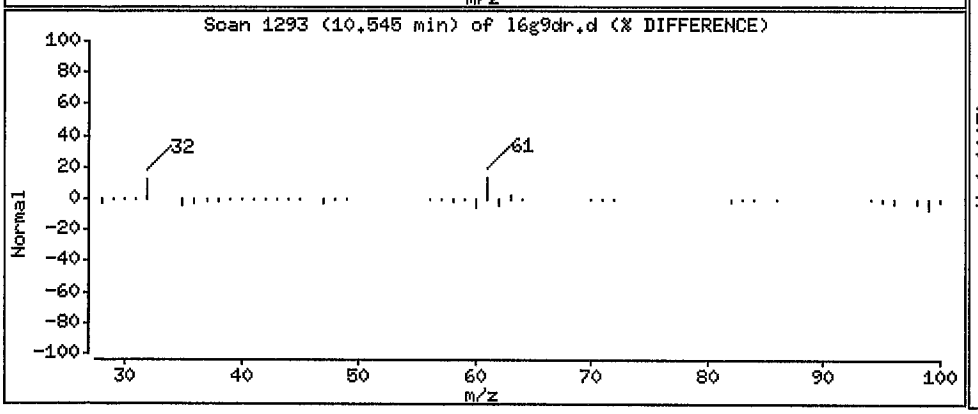












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9dr.d

Date : 09-SEP-2010 02:34

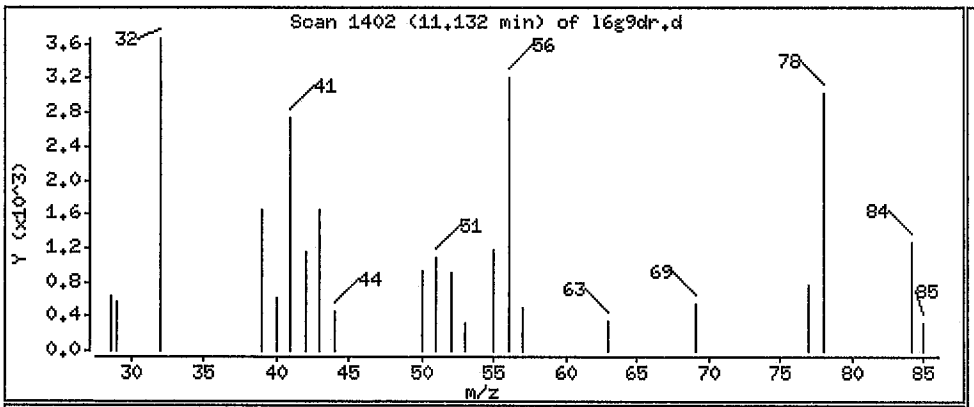
Client ID: ISG-14-C-9 Instrument: mj.i

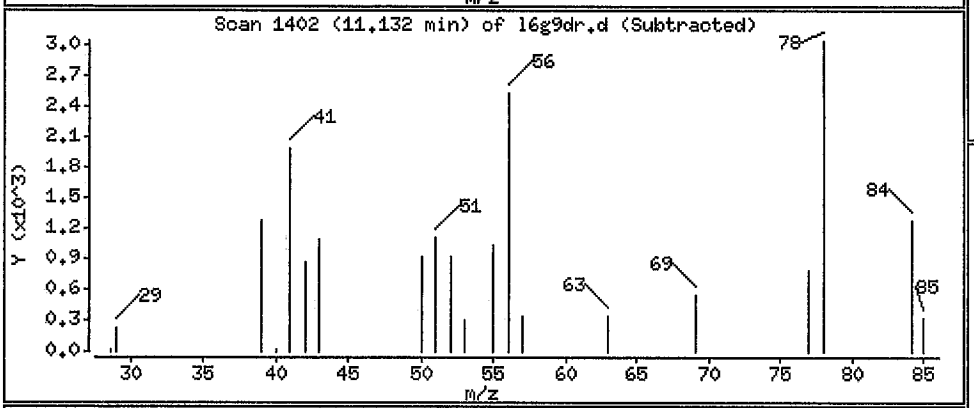
Sample Info: L6G9D1AA,50,0,,,

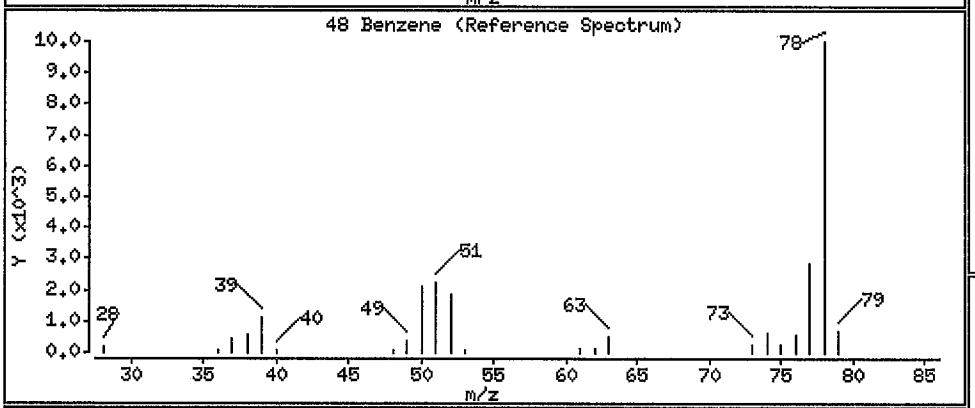
Purge Volume: 500.0 Operator: 7126

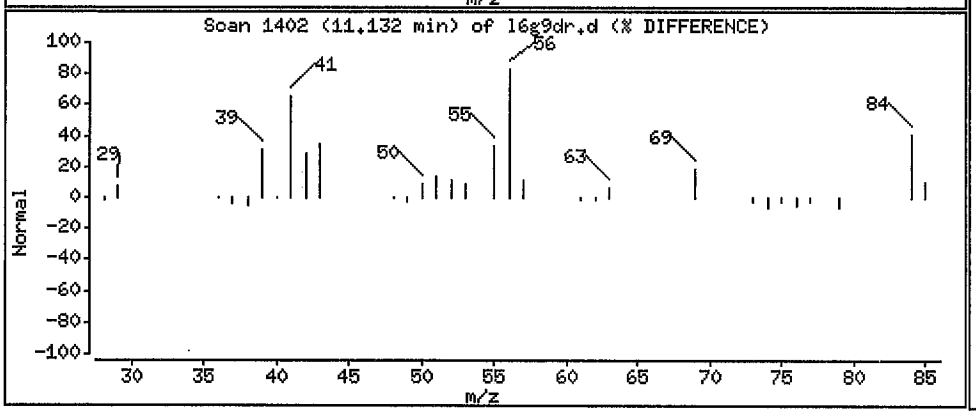
Column phase: Rtx-5 Column diameter: 0.32

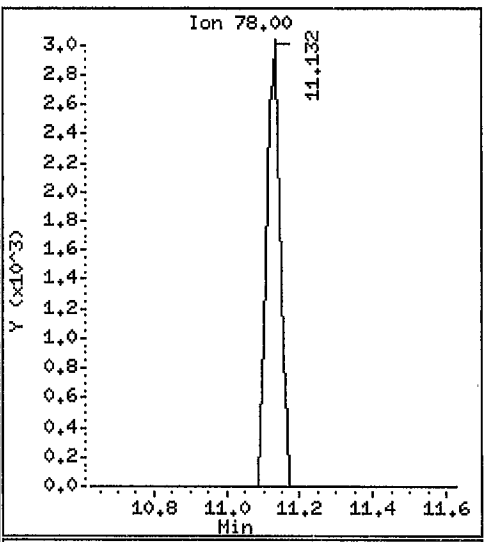
48 Benzene Concentration: 1.770 ppb(v/v)

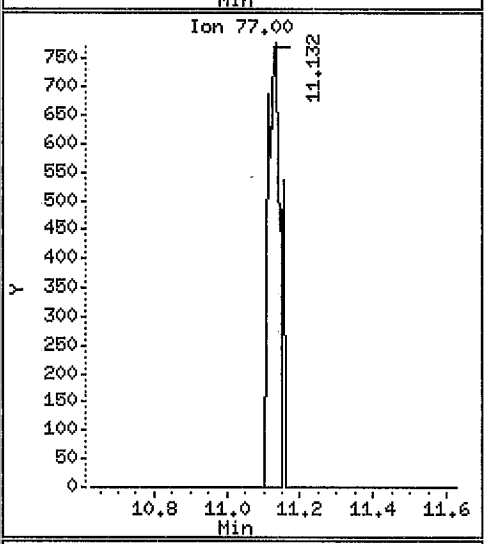


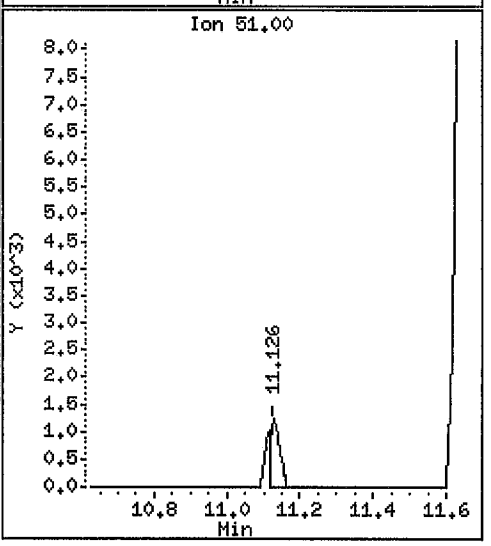












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9dr.d

Date : 09-SEP-2010 02:34

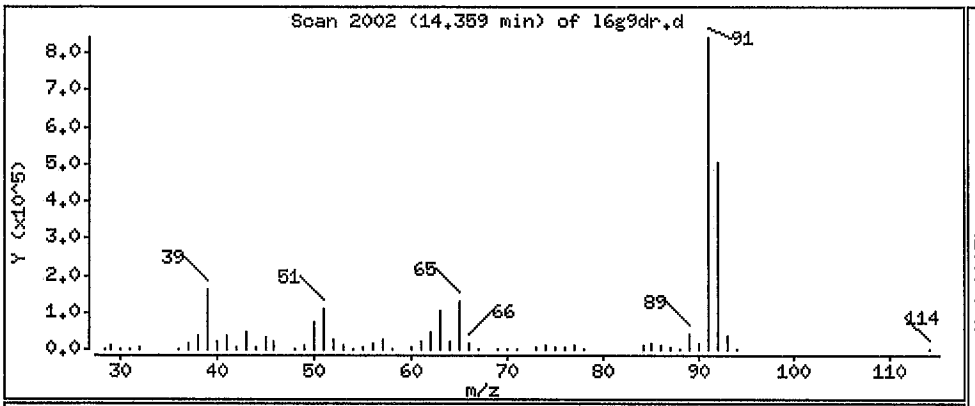
Client ID: ISG-14-C-9 Instrument: mj.i

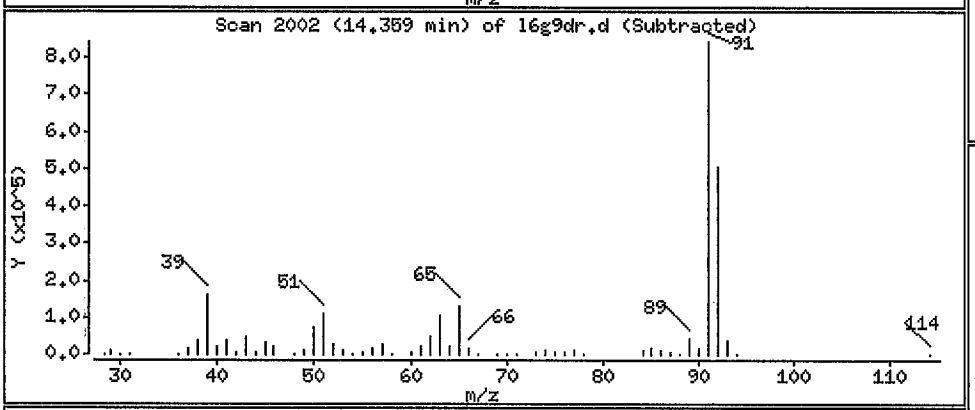
Sample Info: L6G9D1AA,50,0,,,

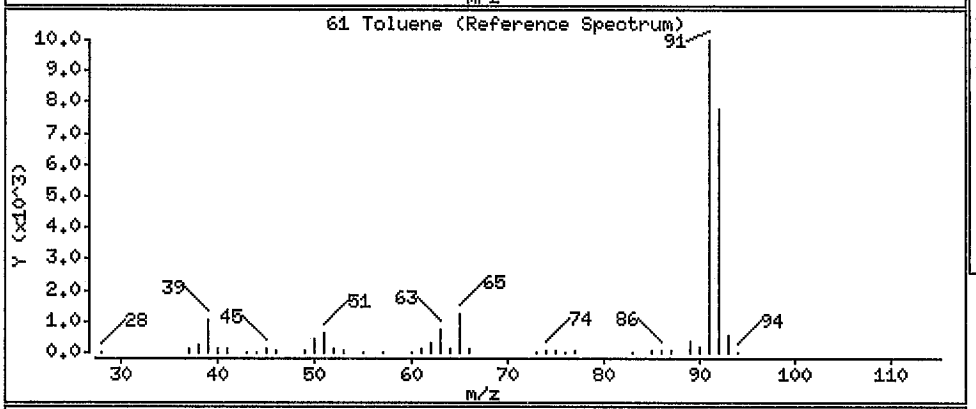
Purge Volume: 500.0 Operator: 7126

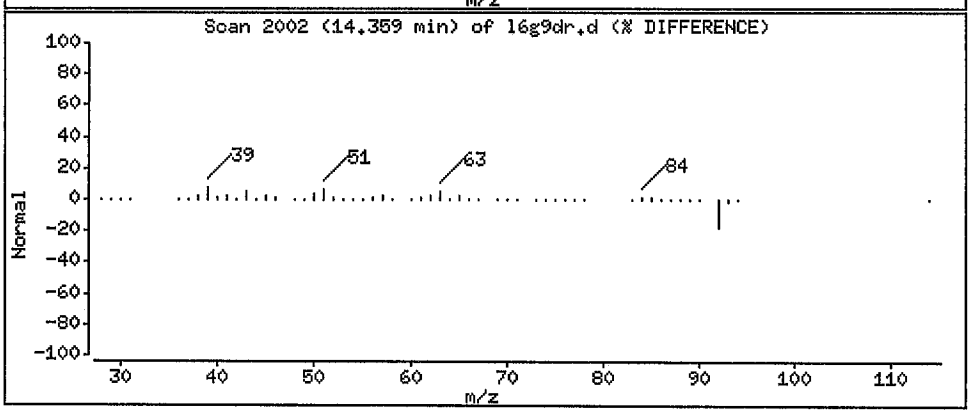
Column phase: Rtx-5 Column diameter: 0.32

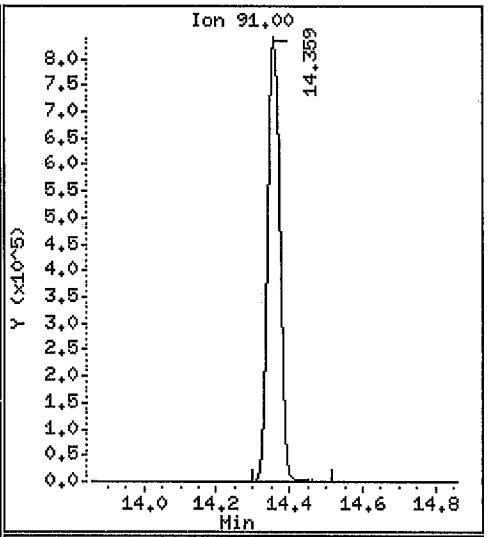
61 Toluene Concentration: 462.3 ppb(v/v)

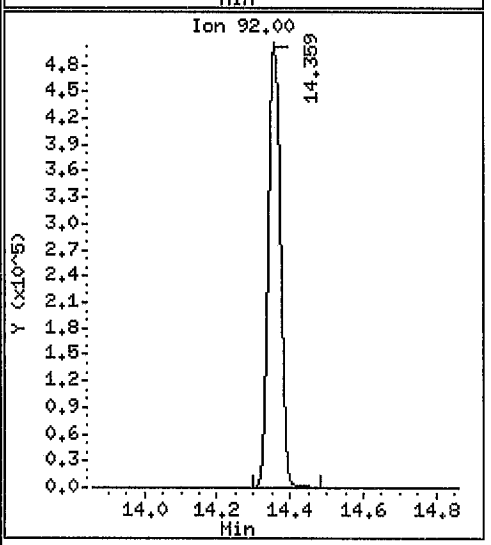












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9dr.d

Date : 09-SEP-2010 02:34

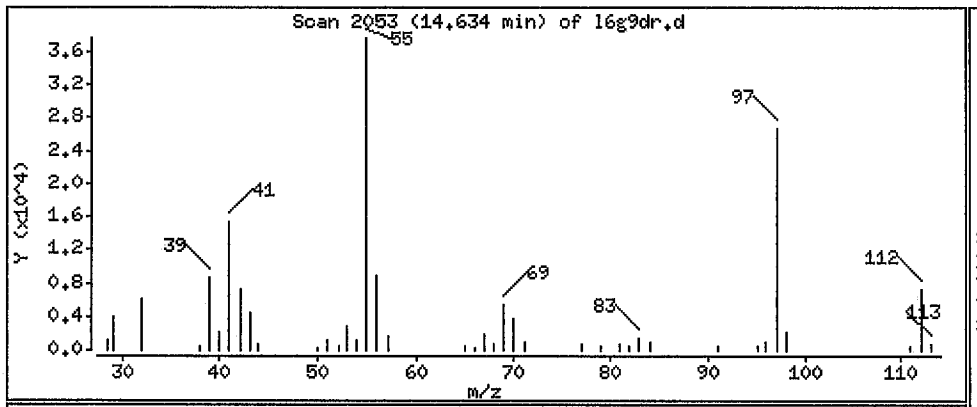
Client ID: ISG-14-C-9 Instrument: mj.i

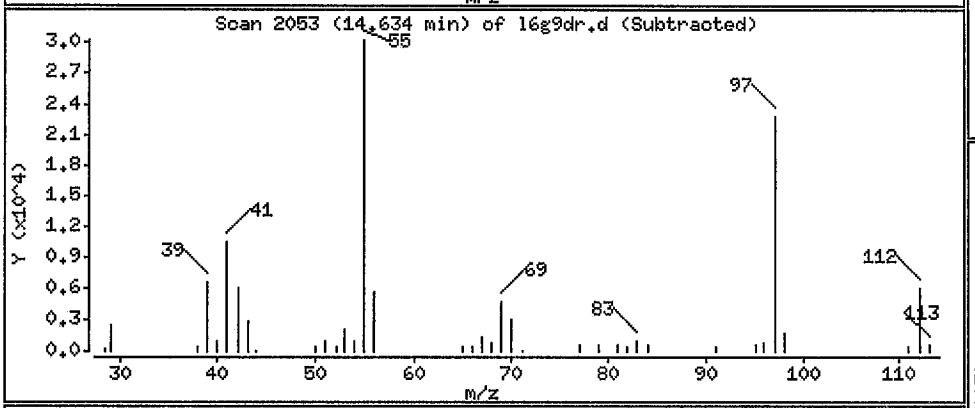
Sample Info: L6G9D1AA,50,0,,,

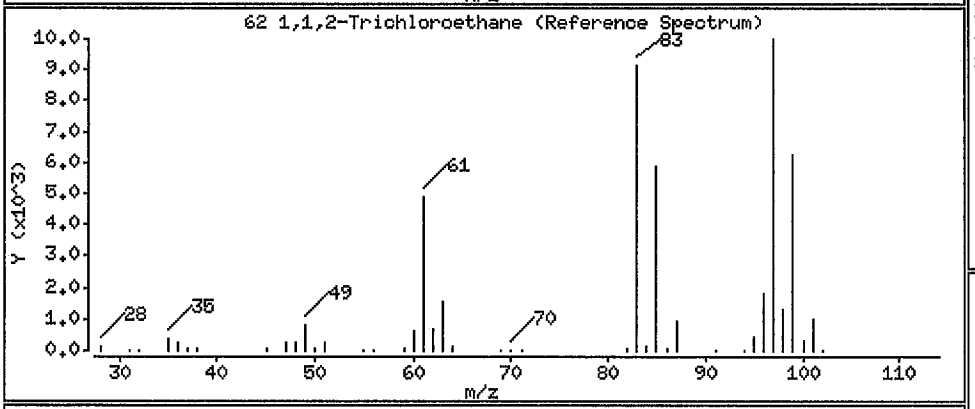
Purge Volume: 500.0 Operator: 7126

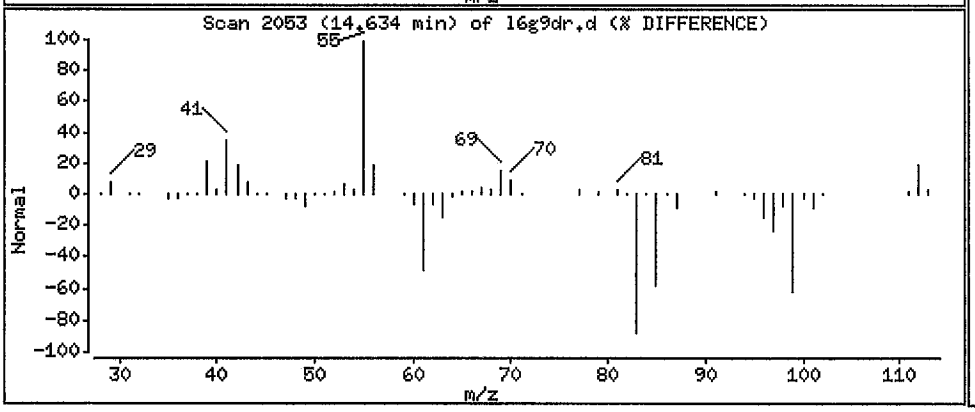
Column phase: Rtx-5 Column diameter: 0.32

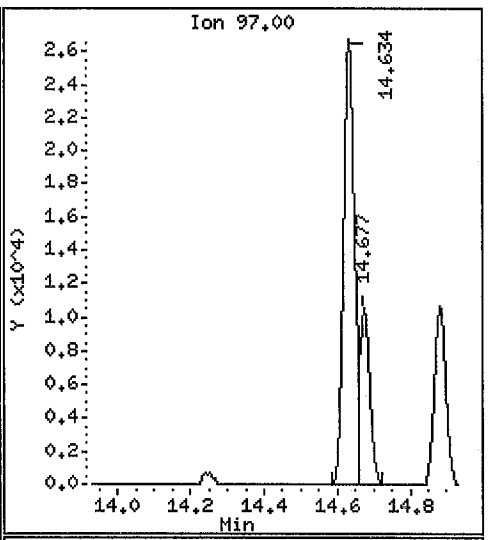
62 1,1,2-Trichloroethane Concentration: 42.21 ppb(v/v)

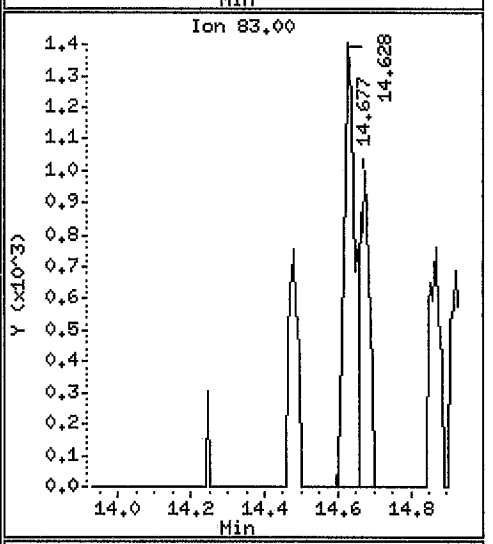


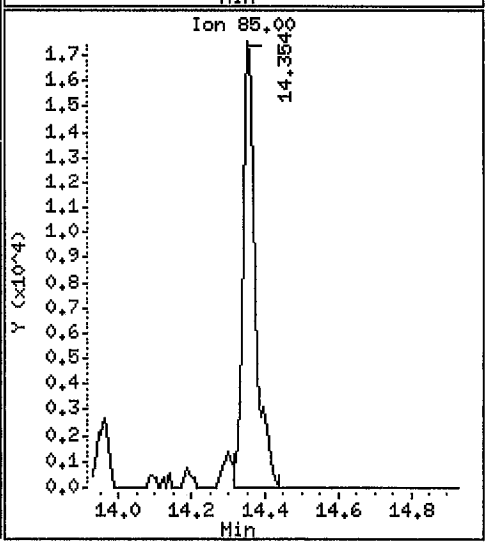












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9dr.d

Date : 09-SEP-2010 02:34

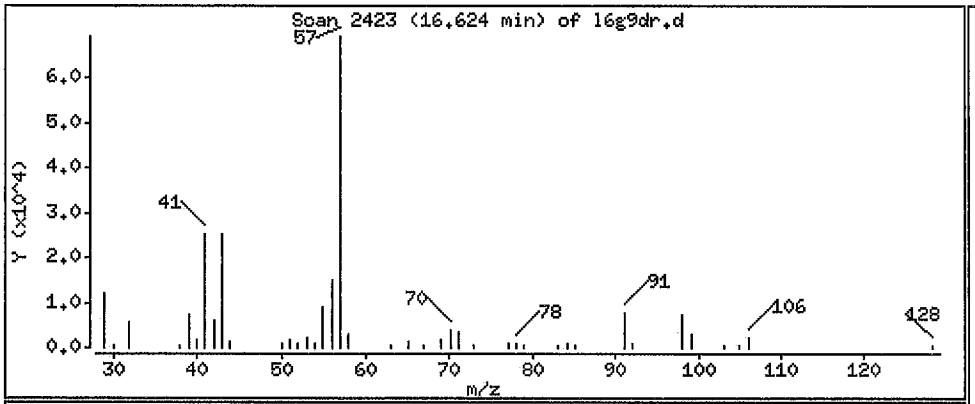
Client ID: ISG-14-C-9 Instrument: mj.i

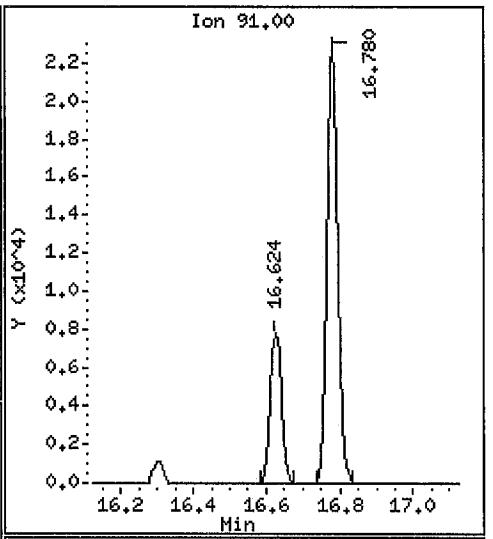
Sample Info: L6G9D1AA,50,0,,,

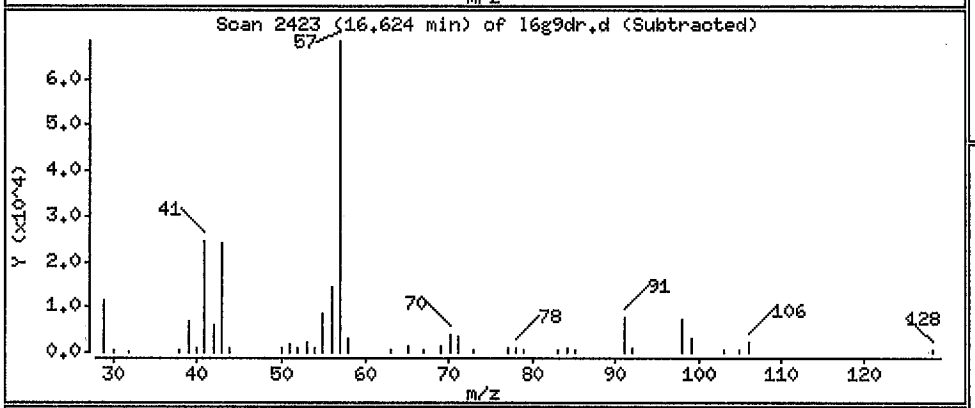
Purge Volume: 500.0 Operator: 7126

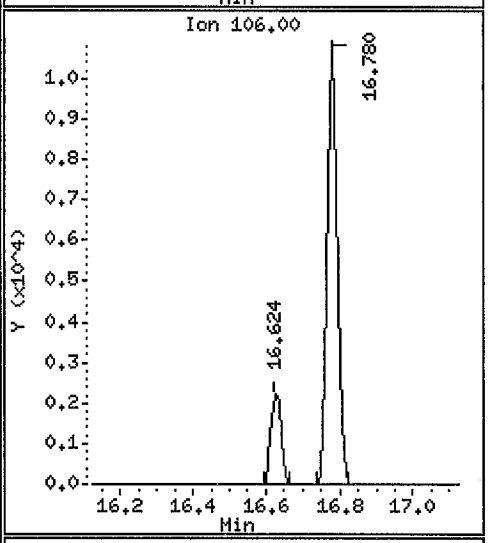
Column phase: Rtx-5 Column diameter: 0.32

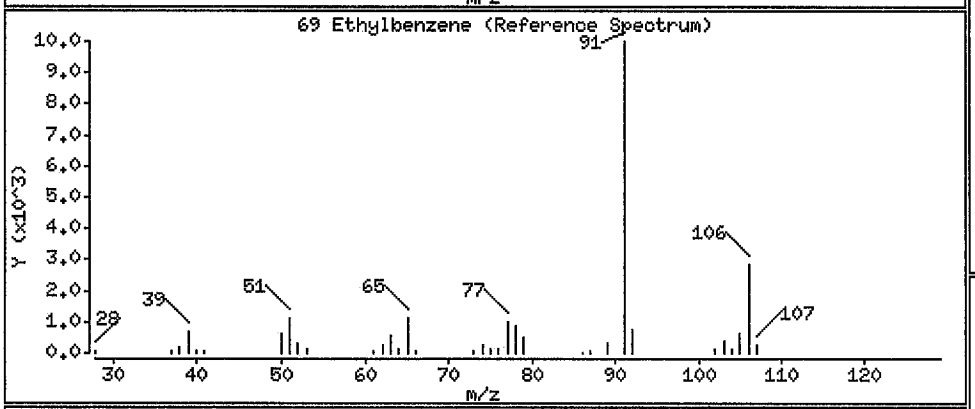
69 Ethylbenzene Concentration: 3.469 ppb(v/v)

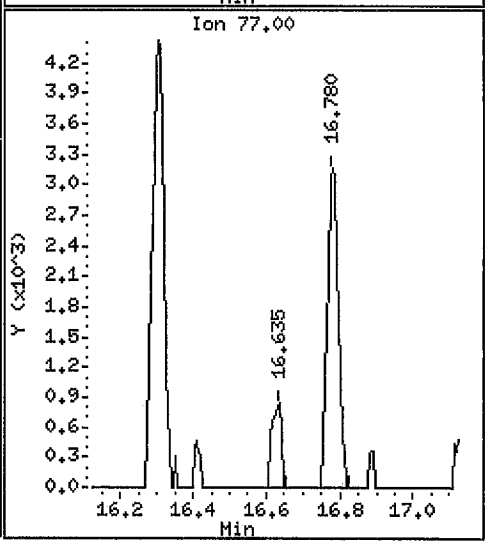


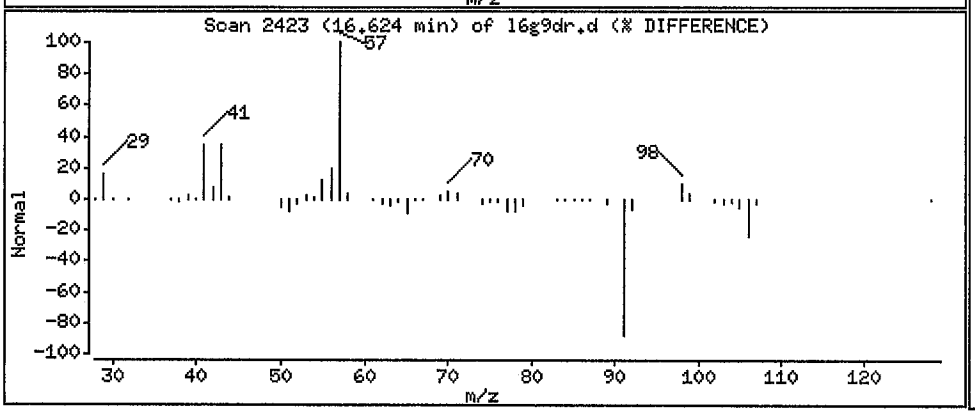












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9dr.d

Date : 09-SEP-2010 02:34

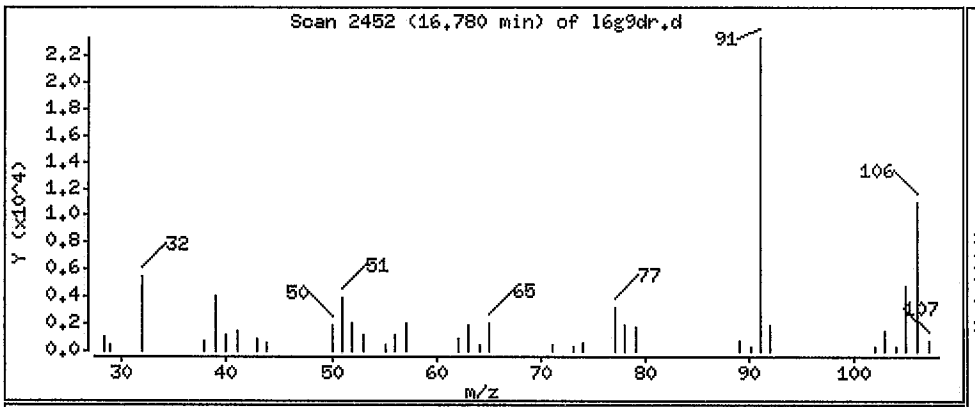
Client ID: ISG-14-C-9 Instrument: mj.i

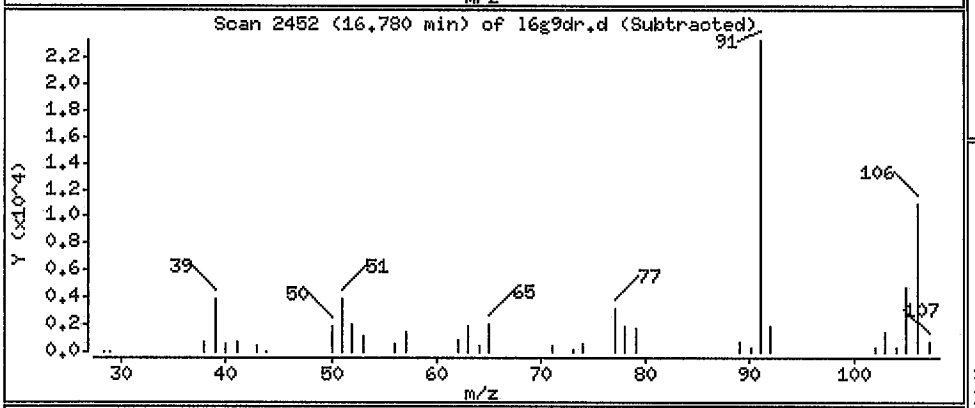
Sample Info: L6G9D1AA,50,0,,,

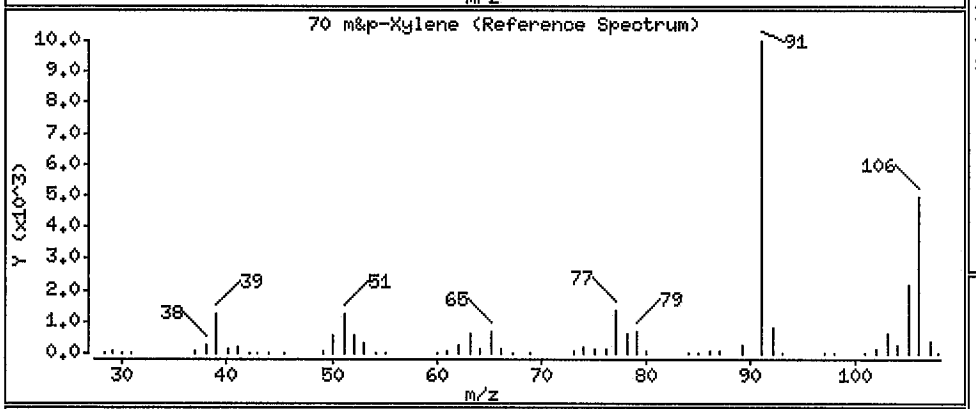
Purge Volume: 500.0 Operator: 7126

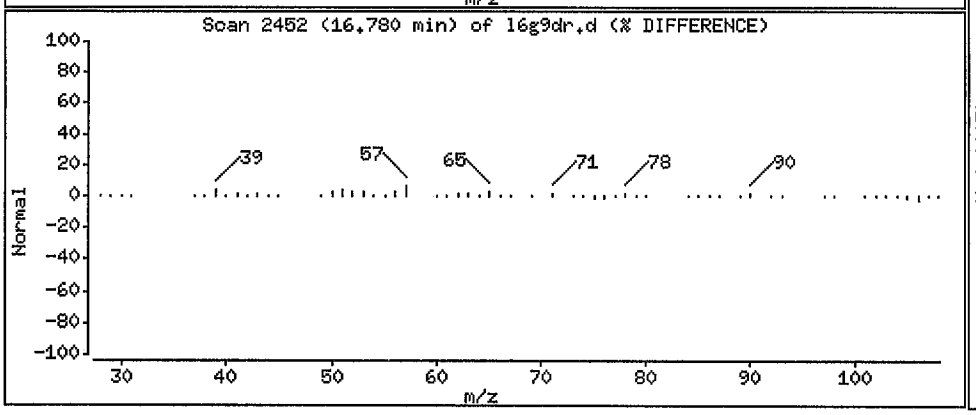
Column phase: Rtx-5 Column diameter: 0.32

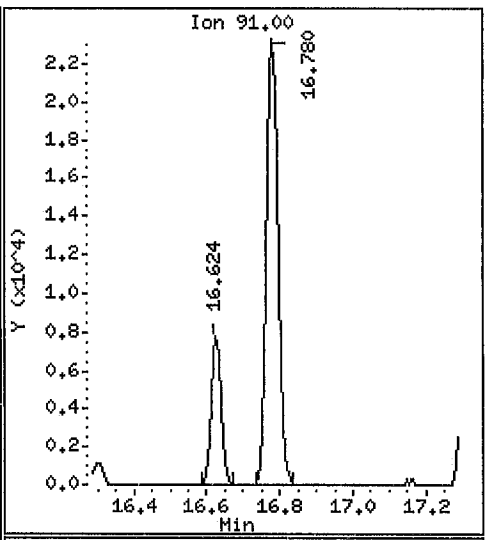
70 m&p-Xylene Concentration: 14.23 ppb(v/v)

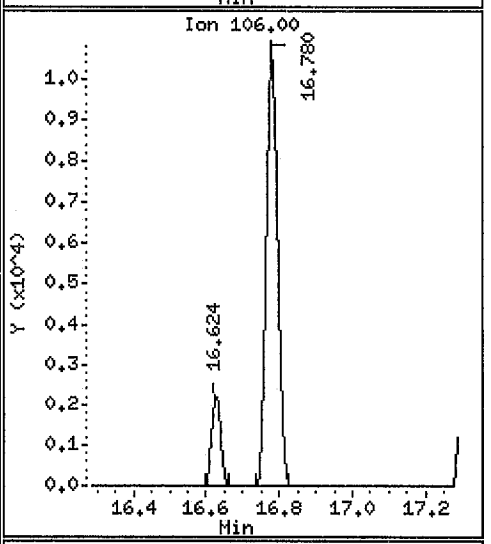


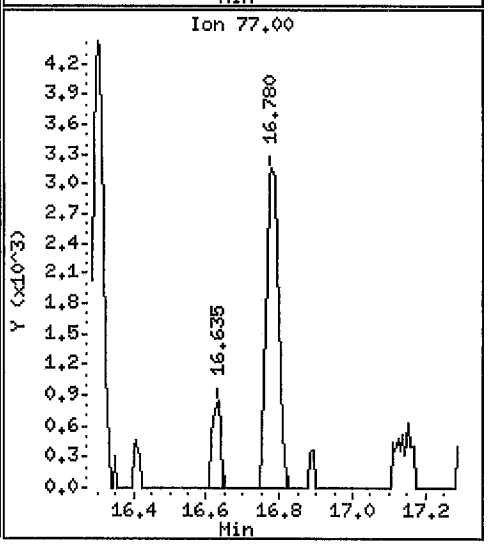












Data File: /var/ohem/goms/mj.i/J090810.b/l6g9dr.d

Date : 09-SEP-2010 02:34

Client ID: ISG-14-C-9

Instrument: mj.i

Sample Info: L6G9D1AA,50,0,,,

Purge Volume: 500.0

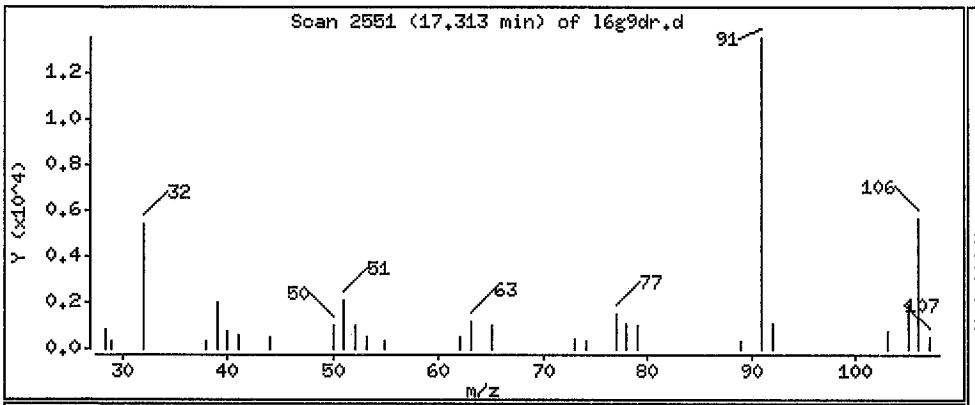
Operator: 7126

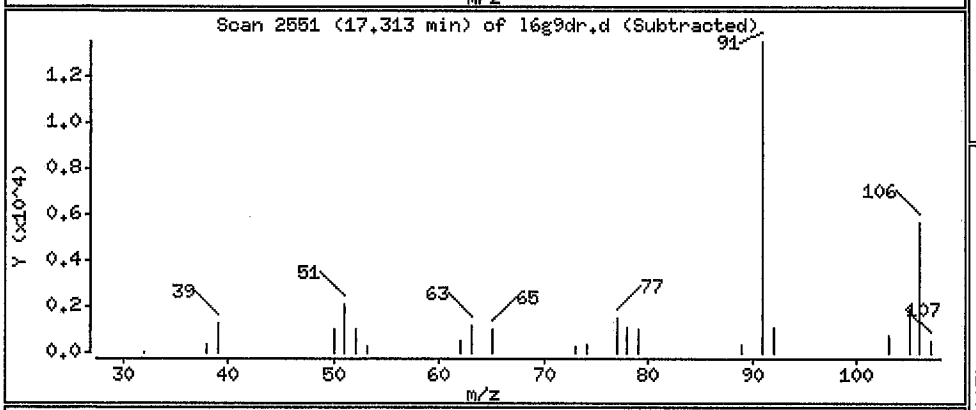
Column phase: Rtx-5

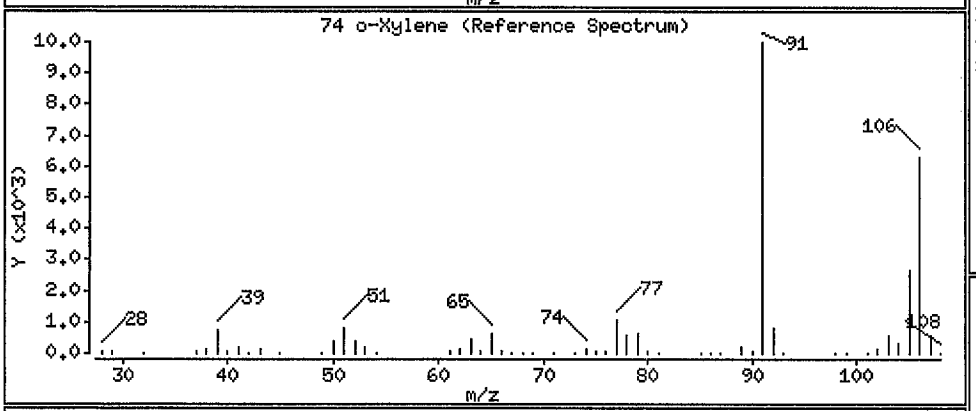
Column diameter: 0.32

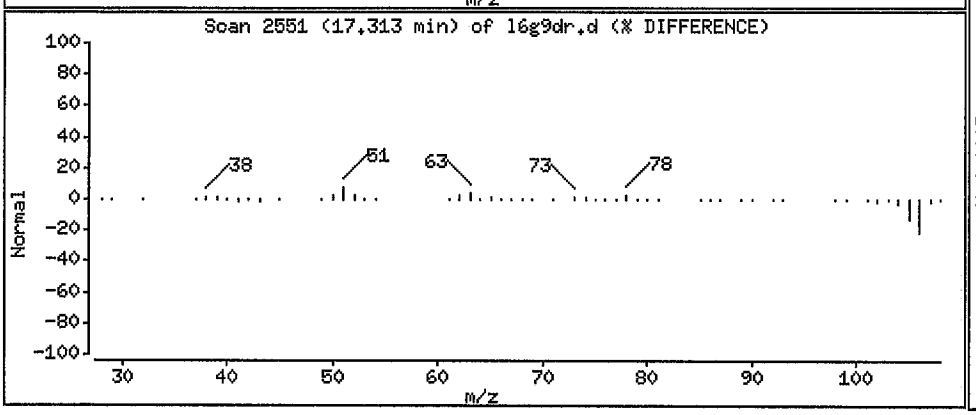
74 o-Xylene

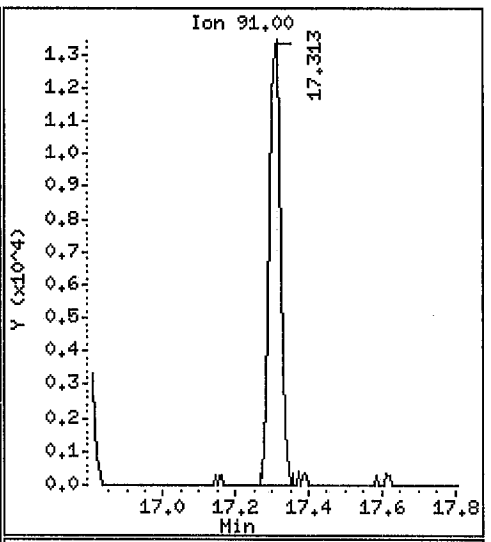
Concentration: 7.564 ppb(v/v)

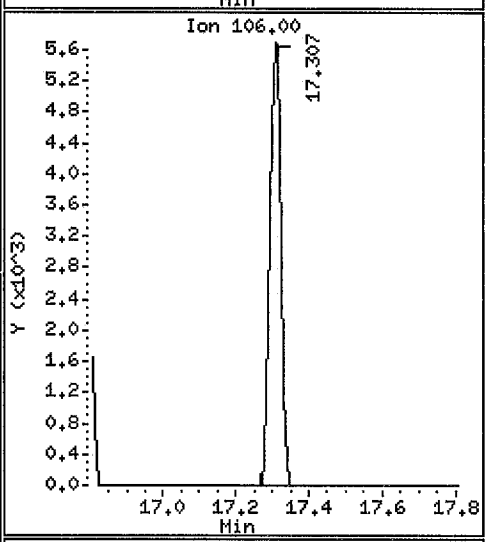


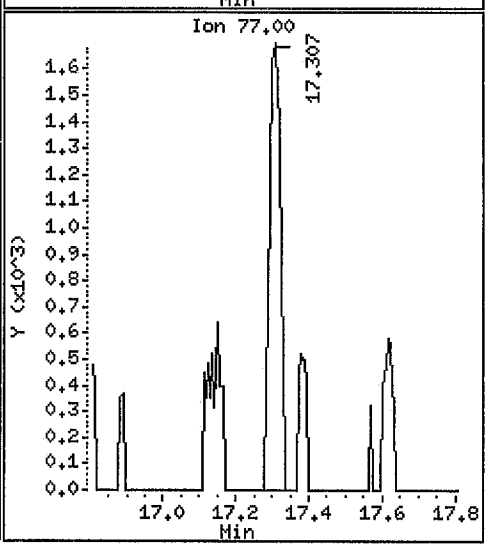












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9dr.d

Date : 09-SEP-2010 02:34

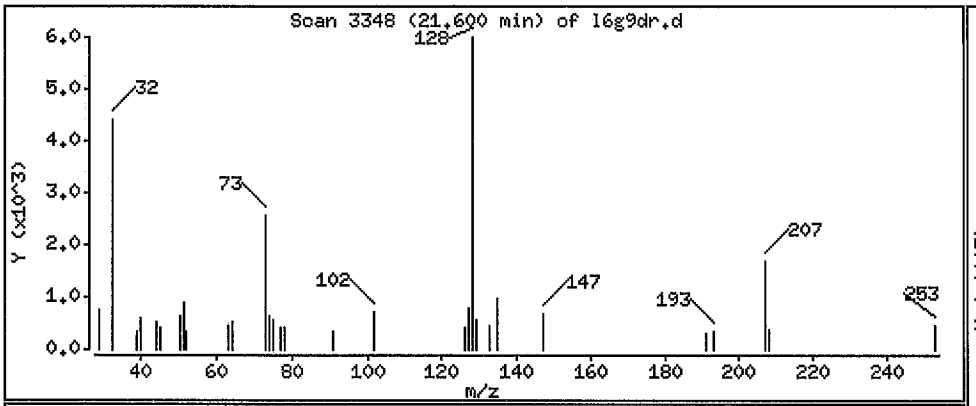
Client ID: ISC-14-C-9 Instrument: mj.i

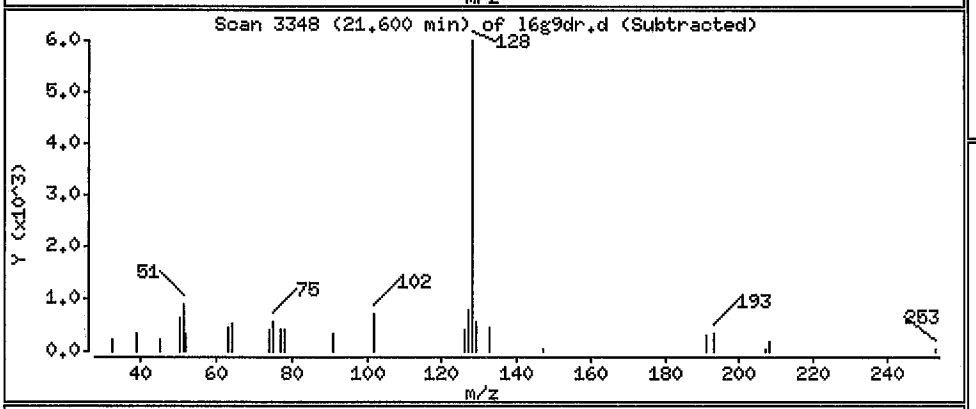
Sample Info: L6G9D1AA,50,0,,,

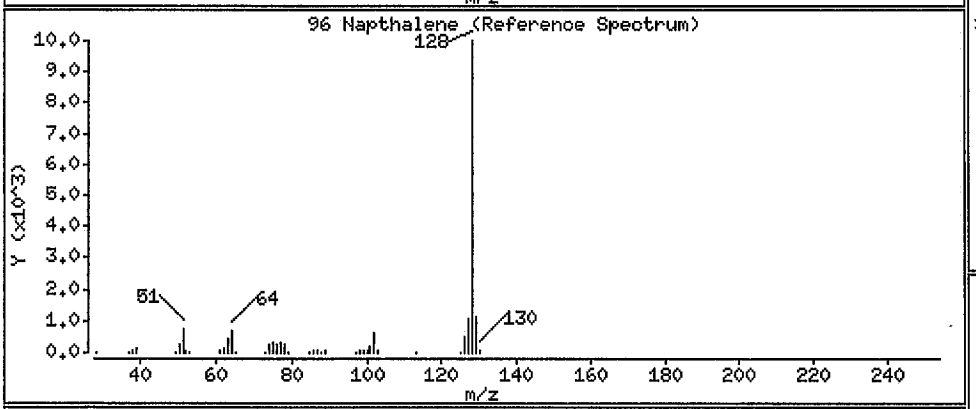
Purge Volume: 500.0 Operator: 7126

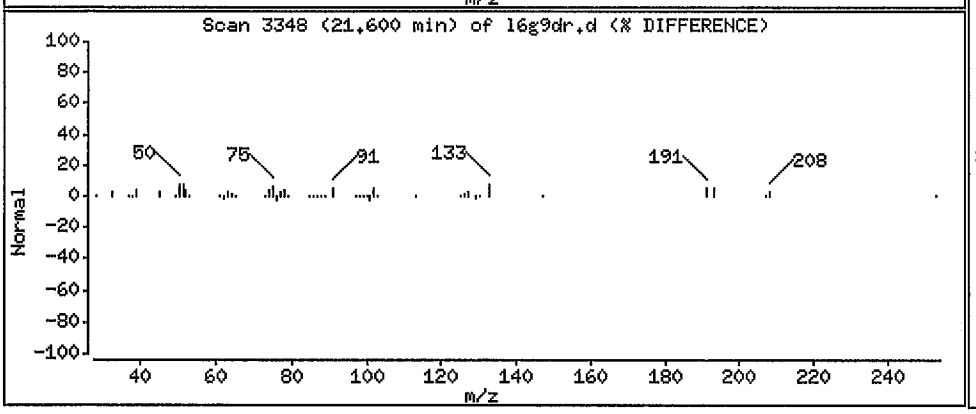
Column phase: Rtx-5 Column diameter: 0.32

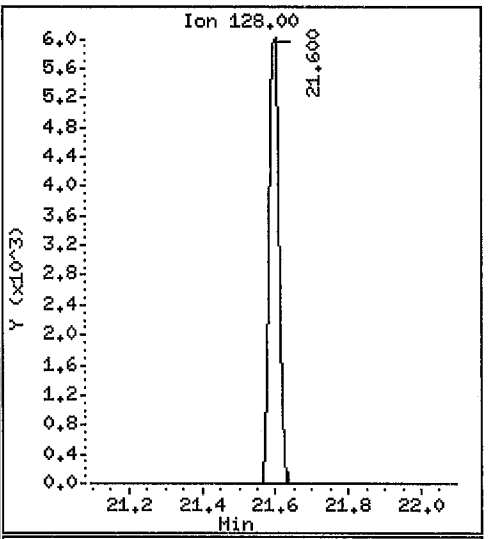
96 Napthalene Concentration: 2.907 ppb(v/v)

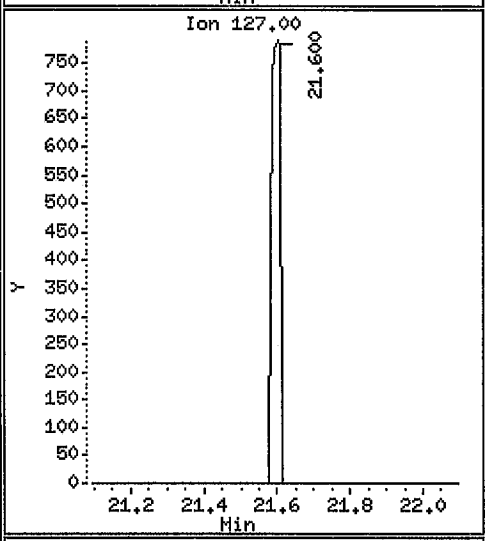


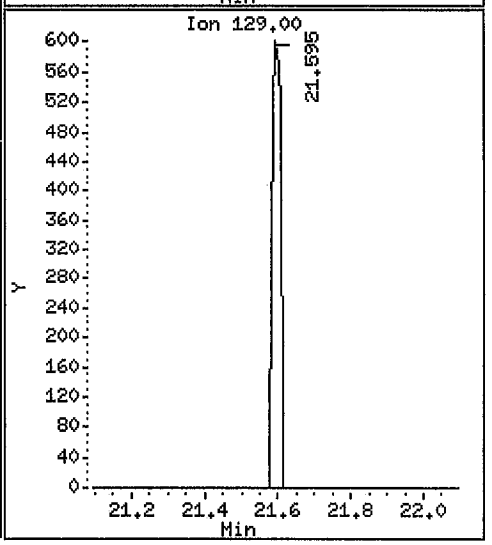












Tetra Tech NUS, Inc

Client Sample ID: SV-C-3-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 002 **Work Order #** L6G9E1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 50 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	4.0	1.2	ND	13	3.7
Carbon tetrachloride	ND	4.0	0.75	ND	25	4.7
Chlorodifluoromethane	**53**	**4.0**	**0.75**	**190**	**14**	**2.7**
Chloroform	**14**	**4.0**	**0.75**	**67**	**20**	**3.7**
Dichlorodifluoromethane	ND	4.0	1.4	ND	20	6.7
1,1-Dichloroethane	**21**	**4.0**	**0.50**	**87**	**16**	**2.0**
1,2-Dichloroethane	ND	4.0	0.95	ND	16	3.8
cis-1,2-Dichloroethene	**34**	**4.0**	**1.2**	**140**	**16**	**4.8**
trans-1,2-Dichloroethene	**4.4**	**4.0**	**1.0**	**17**	**16**	**4.0**
1,1-Dichloroethene	**0.75**	**4.0**	**0.65**	**3.0 J**	**16**	**2.6**
Ethylbenzene	**12**	**4.0**	**1.4**	**53**	**17**	**5.9**
Methylene chloride	**3.6**	**10**	**0.90**	**12 J**	**35**	**3.1**
Methyl tert-butyl ether	ND	20	3.4	ND	72	12
Naphthalene	ND	10	1.8	ND	52	9.4
Tetrachloroethene	**3.7**	**4.0**	**0.80**	**25 J**	**27**	**5.4**
Toluene	**2.0**	**4.0**	**1.0**	**7.6 J**	**15**	**4.0**
1,2,4-Trichlorobenzene	ND	20	2.0	ND	150	14
1,1,1-Trichloroethane	**2.7**	**4.0**	**0.60**	**14 J**	**22**	**3.3**
1,1,2-Trichloroethane	ND	4.0	1.0	ND	22	5.7
Trichloroethene	**400**	**2.0**	**0.70**	**2200**	**11**	**3.8**
Vinyl chloride	ND	4.0	1.4	ND	10	3.7
m-Xylene & p-Xylene	**25**	**4.0**	**2.5**	**110**	**17**	**11**
o-Xylene	**29**	**4.0**	**1.2**	**130**	**17**	**5.2**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	104	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9e1aa.d
Report Date: 10-Sep-2010 14:28

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/l6g9e1aa.d
Lab Smp Id: L6G9E1AA Client Smp ID: SV-C-3-9
Inj Date : 08-SEP-2010 13:16
Operator : 7126 Inst ID: mj.i
Smp Info : ,50,0,,,
Misc Info : J090810,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 10-Sep-2010 14:16 barlozha Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 2
Dil Factor: 50.00000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	50.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
*	1 Bromochloromethane	128	9.473	9.479	(1.000)	164473	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.641	11.642	(1.000)	844875	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.300	16.300	(1.000)	787930	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.913	17.914	(1.099)	624415	4.17530	4.175
	7 Chlorodifluoromethane	67	3.900	3.901	(0.412)	21964	1.05598	52.80
	27 1,1-Dichloroethene	96	6.412	6.413	(0.677)	819	0.01510	0.7548
	31 Methylene Chloride	84	6.783	6.784	(0.716)	3827	0.07152	3.576
	34 trans-1,2-Dichloroethene	96	7.649	7.650	(0.807)	4791	0.08758	4.379
	36 1,1-Dichloroethane	63	8.096	8.102	(0.855)	55986	0.42833	21.42
	40 cis 1,2-Dichloroethene	96	9.129	9.129	(0.964)	38504	0.68744	34.37
	42 Chloroform	83	9.484	9.479	(1.001)	32819	0.27487	13.74
	44 1,1,1-Trichloroethane	97	10.538	10.544	(1.112)	6596	0.05303	2.651
	48 Benzene	78	11.125	11.125	(0.956)	4086	0.02288	1.144
	53 Trichloroethene	130	12.346	12.352	(1.061)	698788	8.04636	402.3
	61 Toluene	91	14.358	14.358	(0.881)	7476	0.04029	2.015

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9e1aa.d
Report Date: 10-Sep-2010 14:28

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
67 Tetrachloroethene	129	15.482	15.483	(0.950)	5696	0.07348	3.674
69 Ethylbenzene	91	16.622	16.623	(1.020)	52319	0.24589	12.29
70 m&p-Xylene	91	16.778	16.784	(1.029)	82012	0.50969	25.48
74 o-Xylene	91	17.306	17.306	(1.062)	97834	0.58454	29.23

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9e1aa.d
Report Date: 10-Sep-2010 14:28

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9e1aa.d
Lab Smp Id: L6G9E1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: SV-C-3-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	164473	-15.68
2 1,4-Difluorobenze	936174	557024	1315324	844875	-9.75
3 Chlorobenzene-d5	815161	485021	1145301	787930	-3.34

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.06
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.01
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

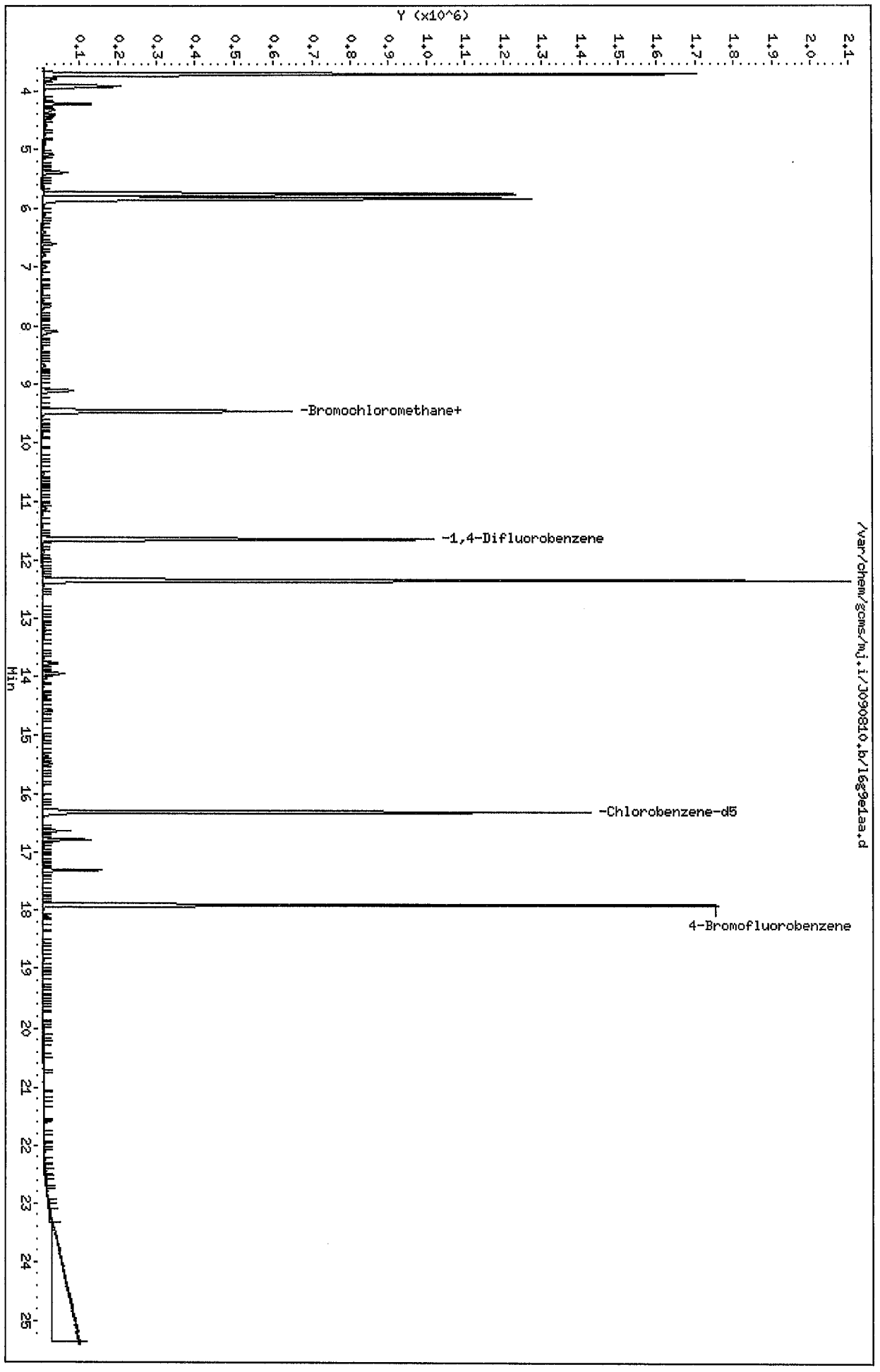
Data File: /var/chem/gcms/mj.i/J090810.b/l6g9e1aa.d
Report Date: 10-Sep-2010 14:28

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9E1AA
Client Smp ID: SV-C-3-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.175	104.38	70-130


Data File: /var/chem/gcms/mj.i/J090810.b/16g9e1aa.d
Date : 08-SEP-2010 13:16
Client ID: SV-C-3-9
Sample Info: ,50,0,,,
Purge Volume: 500.0
Column phase: Rtx-5
Instrument: mj.i
Operator: 7126
Column diameter: 0.32
Y (x10^6)
-Bromochloromethane+
-1,4-Difluorobenzene
-Chlorobenzene-d5
4-Bromofluorobenzene
/var/chem/gcms/mj.i/J090810.b/16g9e1aa.d
Min

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9e1aa.d

Date : 08-SEP-2010 13:16

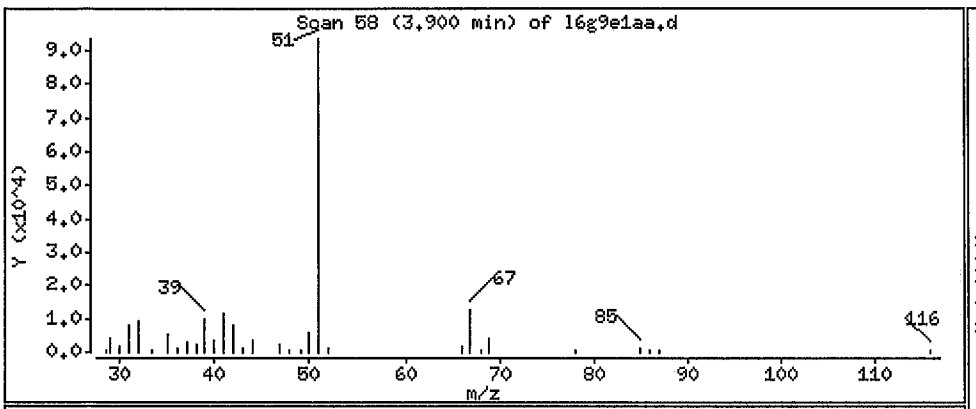
Client ID: SV-C-3-9 Instrument: mj.i

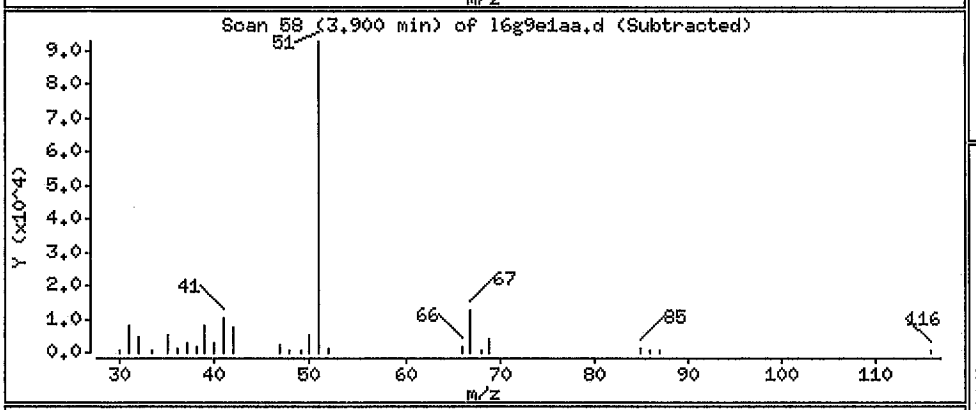
Sample Info: ,50,0,,,

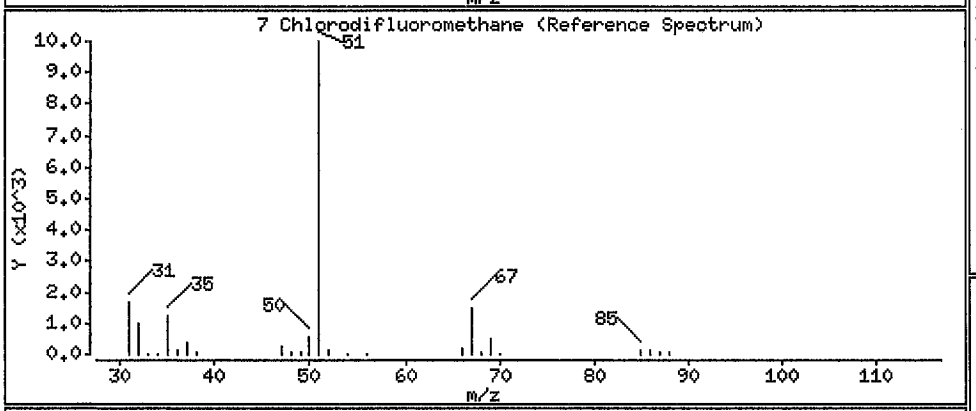
Purge Volume: 500.0 Operator: 7126

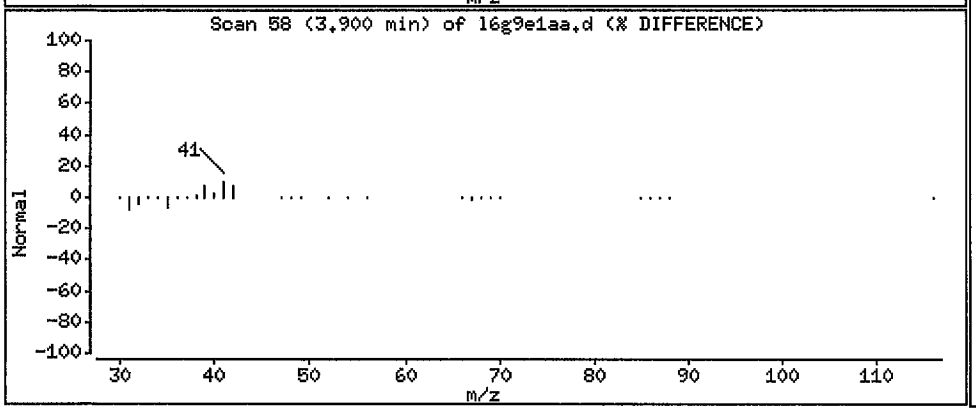
Column phase: Rtx-5 Column diameter: 0.32

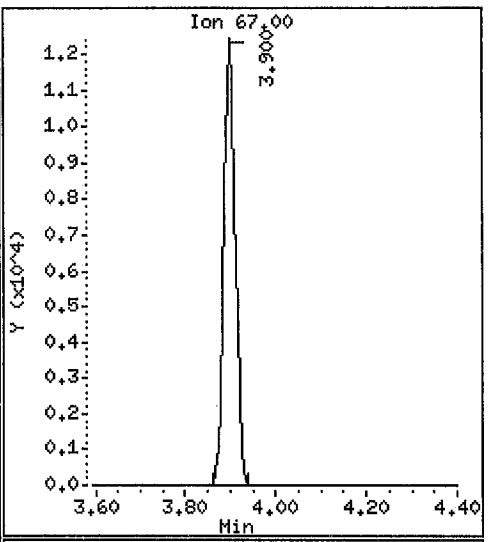
7 Chlorodifluoromethane Concentration: 52.80 ppb(v/v)

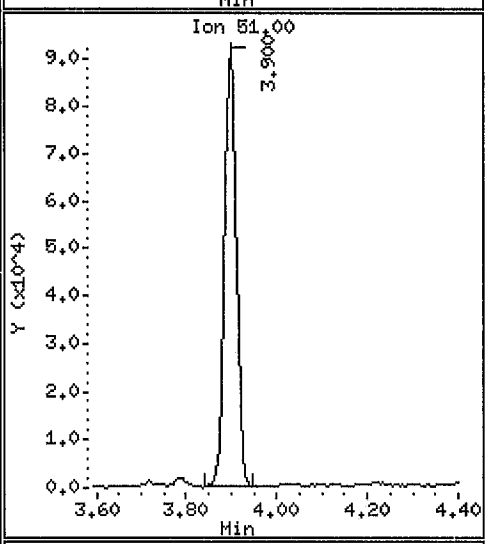


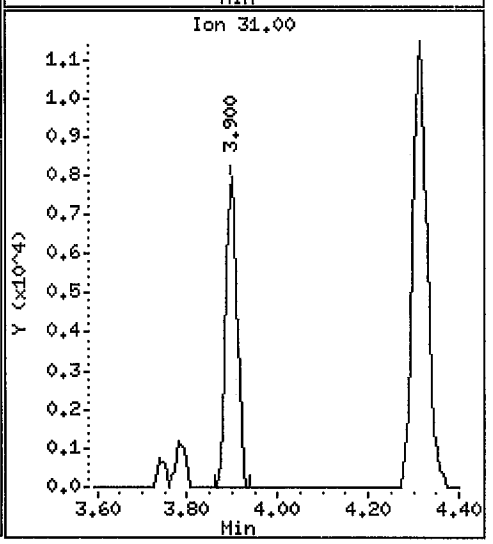












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9e1aa.d

Date : 08-SEP-2010 13:16

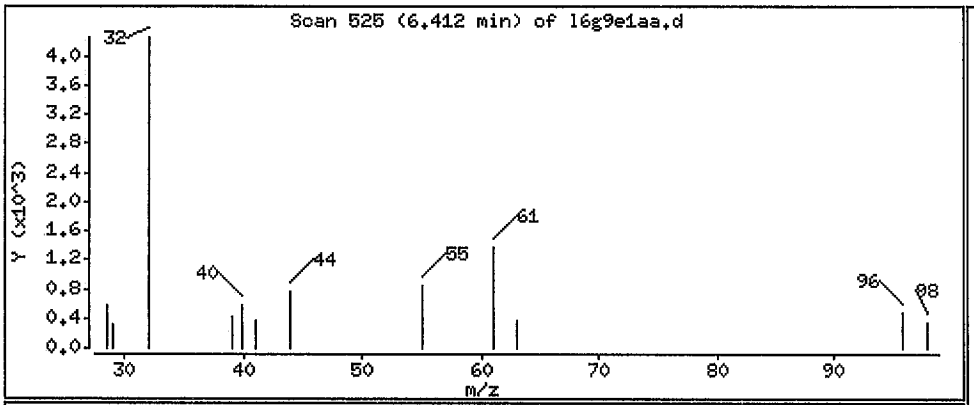
Client ID: SV-C-3-9 Instrument: mj.i

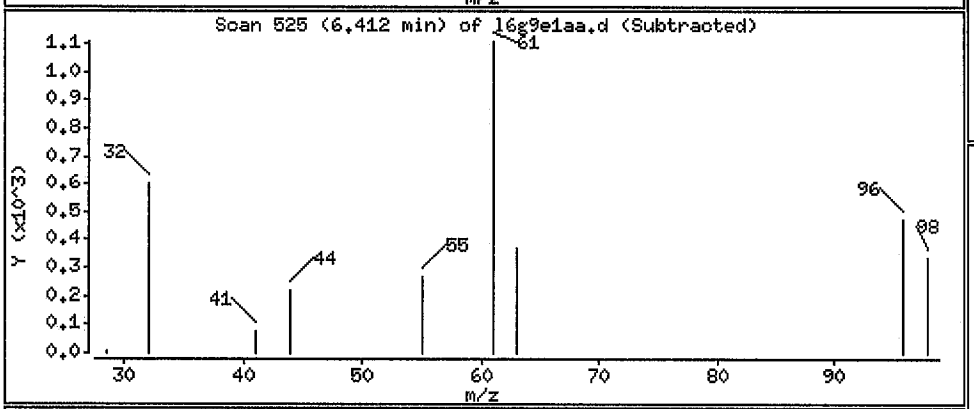
Sample Info: ,50,0,,,

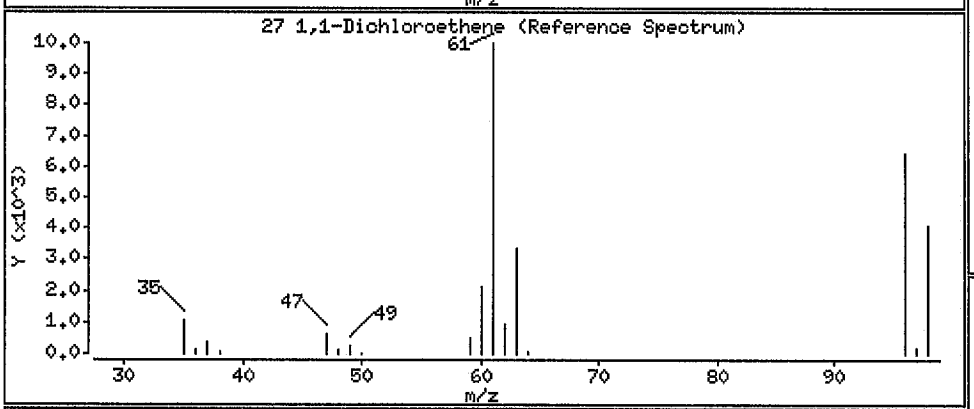
Purge Volume: 500.0 Operator: 7126

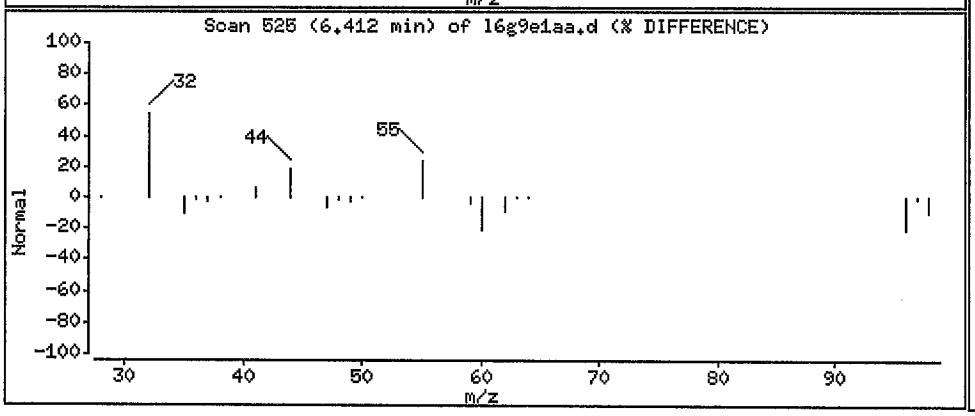
Column phase: Rtx-5 Column diameter: 0.32

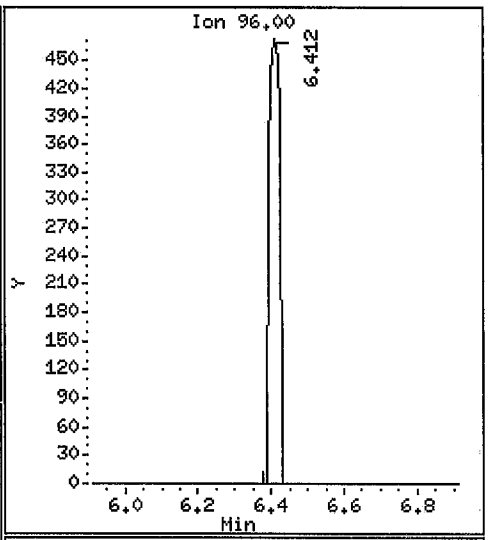
27 1,1-Dichloroethene Concentration: 0.7548 ppb(v/v)

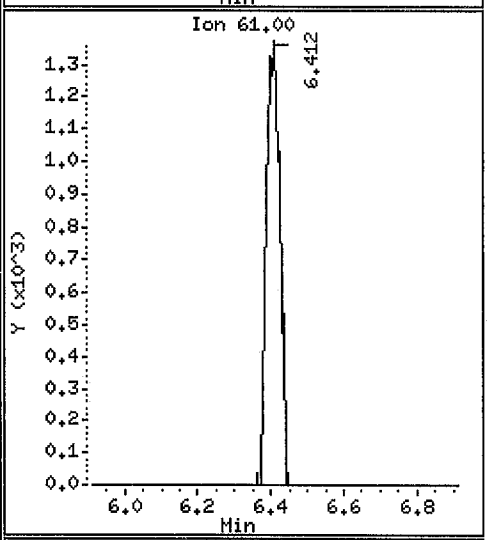


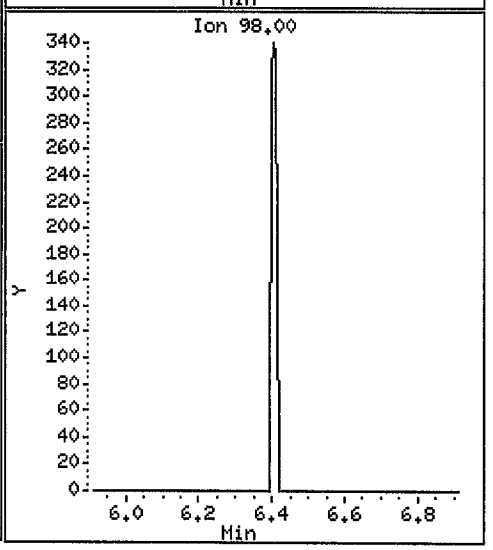












Data File: /var/chem/gcms/mj.i/J090810.b/16g9e1aa.d

Date : 08-SEP-2010 13:16

Client ID: SV-C-3-9

Instrument: mj.i

Sample Info: ,50,0,,,

Purge Volume: 500.0

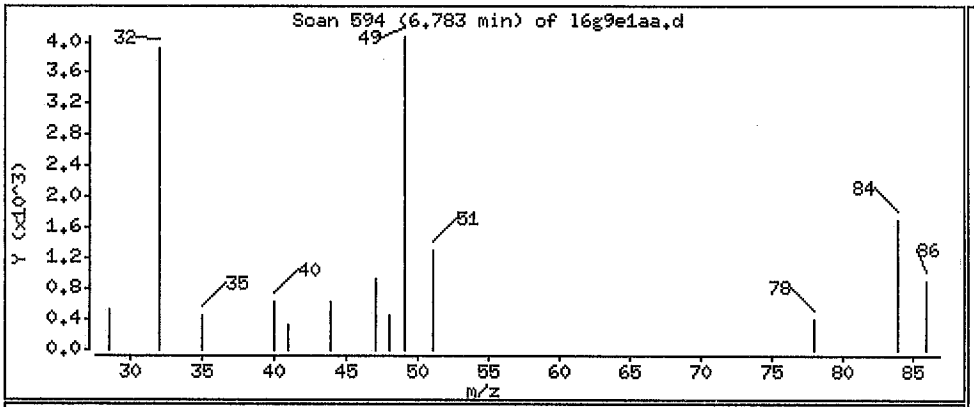
Operator: 7126

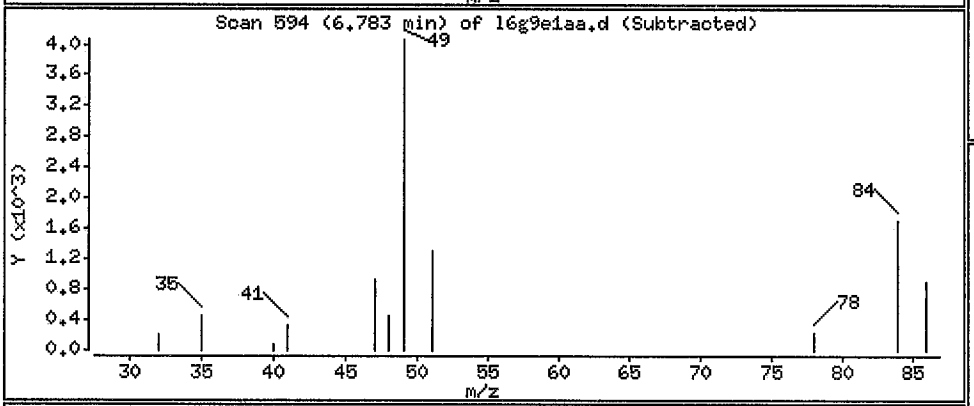
Column phase: Rtx-5

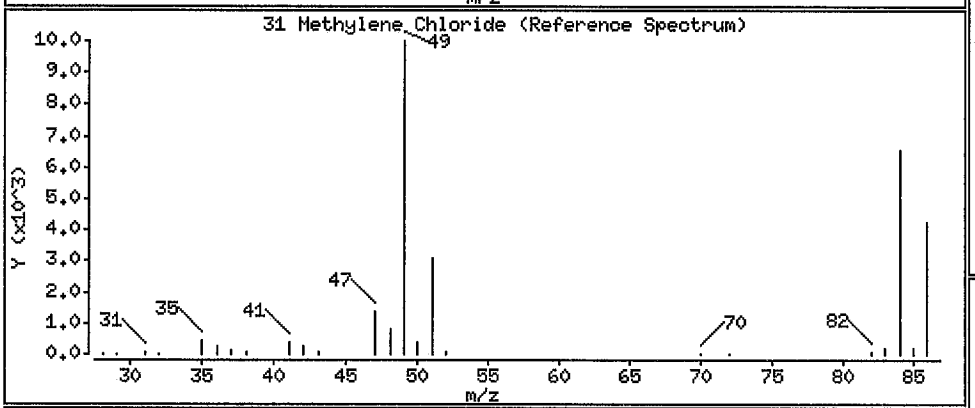
Column diameter: 0.32

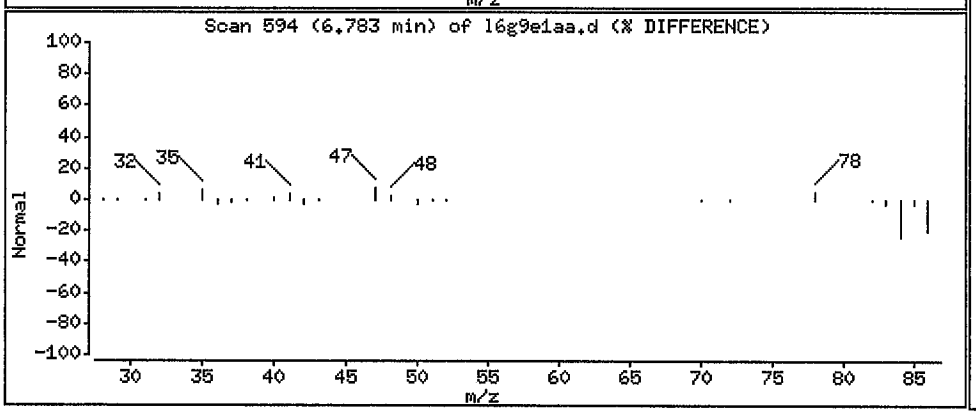
31 Methylene Chloride

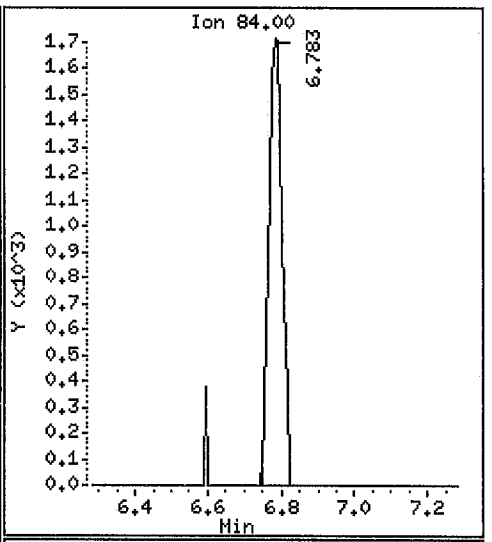
Concentration: 3.576 ppb(v/v)

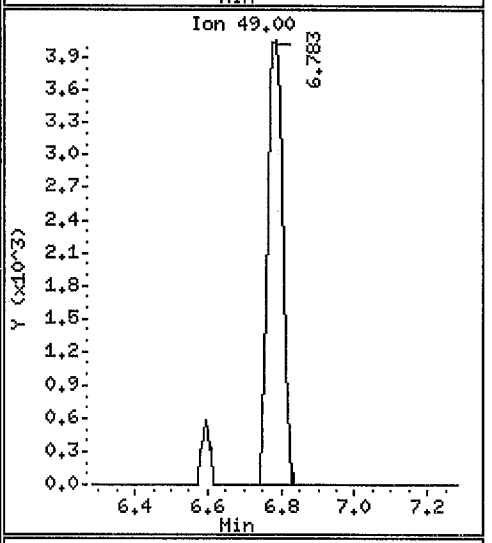


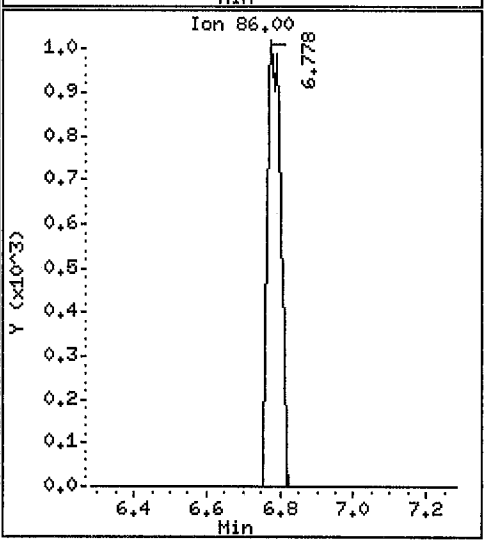












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9e1aa.d

Date : 08-SEP-2010 13:16

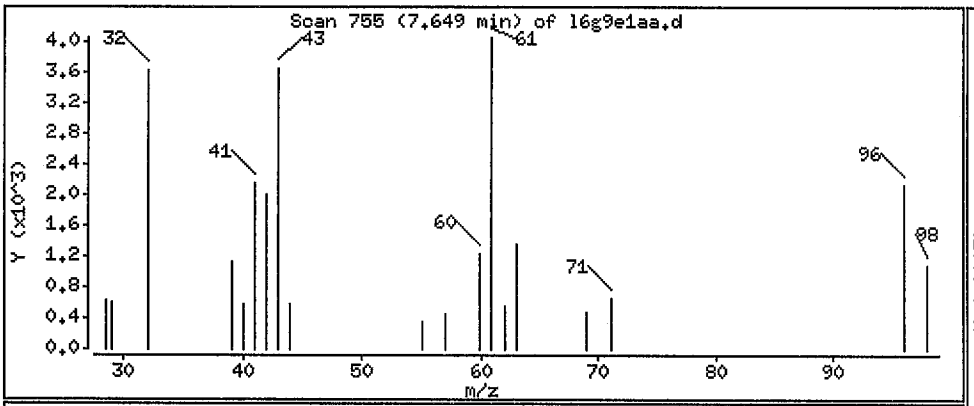
Client ID: SV-C-3-9 Instrument: mj.i

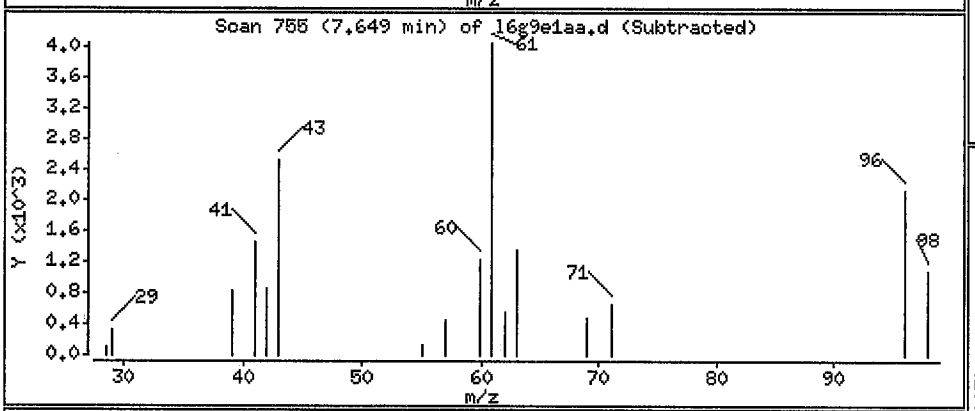
Sample Info: ,50,0,,,

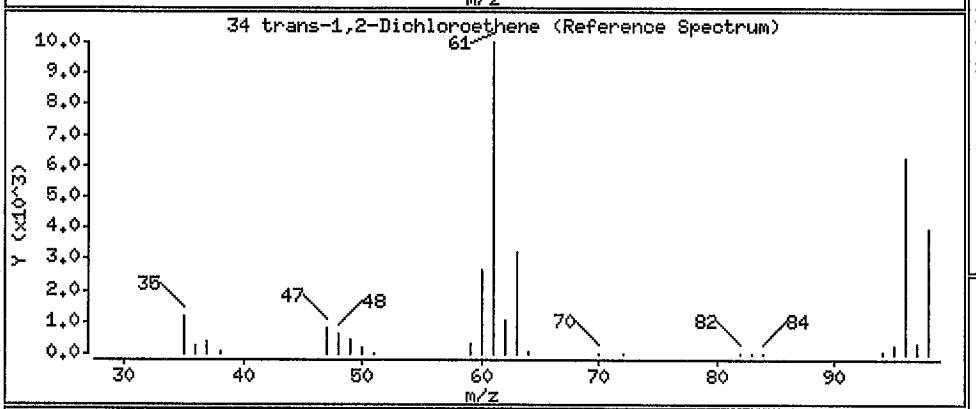
Purge Volume: 500.0 Operator: 7126

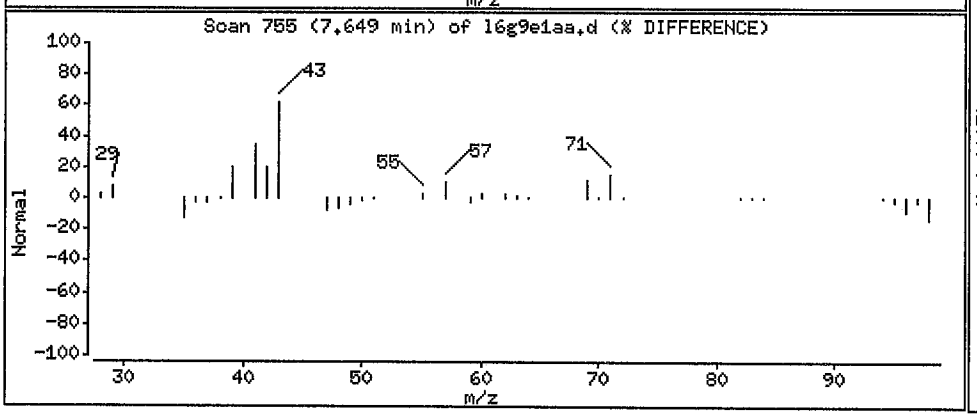
Column phase: Rtx-5 Column diameter: 0.32

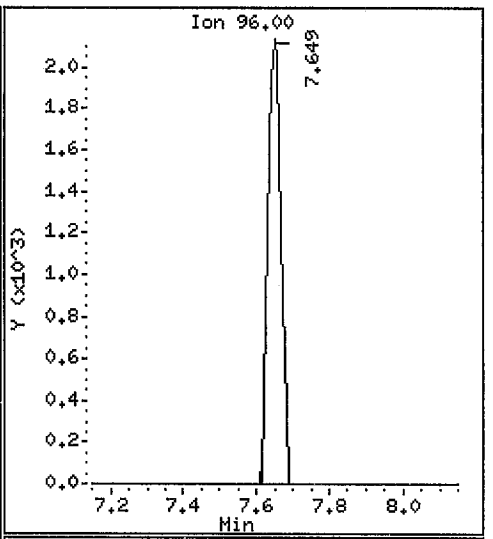
34 trans-1,2-Dichloroethene Concentration: 4.379 ppb(v/v)

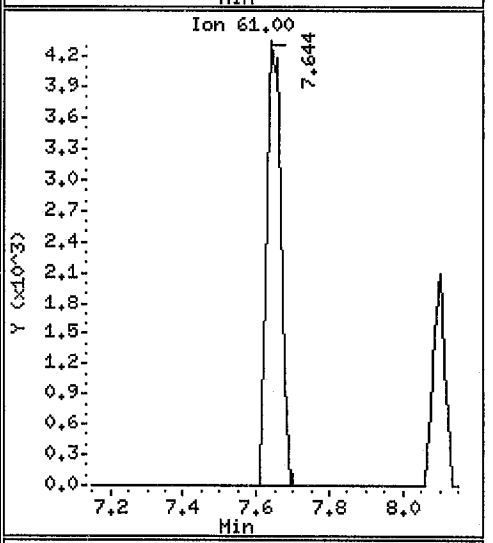


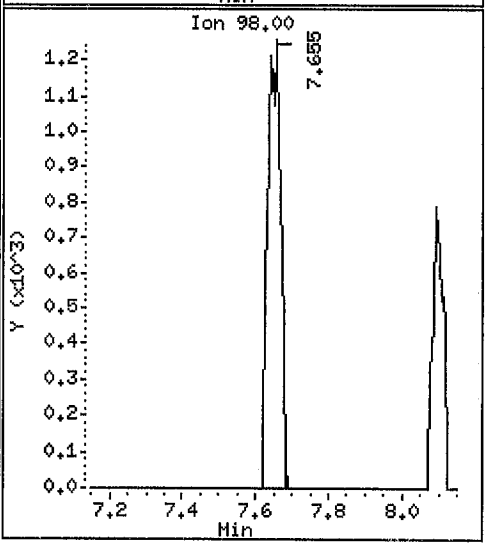












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9e1aa.d

Date : 08-SEP-2010 13:16

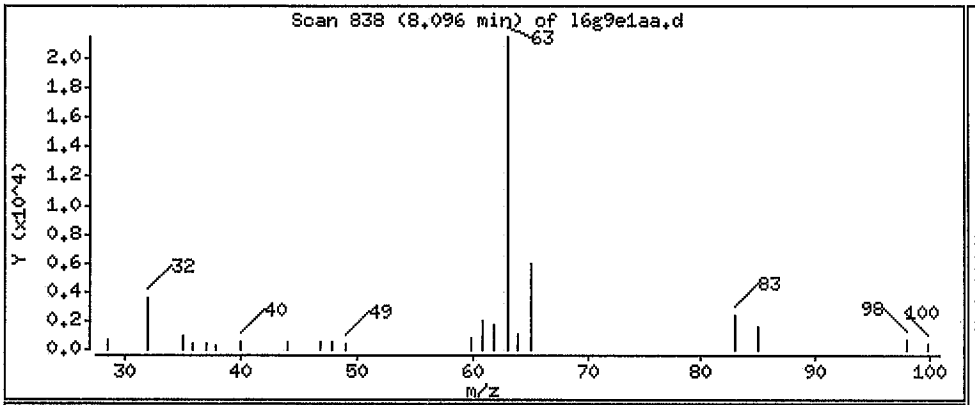
Client ID: SV-C-3-9 Instrument: mj.i

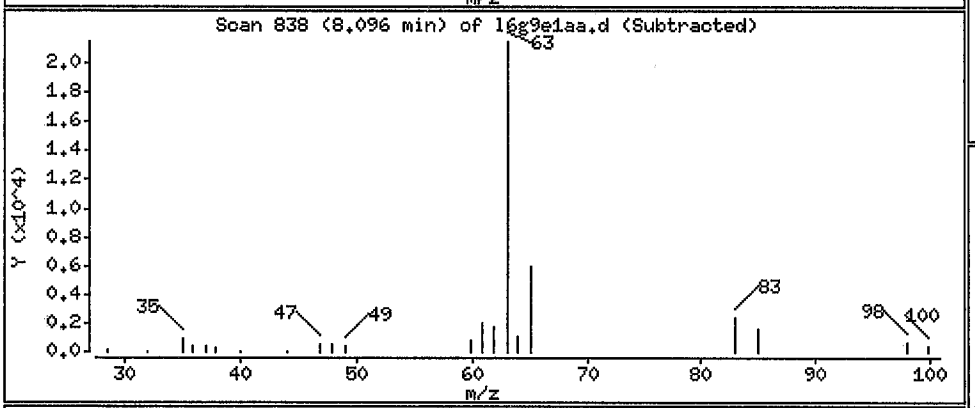
Sample Info: ,50,0,,,

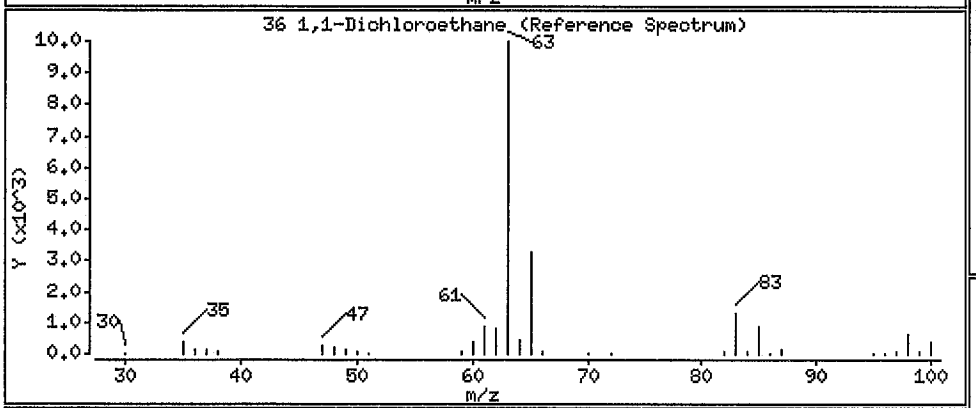
Purge Volume: 500.0 Operator: 7126

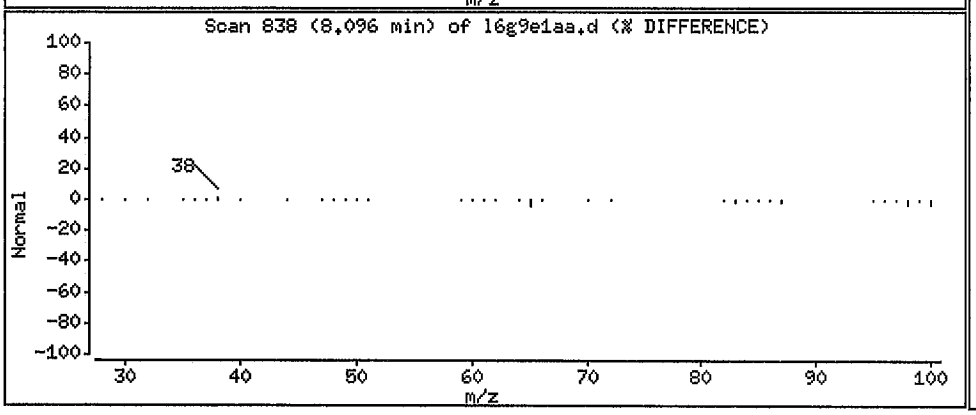
Column phase: Rtx-5 Column diameter: 0.32

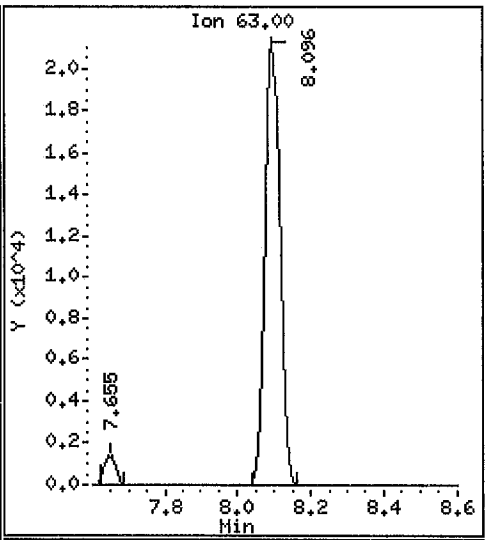
36 1,1-Dichloroethane Concentration: 21.42 ppb(v/v)

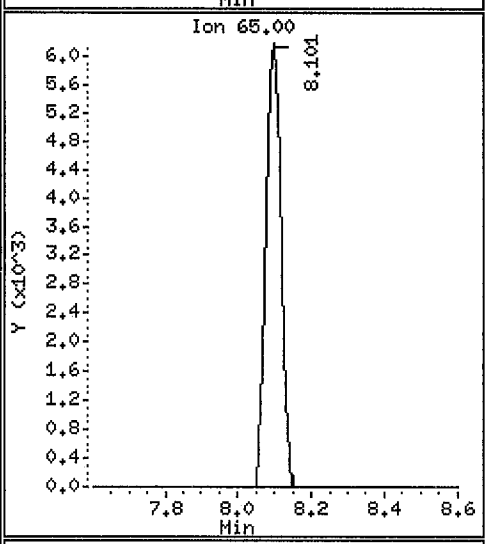


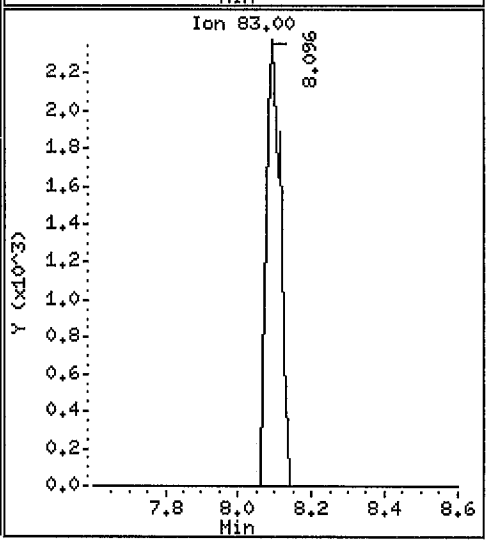












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9e1aa.d

Date : 08-SEP-2010 13:16

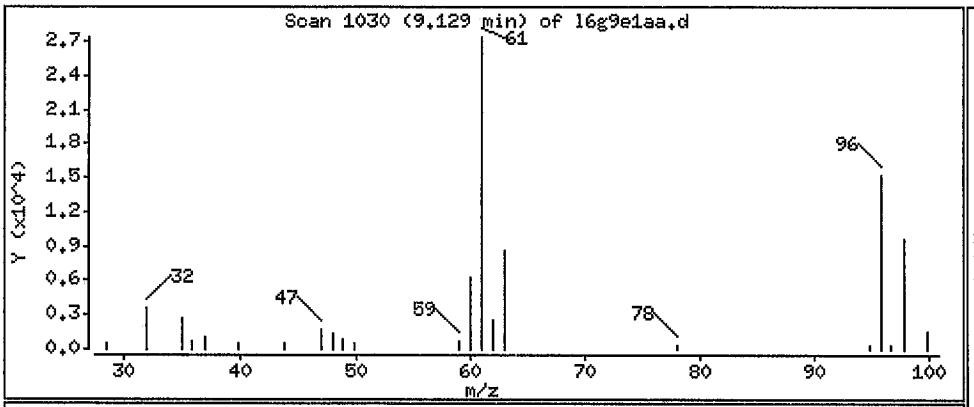
Client ID: SV-C-3-9 Instrument: mj.i

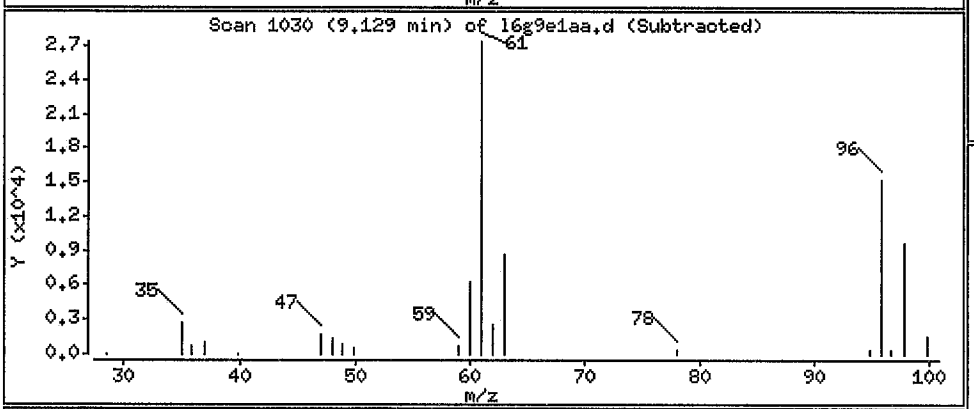
Sample Info: ,50,0,,,

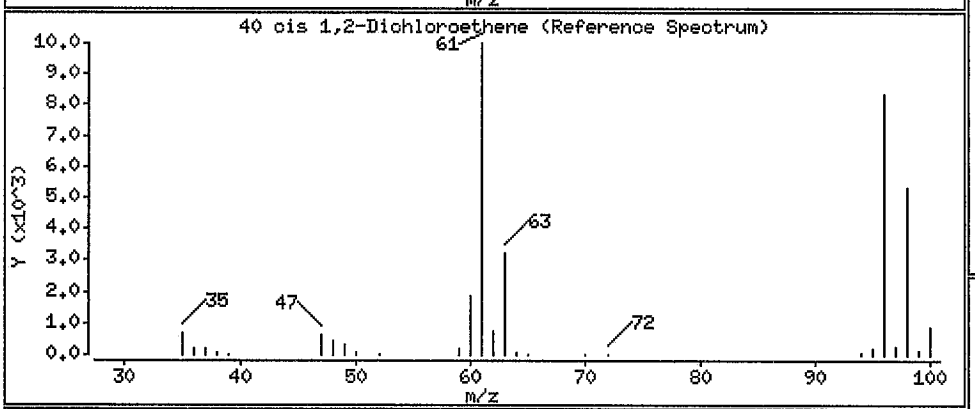
Purge Volume: 500.0 Operator: 7126

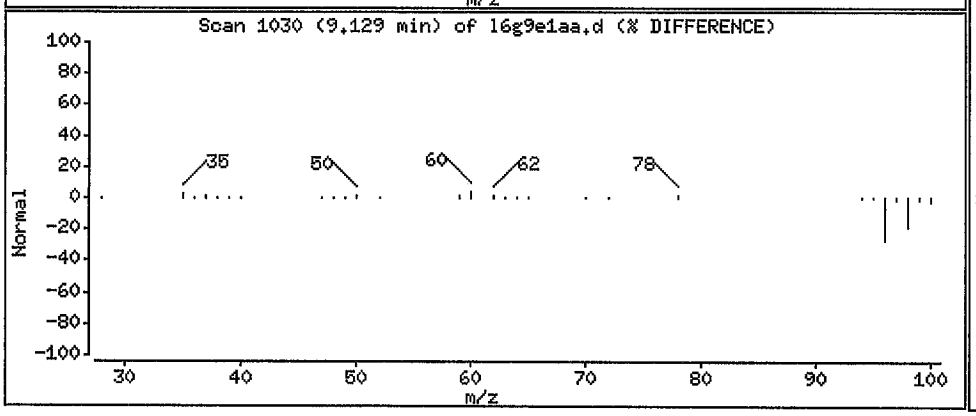
Column phase: Rtx-5 Column diameter: 0.32

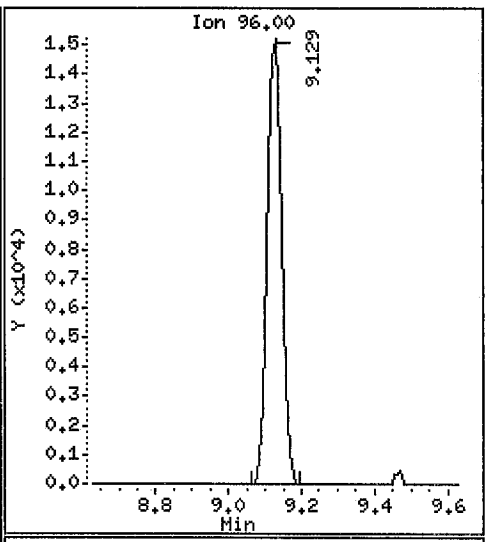
40 cis 1,2-Dichloroethene Concentration: 34.37 ppb(v/v)

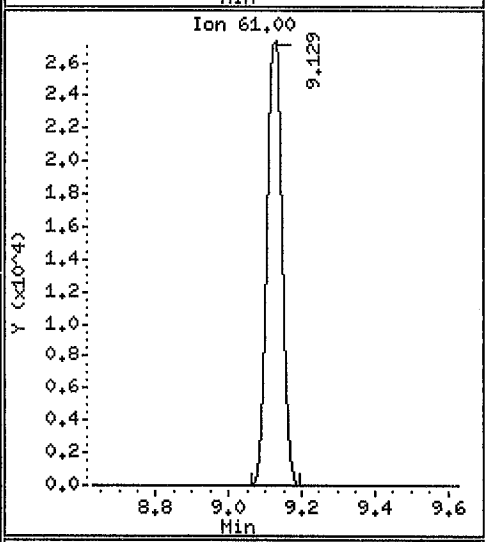


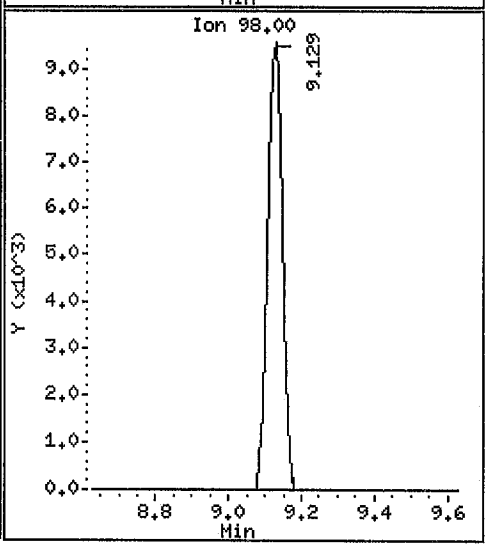












Data File: /var/chem/goms/mj.i/J090810.b/l6g9e1aa.d

Date : 08-SEP-2010 13:16

Client ID: SV-C-3-9

Instrument: mj.i

Sample Info: ,50,0,,,

Purge Volume: 500.0

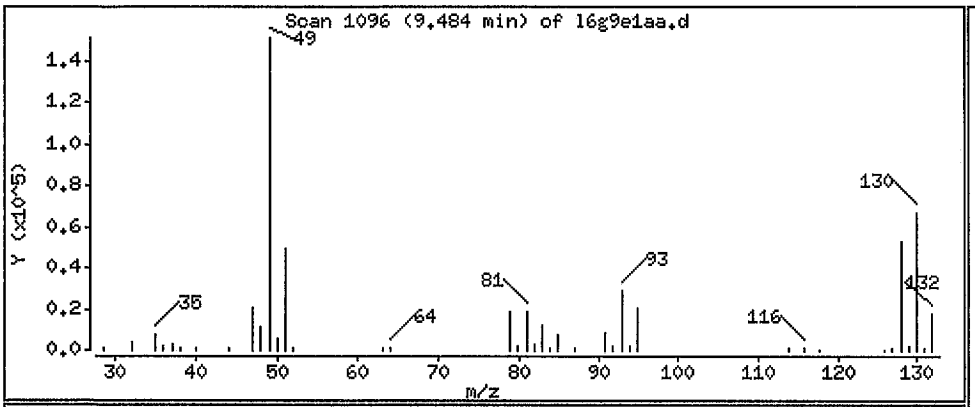
Operator: 7126

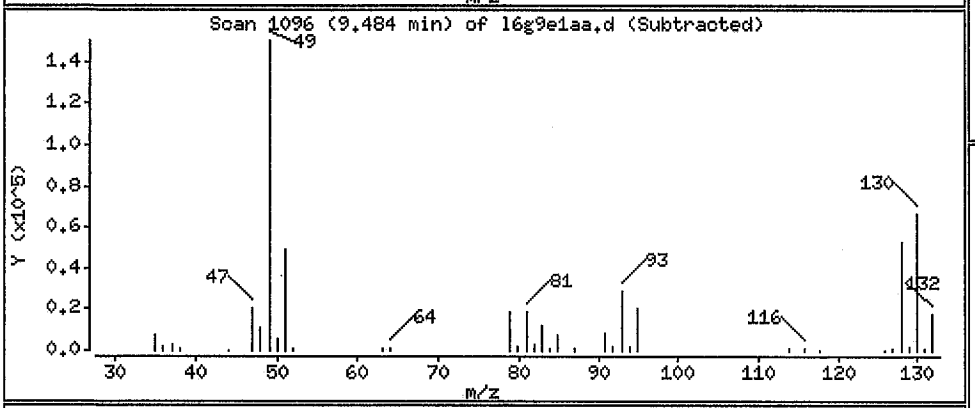
Column phase: Rtx-5

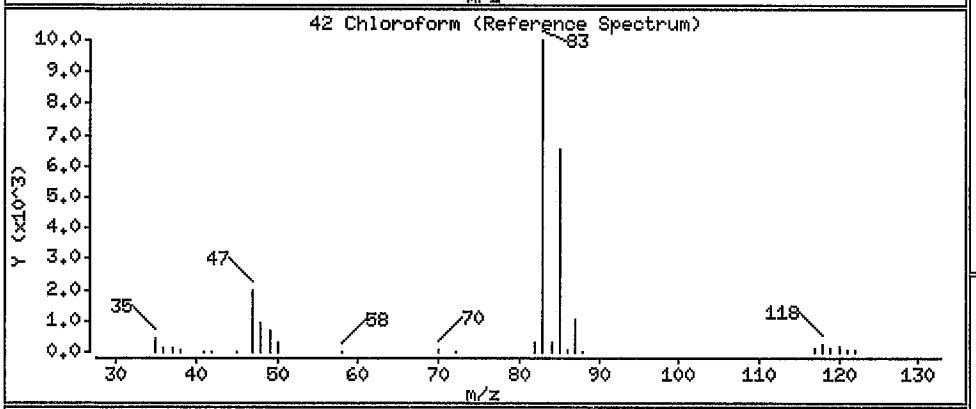
Column diameter: 0.32

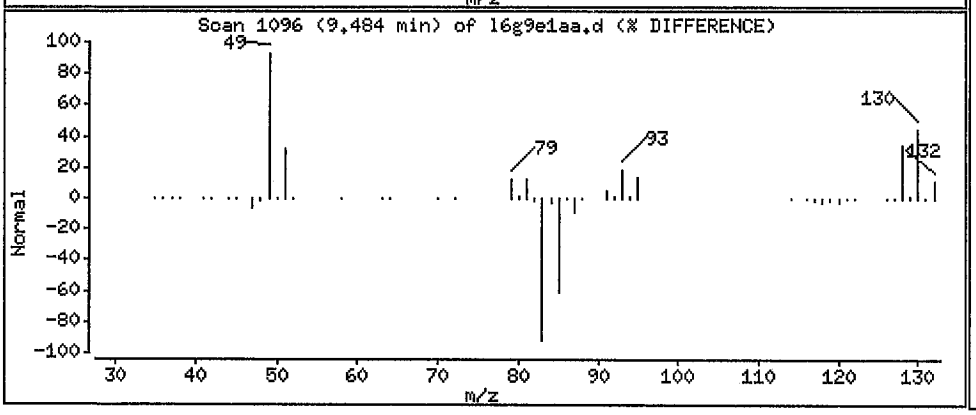
42 Chloroform

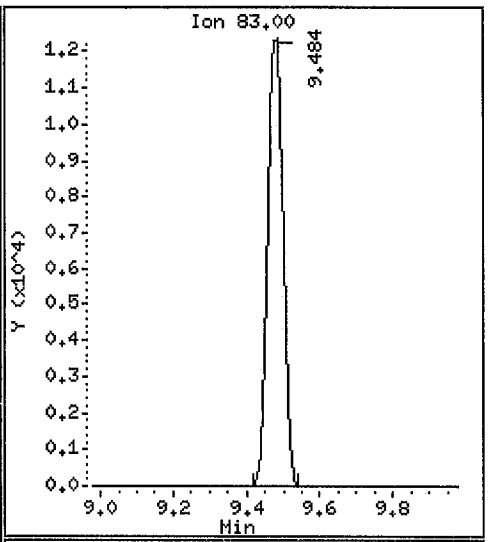
Concentration: 13.74 ppb(v/v)

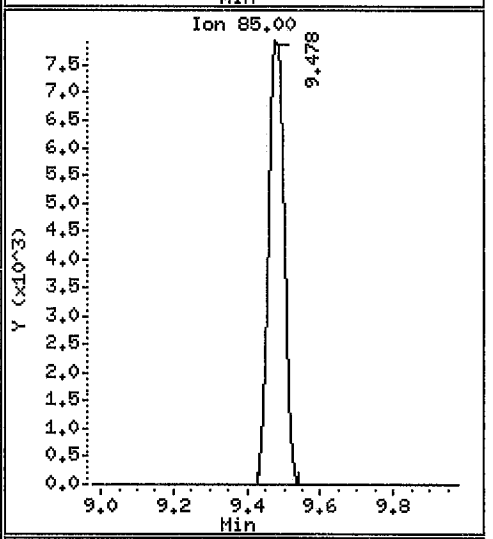


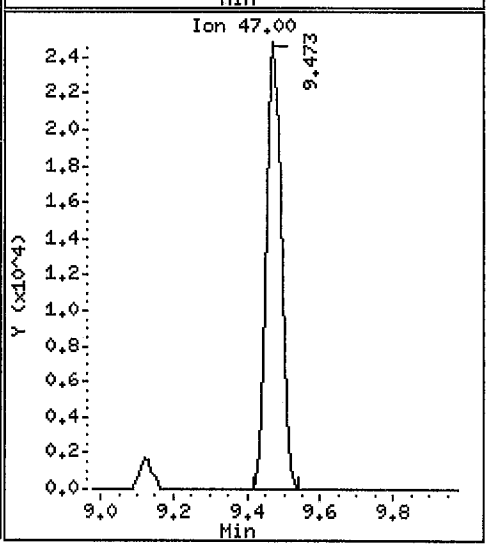












Data File: /var/chem/gcms/mj.i/J090810.b/16g9e1aa.d

Date : 08-SEP-2010 13:16

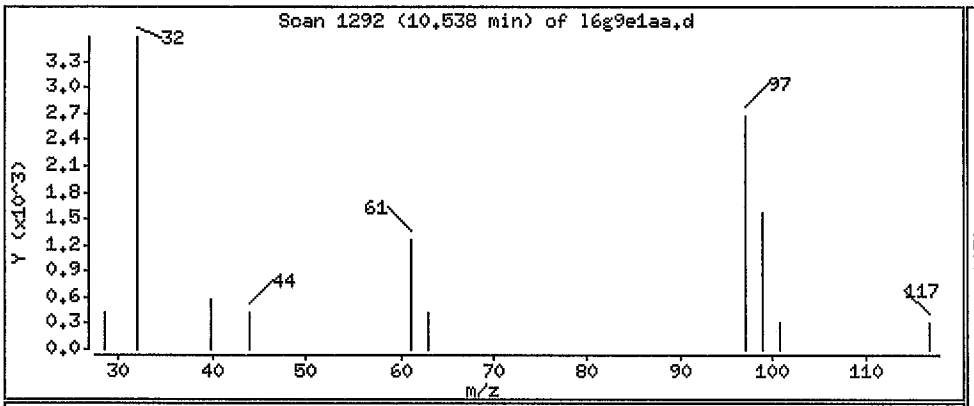
Client ID: SV-C-3-9 Instrument: mj.i

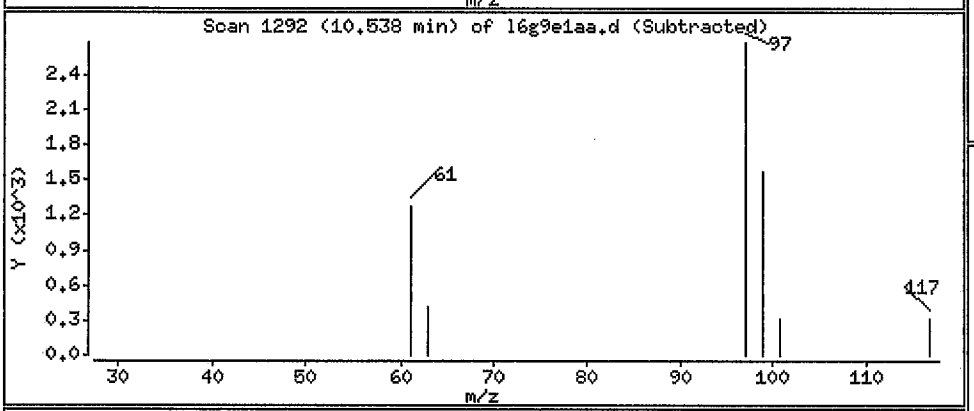
Sample Info: ,50,0,,,

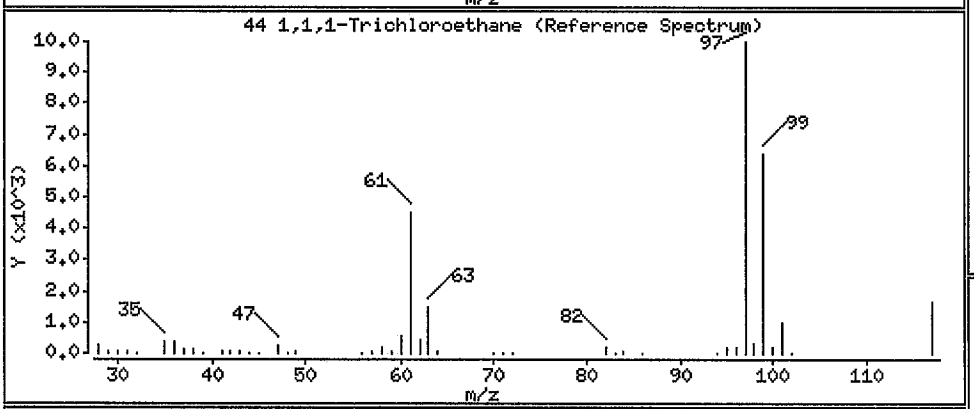
Purge Volume: 500.0 Operator: 7126

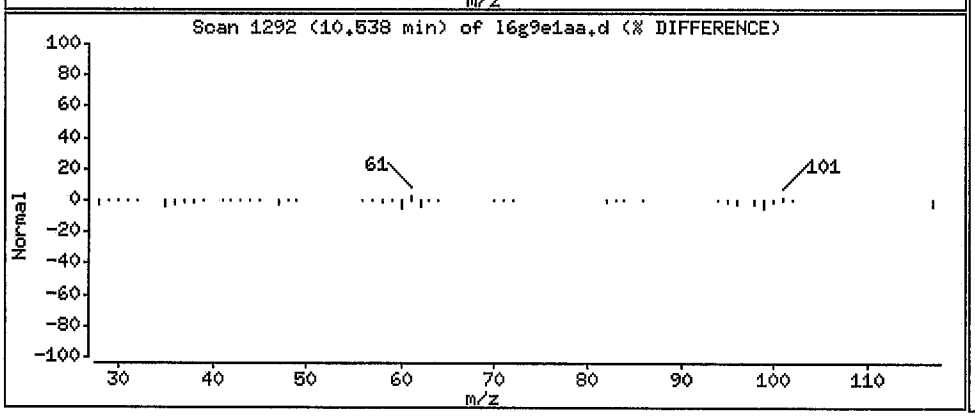
Column phase: Rtx-5 Column diameter: 0.32

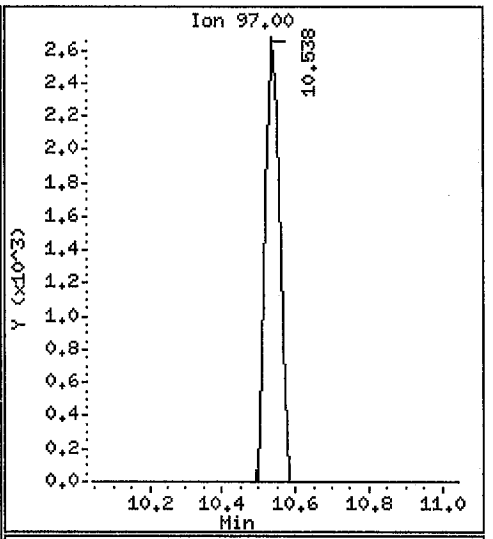
44 1,1,1-Trichloroethane Concentration: 2,651 ppb(v/v)

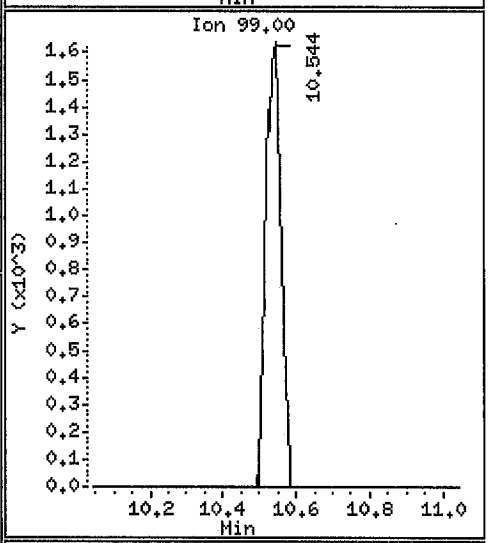


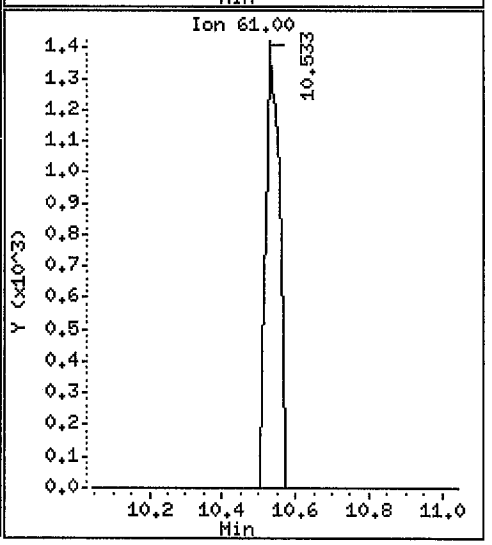












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9e1aa.d

Date : 08-SEP-2010 13:16

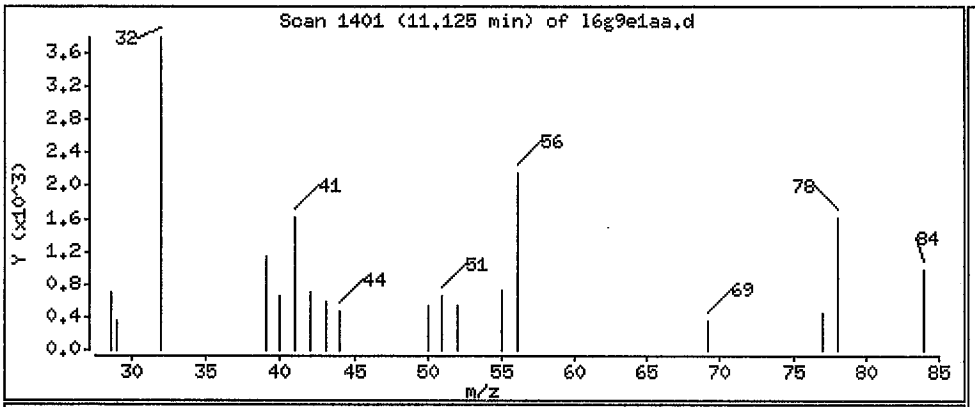
Client ID: SV-C-3-9 Instrument: mj.i

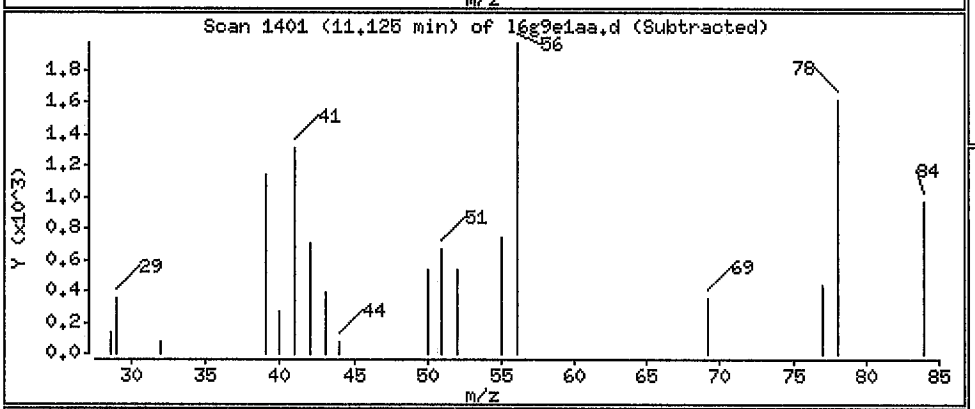
Sample Info: ,50,0,,,

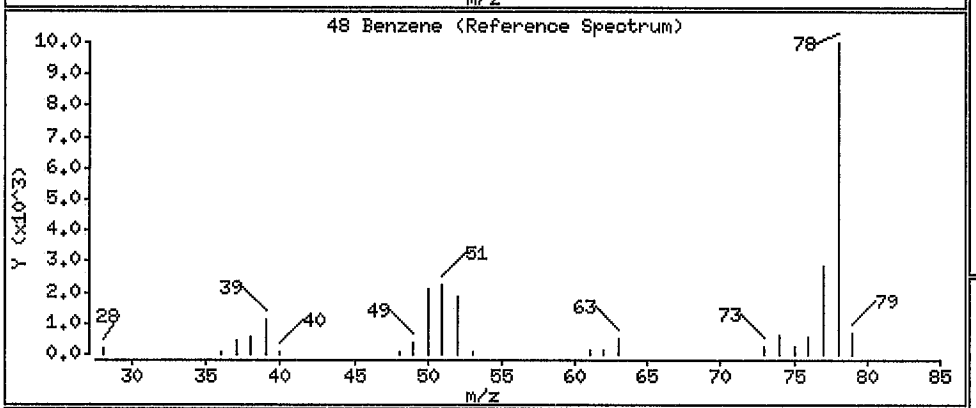
Purge Volume: 500.0 Operator: 7126

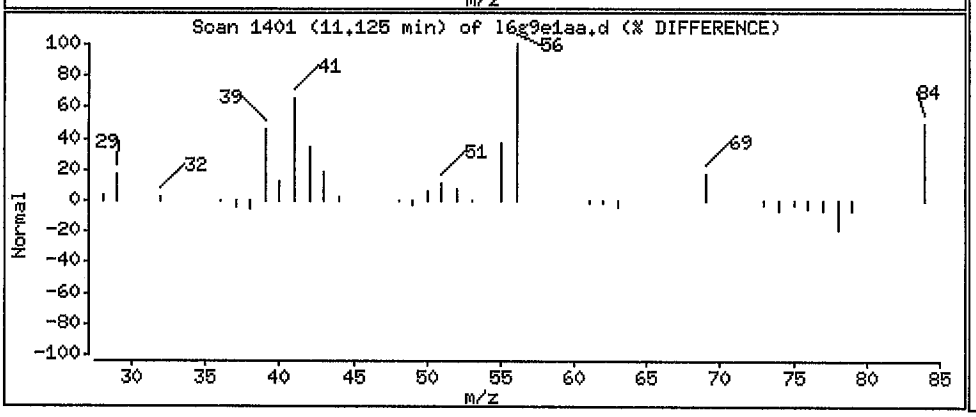
Column phase: Rtx-5 Column diameter: 0.32

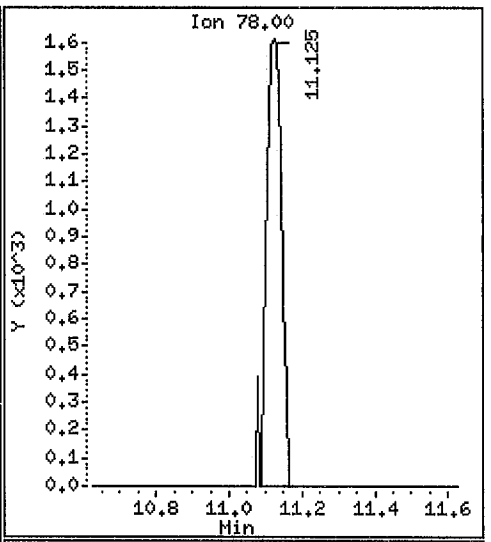
48 Benzene Concentration: 1.144 ppb(v/v)

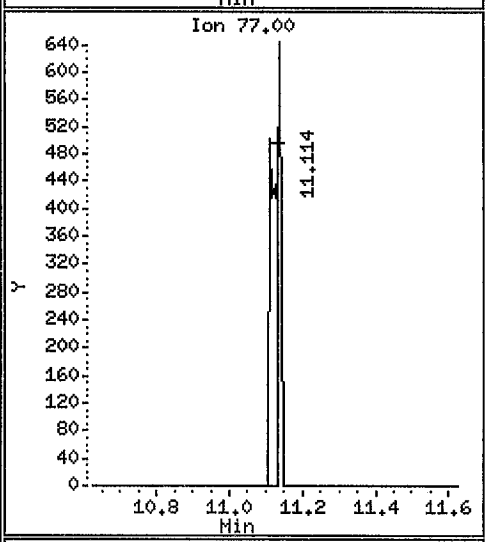


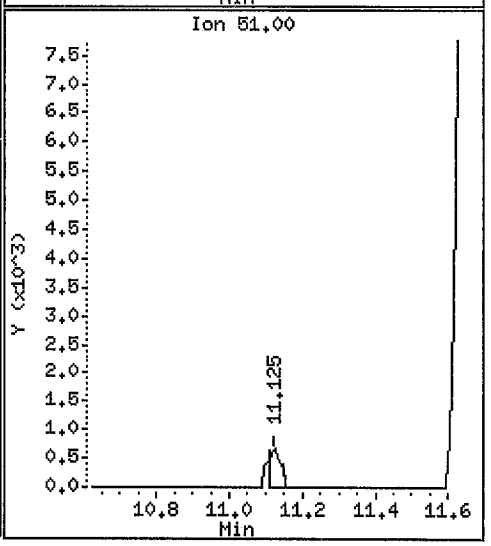












Data File: /var/chem/gcms/mj.i/J090810.b/16g9e1aa.d

Date : 08-SEP-2010 13:16

Client ID: SV-C-3-9

Instrument: mj.i

Sample Info: ,50,0,,,

Purge Volume: 500.0

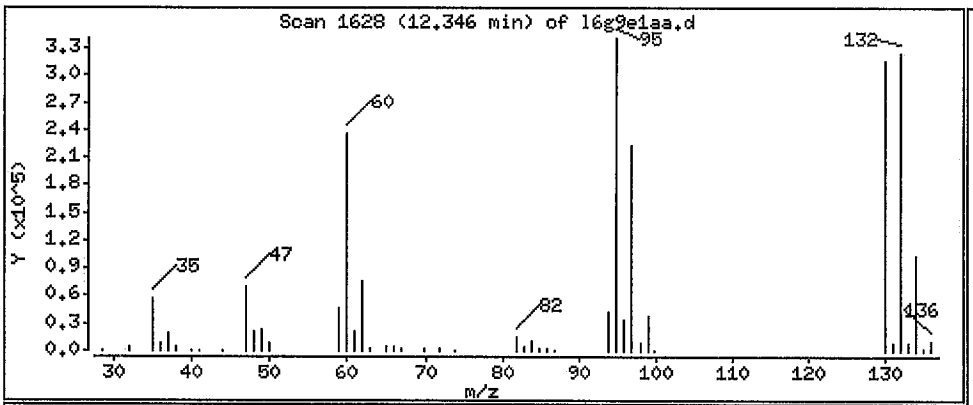
Operator: 7126

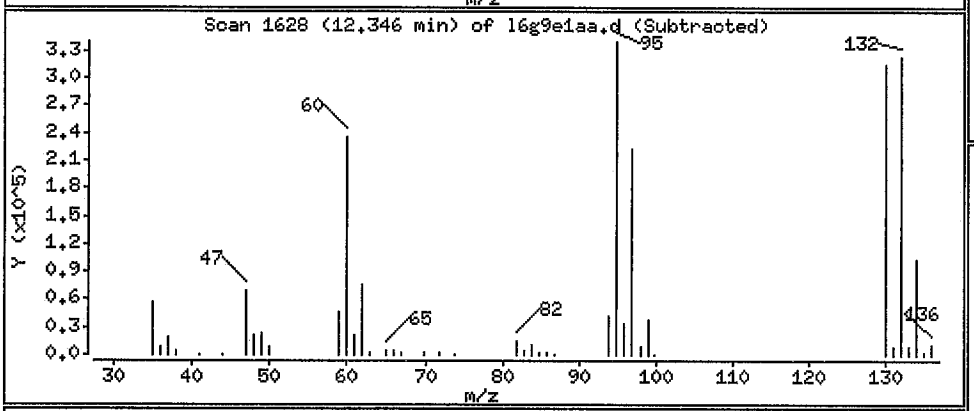
Column phase: Rtx-5

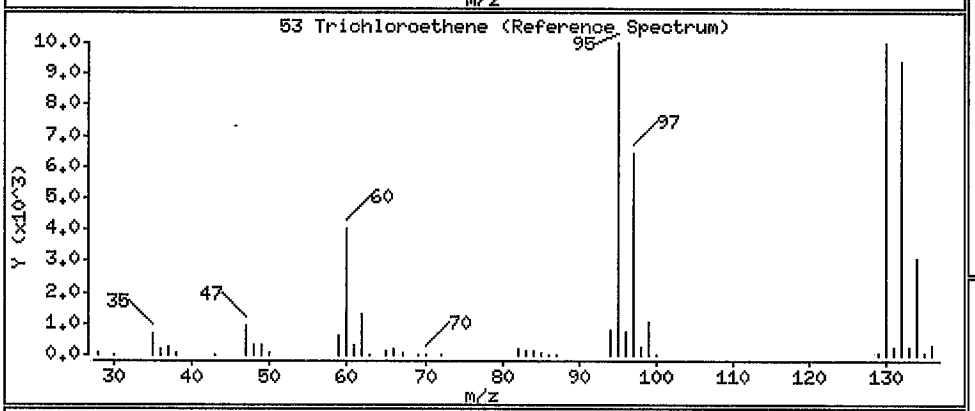
Column diameter: 0.32

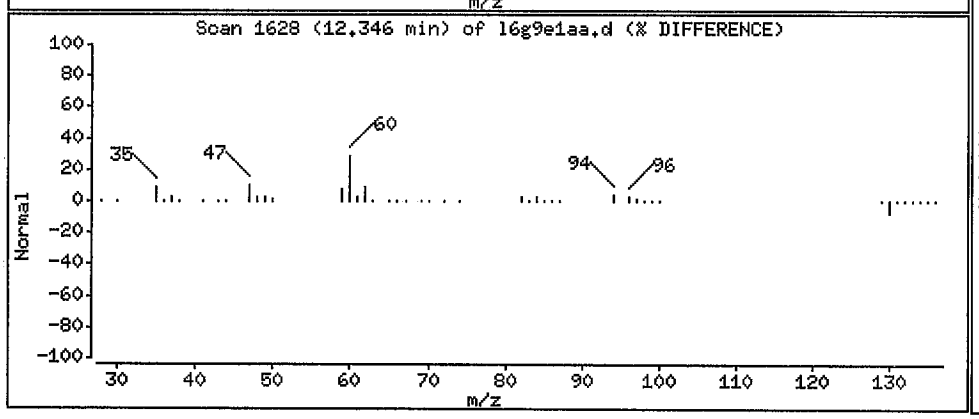
53 Trichloroethene

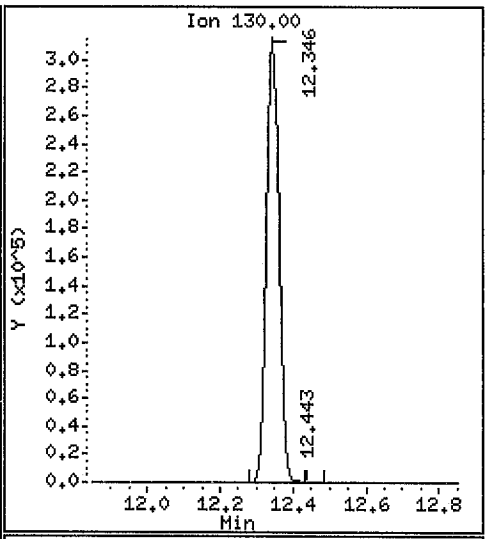
Concentration: 402.3 ppb(v/v)

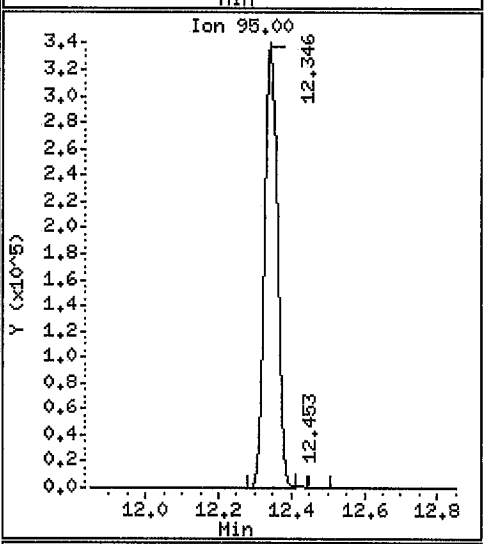


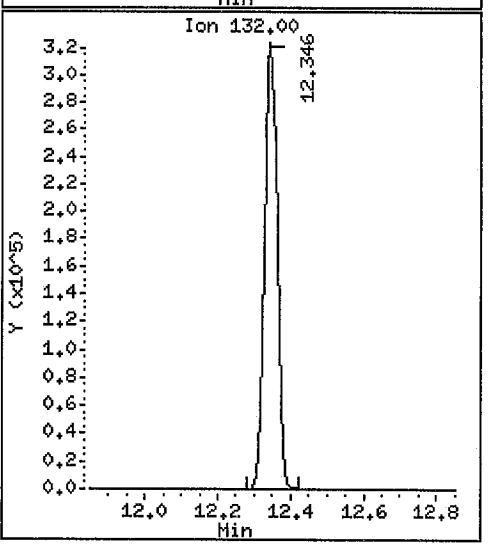












Data File: /var/chem/gcms/mj.i/J090810.b/16g9e1aa.d

Date : 08-SEP-2010 13:16

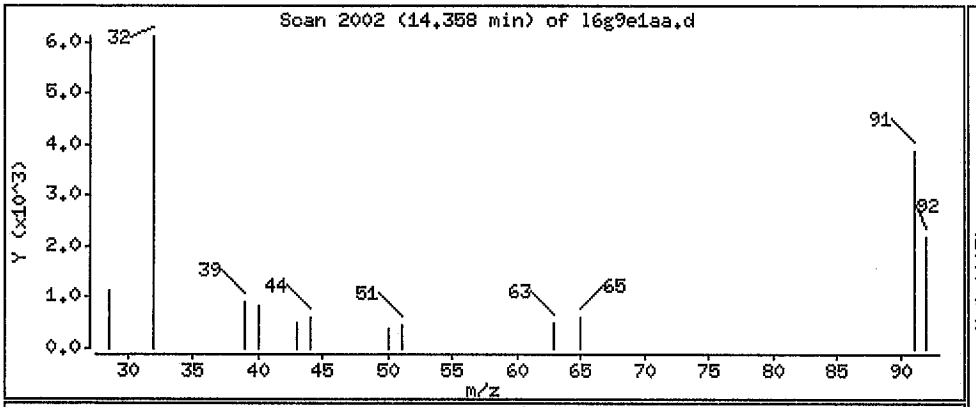
Client ID: SV-C-3-9 Instrument: mj.i

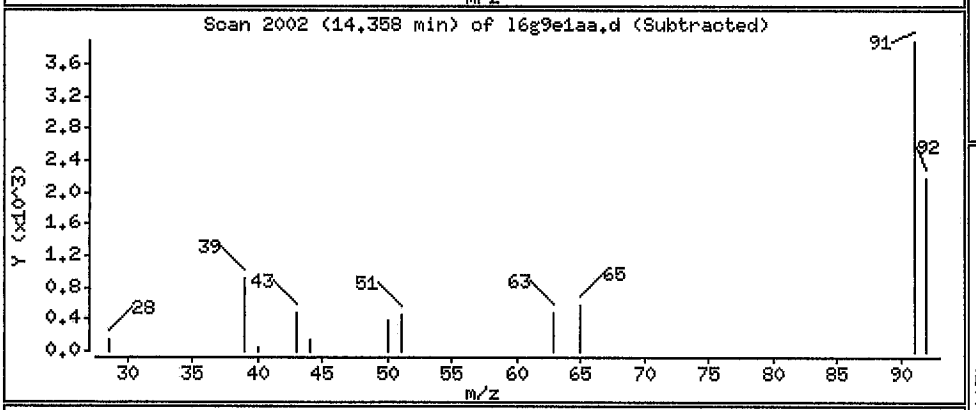
Sample Info: ,50,0,,,

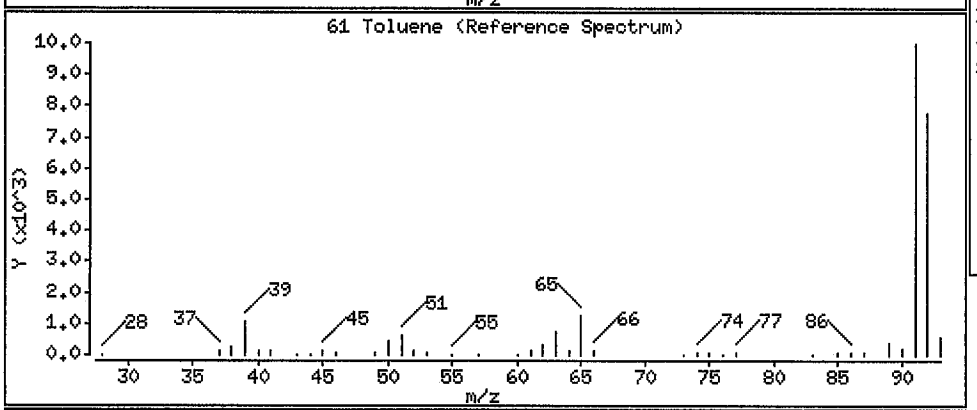
Purge Volume: 500.0 Operator: 7126

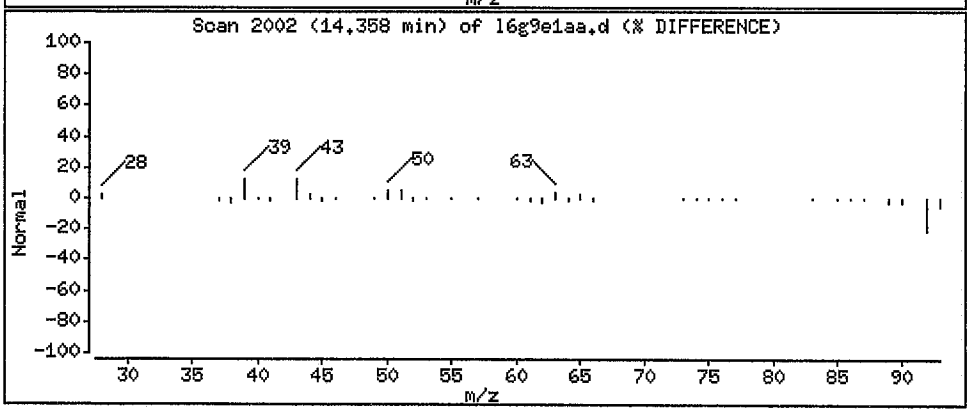
Column phase: Rtx-5 Column diameter: 0.32

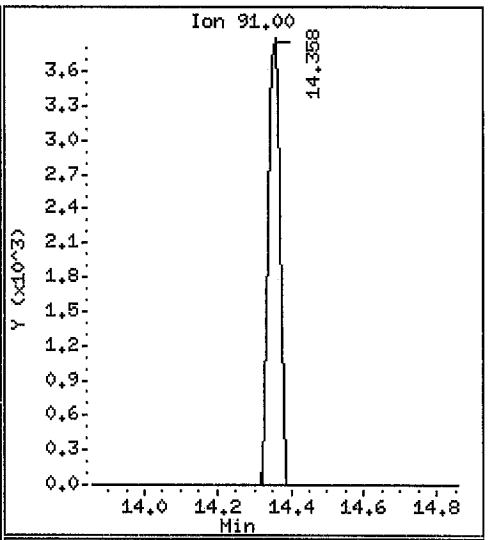
61 Toluene Concentration: 2.015 ppb(v/v)

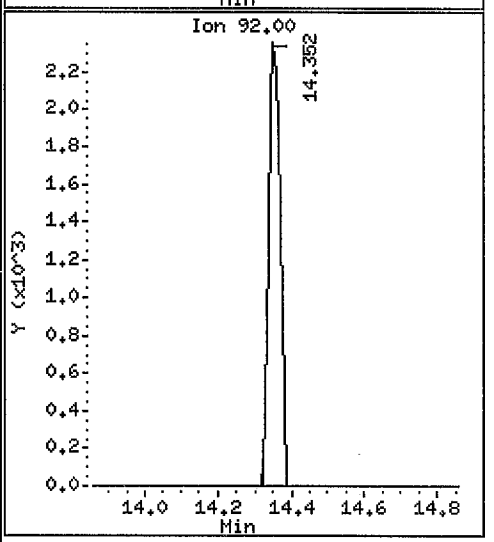












Data File: /var/chem/gcms/mj.i/J090810.b/16g9e1aa.d

Date : 08-SEP-2010 13:16

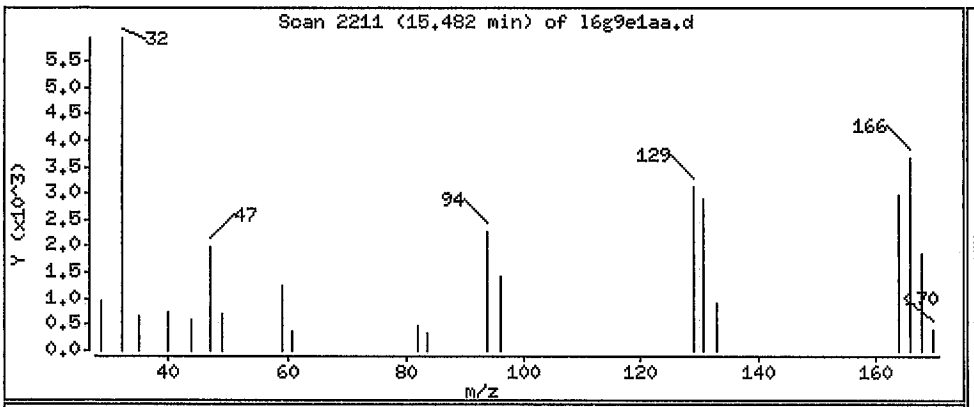
Client ID: SV-C-3-9 Instrument: mj.i

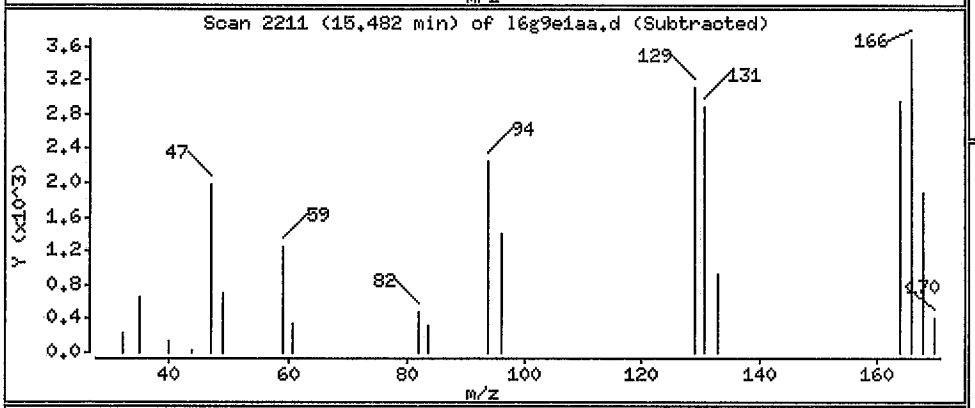
Sample Info: ,50,0,,,

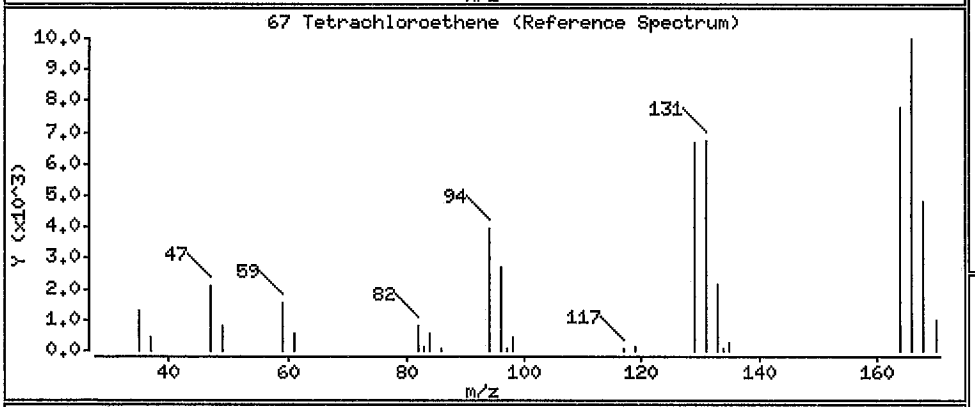
Purge Volume: 500.0 Operator: 7126

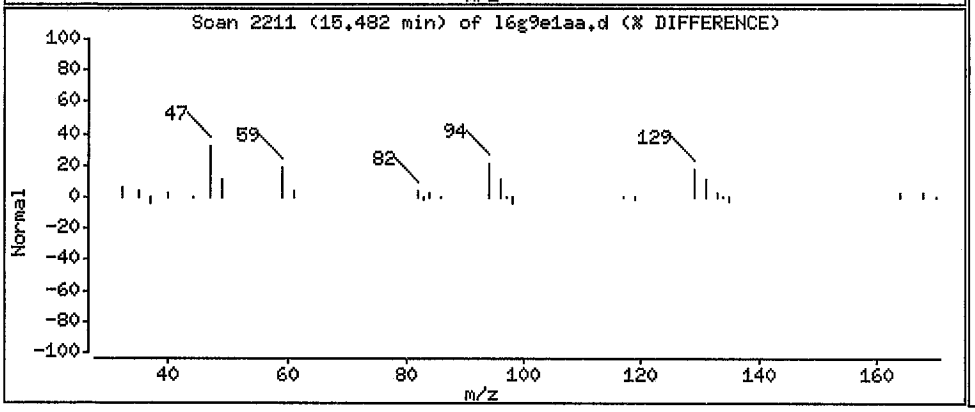
Column phase: Rtx-5 Column diameter: 0.32

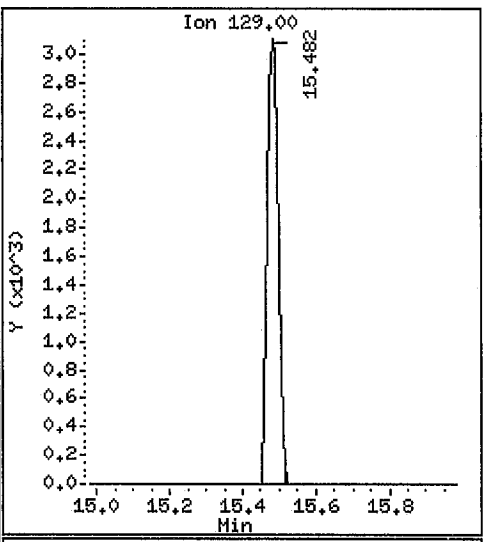
67 Tetrachloroethene Concentration: 3.674 ppb(v/v)

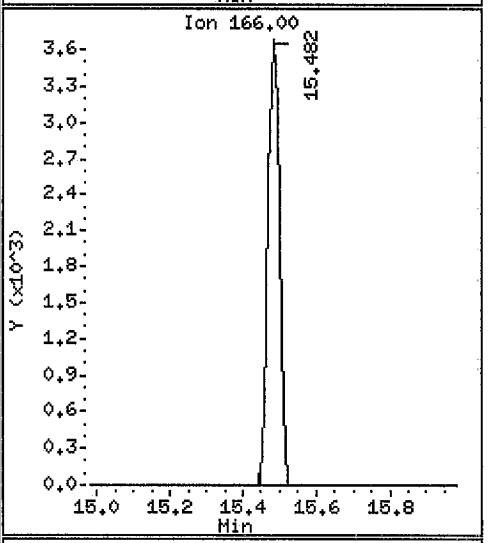


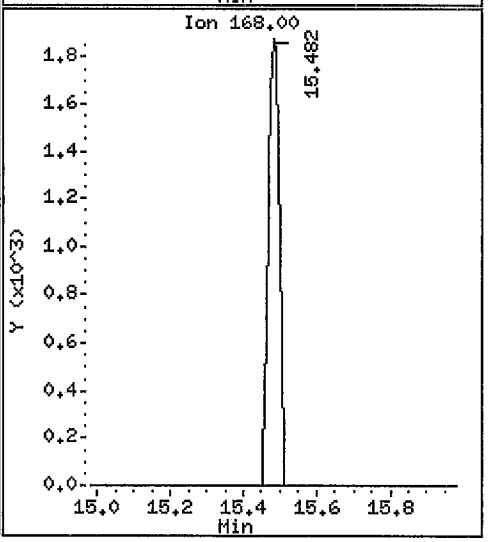












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9e1aa.d

Date : 08-SEP-2010 13:16

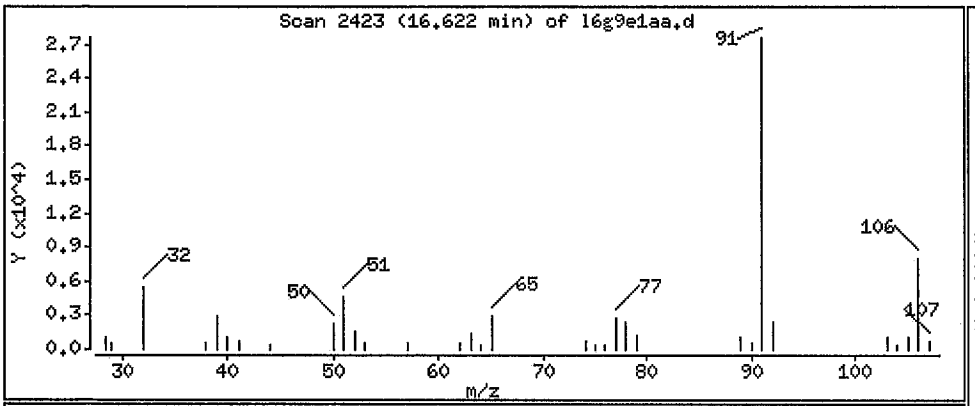
Client ID: SV-C-3-9 Instrument: mj.i

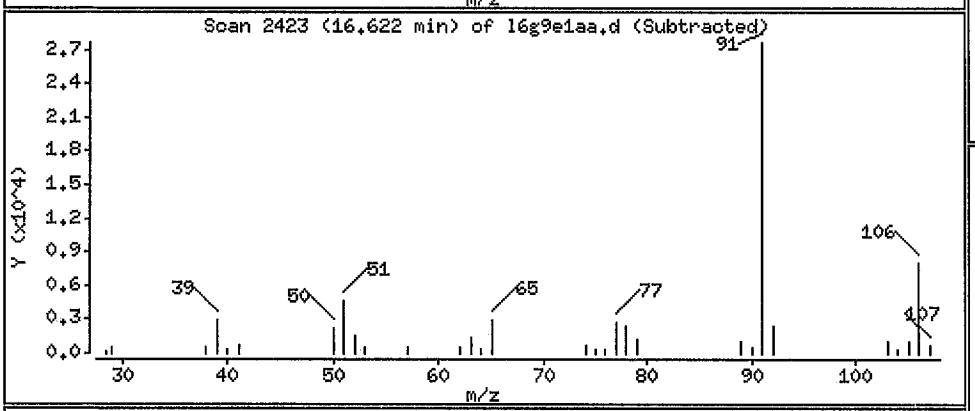
Sample Info: ,50,0,,,

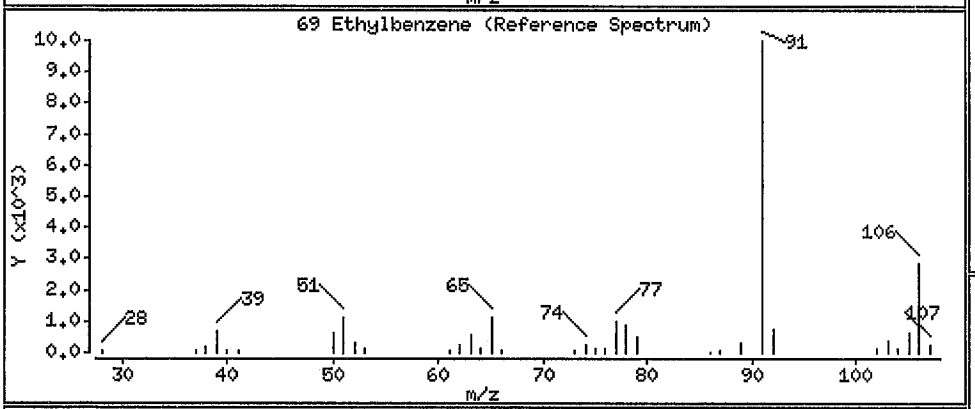
Purge Volume: 500.0 Operator: 7126

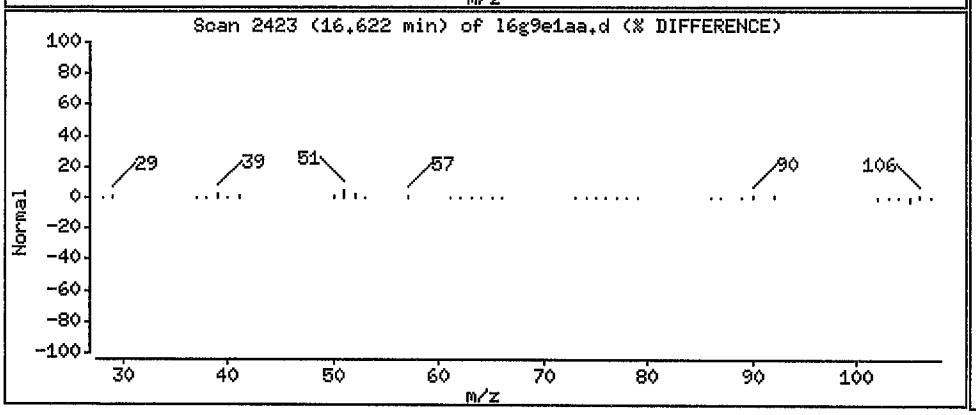
Column phase: Rtx-5 Column diameter: 0.32

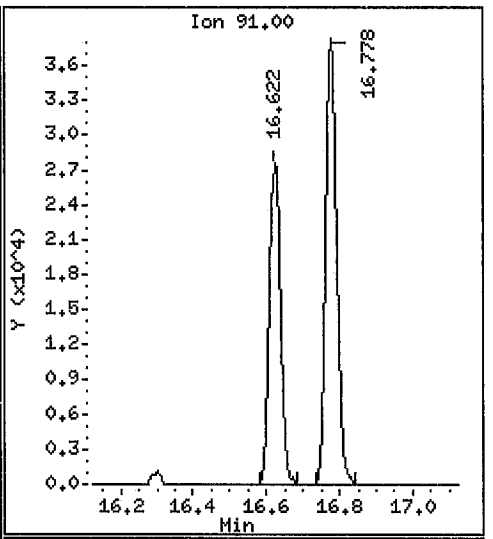
69 Ethylbenzene Concentration: 12.29 ppb(v/v)

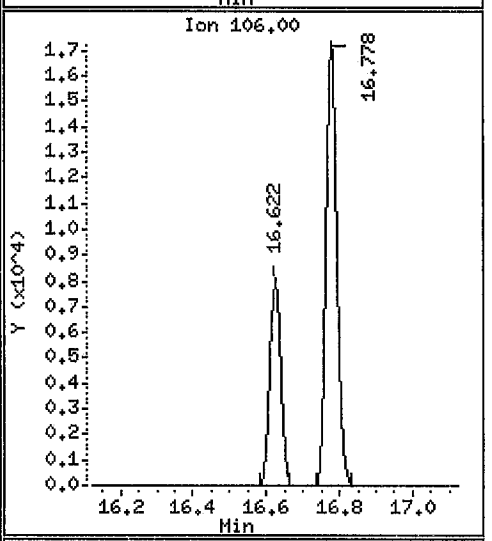


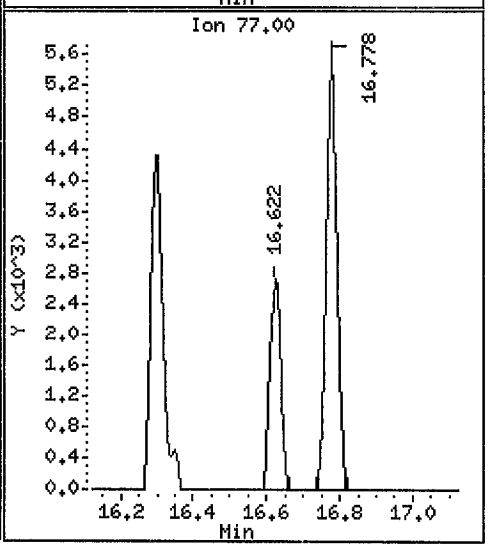












Data File: /var/chem/gcms/mj.i/J090810.b/16g9e1aa.d

Date : 08-SEP-2010 13:16

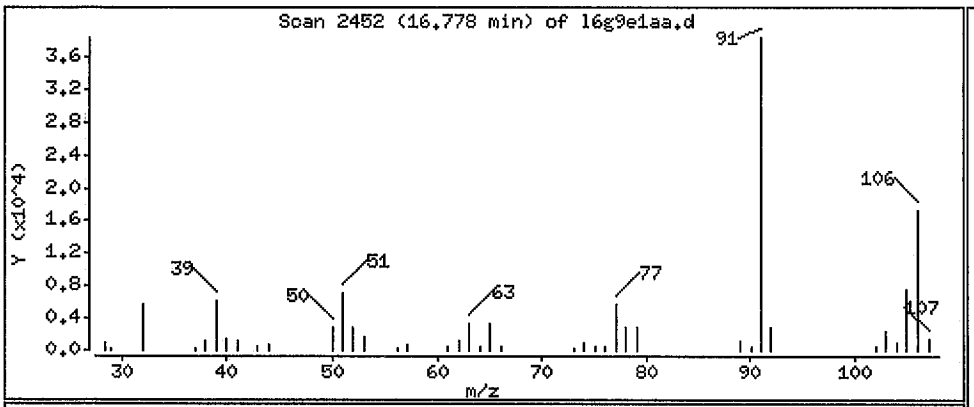
Client ID: SV-C-3-9 Instrument: mj.i

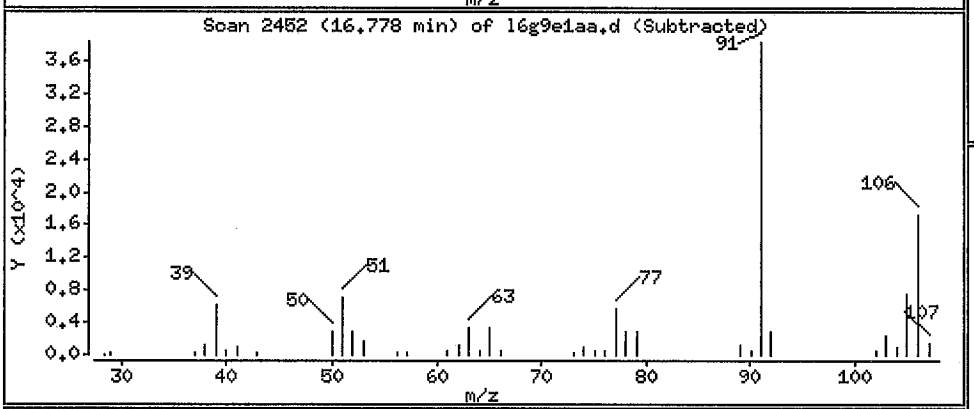
Sample Info: ,50,0,,,

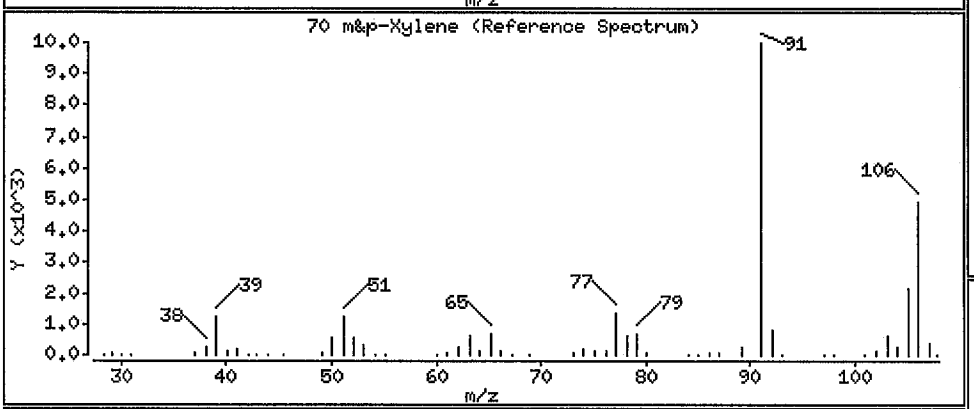
Purge Volume: 500.0 Operator: 7126

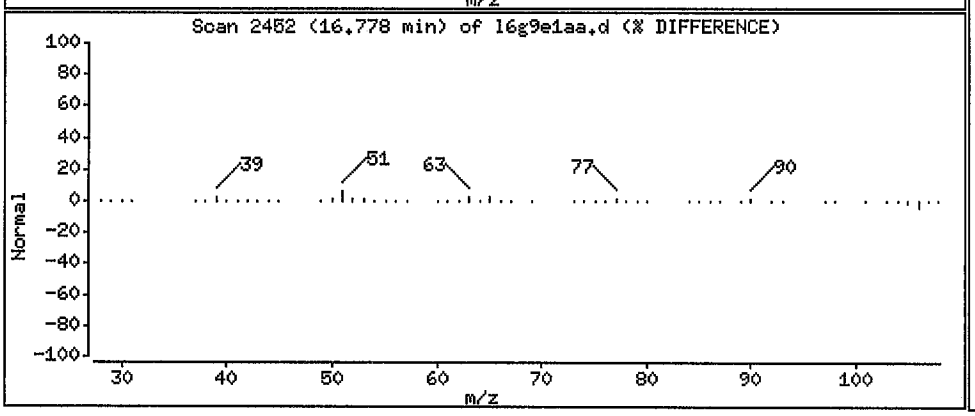
Column phase: Rtx-5 Column diameter: 0.32

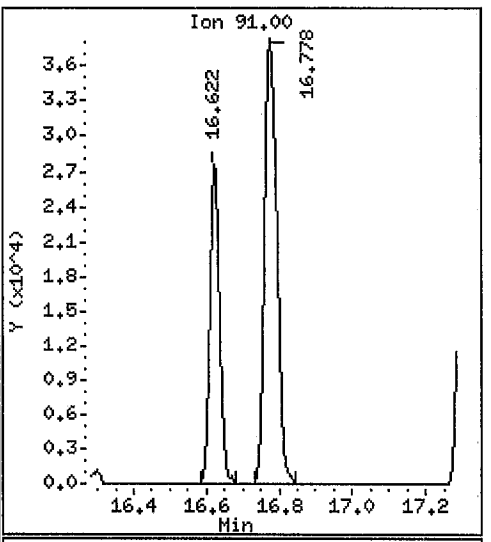
70 m&p-Xylene Concentration: 25.48 ppb(v/v)

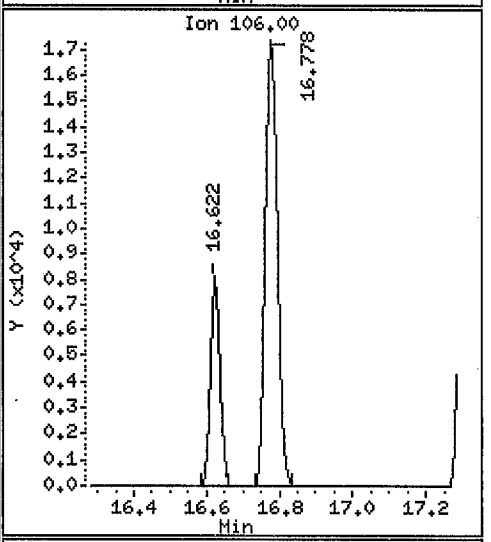


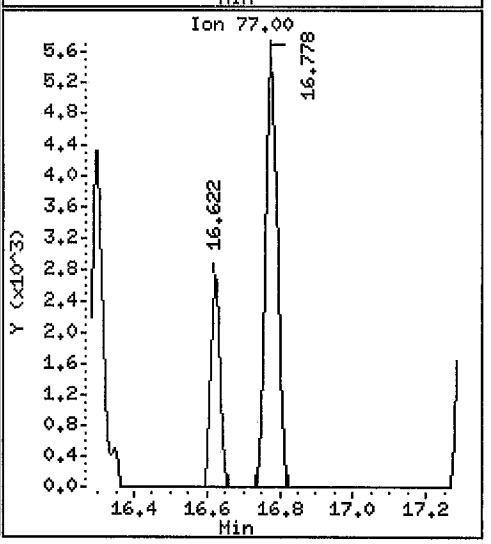












Data File: /var/chem/gcms/mj.i/J090810.b/16g9e1aa.d

Date : 08-SEP-2010 13:16

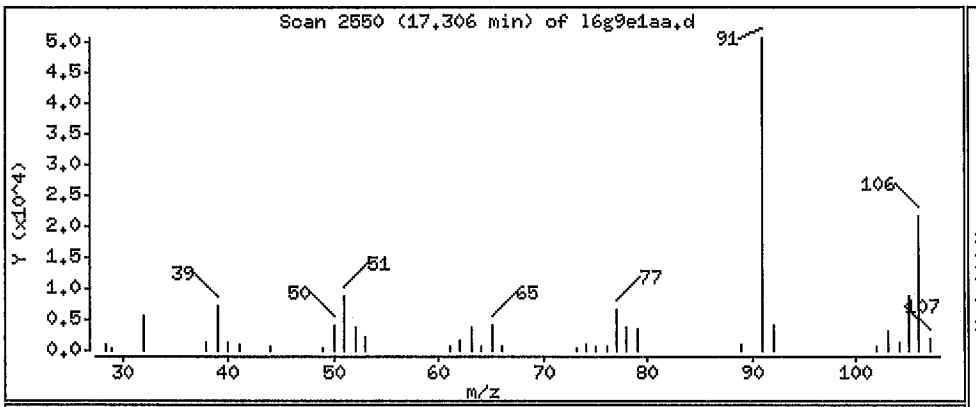
Client ID: SV-C-3-9 Instrument: mj.i

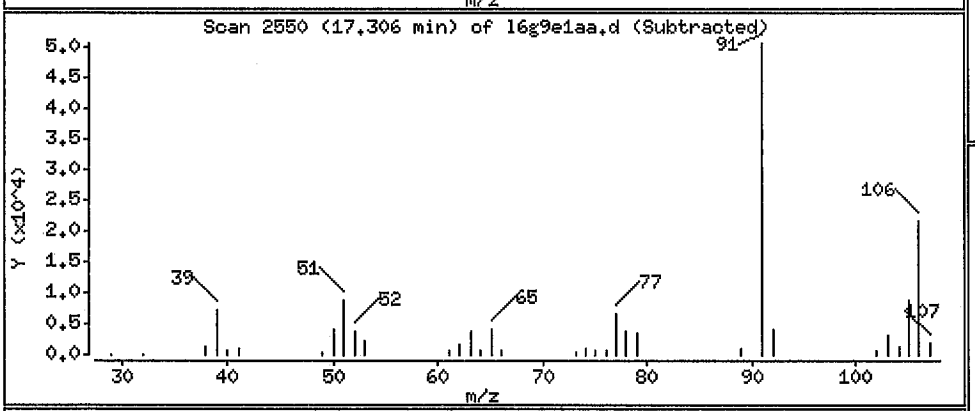
Sample Info: ,50,0,,,

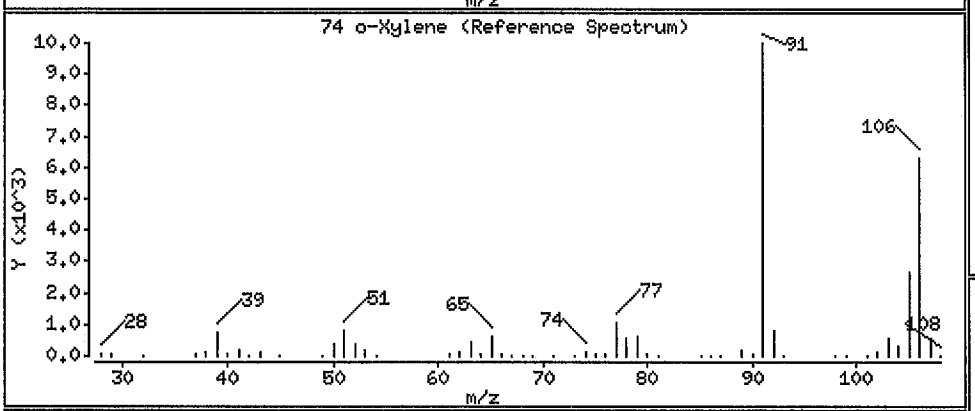
Purge Volume: 500.0 Operator: 7126

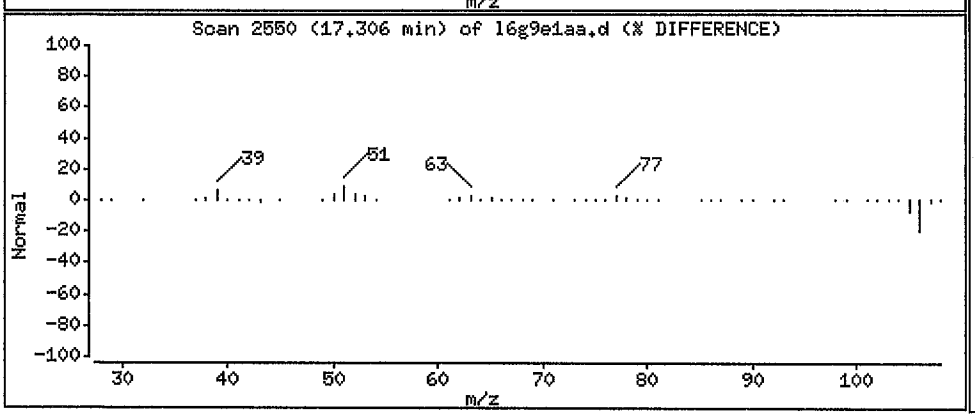
Column phase: Rtx-5 Column diameter: 0.32

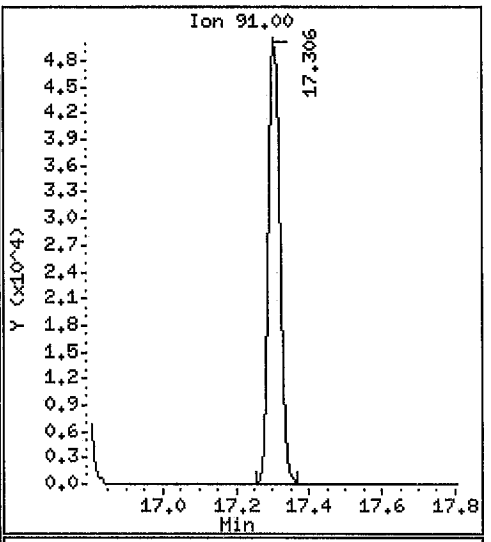
74 o-Xylene Concentration: 29.23 ppb(v/v)

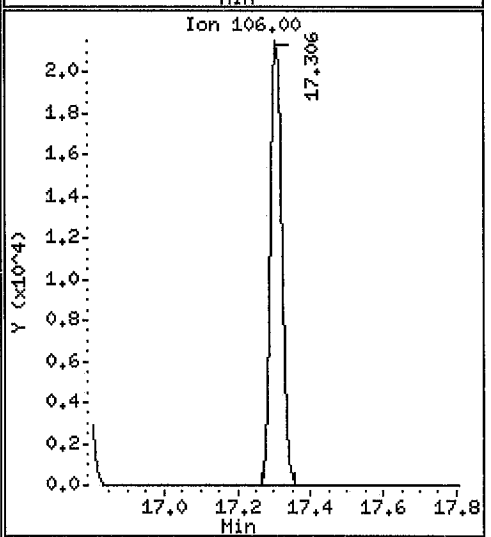


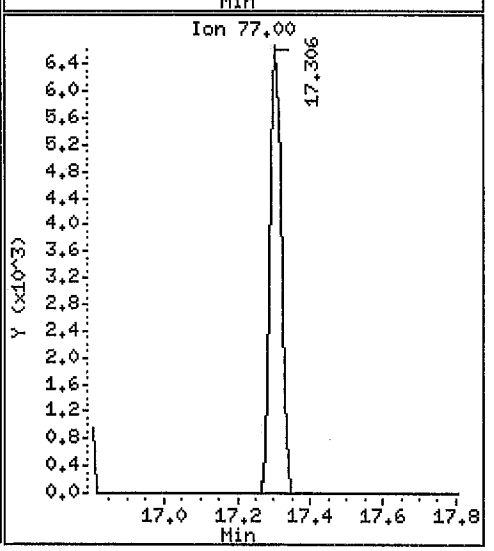












Tetra Tech NUS, Inc

Client Sample ID: SV-C-5-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 003	**Work Order #**	L6G9G1AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	1	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.18**	**0.080**	**0.023**	**0.59**	**0.26**	**0.073**
Carbon tetrachloride	**0.090**	**0.080**	**0.015**	**0.57**	**0.50**	**0.094**
Chlorodifluoromethane	**4.4**	**0.080**	**0.015**	**15**	**0.28**	**0.053**
Chloroform	**0.050**	**0.080**	**0.015**	**0.25 J**	**0.39**	**0.073**
Dichlorodifluoromethane	**0.51**	**0.080**	**0.027**	**2.5**	**0.40**	**0.13**
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	**0.22**	**0.080**	**0.027**	**0.94**	**0.35**	**0.12**
Methylene chloride	**0.37**	**0.20**	**0.018**	**1.3**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	**0.27**	**0.20**	**0.036**	**1.4**	**1.0**	**0.19**
Tetrachloroethene	**0.042**	**0.080**	**0.016**	**0.29 J**	**0.54**	**0.11**
Toluene	**0.81**	**0.080**	**0.021**	**3.0**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	**0.037**	**0.080**	**0.012**	**0.20 J**	**0.44**	**0.065**
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	**0.053**	**0.040**	**0.014**	**0.29**	**0.21**	**0.075**
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	**0.82**	**0.080**	**0.050**	**3.6**	**0.35**	**0.22**
o-Xylene	**0.43**	**0.080**	**0.024**	**1.9**	**0.35**	**0.10**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	99	60 - 140

Qualifiers

J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9g1aa.d
Report Date: 10-Sep-2010 14:28

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/l6g9g1aa.d
Lab Smp Id: L6G9G1AA Client Smp ID: SV-C-5-9
Inj Date : 08-SEP-2010 14:09
Operator : 7126 Inst ID: mj.i
Smp Info : ,,0,,,
Misc Info : J090810,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 10-Sep-2010 14:16 barlozha Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
* 1	Bromochloromethane	128	9.479	9.479	(1.000)	194076	4.00000	4.000
* 2	1,4-Difluorobenzene	114	11.641	11.642	(1.000)	922900	4.00000	4.000
* 3	Chlorobenzene-d5	117	16.300	16.300	(1.000)	800076	4.00000	4.000
$ 6	4-Bromofluorobenzene	95	17.914	17.914	(1.099)	603656	3.97521	3.975
7	Chlorodifluoromethane	67	3.900	3.901	(0.411)	106888	4.35504	4.355
8	Dichlorodifluoromethane	85	3.970	3.970	(0.419)	107496	0.51007	0.5101
31	Methylene Chloride	84	6.789	6.784	(0.716)	23384	0.37029	0.3703
42	Chloroform	83	9.479	9.479	(1.000)	7111	0.05047	0.05047
44	1,1,1-Trichloroethane	97	10.539	10.544	(1.112)	5402	0.03681	0.03680
48	Benzene	78	11.125	11.125	(0.956)	35845	0.18373	0.1837
49	Carbon Tetrachloride	117	11.146	11.152	(0.957)	13766	0.09005	0.09005
53	Trichloroethene	130	12.351	12.352	(1.061)	5033	0.05306	0.05306
61	Toluene	91	14.353	14.358	(0.881)	151818	0.80574	0.8057
67	Tetrachloroethene	129	15.488	15.483	(0.950)	3314	0.04210	0.04210
69	Ethylbenzene	91	16.623	16.623	(1.020)	46710	0.21620	0.2162

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9g1aa.d
Report Date: 10-Sep-2010 14:28

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
70 m&p-Xylene	91	16.779	16.784	(1.029)	133889	0.81946	0.8195
74 o-Xylene	91	17.306	17.306	(1.062)	73180	0.43060	0.4306
96 Napthalene	128	21.599	21.594	(1.325)	43697	0.26536	0.2654

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9g1aa.d
Report Date: 10-Sep-2010 14:28

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9g1aa.d
Lab Smp Id: L6G9G1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: SV-C-5-9
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	194076	-0.51
2 1,4-Difluorobenze	936174	557024	1315324	922900	-1.42
3 Chlorobenzene-d5	815161	485021	1145301	800076	-1.85

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.48	0.00
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.00
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9g1aa.d
Report Date: 10-Sep-2010 14:28

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9G1AA
Client Smp ID: SV-C-5-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.975	99.38	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/16g9g1aa.d
Date : 08-SEP-2010 14:09
Client ID: SV-C-5-9
Sample Info: ,,0,,,
Purge Volume: 500.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 7126
Column diameter: 0.32

Data File: /var/chem/gcms/mj.i/J090810.b/16g9g1aa.d

Date : 08-SEP-2010 14:09

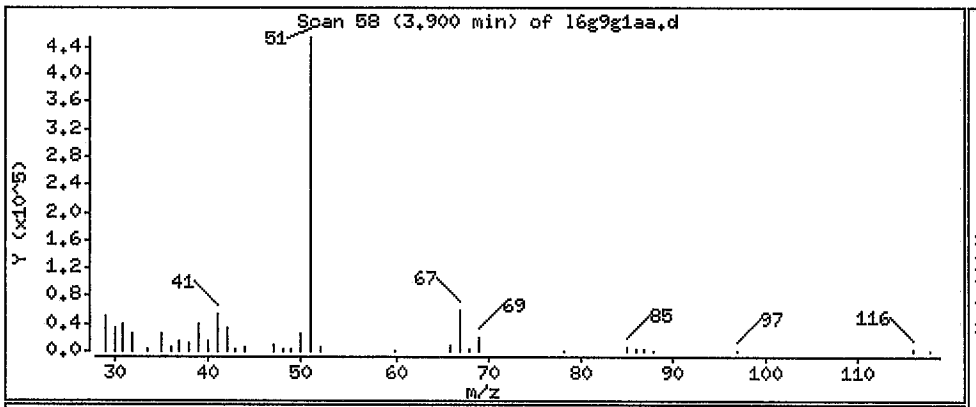
Client ID: SV-C-5-9 Instrument: mj.i

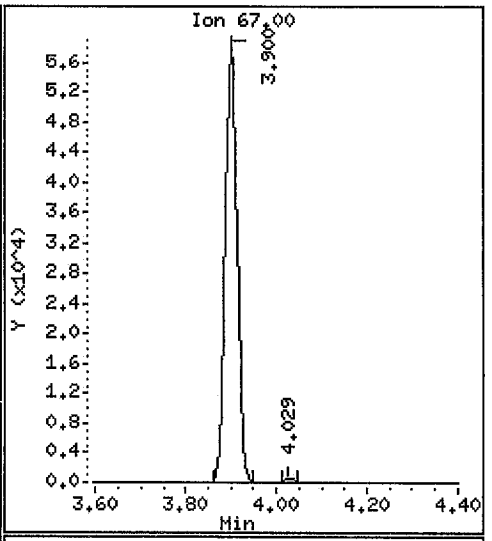
Sample Info: ,,0,,,

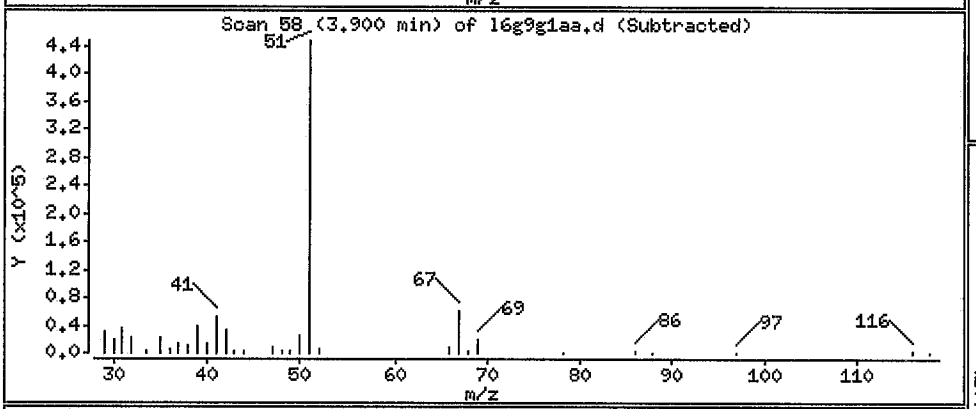
Purge Volume: 500.0 Operator: 7126

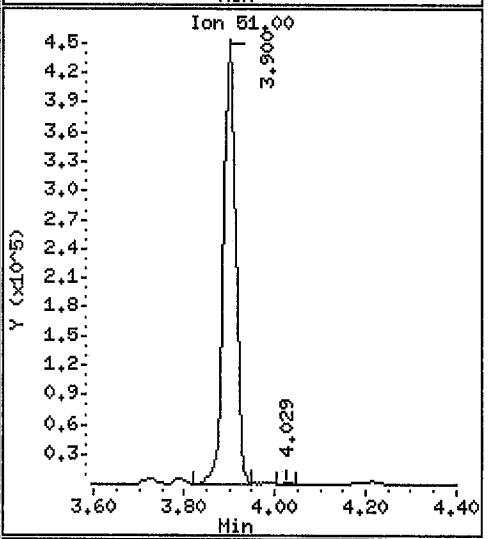
Column phase: Rtx-5 Column diameter: 0.32

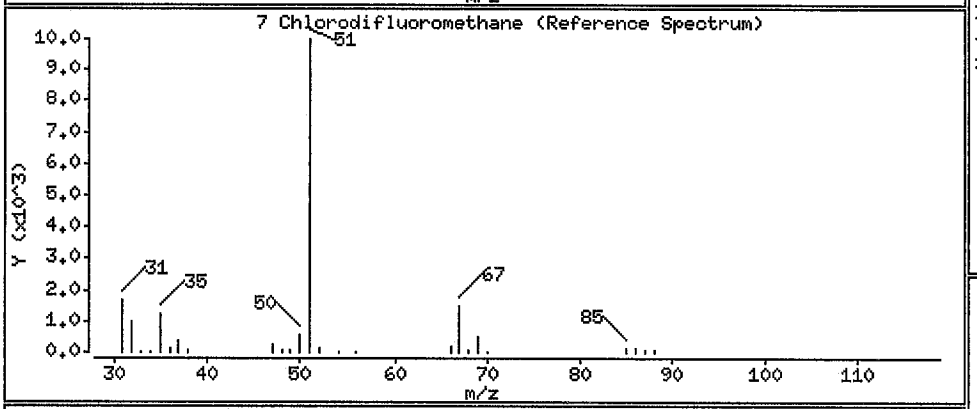
7 Chlorodifluoromethane Concentration: 4.355 ppb(v/v)

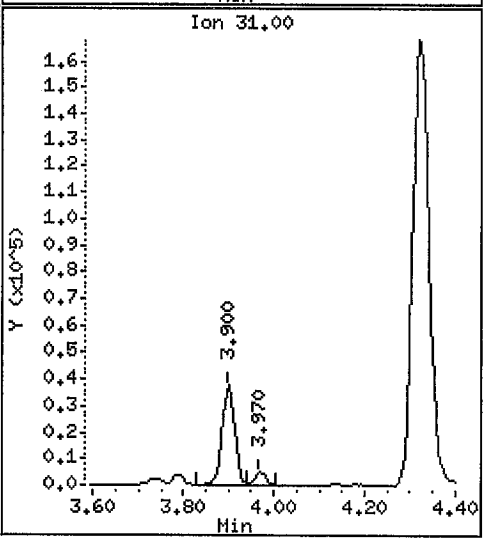


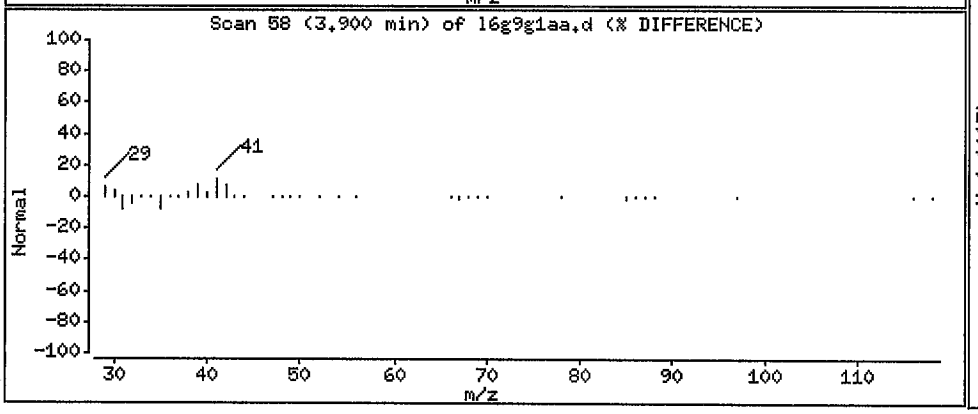












Data File: /var/chem/gcms/mj.i/J090810.b/16g9g1aa.d

Date : 08-SEP-2010 14:09

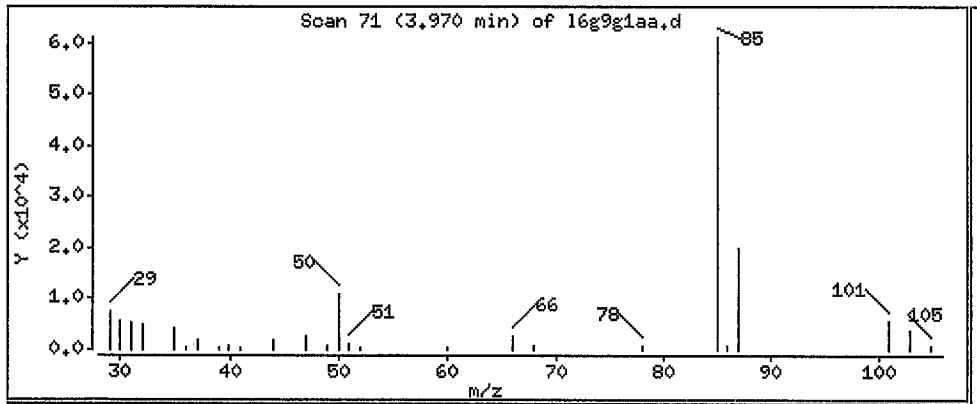
Client ID: SV-C-5-9 Instrument: mj.i

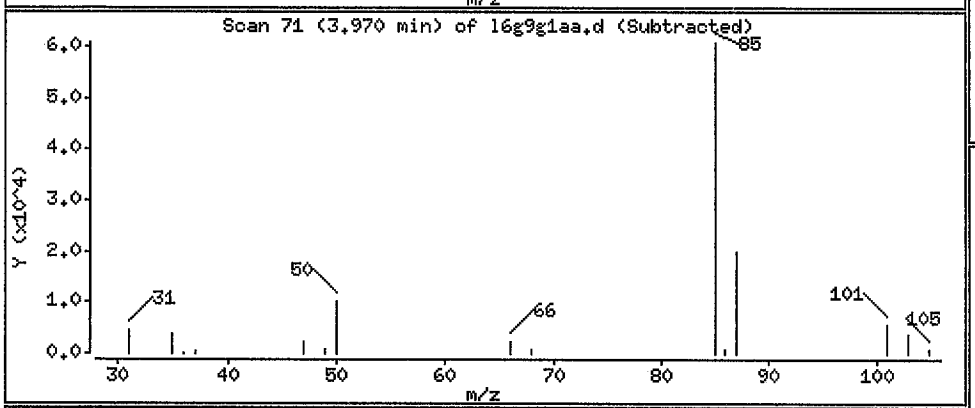
Sample Info: ,,0,,,

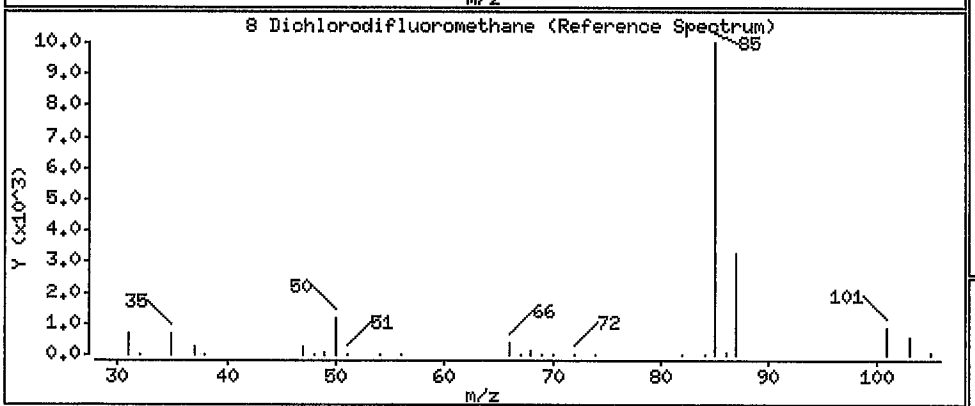
Purge Volume: 500.0 Operator: 7126

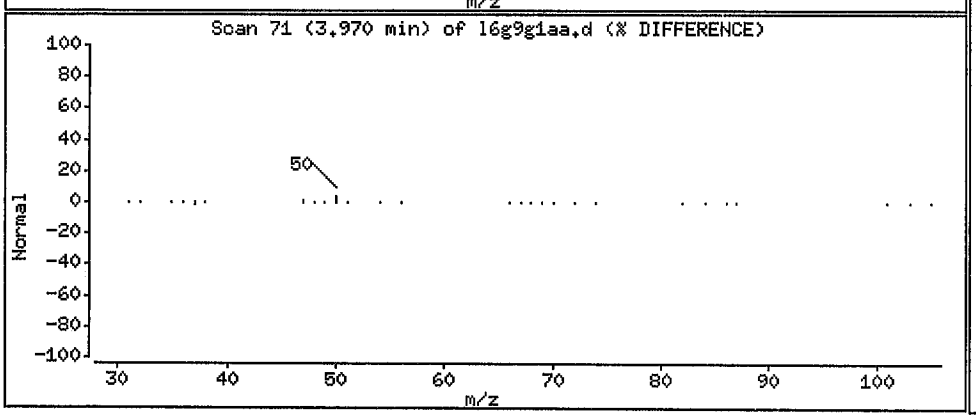
Column phase: Rtx-5 Column diameter: 0.32

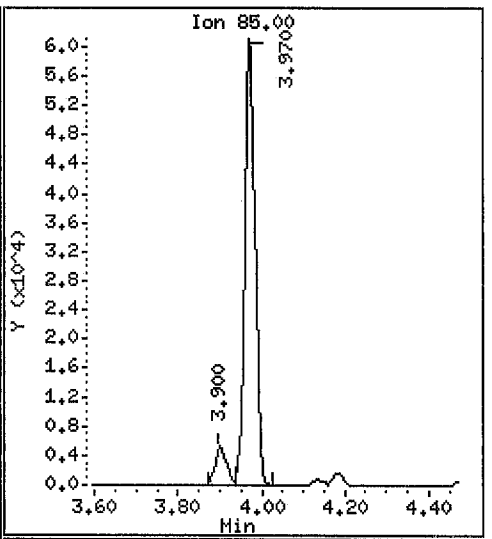
8 Dichlorodifluoromethane Concentration: 0.5101 ppb(v/v)

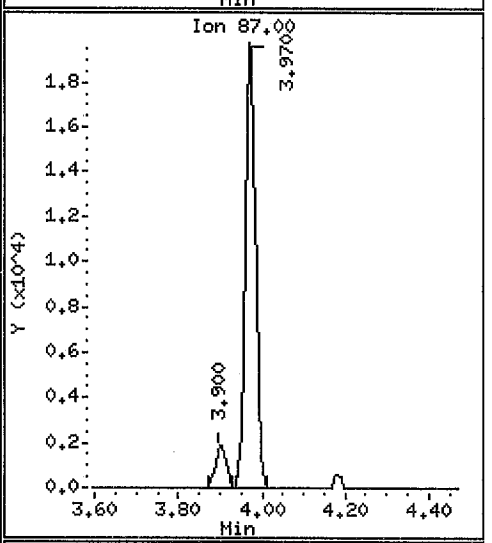


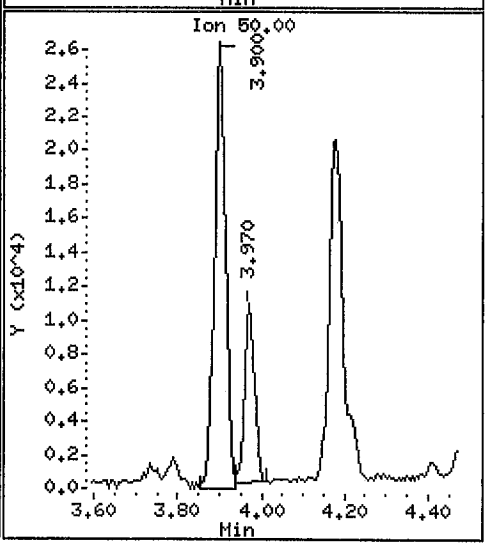












Data File: /var/chem/goms/mj.i/J090810.b/16g9g1aa.d

Date : 08-SEP-2010 14:09

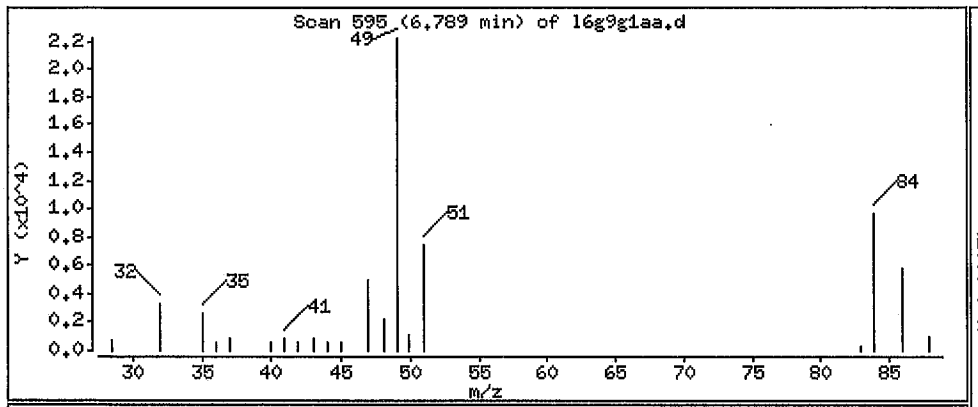
Client ID: SV-C-5-9 Instrument: mj.i

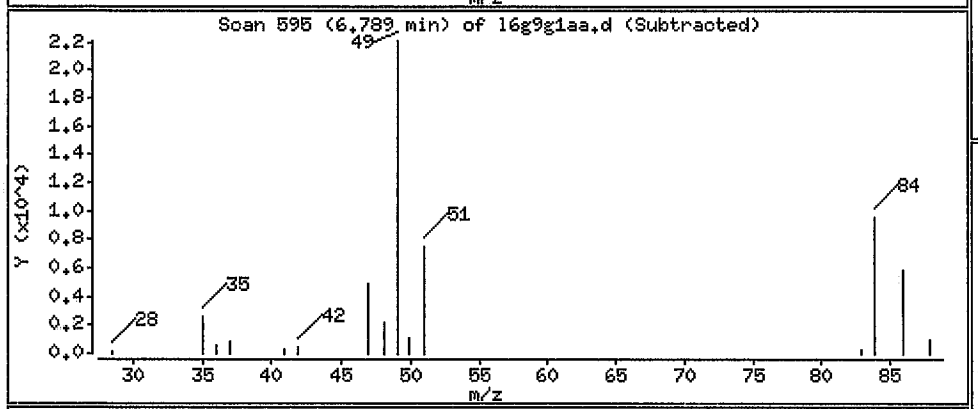
Sample Info: ,,0,,,

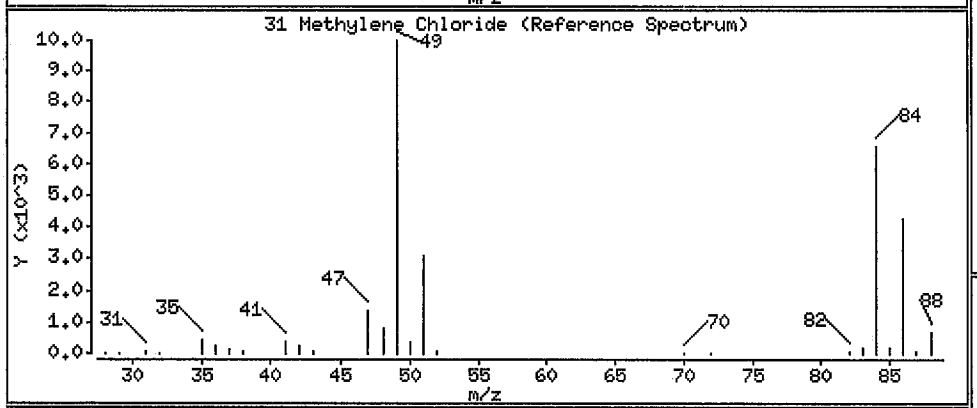
Purge Volume: 500.0 Operator: 7126

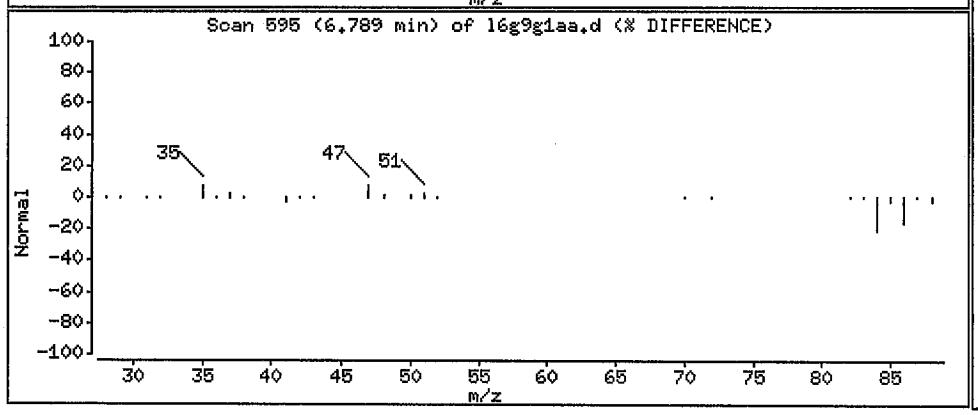
Column phase: Rtx-5 Column diameter: 0.32

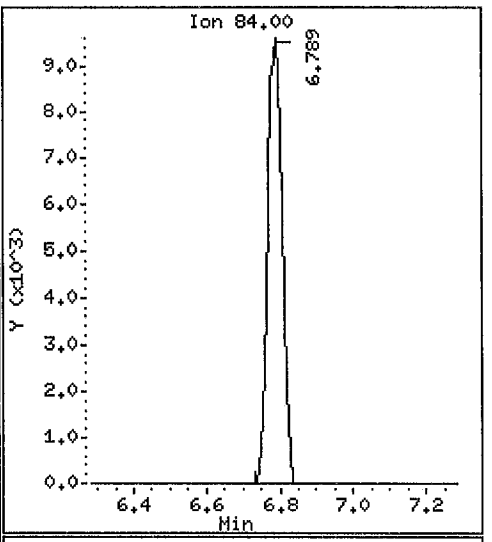
31 Methylene Chloride Concentration: 0.3703 ppb(v/v)

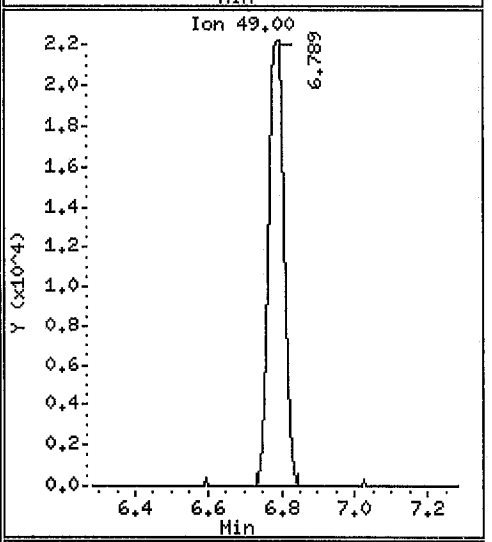


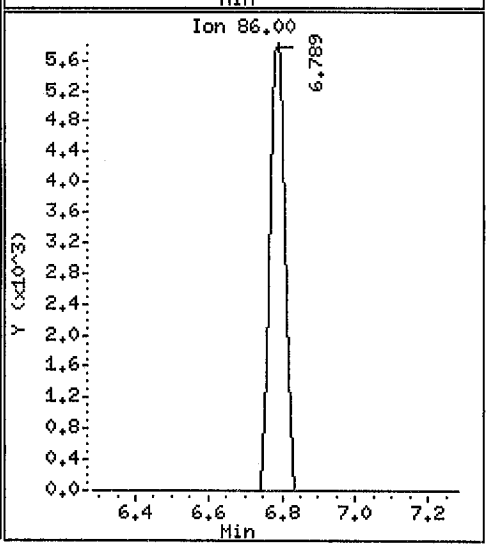












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9g1aa.d

Date : 08-SEP-2010 14:09

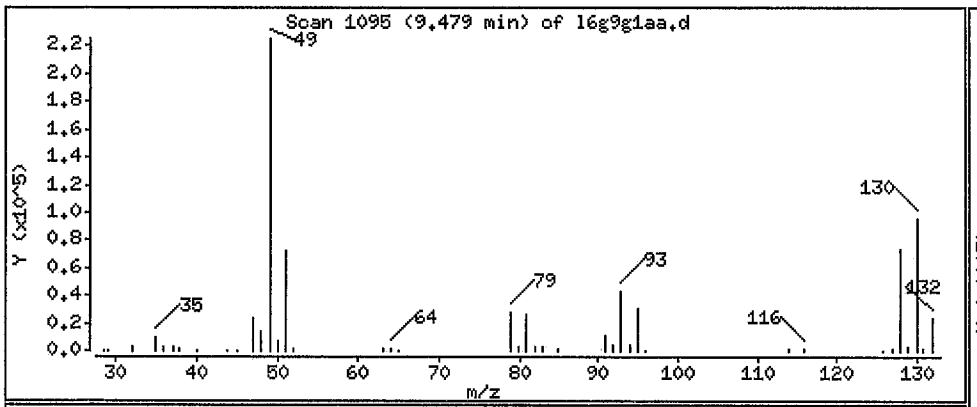
Client ID: SV-C-5-9 Instrument: mj.i

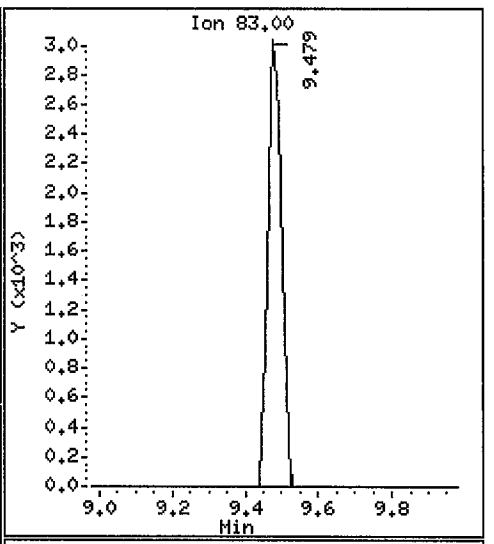
Sample Info: ,,0,,,

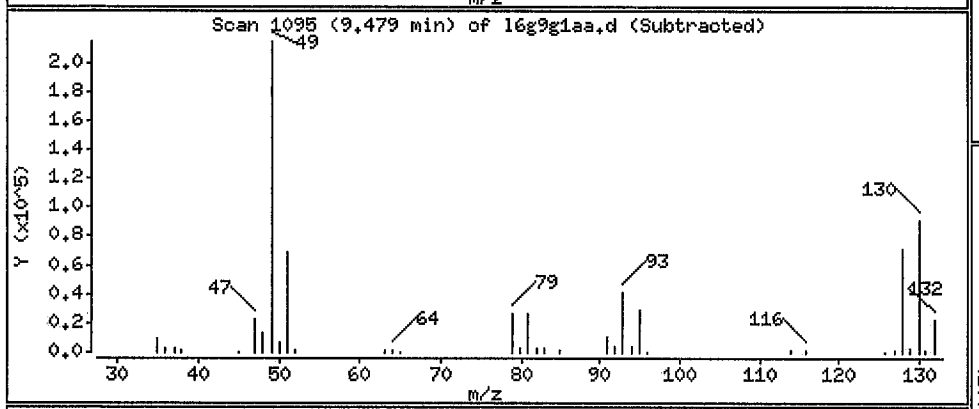
Purge Volume: 500.0 Operator: 7126

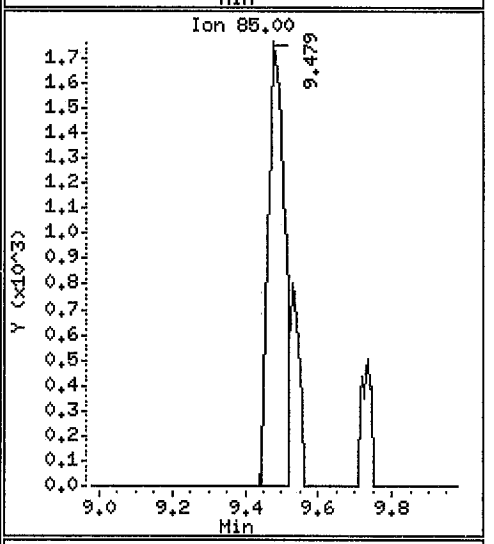
Column phase: Rtx-5 Column diameter: 0.32

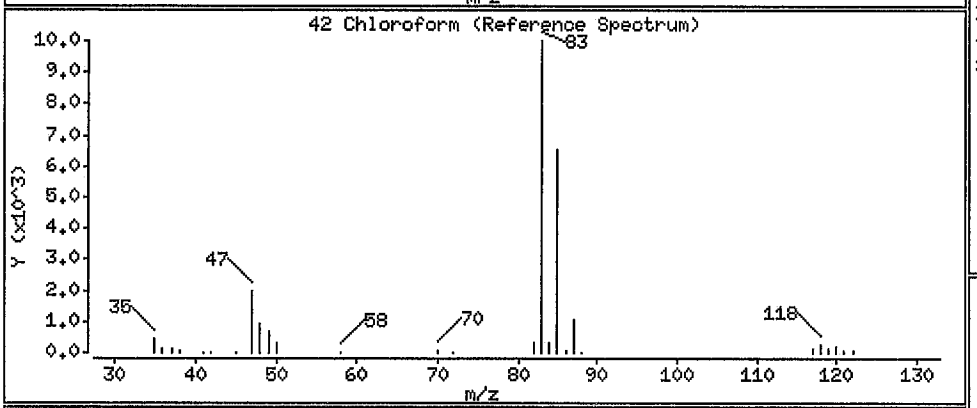
42 Chloroform Concentration: 0.05047 ppb(v/v)

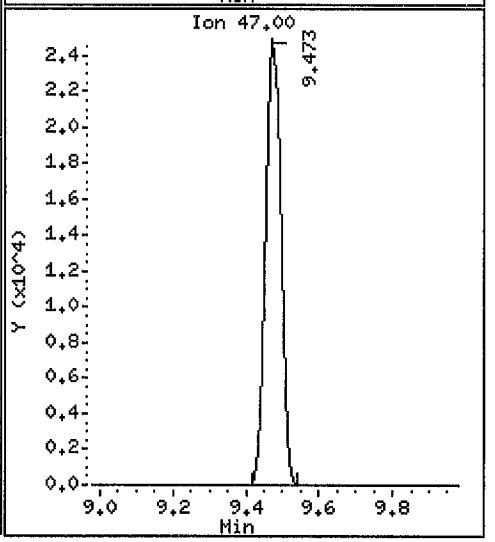


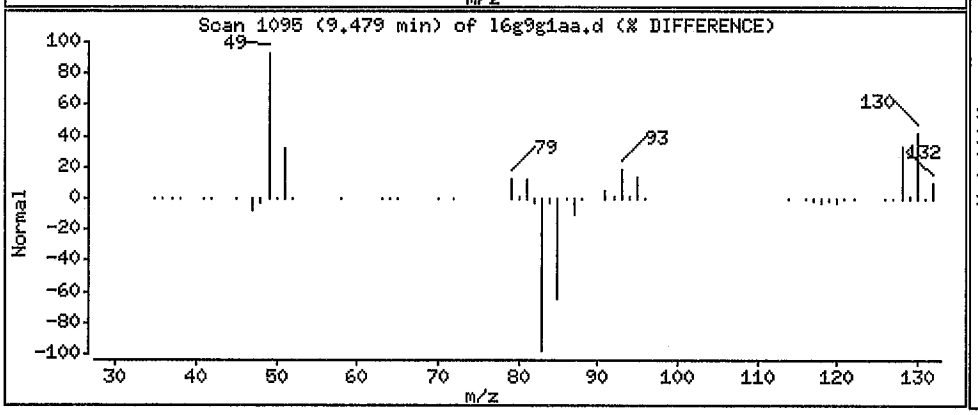












Data File: /var/chem/gcms/mj.i/J090810.b/16g9g1aa.d

Date : 08-SEP-2010 14:09

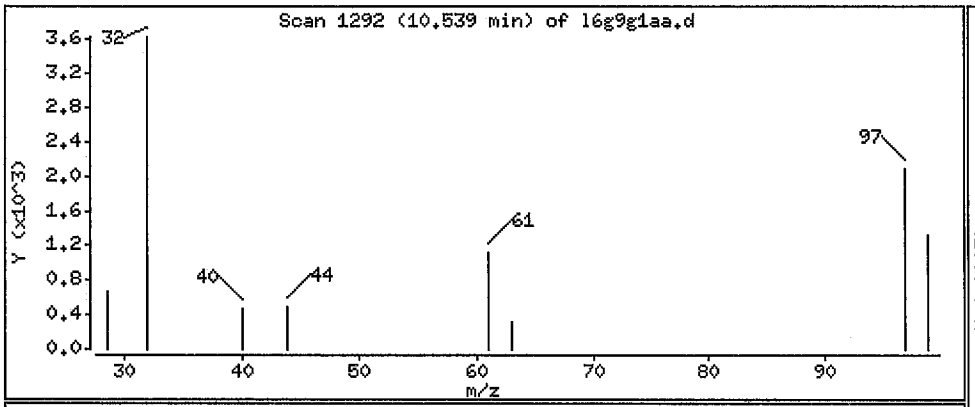
Client ID: SV-C-5-9 Instrument: mj.i

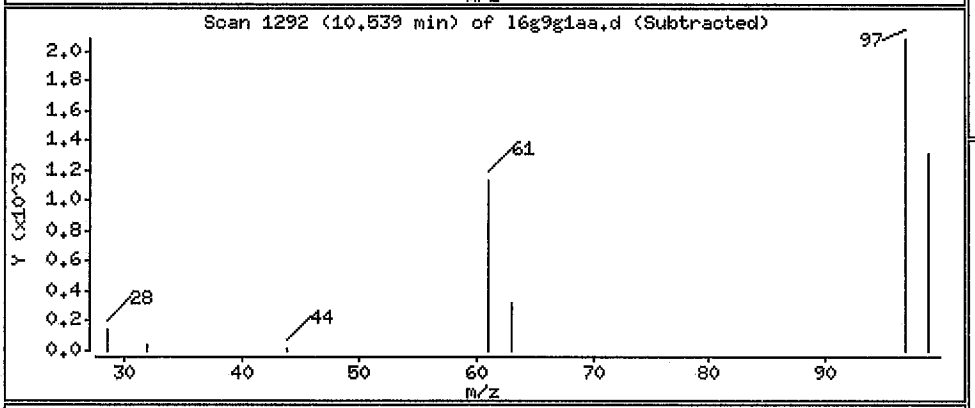
Sample Info: ,,0,,,

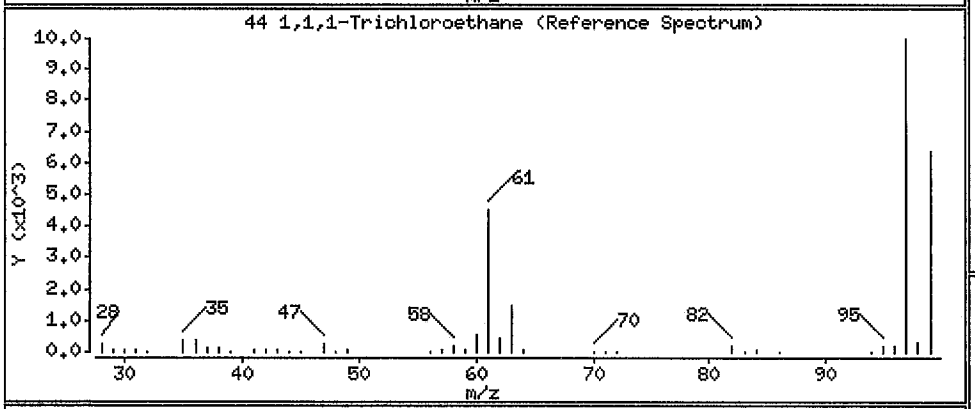
Purge Volume: 500.0 Operator: 7126

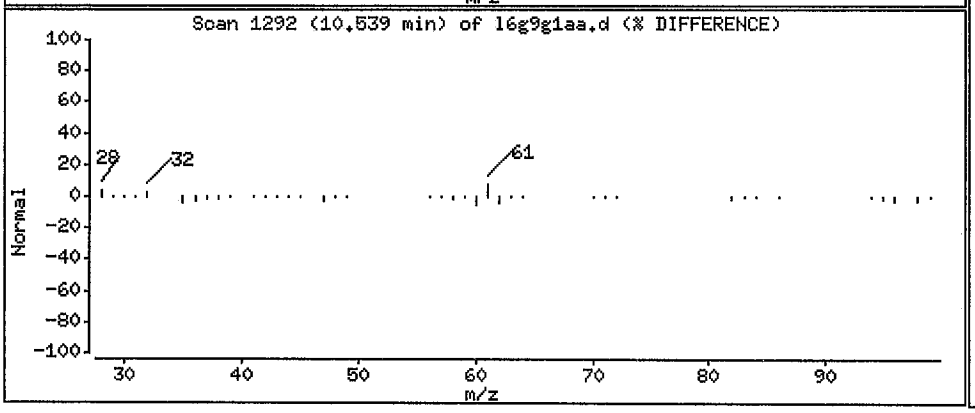
Column phase: Rtx-5 Column diameter: 0.32

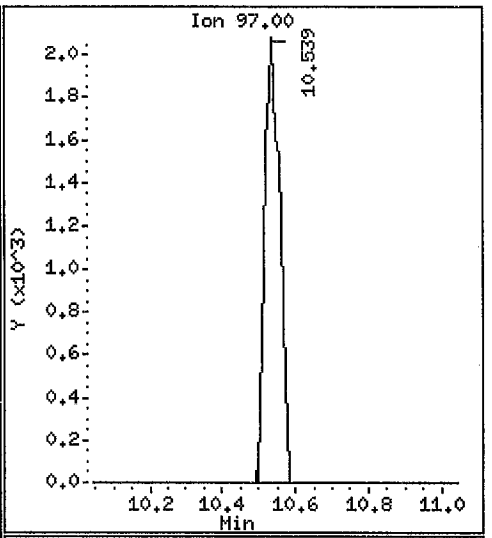
44 1,1,1-Trichloroethane Concentration: 0.03680 ppb(v/v)

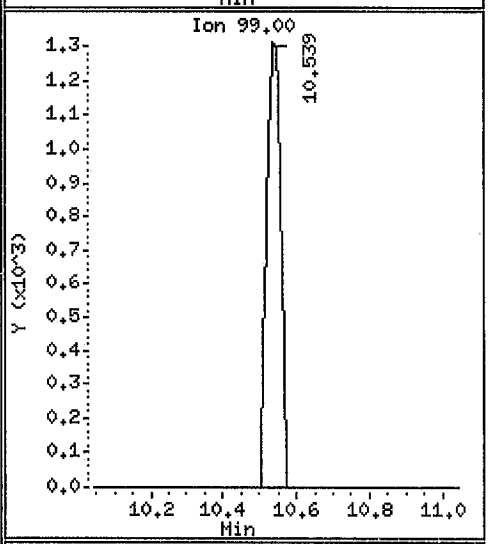


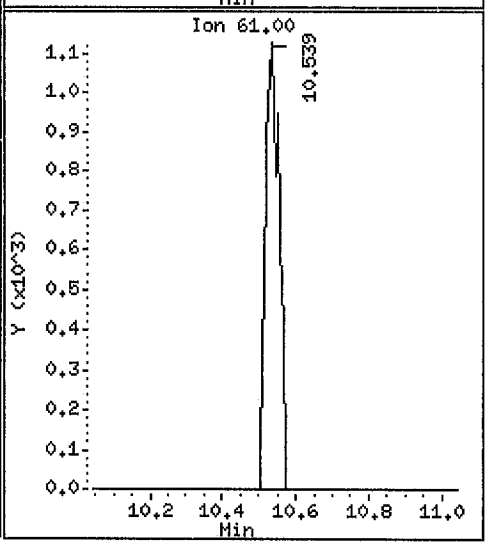












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9g1aa.d

Date : 08-SEP-2010 14:09

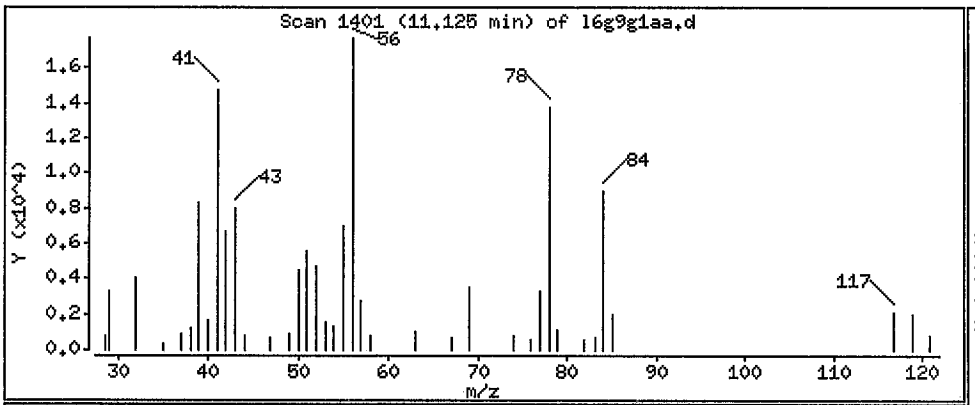
Client ID: SV-C-5-9 Instrument: mj.i

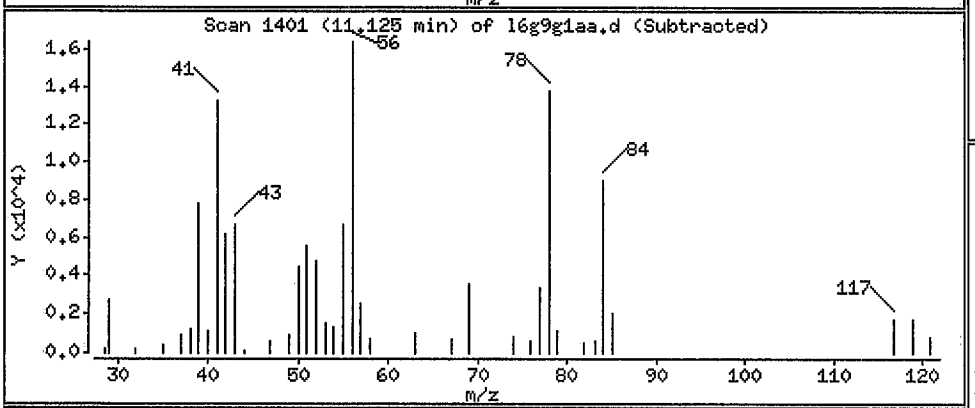
Sample Info: ,,0,,,

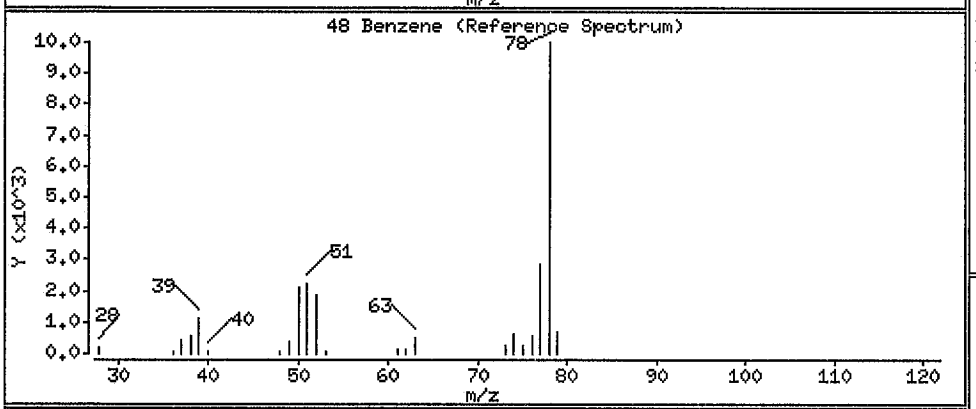
Purge Volume: 500.0 Operator: 7126

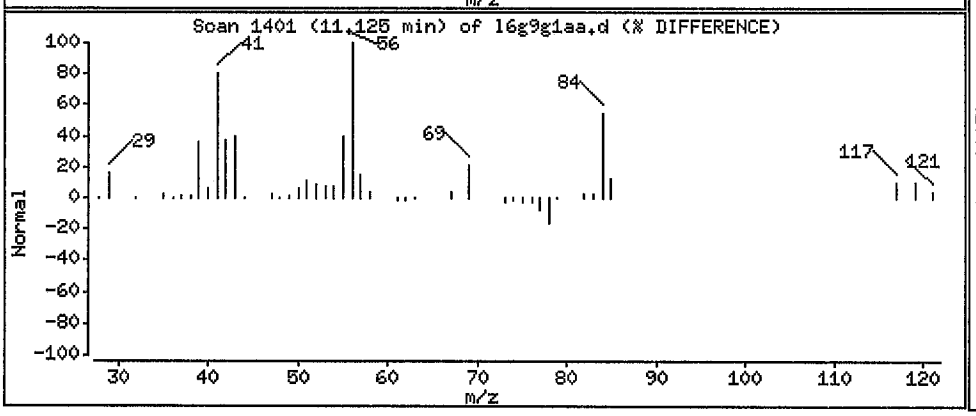
Column phase: Rtx-5 Column diameter: 0.32

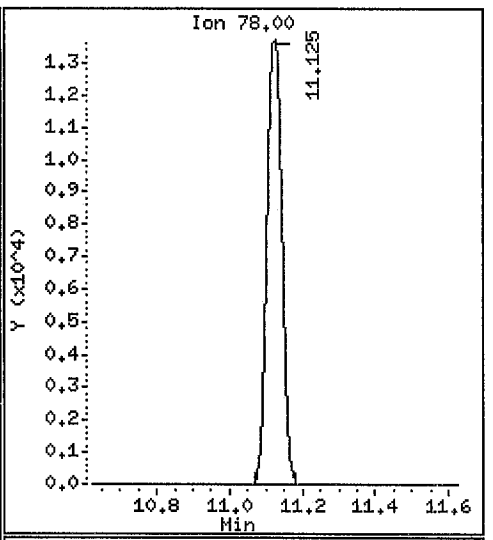
48 Benzene Concentration: 0.1837 ppb(v/v)

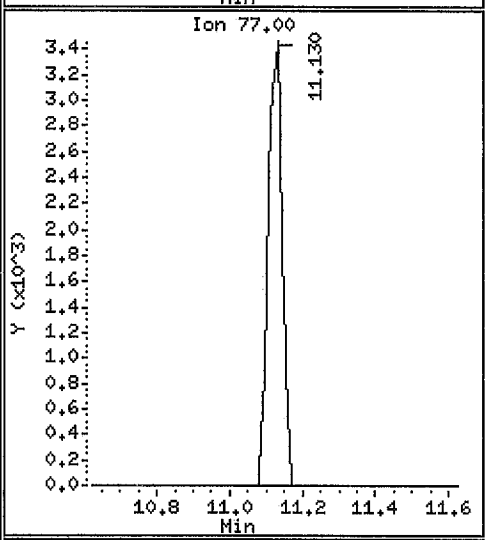


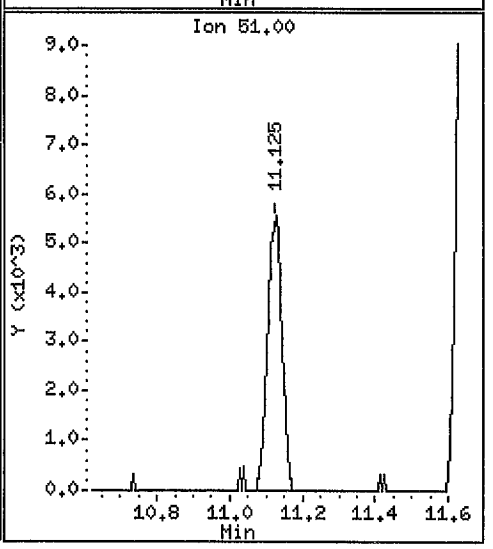












Data File: /var/chem/gcms/mj.i/J090810.b/16g9g1aa.d

Date : 08-SEP-2010 14:09

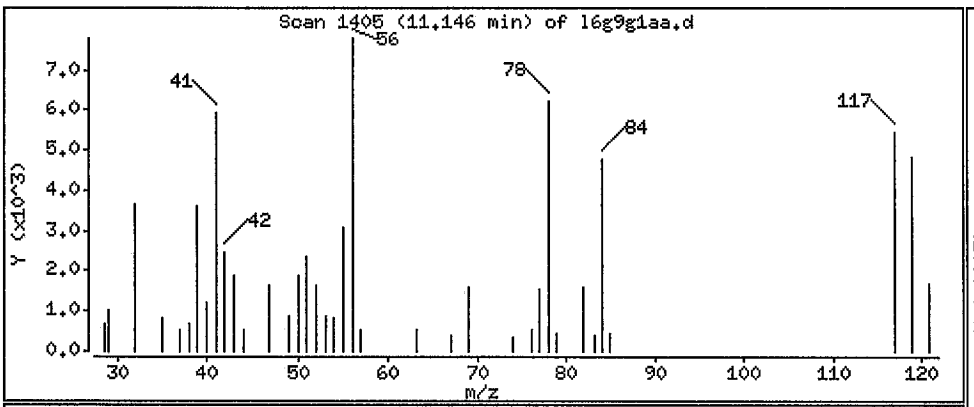
Client ID: SV-C-5-9 Instrument: mj.i

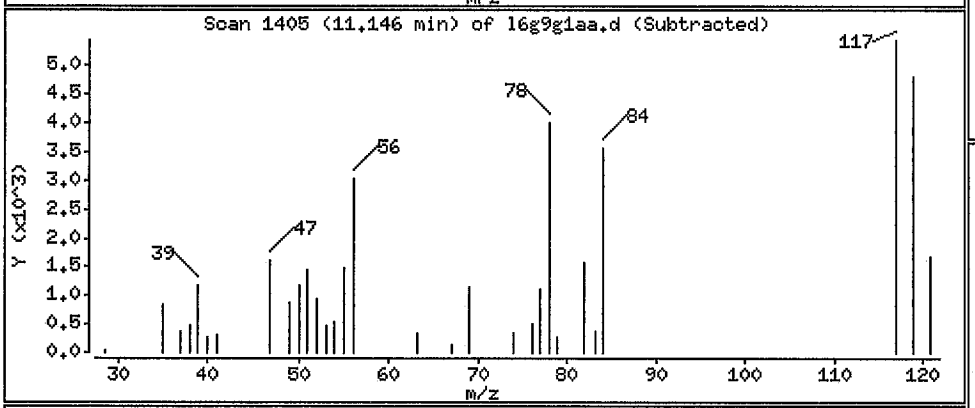
Sample Info: ,,0,,,

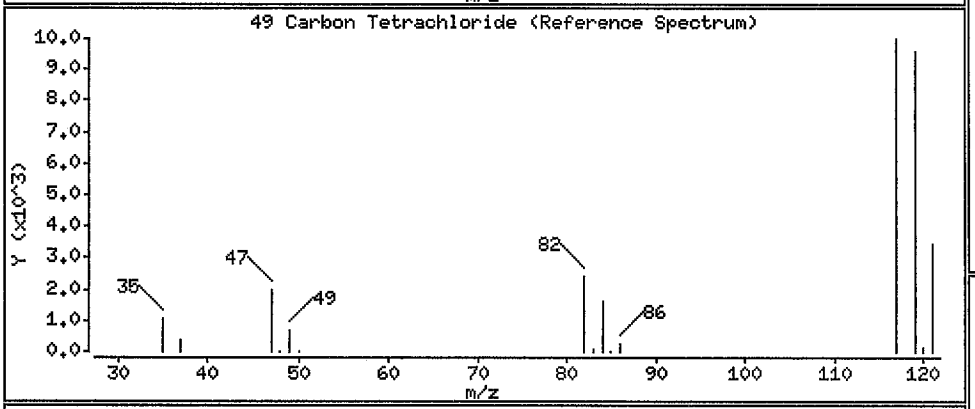
Purge Volume: 500.0 Operator: 7126

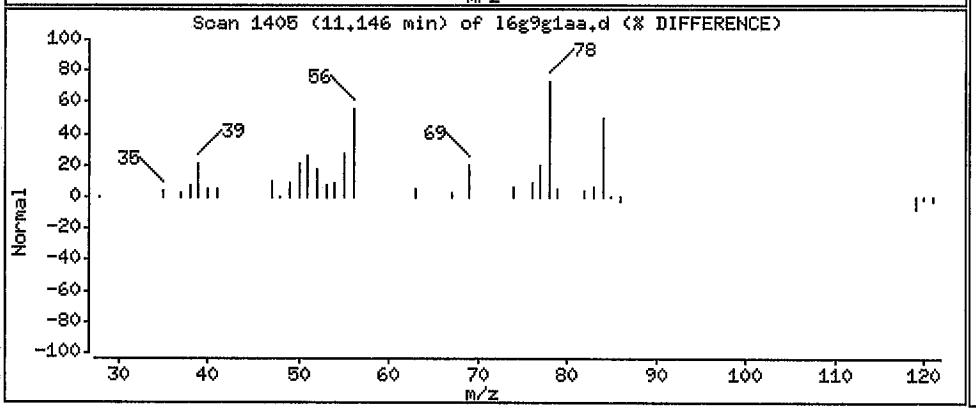
Column phase: Rtx-5 Column diameter: 0.32

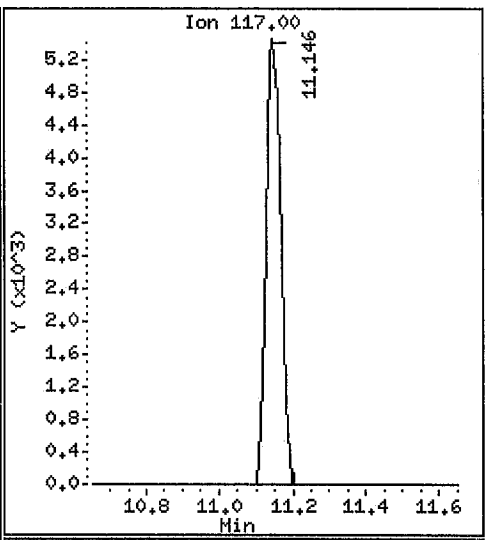
49 Carbon Tetrachloride Concentration: 0.09005 ppb(v/v)

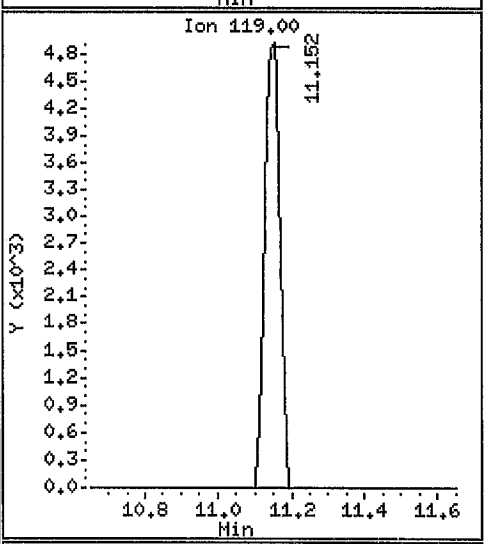


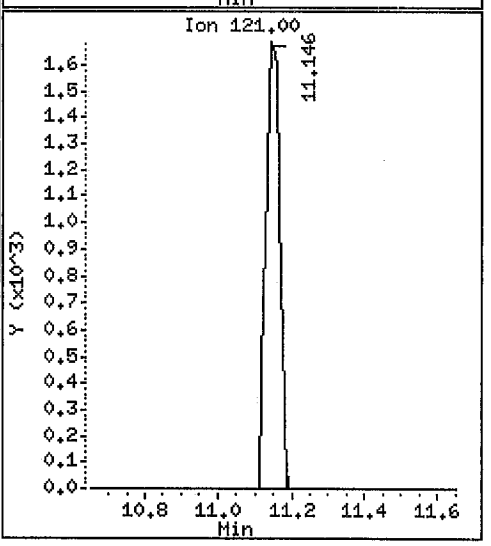












Data File: /var/chem/gcms/mj.i/J090810.b/16g9g1aa.d

Date : 08-SEP-2010 14:09

Client ID: SV-C-5-9

Instrument: mj.i

Sample Info: ,,0,,,

Purge Volume: 500.0

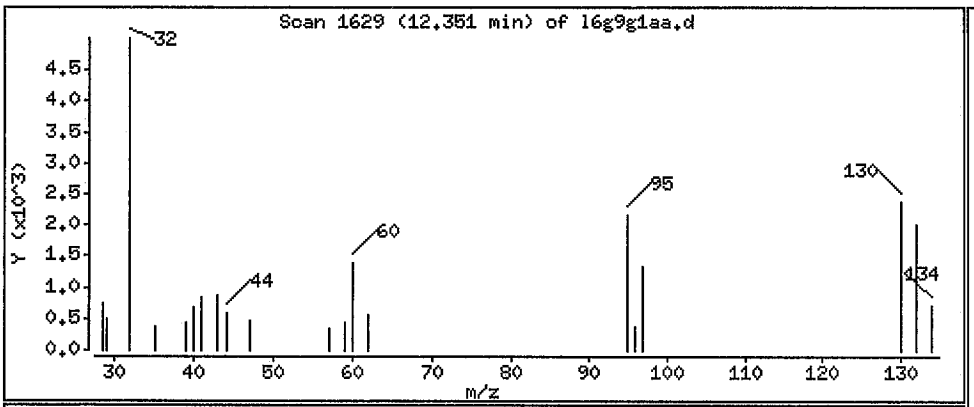
Operator: 7126

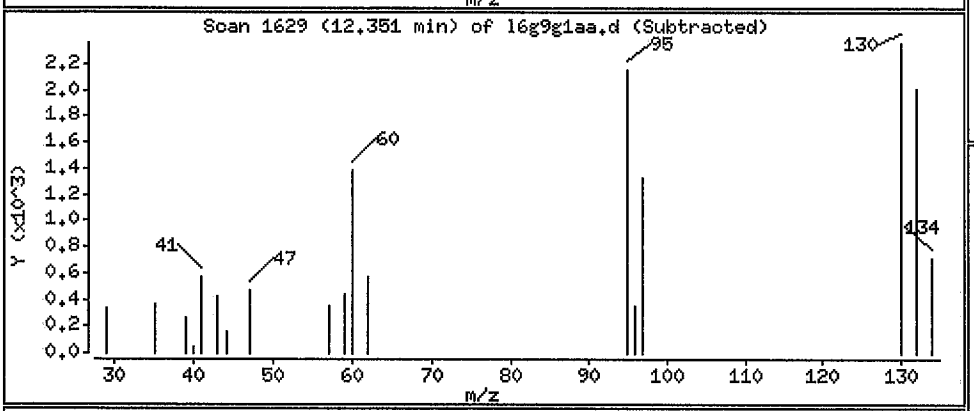
Column phase: Rtx-5

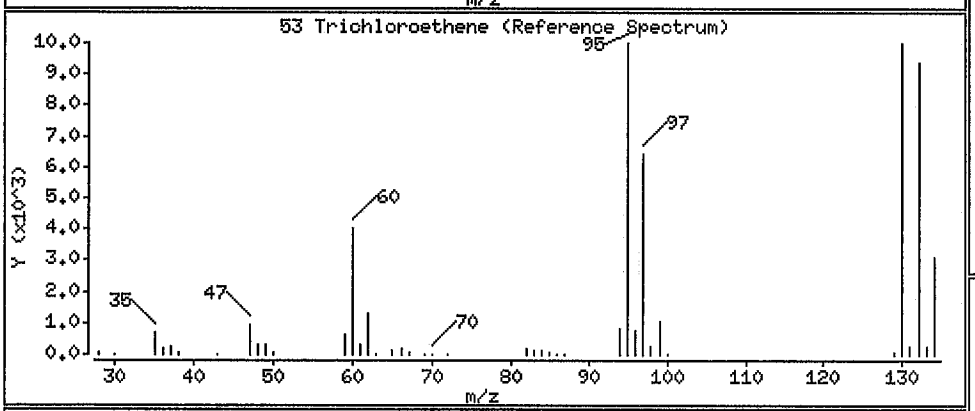
Column diameter: 0.32

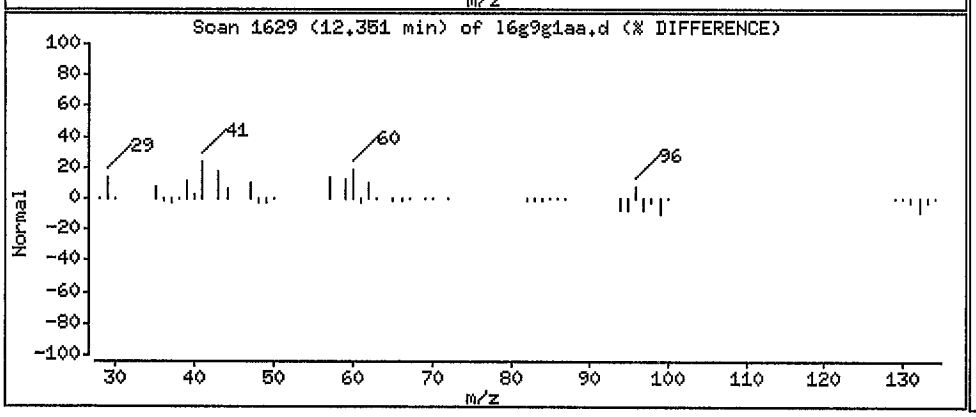
53 Trichloroethene

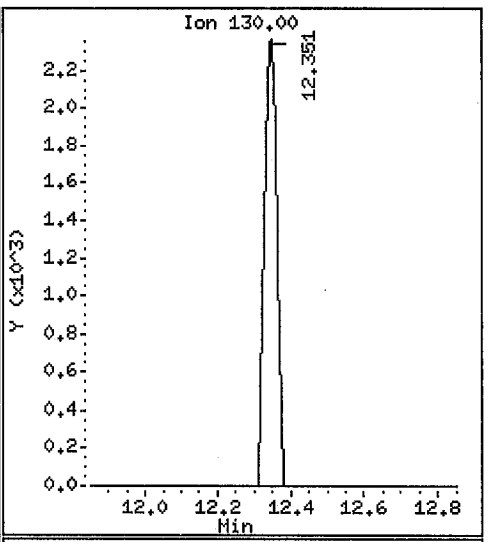
Concentration: 0.05306 ppb(v/v)

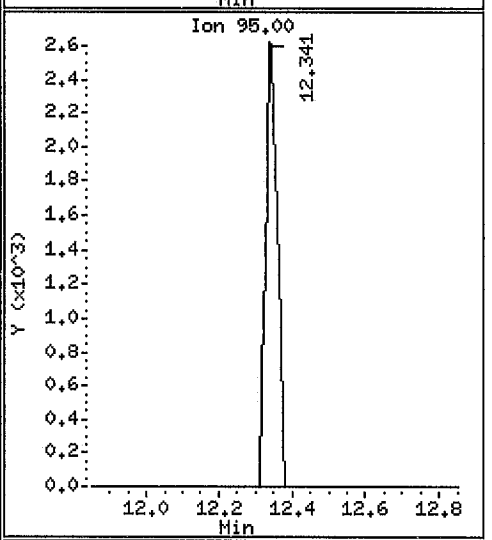


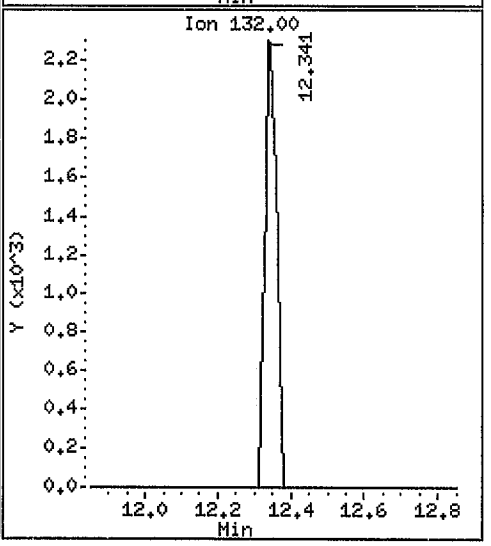












Data File: /var/chem/gcms/mj.i/J090810.b/16g9g1aa.d

Date : 08-SEP-2010 14:09

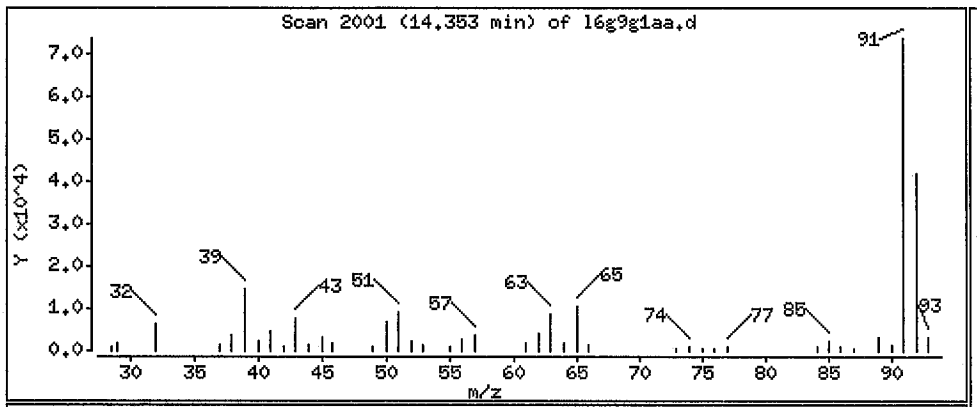
Client ID: SV-C-5-9 Instrument: mj.i

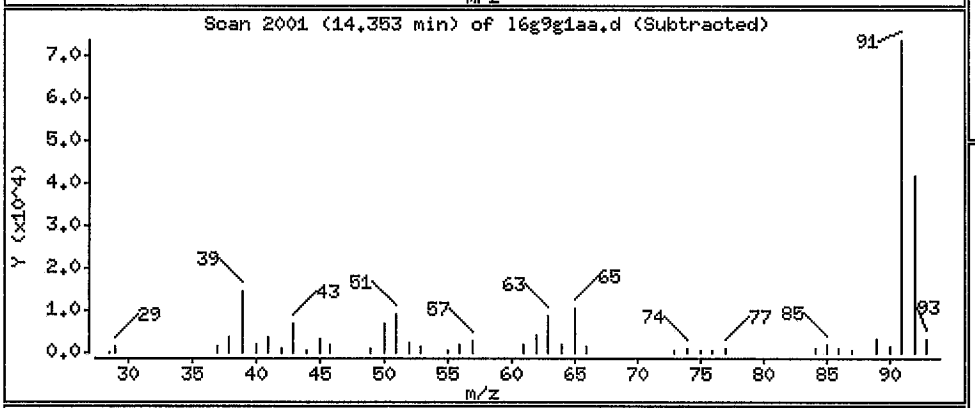
Sample Info: ,,0,,,

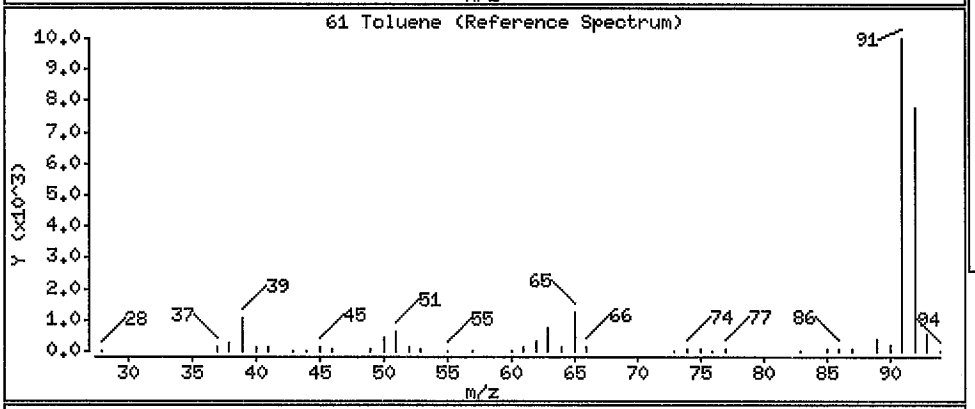
Purge Volume: 500.0 Operator: 7126

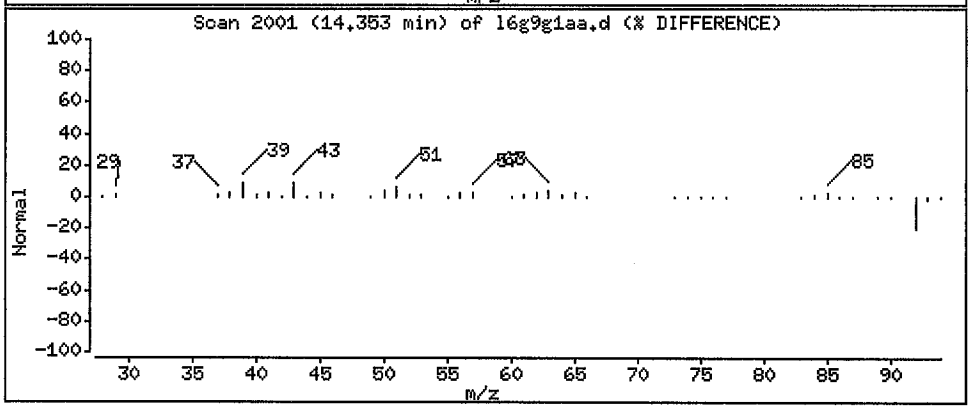
Column phase: Rtx-5 Column diameter: 0.32

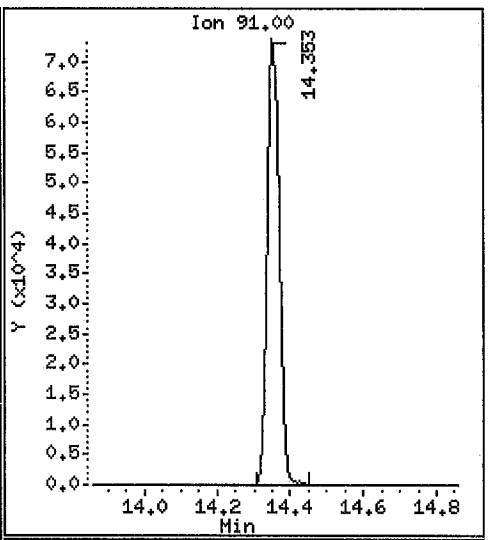
61 Toluene Concentration: 0.8057 ppb(v/v)

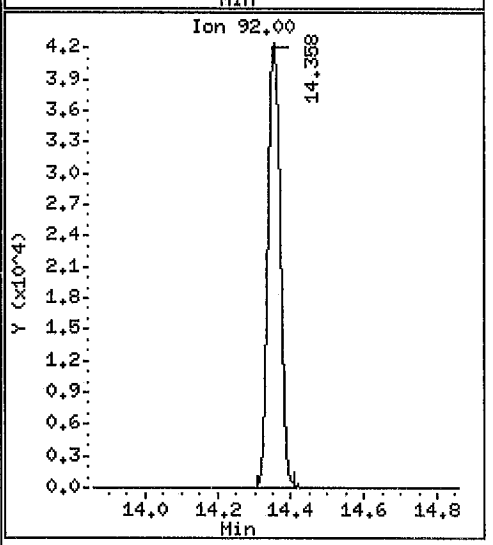












Data File: /var/chem/goms/mj.i/J090810.b/l6g9g1aa.d

Date : 08-SEP-2010 14:09

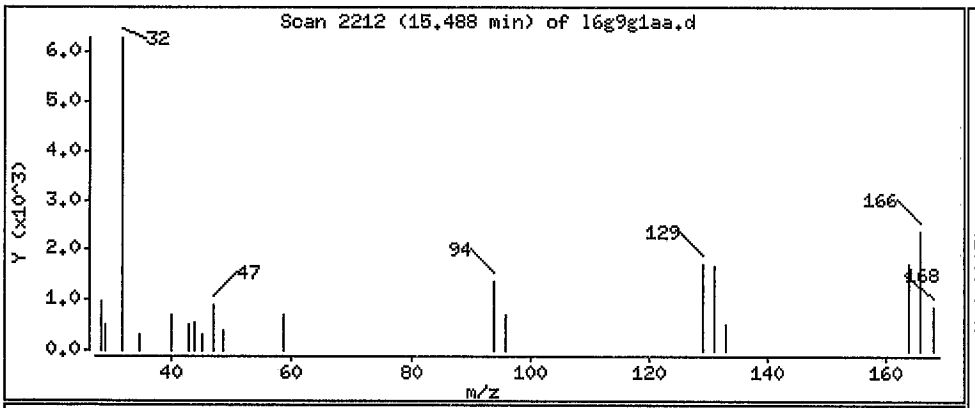
Client ID: SV-C-5-9 Instrument: mj.i

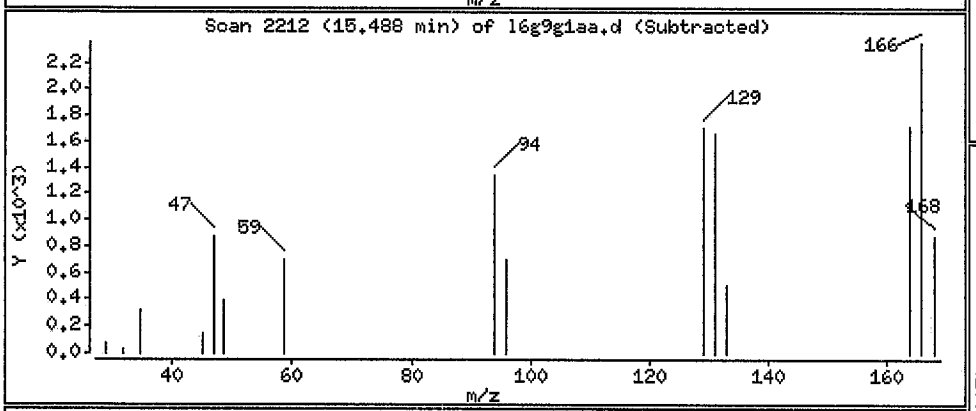
Sample Info: ,,0,,,

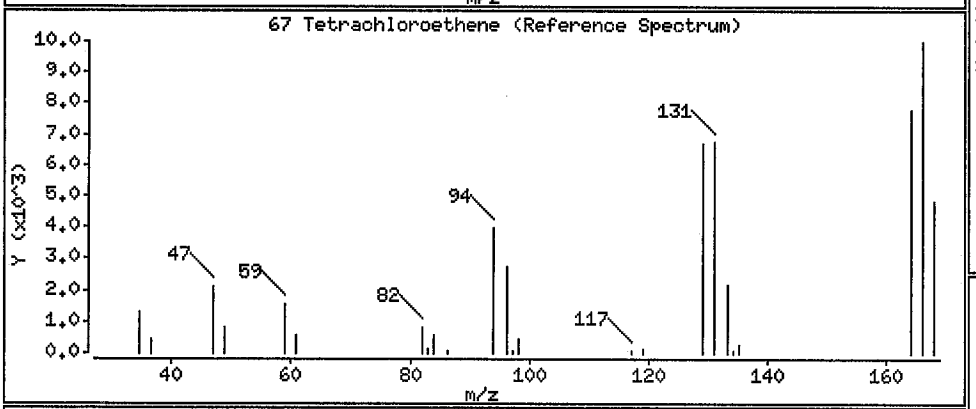
Purge Volume: 500.0 Operator: 7126

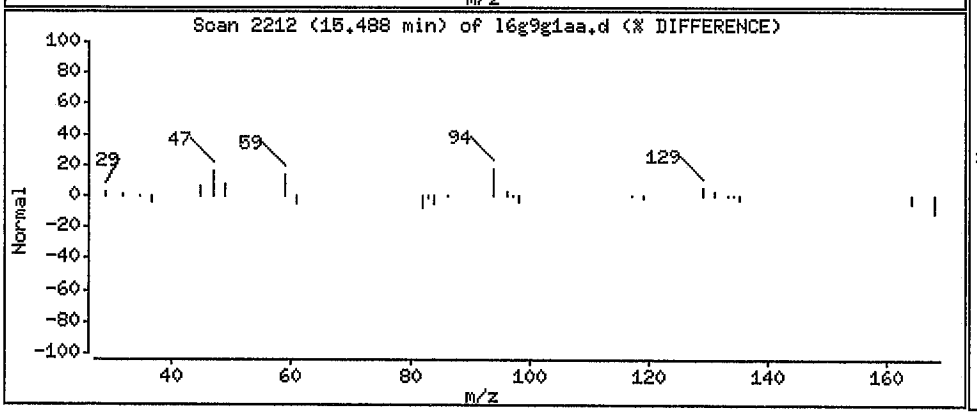
Column phase: Rtx-5 Column diameter: 0.32

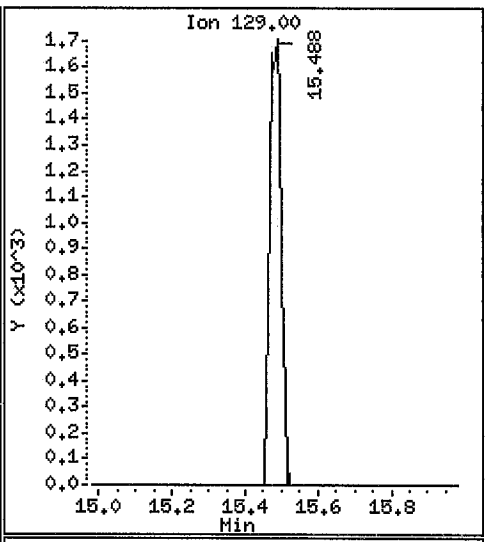
67 Tetrachloroethene Concentration: 0.04210 ppb(v/v)

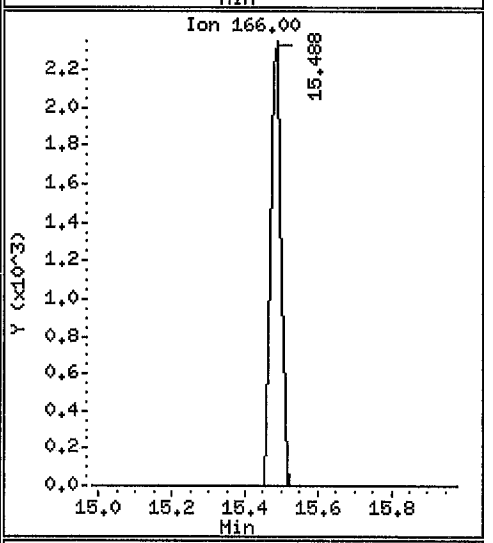


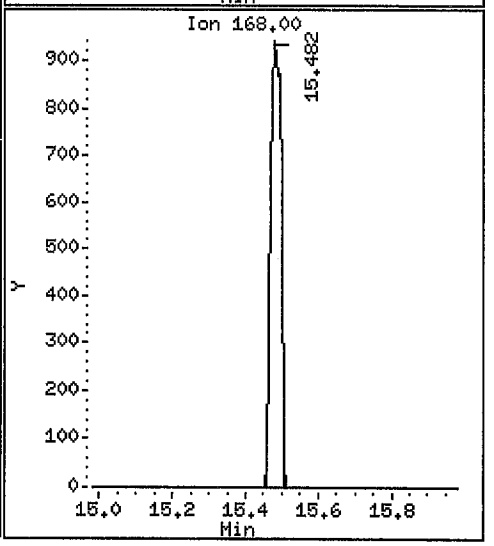












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9g1aa.d

Date : 08-SEP-2010 14:09

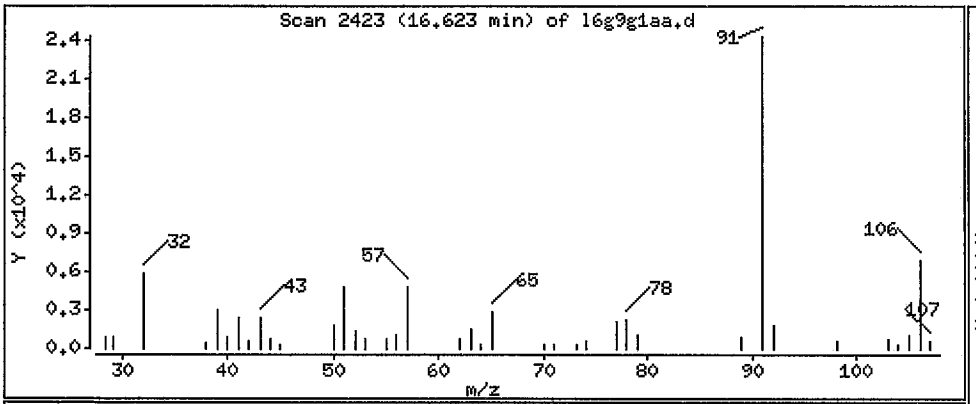
Client ID: SV-C-5-9 Instrument: mj.i

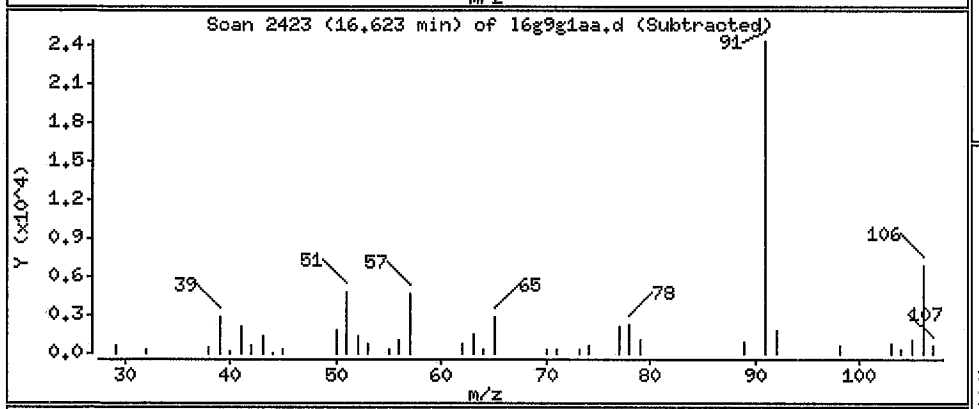
Sample Info: ,,0,,,

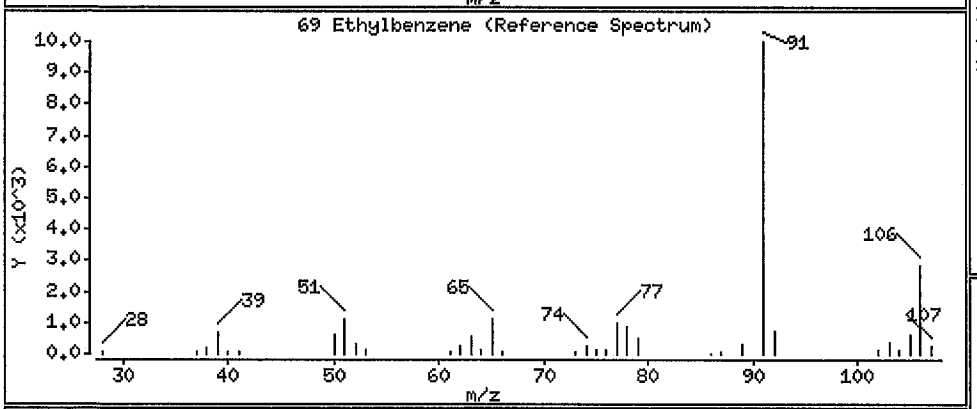
Purge Volume: 500.0 Operator: 7126

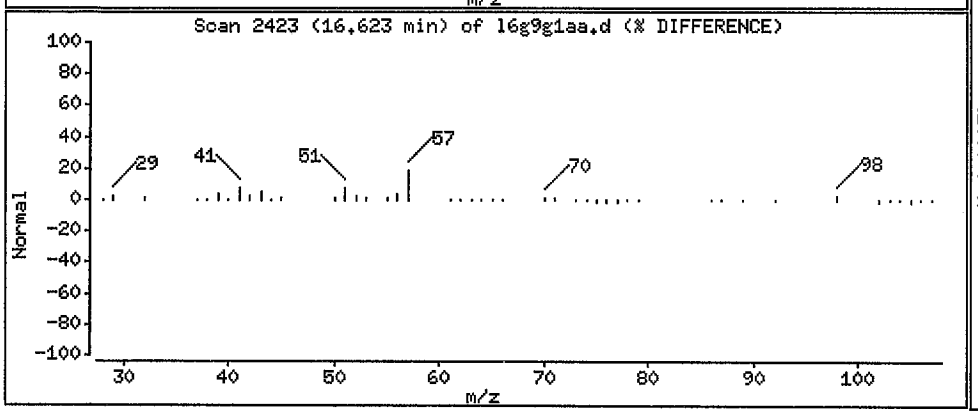
Column phase: Rtx-5 Column diameter: 0.32

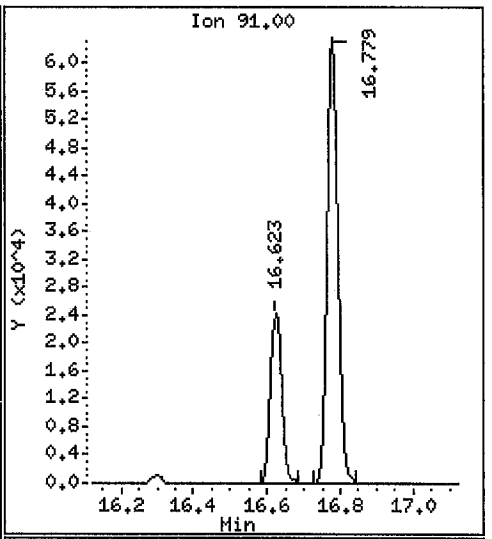
69 Ethylbenzene Concentration: 0.2162 ppb(v/v)

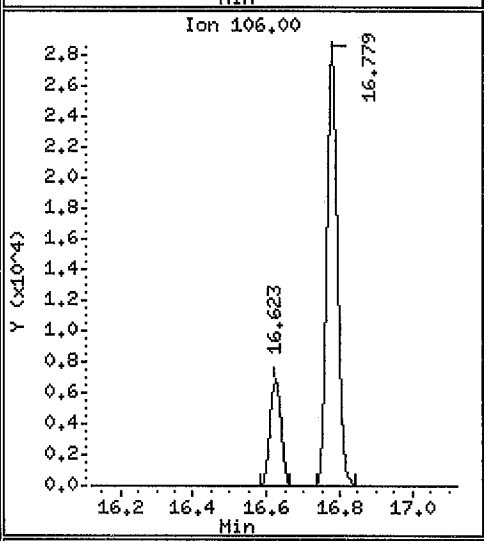


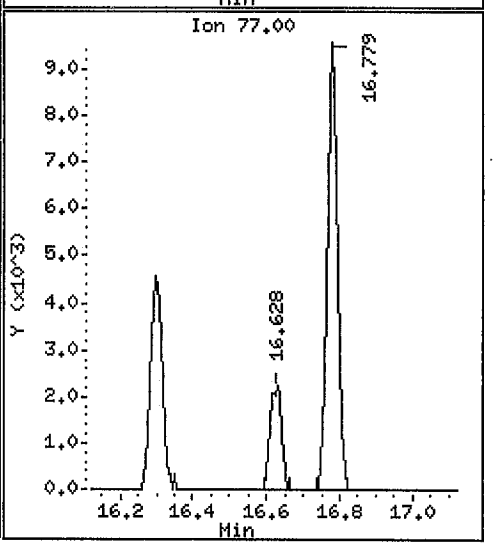












Data File: /var/chem/gcms/mj.i/J090810.b/16g9g1aa.d

Date : 08-SEP-2010 14:09

Client ID: SV-C-5-9

Instrument: mj.i

Sample Info: ,,0,,,

Purge Volume: 500.0

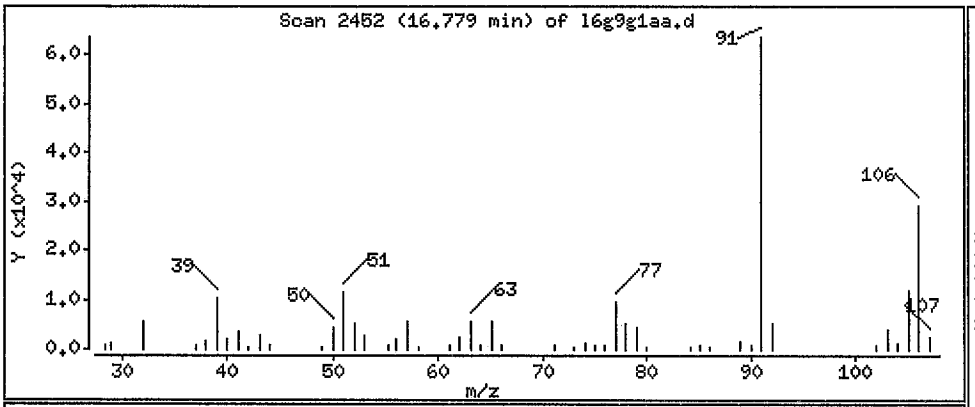
Operator: 7126

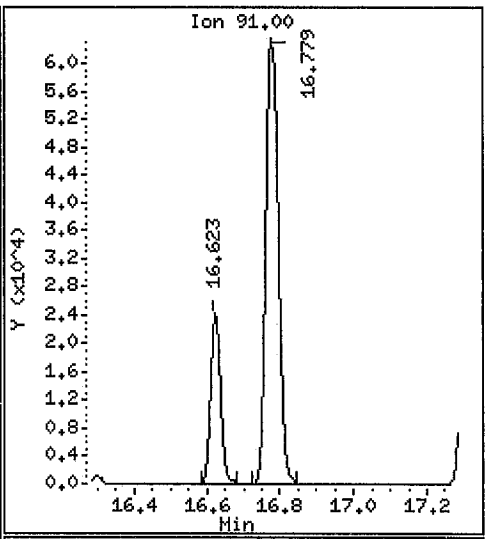
Column phase: Rtx-5

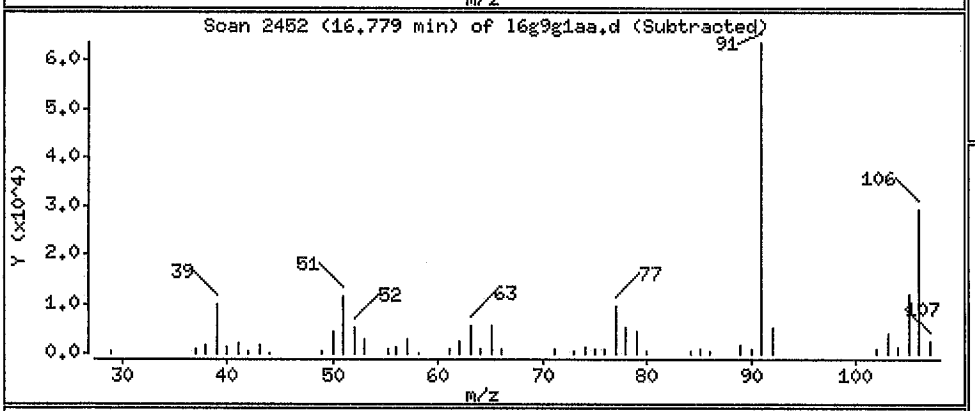
Column diameter: 0.32

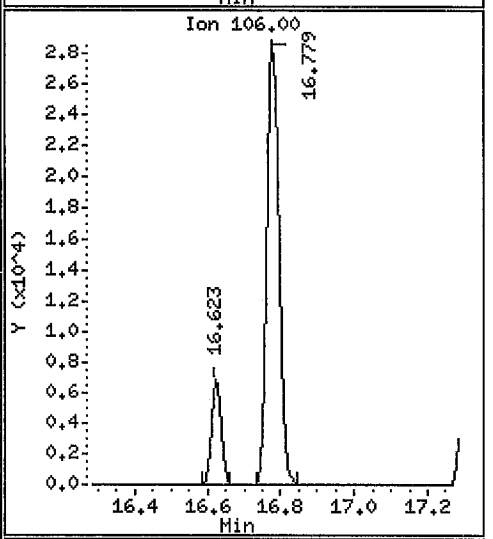
70 m&p-Xylene

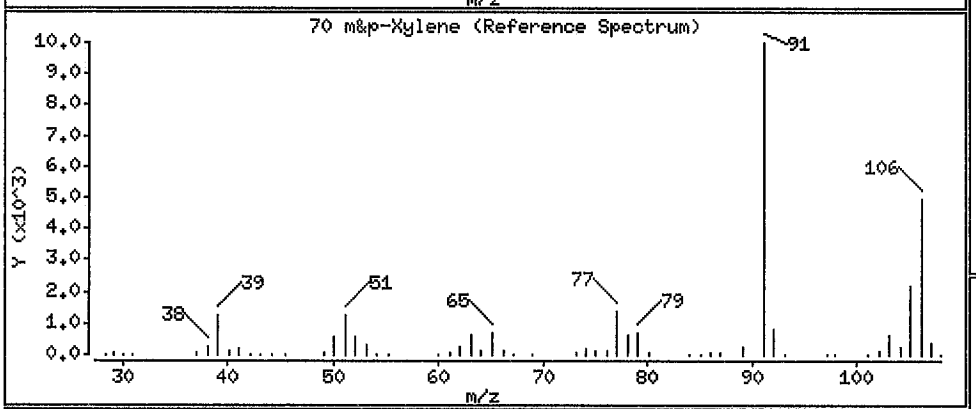
Concentration: 0.8195 ppb(v/v)

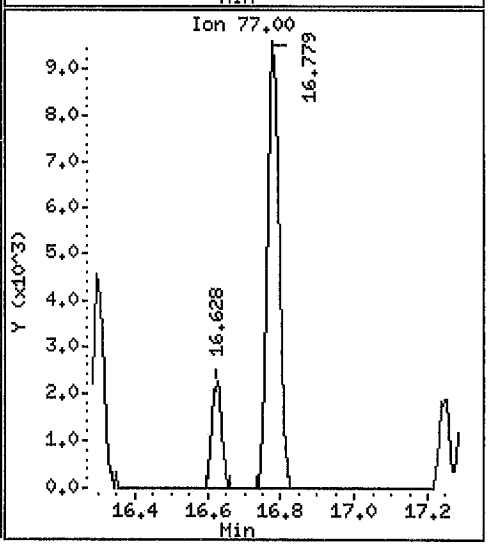


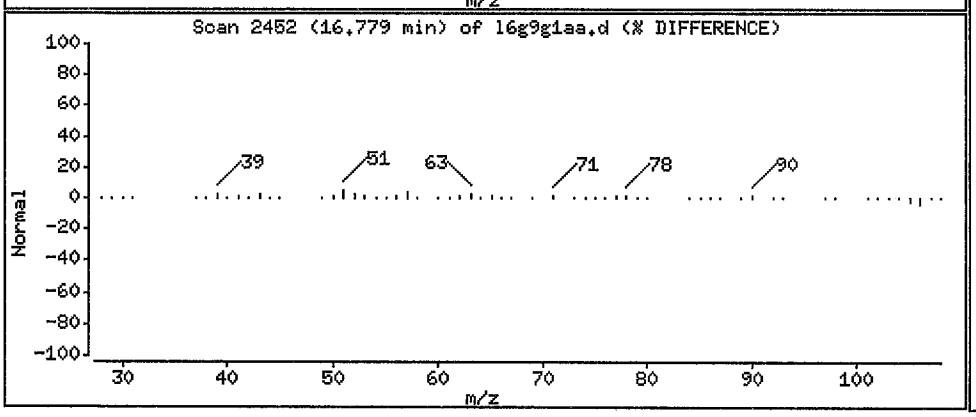












Data File: /var/chem/goms/mj.i/J090810.b/16g9g1aa.d

Date : 08-SEP-2010 14:09

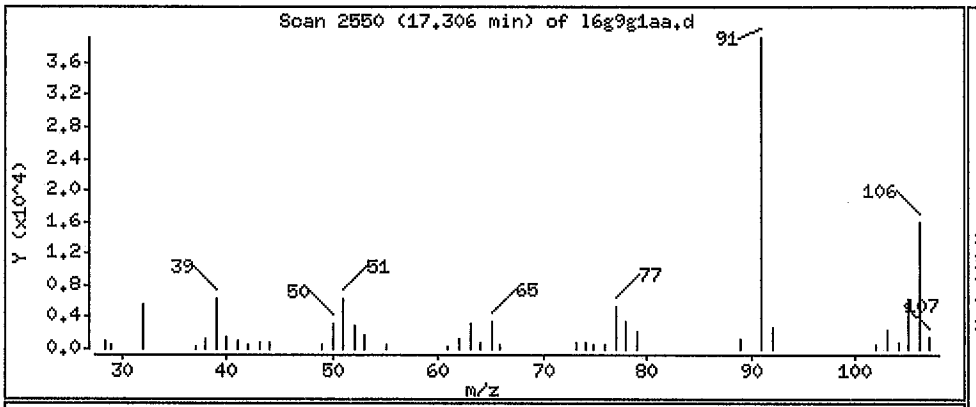
Client ID: SV-C-5-9 Instrument: mj.i

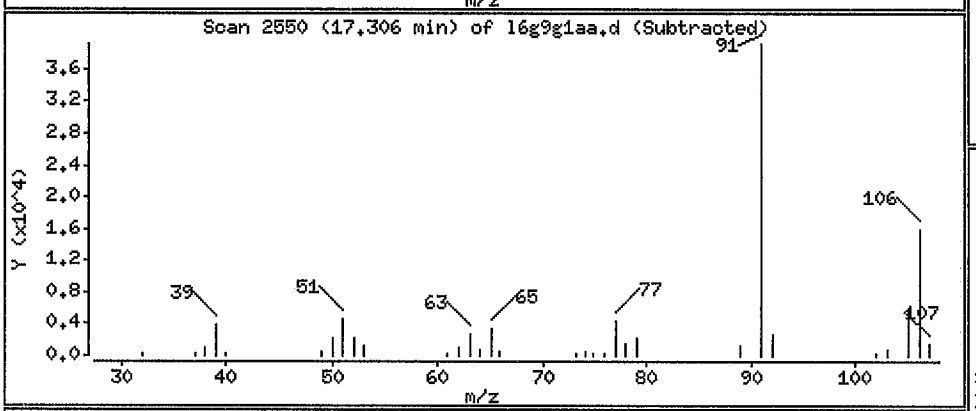
Sample Info: ,,0,,,

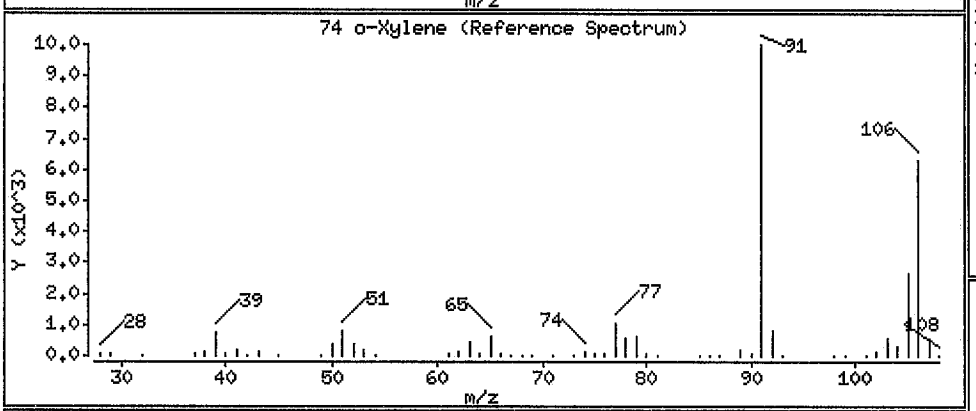
Purge Volume: 500.0 Operator: 7126

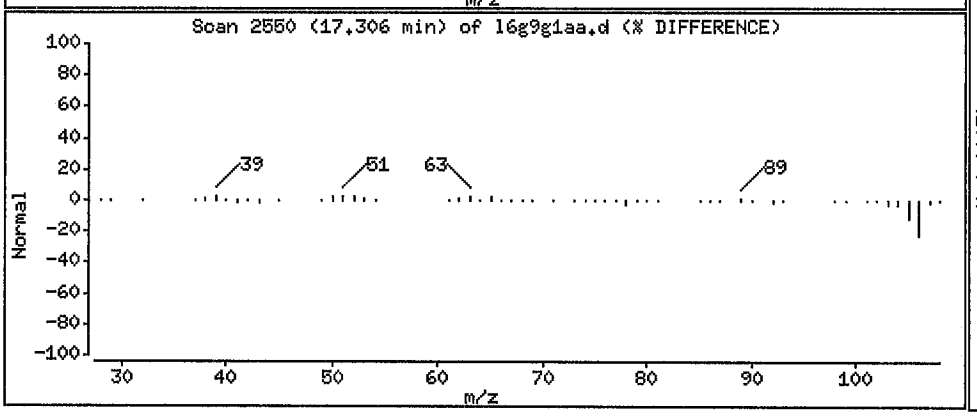
Column phase: Rtx-5 Column diameter: 0.32

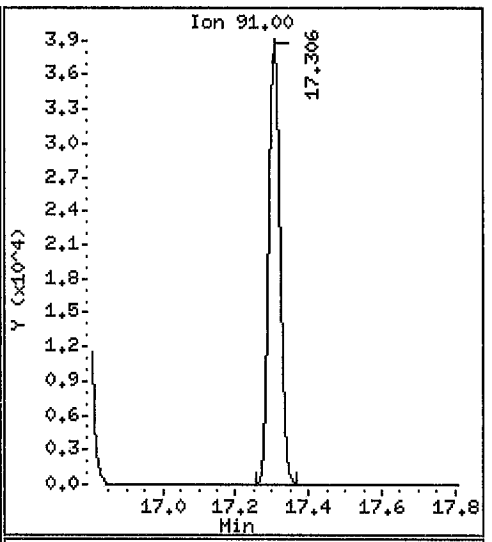
74 o-Xylene Concentration: 0.4306 ppb(v/v)

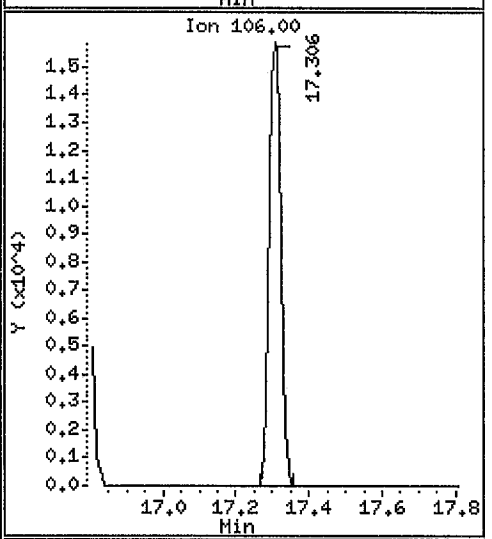


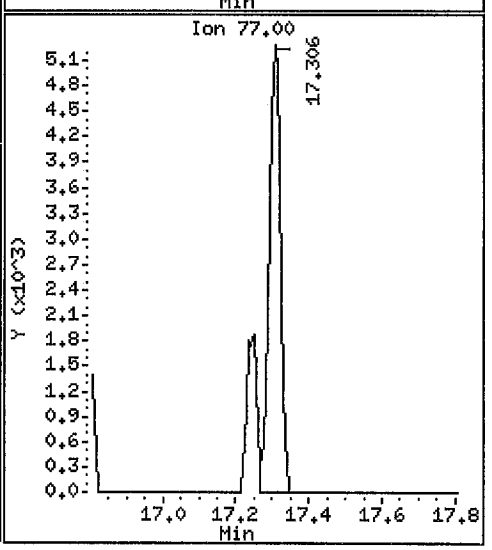












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9g1aa.d

Date : 08-SEP-2010 14:09

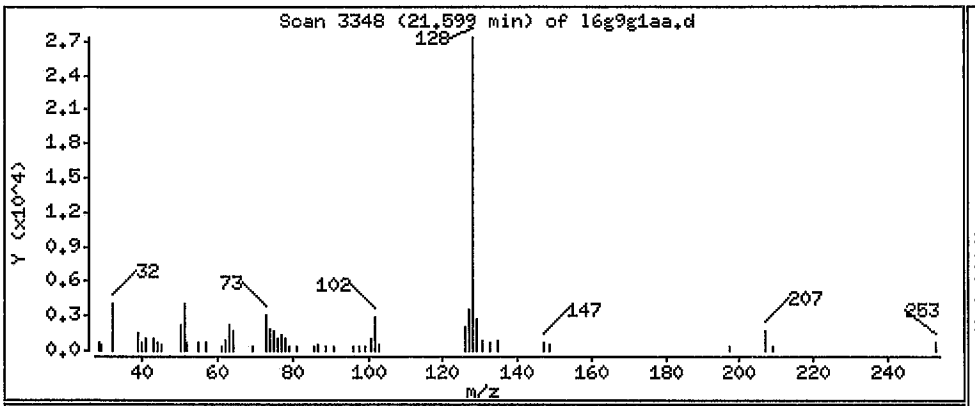
Client ID: SV-C-5-9 Instrument: mj.i

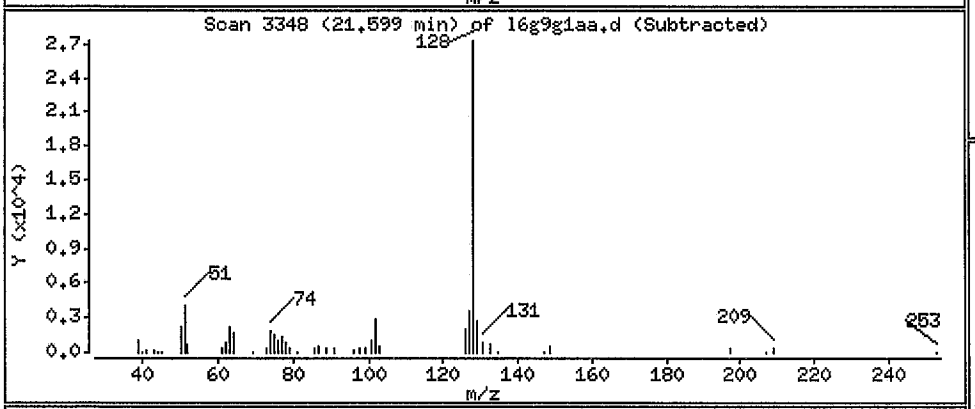
Sample Info: ,,0,,,

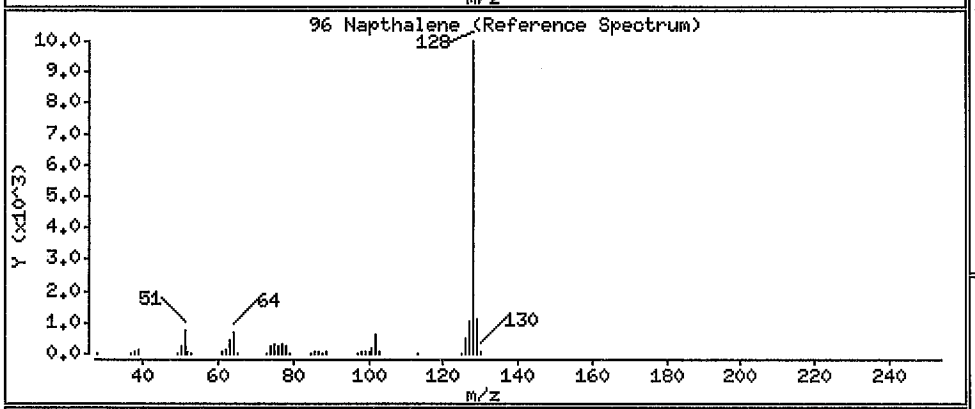
Purge Volume: 500.0 Operator: 7126

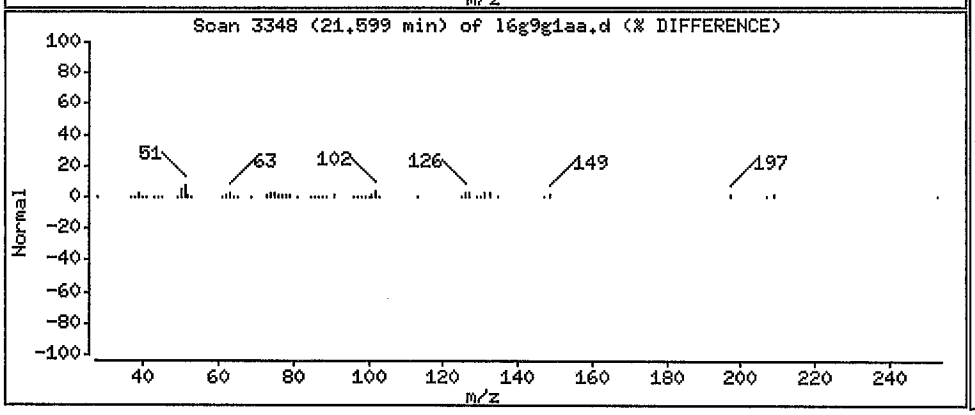
Column phase: Rtx-5 Column diameter: 0.32

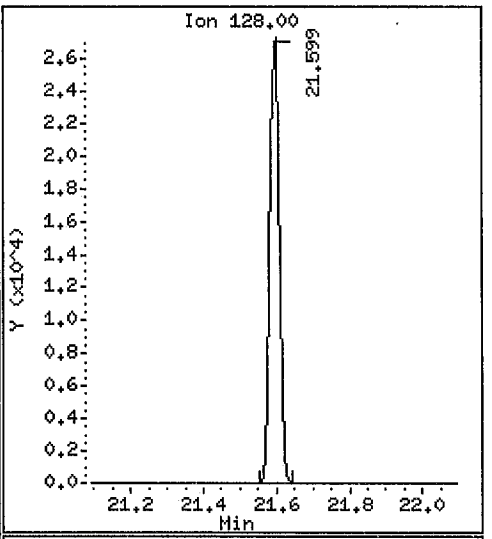
96 Napthalene Concentration: 0.2654 ppb(v/v)

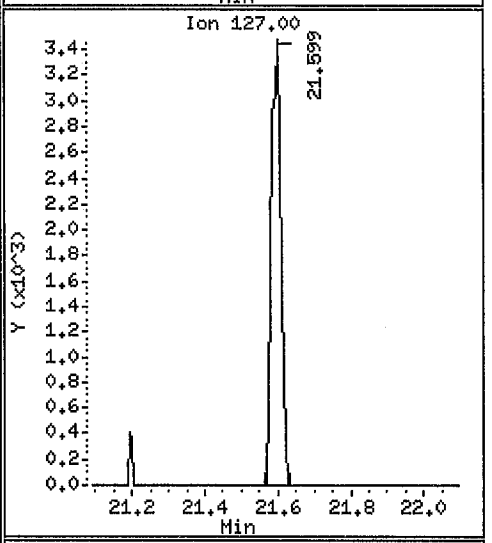


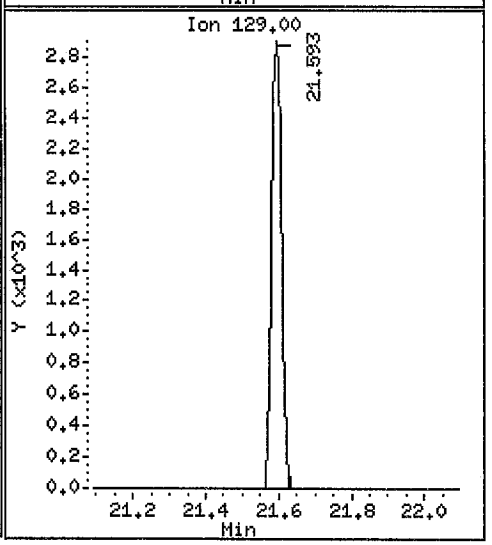












Tetra Tech NUS, Inc

Client Sample ID: ISG-3-C-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 004 **Work Order #** L6G9H1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.80	0.23	ND	2.6	0.73
Carbon tetrachloride	**0.55**	**0.80**	**0.15**	**3.4 J**	**5.0**	**0.94**
Chlorodifluoromethane	**2.2**	**0.80**	**0.15**	**7.8**	**2.8**	**0.53**
Chloroform	**3.3**	**0.80**	**0.15**	**16**	**3.9**	**0.73**
Dichlorodifluoromethane	**0.56**	**0.80**	**0.27**	**2.8 J**	**4.0**	**1.3**
1,1-Dichloroethane	ND	0.80	0.10	ND	3.2	0.40
1,2-Dichloroethane	ND	0.80	0.19	ND	3.2	0.77
cis-1,2-Dichloroethene	**0.47**	**0.80**	**0.24**	**1.9 J**	**3.2**	**0.95**
trans-1,2-Dichloroethene	ND	0.80	0.20	ND	3.2	0.79
1,1-Dichloroethene	ND	0.80	0.13	ND	3.2	0.52
Ethylbenzene	**0.37**	**0.80**	**0.27**	**1.6 J**	**3.5**	**1.2**
Methylene chloride	**0.54**	**2.0**	**0.18**	**1.9 J**	**6.9**	**0.63**
Methyl tert-butyl ether	ND	4.0	0.68	ND	14	2.5
Naphthalene	**0.75**	**2.0**	**0.36**	**4.0 J**	**10**	**1.9**
Tetrachloroethene	**1.8**	**0.80**	**0.16**	**12**	**5.4**	**1.1**
Toluene	**3.0**	**0.80**	**0.21**	**11**	**3.0**	**0.79**
1,2,4-Trichlorobenzene	ND	4.0	0.39	ND	30	2.9
1,1,1-Trichloroethane	**0.59**	**0.80**	**0.12**	**3.2 J**	**4.4**	**0.65**
1,1,2-Trichloroethane	ND	0.80	0.21	ND	4.4	1.1
Trichloroethene	**70**	**0.40**	**0.14**	**370**	**2.1**	**0.75**
Vinyl chloride	ND	0.80	0.29	ND	2.0	0.74
m-Xylene & p-Xylene	**1.8**	**0.80**	**0.50**	**7.9**	**3.5**	**2.2**
o-Xylene	**2.1**	**0.80**	**0.24**	**8.9**	**3.5**	**1.0**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9h1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/l6g9h1aa.d
Lab Smp Id: L6G9H1AA Client Smp ID: ISG-3-C-9
Inj Date : 08-SEP-2010 15:02
Operator : 7126 Inst ID: mj.i
Smp Info : ,10,0,,,
Misc Info : J090810,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 10-Sep-2010 14:16 barlozha Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 4
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
*	1 Bromochloromethane	128	9.468	9.479	(1.000)	185310	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.636	11.642	(1.000)	920889	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.300	16.300	(1.000)	793824	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.913	17.914	(1.099)	613426	4.07136	4.071
	7 Chlorodifluoromethane	67	3.900	3.901	(0.412)	5180	0.22106	2.210
	8 Dichlorodifluoromethane	85	3.970	3.970	(0.419)	11356	0.05644	0.5644
	31 Methylene Chloride	84	6.783	6.784	(0.716)	3268	0.05420	0.5420
	40 cis 1,2-Dichloroethene	96	9.129	9.129	(0.964)	2966	0.04701	0.4701
	42 Chloroform	83	9.473	9.479	(1.001)	44353	0.32969	3.297
	44 1,1,1-Trichloroethane	97	10.533	10.544	(1.113)	8202	0.05853	0.5853
	49 Carbon Tetrachloride	117	11.141	11.152	(0.957)	8360	0.05481	0.5481
	53 Trichloroethene	130	12.340	12.352	(1.061)	660052	6.97297	69.73
	61 Toluene	91	14.358	14.358	(0.881)	56936	0.30456	3.046
	67 Tetrachloroethene	129	15.482	15.483	(0.950)	14179	0.18154	1.815
	69 Ethylbenzene	91	16.622	16.623	(1.020)	7850	0.03662	0.3662

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9h1aa.d
Report Date: 10-Sep-2010 14:29

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
70 m&p-Xylene	91	16.778	16.784	(1.029)	29543	0.18224	1.822
74 o-Xylene	91	17.306	17.306	(1.062)	34675	0.20564	2.056
96 Napthalene	128	21.598	21.594	(1.325)	12313	0.07537	0.7537

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9h1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9h1aa.d
Lab Smp Id: L6G9H1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: ISG-3-C-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	185310	-5.00
2 1,4-Difluorobenze	936174	557024	1315324	920889	-1.63
3 Chlorobenzene-d5	815161	485021	1145301	793824	-2.62

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.12
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.05
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

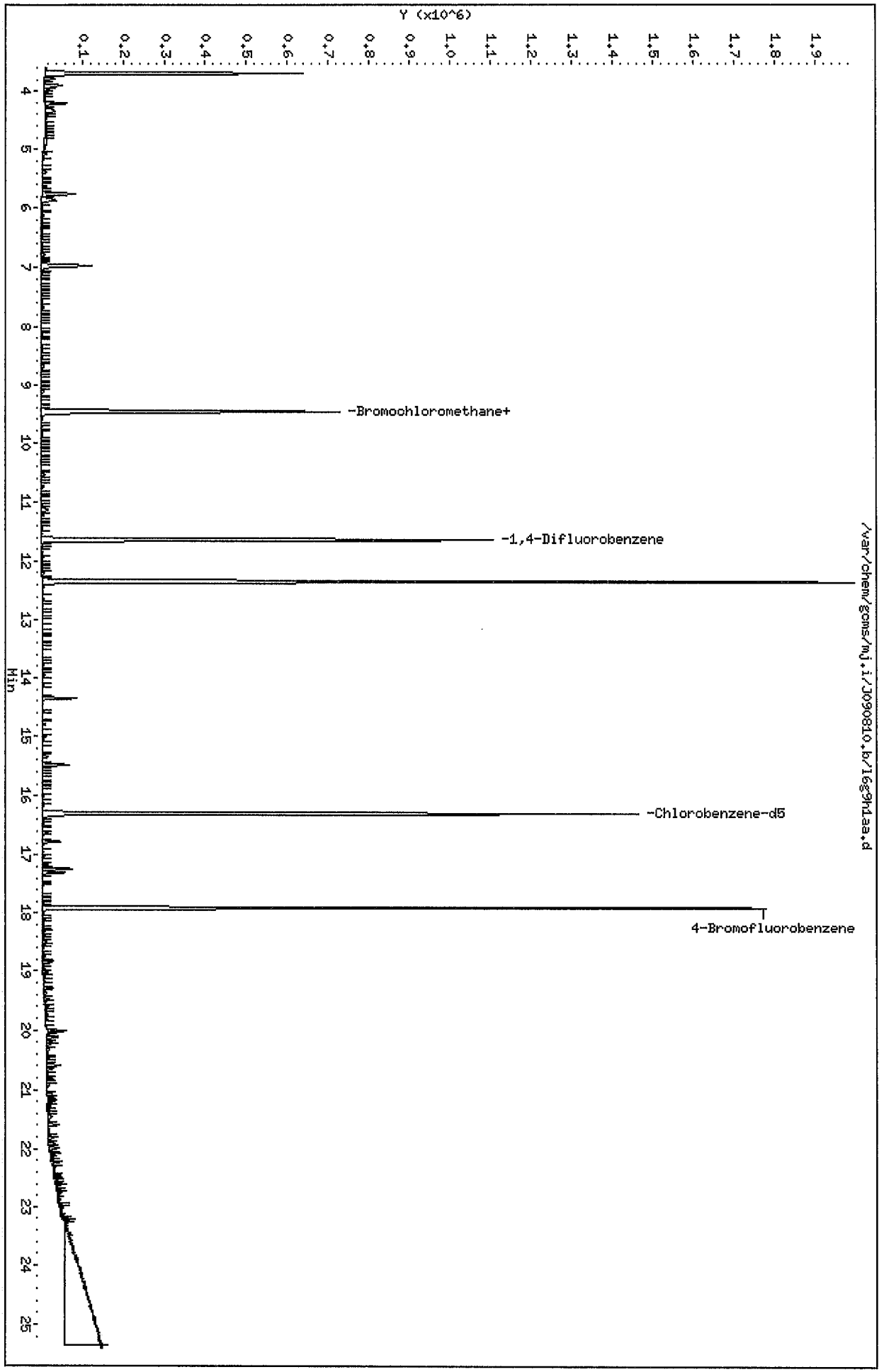
Data File: /var/chem/gcms/mj.i/J090810.b/l6g9h1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9H1AA
Client Smp ID: ISG-3-C-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.071	101.78	70-130


Data File: /var/chem/gcms/mj.i/J090810.b/16g9h1aa.d
Date : 08-SEP-2010 15:02
Client ID: ISC-3-C-9
Sample Info: ,10,0,,,
Purge Volume: 500.0
Column phase: Rtx-5
Instrument: mj.i
Operator: 7126
Column diameter: 0.32
Y (x10^6)
-Bromochloromethane+
-1,4-Difluorobenzene
-Chlorobenzene-d5
4-Bromofluorobenzene
/var/chem/gcms/mj.i/J090810.b/16g9h1aa.d
Min

Data File: /var/chem/gcms/mj.i/J090810.b/16g9h1aa.d

Date : 08-SEP-2010 15:02

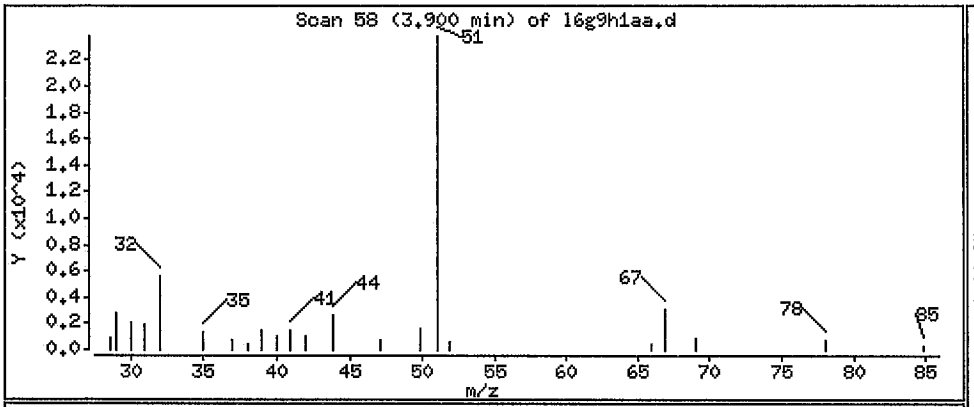
Client ID: ISC-3-C-9 Instrument: mj.i

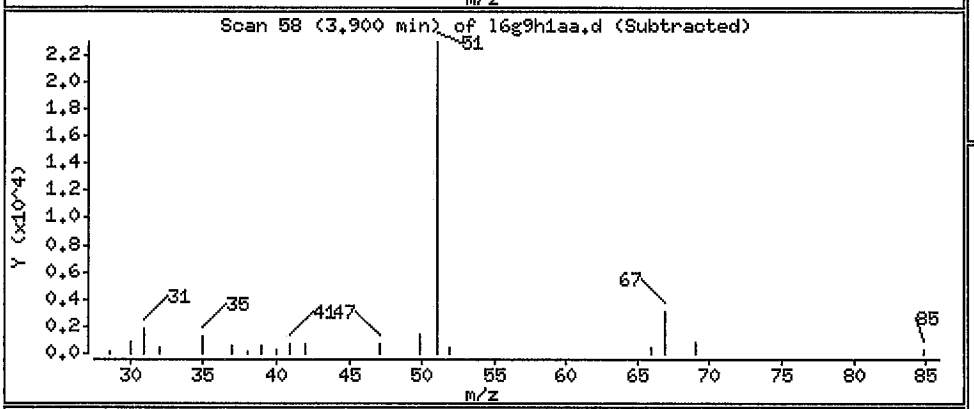
Sample Info: ,10,0,,,

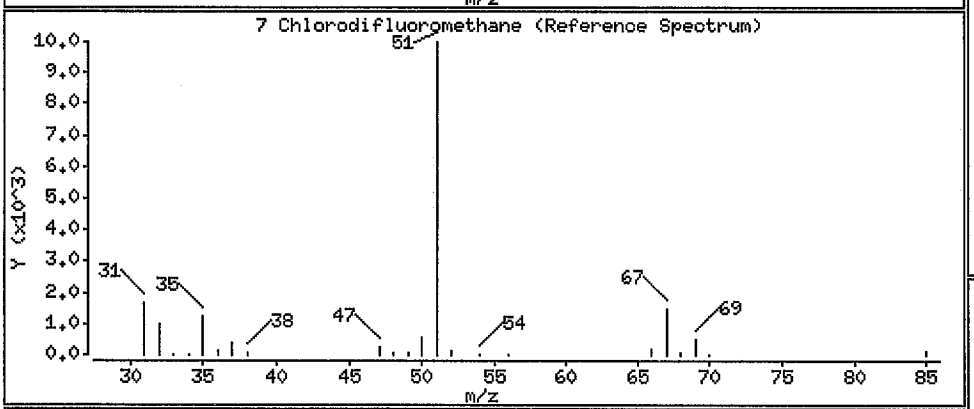
Purge Volume: 500.0 Operator: 7126

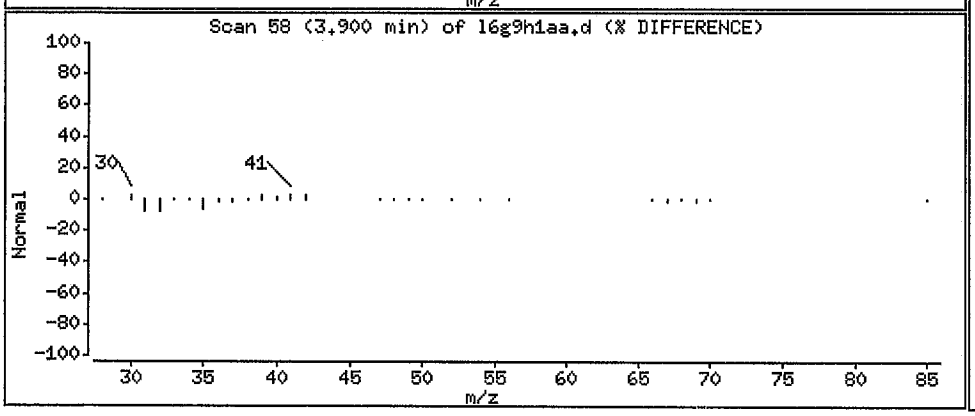
Column phase: Rtx-5 Column diameter: 0.32

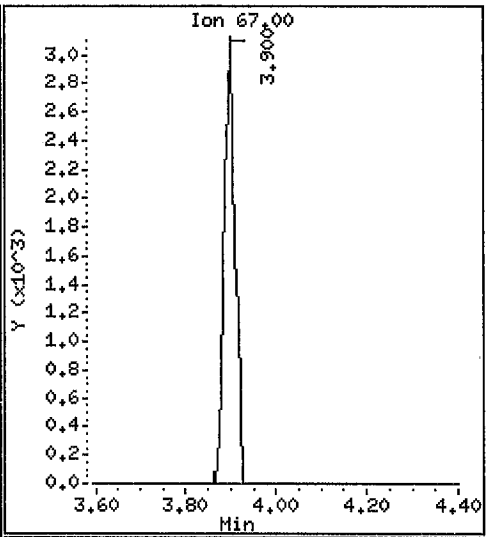
7 Chlorodifluoromethane Concentration: 2,210 ppb(v/v)

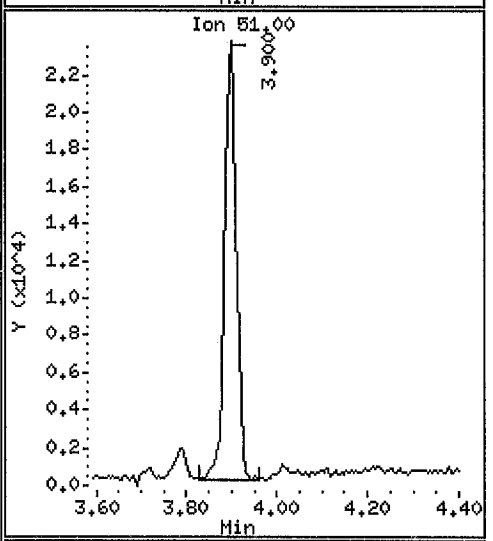


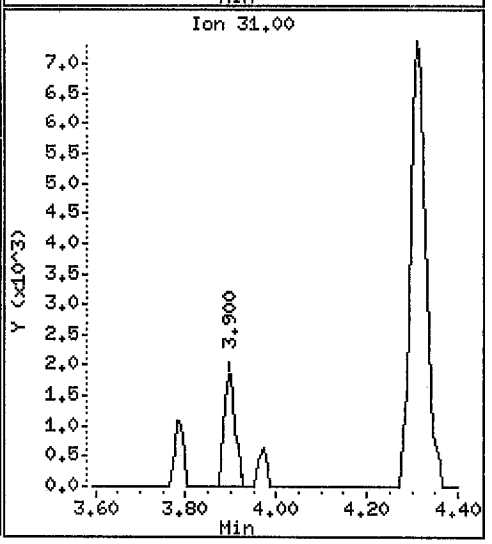












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9h1aa.d

Date : 08-SEP-2010 15:02

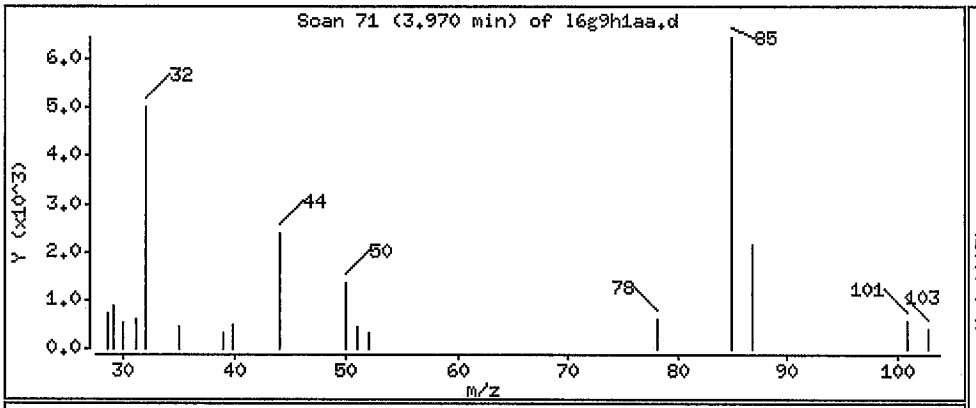
Client ID: ISG-3-C-9 Instrument: mj.i

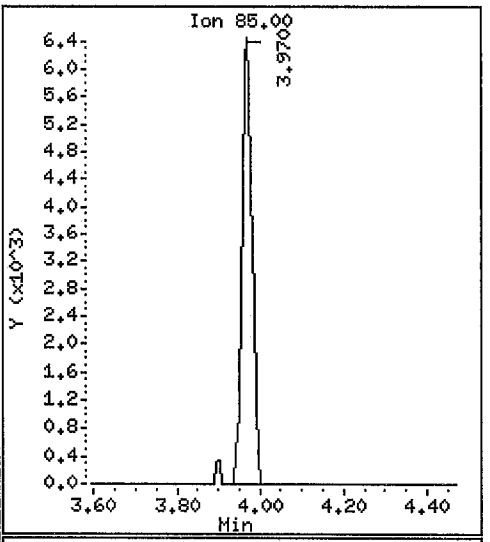
Sample Info: ,10,0,,,

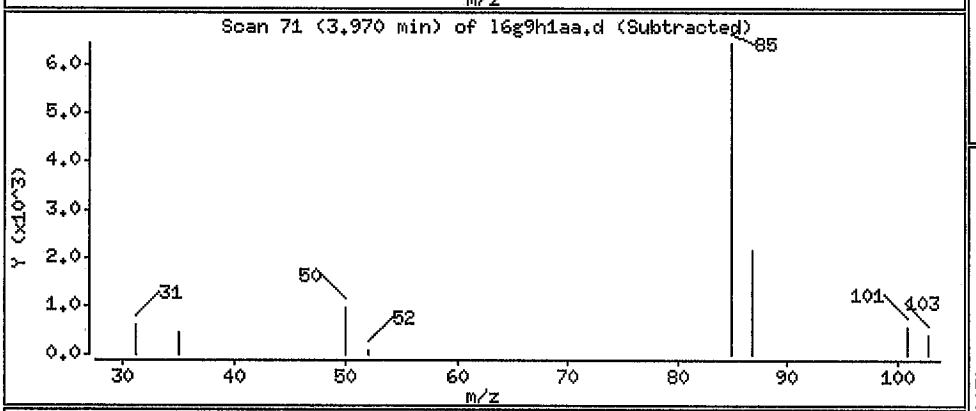
Purge Volume: 500.0 Operator: 7126

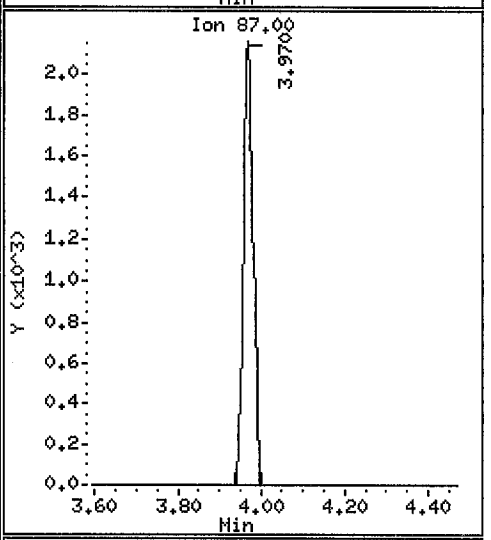
Column phase: Rtx-5 Column diameter: 0.32

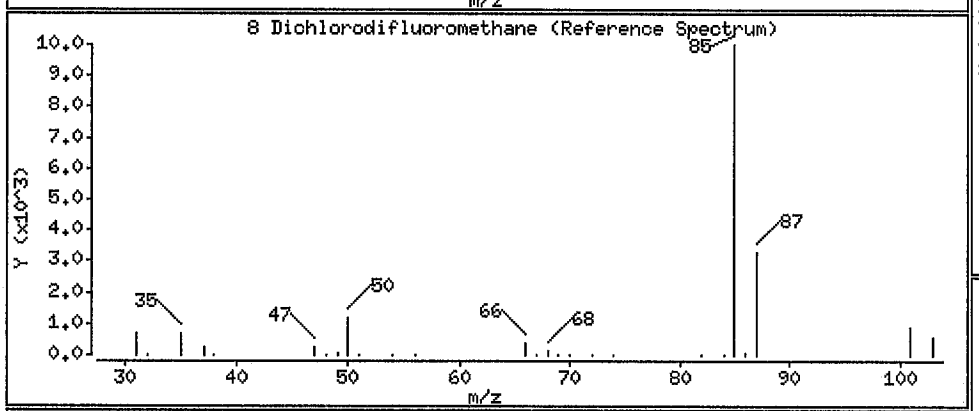
8 Dichlorodifluoromethane Concentration: 0.5644 ppb(v/v)

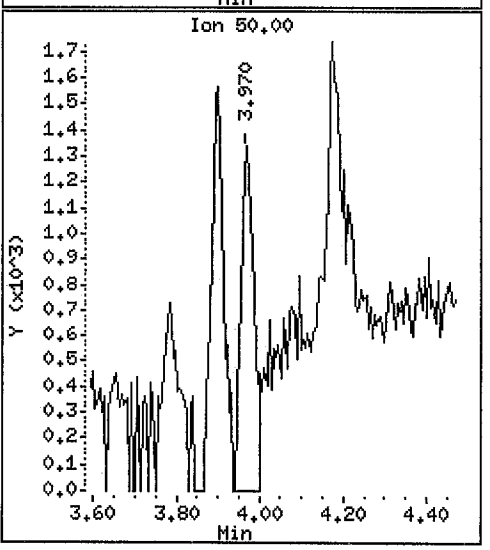


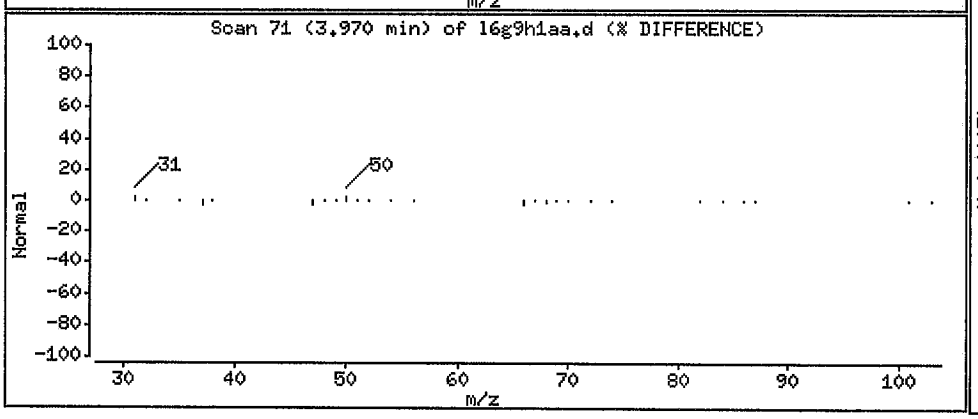












Data File: /var/chem/gcms/mj.i/J090810.b/16g9h1aa.d

Date : 08-SEP-2010 15:02

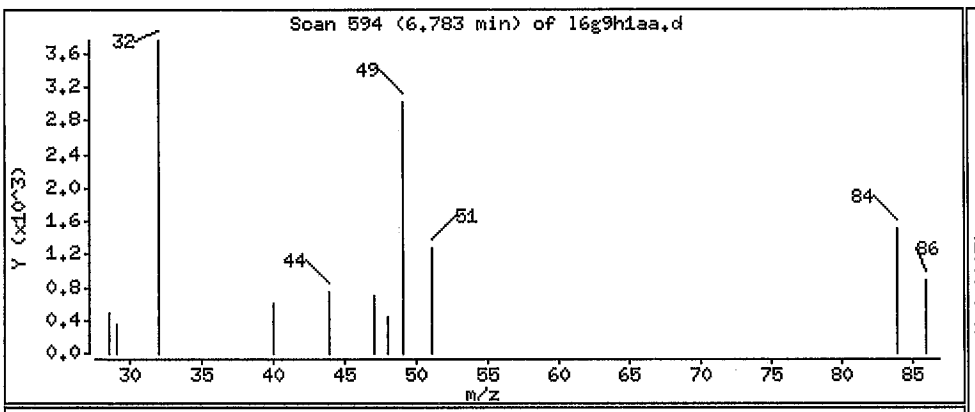
Client ID: ISC-3-C-9 Instrument: mj.i

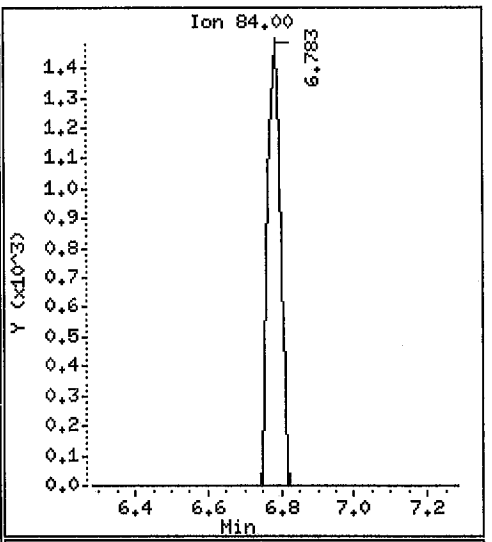
Sample Info: ,10,0,,,

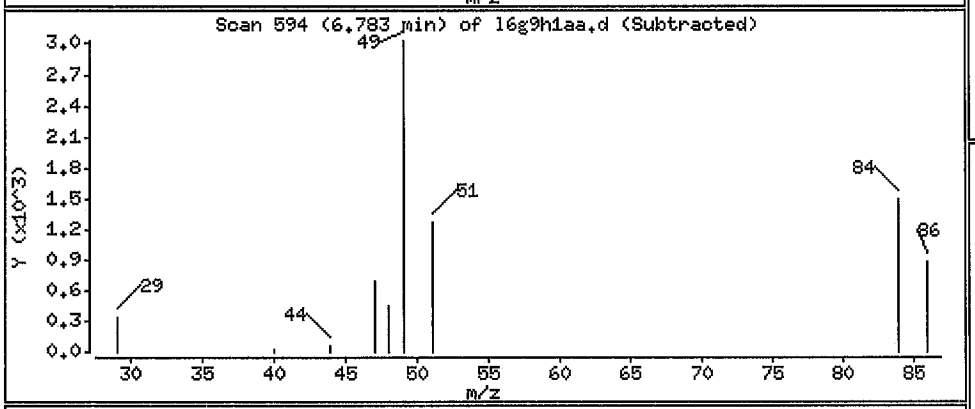
Purge Volume: 500.0 Operator: 7126

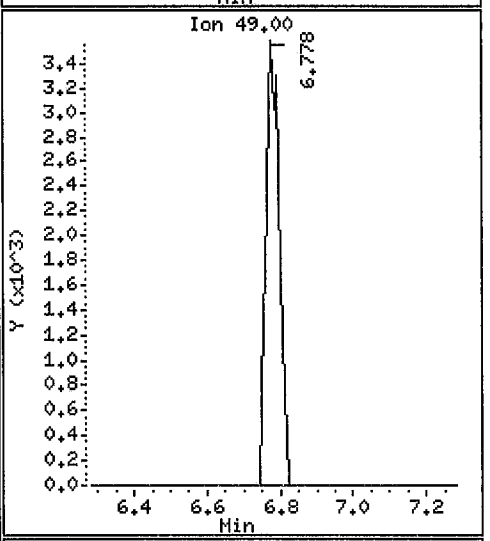
Column phase: Rtx-5 Column diameter: 0.32

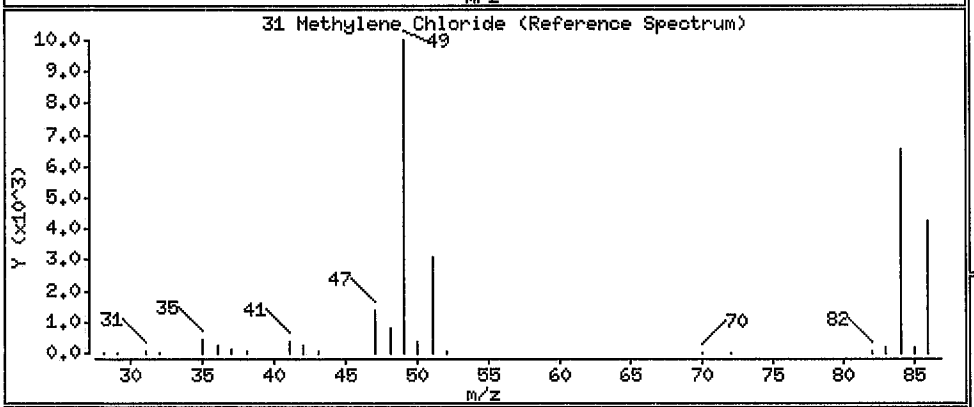
31 Methylene Chloride Concentration: 0.5420 ppb(v/v)

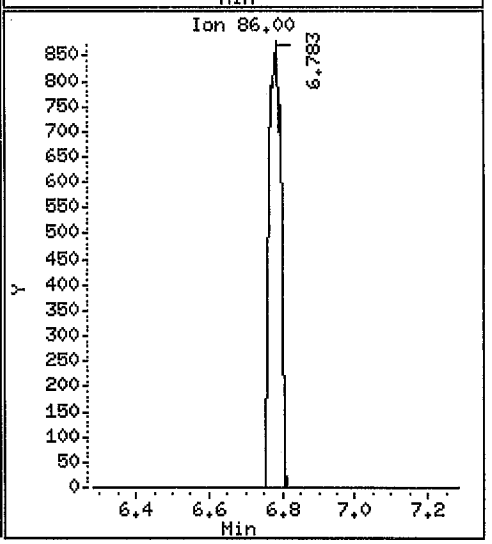


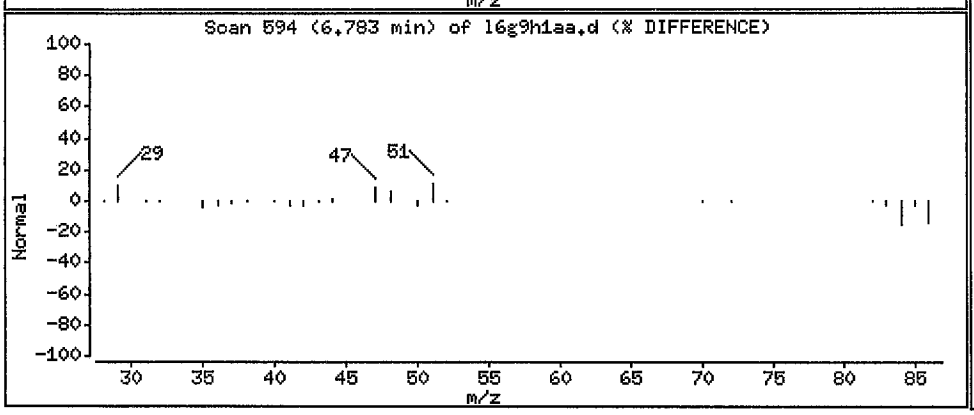












Data File: /var/chem/goms/mj.i/J090810.b/l6g9h1aa.d

Date : 08-SEP-2010 15:02

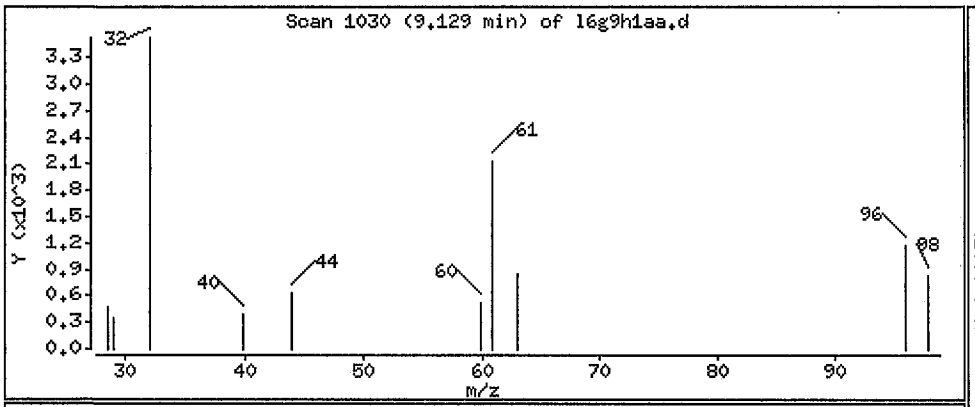
Client ID: ISG-3-C-9 Instrument: mj.i

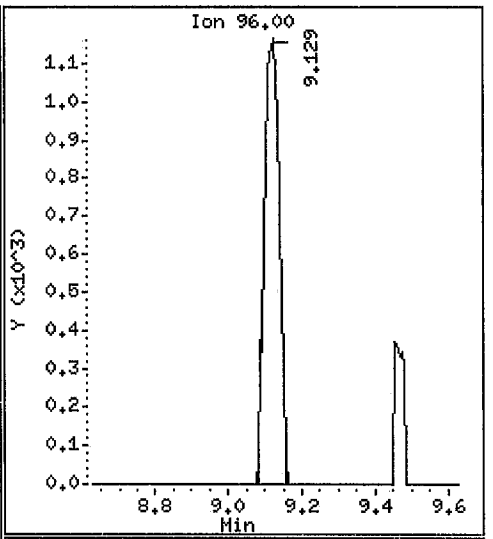
Sample Info: ,10,0,,,

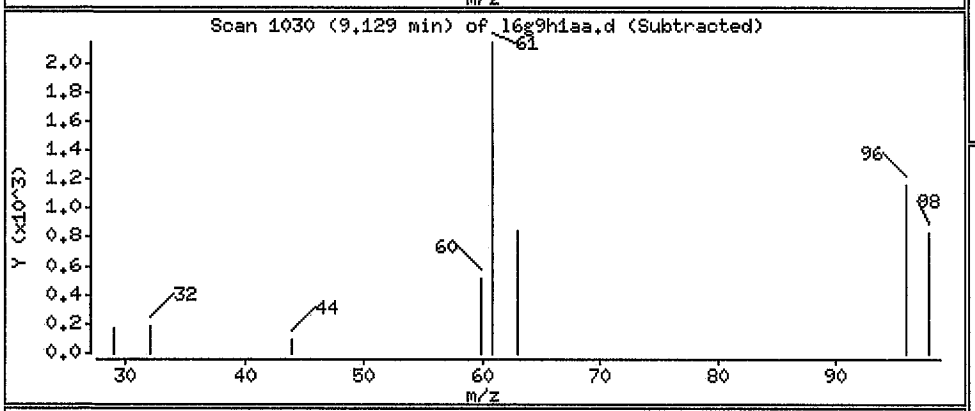
Purge Volume: 500.0 Operator: 7126

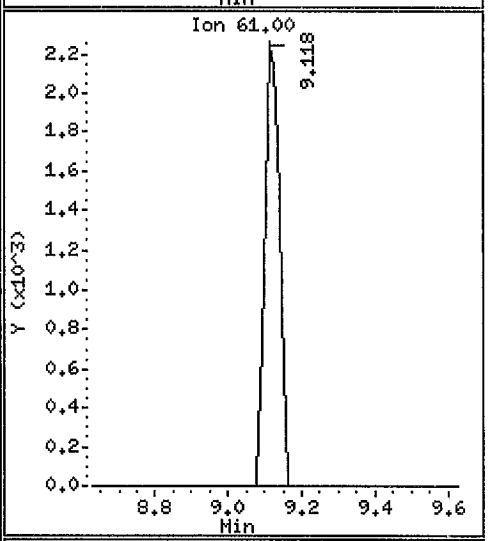
Column phase: Rtx-5 Column diameter: 0.32

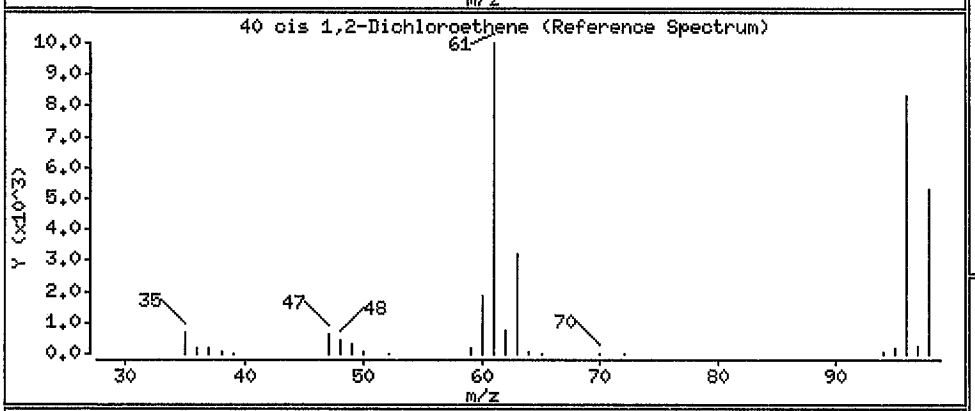
40 cis 1,2-Dichloroethene Concentration: 0.4701 ppb(v/v)

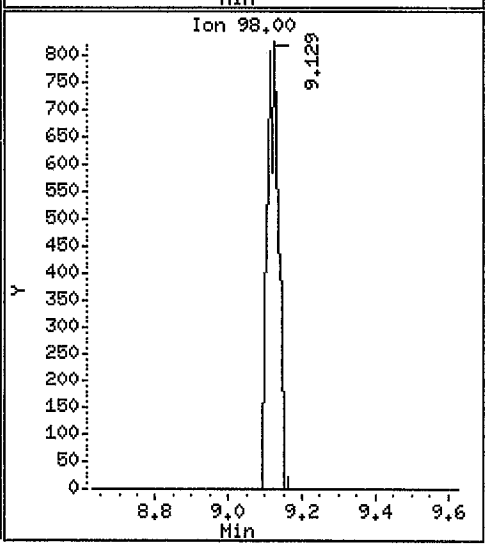


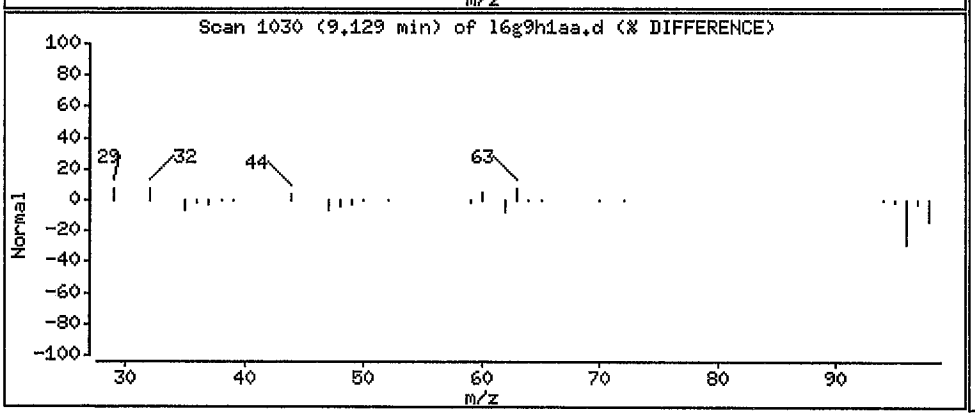












Data File: /var/chem/gcms/mj.i/J090810.b/16g9h1aa.d

Date : 08-SEP-2010 15:02

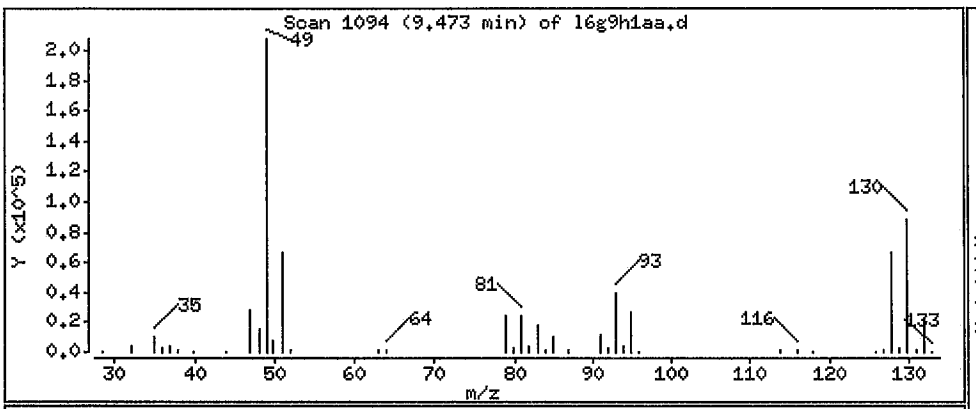
Client ID: ISC-3-C-9 Instrument: mj.i

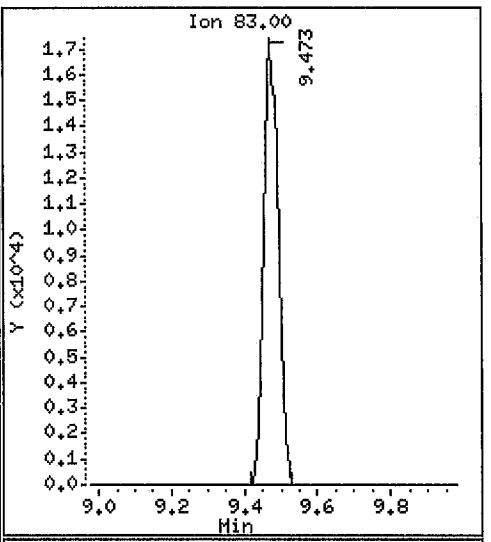
Sample Info: ,10,0,,,

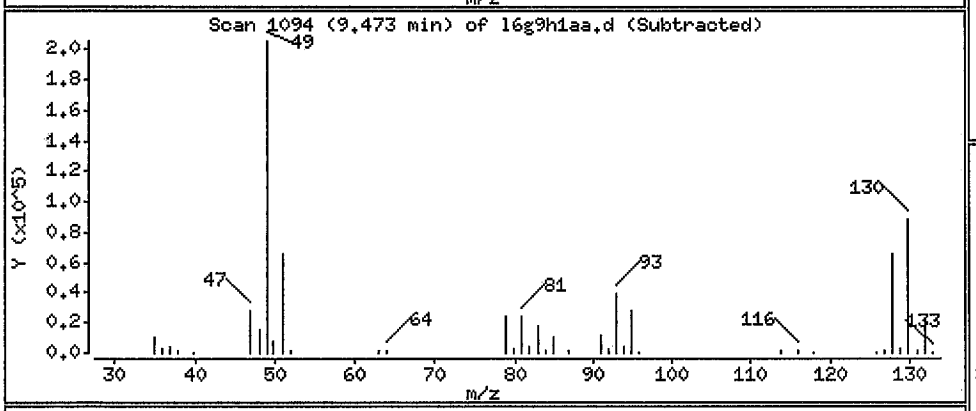
Purge Volume: 500.0 Operator: 7126

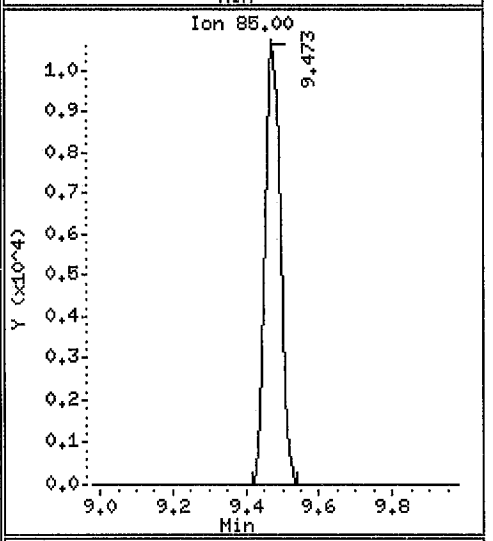
Column phase: Rtx-5 Column diameter: 0.32

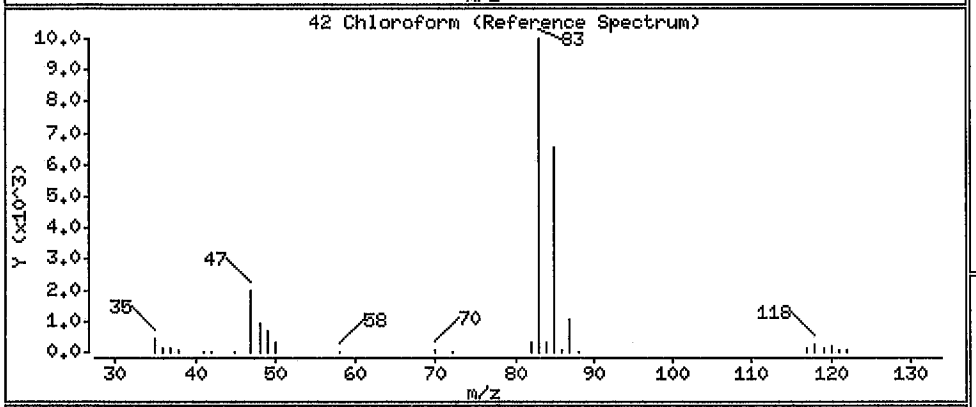
42 Chloroform Concentration: 3.297 ppb(v/v)

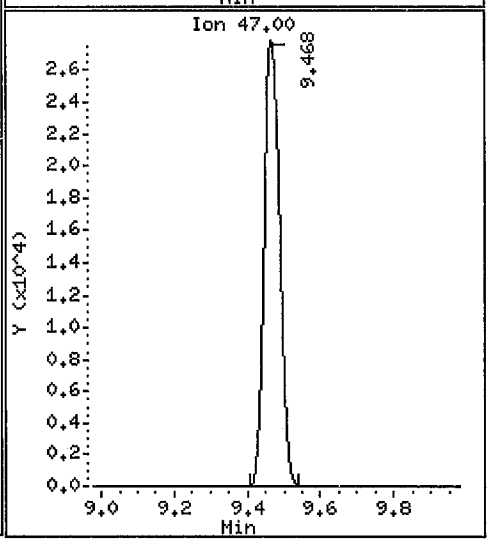


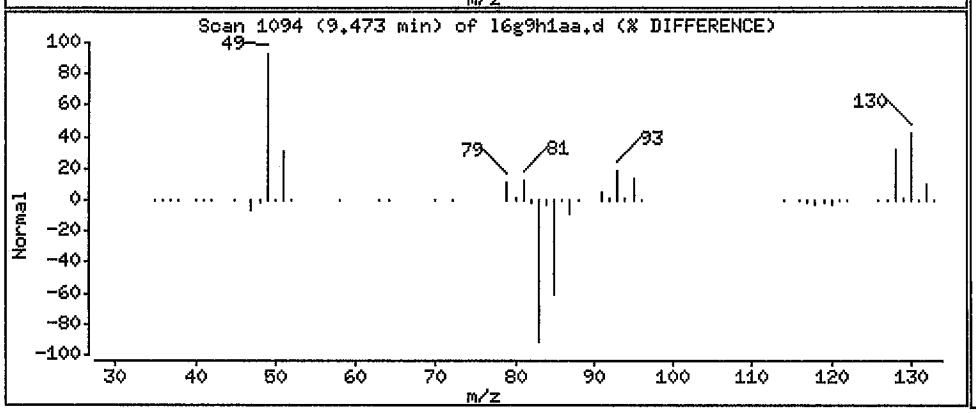












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9h1aa.d

Date : 08-SEP-2010 15:02

Client ID: ISG-3-C-9

Instrument: mj.i

Sample Info: ,10,0,,,

Purge Volume: 500.0

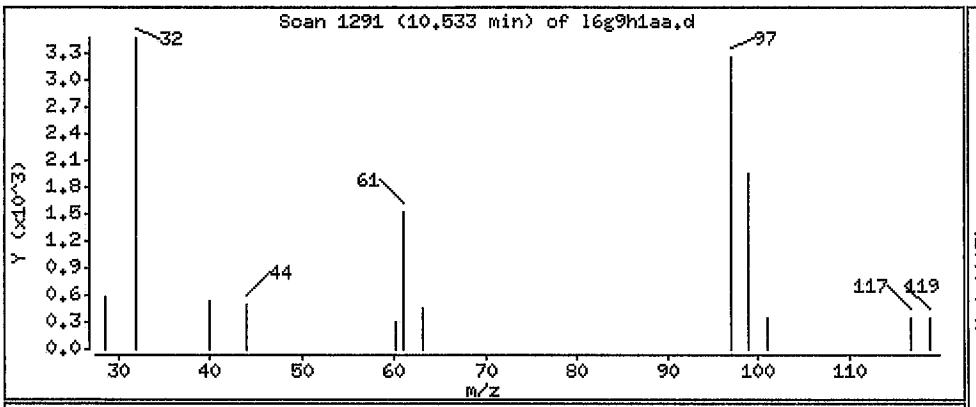
Operator: 7126

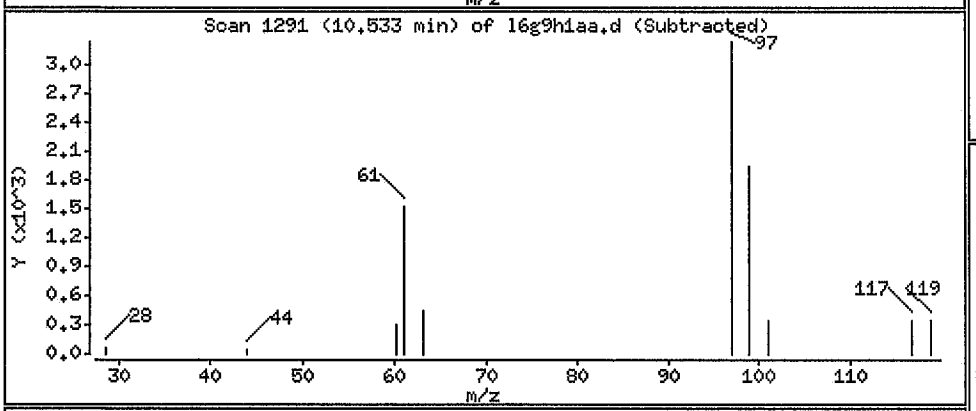
Column phase: Rtx-5

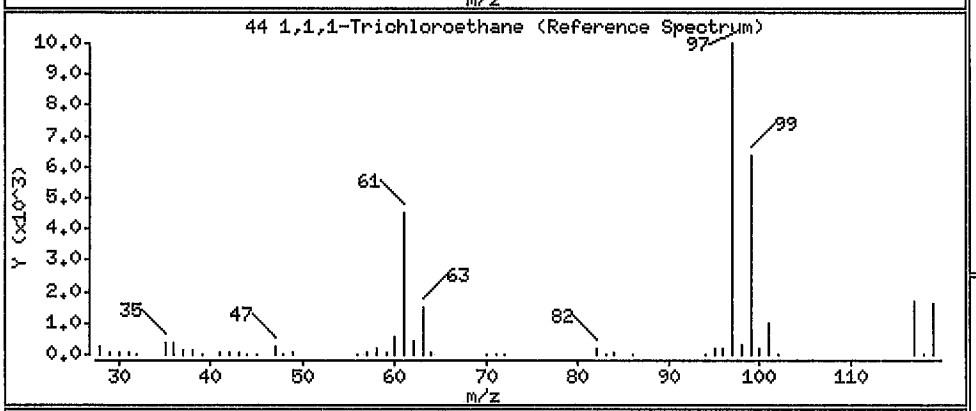
Column diameter: 0.32

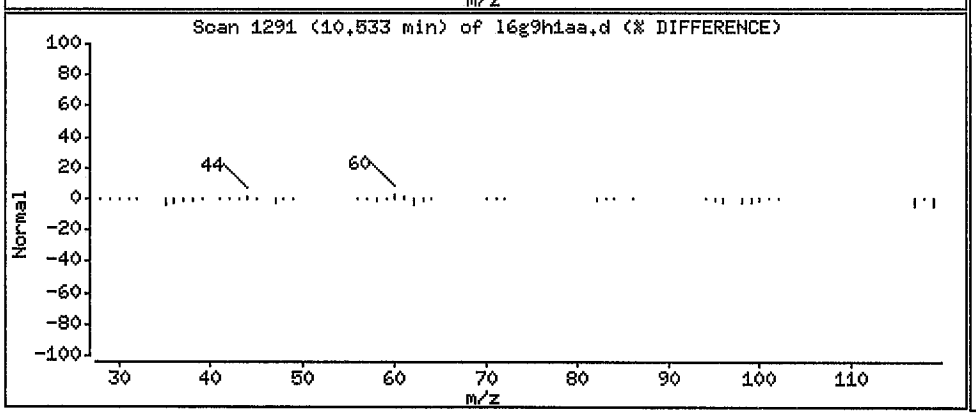
44 1,1,1-Trichloroethane

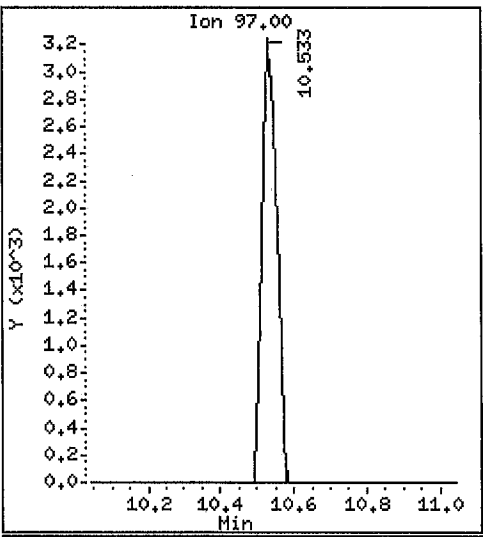
Concentration: 0.5853 ppb(v/v)

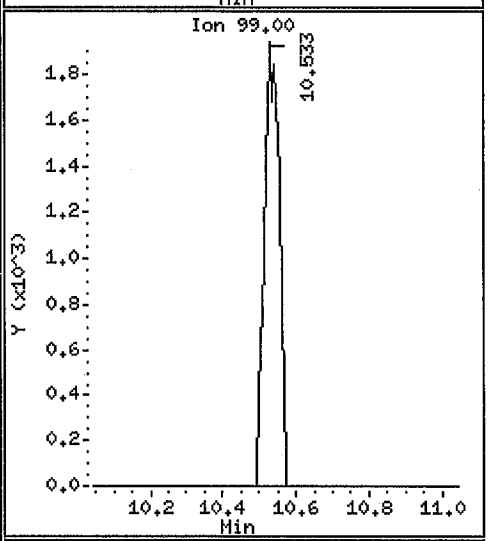


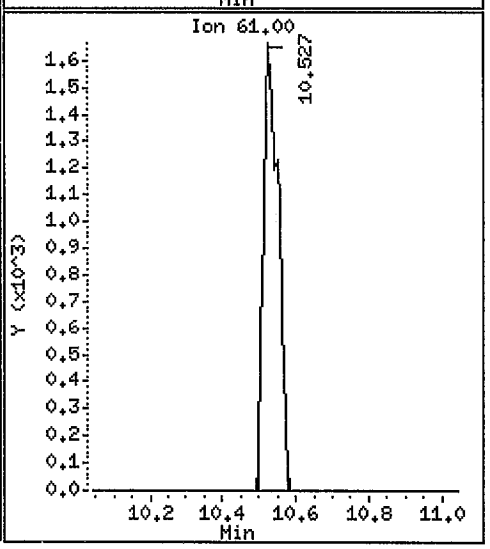












Data File: /var/chem/gcms/mj.i/J090810.b/16g9h1aa.d

Date : 08-SEP-2010 15:02

Client ID: ISC-3-C-9

Instrument: mj.i

Sample Info: ,10,0,,,

Purge Volume: 500.0

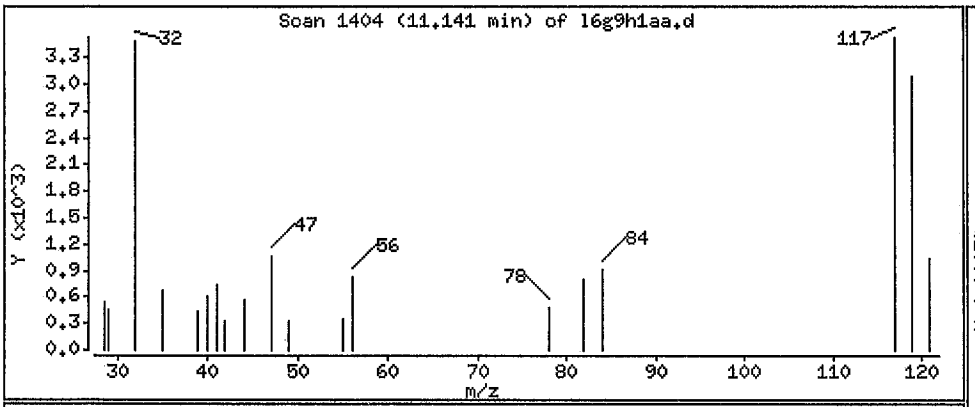
Operator: 7126

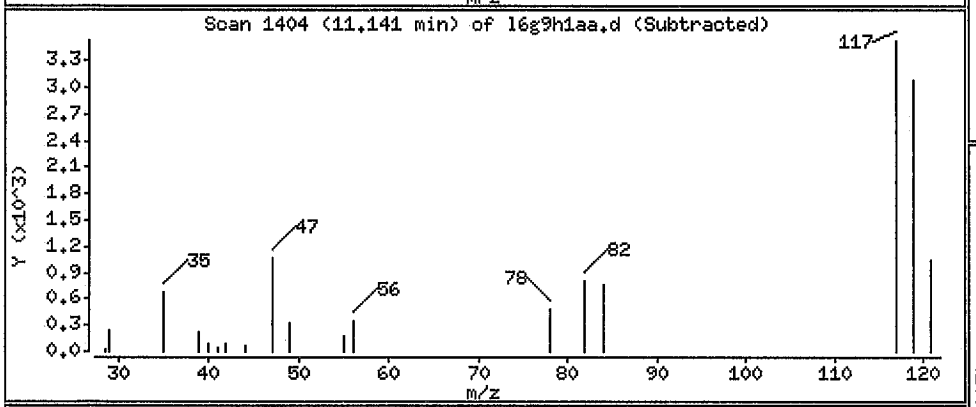
Column phase: Rtx-5

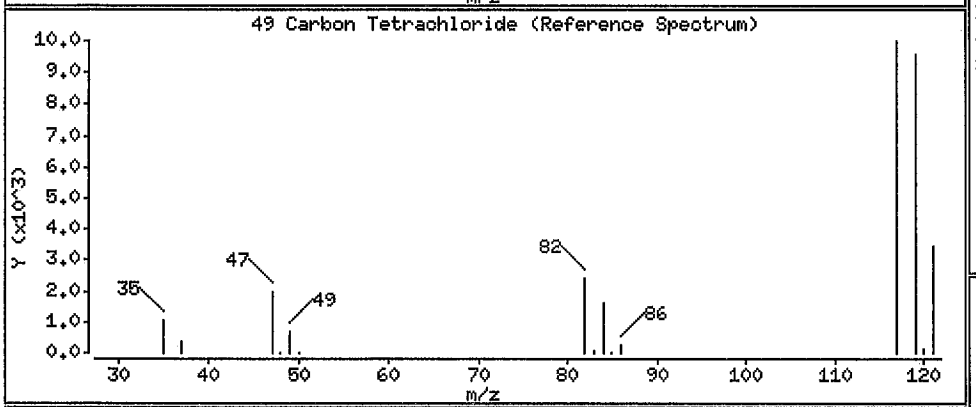
Column diameter: 0.32

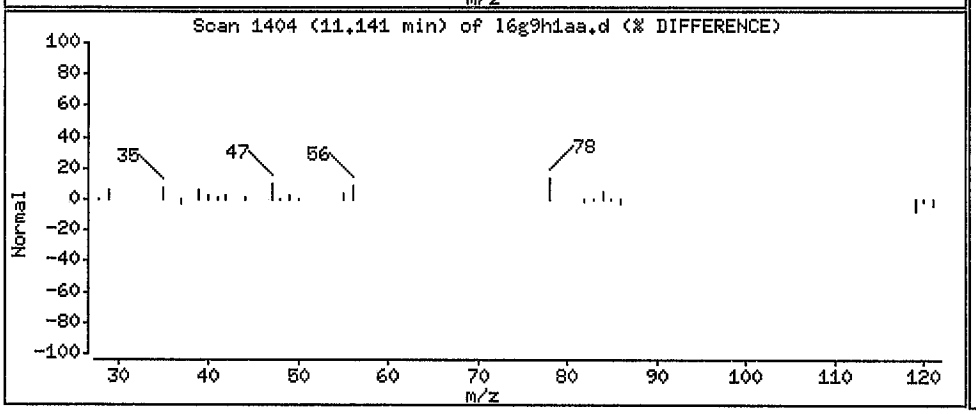
49 Carbon Tetrachloride

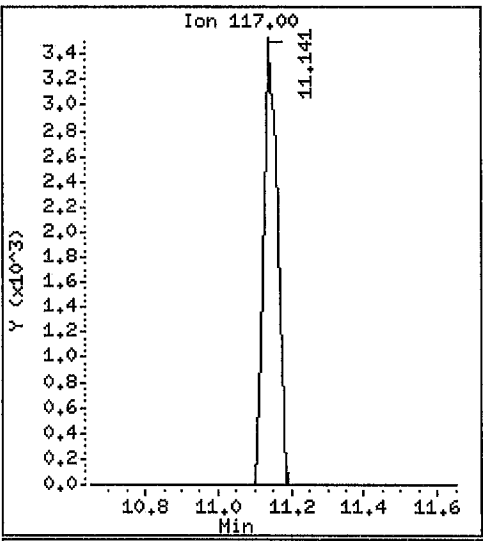
Concentration: 0.5481 ppb(v/v)

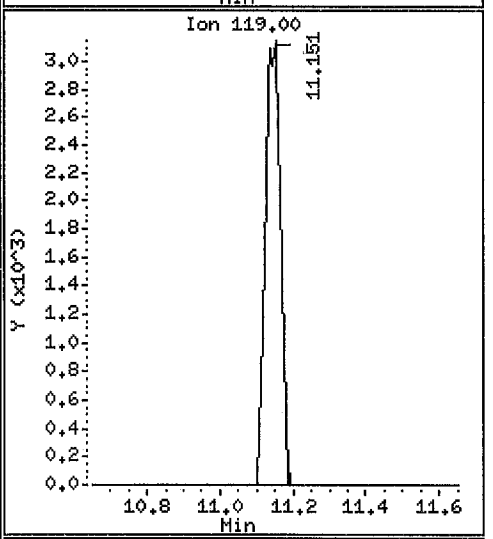


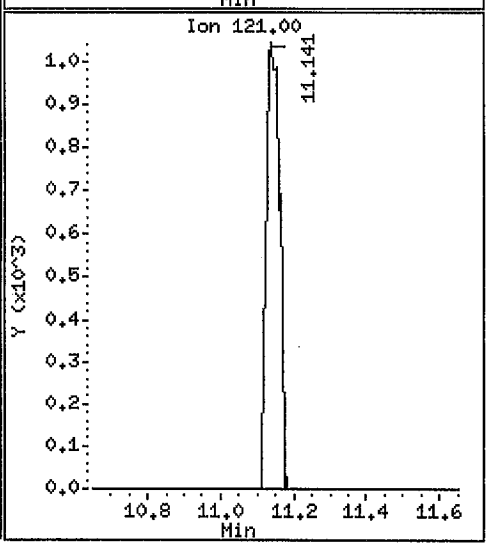












Data File: /var/chem/gcms/mj.i/J090810.b/16g9h1aa.d

Date : 08-SEP-2010 15:02

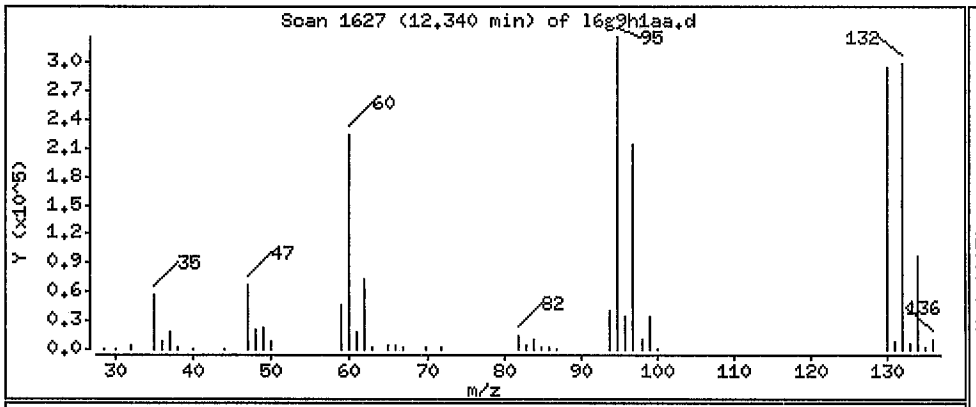
Client ID: ISC-3-C-9 Instrument: mj.i

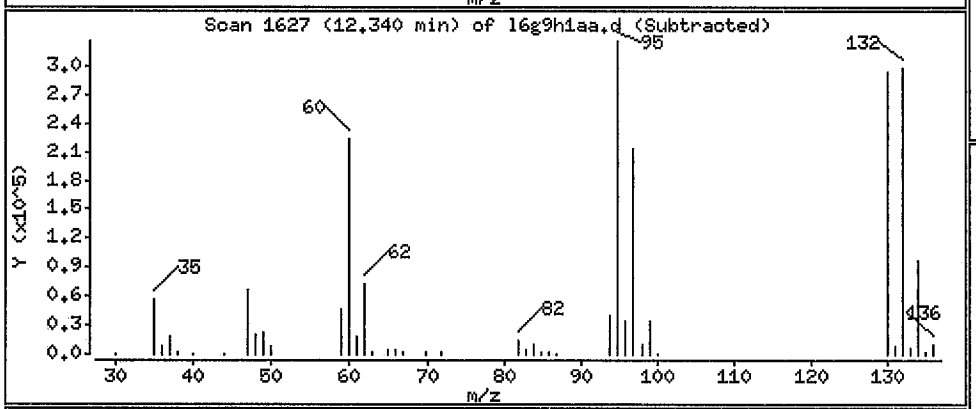
Sample Info: ,10,0,,,

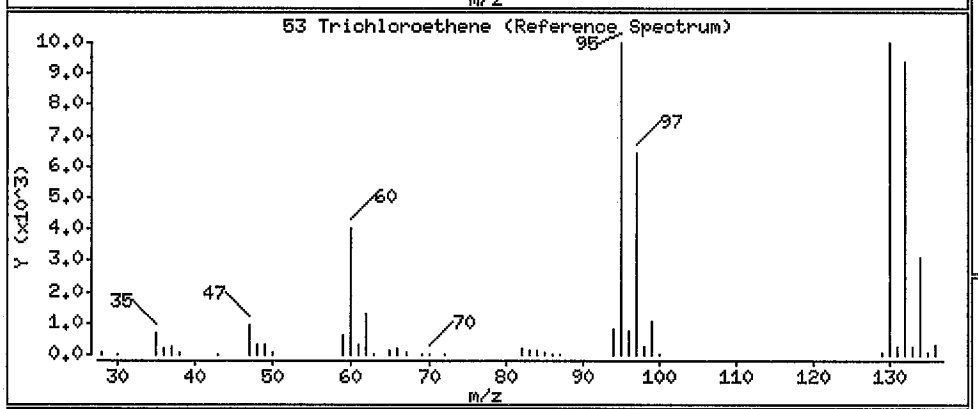
Purge Volume: 500.0 Operator: 7126

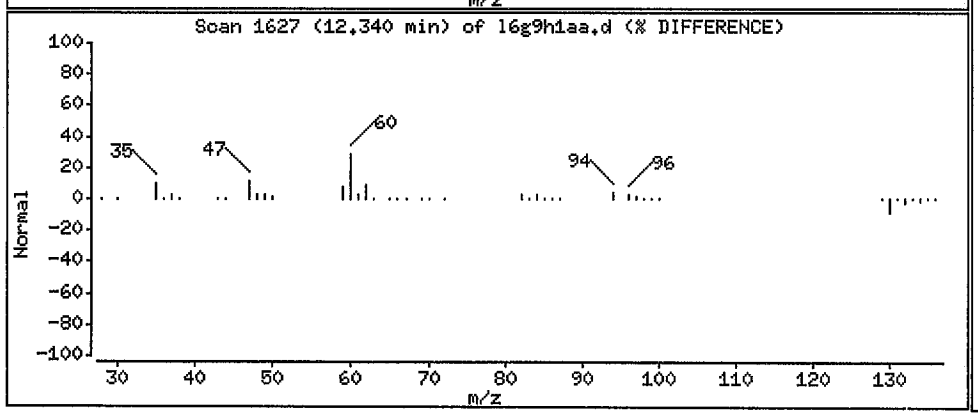
Column phase: Rtx-5 Column diameter: 0.32

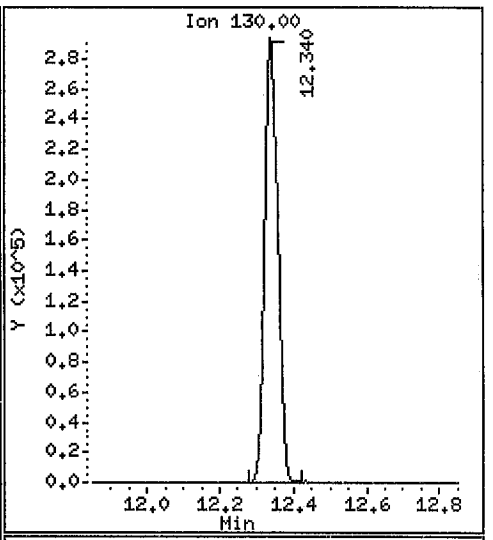
53 Trichloroethene Concentration: 69.73 ppb(v/v)

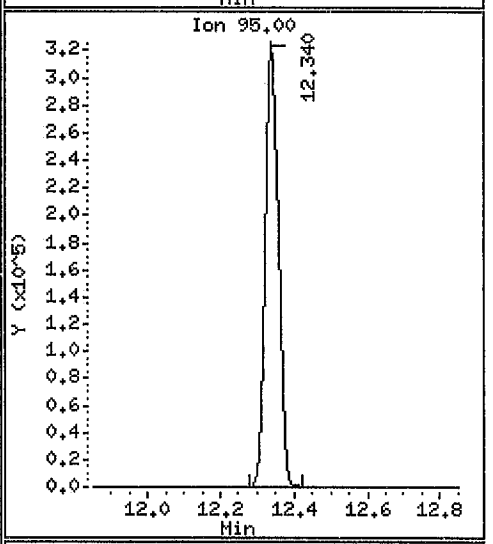


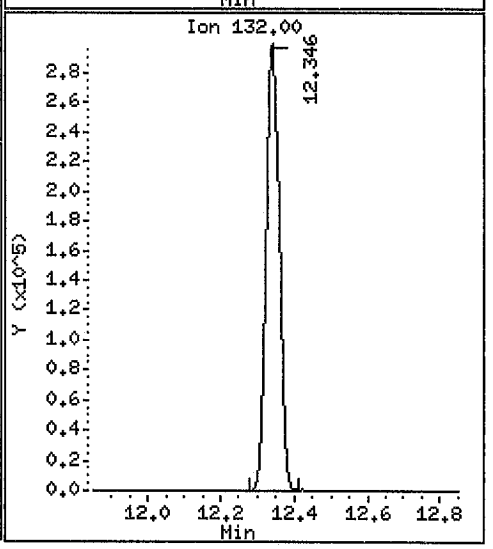












Data File: /var/chem/gcms/mj.i/J090810.b/16g9h1aa.d

Date : 08-SEP-2010 15:02

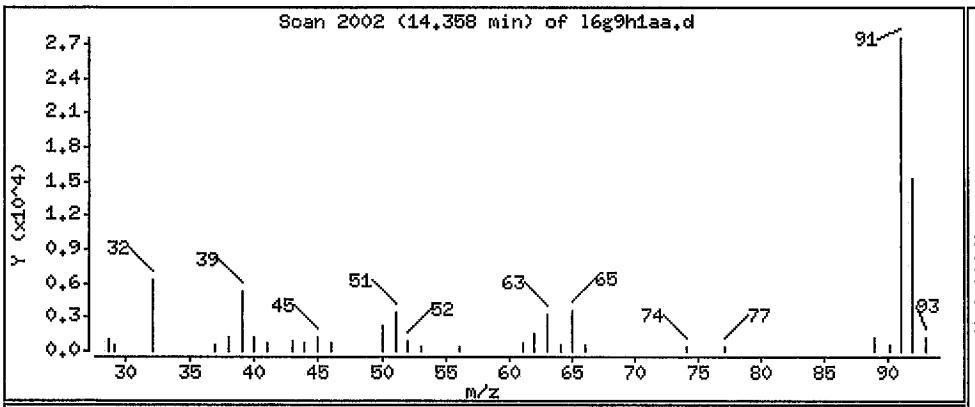
Client ID: ISG-3-C-9 Instrument: mj.i

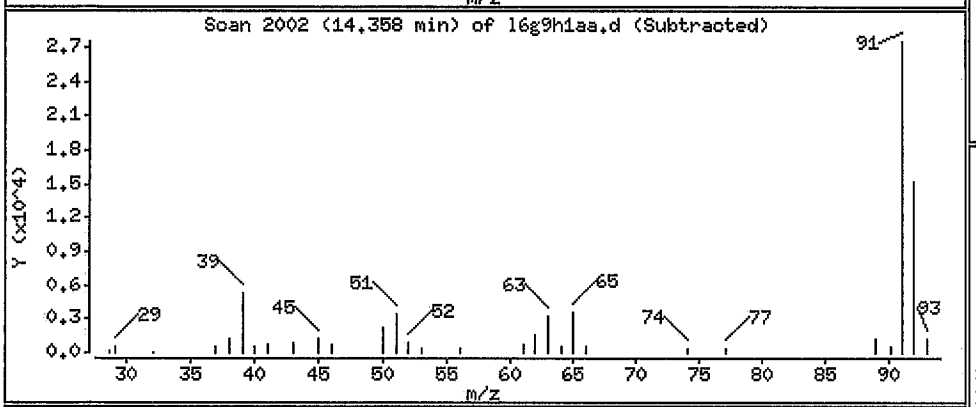
Sample Info: ,10,0,,,

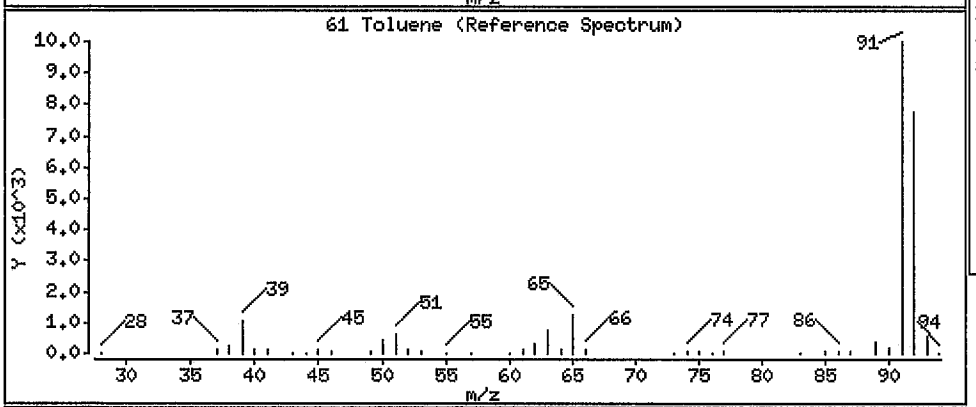
Purge Volume: 500.0 Operator: 7126

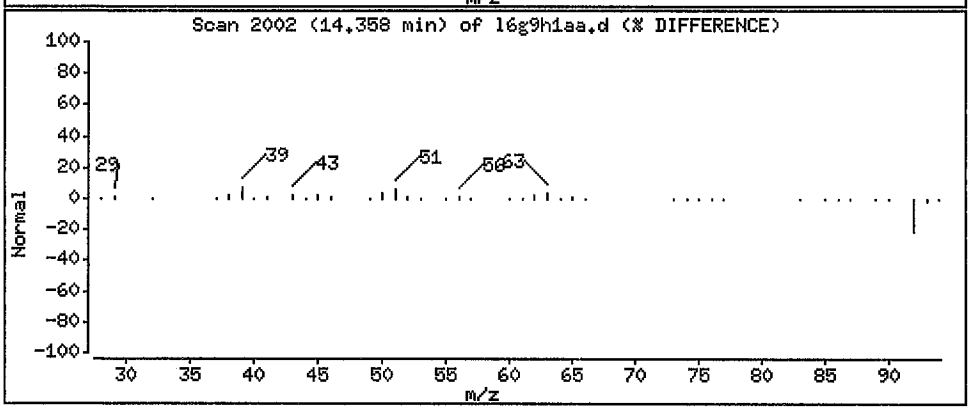
Column phase: Rtx-5 Column diameter: 0.32

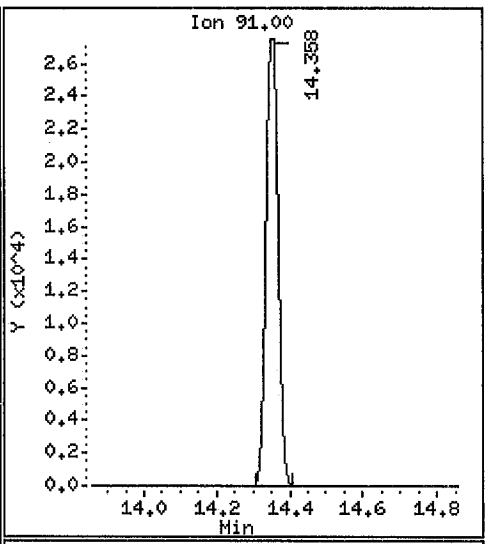
61 Toluene Concentration: 3.046 ppb(v/v)

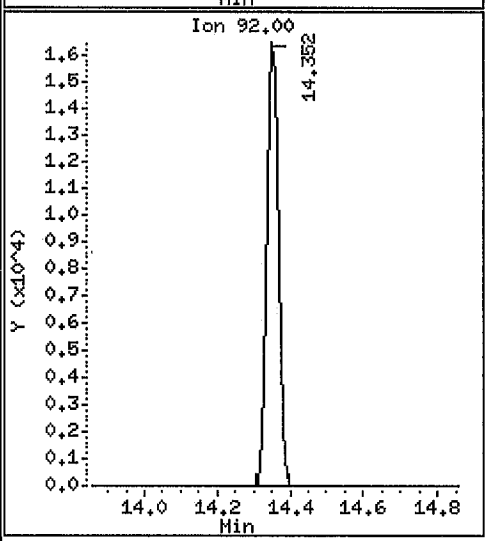












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9h1aa.d

Date : 08-SEP-2010 15:02

Client ID: ISG-3-C-9

Instrument: mj.i

Sample Info: ,10,0,,,

Purge Volume: 500.0

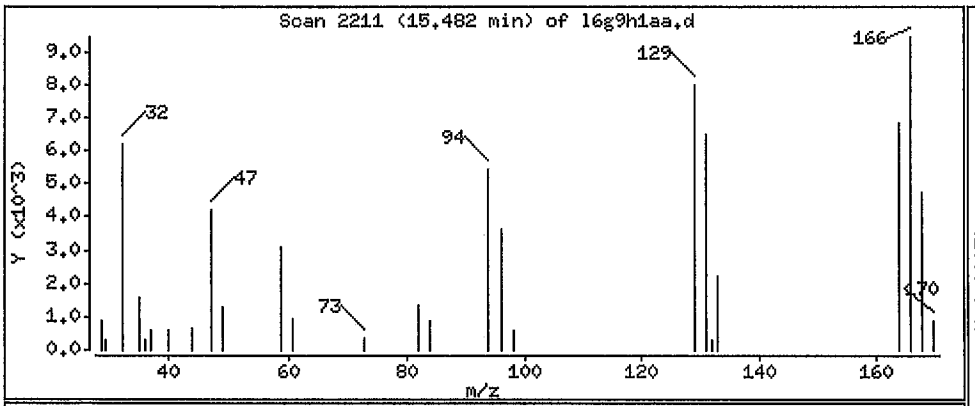
Operator: 7126

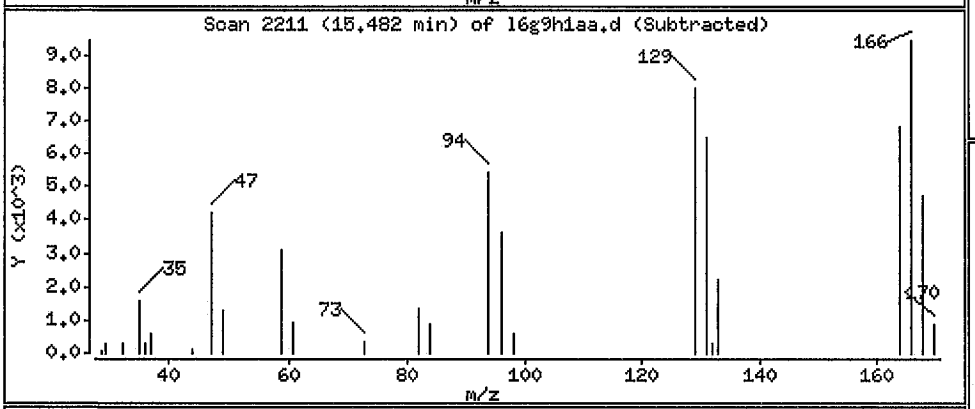
Column phase: Rtx-5

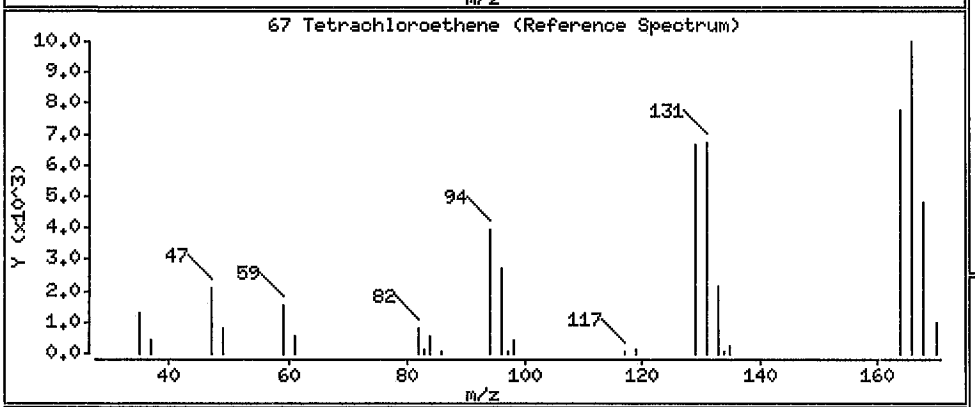
Column diameter: 0.32

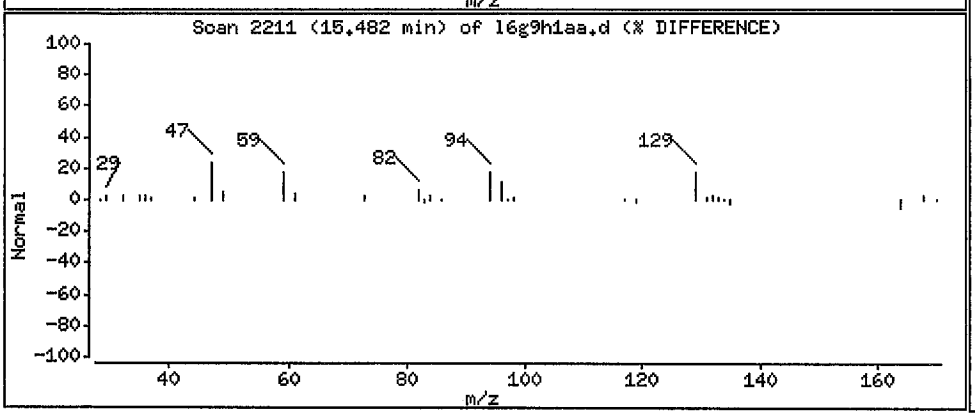
67 Tetrachloroethene

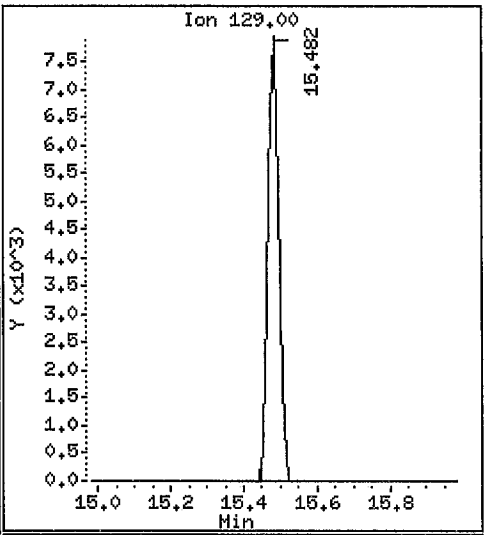
Concentration: 1.815 ppb(v/v)

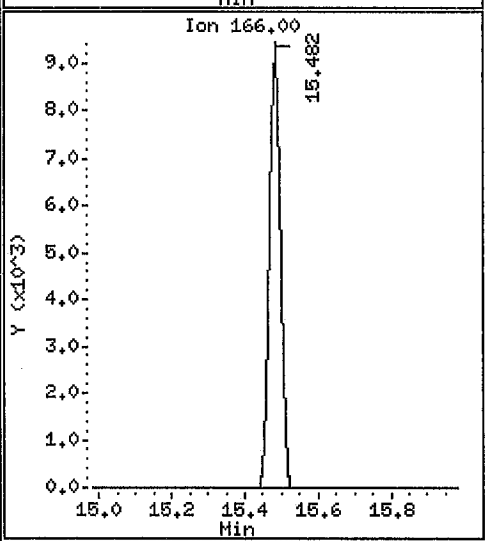


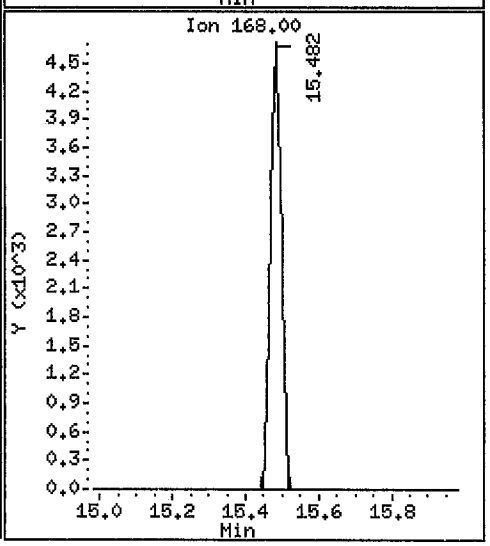












Data File: /var/chem/gcms/mj.i/J090810.b/16g9h1aa.d

Date : 08-SEP-2010 15:02

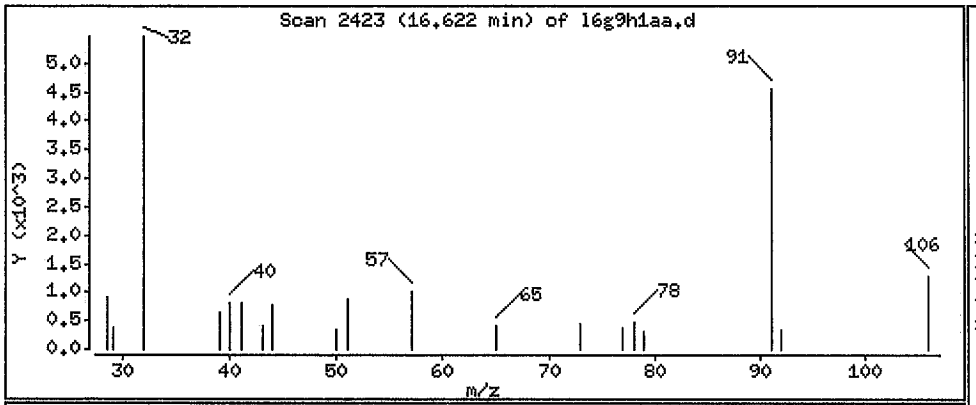
Client ID: ISG-3-C-9 Instrument: mj.i

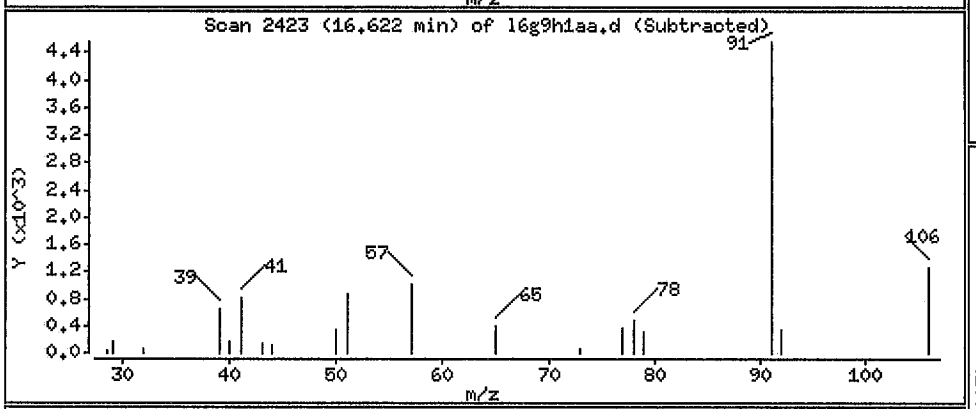
Sample Info: ,10,0,,,

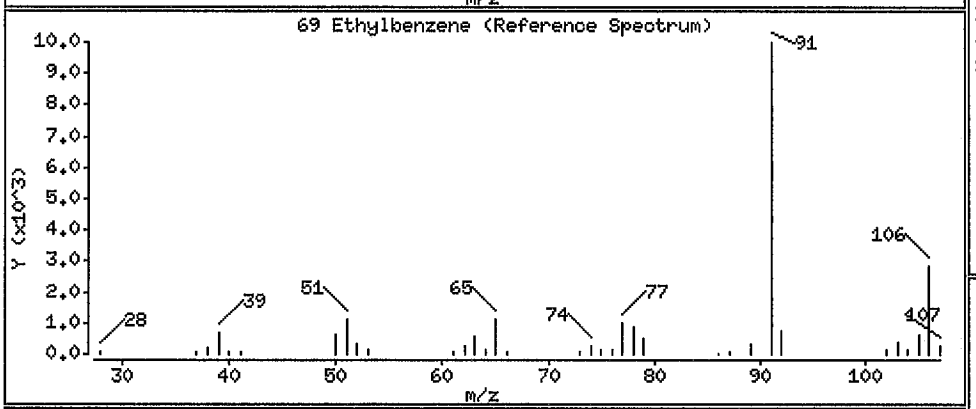
Purge Volume: 500.0 Operator: 7126

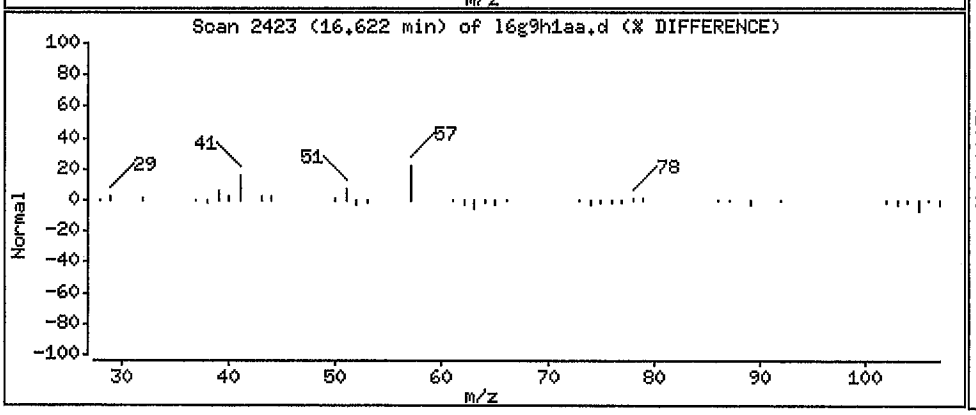
Column phase: Rtx-5 Column diameter: 0.32

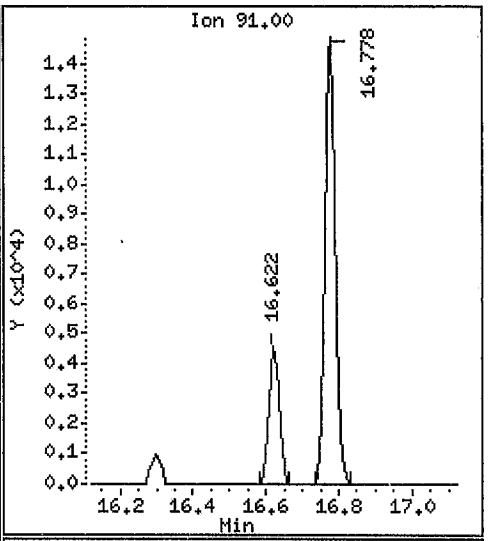
69 Ethylbenzene Concentration: 0.3662 ppb(v/v)

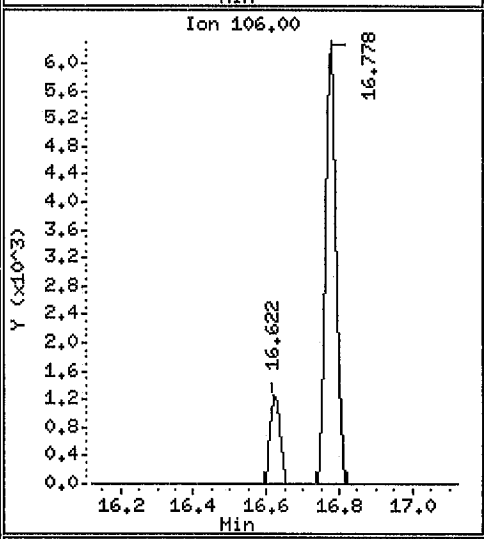


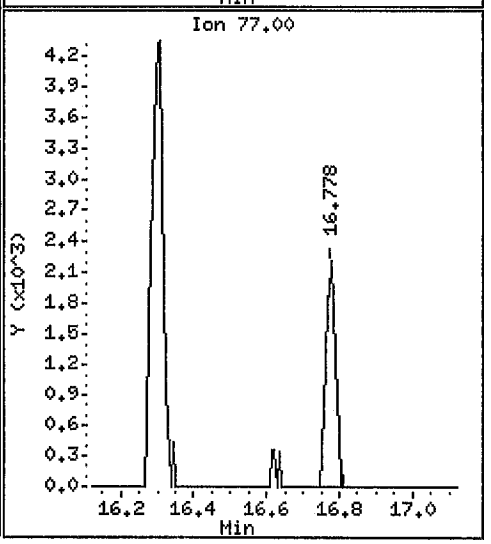












Data File: /var/chem/gcms/mj.i/J090810.b/16g9h1aa.d

Date : 08-SEP-2010 15:02

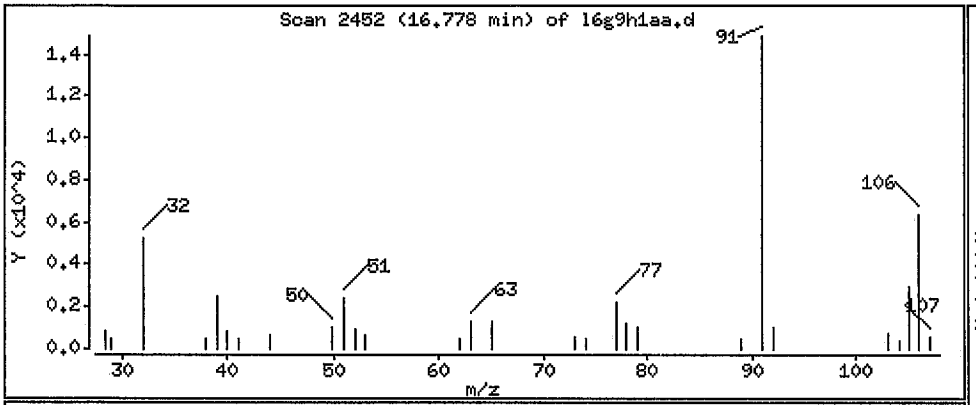
Client ID: ISG-3-C-9 Instrument: mj.i

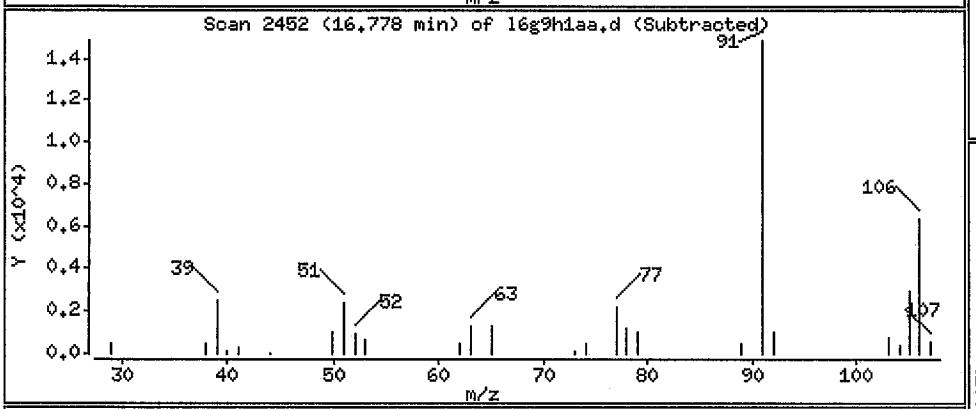
Sample Info: ,10,0,,,

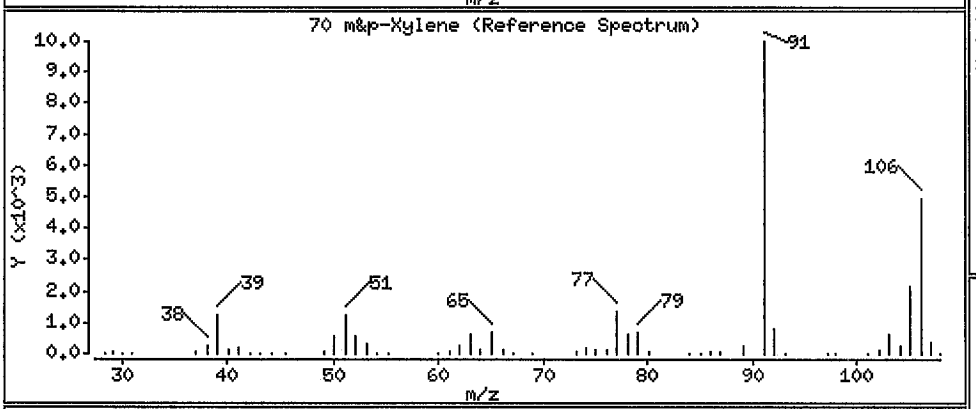
Purge Volume: 500.0 Operator: 7126

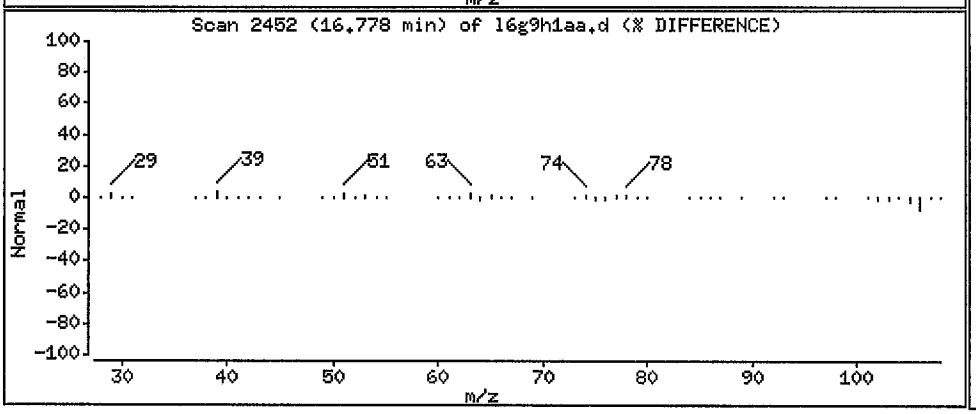
Column phase: Rtx-5 Column diameter: 0.32

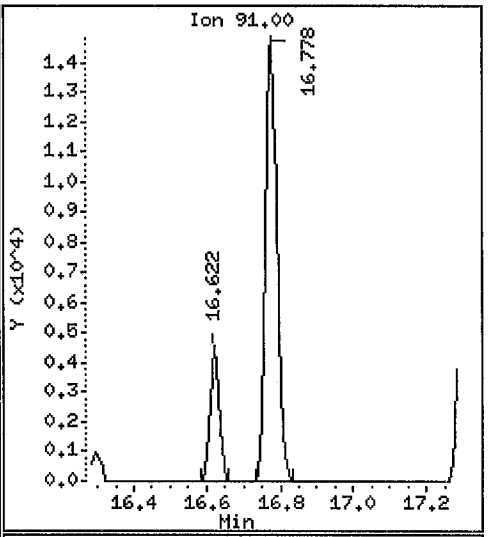
70 m&p-Xylene Concentration: 1.822 ppb(v/v)

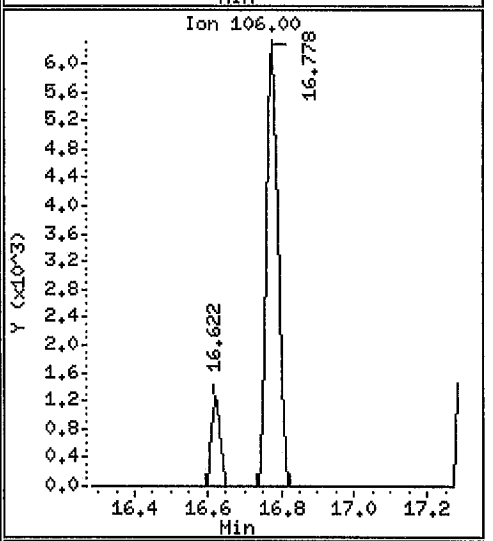


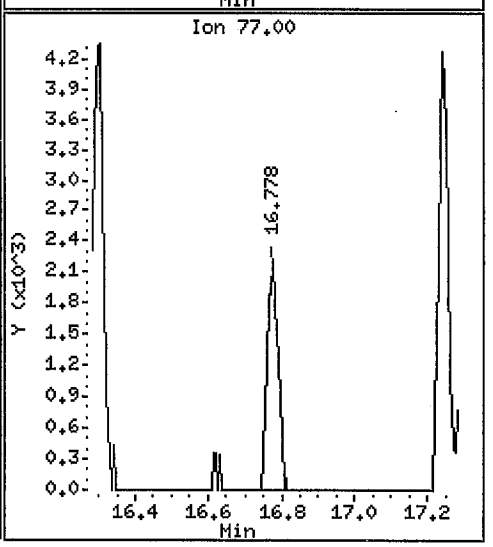












Data File: /var/chem/gcms/mj.i/J090810.b/16g9h1aa.d

Date : 08-SEP-2010 15:02

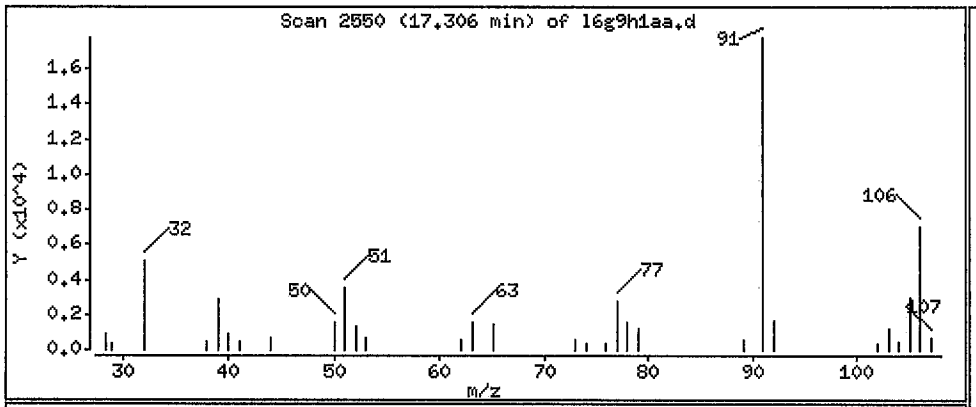
Client ID: ISG-3-C-9 Instrument: mj.i

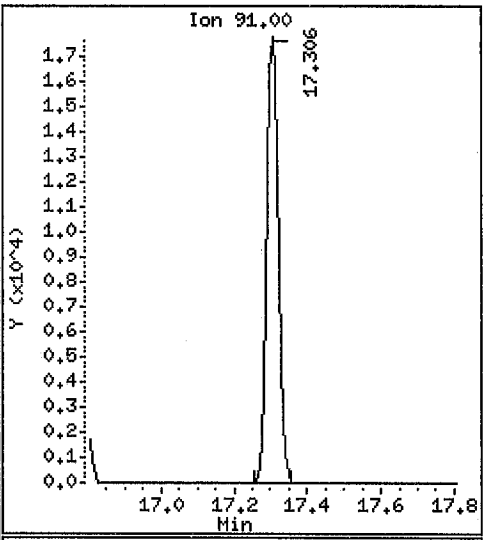
Sample Info: ,10,0,,,

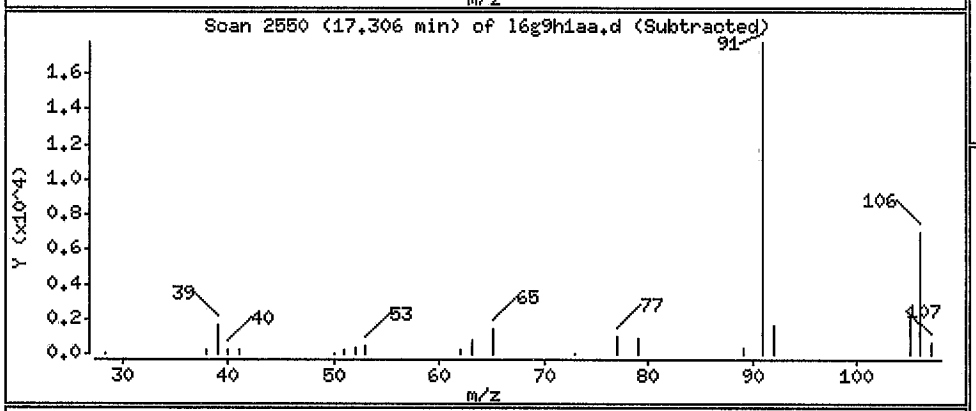
Purge Volume: 500.0 Operator: 7126

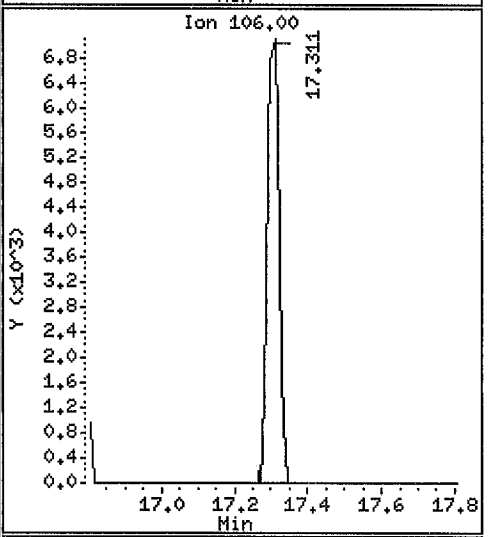
Column phase: Rtx-5 Column diameter: 0.32

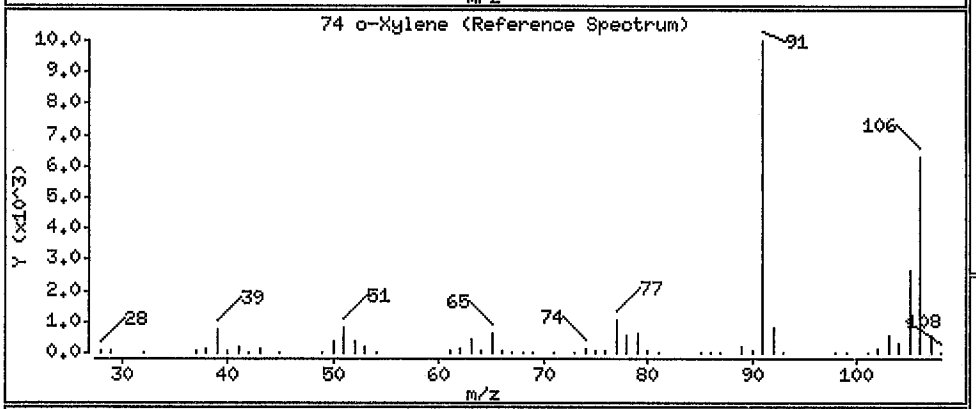
74 o-Xylene Concentration: 2.056 ppb(v/v)

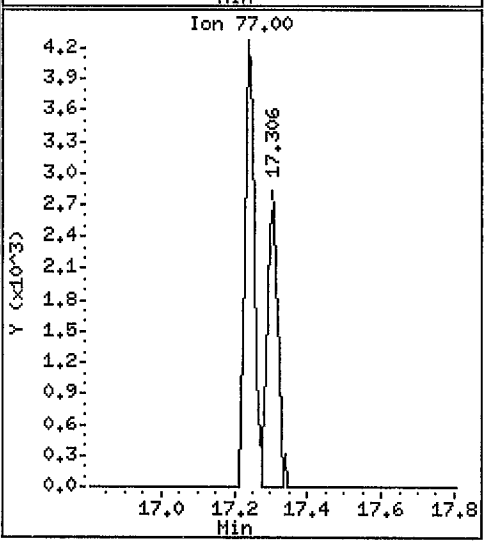


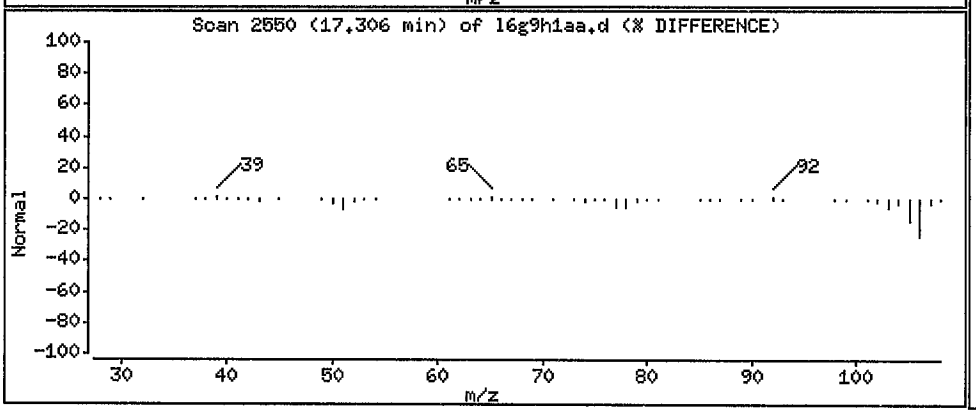












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Date : 08-SEP-2010 15:02

Client ID: ISC-3-C-9

Instrument: mj.i

Sample Info: ,10,0,,,

Purge Volume: 500.0

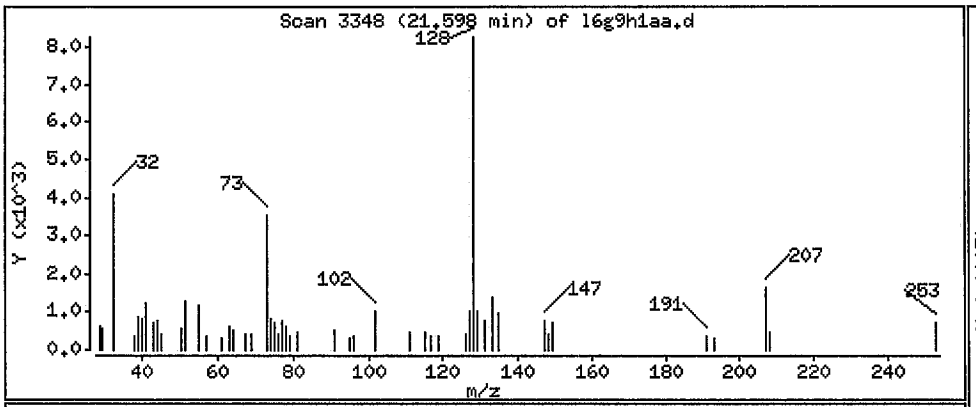
Operator: 7126

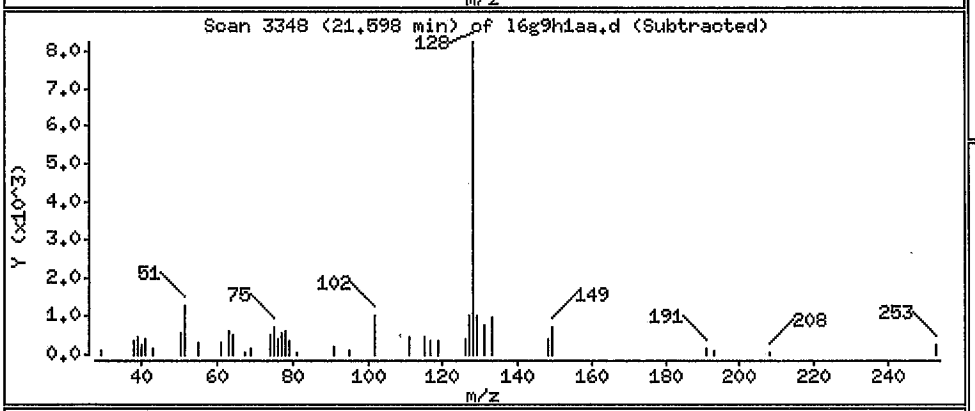
Column phase: Rtx-5

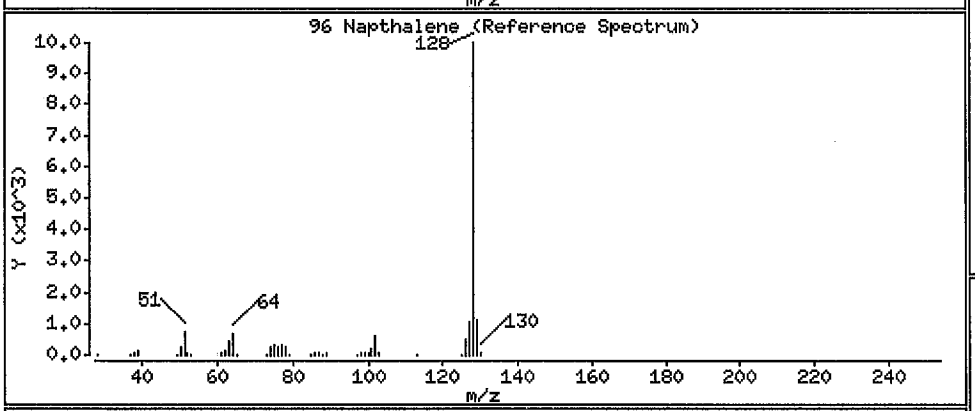
Column diameter: 0.32

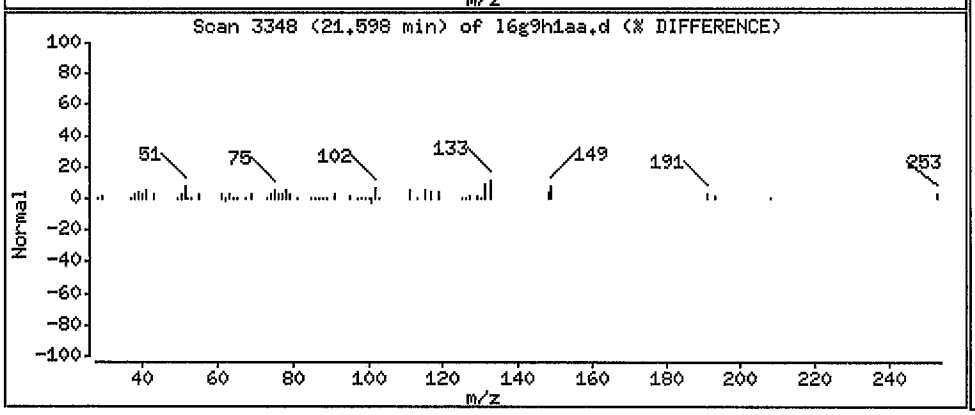
96 Napthalene

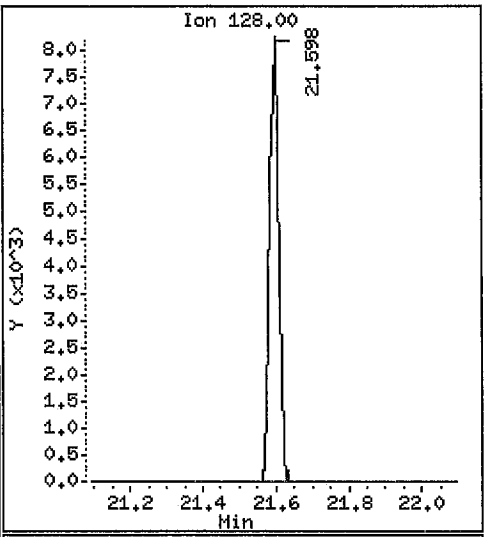
Concentration: 0.7537 ppb(v/v)

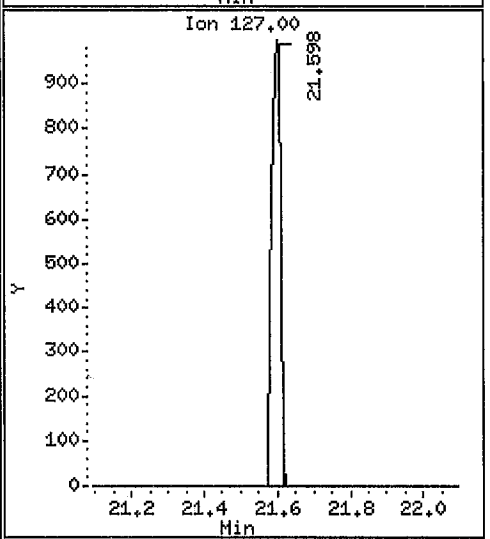


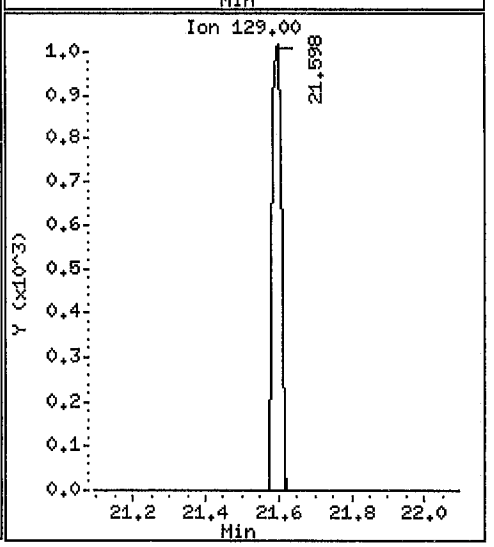












Tetra Tech NUS, Inc

Client Sample ID: SV-C-4-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 005 **Work Order #** L6G9J1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 5 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.42**	**0.40**	**0.12**	**1.3**	**1.3**	**0.37**
Carbon tetrachloride	**0.10**	**0.40**	**0.075**	**0.66 J**	**2.5**	**0.47**
Chlorodifluoromethane	**14**	**0.40**	**0.075**	**49**	**1.4**	**0.27**
Chloroform	**0.58**	**0.40**	**0.075**	**2.8**	**2.0**	**0.37**
Dichlorodifluoromethane	**0.55**	**0.40**	**0.14**	**2.7**	**2.0**	**0.67**
1,1-Dichloroethane	ND	0.40	0.050	ND	1.6	0.20
1,2-Dichloroethane	ND	0.40	0.095	ND	1.6	0.38
cis-1,2-Dichloroethene	**18**	**0.40**	**0.12**	**73**	**1.6**	**0.48**
trans-1,2-Dichloroethene	**0.34**	**0.40**	**0.10**	**1.4 J**	**1.6**	**0.40**
1,1-Dichloroethene	ND	0.40	0.065	ND	1.6	0.26
Ethylbenzene	**0.68**	**0.40**	**0.14**	**2.9**	**1.7**	**0.59**
Methylene chloride	**0.95**	**1.0**	**0.090**	**3.3 J**	**3.5**	**0.31**
Methyl tert-butyl ether	ND	2.0	0.34	ND	7.2	1.2
Naphthalene	**0.61**	**1.0**	**0.18**	**3.2 J**	**5.2**	**0.94**
Tetrachloroethene	ND	0.40	0.080	ND	2.7	0.54
Toluene	**2.4**	**0.40**	**0.10**	**9.2**	**1.5**	**0.40**
1,2,4-Trichlorobenzene	ND	2.0	0.20	ND	15	1.4
1,1,1-Trichloroethane	**0.098**	**0.40**	**0.060**	**0.54 J**	**2.2**	**0.33**
1,1,2-Trichloroethane	ND	0.40	0.10	ND	2.2	0.57
Trichloroethene	**50**	**0.20**	**0.070**	**270**	**1.1**	**0.38**
Vinyl chloride	ND	0.40	0.14	ND	1.0	0.37
m-Xylene & p-Xylene	**3.2**	**0.40**	**0.25**	**14**	**1.7**	**1.1**
o-Xylene	**2.3**	**0.40**	**0.12**	**10**	**1.7**	**0.52**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	104	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9j1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/l6g9j1aa.d
Lab Smp Id: L6G9J1AA Client Smp ID: SV-C-4-9
Inj Date : 08-SEP-2010 15:54
Operator : 7126 Inst ID: mj.i
Smp Info : ,5,0,,,
Misc Info : J090810,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 10-Sep-2010 14:16 barlozha Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 5
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
*	1 Bromochloromethane	128	9.473	9.479	(1.000)	184906	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.641	11.642	(1.000)	808168	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.300	16.300	(1.000)	641271	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.908	17.914	(1.099)	505065	4.14961	4.150
	7 Chlorodifluoromethane	67	3.900	3.901	(0.412)	64767	2.76972	13.85
	8 Dichlorodifluoromethane	85	3.970	3.970	(0.419)	22048	0.10981	0.5490
	13 Vinyl Chloride	62	4.142	4.374	(0.437)	2867	0.04111	~~0.2055~~
	31 Methylene Chloride	84	6.783	6.784	(0.716)	11431	0.19000	0.9500
	34 trans-1,2-Dichloroethene	96	7.655	7.650	(0.808)	4244	0.06902	0.3451
	40 cis 1,2-Dichloroethene	96	9.129	9.129	(0.964)	231643	3.67856	18.39
	42 Chloroform	83	9.484	9.479	(1.001)	15650	0.11659	0.5830
	44 1,1,1-Trichloroethane	97	10.544	10.544	(1.113)	2744	0.01962	0.09811
	48 Benzene	78	11.124	11.125	(0.956)	14416	0.08438	0.4219
	49 Carbon Tetrachloride	117	11.151	11.152	(0.958)	2808	0.02098	0.1049
	53 Trichloroethene	130	12.346	12.352	(1.061)	830731	10.0001	50.00

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9j1aa.d
Report Date: 10-Sep-2010 14:29

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
61 Toluene	91	14.358	14.358	(0.881)	73906	0.48938	2.447
69 Ethylbenzene	91	16.622	16.623	(1.020)	23388	0.13506	0.6753
70 m&p-Xylene	91	16.778	16.784	(1.029)	85122	0.65000	3.250
74 o-Xylene	91	17.306	17.306	(1.062)	62973	0.46230	2.311
96 Napthalene	128	21.593	21.594	(1.325)	15976	0.12105	0.6052

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9j1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9j1aa.d
Lab Smp Id: L6G9J1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: SV-C-4-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	184906	-5.21
2 1,4-Difluorobenze	936174	557024	1315324	808168	-13.67
3 Chlorobenzene-d5	815161	485021	1145301	641271	-21.33

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.06
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.01
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

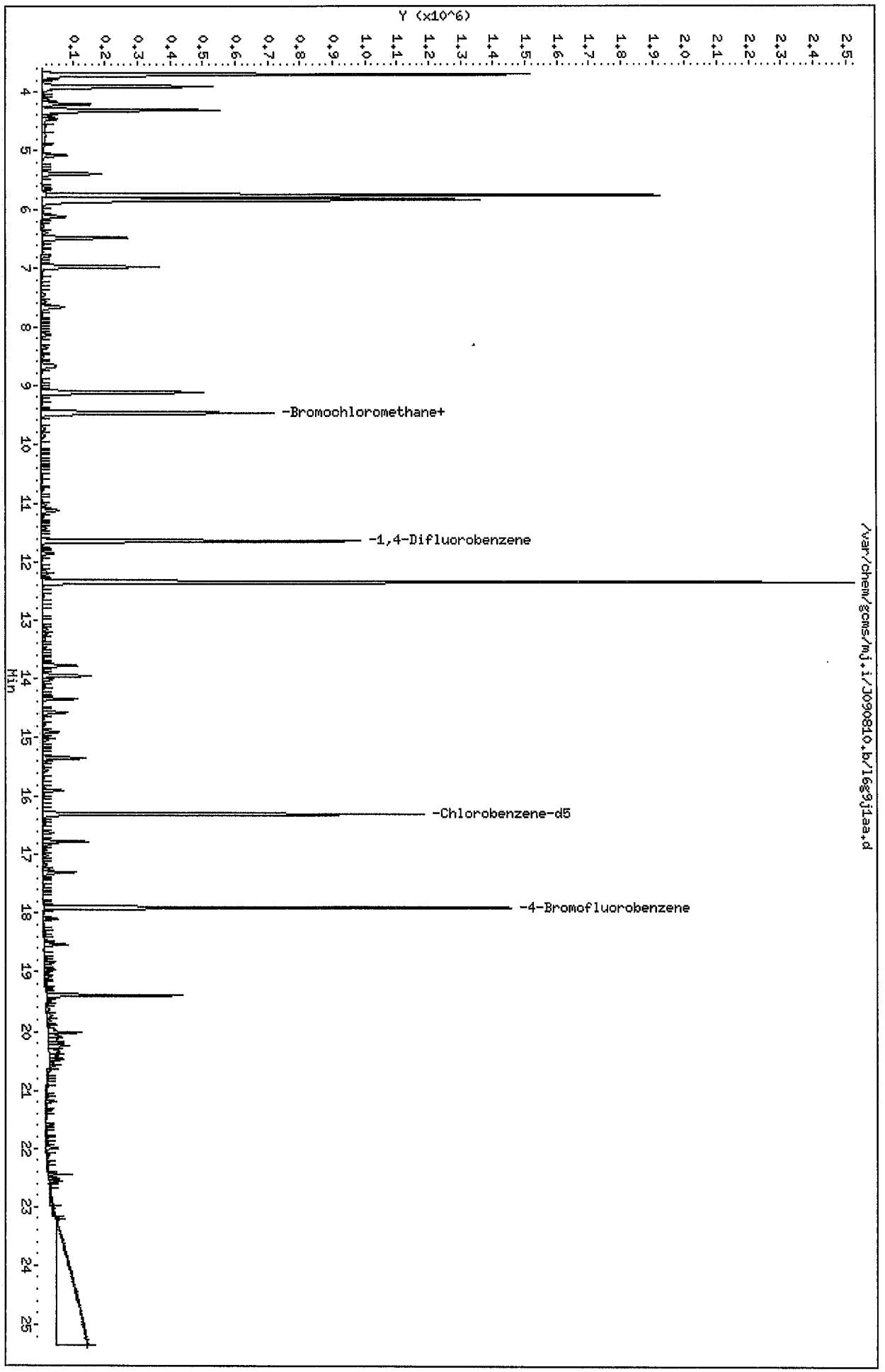
Data File: /var/chem/gcms/mj.i/J090810.b/l6g9j1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9J1AA
Client Smp ID: SV-C-4-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.150	103.74	70-130


Data File: /var/chem/gcms/mj.i/J090810.b/16g9j1aa.d
Date : 08-SEP-2010 15:54
Client ID: SV-C-4-9
Sample Info: ,5,0,,,
Purge Volume: 500.0
Column phase: Rtx-5
Instrument: mj.i
Operator: 7126
Column diameter: 0.32
Y (x10^6)
-Bromochloromethane+
-1,4-Difluorobenzene
-Chlorobenzene-d5
-4-Bromofluorobenzene
/var/chem/gcms/mj.i/J090810.b/16g9j1aa.d
Min

Data File: /var/chem/gcms/mj.i/J090810.b/16g9j1aa.d

Date : 08-SEP-2010 15:54

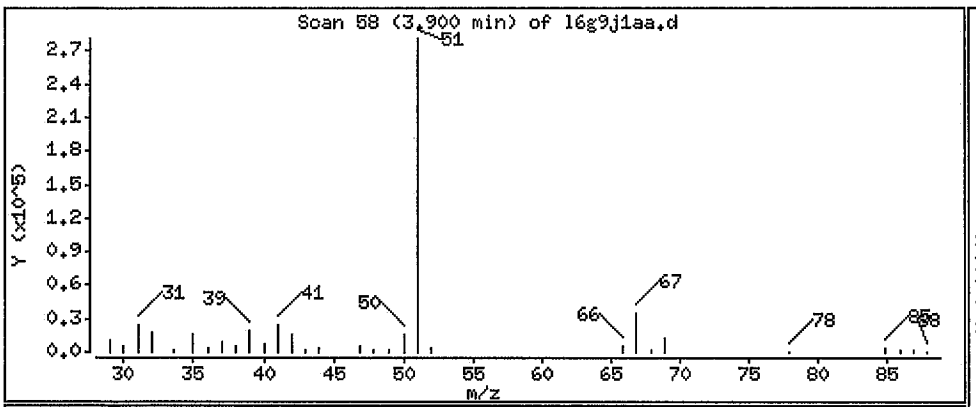
Client ID: SV-C-4-9 Instrument: mj.i

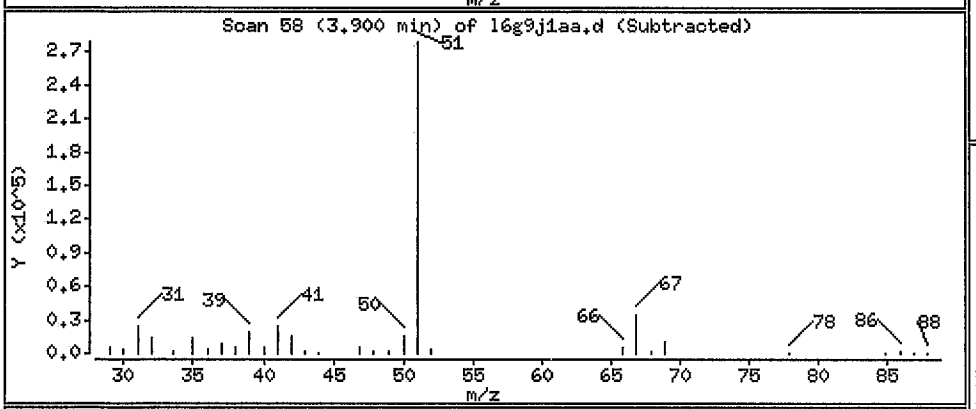
Sample Info: ,5,0,,,

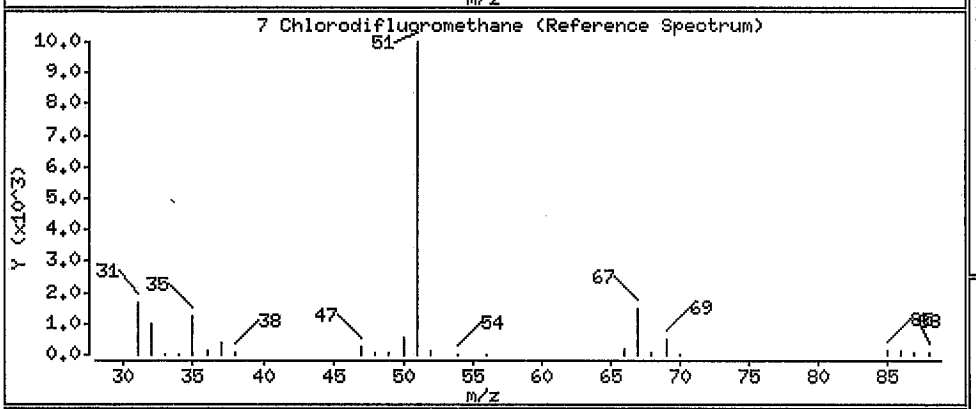
Purge Volume: 500.0 Operator: 7126

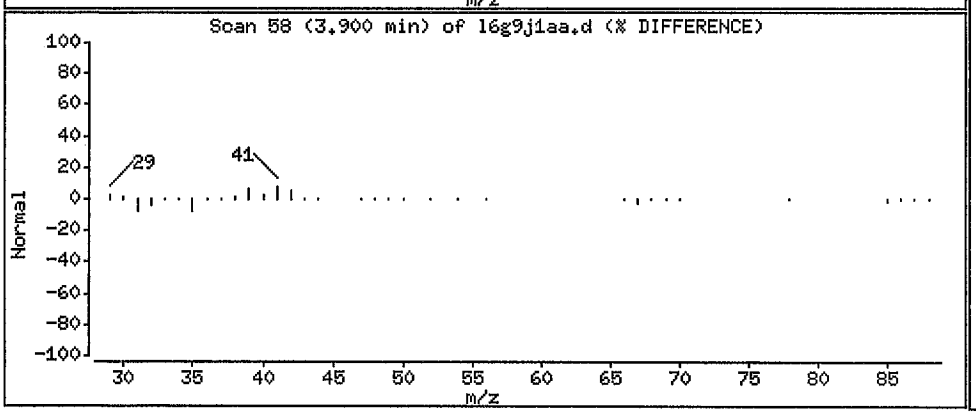
Column phase: Rtx-5 Column diameter: 0.32

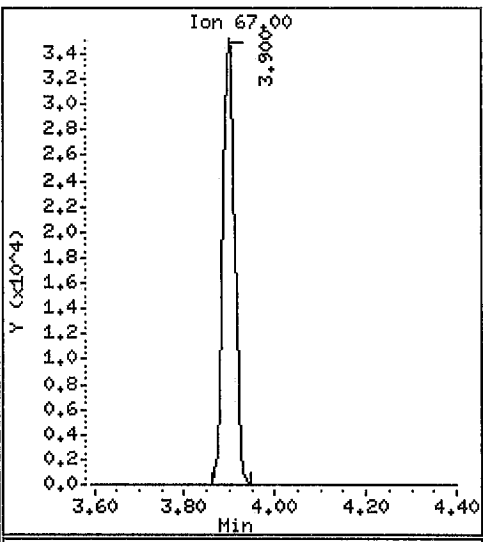
7 Chlorodifluoromethane Concentration: 13.85 ppb(v/v)

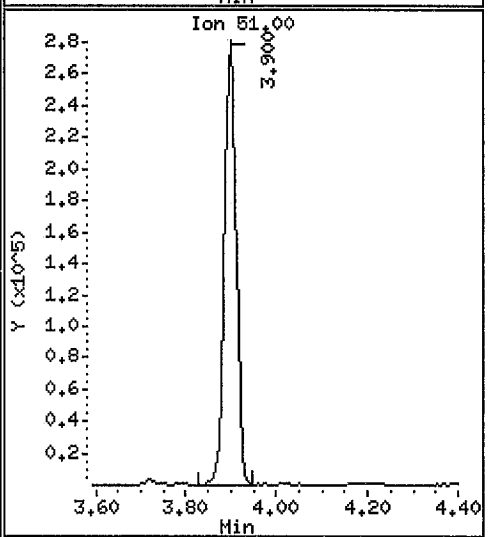


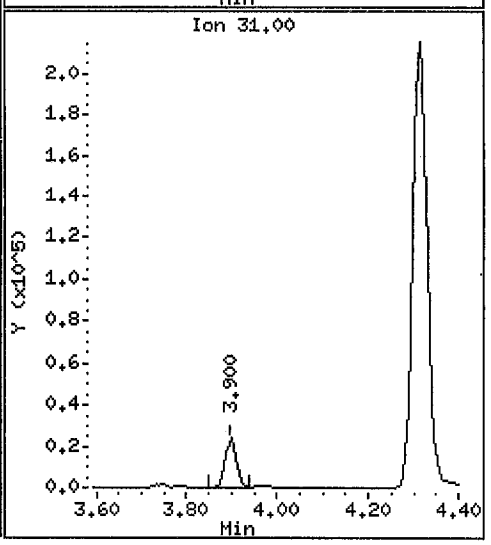












Data File: /var/chem/gcms/mj.i/J090810.b/16g9j1aa.d

Date : 08-SEP-2010 15:54

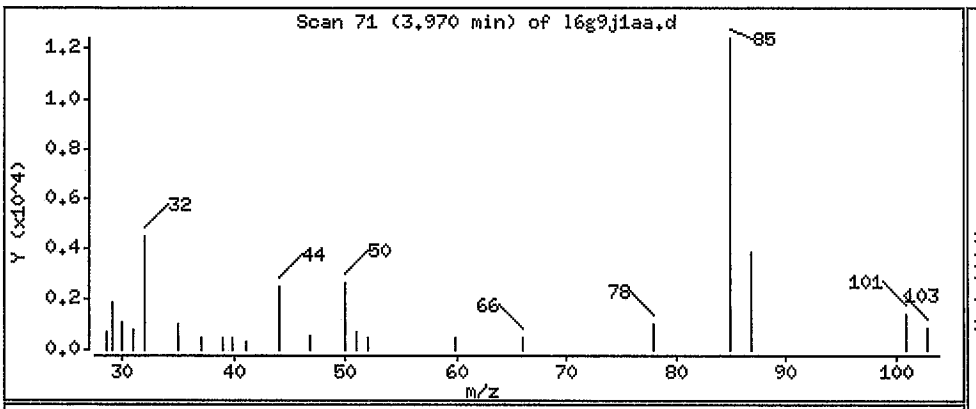
Client ID: SV-C-4-9 Instrument: mj.i

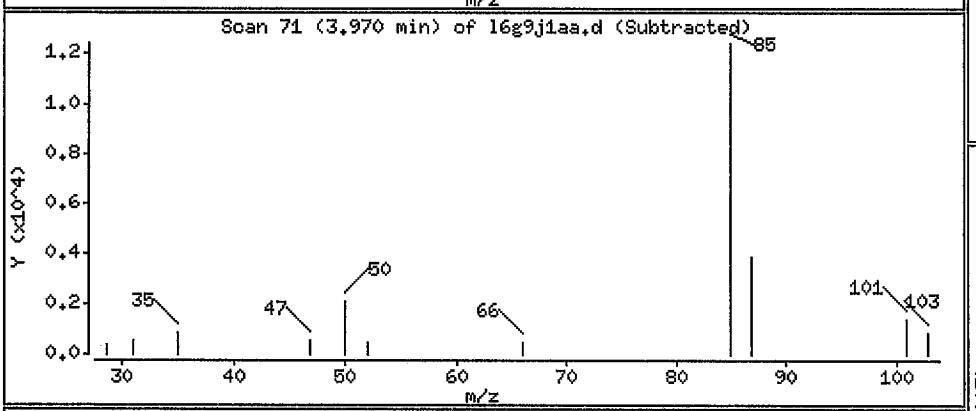
Sample Info: ,5,0,,,

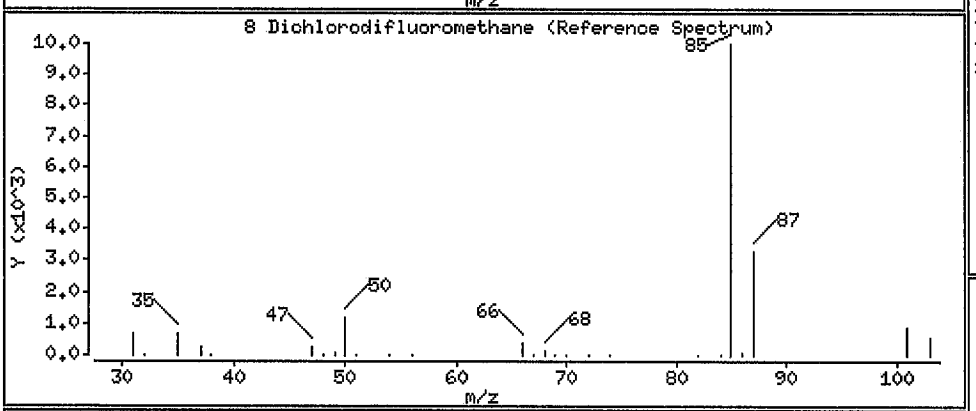
Purge Volume: 500.0 Operator: 7126

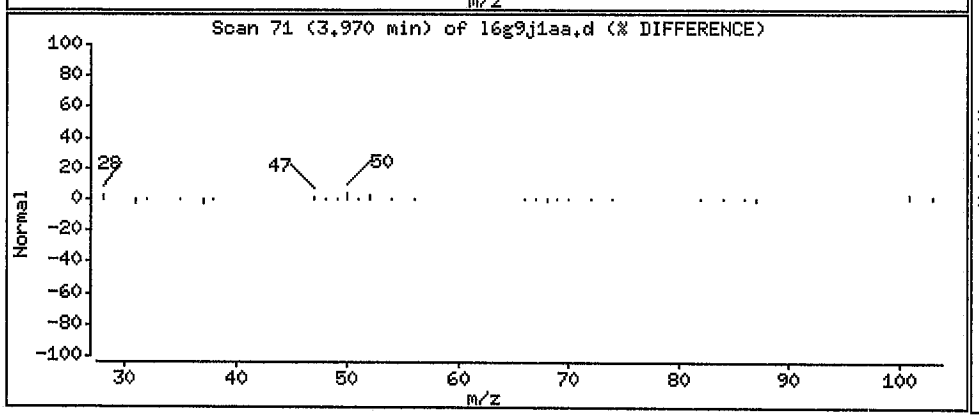
Column phase: Rtx-5 Column diameter: 0.32

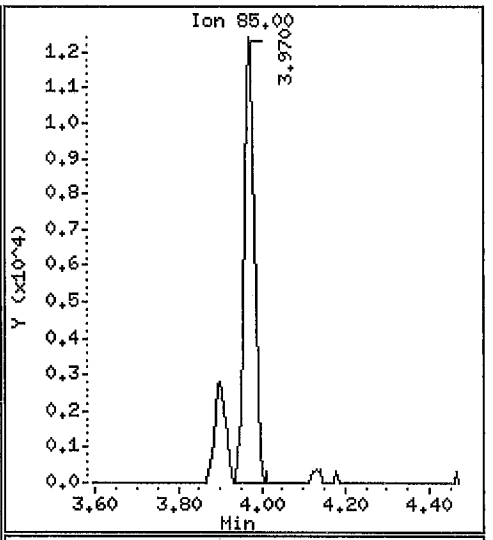
8 Dichlorodifluoromethane Concentration: 0.5490 ppb(v/v)

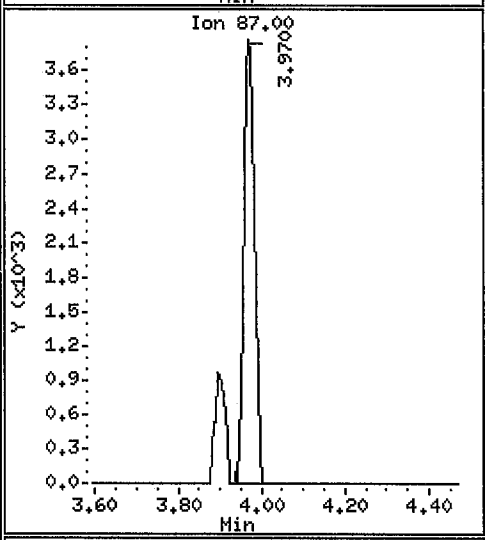


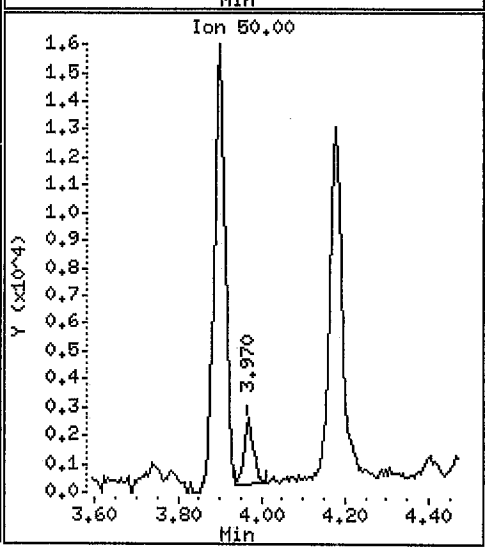












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9j1aa.d

Date : 08-SEP-2010 15:54

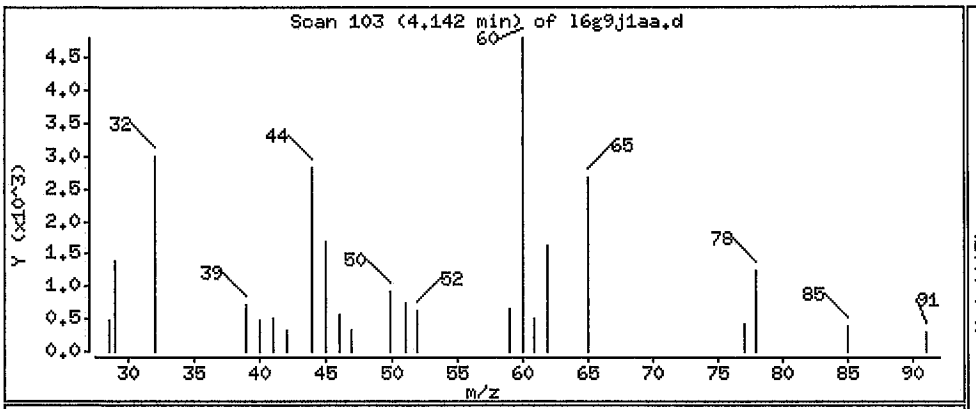
Client ID: SV-C-4-9 Instrument: mj.i

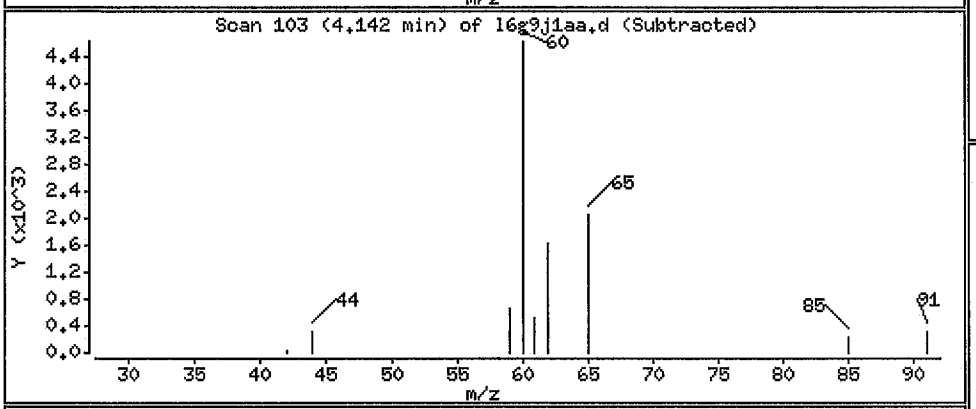
Sample Info: ,5,0,,,

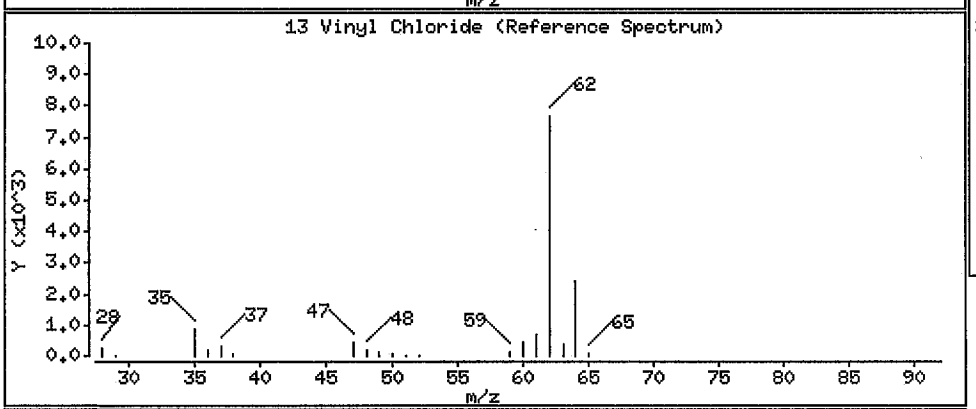
Purge Volume: 500.0 Operator: 7126

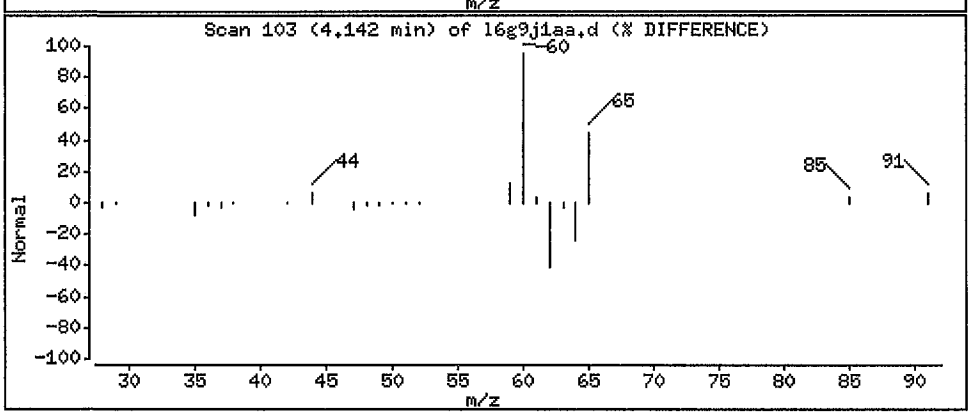
Column phase: Rtx-5 Column diameter: 0.32

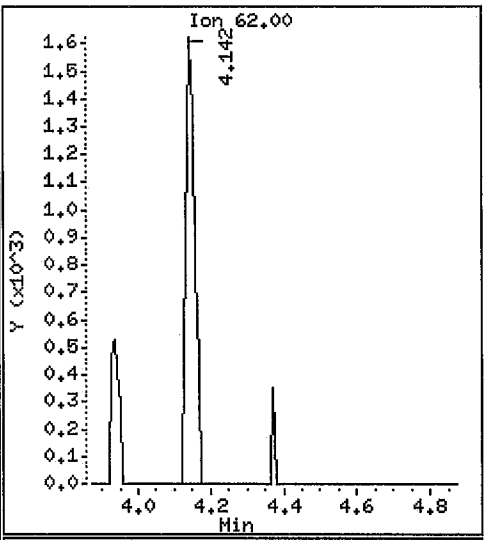
13 Vinyl Chloride Concentration: 0.2055 ppb(v/v)

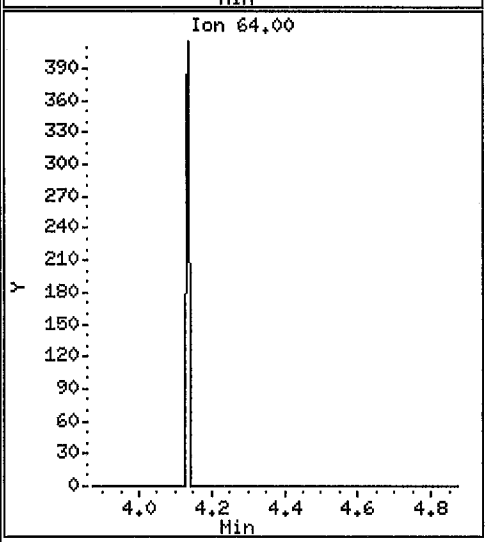












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9j1aa.d

Date : 08-SEP-2010 15:54

Client ID: SV-C-4-9

Instrument: mj.i

Sample Info: ,5,0,,,

Purge Volume: 500.0

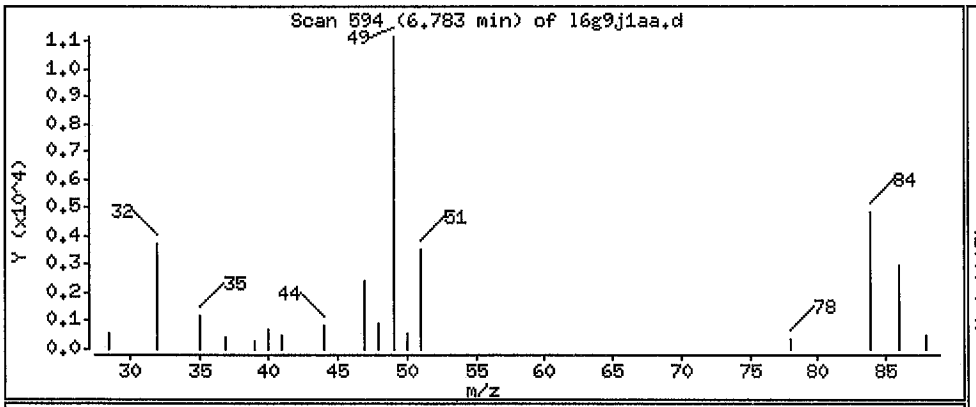
Operator: 7126

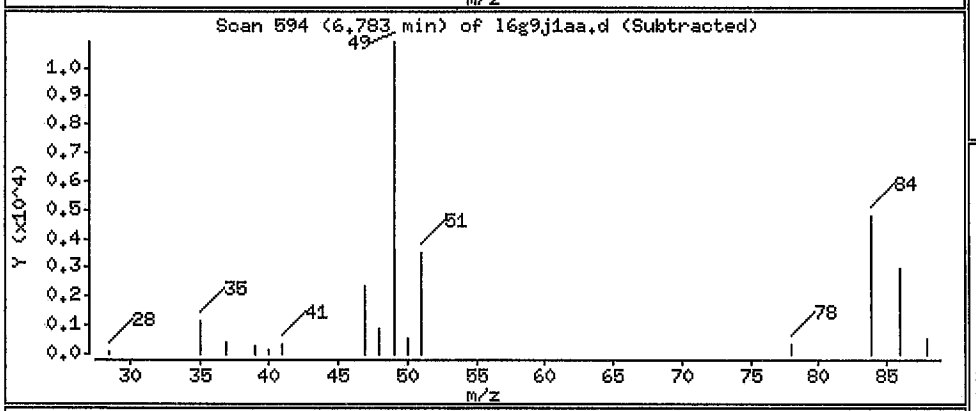
Column phase: Rtx-5

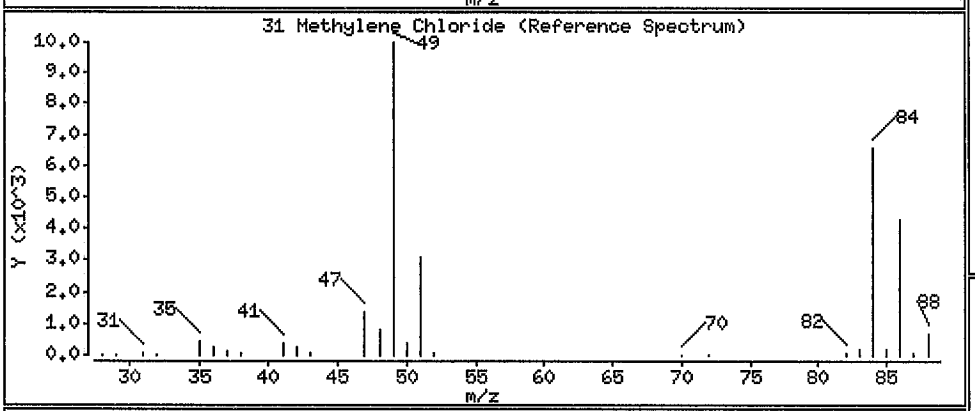
Column diameter: 0.32

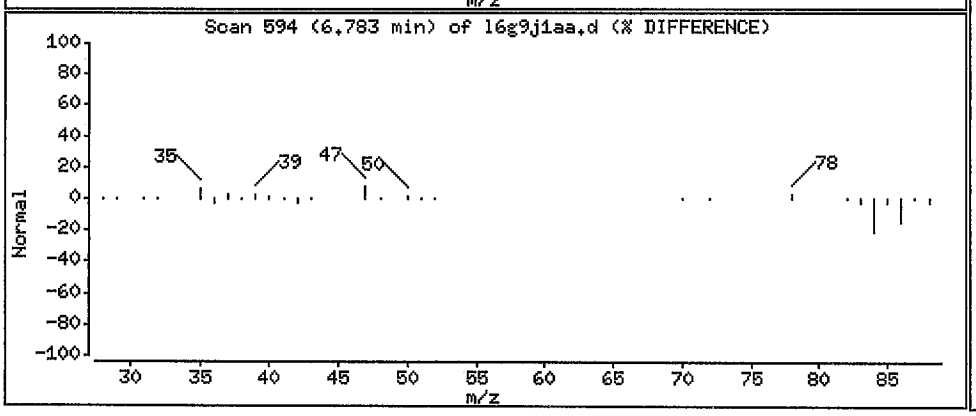
31 Methylene Chloride

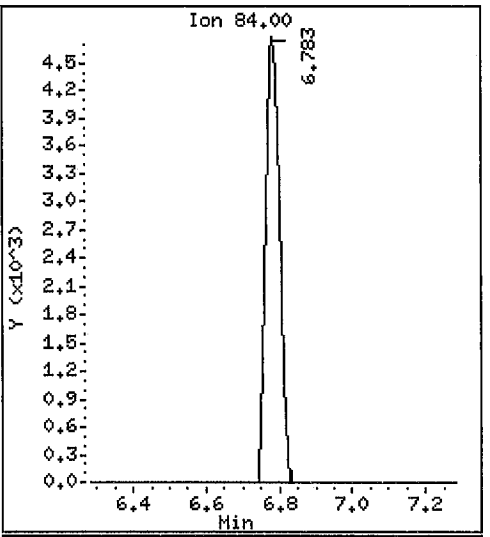
Concentration: 0.9500 ppb(v/v)

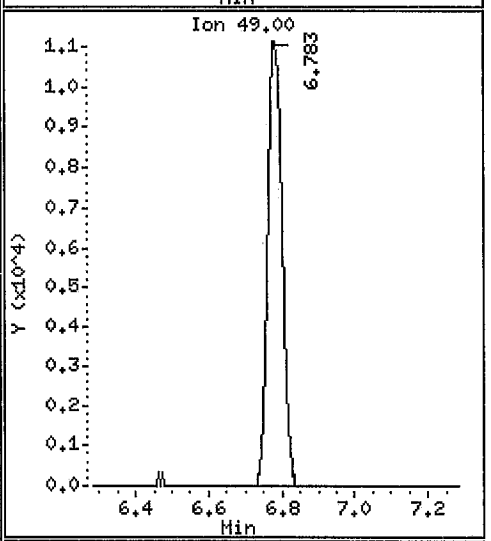


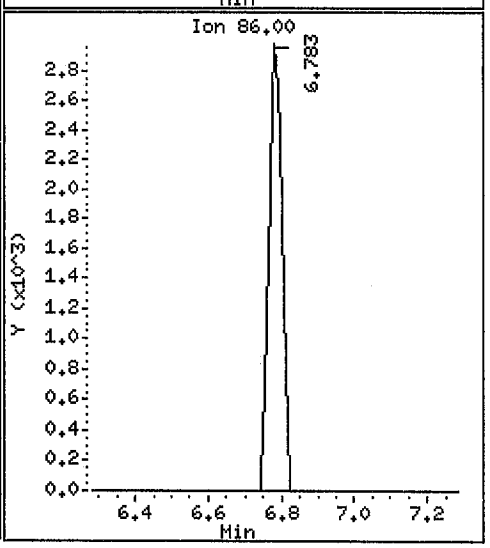












Data File: /var/chem/gcms/mj.i/J090810.b/16g9j1aa.d

Date : 08-SEP-2010 15:54

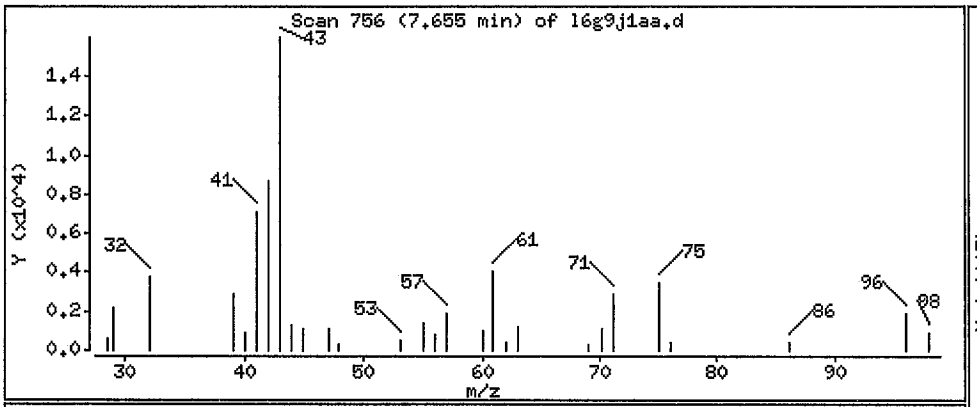
Client ID: SV-C-4-9 Instrument: mj.i

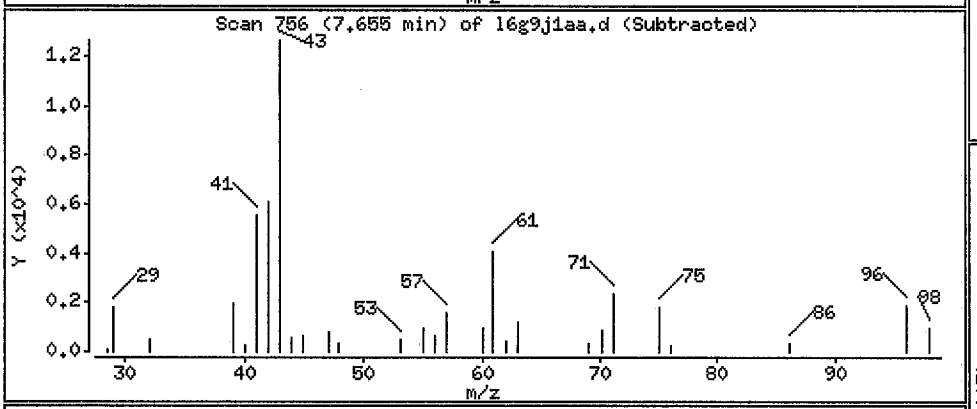
Sample Info: ,5,0,,,

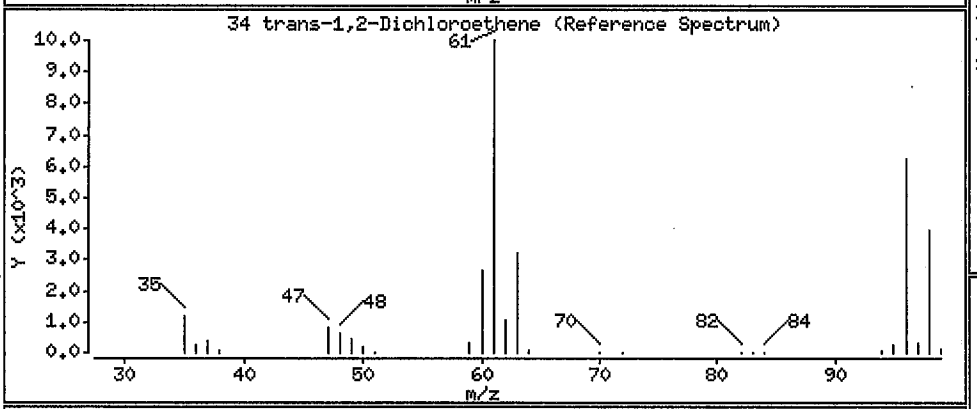
Purge Volume: 500.0 Operator: 7126

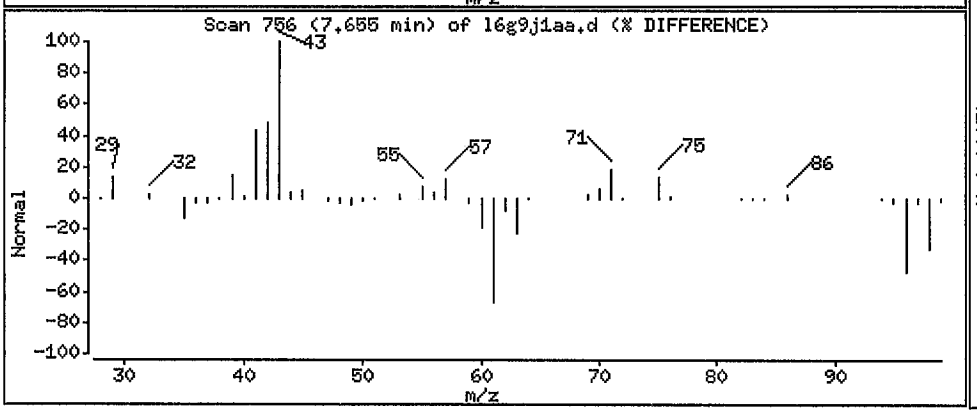
Column phase: Rtx-5 Column diameter: 0.32

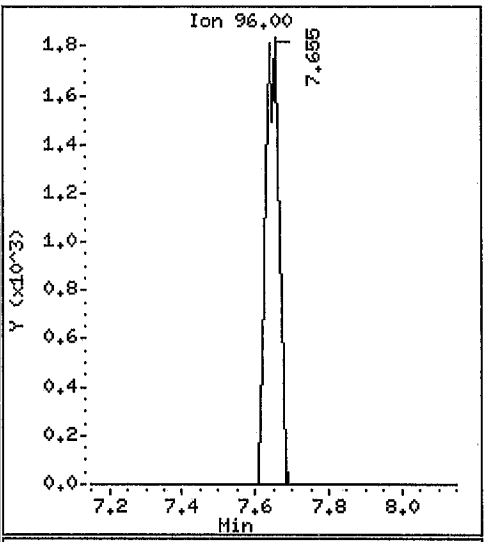
34 trans-1,2-Dichloroethene Concentration: 0.3451 ppb(v/v)

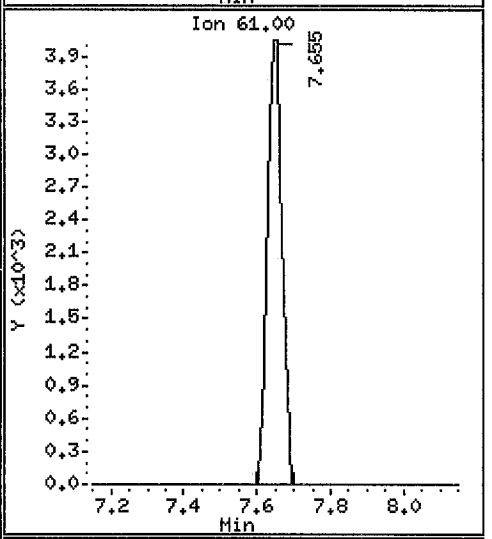


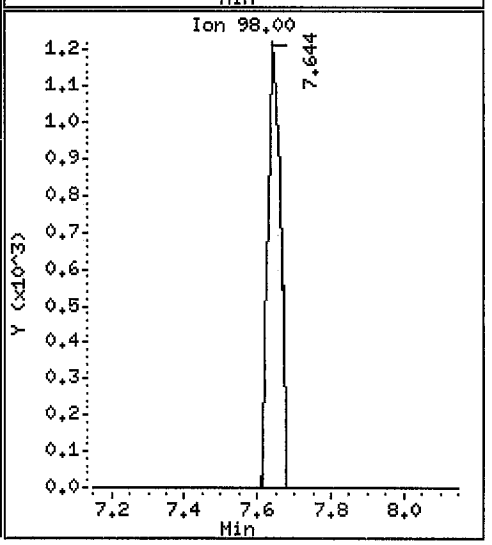












Data File: /var/chem/gcms/mj.i/J090810.b/16g9j1aa.d

Date : 08-SEP-2010 15:54

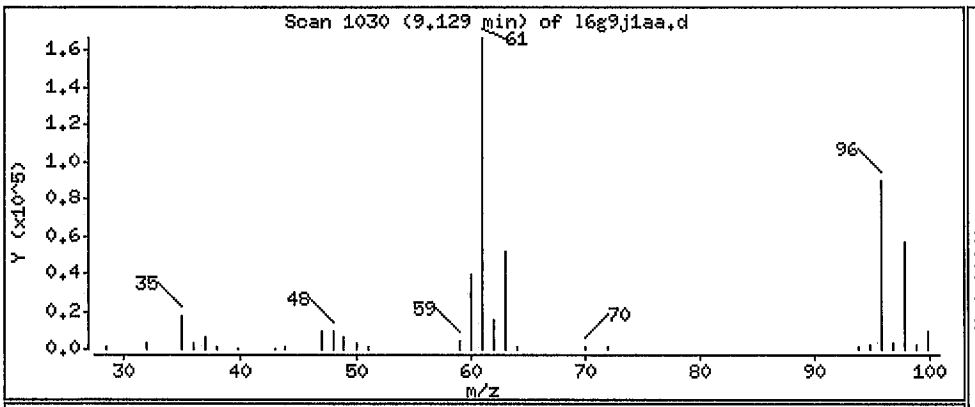
Client ID: SV-C-4-9 Instrument: mj.i

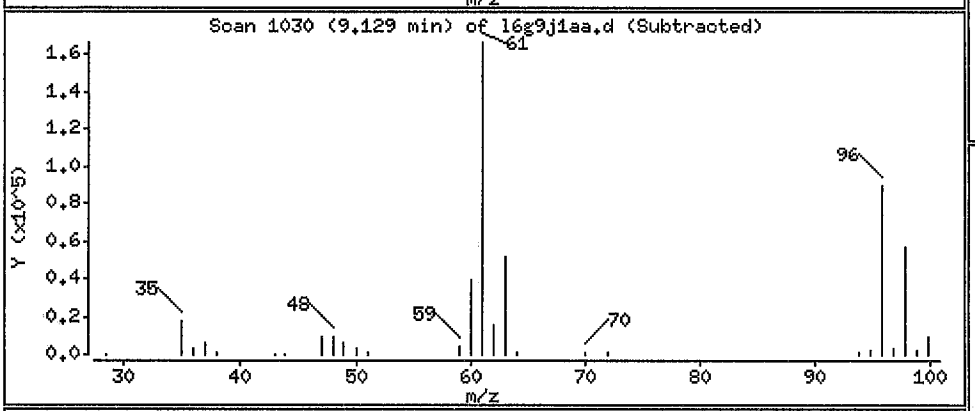
Sample Info: ,5,0,,,

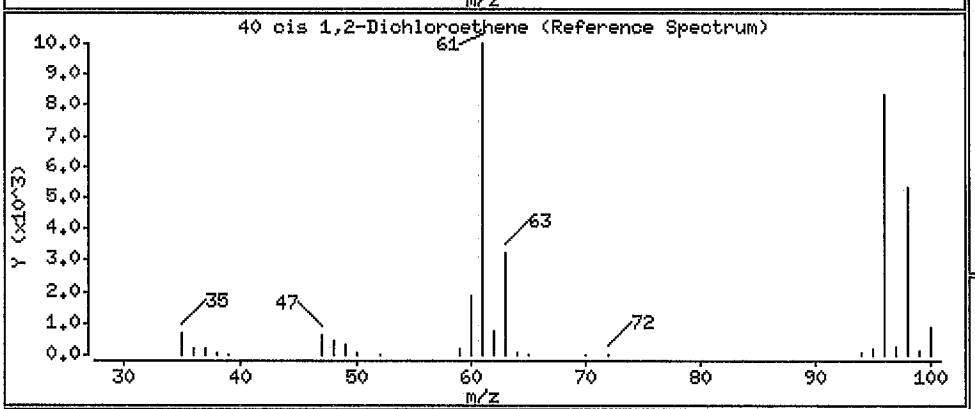
Purge Volume: 500.0 Operator: 7126

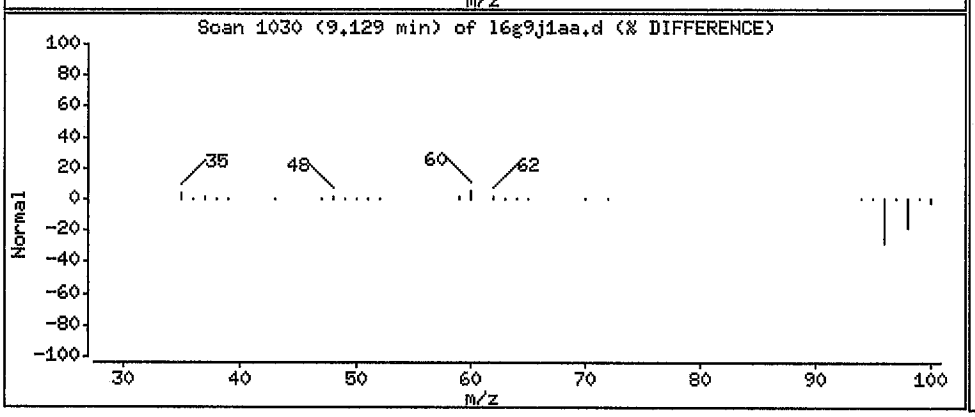
Column phase: Rtx-5 Column diameter: 0.32

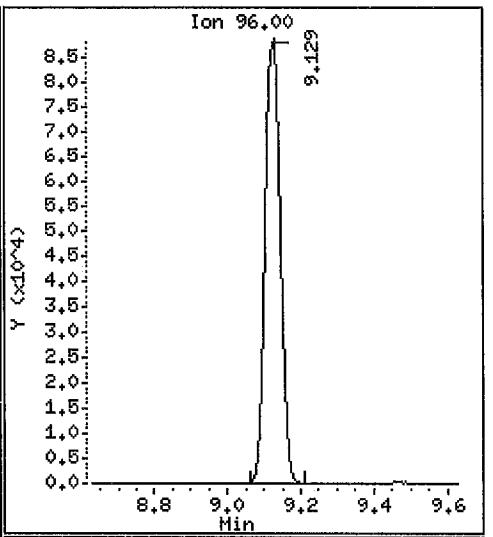
40 cis 1,2-Dichloroethene Concentration: 18.39 ppb(v/v)

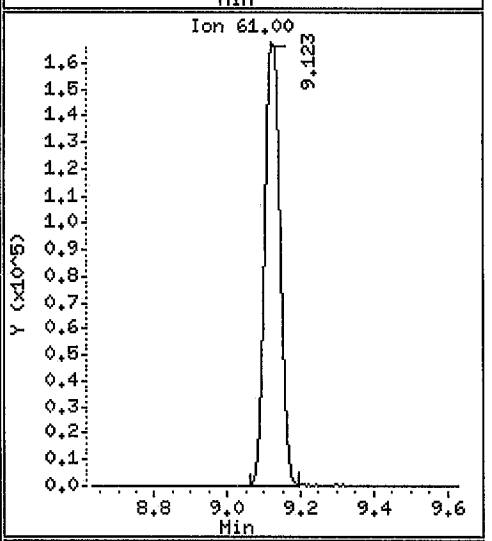


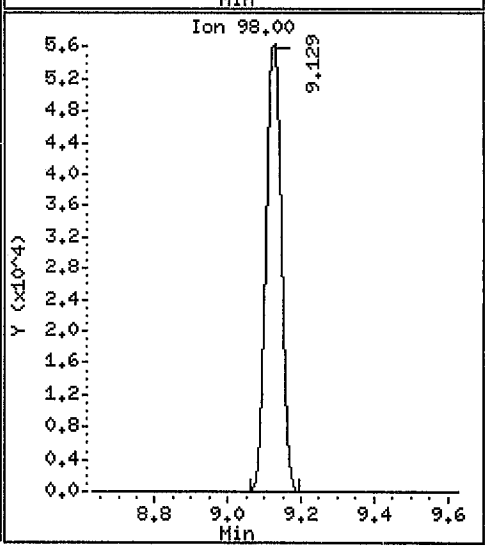












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9j1aa.d

Date : 08-SEP-2010 15:54

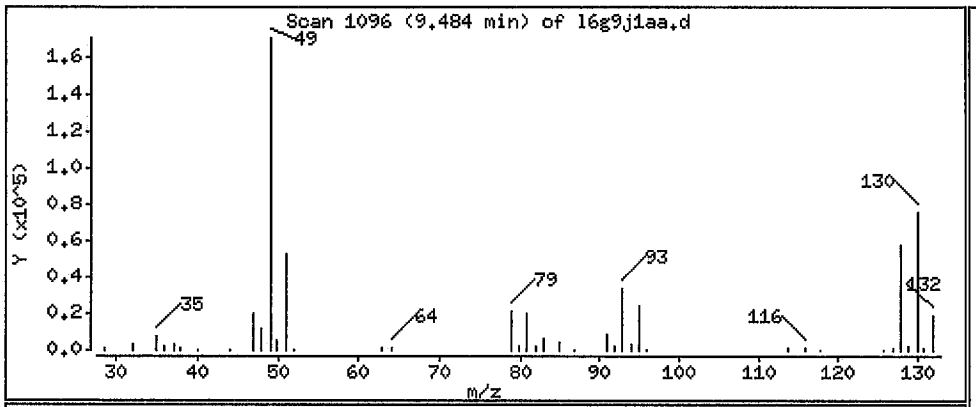
Client ID: SV-C-4-9 Instrument: mj.i

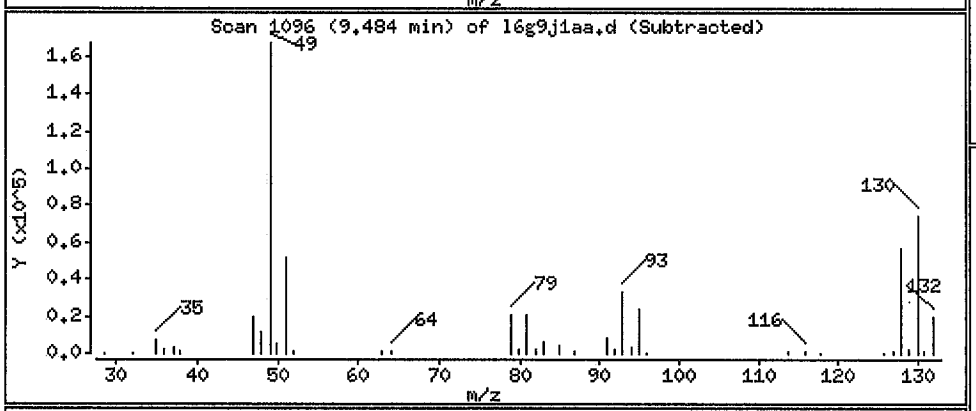
Sample Info: ,5,0,,,

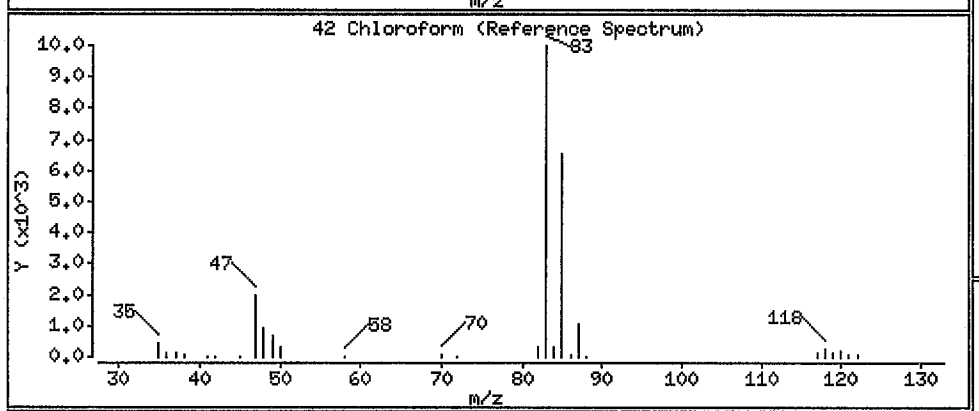
Purge Volume: 500.0 Operator: 7126

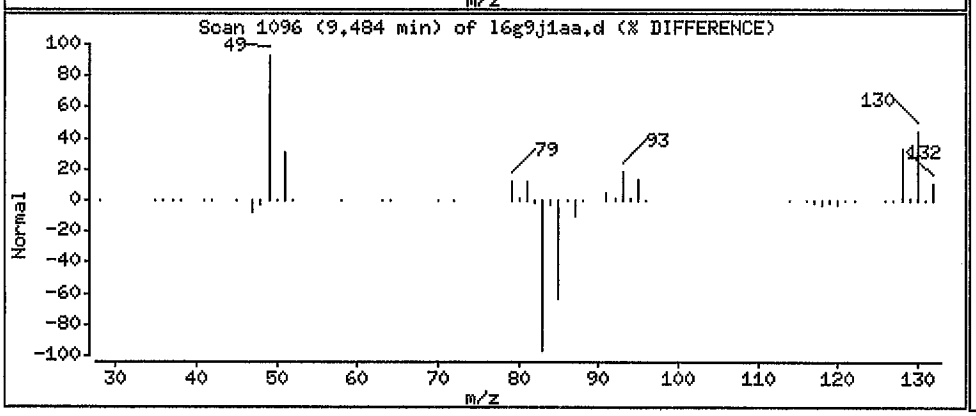
Column phase: Rtx-5 Column diameter: 0.32

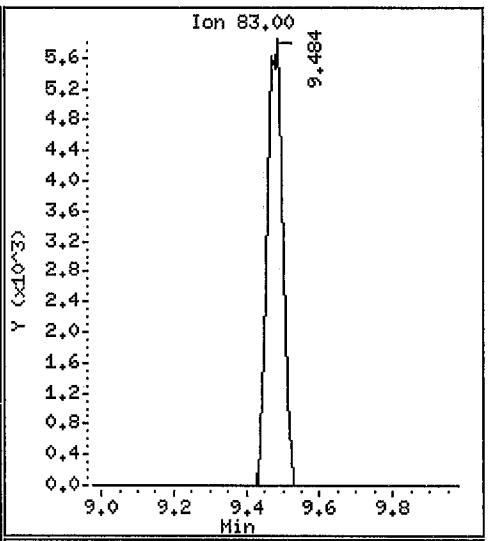
42 Chloroform Concentration: 0.5830 ppb(v/v)

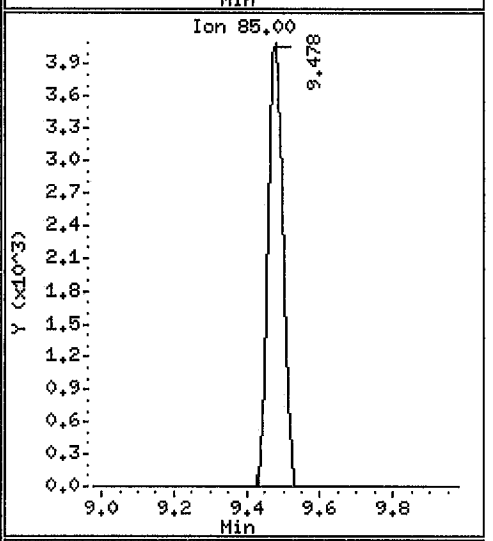


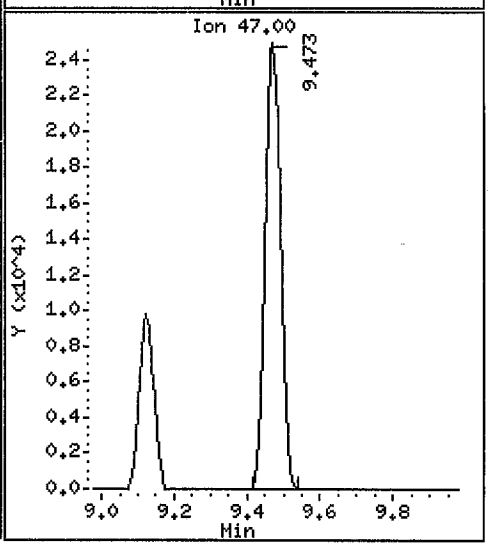












Data File: /var/chem/goms/mj.i/J090810.b/16g9j1aa.d

Date : 08-SEP-2010 15:54

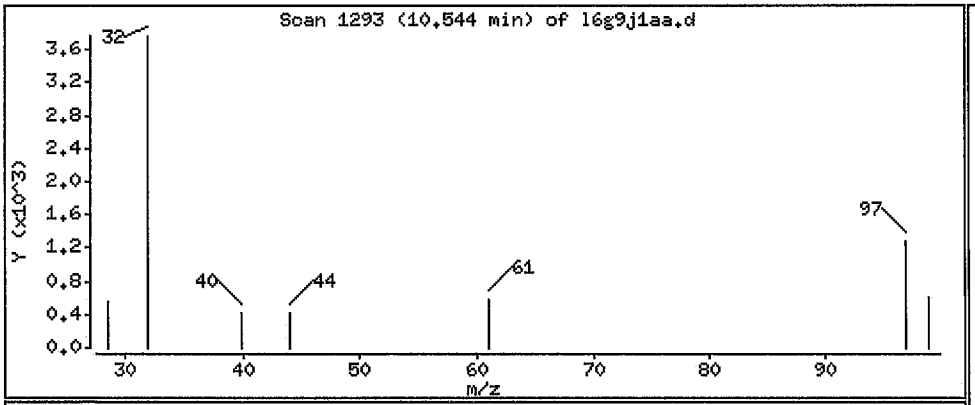
Client ID: SV-C-4-9 Instrument: mj.i

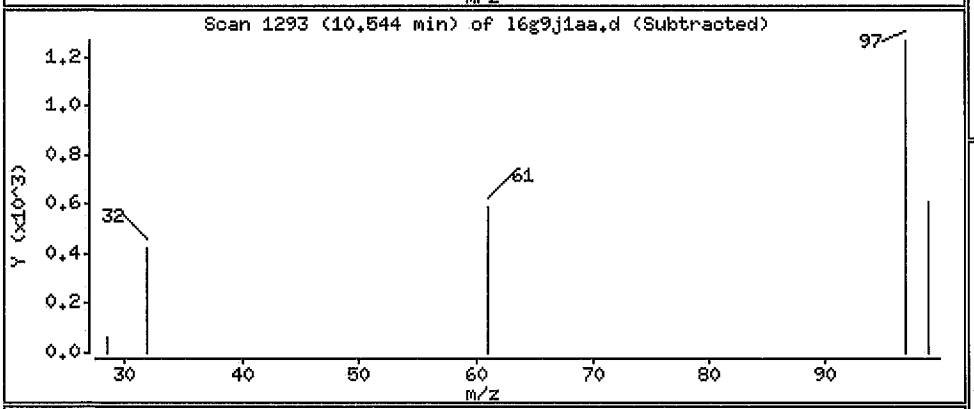
Sample Info: ,5,0,,,

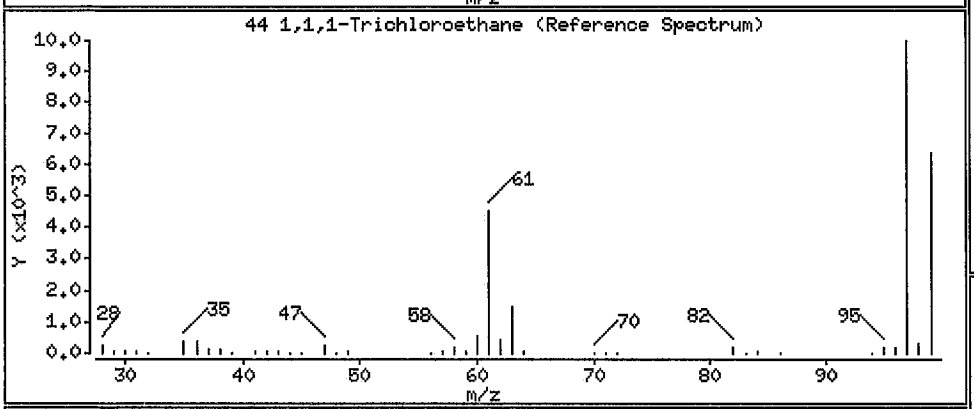
Purge Volume: 500.0 Operator: 7126

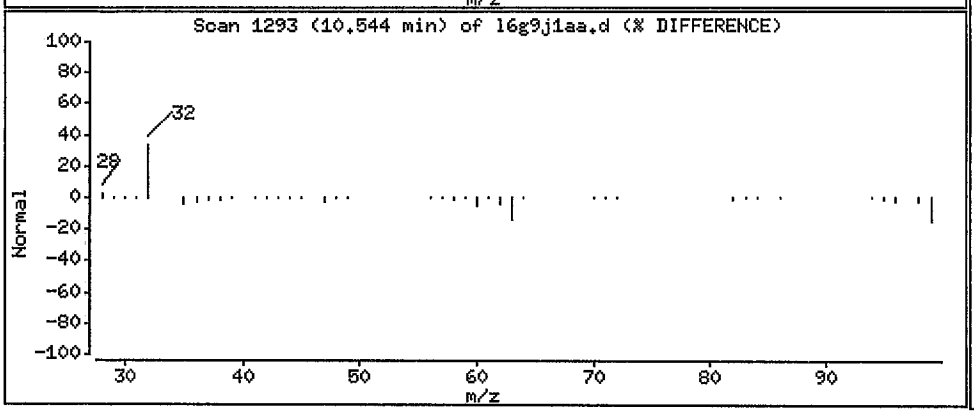
Column phase: Rtx-5 Column diameter: 0.32

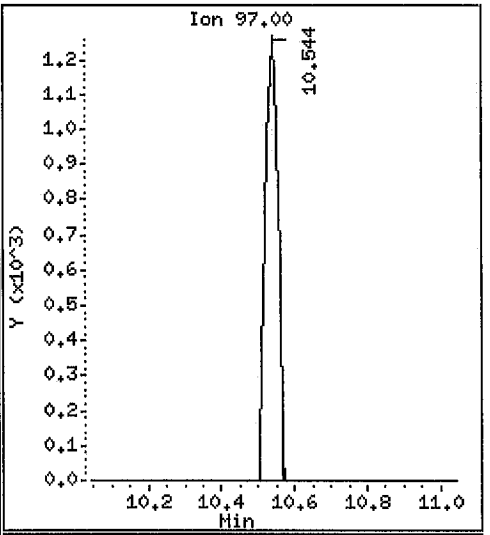
44 1,1,1-Trichloroethane Concentration: 0.09811 ppb(v/v)

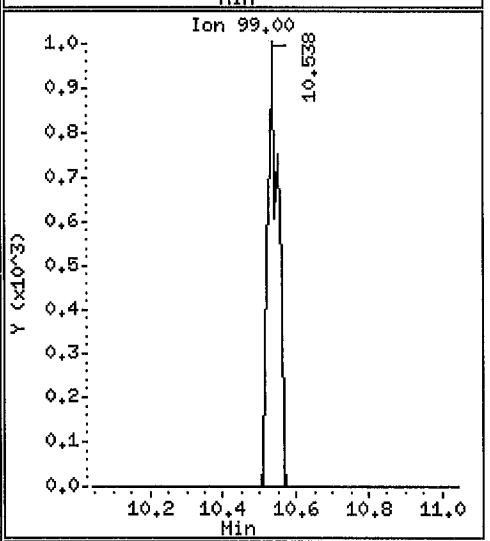


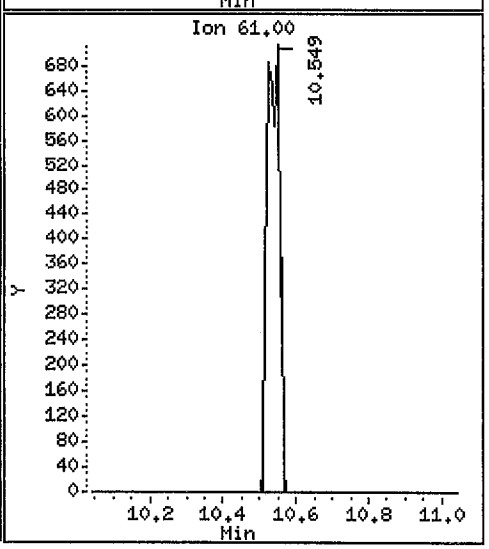












Data File: /var/chem/gcms/mj.i/J090810.b/16g9j1aa.d

Date : 08-SEP-2010 15:54

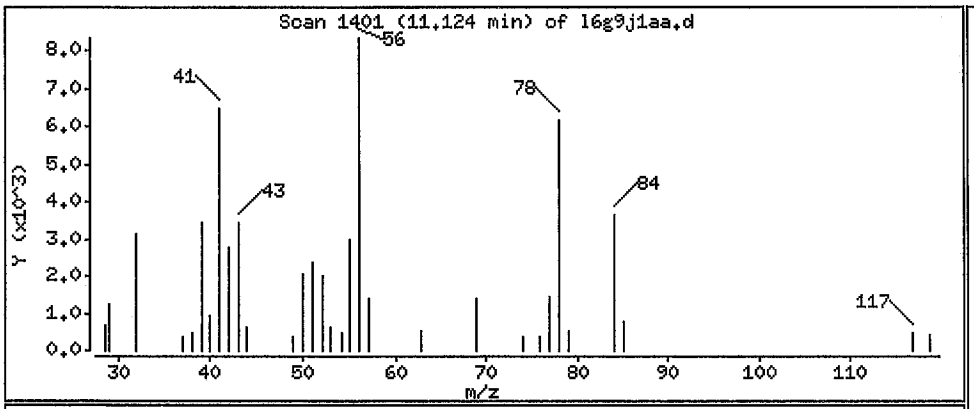
Client ID: SV-C-4-9 Instrument: mj.i

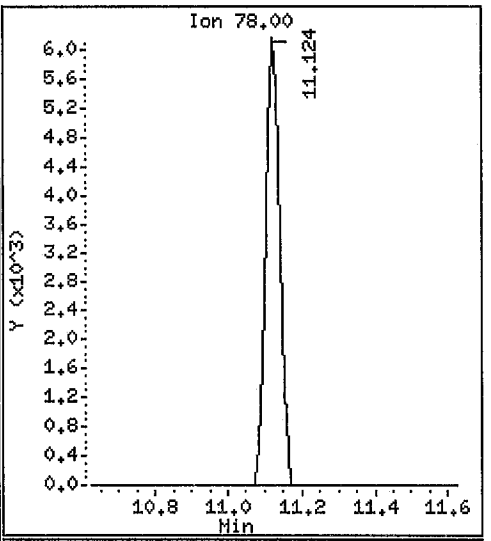
Sample Info: ,5,0,,,

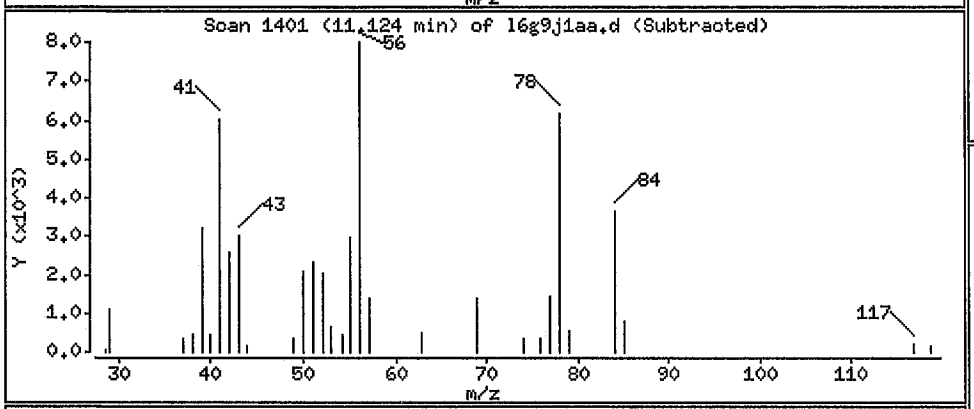
Purge Volume: 500.0 Operator: 7126

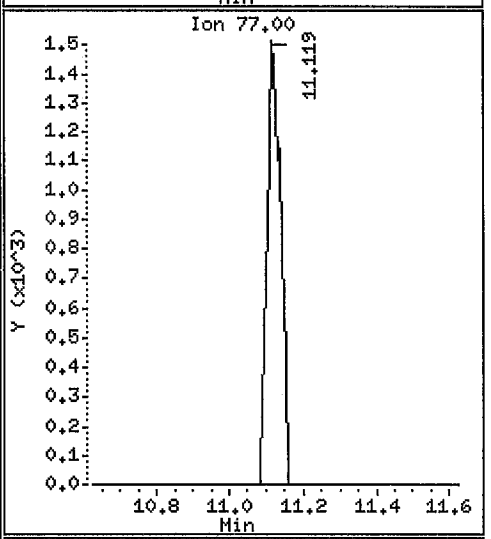
Column phase: Rtx-5 Column diameter: 0.32

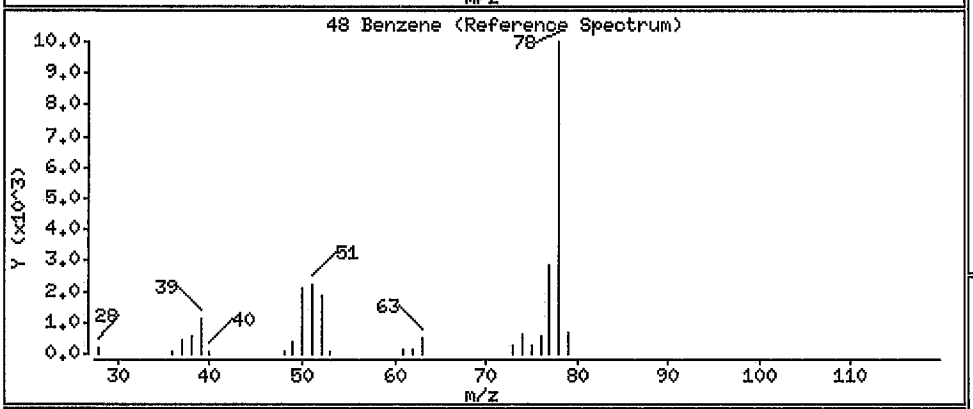
48 Benzene Concentration: 0.4219 ppb(v/v)

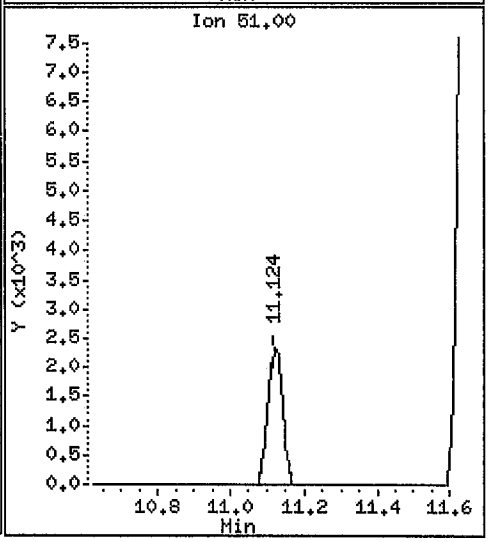


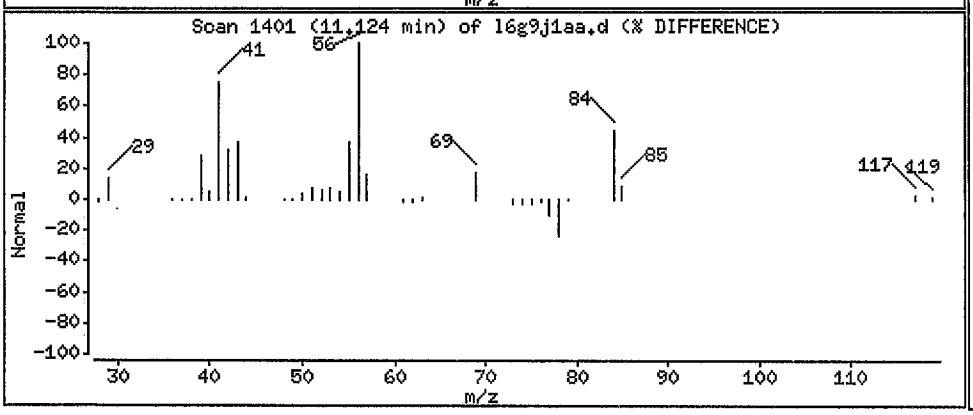












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9j1aa.d

Date : 08-SEP-2010 15:54

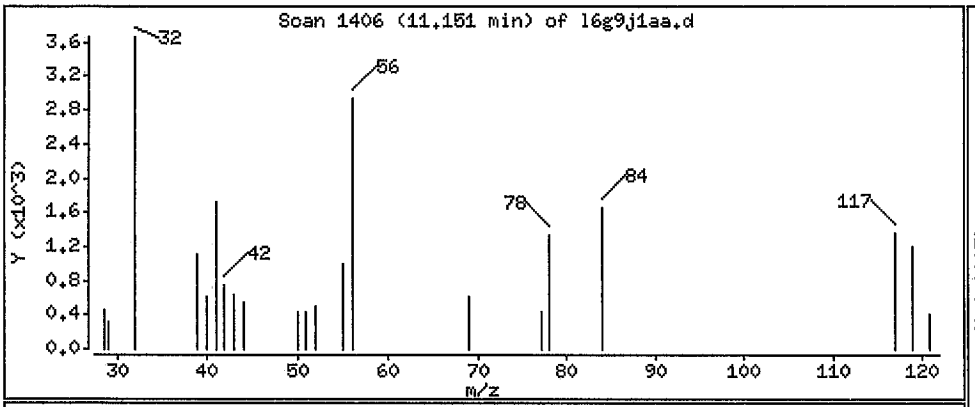
Client ID: SV-C-4-9 Instrument: mj.i

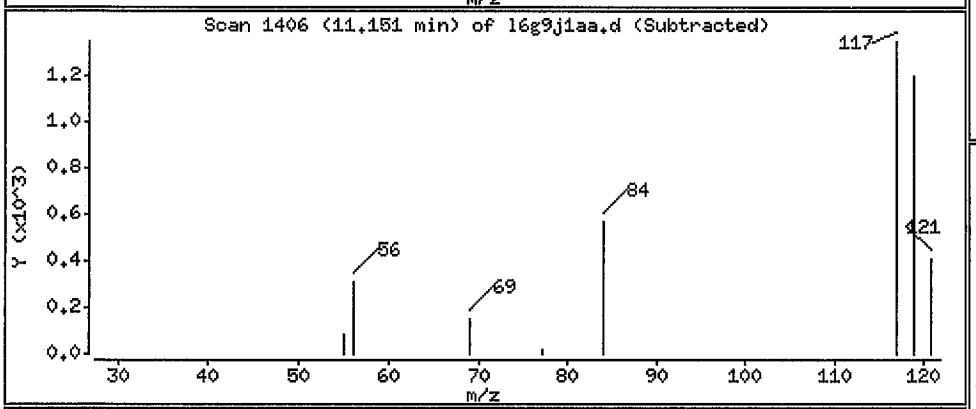
Sample Info: ,5,0,,,

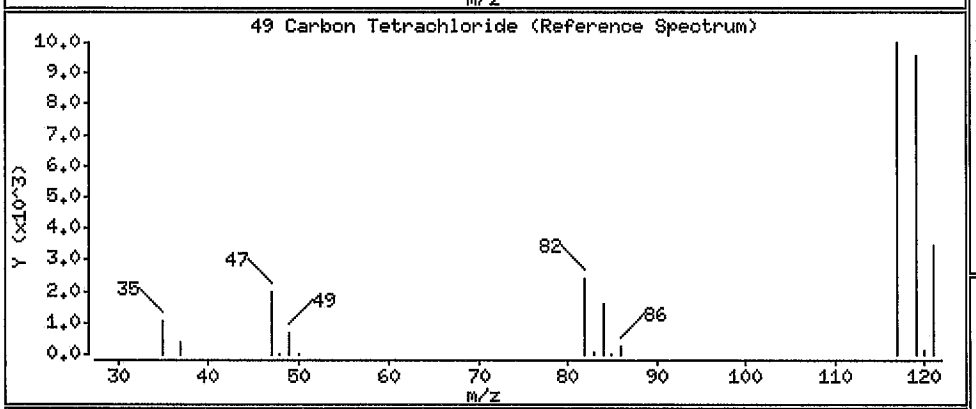
Purge Volume: 500.0 Operator: 7126

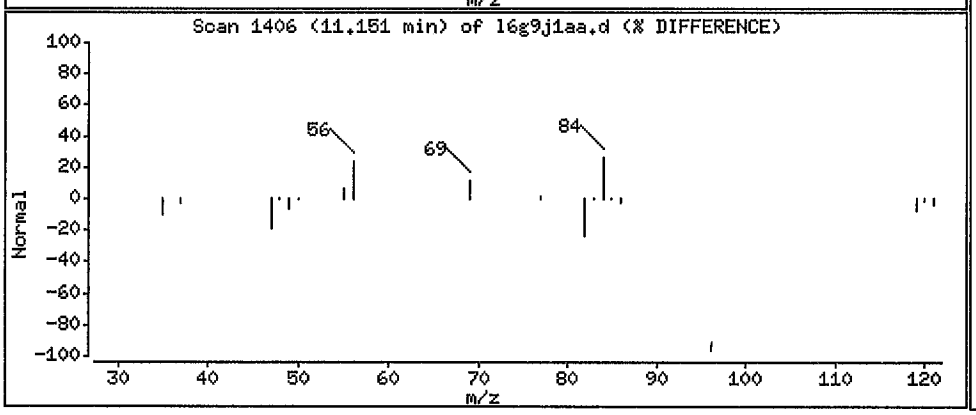
Column phase: Rtx-5 Column diameter: 0.32

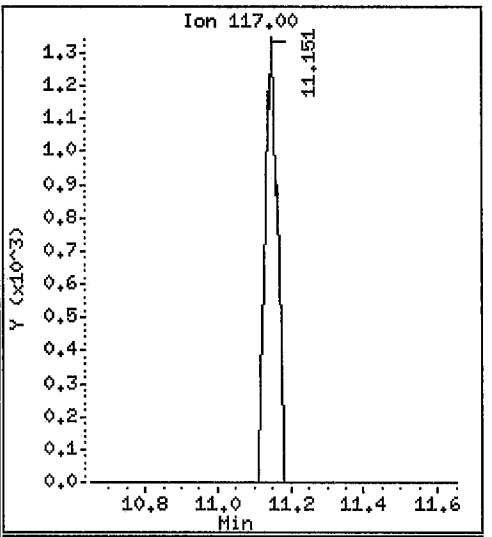
49 Carbon Tetrachloride Concentration: 0.1049 ppb(v/v)

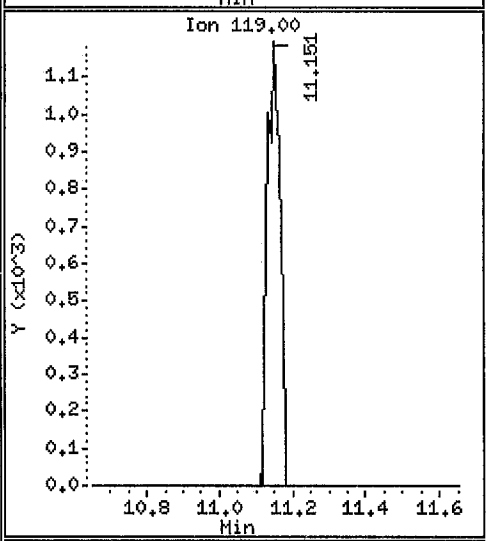


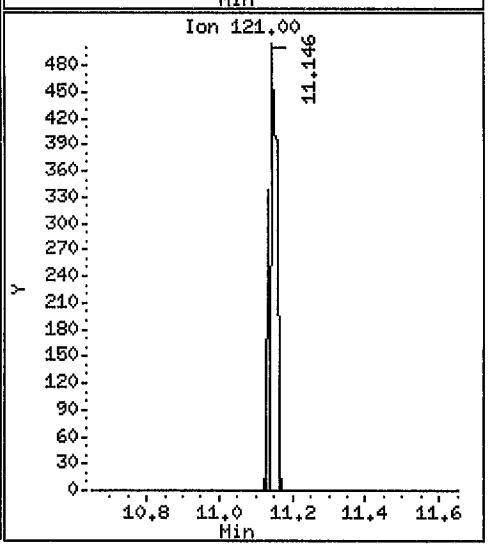












Data File: /var/chem/gcms/mj.i/J090810.b/16g9j1aa.d

Date : 08-SEP-2010 15:54

Client ID: SV-C-4-9

Instrument: mj.i

Sample Info: ,5,0,,,

Purge Volume: 500.0

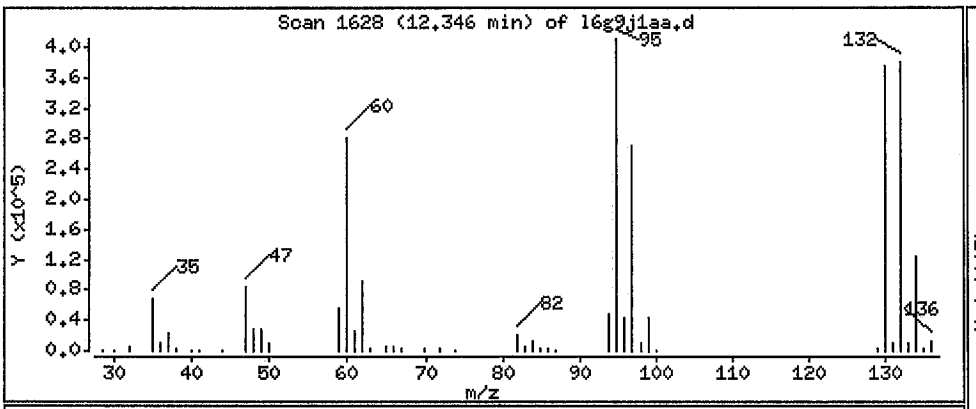
Operator: 7126

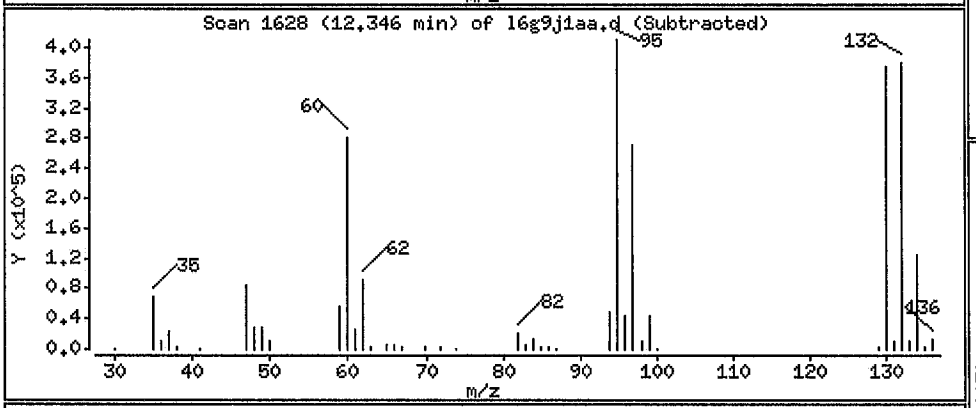
Column phase: Rtx-5

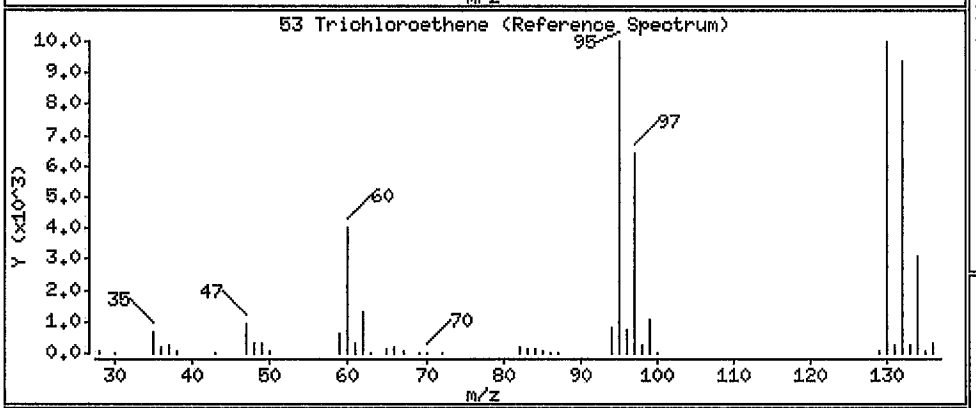
Column diameter: 0.32

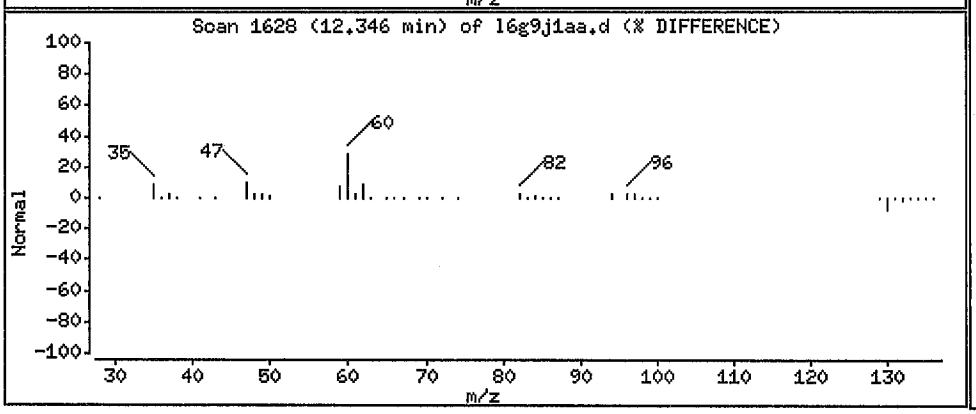
53 Trichloroethene

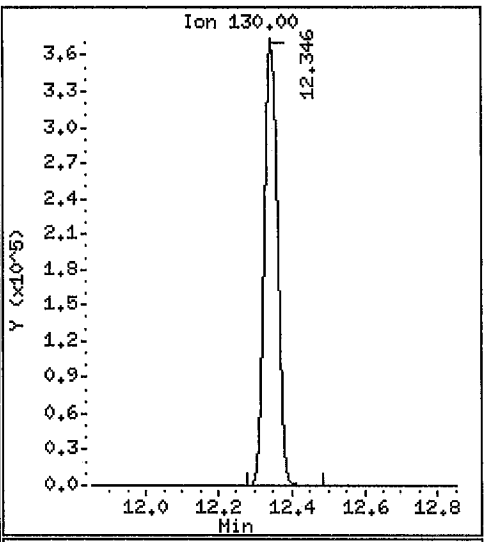
Concentration: 50.00 ppb(v/v)

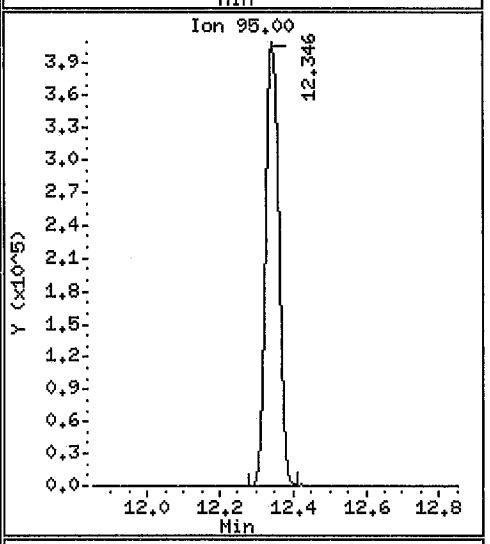


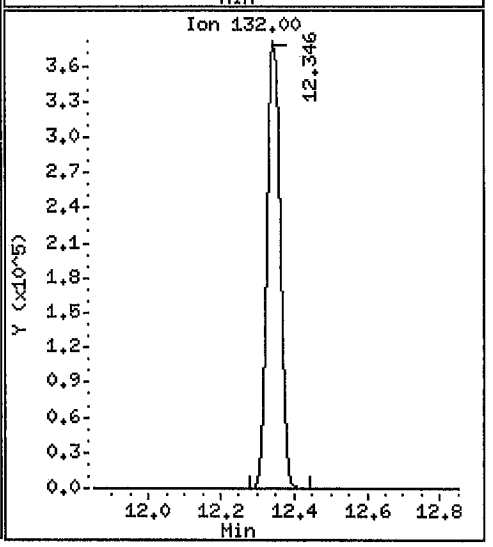












Data File: /var/chem/gcms/mj.i/J090810.b/16g9j1aa.d

Date : 08-SEP-2010 15:54

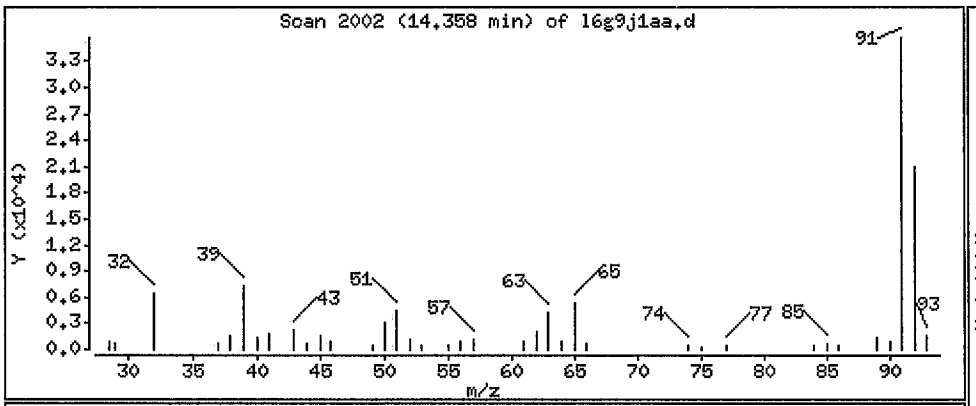
Client ID: SV-C-4-9 Instrument: mj.i

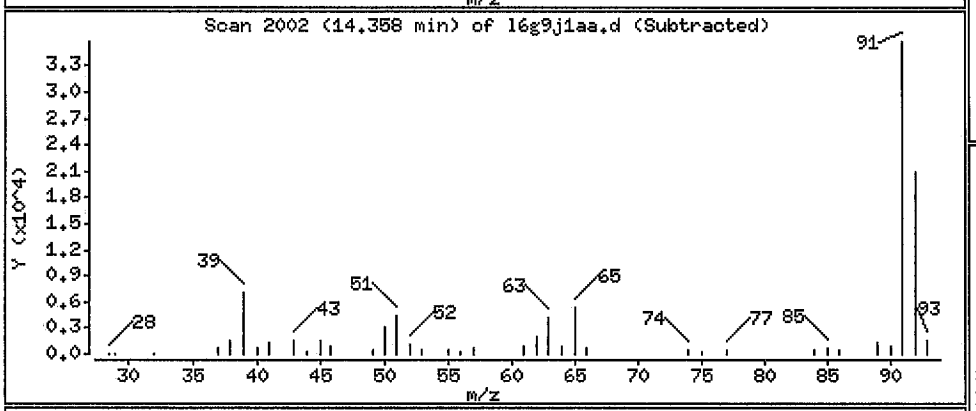
Sample Info: ,5,0,,,

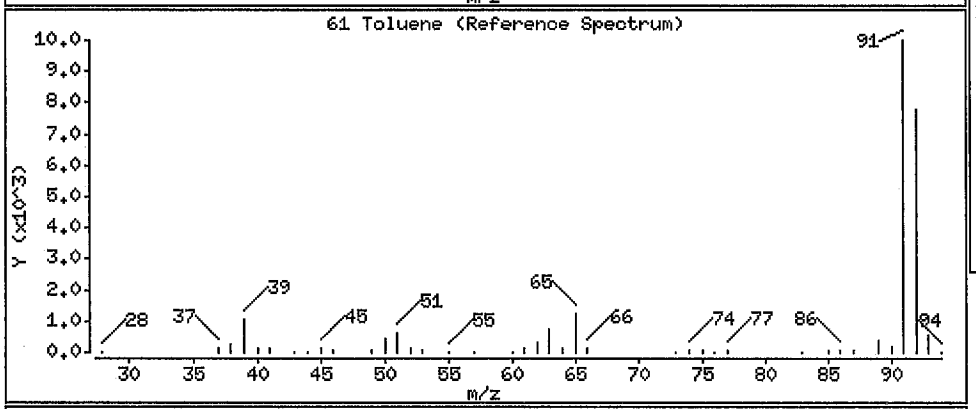
Purge Volume: 500.0 Operator: 7126

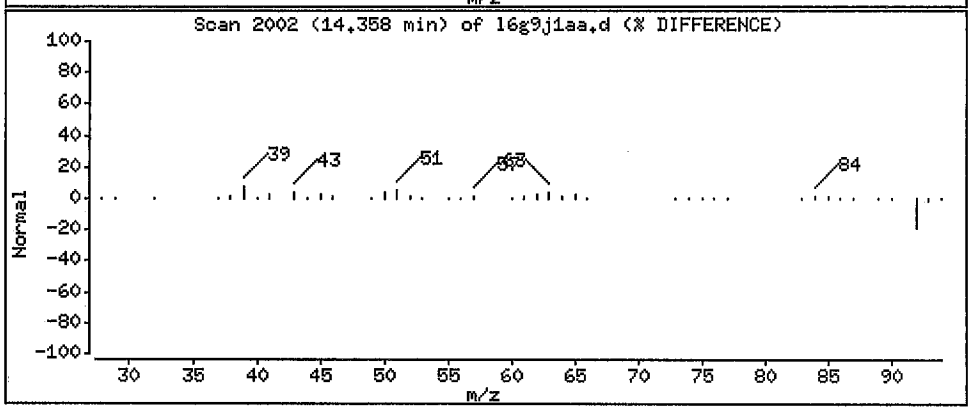
Column phase: Rtx-5 Column diameter: 0.32

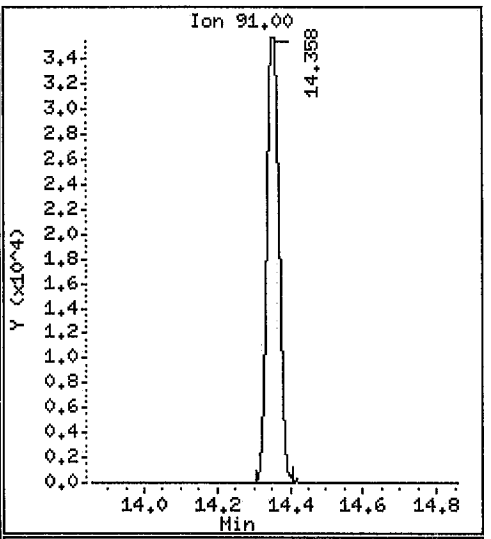
61 Toluene Concentration: 2.447 ppb(v/v)

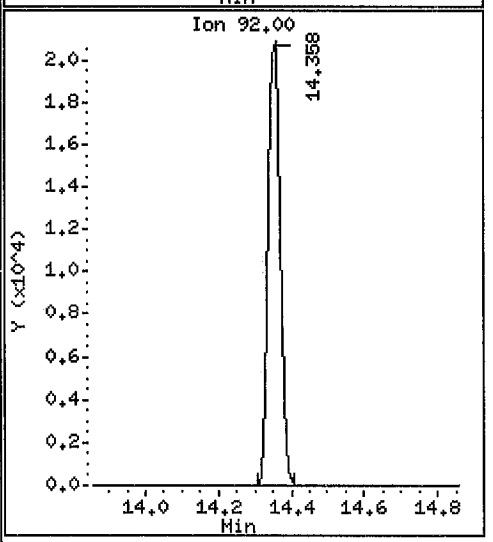












Data File: /var/chem/gcms/mj.i/J090810.b/16g9j1aa.d

Date : 08-SEP-2010 15:54

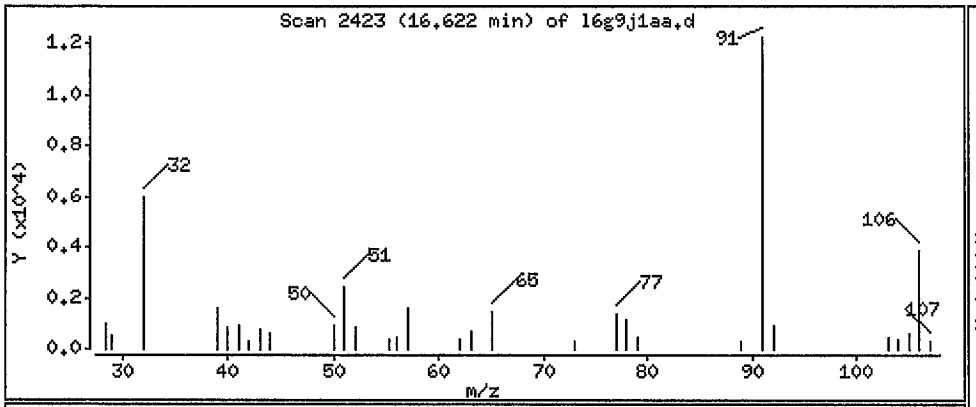
Client ID: SV-C-4-9 Instrument: mj.i

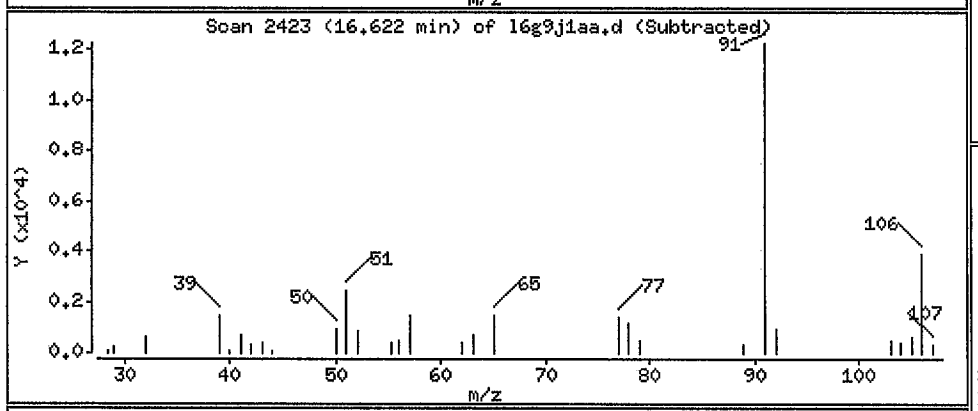
Sample Info: ,5,0,,,

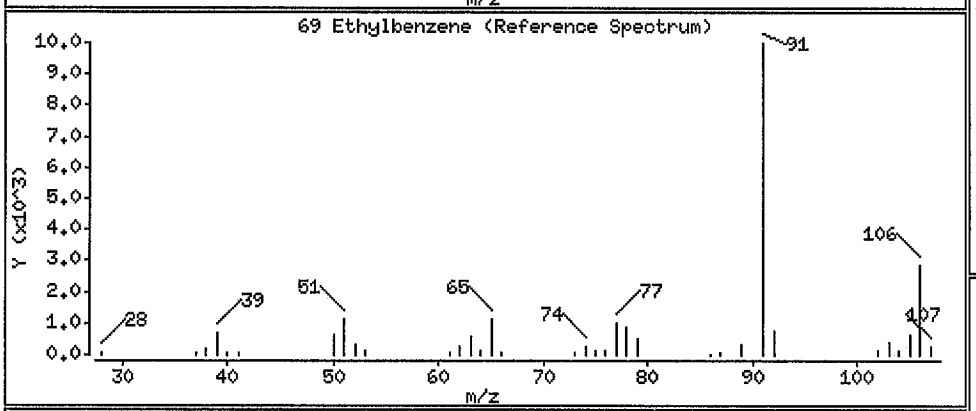
Purge Volume: 500.0 Operator: 7126

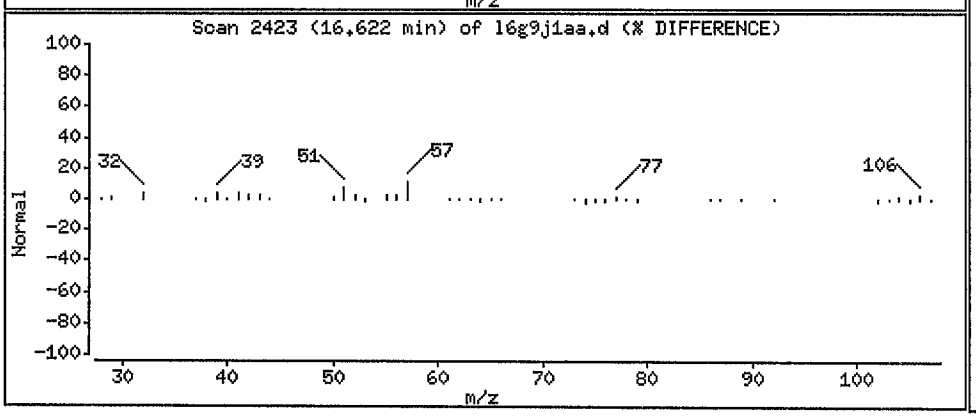
Column phase: Rtx-5 Column diameter: 0.32

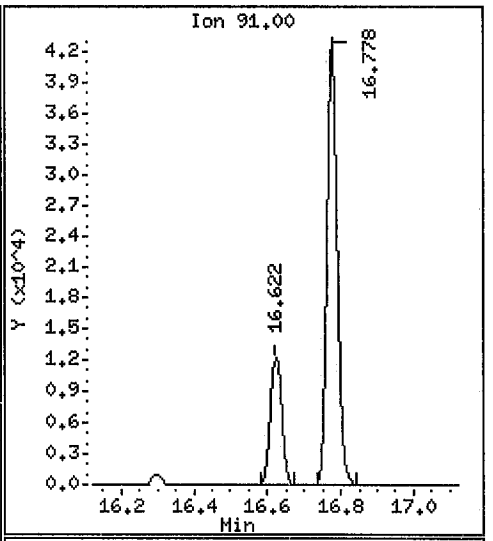
69 Ethylbenzene Concentration: 0.6753 ppb(v/v)

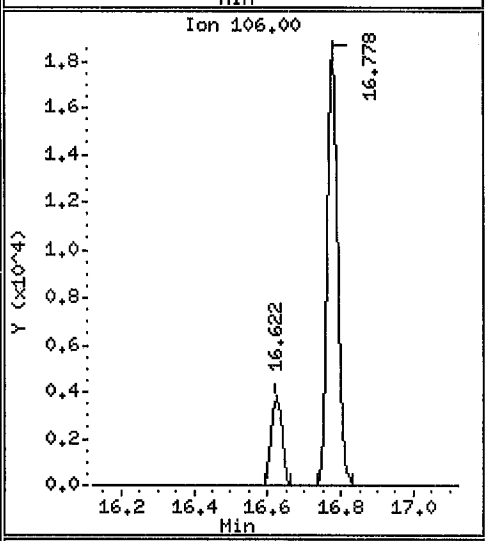


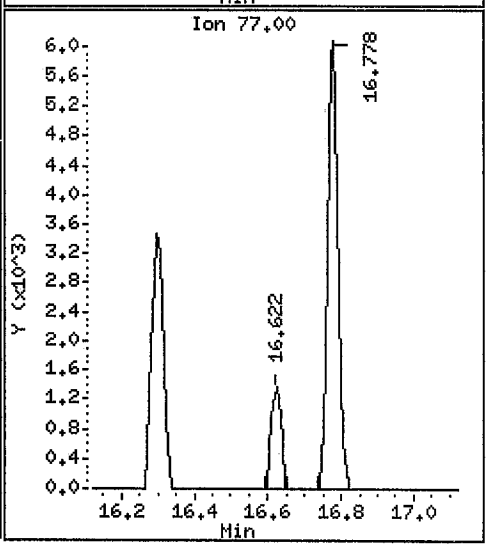












Data File: /var/chem/gcms/mj.i/J090810.b/16g9j1aa.d

Date : 08-SEP-2010 15:54

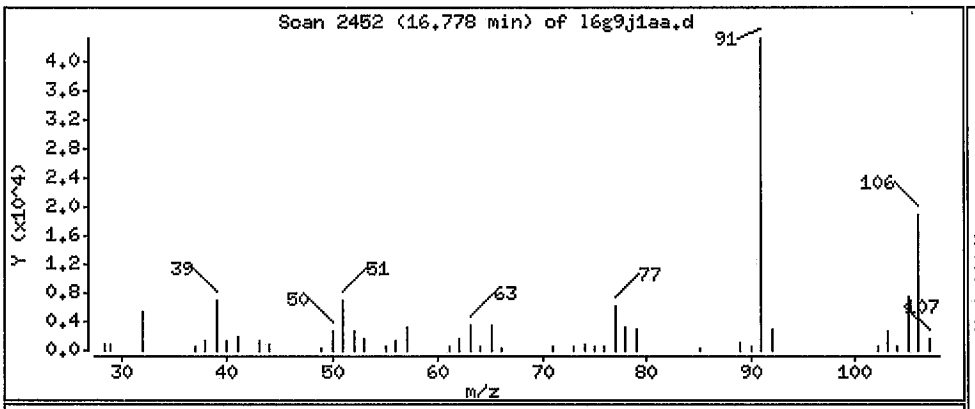
Client ID: SV-C-4-9 Instrument: mj.i

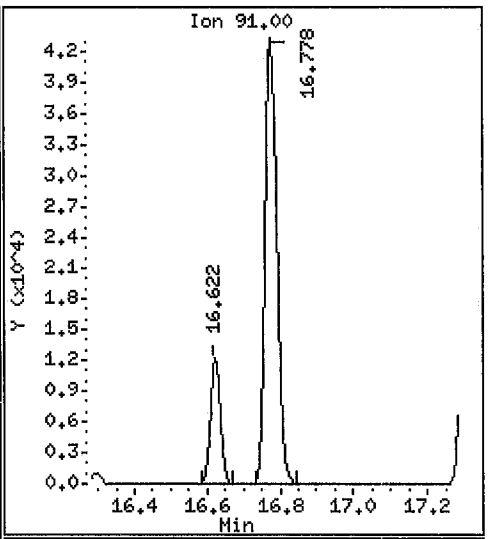
Sample Info: ,5,0,,,

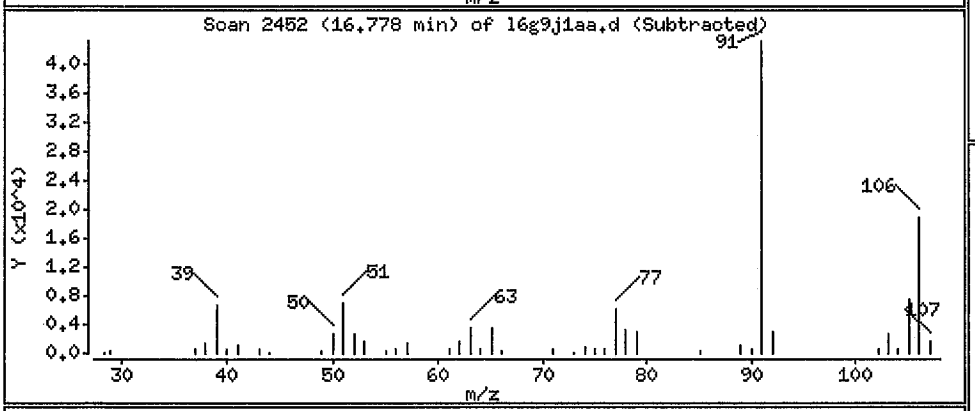
Purge Volume: 500.0 Operator: 7126

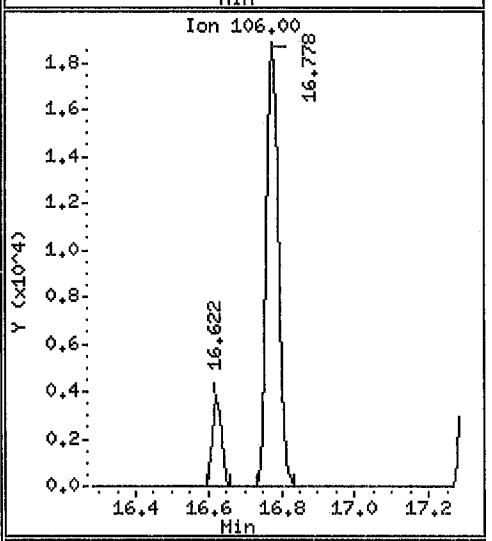
Column phase: Rtx-5 Column diameter: 0.32

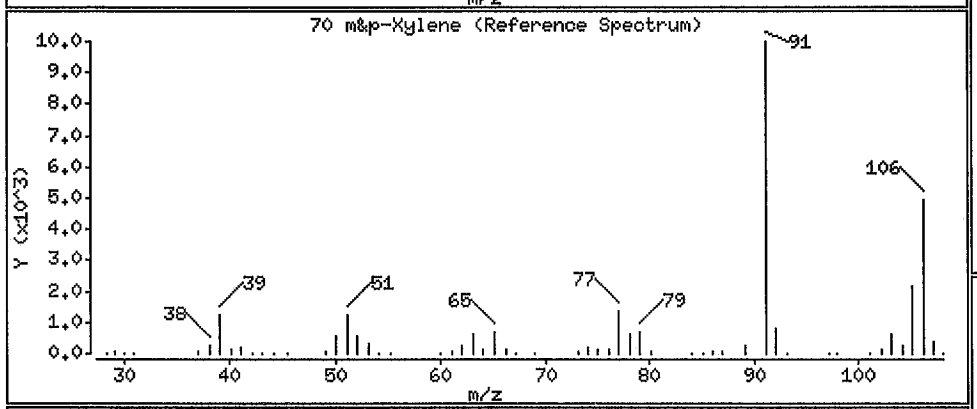
70 m&p-Xylene Concentration: 3.250 ppb(v/v)

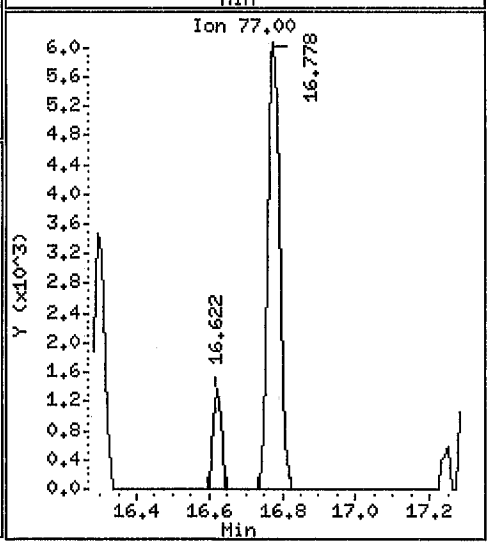


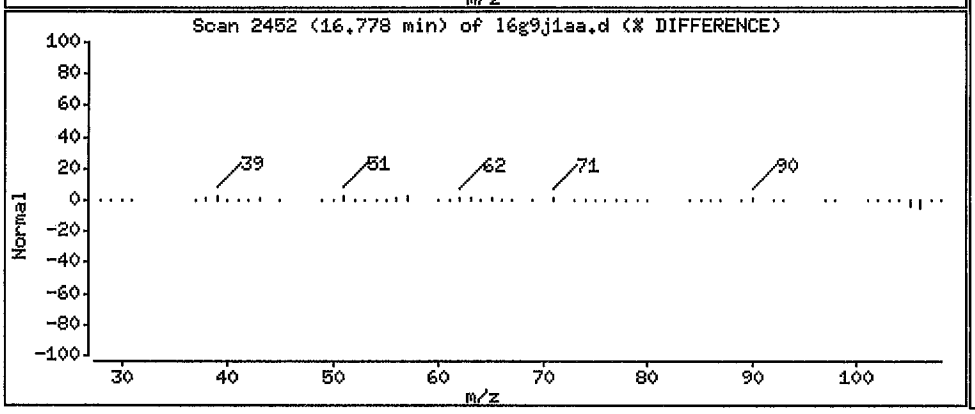












Data File: /var/chem/gcms/mj.i/J090810.b/16g9j1aa.d

Date : 08-SEP-2010 15:54

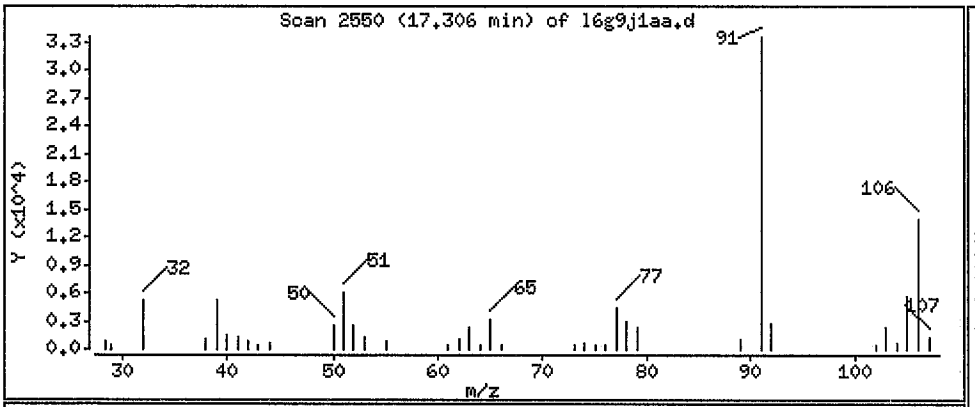
Client ID: SV-C-4-9 Instrument: mj.i

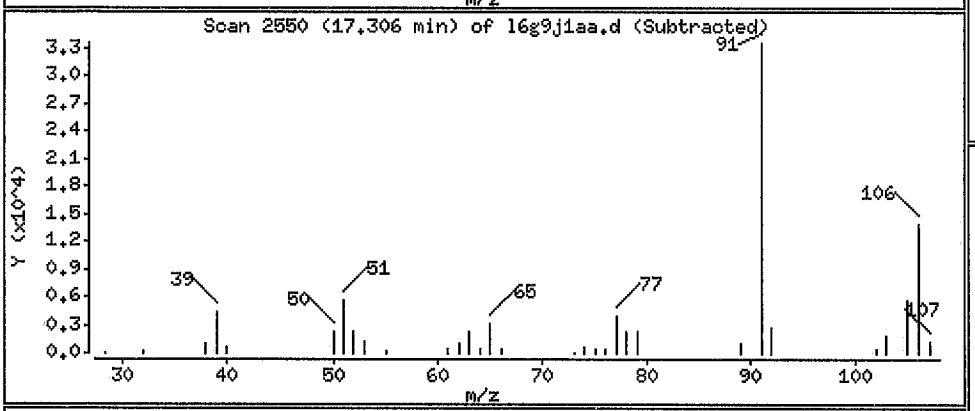
Sample Info: ,5,0,,,

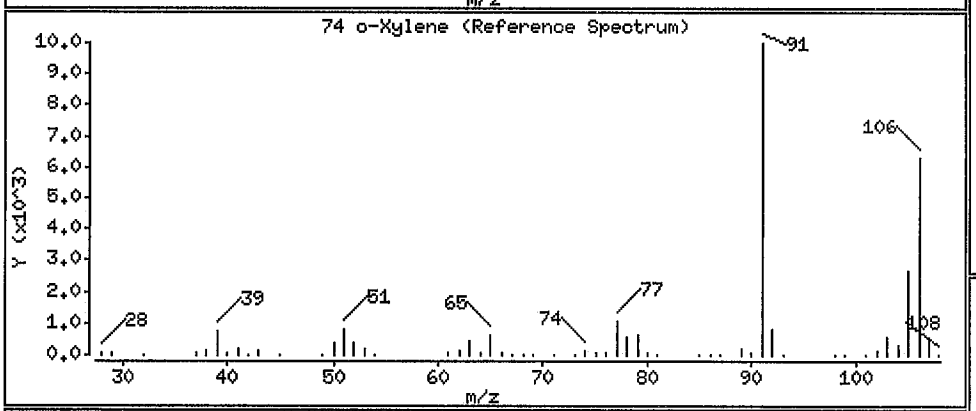
Purge Volume: 500.0 Operator: 7126

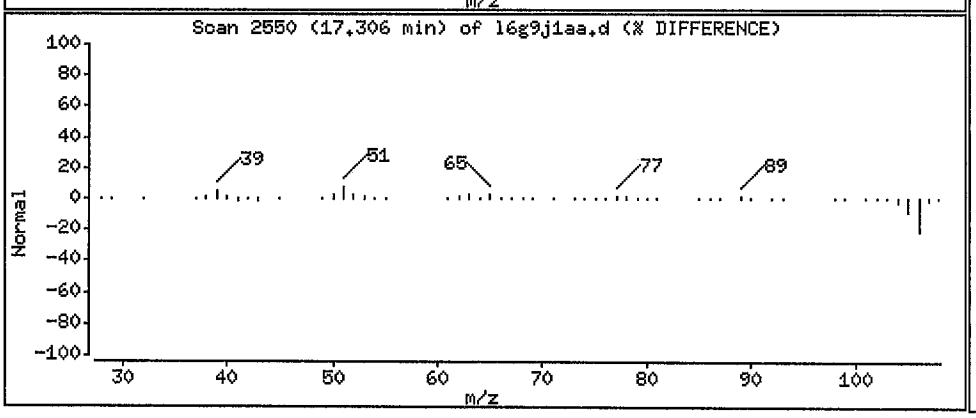
Column phase: Rtx-5 Column diameter: 0.32

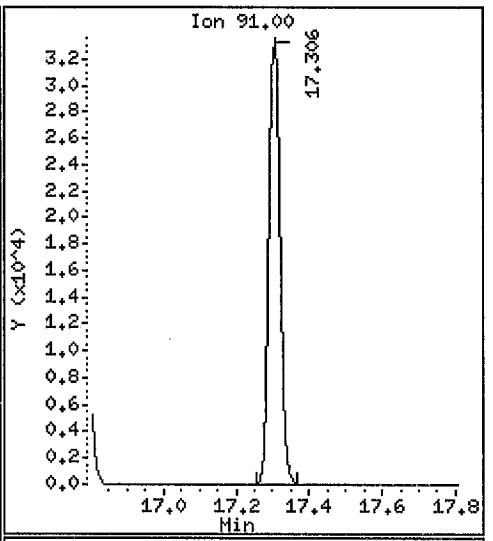
74 o-Xylene Concentration: 2.311 ppb(v/v)

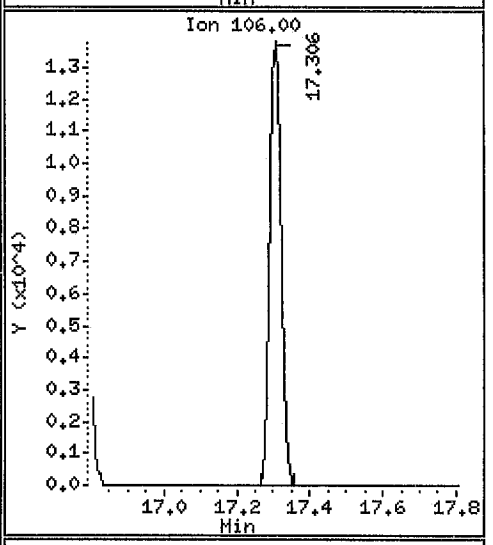


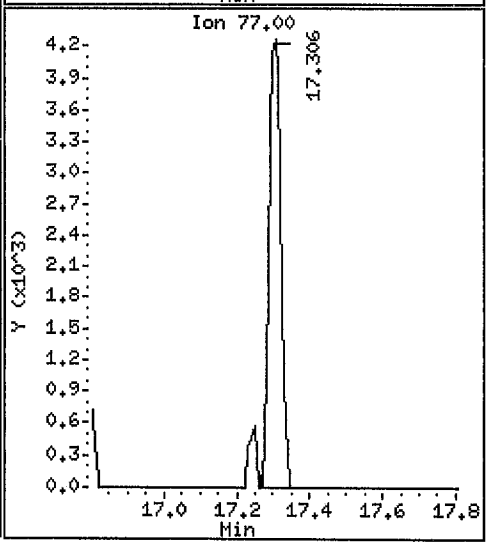












Data File: /var/chem/gcms/mj.i/J090810.b/16g9j1aa.d

Date : 08-SEP-2010 15:54

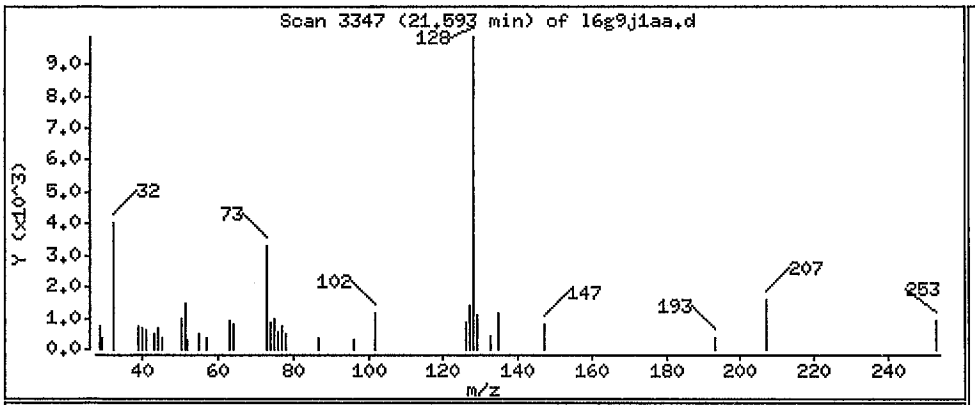
Client ID: SV-C-4-9 Instrument: mj.i

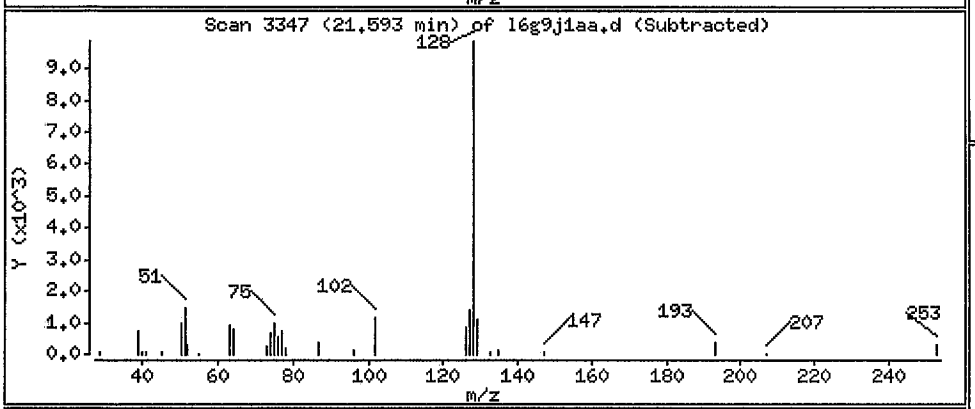
Sample Info: ,5,0,,,

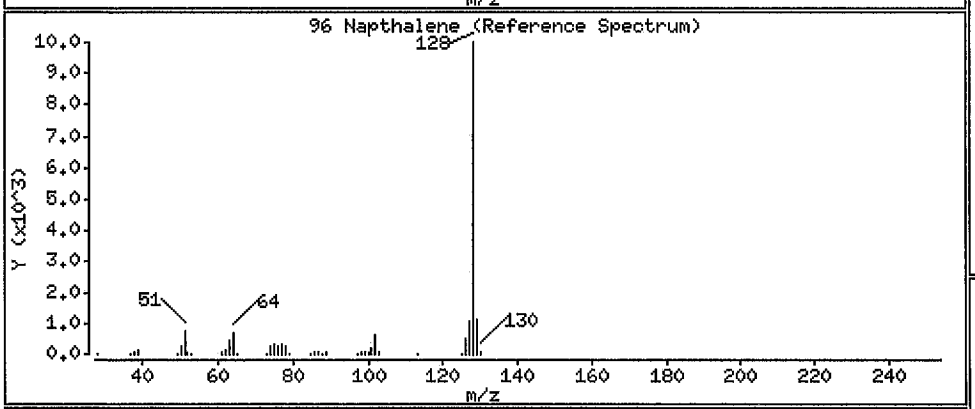
Purge Volume: 500.0 Operator: 7126

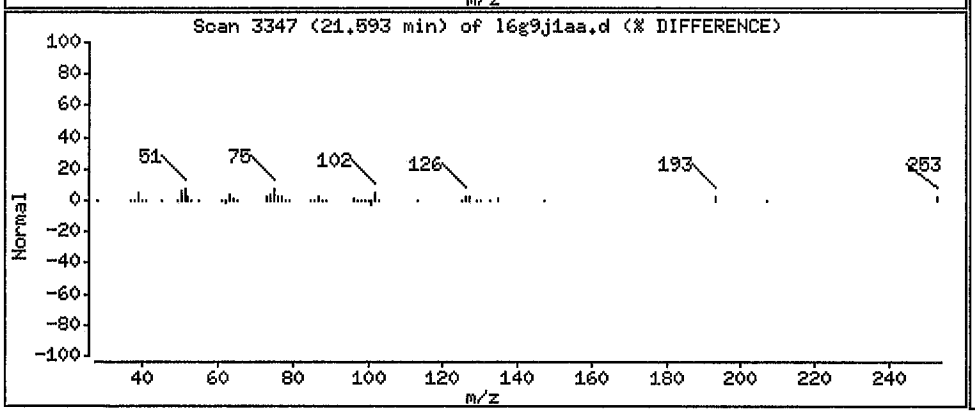
Column phase: Rtx-5 Column diameter: 0.32

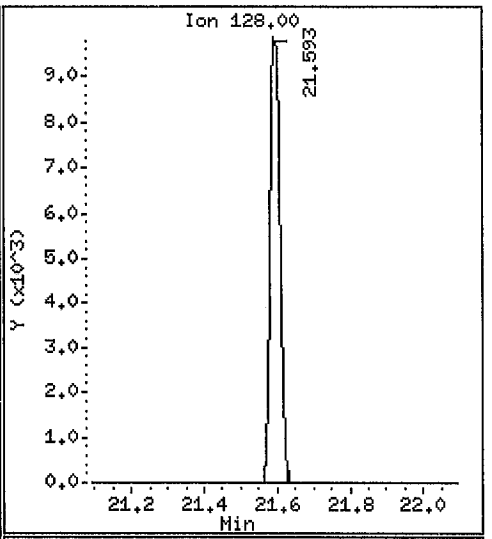
96 Napthalene Concentration: 0.6052 ppb(v/v)

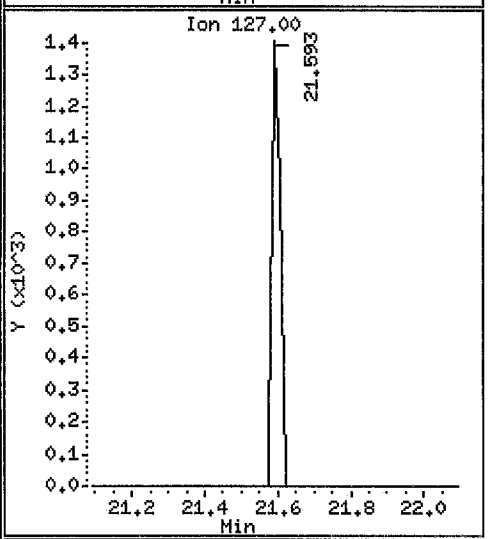


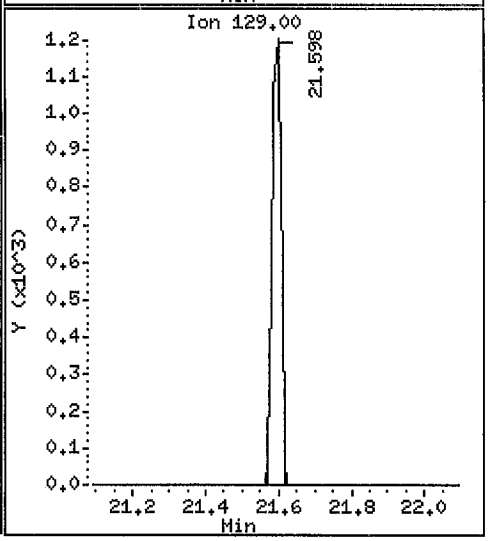












Tetra Tech NUS, Inc

Client Sample ID: SV-C-2-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 006 **Work Order #** L6G9K1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 2.5 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.22**	**0.20**	**0.058**	**0.70**	**0.64**	**0.18**
Carbon tetrachloride	**0.088**	**0.20**	**0.038**	**0.56 J**	**1.3**	**0.24**
Chlorodifluoromethane	**33**	**0.20**	**0.038**	**120**	**0.71**	**0.13**
Chloroform	**0.20**	**0.20**	**0.038**	**0.98**	**0.98**	**0.18**
Dichlorodifluoromethane	**0.40**	**0.20**	**0.068**	**2.0**	**0.99**	**0.33**
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	**0.53**	**0.20**	**0.068**	**2.3**	**0.87**	**0.29**
Methylene chloride	**0.25**	**0.50**	**0.045**	**0.88 J**	**1.7**	**0.16**
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	ND	0.50	0.090	ND	2.6	0.47
Tetrachloroethene	**0.20**	**0.20**	**0.040**	**1.3**	**1.4**	**0.27**
Toluene	**0.85**	**0.20**	**0.052**	**3.2**	**0.75**	**0.20**
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	**0.68**	**0.20**	**0.030**	**3.7**	**1.1**	**0.16**
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	**1.3**	**0.10**	**0.035**	**7.2**	**0.54**	**0.19**
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	**0.44**	**0.20**	**0.12**	**1.9**	**0.87**	**0.54**
o-Xylene	**0.28**	**0.20**	**0.060**	**1.2**	**0.87**	**0.26**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9k1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/l6g9k1aa.d
Lab Smp Id: L6G9K1AA Client Smp ID: SV-C-2-9
Inj Date : 08-SEP-2010 16:48
Operator : 7126 Inst ID: mj.i
Smp Info : ,2.5,0,,,
Misc Info : J090810,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 10-Sep-2010 14:16 barlozha Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 6
Dil Factor: 2.50000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	2.50000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
*	1 Bromochloromethane	128	9.468	9.479	(1.000)	184057	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.636	11.642	(1.000)	902573	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.300	16.300	(1.000)	816032	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.914	17.914	(1.099)	630945	4.07367	4.074
	7 Chlorodifluoromethane	67	3.895	3.901	(0.411)	305836	13.1392	32.85
	8 Dichlorodifluoromethane	85	3.965	3.970	(0.419)	32151	0.16087	0.4022
	31 Methylene Chloride	84	6.784	6.784	(0.716)	6045	0.10094	0.2524
	42 Chloroform	83	9.474	9.479	(1.001)	10751	0.08046	0.2012
	44 1,1,1-Trichloroethane	97	10.534	10.544	(1.112)	38108	0.27377	0.6844
	48 Benzene	78	11.120	11.125	(0.956)	16809	0.08810	0.2202
	49 Carbon Tetrachloride	117	11.152	11.152	(0.958)	5285	0.03535	0.08837
	53 Trichloroethene	130	12.341	12.352	(1.061)	50031	0.53927	1.348
	61 Toluene	91	14.353	14.358	(0.881)	65544	0.34106	0.8526
	67 Tetrachloroethene	129	15.483	15.483	(0.950)	6306	0.07854	0.1963
	69 Ethylbenzene	91	16.623	16.623	(1.020)	46566	0.21132	0.5283

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9k1aa.d
Report Date: 10-Sep-2010 14:29

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
70 m&p-Xylene	91	16.779	16.784	(1.029)	29019	0.17414	0.4353
74 o-Xylene	91	17.306	17.306	(1.062)	19260	0.11111	0.2778

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9k1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9k1aa.d
Lab Smp Id: L6G9K1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: SV-C-2-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	184057	-5.65
2 1,4-Difluorobenze	936174	557024	1315324	902573	-3.59
3 Chlorobenzene-d5	815161	485021	1145301	816032	0.11

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.11
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.05
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9k1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

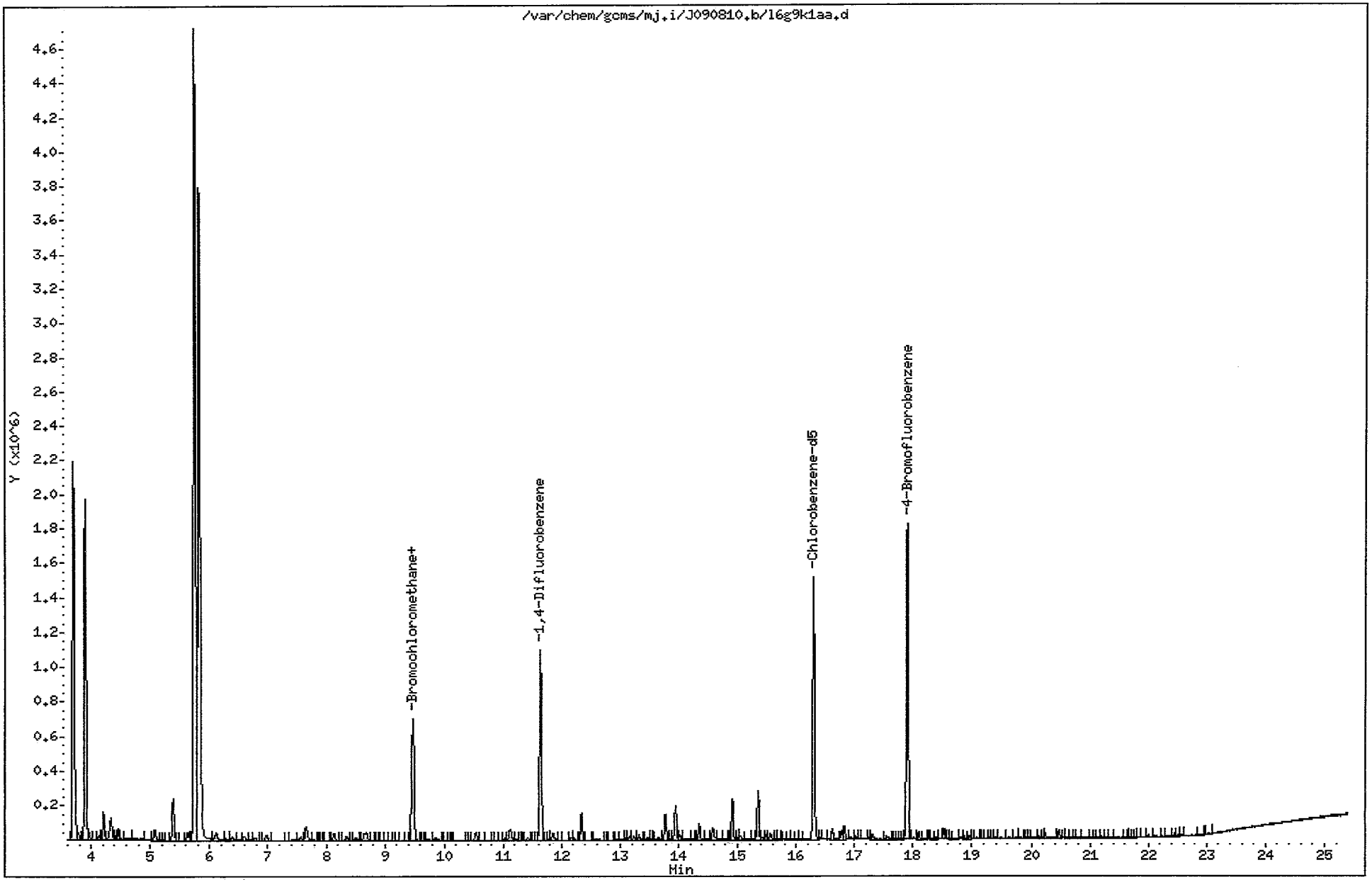
RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9K1AA
Client Smp ID: SV-C-2-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.074	101.84	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/16g9k1aa.d
Date : 08-SEP-2010 16:48
Client ID: SV-C-2-9
Sample Info: ,2.5,0,,,
Purge Volume: 500.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 7126
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J090810.b/16g9k1aa.d

Date : 08-SEP-2010 16:48

Client ID: SV-C-2-9

Instrument: mj.i

Sample Info: ,2.5,0,,,

Purge Volume: 500.0

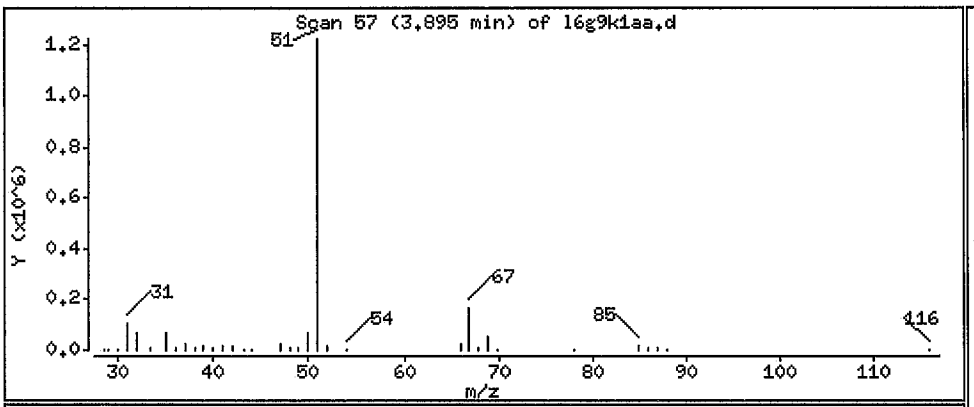
Operator: 7126

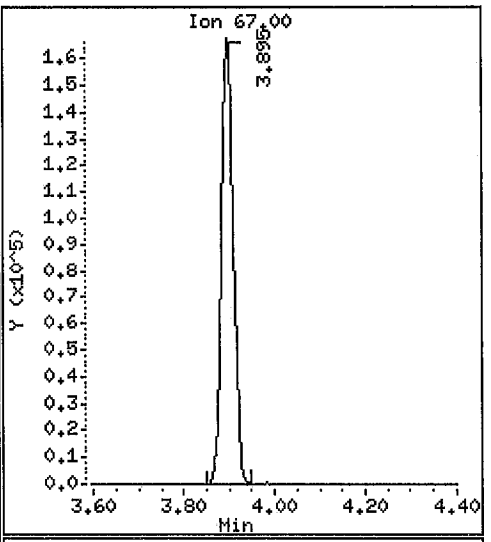
Column phase: Rtx-5

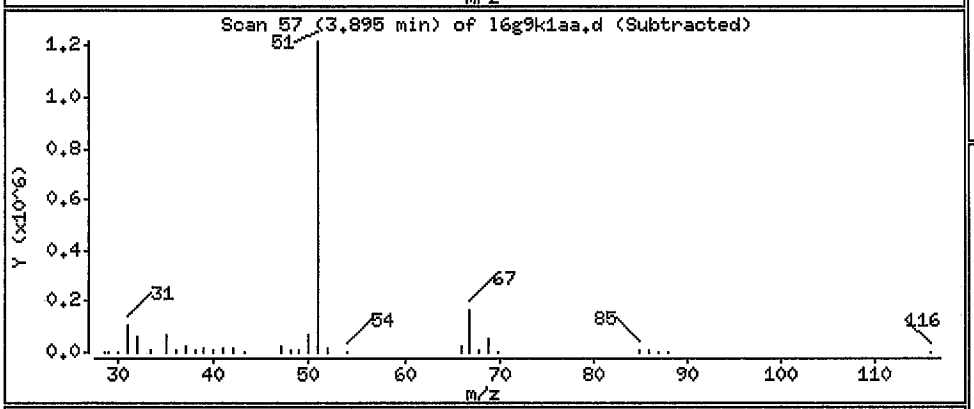
Column diameter: 0.32

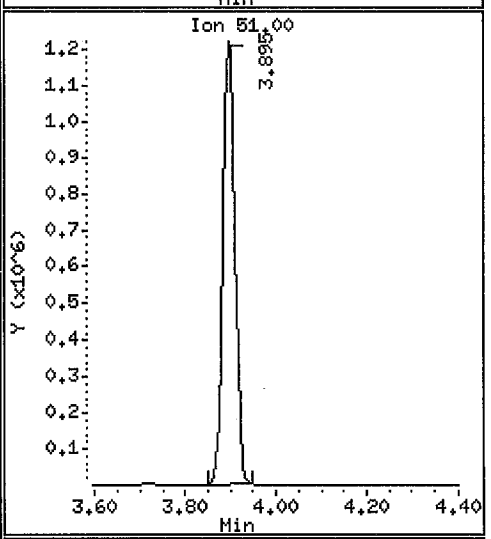
7 Chlorodifluoromethane

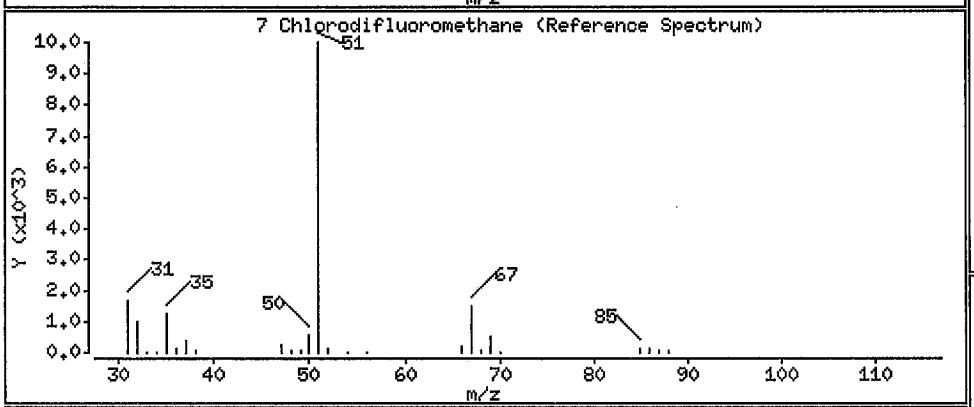
Concentration: 32.85 ppb(v/v)

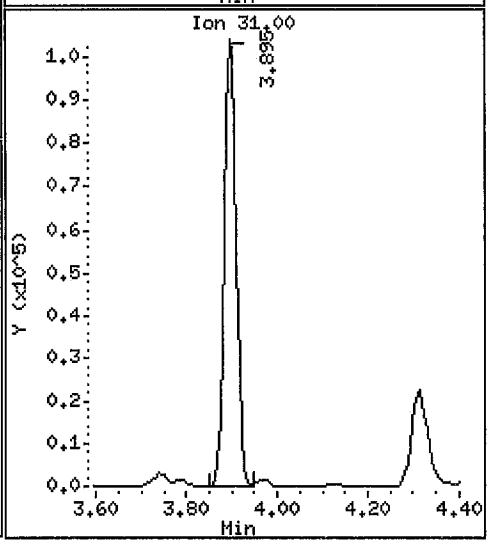


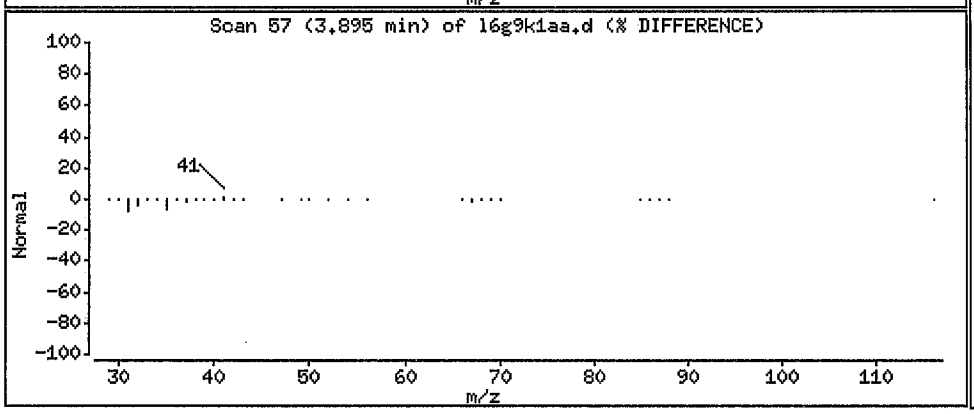












Data File: /var/chem/gcms/mj.i/J090810.b/16g9k1aa.d

Date : 08-SEP-2010 16:48

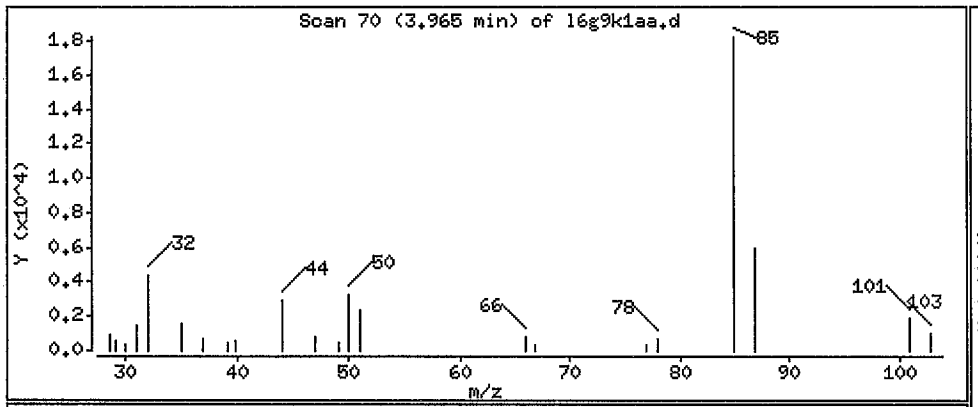
Client ID: SV-C-2-9 Instrument: mj.i

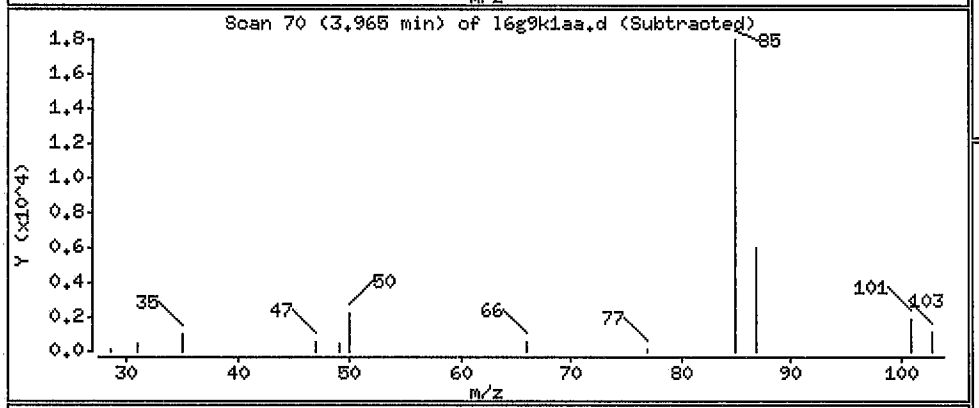
Sample Info: ,2.5,0,,,

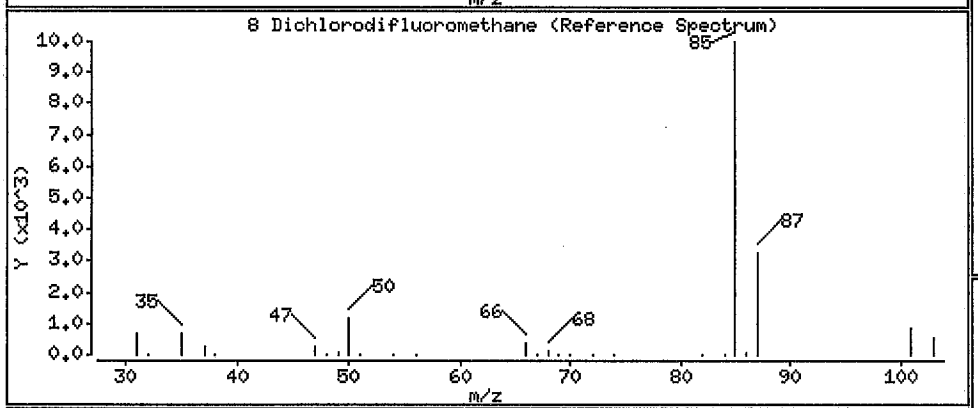
Purge Volume: 500.0 Operator: 7126

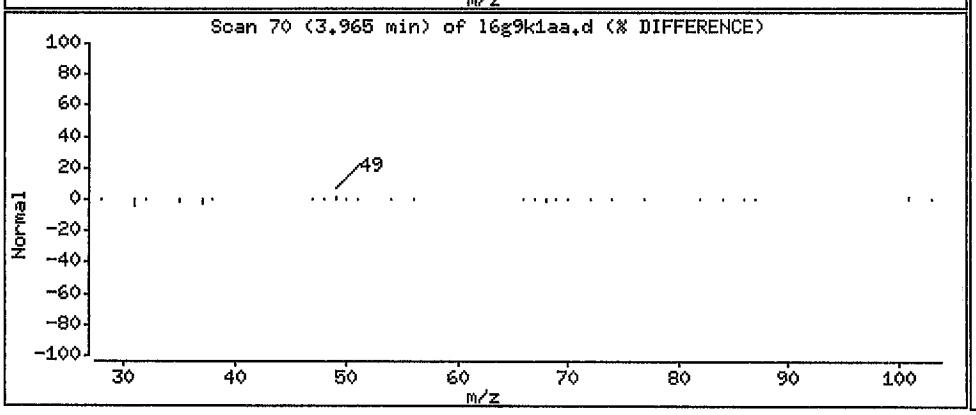
Column phase: Rtx-5 Column diameter: 0.32

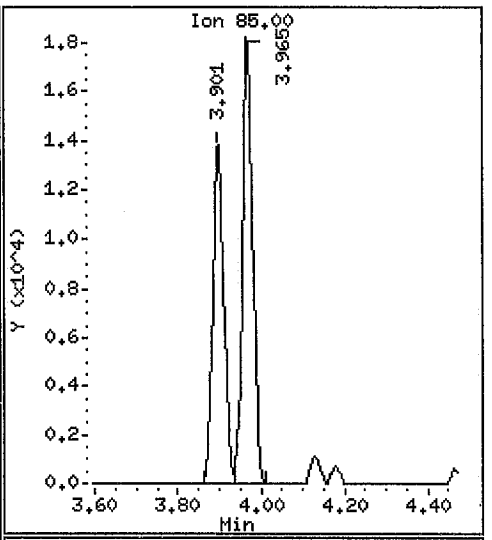
8 Dichlorodifluoromethane Concentration: 0.4022 ppb(v/v)

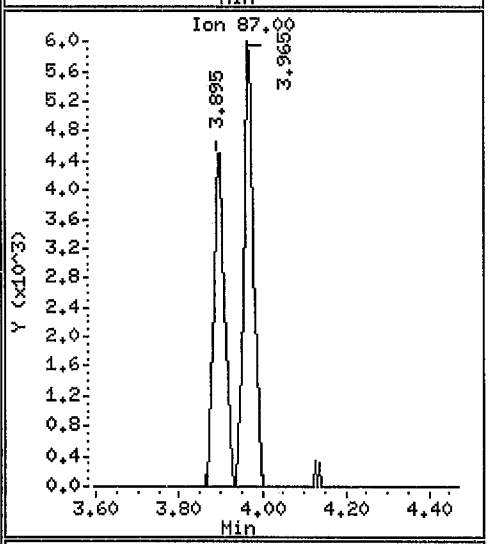


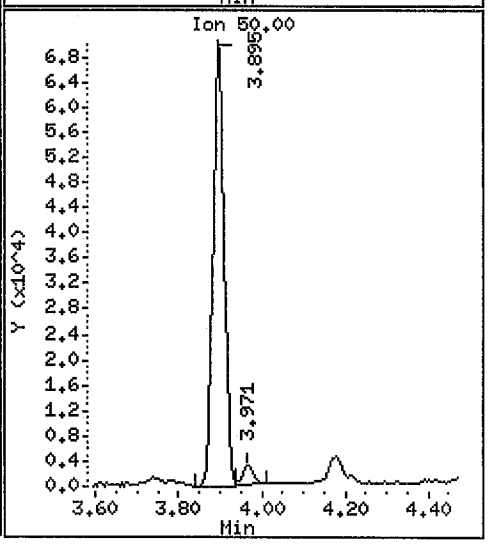












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9k1aa.d

Date : 08-SEP-2010 16:48

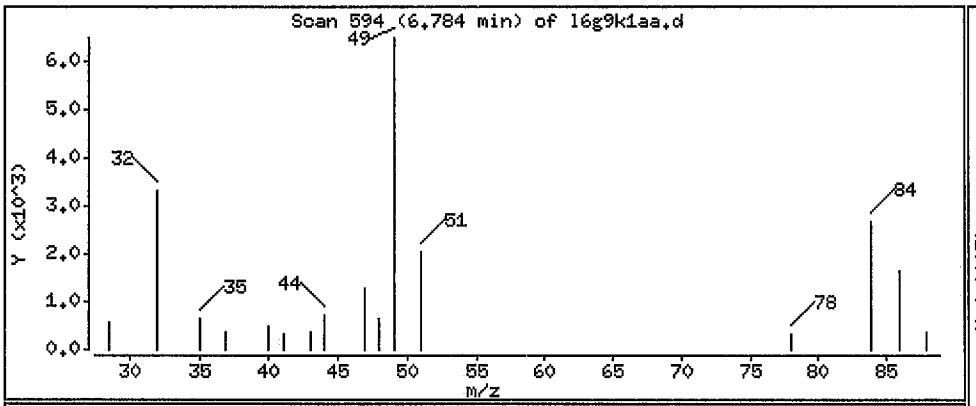
Client ID: SV-C-2-9 Instrument: mj.i

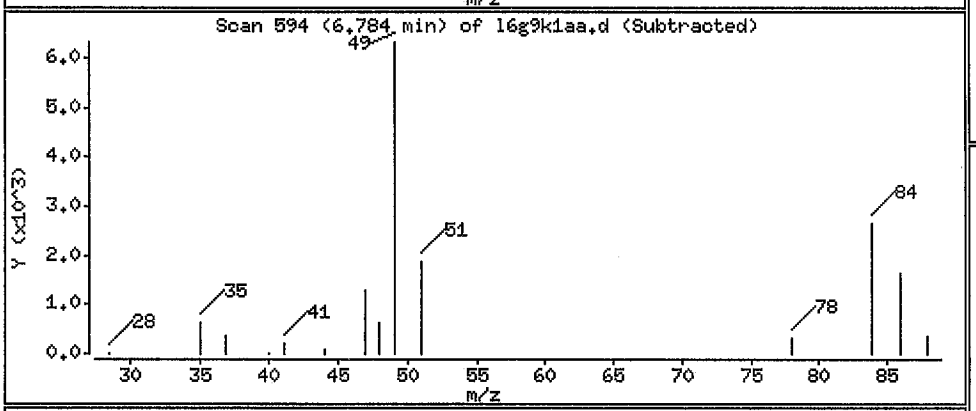
Sample Info: ,2.5,0,,,

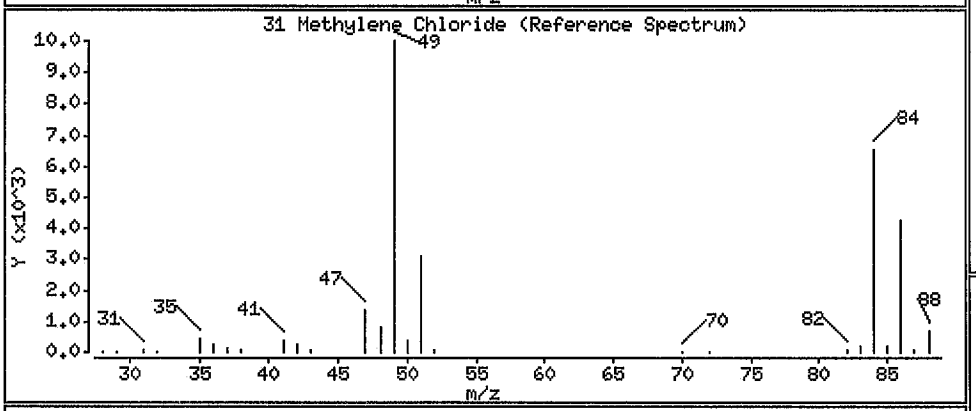
Purge Volume: 500.0 Operator: 7126

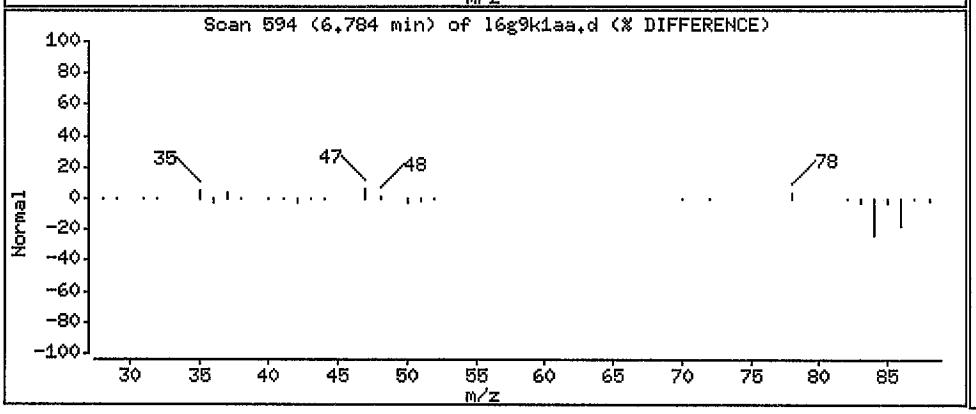
Column phase: Rtx-5 Column diameter: 0.32

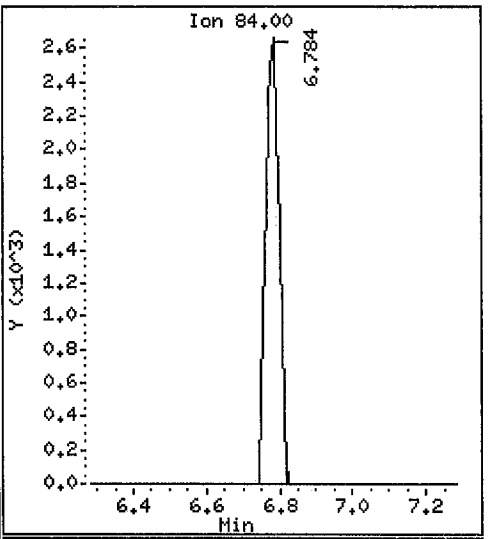
31 Methylene Chloride Concentration: 0.2524 ppb(v/v)

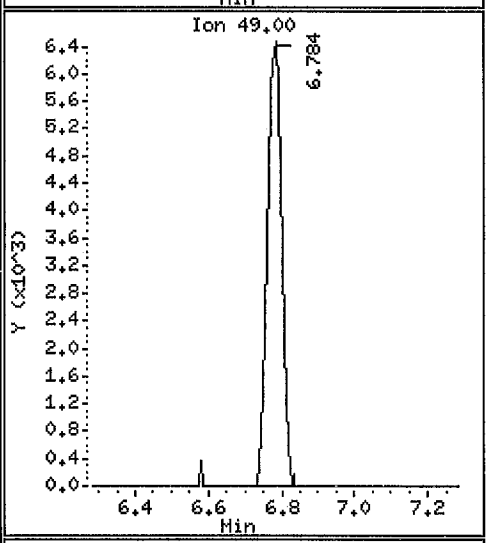


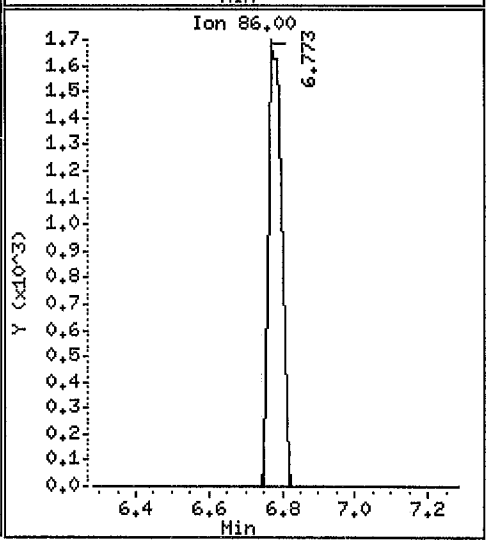












Data File: /var/chem/gcms/mj.i/J090810.b/16g9k1aa.d

Date : 08-SEP-2010 16:48

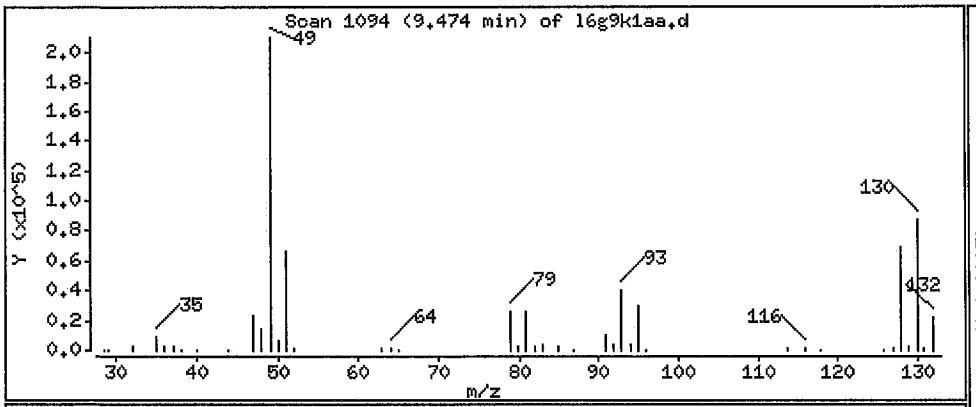
Client ID: SV-C-2-9 Instrument: mj.i

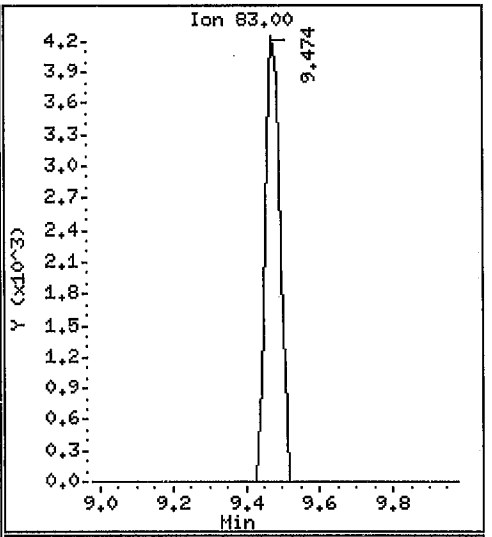
Sample Info: ,2.5,0,,,

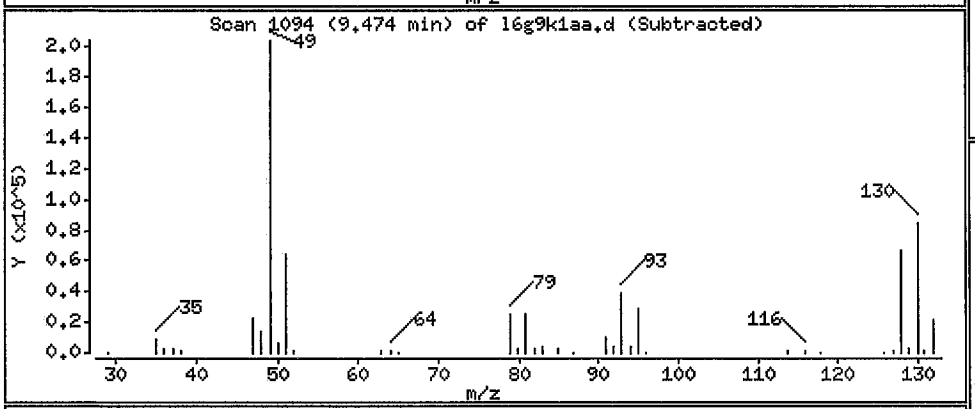
Purge Volume: 500.0 Operator: 7126

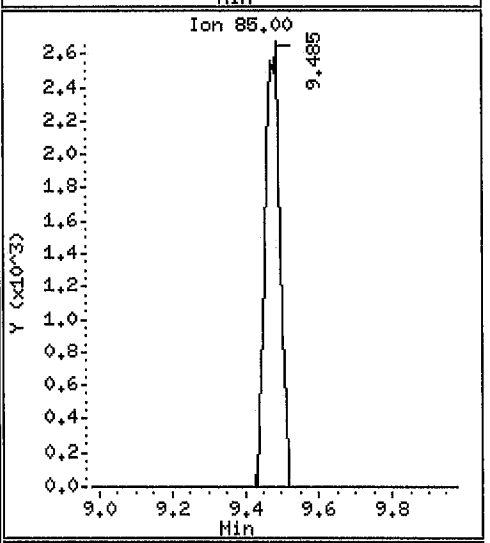
Column phase: Rtx-5 Column diameter: 0.32

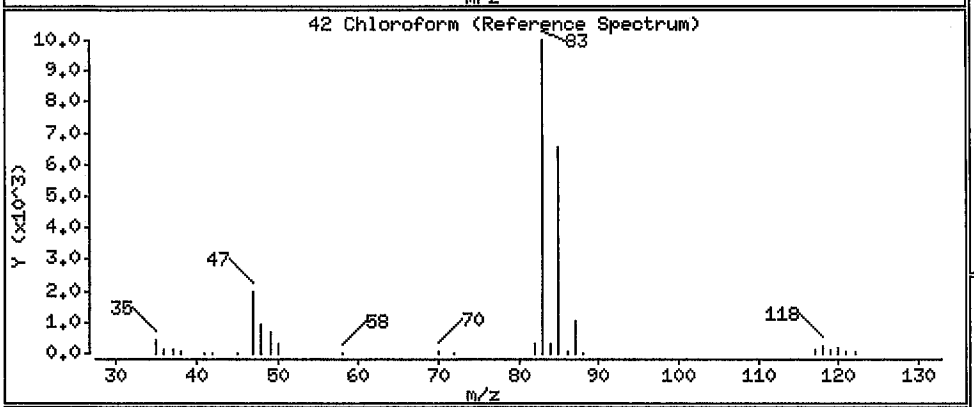
42 Chloroform Concentration: 0.2012 ppb(v/v)

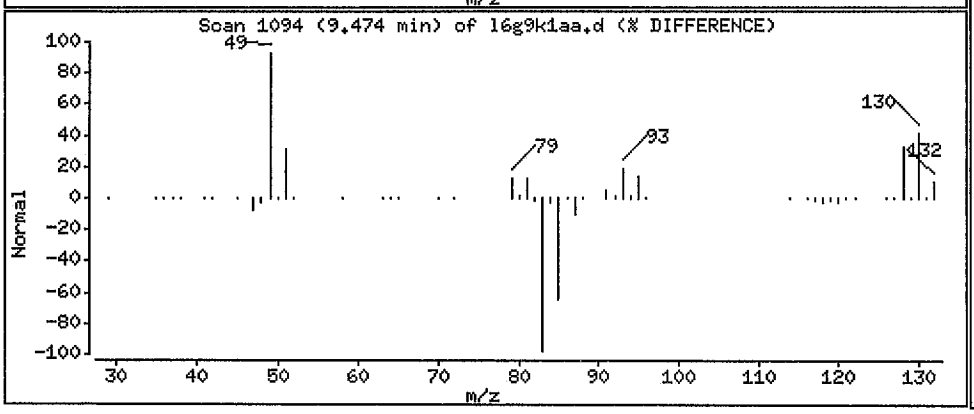


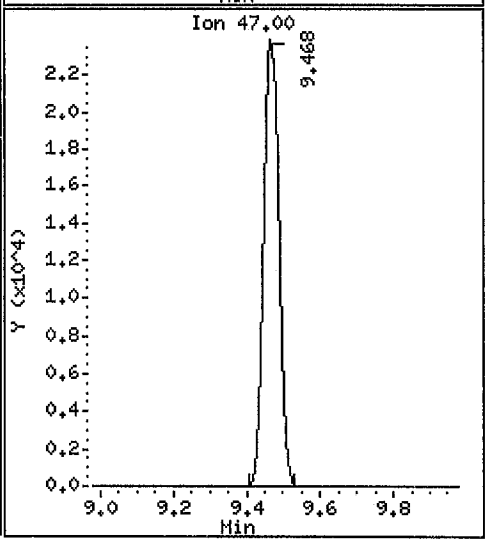












Data File: /var/chem/gcms/mj.i/J090810.b/16g9k1aa.d

Date : 08-SEP-2010 16:48

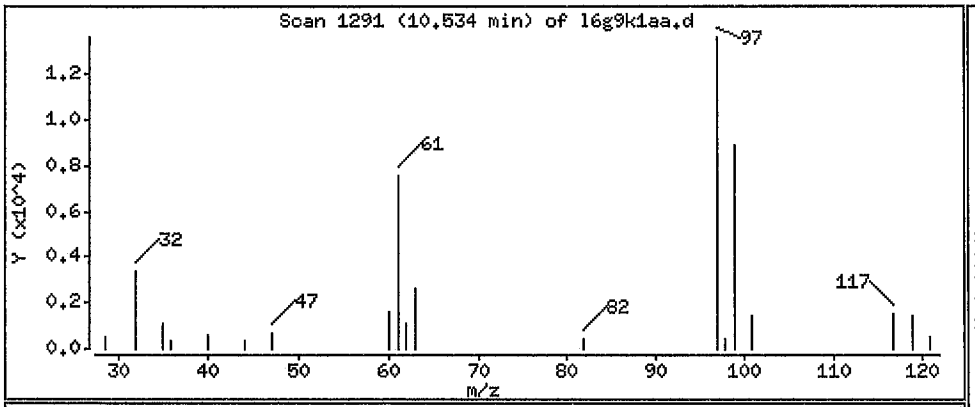
Client ID: SV-C-2-9 Instrument: mj.i

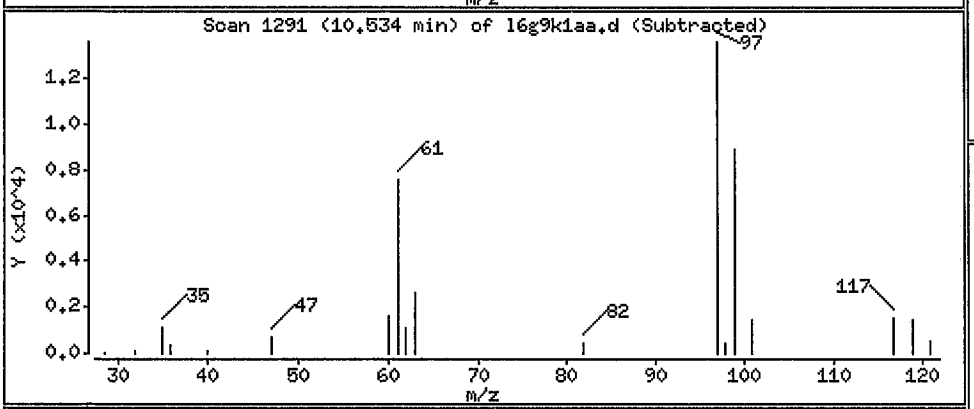
Sample Info: ,2.5,0,,,

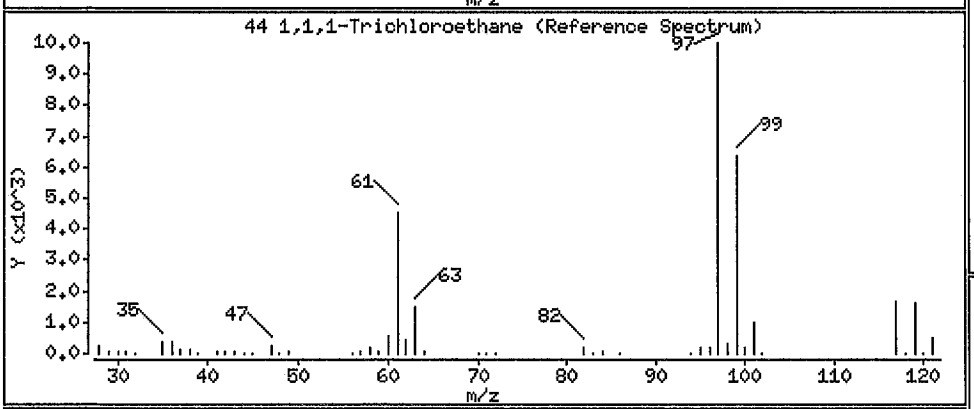
Purge Volume: 500.0 Operator: 7126

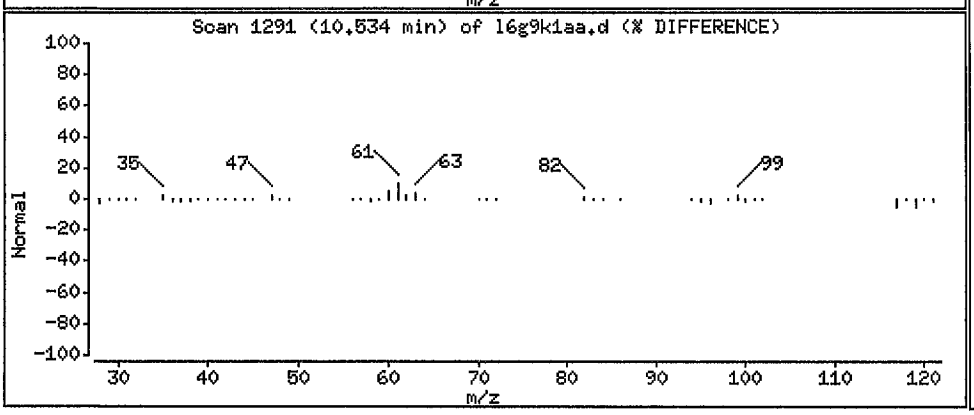
Column phase: Rtx-5 Column diameter: 0.32

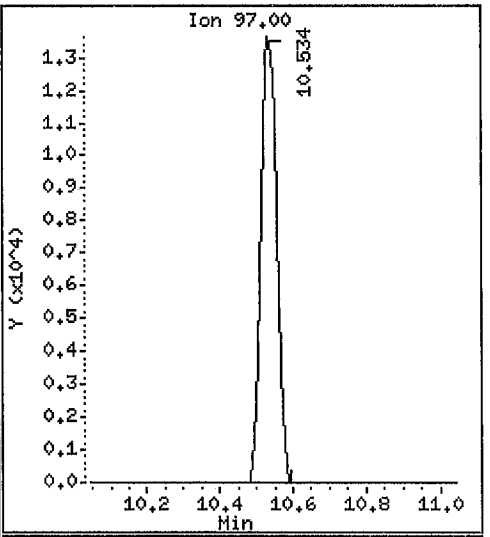
44 1,1,1-Trichloroethane Concentration: 0.6844 ppb(v/v)

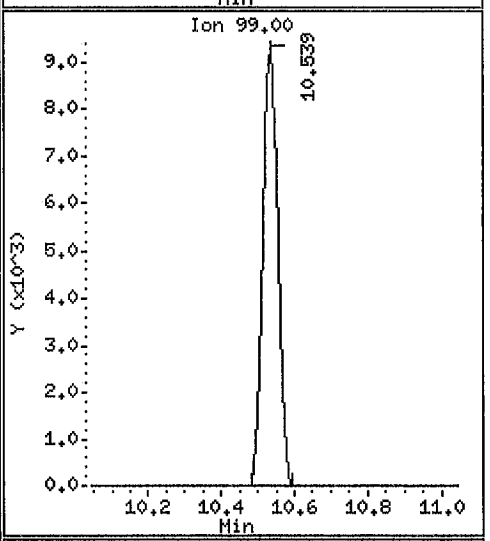


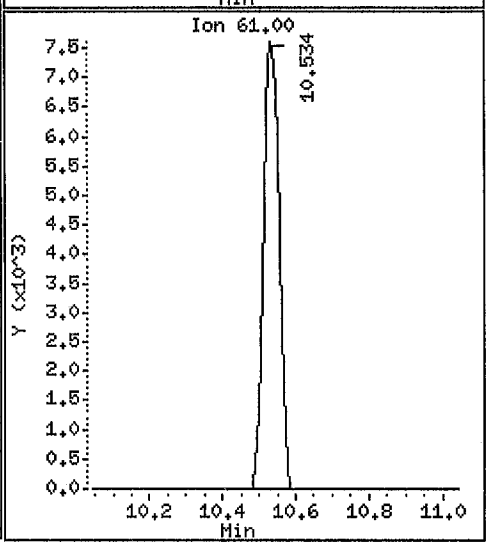












Data File: /var/chem/gcms/mj.i/J090810.b/16g9k1aa.d

Date : 08-SEP-2010 16:48

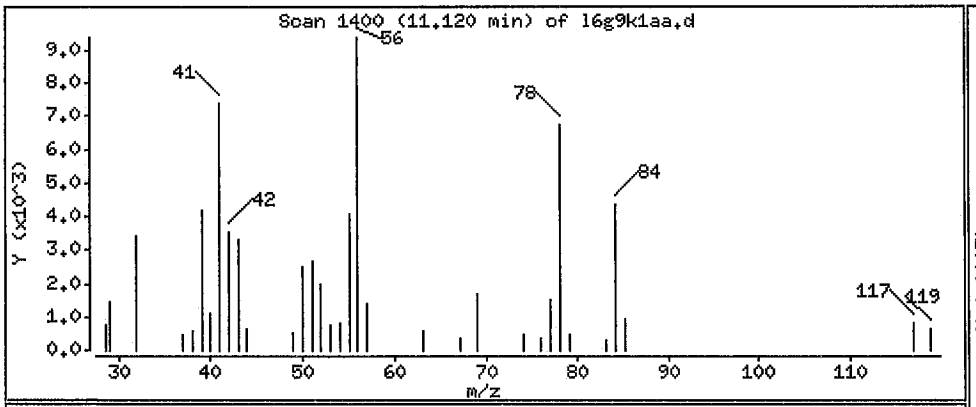
Client ID: SV-C-2-9 Instrument: mj.i

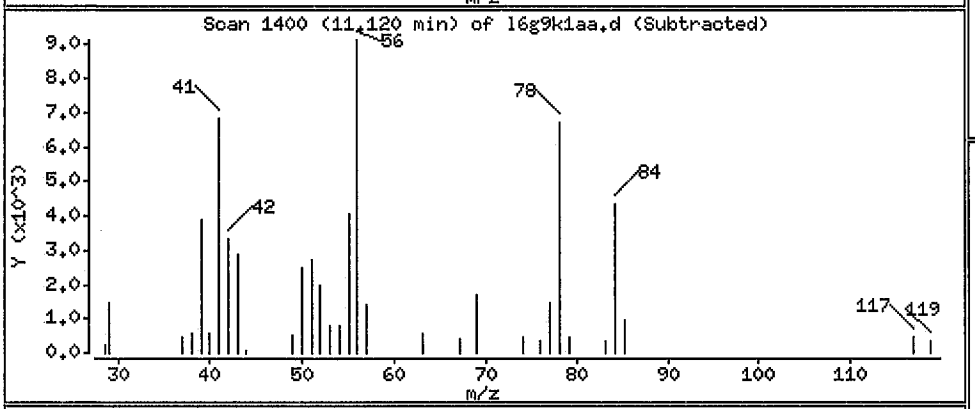
Sample Info: ,2.5,0,,,

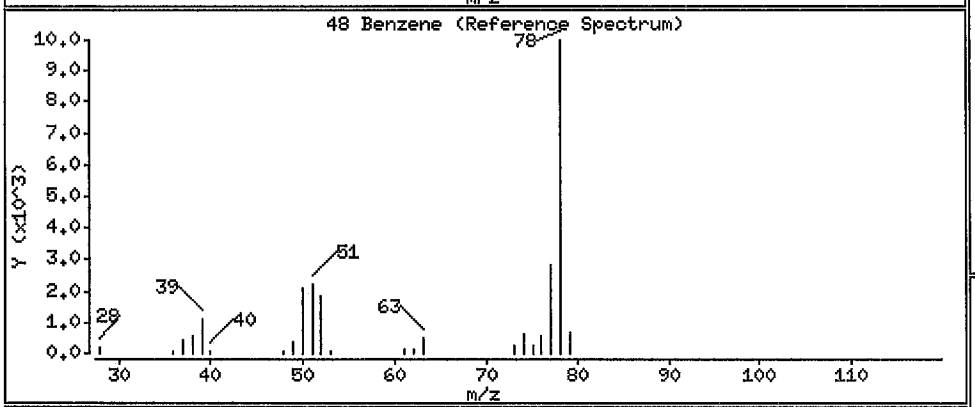
Purge Volume: 500.0 Operator: 7126

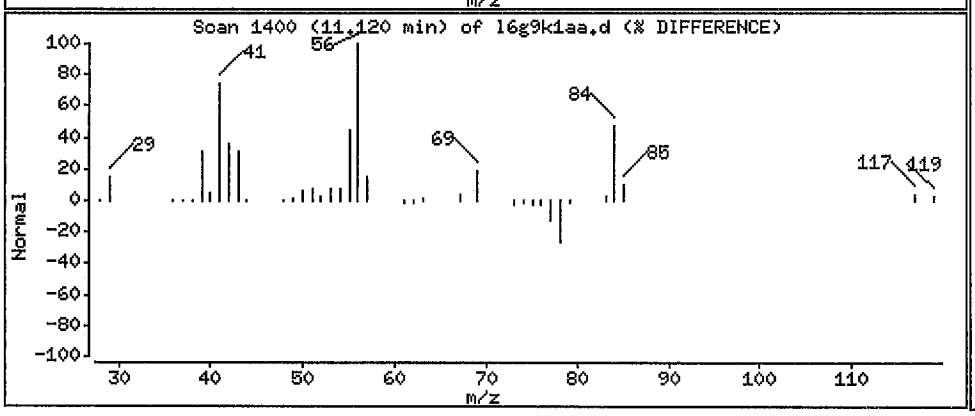
Column phase: Rtx-5 Column diameter: 0.32

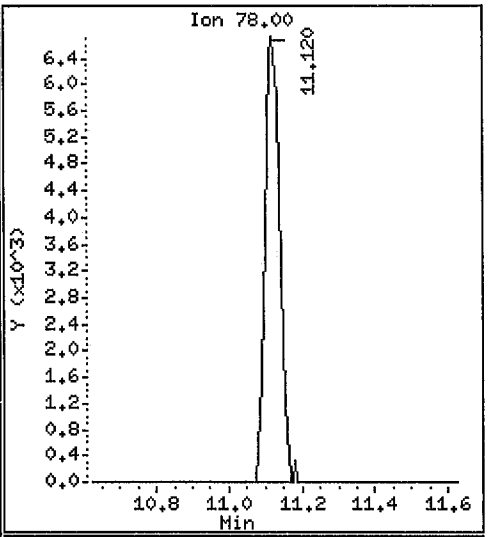
48 Benzene Concentration: 0.2202 ppb(v/v)

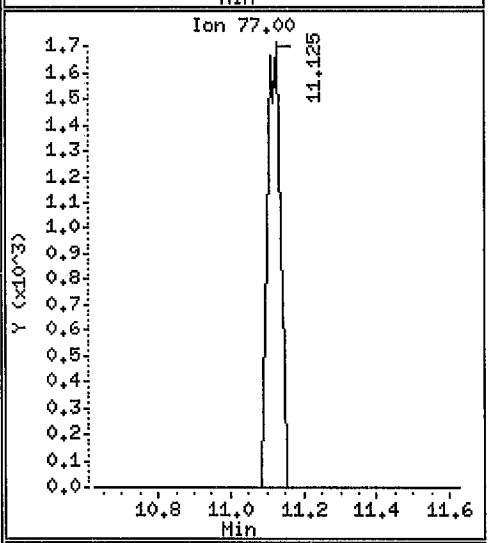


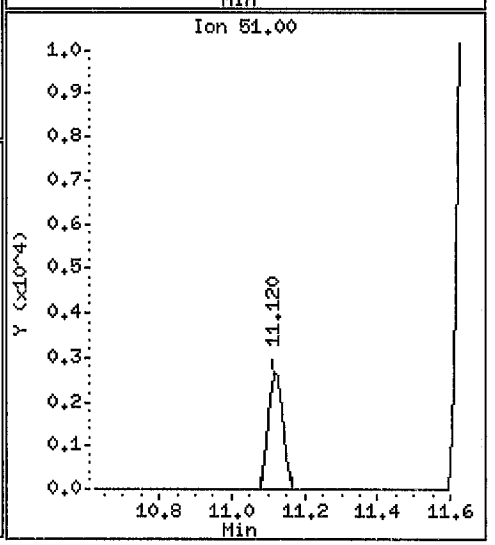












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9k1aa.d

Date : 08-SEP-2010 16:48

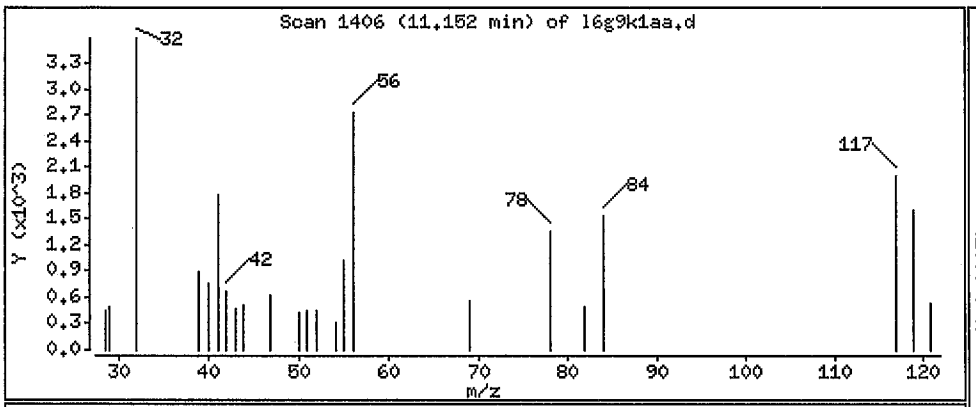
Client ID: SV-C-2-9 Instrument: mj.i

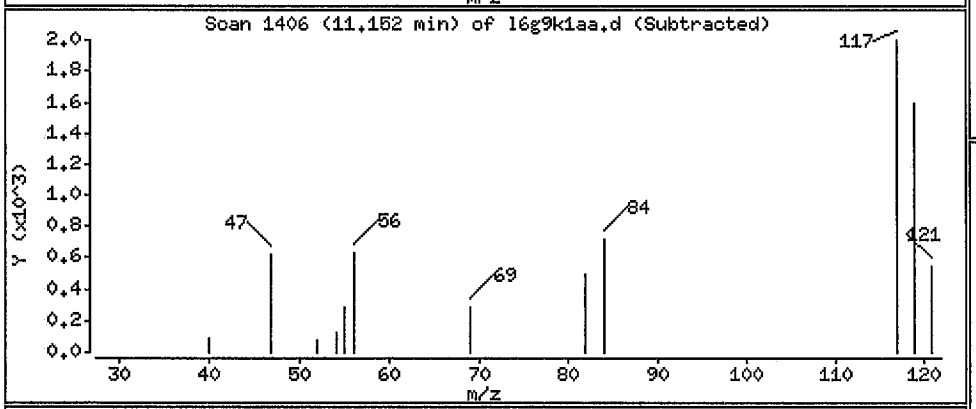
Sample Info: ,2.5,0,,,

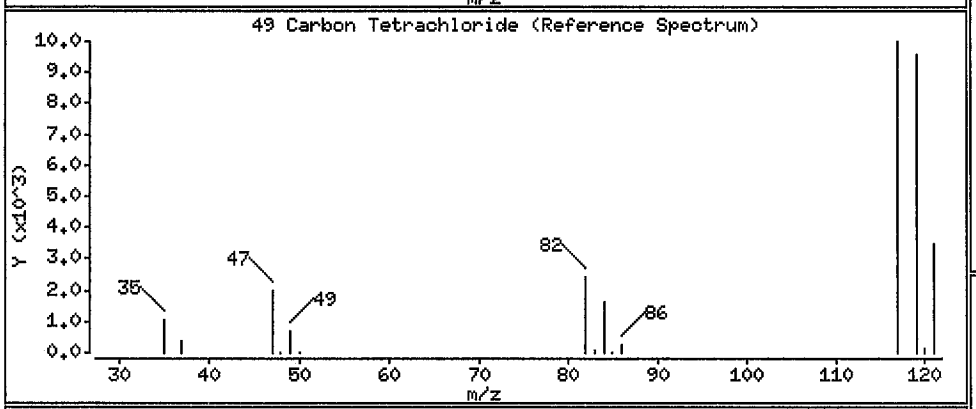
Purge Volume: 500.0 Operator: 7126

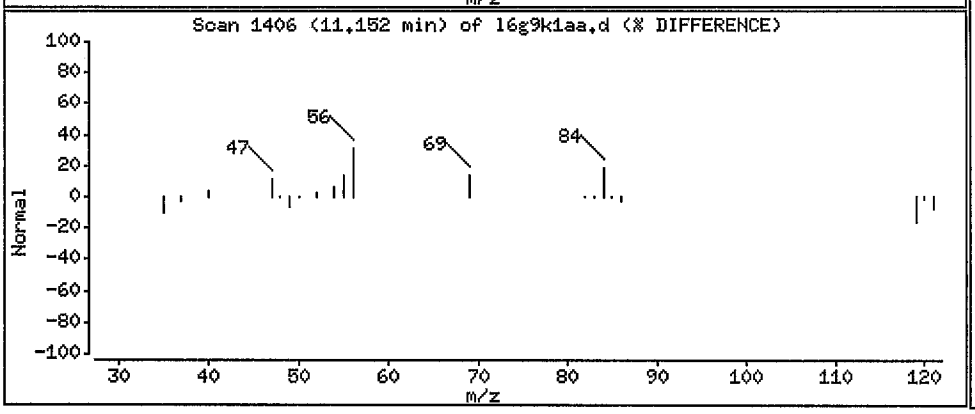
Column phase: Rtx-5 Column diameter: 0.32

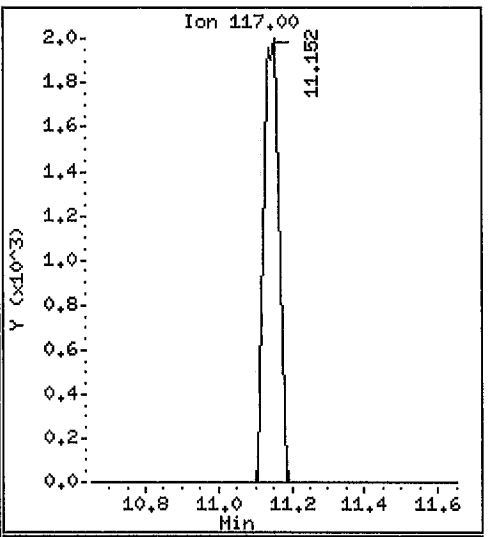
49 Carbon Tetrachloride Concentration: 0.08837 ppb(v/v)

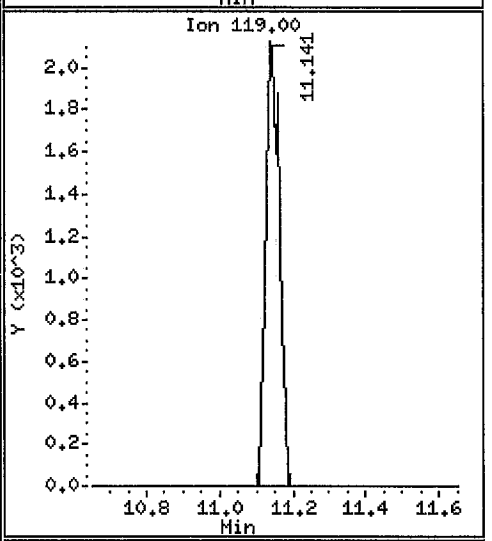


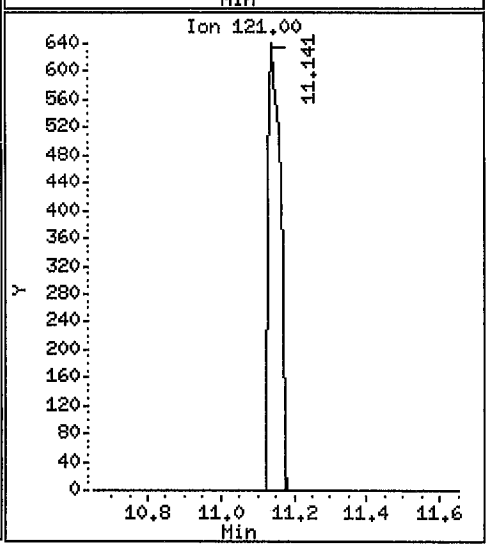












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9k1aa.d

Date : 08-SEP-2010 16:48

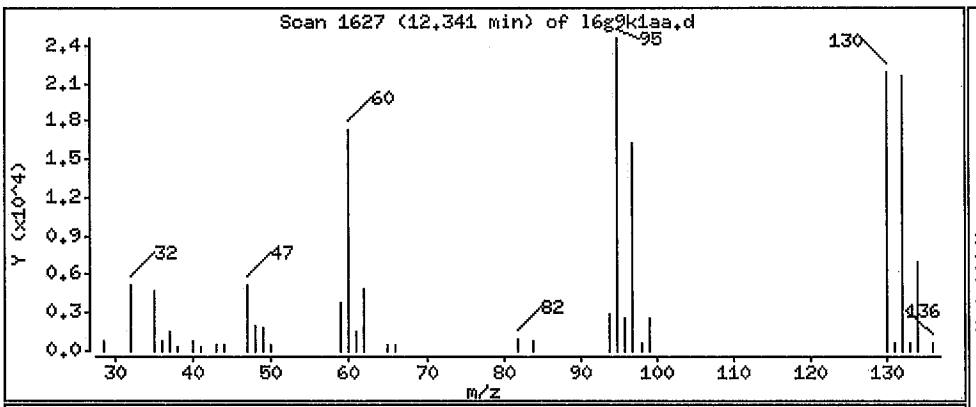
Client ID: SV-C-2-9 Instrument: mj.i

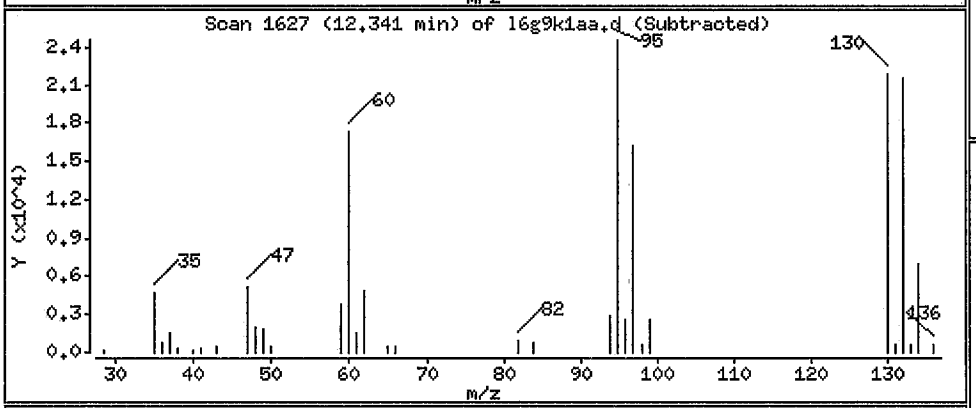
Sample Info: ,2.5,0,,,

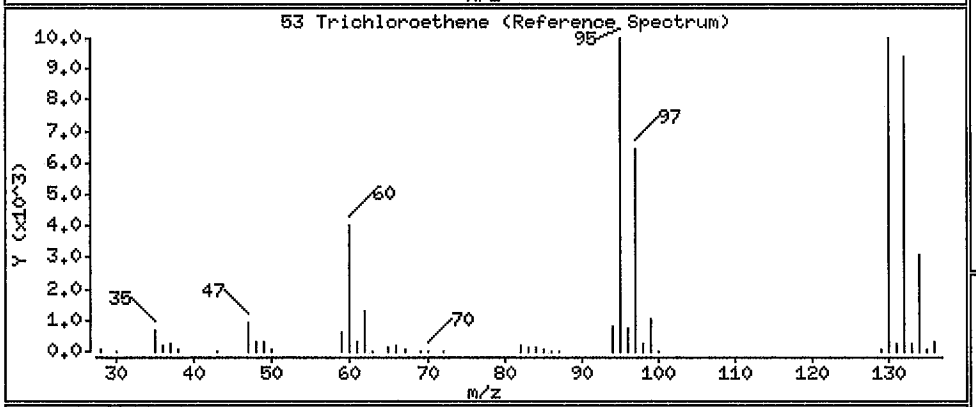
Purge Volume: 500.0 Operator: 7126

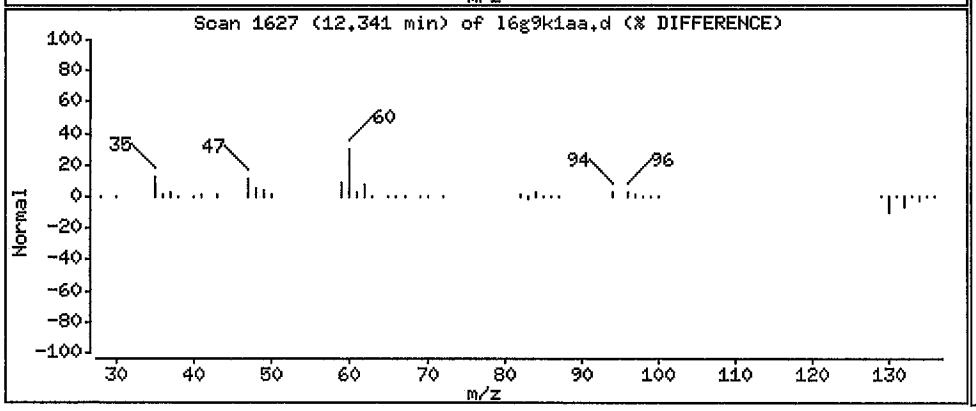
Column phase: Rtx-5 Column diameter: 0.32

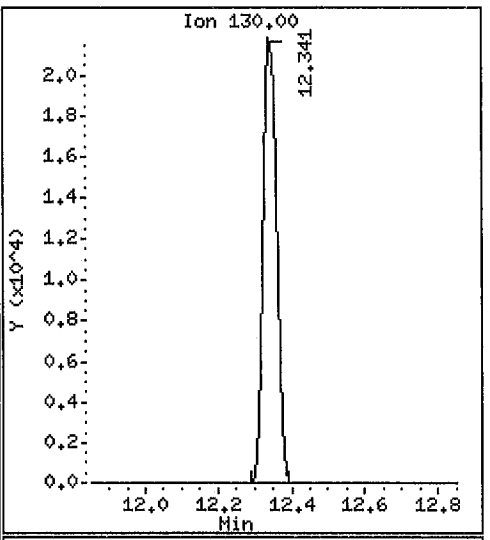
53 Trichloroethene Concentration: 1.348 ppb(v/v)

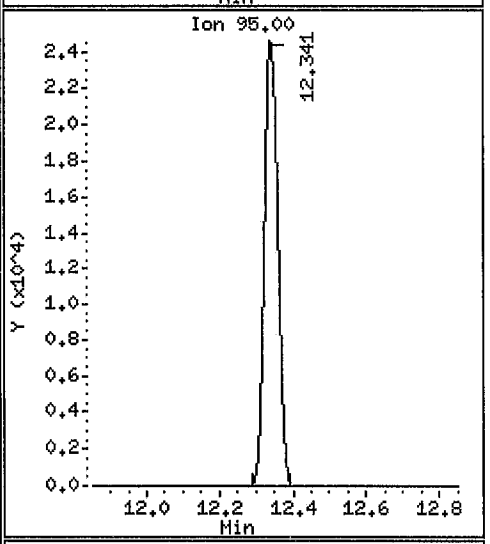


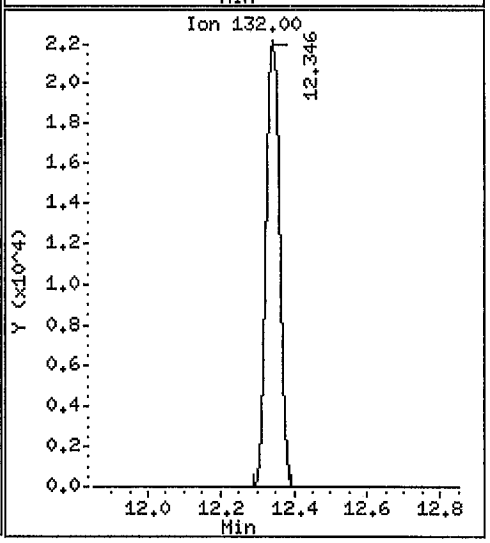












Data File: /var/chem/gcms/mj.i/J090810.b/16g9k1aa.d

Date : 08-SEP-2010 16:48

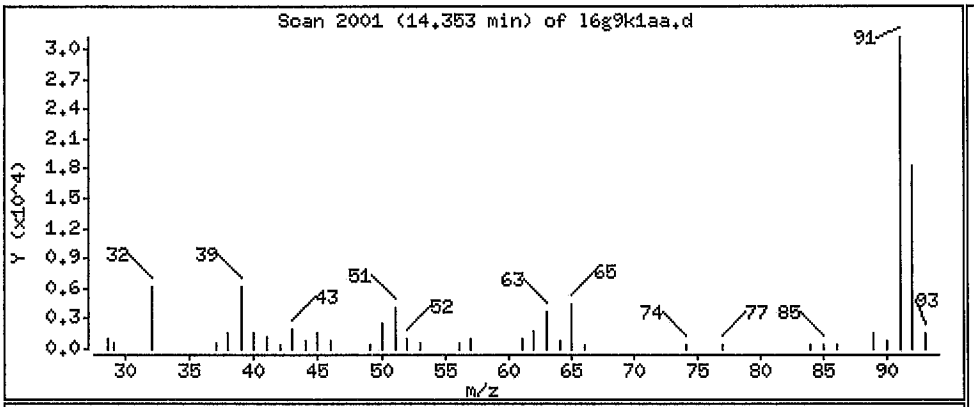
Client ID: SV-C-2-9 Instrument: mj.i

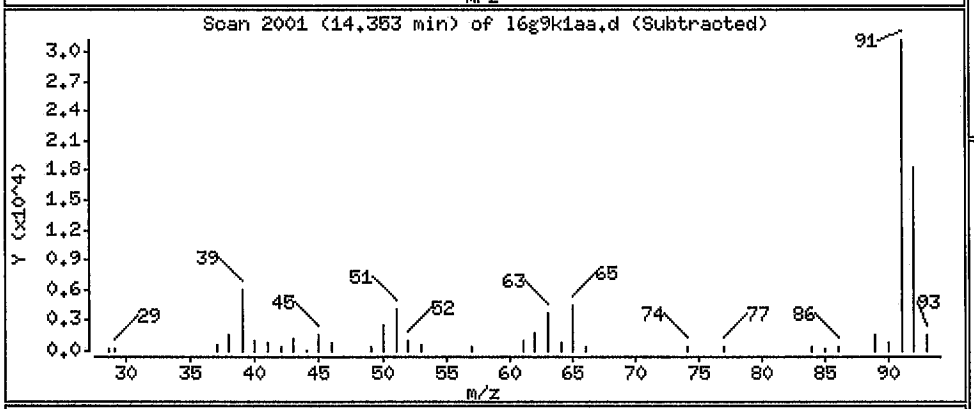
Sample Info: ,2.5,0,,,

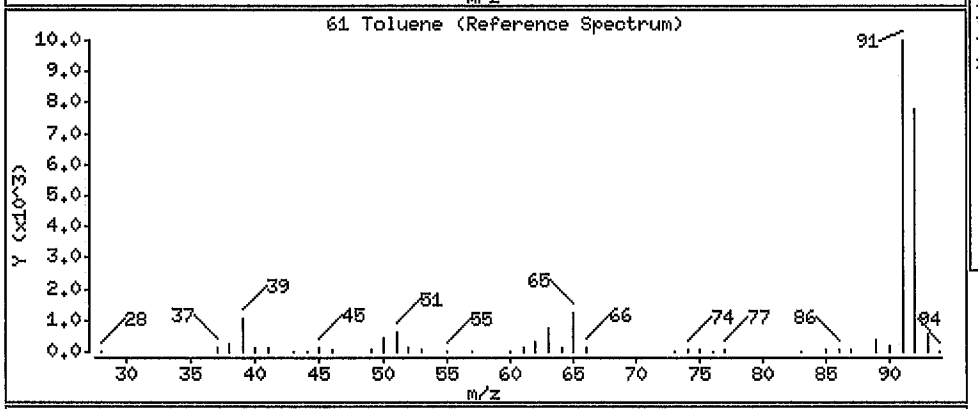
Purge Volume: 500.0 Operator: 7126

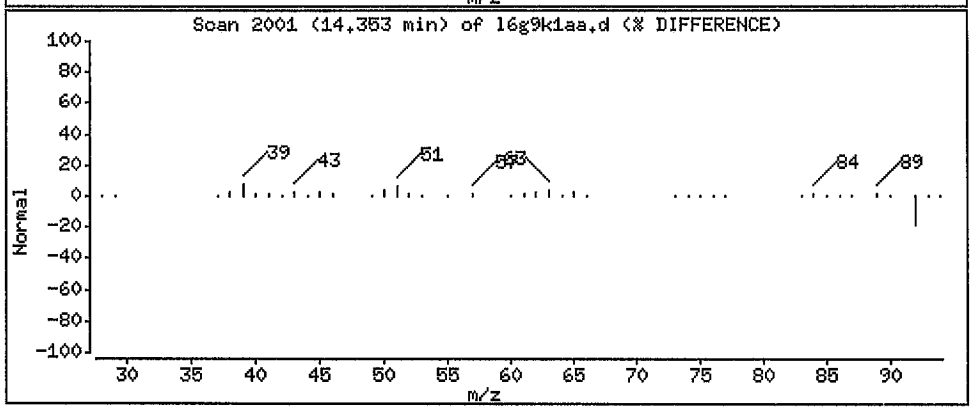
Column phase: Rtx-5 Column diameter: 0.32

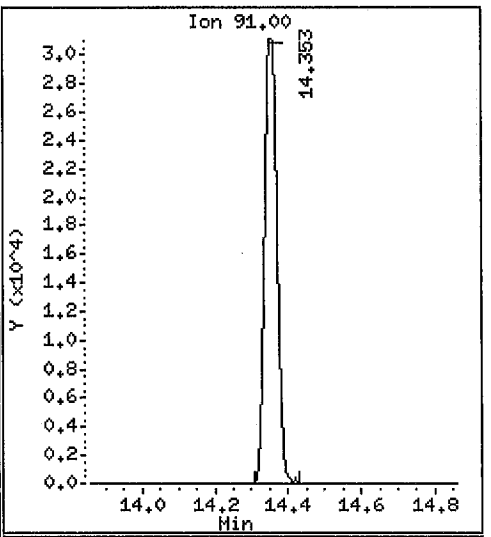
61 Toluene Concentration: 0.8526 ppb(v/v)

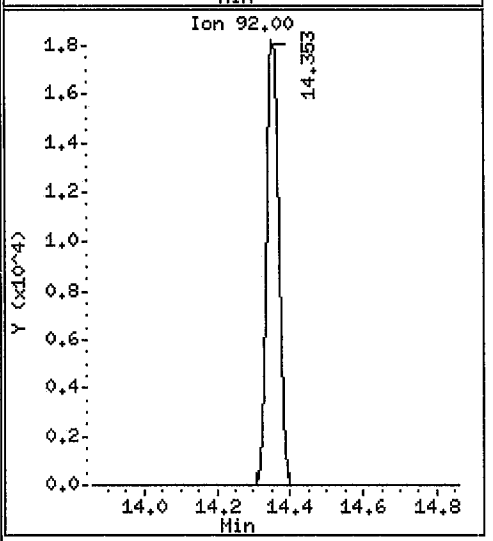












Data File: /var/chem/goms/mj.i/J090810.b/l6g9k1aa.d

Date : 08-SEP-2010 16:48

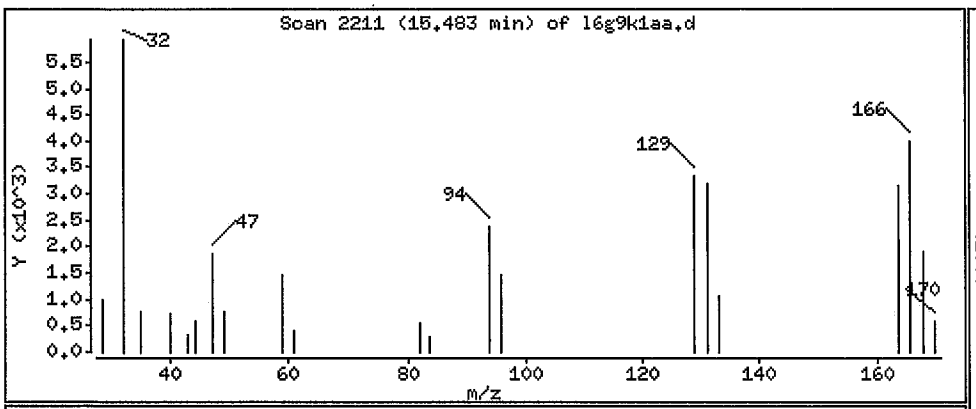
Client ID: SV-C-2-9 Instrument: mj.i

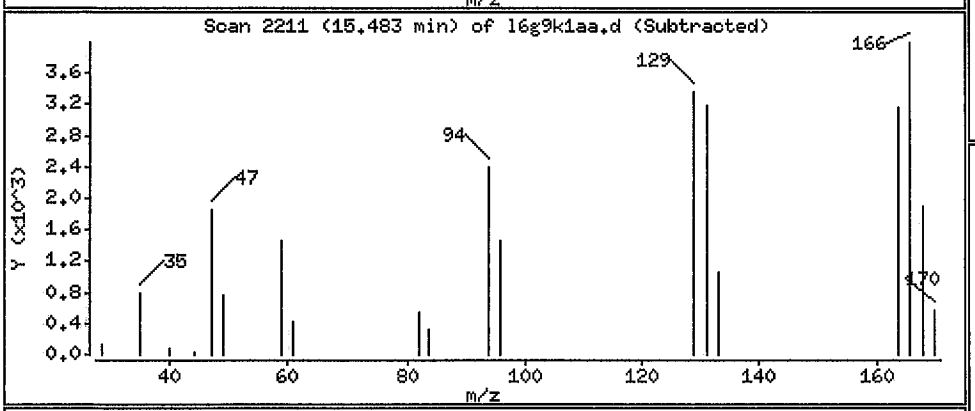
Sample Info: ,2.5,0,,,

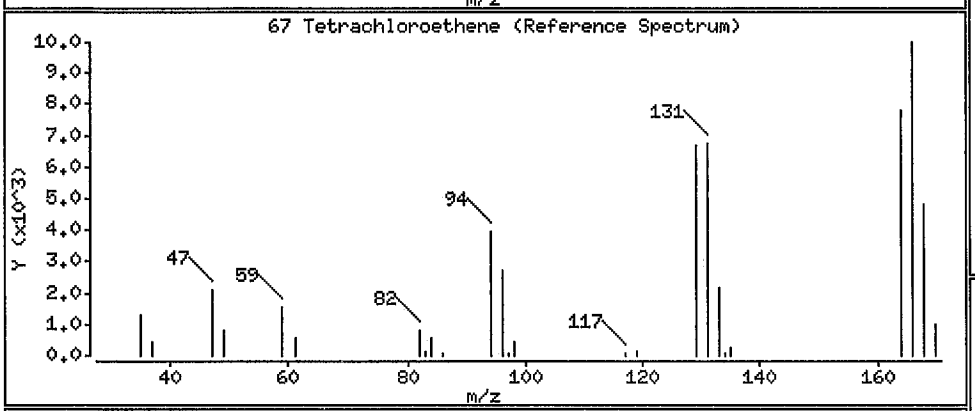
Purge Volume: 500.0 Operator: 7126

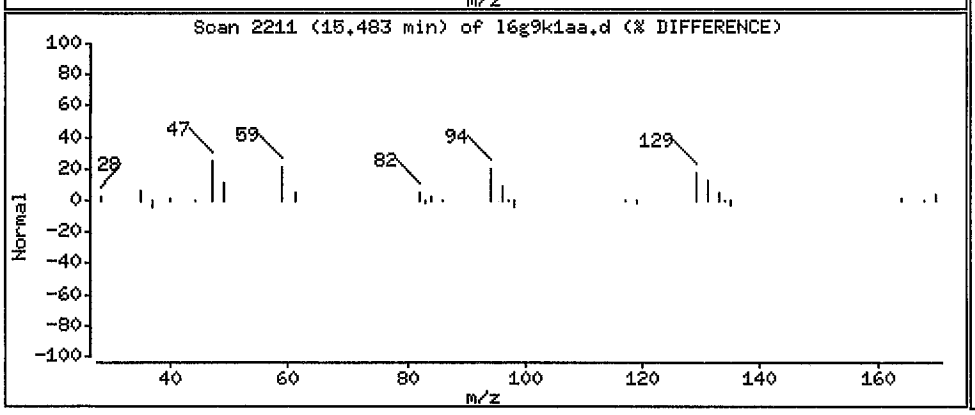
Column phase: Rtx-5 Column diameter: 0.32

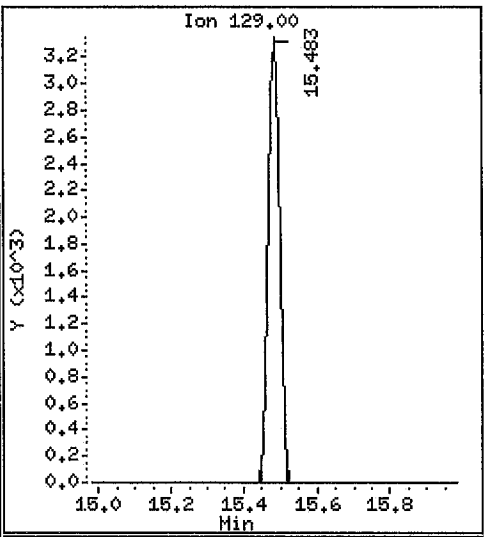
67 Tetrachloroethene Concentration: 0.1963 ppb(v/v)

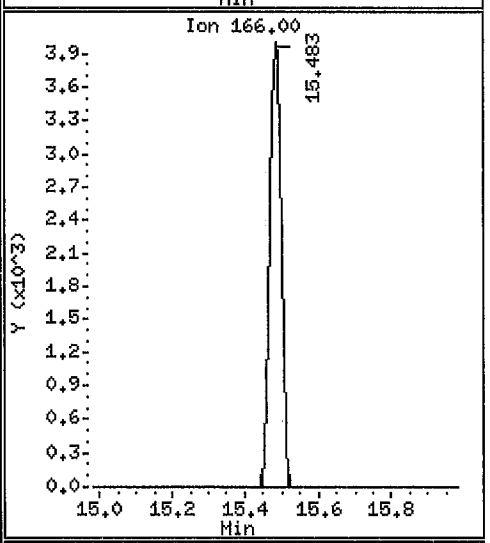


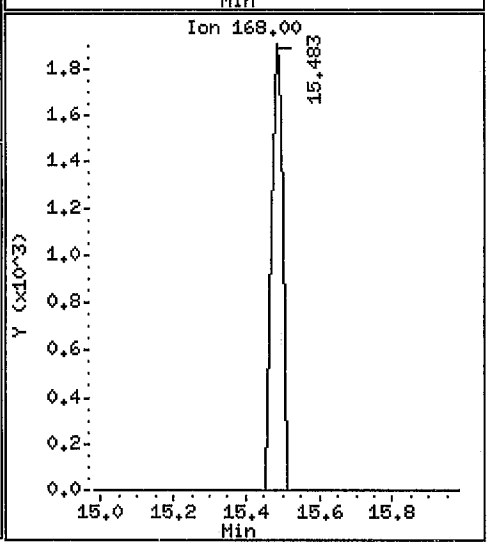












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9k1aa.d

Date : 08-SEP-2010 16:48

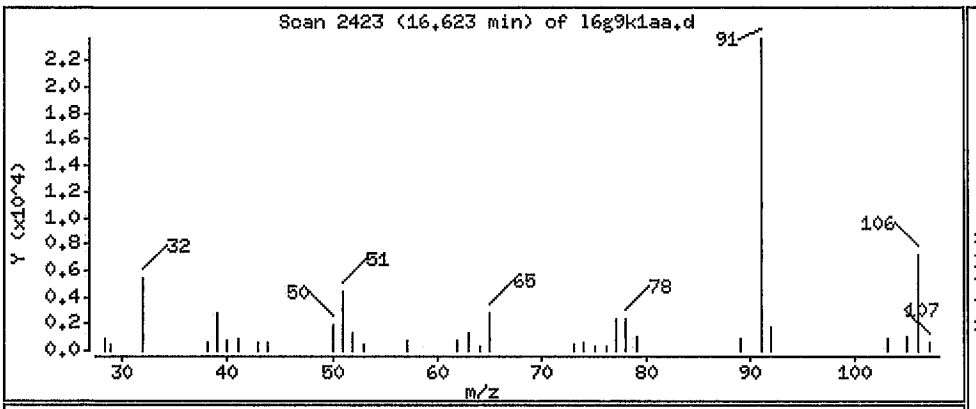
Client ID: SV-C-2-9 Instrument: mj.i

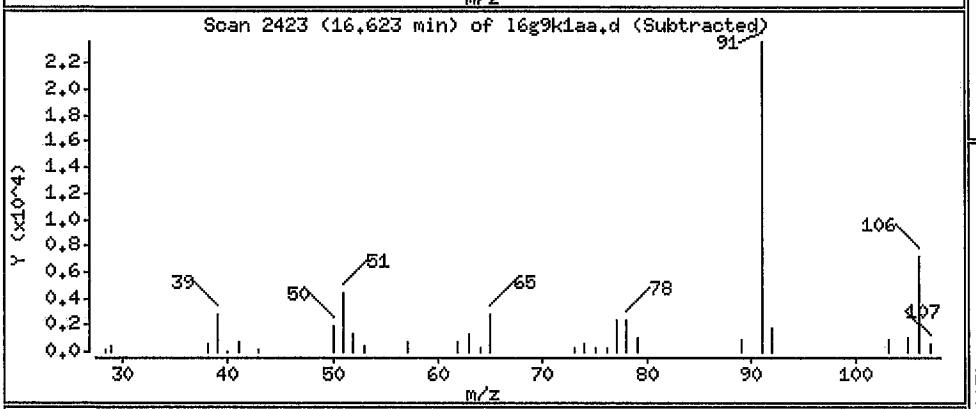
Sample Info: ,2.5,0,,,

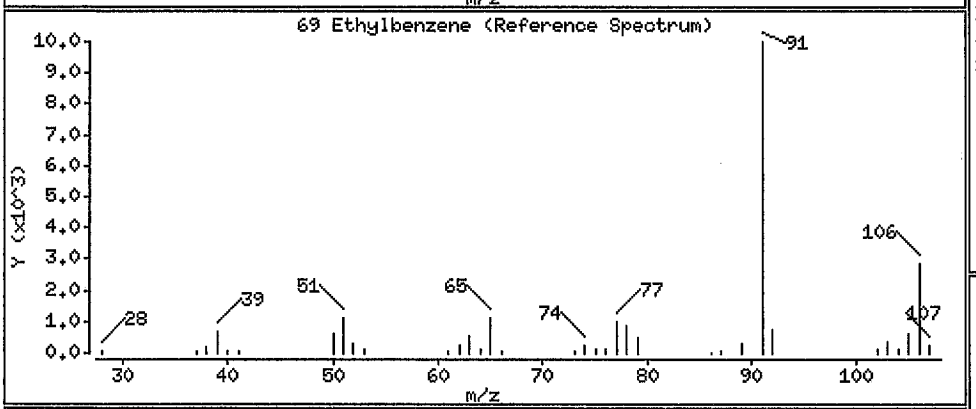
Purge Volume: 500.0 Operator: 7126

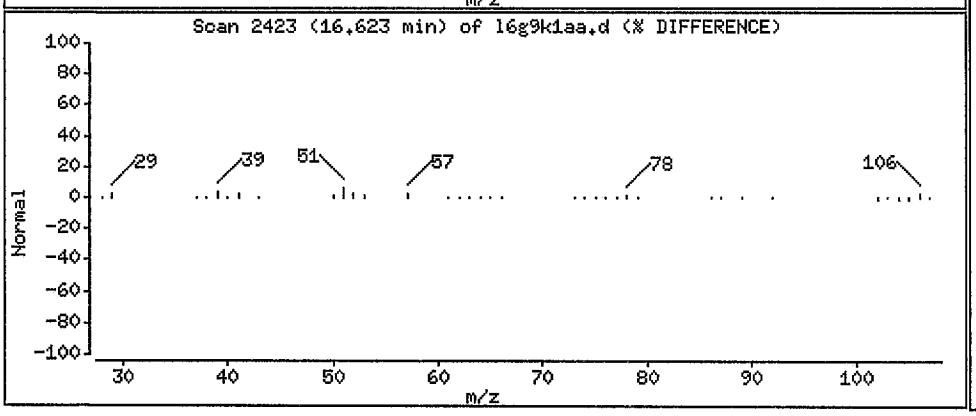
Column phase: Rtx-5 Column diameter: 0.32

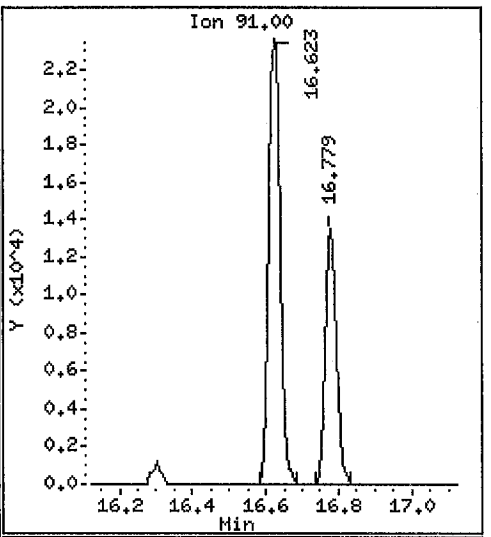
69 Ethylbenzene Concentration: 0.5283 ppb(v/v)

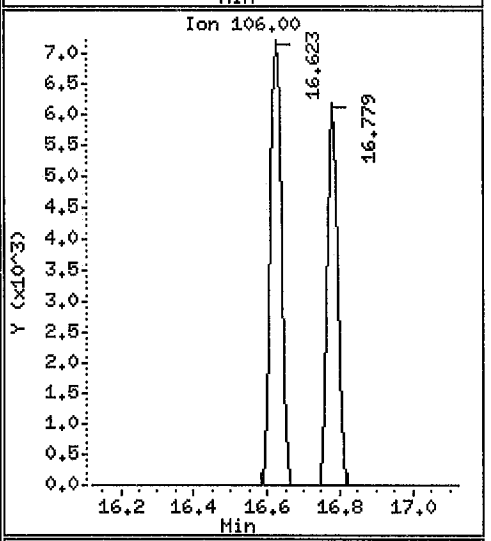


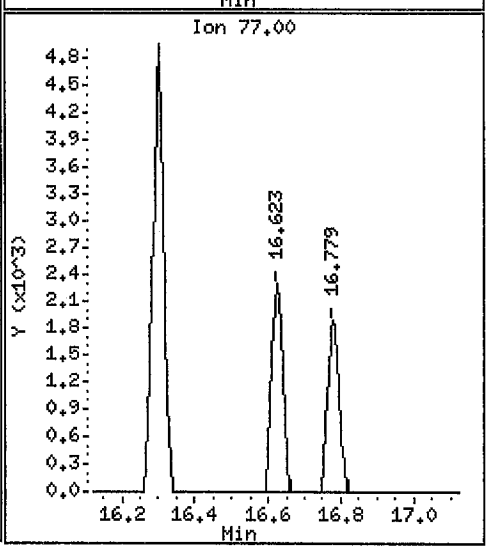












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9k1aa.d

Date : 08-SEP-2010 16:48

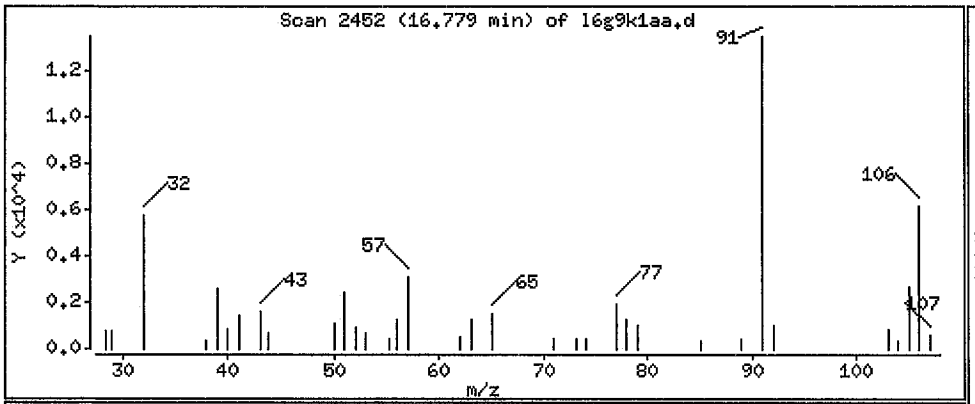
Client ID: SV-C-2-9 Instrument: mj.i

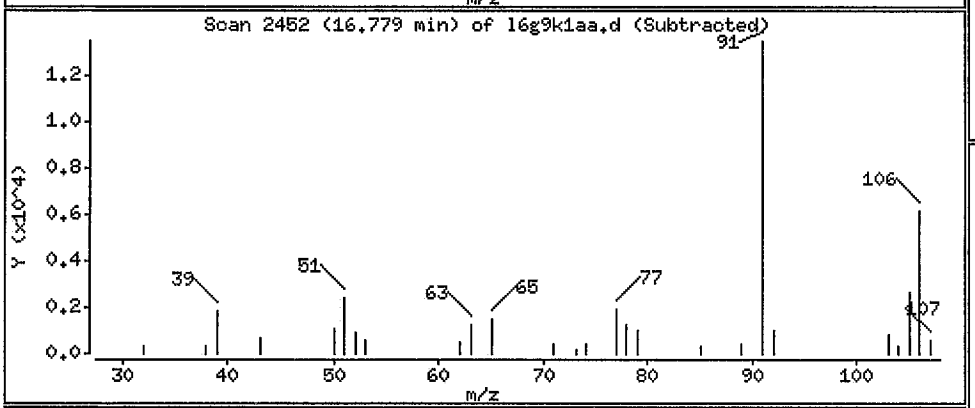
Sample Info: ,2.5,0,,,

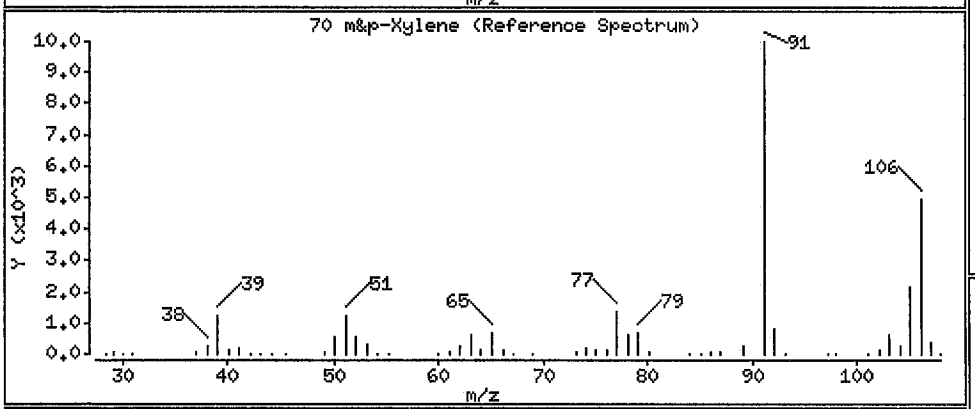
Purge Volume: 500.0 Operator: 7126

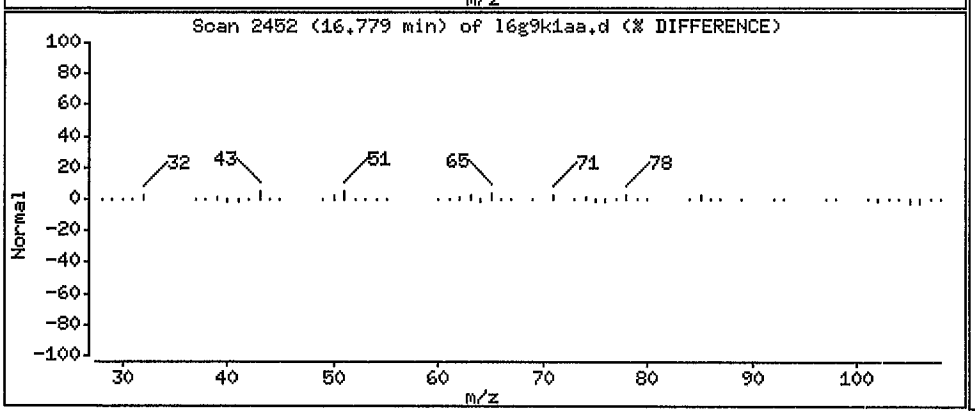
Column phase: Rtx-5 Column diameter: 0.32

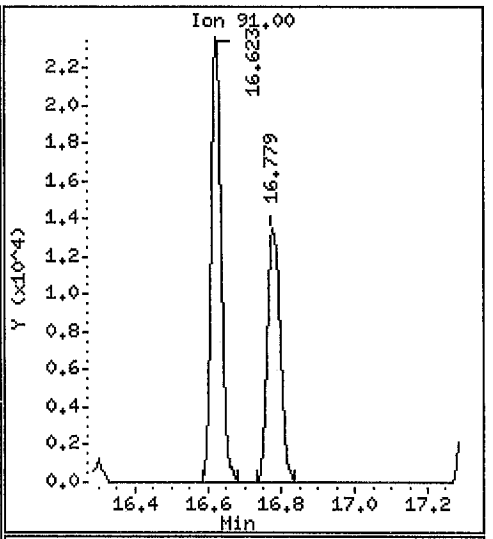
70 m&p-Xylene Concentration: 0.4353 ppb(v/v)

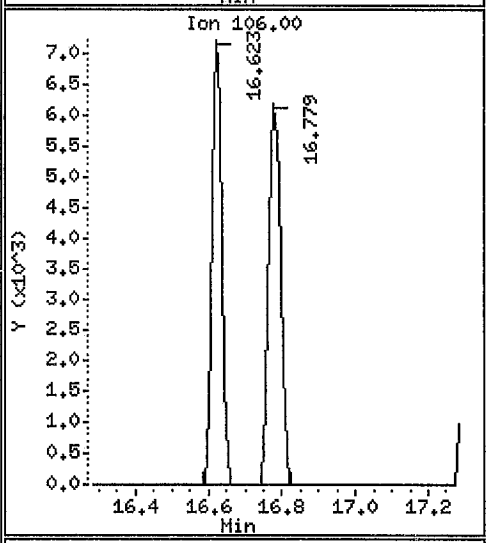


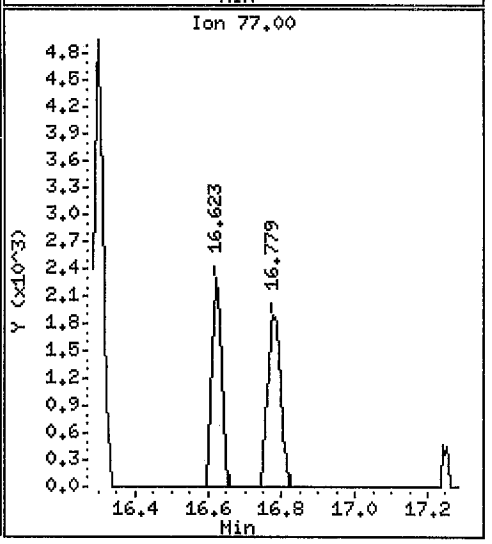












Data File: /var/chem/gcms/mj.i/J090810.b/16g9k1aa.d

Date : 08-SEP-2010 16:48

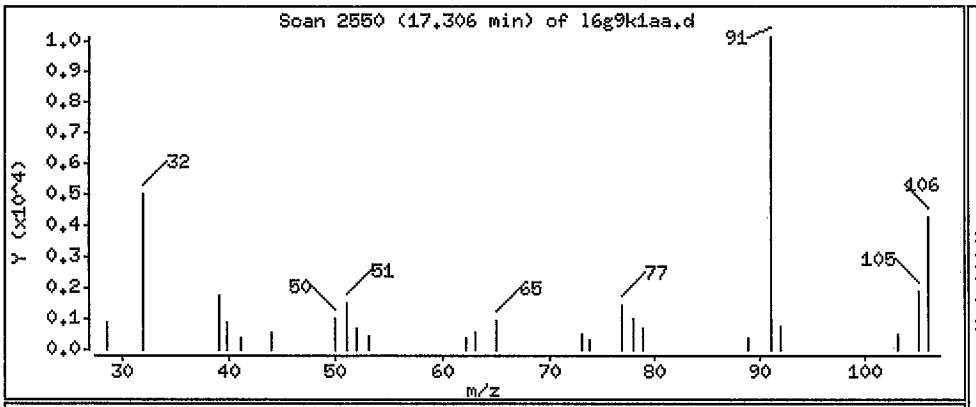
Client ID: SV-C-2-9 Instrument: mj.i

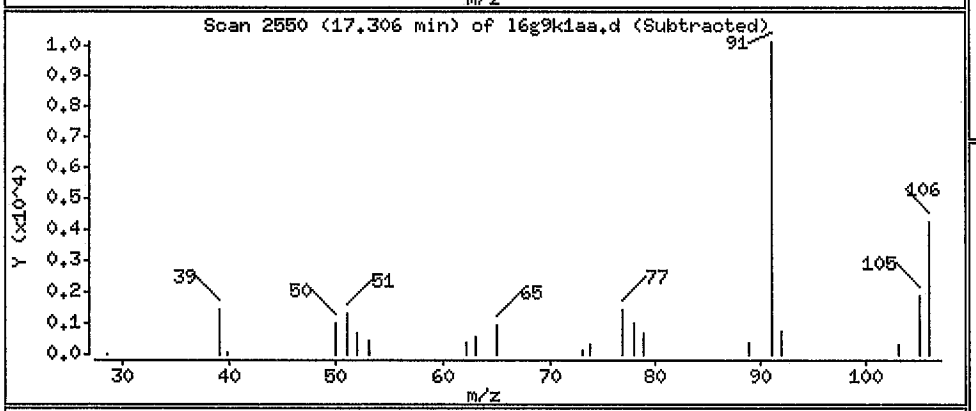
Sample Info: ,2.5,0,,,

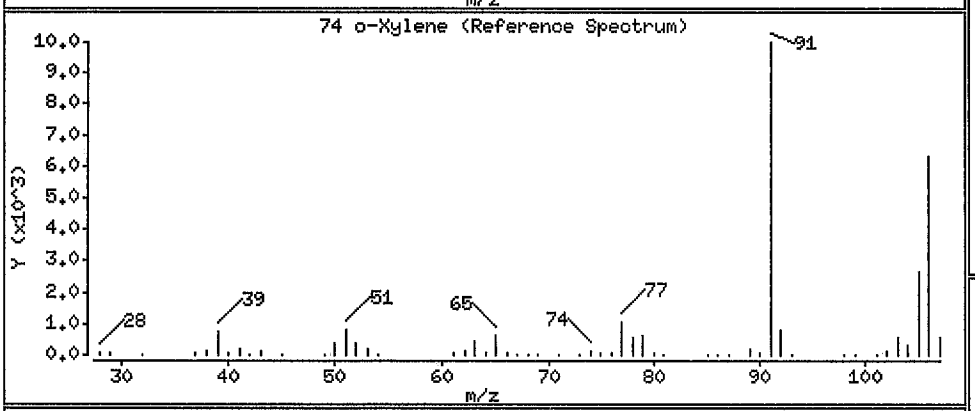
Purge Volume: 500.0 Operator: 7126

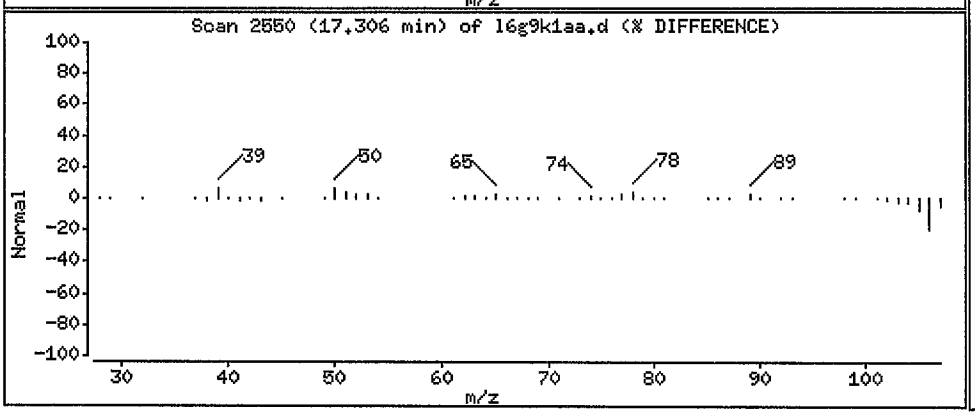
Column phase: Rtx-5 Column diameter: 0.32

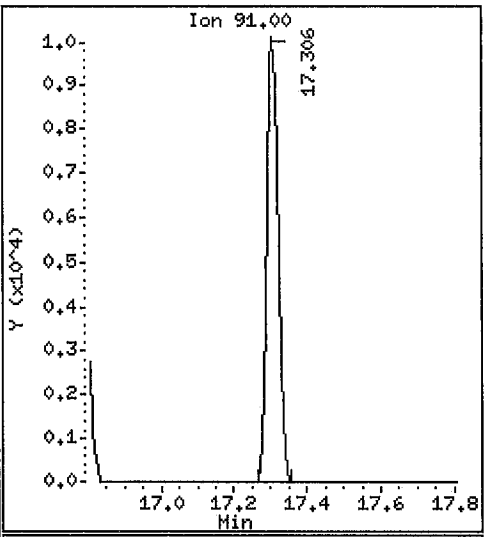
74 o-Xylene Concentration: 0.2778 ppb(v/v)

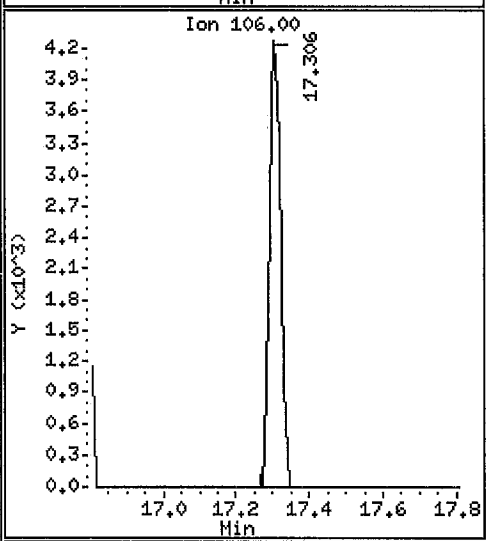


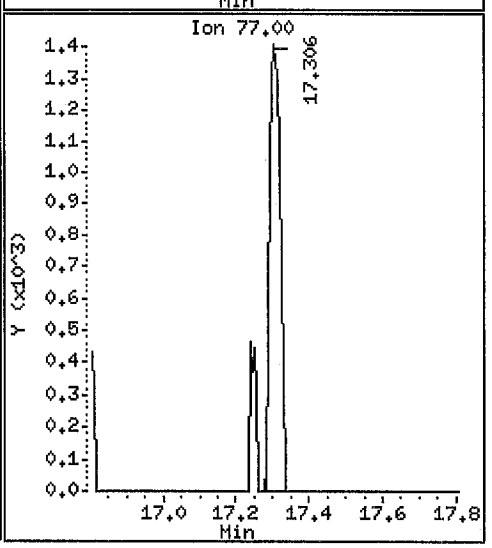












Tetra Tech NUS, Inc

Client Sample ID: SV-28-C-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 007 **Work Order #** L6G9L1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 172.73 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	14	4.0	ND	44	13
Carbon tetrachloride	ND	14	2.6	ND	87	16
Chlorodifluoromethane	**8.7**	**14**	**2.6**	**31 J**	**49**	**9.2**
Chloroform	**18**	**14**	**2.6**	**87**	**67**	**13**
Dichlorodifluoromethane	ND	14	4.7	ND	68	23
1,1-Dichloroethane	**1100**	**14**	**1.7**	**4400**	**56**	**7.0**
1,2-Dichloroethane	ND	14	3.3	ND	56	13
cis-1,2-Dichloroethene	**21**	**14**	**4.1**	**83**	**55**	**16**
trans-1,2-Dichloroethene	ND	14	3.5	ND	55	14
1,1-Dichloroethene	**290**	**14**	**2.2**	**1200**	**55**	**8.9**
Ethylbenzene	**140**	**14**	**4.7**	**590**	**60**	**20**
Methylene chloride	**5.7**	**35**	**3.1**	**20 J**	**120**	**11**
Methyl tert-butyl ether	ND	69	12	ND	250	42
Naphthalene	**76**	**35**	**6.2**	**400**	**180**	**33**
Tetrachloroethene	ND	14	2.8	ND	94	19
Toluene	**14**	**14**	**3.6**	**52**	**52**	**14**
1,2,4-Trichlorobenzene	ND	69	6.7	ND	510	50
1,1,1-Trichloroethane	**180**	**14**	**2.1**	**1000**	**75**	**11**
1,1,2-Trichloroethane	ND	14	3.6	ND	75	20
Trichloroethene	**530**	**6.9**	**2.4**	**2800**	**37**	**13**
Vinyl chloride	ND	14	5.0	ND	35	13
m-Xylene & p-Xylene	**840**	**14**	**8.6**	**3700**	**60**	**38**
o-Xylene	**290**	**14**	**4.1**	**1200**	**60**	**18**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9l1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/l6g9l1aa.d
Lab Smp Id: L6G9L1AA Client Smp ID: SV-28-C-9
Inj Date : 08-SEP-2010 17:44
Operator : 7126 Inst ID: mj.i
Smp Info : ,172.73,0,,,
Misc Info : J090810,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 10-Sep-2010 14:16 barlozha Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 7
Dil Factor: 172.73000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	172.73000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
* 1 Bromochloromethane	128	9.471	9.479	(1.000)	186776	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.633	11.642	(1.000)	903531	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.297	16.300	(1.000)	797198	4.00000	4.000
$ 6 4-Bromofluorobenzene	95	17.911	17.914	(1.099)	610514	4.03488	4.035
7 Chlorodifluoromethane	67	3.903	3.901	(0.412)	1191	0.05045	8.714
27 1,1-Dichloroethene	96	6.404	6.413	(0.676)	104074	1.68746	291.5
31 Methylene Chloride	84	6.781	6.784	(0.716)	2019	0.03323	5.739
36 1,1-Dichloroethane	63	8.088	8.102	(0.854)	924991	6.23163	1076
40 cis 1,2-Dichloroethene	96	9.121	9.129	(0.963)	7697	0.12102	20.90
42 Chloroform	83	9.471	9.479	(1.000)	13916	0.10263	17.73
44 1,1,1-Trichloroethane	97	10.531	10.544	(1.112)	150478	1.06528	184.0
45 1,2-Dichloroethane	62	10.536	10.646	(0.906)	12143	0.09571	~~16.53~~
53 Trichloroethene	130	12.343	12.352	(1.061)	283157	3.04882	526.6
61 Toluene	91	14.355	14.358	(0.881)	14905	0.07939	13.71
69 Ethylbenzene	91	16.625	16.623	(1.020)	168560	0.78300	135.2

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9l1aa.d
Report Date: 10-Sep-2010 14:29

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
70 m&p-Xylene	91	16.776	16.784	(1.029)	795517	4.88647	844.0
74 o-Xylene	91	17.303	17.306	(1.062)	281729	1.66370	287.4
96 Napthalene	128	21.596	21.594	(1.325)	72211	0.44011	76.02

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9l1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9l1aa.d
Lab Smp Id: L6G9L1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: SV-28-C-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	186776	-4.25
2 1,4-Difluorobenze	936174	557024	1315324	903531	-3.49
3 Chlorobenzene-d5	815161	485021	1145301	797198	-2.20

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.09
2 1,4-Difluorobenze	11.64	11.31	11.97	11.63	-0.07
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	-0.02

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

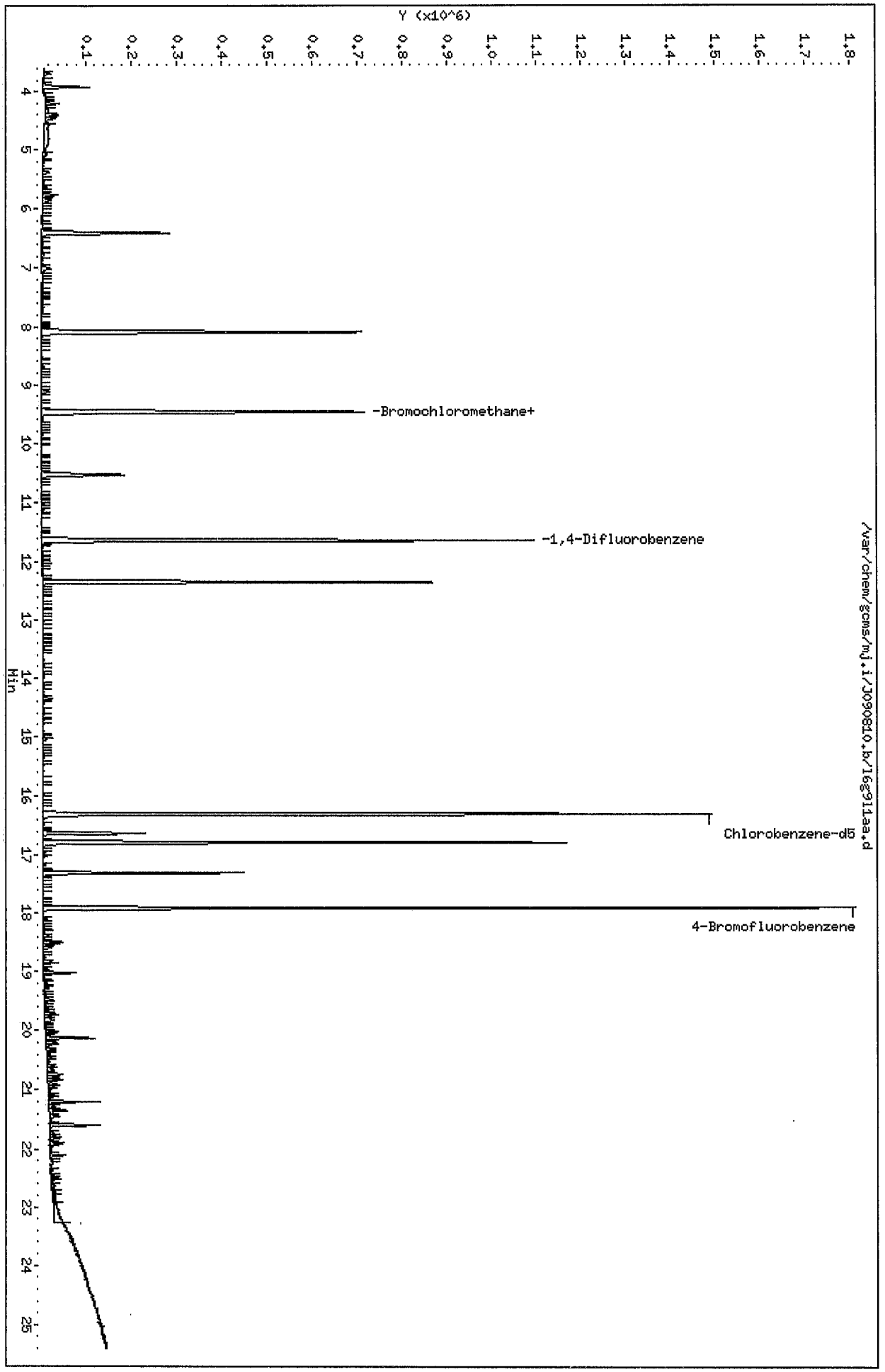
Data File: /var/chem/gcms/mj.i/J090810.b/l6g9l1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9L1AA
Client Smp ID: SV-28-C-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.035	100.87	70-130


Data File: /var/chem/gcms/mj.i/J090810.b/16g91aa.d
Date : 08-SEP-2010 17:44
Client ID: SV-28-C-9
Sample Info: ,172.73.0,,,
Purge Volume: 500.0
Column phase: Rtx-5
Instrument: mj.i
Operator: 7126
Column diameter: 0.32
Y (x10^6)
1.8
1.7
1.6
1.5
1.4
1.3
1.2
1.1
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
4
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16
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18
19
20
21
22
23
24
25
Min
-Bromochloromethane+
-1,4-Difluorobenzene
/var/chem/gcms/mj.i/J090810.b/16g91aa.d
Chlorobenzene-d5
4-Bromofluorobenzene

Data File: /var/chem/gcms/mj.i/J090810.b/l6g911aa.d

Date : 08-SEP-2010 17:44

Client ID: SV-28-C-9

Instrument: mj.i

Sample Info: ,172.73,0,,,

Purge Volume: 500.0

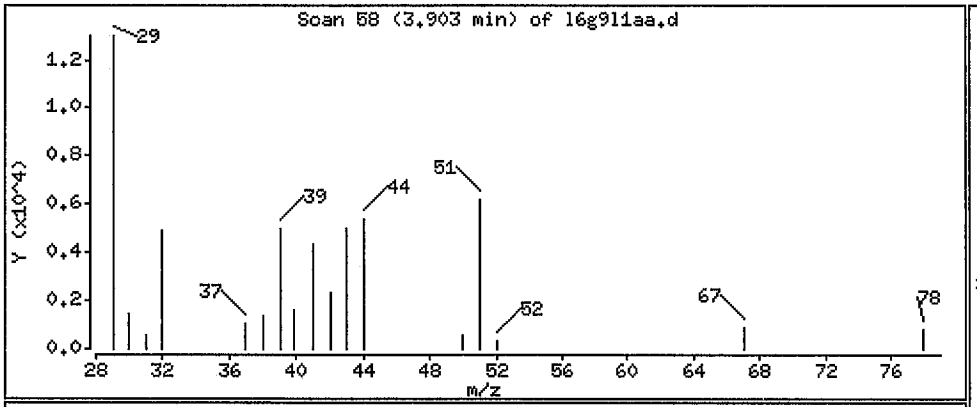
Operator: 7126

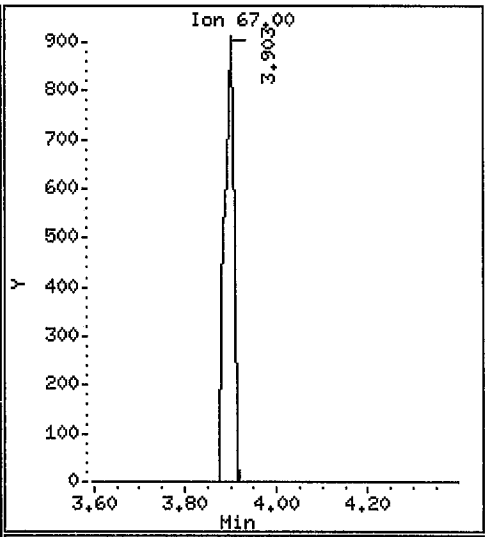
Column phase: Rtx-5

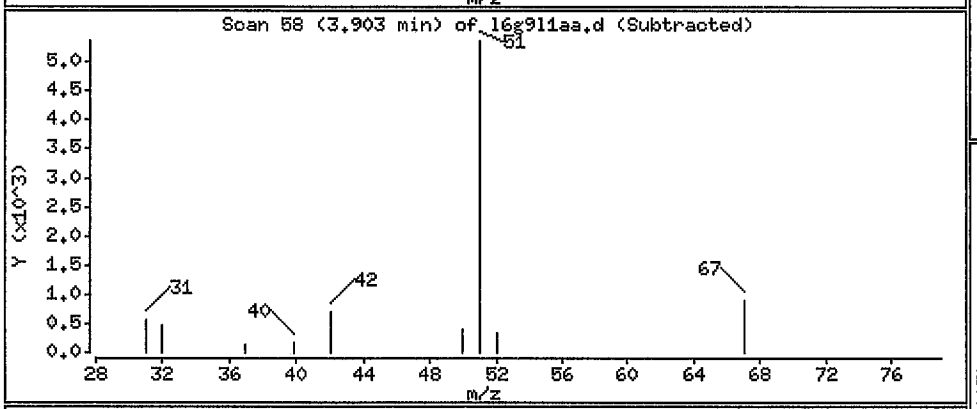
Column diameter: 0.32

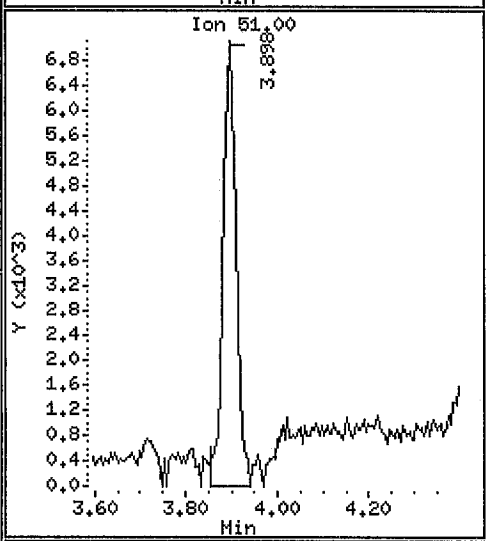
7 Chlorodifluoromethane

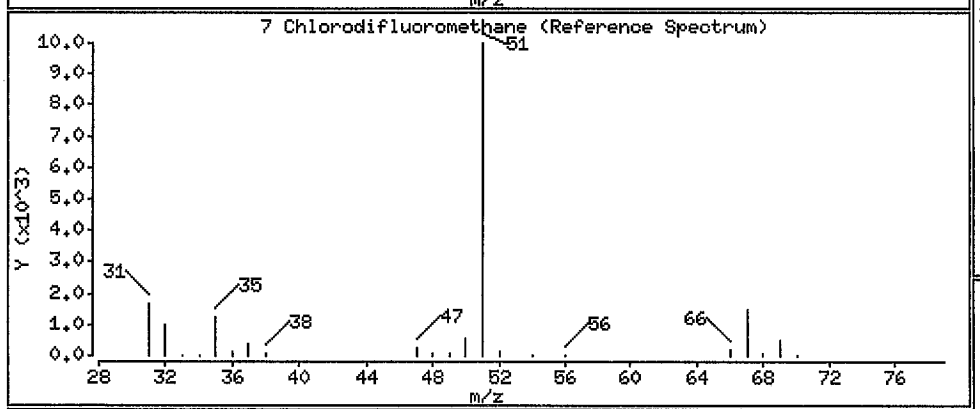
Concentration: 8.714 ppb(v/v)

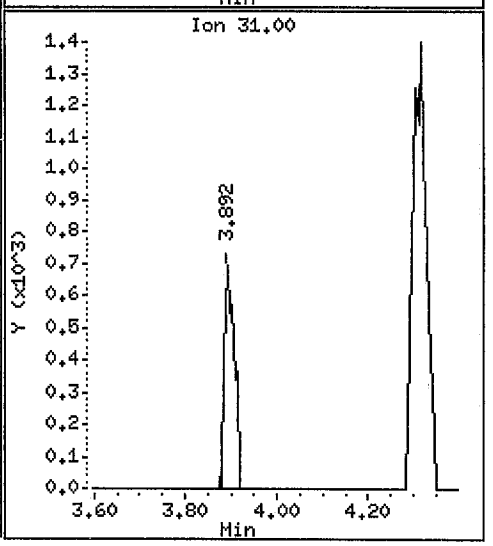


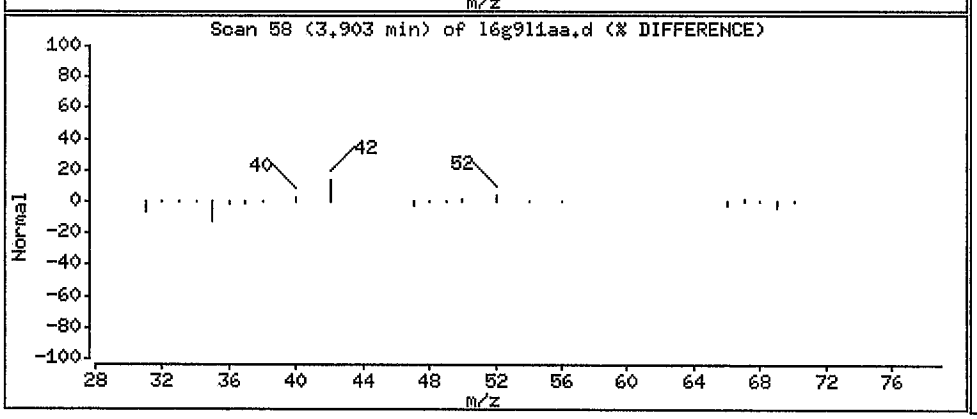












Data File: /var/chem/gcms/mj.i/J090810.b/16g911aa.d

Date : 08-SEP-2010 17:44

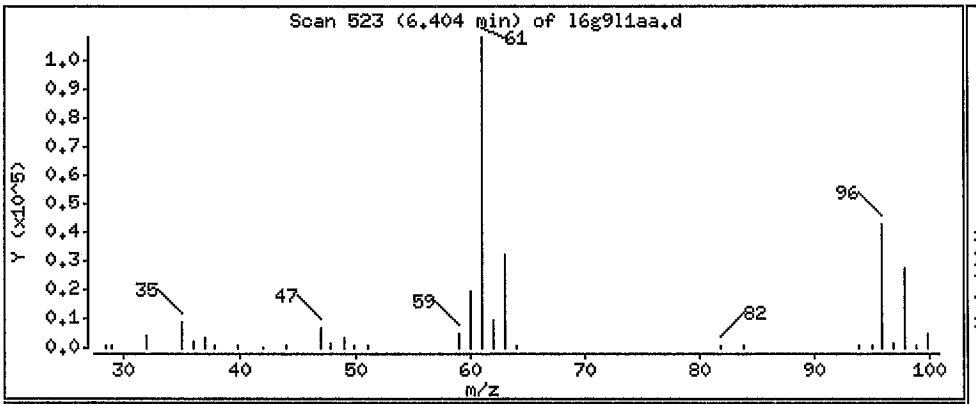
Client ID: SV-28-C-9 Instrument: mj.i

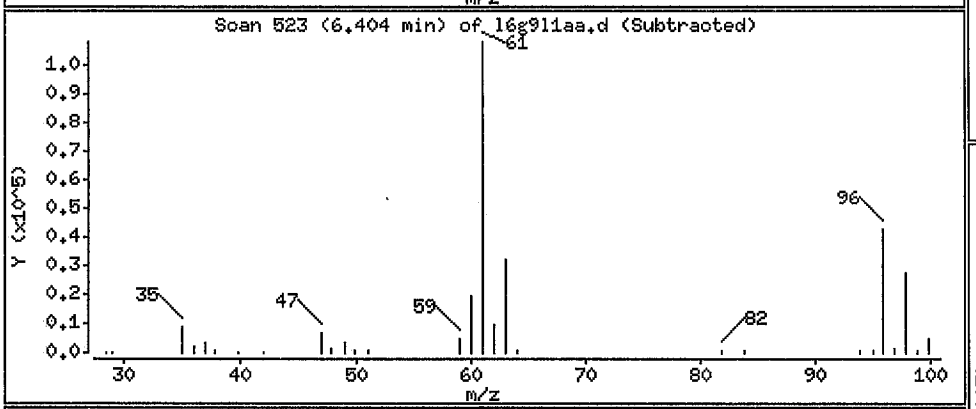
Sample Info: ,172.73,0,,,

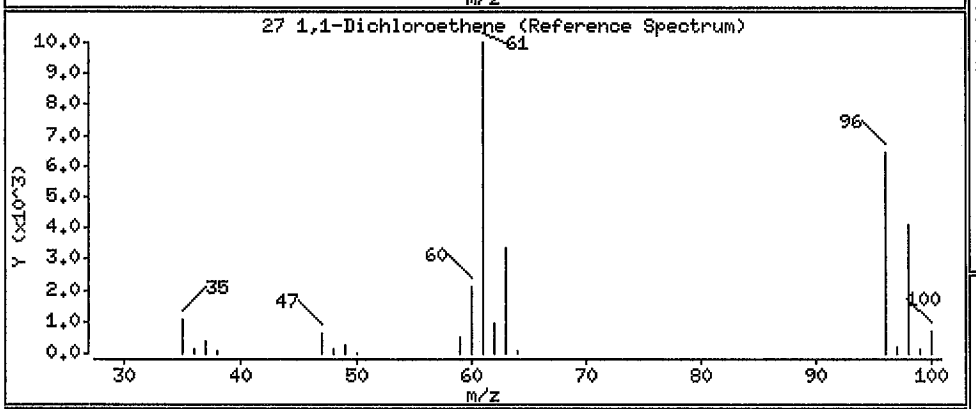
Purge Volume: 500.0 Operator: 7126

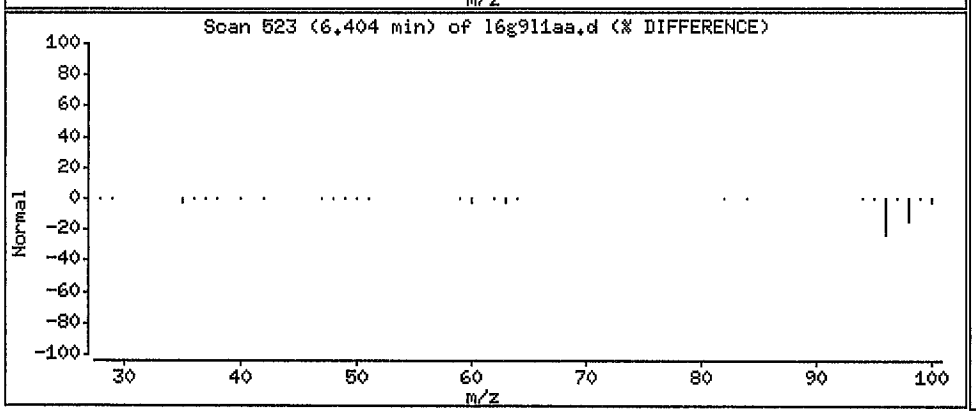
Column phase: Rtx-5 Column diameter: 0.32

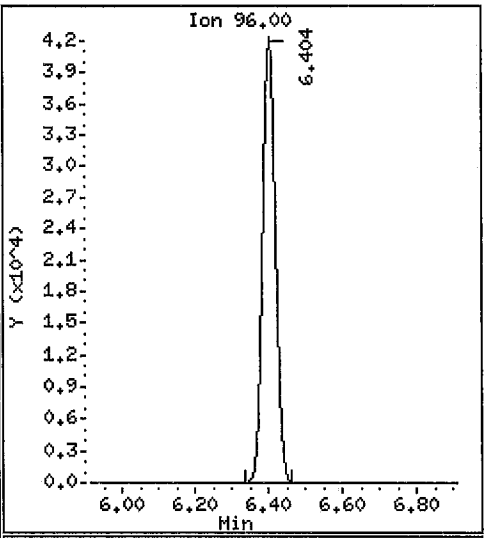
27 1,1-Dichloroethene Concentration: 291.5 ppb(v/v)

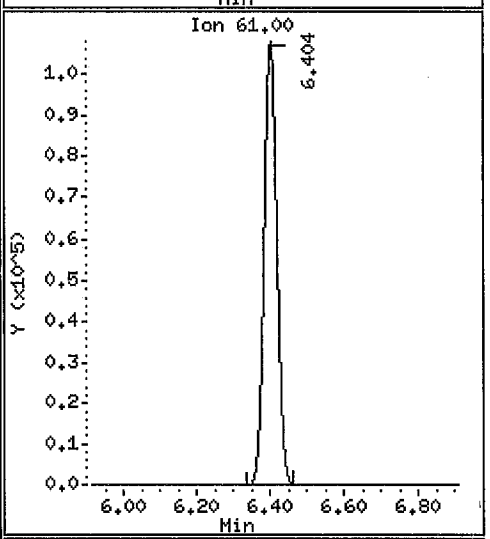


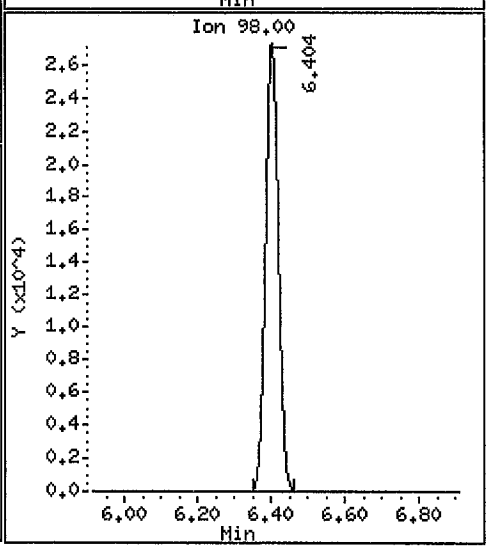












Data File: /var/chem/gcms/mj.i/J090810.b/16g911aa.d

Date : 08-SEP-2010 17:44

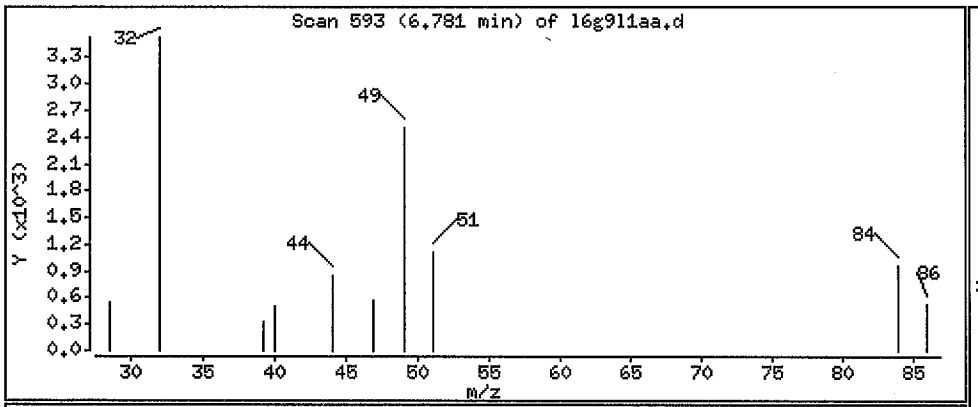
Client ID: SV-28-C-9 Instrument: mj.i

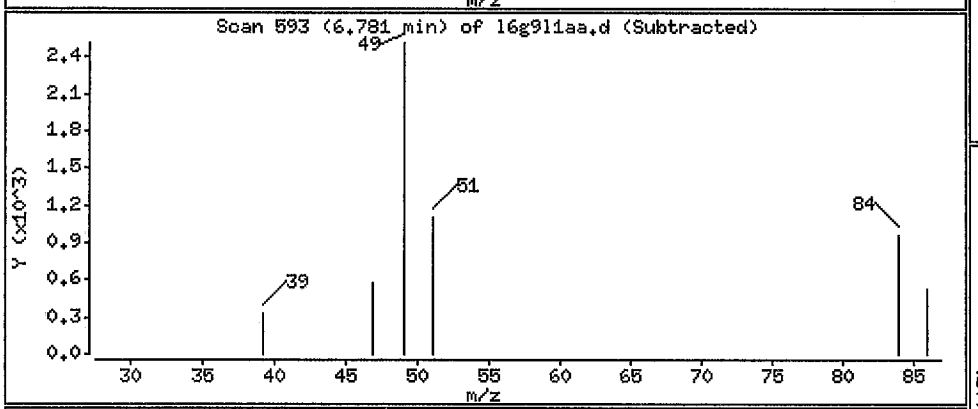
Sample Info: ,172.73,0,,,

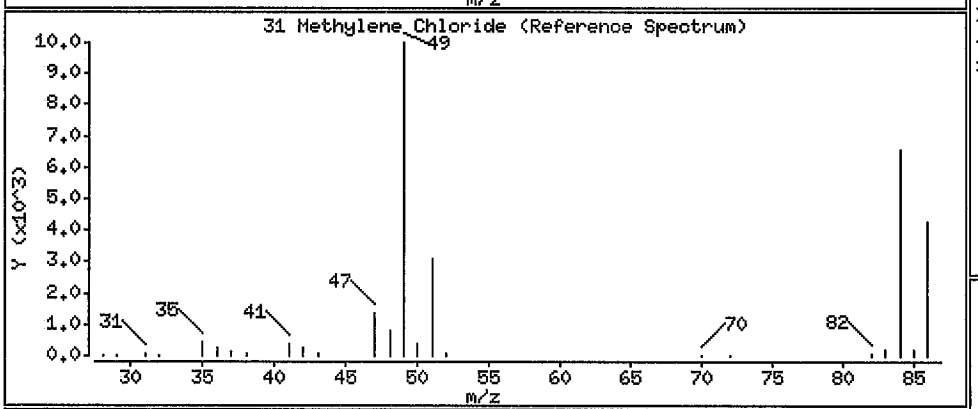
Purge Volume: 500.0 Operator: 7126

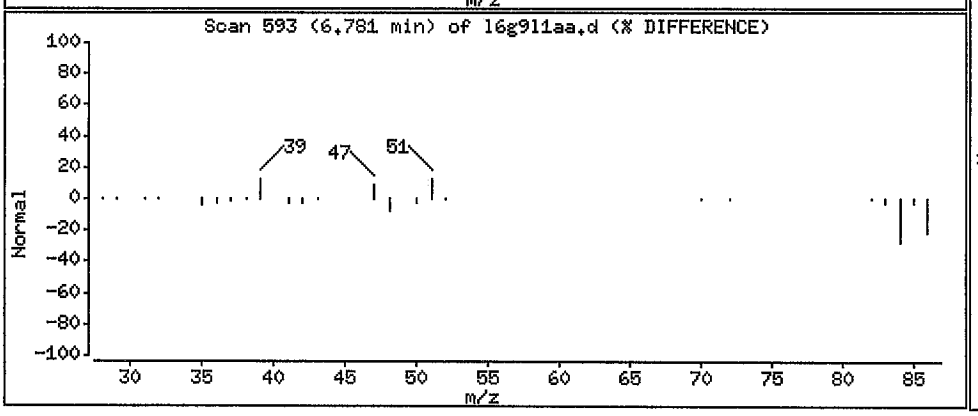
Column phase: Rtx-5 Column diameter: 0.32

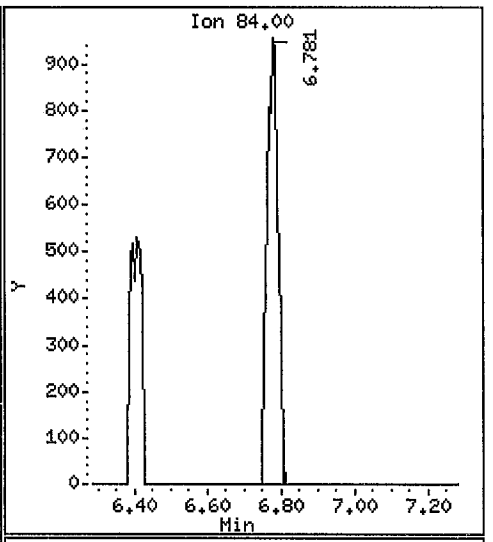
31 Methylene Chloride Concentration: 5.739 ppb(v/v)

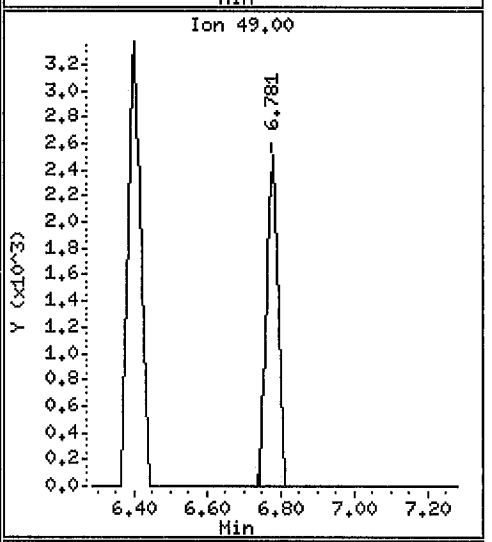


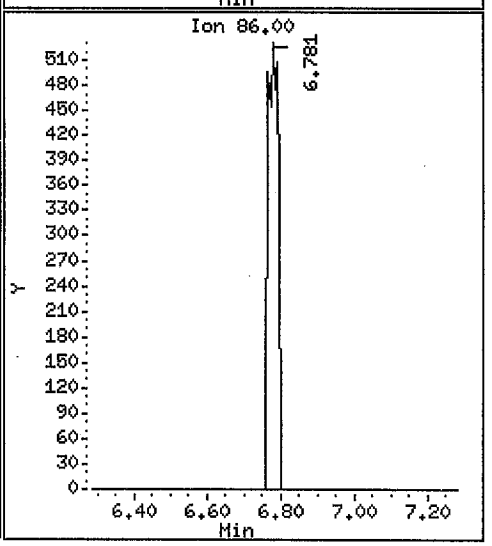












Data File: /var/chem/gcms/mj.i/J090810.b/16g911aa.d

Date : 08-SEP-2010 17:44

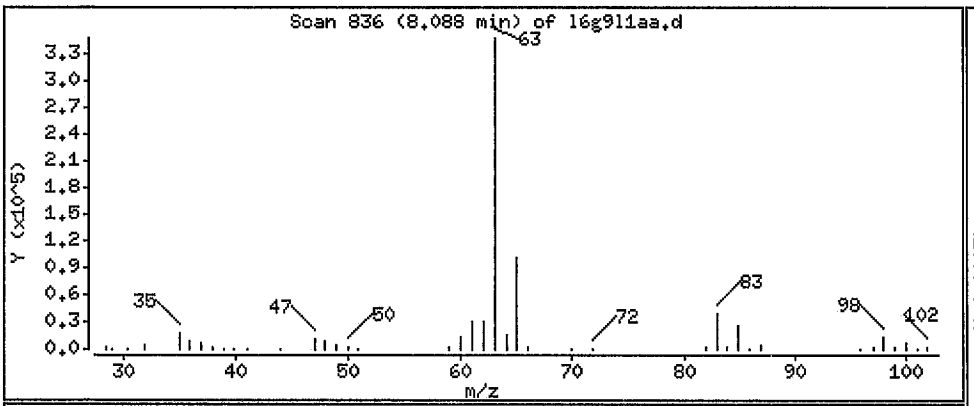
Client ID: SV-28-C-9 Instrument: mj.i

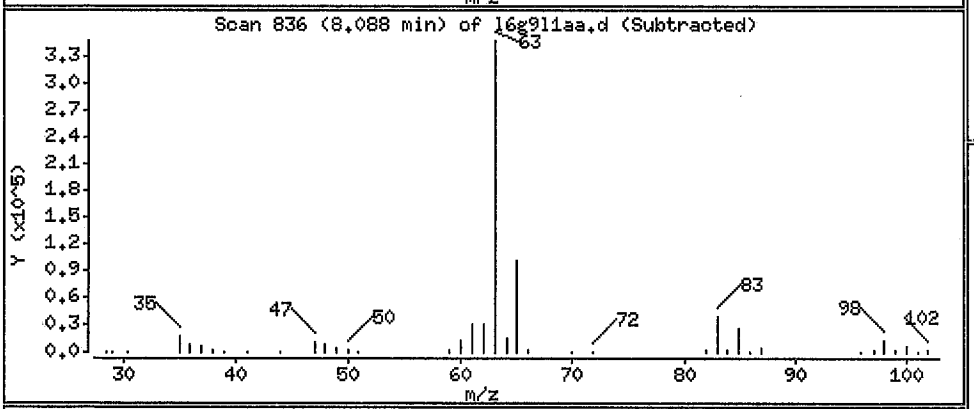
Sample Info: ,172.73,0,,,

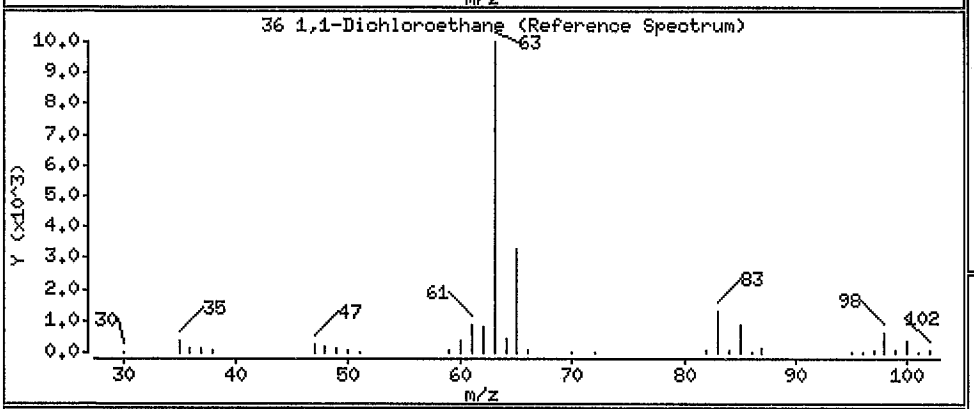
Purge Volume: 500.0 Operator: 7126

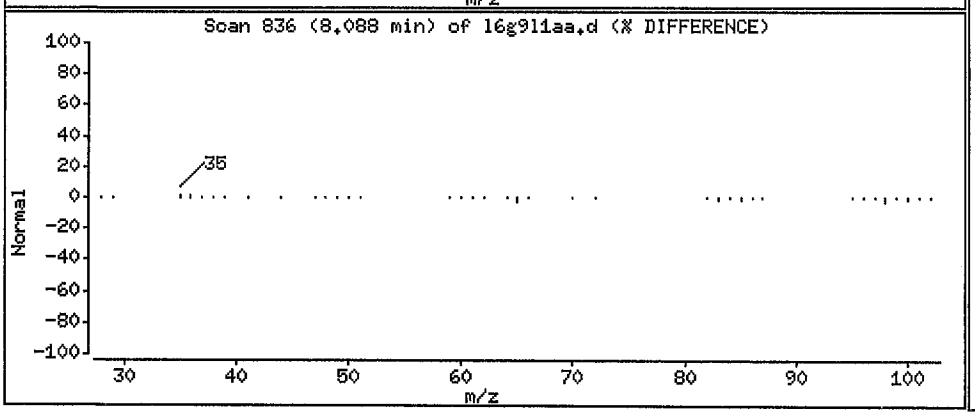
Column phase: Rtx-5 Column diameter: 0.32

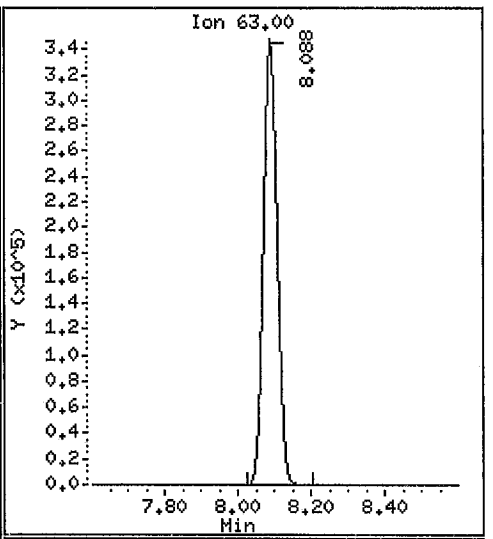
36 1,1-Dichloroethane Concentration: 1076 ppb(v/v)

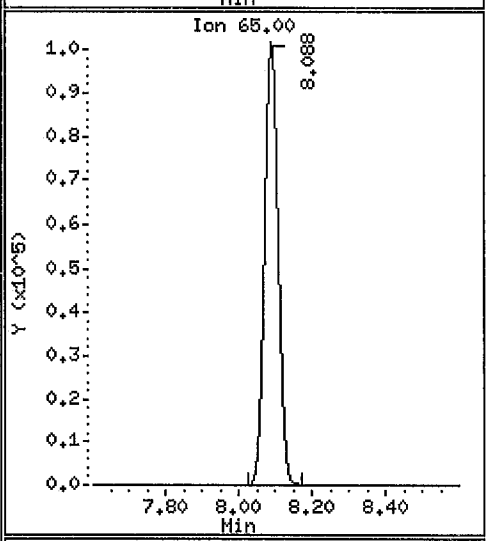


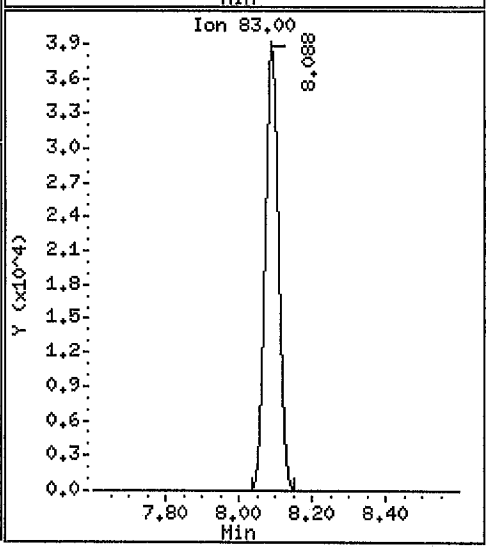












Data File: /var/chem/gcms/mj.i/J090810.b/16g911aa.d

Date : 08-SEP-2010 17:44

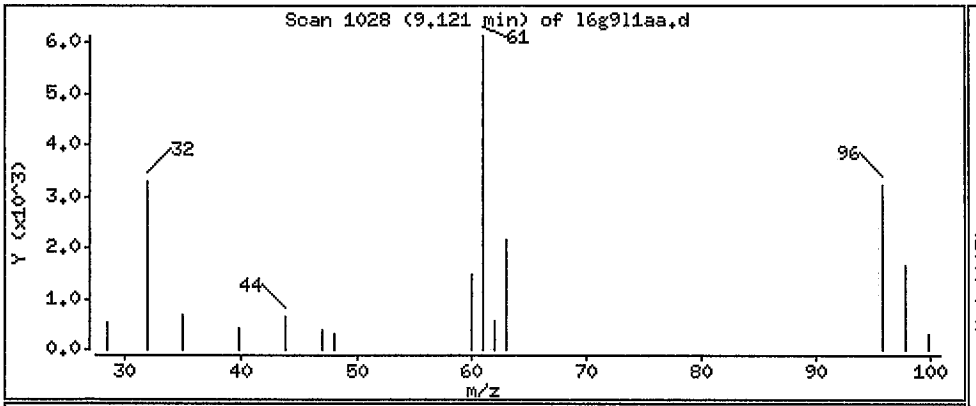
Client ID: SV-28-C-9 Instrument: mj.i

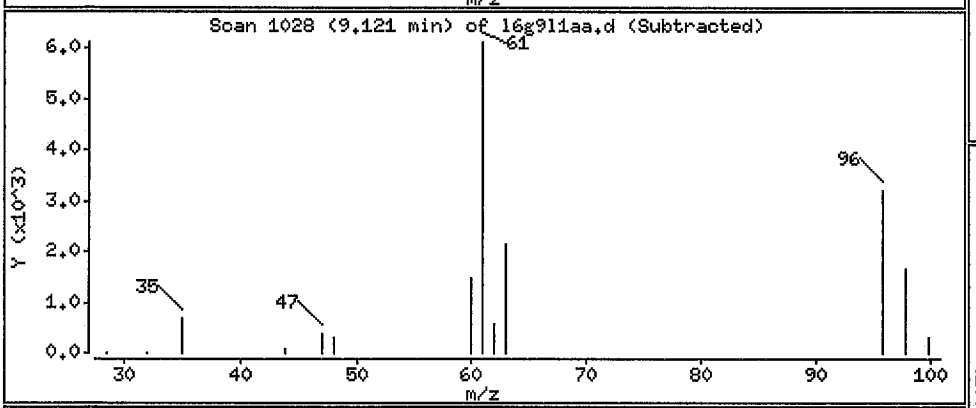
Sample Info: ,172.73,0,,,

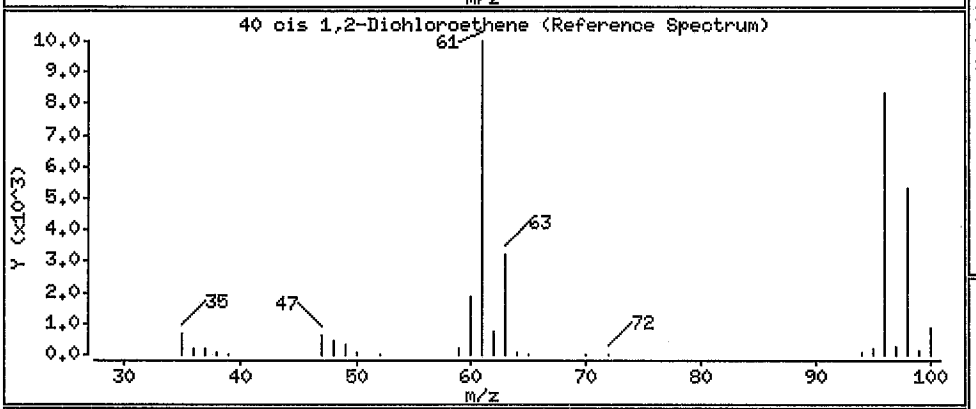
Purge Volume: 500.0 Operator: 7126

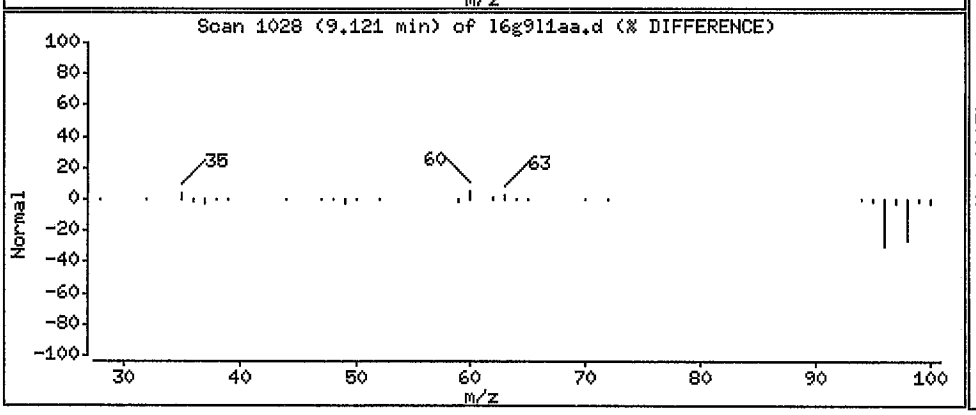
Column phase: Rtx-5 Column diameter: 0.32

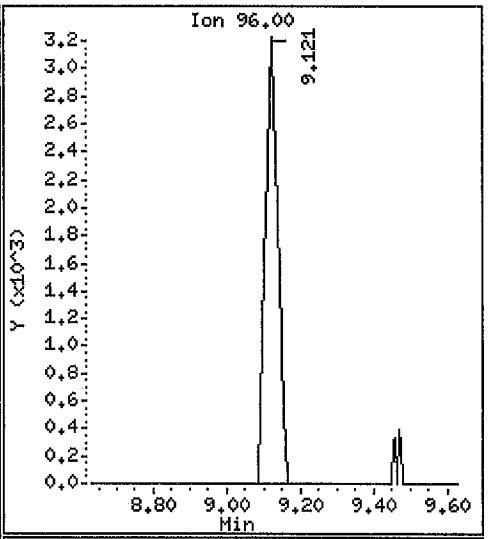
40 cis 1,2-Dichloroethene Concentration: 20.90 ppb(v/v)

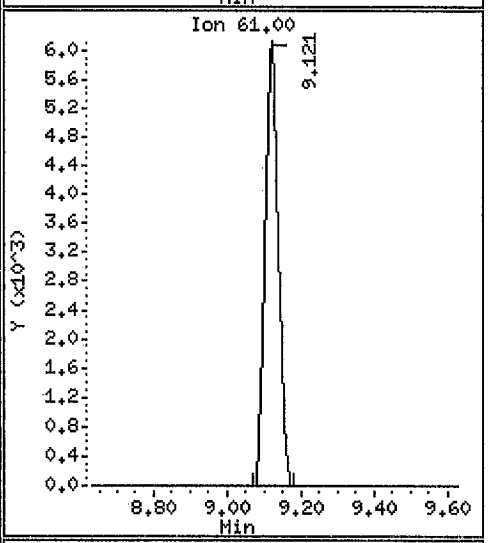


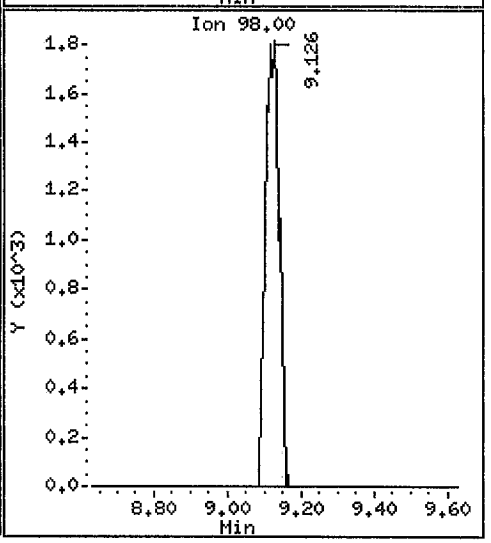












Data File: /var/chem/gcms/mj.i/J090810.b/16g911aa.d

Date : 08-SEP-2010 17:44

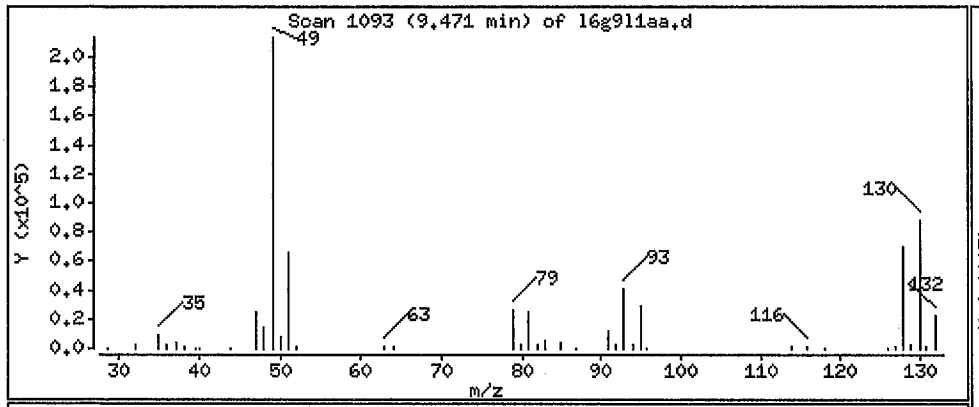
Client ID: SV-28-C-9 Instrument: mj.i

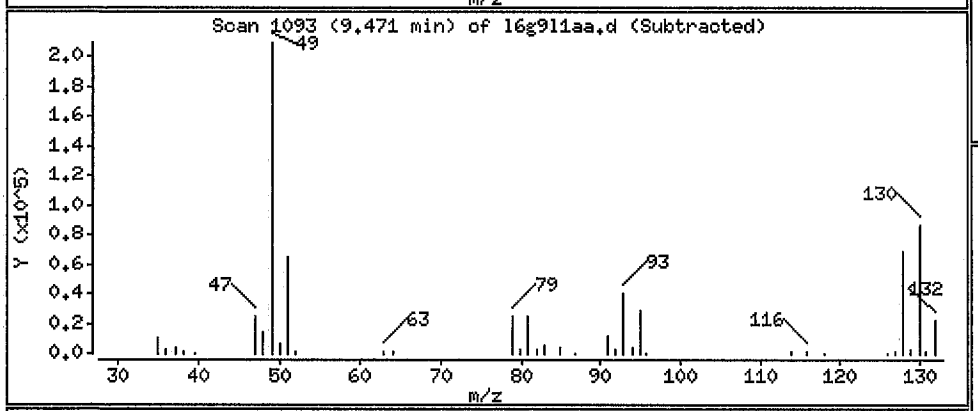
Sample Info: ,172.73,0,,,

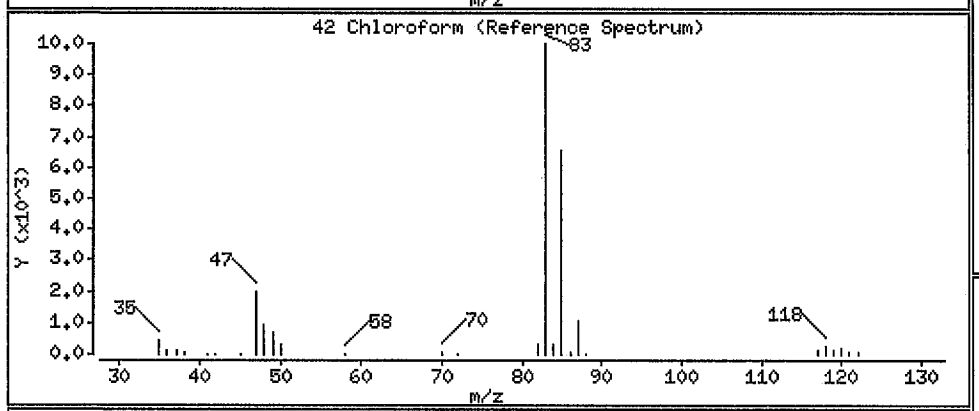
Purge Volume: 500.0 Operator: 7126

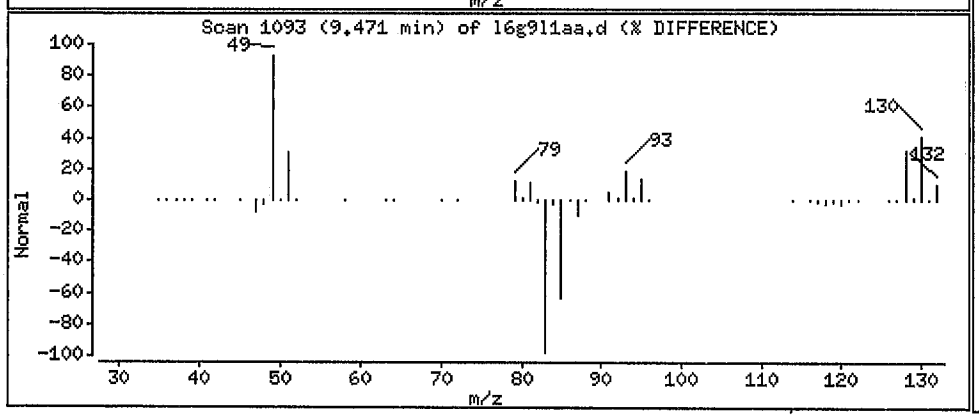
Column phase: Rtx-5 Column diameter: 0.32

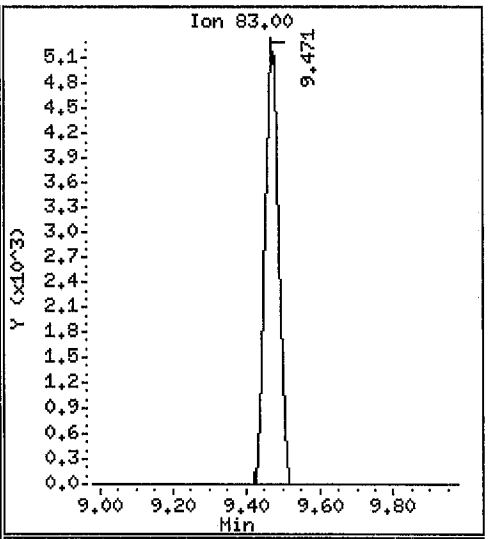
42 Chloroform Concentration: 17.73 ppb(v/v)

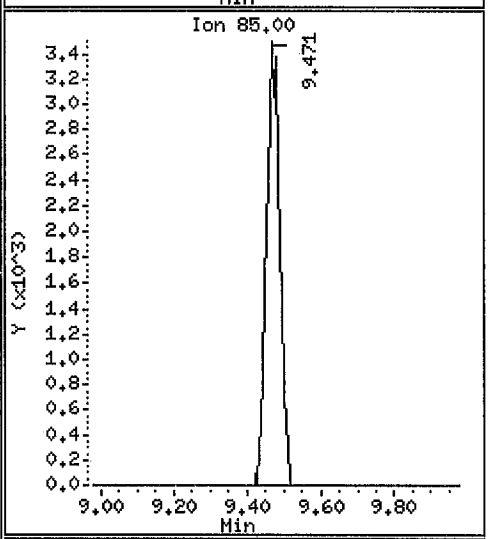


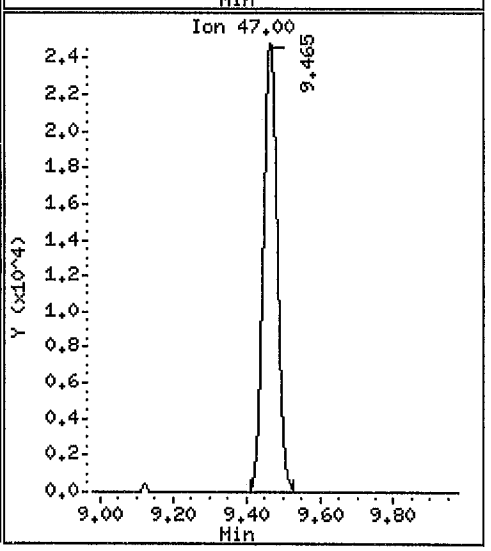












Data File: /var/chem/gcms/mj.i/J090810.b/l6g911aa.d

Date : 08-SEP-2010 17:44

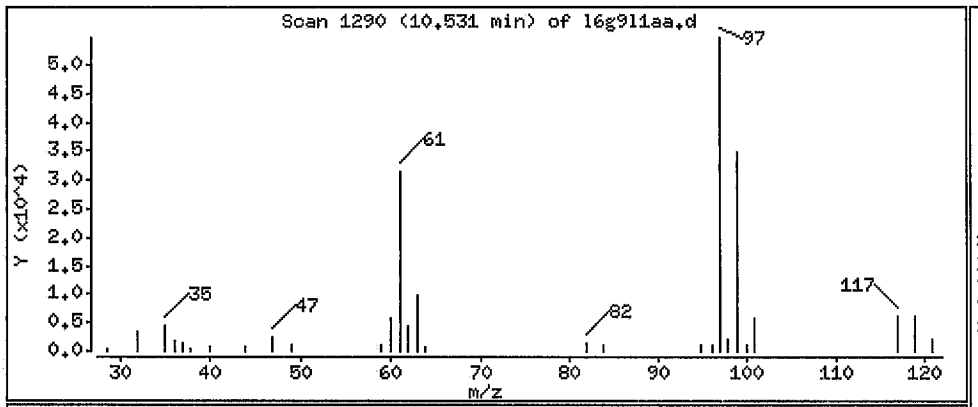
Client ID: SV-28-C-9 Instrument: mj.i

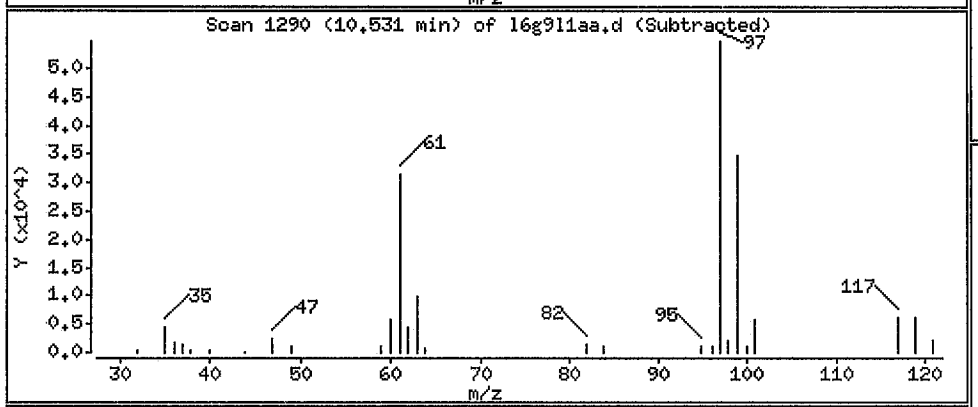
Sample Info: ,172.73,0,,,

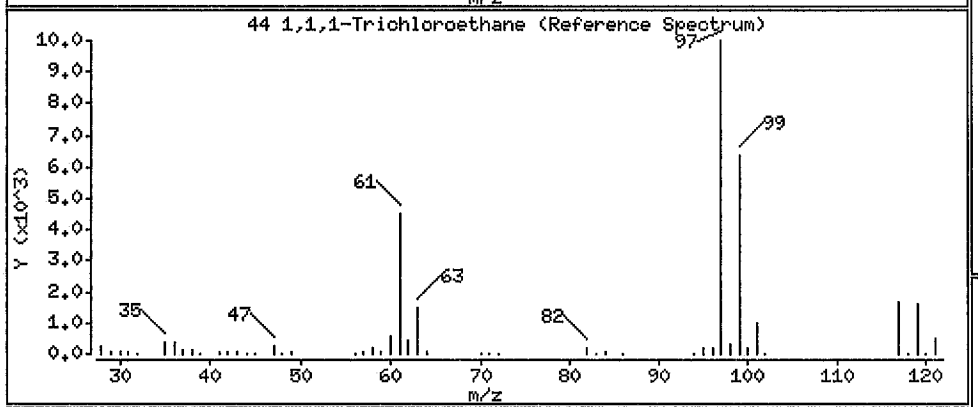
Purge Volume: 500.0 Operator: 7126

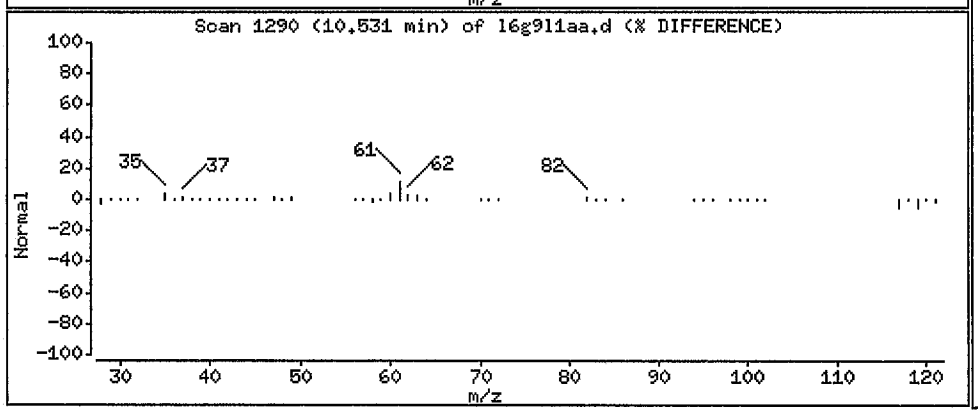
Column phase: Rtx-5 Column diameter: 0.32

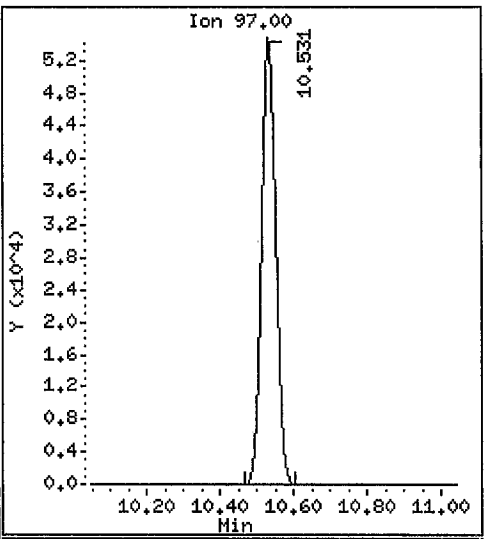
44 1,1,1-Trichloroethane Concentration: 184.0 ppb(v/v)

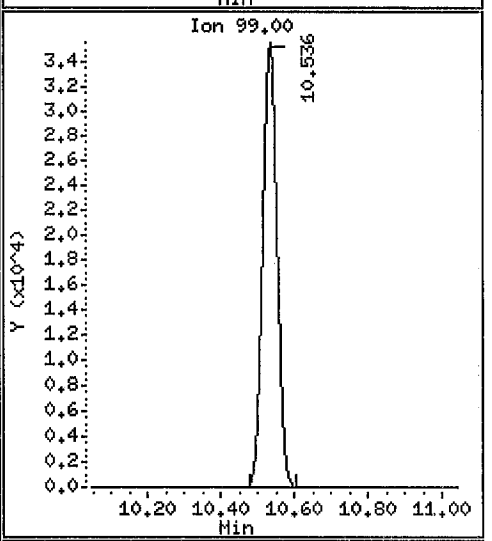


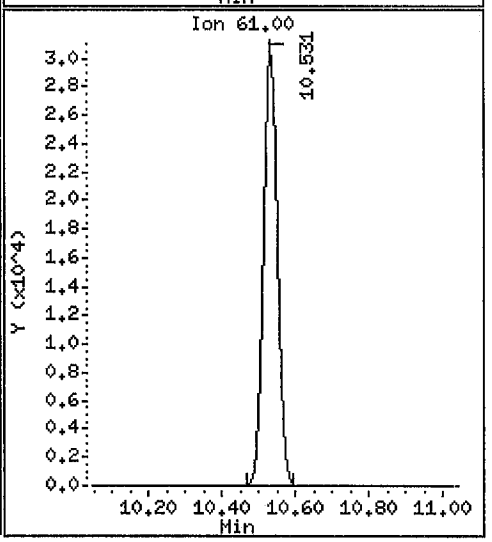












Data File: /var/chem/gcms/mj.i/J090810.b/16g911aa.d

Date : 08-SEP-2010 17:44

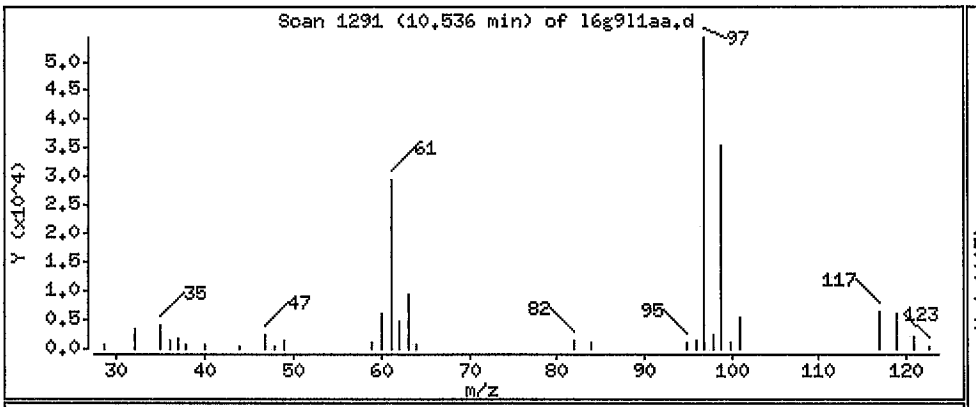
Client ID: SV-28-C-9 Instrument: mj.i

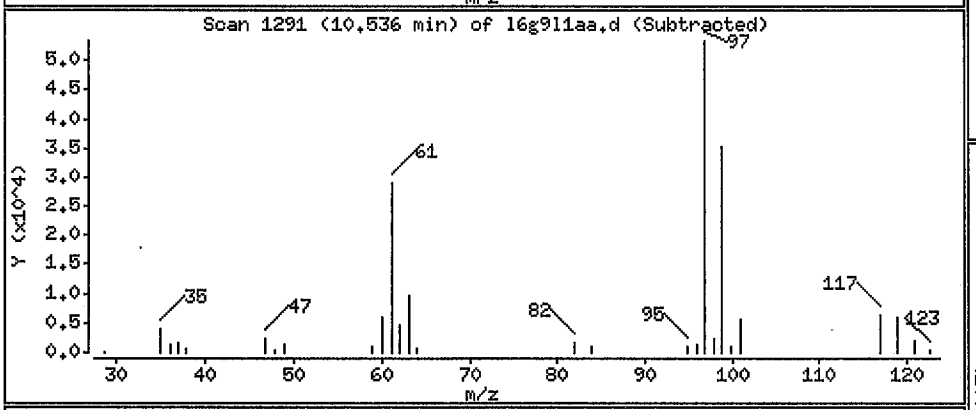
Sample Info: ,172.73,0,,,

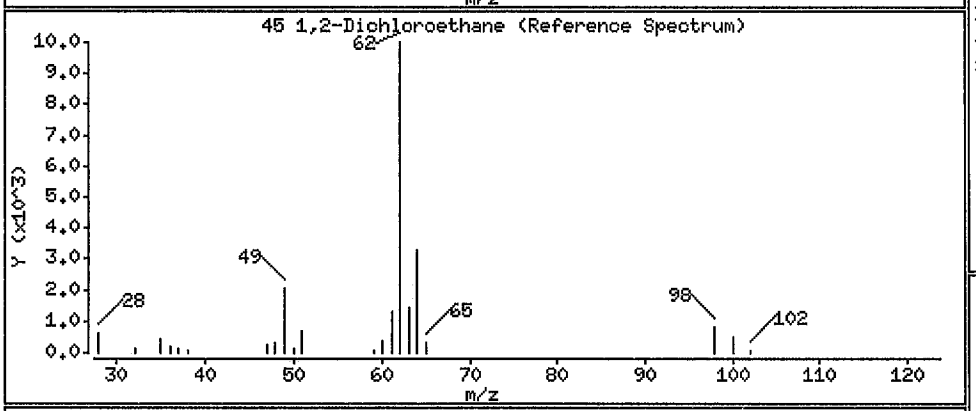
Purge Volume: 500.0 Operator: 7126

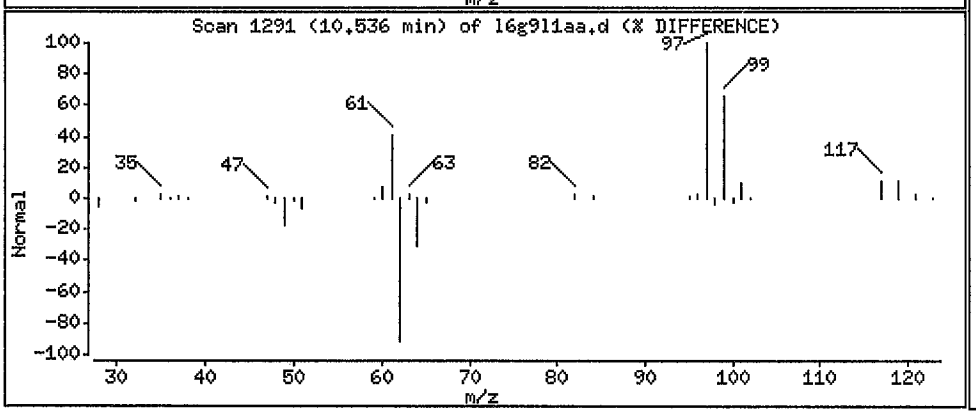
Column phase: Rtx-5 Column diameter: 0.32

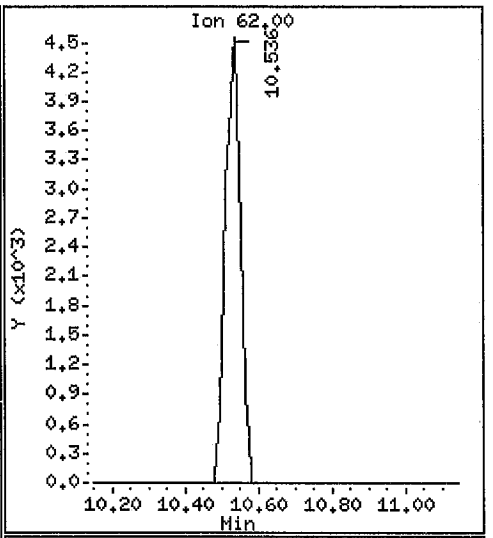
45 1,2-Dichloroethane Concentration: 16.53 ppb(v/v)

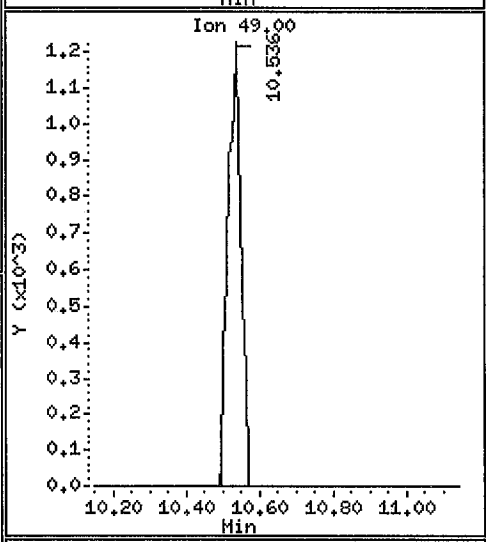


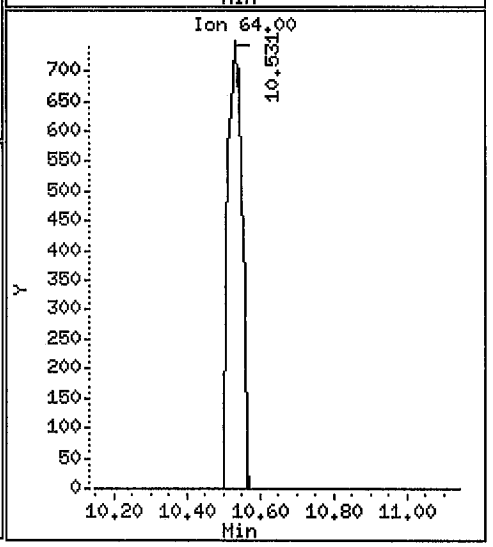












Data File: /var/chem/gcms/mj.i/J090810.b/16g911aa.d

Date : 08-SEP-2010 17:44

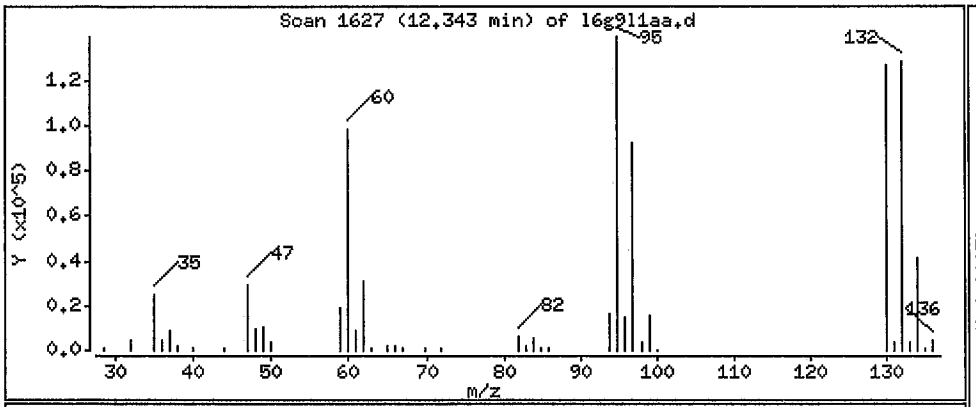
Client ID: SV-28-C-9 Instrument: mj.i

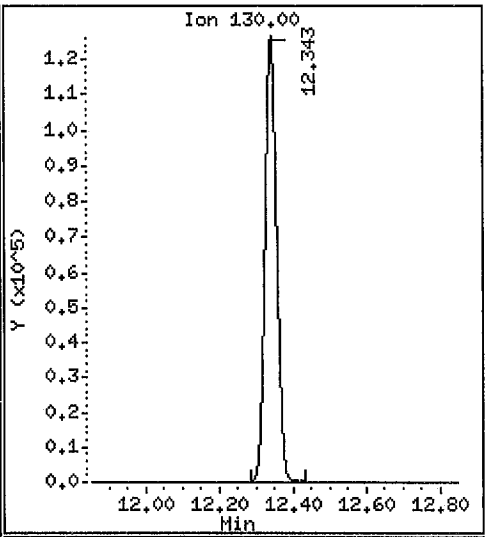
Sample Info: ,172.73,0,,,

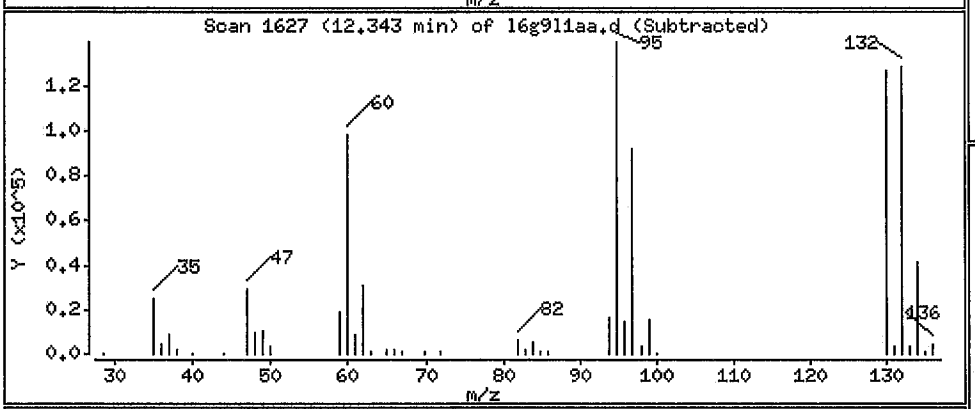
Purge Volume: 500.0 Operator: 7126

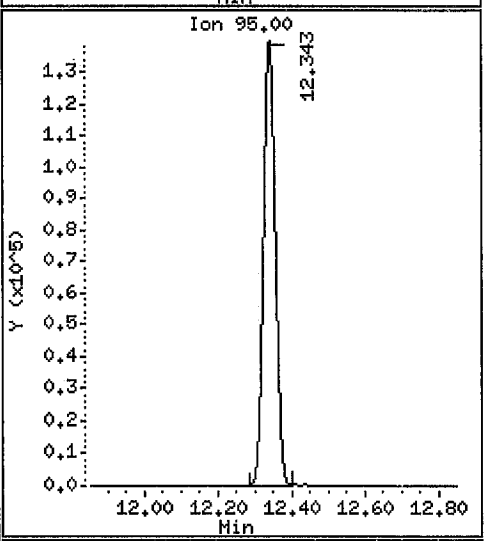
Column phase: Rtx-5 Column diameter: 0.32

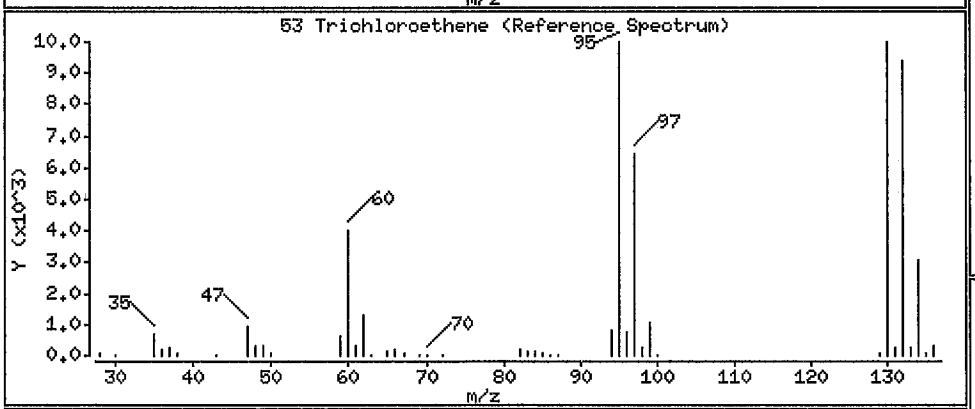
53 Trichloroethene Concentration: 526.6 ppb(v/v)

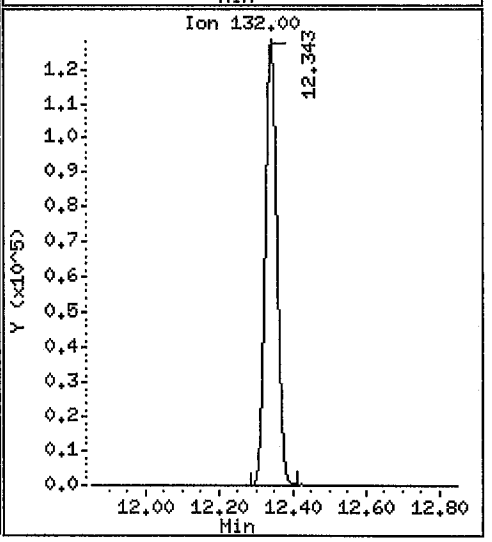


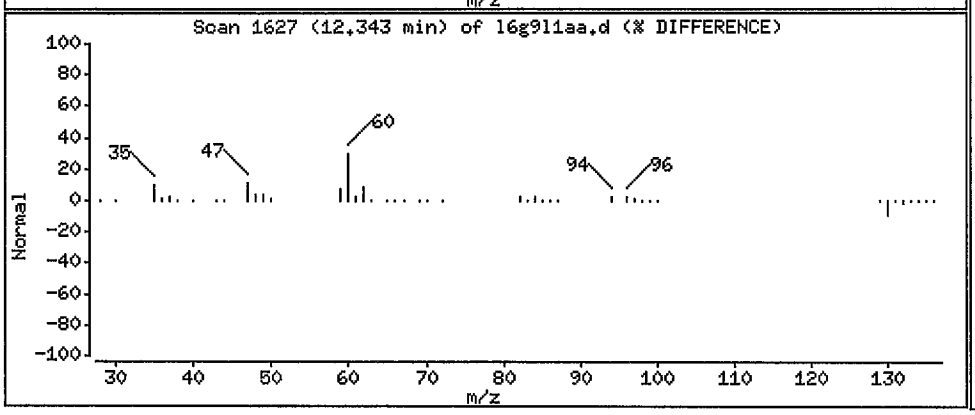












Data File: /var/ohem/goms/mj.i/J090810.b/16g911aa.d

Date : 08-SEP-2010 17:44

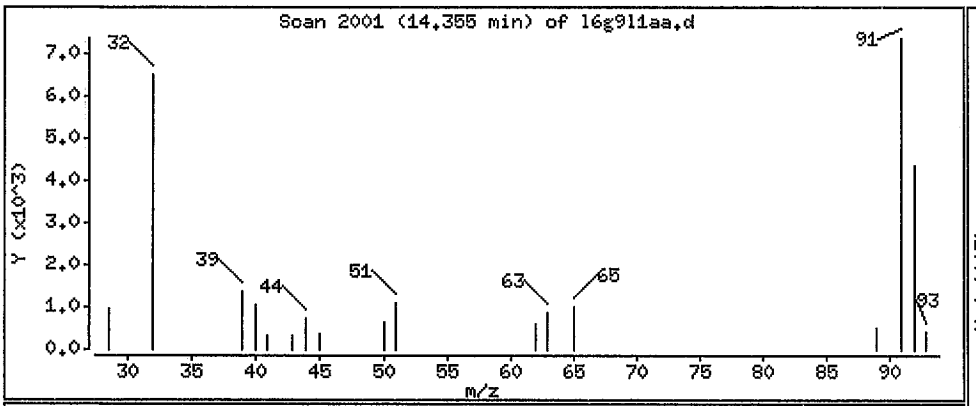
Client ID: SV-28-C-9 Instrument: mj.i

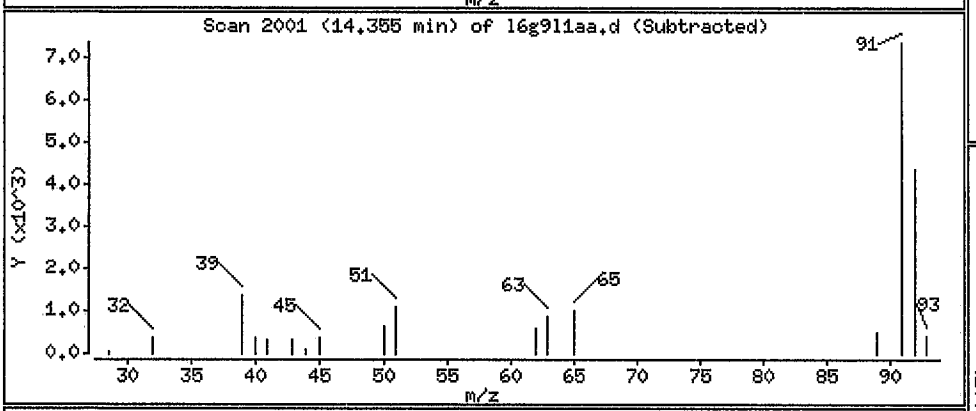
Sample Info: ,172.73,0,,,

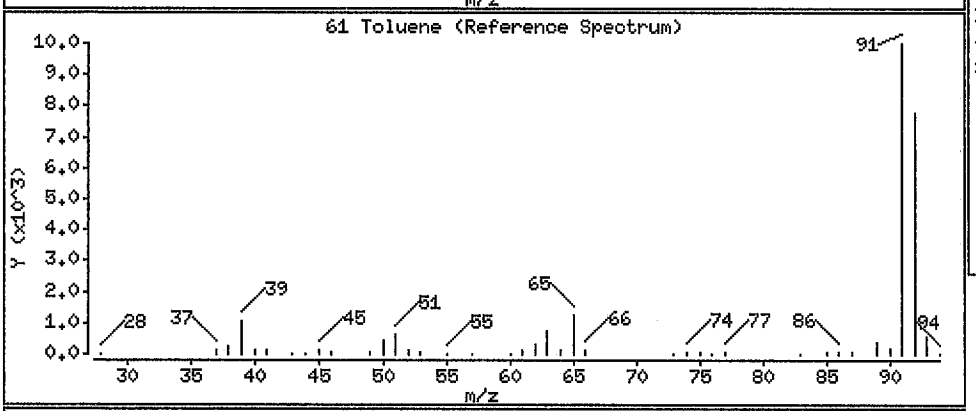
Purge Volume: 500.0 Operator: 7126

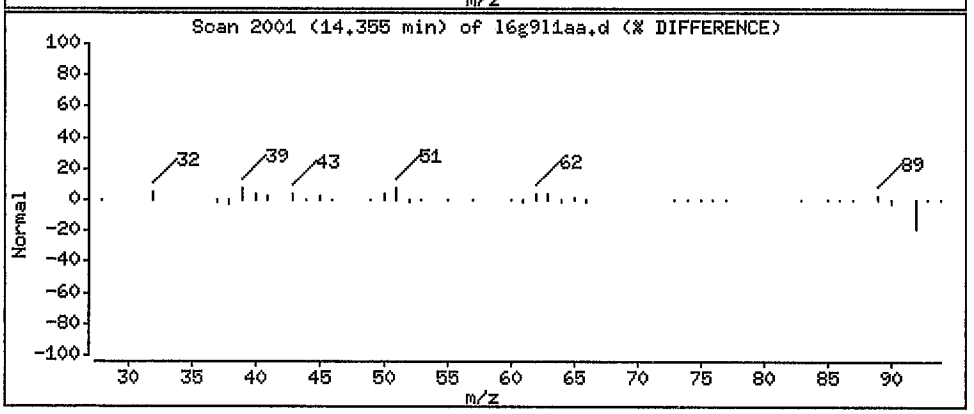
Column phase: Rtx-5 Column diameter: 0.32

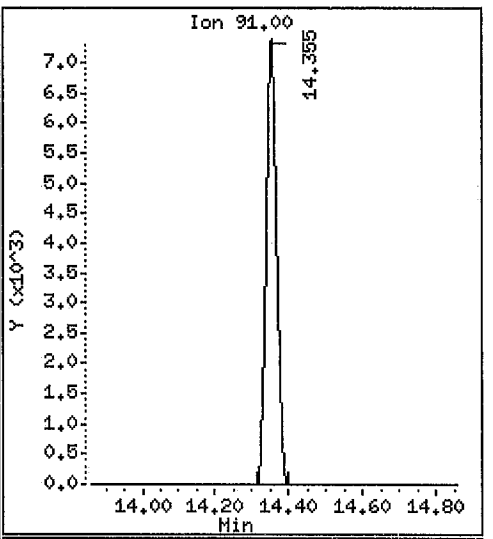
61 Toluene Concentration: 13.71 ppb(v/v)

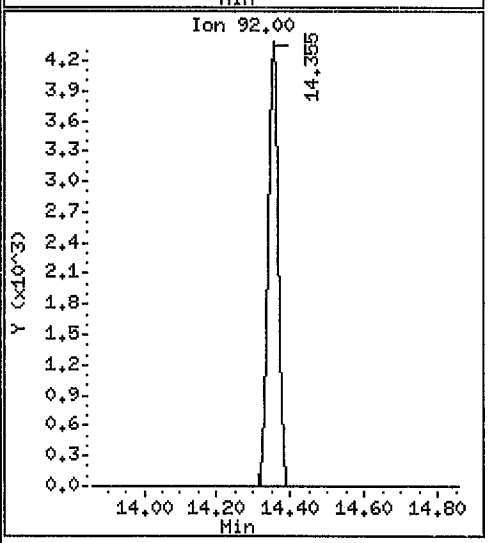












Data File: /var/chem/gcms/mj.i/J090810.b/16g911aa.d

Date : 08-SEP-2010 17:44

Client ID: SV-28-C-9

Instrument: mj.i

Sample Info: ,172.73,0,,,

Purge Volume: 500.0

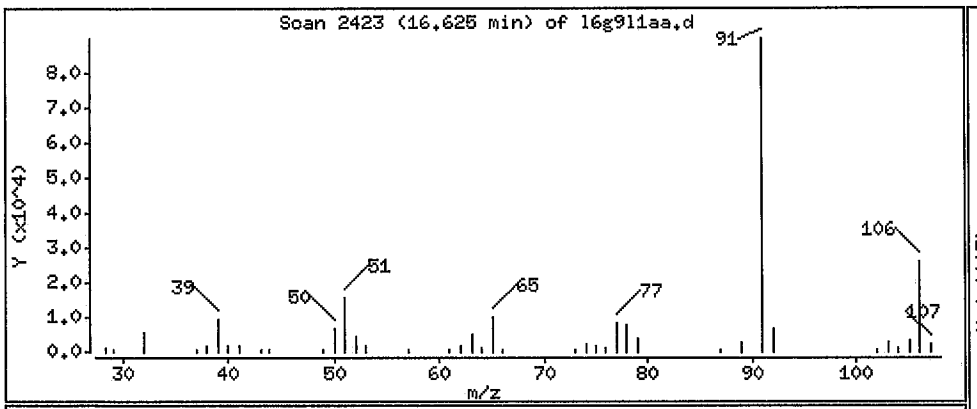
Operator: 7126

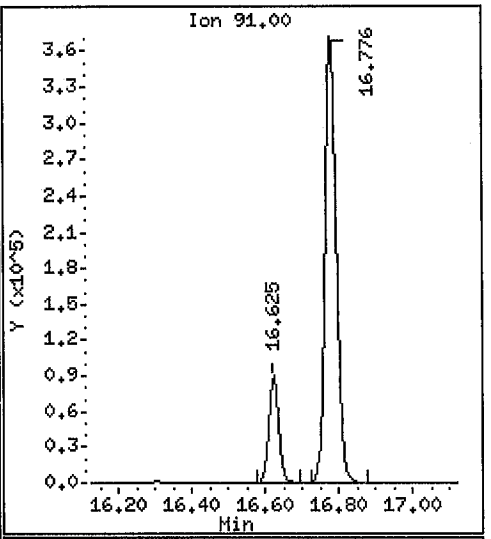
Column phase: Rtx-5

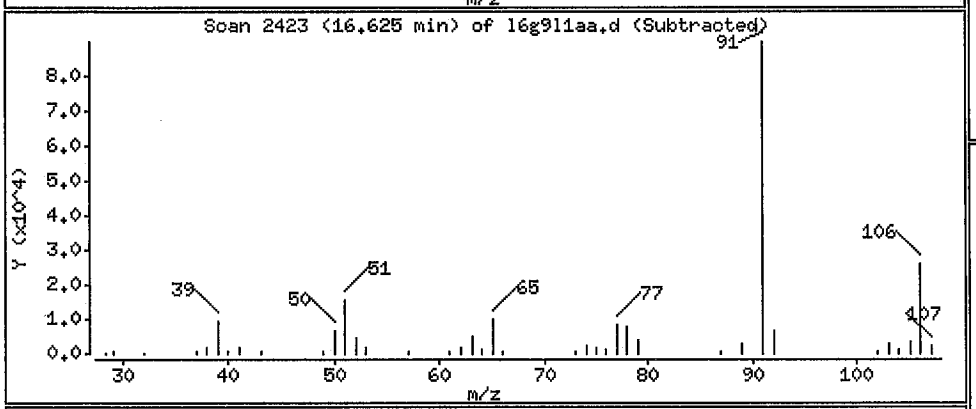
Column diameter: 0.32

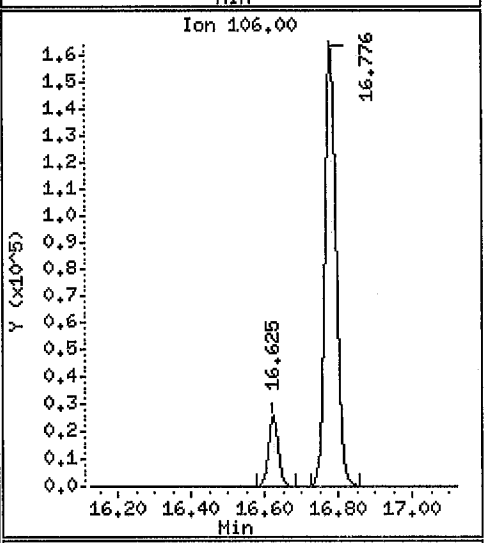
69 Ethylbenzene

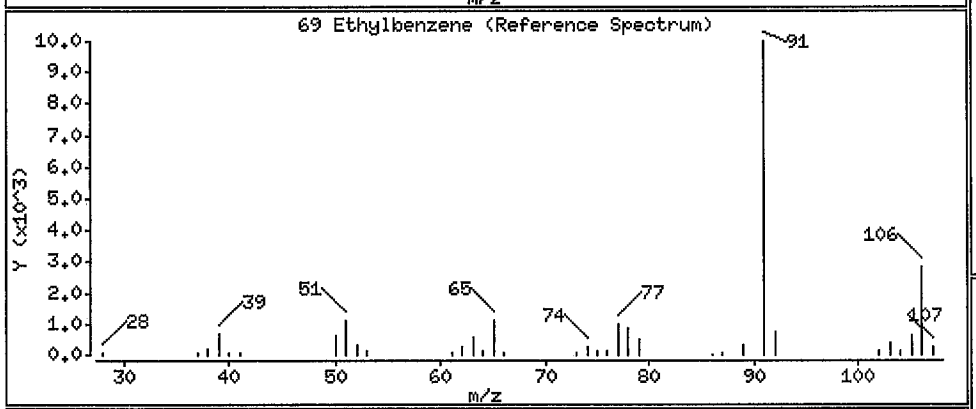
Concentration: 135.2 ppb(v/v)

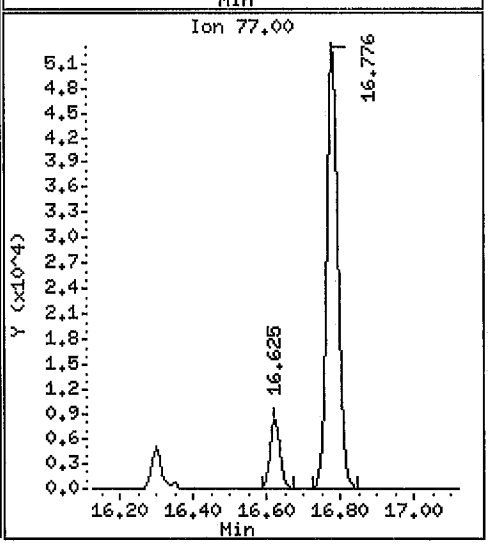


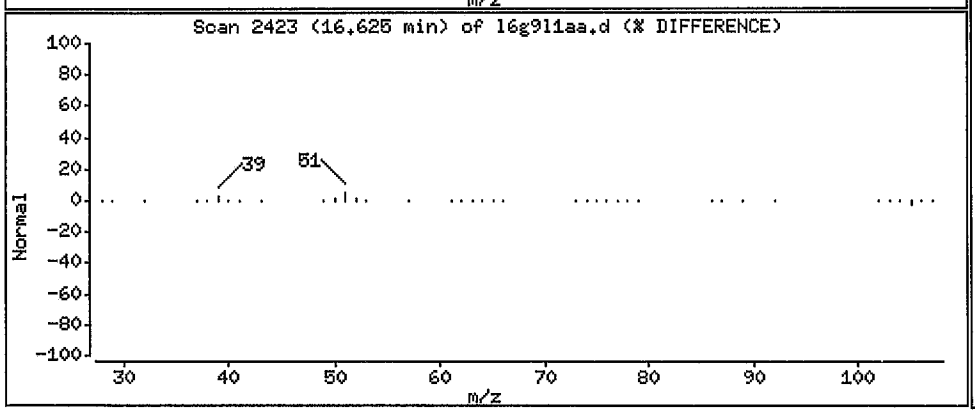












Data File: /var/chem/gcms/mj.i/J090810.b/16g911aa.d

Date : 08-SEP-2010 17:44

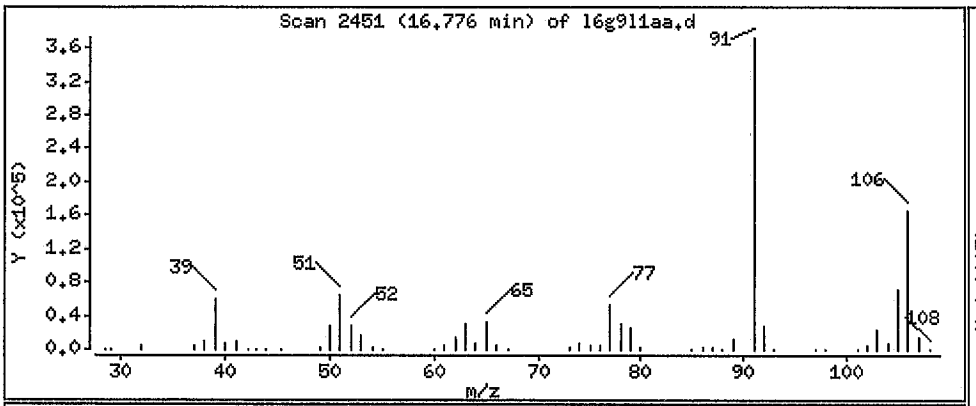
Client ID: SV-28-C-9 Instrument: mj.i

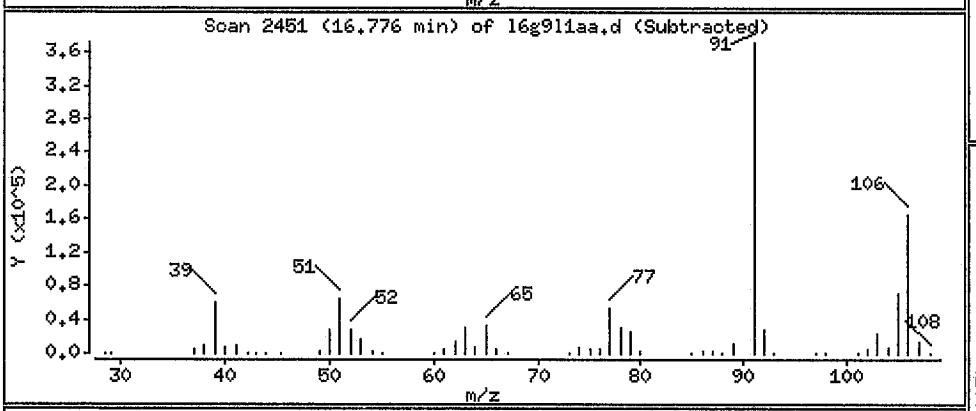
Sample Info: ,172.73,0,,,

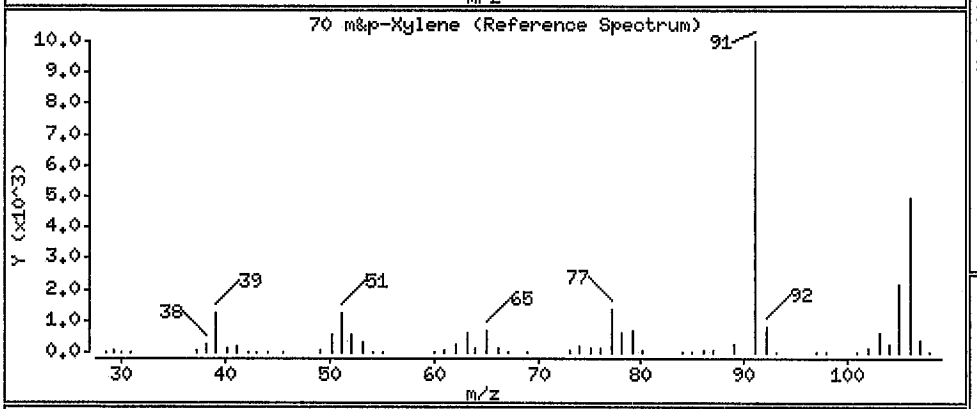
Purge Volume: 500.0 Operator: 7126

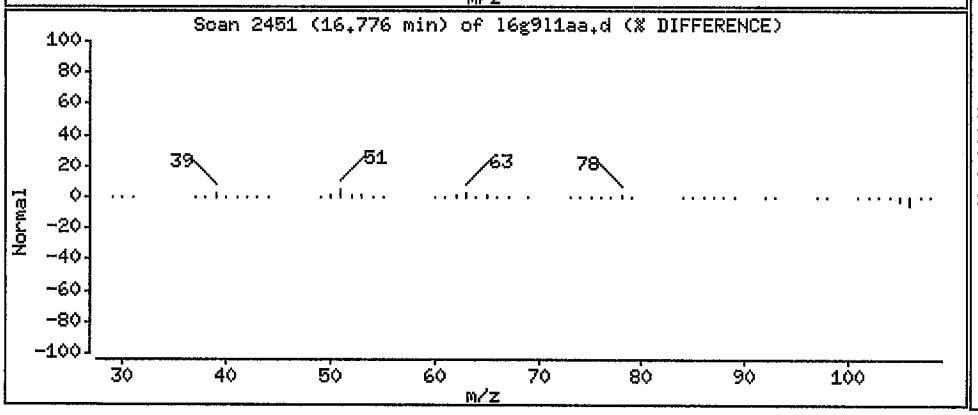
Column phase: Rtx-5 Column diameter: 0.32

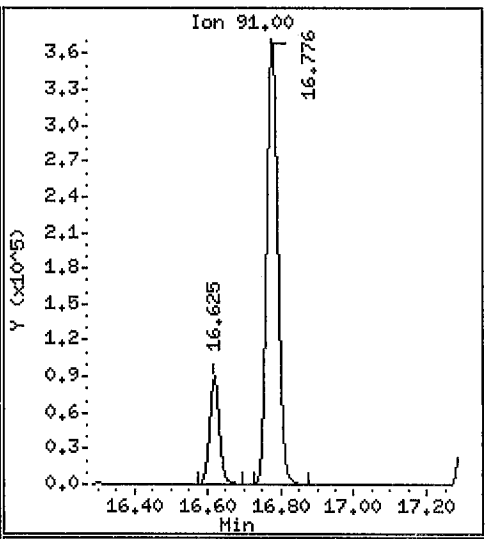
70 m&p-Xylene Concentration: 844.0 ppb(v/v)

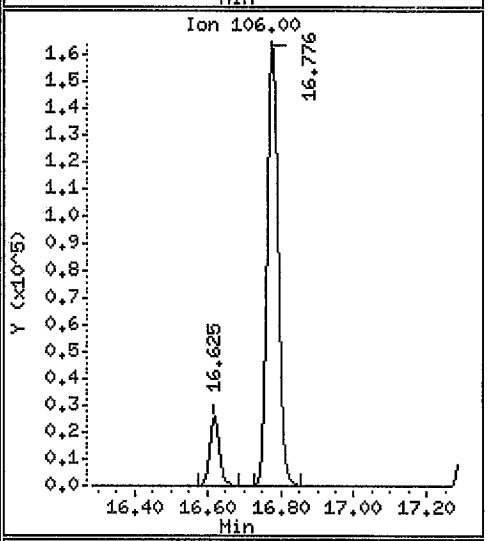


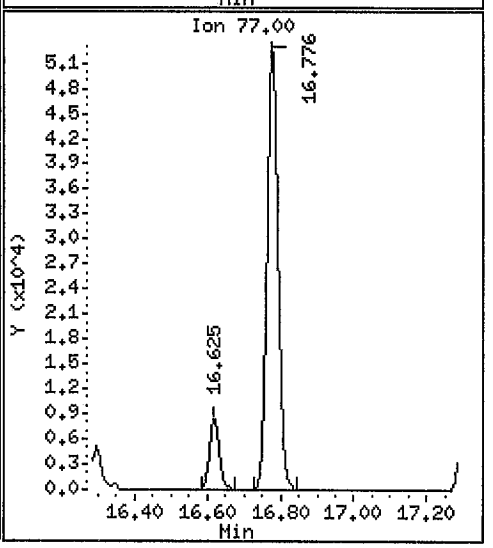












Data File: /var/chem/gcms/mj.i/J090810.b/16g911aa.d

Date : 08-SEP-2010 17:44

Client ID: SV-28-C-9

Instrument: mj.i

Sample Info: ,172.73,0,,,

Purge Volume: 500.0

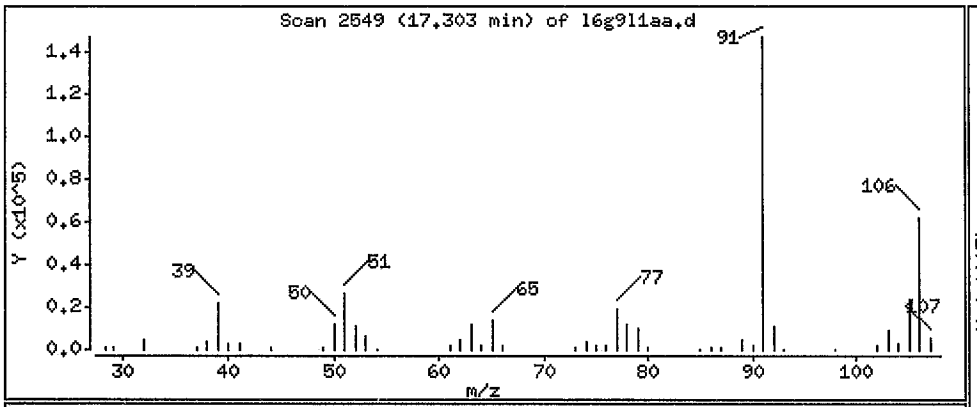
Operator: 7126

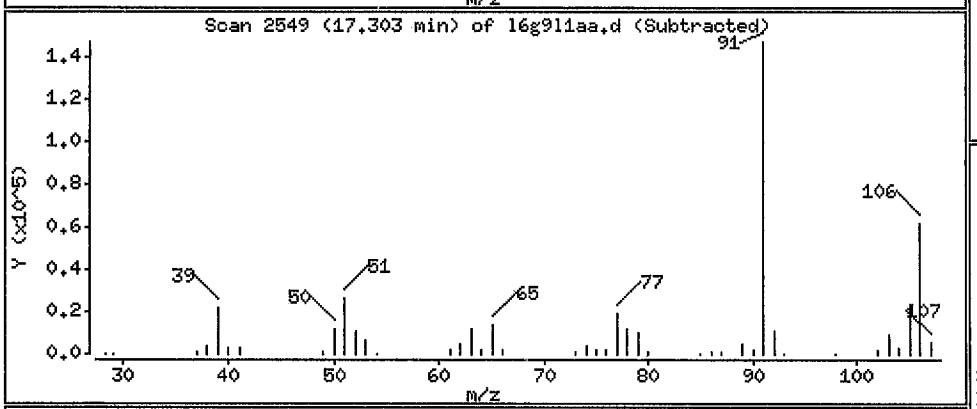
Column phase: Rtx-5

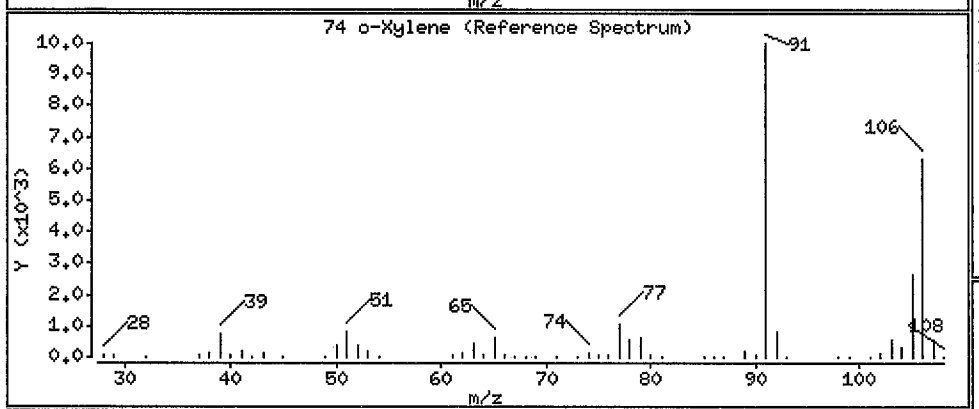
Column diameter: 0.32

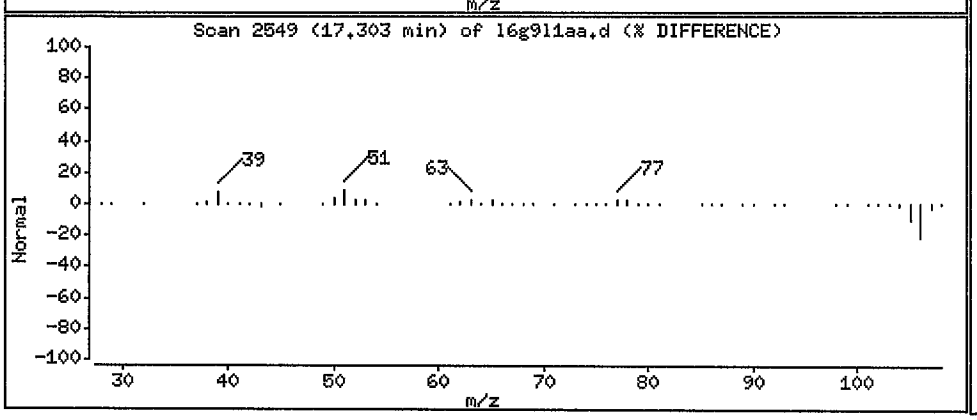
74 o-Xylene

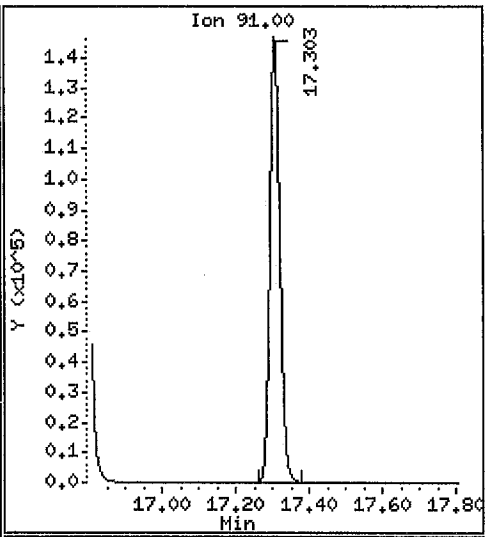
Concentration: 287.4 ppb(v/v)

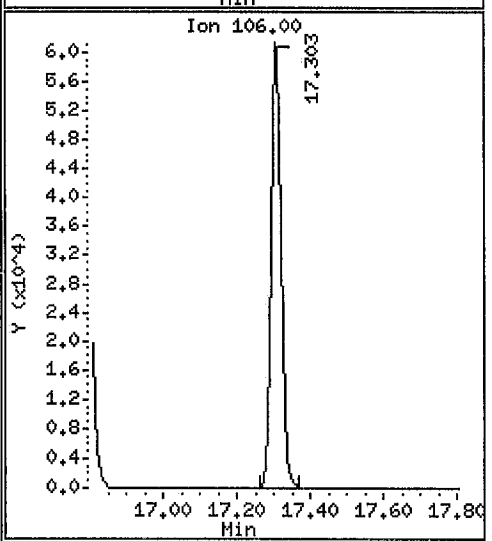


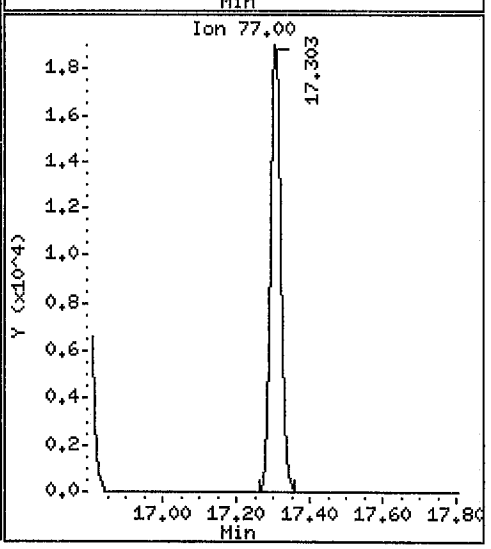












Data File: /var/chem/gcms/mj.i/J090810.b/l6g911aa.d

Date : 08-SEP-2010 17:44

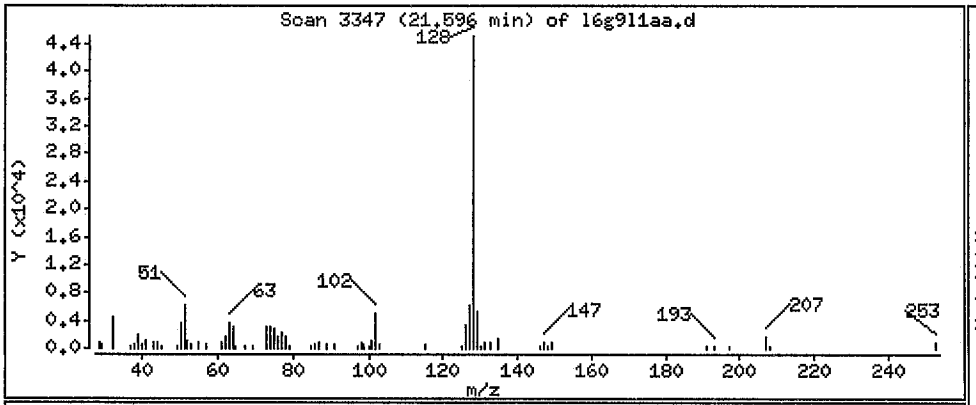
Client ID: SV-28-C-9 Instrument: mj.i

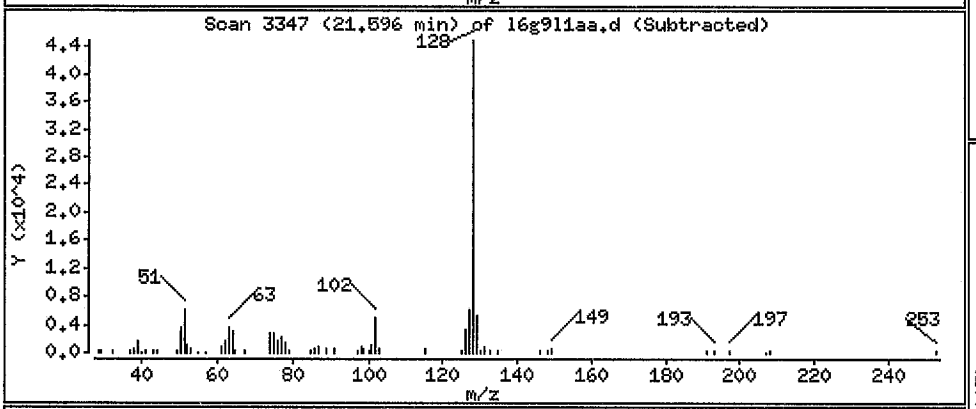
Sample Info: ,172.73,0,,,

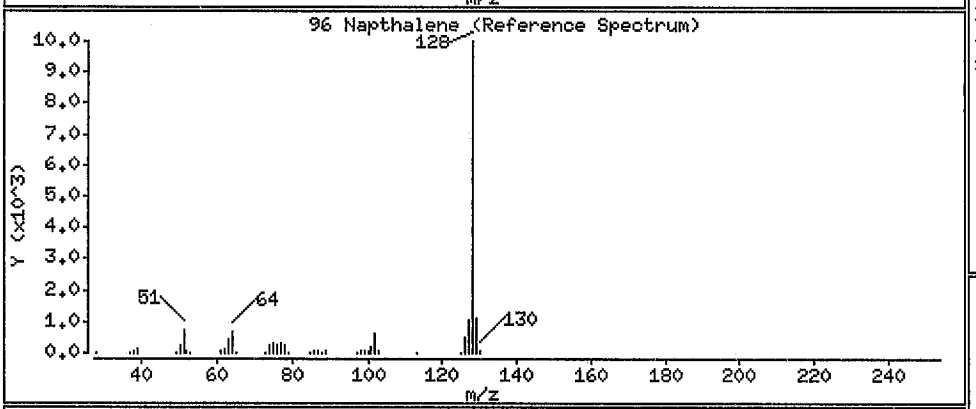
Purge Volume: 500.0 Operator: 7126

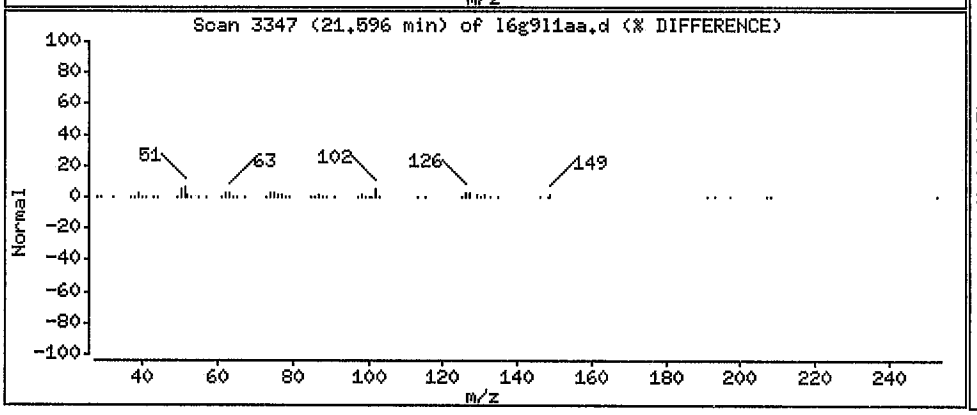
Column phase: Rtx-5 Column diameter: 0.32

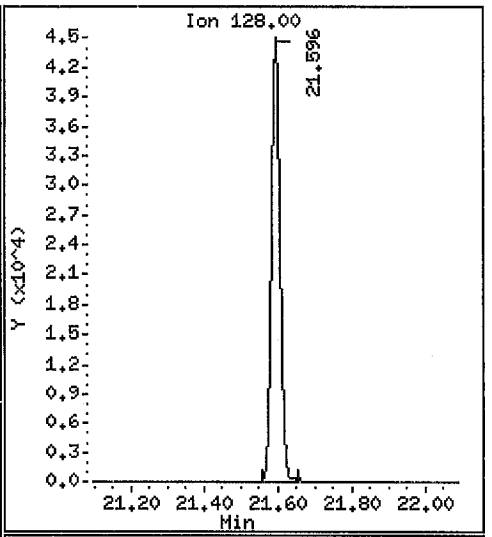
96 Napthalene Concentration: 76.02 ppb(v/v)

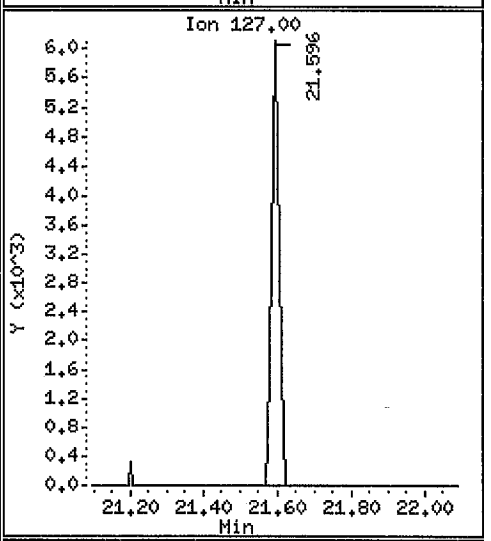


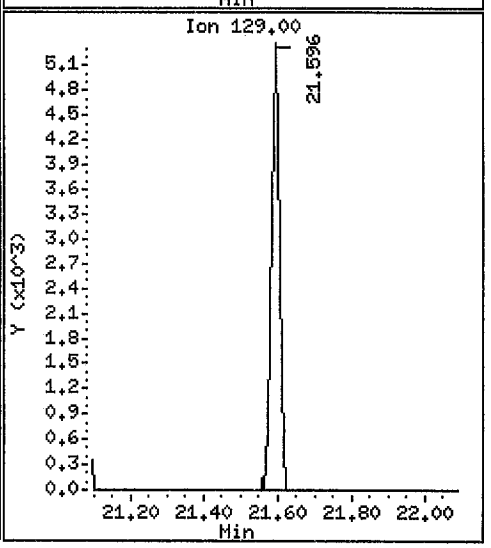












Tetra Tech NUS, Inc

Client Sample ID: SV-1-C-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 008	**Work Order #**	L6G9M1AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	25	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	2.0	0.58	ND	6.4	1.8
Carbon tetrachloride	ND	2.0	0.38	ND	13	2.4
Chlorodifluoromethane	**2.1**	**2.0**	**0.38**	**7.5**	**7.1**	**1.3**
Chloroform	**3.7**	**2.0**	**0.38**	**18**	**9.8**	**1.8**
Dichlorodifluoromethane	ND	2.0	0.68	ND	9.9	3.3
1,1-Dichloroethane	ND	2.0	0.25	ND	8.1	1.0
1,2-Dichloroethane	ND	2.0	0.48	ND	8.1	1.9
cis-1,2-Dichloroethene	**90**	**2.0**	**0.60**	**360**	**7.9**	**2.4**
trans-1,2-Dichloroethene	**22**	**2.0**	**0.50**	**88**	**7.9**	**2.0**
1,1-Dichloroethene	ND	2.0	0.32	ND	7.9	1.3
Ethylbenzene	ND	2.0	0.68	ND	8.7	2.9
Methylene chloride	**2.1**	**5.0**	**0.45**	**7.4 J**	**17**	**1.6**
Methyl tert-butyl ether	ND	10	1.7	ND	36	6.1
Naphthalene	ND	5.0	0.90	ND	26	4.7
Tetrachloroethene	**0.91**	**2.0**	**0.40**	**6.2 J**	**14**	**2.7**
Toluene	ND	2.0	0.52	ND	7.5	2.0
1,2,4-Trichlorobenzene	ND	10	0.98	ND	74	7.2
1,1,1-Trichloroethane	**0.38**	**2.0**	**0.30**	**2.1 J**	**11**	**1.6**
1,1,2-Trichloroethane	ND	2.0	0.52	ND	11	2.9
Trichloroethene	**120**	**1.0**	**0.35**	**620**	**5.4**	**1.9**
Vinyl chloride	ND	2.0	0.72	ND	5.1	1.9
m-Xylene & p-Xylene	**3.1**	**2.0**	**1.2**	**13**	**8.7**	**5.4**
o-Xylene	**1.3**	**2.0**	**0.60**	**5.6 J**	**8.7**	**2.6**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9m1aa.d
Report Date: 10-Sep-2010 14:30

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/l6g9m1aa.d
Lab Smp Id: L6G9M1AA Client Smp ID: SV-1-C-9
Inj Date : 08-SEP-2010 18:39
Operator : 7126 Inst ID: mj.i
Smp Info : ,25,0,,,
Misc Info : J090810,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 10-Sep-2010 14:16 barlozha Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 8
Dil Factor: 25.00000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	25.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
*	1 Bromochloromethane	128	9.468	9.479	(1.000)	186545	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.641	11.642	(1.000)	879725	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.300	16.300	(1.000)	782970	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.908	17.914	(1.099)	614290	4.13362	4.134
	7 Chlorodifluoromethane	67	3.895	3.901	(0.411)	1989	0.08433	2.108
	31 Methylene Chloride	84	6.778	6.784	(0.716)	5205	0.08576	2.144
	34 trans-1,2-Dichloroethene	96	7.644	7.650	(0.807)	55017	0.88670	22.17
	40 cis 1,2-Dichloroethene	96	9.123	9.129	(0.964)	229222	3.60813	90.20
	42 Chloroform	83	9.473	9.479	(1.001)	20006	0.14773	3.693
	44 1,1,1-Trichloroethane	97	10.533	10.544	(1.113)	2125	0.01506	0.3766
	53 Trichloroethene	130	12.340	12.352	(1.060)	418662	4.62981	115.7
	67 Tetrachloroethene	129	15.482	15.483	(0.950)	2798	0.03633	0.9082
	69 Ethylbenzene	91	16.773	16.623	(1.029)	19684	0.09310	~~2.327~~
	70 m&p-Xylene	91	16.773	16.784	(1.029)	19684	0.12311	3.078
	74 o-Xylene	91	17.306	17.306	(1.062)	8616	0.05181	1.295

9/10/10

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9m1aa.d
Report Date: 10-Sep-2010 14:30

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9m1aa.d
Lab Smp Id: L6G9M1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: SV-1-C-9
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	186545	-4.37
2 1,4-Difluorobenze	936174	557024	1315324	879725	-6.03
3 Chlorobenzene-d5	815161	485021	1145301	782970	-3.95

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.12
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.01
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

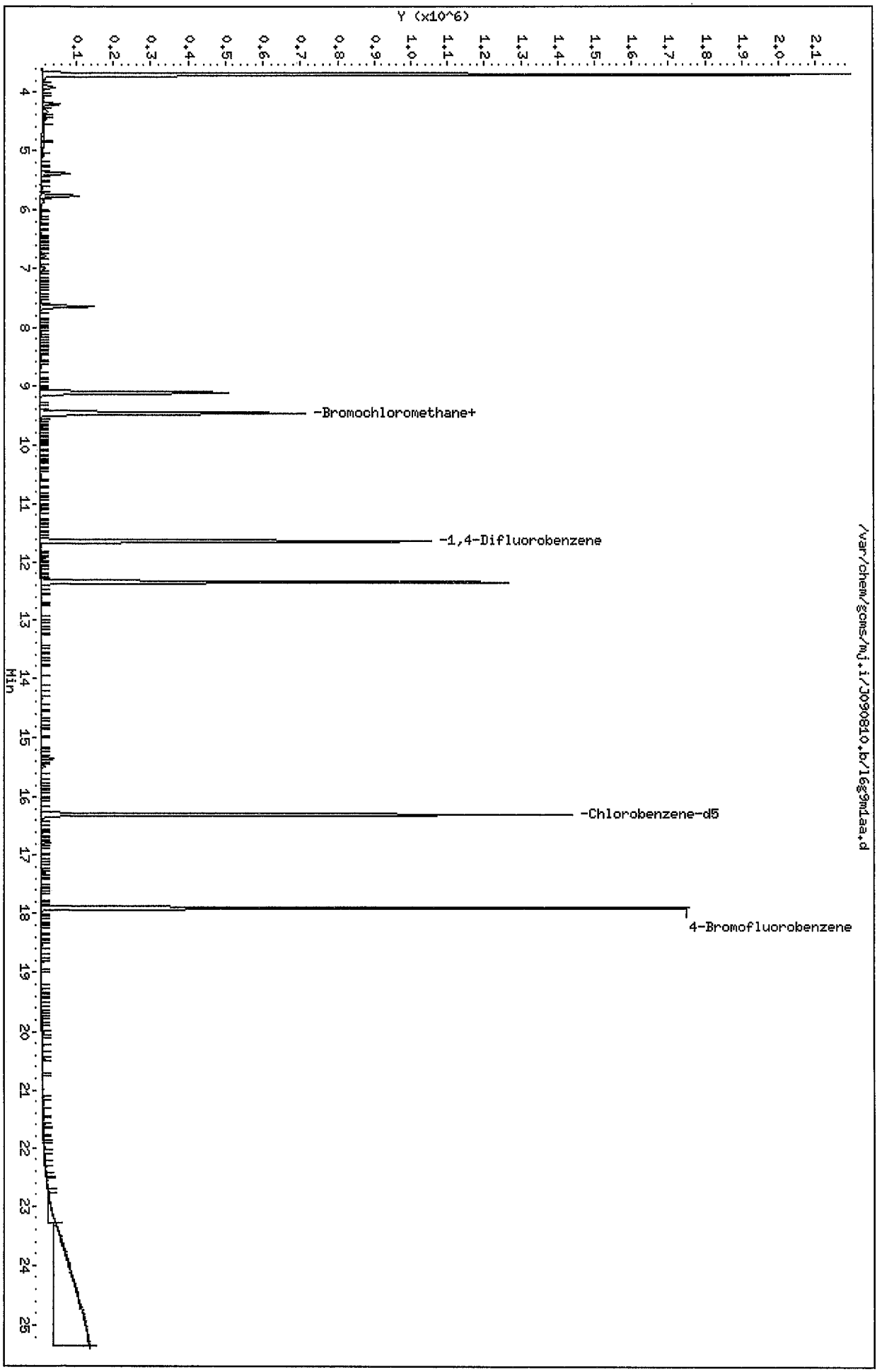
Data File: /var/chem/gcms/mj.i/J090810.b/l6g9m1aa.d
Report Date: 10-Sep-2010 14:30

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9M1AA
Client Smp ID: SV-1-C-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.134	103.34	70-130


Data File: /var/chem/gcms/mj.i/J090810.b/16g9m1aa.d
Date : 08-SEP-2010 18:39
Client ID: SV-1-C-9
Sample Info: ,25.0,,,
Purge Volume: 500.0
Column phase: Rtx-5
Instrument: mj.i
Operator: 7126
Column diameter: 0.32
Y (x10^6)
-Bromochloromethane+
-1,4-Difluorobenzene
-Chlorobenzene-d5
4-Bromofluorobenzene
/var/chem/gcms/mj.i/J090810.b/16g9m1aa.d
Min

Data File: /var/chem/gcms/mj.i/J090810.b/16g9m1aa.d

Date : 08-SEP-2010 18:39

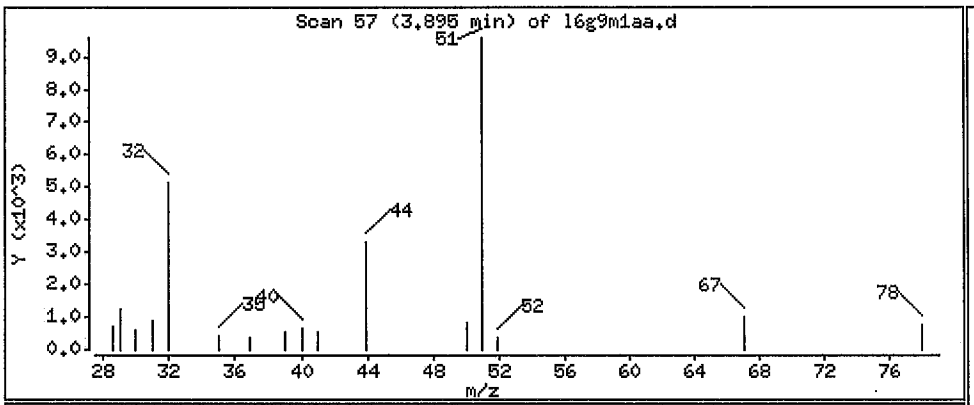
Client ID: SV-1-C-9 Instrument: mj.i

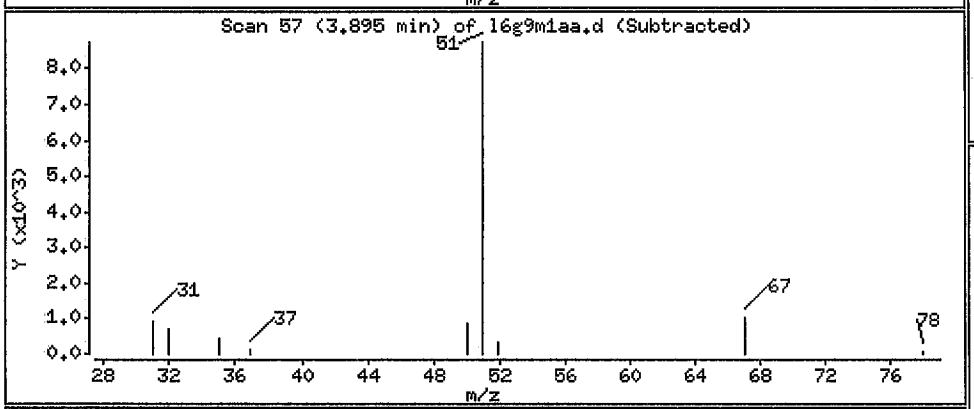
Sample Info: ,25,0,,,

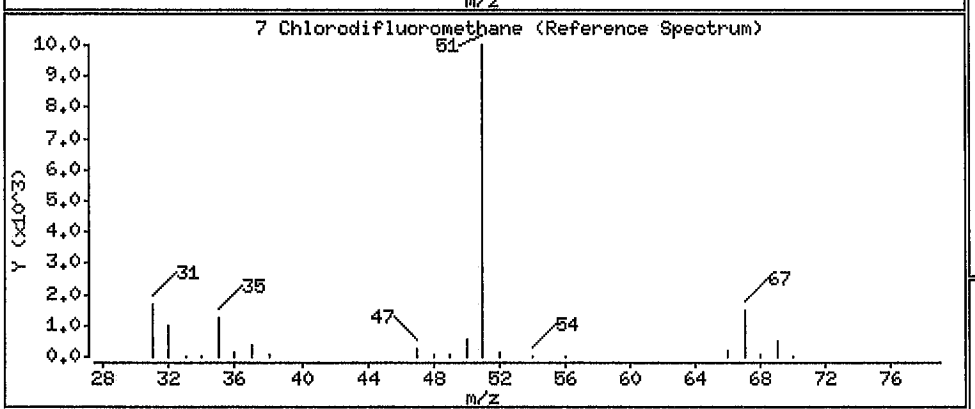
Purge Volume: 500.0 Operator: 7126

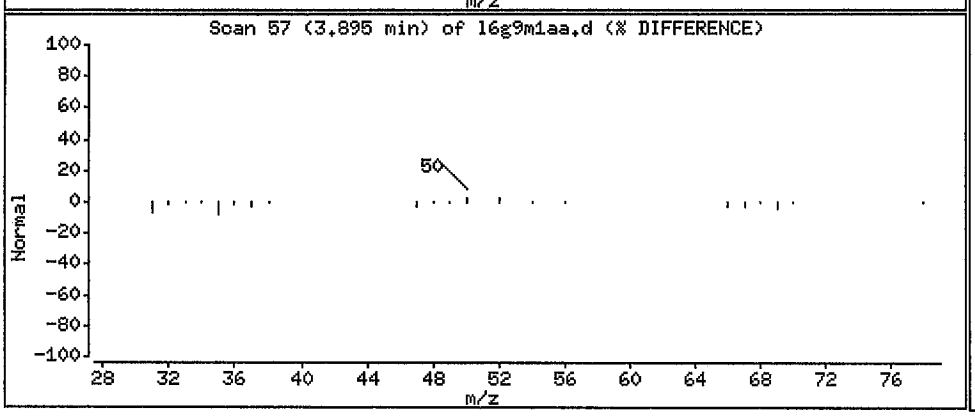
Column phase: Rtx-5 Column diameter: 0.32

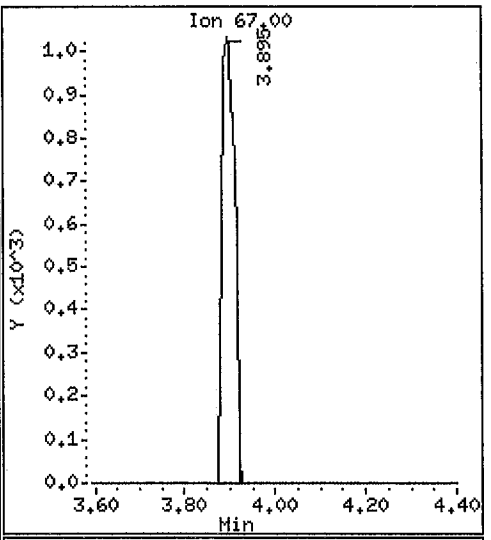
7 Chlorodifluoromethane Concentration: 2.108 ppb(v/v)

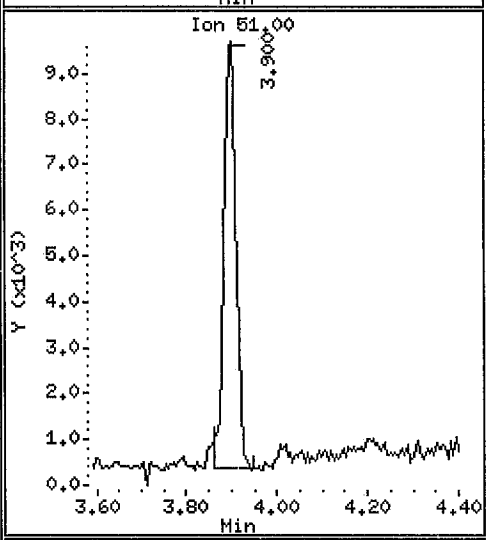


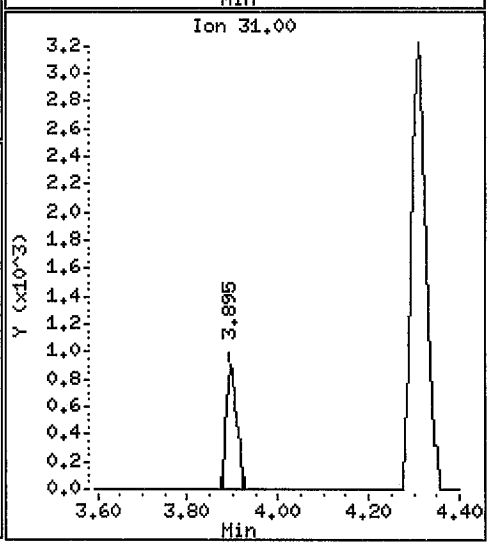












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9m1aa.d

Date : 08-SEP-2010 18:39

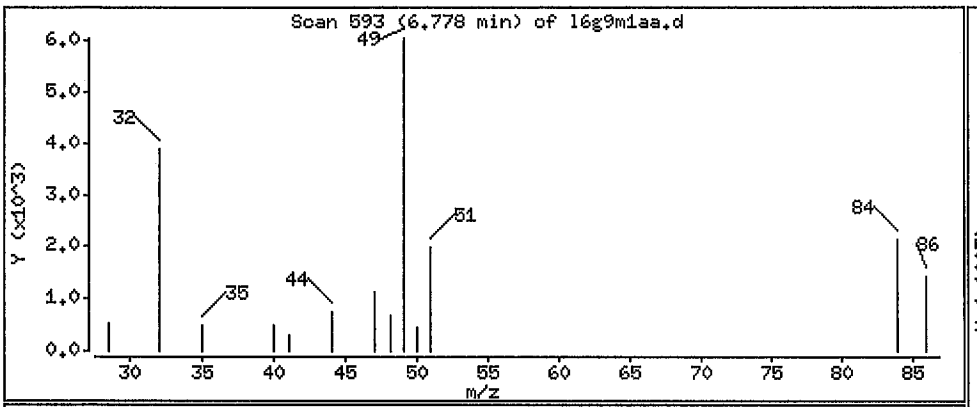
Client ID: SV-1-C-9 Instrument: mj.i

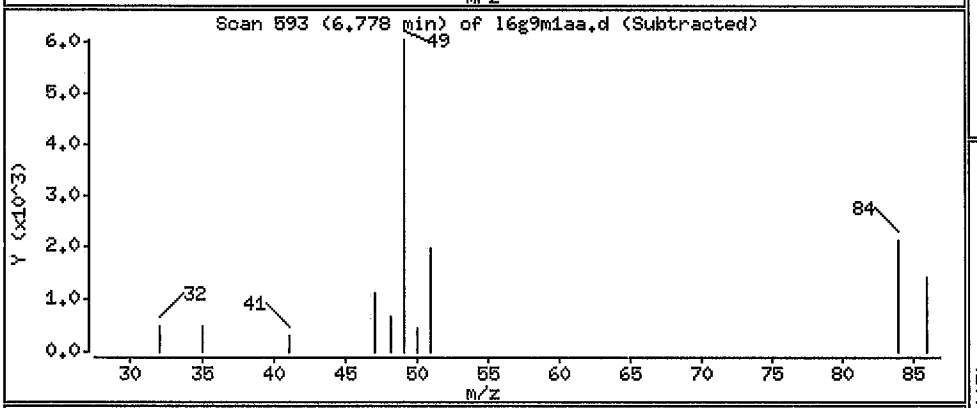
Sample Info: ,25,0,,,

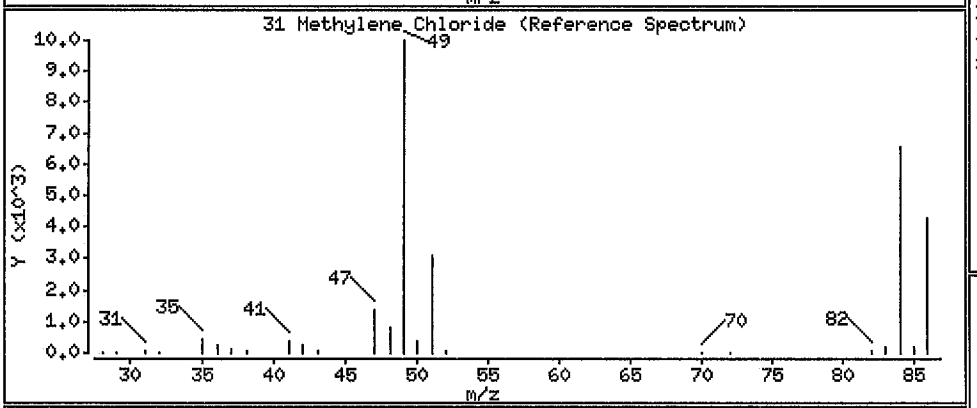
Purge Volume: 500.0 Operator: 7126

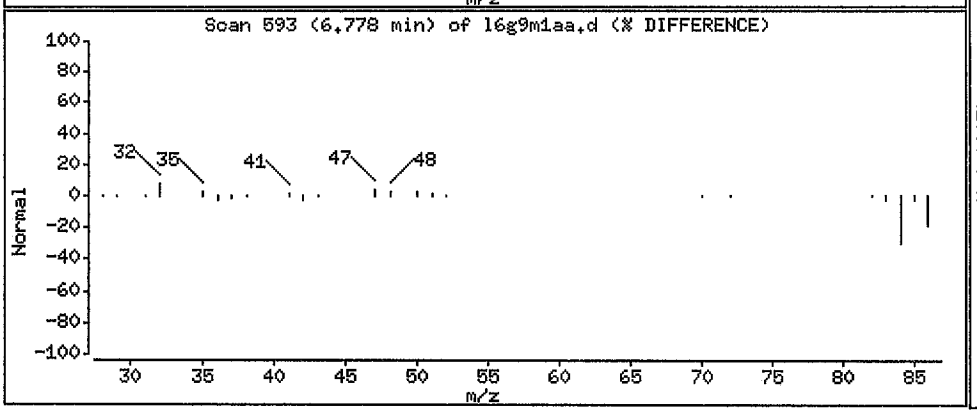
Column phase: Rtx-5 Column diameter: 0.32

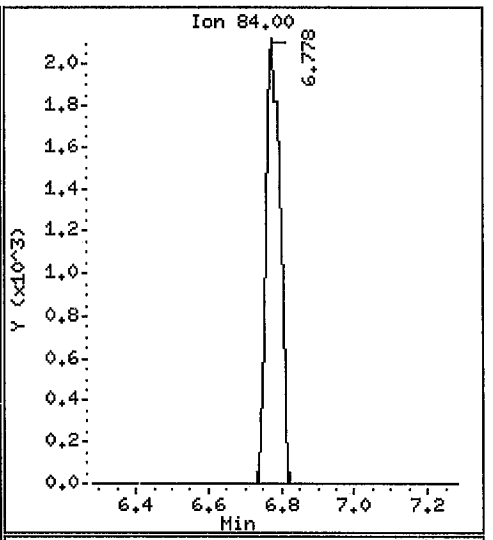
31 Methylene Chloride Concentration: 2.144 ppb(v/v)

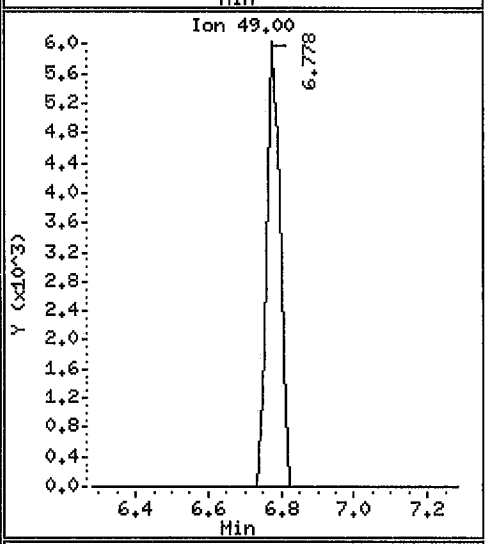


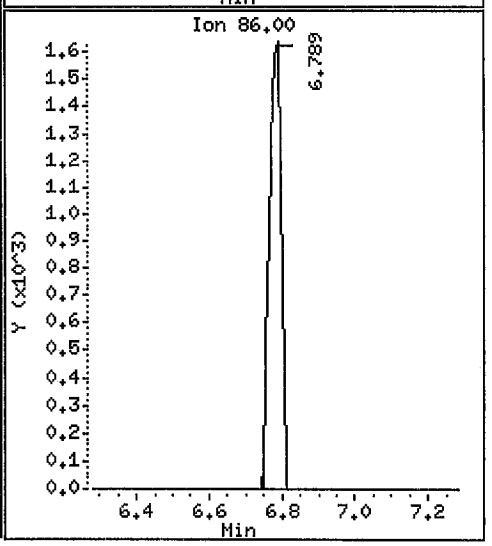












Data File: /var/chem/gcms/mj.i/J090810.b/16g9m1aa.d

Date : 08-SEP-2010 18:39

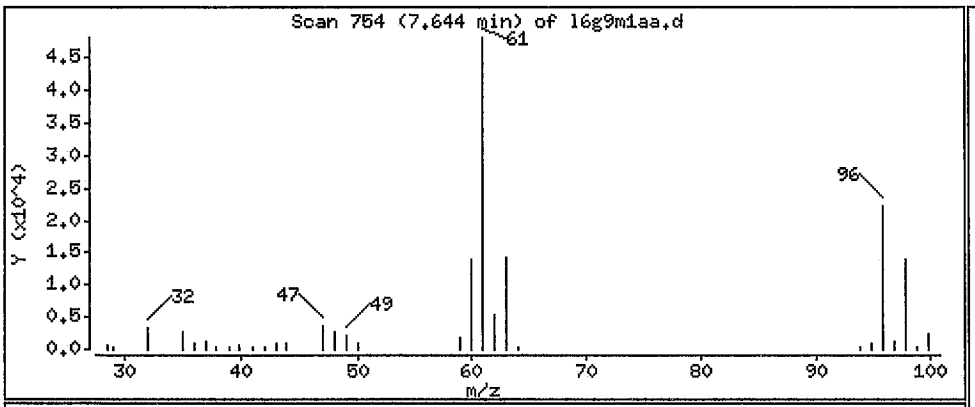
Client ID: SV-1-C-9 Instrument: mj.i

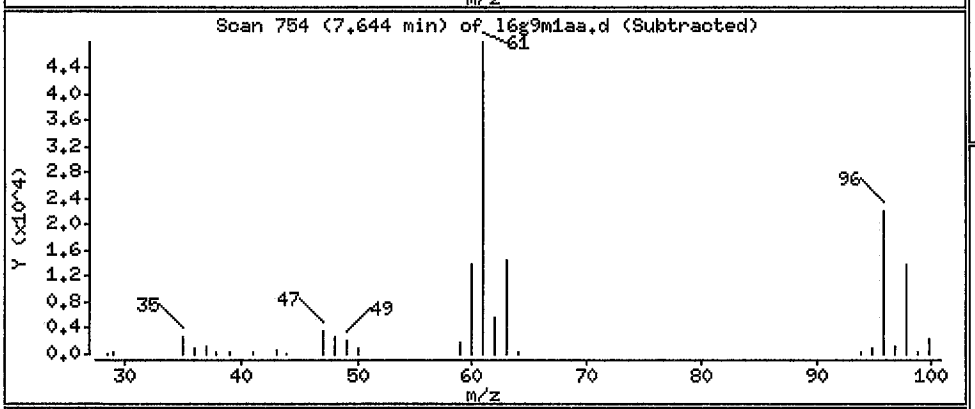
Sample Info: ,25,0,,,

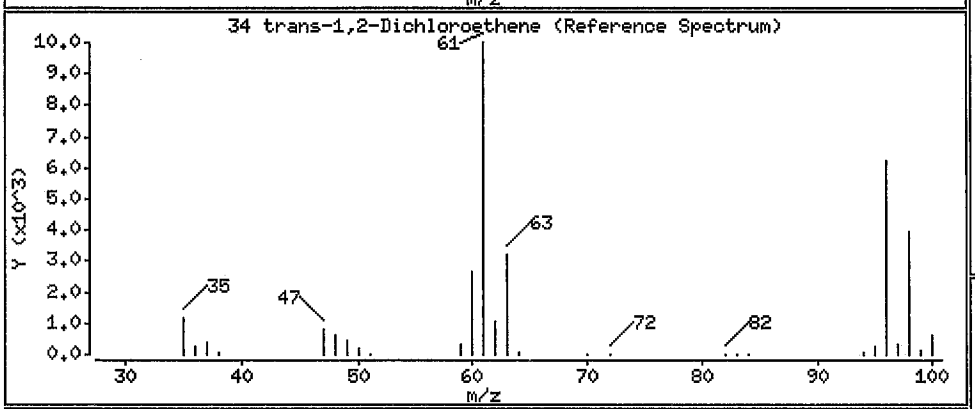
Purge Volume: 500.0 Operator: 7126

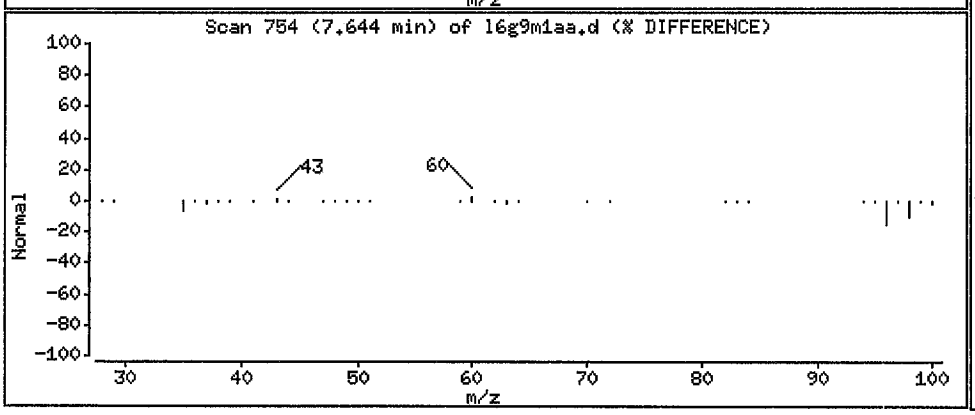
Column phase: Rtx-5 Column diameter: 0.32

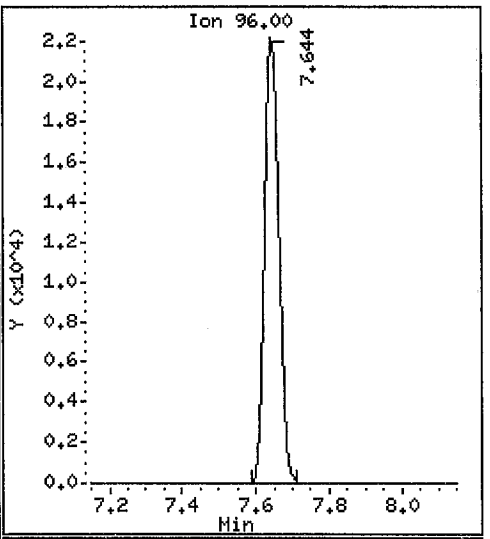
34 trans-1,2-Dichloroethene Concentration: 22.17 ppb(v/v)

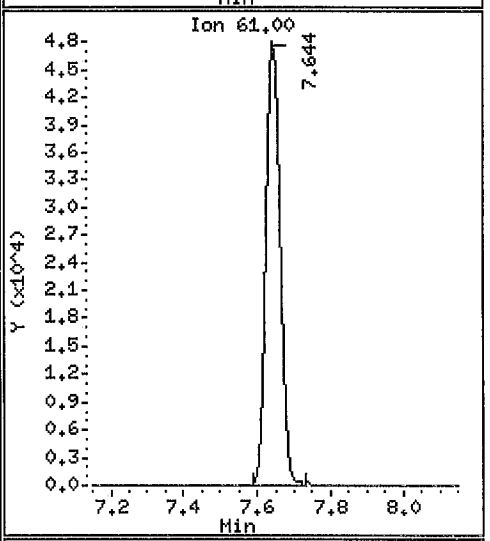


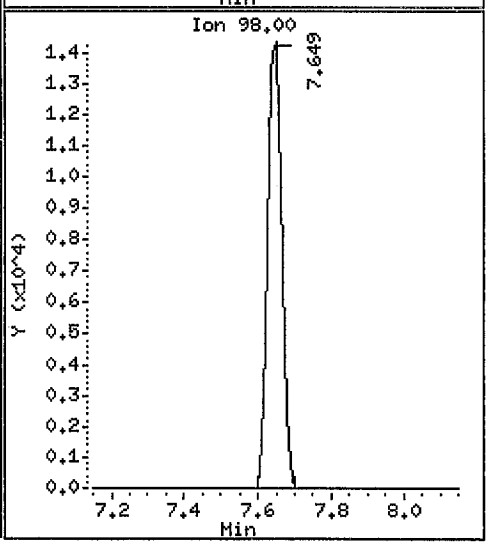












Data File: /var/chem/gcms/mj.i/J090810.b/16g9m1aa.d

Date : 08-SEP-2010 18:39

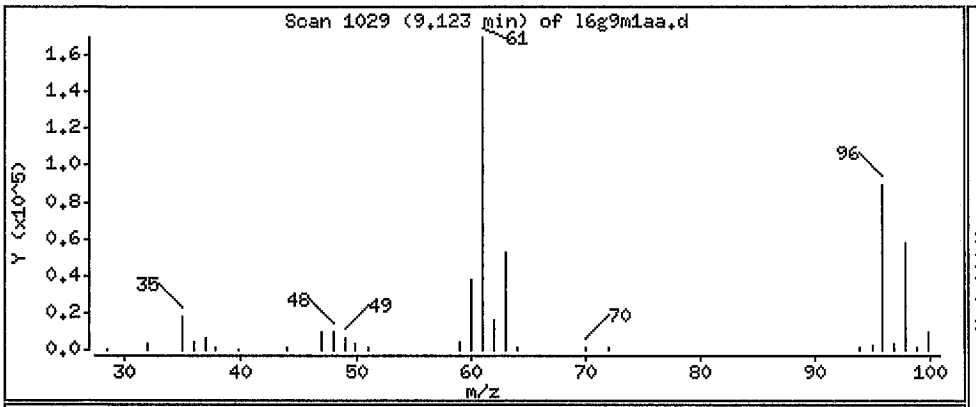
Client ID: SV-1-C-9 Instrument: mj.i

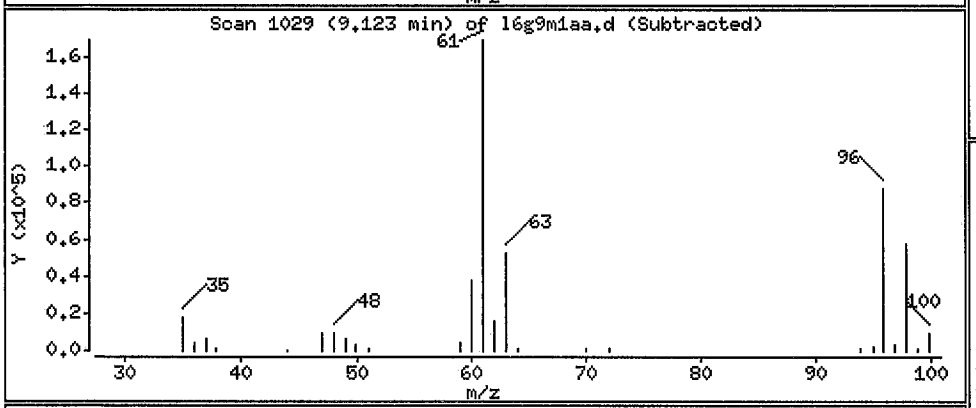
Sample Info: ,25,0,,,

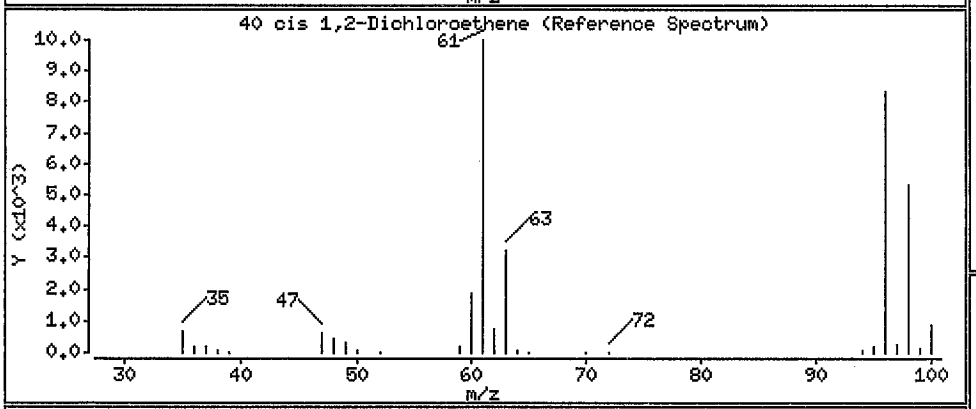
Purge Volume: 500.0 Operator: 7126

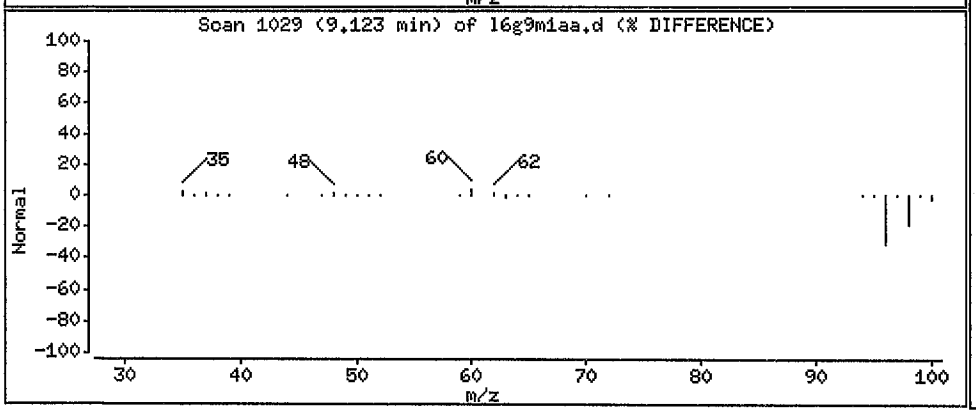
Column phase: Rtx-5 Column diameter: 0.32

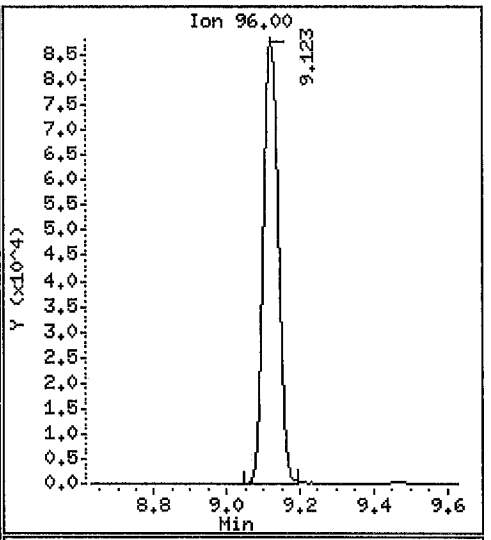
40 cis 1,2-Dichloroethene Concentration: 90.20 ppb(v/v)

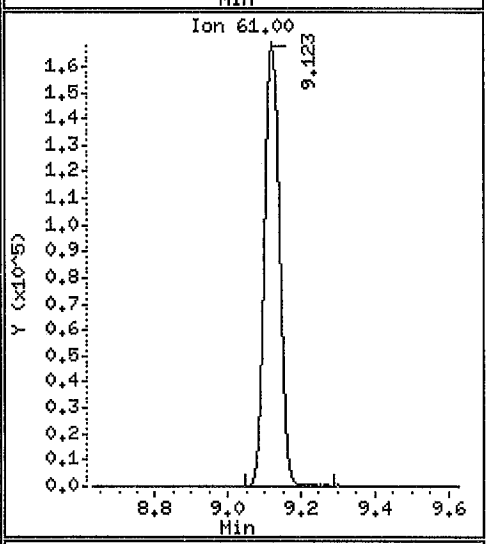


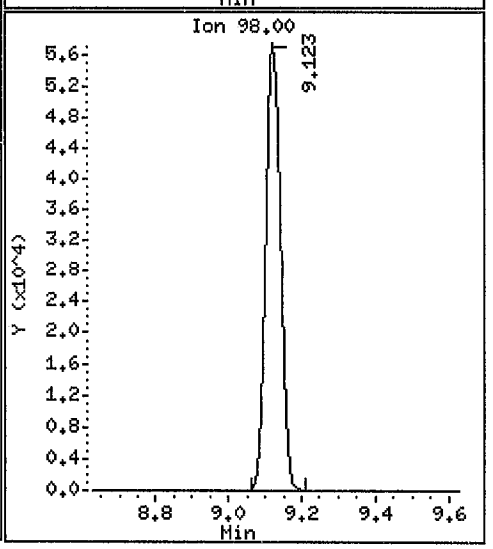












Data File: /var/chem/gcms/mj.i/J090810.b/16g9m1aa.d

Date : 08-SEP-2010 18:39

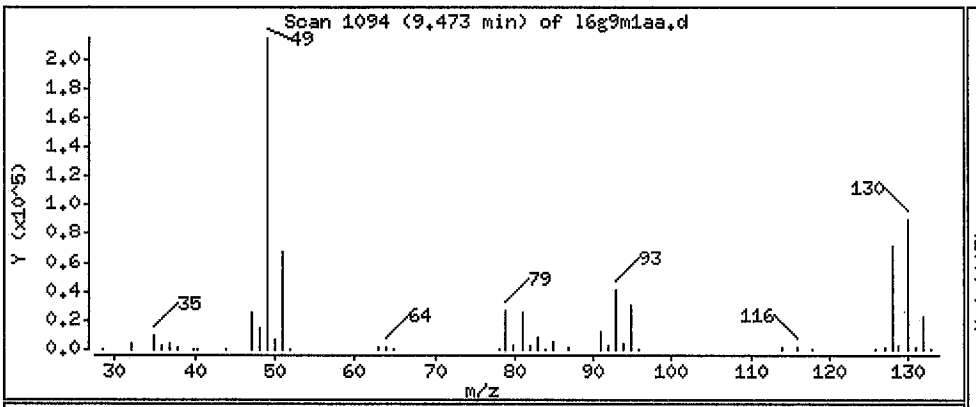
Client ID: SV-1-C-9 Instrument: mj.i

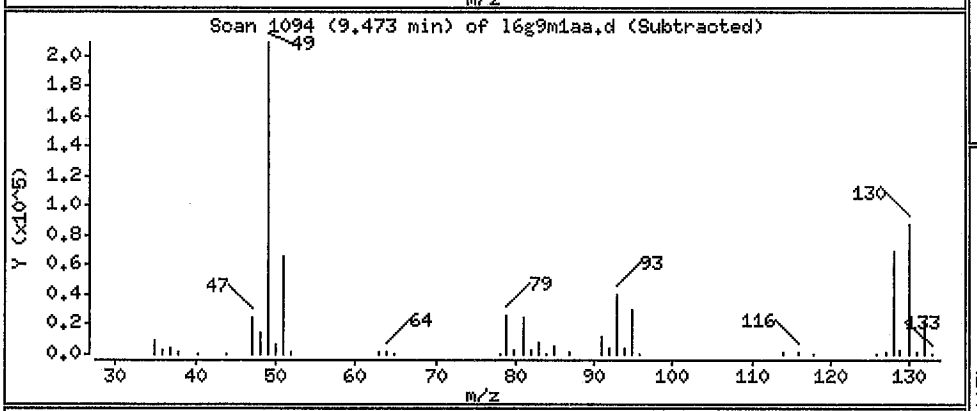
Sample Info: ,25,0,,,

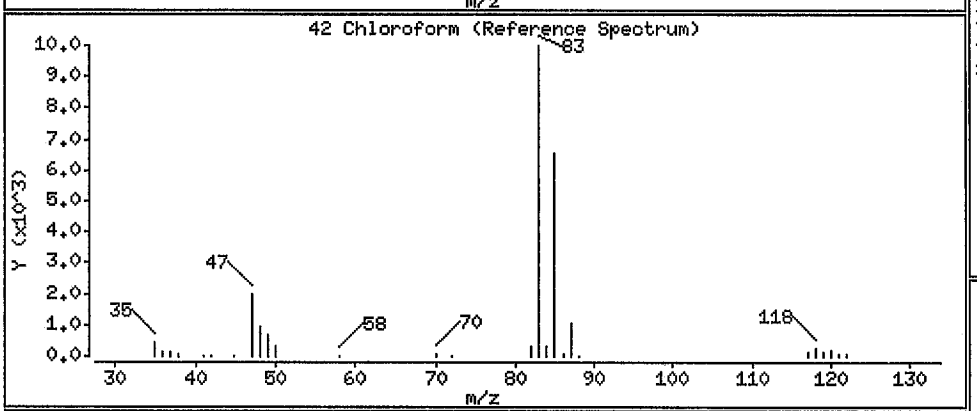
Purge Volume: 500.0 Operator: 7126

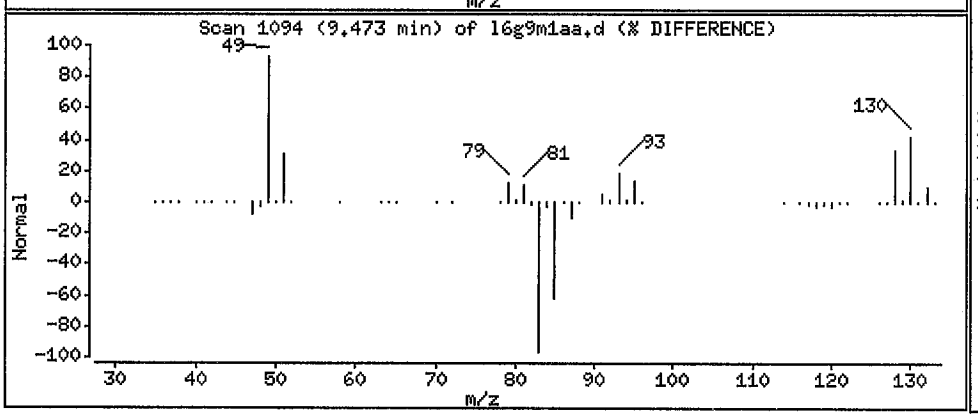
Column phase: Rtx-5 Column diameter: 0.32

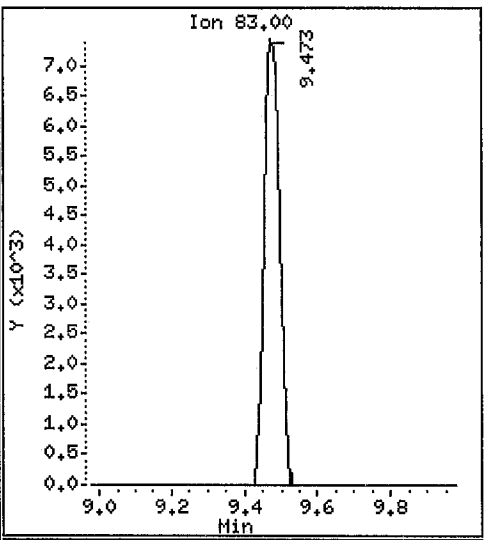
42 Chloroform Concentration: 3.693 ppb(v/v)

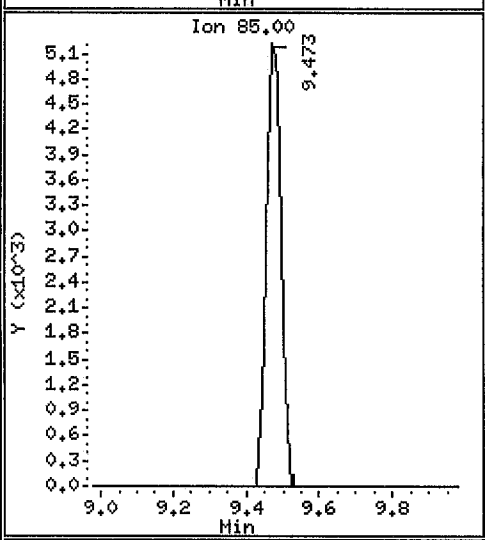


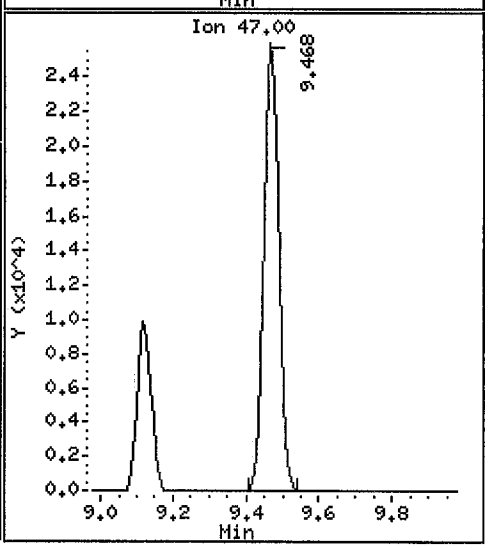












Data File: /var/chem/gcms/mj.i/J090810.b/16g9m1aa.d

Date : 08-SEP-2010 18:39

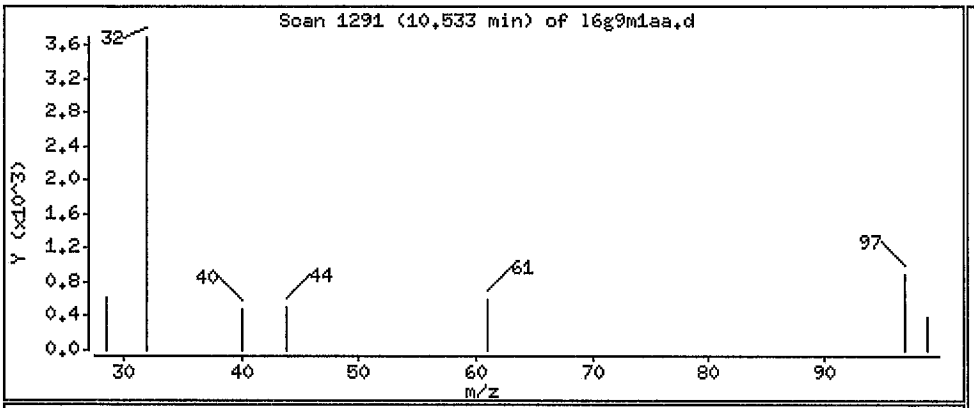
Client ID: SV-1-C-9 Instrument: mj.i

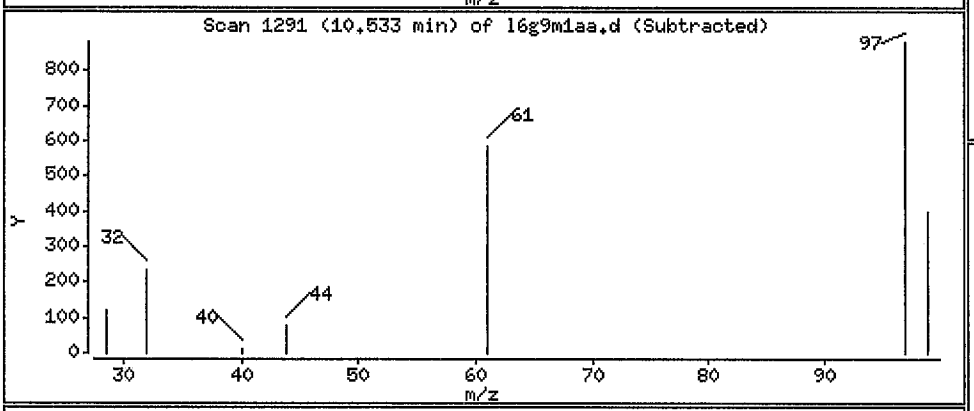
Sample Info: ,25,0,,,

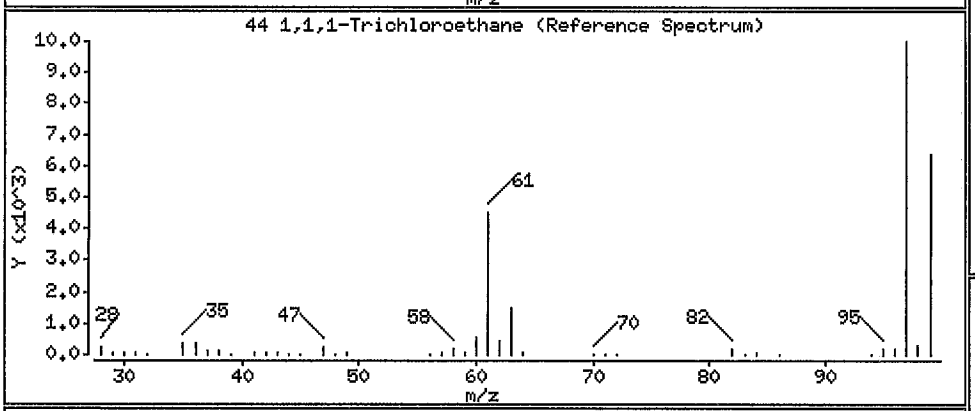
Purge Volume: 500.0 Operator: 7126

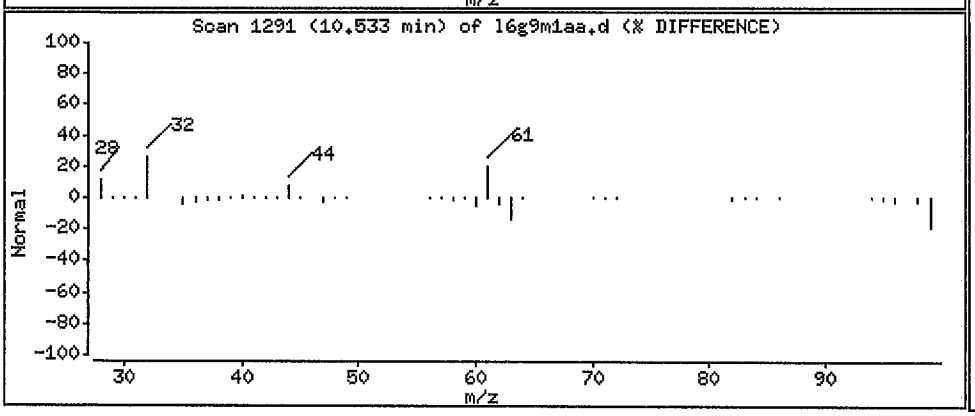
Column phase: Rtx-5 Column diameter: 0.32

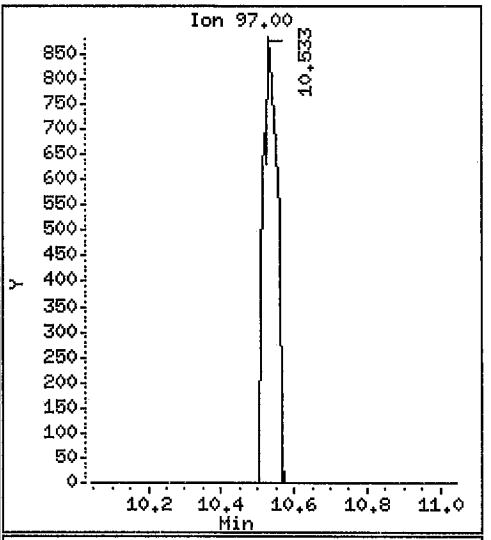
44 1,1,1-Trichloroethane Concentration: 0.3766 ppb(v/v)

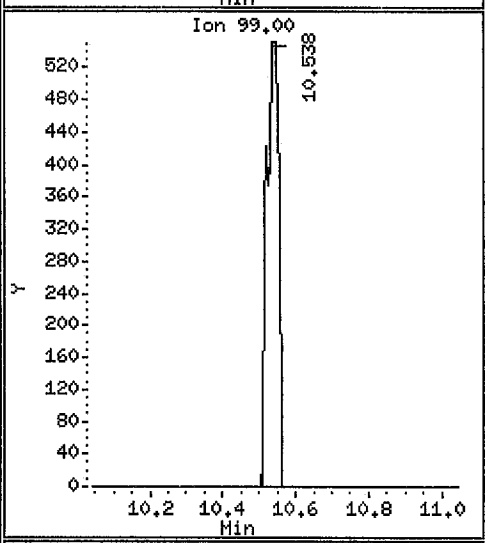


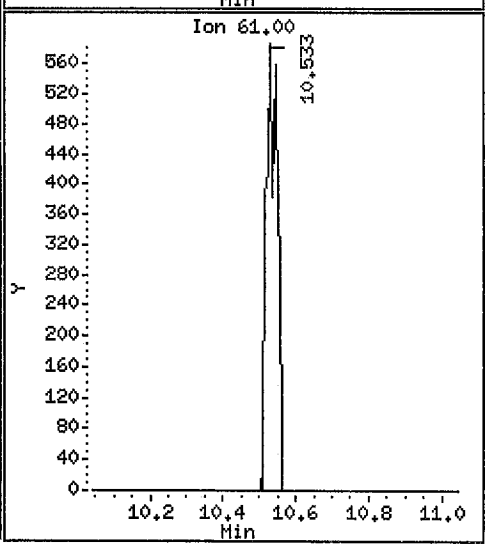












Data File: /var/chem/gcms/mj.i/J090810.b/16g9m1aa.d

Date : 08-SEP-2010 18:39

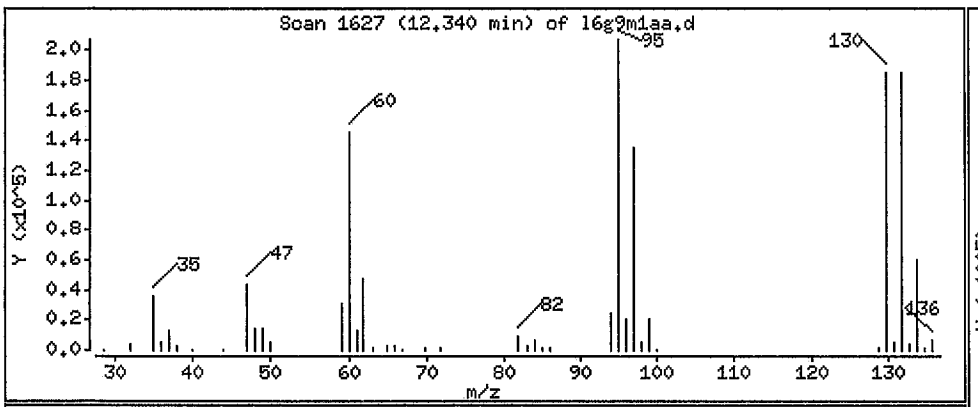
Client ID: SV-1-C-9 Instrument: mj.i

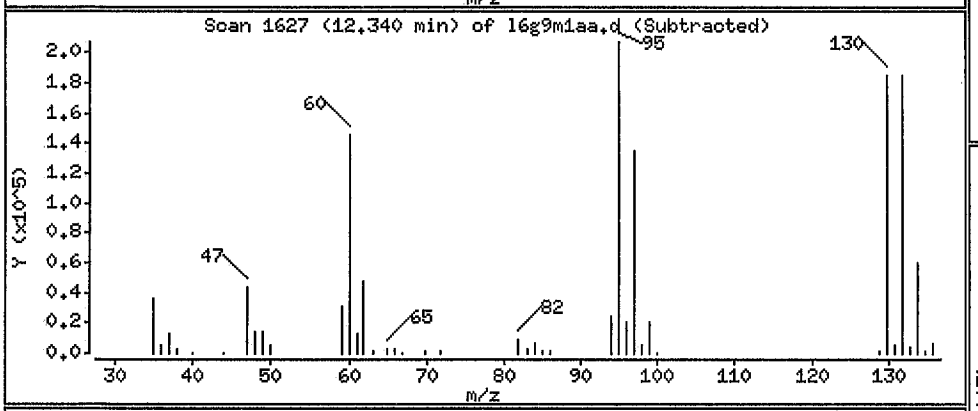
Sample Info: ,25,0,,,

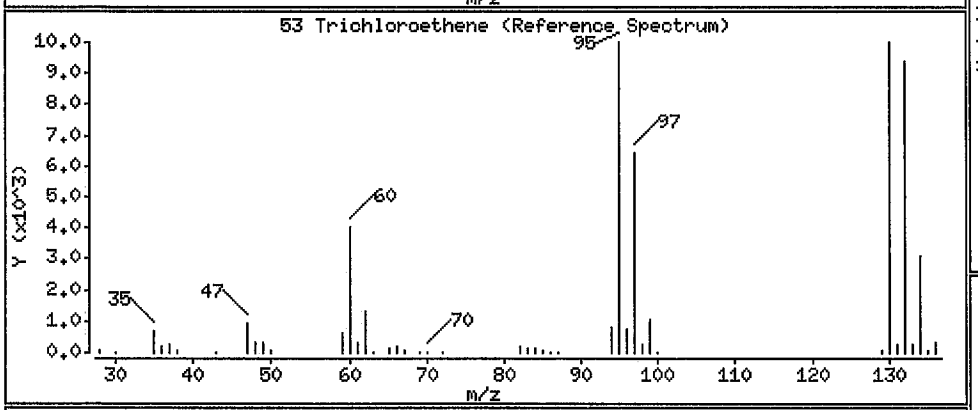
Purge Volume: 500.0 Operator: 7126

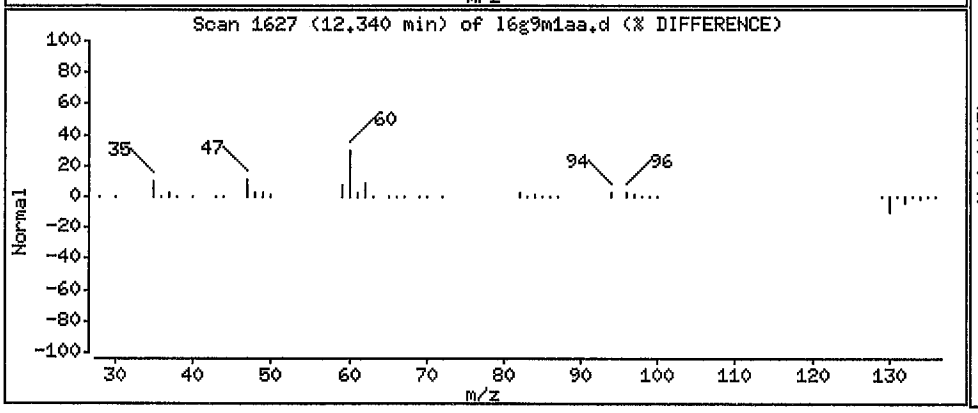
Column phase: Rtx-5 Column diameter: 0.32

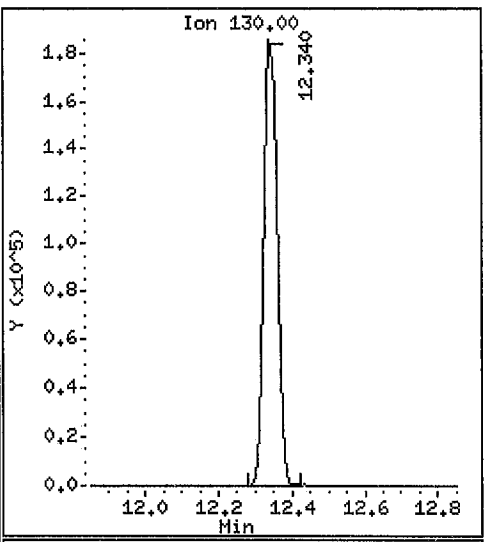
53 Trichloroethene Concentration: 115.7 ppb(v/v)

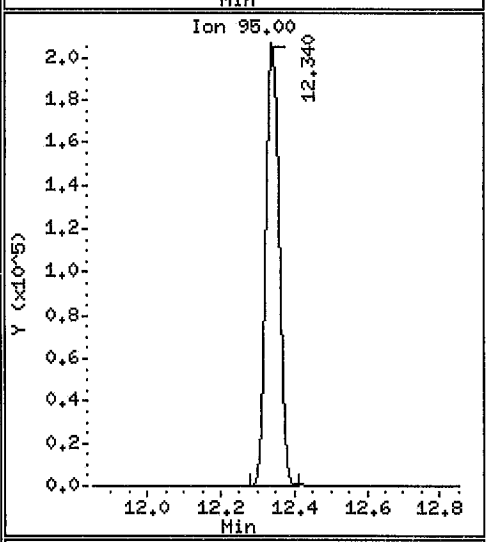


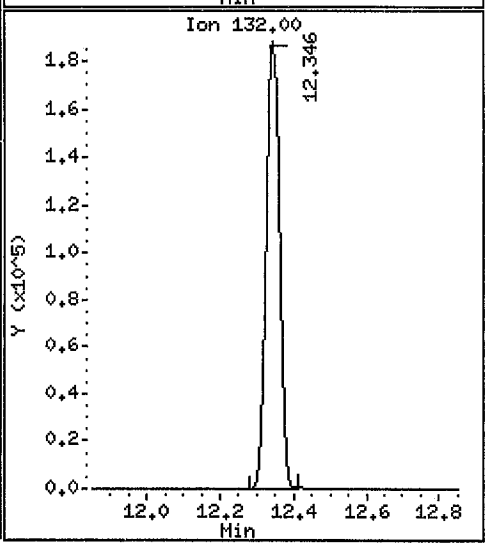












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9m1aa.d

Date : 08-SEP-2010 18:39

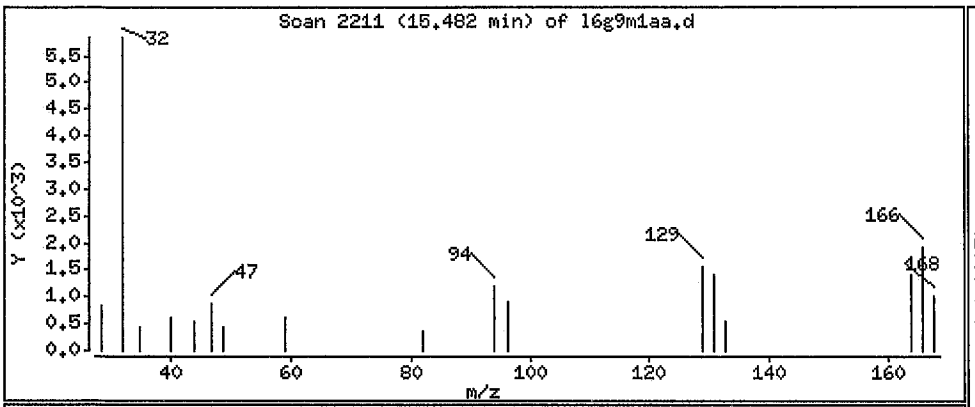
Client ID: SV-1-C-9 Instrument: mj.i

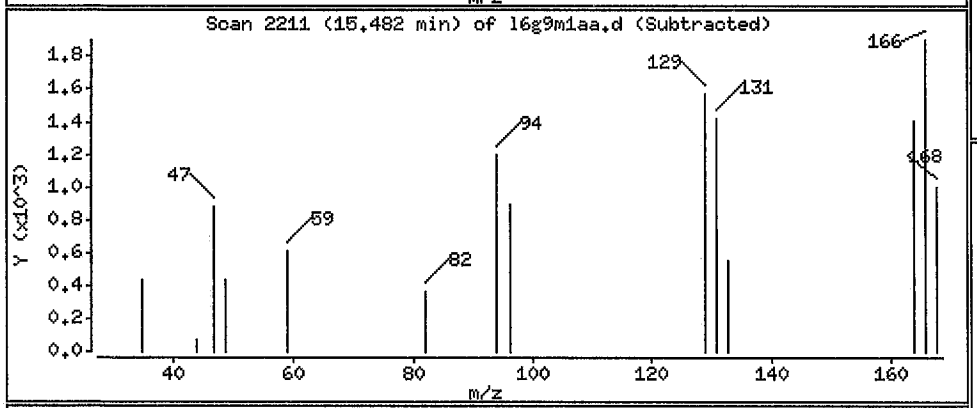
Sample Info: ,25,0,,,

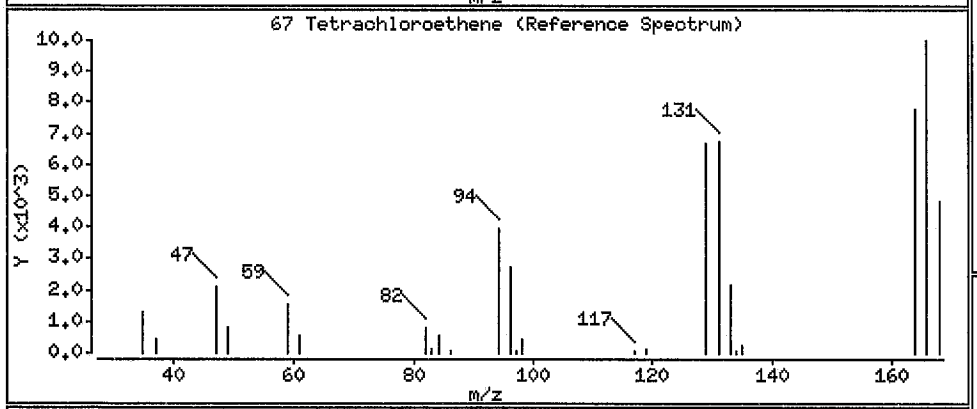
Purge Volume: 500.0 Operator: 7126

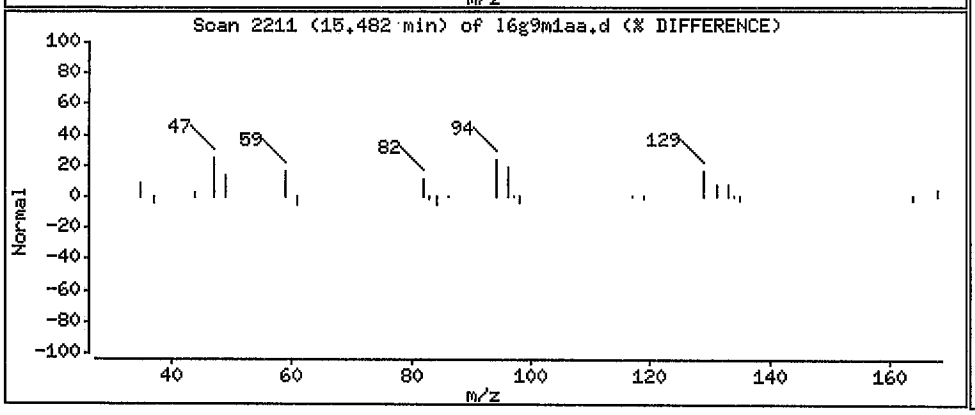
Column phase: Rtx-5 Column diameter: 0.32

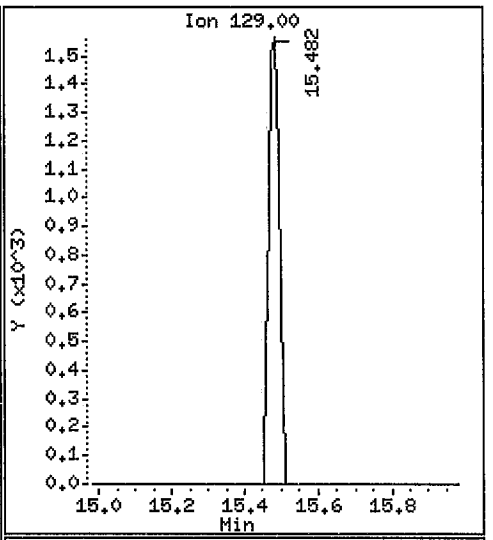
67 Tetrachloroethene Concentration: 0.9082 ppb(v/v)

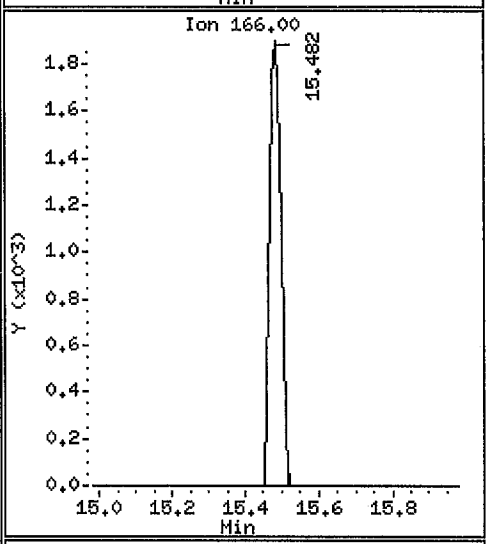


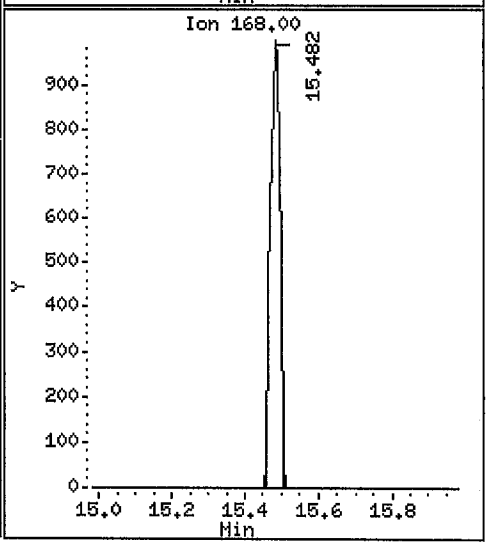












Data File: /var/chem/gcms/mj.i/J090810.b/16g9m1aa.d

Date : 08-SEP-2010 18:39

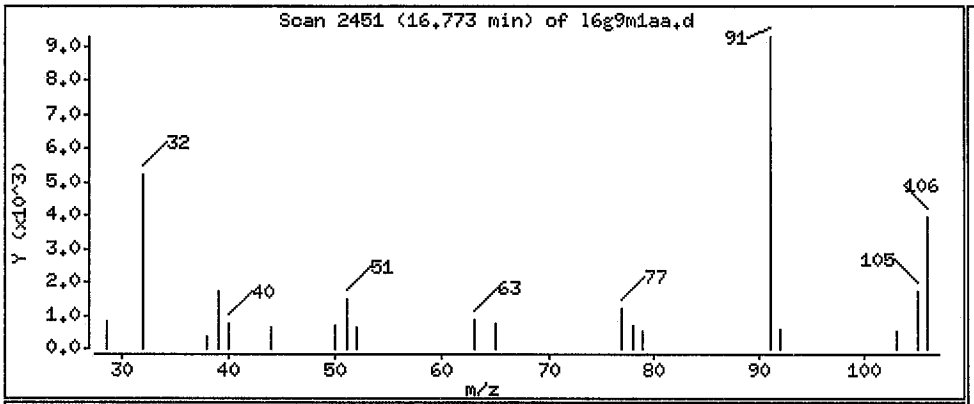
Client ID: SV-1-C-9 Instrument: mj.i

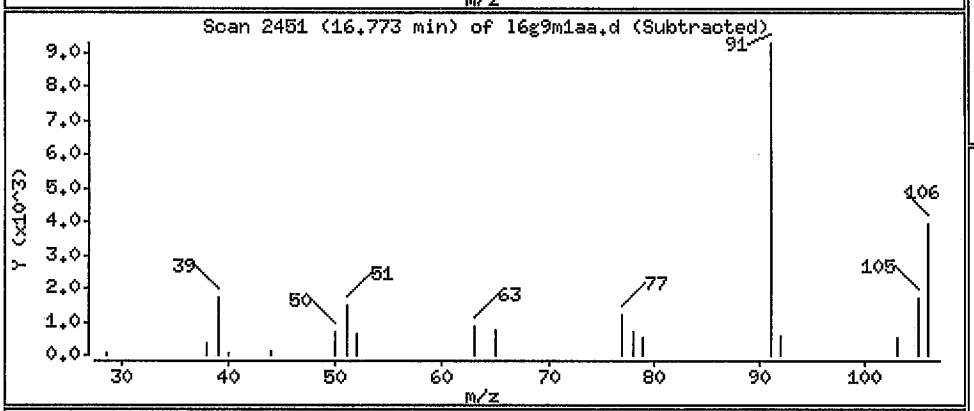
Sample Info: ,25,0,,,

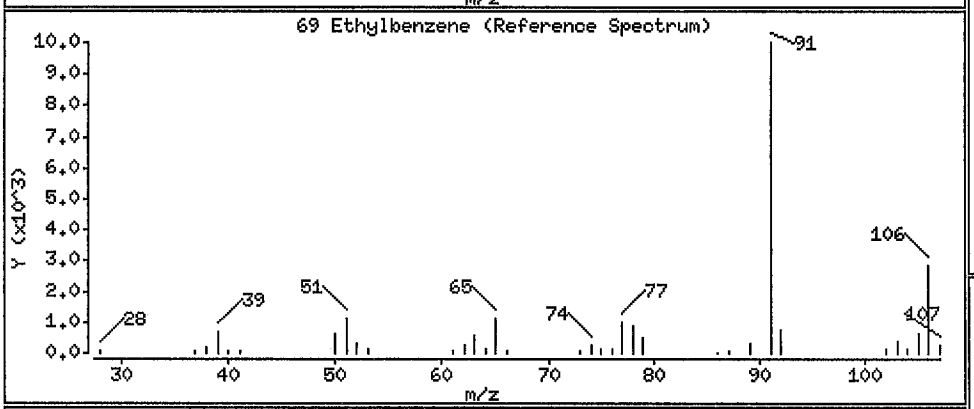
Purge Volume: 500.0 Operator: 7126

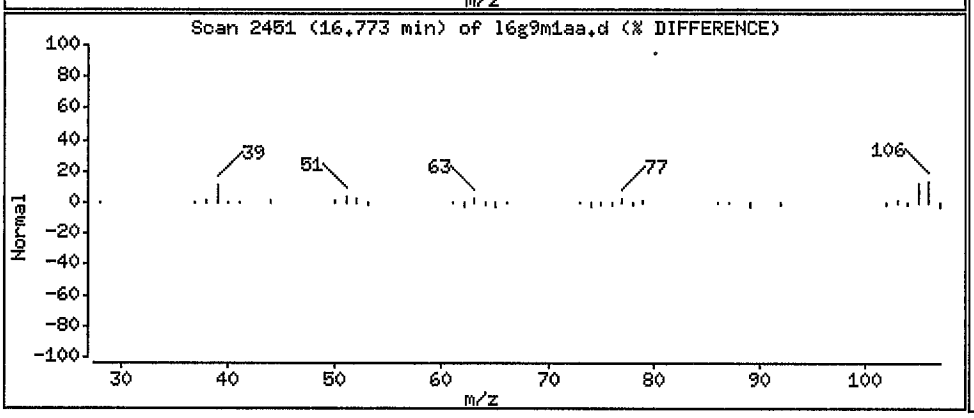
Column phase: Rtx-5 Column diameter: 0.32

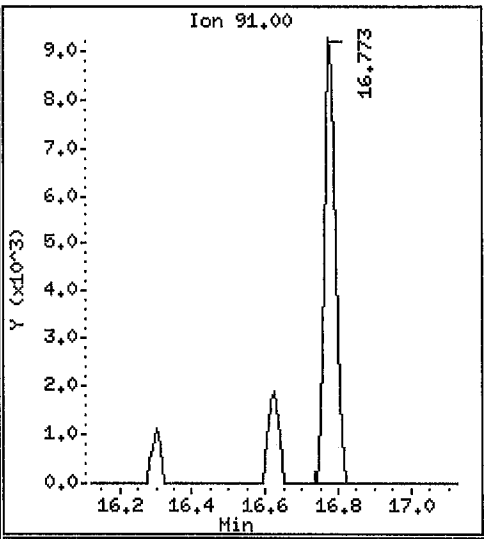
69 Ethylbenzene Concentration: 2.327 ppb(v/v)

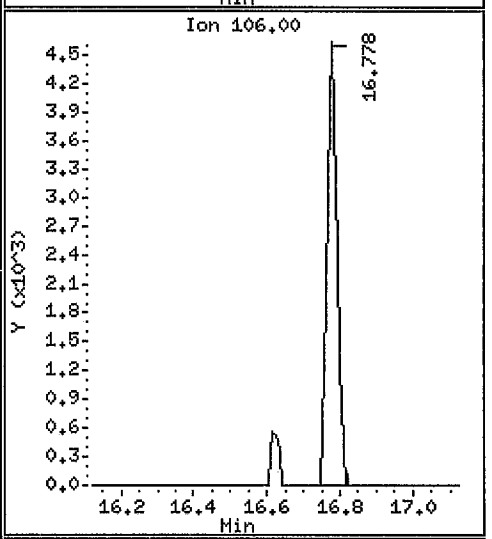


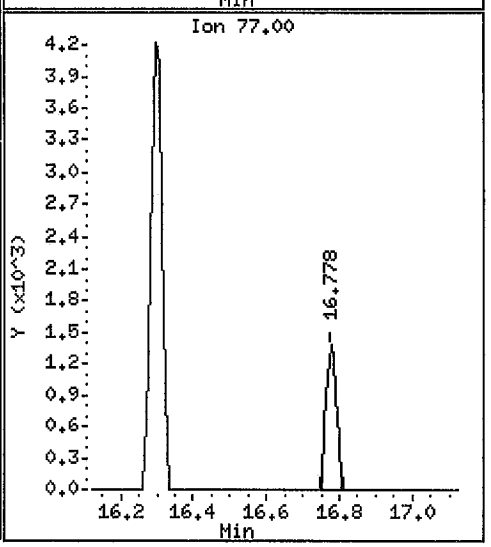












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9m1aa.d

Date : 08-SEP-2010 18:39

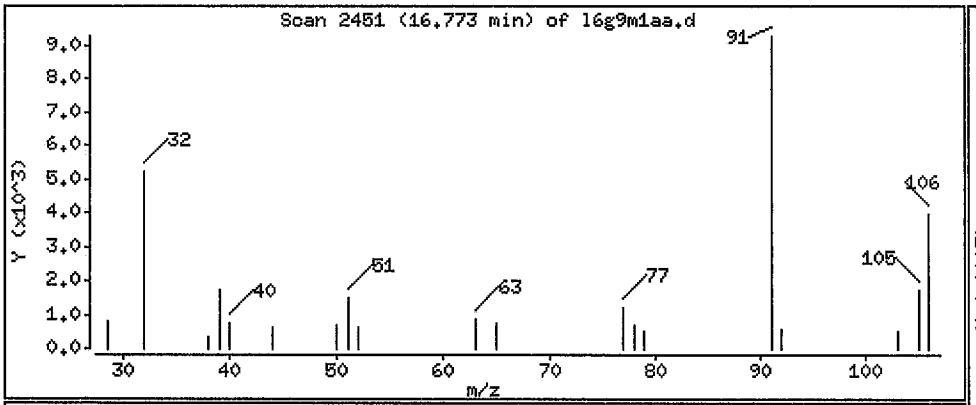
Client ID: SV-1-C-9 Instrument: mj.i

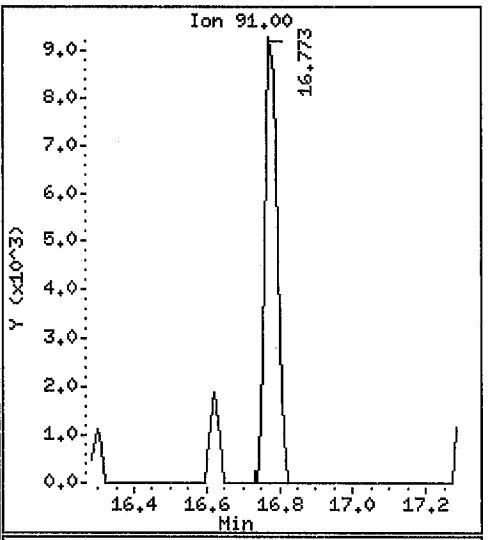
Sample Info: ,25,0,,,

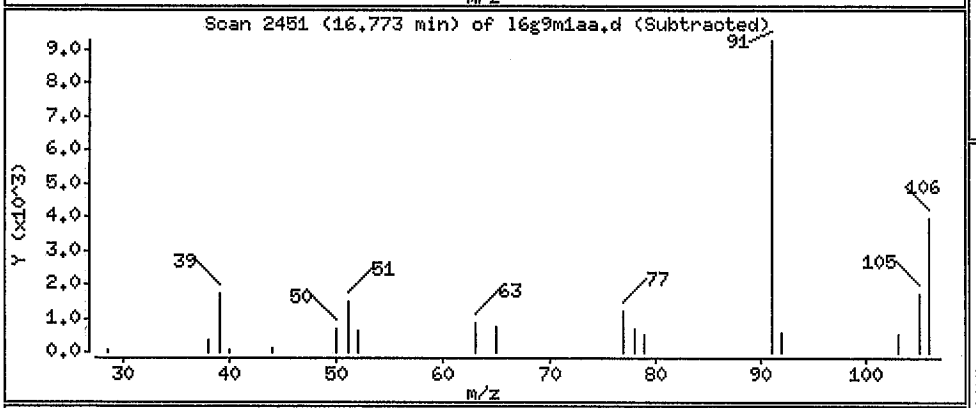
Purge Volume: 500.0 Operator: 7126

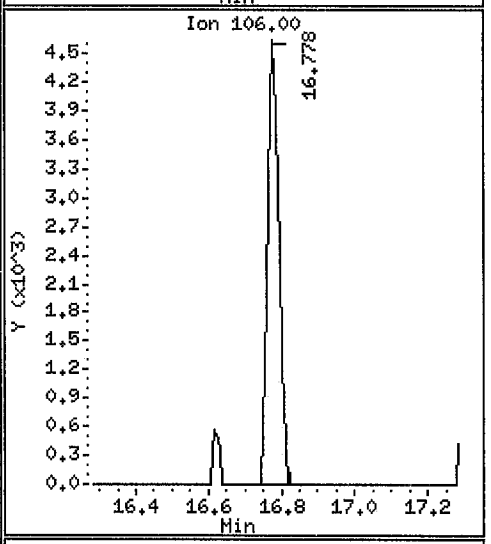
Column phase: Rtx-5 Column diameter: 0.32

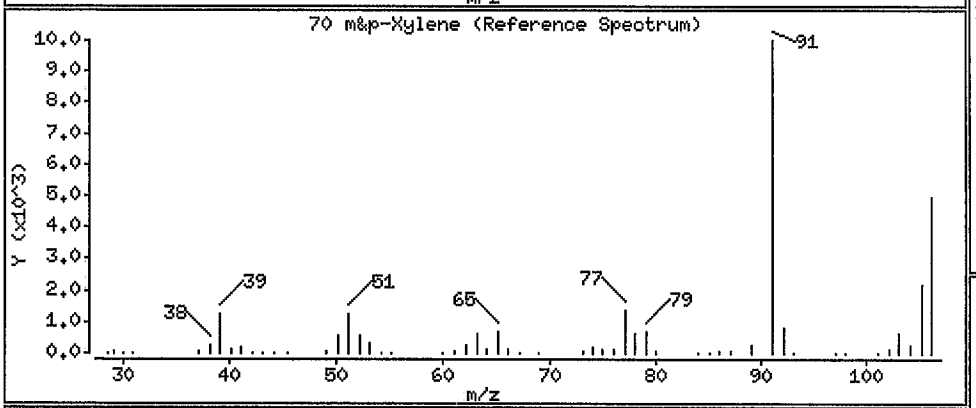
70 m&p-Xylene Concentration: 3.078 ppb(v/v)

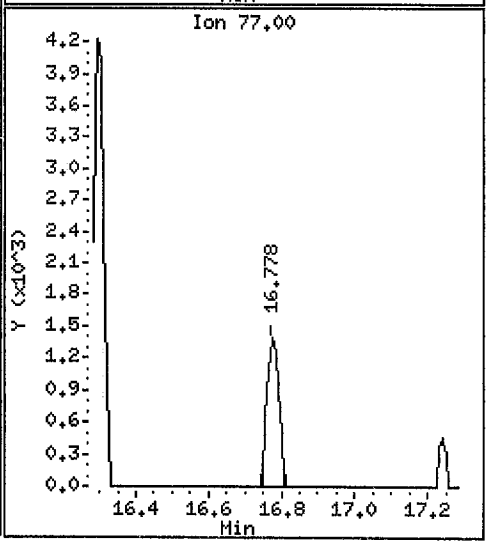


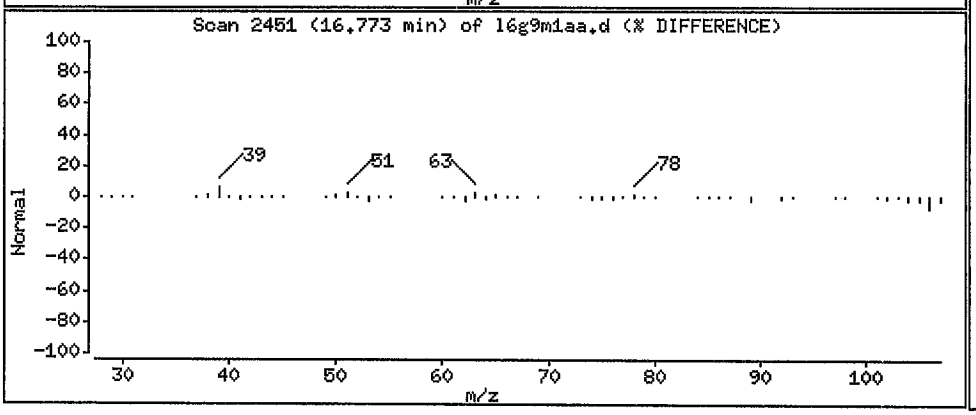












Data File: /var/chem/gcms/mj.i/J090810.b/16g9m1aa.d

Date : 08-SEP-2010 18:39

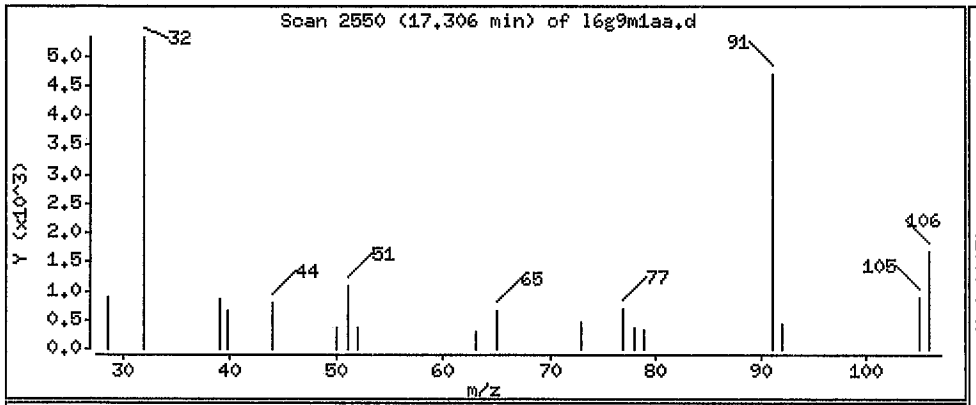
Client ID: SV-1-C-9 Instrument: mj.i

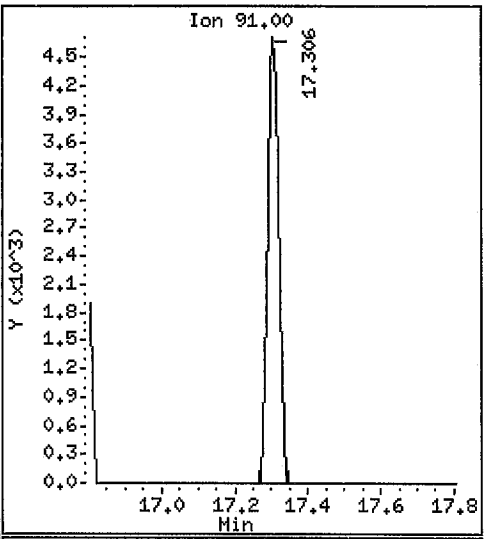
Sample Info: ,25,0,,,

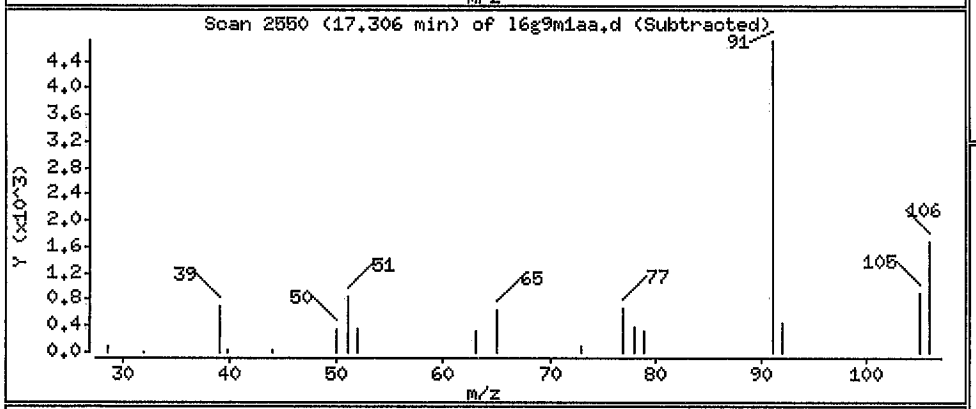
Purge Volume: 500.0 Operator: 7126

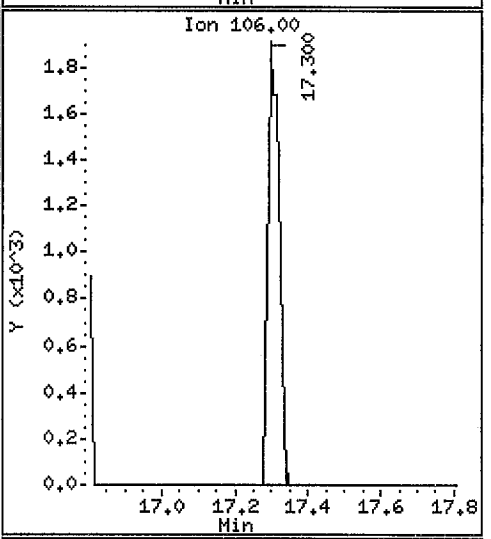
Column phase: Rtx-5 Column diameter: 0.32

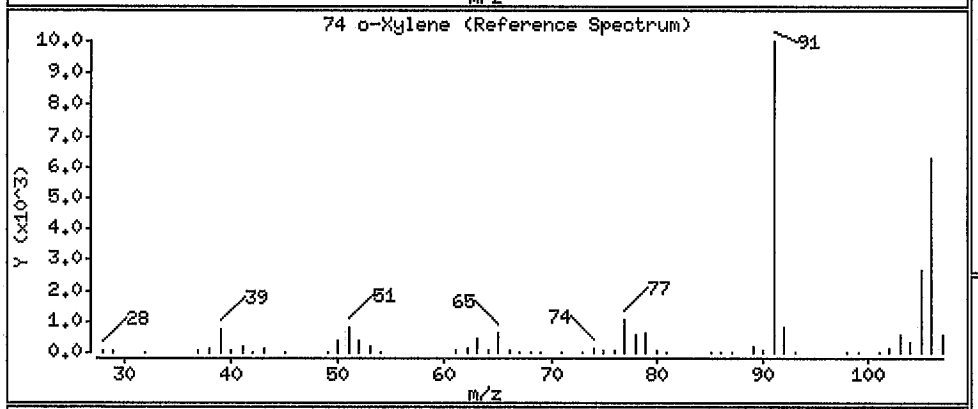
74 o-Xylene Concentration: 1.295 ppb(v/v)

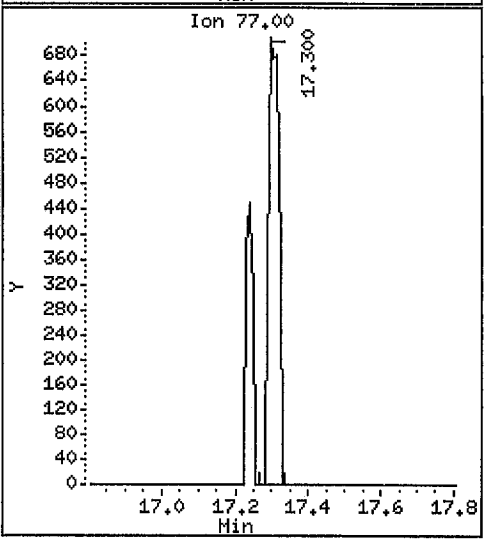


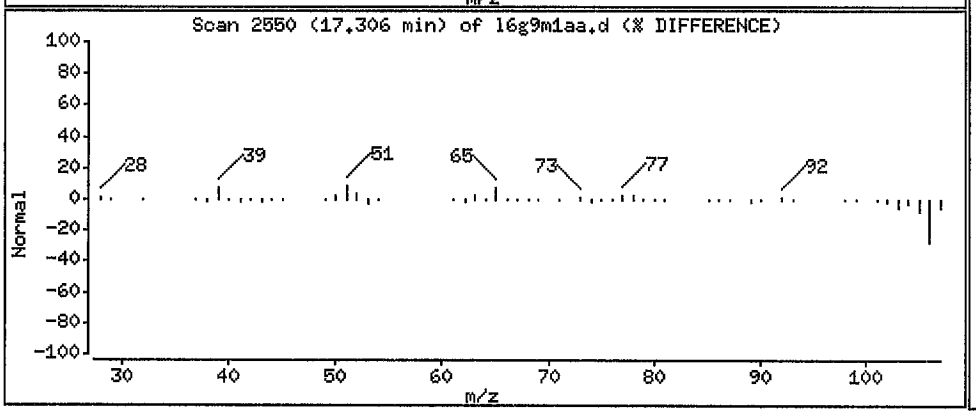












Tetra Tech NUS, Inc

Client Sample ID: SV-5-C-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 009	**Work Order #**	L6G9N1AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	1	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.12**	**0.080**	**0.023**	**0.39**	**0.26**	**0.073**
Carbon tetrachloride	**0.097**	**0.080**	**0.015**	**0.61**	**0.50**	**0.094**
Chlorodifluoromethane	**1.7**	**0.080**	**0.015**	**6.1**	**0.28**	**0.053**
Chloroform	**2.6**	**0.080**	**0.015**	**13**	**0.39**	**0.073**
Dichlorodifluoromethane	**0.15**	**0.080**	**0.027**	**0.73**	**0.40**	**0.13**
1,1-Dichloroethane	**0.029**	**0.080**	**0.010**	**0.12 J**	**0.32**	**0.040**
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	**0.094**	**0.080**	**0.027**	**0.41**	**0.35**	**0.12**
Methylene chloride	**0.17**	**0.20**	**0.018**	**0.58 J**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	**0.054**	**0.20**	**0.036**	**0.29 J**	**1.0**	**0.19**
Tetrachloroethene	**16**	**0.080**	**0.016**	**110**	**0.54**	**0.11**
Toluene	**0.15**	**0.080**	**0.021**	**0.56**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	**0.84**	**0.080**	**0.012**	**4.6**	**0.44**	**0.065**
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	**0.49**	**0.040**	**0.014**	**2.6**	**0.21**	**0.075**
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	**0.24**	**0.080**	**0.050**	**1.0**	**0.35**	**0.22**
o-Xylene	**0.15**	**0.080**	**0.024**	**0.64**	**0.35**	**0.10**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	106	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9n1aa.d
Report Date: 10-Sep-2010 14:30

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/l6g9n1aa.d
Lab Smp Id: L6G9N1AA Client Smp ID: SV-5-C-9
Inj Date : 08-SEP-2010 19:31
Operator : 7126 Inst ID: mj.i
Smp Info : ,,0,,,
Misc Info : J090810,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 10-Sep-2010 14:16 barlozha Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
*	1 Bromochloromethane	128	9.468	9.479	(1.000)	180916	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.636	11.642	(1.000)	874877	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.300	16.300	(1.000)	742083	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.914	17.914	(1.099)	596978	4.23845	4.238
	7 Chlorodifluoromethane	67	3.895	3.901	(0.411)	39700	1.73521	1.735
	8 Dichlorodifluoromethane	85	3.965	3.970	(0.419)	29130	0.14828	0.1483
	31 Methylene Chloride	84	6.778	6.784	(0.716)	9826	0.16692	0.1669
	36 1,1-Dichloroethane	63	8.086	8.102	(0.854)	4148	0.02886	0.02886
	42 Chloroform	83	9.474	9.479	(1.001)	341846	2.60278	2.603
	44 1,1,1-Trichloroethane	97	10.533	10.544	(1.112)	115037	0.84076	0.8408
	45 1,2-Dichloroethane	62	10.528	10.646	(0.905)	9081	0.07392	0.07392
	48 Benzene	78	11.114	11.125	(0.955)	22370	0.12096	0.1210
	49 Carbon Tetrachloride	117	11.147	11.152	(0.958)	13992	0.09655	0.09655
	53 Trichloroethene	130	12.341	12.352	(1.061)	44161	0.49107	0.4911
	61 Toluene	91	14.353	14.358	(0.881)	26140	0.14958	0.1496

9/15/10

AMS 9/10/10

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9n1aa.d
Report Date: 10-Sep-2010 14:30

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
67 Tetrachloroethene	129	15.482	15.483	(0.950)	1148202	15.7253	15.72
69 Ethylbenzene	91	16.623	16.623	(1.020)	18850	0.09407	0.09407
70 m&p-Xylene	91	16.779	16.784	(1.029)	35788	0.23616	0.2362
74 o-Xylene	91	17.306	17.306	(1.062)	23081	0.14643	0.1464
96 Napthalene	128	21.599	21.594	(1.325)	8304	0.05437	0.05437

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9n1aa.d
Report Date: 10-Sep-2010 14:30

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9n1aa.d
Lab Smp Id: L6G9N1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: SV-5-C-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	180916	-7.26
2 1,4-Difluorobenze	936174	557024	1315324	874877	-6.55
3 Chlorobenzene-d5	815161	485021	1145301	742083	-8.96

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.11
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.05
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9n1aa.d
Report Date: 10-Sep-2010 14:30

TestAmerica Knoxville

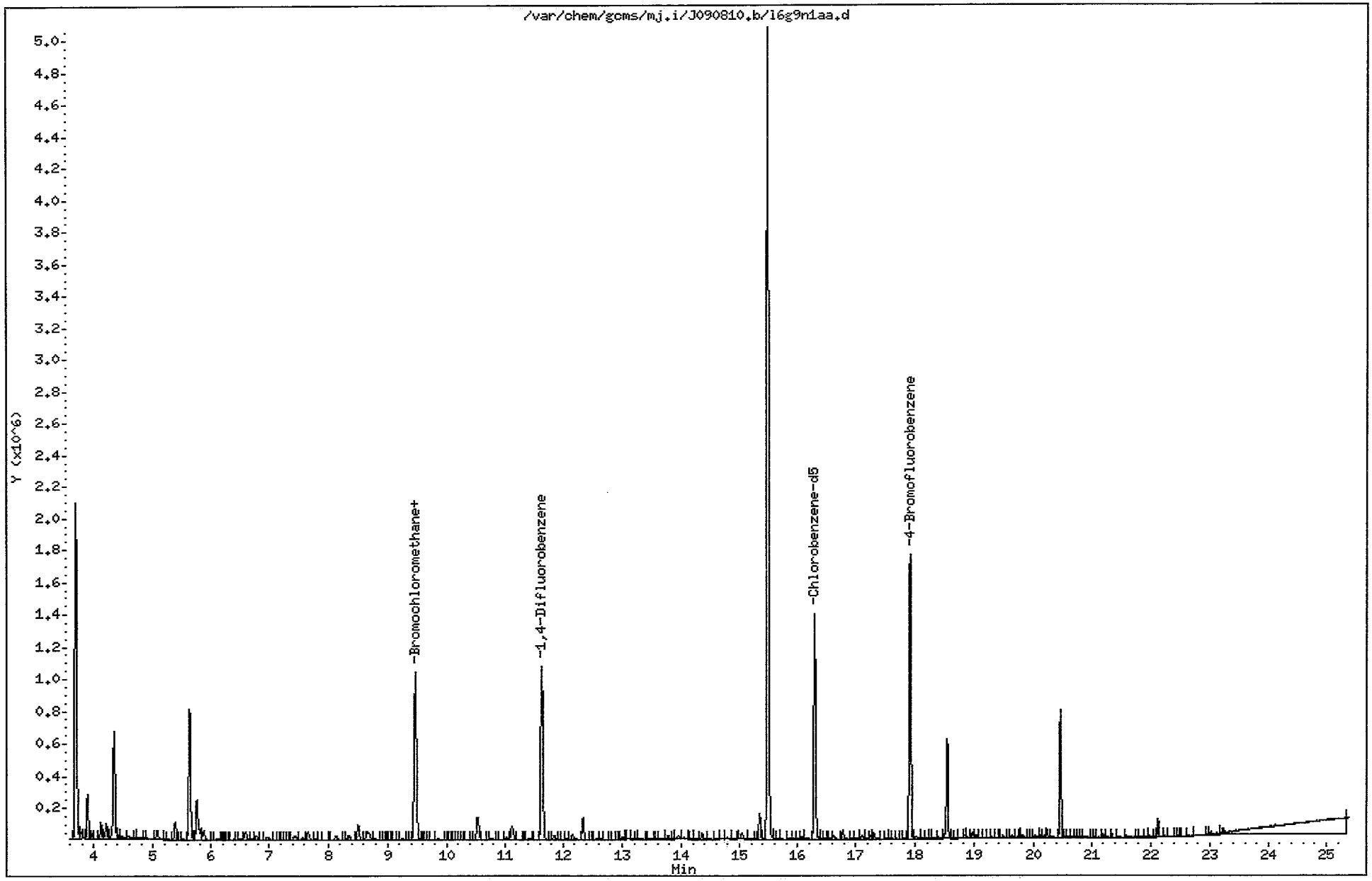
RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9N1AA
Client Smp ID: SV-5-C-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.238	105.96	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/16g9n1aa.d
Date : 08-SEP-2010 19:31
Client ID: SV-5-C-9
Sample Info: ,,0,,,
Purge Volume: 500.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 7126
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J090810.b/16g9n1aa.d

Date : 08-SEP-2010 19:31

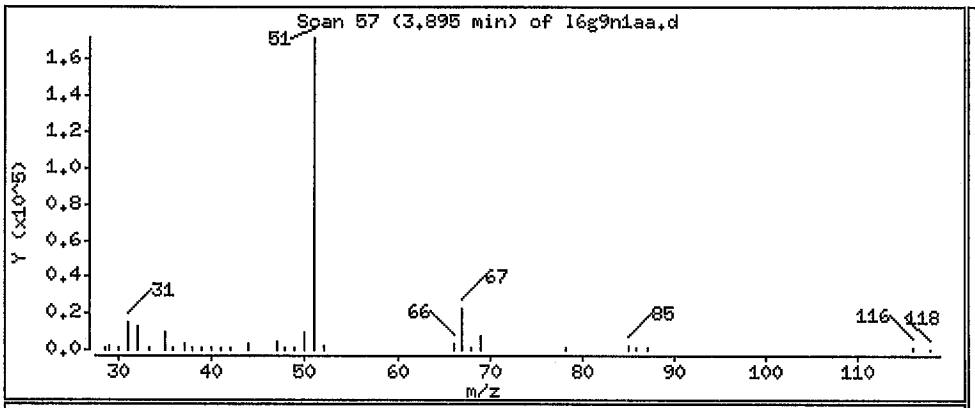
Client ID: SV-5-C-9 Instrument: mj.i

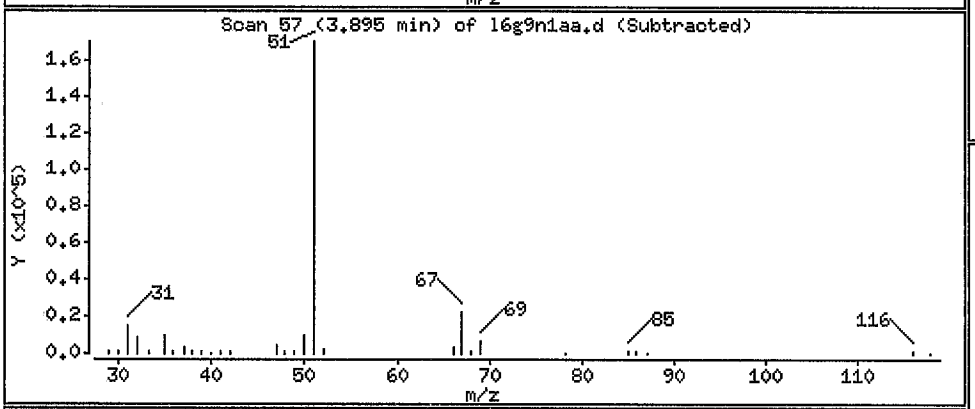
Sample Info: ,,0,,,

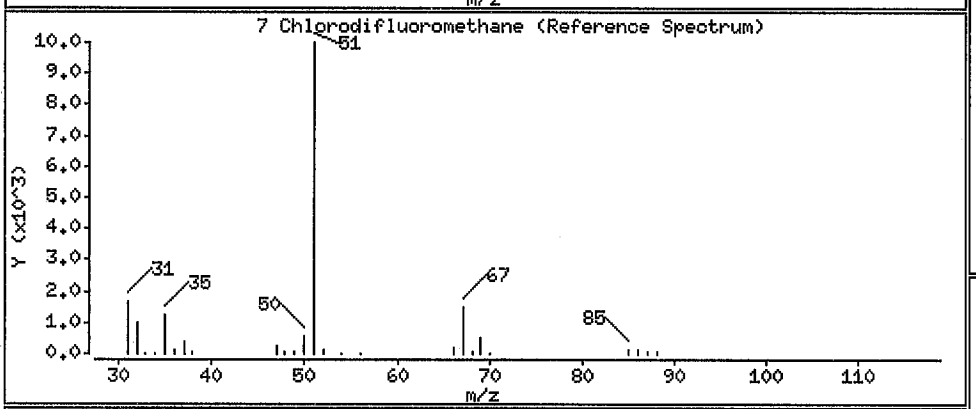
Purge Volume: 500.0 Operator: 7126

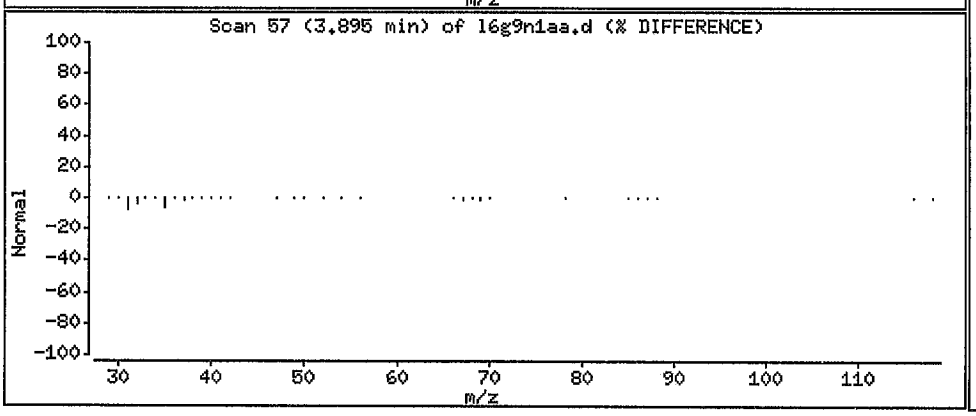
Column phase: Rtx-5 Column diameter: 0.32

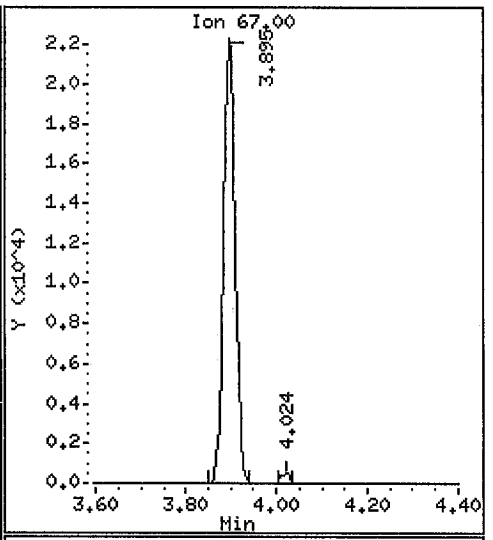
7 Chlorodifluoromethane Concentration: 1.735 ppb(v/v)

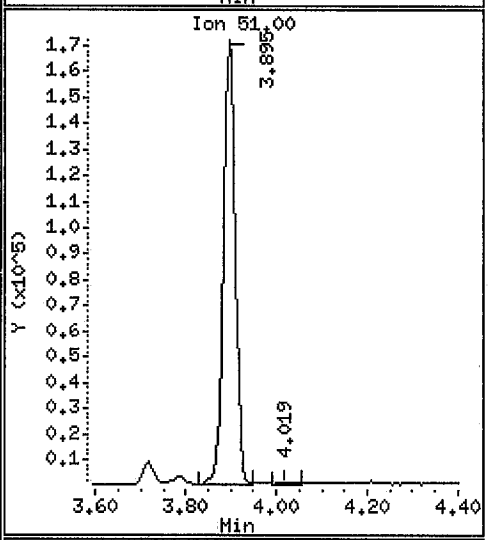


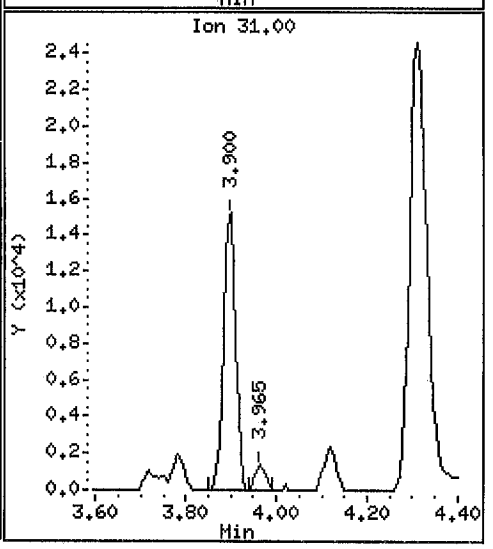












Data File: /var/chem/gcms/mj.i/J090810.b/16g9n1aa.d

Date : 08-SEP-2010 19:31

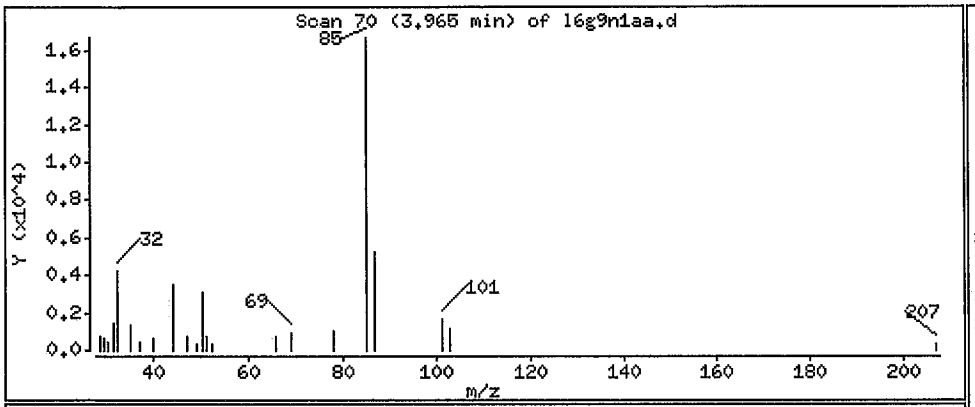
Client ID: SV-5-C-9 Instrument: mj.i

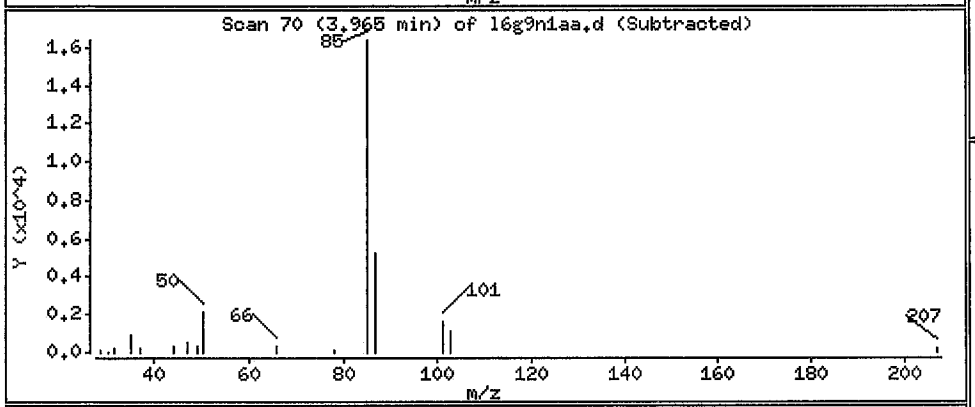
Sample Info: ,,0,,,

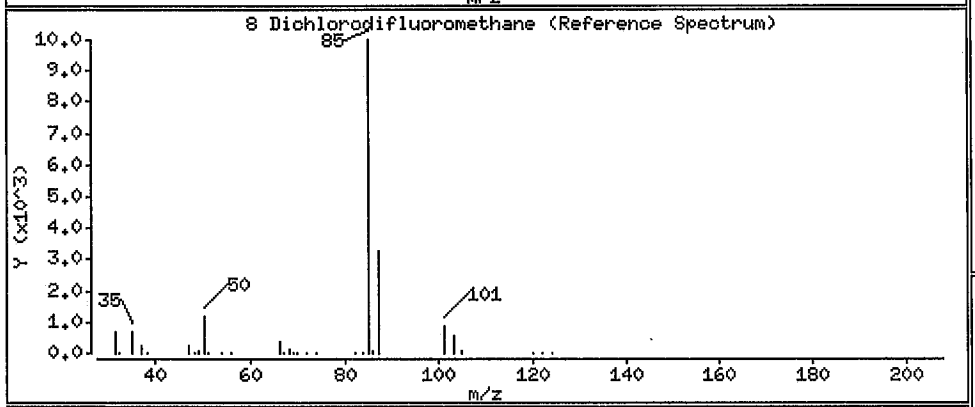
Purge Volume: 500.0 Operator: 7126

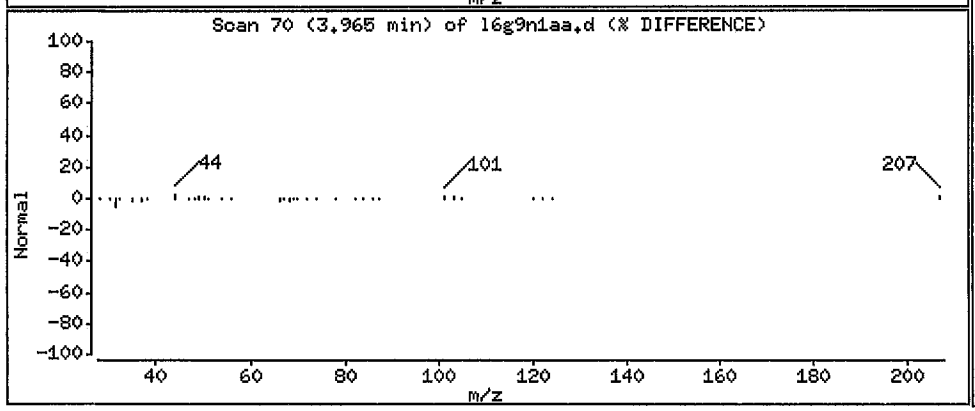
Column phase: Rtx-5 Column diameter: 0.32

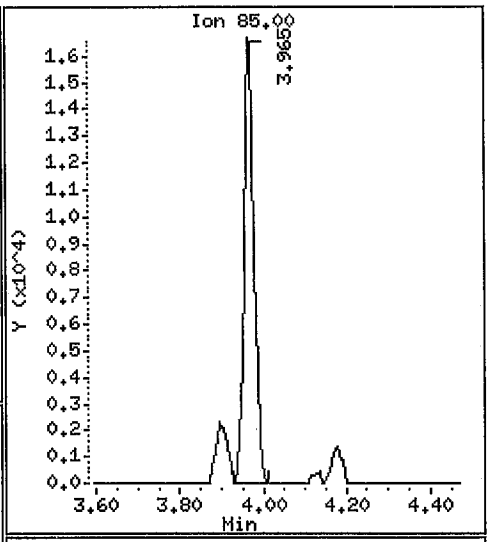
8 Dichlorodifluoromethane Concentration: 0.1483 ppb(v/v)

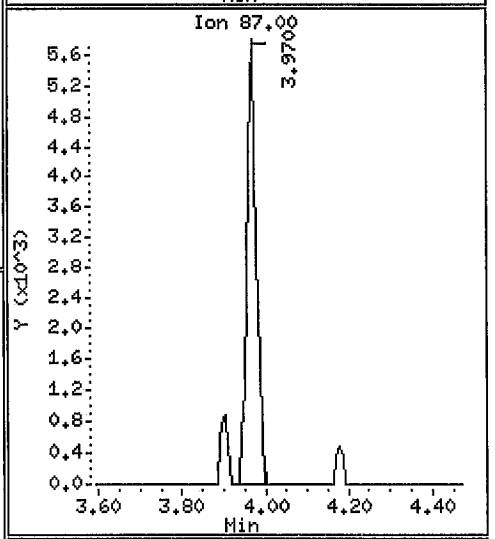


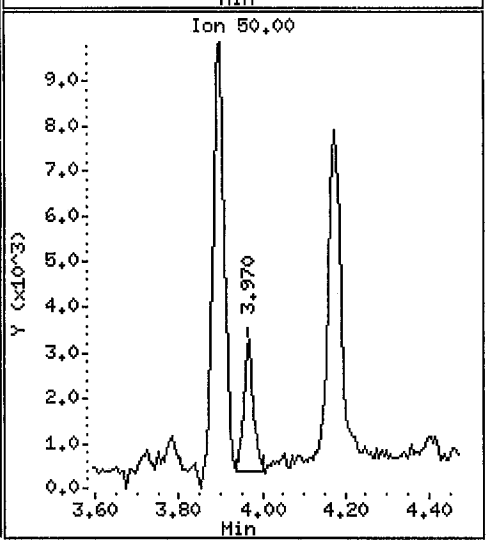












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9n1aa.d

Date : 08-SEP-2010 19:31

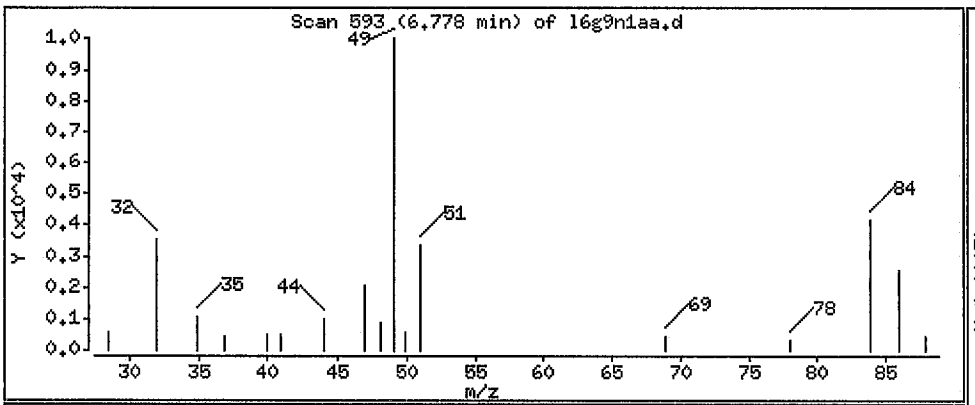
Client ID: SV-5-C-9 Instrument: mj.i

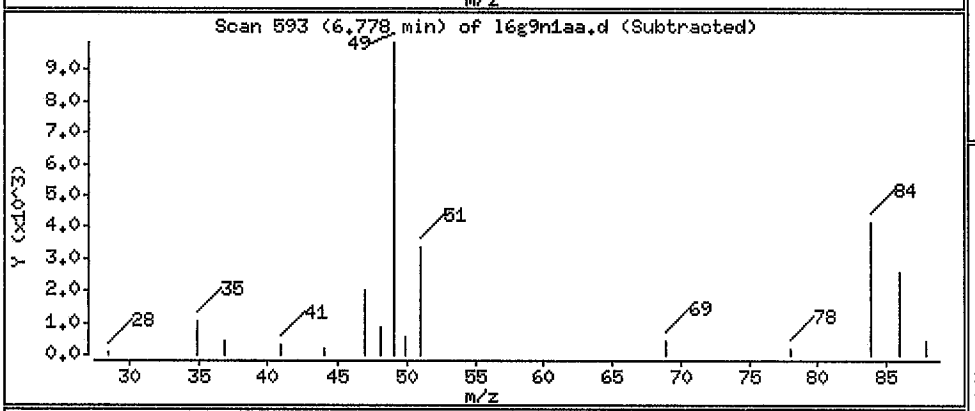
Sample Info: ,,0,,,

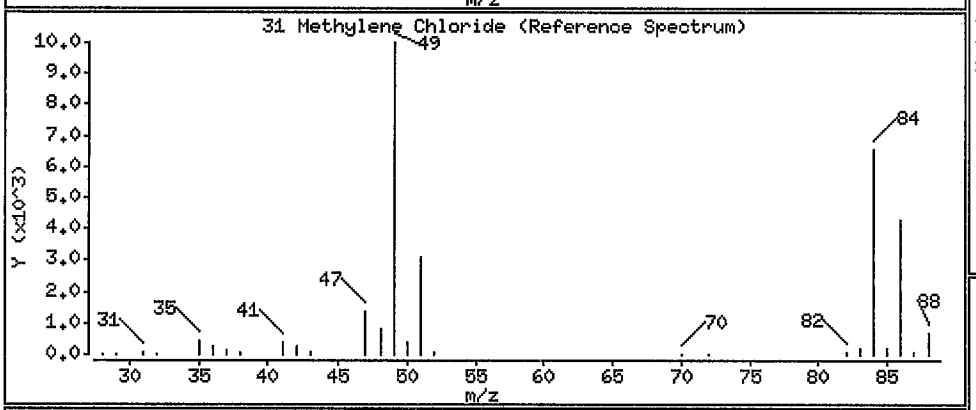
Purge Volume: 500.0 Operator: 7126

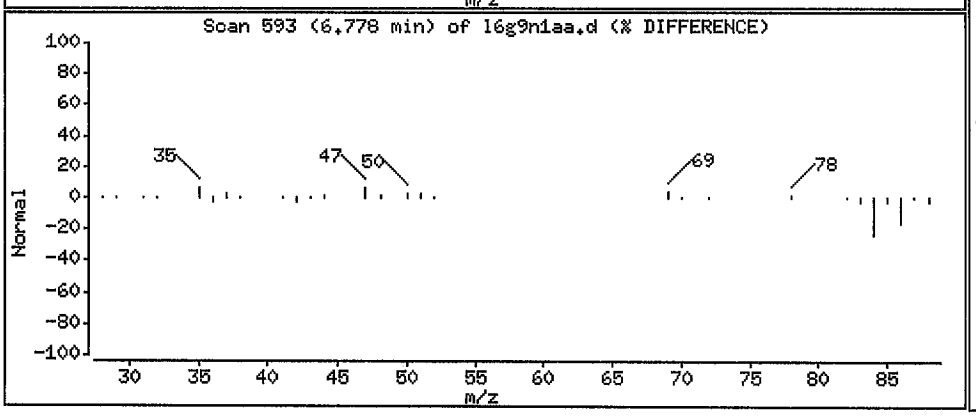
Column phase: Rtx-5 Column diameter: 0.32

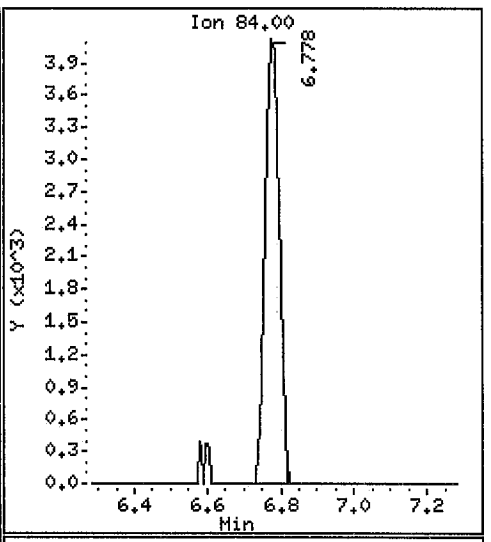
31 Methylene Chloride Concentration: 0.1669 ppb(v/v)

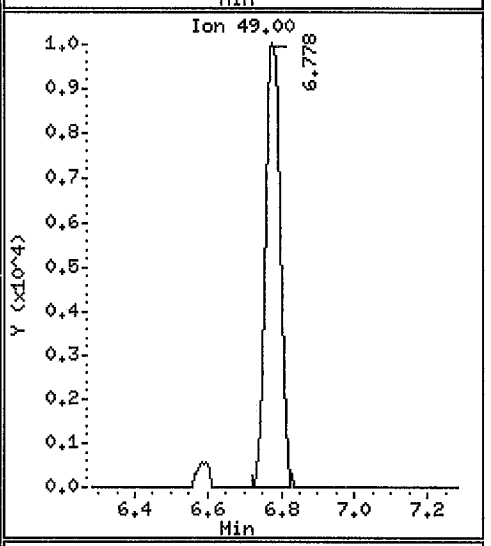


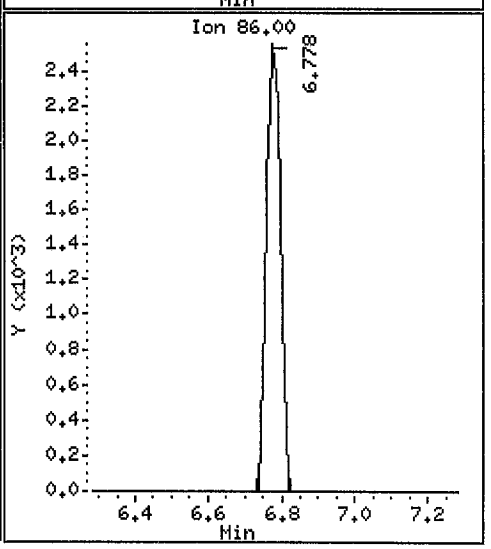












Data File: /var/chem/gcms/mj.i/J090810.b/16g9n1aa.d

Date : 08-SEP-2010 19:31

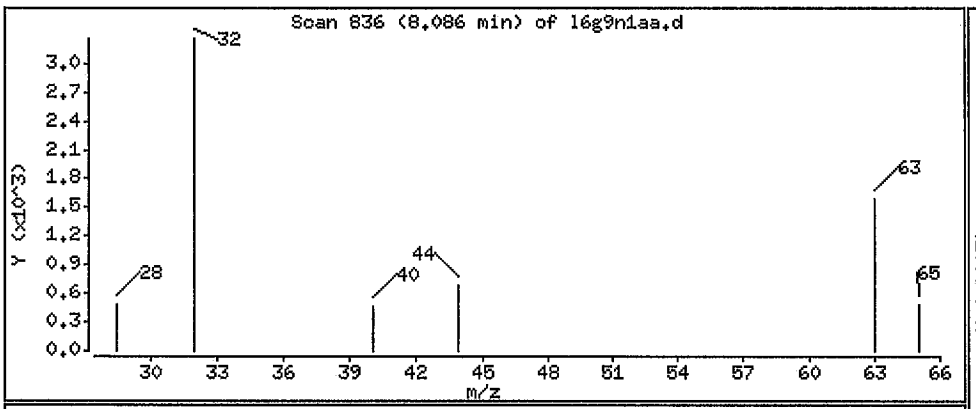
Client ID: SV-5-C-9 Instrument: mj.i

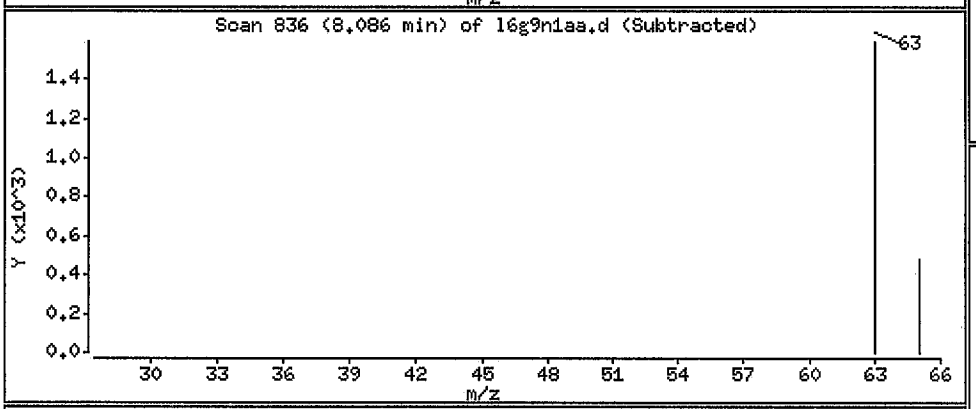
Sample Info: ,,0,,,

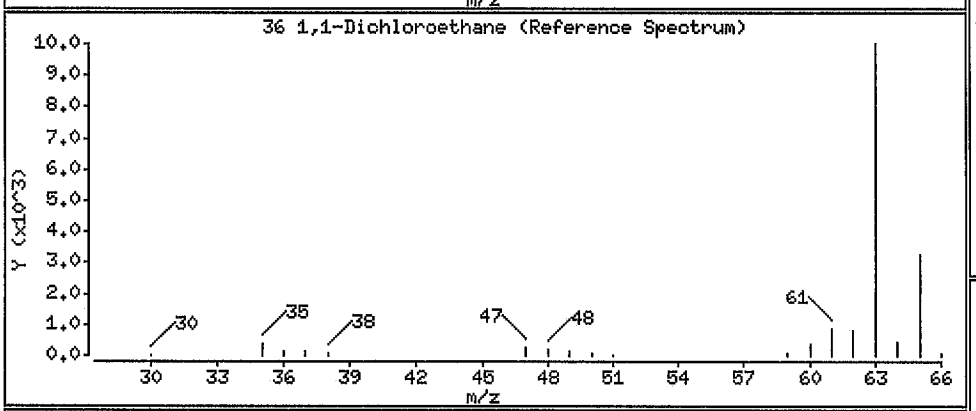
Purge Volume: 500.0 Operator: 7126

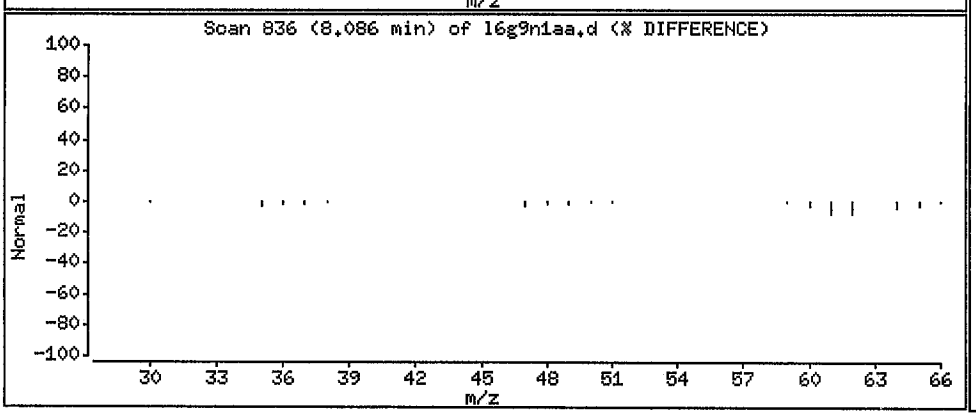
Column phase: Rtx-5 Column diameter: 0.32

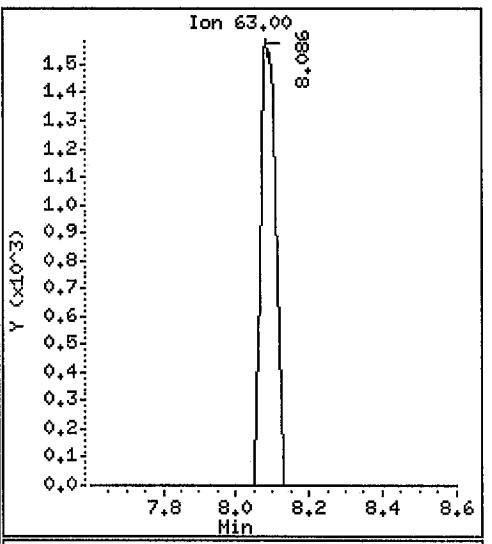
36 1,1-Dichloroethane Concentration: 0.02886 ppb(v/v)

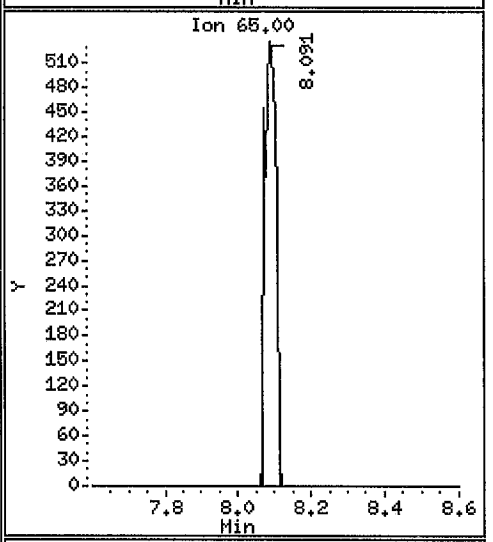


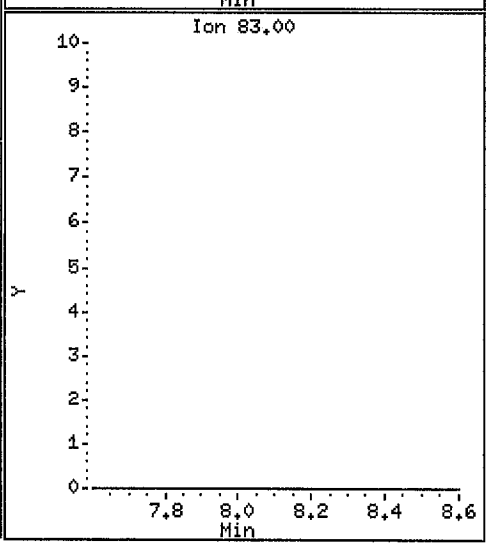












Data File: /var/chem/gcms/mj.i/J090810.b/16g9n1aa.d

Date : 08-SEP-2010 19:31

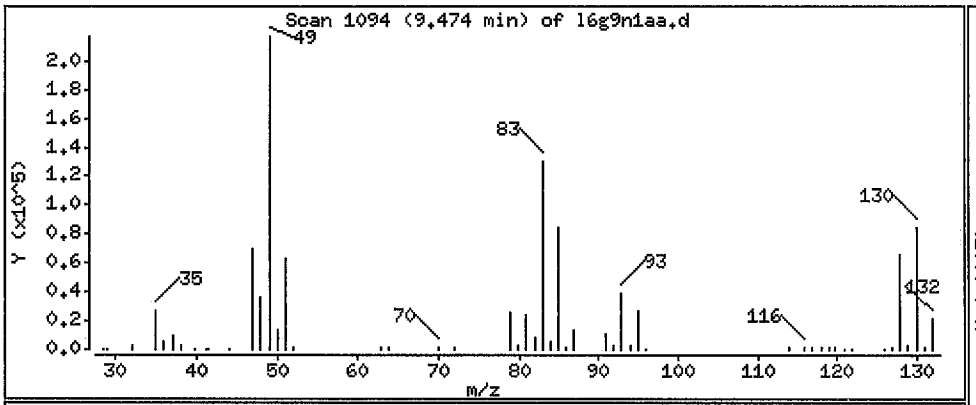
Client ID: SV-5-C-9 Instrument: mj.i

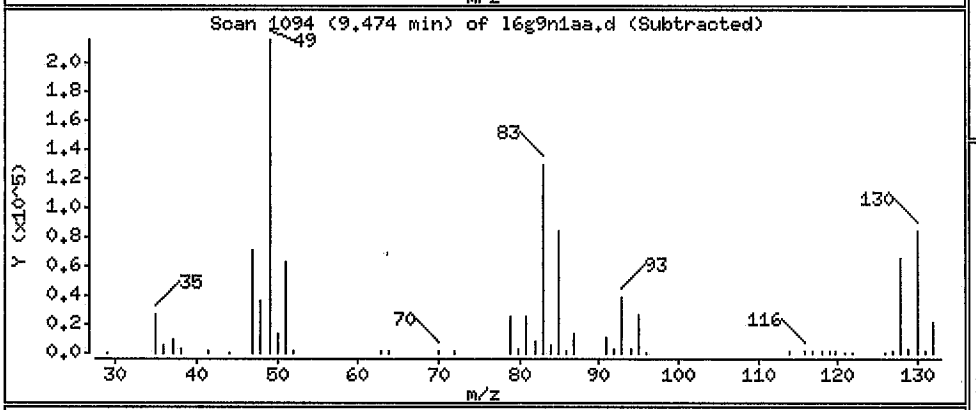
Sample Info: ,,0,,,

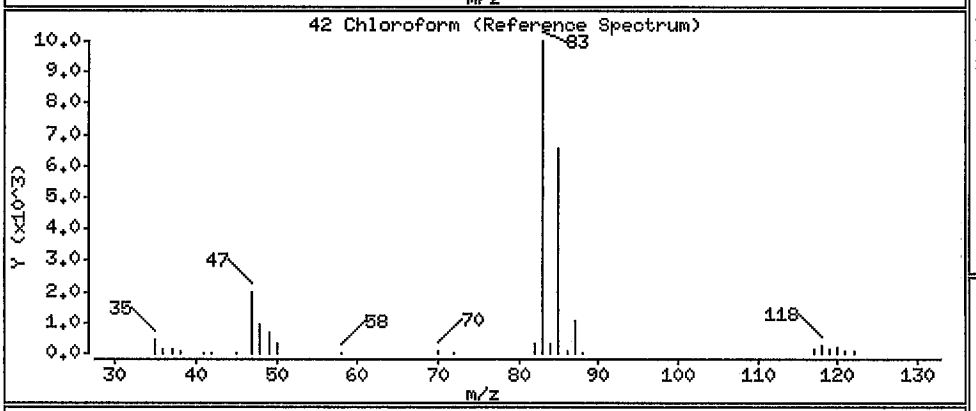
Purge Volume: 500.0 Operator: 7126

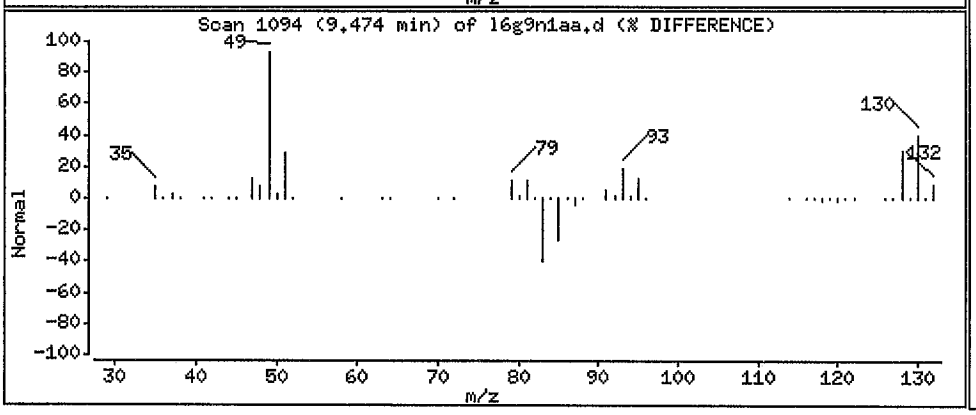
Column phase: Rtx-5 Column diameter: 0.32

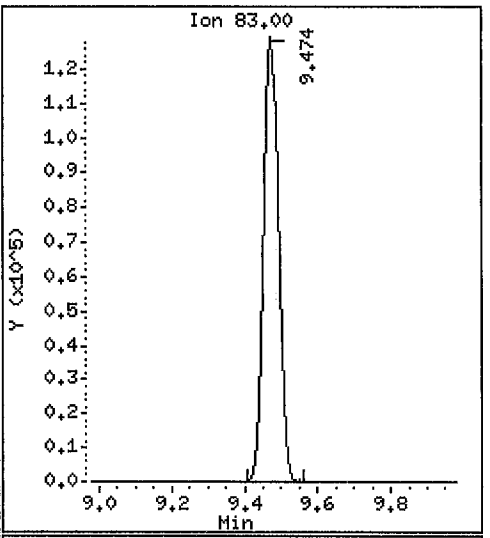
42 Chloroform Concentration: 2.603 ppb(v/v)

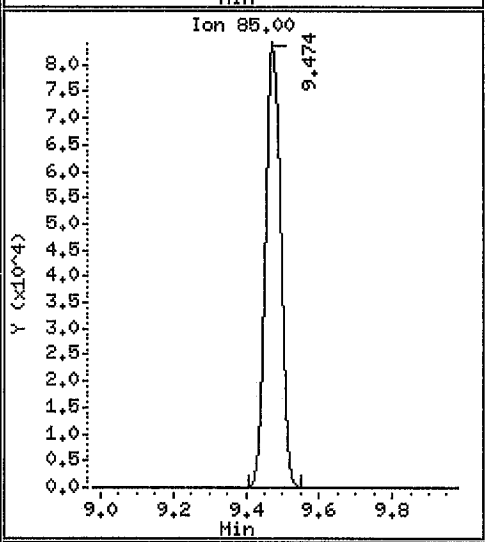


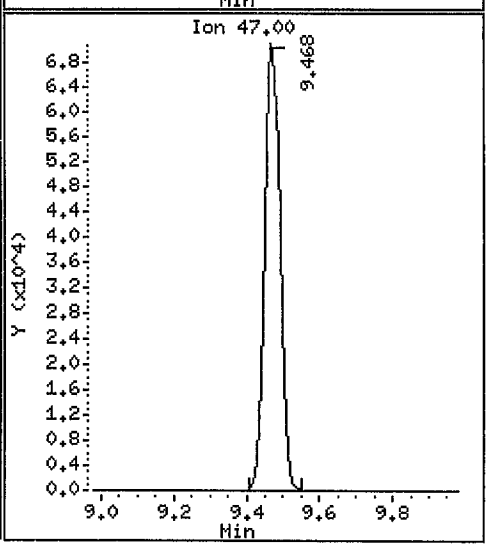












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9n1aa.d

Date : 08-SEP-2010 19:31

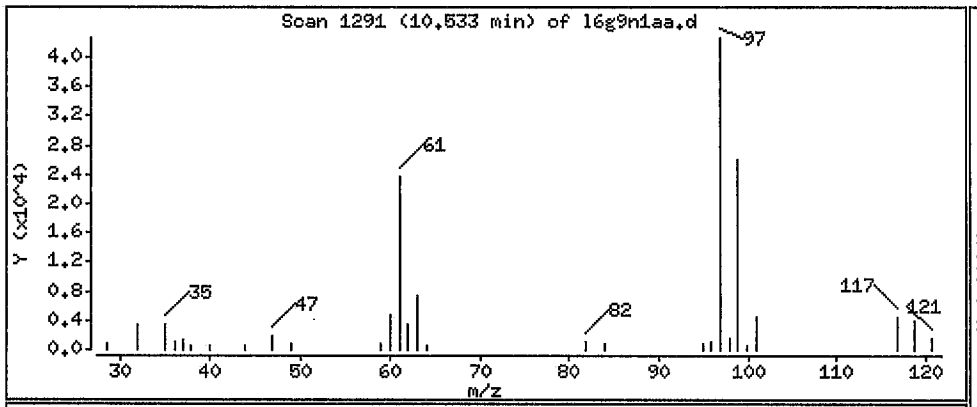
Client ID: SV-5-C-9 Instrument: mj.i

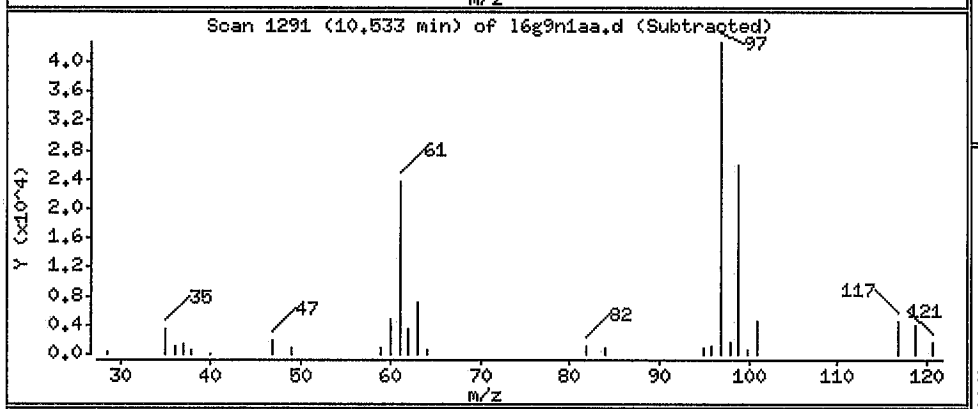
Sample Info: ,,0,,,

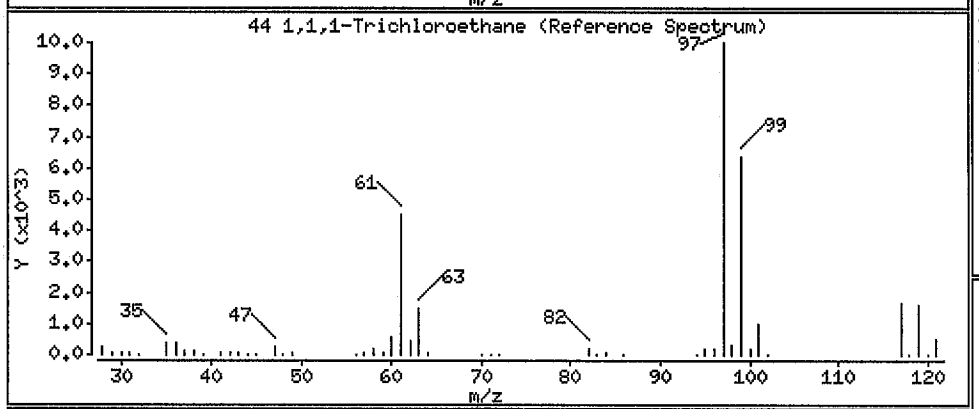
Purge Volume: 500.0 Operator: 7126

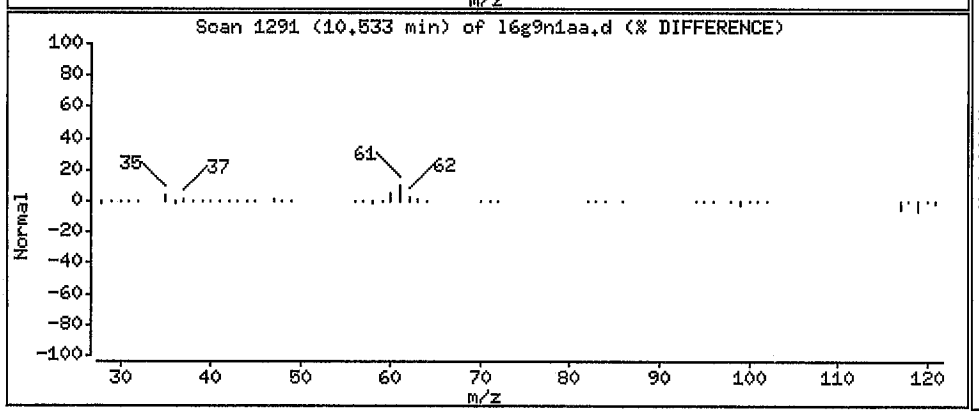
Column phase: Rtx-5 Column diameter: 0.32

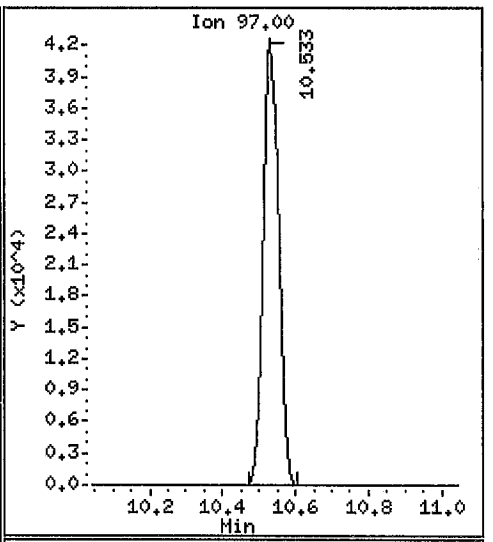
44 1,1,1-Trichloroethane Concentration: 0.8408 ppb(v/v)

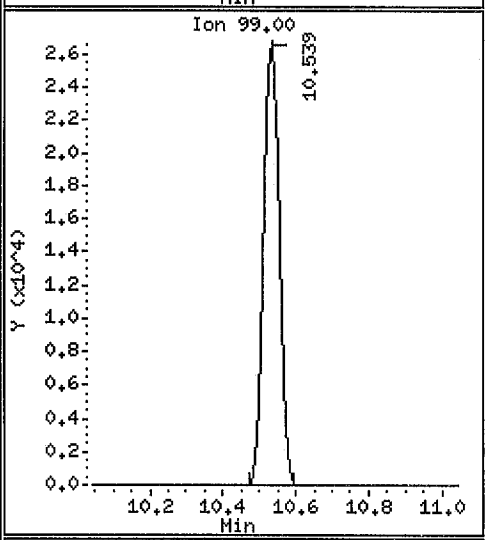


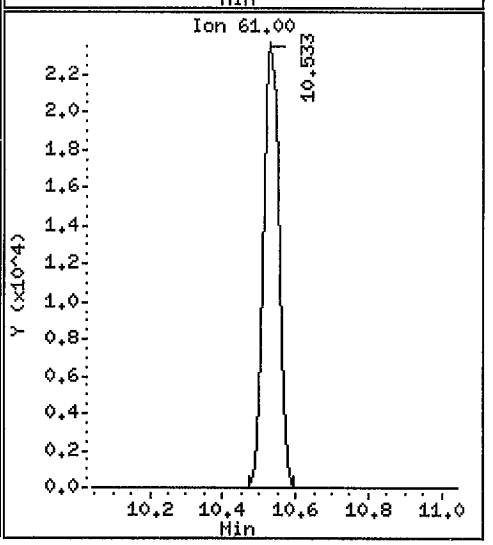












Data File: /var/chem/gcms/mj.i/J090810.b/16g9n1aa.d

Date : 08-SEP-2010 19:31

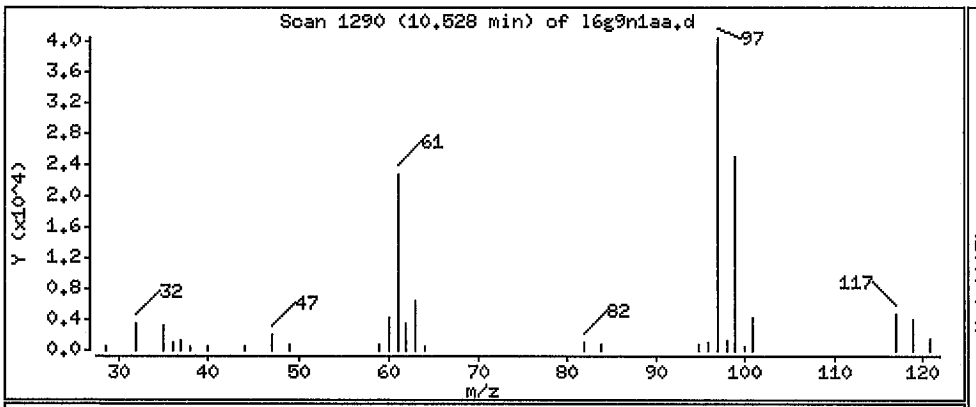
Client ID: SV-5-C-9 Instrument: mj.i

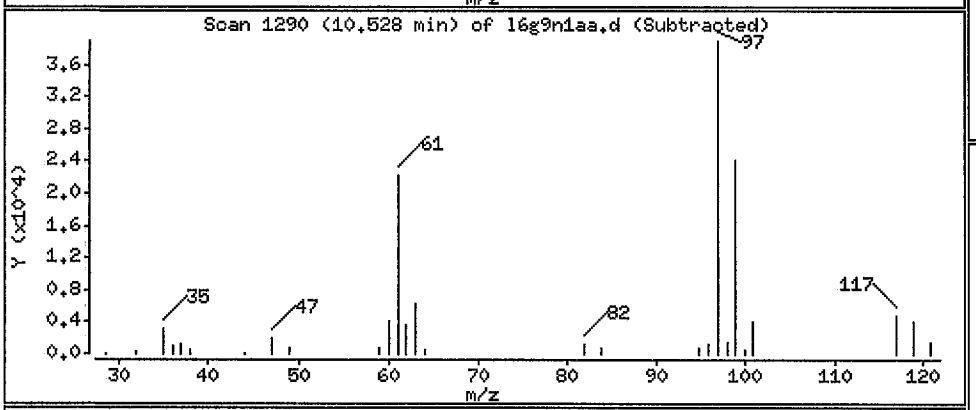
Sample Info: ,,0,,,

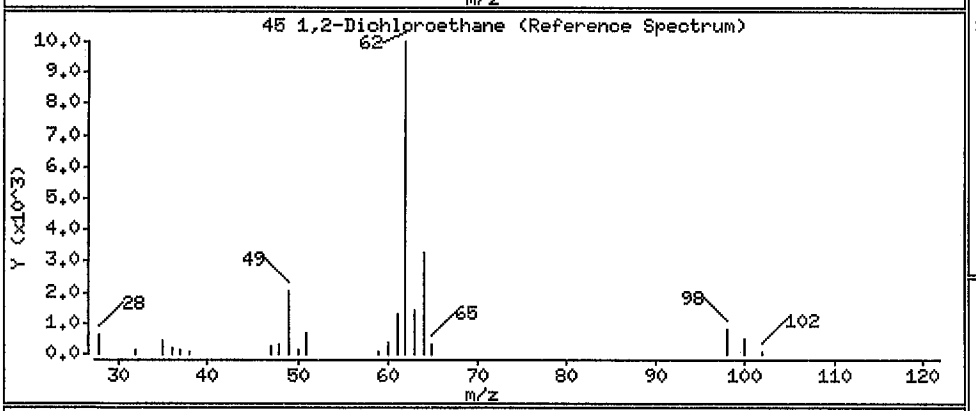
Purge Volume: 500.0 Operator: 7126

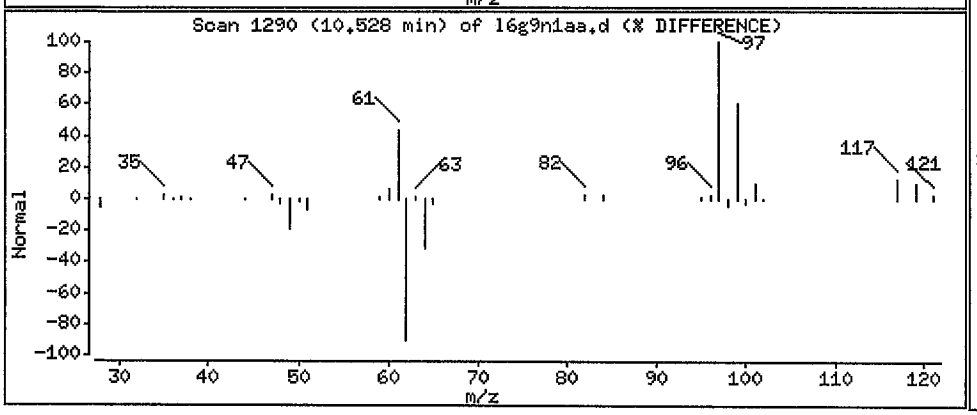
Column phase: Rtx-5 Column diameter: 0.32

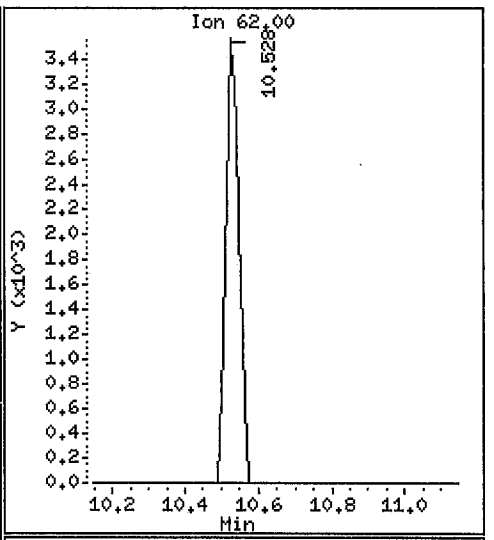
45 1,2-Dichloroethane Concentration: 0.07392 ppb(v/v)

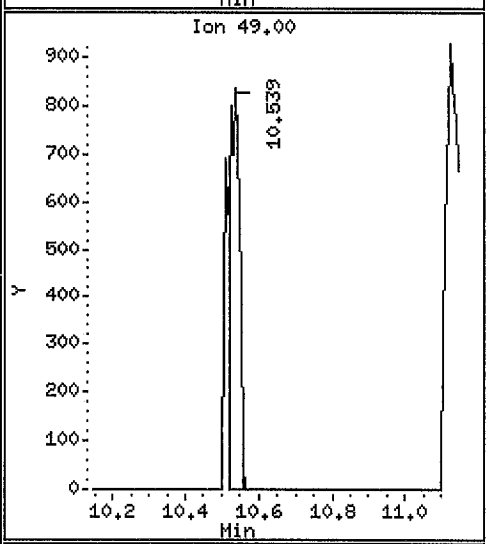


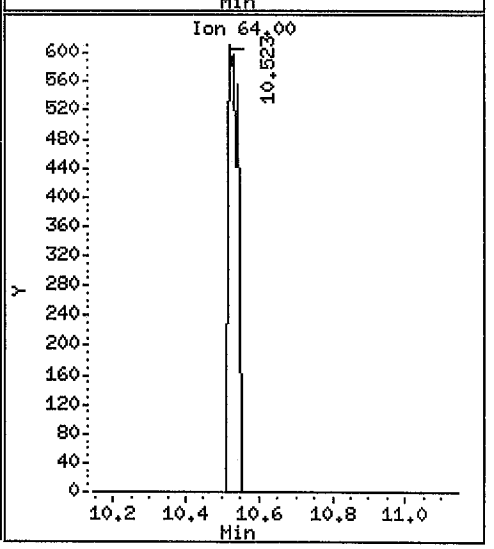












Data File: /var/chem/gcms/mj.i/J090810.b/16g9n1aa.d

Date : 08-SEP-2010 19:31

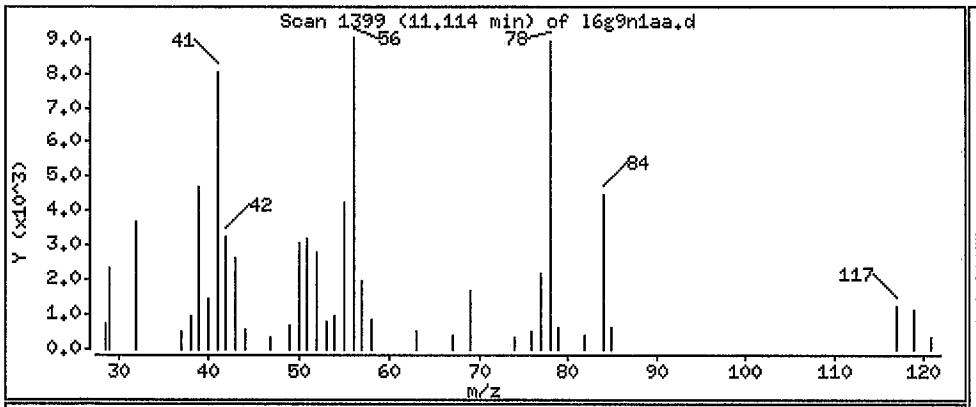
Client ID: SV-5-C-9 Instrument: mj.i

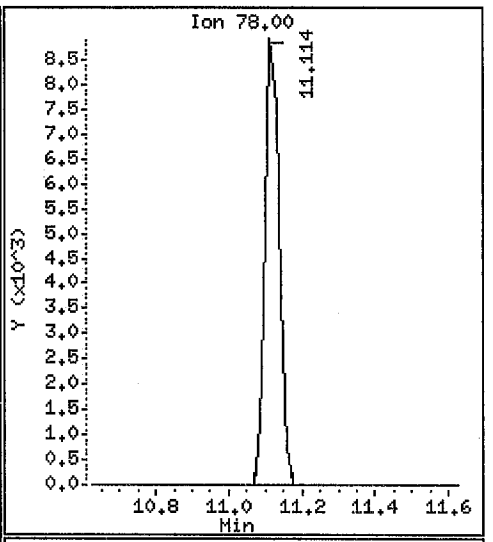
Sample Info: ,,0,,,

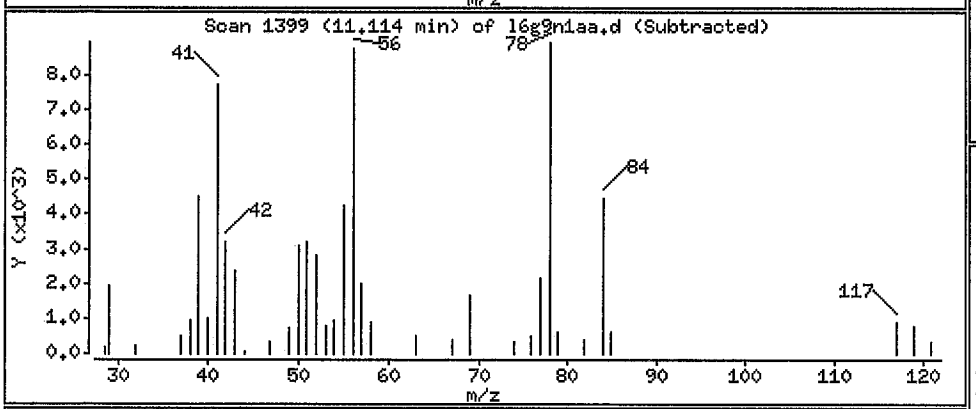
Purge Volume: 500.0 Operator: 7126

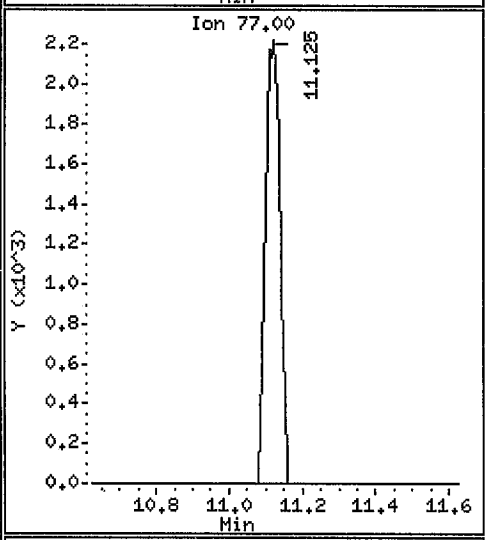
Column phase: Rtx-5 Column diameter: 0.32

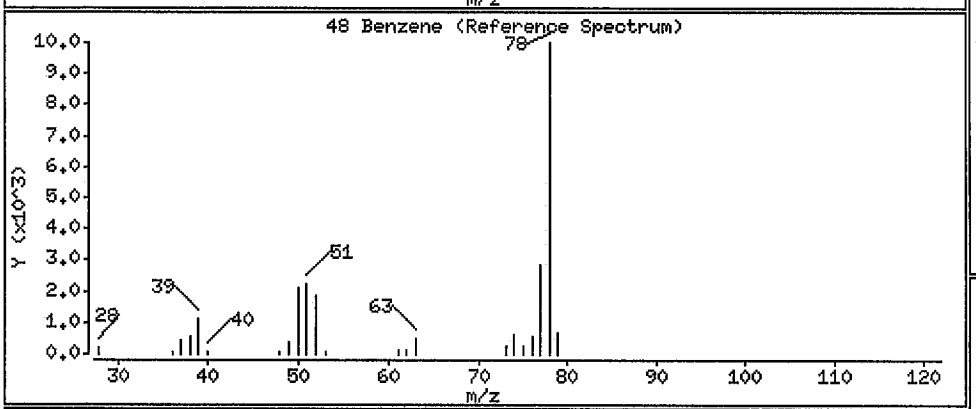
48 Benzene Concentration: 0.1210 ppb(v/v)

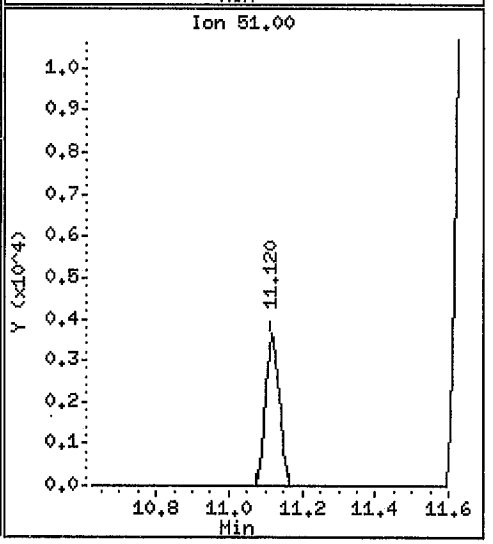


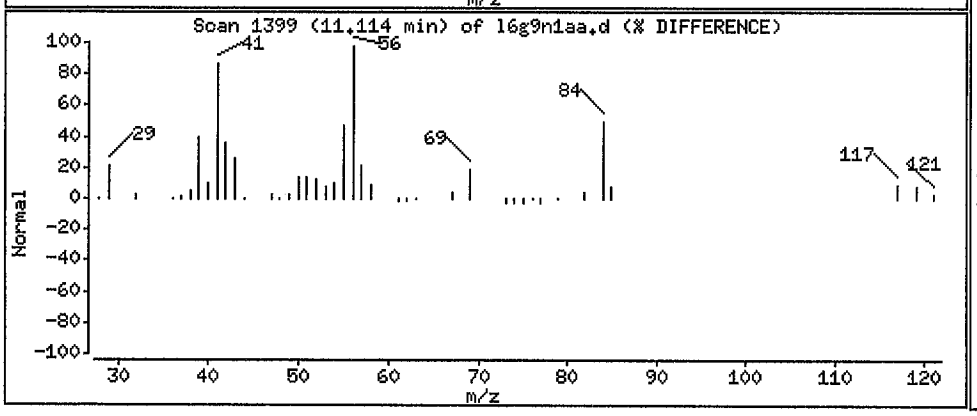












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9n1aa.d

Date : 08-SEP-2010 19:31

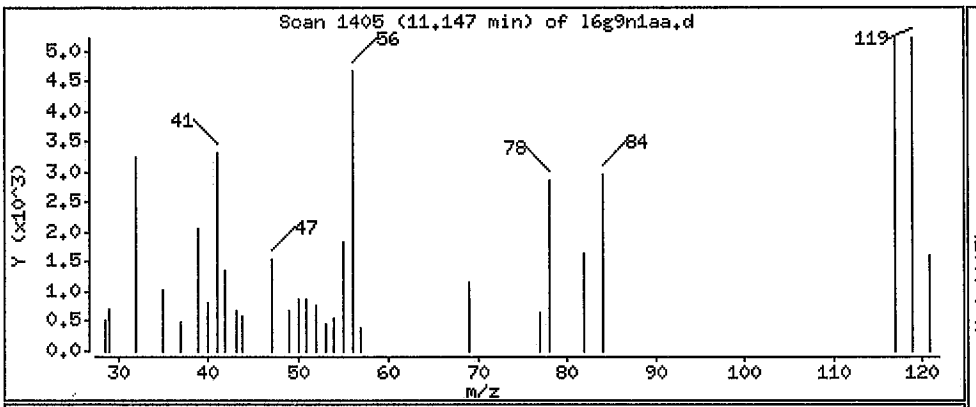
Client ID: SV-5-C-9 Instrument: mj.i

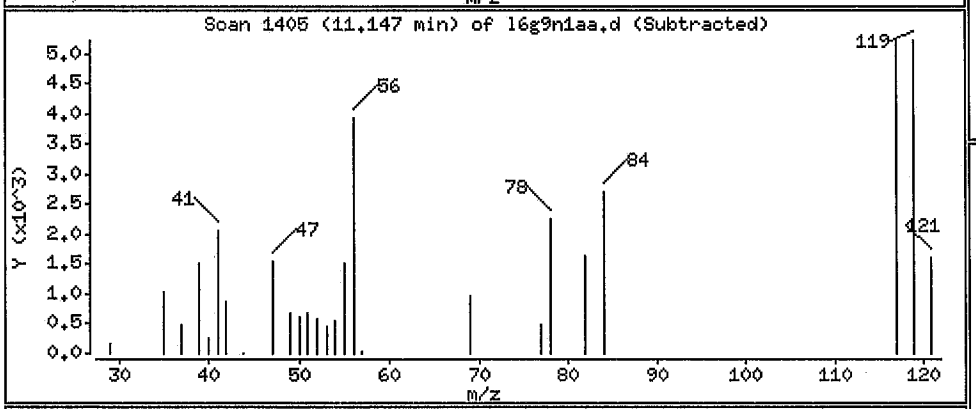
Sample Info: ,,0,,,

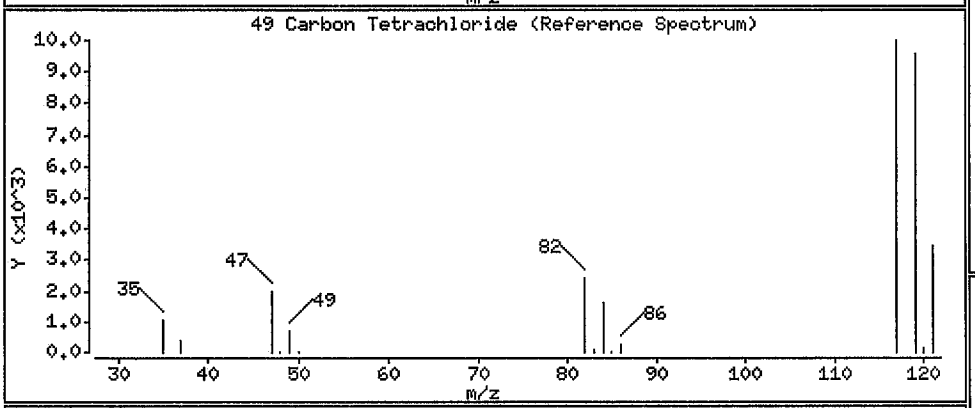
Purge Volume: 500.0 Operator: 7126

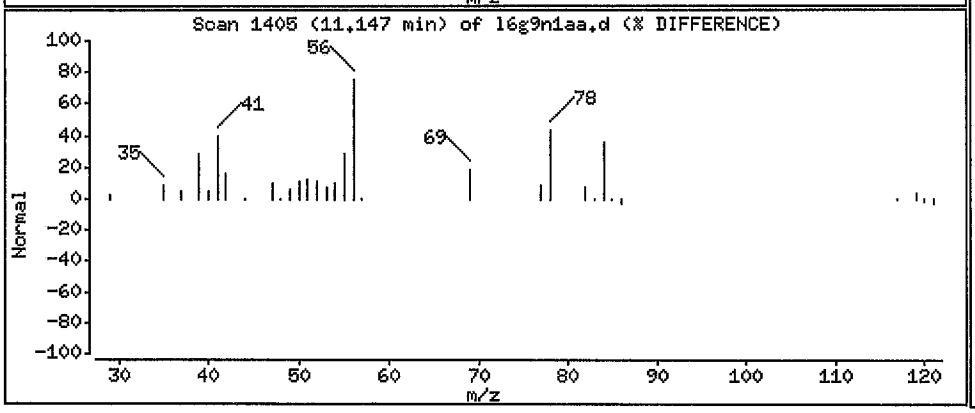
Column phase: Rtx-5 Column diameter: 0.32

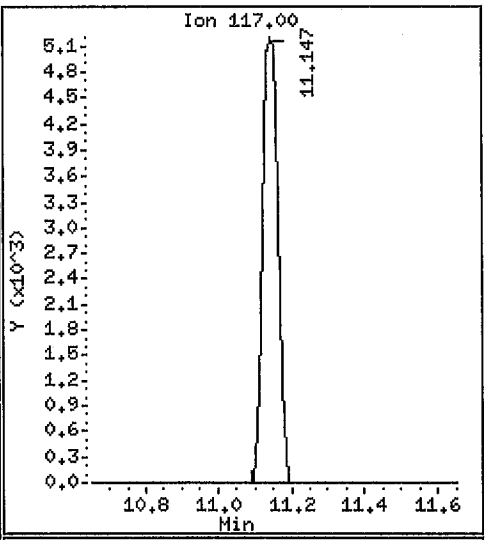
49 Carbon Tetrachloride Concentration: 0.09655 ppb(v/v)

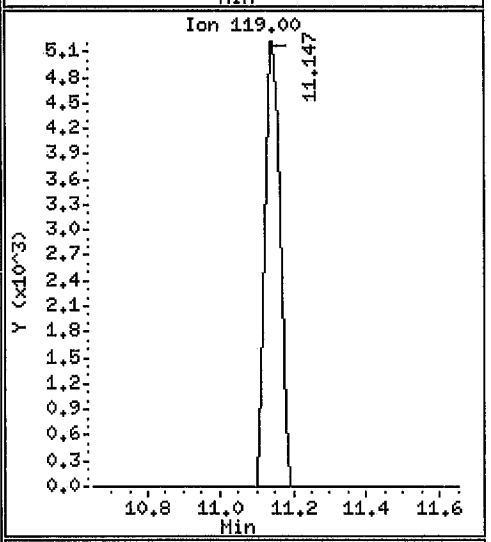


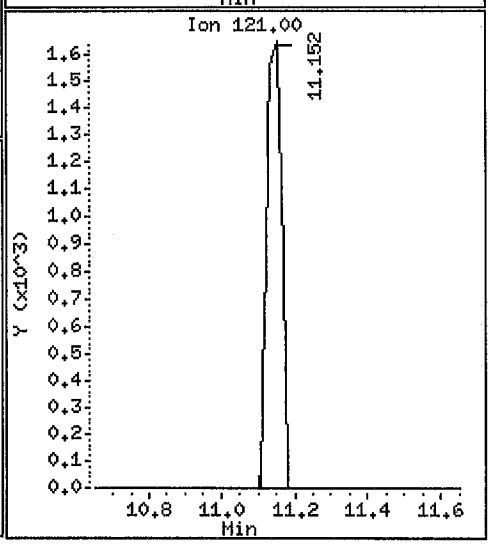












Data File: /var/chem/gcms/mj.i/J090810.b/16g9n1aa.d

Date : 08-SEP-2010 19:31

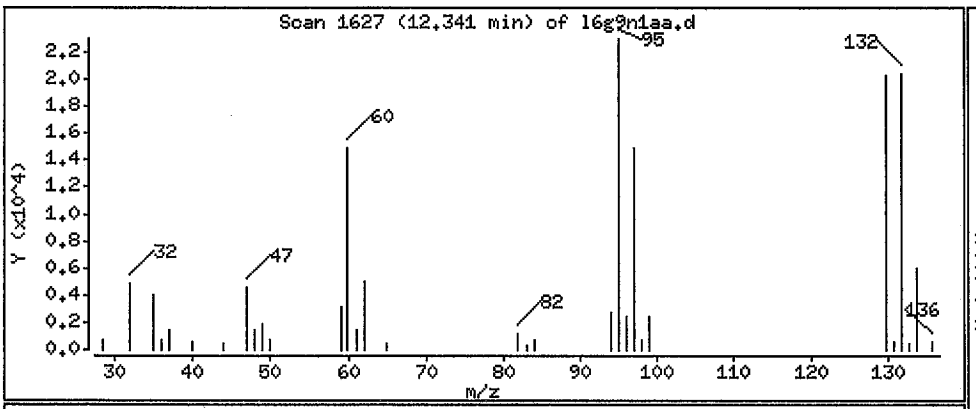
Client ID: SV-5-C-9 Instrument: mj.i

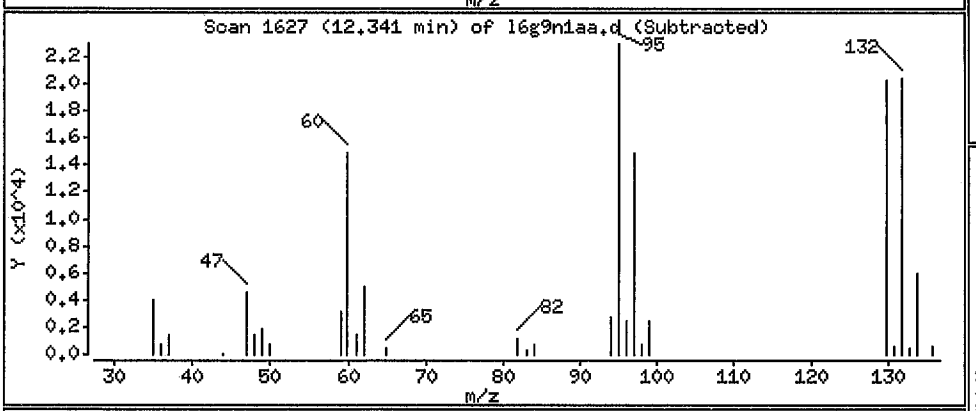
Sample Info: ,,0,,,

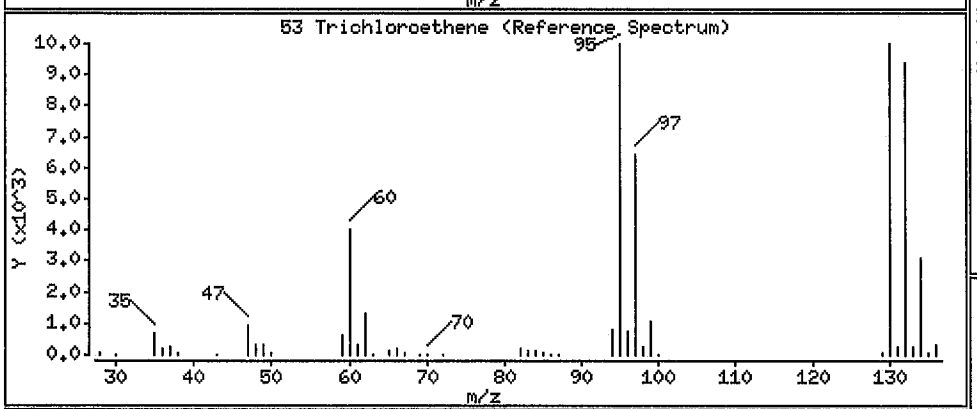
Purge Volume: 500.0 Operator: 7126

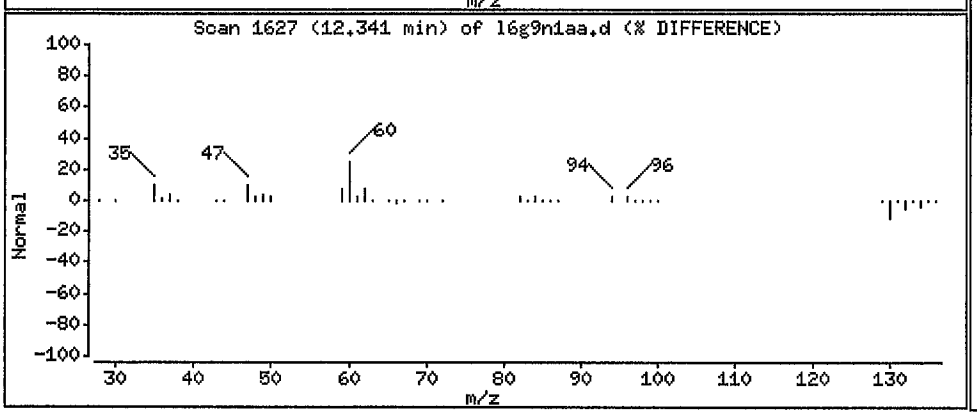
Column phase: Rtx-5 Column diameter: 0.32

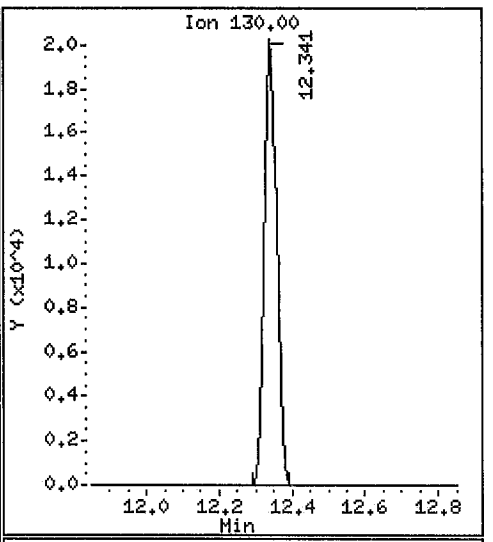
53 Trichloroethene Concentration: 0.4911 ppb(v/v)

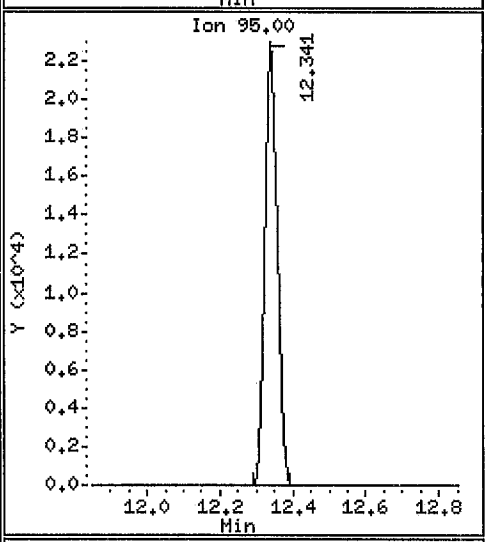


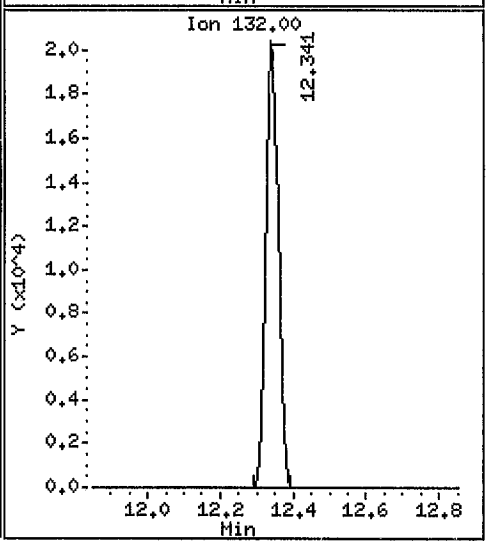












Data File: /var/chem/gcms/mj.i/J090810.b/16g9n1aa.d

Date : 08-SEP-2010 19:31

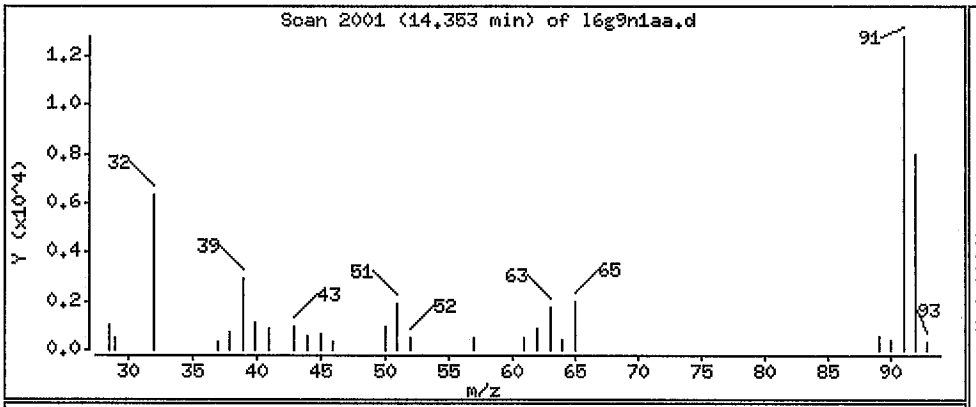
Client ID: SV-5-C-9 Instrument: mj.i

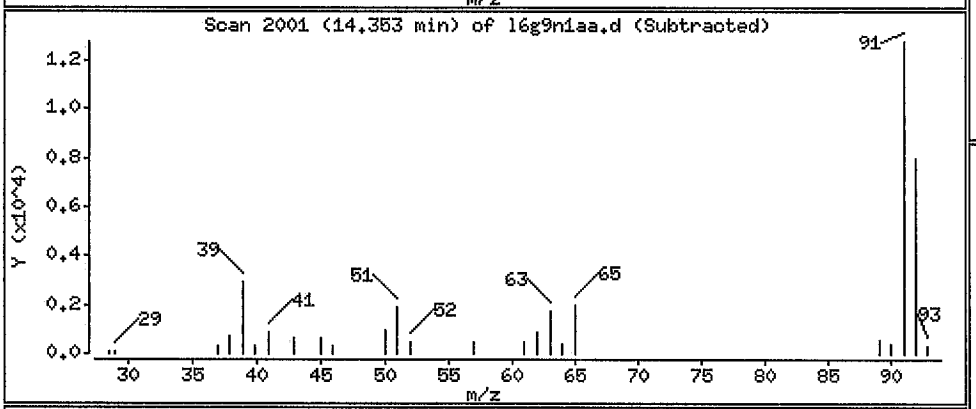
Sample Info: ,,0,,,

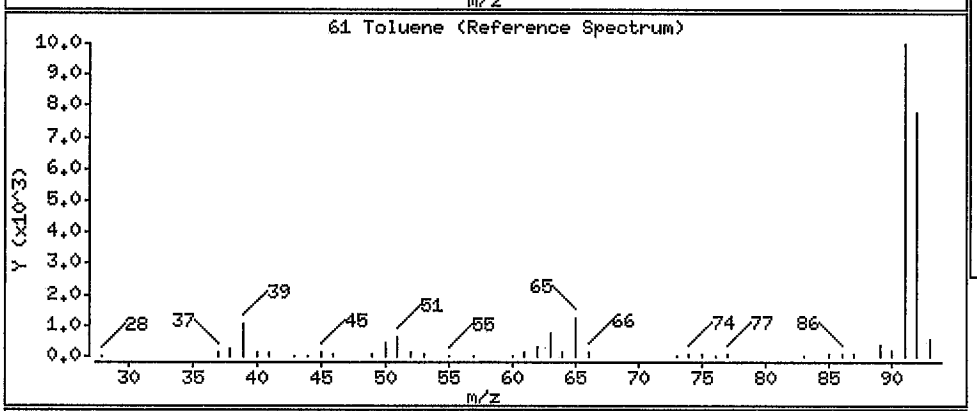
Purge Volume: 500.0 Operator: 7126

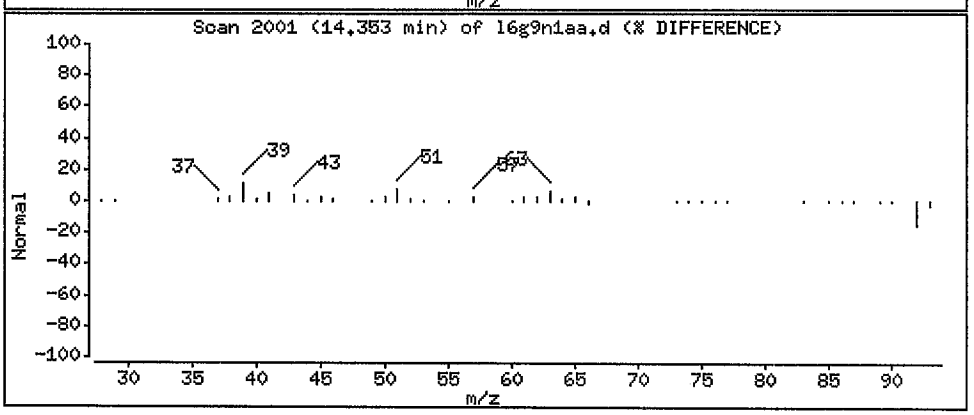
Column phase: Rtx-5 Column diameter: 0.32

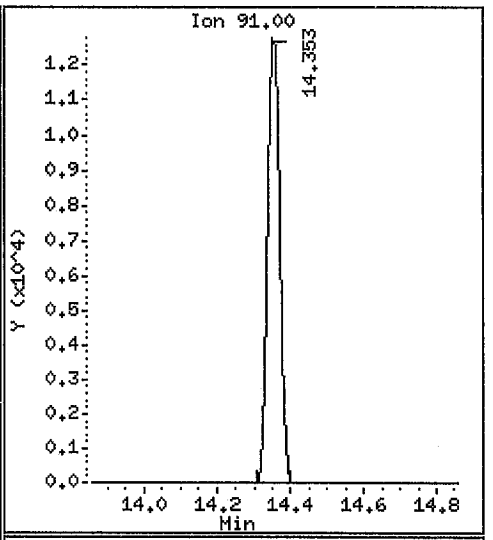
61 Toluene Concentration: 0.1496 ppb(v/v)

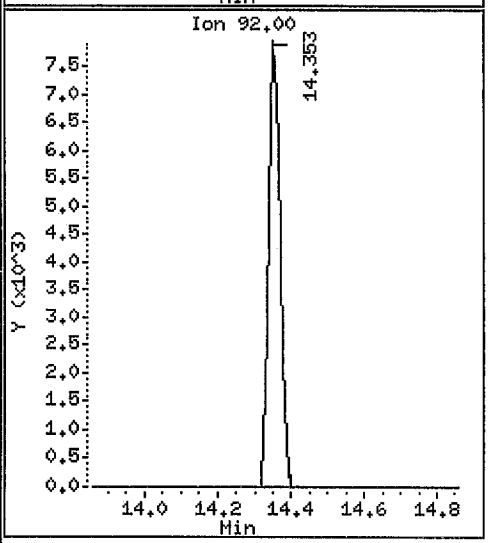












Data File: /var/chem/gcms/mj.i/J090810.b/16g9n1aa.d

Date : 08-SEP-2010 19:31

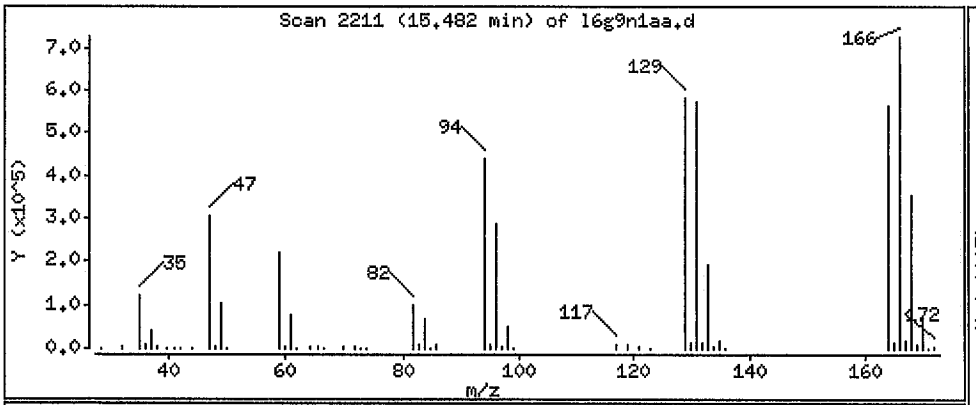
Client ID: SV-5-C-9 Instrument: mj.i

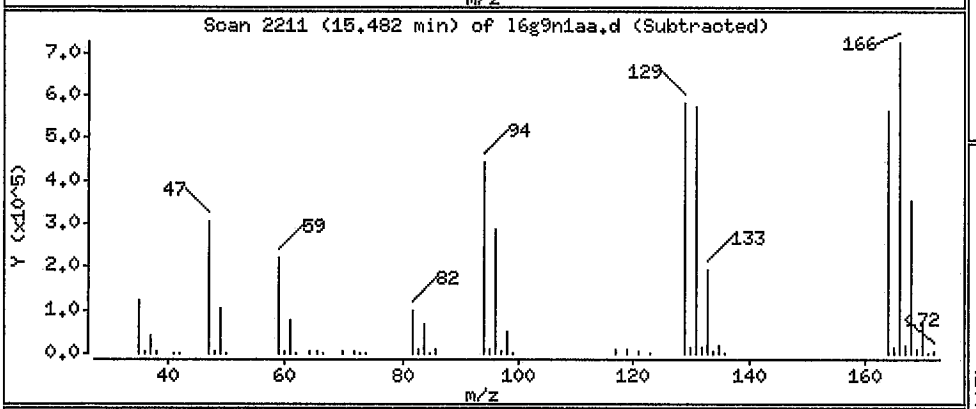
Sample Info: ,,0,,,

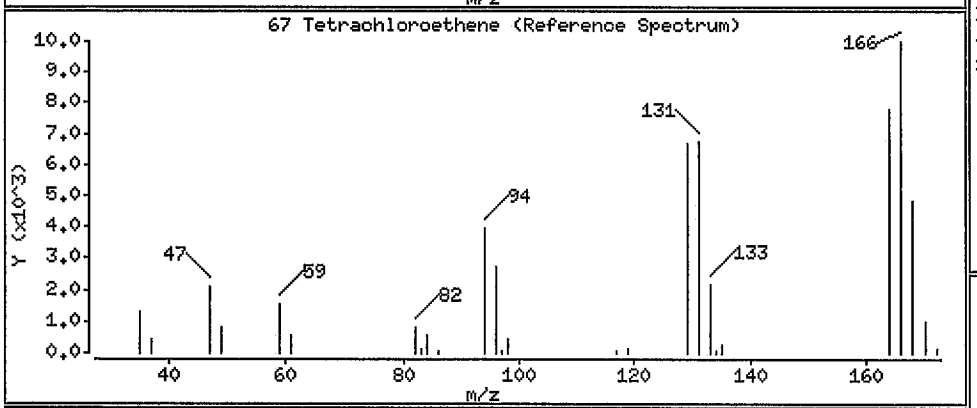
Purge Volume: 500.0 Operator: 7126

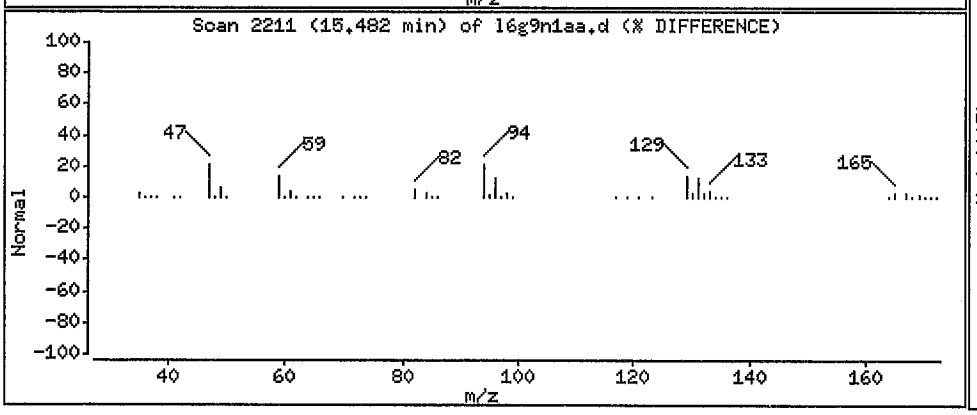
Column phase: Rtx-5 Column diameter: 0.32

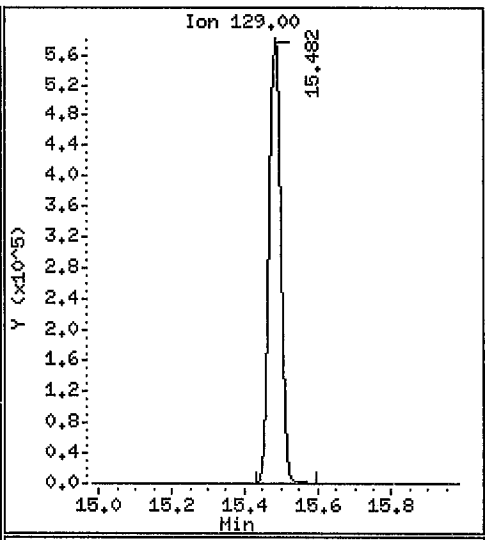
67 Tetrachloroethene Concentration: 15.72 ppb(v/v)

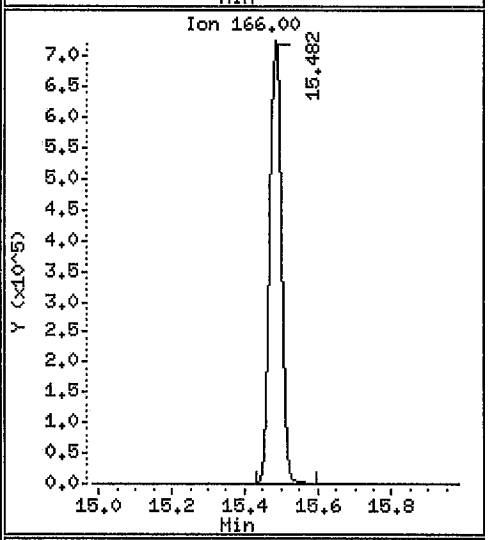


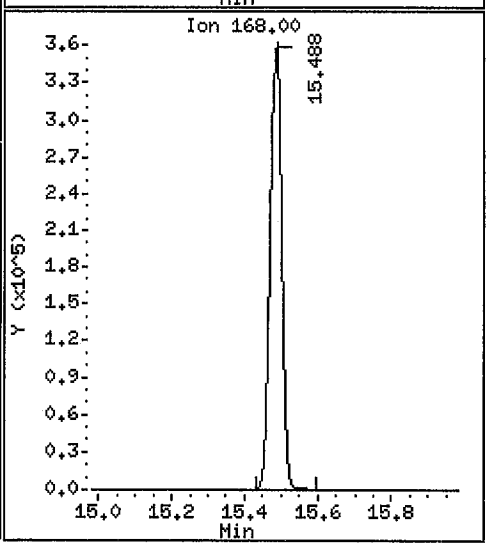












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9n1aa.d

Date : 08-SEP-2010 19:31

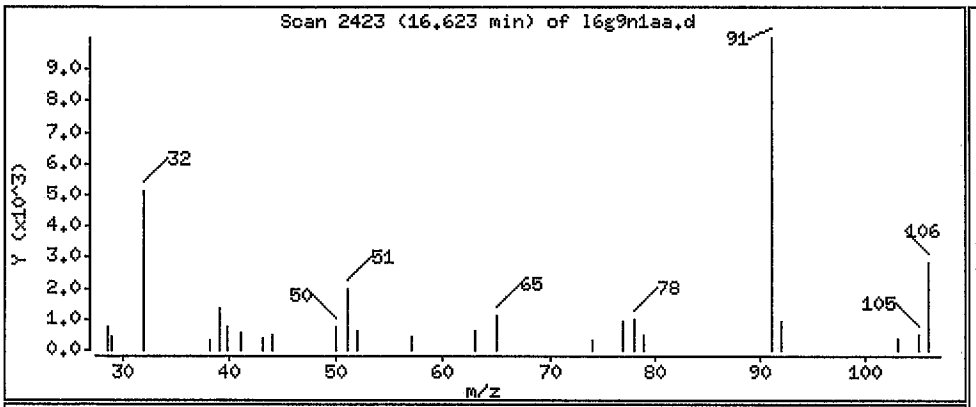
Client ID: SV-5-C-9 Instrument: mj.i

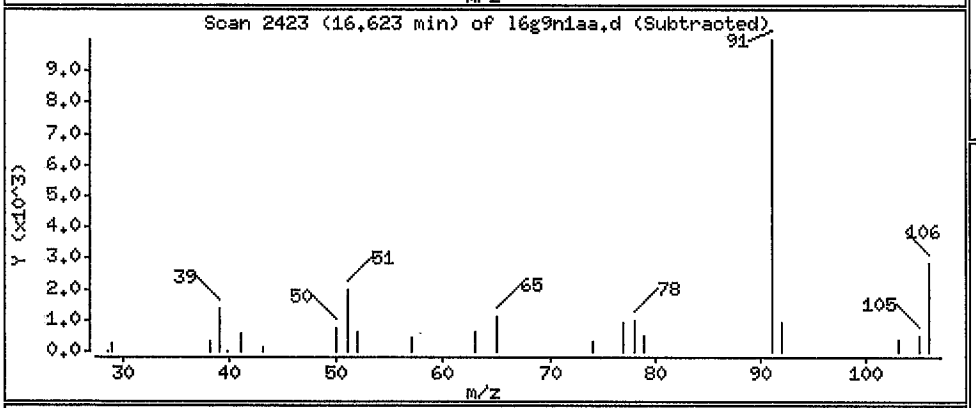
Sample Info: ,,0,,,

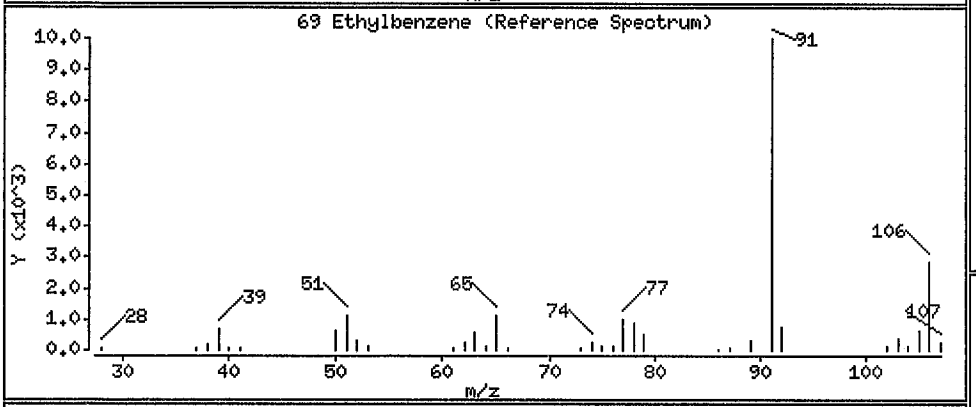
Purge Volume: 500.0 Operator: 7126

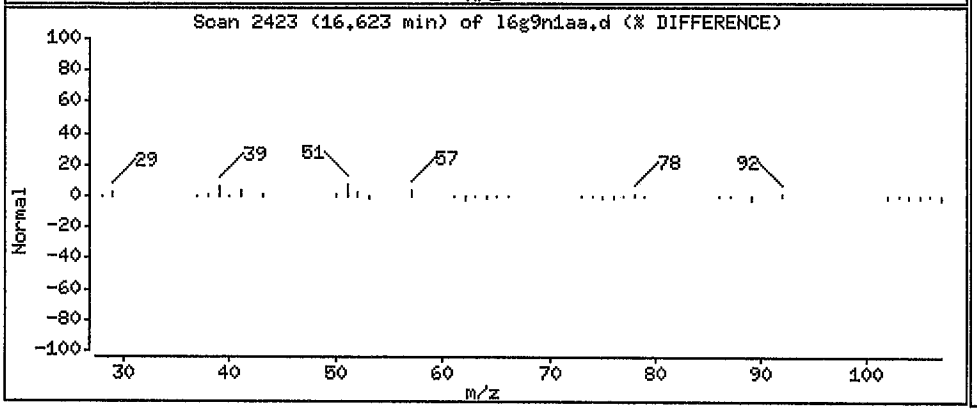
Column phase: Rtx-5 Column diameter: 0.32

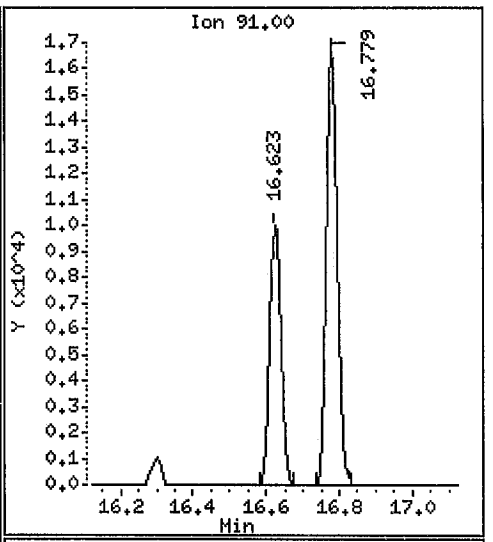
69 Ethylbenzene Concentration: 0.09407 ppb(v/v)

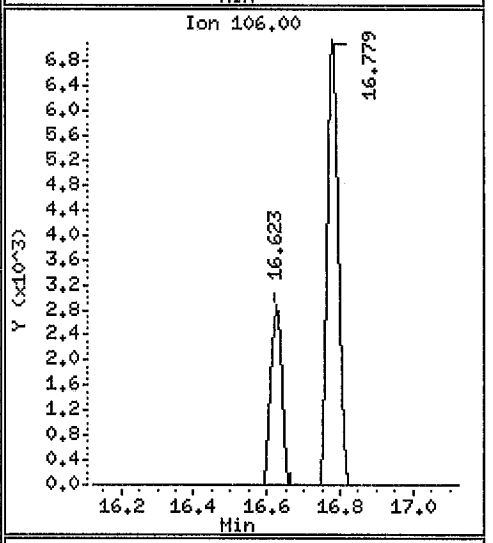


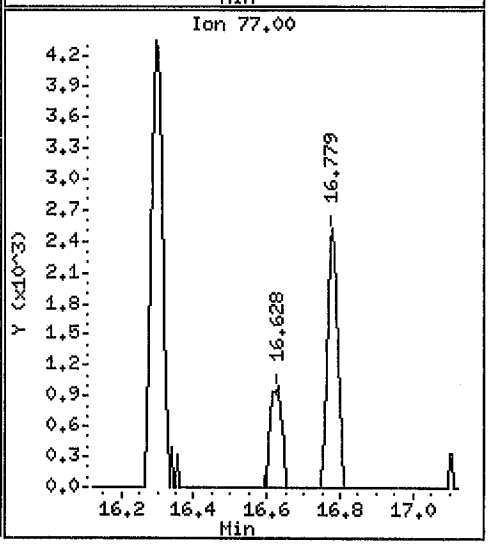












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9n1aa.d

Date : 08-SEP-2010 19:31

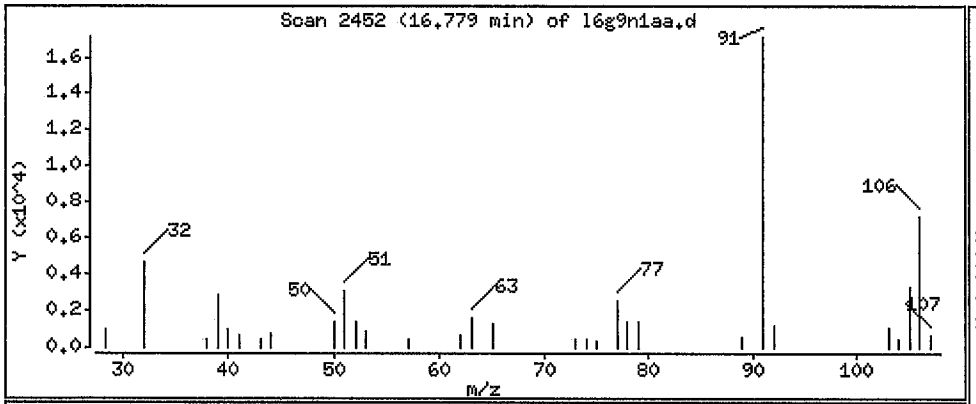
Client ID: SV-5-C-9 Instrument: mj.i

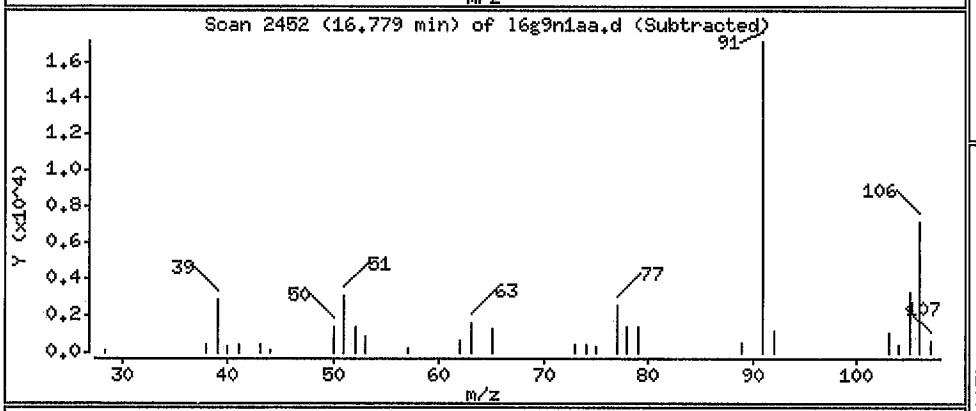
Sample Info: ,,0,,,

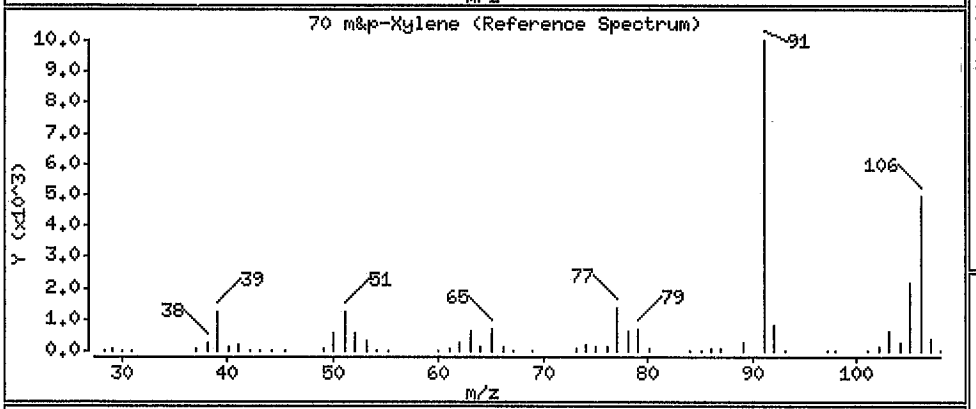
Purge Volume: 500.0 Operator: 7126

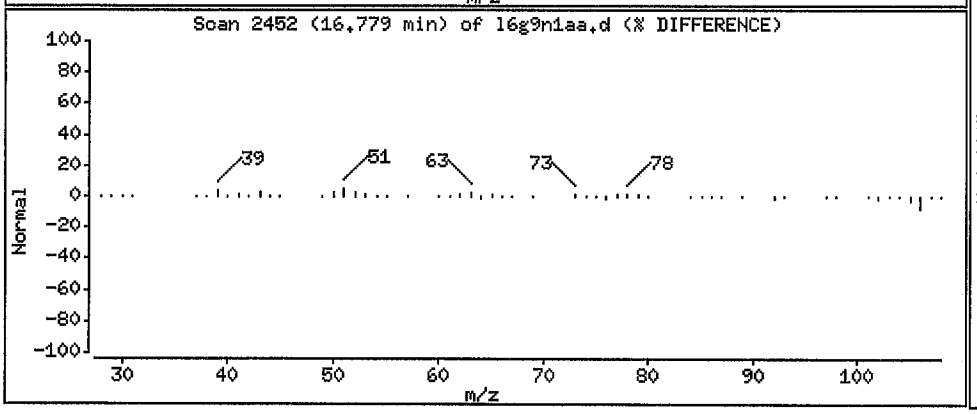
Column phase: Rtx-5 Column diameter: 0.32

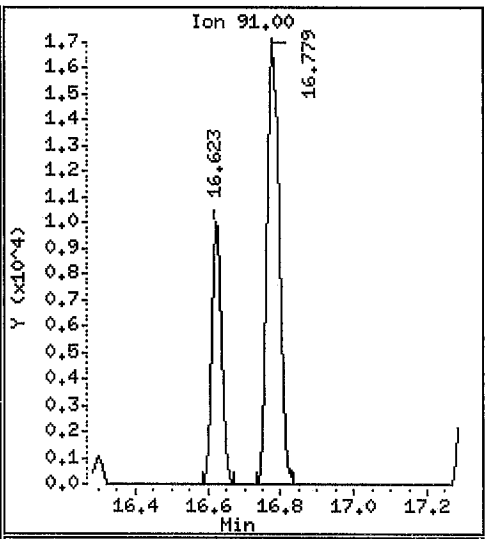
70 m&p-Xylene Concentration: 0.2362 ppb(v/v)

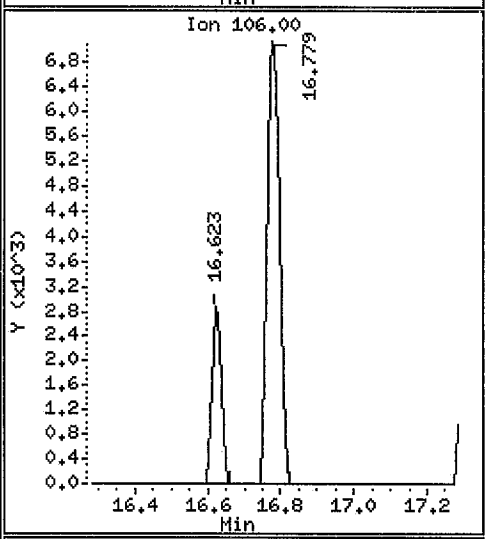


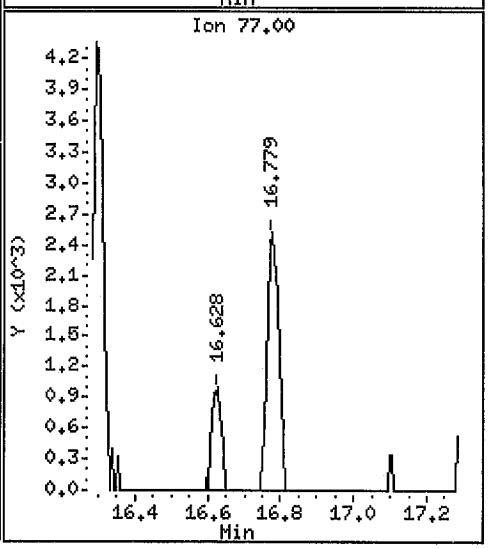












Data File: /var/chem/gcms/mj.i/J090810.b/16g9n1aa.d

Date : 08-SEP-2010 19:31

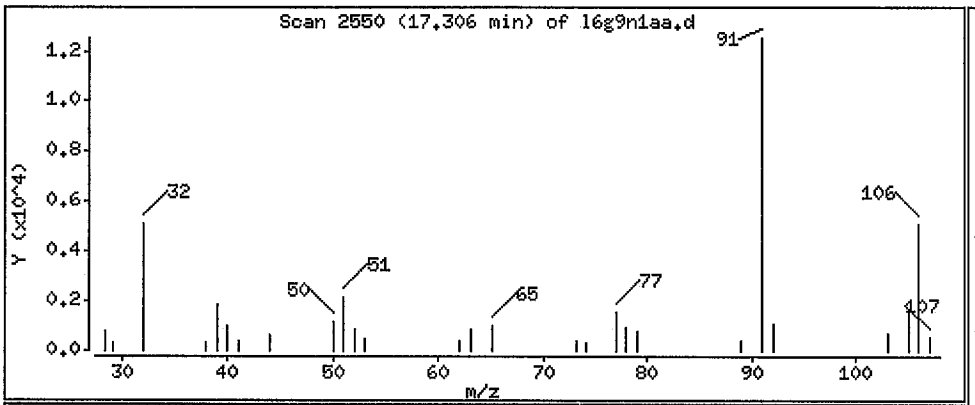
Client ID: SV-5-C-9 Instrument: mj.i

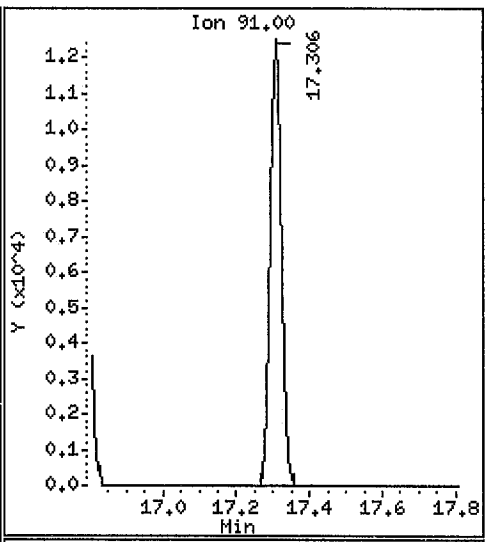
Sample Info: ,,0,,,

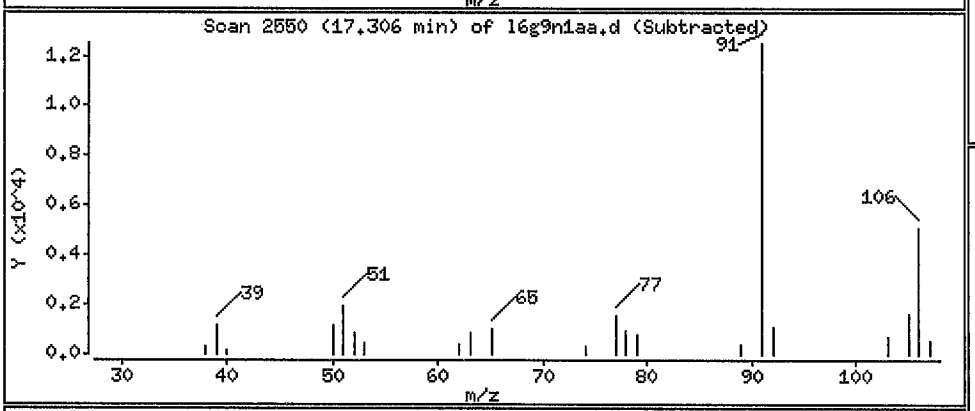
Purge Volume: 500.0 Operator: 7126

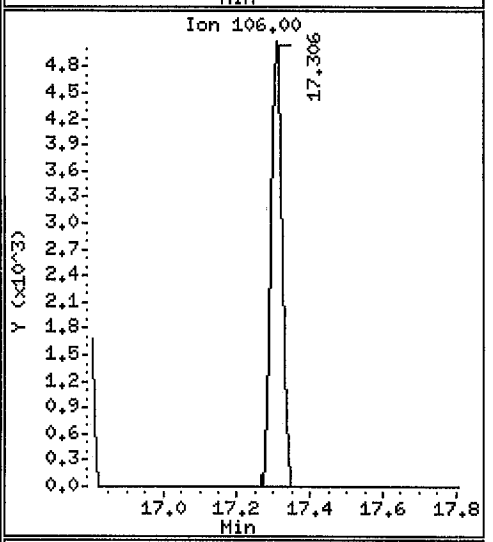
Column phase: Rtx-5 Column diameter: 0.32

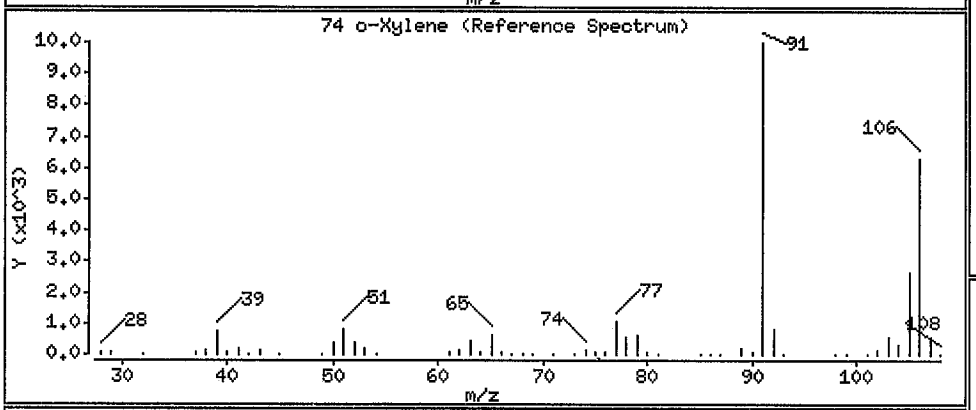
74 o-Xylene Concentration: 0.1464 ppb(v/v)

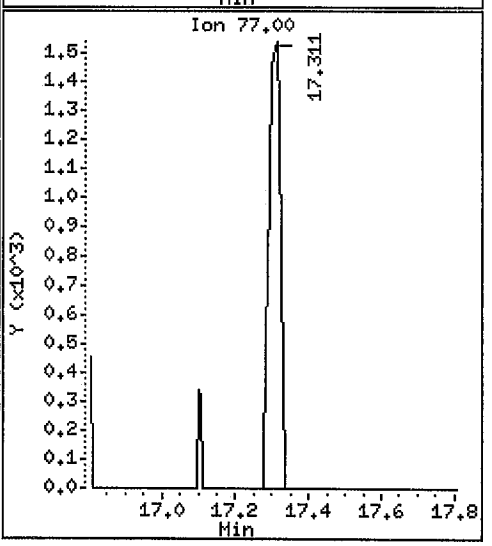


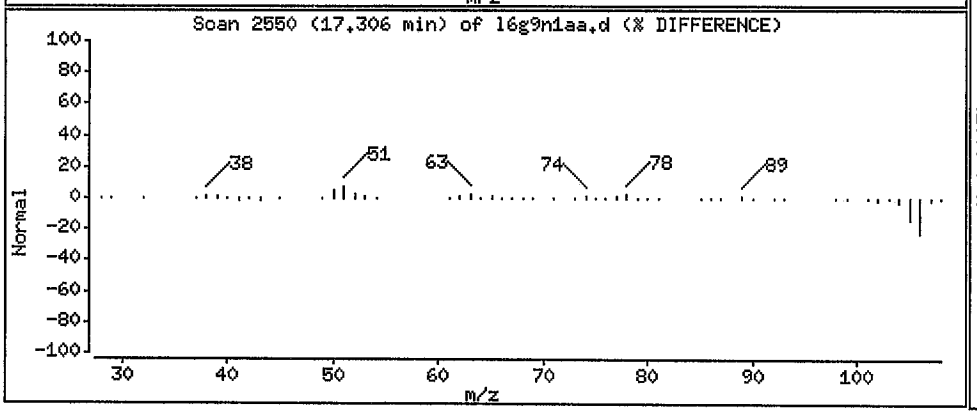












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9n1aa.d

Date : 08-SEP-2010 19:31

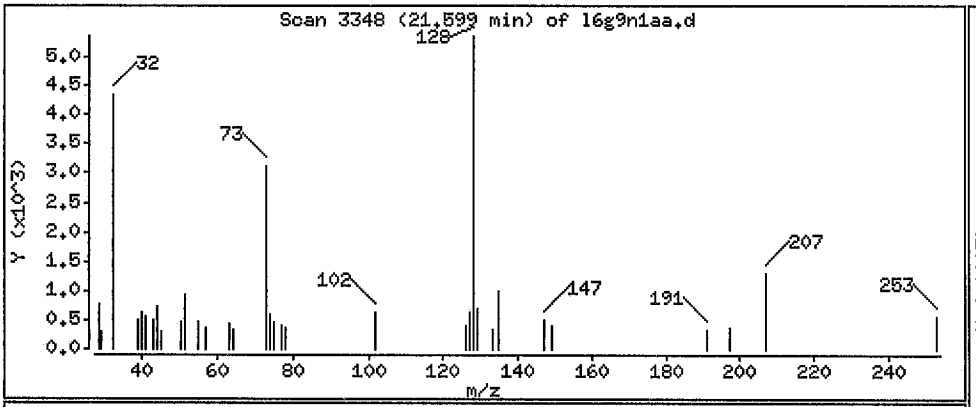
Client ID: SV-5-C-9 Instrument: mj.i

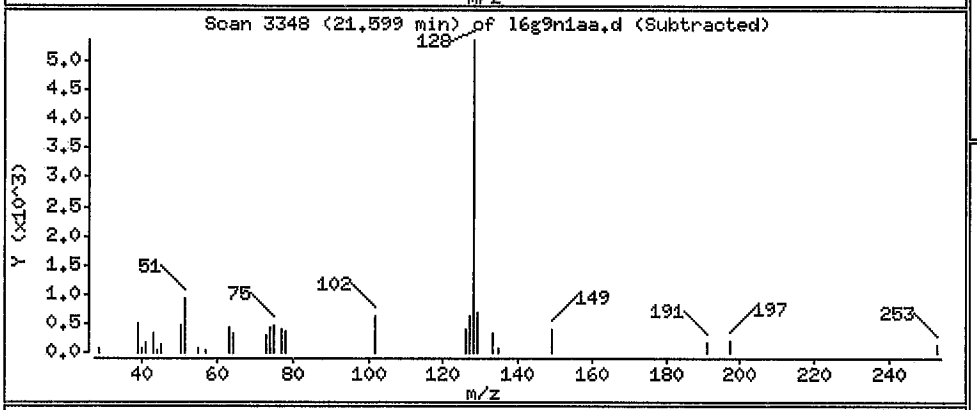
Sample Info: ,,0,,,

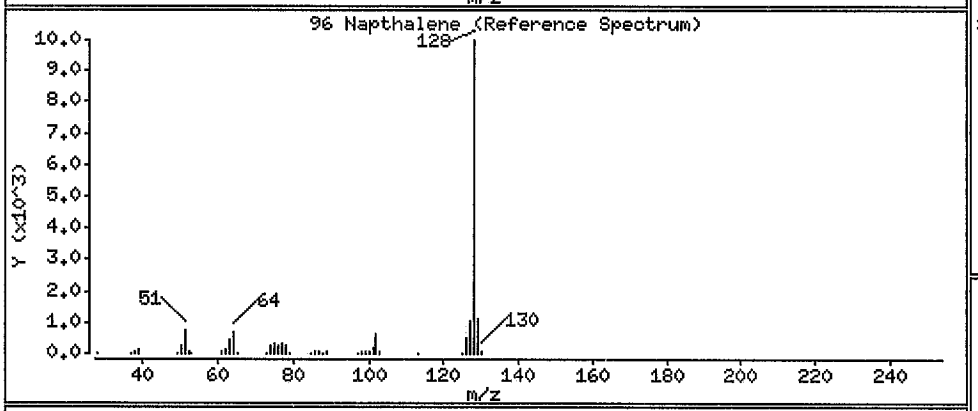
Purge Volume: 500.0 Operator: 7126

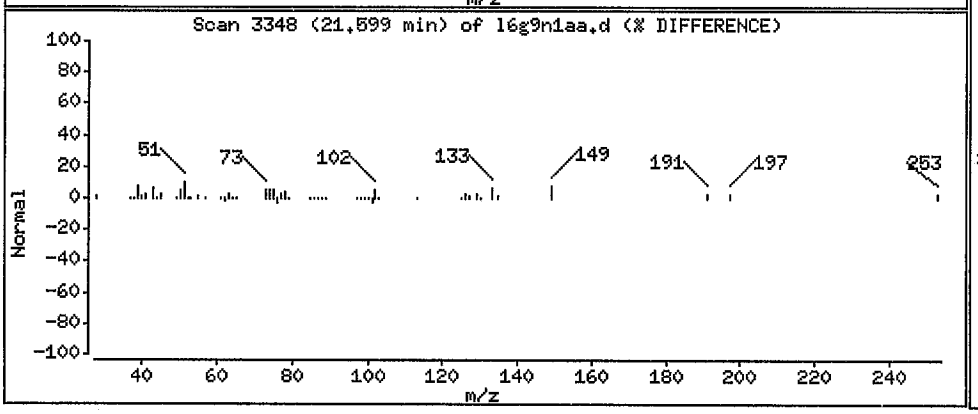
Column phase: Rtx-5 Column diameter: 0.32

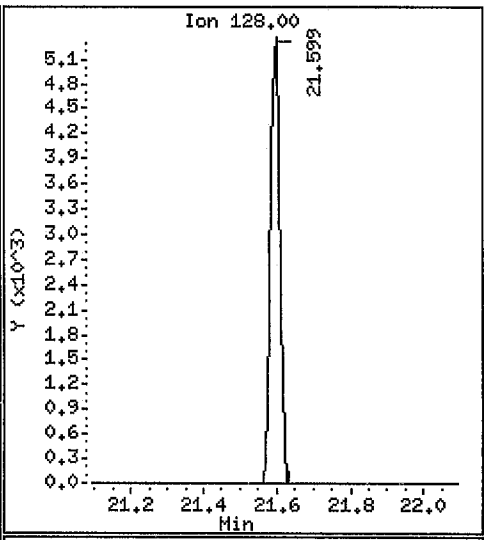
96 Napthalene Concentration: 0.05437 ppb(v/v)

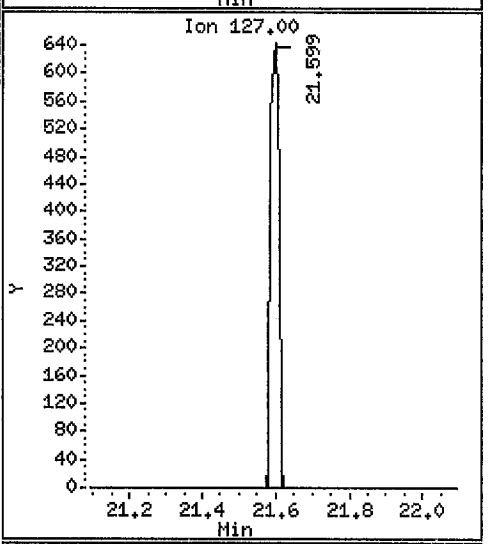


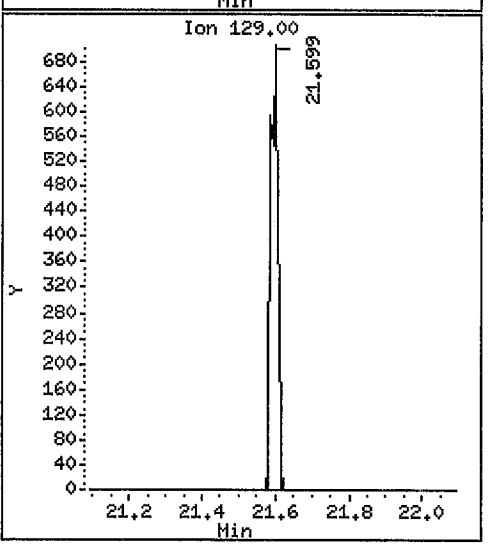












Tetra Tech NUS, Inc

Client Sample ID: ISG-01-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 010	**Work Order #**	L6G9P1AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	5	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.18**	**0.40**	**0.12**	**0.57 J**	**1.3**	**0.37**
Carbon tetrachloride	**0.27**	**0.40**	**0.075**	**1.7 J**	**2.5**	**0.47**
Chlorodifluoromethane	**0.50**	**0.40**	**0.075**	**1.8**	**1.4**	**0.27**
Chloroform	**0.090**	**0.40**	**0.075**	**0.44 J**	**2.0**	**0.37**
Dichlorodifluoromethane	**0.50**	**0.40**	**0.14**	**2.5**	**2.0**	**0.67**
1,1-Dichloroethane	ND	0.40	0.050	ND	1.6	0.20
1,2-Dichloroethane	ND	0.40	0.095	ND	1.6	0.38
cis-1,2-Dichloroethene	ND	0.40	0.12	ND	1.6	0.48
trans-1,2-Dichloroethene	**0.65**	**0.40**	**0.10**	**2.6**	**1.6**	**0.40**
1,1-Dichloroethene	ND	0.40	0.065	ND	1.6	0.26
Ethylbenzene	**0.30**	**0.40**	**0.14**	**1.3 J**	**1.7**	**0.59**
Methylene chloride	**0.53**	**1.0**	**0.090**	**1.8 J**	**3.5**	**0.31**
Methyl tert-butyl ether	ND	2.0	0.34	ND	7.2	1.2
Naphthalene	**24**	**1.0**	**0.18**	**130**	**5.2**	**0.94**
Tetrachloroethene	**2.7**	**0.40**	**0.080**	**18**	**2.7**	**0.54**
Toluene	**3.7**	**0.40**	**0.10**	**14**	**1.5**	**0.40**
1,2,4-Trichlorobenzene	ND	2.0	0.20	ND	15	1.4
1,1,1-Trichloroethane	**0.068**	**0.40**	**0.060**	**0.37 J**	**2.2**	**0.33**
1,1,2-Trichloroethane	ND	0.40	0.10	ND	2.2	0.57
Trichloroethene	**1.9**	**0.20**	**0.070**	**10**	**1.1**	**0.38**
Vinyl chloride	ND	0.40	0.14	ND	1.0	0.37
m-Xylene & p-Xylene	**1.2**	**0.40**	**0.25**	**5.2**	**1.7**	**1.1**
o-Xylene	**0.67**	**0.40**	**0.12**	**2.9**	**1.7**	**0.52**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9p1aa.d
Report Date: 10-Sep-2010 14:30

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/l6g9p1aa.d
Lab Smp Id: L6G9P1AA Client Smp ID: ISG-01-9
Inj Date : 08-SEP-2010 20:22
Operator : 7126 Inst ID: mj.i
Smp Info : ,5,0,,,
Misc Info : J090810,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 10-Sep-2010 14:16 barlozha Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 10
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
* 1	Bromochloromethane	128	9.473	9.479	(1.000)	174833	4.00000	4.000
* 2	1,4-Difluorobenzene	114	11.636	11.642	(1.000)	851496	4.00000	4.000
* 3	Chlorobenzene-d5	117	16.300	16.300	(1.000)	733481	4.00000	4.000
$ 6	4-Bromofluorobenzene	95	17.914	17.914	(1.099)	575196	4.13170	4.132
7	Chlorodifluoromethane	67	3.900	3.901	(0.412)	2230	0.10087	0.5043
8	Dichlorodifluoromethane	85	3.965	3.970	(0.418)	19080	0.10051	0.5025
31	Methylene Chloride	84	6.784	6.784	(0.716)	6003	0.10552	0.5276
34	trans-1,2-Dichloroethene	96	7.644	7.650	(0.807)	7583	0.13042	0.6521
42	Chloroform	83	9.473	9.479	(1.000)	2272	0.01791	0.08954
44	1,1,1-Trichloroethane	97	10.528	10.544	(1.111)	1792	0.01355	0.06777
48	Benzene	78	11.125	11.125	(0.956)	6369	0.03539	0.1769
49	Carbon Tetrachloride	117	11.141	11.152	(0.957)	7516	0.05329	0.2664
53	Trichloroethene	130	12.341	12.352	(1.061)	33918	0.38753	1.938
61	Toluene	91	14.358	14.358	(0.881)	128895	0.74619	3.731
67	Tetrachloroethene	129	15.482	15.483	(0.950)	38405	0.53215	2.661

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9p1aa.d
Report Date: 10-Sep-2010 14:30

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
69 Ethylbenzene	91	16.628	16.623	(1.020)	12000	0.06059	0.3029
70 m&p-Xylene	91	16.779	16.784	(1.029)	36001	0.24035	1.202
74 o-Xylene	91	17.306	17.306	(1.062)	20790	0.13344	0.6672
96 Napthalene	128	21.599	21.594	(1.325)	733297	4.85744	24.29

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9p1aa.d
Report Date: 10-Sep-2010 14:30

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9p1aa.d
Lab Smp Id: L6G9P1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: ISG-01-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	174833	-10.37
2 1,4-Difluorobenze	936174	557024	1315324	851496	-9.05
3 Chlorobenzene-d5	815161	485021	1145301	733481	-10.02

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.06
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.05
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9p1aa.d
Report Date: 10-Sep-2010 14:30

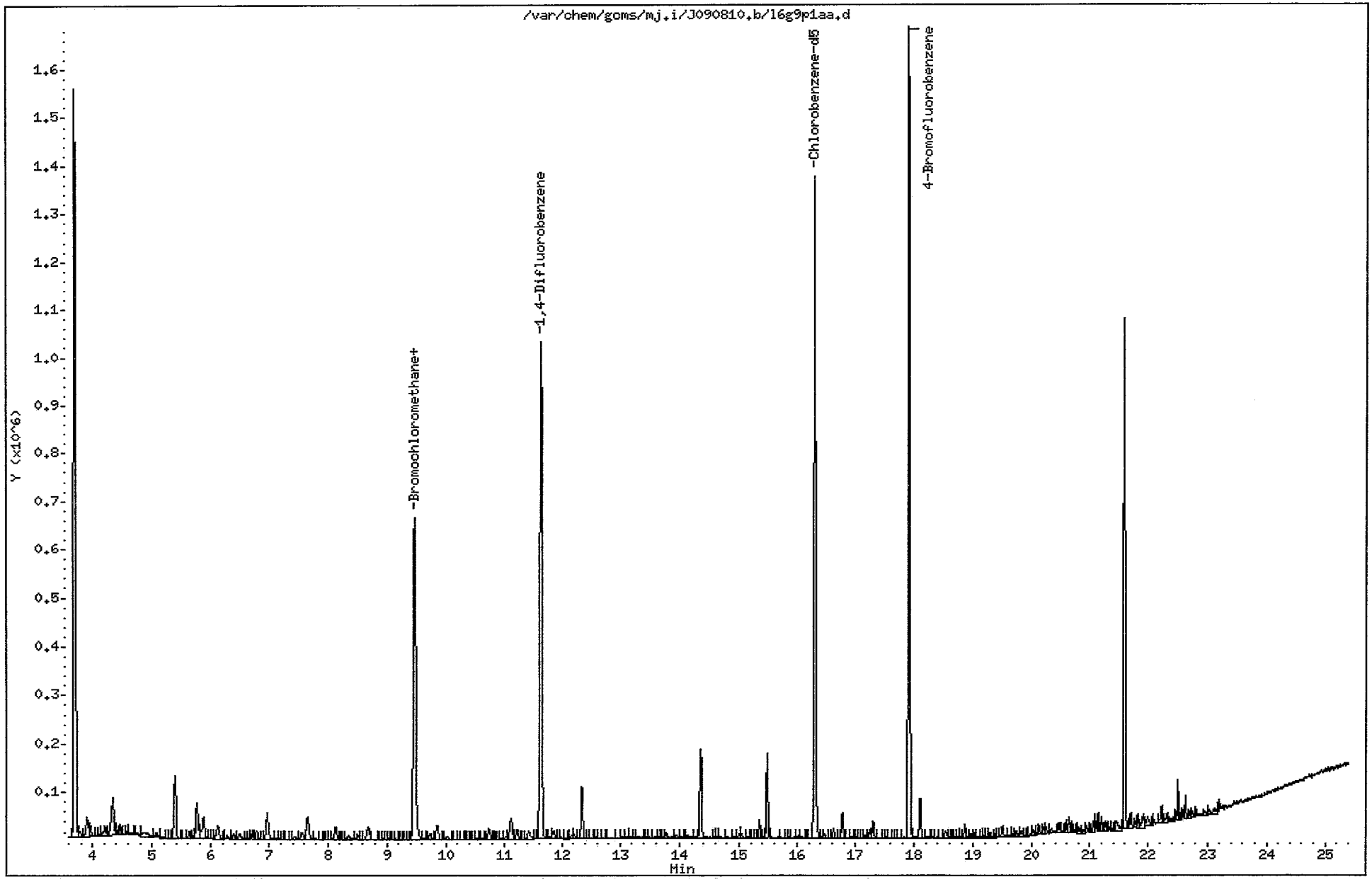
TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9P1AA
Client Smp ID: ISG-01-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.132	103.29	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/16g9p1aa.d
Date : 08-SEP-2010 20:22
Client ID: ISG-01-9
Instrument: mj.i
Sample Info: ,5,0,,,
Purge Volume: 500.0
Operator: 7126
Column phase: Rtx-5
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J090810.b/16g9p1aa.d

Date : 08-SEP-2010 20:22

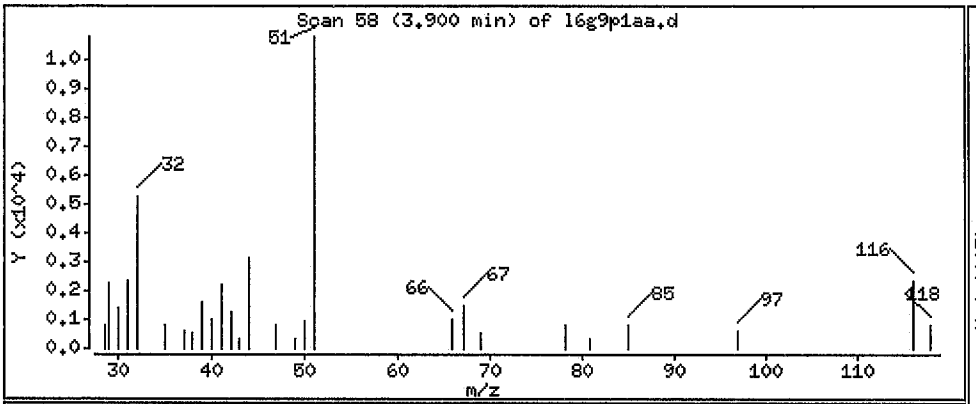
Client ID: ISC-01-9 Instrument: mj.i

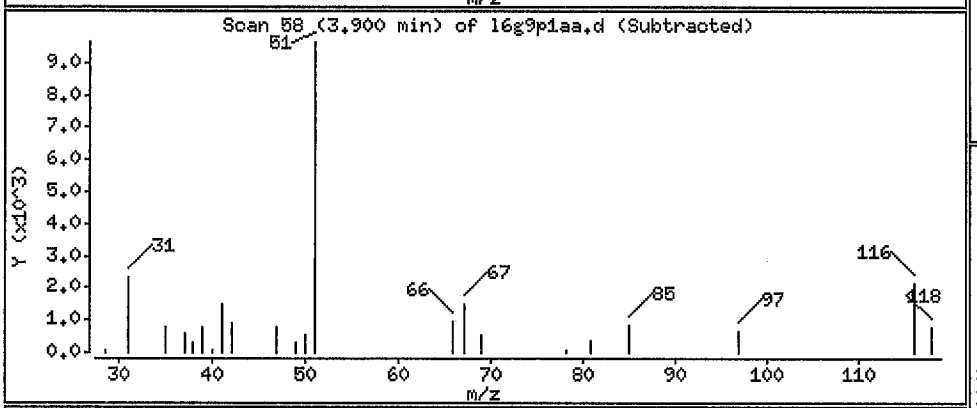
Sample Info: ,5,0,,,

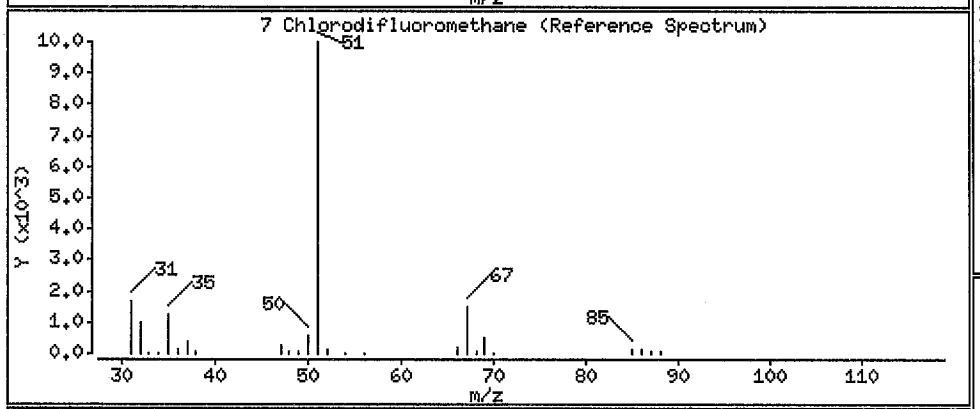
Purge Volume: 500.0 Operator: 7126

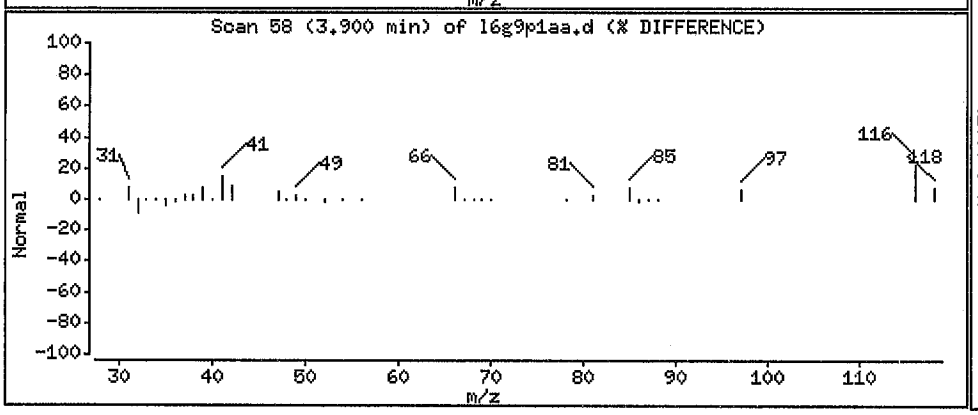
Column phase: Rtx-5 Column diameter: 0.32

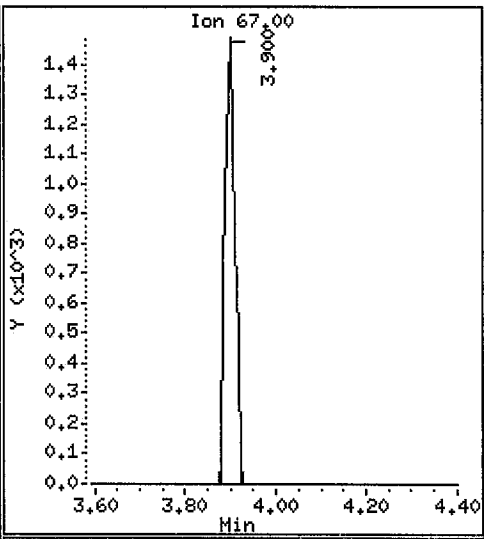
7 Chlorodifluoromethane Concentration: 0.5043 ppb(v/v)

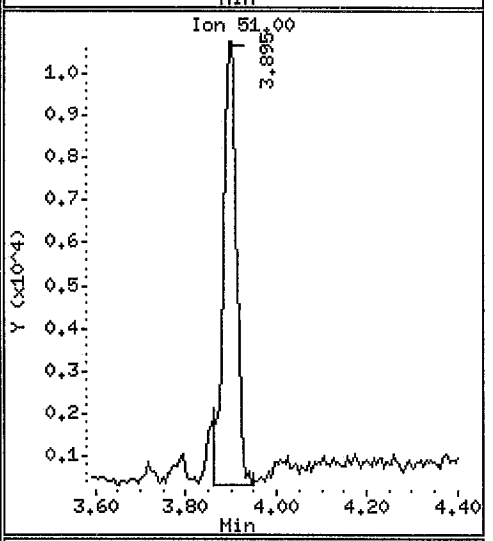


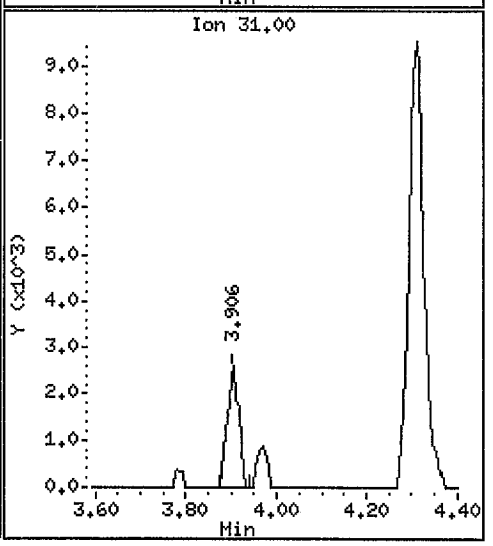












Data File: /var/chem/gcms/mj.i/J090810.b/16g9p1aa.d

Date : 08-SEP-2010 20:22

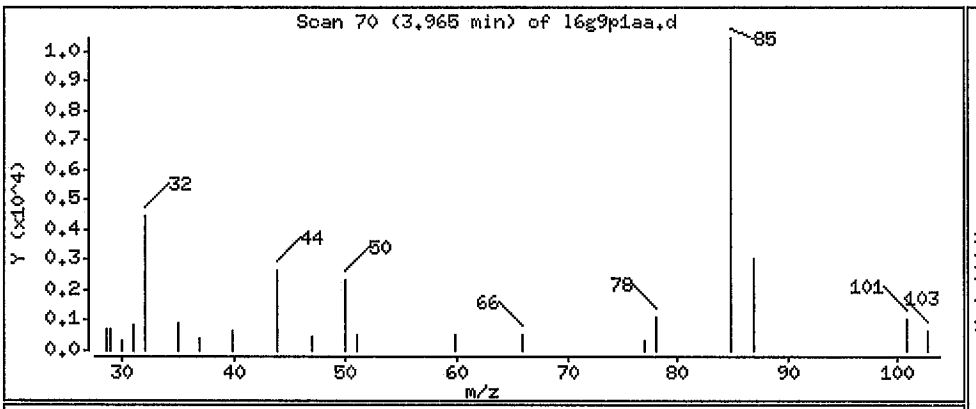
Client ID: ISG-01-9 Instrument: mj.i

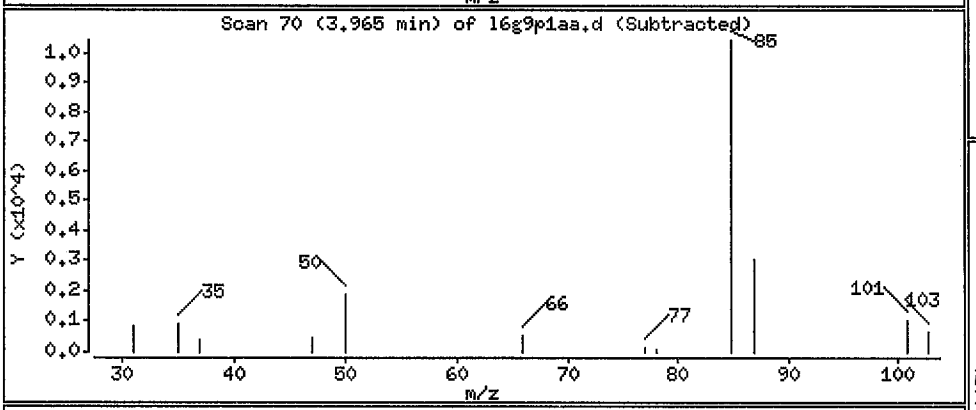
Sample Info: ,5,0,,,

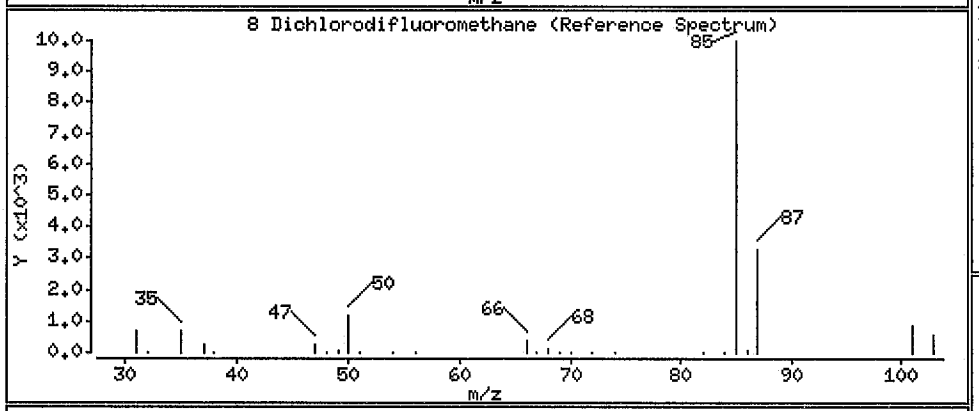
Purge Volume: 500.0 Operator: 7126

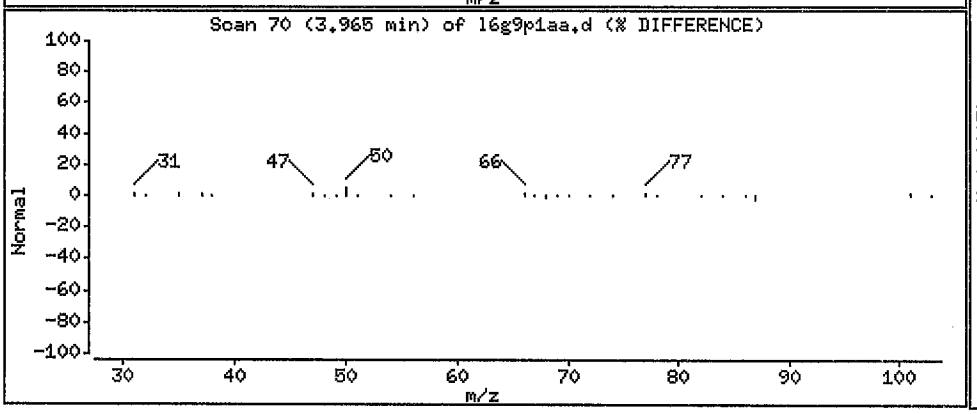
Column phase: Rtx-5 Column diameter: 0.32

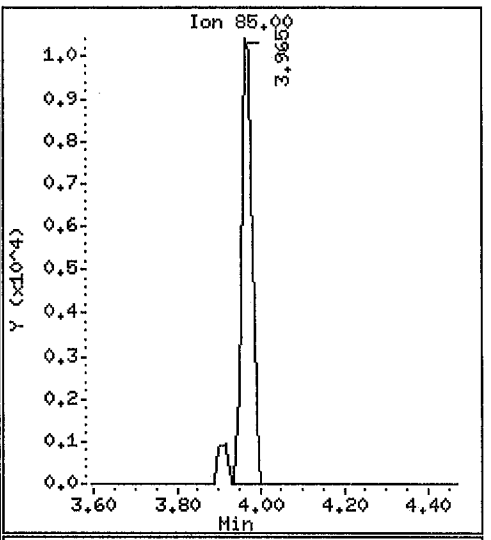
8 Dichlorodifluoromethane Concentration: 0.5025 ppb(v/v)

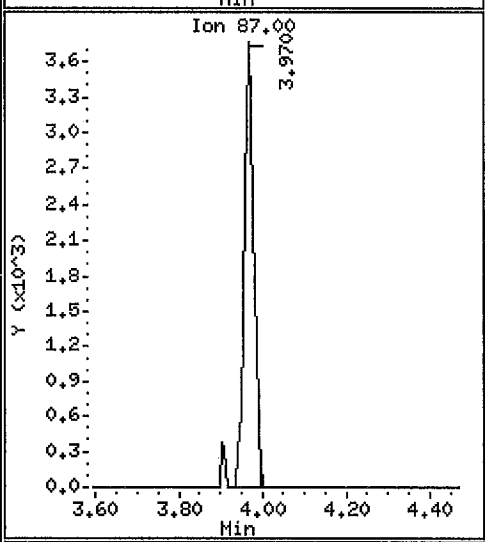


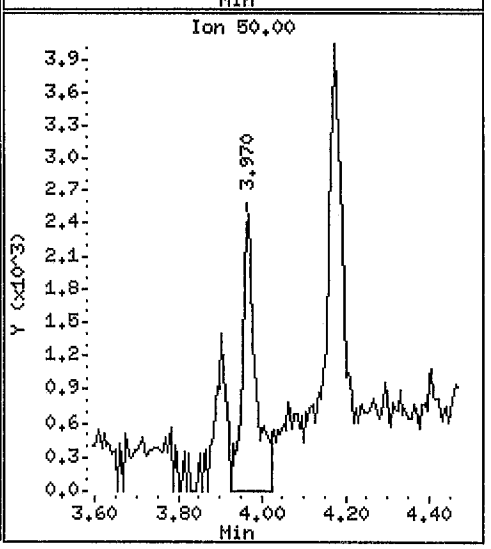












Data File: /var/chem/goms/mj.i/J090810.b/16g9p1aa.d

Date : 08-SEP-2010 20:22

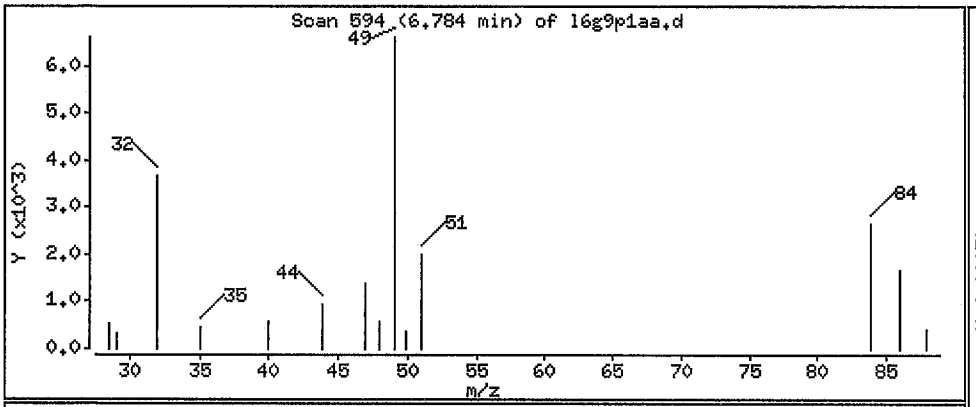
Client ID: ISG-01-9 Instrument: mj.i

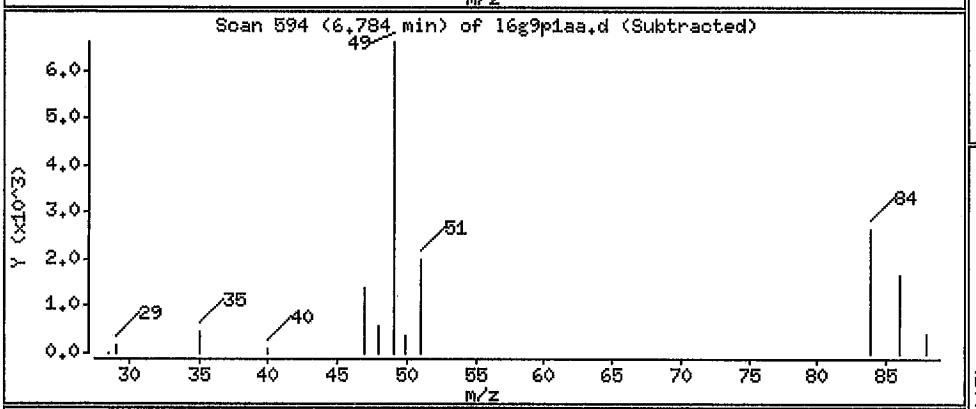
Sample Info: ,5,0,,,

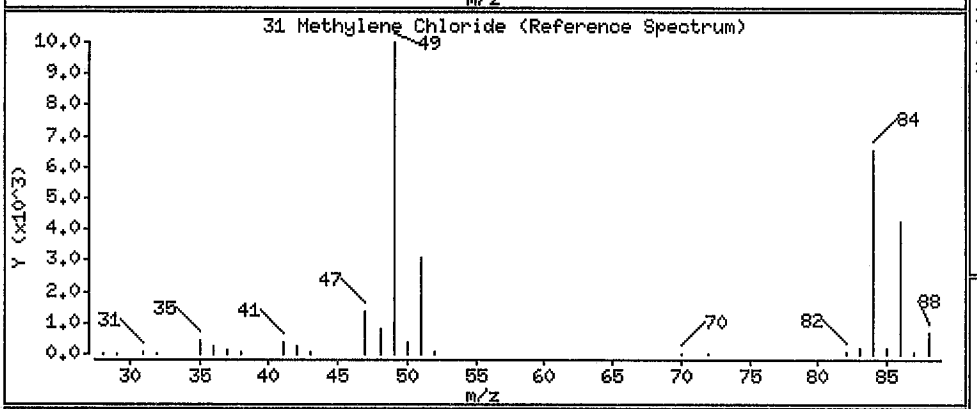
Purge Volume: 500.0 Operator: 7126

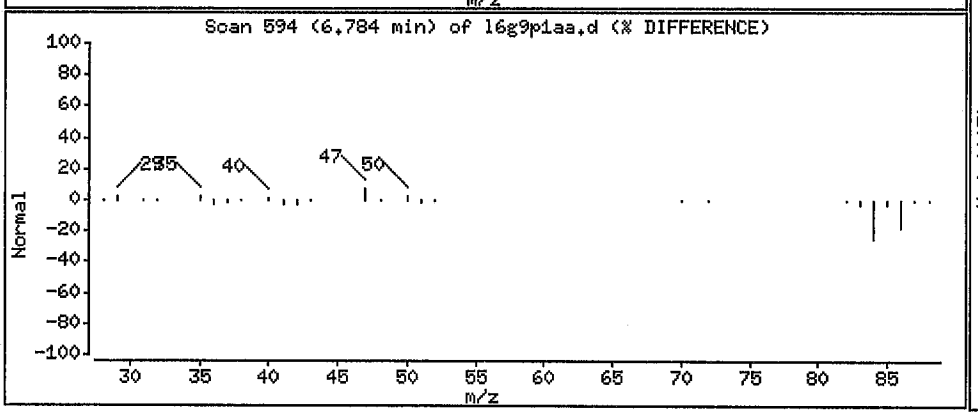
Column phase: Rtx-5 Column diameter: 0.32

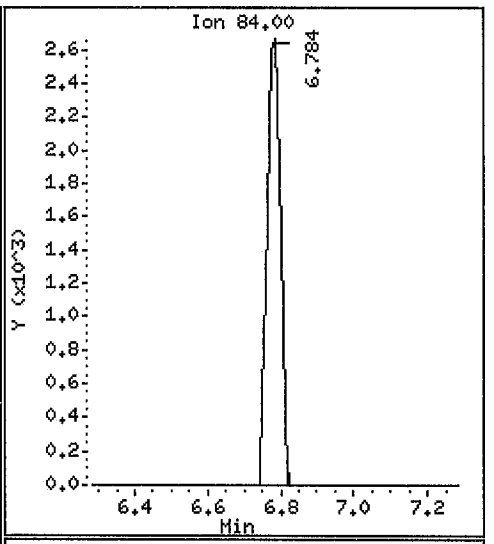
31 Methylene Chloride Concentration: 0.5276 ppb(v/v)

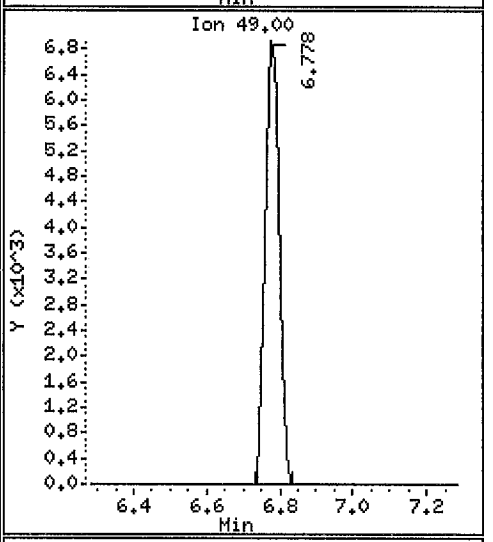


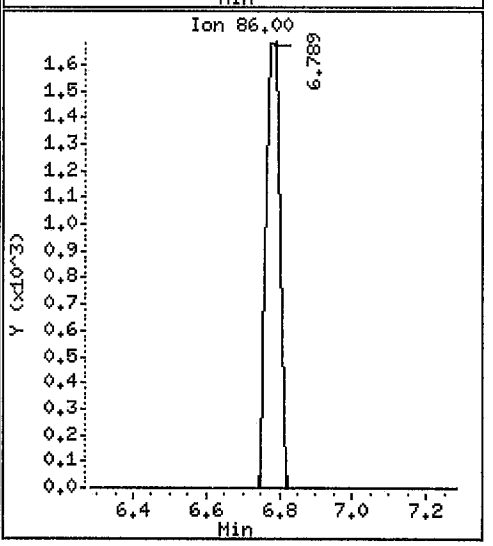












Data File: /var/chem/gcms/mj.i/J090810.b/16g9p1aa.d

Date : 08-SEP-2010 20:22

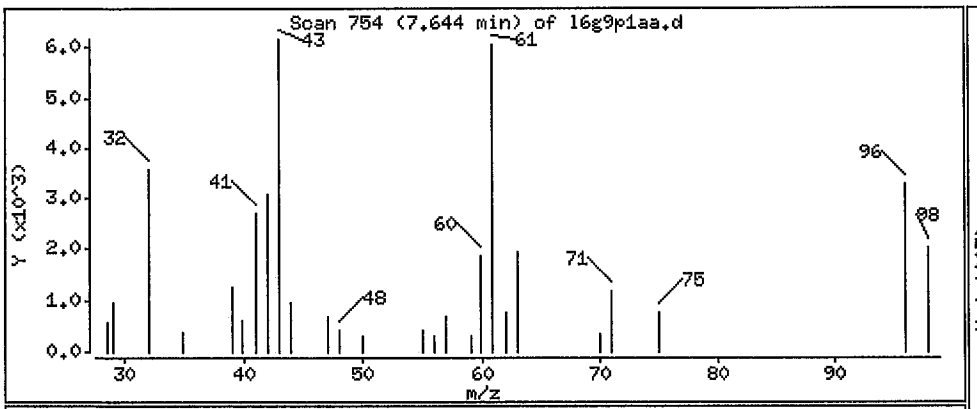
Client ID: ISC-01-9 Instrument: mj.i

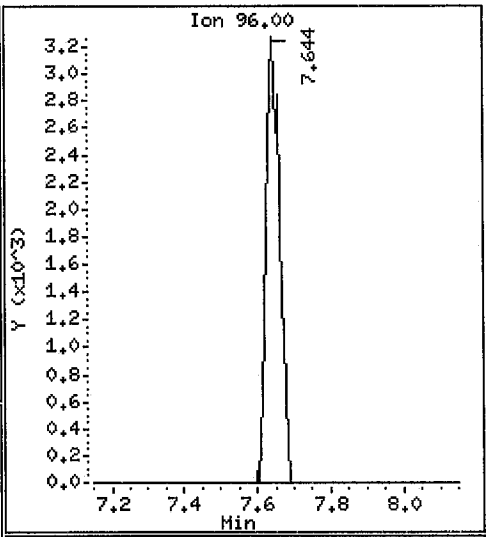
Sample Info: ,5,0,,,

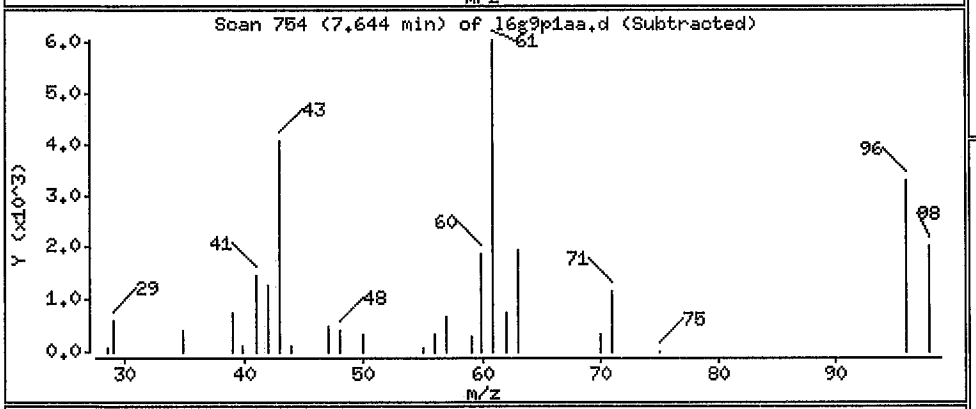
Purge Volume: 500.0 Operator: 7126

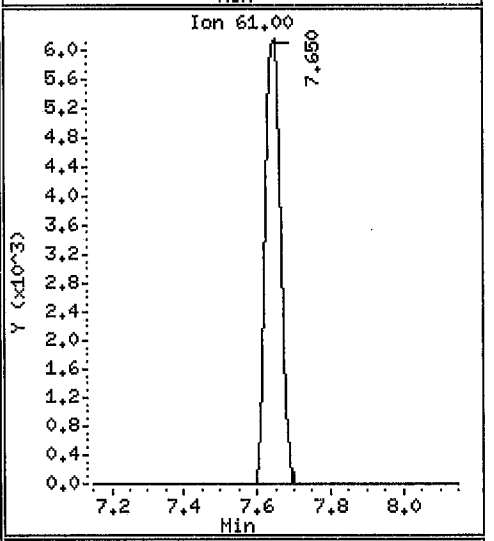
Column phase: Rtx-5 Column diameter: 0.32

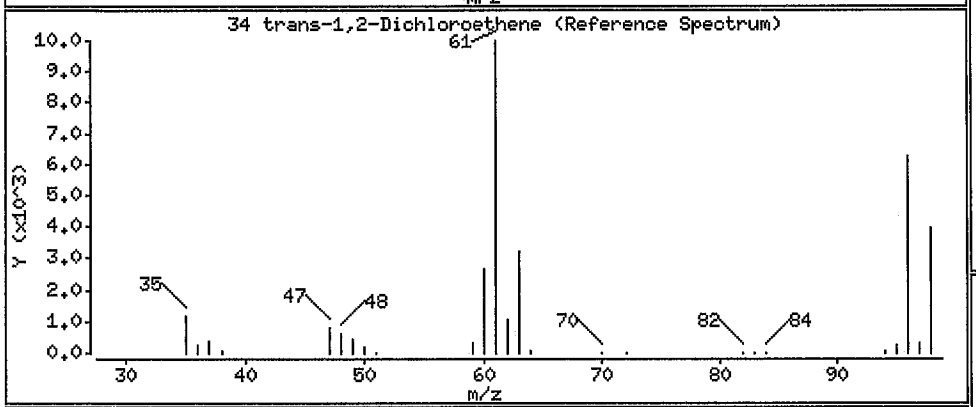
34 trans-1,2-Dichloroethene Concentration: 0.6521 ppb(v/v)

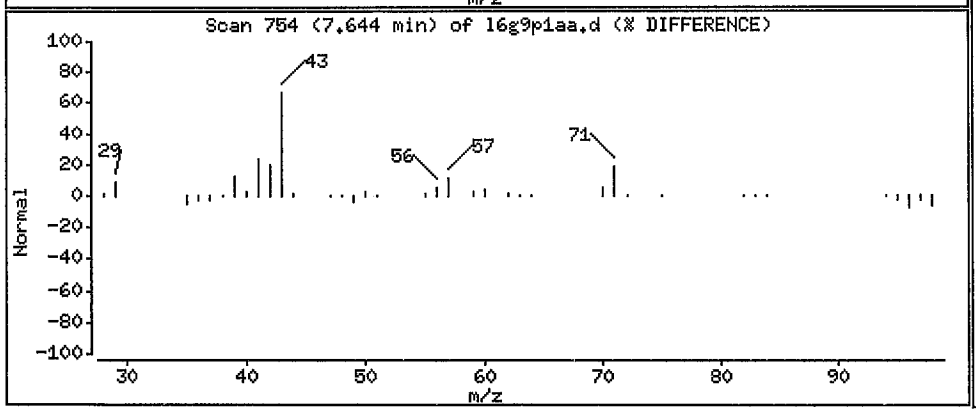


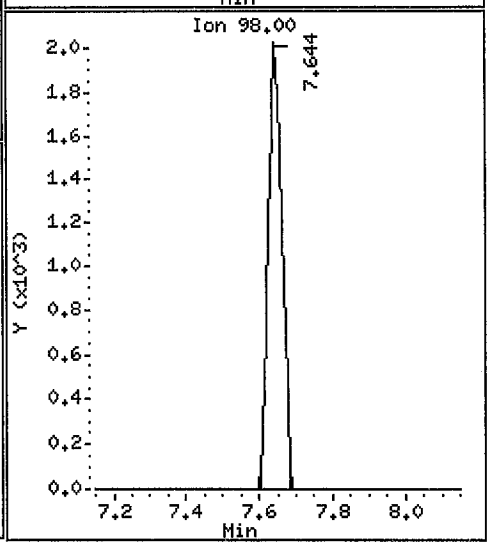












Data File: /var/chem/gcms/mj.i/J090810.b/16g9p1aa.d

Date : 08-SEP-2010 20:22

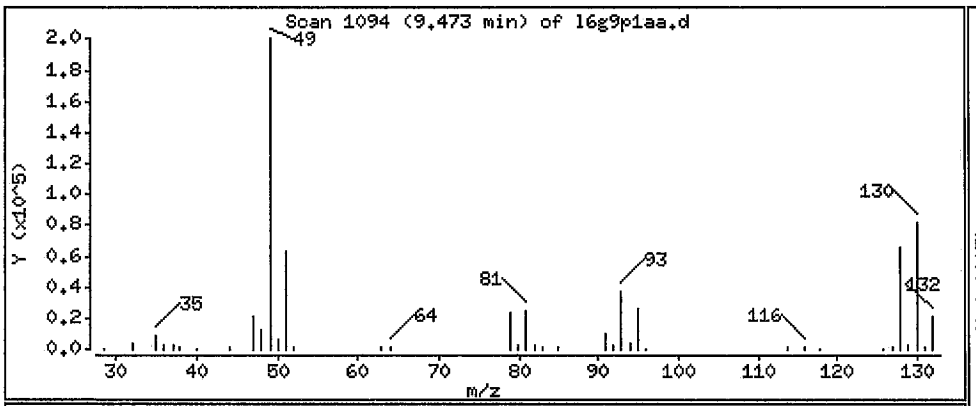
Client ID: ISG-01-9 Instrument: mj.i

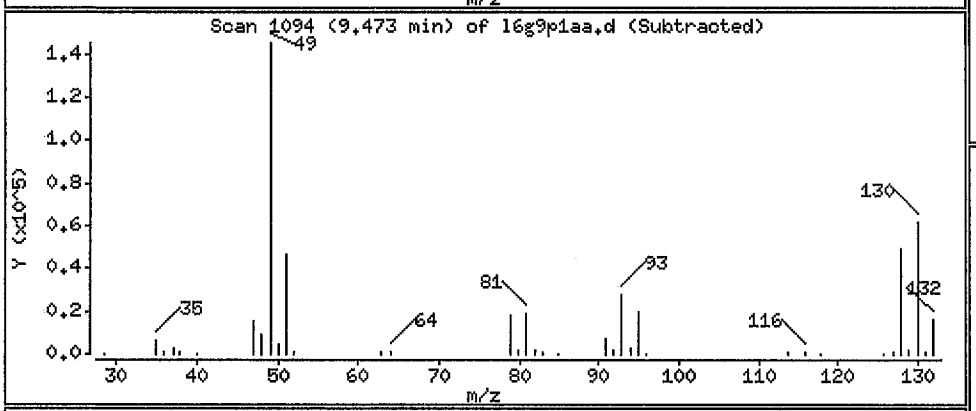
Sample Info: ,5,0,,,

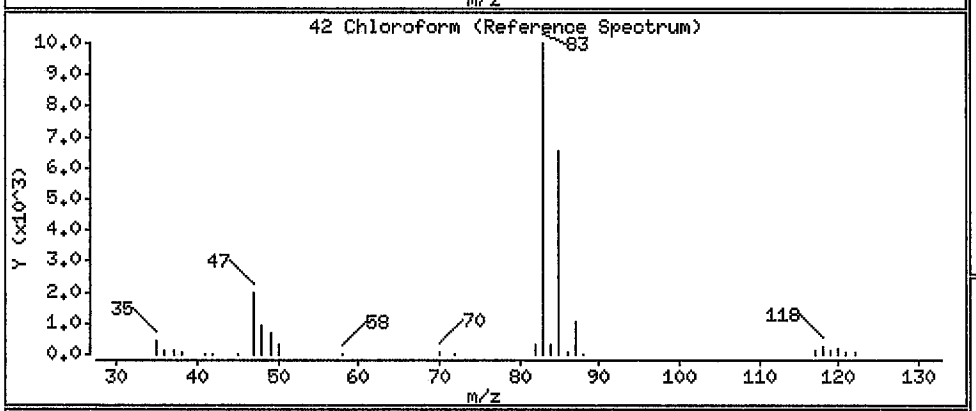
Purge Volume: 500.0 Operator: 7126

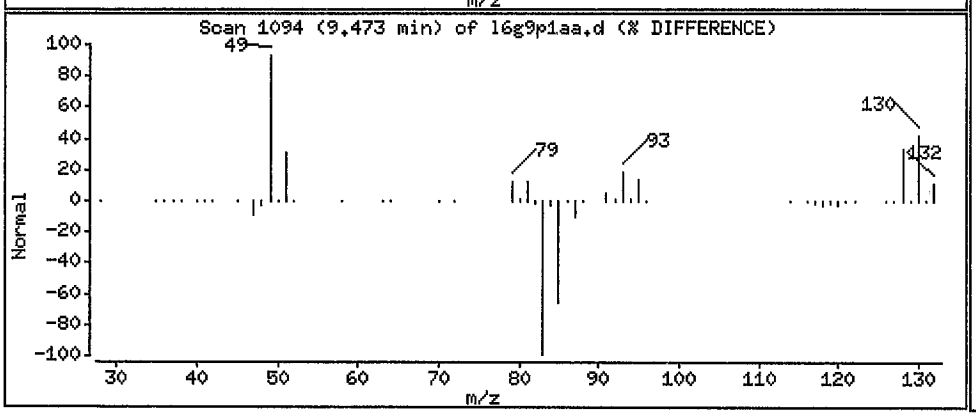
Column phase: Rtx-5 Column diameter: 0.32

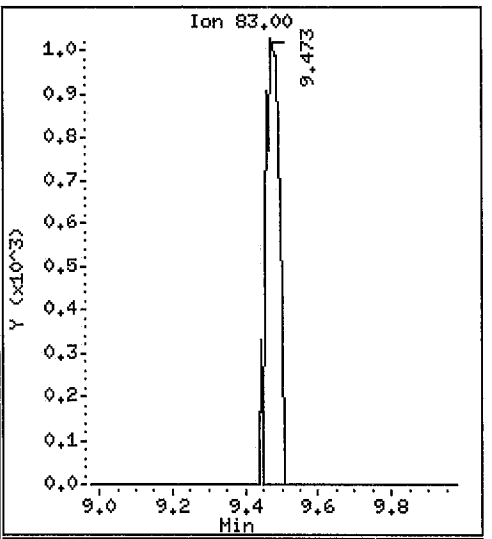
42 Chloroform Concentration: 0.08954 ppb(v/v)

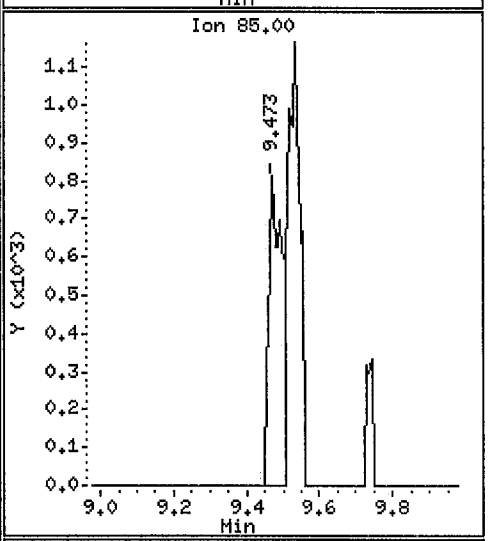


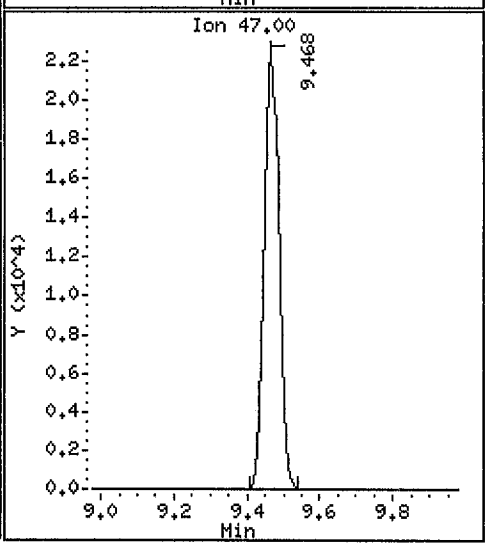












Data File: /var/chem/goms/mj.i/J090810.b/16g9p1aa.d

Date : 08-SEP-2010 20:22

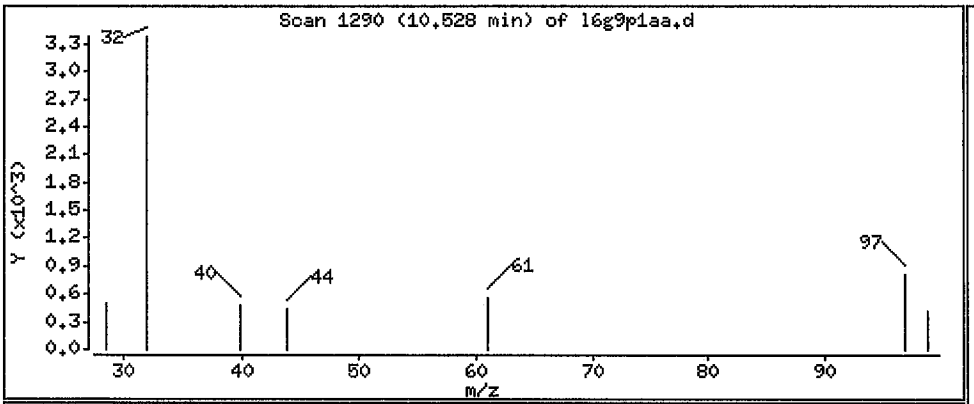
Client ID: ISG-01-9 Instrument: mj.i

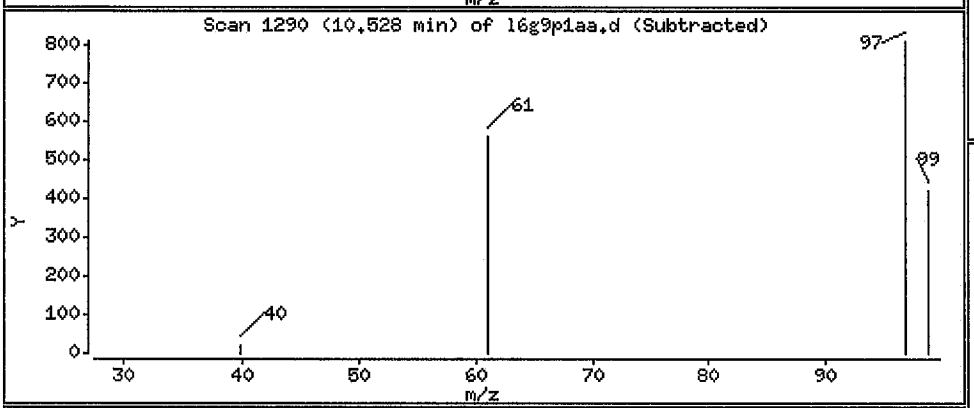
Sample Info: ,5,0,,,

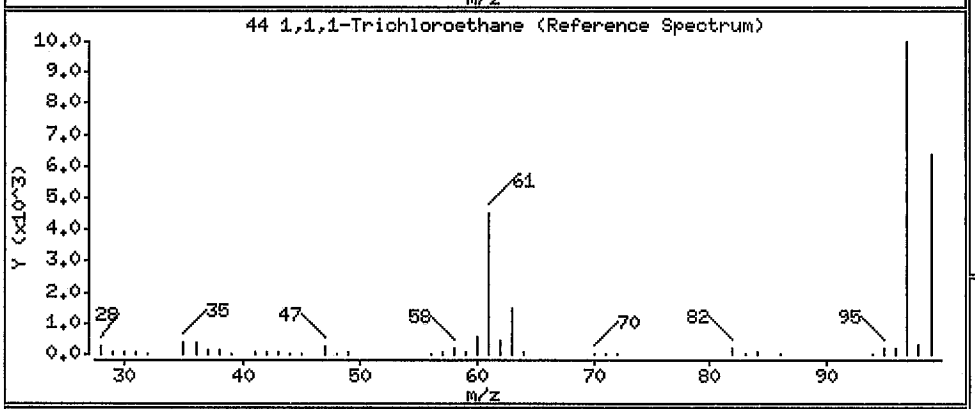
Purge Volume: 500.0 Operator: 7126

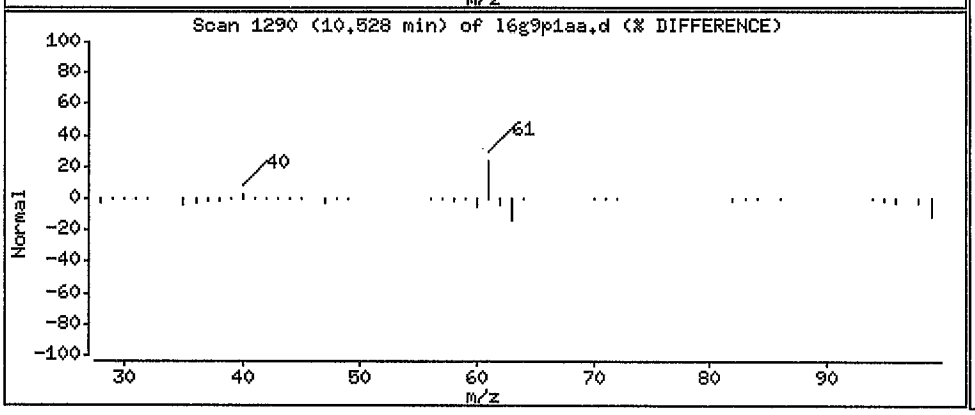
Column phase: Rtx-5 Column diameter: 0.32

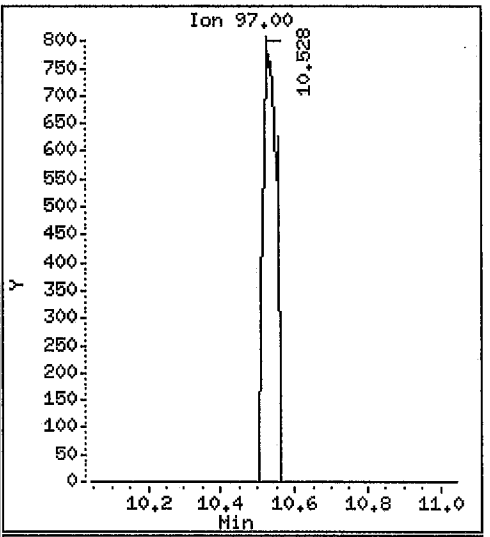
44 1,1,1-Trichloroethane Concentration: 0.06777 ppb(v/v)

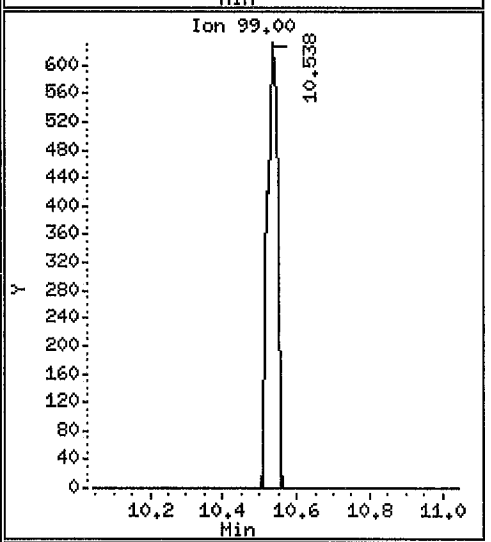


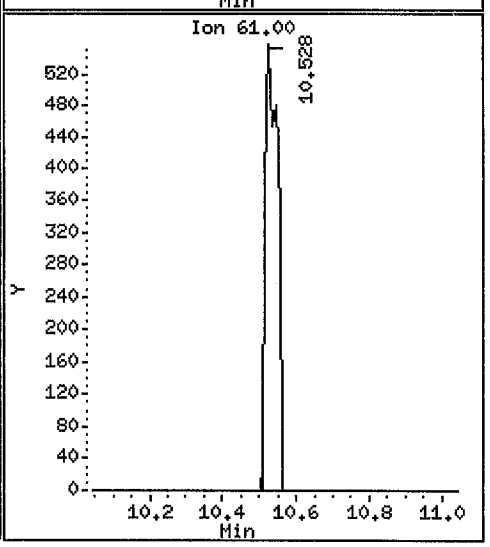












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9p1aa.d

Date : 08-SEP-2010 20:22

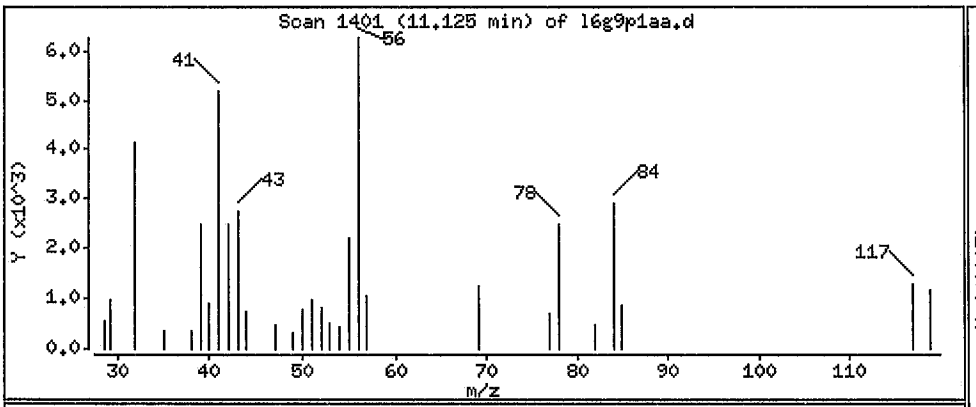
Client ID: ISG-01-9 Instrument: mj.i

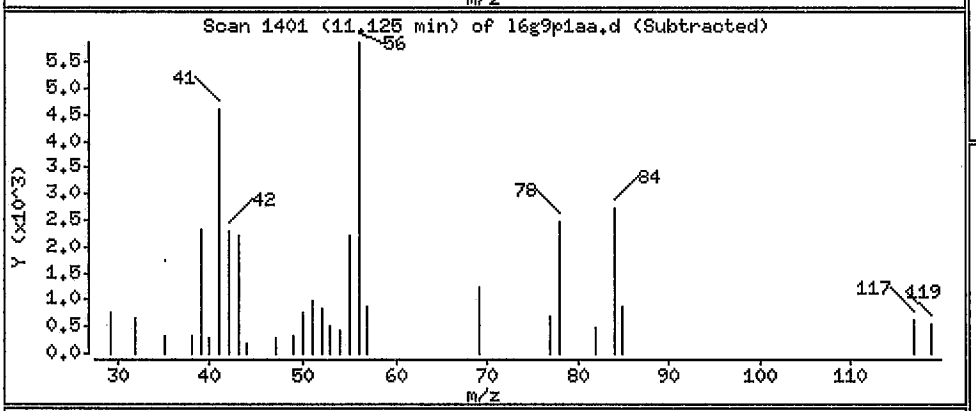
Sample Info: ,5,0,,,

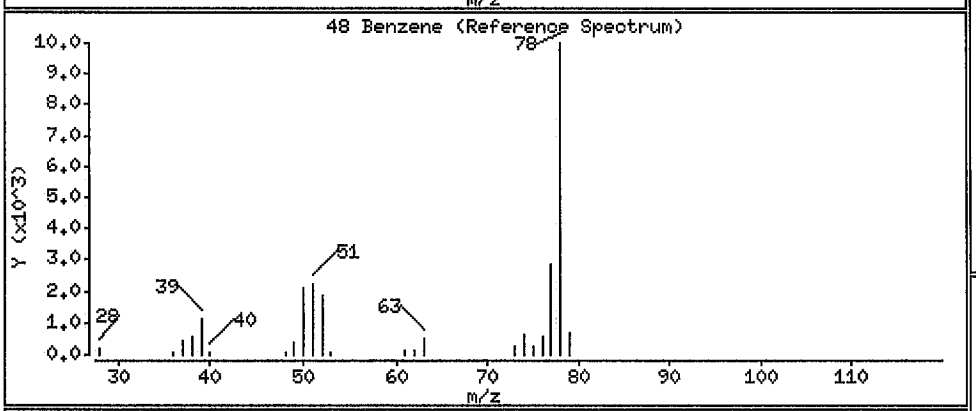
Purge Volume: 500.0 Operator: 7126

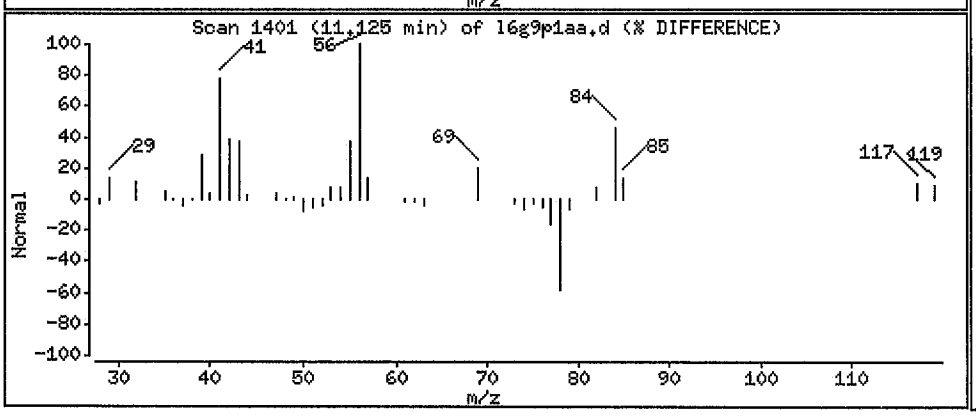
Column phase: Rtx-5 Column diameter: 0.32

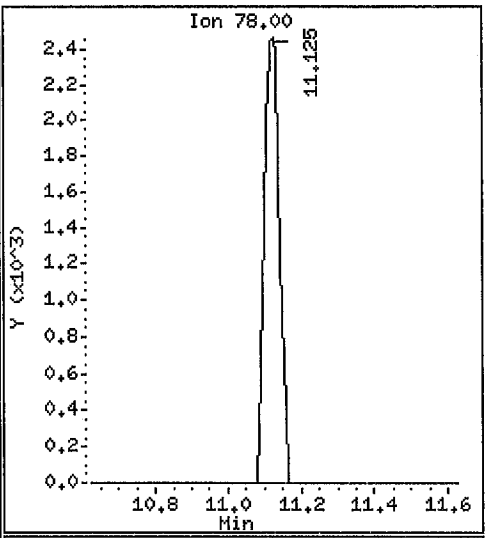
48 Benzene Concentration: 0.1769 ppb(v/v)

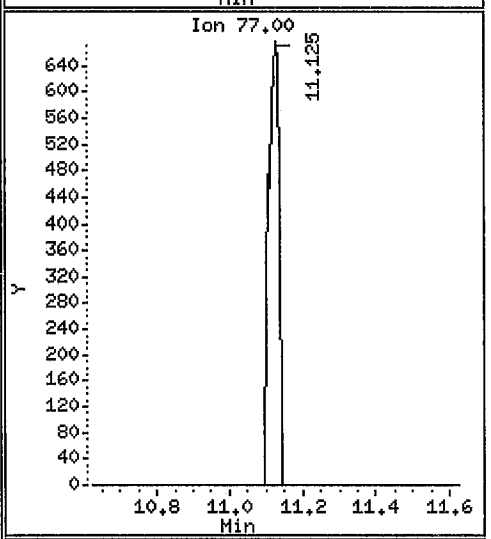


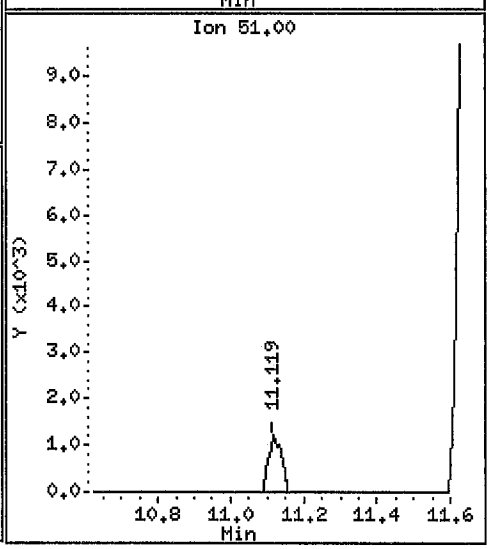












Data File: /var/chem/gcms/mj.i/J090810.b/16g9p1aa.d

Date : 08-SEP-2010 20:22

Client ID: ISG-01-9

Instrument: mj.i

Sample Info: ,5,0,,,

Purge Volume: 500.0

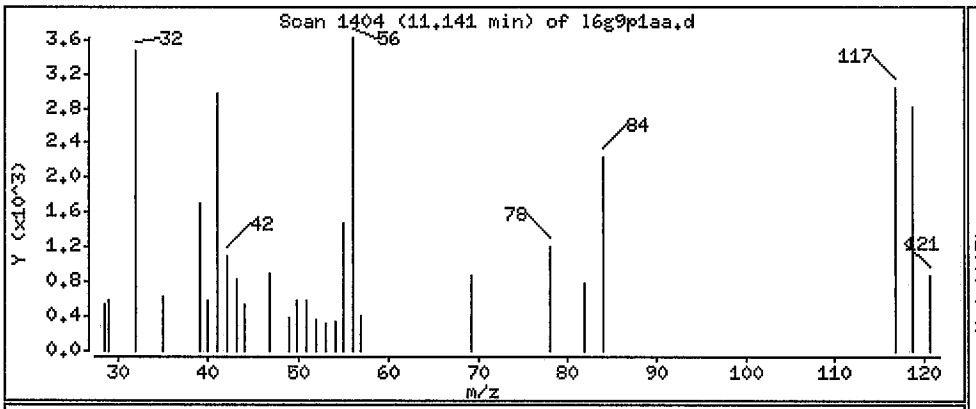
Operator: 7126

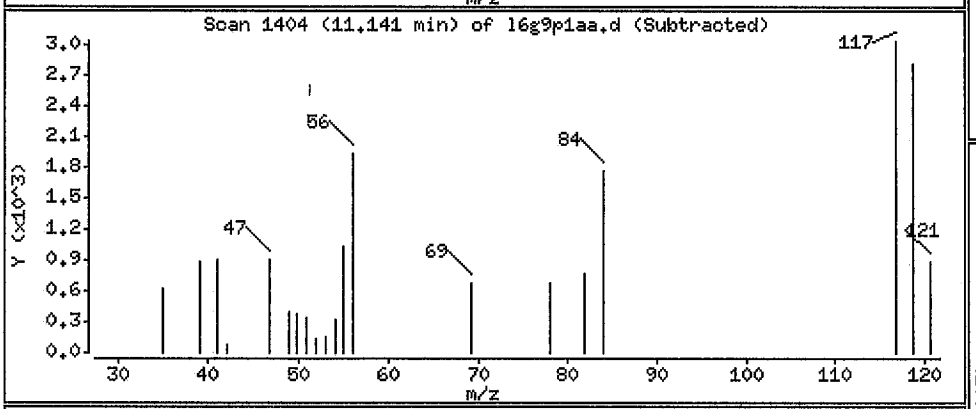
Column phase: Rtx-5

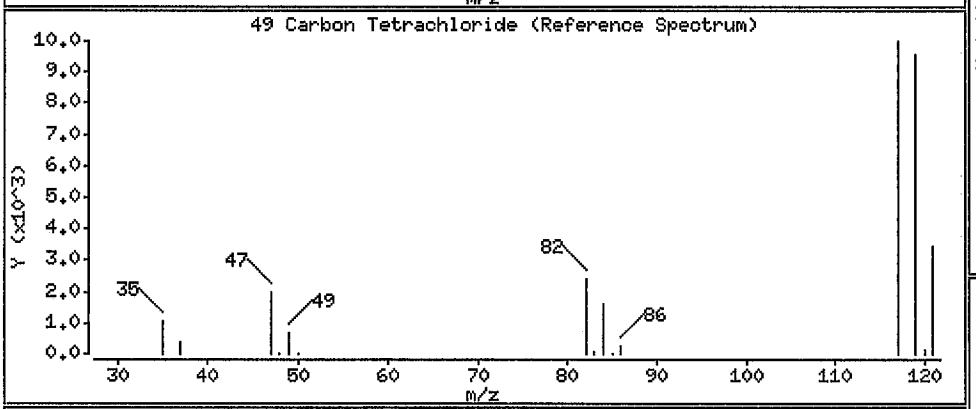
Column diameter: 0.32

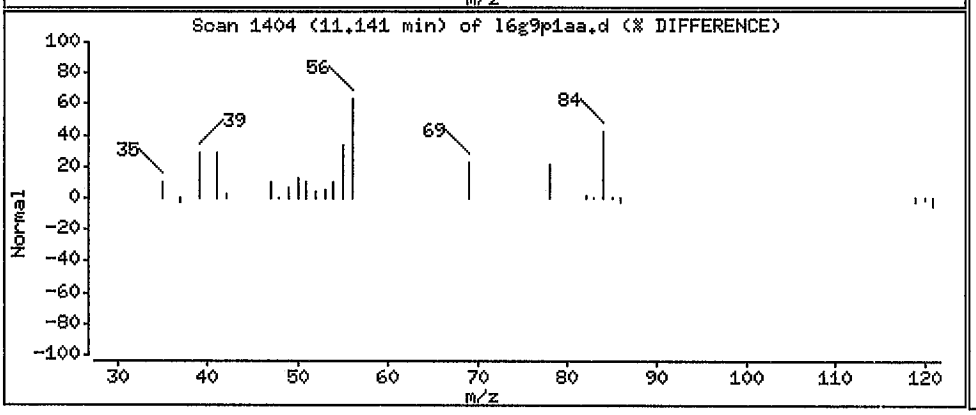
49 Carbon Tetrachloride

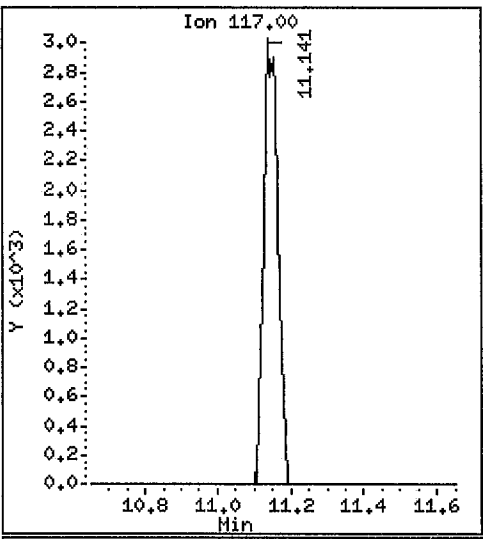
Concentration: 0.2664 ppb(v/v)

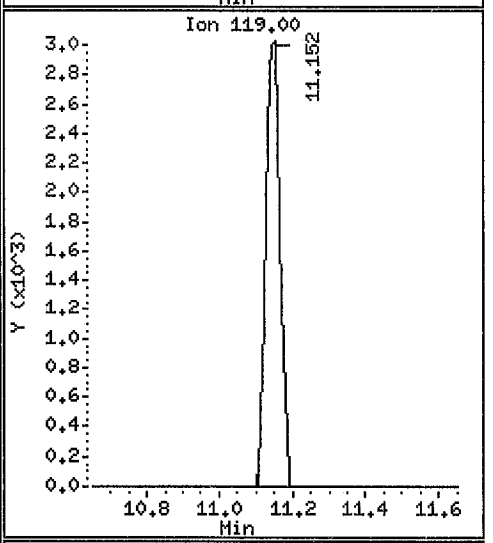


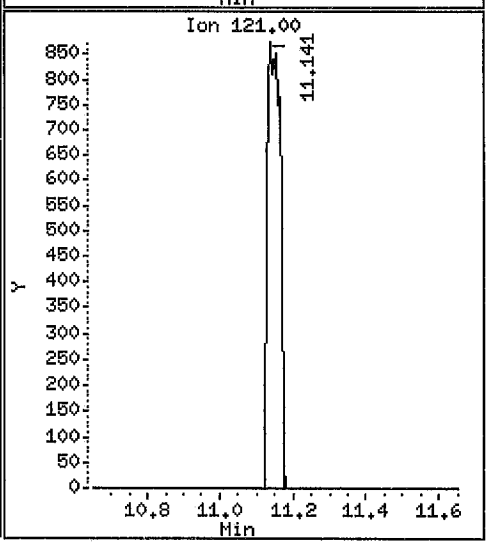












Data File: /var/chem/gcms/mj.i/J090810.b/16g9p1aa.d

Date : 08-SEP-2010 20:22

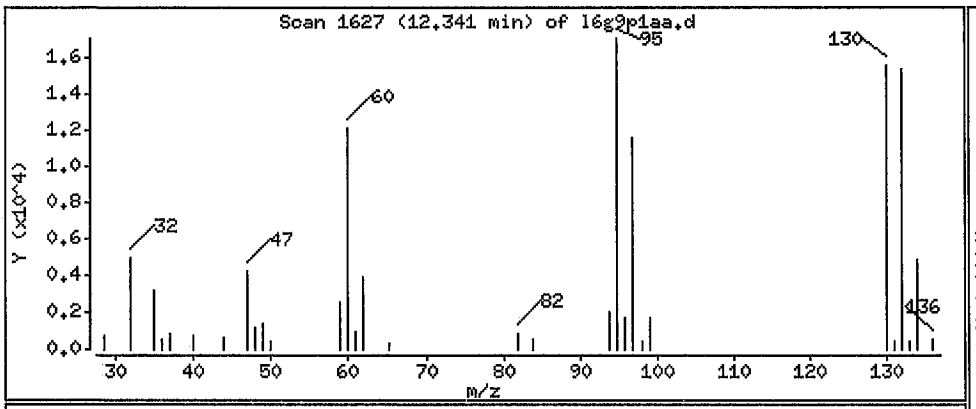
Client ID: ISC-01-9 Instrument: mj.i

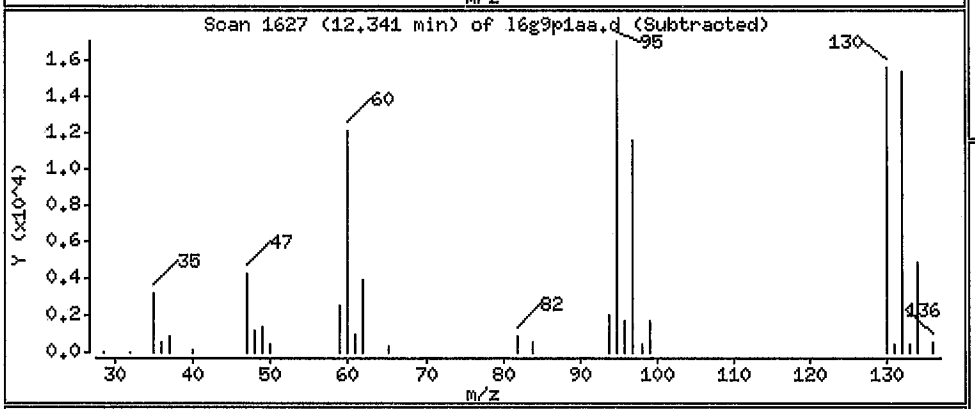
Sample Info: ,5,0,,,

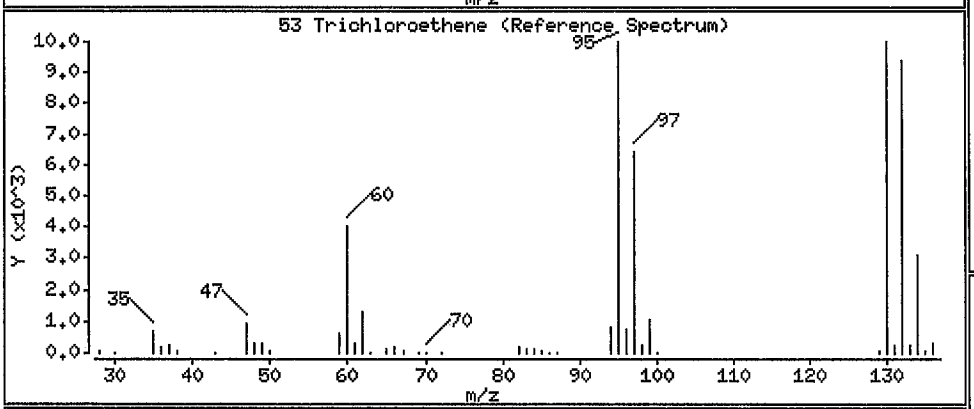
Purge Volume: 500.0 Operator: 7126

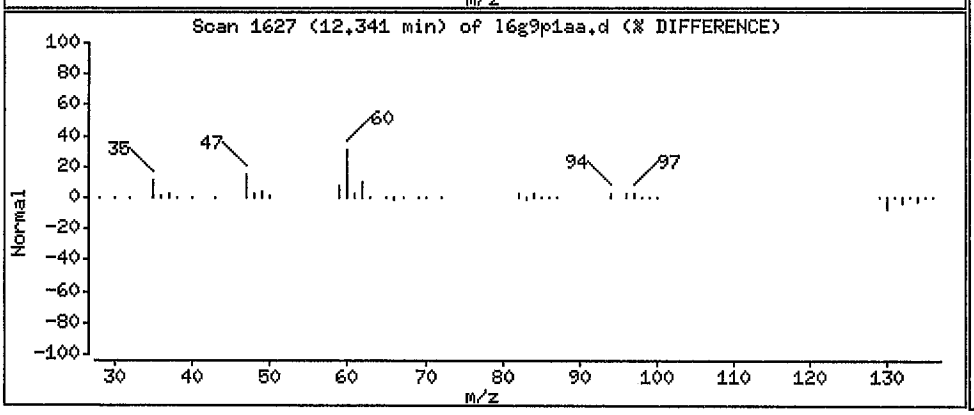
Column phase: Rtx-5 Column diameter: 0.32

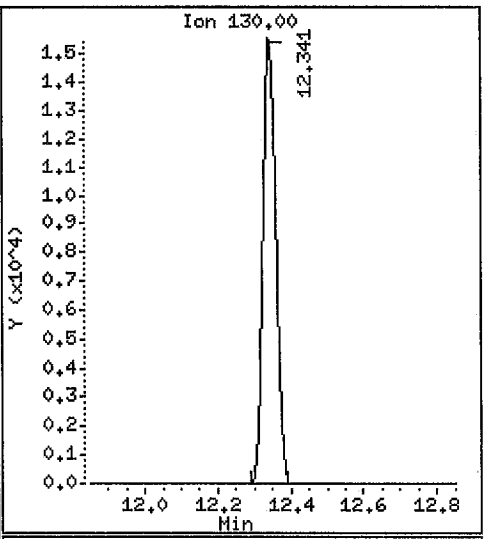
53 Trichloroethene Concentration: 1.938 ppb(v/v)

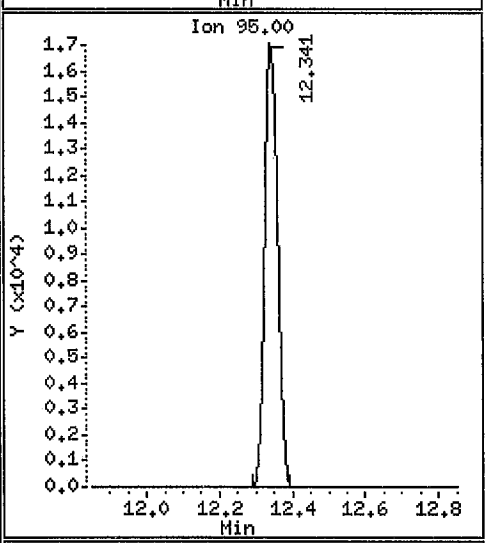


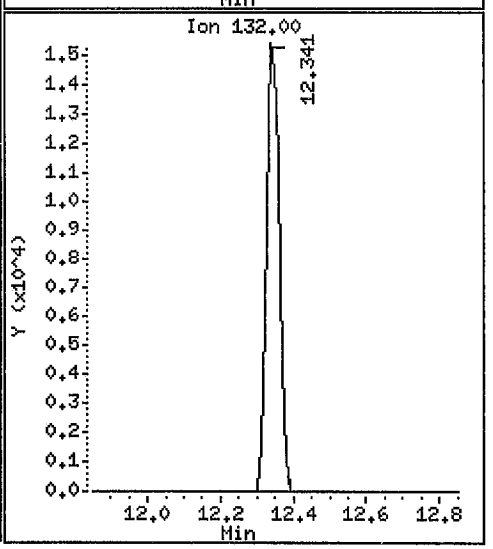












Data File: /var/chem/gcms/mj.i/J090810.b/16g9p1aa.d

Date : 08-SEP-2010 20:22

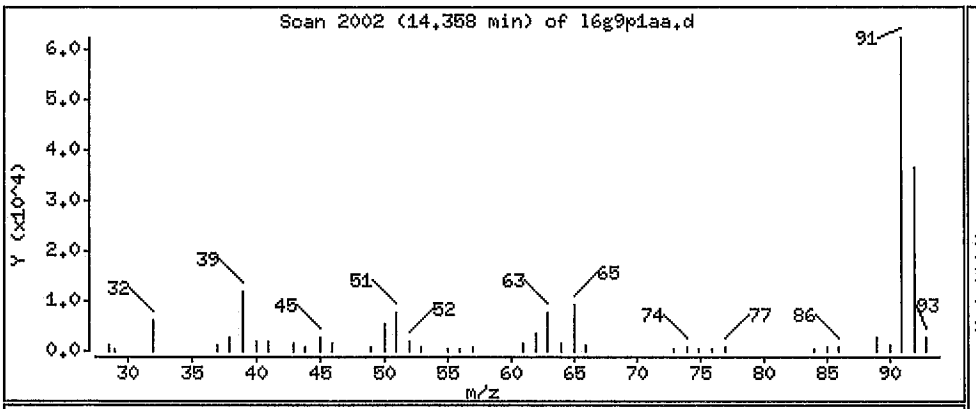
Client ID: ISC-01-9 Instrument: mj.i

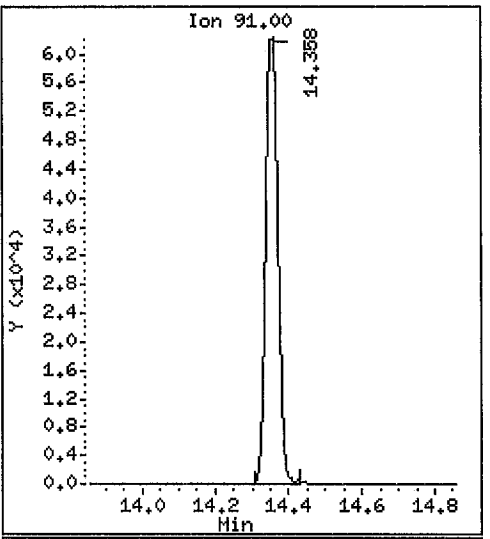
Sample Info: ,5,0,,,

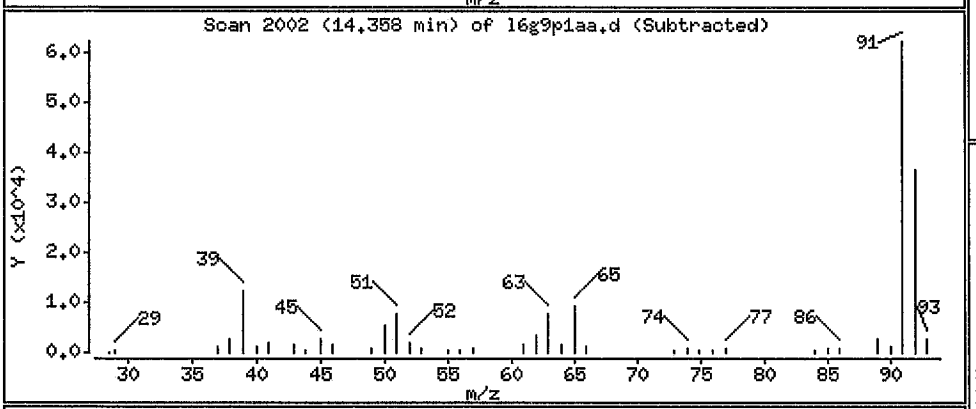
Purge Volume: 500.0 Operator: 7126

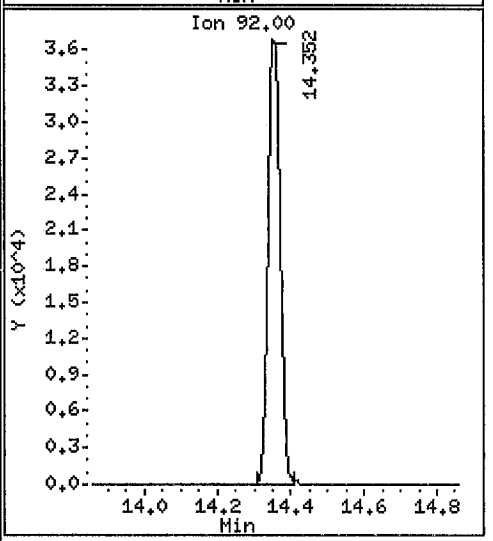
Column phase: Rtx-5 Column diameter: 0.32

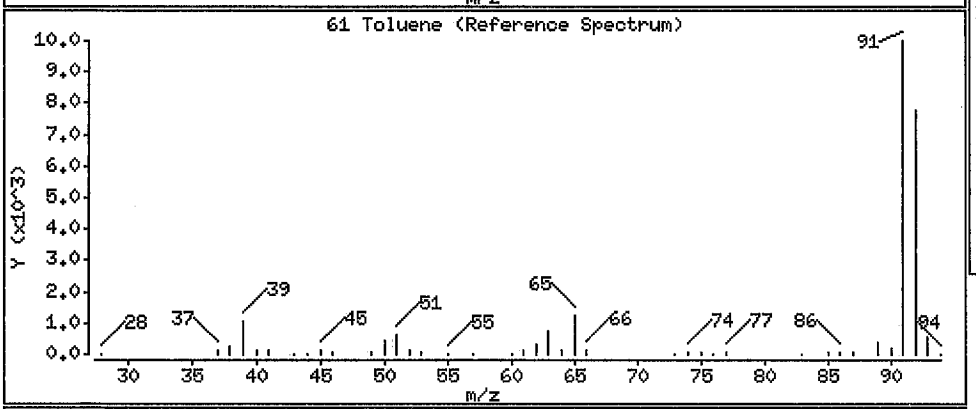
61 Toluene Concentration: 3.731 ppb(v/v)

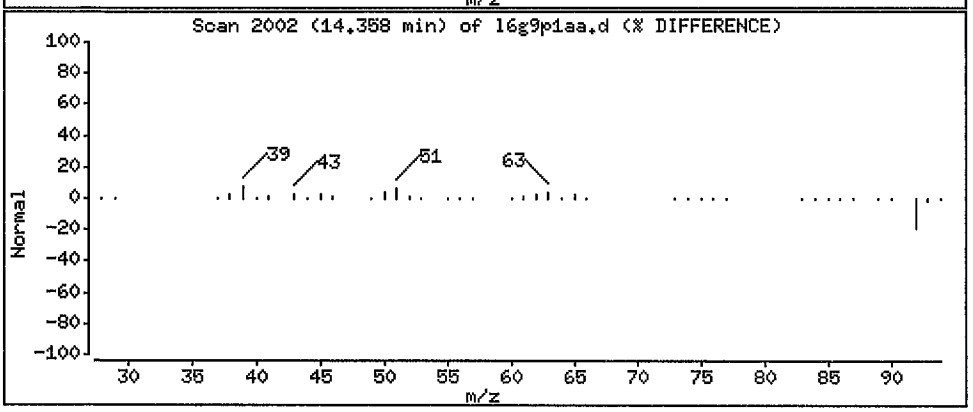












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9p1aa.d

Date : 08-SEP-2010 20:22

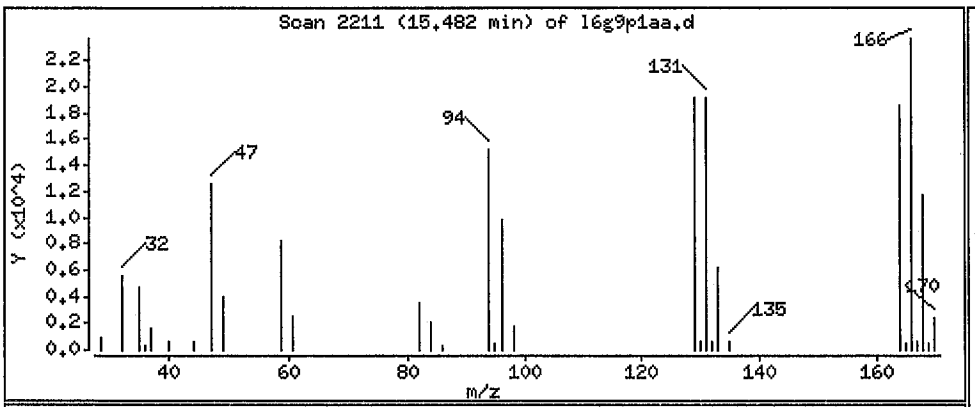
Client ID: ISC-01-9 Instrument: mj.i

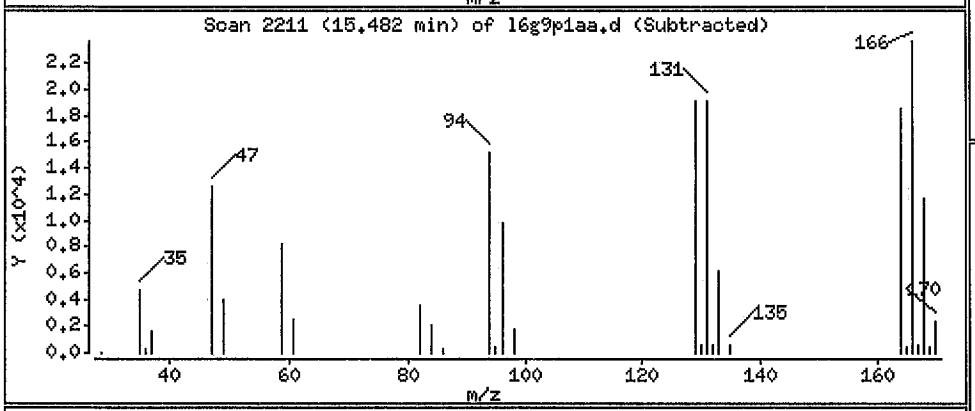
Sample Info: ,5,0,,,

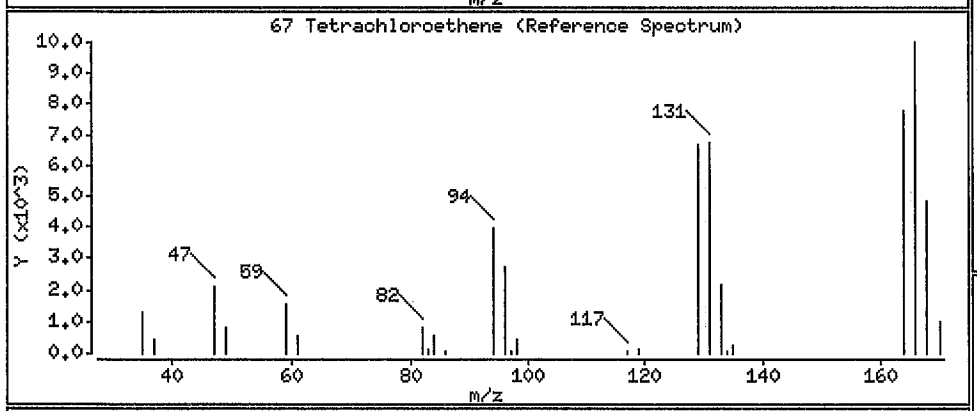
Purge Volume: 500.0 Operator: 7126

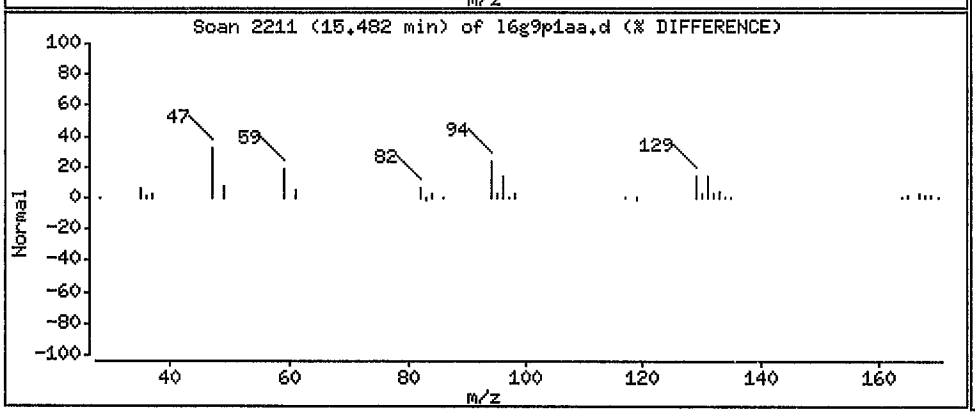
Column phase: Rtx-5 Column diameter: 0.32

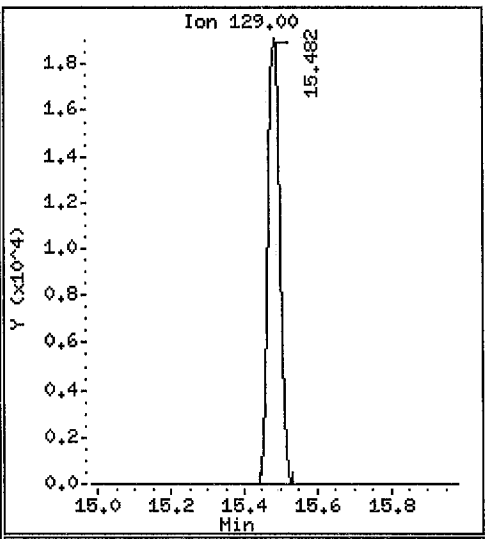
67 Tetrachloroethene Concentration: 2.661 ppb(v/v)

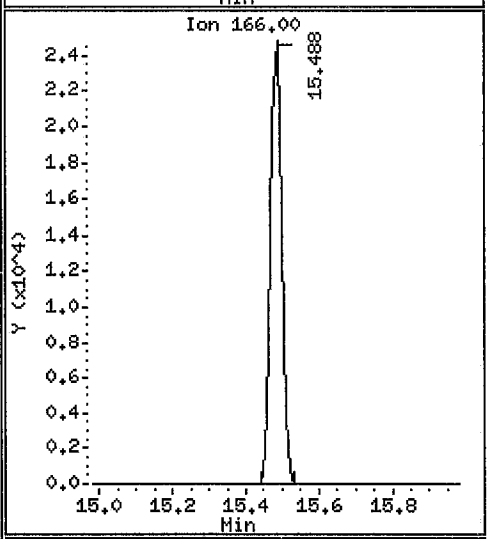


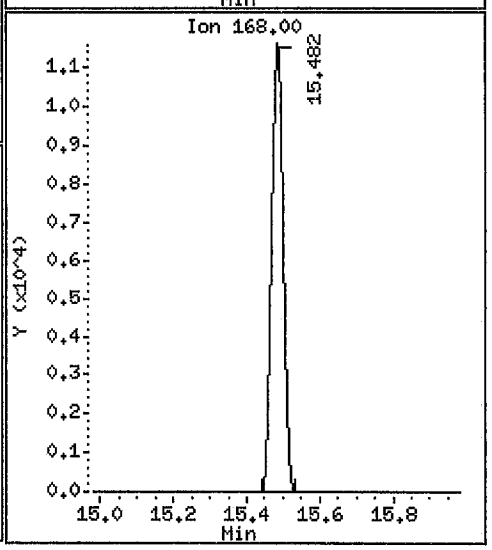












Data File: /var/chem/gcms/mj.i/J090810.b/16g9p1aa.d

Date : 08-SEP-2010 20:22

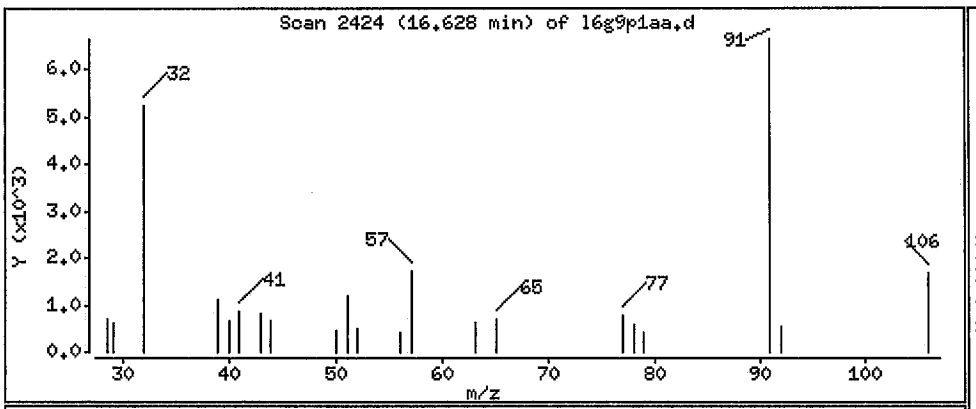
Client ID: ISC-01-9 Instrument: mj.i

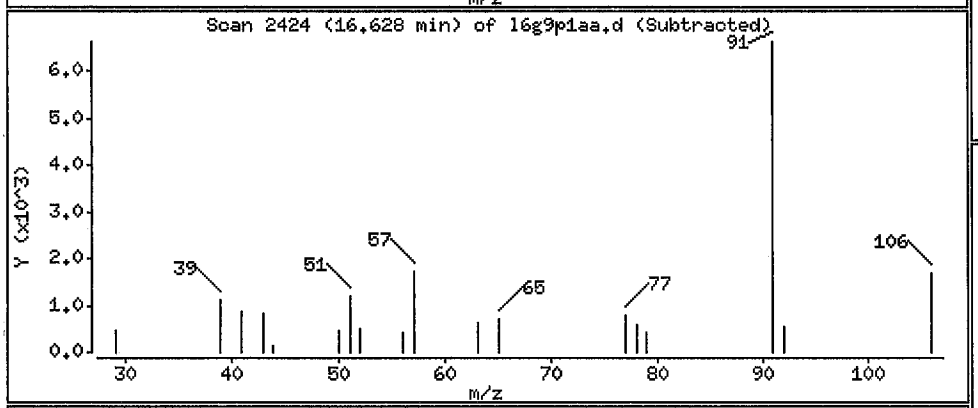
Sample Info: ,5,0,,,

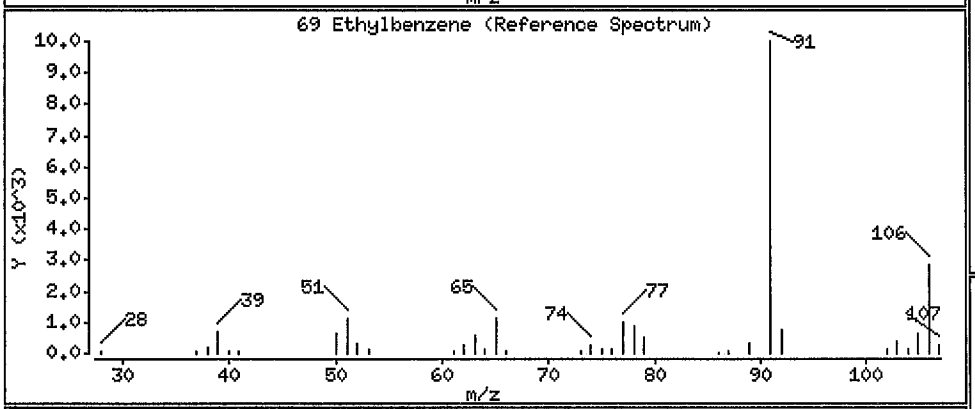
Purge Volume: 500.0 Operator: 7126

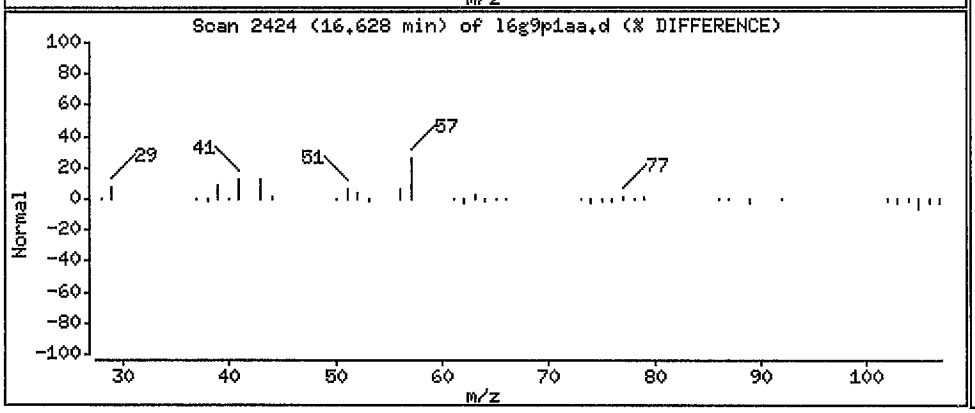
Column phase: Rtx-5 Column diameter: 0.32

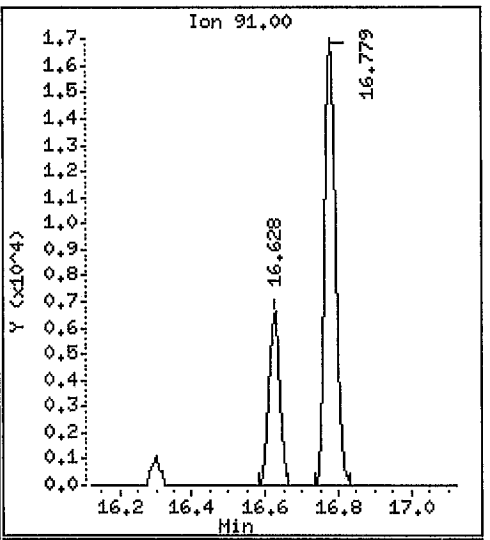
69 Ethylbenzene Concentration: 0.3029 ppb(v/v)

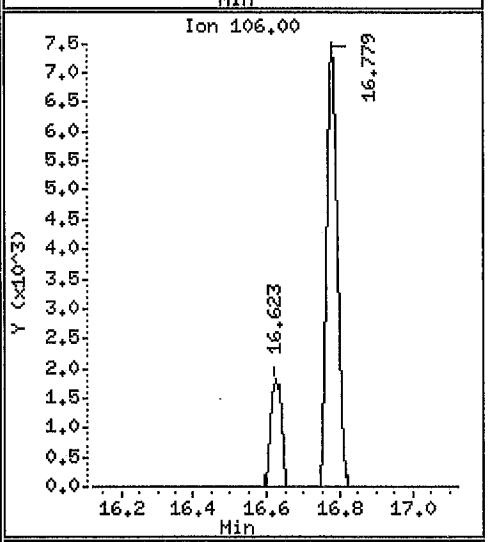


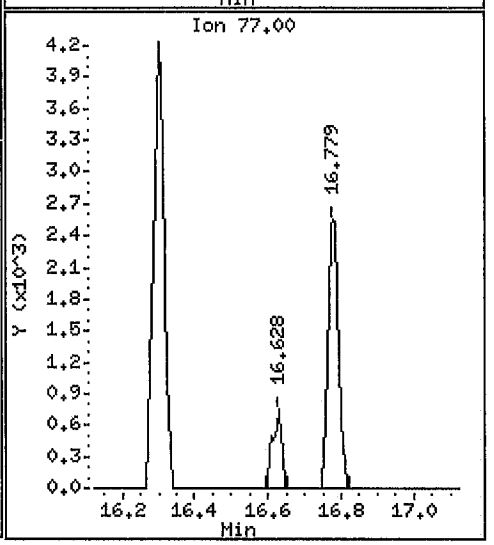












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9p1aa.d

Date : 08-SEP-2010 20:22

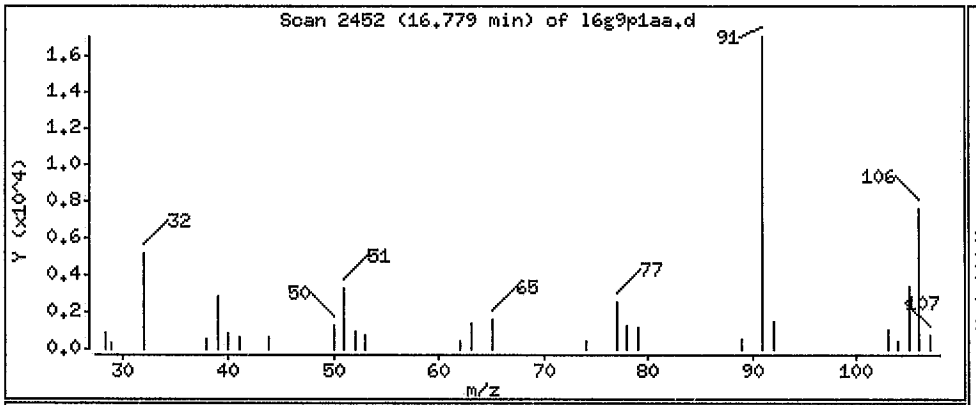
Client ID: ISG-01-9 Instrument: mj.i

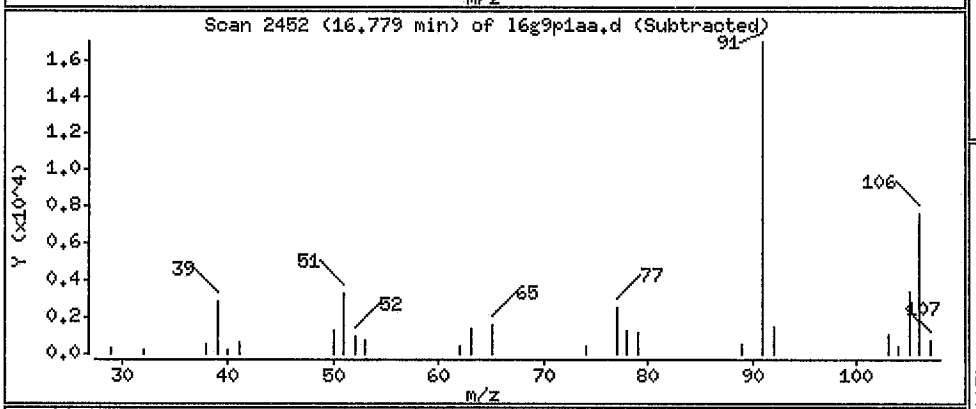
Sample Info: ,5,0,,,

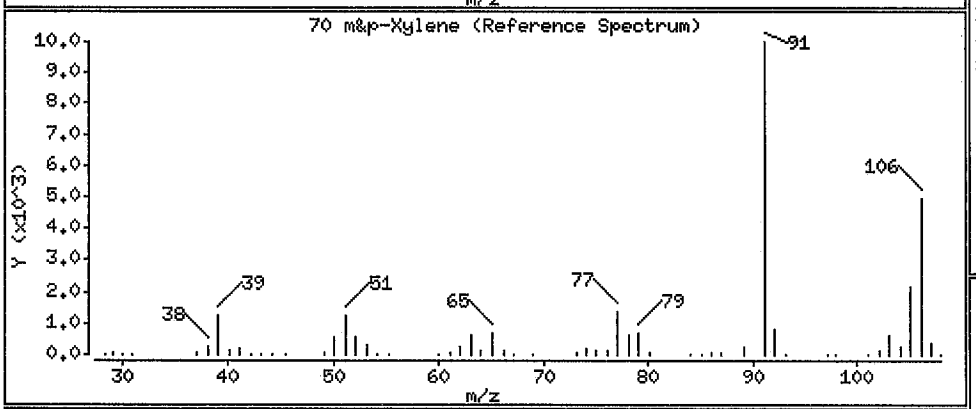
Purge Volume: 500.0 Operator: 7126

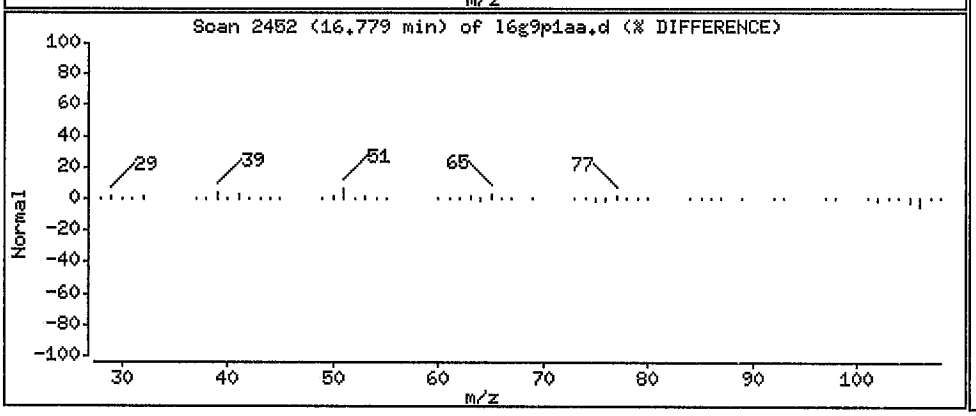
Column phase: Rtx-5 Column diameter: 0.32

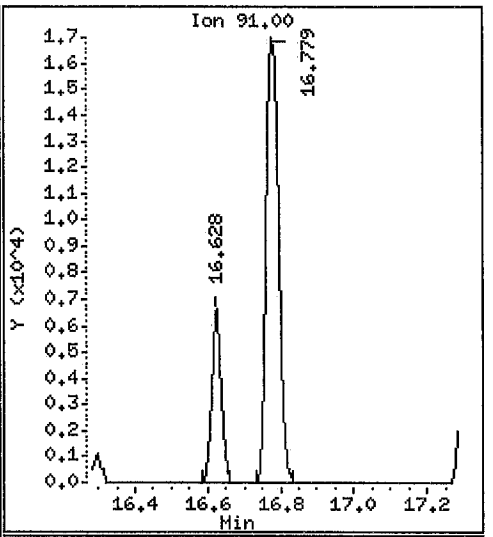
70 m&p-Xylene Concentration: 1.202 ppb(v/v)

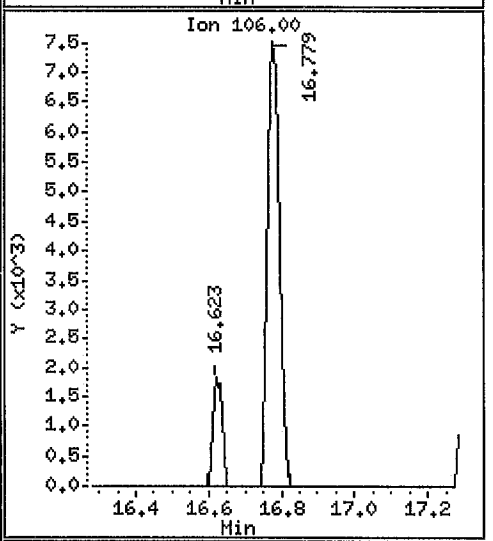


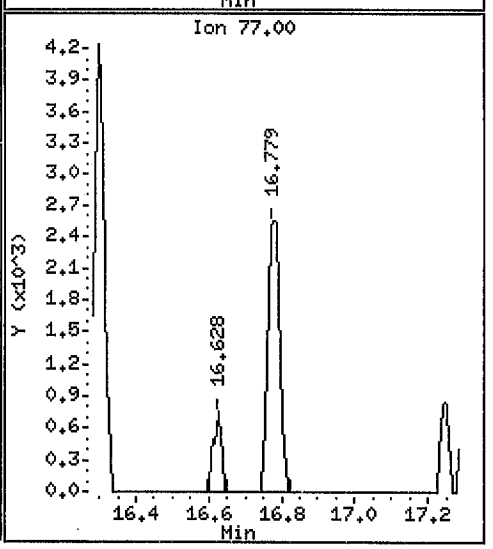












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9p1aa.d

Date : 08-SEP-2010 20:22

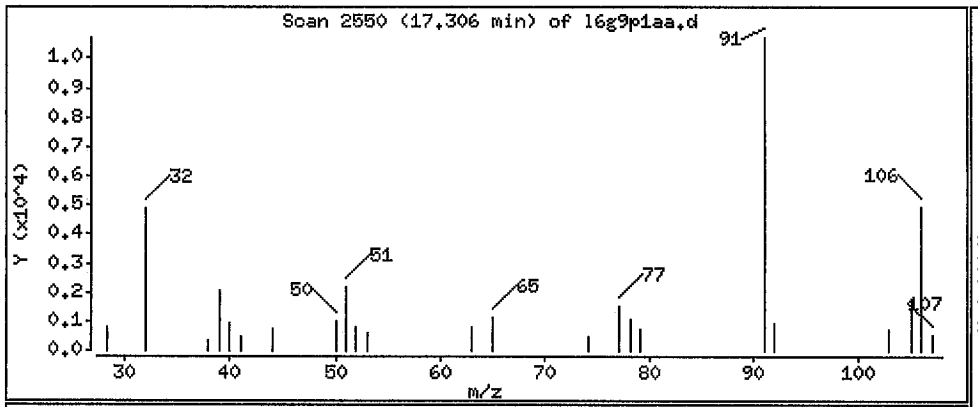
Client ID: ISC-01-9 Instrument: mj.i

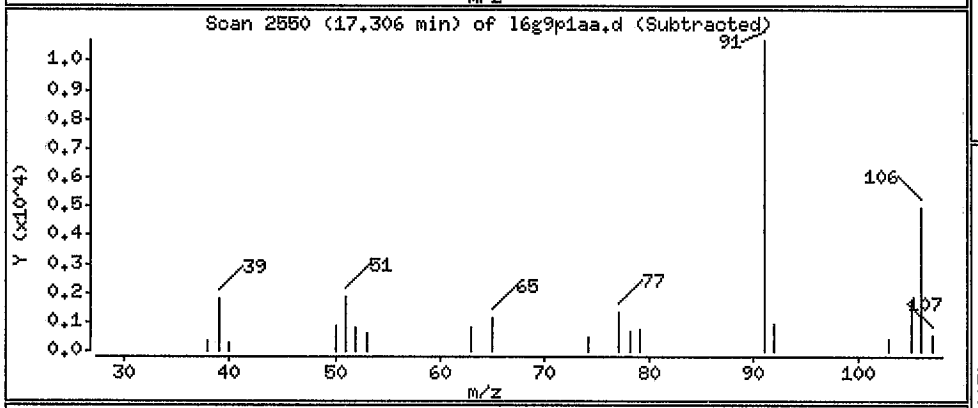
Sample Info: ,5,0,,,

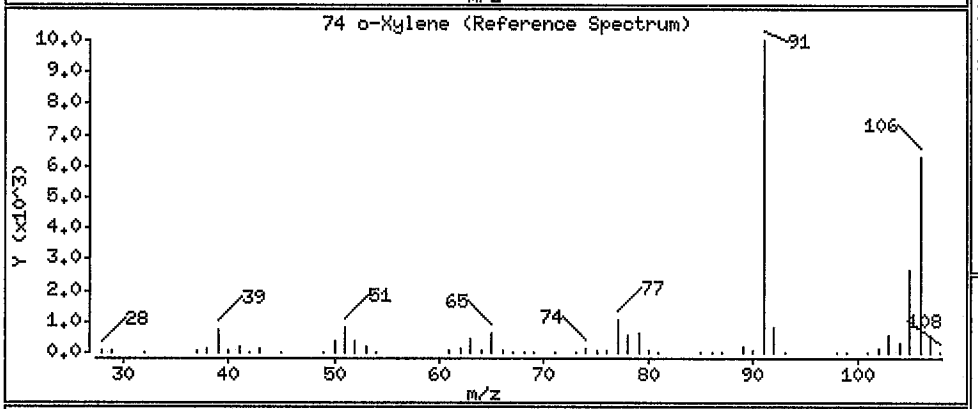
Purge Volume: 500.0 Operator: 7126

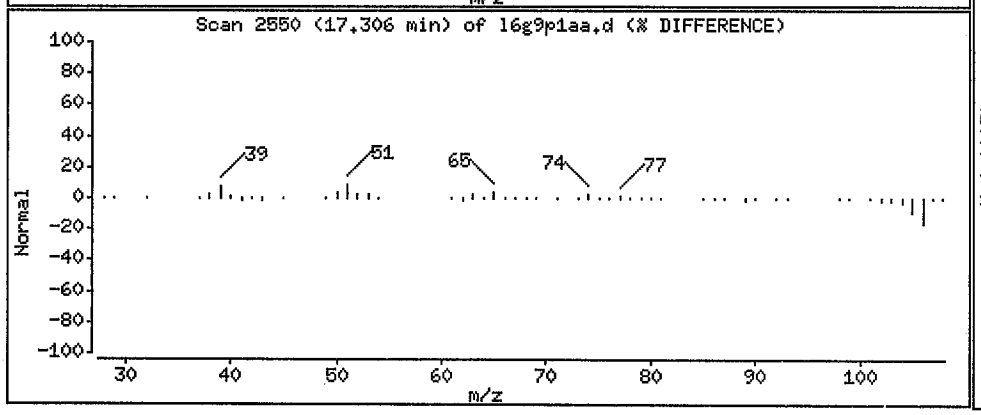
Column phase: Rtx-5 Column diameter: 0.32

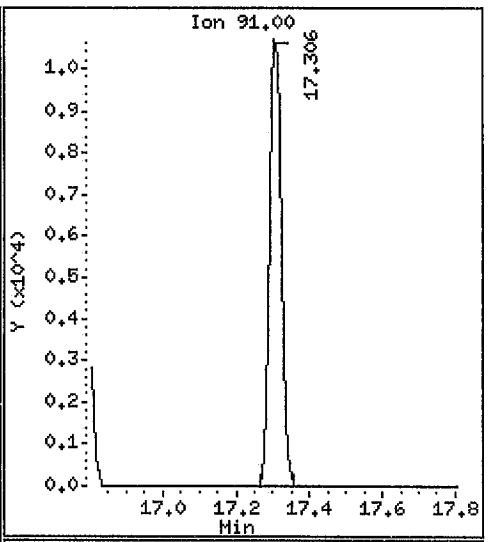
74 o-Xylene Concentration: 0.6672 ppb(v/v)

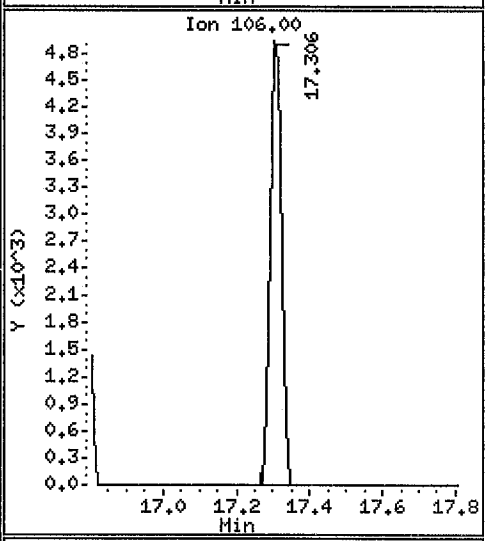


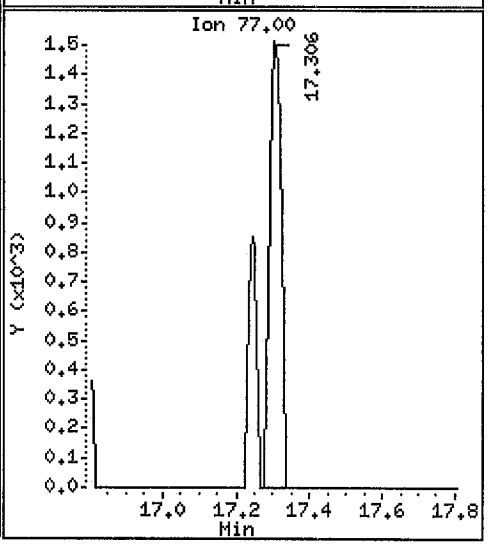












Data File: /var/chem/gcms/mj.i/J090810.b/16g9p1aa.d

Date : 08-SEP-2010 20:22

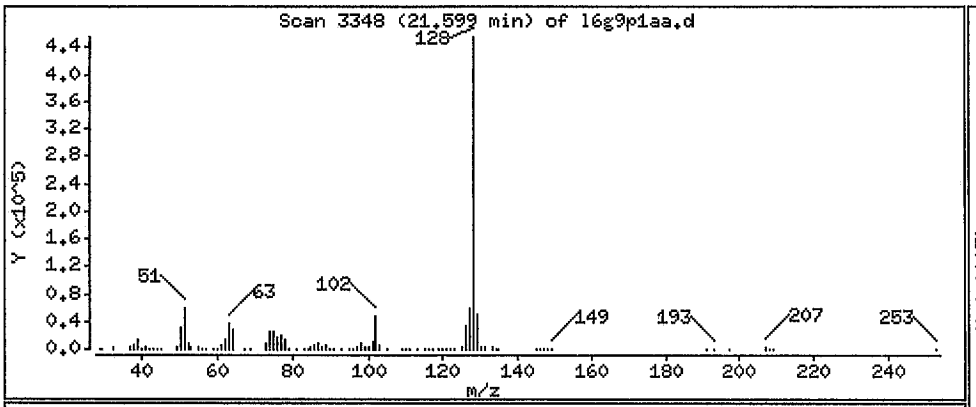
Client ID: ISG-01-9 Instrument: mj.i

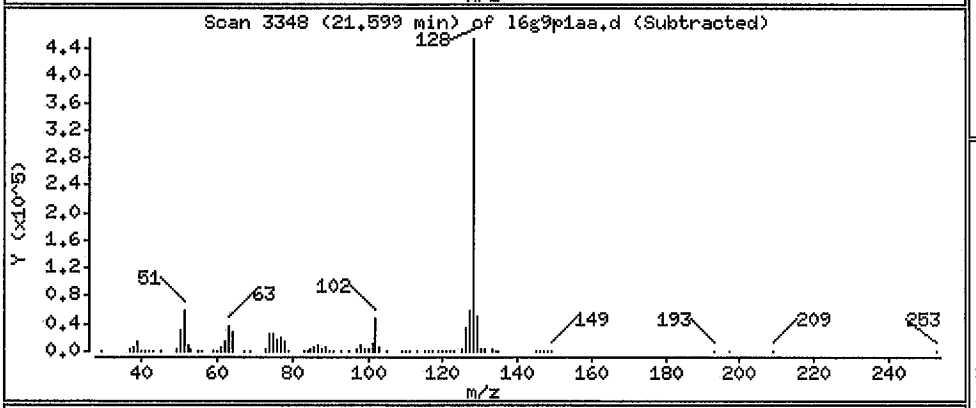
Sample Info: ,5,0,,,

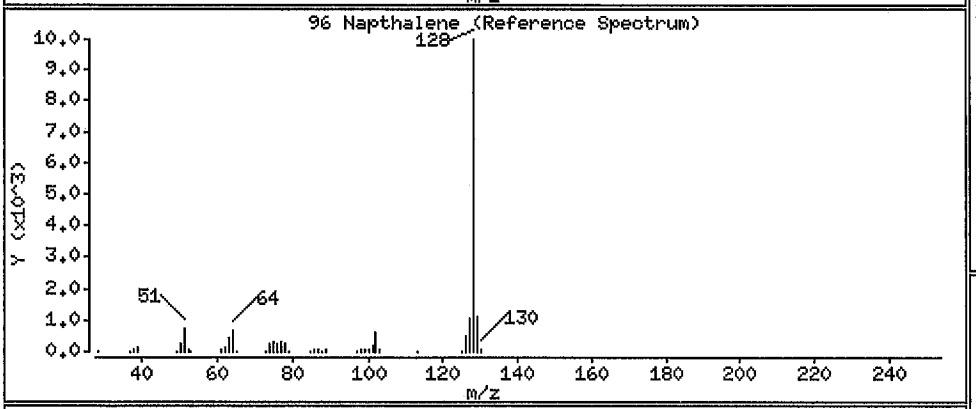
Purge Volume: 500.0 Operator: 7126

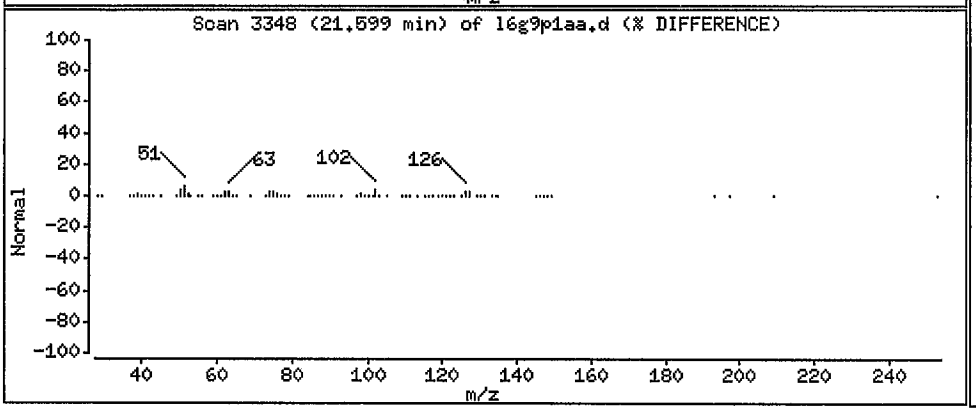
Column phase: Rtx-5 Column diameter: 0.32

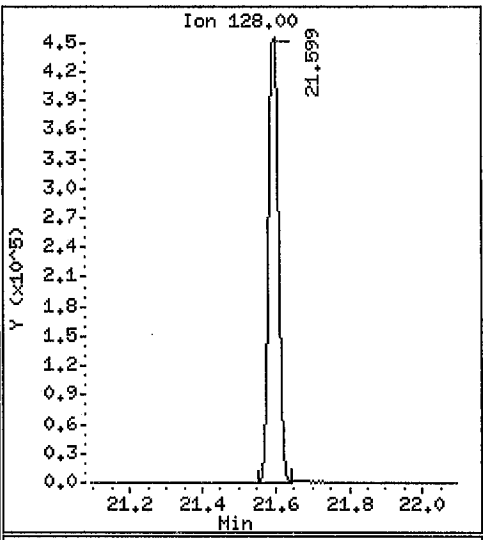
96 Napthalene Concentration: 24.29 ppb(v/v)

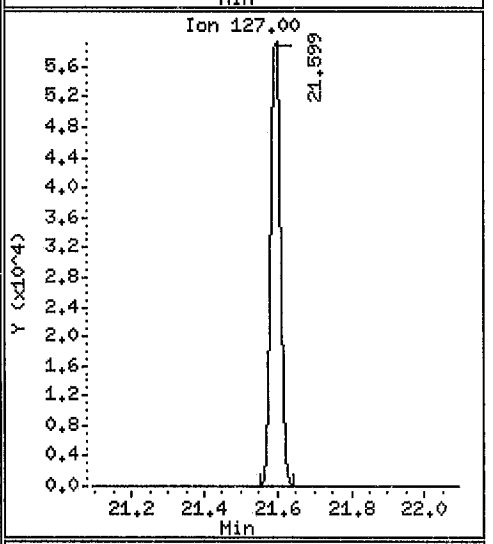


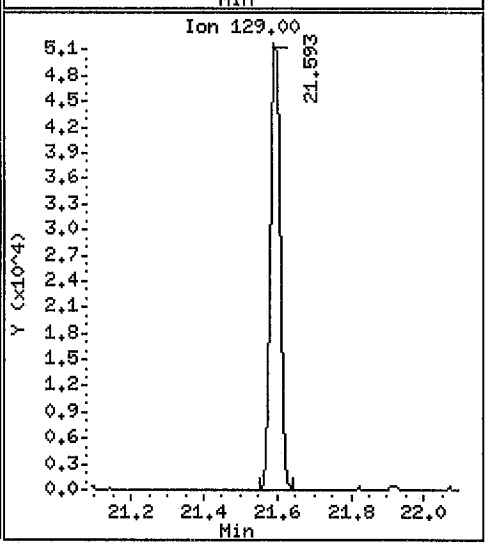












Tetra Tech NUS, Inc

Client Sample ID: IAQ-C10-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 011 **Work Order #** L6G9Q1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.24**	**0.80**	**0.23**	**0.78 J**	**2.6**	**0.73**
Carbon tetrachloride	ND	0.80	0.15	ND	5.0	0.94
Chlorodifluoromethane	**120**	**0.80**	**0.15**	**430**	**2.8**	**0.53**
Chloroform	ND	0.80	0.15	ND	3.9	0.73
Dichlorodifluoromethane	**0.67**	**0.80**	**0.27**	**3.3 J**	**4.0**	**1.3**
1,1-Dichloroethane	ND	0.80	0.10	ND	3.2	0.40
1,2-Dichloroethane	ND	0.80	0.19	ND	3.2	0.77
cis-1,2-Dichloroethene	ND	0.80	0.24	ND	3.2	0.95
trans-1,2-Dichloroethene	ND	0.80	0.20	ND	3.2	0.79
1,1-Dichloroethene	ND	0.80	0.13	ND	3.2	0.52
Ethylbenzene	ND	0.80	0.27	ND	3.5	1.2
Methylene chloride	**3.7**	**2.0**	**0.18**	**13**	**6.9**	**0.63**
Methyl tert-butyl ether	ND	4.0	0.68	ND	14	2.5
Naphthalene	**0.58**	**2.0**	**0.36**	**3.1 J**	**10**	**1.9**
Tetrachloroethene	ND	0.80	0.16	ND	5.4	1.1
Toluene	**1.4**	**0.80**	**0.21**	**5.3**	**3.0**	**0.79**
1,2,4-Trichlorobenzene	ND	4.0	0.39	ND	30	2.9
1,1,1-Trichloroethane	ND	0.80	0.12	ND	4.4	0.65
1,1,2-Trichloroethane	ND	0.80	0.21	ND	4.4	1.1
Trichloroethene	ND	0.40	0.14	ND	2.1	0.75
Vinyl chloride	ND	0.80	0.29	ND	2.0	0.74
m-Xylene & p-Xylene	**0.65**	**0.80**	**0.50**	**2.8 J**	**3.5**	**2.2**
o-Xylene	**0.27**	**0.80**	**0.24**	**1.2 J**	**3.5**	**1.0**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	100	60 - 140

Qualifiers

J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9q1aa.d
Report Date: 10-Sep-2010 14:31

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/l6g9q1aa.d
Lab Smp Id: L6G9Q1AA Client Smp ID: IAQ-C10-9
Inj Date : 08-SEP-2010 21:17
Operator : 7126 Inst ID: mj.i
Smp Info : ,10,0,,,
Misc Info : J090810,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 10-Sep-2010 14:16 barlozha Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 11
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
*	1 Bromochloromethane	128	9.467	9.479	(1.000)	162933	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.635	11.642	(1.000)	792425	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.299	16.300	(1.000)	719808	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.913	17.914	(1.099)	548498	4.01477	4.015
	7 Chlorodifluoromethane	67	3.878	3.901	(0.410)	252349	12.2469	122.5
	8 Dichlorodifluoromethane	85	3.959	3.970	(0.418)	11889	0.06720	0.6720
	31 Methylene Chloride	84	6.777	6.784	(0.716)	19711	0.37178	3.718
	48 Benzene	78	11.119	11.125	(0.956)	4101	0.02448	0.2448
	61 Toluene	91	14.352	14.358	(0.881)	24013	0.14166	1.417
	69 Ethylbenzene	91	16.778	16.623	(1.029)	9611	0.04945	~~0.4944~~
	70 m&p-Xylene	91	16.778	16.784	(1.029)	9611	0.06538	0.6538
	74 o-Xylene	91	17.305	17.306	(1.062)	4104	0.02684	0.2684
	96 Napthalene	128	21.598	21.594	(1.325)	8627	0.05823	0.5823

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9q1aa.d
Report Date: 10-Sep-2010 14:31

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9q1aa.d
Lab Smp Id: L6G9Q1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: IAQ-C10-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	162933	-16.47
2 1,4-Difluorobenze	936174	557024	1315324	792425	-15.35
3 Chlorobenzene-d5	815161	485021	1145301	719808	-11.70

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.13
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.06
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	-0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9q1aa.d
Report Date: 10-Sep-2010 14:31

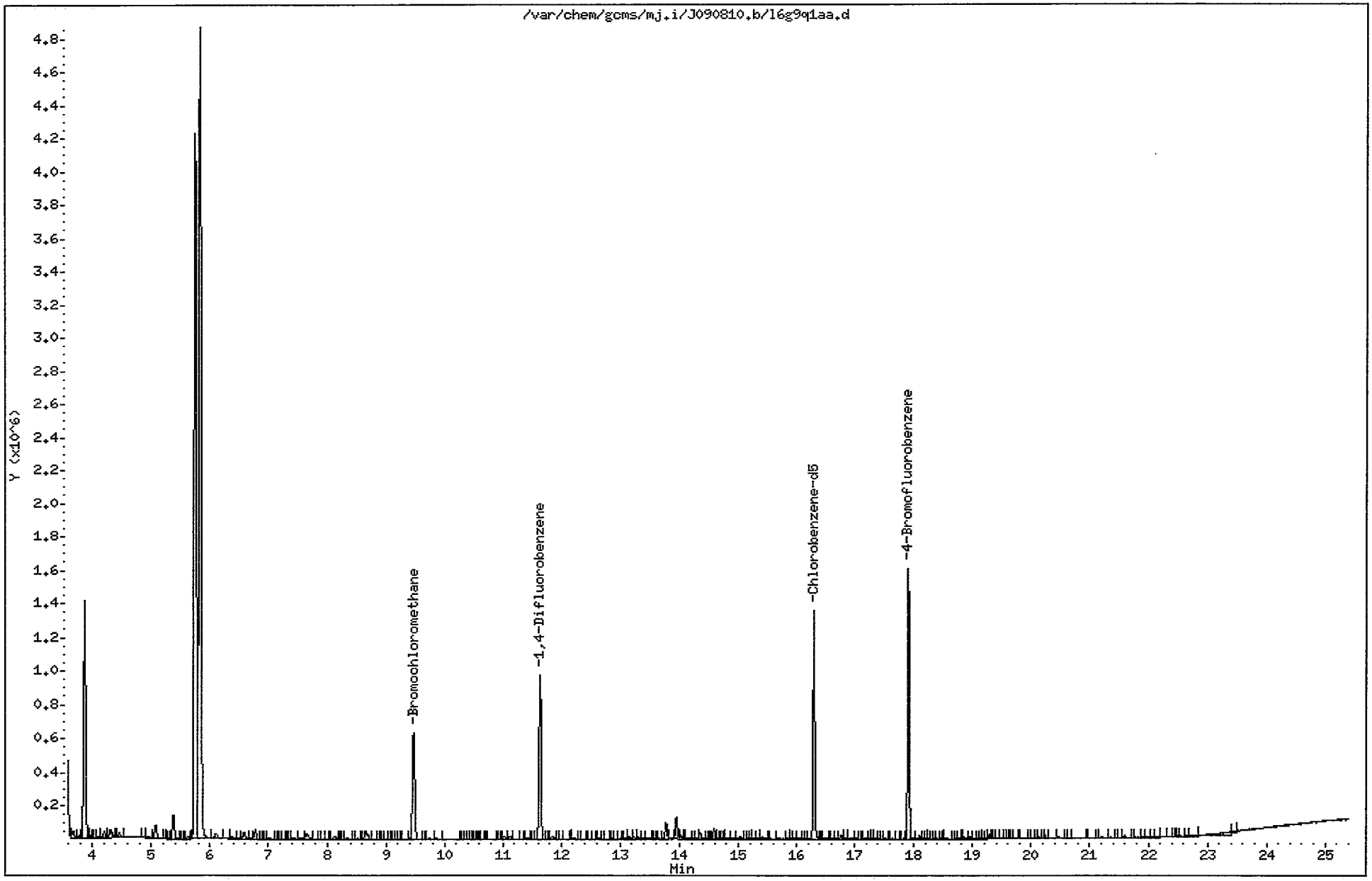
TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9Q1AA
Client Smp ID: IAQ-C10-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.015	100.37	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9q1aa.d
Date : 08-SEP-2010 21:17
Client ID: IAQ-C10-9
Instrument: mj.i
Sample Info: ,10,0,,,
Purge Volume: 500.0
Operator: 7126
Column phase: Rtx-5
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J090810.b/16g9q1aa.d

Date : 08-SEP-2010 21:17

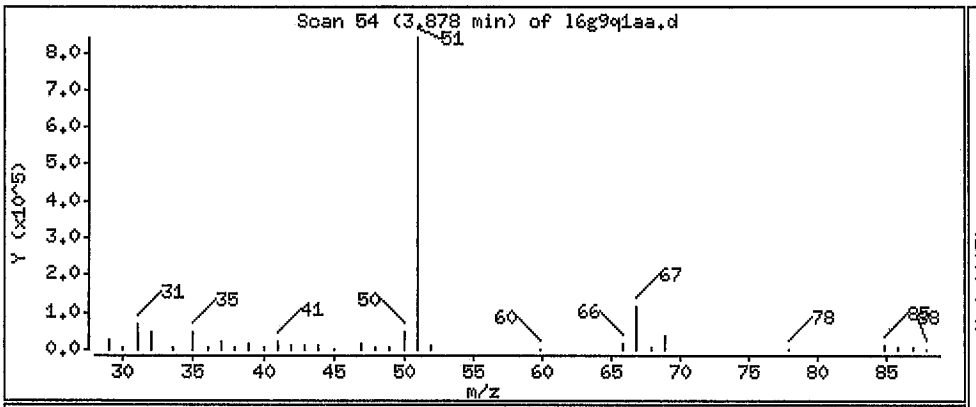
Client ID: IAQ-C10-9 Instrument: mj.i

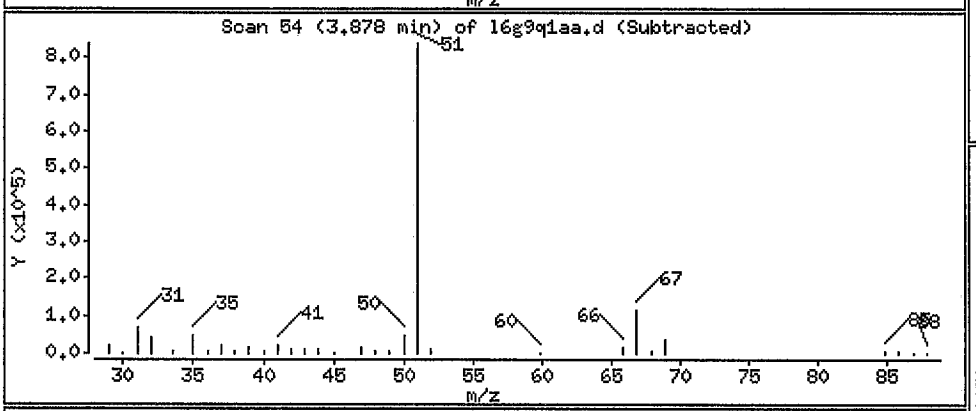
Sample Info: ,10,0,,,

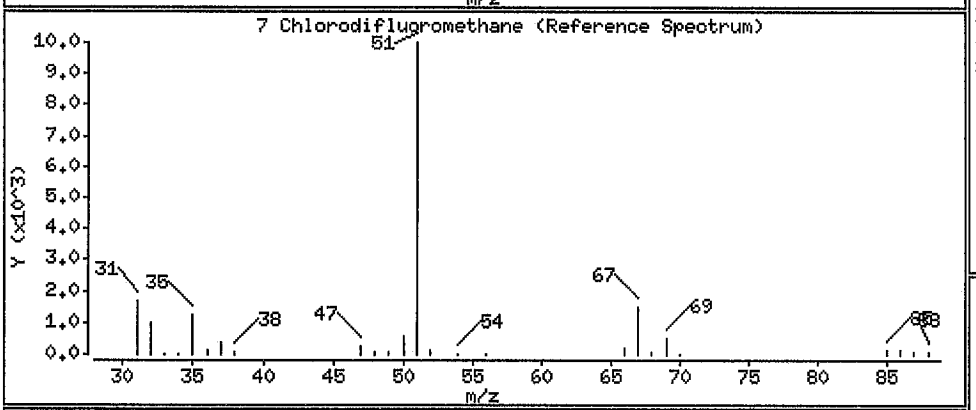
Purge Volume: 500.0 Operator: 7126

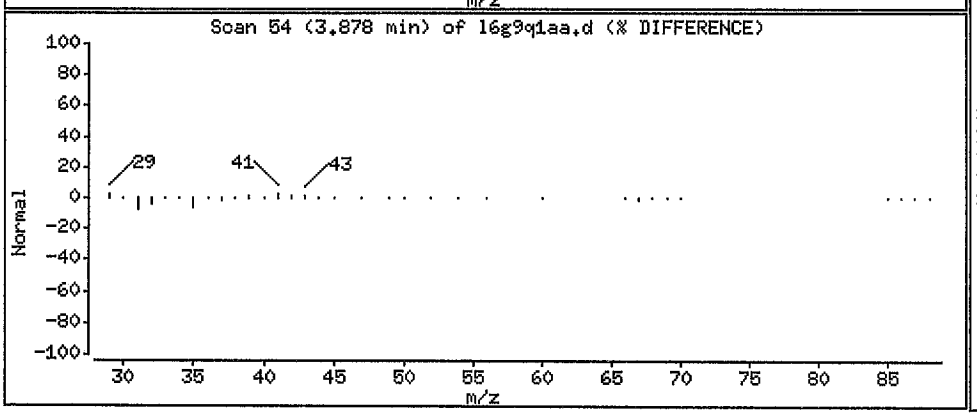
Column phase: Rtx-5 Column diameter: 0.32

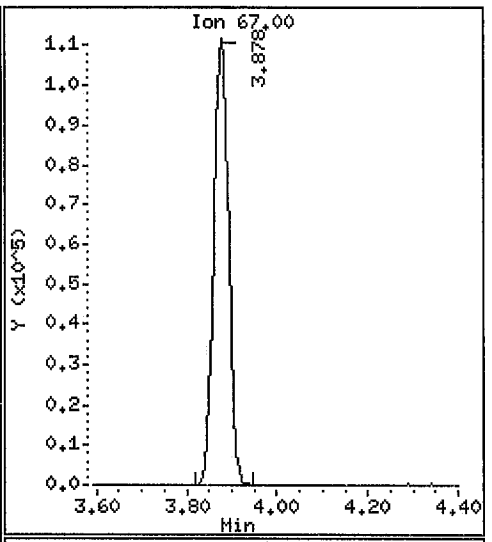
7 Chlorodifluoromethane Concentration: 122.5 ppb(v/v)

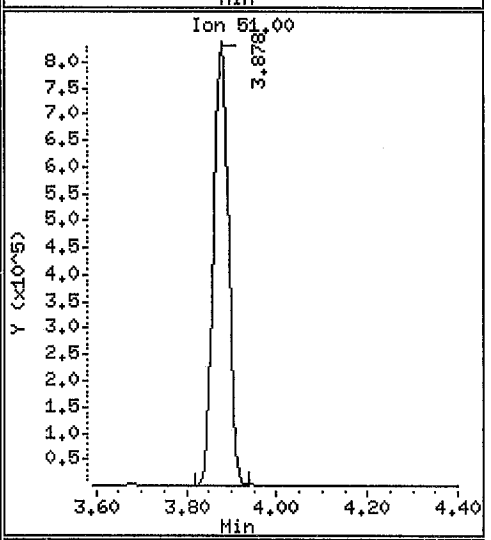


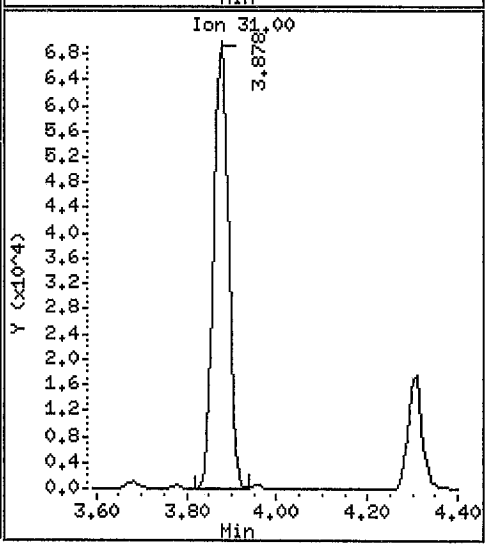












Data File: /var/chem/gcms/mj.i/J090810.b/16g9q1aa.d

Date : 08-SEP-2010 21:17

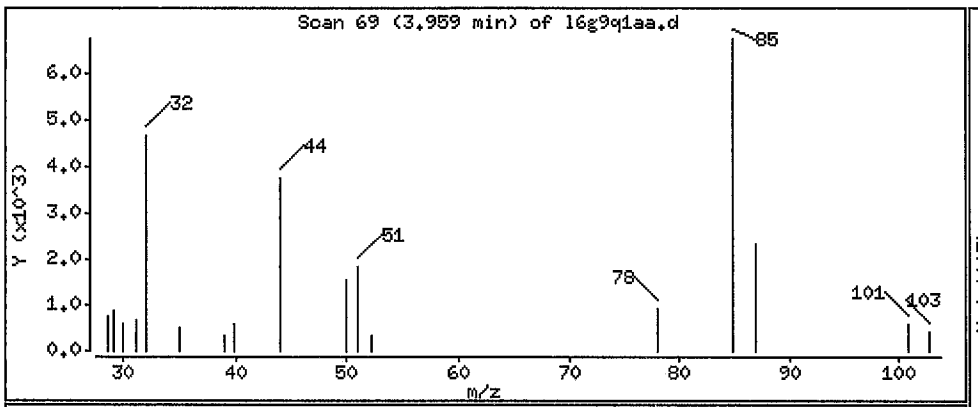
Client ID: IAQ-C10-9 Instrument: mj.i

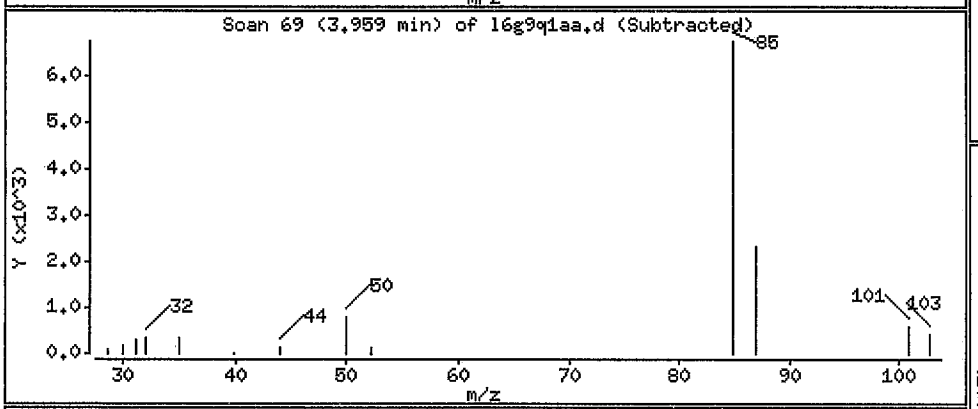
Sample Info: ,10,0,,,

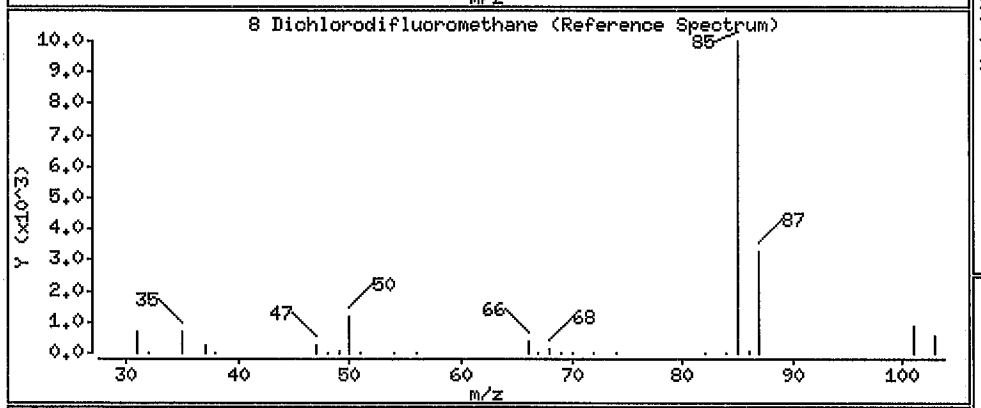
Purge Volume: 500.0 Operator: 7126

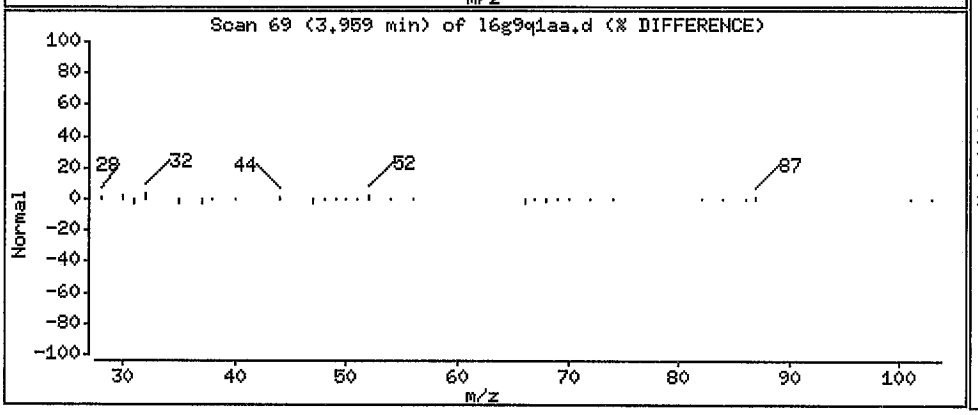
Column phase: Rtx-5 Column diameter: 0.32

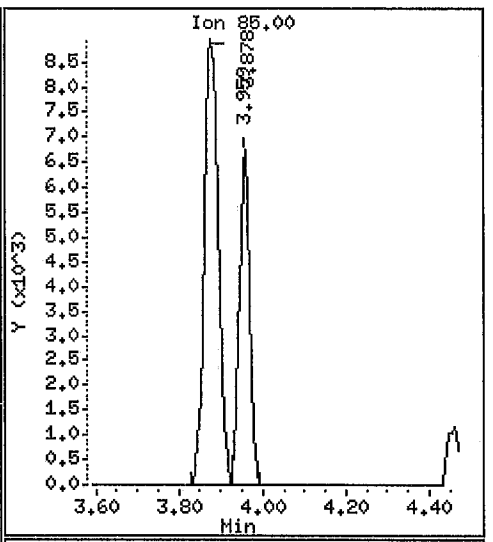
8 Dichlorodifluoromethane Concentration: 0.6720 ppb(v/v)

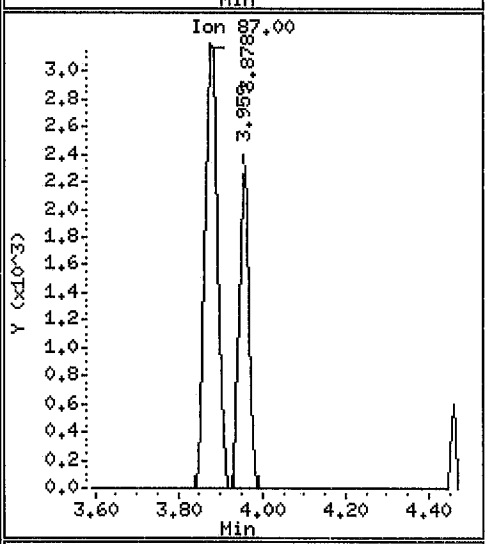


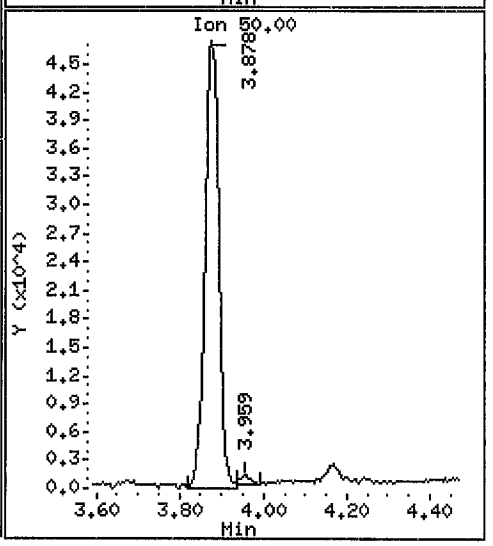












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Date : 08-SEP-2010 21:17

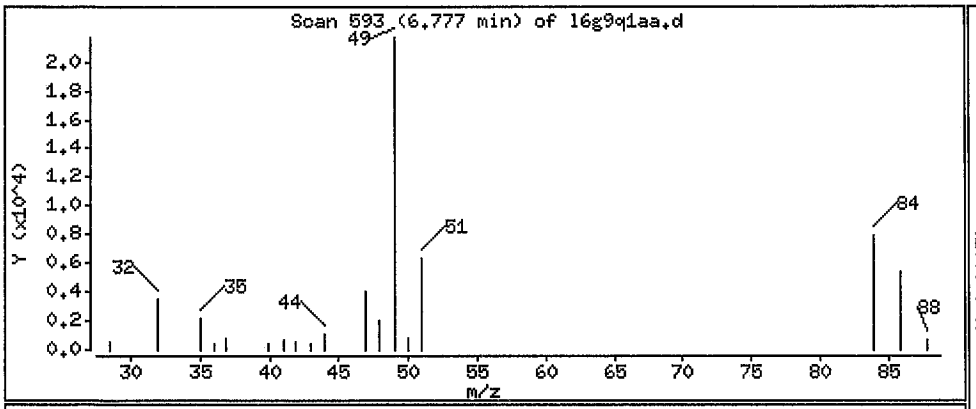
Client ID: IAQ-C10-9 Instrument: mj.i

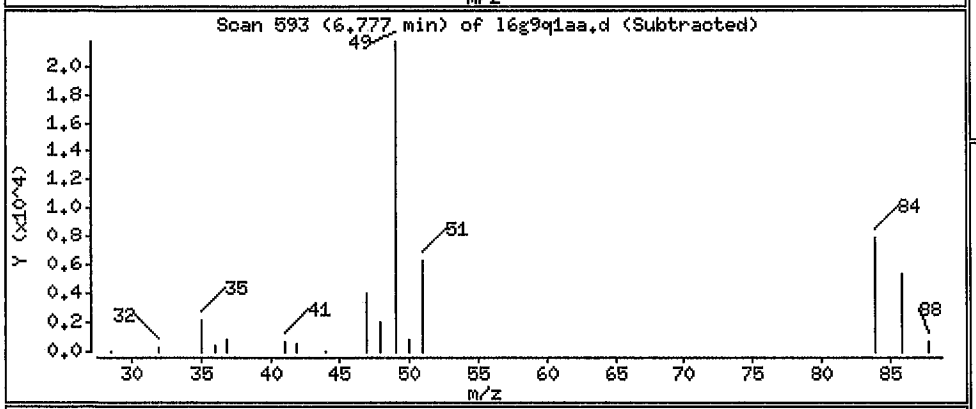
Sample Info: ,10,0,,,

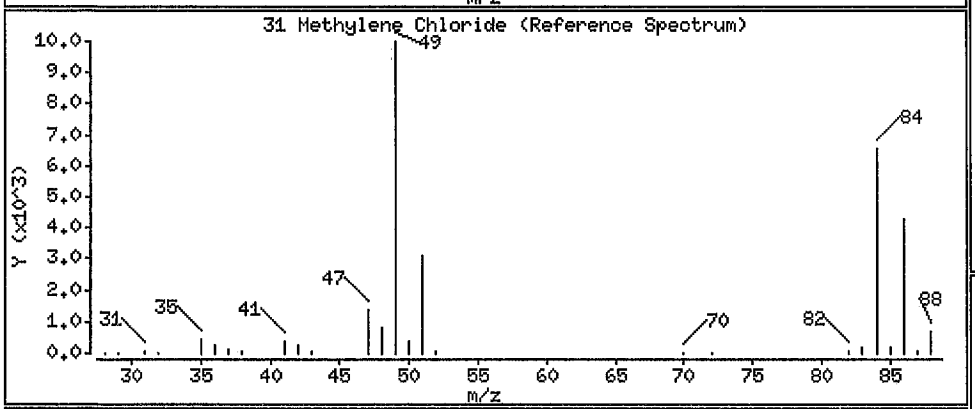
Purge Volume: 500.0 Operator: 7126

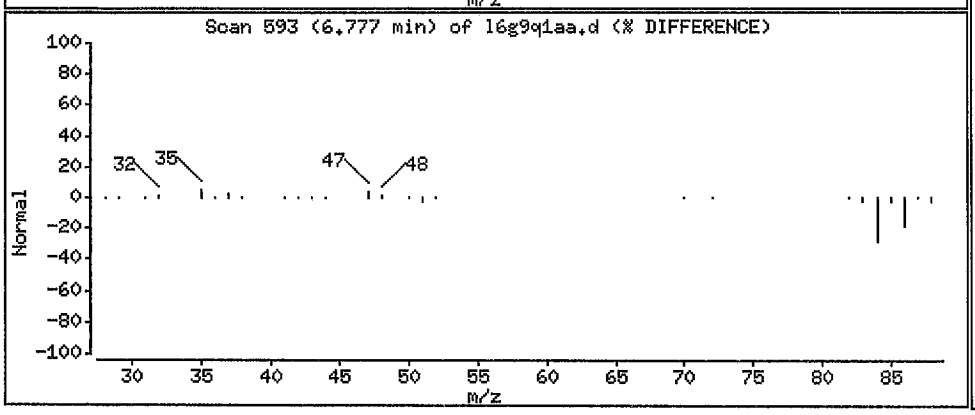
Column phase: Rtx-5 Column diameter: 0.32

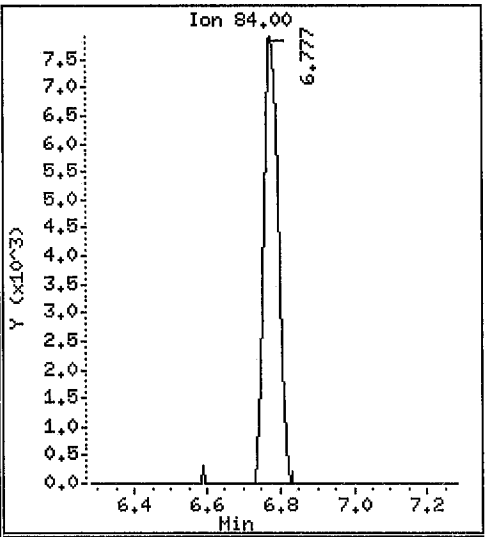
31 Methylene Chloride Concentration: 3.718 ppb(v/v)

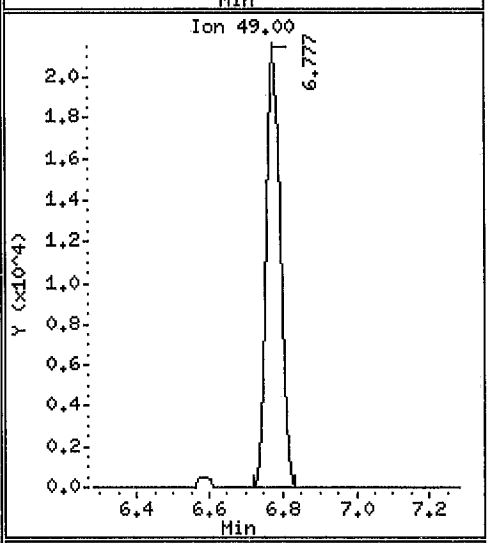


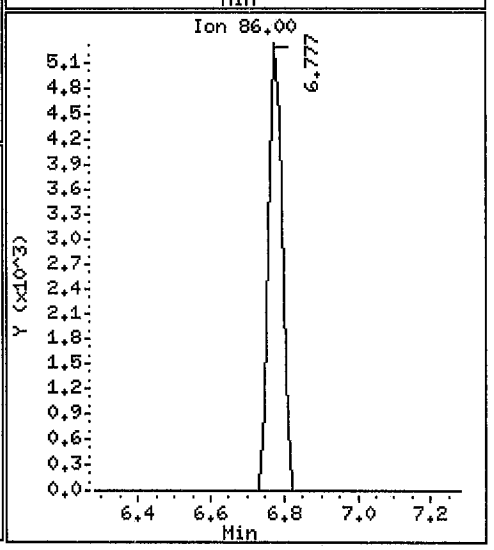












Data File: /var/chem/gcms/mj.i/J090810.b/16g9q1aa.d

Date : 08-SEP-2010 21:17

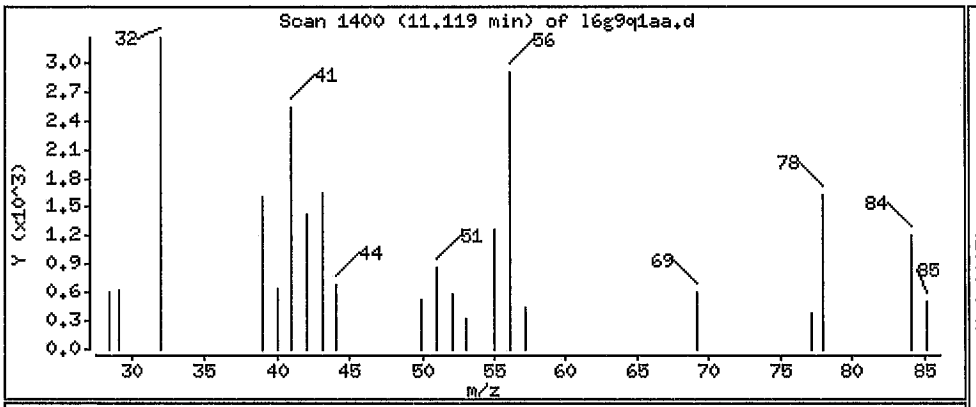
Client ID: IAQ-C10-9 Instrument: mj.i

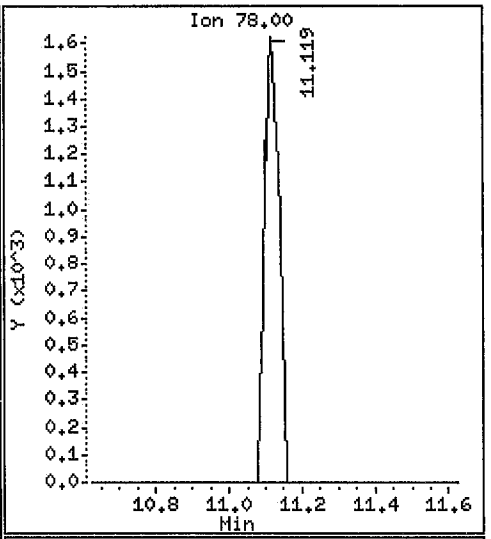
Sample Info: ,10,0,,,

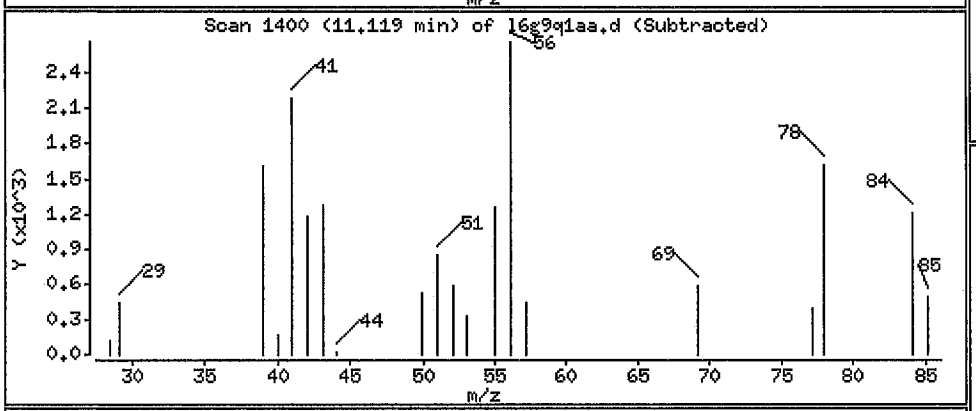
Purge Volume: 500.0 Operator: 7126

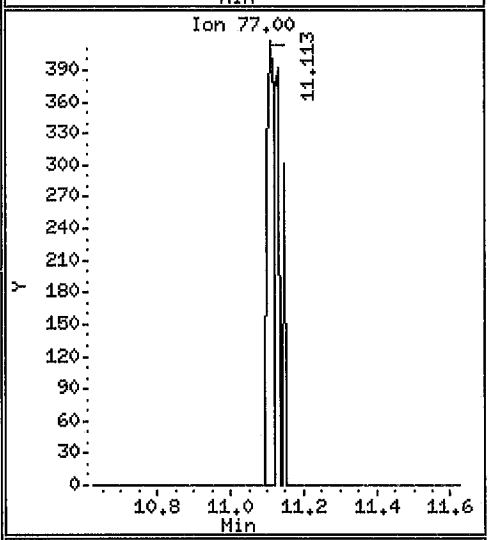
Column phase: Rtx-5 Column diameter: 0.32

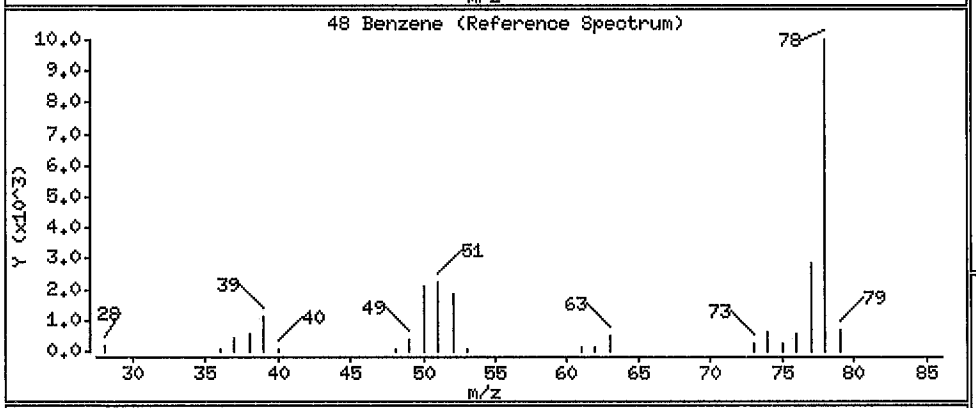
48 Benzene Concentration: 0.2448 ppb(v/v)

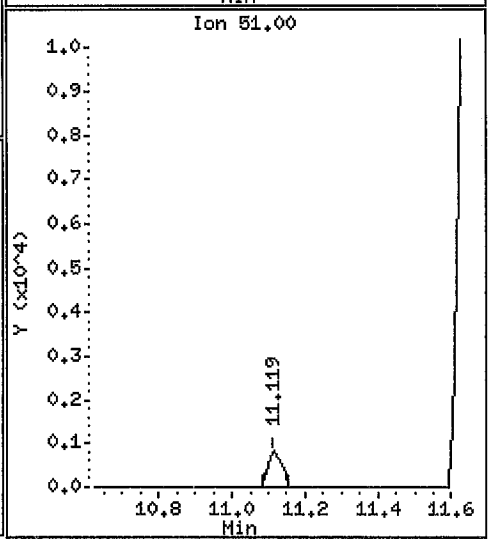


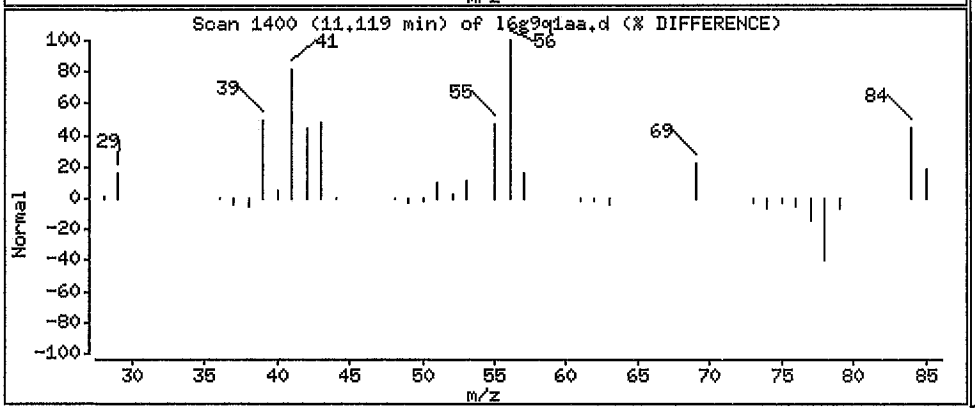












Data File: /var/chem/gcms/mj.i/J090810.b/16g9q1aa.d

Date : 08-SEP-2010 21:17

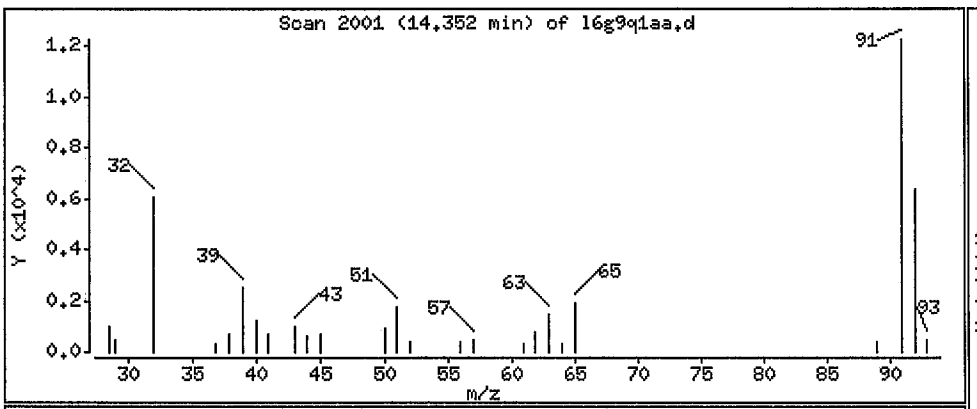
Client ID: IAQ-C10-9 Instrument: mj.i

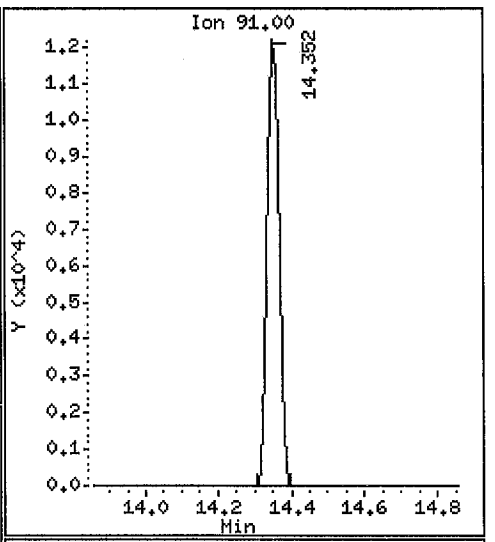
Sample Info: ,10,0,,,

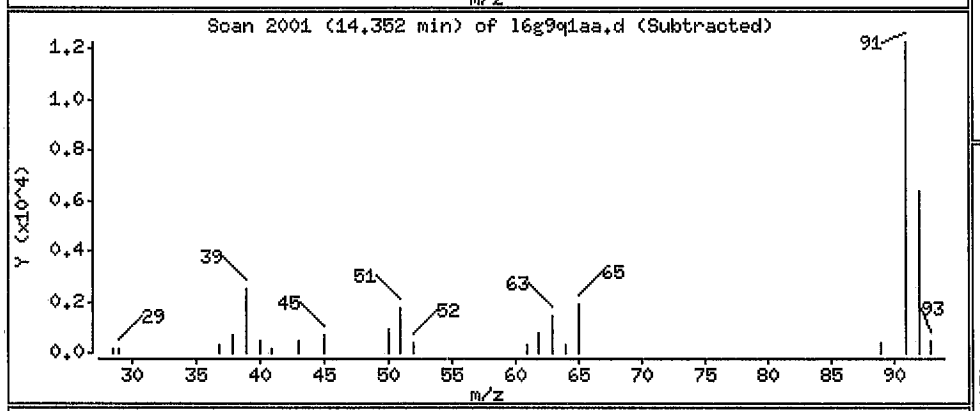
Purge Volume: 500.0 Operator: 7126

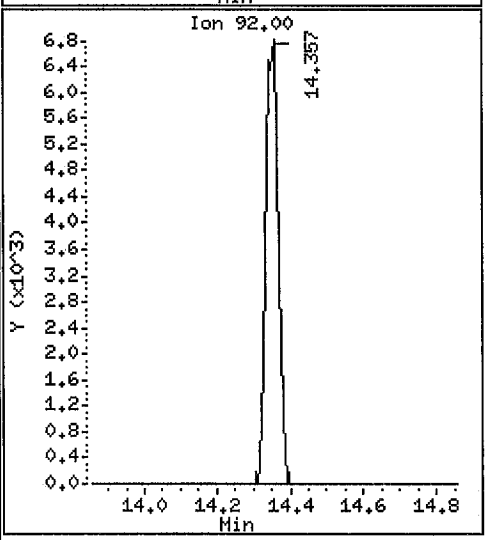
Column phase: Rtx-5 Column diameter: 0.32

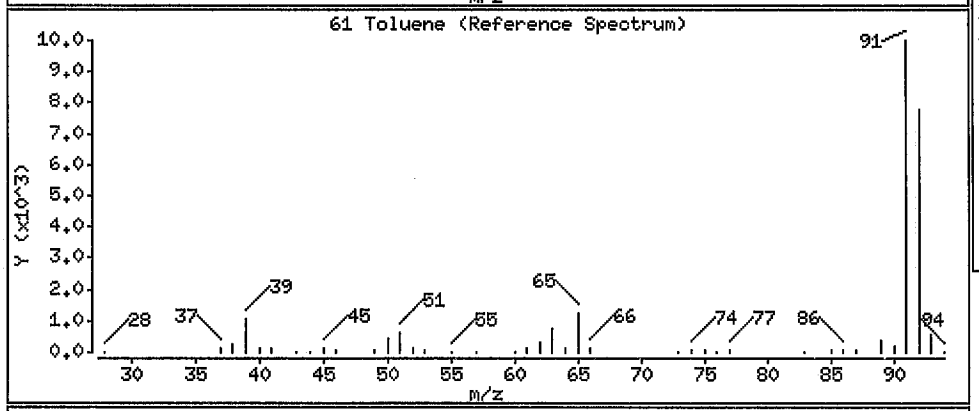
61 Toluene Concentration: 1.417 ppb(v/v)

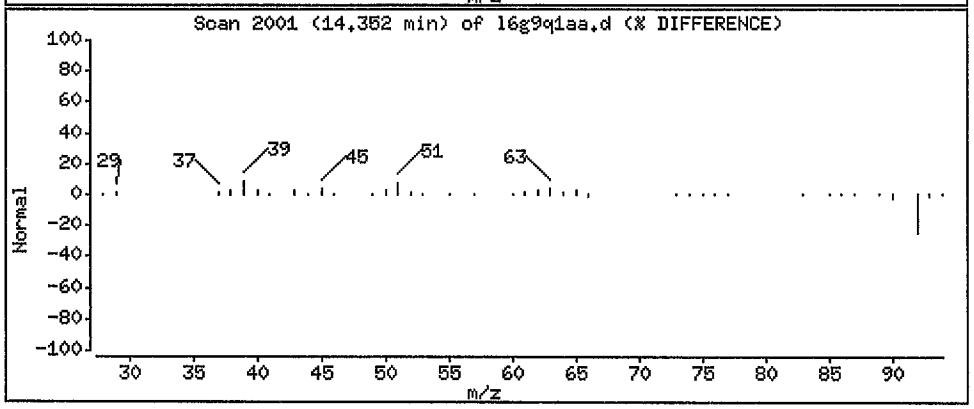












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Date : 08-SEP-2010 21:17

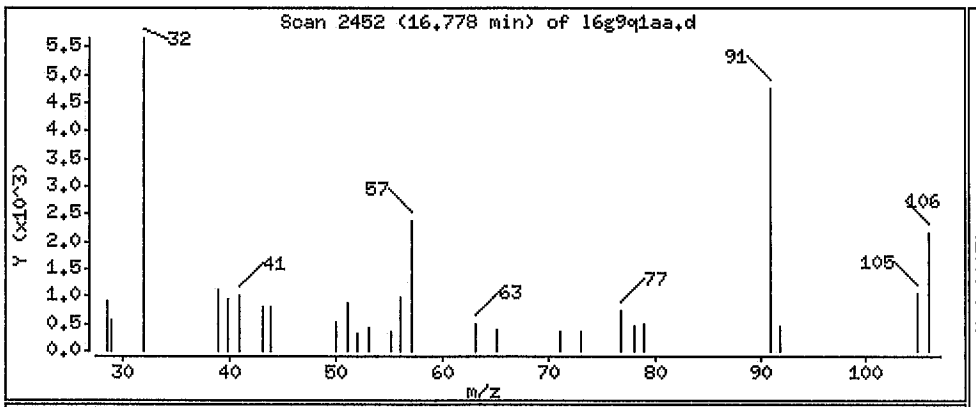
Client ID: IAQ-C10-9 Instrument: mj.i

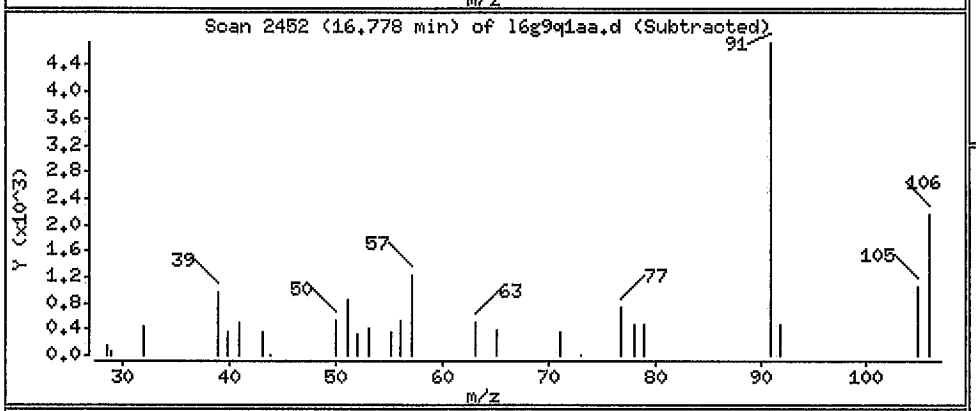
Sample Info: ,10,0,,,

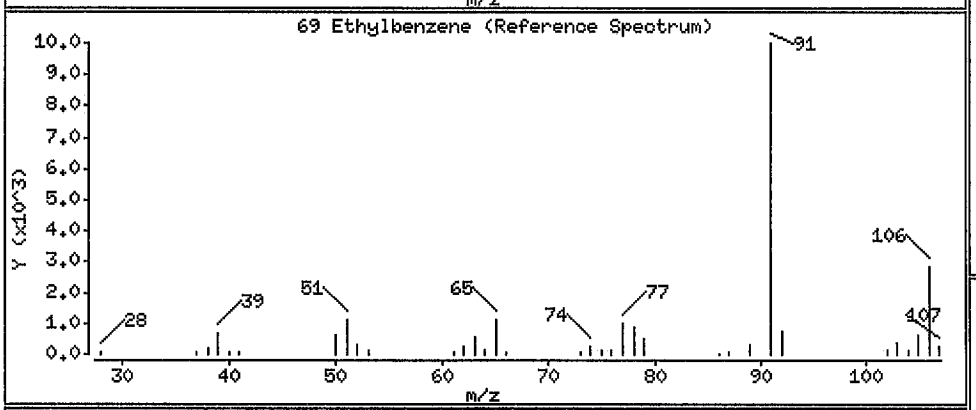
Purge Volume: 500.0 Operator: 7126

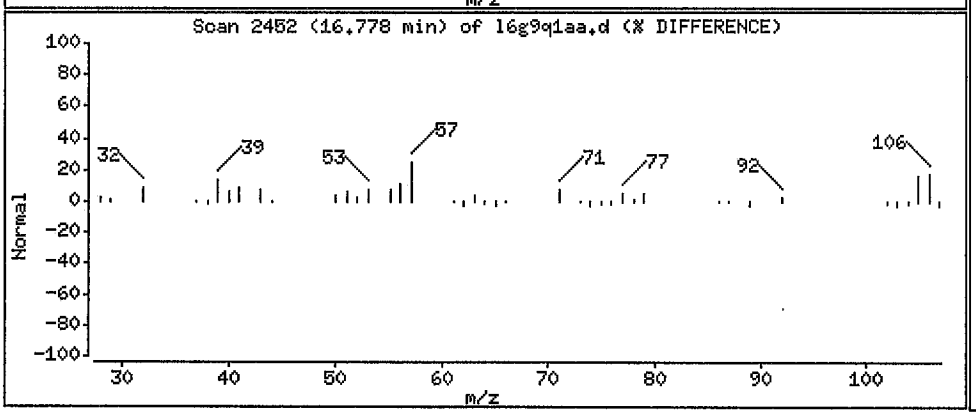
Column phase: Rtx-5 Column diameter: 0.32

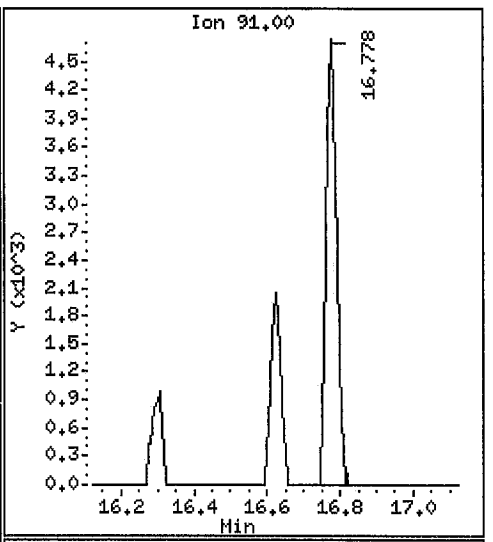
69 Ethylbenzene Concentration: 0.4944 ppb(v/v)

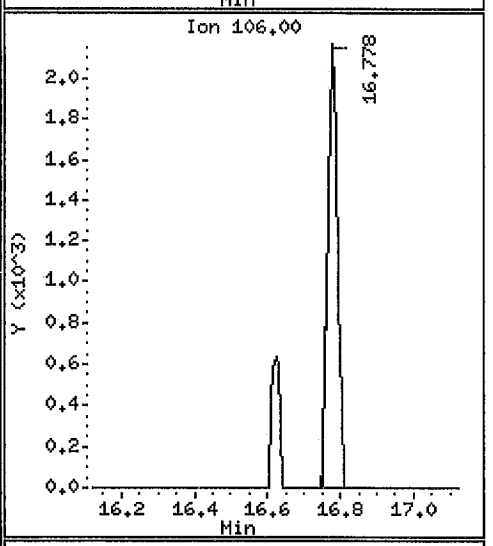


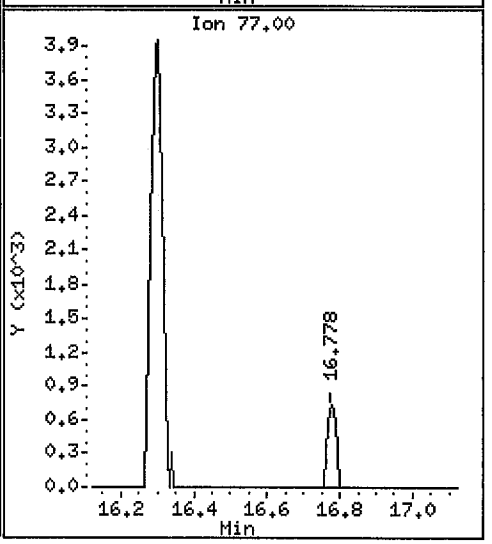












Data File: /var/chem/gcms/mj.i/J090810.b/16g9q1aa.d

Date : 08-SEP-2010 21:17

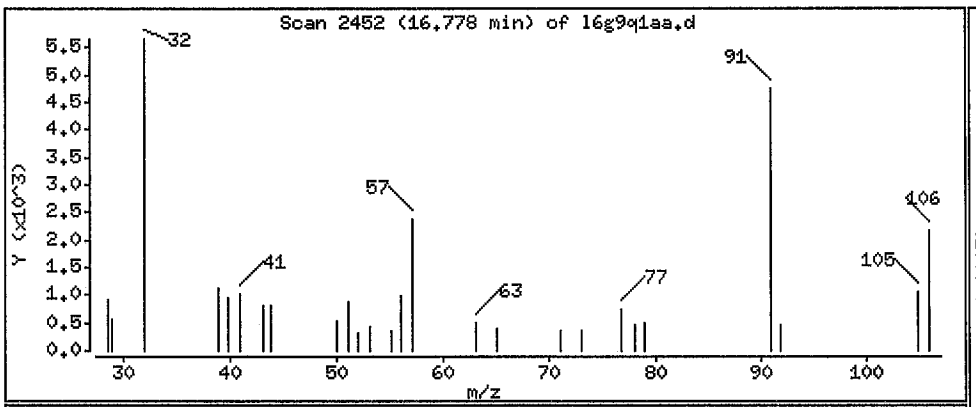
Client ID: IAQ-C10-9 Instrument: mj.i

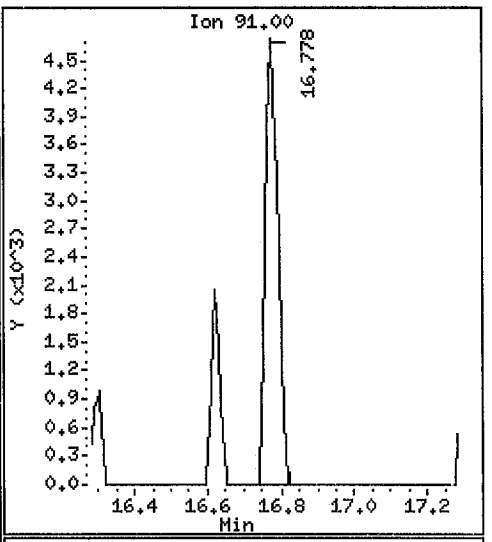
Sample Info: ,10,0,,,

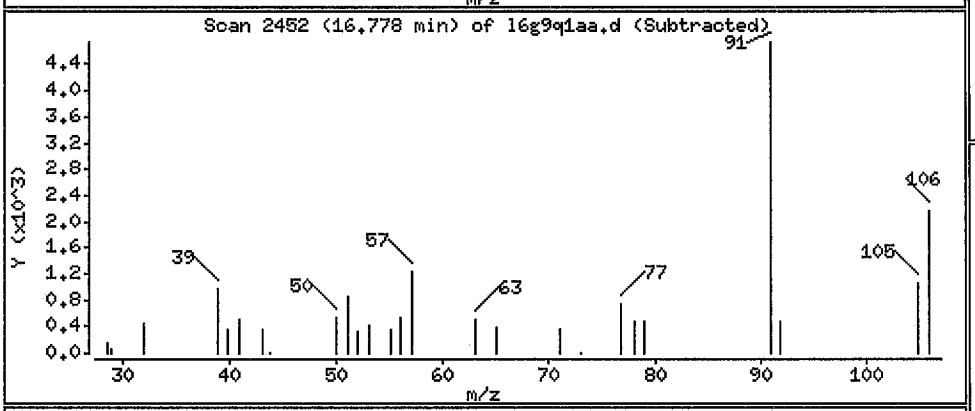
Purge Volume: 500.0 Operator: 7126

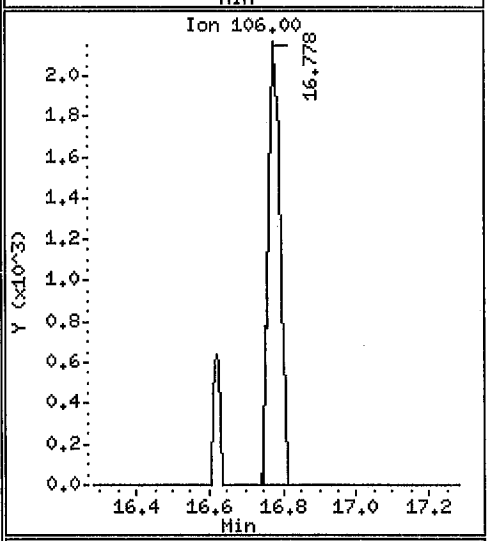
Column phase: Rtx-5 Column diameter: 0.32

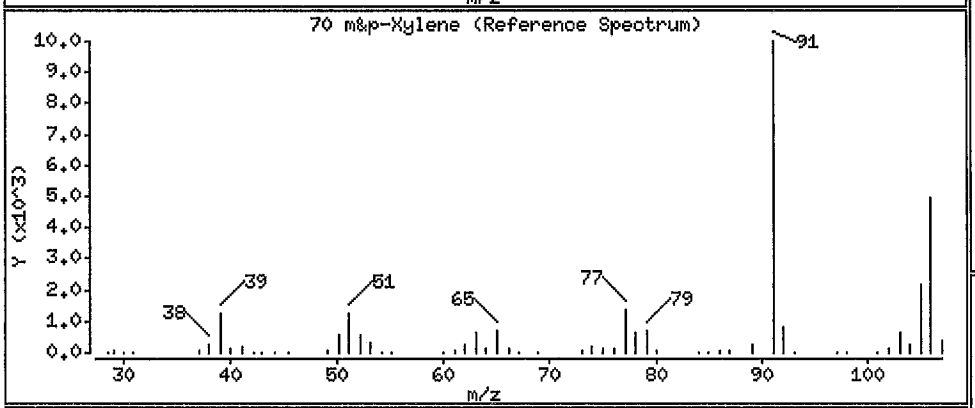
70 m&p-Xylene Concentration: 0.6538 ppb(v/v)

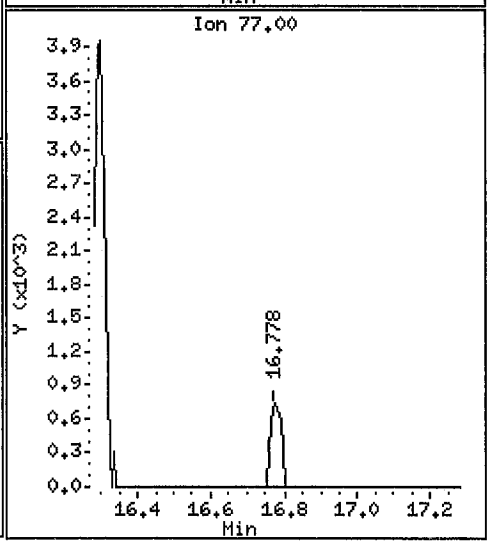


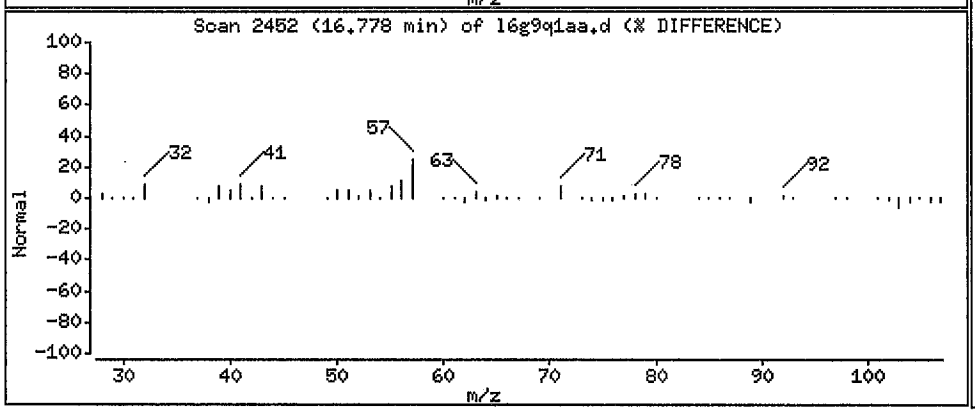












Data File: /var/chem/gcms/mj.i/J090810.b/16g9q1aa.d

Date : 08-SEP-2010 21:17

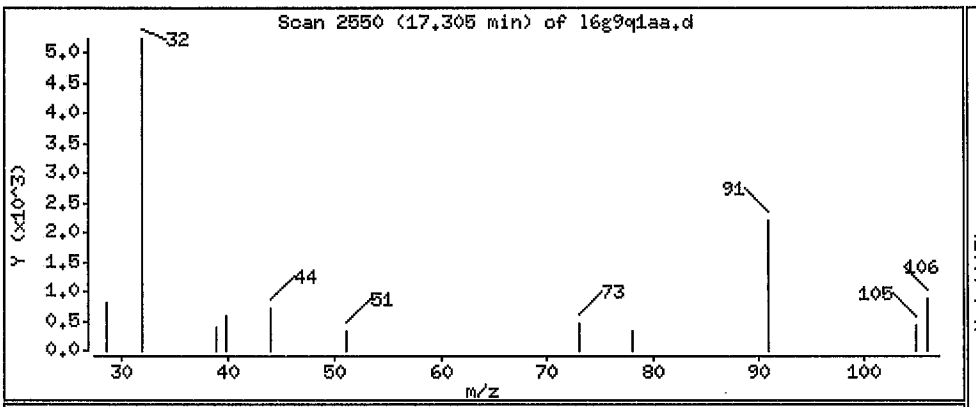
Client ID: IAQ-C10-9 Instrument: mj.i

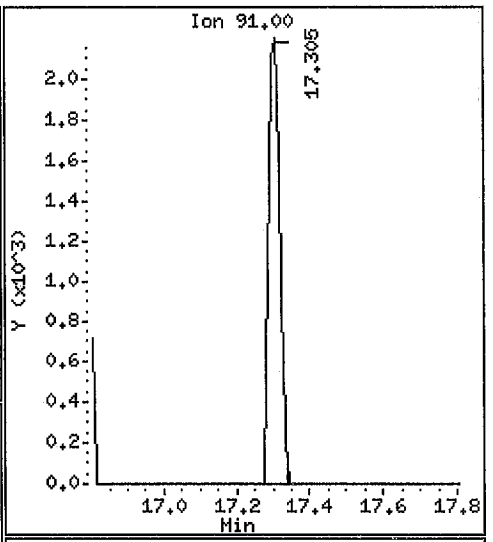
Sample Info: ,10,0,,,

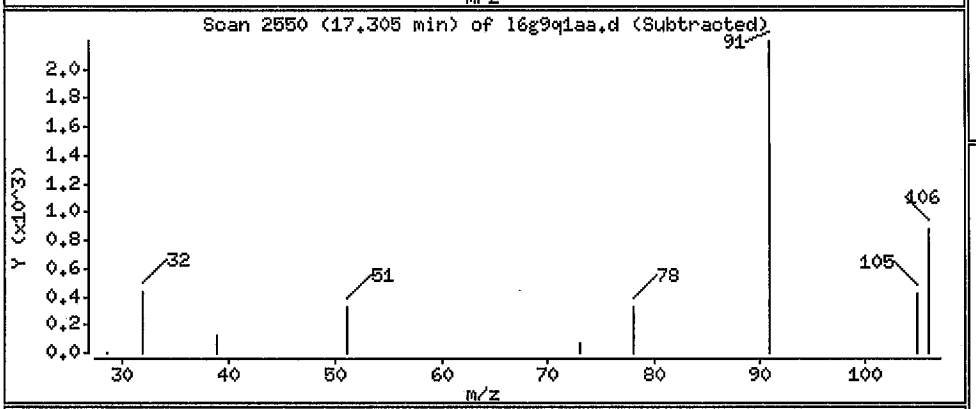
Purge Volume: 500.0 Operator: 7126

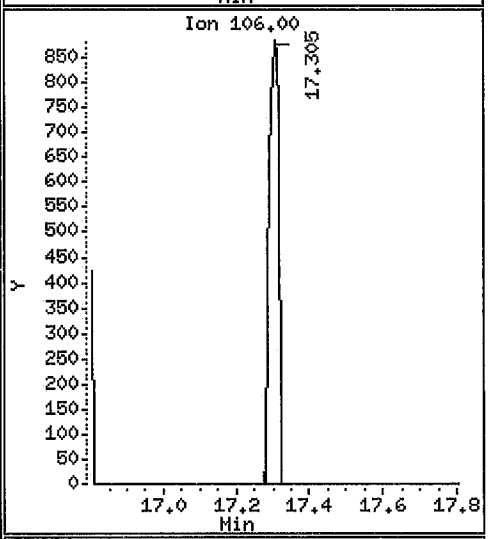
Column phase: Rtx-5 Column diameter: 0.32

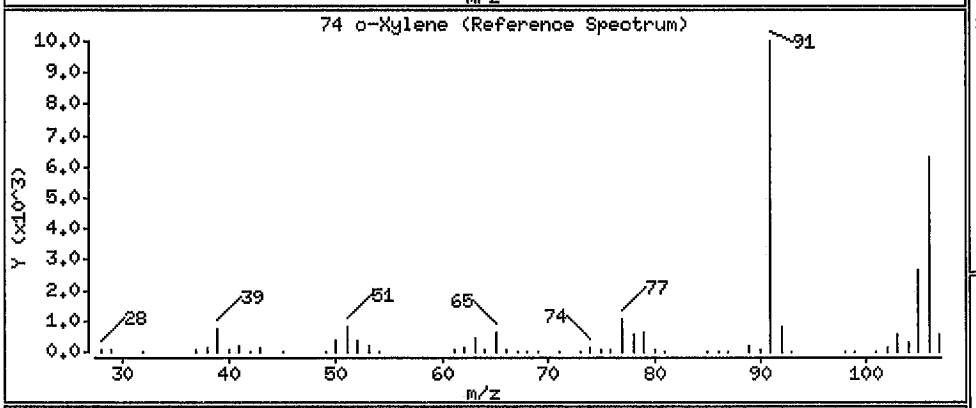
74 o-Xylene Concentration: 0.2684 ppb(v/v)

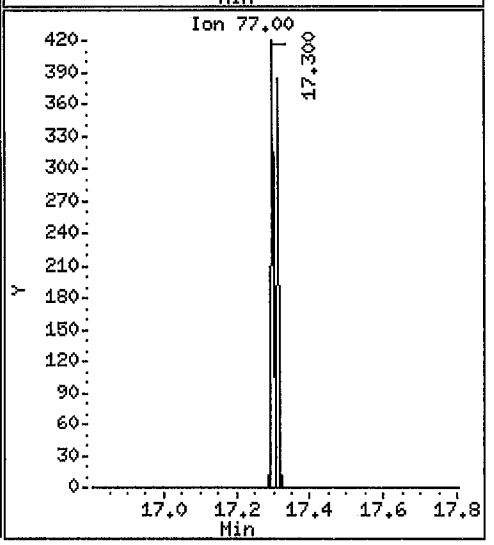


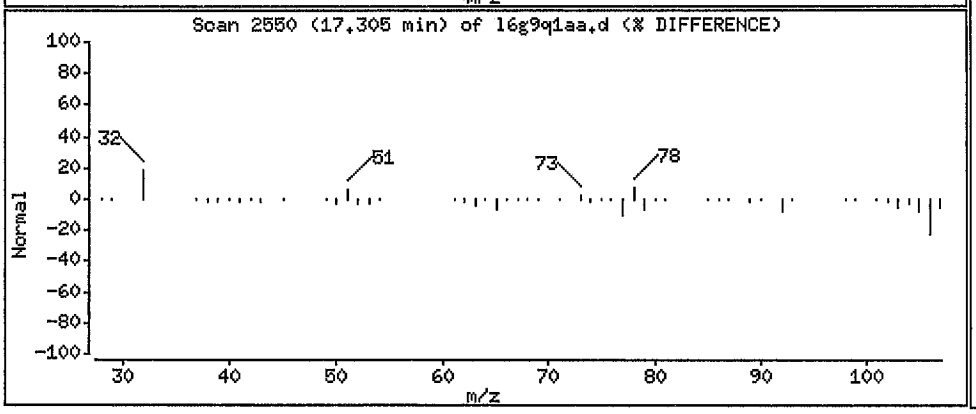












Data File: /var/chem/gcms/mj.i/J090810.b/16g9q1aa.d

Date : 08-SEP-2010 21:17

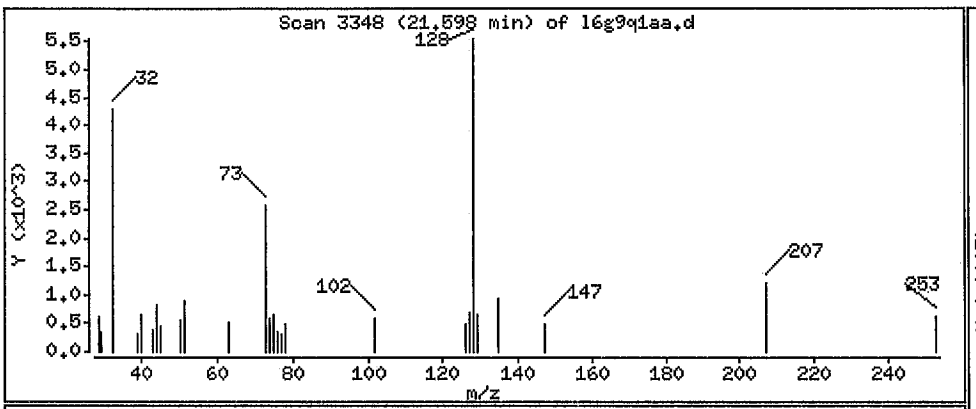
Client ID: IAQ-C10-9 Instrument: mj.i

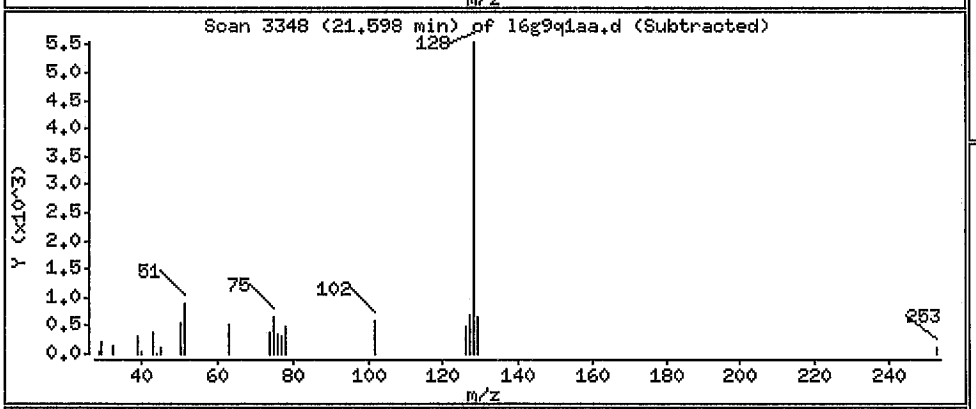
Sample Info: ,10,0,,,

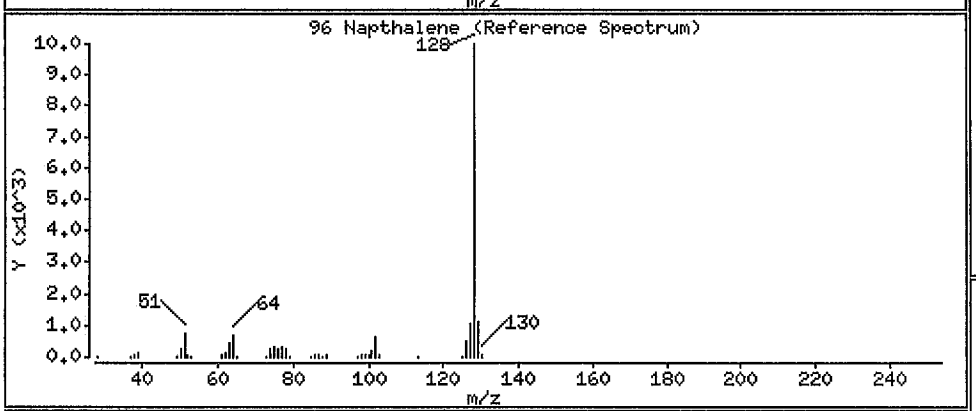
Purge Volume: 500.0 Operator: 7126

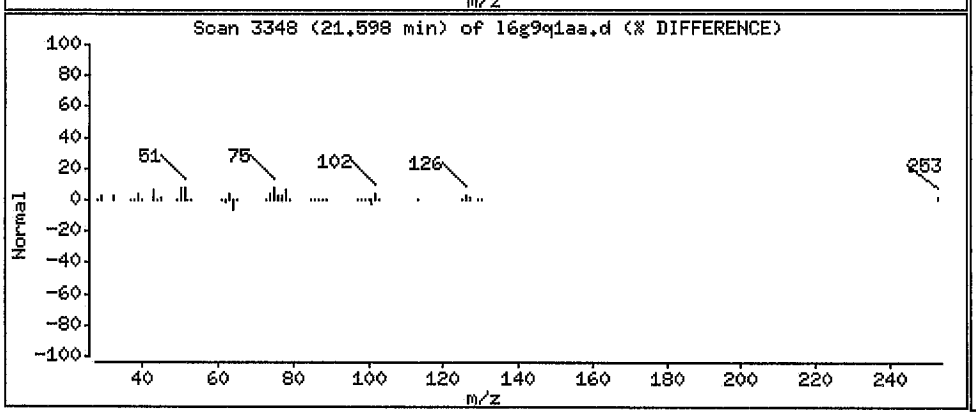
Column phase: Rtx-5 Column diameter: 0.32

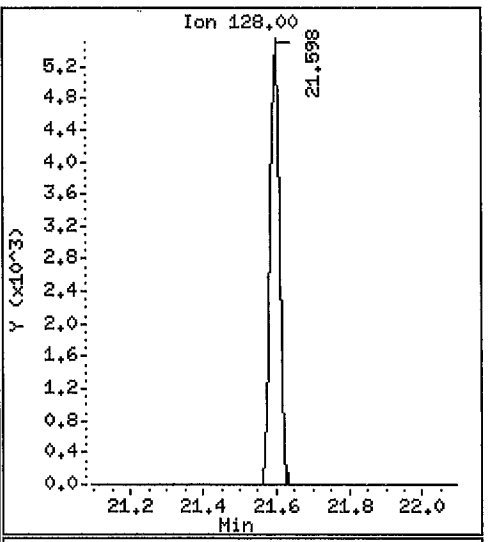
96 Napthalene Concentration: 0.5823 ppb(v/v)

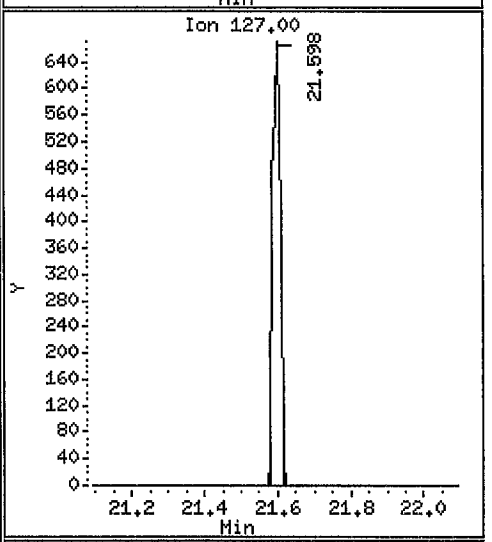


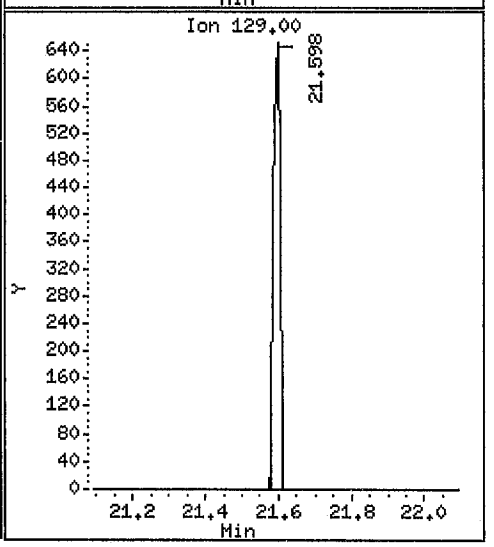












Tetra Tech NUS, Inc

Client Sample ID: IAQ-C9-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 012 **Work Order #** L6G9R1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 25 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	2.0	0.58	ND	6.4	1.8
Carbon tetrachloride	ND	2.0	0.38	ND	13	2.4
Chlorodifluoromethane	**270**	**2.0**	**0.38**	**960**	**7.1**	**1.3**
Chloroform	ND	2.0	0.38	ND	9.8	1.8
Dichlorodifluoromethane	ND	2.0	0.68	ND	9.9	3.3
1,1-Dichloroethane	ND	2.0	0.25	ND	8.1	1.0
1,2-Dichloroethane	ND	2.0	0.48	ND	8.1	1.9
cis-1,2-Dichloroethene	ND	2.0	0.60	ND	7.9	2.4
trans-1,2-Dichloroethene	ND	2.0	0.50	ND	7.9	2.0
1,1-Dichloroethene	ND	2.0	0.32	ND	7.9	1.3
Ethylbenzene	ND	2.0	0.68	ND	8.7	2.9
Methylene chloride	**4.8**	**5.0**	**0.45**	**17 J**	**17**	**1.6**
Methyl tert-butyl ether	ND	10	1.7	ND	36	6.1
Naphthalene	ND	5.0	0.90	ND	26	4.7
Tetrachloroethene	ND	2.0	0.40	ND	14	2.7
Toluene	**1.6**	**2.0**	**0.52**	**6.1 J**	**7.5**	**2.0**
1,2,4-Trichlorobenzene	ND	10	0.98	ND	74	7.2
1,1,1-Trichloroethane	ND	2.0	0.30	ND	11	1.6
1,1,2-Trichloroethane	ND	2.0	0.52	ND	11	2.9
Trichloroethene	ND	1.0	0.35	ND	5.4	1.9
Vinyl chloride	ND	2.0	0.72	ND	5.1	1.9
m-Xylene & p-Xylene	**1.5**	**2.0**	**1.2**	**6.5 J**	**8.7**	**5.4**
o-Xylene	ND	2.0	0.60	ND	8.7	2.6

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9r1aa.d
Report Date: 10-Sep-2010 14:31

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/l6g9r1aa.d
Lab Smp Id: L6G9R1AA Client Smp ID: IAQ-C9-9
Inj Date : 08-SEP-2010 22:09
Operator : 7126 Inst ID: mj.i
Smp Info : ,25,0,,,
Misc Info : J090810,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 10-Sep-2010 14:16 barlozha Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 12
Dil Factor: 25.00000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	25.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
*	1 Bromochloromethane	128	9.473	9.479	(1.000)	162197	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.641	11.642	(1.000)	791535	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.299	16.300	(1.000)	701396	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.913	17.914	(1.099)	548318	4.11880	4.119
	7 Chlorodifluoromethane	67	3.900	3.901	(0.412)	223019	10.8725	271.8
	8 Dichlorodifluoromethane	85	3.900	3.970	(0.412)	16992	0.09648	~~2.412~~
	31 Methylene Chloride	84	6.783	6.784	(0.716)	10058	0.19059	4.765
	61 Toluene	91	14.352	14.358	(0.881)	10757	0.06512	1.628
	69 Ethylbenzene	91	16.778	16.623	(1.029)	8535	0.04506	~~1.126~~
	70 m&p-Xylene	91	16.778	16.784	(1.029)	8535	0.05959	1.490

9/10/10

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9r1aa.d
Report Date: 10-Sep-2010 14:31

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9r1aa.d
Lab Smp Id: L6G9R1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: IAQ-C9-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	162197	-16.85
2 1,4-Difluorobenze	936174	557024	1315324	791535	-15.45
3 Chlorobenzene-d5	815161	485021	1145301	701396	-13.96

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.07
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.01
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	-0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

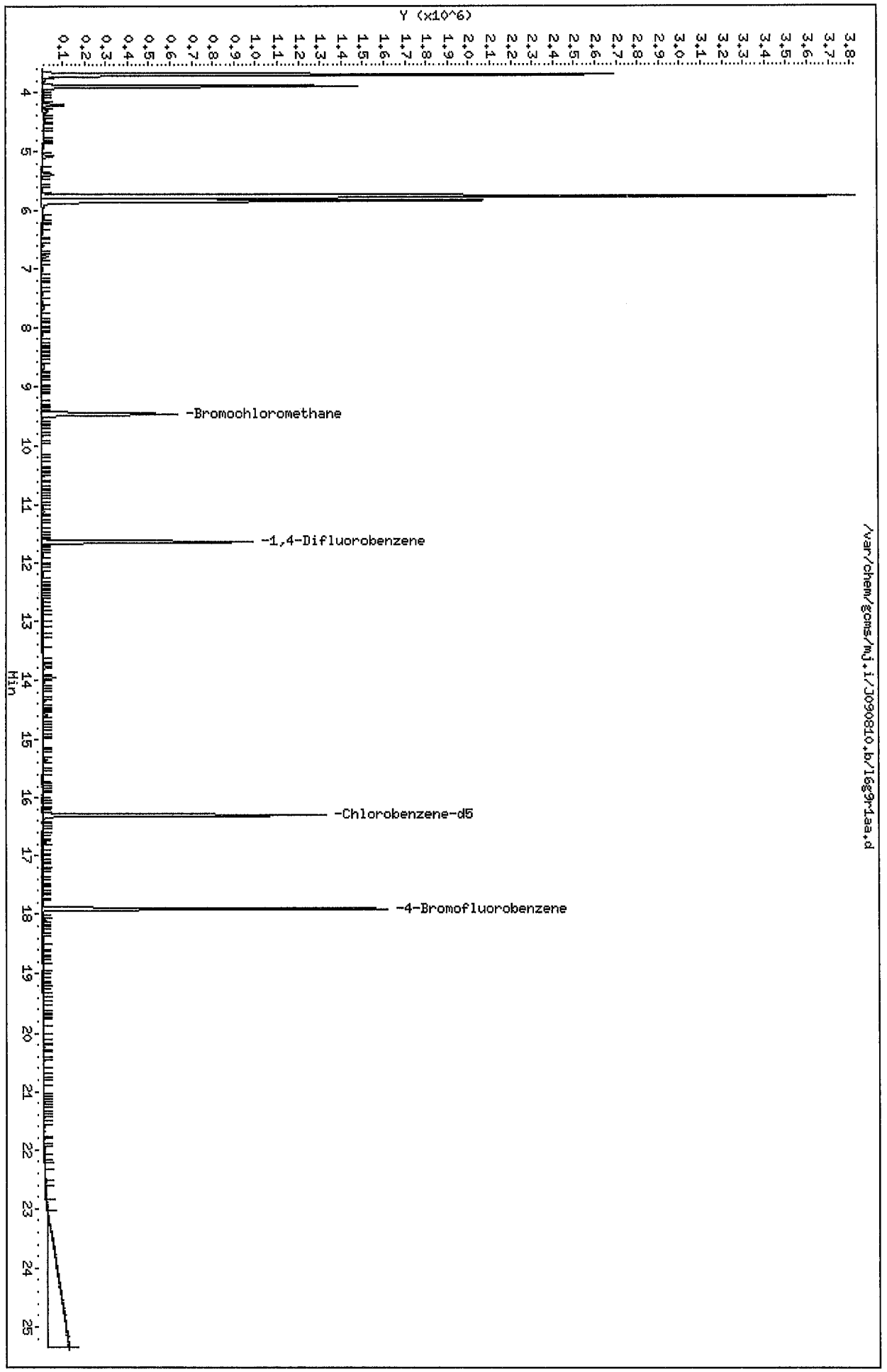
Data File: /var/chem/gcms/mj.i/J090810.b/l6g9r1aa.d
Report Date: 10-Sep-2010 14:31

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9R1AA
Client Smp ID: IAQ-C9-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.119	102.97	70-130


Data File: /var/chem/gcms/mj.i/J090810.b/16g9r1aa.d
Date : 08-SEP-2010 22:09
Client ID: IAQ-C9-9
Sample Info: ,25,0,,,
Purge Volume: 500.0
Column phase: Rtx-5
Instrument: mj.i
Operator: 7126
Column diameter: 0.32
Y (x10^6)
-Bromochloromethane
-1,4-Difluorobenzene
-Chlorobenzene-d5
-4-Bromofluorobenzene
/var/chem/gcms/mj.i/J090810.b/16g9r1aa.d
Min

Data File: /var/chem/gcms/mj.i/J090810.b/16g9r1aa.d

Date : 08-SEP-2010 22:09

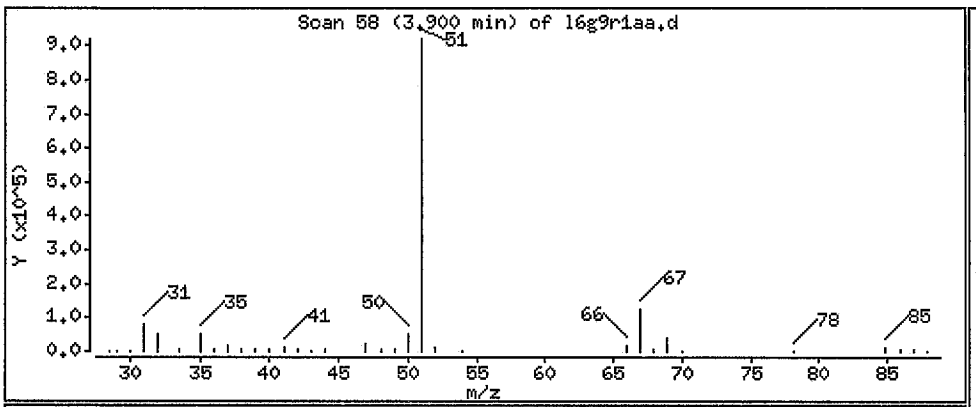
Client ID: IAQ-C9-9 Instrument: mj.i

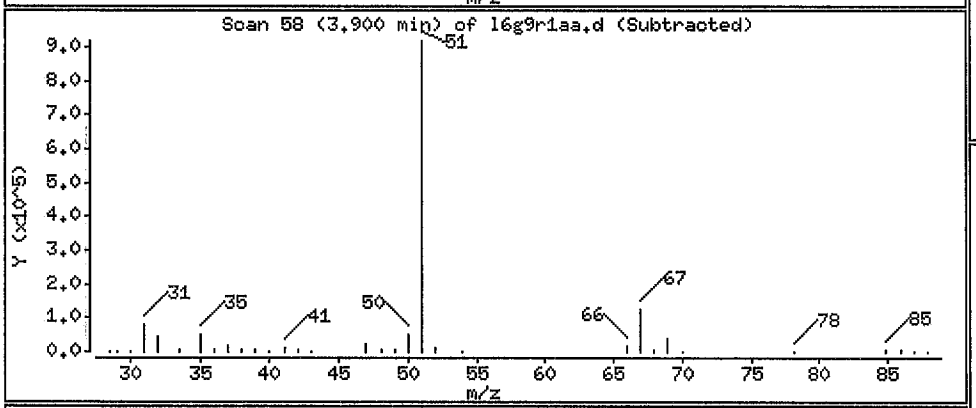
Sample Info: ,25,0,,,

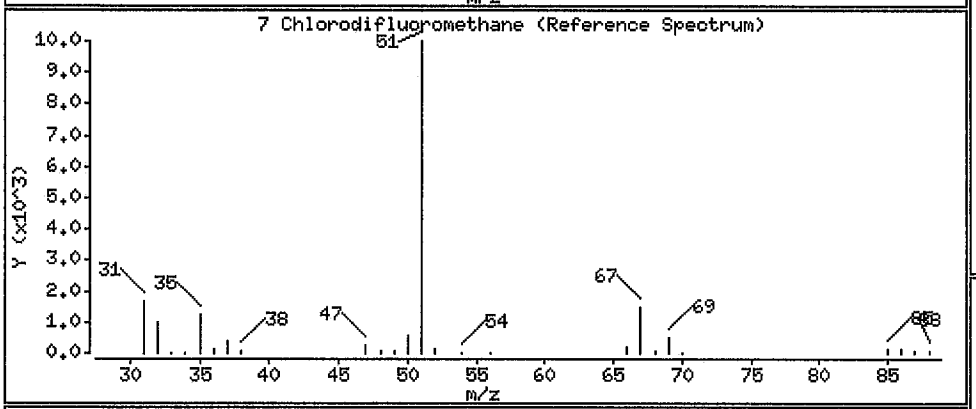
Purge Volume: 500.0 Operator: 7126

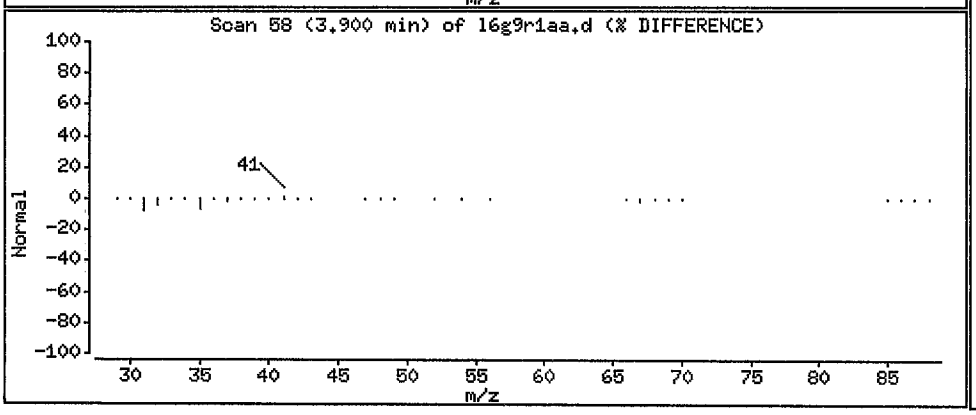
Column phase: Rtx-5 Column diameter: 0.32

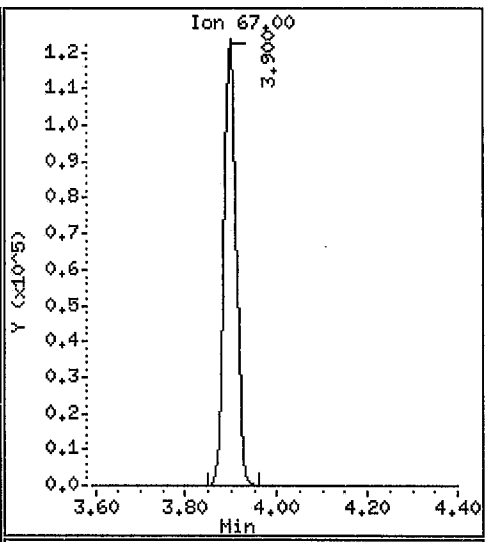
7 Chlorodifluoromethane Concentration: 271.8 ppb(v/v)

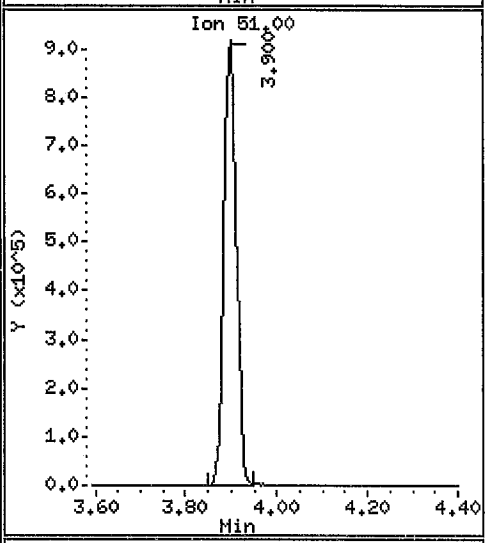


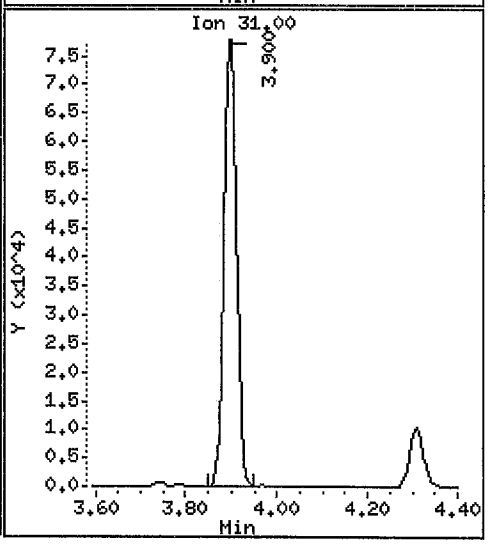












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9r1aa.d

Date : 08-SEP-2010 22:09

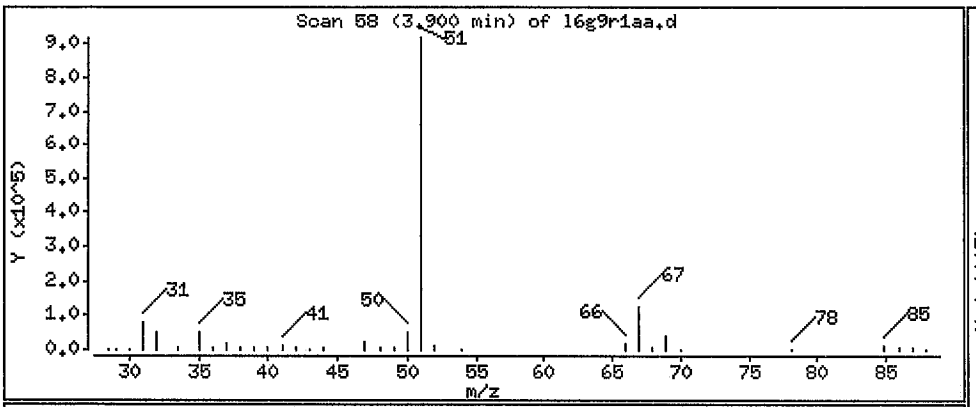
Client ID: IAQ-C9-9 Instrument: mj.i

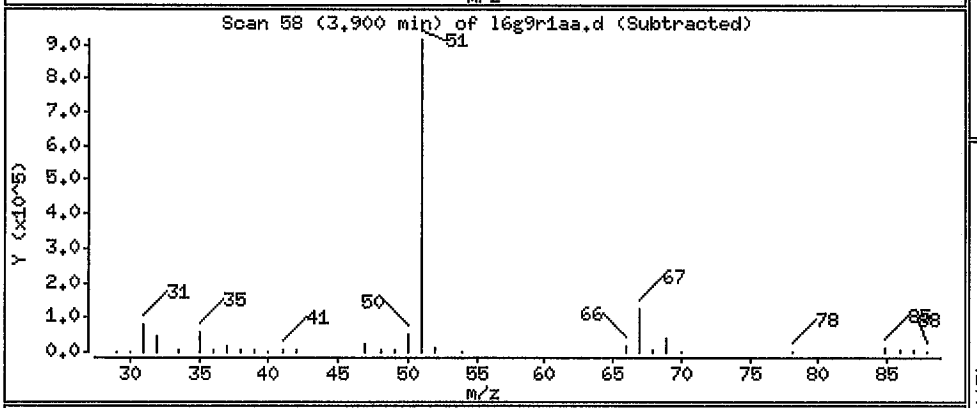
Sample Info: ,25,0,,,

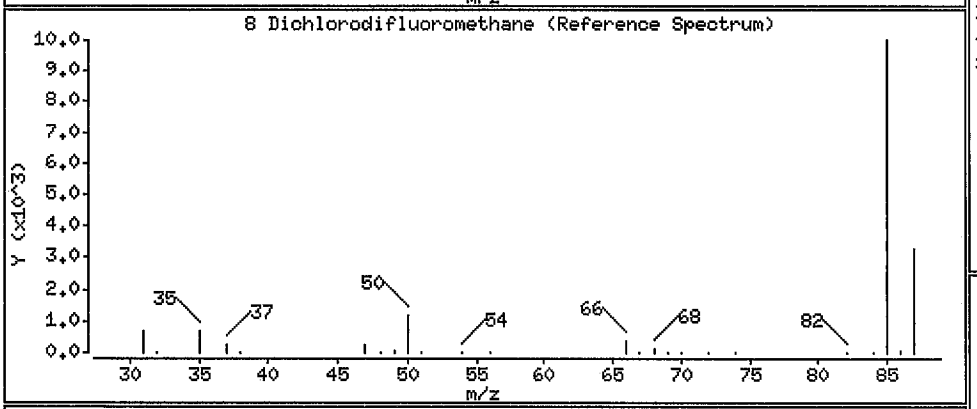
Purge Volume: 500.0 Operator: 7126

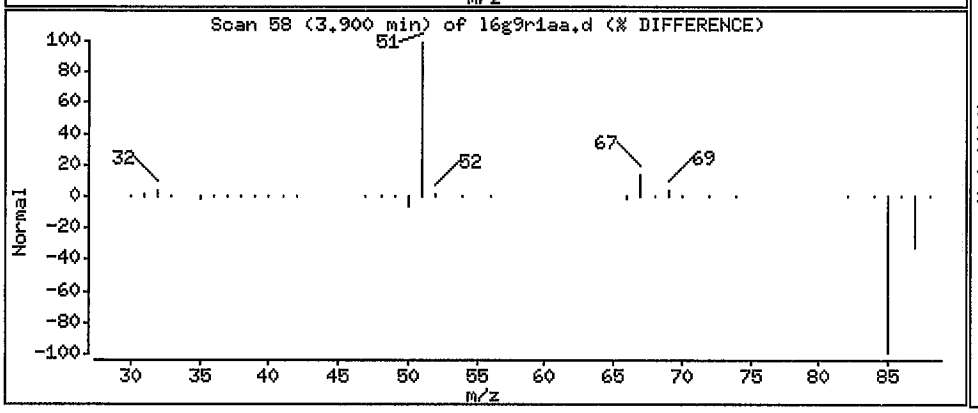
Column phase: Rtx-5 Column diameter: 0.32

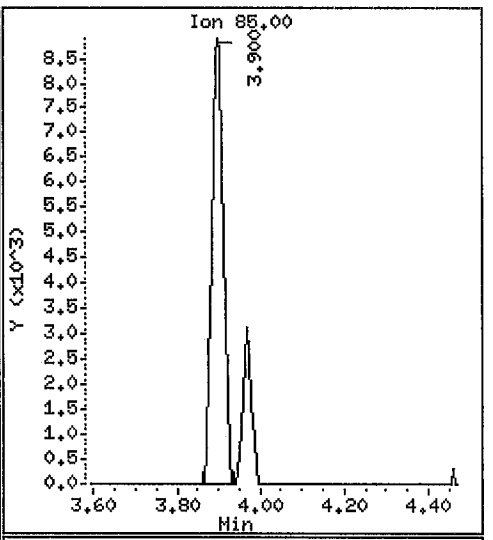
8 Dichlorodifluoromethane Concentration: 2.412 ppb(v/v)

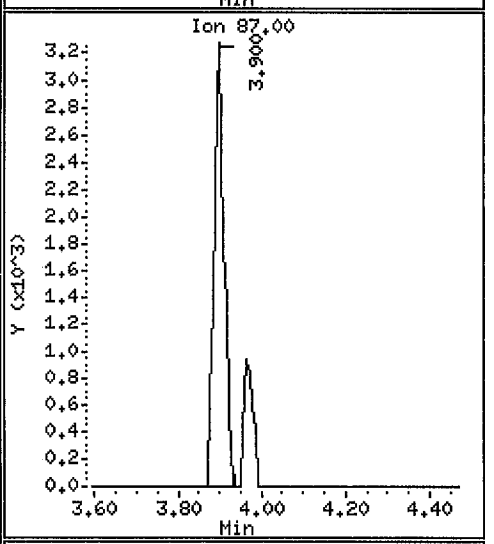


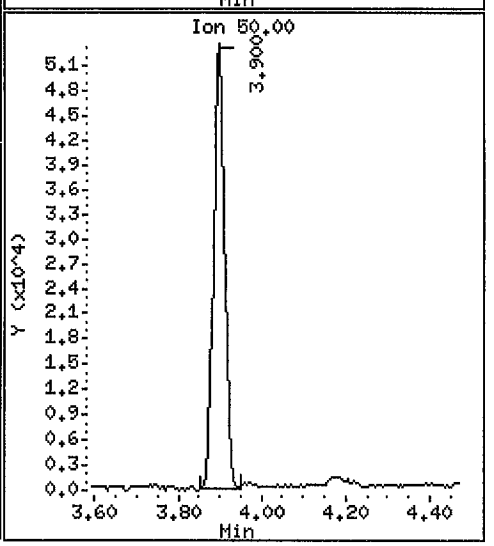












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9r1aa.d

Date : 08-SEP-2010 22:09

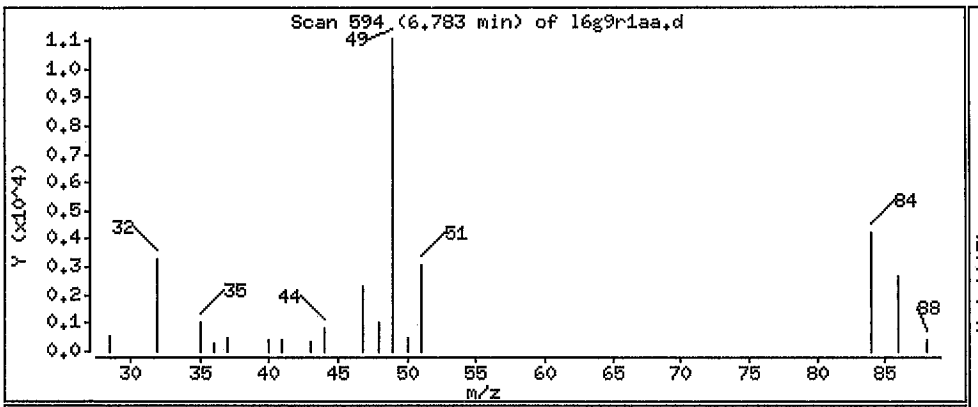
Client ID: IAQ-C9-9 Instrument: mj.i

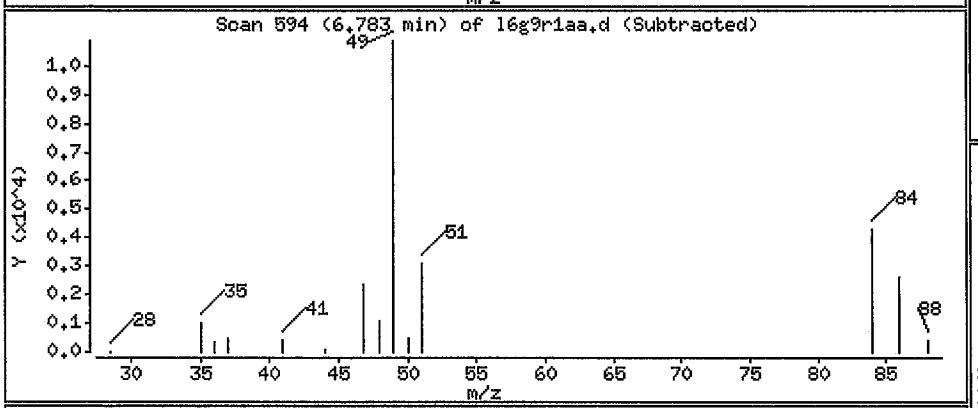
Sample Info: ,25,0,,,

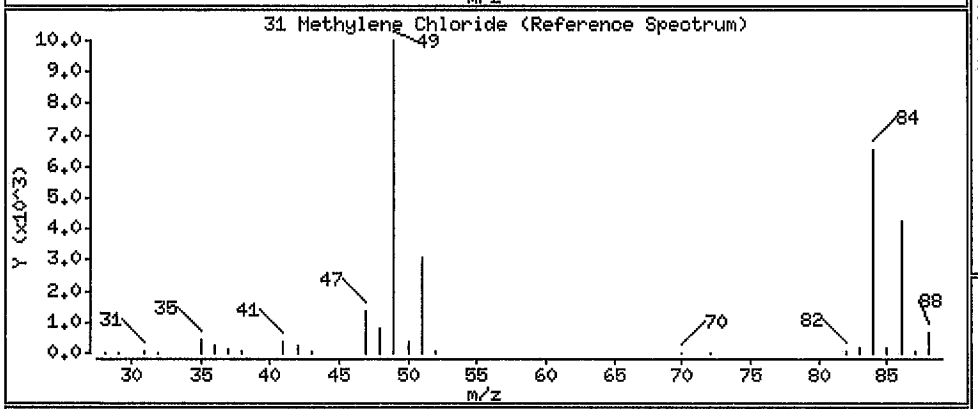
Purge Volume: 500.0 Operator: 7126

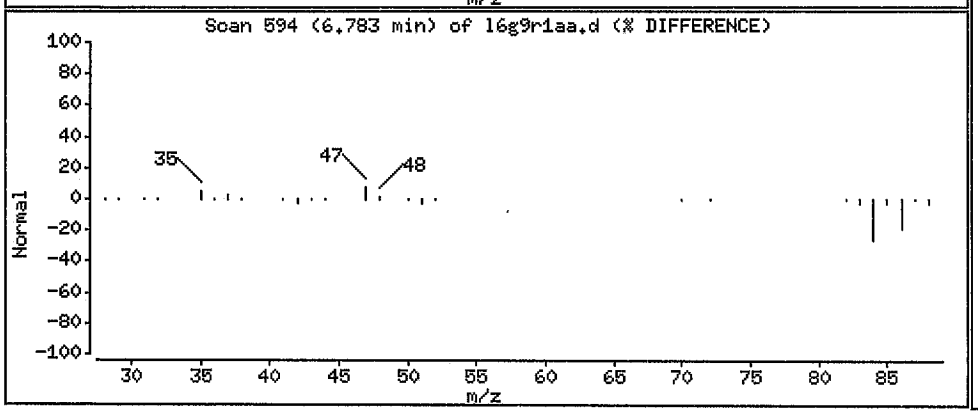
Column phase: Rtx-5 Column diameter: 0.32

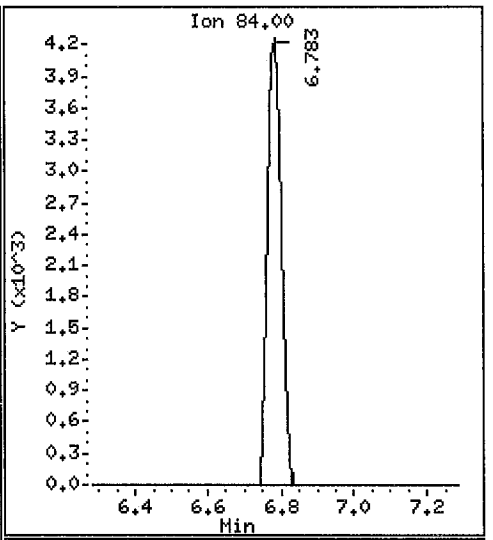
31 Methylene Chloride Concentration: 4.765 ppb(v/v)

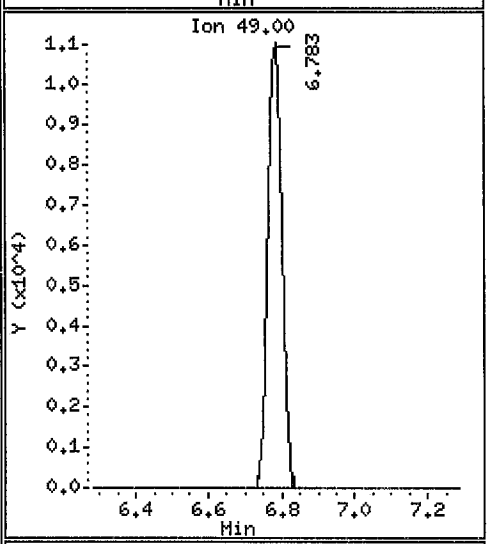


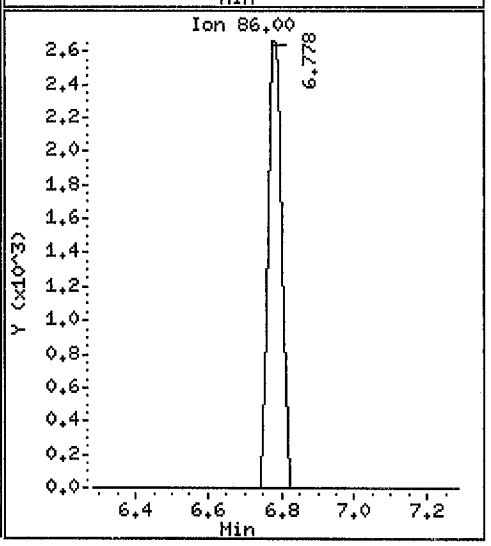












Data File: /var/chem/gcms/mj.i/J090810.b/16g9r1aa.d

Date : 08-SEP-2010 22:09

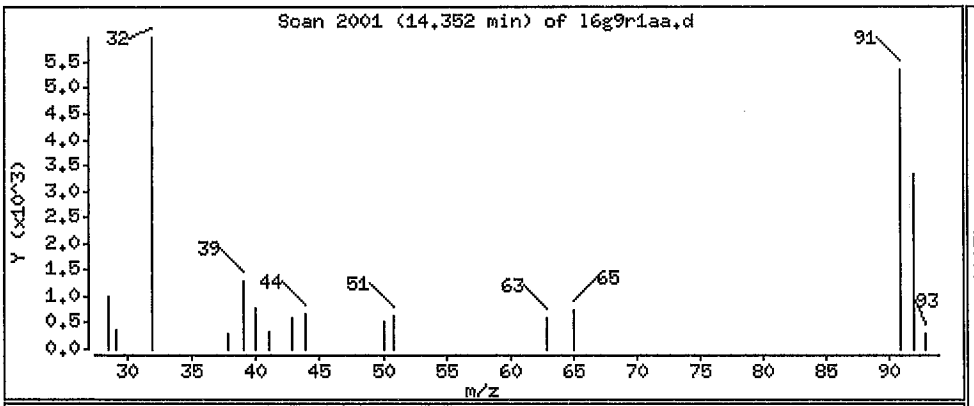
Client ID: IAQ-C9-9 Instrument: mj.i

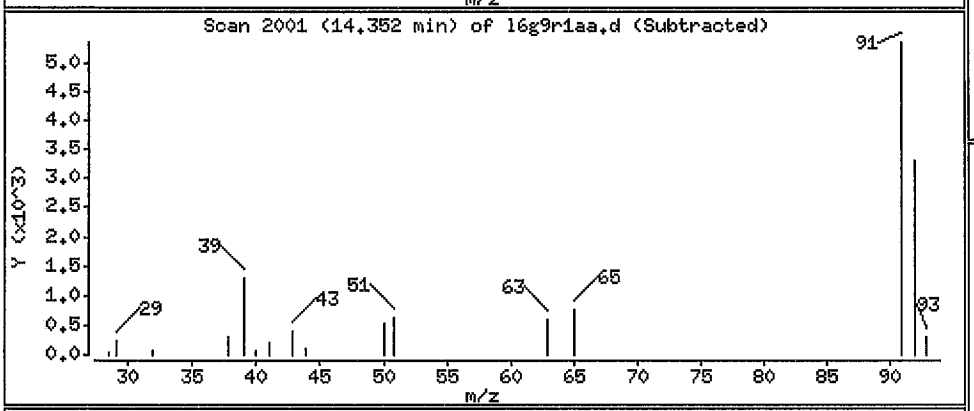
Sample Info: ,25,0,,,

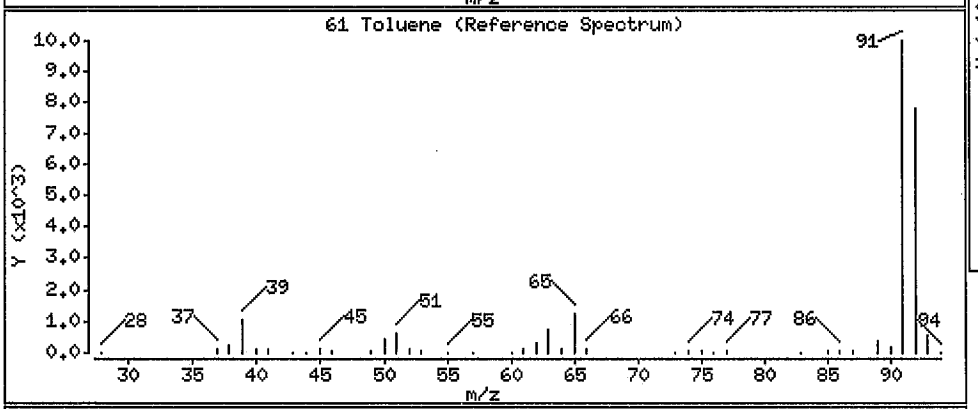
Purge Volume: 500.0 Operator: 7126

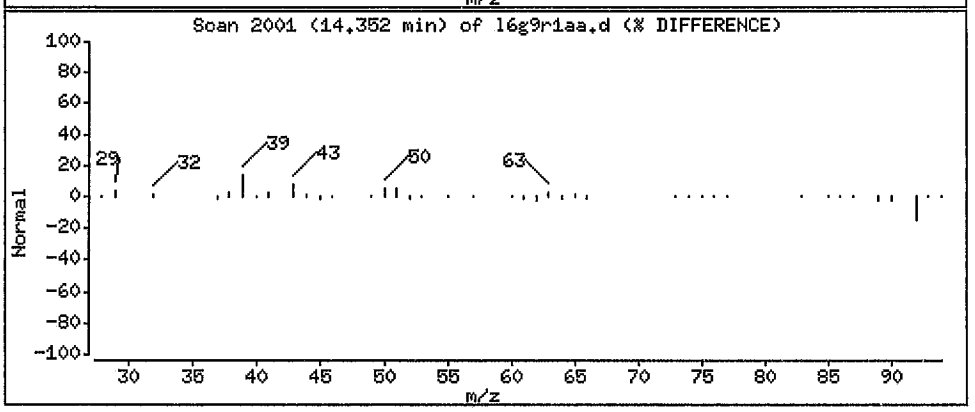
Column phase: Rtx-5 Column diameter: 0.32

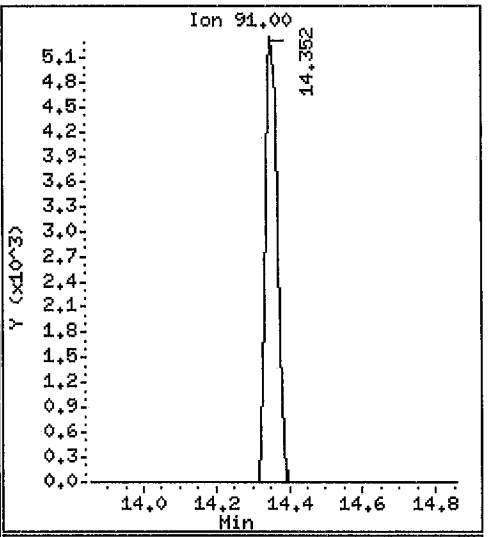
61 Toluene Concentration: 1.628 ppb(v/v)

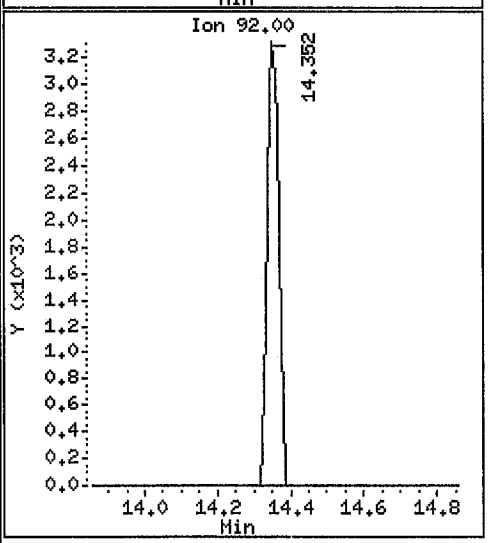












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9r1aa.d

Date : 08-SEP-2010 22:09

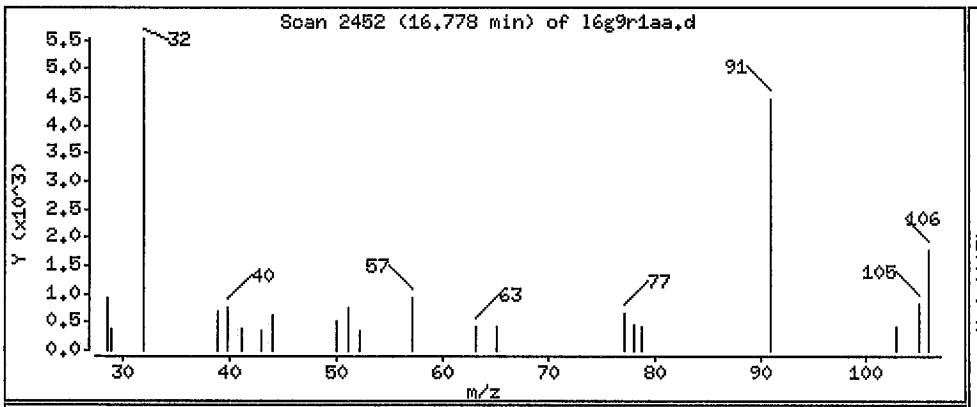
Client ID: IAQ-C9-9 Instrument: mj.i

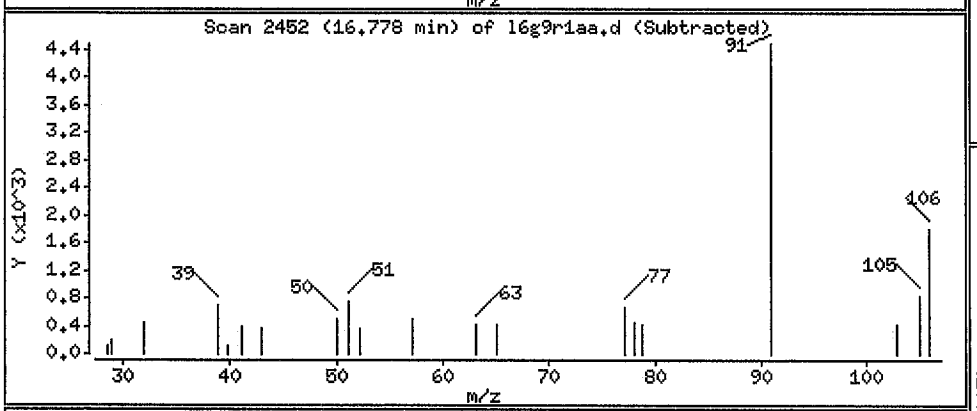
Sample Info: ,25,0,,,

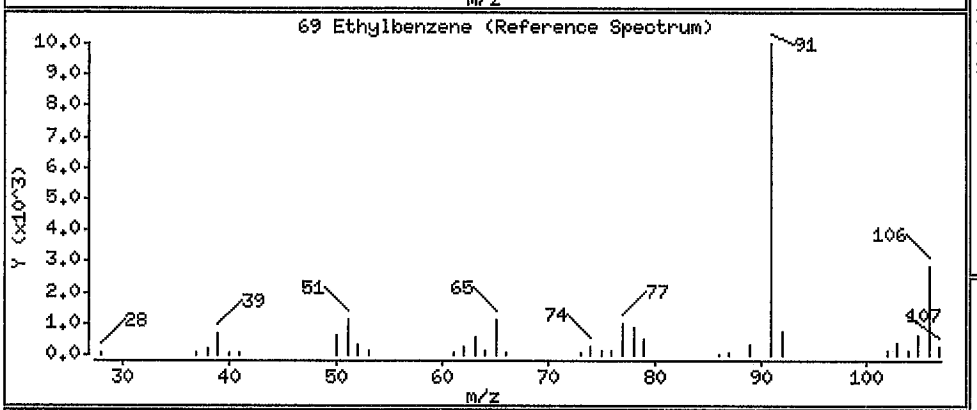
Purge Volume: 500.0 Operator: 7126

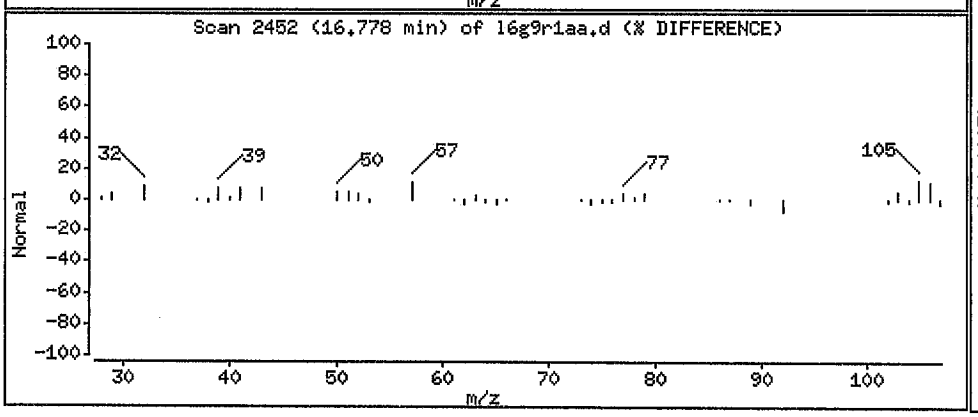
Column phase: Rtx-5 Column diameter: 0.32

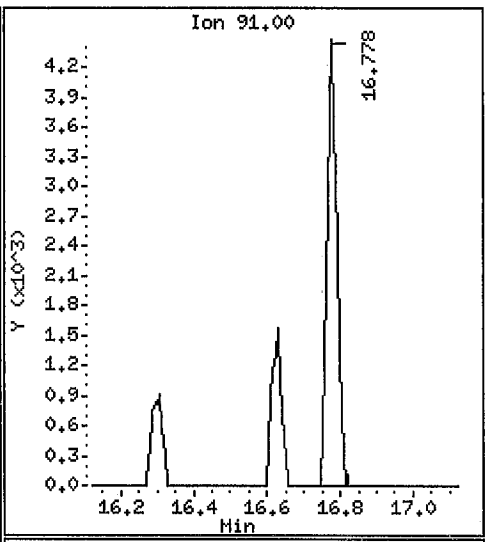
69 Ethylbenzene Concentration: 1.126 ppb(v/v)

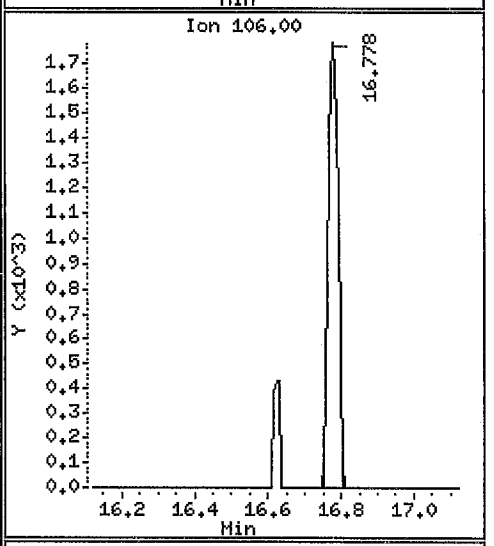


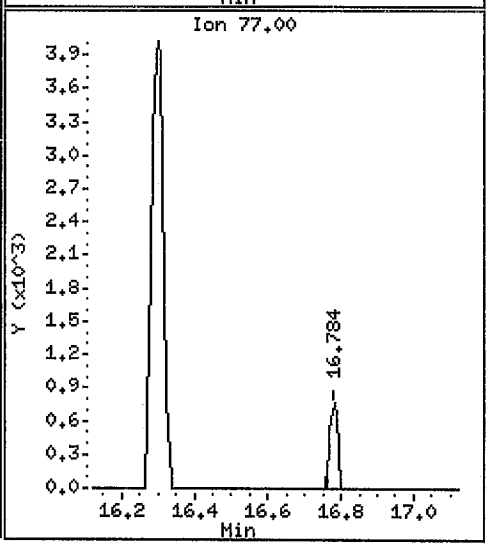












Data File: /var/chem/gcms/mj.i/J090810.b/16g9r1aa.d

Date : 08-SEP-2010 22:09

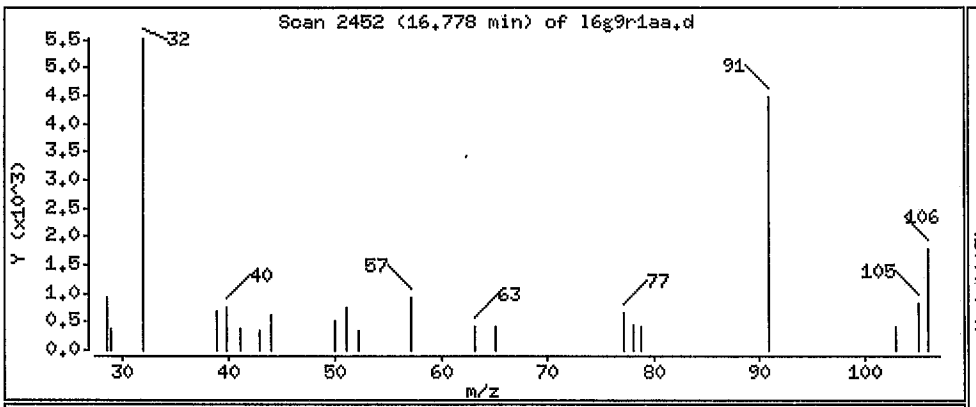
Client ID: IAQ-C9-9 Instrument: mj.i

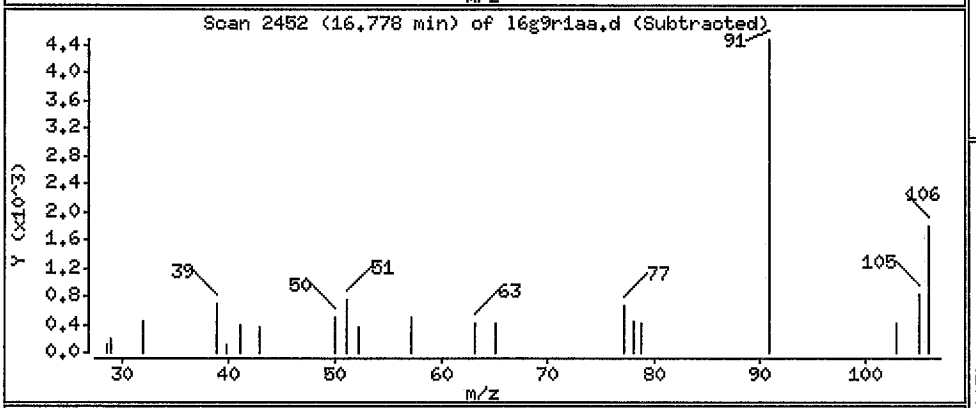
Sample Info: ,25,0,,,

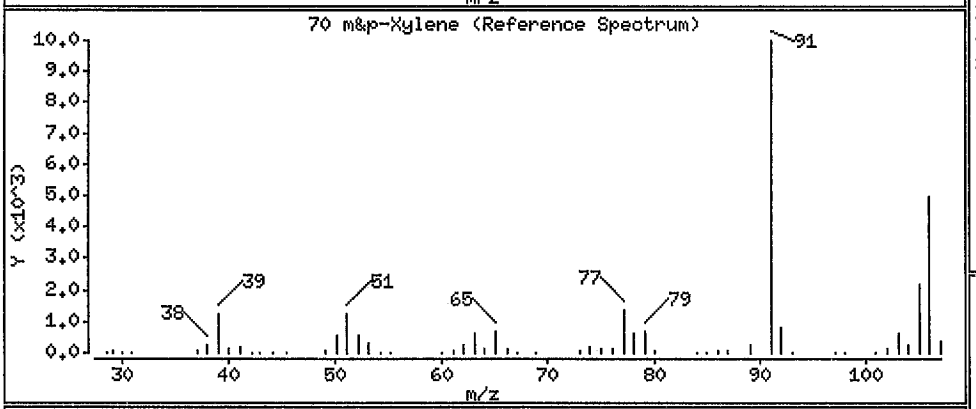
Purge Volume: 500.0 Operator: 7126

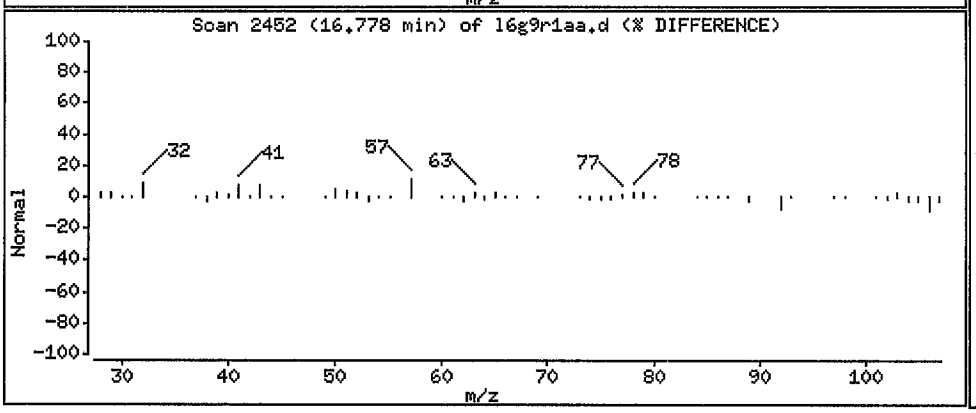
Column phase: Rtx-5 Column diameter: 0.32

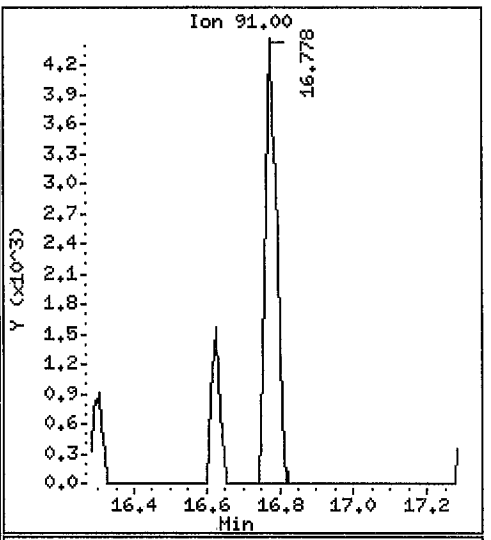
70 m&p-Xylene Concentration: 1.490 ppb(v/v)

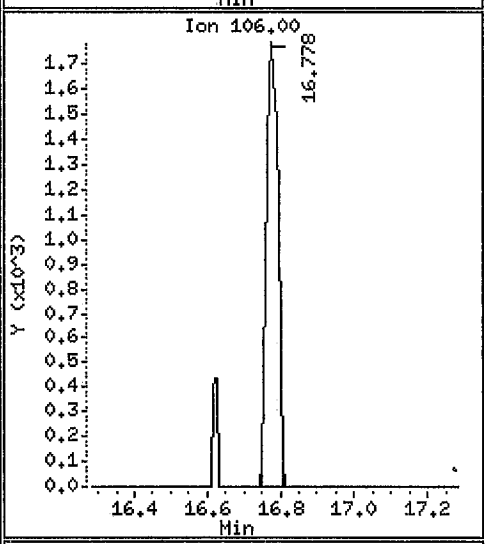


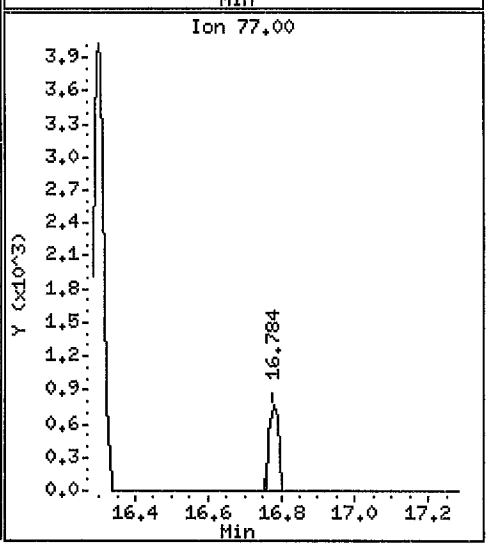












Tetra Tech NUS, Inc

Client Sample ID: IAQ-C6-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 013 **Work Order #** L6G9V1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 5 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.18**	**0.40**	**0.12**	**0.58 J**	**1.3**	**0.37**
Carbon tetrachloride	**0.083**	**0.40**	**0.075**	**0.52 J**	**2.5**	**0.47**
Chlorodifluoromethane	**50**	**0.40**	**0.075**	**180**	**1.4**	**0.27**
Chloroform	ND	0.40	0.075	ND	2.0	0.37
Dichlorodifluoromethane	**0.59**	**0.40**	**0.14**	**2.9**	**2.0**	**0.67**
1,1-Dichloroethane	ND	0.40	0.050	ND	1.6	0.20
1,2-Dichloroethane	ND	0.40	0.095	ND	1.6	0.38
cis-1,2-Dichloroethene	ND	0.40	0.12	ND	1.6	0.48
trans-1,2-Dichloroethene	ND	0.40	0.10	ND	1.6	0.40
1,1-Dichloroethene	ND	0.40	0.065	ND	1.6	0.26
Ethylbenzene	**0.15**	**0.40**	**0.14**	**0.67 J**	**1.7**	**0.59**
Methylene chloride	**1.8**	**1.0**	**0.090**	**6.3**	**3.5**	**0.31**
Methyl tert-butyl ether	ND	2.0	0.34	ND	7.2	1.2
Naphthalene	ND	1.0	0.18	ND	5.2	0.94
Tetrachloroethene	ND	0.40	0.080	ND	2.7	0.54
Toluene	**1.4**	**0.40**	**0.10**	**5.2**	**1.5**	**0.40**
1,2,4-Trichlorobenzene	ND	2.0	0.20	ND	15	1.4
1,1,1-Trichloroethane	ND	0.40	0.060	ND	2.2	0.33
1,1,2-Trichloroethane	ND	0.40	0.10	ND	2.2	0.57
Trichloroethene	ND	0.20	0.070	ND	1.1	0.38
Vinyl chloride	ND	0.40	0.14	ND	1.0	0.37
m-Xylene & p-Xylene	**0.55**	**0.40**	**0.25**	**2.4**	**1.7**	**1.1**
o-Xylene	**0.23**	**0.40**	**0.12**	**0.98 J**	**1.7**	**0.52**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9v1aa.d
Report Date: 10-Sep-2010 14:31

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/l6g9v1aa.d
Lab Smp Id: L6G9V1AA Client Smp ID: IAQ-C6-9
Inj Date : 08-SEP-2010 23:00
Operator : 7126 Inst ID: mj.i
Smp Info : ,5,0,,,
Misc Info : J090810,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 10-Sep-2010 14:16 barlozha Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 13
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
*	1 Bromochloromethane	128	9.476	9.479	(1.000)	161442	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.639	11.642	(1.000)	809160	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.303	16.300	(1.000)	722029	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.911	17.914	(1.099)	564712	4.12073	4.121
	7 Chlorodifluoromethane	67	3.898	3.901	(0.411)	203749	9.97954	49.90
	8 Dichlorodifluoromethane	85	3.967	3.970	(0.419)	20704	0.11810	0.5905
	31 Methylene Chloride	84	6.786	6.784	(0.716)	19001	0.36171	1.808
	48 Benzene	78	11.128	11.125	(0.956)	6253	0.03656	0.1828
	49 Carbon Tetrachloride	117	11.149	11.152	(0.958)	2220	0.01657	0.08283
	61 Toluene	91	14.355	14.358	(0.881)	47014	0.27649	1.382
	69 Ethylbenzene	91	16.625	16.623	(1.020)	5998	0.03076	0.1538
	70 m&p-Xylene	91	16.776	16.784	(1.029)	16286	0.11046	0.5523
	74 o-Xylene	91	17.309	17.306	(1.062)	6907	0.04504	0.2252

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9v1aa.d
Report Date: 10-Sep-2010 14:31

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9v1aa.d
Lab Smp Id: L6G9V1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: IAQ-C6-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	161442	-17.24
2 1,4-Difluorobenze	936174	557024	1315324	809160	-13.57
3 Chlorobenzene-d5	815161	485021	1145301	722029	-11.42

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.48	-0.03
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.03
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

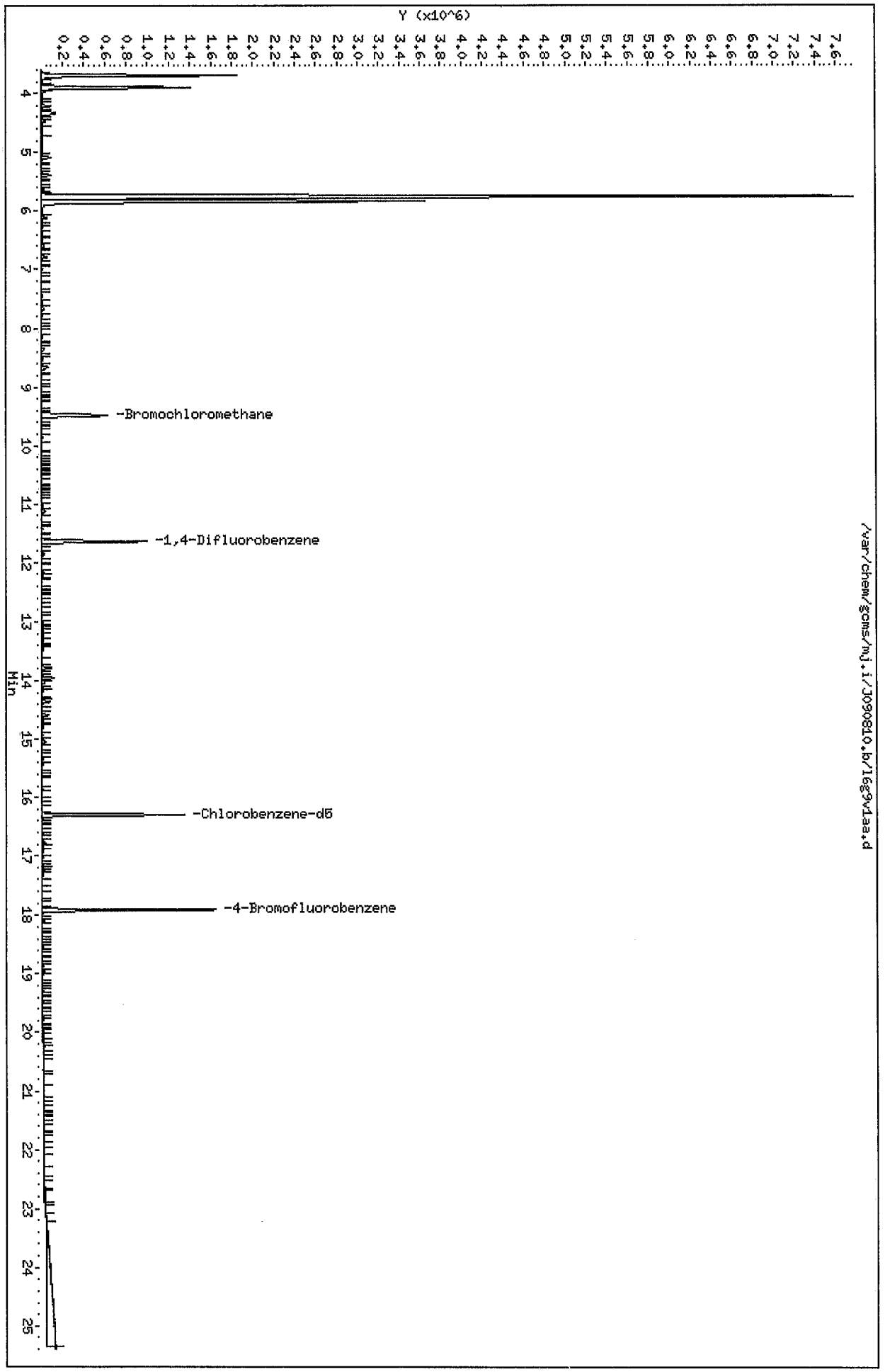
Data File: /var/chem/gcms/mj.i/J090810.b/l6g9v1aa.d
Report Date: 10-Sep-2010 14:31

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9V1AA
Client Smp ID: IAQ-C6-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.121	103.02	70-130


Data File: /var/chem/gcms/mj.i/J090810.b/16g9v1aa.d
Date : 08-SEP-2010 23:00
Client ID: IAQ-C6-9
Sample Info: ,5,0,,,
Purge Volume: 500.0
Column phase: Rtx-5
Instrument: mj.i
Operator: 7126
Column diameter: 0.32
/var/chem/gcms/mj.i/J090810.b/16g9v1aa.d
Y (x10^6)
Min
-Bromochloromethane
-1,4-Difluorobenzene
-Chlorobenzene-d5
-4-Bromofluorobenzene

Data File: /var/chem/gcms/mj.i/J090810.b/16g9v1aa.d

Date : 08-SEP-2010 23:00

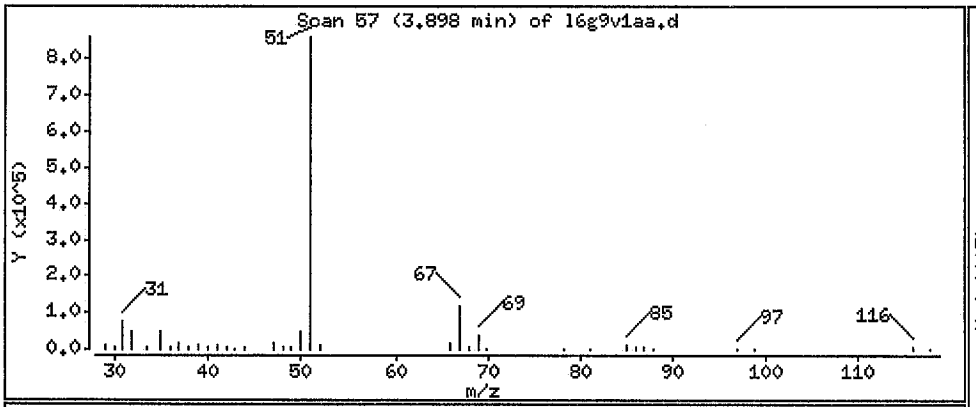
Client ID: IAQ-C6-9 Instrument: mj.i

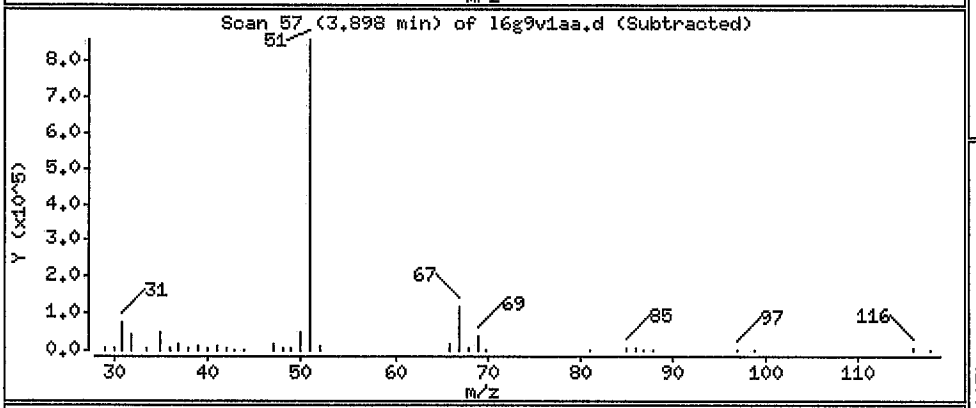
Sample Info: ,5,0,,,

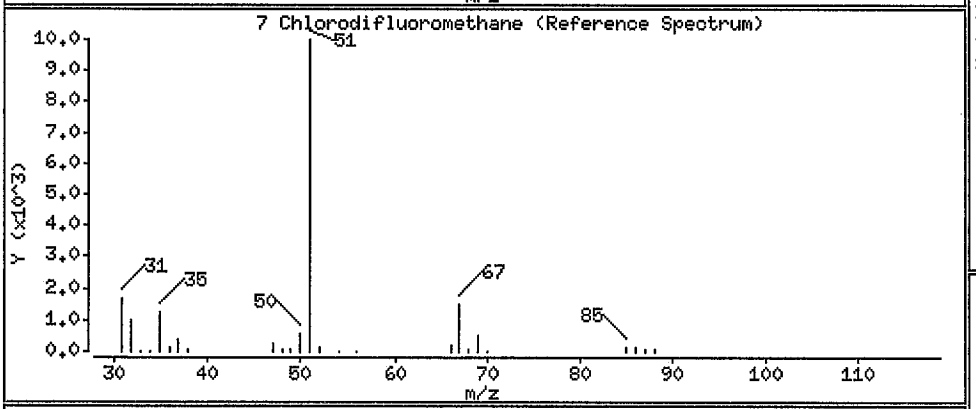
Purge Volume: 500.0 Operator: 7126

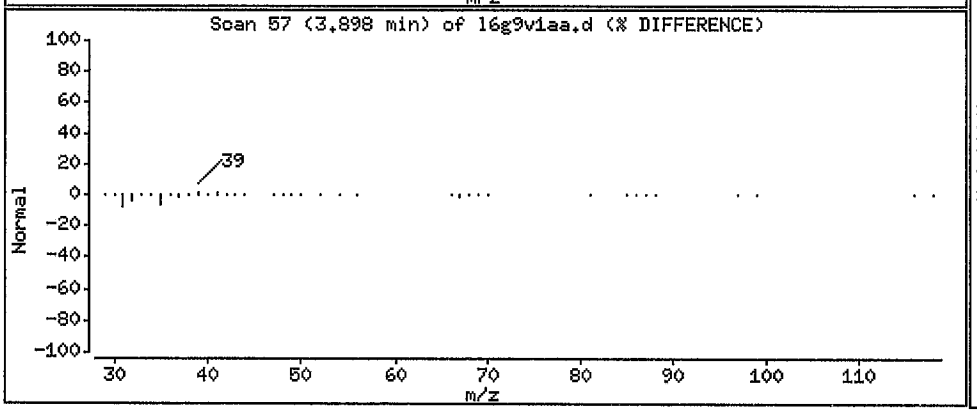
Column phase: Rtx-5 Column diameter: 0.32

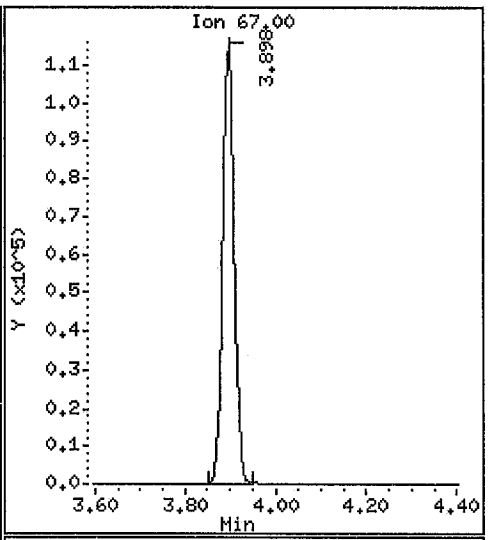
7 Chlorodifluoromethane Concentration: 49.90 ppb(v/v)

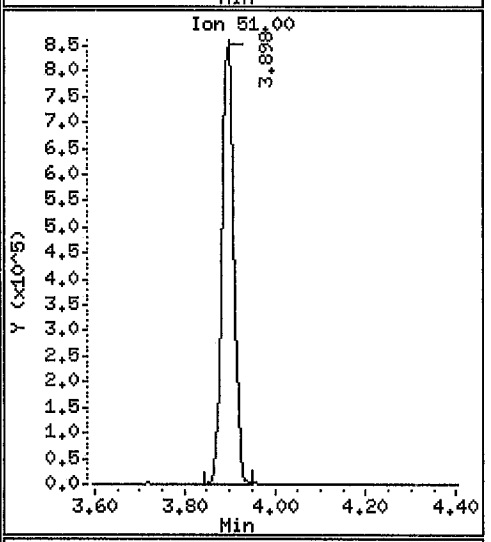


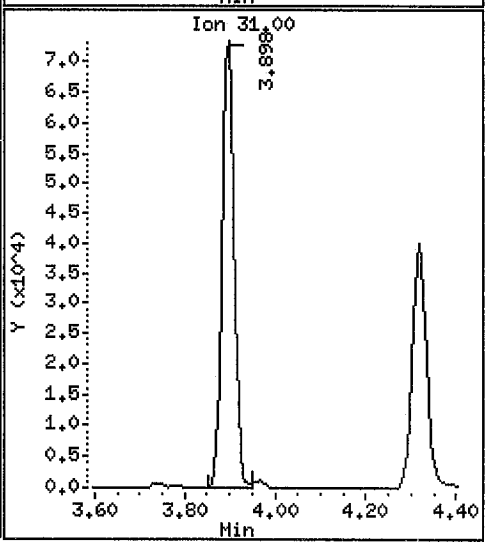












Data File: /var/chem/gcms/mj.i/J090810.b/16g9v1aa.d

Date : 08-SEP-2010 23:00

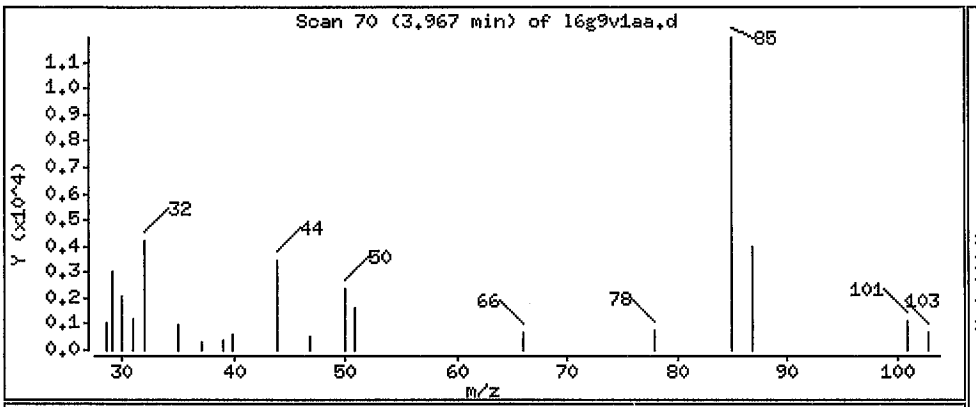
Client ID: IAQ-C6-9 Instrument: mj.i

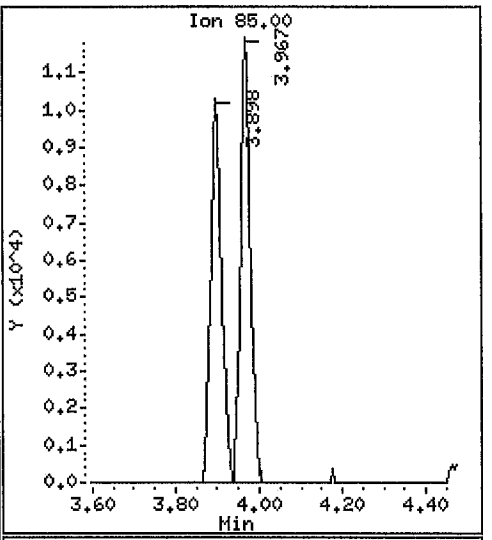
Sample Info: ,5,0,,,

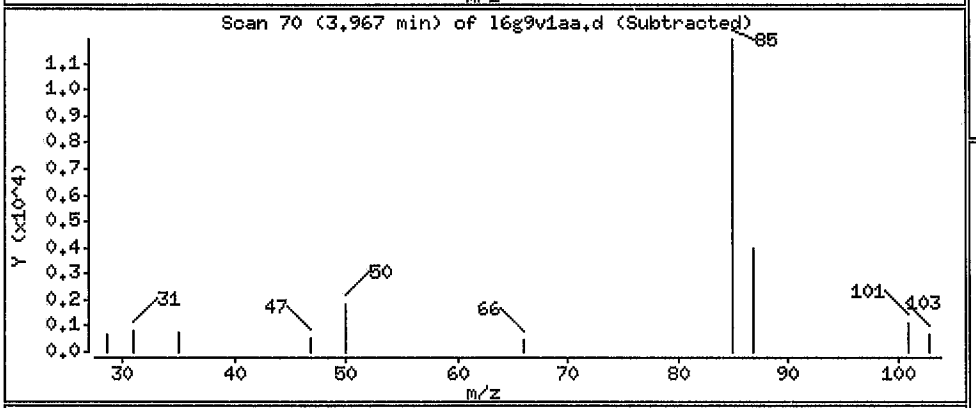
Purge Volume: 500.0 Operator: 7126

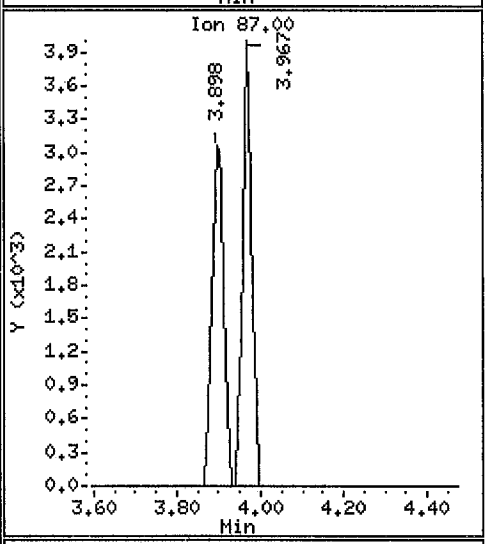
Column phase: Rtx-5 Column diameter: 0.32

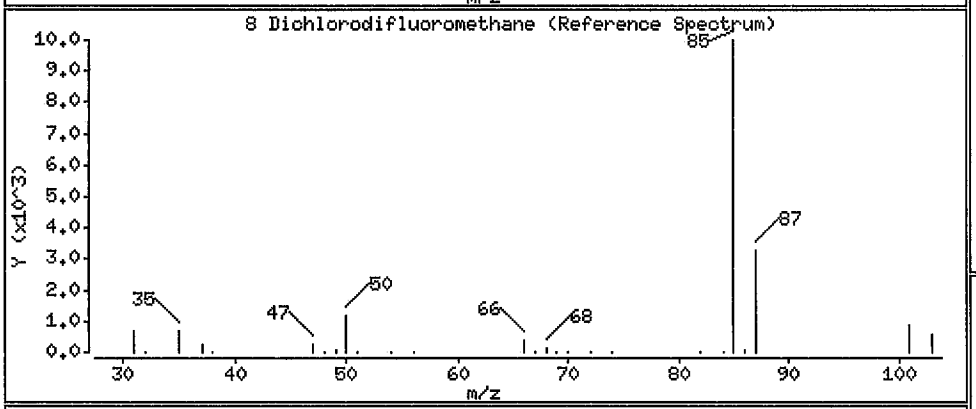
8 Dichlorodifluoromethane Concentration: 0.5905 ppb(v/v)

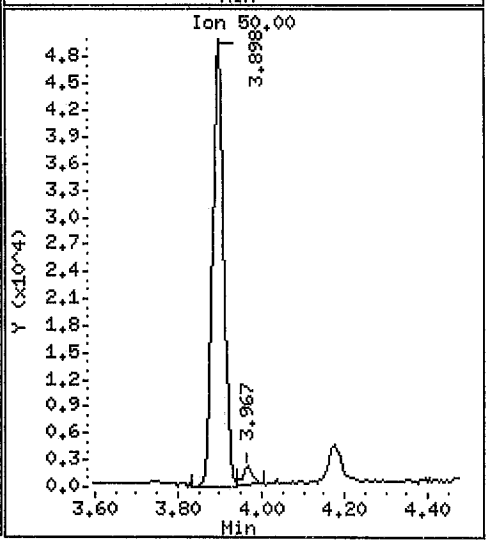


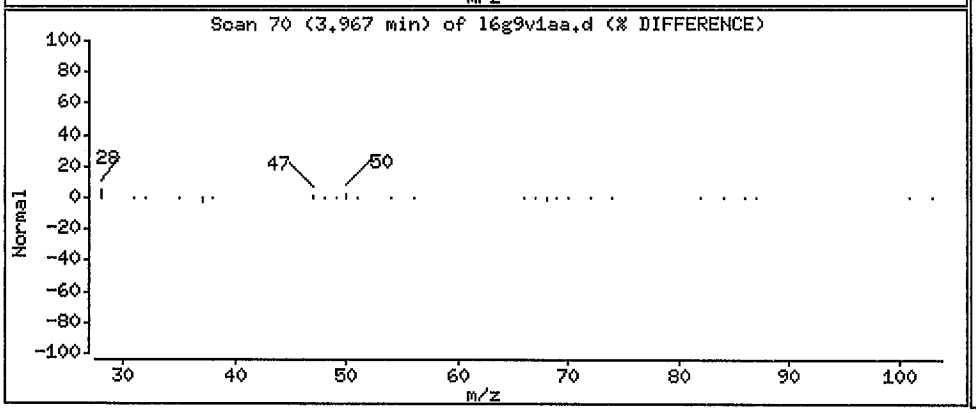












Data File: /var/chem/gcms/mj.i/J090810.b/16g9v1aa.d

Date : 08-SEP-2010 23:00

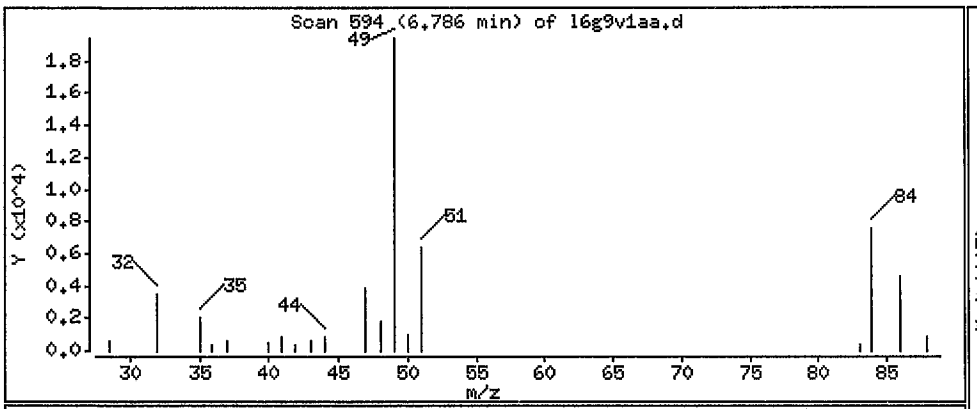
Client ID: IAQ-C6-9 Instrument: mj.i

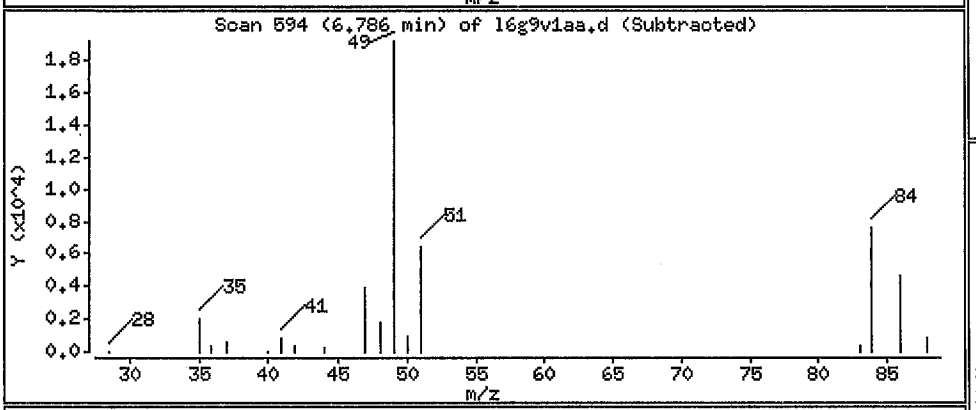
Sample Info: ,5,0,,,

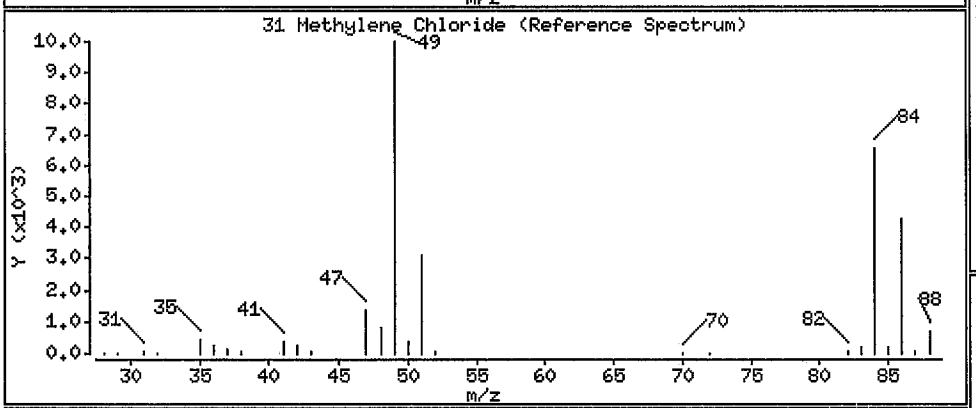
Purge Volume: 500.0 Operator: 7126

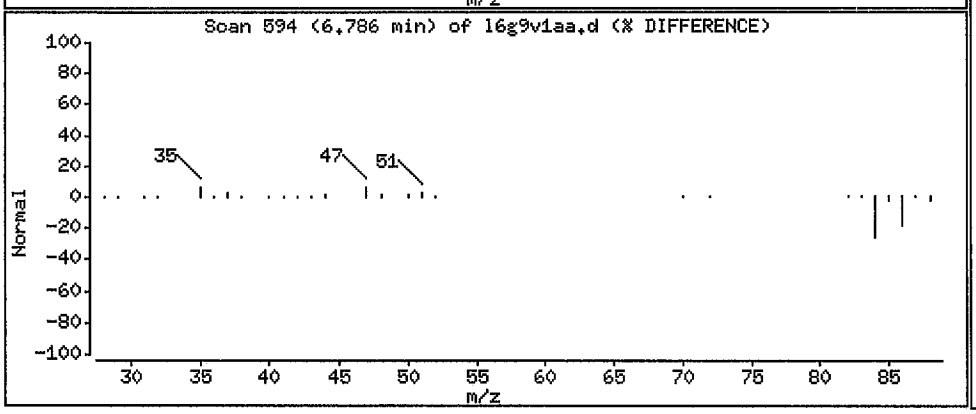
Column phase: Rtx-5 Column diameter: 0.32

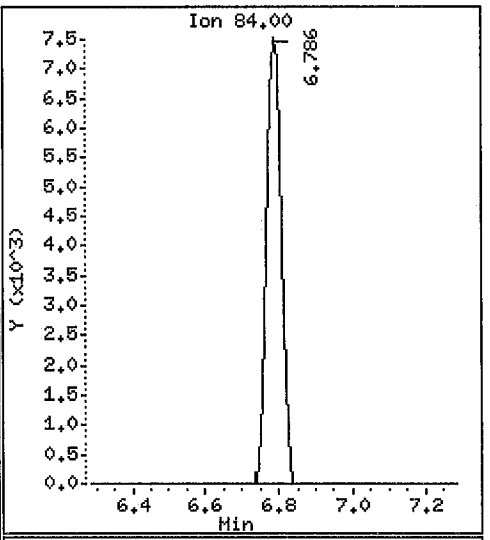
31 Methylene Chloride Concentration: 1.808 ppb(v/v)

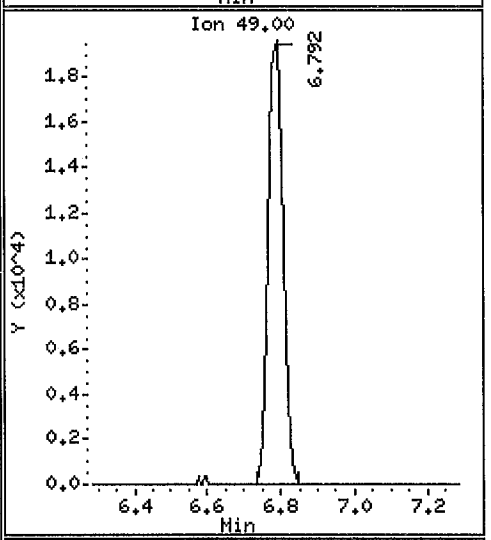


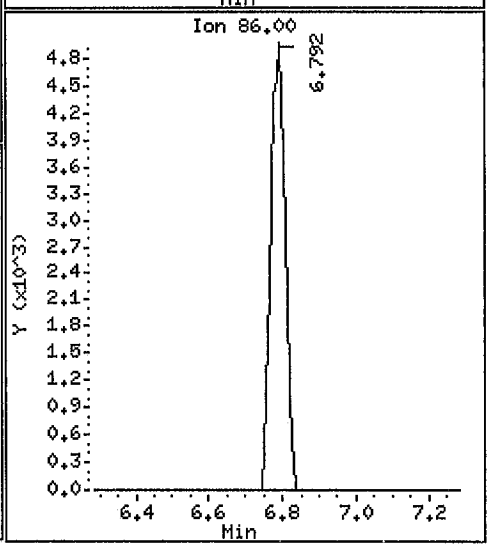












Data File: /var/chem/gcms/mj.i/J090810.b/16g9v1aa.d

Date : 08-SEP-2010 23:00

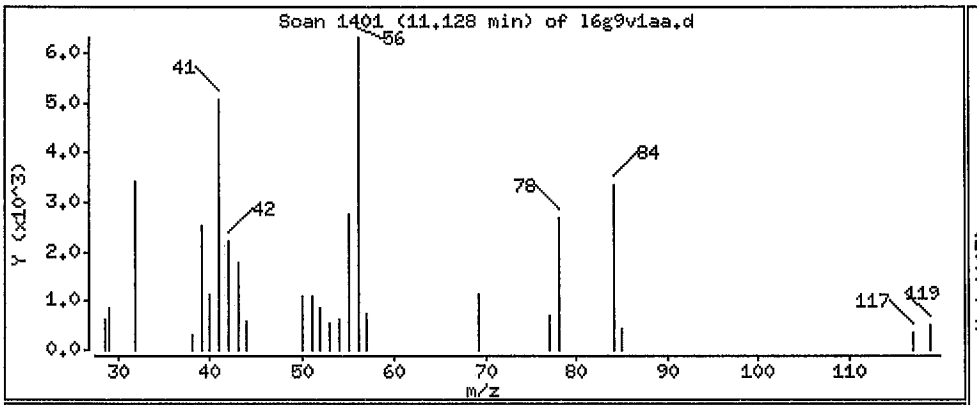
Client ID: IAQ-C6-9 Instrument: mj.i

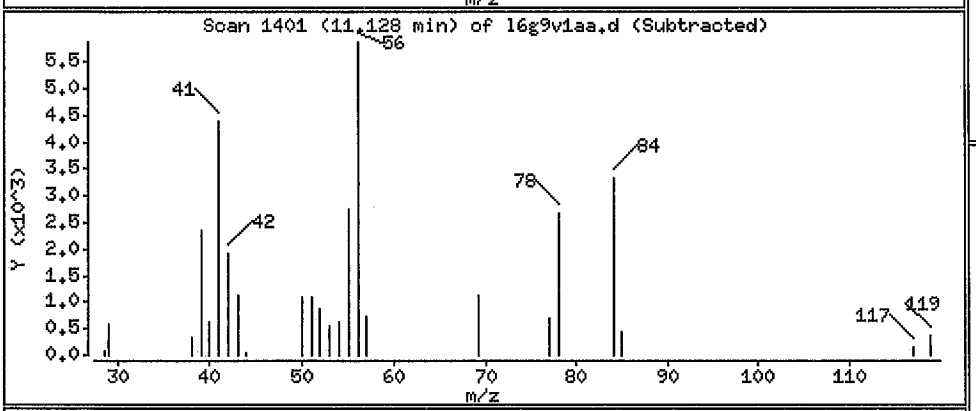
Sample Info: ,5,0,,,

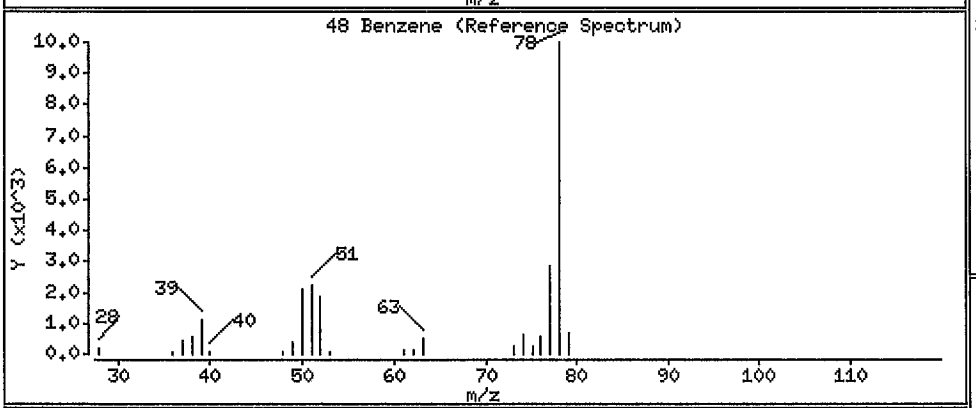
Purge Volume: 500.0 Operator: 7126

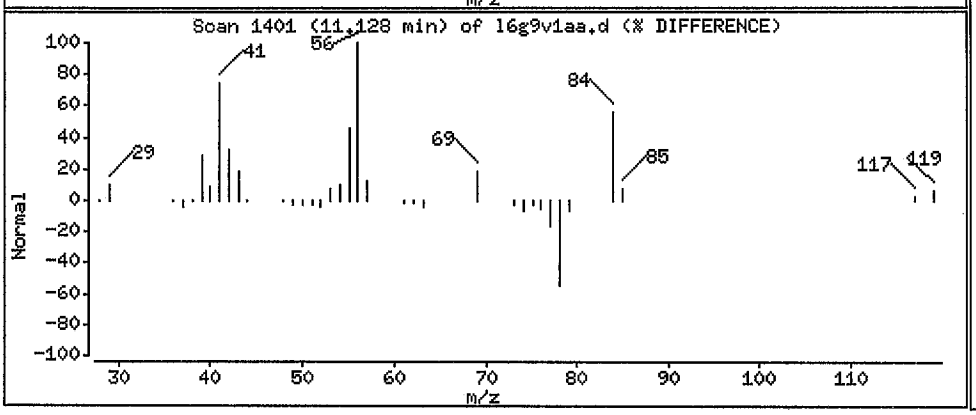
Column phase: Rtx-5 Column diameter: 0.32

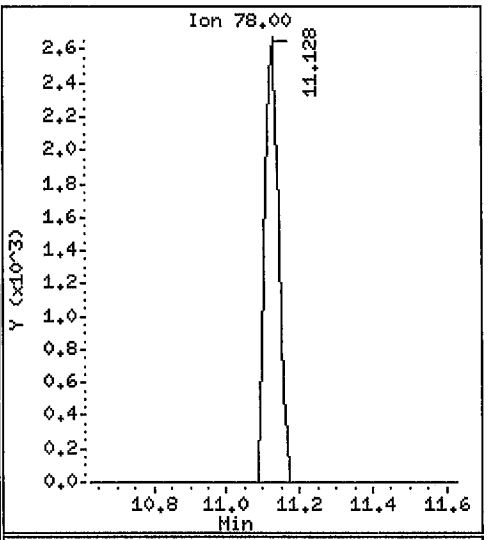
48 Benzene Concentration: 0.1828 ppb(v/v)

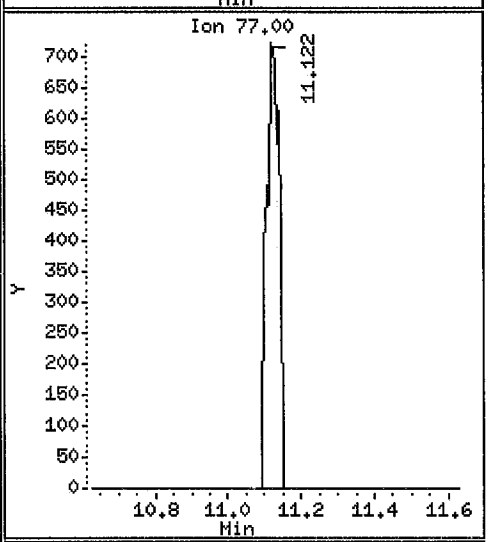


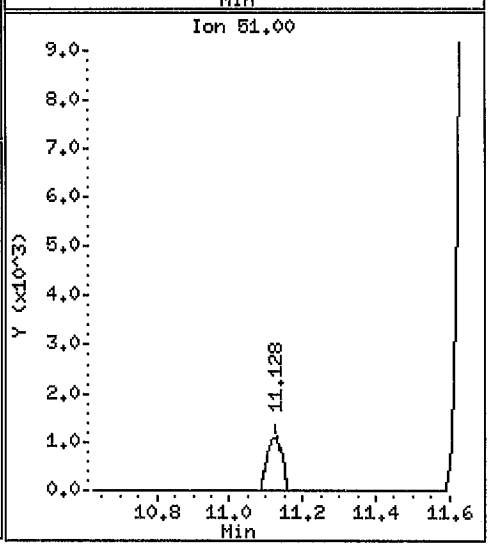












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9v1aa.d

Date : 08-SEP-2010 23:00

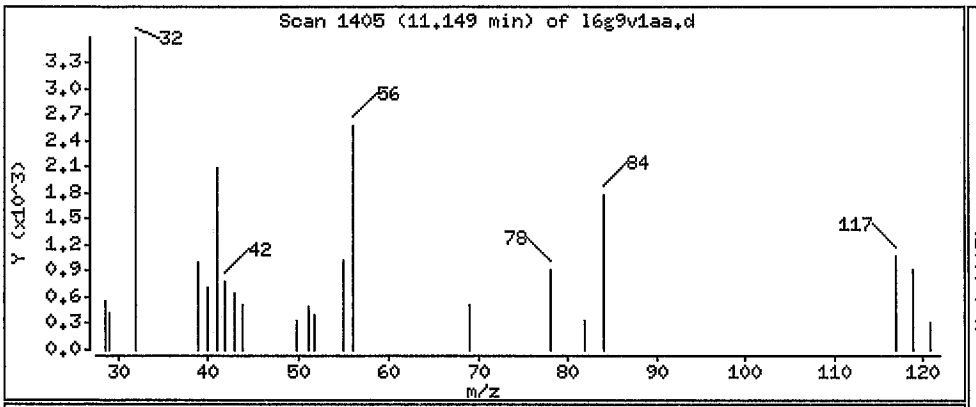
Client ID: IAQ-C6-9 Instrument: mj.i

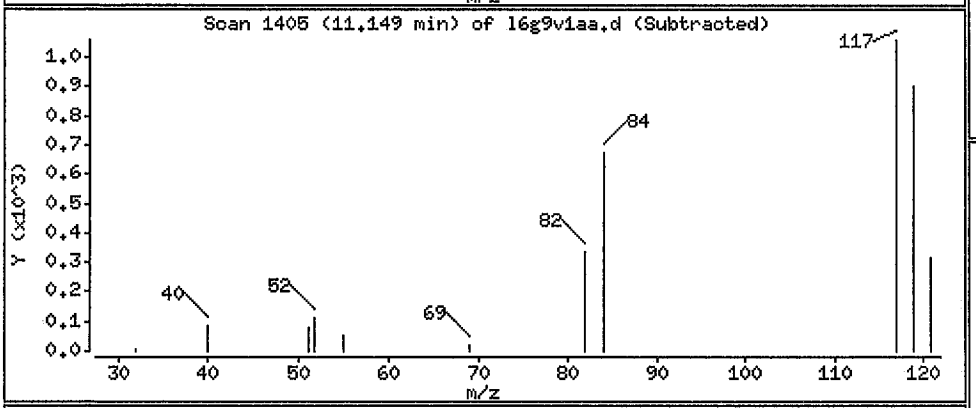
Sample Info: ,5,0,,,

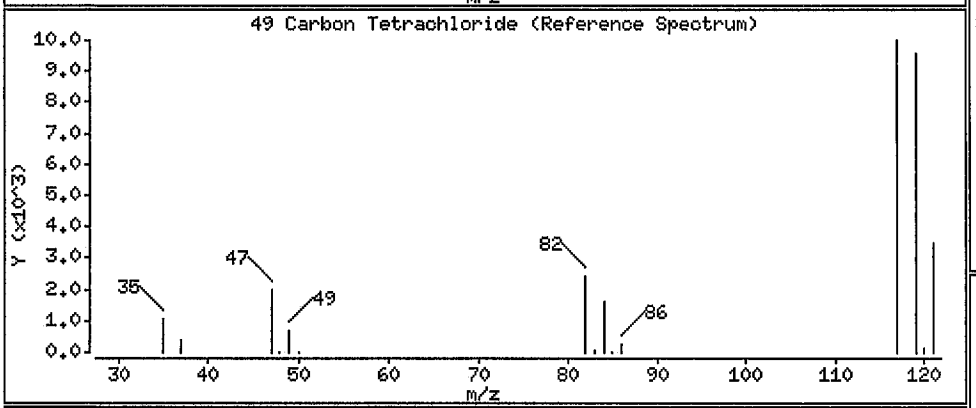
Purge Volume: 500.0 Operator: 7126

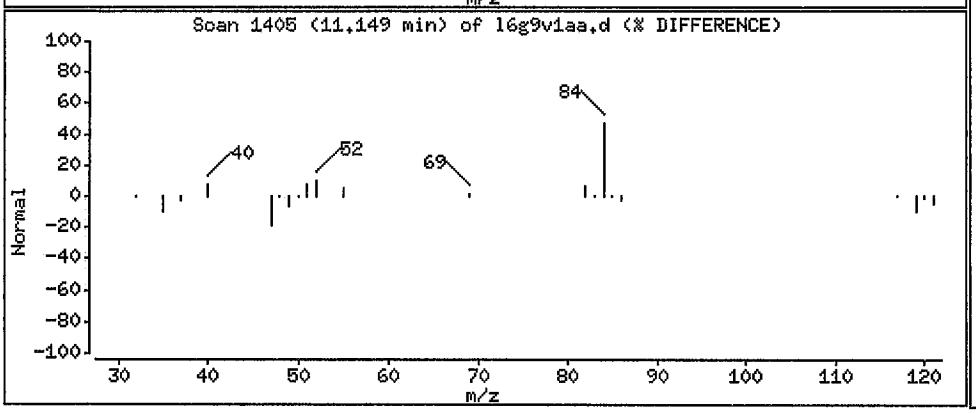
Column phase: Rtx-5 Column diameter: 0.32

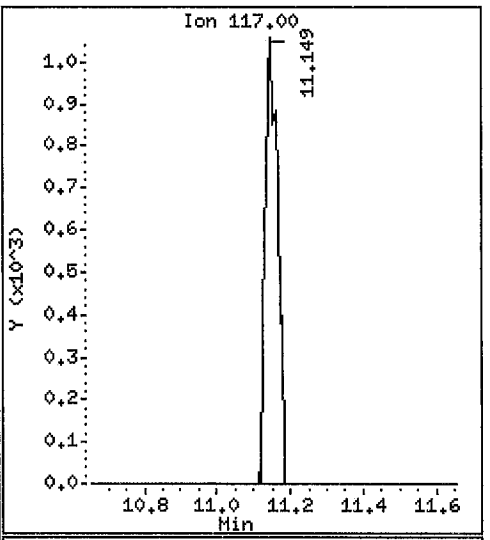
49 Carbon Tetrachloride Concentration: 0.08283 ppb(v/v)

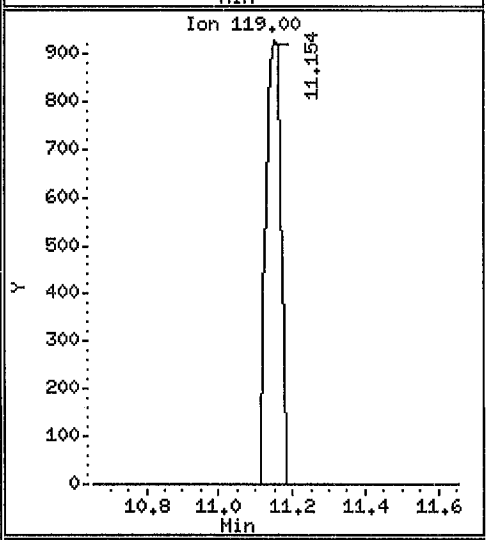


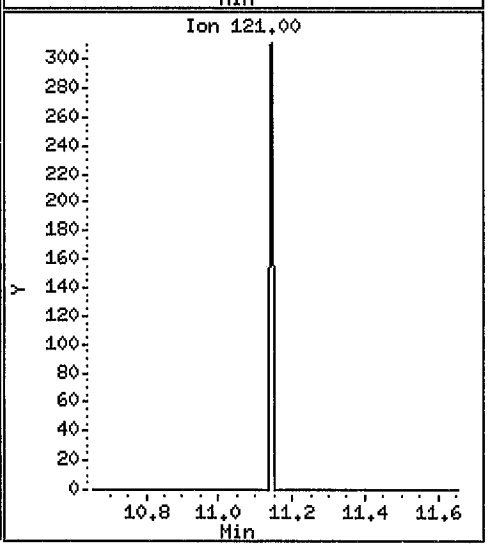












Data File: /var/chem/gcms/mj.i/J090810.b/16g9v1aa.d

Date : 08-SEP-2010 23:00

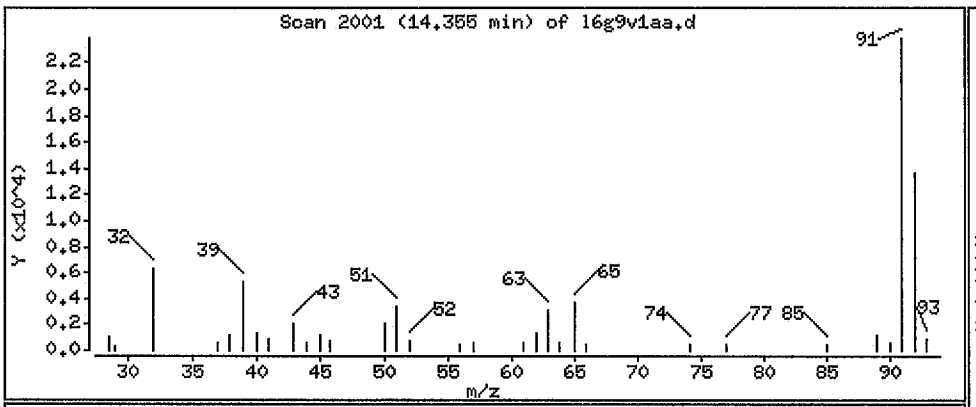
Client ID: IAQ-C6-9 Instrument: mj.i

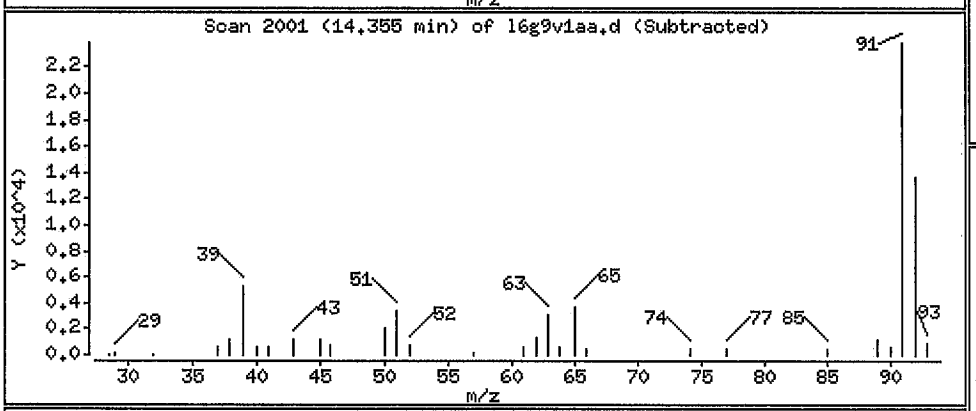
Sample Info: ,5,0,,,

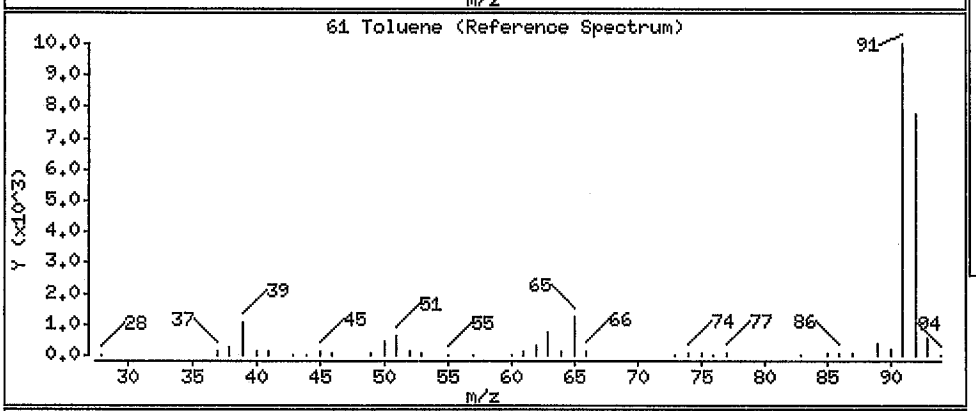
Purge Volume: 500.0 Operator: 7126

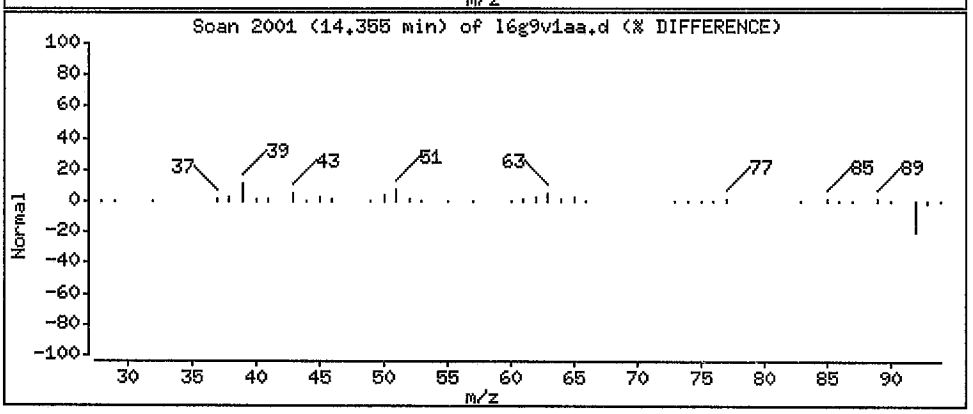
Column phase: Rtx-5 Column diameter: 0.32

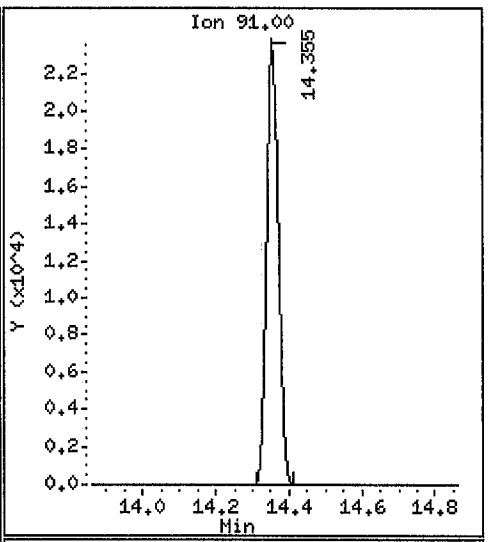
61 Toluene Concentration: 1.382 ppb(v/v)

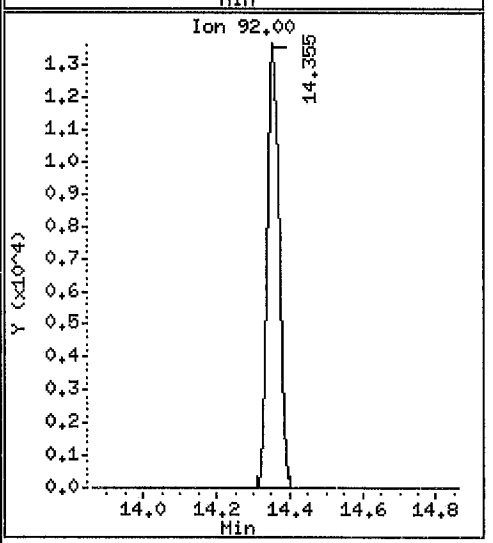












Data File: /var/chem/gcms/mj.i/J090810.b/16g9v1aa.d

Date : 08-SEP-2010 23:00

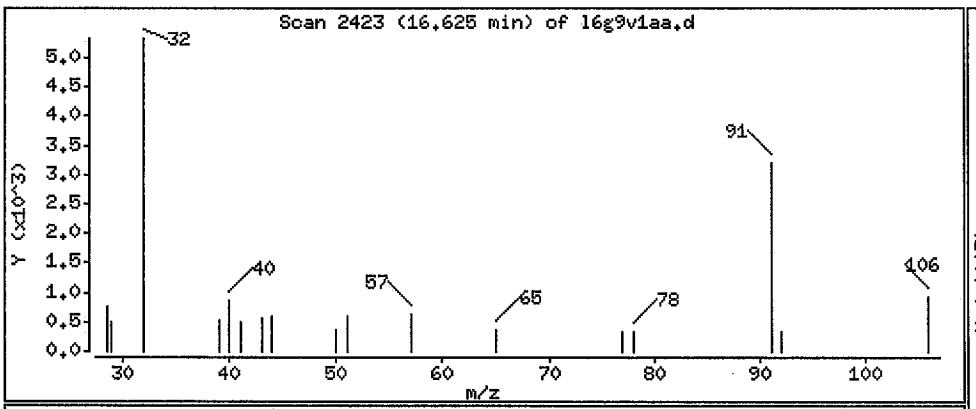
Client ID: IAQ-C6-9 Instrument: mj.i

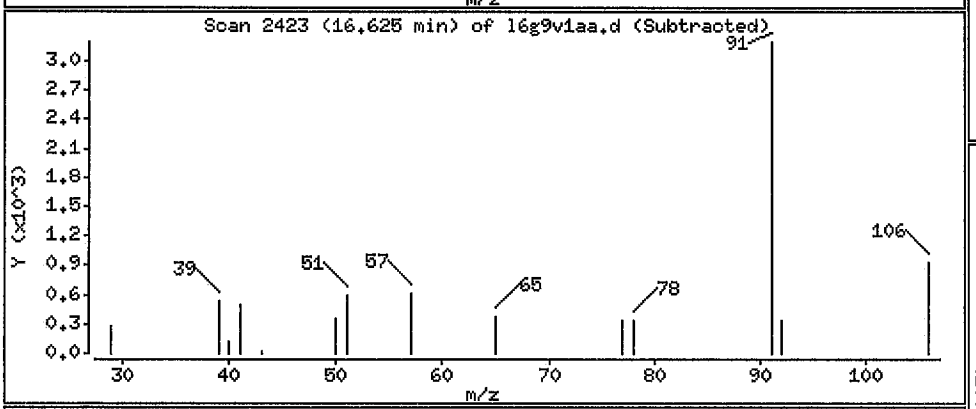
Sample Info: ,5,0,,,

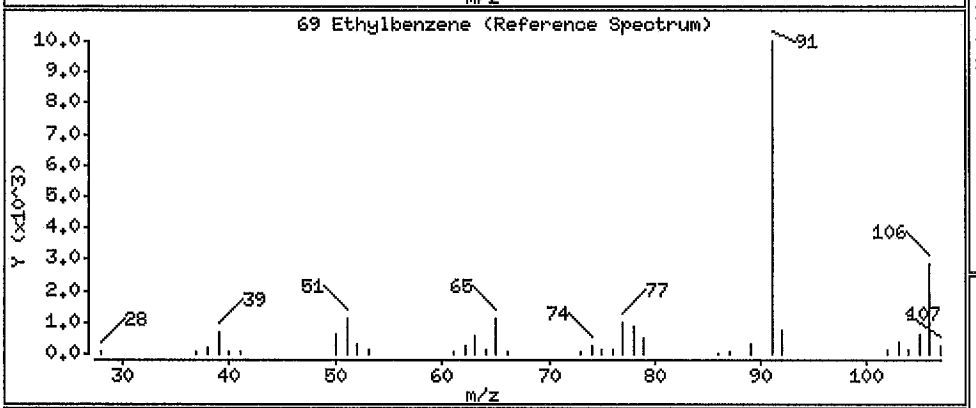
Purge Volume: 500.0 Operator: 7126

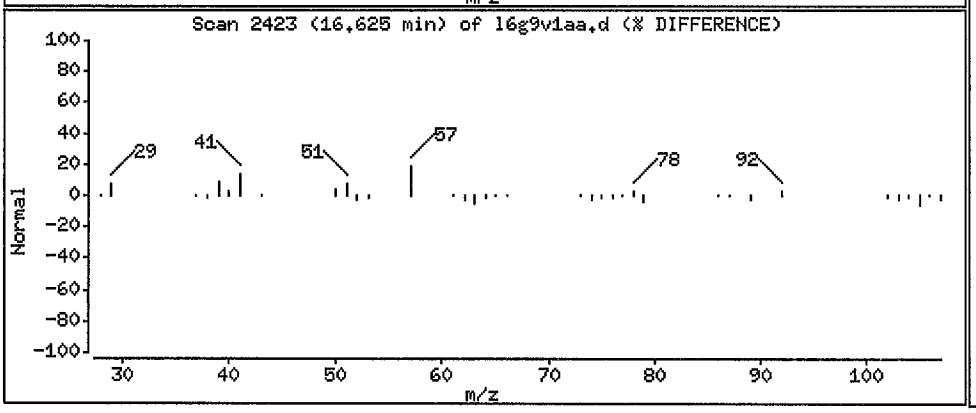
Column phase: Rtx-5 Column diameter: 0.32

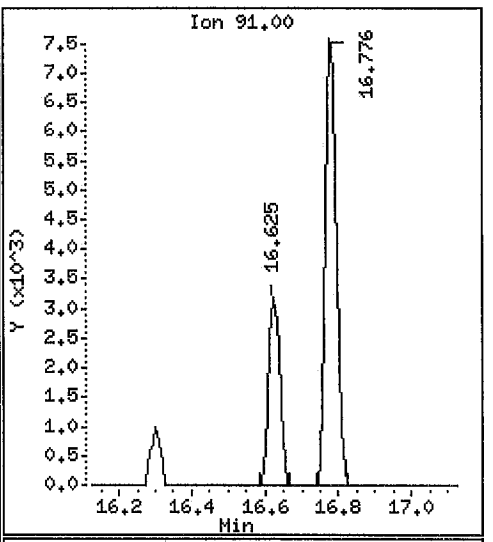
69 Ethylbenzene Concentration: 0.1538 ppb(v/v)

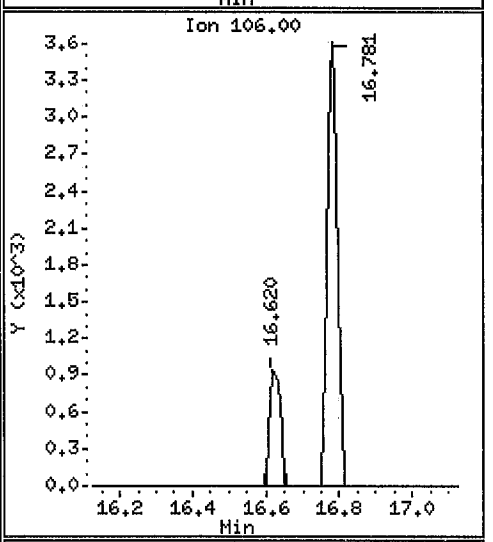


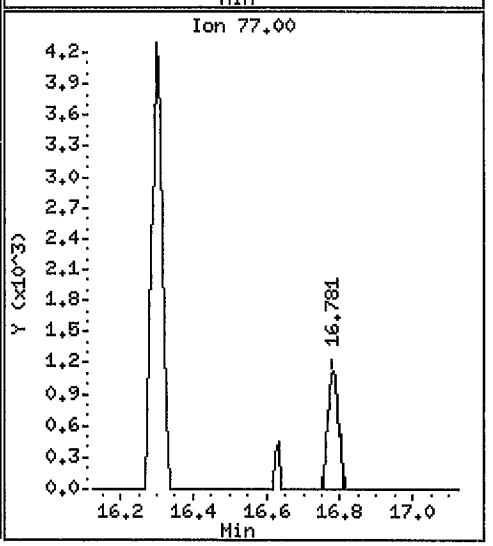












Data File: /var/chem/gcms/mj.i/J090810.b/16g9v1aa.d

Date : 08-SEP-2010 23:00

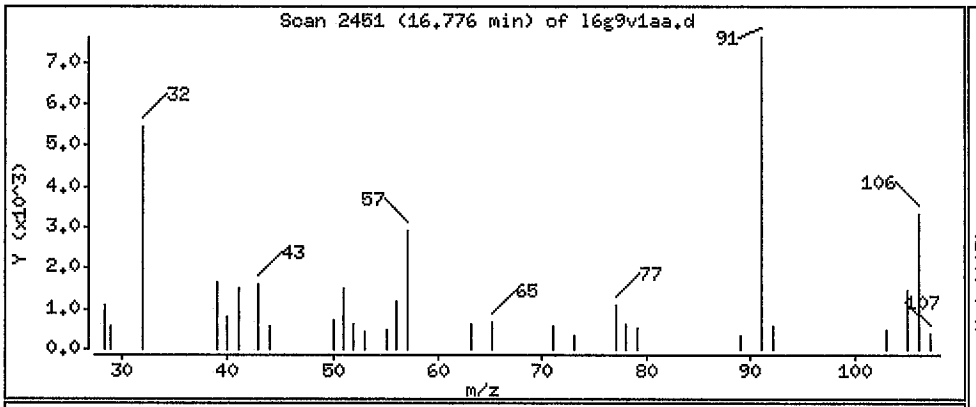
Client ID: IAQ-C6-9 Instrument: mj.i

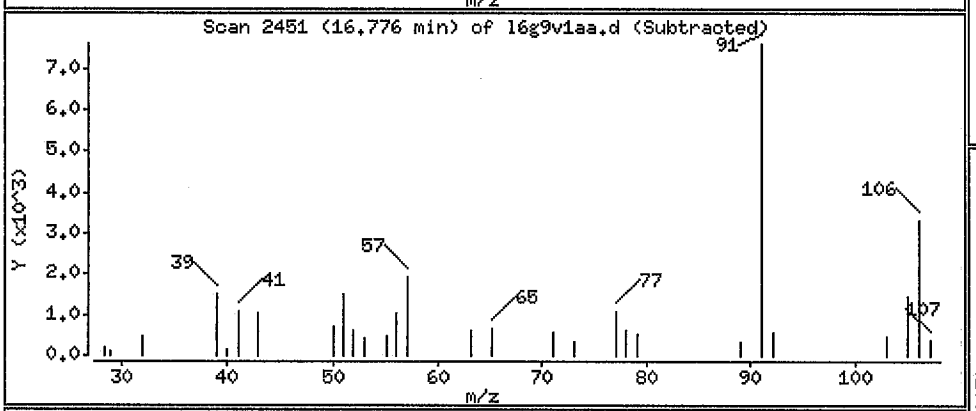
Sample Info: ,5,0,,,

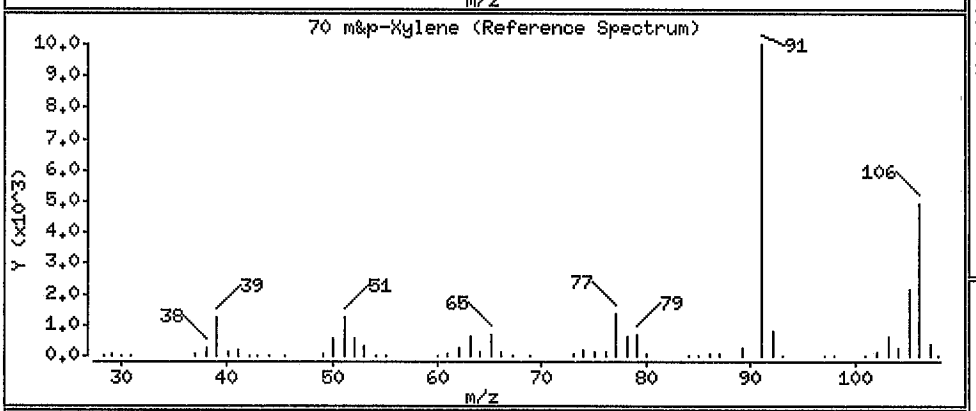
Purge Volume: 500.0 Operator: 7126

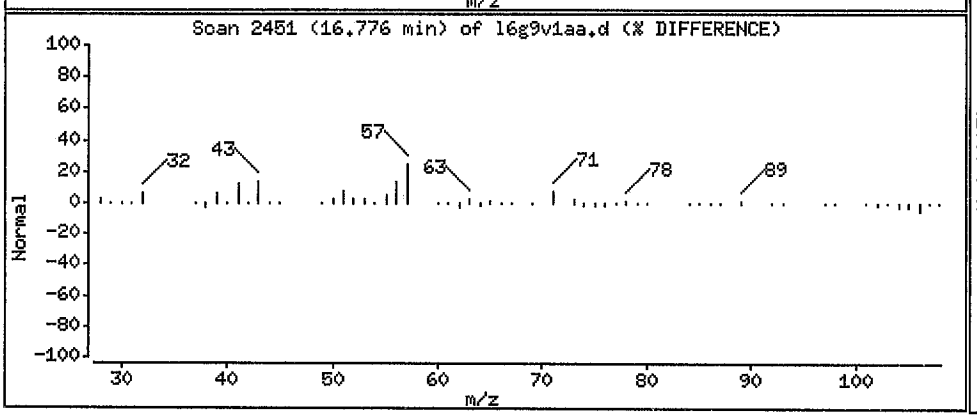
Column phase: Rtx-5 Column diameter: 0.32

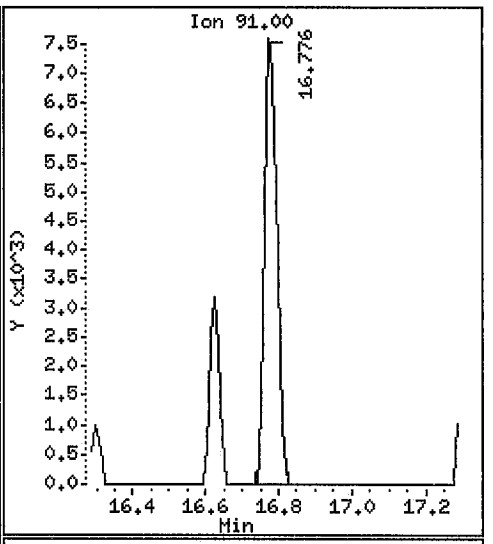
70 m&p-Xylene Concentration: 0.5523 ppb(v/v)

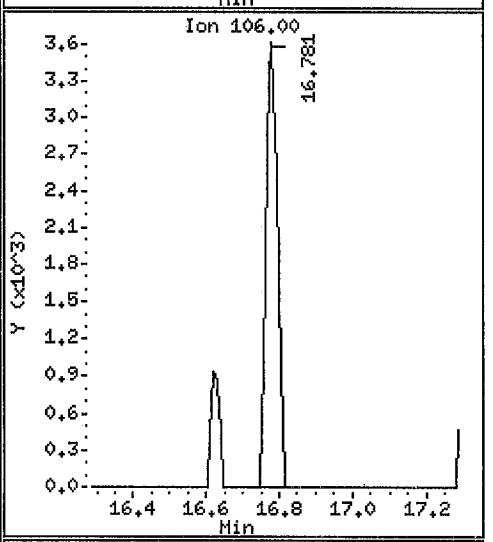


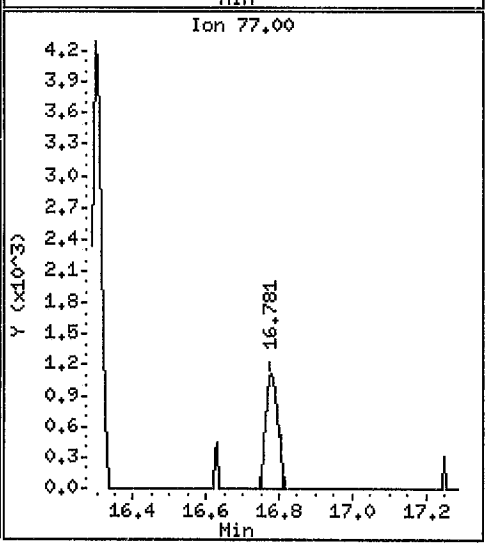












Data File: /var/chem/gcms/mj.i/J090810.b/16g9v1aa.d

Date : 08-SEP-2010 23:00

Client ID: IAQ-C6-9

Instrument: mj.i

Sample Info: ,5,0,,,

Purge Volume: 500.0

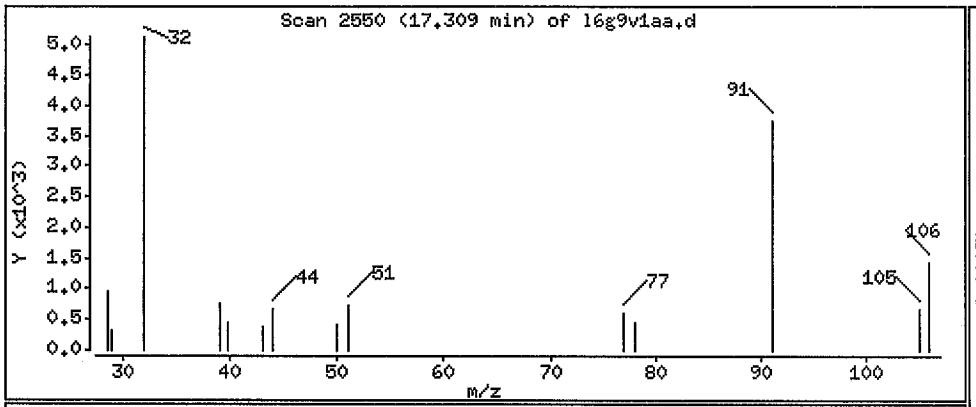
Operator: 7126

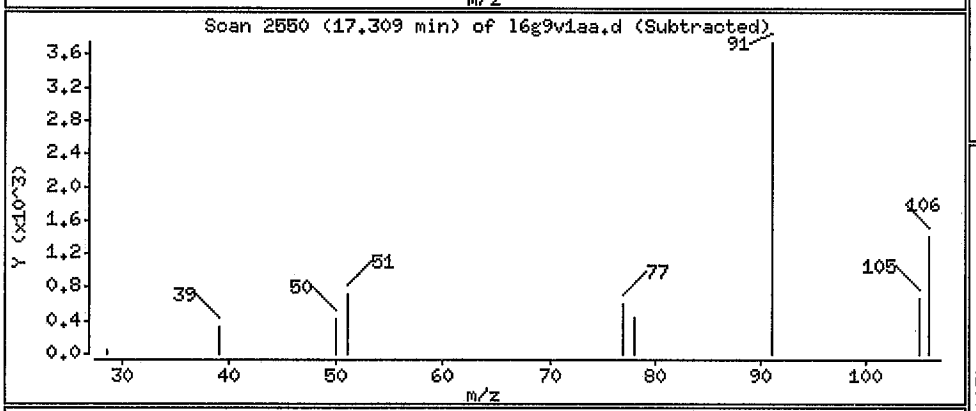
Column phase: Rtx-5

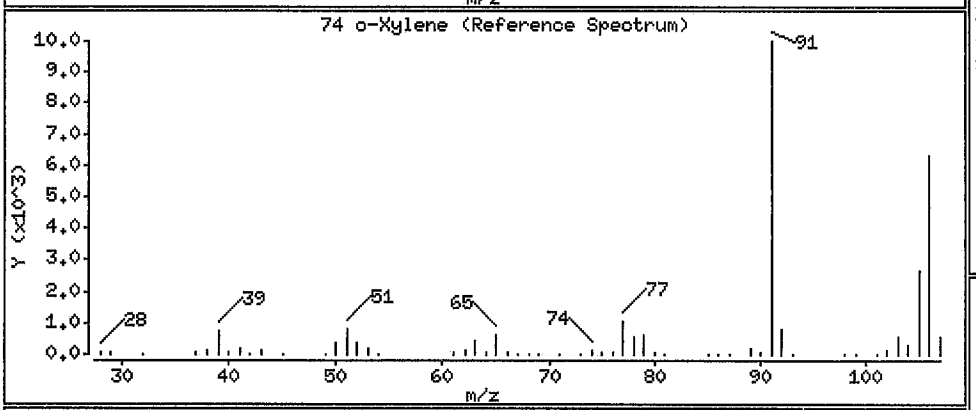
Column diameter: 0.32

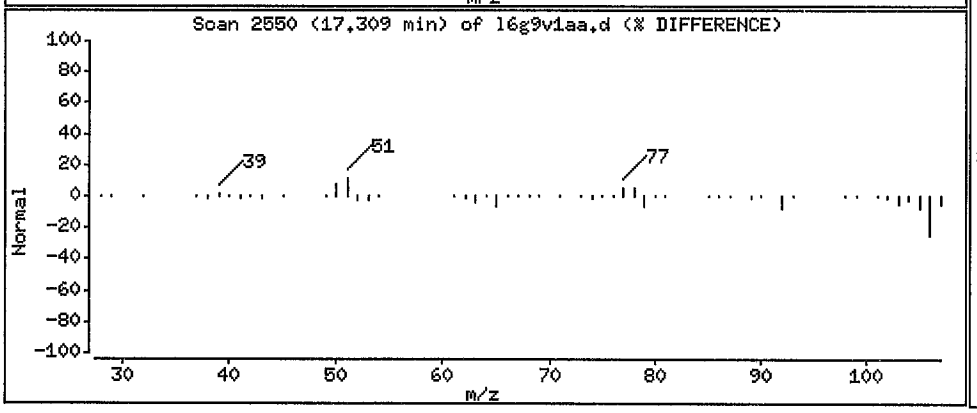
74 o-Xylene

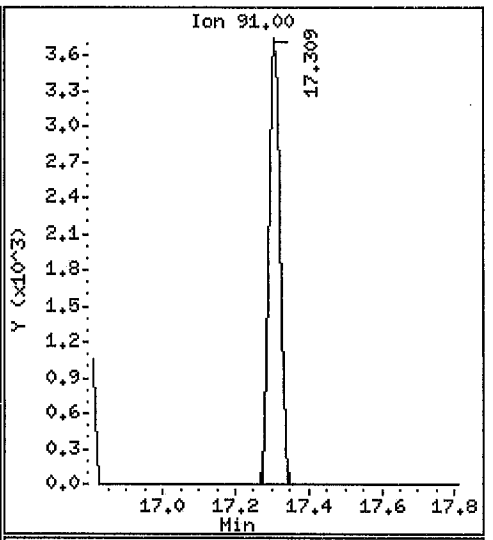
Concentration: 0.2252 ppb(v/v)

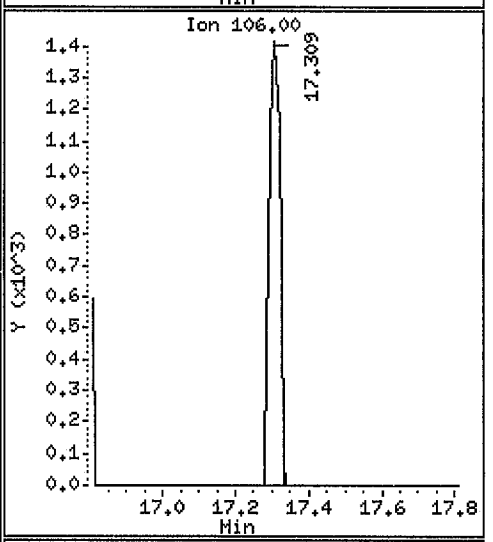


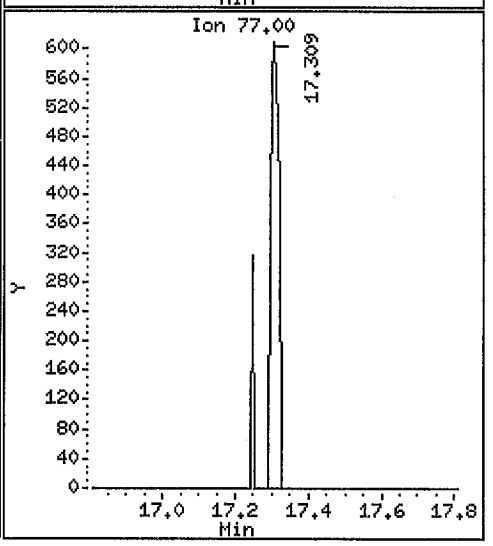












Tetra Tech NUS, Inc

Client Sample ID: IAQ-C5-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 014 **Work Order #** L6G9W1AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/08/2010 **Analysis Date...** 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 6.25 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.22**	**0.50**	**0.14**	**0.70 J**	**1.6**	**0.46**
Carbon tetrachloride	ND	0.50	0.094	ND	3.1	0.59
Chlorodifluoromethane	**84**	**0.50**	**0.094**	**300**	**1.8**	**0.33**
Chloroform	**0.11**	**0.50**	**0.094**	**0.55 J**	**2.4**	**0.46**
Dichlorodifluoromethane	**0.55**	**0.50**	**0.17**	**2.7**	**2.5**	**0.83**
1,1-Dichloroethane	ND	0.50	0.062	ND	2.0	0.25
1,2-Dichloroethane	ND	0.50	0.12	ND	2.0	0.48
cis-1,2-Dichloroethene	ND	0.50	0.15	ND	2.0	0.59
trans-1,2-Dichloroethene	ND	0.50	0.12	ND	2.0	0.50
1,1-Dichloroethene	ND	0.50	0.081	ND	2.0	0.32
Ethylbenzene	**0.24**	**0.50**	**0.17**	**1.0 J**	**2.2**	**0.73**
Methylene chloride	**1.7**	**1.2**	**0.11**	**6.1**	**4.3**	**0.39**
Methyl tert-butyl ether	ND	2.5	0.42	ND	9.0	1.5
Naphthalene	ND	1.2	0.22	ND	6.6	1.2
Tetrachloroethene	ND	0.50	0.10	ND	3.4	0.68
Toluene	**2.4**	**0.50**	**0.13**	**8.9**	**1.9**	**0.49**
1,2,4-Trichlorobenzene	ND	2.5	0.24	ND	19	1.8
1,1,1-Trichloroethane	**0.10**	**0.50**	**0.075**	**0.56 J**	**2.7**	**0.41**
1,1,2-Trichloroethane	ND	0.50	0.13	ND	2.7	0.72
Trichloroethene	ND	0.25	0.088	ND	1.3	0.47
Vinyl chloride	ND	0.50	0.18	ND	1.3	0.46
m-Xylene & p-Xylene	**0.89**	**0.50**	**0.31**	**3.9**	**2.2**	**1.4**
o-Xylene	**0.38**	**0.50**	**0.15**	**1.6 J**	**2.2**	**0.65**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9w1aa.d
Report Date: 10-Sep-2010 14:32

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/l6g9w1aa.d
Lab Smp Id: L6G9W1AA Client Smp ID: IAQ-C5-9
Inj Date : 08-SEP-2010 23:54
Operator : 7126 Inst ID: mj.i
Smp Info : ,6.25,0,,,
Misc Info : J090810,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 10-Sep-2010 14:16 barlozha Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 14
Dil Factor: 6.25000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	6.25000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
*	1 Bromochloromethane	128	9.479	9.479	(1.000)	184879	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.641	11.642	(1.000)	919454	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.300	16.300	(1.000)	792202	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.914	17.914	(1.099)	611421	4.06636	4.066
	7 Chlorodifluoromethane	67	3.906	3.901	(0.412)	312580	13.3693	83.56
	8 Dichlorodifluoromethane	85	3.975	3.970	(0.419)	17593	0.08763	0.5477
	31 Methylene Chloride	84	6.789	6.784	(0.716)	16801	0.27929	1.746
	42 Chloroform	83	9.479	9.479	(1.000)	2418	0.01802	0.1126
	44 1,1,1-Trichloroethane	97	10.538	10.544	(1.112)	2304	0.01648	0.1030
	48 Benzene	78	11.130	11.125	(0.956)	6805	0.03501	0.2188
	61 Toluene	91	14.352	14.358	(0.881)	70448	0.37760	2.360
	69 Ethylbenzene	91	16.628	16.623	(1.020)	8076	0.03775	0.2360
	70 m&p-Xylene	91	16.779	16.784	(1.029)	23140	0.14304	0.8940
	74 o-Xylene	91	17.311	17.306	(1.062)	10096	0.06000	0.3750

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9w1aa.d
Report Date: 10-Sep-2010 14:32

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9w1aa.d
Lab Smp Id: L6G9W1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: IAQ-C5-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	184879	-5.22
2 1,4-Difluorobenze	936174	557024	1315324	919454	-1.79
3 Chlorobenzene-d5	815161	485021	1145301	792202	-2.82

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.48	0.00
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.00
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9w1aa.d
Report Date: 10-Sep-2010 14:32

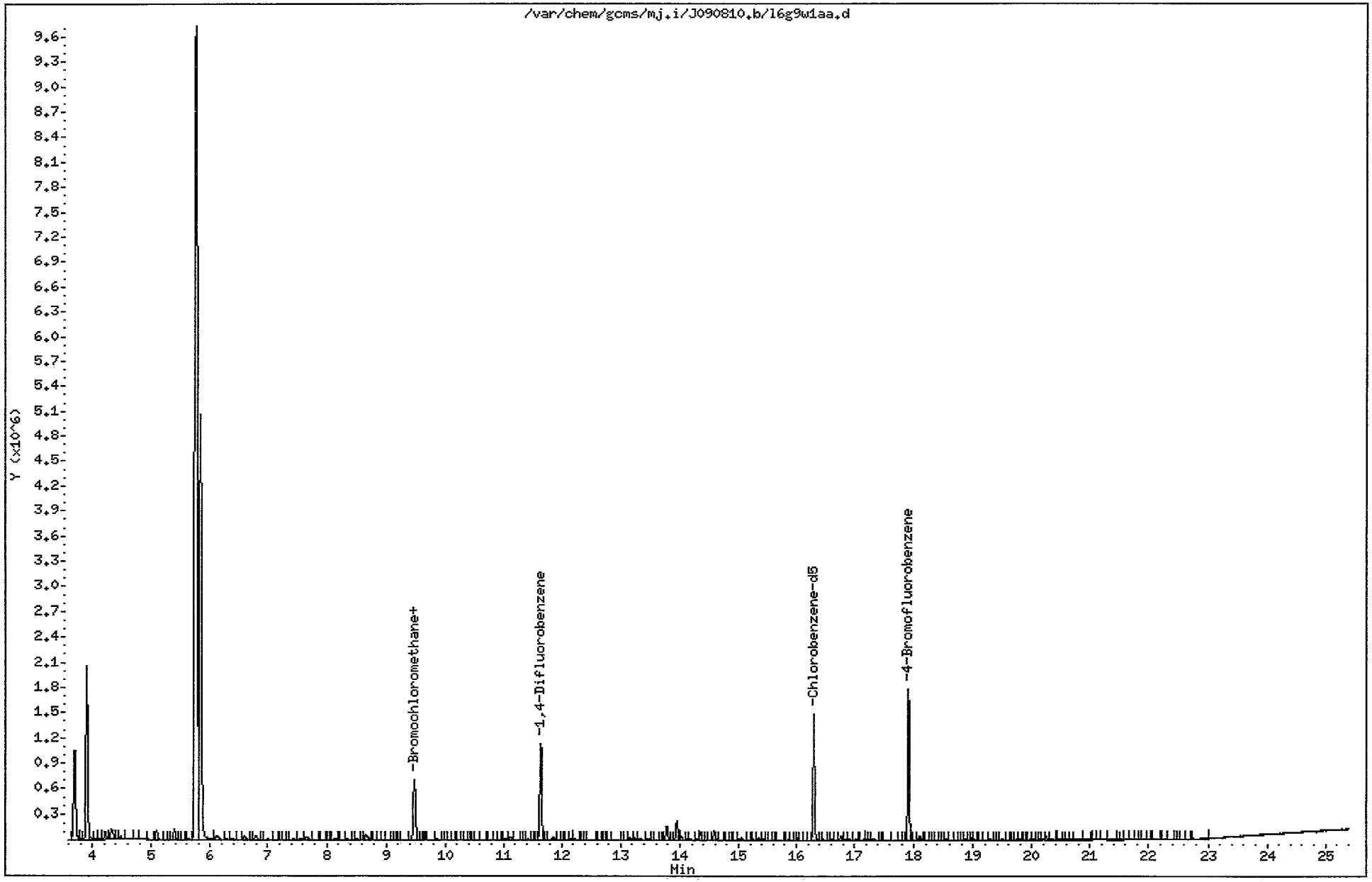
TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9W1AA
Client Smp ID: IAQ-C5-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.066	101.66	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/16g9w1aa.d
Date : 08-SEP-2010 23:54
Client ID: IAQ-C5-9
Instrument: mj.i
Sample Info: ,6.25,0,,,
Purge Volume: 500.0
Operator: 7126
Column phase: Rtx-5
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J090810.b/16g9w1aa.d

Date : 08-SEP-2010 23:54

Client ID: IAQ-C5-9

Instrument: mj.i

Sample Info: ,6.25,0,,,

Purge Volume: 500.0

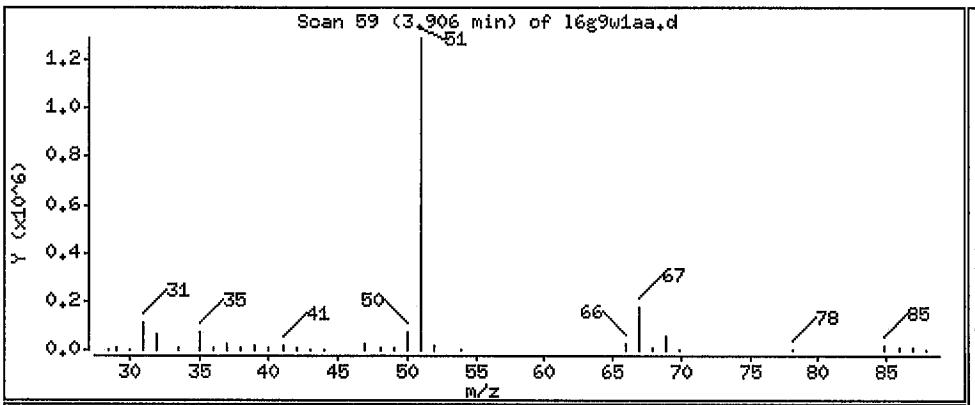
Operator: 7126

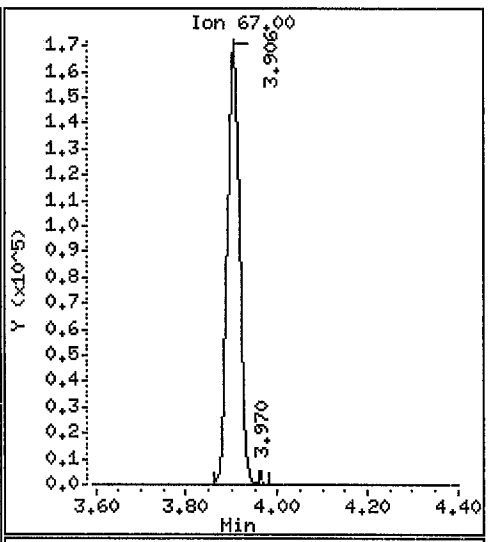
Column phase: Rtx-5

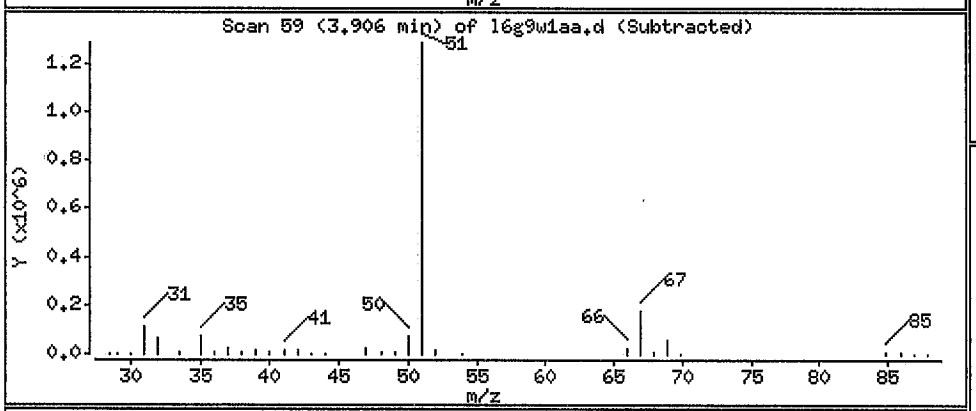
Column diameter: 0.32

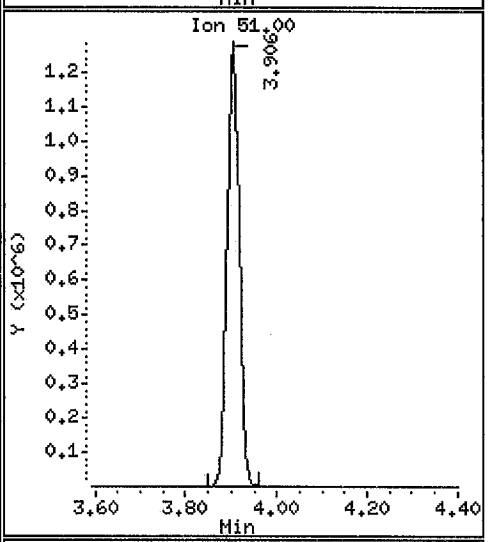
7 Chlorodifluoromethane

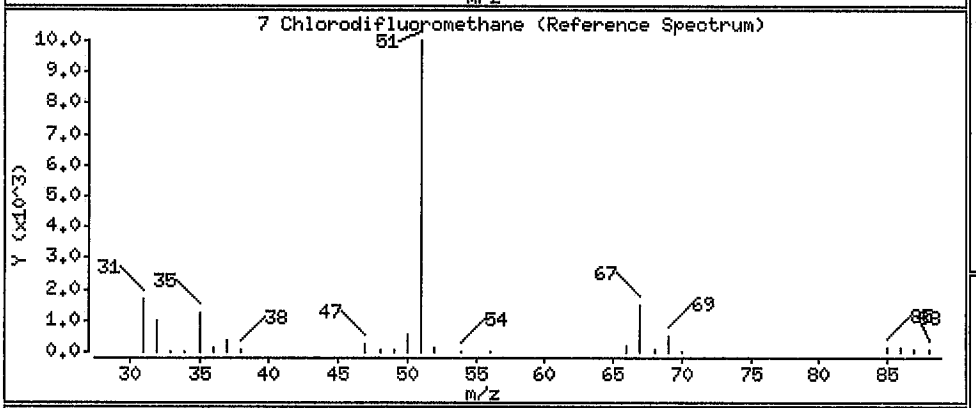
Concentration: 83.56 ppb(v/v)

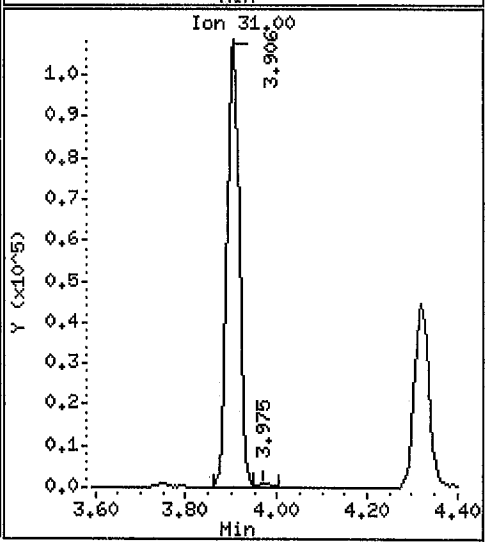


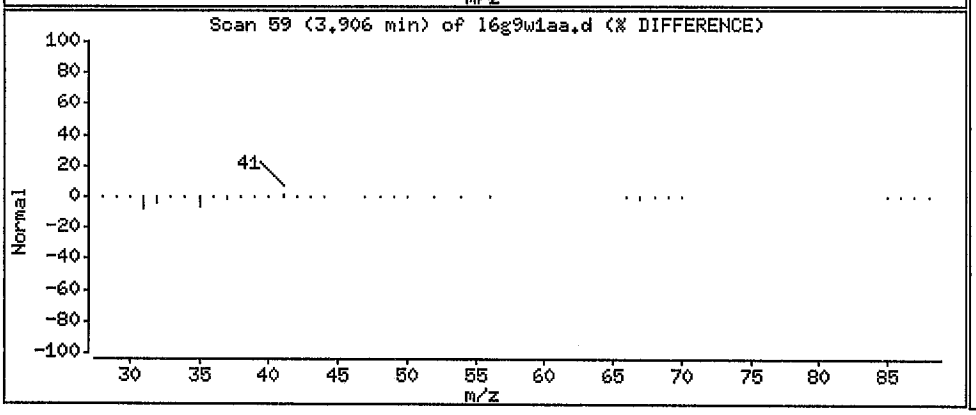












Data File: /var/chem/gcms/mj.i/J090810.b/16g9w1aa.d

Date : 08-SEP-2010 23:54

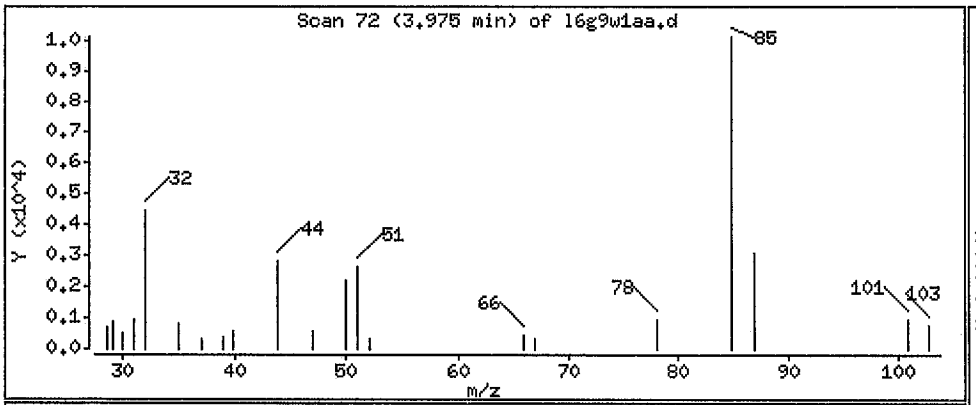
Client ID: IAQ-C5-9 Instrument: mj.i

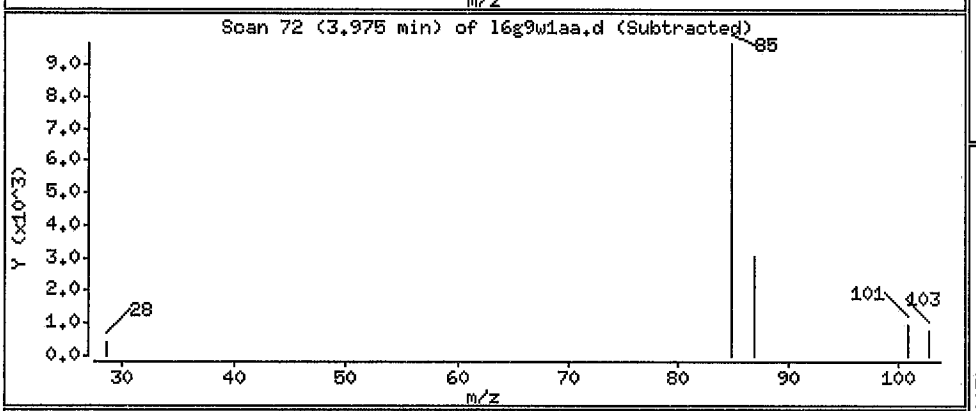
Sample Info: ,6.25,0,,,

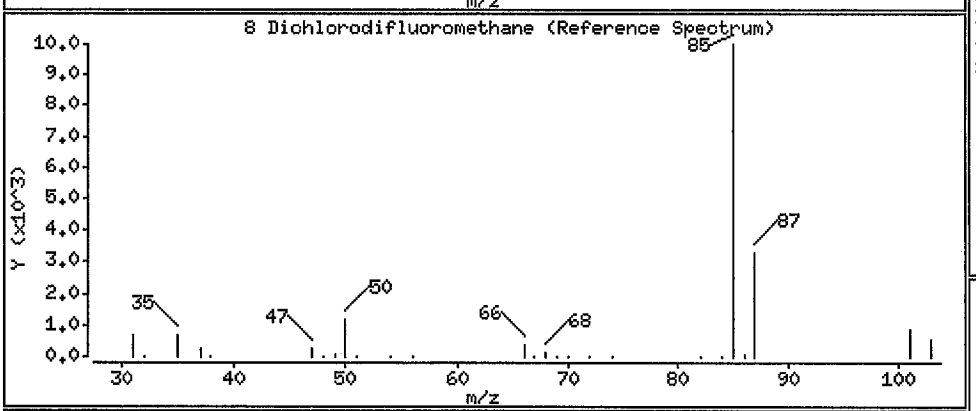
Purge Volume: 500.0 Operator: 7126

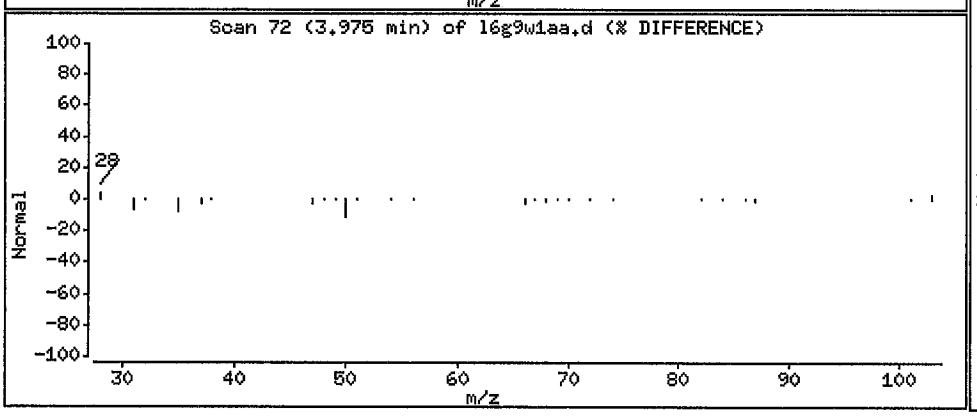
Column phase: Rtx-5 Column diameter: 0.32

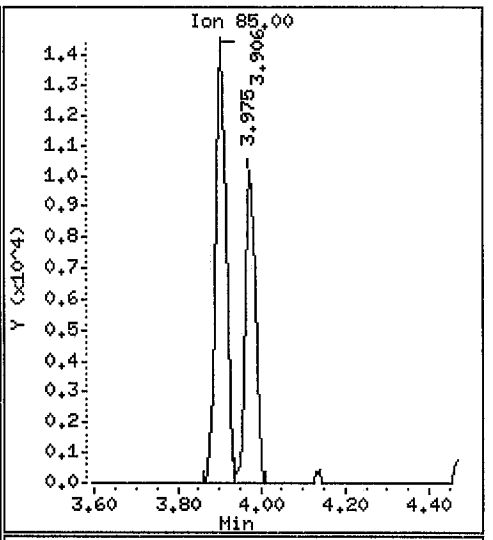
8 Dichlorodifluoromethane Concentration: 0.5477 ppb(v/v)

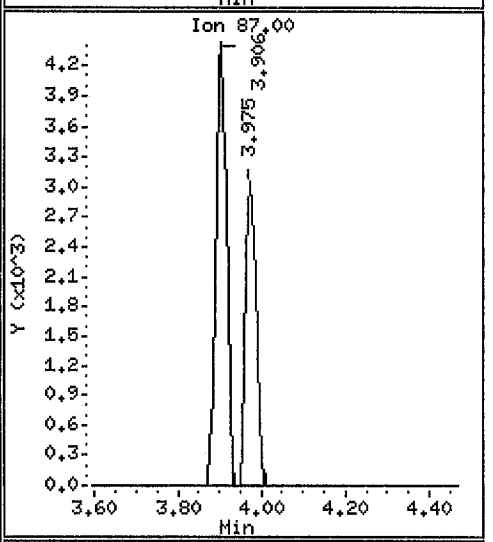


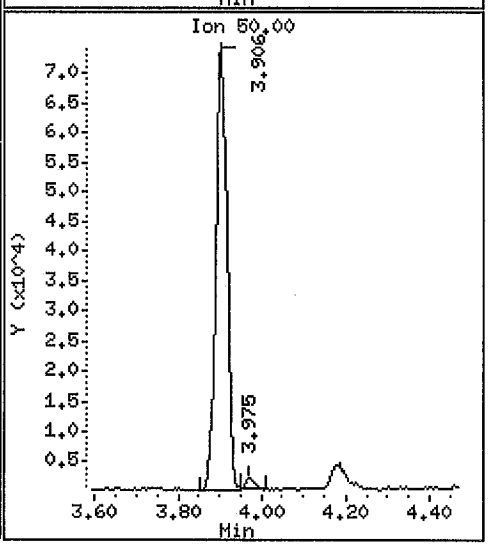












Data File: /var/chem/gcms/mj.i/J090810.b/16g9w1aa.d

Date : 08-SEP-2010 23:54

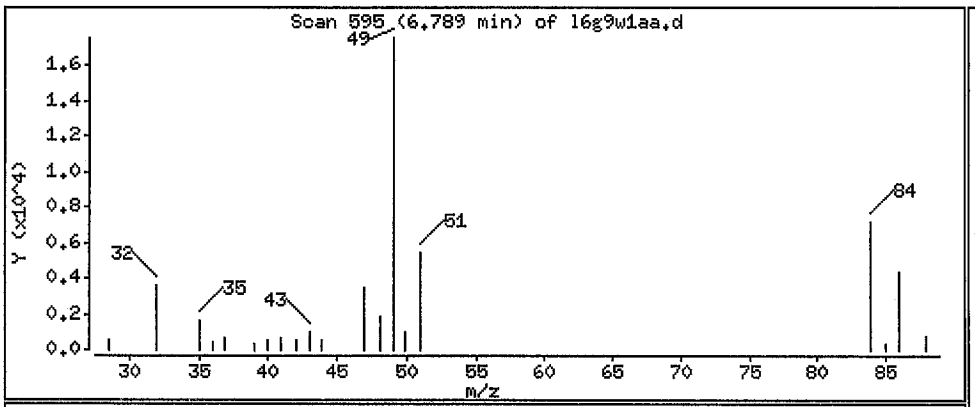
Client ID: IAQ-C5-9 Instrument: mj.i

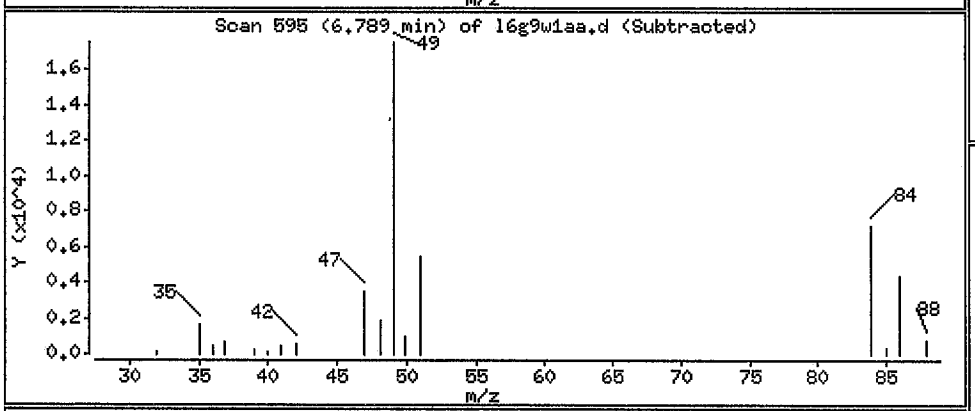
Sample Info: ,6.25,0,,,

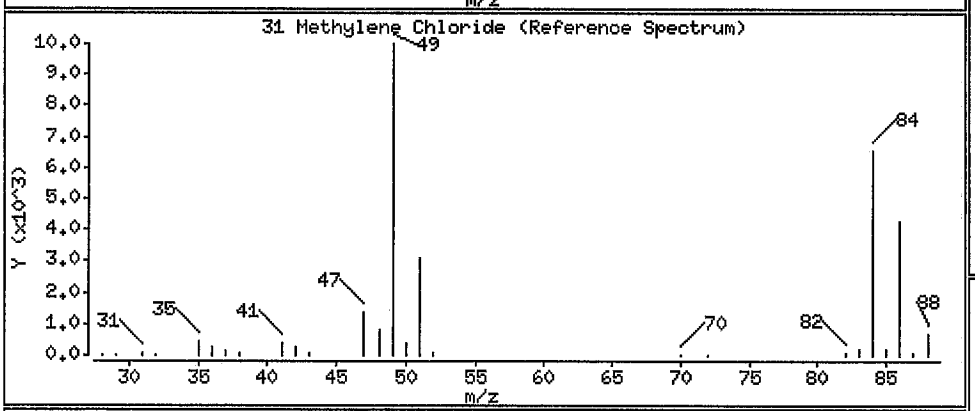
Purge Volume: 500.0 Operator: 7126

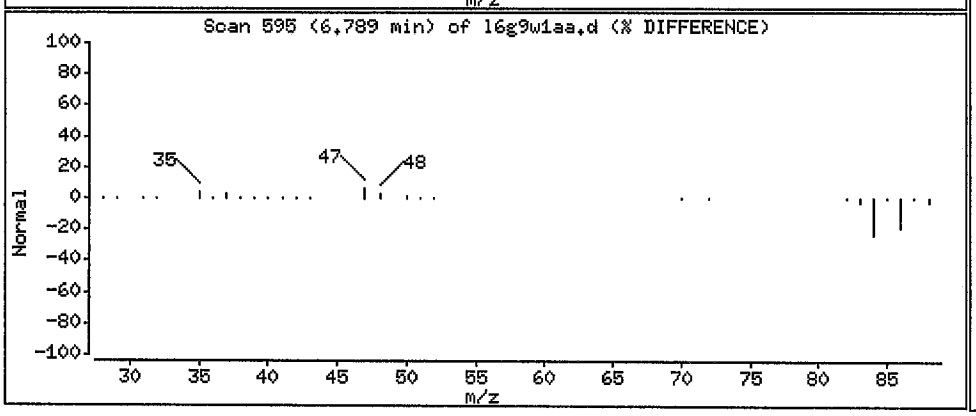
Column phase: Rtx-5 Column diameter: 0.32

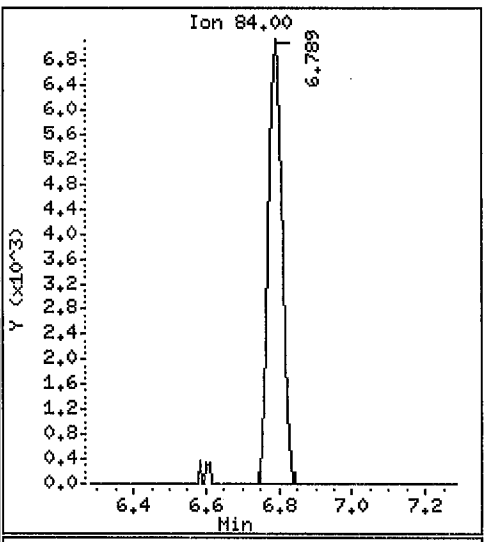
31 Methylene Chloride Concentration: 1.746 ppb(v/v)

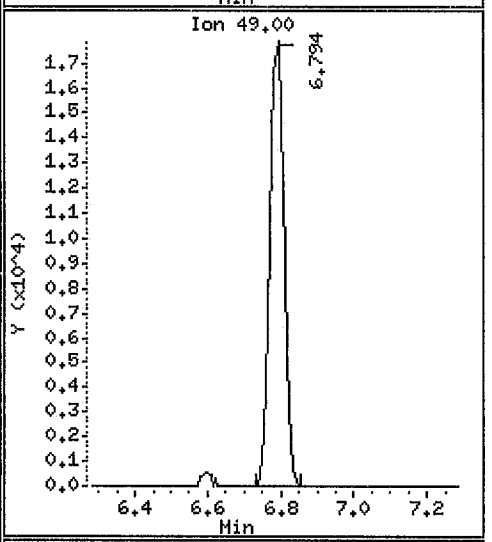


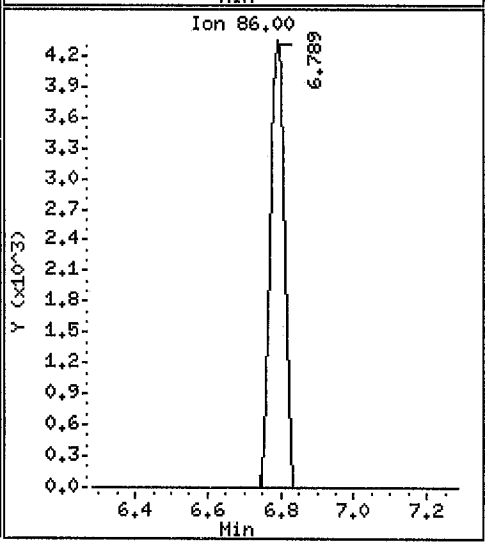












Data File: /var/chem/gcms/mj.i/J090810.b/16g9w1aa.d

Date : 08-SEP-2010 23:54

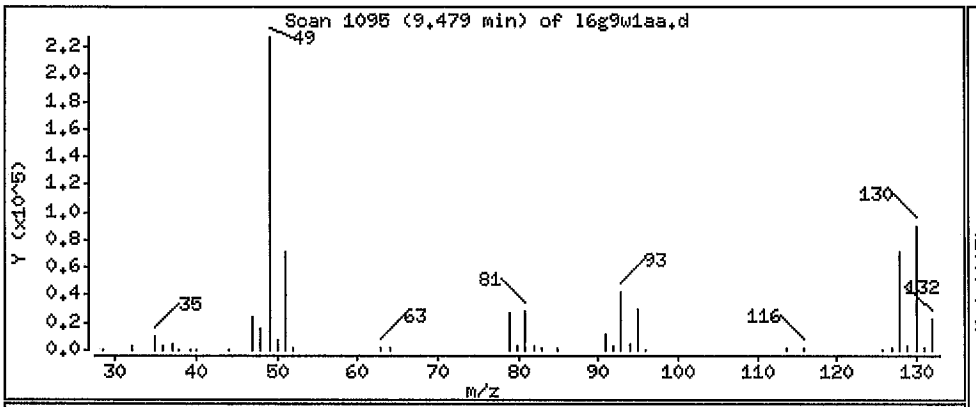
Client ID: IAQ-C5-9 Instrument: mj.i

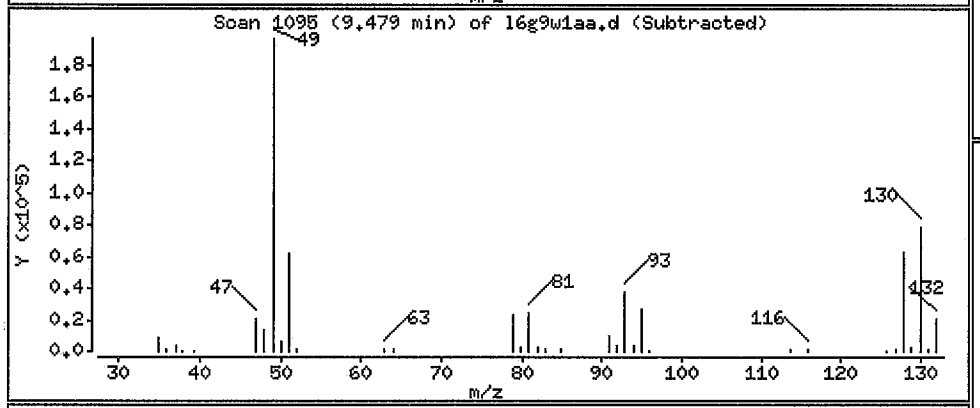
Sample Info: ,6.25,0,,,

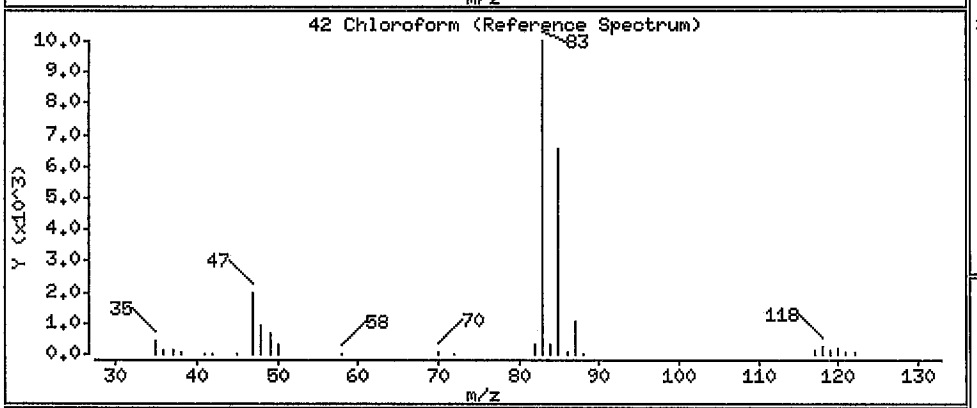
Purge Volume: 500.0 Operator: 7126

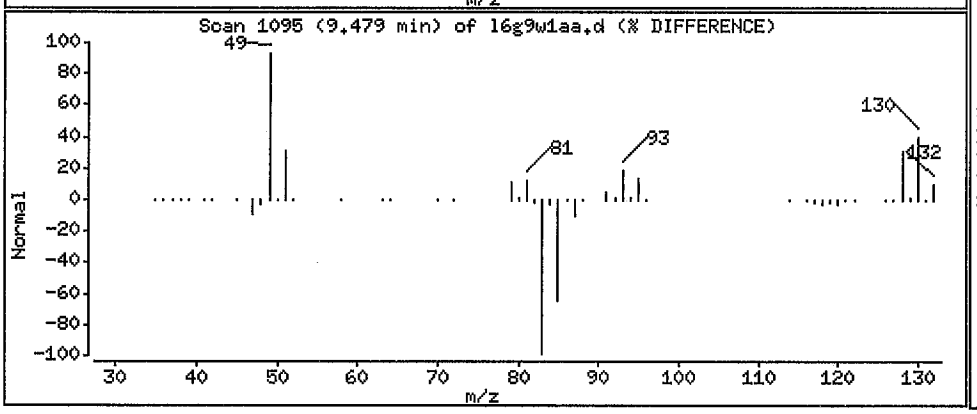
Column phase: Rtx-5 Column diameter: 0.32

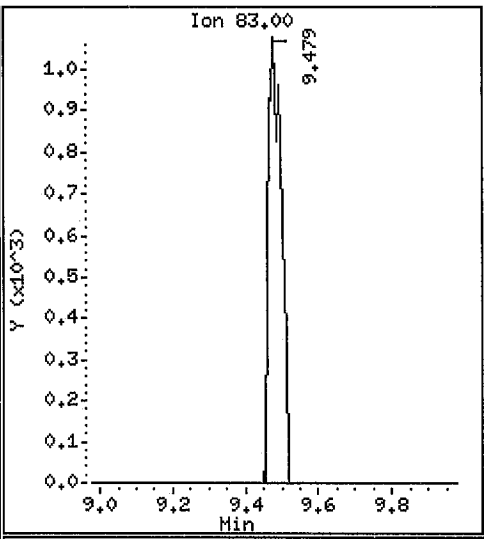
42 Chloroform Concentration: 0.1126 ppb(v/v)

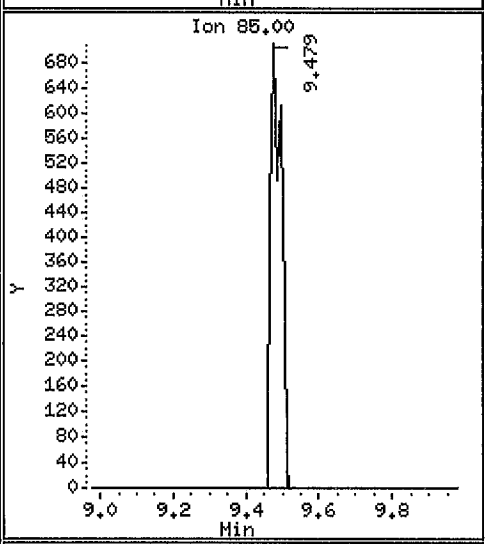


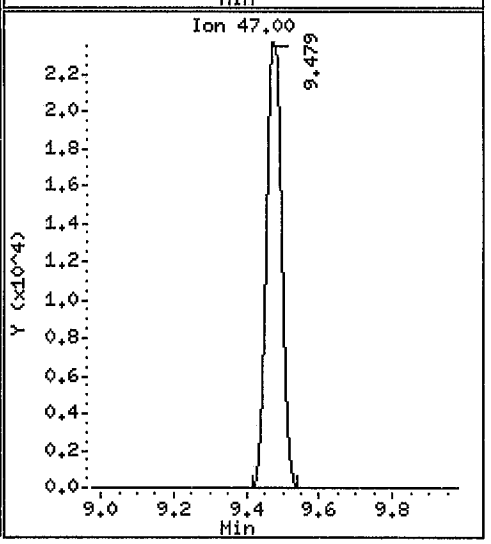












Data File: /var/chem/gcms/mj.i/J090810.b/16g9w1aa.d

Date : 08-SEP-2010 23:54

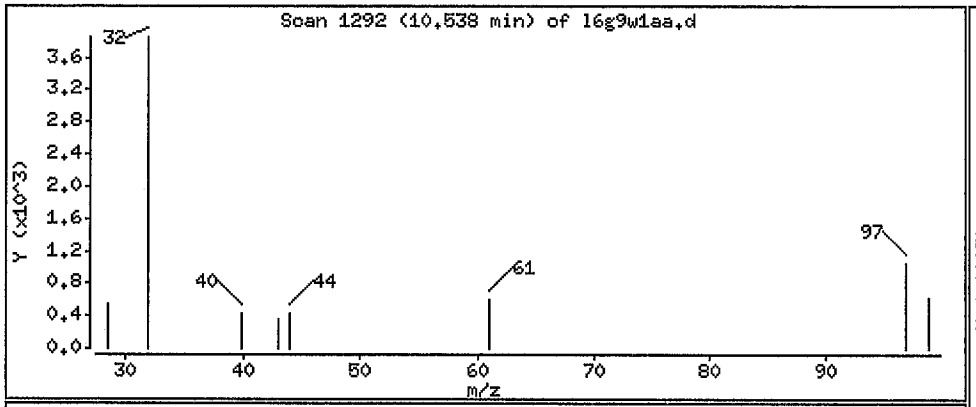
Client ID: IAQ-C5-9 Instrument: mj.i

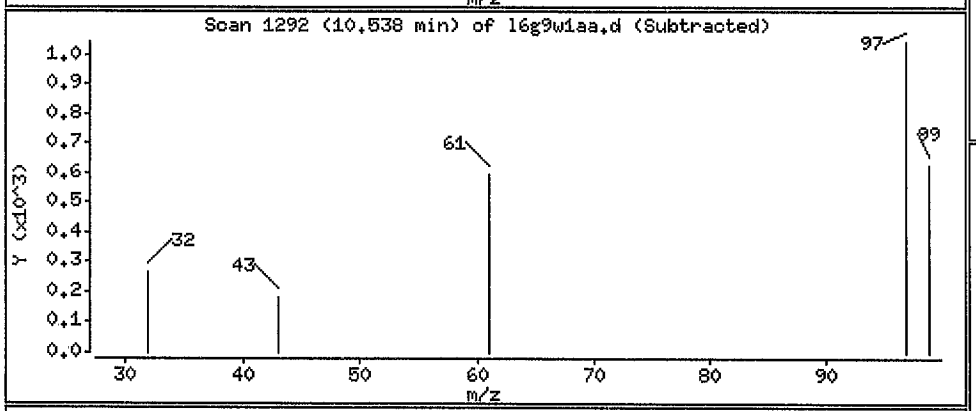
Sample Info: ,6.25,0,,,

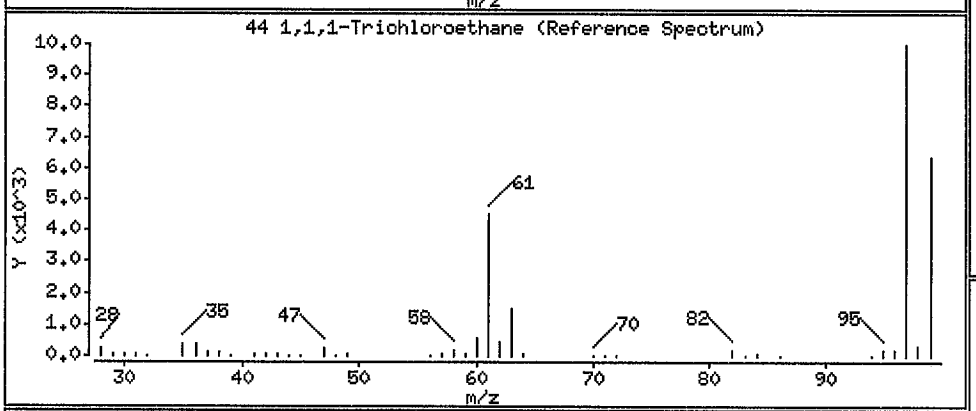
Purge Volume: 500.0 Operator: 7126

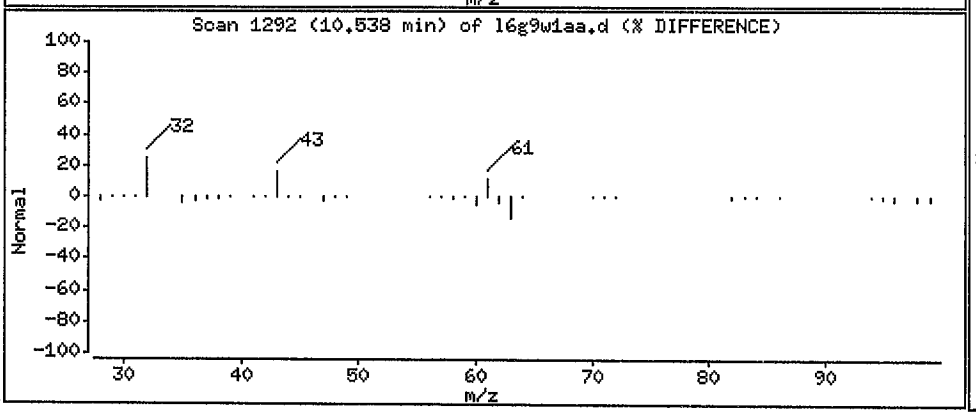
Column phase: Rtx-5 Column diameter: 0.32

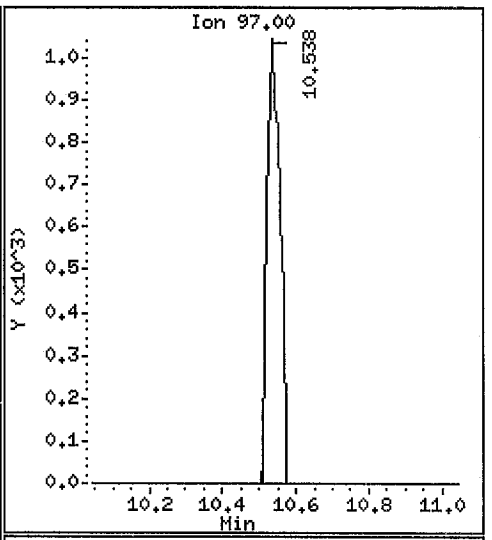
44 1,1,1-Trichloroethane Concentration: 0.1030 ppb(v/v)

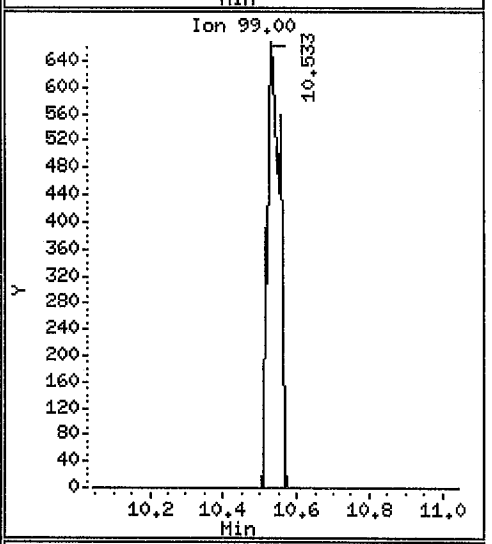


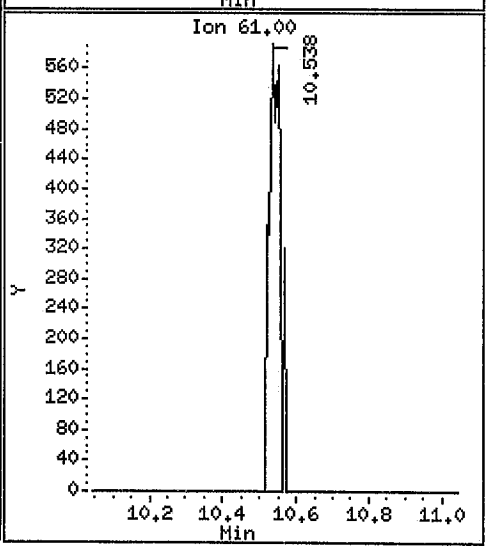












Data File: /var/chem/gcms/mj.i/J090810.b/16g9w1aa.d

Date : 08-SEP-2010 23:54

Client ID: IAQ-C5-9

Instrument: mj.i

Sample Info: ,6.25,0,,,

Purge Volume: 500.0

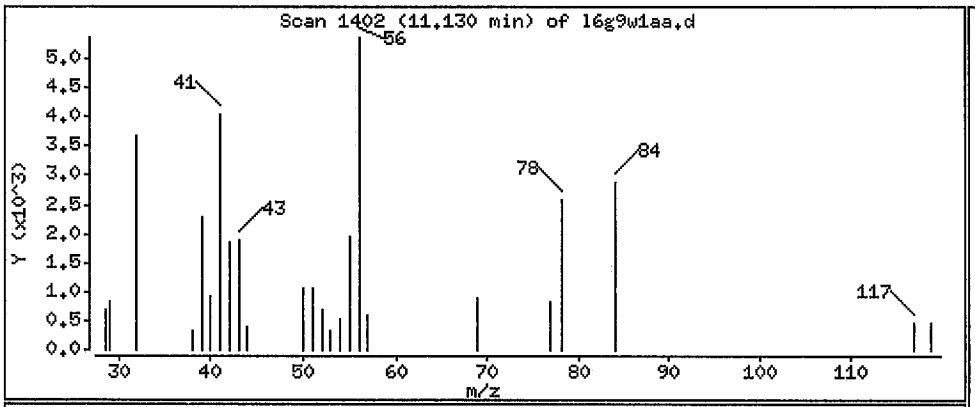
Operator: 7126

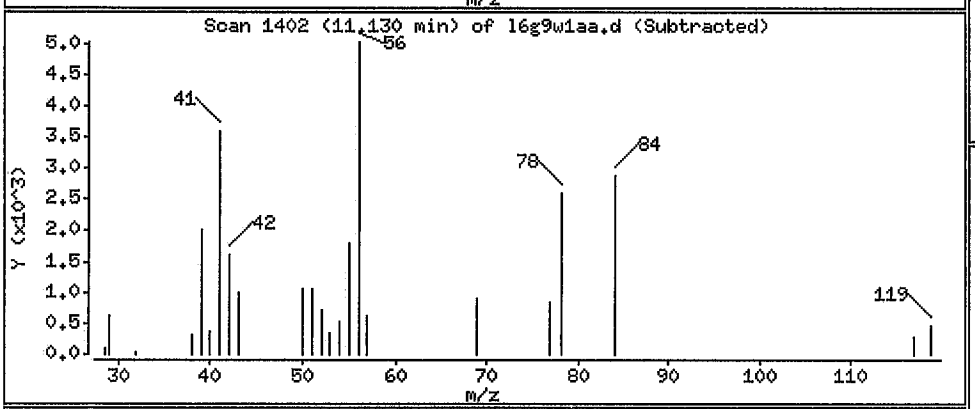
Column phase: Rtx-5

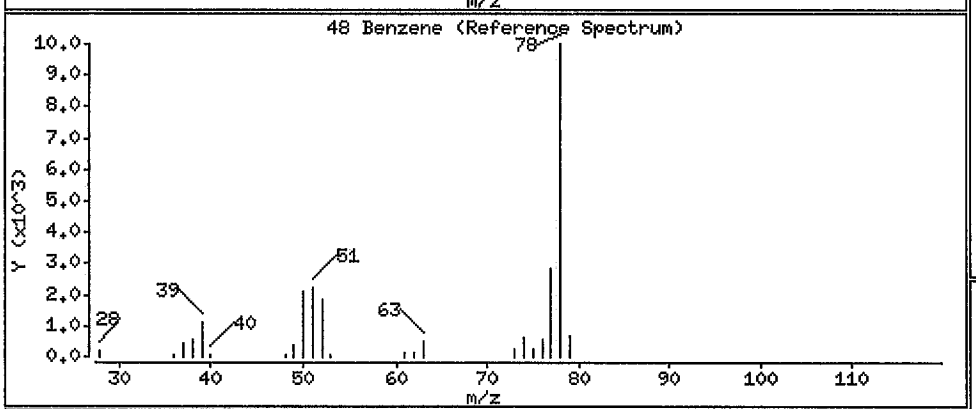
Column diameter: 0.32

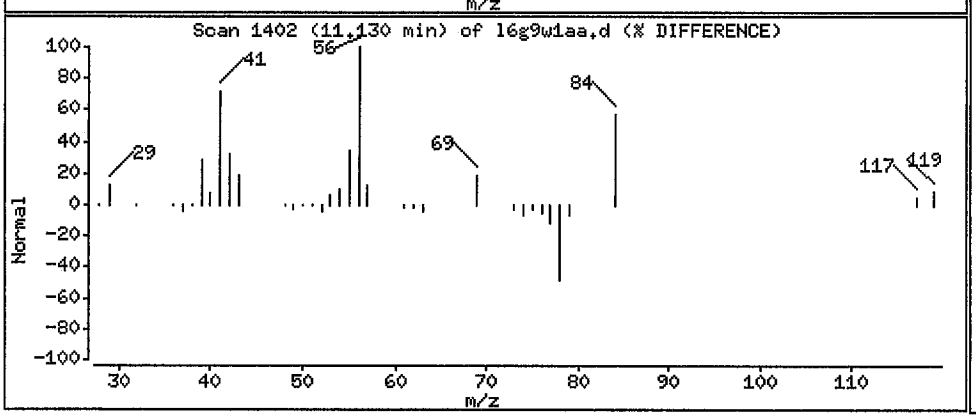
48 Benzene

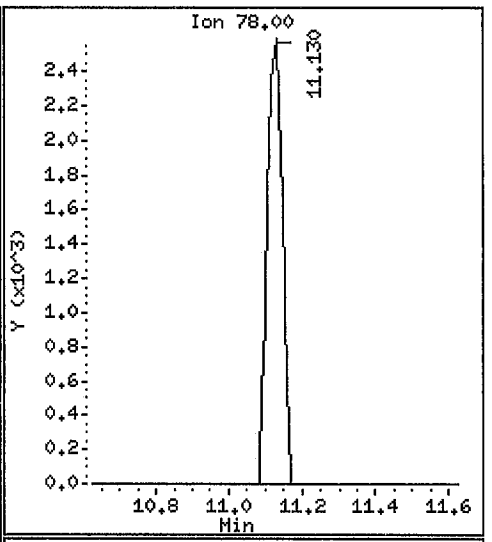
Concentration: 0.2188 ppb(v/v)

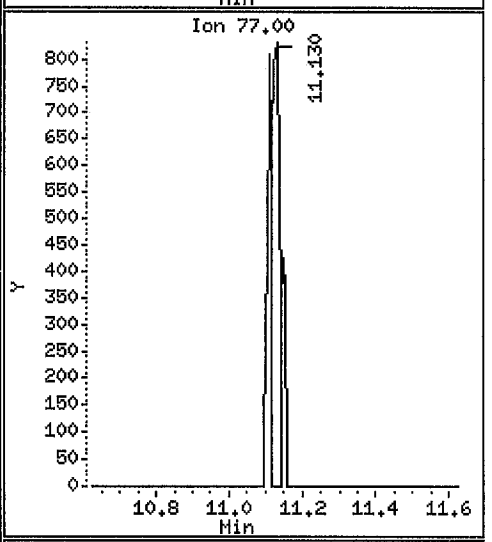


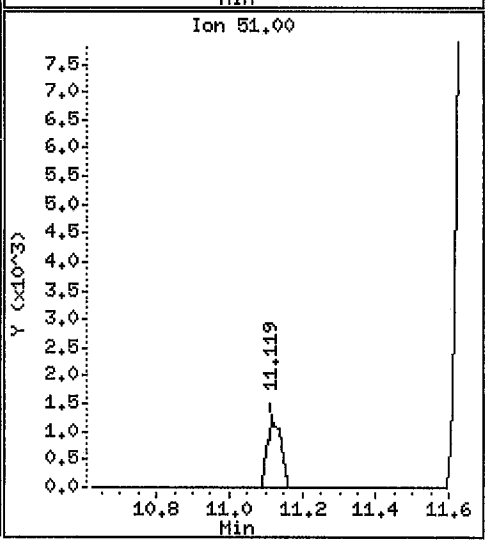












Data File: /var/chem/gcms/mj.i/J090810.b/16g9w1aa.d

Date : 08-SEP-2010 23:54

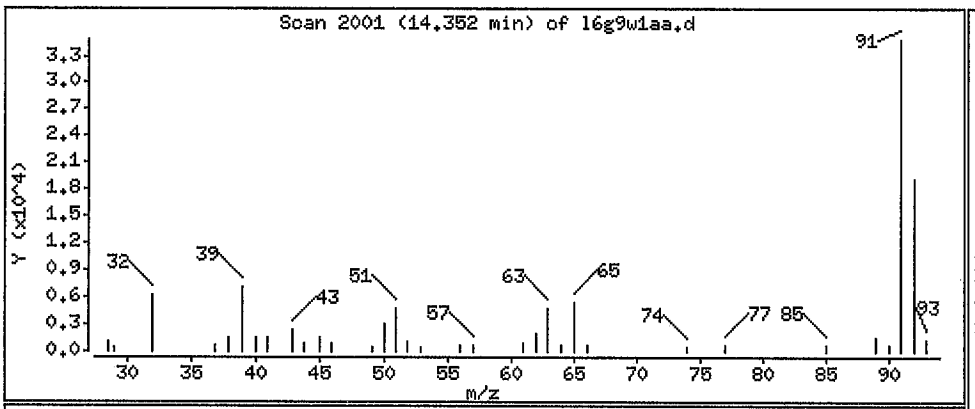
Client ID: IAQ-C5-9 Instrument: mj.i

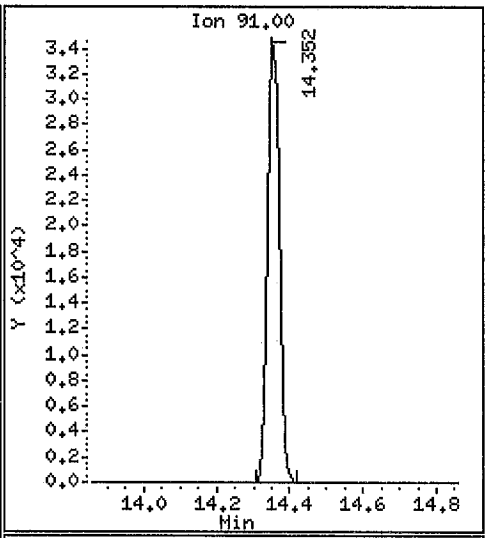
Sample Info: ,6.25,0,,,

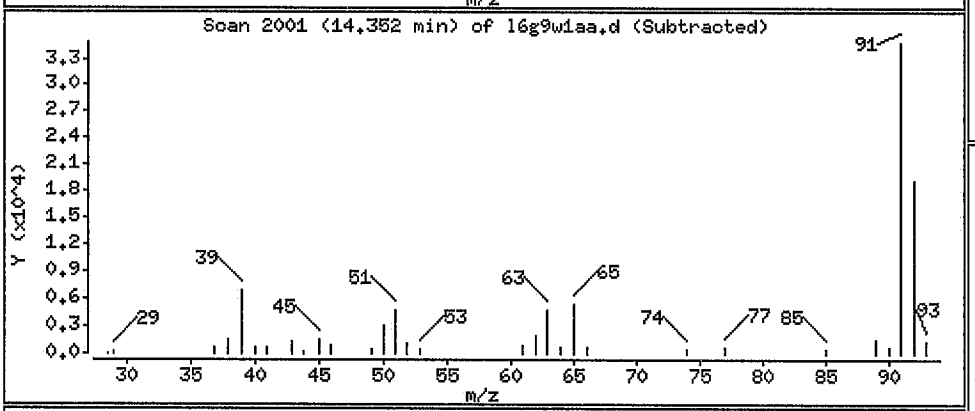
Purge Volume: 500.0 Operator: 7126

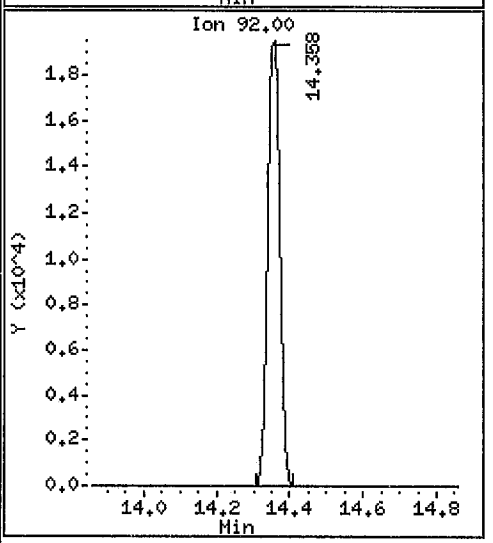
Column phase: Rtx-5 Column diameter: 0.32

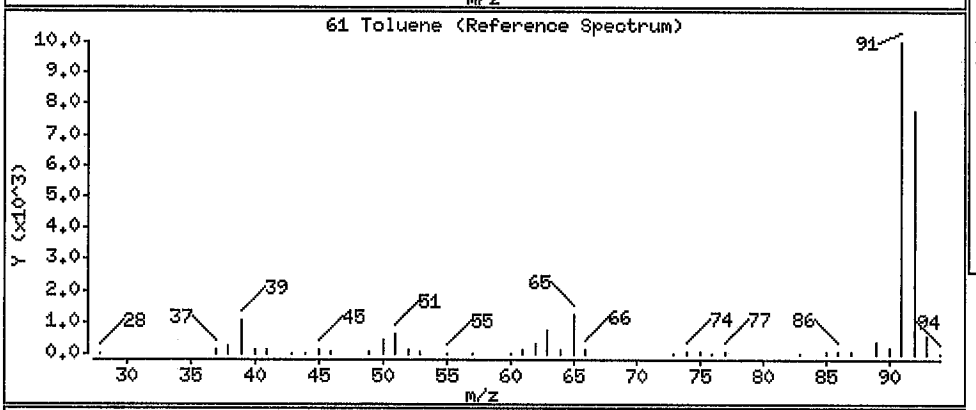
61 Toluene Concentration: 2.360 ppb(v/v)

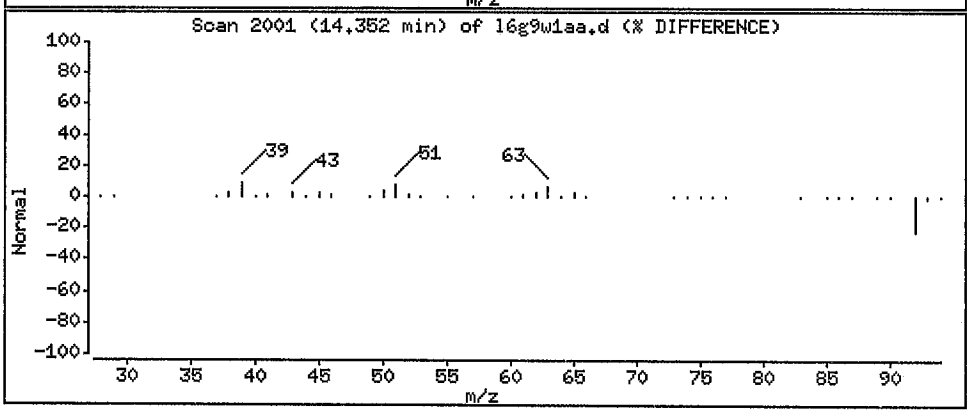












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9w1aa.d

Date : 08-SEP-2010 23:54

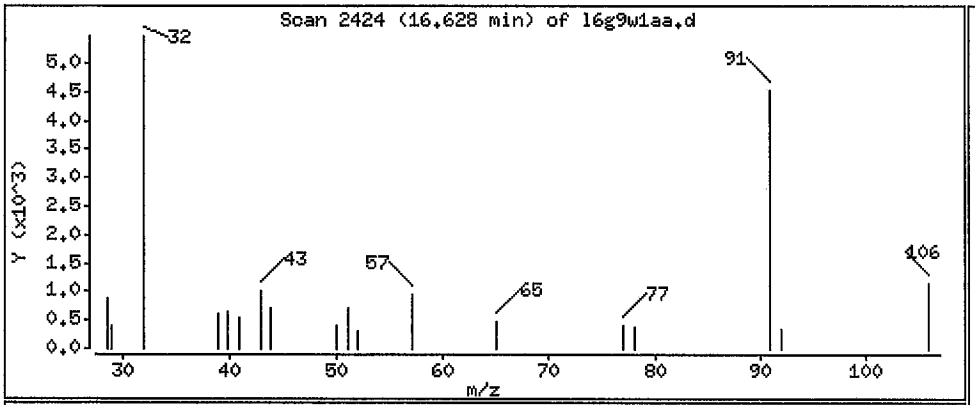
Client ID: IAQ-C5-9 Instrument: mj.i

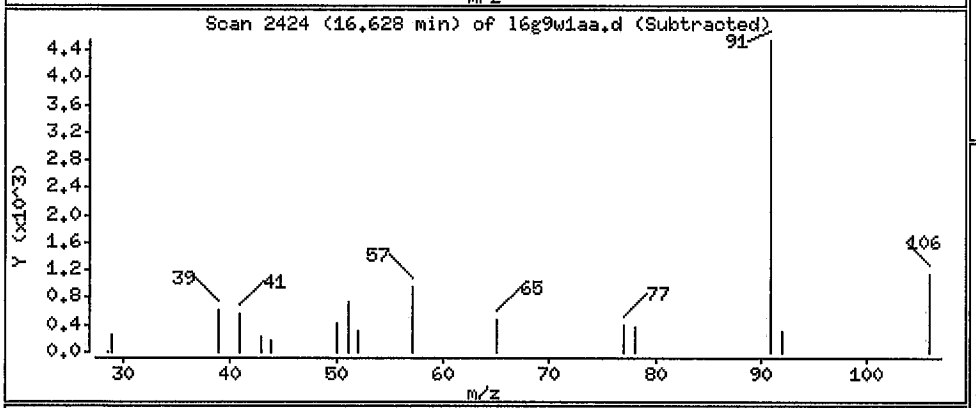
Sample Info: ,6.25,0,,,

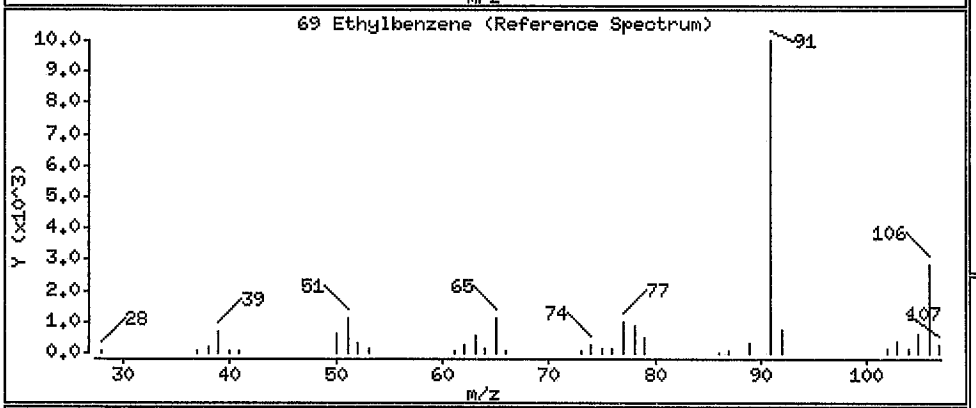
Purge Volume: 500.0 Operator: 7126

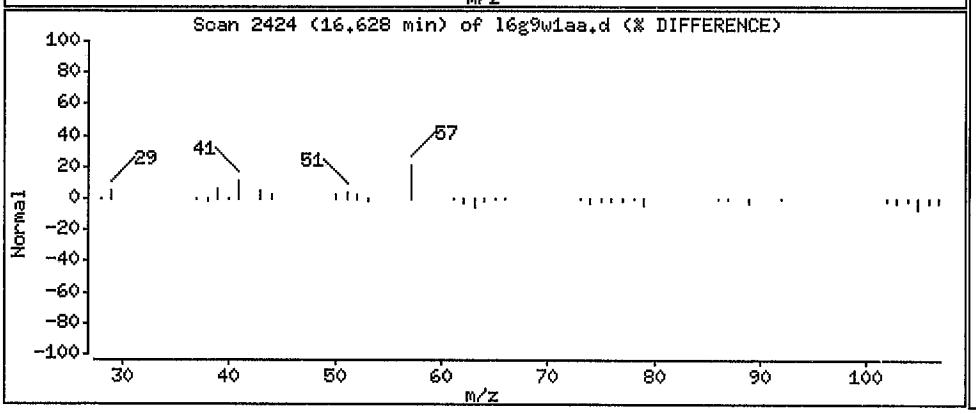
Column phase: Rtx-5 Column diameter: 0.32

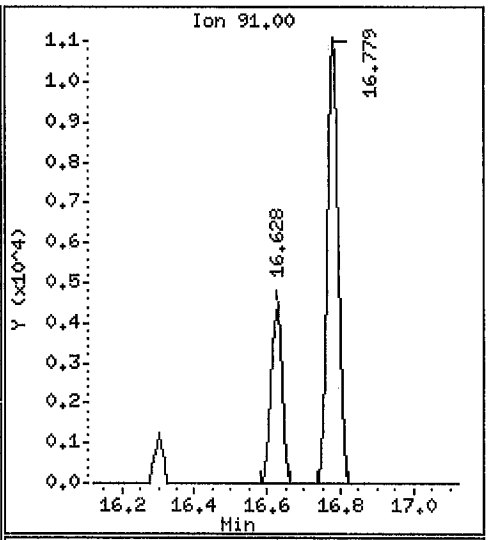
69 Ethylbenzene Concentration: 0.2360 ppb(v/v)

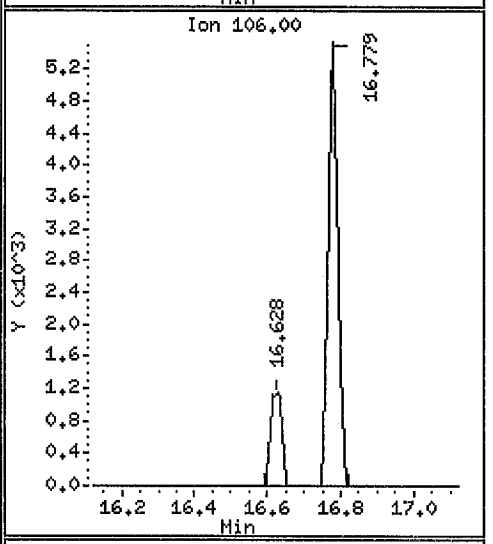


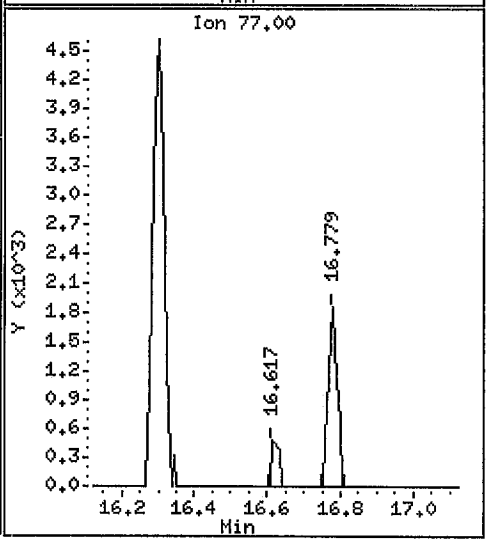












Data File: /var/chem/gcms/mj.i/J090810.b/16g9w1aa.d

Date : 08-SEP-2010 23:54

Client ID: IAQ-C5-9

Instrument: mj.i

Sample Info: ,6.25,0,,,

Purge Volume: 500.0

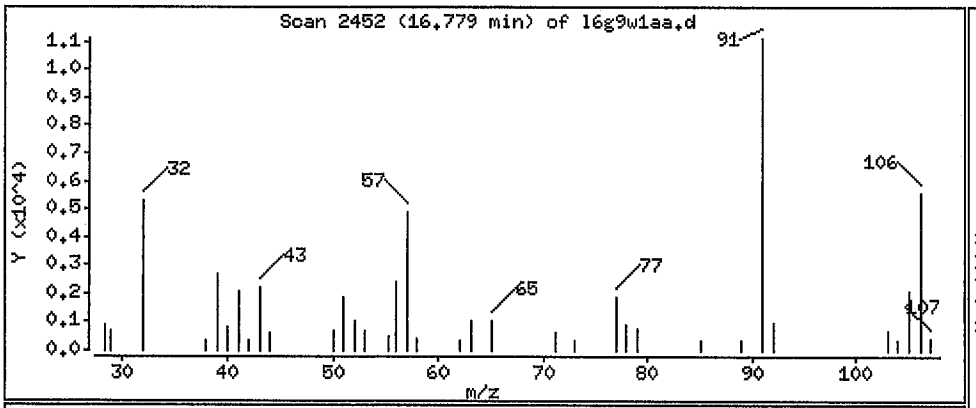
Operator: 7126

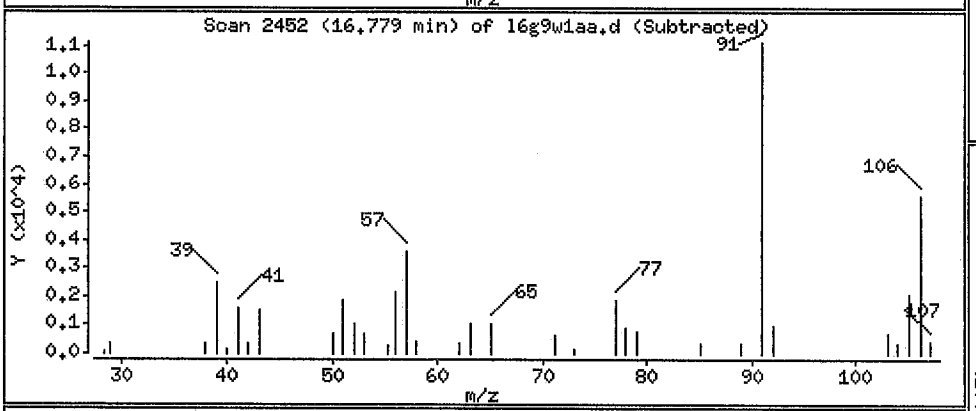
Column phase: Rtx-5

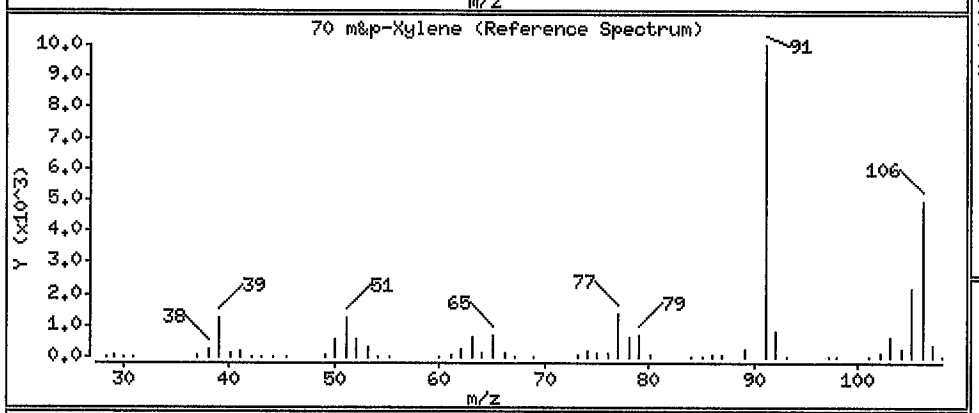
Column diameter: 0.32

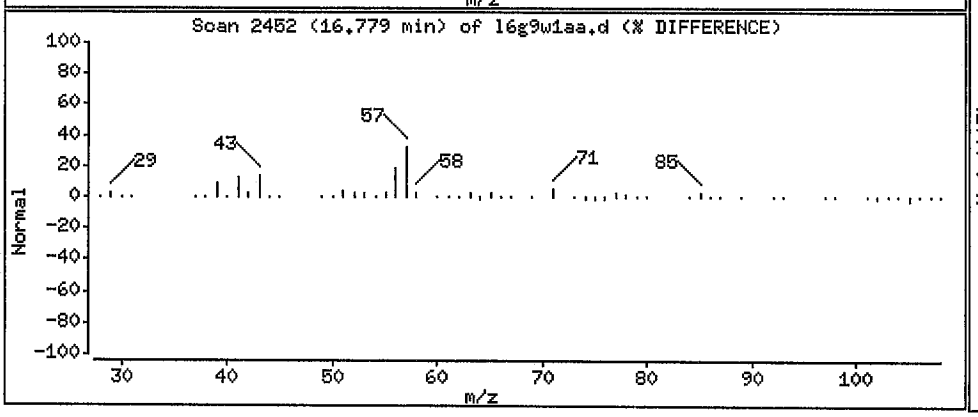
70 m&p-Xylene

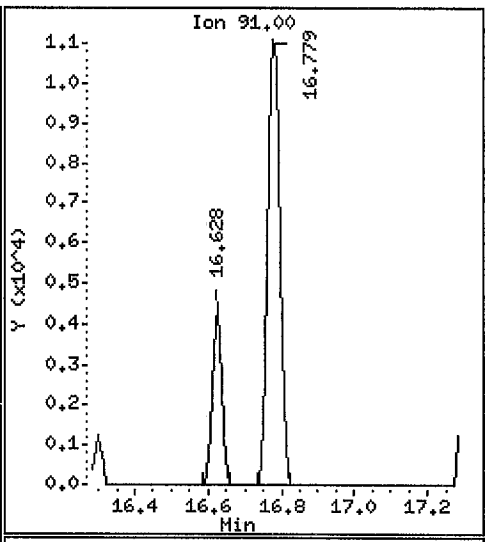
Concentration: 0.8940 ppb(v/v)

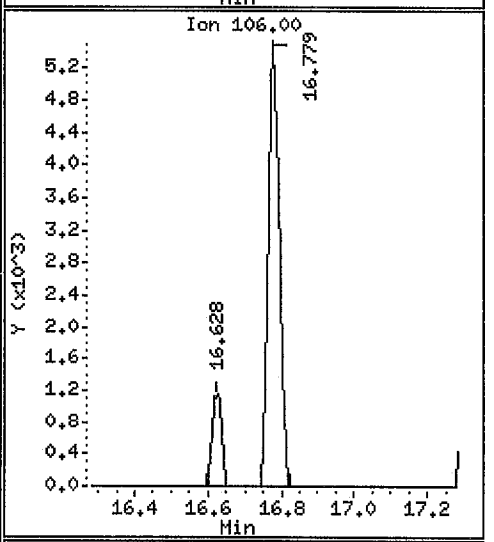


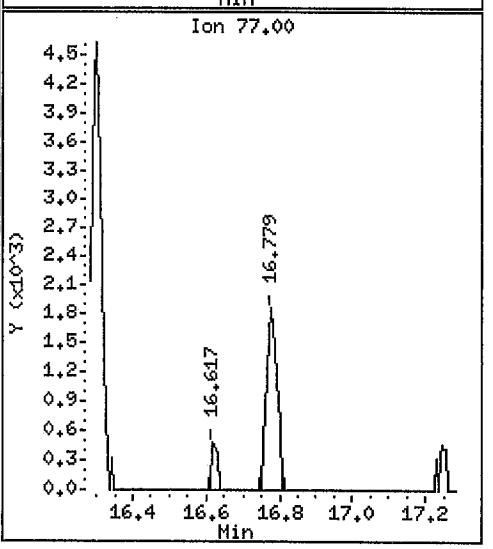












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9w1aa.d

Date : 08-SEP-2010 23:54

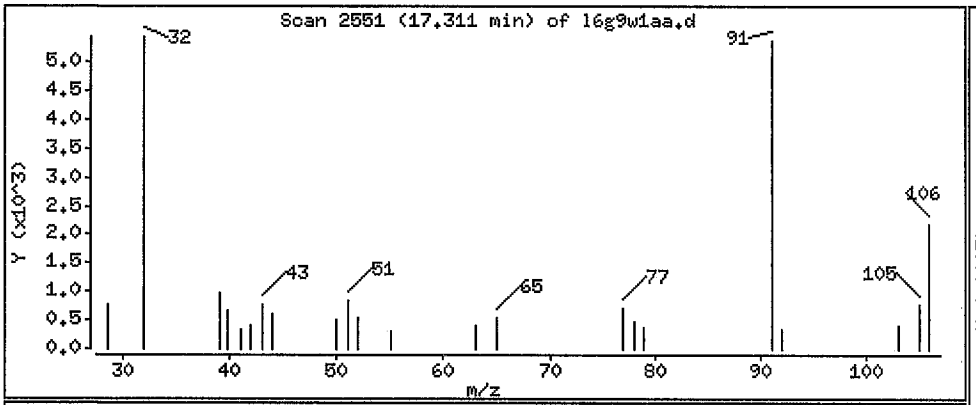
Client ID: IAQ-C5-9 Instrument: mj.i

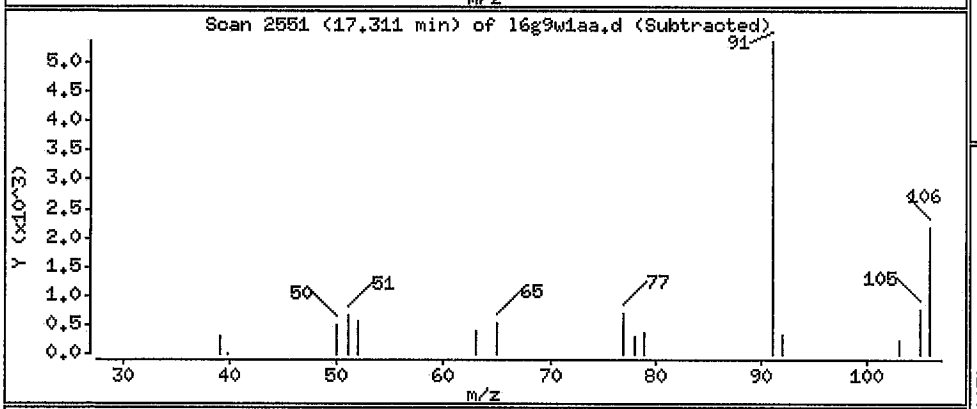
Sample Info: ,6.25,0,,,

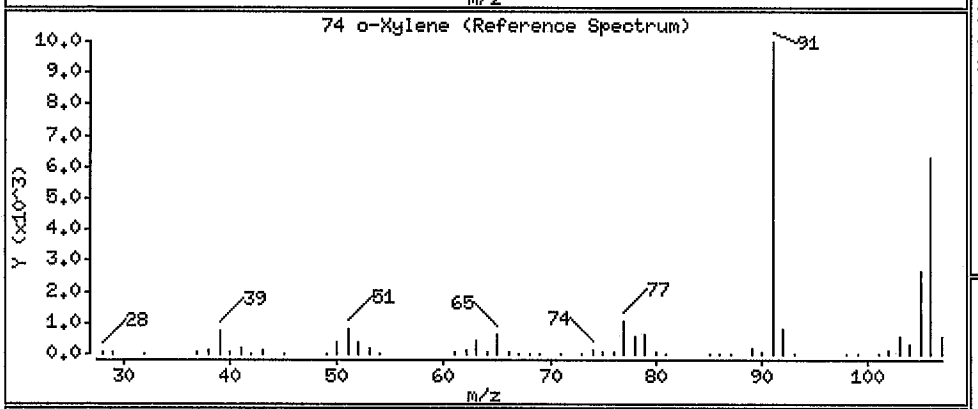
Purge Volume: 500.0 Operator: 7126

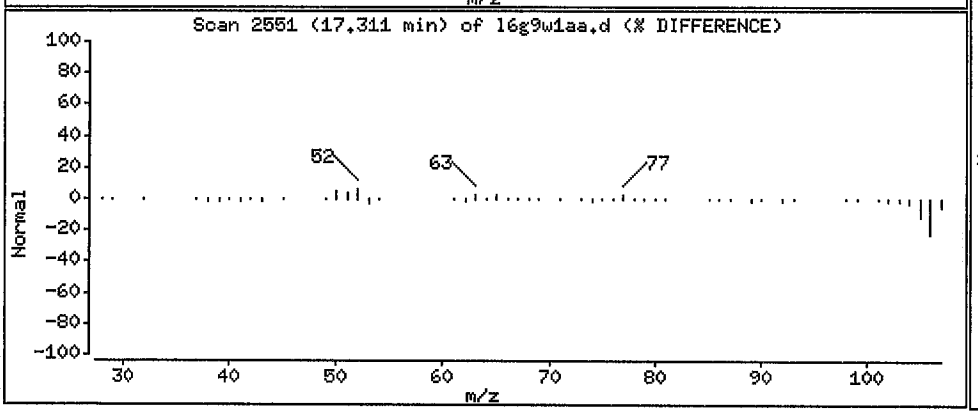
Column phase: Rtx-5 Column diameter: 0.32

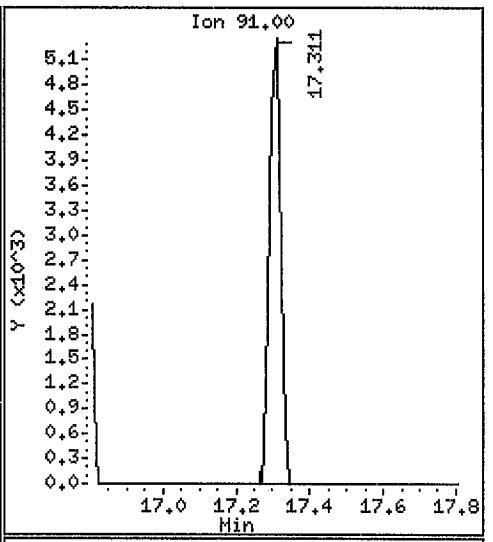
74 o-Xylene Concentration: 0.3750 ppb(v/v)

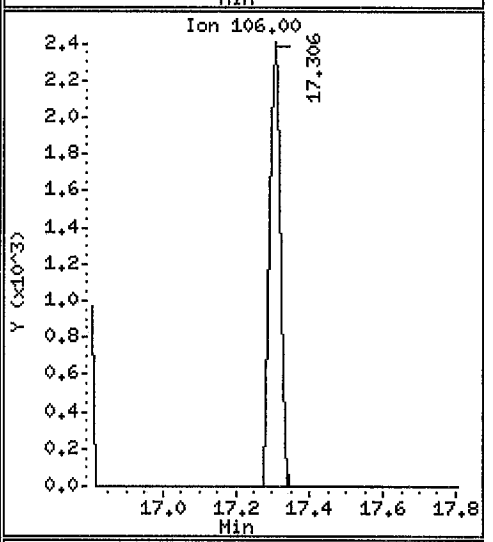


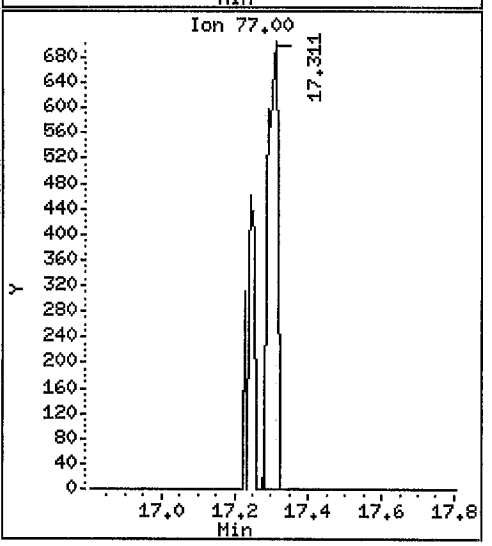












Tetra Tech NUS, Inc

Client Sample ID: IAQ-C7-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 015	**Work Order #**	L6G9X1AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	10	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.28**	**0.80**	**0.23**	**0.88 J**	**2.6**	**0.73**
Carbon tetrachloride	ND	0.80	0.15	ND	5.0	0.94
Chlorodifluoromethane	**110**	**0.80**	**0.15**	**380**	**2.8**	**0.53**
Chloroform	ND	0.80	0.15	ND	3.9	0.73
Dichlorodifluoromethane	**0.57**	**0.80**	**0.27**	**2.8 J**	**4.0**	**1.3**
1,1-Dichloroethane	ND	0.80	0.10	ND	3.2	0.40
1,2-Dichloroethane	ND	0.80	0.19	ND	3.2	0.77
cis-1,2-Dichloroethene	ND	0.80	0.24	ND	3.2	0.95
trans-1,2-Dichloroethene	ND	0.80	0.20	ND	3.2	0.79
1,1-Dichloroethene	ND	0.80	0.13	ND	3.2	0.52
Ethylbenzene	**0.31**	**0.80**	**0.27**	**1.3 J**	**3.5**	**1.2**
Methylene chloride	**2.5**	**2.0**	**0.18**	**8.6**	**6.9**	**0.63**
Methyl tert-butyl ether	ND	4.0	0.68	ND	14	2.5
Naphthalene	**0.45**	**2.0**	**0.36**	**2.3 J**	**10**	**1.9**
Tetrachloroethene	ND	0.80	0.16	ND	5.4	1.1
Toluene	**3.2**	**0.80**	**0.21**	**12**	**3.0**	**0.79**
1,2,4-Trichlorobenzene	ND	4.0	0.39	ND	30	2.9
1,1,1-Trichloroethane	**0.12**	**0.80**	**0.12**	**0.68 J**	**4.4**	**0.65**
1,1,2-Trichloroethane	ND	0.80	0.21	ND	4.4	1.1
Trichloroethene	ND	0.40	0.14	ND	2.1	0.75
Vinyl chloride	ND	0.80	0.29	ND	2.0	0.74
m-Xylene & p-Xylene	**1.2**	**0.80**	**0.50**	**5.3**	**3.5**	**2.2**
o-Xylene	**0.50**	**0.80**	**0.24**	**2.2 J**	**3.5**	**1.0**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9xd.d
Report Date: 10-Sep-2010 14:32

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/l6g9xd.d
Lab Smp Id: L6G9X1AA Client Smp ID: IAQ-C7-9
Inj Date : 09-SEP-2010 01:39
Operator : 7126 Inst ID: mj.i
Smp Info : L6G9X1AA,10,0,,,
Misc Info : J090810,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 10-Sep-2010 14:16 barlozha Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 16
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
*	1 Bromochloromethane	128	9.476	9.479	(1.000)	187563	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.644	11.642	(1.000)	915969	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.303	16.300	(1.000)	795348	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.911	17.914	(1.099)	611651	4.05180	4.052
	7 Chlorodifluoromethane	67	3.898	3.901	(0.411)	252432	10.6422	106.4
	8 Dichlorodifluoromethane	85	3.968	3.970	(0.419)	11572	0.05682	0.5682
	31 Methylene Chloride	84	6.787	6.784	(0.716)	15192	0.24893	2.489
	44 1,1,1-Trichloroethane	97	10.541	10.544	(1.112)	1763	0.01243	0.1243
	48 Benzene	78	11.128	11.125	(0.956)	5333	0.02754	0.2754
	61 Toluene	91	14.355	14.358	(0.881)	59791	0.31921	3.192
	69 Ethylbenzene	91	16.626	16.623	(1.020)	6569	0.03059	0.3059
	70 m&p-Xylene	91	16.776	16.784	(1.029)	19786	0.12182	1.218
	74 o-Xylene	91	17.303	17.306	(1.061)	8488	0.05024	0.5024
	96 Napthalene	128	21.596	21.594	(1.325)	7306	0.04464	0.4464

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9xd.d
Report Date: 10-Sep-2010 14:32

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9xd.d
Lab Smp Id: L6G9X1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: IAQ-C7-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	187563	-3.85
2 1,4-Difluorobenze	936174	557024	1315324	915969	-2.16
3 Chlorobenzene-d5	815161	485021	1145301	795348	-2.43

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.48	-0.03
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.02
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.02

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

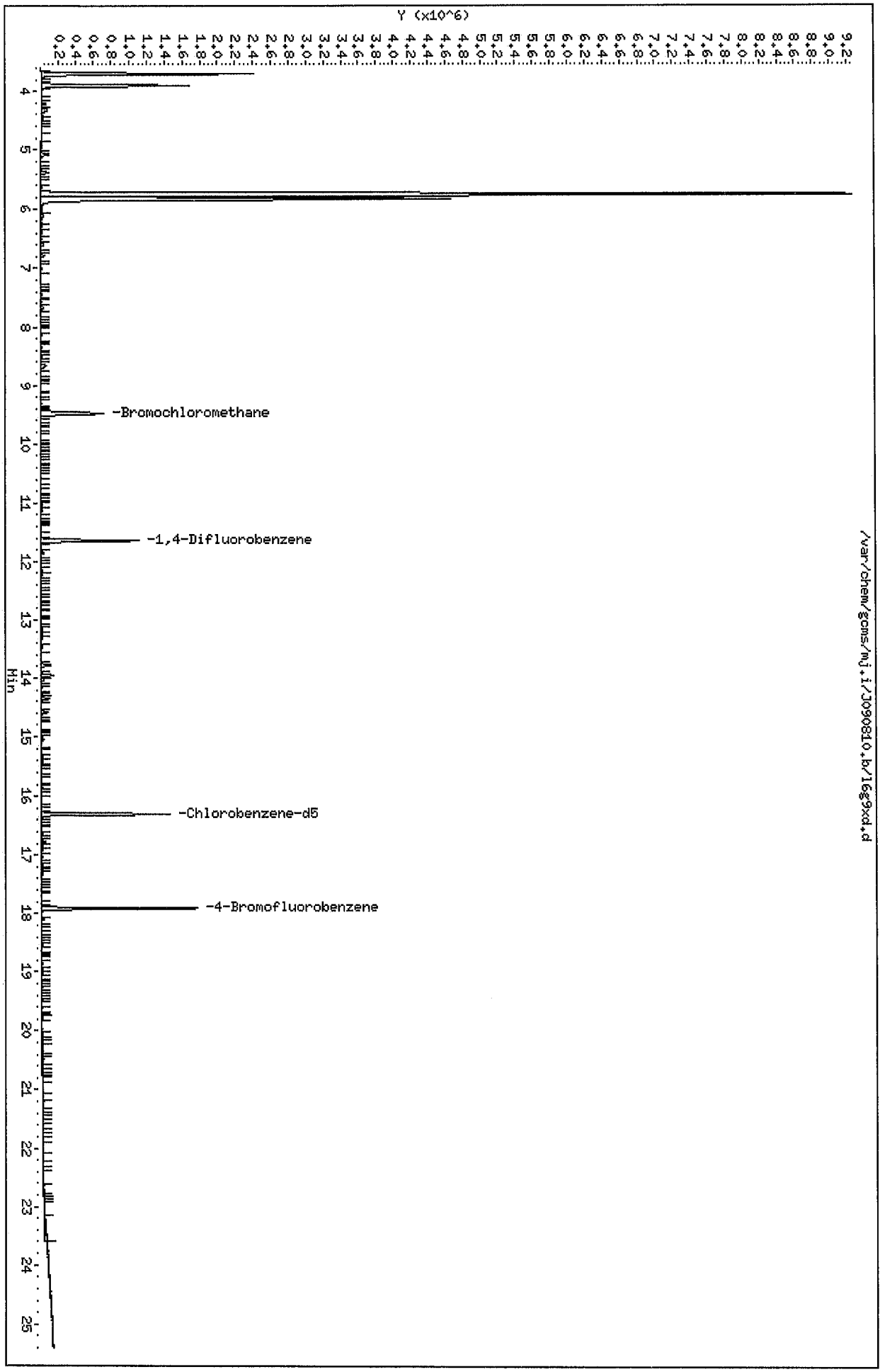
Data File: /var/chem/gcms/mj.i/J090810.b/l6g9xd.d
Report Date: 10-Sep-2010 14:32

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9X1AA
Client Smp ID: IAQ-C7-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.052	101.30	70-130


Data File: /var/chem/gcms/mj.i/J090810.b/16g9xd.d
Date : 09-SEP-2010 01:39
Client ID: IAQ-C7-9
Sample Info: L6G9X1AA,10,0,,,
Purge Volume: 500.0
Column phase: Rtx-5
Instrument: mj.i
Operator: 7126
Column diameter: 0.32
Y (x10^6)
-Bromochloromethane
-1,4-Difluorobenzene
-Chlorobenzene-d5
-4-Bromofluorobenzene
/var/chem/gcms/mj.i/J090810.b/16g9xd.d
Min

Data File: /var/chem/gcms/mj.i/J090810.b/16g9xd.d

Date : 09-SEP-2010 01:39

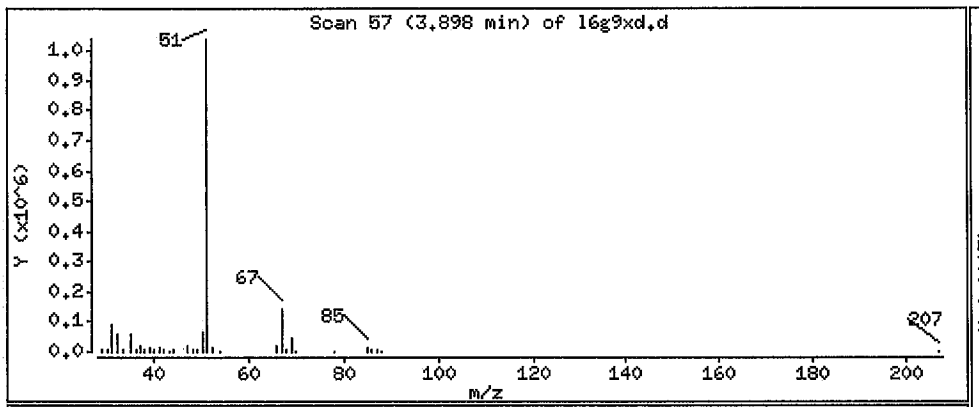
Client ID: IAQ-C7-9 Instrument: mj.i

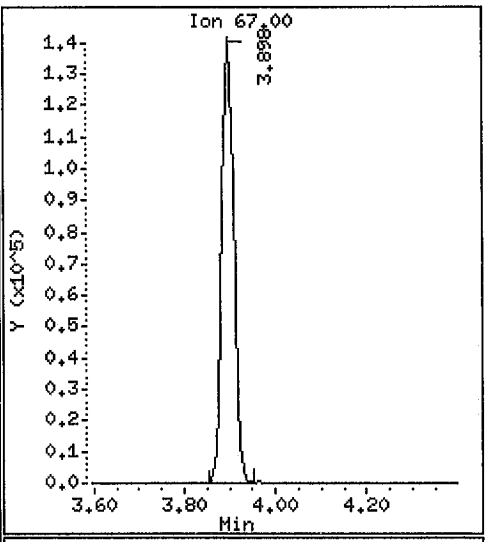
Sample Info: L6G9X1AA,10,0,,,

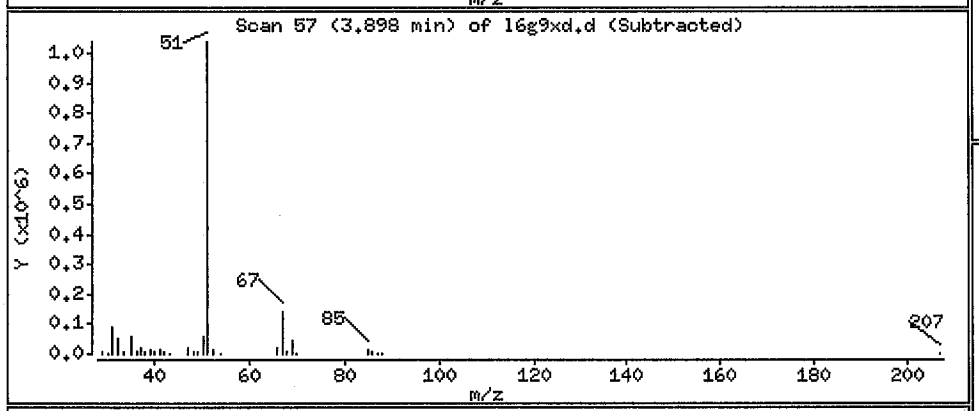
Purge Volume: 500.0 Operator: 7126

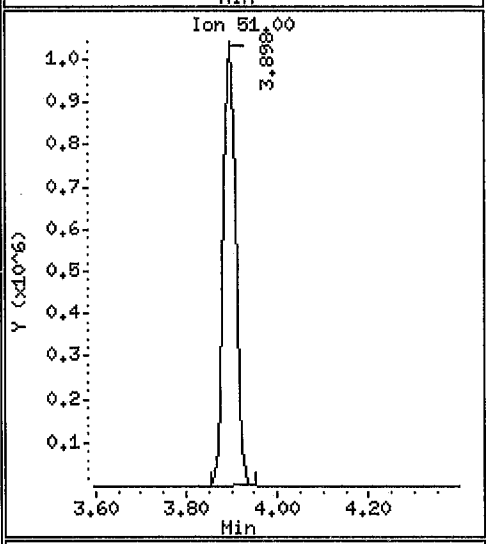
Column phase: Rtx-5 Column diameter: 0.32

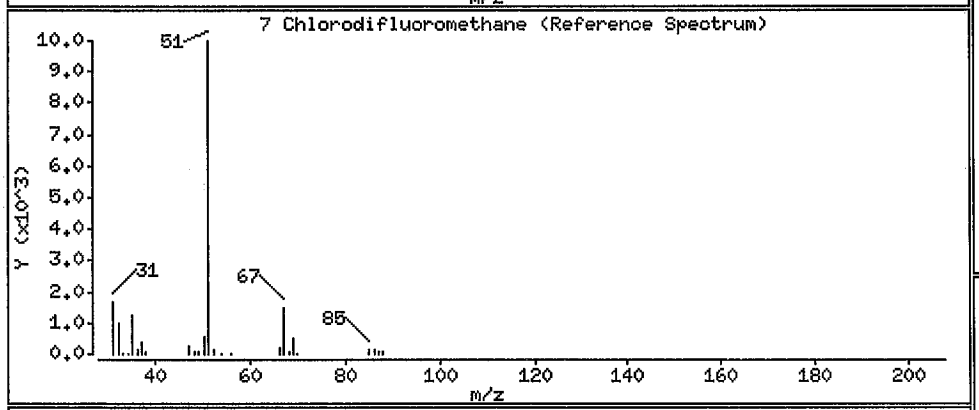
7 Chlorodifluoromethane Concentration: 106.4 ppb(v/v)

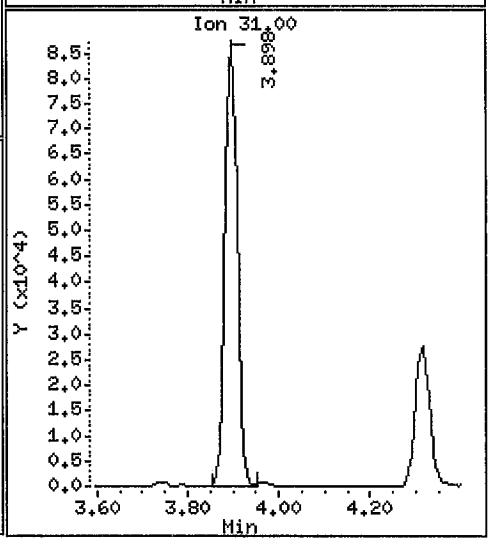


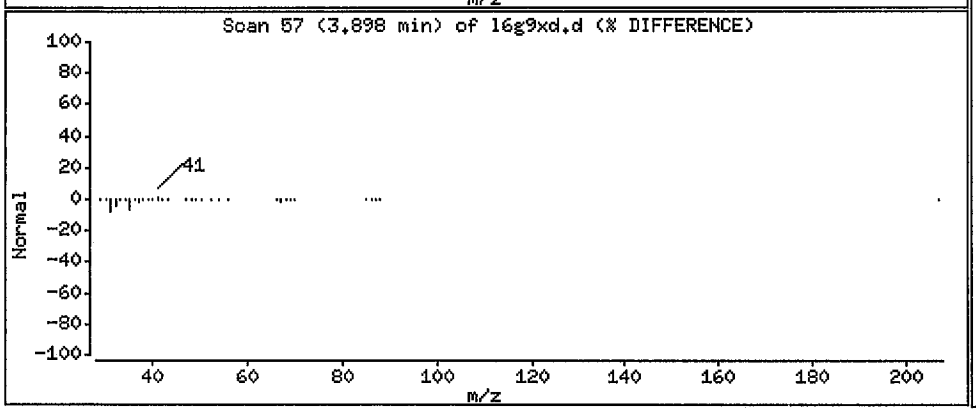












Data File: /var/chem/gcms/mj.i/J090810.b/16g9xd.d

Date : 09-SEP-2010 01:39

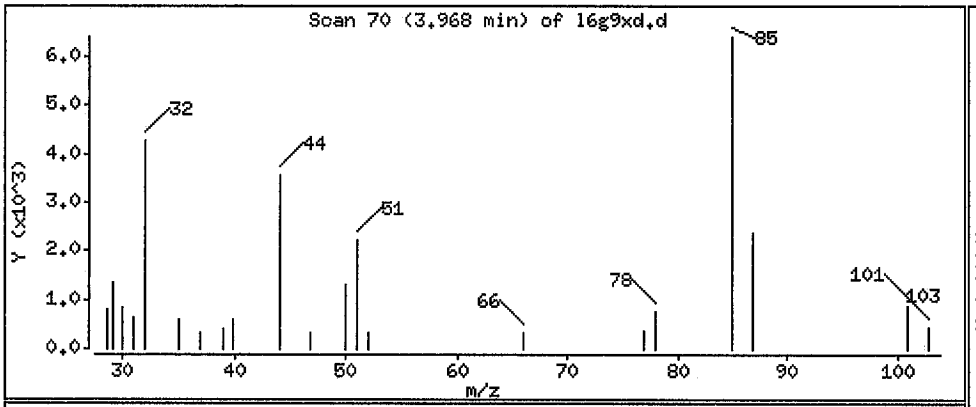
Client ID: IAQ-C7-9 Instrument: mj.i

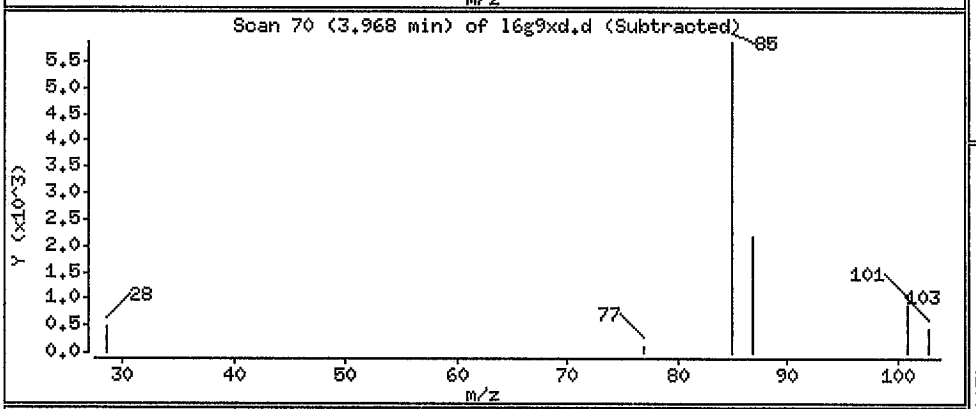
Sample Info: L6G9X1AA,10,0,,,

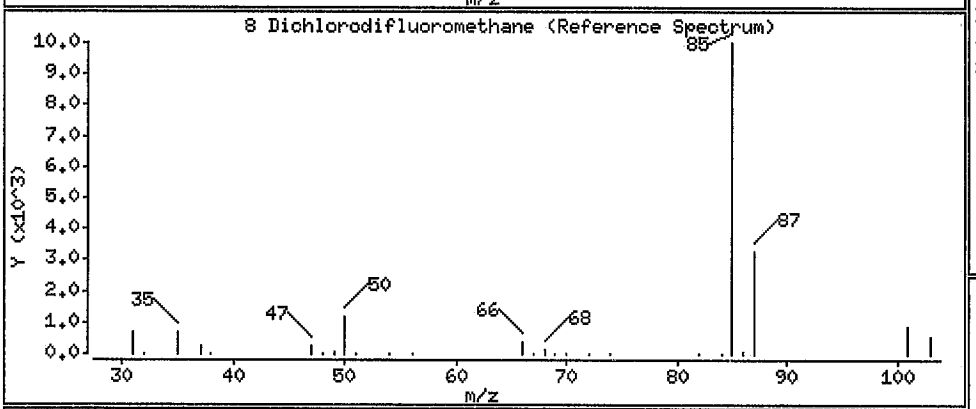
Purge Volume: 500.0 Operator: 7126

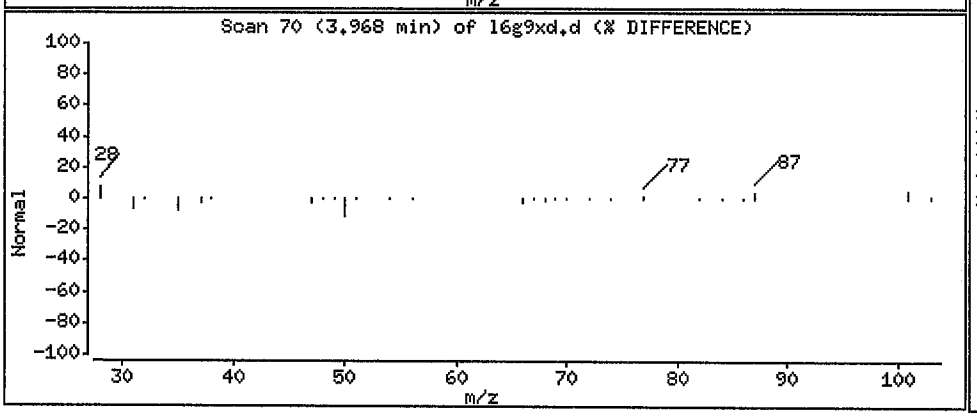
Column phase: Rtx-5 Column diameter: 0.32

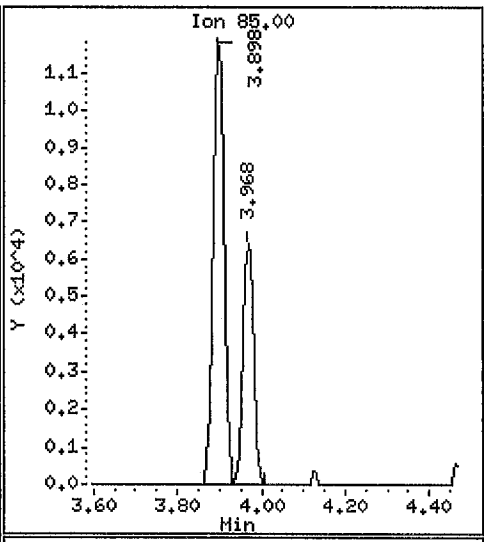
8 Dichlorodifluoromethane Concentration: 0.5682 ppb(v/v)

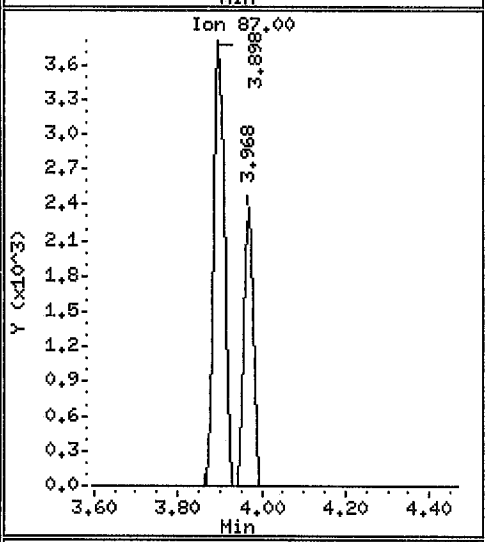


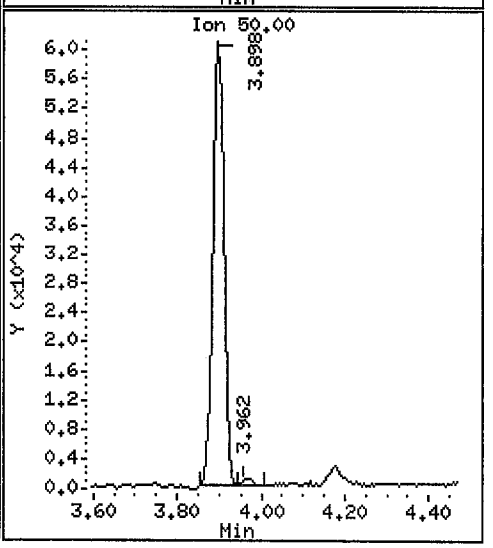












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9xd.d

Date : 09-SEP-2010 01:39

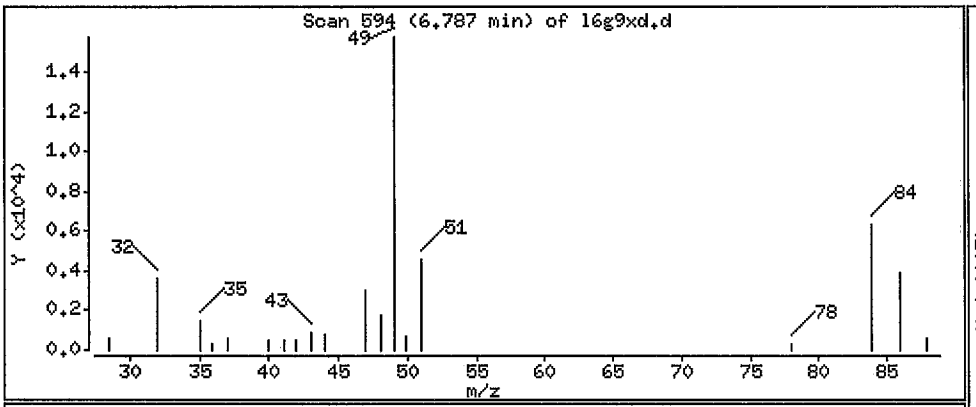
Client ID: IAQ-C7-9 Instrument: mj.i

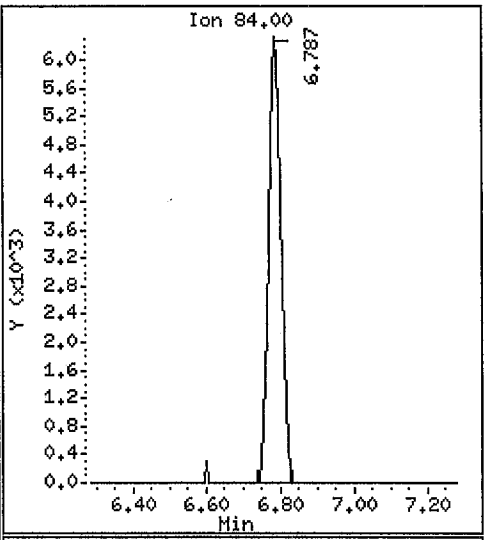
Sample Info: L6G9X1AA,10,0,,,

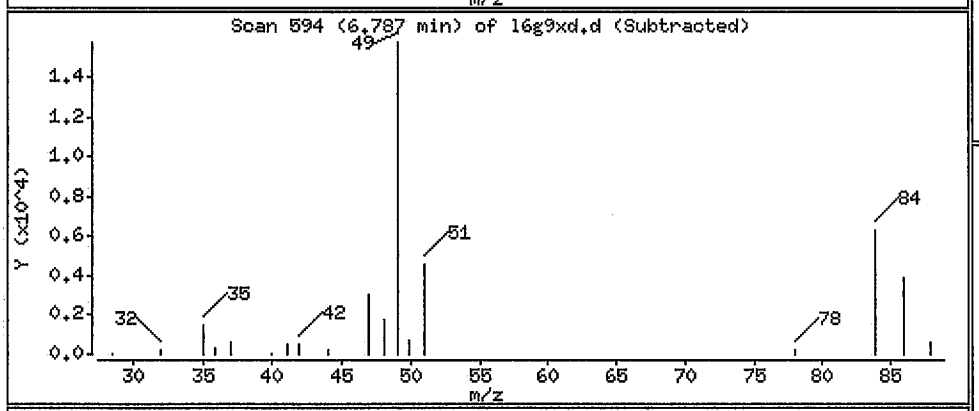
Purge Volume: 500.0 Operator: 7126

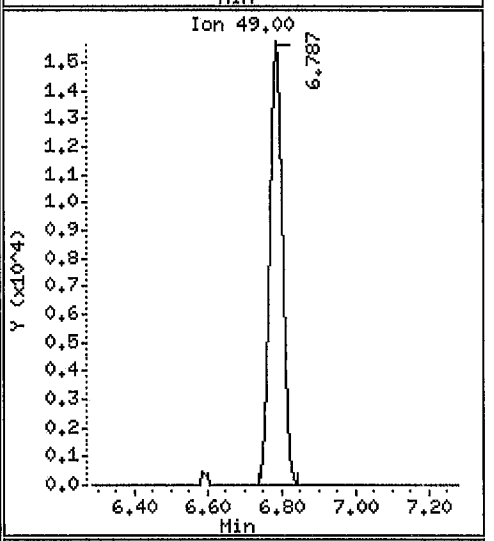
Column phase: Rtx-5 Column diameter: 0.32

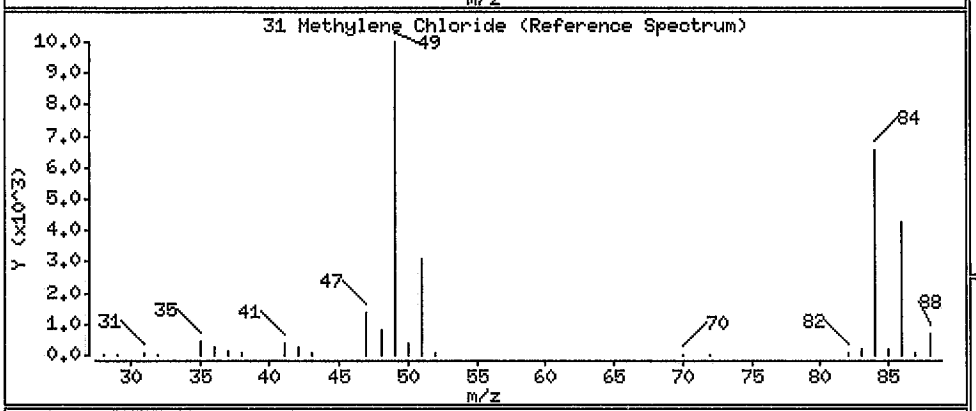
31 Methylene Chloride Concentration: 2.489 ppb(v/v)

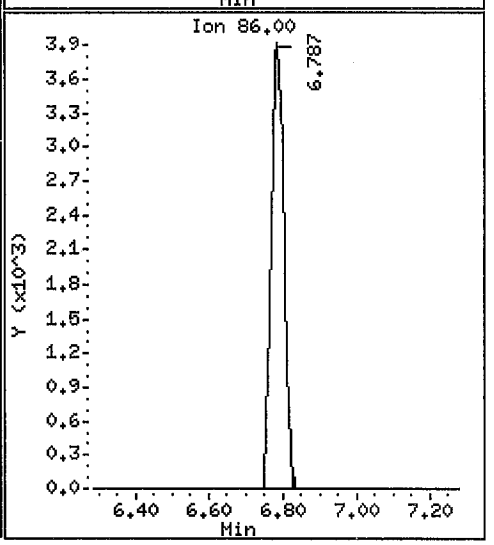


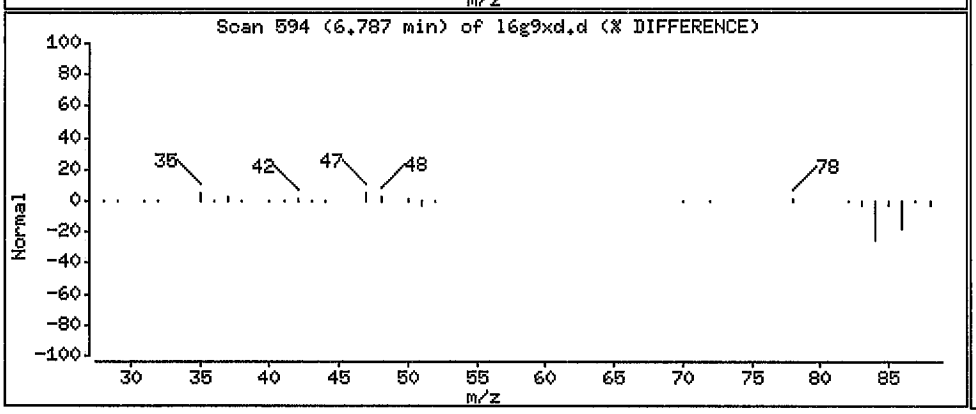












Data File: /var/chem/gcms/mj.i/J090810.b/16g9xd.d

Date : 09-SEP-2010 01:39

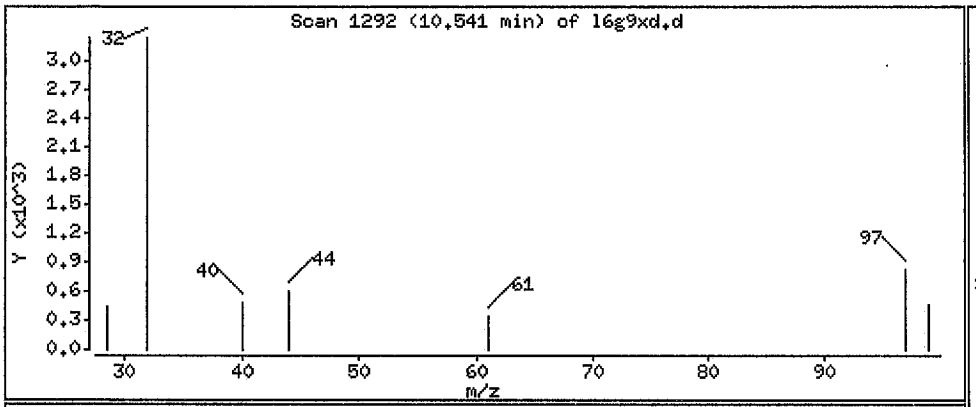
Client ID: IAQ-C7-9 Instrument: mj.i

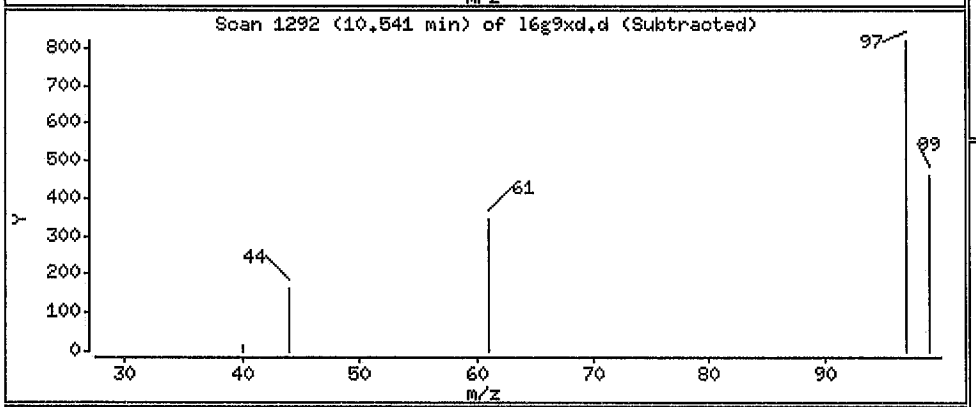
Sample Info: L6G9X1AA,10,0,,,

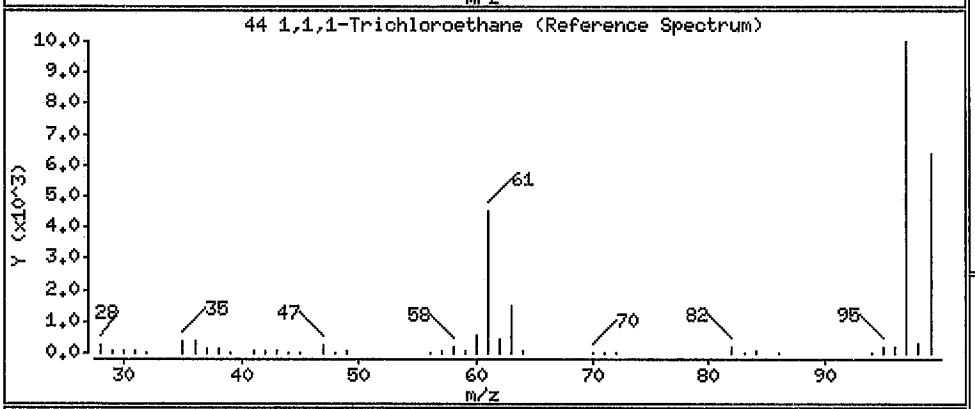
Purge Volume: 500.0 Operator: 7126

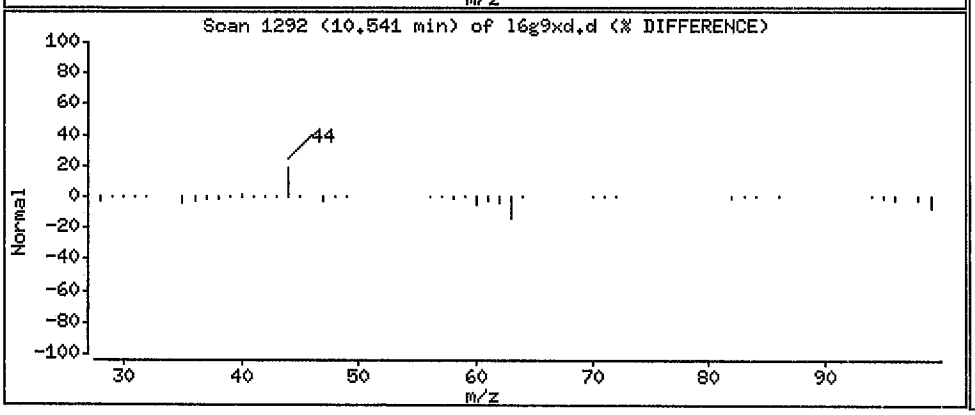
Column phase: Rtx-5 Column diameter: 0.32

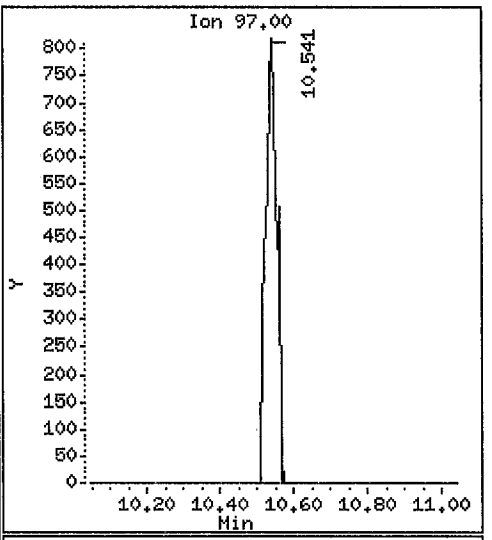
44 1,1,1-Trichloroethane Concentration: 0.1243 ppb(v/v)

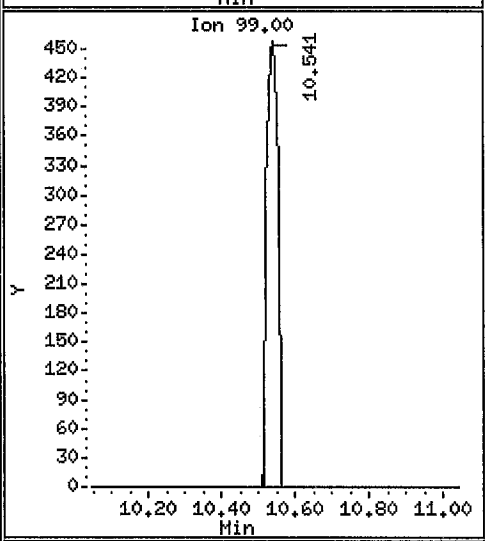


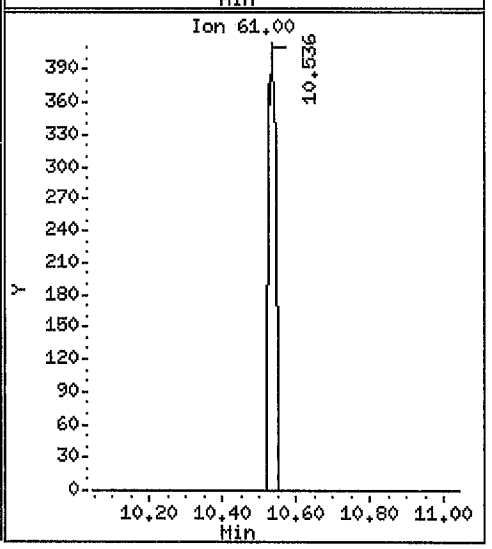












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9xd.d

Date : 09-SEP-2010 01:39

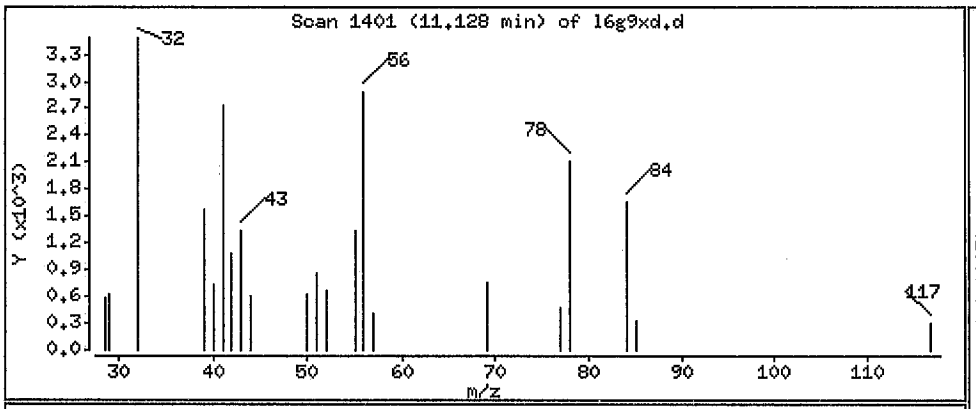
Client ID: IAQ-C7-9 Instrument: mj.i

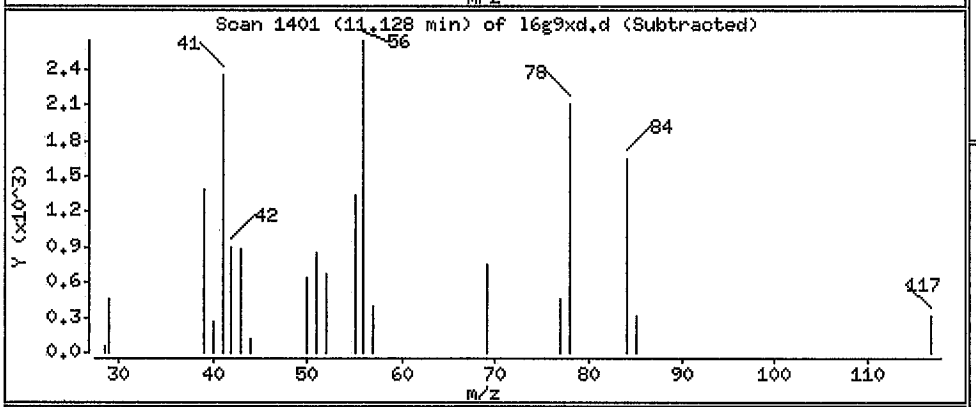
Sample Info: L6G9X1AA,10,0,,,

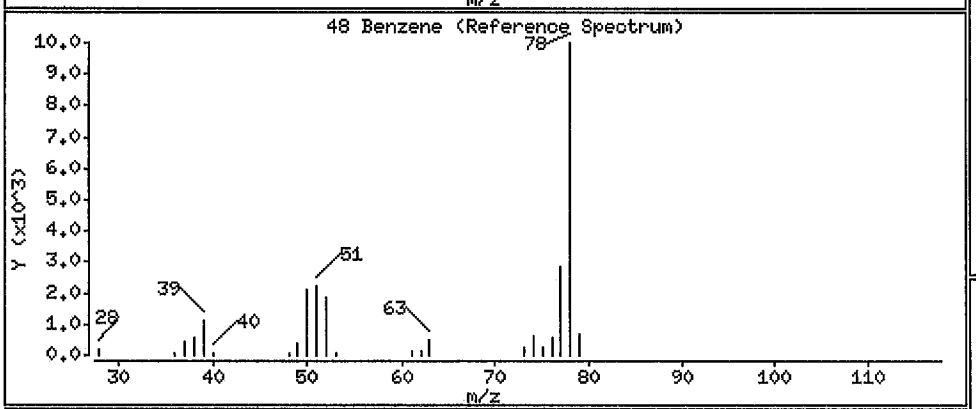
Purge Volume: 500.0 Operator: 7126

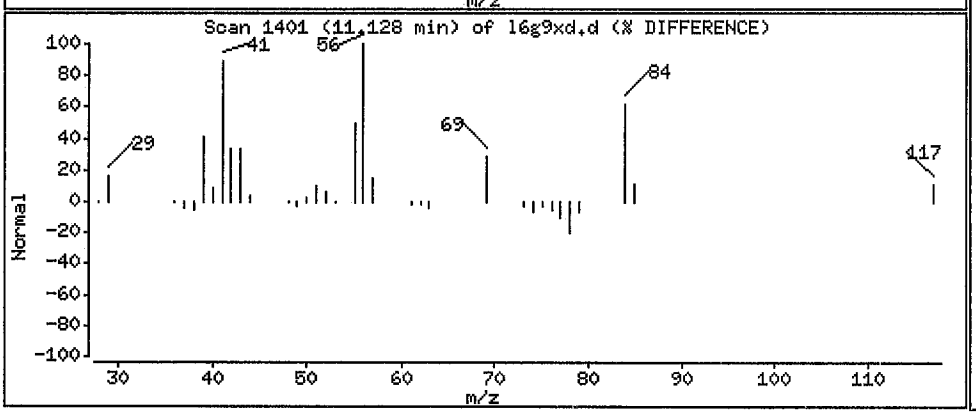
Column phase: Rtx-5 Column diameter: 0.32

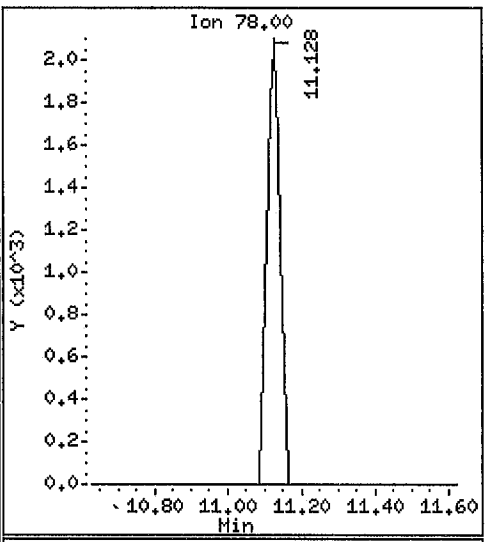
48 Benzene Concentration: 0.2754 ppb(v/v)

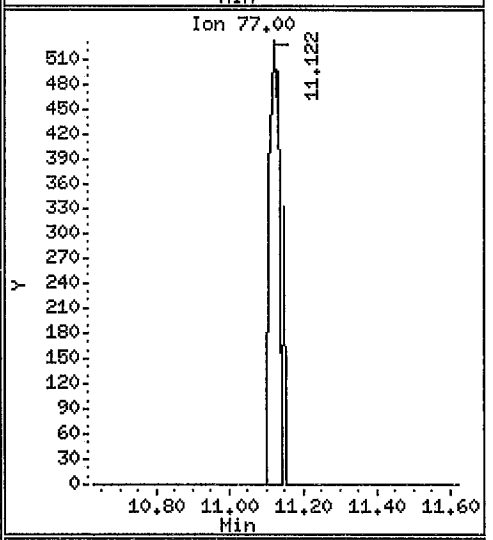


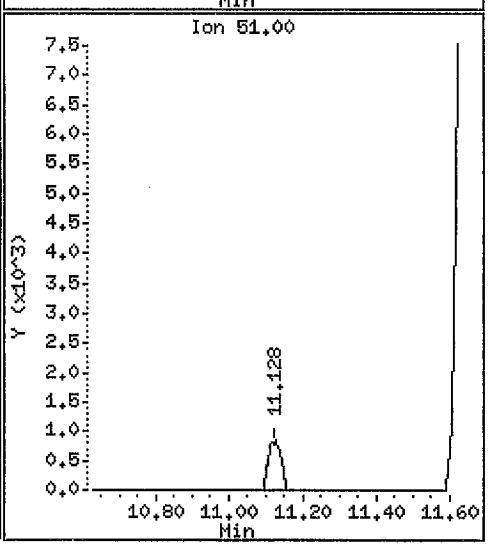












Data File: /var/chem/gcms/mj.i/J090810.b/16g9xd.d

Date : 09-SEP-2010 01:39

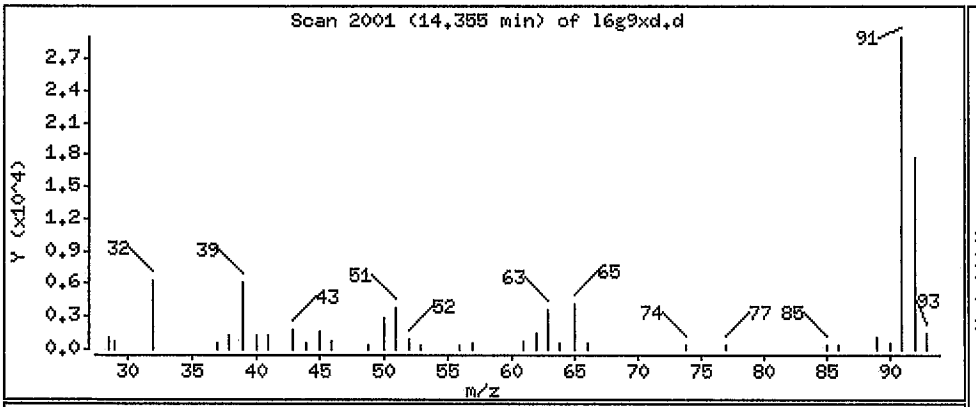
Client ID: IAQ-C7-9 Instrument: mj.i

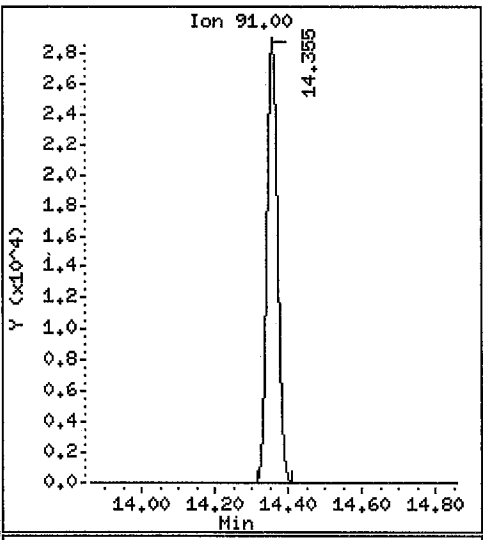
Sample Info: L6C9X1AA,10,0,,,

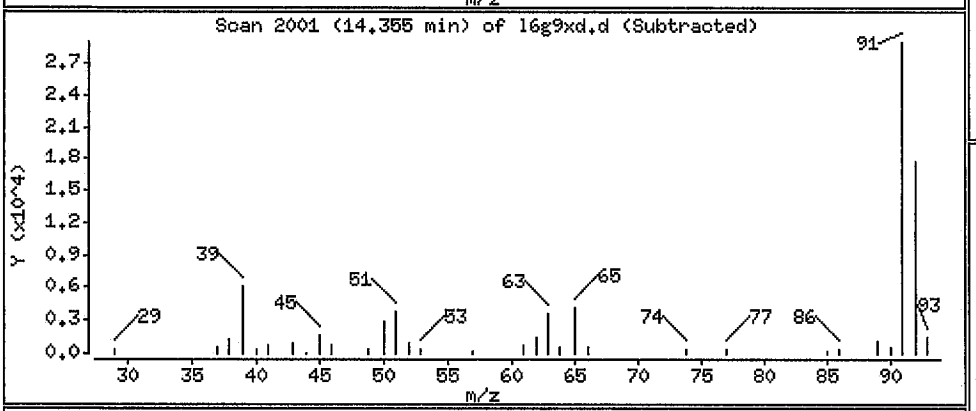
Purge Volume: 500.0 Operator: 7126

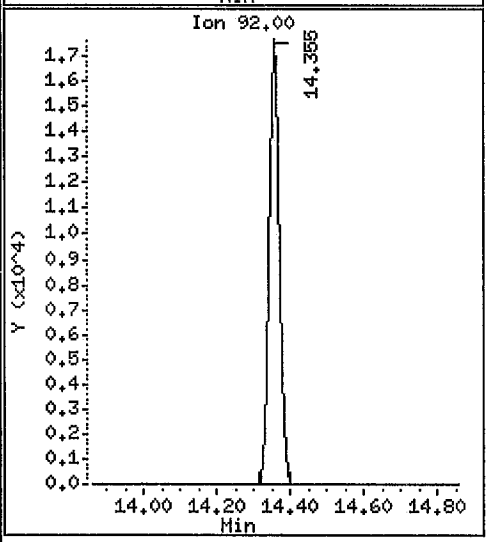
Column phase: Rtx-5 Column diameter: 0.32

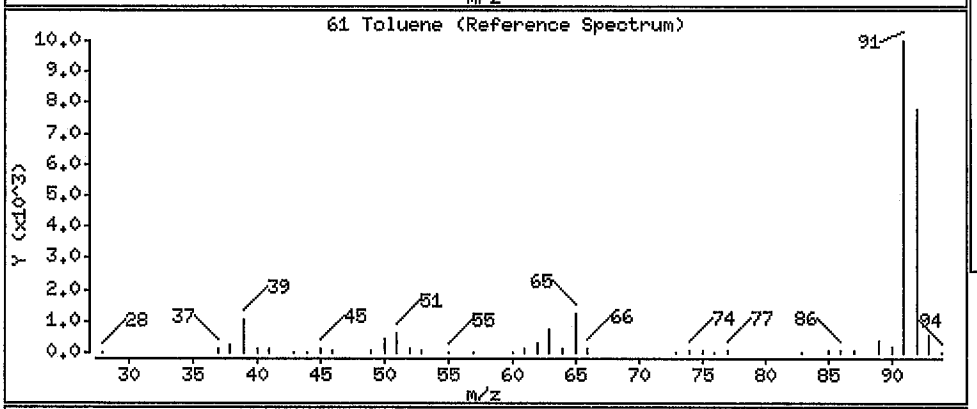
61 Toluene Concentration: 3.192 ppb(v/v)

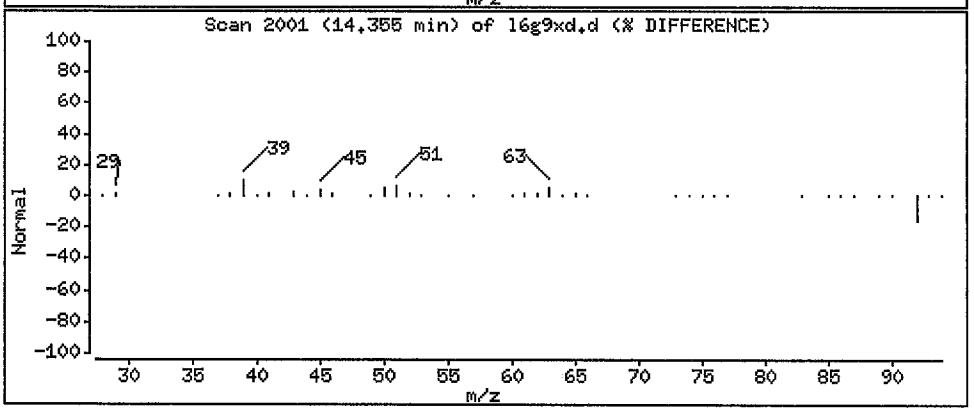












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9xd.d

Date : 09-SEP-2010 01:39

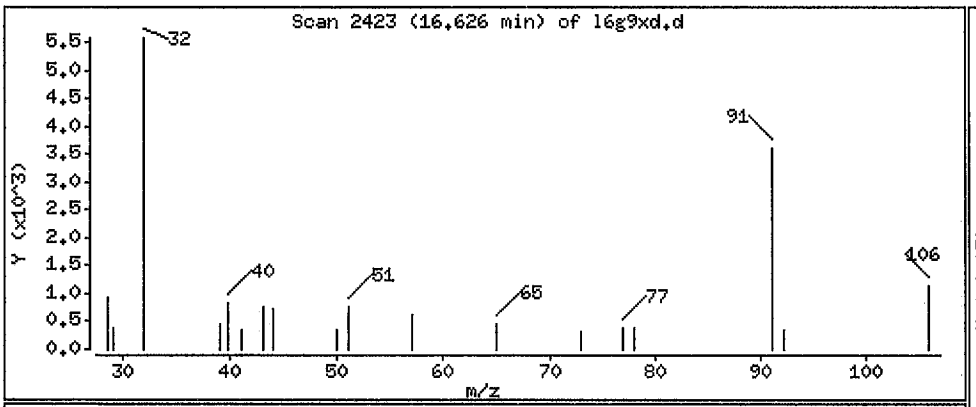
Client ID: IAQ-C7-9 Instrument: mj.i

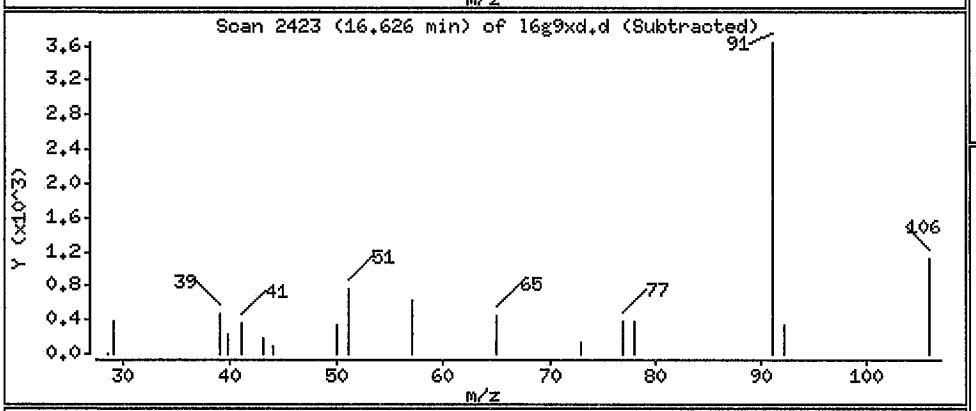
Sample Info: L6G9X1AA,10,0,,,

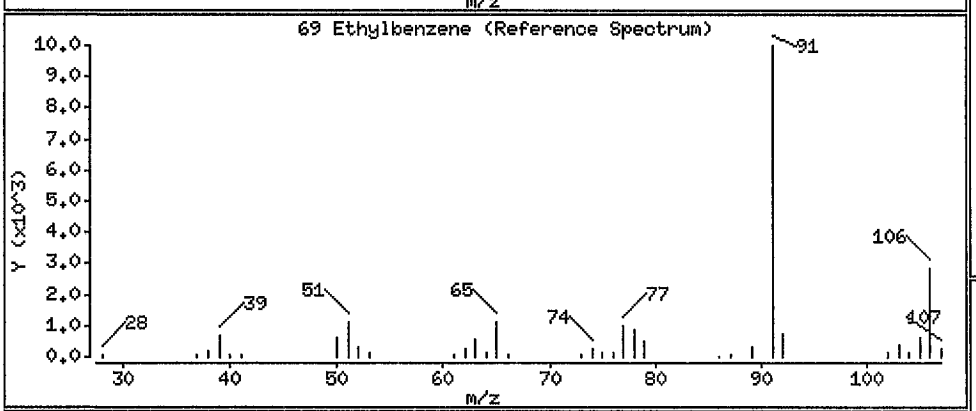
Purge Volume: 500.0 Operator: 7126

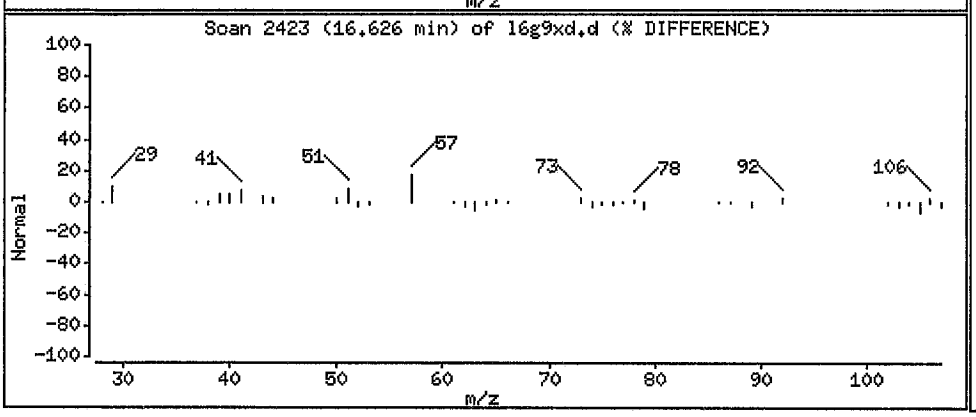
Column phase: Rtx-5 Column diameter: 0.32

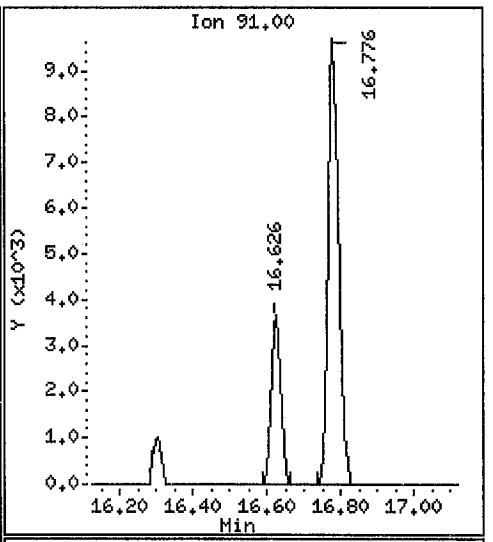
69 Ethylbenzene Concentration: 0.3059 ppb(v/v)

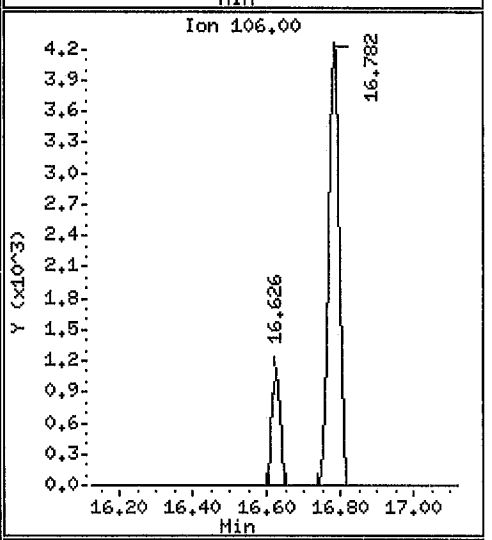


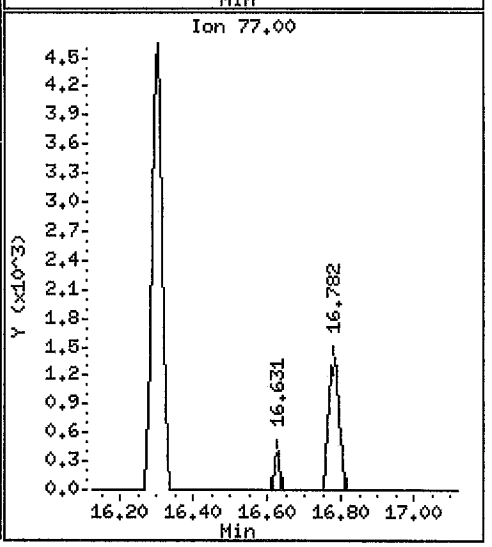












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9xd.d

Date : 09-SEP-2010 01:39

Client ID: IAQ-C7-9

Instrument: mj.i

Sample Info: L6G9X1AA,10,0,,,

Purge Volume: 500.0

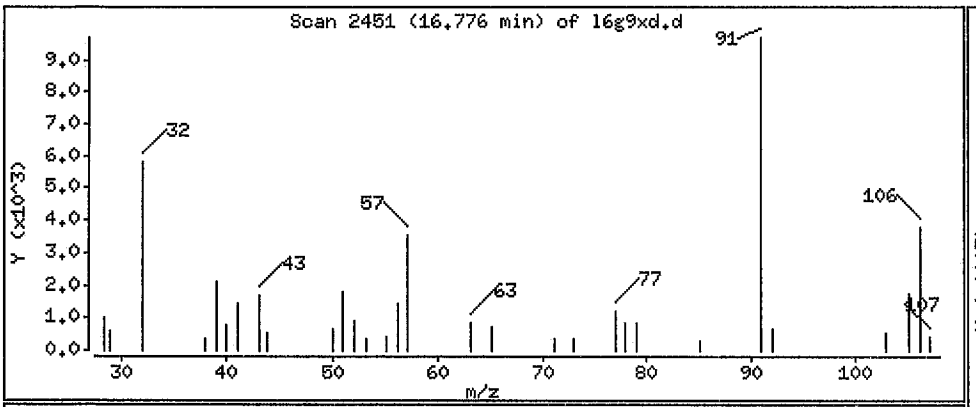
Operator: 7126

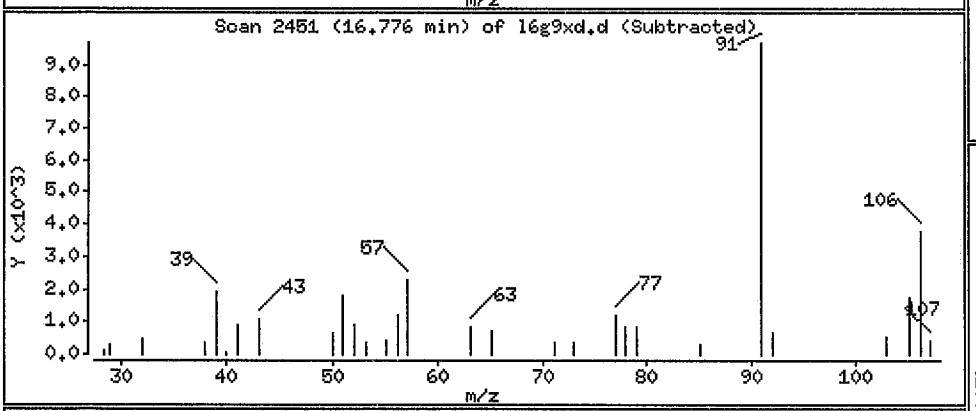
Column phase: Rtx-5

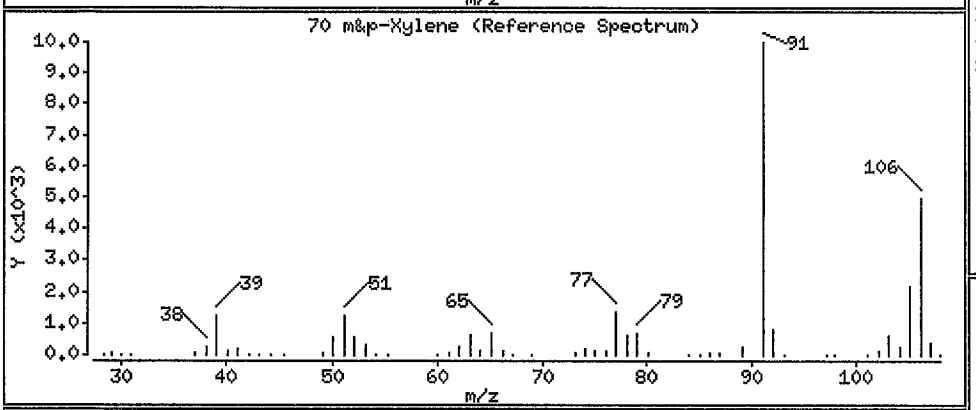
Column diameter: 0.32

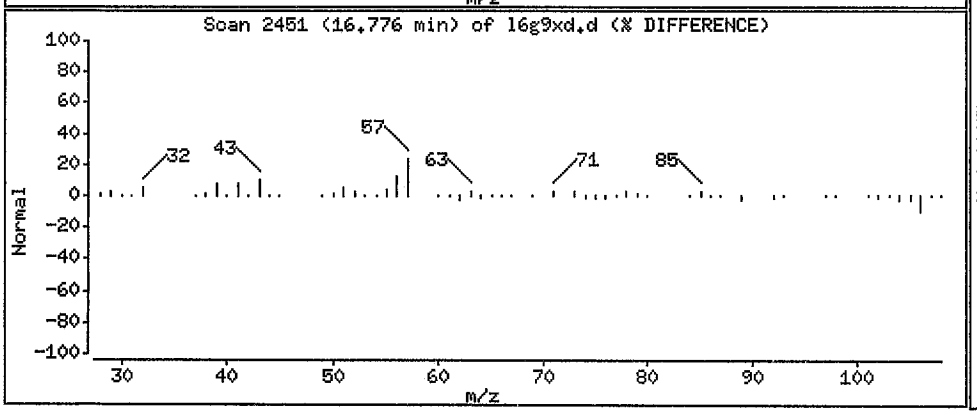
70 m&p-Xylene

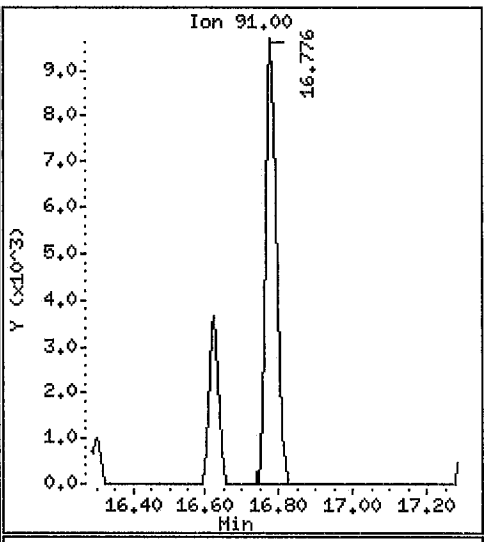
Concentration: 1.218 ppb(v/v)

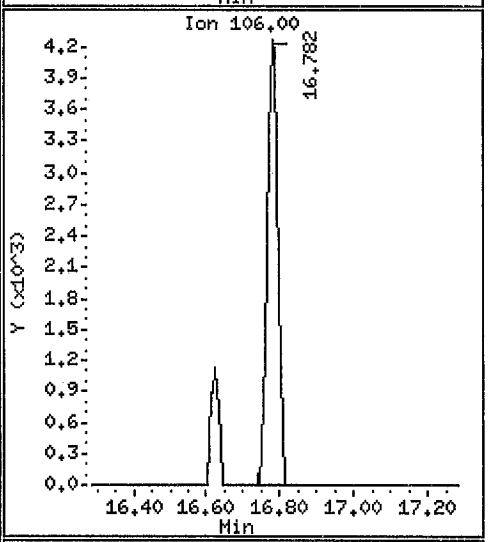


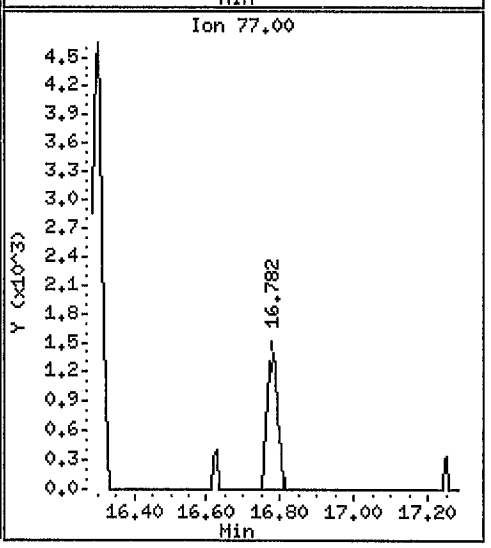












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9xd.d

Date : 09-SEP-2010 01:39

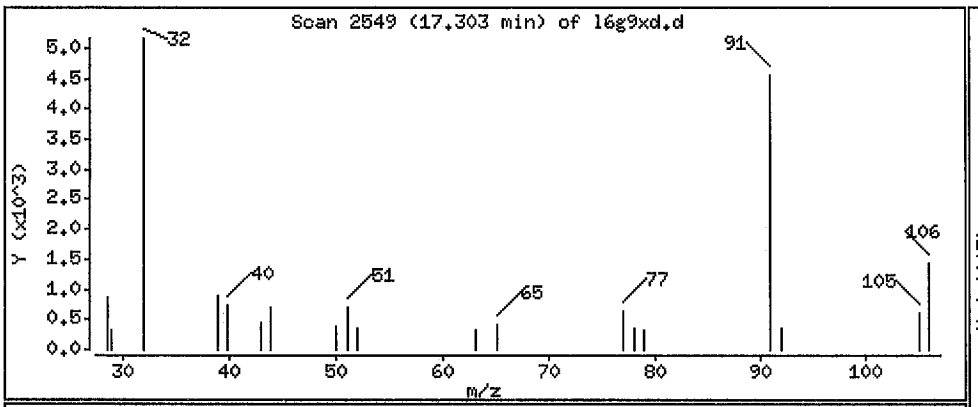
Client ID: IAQ-C7-9 Instrument: mj.i

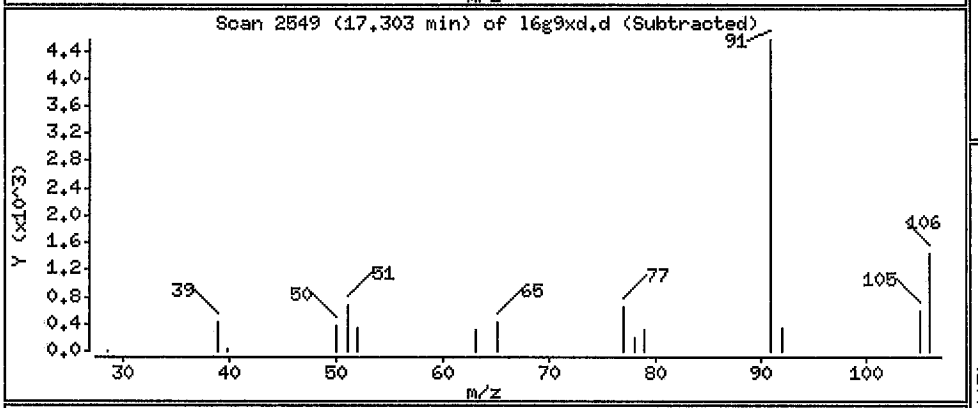
Sample Info: L6G9X1AA,10,0,,,

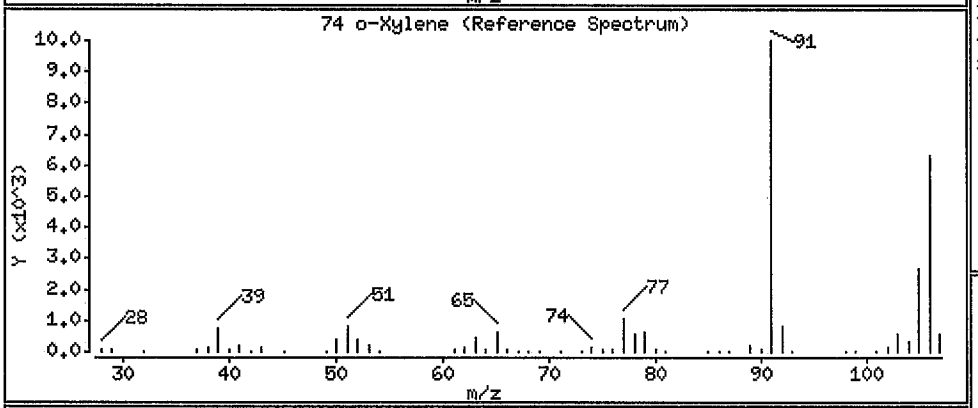
Purge Volume: 500.0 Operator: 7126

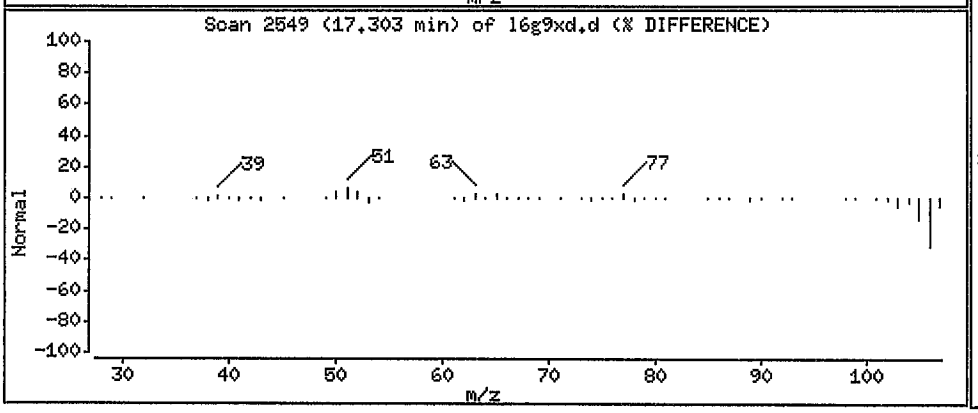
Column phase: Rtx-5 Column diameter: 0.32

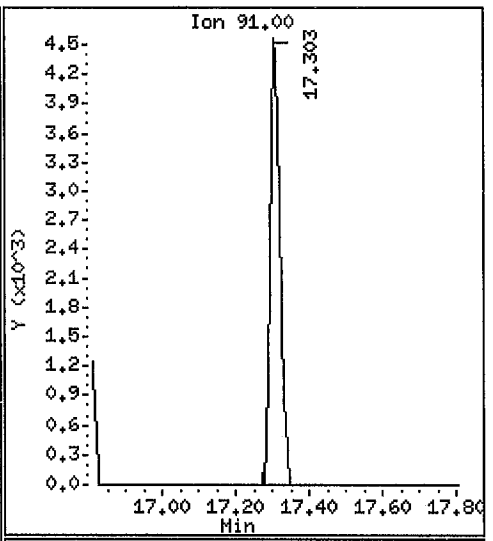
74 o-Xylene Concentration: 0.5024 ppb(v/v)

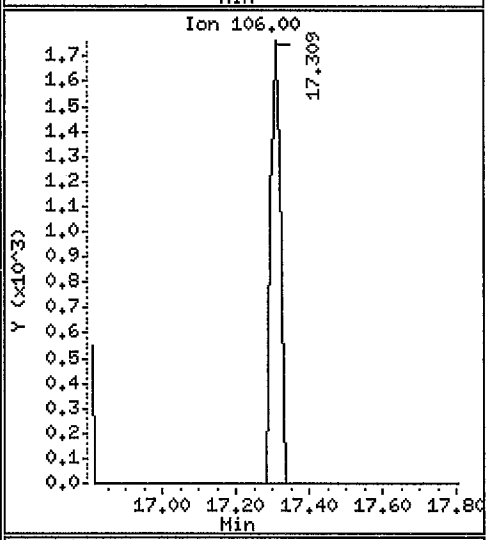


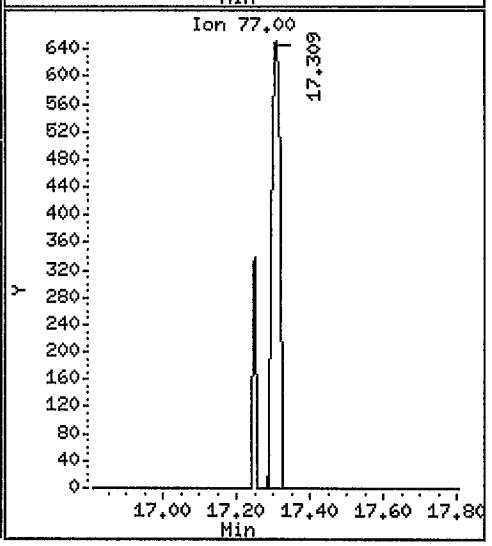












Data File: /var/chem/gcms/mj.i/J090810.b/l6g9xd.d

Date : 09-SEP-2010 01:39

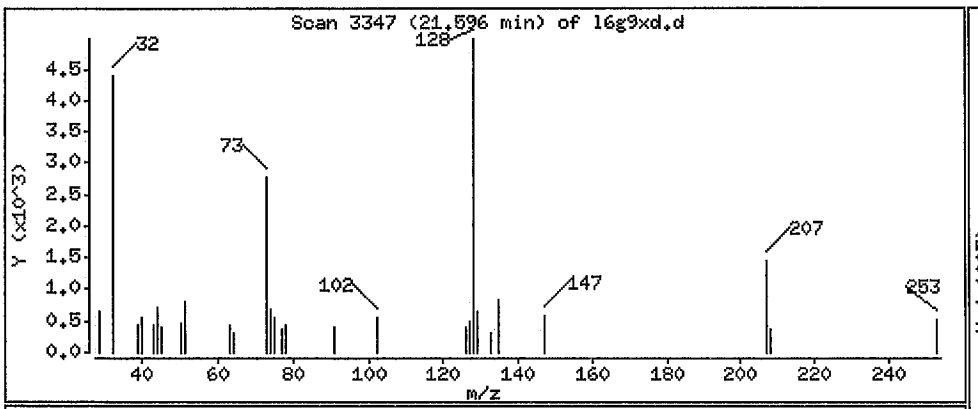
Client ID: IAQ-C7-9 Instrument: mj.i

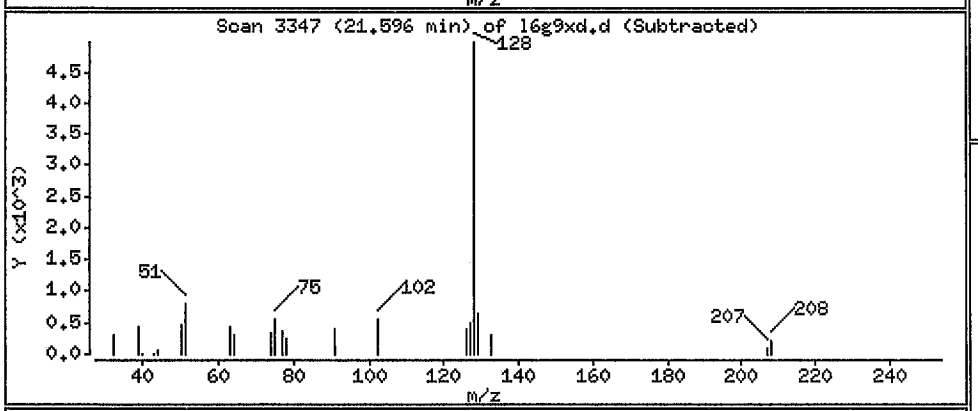
Sample Info: L6G9X1AA,10,0,,,

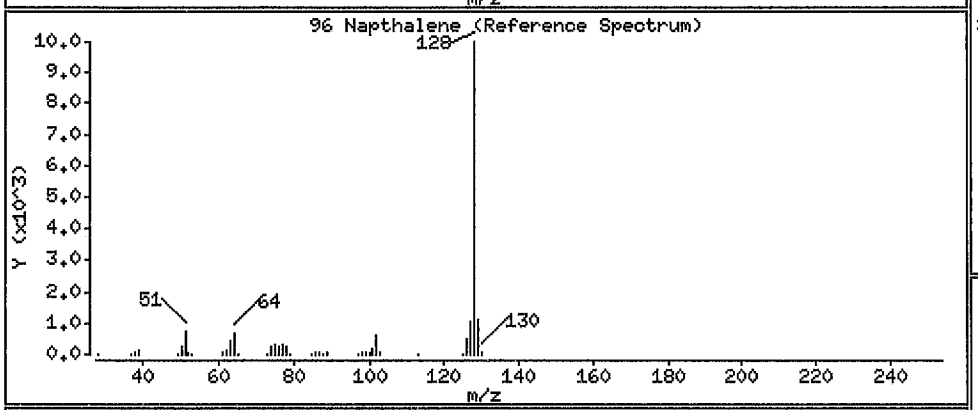
Purge Volume: 500.0 Operator: 7126

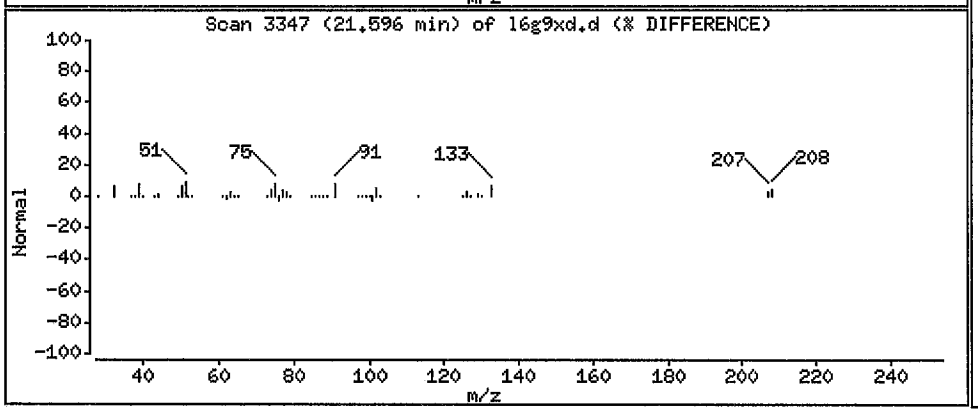
Column phase: Rtx-5 Column diameter: 0.32

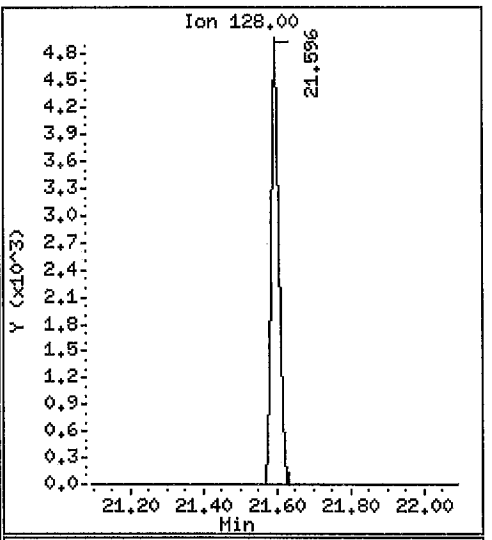
96 Napthalene Concentration: 0.4464 ppb(v/v)

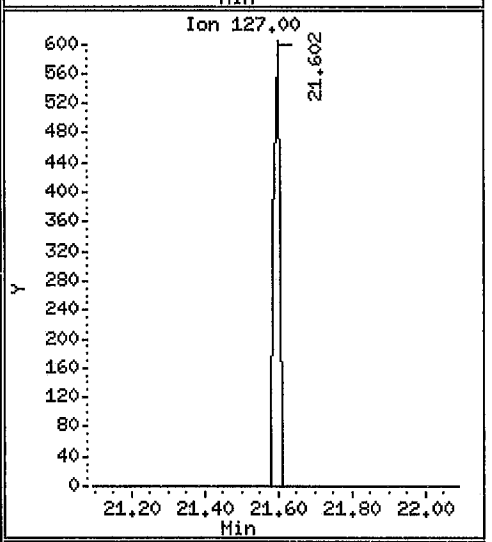


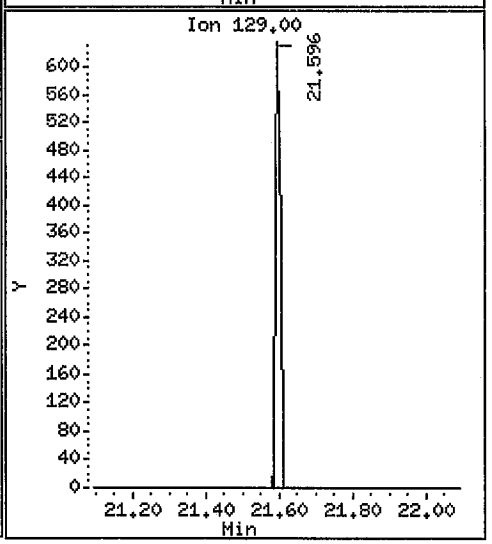












Tetra Tech NUS, Inc

Client Sample ID: IAQ-C8-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 016	**Work Order #**	L6G901AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	2.5	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.27**	**0.20**	**0.058**	**0.86**	**0.64**	**0.18**
Carbon tetrachloride	**0.091**	**0.20**	**0.038**	**0.57 J**	**1.3**	**0.24**
Chlorodifluoromethane	**110**	**0.20**	**0.038**	**380 E**	**0.71**	**0.13**
Chloroform	**0.13**	**0.20**	**0.038**	**0.62 J**	**0.98**	**0.18**
Dichlorodifluoromethane	**0.55**	**0.20**	**0.068**	**2.7**	**0.99**	**0.33**
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	**0.36**	**0.20**	**0.068**	**1.6**	**0.87**	**0.29**
Methylene chloride	**1.5**	**0.50**	**0.045**	**5.3**	**1.7**	**0.16**
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	**0.18**	**0.50**	**0.090**	**0.97 J**	**2.6**	**0.47**
Tetrachloroethene	ND	0.20	0.040	ND	1.4	0.27
Toluene	**4.2**	**0.20**	**0.052**	**16**	**0.75**	**0.20**
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	**0.12**	**0.20**	**0.030**	**0.66 J**	**1.1**	**0.16**
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	**0.14**	**0.10**	**0.035**	**0.76**	**0.54**	**0.19**
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	**1.4**	**0.20**	**0.12**	**6.2**	**0.87**	**0.54**
o-Xylene	**0.60**	**0.20**	**0.060**	**2.6**	**0.87**	**0.26**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	105	60 - 140

Qualifiers

E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090810.b/l6g901aa.d
Report Date: 10-Sep-2010 14:27

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/l6g901aa.d
Lab Smp Id: L6G901AA Client Smp ID: IAQ-C8-9
Inj Date : 09-SEP-2010 03:34
Operator : 7126 Inst ID: mj.i
Smp Info : ,2.5,0,,,
Misc Info : J090810,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 10-Sep-2010 14:16 barlozha Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 15
Dil Factor: 2.50000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	2.50000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
*	1 Bromochloromethane	128	9.484	9.479	(1.000)	196847	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.646	11.642	(1.000)	943804	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.299	16.300	(1.000)	786338	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.913	17.914	(1.099)	628863	4.21356	4.214
	7 Chlorodifluoromethane	67	3.900	3.901	(0.411)	1076369	43.2379	108.1(A)
	8 Dichlorodifluoromethane	85	3.970	3.970	(0.419)	46744	0.21868	0.5467
	31 Methylene Chloride	84	6.799	6.784	(0.717)	39465	0.61613	1.540
	42 Chloroform	83	9.489	9.479	(1.001)	7220	0.05052	0.1263
	44 1,1,1-Trichloroethane	97	10.538	10.544	(1.111)	7202	0.04838	0.1209
	48 Benzene	78	11.130	11.125	(0.956)	21482	0.10767	0.2692
	49 Carbon Tetrachloride	117	11.151	11.152	(0.958)	5661	0.03621	0.09053
	53 Trichloroethene	130	12.351	12.352	(1.060)	5514	0.05684	0.1421
	61 Toluene	91	14.357	14.358	(0.881)	308909	1.66810	4.170
	69 Ethylbenzene	91	16.622	16.623	(1.020)	30651	0.14435	0.3609
	70 m&p-Xylene	91	16.778	16.784	(1.029)	92444	0.57569	1.439

Data File: /var/chem/gcms/mj.i/J090810.b/l6g901aa.d
Report Date: 10-Sep-2010 14:27

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
74 o-Xylene	91	17.305	17.306	(1.062)	39910	0.23894	0.5973
96 Napthalene	128	21.598	21.594	(1.325)	11916	0.07363	0.1841

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g901aa.d
Report Date: 10-Sep-2010 14:27

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g901aa.d
Lab Smp Id: L6G901AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: IAQ-C8-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	196847	0.91
2 1,4-Difluorobenze	936174	557024	1315324	943804	0.82
3 Chlorobenzene-d5	815161	485021	1145301	786338	-3.54

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.48	0.05
2 1,4-Difluorobenze	11.64	11.31	11.97	11.65	0.04
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	-0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

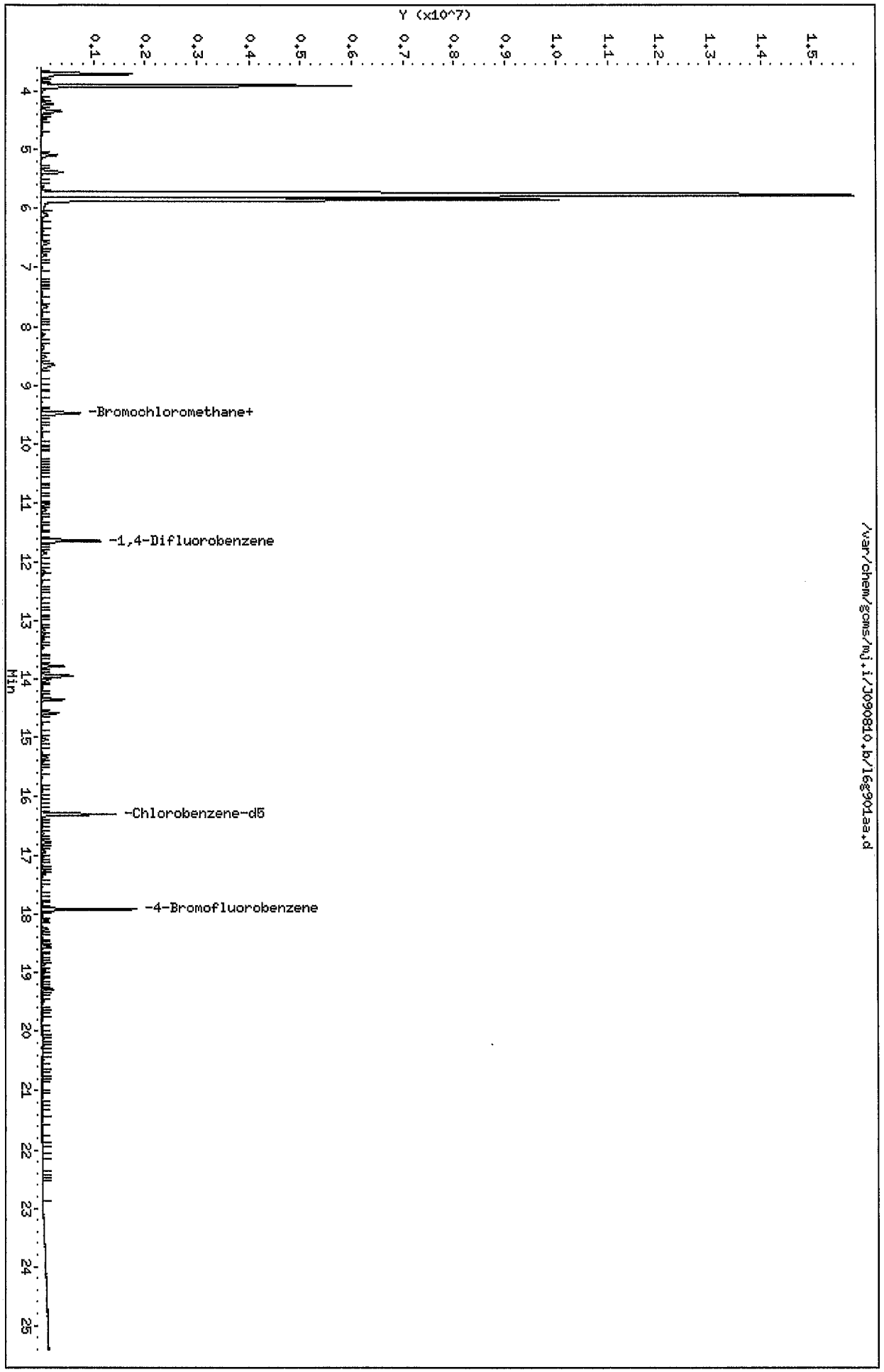
Data File: /var/chem/gcms/mj.i/J090810.b/l6g901aa.d
Report Date: 10-Sep-2010 14:27

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G901AA
Client Smp ID: IAQ-C8-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.214	105.34	70-130


Data File: /var/chem/gcms/mj.i/J090810.b/16g901aa.d
Date : 09-SEP-2010 03:34
Client ID: IAQ-C8-9
Sample Info: ,2.5,0,,,
Purge Volume: 500.0
Column phase: Rtx-5
Instrument: mj.i
Operator: 7126
Column diameter: 0.32
/var/chem/gcms/mj.i/J090810.b/16g901aa.d
Y (x10^7)
Min
-Bromochloromethane+
-1,4-Difluorobenzene
-Chlorobenzene-d5
-4-Bromofluorobenzene

Data File: /var/chem/gcms/mj.i/J090810.b/l6g901aa.d

Date : 09-SEP-2010 03:34

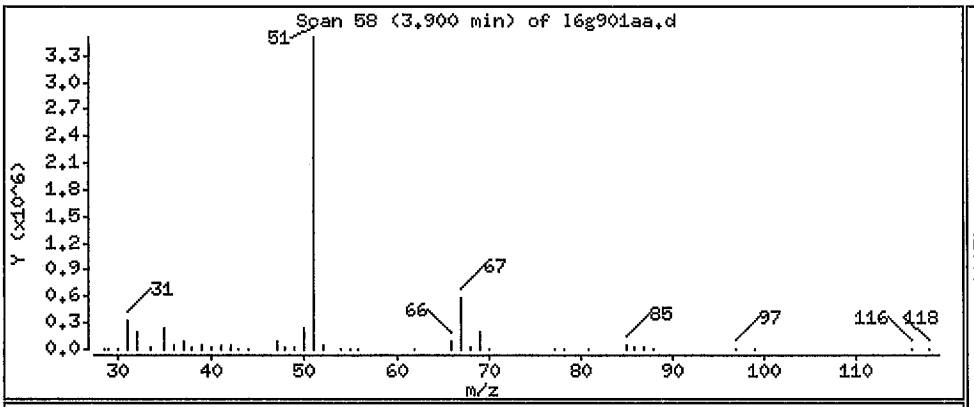
Client ID: IAQ-C8-9 Instrument: mj.i

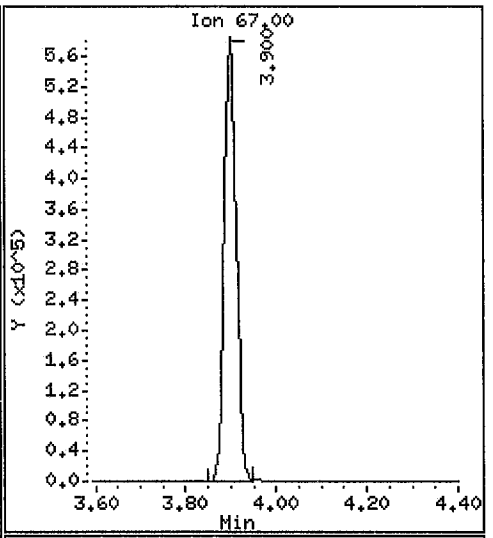
Sample Info: ,2.5,0,,,

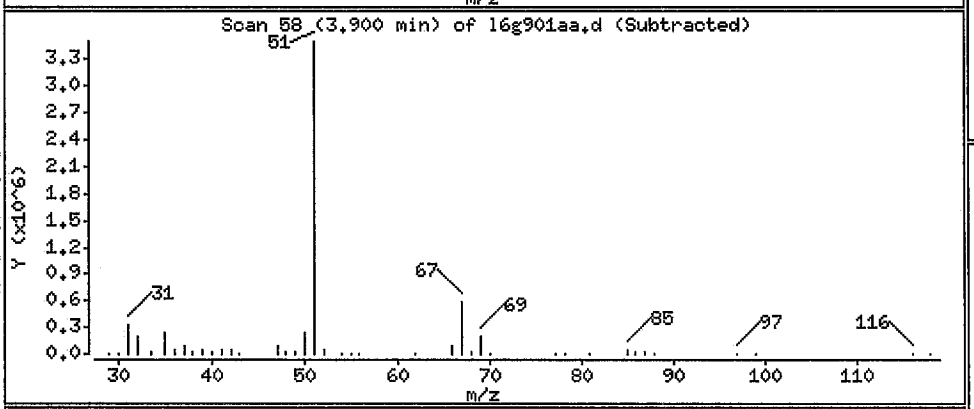
Purge Volume: 500.0 Operator: 7126

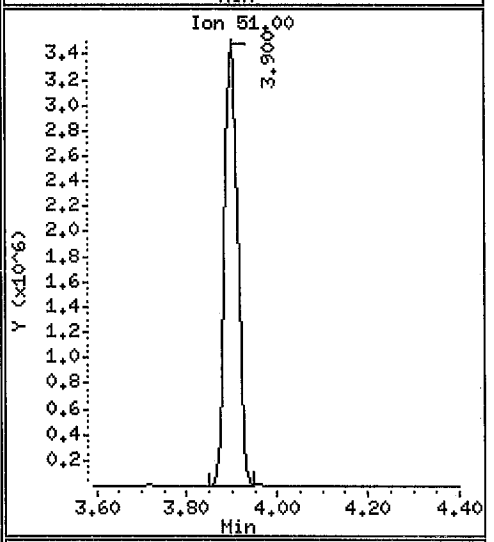
Column phase: Rtx-5 Column diameter: 0.32

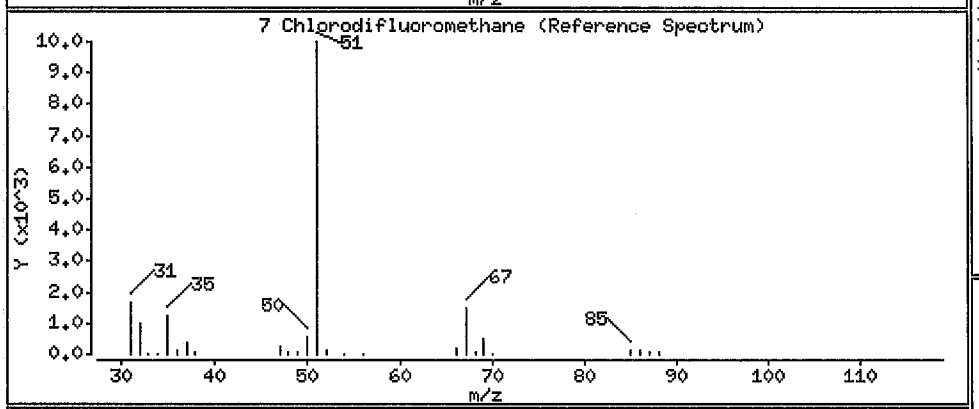
7 Chlorodifluoromethane Concentration: 108.1 ppb(v/v)

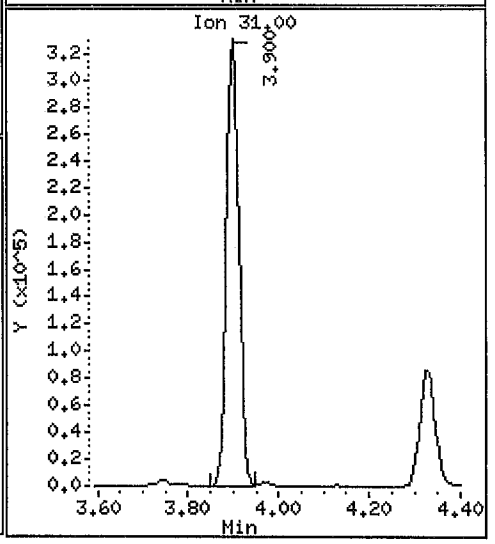


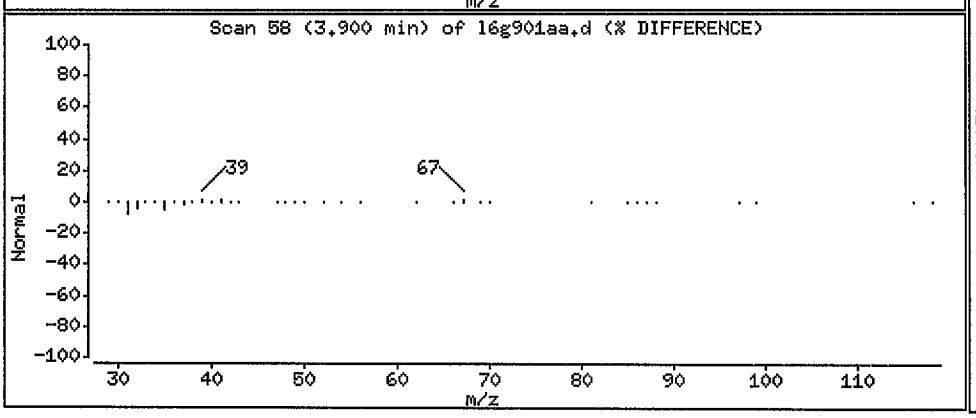












Data File: /var/chem/gcms/mj.i/J090810.b/16g901aa.d

Date : 09-SEP-2010 03:34

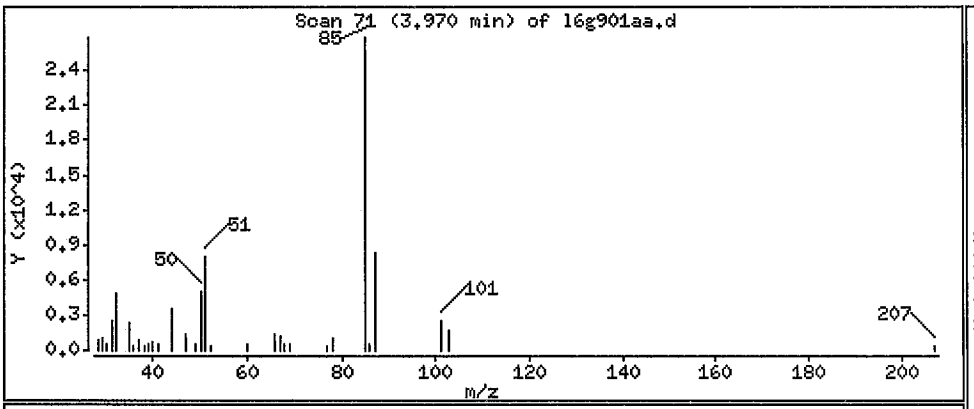
Client ID: IAQ-C8-9 Instrument: mj.i

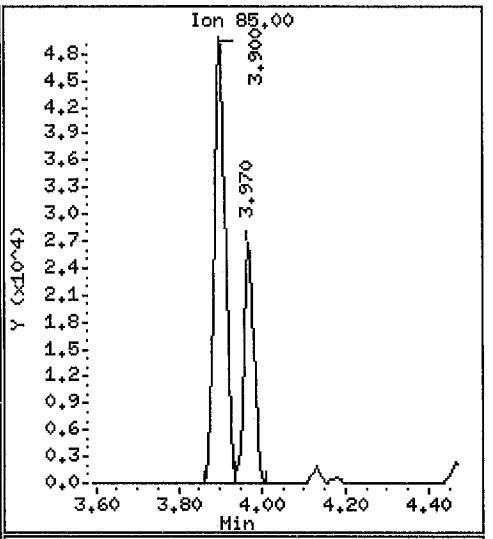
Sample Info: ,2.5,0,,,

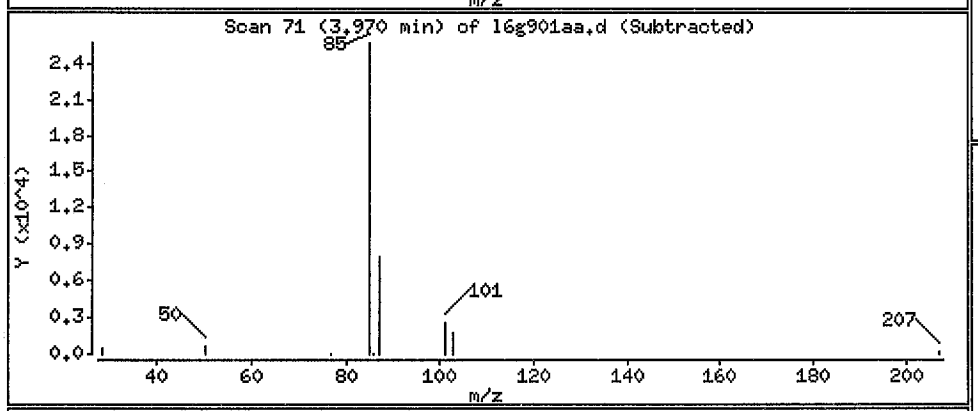
Purge Volume: 500.0 Operator: 7126

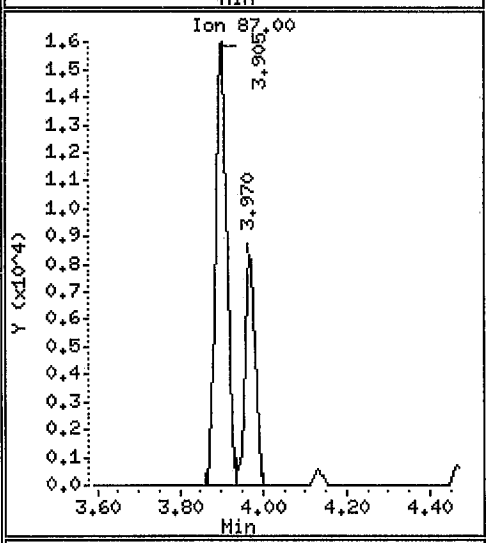
Column phase: Rtx-5 Column diameter: 0.32

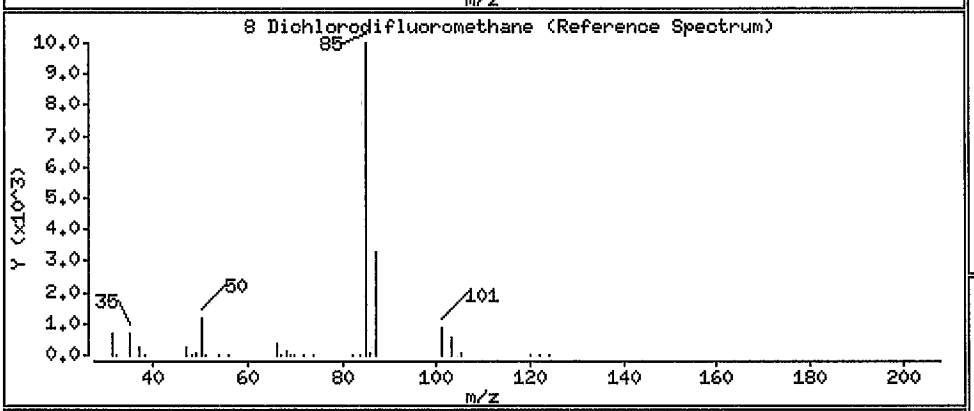
8 Dichlorodifluoromethane Concentration: 0.5467 ppb(v/v)

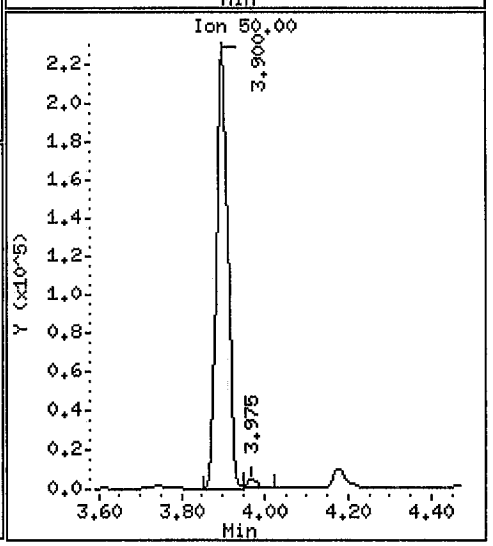


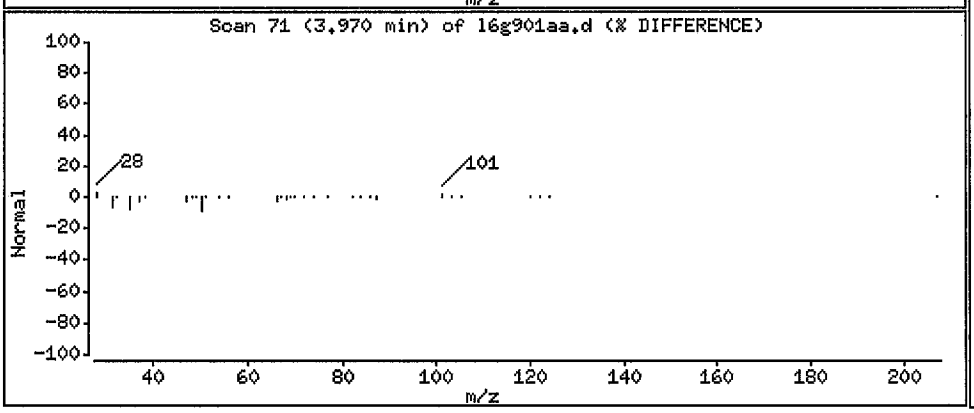












Data File: /var/chem/gcms/mj.i/J090810.b/16g901aa.d

Date : 09-SEP-2010 03:34

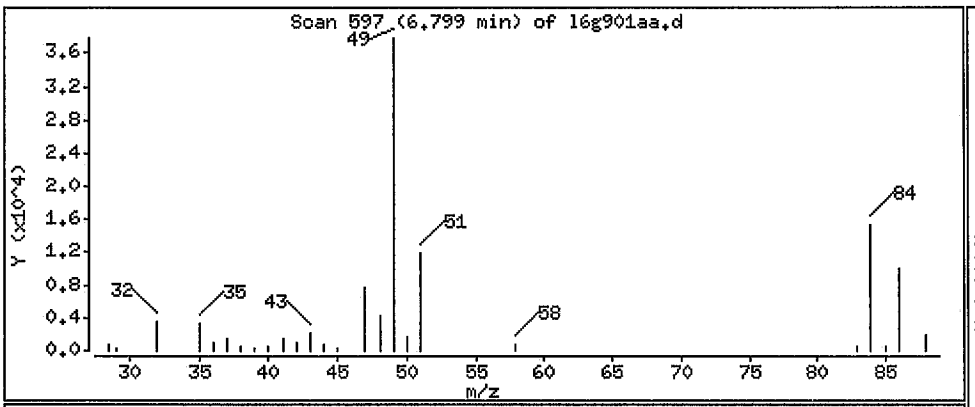
Client ID: IAQ-C8-9 Instrument: mj.i

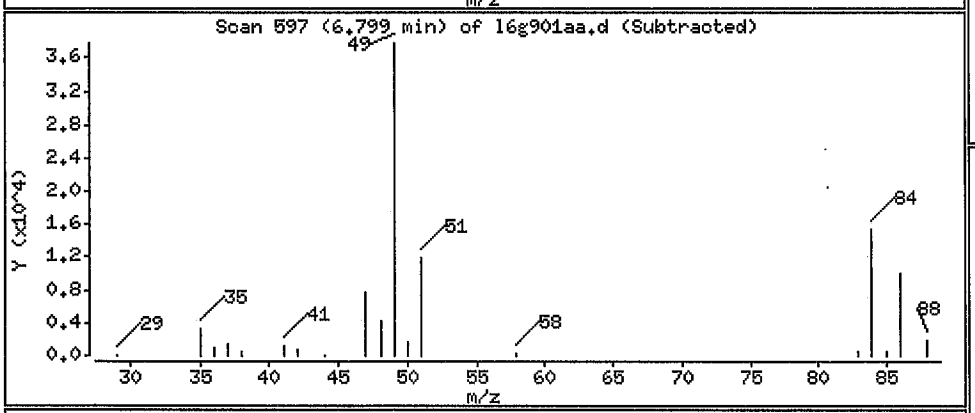
Sample Info: ,2.5,0,,,

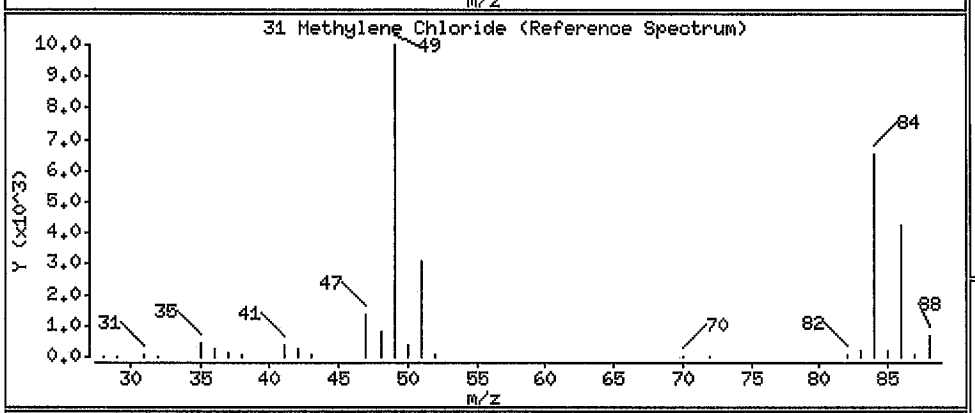
Purge Volume: 500.0 Operator: 7126

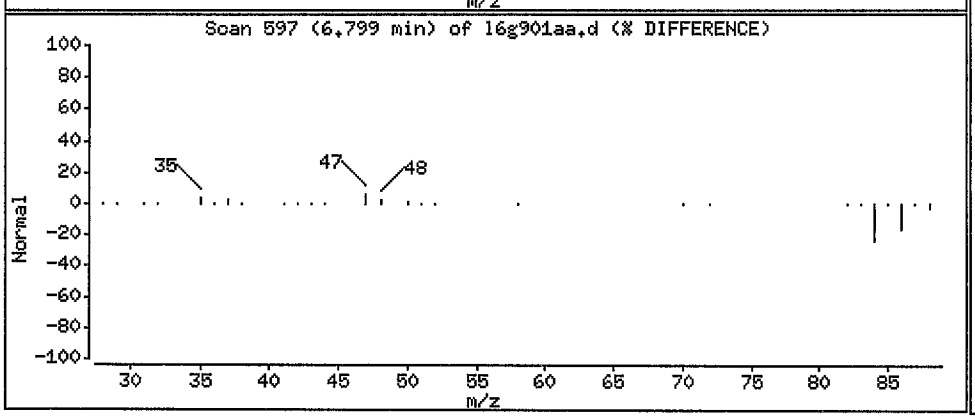
Column phase: Rtx-5 Column diameter: 0.32

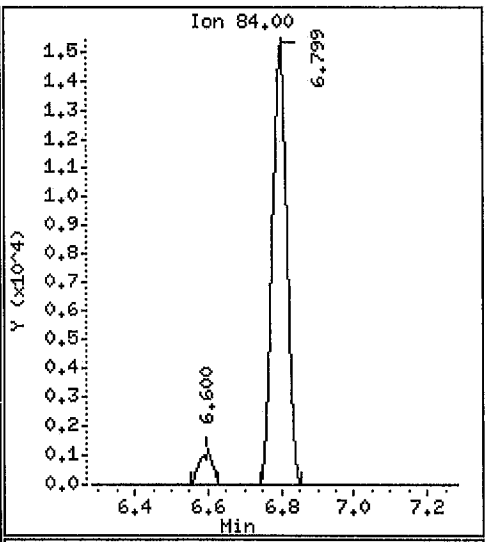
31 Methylene Chloride Concentration: 1.540 ppb(v/v)

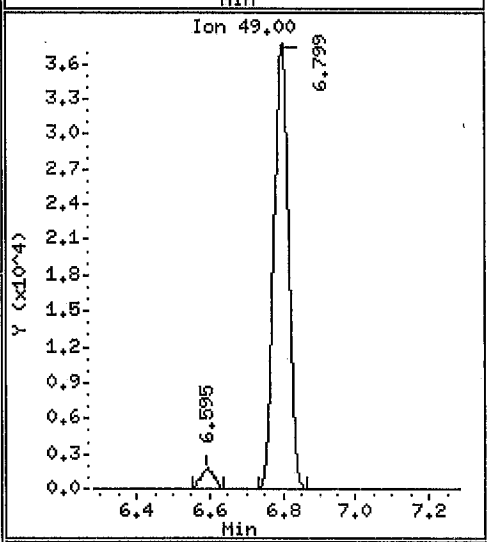


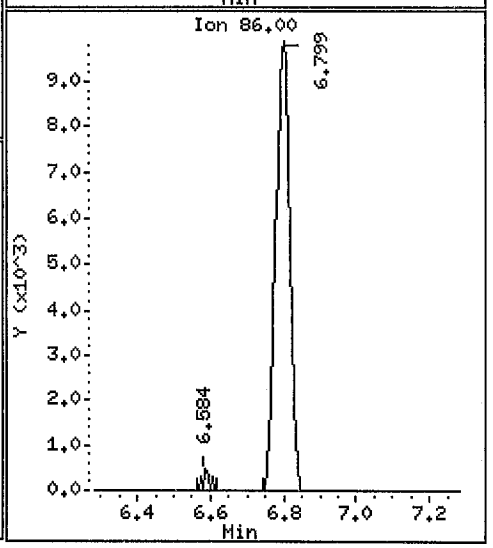












Data File: /var/chem/gcms/mj.i/J090810.b/16g901aa.d

Date : 09-SEP-2010 03:34

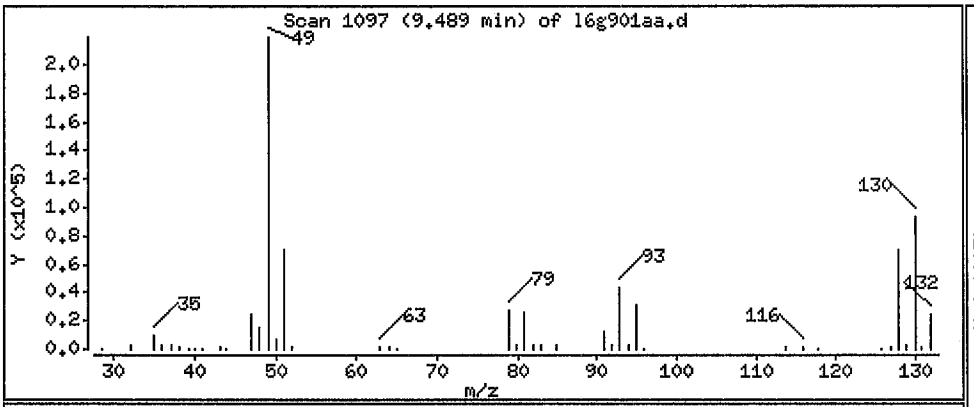
Client ID: IAQ-C8-9 Instrument: mj.i

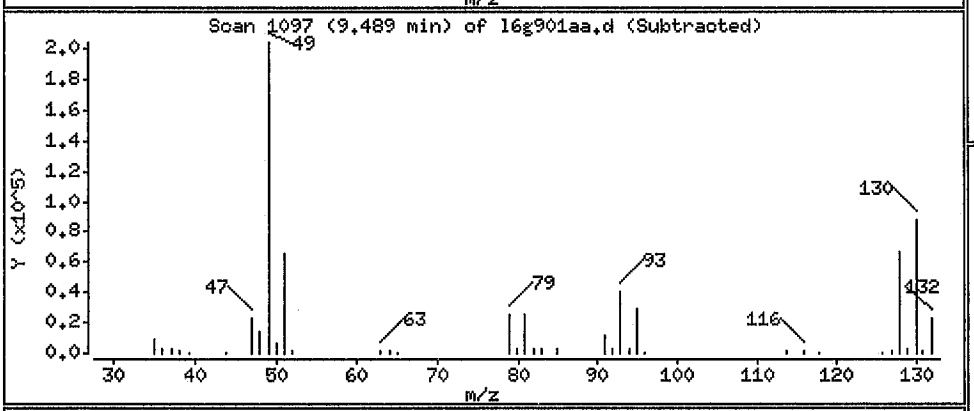
Sample Info: ,2.5,0,,,

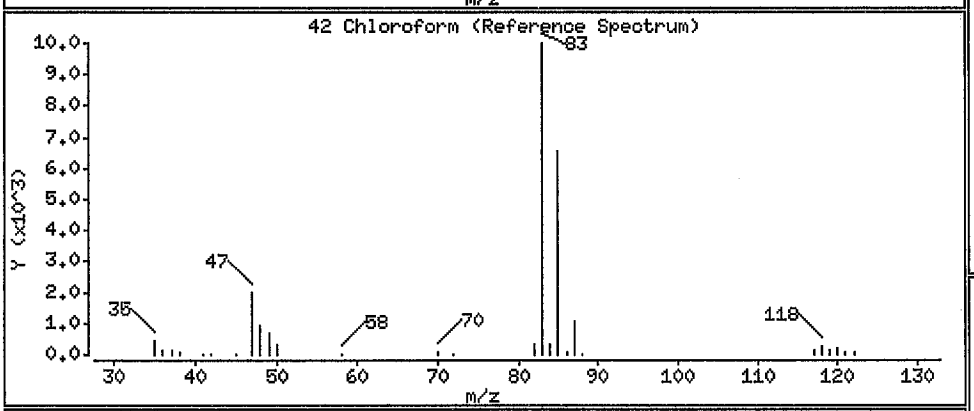
Purge Volume: 500.0 Operator: 7126

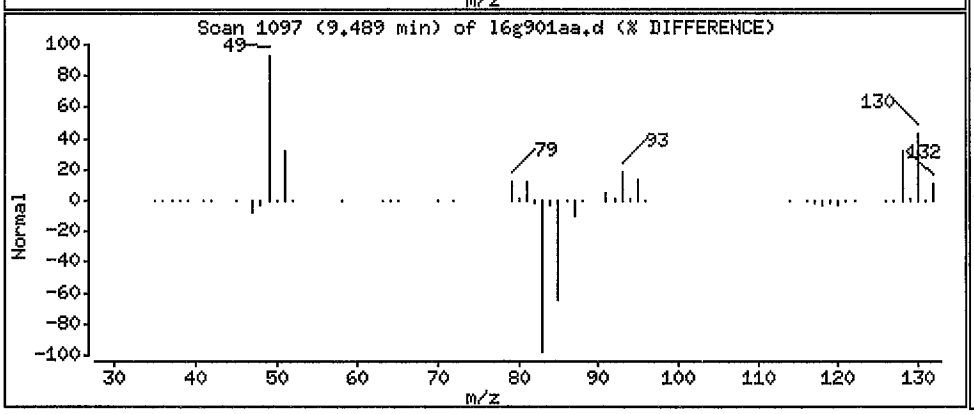
Column phase: Rtx-5 Column diameter: 0.32

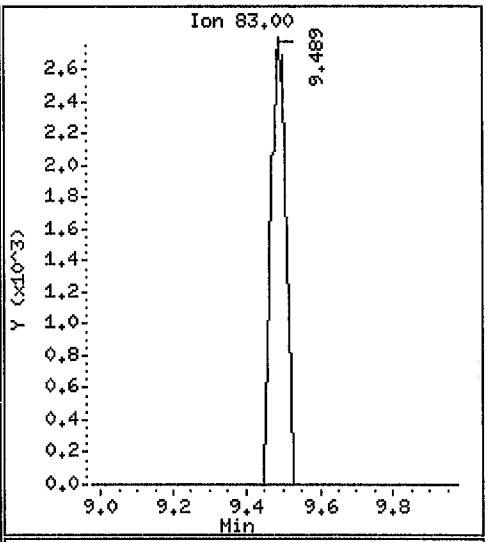
42 Chloroform Concentration: 0.1263 ppb(v/v)

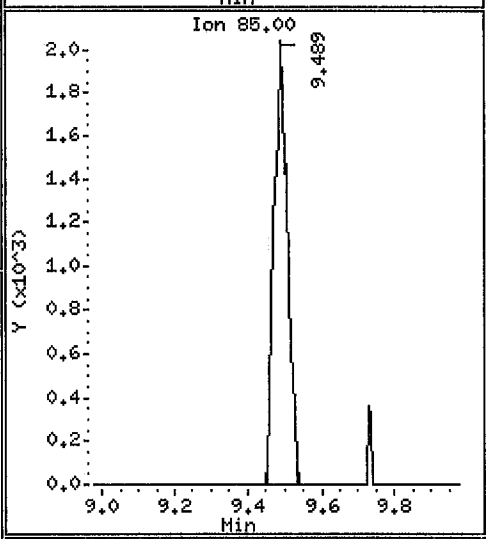


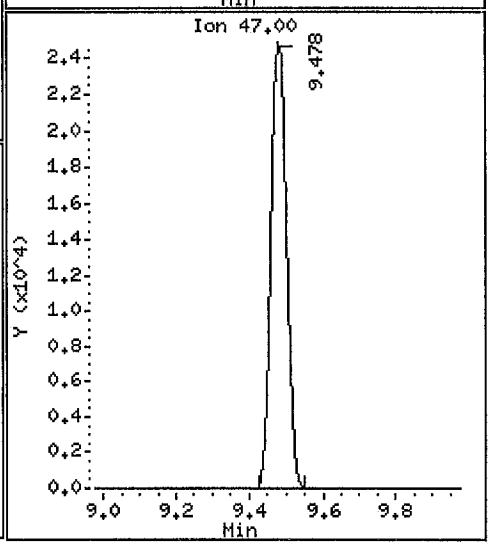












Data File: /var/chem/gcms/mj.i/J090810.b/l6g901aa.d

Date : 09-SEP-2010 03:34

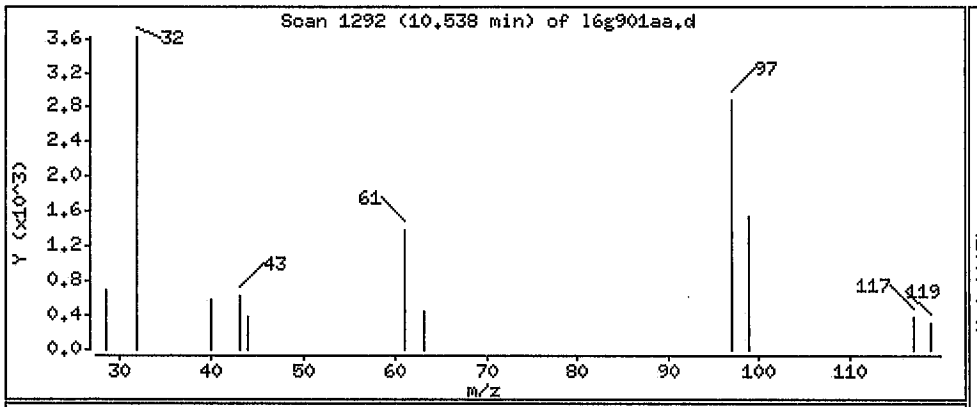
Client ID: IAQ-C8-9 Instrument: mj.i

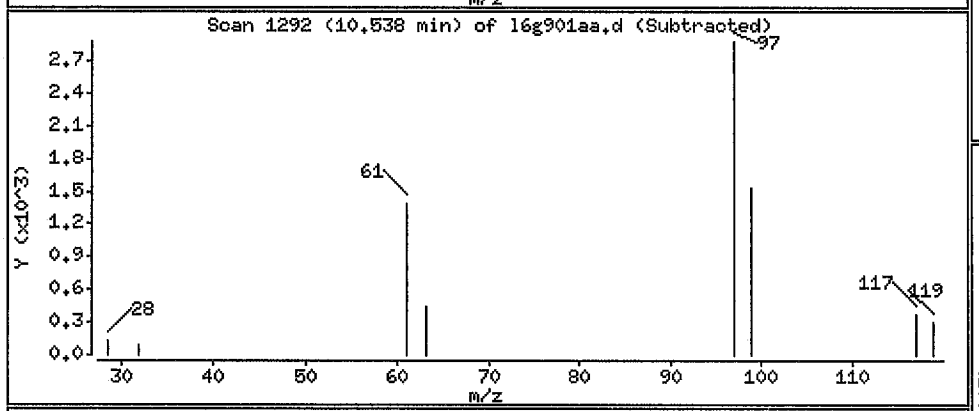
Sample Info: ,2.5,0,,,

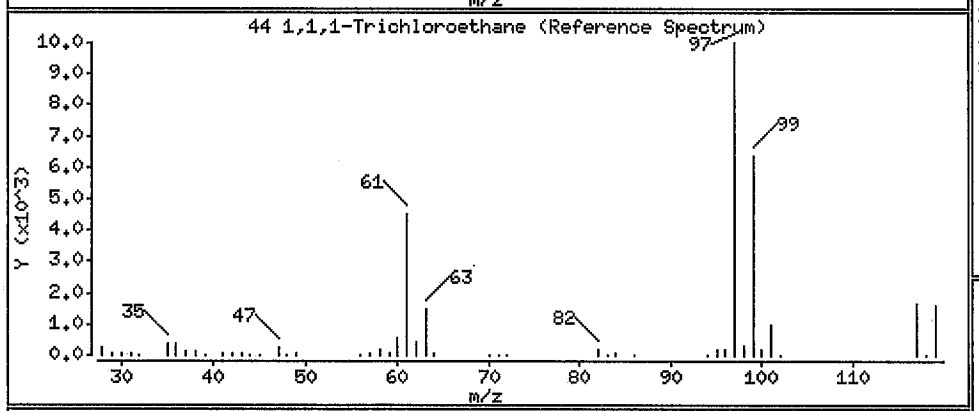
Purge Volume: 500.0 Operator: 7126

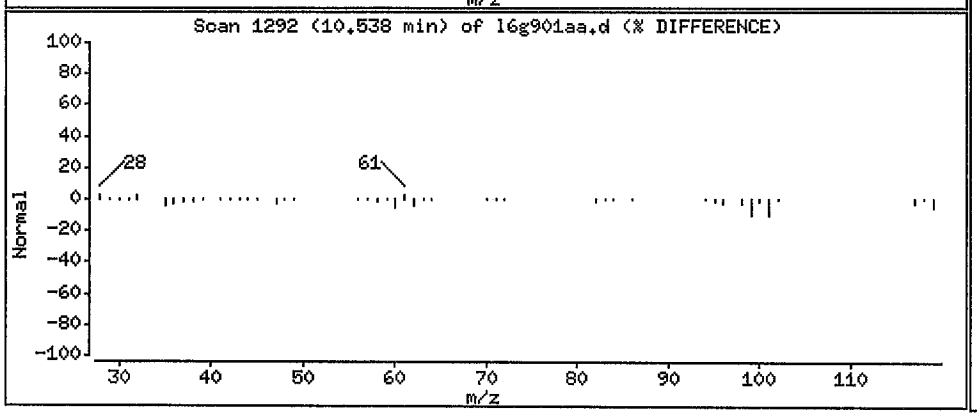
Column phase: Rtx-5 Column diameter: 0.32

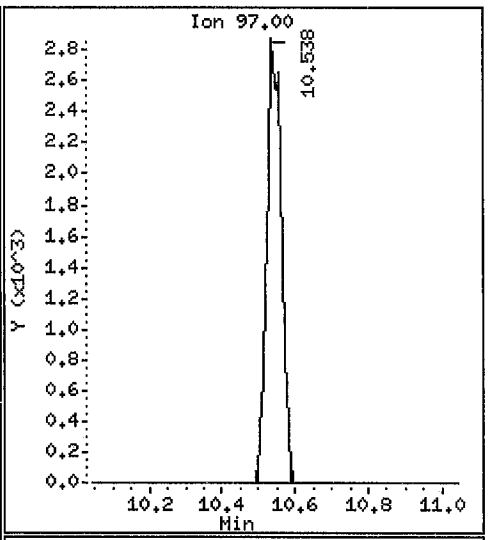
44 1,1,1-Trichloroethane Concentration: 0.1209 ppb(v/v)

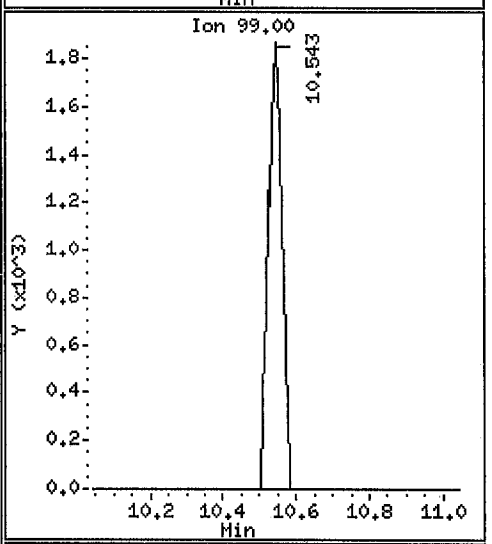


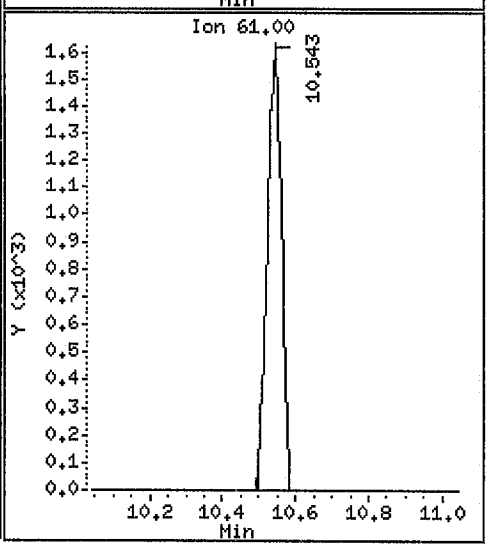












Data File: /var/chem/gcms/mj.i/J090810.b/16g901aa.d

Date : 09-SEP-2010 03:34

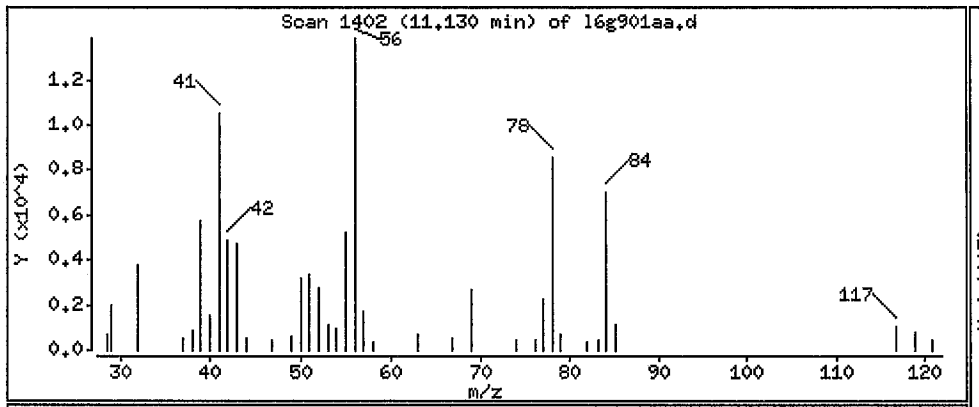
Client ID: IAQ-C8-9 Instrument: mj.i

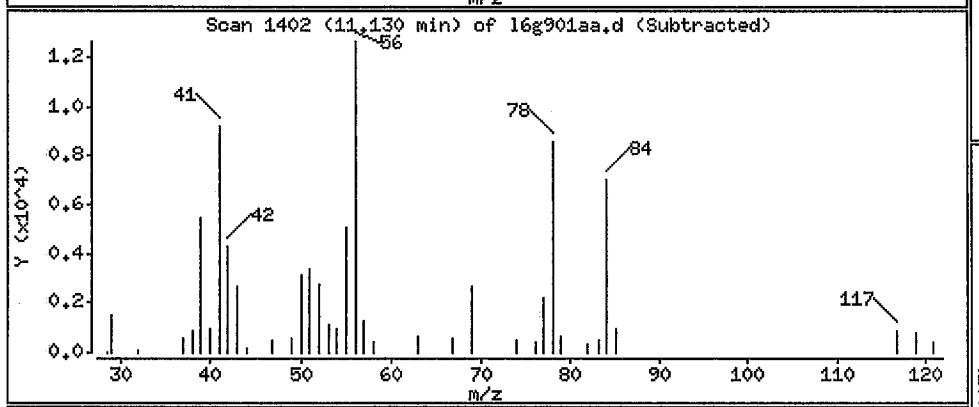
Sample Info: ,2.5,0,,,

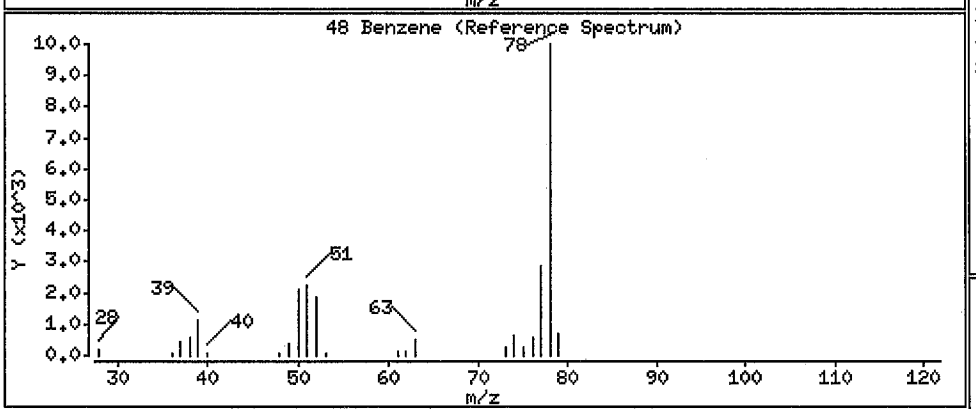
Purge Volume: 500.0 Operator: 7126

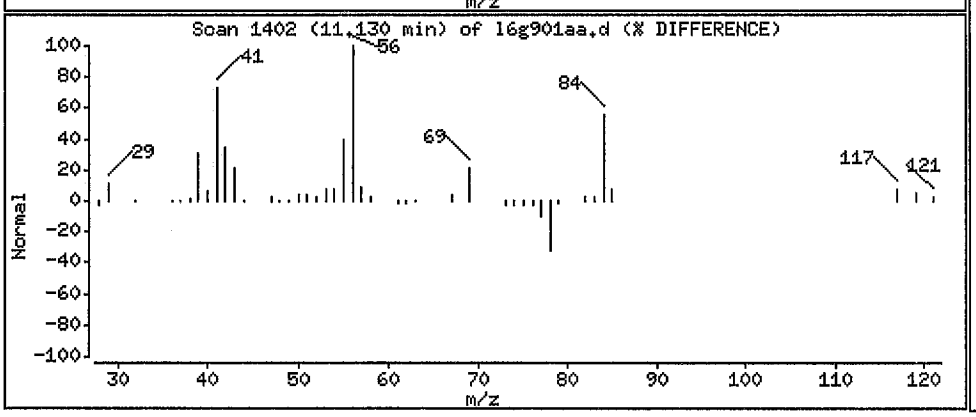
Column phase: Rtx-5 Column diameter: 0.32

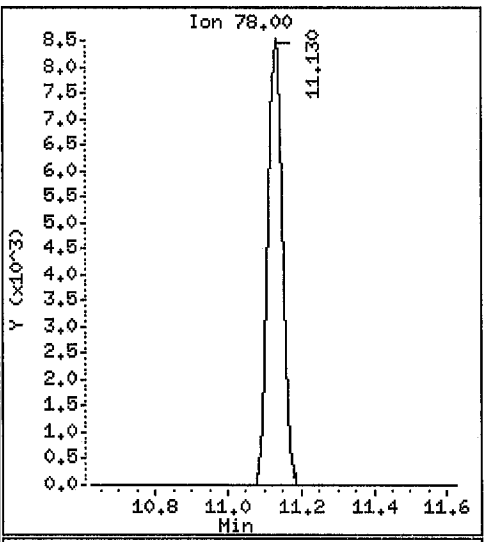
48 Benzene Concentration: 0.2692 ppb(v/v)

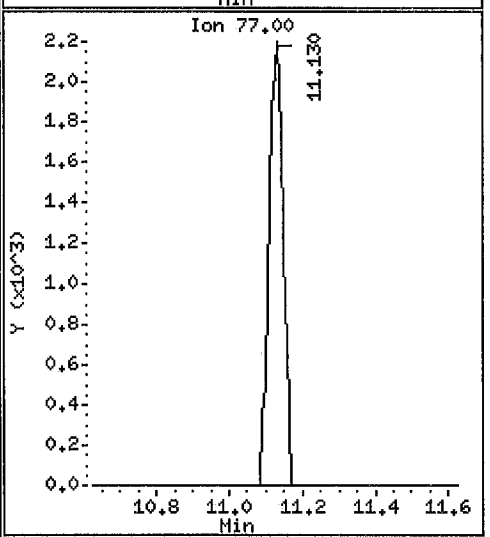


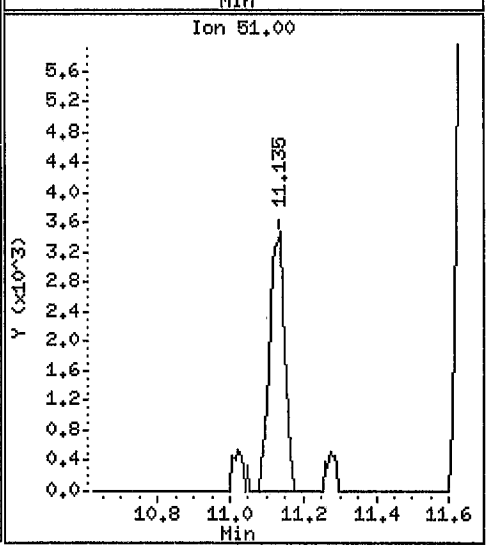












Data File: /var/chem/gcms/mj.i/J090810.b/16g901aa.d

Date : 09-SEP-2010 03:34

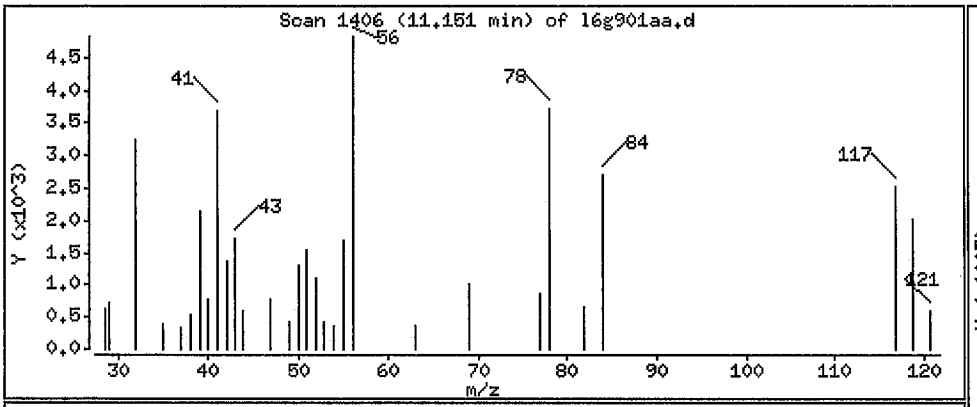
Client ID: IAQ-C8-9 Instrument: mj.i

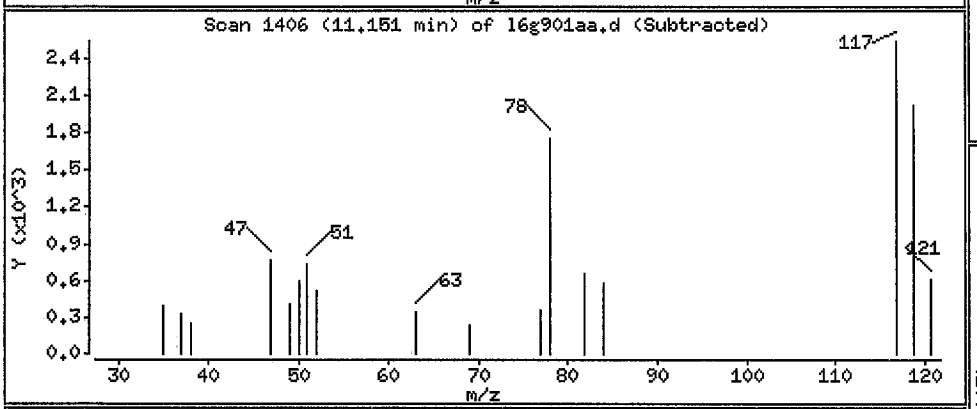
Sample Info: ,2.5,0,,,

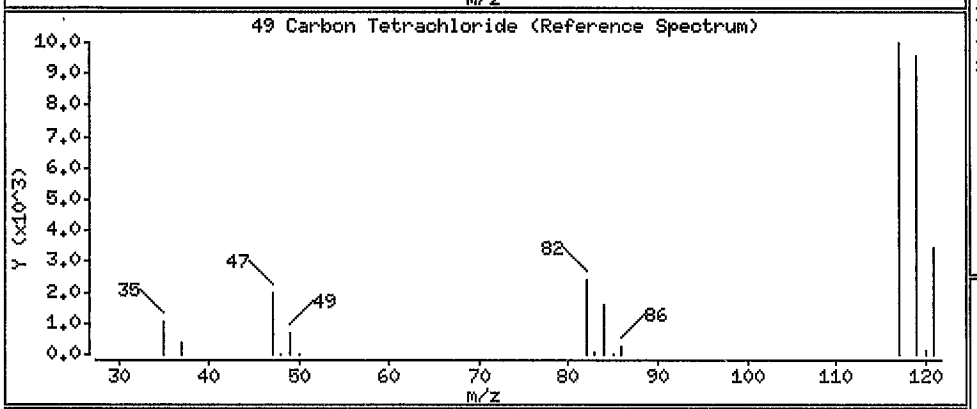
Purge Volume: 500.0 Operator: 7126

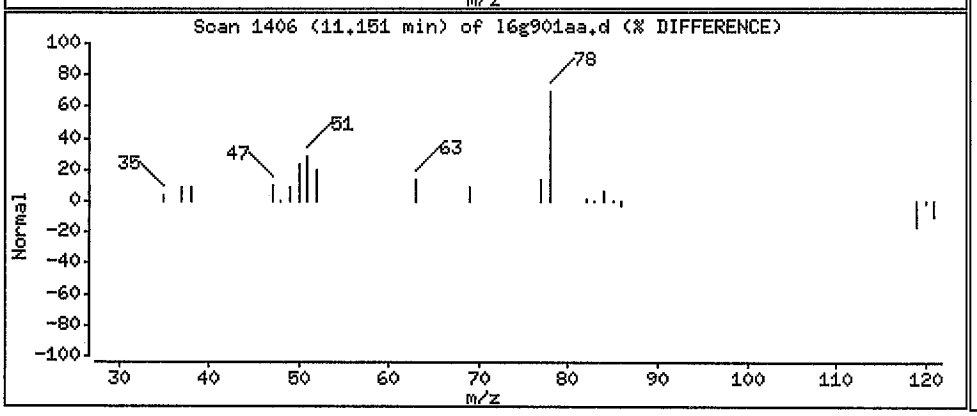
Column phase: Rtx-5 Column diameter: 0.32

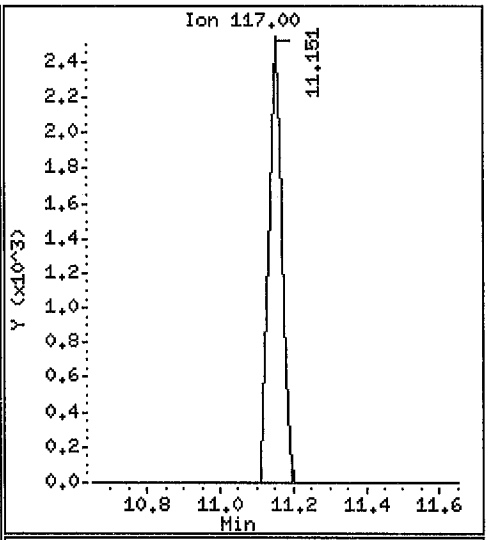
49 Carbon Tetrachloride Concentration: 0.09053 ppb(v/v)

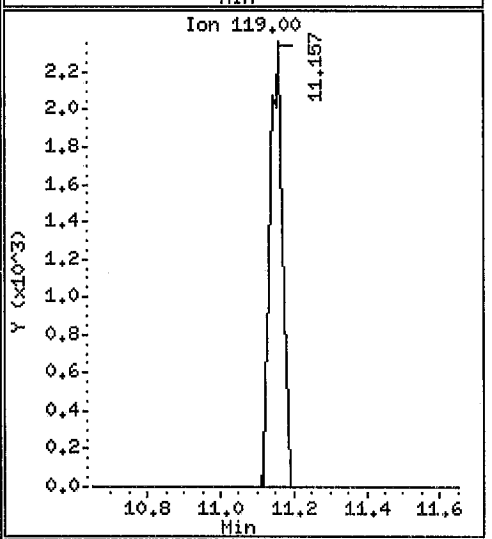


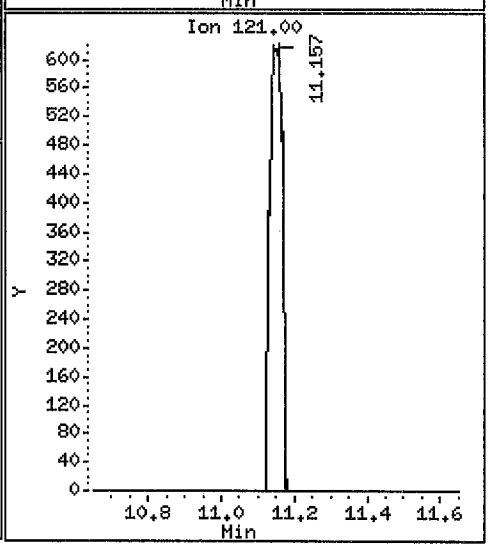












Data File: /var/chem/gcms/mj.i/J090810.b/16g901aa.d

Date : 09-SEP-2010 03:34

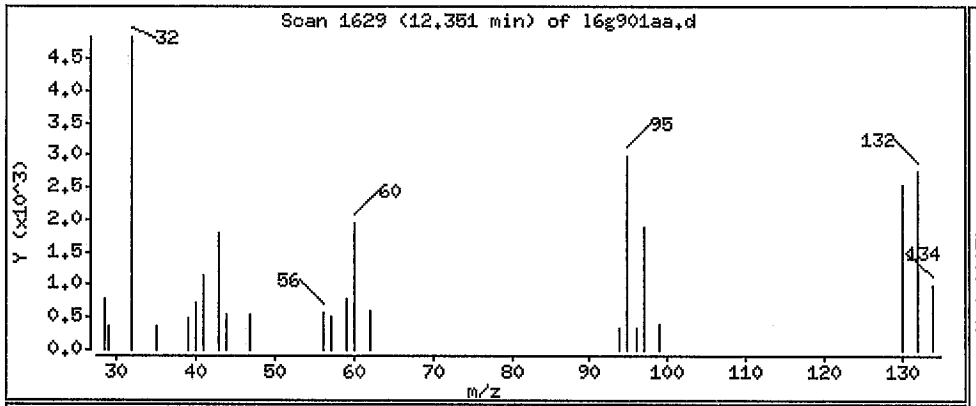
Client ID: IAQ-C8-9 Instrument: mj.i

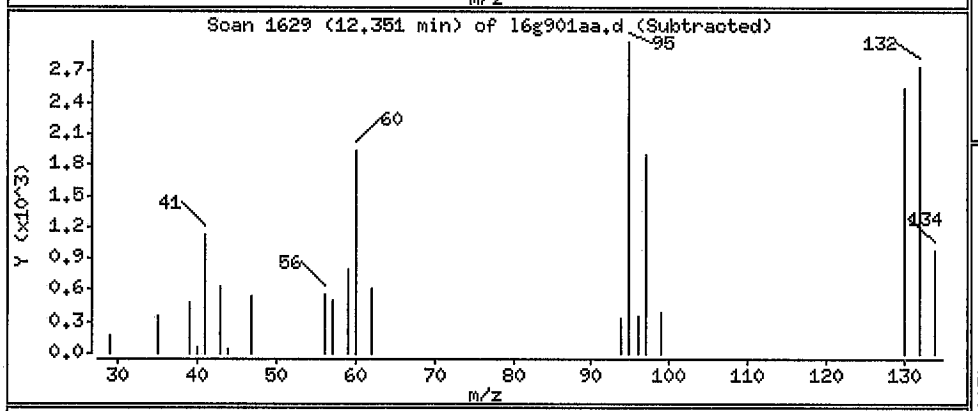
Sample Info: ,2.5,0,,,

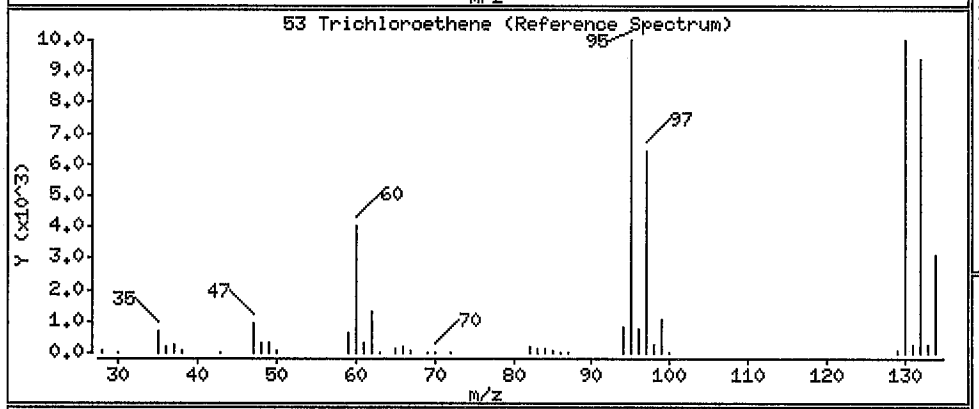
Purge Volume: 500.0 Operator: 7126

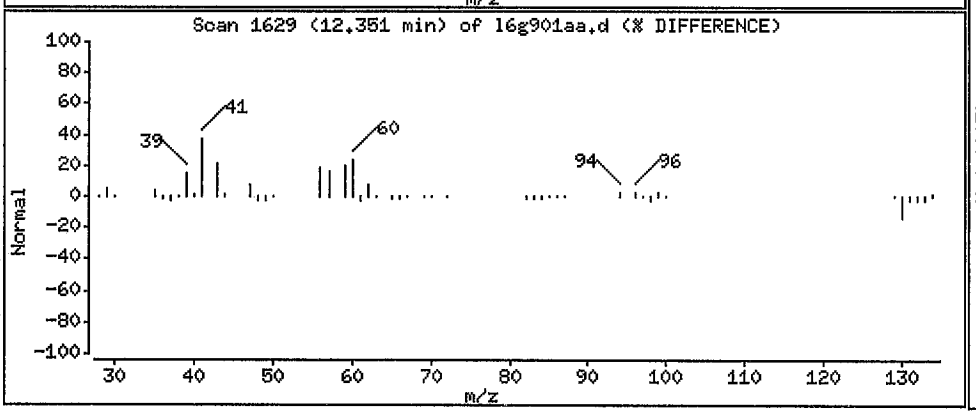
Column phase: Rtx-5 Column diameter: 0.32

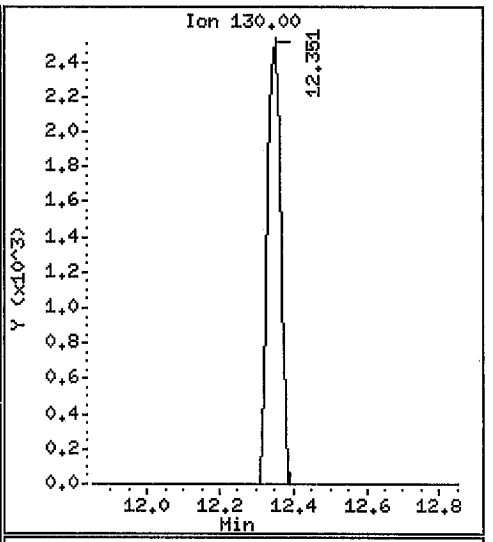
53 Trichloroethene Concentration: 0.1421 ppb(v/v)

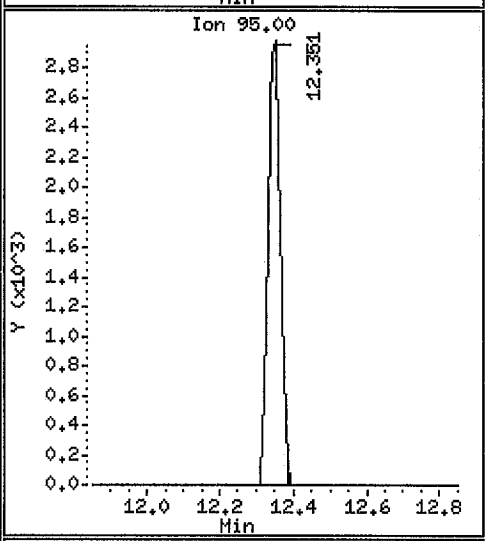


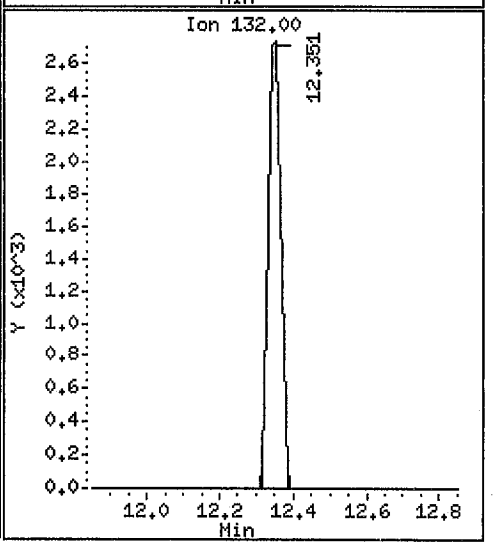












Data File: /var/chem/gcms/mj.i/J090810.b/l6g901aa.d

Date : 09-SEP-2010 03:34

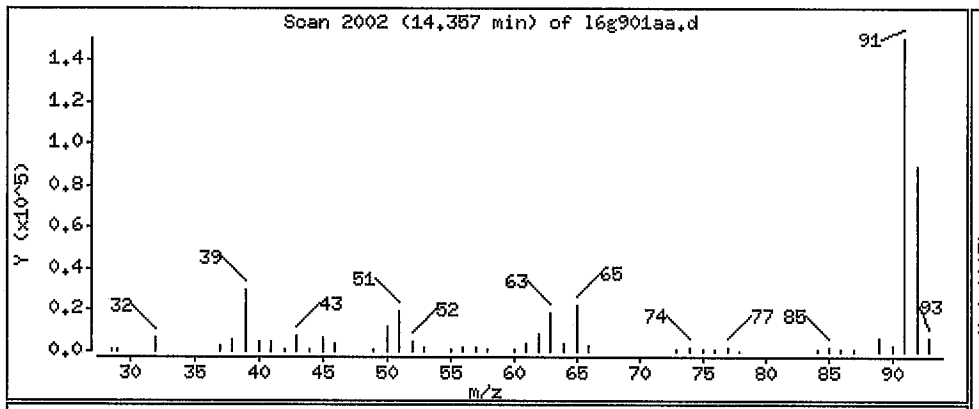
Client ID: IAQ-C8-9 Instrument: mj.i

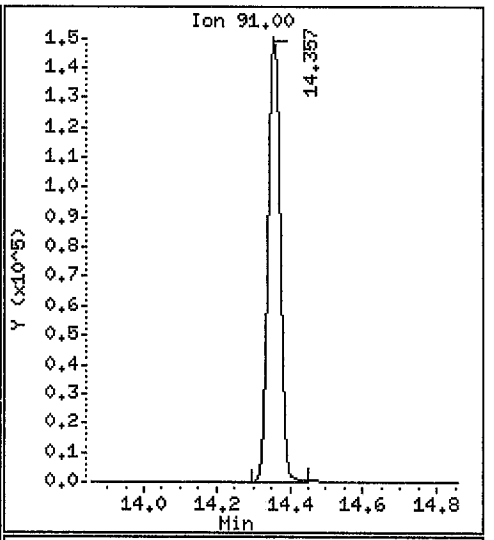
Sample Info: ,2.5,0,,,

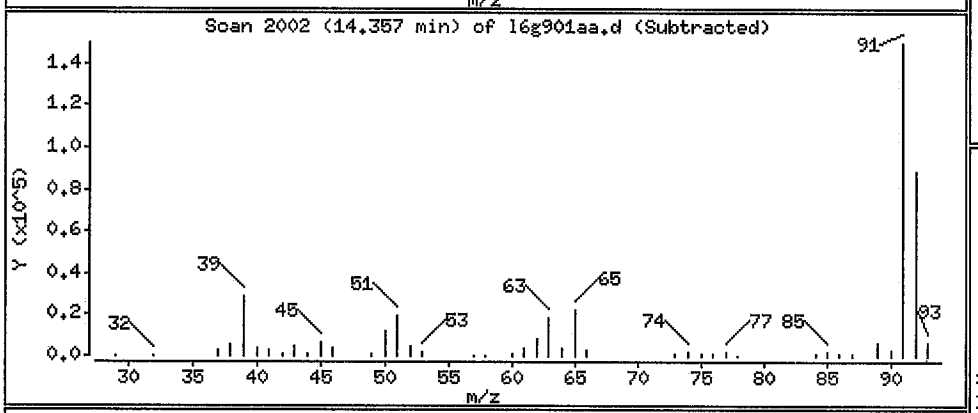
Purge Volume: 500.0 Operator: 7126

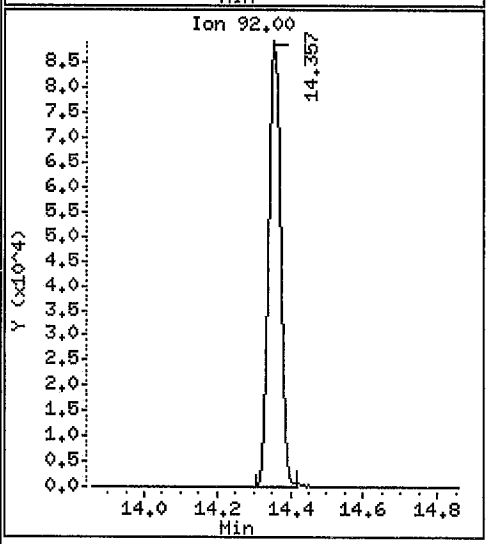
Column phase: Rtx-5 Column diameter: 0.32

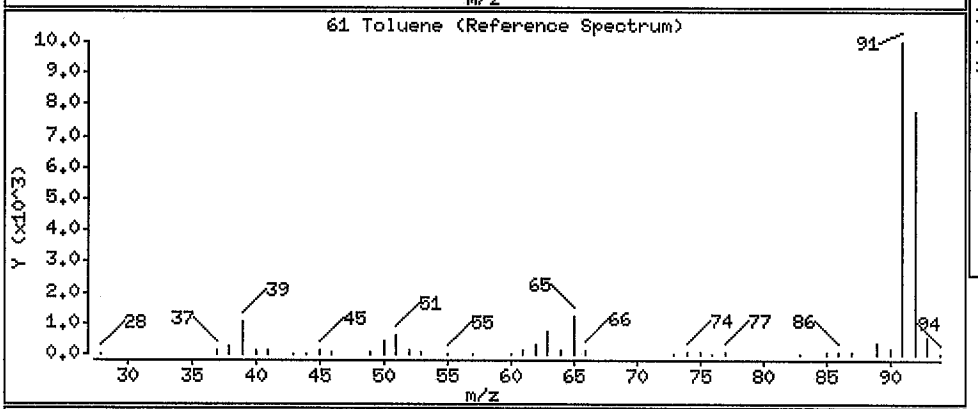
61 Toluene Concentration: 4.170 ppb(v/v)

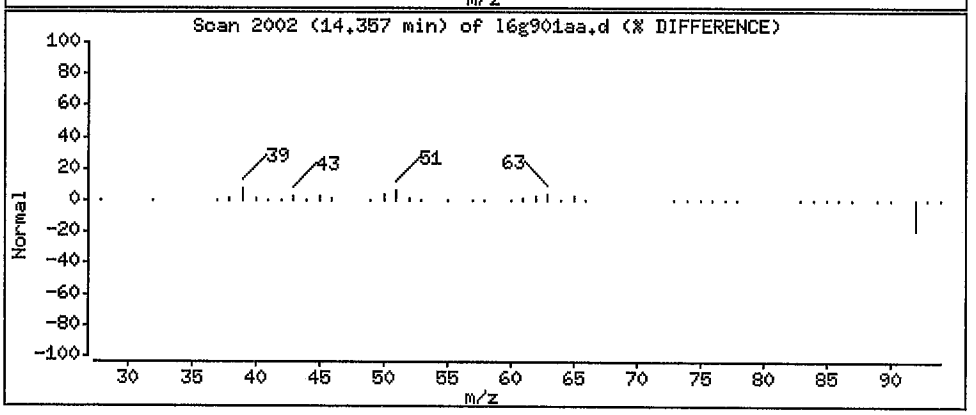












Data File: /var/chem/gcms/mj.i/J090810.b/16g901aa.d

Date : 09-SEP-2010 03:34

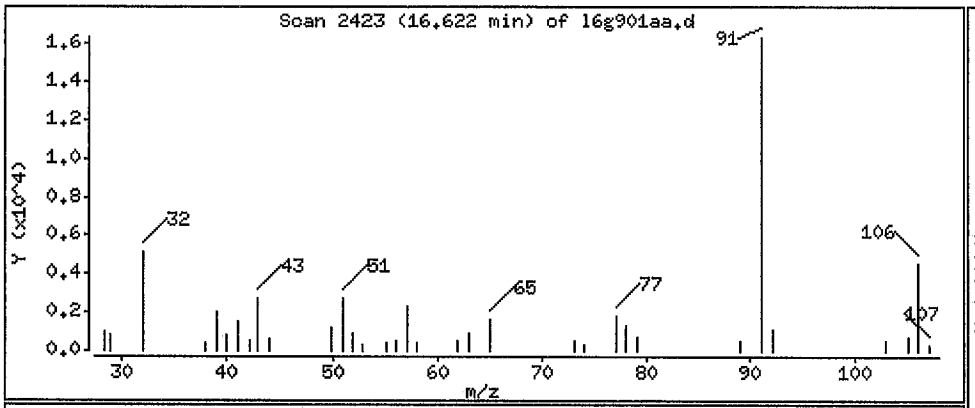
Client ID: IAQ-C8-9 Instrument: mj.i

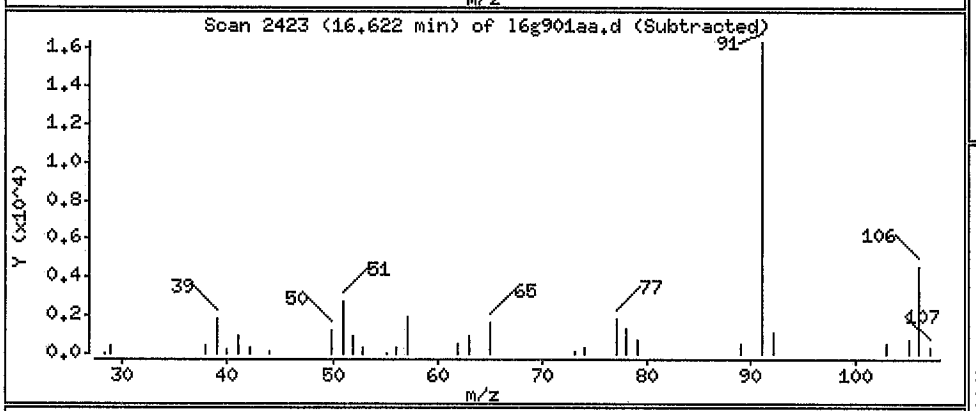
Sample Info: ,2.5,0,,,

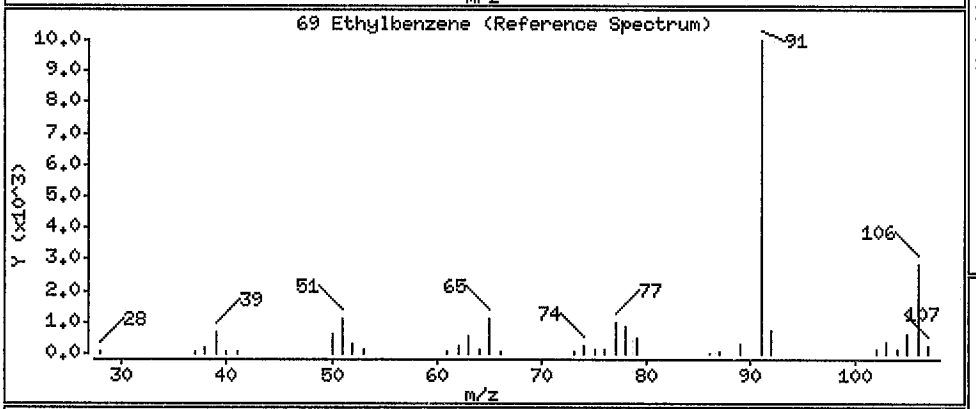
Purge Volume: 500.0 Operator: 7126

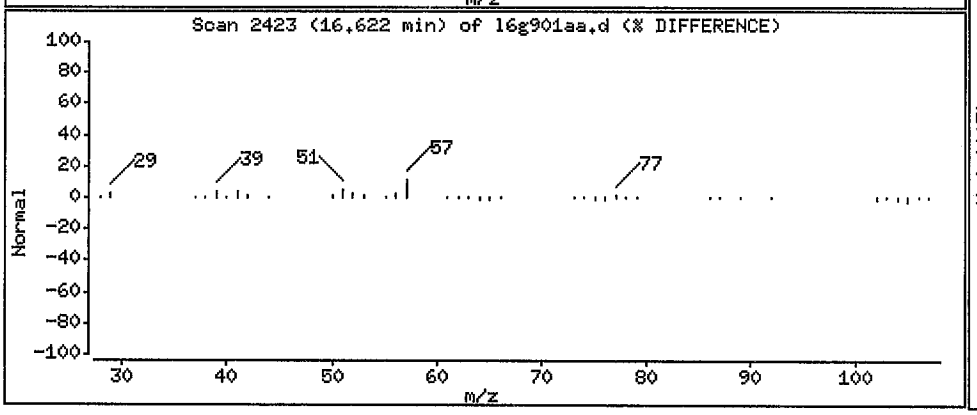
Column phase: Rtx-5 Column diameter: 0.32

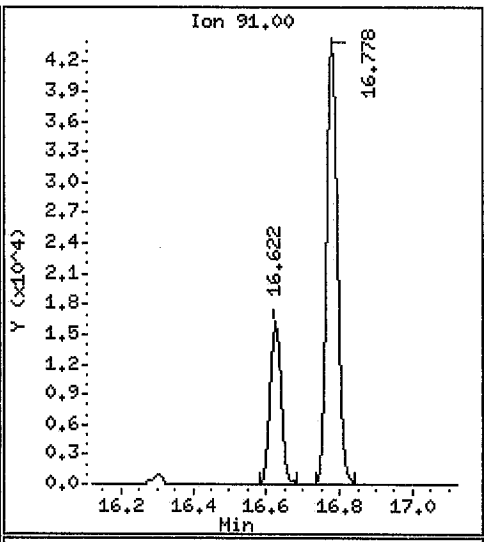
69 Ethylbenzene Concentration: 0.3609 ppb(v/v)

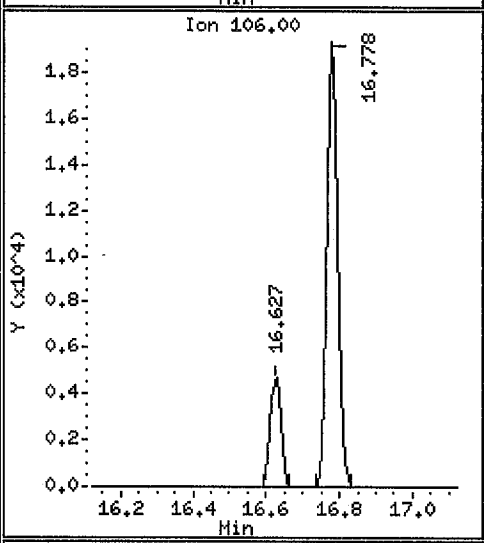


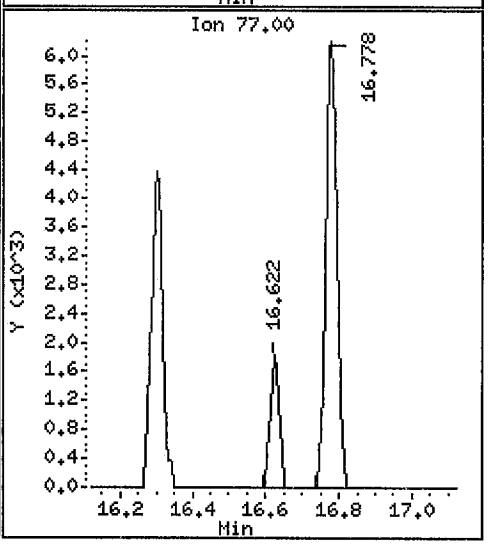












Data File: /var/chem/gcms/mj.i/J090810.b/16g901aa.d

Date : 09-SEP-2010 03:34

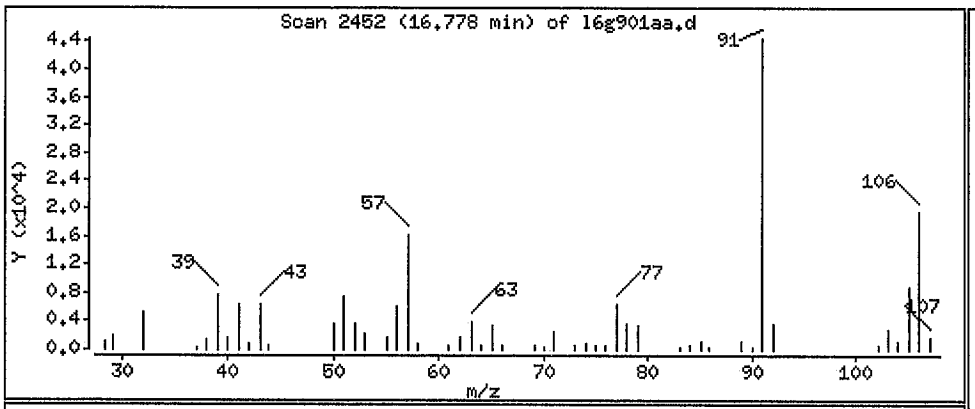
Client ID: IAQ-C8-9 Instrument: mj.i

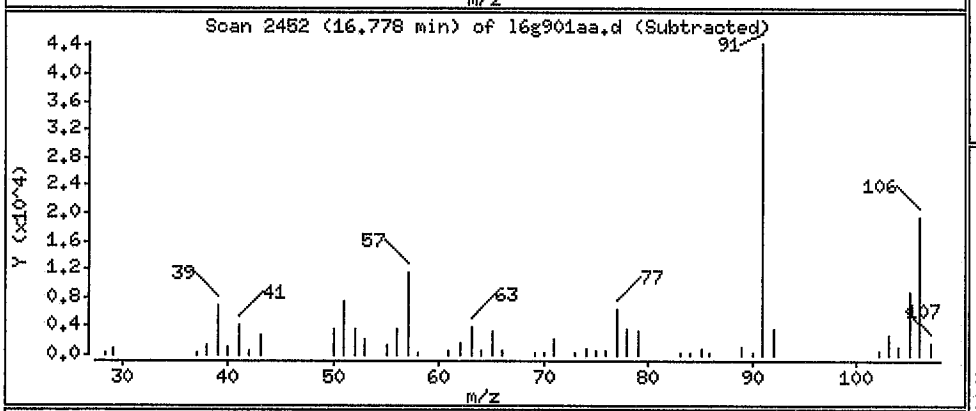
Sample Info: ,2.5,0,,,

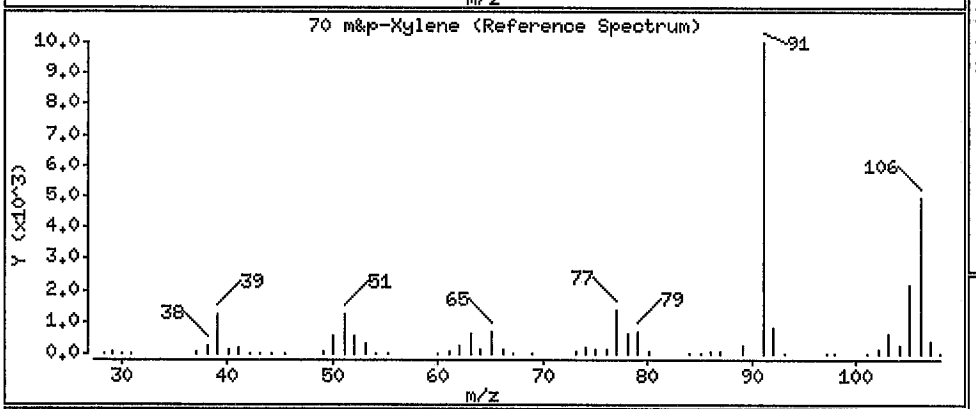
Purge Volume: 500.0 Operator: 7126

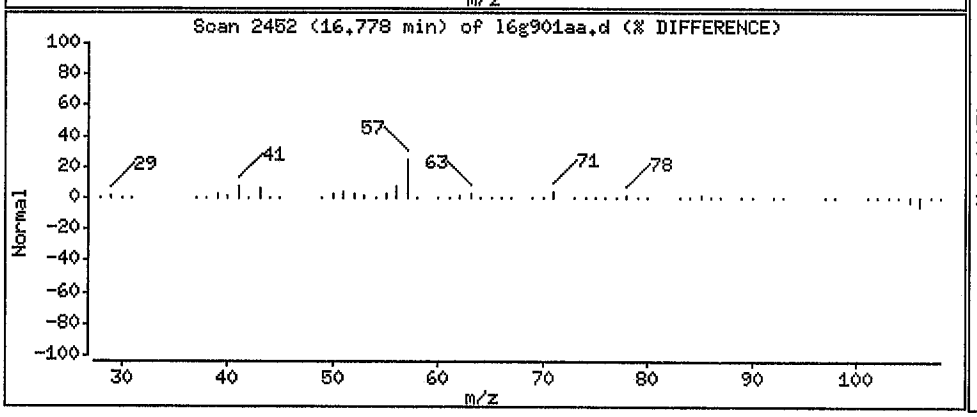
Column phase: Rtx-5 Column diameter: 0.32

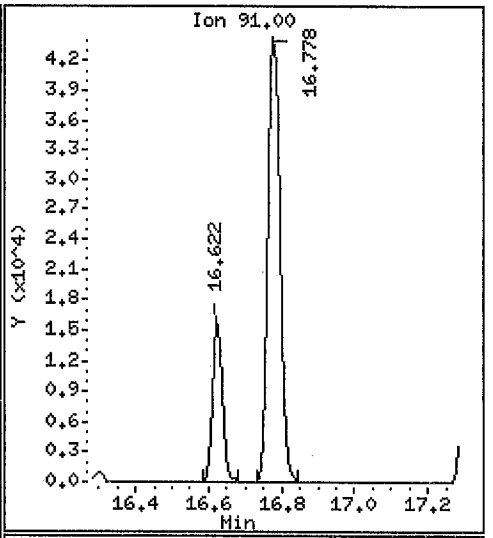
70 m&p-Xylene Concentration: 1.439 ppb(v/v)

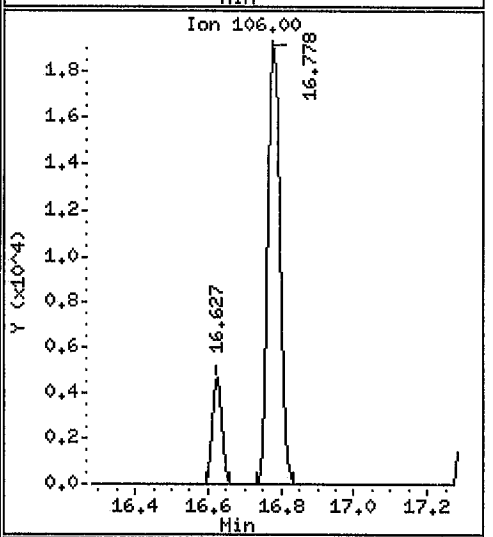


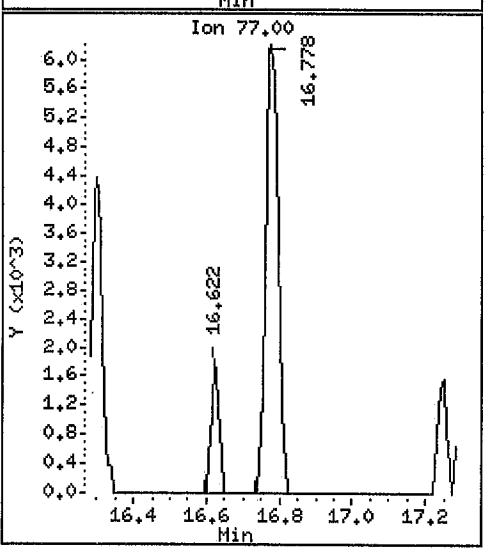












Data File: /var/chem/gcms/mj.i/J090810.b/16g901aa.d

Date : 09-SEP-2010 03:34

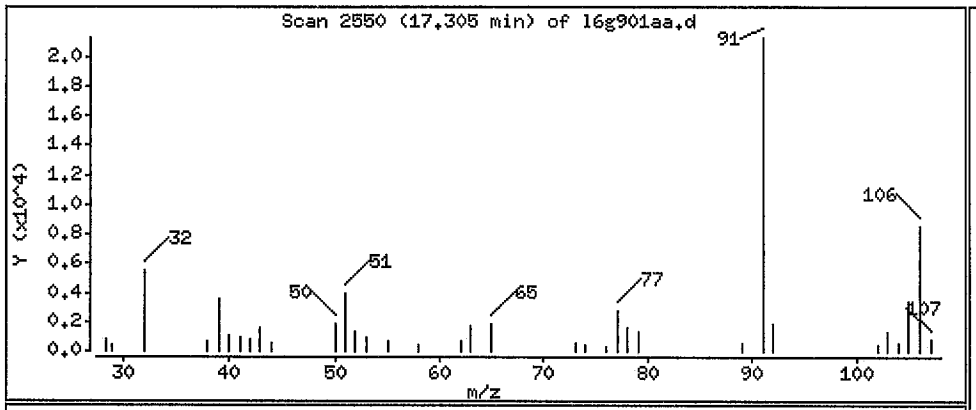
Client ID: IAQ-C8-9 Instrument: mj.i

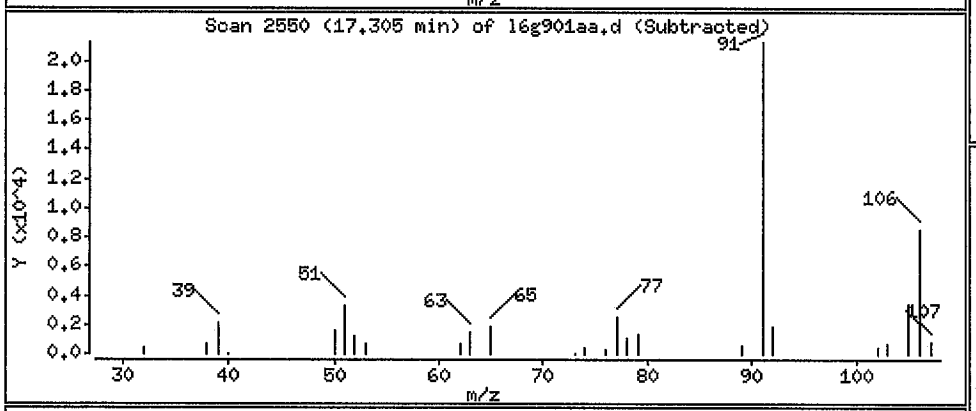
Sample Info: ,2.5,0,,,

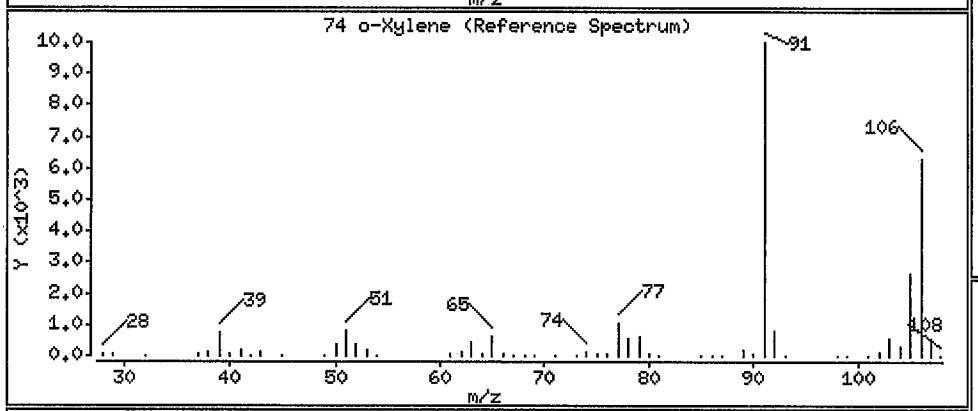
Purge Volume: 500.0 Operator: 7126

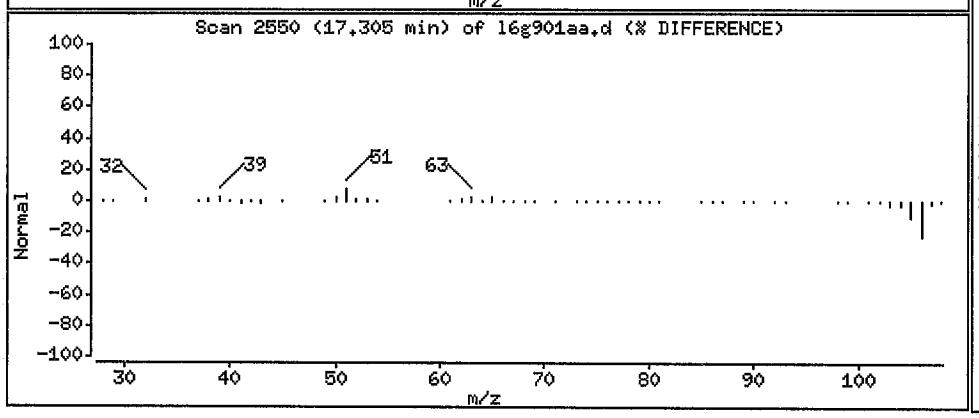
Column phase: Rtx-5 Column diameter: 0.32

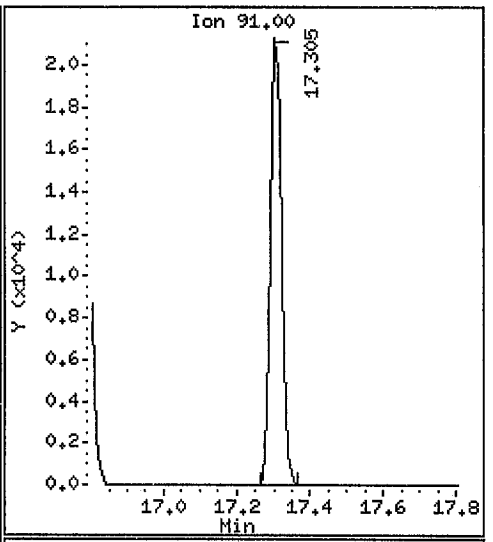
74 o-Xylene Concentration: 0.5973 ppb(v/v)

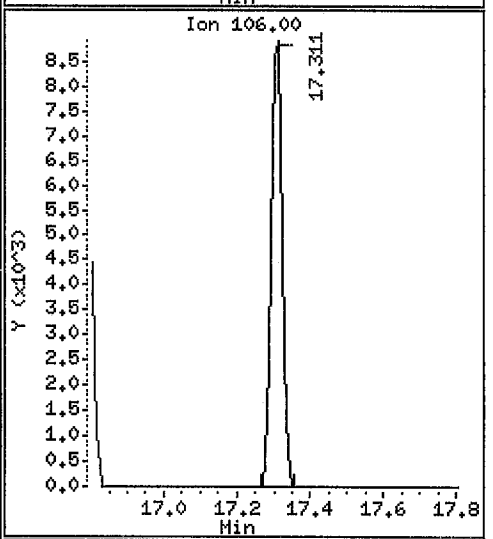


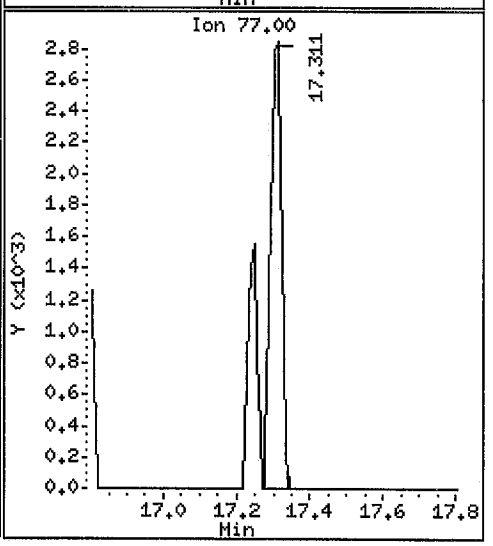












Data File: /var/chem/gcms/mj.i/J090810.b/16g901aa.d

Date : 09-SEP-2010 03:34

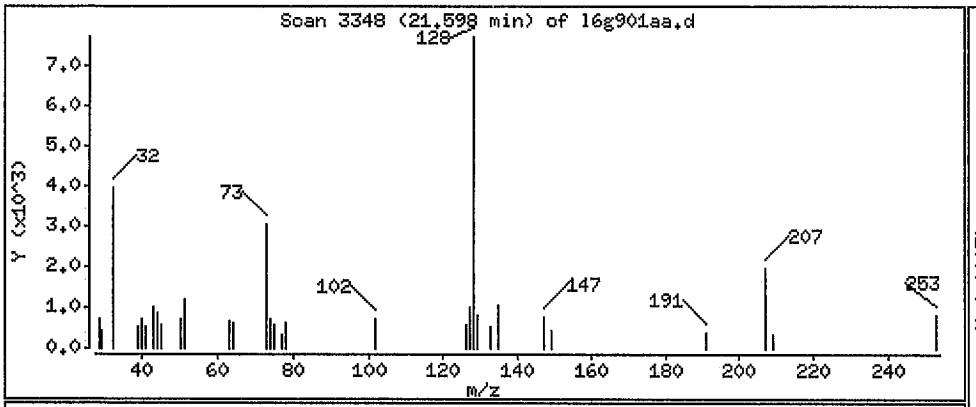
Client ID: IAQ-C8-9 Instrument: mj.i

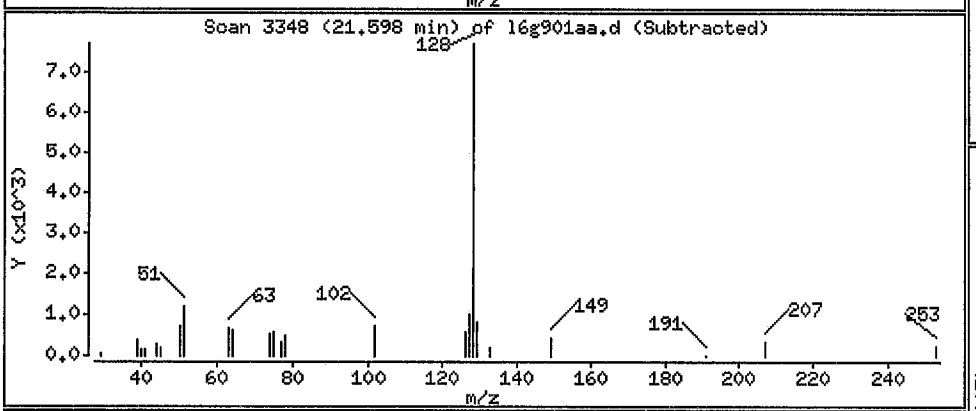
Sample Info: ,2.5,0,,,

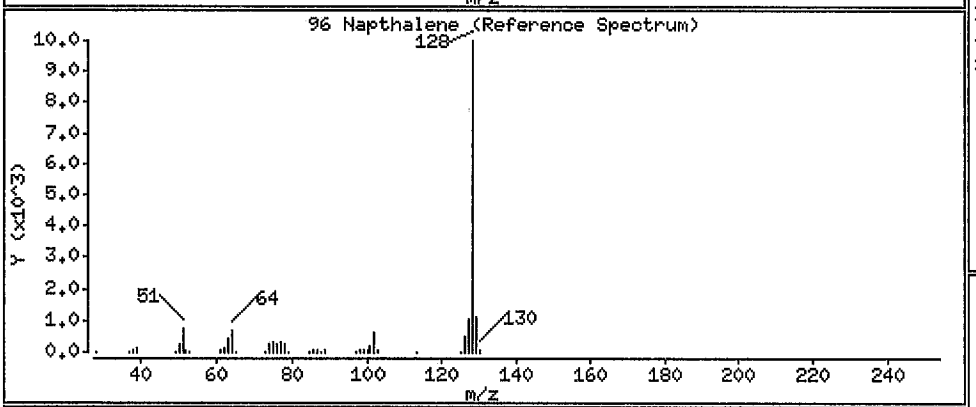
Purge Volume: 500.0 Operator: 7126

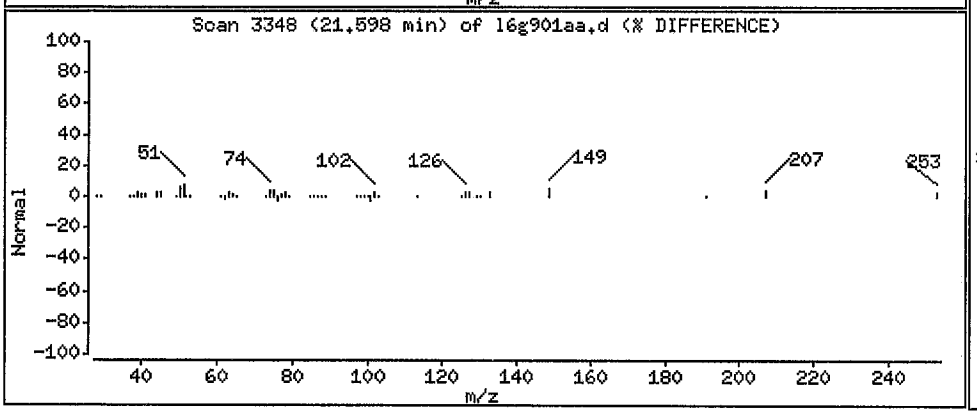
Column phase: Rtx-5 Column diameter: 0.32

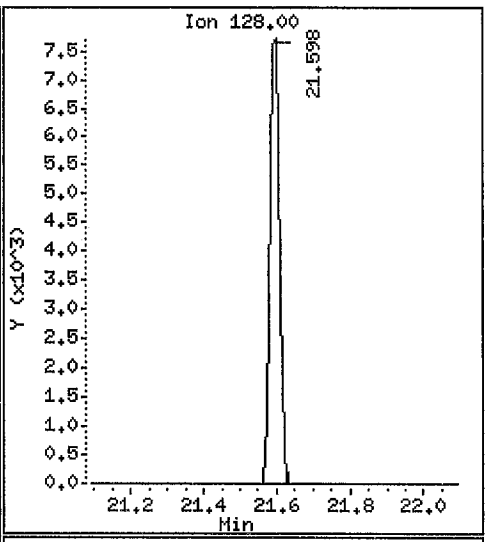
96 Napthalene Concentration: 0.1841 ppb(v/v)

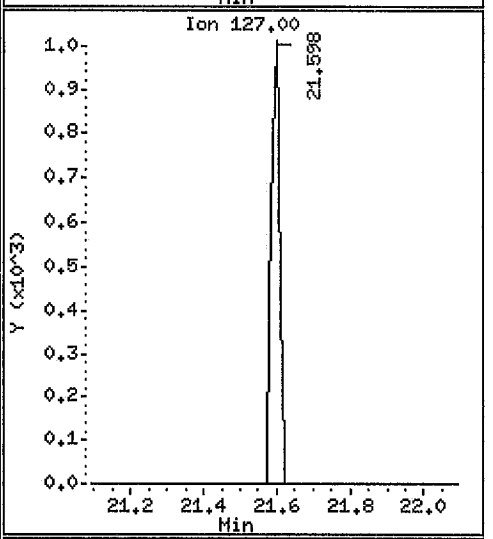


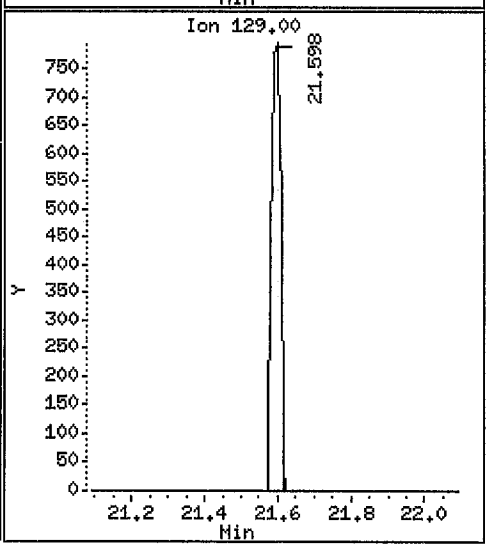












Tetra Tech NUS, Inc

Client Sample ID: IAQ-C8-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 016	**Work Order #**	L6G902AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	10	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Chlorodifluoromethane	**120**	**0.80**	**0.15**	**430 D**	**2.8**	**0.53**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	106	60 - 140

Qualifiers

D Result was obtained from the analysis of a dilution.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090910.b/l6g902aa.d
Report Date: 10-Sep-2010 11:37

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090910.b/l6g902aa.d
Lab Smp Id: L6G902AA Client Smp ID: IAQ-C8-9
Inj Date : 09-SEP-2010 15:52
Operator : 7126 Inst ID: mj.i
Smp Info : ,10,0,,,
Misc Info : J090910,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090910.b/TO15.m
Meth Date : 10-Sep-2010 11:28 barlozha Quant Type: ISTD
Cal Date : 09-SEP-2010 10:43 Cal File: j1pti09.d
Als bottle: 7
Dil Factor: 10.00000
Integrator: HP RTE Compound Sublist: 7.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	10.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

9/13/10

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))	
* 1 Bromochloromethane	128	9.473	9.468	(1.000)	181816	4.00000	4.000	
* 2 1,4-Difluorobenzene	114	11.641	11.636	(1.000)	860859	4.00000	4.000	
* 3 Chlorobenzene-d5	117	16.300	16.300	(1.000)	719484	4.00000	4.000	
$ 6 4-Bromofluorobenzene	95	17.908	17.914	(1.099)	576979	4.22513	4.225	
7 Chlorodifluoromethane	67	3.900	3.900	(0.412)	279198	12.1427	121.4	D

9/10/10

Data File: /var/chem/gcms/mj.i/J090910.b/l6g902aa.d
Report Date: 10-Sep-2010 11:37

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g902aa.d
Lab Smp Id: L6G902AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

Calibration Date: 09-SEP-2010
Calibration Time: 09:40
Client Smp ID: IAQ-C8-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	166835	99267	234403	181816	8.98
2 1,4-Difluorobenze	787366	468483	1106249	860859	9.33
3 Chlorobenzene-d5	701011	417102	984920	719484	2.64

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.47	9.14	9.80	9.47	0.05
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.04
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

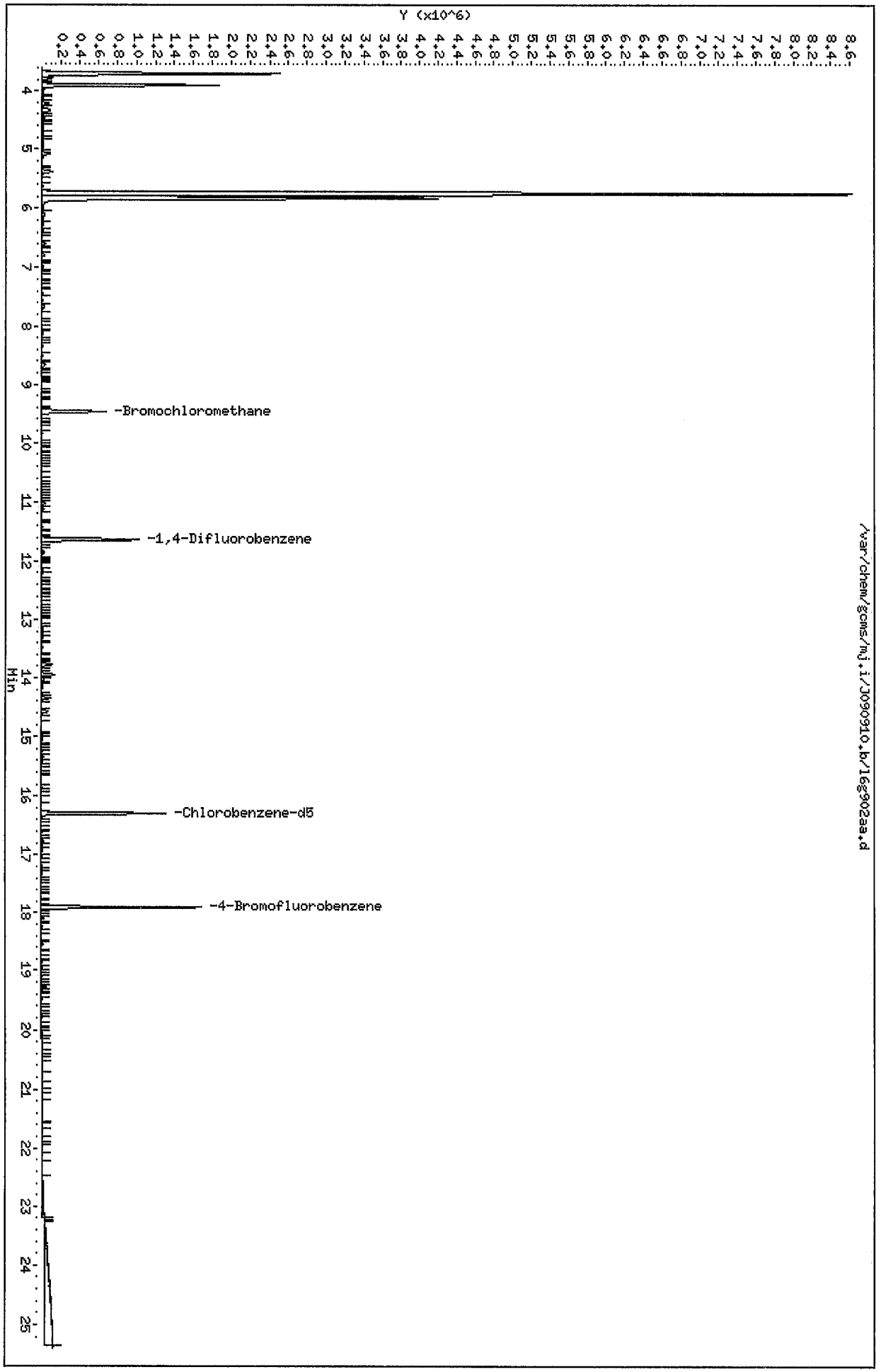
Data File: /var/chem/gcms/mj.i/J090910.b/l6g902aa.d
Report Date: 10-Sep-2010 11:37

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G902AA
Client Smp ID: IAQ-C8-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: 7.sub
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.225	105.63	70-130


Data File: /var/chem/gcms/mj.i/J090910.b/16g902aa.d
Date : 09-SEP-2010 15:52
Client ID: IAQ-C8-9
Sample Info: ,10,0,,,
Purge Volume: 500.0
Column phase: Rtx-5
Instrument: mj.i
Operator: 7126
Column diameter: 0.32
/var/chem/gcms/mj.i/J090910.b/16g902aa.d
Y (x10^6)
Min
-Bromochloromethane
-1,4-Difluorobenzene
-Chlorobenzene-d5
-4-Bromofluorobenzene

Data File: /var/chem/gcms/mj.i/J090910.b/16g902aa.d

Date : 09-SEP-2010 15:52

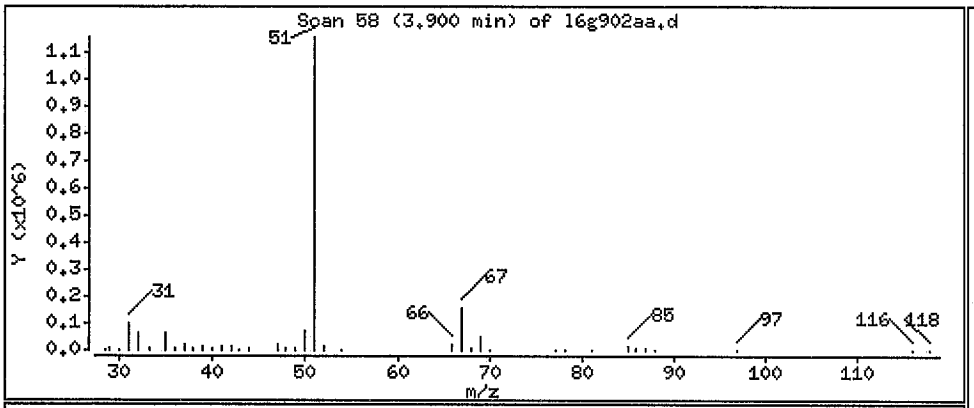
Client ID: IAQ-C8-9 Instrument: mj.i

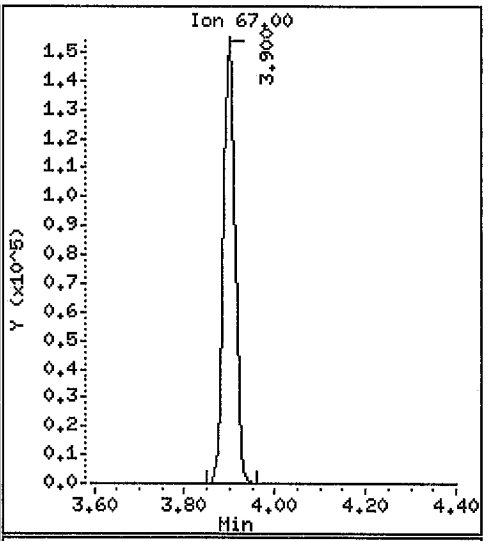
Sample Info: ,10,0,,,

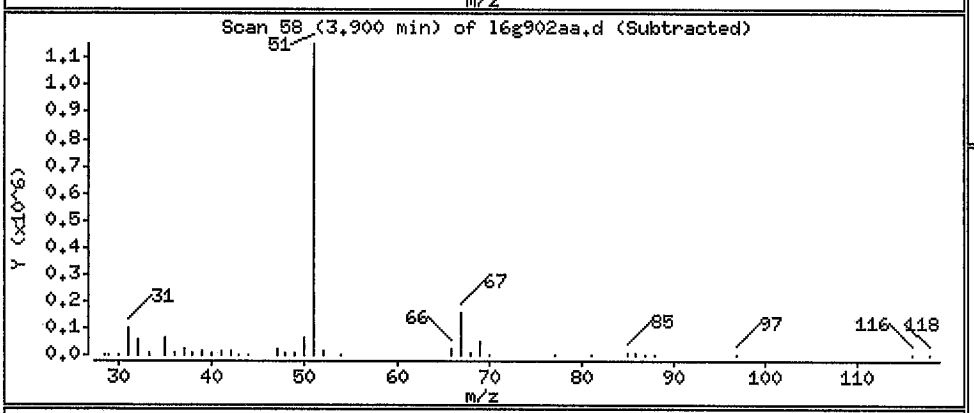
Purge Volume: 500.0 Operator: 7126

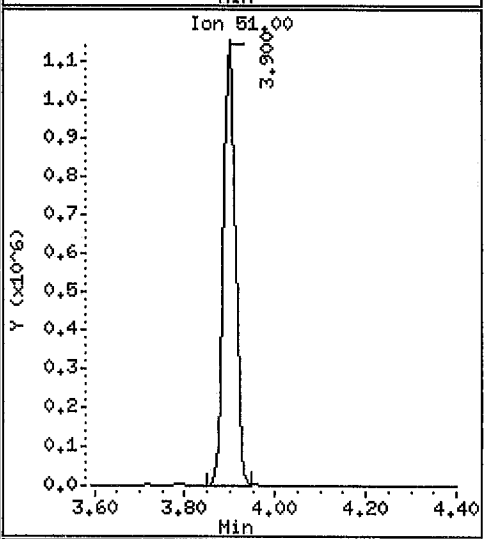
Column phase: Rtx-5 Column diameter: 0.32

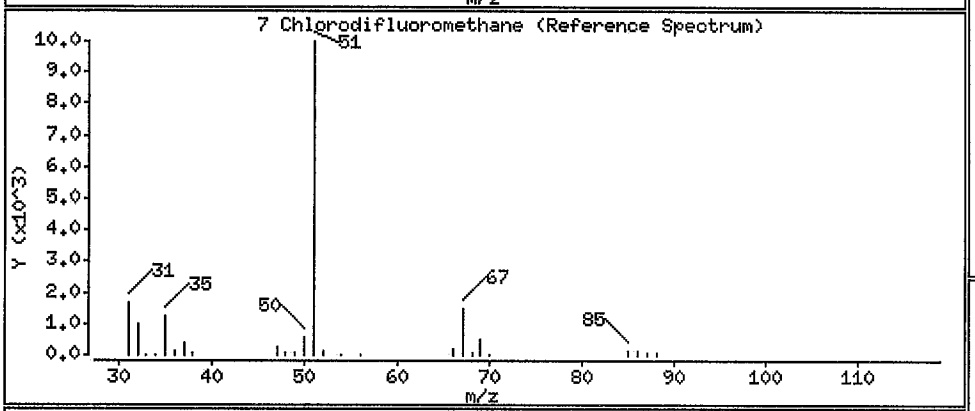
7 Chlorodifluoromethane Concentration: 121.4 ppb(v/v)

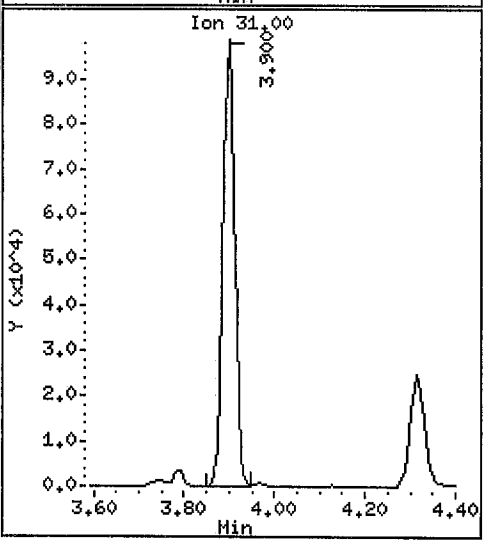


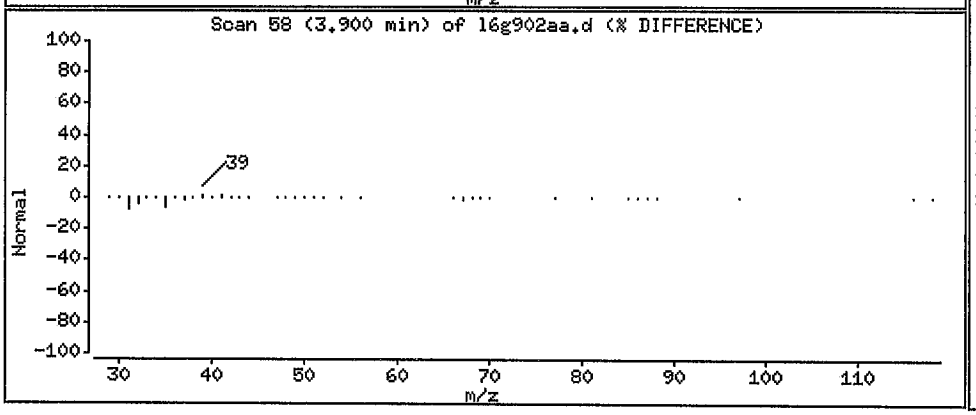












Tetra Tech NUS, Inc

Client Sample ID: IAQ-C17-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 017	**Work Order #**	L6G911AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	2.5	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.26**	**0.20**	**0.058**	**0.84**	**0.64**	**0.18**
Carbon tetrachloride	**0.088**	**0.20**	**0.038**	**0.55 J**	**1.3**	**0.24**
Chlorodifluoromethane	**130**	**0.20**	**0.038**	**460 E**	**0.71**	**0.13**
Chloroform	**0.12**	**0.20**	**0.038**	**0.59 J**	**0.98**	**0.18**
Dichlorodifluoromethane	**0.54**	**0.20**	**0.068**	**2.7**	**0.99**	**0.33**
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	**0.38**	**0.20**	**0.068**	**1.7**	**0.87**	**0.29**
Methylene chloride	**2.0**	**0.50**	**0.045**	**6.8**	**1.7**	**0.16**
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	ND	0.50	0.090	ND	2.6	0.47
Tetrachloroethene	**0.040**	**0.20**	**0.040**	**0.27 J**	**1.4**	**0.27**
Toluene	**3.3**	**0.20**	**0.052**	**12**	**0.75**	**0.20**
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	**0.14**	**0.20**	**0.030**	**0.77 J**	**1.1**	**0.16**
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	**0.11**	**0.10**	**0.035**	**0.58**	**0.54**	**0.19**
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	**1.4**	**0.20**	**0.12**	**6.3**	**0.87**	**0.54**
o-Xylene	**0.55**	**0.20**	**0.060**	**2.4**	**0.87**	**0.26**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090810.b/l6g911aa.d
Report Date: 10-Sep-2010 14:28

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/l6g911aa.d
Lab Smp Id: L6G911AA Client Smp ID: IAQ-C17-9
Inj Date : 09-SEP-2010 04:26
Operator : 7126 Inst ID: mj.i
Smp Info : ,2.5,0,,,
Misc Info : J090810,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 10-Sep-2010 14:16 barlozha Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 15
Dil Factor: 2.50000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	2.50000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
*	1 Bromochloromethane	128	9.479	9.479	(1.000)	196186	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.642	11.642	(1.000)	932731	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.300	16.300	(1.000)	762009	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.914	17.914	(1.099)	587042	4.05892	4.059
	7 Chlorodifluoromethane	67	3.901	3.901	(0.412)	1280894	51.6271	129.1(A)
	8 Dichlorodifluoromethane	85	3.971	3.970	(0.419)	46406	0.21783	0.5446
	31 Methylene Chloride	84	6.795	6.784	(0.717)	50193	0.78626	1.966
	42 Chloroform	83	9.485	9.479	(1.001)	6851	0.04811	0.1203
	44 1,1,1-Trichloroethane	97	10.544	10.544	(1.112)	8355	0.05631	0.1408
	48 Benzene	78	11.125	11.125	(0.956)	20662	0.10479	0.2620
	49 Carbon Tetrachloride	117	11.152	11.152	(0.958)	5448	0.03527	0.08816
	53 Trichloroethene	130	12.347	12.352	(1.061)	4115	0.04293	0.1073
	61 Toluene	91	14.353	14.358	(0.881)	236161	1.31598	3.290
	67 Tetrachloroethene	129	15.483	15.483	(0.950)	1207	0.01611	0.04026
	69 Ethylbenzene	91	16.623	16.623	(1.020)	31582	0.15348	0.3837

Data File: /var/chem/gcms/mj.i/J090810.b/l6g911aa.d
Report Date: 10-Sep-2010 14:28

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
70 m&p-Xylene	91	16.779	16.784	(1.029)	90029	0.57855	1.446
74 o-Xylene	91	17.306	17.306	(1.062)	35827	0.22134	0.5534

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g911aa.d
Report Date: 10-Sep-2010 14:28

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g911aa.d
Lab Smp Id: L6G911AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: IAQ-C17-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	196186	0.57
2 1,4-Difluorobenze	936174	557024	1315324	932731	-0.37
3 Chlorobenzene-d5	815161	485021	1145301	762009	-6.52

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.48	0.00
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.00
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g911aa.d
Report Date: 10-Sep-2010 14:28

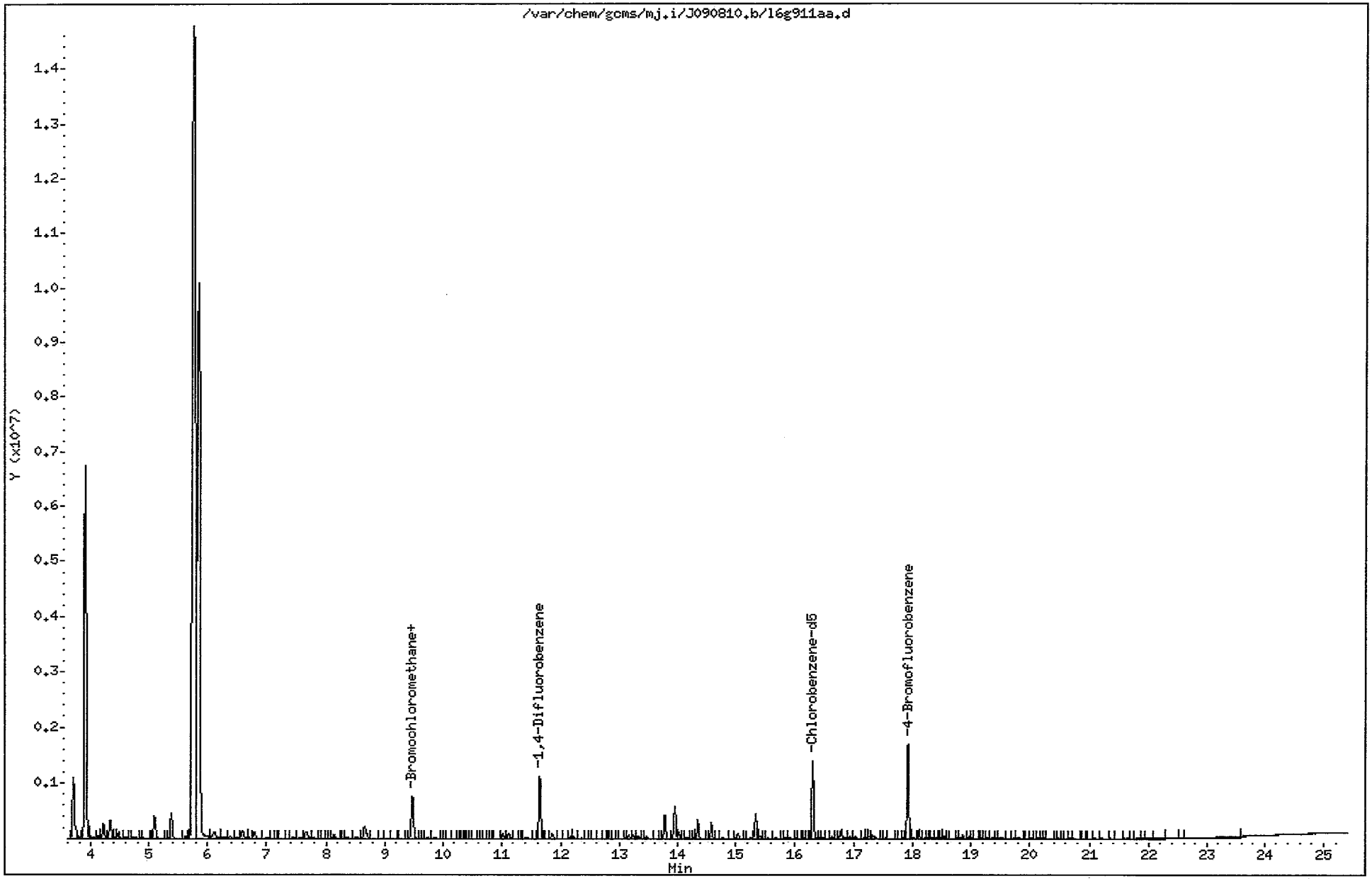
TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G911AA
Client Smp ID: IAQ-C17-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.059	101.47	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/l6g911aa.d
Date : 09-SEP-2010 04:26
Client ID: IAQ-C17-9
Instrument: mj.i
Sample Info: ,2.5,0,,,
Purge Volume: 500.0
Operator: 7126
Column phase: Rtx-5
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J090810.b/16g911aa.d

Date : 09-SEP-2010 04:26

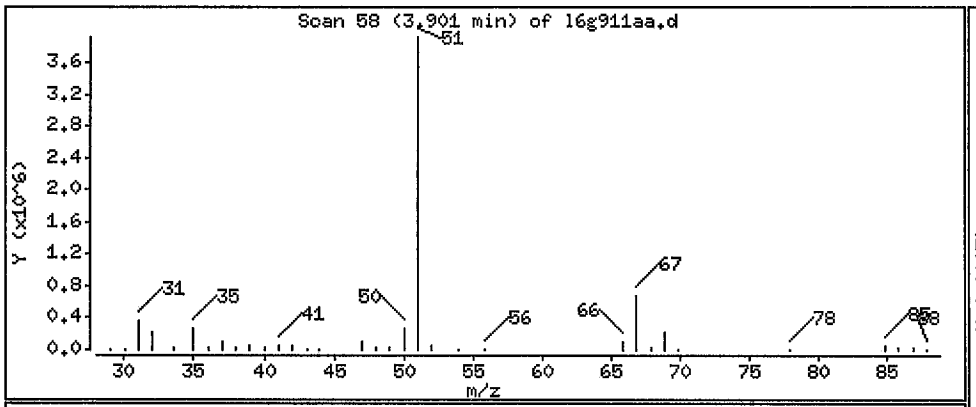
Client ID: IAQ-C17-9 Instrument: mj.i

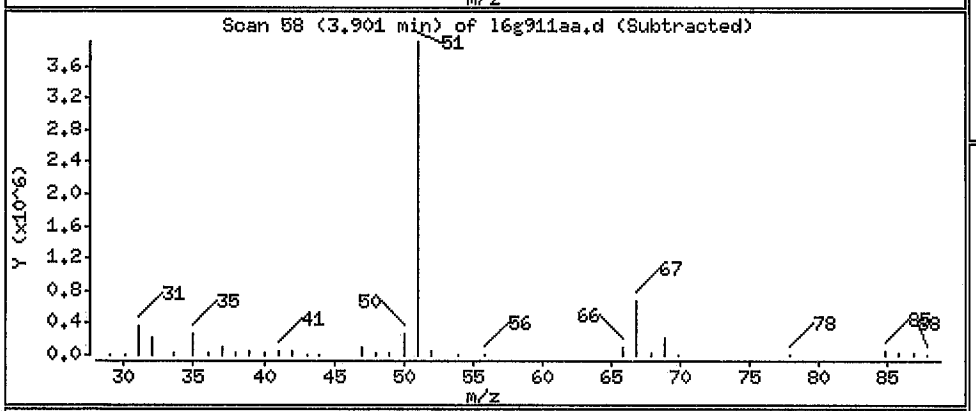
Sample Info: ,2.5,0,,,

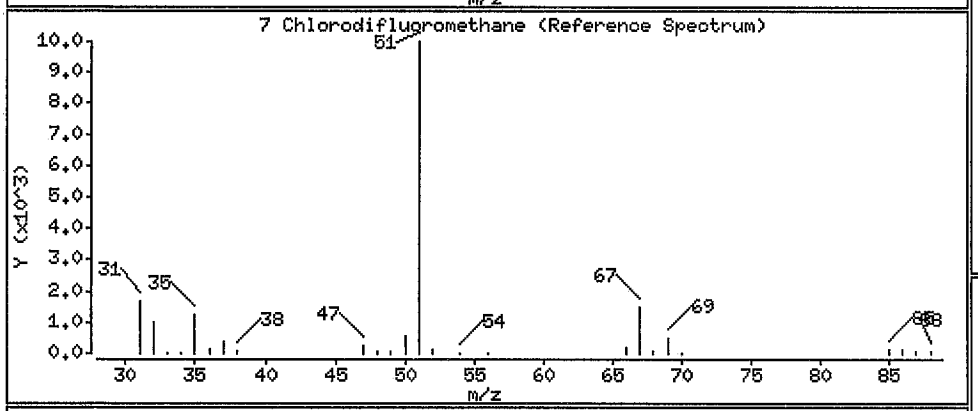
Purge Volume: 500.0 Operator: 7126

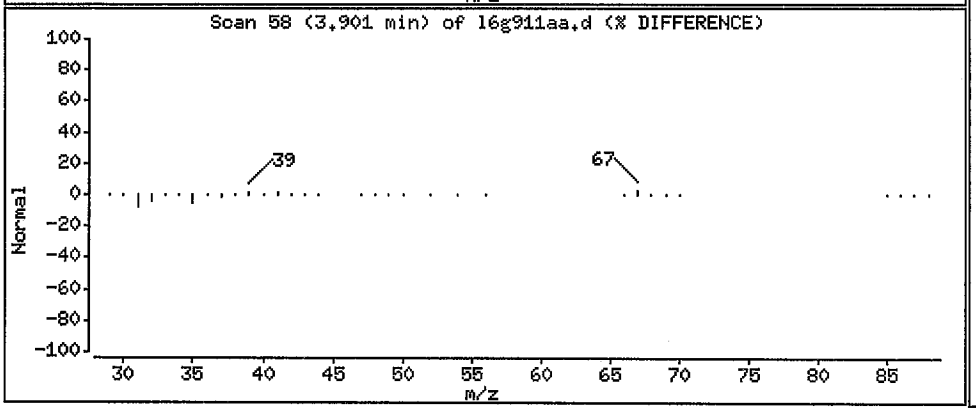
Column phase: Rtx-5 Column diameter: 0.32

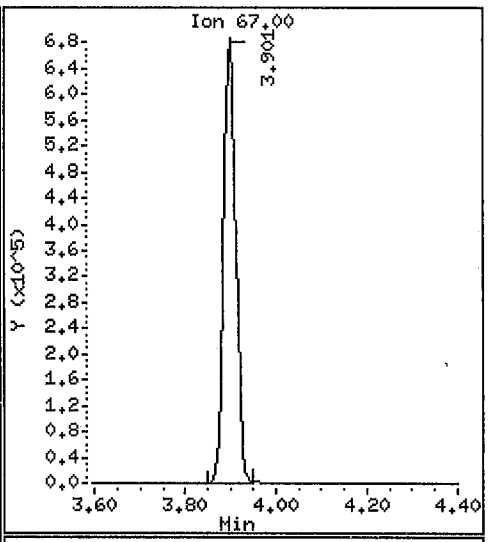
7 Chlorodifluoromethane Concentration: 129.1 ppb(v/v)

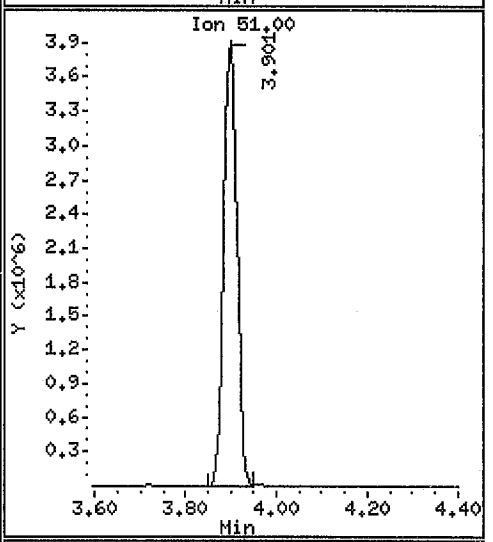


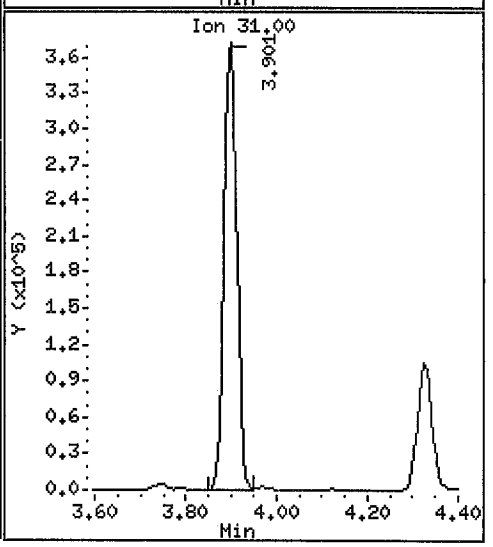












Data File: /var/chem/goms/mj.i/J090810.b/16g911aa.d

Date : 09-SEP-2010 04:26

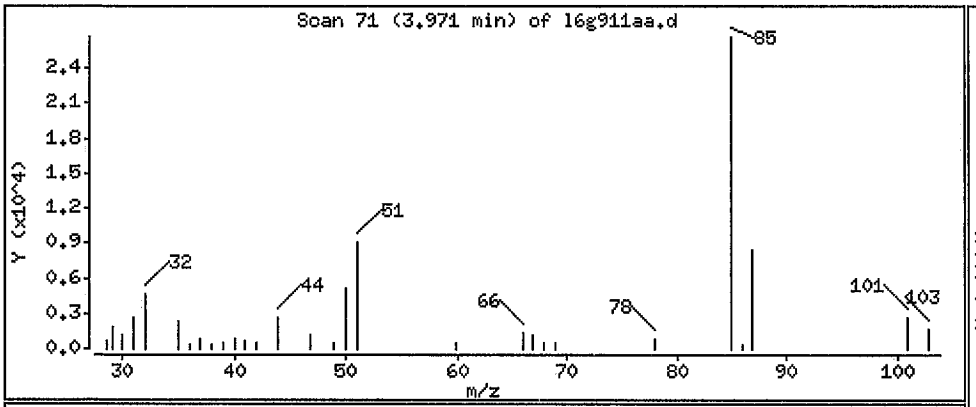
Client ID: IAQ-C17-9 Instrument: mj.i

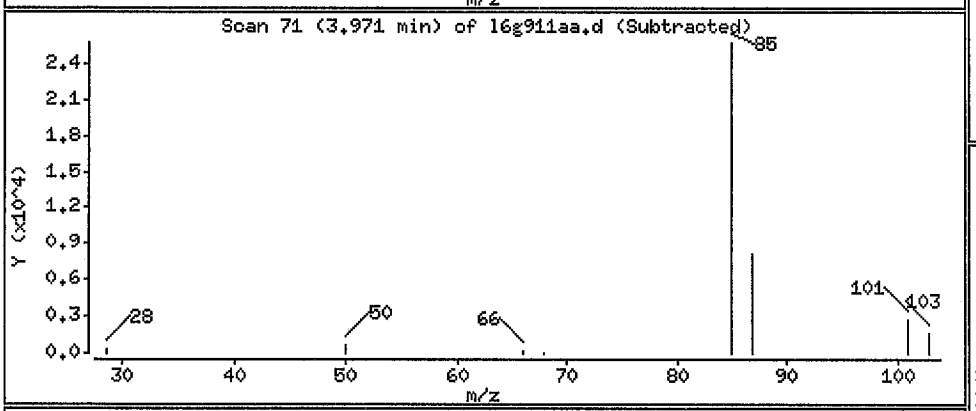
Sample Info: ,2.5,0,,,

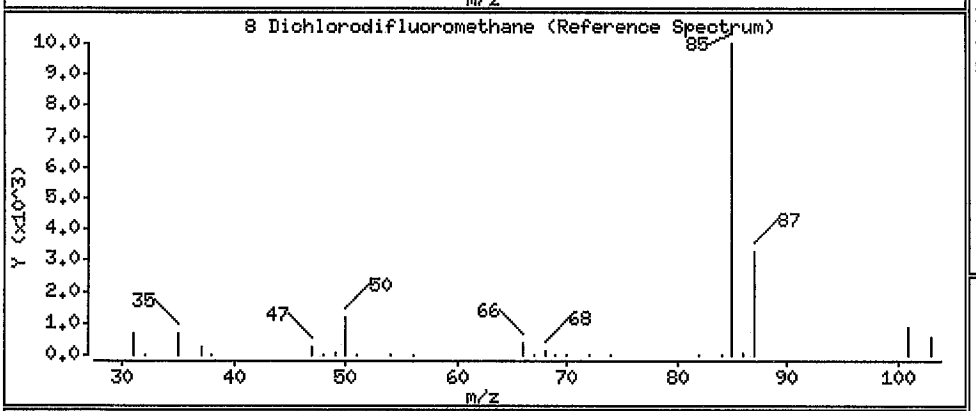
Purge Volume: 500.0 Operator: 7126

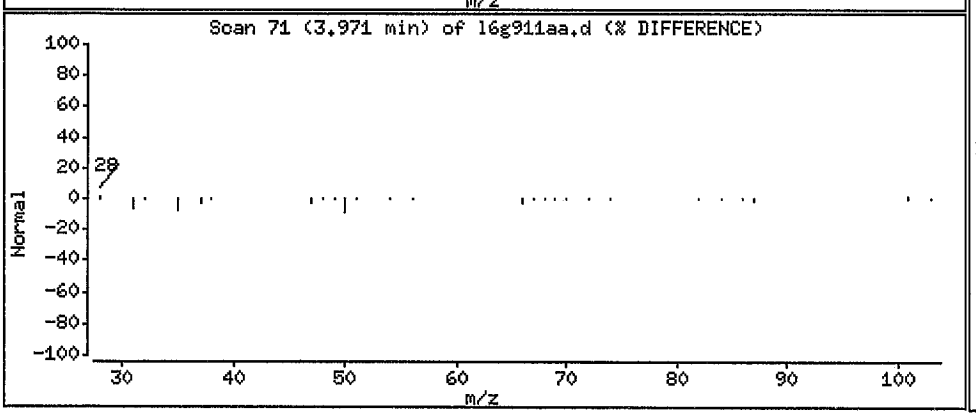
Column phase: Rtx-5 Column diameter: 0.32

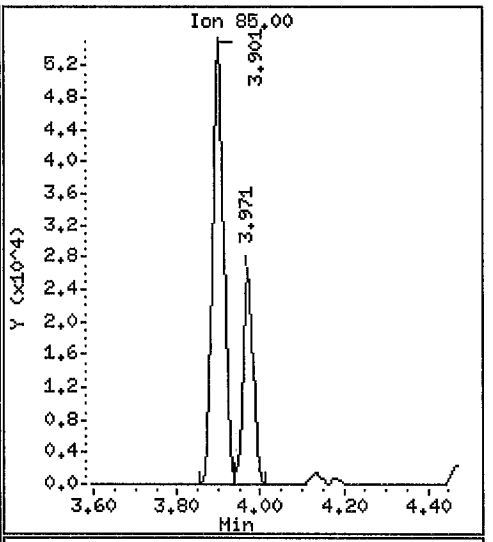
8 Dichlorodifluoromethane Concentration: 0.5446 ppb(v/v)

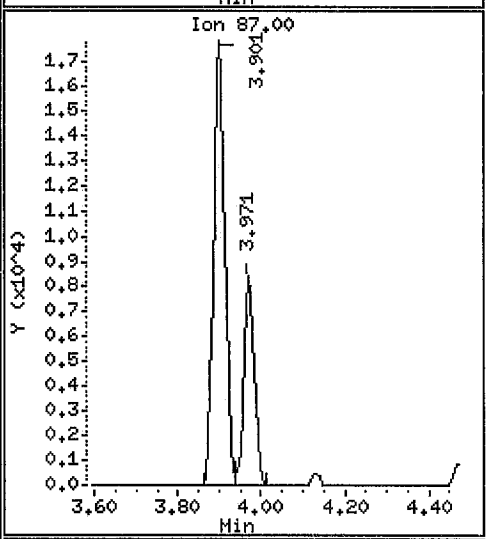


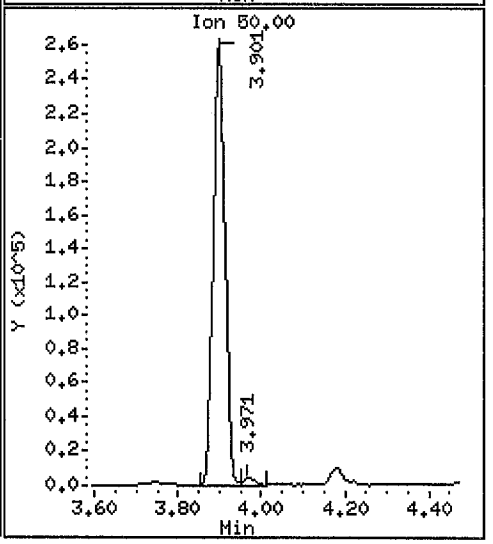












Data File: /var/chem/gcms/mj.i/J090810.b/16g911aa.d

Date : 09-SEP-2010 04:26

Client ID: IAQ-C17-9

Instrument: mj.i

Sample Info: ,2.5,0,,,

Purge Volume: 500.0

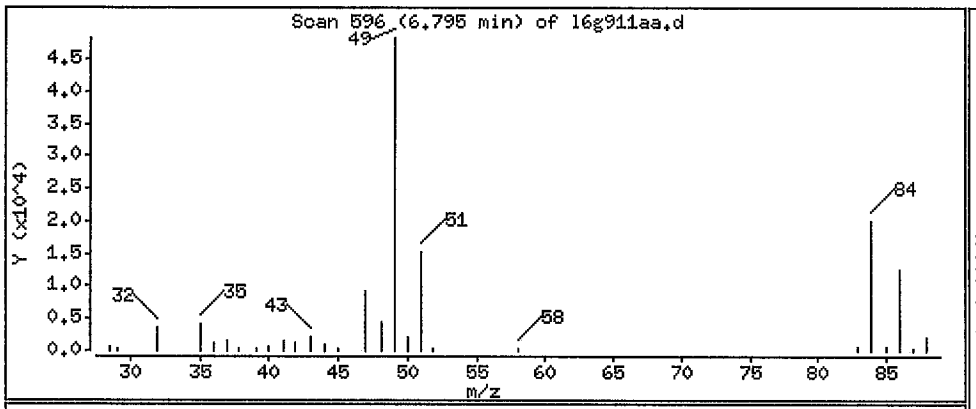
Operator: 7126

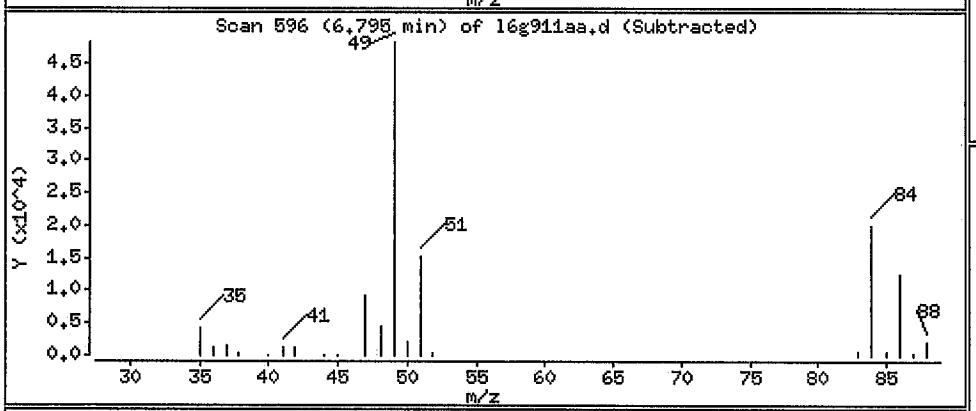
Column phase: Rtx-5

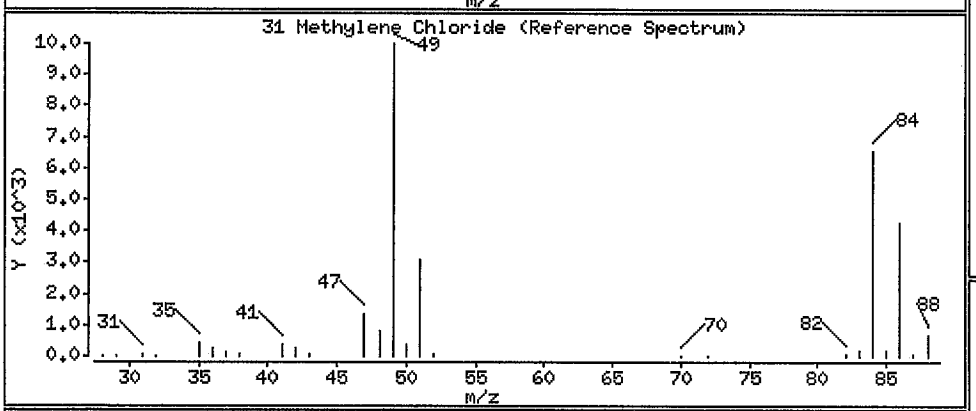
Column diameter: 0.32

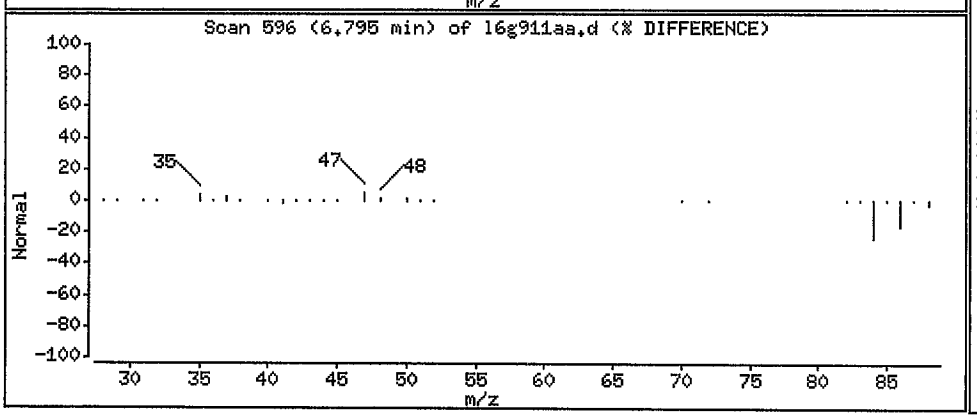
31 Methylene Chloride

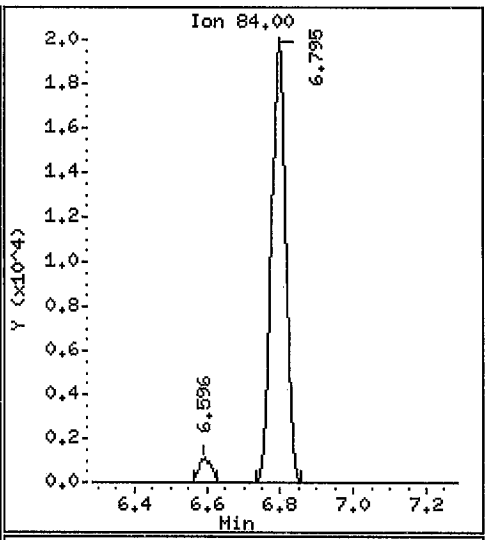
Concentration: 1.966 ppb(v/v)

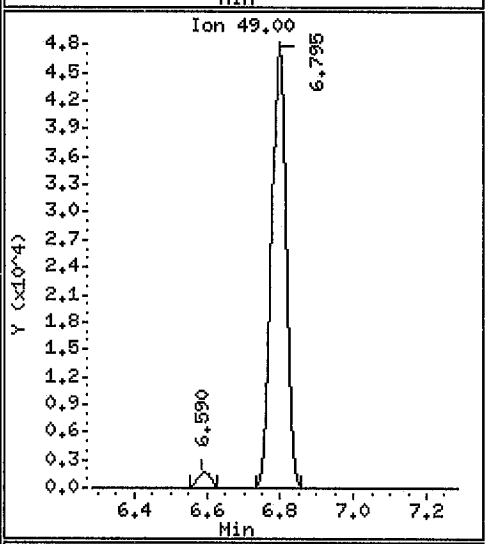


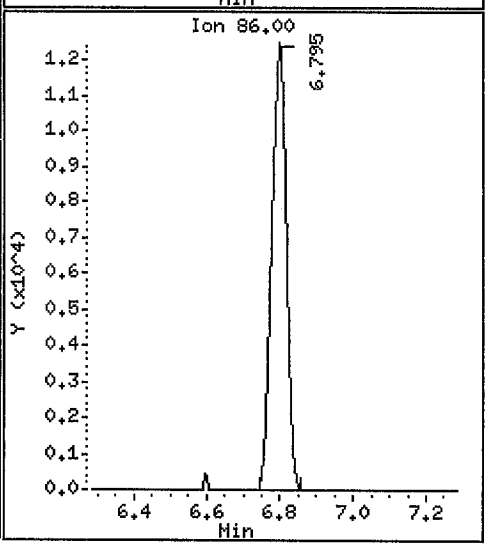












Data File: /var/chem/gcms/mj.i/J090810.b/l6g911aa.d

Date : 09-SEP-2010 04:26

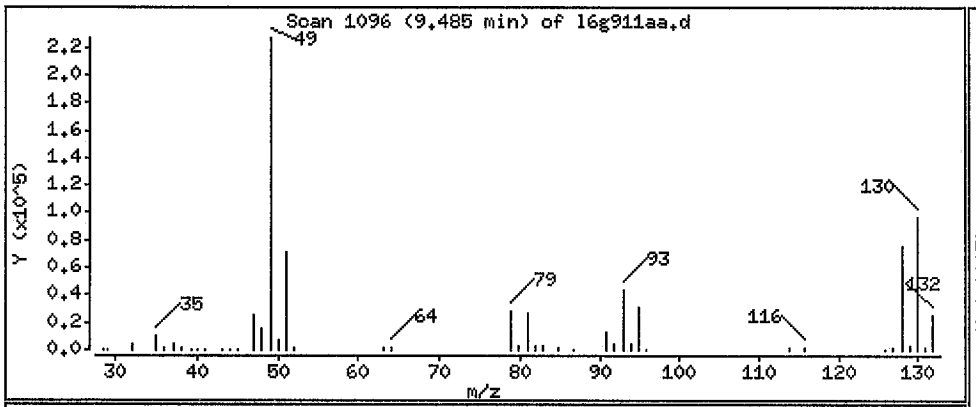
Client ID: IAQ-C17-9 Instrument: mj.i

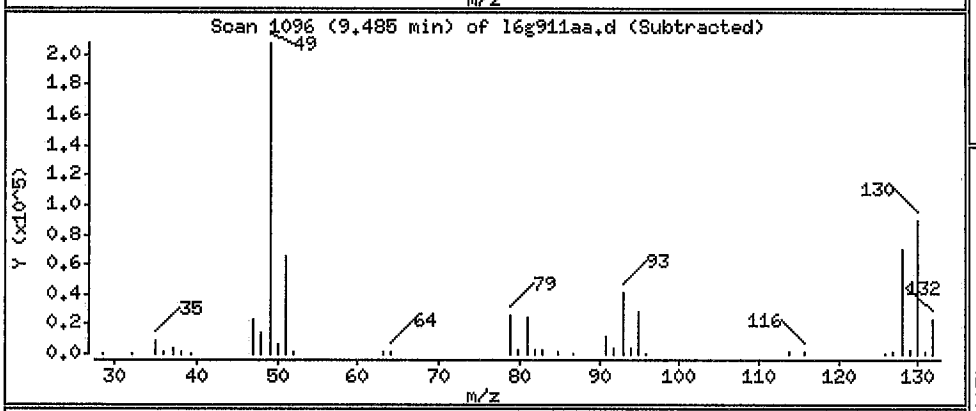
Sample Info: ,2.5,0,,,

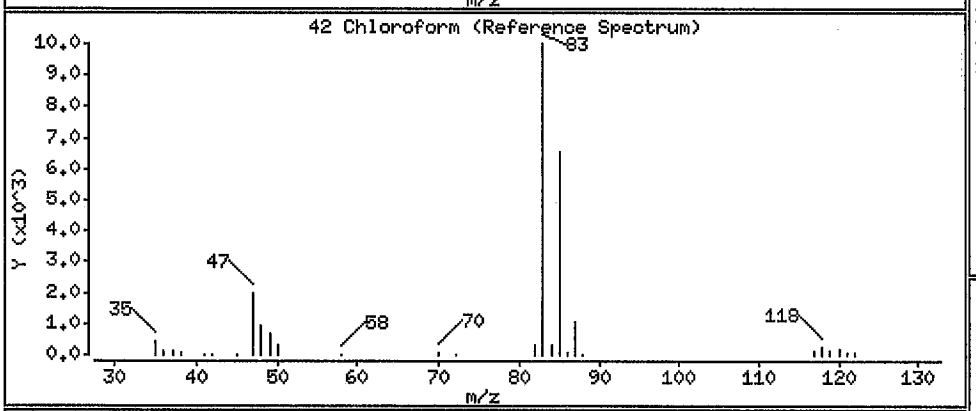
Purge Volume: 500.0 Operator: 7126

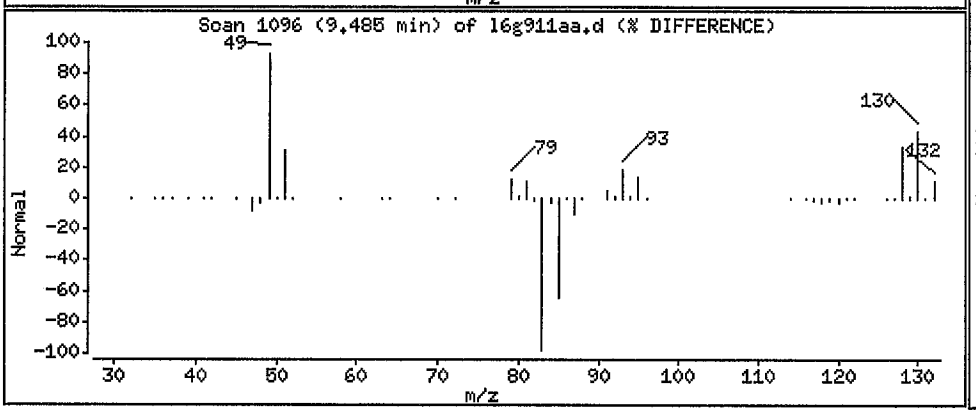
Column phase: Rtx-5 Column diameter: 0.32

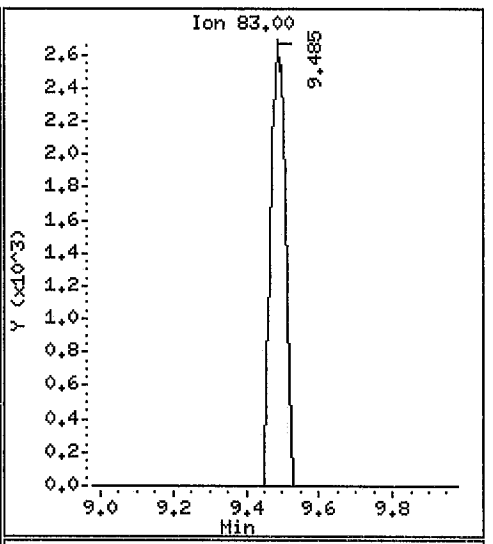
42 Chloroform Concentration: 0.1203 ppb(v/v)

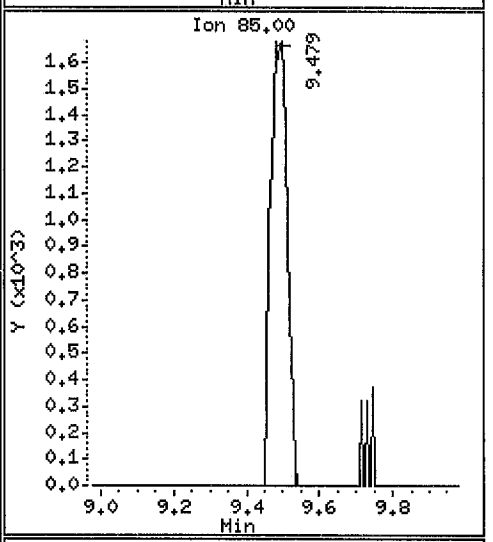


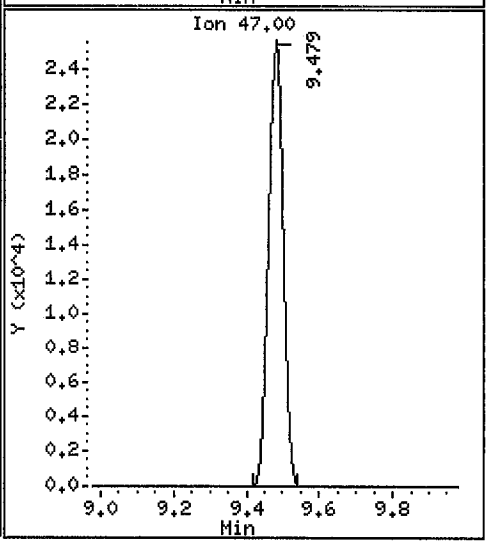












Data File: /var/chem/gcms/mj.i/J090810.b/l6g911aa.d

Date : 09-SEP-2010 04:26

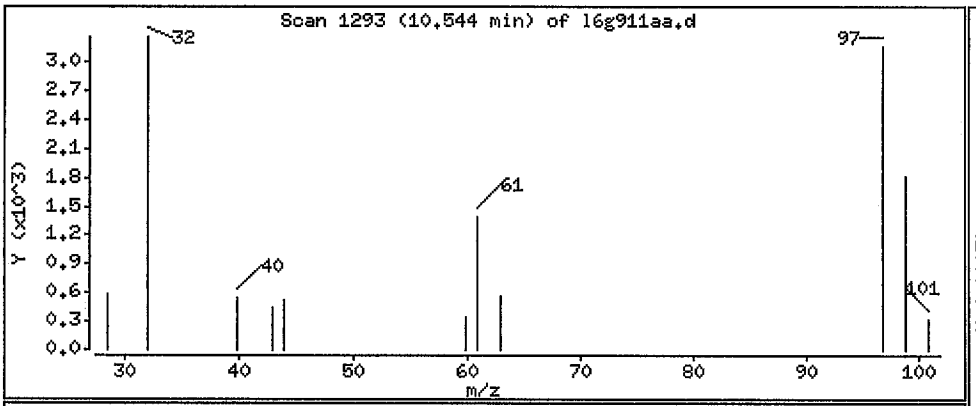
Client ID: IAQ-C17-9 Instrument: mj.i

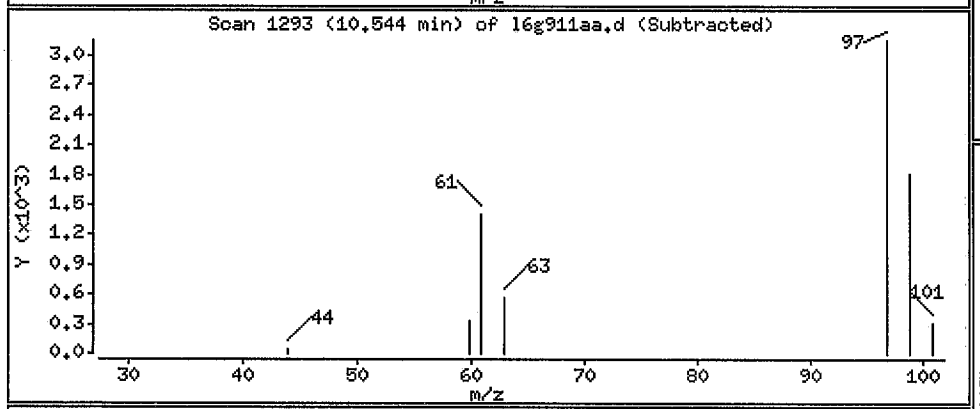
Sample Info: ,2.5,0,,,

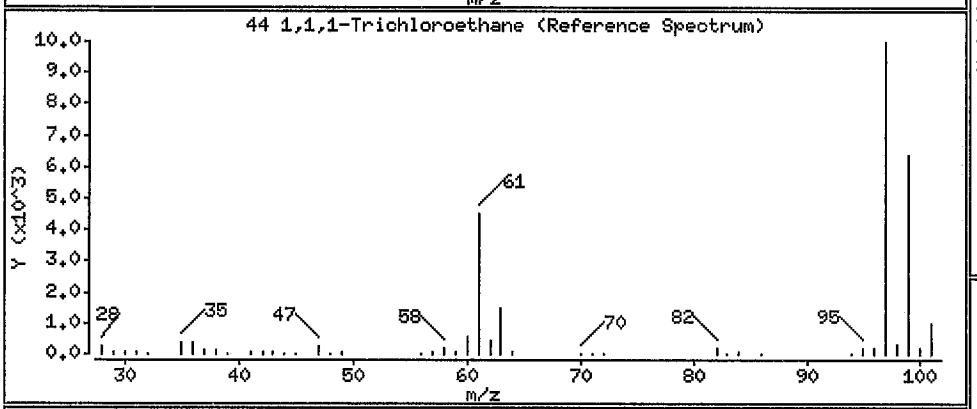
Purge Volume: 500.0 Operator: 7126

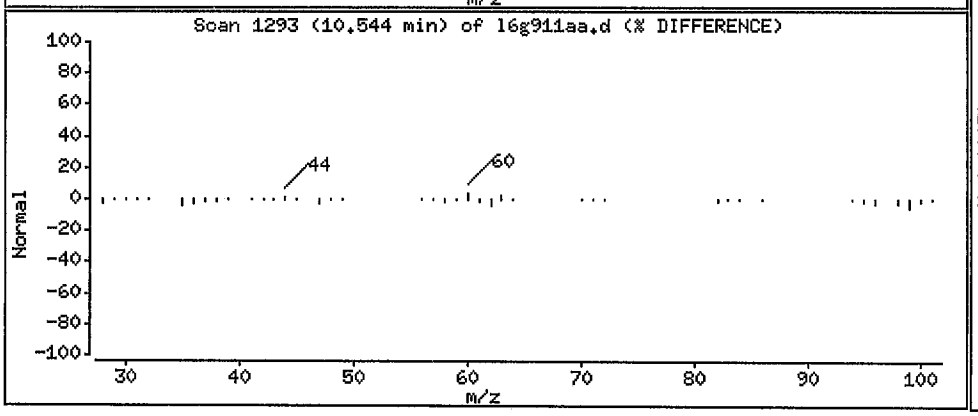
Column phase: Rtx-5 Column diameter: 0.32

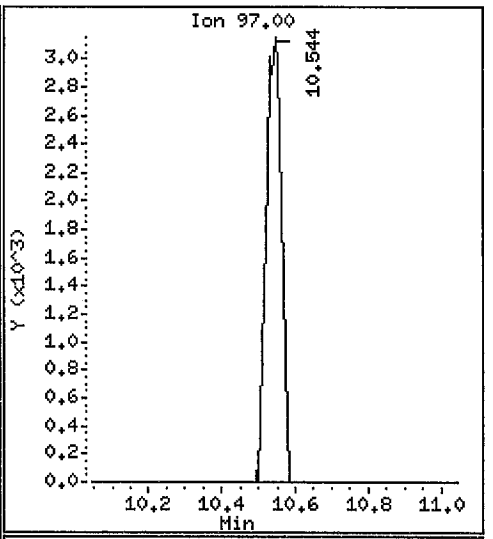
44 1,1,1-Trichloroethane Concentration: 0.1408 ppb(v/v)

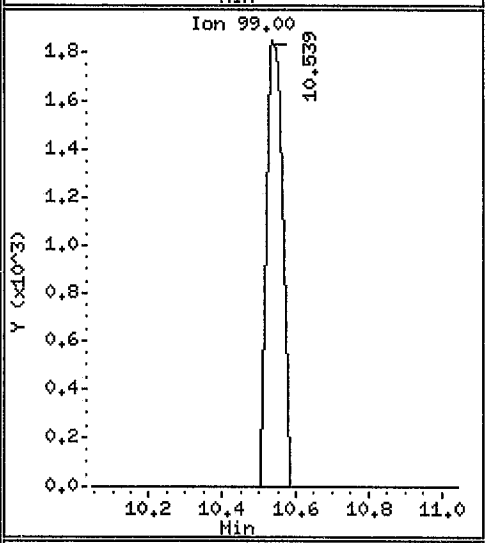


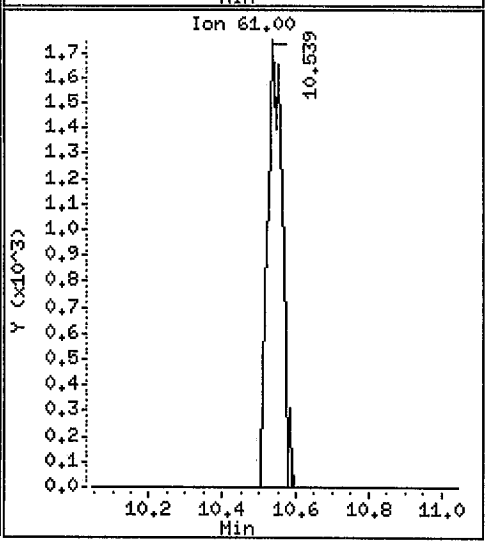












Data File: /var/chem/gcms/mj.i/J090810.b/16g911aa.d

Date : 09-SEP-2010 04:26

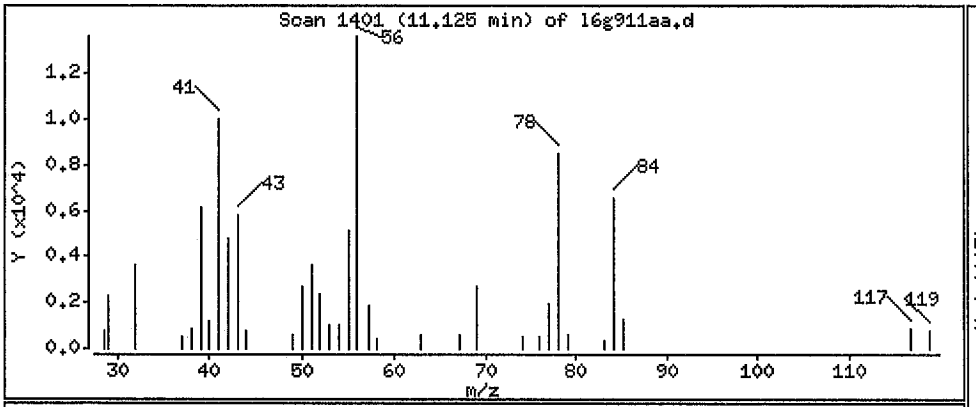
Client ID: IAQ-C17-9 Instrument: mj.i

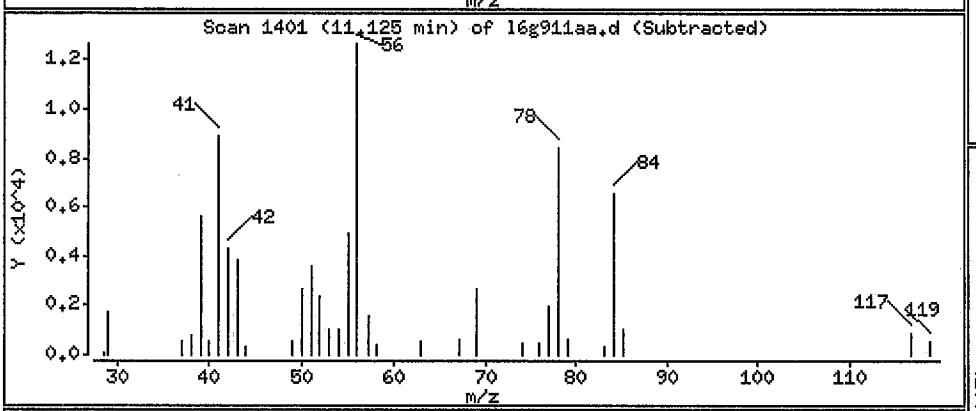
Sample Info: ,2.5,0,,,

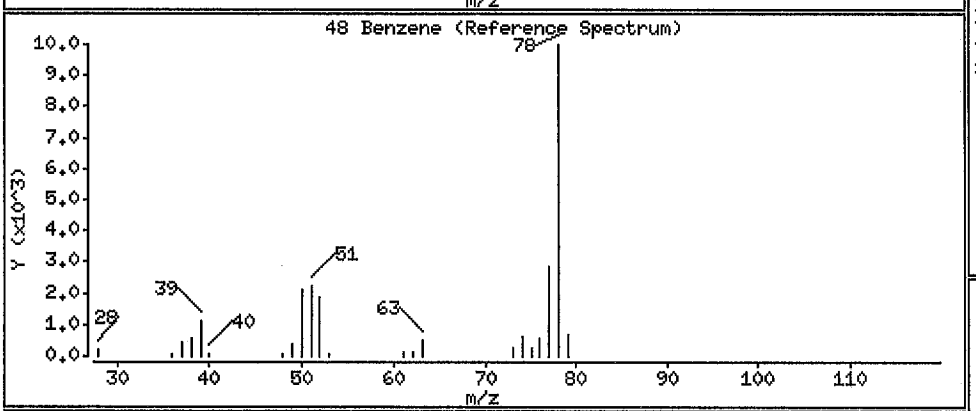
Purge Volume: 500.0 Operator: 7126

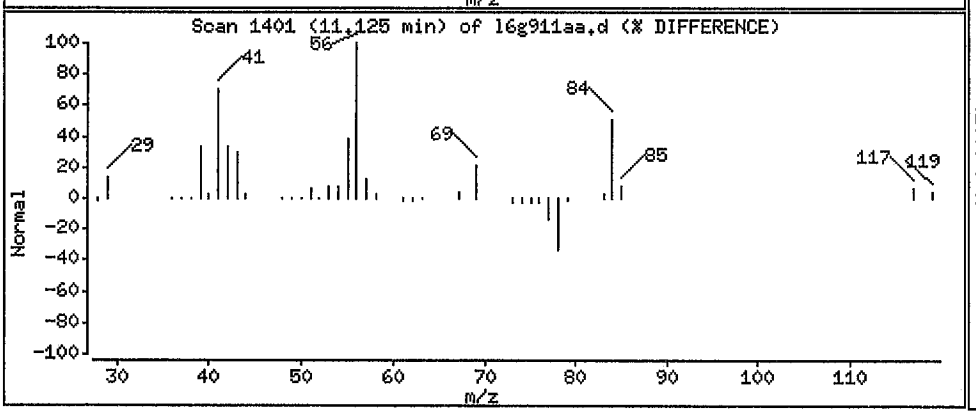
Column phase: Rtx-5 Column diameter: 0.32

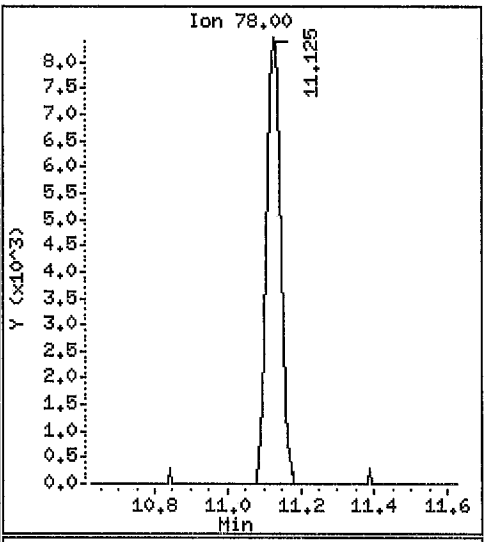
48 Benzene Concentration: 0.2620 ppb(v/v)

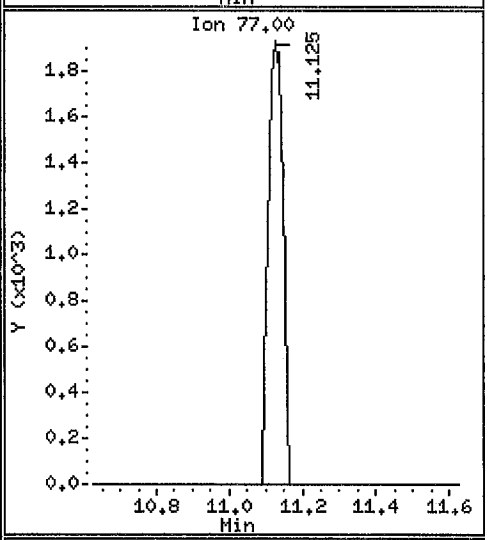


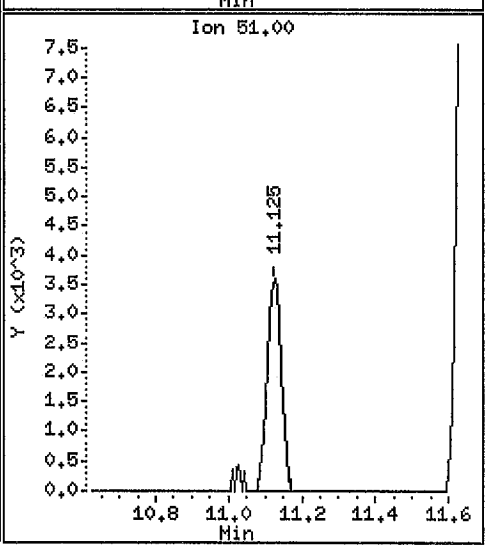












Data File: /var/chem/gcms/mj.i/J090810.b/16g911aa.d

Date : 09-SEP-2010 04:26

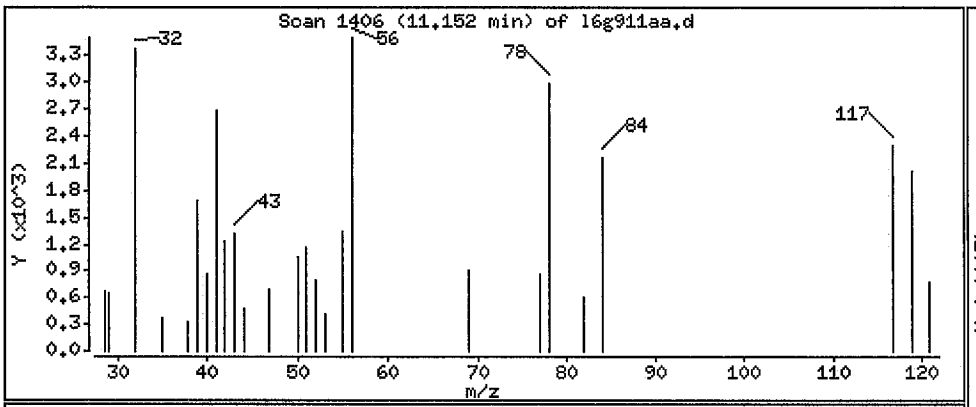
Client ID: IAQ-C17-9 Instrument: mj.i

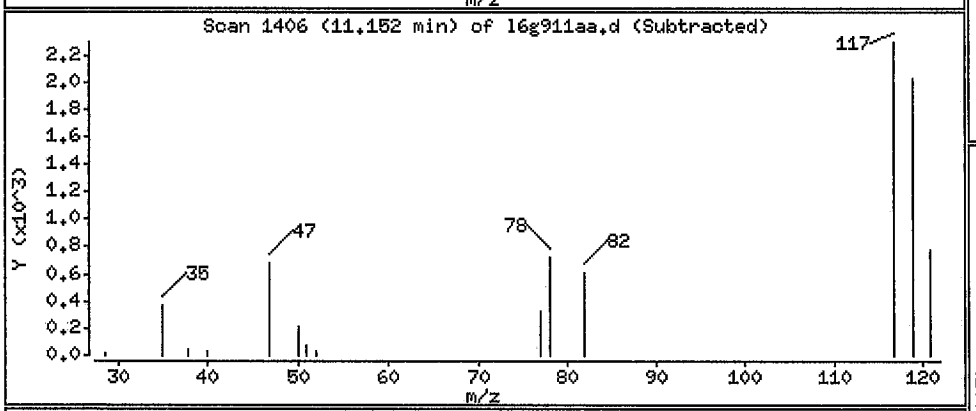
Sample Info: ,2.5,0,,,

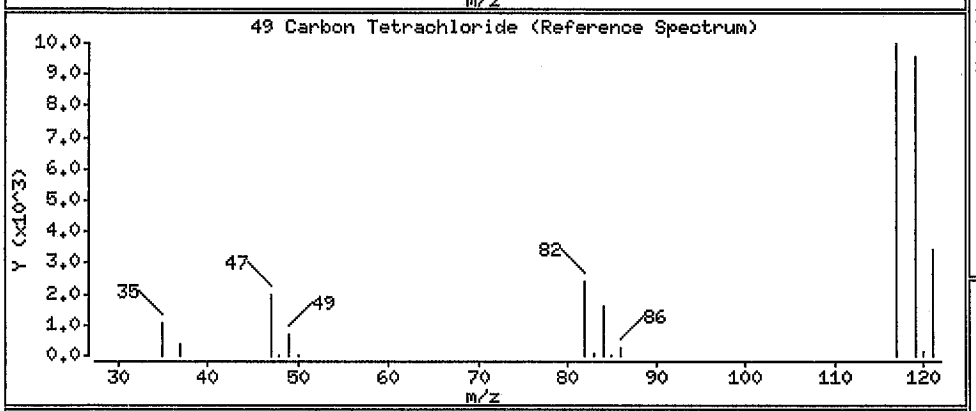
Purge Volume: 500.0 Operator: 7126

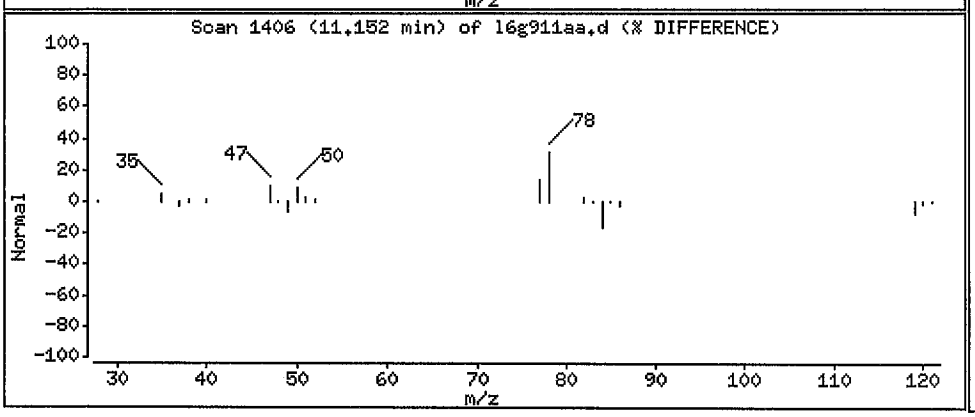
Column phase: Rtx-5 Column diameter: 0.32

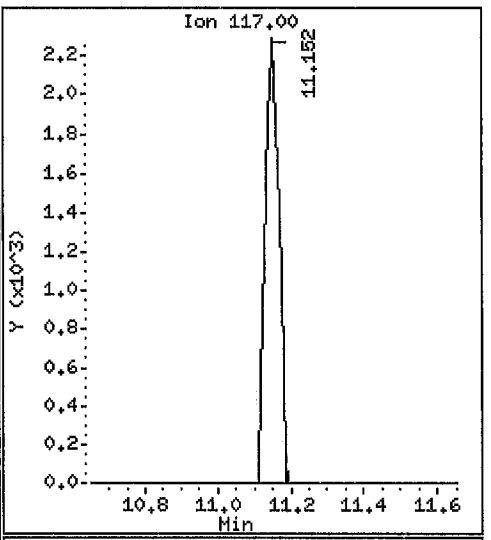
49 Carbon Tetrachloride Concentration: 0.08816 ppb(v/v)

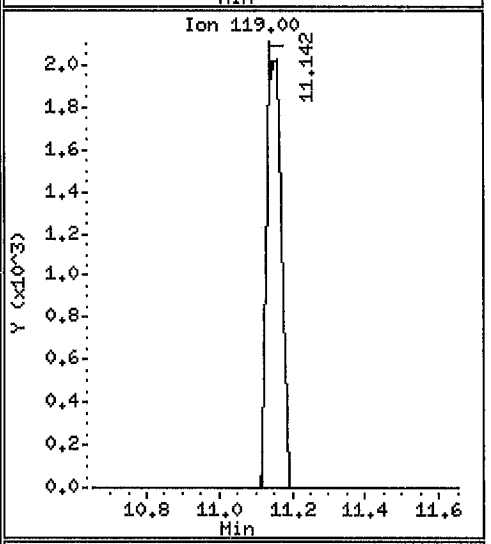


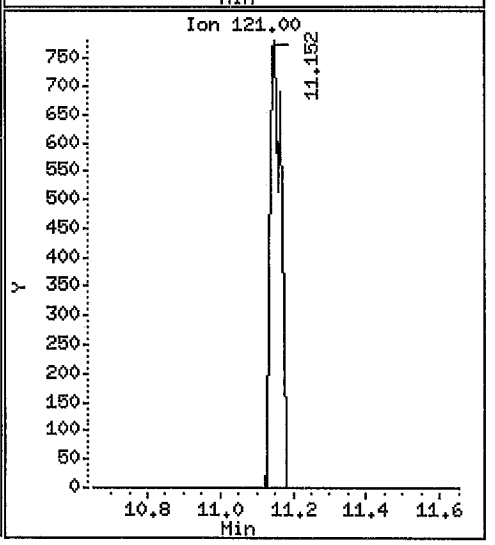












Data File: /var/chem/gcms/mj.i/J090810.b/16g911aa.d

Date : 09-SEP-2010 04:26

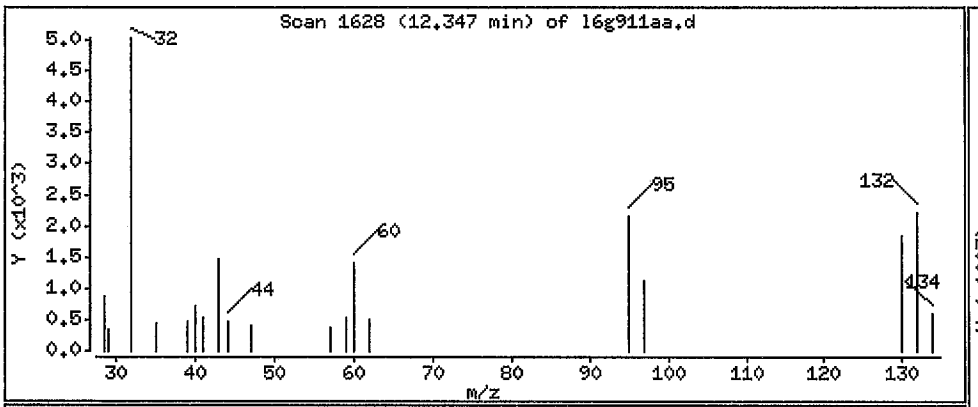
Client ID: IAQ-C17-9 Instrument: mj.i

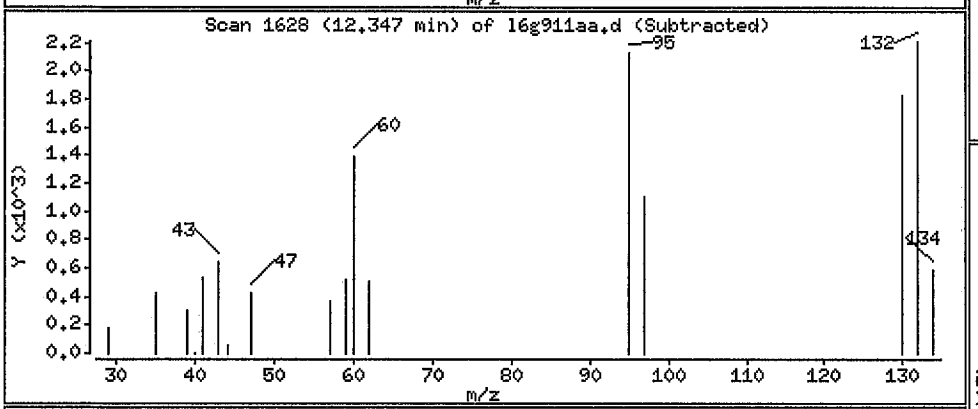
Sample Info: ,2,5,0,,,

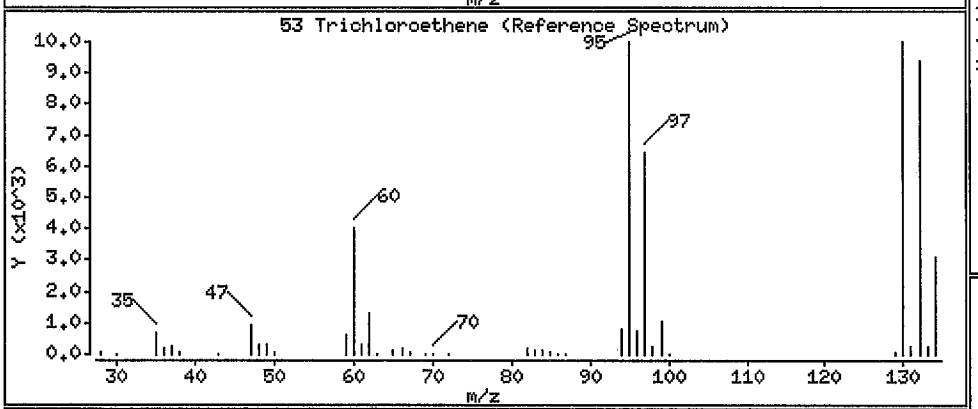
Purge Volume: 500.0 Operator: 7126

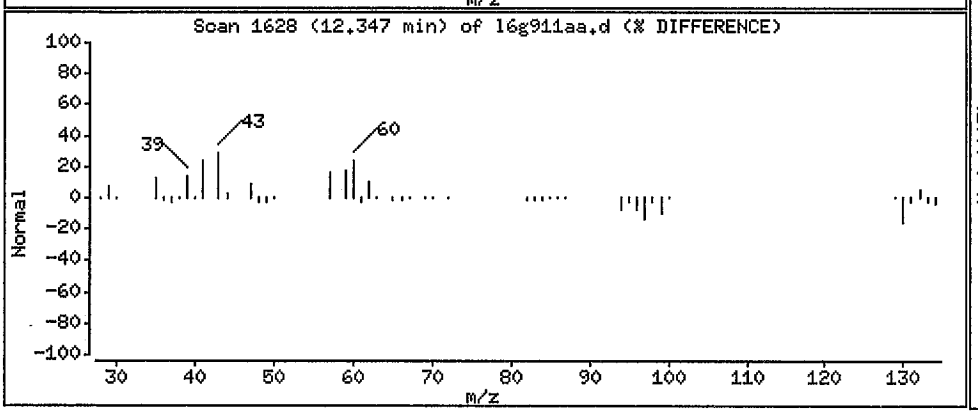
Column phase: Rtx-5 Column diameter: 0.32

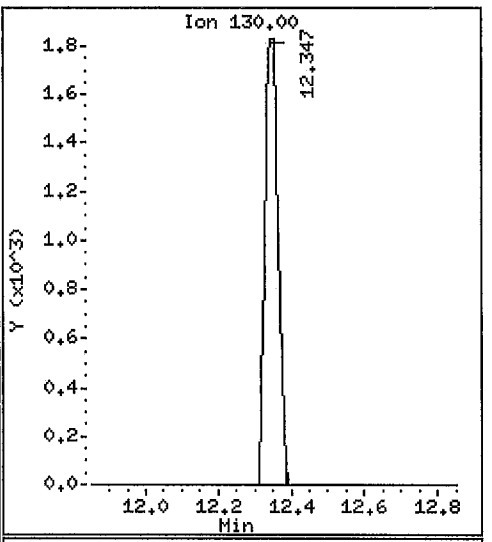
53 Trichloroethene Concentration: 0.1073 ppb(v/v)

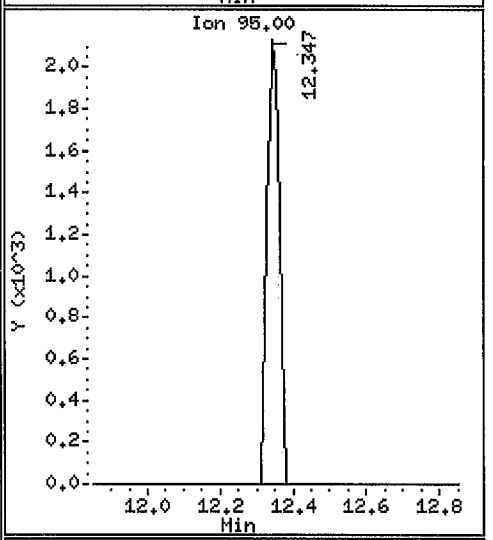


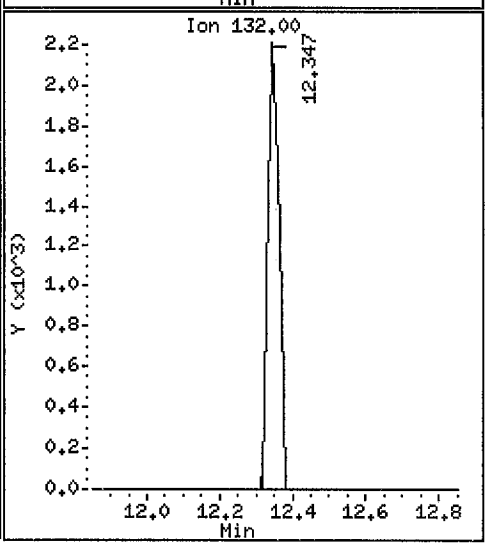












Data File: /var/chem/gcms/mj.i/J090810.b/16g911aa.d

Date : 09-SEP-2010 04:26

Client ID: IAQ-C17-9

Instrument: mj.i

Sample Info: ,2.5,0,,,

Purge Volume: 500.0

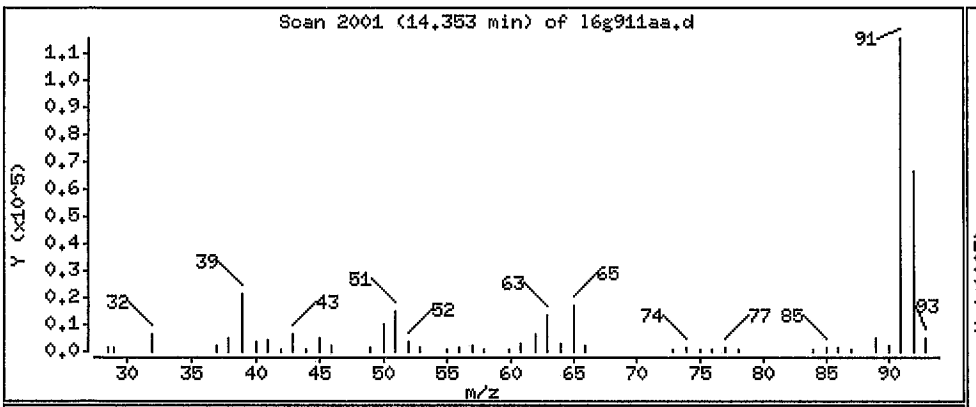
Operator: 7126

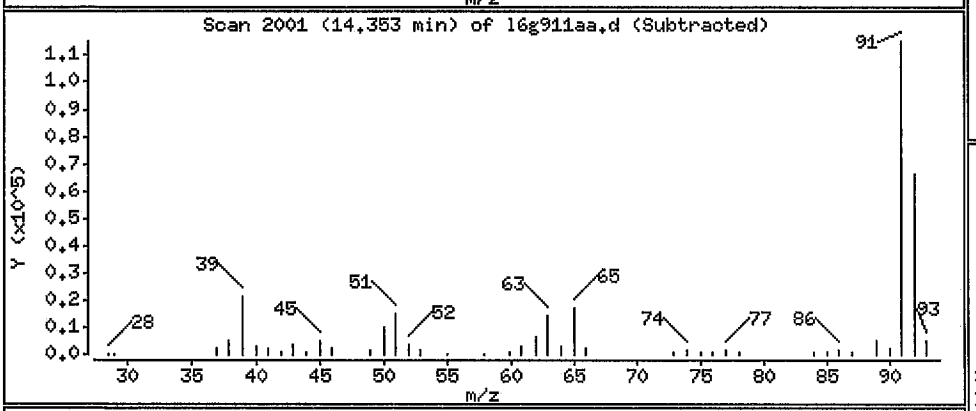
Column phase: Rtx-5

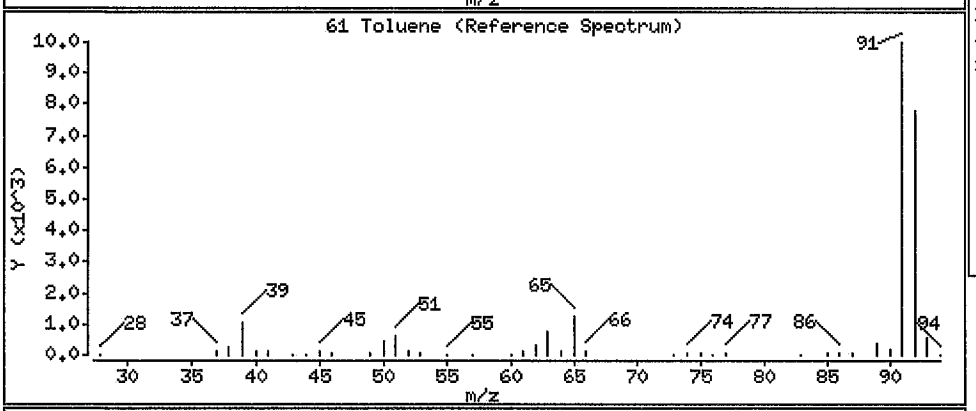
Column diameter: 0.32

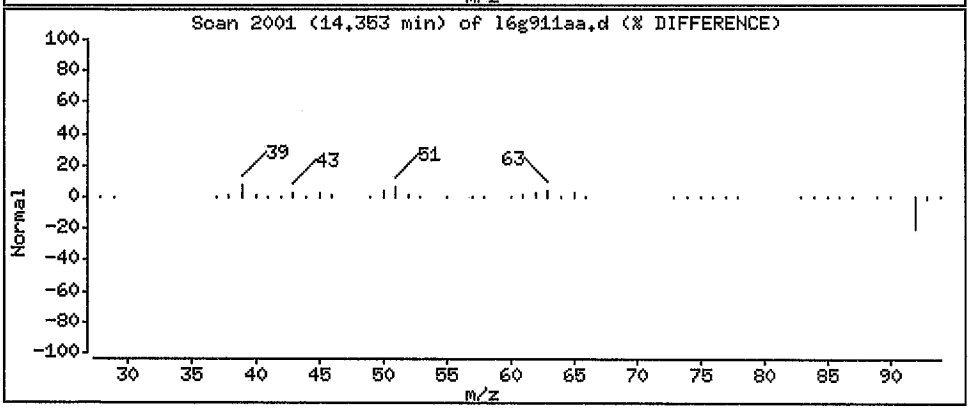
61 Toluene

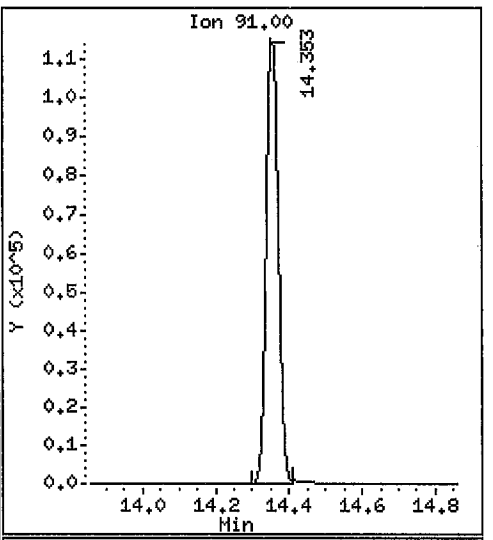
Concentration: 3.290 ppb(v/v)

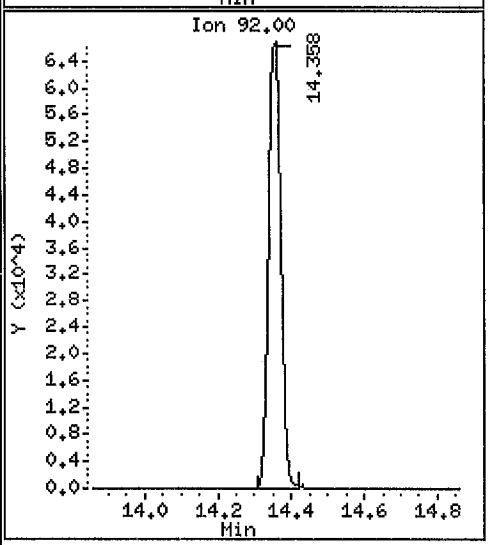












Data File: /var/chem/goms/mj.i/J090810.b/l6g911aa.d

Date : 09-SEP-2010 04:26

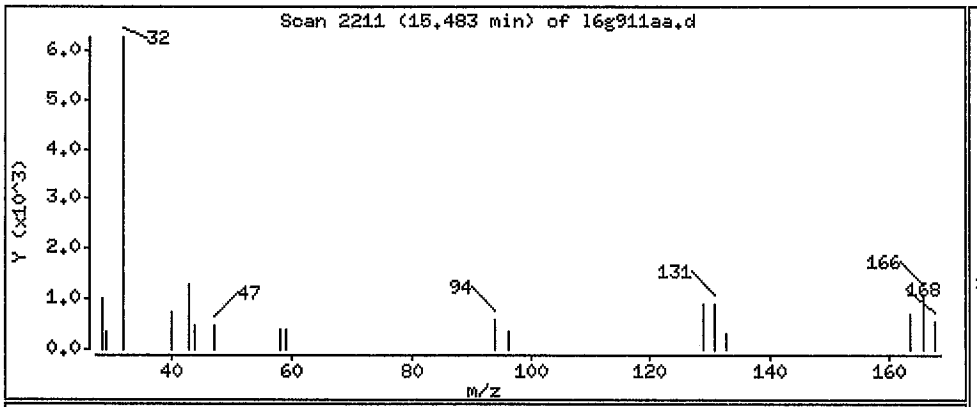
Client ID: IAQ-C17-9 Instrument: mj.i

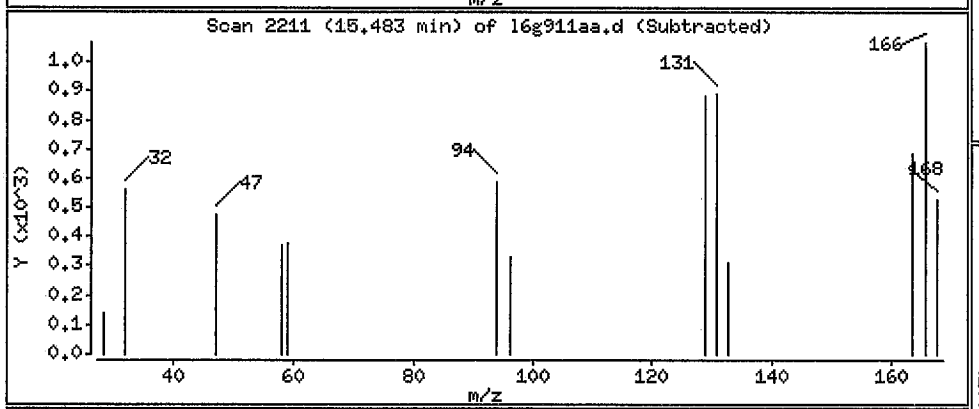
Sample Info: ,2.5,0,,,

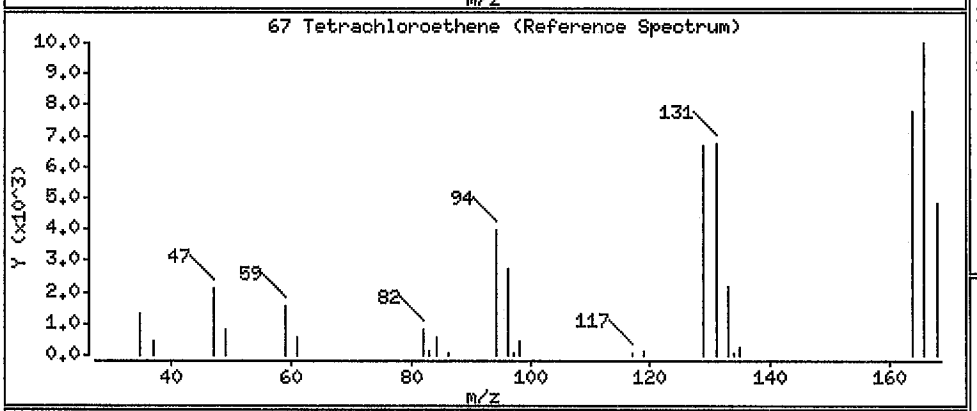
Purge Volume: 500.0 Operator: 7126

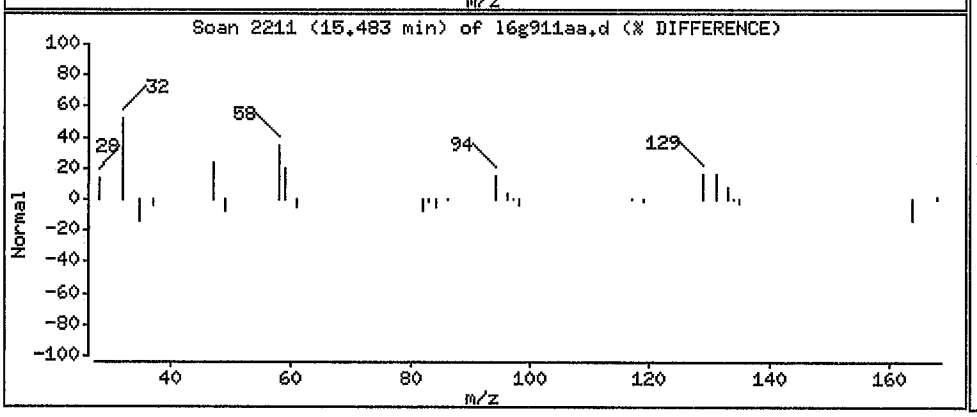
Column phase: Rtx-5 Column diameter: 0.32

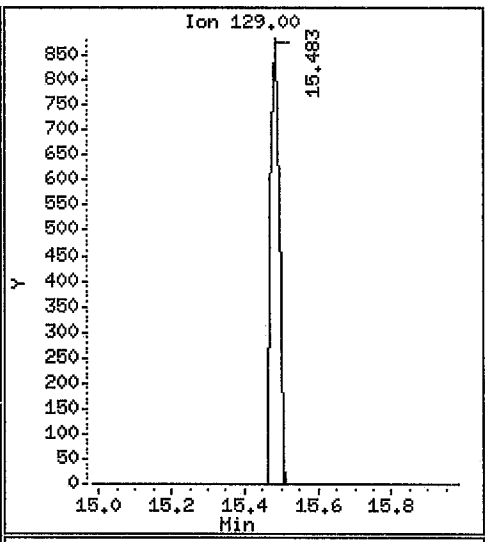
67 Tetrachloroethene Concentration: 0.04026 ppb(v/v)

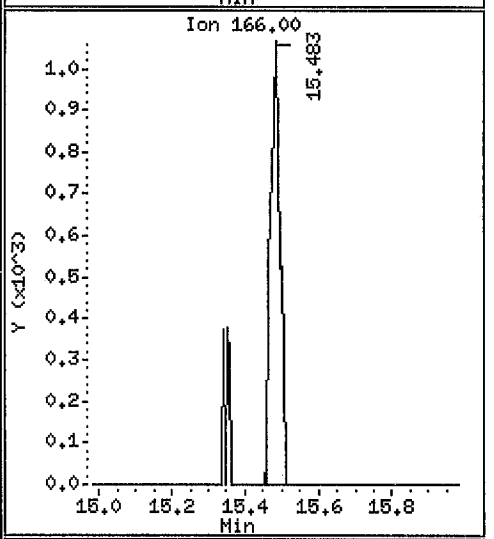


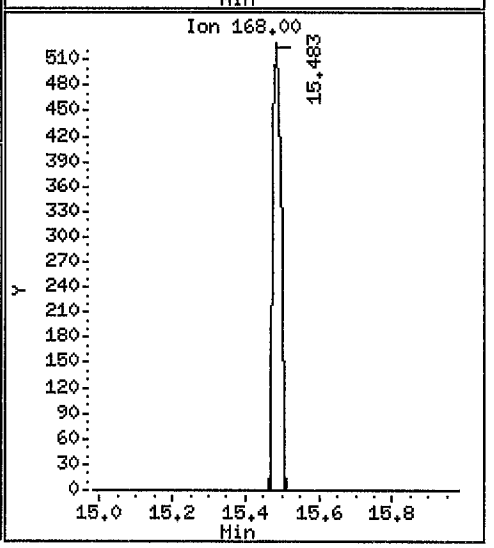












Data File: /var/chem/gcms/mj.i/J090810.b/l6g911aa.d

Date : 09-SEP-2010 04:26

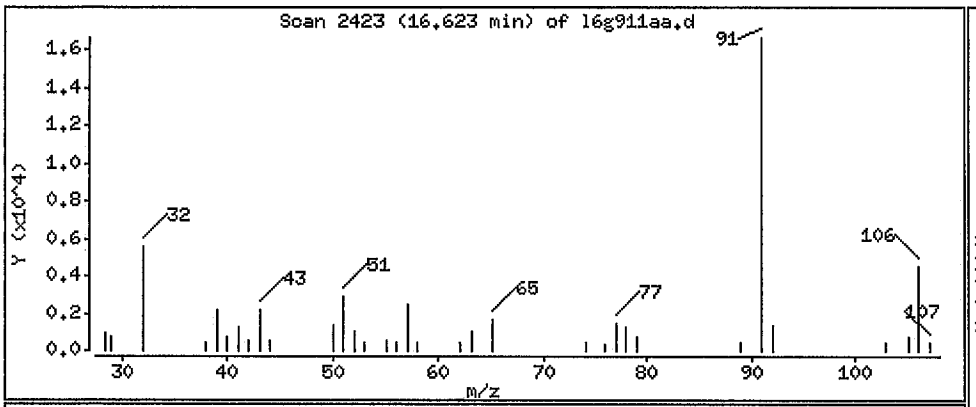
Client ID: IAQ-C17-9 Instrument: mj.i

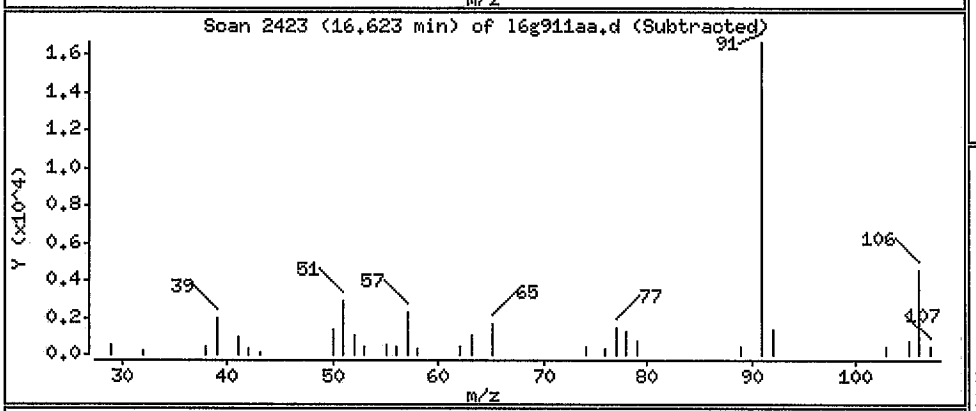
Sample Info: ,2.5,0,,,

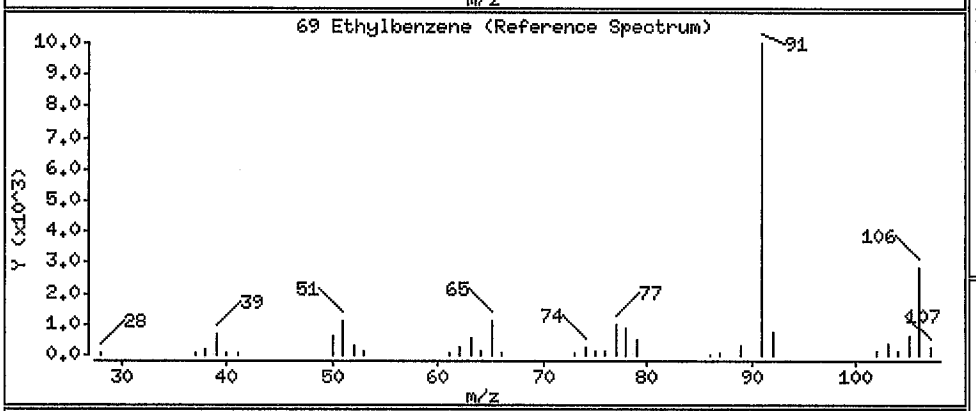
Purge Volume: 500.0 Operator: 7126

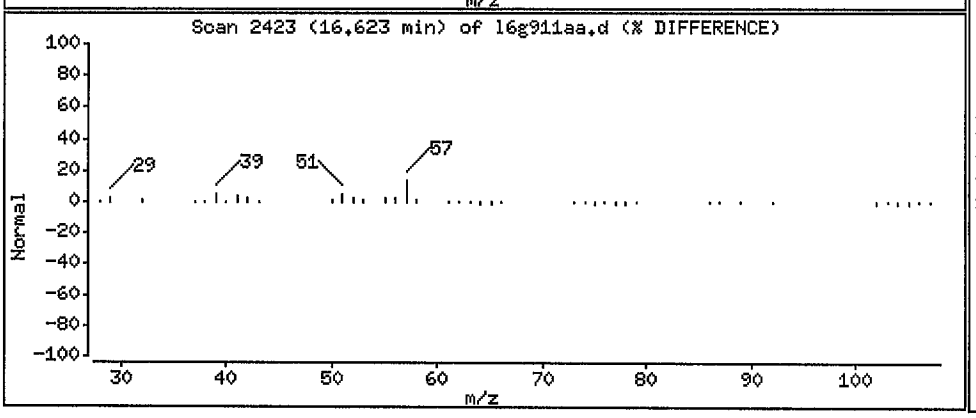
Column phase: Rtx-5 Column diameter: 0.32

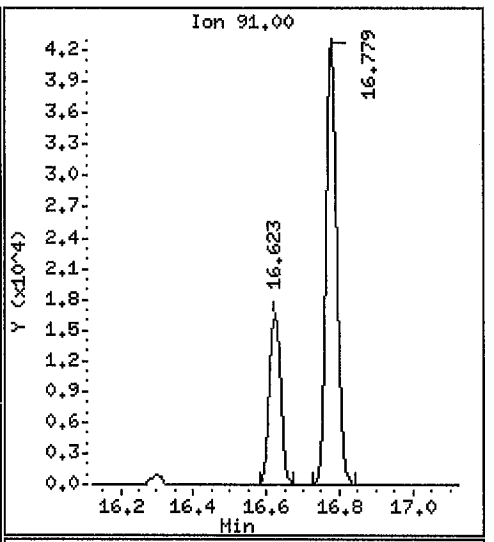
69 Ethylbenzene Concentration: 0.3837 ppb(v/v)

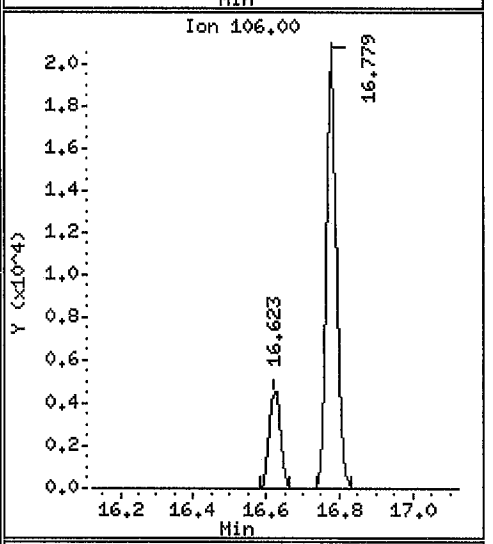


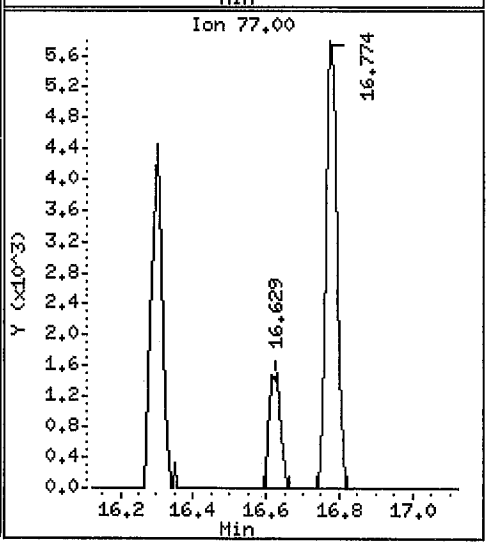












Data File: /var/chem/gcms/mj.i/J090810.b/l6g911aa.d

Date : 09-SEP-2010 04:26

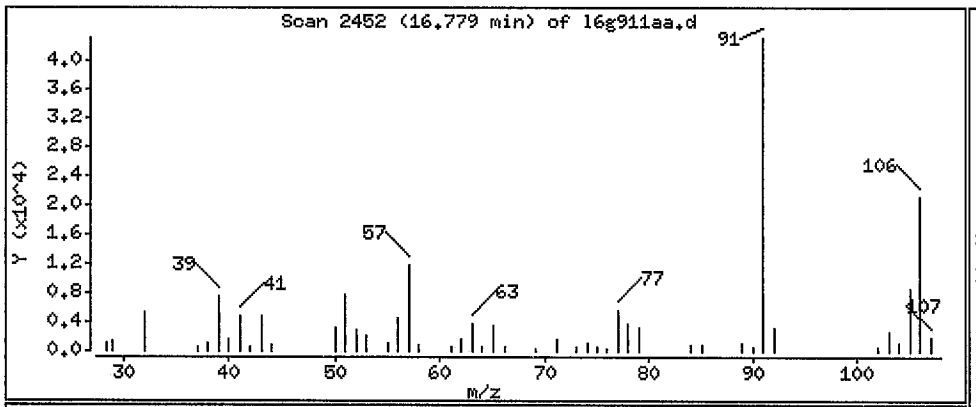
Client ID: IAQ-C17-9 Instrument: mj.i

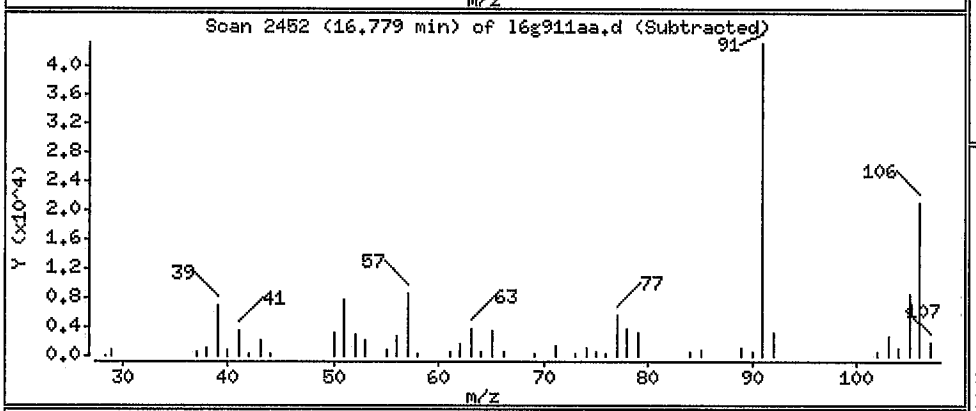
Sample Info: ,2.5,0,,,

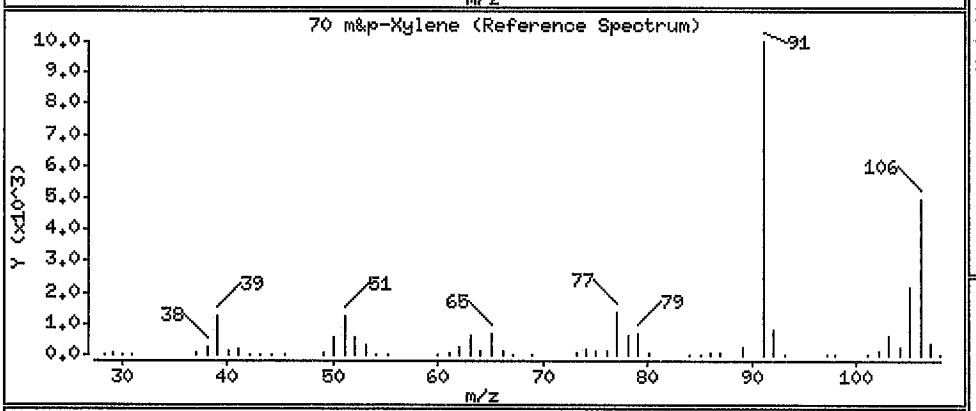
Purge Volume: 500.0 Operator: 7126

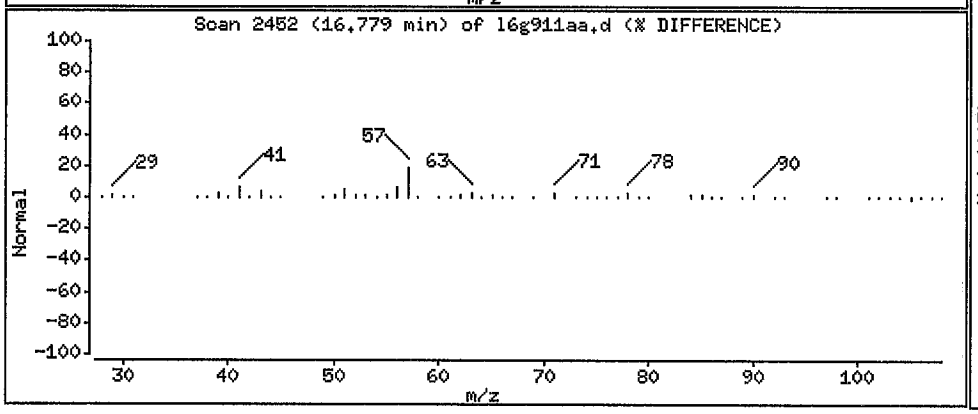
Column phase: Rtx-5 Column diameter: 0.32

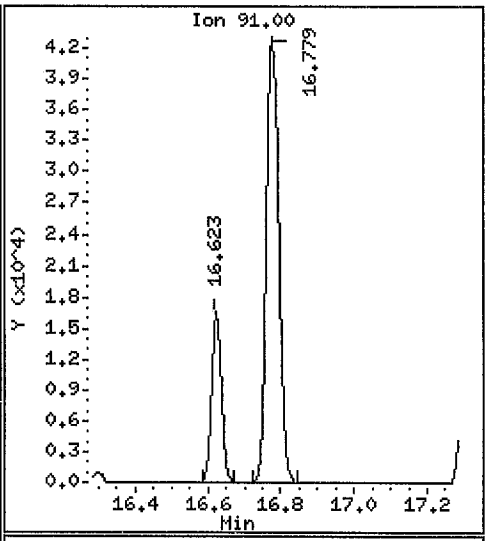
70 m&p-Xylene Concentration: 1.446 ppb(v/v)

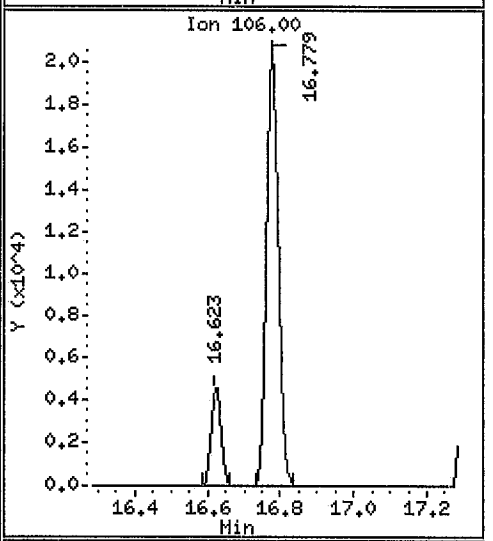


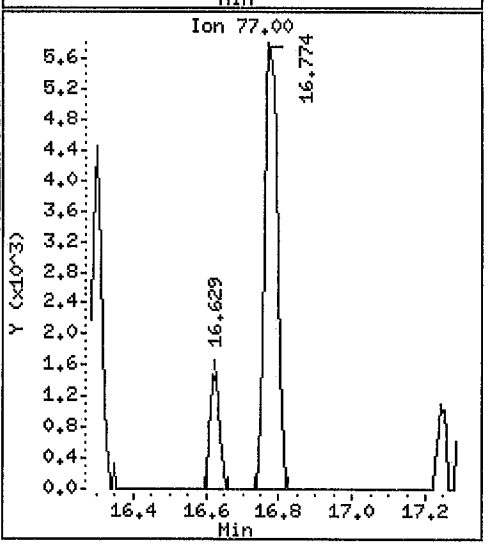












Data File: /var/chem/gcms/mj.i/J090810.b/16g911aa.d

Date : 09-SEP-2010 04:26

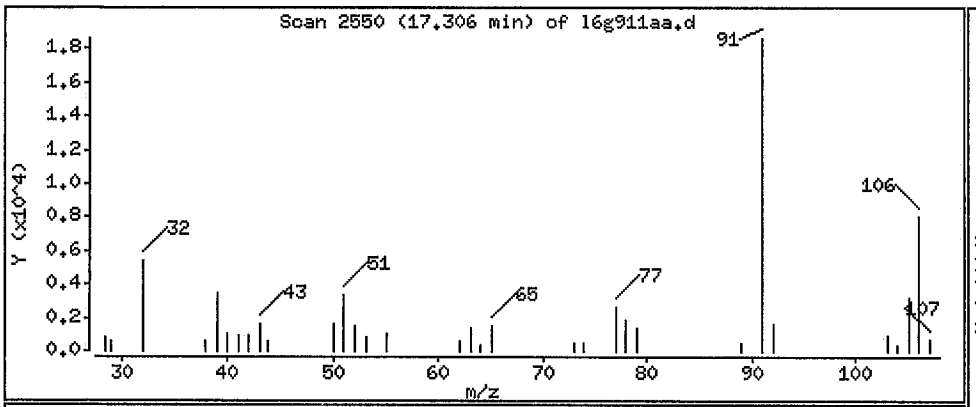
Client ID: IAQ-C17-9 Instrument: mj.i

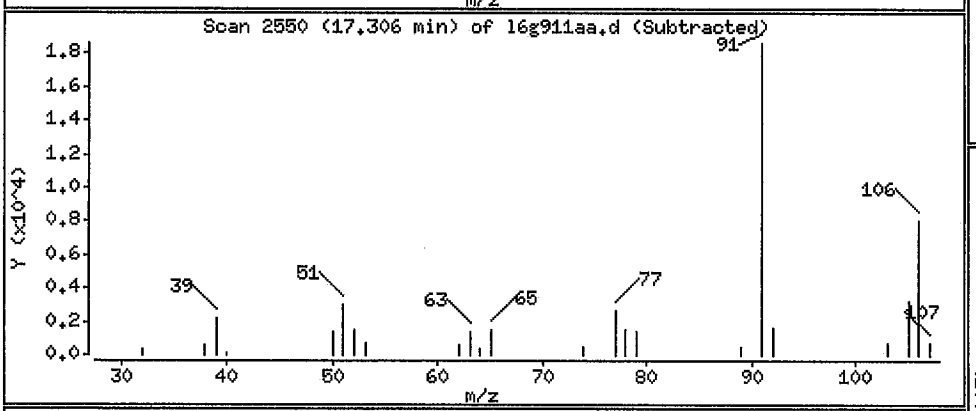
Sample Info: ,2.5,0,,,

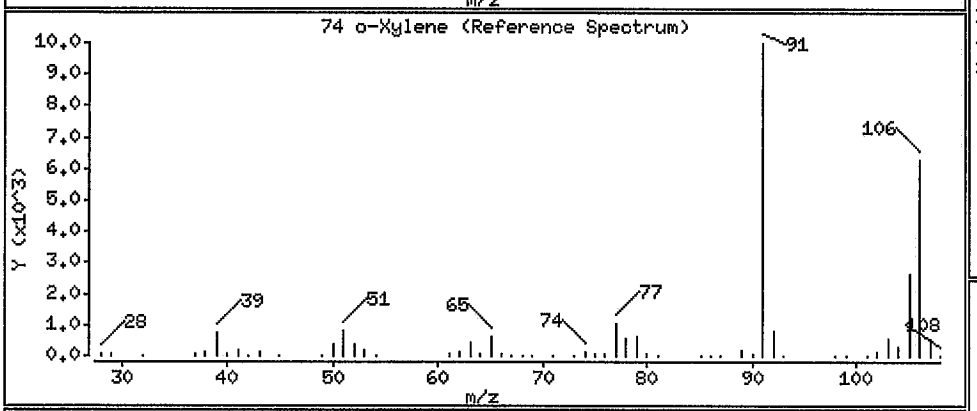
Purge Volume: 500.0 Operator: 7126

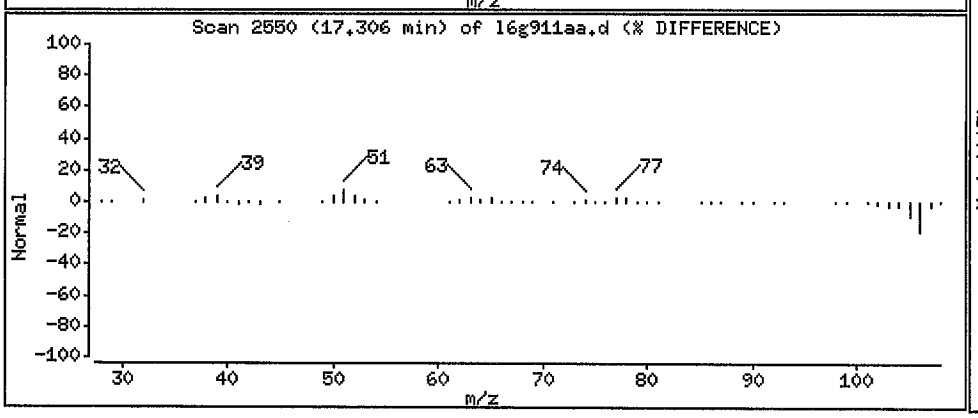
Column phase: Rtx-5 Column diameter: 0.32

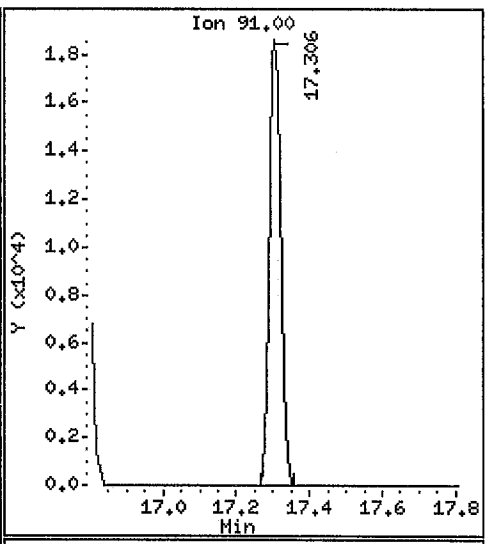
74 o-Xylene Concentration: 0.5534 ppb(v/v)

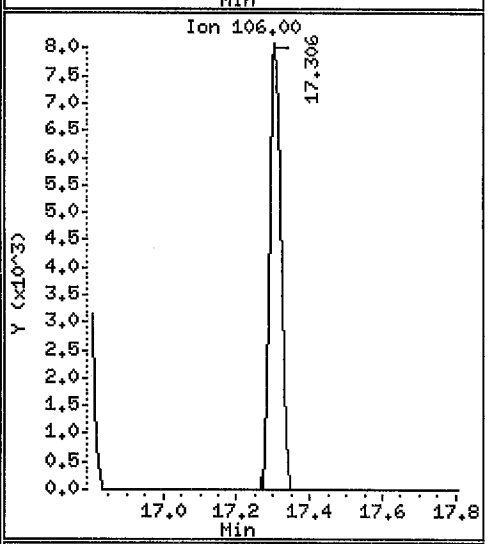


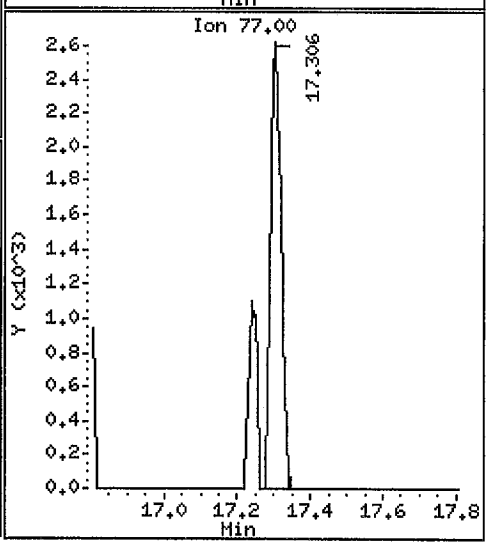












Tetra Tech NUS, Inc

Client Sample ID: IAQ-C17-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 017	**Work Order #**	L6G912AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	20	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Chlorodifluoromethane	**160**	**1.6**	**0.30**	**560 D**	**5.7**	**1.1**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

D	Result was obtained from the analysis of a dilution.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090910.b/l6g912aa.d
Report Date: 10-Sep-2010 11:37

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090910.b/l6g912aa.d
Lab Smp Id: L6G912AA Client Smp ID: IAQ-C17-9
Inj Date : 09-SEP-2010 16:45
Operator : 7126 Inst ID: mj.i
Smp Info : ,20,0,,,
Misc Info : J090910,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090910.b/TO15.m
Meth Date : 10-Sep-2010 11:28 barlozha Quant Type: ISTD
Cal Date : 09-SEP-2010 10:43 Cal File: j1pti09.d
Als bottle: 8
Dil Factor: 20.00000
Integrator: HP RTE Compound Sublist: 7.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	20.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

9/9/10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
*	1 Bromochloromethane	128	9.474	9.468	(1.000)	180377	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.637	11.636	(1.000)	892417	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.301	16.300	(1.000)	760619	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.909	17.914	(1.099)	597266	4.13716	4.137
	7 Chlorodifluoromethane	67	3.901	3.900	(0.412)	179747	7.87980	157.6 Δ

9/10/10

Data File: /var/chem/gcms/mj.i/J090910.b/l6g912aa.d
Report Date: 10-Sep-2010 11:37

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g912aa.d
Lab Smp Id: L6G912AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

Calibration Date: 09-SEP-2010
Calibration Time: 09:40
Client Smp ID: IAQ-C17-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	166835	99267	234403	180377	8.12
2 1,4-Difluorobenze	787366	468483	1106249	892417	13.34
3 Chlorobenzene-d5	701011	417102	984920	760619	8.50

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.47	9.14	9.80	9.47	0.07
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.01
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090910.b/l6g912aa.d
Report Date: 10-Sep-2010 11:37

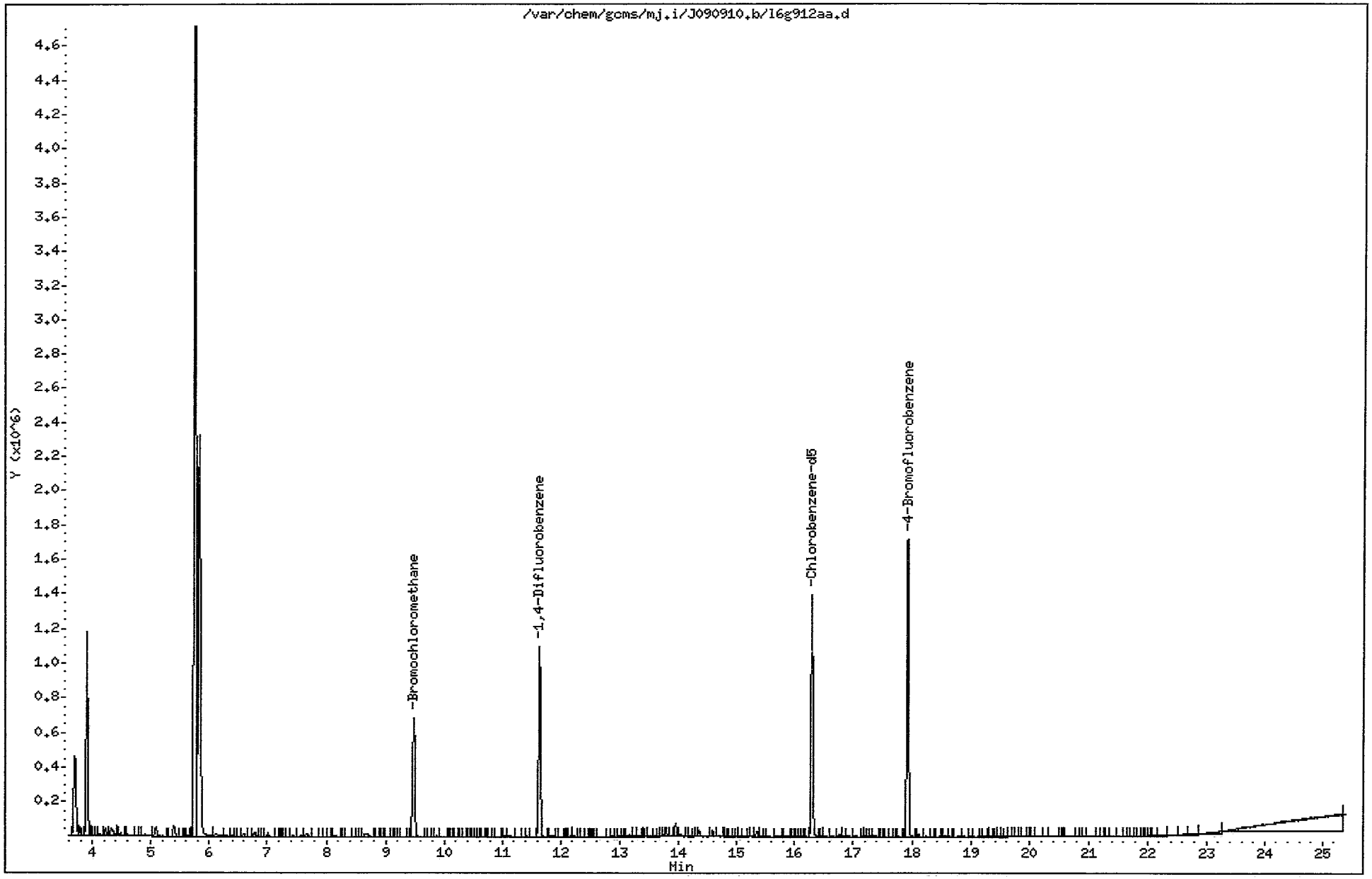
TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G912AA
Client Smp ID: IAQ-C17-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: 7.sub
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.137	103.43	70-130

Data File: /var/chem/gcms/mj.i/J090910.b/l6g912aa.d
Date : 09-SEP-2010 16:45
Client ID: IAQ-C17-9
Instrument: mj.i
Sample Info: ,20,0,,,
Purge Volume: 500.0
Operator: 7126
Column phase: Rtx-5
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J090910.b/16g912aa.d

Date : 09-SEP-2010 16:45

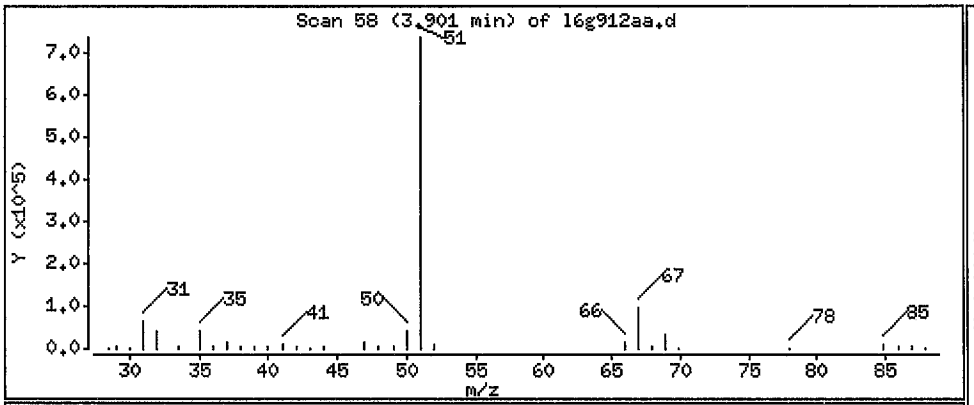
Client ID: IAQ-C17-9 Instrument: mj.i

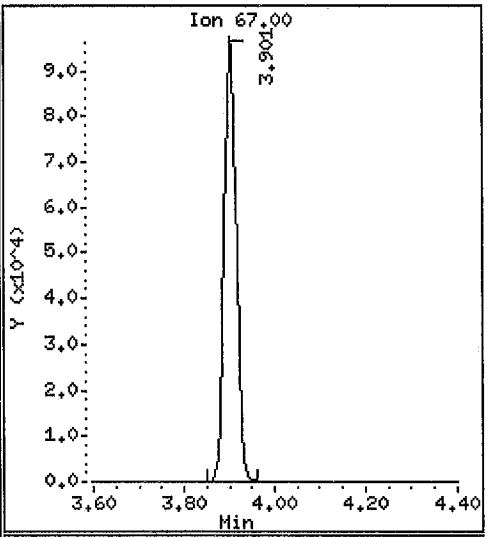
Sample Info: ,20,0,,,

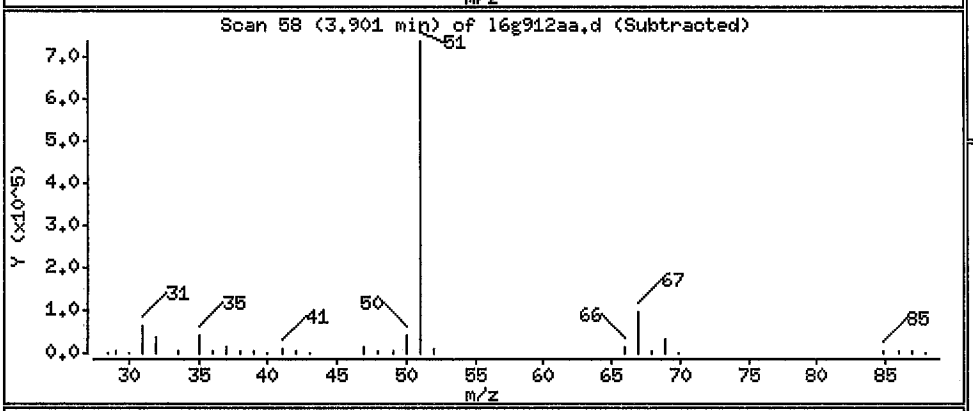
Purge Volume: 500.0 Operator: 7126

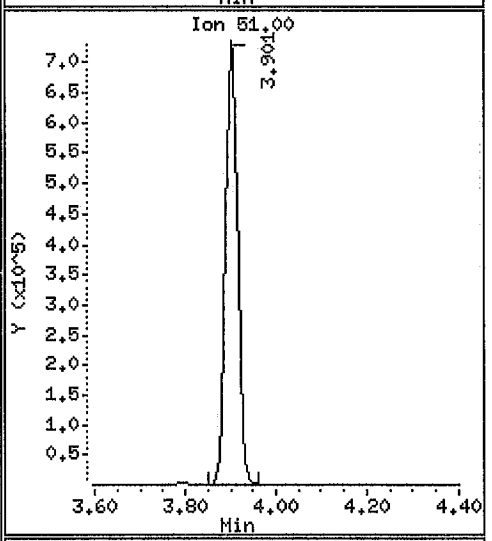
Column phase: Rtx-5 Column diameter: 0.32

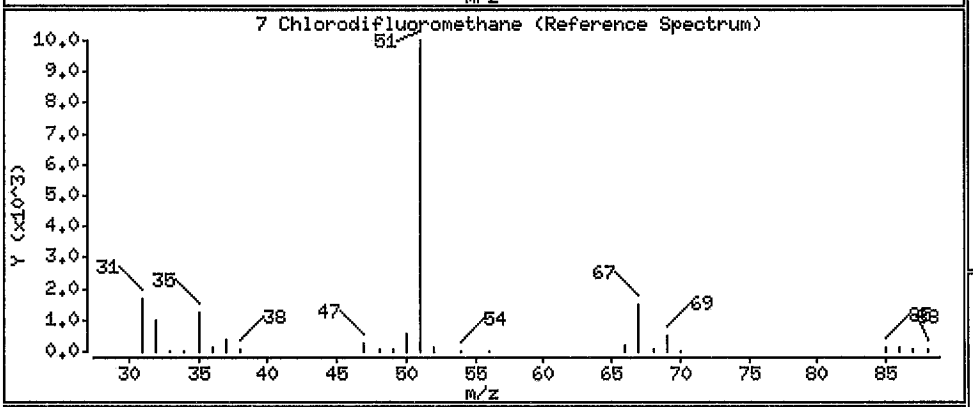
7 Chlorodifluoromethane Concentration: 157.6 ppb(v/v)

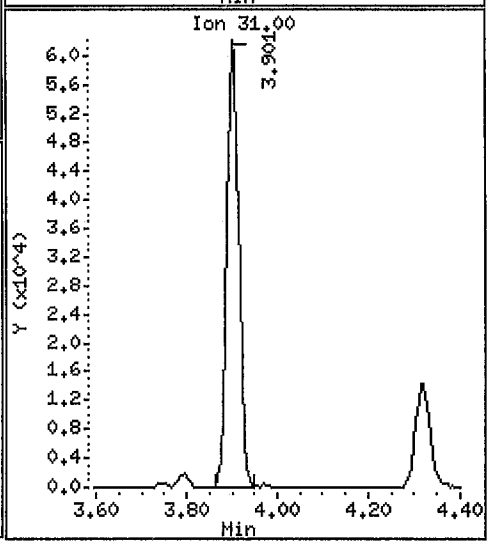


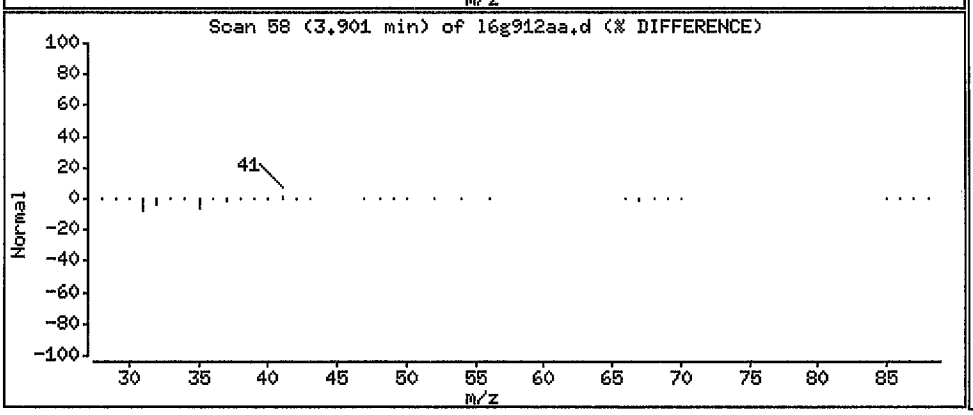












Tetra Tech NUS, Inc

Client Sample ID: IAQ-C1-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 018	**Work Order #**	L6G921AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/10/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	2	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.13**	**0.16**	**0.046**	**0.41 J**	**0.51**	**0.15**
Carbon tetrachloride	**0.088**	**0.16**	**0.030**	**0.56 J**	**1.0**	**0.19**
Chlorodifluoromethane	**15**	**0.16**	**0.030**	**52**	**0.57**	**0.11**
Chloroform	**0.036**	**0.16**	**0.030**	**0.17 J**	**0.78**	**0.15**
Dichlorodifluoromethane	**0.52**	**0.16**	**0.054**	**2.6**	**0.79**	**0.27**
1,1-Dichloroethane	ND	0.16	0.020	ND	0.65	0.081
1,2-Dichloroethane	ND	0.16	0.038	ND	0.65	0.15
cis-1,2-Dichloroethene	ND	0.16	0.048	ND	0.63	0.19
trans-1,2-Dichloroethene	ND	0.16	0.040	ND	0.63	0.16
1,1-Dichloroethene	ND	0.16	0.026	ND	0.63	0.10
Ethylbenzene	**0.13**	**0.16**	**0.054**	**0.57 J**	**0.69**	**0.23**
Methylene chloride	**0.71**	**0.40**	**0.036**	**2.5 B**	**1.4**	**0.13**
Methyl tert-butyl ether	ND	0.80	0.14	ND	2.9	0.49
Naphthalene	**0.16**	**0.40**	**0.072**	**0.81 J**	**2.1**	**0.38**
Tetrachloroethene	ND	0.16	0.032	ND	1.1	0.22
Toluene	**0.87**	**0.16**	**0.042**	**3.3**	**0.60**	**0.16**
1,2,4-Trichlorobenzene	ND	0.80	0.078	ND	5.9	0.58
1,1,1-Trichloroethane	**0.028**	**0.16**	**0.024**	**0.15 J**	**0.87**	**0.13**
1,1,2-Trichloroethane	ND	0.16	0.042	ND	0.87	0.23
Trichloroethene	ND	0.080	0.028	ND	0.43	0.15
Vinyl chloride	ND	0.16	0.058	ND	0.41	0.15
m-Xylene & p-Xylene	**0.51**	**0.16**	**0.10**	**2.2**	**0.69**	**0.43**
o-Xylene	**0.22**	**0.16**	**0.048**	**0.94**	**0.69**	**0.21**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	107	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090910.b/l6g92r.d
Report Date: 10-Sep-2010 11:38

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090910.b/l6g92r.d
Lab Smp Id: L6G921AA Client Smp ID: IAQ-C1-9
Inj Date : 10-SEP-2010 02:34
Operator : 7126 Inst ID: mj.i
Smp Info : L6G921AA,2,0,,,
Misc Info : J090910,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090910.b/TO15.m
Meth Date : 10-Sep-2010 11:28 barlozha Quant Type: ISTD
Cal Date : 09-SEP-2010 10:43 Cal File: j1pti09.d
Als bottle: 4
Dil Factor: 2.00000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	2.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
*	1 Bromochloromethane	128	9.482	9.468	(1.000)	180749	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.645	11.636	(1.000)	868358	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.298	16.300	(1.000)	716457	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.912	17.914	(1.099)	584007	4.29467	4.295
	7 Chlorodifluoromethane	67	3.898	3.900	(0.411)	167420	7.32429	14.65
	8 Dichlorodifluoromethane	85	3.968	3.970	(0.418)	51224	0.26098	0.5220
	31 Methylene Chloride	84	6.798	6.778	(0.717)	20768	0.35312	0.7062
	42 Chloroform	83	9.487	9.473	(1.001)	2341	0.01784	0.03569
	44 1,1,1-Trichloroethane	97	10.547	10.533	(1.112)	1928	0.01411	0.02822
	48 Benzene	78	11.123	11.119	(0.955)	11650	0.06347	0.1269
	49 Carbon Tetrachloride	117	11.144	11.146	(0.957)	6356	0.04419	0.08838
	61 Toluene	91	14.356	14.352	(0.881)	73008	0.43270	0.8654
	69 Ethylbenzene	91	16.626	16.623	(1.020)	12633	0.06530	0.1306
	70 m&p-Xylene	91	16.777	16.784	(1.029)	37004	0.25292	0.5058
M	178 Xylene (total)	100				53398	0.36064	0.7213

Data File: /var/chem/gcms/mj.i/J090910.b/l6g92r.d
Report Date: 10-Sep-2010 11:38

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
74 o-Xylene	91	17.304	17.306	(1.062)	16393	0.10772	0.2154
96 Napthalene	128	21.597	21.599	(1.325)	11432	0.07753	0.1550

Data File: /var/chem/gcms/mj.i/J090910.b/l6g92r.d
Report Date: 10-Sep-2010 11:38

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g92r.d
Lab Smp Id: L6G921AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

Calibration Date: 09-SEP-2010
Calibration Time: 09:40
Client Smp ID: IAQ-C1-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	166835	99267	234403	180749	8.34
2 1,4-Difluorobenze	787366	468483	1106249	868358	10.29
3 Chlorobenzene-d5	701011	417102	984920	716457	2.20

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.47	9.14	9.80	9.48	0.15
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.07
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	-0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090910.b/l6g92r.d
Report Date: 10-Sep-2010 11:38

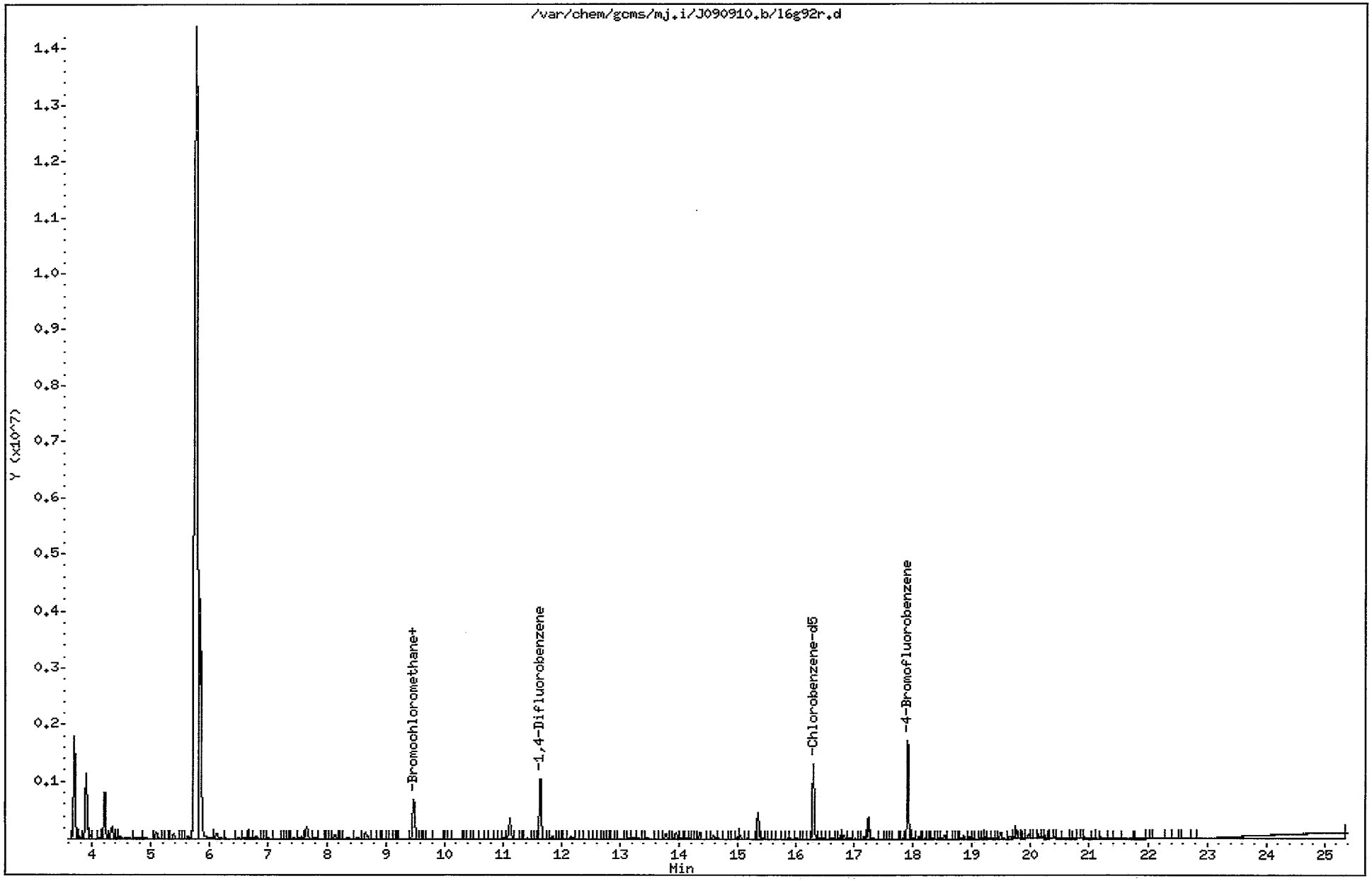
TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G921AA
Client Smp ID: IAQ-C1-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.295	107.37	70-130

Data File: /var/chem/gcms/mj.i/J090910.b/l6g92r.d
Date : 10-SEP-2010 02:34
Client ID: IAQ-C1-9
Instrument: mj.i
Sample Info: L6G921AA,2,0,,,
Purge Volume: 500.0
Operator: 7126
Column phase: Rtx-5
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J090910.b/16g92r.d

Date : 10-SEP-2010 02:34

Client ID: IAQ-C1-9

Instrument: mj.i

Sample Info: L6G921AA,2,0,,,

Purge Volume: 500.0

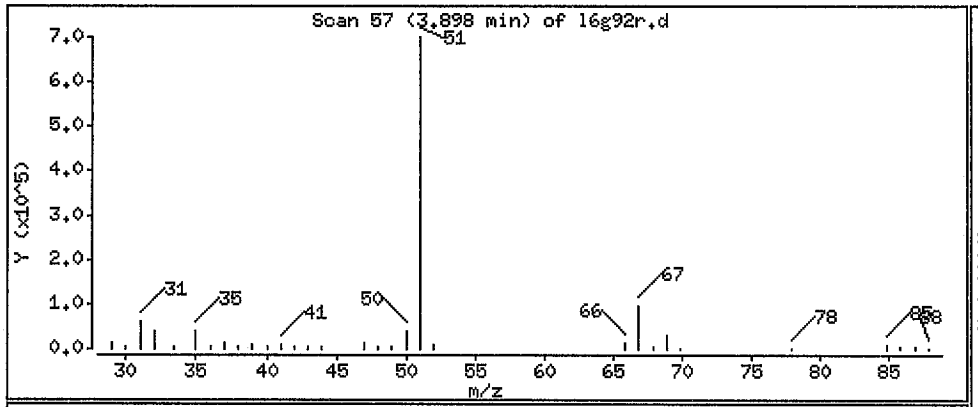
Operator: 7126

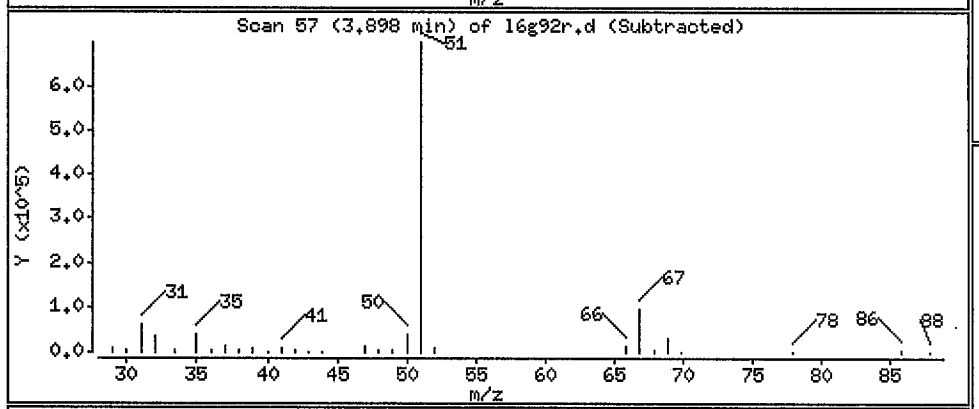
Column phase: Rtx-5

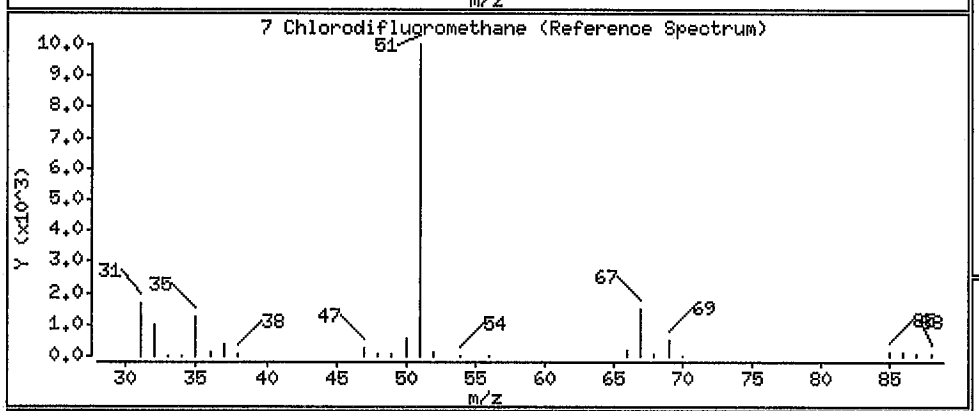
Column diameter: 0.32

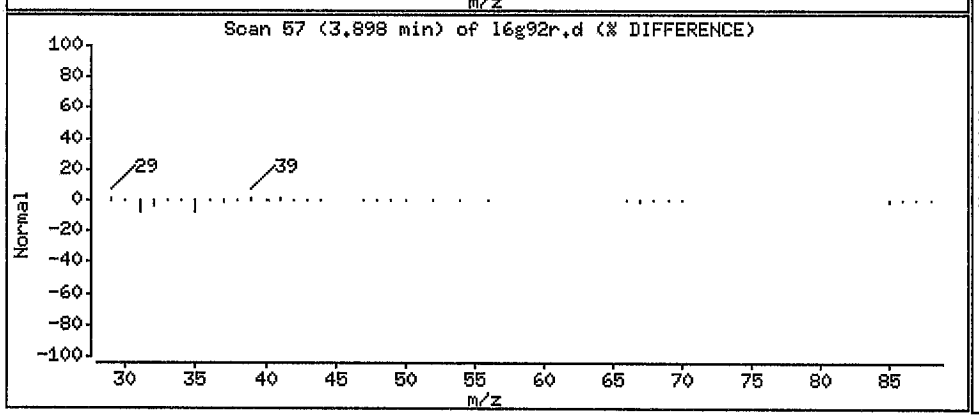
7 Chlorodifluoromethane

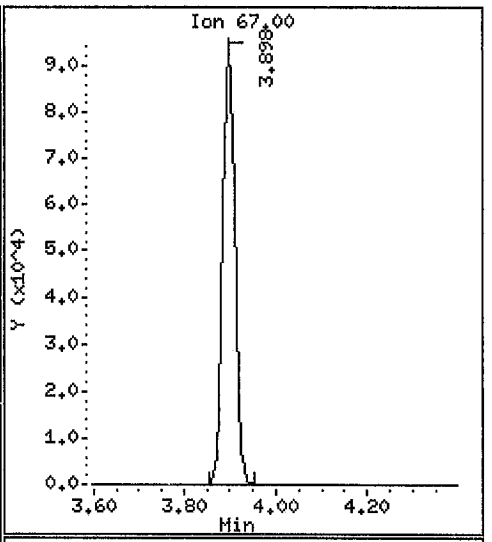
Concentration: 14.65 ppb(v/v)

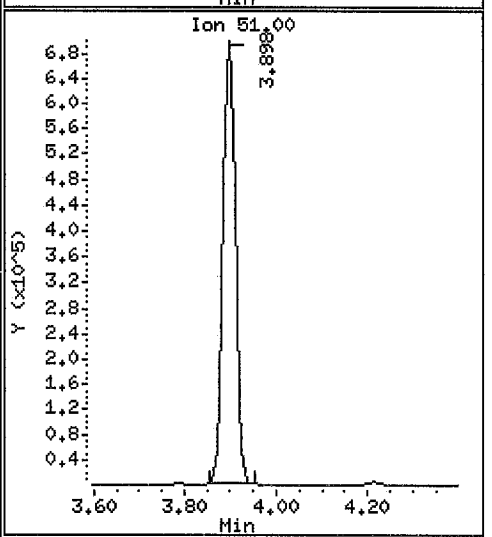


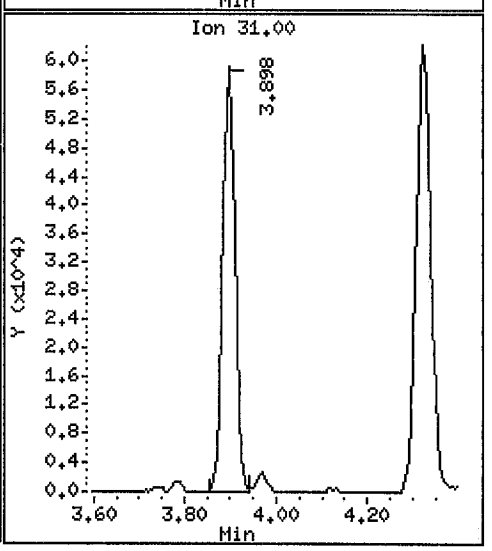












Data File: /var/chem/gcms/mj.i/J090910.b/16g92r.d

Date : 10-SEP-2010 02:34

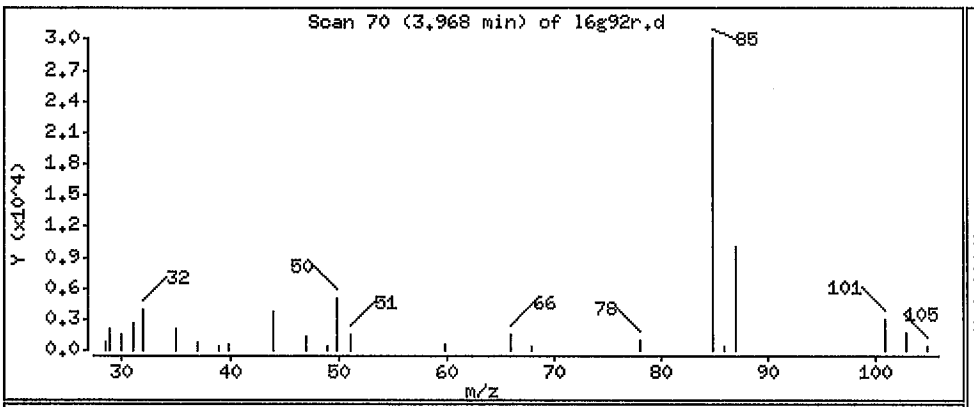
Client ID: IAQ-C1-9 Instrument: mj.i

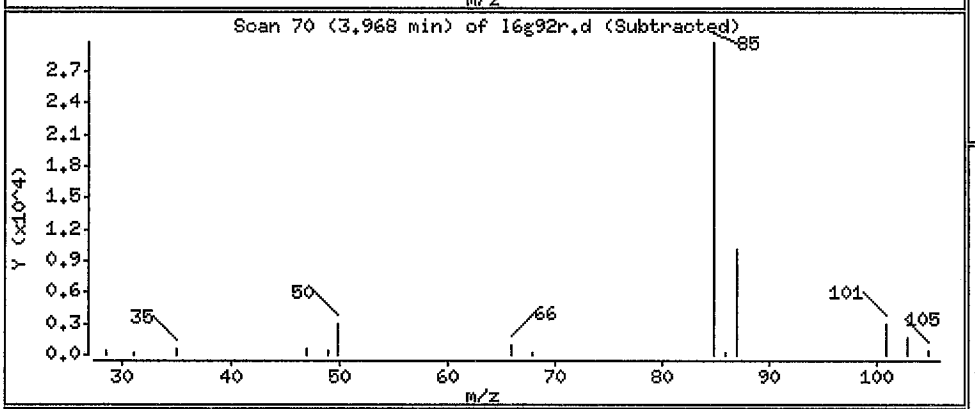
Sample Info: L6G921AA,2,0,,,

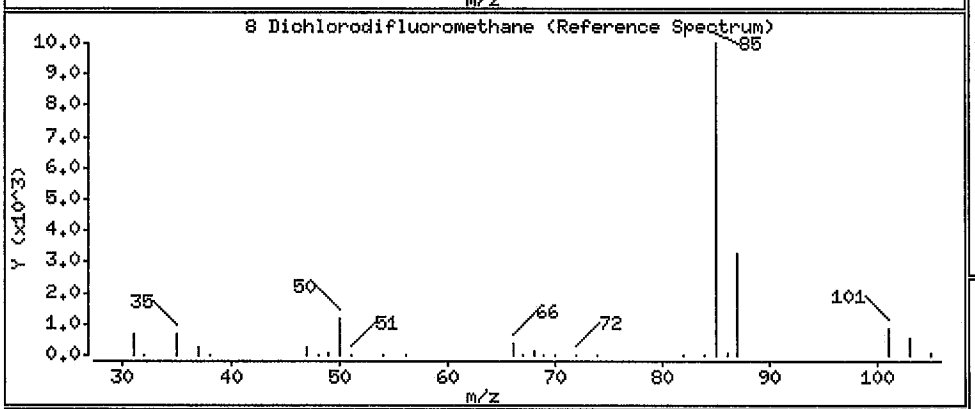
Purge Volume: 500.0 Operator: 7126

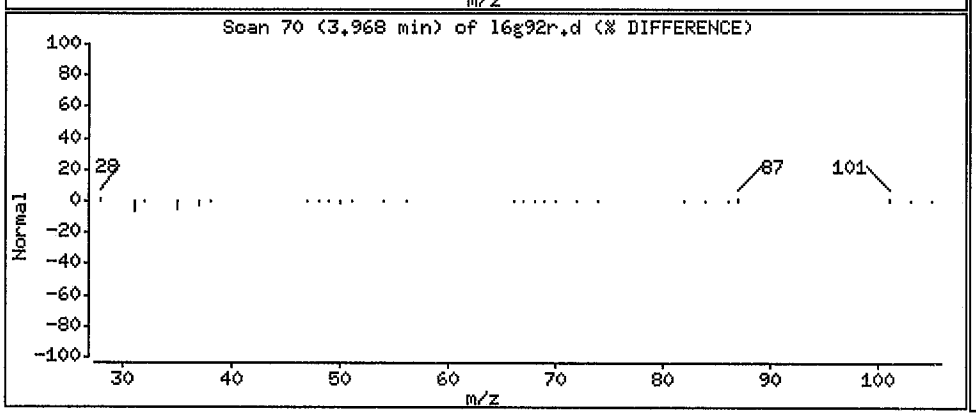
Column phase: Rtx-5 Column diameter: 0.32

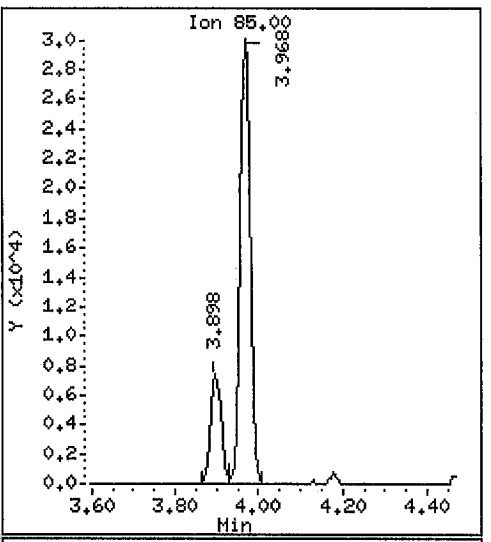
8 Dichlorodifluoromethane Concentration: 0.5220 ppb(v/v)

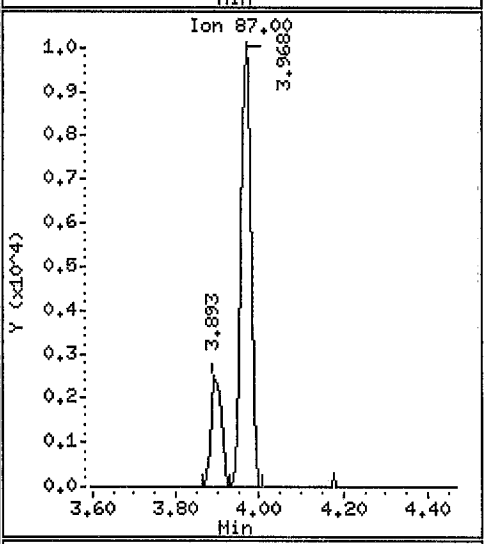


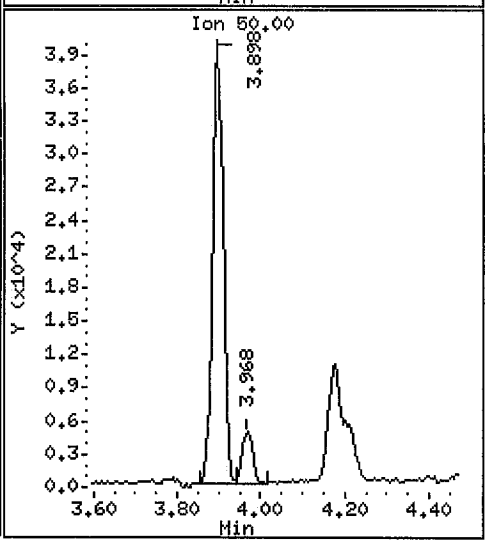












Data File: /var/chem/gcms/mj.i/J090910.b/l6g92r.d

Date : 10-SEP-2010 02:34

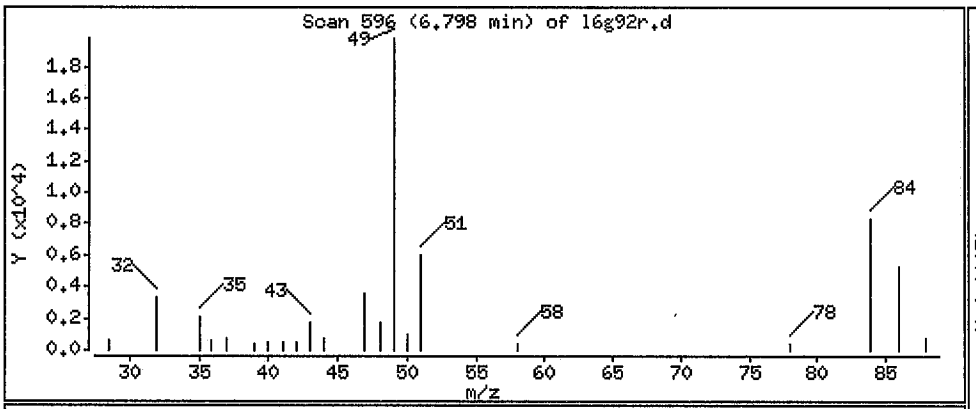
Client ID: IAQ-C1-9 Instrument: mj.i

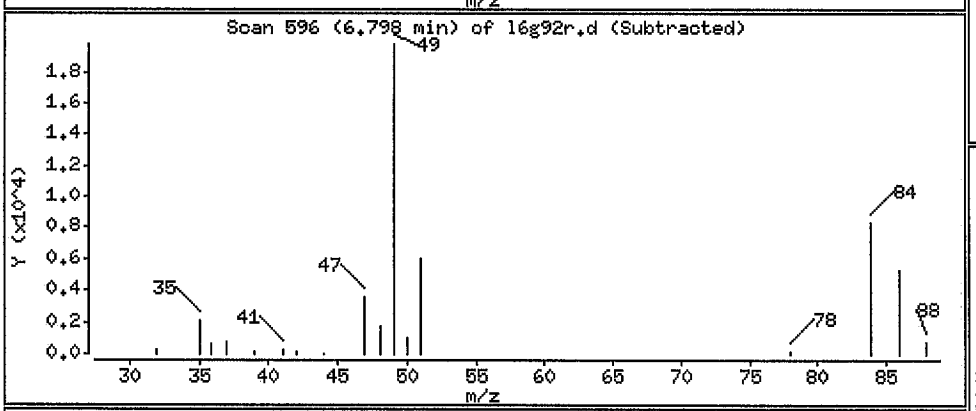
Sample Info: L6G921AA,2,0,,,

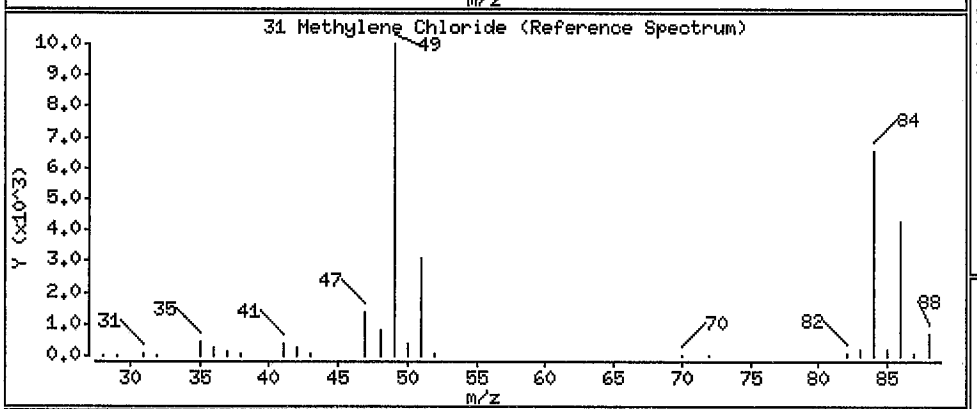
Purge Volume: 500.0 Operator: 7126

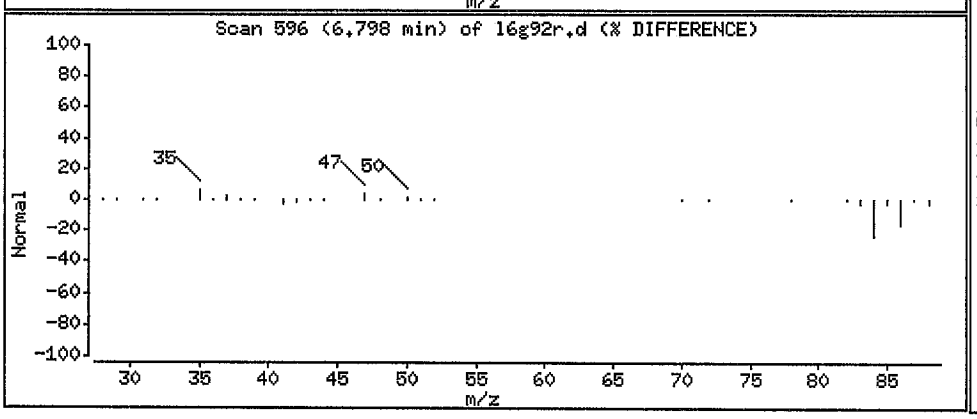
Column phase: Rtx-5 Column diameter: 0.32

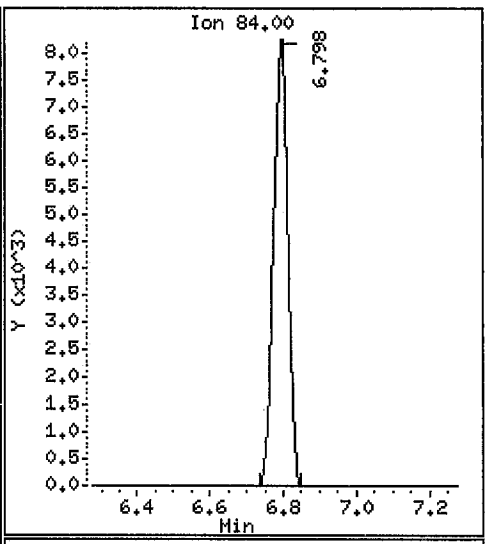
31 Methylene Chloride Concentration: 0.7062 ppb(v/v)

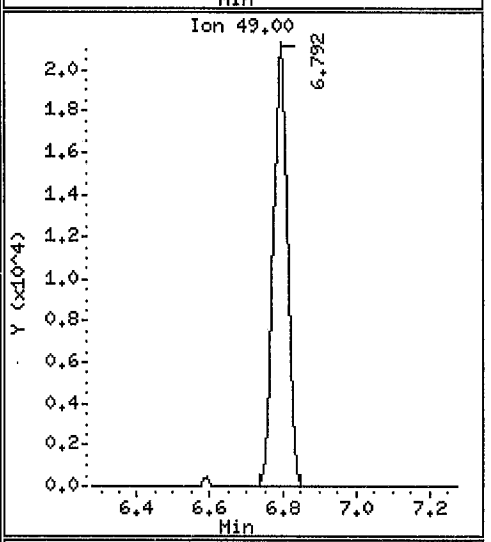


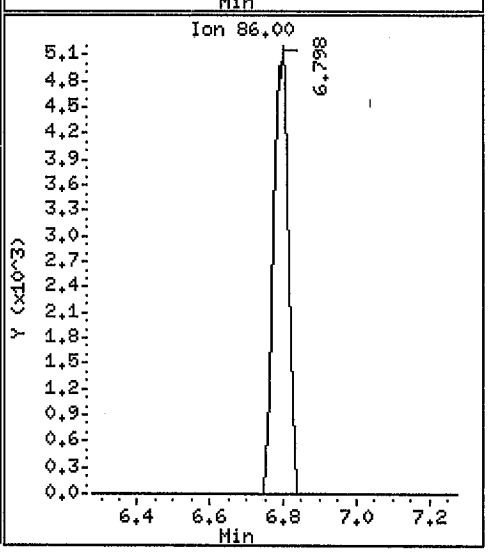












Data File: /var/chem/gcms/mj.i/J090910.b/l6g92r.d

Date : 10-SEP-2010 02:34

Client ID: IAQ-C1-9

Instrument: mj.i

Sample Info: L6G921AA,2,0,,,

Purge Volume: 500.0

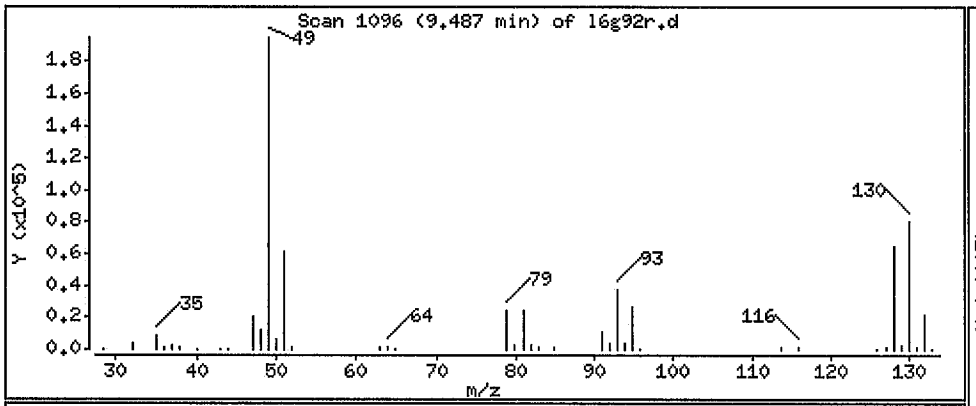
Operator: 7126

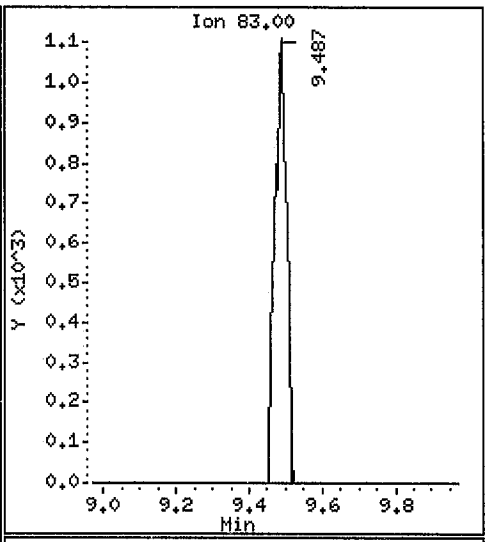
Column phase: Rtx-5

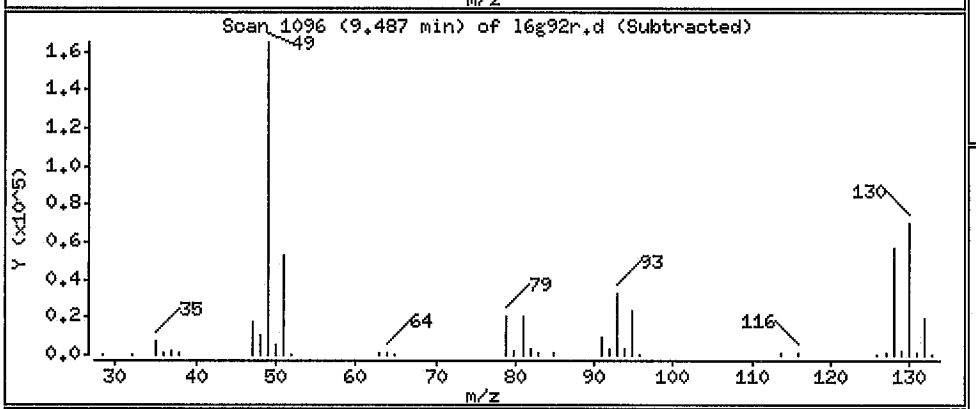
Column diameter: 0.32

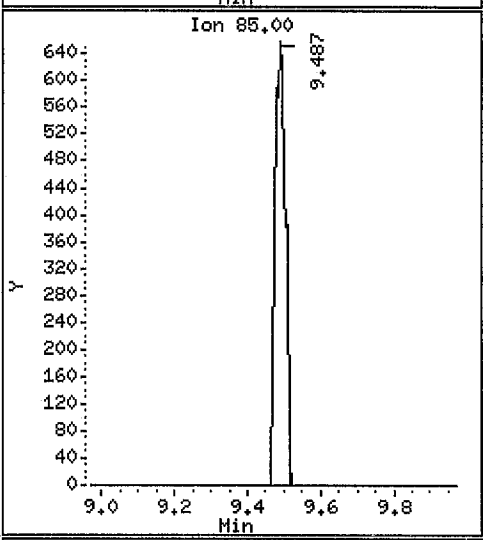
42 Chloroform

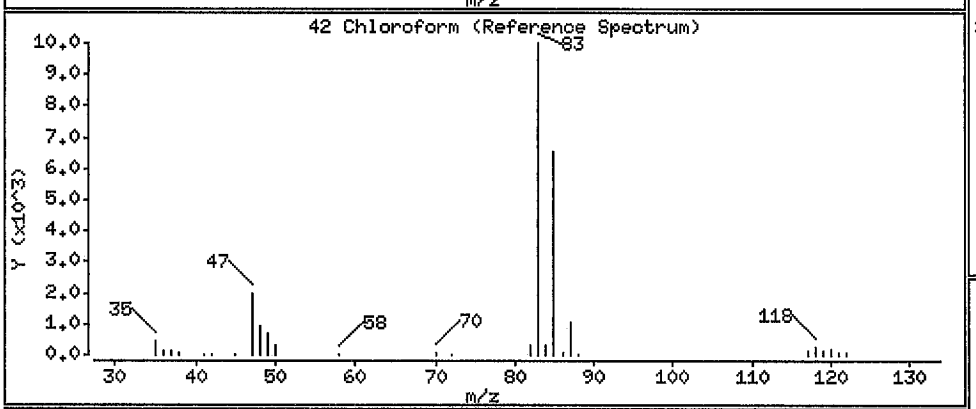
Concentration: 0.03569 ppb(v/v)

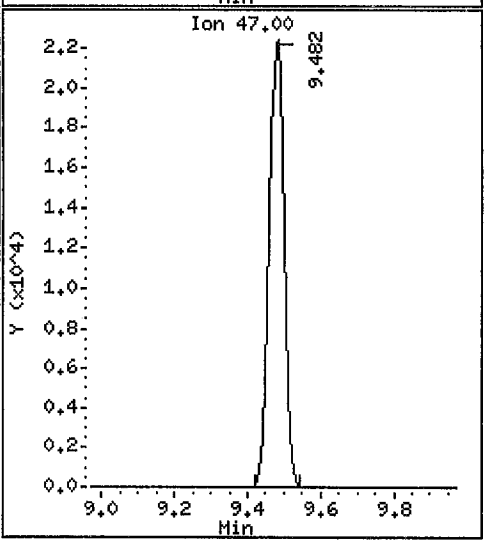


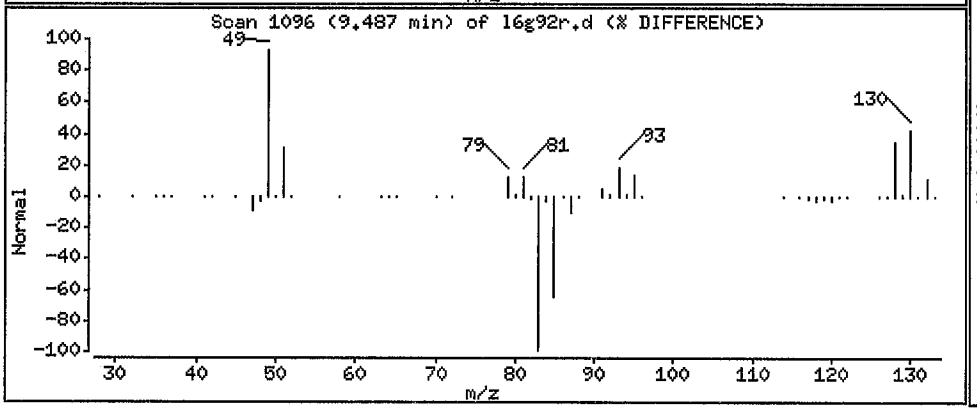












Data File: /var/chem/gcms/mj.i/J090910.b/l6g92r.d

Date : 10-SEP-2010 02:34

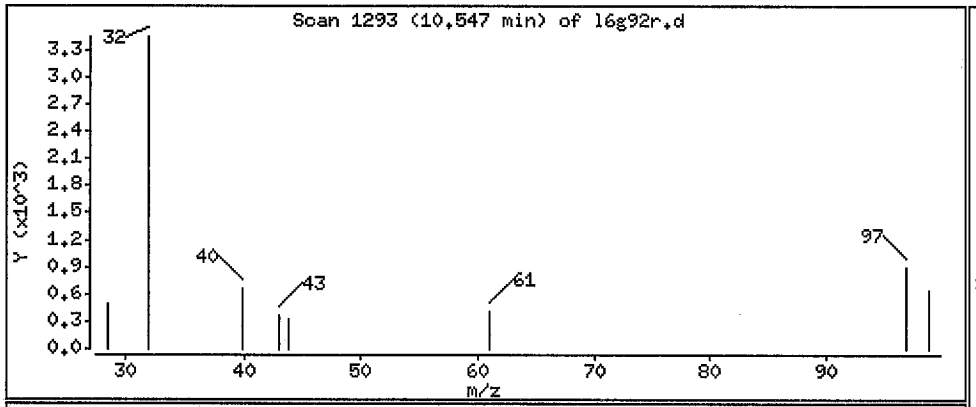
Client ID: IAQ-C1-9 Instrument: mj.i

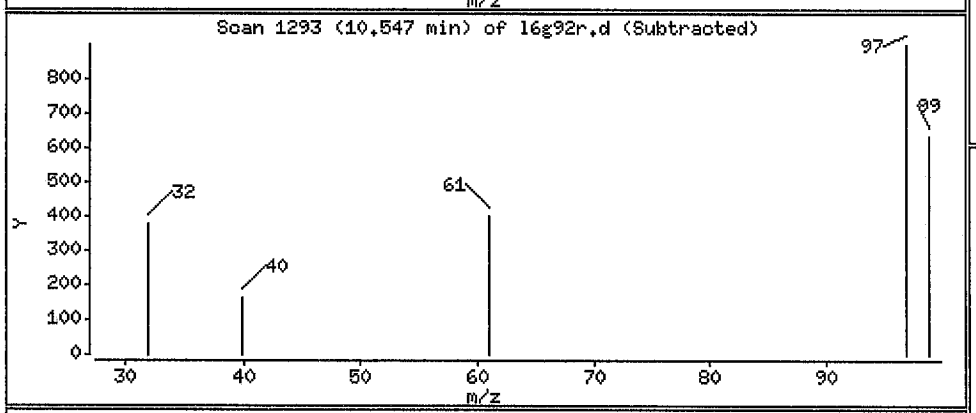
Sample Info: L6G921AA,2,0,,,

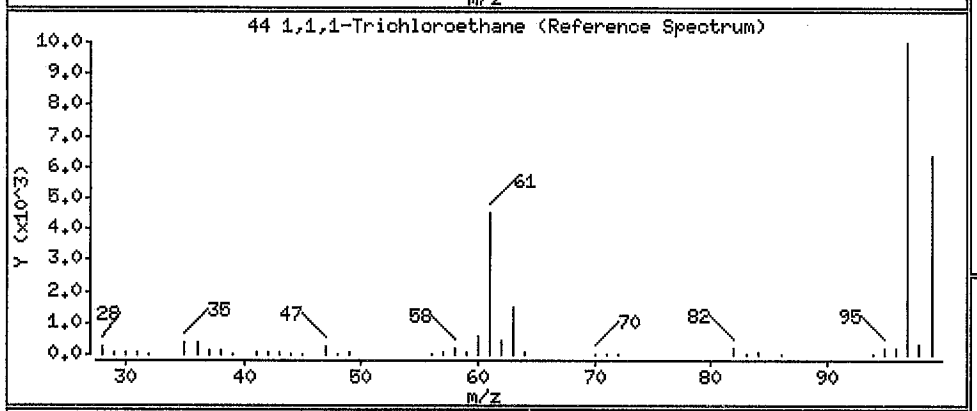
Purge Volume: 500.0 Operator: 7126

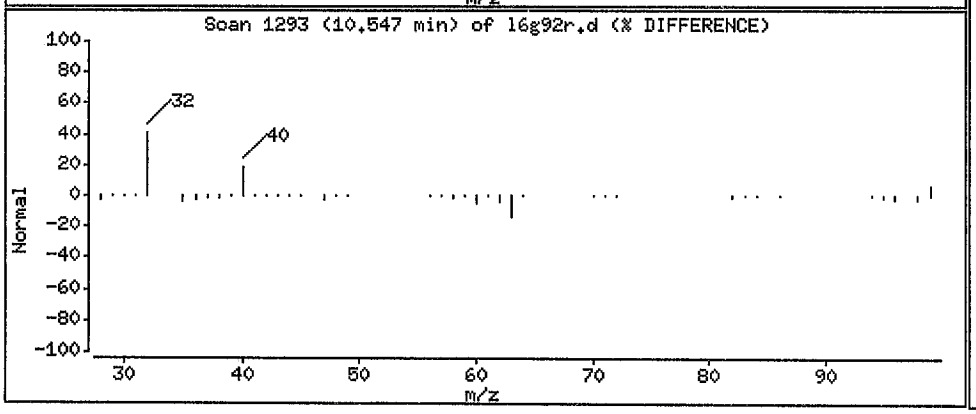
Column phase: Rtx-5 Column diameter: 0.32

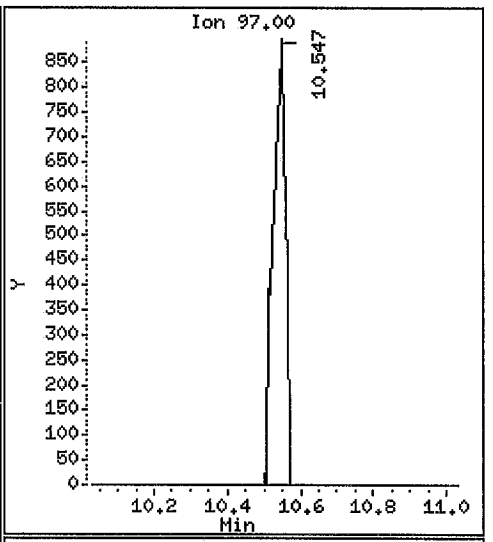
44 1,1,1-Trichloroethane Concentration: 0.02822 ppb(v/v)

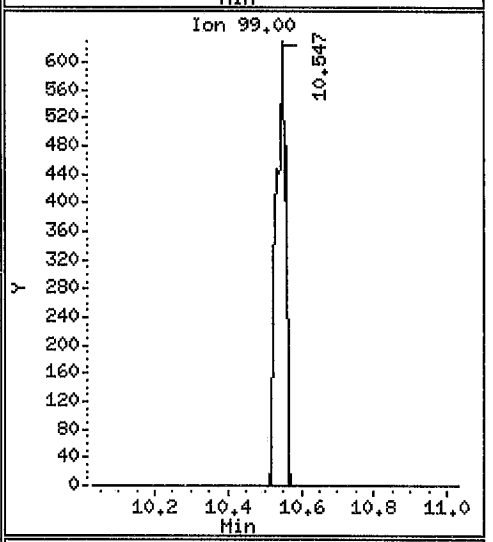


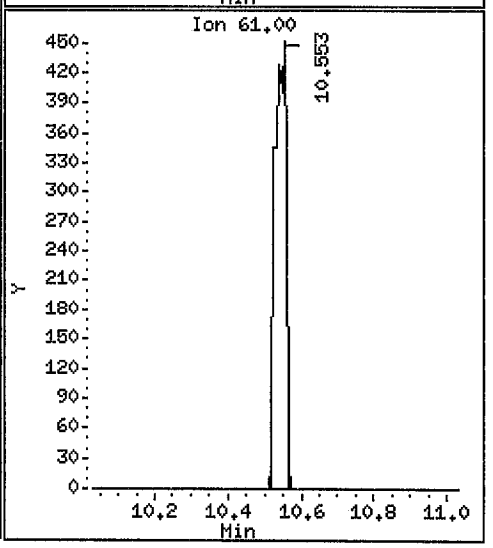












Data File: /var/chem/gcms/mj.i/J090910.b/l6g92r.d

Date : 10-SEP-2010 02:34

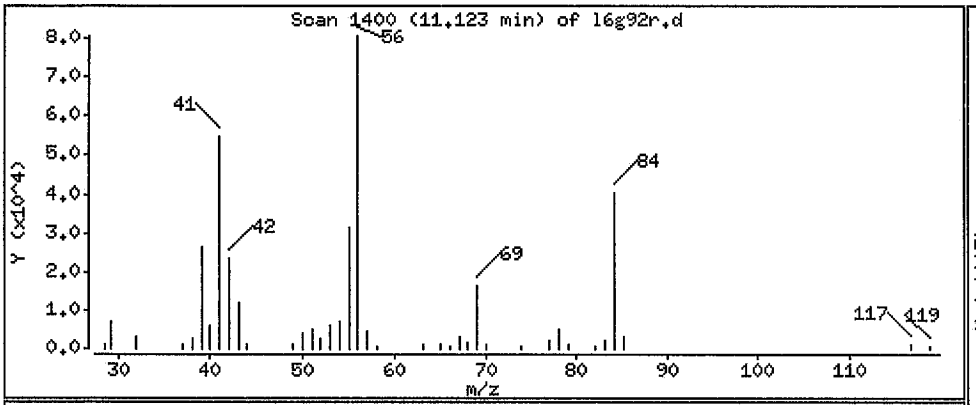
Client ID: IAQ-C1-9 Instrument: mj.i

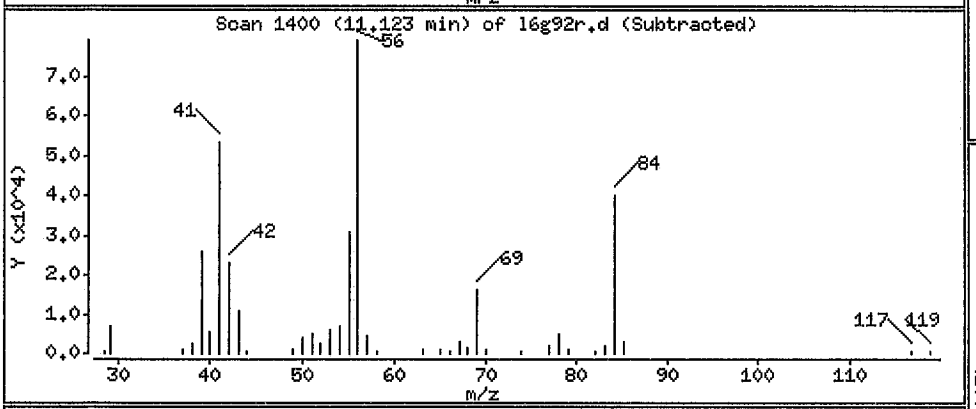
Sample Info: L6G921AA,2,0,,,

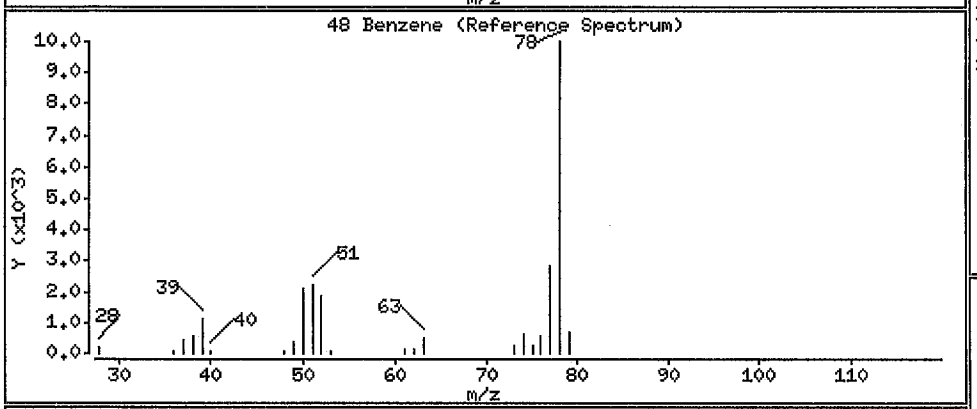
Purge Volume: 500.0 Operator: 7126

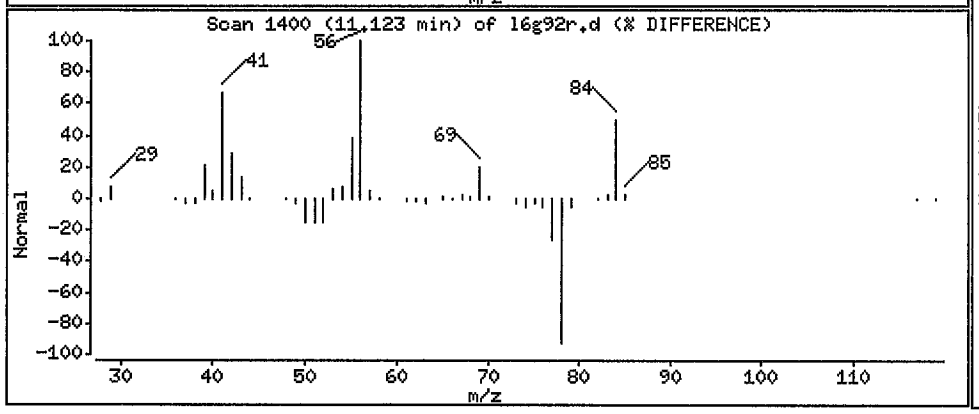
Column phase: Rtx-5 Column diameter: 0.32

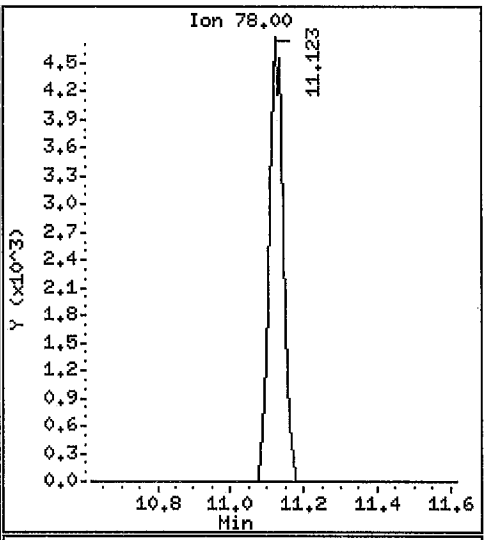
48 Benzene Concentration: 0.1269 ppb(v/v)

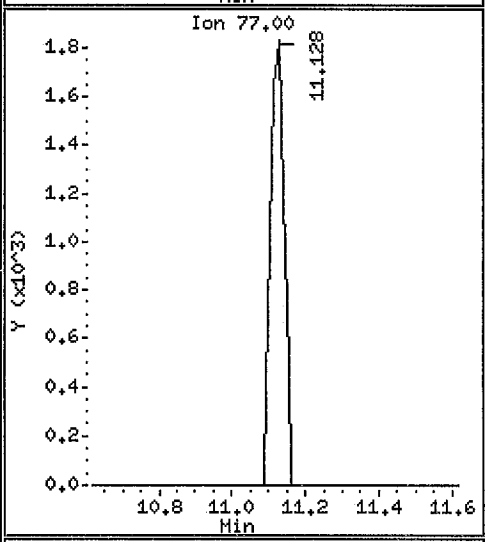


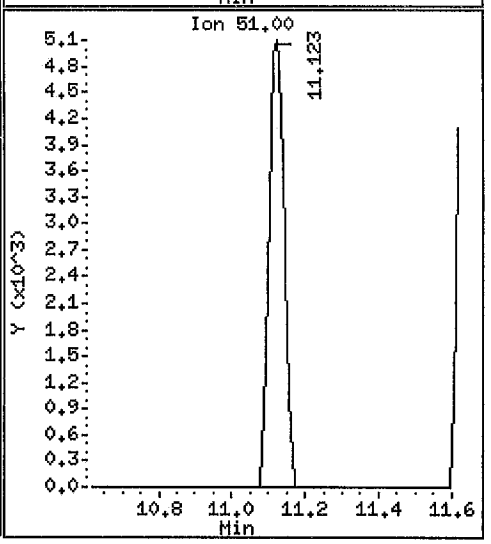












Data File: /var/chem/gcms/mj.i/J090910.b/l6g92r.d

Date : 10-SEP-2010 02:34

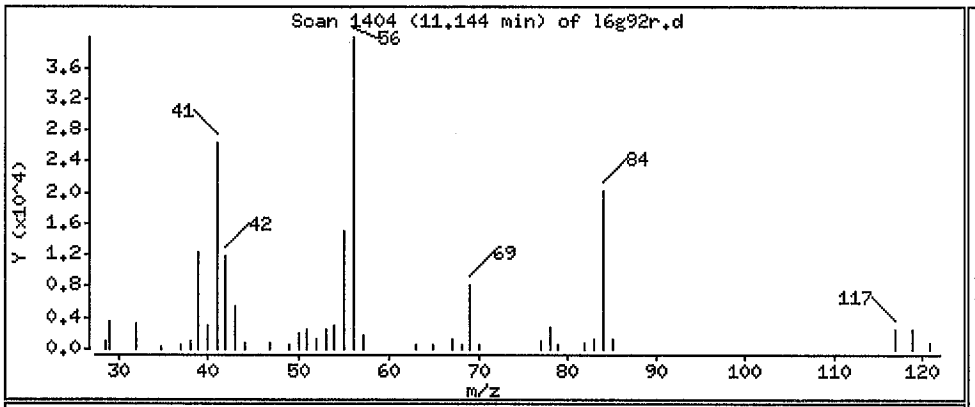
Client ID: IAQ-C1-9 Instrument: mj.i

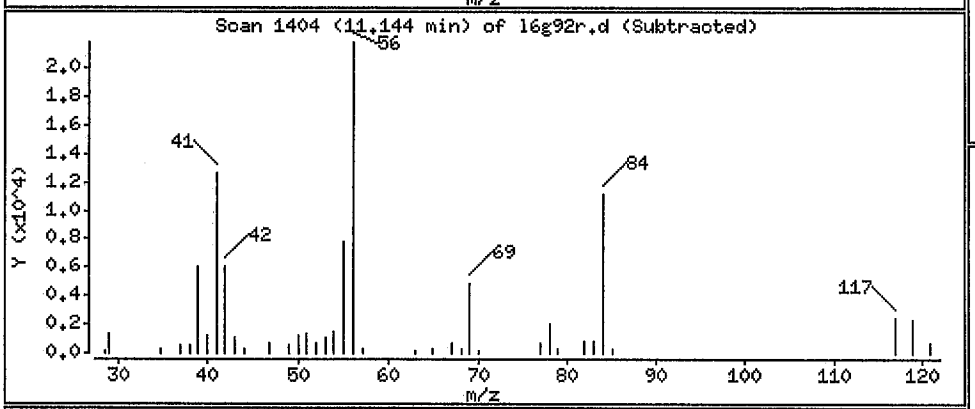
Sample Info: L6G921AA,2,0,,,

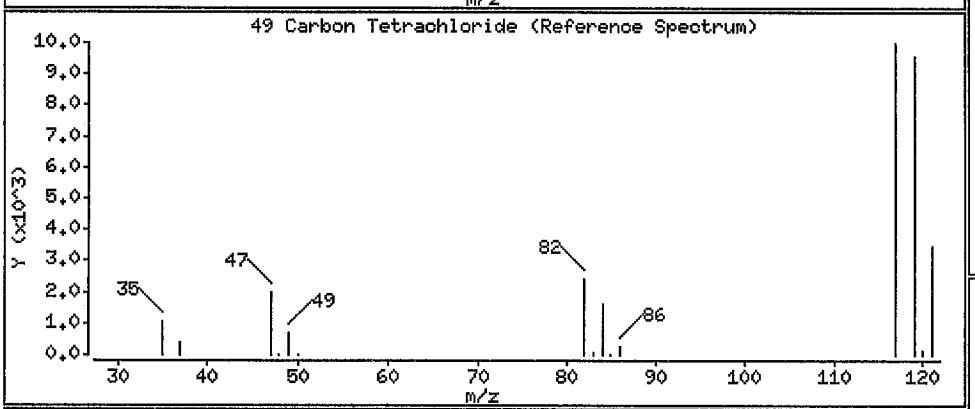
Purge Volume: 500.0 Operator: 7126

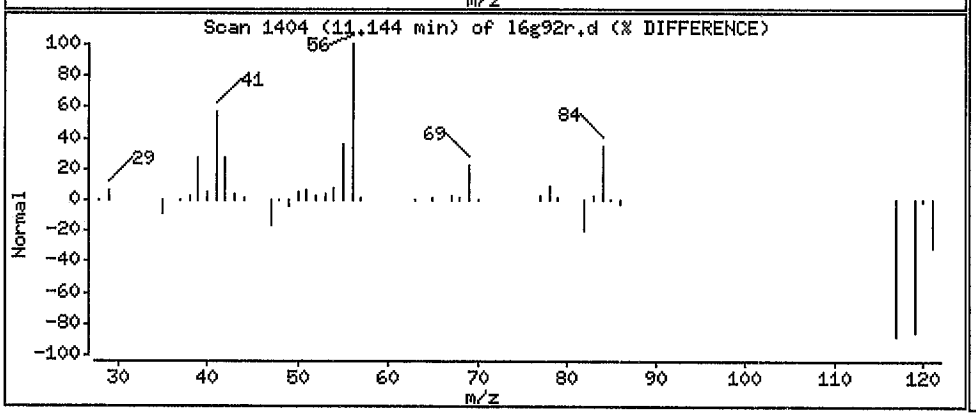
Column phase: Rtx-5 Column diameter: 0.32

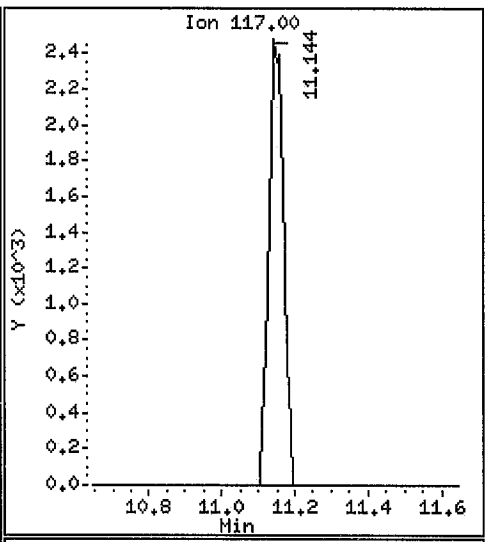
49 Carbon Tetrachloride Concentration: 0.08838 ppb(v/v)

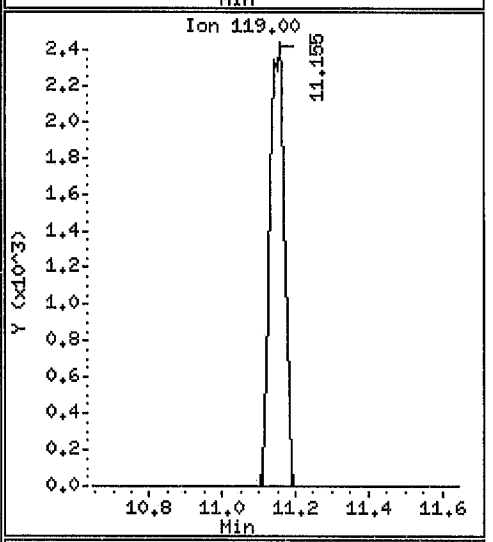


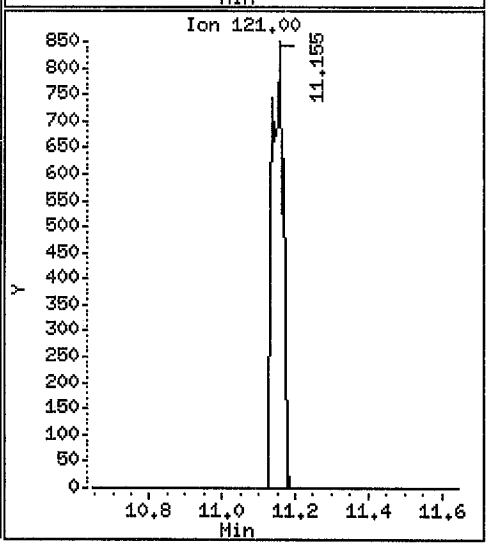












Data File: /var/chem/gcms/mj.i/J090910.b/l6g92r.d

Date : 10-SEP-2010 02:34

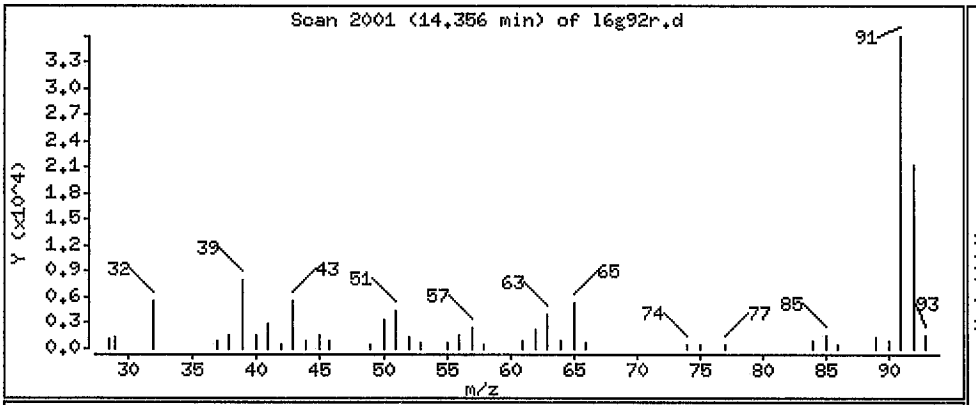
Client ID: IAQ-C1-9 Instrument: mj.i

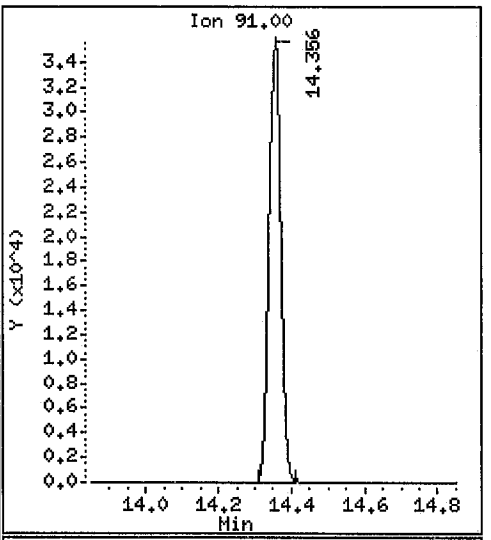
Sample Info: L6G921AA,2,0,,,

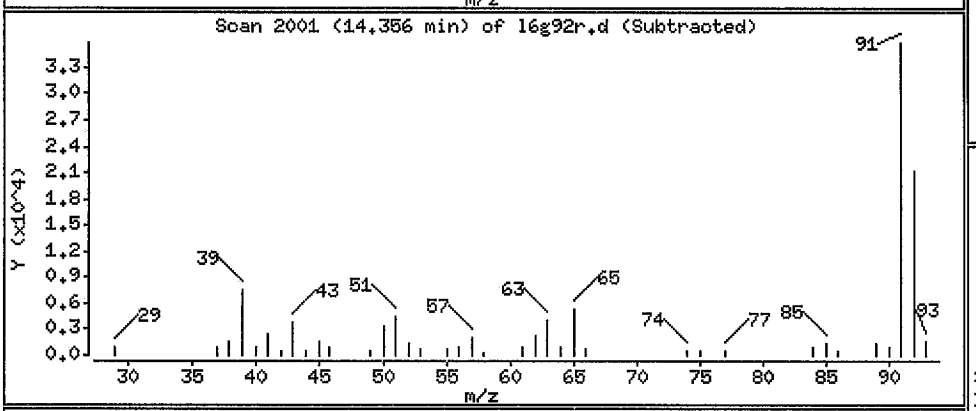
Purge Volume: 500.0 Operator: 7126

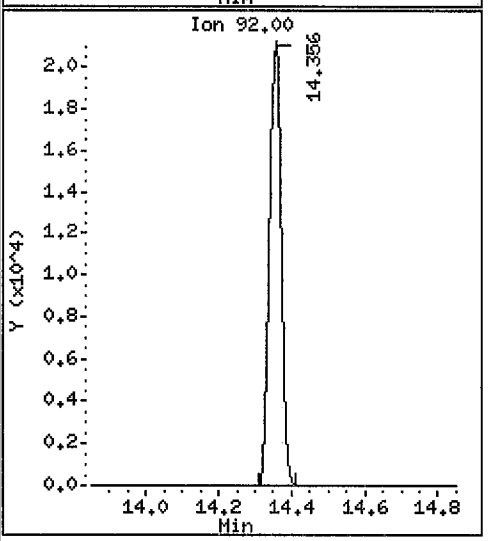
Column phase: Rtx-5 Column diameter: 0.32

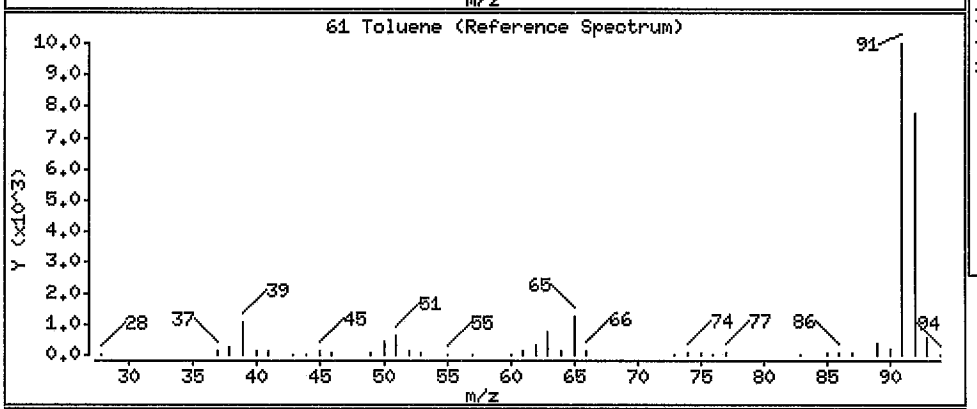
61 Toluene Concentration: 0.8654 ppb(v/v)

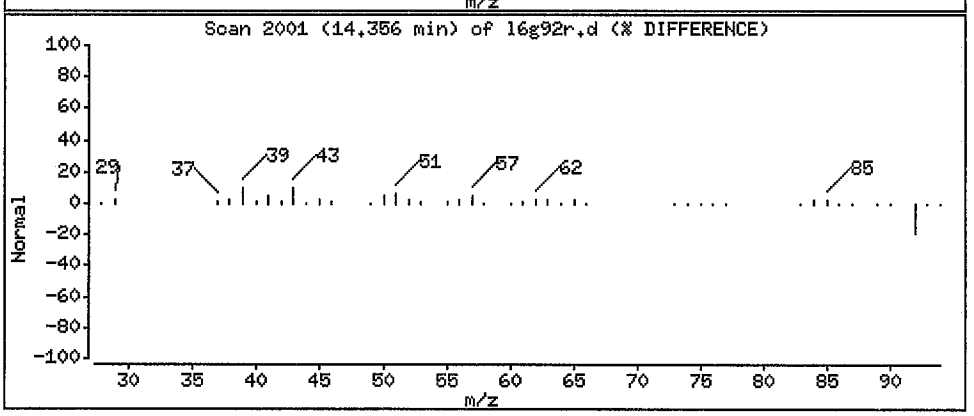












Data File: /var/chem/gcms/mj.i/J090910.b/16g92r.d

Date : 10-SEP-2010 02:34

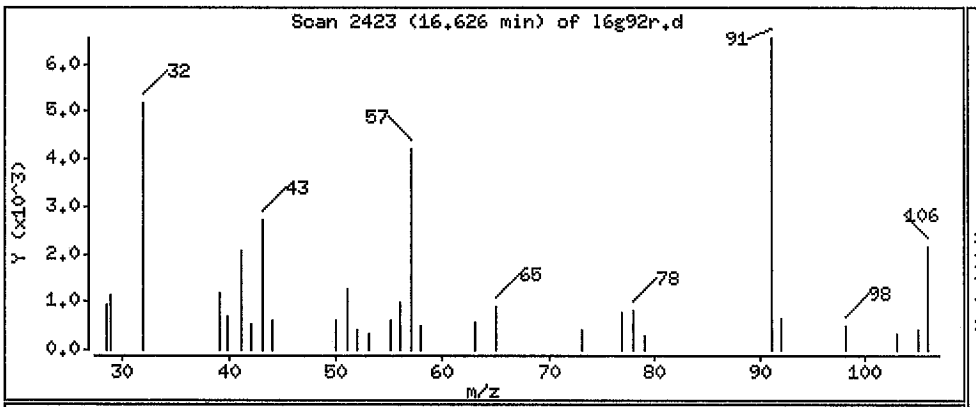
Client ID: IAQ-C1-9 Instrument: mj.i

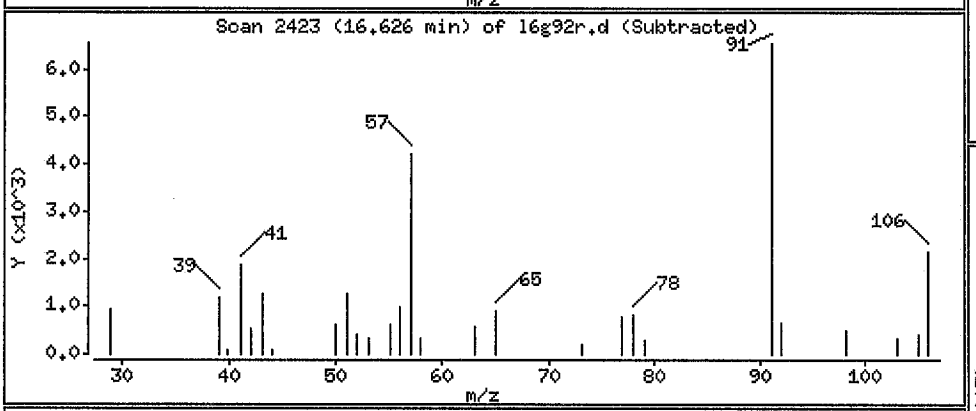
Sample Info: L6G921AA,2,0,,,

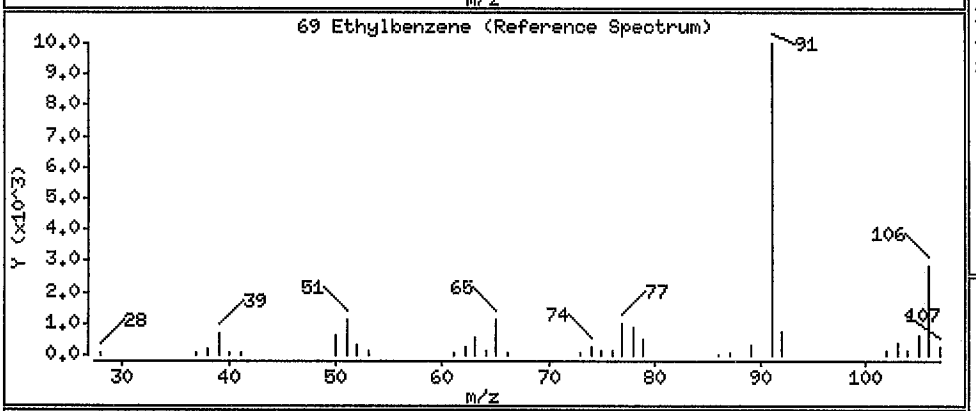
Purge Volume: 500.0 Operator: 7126

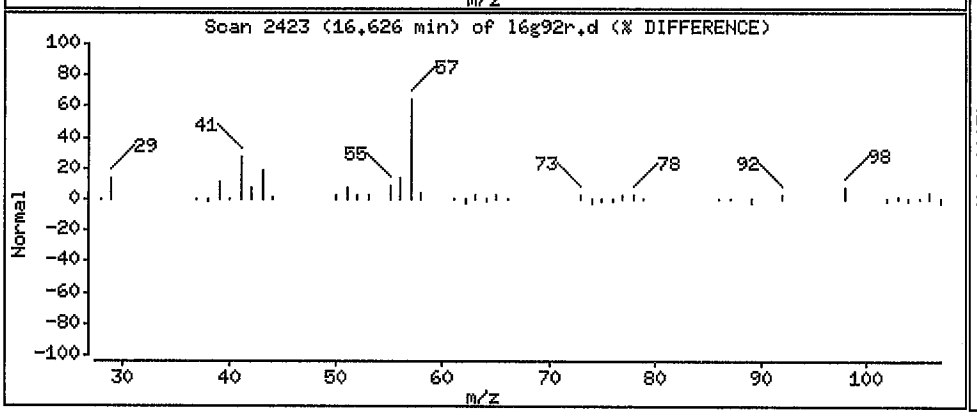
Column phase: Rtx-5 Column diameter: 0.32

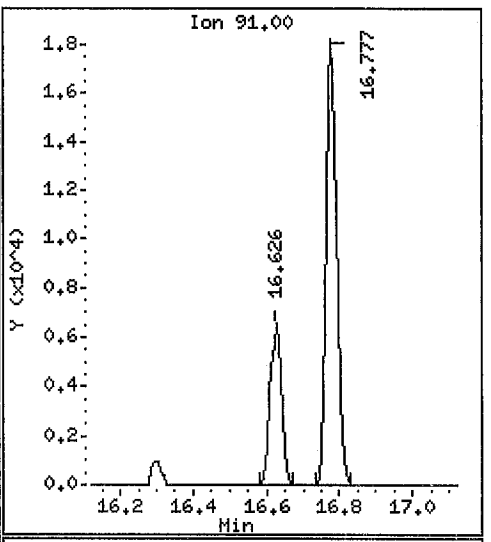
69 Ethylbenzene Concentration: 0.1306 ppb(v/v)

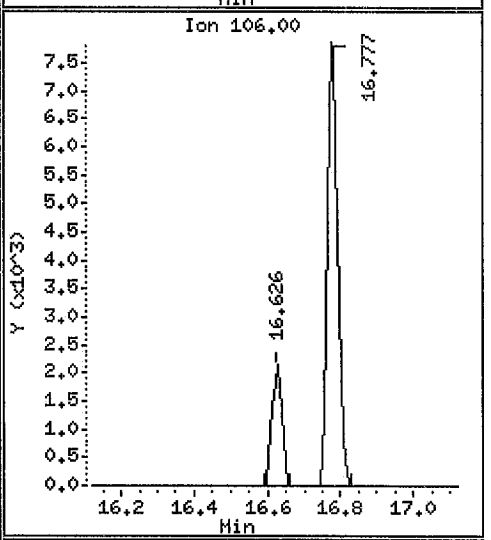


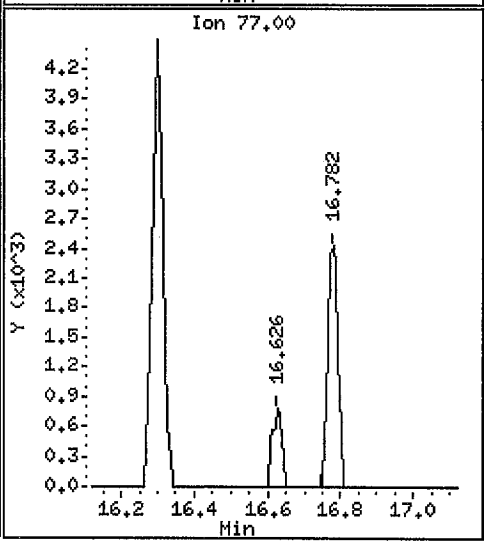












Data File: /var/chem/gcms/mj.i/J090910.b/16g92r.d

Date : 10-SEP-2010 02:34

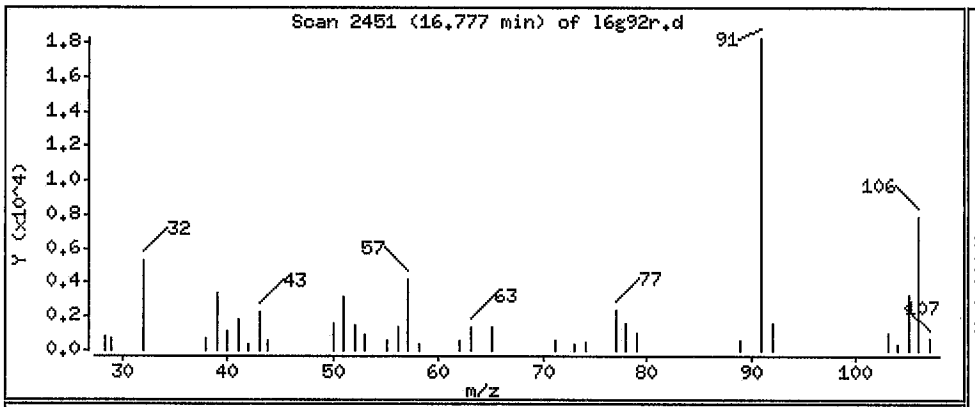
Client ID: IAQ-C1-9 Instrument: mj.i

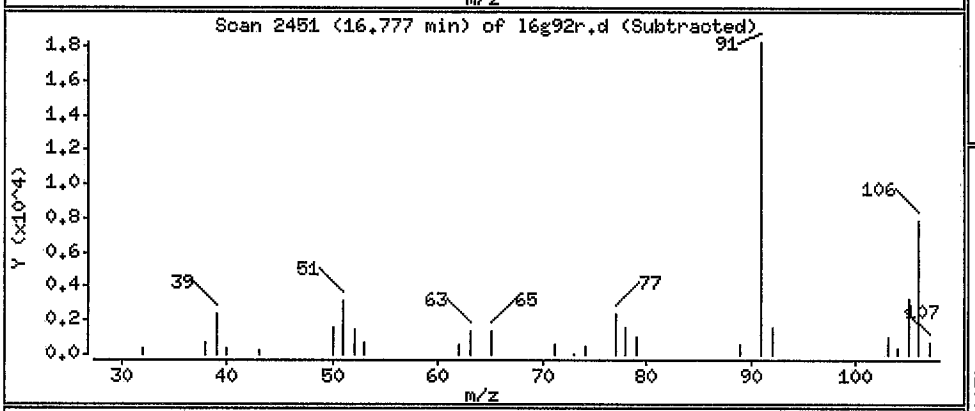
Sample Info: L6G921AA,2,0,,,

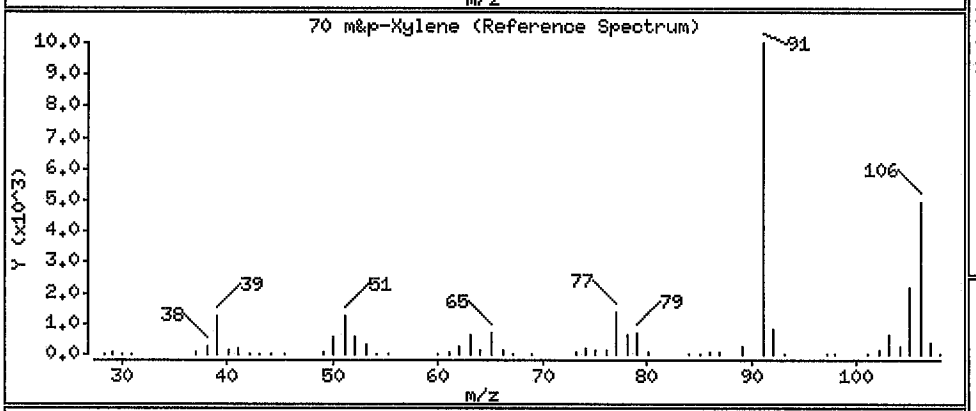
Purge Volume: 500.0 Operator: 7126

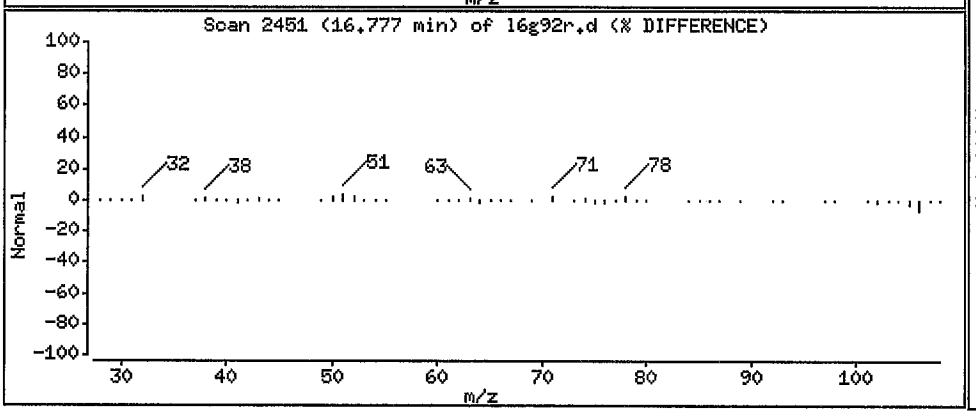
Column phase: Rtx-5 Column diameter: 0.32

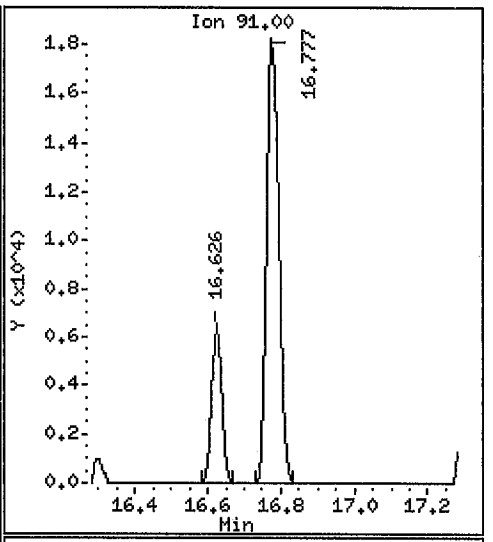
70 m&p-Xylene Concentration: 0.5058 ppb(v/v)

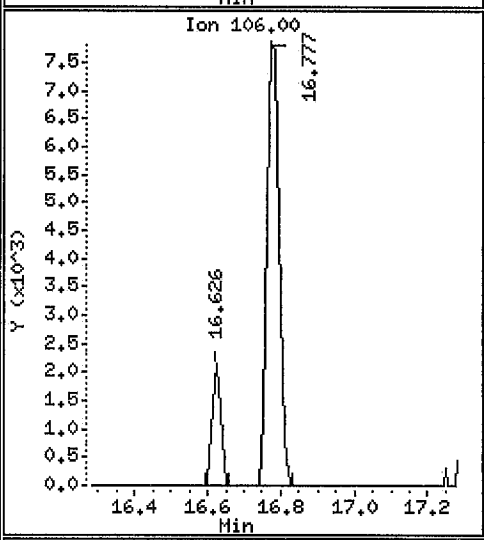


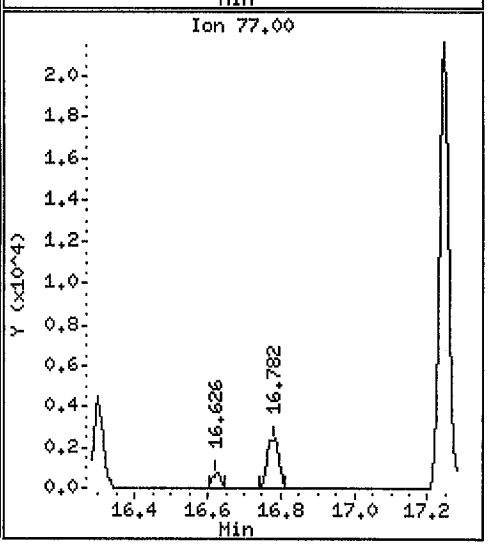












Data File: /var/chem/goms/mj.i/J090910.b/16g92r.d

Date : 10-SEP-2010 02:34

Client ID: IAQ-C1-9

Instrument: mj.i

Sample Info: L6G921AA,2,0,,,

Purge Volume: 500.0

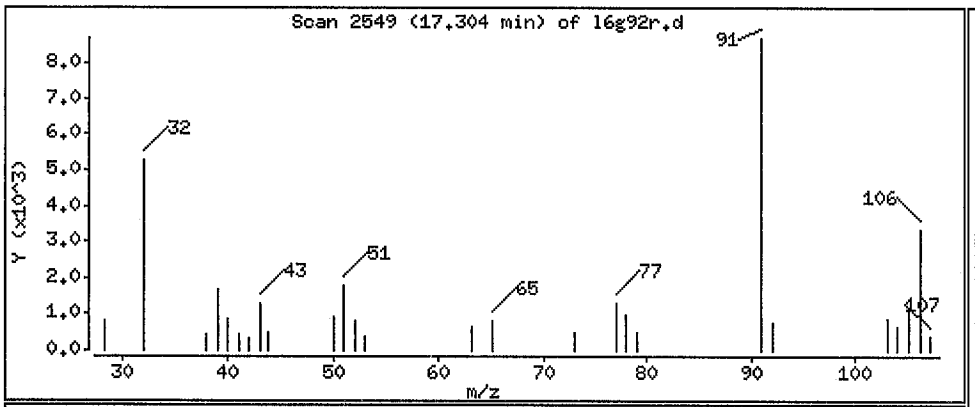
Operator: 7126

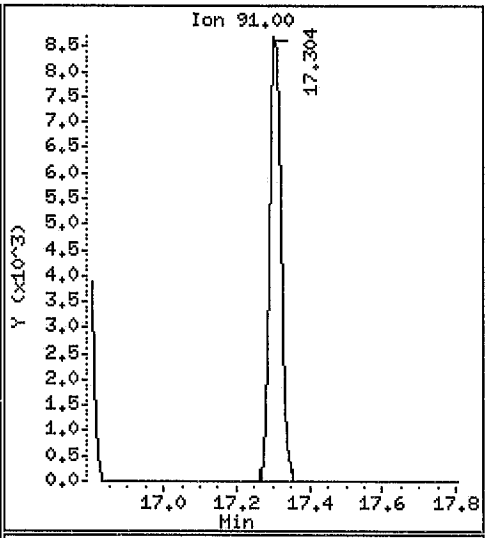
Column phase: Rtx-5

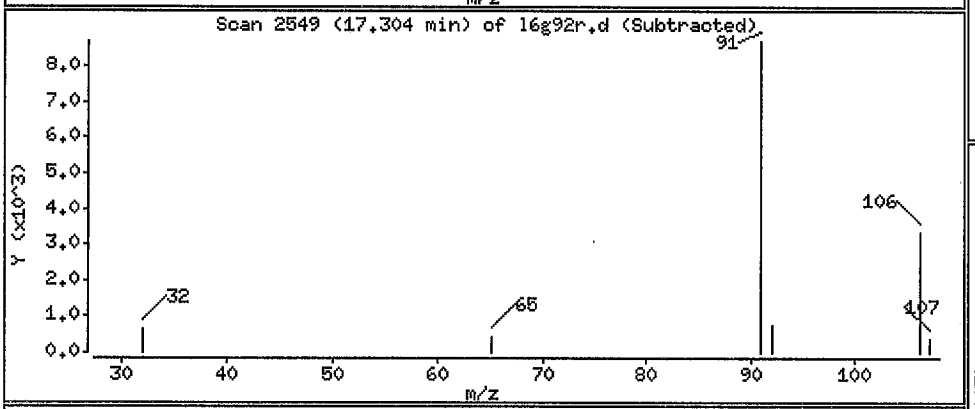
Column diameter: 0.32

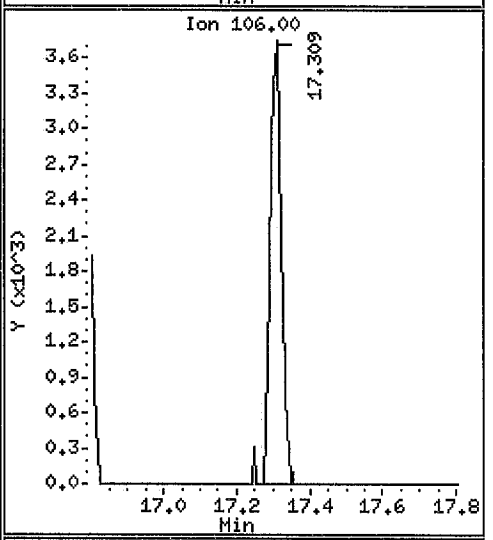
74 o-Xylene

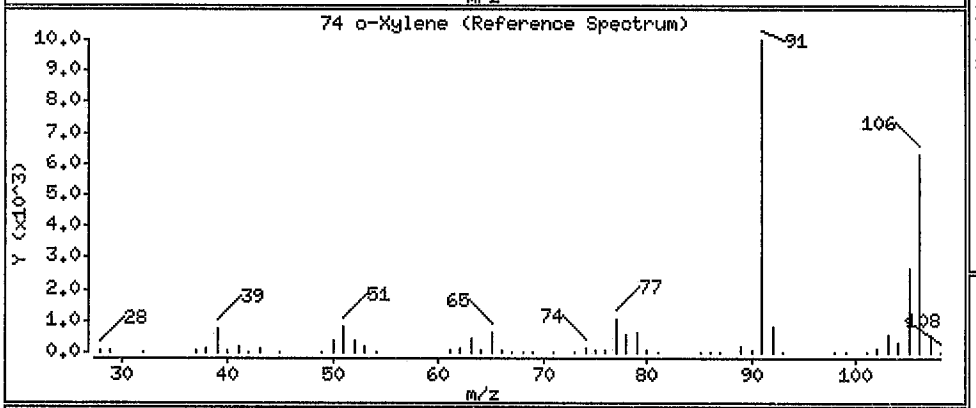
Concentration: 0.2154 ppb(v/v)

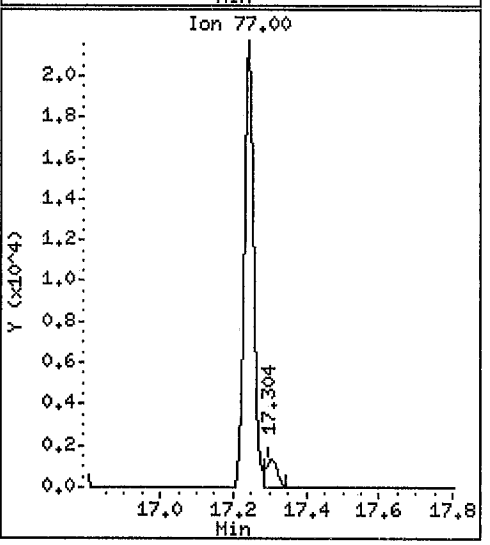


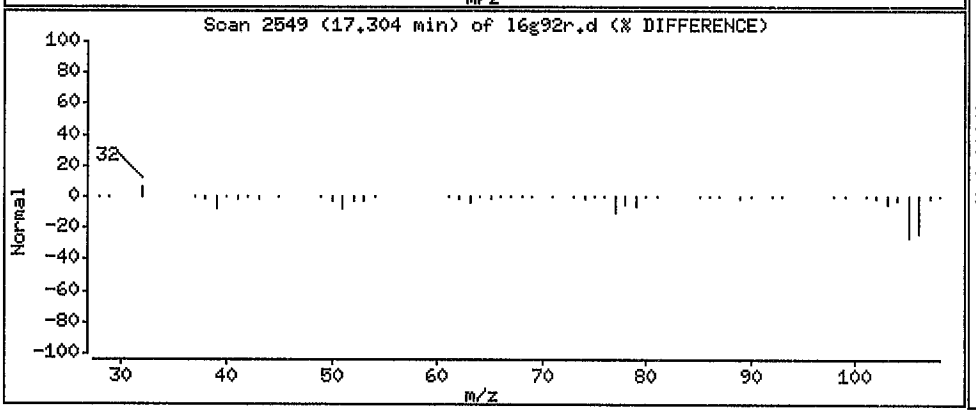












Data File: /var/chem/gcms/mj.i/J090910.b/l6g92r.d

Date : 10-SEP-2010 02:34

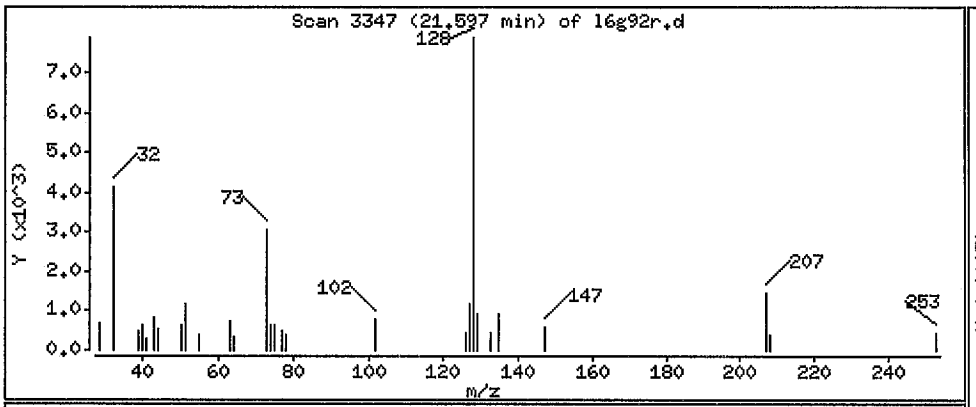
Client ID: IAQ-C1-9 Instrument: mj.i

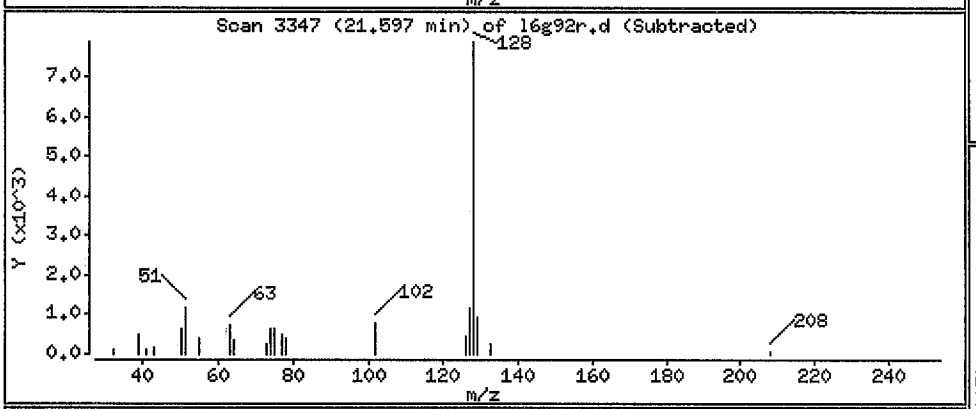
Sample Info: L6G921AA,2,0,,,

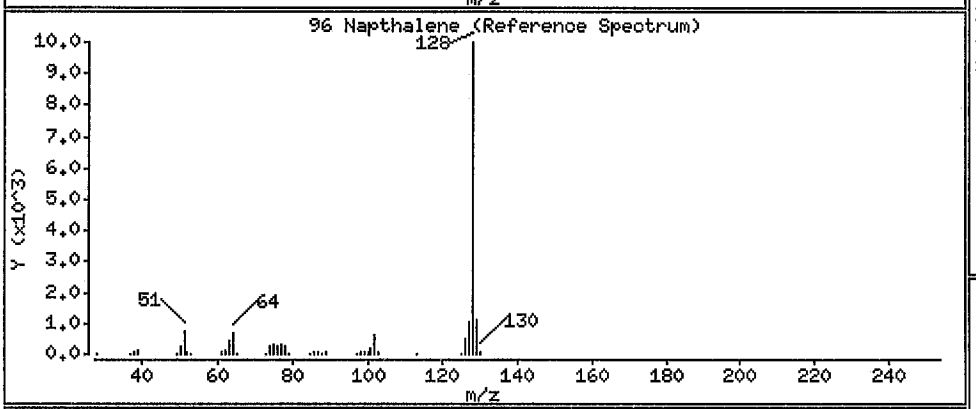
Purge Volume: 500.0 Operator: 7126

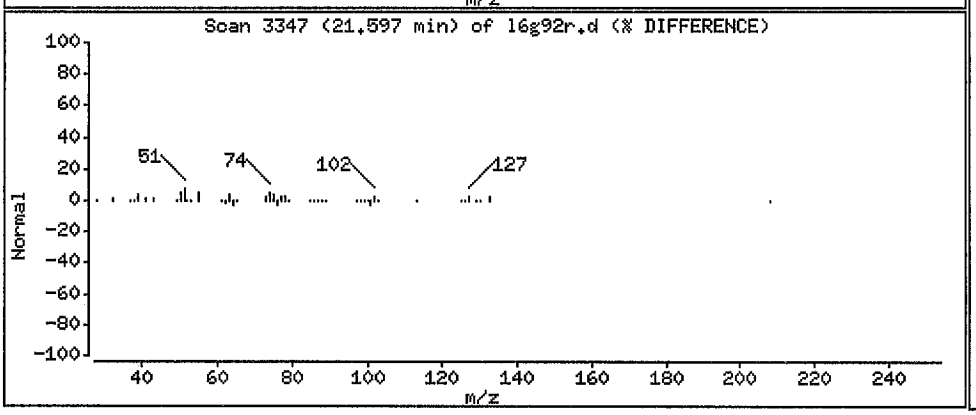
Column phase: Rtx-5 Column diameter: 0.32

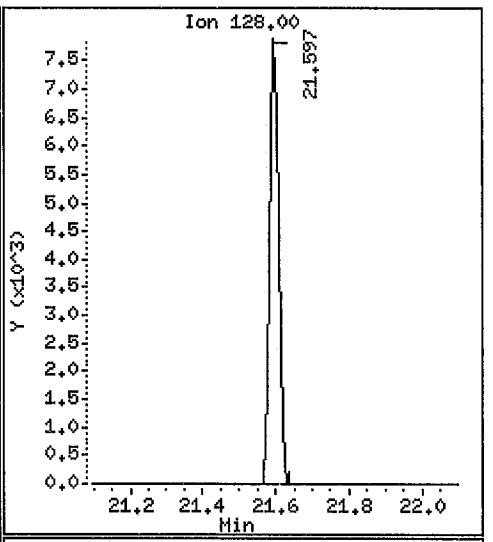
96 Napthalene Concentration: 0.1550 ppb(v/v)

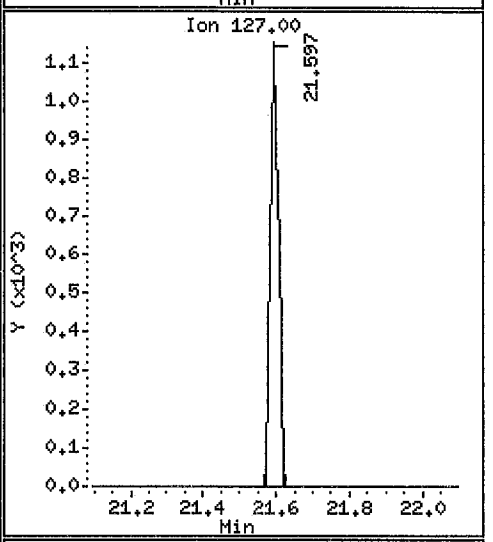


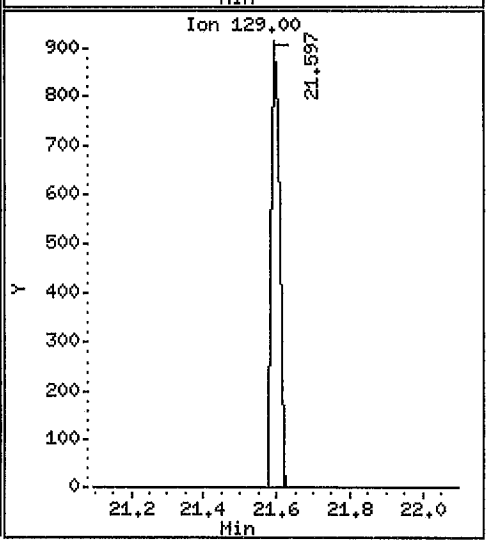












Tetra Tech NUS, Inc

Client Sample ID: IAQ-C2-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 019	**Work Order #**	L6G951AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	5	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.20**	**0.40**	**0.12**	**0.63 J**	**1.3**	**0.37**
Carbon tetrachloride	**0.086**	**0.40**	**0.075**	**0.54 J**	**2.5**	**0.47**
Chlorodifluoromethane	**54**	**0.40**	**0.075**	**190**	**1.4**	**0.27**
Chloroform	ND	0.40	0.075	ND	2.0	0.37
Dichlorodifluoromethane	**0.53**	**0.40**	**0.14**	**2.6**	**2.0**	**0.67**
1,1-Dichloroethane	ND	0.40	0.050	ND	1.6	0.20
1,2-Dichloroethane	ND	0.40	0.095	ND	1.6	0.38
cis-1,2-Dichloroethene	ND	0.40	0.12	ND	1.6	0.48
trans-1,2-Dichloroethene	ND	0.40	0.10	ND	1.6	0.40
1,1-Dichloroethene	ND	0.40	0.065	ND	1.6	0.26
Ethylbenzene	**0.20**	**0.40**	**0.14**	**0.86 J**	**1.7**	**0.59**
Methylene chloride	**1.4**	**1.0**	**0.090**	**4.9 B**	**3.5**	**0.31**
Methyl tert-butyl ether	ND	2.0	0.34	ND	7.2	1.2
Naphthalene	ND	1.0	0.18	ND	5.2	0.94
Tetrachloroethene	ND	0.40	0.080	ND	2.7	0.54
Toluene	**1.7**	**0.40**	**0.10**	**6.4**	**1.5**	**0.40**
1,2,4-Trichlorobenzene	ND	2.0	0.20	ND	15	1.4
1,1,1-Trichloroethane	**0.060**	**0.40**	**0.060**	**0.33 J**	**2.2**	**0.33**
1,1,2-Trichloroethane	ND	0.40	0.10	ND	2.2	0.57
Trichloroethene	ND	0.20	0.070	ND	1.1	0.38
Vinyl chloride	ND	0.40	0.14	ND	1.0	0.37
m-Xylene & p-Xylene	**0.77**	**0.40**	**0.25**	**3.3**	**1.7**	**1.1**
o-Xylene	**0.31**	**0.40**	**0.12**	**1.4 J**	**1.7**	**0.52**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090910.b/l6g951aa.d
Report Date: 10-Sep-2010 11:37

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090910.b/l6g951aa.d
Lab Smp Id: L6G951AA Client Smp ID: IAQ-C2-9
Inj Date : 09-SEP-2010 14:10
Operator : 7126 Inst ID: mj.i
Smp Info : ,5,0,,,
Misc Info : J090910,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090910.b/TO15.m
Meth Date : 10-Sep-2010 11:28 barlozha Quant Type: ISTD
Cal Date : 09-SEP-2010 10:43 Cal File: j1pti09.d
Als bottle: 5
Dil Factor: 5.00000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	5.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

9/13/10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
*	1 Bromochloromethane	128	9.474	9.468	(1.000)	185784	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.637	11.636	(1.000)	909160	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.301	16.300	(1.000)	771486	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.909	17.914	(1.099)	605784	4.13705	4.137
	7 Chlorodifluoromethane	67	3.896	3.900	(0.411)	254164	10.8178	54.09
	8 Dichlorodifluoromethane	85	3.971	3.970	(0.419)	21550	0.10682	0.5341
	31 Methylene Chloride	84	6.790	6.778	(0.717)	17225	0.28493	1.425
	44 1,1,1-Trichloroethane	97	10.534	10.533	(1.112)	1686	0.01200	0.06002
	48 Benzene	78	11.120	11.119	(0.956)	7612	0.03961	0.1980
	49 Carbon Tetrachloride	117	11.147	11.146	(0.958)	2587	0.01718	0.08589
	61 Toluene	91	14.353	14.352	(0.881)	61384	0.33786	1.689
	69 Ethylbenzene	91	16.624	16.623	(1.020)	8233	0.03952	0.1976
	70 m&p-Xylene	91	16.780	16.784	(1.029)	24236	0.15384	0.7692
M	178 Xylene (total)	100				34523	0.21661	1.083
	74 o-Xylene	91	17.307	17.306	(1.062)	10286	0.06277	0.3138

Data File: /var/chem/gcms/mj.i/J090910.b/l6g951aa.d
Report Date: 10-Sep-2010 11:37

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g951aa.d
Lab Smp Id: L6G951AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Calibration Date: 09-SEP-2010
Calibration Time: 09:40
Client Smp ID: IAQ-C2-9
Level: LOW
Sample Type: AIR
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	166835	99267	234403	185784	11.36
2 1,4-Difluorobenze	787366	468483	1106249	909160	15.47
3 Chlorobenzene-d5	701011	417102	984920	771486	10.05

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.47	9.14	9.80	9.47	0.07
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.01
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090910.b/l6g951aa.d
Report Date: 10-Sep-2010 11:37

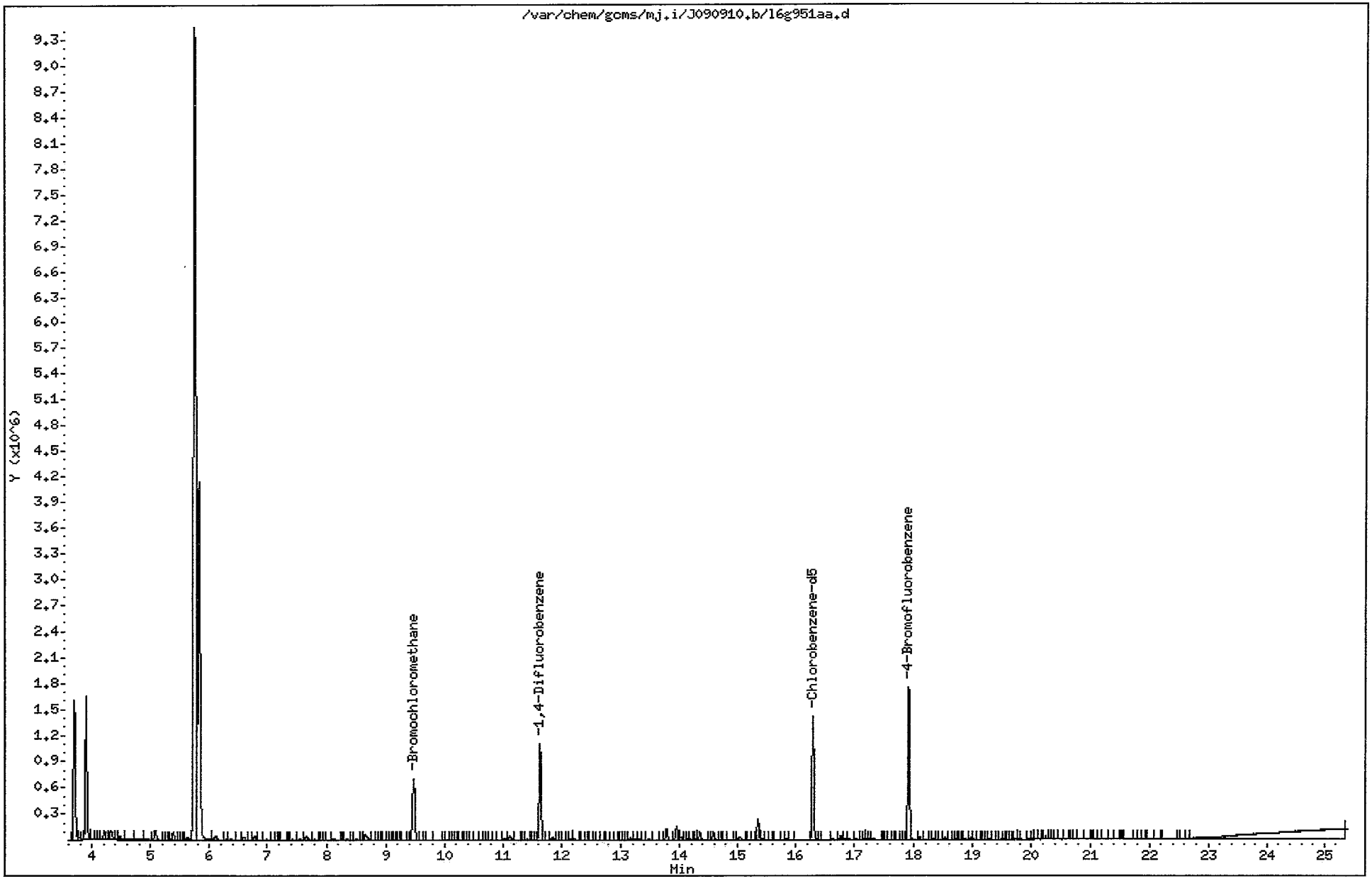
TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G951AA
Client Smp ID: IAQ-C2-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.137	103.43	70-130

Data File: /var/chem/gcms/mj.i/J090910.b/l6g951aa.d
Date : 09-SEP-2010 14:10
Client ID: IAQ-C2-9
Instrument: mj.i
Sample Info: ,5,0,,,
Purge Volume: 500.0
Operator: 7126
Column phase: Rtx-5
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J090910.b/16g951aa.d

Date : 09-SEP-2010 14:10

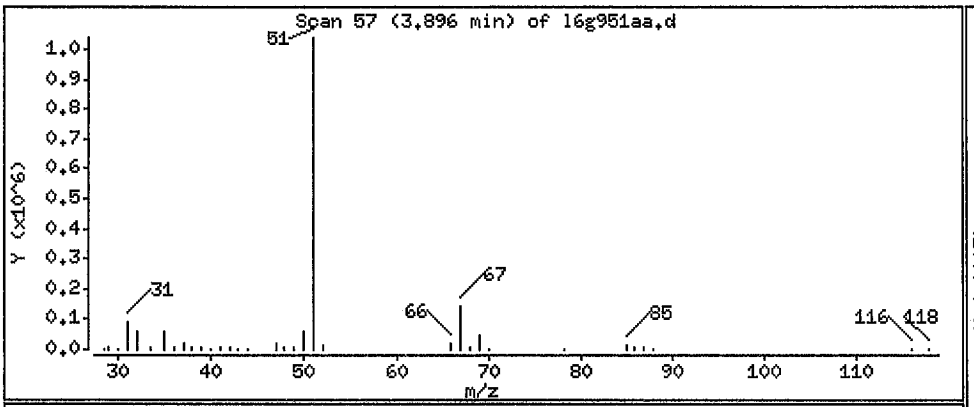
Client ID: IAQ-C2-9 Instrument: mj.i

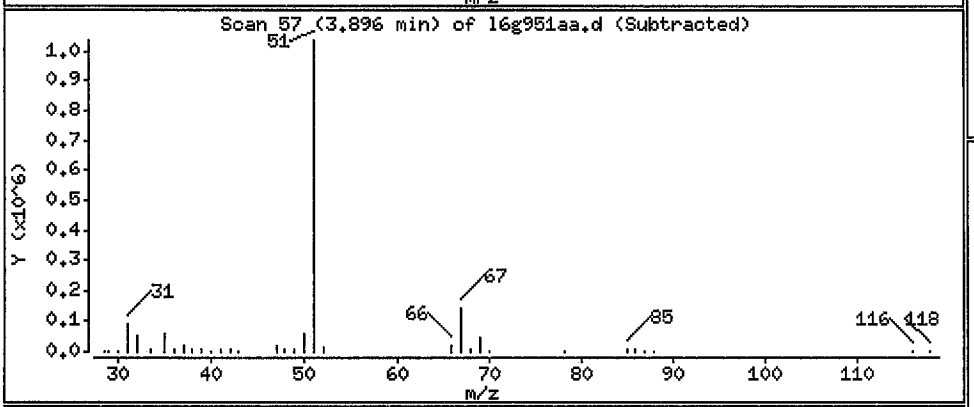
Sample Info: ,5,0,,,

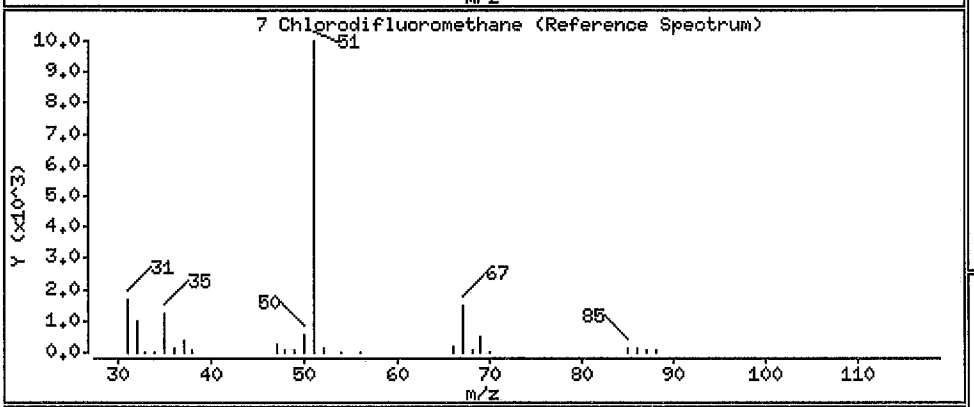
Purge Volume: 500.0 Operator: 7126

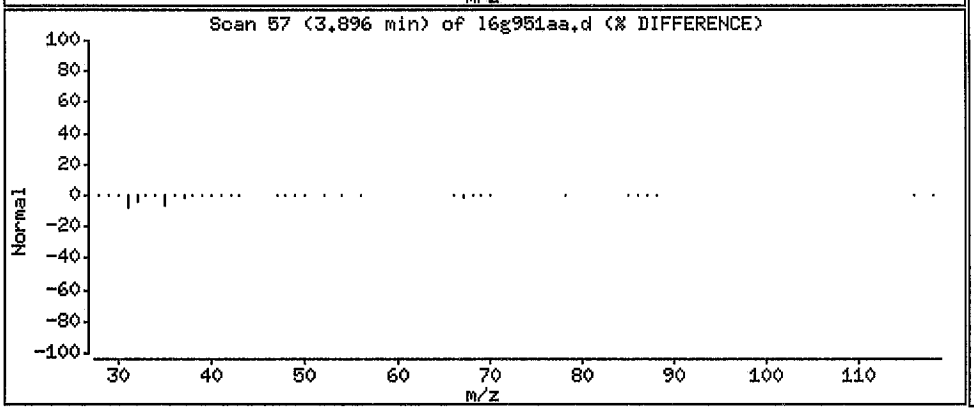
Column phase: Rtx-5 Column diameter: 0.32

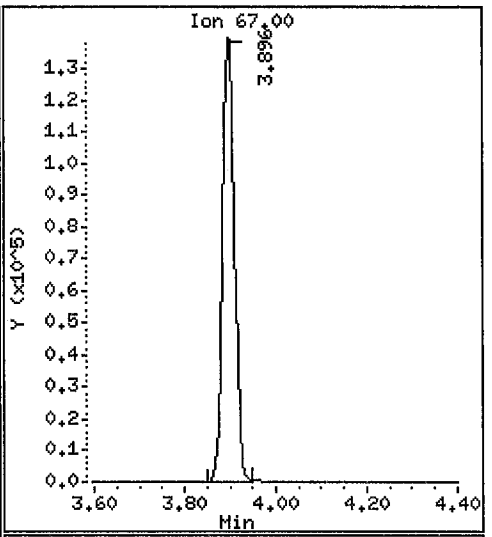
7 Chlorodifluoromethane Concentration: 54.09 ppb(v/v)

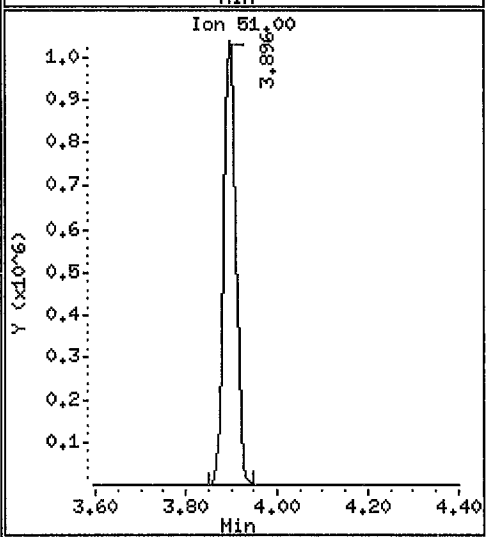


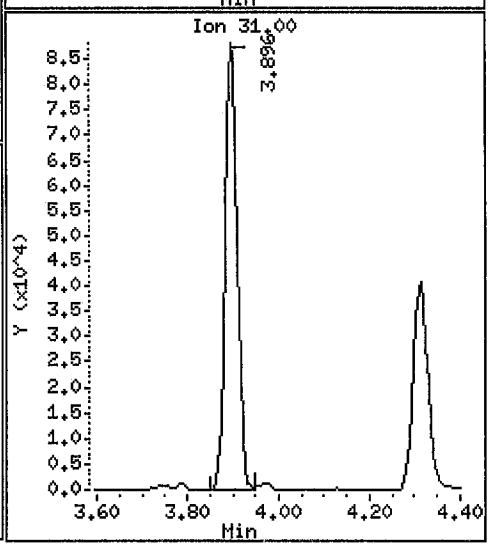












Data File: /var/chem/gcms/mj.i/J090910.b/16g951aa.d

Date : 09-SEP-2010 14:10

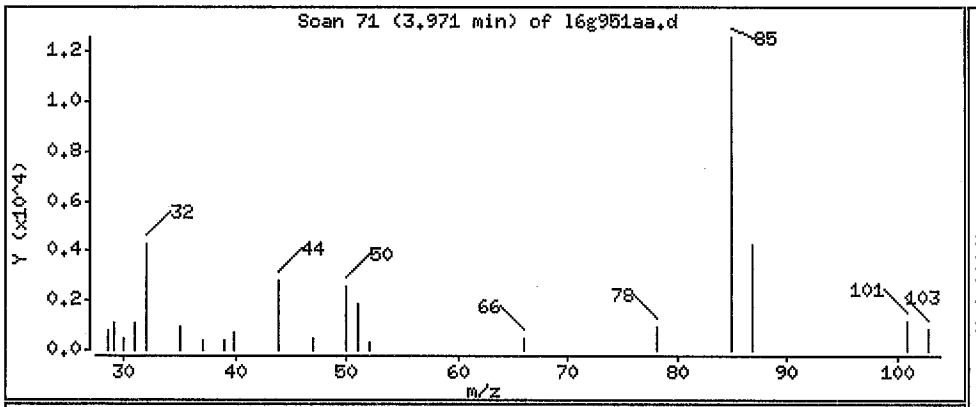
Client ID: IAQ-C2-9 Instrument: mj.i

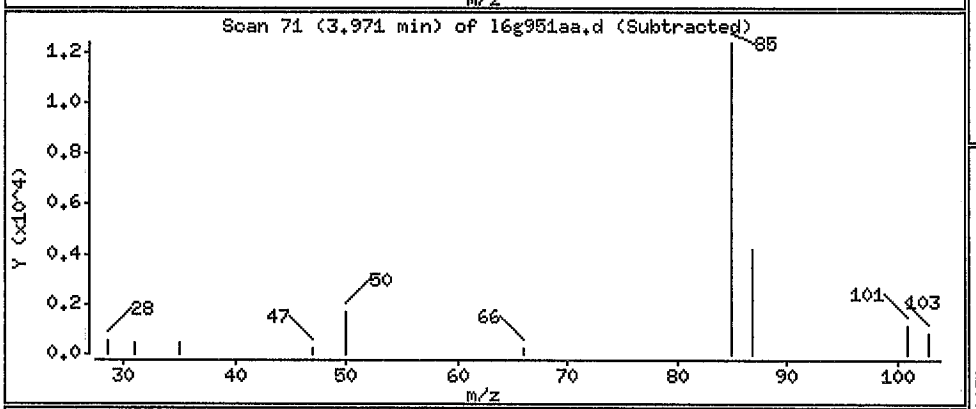
Sample Info: ,5,0,,,

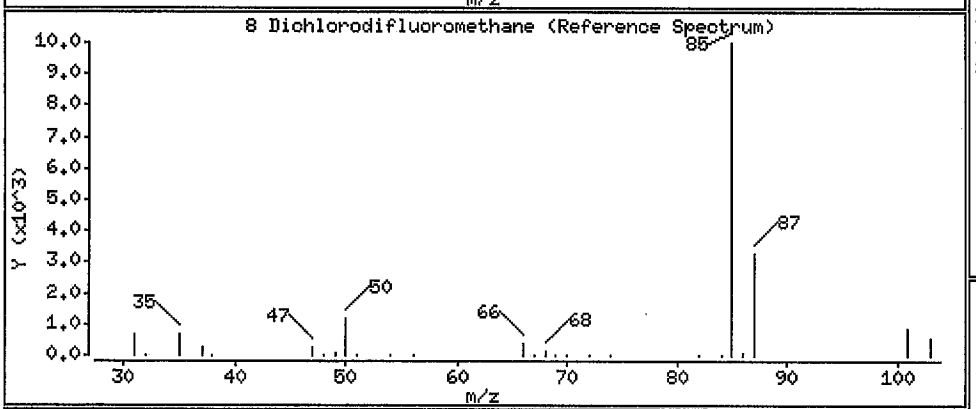
Purge Volume: 500.0 Operator: 7126

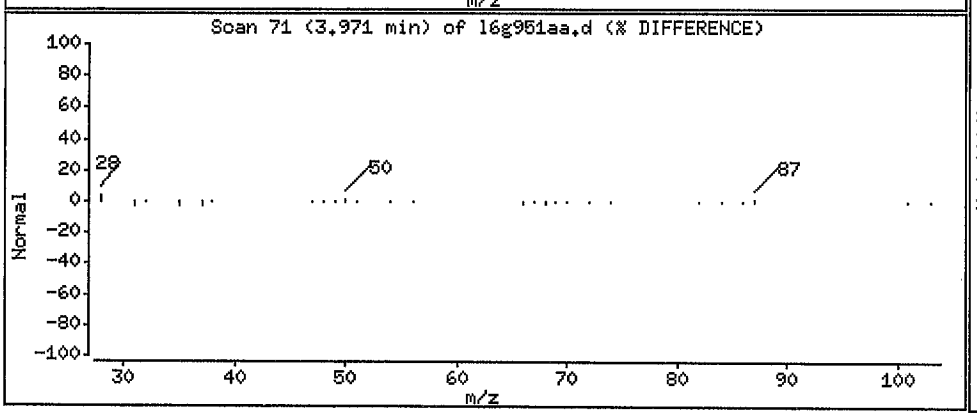
Column phase: Rtx-5 Column diameter: 0.32

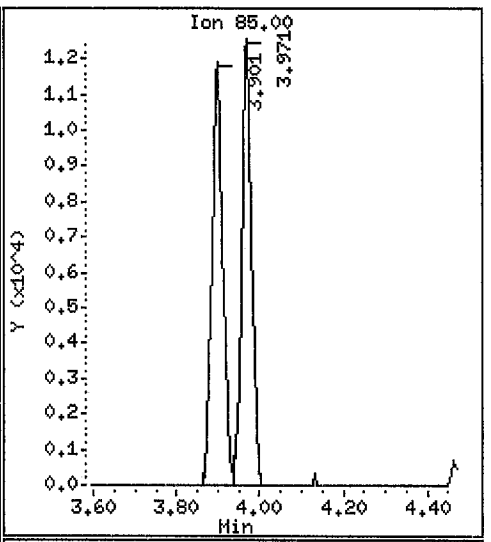
8 Dichlorodifluoromethane Concentration: 0.5341 ppb(v/v)

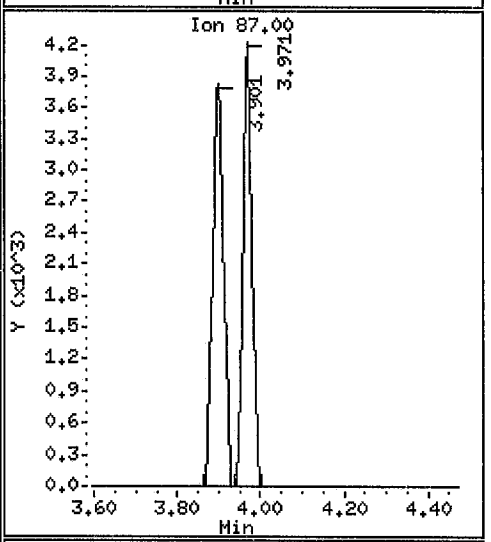


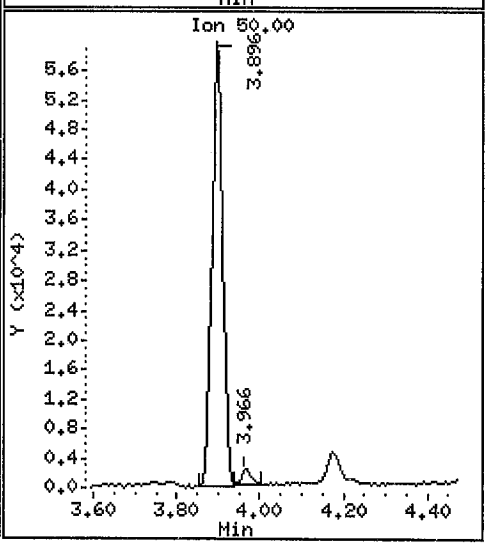












Data File: /var/chem/gcms/mj.i/J090910.b/l6g951aa.d

Date : 09-SEP-2010 14:10

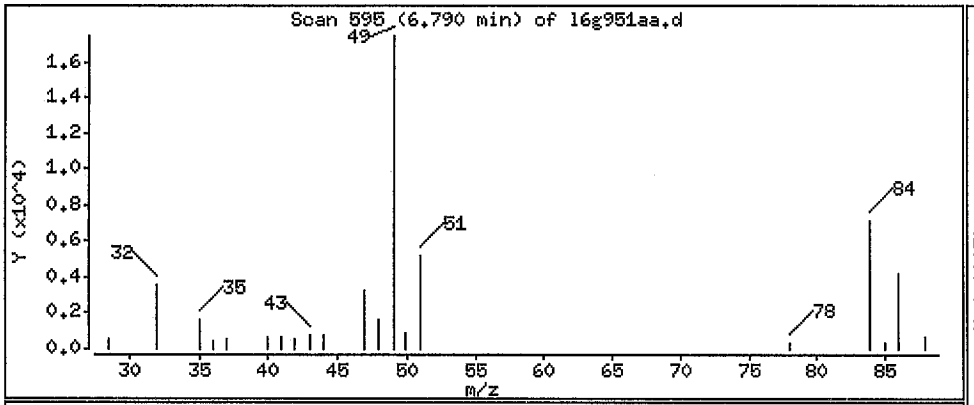
Client ID: IAQ-C2-9 Instrument: mj.i

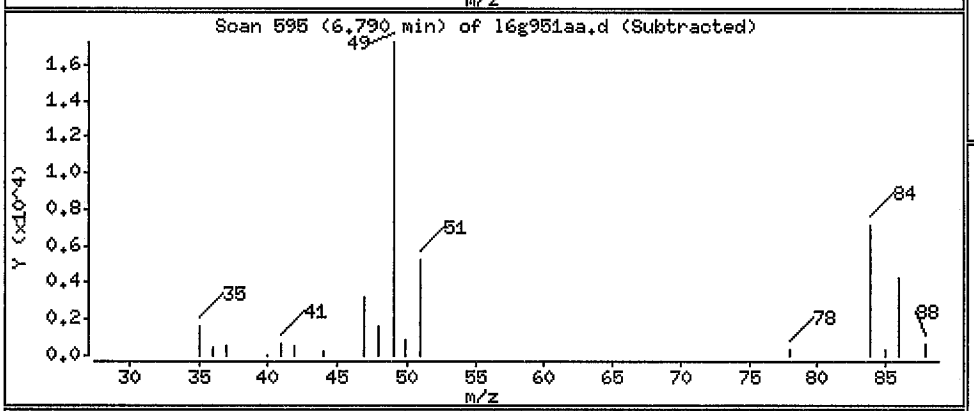
Sample Info: ,5,0,,,

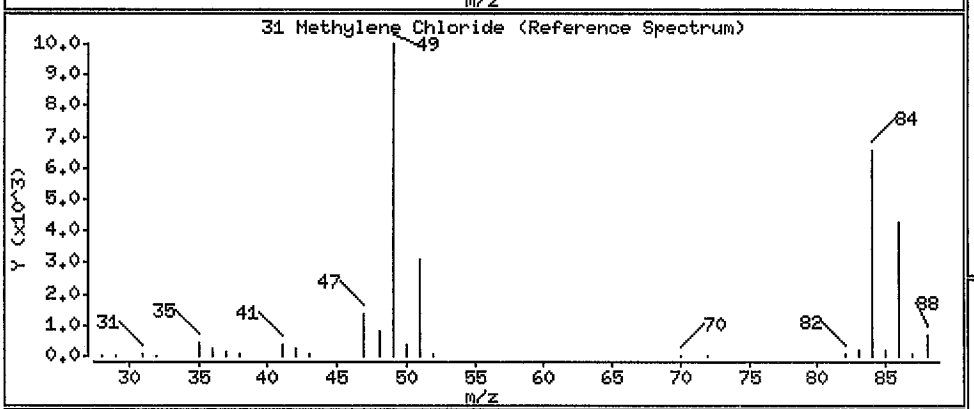
Purge Volume: 500.0 Operator: 7126

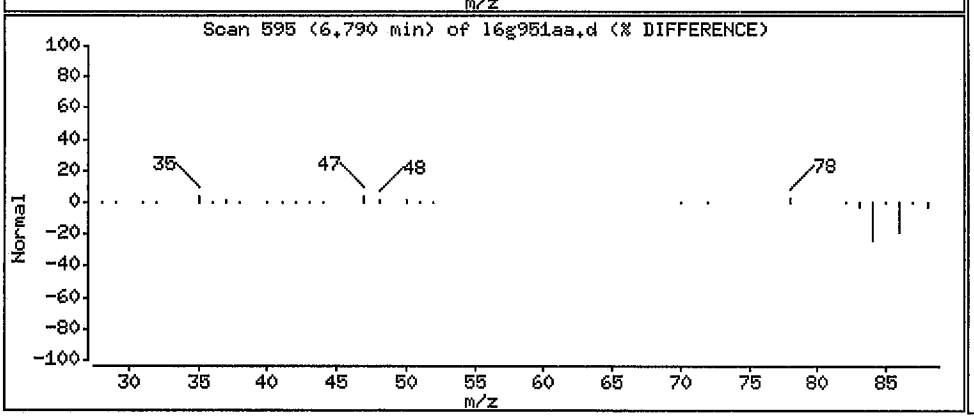
Column phase: Rtx-5 Column diameter: 0.32

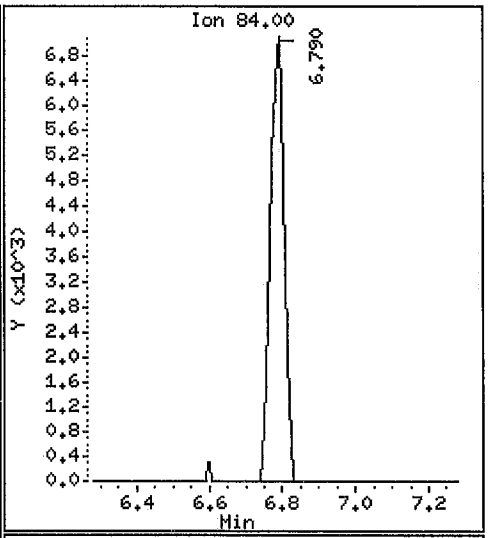
31 Methylene Chloride Concentration: 1.425 ppb(v/v)

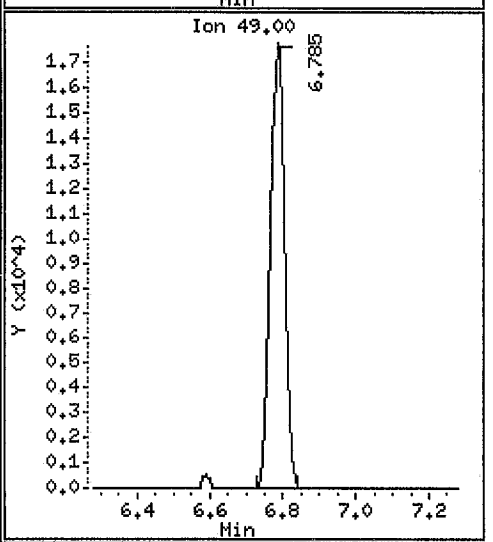


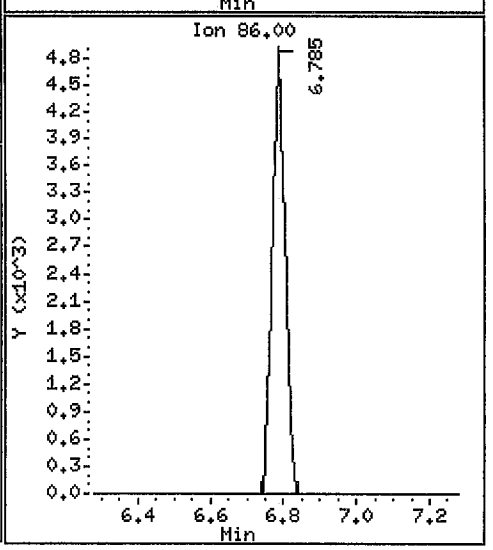












Data File: /var/chem/gcms/mj.i/J090910.b/16g951aa.d

Date : 09-SEP-2010 14:10

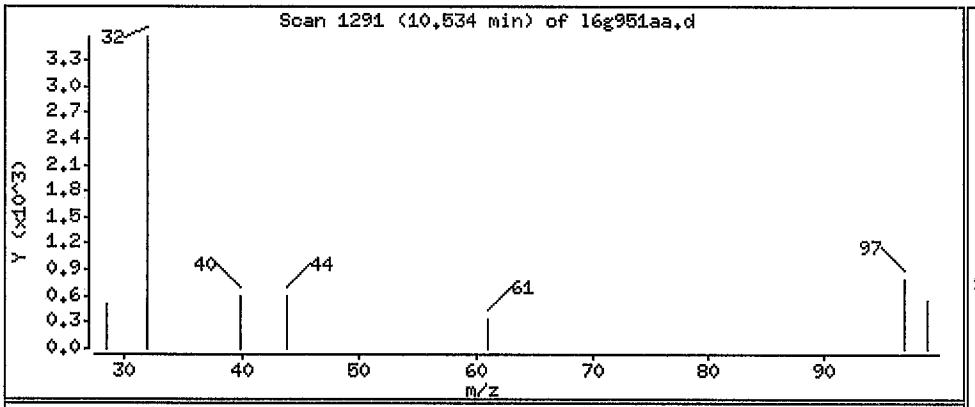
Client ID: IAQ-C2-9 Instrument: mj.i

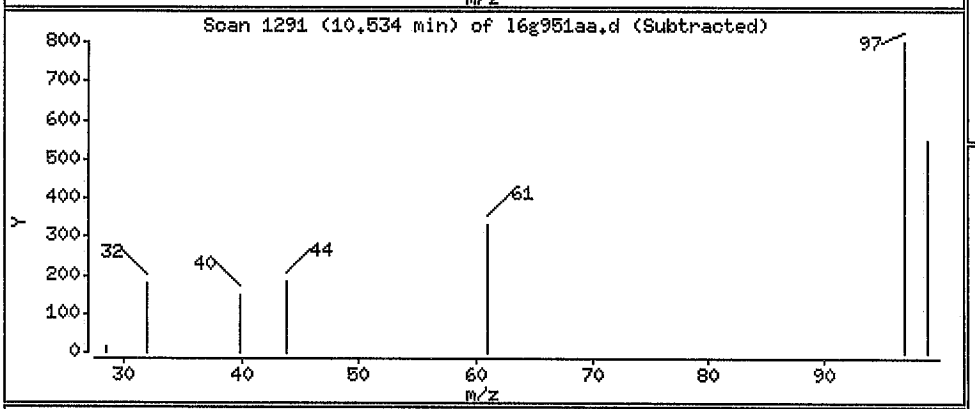
Sample Info: ,5,0,,,

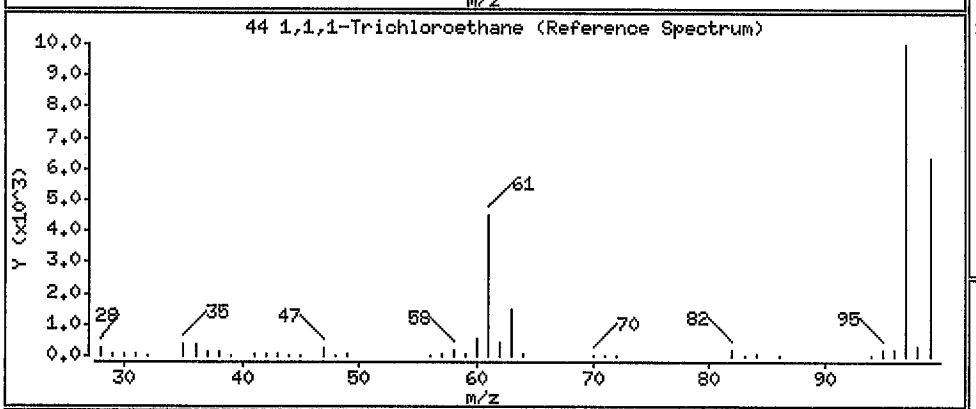
Purge Volume: 500.0 Operator: 7126

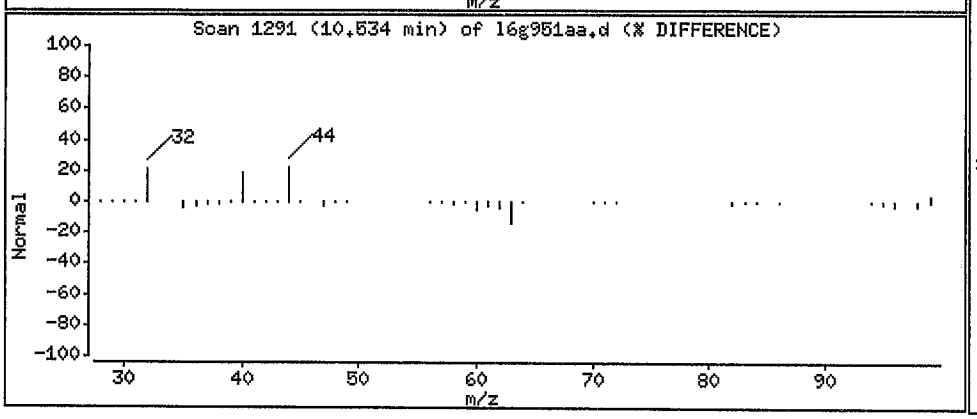
Column phase: Rtx-5 Column diameter: 0.32

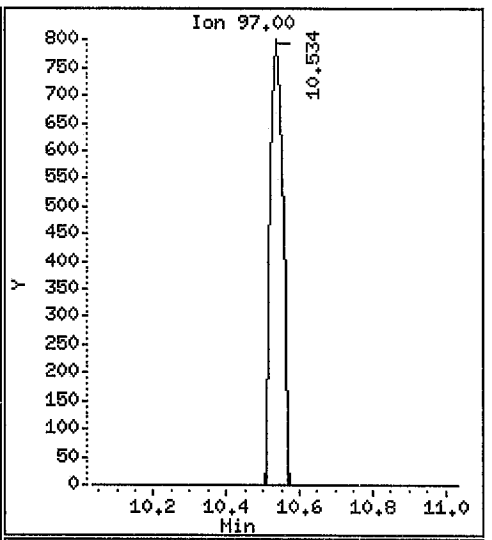
44 1,1,1-Trichloroethane Concentration: 0.06002 ppb(v/v)

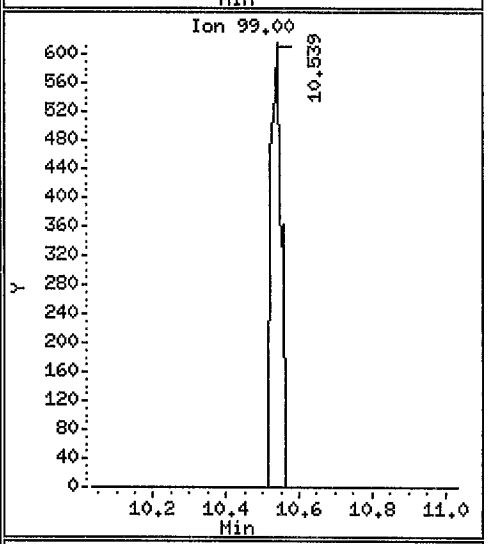


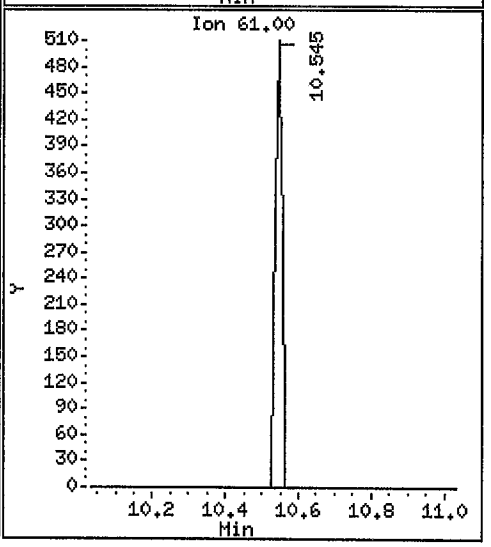












Data File: /var/chem/gcms/mj.i/J090910.b/16g951aa.d

Date : 09-SEP-2010 14:10

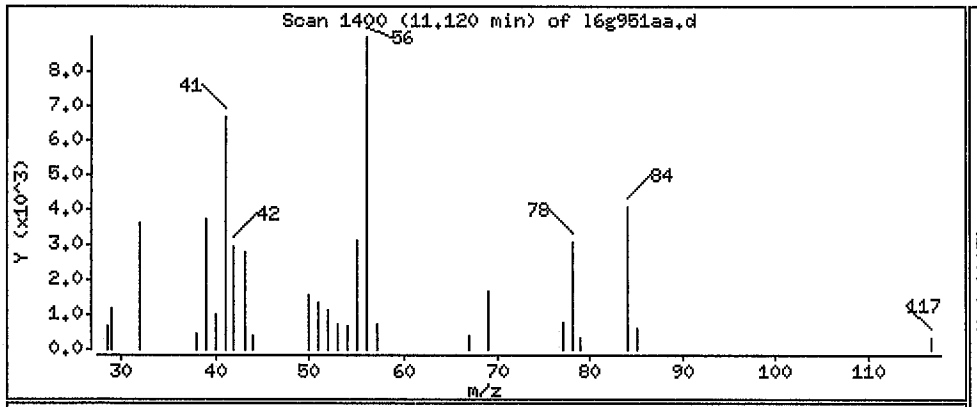
Client ID: IAQ-C2-9 Instrument: mj.i

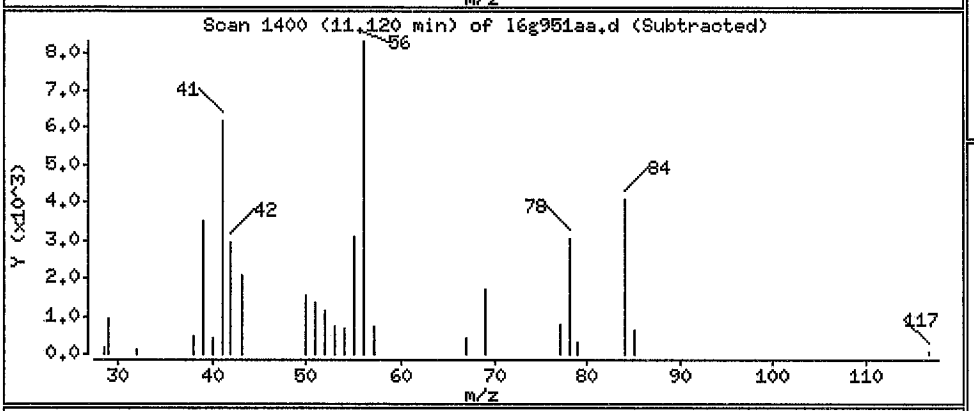
Sample Info: ,5,0,,,

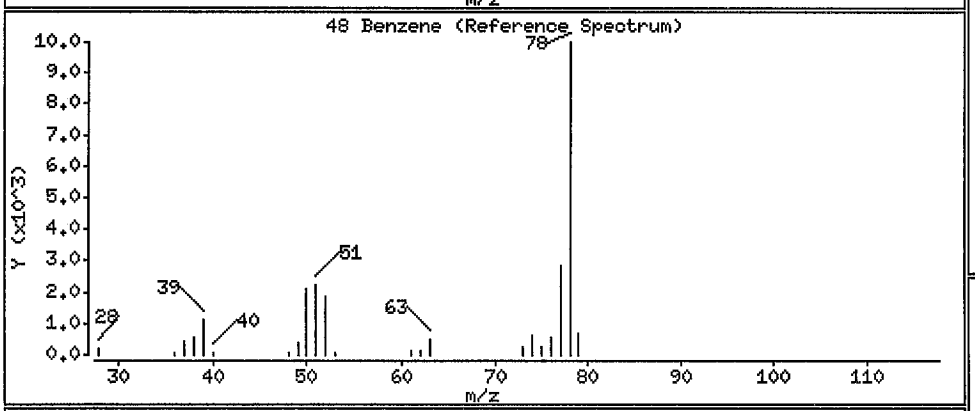
Purge Volume: 500.0 Operator: 7126

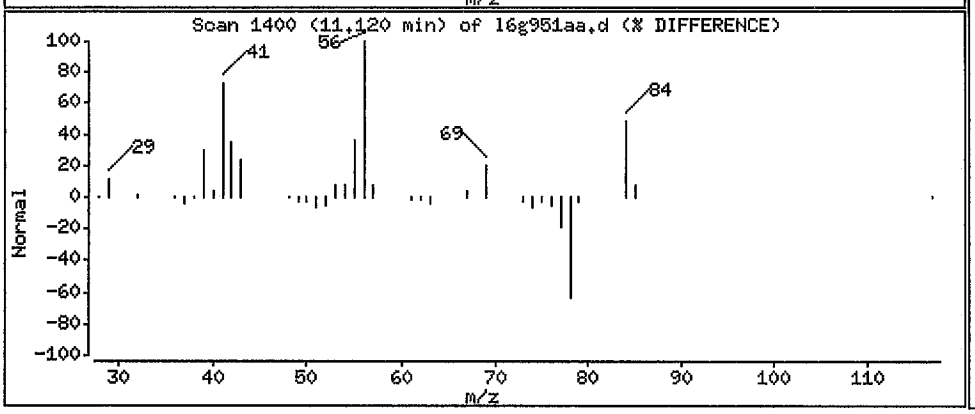
Column phase: Rtx-5 Column diameter: 0.32

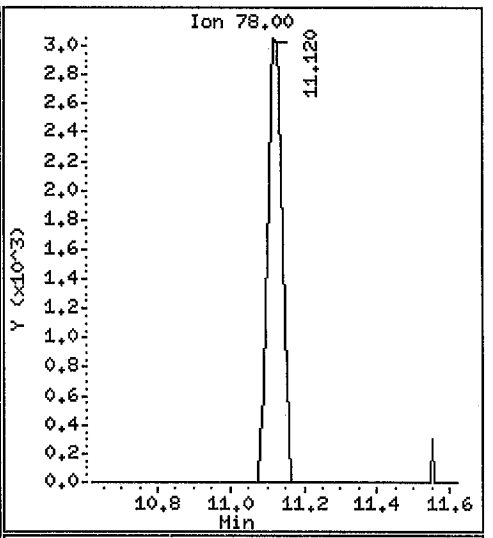
48 Benzene Concentration: 0.1980 ppb(v/v)

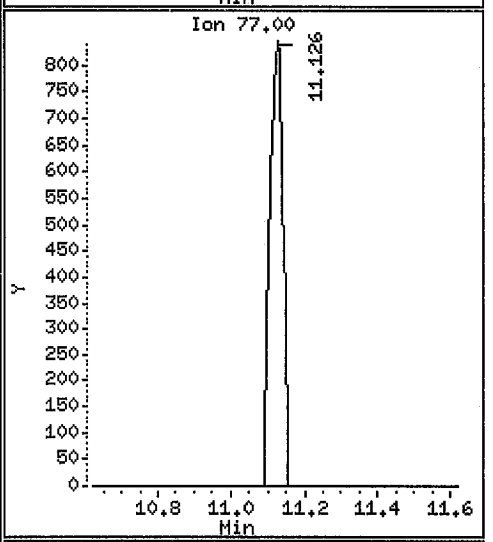


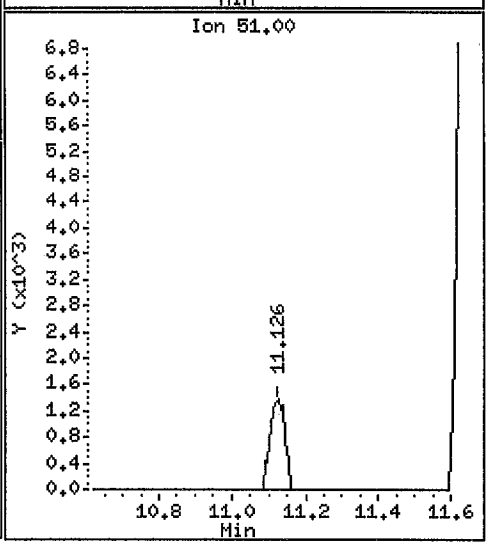












Data File: /var/chem/gcms/mj.i/J090910.b/l6g951aa.d

Date : 09-SEP-2010 14:10

Client ID: IAQ-C2-9

Instrument: mj.i

Sample Info: ,5,0,,,

Purge Volume: 500.0

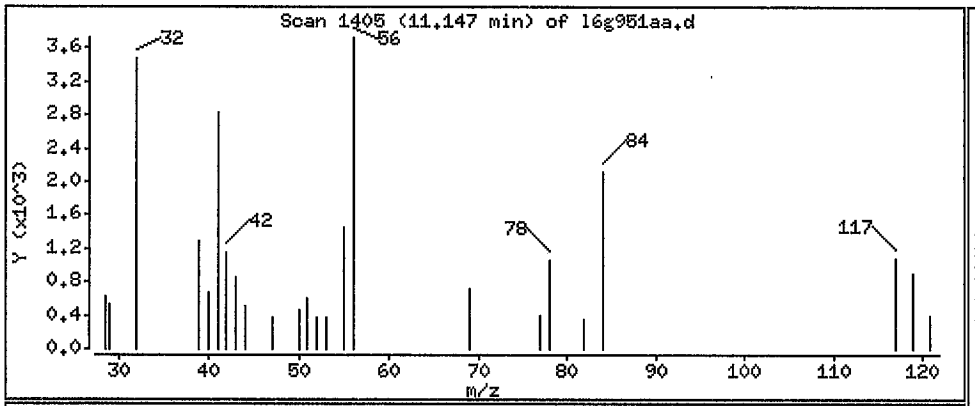
Operator: 7126

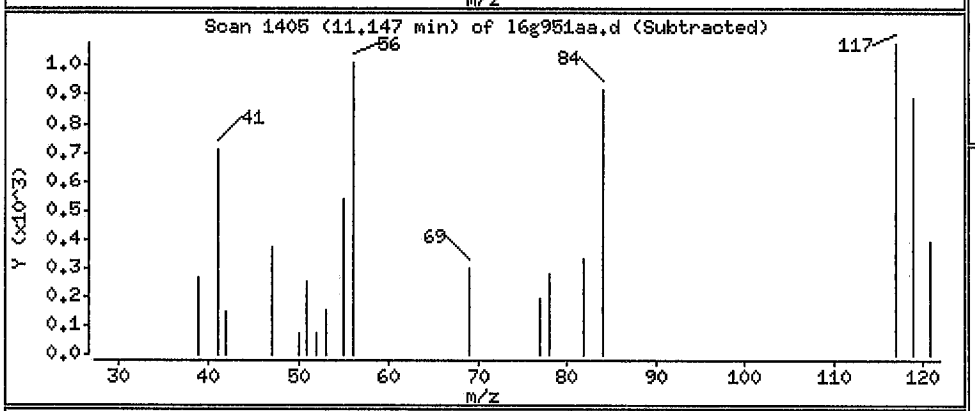
Column phase: Rtx-5

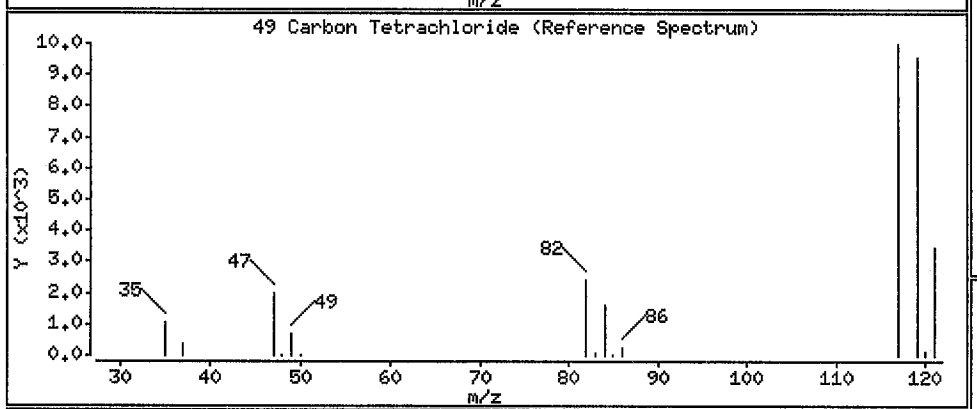
Column diameter: 0.32

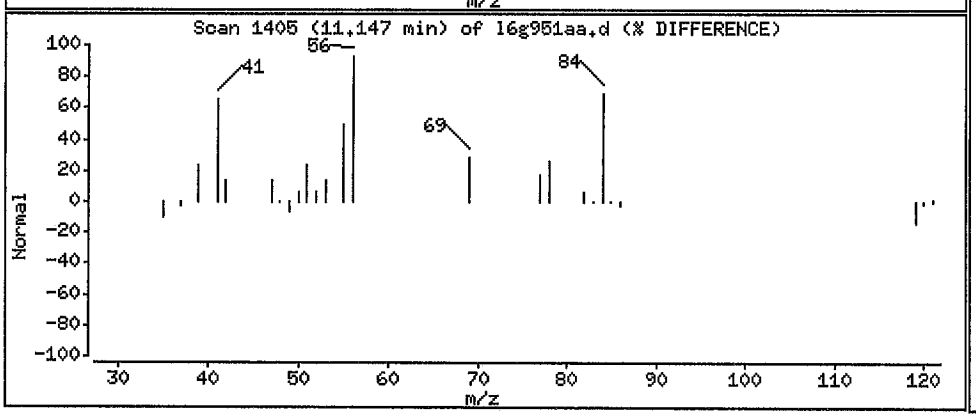
49 Carbon Tetrachloride

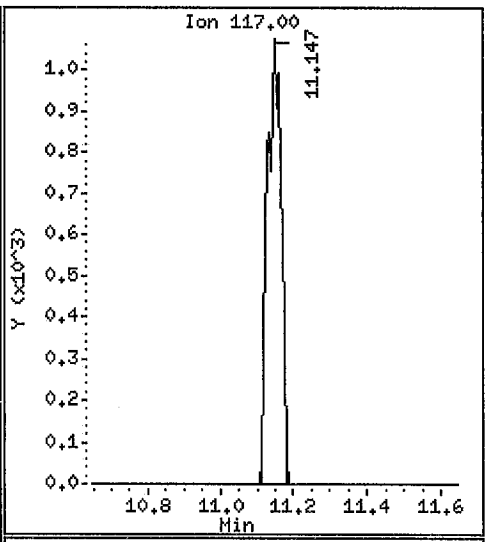
Concentration: 0.08589 ppb(v/v)

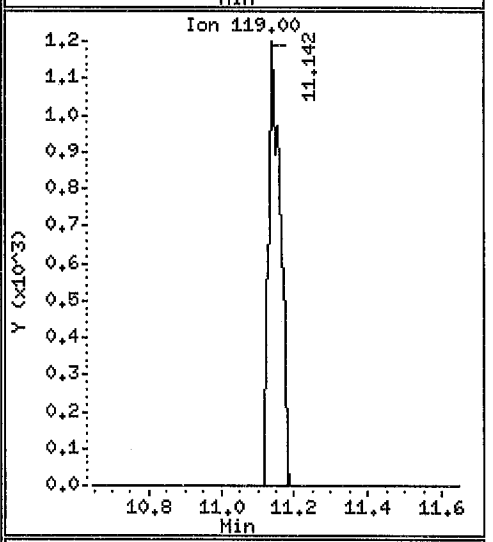


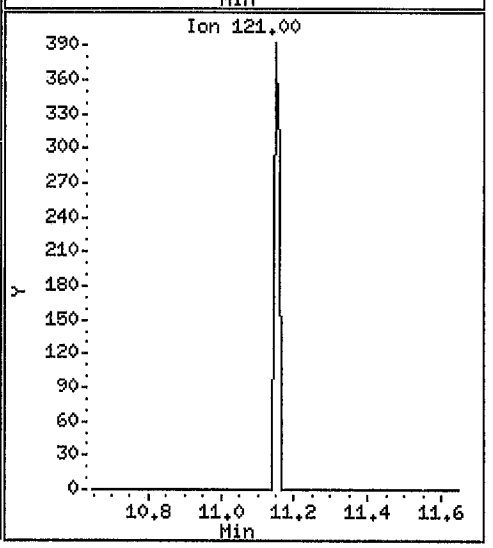












Data File: /var/chem/gcms/mj.i/J090910.b/16g951aa.d

Date : 09-SEP-2010 14:10

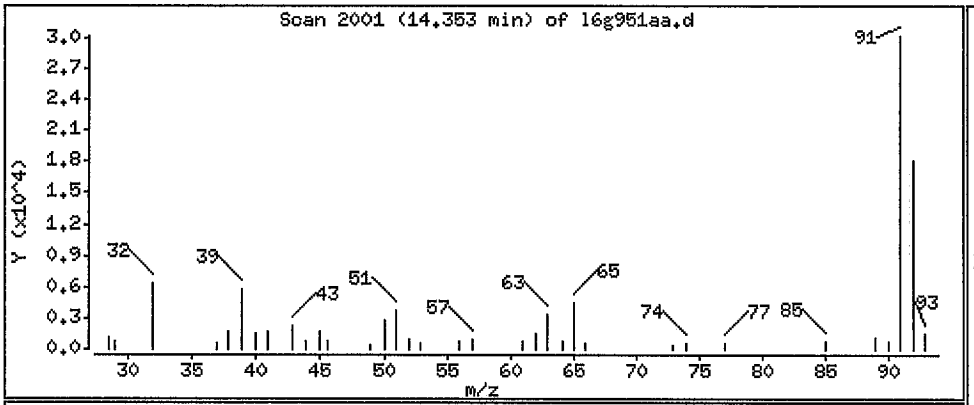
Client ID: IAQ-C2-9 Instrument: mj.i

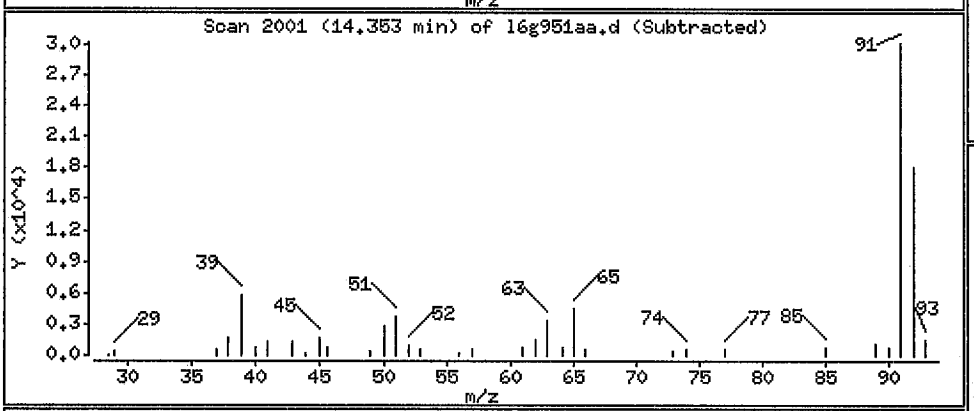
Sample Info: ,5,0,,,

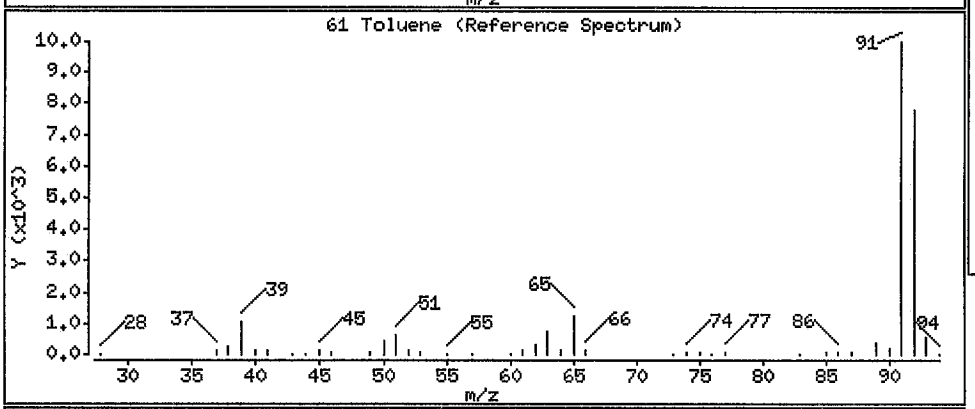
Purge Volume: 500.0 Operator: 7126

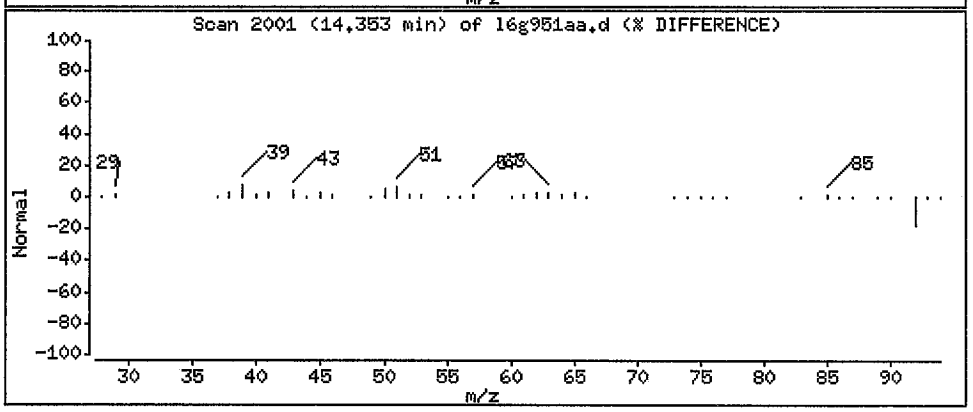
Column phase: Rtx-5 Column diameter: 0.32

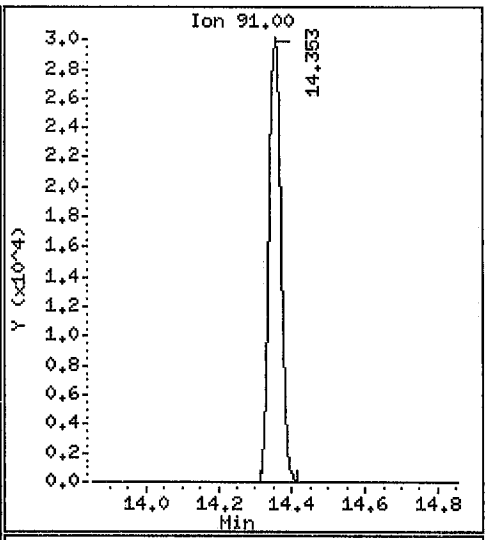
61 Toluene Concentration: 1.689 ppb(v/v)

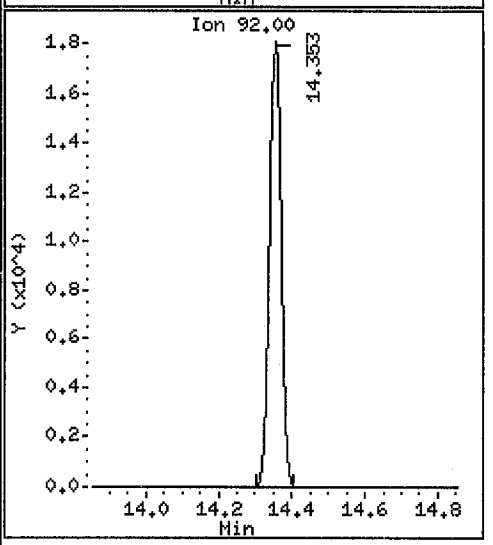












Data File: /var/chem/gcms/mj.i/J090910.b/16g951aa.d

Date : 09-SEP-2010 14:10

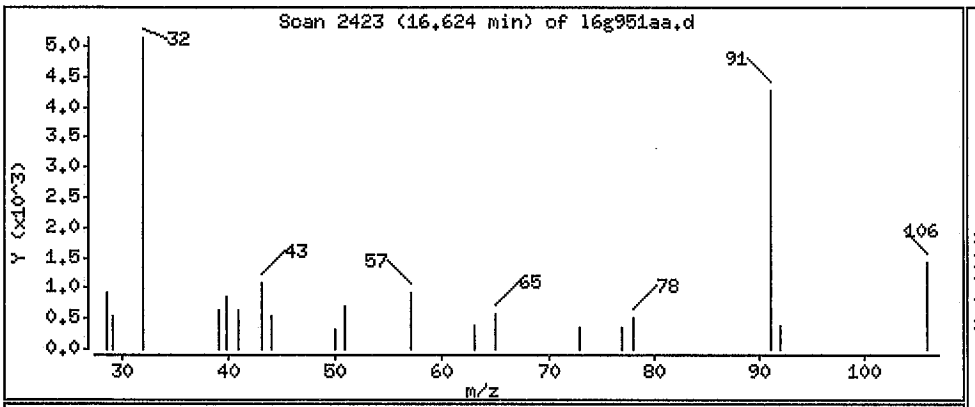
Client ID: IAQ-C2-9 Instrument: mj.i

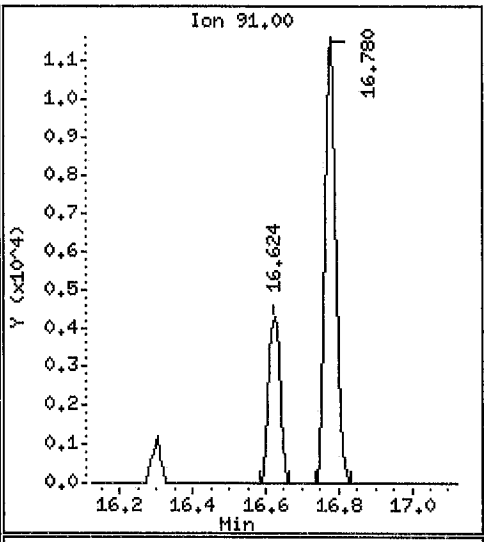
Sample Info: ,5,0,,,

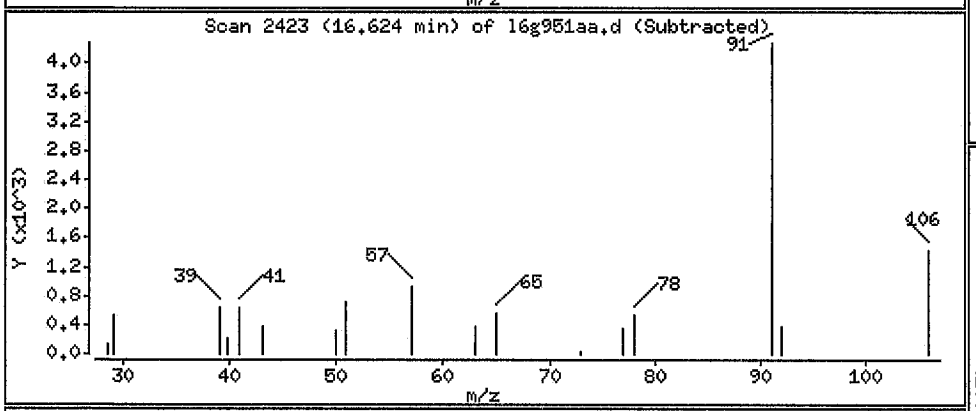
Purge Volume: 500.0 Operator: 7126

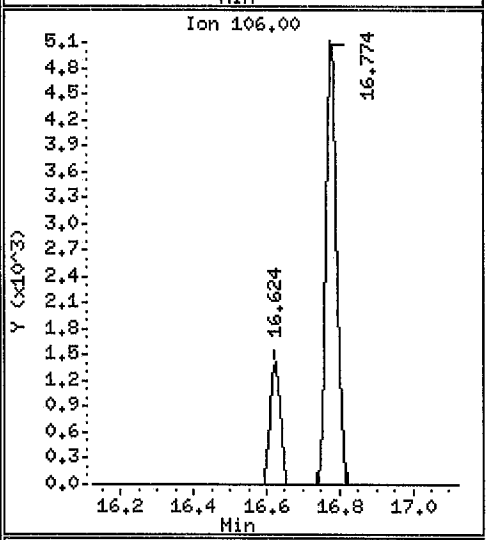
Column phase: Rtx-5 Column diameter: 0.32

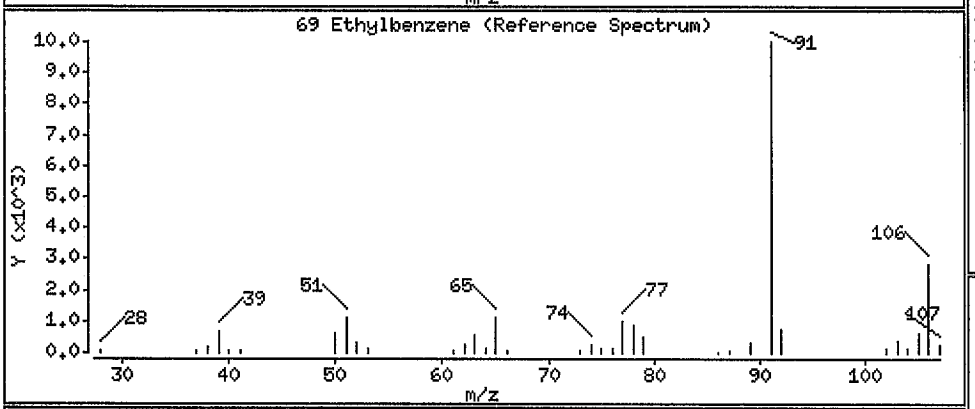
69 Ethylbenzene Concentration: 0.1976 ppb(v/v)

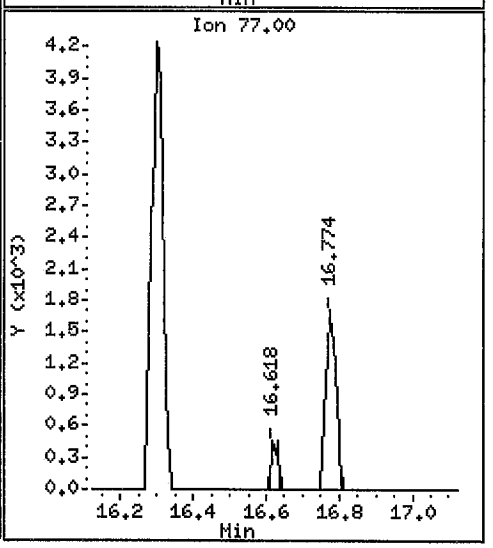


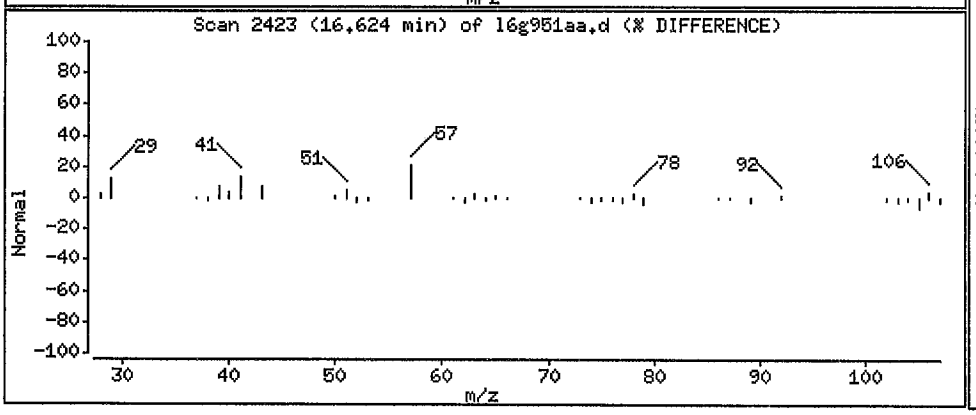












Data File: /var/chem/gcms/mj.i/J090910.b/16g951aa.d

Date : 09-SEP-2010 14:10

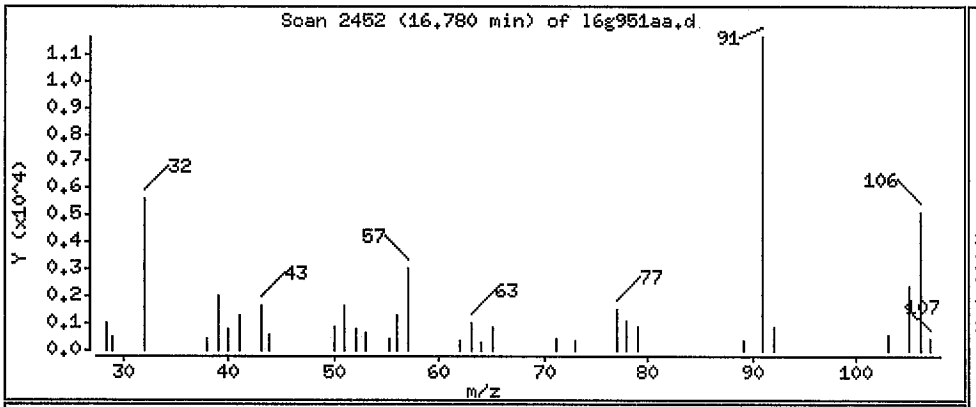
Client ID: IAQ-C2-9 Instrument: mj.i

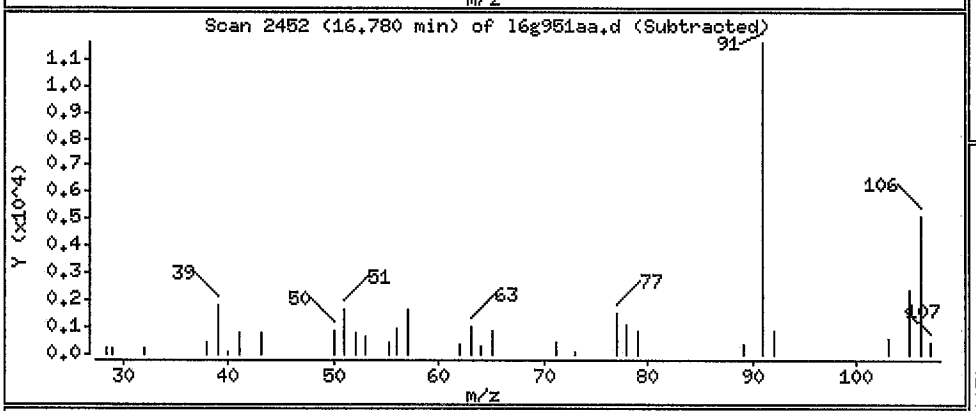
Sample Info: ,5,0,,,

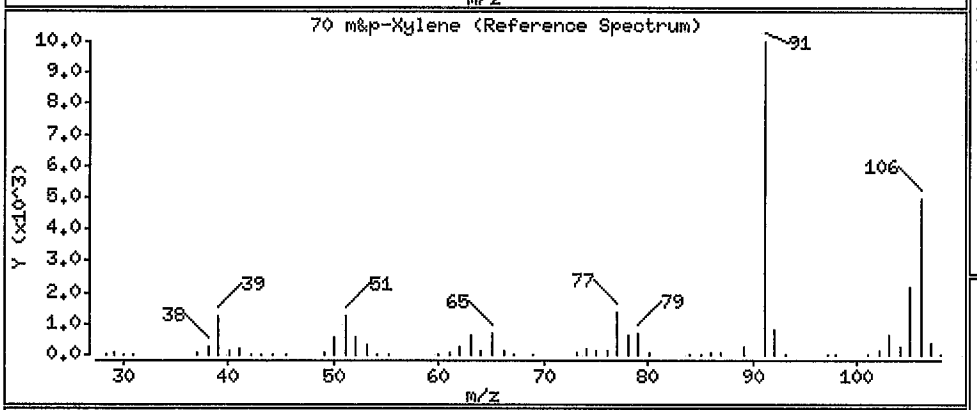
Purge Volume: 500.0 Operator: 7126

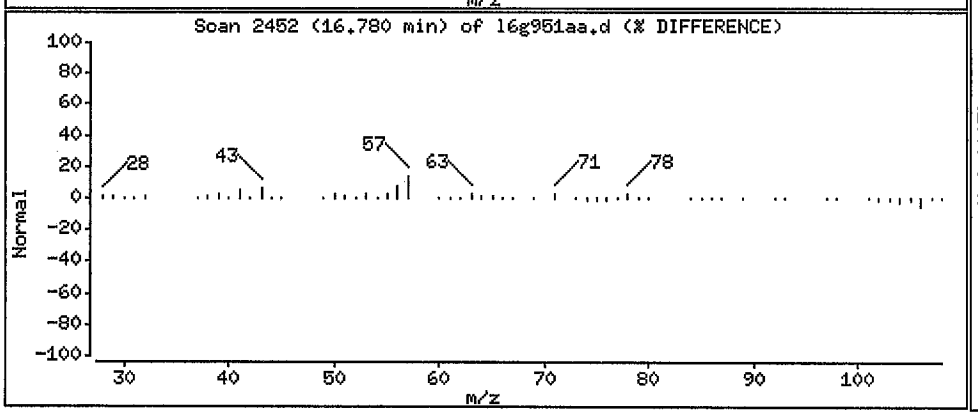
Column phase: Rtx-5 Column diameter: 0.32

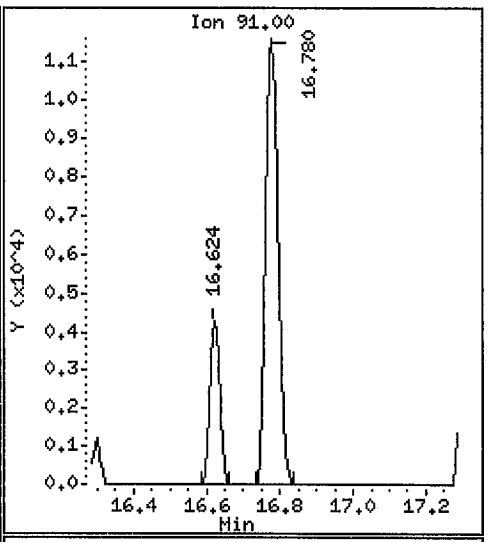
70 m&p-Xylene Concentration: 0.7692 ppb(v/v)

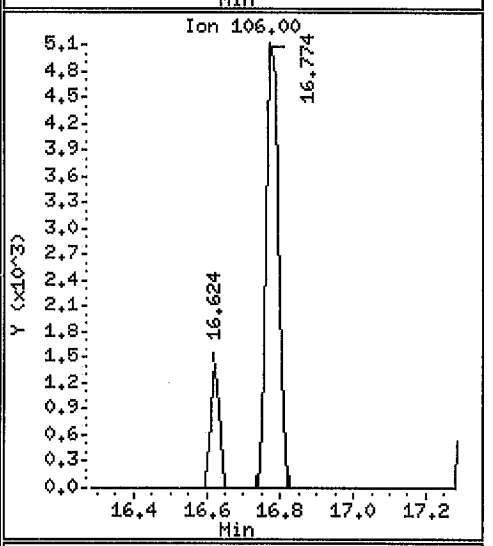


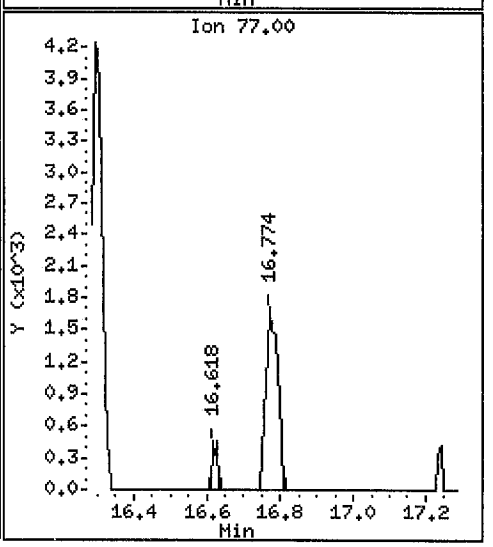












Data File: /var/chem/gcms/mj.i/J090910.b/16g951aa.d

Date : 09-SEP-2010 14:10

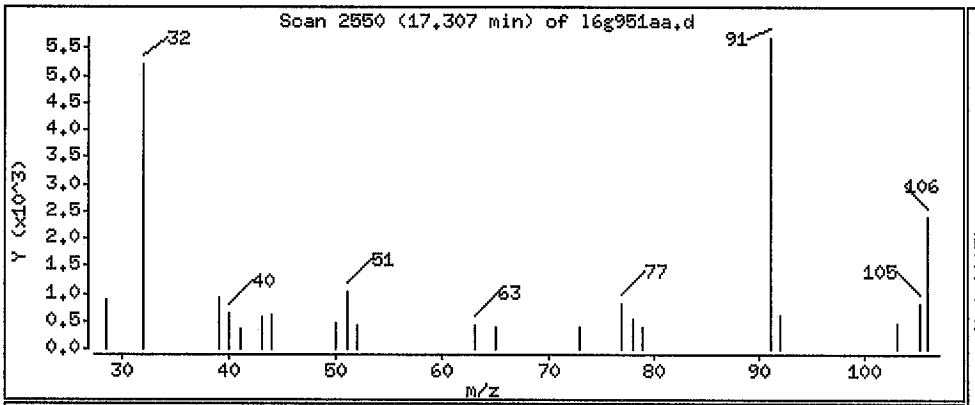
Client ID: IAQ-C2-9 Instrument: mj.i

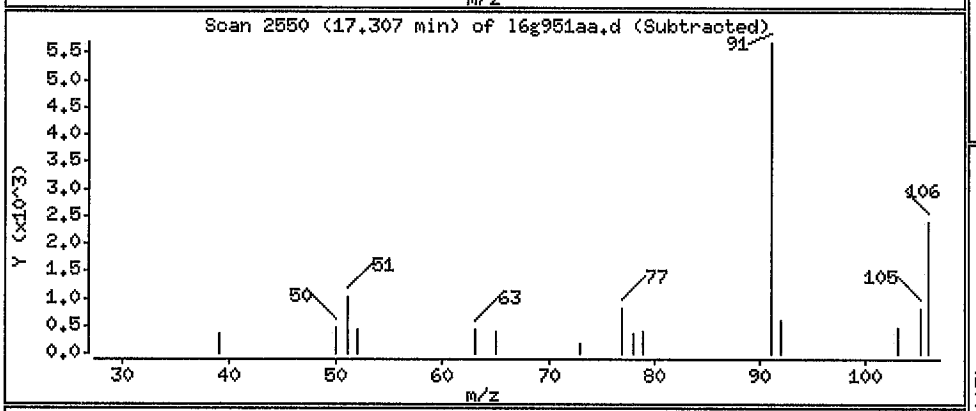
Sample Info: ,5,0,,,

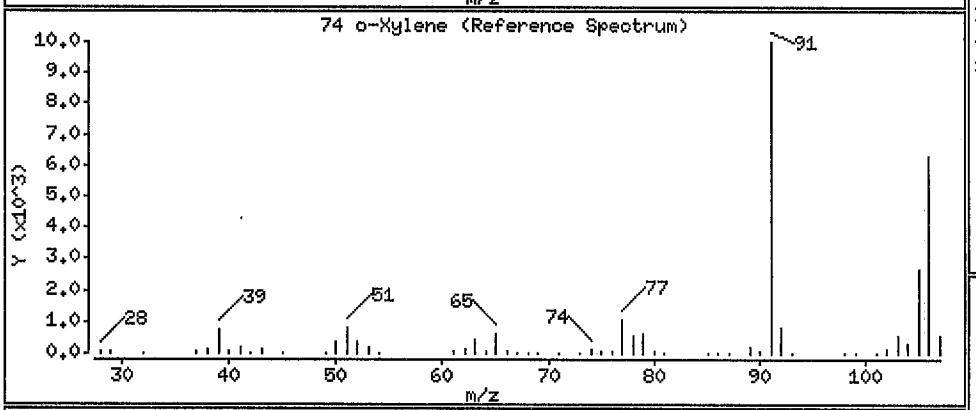
Purge Volume: 500.0 Operator: 7126

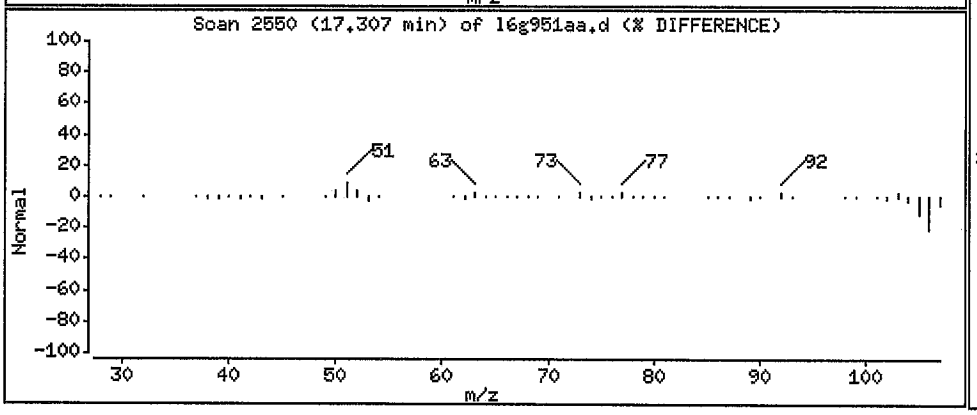
Column phase: Rtx-5 Column diameter: 0.32

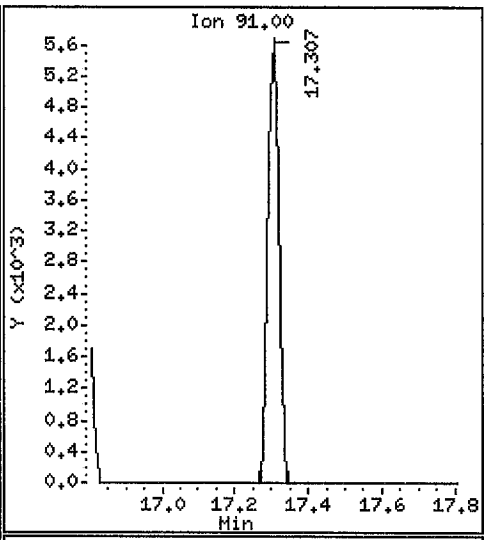
74 o-Xylene Concentration: 0.3138 ppb(v/v)

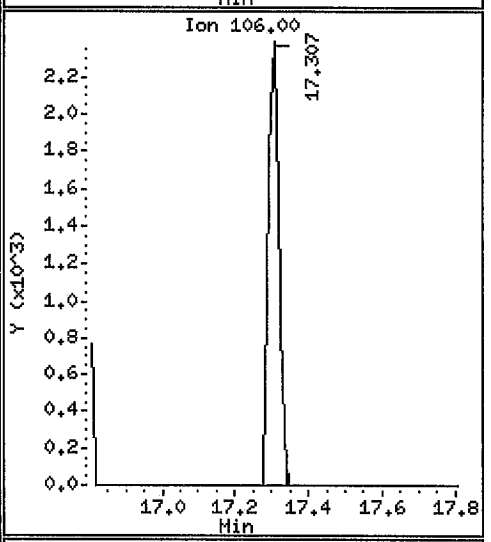


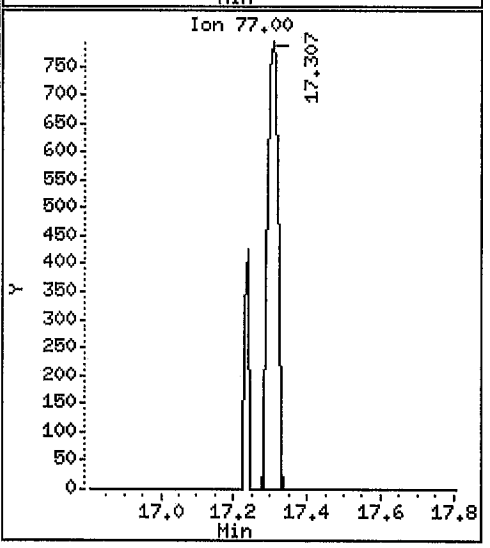












Tetra Tech NUS, Inc

Client Sample ID: IAQ-C19-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 020 **Work Order #** L6G961AA **Matrix.....:** AIR

Date Sampled...: 08/30/2010 **Date Received..:** 09/02/2010
Prep Date.....: 09/09/2010 **Analysis Date...** 09/10/2010
Prep Batch #.....: 0253092
Dilution Factor.: 1 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.15**	**0.080**	**0.023**	**0.48**	**0.26**	**0.073**
Carbon tetrachloride	**0.087**	**0.080**	**0.015**	**0.54**	**0.50**	**0.094**
Chlorodifluoromethane	**0.80**	**0.080**	**0.015**	**2.8**	**0.28**	**0.053**
Chloroform	**0.38**	**0.080**	**0.015**	**1.9**	**0.39**	**0.073**
Dichlorodifluoromethane	**0.53**	**0.080**	**0.027**	**2.6**	**0.40**	**0.13**
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	**0.74**	**0.080**	**0.019**	**3.0**	**0.32**	**0.077**
cis-1,2-Dichloroethene	**0.063**	**0.080**	**0.024**	**0.25 J**	**0.32**	**0.095**
trans-1,2-Dichloroethene	**0.53**	**0.080**	**0.020**	**2.1**	**0.32**	**0.079**
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	**0.17**	**0.080**	**0.027**	**0.74**	**0.35**	**0.12**
Methylene chloride	**0.28**	**0.20**	**0.018**	**0.97 B**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	ND	0.20	0.036	ND	1.0	0.19
Tetrachloroethene	**1.1**	**0.080**	**0.016**	**7.7**	**0.54**	**0.11**
Toluene	**1.0**	**0.080**	**0.021**	**3.9**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	**0.028**	**0.080**	**0.012**	**0.15 J**	**0.44**	**0.065**
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	**0.25**	**0.040**	**0.014**	**1.4**	**0.21**	**0.075**
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	**0.50**	**0.080**	**0.050**	**2.2**	**0.35**	**0.22**
o-Xylene	**0.15**	**0.080**	**0.024**	**0.64**	**0.35**	**0.10**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090910.b/l6g96r.d
Report Date: 10-Sep-2010 11:39

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090910.b/l6g96r.d
Lab Smp Id: L6G961AA Client Smp ID: IAQ-C19-9
Inj Date : 10-SEP-2010 04:19
Operator : 7126 Inst ID: mj.i
Smp Info : L6G961AA,,0,,,
Misc Info : J090910,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090910.b/TO15.m
Meth Date : 10-Sep-2010 11:28 barlozha Quant Type: ISTD
Cal Date : 09-SEP-2010 10:43 Cal File: j1pti09.d
Als bottle: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

9/13/10

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
*	1 Bromochloromethane	128	9.468	9.468	(1.000)	180613	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.641	11.636	(1.000)	836974	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.299	16.300	(1.000)	729343	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.913	17.914	(1.099)	567430	4.09904	4.099
	7 Chlorodifluoromethane	67	3.894	3.900	(0.411)	18282	0.80041	0.8004
	8 Dichlorodifluoromethane	85	3.970	3.970	(0.419)	103494	0.52769	0.5277
	13 Vinyl Chloride	62	3.921	4.368	(0.414)	3371	0.04949	~~0.04948~~
	31 Methylene Chloride	84	6.783	6.778	(0.716)	16424	0.27947	0.2795
	34 trans-1,2-Dichloroethene	96	7.644	7.644	(0.807)	31693	0.52757	0.5276
	40 cis 1,2-Dichloroethene	96	9.123	9.118	(0.964)	3886	0.06318	0.06318
	42 Chloroform	83	9.478	9.473	(1.001)	50464	0.38488	0.3849
	44 1,1,1-Trichloroethane	97	10.543	10.533	(1.114)	3841	0.02812	0.02812
	45 1,2-Dichloroethane	62	10.640	10.641	(0.914)	87331	0.74302	0.7430
	48 Benzene	78	11.124	11.119	(0.956)	26329	0.14881	0.1488
	49 Carbon Tetrachloride	117	11.146	11.146	(0.957)	11994	0.08651	0.08651

9/10/10

Data File: /var/chem/gcms/mj.i/J090910.b/l6g96r.d
Report Date: 10-Sep-2010 11:39

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
53 Trichloroethene	130	12.340	12.341	(1.060)	21772	0.25307	0.2531
61 Toluene	91	14.357	14.352	(0.881)	178725	1.04053	1.040
67 Tetrachloroethene	129	15.482	15.482	(0.950)	81003	1.12876	1.129
69 Ethylbenzene	91	16.622	16.623	(1.020)	33430	0.16974	0.1697
70 m&p-Xylene	91	16.778	16.784	(1.029)	74435	0.49976	0.4998
M 178 Xylene (total)	100				97266	0.64713	0.6471
74 o-Xylene	91	17.305	17.306	(1.062)	22831	0.14737	0.1474

Data File: /var/chem/gcms/mj.i/J090910.b/l6g96r.d
Report Date: 10-Sep-2010 11:39

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g96r.d
Lab Smp Id: L6G961AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

Calibration Date: 09-SEP-2010
Calibration Time: 09:40
Client Smp ID: IAQ-C19-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	166835	99267	234403	180613	8.26
2 1,4-Difluorobenze	787366	468483	1106249	836974	6.30
3 Chlorobenzene-d5	701011	417102	984920	729343	4.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.47	9.14	9.80	9.47	0.00
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.04
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

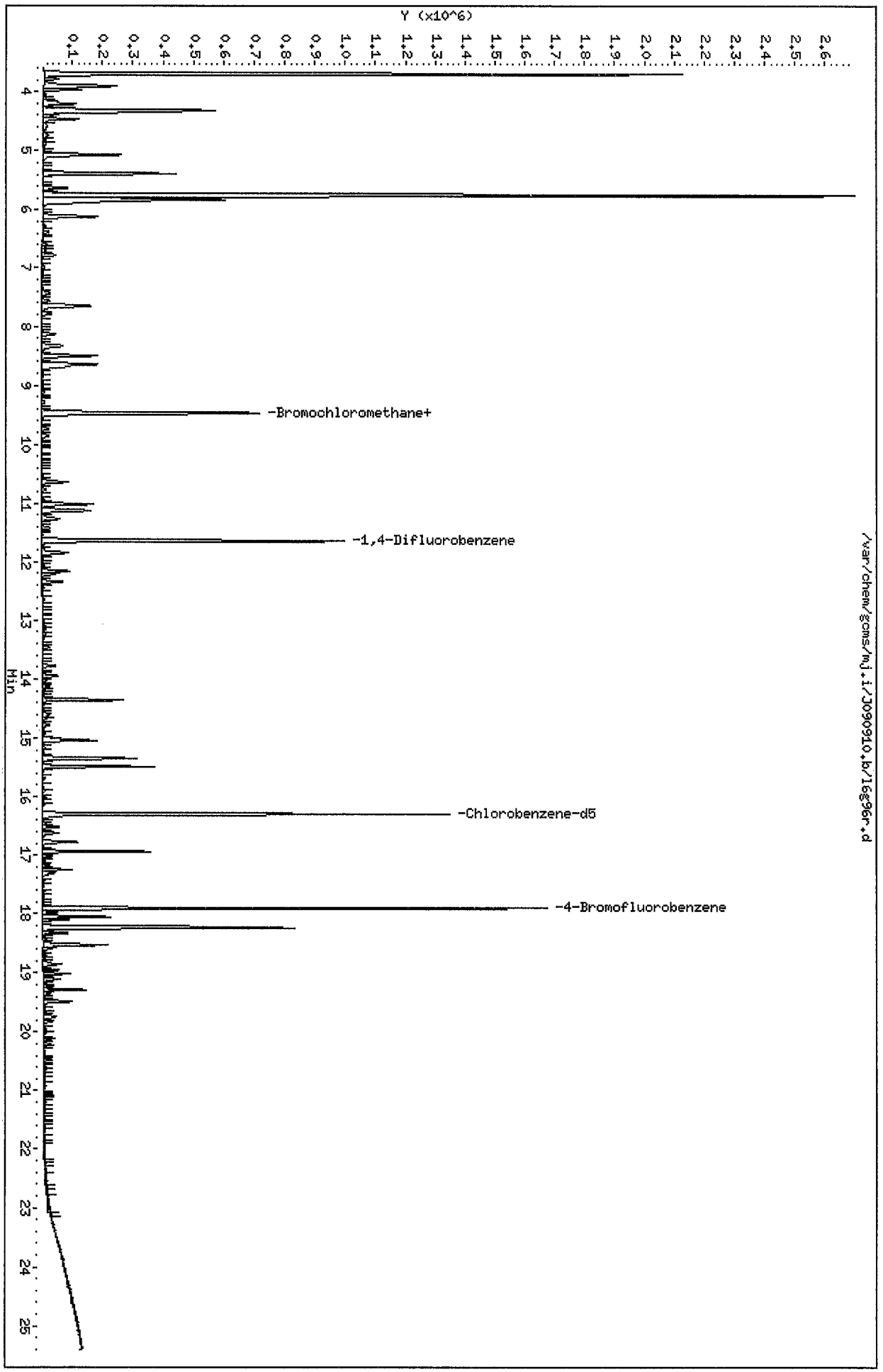
Data File: /var/chem/gcms/mj.i/J090910.b/l6g96r.d
Report Date: 10-Sep-2010 11:39

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G961AA
Client Smp ID: IAQ-C19-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.099	102.48	70-130


Data File: /var/chem/gcms/mj.i/J090910.b/16g96r.d
Date : 10-SEP-2010 04:19
Client ID: IAQ-C19-9
Sample Info: L6G964AA,,0,,,
Purge Volume: 500.0
Column phase: Rtx-5
Instrument: mj.i
Operator: 7126
Column diameter: 0.32
/var/chem/gcms/mj.i/J090910.b/16g96r.d
Y (x10^6)
Min
-Bromochloromethane+
-1,4-Difluorobenzene
-Chlorobenzene-d5
-4-Bromofluorobenzene

Data File: /var/chem/gcms/mj.i/J090910.b/16g96r.d

Date : 10-SEP-2010 04:19

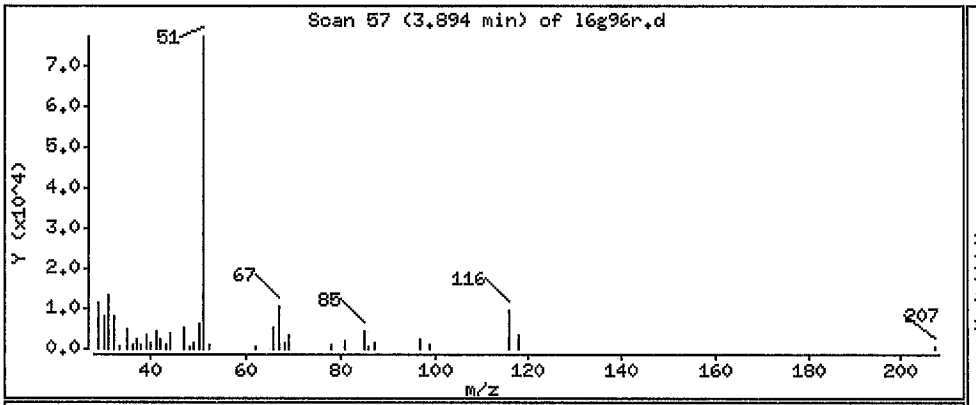
Client ID: IAQ-C19-9 Instrument: mj.i

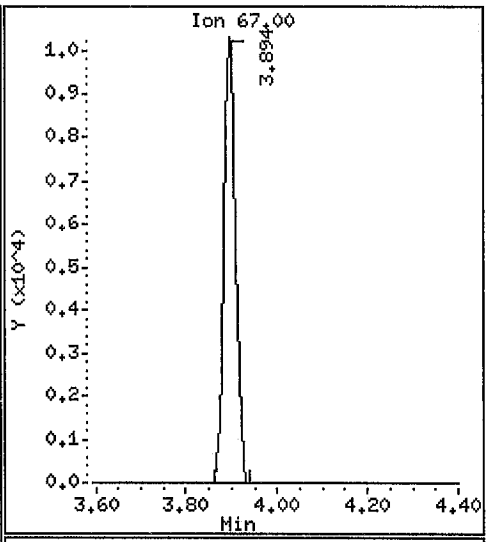
Sample Info: L6G961AA,,0,,,

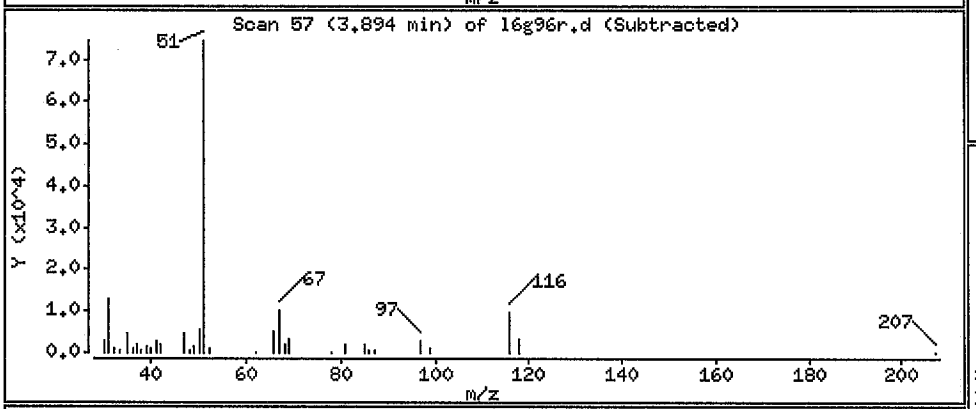
Purge Volume: 500.0 Operator: 7126

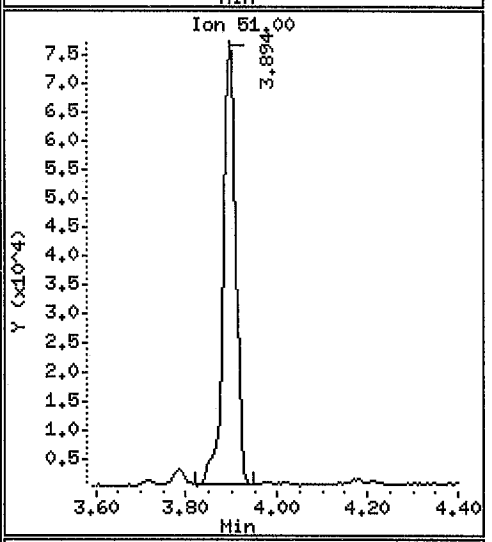
Column phase: Rtx-5 Column diameter: 0.32

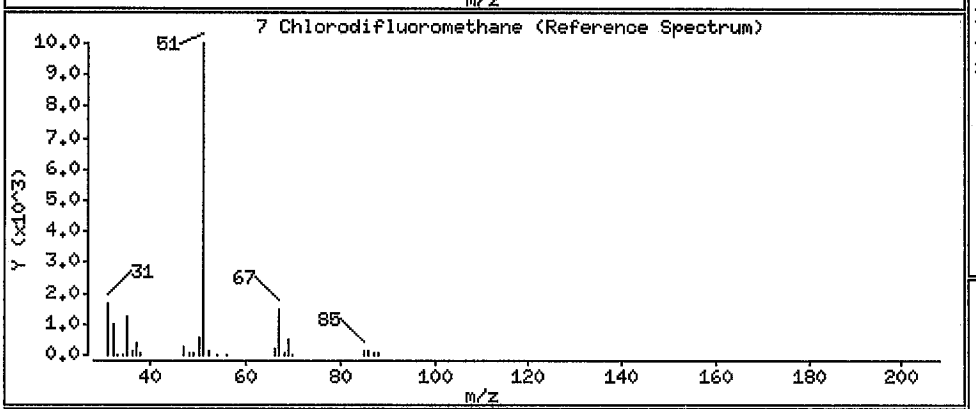
7 Chlorodifluoromethane Concentration: 0.8004 ppb(v/v)

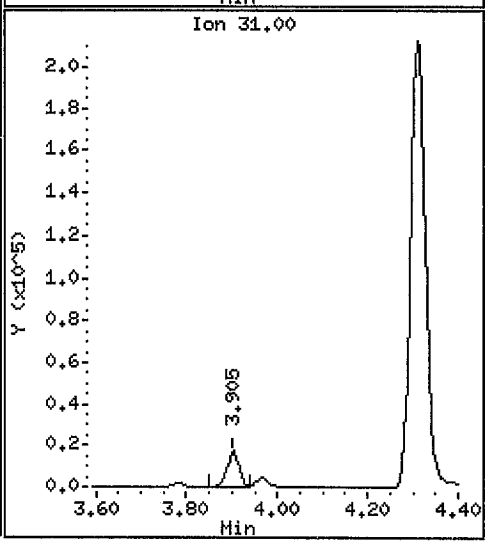


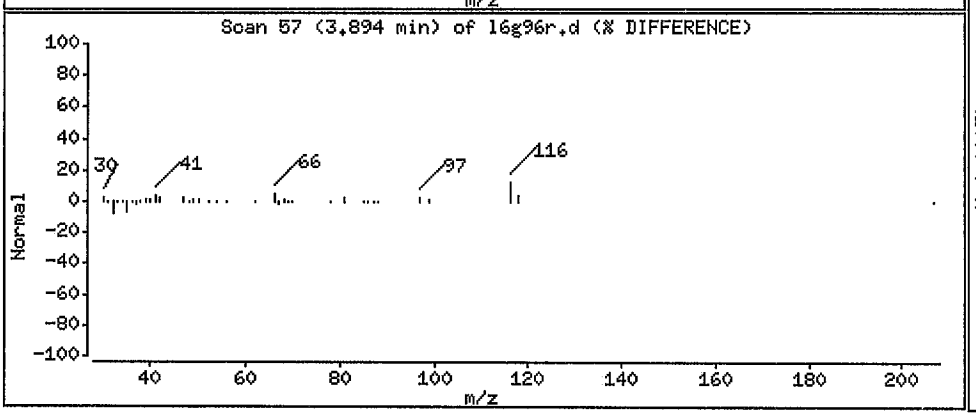












Data File: /var/chem/gcms/mj.i/J090910.b/16g96r.d

Date : 10-SEP-2010 04:19

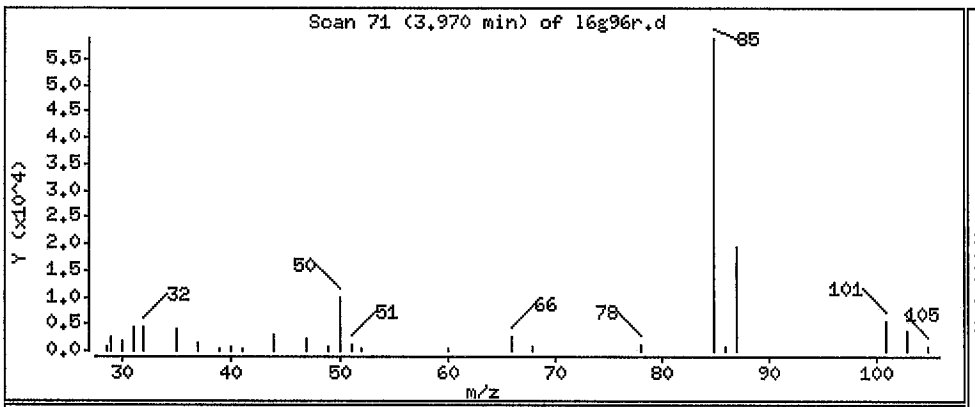
Client ID: IAQ-C19-9 Instrument: mj.i

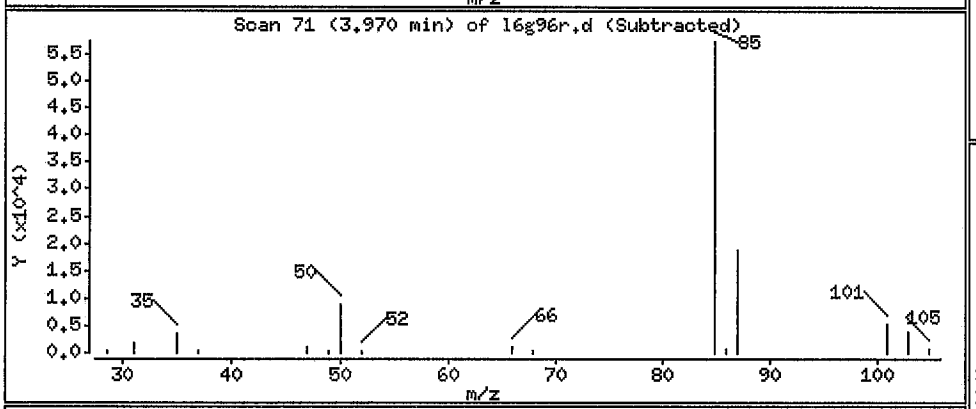
Sample Info: L6G961AA,,0,,,

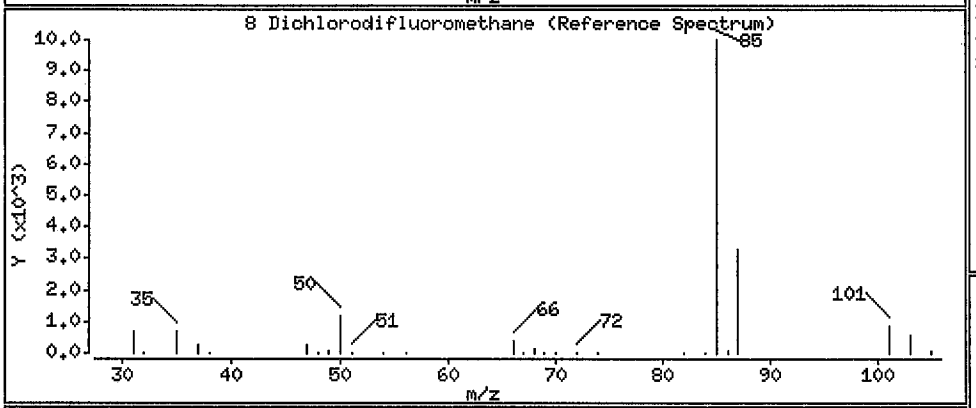
Purge Volume: 500.0 Operator: 7126

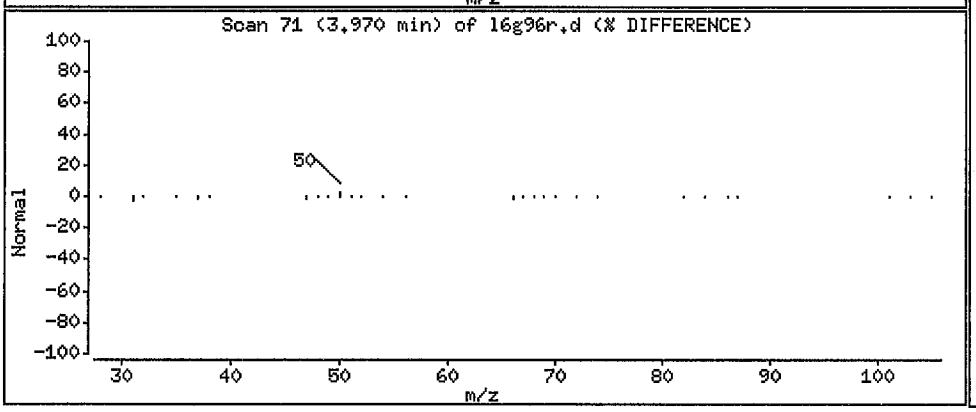
Column phase: Rtx-5 Column diameter: 0.32

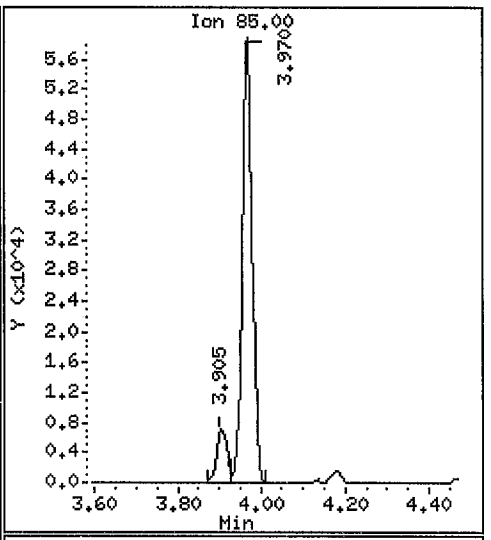
8 Dichlorodifluoromethane Concentration: 0.5277 ppb(v/v)

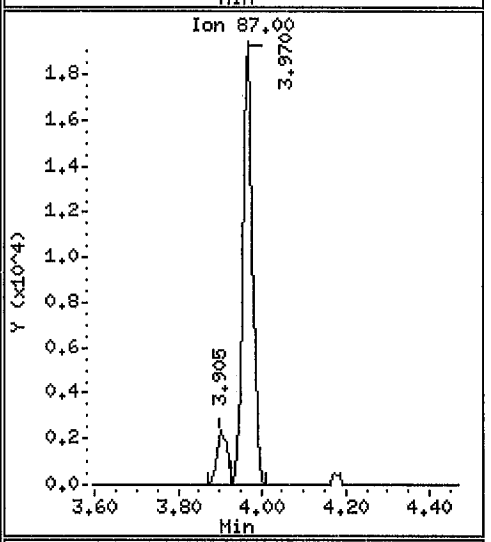


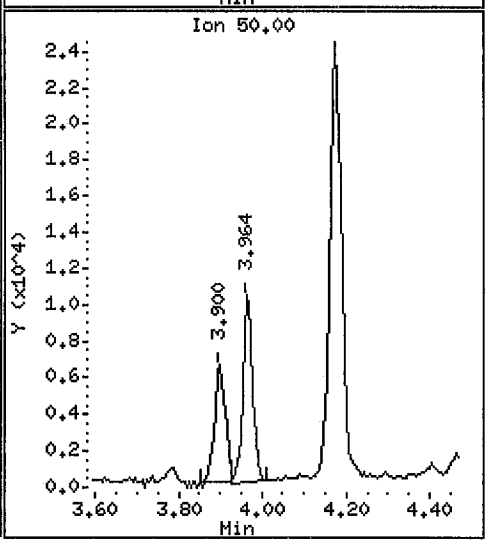












Data File: /var/chem/gcms/mj.i/J090910.b/16g96r.d

Date : 10-SEP-2010 04:19

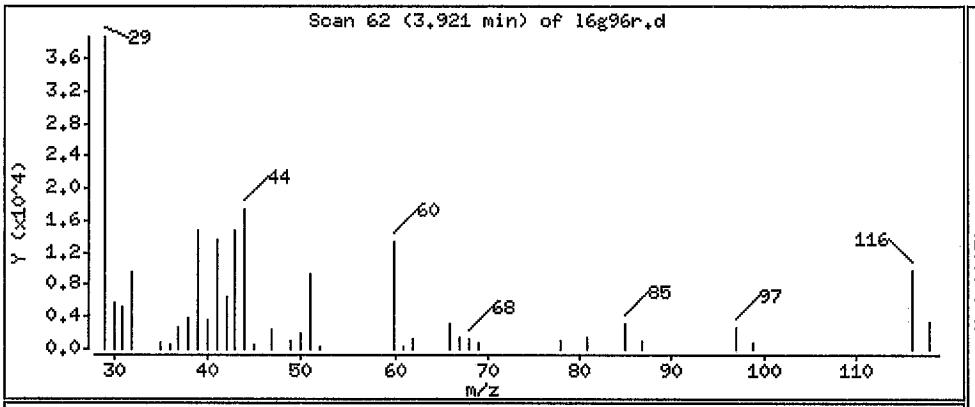
Client ID: IAQ-C19-9 Instrument: mj.i

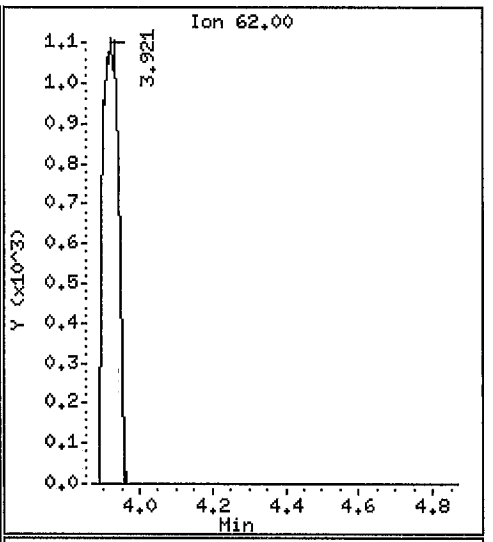
Sample Info: L6G961AA,,0,,,

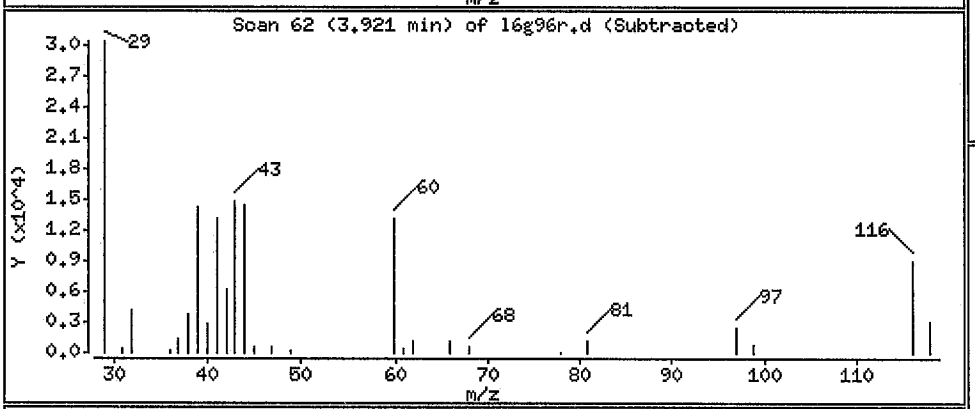
Purge Volume: 500.0 Operator: 7126

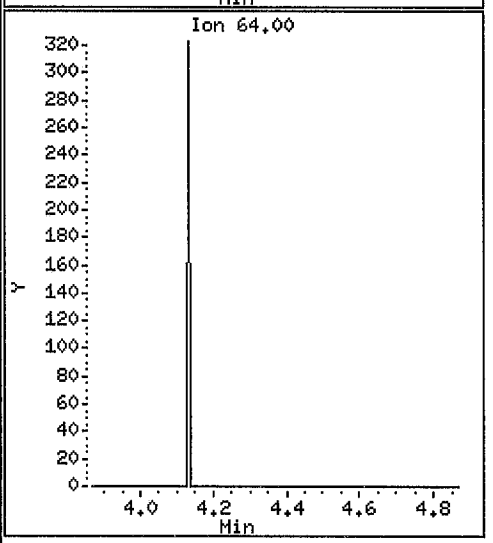
Column phase: Rtx-5 Column diameter: 0.32

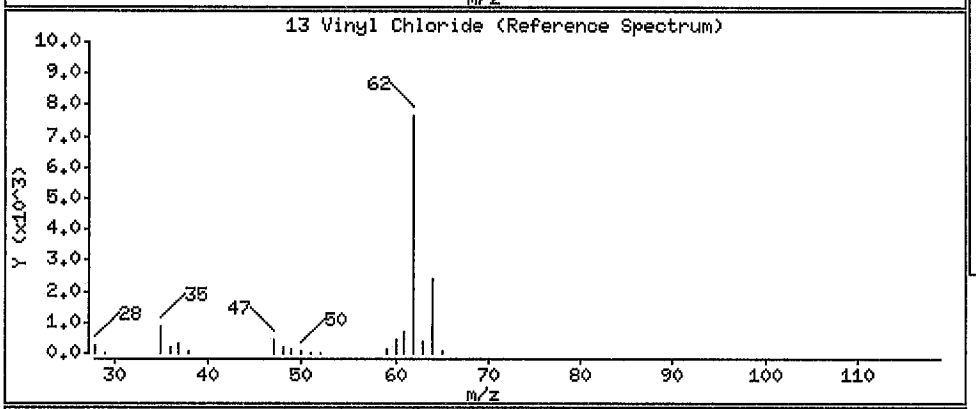
13 Vinyl Chloride Concentration: 0.04948 ppb(v/v)

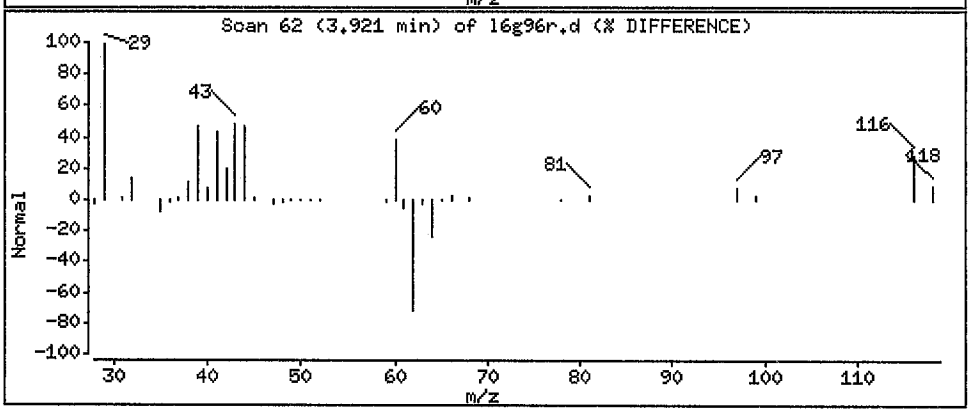












Data File: /var/chem/gcms/mj.i/J090910.b/l6g96r.d

Date : 10-SEP-2010 04:19

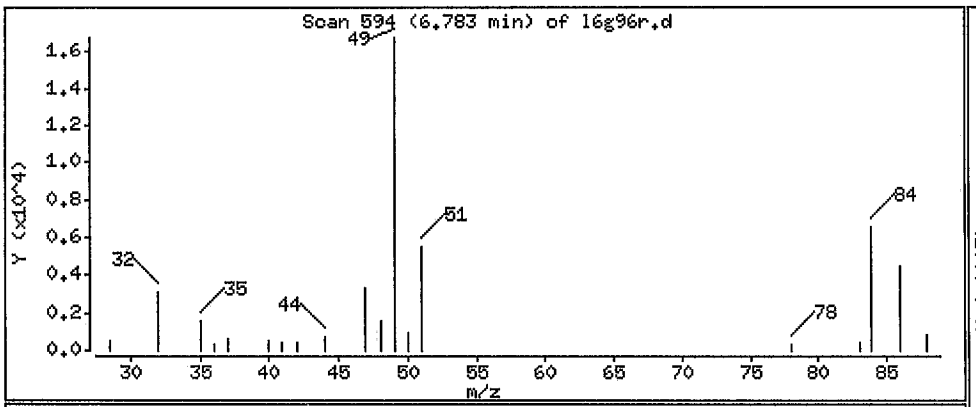
Client ID: IAQ-C19-9 Instrument: mj.i

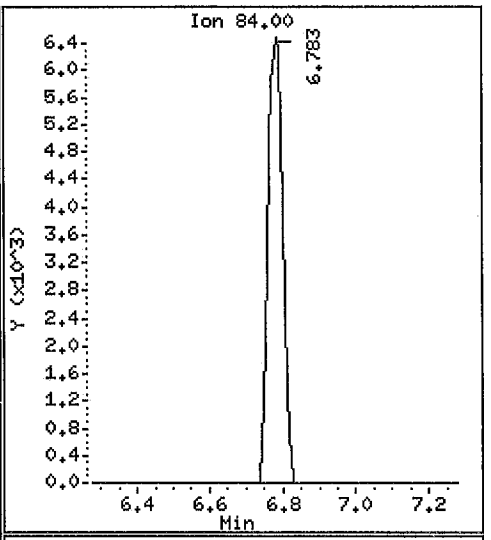
Sample Info: L6G961AA,,0,,,

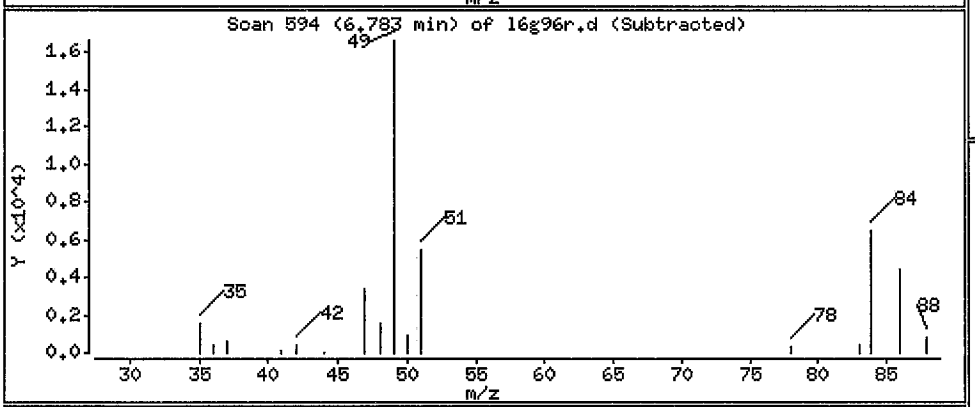
Purge Volume: 500.0 Operator: 7126

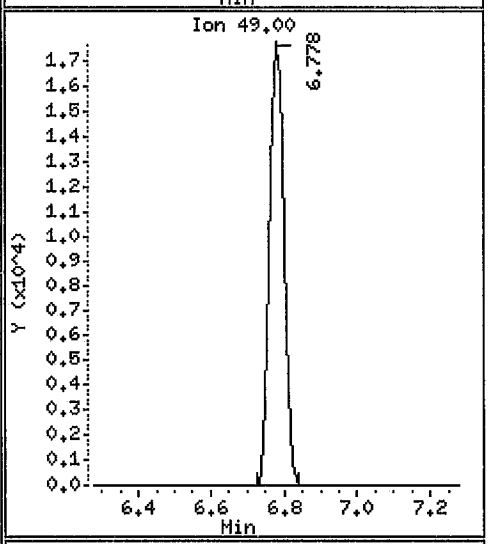
Column phase: Rtx-5 Column diameter: 0.32

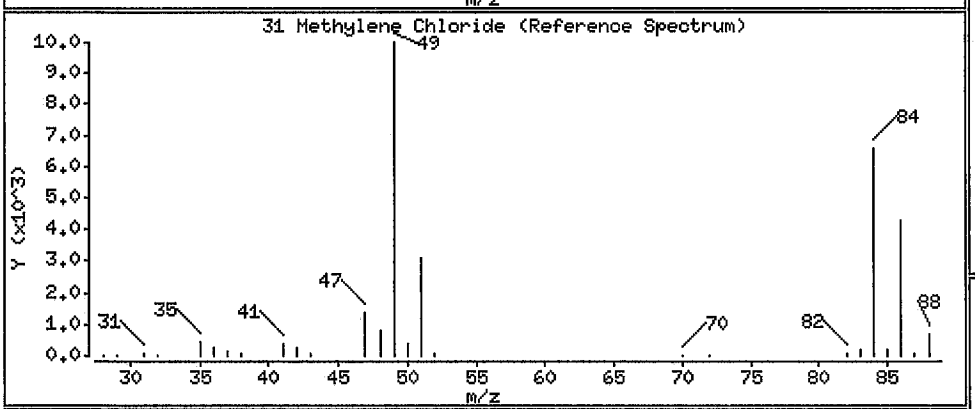
31 Methylene Chloride Concentration: 0.2795 ppb(v/v)

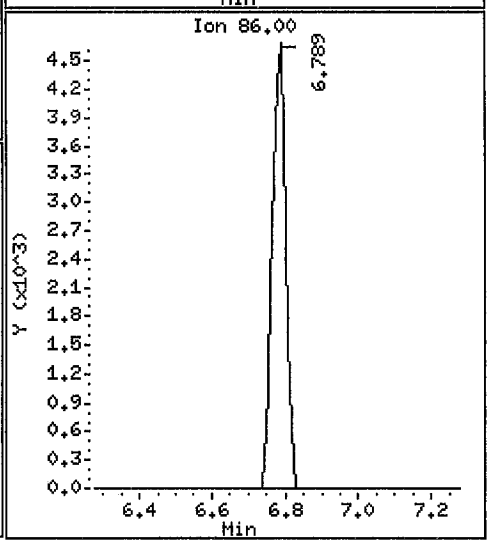


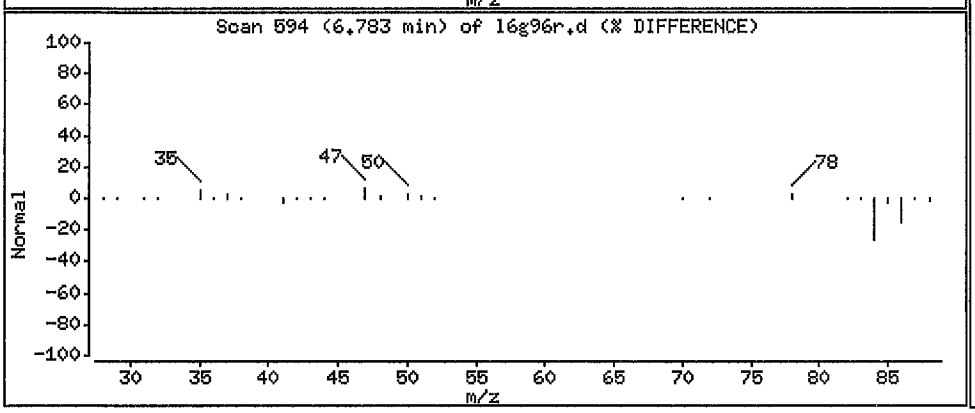












Data File: /var/chem/gcms/mj.i/J090910.b/16g96r.d

Date : 10-SEP-2010 04:19

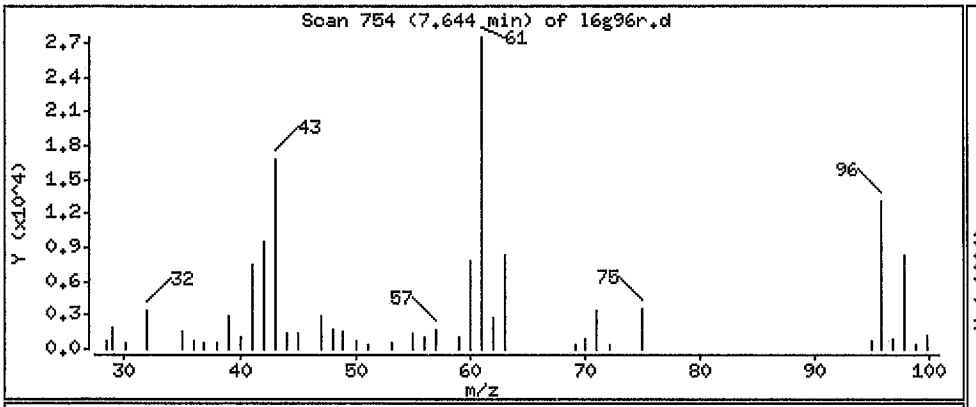
Client ID: IAQ-C19-9 Instrument: mj.i

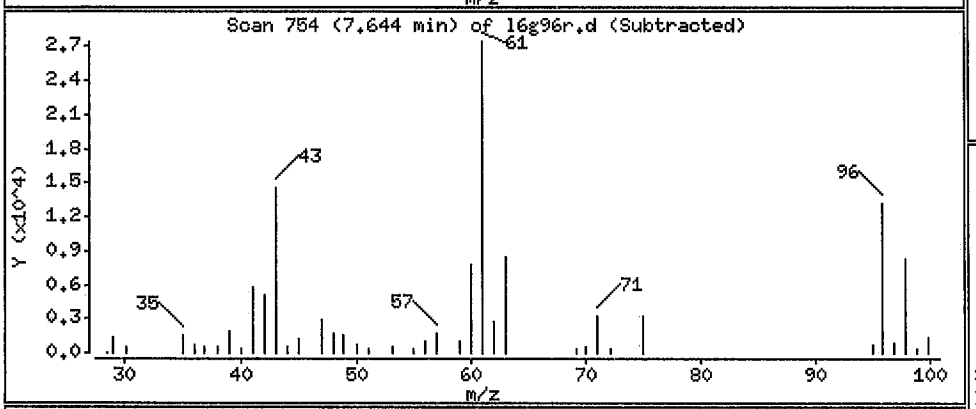
Sample Info: L6G961AA,,0,,,

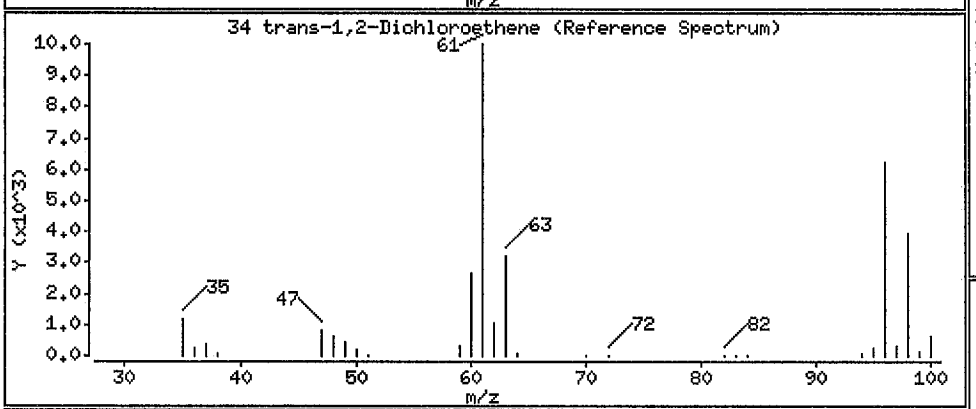
Purge Volume: 500.0 Operator: 7126

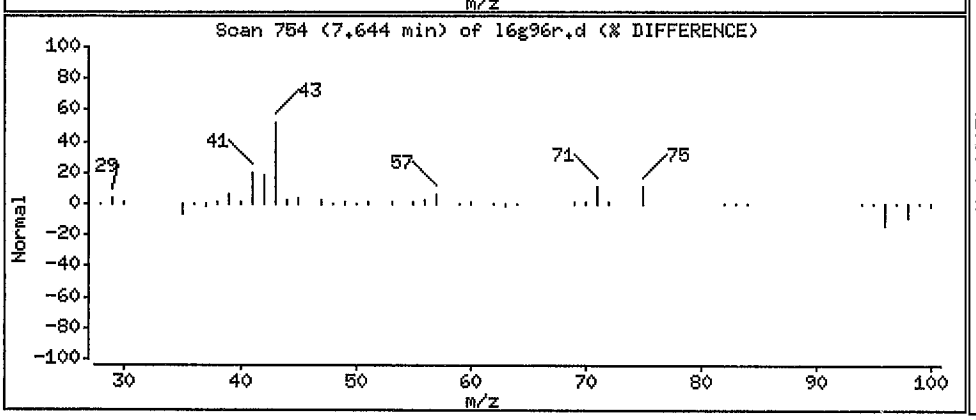
Column phase: Rtx-5 Column diameter: 0.32

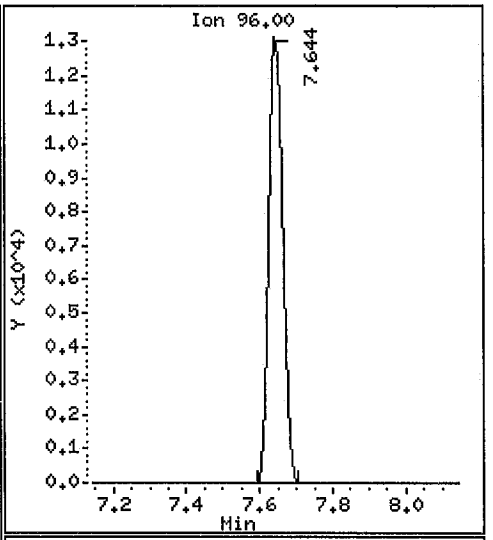
34 trans-1,2-Dichloroethene Concentration: 0.5276 ppb(v/v)

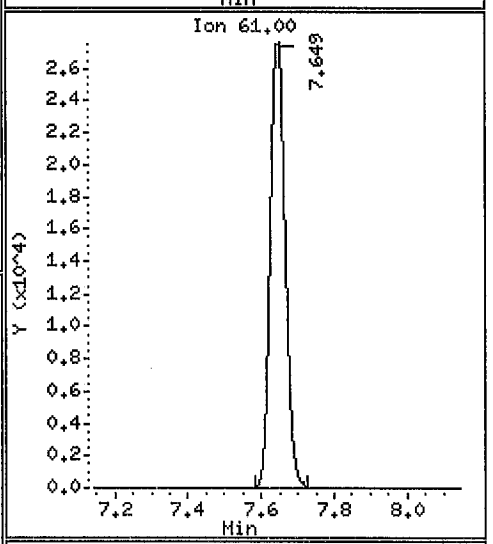


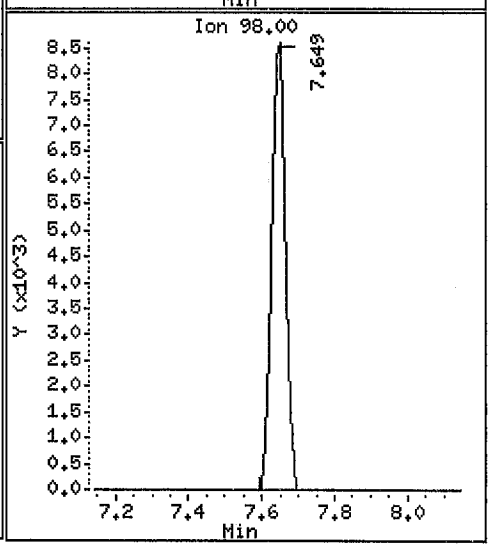












Data File: /var/chem/gcms/mj.i/J090910.b/16g96r.d

Date : 10-SEP-2010 04:19

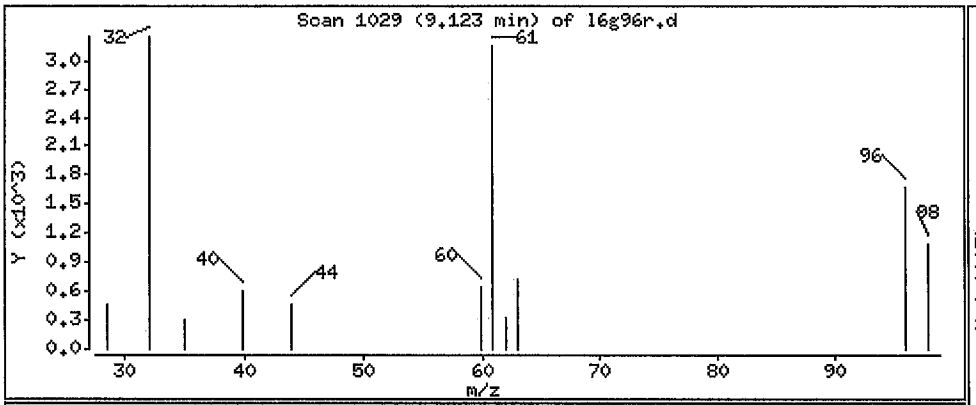
Client ID: IAQ-C19-9 Instrument: mj.i

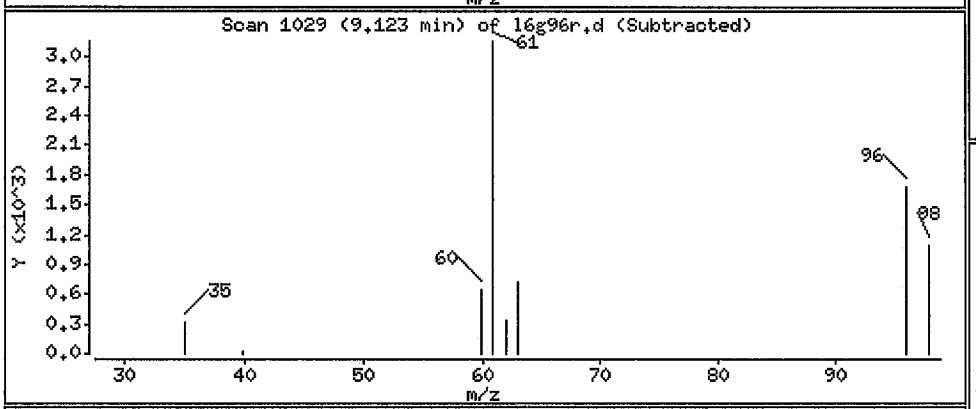
Sample Info: L6G961AA,,0,,,

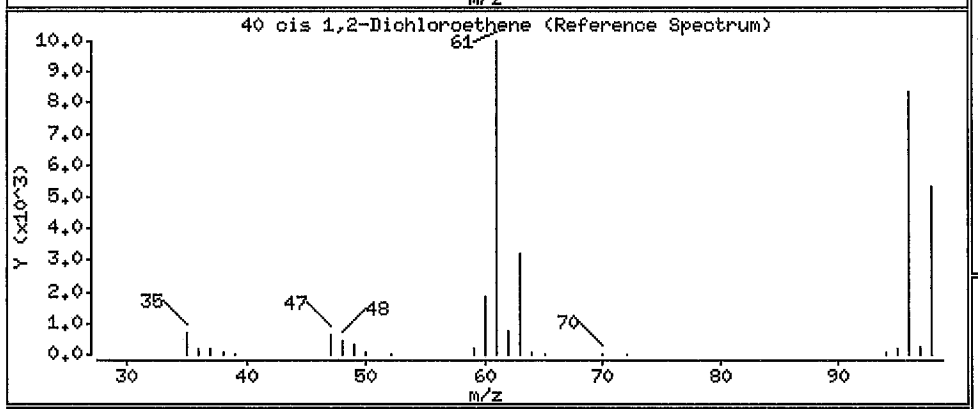
Purge Volume: 500.0 Operator: 7126

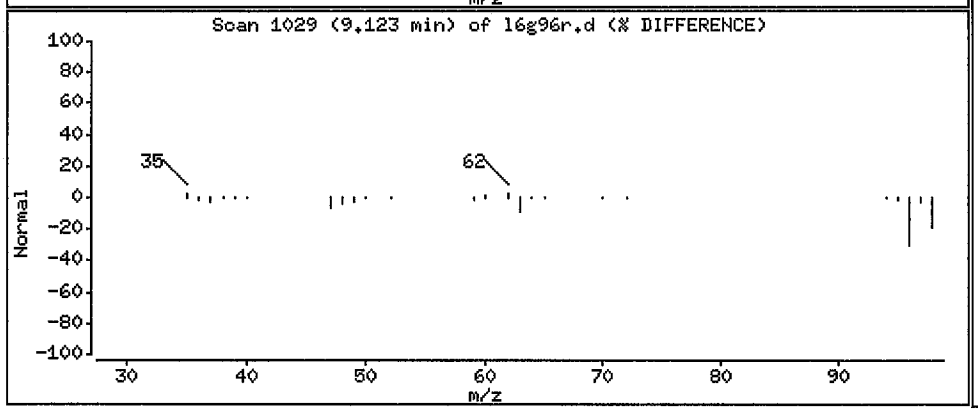
Column phase: Rtx-5 Column diameter: 0.32

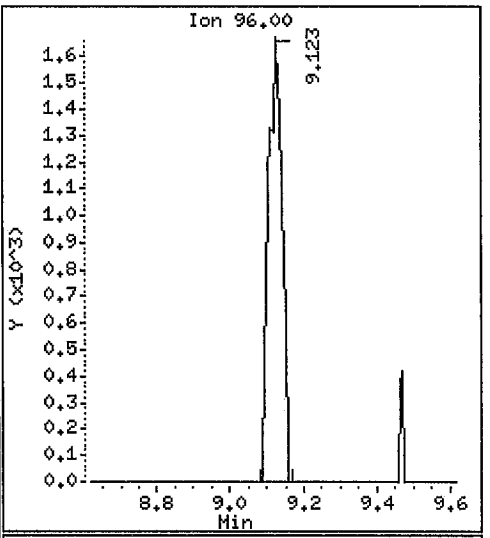
40 cis 1,2-Dichloroethene Concentration: 0.06318 ppb(v/v)

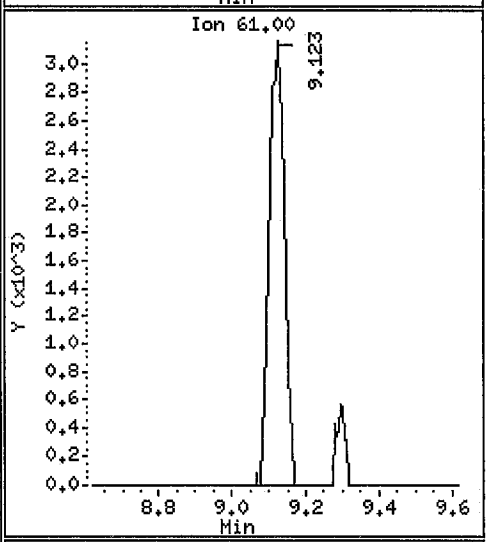


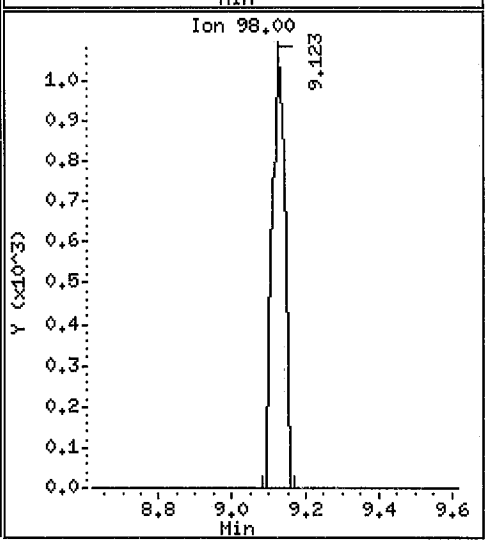












Data File: /var/chem/gcms/mj.i/J090910.b/16g96r.d

Date : 10-SEP-2010 04:19

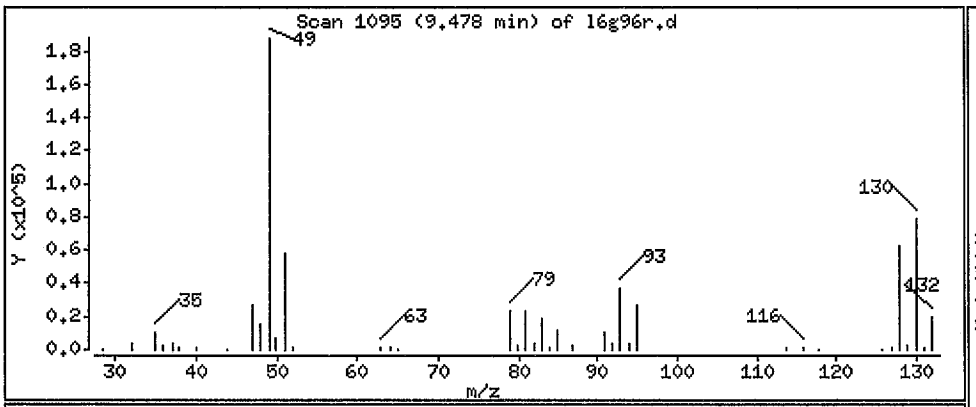
Client ID: IAQ-C19-9 Instrument: mj.i

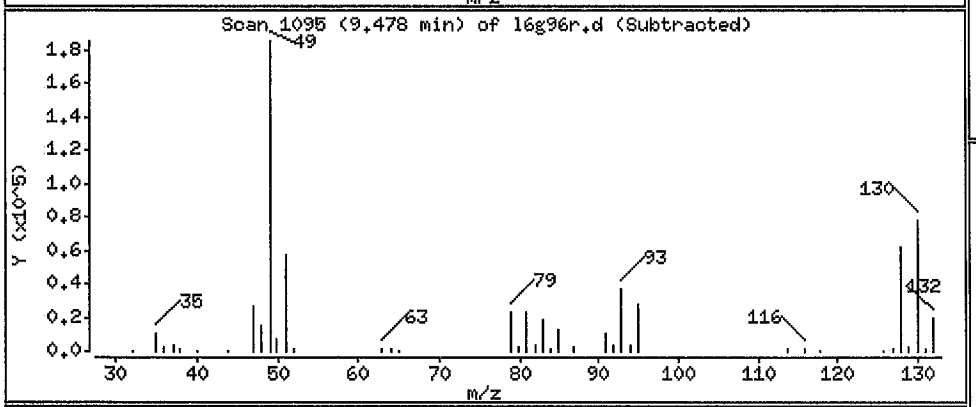
Sample Info: L6G961AA,,0,,,

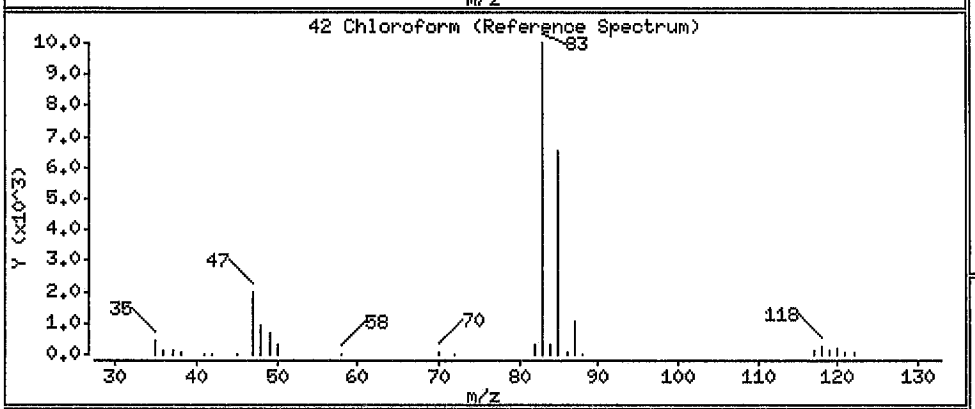
Purge Volume: 500.0 Operator: 7126

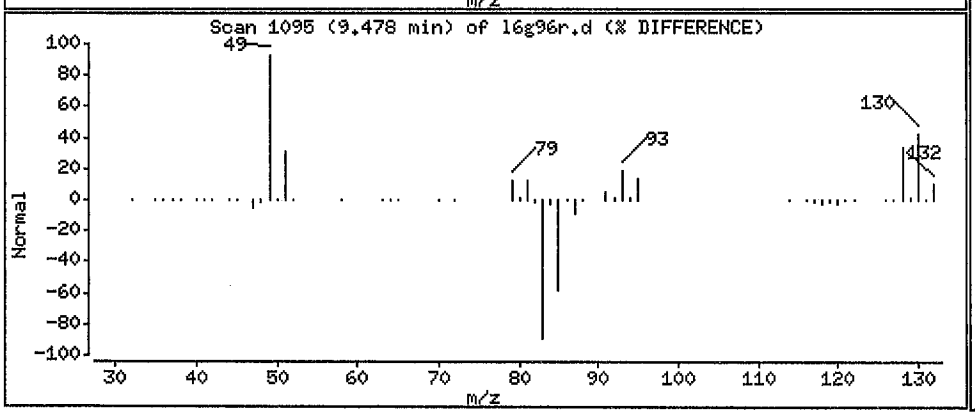
Column phase: Rtx-5 Column diameter: 0.32

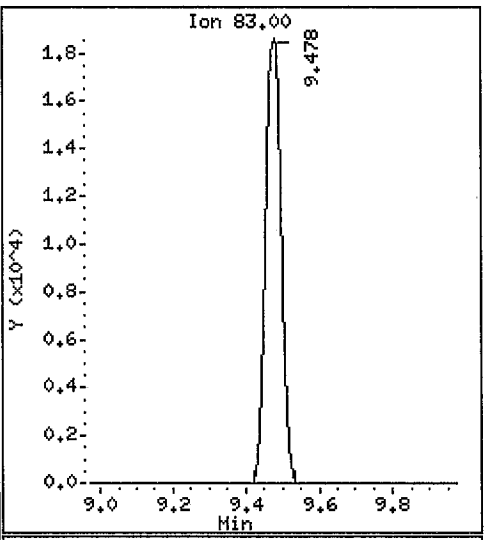
42 Chloroform Concentration: 0.3849 ppb(v/v)

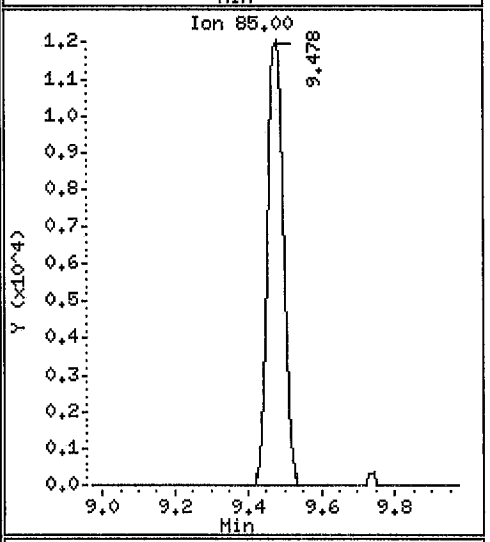


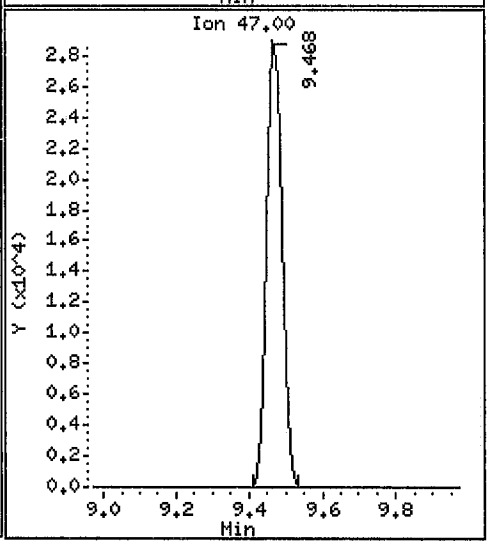












Data File: /var/chem/gcms/mj.i/J090910.b/l6g96r.d

Date : 10-SEP-2010 04:19

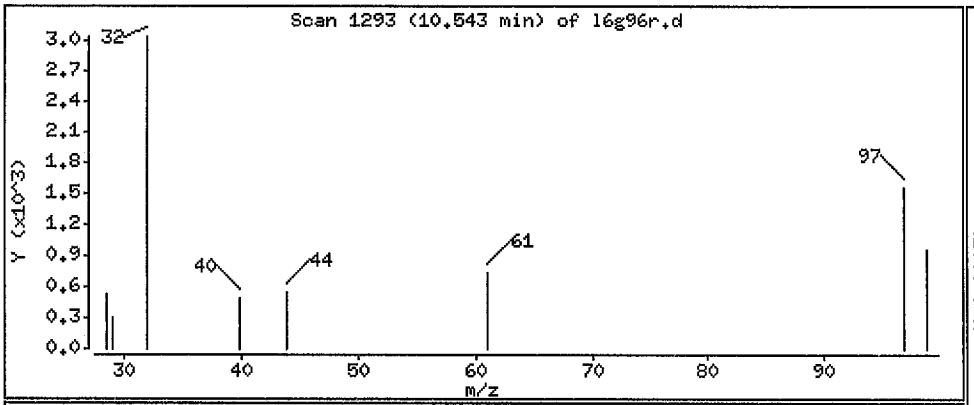
Client ID: IAQ-C19-9 Instrument: mj.i

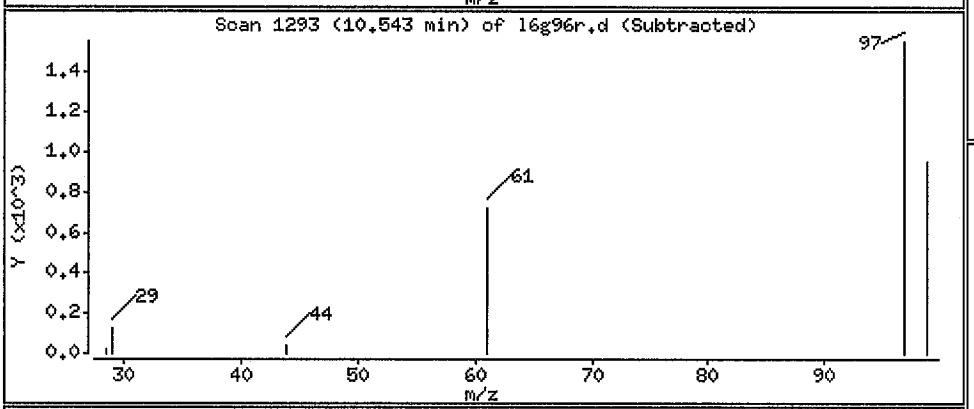
Sample Info: L6G961AA,,0,,,

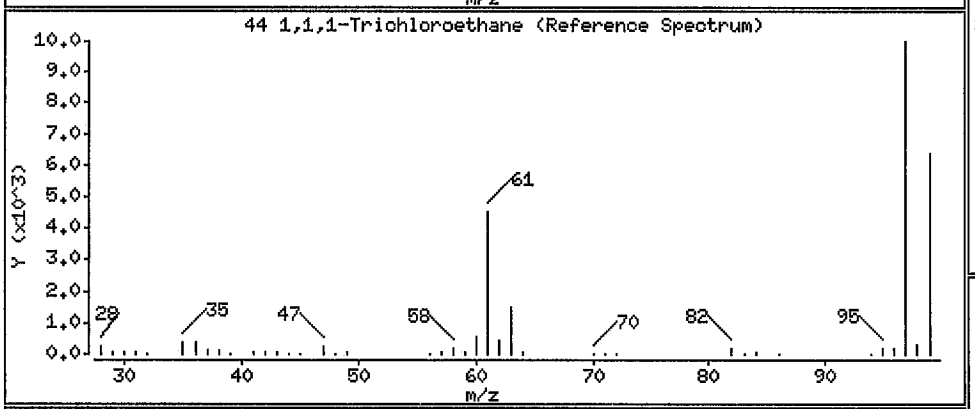
Purge Volume: 500.0 Operator: 7126

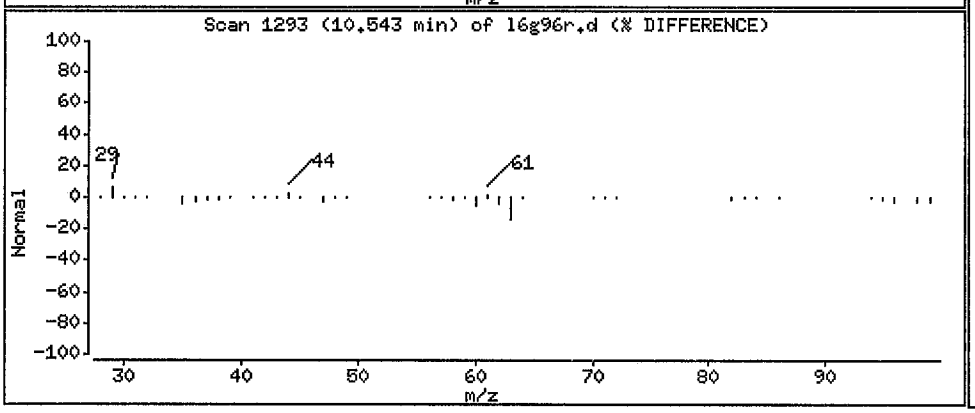
Column phase: Rtx-5 Column diameter: 0.32

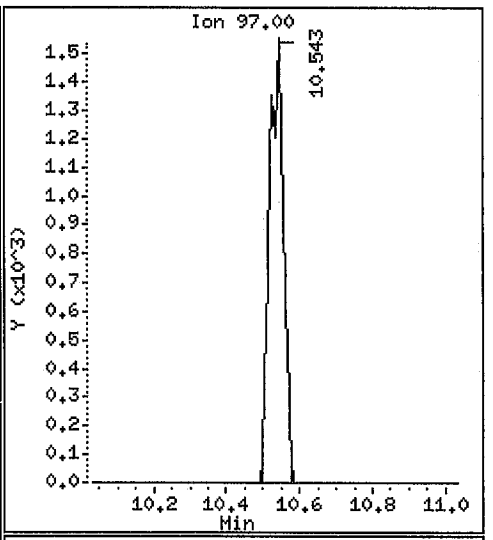
44 1,1,1-Trichloroethane Concentration: 0.02812 ppb(v/v)

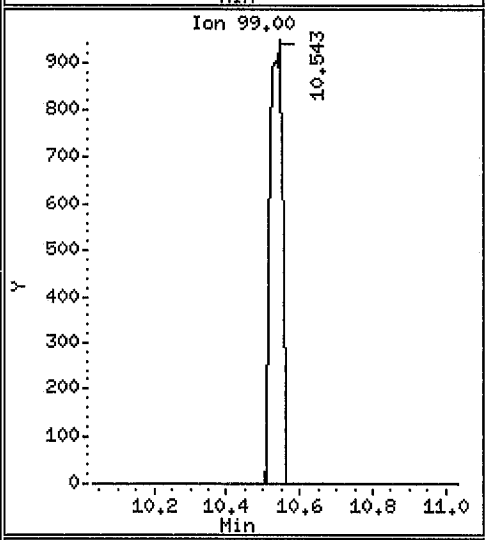


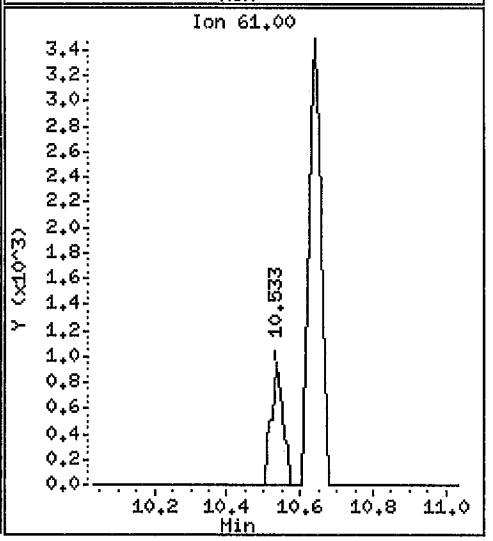












Data File: /var/chem/gcms/mj.i/J090910.b/l6g96r.d

Date : 10-SEP-2010 04:19

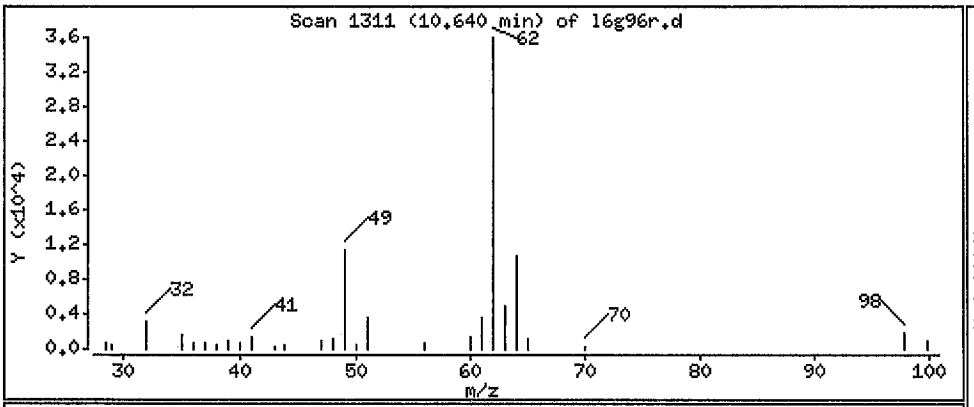
Client ID: IAQ-C19-9 Instrument: mj.i

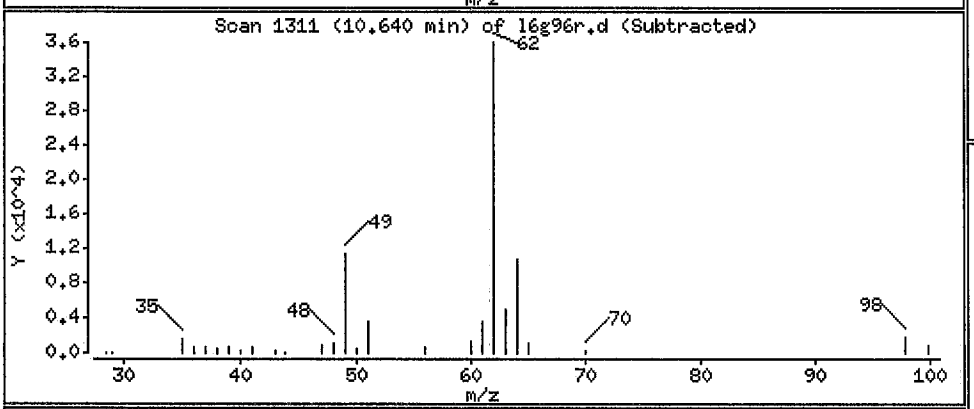
Sample Info: L6G961AA,,0,,,

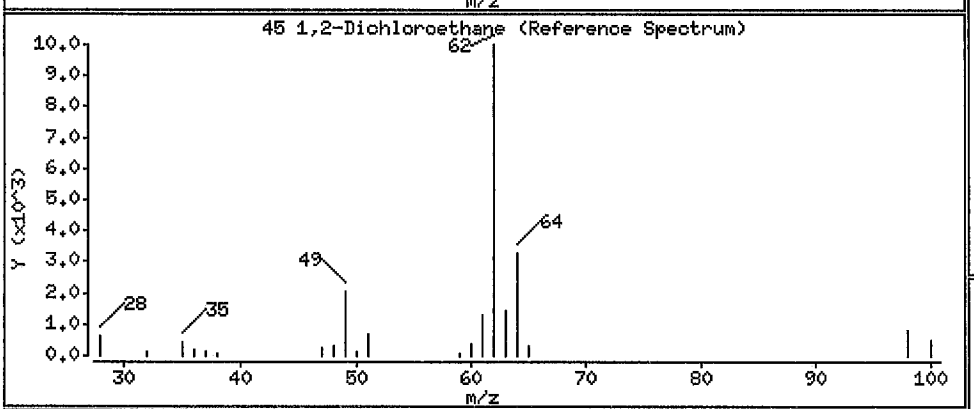
Purge Volume: 500.0 Operator: 7126

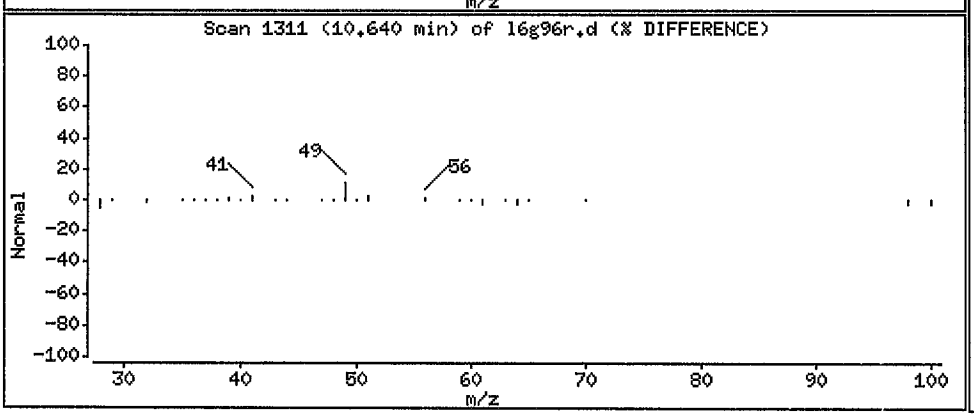
Column phase: Rtx-5 Column diameter: 0.32

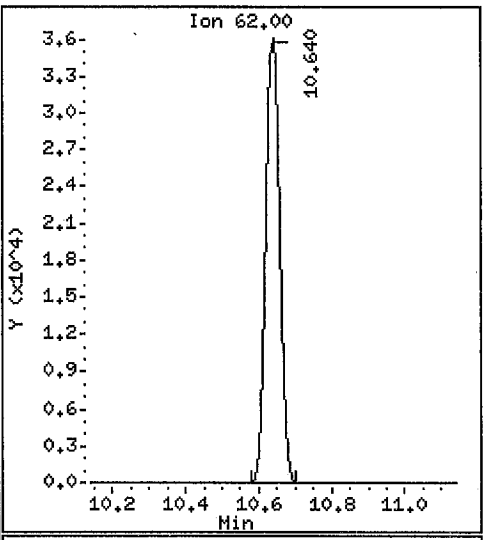
45 1,2-Dichloroethane Concentration: 0.7430 ppb(v/v)

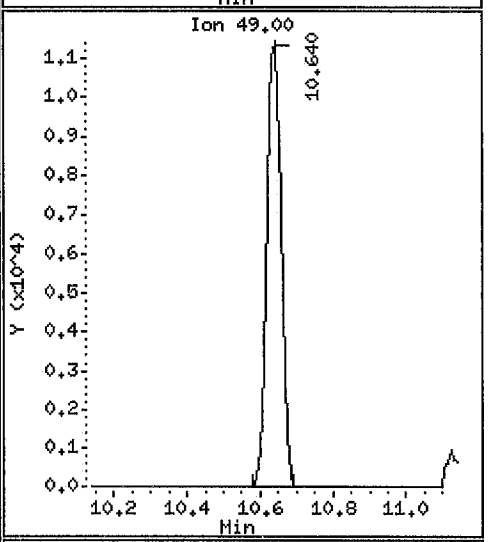


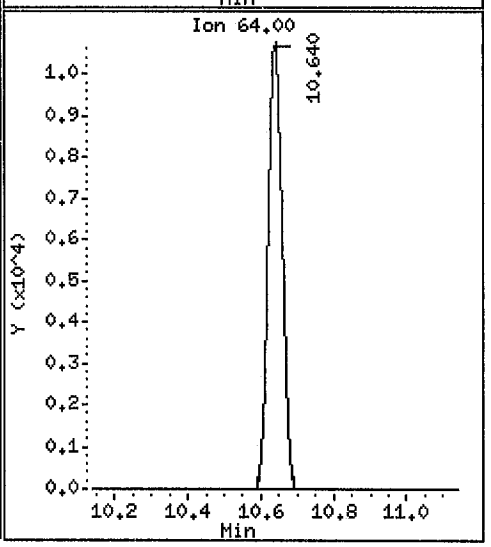












Data File: /var/chem/gcms/mj.i/J090910.b/l6g96r.d

Date : 10-SEP-2010 04:19

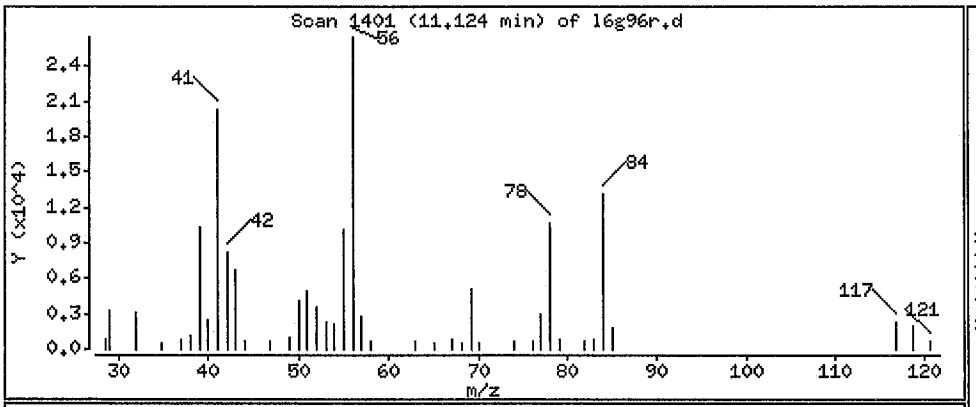
Client ID: IAQ-C19-9 Instrument: mj.i

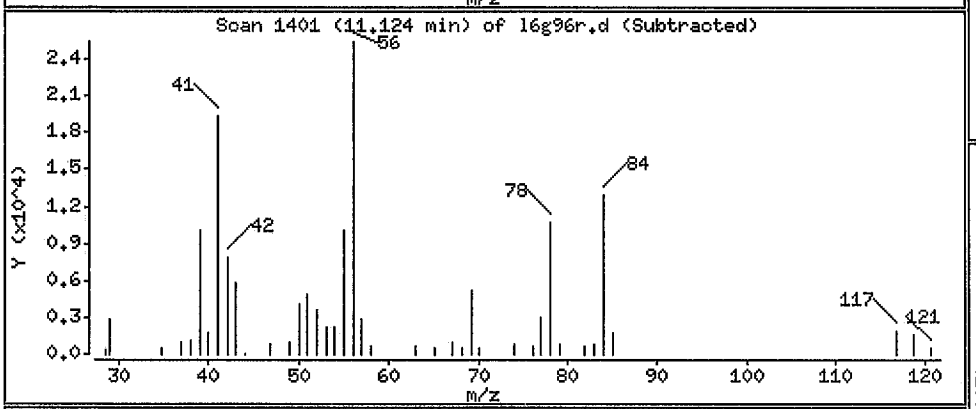
Sample Info: L6G961AA,,0,,,

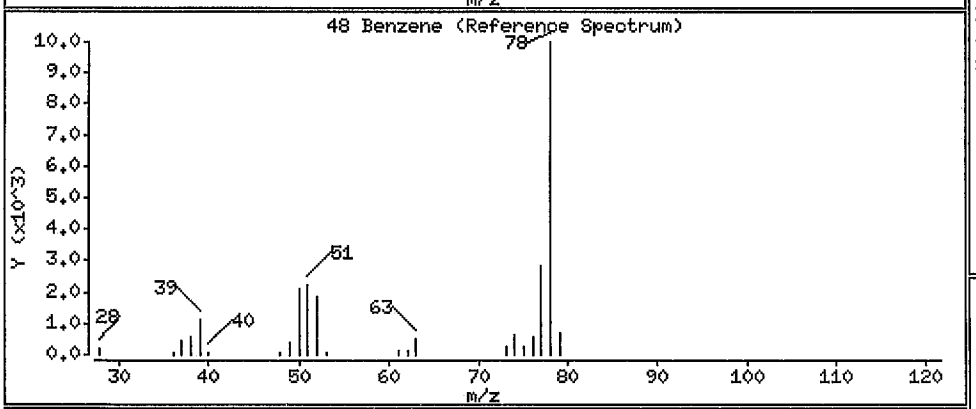
Purge Volume: 500.0 Operator: 7126

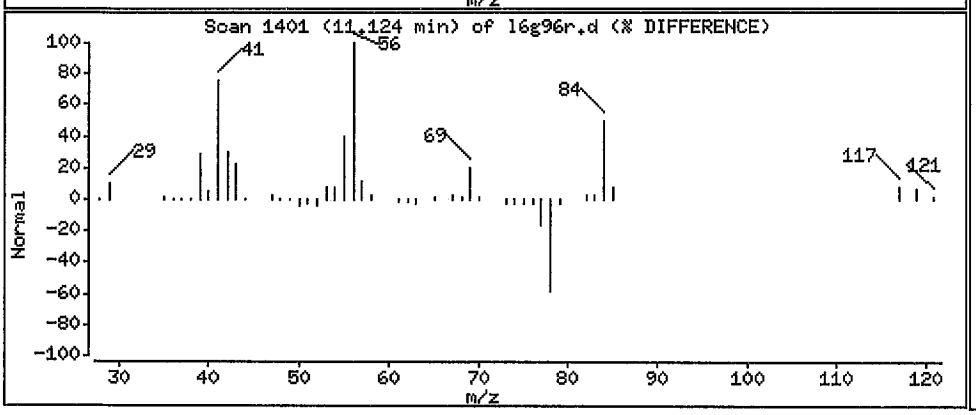
Column phase: Rtx-5 Column diameter: 0.32

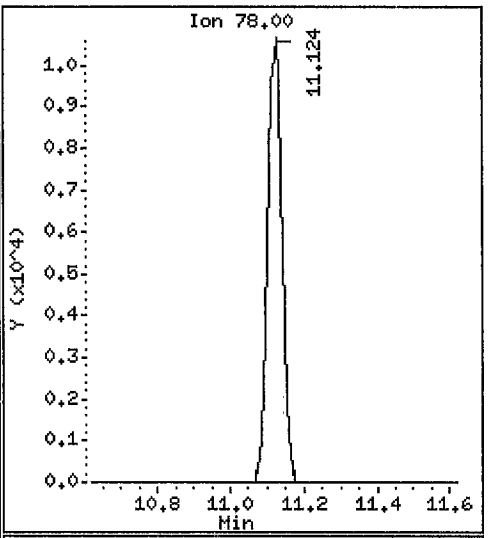
48 Benzene Concentration: 0.1488 ppb(v/v)

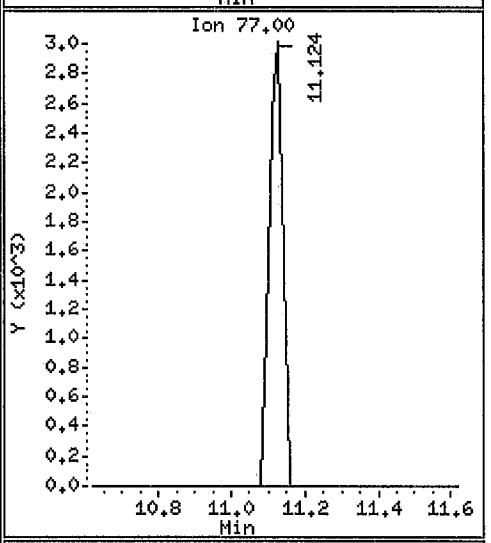


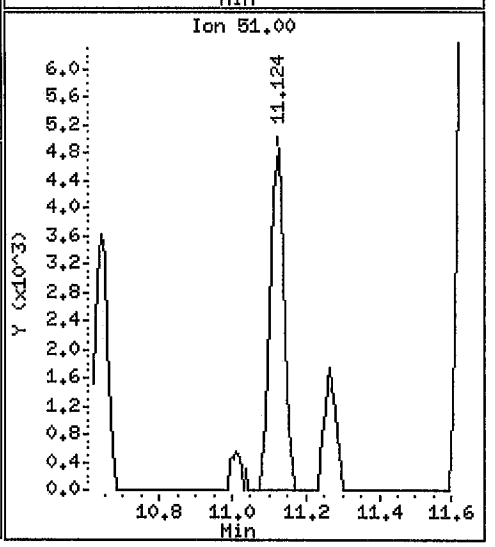












Data File: /var/chem/gcms/mj.i/J090910.b/l6g96r.d

Date : 10-SEP-2010 04:19

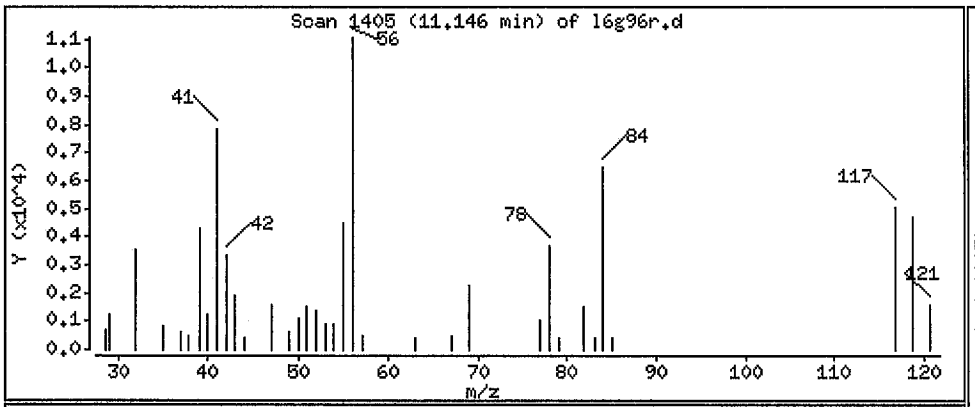
Client ID: IAQ-C19-9 Instrument: mj.i

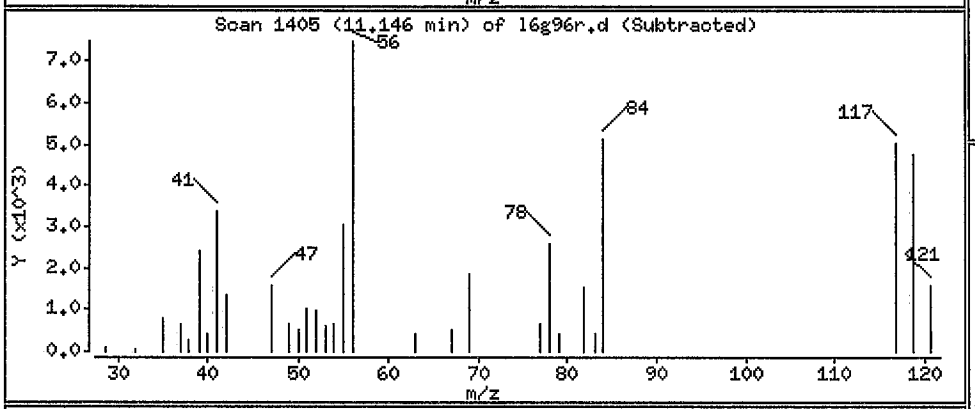
Sample Info: L6G961AA,,0,,,

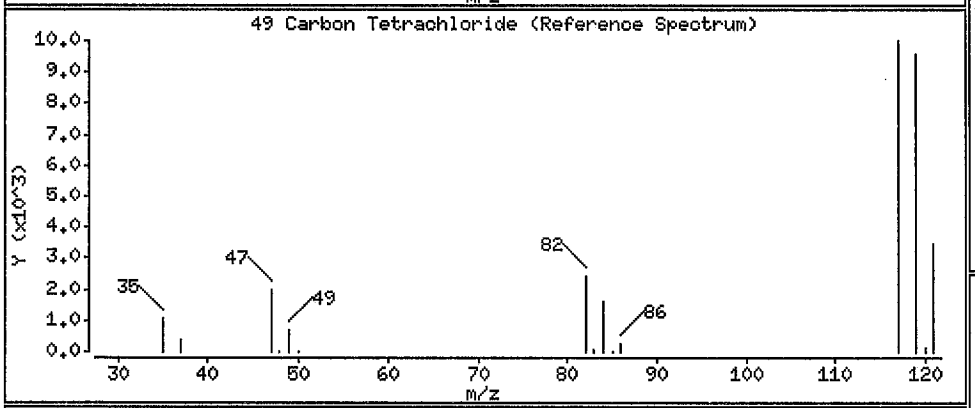
Purge Volume: 500.0 Operator: 7126

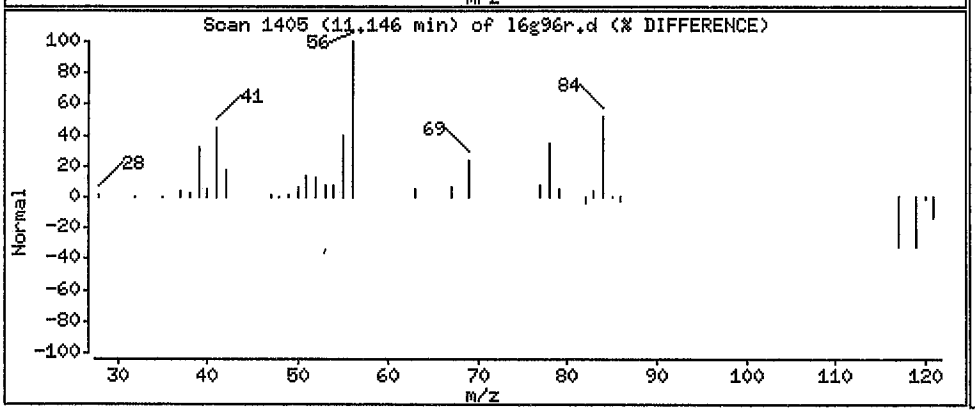
Column phase: Rtx-5 Column diameter: 0.32

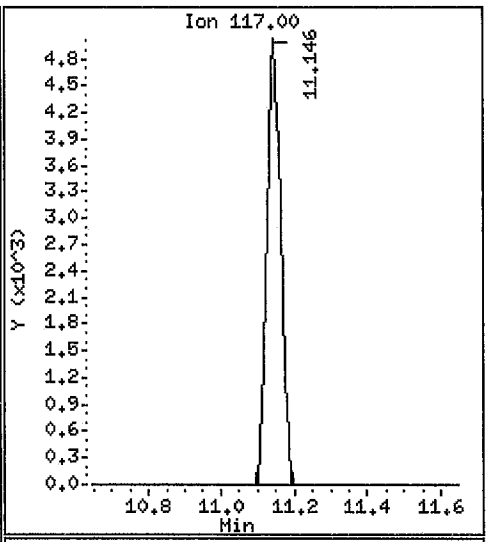
49 Carbon Tetrachloride Concentration: 0.08651 ppb(v/v)

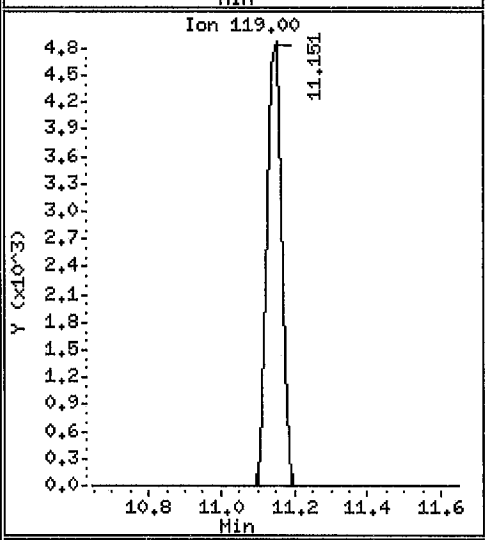


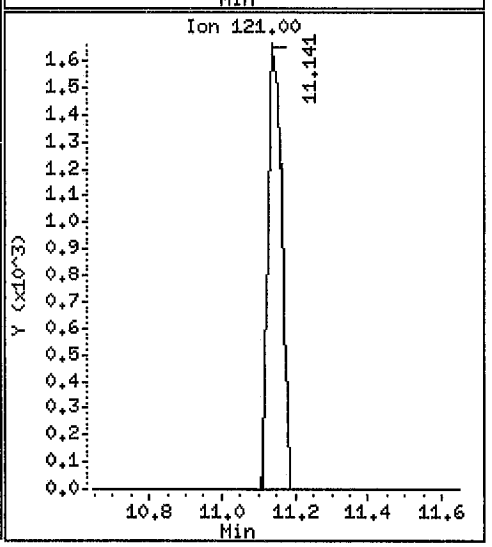












Data File: /var/chem/gcms/mj.i/J090910.b/l6g96r.d

Date : 10-SEP-2010 04:19

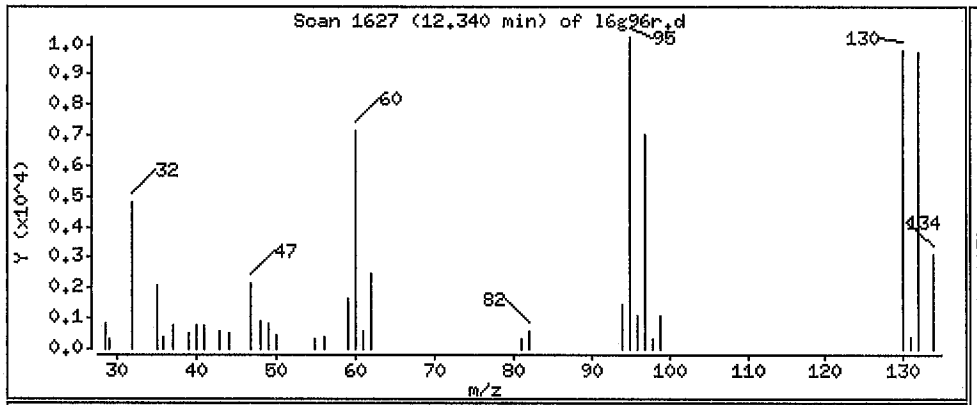
Client ID: IAQ-C19-9 Instrument: mj.i

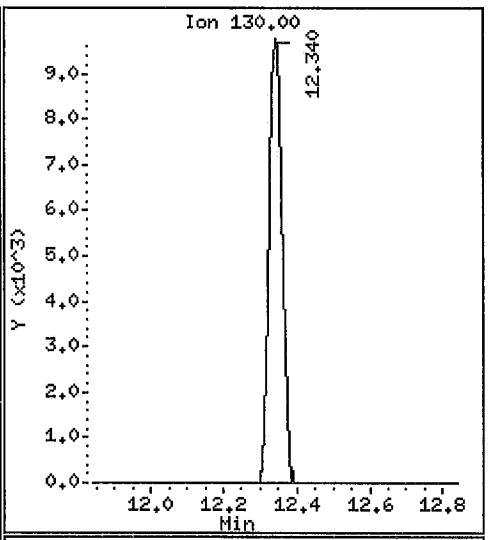
Sample Info: L6G961AA,,0,,,

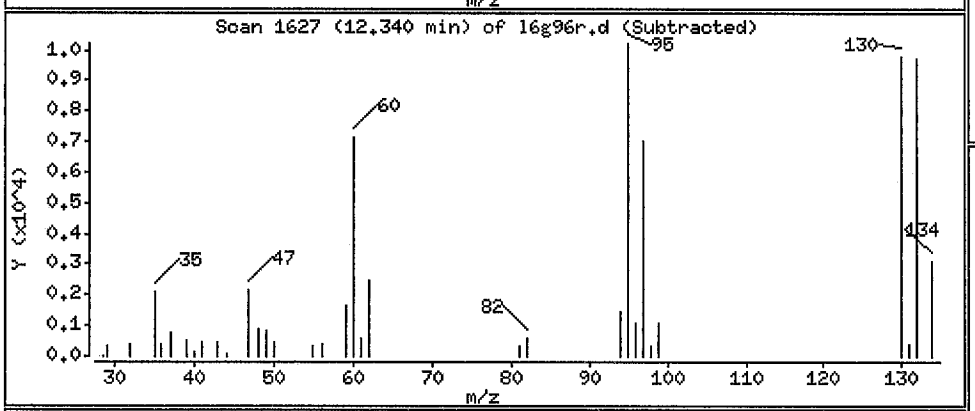
Purge Volume: 500.0 Operator: 7126

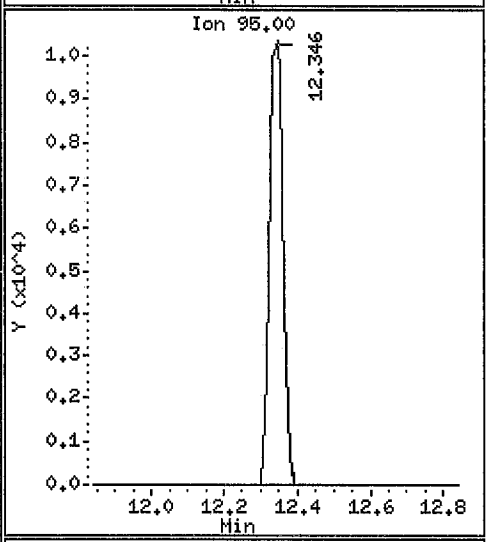
Column phase: Rtx-5 Column diameter: 0.32

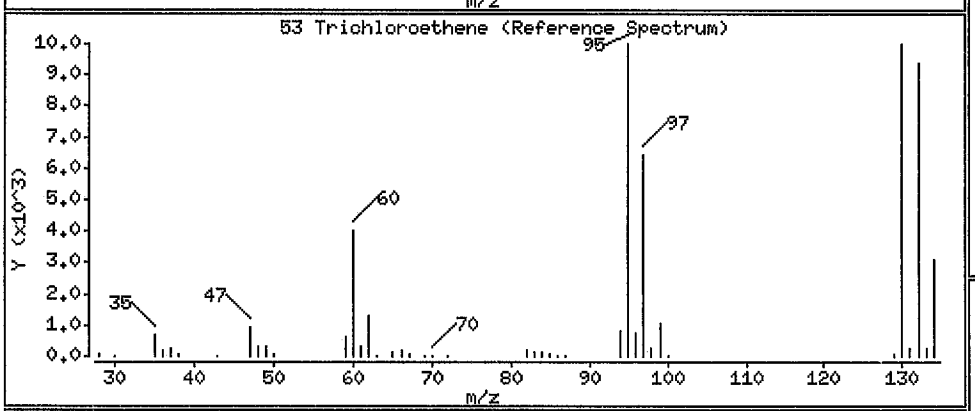
53 Trichloroethene Concentration: 0.2531 ppb(v/v)

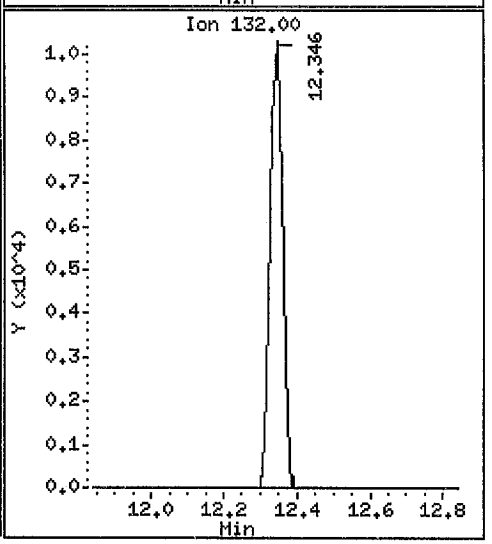


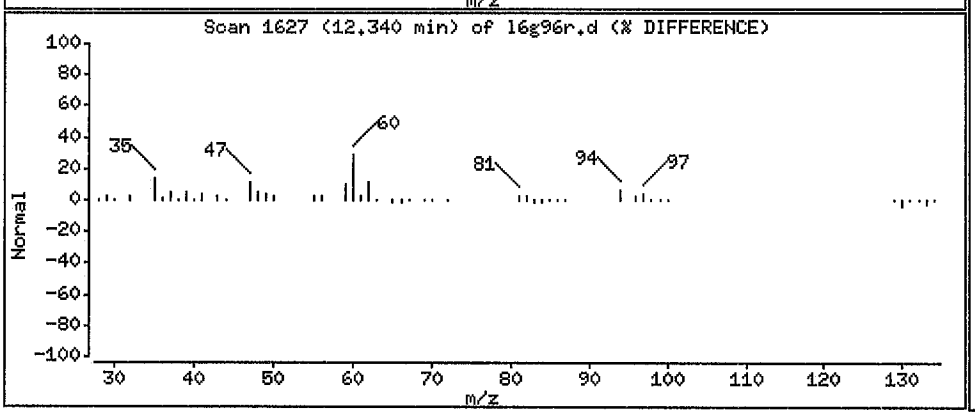












Data File: /var/chem/gcms/mj.i/J090910.b/l6g96r.d

Date : 10-SEP-2010 04:19

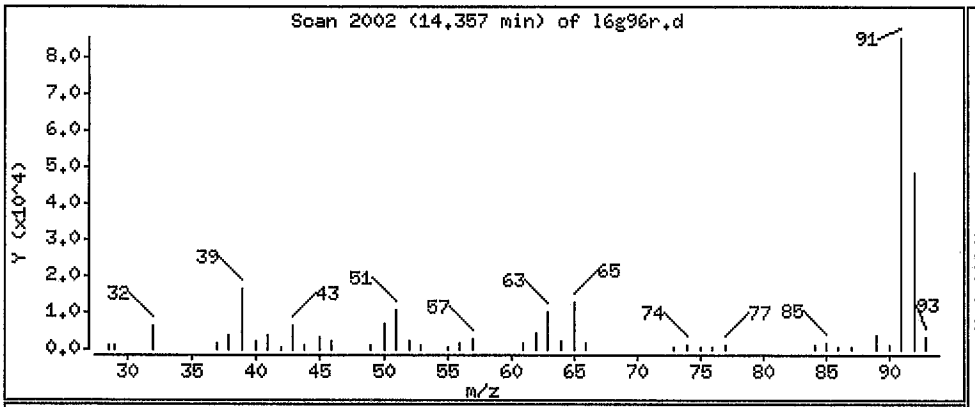
Client ID: IAQ-C19-9 Instrument: mj.i

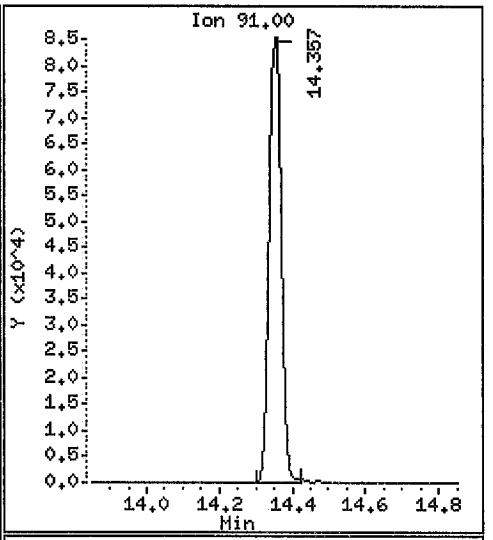
Sample Info: L6G961AA,,0,,,

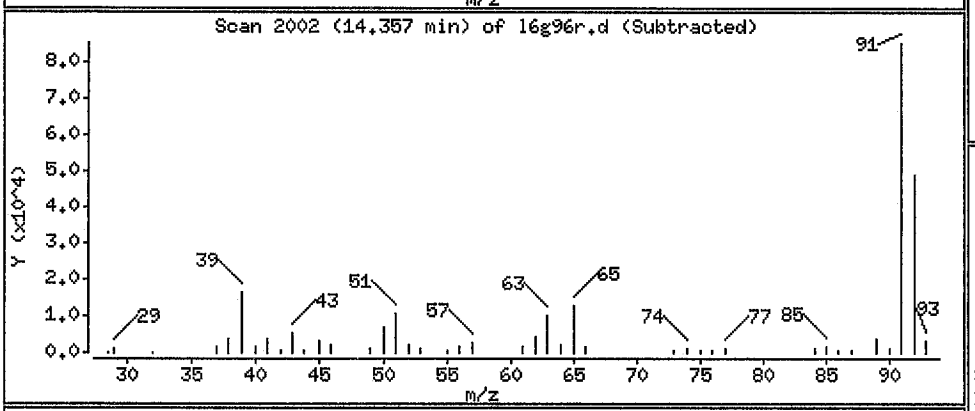
Purge Volume: 500.0 Operator: 7126

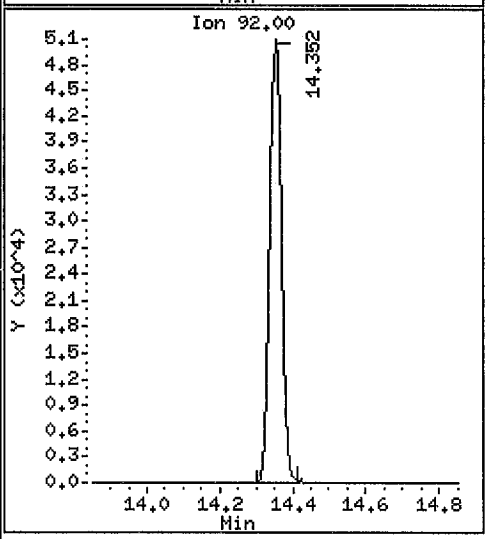
Column phase: Rtx-5 Column diameter: 0.32

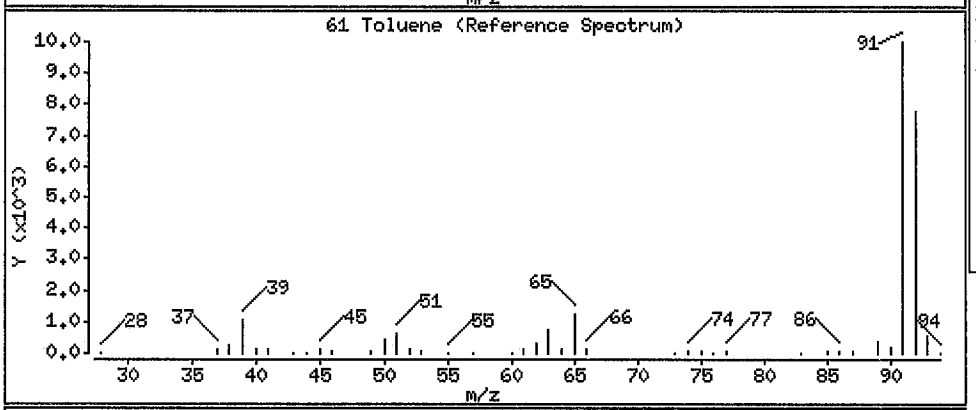
61 Toluene Concentration: 1.040 ppb(v/v)

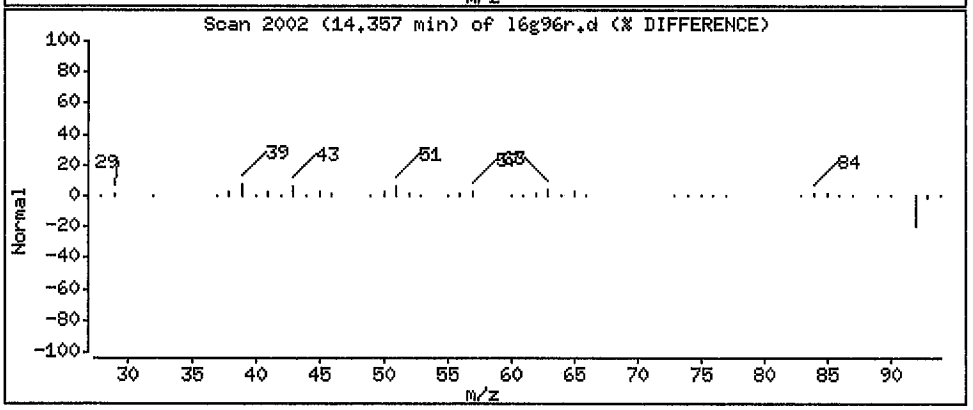












Data File: /var/chem/gcms/mj.i/J090910.b/l6g96r.d

Date : 10-SEP-2010 04:19

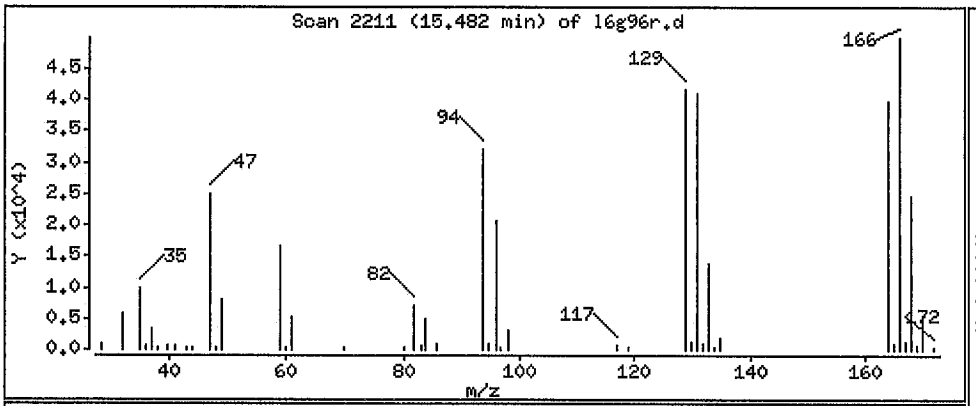
Client ID: IAQ-C19-9 Instrument: mj.i

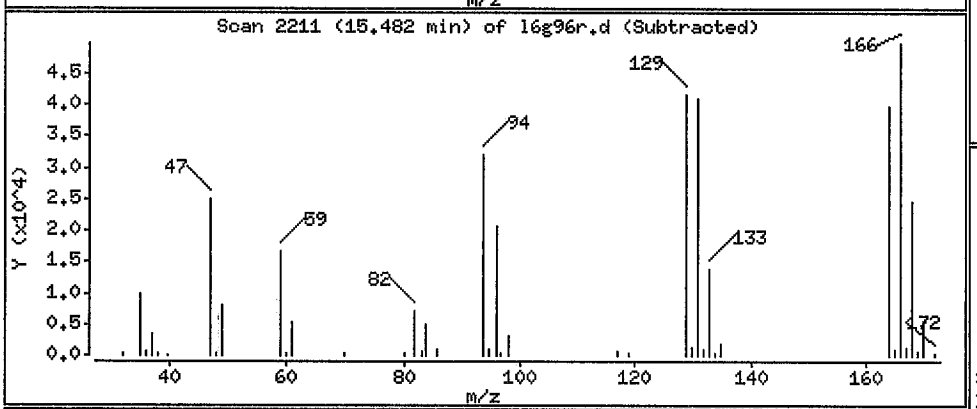
Sample Info: L6G961AA,,0,,,

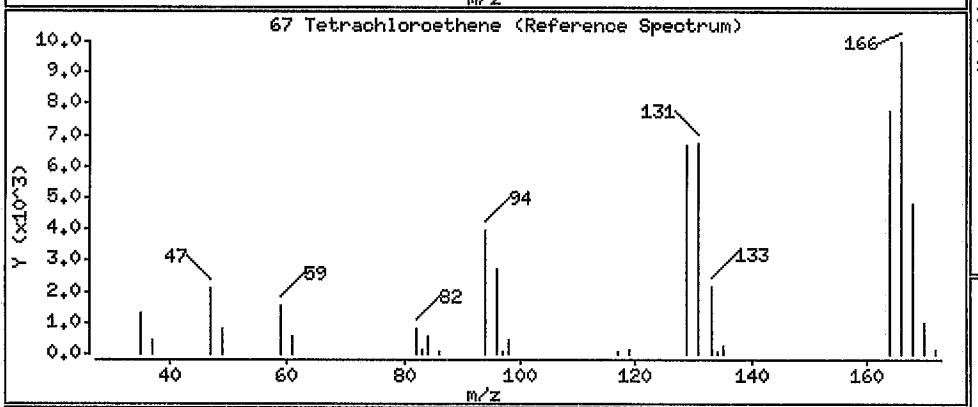
Purge Volume: 500.0 Operator: 7126

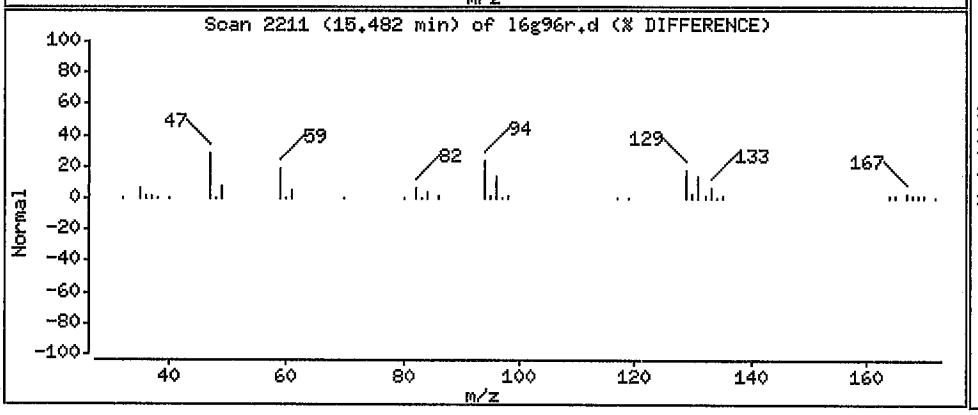
Column phase: Rtx-5 Column diameter: 0.32

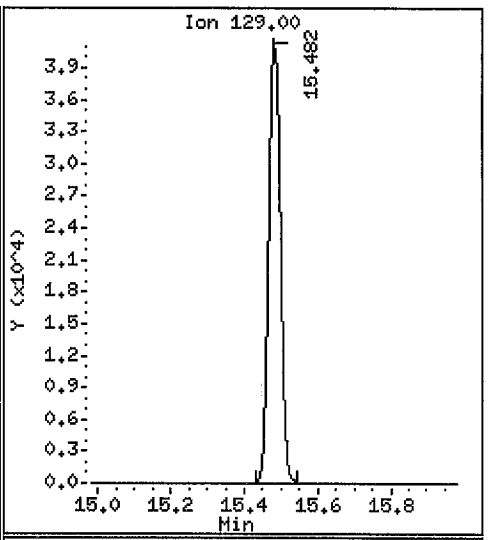
67 Tetrachloroethene Concentration: 1.129 ppb(v/v)

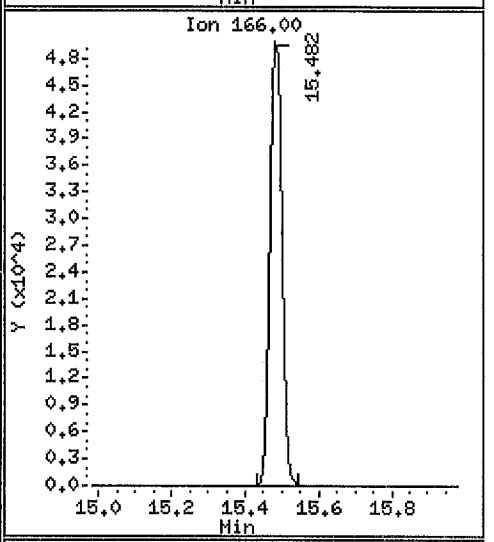


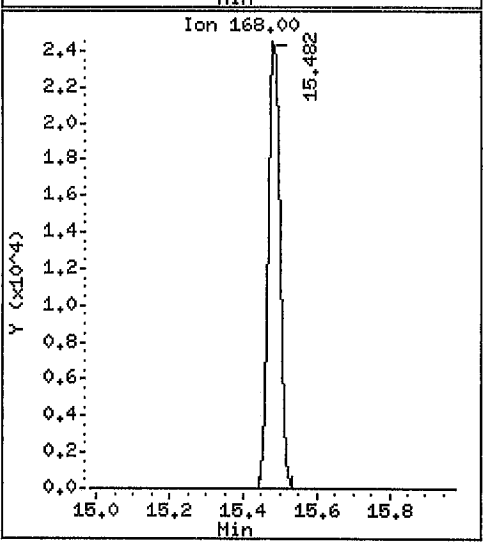












Data File: /var/chem/gcms/mj.i/J090910.b/l6g96r.d

Date : 10-SEP-2010 04:19

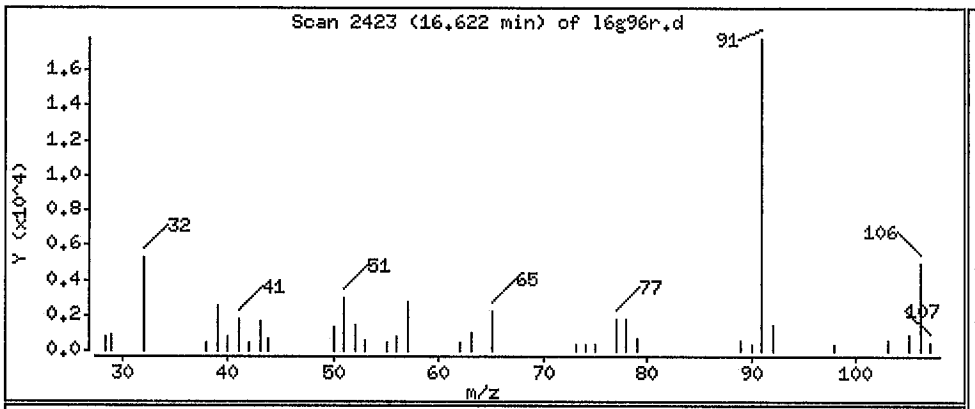
Client ID: IAQ-C19-9 Instrument: mj.i

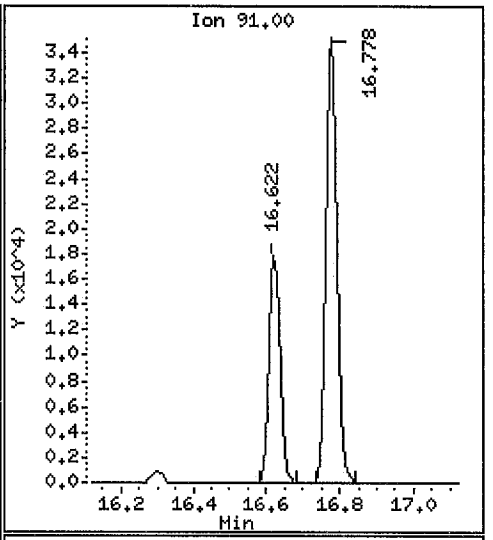
Sample Info: L6G961AA,,0,,,

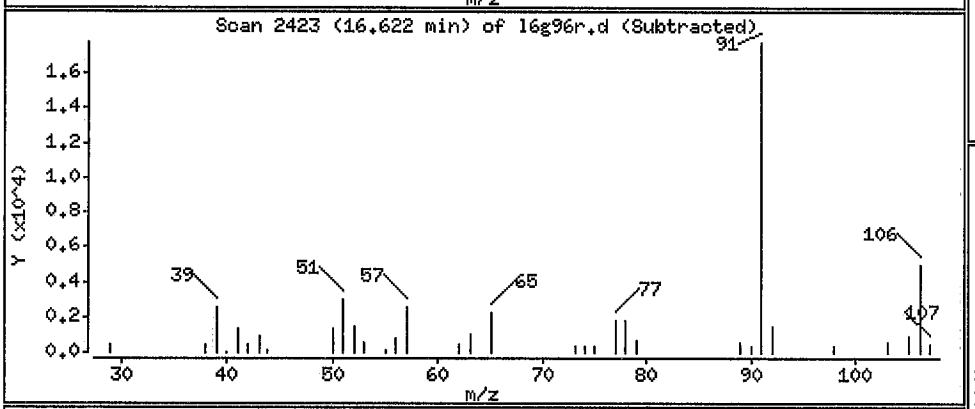
Purge Volume: 500.0 Operator: 7126

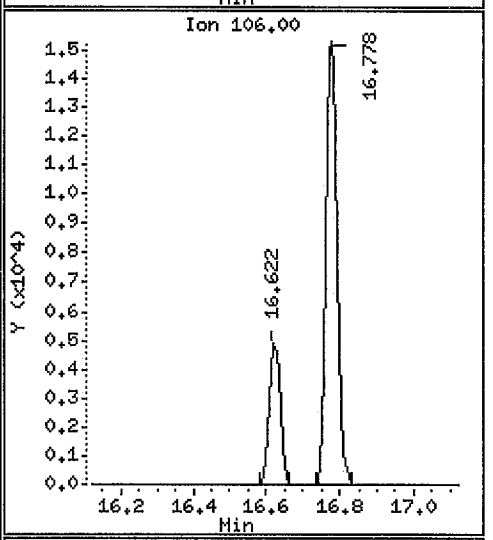
Column phase: Rtx-5 Column diameter: 0.32

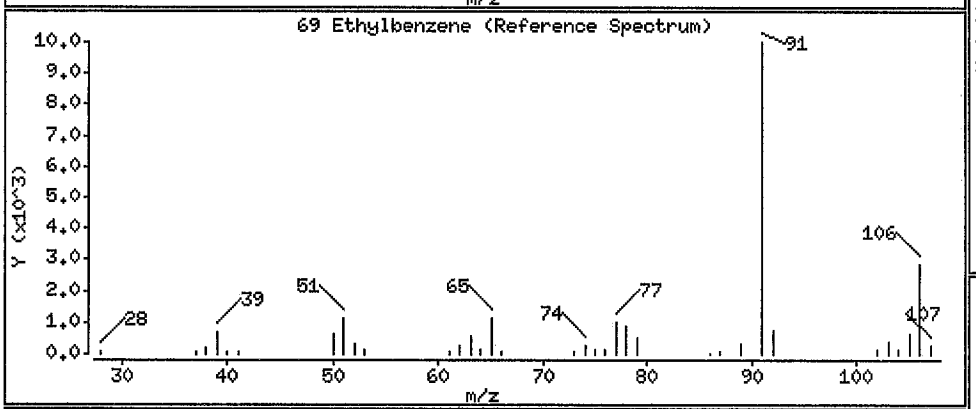
69 Ethylbenzene Concentration: 0.1697 ppb(v/v)

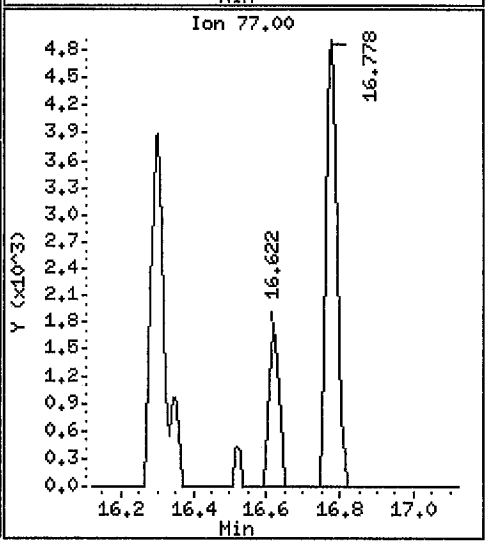


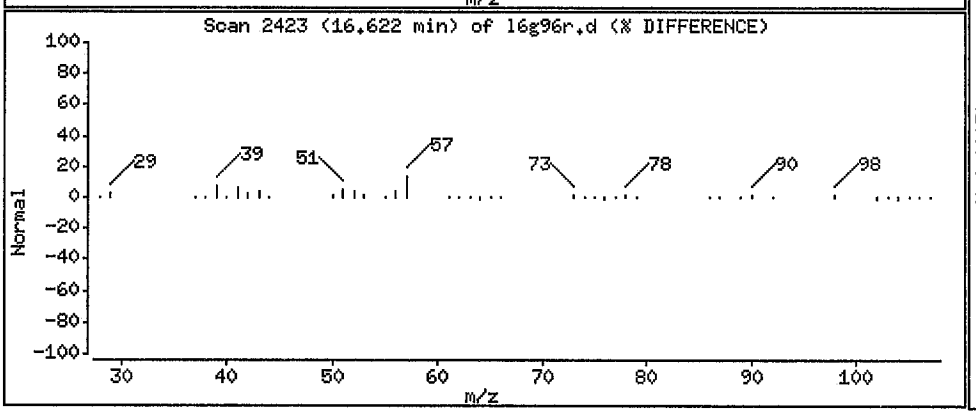












Data File: /var/chem/gcms/mj.i/J090910.b/l6g96r.d

Date : 10-SEP-2010 04:19

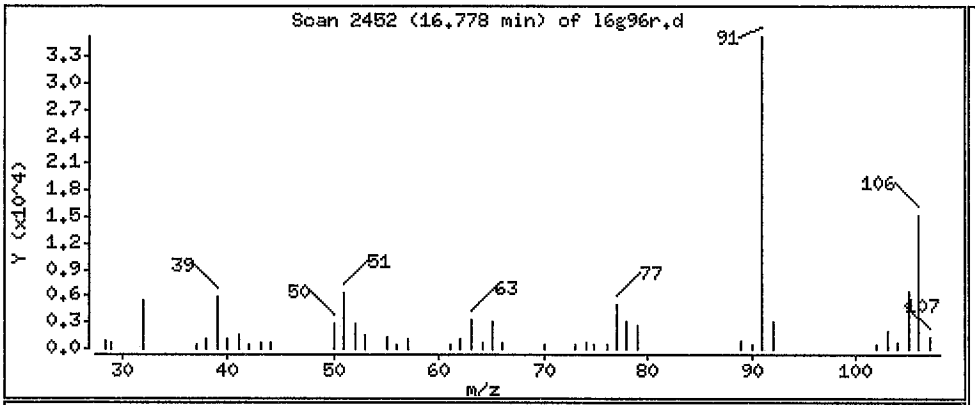
Client ID: IAQ-C19-9 Instrument: mj.i

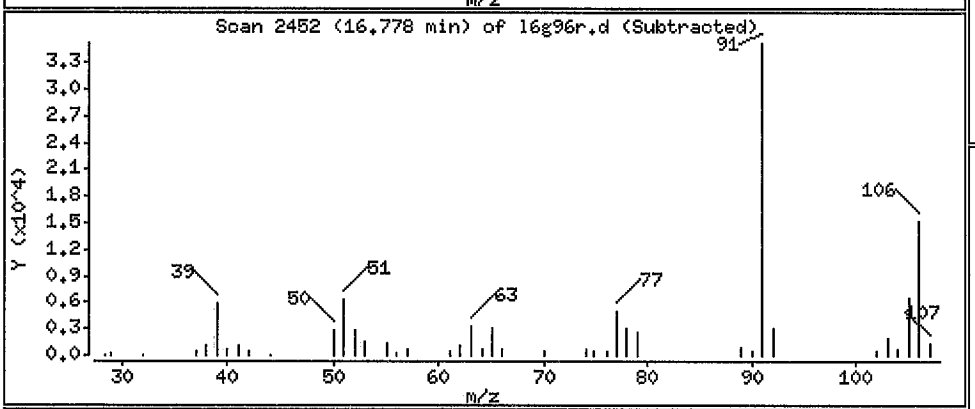
Sample Info: L6G961AA,,0,,,

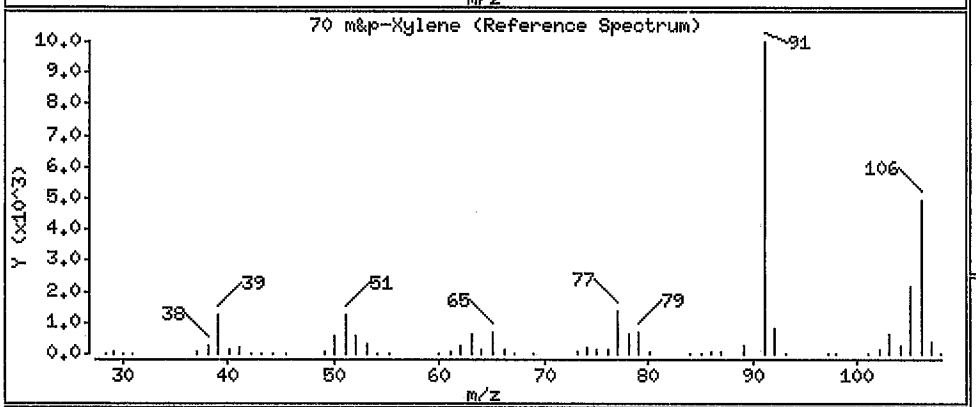
Purge Volume: 500.0 Operator: 7126

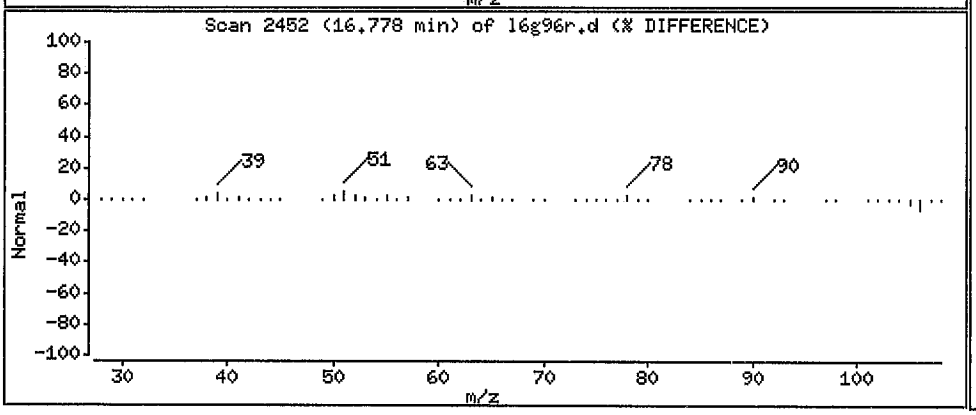
Column phase: Rtx-5 Column diameter: 0.32

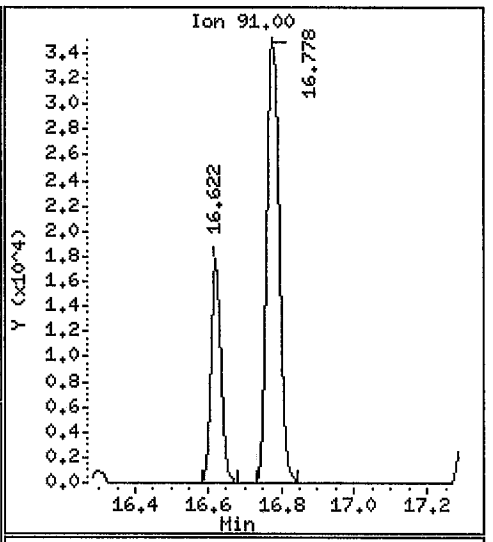
70 m&p-Xylene Concentration: 0.4998 ppb(v/v)

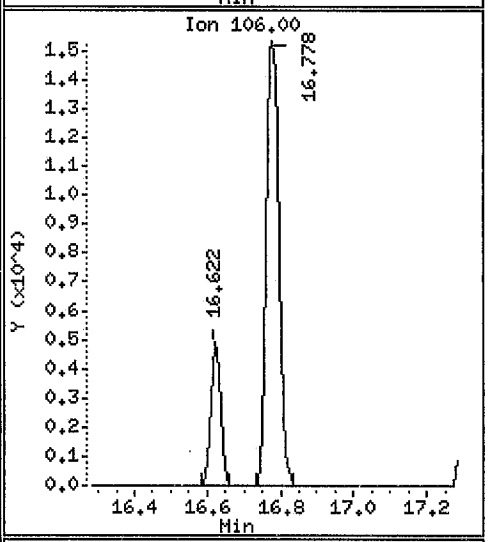


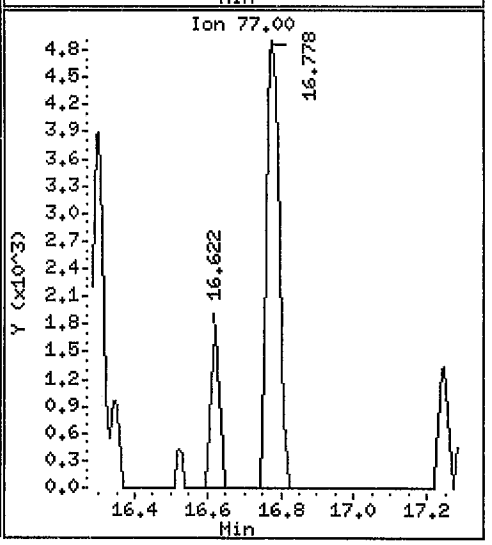












Data File: /var/chem/gcms/mj.i/J090910.b/l6g96r.d

Date : 10-SEP-2010 04:19

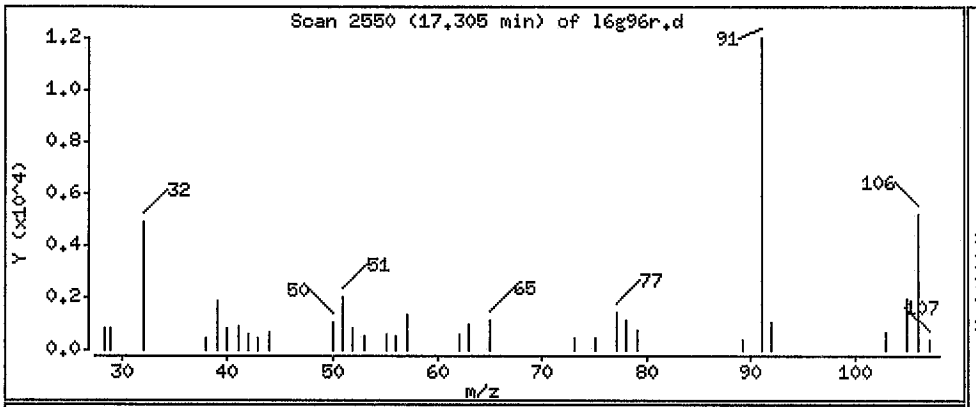
Client ID: IAQ-C19-9 Instrument: mj.i

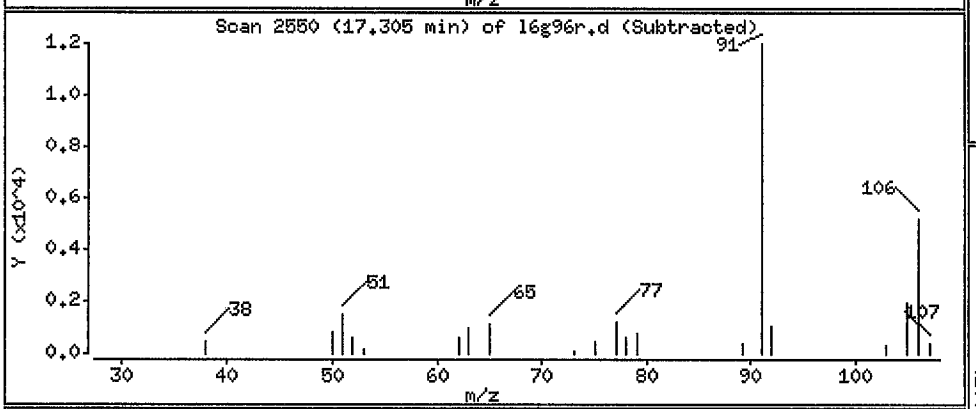
Sample Info: L6G961AA,,0,,,

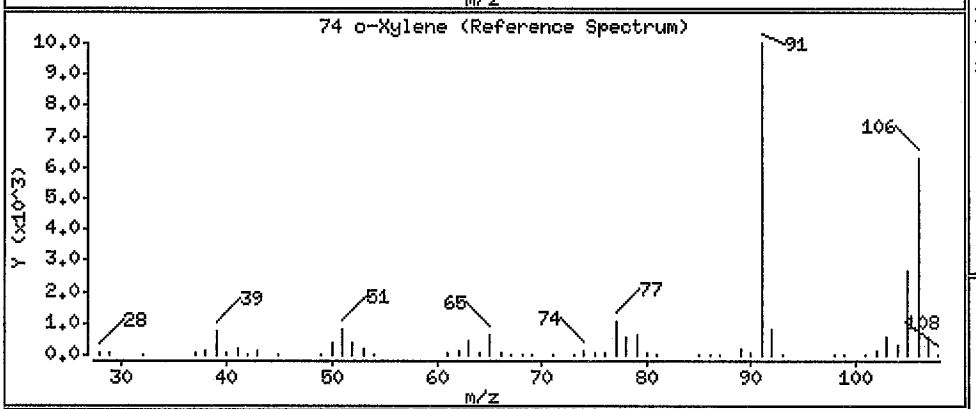
Purge Volume: 500.0 Operator: 7126

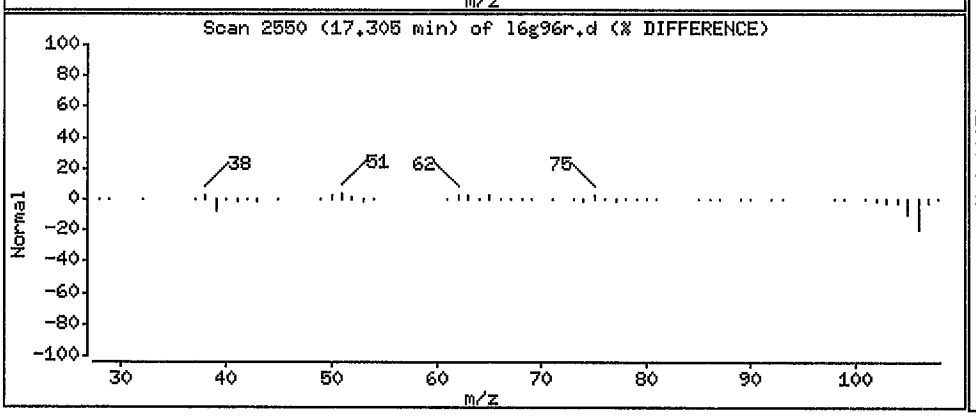
Column phase: Rtx-5 Column diameter: 0.32

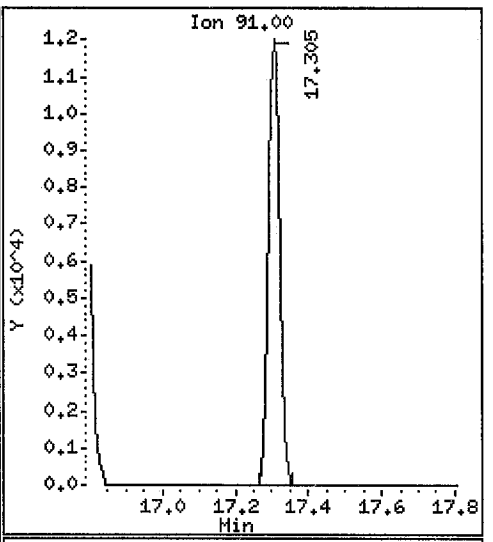
74 o-Xylene Concentration: 0.1474 ppb(v/v)

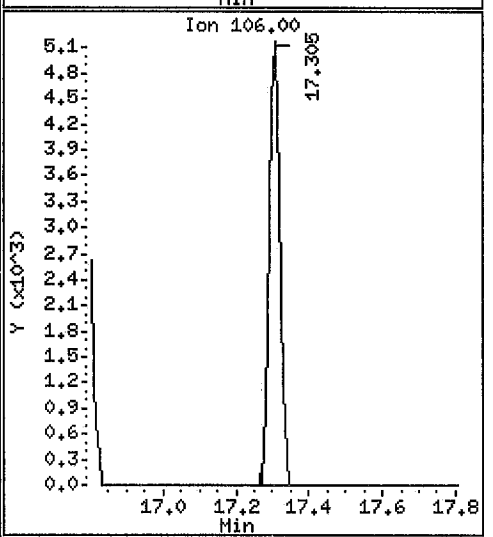


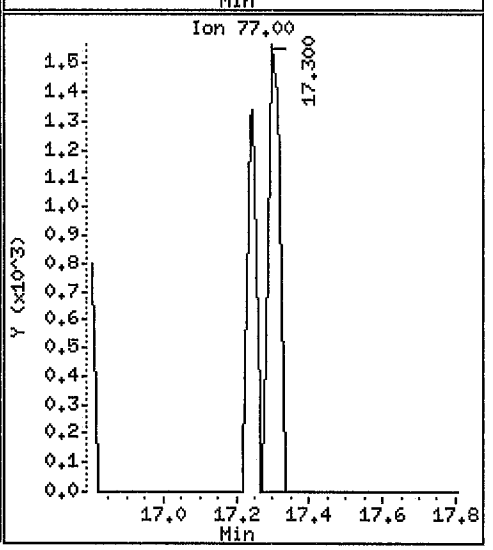












Standards Data

TestAmerica Knoxville GC/MS Air Initial Calibration Data Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 11

Analysis Date: 7/28/10	Instrument:: JKM 7/29/10 11	ICAL Batch/Scan Name: J072810I	Scanned □

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd
1. Did BFB meet tune criteria?		✓			✓
2. Were all standards injected within 24 hr of BFB?		✓			✓
3. Was date/time of analysis verified and logbook as correct?		✓			✓
4. Is low level std at or <RL and are the remaining points consecutive?		✓			✓
5. Are the calibration levels correct? (Calculate standard concentration & amt. injected with quan rpt at each level)		✓			✓
6. Was ICAL processed using correct methods and files?		✓			✓
7. Are the ICAL start and end dates/times correct?		✓			✓
8. Were at least 5 levels of each compound analyzed?		✓			✓
9. At least 6 consecutive points used for quadratic curves, and at least 5 consecutive points for linear curves?		✓			✓
10. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%)		✓			✓
11. If curves were used, is correlation coefficient ≥0.990?	✓				NA
12. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous.	✓				NA
13. For linear or quadratic: origin NOT "included"? (NOTE: OHIO does NOT allow "FORCE" through origin).	✓				NA
14. Is the "Y" intercept less than the RL for each curve?	✓				NA
15. RT for each IS ±20 sec avg. RT?		✓			✓
16. Area for each IS ± 40% avg. area?		✓			✓
17. Each analyte ± 0.06 RRT of avg. RRT?		✓			✓
18. Have all peaks been auto identified? If not, list:		✓			✓
19. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓	•		Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	NA
20. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in ICAL summary?	✓				2
21. Are all the active compounds listed on each quan report?		✓			✓
22. High point checked for saturation and point removed if saturated?		✓			✓
23. Elution order checked on isomeric pairs?		✓			✓
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane		✓			✓
• vinyl acetate / hexane		✓			✓
• cis- and trans- isomers		✓			✓
• ethyl benzene / m/p-xylene / o-xylene		✓			✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene		✓			✓
• tert-butylbenzene/p-cymene		✓			✓
• 1,2,4-trimethylbenzene/sec-butylbenzene		✓			✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene		✓			✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene		✓			✓
24. Is the second source analysis of a reference standard within limits? (65-135% R)		✓			✓
25. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				NA
26. Does the ICAL folder contain complete data in the following order: Data review checklist, a complete runlog, Entech report, BFB info, ICAL summary, curves, followed by [Quan reports, chromatograms, manual integrations], in increasing amount order, 2nd source info.		✓			✓

Analyst:	Date: 7/29/10	2nd Level Reviewer :	Date: 7/29/10
Comments:		Comments:	

TestAmerica Laboratories, Inc. - Knoxville
CANISTER RUN LOG

GCMS Analysis: AIR Inst: MJ

Analyst: HLU Qtims Batch: NA

Date: 7/28/10 ICAL Batch: J072810I Target Batch: J072810I IS #1 Area: 263385

Surr/IS ID & Vol.: 40mL V3W System Date/Time ok (y/n): y lv17

Preventive Maintenance Performed ☑ Daily changed col.

Time	Use	Lot No.	File ID	Can #	Pos	Vol* (mL)	Can DF	Comments
1117	✓	tune	JBFBG28	–	16	100		
1145	✓	MDL CHK 0.02	JMDLG28	CX2109	1	50		0.2
1239	✓	1/2 RL 0.04	J1CG281			100		
1330	✓	0.08	2			200		
1424	✓	0.16	3	CX2108	2			0.4
1532	✓	0.32	4	CX2098	3			0.8
1623	✓	1.0	5	CX2097	4			2.5
1713	✓	2.0	6	CX2096A	5			5.0
1806	✓	4.0	7	CX2095	6			10
1859	✓	8.0	8	CX2094	7			20
1950	✓	16.0	9	CX2093	8			40
2041	✓	Blk	Blk1	–	16	200		
2131	✓	ICV	J1CVG28	CX2091	9	200		
2223	✓	lot ✓	8759	1367	10	500		
2315	✓	↓	8760	6657	11	↓		200mL

7/29/10

* Entech programmed Volume. If the Entech report amount differs from the programmed amount by >5%, the Entech report amount is used for calulations.

Analyst: [signature] Date: 7/29/10

MS027r16.DOC, 051210

Test America - Knoxville

Entech Autosampler Log

Position	Volume	Date	Time
16	202	7/28/2010	11:17
1	52	7/28/2010	11:45
1	100	7/28/2010	12:39
1	201	7/28/2010	13:30
2	202	7/28/2010	14:24
3	200	7/28/2010	15:32
4	200	7/28/2010	16:23
5	201	7/28/2010	17:13
6	200	7/28/2010	18:06
7	200	7/28/2010	18:59
8	201	7/28/2010	19:50
16	201	7/28/2010	20:41
9	201	7/28/2010	21:31
10	500	7/28/2010	22:23
11	501	7/28/2010	23:15

Data File: /var/chem/gcms/mj.i/J072810I.b/jbfbg28.d

Date : 28-JUL-2010 11:17

Client ID: BFB

Instrument: mj.i

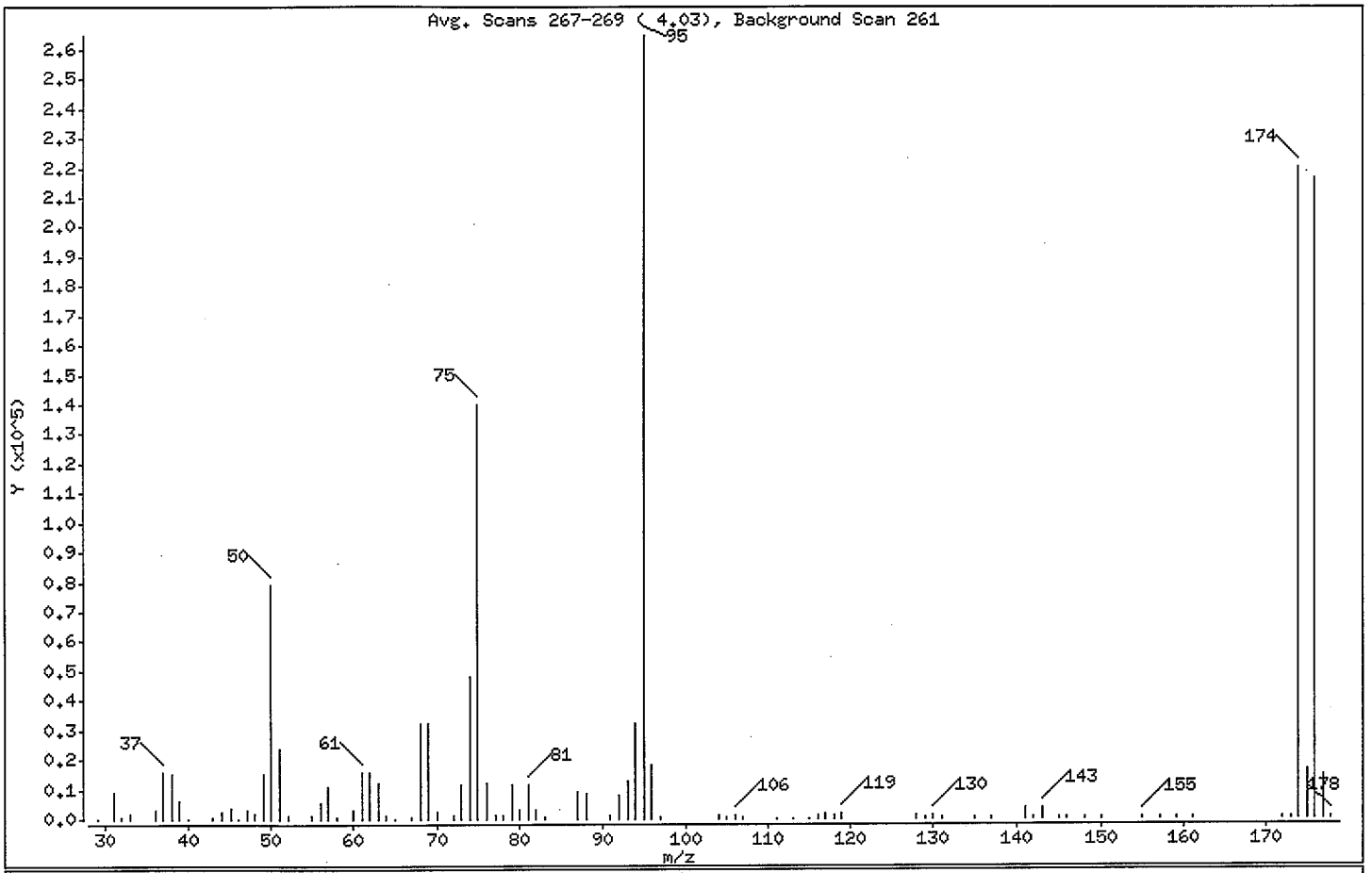
Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: Rtx-5

Column diameter: 0.32

1 BFB



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	29.94
75	30.00 - 60.00% of mass 95	52.83
96	5.00 - 9.00% of mass 95	6.99
173	Less than 2.00% of mass 174	0.22 (0.26)
174	50.00 - 120.00% of mass 95	83.26
175	5.00 - 9.00% of mass 174	6.17 (7.42)
176	95.00 - 101.00% of mass 174	81.80 (98.25)
177	5.00 - 9.00% of mass 176	5.51 (6.74)

Data File: /var/chem/gcms/mj.i/J072810I.b/jbfbg28.d

Date : 28-JUL-2010 11:17

Client ID: BFB

Instrument: mj.i

Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: Rtx-5

Column diameter: 0.32

Data File: jbfbg28.d
Spectrum: Avg. Scans 267-269 (4.03), Background Scan 261
Location of Maximum: 95.00
Number of points: 89

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	213	60.00	2865	88.00	8497	135.00	627
31.00	9138	61.00	15691	91.00	1391	137.00	557
32.00	434	62.00	15639	92.00	7972	141.00	3402
33.00	1853	63.00	12113	93.00	12619	142.00	344
36.00	2855	64.00	1156	94.00	32496	143.00	3894
37.00	15752	65.00	297	95.00	264768	145.00	348
38.00	14950	67.00	858	96.00	18512	146.00	474
39.00	6074	68.00	32176	97.00	604	148.00	730
40.00	234	69.00	32080	104.00	1362	150.00	359
43.00	340	70.00	2313	105.00	577	155.00	707
44.00	2158	72.00	1262	106.00	1492	157.00	462
45.00	3527	73.00	11686	107.00	415	159.00	456
46.00	106	74.00	48272	111.00	239	161.00	331
47.00	3251	75.00	139840	113.00	101	172.00	673
48.00	1912	76.00	12164	115.00	280	173.00	583
49.00	15045	77.00	1404	116.00	1195	174.00	220480
50.00	79280	78.00	1087	117.00	1945	175.00	16349
51.00	23888	79.00	11308	118.00	1243	176.00	216576
52.00	1180	80.00	3341	119.00	1995	177.00	14597
55.00	999	81.00	11653	128.00	1201	178.00	401
56.00	5628	82.00	3102	129.00	564		
57.00	11047	83.00	337	130.00	1181		
58.00	434	87.00	9309	131.00	536		

Data File: /var/chem/gcms/mj.i/J072810I.b/jbfbg28.d

Date : 28-JUL-2010 11:17

Client ID: BFB

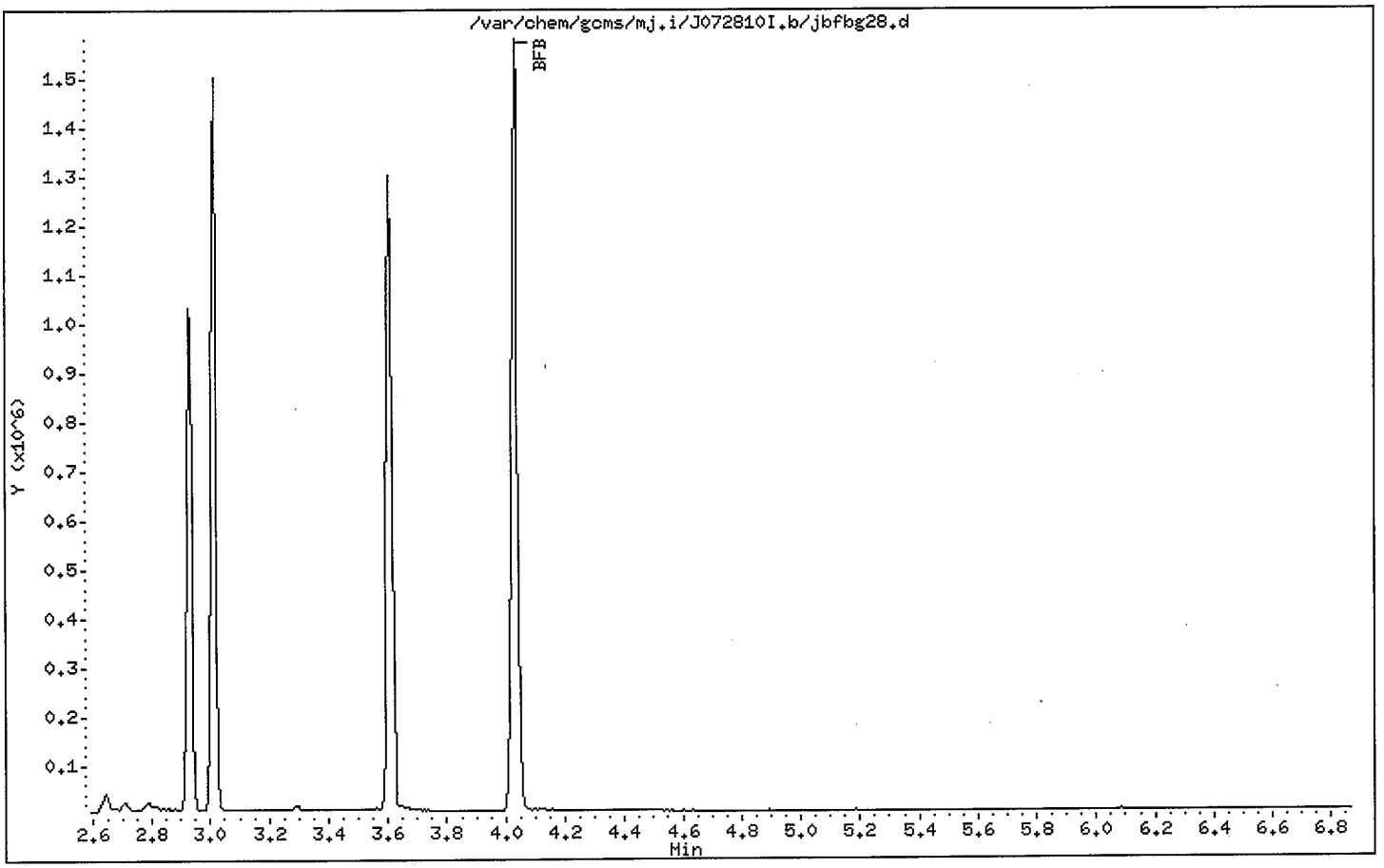
Instrument: mj.i

Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: Rtx-5

Column diameter: 0.32



Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 28-JUL-2010 12:39
End Cal Date : 28-JUL-2010 19:50
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcms/mj.i/J072810I.b/jicg281.d
Level 2: /var/chem/gcms/mj.i/J072810I.b/jicg282.d
Level 3: /var/chem/gcms/mj.i/J072810I.b/jicg283.d
Level 4: /var/chem/gcms/mj.i/J072810I.b/jicg284.d
Level 5: /var/chem/gcms/mj.i/J072810I.b/jicg285.d
Level 6: /var/chem/gcms/mj.i/J072810I.b/jicg286.d
Level 7: /var/chem/gcms/mj.i/J072810I.b/jicg287.d
Level 8: /var/chem/gcms/mj.i/J072810I.b/jicg288.d
Level 9: /var/chem/gcms/mj.i/J072810I.b/jicg289.d

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
7 Chlorodifluoromethane	0.45308	0.50247	0.51253	0.60384	0.49602	0.51072		
	0.46590	0.48624	0.52188				0.50586	8.503
8 Dichlorodifluoromethane	4.50730	4.46065	4.21359	5.19504	4.26779	4.39430		
	3.96126	3.97550	4.11665				4.34357	8.629
9 Propene	+++++	+++++	2.74700	2.46266	1.91208	1.94709		
	1.73341	1.77782	1.79612				2.05374	19.112
10 Chloromethane	+++++	0.56846	0.49328	0.71188	0.52955	0.51871		
	0.51287	0.45135	0.47054				0.53208	15.238
11 1,2-Dichlorotetrafluoroethane	+++++	2.49303	2.14470	2.22050	2.32993	2.50898		
	1.88350	2.02236	2.34391				2.24337	9.811

Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 28-JUL-2010 12:39
End Cal Date : 28-JUL-2010 19:50
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
12 Methanol	+++++	+++++	+++++	+++++	0.45304	0.25034		
	0.28534	0.25179	0.24910				0.29792	29.547
13 Vinyl Chloride	1.85087	1.56070	1.36201	1.71793	1.39644	1.42305		
	1.42515	1.34081	1.50166				1.50874	11.486
14 n-Butane	+++++	2.84078	2.31764	2.76838	2.23594	2.15235		
	2.25725	1.95226	2.09169				2.32704	13.573
15 1,3-Butadiene	1.79286	1.41660	1.23081	1.44148	1.17617	1.16840		
	1.20732	1.08688	1.17988				1.30004	16.817
16 Bromomethane	1.65701	1.37602	1.14321	1.28555	1.01375	1.00219		
	1.01928	0.98640	1.12465				1.17867	19.067
17 Chloroethane	0.79895	0.82178	0.73094	0.89685	0.74208	0.76092		
	0.72316	0.71520	0.79186				0.77575	7.541
18 Vinyl Bromide	1.37907	1.33791	1.29582	1.53296	1.31150	1.35395		
	1.25635	1.28409	1.38645				1.34868	6.054
19 2-methyl butane	+++++	3.27917	2.92779	3.30088	2.72416	2.78259		
	2.52081	2.53006	2.59682				2.83278	11.054
20 Trichlorofluoromethane	3.97822	3.95817	3.70106	4.42037	3.78830	3.88851		
	3.55770	3.66451	3.90571				3.87362	6.447

Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 28-JUL-2010 12:39
End Cal Date : 28-JUL-2010 19:50
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
21 Acrolein	+++++	+++++	+++++	0.55127	0.51459	0.45167		
	0.38545	0.47710	0.46352				0.47393	11.964
22 Acetonitrile	+++++	+++++	+++++	0.86252	0.73581	0.63782		
	0.55217	0.66643	0.63270				0.68124	15.668
23 Acetone	+++++	+++++	+++++	+++++	3.40418	2.59489		
	2.05295	2.09828	2.09656				2.44937	23.610
24 Pentane	+++++	+++++	0.19258	0.23357	0.20823	0.21443		
	0.20136	0.20033	0.21292				0.20906	6.335
25 Isopropyl alcohol	+++++	+++++	2.56050	2.52626	2.07527	2.09413		
	2.03022	2.08042	2.15679				2.21766	10.183
26 Ethyl Ether	+++++	+++++	2.38747	2.51451	2.25173	2.05913		
	1.70103	1.87153	1.83657				2.08885	14.613
27 1,1-Dichloroethene	1.34309	1.35118	1.24112	1.49477	1.27668	1.33392		
	1.23192	1.25081	1.36404				1.32084	6.267
28 tert-butanol	+++++	+++++	2.59822	2.65708	2.09962	2.30923		
	2.28322	2.32640	2.53764				2.40163	8.359
29 Acrylonitrile	+++++	+++++	1.23277	1.29385	1.18963	1.06842		
	0.95268	1.15807	1.14907				1.14921	9.714

Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 28-JUL-2010 12:39
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Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
30 1,1,2-Trichlorotrifluoroethan	2.84185	2.94355	2.71105	3.22597	2.74751	2.84196		
	2.59965	2.67370	2.83047				2.82397	6.482
31 Methylene Chloride	+++++	+++++	1.46640	1.62330	1.33904	1.27774		
	1.11614	1.11511	1.17328				1.30157	14.654
32 3-Chloropropene	+++++	1.95756	1.83310	2.13976	1.85056	1.88619		
	1.63398	1.74413	1.73427				1.84744	8.394
33 Carbon Disulfide	+++++	+++++	3.74417	4.64258	3.89347	3.98878		
	3.68423	3.74001	3.92433				3.94537	8.291
34 trans-1,2-Dichloroethene	1.32473	1.31516	1.28443	1.49854	1.31382	1.35796		
	1.23210	1.27778	1.36950				1.33045	5.677
35 Methyl-t-Butyl Ether	+++++	2.71981	2.96138	3.07342	2.72920	2.58406		
	2.32424	2.53228	2.66779				2.69902	8.777
36 1,1-Dichloroethane	3.41756	3.21356	3.15199	3.63133	3.22208	3.18260		
	2.79790	2.95877	3.03410				3.17888	7.706
37 Vinyl Acetate	+++++	+++++	+++++	4.34565	4.20559	3.61598		
	3.17273	3.86398	3.67903				3.81383	11.168
38 Hexane	1.65407	1.63807	1.53986	1.80339	1.57026	1.62531		
	1.45172	1.50660	1.58725				1.59739	6.326

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Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
39 2-Butanone	+++++	+++++	0.57548	0.50262	0.42041	0.43952		
	0.39315	0.40852	0.43926				0.45413	14.056
40 cis 1,2-Dichloroethene	1.31004	1.36351	1.33805	1.57971	1.39192	1.38647		
	1.22788	1.30569	1.35677				1.36223	7.029
41 Ethyl acetate	+++++	+++++	3.72610	3.67182	3.14887	3.26012		
	2.92877	3.11970	3.23799				3.29905	8.910
42 Chloroform	3.17707	3.05011	2.90128	3.36677	2.96175	2.84973		
	2.47502	2.66196	2.69106				2.90386	9.465
43 Tetrahydrofuran	+++++	2.00573	2.02293	2.02446	1.78669	1.70402		
	1.53049	1.72202	1.75441				1.81884	9.960
44 1,1,1-Trichloroethane	3.21709	2.99797	2.90295	3.49836	3.01783	3.07044		
	2.69649	2.87834	2.94700				3.02516	7.522
45 1,2-Dichloroethane	0.53674	0.56968	0.53255	0.63305	0.55936	0.65669		
	0.49647	0.54166	0.52921				0.56171	9.201
46 Cyclohexane	+++++	0.14015	0.13261	0.16018	0.13734	0.17295		
	0.13136	0.13479	0.13126				0.14258	10.865
47 1-Butanol	+++++	+++++	+++++	0.15526	0.11638	0.15868		
	0.13414	0.14420	0.14316				0.14197	10.813

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Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
48 Benzene	0.93553	0.94924	0.84884	0.97312	0.83302	0.93790		
	0.69821	0.73568	0.69879				0.84559	13.165
49 Carbon Tetrachloride	0.66101	0.63622	0.58404	0.70229	0.64297	0.83547		
	0.63098	0.72241	0.54808				0.66261	12.673
50 2,2,4-trimethylpentane	2.02991	2.00060	1.80007	2.22500	1.87689	2.22806		
	1.67375	1.78030	1.68084				1.92171	11.040
51 Heptane	1.01314	1.00743	0.88287	1.03066	0.89475	1.02172		
	0.76424	0.81548	0.75734				0.90974	12.389
52 1,2-Dichloropropane	0.34896	0.38482	0.36219	0.42316	0.36461	0.40452		
	0.30834	0.34446	0.34388				0.36499	9.531
53 Trichloroethene	0.43268	0.41009	0.37385	0.46988	0.39628	0.47729		
	0.36795	0.38849	0.38395				0.41116	9.812
54 Dibromomethane	0.39569	0.40804	0.36977	0.44095	0.38059	0.44868		
	0.33708	0.36284	0.35527				0.38877	9.806
55 Bromodichloromethane	0.59988	0.64814	0.60763	0.73659	0.65216	0.76335		
	0.58010	0.62532	0.61404				0.64747	9.675
56 1,4-dioxane	0.04906	0.07435	0.06555	0.08673	0.06480	0.08759		
	0.07835	0.08077	0.08255				0.07442	16.873

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Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
57 Methyl Methacrylate	+++++	0.44979	0.43888	0.45305	0.37836	0.49368		
	0.39549	0.43291	0.44203				0.43552	8.152
58 4-Methyl-2-pentanone	0.82357	0.88270	0.73694	0.86905	0.65241	0.96620		
	0.78800	0.80836	0.83127				0.81761	10.935
59 cis-1,3-Dichloropropene	0.40590	0.43545	0.43759	0.49220	0.43573	0.52534		
	0.40055	0.44510	0.44423				0.44690	8.805
60 trans-1,3-Dichloropropene	0.40564	0.47374	0.46490	0.53413	0.48418	0.57922		
	0.43880	0.49153	0.52038				0.48806	10.613
61 Toluene	0.90612	0.99415	0.96695	1.06030	0.94240	1.04375		
	0.78906	0.87333	0.90207				0.94202	9.092
62 1,1,2-Trichloroethane	0.31028	0.35431	0.32567	0.38825	0.33789	0.38403		
	0.29022	0.31686	0.33290				0.33782	9.697
63 2-Hexanone	+++++	+++++	0.30173	0.39992	0.30674	0.44977		
	0.37868	0.38269	0.42776				0.37819	14.890
64 Octane	0.28767	0.31497	0.29747	0.35092	0.30265	0.35089		
	0.26973	0.27892	0.28336				0.30407	9.771
65 Dibromochloromethane	+++++	0.57089	0.57598	0.71872	0.64462	0.78165		
	0.60240	0.66632	0.69649				0.65713	11.228

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Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
66 1,2-Dibromoethane	0.52229	0.59080	0.58090	0.65850	0.56508	0.63890		
	0.48782	0.52712	0.55291				0.56937	9.682
67 Tetrachloroethene	0.40300	0.42736	0.37947	0.45410	0.39459	0.44149		
	0.33377	0.34790	0.36050				0.39357	10.684
68 Chlorobenzene	0.76518	0.82352	0.77969	0.88262	0.73919	0.85502		
	0.64753	0.69968	0.72998				0.76916	9.792
69 Ethylbenzene	0.96884	1.14550	1.02804	1.27323	1.06935	1.21714		
	0.92121	1.03922	1.05889				1.08016	10.501
70 m&p-Xylene	0.74288	0.85512	0.78004	0.96346	0.82509	0.92715		
	0.69663	0.78184	0.77952				0.81686	10.521
M 178 Xylene (total)	+++++	+++++	+++++	0.97474	0.83759	0.93266		
	0.70159	0.79138	0.79294				0.83848	11.982
71 Nonane	+++++	0.86629	0.78309	0.98698	0.84012	1.00793		
	0.78036	0.82524	0.84105				0.86638	9.943
72 Bromoform	+++++	0.35416	0.36498	0.55831	0.48405	0.61847		
	0.48899	0.55648	0.59973				0.50315	19.927
73 Styrene	0.45561	0.52408	0.48943	0.64161	0.55949	0.67276		
	0.52490	0.58591	0.61081				0.56273	12.716

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Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
74 o-Xylene	0.77917	0.90177	0.82075	0.99730	0.86260	0.94369		
	0.71150	0.81047	0.81979				0.84967	10.264
75 1,1,2,2-Tetrachloroethane	0.63472	0.69609	0.61261	0.77549	0.63510	0.75178		
	0.58258	0.61469	0.62854				0.65907	10.121
76 1,2,3-Trichloropropane	0.12580	0.16282	0.14855	0.18300	0.15280	0.18132		
	0.14220	0.15492	0.16469				0.15734	11.557
77 Cumene	1.04159	1.12416	1.04144	1.23221	1.07132	1.17732		
	0.89963	1.01944	1.04006				1.07191	9.023
78 n-Propylbenzene	0.23075	0.29887	0.25635	0.32163	0.26735	0.32490		
	0.25745	0.28478	0.30200				0.28268	11.327
79 2-chlorotoluene	0.26814	0.30911	0.28346	0.35439	0.29159	0.34870		
	0.27062	0.28999	0.30686				0.30254	10.271
80 4-Ethyltoluene	0.92019	1.05616	0.94036	1.13894	0.95335	1.18446		
	0.92578	0.99481	1.02342				1.01527	9.381
81 1,3,5-Trimethylbenzene	0.34714	0.42593	0.37865	0.44921	0.38424	0.46935		
	0.37268	0.40146	0.42754				0.40624	9.753
82 Alpha-Methylstyrene	+++++	+++++	0.31900	0.42310	0.37295	0.48775		
	0.40027	0.44355	0.46645				0.41615	13.878

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Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
83 Decane	+++++	0.86948	0.82363	0.92832	0.90524	1.05462		
	0.83712	0.92853	0.90593				0.90661	7.905
84 1,2,4-Trimethylbenzene	+++++	0.82267	0.73459	0.89697	0.75423	0.93600		
	0.73488	0.77769	0.80795				0.80812	9.244
85 tert-butylbenzene	0.79835	0.91958	0.83816	0.97582	0.83632	1.00654		
	0.78703	0.85958	0.90894				0.88115	8.696
86 sec-butylbenzene	1.04256	1.25507	1.14477	1.31881	1.12364	1.36552		
	1.05349	1.12257	1.14378				1.17447	9.660
87 1,3-Dichlorobenzene	+++++	0.69637	0.58330	0.74010	0.59201	0.74122		
	0.58226	0.61777	0.66256				0.65195	10.396
88 Benzyl Chloride	0.69041	0.74452	0.62240	0.84506	0.69560	0.94352		
	0.77390	0.79485	0.84339				0.77263	12.616
89 1,4-Dichlorobenzene	+++++	0.67942	0.56270	0.73213	0.58509	0.72796		
	0.57146	0.60514	0.65033				0.63928	10.705
90 p-Cymene	+++++	0.95787	0.89507	1.03277	0.87404	1.12378		
	0.88666	0.92630	0.98117				0.95971	8.867
91 1,2-Dichlorobenzene	+++++	0.63918	0.51439	0.65862	0.53057	0.65566		
	0.51636	0.55494	0.58520				0.58187	10.640

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Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
92 n-butylbenzene	+++++	0.98472	0.86050	1.01792	0.85980	1.13607		
	0.89454	0.92170	0.95065				0.95324	9.743
93 Undecane	+++++	+++++	0.46069	0.84091	0.55787	1.01830		
	0.80262	0.79827	0.85702				0.76224	24.913
94 Dodecane	+++++	+++++	+++++	0.89711	0.51515	1.13674		
	0.85072	0.80775	0.77747				0.83082	24.157
95 1,2,4-Trichlorobenzene	0.48464	0.44512	0.19128	0.41482	0.23750	0.46739		
	0.37158	0.38990	0.42586				0.38090	26.616
96 Napthalene	1.06825	0.95558	0.41427	0.88414	0.51782	1.04184		
	0.82854	0.82610	0.87291				0.82327	26.890
97 Hexachlorobutadiene	0.32981	0.30940	0.14764	0.27757	0.20713	0.32288		
	0.25475	0.28949	0.34507				0.27597	23.214
98 1,2,3-trichlorobenzene	0.42324	0.36702	0.16524	0.34786	0.18323	0.38894		
	0.29620	0.30559	0.31451				0.31020	28.148
99 ~ Thiophene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
100 ~ 1,2,3- Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++

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	4.000 Level 7	8.000 Level 8	16.000 Level 9					
$ 6 4-Bromofluorobenzene	0.73749	0.75432	0.74888	0.76161	0.76379	0.79867		
	0.74849	0.75020	0.76937				0.75920	2.322

Report Date:07/29/2010

INITIAL CALIBRATION RT and RRT REPORT

STD 1 = /var/chem/gcms/mj.i/J072810I.b/jicg281.d
STD 2 = /var/chem/gcms/mj.i/J072810I.b/jicg282.d
STD 3 = /var/chem/gcms/mj.i/J072810I.b/jicg283.d
STD 4 = /var/chem/gcms/mj.i/J072810I.b/jicg284.d
STD 5 = /var/chem/gcms/mj.i/J072810I.b/jicg285.d
STD 6 = /var/chem/gcms/mj.i/J072810I.b/jicg286.d
STD 7 = /var/chem/gcms/mj.i/J072810I.b/jicg287.d
STD 8 = /var/chem/gcms/mj.i/J072810I.b/jicg288.d
STD 9 = /var/chem/gcms/mj.i/J072810I.b/jicg289.d

COMPOUND	STD 1	STD 2	STD 3	STD 4	STD 5	STD 6	STD 7	STD 8	STD 9	MEAN
1,4-Difluorobenzene	11.662	11.663	11.659	11.658	11.660	11.667	11.662	11.663	11.668	11.662
Chlorobenzene-d5	16.321	16.322	16.323	16.322	16.324	16.326	16.326	16.322	16.327	16.324
Bromochloromethane	9.489	9.495	9.491	9.490	9.492	9.494	9.494	9.495	9.500	9.493
4-Bromofluorobenzene	1.099	1.098	1.098	1.098	1.098	1.098	1.098	1.099	1.098	1.098
Benzyl Chloride	1.188	1.188	1.188	1.188	1.188	1.187	1.187	1.188	1.187	1.188
Chlorodifluoromethane	0.411	0.411	0.410	0.411	0.411	0.411	0.411	0.411	0.410	0.411
1,4-Dichlorobenzene	NA	1.188	1.188	1.188	1.188	1.188	1.188	1.188	1.188	1.188
Dichlorodifluoromethane	0.419	0.418	0.418	0.418	0.418	0.418	0.418	0.418	0.418	0.418
Chloromethane	NA	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.439	0.440
1,2-Dichlorotetrafluoroethan	NA	0.440	0.440	0.440	0.441	0.440	0.440	0.440	0.440	0.440
Methanol	NA	NA	NA	NA	0.454	0.454	0.453	0.454	0.454	0.454
Vinyl Chloride	0.460	0.461	0.460	0.460	0.460	0.460	0.460	0.460	0.460	0.460
n-Butane	NA	0.471	0.471	0.471	0.471	0.471	0.471	0.471	0.470	0.471
1,3-Butadiene	0.472	0.471	0.471	0.471	0.471	0.471	0.471	0.471	0.470	0.471
Bromomethane	0.510	0.509	0.509	0.510	0.510	0.509	0.509	0.509	0.510	0.509
Chloroethane	0.527	0.527	0.526	0.527	0.526	0.526	0.526	0.526	0.526	0.526
Vinyl Bromide	0.562	0.563	0.562	0.562	0.562	0.562	0.562	0.562	0.562	0.562
p-Cymene	NA	1.191	1.191	1.191	1.191	1.191	1.191	1.191	1.191	1.191
Trichlorofluoromethane	0.595	0.594	0.594	0.594	0.594	0.594	0.594	0.594	0.594	0.594
Acrolein	NA	NA	NA	0.594	0.594	0.594	0.594	0.594	0.594	0.594
Acetonitrile	NA	NA	NA	0.602	0.602	0.602	0.602	0.602	0.602	0.602
Acetone	NA	NA	NA	NA	0.607	0.607	0.607	0.606	0.606	0.607
Pentane	NA	NA	0.619	0.619	0.620	0.620	0.620	0.619	0.619	0.619
1,2-Dichlorobenzene	NA	1.210	1.210	1.210	1.210	1.210	1.210	1.210	1.210	1.210
Ethyl Ether	NA	NA	0.637	0.638	0.637	0.637	0.637	0.637	0.636	0.637
1,1-Dichloroethene	0.676	0.676	0.676	0.676	0.676	0.676	0.676	0.676	0.676	0.676
Acrylonitrile	NA	NA	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687
tert-butanol	NA	NA	0.684	0.683	0.683	0.682	0.682	0.681	0.682	0.682
1,1,2-Trichlorotrifluoroetha	0.697	0.696	0.696	0.696	0.696	0.696	0.696	0.696	0.695	0.696
Methylene Chloride	NA	NA	0.715	0.716	0.716	0.716	0.716	0.716	0.716	0.716
3-Chloropropene	NA	0.717	0.717	0.718	0.718	0.717	0.718	0.717	0.717	0.717
Carbon Disulfide	NA	NA	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735
trans-1,2-Dichloroethene	0.808	0.807	0.807	0.807	0.807	0.807	0.807	0.807	0.807	0.807
Methyl-t-Butyl Ether	0.821	0.820	0.820	0.820	0.819	0.819	0.819	0.818	0.818	0.819
1,1-Dichloroethane	0.854	0.855	0.854	0.855	0.855	0.855	0.854	0.854	0.854	0.854
Vinyl Acetate	NA	NA	NA	0.864	0.864	0.864	0.864	0.864	0.864	0.864
Hexane	0.918	0.918	0.918	0.918	0.918	0.918	0.918	0.917	0.917	0.918

Evaluation Criteria
Internal Standard RT shift within 20 seconds of mean RT
Target compound RRT within 0.06 RRT of the RRT mean
Note: IS data is RT, SS and Target Compound Data is RRT.

Report Date:07/29/2010

INITIAL CALIBRATION RT and RRT REPORT

STD 1 = /var/chem/gcms/mj.i/J072810I.b/jicg281.d
STD 2 = /var/chem/gcms/mj.i/J072810I.b/jicg282.d
STD 3 = /var/chem/gcms/mj.i/J072810I.b/jicg283.d
STD 4 = /var/chem/gcms/mj.i/J072810I.b/jicg284.d
STD 5 = /var/chem/gcms/mj.i/J072810I.b/jicg285.d
STD 6 = /var/chem/gcms/mj.i/J072810I.b/jicg286.d
STD 7 = /var/chem/gcms/mj.i/J072810I.b/jicg287.d
STD 8 = /var/chem/gcms/mj.i/J072810I.b/jicg288.d
STD 9 = /var/chem/gcms/mj.i/J072810I.b/jicg289.d

COMPOUND	STD 1	STD 2	STD 3	STD 4	STD 5	STD 6	STD 7	STD 8	STD 9	MEAN
2-Butanone	NA	NA	0.914	0.914	0.913	0.913	0.913	0.912	0.912	0.913
cis 1,2-Dichloroethene	0.963	0.963	0.962	0.964	0.963	0.964	0.963	0.963	0.963	0.963
n-butylbenzene	NA	1.217	1.217	1.217	1.217	1.216	1.216	1.217	1.216	1.217
Chloroform	1.001	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000
Undecane	NA	NA	1.234	1.234	1.234	1.234	1.234	1.234	1.234	1.234
1,1,1-Trichloroethane	1.112	1.112	1.112	1.113	1.113	1.113	1.113	1.112	1.112	1.112
1,2-Dichloroethane	0.915	0.914	0.914	0.915	0.915	0.914	0.915	0.914	0.914	0.914
Cyclohexane	NA	0.956	0.956	0.957	0.956	0.956	0.956	0.956	0.956	0.956
Benzene	0.955	0.956	0.956	0.956	0.956	0.955	0.956	0.956	0.956	0.956
1-Butanol	NA	NA	NA	0.947	0.946	0.946	0.946	0.945	0.945	0.946
Carbon Tetrachloride	0.957	0.958	0.958	0.958	0.958	0.958	0.958	0.958	0.958	0.958
2,2,4-trimethylpentane	1.018	1.018	1.018	1.018	1.018	1.018	1.018	1.018	1.018	1.018
Heptane	1.048	1.049	1.049	1.049	1.049	1.048	1.049	1.049	1.049	1.049
Hexachlorobutadiene	1.336	1.336	1.336	1.336	1.336	1.336	1.336	1.336	1.336	1.336
1,2-Dichloropropane	1.058	1.058	1.058	1.058	1.058	1.058	1.058	1.058	1.058	1.058
Trichloroethene	1.060	1.061	1.060	1.060	1.060	1.060	1.060	1.060	1.060	1.060
Dibromomethane	1.068	1.068	1.068	1.068	1.068	1.068	1.068	1.068	1.068	1.068
Bromodichloromethane	1.079	1.079	1.079	1.080	1.080	1.079	1.080	1.080	1.080	1.080
Napthalene	1.325	1.324	1.324	1.324	1.324	1.324	1.324	1.324	1.324	1.324
1,2,4-Trichlorobenzene	1.315	1.315	1.315	1.315	1.315	1.315	1.315	1.315	1.315	1.315
4-Methyl-2-pentanone	1.157	1.157	1.157	1.157	1.157	1.156	1.156	1.156	1.156	1.156
cis-1,3-Dichloropropene	1.164	1.163	1.163	1.164	1.163	1.163	1.163	1.163	1.163	1.163
trans-1,3-Dichloropropene	0.872	0.873	0.872	0.873	0.873	0.873	0.872	0.873	0.873	0.873
Toluene	0.881	0.881	0.881	0.881	0.881	0.881	0.881	0.881	0.881	0.881
1,1,2-Trichloroethane	0.885	0.886	0.885	0.885	0.885	0.885	0.885	0.885	0.885	0.885
2-Hexanone	NA	NA	0.907	0.907	0.906	0.906	0.906	0.906	0.906	0.906
Octane	0.921	0.921	0.920	0.920	0.920	0.920	0.920	0.921	0.920	0.920
Dibromochloromethane	NA	0.928	0.928	0.928	0.928	0.928	0.928	0.928	0.928	0.928
1,2-Dibromoethane	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946
Tetrachloroethene	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Chlorobenzene	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003
Ethylbenzene	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
m&p-Xylene	1.030	1.029	1.029	1.029	1.029	1.029	1.029	1.030	1.030	1.029
Nonane	NA	1.053	1.053	1.053	1.053	1.053	1.053	1.053	1.053	1.053
Bromoform	NA	1.058	1.058	1.058	1.058	1.058	1.058	1.058	1.058	1.058
Styrene	1.058	1.058	1.058	1.058	1.058	1.058	1.058	1.058	1.058	1.058
o-Xylene	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062

Evaluation Criteria
Internal Standard RT shift within 20 seconds of mean RT
Target compound RRT within 0.06 RRT of the RRT mean
Note: IS data is RT, SS and Target Compound Data is RRT.

Report Date:07/29/2010

INITIAL CALIBRATION RT and RRT REPORT

STD 1 = /var/chem/gcms/mj.i/J072810I.b/jicg281.d
STD 2 = /var/chem/gcms/mj.i/J072810I.b/jicg282.d
STD 3 = /var/chem/gcms/mj.i/J072810I.b/jicg283.d
STD 4 = /var/chem/gcms/mj.i/J072810I.b/jicg284.d
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STD 8 = /var/chem/gcms/mj.i/J072810I.b/jicg288.d
STD 9 = /var/chem/gcms/mj.i/J072810I.b/jicg289.d

COMPOUND	STD 1	STD 2	STD 3	STD 4	STD 5	STD 6	STD 7	STD 8	STD 9	MEAN
1,1,2,2-Tetrachloroethane	1.081	1.081	1.081	1.081	1.081	1.081	1.081	1.081	1.081	1.081
1,2,3-Trichloropropane	1.091	1.091	1.091	1.091	1.091	1.091	1.091	1.091	1.091	1.091
Cumene	1.097	1.096	1.096	1.096	1.096	1.096	1.096	1.096	1.096	1.096
n-Propylbenzene	1.128	1.128	1.128	1.128	1.128	1.128	1.128	1.128	1.128	1.128
2-chlorotoluene	1.131	1.131	1.131	1.131	1.131	1.131	1.131	1.131	1.131	1.131
4-Ethyltoluene	1.137	1.136	1.136	1.136	1.136	1.136	1.136	1.136	1.136	1.136
1,3,5-Trimethylbenzene	1.141	1.141	1.141	1.141	1.141	1.140	1.141	1.141	1.140	1.141
Alpha-Methylstyrene	NA	NA	1.154	1.154	1.154	1.154	1.154	1.154	1.154	1.154
Decane	NA	1.156	1.156	1.156	1.156	1.156	1.156	1.156	1.156	1.156
Dodecane	NA	NA	NA	1.300	1.300	1.300	1.300	1.300	1.300	1.300
1,2,4-Trimethylbenzene	NA	1.167	1.166	1.167	1.166	1.166	1.166	1.167	1.166	1.166
sec-butylbenzene	1.182	1.182	1.182	1.182	1.182	1.182	1.182	1.182	1.182	1.182
1,3-Dichlorobenzene	NA	1.183	1.183	1.183	1.183	1.183	1.183	1.183	1.183	1.183
Propene	NA	NA	0.412	0.412	0.412	0.412	0.412	0.412	0.412	0.412
2-methyl butane	NA	0.568	0.568	0.568	0.568	0.568	0.568	0.568	0.568	0.568
Isopropyl Alcohol	NA	NA	0.614	0.614	0.614	0.614	0.614	0.614	0.614	0.614
Ethyl acetate	NA	NA	0.981	0.981	0.980	0.980	0.980	0.980	0.979	0.980
Tetrahydrofuran	NA	1.044	1.044	1.043	1.042	1.042	1.041	1.041	1.041	1.042
1,4-dioxane	1.080	1.081	1.079	1.080	1.079	1.078	1.078	1.078	1.078	1.079
methyl methacrylate	NA	1.085	1.085	1.085	1.085	1.084	1.085	1.085	1.084	1.085
tert-butylbenzene	1.166	1.166	1.166	1.166	1.166	1.166	1.166	1.166	1.166	1.166
1,2,3-trichlorobenzene	1.341	1.340	1.340	1.341	1.340	1.340	1.340	1.340	1.340	1.340

Evaluation Criteria
Internal Standard RT shift within 20 seconds of mean RT
Target compound RRT within 0.06 RRT of the RRT mean
Note: IS data is RT, SS and Target Compound Data is RRT.

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg281.d
Report Date: 29-Jul-2010 09:30

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J072810I.b/jicg281.d
Lab Smp Id: ICAL1 Client Smp ID: STD 0.04
Inj Date : 28-JUL-2010 12:39
Operator : 7126 Inst ID: mj.i
Smp Info : ICAL1,,1,1,,STD 0.04
Misc Info : J072810I,TO15,1-all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Meth Date : 29-Jul-2010 09:30 tajh Quant Type: ISTD
Cal Date : 28-JUL-2010 12:39 Cal File: jicg281.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: low.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
*	1 Bromochloromethane	128	9.489	9.489	(1.000)	272358	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.662	11.662	(1.000)	1292423	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.321	16.321	(1.000)	1136720	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.935	17.935	(1.099)	838325	4.00000	3.886
	7 Chlorodifluoromethane	67	3.900	3.900	(0.411)	1234	0.04000	0.03583
	9 Propene	41	3.916	3.916	(0.413)	12898	0.04000	0.09224
	8 Dichlorodifluoromethane	85	3.975	3.975	(0.419)	12276	0.04000	0.04151
	11 1,2-Dichlorotetrafluoroethane	135	4.185	4.185	(0.441)	7121	0.04000	0.04662
	13 Vinyl Chloride	62	4.368	4.368	(0.460)	5041	0.04000	0.04907
	14 n-Butane	43	4.470	4.470	(0.471)	10788	0.04000	0.06808
	15 1,3-Butadiene	54	4.475	4.475	(0.472)	4883	0.04000	0.05516
	16 Bromomethane	94	4.836	4.836	(0.510)	4513	0.04000	0.05623
	17 Chloroethane	64	4.997	4.997	(0.527)	2176	0.04000	0.04120
	18 Vinyl Bromide	106	5.336	5.336	(0.562)	3756	0.04000	0.04090
	19 2-methyl butane	43	5.395	5.395	(0.569)	9740	0.04000	0.05050

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg281.d
Report Date: 29-Jul-2010 09:30

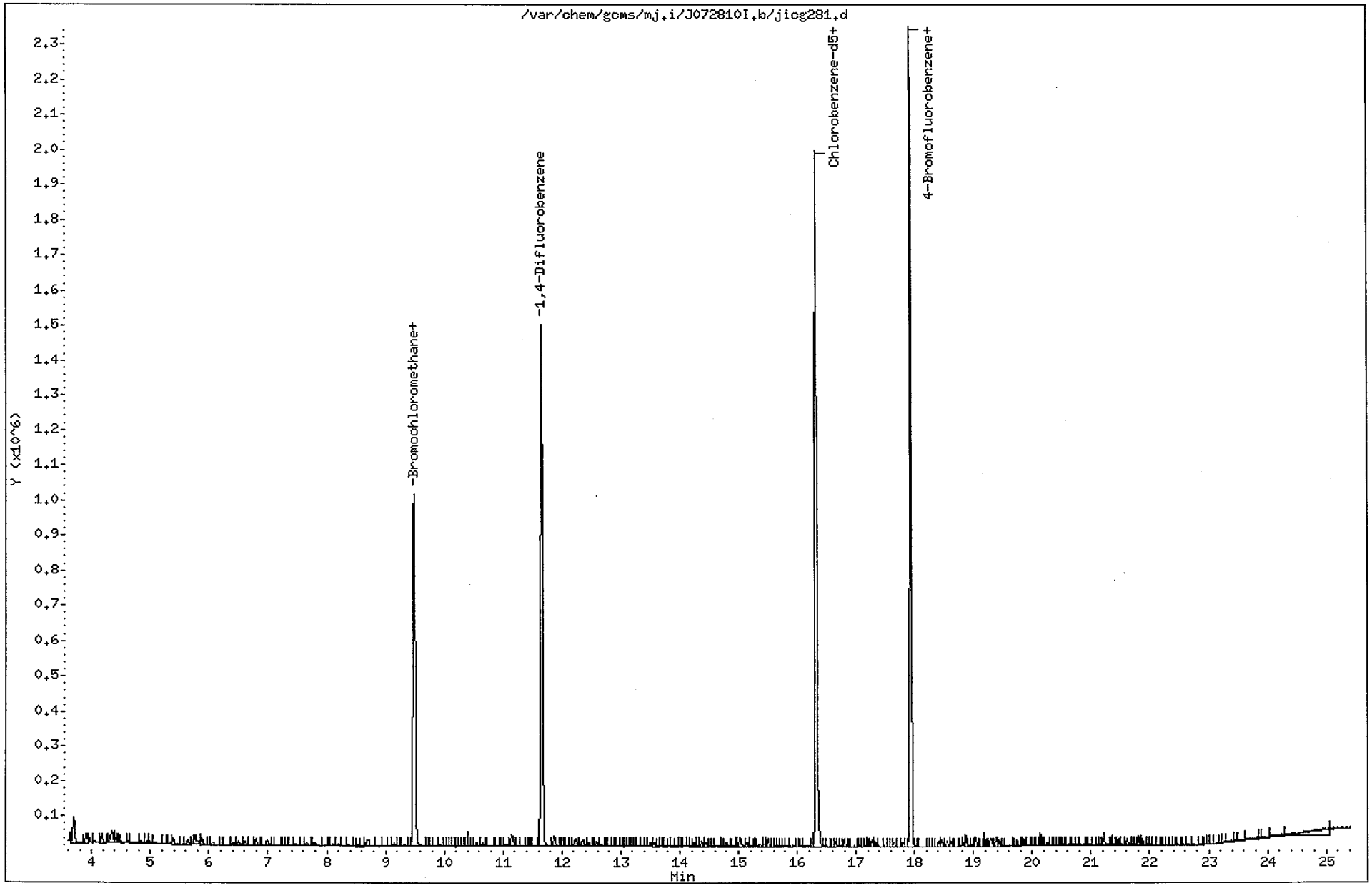
						AMOUNTS	
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ppb(v/v))	ON-COL (ppb(v/v))
20 Trichlorofluoromethane	101	5.643	5.643	(0.595)	10835	0.04000	0.04108
25 Isopropyl Alcohol	45	5.842	5.842	(0.616)	9607	0.04000	0.06362
26 Ethyl Ether	31	6.062	6.062	(0.639)	5262	0.04000	0.03700
27 1,1-Dichloroethene	96	6.412	6.412	(0.676)	3658	0.04000	0.04067
28 tert-butanol	59	6.498	6.498	(0.685)	12379	0.04000	0.07570
30 1,1,2-Trichlorotrifluoroethane	101	6.611	6.611	(0.697)	7740	0.04000	0.04025
31 Methylene Chloride	84	6.794	6.794	(0.716)	5972	0.04000	0.06739
32 3-Chloropropene	39	6.810	6.810	(0.718)	5876	0.04000	0.04671
33 Carbon Disulfide	76	6.982	6.982	(0.736)	11569	0.04000	0.04306
34 trans-1,2-Dichloroethene	96	7.665	7.665	(0.808)	3608	0.04000	0.03983
36 1,1-Dichloroethane	63	8.107	8.107	(0.854)	9308	0.04000	0.04300
38 Hexane	56	8.709	8.709	(0.918)	4505	0.04000	0.04142
40 cis 1,2-Dichloroethene	96	9.139	9.139	(0.963)	3568	0.04000	0.03847
42 Chloroform	83	9.500	9.500	(1.001)	8653	0.04000	0.04376
43 Tetrahydrofuran	42	9.914	9.914	(1.045)	4894	0.04000	0.03952
44 1,1,1-Trichloroethane	97	10.554	10.554	(1.112)	8762	0.04000	0.04254
45 1,2-Dichloroethane	62	10.667	10.667	(0.915)	6937	0.04000	0.03822
46 Cyclohexane	69	11.146	11.146	(0.956)	1808	0.04000	0.03925
48 Benzene	78	11.141	11.141	(0.955)	12091	0.04000	0.04425
47 1-Butanol	31	11.055	11.055	(0.948)	2098	0.04000	0.04574
49 Carbon Tetrachloride	117	11.162	11.162	(0.957)	8543	0.04000	0.03990
50 2,2,4-trimethylpentane	57	11.872	11.872	(1.018)	26235	0.04000	0.04225
51 Heptane	43	12.227	12.227	(1.048)	13094	0.04000	0.04455
52 1,2-Dichloropropane	63	12.335	12.335	(1.058)	4510	0.04000	0.03824
53 Trichloroethene	130	12.362	12.362	(1.060)	5592	0.04000	0.04209
54 Dibromomethane	93	12.453	12.453	(1.068)	5114	0.04000	0.04071
55 Bromodichloromethane	83	12.588	12.588	(1.079)	7753	0.04000	0.03706
56 1,4-dioxane	88	12.593	12.593	(1.080)	634	0.04000	0.02637
57 methyl methacrylate	41	12.652	12.652	(1.085)	5079	0.04000	0.03609
58 4-Methyl-2-pentanone	43	13.497	13.497	(1.157)	10644	0.04000	0.04029
59 cis-1,3-Dichloropropene	75	13.572	13.572	(1.164)	5246	0.04000	0.03633
60 trans-1,3-Dichloropropene	75	14.239	14.239	(0.872)	4611	0.04000	0.03324
61 Toluene	91	14.374	14.374	(0.881)	10300	0.04000	0.03848
62 1,1,2-Trichloroethane	97	14.449	14.449	(0.885)	3527	0.04000	0.03674
63 2-Hexanone	58	14.804	14.804	(0.907)	3476	0.04000	0.03234
64 Octane	85	15.030	15.030	(0.921)	3270	0.04000	0.03784
65 Dibromochloromethane	129	15.148	15.148	(0.928)	6296	0.04000	0.03371
66 1,2-Dibromoethane	107	15.444	15.444	(0.946)	5937	0.04000	0.03669
67 Tetrachloroethene	129	15.503	15.503	(0.950)	4581	0.04000	0.04096
68 Chlorobenzene	112	16.369	16.369	(1.003)	8698	0.04000	0.03979
69 Ethylbenzene	91	16.649	16.649	(1.020)	11013	0.04000	0.03588
70 m&p-Xylene	91	16.805	16.805	(1.030)	16889	0.08000	0.07276
71 Nonane	57	17.192	17.192	(1.053)	8392	0.04000	0.03408
72 Bromoform	173	17.268	17.268	(1.058)	3534	0.04000	0.02472
73 Styrene	104	17.262	17.262	(1.058)	5179	0.04000	0.03238
74 o-Xylene	91	17.332	17.332	(1.062)	8857	0.04000	0.03668
75 1,1,2,2-Tetrachloroethane	83	17.644	17.644	(1.081)	7215	0.04000	0.03852

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg281.d
Report Date: 29-Jul-2010 09:30

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
76 1,2,3-Trichloropropane	110	17.800	17.800	(1.091)	1430	0.04000	0.03198
77 Cumene	105	17.903	17.903	(1.097)	11840	0.04000	0.03887
78 n-Propylbenzene	120	18.414	18.414	(1.128)	2623	0.04000	0.03265
79 2-chlorotoluene	126	18.462	18.462	(1.131)	3048	0.04000	0.03545
80 4-Ethyltoluene	105	18.553	18.553	(1.137)	10460	0.04000	0.03625
81 1,3,5-Trimethylbenzene	120	18.618	18.618	(1.141)	3946	0.04000	0.03418
83 Decane	57	18.876	18.876	(1.157)	9931	0.04000	0.03855
85 tert-butylbenzene	119	19.032	19.032	(1.166)	9075	0.04000	0.03624
84 1,2,4-Trimethylbenzene	105	19.043	19.043	(1.167)	7759	0.04000	0.03378
86 sec-butylbenzene	105	19.291	19.291	(1.182)	11851	0.04000	0.03551
87 1,3-Dichlorobenzene	146	19.317	19.317	(1.184)	7704	0.04000	0.04158
88 Benzyl Chloride	91	19.382	19.382	(1.188)	7848	0.04000	0.03574
89 1,4-Dichlorobenzene	146	19.398	19.398	(1.189)	7521	0.04000	0.04140
90 p-Cymene	119	19.441	19.441	(1.191)	9275	0.04000	0.03401
91 1,2-Dichlorobenzene	146	19.748	19.748	(1.210)	6694	0.04000	0.04048
92 n-butylbenzene	91	19.861	19.861	(1.217)	10687	0.04000	0.03945
93 Undecane	57	20.140	20.140	(1.234)	10734	0.04000	0.04955
94 Dodecane	57	21.222	21.222	(1.300)	11283	0.04000	0.04779
95 1,2,4-Trichlorobenzene	180	21.469	21.469	(1.315)	5509	0.04000	0.05089
96 Napthalene	128	21.620	21.620	(1.325)	12143	0.04000	0.05190
97 Hexachlorobutadiene	225	21.808	21.808	(1.336)	3749	0.04000	0.04780
98 1,2,3-trichlorobenzene	180	21.883	21.883	(1.341)	4811	0.04000	0.05458

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg281.d
Date : 28-JUL-2010 12:39
Client ID: STD 0.04
Sample Info: ICAL1,,1,1,,STD 0.04
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 7126
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J072810I.b/jicg282.d
Report Date: 29-Jul-2010 09:22

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J072810I.b/jicg282.d
Lab Smp Id: ICAL2 Client Smp ID: STD 0.08
Inj Date : 28-JUL-2010 13:30
Operator : 7126 Inst ID: mj.i
Smp Info : ICAL2,,1,2,,STD 0.08
Misc Info : J072810I,TO15,1-all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Meth Date : 29-Jul-2010 09:22 tajh Quant Type: ISTD
Cal Date : 28-JUL-2010 13:30 Cal File: jicg282.d
Als bottle: 1 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: low.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
*	1 Bromochloromethane	128	9.495	9.495	(1.000)	263695	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.663	11.663	(1.000)	1216558	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.322	16.322	(1.000)	1049938	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.930	17.930	(1.099)	791993	4.00000	3.974
	7 Chlorodifluoromethane	67	3.901	3.901	(0.411)	2650	0.08000	0.07946
	9 Propene	41	3.917	3.917	(0.412)	22540	0.08000	0.1665
	8 Dichlorodifluoromethane	85	3.971	3.971	(0.418)	23525	0.08000	0.08216
	10 Chloromethane	52	4.180	4.180	(0.440)	2998	0.08000	0.08547
	11 1,2-Dichlorotetrafluoroethane	135	4.180	4.180	(0.440)	13148	0.08000	0.08890
	13 Vinyl Chloride	62	4.374	4.374	(0.461)	8231	0.08000	0.08276
	14 n-Butane	43	4.471	4.471	(0.471)	14982	0.08000	0.09766
	15 1,3-Butadiene	54	4.471	4.471	(0.471)	7471	0.08000	0.08717
	16 Bromomethane	94	4.837	4.837	(0.509)	7257	0.08000	0.09339
	17 Chloroethane	64	5.003	5.003	(0.527)	4334	0.08000	0.08475
	18 Vinyl Bromide	106	5.342	5.342	(0.563)	7056	0.08000	0.07936

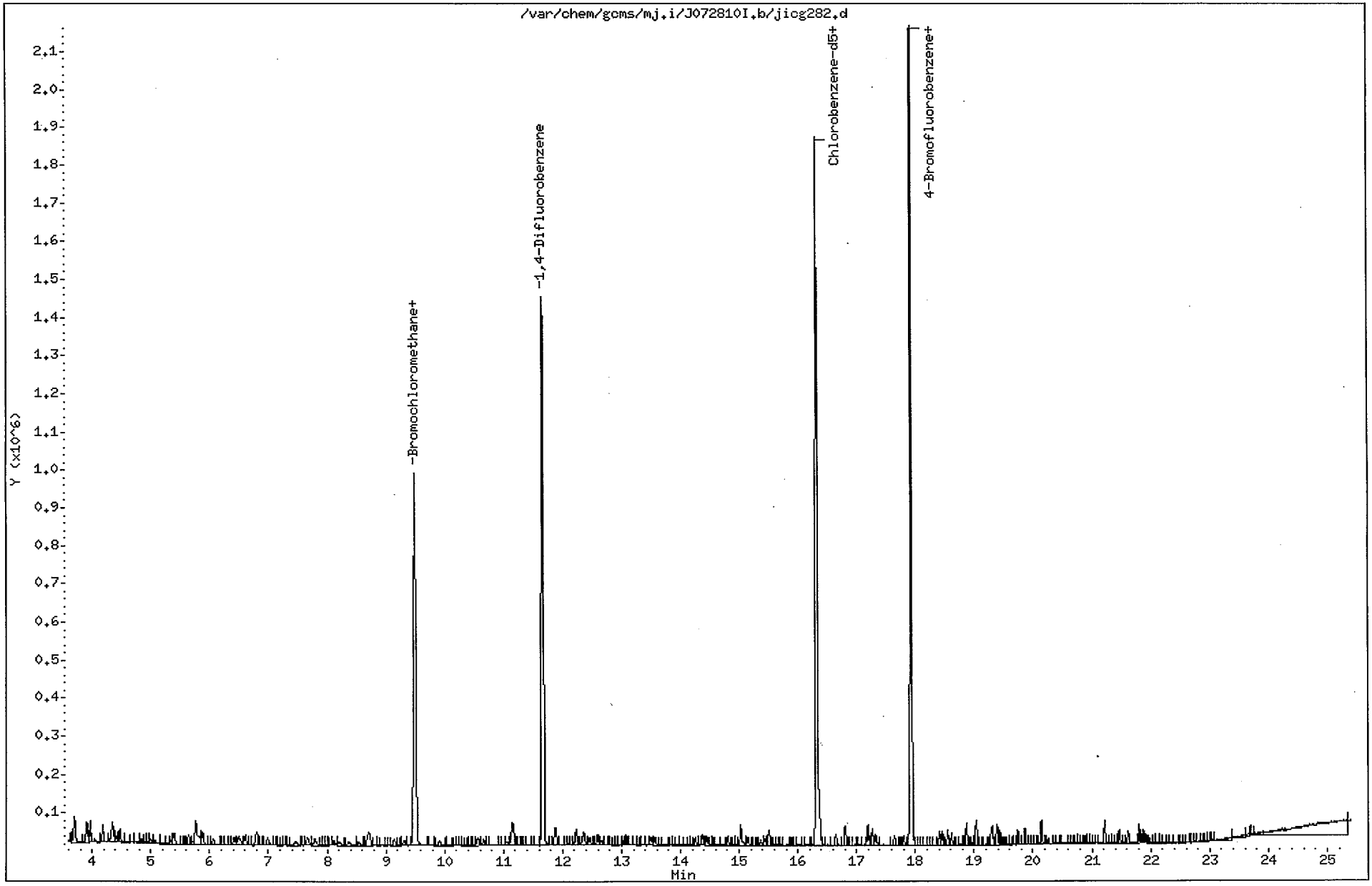
Data File: /var/chem/gcms/mj.i/J072810I.b/jicg282.d
Report Date: 29-Jul-2010 09:22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
19	2-methyl butane	43	5.391	5.391	(0.568)	17294	0.08000	0.09261
20	Trichlorofluoromethane	101	5.644	5.644	(0.594)	20875	0.08000	0.08175
21	Acrolein	56	5.649	5.649	(0.595)	3521	0.08000	0.1127
22	Acetonitrile	40	5.719	5.719	(0.602)	6045	0.08000	0.1346
23	Acetone	43	5.767	5.767	(0.607)	96402	0.08000	0.5970
24	Pentane	72	5.886	5.886	(0.620)	683	0.08000	0.04956
25	Isopropyl Alcohol	45	5.837	5.837	(0.615)	17665	0.08000	0.1208
26	Ethyl Ether	31	6.058	6.058	(0.638)	12113	0.08000	0.08796
27	1,1-Dichloroethene	96	6.424	6.424	(0.676)	7126	0.08000	0.08184
29	Acrylonitrile	53	6.531	6.531	(0.688)	6332	0.08000	0.08358
28	tert-butanol	59	6.488	6.488	(0.683)	22667	0.08000	0.1432
30	1,1,2-Trichlorotrifluoroethane	101	6.607	6.607	(0.696)	15524	0.08000	0.08339
31	Methylene Chloride	84	6.800	6.800	(0.716)	9112	0.08000	0.1062
32	3-Chloropropene	39	6.811	6.811	(0.717)	10324	0.08000	0.08477
33	Carbon Disulfide	76	6.983	6.983	(0.735)	20790	0.08000	0.07993
34	trans-1,2-Dichloroethene	96	7.666	7.666	(0.807)	6936	0.08000	0.07908
35	Methyl-t-Butyl Ether	73	7.785	7.785	(0.820)	14344	0.08000	0.08148
36	1,1-Dichloroethane	63	8.118	8.118	(0.855)	16948	0.08000	0.08087
37	Vinyl Acetate	43	8.210	8.210	(0.865)	20888	0.08000	0.08308
38	Hexane	56	8.721	8.721	(0.918)	8639	0.08000	0.08204
39	2-Butanone	72	8.678	8.678	(0.914)	4037	0.08000	0.1348
40	cis 1,2-Dichloroethene	96	9.146	9.146	(0.963)	7191	0.08000	0.08008
41	Ethyl acetate	43	9.323	9.323	(0.982)	19572	0.08000	0.08999
42	Chloroform	83	9.501	9.501	(1.001)	16086	0.08000	0.08403
43	Tetrahydrofuran	42	9.915	9.915	(1.044)	10578	0.08000	0.08822
44	1,1,1-Trichloroethane	97	10.560	10.560	(1.112)	15811	0.08000	0.07928
45	1,2-Dichloroethane	62	10.663	10.663	(0.914)	13861	0.08000	0.08113
46	Cyclohexane	69	11.152	11.152	(0.956)	3410	0.08000	0.07864
48	Benzene	78	11.147	11.147	(0.956)	23096	0.08000	0.08980
47	1-Butanol	31	11.055	11.055	(0.948)	4237	0.08000	0.09813
49	Carbon Tetrachloride	117	11.174	11.174	(0.958)	15480	0.08000	0.07681
50	2,2,4-trimethylpentane	57	11.878	11.878	(1.018)	48677	0.08000	0.08328
51	Heptane	43	12.239	12.239	(1.049)	24512	0.08000	0.08859
52	1,2-Dichloropropane	63	12.336	12.336	(1.058)	9363	0.08000	0.08434
53	Trichloroethene	130	12.373	12.373	(1.061)	9978	0.08000	0.07979
54	Dibromomethane	93	12.454	12.454	(1.068)	9928	0.08000	0.08396
55	Bromodichloromethane	83	12.589	12.589	(1.079)	15770	0.08000	0.08008
56	1,4-dioxane	88	12.605	12.605	(1.081)	1809	0.08000	0.07993
57	methyl methacrylate	41	12.658	12.658	(1.085)	10944	0.08000	0.08262
58	4-Methyl-2-pentanone	43	13.498	13.498	(1.157)	21477	0.08000	0.08637
59	cis-1,3-Dichloropropene	75	13.568	13.568	(1.163)	10595	0.08000	0.07795
60	trans-1,3-Dichloropropene	75	14.245	14.245	(0.873)	9948	0.08000	0.07765
61	Toluene	91	14.374	14.374	(0.881)	20876	0.08000	0.08443
62	1,1,2-Trichloroethane	97	14.455	14.455	(0.886)	7440	0.08000	0.08390
63	2-Hexanone	58	14.805	14.805	(0.907)	7904	0.08000	0.07962
64	Octane	85	15.031	15.031	(0.921)	6614	0.08000	0.08287
65	Dibromochloromethane	129	15.149	15.149	(0.928)	11988	0.08000	0.06950

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg282.d
Report Date: 29-Jul-2010 09:22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
66	1,2-Dibromoethane	107	15.445	15.445	(0.946)	12406	0.08000	0.08301
67	Tetrachloroethene	129	15.510	15.510	(0.950)	8974	0.08000	0.08687
68	Chlorobenzene	112	16.370	16.370	(1.003)	17293	0.08000	0.08565
69	Ethylbenzene	91	16.645	16.645	(1.020)	24054	0.08000	0.08484
70	m&p-Xylene	91	16.801	16.801	(1.029)	35913	0.16000	0.1675
71	Nonane	57	17.193	17.193	(1.053)	18191	0.08000	0.07999
72	Bromoform	173	17.269	17.269	(1.058)	7437	0.08000	0.05631
73	Styrene	104	17.269	17.269	(1.058)	11005	0.08000	0.07450
74	o-Xylene	91	17.328	17.328	(1.062)	18936	0.08000	0.08490
75	1,1,2,2-Tetrachloroethane	83	17.645	17.645	(1.081)	14617	0.08000	0.08449
76	1,2,3-Trichloropropane	110	17.801	17.801	(1.091)	3419	0.08000	0.08278
77	Cumene	105	17.898	17.898	(1.097)	23606	0.08000	0.08390
78	n-Propylbenzene	120	18.409	18.409	(1.128)	6276	0.08000	0.08458
79	2-chlorotoluene	126	18.463	18.463	(1.131)	6491	0.08000	0.08174
80	4-Ethyltoluene	105	18.549	18.549	(1.136)	22178	0.08000	0.08322
81	1,3,5-Trimethylbenzene	120	18.619	18.619	(1.141)	8944	0.08000	0.08388
82	Alpha-Methylstyrene	118	18.839	18.839	(1.154)	7598	0.08000	0.06956
83	Decane	57	18.872	18.872	(1.156)	18258	0.08000	0.07672
85	tert-butylbenzene	119	19.033	19.033	(1.166)	19310	0.08000	0.08349
84	1,2,4-Trimethylbenzene	105	19.044	19.044	(1.167)	17275	0.08000	0.08144
86	sec-butylbenzene	105	19.291	19.291	(1.182)	26355	0.08000	0.08549
87	1,3-Dichlorobenzene	146	19.307	19.307	(1.183)	14623	0.08000	0.08545
88	Benzyl Chloride	91	19.383	19.383	(1.188)	15634	0.08000	0.07709
89	1,4-Dichlorobenzene	146	19.394	19.394	(1.188)	14267	0.08000	0.08502
90	p-Cymene	119	19.442	19.442	(1.191)	20114	0.08000	0.07985
91	1,2-Dichlorobenzene	146	19.749	19.749	(1.210)	13422	0.08000	0.08788
92	n-butylbenzene	91	19.862	19.862	(1.217)	20678	0.08000	0.08264
93	Undecane	57	20.141	20.141	(1.234)	18751	0.08000	0.09372
94	Dodecane	57	21.217	21.217	(1.300)	19217	0.08000	0.08812
95	1,2,4-Trichlorobenzene	180	21.465	21.465	(1.315)	9347	0.08000	0.09349
96	Napthalene	128	21.615	21.615	(1.324)	20066	0.08000	0.09286
97	Hexachlorobutadiene	225	21.804	21.804	(1.336)	6497	0.08000	0.08969
98	1,2,3-trichlorobenzene	180	21.879	21.879	(1.340)	7707	0.08000	0.09465

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg282.d
Date : 28-JUL-2010 13:30
Client ID: STD 0.08
Instrument: mj.i
Sample Info: ICAL2,,1,2,,STD 0.08
Purge Volume: 200.0
Operator: 7126
Column phase: Rtx-5
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J072810I.b/jicg283.d
Report Date: 29-Jul-2010 09:22

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J072810I.b/jicg283.d
Lab Smp Id: ICAL3 Client Smp ID: STD 0.16
Inj Date : 28-JUL-2010 14:24
Operator : 7126 Inst ID: mj.i
Smp Info : ICAL3,,1,3,,STD 0.16
Misc Info : J072810I,TO15,1-all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Meth Date : 29-Jul-2010 09:22 tajh Quant Type: ISTD
Cal Date : 28-JUL-2010 14:24 Cal File: jicg283.d
Als bottle: 2 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: low.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
* 1 Bromochloromethane	128	9.491	9.491	(1.000)	254569	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.659	11.659	(1.000)	1242936	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.323	16.323	(1.000)	1075391	4.00000	4.000
$ 6 4-Bromofluorobenzene	95	17.931	17.931	(1.099)	805341	4.00000	3.946
7 Chlorodifluoromethane	67	3.891	3.891	(0.410)	5219	0.16000	0.1621
9 Propene	41	3.912	3.912	(0.412)	27972	0.16000	0.2140
8 Dichlorodifluoromethane	85	3.966	3.966	(0.418)	42906	0.16000	0.1552
10 Chloromethane	52	4.176	4.176	(0.440)	5023	0.16000	0.1483
11 1,2-Dichlorotetrafluoroethane	135	4.176	4.176	(0.440)	21839	0.16000	0.1530
13 Vinyl Chloride	62	4.370	4.370	(0.460)	13869	0.16000	0.1444
14 n-Butane	43	4.467	4.467	(0.471)	23600	0.16000	0.1594
15 1,3-Butadiene	54	4.467	4.467	(0.471)	12533	0.16000	0.1515
16 Bromomethane	94	4.832	4.832	(0.509)	11641	0.16000	0.1552
17 Chloroethane	64	4.994	4.994	(0.526)	7443	0.16000	0.1508
18 Vinyl Bromide	106	5.338	5.338	(0.562)	13195	0.16000	0.1537

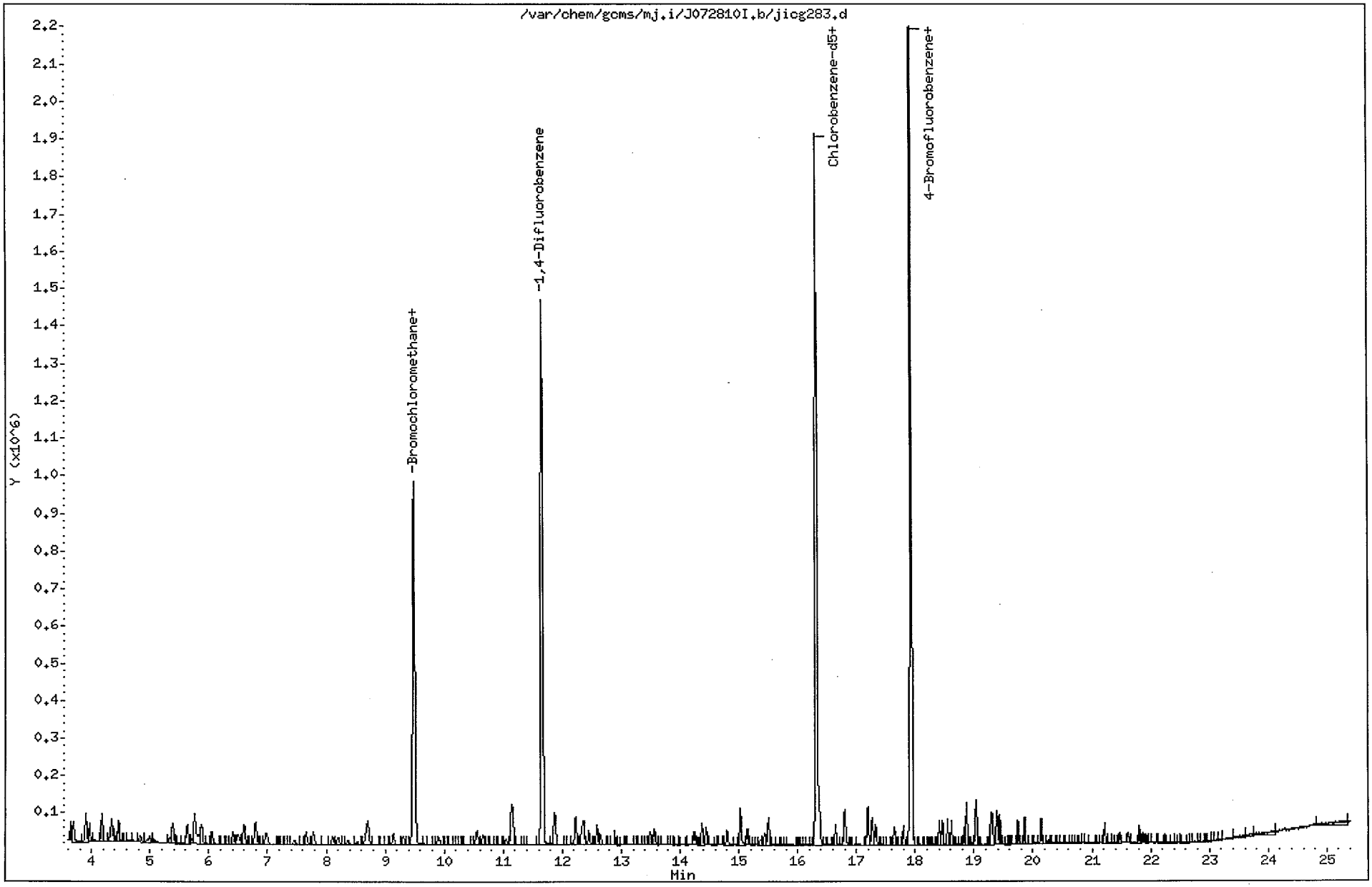
Data File: /var/chem/gcms/mj.i/J072810I.b/jicg283.d
Report Date: 29-Jul-2010 09:22

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
19 2-methyl butane	43	5.386	5.386	(0.568)	29813	0.16000	0.1654
20 Trichlorofluoromethane	101	5.634	5.634	(0.594)	37687	0.16000	0.1529
21 Acrolein	56	5.645	5.645	(0.595)	6002	0.16000	0.1990
22 Acetonitrile	40	5.715	5.715	(0.602)	8035	0.16000	0.1853
23 Acetone	43	5.758	5.758	(0.607)	122614	0.16000	0.7866
24 Pentane	72	5.876	5.876	(0.619)	1961	0.16000	0.1474
25 Isopropyl Alcohol	45	5.833	5.833	(0.615)	26073	0.16000	0.1847
26 Ethyl Ether	31	6.048	6.048	(0.637)	24311	0.16000	0.1829
27 1,1-Dichloroethene	96	6.414	6.414	(0.676)	12638	0.16000	0.1503
29 Acrylonitrile	53	6.521	6.521	(0.687)	12553	0.16000	0.1716
28 tert-butanol	59	6.489	6.489	(0.684)	26457	0.16000	0.1731
30 1,1,2-Trichlorotrifluoroethane	101	6.602	6.602	(0.696)	27606	0.16000	0.1536
31 Methylene Chloride	84	6.790	6.790	(0.715)	14932	0.16000	0.1803
32 3-Chloropropene	39	6.807	6.807	(0.717)	18666	0.16000	0.1588
33 Carbon Disulfide	76	6.979	6.979	(0.735)	38126	0.16000	0.1518
34 trans-1,2-Dichloroethene	96	7.662	7.662	(0.807)	13079	0.16000	0.1545
35 Methyl-t-Butyl Ether	73	7.786	7.786	(0.820)	30155	0.16000	0.1774
36 1,1-Dichloroethane	63	8.108	8.108	(0.854)	32096	0.16000	0.1586
37 Vinyl Acetate	43	8.205	8.205	(0.865)	42251	0.16000	0.1741
38 Hexane	56	8.711	8.711	(0.918)	15680	0.16000	0.1542
39 2-Butanone	72	8.673	8.673	(0.914)	5860	0.16000	0.2028
40 cis 1,2-Dichloroethene	96	9.136	9.136	(0.963)	13625	0.16000	0.1572
41 Ethyl acetate	43	9.308	9.308	(0.981)	37942	0.16000	0.1807
42 Chloroform	83	9.491	9.491	(1.000)	29543	0.16000	0.1598
43 Tetrahydrofuran	42	9.905	9.905	(1.044)	20599	0.16000	0.1780
44 1,1,1-Trichloroethane	97	10.556	10.556	(1.112)	29560	0.16000	0.1535
45 1,2-Dichloroethane	62	10.658	10.658	(0.914)	26477	0.16000	0.1517
46 Cyclohexane	69	11.142	11.142	(0.956)	6593	0.16000	0.1488
48 Benzene	78	11.142	11.142	(0.956)	42202	0.16000	0.1606
47 1-Butanol	31	11.046	11.046	(0.947)	5207	0.16000	0.1180
49 Carbon Tetrachloride	117	11.164	11.164	(0.958)	29037	0.16000	0.1410
50 2,2,4-trimethylpentane	57	11.874	11.874	(1.018)	89495	0.16000	0.1499
51 Heptane	43	12.229	12.229	(1.049)	43894	0.16000	0.1553
52 1,2-Dichloropropane	63	12.331	12.331	(1.058)	18007	0.16000	0.1588
53 Trichloroethene	130	12.364	12.364	(1.060)	18587	0.16000	0.1455
54 Dibromomethane	93	12.450	12.450	(1.068)	18384	0.16000	0.1522
55 Bromodichloromethane	83	12.584	12.584	(1.079)	30210	0.16000	0.1502
56 1,4-dioxane	88	12.584	12.584	(1.079)	3259	0.16000	0.1409
57 methyl methacrylate	41	12.654	12.654	(1.085)	21820	0.16000	0.1612
58 4-Methyl-2-pentanone	43	13.493	13.493	(1.157)	36639	0.16000	0.1442
59 cis-1,3-Dichloropropene	75	13.563	13.563	(1.163)	21756	0.16000	0.1567
60 trans-1,3-Dichloropropene	75	14.241	14.241	(0.872)	19998	0.16000	0.1524
61 Toluene	91	14.376	14.376	(0.881)	41594	0.16000	0.1642
62 1,1,2-Trichloroethane	97	14.451	14.451	(0.885)	14009	0.16000	0.1542
63 2-Hexanone	58	14.800	14.800	(0.907)	12979	0.16000	0.1276
64 Octane	85	15.026	15.026	(0.921)	12796	0.16000	0.1565
65 Dibromochloromethane	129	15.150	15.150	(0.928)	24776	0.16000	0.1402

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg283.d
Report Date: 29-Jul-2010 09:22

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
66	1,2-Dibromoethane	107	15.441	15.441	(0.946)	24988	0.16000	0.1632
67	Tetrachloroethene	129	15.505	15.505	(0.950)	16323	0.16000	0.1543
68	Chlorobenzene	112	16.371	16.371	(1.003)	33539	0.16000	0.1622
69	Ethylbenzene	91	16.646	16.646	(1.020)	44222	0.16000	0.1523
70	m&p-Xylene	91	16.802	16.802	(1.029)	67108	0.32000	0.3056
71	Nonane	57	17.194	17.194	(1.053)	33685	0.16000	0.1446
72	Bromoform	173	17.270	17.270	(1.058)	15700	0.16000	0.1161
73	Styrene	104	17.270	17.270	(1.058)	21053	0.16000	0.1392
74	o-Xylene	91	17.329	17.329	(1.062)	35305	0.16000	0.1546
75	1,1,2,2-Tetrachloroethane	83	17.646	17.646	(1.081)	26352	0.16000	0.1487
76	1,2,3-Trichloropropane	110	17.802	17.802	(1.091)	6390	0.16000	0.1510
77	Cumene	105	17.899	17.899	(1.097)	44798	0.16000	0.1554
78	n-Propylbenzene	120	18.410	18.410	(1.128)	11027	0.16000	0.1451
79	2-chlorotoluene	126	18.464	18.464	(1.131)	12193	0.16000	0.1499
80	4-Ethyltoluene	105	18.550	18.550	(1.136)	40450	0.16000	0.1482
81	1,3,5-Trimethylbenzene	120	18.620	18.620	(1.141)	16288	0.16000	0.1491
82	Alpha-Methylstyrene	118	18.840	18.840	(1.154)	13722	0.16000	0.1226
83	Decane	57	18.873	18.873	(1.156)	35429	0.16000	0.1454
85	tert-butylbenzene	119	19.029	19.029	(1.166)	36054	0.16000	0.1522
84	1,2,4-Trimethylbenzene	105	19.040	19.040	(1.166)	31599	0.16000	0.1454
86	sec-butylbenzene	105	19.287	19.287	(1.182)	49243	0.16000	0.1560
87	1,3-Dichlorobenzene	146	19.314	19.314	(1.183)	25091	0.16000	0.1432
88	Benzyl Chloride	91	19.384	19.384	(1.188)	26773	0.16000	0.1289
89	1,4-Dichlorobenzene	146	19.395	19.395	(1.188)	24205	0.16000	0.1408
90	p-Cymene	119	19.443	19.443	(1.191)	38502	0.16000	0.1492
91	1,2-Dichlorobenzene	146	19.750	19.750	(1.210)	22127	0.16000	0.1414
92	n-butylbenzene	91	19.863	19.863	(1.217)	37015	0.16000	0.1444
93	Undecane	57	20.142	20.142	(1.234)	19817	0.16000	0.09670
94	Dodecane	57	21.218	21.218	(1.300)	16743	0.16000	0.07496
95	1,2,4-Trichlorobenzene	180	21.466	21.466	(1.315)	8228	0.16000	0.08035
96	Napthalene	128	21.616	21.616	(1.324)	17820	0.16000	0.08051
97	Hexachlorobutadiene	225	21.810	21.810	(1.336)	6351	0.16000	0.08560
98	1,2,3-trichlorobenzene	180	21.880	21.880	(1.340)	7108	0.16000	0.08523

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg283.d
Date : 28-JUL-2010 14:24
Client ID: STD 0.16
Instrument: mj.i
Sample Info: ICAL3,,1,3,,STD 0.16
Purge Volume: 200.0
Operator: 7126
Column phase: Rtx-5
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J072810I.b/jicg284.d
Report Date: 29-Jul-2010 09:22

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J072810I.b/jicg284.d
Lab Smp Id: ICAL4 Client Smp ID: STD 0.32
Inj Date : 28-JUL-2010 15:32
Operator : 7126 Inst ID: mj.i
Smp Info : ICAL4,,1,4,,STD 0.32
Misc Info : J072810I,TO15,1-all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Meth Date : 29-Jul-2010 09:22 tajh Quant Type: ISTD
Cal Date : 28-JUL-2010 15:32 Cal File: jicg284.d
Als bottle: 3 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-all.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
*	1 Bromochloromethane	128	9.490	9.490	(1.000)	261805	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.658	11.658	(1.000)	1187075	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.322	16.322	(1.000)	1041328	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.930	17.930	(1.099)	793082	4.00000	4.013
	7 Chlorodifluoromethane	67	3.901	3.901	(0.411)	12647	0.32000	0.3820
	9 Propene	41	3.911	3.911	(0.412)	51579	0.32000	0.3837
	8 Dichlorodifluoromethane	85	3.971	3.971	(0.418)	108807	0.32000	0.3827
	10 Chloromethane	52	4.175	4.175	(0.440)	14910	0.32000	0.4281
	11 1,2-Dichlorotetrafluoroethane	135	4.180	4.180	(0.440)	46507	0.32000	0.3167
	13 Vinyl Chloride	62	4.369	4.369	(0.460)	35981	0.32000	0.3644
	14 n-Butane	43	4.471	4.471	(0.471)	57982	0.32000	0.3807
	15 1,3-Butadiene	54	4.471	4.471	(0.471)	30191	0.32000	0.3548
	16 Bromomethane	94	4.837	4.837	(0.510)	26925	0.32000	0.3490
	17 Chloroethane	64	4.998	4.998	(0.527)	18784	0.32000	0.3700
	18 Vinyl Bromide	106	5.337	5.337	(0.562)	32107	0.32000	0.3637

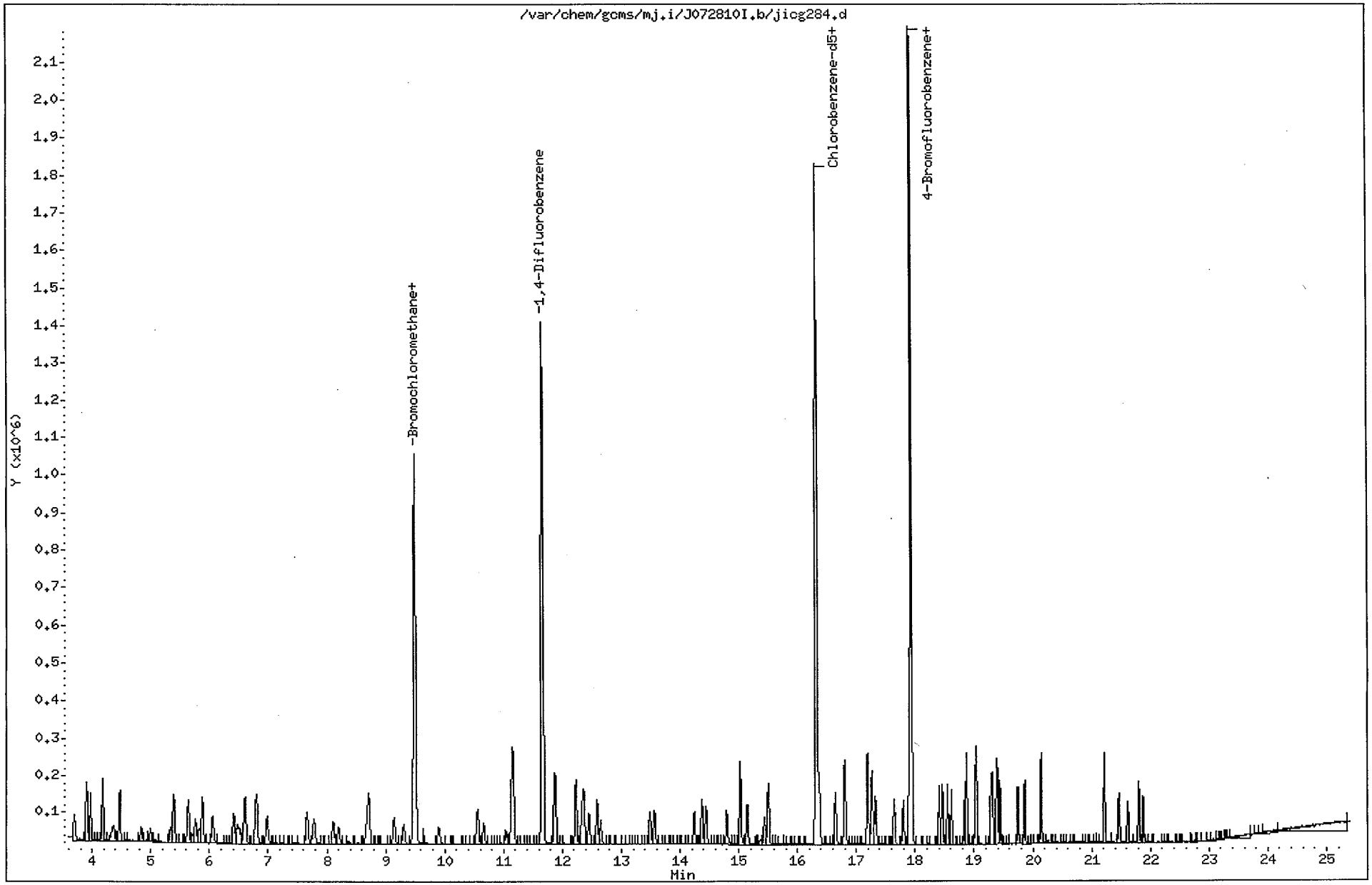
Data File: /var/chem/gcms/mj.i/J072810I.b/jicg284.d
Report Date: 29-Jul-2010 09:22

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
19 2-methyl butane	43	5.391	5.391	(0.568)	69135	0.32000	0.3729
20 Trichlorofluoromethane	101	5.638	5.638	(0.594)	92582	0.32000	0.3652
21 Acrolein	56	5.638	5.638	(0.594)	11546	0.32000	0.3722
22 Acetonitrile	40	5.714	5.714	(0.602)	18065	0.32000	0.4052
23 Acetone	43	5.762	5.762	(0.607)	94537	0.32000	0.5897
24 Pentane	72	5.875	5.875	(0.619)	4892	0.32000	0.3575
25 Isopropyl Alcohol	45	5.832	5.832	(0.615)	52911	0.32000	0.3645
26 Ethyl Ether	31	6.052	6.052	(0.638)	52665	0.32000	0.3852
27 1,1-Dichloroethene	96	6.418	6.418	(0.676)	31307	0.32000	0.3621
29 Acrylonitrile	53	6.520	6.520	(0.687)	27099	0.32000	0.3603
28 tert-butanol	59	6.483	6.483	(0.683)	55651	0.32000	0.3540
30 1,1,2-Trichlorotrifluoroethane	101	6.607	6.607	(0.696)	67566	0.32000	0.3656
31 Methylene Chloride	84	6.795	6.795	(0.716)	33999	0.32000	0.3991
32 3-Chloropropene	39	6.811	6.811	(0.718)	44816	0.32000	0.3706
33 Carbon Disulfide	76	6.978	6.978	(0.735)	97236	0.32000	0.3765
34 trans-1,2-Dichloroethene	96	7.661	7.661	(0.807)	31386	0.32000	0.3604
35 Methyl-t-Butyl Ether	73	7.779	7.779	(0.820)	64371	0.32000	0.3683
36 1,1-Dichloroethane	63	8.113	8.113	(0.855)	76056	0.32000	0.3655
37 Vinyl Acetate	43	8.204	8.204	(0.865)	91017	0.32000	0.3646
38 Hexane	56	8.710	8.710	(0.918)	37771	0.32000	0.3613
39 2-Butanone	72	8.672	8.672	(0.914)	10527	0.32000	0.3542
40 cis 1,2-Dichloroethene	96	9.146	9.146	(0.964)	33086	0.32000	0.3711
41 Ethyl acetate	43	9.307	9.307	(0.981)	76904	0.32000	0.3562
42 Chloroform	83	9.501	9.501	(1.001)	70515	0.32000	0.3710
43 Tetrahydrofuran	42	9.899	9.899	(1.043)	42401	0.32000	0.3562
44 1,1,1-Trichloroethane	97	10.560	10.560	(1.113)	73271	0.32000	0.3700
45 1,2-Dichloroethane	62	10.663	10.663	(0.915)	60118	0.32000	0.3606
46 Cyclohexane	69	11.152	11.152	(0.957)	15212	0.32000	0.3595
48 Benzene	78	11.147	11.147	(0.956)	92413	0.32000	0.3682
47 1-Butanol	31	11.045	11.045	(0.947)	14744	0.32000	0.3499
49 Carbon Tetrachloride	117	11.168	11.168	(0.958)	66694	0.32000	0.3392
50 2,2,4-trimethylpentane	57	11.873	11.873	(1.018)	211299	0.32000	0.3705
51 Heptane	43	12.228	12.228	(1.049)	97878	0.32000	0.3625
52 1,2-Dichloropropane	63	12.330	12.330	(1.058)	40186	0.32000	0.3710
53 Trichloroethene	130	12.363	12.363	(1.060)	44623	0.32000	0.3657
54 Dibromomethane	93	12.454	12.454	(1.068)	41875	0.32000	0.3630
55 Bromodichloromethane	83	12.588	12.588	(1.080)	69951	0.32000	0.3640
56 1,4-dioxane	88	12.588	12.588	(1.080)	8236	0.32000	0.3729
57 methyl methacrylate	41	12.653	12.653	(1.085)	43024	0.32000	0.3329
58 4-Methyl-2-pentanone	43	13.487	13.487	(1.157)	82530	0.32000	0.3401
59 cis-1,3-Dichloropropene	75	13.568	13.568	(1.164)	46742	0.32000	0.3524
60 trans-1,3-Dichloropropene	75	14.245	14.245	(0.873)	44496	0.32000	0.3502
61 Toluene	91	14.374	14.374	(0.881)	88330	0.32000	0.3602
62 1,1,2-Trichloroethane	97	14.450	14.450	(0.885)	32344	0.32000	0.3678
63 2-Hexanone	58	14.799	14.799	(0.907)	33316	0.32000	0.3384
64 Octane	85	15.025	15.025	(0.921)	29234	0.32000	0.3693
65 Dibromochloromethane	129	15.144	15.144	(0.928)	59874	0.32000	0.3500

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg284.d
Report Date: 29-Jul-2010 09:22

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
66 1,2-Dibromoethane	107	15.440	15.440	(0.946)	54857	0.32000	0.3701
67 Tetrachloroethene	129	15.504	15.504	(0.950)	37829	0.32000	0.3692
68 Chlorobenzene	112	16.370	16.370	(1.003)	73528	0.32000	0.3672
69 Ethylbenzene	91	16.645	16.645	(1.020)	106068	0.32000	0.3772
70 m&p-Xylene	91	16.801	16.801	(1.029)	160525	0.64000	0.7549
M 178 Xylene (total)	100				243606	0.96000	1.130
71 Nonane	57	17.193	17.193	(1.053)	82222	0.32000	0.3645
72 Bromoform	173	17.263	17.263	(1.058)	46511	0.32000	0.3551
73 Styrene	104	17.269	17.269	(1.058)	53450	0.32000	0.3648
74 o-Xylene	91	17.328	17.328	(1.062)	83081	0.32000	0.3756
75 1,1,2,2-Tetrachloroethane	83	17.645	17.645	(1.081)	64603	0.32000	0.3765
76 1,2,3-Trichloropropane	110	17.801	17.801	(1.091)	15245	0.32000	0.3722
77 Cumene	105	17.898	17.898	(1.097)	102651	0.32000	0.3678
78 n-Propylbenzene	120	18.409	18.409	(1.128)	26794	0.32000	0.3641
79 2-chlorotoluene	126	18.457	18.457	(1.131)	29523	0.32000	0.3748
80 4-Ethyltoluene	105	18.549	18.549	(1.136)	94881	0.32000	0.3590
81 1,3,5-Trimethylbenzene	120	18.619	18.619	(1.141)	37422	0.32000	0.3538
82 Alpha-Methylstyrene	118	18.839	18.839	(1.154)	35247	0.32000	0.3253
83 Decane	57	18.872	18.872	(1.156)	77335	0.32000	0.3277
85 tert-butylbenzene	119	19.028	19.028	(1.166)	81292	0.32000	0.3544
84 1,2,4-Trimethylbenzene	105	19.044	19.044	(1.167)	74723	0.32000	0.3552
86 sec-butylbenzene	105	19.286	19.286	(1.182)	109865	0.32000	0.3593
87 1,3-Dichlorobenzene	146	19.313	19.313	(1.183)	61655	0.32000	0.3633
88 Benzyl Chloride	91	19.383	19.383	(1.188)	70399	0.32000	0.3500
89 1,4-Dichlorobenzene	146	19.394	19.394	(1.188)	60991	0.32000	0.3665
90 p-Cymene	119	19.442	19.442	(1.191)	86036	0.32000	0.3444
91 1,2-Dichlorobenzene	146	19.749	19.749	(1.210)	54867	0.32000	0.3622
92 n-butylbenzene	91	19.862	19.862	(1.217)	84799	0.32000	0.3417
93 Undecane	57	20.141	20.141	(1.234)	70053	0.32000	0.3530
94 Dodecane	57	21.217	21.217	(1.300)	74735	0.32000	0.3455
95 1,2,4-Trichlorobenzene	180	21.470	21.470	(1.315)	34557	0.32000	0.3485
96 Napthalene	128	21.615	21.615	(1.324)	73654	0.32000	0.3436
97 Hexachlorobutadiene	225	21.809	21.809	(1.336)	23123	0.32000	0.3218
98 1,2,3-trichlorobenzene	180	21.884	21.884	(1.341)	28979	0.32000	0.3588

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg284.d
Date : 28-JUL-2010 15:32
Client ID: STD 0.32
Instrument: mj.i
Sample Info: ICAL4,,1,4,,STD 0.32
Purge Volume: 200.0
Operator: 7126
Column phase: Rtx-5
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J072810I.b/jicg285.d
Report Date: 29-Jul-2010 09:22

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J072810I.b/jicg285.d
Lab Smp Id: ICAL5 Client Smp ID: STD 1.0
Inj Date : 28-JUL-2010 16:23
Operator : 7126 Inst ID: mj.i
Smp Info : ICAL5,,1,5,,STD 1.0
Misc Info : J072810I,TO15,1-all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Meth Date : 29-Jul-2010 09:22 tajh Quant Type: ISTD
Cal Date : 28-JUL-2010 16:23 Cal File: jicg285.d
Als bottle: 4 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-all.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
*	1 Bromochloromethane	128	9.492	9.492	(1.000)	255810	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.660	11.660	(1.000)	1215365	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.324	16.324	(1.000)	1043455	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.933	17.933	(1.099)	796985	4.00000	4.024
	7 Chlorodifluoromethane	67	3.898	3.898	(0.411)	31722	1.00000	0.9806
	9 Propene	41	3.914	3.914	(0.412)	122282	1.00000	0.9310
	8 Dichlorodifluoromethane	85	3.973	3.973	(0.419)	272936	1.00000	0.9826
	10 Chloromethane	52	4.178	4.178	(0.440)	33866	1.00000	0.9952
	11 1,2-Dichlorotetrafluoroethane	135	4.183	4.183	(0.441)	149005	1.00000	1.038
	12 Methanol	31	4.307	4.307	(0.454)	28973	1.00000	1.521
	13 Vinyl Chloride	62	4.371	4.371	(0.460)	89306	1.00000	0.9256
	14 n-Butane	43	4.468	4.468	(0.471)	142994	1.00000	0.9608
	15 1,3-Butadiene	54	4.468	4.468	(0.471)	75219	1.00000	0.9047
	16 Bromomethane	94	4.839	4.839	(0.510)	64832	1.00000	0.8601
	17 Chloroethane	64	4.995	4.995	(0.526)	47458	1.00000	0.9566

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg285.d
Report Date: 29-Jul-2010 09:22

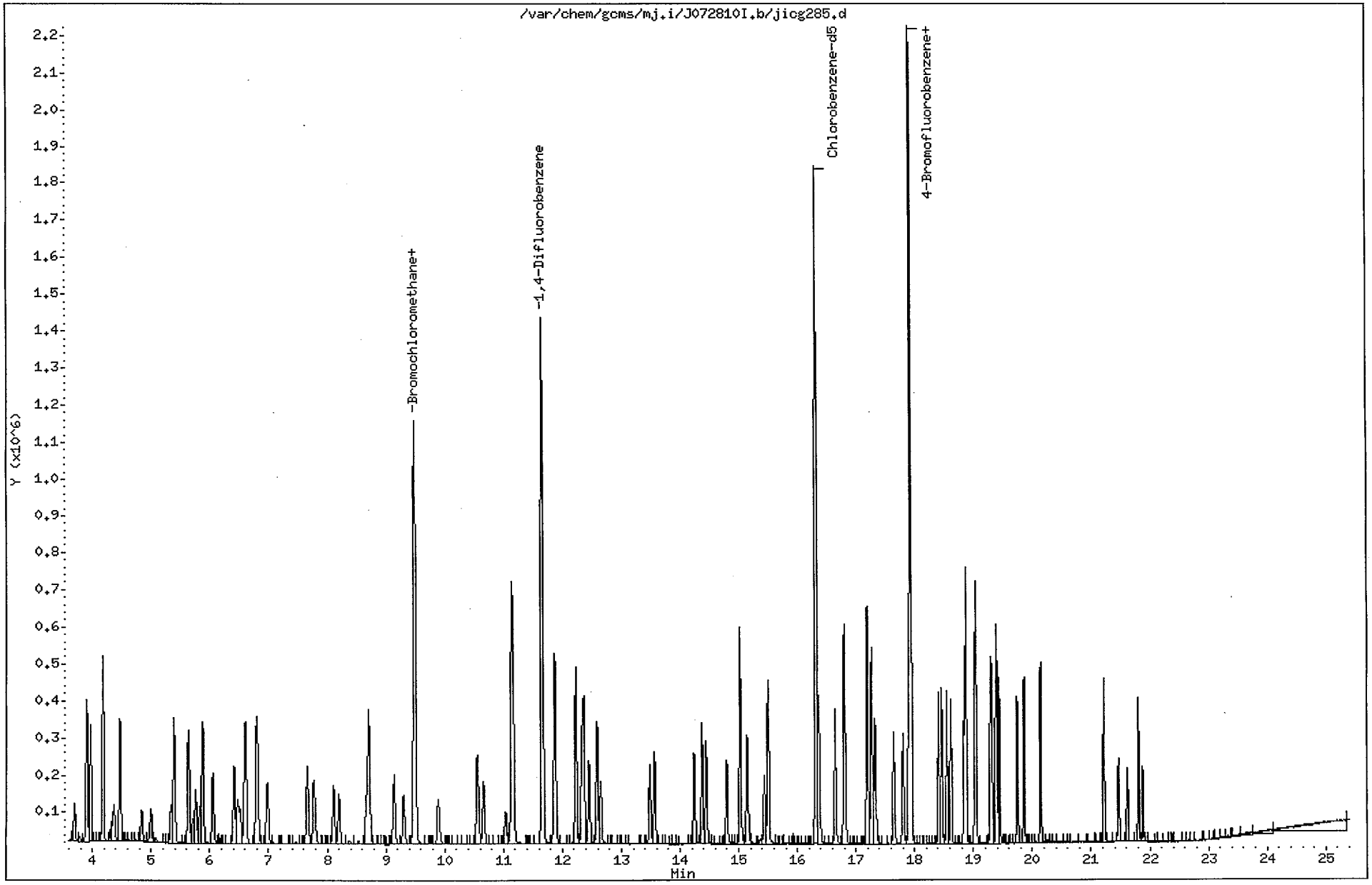
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
18 Vinyl Bromide	106	5.340	5.340	(0.562)	83874	1.00000	0.9724
19 2-methyl butane	43	5.393	5.393	(0.568)	174217	1.00000	0.9616
20 Trichlorofluoromethane	101	5.641	5.641	(0.594)	242271	1.00000	0.9780
21 Acrolein	56	5.641	5.641	(0.594)	32909	1.00000	1.086
22 Acetonitrile	40	5.716	5.716	(0.602)	47057	1.00000	1.080
23 Acetone	43	5.759	5.759	(0.607)	217706	1.00000	1.390
24 Pentane	72	5.888	5.888	(0.620)	13317	1.00000	0.9960
25 Isopropyl Alcohol	45	5.829	5.829	(0.614)	132719	1.00000	0.9358
26 Ethyl Ether	31	6.050	6.050	(0.637)	144004	1.00000	1.078
27 1,1-Dichloroethene	96	6.421	6.421	(0.676)	81647	1.00000	0.9666
29 Acrylonitrile	53	6.523	6.523	(0.687)	76080	1.00000	1.035
28 tert-butanol	59	6.480	6.480	(0.683)	134276	1.00000	0.8742
30 1,1,2-Trichlorotrifluoroethane	101	6.609	6.609	(0.696)	175710	1.00000	0.9729
31 Methylene Chloride	84	6.797	6.797	(0.716)	85635	1.00000	1.029
32 3-Chloropropene	39	6.813	6.813	(0.718)	118348	1.00000	1.002
33 Carbon Disulfide	76	6.980	6.980	(0.735)	248997	1.00000	0.9868
34 trans-1,2-Dichloroethene	96	7.663	7.663	(0.807)	84022	1.00000	0.9875
35 Methyl-t-Butyl Ether	73	7.776	7.776	(0.819)	174539	1.00000	1.022
36 1,1-Dichloroethane	63	8.115	8.115	(0.855)	206060	1.00000	1.014
37 Vinyl Acetate	43	8.201	8.201	(0.864)	268958	1.00000	1.103
38 Hexane	56	8.712	8.712	(0.918)	100422	1.00000	0.9830
39 2-Butanone	72	8.669	8.669	(0.913)	26886	1.00000	0.9257
40 cis 1,2-Dichloroethene	96	9.143	9.143	(0.963)	89017	1.00000	1.022
41 Ethyl acetate	43	9.304	9.304	(0.980)	201378	1.00000	0.9545
42 Chloroform	83	9.498	9.498	(1.001)	189411	1.00000	1.020
43 Tetrahydrofuran	42	9.891	9.891	(1.042)	114263	1.00000	0.9823
44 1,1,1-Trichloroethane	97	10.563	10.563	(1.113)	192998	1.00000	0.9976
45 1,2-Dichloroethane	62	10.665	10.665	(0.915)	169957	1.00000	0.9958
46 Cyclohexane	69	11.149	11.149	(0.956)	41730	1.00000	0.9633
48 Benzene	78	11.144	11.144	(0.956)	253106	1.00000	0.9851
47 1-Butanol	31	11.036	11.036	(0.946)	35362	1.00000	0.8198
49 Carbon Tetrachloride	117	11.165	11.165	(0.958)	195362	1.00000	0.9704
50 2,2,4-trimethylpentane	57	11.876	11.876	(1.018)	570277	1.00000	0.9767
51 Heptane	43	12.231	12.231	(1.049)	271862	1.00000	0.9835
52 1,2-Dichloropropane	63	12.333	12.333	(1.058)	110785	1.00000	0.9990
53 Trichloroethene	130	12.365	12.365	(1.060)	120407	1.00000	0.9638
54 Dibromomethane	93	12.457	12.457	(1.068)	115638	1.00000	0.9790
55 Bromodichloromethane	83	12.591	12.591	(1.080)	198152	1.00000	1.007
56 1,4-dioxane	88	12.586	12.586	(1.079)	19690	1.00000	0.8708
57 methyl methacrylate	41	12.656	12.656	(1.085)	114960	1.00000	0.8687
58 4-Methyl-2-pentanone	43	13.489	13.489	(1.157)	198228	1.00000	0.7979
59 cis-1,3-Dichloropropene	75	13.565	13.565	(1.163)	132394	1.00000	0.9750
60 trans-1,3-Dichloropropene	75	14.248	14.248	(0.873)	126304	1.00000	0.9920
61 Toluene	91	14.377	14.377	(0.881)	245839	1.00000	1.000
62 1,1,2-Trichloroethane	97	14.447	14.447	(0.885)	88142	1.00000	1.000
63 2-Hexanone	58	14.797	14.797	(0.906)	80018	1.00000	0.8111
64 Octane	85	15.028	15.028	(0.921)	78950	1.00000	0.9953

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg285.d
Report Date: 29-Jul-2010 09:22

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
65 Dibromochloromethane	129	15.146	15.146	(0.928)	168159	1.00000	0.9810
66 1,2-Dibromoethane	107	15.437	15.437	(0.946)	147410	1.00000	0.9925
67 Tetrachloroethene	129	15.507	15.507	(0.950)	102934	1.00000	1.002
68 Chlorobenzene	112	16.373	16.373	(1.003)	192829	1.00000	0.9610
69 Ethylbenzene	91	16.647	16.647	(1.020)	278955	1.00000	0.9900
70 m&p-Xylene	91	16.803	16.803	(1.029)	430470	2.00000	2.020
M 178 Xylene (total)	100				655492	3.00000	3.035
71 Nonane	57	17.196	17.196	(1.053)	219157	1.00000	0.9697
72 Bromoform	173	17.271	17.271	(1.058)	126271	1.00000	0.9620
73 Styrene	104	17.266	17.266	(1.058)	145950	1.00000	0.9942
74 o-Xylene	91	17.330	17.330	(1.062)	225022	1.00000	1.015
75 1,1,2,2-Tetrachloroethane	83	17.648	17.648	(1.081)	165674	1.00000	0.9636
76 1,2,3-Trichloropropane	110	17.804	17.804	(1.091)	39861	1.00000	0.9711
77 Cumene	105	17.901	17.901	(1.097)	279469	1.00000	0.9994
78 n-Propylbenzene	120	18.412	18.412	(1.128)	69743	1.00000	0.9458
79 2-chlorotoluene	126	18.460	18.460	(1.131)	76065	1.00000	0.9638
80 4-Ethyltoluene	105	18.551	18.551	(1.136)	248694	1.00000	0.9390
81 1,3,5-Trimethylbenzene	120	18.621	18.621	(1.141)	100233	1.00000	0.9458
82 Alpha-Methylstyrene	118	18.842	18.842	(1.154)	97289	1.00000	0.8962
83 Decane	57	18.874	18.874	(1.156)	236145	1.00000	0.9985
85 tert-butylbenzene	119	19.030	19.030	(1.166)	218166	1.00000	0.9491
84 1,2,4-Trimethylbenzene	105	19.041	19.041	(1.166)	196750	1.00000	0.9333
86 sec-butylbenzene	105	19.288	19.288	(1.182)	293118	1.00000	0.9567
87 1,3-Dichlorobenzene	146	19.315	19.315	(1.183)	154433	1.00000	0.9080
88 Benzyl Chloride	91	19.385	19.385	(1.188)	181456	1.00000	0.9003
89 1,4-Dichlorobenzene	146	19.396	19.396	(1.188)	152628	1.00000	0.9152
90 p-Cymene	119	19.444	19.444	(1.191)	228006	1.00000	0.9107
91 1,2-Dichlorobenzene	146	19.746	19.746	(1.210)	138407	1.00000	0.9118
92 n-butylbenzene	91	19.864	19.864	(1.217)	224290	1.00000	0.9020
93 Undecane	57	20.144	20.144	(1.234)	145529	1.00000	0.7319
94 Dodecane	57	21.220	21.220	(1.300)	134385	1.00000	0.6200
95 1,2,4-Trichlorobenzene	180	21.473	21.473	(1.315)	61956	1.00000	0.6235
96 Napthalene	128	21.618	21.618	(1.324)	135081	1.00000	0.6290
97 Hexachlorobutadiene	225	21.806	21.806	(1.336)	54032	1.00000	0.7505
98 1,2,3-trichlorobenzene	180	21.881	21.881	(1.340)	47799	1.00000	0.5907

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg285.d
Date : 28-JUL-2010 16:23
Client ID: STD 1.0
Sample Info: ICAL5,,1,5,,STD 1.0
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 7126
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J072810I.b/jicg286.d
Report Date: 29-Jul-2010 09:22

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J072810I.b/jicg286.d
Lab Smp Id: ICAL6 Client Smp ID: STD 2.0
Inj Date : 28-JUL-2010 17:13
Operator : 7126 Inst ID: mj.i
Smp Info : ICAL6,,1,6,,STD 2.0
Misc Info : J072810I,TO15,1-all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Meth Date : 29-Jul-2010 09:22 tajh Quant Type: ISTD
Cal Date : 28-JUL-2010 17:13 Cal File: jicg286.d
Als bottle: 5 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-all.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
*	1 Bromochloromethane	128	9.494	9.494	(1.000)	245406	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.667	11.667	(1.000)	942505	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.326	16.326	(1.000)	842727	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.934	17.934	(1.099)	673060	4.00000	4.208
	7 Chlorodifluoromethane	67	3.899	3.899	(0.411)	62667	2.00000	2.019
	9 Propene	41	3.910	3.910	(0.412)	238914	2.00000	1.896
	8 Dichlorodifluoromethane	85	3.969	3.969	(0.418)	539194	2.00000	2.023
	10 Chloromethane	52	4.174	4.174	(0.440)	63647	2.00000	1.950
	11 1,2-Dichlorotetrafluoroethane	135	4.179	4.179	(0.440)	307859	2.00000	2.237
	12 Methanol	31	4.308	4.308	(0.454)	30718	2.00000	1.681
	13 Vinyl Chloride	62	4.367	4.367	(0.460)	174612	2.00000	1.886
	14 n-Butane	43	4.470	4.470	(0.471)	264100	2.00000	1.850
	15 1,3-Butadiene	54	4.470	4.470	(0.471)	143366	2.00000	1.797
	16 Bromomethane	94	4.835	4.835	(0.509)	122972	2.00000	1.700
	17 Chloroethane	64	4.997	4.997	(0.526)	93367	2.00000	1.962

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg286.d
Report Date: 29-Jul-2010 09:22

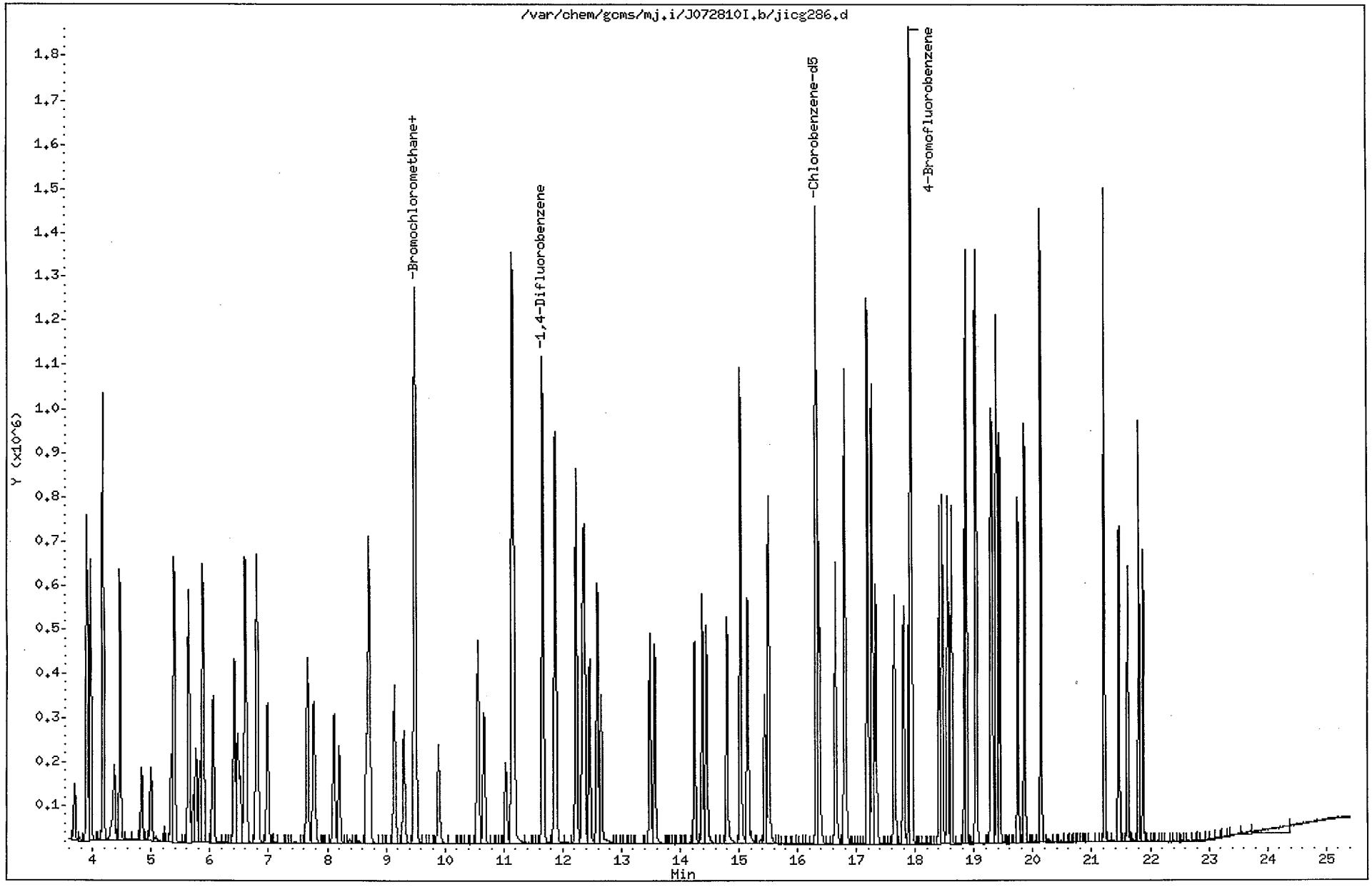
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
18 Vinyl Bromide	106	5.341	5.341	(0.563)	166134	2.00000	2.008
19 2-methyl butane	43	5.395	5.395	(0.568)	341432	2.00000	1.964
20 Trichlorofluoromethane	101	5.637	5.637	(0.594)	477132	2.00000	2.008
21 Acrolein	56	5.642	5.642	(0.594)	55421	2.00000	1.906
22 Acetonitrile	40	5.718	5.718	(0.602)	78262	2.00000	1.872
23 Acetone	43	5.761	5.761	(0.607)	318401	2.00000	2.119
24 Pentane	72	5.884	5.884	(0.620)	26311	2.00000	2.051
25 Isopropyl Alcohol	45	5.831	5.831	(0.614)	256956	2.00000	1.888
26 Ethyl Ether	31	6.051	6.051	(0.637)	252661	2.00000	1.972
27 1,1-Dichloroethene	96	6.417	6.417	(0.676)	163676	2.00000	2.020
29 Acrylonitrile	53	6.525	6.525	(0.687)	131098	2.00000	1.859
28 tert-butanol	59	6.476	6.476	(0.682)	283350	2.00000	1.923
30 1,1,2-Trichlorotrifluoroethane	101	6.611	6.611	(0.696)	348717	2.00000	2.013
31 Methylene Chloride	84	6.799	6.799	(0.716)	156782	2.00000	1.963
32 3-Chloropropene	39	6.810	6.810	(0.717)	231441	2.00000	2.042
33 Carbon Disulfide	76	6.982	6.982	(0.735)	489435	2.00000	2.022
34 trans-1,2-Dichloroethene	96	7.665	7.665	(0.807)	166626	2.00000	2.041
35 Methyl-t-Butyl Ether	73	7.773	7.773	(0.819)	317072	2.00000	1.935
36 1,1-Dichloroethane	63	8.117	8.117	(0.855)	390515	2.00000	2.002
37 Vinyl Acetate	43	8.203	8.203	(0.864)	443691	2.00000	1.896
38 Hexane	56	8.714	8.714	(0.918)	199430	2.00000	2.035
39 2-Butanone	72	8.666	8.666	(0.913)	53930	2.00000	1.936
40 cis 1,2-Dichloroethene	96	9.150	9.150	(0.964)	170124	2.00000	2.036
41 Ethyl acetate	43	9.306	9.306	(0.980)	400027	2.00000	1.976
42 Chloroform	83	9.499	9.499	(1.001)	349671	2.00000	1.963
43 Tetrahydrofuran	42	9.892	9.892	(1.042)	209088	2.00000	1.874
44 1,1,1-Trichloroethane	97	10.565	10.565	(1.113)	376752	2.00000	2.030
45 1,2-Dichloroethane	62	10.667	10.667	(0.914)	309468	2.00000	2.338
46 Cyclohexane	69	11.151	11.151	(0.956)	81502	2.00000	2.426
48 Benzene	78	11.146	11.146	(0.955)	441989	2.00000	2.218
47 1-Butanol	31	11.038	11.038	(0.946)	74780	2.00000	2.235
49 Carbon Tetrachloride	117	11.172	11.172	(0.958)	393718	2.00000	2.522
50 2,2,4-trimethylpentane	57	11.877	11.877	(1.018)	1049978	2.00000	2.319
51 Heptane	43	12.232	12.232	(1.048)	481489	2.00000	2.246
52 1,2-Dichloropropane	63	12.340	12.340	(1.058)	190633	2.00000	2.217
53 Trichloroethene	130	12.367	12.367	(1.060)	224923	2.00000	2.322
54 Dibromomethane	93	12.458	12.458	(1.068)	211443	2.00000	2.308
55 Bromodichloromethane	83	12.593	12.593	(1.079)	359731	2.00000	2.358
56 1,4-dioxane	88	12.582	12.582	(1.078)	41278	2.00000	2.354
57 methyl methacrylate	41	12.652	12.652	(1.084)	232648	2.00000	2.267
58 4-Methyl-2-pentanone	43	13.486	13.486	(1.156)	455324	2.00000	2.363
59 cis-1,3-Dichloropropene	75	13.572	13.572	(1.163)	247567	2.00000	2.351
60 trans-1,3-Dichloropropene	75	14.250	14.250	(0.873)	244061	2.00000	2.374
61 Toluene	91	14.379	14.379	(0.881)	439800	2.00000	2.216
62 1,1,2-Trichloroethane	97	14.449	14.449	(0.885)	161817	2.00000	2.274
63 2-Hexanone	58	14.798	14.798	(0.906)	189518	2.00000	2.378
64 Octane	85	15.030	15.030	(0.921)	147853	2.00000	2.308

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg286.d
Report Date: 29-Jul-2010 09:22

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
65 Dibromochloromethane	129	15.148	15.148	(0.928)	329359	2.00000	2.379
66 1,2-Dibromoethane	107	15.444	15.444	(0.946)	269209	2.00000	2.244
67 Tetrachloroethene	129	15.508	15.508	(0.950)	186028	2.00000	2.243
68 Chlorobenzene	112	16.374	16.374	(1.003)	360274	2.00000	2.223
69 Ethylbenzene	91	16.649	16.649	(1.020)	512857	2.00000	2.254
70 m&p-Xylene	91	16.805	16.805	(1.029)	781334	4.00000	4.540
M 178 Xylene (total)	100				1178972	6.00000	6.761
71 Nonane	57	17.192	17.192	(1.053)	424706	2.00000	2.327
72 Bromoform	173	17.267	17.267	(1.058)	260600	2.00000	2.458
73 Styrene	104	17.267	17.267	(1.058)	283476	2.00000	2.391
74 o-Xylene	91	17.332	17.332	(1.062)	397638	2.00000	2.221
75 1,1,2,2-Tetrachloroethane	83	17.649	17.649	(1.081)	316773	2.00000	2.281
76 1,2,3-Trichloropropane	110	17.805	17.805	(1.091)	76400	2.00000	2.305
77 Cumene	105	17.897	17.897	(1.096)	496080	2.00000	2.197
78 n-Propylbenzene	120	18.413	18.413	(1.128)	136903	2.00000	2.299
79 2-chlorotoluene	126	18.462	18.462	(1.131)	146929	2.00000	2.305
80 4-Ethyltoluene	105	18.553	18.553	(1.136)	499090	2.00000	2.333
81 1,3,5-Trimethylbenzene	120	18.618	18.618	(1.140)	197765	2.00000	2.311
82 Alpha-Methylstyrene	118	18.844	18.844	(1.154)	205522	2.00000	2.344
83 Decane	57	18.876	18.876	(1.156)	444378	2.00000	2.326
85 tert-butylbenzene	119	19.032	19.032	(1.166)	424119	2.00000	2.285
84 1,2,4-Trimethylbenzene	105	19.043	19.043	(1.166)	394396	2.00000	2.316
86 sec-butylbenzene	105	19.290	19.290	(1.182)	575382	2.00000	2.325
87 1,3-Dichlorobenzene	146	19.312	19.312	(1.183)	312324	2.00000	2.274
88 Benzyl Chloride	91	19.382	19.382	(1.187)	397565	2.00000	2.442
89 1,4-Dichlorobenzene	146	19.398	19.398	(1.188)	306736	2.00000	2.277
90 p-Cymene	119	19.441	19.441	(1.191)	473519	2.00000	2.342
91 1,2-Dichlorobenzene	146	19.747	19.747	(1.210)	276272	2.00000	2.254
92 n-butylbenzene	91	19.860	19.860	(1.216)	478698	2.00000	2.384
93 Undecane	57	20.140	20.140	(1.234)	429073	2.00000	2.672
94 Dodecane	57	21.216	21.216	(1.300)	478981	2.00000	2.736
95 1,2,4-Trichlorobenzene	180	21.469	21.469	(1.315)	196943	2.00000	2.454
96 Napthalene	128	21.614	21.614	(1.324)	438993	2.00000	2.531
97 Hexachlorobutadiene	225	21.808	21.808	(1.336)	136049	2.00000	2.340
98 1,2,3-trichlorobenzene	180	21.883	21.883	(1.340)	163884	2.00000	2.508

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg286.d
Date : 28-JUL-2010 17:13
Client ID: STD 2.0
Sample Info: ICAL6,,1,6,,STD 2.0
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 7126
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J072810I.b/jicg287.d
Report Date: 29-Jul-2010 09:23

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J072810I.b/jicg287.d
Lab Smp Id: ICAL7 Client Smp ID: STD 4
Inj Date : 28-JUL-2010 18:06
Operator : 7126 Inst ID: mj.i
Smp Info : ICAL7,,1,7,,STD 4
Misc Info : J072810I,TO15,1-all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Meth Date : 29-Jul-2010 09:22 tajh Quant Type: ISTD
Cal Date : 28-JUL-2010 18:06 Cal File: jicg287.d
Als bottle: 6 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-all.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

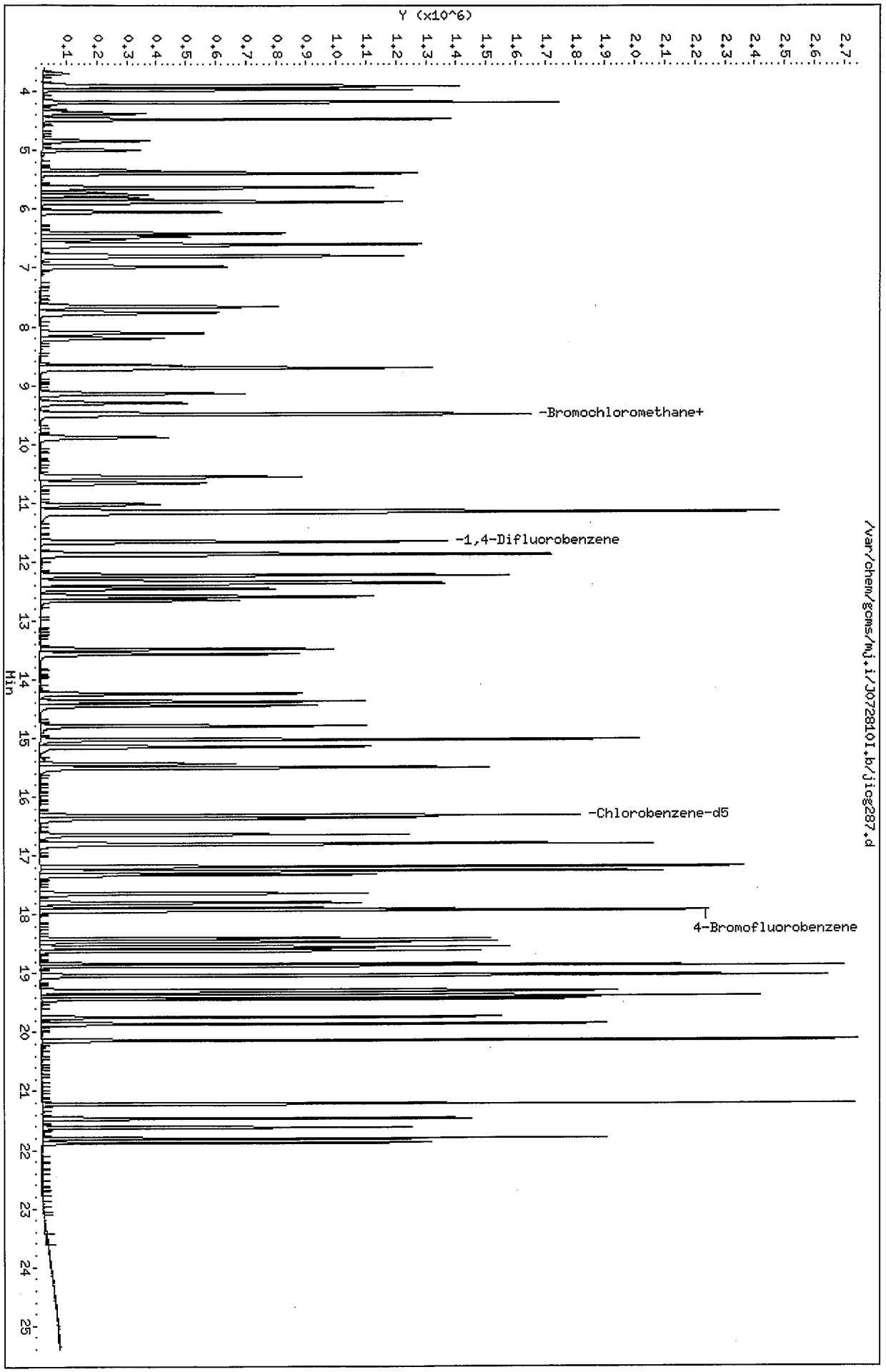
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
*	1 Bromochloromethane	128	9.494	9.494	(1.000)	263385	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.662	11.662	(1.000)	1165388	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.326	16.326	(1.000)	1053163	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.934	17.934	(1.099)	788281	4.00000	3.944
	7 Chlorodifluoromethane	67	3.899	3.899	(0.411)	122712	4.00000	3.684
	9 Propene	41	3.910	3.910	(0.412)	456554	4.00000	3.376
	8 Dichlorodifluoromethane	85	3.969	3.969	(0.418)	1043336	4.00000	3.648
	10 Chloromethane	52	4.174	4.174	(0.440)	135083	4.00000	3.856
	11 1,2-Dichlorotetrafluoroethane	135	4.179	4.179	(0.440)	496086	4.00000	3.358
	12 Methanol	31	4.303	4.303	(0.453)	75153	4.00000	3.831
	13 Vinyl Chloride	62	4.373	4.373	(0.461)	375364	4.00000	3.778
	14 n-Butane	43	4.469	4.469	(0.471)	594525	4.00000	3.880
	15 1,3-Butadiene	54	4.469	4.469	(0.471)	317989	4.00000	3.715
	16 Bromomethane	94	4.835	4.835	(0.509)	268462	4.00000	3.459
	17 Chloroethane	64	4.997	4.997	(0.526)	190470	4.00000	3.729

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg287.d
Report Date: 29-Jul-2010 09:23

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
18 Vinyl Bromide	106	5.341	5.341	(0.563)	330904	4.00000	3.726
19 2-methyl butane	43	5.395	5.395	(0.568)	663944	4.00000	3.559
20 Trichlorofluoromethane	101	5.637	5.637	(0.594)	937046	4.00000	3.674
21 Acrolein	56	5.642	5.642	(0.594)	101523	4.00000	3.253
22 Acetonitrile	40	5.712	5.712	(0.602)	145432	4.00000	3.242
23 Acetone	43	5.760	5.760	(0.607)	540716	4.00000	3.353
24 Pentane	72	5.884	5.884	(0.620)	53035	4.00000	3.853
25 Isopropyl Alcohol	45	5.825	5.825	(0.614)	534730	4.00000	3.662
26 Ethyl Ether	31	6.051	6.051	(0.637)	448025	4.00000	3.257
27 1,1-Dichloroethene	96	6.417	6.417	(0.676)	324469	4.00000	3.731
29 Acrylonitrile	53	6.519	6.519	(0.687)	250921	4.00000	3.316
28 tert-butanol	59	6.471	6.471	(0.682)	601365	4.00000	3.803
30 1,1,2-Trichlorotrifluoroethane	101	6.605	6.605	(0.696)	684708	4.00000	3.682
31 Methylene Chloride	84	6.793	6.793	(0.716)	293974	4.00000	3.430
32 3-Chloropropene	39	6.815	6.815	(0.718)	430367	4.00000	3.538
33 Carbon Disulfide	76	6.982	6.982	(0.735)	970371	4.00000	3.735
34 trans-1,2-Dichloroethene	96	7.665	7.665	(0.807)	324517	4.00000	3.704
35 Methyl-t-Butyl Ether	73	7.772	7.772	(0.819)	612170	4.00000	3.482
36 1,1-Dichloroethane	63	8.111	8.111	(0.854)	736925	4.00000	3.521
37 Vinyl Acetate	43	8.203	8.203	(0.864)	835650	4.00000	3.328
38 Hexane	56	8.714	8.714	(0.918)	382361	4.00000	3.635
39 2-Butanone	72	8.665	8.665	(0.913)	103549	4.00000	3.463
40 cis 1,2-Dichloroethene	96	9.144	9.144	(0.963)	323406	4.00000	3.606
41 Ethyl acetate	43	9.300	9.300	(0.980)	771393	4.00000	3.551
42 Chloroform	83	9.499	9.499	(1.001)	651884	4.00000	3.409
43 Tetrahydrofuran	42	9.887	9.887	(1.041)	403109	4.00000	3.366
44 1,1,1-Trichloroethane	97	10.564	10.564	(1.113)	710215	4.00000	3.565
45 1,2-Dichloroethane	62	10.667	10.667	(0.915)	578578	4.00000	3.535
46 Cyclohexane	69	11.151	11.151	(0.956)	153081	4.00000	3.685
48 Benzene	78	11.145	11.145	(0.956)	813680	4.00000	3.303
47 1-Butanol	31	11.027	11.027	(0.946)	156327	4.00000	3.779
49 Carbon Tetrachloride	117	11.172	11.172	(0.958)	735336	4.00000	3.809
50 2,2,4-trimethylpentane	57	11.877	11.877	(1.018)	1950571	4.00000	3.484
51 Heptane	43	12.232	12.232	(1.049)	890633	4.00000	3.360
52 1,2-Dichloropropane	63	12.334	12.334	(1.058)	359335	4.00000	3.379
53 Trichloroethene	130	12.366	12.366	(1.060)	428806	4.00000	3.580
54 Dibromomethane	93	12.458	12.458	(1.068)	392828	4.00000	3.468
55 Bromodichloromethane	83	12.592	12.592	(1.080)	676042	4.00000	3.584
56 1,4-dioxane	88	12.576	12.576	(1.078)	91306	4.00000	4.211
57 methyl methacrylate	41	12.652	12.652	(1.085)	460901	4.00000	3.632
58 4-Methyl-2-pentanone	43	13.485	13.485	(1.156)	918331	4.00000	3.855
59 cis-1,3-Dichloropropene	75	13.566	13.566	(1.163)	466793	4.00000	3.585
60 trans-1,3-Dichloropropene	75	14.244	14.244	(0.872)	462130	4.00000	3.596
61 Toluene	91	14.378	14.378	(0.881)	831007	4.00000	3.350
62 1,1,2-Trichloroethane	97	14.448	14.448	(0.885)	305654	4.00000	3.436
63 2-Hexanone	58	14.793	14.793	(0.906)	398813	4.00000	4.005
64 Octane	85	15.029	15.029	(0.921)	284071	4.00000	3.548

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg287.d
Report Date: 29-Jul-2010 09:23

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
65 Dibromochloromethane	129	15.148	15.148	(0.928)	634421	4.00000	3.667
66 1,2-Dibromoethane	107	15.438	15.438	(0.946)	513751	4.00000	3.427
67 Tetrachloroethene	129	15.508	15.508	(0.950)	351517	4.00000	3.392
68 Chlorobenzene	112	16.374	16.374	(1.003)	681951	4.00000	3.367
69 Ethylbenzene	91	16.649	16.649	(1.020)	970184	4.00000	3.411
70 m&p-Xylene	91	16.805	16.805	(1.029)	1467337	8.00000	6.822
M 178 Xylene (total)	100				2216665	12.0000	10.17
71 Nonane	57	17.192	17.192	(1.053)	821846	4.00000	3.603
72 Bromoform	173	17.267	17.267	(1.058)	514982	4.00000	3.887
73 Styrene	104	17.267	17.267	(1.058)	552806	4.00000	3.731
74 o-Xylene	91	17.332	17.332	(1.062)	749328	4.00000	3.350
75 1,1,2,2-Tetrachloroethane	83	17.644	17.644	(1.081)	613554	4.00000	3.536
76 1,2,3-Trichloropropane	110	17.805	17.805	(1.091)	149755	4.00000	3.615
77 Cumene	105	17.897	17.897	(1.096)	947455	4.00000	3.357
78 n-Propylbenzene	120	18.413	18.413	(1.128)	271139	4.00000	3.643
79 2-chlorotoluene	126	18.461	18.461	(1.131)	285004	4.00000	3.578
80 4-Ethyltoluene	105	18.553	18.553	(1.136)	975001	4.00000	3.647
81 1,3,5-Trimethylbenzene	120	18.623	18.623	(1.141)	392494	4.00000	3.670
82 Alpha-Methylstyrene	118	18.843	18.843	(1.154)	421552	4.00000	3.847
83 Decane	57	18.876	18.876	(1.156)	881620	4.00000	3.693
85 tert-butylbenzene	119	19.032	19.032	(1.166)	828866	4.00000	3.573
84 1,2,4-Trimethylbenzene	105	19.042	19.042	(1.166)	773948	4.00000	3.637
86 sec-butylbenzene	105	19.290	19.290	(1.182)	1109500	4.00000	3.588
87 1,3-Dichlorobenzene	146	19.317	19.317	(1.183)	613214	4.00000	3.572
88 Benzyl Chloride	91	19.381	19.381	(1.187)	815043	4.00000	4.006
89 1,4-Dichlorobenzene	146	19.397	19.397	(1.188)	601839	4.00000	3.576
90 p-Cymene	119	19.440	19.440	(1.191)	933797	4.00000	3.696
91 1,2-Dichlorobenzene	146	19.747	19.747	(1.210)	543813	4.00000	3.550
92 n-butylbenzene	91	19.860	19.860	(1.216)	942100	4.00000	3.754
93 Undecane	57	20.140	20.140	(1.234)	845285	4.00000	4.212
94 Dodecane	57	21.221	21.221	(1.300)	895949	4.00000	4.096
95 1,2,4-Trichlorobenzene	180	21.469	21.469	(1.315)	391335	4.00000	3.902
96 Napthalene	128	21.619	21.619	(1.324)	872589	4.00000	4.026
97 Hexachlorobutadiene	225	21.807	21.807	(1.336)	268293	4.00000	3.692
98 1,2,3-trichlorobenzene	180	21.883	21.883	(1.340)	311944	4.00000	3.819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Instrument: mj.i
Operator: 7126
Column diameter: 0.32
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-1,4-Difluorobenzene
-Chlorobenzene-d5
4-Bromofluorobenzene
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Data File: /var/chem/gcms/mj.i/J072810I.b/jicg288.d
Report Date: 29-Jul-2010 09:23

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J072810I.b/jicg288.d
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Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-all.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

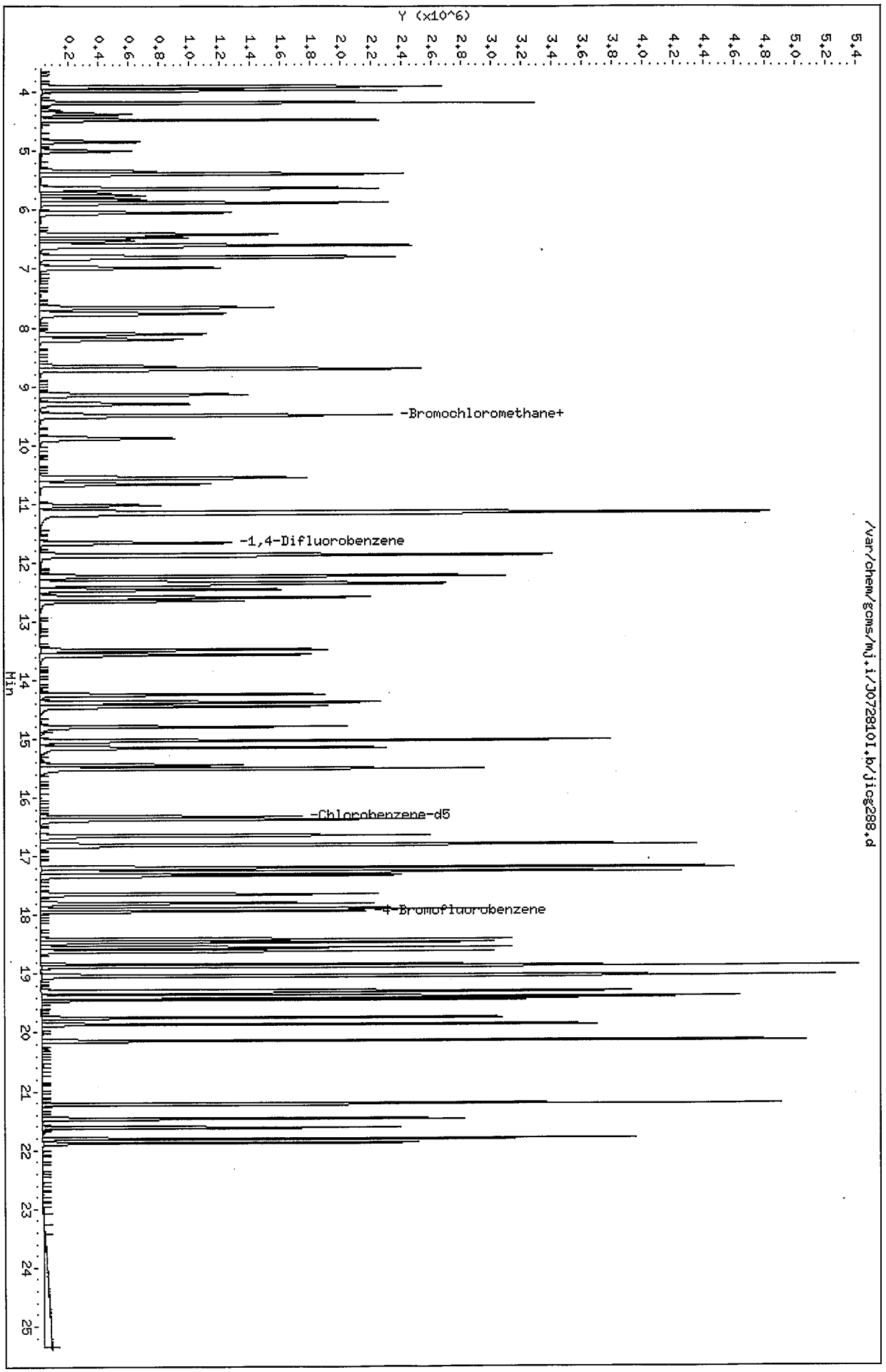
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
*	1 Bromochloromethane	128	9.495	9.495	(1.000)	249511	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.663	11.663	(1.000)	1089296	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.322	16.322	(1.000)	995138	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.936	17.936	(1.099)	746557	4.00000	3.952
	7 Chlorodifluoromethane	67	3.901	3.901	(0.411)	242645	8.00000	7.690
	9 Propene	41	3.912	3.912	(0.412)	887169	8.00000	6.925
	8 Dichlorodifluoromethane	85	3.971	3.971	(0.418)	1983863	8.00000	7.322
	10 Chloromethane	52	4.175	4.175	(0.440)	225233	8.00000	6.786
	11 1,2-Dichlorotetrafluoroethane	135	4.181	4.181	(0.440)	1009204	8.00000	7.212
	12 Methanol	31	4.310	4.310	(0.454)	125649	8.00000	6.761
	13 Vinyl Chloride	62	4.369	4.369	(0.460)	669094	8.00000	7.110
	14 n-Butane	43	4.471	4.471	(0.471)	974222	8.00000	6.712
	15 1,3-Butadiene	54	4.471	4.471	(0.471)	542378	8.00000	6.688
	16 Bromomethane	94	4.837	4.837	(0.509)	492234	8.00000	6.695
	17 Chloroethane	64	4.998	4.998	(0.526)	356901	8.00000	7.376

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg288.d
Report Date: 29-Jul-2010 09:23

						AMOUNTS	
	QUANT SIG					CAL-AMT	ON-COL
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ppb(v/v))	(ppb(v/v))
18 Vinyl Bromide	106	5.337	5.337	(0.562)	640790	8.00000	7.617
19 2-methyl butane	43	5.391	5.391	(0.568)	1262555	8.00000	7.145
20 Trichlorofluoromethane	101	5.638	5.638	(0.594)	1828669	8.00000	7.568
21 Acrolein	56	5.638	5.638	(0.594)	238084	8.00000	8.053
22 Acetonitrile	40	5.714	5.714	(0.602)	332562	8.00000	7.826
23 Acetone	43	5.757	5.757	(0.606)	1047086	8.00000	6.853
24 Pentane	72	5.880	5.880	(0.619)	99967	8.00000	7.666
25 Isopropyl Alcohol	45	5.827	5.827	(0.614)	1038177	8.00000	7.505
26 Ethyl Ether	31	6.047	6.047	(0.637)	933934	8.00000	7.168
27 1,1-Dichloroethene	96	6.418	6.418	(0.676)	624183	8.00000	7.576
29 Acrylonitrile	53	6.521	6.521	(0.687)	577902	8.00000	8.062
28 tert-butanol	59	6.467	6.467	(0.681)	1160924	8.00000	7.749
30 1,1,2-Trichlorotrifluoroethane	101	6.607	6.607	(0.696)	1334235	8.00000	7.574
31 Methylene Chloride	84	6.795	6.795	(0.716)	556465	8.00000	6.854
32 3-Chloropropene	39	6.811	6.811	(0.717)	870358	8.00000	7.553
33 Carbon Disulfide	76	6.978	6.978	(0.735)	1866349	8.00000	7.584
34 trans-1,2-Dichloroethene	96	7.661	7.661	(0.807)	637640	8.00000	7.683
35 Methyl-t-Butyl Ether	73	7.763	7.763	(0.818)	1263662	8.00000	7.586
36 1,1-Dichloroethane	63	8.113	8.113	(0.854)	1476491	8.00000	7.446
37 Vinyl Acetate	43	8.204	8.204	(0.864)	1928209	8.00000	8.105
38 Hexane	56	8.710	8.710	(0.917)	751826	8.00000	7.545
39 2-Butanone	72	8.662	8.662	(0.912)	203858	8.00000	7.196
40 cis 1,2-Dichloroethene	96	9.146	9.146	(0.963)	651566	8.00000	7.668
41 Ethyl acetate	43	9.302	9.302	(0.980)	1556800	8.00000	7.565
42 Chloroform	83	9.501	9.501	(1.001)	1328375	8.00000	7.334
43 Tetrahydrofuran	42	9.883	9.883	(1.041)	859325	8.00000	7.574
44 1,1,1-Trichloroethane	97	10.561	10.561	(1.112)	1436357	8.00000	7.612
45 1,2-Dichloroethane	62	10.663	10.663	(0.914)	1180046	8.00000	7.714
46 Cyclohexane	69	11.147	11.147	(0.956)	293657	8.00000	7.563
48 Benzene	78	11.147	11.147	(0.956)	1602756	8.00000	6.960
47 1-Butanol	31	11.023	11.023	(0.945)	314159	8.00000	8.126
49 Carbon Tetrachloride	117	11.168	11.168	(0.958)	1573841	8.00000	8.722
50 2,2,4-trimethylpentane	57	11.873	11.873	(1.018)	3878552	8.00000	7.411
51 Heptane	43	12.234	12.234	(1.049)	1776596	8.00000	7.171
52 1,2-Dichloropropane	63	12.336	12.336	(1.058)	750443	8.00000	7.550
53 Trichloroethene	130	12.368	12.368	(1.060)	846359	8.00000	7.559
54 Dibromomethane	93	12.460	12.460	(1.068)	790481	8.00000	7.466
55 Bromodichloromethane	83	12.594	12.594	(1.080)	1362313	8.00000	7.726
56 1,4-dioxane	88	12.573	12.573	(1.078)	175965	8.00000	8.683
57 methyl methacrylate	41	12.653	12.653	(1.085)	943127	8.00000	7.952
58 4-Methyl-2-pentanone	43	13.482	13.482	(1.156)	1761094	8.00000	7.910
59 cis-1,3-Dichloropropene	75	13.568	13.568	(1.163)	969687	8.00000	7.968
60 trans-1,3-Dichloropropene	75	14.246	14.246	(0.873)	978284	8.00000	8.057
61 Toluene	91	14.380	14.380	(0.881)	1738162	8.00000	7.417
62 1,1,2-Trichloroethane	97	14.450	14.450	(0.885)	630645	8.00000	7.504
63 2-Hexanone	58	14.794	14.794	(0.906)	761666	8.00000	8.095
64 Octane	85	15.031	15.031	(0.921)	555135	8.00000	7.338

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg288.d
Report Date: 29-Jul-2010 09:23

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
65 Dibromochloromethane	129	15.149	15.149	(0.928)	1326151	8.00000	8.112
66 1,2-Dibromoethane	107	15.440	15.440	(0.946)	1049124	8.00000	7.406
67 Tetrachloroethene	129	15.504	15.504	(0.950)	692413	8.00000	7.072
68 Chlorobenzene	112	16.370	16.370	(1.003)	1392554	8.00000	7.277
69 Ethylbenzene	91	16.650	16.650	(1.020)	2068342	8.00000	7.697
70 m&p-Xylene	91	16.806	16.806	(1.030)	3112149	16.0000	15.31
M 178 Xylene (total)	100				4725203	24.0000	22.94
71 Nonane	57	17.193	17.193	(1.053)	1642453	8.00000	7.620
72 Bromoform	173	17.269	17.269	(1.058)	1107554	8.00000	8.848
73 Styrene	104	17.269	17.269	(1.058)	1166117	8.00000	8.329
74 o-Xylene	91	17.328	17.328	(1.062)	1613054	8.00000	7.631
75 1,1,2,2-Tetrachloroethane	83	17.645	17.645	(1.081)	1223404	8.00000	7.461
76 1,2,3-Trichloropropane	110	17.801	17.801	(1.091)	308333	8.00000	7.877
77 Cumene	105	17.898	17.898	(1.097)	2028960	8.00000	7.608
78 n-Propylbenzene	120	18.409	18.409	(1.128)	566792	8.00000	8.060
79 2-chlorotoluene	126	18.463	18.463	(1.131)	577158	8.00000	7.668
80 4-Ethyltoluene	105	18.549	18.549	(1.136)	1979956	8.00000	7.839
81 1,3,5-Trimethylbenzene	120	18.619	18.619	(1.141)	799020	8.00000	7.906
82 Alpha-Methylstyrene	118	18.840	18.840	(1.154)	882777	8.00000	8.526
83 Decane	57	18.872	18.872	(1.156)	1848033	8.00000	8.193
85 tert-butylbenzene	119	19.028	19.028	(1.166)	1710795	8.00000	7.804
84 1,2,4-Trimethylbenzene	105	19.044	19.044	(1.167)	1547819	8.00000	7.699
86 sec-butylbenzene	105	19.291	19.291	(1.182)	2234234	8.00000	7.646
87 1,3-Dichlorobenzene	146	19.313	19.313	(1.183)	1229540	8.00000	7.581
88 Benzyl Chloride	91	19.383	19.383	(1.188)	1581976	8.00000	8.230
89 1,4-Dichlorobenzene	146	19.399	19.399	(1.189)	1204392	8.00000	7.573
90 p-Cymene	119	19.442	19.442	(1.191)	1843588	8.00000	7.722
91 1,2-Dichlorobenzene	146	19.749	19.749	(1.210)	1104488	8.00000	7.630
92 n-butylbenzene	91	19.862	19.862	(1.217)	1834442	8.00000	7.735
93 Undecane	57	20.141	20.141	(1.234)	1588779	8.00000	8.378
94 Dodecane	57	21.217	21.217	(1.300)	1607640	8.00000	7.778
95 1,2,4-Trichlorobenzene	180	21.465	21.465	(1.315)	776008	8.00000	8.189
96 Napthalene	128	21.615	21.615	(1.324)	1644174	8.00000	8.028
97 Hexachlorobutadiene	225	21.809	21.809	(1.336)	576156	8.00000	8.392
98 1,2,3-trichlorobenzene	180	21.879	21.879	(1.340)	608204	8.00000	7.881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Date : 28-JUL-2010 18:59
Client ID: STD 8
Sample Info: ICAL8,,1.8,,STD 8
Purge Volume: 200.0
Column phase: Rtx-5
Instrument: mj.i
Operator: 7126
Column diameter: 0.32
Y (x10^6)
-Bromochloromethane+
-1,4-Difluorobenzene
-Chlorobenzene-d5
-4-Bromofluorobenzene
/var/chem/gcms/mj.i/J072810I.b/jicg288.d
Min

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg289.d
Report Date: 29-Jul-2010 09:23

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J072810I.b/jicg289.d
Lab Smp Id: ICAL9 Client Smp ID: STD 16
Inj Date : 28-JUL-2010 19:50
Operator : 7126 Inst ID: mj.i
Smp Info : ICAL9,,1,9,,STD 16
Misc Info : J072810I,TO15,1-all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Meth Date : 29-Jul-2010 09:23 tajh Quant Type: ISTD
Cal Date : 28-JUL-2010 19:50 Cal File: jicg289.d
Als bottle: 8 Calibration Sample, Level: 9
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-all.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
*	1 Bromochloromethane	128	9.500	9.500	(1.000)	232587	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.668	11.668	(1.000)	1048120	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.327	16.327	(1.000)	932877	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.935	17.935	(1.099)	717728	4.00000	4.054
	7 Chlorodifluoromethane	67	3.900	3.900	(0.411)	485534	16.0000	16.51(A)
	9 Propene	41	3.911	3.911	(0.412)	1671013	16.0000	13.99
	8 Dichlorodifluoromethane	85	3.970	3.970	(0.418)	3829918	16.0000	15.16
	10 Chloromethane	52	4.174	4.174	(0.439)	437770	16.0000	14.15
	11 1,2-Dichlorotetrafluoroethane	135	4.180	4.180	(0.440)	2180655	16.0000	16.72(A)
	12 Methanol	31	4.309	4.309	(0.454)	231752	16.0000	13.38
	13 Vinyl Chloride	62	4.374	4.374	(0.460)	1397067	16.0000	15.92
	14 n-Butane	43	4.470	4.470	(0.471)	1946000	16.0000	14.38
	15 1,3-Butadiene	54	4.470	4.470	(0.471)	1097698	16.0000	14.52
	16 Bromomethane	94	4.842	4.842	(0.510)	1046319	16.0000	15.27
	17 Chloroethane	64	4.998	4.998	(0.526)	736709	16.0000	16.33(A)

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg289.d
Report Date: 29-Jul-2010 09:23

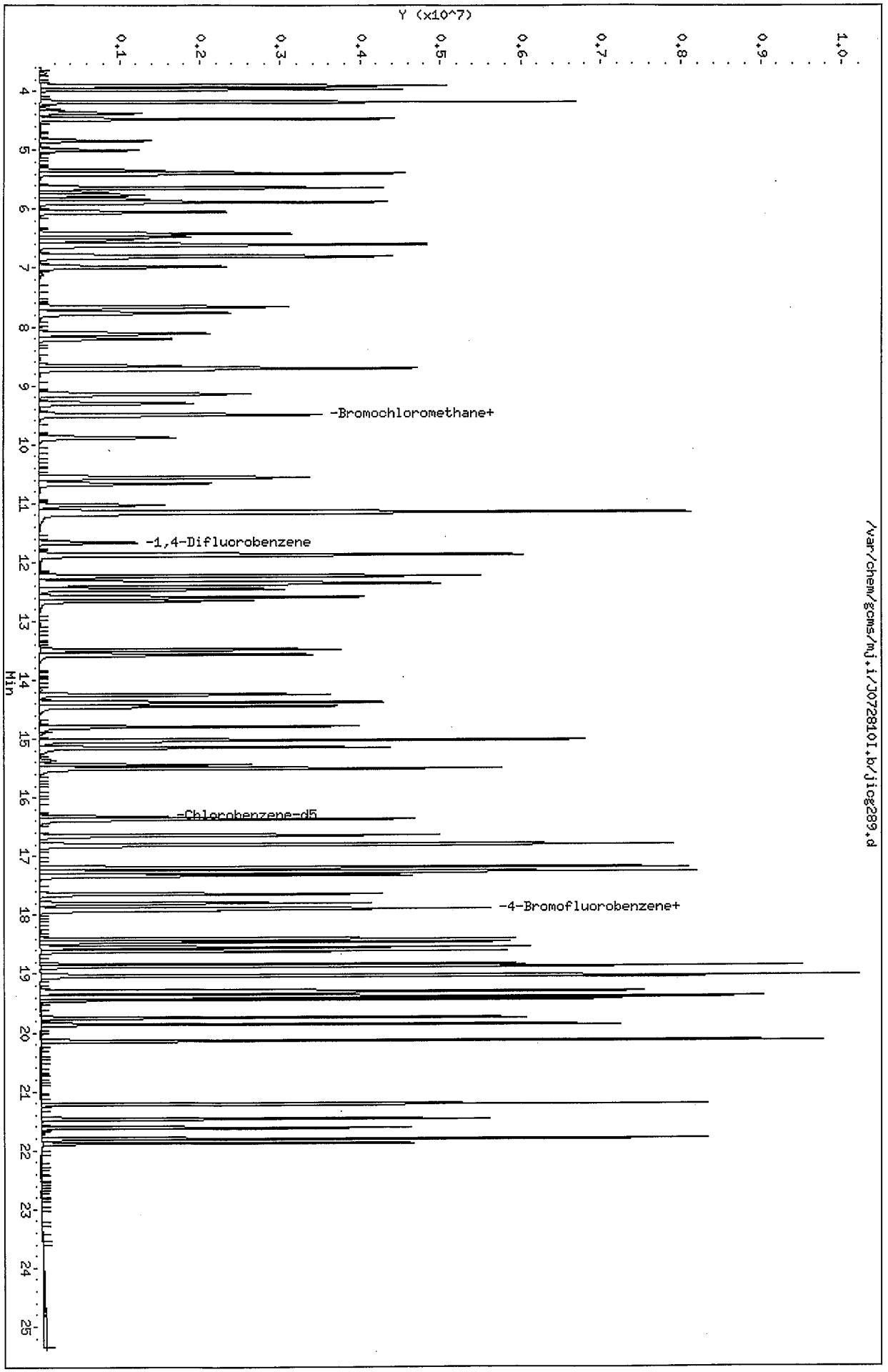
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
18 Vinyl Bromide	106	5.342	5.342	(0.562)	1289880	16.0000	16.45(A)
19 2-methyl butane	43	5.396	5.396	(0.568)	2415942	16.0000	14.67
20 Trichlorofluoromethane	101	5.643	5.643	(0.594)	3633665	16.0000	16.13(A)
21 Acrolein	56	5.643	5.643	(0.594)	431236	16.0000	15.65
22 Acetonitrile	40	5.718	5.718	(0.602)	588633	16.0000	14.86
23 Acetone	43	5.761	5.761	(0.606)	1950529	16.0000	13.70
24 Pentane	72	5.885	5.885	(0.619)	198094	16.0000	16.30(A)
25 Isopropyl Alcohol	45	5.831	5.831	(0.614)	2006562	16.0000	15.56
26 Ethyl Ether	31	6.047	6.047	(0.636)	1708653	16.0000	14.07
27 1,1-Dichloroethene	96	6.423	6.423	(0.676)	1269029	16.0000	16.52(A)
29 Acrylonitrile	53	6.525	6.525	(0.687)	1069039	16.0000	16.00
28 tert-butanol	59	6.477	6.477	(0.682)	2360885	16.0000	16.91(A)
30 1,1,2-Trichlorotrifluoroethane	101	6.606	6.606	(0.695)	2633324	16.0000	16.04(A)
31 Methylene Chloride	84	6.800	6.800	(0.716)	1091559	16.0000	14.42
32 3-Chloropropene	39	6.816	6.816	(0.717)	1613475	16.0000	15.02
33 Carbon Disulfide	76	6.983	6.983	(0.735)	3650996	16.0000	15.91
34 trans-1,2-Dichloroethene	96	7.666	7.666	(0.807)	1274109	16.0000	16.47(A)
35 Methyl-t-Butyl Ether	73	7.768	7.768	(0.818)	2481969	16.0000	15.98
36 1,1-Dichloroethane	63	8.118	8.118	(0.854)	2822766	16.0000	15.27
37 Vinyl Acetate	43	8.209	8.209	(0.864)	3422777	16.0000	15.43
38 Hexane	56	8.715	8.715	(0.917)	1476697	16.0000	15.90
39 2-Butanone	72	8.661	8.661	(0.912)	408664	16.0000	15.48
40 cis 1,2-Dichloroethene	96	9.150	9.150	(0.963)	1262264	16.0000	15.94
41 Ethyl acetate	43	9.301	9.301	(0.979)	3012453	16.0000	15.70
42 Chloroform	83	9.506	9.506	(1.001)	2503621	16.0000	14.83
43 Tetrahydrofuran	42	9.887	9.887	(1.041)	1632213	16.0000	15.43
44 1,1,1-Trichloroethane	97	10.565	10.565	(1.112)	2741737	16.0000	15.59
45 1,2-Dichloroethane	62	10.667	10.667	(0.914)	2218697	16.0000	15.07
46 Cyclohexane	69	11.152	11.152	(0.956)	550286	16.0000	14.73
48 Benzene	78	11.152	11.152	(0.956)	2929654	16.0000	13.22
47 1-Butanol	31	11.028	11.028	(0.945)	600196	16.0000	16.13(A)
49 Carbon Tetrachloride	117	11.173	11.173	(0.958)	2297823	16.0000	13.23
50 2,2,4-trimethylpentane	57	11.878	11.878	(1.018)	7046900	16.0000	13.99
51 Heptane	43	12.238	12.238	(1.049)	3175131	16.0000	13.32
52 1,2-Dichloropropane	63	12.341	12.341	(1.058)	1441697	16.0000	15.07
53 Trichloroethene	130	12.373	12.373	(1.060)	1609693	16.0000	14.94
54 Dibromomethane	93	12.464	12.464	(1.068)	1489463	16.0000	14.62
55 Bromodichloromethane	83	12.599	12.599	(1.080)	2574364	16.0000	15.17
56 1,4-dioxane	88	12.577	12.577	(1.078)	346089	16.0000	17.75(A)
57 methyl methacrylate	41	12.653	12.653	(1.084)	1853192	16.0000	16.24(A)
58 4-Methyl-2-pentanone	43	13.486	13.486	(1.156)	3485084	16.0000	16.27(A)
59 cis-1,3-Dichloropropene	75	13.572	13.572	(1.163)	1862421	16.0000	15.90
60 trans-1,3-Dichloropropene	75	14.250	14.250	(0.873)	1941816	16.0000	17.06(A)
61 Toluene	91	14.385	14.385	(0.881)	3366095	16.0000	15.32
62 1,1,2-Trichloroethane	97	14.449	14.449	(0.885)	1242227	16.0000	15.77
63 2-Hexanone	58	14.794	14.794	(0.906)	1596174	16.0000	18.10(A)
64 Octane	85	15.030	15.030	(0.921)	1057363	16.0000	14.91

Data File: /var/chem/gcms/mj.i/J072810I.b/jicg289.d
Report Date: 29-Jul-2010 09:23

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
65 Dibromochloromethane	129	15.154	15.154	(0.928)	2598950	16.0000	16.96(A)
66 1,2-Dibromoethane	107	15.444	15.444	(0.946)	2063182	16.0000	15.54
67 Tetrachloroethene	129	15.509	15.509	(0.950)	1345194	16.0000	14.66
68 Chlorobenzene	112	16.375	16.375	(1.003)	2723909	16.0000	15.18
69 Ethylbenzene	91	16.649	16.649	(1.020)	3951242	16.0000	15.68
70 m&p-Xylene	91	16.811	16.811	(1.030)	5817552	32.0000	30.54
M 178 Xylene (total)	100				8876603	48.0000	45.97
71 Nonane	57	17.193	17.193	(1.053)	3138386	16.0000	15.53
72 Bromoform	173	17.268	17.268	(1.058)	2237899	16.0000	19.07(A)
73 Styrene	104	17.268	17.268	(1.058)	2279230	16.0000	17.37(A)
74 o-Xylene	91	17.333	17.333	(1.062)	3059051	16.0000	15.44
75 1,1,2,2-Tetrachloroethane	83	17.645	17.645	(1.081)	2345393	16.0000	15.26
76 1,2,3-Trichloropropane	110	17.806	17.806	(1.091)	614551	16.0000	16.75(A)
77 Cumene	105	17.903	17.903	(1.097)	3881005	16.0000	15.52
78 n-Propylbenzene	120	18.414	18.414	(1.128)	1126916	16.0000	17.09(A)
79 2-chlorotoluene	126	18.462	18.462	(1.131)	1145064	16.0000	16.23(A)
80 4-Ethyltoluene	105	18.554	18.554	(1.136)	3818889	16.0000	16.13(A)
81 1,3,5-Trimethylbenzene	120	18.618	18.618	(1.140)	1595380	16.0000	16.84(A)
82 Alpha-Methylstyrene	118	18.844	18.844	(1.154)	1740558	16.0000	17.93(A)
83 Decane	57	18.877	18.877	(1.156)	3380480	16.0000	15.99
85 tert-butylbenzene	119	19.033	19.033	(1.166)	3391699	16.0000	16.50(A)
84 1,2,4-Trimethylbenzene	105	19.043	19.043	(1.166)	3014864	16.0000	16.00
86 sec-butylbenzene	105	19.291	19.291	(1.182)	4268024	16.0000	15.58
87 1,3-Dichlorobenzene	146	19.318	19.318	(1.183)	2472358	16.0000	16.26(A)
88 Benzyl Chloride	91	19.382	19.382	(1.187)	3147103	16.0000	17.46(A)
89 1,4-Dichlorobenzene	146	19.398	19.398	(1.188)	2426710	16.0000	16.28(A)
90 p-Cymene	119	19.441	19.441	(1.191)	3661235	16.0000	16.36(A)
91 1,2-Dichlorobenzene	146	19.748	19.748	(1.210)	2183691	16.0000	16.09(A)
92 n-butylbenzene	91	19.861	19.861	(1.216)	3547359	16.0000	15.96
93 Undecane	57	20.141	20.141	(1.234)	3197994	16.0000	17.99(A)
94 Dodecane	57	21.217	21.217	(1.300)	2901129	16.0000	14.97
95 1,2,4-Trichlorobenzene	180	21.469	21.469	(1.315)	1589116	16.0000	17.89(A)
96 Napthalene	128	21.615	21.615	(1.324)	3257275	16.0000	16.96(A)
97 Hexachlorobutadiene	225	21.808	21.808	(1.336)	1287647	16.0000	20.01(A)
98 1,2,3-trichlorobenzene	180	21.884	21.884	(1.340)	1173598	16.0000	16.22(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.


Data File: /var/chem/gcms/mj.i/J072810I.b/jicg289.d
Date : 28-JUL-2010 19:50
Client ID: STD 16
Sample Info: ICAL9,1,9,STD 16
Purge Volume: 200.0
Column phase: Rtx-5
Instrument: mj.i
Operator: 7126
Column diameter: 0.32
Y (x10^7)
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
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25
Min
-Bromochloromethane+
-1,4-Difluorobenzene
-Chlorobenzene-d5
-4-Bromofluorobenzene+
/var/chem/gcms/mj.i/J072810I.b/jicg289.d

Data File: /var/chem/gcms/mj.i/J072810I.b/jicvg28.d
Report Date: 29-Jul-2010 09:30

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J072810I.b/jicvg28.d
Lab Smp Id: ICV Client Smp ID: LCS
Inj Date : 28-JUL-2010 21:31
Operator : 7126 Inst ID: mj.i
Smp Info : ICV,,3,,,LCS
Misc Info : J07280I,TO15,1-all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Meth Date : 29-Jul-2010 09:30 tajh Quant Type: ISTD
Cal Date : 28-JUL-2010 12:39 Cal File: jicg281.d
Als bottle: 9 QC Sample: 2ND SOURCE
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-all.sub
Target Version: 3.50
Processing Host: qmidhp01

2nd Source 7/29/10

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
* 1 Bromochloromethane	128	9.497	9.489	(1.000)	263457	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.665	11.662	(1.000)	1199775	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.324	16.321	(1.000)	1085542	4.00000	4.000
$ 6 4-Bromofluorobenzene	95	17.932	17.935	(1.099)	805784	3.91087	9.777
7 Chlorodifluoromethane	67	3.897	3.900	(0.410)	120123	3.60537	9.013
9 Propene	41	3.913	3.916	(0.412)	476038	3.51922	8.798
8 Dichlorodifluoromethane	85	3.967	3.975	(0.418)	1062956	3.71552	9.289
10 Chloromethane	52	4.177	4.185	(0.440)	125416	3.57870	8.947
11 1,2-Dichlorotetrafluoroethane	135	4.182	4.185	(0.440)	501063	3.39112	8.478
12 Methanol	31	4.306	4.309	(0.453)	72163	3.67758	9.194
13 Vinyl Chloride	62	4.370	4.368	(0.460)	357610	3.59871	8.997
14 n-Butane	43	4.467	4.470	(0.470)	537143	3.50459	8.761
15 1,3-Butadiene	54	4.467	4.475	(0.470)	284813	3.32623	8.316
16 Bromomethane	94	4.838	4.836	(0.509)	267605	3.44708	8.618
17 Chloroethane	64	4.994	4.997	(0.526)	190734	3.73299	9.332

Data File: /var/chem/gcms/mj.i/J072810I.b/jicvg28.d
Report Date: 29-Jul-2010 09:30

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
18 Vinyl Bromide	106	5.339	5.336	(0.562)	318846	3.58941	8.974
19 2-methyl butane	43	5.393	5.395	(0.568)	668186	3.58125	8.953
20 Trichlorofluoromethane	101	5.640	5.643	(0.594)	959482	3.76072	9.402
21 Acrolein	56	5.640	5.637	(0.594)	121281	3.88531	9.713
22 Acetonitrile	40	5.710	5.718	(0.601)	144992	3.23142	8.078
23 Acetone	43	5.758	5.767	(0.606)	565307	3.50413	8.760
24 Pentane	72	5.882	5.885	(0.619)	53860	3.91152	9.779
25 Isopropyl Alcohol	45	5.823	5.842	(0.613)	466286	3.19233	7.981
26 Ethyl Ether	31	6.049	6.062	(0.637)	477668	3.47191	8.680
27 1,1-Dichloroethene	96	6.420	6.412	(0.676)	281502	3.23581	8.090
29 Acrylonitrile	53	6.522	6.530	(0.687)	249488	3.29609	8.240
28 tert-butanol	59	6.468	6.498	(0.681)	548283	3.46616	8.665
30 1,1,2-Trichlorotrifluoroethane	101	6.603	6.611	(0.695)	605279	3.25421	8.136
31 Methylene Chloride	84	6.797	6.794	(0.716)	259234	3.02395	7.560
32 3-Chloropropene	39	6.813	6.810	(0.717)	420580	3.45643	8.641
33 Carbon Disulfide	76	6.979	6.982	(0.735)	969973	3.73269	9.332
34 trans-1,2-Dichloroethene	96	7.663	7.665	(0.807)	331296	3.78068	9.452
35 Methyl-t-Butyl Ether	73	7.765	7.789	(0.818)	641336	3.60769	9.019
36 1,1-Dichloroethane	63	8.109	8.107	(0.854)	695825	3.32335	8.308
37 Vinyl Acetate	43	8.201	8.203	(0.863)	886849	3.53052	8.826
38 Hexane	56	8.712	8.709	(0.917)	380605	3.61754	9.044
39 2-Butanone	72	8.658	8.682	(0.912)	108562	3.62947	9.074
40 cis 1,2-Dichloroethene	96	9.147	9.139	(0.963)	299639	3.33964	8.349
41 Ethyl acetate	43	9.298	9.317	(0.979)	835436	3.84480	9.612
42 Chloroform	83	9.497	9.500	(1.000)	626213	3.27413	8.185
43 Tetrahydrofuran	42	9.884	9.914	(1.041)	427836	3.57135	8.928
44 1,1,1-Trichloroethane	97	10.562	10.554	(1.112)	680754	3.41658	8.541
45 1,2-Dichloroethane	62	10.664	10.667	(0.914)	559569	3.32124	8.303
46 Cyclohexane	69	11.149	11.146	(0.956)	155235	3.62989	9.075
48 Benzene	78	11.143	11.141	(0.955)	798560	3.14853	7.871
47 1-Butanol	31	11.025	11.055	(0.945)	143963	3.38073	8.452
49 Carbon Tetrachloride	117	11.170	11.162	(0.958)	709576	3.57028	8.926
50 2,2,4-trimethylpentane	57	11.875	11.872	(1.018)	1986631	3.44658	8.616
51 Heptane	43	12.230	12.227	(1.048)	926712	3.39617	8.490
52 1,2-Dichloropropane	63	12.337	12.335	(1.058)	368079	3.36215	8.405
53 Trichloroethene	130	12.370	12.362	(1.060)	416859	3.38015	8.450
54 Dibromomethane	93	12.456	12.453	(1.068)	404916	3.47245	8.681
55 Bromodichloromethane	83	12.590	12.588	(1.079)	684412	3.52419	8.810
56 1,4-dioxane	88	12.574	12.593	(1.078)	84304	3.77696	9.442
57 methyl methacrylate	41	12.649	12.652	(1.084)	508945	3.89601	9.740
58 4-Methyl-2-pentanone	43	13.483	13.497	(1.156)	962759	3.92582	9.814
59 cis-1,3-Dichloropropene	75	13.569	13.572	(1.163)	470706	3.51156	8.779
60 trans-1,3-Dichloropropene	75	14.247	14.239	(0.873)	472834	3.56986	8.925
61 Toluene	91	14.376	14.374	(0.881)	849463	3.32277	8.307
62 1,1,2-Trichloroethane	97	14.446	14.449	(0.885)	318377	3.47267	8.682
63 2-Hexanone	58	14.790	14.804	(0.906)	412062	4.01487	10.04
64 Octane	85	15.027	15.030	(0.921)	288382	3.49473	8.737

Data File: /var/chem/gcms/mj.i/J072810I.b/jicvg28.d
Report Date: 29-Jul-2010 09:30

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
65 Dibromochloromethane	129	15.151	15.148	(0.928)	650998	3.65040	9.126
66 1,2-Dibromoethane	107	15.441	15.444	(0.946)	524866	3.39678	8.492
67 Tetrachloroethene	129	15.506	15.503	(0.950)	356819	3.34068	8.352
68 Chlorobenzene	112	16.372	16.369	(1.003)	703871	3.37203	8.430
69 Ethylbenzene	91	16.646	16.649	(1.020)	989481	3.37547	8.439
70 m&p-Xylene	91	16.802	16.805	(1.029)	1519453	6.85415	17.14
M 178 Xylene (total)	100				2315851	10.3079	25.77
71 Nonane	57	17.190	17.192	(1.053)	844328	3.59099	8.977
72 Bromoform	173	17.265	17.268	(1.058)	542180	3.97065	9.927
73 Styrene	104	17.265	17.262	(1.058)	555161	3.63522	9.088
74 o-Xylene	91	17.330	17.332	(1.062)	796398	3.45376	8.634
75 1,1,2,2-Tetrachloroethane	83	17.642	17.644	(1.081)	632683	3.53729	8.843
76 1,2,3-Trichloropropane	110	17.803	17.800	(1.091)	161192	3.77491	9.437
77 Cumene	105	17.900	17.903	(1.097)	1024307	3.52116	8.803
78 n-Propylbenzene	120	18.411	18.414	(1.128)	291684	3.80220	9.505
79 2-chlorotoluene	126	18.459	18.462	(1.131)	288707	3.51632	8.791
80 4-Ethyltoluene	105	18.551	18.553	(1.136)	1037511	3.76550	9.414
81 1,3,5-Trimethylbenzene	120	18.621	18.618	(1.141)	412154	3.73840	9.346
82 Alpha-Methylstyrene	118	18.841	18.839	(1.154)	452347	4.00527	10.01
83 Decane	57	18.873	18.876	(1.156)	919090	3.73552	9.339
85 tert-butylbenzene	119	19.029	19.032	(1.166)	887688	3.71216	9.280
84 1,2,4-Trimethylbenzene	105	19.040	19.043	(1.166)	822148	3.74875	9.372
86 sec-butylbenzene	105	19.288	19.291	(1.182)	1186251	3.72176	9.304
87 1,3-Dichlorobenzene	146	19.315	19.317	(1.183)	619515	3.50147	8.754
88 Benzyl Chloride	91	19.379	19.382	(1.187)	864668	4.12375	10.31
89 1,4-Dichlorobenzene	146	19.395	19.398	(1.188)	616042	3.55086	8.877
90 p-Cymene	119	19.438	19.441	(1.191)	990362	3.80250	9.506
91 1,2-Dichlorobenzene	146	19.745	19.748	(1.210)	565352	3.58021	8.950
92 n-butylbenzene	91	19.858	19.861	(1.216)	985399	3.80911	9.523
93 Undecane	57	20.138	20.140	(1.234)	918598	4.44065	11.10
94 Dodecane	57	21.219	21.222	(1.300)	912667	4.04778	10.12
95 1,2,4-Trichlorobenzene	180	21.466	21.469	(1.315)	388617	3.75945	9.399
96 Napthalene	128	21.617	21.620	(1.324)	855017	3.82688	9.567
97 Hexachlorobutadiene	225	21.805	21.808	(1.336)	272132	3.63355	9.084
98 1,2,3-trichlorobenzene	180	21.881	21.883	(1.340)	292584	3.47551	8.689

Data File: /var/chem/gcms/mj.i/J072810I.b/jicvg28.d
Report Date: 29-Jul-2010 09:23

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: jicvg28.d
Lab Smp Id: ICV
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J072810I.b/TO15.m
Misc Info: J07280I,TO15,1-all.sub,,,

Calibration Date: 28-JUL-2010
Calibration Time: 18:06
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	263385	156714	370056	263457	0.03
2 1,4-Difluorobenze	1165388	693406	1637370	1199775	2.95
3 Chlorobenzene-d5	1053163	626632	1479694	1085542	3.07

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.49	9.16	9.82	9.50	0.03
2 1,4-Difluorobenze	11.66	11.33	11.99	11.66	0.03
3 Chlorobenzene-d5	16.33	16.00	16.66	16.32	-0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J072810I.b/jicvg28.d
Report Date: 29-Jul-2010 09:30

TestAmerica Knoxville

RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id: ICV
Level: LOW
Data Type: MS DATA
SpikeList File: icv.spk
Sublist File: 1-all.sub
Method File: /var/chem/gcms/mj.i/J072810I.b/TO15.m
Misc Info: J07280I,TO15,1-all.sub,,,

Client SDG: J07280I
Fraction: OTHER
Client Smp ID: LCS
Operator: 7126
SampleType: 2ND SOURCE
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
7 Chlorodifluorometh	10.00	9.013	90.13	65-135
8 Dichlorodifluorome	10.00	9.289	92.89	65-135
9 Propene	10.00	8.798	87.98	65-135
11 1,2-Dichlorotetraf	10.00	8.478	84.78	65-135
10 Chloromethane	10.00	8.947	89.47	65-135
12 Methanol	10.00	9.194	91.94	65-135
13 Vinyl Chloride	10.00	8.997	89.97	65-135
14 n-Butane	10.00	8.761	87.61	65-135
15 1,3-Butadiene	10.00	8.316	83.16	65-135
16 Bromomethane	10.00	8.618	86.18	65-135
17 Chloroethane	10.00	9.332	93.32	65-135
18 Vinyl Bromide	10.00	8.974	89.74	65-135
19 2-methyl butane	10.00	8.953	89.53	65-135
20 Trichlorofluoromet	10.00	9.402	94.02	65-135
21 Acrolein	10.00	9.713	97.13	65-135
22 Acetonitrile	10.00	8.078	80.79	65-135
23 Acetone	10.00	8.760	87.60	65-135
24 Pentane	10.00	9.779	97.79	65-135
25 Isopropyl Alcohol	10.00	7.981	79.81	65-135
26 Ethyl Ether	10.00	8.680	86.80	65-135
27 1,1-Dichloroethene	10.00	8.090	80.90	65-135
29 Acrylonitrile	10.00	8.240	82.40	65-135
28 tert-butanol	10.00	8.665	86.65	65-135
30 1,1,2-Trichlorotri	10.00	8.136	81.36	65-135
31 Methylene Chloride	10.00	7.560	75.60	65-135
32 3-Chloropropene	10.00	8.641	86.41	65-135
33 Carbon Disulfide	10.00	9.332	93.32	65-135
34 trans-1,2-Dichloro	10.00	9.452	94.52	65-135
35 Methyl-t-Butyl Eth	10.00	9.019	90.19	65-135
36 1,1-Dichloroethane	10.00	8.308	83.08	65-135
37 Vinyl Acetate	10.00	8.826	88.26	65-135
39 2-Butanone	10.00	9.074	90.74	65-135
38 Hexane	10.00	9.044	90.44	65-135

Data File: /var/chem/gcms/mj.i/J072810I.b/jicvg28.d
Report Date: 29-Jul-2010 09:30

SPIKE	COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
40	cis 1,2-Dichloroet	10.00	8.349	83.49	65-135
41	Ethyl acetate	10.00	9.612	96.12	65-135
42	Chloroform	10.00	8.185	81.85	65-135
43	Tetrahydrofuran	10.00	8.928	89.28	65-135
44	1,1,1-Trichloroeth	10.00	8.541	85.41	65-135
45	1,2-Dichloroethane	10.00	8.303	83.03	65-135
47	1-Butanol	10.00	8.452	84.52	65-135
46	Cyclohexane	10.00	9.075	90.75	65-135
48	Benzene	10.00	7.871	78.71	65-135
49	Carbon Tetrachlori	10.00	8.926	89.26	65-135
50	2,2,4-trimethylpen	10.00	8.616	86.16	65-135
51	Heptane	10.00	8.490	84.90	65-135
52	1,2-Dichloropropan	10.00	8.405	84.05	65-135
53	Trichloroethene	10.00	8.450	84.50	65-135
54	Dibromomethane	10.00	8.681	86.81	65-135
55	Bromodichlorometha	10.00	8.810	88.10	65-135
56	1,4-dioxane	10.00	9.442	94.42	65-135
57	methyl methacrylat	10.00	9.740	97.40	65-135
58	4-Methyl-2-pentano	10.00	9.814	98.15	65-135
59	cis-1,3-Dichloropr	10.00	8.779	87.79	65-135
60	trans-1,3-Dichloro	10.00	8.925	89.25	65-135
61	Toluene	10.00	8.307	83.07	65-135
62	1,1,2-Trichloroeth	10.00	8.682	86.82	65-135
63	2-Hexanone	10.00	10.04	100.37	65-135
64	Octane	10.00	8.737	87.37	65-135
65	Dibromochlorometha	10.00	9.126	91.26	65-135
66	1,2-Dibromoethane	10.00	8.492	84.92	65-135
67	Tetrachloroethene	10.00	8.352	83.52	65-135
68	Chlorobenzene	10.00	8.430	84.30	65-135
69	Ethylbenzene	10.00	8.439	84.39	65-135
70	m&p-Xylene	20.00	17.14	85.68	65-135
71	Nonane	10.00	8.977	89.77	65-135
72	Bromoform	10.00	9.927	99.27	65-135
73	Styrene	10.00	9.088	90.88	65-135
74	o-Xylene	10.00	8.634	86.34	65-135
75	1,1,2,2-Tetrachlor	10.00	8.843	88.43	65-135
76	1,2,3-Trichloropro	10.00	9.437	94.37	65-135
77	Cumene	10.00	8.803	88.03	65-135
78	n-Propylbenzene	10.00	9.505	95.05	65-135
79	2-chlorotoluene	10.00	8.791	87.91	65-135
80	4-Ethyltoluene	10.00	9.414	94.14	65-135
81	1,3,5-Trimethylben	10.00	9.346	93.46	65-135
82	Alpha-Methylstyren	10.00	10.01	100.13	65-135
83	Decane	10.00	9.339	93.39	65-135
84	1,2,4-Trimethylben	10.00	9.372	93.72	65-135
85	tert-butylbenzene	10.00	9.280	92.80	65-135
86	sec-butylbenzene	10.00	9.304	93.04	65-135

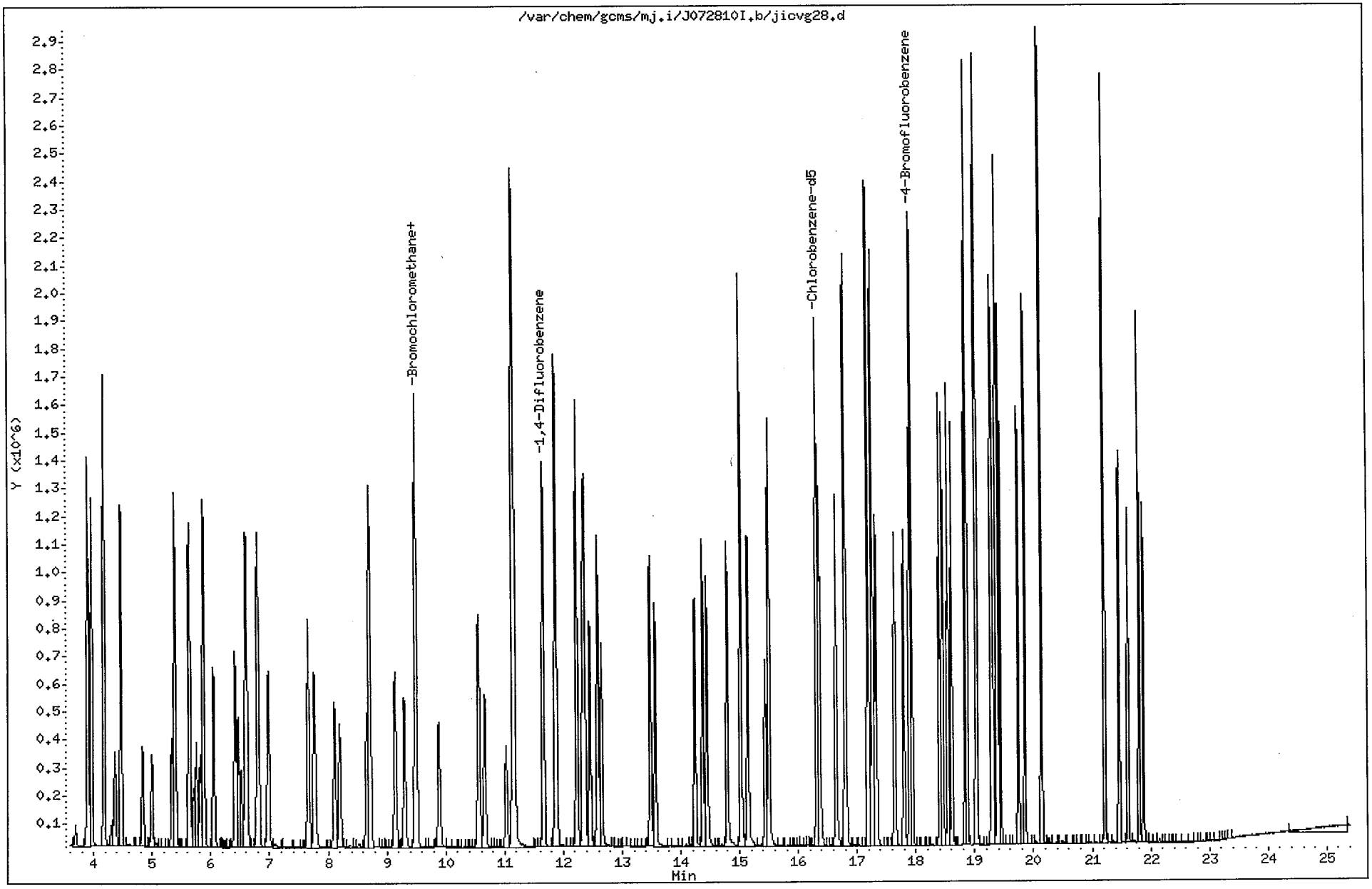
Data File: /var/chem/gcms/mj.i/J072810I.b/jicvg28.d
Report Date: 29-Jul-2010 09:30

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
87 1,3-Dichlorobenzen	10.00	8.754	87.54	65-135
89 1,4-Dichlorobenzen	10.00	8.877	88.77	65-135
88 Benzyl Chloride	10.00	10.31	103.09	65-135
90 p-Cymene	10.00	9.506	95.06	65-135
91 1,2-Dichlorobenzen	10.00	8.950	89.51	65-135
92 n-butylbenzene	10.00	9.523	95.23	65-135
93 Undecane	10.00	11.10	111.02	65-135
94 Dodecane	10.00	10.12	101.19	65-135
95 1,2,4-Trichloroben	10.00	9.399	93.99	65-135
96 Napthalene	10.00	9.567	95.67	65-135
97 Hexachlorobutadien	10.00	9.084	90.84	65-135
98 1,2,3-trichloroben	10.00	8.689	86.89	65-135

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	10.00	9.777	97.77	70-130

Data File: /var/chem/gcms/mj.i/J072810I.b/jicvg28.d
Date : 28-JUL-2010 21:31
Client ID: LCS
Sample Info: ICV,,3,,,LCS
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 7126
Column diameter: 0.32



TestAmerica Knoxville GC/MS Air Continuing Calibration Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 11

Analysis Date:	9/8/10	CCAL Batch/ Scan Name:	J090810	Instrument:	MJ	ICAL Batch/ Scan Name:	J072810I	Scanned □

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd
1. Did BFB meet tune criteria?		✓		□ failed for TO-14A, but passes for TO-15	✓
2. Were all standards injected within 24 hr of BFB?		✓			✓
3. Have the Entech position no. & vol. been verified with run log & sample vol. corrected if actual amount differs >5%?		✓			✓
4. Was date/time of analysis in logbook correct?		✓			✓
5. Was the CCAL compared to the correct ICAL (date & time on CCAL matches the ICAL)		✓		naph 32%	✓
6. Is the %D ≤ 30% for all target analytes? (Narrative req'd.).		✓		□ [ccal] analytes > 30% but passes LCS criteria.	✓
7. Have all peaks been auto identified? If not, list:		✓			✓
8. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓			Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	N/A
9. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in CCAL summary?	✓				N/A
10. Is the first IS documented correctly on the log?		✓			✓
11. Elution order checked on isomeric pairs?		✓			✓
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane		✓			✓
• vinyl acetate / hexane		✓			✓
• cis- and trans- isomers		✓			✓
• ethyl benzene / m/p-xylene / o-xylene		✓			✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene		✓			✓
• tert-butylbenzene/p-cymene		✓			✓
• 1,2,4-trimethylbenzene/sec-butylbenzene		✓			✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene		✓			✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene		✓			✓
12. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%).		✓		□ [lcs6] LCS analyte(s) flagged as being outside control limits but within marginal limits □ [lcs5] LCS outside marginal exceedences high, but analytes were not detected	✓
13. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	—				N/A
14. Does the CCAL folder contain **complete** data in the following order: data review checklist, a **complete** runlog, Entech report, tune pass/fail page, m/z list, tune chromatogram, Target CCAL summary, Quan report, chromatogram, manual integrations.		✓			✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst:	Date: 9/9/10	2nd Level Reviewer :	Date: 9/9/10
Comments:		Comments:	

TestAmerica Laboratories, Inc. – Knoxville 23
CANISTER RUN LOG

GCMS Analysis: AIR Inst: MJ

Analyst: HLL Qtims Batch: 0252108 L6N85

Date: 9/8/10 ICAL Batch: J072810I Target Batch: ~~J080910~~ 9/8/10 J090810 IS #1 Area: 195069

Surr/IS ID & Vol.: 40mL V320 System Date/Time ok (y/n): Y

Preventive Maintenance Performed ☑ Daily

Time	Use	Lot No.	File ID	Can #	Pos	Vol* (mL)	Can DF	Comments
0922	✓	fluo	JBFBI08	–	16	100	1	
0950	✓	CCV	CCV	CX2124	15	100		
0950	✓	LCS	LCS	↓	↓	↓		
1037	✓	IPT	IPT	CX2129	STD	40		
1132	✓	BLK	BLK ✓	-	16	500	↓	
1227	~~RR~~ W RR w/out gas	H0I030404	L6G9D1AA	6641	1	11	1	10mL tetrani
1316	✓		G9E	6645	2	10		10mL
1409	✓		G9G	7785	3	500		
1502	✓		G9H	12455	4	50		
1554	✓	✓	G9J	04173	5	100		
1648	~~RR~~ 50mL 9/9/10		G9K	6359	6	200	↓	
1744	✓		G9L	1147	7	11	3.80 ✓	10mL
1839	✓		G9M	12188	8	20	1	
1931	✓	9/9/10 ↓	G9N	S1528	9	500		
2022	~~RR~~ 9/9/10 ✓	✓	G9P	1407	10	100		
2117	✓		G9Q	1524	11	50		
2209	✓		G9R	04741	12	20		
2300	✓		G9V	6576	13	100		
2354	✓		G9W	1350	14	80		
0047	✓		G9X ↓	6619	15	50		
0139	dup		G9XD	↓	15	50	↓	RR to confirm.
0234	✓	↓	L6G9DR	6641	1	10	1	10mL
0334	✓	↓	L6G91AA	6348	2	200	1	E#7 RR 50mL
0519	✓	lot 8821	6525 →		16	500	1	
0618	✓	↓	1369 →		STD	↓	1	
0726	9/10/10 ✓	H0I030404	L6G93AA	93286	3	200	1	E#7 RR 25mL
							9/9/10	

* Entech programmed volume. If the Entech report amount differs from the programmed amount by >5%, the Entech report amount is used for calulations.

Analyst: _____ Date: 9/9/10

Test America - Knoxville

Entech Autosampler Log

Position	Volume		Date	Time
16	100		9/8/2010	9:22
15	101		9/8/2010	9:50
1	0	40(Std)	9/8/2010	10:37
16	502		9/8/2010	11:32
1	11		9/8/2010	12:27
2	10		9/8/2010	13:16
3	501		9/8/2010	14:09
4	51		9/8/2010	15:02
5	102		9/8/2010	15:54
6	200		9/8/2010	16:48
7	11		9/8/2010	17:44
8	20		9/8/2010	18:39
9	501		9/8/2010	19:31
10	101		9/8/2010	20:22
11	51		9/8/2010	21:17
12	21		9/8/2010	22:08
13	100		9/8/2010	23:00
14	80		9/8/2010	23:54
15	51		9/9/2010	0:47
15	50		9/9/2010	1:39
1	10		9/9/2010	2:34
2	201		9/9/2010	3:34
3	202		9/9/2010	4:26
16	501		9/9/2010	5:19
16	0	500(Std)	9/9/2010	6:11

Data File: /var/chem/gcms/mj.i/J090810.b/jccvi08.d
Report Date: 08-Sep-2010 12:18

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: jccvi08.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /chem/gcms/mj.i/J090810.b/TO15.m

Injection Date: 08-SEP-2010 09:50
Init. Cal. Date(s): 28-JUL-2010 08-SEP-2010
Init. Cal. Times: 12:39 10:37
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 6 4-Bromofluorobenzene	0.75920	0.77144	0.000	-1.61167	30.00000	Averaged
7 Chlorodifluoromethane	0.50586	0.50088	0.000	0.98434	30.00000	Averaged
9 Propene	2.05374	1.69028	0.000	17.69721	30.00000	Averaged
8 Dichlorodifluoromethane	4.34357	4.32446	0.000	0.43985	30.00000	Averaged
10 Chloromethane	0.53208	0.57847	0.000	-8.71908	30.00000	Averaged
11 1,2-Dichlorotetrafluoroetha	2.24337	2.63250	0.000	-17.34598	30.00000	Averaged
12 Methanol	0.29792	0.64851	0.000	-118	30.00000	Averaged
13 Vinyl Chloride	1.50874	1.54224	0.000	-2.22034	30.00000	Averaged
14 n-Butane	2.32704	2.54176	0.000	-9.22718	30.00000	Averaged
15 1,3-Butadiene	1.30004	1.33293	0.000	-2.52977	30.00000	Averaged
16 Bromomethane	1.17867	1.12569	0.000	4.49554	30.00000	Averaged
17 Chloroethane	0.77575	0.70136	0.000	9.58881	30.00000	Averaged
18 Vinyl Bromide	1.34868	1.28542	0.000	4.69027	30.00000	Averaged
19 2-methyl butane	2.83278	2.51729	0.000	11.13744	30.00000	Averaged
20 Trichlorofluoromethane	3.87362	4.22348	0.000	-9.03195	30.00000	Averaged
21 Acrolein	0.47393	0.49544	0.000	-4.53869	30.00000	Averaged
22 Acetonitrile	0.68124	0.64675	0.000	5.06296	30.00000	Averaged
23 Acetone	2.44937	2.55597	0.000	-4.35206	30.00000	Averaged
24 Pentane	0.20906	0.18929	0.000	9.45859	30.00000	Averaged
25 Isopropyl alcohol	2.21766	2.19969	0.000	0.80997	30.00000	Averaged
26 Ethyl Ether	2.08885	2.07596	0.000	0.61705	30.00000	Averaged
27 1,1-Dichloroethene	1.32084	1.23691	0.000	6.35417	30.00000	Averaged
29 Acrylonitrile	1.14921	1.16004	0.000	-0.94212	30.00000	Averaged
28 tert-butanol	2.40163	2.44403	0.000	-1.76545	30.00000	Averaged
30 1,1,2-Trichlorotrifluoroeth	2.82397	2.80959	0.000	0.50928	30.00000	Averaged
31 Methylene Chloride	1.30157	1.12453	0.000	13.60241	30.00000	Averaged
32 3-Chloropropene	1.84744	1.68559	0.000	8.76122	30.00000	Averaged
33 Carbon Disulfide	3.94537	3.60081	0.000	8.73317	30.00000	Averaged
34 trans-1,2-Dichloroethene	1.33045	1.26511	0.000	4.91082	30.00000	Averaged
35 Methyl-t-Butyl Ether	2.69902	2.82250	0.000	-4.57491	30.00000	Averaged
36 1,1-Dichloroethane	3.17888	3.10025	0.000	2.47328	30.00000	Averaged
37 Vinyl Acetate	3.81383	3.88640	0.000	-1.90301	30.00000	Averaged
38 Hexane	1.59739	1.51696	0.000	5.03536	30.00000	Averaged
39 2-Butanone	0.45413	0.38810	0.000	14.54016	30.00000	Averaged
40 cis 1,2-Dichloroethene	1.36223	1.30900	0.000	3.90735	30.00000	Averaged
41 Ethyl acetate	3.29905	3.09731	0.000	6.11529	30.00000	Averaged

Data File: /var/chem/gcms/mj.i/J090810.b/jccvi08.d
Report Date: 08-Sep-2010 12:18

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: jccvi08.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /chem/gcms/mj.i/J090810.b/TO15.m

Injection Date: 08-SEP-2010 09:50
Init. Cal. Date(s): 28-JUL-2010 08-SEP-2010
Init. Cal. Times: 12:39 10:37
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
42 Chloroform	2.90386	3.00295	0.000	-3.41227	30.00000	Averaged
43 Tetrahydrofuran	1.81884	1.73695	0.000	4.50251	30.00000	Averaged
44 1,1,1-Trichloroethane	3.02516	3.40704	0.000	-12.62332	30.00000	Averaged
45 1,2-Dichloroethane	0.56171	0.56277	0.000	-0.18852	30.00000	Averaged
46 Cyclohexane	0.14258	0.11642	0.000	18.34974	30.00000	Averaged
48 Benzene	0.84559	0.69350	0.000	17.98622	30.00000	Averaged
47 1-Butanol	0.14197	0.10771	0.000	24.13474	30.00000	Averaged
49 Carbon Tetrachloride	0.66261	0.73799	0.000	-11.37637	30.00000	Averaged
50 2,2,4-trimethylpentane	1.92171	1.67975	0.000	12.59101	30.00000	Averaged
51 Heptane	0.90974	0.75064	0.000	17.48840	30.00000	Averaged
52 1,2-Dichloropropane	0.36499	0.31396	0.000	13.98286	30.00000	Averaged
53 Trichloroethene	0.41116	0.37028	0.000	9.94286	30.00000	Averaged
54 Dibromomethane	0.38877	0.34843	0.000	10.37624	30.00000	Averaged
55 Bromodichloromethane	0.64747	0.64114	0.000	0.97785	30.00000	Averaged
56 1,4-dioxane	0.07442	0.06962	0.000	6.44010	30.00000	Averaged
57 Methyl Methacrylate	0.43552	0.38419	0.000	11.78661	30.00000	Averaged
58 4-Methyl-2-pentanone	0.81761	0.63117	0.000	22.80336	30.00000	Averaged
59 cis-1,3-Dichloropropene	0.44690	0.39445	0.000	11.73582	30.00000	Averaged
60 trans-1,3-Dichloropropene	0.48806	0.46768	0.000	4.17511	30.00000	Averaged
61 Toluene	0.94202	0.82875	0.000	12.02325	30.00000	Averaged
62 1,1,2-Trichloroethane	0.33782	0.30240	0.000	10.48481	30.00000	Averaged
63 2-Hexanone	0.37819	0.31019	0.000	17.97938	30.00000	Averaged
64 Octane	0.30407	0.25457	0.000	16.27927	30.00000	Averaged
65 Dibromochloromethane	0.65713	0.65315	0.000	0.60571	30.00000	Averaged
66 1,2-Dibromoethane	0.56937	0.51368	0.000	9.78116	30.00000	Averaged
67 Tetrachloroethene	0.39357	0.35234	0.000	10.47673	30.00000	Averaged
68 Chlorobenzene	0.76916	0.65732	0.000	14.53988	30.00000	Averaged
69 Ethylbenzene	1.08016	1.02152	0.000	5.42840	30.00000	Averaged
70 m&p-Xylene	0.81686	0.78241	0.000	4.21779	30.00000	Averaged
M 178 Xylene (total)	0.83848	0.79365	0.000	5.34752	25.00000	Averaged
71 Nonane	0.86638	0.78538	0.000	9.34932	30.00000	Averaged
72 Bromoform	0.50315	0.53561	0.000	-6.45270	30.00000	Averaged
73 Styrene	0.56273	0.51064	0.000	9.25634	30.00000	Averaged
74 o-Xylene	0.84967	0.81613	0.000	3.94774	30.00000	Averaged
75 1,1,2,2-Tetrachloroethane	0.65907	0.55609	0.000	15.62457	30.00000	Averaged

Data File: /var/chem/gcms/mj.i/J090810.b/jccvi08.d
Report Date: 08-Sep-2010 12:18

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: jccvi08.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /chem/gcms/mj.i/J090810.b/TO15.m

Injection Date: 08-SEP-2010 09:50
Init. Cal. Date(s): 28-JUL-2010 08-SEP-2010
Init. Cal. Times: 12:39 10:37
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
76 1,2,3-Trichloropropane	0.15734	0.15222	0.000	3.25422	30.00000	Averaged	
77 Cumene	1.07191	1.01811	0.000	5.01859	30.00000	Averaged	
78 n-Propylbenzene	0.28268	0.26089	0.000	7.70922	30.00000	Averaged	
79 2-chlorotoluene	0.30254	0.27484	0.000	9.15480	30.00000	Averaged	
80 4-Ethyltoluene	1.01527	0.93738	0.000	7.67268	30.00000	Averaged	
81 1,3,5-Trimethylbenzene	0.40624	0.36783	0.000	9.45658	30.00000	Averaged	
82 Alpha-Methylstyrene	0.41615	0.36812	0.000	11.54272	30.00000	Averaged	
83 Decane	0.90661	0.84316	0.000	6.99901	30.00000	Averaged	
85 tert-butylbenzene	0.88115	0.82658	0.000	6.19259	30.00000	Averaged	
84 1,2,4-Trimethylbenzene	0.80812	0.74374	0.000	7.96699	30.00000	Averaged	
86 sec-butylbenzene	1.17447	1.09186	0.000	7.03361	30.00000	Averaged	
87 1,3-Dichlorobenzene	0.65195	0.56789	0.000	12.89299	30.00000	Averaged	
88 Benzyl Chloride	0.77263	0.73423	0.000	4.96999	30.00000	Averaged	
89 1,4-Dichlorobenzene	0.63928	0.54380	0.000	14.93604	30.00000	Averaged	
90 p-Cymene	0.95971	0.88145	0.000	8.15392	30.00000	Averaged	
91 1,2-Dichlorobenzene	0.58187	0.50334	0.000	13.49590	30.00000	Averaged	
92 n-butylbenzene	0.95324	0.85313	0.000	10.50147	30.00000	Averaged	
93 Undecane	0.76224	0.49359	0.000	35.24517	30.00000	Averaged	<- NC
94 Dodecane	0.83082	0.49906	0.000	39.93161	30.00000	Averaged	<- NC
95 1,2,4-Trichlorobenzene	0.38090	0.28801	0.000	24.38659	30.00000	Averaged	
96 Napthalene	0.82327	0.56289	0.000	31.62817	30.00000	Averaged	<- OK 60-140
97 Hexachlorobutadiene	0.27597	0.26526	0.000	3.88046	30.00000	Averaged	
98 1,2,3-trichlorobenzene	0.31020	0.20235	0.000	34.76824	30.00000	Averaged	<- NC

Data File: /var/chem/gcms/mj.i/J090810.b/jccvi08.d
Report Date: 08-Sep-2010 12:18

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/jccvi08.d
Lab Smp Id: CCV Client Smp ID: CCV/LCS
Inj Date : 08-SEP-2010 09:50
Operator : 7126 Inst ID: mj.i
Smp Info : CCV,,2,6,,CCV/LCS
Misc Info : J090810,TO15,1-all.sub,,,
Comment :
Method : /chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 08-Sep-2010 12:18 tajh Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-all.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
*	1 Bromochloromethane	128	9.479	9.479	(1.000)	195069	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.642	11.642	(1.000)	936174	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.300	16.300	(1.000)	815161	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.914	17.914	(1.099)	628848	4.00000	4.064
	7 Chlorodifluoromethane	67	3.901	3.901	(0.411)	48852	2.00000	1.980
	9 Propene	41	3.911	3.911	(0.413)	164861	2.00000	1.646
	8 Dichlorodifluoromethane	85	3.970	3.970	(0.419)	421785	2.00000	1.991
	10 Chloromethane	52	4.180	4.180	(0.441)	56421	2.00000	2.174
	11 1,2-Dichlorotetrafluoroethane	135	4.186	4.186	(0.442)	256760	2.00000	2.347
	12 Methanol	31	4.315	4.315	(0.455)	63251	2.00000	4.354
	13 Vinyl Chloride	62	4.374	4.374	(0.461)	150421	2.00000	2.044
	14 n-Butane	43	4.471	4.471	(0.472)	247909	2.00000	2.184
	15 1,3-Butadiene	54	4.471	4.471	(0.472)	130007	2.00000	2.050
	16 Bromomethane	94	4.837	4.837	(0.510)	109793	2.00000	1.910
	17 Chloroethane	64	4.998	4.998	(0.527)	68407	2.00000	1.808

Data File: /var/chem/gcms/mj.i/J090810.b/jccvi08.d
Report Date: 08-Sep-2010 12:18

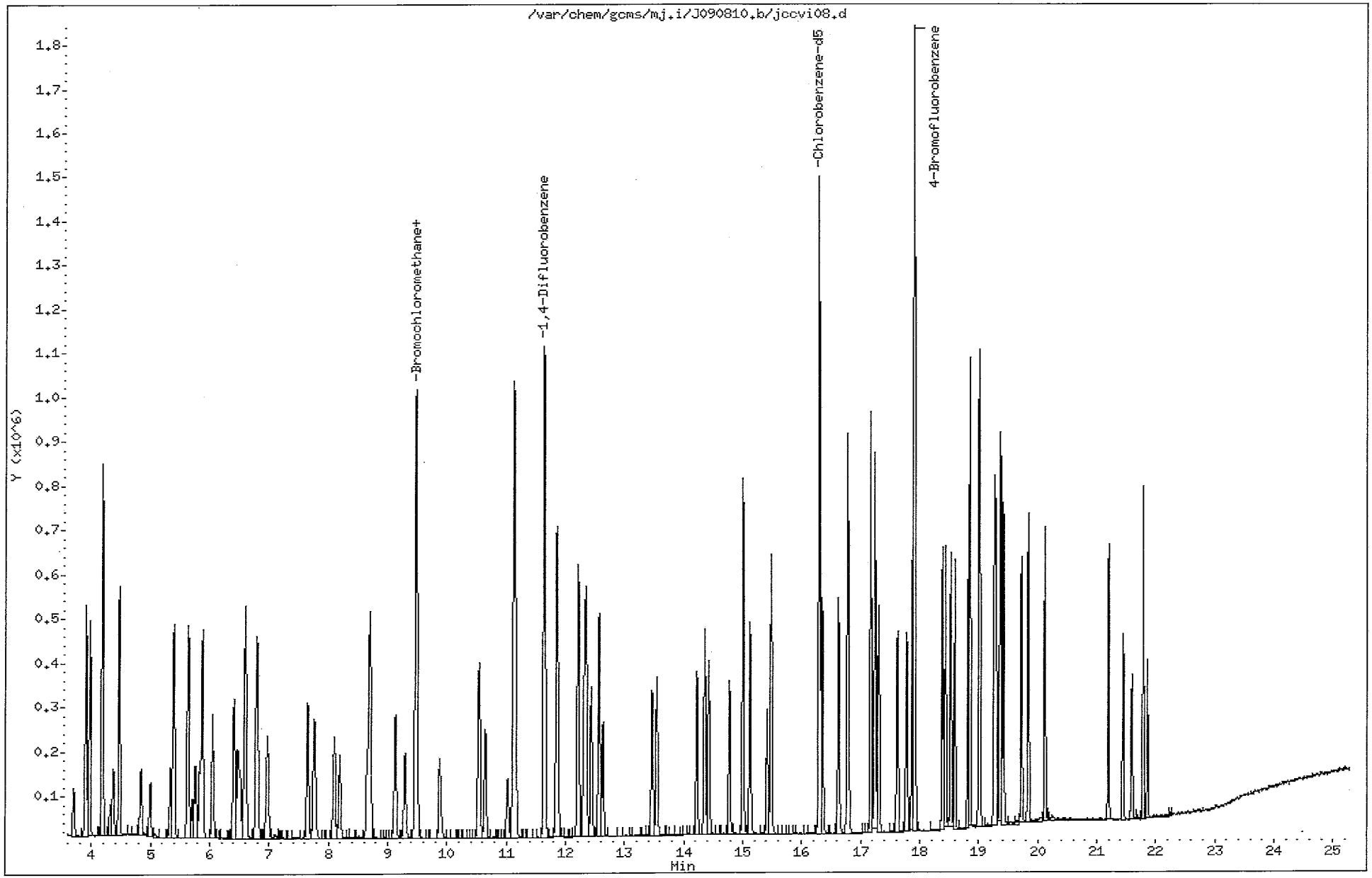
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	ON-COL (ppb(v/v))
18 Vinyl Bromide	106	5.337	5.337	(0.563)	125373	2.00000	1.906
19 2-methyl butane	43	5.391	5.391	(0.569)	245522	2.00000	1.777
20 Trichlorofluoromethane	101	5.638	5.638	(0.595)	411935	2.00000	2.181
21 Acrolein	56	5.638	5.638	(0.595)	48322	2.00000	2.091
22 Acetonitrile	40	5.708	5.708	(0.602)	63080	2.00000	1.899
23 Acetone	43	5.762	5.762	(0.608)	249295	2.00000	2.087
24 Pentane	72	5.875	5.875	(0.620)	18461	2.00000	1.811
25 Isopropyl Alcohol	45	5.832	5.832	(0.615)	214546	2.00000	1.984
26 Ethyl Ether	31	6.047	6.047	(0.638)	202478	2.00000	1.988
27 1,1-Dichloroethene	96	6.413	6.413	(0.677)	120641	2.00000	1.873
29 Acrylonitrile	53	6.515	6.515	(0.687)	113144	2.00000	2.019
28 tert-butanol	59	6.472	6.472	(0.683)	238377	2.00000	2.035
30 1,1,2-Trichlorotrifluoroethane	101	6.596	6.596	(0.696)	274032	2.00000	1.990
31 Methylene Chloride	84	6.784	6.784	(0.716)	109680	2.00000	1.728
32 3-Chloropropene	39	6.805	6.805	(0.718)	164403	2.00000	1.825
33 Carbon Disulfide	76	6.972	6.972	(0.736)	351204	2.00000	1.825
34 trans-1,2-Dichloroethene	96	7.650	7.650	(0.807)	123392	2.00000	1.902
35 Methyl-t-Butyl Ether	73	7.763	7.763	(0.819)	275291	2.00000	2.091
36 1,1-Dichloroethane	63	8.102	8.102	(0.855)	302382	2.00000	1.950
37 Vinyl Acetate	43	8.193	8.193	(0.864)	379059	2.00000	2.038
38 Hexane	56	8.699	8.699	(0.918)	147956	2.00000	1.899
39 2-Butanone	72	8.656	8.656	(0.913)	37853	2.00000	1.709
40 cis 1,2-Dichloroethene	96	9.129	9.129	(0.963)	127672	2.00000	1.922
41 Ethyl acetate	43	9.291	9.291	(0.980)	302094	2.00000	1.878
42 Chloroform	83	9.479	9.479	(1.000)	292891	2.00000	2.068
43 Tetrahydrofuran	42	9.877	9.877	(1.042)	169412	2.00000	1.910
44 1,1,1-Trichloroethane	97	10.544	10.544	(1.112)	332304	2.00000	2.252
45 1,2-Dichloroethane	62	10.646	10.646	(0.914)	263425	2.00000	2.004
46 Cyclohexane	69	11.131	11.131	(0.956)	54493	2.00000	1.633
48 Benzene	78	11.125	11.125	(0.956)	324618	2.00000	1.640
47 1-Butanol	31	11.023	11.023	(0.947)	50416	2.00000	1.517
49 Carbon Tetrachloride	117	11.152	11.152	(0.958)	345443	2.00000	2.228
50 2,2,4-trimethylpentane	57	11.857	11.857	(1.018)	786269	2.00000	1.748
51 Heptane	43	12.217	12.217	(1.049)	351364	2.00000	1.650
52 1,2-Dichloropropane	63	12.314	12.314	(1.058)	146959	2.00000	1.720
53 Trichloroethene	130	12.352	12.352	(1.061)	173323	2.00000	1.801
54 Dibromomethane	93	12.438	12.438	(1.068)	163094	2.00000	1.792
55 Bromodichloromethane	83	12.572	12.572	(1.080)	300107	2.00000	1.980
56 1,4-dioxane	88	12.567	12.567	(1.079)	32589	2.00000	1.871
57 methyl methacrylate	41	12.637	12.637	(1.085)	179834	2.00000	1.764
58 4-Methyl-2-pentanone	43	13.465	13.465	(1.157)	295441	2.00000	1.544
59 cis-1,3-Dichloropropene	75	13.546	13.546	(1.164)	184637	2.00000	1.765
60 trans-1,3-Dichloropropene	75	14.224	14.224	(0.873)	190617	2.00000	1.916
61 Toluene	91	14.358	14.358	(0.881)	337784	2.00000	1.760
62 1,1,2-Trichloroethane	97	14.428	14.428	(0.885)	123254	2.00000	1.790
63 2-Hexanone	58	14.778	14.778	(0.907)	126427	2.00000	1.640
64 Octane	85	15.009	15.009	(0.921)	103756	2.00000	1.674

Data File: /var/chem/gcms/mj.i/J090810.b/jccvi08.d
Report Date: 08-Sep-2010 12:18

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
65 Dibromochloromethane	129	15.127	15.127	(0.928)	266212	2.00000	1.988
66 1,2-Dibromoethane	107	15.418	15.418	(0.946)	209365	2.00000	1.804
67 Tetrachloroethene	129	15.483	15.483	(0.950)	143607	2.00000	1.790
68 Chlorobenzene	112	16.349	16.349	(1.003)	267912	2.00000	1.709
69 Ethylbenzene	91	16.623	16.623	(1.020)	416352	2.00000	1.891
70 m&p-Xylene	91	16.784	16.784	(1.030)	637787	4.00000	3.831
M 178 Xylene (total)	100				970425	6.00000	5.752
71 Nonane	57	17.172	17.172	(1.053)	320106	2.00000	1.813
72 Bromoform	173	17.247	17.247	(1.058)	218305	2.00000	2.129
73 Styrene	104	17.247	17.247	(1.058)	208128	2.00000	1.815
74 o-Xylene	91	17.306	17.306	(1.062)	332638	2.00000	1.921
75 1,1,2,2-Tetrachloroethane	83	17.624	17.624	(1.081)	226651	2.00000	1.688
76 1,2,3-Trichloropropane	110	17.780	17.780	(1.091)	62043	2.00000	1.935
77 Cumene	105	17.876	17.876	(1.097)	414963	2.00000	1.900
78 n-Propylbenzene	120	18.387	18.387	(1.128)	106331	2.00000	1.846
79 2-chlorotoluene	126	18.441	18.441	(1.131)	112020	2.00000	1.817
80 4-Ethyltoluene	105	18.533	18.533	(1.137)	382056	2.00000	1.846
81 1,3,5-Trimethylbenzene	120	18.597	18.597	(1.141)	149919	2.00000	1.811
82 Alpha-Methylstyrene	118	18.823	18.823	(1.155)	150037	2.00000	1.769
83 Decane	57	18.855	18.855	(1.157)	343653	2.00000	1.860
85 tert-butylbenzene	119	19.011	19.011	(1.166)	336898	2.00000	1.876
84 1,2,4-Trimethylbenzene	105	19.022	19.022	(1.167)	303133	2.00000	1.841
86 sec-butylbenzene	105	19.270	19.270	(1.182)	445022	2.00000	1.859
87 1,3-Dichlorobenzene	146	19.291	19.291	(1.183)	231462	2.00000	1.742
88 Benzyl Chloride	91	19.361	19.361	(1.188)	299257	2.00000	1.901
89 1,4-Dichlorobenzene	146	19.377	19.377	(1.189)	221640	2.00000	1.701
90 p-Cymene	119	19.420	19.420	(1.191)	359263	2.00000	1.837
91 1,2-Dichlorobenzene	146	19.727	19.727	(1.210)	205151	2.00000	1.730
92 n-butylbenzene	91	19.840	19.840	(1.217)	347721	2.00000	1.790
93 Undecane	57	20.125	20.125	(1.235)	201176	2.00000	1.295
94 Dodecane	57	21.201	21.201	(1.301)	203408	2.00000	1.201
95 1,2,4-Trichlorobenzene	180	21.448	21.448	(1.316)	117388	2.00000	1.512
96 Napthalene	128	21.594	21.594	(1.325)	229421	2.00000	1.367
97 Hexachlorobutadiene	225	21.787	21.787	(1.337)	108115	2.00000	1.922
98 1,2,3-trichlorobenzene	180	21.863	21.863	(1.341)	82474	2.00000	1.305

Data File: /var/chem/gcms/mj.i/J090810.b/jccvi08.d
Date : 08-SEP-2010 09:50
Client ID: CCV/LCS
Sample Info: CCV,,2,6,,CCV/LCS
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 7126
Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J090810.b/j1pti08.d
Report Date: 08-Sep-2010 12:18

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: j1pti08.d
Analysis Type: AIR
Lab Sample ID: 1PTCAL
Method: /chem/gcms/mj.i/J090810.b/TO15.m

Injection Date: 08-SEP-2010 10:37
Init. Cal. Date(s): 28-JUL-2010 08-SEP-2010
Init. Cal. Times: 12:39 10:37
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 ~ Thiophene	0.33118	0.33118	0.000	0.000e+00	25.00000	Averaged
100 ~ 1,2,3- Trimethylbenzene	0.43786	0.43786	0.000	0.000e+00	25.00000	Averaged
101 ~ Indane	0.51679	0.51679	0.000	0.000e+00	25.00000	Averaged
102 ~ Indene	0.31165	0.31165	0.000	-1.781e-14	25.00000	Averaged
103 ~ 2-Methylnaphthalene	0.04340	0.04340	0.000	0.000e+00	25.00000	Averaged
104 ~ 1-Methylnaphthalene	0.04529	0.04529	0.000	0.000e+00	25.00000	Averaged
164 ~ methyl cyclohexane	0.33810	0.33810	0.000	-1.642e-14	25.00000	Averaged
165 ~ acetaldehyde	4.35737	4.35737	0.000	-2.038e-14	25.00000	Averaged
166 ~ ethanol	1.07822	1.07822	0.000	0.000e+00	25.00000	Averaged
167 ~ 2,3-dimethylpentane	0.55416	0.55416	0.000	-2.003e-14	25.00000	Averaged
168 ~ 2-methyl thiophene	0.60476	0.60476	0.000	0.000e+00	25.00000	Averaged
169 ~ 3-methyl thiophene	0.60326	0.60326	0.000	0.000e+00	25.00000	Averaged
170 ~ 2,3-dimethylheptane	1.42441	1.42441	0.000	-1.559e-14	25.00000	Averaged
171 ~ 2-ethyl thiophene	0.65279	0.65279	0.000	0.000e+00	25.00000	Averaged
172 ~ n-butylcyclohexane	0.42696	0.42696	0.000	-1.300e-14	25.00000	Averaged
173 ~ 1,2-dimethyl-4-ethylenzen	0.47497	0.47497	0.000	0.000e+00	25.00000	Averaged
174 ~ 1,2,4,5-tetramethylbenzen	0.48709	0.48709	0.000	0.000e+00	25.00000	Averaged
175 ~ 1,2,3,5-tetramethylbenzen	0.39040	0.39040	0.000	0.000e+00	25.00000	Averaged
176 ~ 1,2,3,4-tetramethylbenzen	0.47656	0.47656	0.000	-1.165e-14	25.00000	Averaged
177 ~ benzo(b) thiophene	0.32430	0.32430	0.000	-1.712e-14	25.00000	Averaged

Data File: /var/chem/gcms/mj.i/J090810.b/j1pti08.d
Report Date: 08-Sep-2010 12:18

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/j1pti08.d
Lab Smp Id: 1PTCAL Client Smp ID: 1ptcal
Inj Date : 08-SEP-2010 10:37
Operator : 7126 Inst ID: mj.i
Smp Info : 1PTCAL,,3,6,,1ptcal
Misc Info : J090810,TO15,1ptcala.sub,,,
Comment :
Method : /chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 08-Sep-2010 12:18 tajh Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1ptcala.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
* 1 Bromochloromethane	128	9.468	9.468	(1.000)	204494	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.636	11.636	(1.000)	1016549	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.300	16.300	(1.000)	851609	4.00000	4.000
99 ~ Thiophene	84	11.388	11.388	(0.979)	6733	0.08000	0.08000(A)
100 ~ 1,2,3- Trimethylbenzene	105	19.479	19.479	(1.195)	7457	0.08000	0.08000(A)
101 ~ Indane	117	19.726	19.726	(1.210)	8802	0.08000	0.08000(A)
102 ~ Indene	116	19.850	19.850	(1.218)	5308	0.08000	0.08000(A)
103 ~ 2-Methylnaphthalene	142	22.443	22.443	(1.377)	9239	1.00000	1.000(A)
104 ~ 1-Methylnaphthalene	142	22.572	22.572	(1.385)	9642	1.00000	1.000(A)
164 ~ methyl cyclohexane	83	13.104	13.104	(1.126)	6873	0.08000	0.08000(A)
165 ~ acetaldehyde	44	4.346	4.346	(0.459)	84650	0.38000	0.3800(A)
166 ~ ethanol	31	5.083	5.083	(0.537)	21497	0.39000	0.3900(A)
167 ~ 2,3-dimethylpentane	56	11.227	11.227	(0.965)	11266	0.08000	0.08000(A)
168 ~ 2-methyl thiophene	97	14.508	14.508	(0.890)	10300	0.08000	0.08000(A)
169 ~ 3-methyl thiophene	97	14.702	14.702	(0.902)	10274	0.08000	0.08000(A)

Data File: /var/chem/gcms/mj.i/J090810.b/j1pti08.d
Report Date: 08-Sep-2010 12:18

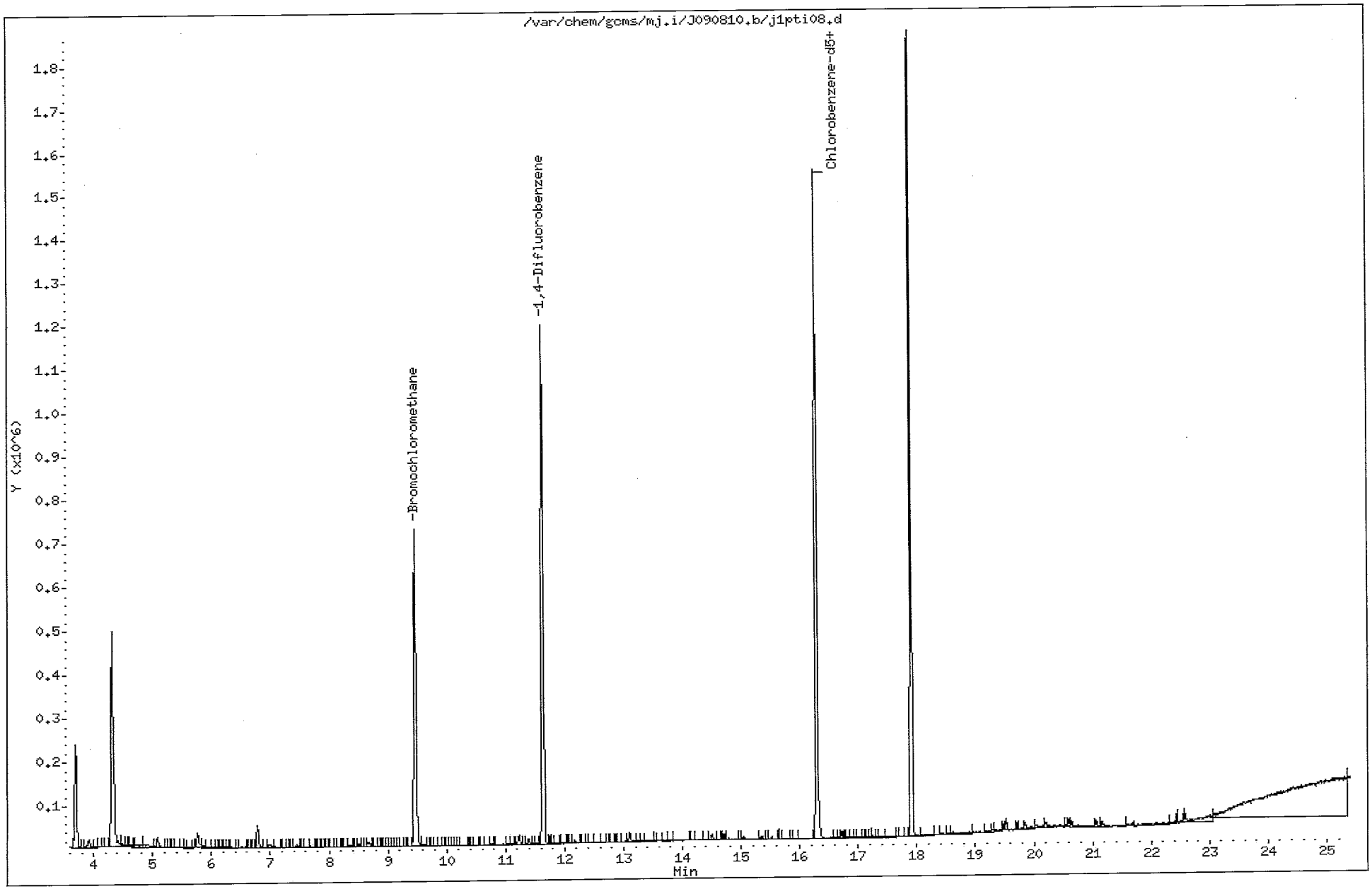
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	ON-COL (ppb(v/v))
170 ~ 2,3-dimethylheptane	43	16.337	16.337	(1.002)	24260	0.08000	0.08000(A)
171 ~ 2-ethyl thiophene	97	16.725	16.725	(1.026)	11118	0.08000	0.08000(A)
172 ~ n-butylcyclohexane	83	19.527	19.527	(1.198)	7272	0.08000	0.08000(A)
173 ~ 1,2-dimethyl-4-ethylenzene	119	20.200	20.200	(1.239)	8089	0.08000	0.08000(A)
174 ~ 1,2,4,5-tetramethylbenzene	119	20.592	20.592	(1.263)	8296	0.08000	0.08000(A)
175 ~ 1,2,3,5-tetramethylbenzene	119	20.646	20.646	(1.267)	6649	0.08000	0.08000(A)
176 ~ 1,2,3,4-tetramethylbenzene	119	21.060	21.060	(1.292)	8116	0.08000	0.08000(A)
177 ~ benzo(b) thiophene	134	21.690	21.690	(1.331)	5523	0.08000	0.08000(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /var/chem/gcms/mj.i/J090810.b/j1pti08.d
Date : 08-SEP-2010 10:37
Client ID: 1ptcal
Sample Info: 1PTCAL,,3,6,,1ptcal
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 7126
Column diameter: 0.32



TestAmerica Knoxville GC/MS Air Continuing Calibration Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 11

Analysis Date:	9/9/10	CCAL Batch/ Scan Name:	J090910	Instrument:	MJ	ICAL Batch/ Scan Name:	J072810I	Scanned □

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd ➡
1. Did BFB meet tune criteria?		✓		□ failed for TO-14A, but passes for TO-15	✓
2. Were all standards injected within 24 hr of BFB?		✓			✓
3. Have the Entech position no. & vol. been verified with run log & sample vol. corrected if actual amount differs >5%?		✓			✓
4. Was date/time of analysis in logbook correct?		✓			✓
5. Was the CCAL compared to the correct ICAL (date & time on CCAL matches the ICAL)		✓			✓
6. Is the %D ≤ 30% for all target analytes? (Narrative req'd.).		✓		□ [ccal] analytes > 30% but passes LCS criteria.	✓
7. Have all peaks been auto identified? If not, list:		✓			✓
8. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓			Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	NA
9. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in CCAL summary?	✓				NA
10. Is the first IS documented correctly on the log?		✓			✓
11. Elution order checked on isomeric pairs?		✓			✓
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane		✓			✓
• vinyl acetate / hexane		✓			✓
• cis- and trans- isomers		✓			✓
• ethyl benzene / m/p-xylene / o-xylene		✓			✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene		✓			✓
• tert-butylbenzene/p-cymene		✓			✓
• 1,2,4-trimethylbenzene/sec-butylbenzene		✓			✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene		✓			✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene		✓			✓
12. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%).		✓		□ [lcs6] LCS analyte(s) flagged as being outside control limits but within marginal limits □ [lcs5] LCS outside marginal exceedences high, but analytes were not detected	✓
13. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				NA
14. Does the CCAL folder contain **complete** data in the following order: data review checklist, a **complete** runlog, Entech report, tune pass/fail page, m/z list, tune chromatogram, Target CCAL summary, Quan report, chromatogram, manual integrations.		✓			✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst:	Date: 9/10/10	2nd Level Reviewer : AHS	Date: 9/10/10
Comments:		Comments:	

TestAmerica Laboratories, Inc. – Knoxville 24
CANISTER RUN LOG

GCMS Analysis: AIR Inst: MJ

Analyst: HMT Qtims Batch: 0253092 L6RJY

Date: 9/9/10 ICAL Batch: J072810F Target Batch: J090910 IS #1 Area: 166835

Surr/IS ID & Vol.: 40mlV320 System Date/Time ok (y/n): y

Preventive Maintenance Performed ☐ Daily _____

Time	Use	Lot No.	File ID	Can #	Pos	Vol* (mL)	Can DF	Comments
0909	✓	tune	JBFB I09	—	16	100	1	
0940	✓	CCV	CCV	CX2124	15	100		
0940	✓	LCS	LCS	↓	↓	↓		
1043	✓	IPT	IPT	CX2129	STD	40		
1136	✓	Blk	Blk	—	16	500		
1227	Confirmed	HOI030404	L6G9XDR	6619	15	50	1	tetrach; matched Dup
1320	RR 250mL		L6G921AA	12820	14	100	1	
1410	✓		G95	0120	5	100		
1503	RR50mL		G96	6574	6	100		
1552	✓		G902AA	6348	2	50		#7
1645	✓		G912AA	93286	3	25		#7
1740	✓	HOI030418	HG41AA	7472	1	200	1	E #7 RR 50mL
1833	RR 50mL		HG5	0008	7	10	1.43	10mL
1925	✓		HG7	93175	8	200	1.42	3.55
2018	✓		HG9	4499N	9	200	1	
2110	RR 790mL		HHC	12539	10	200	1.58	3.95
2203	RR 755mL		HHD	7485	11	↓	1.51	3.79
2255	✓		HHG	1411	12	200	1	E 111TCA, naph RR50mL
2347	RR50mL		HHK	62341N	13			w c/o
0039	RR50mL		HHN	7475	14			
0134	RR50mL		HHQ	6376	15			
			HHT		5	200	1	9/8/10
0234	✓		G92R	12820	4	250	1	
0510	200mL lot 8827		11411	→	16	500	1	
0602	N		1316N	→	STD	↓	1	
0325	✓	HOI030404	L6G92D	12820	4	250	1	
0416	✓		L6G96R	6574	6	500	1	
						9/10/10		

* Entech programmed volume. If the Entech report amount differs from the programmed amount by >5%, the Entech report amount is used for calulations.

Analyst: _____ Date: 9/10/10

100909

TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	Date	Time
BFB	16 - 101 mL	9/9/2010	9:09:41 AM
CCV	15 - 101 mL	9/9/2010	9:40:31 AM
1PT	STD- 40 mL	9/9/2010	10:43:29 AM
BLK	16 - 501 mL	9/9/2010	11:36:35 AM
POS15	15 - 50 mL	9/9/2010	12:27:16 PM
POS04	4 - 101 mL	9/9/2010	1:20:22 PM
POS05	5 - 101 mL	9/9/2010	2:10:32 PM
POS06	6 - 101 mL	9/9/2010	3:03:13 PM
POS02	2 - 50 mL	9/9/2010	3:52:16 PM
POS03	3 - 26 mL	9/9/2010	4:45:38 PM
POS01	1 - 201 mL	9/9/2010	5:40:18 PM
POS07	7 - 10 mL	9/9/2010	6:33:42 PM
POS08	8 - 200 mL	9/9/2010	7:25:56 PM
POS09	9 - 201 mL	9/9/2010	8:18:55 PM
POS10	10 - 201 mL	9/9/2010	9:10:22 PM
POS11	11 - 201 mL	9/9/2010	10:03:35 PM
POS12	12 - 200 mL	9/9/2010	10:55:16 PM
POS13	13 - 202 mL	9/9/2010	11:47:05 PM
POS14	14 - 200 mL	9/10/2010	12:39:24 AM
POS15	15 - 200 mL	9/10/2010	1:34:21 AM
POS04	4 - 250 mL	9/10/2010	2:34:06 AM
POS04	4 - 251 mL	9/10/2010	3:25:43 AM
POS06	6 - 500 mL	9/10/2010	4:19:15 AM
BLK	16 - 501 mL	9/10/2010	5:10:29 AM
BLK	STD- 499 mL	9/10/2010	6:02:14 AM

Data File: /chem/gcms/mj.i/J090910.b/jbfbi09.d

Date : 09-SEP-2010 09:09

Client ID: BFB

Instrument: mj.i

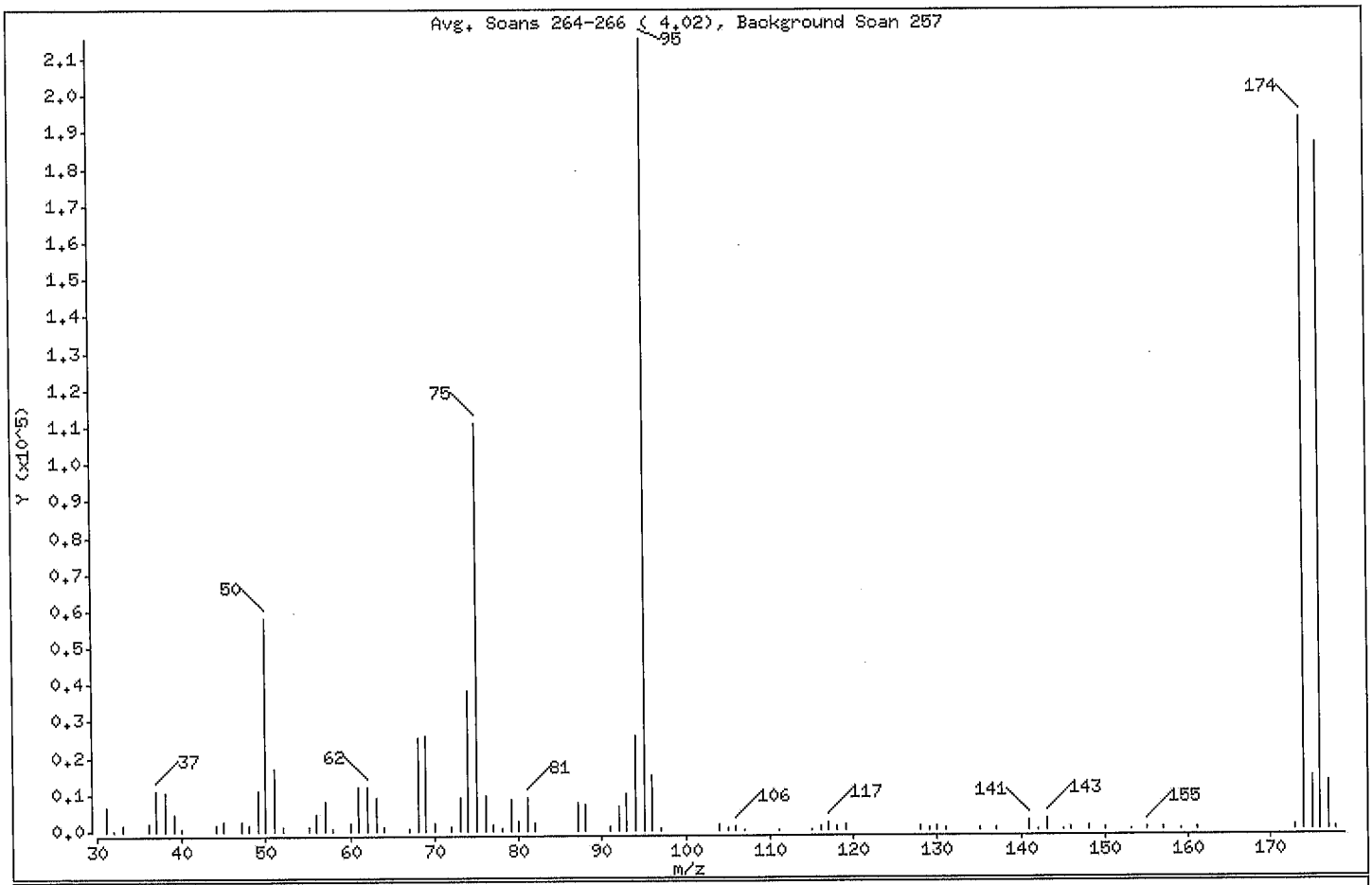
Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: Rtx-5

Column diameter: 0.32

1 BFB



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	26.83
75	30.00 - 60.00% of mass 95	51.47
96	5.00 - 9.00% of mass 95	6.82
173	Less than 2.00% of mass 174	0.39 (0.43)
174	50.00 - 120.00% of mass 95	89.79
175	5.00 - 9.00% of mass 174	6.75 (7.52)
176	95.00 - 101.00% of mass 174	86.65 (96.51)
177	5.00 - 9.00% of mass 176	5.89 (6.80)

Data File: /chem/gcms/mj.i/J090910.b/jbfbi09.d

Date : 09-SEP-2010 09:09

Client ID: BFB

Instrument: mj.i

Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: Rtx-5

Column diameter: 0.32

Data File: jbfbi09.d

Spectrum: Avg. Scans 264-266 (4.02), Background Scan 257

Location of Maximum: 95.00

Number of points: 83

m/z	Y	m/z	Y	m/z	Y	m/z	Y
31.00	6596	61.00	11670	91.00	962	135.00	565
32.00	69	62.00	12071	92.00	6470	137.00	530
33.00	1443	63.00	9002	93.00	10115	141.00	2641
36.00	2085	64.00	753	94.00	25560	142.00	213
37.00	11137	67.00	607	95.00	215488	143.00	2883
38.00	10388	68.00	25080	96.00	14705	145.00	112
39.00	4320	69.00	25544	97.00	449	146.00	284
40.00	447	70.00	1863	104.00	1261	148.00	764
44.00	1469	72.00	1015	105.00	364	150.00	251
45.00	2416	73.00	9083	106.00	1072	153.00	102
47.00	2278	74.00	38136	107.00	121	155.00	648
48.00	1391	75.00	110928	111.00	104	157.00	461
49.00	11057	76.00	9535	115.00	103	159.00	225
50.00	57816	77.00	1249	116.00	848	161.00	250
51.00	16752	78.00	523	117.00	1833	173.00	840
52.00	827	79.00	8509	118.00	1077	174.00	193472
55.00	774	80.00	2481	119.00	1375	175.00	14544
56.00	4379	81.00	9080	128.00	989	176.00	186752
57.00	7877	82.00	2017	129.00	520	177.00	12693
58.00	266	87.00	7320	130.00	1139	178.00	407
60.00	2132	88.00	7173	131.00	440		

Data File: /chem/gcms/mj.i/J090910.b/jbfbi09.d

Date : 09-SEP-2010 09:09

Client ID: BFB

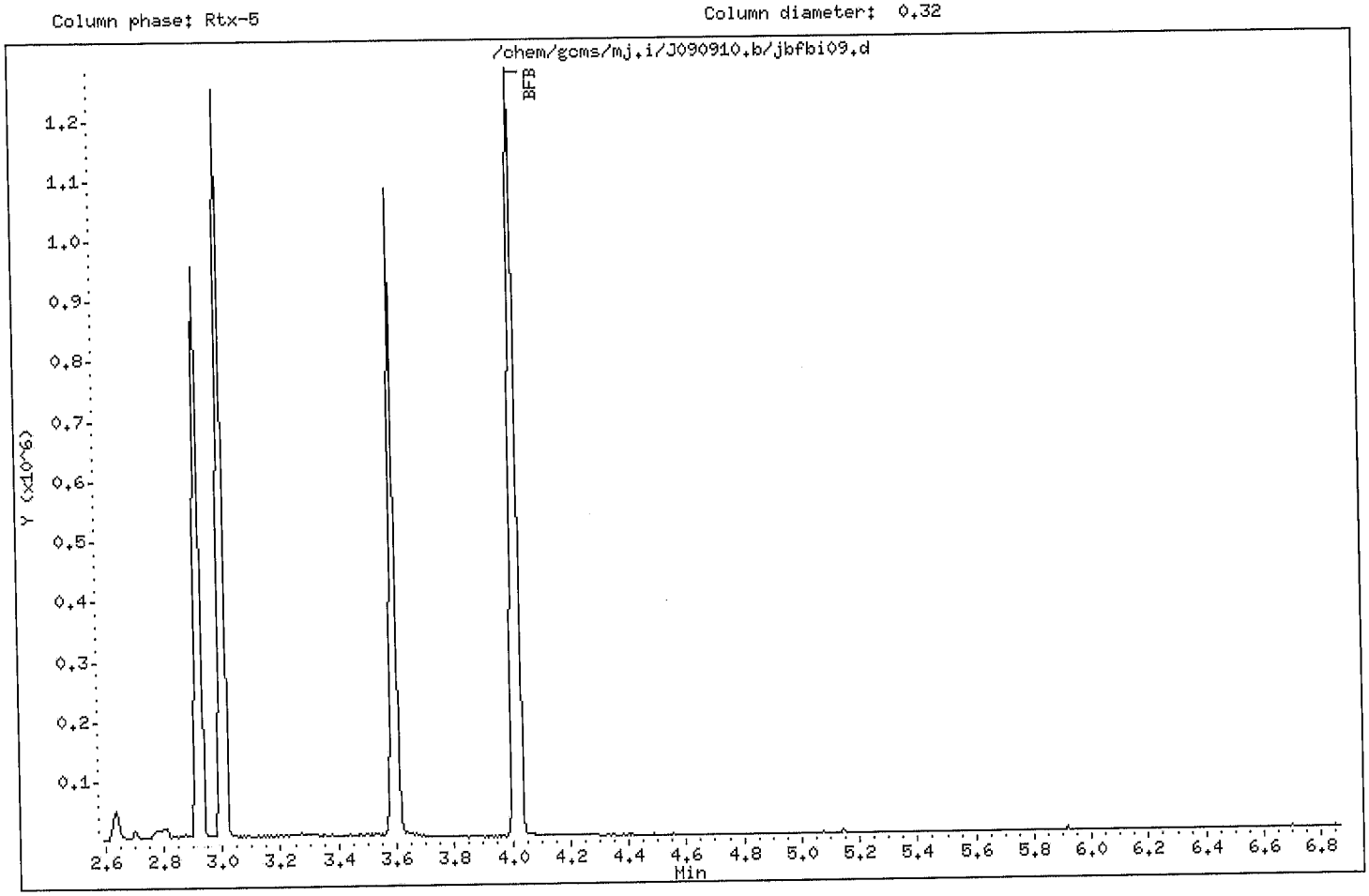
Instrument: mj.i

Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: Rtx-5

Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J090910.b/jccvi09.d
Report Date: 09-Sep-2010 12:20

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: jccvi09.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mj.i/J090910.b/TO15.m

Injection Date: 09-SEP-2010 09:40
Init. Cal. Date(s): 28-JUL-2010 09-SEP-2010
Init. Cal. Times: 12:39 10:43
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 6 4-Bromofluorobenzene	0.75920	0.80598	0.000	-6.16160	30.00000	Averaged	
7 Chlorodifluoromethane	0.50586	0.54127	0.000	-7.00050	30.00000	Averaged	
9 Propene	2.05374	1.94490	0.000	5.29960	30.00000	Averaged	
8 Dichlorodifluoromethane	4.34357	4.67227	0.000	-7.56754	30.00000	Averaged	
10 Chloromethane	0.53208	0.52199	0.000	1.89687	30.00000	Averaged	
11 1,2-Dichlorotetrafluoroetha	2.24337	2.23870	0.000	0.20791	30.00000	Averaged	
12 Methanol	0.29792	0.53985	0.000	-81.20489	30.00000	Averaged	<- NT
13 Vinyl Chloride	1.50874	1.42689	0.000	5.42475	30.00000	Averaged	
14 n-Butane	2.32704	2.21952	0.000	4.62030	30.00000	Averaged	
15 1,3-Butadiene	1.30004	1.20241	0.000	7.51021	30.00000	Averaged	
16 Bromomethane	1.17867	1.10827	0.000	5.97315	30.00000	Averaged	
17 Chloroethane	0.77575	0.69715	0.000	10.13220	30.00000	Averaged	
18 Vinyl Bromide	1.34868	1.26845	0.000	5.94879	30.00000	Averaged	
19 2-methyl butane	2.83278	2.71966	0.000	3.99349	30.00000	Averaged	
20 Trichlorofluoromethane	3.87362	4.36535	0.000	-12.69449	30.00000	Averaged	
21 Acrolein	0.47393	0.47398	0.000	-0.01041	30.00000	Averaged	
22 Acetonitrile	0.68124	0.64833	0.000	4.83137	30.00000	Averaged	
23 Acetone	2.44937	3.64295	0.000	-48.72985	30.00000	Averaged	<- NT
24 Pentane	0.20906	0.19198	0.000	8.17126	30.00000	Averaged	
25 Isopropyl alcohol	2.21766	2.26465	0.000	-2.11898	30.00000	Averaged	
26 Ethyl Ether	2.08885	2.07127	0.000	0.84158	30.00000	Averaged	
27 1,1-Dichloroethene	1.32084	1.23452	0.000	6.53521	30.00000	Averaged	
29 Acrylonitrile	1.14921	1.10218	0.000	4.09258	30.00000	Averaged	
28 tert-butanol	2.40163	2.50022	0.000	-4.10515	30.00000	Averaged	
30 1,1,2-Trichlorotrifluoroeth	2.82397	2.76015	0.000	2.25997	30.00000	Averaged	
31 Methylene Chloride	1.30157	1.07562	0.000	17.36022	30.00000	Averaged	
32 3-Chloropropene	1.84744	1.67489	0.000	9.34026	30.00000	Averaged	
33 Carbon Disulfide	3.94537	3.52370	0.000	10.68777	30.00000	Averaged	
34 trans-1,2-Dichloroethene	1.33045	1.19323	0.000	10.31353	30.00000	Averaged	
35 Methyl-t-Butyl Ether	2.69902	2.53864	0.000	5.94230	30.00000	Averaged	
36 1,1-Dichloroethane	3.17888	2.89146	0.000	9.04148	30.00000	Averaged	
37 Vinyl Acetate	3.81383	3.55828	0.000	6.70053	30.00000	Averaged	
38 Hexane	1.59739	1.45925	0.000	8.64776	30.00000	Averaged	
39 2-Butanone	0.45413	0.34197	0.000	24.69897	30.00000	Averaged	
40 cis 1,2-Dichloroethene	1.36223	1.20191	0.000	11.76844	30.00000	Averaged	
41 Ethyl acetate	3.29905	2.84294	0.000	13.82564	30.00000	Averaged	

Data File: /var/chem/gcms/mj.i/J090910.b/jccvi09.d
Report Date: 09-Sep-2010 12:20

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: jccvi09.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mj.i/J090910.b/TO15.m

Injection Date: 09-SEP-2010 09:40
Init. Cal. Date(s): 28-JUL-2010 09-SEP-2010
Init. Cal. Times: 12:39 10:43
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
42 Chloroform	2.90386	2.80174	0.000	3.51666	30.00000	Averaged
43 Tetrahydrofuran	1.81884	1.62977	0.000	10.39528	30.00000	Averaged
44 1,1,1-Trichloroethane	3.02516	3.15521	0.000	-4.29881	30.00000	Averaged
45 1,2-Dichloroethane	0.56171	0.55532	0.000	1.13868	30.00000	Averaged
46 Cyclohexane	0.14258	0.11208	0.000	21.38990	30.00000	Averaged
48 Benzene	0.84559	0.64820	0.000	23.34409	30.00000	Averaged
47 1-Butanol	0.14197	0.11524	0.000	18.83094	30.00000	Averaged
49 Carbon Tetrachloride	0.66261	0.70325	0.000	-6.13421	30.00000	Averaged
50 2,2,4-trimethylpentane	1.92171	1.63321	0.000	15.01306	30.00000	Averaged
51 Heptane	0.90974	0.74708	0.000	17.87943	30.00000	Averaged
52 1,2-Dichloropropane	0.36499	0.30629	0.000	16.08341	30.00000	Averaged
53 Trichloroethene	0.41116	0.31642	0.000	23.04220	30.00000	Averaged
54 Dibromomethane	0.38877	0.33402	0.000	14.08244	30.00000	Averaged
55 Bromodichloromethane	0.64747	0.61854	0.000	4.46759	30.00000	Averaged
56 1,4-dioxane	0.07442	0.06733	0.000	9.51947	30.00000	Averaged
57 Methyl Methacrylate	0.43552	0.35029	0.000	19.56994	30.00000	Averaged
58 4-Methyl-2-pentanone	0.81761	0.66711	0.000	18.40769	30.00000	Averaged
59 cis-1,3-Dichloropropene	0.44690	0.38259	0.000	14.39110	30.00000	Averaged
60 trans-1,3-Dichloropropene	0.48806	0.44760	0.000	8.28882	30.00000	Averaged
61 Toluene	0.94202	0.78319	0.000	16.85972	30.00000	Averaged
62 1,1,2-Trichloroethane	0.33782	0.28276	0.000	16.29847	30.00000	Averaged
63 2-Hexanone	0.37819	0.31101	0.000	17.76375	30.00000	Averaged
64 Octane	0.30407	0.23821	0.000	21.65919	30.00000	Averaged
65 Dibromochloromethane	0.65713	0.61024	0.000	7.13533	30.00000	Averaged
66 1,2-Dibromoethane	0.56937	0.48653	0.000	14.54966	30.00000	Averaged
67 Tetrachloroethene	0.39357	0.32334	0.000	17.84405	30.00000	Averaged
68 Chlorobenzene	0.76916	0.62670	0.000	18.52082	30.00000	Averaged
69 Ethylbenzene	1.08016	0.95398	0.000	11.68144	30.00000	Averaged
70 m&p-Xylene	0.81686	0.72691	0.000	11.01134	30.00000	Averaged
M 178 Xylene (total)	0.83848	0.73696	0.000	12.10810	25.00000	Averaged
71 Nonane	0.86638	0.79301	0.000	8.46840	30.00000	Averaged
72 Bromoform	0.50315	0.52120	0.000	-3.58837	30.00000	Averaged
73 Styrene	0.56273	0.49111	0.000	12.72667	30.00000	Averaged
74 o-Xylene	0.84967	0.75706	0.000	10.90006	30.00000	Averaged
75 1,1,2,2-Tetrachloroethane	0.65907	0.54986	0.000	16.56954	30.00000	Averaged

Data File: /var/chem/gcms/mj.i/J090910.b/jccvi09.d
Report Date: 09-Sep-2010 12:20

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: jccvi09.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mj.i/J090910.b/TO15.m

Injection Date: 09-SEP-2010 09:40
Init. Cal. Date(s): 28-JUL-2010 09-SEP-2010
Init. Cal. Times: 12:39 10:43
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
76 1,2,3-Trichloropropane	0.15734	0.14908	0.000	5.25312	30.00000	Averaged
77 Cumene	1.07191	0.95118	0.000	11.26248	30.00000	Averaged
78 n-Propylbenzene	0.28268	0.24390	0.000	13.71658	30.00000	Averaged
79 2-chlorotoluene	0.30254	0.27068	0.000	10.53217	30.00000	Averaged
80 4-Ethyltoluene	1.01527	0.88955	0.000	12.38321	30.00000	Averaged
81 1,3,5-Trimethylbenzene	0.40624	0.34835	0.000	14.25131	30.00000	Averaged
82 Alpha-Methylstyrene	0.41615	0.35506	0.000	14.68025	30.00000	Averaged
83 Decane	0.90661	0.86035	0.000	5.10266	30.00000	Averaged
85 tert-butylbenzene	0.88115	0.77054	0.000	12.55215	30.00000	Averaged
84 1,2,4-Trimethylbenzene	0.80812	0.71074	0.000	12.05006	30.00000	Averaged
86 sec-butylbenzene	1.17447	1.04151	0.000	11.32099	30.00000	Averaged
87 1,3-Dichlorobenzene	0.65195	0.57561	0.000	11.70985	30.00000	Averaged
88 Benzyl Chloride	0.77263	0.72378	0.000	6.32238	30.00000	Averaged
89 1,4-Dichlorobenzene	0.63928	0.56565	0.000	11.51745	30.00000	Averaged
90 p-Cymene	0.95971	0.83890	0.000	12.58801	30.00000	Averaged
91 1,2-Dichlorobenzene	0.58187	0.51399	0.000	11.66528	30.00000	Averaged
92 n-butylbenzene	0.95324	0.83545	0.000	12.35716	30.00000	Averaged
93 Undecane	0.76224	0.62402	0.000	18.13307	30.00000	Averaged
94 Dodecane	0.83082	0.66427	0.000	20.04687	30.00000	Averaged
95 1,2,4-Trichlorobenzene	0.38090	0.30355	0.000	20.30695	30.00000	Averaged
96 Napthalene	0.82327	0.62421	0.000	24.17983	30.00000	Averaged
97 Hexachlorobutadiene	0.27597	0.26330	0.000	4.59007	30.00000	Averaged
98 1,2,3-trichlorobenzene	0.31020	0.24268	0.000	21.76752	30.00000	Averaged

Data File: /var/chem/gcms/mj.i/J090910.b/jccvi09.d
Report Date: 09-Sep-2010 12:20

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090910.b/jccvi09.d
Lab Smp Id: CCV Client Smp ID: CCV/LCS
Inj Date : 09-SEP-2010 09:40
Operator : 7126 Inst ID: mj.i
Smp Info : CCV,,2,6,,CCV/LCS
Misc Info : J090910,TO15,1-all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090910.b/TO15.m
Meth Date : 09-Sep-2010 12:20 tajh Quant Type: ISTD
Cal Date : 09-SEP-2010 10:43 Cal File: j1pti09.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-all.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

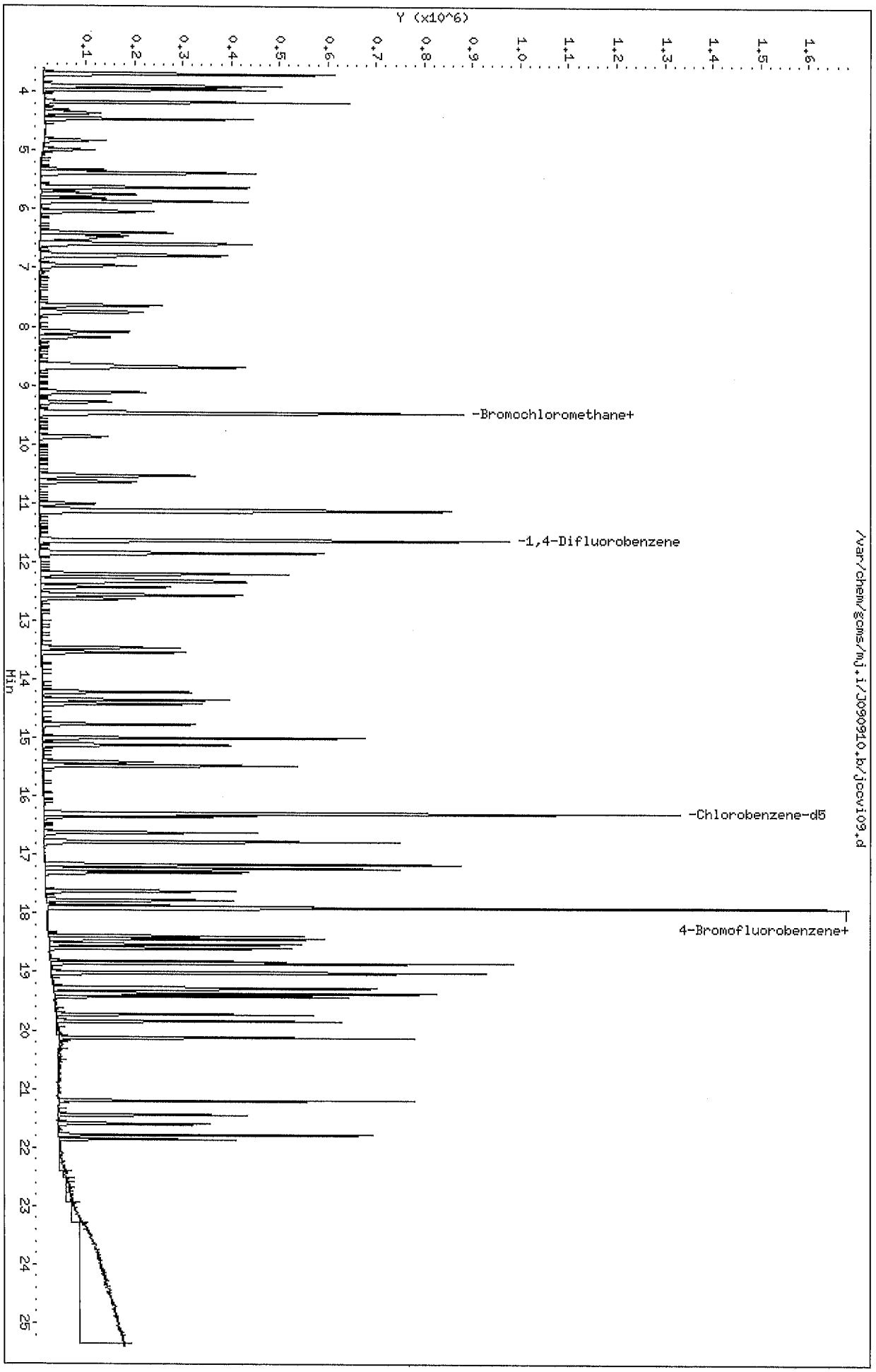
	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
*	1 Bromochloromethane	128	9.468	9.468	(1.000)	166835	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.636	11.636	(1.000)	787366	4.00000	4.000
*	3 Chlorobenzene-d5	117	16.300	16.300	(1.000)	701011	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.914	17.914	(1.099)	565002	4.00000	4.246
	7 Chlorodifluoromethane	67	3.900	3.900	(0.412)	45151	2.00000	2.140
	9 Propene	41	3.911	3.911	(0.413)	162238	2.00000	1.894
	8 Dichlorodifluoromethane	85	3.970	3.970	(0.419)	389749	2.00000	2.151
	10 Chloromethane	52	4.175	4.175	(0.441)	43543	2.00000	1.962
	11 1,2-Dichlorotetrafluoroethane	135	4.180	4.180	(0.441)	186747	2.00000	1.996
	12 Methanol	31	4.309	4.309	(0.455)	45032	2.00000	3.624
	13 Vinyl Chloride	62	4.368	4.368	(0.461)	119027	2.00000	1.892
	14 n-Butane	43	4.465	4.465	(0.472)	185147	2.00000	1.908
	15 1,3-Butadiene	54	4.465	4.465	(0.472)	100301	2.00000	1.850
	16 Bromomethane	94	4.831	4.831	(0.510)	92449	2.00000	1.880
	17 Chloroethane	64	4.992	4.992	(0.527)	58154	2.00000	1.797

Data File: /var/chem/gcms/mj.i/J090910.b/jccvi09.d
Report Date: 09-Sep-2010 12:20

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
18 Vinyl Bromide	106	5.331	5.331	(0.563)	105810	2.00000	1.881
19 2-methyl butane	43	5.385	5.385	(0.569)	226867	2.00000	1.920
20 Trichlorofluoromethane	101	5.627	5.627	(0.594)	364147	2.00000	2.254
21 Acrolein	56	5.632	5.632	(0.595)	39538	2.00000	2.000
22 Acetonitrile	40	5.702	5.702	(0.602)	54081	2.00000	1.903
23 Acetone	43	5.751	5.751	(0.607)	303885	2.00000	2.974
24 Pentane	72	5.869	5.869	(0.620)	16014	2.00000	1.836
25 Isopropyl Alcohol	45	5.821	5.821	(0.615)	188911	2.00000	2.042
26 Ethyl Ether	31	6.041	6.041	(0.638)	172780	2.00000	1.983
27 1,1-Dichloroethene	96	6.402	6.402	(0.676)	102980	2.00000	1.869
29 Acrylonitrile	53	6.509	6.509	(0.688)	91941	2.00000	1.918
28 tert-butanol	59	6.461	6.461	(0.682)	208562	2.00000	2.082
30 1,1,2-Trichlorotrifluoroethane	101	6.590	6.590	(0.696)	230244	2.00000	1.955
31 Methylene Chloride	84	6.778	6.778	(0.716)	89725	2.00000	1.653
32 3-Chloropropene	39	6.800	6.800	(0.718)	139715	2.00000	1.813
33 Carbon Disulfide	76	6.966	6.966	(0.736)	293938	2.00000	1.786
34 trans-1,2-Dichloroethene	96	7.644	7.644	(0.807)	99536	2.00000	1.794
35 Methyl-t-Butyl Ether	73	7.757	7.757	(0.819)	211767	2.00000	1.881
36 1,1-Dichloroethane	63	8.091	8.091	(0.855)	241198	2.00000	1.819
37 Vinyl Acetate	43	8.182	8.182	(0.864)	296823	2.00000	1.866
38 Hexane	56	8.693	8.693	(0.918)	121727	2.00000	1.827
39 2-Butanone	72	8.645	8.645	(0.913)	28526	2.00000	1.506
40 cis 1,2-Dichloroethene	96	9.118	9.118	(0.963)	100260	2.00000	1.765
41 Ethyl acetate	43	9.285	9.285	(0.981)	237150	2.00000	1.723
42 Chloroform	83	9.473	9.473	(1.001)	233714	2.00000	1.930
43 Tetrahydrofuran	42	9.871	9.871	(1.043)	135951	2.00000	1.792
44 1,1,1-Trichloroethane	97	10.533	10.533	(1.113)	263200	2.00000	2.086
45 1,2-Dichloroethane	62	10.641	10.641	(0.914)	218618	2.00000	1.977
46 Cyclohexane	69	11.125	11.125	(0.956)	44124	2.00000	1.572
48 Benzene	78	11.119	11.119	(0.956)	255183	2.00000	1.533
47 1-Butanol	31	11.012	11.012	(0.946)	45366	2.00000	1.623
49 Carbon Tetrachloride	117	11.146	11.146	(0.958)	276859	2.00000	2.123
50 2,2,4-trimethylpentane	57	11.851	11.851	(1.018)	642965	2.00000	1.700
51 Heptane	43	12.211	12.211	(1.049)	294113	2.00000	1.642
52 1,2-Dichloropropane	63	12.314	12.314	(1.058)	120581	2.00000	1.678
53 Trichloroethene	130	12.341	12.341	(1.061)	124569	2.00000	1.539
54 Dibromomethane	93	12.432	12.432	(1.068)	131497	2.00000	1.718
55 Bromodichloromethane	83	12.567	12.567	(1.080)	243509	2.00000	1.911
56 1,4-dioxane	88	12.561	12.561	(1.080)	26507	2.00000	1.810
57 methyl methacrylate	41	12.631	12.631	(1.086)	137903	2.00000	1.609
58 4-Methyl-2-pentanone	43	13.465	13.465	(1.157)	262629	2.00000	1.632
59 cis-1,3-Dichloropropene	75	13.546	13.546	(1.164)	150617	2.00000	1.712
60 trans-1,3-Dichloropropene	75	14.223	14.223	(0.873)	156887	2.00000	1.834
61 Toluene	91	14.352	14.352	(0.881)	274514	2.00000	1.663
62 1,1,2-Trichloroethane	97	14.422	14.422	(0.885)	99110	2.00000	1.674
63 2-Hexanone	58	14.772	14.772	(0.906)	109009	2.00000	1.645
64 Octane	85	15.009	15.009	(0.921)	83493	2.00000	1.567

Data File: /var/chem/gcms/mj.i/J090910.b/jccvi09.d
Report Date: 09-Sep-2010 12:20

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
65 Dibromochloromethane	129	15.127	15.127	(0.928)	213893	2.00000	1.857
66 1,2-Dibromoethane	107	15.418	15.418	(0.946)	170530	2.00000	1.709
67 Tetrachloroethene	129	15.482	15.482	(0.950)	113334	2.00000	1.643
68 Chlorobenzene	112	16.348	16.348	(1.003)	219663	2.00000	1.630
69 Ethylbenzene	91	16.623	16.623	(1.020)	334375	2.00000	1.766
70 m&p-Xylene	91	16.784	16.784	(1.030)	509573	4.00000	3.560
M 178 Xylene (total)	100				774926	6.00000	5.342
71 Nonane	57	17.171	17.171	(1.053)	277955	2.00000	1.831
72 Bromoform	173	17.247	17.247	(1.058)	182684	2.00000	2.072
73 Styrene	104	17.247	17.247	(1.058)	172138	2.00000	1.745
74 o-Xylene	91	17.306	17.306	(1.062)	265352	2.00000	1.782
75 1,1,2,2-Tetrachloroethane	83	17.623	17.623	(1.081)	192729	2.00000	1.669
76 1,2,3-Trichloropropane	110	17.779	17.779	(1.091)	52252	2.00000	1.895
77 Cumene	105	17.876	17.876	(1.097)	333395	2.00000	1.775
78 n-Propylbenzene	120	18.387	18.387	(1.128)	85489	2.00000	1.726
79 2-chlorotoluene	126	18.441	18.441	(1.131)	94873	2.00000	1.789
80 4-Ethyltoluene	105	18.532	18.532	(1.137)	311792	2.00000	1.752
81 1,3,5-Trimethylbenzene	120	18.597	18.597	(1.141)	122098	2.00000	1.715
82 Alpha-Methylstyrene	118	18.823	18.823	(1.155)	124450	2.00000	1.706
83 Decane	57	18.855	18.855	(1.157)	301556	2.00000	1.898
85 tert-butylbenzene	119	19.011	19.011	(1.166)	270079	2.00000	1.749
84 1,2,4-Trimethylbenzene	105	19.022	19.022	(1.167)	249119	2.00000	1.759
86 sec-butylbenzene	105	19.269	19.269	(1.182)	365054	2.00000	1.774
87 1,3-Dichlorobenzene	146	19.296	19.296	(1.184)	201753	2.00000	1.766
88 Benzyl Chloride	91	19.361	19.361	(1.188)	253688	2.00000	1.874
89 1,4-Dichlorobenzene	146	19.377	19.377	(1.189)	198263	2.00000	1.770
90 p-Cymene	119	19.420	19.420	(1.191)	294038	2.00000	1.748
91 1,2-Dichlorobenzene	146	19.727	19.727	(1.210)	180156	2.00000	1.767
92 n-butylbenzene	91	19.845	19.845	(1.217)	292828	2.00000	1.753
93 Undecane	57	20.125	20.125	(1.235)	218723	2.00000	1.637
94 Dodecane	57	21.201	21.201	(1.301)	232830	2.00000	1.599
95 1,2,4-Trichlorobenzene	180	21.448	21.448	(1.316)	106396	2.00000	1.594
96 Napthalene	128	21.599	21.599	(1.325)	218787	2.00000	1.516
97 Hexachlorobutadiene	225	21.787	21.787	(1.337)	92289	2.00000	1.908
98 1,2,3-trichlorobenzene	180	21.862	21.862	(1.341)	85060	2.00000	1.565


Data File: /var/chem/gcms/mj.i/J090910.b/jccvi09.d
Date : 09-SEP-2010 09:40
Client ID: CCV/LCS
Sample Info: CCV,,2,6,,CCV/LCS
Purge Volume: 200.0
Column phase: Rtx-5
Instrument: mj.i
Operator: 7126
Column diameter: 0.32
Y (x10^6)
-Bromochloromethane+
-1,4-Difluorobenzene
-Chlorobenzene-d5
4-Bromofluorobenzene+
/var/chem/gcms/mj.i/J090910.b/jccvi09.d
Min

Data File: /var/chem/gcms/mj.i/J090910.b/j1pti09.d
Report Date: 09-Sep-2010 12:20

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: j1pti09.d
Analysis Type: AIR
Lab Sample ID: 1PTCAL
Method: /var/chem/gcms/mj.i/J090910.b/TO15.m

Injection Date: 09-SEP-2010 10:43
Init. Cal. Date(s): 28-JUL-2010 09-SEP-2010
Init. Cal. Times: 12:39 10:43
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 ~ Thiophene	0.42429	0.42429	0.000	0.000e+00	25.00000	Averaged
100 ~ 1,2,3- Trimethylbenzene	0.58557	0.58557	0.000	0.000e+00	25.00000	Averaged
101 ~ Indane	0.64025	0.64025	0.000	0.000e+00	25.00000	Averaged
102 ~ Indene	0.40734	0.40734	0.000	-1.363e-14	25.00000	Averaged
103 ~ 2-Methylnaphthalene	0.04924	0.04924	0.000	0.000e+00	25.00000	Averaged
104 ~ 1-Methylnaphthalene	0.05315	0.05315	0.000	0.000e+00	25.00000	Averaged
164 ~ methyl cyclohexane	0.38914	0.38914	0.000	1.427e-14	25.00000	Averaged
165 ~ acetaldehyde	0.92539	0.92539	0.000	0.000e+00	25.00000	Averaged
166 ~ ethanol	1.22078	1.22078	0.000	0.000e+00	25.00000	Averaged
167 ~ 2,3-dimethylpentane	0.62792	0.62792	0.000	1.768e-14	25.00000	Averaged
168 ~ 2-methyl thiophene	0.73854	0.73854	0.000	0.000e+00	25.00000	Averaged
169 ~ 3-methyl thiophene	0.78208	0.78208	0.000	1.420e-14	25.00000	Averaged
170 ~ 2,3-dimethylheptane	1.52099	1.52099	0.000	0.000e+00	25.00000	Averaged
171 ~ 2-ethyl thiophene	0.78912	0.78912	0.000	1.407e-14	25.00000	Averaged
172 ~ n-butylcyclohexane	0.49891	0.49891	0.000	0.000e+00	25.00000	Averaged
173 ~ 1,2-dimethyl-4-ethylenzen	0.60768	0.60768	0.000	0.000e+00	25.00000	Averaged
174 ~ 1,2,4,5-tetramethylbenzen	0.61583	0.61583	0.000	0.000e+00	25.00000	Averaged
175 ~ 1,2,3,5-tetramethylbenzen	0.48863	0.48863	0.000	1.136e-14	25.00000	Averaged
176 ~ 1,2,3,4-tetramethylbenzen	0.54737	0.54737	0.000	-2.028e-14	25.00000	Averaged
177 ~ benzo(b) thiophene	0.41175	0.41175	0.000	0.000e+00	25.00000	Averaged

Data File: /var/chem/gcms/mj.i/J090910.b/j1pti09.d
Report Date: 09-Sep-2010 12:20

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090910.b/j1pti09.d
Lab Smp Id: 1PTCAL Client Smp ID: 1ptcal
Inj Date : 09-SEP-2010 10:43
Operator : 7126 Inst ID: mj.i
Smp Info : 1PTCAL,,3,6,,1ptcal
Misc Info : J090910,TO15,1ptcala.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090910.b/TO15.m
Meth Date : 09-Sep-2010 12:20 tajh Quant Type: ISTD
Cal Date : 09-SEP-2010 10:43 Cal File: j1pti09.d
Als bottle: 13 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1ptcala.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
* 1 Bromochloromethane	128	9.464	9.464	(1.000)	195820	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.632	11.632	(1.000)	928699	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.296	16.296	(1.000)	800933	4.00000	4.000
99 ~ Thiophene	84	11.384	11.384	(0.979)	7880	0.08000	0.08000(A)
100 ~ 1,2,3- Trimethylbenzene	105	19.480	19.480	(1.195)	9380	0.08000	0.08000(A)
101 ~ Indane	117	19.722	19.722	(1.210)	10256	0.08000	0.08000(A)
102 ~ Indene	116	19.851	19.851	(1.218)	6525	0.08000	0.08000(A)
103 ~ 2-Methylnaphthalene	142	22.504	22.504	(1.381)	9860	1.00000	1.000(A)
104 ~ 1-Methylnaphthalene	142	22.638	22.638	(1.389)	10641	1.00000	1.000(A)
164 ~ methyl cyclohexane	83	13.100	13.100	(1.126)	7227	0.08000	0.08000(A)
165 ~ acetaldehyde	44	4.348	4.348	(0.459)	17215	0.38000	0.3800(A)
166 ~ ethanol	31	5.074	5.074	(0.536)	23307	0.39000	0.3900(A)
167 ~ 2,3-dimethylpentane	56	11.217	11.217	(0.964)	11662	0.08000	0.08000(A)
168 ~ 2-methyl thiophene	97	14.504	14.504	(0.890)	11830	0.08000	0.08000(A)
169 ~ 3-methyl thiophene	97	14.703	14.703	(0.902)	12527	0.08000	0.08000(A)

Data File: /var/chem/gcms/mj.i/J090910.b/j1pti09.d
Report Date: 09-Sep-2010 12:20

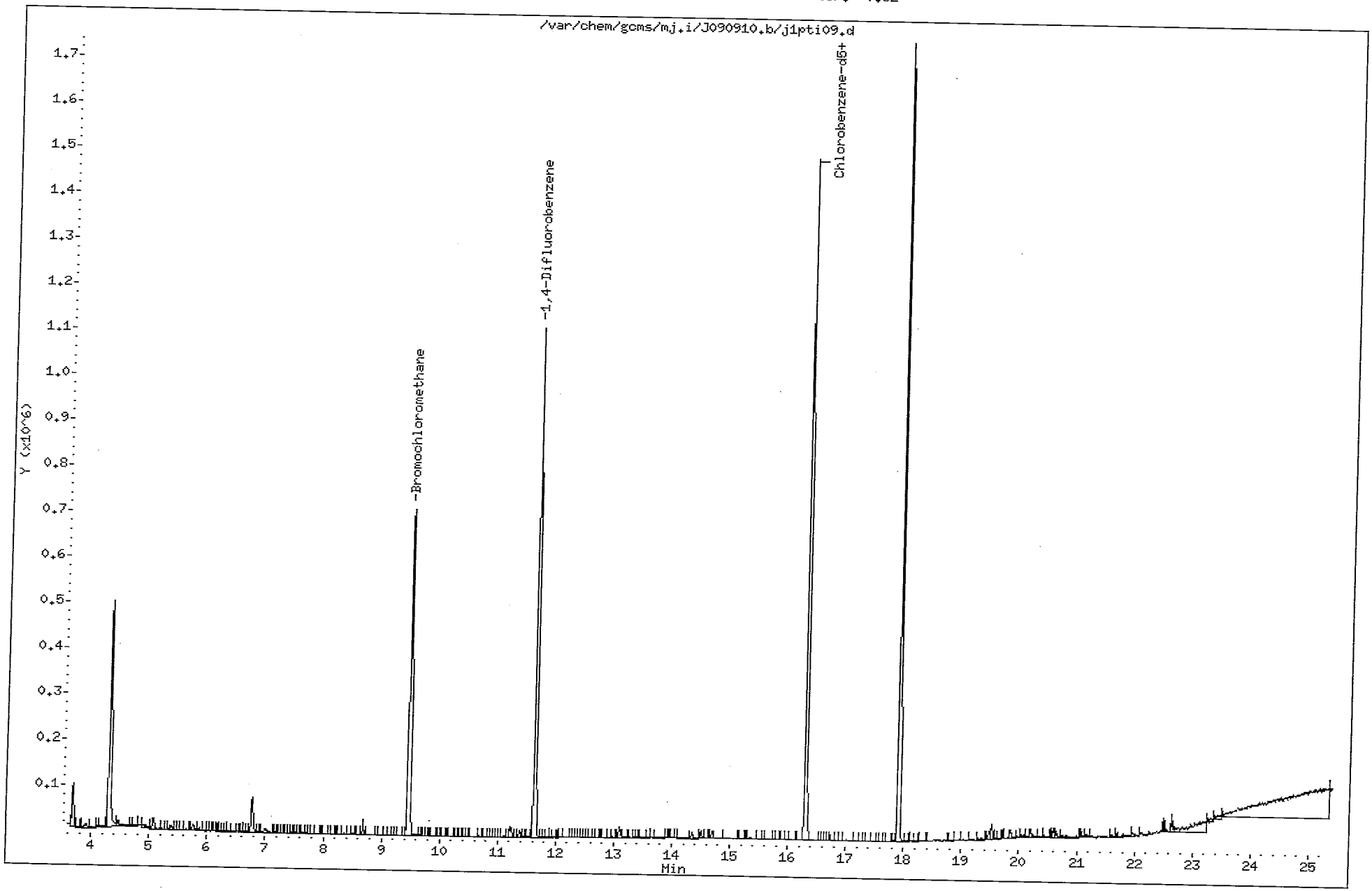
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
170 ~ 2,3-dimethylheptane	43	16.339	16.339	(1.003)	24364	0.08000	0.08000(A)
171 ~ 2-ethyl thiophene	97	16.726	16.726	(1.026)	12640	0.08000	0.08000(A)
172 ~ n-butylcyclohexane	83	19.529	19.529	(1.198)	7991	0.08000	0.08000(A)
173 ~ 1,2-dimethyl-4-ethylenzene	119	20.201	20.201	(1.240)	9734	0.08000	0.08000(A)
174 ~ 1,2,4,5-tetramethylbenzene	119	20.588	20.588	(1.263)	9864	0.08000	0.08000(A)
175 ~ 1,2,3,5-tetramethylbenzene	119	20.642	20.642	(1.267)	7827	0.08000	0.08000(A)
176 ~ 1,2,3,4-tetramethylbenzene	119	21.062	21.062	(1.292)	8768	0.08000	0.08000(A)
177 ~ benzo(b) thiophene	134	21.697	21.697	(1.331)	6595	0.08000	0.08000(A)

QC Flag Legend

A - Target compound detected but, quantitated amount exceeded maximum amount.

Data File: /var/chem/gcms/mj.i/J090910.b/j1pti09.d
Date : 09-SEP-2010 10:43
Client ID: 1ptcal
Sample Info: 1PTCAL,,3,6,,1ptcal
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 7126
Column diameter: 0.32



Raw QC Data

Tetra Tech NUS, Inc

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample #	H0I090000 - 108B	**Work Order #**	L6N851AA	**Matrix.....:**	AIR
	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	1	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.080	0.023	ND	0.26	0.073
Carbon tetrachloride	ND	0.080	0.015	ND	0.50	0.094
Chlorodifluoromethane	ND	0.080	0.015	ND	0.28	0.053
Chloroform	ND	0.080	0.015	ND	0.39	0.073
Dichlorodifluoromethane	ND	0.080	0.027	ND	0.40	0.13
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	ND	0.080	0.027	ND	0.35	0.12
Methylene chloride	ND	0.20	0.018	ND	0.69	0.063
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	ND	0.20	0.036	ND	1.0	0.19
Tetrachloroethene	ND	0.080	0.016	ND	0.54	0.11
Toluene	ND	0.080	0.021	ND	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	ND	0.080	0.012	ND	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	ND	0.040	0.014	ND	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	ND	0.080	0.050	ND	0.35	0.22
o-Xylene	ND	0.080	0.024	ND	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	99	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090810.b/jblki08.d
Report Date: 10-Sep-2010 14:15

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/jblki08.d
Lab Smp Id: L6N851AA Client Smp ID: INTRA-LAB BLANK
Inj Date : 08-SEP-2010 11:32
Operator : 7126 Inst ID: mj.i
Smp Info : L6N851AA,,3,,,BLANK
Misc Info : J090810,TO15,1-all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 10-Sep-2010 14:15 barlozha Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 14 QC Sample: METHOD BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
* 1 Bromochloromethane	128	9.470	9.479	(1.000)	198987	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.638	11.642	(1.000)	962931	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.297	16.300	(1.000)	777972	4.00000	4.000
$ 6 4-Bromofluorobenzene	95	17.911	17.914	(1.099)	585652	3.96622	3.966

Data File: /var/chem/gcms/mj.i/J090810.b/jblki08.d
Report Date: 10-Sep-2010 14:15

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: jblki08.d
Lab Smp Id: L6N851AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,1-all.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: INTRA-LAB BLANK
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	198987	2.01
2 1,4-Difluorobenze	936174	557024	1315324	962931	2.86
3 Chlorobenzene-d5	815161	485021	1145301	777972	-4.56

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.09
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.03
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	-0.02

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/jblki08.d
Report Date: 10-Sep-2010 14:15

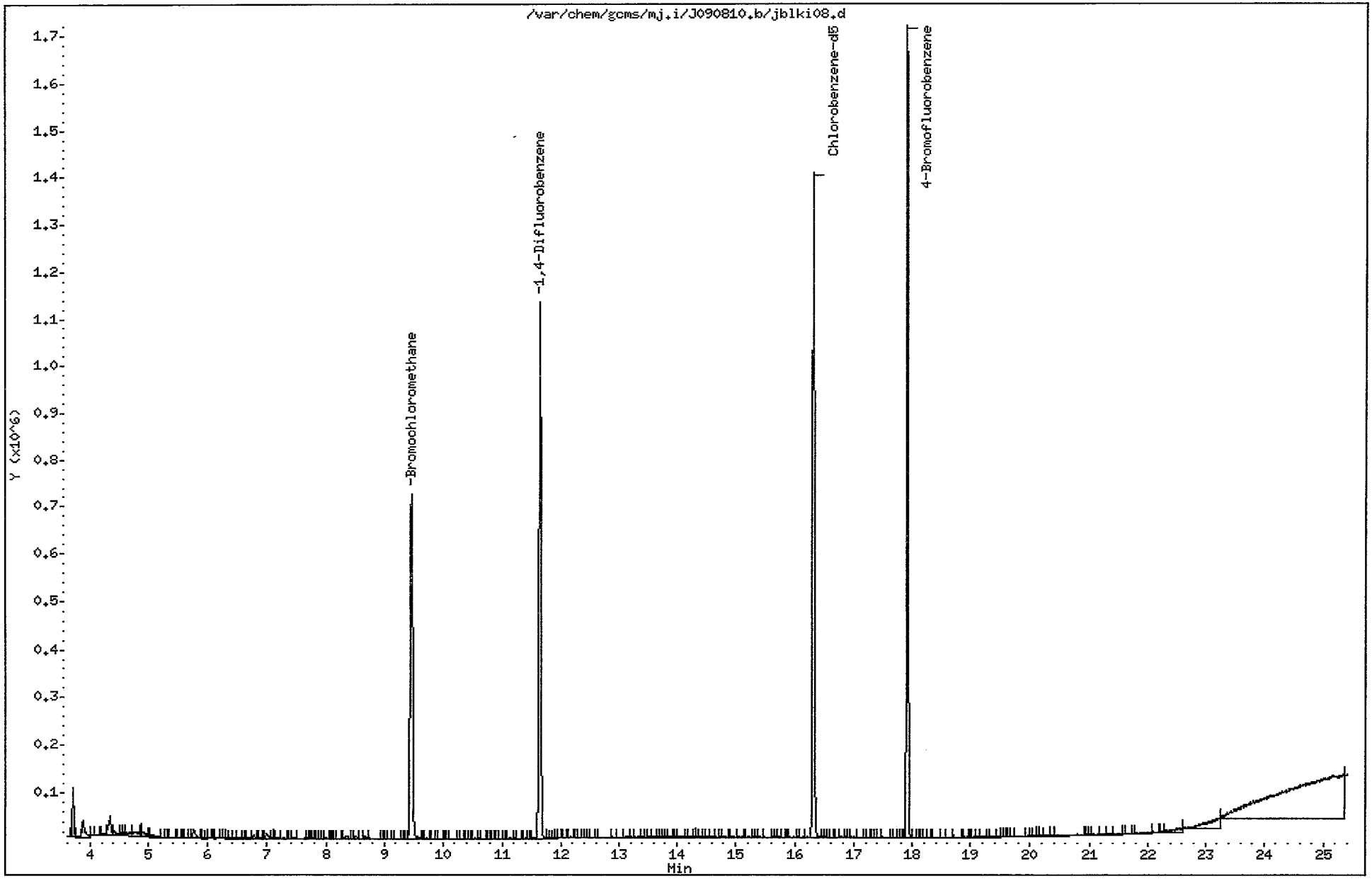
TestAmerica Knoxville

RECOVERY REPORT

Client Name:
Client SDG: H0I090000
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6N851AA
Client Smp ID: INTRA-LAB BLANK
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: METHOD BLANK
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,1-all.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.966	99.16	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/jblki08.d
Date : 08-SEP-2010 11:32
Client ID: INTRA-LAB BLANK
Instrument: mj.i
Sample Info: L6N851AA,,3,,,BLANK
Purge Volume: 500.0
Operator: 7126
Column phase: Rtx-5
Column diameter: 0.32



Tetra Tech NUS, Inc

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0I090000 - 108C **Work Order #** L6N851AC **Matrix.....:** AIR

	08/30/2010	**Date Received..:**	09/02/2010
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010
Prep Batch #.....:	0252108		
Dilution Factor.:	1	**Method.....:**	TO-15

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Benzene	5.00	4.10	16	13	82	70 - 130
Carbon tetrachloride	5.00	5.57	31	35	111	70 - 130
Chlorodifluoromethane	5.00	4.95	18	18	99	60 - 140
Chloroform	5.00	5.17	24	25	103	70 - 130
Dichlorodifluoromethane	5.00	4.98	25	25	100	60 - 140
1,1-Dichloroethane	5.00	4.88	20	20	98	70 - 130
1,2-Dichloroethane	5.00	5.01	20	20	100	70 - 130
cis-1,2-Dichloroethene	5.00	4.80	20	19	96	70 - 130
trans-1,2-Dichloroethene	5.00	4.75	20	19	95	70 - 130
1,1-Dichloroethene	5.00	4.68	20	19	94	70 - 130
Ethylbenzene	5.00	4.73	22	21	95	70 - 130
Methylene chloride	5.00	4.32	17	15	86	70 - 130
Methyl tert-butyl ether	5.00	5.23	18	19	105	60 - 140
Naphthalene	5.00	3.42	26	18	68	60 - 140
Tetrachloroethene	5.00	4.48	34	30	90	70 - 130
Toluene	5.00	4.40	19	17	88	70 - 130
1,2,4-Trichlorobenzene	5.00	3.78	37	28	76	60 - 140
1,1,1-Trichloroethane	5.00	5.63	27	31	113	70 - 130
1,1,2-Trichloroethane	5.00	4.48	27	24	90	70 - 130
Trichloroethene	5.00	4.50	27	24	90	70 - 130
Vinyl chloride	5.00	5.11	13	13	102	70 - 130
m-Xylene & p-Xylene	10.0	9.58	43	42	96	70 - 130
o-Xylene	5.00	4.80	22	21	96	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090810.b/jlcsi08.d
Report Date: 09-Sep-2010 09:36

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/jlcsi08.d
Lab Smp Id: L6N851AC Client Smp ID: CCV/LCS
Inj Date : 08-SEP-2010 09:50
Operator : 7126 Inst ID: mj.i
Smp Info : L6N851AC,,3,6,,CCV/LCS
Misc Info : J090810,TO15,1-all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 09-Sep-2010 08:40 tajh Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-all.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
* 1 Bromochloromethane	128	9.479	9.479	(1.000)	195069	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.642	11.642	(1.000)	936174	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.300	16.300	(1.000)	815161	4.00000	4.000
$ 6 4-Bromofluorobenzene	95	17.914	17.914	(1.099)	628848	4.06447	10.16
7 Chlorodifluoromethane	67	3.901	3.901	(0.411)	48852	1.98028	4.951
9 Propene	41	3.911	3.911	(0.413)	164861	1.64606	4.115
8 Dichlorodifluoromethane	85	3.970	3.970	(0.419)	421785	1.99121	4.978
10 Chloromethane	52	4.180	4.180	(0.441)	56421	2.17437	5.436
11 1,2-Dichlorotetrafluoroethane	135	4.186	4.186	(0.442)	256760	2.34692	5.867
12 Methanol	31	4.315	4.315	(0.455)	63251	4.35347	10.88(R)
13 Vinyl Chloride	62	4.374	4.374	(0.461)	150421	2.04440	5.111
14 n-Butane	43	4.471	4.471	(0.472)	247909	2.18454	5.461
15 1,3-Butadiene	54	4.471	4.471	(0.472)	130007	2.05060	5.126
16 Bromomethane	94	4.837	4.837	(0.510)	109793	1.91009	4.775
17 Chloroethane	64	4.998	4.998	(0.527)	68407	1.80822	4.520

Data File: /var/chem/gcms/mj.i/J090810.b/jlcsi08.d
Report Date: 09-Sep-2010 09:36

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
18 Vinyl Bromide	106	5.337	5.337	(0.563)	125373	1.90620	4.765
19 2-methyl butane	43	5.391	5.391	(0.569)	245522	1.77725	4.443
20 Trichlorofluoromethane	101	5.638	5.638	(0.595)	411935	2.18064	5.452
21 Acrolein	56	5.638	5.638	(0.595)	48322	2.09074	5.227
22 Acetonitrile	40	5.708	5.708	(0.602)	63080	1.89873	4.747
23 Acetone	43	5.762	5.762	(0.608)	249295	2.08704	5.218
24 Pentane	72	5.875	5.875	(0.620)	18461	1.81074	4.527
25 Isopropyl Alcohol	45	5.832	5.832	(0.615)	214546	1.98380	4.959
26 Ethyl Ether	31	6.047	6.047	(0.638)	202478	1.98766	4.969
27 1,1-Dichloroethene	96	6.413	6.413	(0.677)	120641	1.87291	4.682
29 Acrylonitrile	53	6.515	6.515	(0.687)	113144	2.01884	5.047
28 tert-butanol	59	6.472	6.472	(0.683)	238377	2.03531	5.088
30 1,1,2-Trichlorotrifluoroethane	101	6.596	6.596	(0.696)	274032	1.98982	4.974
31 Methylene Chloride	84	6.784	6.784	(0.716)	109680	1.72795	4.320
32 3-Chloropropene	39	6.805	6.805	(0.718)	164403	1.82478	4.562
33 Carbon Disulfide	76	6.972	6.972	(0.736)	351204	1.82534	4.563
34 trans-1,2-Dichloroethene	96	7.650	7.650	(0.807)	123392	1.90179	4.754
35 Methyl-t-Butyl Ether	73	7.763	7.763	(0.819)	275291	2.09150	5.229
36 1,1-Dichloroethane	63	8.102	8.102	(0.855)	302382	1.95054	4.876
37 Vinyl Acetate	43	8.193	8.193	(0.864)	379059	2.03806	5.095
38 Hexane	56	8.699	8.699	(0.918)	147956	1.89930	4.748
39 2-Butanone	72	8.656	8.656	(0.913)	37853	1.70918	4.273
40 cis 1,2-Dichloroethene	96	9.129	9.129	(0.963)	127672	1.92185	4.805
41 Ethyl acetate	43	9.291	9.291	(0.980)	302094	1.87769	4.694
42 Chloroform	83	9.479	9.479	(1.000)	292891	2.06824	5.171
43 Tetrahydrofuran	42	9.877	9.877	(1.042)	169412	1.90995	4.775
44 1,1,1-Trichloroethane	97	10.544	10.544	(1.112)	332304	2.25247	5.631
45 1,2-Dichloroethane	62	10.646	10.646	(0.914)	263425	2.00376	5.009
46 Cyclohexane	69	11.131	11.131	(0.956)	54493	1.63300	4.082
48 Benzene	78	11.125	11.125	(0.956)	324618	1.64027	4.101
47 1-Butanol	31	11.023	11.023	(0.947)	50416	1.51730	3.793
49 Carbon Tetrachloride	117	11.152	11.152	(0.958)	345443	2.22752	5.569
50 2,2,4-trimethylpentane	57	11.857	11.857	(1.018)	786269	1.74818	4.370
51 Heptane	43	12.217	12.217	(1.049)	351364	1.65023	4.126
52 1,2-Dichloropropane	63	12.314	12.314	(1.058)	146959	1.72034	4.301
53 Trichloroethene	130	12.352	12.352	(1.061)	173323	1.80113	4.503
54 Dibromomethane	93	12.438	12.438	(1.068)	163094	1.79247	4.481
55 Bromodichloromethane	83	12.572	12.572	(1.080)	300107	1.98044	4.951
56 1,4-dioxane	88	12.567	12.567	(1.079)	32589	1.87115	4.678
57 methyl methacrylate	41	12.637	12.637	(1.085)	179834	1.76427	4.411
58 4-Methyl-2-pentanone	43	13.465	13.465	(1.157)	295441	1.54393	3.860
59 cis-1,3-Dichloropropene	75	13.546	13.546	(1.164)	184637	1.76528	4.413
60 trans-1,3-Dichloropropene	75	14.224	14.224	(0.873)	190617	1.91649	4.791
61 Toluene	91	14.358	14.358	(0.881)	337784	1.75953	4.399
62 1,1,2-Trichloroethane	97	14.428	14.428	(0.885)	123254	1.79030	4.476
63 2-Hexanone	58	14.778	14.778	(0.907)	126427	1.64041	4.101
64 Octane	85	15.009	15.009	(0.921)	103756	1.67441	4.186

Data File: /var/chem/gcms/mj.i/J090810.b/jlcsi08.d
Report Date: 09-Sep-2010 09:36

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
65 Dibromochloromethane	129	15.127	15.127	(0.928)	266212	1.98788	4.970
66 1,2-Dibromoethane	107	15.418	15.418	(0.946)	209365	1.80437	4.511
67 Tetrachloroethene	129	15.483	15.483	(0.950)	143607	1.79046	4.476
68 Chlorobenzene	112	16.349	16.349	(1.003)	267912	1.70920	4.273
69 Ethylbenzene	91	16.623	16.623	(1.020)	416352	1.89143	4.728
70 m&p-Xylene	91	16.784	16.784	(1.030)	637787	3.83129	9.578
M 178 Xylene (total)	100				970425	5.75233	14.38
71 Nonane	57	17.172	17.172	(1.053)	320106	1.81301	4.532
72 Bromoform	173	17.247	17.247	(1.058)	218305	2.12905	5.323
73 Styrene	104	17.247	17.247	(1.058)	208128	1.81487	4.537
74 o-Xylene	91	17.306	17.306	(1.062)	332638	1.92105	4.803
75 1,1,2,2-Tetrachloroethane	83	17.624	17.624	(1.081)	226651	1.68750	4.219
76 1,2,3-Trichloropropane	110	17.780	17.780	(1.091)	62043	1.93490	4.837
77 Cumene	105	17.876	17.876	(1.097)	414963	1.89963	4.749
78 n-Propylbenzene	120	18.387	18.387	(1.128)	106331	1.84580	4.614
79 2-chlorotoluene	126	18.441	18.441	(1.131)	112020	1.81689	4.542
80 4-Ethyltoluene	105	18.533	18.533	(1.137)	382056	1.84655	4.616
81 1,3,5-Trimethylbenzene	120	18.597	18.597	(1.141)	149919	1.81086	4.527
82 Alpha-Methylstyrene	118	18.823	18.823	(1.155)	150037	1.76914	4.423
83 Decane	57	18.855	18.855	(1.157)	343653	1.86002	4.650
85 tert-butylbenzene	119	19.011	19.011	(1.166)	336898	1.87615	4.690
84 1,2,4-Trimethylbenzene	105	19.022	19.022	(1.167)	303133	1.84066	4.602
86 sec-butylbenzene	105	19.270	19.270	(1.182)	445022	1.85933	4.648
87 1,3-Dichlorobenzene	146	19.291	19.291	(1.183)	231462	1.74214	4.355
88 Benzyl Chloride	91	19.361	19.361	(1.188)	299257	1.90060	4.751
89 1,4-Dichlorobenzene	146	19.377	19.377	(1.189)	221640	1.70128	4.253
90 p-Cymene	119	19.420	19.420	(1.191)	359263	1.83692	4.592
91 1,2-Dichlorobenzene	146	19.727	19.727	(1.210)	205151	1.73008	4.325
92 n-butylbenzene	91	19.840	19.840	(1.217)	347721	1.78997	4.475
93 Undecane	57	20.125	20.125	(1.235)	201176	1.29509	3.238
94 Dodecane	57	21.201	21.201	(1.301)	203408	1.20137	3.003
95 1,2,4-Trichlorobenzene	180	21.448	21.448	(1.316)	117388	1.51227	3.781
96 Napthalene	128	21.594	21.594	(1.325)	229421	1.36743	3.418
97 Hexachlorobutadiene	225	21.787	21.787	(1.337)	108115	1.92238	4.806
98 1,2,3-trichlorobenzene	180	21.863	21.863	(1.341)	82474	1.30463	3.262

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcms/mj.i/J090810.b/jlcsi08.d
Report Date: 09-Sep-2010 09:36

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: jlcsi08.d
Lab Smp Id: L6N851AC
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,1-all.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: CCV/LCS
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	195069	0.00
2 1,4-Difluorobenze	936174	557024	1315324	936174	0.00
3 Chlorobenzene-d5	815161	485021	1145301	815161	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.48	0.00
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.00
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/jlcsi08.d
Report Date: 09-Sep-2010 09:36

TestAmerica Knoxville

RECOVERY REPORT

Client Name:
Client SDG: J090810
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6N851AC
Client Smp ID: CCV/LCS
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: LCS
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: 1-all.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,1-all.sub,,,

SPIKE	COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
7	Chlorodifluorometh	5.000	4.951	99.01	60-140
9	Propene	5.000	4.115	82.30	60-140
8	Dichlorodifluorome	5.000	4.978	99.56	60-140
10	Chloromethane	5.000	5.436	108.72	60-140
11	1,2-Dichlorotetraf	5.000	5.867	117.35	60-140
12	Methanol	5.000	10.88	217.67*	60-140
13	Vinyl Chloride	5.000	5.111	102.22	70-130
14	n-Butane	5.000	5.461	109.23	60-140
15	1,3-Butadiene	5.000	5.126	102.53	60-140
16	Bromomethane	5.000	4.775	95.50	70-130
17	Chloroethane	5.000	4.520	90.41	70-130
18	Vinyl Bromide	5.000	4.765	95.31	60-140
19	2-methyl butane	5.000	4.443	88.86	70-130
20	Trichlorofluoromet	5.000	5.452	109.03	60-140
21	Acrolein	5.000	5.227	104.54	60-140
22	Acetonitrile	5.000	4.747	94.94	60-140
23	Acetone	5.000	5.218	104.35	60-140
24	Pentane	5.000	4.527	90.54	70-130
25	Isopropyl Alcohol	5.000	4.959	99.19	60-140
26	Ethyl Ether	5.000	4.969	99.38	60-140
27	1,1-Dichloroethene	5.000	4.682	93.65	70-130
28	tert-butanol	5.000	5.088	101.77	60-140
29	Acrylonitrile	5.000	5.047	100.94	60-140
30	1,1,2-Trichlorotri	5.000	4.974	99.49	70-130
31	Methylene Chloride	5.000	4.320	86.40	70-130
32	3-Chloropropene	5.000	4.562	91.24	70-130
33	Carbon Disulfide	5.000	4.563	91.27	70-130
34	trans-1,2-Dichloro	5.000	4.754	95.09	70-130
35	Methyl-t-Butyl Eth	5.000	5.229	104.57	60-140
36	1,1-Dichloroethane	5.000	4.876	97.53	70-130
37	Vinyl Acetate	5.000	5.095	101.90	60-140
39	2-Butanone	5.000	4.273	85.46	60-140
38	Hexane	5.000	4.748	94.96	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/jlcsi08.d
Report Date: 09-Sep-2010 09:36

SPIKE	COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
40	cis 1,2-Dichloroet	5.000	4.805	96.09	70-130
41	Ethyl acetate	5.000	4.694	93.88	60-140
42	Chloroform	5.000	5.171	103.41	70-130
43	Tetrahydrofuran	5.000	4.775	95.50	70-130
44	1,1,1-Trichloroeth	5.000	5.631	112.62	70-130
45	1,2-Dichloroethane	5.000	5.009	100.19	70-130
47	1-Butanol	5.000	3.793	75.87	60-140
48	Benzene	5.000	4.101	82.01	70-130
46	Cyclohexane	5.000	4.082	81.65	70-130
49	Carbon Tetrachlori	5.000	5.569	111.38	70-130
50	2,2,4-trimethylpen	5.000	4.370	87.41	70-130
51	Heptane	5.000	4.126	82.51	70-130
52	1,2-Dichloropropan	5.000	4.301	86.02	70-130
53	Trichloroethene	5.000	4.503	90.06	70-130
54	Dibromomethane	5.000	4.481	89.62	70-130
55	Bromodichlorometha	5.000	4.951	99.02	70-130
56	1,4-dioxane	5.000	4.678	93.56	60-140
57	methyl methacrylat	5.000	4.411	88.21	60-140
58	4-Methyl-2-pentano	5.000	3.860	77.20	60-140
59	cis-1,3-Dichloropr	5.000	4.413	88.26	70-130
60	trans-1,3-Dichloro	5.000	4.791	95.82	70-130
61	Toluene	5.000	4.399	87.98	70-130
62	1,1,2-Trichloroeth	5.000	4.476	89.52	70-130
63	2-Hexanone	5.000	4.101	82.02	60-140
64	Octane	5.000	4.186	83.72	70-130
65	Dibromochlorometha	5.000	4.970	99.39	70-130
66	1,2-Dibromoethane	5.000	4.511	90.22	70-130
67	Tetrachloroethene	5.000	4.476	89.52	70-130
68	Chlorobenzene	5.000	4.273	85.46	70-130
69	Ethylbenzene	5.000	4.728	94.57	70-130
70	m&p-Xylene	10.00	9.578	95.78	70-130
M 178	Xylene (total)	15.00	14.38	95.87	70-130
71	Nonane	5.000	4.532	90.65	60-140
72	Bromoform	5.000	5.323	106.45	70-130
73	Styrene	5.000	4.537	90.74	70-130
74	o-Xylene	5.000	4.803	96.05	70-130
75	1,1,2,2-Tetrachlor	5.000	4.219	84.38	70-130
76	1,2,3-Trichloropro	5.000	4.837	96.75	60-140
77	Cumene	5.000	4.749	94.98	70-130
78	n-Propylbenzene	5.000	4.614	92.29	70-130
79	2-chlorotoluene	5.000	4.542	90.84	70-130
80	4-Ethyltoluene	5.000	4.616	92.33	70-130
81	1,3,5-Trimethylben	5.000	4.527	90.54	70-130
82	Alpha-Methylstyren	5.000	4.423	88.46	60-140
83	Decane	5.000	4.650	93.00	60-140
85	tert-butylbenzene	5.000	4.690	93.81	70-130
84	1,2,4-Trimethylben	5.000	4.602	92.03	70-130

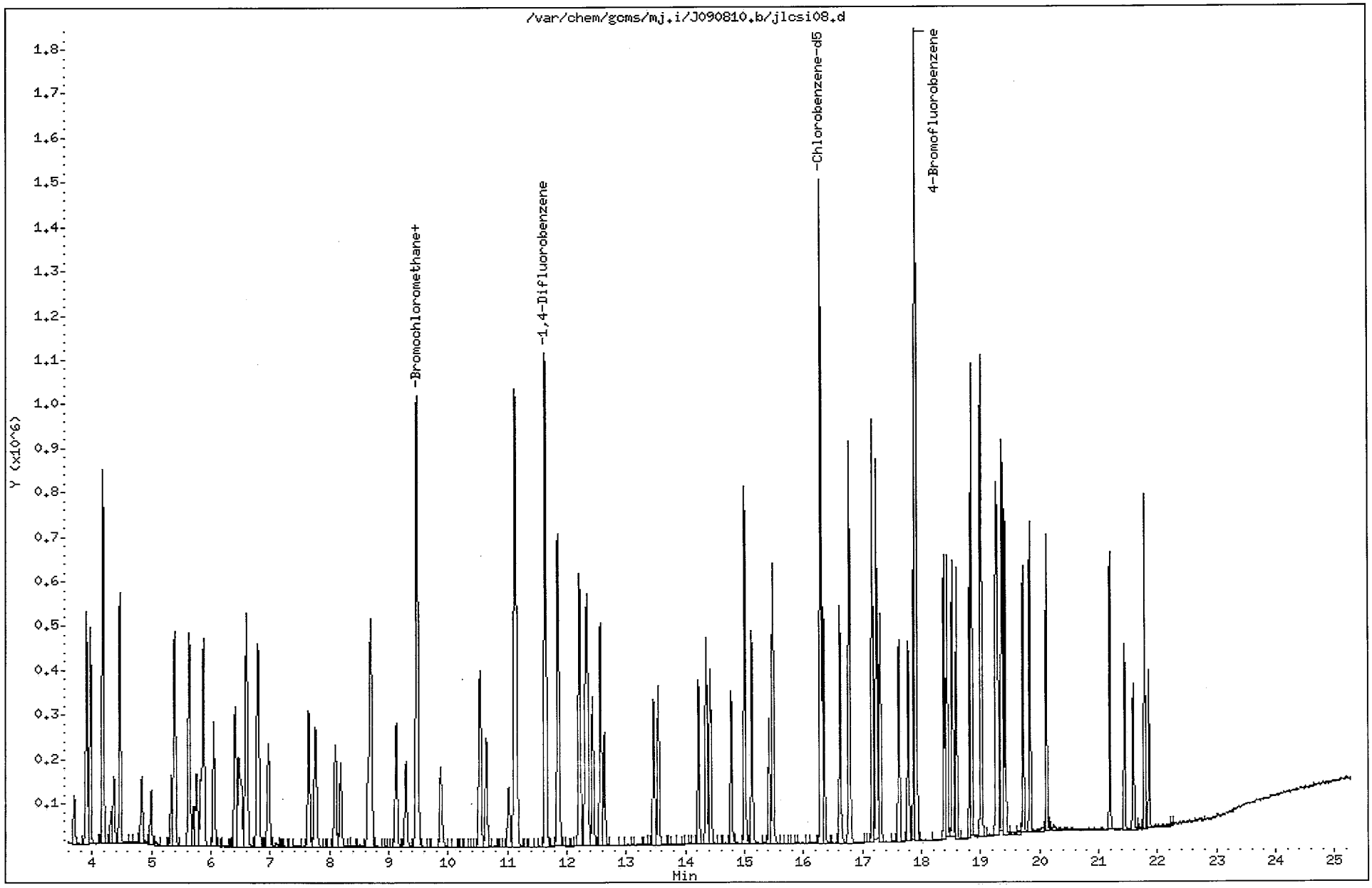
Data File: /var/chem/gcms/mj.i/J090810.b/jlcsi08.d
Report Date: 09-Sep-2010 09:36

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
86 sec-butylbenzene	5.000	4.648	92.97	70-130
87 1,3-Dichlorobenzen	5.000	4.355	87.11	70-130
88 Benzyl Chloride	5.000	4.751	95.03	70-130
89 1,4-Dichlorobenzen	5.000	4.253	85.06	70-130
90 p-Cymene	5.000	4.592	91.85	70-130
91 1,2-Dichlorobenzen	5.000	4.325	86.50	70-130
92 n-butylbenzene	5.000	4.475	89.50	70-130
93 Undecane	5.000	3.238	64.75	60-140
94 Dodecane	5.000	3.003	60.07	60-140
95 1,2,4-Trichloroben	5.000	3.781	75.61	60-140
96 Napthalene	5.000	3.418	68.37	60-140
97 Hexachlorobutadien	5.000	4.806	96.12	60-140
98 1,2,3-trichloroben	5.000	3.262	65.23	60-140

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	10.00	10.16	101.61	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/jlcsi08.d
Date : 08-SEP-2010 09:50
Client ID: CCV/LCS
Sample Info: L6N851AC,,3,6,,CCV/LCS
Purge Volume: 200.0
Column phase: Rtx-5

Instrument: mj.i
Operator: 7126
Column diameter: 0.32



Tetra Tech NUS, Inc

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample #	H0I100000 - 092B	**Work Order #**	L6RJX1AA	**Matrix.....:**	AIR
	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	1	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.080	0.023	ND	0.26	0.073
Carbon tetrachloride	ND	0.080	0.015	ND	0.50	0.094
Chlorodifluoromethane	ND	0.080	0.015	ND	0.28	0.053
Chloroform	ND	0.080	0.015	ND	0.39	0.073
Dichlorodifluoromethane	ND	0.080	0.027	ND	0.40	0.13
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	ND	0.080	0.027	ND	0.35	0.12
Methylene chloride	**0.10**	**0.20**	**0.018**	**0.36 J**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	ND	0.20	0.036	ND	1.0	0.19
Tetrachloroethene	ND	0.080	0.016	ND	0.54	0.11
Toluene	ND	0.080	0.021	ND	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	ND	0.080	0.012	ND	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	ND	0.040	0.014	ND	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	ND	0.080	0.050	ND	0.35	0.22
o-Xylene	ND	0.080	0.024	ND	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090910.b/jblki09.d
Report Date: 10-Sep-2010 11:53

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090910.b/jblki09.d
Lab Smp Id: L6RJX1AA Client Smp ID: BLANK
Inj Date : 09-SEP-2010 11:36
Operator : 7126 Inst ID: mj.i
Smp Info : BLANK,,3,,,BLANK
Misc Info : J090910,TO15,1-all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090910.b/TO15.m
Meth Date : 10-Sep-2010 11:28 barlozha Quant Type: ISTD
Cal Date : 09-SEP-2010 10:43 Cal File: j1pti09.d
Als bottle: 14 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
* 1 Bromochloromethane	128	9.473	9.468	(1.000)	184109	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.636	11.636	(1.000)	895867	4.00000	4.000
* 3 Chlorobenzene-d5	117	16.300	16.300	(1.000)	790609	4.00000	4.000
$ 6 4-Bromofluorobenzene	95	17.908	17.914	(1.099)	607552	4.04877	4.049
31 Methylene Chloride	84	6.789	6.778	(0.717)	6190	0.10333	0.1033

Data File: /var/chem/gcms/mj.i/J090910.b/jblki09.d
Report Date: 10-Sep-2010 11:53

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: jblki09.d
Lab Smp Id: L6RJX1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Calibration Date: 09-SEP-2010
Calibration Time: 09:40
Client Smp ID: BLANK
Level: LOW
Sample Type: AIR
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,1-all.sub,,,

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	166835	99267	234403	184109	10.35
2 1,4-Difluorobenze	787366	468483	1106249	895867	13.78
3 Chlorobenzene-d5	701011	417102	984920	790609	12.78

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.47	9.14	9.80	9.47	0.06
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.00
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

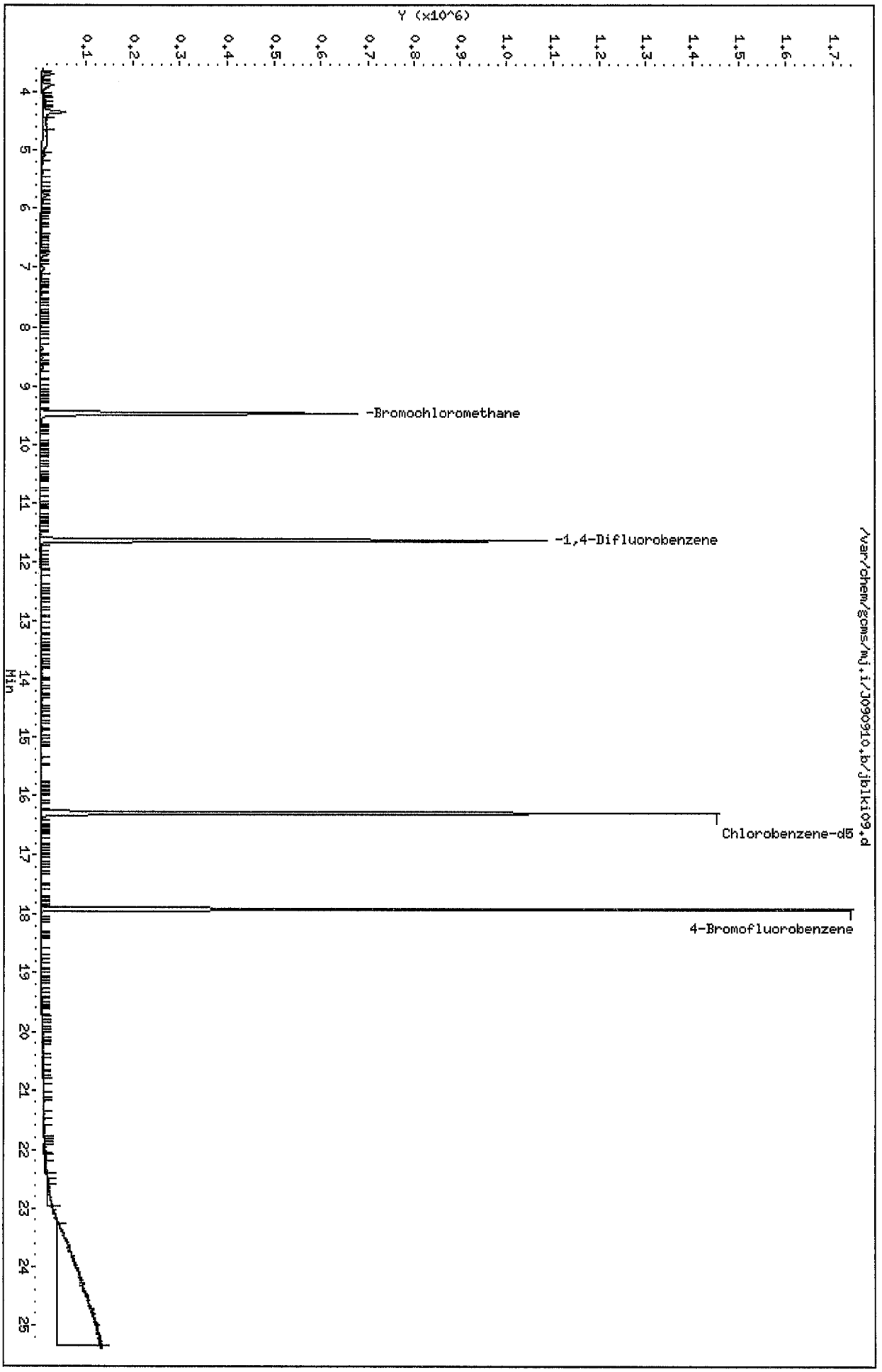
Data File: /var/chem/gcms/mj.i/J090910.b/jblki09.d
Report Date: 10-Sep-2010 11:53

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Client SDG: J090910
Sample Matrix: GAS Fraction: OTHER
Lab Smp Id: L6RJX1AA Client Smp ID: BLANK
Level: LOW Operator: 7126
Data Type: MS DATA SampleType: BLANK
SpikeList File: allnew.spk Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,1-all.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.049	101.22	70-130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Date : 09-SEP-2010 11:36
Client ID: BLANK
Sample Info: BLANK,,3,,,BLANK
Purge Volume: 500.0
Column phase: Rtx-5
Instrument: mj.i
Operator: 7126
Column diameter: 0.32
Y (x10^6)
-Bromochloromethane
-1,4-Difluorobenzene
Chlorobenzene-d5
4-Bromofluorobenzene
/var/chem/gcms/mj.i/J090910.b/jblki09.d
Min

Data File: /var/chem/gcms/mj.i/J090910.b/jblki09.d

Date : 09-SEP-2010 11:36

Client ID: BLANK

Instrument: mj.i

Sample Info: BLANK,,3,,,BLANK

Purge Volume: 500.0

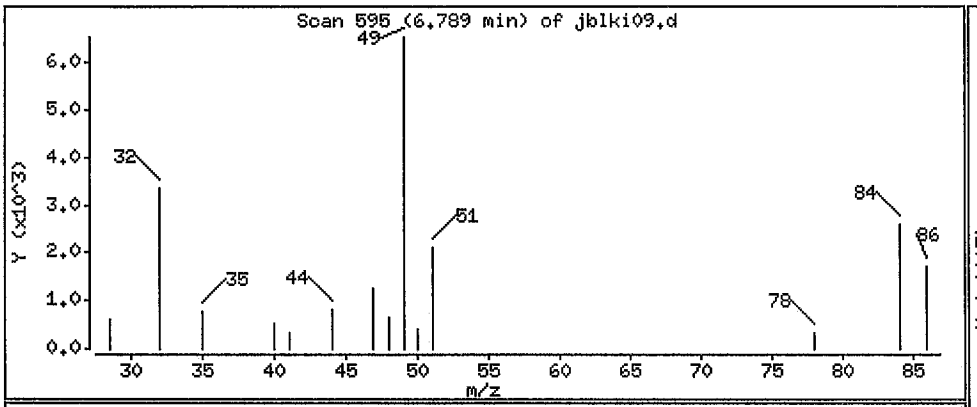
Operator: 7126

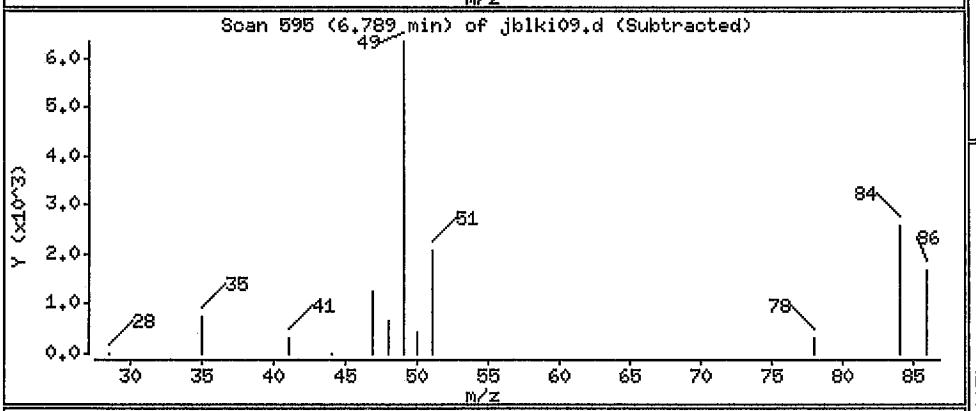
Column phase: Rtx-5

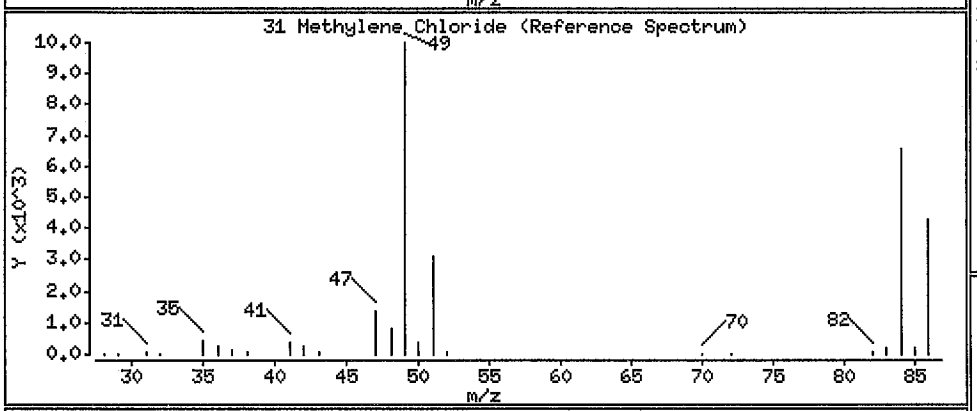
Column diameter: 0.32

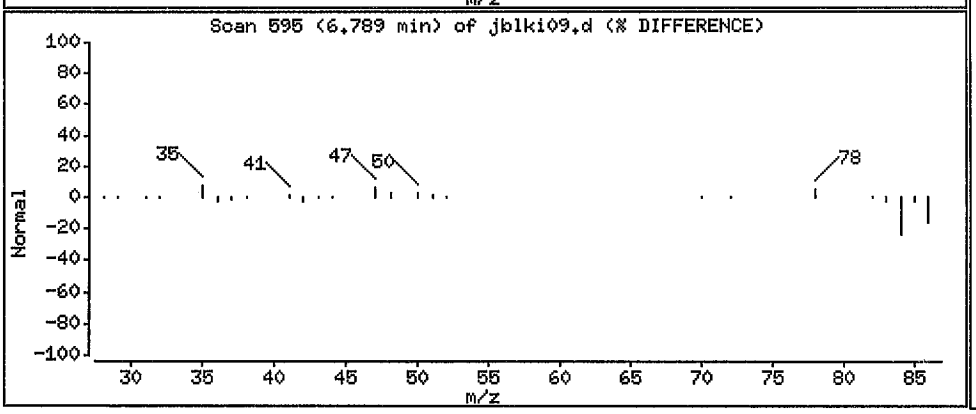
31 Methylene Chloride

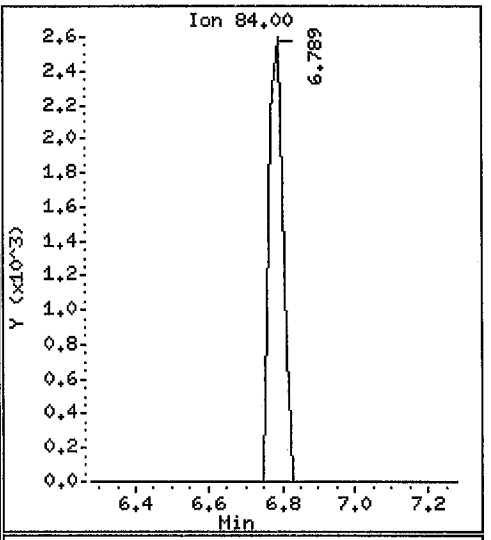
Concentration: 0.1033 ppb(v/v)

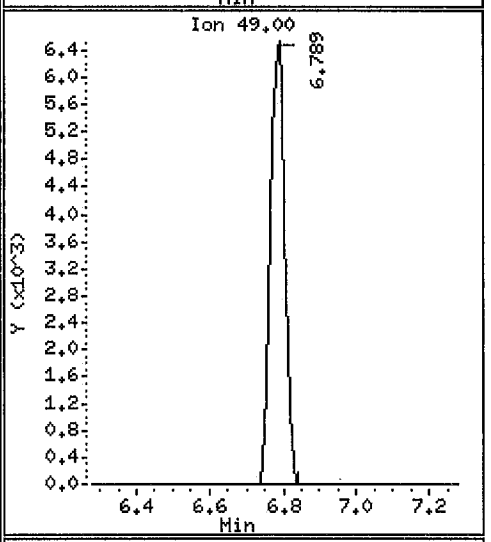


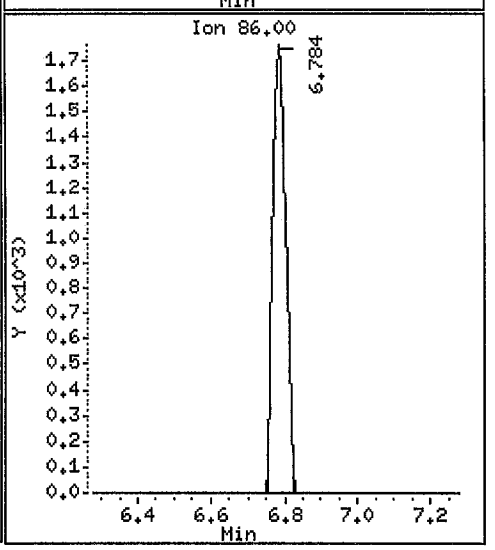












Tetra Tech NUS, Inc

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0I100000 - 092C **Work Order #** L6RJX1AC **Matrix.....:** AIR

	08/30/2010	**Date Received..:**	09/02/2010
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010
Prep Batch #.....:	0253092		
Dilution Factor.:	1	**Method.....:**	TO-15

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Benzene	5.00	3.83	16	12	77	70 - 130
Carbon tetrachloride	5.00	5.31	31	33	106	70 - 130
Chlorodifluoromethane	5.00	5.35	18	19	107	60 - 140
Chloroform	5.00	4.82	24	24	96	70 - 130
Dichlorodifluoromethane	5.00	5.38	25	27	108	60 - 140
1,1-Dichloroethane	5.00	4.55	20	18	91	70 - 130
1,2-Dichloroethane	5.00	4.94	20	20	99	70 - 130
cis-1,2-Dichloroethene	5.00	4.41	20	17	88	70 - 130
trans-1,2-Dichloroethene	5.00	4.48	20	18	90	70 - 130
1,1-Dichloroethene	5.00	4.67	20	19	93	70 - 130
Ethylbenzene	5.00	4.42	22	19	88	70 - 130
Methylene chloride	5.00	4.13	17	14	83	70 - 130
Methyl tert-butyl ether	5.00	4.70	18	17	94	60 - 140
Naphthalene	5.00	3.79	26	20	76	60 - 140
Tetrachloroethene	5.00	4.11	34	28	82	70 - 130
Toluene	5.00	4.16	19	16	83	70 - 130
1,2,4-Trichlorobenzene	5.00	3.98	37	30	80	60 - 140
1,1,1-Trichloroethane	5.00	5.22	27	28	104	70 - 130
1,1,2-Trichloroethane	5.00	4.18	27	23	84	70 - 130
Trichloroethene	5.00	3.85	27	21	77	70 - 130
Vinyl chloride	5.00	4.73	13	12	95	70 - 130
m-Xylene & p-Xylene	10.0	8.90	43	39	89	70 - 130
o-Xylene	5.00	4.46	22	19	89	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	106	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090910.b/jlcsi09.d
Report Date: 10-Sep-2010 11:53

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090910.b/jlcsi09.d
Lab Smp Id: L6RJX1AC Client Smp ID: CCV/LCS
Inj Date : 09-SEP-2010 09:40
Operator : 7126 Inst ID: mj.i
Smp Info : CCV,,2,6,,CCV/LCS
Misc Info : J090910,TO15,1-all.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090910.b/TO15.m
Meth Date : 10-Sep-2010 11:28 barlozha Quant Type: ISTD
Cal Date : 09-SEP-2010 10:43 Cal File: j1pti09.d
Als bottle: 13 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-all.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	200.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
* 1	Bromochloromethane	128	9.468	9.468	(1.000)	166835	4.00000	4.000
* 2	1,4-Difluorobenzene	114	11.636	11.636	(1.000)	787366	4.00000	4.000
* 3	Chlorobenzene-d5	117	16.300	16.300	(1.000)	701011	4.00000	4.000
$ 6	4-Bromofluorobenzene	95	17.914	17.914	(1.099)	565002	4.24646	10.62
7	Chlorodifluoromethane	67	3.900	3.900	(0.412)	45151	2.14000	5.350
9	Propene	41	3.911	3.911	(0.413)	162238	1.89400	4.735
8	Dichlorodifluoromethane	85	3.970	3.970	(0.419)	389749	2.15135	5.378
10	Chloromethane	52	4.175	4.175	(0.441)	43543	1.96206	4.905
11	1,2-Dichlorotetrafluoroethane	135	4.180	4.180	(0.441)	186747	1.99584	4.990
12	Methanol	31	4.309	4.309	(0.455)	45032	3.62402	9.060(R)
13	Vinyl Chloride	62	4.368	4.368	(0.461)	119027	1.89149	4.729
14	n-Butane	43	4.465	4.465	(0.472)	185147	1.90760	4.769
15	1,3-Butadiene	54	4.465	4.465	(0.472)	100301	1.84978	4.624
16	Bromomethane	94	4.831	4.831	(0.510)	92449	1.88054	4.701
17	Chloroethane	64	4.992	4.992	(0.527)	58154	1.79734	4.493
18	Vinyl Bromide	106	5.331	5.331	(0.563)	105810	1.88101	4.702

Data File: /var/chem/gcms/mj.i/J090910.b/jlcsi09.d
Report Date: 10-Sep-2010 11:53

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	CONCENTRATIONS FINAL (ppb(v/v))
19	2-methyl butane	43	5.385	5.385	(0.569)	226867	1.92013	4.800
20	Trichlorofluoromethane	101	5.627	5.627	(0.594)	364147	2.25389	5.635
21	Acrolein	56	5.632	5.632	(0.595)	39538	2.00019	5.000
22	Acetonitrile	40	5.702	5.702	(0.602)	54081	1.90334	4.758
23	Acetone	43	5.751	5.751	(0.607)	303885	2.97459	7.436(R)
24	Pentane	72	5.869	5.869	(0.620)	16014	1.83654	4.591
25	Isopropyl Alcohol	45	5.821	5.821	(0.615)	188911	2.04238	5.106
26	Ethyl Ether	31	6.041	6.041	(0.638)	172780	1.98316	4.958
27	1,1-Dichloroethene	96	6.402	6.402	(0.676)	102980	1.86929	4.673
29	Acrylonitrile	53	6.509	6.509	(0.688)	91941	1.91814	4.795
28	tert-butanol	59	6.461	6.461	(0.682)	208562	2.08210	5.205
30	1,1,2-Trichlorotrifluoroethane	101	6.590	6.590	(0.696)	230244	1.95480	4.887
31	Methylene Chloride	84	6.778	6.778	(0.716)	89725	1.65279	4.132
32	3-Chloropropene	39	6.800	6.800	(0.718)	139715	1.81319	4.533
33	Carbon Disulfide	76	6.966	6.966	(0.736)	293938	1.78625	4.466
34	trans-1,2-Dichloroethene	96	7.644	7.644	(0.807)	99536	1.79373	4.484
35	Methyl-t-Butyl Ether	73	7.757	7.757	(0.819)	211767	1.88116	4.703
36	1,1-Dichloroethane	63	8.091	8.091	(0.855)	241198	1.81917	4.548
37	Vinyl Acetate	43	8.182	8.182	(0.864)	296823	1.86599	4.665
38	Hexane	56	8.693	8.693	(0.918)	121727	1.82704	4.568
39	2-Butanone	72	8.645	8.645	(0.913)	28526	1.50601	3.765
40	cis 1,2-Dichloroethene	96	9.118	9.118	(0.963)	100260	1.76462	4.412
41	Ethyl acetate	43	9.285	9.285	(0.981)	237150	1.72348	4.309
42	Chloroform	83	9.473	9.473	(1.001)	233714	1.92966	4.824
43	Tetrahydrofuran	42	9.871	9.871	(1.043)	135951	1.79209	4.480
44	1,1,1-Trichloroethane	97	10.533	10.533	(1.113)	263200	2.08598	5.215
45	1,2-Dichloroethane	62	10.641	10.641	(0.914)	218618	1.97722	4.943
46	Cyclohexane	69	11.125	11.125	(0.956)	44124	1.57218	3.930
48	Benzene	78	11.119	11.119	(0.956)	255183	1.53311	3.833
47	1-Butanol	31	11.012	11.012	(0.946)	45366	1.62336	4.058
49	Carbon Tetrachloride	117	11.146	11.146	(0.958)	276859	2.12268	5.307
50	2,2,4-trimethylpentane	57	11.851	11.851	(1.018)	642965	1.69974	4.249
51	Heptane	43	12.211	12.211	(1.049)	294113	1.64241	4.106
52	1,2-Dichloropropane	63	12.314	12.314	(1.058)	120581	1.67833	4.196
53	Trichloroethene	130	12.341	12.341	(1.061)	124569	1.53915	3.848
54	Dibromomethane	93	12.432	12.432	(1.068)	131497	1.71834	4.296
55	Bromodichloromethane	83	12.567	12.567	(1.080)	243509	1.91064	4.777
56	1,4-dioxane	88	12.561	12.561	(1.080)	26507	1.80958	4.524
57	methyl methacrylate	41	12.631	12.631	(1.086)	137903	1.60859	4.021
58	4-Methyl-2-pentanone	43	13.465	13.465	(1.157)	262629	1.63185	4.080
59	cis-1,3-Dichloropropene	75	13.546	13.546	(1.164)	150617	1.71217	4.280
60	trans-1,3-Dichloropropene	75	14.223	14.223	(0.873)	156887	1.83422	4.586
61	Toluene	91	14.352	14.352	(0.881)	274514	1.66281	4.157
62	1,1,2-Trichloroethane	97	14.422	14.422	(0.885)	99110	1.67402	4.185
63	2-Hexanone	58	14.772	14.772	(0.906)	109009	1.64472	4.112
64	Octane	85	15.009	15.009	(0.921)	83493	1.56681	3.917
65	Dibromochloromethane	129	15.127	15.127	(0.928)	213893	1.85729	4.643

Data File: /var/chem/gcms/mj.i/J090910.b/jlcsi09.d
Report Date: 10-Sep-2010 11:53

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
66 1,2-Dibromoethane	107	15.418	15.418	(0.946)	170530	1.70900	4.272
67 Tetrachloroethene	129	15.482	15.482	(0.950)	113334	1.64312	4.108
68 Chlorobenzene	112	16.348	16.348	(1.003)	219663	1.62958	4.074
69 Ethylbenzene	91	16.623	16.623	(1.020)	334375	1.76637	4.416
70 m&p-Xylene	91	16.784	16.784	(1.030)	509573	3.55954	8.899
M 178 Xylene (total)	100				774925	5.34154	13.35
71 Nonane	57	17.171	17.171	(1.053)	277955	1.83063	4.576
72 Bromoform	173	17.247	17.247	(1.058)	182684	2.07177	5.179
73 Styrene	104	17.247	17.247	(1.058)	172138	1.74546	4.364
74 o-Xylene	91	17.306	17.306	(1.062)	265352	1.78200	4.455
75 1,1,2,2-Tetrachloroethane	83	17.623	17.623	(1.081)	192729	1.66860	4.172
76 1,2,3-Trichloropropane	110	17.779	17.779	(1.091)	52252	1.89491	4.737
77 Cumene	105	17.876	17.876	(1.097)	333395	1.77475	4.437
78 n-Propylbenzene	120	18.387	18.387	(1.128)	85489	1.72565	4.314
79 2-chlorotoluene	126	18.441	18.441	(1.131)	94873	1.78935	4.473
80 4-Ethyltoluene	105	18.532	18.532	(1.137)	311792	1.75233	4.381
81 1,3,5-Trimethylbenzene	120	18.597	18.597	(1.141)	122098	1.71497	4.287
82 Alpha-Methylstyrene	118	18.823	18.823	(1.155)	124450	1.70638	4.266
83 Decane	57	18.855	18.855	(1.157)	301556	1.89794	4.745
85 tert-butylbenzene	119	19.011	19.011	(1.166)	270079	1.74895	4.372
84 1,2,4-Trimethylbenzene	105	19.022	19.022	(1.167)	249119	1.75900	4.397
86 sec-butylbenzene	105	19.269	19.269	(1.182)	365054	1.77358	4.434
87 1,3-Dichlorobenzene	146	19.296	19.296	(1.184)	201753	1.76580	4.414
88 Benzyl Chloride	91	19.361	19.361	(1.188)	253688	1.87355	4.684
89 1,4-Dichlorobenzene	146	19.377	19.377	(1.189)	198263	1.76965	4.424
90 p-Cymene	119	19.420	19.420	(1.191)	294038	1.74824	4.370
91 1,2-Dichlorobenzene	146	19.727	19.727	(1.210)	180156	1.76669	4.417
92 n-butylbenzene	91	19.845	19.845	(1.217)	292828	1.75286	4.382
93 Undecane	57	20.125	20.125	(1.235)	218723	1.63734	4.093
94 Dodecane	57	21.201	21.201	(1.301)	232830	1.59906	3.998
95 1,2,4-Trichlorobenzene	180	21.448	21.448	(1.316)	106396	1.59386	3.985
96 Napthalene	128	21.599	21.599	(1.325)	218787	1.51640	3.791
97 Hexachlorobutadiene	225	21.787	21.787	(1.337)	92289	1.90820	4.770
98 1,2,3-trichlorobenzene	180	21.862	21.862	(1.341)	85060	1.56464	3.912

QC Flag Legend

R - Spike/Surrogate failed recovery limits.

Data File: /var/chem/gcms/mj.i/J090910.b/jlcsi09.d
Report Date: 10-Sep-2010 11:53

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INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: jlcsi09.d
Lab Smp Id: L6RJX1AC
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,1-all.sub,,,

Calibration Date: 09-SEP-2010
Calibration Time: 09:40
Client Smp ID: CCV/LCS
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	166835	99267	234403	166835	0.00
2 1,4-Difluorobenze	787366	468483	1106249	787366	0.00
3 Chlorobenzene-d5	701011	417102	984920	701011	0.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.47	9.14	9.80	9.47	0.00
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.00
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090910.b/jlcsi09.d
Report Date: 10-Sep-2010 11:53

TestAmerica Knoxville

RECOVERY REPORT

Client Name:
Client SDG: J090910
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6RJX1AC
Client Smp ID: CCV/LCS
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: LCS
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: 1-all.sub
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,1-all.sub,,,

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
7 Chlorodifluorometh	5.000	5.350	107.00	60-140
9 Propene	5.000	4.735	94.70	60-140
8 Dichlorodifluorome	5.000	5.378	107.57	60-140
10 Chloromethane	5.000	4.905	98.10	60-140
11 1,2-Dichlorotetraf	5.000	4.990	99.79	60-140
12 Methanol	5.000	9.060	181.20*	60-140
13 Vinyl Chloride	5.000	4.729	94.57	70-130
14 n-Butane	5.000	4.769	95.38	60-140
15 1,3-Butadiene	5.000	4.624	92.49	60-140
16 Bromomethane	5.000	4.701	94.03	70-130
17 Chloroethane	5.000	4.493	89.87	70-130
18 Vinyl Bromide	5.000	4.702	94.05	60-140
19 2-methyl butane	5.000	4.800	96.01	70-130
20 Trichlorofluoromet	5.000	5.635	112.69	60-140
21 Acrolein	5.000	5.000	100.01	60-140
22 Acetonitrile	5.000	4.758	95.17	60-140
23 Acetone	5.000	7.436	148.73*	60-140
24 Pentane	5.000	4.591	91.83	70-130
25 Isopropyl Alcohol	5.000	5.106	102.12	60-140
26 Ethyl Ether	5.000	4.958	99.16	60-140
27 1,1-Dichloroethene	5.000	4.673	93.46	70-130
28 tert-butanol	5.000	5.205	104.11	60-140
29 Acrylonitrile	5.000	4.795	95.91	60-140
30 1,1,2-Trichlorotri	5.000	4.887	97.74	70-130
31 Methylene Chloride	5.000	4.132	82.64	70-130
32 3-Chloropropene	5.000	4.533	90.66	70-130
33 Carbon Disulfide	5.000	4.466	89.31	70-130
34 trans-1,2-Dichloro	5.000	4.484	89.69	70-130
35 Methyl-t-Butyl Eth	5.000	4.703	94.06	60-140
36 1,1-Dichloroethane	5.000	4.548	90.96	70-130
37 Vinyl Acetate	5.000	4.665	93.30	60-140
39 2-Butanone	5.000	3.765	75.30	60-140
38 Hexane	5.000	4.568	91.35	70-130

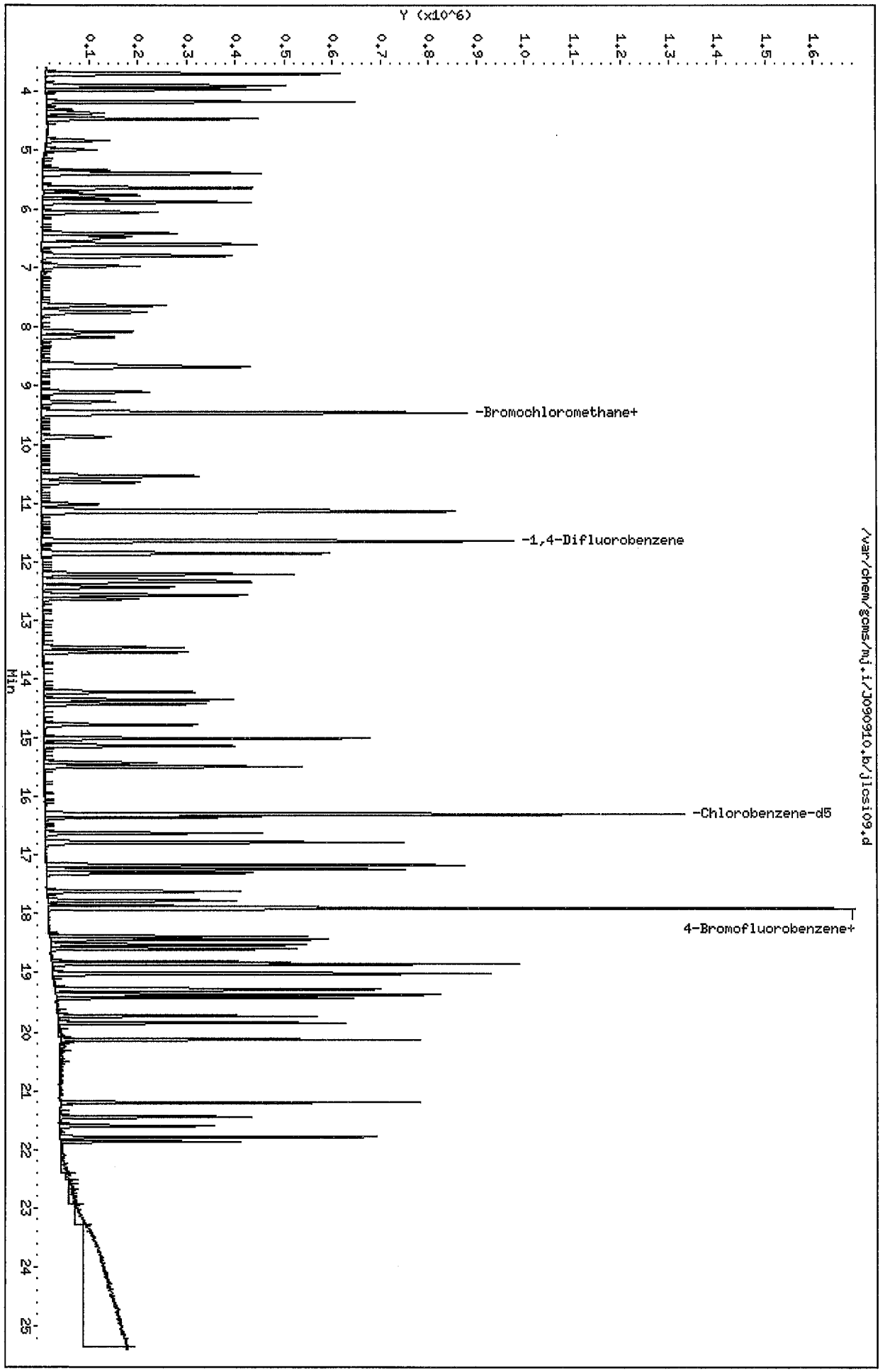
Data File: /var/chem/gcms/mj.i/J090910.b/jlcsi09.d
Report Date: 10-Sep-2010 11:53

SPIKE	COMPOUND	CONC ADDED ppb (v/v)	CONC RECOVERED ppb (v/v)	% RECOVERED	LIMITS
40	cis 1,2-Dichloroet	5.000	4.412	88.23	70-130
41	Ethyl acetate	5.000	4.309	86.17	60-140
42	Chloroform	5.000	4.824	96.48	70-130
43	Tetrahydrofuran	5.000	4.480	89.60	70-130
44	1,1,1-Trichloroeth	5.000	5.215	104.30	70-130
45	1,2-Dichloroethane	5.000	4.943	98.86	70-130
47	1-Butanol	5.000	4.058	81.17	60-140
48	Benzene	5.000	3.833	76.66	70-130
46	Cyclohexane	5.000	3.930	78.61	70-130
49	Carbon Tetrachlori	5.000	5.307	106.13	70-130
50	2,2,4-trimethylpen	5.000	4.249	84.99	70-130
51	Heptane	5.000	4.106	82.12	70-130
52	1,2-Dichloropropan	5.000	4.196	83.92	70-130
53	Trichloroethene	5.000	3.848	76.96	70-130
54	Dibromomethane	5.000	4.296	85.92	70-130
55	Bromodichlorometha	5.000	4.777	95.53	70-130
56	1,4-dioxane	5.000	4.524	90.48	60-140
57	methyl methacrylat	5.000	4.021	80.43	60-140
58	4-Methyl-2-pentano	5.000	4.080	81.59	60-140
59	cis-1,3-Dichloropr	5.000	4.280	85.61	70-130
60	trans-1,3-Dichloro	5.000	4.586	91.71	70-130
61	Toluene	5.000	4.157	83.14	70-130
62	1,1,2-Trichloroeth	5.000	4.185	83.70	70-130
63	2-Hexanone	5.000	4.112	82.24	60-140
64	Octane	5.000	3.917	78.34	70-130
65	Dibromochlorometha	5.000	4.643	92.86	70-130
66	1,2-Dibromoethane	5.000	4.272	85.45	70-130
67	Tetrachloroethene	5.000	4.108	82.16	70-130
68	Chlorobenzene	5.000	4.074	81.48	70-130
69	Ethylbenzene	5.000	4.416	88.32	70-130
70	m&p-Xylene	10.00	8.899	88.99	70-130
M 178	Xylene (total)	15.00	13.35	89.03	70-130
71	Nonane	5.000	4.576	91.53	60-140
72	Bromoform	5.000	5.179	103.59	70-130
73	Styrene	5.000	4.364	87.27	70-130
74	o-Xylene	5.000	4.455	89.10	70-130
75	1,1,2,2-Tetrachlor	5.000	4.172	83.43	70-130
76	1,2,3-Trichloropro	5.000	4.737	94.75	60-140
77	Cumene	5.000	4.437	88.74	70-130
78	n-Propylbenzene	5.000	4.314	86.28	70-130
79	2-chlorotoluene	5.000	4.473	89.47	70-130
80	4-Ethyltoluene	5.000	4.381	87.62	70-130
81	1,3,5-Trimethylben	5.000	4.287	85.75	70-130
82	Alpha-Methylstyren	5.000	4.266	85.32	60-140
83	Decane	5.000	4.745	94.90	60-140
85	tert-butylbenzene	5.000	4.372	87.45	70-130
84	1,2,4-Trimethylben	5.000	4.397	87.95	70-130

Data File: /var/chem/gcms/mj.i/J090910.b/jlcsi09.d
Report Date: 10-Sep-2010 11:53

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
86 sec-butylbenzene	5.000	4.434	88.68	70-130
87 1,3-Dichlorobenzen	5.000	4.414	88.29	70-130
88 Benzyl Chloride	5.000	4.684	93.68	70-130
89 1,4-Dichlorobenzen	5.000	4.424	88.48	70-130
90 p-Cymene	5.000	4.370	87.41	70-130
91 1,2-Dichlorobenzen	5.000	4.417	88.33	70-130
92 n-butylbenzene	5.000	4.382	87.64	70-130
93 Undecane	5.000	4.093	81.87	60-140
94 Dodecane	5.000	3.998	79.95	60-140
95 1,2,4-Trichloroben	5.000	3.985	79.69	60-140
96 Napthalene	5.000	3.791	75.82	60-140
97 Hexachlorobutadien	5.000	4.770	95.41	60-140
98 1,2,3-trichloroben	5.000	3.912	78.23	60-140

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	10.00	10.62	106.16	70-130


Data File: /var/chem/gcms/mj.i/J090910.b/jlcsi09.d
Date : 09-SEP-2010 09:40
Client ID: CCV/LCS
Sample Info: CCV,2,6,,CCV/LCS
Purge Volume: 200.0
Column phase: Rtx-5
Instrument: mj.i
Operator: 7126
Column diameter: 0.32
Y (x10^6)
-Bromochloromethane+
-1,4-Difluorobenzene
-Chlorobenzene-d5
4-Bromofluorobenzene+
/var/chem/gcms/mj.i/J090910.b/jlcsi09.d
Min

Miscellaneous Data

TestAmerica Knoxville GC/MS Air Data Review / Narrative Checklist LOT/Project # HOID030404

Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 11

Instrument:	MJ			
Scanned File:	J072810I			
	J090810			
	J090910			

Review Items **A. Tune / Continuing Calibration**	N/A	Yes	No	Why is data reportable?	2nd
1. Were all samples injected within 24 hr of BFB?		✓			✓
2. Has a Continuing Calibration Checklist & run log been completed for each analytical batch **and scanned properly**?		✓			✓
3. Was the correct ICAL used for quantitation?		✓			✓
B. CLIENT SAMPLE AND QC SAMPLE Results	**N/A**	**Yes**	**No**	**Why is data reportable?**	
1. Were all special project requirements met?		✓			✓
2. Were samples received in cans?		✓		□ [Tedlar1] analyzed w/n 72 hours. □ [Tedlar2] X-fer within 72 hours.	✓
3. Can pressure/vac on receipt acceptable?		✓		□ see narrative	✓
4. Were dilution factors/can prep information verified?		✓			✓
5. Have the can number & lab ID been verified between the analysis log & sample prep log?		✓			✓
6. Sample analyses done within analytical holding time (HT)? *If no, list samples:* _____		✓		□ [ht2] Client requested analysis after HT expired. □ Other: _____	✓
7. Are surrogates and internal standards within QC limits? (60-140% R for surr.; 60-140%R from CCAL for IS) *If no, list samples/reason (e.g.,* **sur1***):* Sample Reason Sample Reason		✓		□ [sur7] Obvious matrix effect □ **[sur12] high recovery, no hits.** □ [sur14] entire sample consumed □ **[is1] Per client, reanalysis was not performed *** □ [is2] Reanalysis confirmed a matrix effect.	✓
8. Were all positive results and false negatives on quan report verified to be correct in LIMS?		✓			✓
9. For dilutions, is highest concentration hit ≥ 20% cal range and not above calibration range? *List samples and reason (e.g.,* elev1*):* Sample Reason Sample Reason #16,17 dil 3 (#7)		✓		□ [elev1] Elevated RL for due to sample matrix interferences. □ [elev3] Elevated RLs for all analytes due to difficult sample matrix. □ [elev4] Elevated RLs based on screening □ [elev5] Elevated RLs for all analytes due to presence of non-target compounds. □ [elev7] Elevated RLs due to sample volume	✓
10. If manual integrations were performed, are they clearly identified, initialed, dated and reason given & alternate hits verified.		✓		Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	✓
C. Preparation QC					
1. System blank run every 24 hours prior to samples?		✓			✓
2. System blank surrogate recoveries within QC limits (60-140% R) ?		✓		□ **[mb1] All sample surrogates OK and there is no analyte >RL in samples associated with blank.***	✓
3. Are all analytes present in the system blank < RL? *If no, list blank ID:* _____		✓		□ **[mb3] No analyte > RL in associated samples.*** □ **[mb4] Sample results > 20x higher than blank.**	✓
4. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for methanol and n-butanol) *If no, list DUP ID:*		✓			✓
5. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%).		✓		□ [lcs6] LCS analyte(s) flagged as being outside control limits but within marginal limits □ [lcs5] LCS outside marginal exceedences high, but analytes were not detected LCS ID: _____	✓
D. Other					
1. Final report acceptable? (Results correct, RLs calculated correctly, units correct, surrogate %R correct, appropriate flags used, dilution factor correct, analysis dates correct.)		✓			✓
2. Are all nonconformances documented appropriately and copy included with deliverable?	✓				N/A
4. Was a narrative prepared and all deviations noted?		✓		□ [1pt6]; □ [1pt11]; □ [1ptsur]	✓
5. TO14A Autotext included in narrative (for TO14A samples only).	✓			□ [TO14]	N/A
6. All target analytes on c.cal >30%D but passes LCS criteria noted in the narrative?		✓		□ [ccal] The ccal exhibited a %D ICAL >30% but passes LCS…list analytes on narrative. 9/8 napth	✓

Analyst:	**Date:**	**2nd Level Reviewer:**	**Date:**
ATS	9/10/10		9/15/10

□ [see following page for comments.

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

*Such action must be taken in consultation with client.

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/09/10
Time: 7:31:31

LEV 1	LEV 2		LEV 1	LEV 2	
_	_	Blank	_	_	Weights/Volumes
_	_	Check	_	_	Spike & Surrogate Worksheet
_	_	MS/MSD	_	_	Vial contains correct volume
			_	_	Labels, greenbars, worksheets
			_	_	computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
_ Bench Sheet Copied
_ Package Submitted to AnalyticalGroup
_ Bench Sheet Copied per COC

Extractionist: _____
_____
Concentrationist: _____
_____

****
* *
* **QC BATCH: 0252108** *
* *
****

PREP DATE: 9/08/10
COMP DATE: 9/09/10

Reviewer/Date: _____ / 0/00/00

Volatile Organics by GC/MS TO-15 low-level ppbv/v
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030404-001 **L6G9D-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-002 **L6G9E-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-003 **L6G9G-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-004 **L6G9H-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-005 **L6G9J-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-006 **L6G9K-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-007 **L6G9L-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/09/10
Time: 7:31:31

QC BATCH: 0252108

PREP DATE: 9/08/10
COMP DATE: 9/09/10

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION VOL	SOLVENTS EXCHANGE VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030404-008 **L6G9M-1-AA**	D	88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	9/21/10	H0I030404-009 **L6G9N-1-AA**	D	88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	9/21/10	H0I030404-010 **L6G9P-1-AA**	D	88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	9/21/10	H0I030404-011 **L6G9Q-1-AA**	D	88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	9/21/10	H0I030404-012 **L6G9R-1-AA**	D	88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	9/21/10	H0I030404-013 **L6G9V-1-AA**	D	88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	9/21/10	H0I030404-014 **L6G9W-1-AA**	D	88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	9/21/10	H0I030404-015 **L6G9X-1-AA**	D	88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	9/21/10	H0I030404-016 **L6G90-1-AA**	D	88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	9/21/10	H0I030404-017 **L6G91-1-AA**	D	88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/09/10
Time: 7:31:31

QC BATCH: 0252108

PREP DATE: 9/08/10
COMP DATE: 9/09/10

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	0/00/00	H0I090000-108 **L6N85-1-AA**B		88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	0/00/00	H0I090000-108 **L6N85-1-AC**C		88	7M	AIR	**100mL** 100.00mL	NA	NA	NA		.0		.0	
COMMENTS:															

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 19

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/10/10
Time: 8:57:20

LEV 1	LEV 2		LEV 1	LEV 2	
_	_	Blank	_	_	Weights/Volumes
_	_	Check	_	_	Spike & Surrogate Worksheet
_	_	MS/MSD	_	_	Vial contains correct volume
_	_		_	_	Labels, greenbars, worksheets
			_	_	computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
_ Bench Sheet Copied
_ Package Submitted to AnalyticalGroup
_ Bench Sheet Copied per COC

Extractionist: _____
_____
Concentrationist: _____
_____

****
* *
* **QC BATCH: 0253092** *
* *
****

PREP DATE: 9/09/10
COMP DATE: 9/10/10

Reviewer/Date: _____ / 0/00/00

Volatile Organics by GC/MS TO-15 low-level ppbv/v
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030404-016 **L6G90-2-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-017 **L6G91-2-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-018 **L6G92-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-019 **L6G95-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-020 **L6G96-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-016 **L6HG4-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-018 **L6HG7-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/10/10
Time: 8:57:20

QC BATCH: 0253092

PREP DATE: 9/09/10
COMP DATE: 9/10/10

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030418-019 **L6HG9-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-022 **L6HHG-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	0/00/00	H0I100000-092 **L6RJX-1-AA**B		88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	0/00/00	H0I100000-092 **L6RJX-1-AC**C		88	7M	AIR	**100mL** 100.00mL	NA	NA	NA		.0		.0	
COMMENTS:															

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 11

TestAmerica Knoxville
Can Dilution Worksheet

Lot: *h0i030404* **Initial**

W/O #	Barometer inches Hg	Knoxville mm Hg	P init inches	P init Abs,mm	P final psig	P final Abs,mm	Dilution Factor	
L6G 9D								
L6G 9E								
L6G 9G								
L6G 9H								
L6G 9J								
L6G 9K								
L6G 9L	29.08	738.6	- 4.3	629.4	32.0	2393.5	3.80	(9L,DF*200=760)
L6G 9M								
L6G 9N								
L6G 9P								
L6G 9Q								
L6G 9R								
L6G 9V								
L6G 9W								
L6G 9X								
L6G 90								
L6G 91								
L6G 92								
L6G 95								
L6G 96								

1 psig = 2.036 inch Hg
Pinit(Abs,mm)=(Pinit(inch)*25.4mm/inch)+Pbar(mm)
Pfinal(Abs,mm)=(Pfinal(psig)*2.036 (inch Hg/psig)*25.4 (mm/inch))+Pbar(mm)
dilution factor = Pfinal(Abs,mm)/Pinit(Abs,mm)
mm-Hg = in-Hg * 25.4

Sample Receipt Documentation

HDI 030404

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:
Company: TetraTech, NUS	Phone: (770) 413-0965 Ext. 232	
Address: 20251 Century Blvd.	Site Contact: Tony Apanavage (301) 233-8230	
City/State/Zip: Germantown MD	TAL Contact:	
Phone: (301) 528-3032		
FAX: (301) 528-3000		
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time	
Site/location: LMC-MRC	Standard (Specify)	
PO # 112ic02757	Rush (Specify)	

1 of 9 COCs

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
ISG-14-C-9	8/30/10	0913	1041	-29.5	-3.5	K-116	6641	X											
SV-C-3-9		0919	1046	-30	0.0	K-414	6645												
SV-C-5-9		0924	1051	-29	-2.5	K-334	7785												
1455 ISG-3-C-9		0932	1058	-30	-5.0	K-429	8770												
SV-C-4-9		0936	1102	-29	-3.0	K-416	04173												
SV-C-2-9	↓	0943	1119	-30	-0.5	K-423	6359	↓											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

REC. AT AMBIENT
CUSTODY SEALS INTACT
14 BOXES RH 9/3/10
FED EX # 796205786887
796205813336

Special Instructions/QC Requirements & Comments:

80 CANS / 80 FLOWS

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 1030	Canisters Received by:	
Samples Relinquished by:	Date/Time: 9/1/10 1220	Received by: Ryan Henley	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

HDI 130404

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:	2 of 9 COCs
Company: TetraTech, NUS	Phone (770) 413-0965 Ext. 232		
Address: 20251 Century Blvd.	Site Contact: Tony Aparavage (301) 233-8230		
City/State/Zip Germantown MD	TAL Contact:		
Phone: (301) 528-3022			
FAX: (301) 528-3000			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112IC 02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SV-28-C-9	8/30/10	0951	1108	-30	-5.0	K-434	1147												
SV-1-C-9		1009	1139	-30	-3.5	K-373	12188												
SV-5-C-9		1014	1145	-30	-3.0	K-412	S-1538												
ISG-01-9		1018	1137	-30	-6.0	K-131	1407												

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 1030	Canisters Received by:	
Samples Relinquished by:	Date/Time: 9/1/10 1220	Received by: Ryan Hennig	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

HOI 030404

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** Rick Samuels	**Sampled By:**	3 of 9 COCs
Company: TetraTech, NUS	Phone: (770)413-0965 Ext. 232		
Address: 20251 Century Blvd.	Site Contact: Tony Apanavage (301)233-8230		
City/State/Zip: Germantown, MD	TAL Contact:		
Phone: (301)528-3000			
FAX: (301)528-3000			
Project Name: MRC - IAQ Sampling	**Analysis Turnaround Time**		
Site/location: LMC - MRC	Standard (Specify)		
PO # 1121C02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-C10-9	8/30/10	0912	1651	-30	-7.5	K-497	1524	X											
IAQ-C9-9		0918	1654	-30	-7.0	K-383	04741												
IAQ-C6-9		0924	1704	-29.5	-7.5	K-495	6576												
IAQ-C5-9		0930	1710	-30	-7.0	K-489	1350												
IAQ-C7-9		0936	1712	-30	-4.0	K-438	6619												
IAQ-C8-9	↓	0941	1714	-29.5	0.0	K-496	6348	↓											

Sampled by :

Temperature (Fahrenheit)			
	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)			
	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 1030	Canisters Received by: Randy Shepard	
Samples Relinquished by: Randy Shepard	Date/Time: 9/1/10 1220	Received by: Ryan Henry	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

170D304

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:	4 of 9 COCs
Company: TetraTech, NUS	Phone: (770) 413-0965 Ext. 232		
Address: 10251 Century Blvd	Site Contact: Tony Apanavage (301) 233-8230		
City/State/Zip Germantown, MD	TAL Contact:		
Phone: (301) 528-3022			
FAX: (301) 528-3000			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112ic02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-C17-9	8/30/10	0949	1721	-30	-7.0	K-150	9338	X											
IAQ-C1-9		1007	1724	-30	-8.0	K-113B	12820												
IAQ-C2-9		1012	1730	-30	-8.5	K-493	0120												
IAQ-C19-9		1025	1745	-30	-7.5	K-490	6574												

Sampled by :

Temperature (Fahrenheit)			
	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)			
	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 / 1030	Canisters Received by: Paul Hyland	
Samples Relinquished by: Paul Hyland	Date/Time: 9/1/10 / 1220	Received by: Ryan Henry	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H0I 030404

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☑ **1g** Other:	1g - 'ISG-3-C-9' LISTS CAN ID ON COC AS 8770, CAN ID SHOULD BE 12455.
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C; NC, 1668, 1613B: 0-4°C; VOST: 10°C; MA: 2-6 °C)			✓	☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓			

Quote #: 80274 PM Instructions: _____

Sample Receiving Associate: Ryan Henry Date: 9/3/10

QA026R21.doc, 090409

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H0I030404*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
~ 9/3/10	NA	28.81	L6G9D	6641	-2.1													8770
			L6G9E	6645	-0.9													8726
			L6G9G	7785	-1.3													8778
			L6G9H	12455	-3.6													8770
			L6G9J	04173	-2.6													8774
			L6G9K	6359	-0.4													↓
			L6G9L	1147	-3.4	-	AW 9-8-10	I	29.08 ~~4.5~~ 9/8/10 H	-4.3	32.0							8778
			L6G9M	12188	-2.1													8772
			L6G9N	S1528	-2.0													↓
			L6G9P	1407	-5.2													8769
			L6G9Q	1524	-6.3													8796
			L6G9R	04741	-5.7													8789
			L6G9V	6576	-6.8													↓
			L6G9W	1350	-6.0													8794
			L6G9X	6619	-4.1													8796
			L6G90	6348	-0.7													8795
			L6G91	93286	-5.8													↓
			L6G92	12820	-7.1													8794
			L6G95	0120	-7.4													8796
↓	↓	↓	L6G96	6574	-6.2													8793

APPENDIX D—DATA-VALIDATION REPORTS

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **R. SAMUELS** **DATE:** **OCTOBER 14, 2010**

FROM: **LEANNE M. GANSER** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION: VOC**
LOCKHEED MR - IAQ
SDG H0I030418

SAMPLES: 26 / Air / VOC - TO15

BCK-1-9	BCK-2-9	BCK-3-9	BCK-4-9	IAQ-B12-9
IAQ-B14-9	IAQ-B16-9	IAQ-B17-9	IAQ-B2-9	IAQ-C12-9
IAQ-C14-9	IAQ-C15-9	IAQ-C18-9	IAQ-FC-30-9	ISG-10-B-9
ISG-11-C-9	SV-24-B-9	SV-25-B-9	SV-26-B-9	SV-27-B-9
SV-29-C-9	SV-30-FC-9	SV-B-4-9	SV-C1-9	SV-C-7-9
SV-DUP-1-9				

Overview

The sample set for Lockheed MR - IAQ, SDG H0I030418 consists of twenty-six (26) air environmental samples. One field duplicate pair was included in this sample delivery group (SDG): SV-DUP-1-9/SV-27-B-9.

The samples were analyzed for volatile organic compounds (VOCs). The samples were collected by Tetra Tech on August 30, 2010 and analyzed by Test America Laboratories, Inc. All analyses were conducted in accordance with USEPA Method TO-15 analytical and reporting protocols.

The data contained in this SDG was validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method blank results, surrogate spike recoveries, internal standard recoveries, laboratory control samples, field duplicate results, detection limits, compound quantitation, and compound identification. Areas of concern are listed below.

Major

There were no major data qualification issues.

Minor

- The VOC continuing calibration percent difference (%D) was greater than the 30% quality control limit for dichlorodifluoromethane and vinyl chloride for instrument ME on 09/10/2010 at 9:47 affecting samples BCK-4-9, IAQ-FC-30-9, IAQ-B17-9, IAQ-B16-9, BCK-1-9, BCK-2-9, and BCK-3-9. Positive results for dichlorodifluoromethane were qualified as estimated, "J". No action was taken on nondected results for dichlorodifluoromethane and vinyl chloride.

- The VOC continuing calibration percent difference (%D) was greater than the 30% quality control limit for naphthalene for instrument MG on 09/14/2010 at 8:03 affecting sample SV-DUP-1-9 reanalyzed at dilution. The positive result for naphthalene was qualified as estimated, "J".

- Positive results reported below the reporting limit (RL) but above the method detection limit (MDL) for the organic analyses were qualified as estimated, "J".

- The following compounds were detected in the associated method blanks at the maximum concentrations as indicated below:

Compound	Maximum Conc. (µg/m3)	Action Level (µg/m3)
Methylene Chloride [1]	0.16	1.6
Methylene Chloride [2]	0.31	3.1
Methylene Chloride [3]	0.36	3.6
Methylene Chloride [4]	0.23	2.3
Toluene[2]	0.082	0.41
1,1,1-Trichloroethane[2]	0.067	0.335

[1] Maximum concentration detected in the method blank L6N9RIAA, prep. batch 0252121 affecting samples IAQ-C12-9, IAQ-C14-9, IAQ-C15-9, IAQ-C18-9, ISG-10-B-9, ISG-11-C-9, SV-24-B-9, SV-25-B-9, SV-26-B-9, SV-27-B-9, SV-30-FC-9, SV-B-4-9, SV-C1-9, and SV-C-7-9.

[2] Maximum concentration detected in the method blank L6RJP1AA, prep. batch 0253090 affecting sample SV-29-C-9.

[3] Maximum concentration detected in the method blank L6RJX1AA, prep. batch 0253092 affecting samples IAQ-B12-9, IAQ-B14-9, IAQ-B2-9, and SV-DUP-1-9.

[4] Maximum concentration detected in the method blank L6V581AA, prep. batch 0256181 affecting samples BCK-1-9, BCK-2-9, BCK-3-9, BCK-4-9, IAQ-B16-9, IAQ-B17-9, and IAQ-FC-30-9.

An action level of 5X (10X for common laboratory contaminants) the maximum concentration was established to evaluate laboratory contamination for the aforementioned compounds. Dilution factors and sample aliquots were taken into consideration during the application of all action levels. Positive results less than the blank action level were qualified "B" as a result of laboratory blank contamination.

- Field duplicate imprecision (%D > 4 x RL) was noncompliant for benzene, dichlorodifluoromethane, m+p-xylenes, o-xylene, and naphthalene for sample pair SV-DUP-1-9/SV-27-B-9. The positive and nondetected results for the aforementioned compounds were qualified as estimated, "J" and "UJ", respectively, in samples SV-DUP-1-9 and SV-27-B-9.

Notes

Laboratory control sample L6V581AC percent recovery was greater than quality control limits for vinyl chloride. No action was taken as all results for vinyl chloride were nondetects.

The following samples were re-analyzed at dilution due to target compounds exceeding the calibration range:

Sample	Compound	Dilution Factor
IAQ-B2-9	CHLORODIFLUOROMETHANE	10

IAQ-C14-9	CHLORODIFLUOROMETHANE	12.5
IAQ-C15-9	CHLORODIFLUOROMETHANE	10
ISG-11-C-9	TETRACHLOROETHENE	5
SV-29-C-9	CHLORODIFLUOROMETHANE	10
SV-29-C-9	M+P-XYLENES	10
SV-29-C-9	NAPHTHALENE	10
SV-29-C-9	O-XYLENE	10
SV-DUP-1-9	1,1,1-TRICHLOROETHANE	10
SV-DUP-1-9	NAPHTHALENE	10

Several sample IDs and canister IDs on the sample canisters did not match the sample IDs and canister IDs on the chain of custody as noted by the laboratory on the sample receipt/condition upon receipt anomaly checklist.

Executive Summary

Laboratory Performance: Calibration noncompliance was noted for dichlorodifluoromethane, naphthalene, and vinyl chloride. Methylene chloride, toluene, and 1,1,1-trichloroethane were present in laboratory blanks.

Other Factors Affecting Data Quality: Positive results reported below the RL but above the MDL for the organic analyses were qualified. Field duplicate imprecision was noted for several compounds.

The data for these analyses were reviewed with reference to Region III modifications to U.S. EPA National Functional Guidelines for Organic Data Validation (Sept. 1994). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS
Leanne M. Ganser
Environmental Scientist

Tetra Tech NUS
Joseph A. Samchuck
Quality Assurance Officer

Attachments:
Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

Appendix A

Qualified Analytical Results

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS-GFAA MSA's r < 0.995 / ICP PDS Recovery Noncompliance
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; e.g. chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient r < 0.995
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02757	NSAMPLE	BCK-1-9			BCK-2-9			BCK-3-9			BCK-4-9		
SDG: H0I030418	LAB_ID	H0I030418023			H0I030418024			H0I030418025			H0I030418026		
FRACTION: OV	SAMP_DATE	8/30/2010			8/30/2010			8/30/2010			8/30/2010		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.065	U		0.095	J	P	0.081	J	P	0.095	J	P
1,1,2-TRICHLOROETHANE		0.11	U		0.11	U		0.11	U		0.11	U	
1,1-DICHLOROETHANE		0.04	U		0.04	U		0.04	U		0.04	U	
1,1-DICHLOROETHENE		0.052	U		0.052	U		0.052	U		0.052	U	
1,2,4-TRICHLOROBENZENE		0.41	J	P	0.29	U		0.29	U		0.29	U	
1,2-DICHLOROETHANE		0.077	U		0.077	U		0.24	J	P	0.11	J	P
BENZENE		0.43			0.47			0.48			1.1		
CARBON TETRACHLORIDE		0.49	J	P	0.54			0.6			0.8		
CHLORODIFLUOROMETHANE		1.3			1.6			1.7			4.7		
CHLOROFORM		0.11	J	P	0.13	J	P	0.14	J	P	0.48		
CIS-1,2-DICHLOROETHENE		0.095	U		0.095	U		0.095	U		0.095	U	
DICHLORODIFLUOROMETHANE		2.6	J	C	2.8	J	C	2.7	J	C	3.2	J	C
ETHYLBENZENE		0.33	J	P	0.25	J	P	0.24	J	P	0.87		
M+P-XYLENES		1			0.65			0.67			3		
METHYL TERT-BUTYL ETHER		0.25	U		0.25	U		0.25	U		0.25	U	
METHYLENE CHLORIDE		1	B	A	1.4	B	A	1.4	B	A	19		
NAPHTHALENE		1.6			0.25	J	P	0.21	J	P	2		
O-XYLENE		0.36			0.25	J	P	0.28	J	P	1.2		
TETRACHLOROETHENE		0.23	J	P	0.31	J	P	0.18	J	P	0.27	J	P
TOLUENE		1.1			2.6			1.3			6.1		
TRANS-1,2-DICHLOROETHENE		0.079	U		0.079	U		0.079	U		0.079	U	
TRICHLOROETHENE		0.075	U		0.075	U		0.075	U		0.075	U	
VINYL CHLORIDE		0.074	U		0.074	U		0.074	U		0.074	U	

PROJ_NO: 02757	NSAMPLE	IAQ-B12-9			IAQ-B14-9			IAQ-B16-9			IAQ-B17-9		
SDG: H0I030418	LAB_ID	H0I030418018			H0I030418019			H0I030418021			H0I030418020		
FRACTION: OV	SAMP_DATE	8/30/2010			8/30/2010			8/30/2010			8/30/2010		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.23	U		0.16	U		0.095	J	P	0.094	J	P
1,1,2-TRICHLOROETHANE		0.41	U		0.29	U		0.11	U		0.11	U	
1,1-DICHLOROETHANE		0.14	U		0.1	U		0.04	U		0.04	U	
1,1-DICHLOROETHENE		0.18	U		0.13	U		0.052	U		0.052	U	
1,2,4-TRICHLOROBENZENE		1	U		0.72	U		0.29	U		0.29	U	
1,2-DICHLOROETHANE		0.27	U		0.19	U		0.077	U		0.077	U	
BENZENE		0.4	J	P	0.38	J	P	0.41			0.44		
CARBON TETRACHLORIDE		0.45	J	P	0.52	J	P	0.49	J	P	0.44	J	P
CHLORODIFLUOROMETHANE		11			13			9.2			9.9		
CHLOROFORM		0.26	U		0.32	J	P	0.32	J	P	0.47		
CIS-1,2-DICHLOROETHENE		0.34	U		0.24	U		0.095	U		0.095	U	
DICHLORODIFLUOROMETHANE		2.5			2.6			2.6	J	C	2.9	J	C
ETHYLBENZENE		1	J	P	1.6			0.94			0.45		
M+P-XYLENES		1.9			4.5			3			1.2		
METHYL TERT-BUTYL ETHER		0.87	U		0.61	U		0.25	U		0.25	U	
METHYLENE CHLORIDE		1.2	B	A	1.1	B	A	3			1	B	A
NAPHTHALENE		0.67	U		0.47	U		0.95	J	P	0.7	J	P
O-XYLENE		0.61	J	P	1.9			0.99			0.42		
TETRACHLOROETHENE		0.39	U		0.27	U		0.12	J	P	0.13	J	P
TOLUENE		47			46			21			13		
TRANS-1,2-DICHLOROETHENE		0.28	U		0.2	U		0.079	U		0.079	U	
TRICHLOROETHENE		0.27	U		0.19	U		0.081	J	P	0.19	J	P
VINYL CHLORIDE		0.26	U		0.19	U		0.074	U		0.074	U	

PROJ_NO: 02757	NSAMPLE	IAQ-B2-9			IAQ-B2-9-DL			IAQ-C12-9			IAQ-C14-9		
SDG: H0I030418	LAB_ID	H0I030418016			H0I030418016			H0I030418013			H0I030418014		
FRACTION: OV	SAMP_DATE	8/30/2010			8/30/2010			8/30/2010			8/30/2010		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.22	J	P				0.15	J	P	0.26	J	P
1,1,2-TRICHLOROETHANE		0.29	U					0.15	J	P	0.29	U	
1,1-DICHLOROETHANE		0.1	U					0.079	J	P	0.1	U	
1,1-DICHLOROETHENE		0.13	U					0.062	J	P	0.13	U	
1,2,4-TRICHLOROBENZENE		0.72	U					0.29	U		0.72	U	
1,2-DICHLOROETHANE		0.19	U					0.14	J	P	0.19	U	
BENZENE		0.91						1			1.1		
CARBON TETRACHLORIDE		0.57	J	P				0.62			0.48	J	P
CHLORODIFLUOROMETHANE					230			17					
CHLOROFORM		0.42	J	P				0.24	J	P	0.44	J	P
CIS-1,2-DICHLOROETHENE		0.24	U					0.095	U		0.24	U	
DICHLORODIFLUOROMETHANE		2.7						2.7			2.6		
ETHYLBENZENE		1.6						0.63			1.1		
M+P-XYLENES		4.6						2.1			3.7		
METHYL TERT-BUTYL ETHER		0.61	U					0.25	U		0.61	U	
METHYLENE CHLORIDE		94						1.4	B	A	11	B	A
NAPHTHALENE		2.3	J	P				0.91	J	P	1.7	J	P
O-XYLENE		1.6						0.93			1.5		
TETRACHLOROETHENE		0.28	J	P				0.39	J	P	0.27	U	
TOLUENE		13						1.8			7.6		
TRANS-1,2-DICHLOROETHENE		0.2	U					0.079	U		0.2	U	
TRICHLOROETHENE		0.67						0.16	J	P	0.2	J	P
VINYL CHLORIDE		0.19	U					0.074	U		0.19	U	

PROJ_NO: 02757	NSAMPLE	IAQ-C14-9-DL			IAQ-C15-9			IAQ-C15-9-DL			IAQ-C18-9		
SDG: H0I030418	LAB_ID	H0I030418014			H0I030418015			H0I030418015			H0I030418012		
FRACTION: OV	SAMP_DATE	8/30/2010			8/30/2010			8/30/2010			8/30/2010		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE					0.16	U					0.65	U	
1,1,2-TRICHLOROETHANE					0.29	U					1.1	U	
1,1-DICHLOROETHANE					0.1	U					0.4	U	
1,1-DICHLOROETHENE					0.13	U					0.52	U	
1,2,4-TRICHLOROBENZENE					0.72	U					2.9	U	
1,2-DICHLOROETHANE					0.19	U					0.77	U	
BENZENE					0.86						1.2	J	P
CARBON TETRACHLORIDE					0.45	J	P				0.94	U	
CHLORODIFLUOROMETHANE		530						210			260		
CHLOROFORM					0.3	J	P				0.73	U	
CIS-1,2-DICHLOROETHENE					0.24	U					0.95	U	
DICHLORODIFLUOROMETHANE					2.5						2.5	J	P
ETHYLBENZENE					0.72	J	P				1.2	U	
M+P-XYLENES					2.5						2.2	U	
METHYL TERT-BUTYL ETHER					0.61	U					2.5	U	
METHYLENE CHLORIDE					5.2						4.2	B	A
NAPHTHALENE					1	J	P				1.9	U	
O-XYLENE					0.99						1	U	
TETRACHLOROETHENE					0.27	U					1.1	U	
TOLUENE					4.3						3.6		
TRANS-1,2-DICHLOROETHENE					0.2	U					0.79	U	
TRICHLOROETHENE					0.19	U					0.75	U	
VINYL CHLORIDE					0.19	U					0.74	U	

PROJ_NO: 02757	NSAMPLE	IAQ-FC-30-9			ISG-10-B-9			ISG-11-C-9			ISG-11-C-9-DL		
SDG: H0I030418	LAB_ID	H0I030418017			H0I030418010			H0I030418009			H0I030418009		
FRACTION: OV	SAMP_DATE	8/30/2010			8/30/2010			8/30/2010			8/30/2010		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.94	U		1.6	J	P	1					
1,1,2-TRICHLOROETHANE		1.6	U		0.57	U		0.11	U				
1,1-DICHLOROETHANE		0.58	U		0.2	U		0.43					
1,1-DICHLOROETHENE		0.74	U		0.26	U		0.067	J	P			
1,2,4-TRICHLOROBENZENE		4.1	U		1.4	U		0.29	U				
1,2-DICHLOROETHANE		1.1	U		0.38	U		2.4					
BENZENE		1.1	U		0.37	U		0.46					
CARBON TETRACHLORIDE		1.3	U		0.47	U		1.1					
CHLORODIFLUOROMETHANE		5.9			150			2.6					
CHLOROFORM		1	U		0.61	J	P	5.6					
CIS-1,2-DICHLOROETHENE		1.4	U		0.93	J	P	0.44					
DICHLORODIFLUOROMETHANE		2.9	J	CP	2.5			78					
ETHYLBENZENE		5			1	J	P	2.4					
M+P-XYLENES		9.7			4.3			9.9					
METHYL TERT-BUTYL ETHER		3.5	U		1.2	U		0.25	U				
METHYLENE CHLORIDE		4.9	B	A	5.9	B	A	32					
NAPHTHALENE		2.7	U		6.9			15					
O-XYLENE		2.5	J	P	2.4			5.6					
TETRACHLOROETHENE		1.6	U		3						93		
TOLUENE		630			7.6			43					
TRANS-1,2-DICHLOROETHENE		1.1	U		0.4	U		0.36					
TRICHLOROETHENE		1.1	U		72			6.3					
VINYL CHLORIDE		1.1	U		0.37	U		0.074	U				

PROJ_NO: 02757	NSAMPLE	SV-24-B-9			SV-25-B-9			SV-26-B-9			SV-27-B-9		
SDG: H0I030418	LAB_ID	H0I030418002			H0I030418003			H0I030418005			H0I030418004		
FRACTION: OV	SAMP_DATE	8/30/2010			8/30/2010			8/30/2010			8/30/2010		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1.2	U		18			6.6			390		
1,1,2-TRICHLOROETHANE		2.1	U		4.4	U		0.11	U		0.57	U	
1,1-DICHLOROETHANE		0.74	U		1.6	U		0.04	U		1.6		
1,1-DICHLOROETHENE		0.94	U		2	U		0.052	U		1.1	J	P
1,2,4-TRICHLOROBENZENE		5.3	U		11	U		0.29	U		1.4	U	
1,2-DICHLOROETHANE		1.4	U		3	U		0.077	U		0.84	J	P
BENZENE		1.5	J	P	2.8	U		1.8			3.1	J	G
CARBON TETRACHLORIDE		1.7	U		3.6	U		61			5.3		
CHLORODIFLUOROMETHANE		15			8.6	J	P	3.5			7.8		
CHLOROFORM		1.3	U		2.8	U		27			1.4	J	P
CIS-1,2-DICHLOROETHENE		1.7	U		3.7	U		0.095	U		0.48	U	
DICHLORODIFLUOROMETHANE		3.4	J	P	5.1	U		7.3			12	J	G
ETHYLBENZENE		290			220			5.9			1.5	J	P
M+P-XYLENES		1300			1100			22			2.8	J	G
METHYL TERT-BUTYL ETHER		4.5	U		9.4	U		0.25	U		1.2	U	
METHYLENE CHLORIDE		19	B	A	7.4	B	A	0.85	B	A	5.9	B	A
NAPHTHALENE		74			13	J	P	49			0.94	UJ	G
O-XYLENE		500			690			17			1	J	GP
TETRACHLOROETHENE		2	U		4.2	U		13			90		
TOLUENE		62			22			3.3			1.9		
TRANS-1,2-DICHLOROETHENE		1.4	U		3.1	U		0.079	U		0.4	U	
TRICHLOROETHENE		1.4	U		4.6	J	P	80			220		
VINYL CHLORIDE		1.3	U		2.9	U		0.074	U		0.37	U	

PROJ_NO: 02757	NSAMPLE	SV-29-C-9			SV-29-C-9-DL			SV-30-FC-9			SV-B-4-9		
SDG: H0I030418	LAB_ID	H0I030418006			H0I030418006			H0I030418011			H0I030418001		
FRACTION: OV	SAMP_DATE	8/30/2010			8/30/2010			8/30/2010			8/30/2010		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.16	U					1.6	U		1.4	J	P
1,1,2-TRICHLOROETHANE		0.29	U					2.9	U		1.1	U	
1,1-DICHLOROETHANE		0.1	U					1	U		0.4	U	
1,1-DICHLOROETHENE		0.13	U					1.3	U		0.52	U	
1,2,4-TRICHLOROBENZENE		0.72	U					7.2	U		2.9	U	
1,2-DICHLOROETHANE		0.19	U					1.9	U		0.77	U	
BENZENE		2.3						1.8	U		0.73	U	
CARBON TETRACHLORIDE		0.56	J	P				2.4	U		1.4	J	P
CHLORODIFLUOROMETHANE					330			1.3	U		8.7		
CHLOROFORM		1.4						1.8	U		0.73	U	
CIS-1,2-DICHLOROETHENE		0.24	U					11			0.95	U	
DICHLORODIFLUOROMETHANE		3						3.3	U		2.7	J	P
ETHYLBENZENE		86						10			90		
M+P-XYLENES					510			33			420		
METHYL TERT-BUTYL ETHER		0.61	U					6.1	U		2.5	U	
METHYLENE CHLORIDE		2.1	B	A				5	B	A	3.2	B	A
NAPHTHALENE					210			70			4.9	J	P
O-XYLENE					290			16			180		
TETRACHLOROETHENE		0.54	J	P				2.7	U		1.7	J	P
TOLUENE		17						690			56		
TRANS-1,2-DICHLOROETHENE		0.2	U					2	U		0.79	U	
TRICHLOROETHENE		2						21			2.2		
VINYL CHLORIDE		0.19	U					1.9	U		0.74	U	

PROJ_NO: 02757	NSAMPLE	SV-C1-9			SV-C-7-9			SV-DUP-1-9			SV-DUP-1-9-DL		
SDG: H0I030418	LAB_ID	H0I030418008			H0I030418007			H0I030418022			H0I030418022		
FRACTION: OV	SAMP_DATE	8/30/2010			8/30/2010			8/30/2010			8/30/2010		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF							SV-27-B-9			SV-27-B-9		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.65	U		0.065	U					380		
1,1,2-TRICHLOROETHANE		1.1	U		0.11	U		0.29	U				
1,1-DICHLOROETHANE		0.4	U		0.04	U		1.4					
1,1-DICHLOROETHENE		0.52	U		0.052	U		0.99					
1,2,4-TRICHLOROBENZENE		2.9	U		0.29	U		0.72	U				
1,2-DICHLOROETHANE		0.77	U		0.077	U		0.19	U				
BENZENE		2	J	P	0.68			0.27	J	GP			
CARBON TETRACHLORIDE		0.94	U		0.51			5.9					
CHLORODIFLUOROMETHANE		300			5.6			6.9					
CHLOROFORM		0.73	U		0.2	J	P	1.3					
CIS-1,2-DICHLOROETHENE		0.95	U		0.095	U		0.24	U				
DICHLORODIFLUOROMETHANE		2.7	J	P	2.4			1.7	J	G			
ETHYLBENZENE		1.2	U		0.68			8					
M+P-XYLENES		3.6			2.2			43	J	G			
METHYL TERT-BUTYL ETHER		2.5	U		0.25	U		0.61	U				
METHYLENE CHLORIDE		3.5	B	A	0.49	B	A	1.3	B	A			
NAPHTHALENE		1.9	U		0.74	J	P				260	J	CG
O-XYLENE		2.2	J	P	0.95			25	J	G			
TETRACHLOROETHENE		1.5	J	P	0.25	J	P	140					
TOLUENE		6.4			2			4.5					
TRANS-1,2-DICHLOROETHENE		0.79	U		0.079	U		0.2	U				
TRICHLOROETHENE		2.6			0.49			140					
VINYL CHLORIDE		0.74	U		0.074	U		0.19	U				

Appendix B

Results as Reported by the Laboratory

Tetra Tech NUS, Inc

Client Sample ID: BCK-1-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 023	Work Order #	L6HHK1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/10/2010	Analysis Date...	09/10/2010		
Prep Batch #.....:	0256181				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.14**	**0.080**	**0.023**	**0.43**	**0.26**	**0.073**
Carbon tetrachloride	**0.077**	**0.080**	**0.015**	**0.49 J**	**0.50**	**0.094**
Chlorodifluoromethane	**0.36**	**0.080**	**0.015**	**1.3**	**0.28**	**0.053**
Chloroform	**0.023**	**0.080**	**0.015**	**0.11 J**	**0.39**	**0.073**
Dichlorodifluoromethane	**0.53**	**0.080**	**0.027**	**2.6**	**0.40**	**0.13**
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	**0.075**	**0.080**	**0.027**	**0.33 J**	**0.35**	**0.12**
Methylene chloride	**0.29**	**0.20**	**0.018**	**1.0 B**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	**0.31**	**0.20**	**0.036**	**1.6**	**1.0**	**0.19**
Tetrachloroethene	**0.034**	**0.080**	**0.016**	**0.23 J**	**0.54**	**0.11**
Toluene	**0.29**	**0.080**	**0.021**	**1.1**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	**0.056**	**0.40**	**0.039**	**0.41 J**	**3.0**	**0.29**
1,1,1-Trichloroethane	ND	0.080	0.012	ND	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	ND	0.040	0.014	ND	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	**0.24**	**0.080**	**0.050**	**1.0**	**0.35**	**0.22**
o-Xylene	**0.084**	**0.080**	**0.024**	**0.36**	**0.35**	**0.10**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	97	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: BCK-2-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 024	Work Order #	L6HHN1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/10/2010	Analysis Date...	09/10/2010		
Prep Batch #.....:	0256181				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.15**	**0.080**	**0.023**	**0.47**	**0.26**	**0.073**
Carbon tetrachloride	**0.087**	**0.080**	**0.015**	**0.54**	**0.50**	**0.094**
Chlorodifluoromethane	**0.45**	**0.080**	**0.015**	**1.6**	**0.28**	**0.053**
Chloroform	**0.027**	**0.080**	**0.015**	**0.13 J**	**0.39**	**0.073**
Dichlorodifluoromethane	**0.57**	**0.080**	**0.027**	**2.8**	**0.40**	**0.13**
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	**0.058**	**0.080**	**0.027**	**0.25 J**	**0.35**	**0.12**
Methylene chloride	**0.40**	**0.20**	**0.018**	**1.4 B**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	**0.048**	**0.20**	**0.036**	**0.25 J**	**1.0**	**0.19**
Tetrachloroethene	**0.045**	**0.080**	**0.016**	**0.31 J**	**0.54**	**0.11**
Toluene	**0.69**	**0.080**	**0.021**	**2.6**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	**0.017**	**0.080**	**0.012**	**0.095 J**	**0.44**	**0.065**
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	ND	0.040	0.014	ND	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	**0.15**	**0.080**	**0.050**	**0.65**	**0.35**	**0.22**
o-Xylene	**0.059**	**0.080**	**0.024**	**0.25 J**	**0.35**	**0.10**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	104	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: BCK-3-9

GC/MS Volatiles

Lot-Sample # H0I030418 - 025 Work Order # L6HHQ1AA Matrix.....: AIR

Date Sampled...: 08/30/2010 Date Received..: 09/02/2010
Prep Date.....: 09/10/2010 Analysis Date... 09/10/2010
Prep Batch #.....: 0256181
Dilution Factor.: 1 Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.15	0.080	0.023	0.48	0.26	0.073
Carbon tetrachloride	0.096	0.080	0.015	0.60	0.50	0.094
Chlorodifluoromethane	0.48	0.080	0.015	1.7	0.28	0.053
Chloroform	0.028	0.080	0.015	0.14 J	0.39	0.073
Dichlorodifluoromethane	0.56	0.080	0.027	2.7	0.40	0.13
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	0.060	0.080	0.019	0.24 J	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	0.055	0.080	0.027	0.24 J	0.35	0.12
Methylene chloride	0.40	0.20	0.018	1.4 B	0.69	0.063
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	0.041	0.20	0.036	0.21 J	1.0	0.19
Tetrachloroethene	0.027	0.080	0.016	0.18 J	0.54	0.11
Toluene	0.33	0.080	0.021	1.3	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	0.015	0.080	0.012	0.081 J	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	ND	0.040	0.014	ND	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	0.16	0.080	0.050	0.67	0.35	0.22
o-Xylene	0.065	0.080	0.024	0.28 J	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	100	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: BCK-4-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 026	Work Order #	L6HHT1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/10/2010	Analysis Date...	09/10/2010		
Prep Batch #.....:	0256181				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.34**	**0.080**	**0.023**	**1.1**	**0.26**	**0.073**
Carbon tetrachloride	**0.13**	**0.080**	**0.015**	**0.80**	**0.50**	**0.094**
Chlorodifluoromethane	**1.3**	**0.080**	**0.015**	**4.7**	**0.28**	**0.053**
Chloroform	**0.097**	**0.080**	**0.015**	**0.48**	**0.39**	**0.073**
Dichlorodifluoromethane	**0.66**	**0.080**	**0.027**	**3.2**	**0.40**	**0.13**
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	**0.028**	**0.080**	**0.019**	**0.11 J**	**0.32**	**0.077**
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	**0.20**	**0.080**	**0.027**	**0.87**	**0.35**	**0.12**
Methylene chloride	**5.4**	**0.20**	**0.018**	**19 B**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	**0.39**	**0.20**	**0.036**	**2.0**	**1.0**	**0.19**
Tetrachloroethene	**0.040**	**0.080**	**0.016**	**0.27 J**	**0.54**	**0.11**
Toluene	**1.6**	**0.080**	**0.021**	**6.1**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	**0.017**	**0.080**	**0.012**	**0.095 J**	**0.44**	**0.065**
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	ND	0.040	0.014	ND	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	**0.70**	**0.080**	**0.050**	**3.0**	**0.35**	**0.22**
o-Xylene	**0.29**	**0.080**	**0.024**	**1.2**	**0.35**	**0.10**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	97	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-B12-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 018	Work Order #	L6HG71AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/09/2010	Analysis Date...	09/09/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	3.55	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.13**	**0.28**	**0.082**	**0.40 J**	**0.91**	**0.26**
Carbon tetrachloride	**0.072**	**0.28**	**0.053**	**0.45 J**	**1.8**	**0.34**
Chlorodifluoromethane	**3.1**	**0.28**	**0.053**	**11**	**1.0**	**0.19**
Chloroform	ND	0.28	0.053	ND	1.4	0.26
Dichlorodifluoromethane	**0.51**	**0.28**	**0.096**	**2.5**	**1.4**	**0.47**
1,1-Dichloroethane	ND	0.28	0.036	ND	1.1	0.14
1,2-Dichloroethane	ND	0.28	0.067	ND	1.1	0.27
cis-1,2-Dichloroethene	ND	0.28	0.085	ND	1.1	0.34
trans-1,2-Dichloroethene	ND	0.28	0.071	ND	1.1	0.28
1,1-Dichloroethene	ND	0.28	0.046	ND	1.1	0.18
Ethylbenzene	**0.23**	**0.28**	**0.096**	**1.0 J**	**1.2**	**0.42**
Methylene chloride	**0.33**	**0.71**	**0.064**	**1.2 J B**	**2.5**	**0.22**
Methyl tert-butyl ether	ND	1.4	0.24	ND	5.1	0.87
Naphthalene	ND	0.71	0.13	ND	3.7	0.67
Tetrachloroethene	ND	0.28	0.057	ND	1.9	0.39
Toluene	**13**	**0.28**	**0.075**	**47**	**1.1**	**0.28**
1,2,4-Trichlorobenzene	ND	1.4	0.14	ND	11	1.0
1,1,1-Trichloroethane	ND	0.28	0.043	ND	1.5	0.23
1,1,2-Trichloroethane	ND	0.28	0.075	ND	1.5	0.41
Trichloroethene	ND	0.14	0.050	ND	0.76	0.27
Vinyl chloride	ND	0.28	0.10	ND	0.73	0.26
m-Xylene & p-Xylene	**0.45**	**0.28**	**0.18**	**1.9**	**1.2**	**0.77**
o-Xylene	**0.14**	**0.28**	**0.085**	**0.61 J**	**1.2**	**0.37**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-B14-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 019	Work Order #	L6HG91AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/09/2010	Analysis Date...	09/09/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	2.5	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.12**	**0.20**	**0.058**	**0.38 J**	**0.64**	**0.18**
Carbon tetrachloride	**0.083**	**0.20**	**0.038**	**0.52 J**	**1.3**	**0.24**
Chlorodifluoromethane	**3.7**	**0.20**	**0.038**	**13**	**0.71**	**0.13**
Chloroform	**0.065**	**0.20**	**0.038**	**0.32 J**	**0.98**	**0.18**
Dichlorodifluoromethane	**0.53**	**0.20**	**0.068**	**2.6**	**0.99**	**0.33**
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	**0.37**	**0.20**	**0.068**	**1.6**	**0.87**	**0.29**
Methylene chloride	**0.33**	**0.50**	**0.045**	**1.1 J B**	**1.7**	**0.16**
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	ND	0.50	0.090	ND	2.6	0.47
Tetrachloroethene	ND	0.20	0.040	ND	1.4	0.27
Toluene	**12**	**0.20**	**0.052**	**46**	**0.75**	**0.20**
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	ND	0.20	0.030	ND	1.1	0.16
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	ND	0.10	0.035	ND	0.54	0.19
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	**1.0**	**0.20**	**0.12**	**4.5**	**0.87**	**0.54**
o-Xylene	**0.45**	**0.20**	**0.060**	**1.9**	**0.87**	**0.26**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	105	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-B16-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 021	Work Order #	L6HHD1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/10/2010	Analysis Date...	09/10/2010		
Prep Batch #.....:	0256181				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.13**	**0.080**	**0.023**	**0.41**	**0.26**	**0.073**
Carbon tetrachloride	**0.078**	**0.080**	**0.015**	**0.49 J**	**0.50**	**0.094**
Chlorodifluoromethane	**2.6**	**0.080**	**0.015**	**9.2**	**0.28**	**0.053**
Chloroform	**0.065**	**0.080**	**0.015**	**0.32 J**	**0.39**	**0.073**
Dichlorodifluoromethane	**0.52**	**0.080**	**0.027**	**2.6**	**0.40**	**0.13**
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	**0.22**	**0.080**	**0.027**	**0.94**	**0.35**	**0.12**
Methylene chloride	**0.87**	**0.20**	**0.018**	**3.0 B**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	**0.18**	**0.20**	**0.036**	**0.95 J**	**1.0**	**0.19**
Tetrachloroethene	**0.018**	**0.080**	**0.016**	**0.12 J**	**0.54**	**0.11**
Toluene	**5.5**	**0.080**	**0.021**	**21**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	**0.018**	**0.080**	**0.012**	**0.095 J**	**0.44**	**0.065**
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	**0.015**	**0.040**	**0.014**	**0.081 J**	**0.21**	**0.075**
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	**0.69**	**0.080**	**0.050**	**3.0**	**0.35**	**0.22**
o-Xylene	**0.23**	**0.080**	**0.024**	**0.99**	**0.35**	**0.10**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	99	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-B17-9

GC/MS Volatiles

Lot-Sample # H0I030418 - 020 Work Order # L6HHC1AA Matrix.....: AIR

Date Sampled...: 08/30/2010 Date Received..: 09/02/2010
Prep Date.....: 09/10/2010 Analysis Date... 09/10/2010
Prep Batch #.....: 0256181
Dilution Factor.: 1 Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.14	0.080	0.023	0.44	0.26	0.073
Carbon tetrachloride	0.069	0.080	0.015	0.44 J	0.50	0.094
Chlorodifluoromethane	2.8	0.080	0.015	9.9	0.28	0.053
Chloroform	0.096	0.080	0.015	0.47	0.39	0.073
Dichlorodifluoromethane	0.58	0.080	0.027	2.9	0.40	0.13
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	0.10	0.080	0.027	0.45	0.35	0.12
Methylene chloride	0.30	0.20	0.018	1.0 B	0.69	0.063
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	0.13	0.20	0.036	0.70 J	1.0	0.19
Tetrachloroethene	0.019	0.080	0.016	0.13 J	0.54	0.11
Toluene	3.4	0.080	0.021	13	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	0.017	0.080	0.012	0.094 J	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	0.035	0.040	0.014	0.19 J	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	0.27	0.080	0.050	1.2	0.35	0.22
o-Xylene	0.098	0.080	0.024	0.42	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	97	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-B2-9

GC/MS Volatiles

Lot-Sample # H0I030418 - 016 Work Order # L6HG41AA Matrix.....: AIR

Date Sampled...: 08/30/2010 Date Received..: 09/02/2010
Prep Date.....: 09/09/2010 Analysis Date... 09/09/2010
Prep Batch #.....: 0253092
Dilution Factor.: 2.5 Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.29	0.20	0.058	0.91	0.64	0.18
Carbon tetrachloride	0.091	0.20	0.038	0.57 J	1.3	0.24
Chlorodifluoromethane	60	0.20	0.038	210 E	0.71	0.13
Chloroform	0.087	0.20	0.038	0.42 J	0.98	0.18
Dichlorodifluoromethane	0.55	0.20	0.068	2.7	0.99	0.33
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	0.36	0.20	0.068	1.6	0.87	0.29
Methylene chloride	27	0.50	0.045	94 B	1.7	0.16
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	0.44	0.50	0.090	2.3 J	2.6	0.47
Tetrachloroethene	0.042	0.20	0.040	0.28 J	1.4	0.27
Toluene	3.3	0.20	0.052	13	0.75	0.20
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	0.040	0.20	0.030	0.22 J	1.1	0.16
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	0.12	0.10	0.035	0.67	0.54	0.19
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	1.1	0.20	0.12	4.6	0.87	0.54
o-Xylene	0.37	0.20	0.060	1.6	0.87	0.26

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	105	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-B2-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 016	Work Order #	L6HG42AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/14/2010	Analysis Date...	09/15/2010		
Prep Batch #.....:	0258072				
Dilution Factor.:	10	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Chlorodifluoromethane	65	0.80	0.15	230 D	2.8	0.53

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

D Result was obtained from the analysis of a dilution.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C12-9

GC/MS Volatiles

Lot-Sample # H0I030418 - 013 Work Order # L6HGW1AA Matrix.....: AIR

Date Sampled...: 08/30/2010 Date Received..: 09/02/2010
Prep Date.....: 09/08/2010 Analysis Date... 09/08/2010
Prep Batch #.....: 0252121
Dilution Factor.: 1 Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.32	0.080	0.023	1.0	0.26	0.073
Carbon tetrachloride	0.099	0.080	0.015	0.62	0.50	0.094
Chlorodifluoromethane	4.8	0.080	0.015	17	0.28	0.053
Chloroform	0.050	0.080	0.015	0.24 J	0.39	0.073
Dichlorodifluoromethane	0.54	0.080	0.027	2.7	0.40	0.13
1,1-Dichloroethane	0.019	0.080	0.010	0.079 J	0.32	0.040
1,2-Dichloroethane	0.034	0.080	0.019	0.14 J	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	0.016	0.080	0.013	0.062 J	0.32	0.052
Ethylbenzene	0.15	0.080	0.027	0.63	0.35	0.12
Methylene chloride	0.42	0.20	0.018	1.4 B	0.69	0.063
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	0.17	0.20	0.036	0.91 J	1.0	0.19
Tetrachloroethene	0.058	0.080	0.016	0.39 J	0.54	0.11
Toluene	0.48	0.080	0.021	1.8	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	0.028	0.080	0.012	0.15 J	0.44	0.065
1,1,2-Trichloroethane	0.027	0.080	0.021	0.15 J	0.44	0.11
Trichloroethene	0.030	0.040	0.014	0.16 J	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	0.48	0.080	0.050	2.1	0.35	0.22
o-Xylene	0.21	0.080	0.024	0.93	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	97	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C14-9

GC/MS Volatiles

Lot-Sample # H0I030418 - 014 Work Order # L6HG11AA Matrix.....: AIR

Date Sampled...: 08/30/2010 Date Received..: 09/02/2010
Prep Date.....: 09/08/2010 Analysis Date... 09/09/2010
Prep Batch #.....: 0252121
Dilution Factor.: 2.5 Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.34	0.20	0.058	1.1	0.64	0.18
Carbon tetrachloride	0.077	0.20	0.038	0.48 J	1.3	0.24
Chlorodifluoromethane	120	0.20	0.038	410 E	0.71	0.13
Chloroform	0.090	0.20	0.038	0.44 J	0.98	0.18
Dichlorodifluoromethane	0.53	0.20	0.068	2.6	0.99	0.33
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	0.26	0.20	0.068	1.1	0.87	0.29
Methylene chloride	3.0	0.50	0.045	11 B	1.7	0.16
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	0.33	0.50	0.090	1.7 J	2.6	0.47
Tetrachloroethene	ND	0.20	0.040	ND	1.4	0.27
Toluene	2.0	0.20	0.052	7.6	0.75	0.20
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	0.047	0.20	0.030	0.26 J	1.1	0.16
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	0.038	0.10	0.035	0.20 J	0.54	0.19
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	0.85	0.20	0.12	3.7	0.87	0.54
o-Xylene	0.34	0.20	0.060	1.5	0.87	0.26

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C14-9

GC/MS Volatiles

Lot-Sample #	H01030418 - 014	Work Order #	L6HG12AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/10/2010	Analysis Date...	09/10/2010		
Prep Batch #.....:	0256181				
Dilution Factor.:	12.5	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Chlorodifluoromethane	150	1.0	0.19	530 D	3.5	0.66

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	100	60 - 140

Qualifiers

D Result was obtained from the analysis of a dilution.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C15-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 015	Work Order #	L6HG21AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/09/2010		
Prep Batch #.....:	0252121				
Dilution Factor.:	2.5	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.27**	**0.20**	**0.058**	**0.86**	**0.64**	**0.18**
Carbon tetrachloride	**0.072**	**0.20**	**0.038**	**0.45 J**	**1.3**	**0.24**
Chlorodifluoromethane	**45**	**0.20**	**0.038**	**160 E**	**0.71**	**0.13**
Chloroform	**0.062**	**0.20**	**0.038**	**0.30 J**	**0.98**	**0.18**
Dichlorodifluoromethane	**0.51**	**0.20**	**0.068**	**2.5**	**0.99**	**0.33**
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	**0.17**	**0.20**	**0.068**	**0.72 J**	**0.87**	**0.29**
Methylene chloride	**1.5**	**0.50**	**0.045**	**5.2 B**	**1.7**	**0.16**
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	**0.20**	**0.50**	**0.090**	**1.0 J**	**2.6**	**0.47**
Tetrachloroethene	ND	0.20	0.040	ND	1.4	0.27
Toluene	**1.1**	**0.20**	**0.052**	**4.3**	**0.75**	**0.20**
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	ND	0.20	0.030	ND	1.1	0.16
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	ND	0.10	0.035	ND	0.54	0.19
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	**0.57**	**0.20**	**0.12**	**2.5**	**0.87**	**0.54**
o-Xylene	**0.23**	**0.20**	**0.060**	**0.99**	**0.87**	**0.26**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	99	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C15-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 015	Work Order #	L6HG22AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/10/2010	Analysis Date...	09/10/2010		
Prep Batch #.....:	0256181				
Dilution Factor.:	10	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Chlorodifluoromethane	58	0.80	0.15	210 D	2.8	0.53

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

D Result was obtained from the analysis of a dilution.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C18-9

GC/MS Volatiles

Lot-Sample # H0I030418 - 012 Work Order # L6HGP1AA Matrix.....: AIR

Date Sampled...: 08/30/2010 Date Received..: 09/02/2010
Prep Date.....: 09/08/2010 Analysis Date... 09/08/2010
Prep Batch #.....: 0252121
Dilution Factor.: 10 Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.36**	**0.80**	**0.23**	**1.2 J**	**2.6**	**0.73**
Carbon tetrachloride	ND	0.80	0.15	ND	5.0	0.94
Chlorodifluoromethane	**74**	**0.80**	**0.15**	**260**	**2.8**	**0.53**
Chloroform	ND	0.80	0.15	ND	3.9	0.73
Dichlorodifluoromethane	**0.51**	**0.80**	**0.27**	**2.5 J**	**4.0**	**1.3**
1,1-Dichloroethane	ND	0.80	0.10	ND	3.2	0.40
1,2-Dichloroethane	ND	0.80	0.19	ND	3.2	0.77
cis-1,2-Dichloroethene	ND	0.80	0.24	ND	3.2	0.95
trans-1,2-Dichloroethene	ND	0.80	0.20	ND	3.2	0.79
1,1-Dichloroethene	ND	0.80	0.13	ND	3.2	0.52
Ethylbenzene	ND	0.80	0.27	ND	3.5	1.2
Methylene chloride	**1.2**	**2.0**	**0.18**	**4.2 J B**	**6.9**	**0.63**
Methyl tert-butyl ether	ND	4.0	0.68	ND	14	2.5
Naphthalene	ND	2.0	0.36	ND	10	1.9
Tetrachloroethene	ND	0.80	0.16	ND	5.4	1.1
Toluene	**0.95**	**0.80**	**0.21**	**3.6**	**3.0**	**0.79**
1,2,4-Trichlorobenzene	ND	4.0	0.39	ND	30	2.9
1,1,1-Trichloroethane	ND	0.80	0.12	ND	4.4	0.65
1,1,2-Trichloroethane	ND	0.80	0.21	ND	4.4	1.1
Trichloroethene	ND	0.40	0.14	ND	2.1	0.75
Vinyl chloride	ND	0.80	0.29	ND	2.0	0.74
m-Xylene & p-Xylene	ND	0.80	0.50	ND	3.5	2.2
o-Xylene	ND	0.80	0.24	ND	3.5	1.0

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	92	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-FC-30-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 017	Work Order #	L6HG51AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/10/2010	Analysis Date...	09/10/2010		
Prep Batch #.....:	0256181				
Dilution Factor.:	14.3	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	1.1	0.33	ND	3.7	1.1
Carbon tetrachloride	ND	1.1	0.21	ND	7.2	1.3
Chlorodifluoromethane	**1.7**	**1.1**	**0.21**	**5.9**	**4.0**	**0.76**
Chloroform	ND	1.1	0.21	ND	5.6	1.0
Dichlorodifluoromethane	**0.58**	**1.1**	**0.39**	**2.9 J**	**5.7**	**1.9**
1,1-Dichloroethane	ND	1.1	0.14	ND	4.6	0.58
1,2-Dichloroethane	ND	1.1	0.27	ND	4.6	1.1
cis-1,2-Dichloroethene	ND	1.1	0.34	ND	4.5	1.4
trans-1,2-Dichloroethene	ND	1.1	0.29	ND	4.5	1.1
1,1-Dichloroethene	ND	1.1	0.19	ND	4.5	0.74
Ethylbenzene	**1.1**	**1.1**	**0.39**	**5.0**	**5.0**	**1.7**
Methylene chloride	**1.4**	**2.9**	**0.26**	**4.9 J B**	**9.9**	**0.89**
Methyl tert-butyl ether	ND	5.7	0.97	ND	21	3.5
Naphthalene	ND	2.9	0.51	ND	15	2.7
Tetrachloroethene	ND	1.1	0.23	ND	7.8	1.6
Toluene	**170**	**1.1**	**0.30**	**630**	**4.3**	**1.1**
1,2,4-Trichlorobenzene	ND	5.7	0.56	ND	42	4.1
1,1,1-Trichloroethane	ND	1.1	0.17	ND	6.2	0.94
1,1,2-Trichloroethane	ND	1.1	0.30	ND	6.2	1.6
Trichloroethene	ND	0.57	0.20	ND	3.1	1.1
Vinyl chloride	ND	1.1	0.41	ND	2.9	1.1
m-Xylene & p-Xylene	**2.2**	**1.1**	**0.72**	**9.7**	**5.0**	**3.1**
o-Xylene	**0.57**	**1.1**	**0.34**	**2.5 J**	**5.0**	**1.5**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	104	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: ISG-10-B-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 010	Work Order #	L6HGG1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252121				
Dilution Factor.:	5	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.40	0.12	ND	1.3	0.37
Carbon tetrachloride	ND	0.40	0.075	ND	2.5	0.47
Chlorodifluoromethane	**42**	**0.40**	**0.075**	**150**	**1.4**	**0.27**
Chloroform	**0.13**	**0.40**	**0.075**	**0.61 J**	**2.0**	**0.37**
Dichlorodifluoromethane	**0.51**	**0.40**	**0.14**	**2.5**	**2.0**	**0.67**
1,1-Dichloroethane	ND	0.40	0.050	ND	1.6	0.20
1,2-Dichloroethane	ND	0.40	0.095	ND	1.6	0.38
cis-1,2-Dichloroethene	**0.23**	**0.40**	**0.12**	**0.93 J**	**1.6**	**0.48**
trans-1,2-Dichloroethene	ND	0.40	0.10	ND	1.6	0.40
1,1-Dichloroethene	ND	0.40	0.065	ND	1.6	0.26
Ethylbenzene	**0.24**	**0.40**	**0.14**	**1.0 J**	**1.7**	**0.59**
Methylene chloride	**1.7**	**1.0**	**0.090**	**5.9 B**	**3.5**	**0.31**
Methyl tert-butyl ether	ND	2.0	0.34	ND	7.2	1.2
Naphthalene	**1.3**	**1.0**	**0.18**	**6.9**	**5.2**	**0.94**
Tetrachloroethene	**0.44**	**0.40**	**0.080**	**3.0**	**2.7**	**0.54**
Toluene	**2.0**	**0.40**	**0.10**	**7.6**	**1.5**	**0.40**
1,2,4-Trichlorobenzene	ND	2.0	0.20	ND	15	1.4
1,1,1-Trichloroethane	**0.28**	**0.40**	**0.060**	**1.6 J**	**2.2**	**0.33**
1,1,2-Trichloroethane	ND	0.40	0.10	ND	2.2	0.57
Trichloroethene	**13**	**0.20**	**0.070**	**72**	**1.1**	**0.38**
Vinyl chloride	ND	0.40	0.14	ND	1.0	0.37
m-Xylene & p-Xylene	**0.99**	**0.40**	**0.25**	**4.3**	**1.7**	**1.1**
o-Xylene	**0.54**	**0.40**	**0.12**	**2.4**	**1.7**	**0.52**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	96	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: ISG-11-C-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 009	Work Order #	L6HGA1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252121				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.14	0.080	0.023	0.46	0.26	0.073
Carbon tetrachloride	0.18	0.080	0.015	1.1	0.50	0.094
Chlorodifluoromethane	0.74	0.080	0.015	2.6	0.28	0.053
Chloroform	1.2	0.080	0.015	5.6	0.39	0.073
Dichlorodifluoromethane	16	0.080	0.027	78	0.40	0.13
1,1-Dichloroethane	0.11	0.080	0.010	0.43	0.32	0.040
1,2-Dichloroethane	0.59	0.080	0.019	2.4	0.32	0.077
cis-1,2-Dichloroethene	0.11	0.080	0.024	0.44	0.32	0.095
trans-1,2-Dichloroethene	0.091	0.080	0.020	0.36	0.32	0.079
1,1-Dichloroethene	0.017	0.080	0.013	0.067 J	0.32	0.052
Ethylbenzene	0.55	0.080	0.027	2.4	0.35	0.12
Methylene chloride	9.2	0.20	0.018	32 B	0.69	0.063
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	2.8	0.20	0.036	15	1.0	0.19
Tetrachloroethene	24	0.080	0.016	160 E	0.54	0.11
Toluene	11	0.080	0.021	43	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	0.19	0.080	0.012	1.0	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	1.2	0.040	0.014	6.3	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	2.3	0.080	0.050	9.9	0.35	0.22
o-Xylene	1.3	0.080	0.024	5.6	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	100	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: ISG-11-C-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 009	Work Order #	L6HGA2AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/10/2010	Analysis Date...	09/10/2010		
Prep Batch #.....:	0256181				
Dilution Factor.:	5	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Tetrachloroethene	14	0.40	0.080	93 D	2.7	0.54

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	106	60 - 140

Qualifiers

D Result was obtained from the analysis of a dilution.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-24-B-9

GC/MS Volatiles

Lot-Sample # H0I030418 - 002 Work Order # L6HFQ1AA Matrix.....: AIR

Date Sampled...: 08/30/2010 Date Received..: 09/02/2010
Prep Date.....: 09/08/2010 Analysis Date... 09/08/2010
Prep Batch #.....: 0252121
Dilution Factor.: 18.2 Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.46**	**1.5**	**0.42**	**1.5 J**	**4.7**	**1.3**
Carbon tetrachloride	ND	1.5	0.27	ND	9.2	1.7
Chlorodifluoromethane	**4.2**	**1.5**	**0.27**	**15**	**5.1**	**0.97**
Chloroform	ND	1.5	0.27	ND	7.1	1.3
Dichlorodifluoromethane	**0.68**	**1.5**	**0.49**	**3.4 J**	**7.2**	**2.4**
1,1-Dichloroethane	ND	1.5	0.18	ND	5.9	0.74
1,2-Dichloroethane	ND	1.5	0.35	ND	5.9	1.4
cis-1,2-Dichloroethene	ND	1.5	0.44	ND	5.8	1.7
trans-1,2-Dichloroethene	ND	1.5	0.36	ND	5.8	1.4
1,1-Dichloroethene	ND	1.5	0.24	ND	5.8	0.94
Ethylbenzene	**66**	**1.5**	**0.49**	**290**	**6.3**	**2.1**
Methylene chloride	**5.5**	**3.6**	**0.33**	**19 B**	**13**	**1.1**
Methyl tert-butyl ether	ND	7.3	1.2	ND	26	4.5
Naphthalene	**14**	**3.6**	**0.66**	**74**	**19**	**3.4**
Tetrachloroethene	ND	1.5	0.29	ND	9.9	2.0
Toluene	**17**	**1.5**	**0.38**	**62**	**5.5**	**1.4**
1,2,4-Trichlorobenzene	ND	7.3	0.71	ND	54	5.3
1,1,1-Trichloroethane	ND	1.5	0.22	ND	7.9	1.2
1,1,2-Trichloroethane	ND	1.5	0.38	ND	7.9	2.1
Trichloroethene	ND	0.73	0.25	ND	3.9	1.4
Vinyl chloride	ND	1.5	0.53	ND	3.7	1.3
m-Xylene & p-Xylene	**300**	**1.5**	**0.91**	**1300**	**6.3**	**4.0**
o-Xylene	**110**	**1.5**	**0.44**	**500**	**6.3**	**1.9**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	100	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-25-B-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 003	Work Order #	L6HFT1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252121				
Dilution Factor.:	38.5	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	3.1	0.89	ND	9.8	2.8
Carbon tetrachloride	ND	3.1	0.58	ND	19	3.6
Chlorodifluoromethane	**2.4**	**3.1**	**0.58**	**8.6 J**	**11**	**2.0**
Chloroform	ND	3.1	0.58	ND	15	2.8
Dichlorodifluoromethane	ND	3.1	1.0	ND	15	5.1
1,1-Dichloroethane	ND	3.1	0.38	ND	12	1.6
1,2-Dichloroethane	ND	3.1	0.73	ND	12	3.0
cis-1,2-Dichloroethene	ND	3.1	0.92	ND	12	3.7
trans-1,2-Dichloroethene	ND	3.1	0.77	ND	12	3.1
1,1-Dichloroethene	ND	3.1	0.50	ND	12	2.0
Ethylbenzene	**50**	**3.1**	**1.0**	**220**	**13**	**4.5**
Methylene chloride	**2.1**	**7.7**	**0.69**	**7.4 J B**	**27**	**2.4**
Methyl tert-butyl ether	ND	15	2.6	ND	56	9.4
Naphthalene	**2.5**	**7.7**	**1.4**	**13 J**	**40**	**7.3**
Tetrachloroethene	ND	3.1	0.62	ND	21	4.2
Toluene	**5.9**	**3.1**	**0.81**	**22**	**12**	**3.0**
1,2,4-Trichlorobenzene	ND	15	1.5	ND	110	11
1,1,1-Trichloroethane	**3.3**	**3.1**	**0.46**	**18**	**17**	**2.5**
1,1,2-Trichloroethane	ND	3.1	0.81	ND	17	4.4
Trichloroethene	**0.85**	**1.5**	**0.54**	**4.6 J**	**8.3**	**2.9**
Vinyl chloride	ND	3.1	1.1	ND	7.9	2.9
m-Xylene & p-Xylene	**250**	**3.1**	**1.9**	**1100**	**13**	**8.4**
o-Xylene	**160**	**3.1**	**0.92**	**690**	**13**	**4.0**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	94	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-26-B-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 005	Work Order #	L6HF01AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252121				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.58	0.080	0.023	1.8	0.26	0.073
Carbon tetrachloride	9.7	0.080	0.015	61	0.50	0.094
Chlorodifluoromethane	0.98	0.080	0.015	3.5	0.28	0.053
Chloroform	5.6	0.080	0.015	27	0.39	0.073
Dichlorodifluoromethane	1.5	0.080	0.027	7.3	0.40	0.13
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	1.4	0.080	0.027	5.9	0.35	0.12
Methylene chloride	0.25	0.20	0.018	0.85 B	0.69	0.063
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	9.3	0.20	0.036	49	1.0	0.19
Tetrachloroethene	2.0	0.080	0.016	13	0.54	0.11
Toluene	0.86	0.080	0.021	3.3	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	1.2	0.080	0.012	6.6	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	15	0.040	0.014	80	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	5.1	0.080	0.050	22	0.35	0.22
o-Xylene	3.9	0.080	0.024	17	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

B Method blank contamination. The associated method blank contains the target analyte at a reportable level.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-27-B-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 004	Work Order #	L6HFW1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/09/2010		
Prep Batch #.....:	0252121				
Dilution Factor.:	5	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.98	0.40	0.12	3.1	1.3	0.37
Carbon tetrachloride	0.85	0.40	0.075	5.3	2.5	0.47
Chlorodifluoromethane	2.2	0.40	0.075	7.8	1.4	0.27
Chloroform	0.29	0.40	0.075	1.4 J	2.0	0.37
Dichlorodifluoromethane	2.5	0.40	0.14	12	2.0	0.67
1,1-Dichloroethane	0.40	0.40	0.050	1.6	1.6	0.20
1,2-Dichloroethane	0.21	0.40	0.095	0.84 J	1.6	0.38
cis-1,2-Dichloroethene	ND	0.40	0.12	ND	1.6	0.48
trans-1,2-Dichloroethene	ND	0.40	0.10	ND	1.6	0.40
1,1-Dichloroethene	0.28	0.40	0.065	1.1 J	1.6	0.26
Ethylbenzene	0.34	0.40	0.14	1.5 J	1.7	0.59
Methylene chloride	1.7	1.0	0.090	5.9 B	3.5	0.31
Methyl tert-butyl ether	ND	2.0	0.34	ND	7.2	1.2
Naphthalene	ND	1.0	0.18	ND	5.2	0.94
Tetrachloroethene	13	0.40	0.080	90	2.7	0.54
Toluene	0.50	0.40	0.10	1.9	1.5	0.40
1,2,4-Trichlorobenzene	ND	2.0	0.20	ND	15	1.4
1,1,1-Trichloroethane	72	0.40	0.060	390	2.2	0.33
1,1,2-Trichloroethane	ND	0.40	0.10	ND	2.2	0.57
Trichloroethene	40	0.20	0.070	220	1.1	0.38
Vinyl chloride	ND	0.40	0.14	ND	1.0	0.37
m-Xylene & p-Xylene	0.66	0.40	0.25	2.8	1.7	1.1
o-Xylene	0.23	0.40	0.12	1.0 J	1.7	0.52

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	100	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-29-C-9

GC/MS Volatiles

Lot-Sample # H0I030418 - 006 Work Order # L6HF21AA Matrix.....: AIR

Date Sampled...: 08/30/2010 Date Received..: 09/02/2010
Prep Date.....: 09/09/2010 Analysis Date... 09/10/2010
Prep Batch #.....: 0253090
Dilution Factor.: 2.5 Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.71	0.20	0.058	2.3	0.64	0.18
Carbon tetrachloride	0.089	0.20	0.038	0.56 J	1.3	0.24
Chlorodifluoromethane	76	0.20	0.038	270 E	0.71	0.13
Chloroform	0.29	0.20	0.038	1.4	0.98	0.18
Dichlorodifluoromethane	0.61	0.20	0.068	3.0	0.99	0.33
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	20	0.20	0.068	86	0.87	0.29
Methylene chloride	0.61	0.50	0.045	2.1 B	1.7	0.16
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	58	0.50	0.090	310 E	2.6	0.47
Tetrachloroethene	0.080	0.20	0.040	0.54 J	1.4	0.27
Toluene	4.5	0.20	0.052	17 B	0.75	0.20
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	ND	0.20	0.030	ND	1.1	0.16
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	0.37	0.10	0.035	2.0	0.54	0.19
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	97	0.20	0.12	420 E	0.87	0.54
o-Xylene	67	0.20	0.060	290 E	0.87	0.26

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	104	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-29-C-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 006	Work Order #	L6HF22AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/10/2010	Analysis Date...	09/10/2010		
Prep Batch #.....:	0256181				
Dilution Factor.:	10	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Chlorodifluoromethane	93	0.80	0.15	330 D	2.8	0.53
Naphthalene	39	2.0	0.36	210 D	10	1.9
m-Xylene & p-Xylene	120	0.80	0.50	510 D	3.5	2.2
o-Xylene	67	0.80	0.24	290 D	3.5	1.0

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	116	60 - 140

Qualifiers

D Result was obtained from the analysis of a dilution.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-30-FC-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 011	Work Order #	L6HGK1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252121				
Dilution Factor.:	25	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	2.0	0.58	ND	6.4	1.8
Carbon tetrachloride	ND	2.0	0.38	ND	13	2.4
Chlorodifluoromethane	ND	2.0	0.38	ND	7.1	1.3
Chloroform	ND	2.0	0.38	ND	9.8	1.8
Dichlorodifluoromethane	ND	2.0	0.68	ND	9.9	3.3
1,1-Dichloroethane	ND	2.0	0.25	ND	8.1	1.0
1,2-Dichloroethane	ND	2.0	0.48	ND	8.1	1.9
cis-1,2-Dichloroethene	**2.8**	**2.0**	**0.60**	**11**	**7.9**	**2.4**
trans-1,2-Dichloroethene	ND	2.0	0.50	ND	7.9	2.0
1,1-Dichloroethene	ND	2.0	0.32	ND	7.9	1.3
Ethylbenzene	**2.4**	**2.0**	**0.68**	**10**	**8.7**	**2.9**
Methylene chloride	**1.4**	**5.0**	**0.45**	**5.0 J B**	**17**	**1.6**
Methyl tert-butyl ether	ND	10	1.7	ND	36	6.1
Naphthalene	**13**	**5.0**	**0.90**	**70**	**26**	**4.7**
Tetrachloroethene	ND	2.0	0.40	ND	14	2.7
Toluene	**180**	**2.0**	**0.52**	**690**	**7.5**	**2.0**
1,2,4-Trichlorobenzene	ND	10	0.98	ND	74	7.2
1,1,1-Trichloroethane	ND	2.0	0.30	ND	11	1.6
1,1,2-Trichloroethane	ND	2.0	0.52	ND	11	2.9
Trichloroethene	**3.9**	**1.0**	**0.35**	**21**	**5.4**	**1.9**
Vinyl chloride	ND	2.0	0.72	ND	5.1	1.9
m-Xylene & p-Xylene	**7.6**	**2.0**	**1.2**	**33**	**8.7**	**5.4**
o-Xylene	**3.6**	**2.0**	**0.60**	**16**	**8.7**	**2.6**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	94	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-B-4-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 001	Work Order #	L6HFK1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252121				
Dilution Factor.:	10	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.80	0.23	ND	2.6	0.73
Carbon tetrachloride	0.22	0.80	0.15	1.4 J	5.0	0.94
Chlorodifluoromethane	2.5	0.80	0.15	8.7	2.8	0.53
Chloroform	ND	0.80	0.15	ND	3.9	0.73
Dichlorodifluoromethane	0.56	0.80	0.27	2.7 J	4.0	1.3
1,1-Dichloroethane	ND	0.80	0.10	ND	3.2	0.40
1,2-Dichloroethane	ND	0.80	0.19	ND	3.2	0.77
cis-1,2-Dichloroethene	ND	0.80	0.24	ND	3.2	0.95
trans-1,2-Dichloroethene	ND	0.80	0.20	ND	3.2	0.79
1,1-Dichloroethene	ND	0.80	0.13	ND	3.2	0.52
Ethylbenzene	21	0.80	0.27	90	3.5	1.2
Methylene chloride	0.91	2.0	0.18	3.2 J B	6.9	0.63
Methyl tert-butyl ether	ND	4.0	0.68	ND	14	2.5
Naphthalene	0.94	2.0	0.36	4.9 J	10	1.9
Tetrachloroethene	0.25	0.80	0.16	1.7 J	5.4	1.1
Toluene	15	0.80	0.21	56	3.0	0.79
1,2,4-Trichlorobenzene	ND	4.0	0.39	ND	30	2.9
1,1,1-Trichloroethane	0.26	0.80	0.12	1.4 J	4.4	0.65
1,1,2-Trichloroethane	ND	0.80	0.21	ND	4.4	1.1
Trichloroethene	0.42	0.40	0.14	2.2	2.1	0.75
Vinyl chloride	ND	0.80	0.29	ND	2.0	0.74
m-Xylene & p-Xylene	97	0.80	0.50	420	3.5	2.2
o-Xylene	41	0.80	0.24	180	3.5	1.0

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	99	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-C1-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 008	Work Order #	L6HF61AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252121				
Dilution Factor.:	10	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.63	0.80	0.23	2.0 J	2.6	0.73
Carbon tetrachloride	ND	0.80	0.15	ND	5.0	0.94
Chlorodifluoromethane	84	0.80	0.15	300	2.8	0.53
Chloroform	ND	0.80	0.15	ND	3.9	0.73
Dichlorodifluoromethane	0.54	0.80	0.27	2.7 J	4.0	1.3
1,1-Dichloroethane	ND	0.80	0.10	ND	3.2	0.40
1,2-Dichloroethane	ND	0.80	0.19	ND	3.2	0.77
cis-1,2-Dichloroethene	ND	0.80	0.24	ND	3.2	0.95
trans-1,2-Dichloroethene	ND	0.80	0.20	ND	3.2	0.79
1,1-Dichloroethene	ND	0.80	0.13	ND	3.2	0.52
Ethylbenzene	ND	0.80	0.27	ND	3.5	1.2
Methylene chloride	1.0	2.0	0.18	3.5 J B	6.9	0.63
Methyl tert-butyl ether	ND	4.0	0.68	ND	14	2.5
Naphthalene	ND	2.0	0.36	ND	10	1.9
Tetrachloroethene	0.22	0.80	0.16	1.5 J	5.4	1.1
Toluene	1.7	0.80	0.21	6.4	3.0	0.79
1,2,4-Trichlorobenzene	ND	4.0	0.39	ND	30	2.9
1,1,1-Trichloroethane	ND	0.80	0.12	ND	4.4	0.65
1,1,2-Trichloroethane	ND	0.80	0.21	ND	4.4	1.1
Trichloroethene	0.48	0.40	0.14	2.6	2.1	0.75
Vinyl chloride	ND	0.80	0.29	ND	2.0	0.74
m-Xylene & p-Xylene	0.83	0.80	0.50	3.6	3.5	2.2
o-Xylene	0.51	0.80	0.24	2.2 J	3.5	1.0

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	94	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-C-7-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 007	Work Order #	L6HF41AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252121				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.21	0.080	0.023	0.68	0.26	0.073
Carbon tetrachloride	0.081	0.080	0.015	0.51	0.50	0.094
Chlorodifluoromethane	1.6	0.080	0.015	5.6	0.28	0.053
Chloroform	0.040	0.080	0.015	0.20 J	0.39	0.073
Dichlorodifluoromethane	0.49	0.080	0.027	2.4	0.40	0.13
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	0.16	0.080	0.027	0.68	0.35	0.12
Methylene chloride	0.14	0.20	0.018	0.49 J B	0.69	0.063
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	0.14	0.20	0.036	0.74 J	1.0	0.19
Tetrachloroethene	0.037	0.080	0.016	0.25 J	0.54	0.11
Toluene	0.52	0.080	0.021	2.0	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	ND	0.080	0.012	ND	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	0.092	0.040	0.014	0.49	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	0.52	0.080	0.050	2.2	0.35	0.22
o-Xylene	0.22	0.080	0.024	0.95	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	99	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-DUP-1-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 022	Work Order #	L6HHG1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/09/2010	Analysis Date...	09/09/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	2.5	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.084	0.20	0.058	0.27 J	0.64	0.18
Carbon tetrachloride	0.93	0.20	0.038	5.9	1.3	0.24
Chlorodifluoromethane	2.0	0.20	0.038	6.9	0.71	0.13
Chloroform	0.26	0.20	0.038	1.3	0.98	0.18
Dichlorodifluoromethane	0.35	0.20	0.068	1.7	0.99	0.33
1,1-Dichloroethane	0.34	0.20	0.025	1.4	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	0.25	0.20	0.032	0.99	0.79	0.13
Ethylbenzene	1.9	0.20	0.068	8.0	0.87	0.29
Methylene chloride	0.39	0.50	0.045	1.3 J B	1.7	0.16
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	53	0.50	0.090	280 E	2.6	0.47
Tetrachloroethene	21	0.20	0.040	140	1.4	0.27
Toluene	1.2	0.20	0.052	4.5	0.75	0.20
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	69	0.20	0.030	380 E	1.1	0.16
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	26	0.10	0.035	140	0.54	0.19
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	10	0.20	0.12	43	0.87	0.54
o-Xylene	5.7	0.20	0.060	25	0.87	0.26

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	104	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-DUP-1-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 022	Work Order #	L6HHG2AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/14/2010	Analysis Date...	09/15/2010		
Prep Batch #.....:	0258072				
Dilution Factor.:	10	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Naphthalene	49	2.0	0.36	260 D	10	1.9
1,1,1-Trichloroethane	69	0.80	0.12	380 D	4.4	0.65

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	106	60 - 140

Qualifiers

D Result was obtained from the analysis of a dilution.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Appendix C

Support Documentation

HOLDTIME

SDG H0I030418

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/M3	IAQ-C14-9	H0I030418014	SUR	08/30/2010	09/08/2010	09/09/2010	9	1	10
OV	UG/M3	IAQ-C18-9	H0I030418012	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	IAQ-B2-9	H0I030418016	SUR	08/30/2010	09/09/2010	09/09/2010	10	0	10
OV	UG/M3	IAQ-B2-9	H0I030418016	SUR	08/30/2010	09/14/2010	09/15/2010	15	1	16
OV	UG/M3	IAQ-C12-9	H0I030418013	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	IAQ-C12-9	H0I030418013	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	IAQ-B2-9	H0I030418016	NM	08/30/2010	09/09/2010	09/09/2010	10	0	10
OV	UG/M3	IAQ-C14-9	H0I030418014	NM	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	IAQ-B17-9	H0I030418020	SUR	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	IAQ-C14-9	H0I030418014	SUR	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	IAQ-C15-9	H0I030418015	NM	08/30/2010	09/08/2010	09/09/2010	9	1	10
OV	UG/M3	IAQ-C15-9	H0I030418015	NM	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	IAQ-C15-9	H0I030418015	SUR	08/30/2010	09/08/2010	09/09/2010	9	1	10
OV	UG/M3	IAQ-C15-9	H0I030418015	SUR	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	BCK-1-9	H0I030418023	NM	08/30/2010	09/10/2010	09/10/2010	11	0	11

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/M3	IAQ-C14-9	H0I030418014	NM	08/30/2010	09/08/2010	09/09/2010	9	1	10
OV	UG/M3	IAQ-B12-9	H0I030418018	NM	08/30/2010	09/09/2010	09/09/2010	10	0	10
OV	UG/M3	BCK-1-9	H0I030418023	SUR	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	BCK-2-9	H0I030418024	NM	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	BCK-2-9	H0I030418024	SUR	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	BCK-3-9	H0I030418025	NM	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	BCK-3-9	H0I030418025	SUR	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	IAQ-B2-9	H0I030418016	NM	08/30/2010	09/14/2010	09/15/2010	15	1	16
OV	UG/M3	BCK-4-9	H0I030418026	SUR	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	IAQ-FC-30-9	H0I030418017	NM	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	IAQ-B12-9	H0I030418018	SUR	08/30/2010	09/09/2010	09/09/2010	10	0	10
OV	UG/M3	IAQ-B14-9	H0I030418019	NM	08/30/2010	09/09/2010	09/09/2010	10	0	10
OV	UG/M3	IAQ-B14-9	H0I030418019	SUR	08/30/2010	09/09/2010	09/09/2010	10	0	10
OV	UG/M3	IAQ-B16-9	H0I030418021	NM	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	IAQ-B16-9	H0I030418021	SUR	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	IAQ-B17-9	H0I030418020	NM	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	BCK-4-9	H0I030418026	NM	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	SV-C1-9	H0I030418008	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/M3	IAQ-C18-9	H0I030418012	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-29-C-9	H0I030418006	SUR	08/30/2010	09/09/2010	09/10/2010	10	1	11
OV	UG/M3	SV-29-C-9	H0I030418006	SUR	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	SV-30-FC-9	H0I030418011	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-30-FC-9	H0I030418011	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-29-C-9	H0I030418006	NM	08/30/2010	09/09/2010	09/10/2010	10	1	11
OV	UG/M3	SV-B-4-9	H0I030418001	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-27-B-9	H0I030418004	SUR	08/30/2010	09/08/2010	09/09/2010	9	1	10
OV	UG/M3	SV-C1-9	H0I030418008	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-C-7-9	H0I030418007	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-C-7-9	H0I030418007	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-DUP-1-9	H0I030418022	NM	08/30/2010	09/09/2010	09/09/2010	10	0	10
OV	UG/M3	SV-DUP-1-9	H0I030418022	NM	08/30/2010	09/14/2010	09/15/2010	15	1	16
OV	UG/M3	SV-DUP-1-9	H0I030418022	SUR	08/30/2010	09/09/2010	09/09/2010	10	0	10
OV	UG/M3	SV-B-4-9	H0I030418001	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-24-B-9	H0I030418002	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	IAQ-FC-30-9	H0I030418017	SUR	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	ISG-10-B-9	H0I030418010	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/M3	ISG-10-B-9	H0I030418010	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	ISG-11-C-9	H0I030418009	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	ISG-11-C-9	H0I030418009	NM	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	SV-29-C-9	H0I030418006	NM	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	ISG-11-C-9	H0I030418009	SUR	08/30/2010	09/10/2010	09/10/2010	11	0	11
OV	UG/M3	SV-DUP-1-9	H0I030418022	SUR	08/30/2010	09/14/2010	09/15/2010	15	1	16
OV	UG/M3	SV-24-B-9	H0I030418002	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-25-B-9	H0I030418003	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-25-B-9	H0I030418003	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-26-B-9	H0I030418005	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-26-B-9	H0I030418005	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-27-B-9	H0I030418004	NM	08/30/2010	09/08/2010	09/09/2010	9	1	10
OV	UG/M3	ISG-11-C-9	H0I030418009	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9

PROJECT NARRATIVE
H0I030418

The results reported herein are applicable to the samples submitted for analysis only.

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The original chain of custody documentation is included with this report.

Sample Receipt

The sample ID listed on the sample container label did not match the ID listed on the chain of custody documentation for several samples.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria. Even though the calibration verification analyzed on 9/10/10 exhibited a % difference of > 30% for dichlorodifluoromethane and vinyl chloride, and calibration verification analyzed on 9/14/10 exhibited a % difference of >30% for napthalene, the results were within the LCS acceptance limits.

Although vinyl chloride is flagged as being outside recovery limits in the laboratory control sample for batch 0256181, the laboratory control sample is in control. The standard operating procedure allows for 1 analyte to be outside the control limits, but within marginal exceedence limit.

TestAmerica Knoxville maintains the following certifications, approvals and accreditations: Arkansas DEQ Lab #88-0688, California DHS ELAP Cert. #2423, Colorado DPHE, Connecticut DPH Lab #PH-0223, Florida DOH Lab #E87177, Georgia DNR Lab #906, Hawaii DOH, Illinois EPA Lab #200012, Indiana DOH Lab #C-TN-02, Iowa DNR Lab #375, Kansas DHE Cert. #E-10349, Kentucky DEP Lab #90101, Louisiana DEQ Cert. #03079, Louisiana DOHH, Maryland DOE Cert. #277, Michigan DEQ Lab #9933, Nevada DEP, New Jersey DEP Lab #TN001, New York DOH Lab #10781, North Carolina DPH Lab #21705, North Carolina DEHNR Cert. #64, Ohio EPA VAP Lab #CL0059, Oklahoma DEQ Lab #9415, Pennsylvania DEP Lab #68-00576, South Carolina DHEC Cert #84001001, Tennessee DOH Lab #02014, Texas CEQ, Utah DOH Lab # QUAN3, Virginia DGS Lab #00165, Washington DOE Lab #C1314, West Virginia DEP Cert. #345, West Virginia DHHR Cert #9955C, Wisconsin DNR Lab #998044300, Naval Facilities Engineering Service Center and USDA Soil Permit #S-46424. This list of approvals is subject to change and does not imply that laboratory certification is available for all parameters reported in this environmental sample data report.

PROJECT NARRATIVE
H0I030418

The concentration of several analytes exceeded the calibration level of the instrument in a number of samples. The samples were analyzed at a dilution to bring the concentration of the compounds into the instrument calibration range. The results for both analyses are reported in order to provide the lowest possible reporting limits.

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: 410 130418

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)		✓		☑ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	IA COC LISTS SV-24-C-9, TAG SAYS SV-24-C COC LISTS CAN ID FOR SAMPLE SV-C-7-9 AS 38603, TAG SAYS 038603. COC LISTS ID AS SV-C1-9, TAG SAYS SV-C1 COC LISTS TSB-SG9B10 ISG-1D-B-9, TAG SAYS ISG-1D-9 COC LISTS CAN ID FOR IAQ-C14-9 AS 38603, ACTUAL CAN ID IS C122 COC LISTS CAN ID FOR SAMPLE IAQ-B16-9 AS 7455, TAG SAYS 7485 COC. LISTS CAN ID FOR SAMPLE BCK-4-9 AS 1143, TAG SAYS 11413 TS 9/3/10
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C; NC, 1668, 1613B: 0-4°C; VOST: 10°C; MA: 2-6 °C)			✓	☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?	✓			☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓			

Quote #: 80374 PM Instructions: NA

Sample Receiving Associate: Dee Smith Date: 9/3/10

QA026R21.doc, 090409

SAMPLE SUMMARY

H0I030418

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L6HFK	001	SV-B-4-9	08/30/10	11:43
L6HFQ	002	SV-24-B-9	08/30/10	11:46
L6HFT	003	SV-25-B-9	08/30/10	11:48
L6HFW	004	SV-27-B-9	08/30/10	14:00
L6HF0	005	SV-26-B-9	08/30/10	12:05
L6HF2	006	SV-29-C-9	08/30/10	11:18
L6HF4	007	SV-C-7-9	08/30/10	11:24
L6HF6	008	SV-C1-9	08/30/10	11:27
L6HGA	009	ISG-11-C-9	08/30/10	11:28
L6HGG	010	ISG-10-B-9	08/30/10	11:31
L6HGK	011	SV-30-FC-9	08/30/10	11:38
L6HGP	012	IAQ-C18-9	08/30/10	16:51
L6HGW	013	IAQ-C12-9	08/30/10	16:55
L6HG1	014	IAQ-C14-9	08/30/10	16:57
L6HG2	015	IAQ-C15-9	08/30/10	16:59
L6HG4	016	IAQ-B2-9	08/30/10	17:00
L6HG5	017	IAQ-FC-30-9	08/30/10	17:05
L6HG7	018	IAQ-B12-9	08/30/10	17:05
L6HG9	019	IAQ-B14-9	08/30/10	17:30
L6HHC	020	IAQ-B17-9	08/30/10	17:33
L6HHD	021	IAQ-B16-9	08/30/10	17:35
L6HHG	022	SV-DUP-1-9	08/30/10	
L6HHK	023	BCK-1-9	08/30/10	16:22
L6HHN	024	BCK-2-9	08/30/10	16:26
L6HHQ	025	BCK-3-9	08/30/10	16:32
L6HHT	026	BCK-4-9	08/30/10	16:35

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

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Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

HOI 030418

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** Rick Samuels	**Sampled By:**
Company: TetraTech, NUS	Phone: (770) 413-0965 EXT. 232	5 of 9 COCs
Address: 20251 Century Blvd.	Site Contact: Tony Apanavage (301) 233-8230	
City/State/Zip: Germantown, MD	TAL Contact:	
Phone: (301) 528-3032		
FAX: (301) 528-3000		
Project Name: MRC - IAQ Sampling	**Analysis Turnaround Time**	
Site/location: LMC-MRC	Standard (Specify)	
PO # 112ICO23757	Rush (Specify)	

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SV-B-4-9	8/30/10	1028	1143	-28	0.0	K-389	7498	X											
SV-24-B-9		1036	1146	-30	0.0	K-385	04426												
SV-25-B-9		1045	1148	-30	0.0	K-099	03775												
SV-27-B-9		1058	1400	-30	0.0	K-156	12822												
SV-26-B-9		1205	1205	-28	0.0	K-096	6378												

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)	Interior	Ambient	
Start			
Stop			

14 BOXES RECEIVED AMBIENT
FED EX MSTR #s 7962 0578 6887
7962 0581 3336
CUSTODY SEALS INTACT
80 CANS, 80 FLOWS TS 9/3/10 9/2/10
4 TBARS. TS 9/3/10

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 / 1030	Canisters Received by:	
Samples Relinquished by:	Date/Time: 9/1/10 / 1220	Received by:	9/3/10 9:30
Relinquished by:	Date/Time:	Received by: 2-TS 9/3/10	

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1-701030418

Canister Samples Chain of Custody Record

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** Rick Samuels	**Sampled By:**
Company: TetraTech, NUS	Phone: (770) 413-0965 Ext. 232	6 of 9 COCs
Address: 20251 Century Blvd	Site Contact: Tony Apanavage (301) 233-8230	
City/State/Zip Germantown, MD	TAL Contact:	
Phone: (301) 528-3032		
FAX: (301) 528-3000		
Project Name: MRC-IAQ Sampling	**Analysis Turnaround Time**	
Site/location: LMC-MRC	Standard (Specify)	
PO # 1121C02757	Rush (Specify)	

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SV-29-C-9	8/30/10	0915	1118	-30	0.0	K-453	9318	X											
3863 SV-C-7-9		0926	1124	-30	0.0	K-295	3863												
SV-C1-9		0932	1127	-28	0.0	K-117	12649												
5288M ISG-11-C-9		0937	1128	-30	0.0	K-436	8772												
ISG-10-B-9		0947	1131	-30	0.0	K-253	6636												
SV-30-FC-9		1015	1138	N/A	0.0	K-365	1007N												

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 / 1030	Canisters Received by:	
Samples Relinquished by:	Date/Time: 9/1/10 / 1220	Received by: 9/2/10	9:30
Relinquished by:	Date/Time:	Received by:	

1-701 030418

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Canister Samples Chain of Custody Record

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TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:	7 of 9 COCs
Company: TetraTech, NUS	Phone: (770) 413-0965 Ext. 232		
Address: 20251 Century Blvd	Site Contact: Tony Aparavage (301) 233-8230		
City/State/Zip Germantown, MD	TAL Contact:		
Phone: (301) 528-3023			
FAX: (301) 528-3000			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112rc02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-C18-9	8/30/10	0915	1651	N/A	N/A	K-210	11408	X											
IAQ-C19-9		0926	1655	-30	-5	K-[illegible]	1489	↓											
0122 IAQ-C14-9		[illegible]	1657	-30	-4	K-[illegible]	3863												
[illegible] IAQ-C15-9		0937	1654	-30	-4	K-333	1134												
IAQ-B2-9		0947	1700	-30	-9	K-335	7472												
IAQ-FC-30-9	↓	1015	1705	-30	-7	K-421	0008	↓											

Sampled by :	Temperature (Fahrenheit)	Interior	Ambient
	Start		
	Stop		

	Pressure (inches of Hg)	Interior	Ambient
	Start		
	Stop		

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 1030	Canisters Received by: [signature]
Samples Relinquished by: [signature]	Date/Time: 9/1/10 1220	Received by: [signature] 9/2/10 9:31
Relinquished by:	Date/Time:	Received by:

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1701 03D2118

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** Rick Samuels	**Sampled By:**
Company: TetraTech, NUS	Phone: (770) 413-0965 Ext. 232	8 of 9 COCs
Address: 20251 Century Blvd	Site Contact: Tony Aparavage (301) 233-8230	
City/State/Zip: Germantown, MD	TAL Contact:	
Phone: (301) 528-3032		
FAX: (301) 528-3500		
Project Name: MRC-IAQ Sampling	**Analysis Turnaround Time**	
Site/location: LMC-MRC	Standard (Specify)	
PO # 112ic.02757	Rush (Specify)	

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-B12-9	8/30/10	1038	1705	-30	-7	K-307	9317S	X											
IAQ-B14-9		1036	1730	-30	-7	K-451	4499N												
IAQ-B17-9		1058	1733	-30	-10	K-313	12539												
~~IAQ-B15-9~~ GMS		~~1045~~ 9/31	~~1735~~	~~-30~~	~~-5~~ GMS	~~K-384~~	~~1145~~												
748 IAQ-B16-9		1105	1735	-30	-5	K-149	7455												
SV-DUP-1-9	↓	N/A		-30		N/A	1411	↓											

Sampled by :	Temperature (Fahrenheit)		
	Interior	Ambient	
Start			
Stop			

	Pressure (inches of Hg)		
	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 1630	Canisters Received by:	
Samples Relinquished by:	Date/Time: 9/1/10 1220	Received by:	9/2/10 9:30
Relinquished by:	Date/Time:	Received by:	

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HOI 030418

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Sanders	Sampled By:	9 of 9 COCs
Company: Tetra Tech, NUS	Phone: (770) 413-0965 Ext. 232		
Address: 20251	Site Contact: Tony Apanovage (301) 233-8230		
City/State/Zip: Germantown, MD	TAL Contact:		
Phone: (301) 528-3028			
FAX: (301) 528-3000			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112rc02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
BCK-1-9	8/30/10	0800	1622	-30	-5.0	K-283	02341	X											
BCK-2-9		0807	1626	-30	0	K-256	7475												
BCK-3-9		0812	1632	-30	0	K-491	6376												
BCK-4-9		0820	1635	-29	-4	K-095	1143												

1413

Sampled by :	Temperature (Fahrenheit)			
		Interior	Ambient	
	Start			
	Stop			
	Pressure (inches of Hg)			
		Interior	Ambient	
	Start			
	Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Sanders	Date/Time: 9/1/10 / 1030	Canisters Received by:	
Samples Relinquished by:	Date/Time: 9/1/10 / 1220	Received by:	9/3/10 9:31
Relinquished by:	Date/Time:	Received by: TS 9/3/10	

LOCKHEED MR-IAQ
AIR DATA
H0I030418

FRACTION	CHEMICAL	SV-27-B-9	UNITS	SV-DUP-1-9	RPD	D
OV	1,1,1-TRICHLOROETHANE	390	UG/M3	380 ~~ND~~ 2.6	~~200.00~~	~~390.00~~ 10
OV	1,1-DICHLOROETHANE	1.6	UG/M3	1.4	13.33	0.20
OV	1,1-DICHLOROETHENE	1.1 J	UG/M3	0.99	10.53	0.11
OV	1,2-DICHLOROETHANE	0.84 J	UG/M3	ND	200.00	ok 0.84
OV	BENZENE	3.1	UG/M3	0.27 J	167.95	2.83
OV	CARBON TETRACHLORIDE	5.3	UG/M3	5.9	10.71	0.60
OV	CHLORODIFLUOROMETHANE	7.8	UG/M3	6.9	12.24	0.90
OV	CHLOROFORM	1.4 J	UG/M3	1.3	7.41	0.10
OV	DICHLORODIFLUOROMETHANE	12	UG/M3	1.7	150.36	10.30
OV	ETHYLBENZENE	1.5 J	UG/M3	8	136.84	ok 6.50
OV	M+P-XYLENES	2.8	UG/M3	43	175.55	40.20
OV	METHYLENE CHLORIDE	5.9 B	UG/M3	1.3 B	127.78	ok 4.60
OV	O-XYLENE	1 J	UG/M3	25	184.62	24.00
OV	TETRACHLOROETHENE	90	UG/M3	140 ok	43.48	50.00
OV	TOLUENE	1.9	UG/M3	4.5	81.25	ok 2.60
OV	TRICHLOROETHENE	220	UG/M3	140 ok	44.44	80.00
	Naphthalene	ND		260 J	200	260.00

50%

Current RPD Quality Control Limit: ~~30~~ %.

Shaded cells indicate RPDs that exceed the applicable quality control limit.

Sample Calc

Tetra Tech NUS, Inc

Client Sample ID: SV-24-B-9

GC/MS Volatiles

Lot-Sample #	H0I030418 - 002	**Work Order #**	L6HFQ1AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252121				
Dilution Factor.:	18.2	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.46**	**1.5**	**0.42**	**1.5 J**	**4.7**	**1.3**
Carbon tetrachloride	ND	1.5	0.27	ND	9.2	1.7
Chlorodifluoromethane	**4.2**	**1.5**	**0.27**	**15**	**5.1**	**0.97**
Chloroform	ND	1.5	0.27	ND	7.1	1.3
Dichlorodifluoromethane	**0.68**	**1.5**	**0.49**	**3.4 J**	**7.2**	**2.4**
1,1-Dichloroethane	ND	1.5	0.18	ND	5.9	0.74
1,2-Dichloroethane	ND	1.5	0.35	ND	5.9	1.4
cis-1,2-Dichloroethene	ND	1.5	0.44	ND	5.8	1.7
trans-1,2-Dichloroethene	ND	1.5	0.36	ND	5.8	1.4
1,1-Dichloroethene	ND	1.5	0.24	ND	5.8	0.94
Ethylbenzene	**66**	**1.5**	**0.49**	**290**	**6.3**	**2.1**
Methylene chloride	**5.5**	**3.6**	**0.33**	**19 B**	**13**	**1.1**
Methyl tert-butyl ether	ND	7.3	1.2	ND	26	4.5
Naphthalene	**14**	**3.6**	**0.66**	**74**	**19**	**3.4**
Tetrachloroethene	ND	1.5	0.29	ND	9.9	2.0
Toluene	**17**	**1.5**	**0.38**	**62**	**5.5**	**1.4**
1,2,4-Trichlorobenzene	ND	7.3	0.71	ND	54	5.3
1,1,1-Trichloroethane	ND	1.5	0.22	ND	7.9	1.2
1,1,2-Trichloroethane	ND	1.5	0.38	ND	7.9	2.1
Trichloroethene	ND	0.73	0.25	ND	3.9	1.4
Vinyl chloride	ND	1.5	0.53	ND	3.7	1.3
m-Xylene & p-Xylene	**300**	**1.5**	**0.91**	**1300**	**6.3**	**4.0**
o-Xylene	**110**	**1.5**	**0.44**	**500**	**6.3**	**1.9**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	100	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mg.i/G090810.b/l6hfq1aa.d
Report Date: 10-Sep-2010 14:47

Sample Calc

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mg.i/G090810.b/l6hfq1aa.d
Lab Smp Id: L6HFQ1AA Client Smp ID: SV-24-B-9
Inj Date : 08-SEP-2010 13:16
Operator : 7126 Inst ID: mg.i
Smp Info : ,18.2,0,,,
Misc Info : G090810,TO155,tetranj.sub,,,,
Comment :
Method : /var/chem/gcms/mg.i/G090810.b/TO155.m
Meth Date : 08-Sep-2010 12:07 tajh Quant Type: ISTD
Cal Date : 08-SEP-2010 10:53 Cal File: g1pti08.d
Als bottle: 4
Dil Factor: 18.20000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	18.20000	Dilution Factor
Vt	500.00000	Default calibration vol
Vo	500.00000	Default sample volume

Cpnd Variable Local Compound Variable

Benzene repeated result : 1.5 µg/m³ 9200

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
* 1 Bromochloromethane	128	8.827	8.832	(1.000)	170356	4.00000	4.000
* 2 1,4-Difluorobenzene	114	11.000	11.000	(1.000)	822096	4.00000	4.000
* 3 Chlorobenzene-d5	117	15.729	15.729	(1.000)	690776	4.00000	4.000
$ 6 4-Bromofluorobenzene	95	17.374	17.374	(1.105)	477328	3.98422	3.984
7 Chlorodifluoromethane	67	3.780	3.769	(0.428)	3718	0.23021	4.190
9 Dichlorodifluoromethane	85	3.839	3.828	(0.435)	6115	0.03752	0.6829
31 Methylene Chloride	84	6.314	6.314	(0.715)	18496	0.30342	5.522
47 Benzene	78	10.439	10.445	(0.949)	3560	0.02504	0.4557
61 Toluene	91	13.756	13.756	(0.875)	108088	0.91130	16.58
62 1,1,2-Trichloroethane	97	14.020	13.853	(0.891)	7906	0.20066	3.652
69 Ethylbenzene	91	16.064	16.063	(1.021)	485440	3.63939	66.24
70 m&p-Xylene	91	16.220	16.220	(1.031)	1680297	16.6025	302.2
M 177 Xylene (total)	100				2363860	22.8644	416.1
74 o-Xylene	91	16.748	16.748	(1.065)	683563	6.26183	114.0
96 Napthalene	128	21.105	21.105	(1.342)	106562	0.77652	14.13

AR 9/10/10

0.02504 ppb × 18.2 (dilution) = 0.4557 × 78.11 g (molecular weight) / 24.45 = 1.45 µg/m³

24.45

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H0I030418*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
CW 9/3/10	NA	28.81	L6HFK	7498	-6.0	—												8772
			L6HFQ	04426	-12.0	+0.9												↓
			L6HFT	03775	-9.6	+0.4												8770
			L6HFW	12822	~~-0.4~~ -1.8 CW	— 9/3/10												↓
			L6HF0	6378	-10.0	+0.8												
			L6HF2	93182	+0.5	"												8774
			L6HF4	03863	+0.4													8770
			L6HF6	12649	+0.3													8768
			L6HGA	35288N	+0.4													8772
			L6HGG	6636	+0.3													↓
			L6HGK	1007N	-4.2													
			L6HGP	11408	-6.1													8789
			L6HGW	1489	-5.9													8793
			L6HG1	6122	-6.9													8783
			L6HG2	1134	-6.4													↓
			L6HG4	7472	-6.5	↓												8793
			L6HG5	0008	-8.2	+0.3												8778
			L6HG7	93175	-8.0	+0.4												8793
			L6HG9	4499N	-7.0	~~+1.6~~ CW 9/3/10												↓
↓	↓	↓	L6HHC	12539	-9.2	+1.1												

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H0I030418*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
CH 9/3/10	NA	28.81	L6HHD	7485	-9.0	+0.5												8794
↓	↓	↓	L6HHG	1411	-2.2	↓												8720
			L6HHK	62341N	-4.2													8795
			L6HHN	7475	-2.1													↓
			L6HHQ	6376	0.0													8796
↓	↓	↓	L6HHT	11413	-4.2	↓												8789

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/09/10
Time: 7:58:53

LEV 1	LEV 2		LEV 1	LEV 2	
_	_	Blank	_	_	Weights/Volumes
_	_	Check	_	_	Spike & Surrogate Worksheet
_	_	MS/MSD	_	_	Vial contains correct volume
			_	_	Labels, greenbars, worksheets
			_	_	computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
_ Bench Sheet Copied
_ Package Submitted to AnalyticalGroup
_ Bench Sheet Copied per COC

Extractionist: _____
_____
Concentrationist: _____
_____

****
* *
* QC BATCH: 0252121 *
* *
****

PREP DATE: 9/08/10
COMP DATE: 9/09/10

Reviewer/Date: _____ / 0/00/00

Volatile Organics by GC/MS TO-15 low-level ppbv/v
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030418-001 L6HFK-1-AA	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-002 L6HFQ-1-AA	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-003 L6HFT-1-AA	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-004 L6HFW-1-AA	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-005 L6HF0-1-AA	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-007 L6HF4-1-AA	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-008 L6HF6-1-AA	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/09/10
Time: 7:58:53

QC BATCH: 0252121

PREP DATE: 9/08/10
COMP DATE: 9/09/10

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030418-009 **L6HGA-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-010 **L6HGG-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-011 **L6HGK-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-012 **L6HGP-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-013 **L6HGW-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-014 **L6HG1-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-015 **L6HG2-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	0/00/00	H0I090000-121 **L6N9R-1-AAB**		88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	0/00/00	H0I090000-121 **L6N9R-1-ACC**		88	7M	AIR	**100mL** 100.00mL	NA	NA	NA		.0		.0	
COMMENTS:															

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 16

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/10/10
Time: 7:22:12

LEV 1	LEV 2		LEV 1	LEV 2	
_	_	Blank	_	_	Weights/Volumes
_	_	Check	_	_	Spike & Surrogate Worksheet
_	_	MS/MSD	_	_	Vial contains correct volume
			_	_	Labels, greenbars, worksheets
			_	_	computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
_ Bench Sheet Copied
_ Package Submitted to AnalyticalGrou
_ Bench Sheet Copied per COC

Extractionist: _____

Concentrationist: _____

Reviewer/Date: _____ / 0/00/00

****
* *
* QC BATCH: 0253090 *
* *
****

PREP DATE: 9/09/10
COMP DATE: 9/10/10

Volatile Organics by GC/MS TO-15 low-level ppbv/v
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030405-015 **L6HCM-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-017 **L6HCT-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-018 **L6HC0-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-019 **L6HC5-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-020 **L6HC6-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-021 **L6HC7-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-022 **L6HC8-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/10/10
Time: 7:22:12

QC BATCH: 0253090

PREP DATE: 9/09/10
COMP DATE: 9/10/10

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030405-022 **L6HC8-2-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-023 **L6HC9-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-024 **L6HDA-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-025 **L6HDC-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-026 **L6HDD-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-006 **L6HF2-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	0/00/00	H0I100000-090 **L6RJP-1-AAB**		88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	0/00/00	H0I100000-090 **L6RJP-1-ACC**		88	7M	AIR	**100mL** 100.00mL	NA	NA	NA		.0		.0	
COMMENTS:															

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 15

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/10/10
Time: 8:57:20

LEV 1	LEV 2		LEV 1	LEV 2	
_	_	Blank	_	_	Weights/Volumes
_	_	Check	_	_	Spike & Surrogate Worksheet
_	_	MS/MSD	_	_	Vial contains correct volume
			_	_	Labels, greenbars, worksheets
			_	_	computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
_ Bench Sheet Copied
_ Package Submitted to AnalyticalGroup
_ Bench Sheet Copied per COC

Extractionist: _____
_____
_____
Concentrationist: _____
_____

****
* *
* QC BATCH: 0253092 *
* *
****

PREP DATE: 9/09/10
COMP DATE: 9/10/10

Reviewer/Date: _____ / 0/00/00

Volatile Organics by GC/MS TO-15 low-level ppbv/v
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030404-016 L6G90-2-AA	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-017 L6G91-2-AA	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-018 L6G92-1-AA	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-019 L6G95-1-AA	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-020 L6G96-1-AA	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-016 L6HG4-1-AA	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-018 L6HG7-1-AA	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/10/10
Time: 8:57:20

QC BATCH: 0253092

PREP DATE: 9/09/10
COMP DATE: 9/10/10

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	VOL	EXCHANGE	VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030418-019 **L6HG9-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-022 **L6HHG-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	0/00/00	H0I100000-092 **L6RJX-1-AAB**		88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	0/00/00	H0I100000-092 **L6RJX-1-ACC**		88	7M	AIR	**100mL** 100.00mL	NA	NA	NA		.0		.0	
COMMENTS:															

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 11

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/13/10
Time: 9:24:02

LEV 1	LEV 2		LEV 1	LEV 2	
_	_	Blank	_	_	Weights/Volumes
_	_	Check	_	_	Spike & Surrogate Worksheet
_	_	MS/MSD	_	_	Vial contains correct volume
			_	_	Labels, greenbars, worksheets
			_	_	computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
_ Bench Sheet Copied
_ Package Submitted to AnalyticalGroup
_ Bench Sheet Copied per COC

Extractionist: _____
_____
Concentrationist: _____
_____

****
* *
* QC BATCH: 0256181 *
* *
****

PREP DATE: 9/10/10
COMP DATE: 9/11/10

Reviewer/Date: _____ / 0/00/00

Volatile Organics by GC/MS TO-15 low-level ppbv/v
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030418-006 **L6HF2-2-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-009 **L6HGA-2-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-014 **L6HG1-2-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-015 **L6HG2-2-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-017 **L6HG5-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-020 **L6HHC-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-021 **L6HHD-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/13/10
Time: 9:24:02

QC BATCH: 0256181

PREP DATE: 9/10/10
COMP DATE: 9/11/10

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030418-023 **L6HHK-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-024 **L6HHN-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-025 **L6HHQ-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-026 **L6HHT-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	0/00/00	H0I130000-181 **L6V58-1-AAB**		88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	0/00/00	H0I130000-181 **L6V58-1-ACC**		88	7M	AIR	**50mL** 50.00mL	NA	NA	NA		.0		.0	
COMMENTS:															

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 13

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/15/10
Time: 6:28:15

LEV 1	LEV 2		LEV 1	LEV 2	
_	_	Blank	_	_	Weights/Volumes
_	_	Check	_	_	Spike & Surrogate Worksheet
_	_	MS/MSD	_	_	Vial contains correct volume
			_	_	Labels, greenbars, worksheets
					computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
_ Bench Sheet Copied
_ Package Submitted to AnalyticalGroup
_ Bench Sheet Copied per COC

Extractionist: _____
_____
Concentrationist: _____
_____

****
* *
* **QC BATCH: 0258072** *
* *
****

PREP DATE: 9/14/10
COMP DATE: 9/15/10

Reviewer/Date: _____ / 0/00/00

Volatile Organics by GC/MS TO-15 low-level ppbv/v
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION VOL	SOLVENTS EXCHANGE VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030418-016 **L6HG4-2-AA**	D	88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	9/21/10	H0I030418-022 **L6HHG-2-AA**	D	88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	0/00/00	H0I150000-072 **L60VH-1-AA**B		88	7M	AIR	**500mL** 500.00mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	0/00/00	H0I150000-072 **L60VH-1-ACC**		88	7M	AIR	**100mL** 100.00mL	NA	NA	NA	.0	.0	
COMMENTS:													

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 4

TestAmerica Knoxville GC/MS Air Initial Calibration Data Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 11

Analysis Date: 7/28/10	Instrument:: XM 7/29/10 11	ICAL Batch/Scan Name: J072810I	Scanned □

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd
1. Did BFB meet tune criteria?		✓			✓
2. Were all standards injected within 24 hr of BFB?		✓			✓
3. Was date/time of analysis verified and logbook as correct?		✓			✓
4. Is low level std at or <RL and are the remaining points consecutive?		✓			✓
5. Are the calibration levels correct? (Calculate standard concentration & amt. injected with quan rpt at each level)		✓			✓
6. Was ICAL processed using correct methods and files?		✓			✓
7. Are the ICAL start and end dates/times correct?		✓			✓
8. Were at least 5 levels of each compound analyzed?		✓			✓
9. At least 6 consecutive points used for quadratic curves, and at least 5 consecutive points for linear curves?		✓			✓
10. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%)		✓			✓
11. If curves were used, is correlation coefficient ≥0.990?	✓				N/A
12. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous.	✓				N/A
13. For linear or quadratic: origin NOT "included"? (NOTE: OHIO does NOT allow "FORCE" through origin).	✓				N/A
14. Is the "Y" intercept less than the RL for each curve?	✓				N/A
15. RT for each IS ±20 sec avg. RT?		✓			✓
16. Area for each IS ± 40% avg. area?		✓			✓
17. Each analyte ± 0.06 RRT of avg. RRT?		✓			✓
18. Have all peaks been auto identified? If not, list:		✓			✓
19. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓	·		Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	N/A
20. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in ICAL summary?	✓				2
21. Are all the active compounds listed on each quan report?		✓			✓
22. High point checked for saturation and point removed if saturated?		✓			✓
23. Elution order checked on isomeric pairs?		✓			✓
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane		✓			✓
• vinyl acetate / hexane		✓			✓
• cis- and trans- isomers		✓			✓
• ethyl benzene / m/p-xylene / o-xylene		✓			✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene		✓			✓
• tert-butylbenzene/p-cymene		✓			✓
• 1,2,4-trimethylbenzene/sec-butylbenzene		✓			✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene		✓			✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene		✓			✓
24. Is the second source analysis of a reference standard within limits? (65-135% R)		✓			✓
25. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				N/A
26. Does the ICAL folder contain complete data in the following order: Data review checklist, a complete runlog, Entech report, BFB info, ICAL summary, curves, followed by [Quan reports, chromatograms, manual integrations], in increasing amount order, 2nd source info.		✓			✓

Analyst:	Date: 7/29/10	2nd Level Reviewer :	Date: 7/29/10
Comments:		Comments:	

TestAmerica Laboratories, Inc. - Knoxville
CANISTER RUN LOG

GCMS Analysis: AIR Inst: MJ

Analyst: HLL Qtims Batch: NA

Date: 7/28/10 ICAL Batch: J072810I Target Batch: J072810I IS #1 Area: 263385 lvl 7

Surr/IS ID & Vol.: 40mlV3 System Date/Time ok (y/n): y

Preventive Maintenance Performed ☑ Daily changed col.

Time	Use	Lot No.	File ID	Can #	Pos	Vol* (mL)	Can DF	Comments
1117	✓	tune	JBFBG28	–	16	100	1	
1145	✓	MDL CHK 0.02	JMDLG28	CX2109	1	50		0.2
1239	✓	½RL 0.04	J1CG281			100		
1330	✓	0.08	2			200		
1404	✓	0.16	3	CX2108	2			0.4
1537	✓	0.32	4	CX2098	3			0.8
1623	✓	1.0	5	CX2097	4			2.5
1713	✓	2.0	6	CX2096A	5			5.0
1806	✓	4.0	7	CX2095	6			10
1859	✓	8.0	8	CX2094	7			20
1950	✓	16.0	9	CX2093	8			40
2041	✓	BLK	BLK1	–	16	200		
2131	✓	ICV	J1CVG28	CX2091	9	200	1	
2223	✓	lot ✓	8759	1367	10	500	1	
2315	✓	↓	8760	6654	11	↓	1	200mL

7/29/10

* Entech programmed Volume. If the Entech report amount differs from the programmed amount by >5%, the Entech report amount is used for calulations.

Analyst: HLL Date: 7/29/10

Data File: /var/chem/gcms/mj.i/J072810I.b/jbfbg28.d

Date : 28-JUL-2010 11:17

Client ID: BFB

Instrument: mj.i

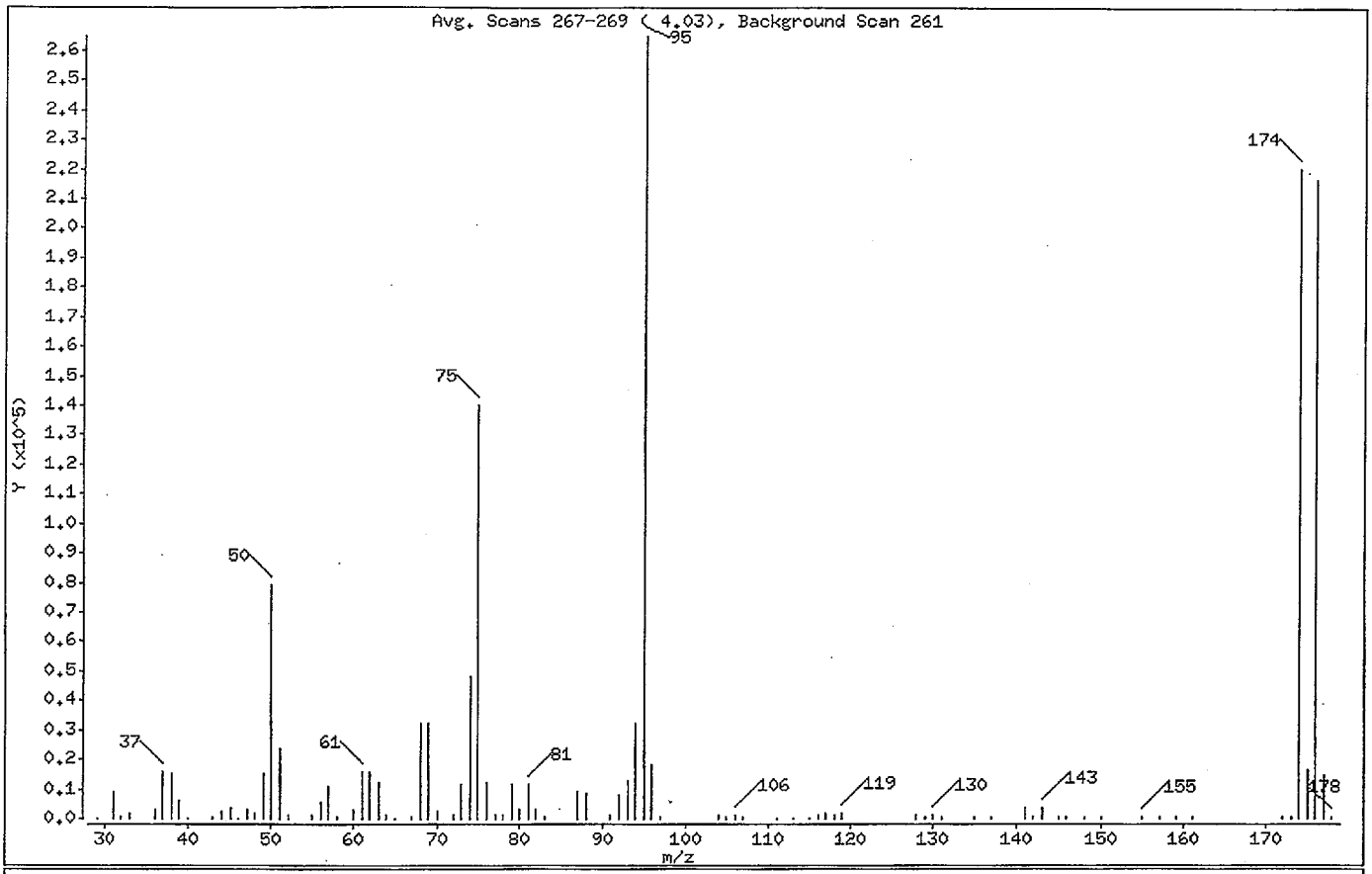
Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: Rtx-5

Column diameter: 0.32

1 BFB



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	29.94
75	30.00 - 60.00% of mass 95	52.83
96	5.00 - 9.00% of mass 95	6.99
173	Less than 2.00% of mass 174	0.22 (0.26)
174	50.00 - 120.00% of mass 95	83.26
175	5.00 - 9.00% of mass 174	6.17 (7.42)
176	95.00 - 101.00% of mass 174	81.80 (98.25)
177	5.00 - 9.00% of mass 176	5.51 (6.74)

Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 28-JUL-2010 12:39
End Cal Date : 28-JUL-2010 19:50
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcms/mj.i/J072810I.b/jicg281.d
Level 2: /var/chem/gcms/mj.i/J072810I.b/jicg282.d
Level 3: /var/chem/gcms/mj.i/J072810I.b/jicg283.d
Level 4: /var/chem/gcms/mj.i/J072810I.b/jicg284.d
Level 5: /var/chem/gcms/mj.i/J072810I.b/jicg285.d
Level 6: /var/chem/gcms/mj.i/J072810I.b/jicg286.d
Level 7: /var/chem/gcms/mj.i/J072810I.b/jicg287.d
Level 8: /var/chem/gcms/mj.i/J072810I.b/jicg288.d
Level 9: /var/chem/gcms/mj.i/J072810I.b/jicg289.d

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
7 Chlorodifluoromethane	0.45308	0.50247	0.51253	0.60384	0.49602	0.51072		
	0.46590	0.48624	0.52188				0.50586	8.503
8 Dichlorodifluoromethane	4.50730	4.46065	4.21359	5.19504	4.26779	4.39430		
	3.96126	3.97550	4.11665				4.34357	8.629
9 Propene	+++++	+++++	2.74700	2.46266	1.91208	1.94709		
	1.73341	1.77782	1.79612				2.05374	19.112
10 Chloromethane	+++++	0.56846	0.49328	0.71188	0.52955	0.51871		
	0.51287	0.45135	0.47054				0.53208	15.238
11 1,2-Dichlorotetrafluoroethane	+++++	2.49303	2.14470	2.22050	2.32993	2.50898		
	1.88350	2.02236	2.34391				2.24337	9.811

Report Date : 29-Jul-2010 09:30

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Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
12 Methanol	+++++	+++++	+++++	+++++	0.45304	0.25034		
	0.28534	0.25179	0.24910				0.29792	29.547
13 Vinyl Chloride	1.85087	1.56070	1.36201	1.71793	1.39644	1.42305		
	1.42515	1.34081	1.50166				1.50874	11.486
14 n-Butane	+++++	2.84078	2.31764	2.76838	2.23594	2.15235		
	2.25725	1.95226	2.09169				2.32704	13.573
15 1,3-Butadiene	1.79286	1.41660	1.23081	1.44148	1.17617	1.16840		
	1.20732	1.08688	1.17988				1.30004	16.817
16 Bromomethane	1.65701	1.37602	1.14321	1.28555	1.01375	1.00219		
	1.01928	0.98640	1.12465				1.17867	19.067
17 Chloroethane	0.79895	0.82178	0.73094	0.89685	0.74208	0.76092		
	0.72316	0.71520	0.79186				0.77575	7.541
18 Vinyl Bromide	1.37907	1.33791	1.29582	1.53296	1.31150	1.35395		
	1.25635	1.28409	1.38645				1.34868	6.054
19 2-methyl butane	+++++	3.27917	2.92779	3.30088	2.72416	2.78259		
	2.52081	2.53006	2.59682				2.83278	11.054
20 Trichlorofluoromethane	3.97822	3.95817	3.70106	4.42037	3.78830	3.88851		
	3.55770	3.66451	3.90571				3.87362	6.447

Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 28-JUL-2010 12:39
End Cal Date : 28-JUL-2010 19:50
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
21 Acrolein	+++++	+++++	+++++	0.55127	0.51459	0.45167		
	0.38545	0.47710	0.46352				0.47393	11.964
22 Acetonitrile	+++++	+++++	+++++	0.86252	0.73581	0.63782		
	0.55217	0.66643	0.63270				0.68124	15.668
23 Acetone	+++++	+++++	+++++	+++++	3.40418	2.59489		
	2.05295	2.09828	2.09656				2.44937	23.610
24 Pentane	+++++	+++++	0.19258	0.23357	0.20823	0.21443		
	0.20136	0.20033	0.21292				0.20906	6.335
25 Isopropyl alcohol	+++++	+++++	2.56050	2.52626	2.07527	2.09413		
	2.03022	2.08042	2.15679				2.21766	10.183
26 Ethyl Ether	+++++	+++++	2.38747	2.51451	2.25173	2.05913		
	1.70103	1.87153	1.83657				2.08885	14.613
27 1,1-Dichloroethene	1.34309	1.35118	1.24112	1.49477	1.27668	1.33392		
	1.23192	1.25081	1.36404				1.32084	6.267
28 tert-butanol	+++++	+++++	2.59822	2.65708	2.09962	2.30923		
	2.28322	2.32640	2.53764				2.40163	8.359
29 Acrylonitrile	+++++	+++++	1.23277	1.29385	1.18963	1.06842		
	0.95268	1.15807	1.14907				1.14921	9.714

Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 28-JUL-2010 12:39
End Cal Date : 28-JUL-2010 19:50
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
30 1,1,2-Trichlorotrifluoroethan	2.84185	2.94355	2.71105	3.22597	2.74751	2.84196		
	2.59965	2.67370	2.83047				2.82397	6.482
31 Methylene Chloride	+++++	+++++	1.46640	1.62330	1.33904	1.27774		
	1.11614	1.11511	1.17328				1.30157	14.654
32 3-Chloropropene	+++++	1.95756	1.83310	2.13976	1.85056	1.88619		
	1.63398	1.74413	1.73427				1.84744	8.394
33 Carbon Disulfide	+++++	+++++	3.74417	4.64258	3.89347	3.98878		
	3.68423	3.74001	3.92433				3.94537	8.291
34 trans-1,2-Dichloroethene	1.32473	1.31516	1.28443	1.49854	1.31382	1.35796		
	1.23210	1.27778	1.36950				1.33045	5.677
35 Methyl-t-Butyl Ether	+++++	2.71981	2.96138	3.07342	2.72920	2.58406		
	2.32424	2.53228	2.66779				2.69902	8.777
36 1,1-Dichloroethane	3.41756	3.21356	3.15199	3.63133	3.22208	3.18260		
	2.79790	2.95877	3.03410				3.17888	7.706
37 Vinyl Acetate	+++++	+++++	+++++	4.34565	4.20559	3.61598		
	3.17273	3.86398	3.67903				3.81383	11.168
38 Hexane	1.65407	1.63807	1.53986	1.80339	1.57026	1.62531		
	1.45172	1.50660	1.58725				1.59739	6.326

Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

INITIAL CALIBRATION DATA

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Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1 4.000 Level 7	0.08000 Level 2 8.000 Level 8	0.16000 Level 3 16.000 Level 9	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
39 2-Butanone	+++++ 0.39315	+++++ 0.40852	0.57548 0.43926	0.50262	0.42041	0.43952	0.45413	14.056
40 cis 1,2-Dichloroethene	1.31004 1.22788	1.36351 1.30569	1.33805 1.35677	1.57971	1.39192	1.38647	1.36223	7.029
41 Ethyl acetate	+++++ 2.92877	+++++ 3.11970	3.72610 3.23799	3.67182	3.14887	3.26012	3.29905	8.910
42 Chloroform	3.17707 2.47502	3.05011 2.66196	2.90128 2.69106	3.36677	2.96175	2.84973	2.90386	9.465
43 Tetrahydrofuran	+++++ 1.53049	2.00573 1.72202	2.02293 1.75441	2.02446	1.78669	1.70402	1.81884	9.960
44 1,1,1-Trichloroethane	3.21709 2.69649	2.99797 2.87834	2.90295 2.94700	3.49836	3.01783	3.07044	3.02516	7.522
45 1,2-Dichloroethane	0.53674 0.49647	0.56968 0.54166	0.53255 0.52921	0.63305	0.55936	0.65669	0.56171	9.201
46 Cyclohexane	+++++ 0.13136	0.14015 0.13479	0.13261 0.13126	0.16018	0.13734	0.17295	0.14258	10.865
47 1-Butanol	+++++ 0.13414	+++++ 0.14420	+++++ 0.14316	0.15526	0.11638	0.15868	0.14197	10.813

Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 28-JUL-2010 12:39
End Cal Date : 28-JUL-2010 19:50
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
48 Benzene	0.93553	0.94924	0.84884	0.97312	0.83302	0.93790		
	0.69821	0.73568	0.69879				0.84559	13.165
49 Carbon Tetrachloride	0.66101	0.63622	0.58404	0.70229	0.64297	0.83547		
	0.63098	0.72241	0.54808				0.66261	12.673
50 2,2,4-trimethylpentane	2.02991	2.00060	1.80007	2.22500	1.87689	2.22806		
	1.67375	1.78030	1.68084				1.92171	11.040
51 Heptane	1.01314	1.00743	0.88287	1.03066	0.89475	1.02172		
	0.76424	0.81548	0.75734				0.90974	12.389
52 1,2-Dichloropropane	0.34896	0.38482	0.36219	0.42316	0.36461	0.40452		
	0.30834	0.34446	0.34388				0.36499	9.531
53 Trichloroethene	0.43268	0.41009	0.37385	0.46988	0.39628	0.47729		
	0.36795	0.38849	0.38395				0.41116	9.812
54 Dibromomethane	0.39569	0.40804	0.36977	0.44095	0.38059	0.44868		
	0.33708	0.36284	0.35527				0.38877	9.806
55 Bromodichloromethane	0.59988	0.64814	0.60763	0.73659	0.65216	0.76335		
	0.58010	0.62532	0.61404				0.64747	9.675
56 1,4-dioxane	0.04906	0.07435	0.06555	0.08673	0.06480	0.08759		
	0.07835	0.08077	0.08255				0.07442	16.873

Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 28-JUL-2010 12:39
End Cal Date : 28-JUL-2010 19:50
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
57 Methyl Methacrylate	+++++	0.44979	0.43888	0.45305	0.37836	0.49368		
	0.39549	0.43291	0.44203				0.43552	8.152
58 4-Methyl-2-pentanone	0.82357	0.88270	0.73694	0.86905	0.65241	0.96620		
	0.78800	0.80836	0.83127				0.81761	10.935
59 cis-1,3-Dichloropropene	0.40590	0.43545	0.43759	0.49220	0.43573	0.52534		
	0.40055	0.44510	0.44423				0.44690	8.805
60 trans-1,3-Dichloropropene	0.40564	0.47374	0.46490	0.53413	0.48418	0.57922		
	0.43880	0.49153	0.52038				0.48806	10.613
61 Toluene	0.90612	0.99415	0.96695	1.06030	0.94240	1.04375		
	0.78906	0.87333	0.90207				0.94202	9.092
62 1,1,2-Trichloroethane	0.31028	0.35431	0.32567	0.38825	0.33789	0.38403		
	0.29022	0.31686	0.33290				0.33782	9.697
63 2-Hexanone	+++++	+++++	0.30173	0.39992	0.30674	0.44977		
	0.37868	0.38269	0.42776				0.37819	14.890
64 Octane	0.28767	0.31497	0.29747	0.35092	0.30265	0.35089		
	0.26973	0.27892	0.28336				0.30407	9.771
65 Dibromochloromethane	+++++	0.57089	0.57598	0.71872	0.64462	0.78165		
	0.60240	0.66632	0.69649				0.65713	11.228

Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 28-JUL-2010 12:39
End Cal Date : 28-JUL-2010 19:50
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1 / 4.000 Level 7	0.08000 Level 2 / 8.000 Level 8	0.16000 Level 3 / 16.000 Level 9	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
66 1,2-Dibromoethane	0.52229	0.59080	0.58090	0.65850	0.56508	0.63890		
	0.48782	0.52712	0.55291				0.56937	9.682
67 Tetrachloroethene	0.40300	0.42736	0.37947	0.45410	0.39459	0.44149		
	0.33377	0.34790	0.36050				0.39357	10.684
68 Chlorobenzene	0.76518	0.82352	0.77969	0.88262	0.73919	0.85502		
	0.64753	0.69968	0.72998				0.76916	9.792
69 Ethylbenzene	0.96884	1.14550	1.02804	1.27323	1.06935	1.21714		
	0.92121	1.03922	1.05889				1.08016	10.501
70 m&p-Xylene	0.74288	0.85512	0.78004	0.96346	0.82509	0.92715		
	0.69663	0.78184	0.77952				0.81686	10.521
M 178 Xylene (total)	+++++	+++++	+++++	0.97474	0.83759	0.93266		
	0.70159	0.79138	0.79294				0.83848	11.982
71 Nonane	+++++	0.86629	0.78309	0.98698	0.84012	1.00793		
	0.78036	0.82524	0.84105				0.86638	9.943
72 Bromoform	+++++	0.35416	0.36498	0.55831	0.48405	0.61847		
	0.48899	0.55648	0.59973				0.50315	19.927
73 Styrene	0.45561	0.52408	0.48943	0.64161	0.55949	0.67276		
	0.52490	0.58591	0.61081				0.56273	12.716

Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 28-JUL-2010 12:39
End Cal Date : 28-JUL-2010 19:50
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
74 o-Xylene	0.77917	0.90177	0.82075	0.99730	0.86260	0.94369		
	0.71150	0.81047	0.81979				0.84967	10.264
75 1,1,2,2-Tetrachloroethane	0.63472	0.69609	0.61261	0.77549	0.63510	0.75178		
	0.58258	0.61469	0.62854				0.65907	10.121
76 1,2,3-Trichloropropane	0.12580	0.16282	0.14855	0.18300	0.15280	0.18132		
	0.14220	0.15492	0.16469				0.15734	11.557
77 Cumene	1.04159	1.12416	1.04144	1.23221	1.07132	1.17732		
	0.89963	1.01944	1.04006				1.07191	9.023
78 n-Propylbenzene	0.23075	0.29887	0.25635	0.32163	0.26735	0.32490		
	0.25745	0.28478	0.30200				0.28268	11.327
79 2-chlorotoluene	0.26814	0.30911	0.28346	0.35439	0.29159	0.34870		
	0.27062	0.28999	0.30686				0.30254	10.271
80 4-Ethyltoluene	0.92019	1.05616	0.94036	1.13894	0.95335	1.18446		
	0.92578	0.99481	1.02342				1.01527	9.381
81 1,3,5-Trimethylbenzene	0.34714	0.42593	0.37865	0.44921	0.38424	0.46935		
	0.37268	0.40146	0.42754				0.40624	9.753
82 Alpha-Methylstyrene	+++++	+++++	0.31900	0.42310	0.37295	0.48775		
	0.40027	0.44355	0.46645				0.41615	13.878

Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 28-JUL-2010 12:39
End Cal Date : 28-JUL-2010 19:50
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
83 Decane	+++++	0.86948	0.82363	0.92832	0.90524	1.05462		
	0.83712	0.92853	0.90593				0.90661	7.905
84 1,2,4-Trimethylbenzene	+++++	0.82267	0.73459	0.89697	0.75423	0.93600		
	0.73488	0.77769	0.80795				0.80812	9.244
85 tert-butylbenzene	0.79835	0.91958	0.83816	0.97582	0.83632	1.00654		
	0.78703	0.85958	0.90894				0.88115	8.696
86 sec-butylbenzene	1.04256	1.25507	1.14477	1.31881	1.12364	1.36552		
	1.05349	1.12257	1.14378				1.17447	9.660
87 1,3-Dichlorobenzene	+++++	0.69637	0.58330	0.74010	0.59201	0.74122		
	0.58226	0.61777	0.66256				0.65195	10.396
88 Benzyl Chloride	0.69041	0.74452	0.62240	0.84506	0.69560	0.94352		
	0.77390	0.79485	0.84339				0.77263	12.616
89 1,4-Dichlorobenzene	+++++	0.67942	0.56270	0.73213	0.58509	0.72796		
	0.57146	0.60514	0.65033				0.63928	10.705
90 p-Cymene	+++++	0.95787	0.89507	1.03277	0.87404	1.12378		
	0.88666	0.92630	0.98117				0.95971	8.867
91 1,2-Dichlorobenzene	+++++	0.63918	0.51439	0.65862	0.53057	0.65566		
	0.51636	0.55494	0.58520				0.58187	10.640

Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 28-JUL-2010 12:39
End Cal Date : 28-JUL-2010 19:50
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
92 n-butylbenzene	+++++	0.98472	0.86050	1.01792	0.85980	1.13607		
	0.89454	0.92170	0.95065				0.95324	9.743
93 Undecane	+++++	+++++	0.46069	0.84091	0.55787	1.01830		
	0.80262	0.79827	0.85702				0.76224	24.913
94 Dodecane	+++++	+++++	+++++	0.89711	0.51515	1.13674		
	0.85072	0.80775	0.77747				0.83082	24.157
95 1,2,4-Trichlorobenzene	0.48464	0.44512	0.19128	0.41482	0.23750	0.46739		
	0.37158	0.38990	0.42586				0.38090	26.616
96 Napthalene	1.06825	0.95558	0.41427	0.88414	0.51782	1.04184		
	0.82854	0.82610	0.87291				0.82327	26.890
97 Hexachlorobutadiene	0.32981	0.30940	0.14764	0.27757	0.20713	0.32288		
	0.25475	0.28949	0.34507				0.27597	23.214
98 1,2,3-trichlorobenzene	0.42324	0.36702	0.16524	0.34786	0.18323	0.38894		
	0.29620	0.30559	0.31451				0.31020	28.148
99 - Thiophene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
100 - 1,2,3- Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++

Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 28-JUL-2010 12:39
End Cal Date : 28-JUL-2010 19:50
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
$ 6 4-Bromofluorobenzene	0.73749	0.75432	0.74888	0.76161	0.76379	0.79867		
	0.74849	0.75020	0.76937				0.75920	2.322

Data File: /var/chem/gcms/mj.i/J072810I.b/jicvg28.d
Report Date: 29-Jul-2010 09:30

TestAmerica Knoxville

RECOVERY REPORT

Client Name:
Client SDG: J07280I
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: ICV
Client Smp ID: LCS
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: 2ND SOURCE
SpikeList File: icv.spk
Quant Type: ISTD
Sublist File: 1-all.sub
Method File: /var/chem/gcms/mj.i/J072810I.b/TO15.m
Misc Info: J07280I,TO15,1-all.sub,,,

SPIKE	COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
7	Chlorodifluorometh	10.00	9.013	90.13	65-135
8	Dichlorodifluorome	10.00	9.289	92.89	65-135
9	Propene	10.00	8.798	87.98	65-135
11	1,2-Dichlorotetraf	10.00	8.478	84.78	65-135
10	Chloromethane	10.00	8.947	89.47	65-135
12	Methanol	10.00	9.194	91.94	65-135
13	Vinyl Chloride	10.00	8.997	89.97	65-135
14	n-Butane	10.00	8.761	87.61	65-135
15	1,3-Butadiene	10.00	8.316	83.16	65-135
16	Bromomethane	10.00	8.618	86.18	65-135
17	Chloroethane	10.00	9.332	93.32	65-135
18	Vinyl Bromide	10.00	8.974	89.74	65-135
19	2-methyl butane	10.00	8.953	89.53	65-135
20	Trichlorofluoromet	10.00	9.402	94.02	65-135
21	Acrolein	10.00	9.713	97.13	65-135
22	Acetonitrile	10.00	8.078	80.79	65-135
23	Acetone	10.00	8.760	87.60	65-135
24	Pentane	10.00	9.779	97.79	65-135
25	Isopropyl Alcohol	10.00	7.981	79.81	65-135
26	Ethyl Ether	10.00	8.680	86.80	65-135
27	1,1-Dichloroethene	10.00	8.090	80.90	65-135
29	Acrylonitrile	10.00	8.240	82.40	65-135
28	tert-butanol	10.00	8.665	86.65	65-135
30	1,1,2-Trichlorotri	10.00	8.136	81.36	65-135
31	Methylene Chloride	10.00	7.560	75.60	65-135
32	3-Chloropropene	10.00	8.641	86.41	65-135
33	Carbon Disulfide	10.00	9.332	93.32	65-135
34	trans-1,2-Dichloro	10.00	9.452	94.52	65-135
35	Methyl-t-Butyl Eth	10.00	9.019	90.19	65-135
36	1,1-Dichloroethane	10.00	8.308	83.08	65-135
37	Vinyl Acetate	10.00	8.826	88.26	65-135
39	2-Butanone	10.00	9.074	90.74	65-135
38	Hexane	10.00	9.044	90.44	65-135

Data File: /var/chem/gcms/mj.i/J072810I.b/jicvg28.d
Report Date: 29-Jul-2010 09:30

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
40 cis 1,2-Dichloroet	10.00	8.349	83.49	65-135
41 Ethyl acetate	10.00	9.612	96.12	65-135
42 Chloroform	10.00	8.185	81.85	65-135
43 Tetrahydrofuran	10.00	8.928	89.28	65-135
44 1,1,1-Trichloroeth	10.00	8.541	85.41	65-135
45 1,2-Dichloroethane	10.00	8.303	83.03	65-135
47 1-Butanol	10.00	8.452	84.52	65-135
46 Cyclohexane	10.00	9.075	90.75	65-135
48 Benzene	10.00	7.871	78.71	65-135
49 Carbon Tetrachlori	10.00	8.926	89.26	65-135
50 2,2,4-trimethylpen	10.00	8.616	86.16	65-135
51 Heptane	10.00	8.490	84.90	65-135
52 1,2-Dichloropropan	10.00	8.405	84.05	65-135
53 Trichloroethene	10.00	8.450	84.50	65-135
54 Dibromomethane	10.00	8.681	86.81	65-135
55 Bromodichlorometha	10.00	8.810	88.10	65-135
56 1,4-dioxane	10.00	9.442	94.42	65-135
57 methyl methacrylat	10.00	9.740	97.40	65-135
58 4-Methyl-2-pentano	10.00	9.814	98.15	65-135
59 cis-1,3-Dichloropr	10.00	8.779	87.79	65-135
60 trans-1,3-Dichloro	10.00	8.925	89.25	65-135
61 Toluene	10.00	8.307	83.07	65-135
62 1,1,2-Trichloroeth	10.00	8.682	86.82	65-135
63 2-Hexanone	10.00	10.04	100.37	65-135
64 Octane	10.00	8.737	87.37	65-135
65 Dibromochlorometha	10.00	9.126	91.26	65-135
66 1,2-Dibromoethane	10.00	8.492	84.92	65-135
67 Tetrachloroethene	10.00	8.352	83.52	65-135
68 Chlorobenzene	10.00	8.430	84.30	65-135
69 Ethylbenzene	10.00	8.439	84.39	65-135
70 m&p-Xylene	20.00	17.14	85.68	65-135
71 Nonane	10.00	8.977	89.77	65-135
72 Bromoform	10.00	9.927	99.27	65-135
73 Styrene	10.00	9.088	90.88	65-135
74 o-Xylene	10.00	8.634	86.34	65-135
75 1,1,2,2-Tetrachlor	10.00	8.843	88.43	65-135
76 1,2,3-Trichloropro	10.00	9.437	94.37	65-135
77 Cumene	10.00	8.803	88.03	65-135
78 n-Propylbenzene	10.00	9.505	95.05	65-135
79 2-chlorotoluene	10.00	8.791	87.91	65-135
80 4-Ethyltoluene	10.00	9.414	94.14	65-135
81 1,3,5-Trimethylben	10.00	9.346	93.46	65-135
82 Alpha-Methylstyren	10.00	10.01	100.13	65-135
83 Decane	10.00	9.339	93.39	65-135
84 1,2,4-Trimethylben	10.00	9.372	93.72	65-135
85 tert-butylbenzene	10.00	9.280	92.80	65-135
86 sec-butylbenzene	10.00	9.304	93.04	65-135

Data File: /var/chem/gcms/mj.i/J072810I.b/jicvg28.d
Report Date: 29-Jul-2010 09:30

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
87 1,3-Dichlorobenzen	10.00	8.754	87.54	65-135
89 1,4-Dichlorobenzen	10.00	8.877	88.77	65-135
88 Benzyl Chloride	10.00	10.31	103.09	65-135
90 p-Cymene	10.00	9.506	95.06	65-135
91 1,2-Dichlorobenzen	10.00	8.950	89.51	65-135
92 n-butylbenzene	10.00	9.523	95.23	65-135
93 Undecane	10.00	11.10	111.02	65-135
94 Dodecane	10.00	10.12	101.19	65-135
95 1,2,4-Trichloroben	10.00	9.399	93.99	65-135
96 Napthalene	10.00	9.567	95.67	65-135
97 Hexachlorobutadien	10.00	9.084	90.84	65-135
98 1,2,3-trichloroben	10.00	8.689	86.89	65-135

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	10.00	9.777	97.77	70-130

TestAmerica Knoxville GC/MS Air Continuing Calibration Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 11

Analysis Date:	9/9/10	CCAL Batch/ Scan Name:	J090910	Instrument:	MJ	ICAL Batch/ Scan Name:	J072810I	Scanned □

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd
1. Did BFB meet tune criteria?		✓		□ failed for TO-14A, but passes for TO-15	✓
2. Were all standards injected within 24 hr of BFB?		✓			✓
3. Have the Entech position no. & vol. been verified with run log & sample vol. corrected if actual amount differs >5%?		✓			✓
4. Was date/time of analysis in logbook correct?		✓			✓
5. Was the CCAL compared to the correct ICAL (date & time on CCAL matches the ICAL)		✓			✓
6. Is the %D ≤ 30% for all target analytes? (Narrative req'd.).		✓		□ [ccal] analytes > 30% but passes LCS criteria.	✓
7. Have all peaks been auto identified? If not, list:		✓			✓
8. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓			Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	MA
9. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in CCAL summary?	✓				MA
10. Is the first IS documented correctly on the log?		✓			✓
11. Elution order checked on isomeric pairs?		✓			✓
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane		✓			✓
• vinyl acetate / hexane		✓			✓
• cis- and trans- isomers		✓			✓
• ethyl benzene / m/p-xylene / o-xylene		✓			✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene		✓			✓
• tert-butylbenzene/p-cymene		✓			✓
• 1,2,4-trimethylbenzene/sec-butylbenzene		✓			✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene		✓			✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene		✓			✓
12. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%).		✓		□ [lcs6] LCS analyte(s) flagged as being outside control limits but within marginal limits □ [lcs5] LCS outside marginal exceedences high, but analytes were not detected	✓
13. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				NA
14. Does the CCAL folder contain **complete** data in the following order: data review checklist, a **complete** runlog, Entech report, tune pass/fail page, m/z list, tune chromatogram/Target CCAL summary, Quan report, chromatogram/ manual integrations.		✓			✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst:	Date: 9/10/10	2nd Level Reviewer: MS	Date: 9/10/10
Comments:		Comments:	

TestAmerica Laboratories, Inc. – Knoxville 24
CANISTER RUN LOG

GCMS Analysis: AIR Inst: MJ

Analyst: HMT Qtims Batch: 0253092 L6RJY

Date: 9/9/10 ICAL Batch: J072810E Target Batch: J090910 IS #1 Area: 166835

Surr/IS ID & Vol.: 40mlV320 System Date/Time ok (y/n): y

Preventive Maintenance Performed ☐ Daily

Time	Use	Lot No.	File ID	Can #	Pos	Vol* (mL)	Can DF	Comments
0909	✓	tune	JBFB I09	—	16	100	1	
0940	✓	CCV	CCV	CK2124	15	100		
0940	✓	LCS	LCS	↓	↓	↓		
1043	✓	IPT	IPT	CK2129	STD	40		
1136	✓	Blk	Blk	—	16	500		
1227	Continued	HOI030404	L6G9XDR	6619	15	50	1	tetrachloroethene matched Dup
1320	RR 250mL		L6G921AA	12820	14	100	1	
1410	✓		G95	0120	5	100		
1503	RR50mL		G96	6574	6	100		
1552	✓		G9D2AA	6348	2	50		#7
1645	✓		G912AA	93286	3	25		#7
1740	✓	HOI030418	HG41AA	7472	1	200	1	E #7 RR 50mL
1833	RR50mL		-HG5	0008	7	10	1.43	10mL
1925	✓		-HG7	93175	8	200	1.42	3.55
2018	✓		-HG9	4499N	9	200	1	
2110	RR 790mL		-HHC	12539	10	200	1.58	3.95
2203	RR 755mL		-HHD	7485	11	↓	1.51	3.78
2255	✓		-HHG	1411	12	200	1	E 111TCA, RR50mL (apch)
2347	RR50mL		-HHK	62341N	13			w c/o
0039	RR50mL		-HHN	7475	14			
0134	RR50mL		-HHQ	6376	15			
			-HHT		5	200	1	9/9/10
0234	✓		G92R	12820	4	250	1	
0510	200mL of 8827		11411 →		16	500	1	
0602	N		1316N →		STD	↓	1	
0325	✓	HOI030404	L6G92D	12820	4	250	1	
0416	✓	↓	L6G96R	6574	6	500	1	
								9/10/10

* Entech programmed Volume. If the Entech report amount differs from the programmed amount by >5%, the Entech report amount is used for calulations.

Analyst: [signature] Date: 9/10/10

Data File: /chem/gcms/mj.i/J090910.b/jbfbi09.d

Date : 09-SEP-2010 09:09

Client ID: BFB

Instrument: mj.i

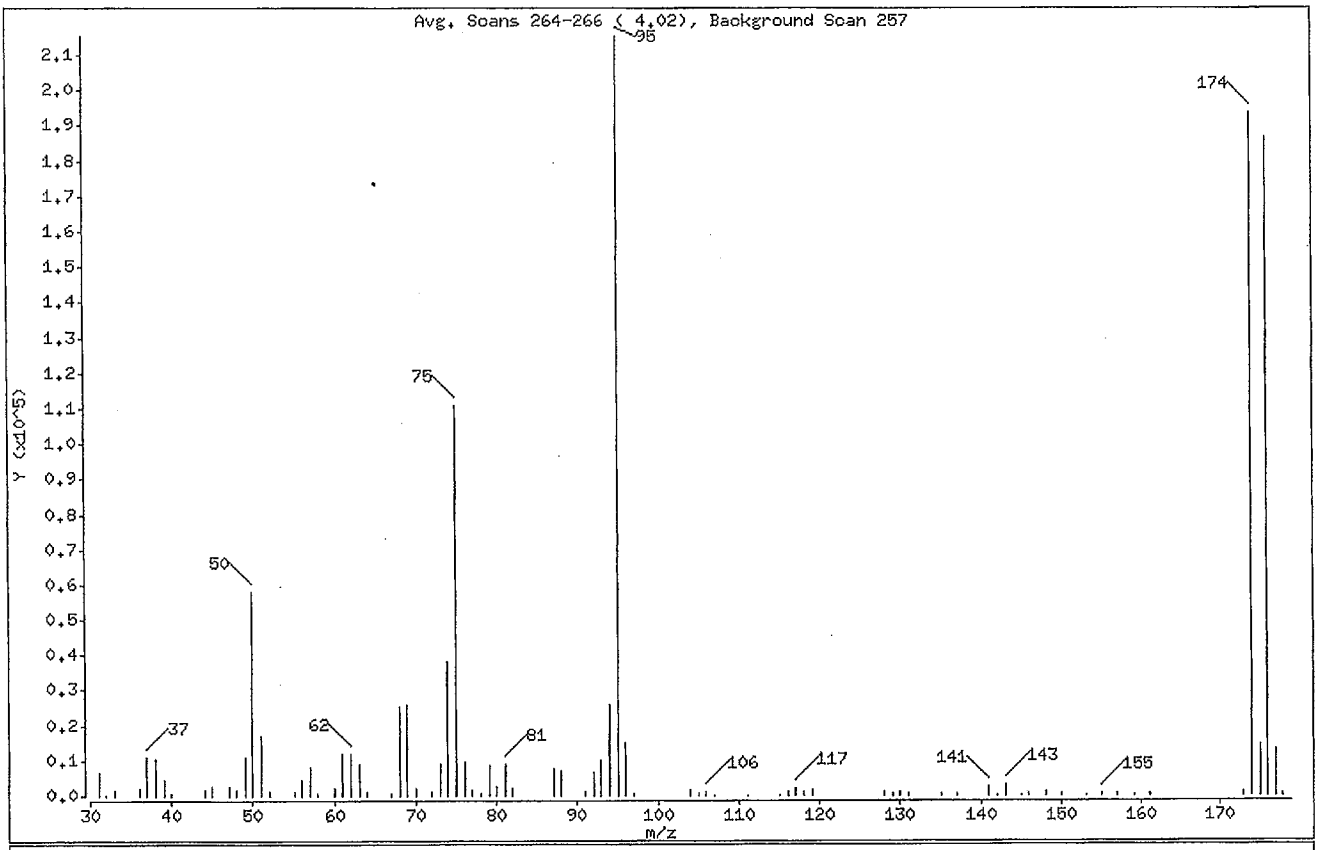
Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: Rtx-5

Column diameter: 0.32

1 BFB



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	26.83
75	30.00 - 60.00% of mass 95	51.47
96	5.00 - 9.00% of mass 95	6.82
173	Less than 2.00% of mass 174	0.39 (0.43)
174	50.00 - 120.00% of mass 95	89.79
175	5.00 - 9.00% of mass 174	6.75 (7.52)
176	95.00 - 101.00% of mass 174	86.65 (96.51)
177	5.00 - 9.00% of mass 176	5.89 (6.80)

Data File: /var/chem/gcms/mj.i/J090910.b/jccvi09.d
Report Date: 09-Sep-2010 12:20

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: jccvi09.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mj.i/J090910.b/TO15.m

Injection Date: 09-SEP-2010 09:40
Init. Cal. Date(s): 28-JUL-2010 09-SEP-2010
Init. Cal. Times: 12:39 10:43
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 6 4-Bromofluorobenzene	0.75920	0.80598	0.000	-6.16160	30.00000	Averaged	
7 Chlorodifluoromethane	0.50586	0.54127	0.000	-7.00050	30.00000	Averaged	
9 Propene	2.05374	1.94490	0.000	5.29960	30.00000	Averaged	
8 Dichlorodifluoromethane	4.34357	4.67227	0.000	-7.56754	30.00000	Averaged	
10 Chloromethane	0.53208	0.52199	0.000	1.89687	30.00000	Averaged	
11 1,2-Dichlorotetrafluoroetha	2.24337	2.23870	0.000	0.20791	30.00000	Averaged	
12 Methanol	0.29792	0.53985	0.000	-81.20489	30.00000	Averaged	<- NT
13 Vinyl Chloride	1.50874	1.42689	0.000	5.42475	30.00000	Averaged	
14 n-Butane	2.32704	2.21952	0.000	4.62030	30.00000	Averaged	
15 1,3-Butadiene	1.30004	1.20241	0.000	7.51021	30.00000	Averaged	
16 Bromomethane	1.17867	1.10827	0.000	5.97315	30.00000	Averaged	
17 Chloroethane	0.77575	0.69715	0.000	10.13220	30.00000	Averaged	
18 Vinyl Bromide	1.34868	1.26845	0.000	5.94879	30.00000	Averaged	
19 2-methyl butane	2.83278	2.71966	0.000	3.99349	30.00000	Averaged	
20 Trichlorofluoromethane	3.87362	4.36535	0.000	-12.69449	30.00000	Averaged	
21 Acrolein	0.47393	0.47398	0.000	-0.01041	30.00000	Averaged	
22 Acetonitrile	0.68124	0.64833	0.000	4.83137	30.00000	Averaged	
23 Acetone	2.44937	3.64295	0.000	-48.72985	30.00000	Averaged	<- M
24 Pentane	0.20906	0.19198	0.000	8.17126	30.00000	Averaged	
25 Isopropyl alcohol	2.21766	2.26465	0.000	-2.11898	30.00000	Averaged	
26 Ethyl Ether	2.08885	2.07127	0.000	0.84158	30.00000	Averaged	
27 1,1-Dichloroethene	1.32084	1.23452	0.000	6.53521	30.00000	Averaged	
29 Acrylonitrile	1.14921	1.10218	0.000	4.09258	30.00000	Averaged	
28 tert-butanol	2.40163	2.50022	0.000	-4.10515	30.00000	Averaged	
30 1,1,2-Trichlorotrifluoroeth	2.82397	2.76015	0.000	2.25997	30.00000	Averaged	
31 Methylene Chloride	1.30157	1.07562	0.000	17.36022	30.00000	Averaged	
32 3-Chloropropene	1.84744	1.67489	0.000	9.34026	30.00000	Averaged	
33 Carbon Disulfide	3.94537	3.52370	0.000	10.68777	30.00000	Averaged	
34 trans-1,2-Dichloroethene	1.33045	1.19323	0.000	10.31353	30.00000	Averaged	
35 Methyl-t-Butyl Ether	2.69902	2.53864	0.000	5.94230	30.00000	Averaged	
36 1,1-Dichloroethane	3.17888	2.89146	0.000	9.04148	30.00000	Averaged	
37 Vinyl Acetate	3.81383	3.55828	0.000	6.70053	30.00000	Averaged	
38 Hexane	1.59739	1.45925	0.000	8.64776	30.00000	Averaged	
39 2-Butanone	0.45413	0.34197	0.000	24.69897	30.00000	Averaged	
40 cis 1,2-Dichloroethene	1.36223	1.20191	0.000	11.76844	30.00000	Averaged	
41 Ethyl acetate	3.29905	2.84294	0.000	13.82564	30.00000	Averaged	

Data File: /var/chem/gcms/mj.i/J090910.b/jccvi09.d
Report Date: 09-Sep-2010 12:20

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: jccvi09.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mj.i/J090910.b/TO15.m

Injection Date: 09-SEP-2010 09:40
Init. Cal. Date(s): 28-JUL-2010 09-SEP-2010
Init. Cal. Times: 12:39 10:43
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
42 Chloroform	2.90386	2.80174	0.000	3.51666	30.00000	Averaged
43 Tetrahydrofuran	1.81884	1.62977	0.000	10.39528	30.00000	Averaged
44 1,1,1-Trichloroethane	3.02516	3.15521	0.000	-4.29881	30.00000	Averaged
45 1,2-Dichloroethane	0.56171	0.55532	0.000	1.13868	30.00000	Averaged
46 Cyclohexane	0.14258	0.11208	0.000	21.38990	30.00000	Averaged
48 Benzene	0.84559	0.64820	0.000	23.34409	30.00000	Averaged
47 1-Butanol	0.14197	0.11524	0.000	18.83094	30.00000	Averaged
49 Carbon Tetrachloride	0.66261	0.70325	0.000	-6.13421	30.00000	Averaged
50 2,2,4-trimethylpentane	1.92171	1.63321	0.000	15.01306	30.00000	Averaged
51 Heptane	0.90974	0.74708	0.000	17.87943	30.00000	Averaged
52 1,2-Dichloropropane	0.36499	0.30629	0.000	16.08341	30.00000	Averaged
53 Trichloroethene	0.41116	0.31642	0.000	23.04220	30.00000	Averaged
54 Dibromomethane	0.38877	0.33402	0.000	14.08244	30.00000	Averaged
55 Bromodichloromethane	0.64747	0.61854	0.000	4.46759	30.00000	Averaged
56 1,4-dioxane	0.07442	0.06733	0.000	9.51947	30.00000	Averaged
57 Methyl Methacrylate	0.43552	0.35029	0.000	19.56994	30.00000	Averaged
58 4-Methyl-2-pentanone	0.81761	0.66711	0.000	18.40769	30.00000	Averaged
59 cis-1,3-Dichloropropene	0.44690	0.38259	0.000	14.39110	30.00000	Averaged
60 trans-1,3-Dichloropropene	0.48806	0.44760	0.000	8.28882	30.00000	Averaged
61 Toluene	0.94202	0.78319	0.000	16.85972	30.00000	Averaged
62 1,1,2-Trichloroethane	0.33782	0.28276	0.000	16.29847	30.00000	Averaged
63 2-Hexanone	0.37819	0.31101	0.000	17.76375	30.00000	Averaged
64 Octane	0.30407	0.23821	0.000	21.65919	30.00000	Averaged
65 Dibromochloromethane	0.65713	0.61024	0.000	7.13533	30.00000	Averaged
66 1,2-Dibromoethane	0.56937	0.48653	0.000	14.54966	30.00000	Averaged
67 Tetrachloroethene	0.39357	0.32334	0.000	17.84405	30.00000	Averaged
68 Chlorobenzene	0.76916	0.62670	0.000	18.52082	30.00000	Averaged
69 Ethylbenzene	1.08016	0.95398	0.000	11.68144	30.00000	Averaged
70 m&p-Xylene	0.81686	0.72691	0.000	11.01134	30.00000	Averaged
M 178 Xylene (total)	0.83848	0.73696	0.000	12.10810	25.00000	Averaged
71 Nonane	0.86638	0.79301	0.000	8.46840	30.00000	Averaged
72 Bromoform	0.50315	0.52120	0.000	-3.58837	30.00000	Averaged
73 Styrene	0.56273	0.49111	0.000	12.72667	30.00000	Averaged
74 o-Xylene	0.84967	0.75706	0.000	10.90006	30.00000	Averaged
75 1,1,2,2-Tetrachloroethane	0.65907	0.54986	0.000	16.56954	30.00000	Averaged

Data File: /var/chem/gcms/mj.i/J090910.b/jccvi09.d
Report Date: 09-Sep-2010 12:20

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: jccvi09.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mj.i/J090910.b/TO15.m

Injection Date: 09-SEP-2010 09:40
Init. Cal. Date(s): 28-JUL-2010 09-SEP-2010
Init. Cal. Times: 12:39 10:43
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
76 1,2,3-Trichloropropane	0.15734	0.14908	0.000	5.25312	30.00000	Averaged
77 Cumene	1.07191	0.95118	0.000	11.26248	30.00000	Averaged
78 n-Propylbenzene	0.28268	0.24390	0.000	13.71658	30.00000	Averaged
79 2-chlorotoluene	0.30254	0.27068	0.000	10.53217	30.00000	Averaged
80 4-Ethyltoluene	1.01527	0.88955	0.000	12.38321	30.00000	Averaged
81 1,3,5-Trimethylbenzene	0.40624	0.34835	0.000	14.25131	30.00000	Averaged
82 Alpha-Methylstyrene	0.41615	0.35506	0.000	14.68025	30.00000	Averaged
83 Decane	0.90661	0.86035	0.000	5.10266	30.00000	Averaged
85 tert-butylbenzene	0.88115	0.77054	0.000	12.55215	30.00000	Averaged
84 1,2,4-Trimethylbenzene	0.80812	0.71074	0.000	12.05006	30.00000	Averaged
86 sec-butylbenzene	1.17447	1.04151	0.000	11.32099	30.00000	Averaged
87 1,3-Dichlorobenzene	0.65195	0.57561	0.000	11.70985	30.00000	Averaged
88 Benzyl Chloride	0.77263	0.72378	0.000	6.32238	30.00000	Averaged
89 1,4-Dichlorobenzene	0.63928	0.56565	0.000	11.51745	30.00000	Averaged
90 p-Cymene	0.95971	0.83890	0.000	12.58801	30.00000	Averaged
91 1,2-Dichlorobenzene	0.58187	0.51399	0.000	11.66528	30.00000	Averaged
92 n-butylbenzene	0.95324	0.83545	0.000	12.35716	30.00000	Averaged
93 Undecane	0.76224	0.62402	0.000	18.13307	30.00000	Averaged
94 Dodecane	0.83082	0.66427	0.000	20.04687	30.00000	Averaged
95 1,2,4-Trichlorobenzene	0.38090	0.30355	0.000	20.30695	30.00000	Averaged
96 Napthalene	0.82327	0.62421	0.000	24.17983	30.00000	Averaged
97 Hexachlorobutadiene	0.27597	0.26330	0.000	4.59007	30.00000	Averaged
98 1,2,3-trichlorobenzene	0.31020	0.24268	0.000	21.76752	30.00000	Averaged

Data File: /var/chem/gcms/mj.i/J090910.b/j1pti09.d
Report Date: 09-Sep-2010 12:20

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: j1pti09.d
Analysis Type: AIR
Lab Sample ID: 1PTCAL
Method: /var/chem/gcms/mj.i/J090910.b/TO15.m

Injection Date: 09-SEP-2010 10:43
Init. Cal. Date(s): 28-JUL-2010 09-SEP-2010
Init. Cal. Times: 12:39 10:43
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	MIN %D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 ~ Thiophene	0.42429	0.42429	0.000	0.000e+00	25.00000	Averaged
100 ~ 1,2,3- Trimethylbenzene	0.58557	0.58557	0.000	0.000e+00	25.00000	Averaged
101 ~ Indane	0.64025	0.64025	0.000	0.000e+00	25.00000	Averaged
102 ~ Indene	0.40734	0.40734	0.000	-1.363e-14	25.00000	Averaged
103 ~ 2-Methylnaphthalene	0.04924	0.04924	0.000	0.000e+00	25.00000	Averaged
104 ~ 1-Methylnaphthalene	0.05315	0.05315	0.000	0.000e+00	25.00000	Averaged
164 ~ methyl cyclohexane	0.38914	0.38914	0.000	1.427e-14	25.00000	Averaged
165 ~ acetaldehyde	0.92539	0.92539	0.000	0.000e+00	25.00000	Averaged
166 ~ ethanol	1.22078	1.22078	0.000	0.000e+00	25.00000	Averaged
167 ~ 2,3-dimethylpentane	0.62792	0.62792	0.000	1.768e-14	25.00000	Averaged
168 ~ 2-methyl thiophene	0.73854	0.73854	0.000	0.000e+00	25.00000	Averaged
169 ~ 3-methyl thiophene	0.78208	0.78208	0.000	1.420e-14	25.00000	Averaged
170 ~ 2,3-dimethylheptane	1.52099	1.52099	0.000	0.000e+00	25.00000	Averaged
171 ~ 2-ethyl thiophene	0.78912	0.78912	0.000	1.407e-14	25.00000	Averaged
172 ~ n-butylcyclohexane	0.49891	0.49891	0.000	0.000e+00	25.00000	Averaged
173 ~ 1,2-dimethyl-4-ethylenzen	0.60768	0.60768	0.000	0.000e+00	25.00000	Averaged
174 ~ 1,2,4,5-tetramethylbenzen	0.61583	0.61583	0.000	0.000e+00	25.00000	Averaged
175 ~ 1,2,3,5-tetramethylbenzen	0.48863	0.48863	0.000	1.136e-14	25.00000	Averaged
176 ~ 1,2,3,4-tetramethylbenzen	0.54737	0.54737	0.000	-2.028e-14	25.00000	Averaged
177 ~ benzo(b) thiophene	0.41175	0.41175	0.000	0.000e+00	25.00000	Averaged

TestAmerica Knoxville GC/MS Air Initial Calibration Data Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 11

Analysis Date: 9/2/10	Instrument:: MS	ICAL Batch/Scan Name: EM0210I	Scanned ☐

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd
1. Did BFB meet tune criteria?		✓			✓
2. Were all standards injected within 24 hr of BFB?		✓			✓
3. Was date/time of analysis verified and logbook as correct?		✓			✓
4. Is low level std at or <RL and are the remaining points consecutive?		✓			✓
5. Are the calibration levels correct? (Calculate standard concentration & amt. injected with quan rpt at each level)		✓			✓
6. Was ICAL processed using correct methods and files?		✓			✓
7. Are the ICAL start and end dates/times correct?		✓			✓
8. Were at least 5 levels of each compound analyzed?		✓			✓
9. At least 6 consecutive points used for quadratic curves, and at least 5 consecutive points for linear curves?		✓			✓
10. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%)		✓		Acetone = 36%, 2Butanone = 32% 9.3.10	✓
11. If curves were used, is correlation coefficient ≥0.990?	✓				NA
12. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous.	✓				NA
13. For linear or quadratic: origin NOT "included"? (NOTE: OHIO does NOT allow "FORCE" through origin).	✓			9.7.10	NA
14. Is the "Y" intercept less than the RL for each curve?	✓	DC			NA
15. RT for each IS ±20 sec avg. RT?		✓			✓
16. Area for each IS ± 40% avg. area?		✓			✓
17. Each analyte ± 0.06 RRT of avg. RRT?		✓			✓
18. Have all peaks been auto identified? If not, list:		✓			✓
19. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓			Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	NA
20. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in ICAL summary?		✓			✓
21. Are all the active compounds listed on each quan report?		✓			✓
22. High point checked for saturation and point removed if saturated?		✓		~~Secbu~~ Sec-butyl benzene 9/3/10	✓
23. Elution order checked on isomeric pairs?					
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane		✓			✓
• vinyl acetate / hexane		✓			✓
• cis- and trans- isomers		✓			✓
• ethyl benzene / m/p-xylene / o-xylene		✓			✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene		✓			✓
• tert-butylbenzene/p-cymene		✓			✓
• 1,2,4-trimethylbenzene/sec-butylbenzene		✓			✓
• 1,3-, 1,4-, and 1,2-dichlorobenzene		✓			✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene		✓			✓
24. Is the second source analysis of a reference standard within limits? (65-135% R)		✓			✓
25. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder? 9.4.10	✓				NA
26. Does the ICAL folder contain complete data in the following order: Data review checklist, a complete runlog, Entech report, BFB info, ICAL summary, curves, followed by [Quan reports, chromatograms, manual integrations], in increasing amount order, 2nd source info.		✓			✓

Analyst:	Date: 9/3/10	2nd Level Reviewer:	Date: 9/7/10
Comments:		Comments:	
Upper limit 8ppb for: Sec-butylbenzene, 124Trichlorobenzen + 123TCIBenzen			
Upper limit for Bromoform = 2.0ppb			

TestAmerica Laboratories, Inc. - Knoxville
CANISTER RUN LOG

GCMS Analysis: AIR Inst: ME

Analyst: [signature] Qtims Batch: _____

Date: 9/2/10 ICAL Batch: E090210I Target Batch: E090210I IS #1 Area: 0621313,

Surr/IS ID & Vol.: 40mL V320 System Date/Time ok (y/n): Y

Preventive Maintenance Performed ☒ Daily _____

Time	Use	Lot No.	File ID	Can #	Pos	Vol* (mL)	Can DF	Comments
1110	Y	Tune	EBFBI02	—	16	100	1	
1139		MOLCHK0.02	EMOLI02	CX-2127	1	50		
1219		½RL0.04	EICI021	↓	1	100		
1258		ICAL0.08	2		1	200		
1337		0.16	3	CX-2126	2			
1417		0.32	4	CX-2125	3			
1502		1.0	5	CX-2122	4			
1547		2.0	6	CX-2121	5			
1645		4.0	7	CX-2120	6			
1724		8.0	8	CX-2119	7			9/3/10
1803		16.0	9	CX-2118	8			
1842	N	BIK	BIK1	—	9			9/3/10
1926	Y	ICV	ICV902	CX-2117	9			
2012	N	LCS	LCS90L	↓	9			
2050	Y	~~Lot#8824~~ 1pt	EIPTI02	CX-2104	Std	40		9/3/10
2133	N	Lot#8824	6646R	6646	10	500		
2212	↓		6646	↓	10			9/3/10
2252	Y		1363 →		11			
2331	Y		62345N →		12			
0012	Y		93149 →		13			
0053	N		6665 →		14			
0137	↓		1492 →		15			
0220	Y		1366 →		16			
0906	N		BIK2 →	1366	16	200		
0945	N	Std Verification	CX-2120	CX-2120	6	200		
1025	Y	ICV	CX-2117	CX-2117	9	50		Bromoform Only
			9/3/10					

* Entech programmed Volume. If the Entech report amount differs from the programmed amount by >5%, the Entech report amount is used for calulations.

Analyst: [signature] Date: 9/3/10

Data File: /chem/gcms/me.i/E090210I.b/ebfbi02.d

Date : 02-SEP-2010 11:10

Client ID: BFB

Instrument: me.i

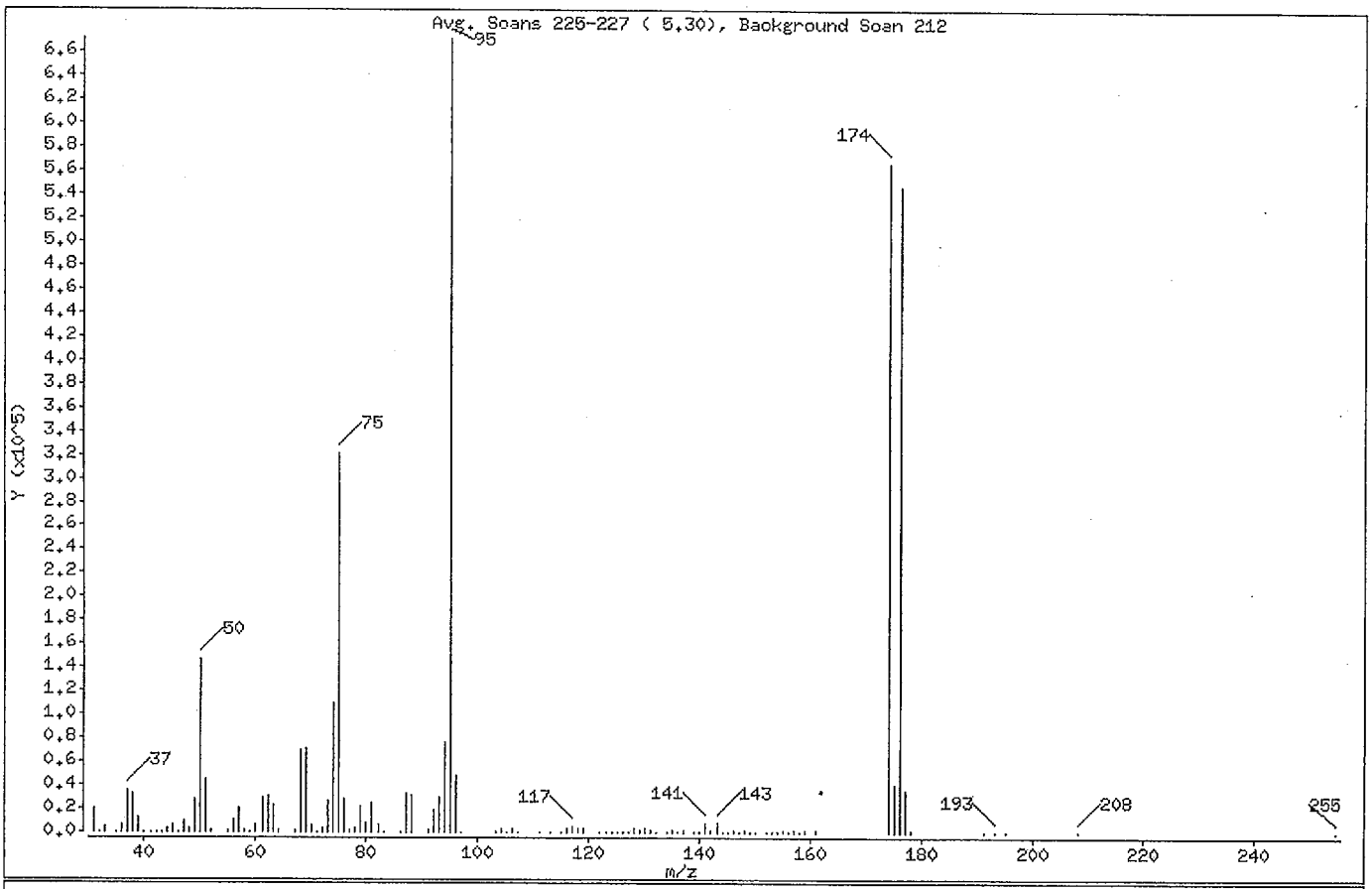
Sample Info: BFB,,3,,,BFB

Operator: 22980

Column phase: RTX-5

Column diameter: 0.32

1 BFB



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.82
75	30.00 - 60.00% of mass 95	47.72
96	5.00 - 9.00% of mass 95	7.23
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	84.30
175	5.00 - 9.00% of mass 174	6.02 (7.14)
176	95.00 - 101.00% of mass 174	81.41 (96.57)
177	5.00 - 9.00% of mass 176	5.36 (6.59)

Report Date : 07-Sep-2010 11:26

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 12:19
End Cal Date : 03-SEP-2010 09:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/gcms/me.i/E090210I.b/TO155.m
Cal Date : 07-Sep-2010 11:22 wilesd
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcms/me.i/E090210I.b/eici021.d
Level 2: /var/chem/gcms/me.i/E090210I.b/eici022.d
Level 3: /var/chem/gcms/me.i/E090210I.b/eici023.d
Level 4: /var/chem/gcms/me.i/E090210I.b/eici024.d
Level 5: /var/chem/gcms/me.i/E090210I.b/eici025.d
Level 6: /chem/gcms/me.i/E090210I.b/e1pti02.d
Level 7: /var/chem/gcms/me.i/E090210I.b/eici027.d
Level 8: /var/chem/gcms/me.i/E090210I.b/eici028.d
Level 9: /var/chem/gcms/me.i/E090210I.b/eici029.d

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
7 Chlorodifluoromethane	0.50616	0.44259	0.35607	0.37326	0.44118	0.35610		
	0.34783	0.31078	0.30266				0.38185	17.700
8 Propene	+++++	+++++	1.40232	1.27270	1.45820	1.17229		
	1.15742	1.01461	0.96119				1.20554	15.395
9 Dichlorodifluoromethane	3.95104	3.81010	3.55594	3.53039	4.29133	3.60740		
	3.47261	2.95637	2.74708				3.54692	13.317
10 Chloromethane	+++++	0.54968	0.48171	0.46633	0.57492	0.46181		
	0.45664	0.39912	0.38156				0.47147	14.019
11 1,2-Dichlorotetrafluoroethane	2.89260	2.69297	2.45356	2.51067	3.02367	2.53117		
	2.55133	2.32057	2.33131				2.58976	9.255

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Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/gcms/me.i/E090210I.b/TO155.m
Cal Date : 07-Sep-2010 11:22 wilesd
Curve Type : Average

Compound	0.04000 Level 1 / 4.000 Level 7	0.08000 Level 2 / 8.000 Level 8	0.16000 Level 3 / 16.000 Level 9	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD	
12 Methanol	+++++	+++++	+++++	+++++	2.14496	1.09224			
	0.65514	0.39631	0.27245				0.91222	83.010	<-
13 Vinyl Chloride	1.82493	1.67180	1.45746	1.48245	1.80039	1.47241			
	1.43776	1.25691	1.20405				1.51202	14.366	
14 n-Butane	+++++	2.74486	2.42400	2.47801	2.95098	2.43135			
	2.31710	1.97730	1.82608				2.39371	15.348	
15 1,3-Butadiene	1.25372	1.26216	1.16517	1.11487	1.42287	1.17777			
	1.14877	1.00778	0.98411				1.17080	11.454	
16 Bromomethane	1.83336	1.52447	1.34033	1.29715	1.59320	1.33592			
	1.30056	1.15519	1.14171				1.39132	15.965	
17 Chloroethane	0.89274	0.82164	0.68317	0.66799	0.82645	0.70562			
	0.66752	0.58923	0.56960				0.71377	15.498	
18 Vinyl Bromide	1.38460	1.32050	1.18120	1.16362	1.45568	1.24481			
	1.21014	1.09635	1.10164				1.23984	10.037	
19 2-methyl butane	+++++	2.20277	1.83198	1.87332	2.26729	1.86672			
	1.79333	1.56892	1.48635				1.86134	14.546	
20 Trichlorofluoromethane	3.65017	3.60260	3.15574	3.23311	3.94295	3.30814			
	3.18992	2.84452	2.73212				3.29547	11.727	

Report Date : 07-Sep-2010 11:26

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INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 12:19
End Cal Date : 03-SEP-2010 09:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/gcms/me.i/E090210I.b/TO15S.m
Cal Date : 07-Sep-2010 11:22 wilesd
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD	
	4.000 Level 7	8.000 Level 8	16.000 Level 9						
21 Acrolein	+++++	0.44098	0.40912	0.31430	0.48690	0.32976			
	0.24106	0.34495	0.36377				0.36636	21.179	
22 Acetonitrile	+++++	0.55144	0.48864	0.38075	0.62957	0.53496			
	0.49045	0.44586	0.42202				0.49296	16.031	
23 Acetone	+++++	+++++	+++++	+++++	1.03171	0.60484			
	0.53923	0.56599	0.43995				0.63634	36.029	<-
24 Pentane	+++++	0.23080	0.18932	0.20076	0.24389	0.21066			
	0.20073	0.17963	0.17639				0.20402	11.638	
25 Isopropyl Alcohol	+++++	+++++	2.40756	1.47319	1.73208	1.51527			
	1.36431	1.19950	1.20361				1.55650	26.911	
26 Ethyl Ether	+++++	1.82664	1.67300	1.38716	2.07308	1.77869			
	1.61114	1.41496	1.31217				1.63460	15.774	
27 1,1-Dichloroethene	1.42881	1.38205	1.18872	1.20807	1.47741	1.27878			
	1.24252	1.11963	1.10731				1.27037	10.456	
28 Acrylonitrile	+++++	0.95379	0.88301	0.69034	1.10794	0.94813			
	0.88966	0.83421	0.82817				0.89191	13.518	
29 tert-butanol	+++++	+++++	2.87244	1.90663	1.98345	1.82817			
	1.64333	1.41838	1.54957				1.88599	25.402	

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Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/gcms/me.i/E090210I.b/TO155.m
Cal Date : 07-Sep-2010 11:22 wilesd
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
30 1,1,2-Trichlorotrifluoroethan	2.92201	2.90982	2.55686	2.56296	3.13823	2.76195		
	2.63631	2.34599	2.32255				2.68408	10.186
31 Methylene Chloride	+++++	+++++	1.74098	1.51079	1.46896	1.23338		
	1.17356	1.01510	0.98788				1.30438	21.373
32 3-Chloropropene	+++++	1.34679	1.13898	1.19146	1.44621	1.23489		
	1.16024	1.03412	0.97113				1.19048	13.011
33 Carbon Disulfide	+++++	4.57042	3.84661	3.80591	4.62188	3.84206		
	3.69216	3.24810	3.05592				3.83538	14.392
34 trans-1,2-Dichloroethene	1.46602	1.38780	1.25123	1.20062	1.50395	1.31619		
	1.28207	1.14246	1.13871				1.29878	10.205
35 Methyl-t-Butyl Ether	+++++	3.50495	3.06917	2.31018	3.53555	3.13126		
	2.86062	2.58678	2.37002				2.92107	16.248
36 1,1-Dichloroethane	2.80259	2.87908	2.49281	2.38119	3.00473	2.53300		
	2.37124	2.10860	2.02177				2.51056	13.380
37 Vinyl Acetate	+++++	3.15035	2.77288	2.31393	3.79073	3.25585		
	3.03407	2.84505	2.62666				2.97369	15.010
38 Hexane	+++++	1.51351	1.29796	1.28146	1.39312	1.17559		
	1.10346	1.01104	0.98040				1.21957	15.265

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Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/gcms/me.i/E090210I.b/TO15S.m
Cal Date : 07-Sep-2010 11:22 wilesd
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
39 2-Butanone	+++++	+++++	+++++	0.46305	0.60230	0.52276		
	0.47706	0.47351	0.43289				0.49526	12.096
40 cis 1,2-Dichloroethene	+++++	1.51221	1.28072	1.23470	1.58403	1.39283		
	1.31466	1.18087	1.18702				1.33588	11.169
41 Ethyl Acetate	+++++	0.49265	0.40277	0.32432	0.46880	0.41152		
	0.36626	0.35638	0.32216				0.39311	16.061
42 Chloroform	3.07913	3.10566	2.71445	2.59023	3.23449	2.77368		
	2.61271	2.33146	2.24171				2.74261	12.557
43 Tetrahydrofuran	+++++	1.64957	1.40900	1.14488	1.76734	1.54246		
	1.39059	1.30094	1.17117				1.42199	15.523
44 1,1,1-Trichloroethane	3.06545	2.94722	2.64215	2.56124	3.26623	2.83439		
	2.71185	2.41613	2.36656				2.75680	10.873
45 1,2-Dichloroethane	0.41258	0.41500	0.36577	0.34640	0.48284	0.42700		
	0.42761	0.34130	0.35029				0.39653	12.157
46 Benzene	+++++	1.00882	0.84237	0.77779	1.05069	0.91242		
	0.94350	0.78467	0.82216				0.89280	11.501
47 1-Butanol	+++++	0.09172	0.11419	0.08768	0.09351	0.09111		
	0.09122	0.06765	0.07246				0.08869	15.956

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Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/gcms/me.i/E090210I.b/TO155.m
Cal Date : 07-Sep-2010 11:22 wilesd
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
48 Cyclohexane	0.15653	0.14749	0.13869	0.13582	0.17668	0.15627		
	0.16553	0.13388	0.14293				0.15042	9.630
49 Carbon Tetrachloride	0.63158	0.62821	0.57478	0.57579	0.77099	0.68679		
	0.73892	0.61436	0.66886				0.65447	10.437
50 2,2,4-trimethylpentane	+++++	1.69075	1.47840	1.43661	1.87562	1.65221		
	1.66260	1.27928	1.24851				1.54050	14.103
51 Heptane	0.69912	0.67725	0.59951	0.57169	0.74568	0.64659		
	0.64725	0.52141	0.51979				0.62536	12.520
52 1,2-Dichloropropane	0.36075	0.36746	0.30804	0.29134	0.41689	0.35884		
	0.36633	0.30013	0.31316				0.34255	12.118
53 Trichloroethene	0.39980	0.40610	0.36674	0.36549	0.46993	0.42317		
	0.44535	0.36834	0.41856				0.40705	8.992
54 Dibromomethane	+++++	0.34043	0.30043	0.30338	0.41507	0.36851		
	0.44669	0.31953	0.34487				0.35486	14.840
55 Bromodichloromethane	0.54401	0.56789	0.50726	0.50766	0.73775	0.64690		
	0.62788	0.56448	0.59194				0.58842	12.512
56 1,4-dioxane	+++++	+++++	0.09727	0.08148	0.11233	0.10064		
	0.09701	0.07536	0.08332				0.09249	13.975

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Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
57 Methyl Methacrylate	+++++	0.30253	0.26698	0.22923	0.41316	0.38159		
	0.38222	0.33382	0.32348				0.32912	18.952
58 4-Methyl-2-pentanone	+++++	0.54957	0.54664	0.47707	0.70675	0.63107		
	0.62069	0.49541	0.52396				0.56889	13.660
59 cis-1,3-Dichloropropene	0.41640	0.42519	0.37762	0.36933	0.52821	0.45874		
	0.47867	0.39723	0.41583				0.42969	11.851
60 trans-1,3-Dichloropropene	0.42007	0.42936	0.38758	0.36689	0.55919	0.47293		
	0.48628	0.41484	0.45051				0.44307	13.037
61 Toluene	+++++	1.19249	0.98311	0.92856	1.30744	1.09241		
	1.11000	0.91208	0.92962				1.05696	13.585
62 1,1,2-Trichloroethane	0.36821	0.37734	0.33129	0.32078	0.45938	0.38431		
	0.39177	0.33112	0.35961				0.36931	11.432
63 2-Hexanone	0.22612	0.24125	0.27707	0.23738	0.35588	0.31787		
	0.31822	0.26072	0.29994				0.28160	15.696
64 Octane	0.34882	0.34957	0.31263	0.31293	0.41660	0.36302		
	0.37209	0.30076	0.33264				0.34545	10.439
65 Dibromochloromethane	+++++	0.52966	0.47223	0.50009	0.78812	0.68384		
	0.50836	0.67026	0.74765				0.61252	20.237

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	4.000 Level 7	8.000 Level 8	16.000 Level 9					
66 1,2-Dibromoethane	0.44408	0.49975	0.44168	0.44243	0.66313	0.54949		
	0.57445	0.51927	0.57460				0.52321	14.420
67 Tetrachloroethene	0.40072	0.44265	0.36353	0.38146	0.50672	0.42137		
	0.43790	0.38198	0.44485				0.42013	10.465
68 Chlorobenzene	0.77764	0.82677	0.70099	0.70437	1.00323	0.81868		
	0.84312	0.72739	0.77131				0.79706	11.710
69 Ethylbenzene	+++++	1.28621	1.12389	1.01670	1.59966	1.34960		
	1.34714	1.11676	1.10330				1.24291	15.270
70 m&p-Xylene	0.90756	0.99510	0.84987	0.77790	1.23284	1.02979		
	1.03919	0.84909	0.80464				0.94289	15.399
M 176 Xylene (total)	0.93701	1.01682	0.88009	0.79081	1.24725	1.04535		
	1.04951	0.85660	0.83136				0.96164	14.879
71 Bromoform	0.36843	0.38290	0.36588	0.38941	0.68318	0.59594		
	+++++	+++++	+++++				0.46429	29.899
72 Nonane	+++++	0.75212	0.66938	0.63662	0.95927	0.82172		
	0.82154	0.65190	0.65947				0.74650	15.285
73 Styrene	0.42796	0.48417	0.46794	0.47726	0.85393	0.72015		
	0.74428	0.73470	0.83695				0.63859	26.904

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Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
74 o-Xylene	+++++	1.06025	0.94054	0.81664	1.27608	1.07645		
	1.07016	0.87163	0.88481				0.99957	15.007
75 1,1,2,2-Tetrachloroethane	+++++	0.73939	0.67608	0.62164	0.96571	0.81972		
	0.81547	0.69280	0.73126				0.75776	14.185
76 1,2,3-Trichloropropane	+++++	0.18014	0.16539	0.15328	0.23955	0.20244		
	0.20469	0.18110	0.20116				0.19097	14.098
77 Cumene	+++++	1.50801	1.33829	1.10968	1.80385	1.54753		
	1.52977	1.23586	1.21106				1.41051	16.149
78 n-Propylbenzene	+++++	0.34739	0.31181	0.27920	0.48003	0.40732		
	0.42390	0.37377	0.43747				0.38261	17.627
79 2-chlorotoluene	+++++	0.36076	0.32026	0.30794	0.47613	0.39567		
	0.41238	0.35249	0.41552				0.38014	14.641
80 4-Ethyltoluene	+++++	1.16473	1.13976	0.99865	1.70494	1.43567		
	1.44690	1.21019	1.19785				1.28734	17.517
81 1,3,5-Trimethylbenzene	+++++	0.56021	0.50034	0.41923	0.71146	0.61100		
	0.62423	0.54351	0.61811				0.57351	15.488
82 Alpha-Methylstyrene	+++++	0.31654	0.31887	0.32177	0.62061	0.54439		
	0.59666	0.55435	0.64727				0.49006	29.666

Report Date : 07-Sep-2010 11:26

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 12:19
End Cal Date : 03-SEP-2010 09:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/gcms/me.i/E090210I.b/TO155.m
Cal Date : 07-Sep-2010 11:22 wilesd
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
83 Decane	+++++	0.84494	0.73868	0.60254	1.13139	0.96584		
	0.94472	0.75310	0.73729				0.83981	19.950
84 Tert-butylbenzene	+++++	1.22337	1.13852	0.92797	1.58202	1.36746		
	1.38161	1.20566	1.25348				1.26001	15.277
85 1,2,4-Trimethylbenzene	+++++	0.99721	0.93206	0.81533	1.41292	1.20344		
	1.21163	1.05941	1.08417				1.08952	17.062
86 sec-butylbenzene	+++++	1.60394	1.47944	1.26482	2.17558	1.83846		
	1.81723	1.50725	+++++				1.66953	17.919
87 1,3-Dichlorobenzene	0.57460	0.56132	0.55680	0.55972	0.87443	0.70045		
	0.79041	0.77919	0.99221				0.70990	22.523
88 Benzyl Chloride	+++++	0.56054	0.56679	0.59000	0.96362	0.78413		
	0.86584	0.82409	0.92846				0.76043	21.764
89 1,4-Dichlorobenzene	0.56937	0.51981	0.51531	0.52917	0.81434	0.63049		
	0.71931	0.71432	0.93623				0.66093	22.274
90 p-Cymene	+++++	1.20854	1.11252	0.96345	1.67754	1.43382		
	1.41742	1.19607	1.16476				1.27176	17.676
91 1,2-Dichlorobenzene	+++++	0.57986	0.55444	0.53313	0.85987	0.70227		
	0.73590	0.66933	0.81237				0.68090	17.639

Report Date : 07-Sep-2010 11:26

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 12:19
End Cal Date : 03-SEP-2010 09:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/gcms/me.i/E090210I.b/TO155.m
Cal Date : 07-Sep-2010 11:22 wilesd
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
92 n-butylbenzene	+++++	0.92651	0.89388	0.84613	1.49943	1.26701		
	1.24842	1.07413	1.05793				1.10168	20.265
93 Undecane	+++++	0.61192	0.61207	0.63452	0.84386	0.67066		
	0.74380	0.75148	0.73817				0.70081	11.736
94 Dodecane	+++++	0.55166	0.58187	0.54203	0.56620	0.46871		
	0.42232	0.35836	0.57613				0.50841	16.258
95 1,2,4-Trichlorobenzene	0.35468	0.22848	0.26516	0.25103	0.28886	0.25362		
	0.24574	0.24325	+++++				0.26635	14.950
96 Napthalene	+++++	0.48360	0.70604	0.68997	0.76540	0.68832		
	0.63131	0.59689	1.00238				0.69549	21.602
97 Hexachlorobutadiene	+++++	0.45130	0.42506	0.35748	0.52166	0.46716		
	0.41741	0.42540	0.81923				0.48559	29.381
98 1,2,3-trichlorobenzene	0.30988	0.20356	0.28200	0.25403	0.25847	0.22012		
	0.20224	0.17645	+++++				0.23834	18.997
99 ~ Thiophene	+++++	+++++	+++++	+++++	+++++	0.43641		
	+++++	+++++	+++++				0.43641	0.000
100 ~ 1,2,3-trimethylbenzene	+++++	+++++	+++++	+++++	+++++	0.67599		
	+++++	+++++	+++++				0.67599	0.000

Report Date : 07-Sep-2010 11:26

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 12:19
End Cal Date : 03-SEP-2010 09:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/gcms/me.i/E090210I.b/TO15S.m
Cal Date : 07-Sep-2010 11:22 wilesd
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
101 ~ Indane	+++++	+++++	+++++	+++++	+++++	0.65632		
	+++++	+++++	+++++				0.65632	0.000
102 ~ Indene	+++++	+++++	+++++	+++++	+++++	0.38039		
	+++++	+++++	+++++				0.38039	0.000
103 ~ 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	0.09792		
	+++++	+++++	+++++				0.09792	0.000
104 ~ 1-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	0.12771		
	+++++	+++++	+++++				0.12771	0.000
162 ~ methyl cyclohexane	+++++	+++++	+++++	+++++	+++++	0.53262		
	+++++	+++++	+++++				0.53262	0.000
163 ~ acetaldehyde	+++++	+++++	+++++	+++++	+++++	0.85865		
	+++++	+++++	+++++				0.85865	0.000
164 ~ Ethanol	+++++	+++++	+++++	+++++	+++++	1.04625		
	+++++	+++++	+++++				1.04625	0.000
165 ~ 2,3,-Dimethyl pentane	+++++	+++++	+++++	+++++	+++++	0.59083		
	+++++	+++++	+++++				0.59083	0.000
166 ~ 2-Methyl thiophene	+++++	+++++	+++++	+++++	+++++	0.76680		
	+++++	+++++	+++++				0.76680	0.000

Report Date : 07-Sep-2010 11:26

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 12:19
End Cal Date : 03-SEP-2010 09:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/gcms/me.i/E090210I.b/TO15S.m
Cal Date : 07-Sep-2010 11:22 wilesd
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
167 ~ 3-Methyl thiophene	+++++	+++++	+++++	+++++	+++++	0.78400		
	+++++	+++++	+++++				0.78400	0.000
168 ~ 2,3-Dimethyl heptane	+++++	+++++	+++++	+++++	+++++	1.16049		
	+++++	+++++	+++++				1.16049	0.000
169 ~ 2-Ethyl thiophene	+++++	+++++	+++++	+++++	+++++	0.75128		
	+++++	+++++	+++++				0.75128	0.000
170 ~ n-butylcyclohexane	+++++	+++++	+++++	+++++	+++++	0.68759		
	+++++	+++++	+++++				0.68759	0.000
171 ~ 1,2-Dimethyl-4-ethyl benzen	+++++	+++++	+++++	+++++	+++++	0.56273		
	+++++	+++++	+++++				0.56273	0.000
172 ~ 1,2,4,5-tetramethylbenzene	+++++	+++++	+++++	+++++	+++++	0.51806		
	+++++	+++++	+++++				0.51806	0.000
173 ~ 1,2,3,5-tetramethylbenzene	+++++	+++++	+++++	+++++	+++++	0.44175		
	+++++	+++++	+++++				0.44175	0.000
174 ~ 1,2,3,4-tetramethylbenzene	+++++	+++++	+++++	+++++	+++++	0.40126		
	+++++	+++++	+++++				0.40126	0.000
175 ~ benzo(b) thiophene	+++++	+++++	+++++	+++++	+++++	0.23503		
	+++++	+++++	+++++				0.23503	0.000

Report Date : 07-Sep-2010 11:26

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 12:19
End Cal Date : 03-SEP-2010 09:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/gcms/me.i/E090210I.b/TO155.m
Cal Date : 07-Sep-2010 11:22 wilesd
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
$ 4 1,2-Dichloroethane-d4	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
$ 5 Toluene-d8	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
$ 6 4-Bromofluorobenzene	0.65425	0.64370	0.65448	0.63053	0.66053	0.66162		
	0.66251	0.67054	0.67282				0.65677	2.006

Data File: /chem/gcms/me.i/E090210I.b/icv902.d
Report Date: 07-Sep-2010 11:48

TestAmerica Knoxville

RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id: ICV
Level: LOW
Data Type: MS DATA
SpikeList File: icv4ppbv.spk
Sublist File: 1-all.sub
Method File: /var/chem/gcms/me.i/E090210I.b/TO155.m
Misc Info: E090210I,TO155,1-all.sub,,,

Client SDG: E090210I
Fraction: OTHER
Client Smp ID: 4.0PPB
Operator: 22980
SampleType: LCS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
7 Chlorodifluorometh	4.000	3.695	92.38	65-135
8 Propene	4.000	3.991	99.78	65-135
9 Dichlorodifluorome	4.000	4.035	100.87	65-135
10 Chloromethane	4.000	4.106	102.66	65-135
11 1,2-Dichlorotetraf	4.000	4.176	104.41	65-135
12 Methanol	4.000	2.859	71.48	65-135
13 Vinyl Chloride	4.000	4.030	100.75	65-135
14 n-Butane	4.000	4.034	100.85	65-135
15 1,3-Butadiene	4.000	3.964	99.09	65-135
16 Bromomethane	4.000	4.024	100.60	65-135
17 Chloroethane	4.000	3.953	98.83	65-135
18 Vinyl Bromide	4.000	3.901	97.52	65-135
19 2-methyl butane	4.000	3.987	99.67	65-135
20 Trichlorofluoromet	4.000	4.056	101.40	65-135
21 Acrolein	4.000	4.892	122.30	65-135
22 Acetonitrile	4.000	3.877	96.93	65-135
23 Acetone	4.000	3.070	76.74	65-135
24 Pentane	4.000	4.202	105.04	65-135
25 Isopropyl Alcohol	4.000	3.639	90.98	65-135
26 Ethyl Ether	4.000	4.010	100.24	65-135
27 1,1-Dichloroethene	4.000	3.431	85.77	65-135
29 tert-butanol	4.000	3.818	95.45	65-135
28 Acrylonitrile	4.000	3.870	96.74	65-135
30 1,1,2-Trichlorotri	4.000	3.451	86.27	65-135
31 Methylene Chloride	4.000	3.163	79.07	65-135
32 3-Chloropropene	4.000	4.079	101.97	65-135
33 Carbon Disulfide	4.000	3.944	98.61	65-135
34 trans-1,2-Dichloro	4.000	3.949	98.74	65-135
35 Methyl-t-Butyl Eth	4.000	3.645	91.12	65-135
36 1,1-Dichloroethane	4.000	3.680	92.00	65-135
37 Vinyl Acetate	4.000	3.998	99.95	65-135
39 2-Butanone	4.000	3.729	93.23	65-135
38 Hexane	4.000	3.774	94.34	65-135

Data File: /chem/gcms/me.i/E090210I.b/icv902.d
Report Date: 07-Sep-2010 11:48

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
40 cis 1,2-Dichloroet	4.000	3.678	91.94	65-135
41 Ethyl acetate	4.000	3.615	90.39	65-135
42 Chloroform	4.000	3.706	92.66	65-135
43 Tetrahydrofuran	4.000	3.662	91.56	65-135
44 1,1,1-Trichloroeth	4.000	3.775	94.37	65-135
45 1,2-Dichloroethane	4.000	3.751	93.77	65-135
47 1-Butanol	4.000	4.268	106.69	65-135
46 Benzene	4.000	3.734	93.36	65-135
48 Cyclohexane	4.000	4.014	100.35	65-135
49 Carbon Tetrachlori	4.000	3.994	99.84	65-135
50 2,2,4-trimethylpen	4.000	3.978	99.45	65-135
51 Heptane	4.000	3.926	98.14	65-135
52 1,2-Dichloropropan	4.000	3.809	95.23	65-135
53 Trichloroethene	4.000	3.931	98.29	65-135
54 Dibromomethane	4.000	4.079	101.99	65-135
55 Bromodichlorometha	4.000	4.275	106.87	65-135
56 1,4-dioxane	4.000	4.148	103.70	65-135
57 methyl methacrylat	4.000	4.115	102.88	65-135
58 4-Methyl-2-pentano	4.000	4.227	105.68	65-135
59 cis-1,3-Dichloropr	4.000	4.032	100.80	65-135
60 trans-1,3-Dichloro	4.000	4.165	104.12	65-135
61 Toluene	4.000	3.828	95.69	65-135
62 1,1,2-Trichloroeth	4.000	4.083	102.07	65-135
63 2-Hexanone	4.000	4.498	112.44	65-135
64 Octane	4.000	4.074	101.86	65-135
65 Dibromochlorometha	4.000	4.656	116.40	65-135
66 1,2-Dibromoethane	4.000	4.326	108.16	65-135
67 Tetrachloroethene	4.000	4.023	100.58	65-135
68 Chlorobenzene	4.000	4.067	101.68	65-135
69 Ethylbenzene	4.000	3.898	97.44	65-135
70 m&p-Xylene	8.000	7.937	99.21	65-135
72 Nonane	4.000	4.146	103.65	65-135
71 Bromoform	4.000	5.810	145.26*	65-135
73 Styrene	4.000	4.599	114.97	65-135
74 o-Xylene	4.000	3.845	96.13	65-135
75 1,1,2,2-Tetrachlor	4.000	4.069	101.73	65-135
76 1,2,3-Trichloropro	4.000	4.060	101.51	65-135
77 Cumene	4.000	3.890	97.26	65-135
78 n-Propylbenzene	4.000	4.012	100.29	65-135
79 2-chlorotoluene	4.000	4.003	100.07	65-135
80 4-Ethyltoluene	4.000	4.055	101.38	65-135
81 1,3,5-Trimethylben	4.000	3.720	93.01	65-135
82 Alpha-Methylstyren	4.000	4.560	114.00	65-135
83 Decane	4.000	4.080	101.99	65-135
84 tert-butylbenzene	4.000	3.821	95.52	65-135
85 1,2,4-Trimethylben	4.000	3.910	97.75	65-135
86 sec-butylbenzene	4.000	3.849	96.23	65-135

- over range see rerun JW 9.7.10

Data File: /chem/gcms/me.i/E090210I.b/icv902.d
Report Date: 07-Sep-2010 11:48

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
87 1,3-Dichlorobenzen	4.000	4.292	107.29	65-135
88 Benzyl Chloride	4.000	4.480	112.00	65-135
89 1,4-Dichlorobenzen	4.000	4.356	108.91	65-135
90 p-Cymene	4.000	3.898	97.46	65-135
91 1,2-Dichlorobenzen	4.000	4.094	102.34	65-135
92 n-butylbenzene	4.000	4.027	100.67	65-135
93 Undecane	4.000	3.966	99.16	65-135
94 Dodecane	4.000	4.194	104.85	65-135
95 1,2,4-Trichloroben	4.000	4.276	106.89	65-135
96 Napthalene	4.000	3.901	97.53	65-135
97 Hexachlorobutadien	4.000	3.450	86.24	65-135
98 1,2,3-trichloroben	4.000	3.881	97.03	65-135

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.175	104.37	70-130

Data File: /var/chem/gcms/me.i/E090210I.b/e1pti02.d
Report Date: 03-Sep-2010 11:43

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: me.i
Lab File ID: e1pti02.d
Analysis Type: AIR
Lab Sample ID:
Method: /var/chem/gcms/me.i/E090210I.b/TO155.m

Injection Date: 02-SEP-2010 20:50
Init. Cal. Date(s): 02-SEP-2010 03-SEP-2010
Init. Cal. Times: 12:19 09:45
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 ~ Thiophene	0.01746	0.01746	0.000	0.000e+00	25.00000	Averaged
100 ~ 1,2,3-trimethylbenzene	0.02704	0.02704	0.000	0.000e+00	25.00000	Averaged
101 ~ Indane	0.02625	0.02625	0.000	0.000e+00	25.00000	Averaged
102 ~ Indene	0.01522	0.01522	0.000	0.000e+00	25.00000	Averaged
103 ~ 2-Methylnaphthalene	0.04896	0.04896	0.000	0.000e+00	25.00000	Averaged
104 ~ 1-Methylnaphthalene	0.06386	0.06386	0.000	0.000e+00	25.00000	Averaged
162 ~ methyl cyclohexane	0.02130	0.02130	0.000	0.000e+00	25.00000	Averaged
163 ~ acetaldehyde	0.16314	0.16314	0.000	0.000e+00	25.00000	Averaged
165 ~ 2,3,-Dimethyl pentane	0.02363	0.02363	0.000	0.000e+00	25.00000	Averaged
168 ~ 2,3-Dimethyl heptane	0.04642	0.04642	0.000	0.000e+00	25.00000	Averaged
164 ~ Ethanol	0.20402	0.20402	0.000	0.000e+00	25.00000	Averaged
166 ~ 2-Methyl thiophene	0.03067	0.03067	0.000	0.000e+00	25.00000	Averaged
167 ~ 3-Methyl thiophene	0.03136	0.03136	0.000	0.000e+00	25.00000	Averaged
169 ~ 2-Ethyl thiophene	0.03005	0.03005	0.000	0.000e+00	25.00000	Averaged
170 ~ n-butylcyclohexane	0.02750	0.02750	0.000	0.000e+00	25.00000	Averaged
171 ~ 1,2-Dimethyl-4-ethyl benz	0.02251	0.02251	0.000	0.000e+00	25.00000	Averaged
172 ~ 1,2,4,5-tetramethylbenzen	0.02072	0.02072	0.000	0.000e+00	25.00000	Averaged
173 ~ 1,2,3,5-tetramethylbenzen	0.01767	0.01767	0.000	0.000e+00	25.00000	Averaged
174 ~ 1,2,3,4-tetramethylbenzen	0.01605	0.01605	0.000	0.000e+00	25.00000	Averaged
175 ~ benzo(b) thiophene	0.00940	0.00940	0.000	0.000e+00	25.00000	Averaged

TestAmerica Knoxville GC/MS Air Continuing Calibration Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 11

Analysis Date:	9/9/10	CCAL Batch/ Scan Name:	E090910	Instrument:	ME	ICAL Batch/ Scan Name:	E090210I	Scanned ✓

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd
1. Did BFB meet tune criteria?		✓		☐ failed for TO-14A, but passes for TO-15	✓
2. Were all standards injected within 24 hr of BFB?		✓			✓
3. Have the Entech position no. & vol. been verified with run log & sample vol. corrected if actual amount differs >5%?		✓			✓
4. Was date/time of analysis in logbook correct?		✓			✓
5. Was the CCAL compared to the correct ICAL (date & time on CCAL matches the ICAL)		✓			✓
6. Is the %D ≤ 30% for all target analytes? (Narrative req'd.).		✓		☐ [ccal] analytes > 30% but passes LCS criteria.	✓
7. Have all peaks been auto identified? If not, list:		✓			✓
8. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓			Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	MA
9. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in CCAL summary?	✓				MA
10. Is the first IS documented correctly on the log?		✓			✓
11. Elution order checked on isomeric pairs?		✓			✓
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane		✓			✓
• vinyl acetate / hexane		✓			✓
• cis- and trans- isomers		✓			✓
• ethyl benzene / m/p-xylene / o-xylene		✓			✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene		✓			✓
• tert-butylbenzene/p-cymene		✓			✓
• 1,2,4-trimethylbenzene/sec-butylbenzene		✓			✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene		✓			✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene		✓			✓
12. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%).		✓		☐ [lcs6] LCS analyte(s) flagged as being outside control limits but within marginal limits ☐ [lcs5] LCS outside marginal exceedences high, but analytes were not detected	✓
13. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				MA
14. Does the CCAL folder contain **complete** data in the following order: data review checklist, a **complete** runlog, Entech report, tune pass/fail page, m/z list, tune chromatogram, Target CCAL summary, Quan report, chromatogram, manual integrations.		✓			✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst:	Date: 9/10/10	2nd Level Reviewer: AR	Date: 9/10/10
Comments:		Comments:	

TestAmerica Laboratories, Inc. - Knoxville
CANISTER RUN LOG

GCMS Analysis: AIR 7M Inst: ME

Analyst: HLC Qtims Batch: 0253088 L6RJM 0253090 L6RJP

Date: ~~9/8~~ 9/9/10 ICAL Batch: E090210F Target Batch: E090910 IS #1 Area: 727105

9/9/10 IF

Surr/IS ID & Vol.: 40mLV320 System Date/Time ok (y/n): y

Preventive Maintenance Performed ☑ Daily

Time	Use	Lot No.	File ID	Can #	Pos	Vol* (mL)	Can DF	Comments
1031	✓	tune	EBFBI09	–	16	100	1	
1059	✓	CCV	CCV	CX2123	15	100		
1059	✓	LCS	LCS	↓	↓	↓		
1226	✓	IPT	IPT	CX 2130	↓	40		
1312	✓	Blk	Blk	–	16	500		
1357	✓	HOI030405	L6HCM1AA	1142	~~15~~ 1	~~500~~ 9/9/10 IF	1	400mL
1442	✓	↓	↓ HCT ↓	2488	2	500	1	
1521	RR 500mL		HC0	93239	3	100	1	
1600	RR 250mL		HC5	12440	4	↓		
1638	✓		HC6	12574	5	200		
1717	RR 500mL		HC7	4497N	6	200		
1755	RR 100mL OK 9/10/10 IF		HC8	93212	7	11		2AA 10mL OK "D" for tol.
1833	✓		HC9	12181	8	200		
1912	✓		HDA	6626	9			
1951	✓		HDC	02795	10	↓	↓	
2030	✓		HDD	12501	11	25	1.50	
	dup		~~L6HDCD~~		~~10~~	~~100~~	~~1~~	9/9/10 IF
2112	✓	HOI080497	L6NCM1AA	6670	12	440	2.20	
2155	✓		NCX	6375	13	200	1	
2238	✓		NC4	93143	14			
2318	✓		NC6	11287	15			
2356	dup		NC6 D	↓	15	↓	↓	-1AD
0356	✓	lot ✓	8831 9/9/10 IF	62359N	16	500	1	
0436	200mL	lot 8827	12579 →		STD	↓	1	
0035	✓	HOI030418	L6HF21AA	93182	1	200	1	E#7, Mtp, O, NaRh RR 50mL
0114	RR 500mL	↓	↓ HHT ↓	11413	2	↓	1	
0155	✓	HOI030405	L6HC0R	93239	3	500	1	
0233	✓		C5R	12440	4	250	1	
0316	✓	↓	C7R	4497N	6	500	↓	
0740	9/10/10 IF NOK	↓	C8R	93212	7	100	1	E tol.

* Entech programmed Volume. If the Entech report amount differs from the programmed amount by >5%, the Entech report amount is used for calulations.

Analyst: [signature] Date: 9/10/10

Data File: /chem/gcms/me.i/E090910.b/ebfbi09.d

Date : 09-SEP-2010 10:31

Client ID: BFB

Instrument: me.i

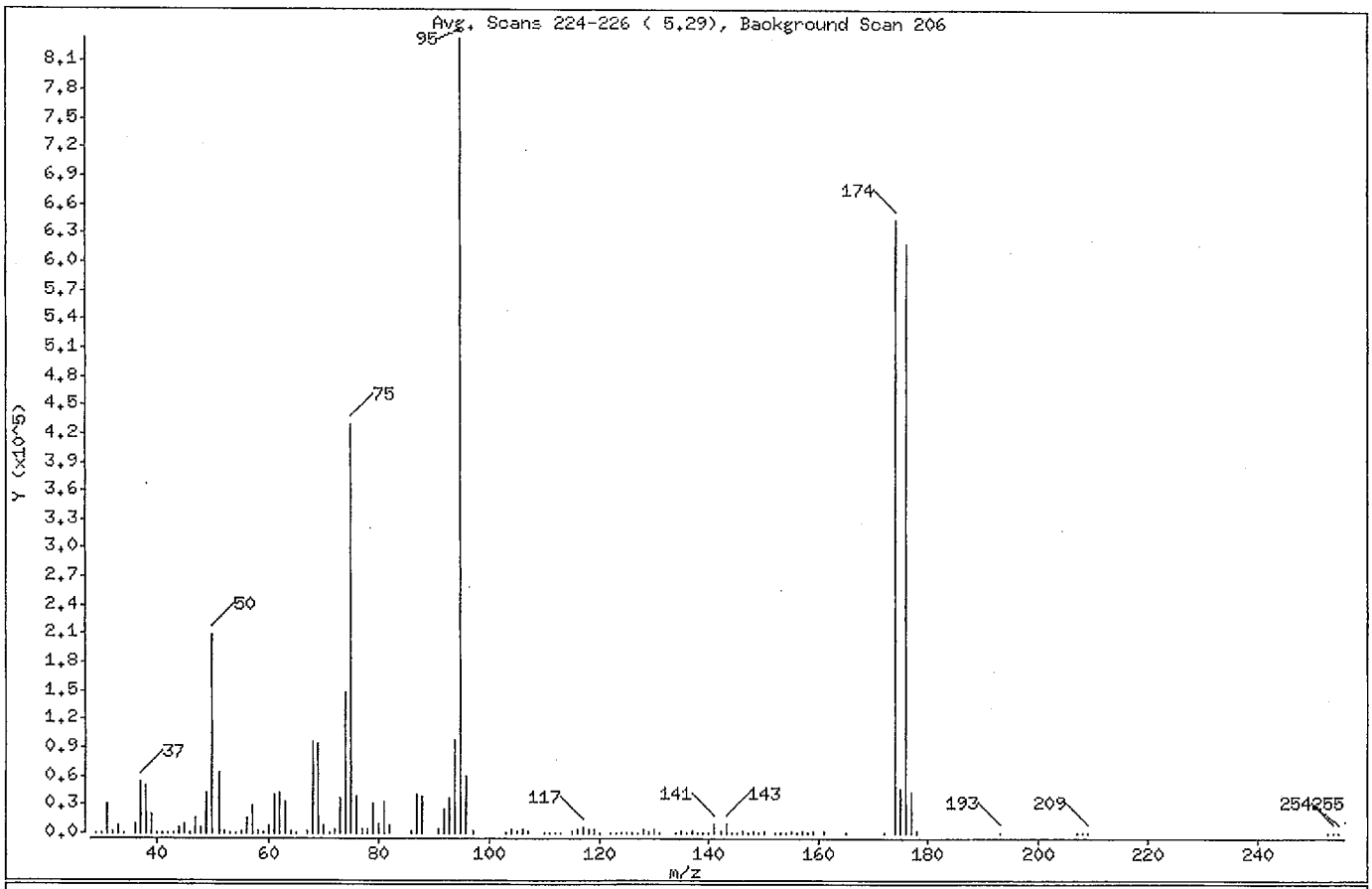
Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: RTX-5

Column diameter: 0.32

1 BFB



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	25.06
75	30.00 - 60.00% of mass 95	51.48
96	5.00 - 9.00% of mass 95	7.12
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	77.33
175	5.00 - 9.00% of mass 174	5.58 (7.21)
176	95.00 - 101.00% of mass 174	74.24 (96.01)
177	5.00 - 9.00% of mass 176	4.99 (6.72)

Data File: /var/chem/gcms/me.i/E090910.b/eccvi09.d
Report Date: 09-Sep-2010 13:43

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: me.i
Lab File ID: eccvi09.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/me.i/E090910.b/TO155.m

Injection Date: 09-SEP-2010 10:59
Init. Cal. Date(s): 02-SEP-2010 09-SEP-2010
Init. Cal. Times: 12:19 12:26
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 6 4-Bromofluorobenzene	0.65677	0.69406	0.000	-5.67645	30.00000	Averaged
7 Chlorodifluoromethane	0.38185	0.42694	0.000	-11.80974	30.00000	Averaged
8 Propene	1.20554	1.47616	0.000	-22.44838	30.00000	Averaged
9 Dichlorodifluoromethane	3.54692	4.03354	0.000	-13.71965	30.00000	Averaged
10 Chloromethane	0.47147	0.58017	0.000	-23.05478	30.00000	Averaged
11 1,2-Dichlorotetrafluoroetha	2.58976	2.74370	0.000	-5.94422	30.00000	Averaged
12 Methanol	0.91222	0.86141	0.000	5.56973	30.00000	Averaged
13 Vinyl Chloride	1.51202	1.74156	0.000	-15.18115	30.00000	Averaged
14 n-Butane	2.39371	3.00875	0.000	-25.69411	30.00000	Averaged
15 1,3-Butadiene	1.17080	1.41225	0.000	-20.62236	30.00000	Averaged
16 Bromomethane	1.39132	1.47259	0.000	-5.84106	30.00000	Averaged
17 Chloroethane	0.71377	0.78379	0.000	-9.80894	30.00000	Averaged
18 Vinyl Bromide	1.23984	1.28913	0.000	-3.97605	30.00000	Averaged
19 2-methyl butane	1.86134	2.20834	0.000	-18.64266	30.00000	Averaged
20 Trichlorofluoromethane	3.29547	3.51045	0.000	-6.52343	30.00000	Averaged
21 Acrolein	0.36636	0.42869	0.000	-17.01560	30.00000	Averaged
22 Acetonitrile	0.49296	0.60324	0.000	-22.37019	30.00000	Averaged
23 Acetone	0.63634	0.67229	0.000	-5.64879	30.00000	Averaged
24 Pentane	0.20402	0.22750	0.000	-11.50966	30.00000	Averaged
25 Isopropyl Alcohol	1.55650	1.70693	0.000	-9.66415	30.00000	Averaged
26 Ethyl Ether	1.63460	2.06152	0.000	-26.11752	30.00000	Averaged
27 1,1-Dichloroethene	1.27037	1.32169	0.000	-4.03999	30.00000	Averaged
28 Acrylonitrile	0.89191	1.02416	0.000	-14.82839	30.00000	Averaged
29 tert-butanol	1.88599	1.99228	0.000	-5.63561	30.00000	Averaged
30 1,1,2-Trichlorotrifluoroeth	2.68408	2.82056	0.000	-5.08501	30.00000	Averaged
31 Methylene Chloride	1.30438	1.25548	0.000	3.74833	30.00000	Averaged
32 3-Chloropropene	1.19048	1.30227	0.000	-9.39076	30.00000	Averaged
33 Carbon Disulfide	3.83538	4.10195	0.000	-6.95008	30.00000	Averaged
34 trans-1,2-Dichloroethene	1.29878	1.35568	0.000	-4.38081	30.00000	Averaged
35 Methyl-t-Butyl Ether	2.92107	3.23076	0.000	-10.60213	30.00000	Averaged
36 1,1-Dichloroethane	2.51056	2.73252	0.000	-8.84135	30.00000	Averaged
37 Vinyl Acetate	2.97369	3.71880	0.000	-25.05654	30.00000	Averaged
38 Hexane	1.21957	1.29655	0.000	-6.31224	30.00000	Averaged
39 2-Butanone	0.49526	0.54055	0.000	-9.14388	30.00000	Averaged
40 cis 1,2-Dichloroethene	1.33588	1.37758	0.000	-3.12160	30.00000	Averaged
41 Ethyl Acetate	0.39311	0.45804	0.000	-16.51803	30.00000	Averaged

Data File: /var/chem/gcms/me.i/E090910.b/eccvi09.d
Report Date: 09-Sep-2010 13:43

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: me.i
Lab File ID: eccvi09.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/me.i/E090910.b/TO155.m

Injection Date: 09-SEP-2010 10:59
Init. Cal. Date(s): 02-SEP-2010 09-SEP-2010
Init. Cal. Times: 12:19 12:26
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
42 Chloroform	2.74261	2.86573	0.000	-4.48905	30.00000	Averaged
43 Tetrahydrofuran	1.42199	1.75877	0.000	-23.68354	30.00000	Averaged
44 1,1,1-Trichloroethane	2.75680	2.89690	0.000	-5.08172	30.00000	Averaged
45 1,2-Dichloroethane	0.39653	0.40640	0.000	-2.48752	30.00000	Averaged
48 Cyclohexane	0.15042	0.15051	0.000	-0.05871	30.00000	Averaged
46 Benzene	0.89280	0.86153	0.000	3.50296	30.00000	Averaged
47 1-Butanol	0.08869	0.10346	0.000	-16.65076	30.00000	Averaged
49 Carbon Tetrachloride	0.65447	0.62188	0.000	4.97999	30.00000	Averaged
50 2,2,4-trimethylpentane	1.54050	1.59147	0.000	-3.30911	30.00000	Averaged
51 Heptane	0.62536	0.66760	0.000	-6.75409	30.00000	Averaged
52 1,2-Dichloropropane	0.34255	0.34379	0.000	-0.36222	30.00000	Averaged
53 Trichloroethene	0.40705	0.37405	0.000	8.10837	30.00000	Averaged
54 Dibromomethane	0.35486	0.34366	0.000	3.15857	30.00000	Averaged
55 Bromodichloromethane	0.58842	0.61172	0.000	-3.96058	30.00000	Averaged
56 1,4-dioxane	0.09249	0.09088	0.000	1.74216	30.00000	Averaged
57 Methyl Methacrylate	0.32912	0.39902	0.000	-21.23562	30.00000	Averaged
58 4-Methyl-2-pentanone	0.56889	0.60722	0.000	-6.73745	30.00000	Averaged
59 cis-1,3-Dichloropropene	0.42969	0.43537	0.000	-1.32195	30.00000	Averaged
60 trans-1,3-Dichloropropene	0.44307	0.45915	0.000	-3.62992	30.00000	Averaged
61 Toluene	1.05696	1.01772	0.000	3.71279	30.00000	Averaged
62 1,1,2-Trichloroethane	0.36931	0.35906	0.000	2.77591	30.00000	Averaged
63 2-Hexanone	0.28160	0.29287	0.000	-3.99920	30.00000	Averaged
64 Octane	0.34545	0.33041	0.000	4.35346	30.00000	Averaged
65 Dibromochloromethane	0.61252	0.63779	0.000	-4.12426	30.00000	Averaged
66 1,2-Dibromoethane	0.52321	0.52733	0.000	-0.78875	30.00000	Averaged
67 Tetrachloroethene	0.42013	0.39355	0.000	6.32727	30.00000	Averaged
68 Chlorobenzene	0.79706	0.77180	0.000	3.16858	30.00000	Averaged
69 Ethylbenzene	1.24291	1.25872	0.000	-1.27242	30.00000	Averaged
70 m&p-Xylene	0.94289	0.96536	0.000	-2.38386	30.00000	Averaged
M 176 Xylene (total)	0.96164	0.97240	0.000	-1.11874	30.00000	Averaged
72 Nonane	0.74650	0.79082	0.000	-5.93644	30.00000	Averaged
71 Bromoform	0.46429	0.55874	0.000	-20.34203	30.00000	Averaged
73 Styrene	0.63859	0.68758	0.000	-7.67166	30.00000	Averaged
74 o-Xylene	0.99957	0.98648	0.000	1.30918	30.00000	Averaged
75 1,1,2,2-Tetrachloroethane	0.75776	0.78267	0.000	-3.28759	30.00000	Averaged

Data File: /var/chem/gcms/me.i/E090910.b/eccvi09.d
Report Date: 09-Sep-2010 13:43

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: me.i
Lab File ID: eccvi09.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/me.i/E090910.b/TO155.m

Injection Date: 09-SEP-2010 10:59
Init. Cal. Date(s): 02-SEP-2010 09-SEP-2010
Init. Cal. Times: 12:19 12:26
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
76 1,2,3-Trichloropropane	0.19097	0.19191	0.000	-0.49037	30.00000	Averaged
77 Cumene	1.41051	1.38933	0.000	1.50105	30.00000	Averaged
78 n-Propylbenzene	0.38261	0.37531	0.000	1.90859	30.00000	Averaged
79 2-chlorotoluene	0.38014	0.35913	0.000	5.52738	30.00000	Averaged
80 4-Ethyltoluene	1.28734	1.31740	0.000	-2.33530	30.00000	Averaged
81 1,3,5-Trimethylbenzene	0.57351	0.54724	0.000	4.58070	30.00000	Averaged
82 Alpha-Methylstyrene	0.49006	0.50725	0.000	-3.50735	30.00000	Averaged
83 Decane	0.83981	0.93098	0.000	-10.85610	30.00000	Averaged
84 Tert-butylbenzene	1.26001	1.22741	0.000	2.58714	30.00000	Averaged
85 1,2,4-Trimethylbenzene	1.08952	1.09946	0.000	-0.91226	30.00000	Averaged
86 sec-butylbenzene	1.66953	1.66685	0.000	0.16041	30.00000	Averaged
87 1,3-Dichlorobenzene	0.70990	0.67665	0.000	4.68348	30.00000	Averaged
88 Benzyl Chloride	0.76043	0.79459	0.000	-4.49202	30.00000	Averaged
89 1,4-Dichlorobenzene	0.66093	0.62038	0.000	6.13448	30.00000	Averaged
90 p-Cymene	1.27176	1.28227	0.000	-0.82646	30.00000	Averaged
91 1,2-Dichlorobenzene	0.68090	0.65280	0.000	4.12703	30.00000	Averaged
92 n-butylbenzene	1.10168	1.17662	0.000	-6.80204	30.00000	Averaged
93 Undecane	0.70081	0.72657	0.000	-3.67531	30.00000	Averaged
94 Dodecane	0.50841	0.50027	0.000	1.60179	30.00000	Averaged
95 1,2,4-Trichlorobenzene	0.26635	0.28954	0.000	-8.70509	30.00000	Averaged
96 Napthalene	0.69549	0.74889	0.000	-7.67823	30.00000	Averaged
97 Hexachlorobutadiene	0.48559	0.48351	0.000	0.42694	30.00000	Averaged
98 1,2,3-trichlorobenzene	0.23834	0.26737	0.000	-12.17727	30.00000	Averaged

Data File: /var/chem/gcms/me.i/E090910.b/e1pti09.d
Report Date: 09-Sep-2010 13:42

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: me.i
Lab File ID: e1pti09.d
Analysis Type: AIR
Lab Sample ID: 1PTCAL
Method: /var/chem/gcms/me.i/E090910.b/TO15S.m

Injection Date: 09-SEP-2010 12:26
Init. Cal. Date(s): 02-SEP-2010 09-SEP-2010
Init. Cal. Times: 12:19 12:26
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 ~ Thiophene	0.45106	0.45106	0.000	-1.231e-14	25.00000	Averaged
100 ~ 1,2,3-trimethylbenzene	0.70794	0.70794	0.000	0.000e+00	25.00000	Averaged
101 ~ Indane	0.72289	0.72289	0.000	0.000e+00	25.00000	Averaged
102 ~ Indene	0.43121	0.43121	0.000	1.287e-14	25.00000	Averaged
103 ~ 2-Methylnaphthalene	0.05528	0.05528	0.000	0.000e+00	25.00000	Averaged
104 ~ 1-Methylnaphthalene	0.07181	0.07181	0.000	0.000e+00	25.00000	Averaged
162 ~ methyl cyclohexane	0.48103	0.48103	0.000	0.000e+00	25.00000	Averaged
163 ~ acetaldehyde	2.56426	2.56426	0.000	0.000e+00	25.00000	Averaged
165 ~ 2,3,-Dimethyl pentane	0.59413	0.59413	0.000	0.000e+00	25.00000	Averaged
168 ~ 2,3-Dimethyl heptane	1.33841	1.33841	0.000	0.000e+00	25.00000	Averaged
164 ~ Ethanol	1.14766	1.14766	0.000	1.935e-14	25.00000	Averaged
166 ~ 2-Methyl thiophene	0.81962	0.81962	0.000	-1.355e-14	25.00000	Averaged
167 ~ 3-Methyl thiophene	0.81850	0.81850	0.000	0.000e+00	25.00000	Averaged
169 ~ 2-Ethyl thiophene	0.80793	0.80793	0.000	0.000e+00	25.00000	Averaged
170 ~ n-butylcyclohexane	0.71393	0.71393	0.000	0.000e+00	25.00000	Averaged
171 ~ 1,2-Dimethyl-4-ethyl benz	0.60188	0.60188	0.000	1.845e-14	25.00000	Averaged
172 ~ 1,2,4,5-tetramethylbenzen	0.64586	0.64586	0.000	0.000e+00	25.00000	Averaged
173 ~ 1,2,3,5-tetramethylbenzen	0.53534	0.53534	0.000	0.000e+00	25.00000	Averaged
174 ~ 1,2,3,4-tetramethylbenzen	0.51536	0.51536	0.000	0.000e+00	25.00000	Averaged
175 ~ benzo(b) thiophene	0.30256	0.30256	0.000	1.835e-14	25.00000	Averaged

TestAmerica Knoxville GC/MS Air Continuing Calibration Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 11

Analysis Date:	9/10/10	CCAL Batch/ Scan Name:	ED91010	Instrument:	ME	ICAL Batch/ Scan Name:	ED90210F	Scanned: ☑

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd
1. Did BFB meet tune criteria?		✓		☐ failed for TO-14A, but passes for TO-15	✓
2. Were all standards injected within 24 hr of BFB?		✓			✓
3. Have the Entech position no. & vol. been verified with run log & sample vol. corrected if actual amount differs >5%?		✓			✓
4. Was date/time of analysis in logbook correct?		✓			✓
5. Was the CCAL compared to the correct ICAL (date & time on CCAL matches the ICAL)		✓		CCV - #9	✓
6. Is the %D ≤ 30% for all target analytes? (Narrative req'd.).		✓		☐ [ccal] analytes > 30% but passes LCS criteria.	✓
7. Have all peaks been auto identified? If not, list:		✓			✓
8. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓			Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	NA
9. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in CCAL summary?	✓				NA
10. Is the first IS documented correctly on the log?		✓			✓
11. Elution order checked on isomeric pairs?		✓			✓
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane		✓			✓
• vinyl acetate / hexane		✓			✓
• cis- and trans- isomers		✓			✓
• ethyl benzene / m/p-xylene / o-xylene		✓			✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene		✓			✓
• tert-butylbenzene/p-cymene		✓			✓
• 1,2,4-trimethylbenzene/sec-butylbenzene		✓			✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene		✓			✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene		✓			✓
12. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%).		✓		☐ [lcs6] LCS analyte(s) flagged as being outside control limits but within marginal limits ☐ [lcs5] LCS outside marginal exceedences high, but analytes were not detected LCS: V/C, chloromethane	✓
13. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				NA
14. Does the CCAL folder contain **complete** data in the following order: data review checklist, a **complete** runlog, Entech report, tune pass/fail page, m/z list, tune chromatogram, Target CCAL summary, Quan report, chromatogram, manual integrations.		✓			✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
<11	0

Analyst:	Date: 9/13/10	2nd Level Reviewer: AMS	Date: 9/14/10
Comments:		Comments:	

TestAmerica Laboratories, Inc. - Knoxville
CANISTER RUN LOG

5

GCMS Analysis: AIR 7M

Analyst: HMT Qtims Batch: 0256180 L6V56 0256181 L6V58 Inst: ME

Date: 9/10/10 ICAL Batch: E090210F Target Batch: E091010 IS #1 Area: 686728

Surr/IS ID & Vol.: 40mlV320 System Date/Time ok (y/n): y

Preventive Maintenance Performed ☑Daily

Time	Use	Lot No.	File ID	Can #	Pos	Vol* (mL)	Can DF	Comments
0814	✓	tune	EBFBI10	—	16	100	1	
0858	N	CCV	ECCVI10	CX2123	15	50 ~~100~~ 9/10/10		
0947	✓	CCV	ECCVI10A	↓	↓	↓		#9, 13-butadiene 1-butanol hexa.
0947	✓	LCS	↓ LCS ↓	↓	↓	↓		4c n-butane 2 methylbut propene chloromethane
1038	✓	IPT	EIPTI10	CX2130	15	40		
1119	✓	BLK	EBIKI10	—	16	500	↓	
1227	RL 20	HOI080410	L6MJ01AA	0148	1	50	604.23	cleaners 2416.92
1306	✓	AOI090412	L6N9L1AA	12825	2	80	310.57	honey 776.43
1344	✓	↓	↓N9M↓	93022	3	80	3021.13	7552.83
1422	RL 300ml	↓	↓N9N↓	03840	4	80	28492.30	71230.75
		~~AOI080519~~	~~L6NH01AA~~		5	~~40~~ 50 9/10/10	3468.49	removed 17342.45
1538	✓	HOI030418	L6HF22AA	93182	6	50	1	
1619	✓		L6HHT1AA	11413	7	500	1	BCK-4-9
1658	✓		HG5	0008	8	50	1.43	IAQ-fC-30-9
1741	✓		HHC	12539	9	790	1.58	IAQ-B12-9
1826	✓		HHD	7485	10	755	1.51	IAQ-B16-9
1912	✓		HHK	6234IN	11	500	1	BCK-1-9
1957	✓		HHN	7475	12	↓	↓	BCK-2-9
2040	✓		HHQ	6376	13	↓	↓	BCK-3-9
2120	dup	↓	↓ HHQD	↓	13	↓	↓	
2200	✓		HG22AA	1134	14	50	1	#7
2238	✓		HGA2AA	35288N	15	100	1	PCE
1500	✓	↓	↓ HG1 ↓	6122	5	40	1	#7
2317	✓	HOI080410	L6MJ0R	0148	1	200	604.23	
0041	F	lot 8827	3274 →		16	500	1	
0127	✓	↓	6646 →		STD	↓	1	
0211	F	↓	12458 →		2	500	1	
2355	✓	AOI090412	L6N9NR	03840	4	300	28492.3	18994.87

* Entech programmed Volume. If the Entech report amount differs from the programmed amount by >5%, the Entech report amount is used for calculations.

Analyst: _____ Date: 9/13/10 9/13/10

Data File: /var/ohem/gcms/me.i/E091010.b/ebfbi10.d

Date : 10-SEP-2010 08:24

Client ID: BFB

Instrument: me.i

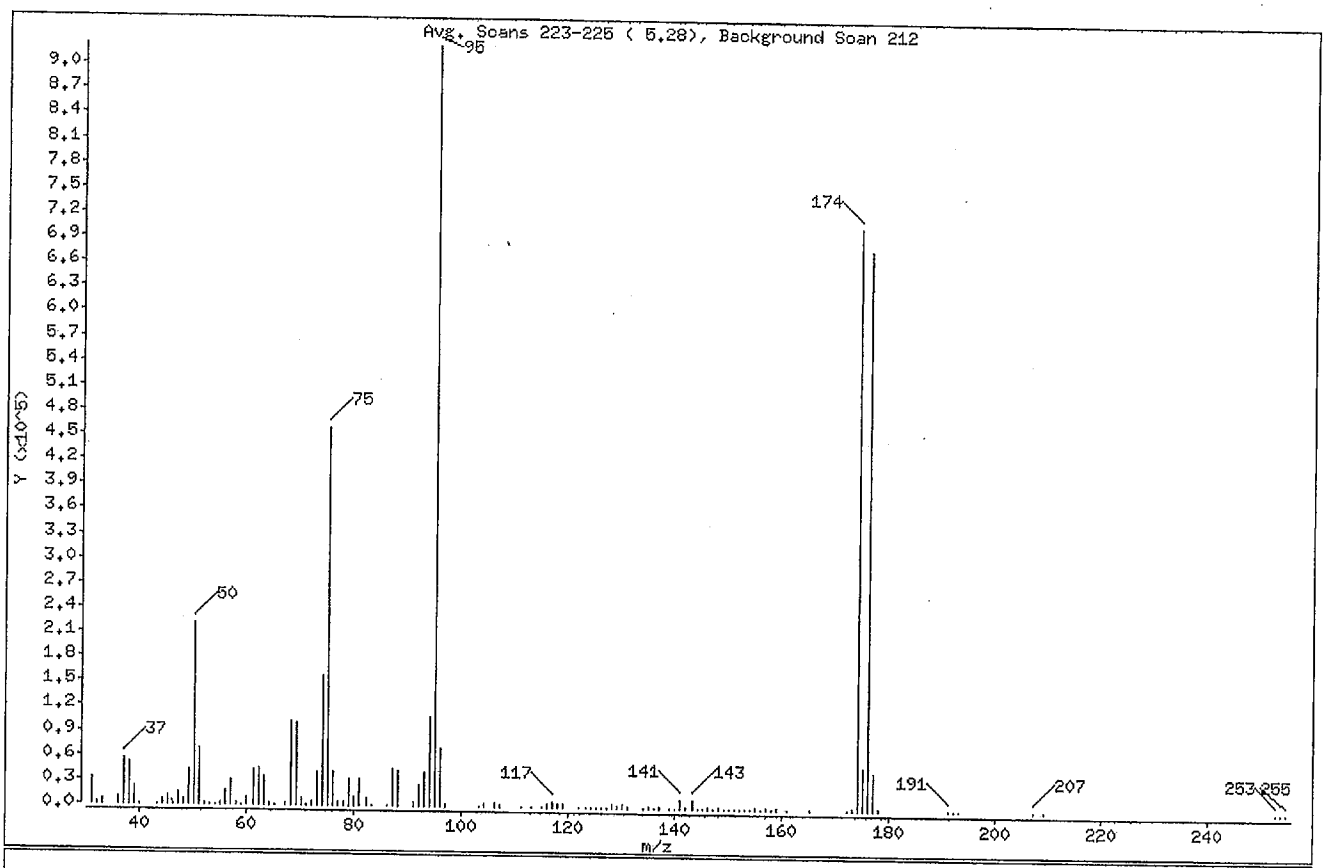
Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: RTX-5

Column diameter: 0.32

1 BFB



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.88
75	30.00 - 60.00% of mass 95	49.54
96	5.00 - 9.00% of mass 95	7.55
173	Less than 2.00% of mass 174	0.15 (0.20)
174	50.00 - 120.00% of mass 95	76.57
175	5.00 - 9.00% of mass 174	5.53 (7.22)
176	95.00 - 101.00% of mass 174	73.64 (96.18)
177	5.00 - 9.00% of mass 176	4.91 (6.67)

Data File: /var/chem/gcms/me.i/E091010.b/eccvi10a.d
Report Date: 10-Sep-2010 11:20

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: me.i
Lab File ID: eccvi10a.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/me.i/E091010.b/TO155.m

Injection Date: 10-SEP-2010 09:47
Init. Cal. Date(s): 02-SEP-2010 10-SEP-2010
Init. Cal. Times: 12:19 10:38
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 6 4-Bromofluorobenzene	0.65677	0.68232	0.000	-3.88987	30.00000	Averaged	
7 Chlorodifluoromethane	0.38185	0.48654	0.000	-27.41565	30.00000	Averaged	
8 Propene	1.20554	1.70765	0.000	-41.65080	30.00000	Averaged	<- 60-140 - NA
9 Dichlorodifluoromethane	3.54692	4.73260	0.000	-33.42863	30.00000	Averaged	<- 60-140 OK ~~NA~~ X
10 Chloromethane	0.47147	0.67928	0.000	-44.07652	30.00000	Averaged	<- 60-140 - X
11 1,2-Dichlorotetrafluoroetha	2.58976	3.21553	0.000	-24.16312	30.00000	Averaged	
12 Methanol	0.91222	0.89122	0.000	2.30218	30.00000	Averaged	
13 Vinyl Chloride	1.51202	2.02941	0.000	-34.21877	30.00000	Averaged	<- 70-130 - X
14 n-Butane	2.39371	3.54585	0.000	-48.13180	30.00000	Averaged	<- 60-140 - NA
15 1,3-Butadiene	1.17080	1.63781	0.000	-39.88756	30.00000	Averaged	<- 60-140 OK NA
16 Bromomethane	1.39132	1.68911	0.000	-21.40359	30.00000	Averaged	
17 Chloroethane	0.71377	0.92320	0.000	-29.34133	30.00000	Averaged	
18 Vinyl Bromide	1.23984	1.50440	0.000	-21.33816	30.00000	Averaged	
19 2-methyl butane	1.86134	2.58403	0.000	-38.82659	30.00000	Averaged	<- 70-130 - NA
20 Trichlorofluoromethane	3.29547	4.11014	0.000	-24.72080	30.00000	Averaged	
21 Acrolein	0.36636	0.35342	0.000	3.53028	30.00000	Averaged	
22 Acetonitrile	0.49296	0.49661	0.000	-0.74091	30.00000	Averaged	
23 Acetone	0.63634	0.54969	0.000	13.61742	30.00000	Averaged	
24 Pentane	0.20402	0.25799	0.000	-26.45396	30.00000	Averaged	
25 Isopropyl Alcohol	1.55650	1.72799	0.000	-11.01760	30.00000	Averaged	
26 Ethyl Ether	1.63460	1.84185	0.000	-12.67841	30.00000	Averaged	
27 1,1-Dichloroethene	1.27037	1.56153	0.000	-22.91981	30.00000	Averaged	
28 Acrylonitrile	0.89191	0.85068	0.000	4.62204	30.00000	Averaged	
29 tert-butanol	1.88599	2.04168	0.000	-8.25473	30.00000	Averaged	
30 1,1,2-Trichlorotrifluoroeth	2.68408	3.23908	0.000	-20.67745	30.00000	Averaged	
31 Methylene Chloride	1.30438	1.46618	0.000	-12.40493	30.00000	Averaged	
32 3-Chloropropene	1.19048	1.39777	0.000	-17.41270	30.00000	Averaged	
33 Carbon Disulfide	3.83538	4.88693	0.000	-27.41706	30.00000	Averaged	
34 trans-1,2-Dichloroethene	1.29878	1.55232	0.000	-19.52089	30.00000	Averaged	
35 Methyl-t-Butyl Ether	2.92107	2.53515	0.000	13.21147	30.00000	Averaged	
36 1,1-Dichloroethane	2.51056	2.87141	0.000	-14.37345	30.00000	Averaged	
37 Vinyl Acetate	2.97369	2.86688	0.000	3.59186	30.00000	Averaged	
38 Hexane	1.21957	1.43926	0.000	-18.01403	30.00000	Averaged	
39 2-Butanone	0.49526	0.42058	0.000	15.07908	30.00000	Averaged	
40 cis 1,2-Dichloroethene	1.33588	1.46297	0.000	-9.51358	30.00000	Averaged	
41 Ethyl Acetate	0.39311	0.34805	0.000	11.46155	30.00000	Averaged	

AB 9/14/10

LTB 9/14/10

Data File: /var/chem/gcms/me.i/E091010.b/eccvi10a.d
Report Date: 10-Sep-2010 11:20

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: me.i
Lab File ID: eccvi10a.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/me.i/E091010.b/TO155.m

Injection Date: 10-SEP-2010 09:47
Init. Cal. Date(s): 02-SEP-2010 10-SEP-2010
Init. Cal. Times: 12:19 10:38
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
42 Chloroform	2.74261	2.98044	0.000	-8.67163	30.00000	Averaged
43 Tetrahydrofuran	1.42199	1.36327	0.000	4.12965	30.00000	Averaged
44 1,1,1-Trichloroethane	2.75680	3.02889	0.000	-9.86979	30.00000	Averaged
45 1,2-Dichloroethane	0.39653	0.45730	0.000	-15.32480	30.00000	Averaged
48 Cyclohexane	0.15042	0.18509	0.000	-23.04297	30.00000	Averaged
46 Benzene	0.89280	0.94887	0.000	-6.27953	30.00000	Averaged
47 1-Butanol	0.08869	0.12416	0.000	-39.99004	30.00000	Averaged
49 Carbon Tetrachloride	0.65447	0.73111	0.000	-11.70888	30.00000	Averaged
50 2,2,4-trimethylpentane	1.54050	1.85000	0.000	-20.09133	30.00000	Averaged
51 Heptane	0.62536	0.76966	0.000	-23.07370	30.00000	Averaged
52 1,2-Dichloropropane	0.34255	0.36394	0.000	-6.24358	30.00000	Averaged
53 Trichloroethene	0.40705	0.44593	0.000	-9.54957	30.00000	Averaged
54 Dibromomethane	0.35486	0.38699	0.000	-9.05145	30.00000	Averaged
55 Bromodichloromethane	0.58842	0.67993	0.000	-15.55111	30.00000	Averaged
56 1,4-dioxane	0.09249	0.09322	0.000	-0.78733	30.00000	Averaged
57 Methyl Methacrylate	0.32912	0.31094	0.000	5.52420	30.00000	Averaged
58 4-Methyl-2-pentanone	0.56889	0.59998	0.000	-5.46422	30.00000	Averaged
59 cis-1,3-Dichloropropene	0.42969	0.45856	0.000	-6.71947	30.00000	Averaged
60 trans-1,3-Dichloropropene	0.44307	0.47803	0.000	-7.89043	30.00000	Averaged
61 Toluene	1.05696	1.05808	0.000	-0.10511	30.00000	Averaged
62 1,1,2-Trichloroethane	0.36931	0.38047	0.000	-3.02237	30.00000	Averaged
63 2-Hexanone	0.28160	0.26904	0.000	4.46124	30.00000	Averaged
64 Octane	0.34545	0.37579	0.000	-8.78231	30.00000	Averaged
65 Dibromochloromethane	0.61252	0.67489	0.000	-10.18133	30.00000	Averaged
66 1,2-Dibromoethane	0.52321	0.54184	0.000	-3.56146	30.00000	Averaged
67 Tetrachloroethene	0.42013	0.44739	0.000	-6.48757	30.00000	Averaged
68 Chlorobenzene	0.79706	0.79739	0.000	-0.04179	30.00000	Averaged
69 Ethylbenzene	1.24291	1.15384	0.000	7.16585	30.00000	Averaged
70 m&p-Xylene	0.94289	0.86452	0.000	8.31115	30.00000	Averaged
M 176 Xylene (total)	0.96164	0.87359	0.000	9.15693	30.00000	Averaged
72 Nonane	0.74650	0.83991	0.000	-12.51272	30.00000	Averaged
71 Bromoform	0.46429	0.51395	0.000	-10.69662	30.00000	Averaged
73 Styrene	0.63859	0.58139	0.000	8.95729	30.00000	Averaged
74 o-Xylene	0.99957	0.89172	0.000	10.78957	30.00000	Averaged
75 1,1,2,2-Tetrachloroethane	0.75776	0.68722	0.000	9.30857	30.00000	Averaged

<-60.140 OK (NA)

fh 9/14/10

Data File: /var/chem/gcms/me.i/E091010.b/eccvi10a.d
Report Date: 10-Sep-2010 11:20

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: me.i
Lab File ID: eccvi10a.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/me.i/E091010.b/TO155.m

Injection Date: 10-SEP-2010 09:47
Init. Cal. Date(s): 02-SEP-2010 10-SEP-2010
Init. Cal. Times: 12:19 10:38
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF1	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
76 1,2,3-Trichloropropane	0.19097	0.15691	0.000	17.83665	30.00000	Averaged
77 Cumene	1.41051	1.20044	0.000	14.89310	30.00000	Averaged
78 n-Propylbenzene	0.38261	0.29783	0.000	22.15785	30.00000	Averaged
79 2-chlorotoluene	0.38014	0.33124	0.000	12.86553	30.00000	Averaged
80 4-Ethyltoluene	1.28734	1.05178	0.000	18.29759	30.00000	Averaged
81 1,3,5-Trimethylbenzene	0.57351	0.42689	0.000	25.56486	30.00000	Averaged
82 Alpha-Methylstyrene	0.49006	0.36271	0.000	25.98588	30.00000	Averaged
83 Decane	0.83981	0.76173	0.000	9.29701	30.00000	Averaged
84 Tert-butylbenzene	1.26001	0.95236	0.000	24.41673	30.00000	Averaged
85 1,2,4-Trimethylbenzene	1.08952	0.84915	0.000	22.06211	30.00000	Averaged
86 sec-butylbenzene	1.66953	1.31779	0.000	21.06842	30.00000	Averaged
87 1,3-Dichlorobenzene	0.70990	0.55200	0.000	22.24272	30.00000	Averaged
88 Benzyl Chloride	0.76043	0.61019	0.000	19.75729	30.00000	Averaged
89 1,4-Dichlorobenzene	0.66093	0.50380	0.000	23.77392	30.00000	Averaged
90 p-Cymene	1.27176	0.95634	0.000	24.80205	30.00000	Averaged
91 1,2-Dichlorobenzene	0.68090	0.51433	0.000	24.46287	30.00000	Averaged
92 n-butylbenzene	1.10168	0.84098	0.000	23.66351	30.00000	Averaged
93 Undecane	0.70081	0.56697	0.000	19.09800	30.00000	Averaged
94 Dodecane	0.50841	0.48654	0.000	4.30115	30.00000	Averaged
95 1,2,4-Trichlorobenzene	0.26635	0.21394	0.000	19.67629	30.00000	Averaged
96 Napthalene	0.69549	0.58006	0.000	16.59688	30.00000	Averaged
97 Hexachlorobutadiene	0.48559	0.31077	0.000	36.00074	30.00000	Averaged
98 1,2,3-trichlorobenzene	0.23834	0.21372	0.000	10.33228	30.00000	Averaged

<- 60-140 OK
NA

9/14/10

Data File: /var/chem/gcms/me.i/E091010.b/e1pti10.d
Report Date: 10-Sep-2010 11:20

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: me.i
Lab File ID: e1pti10.d
Analysis Type: AIR
Lab Sample ID: 1PTCAL
Method: /var/chem/gcms/me.i/E091010.b/TO155.m

Injection Date: 10-SEP-2010 10:38
Init. Cal. Date(s): 02-SEP-2010 10-SEP-2010
Init. Cal. Times: 12:19 10:38
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 ~ Thiophene	0.54143	0.54143	0.000	0.000e+00	25.00000	Averaged
100 ~ 1,2,3-trimethylbenzene	0.76841	0.76841	0.000	0.000e+00	25.00000	Averaged
101 ~ Indane	0.77776	0.77776	0.000	0.000e+00	25.00000	Averaged
102 ~ Indene	0.43393	0.43393	0.000	-1.279e-14	25.00000	Averaged
103 ~ 2-Methylnaphthalene	0.05314	0.05314	0.000	0.000e+00	25.00000	Averaged
104 ~ 1-Methylnaphthalene	0.07602	0.07602	0.000	0.000e+00	25.00000	Averaged
162 ~ methyl cyclohexane	0.59069	0.59069	0.000	1.880e-14	25.00000	Averaged
163 ~ acetaldehyde	2.32931	2.32931	0.000	0.000e+00	25.00000	Averaged
165 ~ 2,3,-Dimethyl pentane	0.75144	0.75144	0.000	0.000e+00	25.00000	Averaged
168 ~ 2,3-Dimethyl heptane	1.54299	1.54299	0.000	-1.439e-14	25.00000	Averaged
164 ~ Ethanol	1.13236	1.13236	0.000	0.000e+00	25.00000	Averaged
166 ~ 2-Methyl thiophene	0.94087	0.94087	0.000	1.180e-14	25.00000	Averaged
167 ~ 3-Methyl thiophene	0.94470	0.94470	0.000	1.175e-14	25.00000	Averaged
169 ~ 2-Ethyl thiophene	0.91157	0.91157	0.000	0.000e+00	25.00000	Averaged
170 ~ n-butylcyclohexane	0.79215	0.79215	0.000	-1.402e-14	25.00000	Averaged
171 ~ 1,2-Dimethyl-4-ethyl benz	0.64386	0.64386	0.000	0.000e+00	25.00000	Averaged
172 ~ 1,2,4,5-totramethylbenzen	0.70187	0.70187	0.000	0.000e+00	25.00000	Averaged
173 ~ 1,2,3,5-tetramethylbenzen	0.57372	0.57372	0.000	0.000e+00	25.00000	Averaged
174 ~ 1,2,3,4-tetramethylbenzen	0.54967	0.54967	0.000	0.000e+00	25.00000	Averaged
175 ~ benzo(b) thiophene	0.29439	0.29439	0.000	0.000e+00	25.00000	Averaged

TestAmerica Knoxville GC/MS Air Initial Calibration Data Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 11

Analysis Date:	7/15/10	Instrument::	MG	ICAL Batch/Scan Name:	G071510.F	Scanned □

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd
1. Did BFB meet tune criteria?		✓			✓
2. Were all standards injected within 24 hr of BFB?		✓			✓
3. Was date/time of analysis verified and logbook as correct?		✓			✓
4. Is low level std at or <RL and are the remaining points consecutive?		✓			✓
5. Are the calibration levels correct? (Calculate standard concentration & amt. injected with quan rpt at each level)		✓			✓
6. Was ICAL processed using correct methods and files?		✓			✓
7. Are the ICAL start and end dates/times correct?		✓			✓
8. Were at least 5 levels of each compound analyzed?		✓			✓
9. At least 6 consecutive points used for quadratic curves, and at least 5 consecutive points for linear curves?	•	✓			NA
10. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%)		✓			✓
11. If curves were used, is correlation coefficient ≥0.990?	✓				ND
12. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous.	✓				NA
13. For linear or quadratic: origin NOT "included"? (NOTE: OHIO does NOT allow "FORCE" through origin).	✓				NA
14. Is the "Y" intercept less than the RL for each curve?	✓				NA
15. RT for each IS ±20 sec avg. RT?		✓			✓
16. Area for each IS ± 40% avg. area?		✓			✓
17. Each analyte ± 0.06 RRT of avg. RRT?		✓			✓
18. Have all peaks been auto identified? If not, list:		✓			✓
19. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓			Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	NA
20. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in ICAL summary?	✓				NA
21. Are all the active compounds listed on each quan report?		✓			✓
22. High point checked for saturation and point removed if saturated?		✓			✓
23. Elution order checked on isomeric pairs?					
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane		✓			✓
• vinyl acetate / hexane		✓			✓
• cis- and trans- isomers		✓			✓
• ethyl benzene / m/p-xylene / o-xylene		✓			✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene		✓			✓
• tert-butylbenzene/p-cymene		✓			✓
• 1,2,4-trimethylbenzene/sec-butylbenzene		✓			✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene		✓			✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene		✓			✓
24. Is the second source analysis of a reference standard within limits? (65-135% R)		✓			✓
25. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				NA
26. Does the ICAL folder contain complete data in the following order: Data review checklist, a complete runlog, Entech report, BFB info, ICAL summary, curves, followed by [Quan reports, chromatograms, manual integrations], in increasing amount order, 2nd source info.		✓			✓

Analyst:	Date: 7/16/10	2nd Level Reviewer :	Date: 7/19/10
Comments:		Comments:	

TestAmerica Laboratories, Inc. - Knoxville
CANISTER RUN LOG

GCMS Analysis: AIR Inst: MG

Analyst: HMT Qtims Batch: 0197086 L39HH

Date: 7-15-10 ICAL Batch: G071510I Target Batch: G071510I IS #1 Area: 501766 1v15

Surr/IS ID & Vol.: 40MLV320 System Date/Time ok (y/n): y

Preventive Maintenance Performed ☑ Daily

Time	Use	Lot No.	File ID	Can #	Pos	Vol* (mL)	Can DF	Comments
0941	✓	tune	GBFBG15	-	16	100	1	
1012	✓	MDLCHK 0.02	GMDLCHK	CX2099	2	25		
1058	✓	1/2RL 0.04	GICG151	↓	2	50		
1233	✓	RL 0.08	2	CX2098	3	50		
1321	✓	0.16	3			100		
1408	✓	0.32	4			200		
~~144~~ 1456 7/16/10	✓	1.0	5	CX2097	4	200		
1543	✓	2.0	6	96	5			
1630	✓	4.0	7	95	6			
1720	✓	8.0	8	94	7			
1809	✓	16.0	9	93	8			
1856	N	blk	blank	-	16	~~200~~ ~~500~~ 7/15/10 H		200
1944	✓	ICV	GICVG15	CX2091	9	200 7/15/10 H		LCS
0338	✓	HOF220543	L288L1AA	0039	~~10~~ 15	80	1	fields. Eyropene RR 20mL
2338	✓		88P	6115	11	200		
0024	✓		88T	6521	12	200		
0113	✓		88W	93034	13	200		E#9 RR 50mL
0201	✓		882	1489	14	80		
0249	dup ✓		882 D	↓	14	80		
2252	NOK 1/10	10+✓	8738	L5105	~~15~~ 10 7/15/10 H	200	1	use
			~~8740~~	~~L8188~~	~~16~~			~~Removed 7/15/10 H~~
0425	NOK 1/10		8742	L8176	STD			Re-clean
0516	N		8741	6581	1	500	1	
0608	N		8743	6355	2		1	
2205	✓	blank	GBlkG15	-	16	500	1	
2118	✓		blank	-	16	500		
1145	DNU	ICAL (NA)	XGICG152X 7/16/10	CX2099	2	50	1	accidentally Ran same port two times
2031	DNU (OK)	ICV	GTSTG15	CX2091	9	50	1	not needed
						7/16/10 H		Ran lower concentration in case curve truncated.

* Entech programmed Volume. If the Entech report amount differs from the programmed amount by >5%, the Entech report amount is used for calulations.

Curve OK so use GICVG15

Analyst: [signature] Date: 7/16/10

MS027r16.DOC, 010908

Data File: /var/chem/gcms/mg.i/G071510I.b/gbfbg15.d

Date : 15-JUL-2010 09:41

Client ID: bfb

Instrument: mg.i

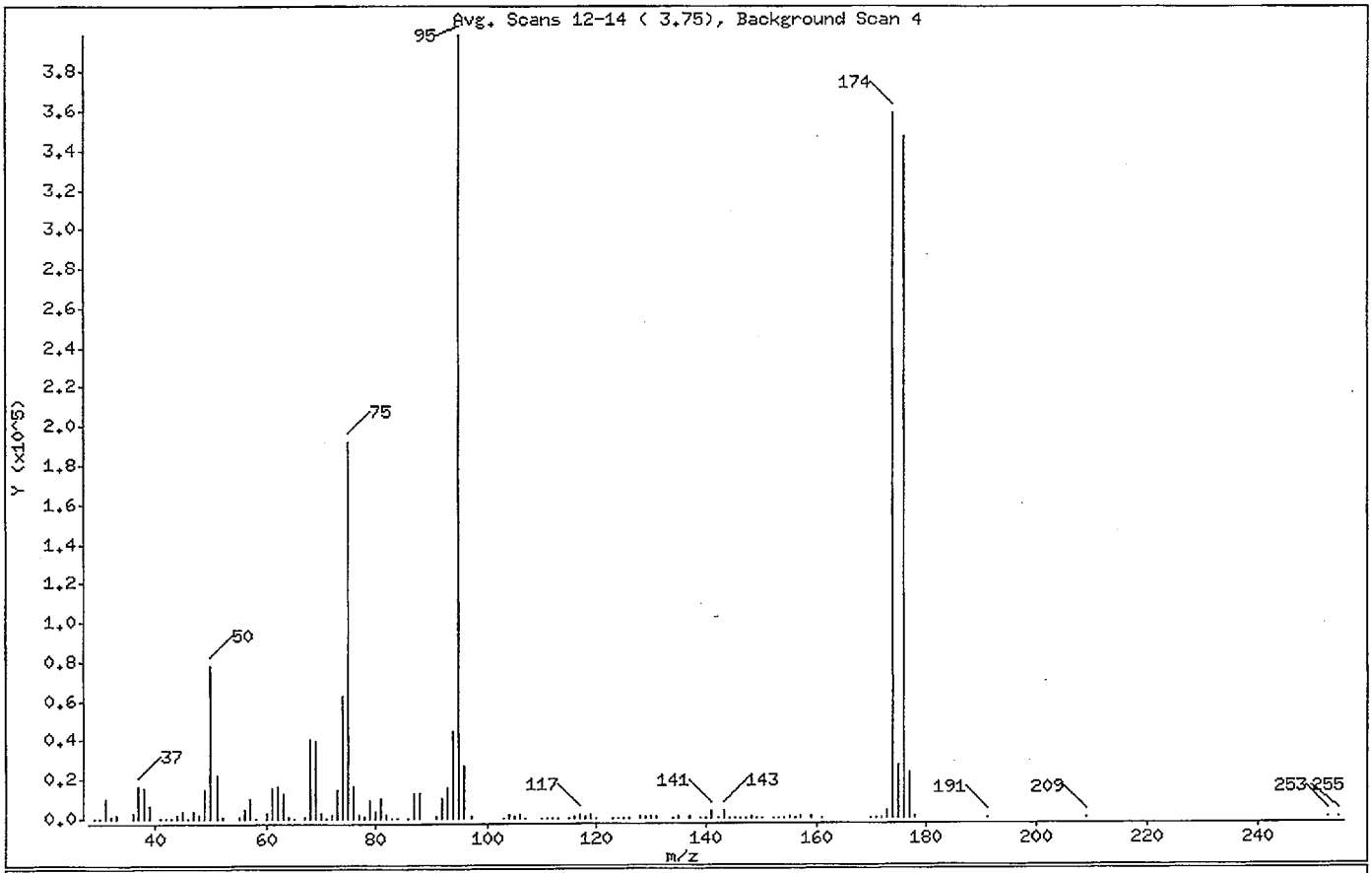
Sample Info: BFB,,3,,,BFB,

Operator: 7126

Column phase: RTX-5

Column diameter: 0.32

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.51
75	30.00 - 60.00% of mass 95	48.13
96	5.00 - 9.00% of mass 95	6.74
173	Less than 2.00% of mass 174	0.93 (1.04)
174	50.00 - 120.00% of mass 95	90.17
175	5.00 - 9.00% of mass 174	6.72 (7.46)
176	95.00 - 101.00% of mass 174	87.14 (96.65)
177	5.00 - 9.00% of mass 176	5.65 (6.48)

Report Date : 16-Jul-2010 10:39

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 15-JUL-2010 10:58
End Cal Date : 15-JUL-2010 18:09
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mg.i/G071510I.b/TO155.m
Cal Date : 16-Jul-2010 10:38 tajh
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcms/mg.i/G071510I.b/gicg151.d
Level 2: /var/chem/gcms/mg.i/G071510I.b/gicg152.d
Level 3: /var/chem/gcms/mg.i/G071510I.b/gicg153.d
Level 4: /var/chem/gcms/mg.i/G071510I.b/gicg154.d
Level 5: /var/chem/gcms/mg.i/G071510I.b/gicg155.d
Level 6: /var/chem/gcms/mg.i/G071510I.b/gicg156.d
Level 7: /var/chem/gcms/mg.i/G071510I.b/gicg157.d
Level 8: /var/chem/gcms/mg.i/G071510I.b/gicg158.d
Level 9: /var/chem/gcms/mg.i/G071510I.b/gicg159.d

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
7 Chlorodifluoromethane	+++++	0.48569	0.43463	0.39670	0.34119	0.32131		
	0.32488	0.33445	0.39547				0.37929	15.672
8 Propene	+++++	1.68943	1.66981	1.50368	1.31490	1.28008		
	1.26416	1.24160	0.54226				1.31324	27.425
9 Dichlorodifluoromethane	4.05883	4.27201	4.28900	4.10292	3.48110	3.43321		
	3.44271	3.39617	3.96344				3.82660	9.985
10 Chloromethane	+++++	+++++	0.52229	0.47897	0.40201	0.38420		
	0.37627	0.37687	0.43046				0.42444	13.358
11 1,2-Dichlorotetrafluoroethane	2.69273	2.69895	2.73662	2.57711	2.23857	2.14479		
	2.13834	2.14784	2.29217				2.40746	10.932

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Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
12 Methanol	+++++	+++++	+++++	+++++	+++++	0.32339		
	0.28233	0.27180	0.26946				0.28674	8.741
13 Vinyl Chloride	1.56014	1.65469	1.55714	1.48028	1.29374	1.25973		
	1.24835	1.29314	1.46554				1.42364	10.719
14 n-Butane	2.78900	2.72851	2.54985	2.47266	2.11328	2.05749		
	2.04730	2.09334	2.36323				2.35718	12.457
15 1,3-Butadiene	1.29534	1.32255	1.24915	1.18576	1.01962	0.98951		
	0.99032	1.01455	1.14288				1.13441	11.928
16 Bromomethane	1.44134	1.35041	1.19902	1.11944	0.99760	0.96637		
	0.96580	0.98651	1.11597				1.12694	15.445
17 Chloroethane	0.71471	0.71512	0.69788	0.65340	0.55697	0.55003		
	0.55248	0.55410	0.62662				0.62459	11.714
18 Vinyl Bromide	1.23016	1.26597	1.15470	1.10205	0.97280	0.96207		
	0.96794	0.96224	1.08940				1.07859	11.120
19 2-methyl butane	1.79832	1.80466	1.64503	1.65006	1.42504	1.41105		
	1.39124	1.37406	1.52010				1.55773	11.049
20 Trichlorofluoromethane	3.49887	3.61630	3.58508	3.38718	3.03027	2.93551		
	2.93360	2.84982	3.35700				3.24373	9.412

RA 7/16/10

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	4.000 Level 7	8.000 Level 8	16.000 Level 9					
21 Acrolein	+++++	+++++	+++++	0.34143	0.31494	0.27460		
	0.26574	0.28790	0.30911				0.29895	9.439
22 Acetonitrile	+++++	+++++	+++++	0.51460	0.43321	0.38288		
	0.36120	0.37883	0.41405				0.41413	13.437
23 Acetone	+++++	+++++	+++++	+++++	0.68225	0.48712		
	0.42754	0.40919	0.44382				0.48998	22.711
24 Pentane	+++++	0.34514	0.33693	0.31077	0.26679	0.25946		
	0.26028	0.24592	0.29073				0.28950	13.036
25 Isopropyl Alcohol	1.47094	1.92018	1.55304	1.70865	1.53956	1.36798		
	1.36631	1.46082	1.60180				1.55437	11.279
26 Ethyl Ether	1.14767	1.62852	1.50144	1.69573	1.47537	1.32570		
	1.27645	1.26862	1.35963				1.40879	12.755
27 1,1-Dichloroethene	1.68137	1.67258	1.66939	1.52284	1.36420	1.32945		
	1.31696	1.22381	1.44409				1.46941	11.883
28 Acrylonitrile	+++++	+++++	0.71228	0.82194	0.72116	0.61654		
	0.57725	0.61797	0.64486				0.67314	12.462
29 tert-butanol	1.72048	2.16976	1.85857	2.03418	1.87176	1.69135		
	1.59880	1.53339	1.81620				1.81050	11.203

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Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
30 1,1,2-Trichlorotrifluoroethan	3.01638	3.18624	3.27548	3.02047	2.63223	2.53485		
	2.48457	2.34455	2.62059				2.79059	12.069
31 Methylene Chloride	+++++	+++++	2.08193	1.71431	1.40878	1.26977		
	1.18883	1.11282	1.24267				1.43130	24.300
32 3-Chloropropene	1.12756	1.42564	1.46047	1.27242	1.09373	1.10484		
	1.00422	1.04834	1.21436				1.19462	13.591
33 Carbon Disulfide	4.86050	5.15293	5.14996	4.79542	4.32816	4.10144		
	4.09095	3.91004	4.50361				4.54367	10.301
34 trans-1,2-Dichloroethene	1.55735	1.72172	1.71215	1.57543	1.34630	1.33560		
	1.27887	1.17868	1.36869				1.45275	13.398
35 Methyl-t-Butyl Ether	+++++	2.86888	2.65633	2.99430	2.72781	2.37614		
	2.36122	2.49100	2.65377				2.64118	8.534
36 1,1-Dichloroethane	2.14841	2.99287	3.17031	2.73536	2.36839	2.31685		
	2.05568	2.15618	2.42122				2.48503	15.855
37 Vinyl Acetate	+++++	2.29836	2.03162	2.36744	2.15316	1.88771		
	1.88316	2.06633	2.36662				2.13180	9.291
38 Hexane	+++++	1.45059	1.56923	1.32914	1.13386	1.11601		
	1.01991	1.03371	1.17699				1.22868	16.314

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	4.000 Level 7	8.000 Level 8	16.000 Level 9					
39 2-Butanone	+++++	+++++	+++++	0.47475	0.45345	0.39003		
	0.38297	0.43006	0.48220				0.43558	9.686
40 cis 1,2-Dichloroethene	1.16536	1.65799	1.74335	1.45528	1.26630	1.24238		
	1.05170	1.09704	1.27798				1.32860	18.193
41 Ethyl acetate	+++++	2.34167	1.97818	2.16968	2.06888	1.81988		
	1.77904	2.01666	2.26697				2.05512	9.719
42 Chloroform	2.23556	2.94401	3.27336	2.69670	2.36571	2.21595		
	1.94919	2.04892	2.30431				2.44819	17.825
43 Tetrahydrofuran	+++++	+++++	1.24301	1.26032	1.17684	1.01169		
	1.00473	1.10635	1.23562				1.14837	9.472
44 1,1,1-Trichloroethane	2.54338	3.00153	3.14256	2.85800	2.53131	2.46108		
	2.24839	2.31543	2.52925				2.62566	11.685
45 1,2-Dichloroethane	+++++	0.31773	0.33660	0.27187	0.25850	0.22476		
	0.20104	0.21616	0.26528				0.26149	18.280
46 Cyclohexane	0.18169	0.17869	0.17838	0.16073	0.14361	0.13308		
	0.12916	0.12110	0.13639				0.15143	15.682
47 Benzene	+++++	0.86651	0.92027	0.75899	0.68183	0.60161		
	0.53874	0.55284	0.61560				0.69205	20.726

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Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
48 1-Butanol	+++++	+++++	+++++	0.09354	0.08867	0.07833		
	0.07732	0.07630	0.10305				0.08620	12.522
49 Carbon Tetrachloride	0.48556	0.51238	0.56190	0.51607	0.47744	0.46133		
	0.42863	0.43663	0.47961				0.48439	8.571
50 2,2,4-trimethylpentane	+++++	+++++	1.78826	1.54600	1.42374	1.26212		
	1.18177	1.19288	1.33639				1.39017	15.692
51 Heptane	+++++	+++++	0.68122	0.52489	0.48747	0.43170		
	0.40458	0.42841	0.49988				0.49402	18.892
52 1,2-Dichloropropane	+++++	0.27960	0.26051	0.24640	0.23871	0.19619		
	0.19003	0.19877	0.22546				0.22946	14.237
53 Trichloroethene	0.24488	0.36374	0.41682	0.30863	0.27371	0.24123		
	0.20226	0.21105	0.25565				0.27977	25.500
54 Dibromomethane	+++++	0.28919	0.32417	0.24521	0.22567	0.19534		
	0.16935	0.17749	0.21604				0.23031	23.470
55 Bromodichloromethane	+++++	0.48290	0.49185	0.43045	0.42155	0.35837		
	0.34054	0.36196	0.43480				0.41530	13.728
56 1,4-dioxane	+++++	+++++	0.08239	0.09193	0.08807	0.07559		
	0.07454	0.08042	0.09088				0.08340	8.477

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	4.000 Level 7	8.000 Level 8	16.000 Level 9					
57 methyl methacrylate	+++++	0.22228	0.19396	0.22215	0.23097	0.20212		
	0.20651	0.23912	0.28799				0.22564	13.023
58 4-Methyl-2-pentanone	+++++	+++++	0.39106	0.47409	0.48779	0.41121		
	0.41623	0.46941	0.55232				0.45744	12.167
59 cis-1,3-Dichloropropene	+++++	0.31455	0.28500	0.26458	0.27250	0.21628		
	0.20591	0.22746	0.27638				0.25783	14.589
60 trans-1,3-Dichloropropene	0.25150	0.33464	0.27441	0.27463	0.30170	0.23019		
	0.23231	0.26255	0.32375				0.27619	13.531
61 Toluene	+++++	0.82618	0.73953	0.73324	0.72717	0.56892		
	0.58297	0.61382	0.70275				0.68682	13.052
62 1,1,2-Trichloroethane	+++++	0.27471	0.24379	0.23501	0.24347	0.19094		
	0.19240	0.20542	0.23956				0.22816	12.836
63 2-Hexanone	+++++	+++++	0.20588	0.23704	0.25640	0.21693		
	0.22461	0.25970	0.30899				0.24422	14.218
64 Octane	+++++	0.29123	0.26975	0.25686	0.26276	0.22138		
	0.22709	0.23976	0.27418				0.25538	9.479
65 Dibromochloromethane	0.20684	0.39083	0.36359	0.36158	0.38727	0.32054		
	0.32805	0.36054	0.42614				0.34949	17.848

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	4.000 Level 7	8.000 Level 8	16.000 Level 9					
66 1,2-Dibromoethane	0.28167	0.39555	0.35959	0.33239	0.35371	0.26766		
	0.26331	0.29097	0.35433				0.32213	14.711
67 Tetrachloroethene	+++++	0.36310	0.37297	0.29672	0.27874	0.22149		
	0.21077	0.21585	0.24695				0.27583	23.381
68 Chlorobenzene	0.45413	0.64092	0.56090	0.52677	0.53150	0.40781		
	0.40552	0.43849	0.51982				0.49843	15.695
69 Ethylbenzene	0.64928	0.91962	0.77484	0.81502	0.82139	0.66285		
	0.68533	0.75404	0.86906				0.77238	12.138
70 m&p-Xylene	0.47364	0.69730	0.57652	0.62472	0.63730	0.51464		
	0.52419	0.57585	0.65030				0.58605	12.420
M 177 Xylene (total)	+++++	+++++	+++++	0.63994	0.65722	0.53079		
	0.54132	0.59641	0.67326				0.60649	9.956
71 Nonane	0.39378	0.53030	0.44000	0.45841	0.48889	0.39567		
	0.40343	0.45423	0.51175				0.45294	11.085
72 Bromoform	+++++	0.28581	0.25648	0.26271	0.31742	0.27282		
	0.28214	0.33782	0.40381				0.30238	16.302
73 Styrene	0.25682	0.37877	0.31592	0.37163	0.43788	0.35903		
	0.37255	0.43092	0.50642				0.38110	18.958

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	4.000 Level 7	8.000 Level 8	16.000 Level 9					
74 o-Xylene	0.47614	0.74417	0.60596	0.67039	0.69707	0.56310		
	0.57558	0.63752	0.71917				0.63212	13.565
75 1,1,2,2-Tetrachloroethane	0.37370	0.55279	0.44840	0.50347	0.56246	0.44711		
	0.44431	0.51185	0.58231				0.49182	13.926
76 1,2,3-Trichloropropane	0.10574	0.14491	0.12269	0.13218	0.14487	0.11531		
	0.11492	0.13467	0.15424				0.12995	12.595
77 Cumene	0.65217	0.95139	0.80539	0.90072	0.92600	0.75570		
	0.77972	0.88529	0.98971				0.84956	12.783
78 n-Propylbenzene	0.17740	0.26075	0.20928	0.23404	0.25503	0.20744		
	0.20984	0.24800	0.27864				0.23116	13.999
79 2-chlorotoluene	0.19212	0.27155	0.22176	0.23103	0.24503	0.19650		
	0.19730	0.22444	0.25651				0.22625	12.358
80 4-Ethyltoluene	0.66537	0.91534	0.73637	0.86025	0.93649	0.76234		
	0.76445	0.90418	1.01852				0.84037	13.591
81 1,3,5-Trimethylbenzene	0.26132	0.35053	0.30326	0.35737	0.39181	0.31687		
	0.32025	0.37542	0.42361				0.34449	14.378
82 Alpha-Methylstyrene	+++++	+++++	0.22386	0.26206	0.33440	0.28689		
	0.30423	0.38482	0.44757				0.32055	23.699

Report Date : 16-Jul-2010 10:39

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 15-JUL-2010 10:58
End Cal Date : 15-JUL-2010 18:09
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mg.i/G071510I.b/TO155.m
Cal Date : 16-Jul-2010 10:38 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
83 Decane	+++++	0.62686	0.48759	0.51652	0.58756	0.45761		
	0.46122	0.54044	0.59679				0.53432	12.060
84 tert-butylbenzene	0.59691	0.79467	0.65673	0.77281	0.84085	0.67573		
	0.68214	0.77974	0.87222				0.74131	12.452
85 1,2,4-Trimethylbenzene	0.55583	0.73542	0.61081	0.69851	0.78844	0.63789		
	0.63282	0.73244	0.82436				0.69072	12.738
86 sec-butylbenzene	+++++	1.07193	0.87919	1.01729	1.13884	0.91148		
	0.92222	1.05654	1.18378				1.02266	10.844
87 1,3-Dichlorobenzene	+++++	0.60911	0.49543	0.48797	0.54373	0.41834		
	0.40061	0.47501	0.53969				0.49623	13.756
88 Benzyl Chloride	+++++	0.64184	0.52190	0.56454	0.67625	0.53587		
	0.52009	0.61970	0.73833				0.60231	13.297
89 1,4-Dichlorobenzene	+++++	0.61659	0.49277	0.47605	0.53662	0.41646		
	0.39491	0.46611	0.53313				0.49158	14.438
90 p-Cymene	+++++	0.85349	0.68034	0.79219	0.92344	0.73133		
	0.73979	0.85979	0.97292				0.81916	12.325
91 1,2-Dichlorobenzene	+++++	0.56398	0.44670	0.45021	0.52454	0.39608		
	0.38067	0.45245	0.52785				0.46781	13.948

Report Date : 16-Jul-2010 10:39

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 15-JUL-2010 10:58
End Cal Date : 15-JUL-2010 18:09
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mg.i/G071510I.b/TO155.m
Cal Date : 16-Jul-2010 10:38 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
92 n-butylbenzene	+++++	0.88296	0.72885	0.76450	0.91841	0.71539		
	0.69612	0.83849	0.95988				0.81308	12.373
93 Undecane	+++++	+++++	+++++	0.55920	0.68221	0.51248		
	0.46028	0.56619	0.66140				0.57363	14.863
94 Dodecane	+++++	+++++	+++++	0.57857	0.72424	0.52400		
	0.41469	0.40580	0.56590				0.53553	22.086
95 1,2,4-Trichlorobenzene	+++++	0.43212	0.34460	0.32273	0.39182	0.27846		
	0.21913	0.23682	0.35498				0.32258	22.940
96 Napthalene	+++++	+++++	0.89843	0.84461	1.03260	0.73852		
	0.58187	0.61068	0.85581				0.79465	20.285
97 Hexachlorobutadiene	+++++	0.35152	0.27662	0.26793	0.33346	0.23942		
	0.20338	0.23529	0.33020				0.27973	19.188
98 1.2.3-trichlorobenzene	+++++	0.41225	0.31178	0.28805	0.33016	0.23720		
	0.18347	0.16999	0.26211				0.27438	29.026
99 - Thiophene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
100 - 1,2,3-Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++

Report Date : 16-Jul-2010 10:39

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 15-JUL-2010 10:58
End Cal Date : 15-JUL-2010 18:09
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mg.i/G071510I.b/TO155.m
Cal Date : 16-Jul-2010 10:38 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
$ 6 4-Bromofluorobenzene	0.66060	0.67672	0.68111	0.68967	0.70493	0.69399		
	0.70476	0.69695	0.73493				0.69374	3.022

Data File: /var/chem/gcms/mg.i/G071510I.b/gicvg15.d
Report Date: 16-Jul-2010 10:47

TestAmerica Knoxville

RECOVERY REPORT

Client Name:
Client SDG: G071510I
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: ICV
Client Smp ID: ICV
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: 2ND SOURCE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: 1-all.sub
Method File: /var/chem/gcms/mg.i/G071510I.b/TO155.m
Misc Info: G071510I,TO155,1-all.sub,,,,

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS 65-135
7 Chlorodifluorometh	10.00	8.227	82.27	60-140
8 Propene	10.00	9.757	97.57	60-140
9 Dichlorodifluorome	10.00	9.096	90.96	60-140
10 Chloromethane	10.00	9.013	90.13	60-140
11 1,2-Dichlorotetraf	10.00	9.063	90.63	60-140
12 Methanol	10.00	10.83	108.28	60-140
13 Vinyl Chloride	10.00	9.024	90.25	70-130
14 n-Butane	10.00	8.747	87.47	60-140
15 1,3-Butadiene	10.00	8.561	85.61	60-140
16 Bromomethane	10.00	8.973	89.73	70-130
17 Chloroethane	10.00	9.095	90.95	70-130
18 Vinyl Bromide	10.00	8.611	86.11	60-140
19 2-methyl butane	10.00	9.007	90.07	70-130
20 Trichlorofluoromet	10.00	9.133	91.33	60-140
21 Acrolein	10.00	10.22	102.22	60-140
22 Acetonitrile	10.00	8.210	82.10	60-140
23 Acetone	10.00	8.776	87.76	60-140
24 Pentane	10.00	9.316	93.17	70-130
25 Isopropyl Alcohol	10.00	7.539	75.39	60-140
26 Ethyl Ether	10.00	9.211	92.11	60-140
27 1,1-Dichloroethene	10.00	7.618	76.19	70-130
29 tert-butanol	10.00	8.385	83.85	60-140
28 Acrylonitrile	10.00	8.310	83.10	60-140
30 1,1,2-Trichlorotri	10.00	7.580	75.80	70-130
31 Methylene Chloride	10.00	7.174	71.75	70-130
32 3-Chloropropene	10.00	7.963	79.63	70-130
33 Carbon Disulfide	10.00	8.798	87.98	70-130
34 trans-1,2-Dichloro	10.00	8.652	86.52	70-130
35 Methyl-t-Butyl Eth	10.00	8.723	87.23	60-140
36 1,1-Dichloroethane	10.00	7.589	75.89	70-130
37 Vinyl Acetate	10.00	8.578	85.78	60-140
39 2-Butanone	10.00	8.659	86.59	60-140
38 Hexane	10.00	8.066	80.66	70-130

7/16 7.19.10

Data File: /var/chem/gcms/mg.i/G071510I.b/gicvg15.d
Report Date: 16-Jul-2010 10:47

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
40 cis 1,2-Dichloroet	10.00	7.408	74.08	70-130
41 Ethyl acetate	10.00	8.816	88.16	60-140
42 Chloroform	10.00	7.510	75.10	70-130
43 Tetrahydrofuran	10.00	8.456	84.56	70-130
44 1,1,1-Trichloroeth	10.00	7.833	78.33	70-130
45 1,2-Dichloroethane	10.00	7.458	74.58	70-130
48 1-Butanol	10.00	8.389	83.89	60-140
47 Benzene	10.00	7.400	74.00	70-130
46 Cyclohexane	10.00	8.344	83.44	70-130
49 Carbon Tetrachlori	10.00	8.185	81.85	70-130
50 2,2,4-trimethylpen	10.00	8.281	82.81	70-130
51 Heptane	10.00	8.134	81.34	70-130
52 1,2-Dichloropropan	10.00	8.066	80.66	70-130
53 Trichloroethene	10.00	7.306	73.06	70-130
54 Dibromomethane	10.00	7.723	77.23	70-130
55 Bromodichlorometha	10.00	8.262	82.62	70-130
56 1,4-dioxane	10.00	8.064	80.64	60-140
57 methyl methacrylat	10.00	9.397	93.97	60-140
58 4-Methyl-2-pentano	10.00	9.044	90.44	60-140
59 cis-1,3-Dichloropr	10.00	8.151	81.51	70-130
60 trans-1,3-Dichloro	10.00	8.460	84.60	70-130
61 Toluene	10.00	8.239	82.39	70-130
62 1,1,2-Trichloroeth	10.00	8.567	85.67	70-130
63 2-Hexanone	10.00	9.172	91.72	60-140
64 Octane	10.00	8.797	87.97	70-130
65 Dibromochlorometha	10.00	9.460	94.60	70-130
66 1,2-Dibromoethane	10.00	8.413	84.13	70-130
67 Tetrachloroethene	10.00	7.610	76.10	70-130
68 Chlorobenzene	10.00	8.193	81.93	70-130
69 Ethylbenzene	10.00	8.659	86.59	70-130
70 m&p-Xylene	20.00	17.64	88.20	70-130
M 177 Xylene (total)	30.00	26.66	88.87	70-130
71 Nonane	10.00	8.892	88.92	60-140
72 Bromoform	10.00	9.412	94.13	70-130
73 Styrene	10.00	9.667	96.67	70-130
74 o-Xylene	10.00	9.021	90.21	70-130
75 1,1,2,2-Tetrachlor	10.00	8.979	89.79	70-130
76 1,2,3-Trichloropro	10.00	9.011	90.11	60-140
77 Cumene	10.00	9.202	92.02	70-130
78 n-Propylbenzene	10.00	9.236	92.36	70-130
79 2-chlorotoluene	10.00	8.636	86.36	70-130
80 4-Ethyltoluene	10.00	9.224	92.24	70-130
81 1,3,5-Trimethylben	10.00	9.070	90.70	70-130
82 Alpha-Methylstyren	10.00	9.773	97.73	60-140
83 Decane	10.00	8.590	85.90	60-140
84 tert-butylbenzene	10.00	9.149	91.49	70-130
85 1,2,4-Trimethylben	10.00	9.162	91.62	70-130

605-135

7.19.10

Data File: /var/chem/gcms/mg.i/G071510I.b/gicvg15.d
Report Date: 16-Jul-2010 10:47

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS 65-135
86 sec-butylbenzene	10.00	9.006	90.06	70-130
87 1,3-Dichlorobenzen	10.00	8.086	80.86	70-130
88 Benzyl Chloride	10.00	8.756	87.56	70-130
89 1,4-Dichlorobenzen	10.00	8.054	80.54	70-130
90 p-Cymene	10.00	9.030	90.30	70-130
91 1,2-Dichlorobenzen	10.00	8.348	83.48	70-130
92 n-butylbenzene	10.00	8.710	87.10	70-130
93 Undecane	10.00	8.500	85.00	60-140
94 Dodecane	10.00	8.132	81.32	60-140
95 1,2,4-Trichloroben	10.00	7.144	71.45	60-140
96 Napthalene	10.00	7.645	76.45	60-140
97 Hexachlorobutadien	10.00	7.643	76.43	60-140
98 1.2.3-trichloroben	10.00	6.688	66.88	60-140

TW 7.19.10

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	10.00	10.16	101.56	70-130

TestAmerica Knoxville GC/MS Air Continuing Calibration Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 11

Analysis Date:	9/8/10	CCAL Batch/ Scan Name:	G090810	Instrument:	MG	ICAL Batch/ Scan Name:	G071510L	Scanned

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd
1. Did BFB meet tune criteria?		✓		☐ failed for TO-14A, but passes for TO-15	
2. Were all standards injected within 24 hr of BFB?		✓			
3. Have the Entech position no. & vol. been verified with run log & sample vol. corrected if actual amount differs >5%?		✓			
4. Was date/time of analysis in logbook correct?		✓			
5. Was the CCAL compared to the correct ICAL (date & time on CCAL matches the ICAL)		✓			
6. Is the %D ≤ 30% for all target analytes? (Narrative req'd.).		✓		☐ [ccal] analytes > 30% but passes LCS criteria.	
7. Have all peaks been auto identified? If not, list:		✓			
8. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓			Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	NA
9. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in CCAL summary?	✓				NA
10. Is the first IS documented correctly on the log?		✓			
11. Elution order checked on isomeric pairs?					
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane		✓			
• vinyl acetate / hexane		✓			
• cis- and trans- isomers		✓			
• ethyl benzene / m/p-xylene / o-xylene		✓			
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene		✓			
• tert-butylbenzene/p-cymene		✓			
• 1,2,4-trimethylbenzene/sec-butylbenzene		✓			
• 1,3- , 1,4- , and 1,2-dichlorobenzene		✓			
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene		✓			
12. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%).		✓		☐ [lcs6] LCS analyte(s) flagged as being outside control limits but within marginal limits ☐ [lcs5] LCS outside marginal exceedences high, but analytes were not detected	✓
13. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				NA
14. Does the CCAL folder contain **complete** data in the following order: data review checklist, a **complete** runlog, Entech report, tune pass/fail page, m/z list, tune chromatogram, Target CCAL summary, Quan report, chromatogram, manual integrations.		✓			✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst:	**Date:** 9/9/10	**2nd Level Reviewer :** AF3	**Date:** 9/9/10
Comments:		**Comments:**	

TestAmerica Laboratories, Inc. – Knoxville
CANISTER RUN LOG

GCMS Analysis: AIR

Analyst: HLC Qtims Batch: 0252121 L6N9R 0252123 L69V Inst: MG

Date: 9/8/10 ICAL Batch: G071S10E Target Batch: G090810 IS #1 Area: 181293

Surr/IS ID & Vol.: 40mLV320 System Date/Time ok (y/n): Y

Preventive Maintenance Performed ☑Daily

Time	Use	Lot No.	File ID	Can #	Pos	Vol* (mL)	Can DF	Comments
0933	✓	tune	GBFBI08	-	16	100	1	
1004	✓	CCV	CCV	CX2117	15	100		
1004	✓	LCS	LCS	↓	↓	↓		
1053	✓	IPT	IPT	CX2103	STD	40		
1141	✓	Blk	Blk	-	16	500		
1228	✓	HOI 030418	L6HFKIAA	7498	3	50	1	
1316	✓		HFQ	04426	4	50	1.82	
1403	✓		HFT	03775	5	20	1.54	
1450	RR	100mL	HFW	12822	6	20	1	
1542	✓		HFØ	6378	7	810	1.62	
1631	RR	100mL	HF2	93182	8	20	1	
1724	✓		HFY	03863	9	500	1	
1818	✓		HF6	12649	10	50	1	
1859	✓		HGA	3288N	11	500	1	EPCC RR 100mL
1948	✓		HGG	6636	12	100	1	
2035	✓		HGK	1007N	13	20	1	
2123	✓		HGP	11408	14	50	1	
2210	✓		HGW 9/8/10 H	1489	15	500	1	
2259	✓	HOI020538	L6HGLKIAA	04728	1	10	132.27	10mL redspot
	dup				1			9/8/10 H
2347	✓	AOI040414	L6KMRIAA	04402	2	30	3483.4	
0034	✓	HOI 030418	L6HG1IAA	6122	3	200	1	2322267
0122	✓	↓	HG2	1134	4	↓	↓	E #7 RR 40mL
0209	dup	↓	HG2D	↓	4	↓	↓	E #7 RR 50mL
0343	✓	lot ✓	8829	L5174	16	200	1	OK as Dup
0430	F	lot 8827	12337	→	STD	500	1	no ethane
0523	✓	lot ✓	8828	3401	5	500 500 9/8/10 H	1	
0256	✓	HOI 030418	L6HFWR	12822	6	100	1	
								9/9/10 H

* Entech programmed Volume. If the Entech report amount differs from the programmed amount by >5%, the Entech report amount is used for calulations.

Analyst: _____ Date: 9/9/10

Data File: /chem/gcms/mg.i/G090810.b/gbfbi08.d

Date : 08-SEP-2010 09:33

Client ID: BFB

Instrument: mg.i

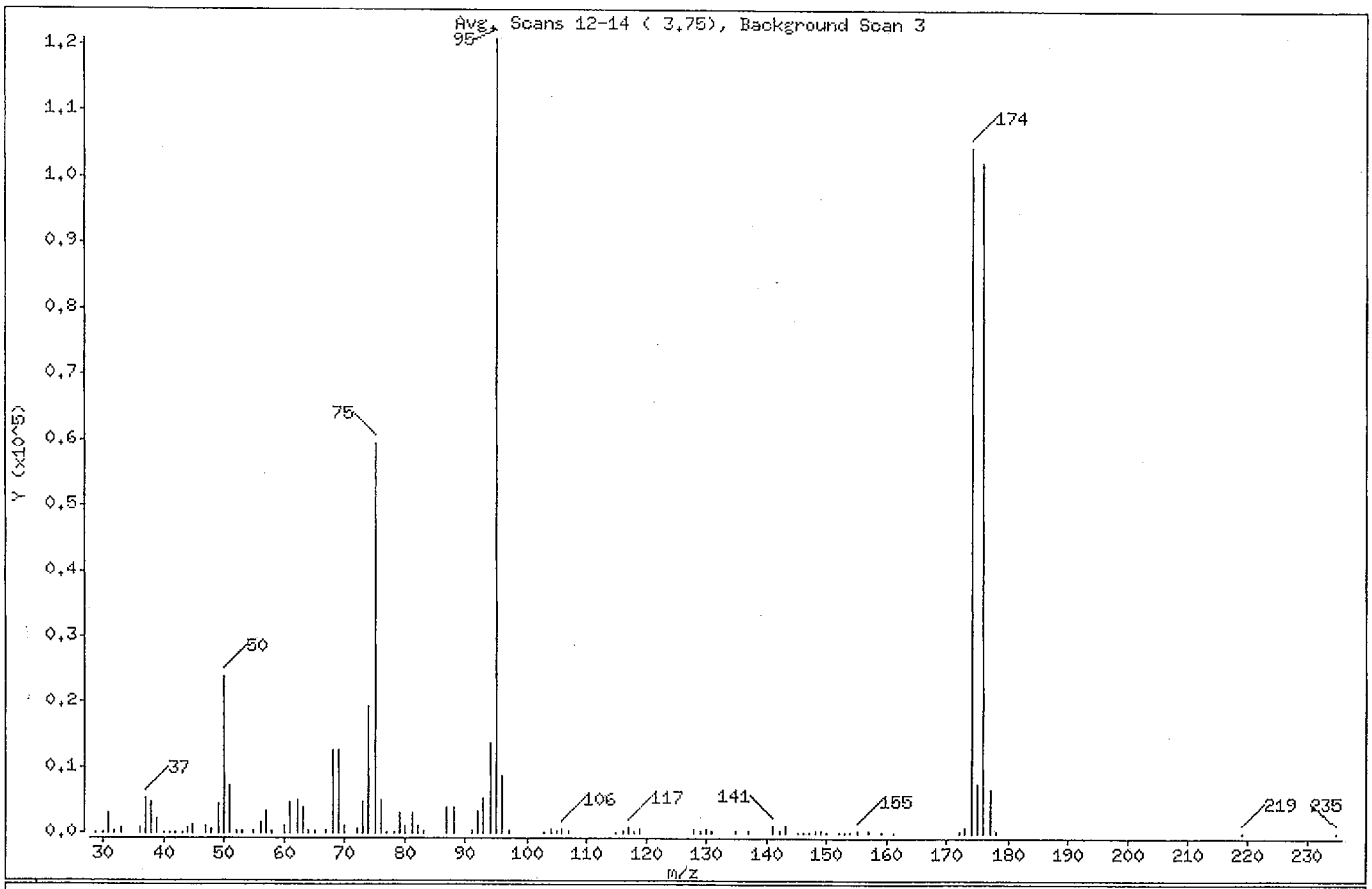
Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: RTX-5

Column diameter: 0.32

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	19.70
75	30.00 - 60.00% of mass 95	49.09
96	5.00 - 9.00% of mass 95	7.19
173	Less than 2.00% of mass 174	0.60 (0.70)
174	50.00 - 120.00% of mass 95	86.50
175	5.00 - 9.00% of mass 174	6.26 (7.24)
176	95.00 - 101.00% of mass 174	84.66 (97.87)
177	5.00 - 9.00% of mass 176	5.53 (6.54)

Data File: /var/chem/gcms/mg.i/G090810.b/gccvi08.d
Report Date: 08-Sep-2010 12:07

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mg.i
Lab File ID: gccvi08.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mg.i/G090810.b/TO155.m

Injection Date: 08-SEP-2010 10:04
Init. Cal. Date(s): 15-JUL-2010 08-SEP-2010
Init. Cal. Times: 10:58 10:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 6 4-Bromofluorobenzene	0.69374	0.72875	0.000	-5.04587	30.00000	Averaged
7 Chlorodifluoromethane	0.37929	0.38195	0.000	-0.70105	30.00000	Averaged
8 Propene	1.31324	1.04139	0.000	20.70063	30.00000	Averaged
9 Dichlorodifluoromethane	3.82660	4.46505	0.000	-16.68445	30.00000	Averaged
10 Chloromethane	0.42444	0.54457	0.000	-28.30384	30.00000	Averaged
11 1,2-Dichlorotetrafluoroetha	2.40746	3.02369	0.000	-25.59699	30.00000	Averaged
12 Methanol	0.28674	0.76102	0.000	-165	30.00000	Averaged
13 Vinyl Chloride	1.42364	1.73582	0.000	-21.92843	30.00000	Averaged
14 n-Butane	2.35718	2.69994	0.000	-14.54082	30.00000	Averaged
15 1,3-Butadiene	1.13441	1.31335	0.000	-15.77372	30.00000	Averaged
16 Bromomethane	1.12694	1.31161	0.000	-16.38654	30.00000	Averaged
17 Chloroethane	0.62459	0.69459	0.000	-11.20805	30.00000	Averaged
18 Vinyl Bromide	1.07859	1.10720	0.000	-2.65265	30.00000	Averaged
19 2-methyl butane	1.55773	1.66916	0.000	-7.15307	30.00000	Averaged
20 Trichlorofluoromethane	3.24373	2.94519	0.000	9.20366	30.00000	Averaged
21 Acrolein	0.29895	0.36219	0.000	-21.15219	30.00000	Averaged
22 Acetonitrile	0.41413	0.40804	0.000	1.47080	30.00000	Averaged
23 Acetone	0.48998	0.48535	0.000	0.94610	30.00000	Averaged
24 Pentane	0.28950	0.28411	0.000	1.86213	30.00000	Averaged
25 Isopropyl Alcohol	1.55437	1.36039	0.000	12.47915	30.00000	Averaged
26 Ethyl Ether	1.40879	1.58944	0.000	-12.82265	30.00000	Averaged
27 1,1-Dichloroethene	1.46941	1.20837	0.000	17.76496	30.00000	Averaged
28 Acrylonitrile	0.67314	0.70591	0.000	-4.86730	30.00000	Averaged
29 tert-butanol	1.81050	1.74571	0.000	3.57863	30.00000	Averaged
30 1,1,2-Trichlorotrifluoroeth	2.79060	2.39739	0.000	14.09036	30.00000	Averaged
31 Methylene Chloride	1.43130	1.23265	0.000	13.87897	30.00000	Averaged
32 3-Chloropropene	1.19462	1.13474	0.000	5.01278	30.00000	Averaged
33 Carbon Disulfide	4.54367	4.61338	0.000	-1.53430	30.00000	Averaged
34 trans-1,2-Dichloroethene	1.45275	1.46379	0.000	-0.75933	30.00000	Averaged
35 Methyl-t-Butyl Ether	2.64118	2.45884	0.000	6.90365	30.00000	Averaged
36 1,1-Dichloroethane	2.48503	2.26440	0.000	8.87818	30.00000	Averaged
37 Vinyl Acetate	2.13180	2.14667	0.000	-0.69761	30.00000	Averaged
38 Hexane	1.22868	1.21264	0.000	1.30510	30.00000	Averaged
39 2-Butanone	0.43558	0.39361	0.000	9.63479	30.00000	Averaged
40 cis 1,2-Dichloroethene	1.32860	1.21031	0.000	8.90285	30.00000	Averaged
41 Ethyl acetate	2.05512	2.01345	0.000	2.02787	30.00000	Averaged

<- MR

Data File: /var/chem/gcms/mg.i/G090810.b/gccvi08.d
Report Date: 08-Sep-2010 12:07

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mg.i
Lab File ID: gccvi08.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mg.i/G090810.b/TO155.m

Injection Date: 08-SEP-2010 10:04
Init. Cal. Date(s): 15-JUL-2010 08-SEP-2010
Init. Cal. Times: 10:58 10:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 6 4-Bromofluorobenzene	0.69374	0.72875	0.000	-5.04587	30.00000	Averaged
7 Chlorodifluoromethane	0.37929	0.38195	0.000	-0.70105	30.00000	Averaged
8 Propene	1.31324	1.04139	0.000	20.70063	30.00000	Averaged
9 Dichlorodifluoromethane	3.82660	4.46505	0.000	-16.68445	30.00000	Averaged
10 Chloromethane	0.42444	0.54457	0.000	-28.30384	30.00000	Averaged
11 1,2-Dichlorotetrafluoroetha	2.40746	3.02369	0.000	-25.59699	30.00000	Averaged
12 Methanol	0.28674	0.76102	0.000	-165	30.00000	Averaged
13 Vinyl Chloride	1.42364	1.73582	0.000	-21.92843	30.00000	Averaged
14 n-Butane	2.35718	2.69994	0.000	-14.54082	30.00000	Averaged
15 1,3-Butadiene	1.13441	1.31335	0.000	-15.77372	30.00000	Averaged
16 Bromomethane	1.12694	1.31161	0.000	-16.38654	30.00000	Averaged
17 Chloroethane	0.62459	0.69459	0.000	-11.20805	30.00000	Averaged
18 Vinyl Bromide	1.07859	1.10720	0.000	-2.65265	30.00000	Averaged
19 2-methyl butane	1.55773	1.66916	0.000	-7.15307	30.00000	Averaged
20 Trichlorofluoromethane	3.24373	2.94519	0.000	9.20366	30.00000	Averaged
21 Acrolein	0.29895	0.36219	0.000	-21.15219	30.00000	Averaged
22 Acetonitrile	0.41413	0.40804	0.000	1.47080	30.00000	Averaged
23 Acetone	0.48998	0.48535	0.000	0.94610	30.00000	Averaged
24 Pentane	0.28950	0.28411	0.000	1.86213	30.00000	Averaged
25 Isopropyl Alcohol	1.55437	1.36039	0.000	12.47915	30.00000	Averaged
26 Ethyl Ether	1.40879	1.58944	0.000	-12.82265	30.00000	Averaged
27 1,1-Dichloroethene	1.46941	1.20837	0.000	17.76496	30.00000	Averaged
28 Acrylonitrile	0.67314	0.70591	0.000	-4.86730	30.00000	Averaged
29 tert-butanol	1.81050	1.74571	0.000	3.57863	30.00000	Averaged
30 1,1,2-Trichlorotrifluoroeth	2.79060	2.39739	0.000	14.09036	30.00000	Averaged
31 Methylene Chloride	1.43130	1.23265	0.000	13.87897	30.00000	Averaged
32 3-Chloropropene	1.19462	1.13474	0.000	5.01278	30.00000	Averaged
33 Carbon Disulfide	4.54367	4.61338	0.000	-1.53430	30.00000	Averaged
34 trans-1,2-Dichloroethene	1.45275	1.46379	0.000	-0.75933	30.00000	Averaged
35 Methyl-t-Butyl Ether	2.64118	2.45884	0.000	6.90365	30.00000	Averaged
36 1,1-Dichloroethane	2.48503	2.26440	0.000	8.87818	30.00000	Averaged
37 Vinyl Acetate	2.13180	2.14667	0.000	-0.69761	30.00000	Averaged
38 Hexane	1.22868	1.21264	0.000	1.30510	30.00000	Averaged
39 2-Butanone	0.43558	0.39361	0.000	9.63479	30.00000	Averaged
40 cis 1,2-Dichloroethene	1.32860	1.21031	0.000	8.90285	30.00000	Averaged
41 Ethyl acetate	2.05512	2.01345	0.000	2.02787	30.00000	Averaged

<-- MR

Data File: /var/chem/gcms/mg.i/G090810.b/gccvi08.d
Report Date: 08-Sep-2010 12:07

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mg.i
Lab File ID: gccvi08.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mg.i/G090810.b/TO155.m

Injection Date: 08-SEP-2010 10:04
Init. Cal. Date(s): 15-JUL-2010 08-SEP-2010
Init. Cal. Times: 10:58 10:53
Quant Type: ISTD

	COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
42	Chloroform	2.44819	2.30119	0.000	6.00424	30.00000	Averaged
43	Tetrahydrofuran	1.14837	1.14756	0.000	0.07011	30.00000	Averaged
44	1,1,1-Trichloroethane	2.62566	2.30318	0.000	12.28197	30.00000	Averaged
45	1,2-Dichloroethane	0.26149	0.27565	0.000	-5.41327	30.00000	Averaged
46	Cyclohexane ✓	0.15143	0.16728	0.000	-10.47106	30.00000	Averaged
47	Benzene	0.69205	0.77024	0.000	-11.29922	30.00000	Averaged
48	1-Butanol	0.08620	0.08619	0.000	0.01874	30.00000	Averaged
49	Carbon Tetrachloride	0.48440	0.50805	0.000	-4.88388	30.00000	Averaged
50	2,2,4-trimethylpentane	1.39017	1.57769	0.000	-13.48941	30.00000	Averaged
51	Heptane	0.49402	0.56000	0.000	-13.35541	30.00000	Averaged
52	1,2-Dichloropropane ✓	0.22946	0.26800	0.000	-16.79542	30.00000	Averaged
53	Trichloroethene	0.27977	0.28863	0.000	-3.16585	30.00000	Averaged
54	Dibromomethane	0.23031	0.25700	0.000	-11.59003	30.00000	Averaged
55	Bromodichloromethane	0.41530	0.45586	0.000	-9.76488	30.00000	Averaged
56	1,4-dioxane	0.08340	0.08993	0.000	-7.82849	30.00000	Averaged
57	methyl methacrylate	0.22564	0.24478	0.000	-8.48548	30.00000	Averaged
58	4-Methyl-2-pentanone	0.45744	0.48046	0.000	-5.03262	30.00000	Averaged
59	cis-1,3-Dichloropropene	0.25783	0.29239	0.000	-13.40226	30.00000	Averaged
60	trans-1,3-Dichloropropene ✓	0.27619	0.31699	0.000	-14.77226	30.00000	Averaged
61	Toluene	0.68682	0.81090	0.000	-18.06522	30.00000	Averaged
62	1,1,2-Trichloroethane	0.22816	0.28118	0.000	-23.23940	30.00000	Averaged
63	2-Hexanone	0.24422	0.24972	0.000	-2.25293	30.00000	Averaged
64	Octane	0.25538	0.31410	0.000	-22.99438	30.00000	Averaged
65	Dibromochloromethane	0.34949	0.40642	0.000	-16.28919	30.00000	Averaged
66	1,2-Dibromoethane ✓	0.32213	0.36614	0.000	-13.66038	30.00000	Averaged
67	Tetrachloroethene ✓	0.27583	0.30141	0.000	-9.27443	30.00000	Averaged
68	Chlorobenzene	0.49843	0.58491	0.000	-17.35106	30.00000	Averaged
69	Ethylbenzene	0.77238	0.90611	0.000	-17.31355	30.00000	Averaged
70	m&p-Xylene	0.58605	0.70814	0.000	-20.83307	30.00000	Averaged
M 177	Xylene (total)	0.60649	0.73166	0.000	-20.63909	80.00000	Averaged
71	Nonane	0.45294	0.56799	0.000	-25.40140	30.00000	Averaged
72	Bromoform	0.30238	0.29795	0.000	1.46210	30.00000	Averaged
73	Styrene	0.38110	0.45699	0.000	-19.91274	30.00000	Averaged
74	o-Xylene	0.63212	0.77871	0.000	-23.18987	30.00000	Averaged
75	1,1,2,2-Tetrachloroethane	0.49182	0.60751	0.000	-23.52316	30.00000	Averaged

Data File: /var/chem/gcms/mg.i/G090810.b/gccvi08.d
Report Date: 08-Sep-2010 12:07

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mg.i
Lab File ID: gccvi08.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mg.i/G090810.b/TO155.m

Injection Date: 08-SEP-2010 10:04
Init. Cal. Date(s): 15-JUL-2010 08-SEP-2010
Init. Cal. Times: 10:58 10:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
76 1,2,3-Trichloropropane	0.12995	0.15038	0.000	-15.72542	30.00000	Averaged
77 Cumene	0.84956	1.03519	0.000	-21.84984	30.00000	Averaged
78 n-Propylbenzene	0.23116	0.28149	0.000	-21.77289	30.00000	Averaged
79 2-chlorotoluene	0.22625	0.26862	0.000	-18.72754	30.00000	Averaged
80 4-Ethyltoluene	0.84037	1.02708	0.000	-22.21809	30.00000	Averaged
81 1,3,5-Trimethylbenzene	0.34449	0.40215	0.000	-16.73634	30.00000	Averaged
82 Alpha-Methylstyrene	0.32055	0.34618	0.000	-7.99550	30.00000	Averaged
83 Decane	0.53432	0.65103	0.000	-21.84187	30.00000	Averaged
84 tert-butylbenzene	0.74131	0.89640	0.000	-20.92124	30.00000	Averaged
85 1,2,4-Trimethylbenzene	0.69072	0.83121	0.000	-20.33949	30.00000	Averaged
86 sec-butylbenzene	1.02266	1.25715	0.000	-22.93016	30.00000	Averaged
87 1,3-Dichlorobenzene	0.49623	0.53060	0.000	-6.92623	30.00000	Averaged
88 Benzyl Chloride	0.60231	0.66830	0.000	-10.95597	30.00000	Averaged
89 1,4-Dichlorobenzene	0.49158	0.52325	0.000	-6.44273	30.00000	Averaged
90 p-Cymene	0.81916	0.95764	0.000	-16.90448	30.00000	Averaged
91 1,2-Dichlorobenzene	0.46781	0.50726	0.000	-8.43407	30.00000	Averaged
92 n-butylbenzene	0.81308	0.93521	0.000	-15.02100	30.00000	Averaged
93 Undecane	0.57363	0.65149	0.000	-13.57432	30.00000	Averaged
94 Dodecane	0.53553	0.65970	0.000	-23.18674	30.00000	Averaged
95 1,2,4-Trichlorobenzene	0.32258	0.29650	0.000	8.08635	30.00000	Averaged
96 Napthalene	0.79465	0.79563	0.000	-0.12420	30.00000	Averaged
97 Hexachlorobutadiene	0.27973	0.25664	0.000	8.25227	30.00000	Averaged
98 1.2.3-trichlorobenzene	0.27438	0.26591	0.000	3.08456	30.00000	Averaged

Data File: /var/chem/gcms/mg.i/G090810.b/g1pti08.d
Report Date: 08-Sep-2010 12:07

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mg.i
Lab File ID: g1pti08.d
Analysis Type: AIR
Lab Sample ID: 1PTCAL
Method: /var/chem/gcms/mg.i/G090810.b/TO155.m

Injection Date: 08-SEP-2010 10:53
Init. Cal. Date(s): 15-JUL-2010 08-SEP-2010
Init. Cal. Times: 10:58 10:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 ~ Thiophene	0.47019	0.47019	0.000	0.000e+00	25.00000	Averaged
100 ~ 1,2,3-Trimethylbenzene	0.42554	0.42554	0.000	1.304e-14	25.00000	Averaged
101 ~ Indane	0.48702	0.48702	0.000	1.140e-14	25.00000	Averaged
102 ~ Indene	0.28856	0.28856	0.000	0.000e+00	25.00000	Averaged
103 ~ 2-Methylnaphthalene	0.09385	0.09385	0.000	0.000e+00	25.00000	Averaged
104 ~ 1-methylnaphthalene	0.10357	0.10357	0.000	0.000e+00	25.00000	Averaged
162 ~ methyl cyclohexane	0.51286	0.51286	0.000	0.000e+00	25.00000	Averaged
164 ~ acetaldehyde	1.39274	1.39274	0.000	0.000e+00	25.00000	Averaged
165 ~ ethanol	0.21999	0.21999	0.000	0.000e+00	25.00000	Averaged
166 ~ 2,3-dimethylpentane	0.55994	0.55994	0.000	0.000e+00	25.00000	Averaged
167 ~ 2-methyl thiopene	0.57595	0.57595	0.000	1.928e-14	25.00000	Averaged
168 ~ 3-methyl thiophene	0.57810	0.57810	0.000	1.920e-14	25.00000	Averaged
169 ~ 2,3-dimethylheptane	0.89085	0.89085	0.000	1.246e-14	25.00000	Averaged
170 ~ 2-ethyl thiophene	0.49436	0.49436	0.000	2.246e-14	25.00000	Averaged
171 ~ n-butylcyclohexane	0.47535	0.47535	0.000	0.000e+00	25.00000	Averaged
172 ~ 1,2-dimethyl-4-ethylbenze	0.44553	0.44553	0.000	1.246e-14	25.00000	Averaged
173 ~ 1,2,4,5-tetramethylbenzen	0.47537	0.47537	0.000	1.168e-14	25.00000	Averaged
174 ~ 1,2,3,5-tetramethylbenzen	0.36344	0.36344	0.000	0.000e+00	25.00000	Averaged
175 ~ 1,2,3,4-tetramethylbenzen	0.39268	0.39268	0.000	1.414e-14	25.00000	Averaged
176 ~ benzo(b) thiophene	0.31544	0.31544	0.000	0.000e+00	25.00000	Averaged

TestAmerica Knoxville GC/MS Air Continuing Calibration Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 11

Analysis Date:	9/14/10	CCAL Batch/ Scan Name:	G091410	Instrument:	MG	ICAL Batch/ Scan Name:	G071510I	Scanned □ ✓

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd
1. Did BFB meet tune criteria?		✓		□ failed for TO-14A, but passes for TO-15	✓
2. Were all standards injected within 24 hr of BFB?		✓			✓
3. Have the Entech position no. & vol. been verified with run log & sample vol. corrected if actual amount differs >5%?		✓			✓
4. Was date/time of analysis in logbook correct?		✓			✓
5. Was the CCAL compared to the correct ICAL (date & time on CCAL matches the ICAL)		✓		daylight 37%	✓
6. Is the %D ≤ 30% for all target analytes? (Narrative req'd.).		✓		☒ [ccal] analytes > 30% but passes LCS criteria.	✓
7. Have all peaks been auto identified? If not, list:		✓			✓
8. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓			Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	NA
9. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in CCAL summary?	✓				NA
10. Is the first IS documented correctly on the log?		✓			✓
11. Elution order checked on isomeric pairs?		✓			✓
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane		✓			✓
• vinyl acetate / hexane		✓			✓
• cis- and trans- isomers		✓			✓
• ethyl benzene / m/p-xylene / o-xylene		✓			✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene		✓			✓
• tert-butylbenzene/p-cymene		✓			✓
• 1,2,4-trimethylbenzene/sec-butylbenzene		✓			✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene		✓			✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene		✓			✓
12. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%).		✓		□ [lcs6] LCS analyte(s) flagged as being outside control limits but within marginal limits □ [lcs5] LCS outside marginal exceedences high, but analytes were not detected	✓
13. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				NA
14. Does the CCAL folder contain **complete** data in the following order: data review checklist, a **complete** runlog, Entech report, tune pass/fail page, m/z list, tune chromatogram, Target CCAL summary, Quan report, chromatogram, manual integrations.		✓			✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst: AHS	Date: 9/15/10	2nd Level Reviewer:	Date: 09/15/10
Comments:		Comments:	

TestAmerica Laboratories, Inc. – Knoxville
CANISTER RUN LOG

GCMS Analysis: AIR

Analyst: [illegible] Qtims Batch: 0258063(L60VC) / 0258072(L60VH) tetra Inst: MG

Date: 9/14/10 ICAL Batch: G071510I Target Batch: G091410 IS #1 Area: 185531

Surr/IS ID & Vol.: 40mL V320 System Date/Time ok (y/n): y 0258073 (L60VN) OH/10 YN

Preventive Maintenance Performed ☑ Daily 025874 (L60VP) 025875 (L60VQ)

Time	Use	Lot No.	File ID	Can #	Pos	Vol* (mL)	Can DF	Comments
0735	✓	tune	GBFBI14	–	16	100	1	
0803	✓	CCV	CCV	CX2123	15	100		undec -35, naph -36
0803	✓	LCS	LCS	↓	↓	↓		podec -60
0905	✓	IPT	BIPT	CX2130	STD	40		9/14/10
0953	✓	Blk	Blk	–	16	500		
1040	✓	HOI130402	L6VW91AA	51503	1	50	1	
1128	✓	↓	↓ VXA ↓	93271	2	200	1	
1217	✓	HOI100522	L6TJR1AD	6355	3	20	1	tolu
1304	✓	↓	↓ TJV ↓	6579	4	20	1	
1352	✓	HOI130404	L6VXM1AA	7476	5	200	1	tolu
1440	✓	↓	↓ VXW ↓	1400	6	↓	1	
1528	✓	HOI090434	L6PH61AA	3283N	7	20	1	tolu
1614	✓	AOI130413	L6V2E1AA	6681	8	200	1	rutgers
1703	dup ✓	↓	↓ D	↓	8	200	1	
1752	✓	HOI030554	L6JNR1AD	0128	9	(10) ~~3.56~~ 3.56		(10mL)
1838	✓		JNT1AD	93008A	10	10 9/14/10	1	10mL
1930	✓		JNV1AD	93209	11	500	1	
2017	✓		JN22AD	12158	12	20	1	
2105	✓	HOI080515	L6NHH1AD	6617 ~~6611~~	13	500	1	bremerton
2152	✓		NHJ2AD	DDF 9.16.10 7506	14	20	1	TCE
2245	✓ (E)	Ace ethbz npxo (S)	NHXM1AD	62278N	15	715	1.43	L6NHM1AD RR 30mL
2331	✓		9/14/10 NHP2AD	6519	1	20	1	tce
0019	✓	HOI030418	L6HG42AA	7472	2	50	1	#7
0108	✓	↓	↓ HHG ↓	1411	3	50	1	naph, 11, SV-Dup. reanalyzed 1-9
0155	ok	lot ✓ 8837	8837	7481	16	500	↓	

JB 9/15/10

* Entech programmed Volume. If the Entech report amount differs from the programmed amount by >5%, the Entech report amount is used for calulations.

Analyst: JB Date: 9/15/10

Data File: /chem/gcms/mg.i/G091410.b/gbfbi14.d

Date : 14-SEP-2010 07:35

Client ID: BFB

Instrument: mg.i

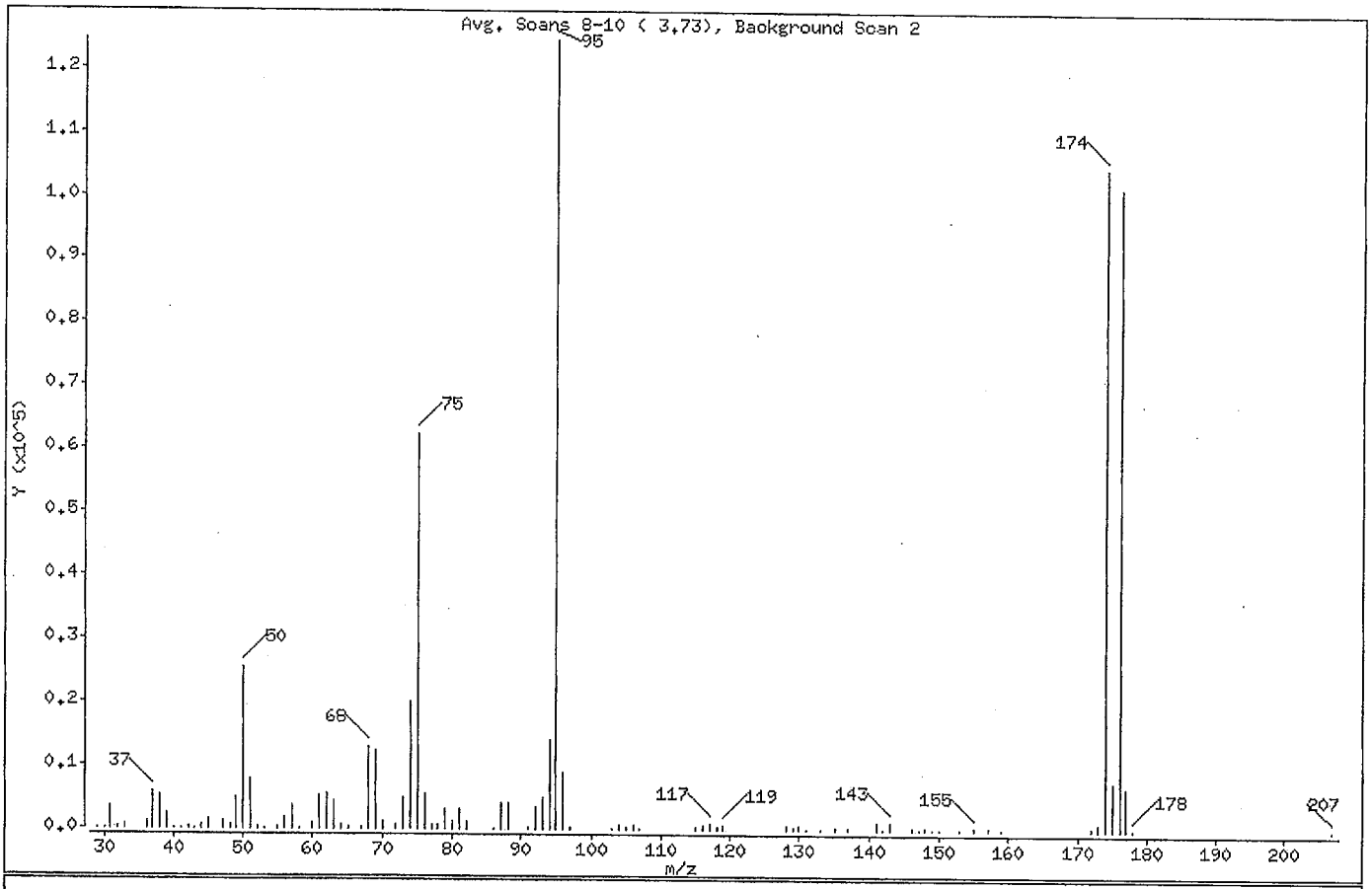
Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: RTX-5

Column diameter: 0.32

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.53
75	30.00 - 60.00% of mass 95	50.04
96	5.00 - 9.00% of mass 95	7.06
173	Less than 2.00% of mass 174	0.67 (0.79)
174	50.00 - 120.00% of mass 95	83.93
175	5.00 - 9.00% of mass 174	5.96 (7.10)
176	95.00 - 101.00% of mass 174	81.28 (96.85)
177	5.00 - 9.00% of mass 176	5.30 (6.52)

Data File: /var/chem/gcms/mg.i/G091410.b/gccvi14.d
Report Date: 14-Sep-2010 11:12

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mg.i
Lab File ID: gccvi14.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mg.i/G091410.b/TO15S.m

Injection Date: 14-SEP-2010 08:03
Init. Cal. Date(s): 15-JUL-2010 14-SEP-2010
Init. Cal. Times: 10:58 09:05
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
$ 6 4-Bromofluorobenzene	0.69374	0.74571	0.000	-7.49137	30.00000	Averaged	
7 Chlorodifluoromethane	0.37929	0.37068	0.000	2.27191	30.00000	Averaged	
8 Propene	1.31324	1.61013	0.000	-22.60748	30.00000	Averaged	
9 Dichlorodifluoromethane	3.82660	4.03748	0.000	-5.51080	30.00000	Averaged	
10 Chloromethane	0.42444	0.50883	0.000	-19.88185	30.00000	Averaged	
11 1,2-Dichlorotetrafluoroetha	2.40746	2.69712	0.000	-12.03181	30.00000	Averaged	
12 Methanol	0.28674	0.89206	0.000	-211	30.00000	Averaged	<-NA
13 Vinyl Chloride	1.42364	1.59411	0.000	-11.97411	30.00000	Averaged	
14 n-Butane	2.35718	2.57555	0.000	-9.26402	30.00000	Averaged	
15 1,3-Butadiene	1.13441	1.26048	0.000	-11.11312	30.00000	Averaged	
16 Bromomethane	1.12694	1.20132	0.000	-6.60004	30.00000	Averaged	
17 Chloroethane	0.62459	0.64157	0.000	-2.71803	30.00000	Averaged	
18 Vinyl Bromide	1.07859	1.12715	0.000	-4.50194	30.00000	Averaged	
19 2-methyl butane	1.55773	1.63088	0.000	-4.69622	30.00000	Averaged	
20 Trichlorofluoromethane	3.24373	2.84657	0.000	12.24390	30.00000	Averaged	
21 Acrolein	0.29895	0.30597	0.000	-2.34756	30.00000	Averaged	
22 Acetonitrile	0.41413	0.42377	0.000	-2.32754	30.00000	Averaged	
23 Acetone	0.48998	0.54133	0.000	-10.47826	30.00000	Averaged	
24 Pentane	0.28950	0.26730	0.000	7.66783	30.00000	Averaged	
25 Isopropyl Alcohol	1.55437	1.48712	0.000	4.32631	30.00000	Averaged	
26 Ethyl Ether	1.40879	1.51610	0.000	-7.61724	30.00000	Averaged	
27 1,1-Dichloroethene	1.46941	1.35786	0.000	7.59177	30.00000	Averaged	
28 Acrylonitrile	0.67314	0.72349	0.000	-7.47892	30.00000	Averaged	
29 tert-butanol	1.81050	1.87634	0.000	-3.63632	30.00000	Averaged	
30 1,1,2-Trichlorotrifluoroeth	2.79060	2.54234	0.000	8.89609	30.00000	Averaged	
31 Methylene Chloride	1.43130	1.28618	0.000	10.13919	30.00000	Averaged	
32 3-Chloropropene	1.19462	0.98588	0.000	17.47299	30.00000	Averaged	
33 Carbon Disulfide	4.54367	4.58038	0.000	-0.80809	30.00000	Averaged	
34 trans-1,2-Dichloroethene	1.45275	1.35968	0.000	6.40701	30.00000	Averaged	
35 Methyl-t-Butyl Ether	2.64118	2.59577	0.000	1.71922	30.00000	Averaged	
36 1,1-Dichloroethane	2.48503	2.37528	0.000	4.41628	30.00000	Averaged	
37 Vinyl Acetate	2.13180	2.09861	0.000	1.55681	30.00000	Averaged	
38 Hexane	1.22868	1.14203	0.000	7.05176	30.00000	Averaged	
39 2-Butanone	0.43558	0.43509	0.000	0.11098	30.00000	Averaged	
40 cis 1,2-Dichloroethene	1.32860	1.27971	0.000	3.67927	30.00000	Averaged	
41 Ethyl acetate	2.05512	2.04857	0.000	0.31890	30.00000	Averaged	

Data File: /var/chem/gcms/mg.i/G091410.b/gccvi14.d
Report Date: 14-Sep-2010 11:12

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mg.i
Lab File ID: gccvi14.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mg.i/G091410.b/TO15S.m

Injection Date: 14-SEP-2010 08:03
Init. Cal. Date(s): 15-JUL-2010 14-SEP-2010
Init. Cal. Times: 10:58 09:05
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
42 Chloroform	2.44819	2.36224	0.000	3.51058	30.00000	Averaged
43 Tetrahydrofuran	1.14837	1.19117	0.000	-3.72752	30.00000	Averaged
44 1,1,1-Trichloroethane	2.62566	2.34637	0.000	10.63681	30.00000	Averaged
45 1,2-Dichloroethane	0.26149	0.27402	0.000	-4.78890	30.00000	Averaged
46 Cyclohexane ✓	0.15143	0.15092	0.000	0.33230	30.00000	Averaged
47 Benzene	0.69205	0.77337	0.000	-11.75082	30.00000	Averaged
48 1-Butanol	0.08620	0.08802	0.000	-2.11004	30.00000	Averaged
49 Carbon Tetrachloride	0.48440	0.45620	0.000	5.82100	30.00000	Averaged
50 2,2,4-trimethylpentane	1.39017	1.54766	0.000	-11.32904	30.00000	Averaged
51 Heptane	0.49402	0.55221	0.000	-11.77832	30.00000	Averaged
52 1,2-Dichloropropane ✓	0.22946	0.26681	0.000	-16.27833	30.00000	Averaged
53 Trichloroethene ✓	0.27977	0.29012	0.000	-3.69936	30.00000	Averaged
54 Dibromomethane	0.23031	0.24497	0.000	-6.36440	30.00000	Averaged
55 Bromodichloromethane	0.41530	0.44185	0.000	-6.39191	30.00000	Averaged
56 1,4-dioxane	0.08340	0.09255	0.000	-10.96551	30.00000	Averaged
57 methyl methacrylate	0.22564	0.23979	0.000	-6.27423	30.00000	Averaged
58 4-Methyl-2-pentanone	0.45744	0.50660	0.000	-10.74699	30.00000	Averaged
59 cis-1,3-Dichloropropene	0.25783	0.29297	0.000	-13.62688	30.00000	Averaged
60 trans-1,3-Dichloropropene	0.27619	0.30652	0.000	-10.98231	30.00000	Averaged
61 Toluene ✓	0.68682	0.77547	0.000	-12.90658	30.00000	Averaged
62 1,1,2-Trichloroethane	0.22816	0.26262	0.000	-15.10420	30.00000	Averaged
63 2-Hexanone	0.24422	0.26187	0.000	-7.22742	30.00000	Averaged
64 Octane	0.25538	0.29824	0.000	-16.78300	30.00000	Averaged
65 Dibromochloromethane	0.34949	0.39281	0.000	-12.39480	30.00000	Averaged
66 1,2-Dibromoethane	0.32213	0.36444	0.000	-13.13465	30.00000	Averaged
67 Tetrachloroethene ✓	0.27583	0.29384	0.000	-6.52965	30.00000	Averaged
68 Chlorobenzene	0.49843	0.56392	0.000	-13.13928	30.00000	Averaged
69 Ethylbenzene	0.77238	0.86692	0.000	-12.23956	30.00000	Averaged
70 m&p-Xylene	0.58605	0.67347	0.000	-14.91601	30.00000	Averaged
M 177 Xylene (total)	0.60649	0.69030	0.000	-13.81883	80.00000	Averaged
71 Nonane	0.45294	0.54479	0.000	-20.27888	30.00000	Averaged
72 Bromoform	0.30238	0.30043	0.000	0.64387	30.00000	Averaged
73 Styrene	0.38110	0.44708	0.000	-17.31210	30.00000	Averaged
74 o-Xylene	0.63212	0.72397	0.000	-14.53036	30.00000	Averaged
75 1,1,2,2-Tetrachloroethane	0.49182	0.61280	0.000	-24.59802	30.00000	Averaged

Data File: /var/chem/gcms/mg.i/G091410.b/gccvi14.d
Report Date: 14-Sep-2010 11:12

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mg.i
Lab File ID: gccvi14.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mg.i/G091410.b/TO155.m

Injection Date: 14-SEP-2010 08:03
Init. Cal. Date(s): 15-JUL-2010 14-SEP-2010
Init. Cal. Times: 10:58 09:05
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
76 1,2,3-Trichloropropane	0.12995	0.14942	0.000	-14.98902	30.00000	Averaged
77 Cumene	0.84956	0.98504	0.000	-15.94605	30.00000	Averaged
78 n-Propylbenzene	0.23116	0.27143	0.000	-17.42049	30.00000	Averaged
79 2-chlorotoluene	0.22625	0.26109	0.000	-15.39788	30.00000	Averaged
80 4-Ethyltoluene	0.84037	0.99416	0.000	-18.30077	30.00000	Averaged
81 1,3,5-Trimethylbenzene	0.34449	0.41645	0.000	-20.88718	30.00000	Averaged
82 Alpha-Methylstyrene	0.32055	0.34755	0.000	-8.42462	30.00000	Averaged
83 Decane	0.53432	0.64902	0.000	-21.46493	30.00000	Averaged
84 tert-butylbenzene	0.74131	0.89782	0.000	-21.11228	30.00000	Averaged
85 1,2,4-Trimethylbenzene	0.69072	0.84304	0.000	-22.05259	30.00000	Averaged
86 sec-butylbenzene	1.02266	1.24781	0.000	-22.01643	30.00000	Averaged
87 1,3-Dichlorobenzene	0.49623	0.56569	0.000	-13.99676	30.00000	Averaged
88 Benzyl Chloride	0.60231	0.72055	0.000	-19.63030	30.00000	Averaged
89 1,4-Dichlorobenzene	0.49158	0.55064	0.000	-12.01533	30.00000	Averaged
90 p-Cymene	0.81916	0.98565	0.000	-20.32396	30.00000	Averaged
91 1,2-Dichlorobenzene	0.46781	0.55051	0.000	-17.67826	30.00000	Averaged
92 n-butylbenzene	0.81308	1.01711	0.000	-25.09424	30.00000	Averaged
93 Undecane	0.57363	0.77913	0.000	-35.82475	30.00000	Averaged
94 Dodecane	0.53553	0.85992	0.000	-60.57431	30.00000	Averaged
95 1,2,4-Trichlorobenzene	0.32258	0.40776	0.000	-26.40291	30.00000	Averaged
96 Napthalene	0.79465	1.08525	0.000	-36.57058	30.00000	Averaged
97 Hexachlorobutadiene	0.27973	0.34331	0.000	-22.72947	30.00000	Averaged
98 1.2.3-trichlorobenzene	0.27438	0.35515	0.000	-29.43950	30.00000	Averaged

<-60-140 (VT)
<- ↓ ↓ ↓
<-60-170 (*)

9/15/10

Data File: /var/chem/gcms/mg.i/G091410.b/g1pti14.d
Report Date: 14-Sep-2010 11:11

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mg.i
Lab File ID: g1pti14.d
Analysis Type: AIR
Lab Sample ID: 1PTCAL
Method: /var/chem/gcms/mg.i/G091410.b/TO15S.m

Injection Date: 14-SEP-2010 09:05
Init. Cal. Date(s): 15-JUL-2010 14-SEP-2010
Init. Cal. Times: 10:58 09:05
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 ~ Thiophene	0.35976	0.35976	0.000	0.000e+00	25.00000	Averaged
100 ~ 1,2,3-Trimethylbenzene	0.51171	0.51171	0.000	2.170e-14	25.00000	Averaged
101 ~ Indane	0.56731	0.56731	0.000	1.957e-14	25.00000	Averaged
102 ~ Indene	0.34062	0.34062	0.000	0.000e+00	25.00000	Averaged
103 ~ 2-Methylnaphthalene	0.07899	0.07899	0.000	0.000e+00	25.00000	Averaged
104 ~ 1-methylnaphthalene	0.08799	0.08799	0.000	0.000e+00	25.00000	Averaged
162 ~ methyl cyclohexane	0.49347	0.49347	0.000	-1.125e-14	25.00000	Averaged
164 ~ acetaldehyde	1.55203	1.55203	0.000	0.000e+00	25.00000	Averaged
165 ~ ethanol	0.62408	0.62408	0.000	-1.779e-14	25.00000	Averaged
166 ~ 2,3-dimethylpentane	0.53237	0.53237	0.000	0.000e+00	25.00000	Averaged
167 ~ 2-methyl thiopene	0.50268	0.50268	0.000	0.000e+00	25.00000	Averaged
168 ~ 3-methyl thiophene	0.51690	0.51690	0.000	2.148e-14	25.00000	Averaged
169 ~ 2,3-dimethylheptane	0.74491	0.74491	0.000	0.000e+00	25.00000	Averaged
170 ~ 2-ethyl thiophene	0.50948	0.50948	0.000	2.179e-14	25.00000	Averaged
171 ~ n-butylcyclohexane	0.46954	0.46954	0.000	0.000e+00	25.00000	Averaged
172 ~ 1,2-dimethyl-4-ethylbenze	0.56414	0.56414	0.000	0.000e+00	25.00000	Averaged
173 ~ 1,2,4,5-tetramethylbenzen	0.58236	0.58236	0.000	0.000e+00	25.00000	Averaged
174 ~ 1,2,3,5-tetramethylbenzen	0.43473	0.43473	0.000	1.277e-14	25.00000	Averaged
175 ~ 1,2,3,4-tetramethylbenzen	0.52649	0.52649	0.000	0.000e+00	25.00000	Averaged
176 ~ benzo(b) thiophene	0.40172	0.40172	0.000	1.382e-14	25.00000	Averaged

Tetra Tech NUS, Inc

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample #	H0I090000 - 121B	Work Order #	L6N9R1AA	Matrix.....:	AIR
	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252121				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.080	0.023	ND	0.26	0.073
Carbon tetrachloride	ND	0.080	0.015	ND	0.50	0.094
Chlorodifluoromethane	ND	0.080	0.015	ND	0.28	0.053
Chloroform	ND	0.080	0.015	ND	0.39	0.073
Dichlorodifluoromethane	ND	0.080	0.027	ND	0.40	0.13
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	ND	0.080	0.027	ND	0.35	0.12
Methylene chloride	0.046	0.20	0.018	0.16 J	0.69	0.063
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	ND	0.20	0.036	ND	1.0	0.19
Tetrachloroethene	ND	0.080	0.016	ND	0.54	0.11
Toluene	ND	0.080	0.021	ND	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	ND	0.080	0.012	ND	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	ND	0.040	0.014	ND	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	ND	0.080	0.050	ND	0.35	0.22
o-Xylene	ND	0.080	0.024	ND	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	89	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample #	H0I100000 - 090B	Work Order #	L6RJP1AA	Matrix.....:	AIR
	08/31/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/09/2010	Analysis Date...	09/09/2010		
Prep Batch #.....:	0253090				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.080	0.023	ND	0.26	0.073
Carbon tetrachloride	ND	0.080	0.015	ND	0.50	0.094
Chlorodifluoromethane	ND	0.080	0.015	ND	0.28	0.053
Chloroform	ND	0.080	0.015	ND	0.39	0.073
Dichlorodifluoromethane	ND	0.080	0.027	ND	0.40	0.13
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	ND	0.080	0.027	ND	0.35	0.12
Methylene chloride	0.089	0.20	0.018	0.31 J	0.69	0.063
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	ND	0.20	0.036	ND	1.0	0.19
Tetrachloroethene	ND	0.080	0.016	ND	0.54	0.11
Toluene	0.022	0.080	0.021	0.082 J	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	0.012	0.080	0.012	0.067 J	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	ND	0.040	0.014	ND	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	ND	0.080	0.050	ND	0.35	0.22
o-Xylene	ND	0.080	0.024	ND	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	96	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample #	H0I100000 - 092B	Work Order #	L6RJX1AA	Matrix.....:	AIR
	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/09/2010	Analysis Date...	09/09/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.080	0.023	ND	0.26	0.073
Carbon tetrachloride	ND	0.080	0.015	ND	0.50	0.094
Chlorodifluoromethane	ND	0.080	0.015	ND	0.28	0.053
Chloroform	ND	0.080	0.015	ND	0.39	0.073
Dichlorodifluoromethane	ND	0.080	0.027	ND	0.40	0.13
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	ND	0.080	0.027	ND	0.35	0.12
Methylene chloride	0.10	0.20	0.018	0.36 J	0.69	0.063
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	ND	0.20	0.036	ND	1.0	0.19
Tetrachloroethene	ND	0.080	0.016	ND	0.54	0.11
Toluene	ND	0.080	0.021	ND	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	ND	0.080	0.012	ND	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	ND	0.040	0.014	ND	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	ND	0.080	0.050	ND	0.35	0.22
o-Xylene	ND	0.080	0.024	ND	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample #	H0I130000 - 181B	Work Order #	L6V581AA	Matrix.....:	AIR
	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/10/2010	Analysis Date...	09/10/2010		
Prep Batch #.....:	0256181				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.080	0.023	ND	0.26	0.073
Carbon tetrachloride	ND	0.080	0.015	ND	0.50	0.094
Chlorodifluoromethane	ND	0.080	0.015	ND	0.28	0.053
Chloroform	ND	0.080	0.015	ND	0.39	0.073
Dichlorodifluoromethane	ND	0.080	0.027	ND	0.40	0.13
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	ND	0.080	0.027	ND	0.35	0.12
Methylene chloride	0.067	0.20	0.018	0.23 J	0.69	0.063
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	ND	0.20	0.036	ND	1.0	0.19
Tetrachloroethene	ND	0.080	0.016	ND	0.54	0.11
Toluene	ND	0.080	0.021	ND	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	ND	0.080	0.012	ND	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	ND	0.040	0.014	ND	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	ND	0.080	0.050	ND	0.35	0.22
o-Xylene	ND	0.080	0.024	ND	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample #	H0I150000 - 072B	Work Order #	L60VH1AA	Matrix.....:	AIR
	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/14/2010	Analysis Date...	09/14/2010		
Prep Batch #.....:	0258072				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Chlorodifluoromethane	ND	0.080	0.015	ND	0.28	0.053
Naphthalene	ND	0.20	0.036	ND	1.0	0.19
1,1,1-Trichloroethane	ND	0.080	0.012	ND	0.44	0.065

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	95	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0I090000 - 121C Work Order # L6N9R1AC Matrix.....: AIR

	08/30/2010	Date Received..:	09/02/2010
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010
Prep Batch #.....:	0252121		
Dilution Factor.:	1	Method.....:	TO-15

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Benzene	5.00	5.56	16	18	111	70 - 130
Carbon tetrachloride	5.00	5.24	31	33	105	70 - 130
Chlorodifluoromethane	5.00	5.04	18	18	101	60 - 140
Chloroform	5.00	4.70	24	23	94	70 - 130
Dichlorodifluoromethane	5.00	5.83	25	29	117	60 - 140
1,1-Dichloroethane	5.00	4.56	20	18	91	70 - 130
1,2-Dichloroethane	5.00	5.27	20	21	105	70 - 130
cis-1,2-Dichloroethene	5.00	4.56	20	18	91	70 - 130
trans-1,2-Dichloroethene	5.00	5.04	20	20	101	70 - 130
1,1-Dichloroethene	5.00	4.11	20	16	82	70 - 130
Ethylbenzene	5.00	5.87	22	25	117	70 - 130
Methylene chloride	5.00	4.31	17	15	86	70 - 130
Methyl tert-butyl ether	5.00	4.66	18	17	93	60 - 140
Naphthalene	5.00	5.01	26	26	100	60 - 140
Tetrachloroethene	5.00	5.46	34	37	109	70 - 130
Toluene	5.00	5.90	19	22	118	70 - 130
1,2,4-Trichlorobenzene	5.00	4.60	37	34	92	60 - 140
1,1,1-Trichloroethane	5.00	4.39	27	24	88	70 - 130
1,1,2-Trichloroethane	5.00	6.16	27	34	123	70 - 130
Trichloroethene	5.00	5.16	27	28	103	70 - 130
Vinyl chloride	5.00	6.10	13	16	122	70 - 130
m-Xylene & p-Xylene	10.0	12.1	43	52	121	70 - 130
o-Xylene	5.00	6.16	22	27	123	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	105	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0I100000 - 090C Work Order # L6RJP1AC Matrix.....: AIR

	08/31/2010	Date Received..:	09/02/2010
Prep Date.....:	09/09/2010	Analysis Date...	09/09/2010
Prep Batch #.....:	0253090		
Dilution Factor.:	1	Method.....:	TO-15

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Benzene	5.00	4.82	16	15	96	70 - 130
Carbon tetrachloride	5.00	4.75	31	30	95	70 - 130
Chlorodifluoromethane	5.00	5.59	18	20	112	60 - 140
Chloroform	5.00	5.22	24	26	104	70 - 130
Dichlorodifluoromethane	5.00	5.69	25	28	114	60 - 140
1,1-Dichloroethane	5.00	5.44	20	22	109	70 - 130
1,2-Dichloroethane	5.00	5.12	20	21	102	70 - 130
cis-1,2-Dichloroethene	5.00	5.16	20	20	103	70 - 130
trans-1,2-Dichloroethene	5.00	5.22	20	21	104	70 - 130
1,1-Dichloroethene	5.00	5.20	20	21	104	70 - 130
Ethylbenzene	5.00	5.06	22	22	101	70 - 130
Methylene chloride	5.00	4.81	17	17	96	70 - 130
Methyl tert-butyl ether	5.00	5.53	18	20	111	60 - 140
Naphthalene	5.00	5.38	26	28	108	60 - 140
Tetrachloroethene	5.00	4.68	34	32	94	70 - 130
Toluene	5.00	4.81	19	18	96	70 - 130
1,2,4-Trichlorobenzene	5.00	5.44	37	40	109	60 - 140
1,1,1-Trichloroethane	5.00	5.25	27	29	105	70 - 130
1,1,2-Trichloroethane	5.00	4.86	27	27	97	70 - 130
Trichloroethene	5.00	4.59	27	25	92	70 - 130
Vinyl chloride	5.00	5.76	13	15	115	70 - 130
m-Xylene & p-Xylene	10.0	10.2	43	44	102	70 - 130
o-Xylene	5.00	4.93	22	21	99	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	106	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0I100000 - 092C Work Order # L6RJX1AC Matrix.....: AIR

	08/30/2010	Date Received..:	09/02/2010
Prep Date.....:	09/09/2010	Analysis Date...	09/09/2010
Prep Batch #.....:	0253092		
Dilution Factor.:	1	Method.....:	TO-15

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Benzene	5.00	3.83	16	12	77	70 - 130
Carbon tetrachloride	5.00	5.31	31	33	106	70 - 130
Chlorodifluoromethane	5.00	5.35	18	19	107	60 - 140
Chloroform	5.00	4.82	24	24	96	70 - 130
Dichlorodifluoromethane	5.00	5.38	25	27	108	60 - 140
1,1-Dichloroethane	5.00	4.55	20	18	91	70 - 130
1,2-Dichloroethane	5.00	4.94	20	20	99	70 - 130
cis-1,2-Dichloroethene	5.00	4.41	20	17	88	70 - 130
trans-1,2-Dichloroethene	5.00	4.48	20	18	90	70 - 130
1,1-Dichloroethene	5.00	4.67	20	19	93	70 - 130
Ethylbenzene	5.00	4.42	22	19	88	70 - 130
Methylene chloride	5.00	4.13	17	14	83	70 - 130
Methyl tert-butyl ether	5.00	4.70	18	17	94	60 - 140
Naphthalene	5.00	3.79	26	20	76	60 - 140
Tetrachloroethene	5.00	4.11	34	28	82	70 - 130
Toluene	5.00	4.16	19	16	83	70 - 130
1,2,4-Trichlorobenzene	5.00	3.98	37	30	80	60 - 140
1,1,1-Trichloroethane	5.00	5.22	27	28	104	70 - 130
1,1,2-Trichloroethane	5.00	4.18	27	23	84	70 - 130
Trichloroethene	5.00	3.85	27	21	77	70 - 130
Vinyl chloride	5.00	4.73	13	12	95	70 - 130
m-Xylene & p-Xylene	10.0	8.90	43	39	89	70 - 130
o-Xylene	5.00	4.46	22	19	89	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	106	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0I130000 - 181C Work Order # L6V581AC Matrix.....: AIR

	08/30/2010	Date Received..:	09/02/2010
Prep Date.....:	09/10/2010	Analysis Date...	09/10/2010
Prep Batch #.....:	0256181		
Dilution Factor.:	1	Method.....:	TO-15

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY		RECOVERY LIMITS
Benzene	2.50	2.66	8.0	8.5	106		70 - 130
Carbon tetrachloride	2.50	2.79	16	18	112		70 - 130
Chlorodifluoromethane	2.50	3.18	8.8	11	127		60 - 140
Chloroform	2.50	2.72	12	13	109		70 - 130
Dichlorodifluoromethane	2.50	3.34	12	16	133		60 - 140
1,1-Dichloroethane	2.50	2.86	10	12	114		70 - 130
1,2-Dichloroethane	2.50	2.88	10	12	115		70 - 130
cis-1,2-Dichloroethene	2.50	2.74	9.9	11	110		70 - 130
trans-1,2-Dichloroethene	2.50	2.99	9.9	12	120		70 - 130
1,1-Dichloroethene	2.50	3.07	9.9	12	123		70 - 130
Ethylbenzene	2.50	2.32	11	10	93		70 - 130
Methylene chloride	2.50	2.81	8.7	9.8	112		70 - 130
Methyl tert-butyl ether	2.50	2.17	9.0	7.8	87		60 - 140
Naphthalene	2.50	2.08	13	11	83		60 - 140
Tetrachloroethene	2.50	2.66	17	18	106		70 - 130
Toluene	2.50	2.50	9.4	9.4	100		70 - 130
1,2,4-Trichlorobenzene	2.50	2.01	19	15	80		60 - 140
1,1,1-Trichloroethane	2.50	2.75	14	15	110		70 - 130
1,1,2-Trichloroethane	2.50	2.58	14	14	103		70 - 130
Trichloroethene	2.50	2.74	13	15	110		70 - 130
Vinyl chloride	2.50	3.36	6.4	8.6 a	134	a	70 - 130
m-Xylene & p-Xylene	5.00	4.58	22	20	92		70 - 130
o-Xylene	2.50	2.23	11	9.7	89		70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	104	60 - 140

Qualifiers

a Spiked analyte recovery is outside stated control limits.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: .CHECK SAMPLE

GC/MS Volatiles

Lot-Sample #	H0I150000 - 072C	**Work Order #**	L60VH1AC	**Matrix.....:**	AIR
	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/14/2010	**Analysis Date...**	09/14/2010		
Prep Batch #.....:	0258072				
Dilution Factor.:	1	**Method.....:**	TO-15		

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Chlorodifluoromethane	5.00	4.89	18	17	98	60 - 140
Naphthalene	5.00	6.83	26	36	137	60 - 140
1,1,1-Trichloroethane	5.00	4.47	27	24	89	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	108	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/me.i/E091010.b/l6hhk1aa.d
Report Date: 14-Sep-2010 12:04

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hhk1aa.d
Lab Smp Id: L6HHK1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetra.sub,,

Calibration Date: 10-SEP-2010
Calibration Time: 09:47
Client Smp ID: BCK-1-9
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	686728	408603	964853	623776	-9.17
2 1,4-Difluorobenze	2947629	1753839	4141419	2950516	0.10
3 Chlorobenzene-d5	2544596	1514035	3575157	2448913	-3.76

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.12	8.79	9.45	9.12	0.06
2 1,4-Difluorobenze	11.27	10.94	11.60	11.28	0.05
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E091010.b/l6hhk1aa.d
Report Date: 14-Sep-2010 12:04

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HHK1AA
Client Smp ID: BCK-1-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetra.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.891	97.27	70-130

Data File: /var/chem/gcms/me.i/E091010.b/l6hhn1aa.d
Report Date: 14-Sep-2010 12:04

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hhn1aa.d
Lab Smp Id: L6HHN1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetra.sub,,

Calibration Date: 10-SEP-2010
Calibration Time: 09:47
Client Smp ID: BCK-2-9
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	686728	408603	964853	605066	-11.89
2 1,4-Difluorobenze	2947629	1753839	4141419	2802119	-4.94
3 Chlorobenzene-d5	2544596	1514035	3575157	2366134	-7.01

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.12	8.79	9.45	9.12	0.00
2 1,4-Difluorobenze	11.27	10.94	11.60	11.27	0.00
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E091010.b/l6hhn1aa.d
Report Date: 14-Sep-2010 12:04

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HHN1AA
Client Smp ID: BCK-2-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetra.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.152	103.80	70-130

Data File: /var/chem/gcms/me.i/E091010.b/16hhq1aa.d
Report Date: 14-Sep-2010 12:05

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: 16hhq1aa.d
Lab Smp Id: L6HHQ1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Calibration Date: 10-SEP-2010
Calibration Time: 09:47
Client Smp ID: BCK-3-9
Level: LOW
Sample Type: AIR
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetra.sub,,

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	686728	408603	964853	588334	-14.33
2 1,4-Difluorobenze	2947629	1753839	4141419	2464583	-16.39
3 Chlorobenzene-d5	2544596	1514035	3575157	1986027	-21.95

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.12	8.79	9.45	9.12	0.00
2 1,4-Difluorobenze	11.27	10.94	11.60	11.27	0.00
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E091010.b/l6hhq1aa.d
Report Date: 14-Sep-2010 12:05

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HHQ1AA
Client Smp ID: BCK-3-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetra.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.998	99.95	70-130

Data File: /var/chem/gcms/me.i/E091010.b/l6hht1aa.d
Report Date: 14-Sep-2010 12:02

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hht1aa.d
Lab Smp Id: L6HHT1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetra.sub,,

Calibration Date: 10-SEP-2010
Calibration Time: 09:47
Client Smp ID: BCK-4-9
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	686728	408603	964853	540752	-21.26
2 1,4-Difluorobenze	2947629	1753839	4141419	1927203	-34.62
3 Chlorobenzene-d5	2544596	1514035	3575157	1689256	-33.61

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.12	8.79	9.45	9.12	0.00
2 1,4-Difluorobenze	11.27	10.94	11.60	11.27	0.00
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E091010.b/l6hht1aa.d
Report Date: 14-Sep-2010 12:02

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HHT1AA
Client Smp ID: BCK-4-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetra.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.896	97.40	70-130

Data File: /var/chem/gcms/mj.i/J090910.b/l6hg71aa.d
Report Date: 10-Sep-2010 11:38

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6hg71aa.d
Lab Smp Id: L6HG71AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

Calibration Date: 09-SEP-2010
Calibration Time: 09:40
Client Smp ID: IAQ-B12-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	166835	99267	234403	186567	11.83
2 1,4-Difluorobenze	787366	468483	1106249	913702	16.05
3 Chlorobenzene-d5	701011	417102	984920	794145	13.29

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.47	9.14	9.80	9.48	0.08
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.02
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	-0.02

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090910.b/l6hg71aa.d
Report Date: 10-Sep-2010 11:38

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HG71AA
Client Smp ID: IAQ-B12-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.106	102.64	70-130

Data File: /var/chem/gcms/mj.i/J090910.b/l6hg91aa.d
Report Date: 10-Sep-2010 11:38

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6hg91aa.d
Lab Smp Id: L6HG91AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Calibration Date: 09-SEP-2010
Calibration Time: 09:40
Client Smp ID: IAQ-B14-9
Level: LOW
Sample Type: AIR
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	166835	99267	234403	180897	8.43
2 1,4-Difluorobenze	787366	468483	1106249	876664	11.34
3 Chlorobenzene-d5	701011	417102	984920	723610	3.22

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.47	9.14	9.80	9.47	0.06
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.05
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090910.b/l6hg91aa.d
Report Date: 10-Sep-2010 11:38

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HG91AA
Client Smp ID: IAQ-B14-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.208	105.21	70-130

Data File: /var/chem/gcms/me.i/E091010.b/l6hhd1aa.d
Report Date: 14-Sep-2010 12:03

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hhd1aa.d
Lab Smp Id: L6HHD1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetra.sub,,

Calibration Date: 10-SEP-2010
Calibration Time: 09:47
Client Smp ID: IAQ-B16-9
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	686728	408603	964853	655625	-4.53
2 1,4-Difluorobenze	2947629	1753839	4141419	3162616	7.29
3 Chlorobenzene-d5	2544596	1514035	3575157	2702139	6.19

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.12	8.79	9.45	9.14	0.23
2 1,4-Difluorobenze	11.27	10.94	11.60	11.28	0.09
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E091010.b/l6hhd1aa.d
Report Date: 14-Sep-2010 12:03

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6HHD1AA
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: tetra.sub
Client SDG: H0I030418
Fraction: OTHER
Client Smp ID: IAQ-B16-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetra.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.948	98.71	70-130

Data File: /var/chem/gcms/me.i/E091010.b/l6hhc1aa.d
Report Date: 14-Sep-2010 12:03

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hhc1aa.d
Lab Smp Id: L6HHC1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetra.sub,,

Calibration Date: 10-SEP-2010
Calibration Time: 09:47
Client Smp ID: IAQ-B17-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	686728	408603	964853	605585	-11.82
2 1,4-Difluorobenze	2947629	1753839	4141419	2731470	-7.33
3 Chlorobenzene-d5	2544596	1514035	3575157	2273408	-10.66

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.12	8.79	9.45	9.13	0.12
2 1,4-Difluorobenze	11.27	10.94	11.60	11.28	0.05
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E091010.b/l6hhc1aa.d
Report Date: 14-Sep-2010 12:03

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HHC1AA
Client Smp ID: IAQ-B17-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetra.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.865	96.62	70-130

Data File: /var/chem/gcms/mj.i/J090910.b/16hg41aa.d
Report Date: 10-Sep-2010 11:37

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: 16hg41aa.d
Lab Smp Id: L6HG41AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

Calibration Date: 09-SEP-2010
Calibration Time: 09:40
Client Smp ID: IAQ-B2-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	166835	99267	234403	183953	10.26
2 1,4-Difluorobenze	787366	468483	1106249	908437	15.38
3 Chlorobenzene-d5	701011	417102	984920	772281	10.17

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.47	9.14	9.80	9.47	0.02
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.02
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	-0.02

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090910.b/l6hg41aa.d
Report Date: 10-Sep-2010 11:37

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HG41AA
Client Smp ID: IAQ-B2-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.195	104.88	70-130

Data File: /var/chem/gcms/mg.i/G091410.b/l6hg42aa.d
Report Date: 15-Sep-2010 09:24

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mg.i
Lab File ID: l6hg42aa.d
Lab Smp Id: L6HG42AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Calibration Date: 14-SEP-2010
Calibration Time: 08:03
Client Smp ID: IAQ-B2-9
Level: LOW
Sample Type: AIR
Method File: /var/chem/gcms/mg.i/G091410.b/TO155.m
Misc Info: G091410,TO155,tetranj.sub,,,,

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	185531	110391	260671	151757	-18.20
2 1,4-Difluorobenze	853291	507708	1198874	739665	-13.32
3 Chlorobenzene-d5	724094	430836	1017352	651691	-10.00

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	8.82	8.49	9.15	8.83	0.06
2 1,4-Difluorobenze	10.99	10.66	11.32	10.99	0.05
3 Chlorobenzene-d5	15.73	15.40	16.06	15.73	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mg.i/G091410.b/l6hg42aa.d
Report Date: 15-Sep-2010 09:24

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HG42AA
Client Smp ID: IAQ-B2-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: 7.sub
Method File: /var/chem/gcms/mg.i/G091410.b/TO155.m
Misc Info: G091410,TO155,tetranj.sub,,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.056	101.39	70-130

Data File: /var/chem/gcms/mg.i/G090810.b/l6hgw1aa.d
Report Date: 10-Sep-2010 14:50

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mg.i
Lab File ID: l6hgw1aa.d
Lab Smp Id: L6HGW1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Calibration Date: 08-SEP-2010
Calibration Time: 10:04
Client Smp ID: IAQ-C12-9
Level: LOW
Sample Type: AIR
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	181293	107869	254717	165784	-8.55
2 1,4-Difluorobenze	811912	483088	1140736	781887	-3.70
3 Chlorobenzene-d5	656939	390879	922999	670026	1.99

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	8.83	8.50	9.16	8.82	-0.12
2 1,4-Difluorobenze	11.00	10.67	11.33	10.99	-0.05
3 Chlorobenzene-d5	15.73	15.40	16.06	15.73	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mg.i/G090810.b/l6hgw1aa.d
Report Date: 10-Sep-2010 14:50

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HGW1AA
Client Smp ID: IAQ-C12-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.879	96.97	70-130

Data File: /var/chem/gcms/mg.i/G090810.b/l6hg11aa.d
Report Date: 10-Sep-2010 14:51

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mg.i
Lab File ID: l6hg11aa.d
Lab Smp Id: L6HG11AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

Calibration Date: 08-SEP-2010
Calibration Time: 10:04
Client Smp ID: IAQ-C14-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	181293	107869	254717	183603	1.27
2 1,4-Difluorobenze	811912	483088	1140736	876715	7.98
3 Chlorobenzene-d5	656939	390879	922999	738271	12.38

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	8.83	8.50	9.16	8.83	-0.06
2 1,4-Difluorobenze	11.00	10.67	11.33	10.99	-0.05
3 Chlorobenzene-d5	15.73	15.40	16.06	15.73	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mg.i/G090810.b/l6hg11aa.d
Report Date: 10-Sep-2010 14:51

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HG11AA
Client Smp ID: IAQ-C14-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.040	101.00	70-130

Data File: /var/chem/gcms/me.i/E091010.b/l6hg12aa.d
Report Date: 14-Sep-2010 12:06

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hg12aa.d
Lab Smp Id: L6HG12AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Calibration Date: 10-SEP-2010
Calibration Time: 09:47
Client Smp ID: IAQ-C14-9
Level: LOW
Sample Type: AIR
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetranj.sub,,

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	686728	408603	964853	615751	-10.34
2 1,4-Difluorobenze	2947629	1753839	4141419	2569951	-12.81
3 Chlorobenzene-d5	2544596	1514035	3575157	2198450	-13.60

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.12	8.79	9.45	9.12	0.00
2 1,4-Difluorobenze	11.27	10.94	11.60	11.27	0.00
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E091010.b/l6hg12aa.d
Report Date: 14-Sep-2010 12:06

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HG12AA
Client Smp ID: IAQ-C14-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: 7.sub
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.994	99.85	70-130

Data File: /var/chem/gcms/mg.i/G090810.b/l6hg21aa.d
Report Date: 10-Sep-2010 14:51

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mg.i
Lab File ID: l6hg21aa.d
Lab Smp Id: L6HG21AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Calibration Date: 08-SEP-2010
Calibration Time: 10:04
Client Smp ID: IAQ-C15-9
Level: LOW
Sample Type: AIR
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	181293	107869	254717	180079	-0.67
2 1,4-Difluorobenze	811912	483088	1140736	887091	9.26
3 Chlorobenzene-d5	656939	390879	922999	747372	13.77

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	8.83	8.50	9.16	8.82	-0.12
2 1,4-Difluorobenze	11.00	10.67	11.33	10.99	-0.05
3 Chlorobenzene-d5	15.73	15.40	16.06	15.73	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mg.i/G090810.b/l6hg21aa.d
Report Date: 10-Sep-2010 14:51

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6HG21AA
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: tetra.sub
Client SDG: H0I030418
Fraction: OTHER
Client Smp ID: IAQ-C15-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.974	99.36	70-130

Data File: /var/chem/gcms/me.i/E091010.b/l6hg22aa.d
Report Date: 14-Sep-2010 12:05

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hg22aa.d
Lab Smp Id: L6HG22AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetranj.sub,,

Calibration Date: 10-SEP-2010
Calibration Time: 09:47
Client Smp ID: IAQ-C15-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	686728	408603	964853	602530	-12.26
2 1,4-Difluorobenze	2947629	1753839	4141419	2803686	-4.88
3 Chlorobenzene-d5	2544596	1514035	3575157	2380507	-6.45

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.12	8.79	9.45	9.12	0.00
2 1,4-Difluorobenze	11.27	10.94	11.60	11.27	0.00
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mg.i/G090810.b/l6hgp1aa.d
Report Date: 10-Sep-2010 14:50

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mg.i
Lab File ID: l6hgp1aa.d
Lab Smp Id: L6HGP1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

Calibration Date: 08-SEP-2010
Calibration Time: 10:04
Client Smp ID: IAQ-C18-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	181293	107869	254717	180671	-0.34
2 1,4-Difluorobenze	811912	483088	1140736	837008	3.09
3 Chlorobenzene-d5	656939	390879	922999	683416	4.03

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	8.83	8.50	9.16	8.82	-0.12
2 1,4-Difluorobenze	11.00	10.67	11.33	10.99	-0.05
3 Chlorobenzene-d5	15.73	15.40	16.06	15.73	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mg.i/G090810.b/l6hgp1aa.d
Report Date: 10-Sep-2010 14:50

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HGP1AA
Client Smp ID: IAQ-C18-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.694	92.36	70-130

Data File: /var/chem/gcms/me.i/E091010.b/l6hg51aa.d
Report Date: 14-Sep-2010 12:03

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hg51aa.d
Lab Smp Id: L6HG51AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Calibration Date: 10-SEP-2010
Calibration Time: 09:47
Client Smp ID: IAQ-FC-30-9
Level: LOW
Sample Type: AIR
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetra.sub,,

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	686728	408603	964853	631024	-8.11
2 1,4-Difluorobenze	2947629	1753839	4141419	3072288	4.23
3 Chlorobenzene-d5	2544596	1514035	3575157	2783399	9.38

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.12	8.79	9.45	9.14	0.23
2 1,4-Difluorobenze	11.27	10.94	11.60	11.28	0.09
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E091010.b/l6hg51aa.d
Report Date: 14-Sep-2010 12:03

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HG51AA
Client Smp ID: IAQ-FC-30-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetra.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.175	104.38	70-130

Data File: /var/chem/gcms/mg.i/G090810.b/l6hgg1aa.d
Report Date: 10-Sep-2010 14:50

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mg.i
Lab File ID: l6hgg1aa.d
Lab Smp Id: L6HGG1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

Calibration Date: 08-SEP-2010
Calibration Time: 10:04
Client Smp ID: ISG-10-B-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	181293	107869	254717	187881	3.63
2 1,4-Difluorobenze	811912	483088	1140736	928647	14.38
3 Chlorobenzene-d5	656939	390879	922999	770661	17.31

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	8.83	8.50	9.16	8.83	-0.06
2 1,4-Difluorobenze	11.00	10.67	11.33	11.00	0.00
3 Chlorobenzene-d5	15.73	15.40	16.06	15.73	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mg.i/G090810.b/l6hgg1aa.d
Report Date: 10-Sep-2010 14:50

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6HGG1AA
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: tetra.sub
Client SDG: H0I030418
Fraction: OTHER
Client Smp ID: ISG-10-B-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.851	96.29	70-130

Data File: /var/chem/gcms/mg.i/G090810.b/l6hga1aa.d
Report Date: 10-Sep-2010 14:49

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mg.i
Lab File ID: l6hga1aa.d
Lab Smp Id: L6HGA1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

Calibration Date: 08-SEP-2010
Calibration Time: 10:04
Client Smp ID: ISG-11-C-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	181293	107869	254717	158583	-12.53
2 1,4-Difluorobenze	811912	483088	1140736	748108	-7.86
3 Chlorobenzene-d5	656939	390879	922999	642140	-2.25

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	8.83	8.50	9.16	8.83	-0.06
2 1,4-Difluorobenze	11.00	10.67	11.33	11.00	0.00
3 Chlorobenzene-d5	15.73	15.40	16.06	15.73	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mg.i/G090810.b/l6hga1aa.d
Report Date: 10-Sep-2010 14:49

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HGA1AA
Client Smp ID: ISG-11-C-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.000	100.01	70-130

Data File: /var/chem/gcms/me.i/E091010.b/l6hga2aa.d
Report Date: 14-Sep-2010 12:05

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hga2aa.d
Lab Smp Id: L6HGA2AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Calibration Date: 10-SEP-2010
Calibration Time: 09:47
Client Smp ID: ISG-11-C-9
Level: LOW
Sample Type: AIR
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetranj.sub,,

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	686728	408603	964853	663161	-3.43
2 1,4-Difluorobenze	2947629	1753839	4141419	3241222	9.96
3 Chlorobenzene-d5	2544596	1514035	3575157	2861566	12.46

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.12	8.79	9.45	9.12	0.00
2 1,4-Difluorobenze	11.27	10.94	11.60	11.27	0.00
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E091010.b/l6hga2aa.d
Report Date: 14-Sep-2010 12:05

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6HGA2AA
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: pce.sub
Client SDG: H0I030418
Fraction: OTHER
Client Smp ID: ISG-11-C-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.225	105.64	70-130

Data File: /var/chem/gcms/mg.i/G090810.b/l6hfq1aa.d
Report Date: 10-Sep-2010 14:47

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mg.i
Lab File ID: l6hfq1aa.d
Lab Smp Id: L6HFQ1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

Calibration Date: 08-SEP-2010
Calibration Time: 10:04
Client Smp ID: SV-24-B-9
Level: LOW
Sample Type: AIR

	COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1	Bromochloromethan	181293	107869	254717	170356	-6.03
2	1,4-Difluorobenze	811912	483088	1140736	822096	1.25
3	Chlorobenzene-d5	656939	390879	922999	690776	5.15

	COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1	Bromochloromethan	8.83	8.50	9.16	8.83	-0.06
2	1,4-Difluorobenze	11.00	10.67	11.33	11.00	0.00
3	Chlorobenzene-d5	15.73	15.40	16.06	15.73	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mg.i/G090810.b/l6hfq1aa.d
Report Date: 10-Sep-2010 14:47

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HFQ1AA
Client Smp ID: SV-24-B-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.984	99.61	70-130

Data File: /var/chem/gcms/mg.i/G090810.b/l6hft1aa.d
Report Date: 10-Sep-2010 14:47

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mg.i
Lab File ID: l6hft1aa.d
Lab Smp Id: L6HFT1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

Calibration Date: 08-SEP-2010
Calibration Time: 10:04
Client Smp ID: SV-25-B-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	181293	107869	254717	179216	-1.15
2 1,4-Difluorobenze	811912	483088	1140736	880337	8.43
3 Chlorobenzene-d5	656939	390879	922999	734163	11.76

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	8.83	8.50	9.16	8.82	-0.12
2 1,4-Difluorobenze	11.00	10.67	11.33	10.99	-0.05
3 Chlorobenzene-d5	15.73	15.40	16.06	15.73	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mg.i/G090810.b/l6hft1aa.d
Report Date: 10-Sep-2010 14:47

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HFT1AA
Client Smp ID: SV-25-B-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.764	94.11	70-130

Data File: /var/chem/gcms/mg.i/G090810.b/l6hf01aa.d
Report Date: 10-Sep-2010 14:48

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mg.i
Lab File ID: l6hf01aa.d
Lab Smp Id: L6HF01AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

Calibration Date: 08-SEP-2010
Calibration Time: 10:04
Client Smp ID: SV-26-B-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	181293	107869	254717	153300	-15.44
2 1,4-Difluorobenze	811912	483088	1140736	711863	-12.32
3 Chlorobenzene-d5	656939	390879	922999	619286	-5.73

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	8.83	8.50	9.16	8.83	-0.06
2 1,4-Difluorobenze	11.00	10.67	11.33	10.99	-0.05
3 Chlorobenzene-d5	15.73	15.40	16.06	15.73	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mg.i/G090810.b/l6hf01aa.d
Report Date: 10-Sep-2010 14:48

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HF01AA
Client Smp ID: SV-26-B-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.094	102.36	70-130

Data File: /var/chem/gcms/mg.i/G090810.b/l6hfwr.d
Report Date: 10-Sep-2010 14:48

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mg.i
Lab File ID: l6hfwr.d
Lab Smp Id: L6HFW1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Calibration Date: 08-SEP-2010
Calibration Time: 10:04
Client Smp ID: SV-27-B-9
Level: LOW
Sample Type: AIR
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	181293	107869	254717	148794	-17.93
2 1,4-Difluorobenze	811912	483088	1140736	701387	-13.61
3 Chlorobenzene-d5	656939	390879	922999	599478	-8.75

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	8.83	8.50	9.16	8.82	-0.12
2 1,4-Difluorobenze	11.00	10.67	11.33	10.99	-0.05
3 Chlorobenzene-d5	15.73	15.40	16.06	15.73	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mg.i/G090810.b/l6hfwr.d
Report Date: 10-Sep-2010 14:48

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6HFW1AA
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: tetra.sub
Client SDG: H0I030418
Fraction: OTHER
Client Smp ID: SV-27-B-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.007	100.17	70-130

Data File: /var/chem/gcms/me.i/E090910.b/16hf21aa.d
Report Date: 10-Sep-2010 09:45

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: 16hf21aa.d
Lab Smp Id: L6HF21AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

Calibration Date: 09-SEP-2010
Calibration Time: 10:59
Client Smp ID: SV-29-C-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	727105	432627	1021583	606197	-16.63
2 1,4-Difluorobenze	3463709	2060907	4866511	2713794	-21.65
3 Chlorobenzene-d5	3119759	1856257	4383261	2359225	-24.38

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.14	8.81	9.47	9.12	-0.18
2 1,4-Difluorobenze	11.28	10.95	11.61	11.27	-0.09
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090910.b/l6hf21aa.d
Report Date: 10-Sep-2010 09:45

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HF21AA
Client Smp ID: SV-29-C-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.157	103.92	70-130

Data File: /var/chem/gcms/me.i/E091010.b/l6hf22aa.d
Report Date: 14-Sep-2010 12:02

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hf22aa.d
Lab Smp Id: L6HF22AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Calibration Date: 10-SEP-2010
Calibration Time: 09:47
Client Smp ID: SV-29-C-9
Level: LOW
Sample Type: AIR
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetranj.sub,,

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	686728	408603	964853	512359	-25.39
2 1,4-Difluorobenze	2947629	1753839	4141419	2034558	-30.98
3 Chlorobenzene-d5	2544596	1514035	3575157	1822276	-28.39

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.12	8.79	9.45	9.12	0.00
2 1,4-Difluorobenze	11.27	10.94	11.60	11.27	0.00
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E091010.b/l6hf22aa.d
Report Date: 14-Sep-2010 12:02

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6HF22AA
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: 7xx.sub
Client SDG: H0I030418
Fraction: OTHER
Client Smp ID: SV-29-C-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/me.i/E091010.b/TO155.m
Misc Info: E091010,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.637	115.93	70-130

Data File: /var/chem/gcms/mg.i/G090810.b/l6hgk1aa.d
Report Date: 10-Sep-2010 14:50

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mg.i
Lab File ID: l6hgk1aa.d
Lab Smp Id: L6HGK1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

Calibration Date: 08-SEP-2010
Calibration Time: 10:04
Client Smp ID: SV-30-FC-9
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	181293	107869	254717	187869	3.63
2 1,4-Difluorobenze	811912	483088	1140736	935220	15.19
3 Chlorobenzene-d5	656939	390879	922999	805922	22.68

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	8.83	8.50	9.16	8.83	-0.06
2 1,4-Difluorobenze	11.00	10.67	11.33	11.00	0.00
3 Chlorobenzene-d5	15.73	15.40	16.06	15.73	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mg.i/G090810.b/l6hgk1aa.d
Report Date: 10-Sep-2010 14:50

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HGK1AA
Client Smp ID: SV-30-FC-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.758	93.96	70-130

Data File: /var/chem/gcms/mg.i/G090810.b/l6hfk1aa.d
Report Date: 10-Sep-2010 14:47

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mg.i
Lab File ID: l6hfk1aa.d
Lab Smp Id: L6HFK1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Calibration Date: 08-SEP-2010
Calibration Time: 10:04
Client Smp ID: SV-B-4-9
Level: LOW
Sample Type: AIR
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	181293	107869	254717	155320	-14.33
2 1,4-Difluorobenze	811912	483088	1140736	756940	-6.77
3 Chlorobenzene-d5	656939	390879	922999	648034	-1.36

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	8.83	8.50	9.16	8.82	-0.12
2 1,4-Difluorobenze	11.00	10.67	11.33	10.99	-0.05
3 Chlorobenzene-d5	15.73	15.40	16.06	15.73	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mg.i/G090810.b/l6hfk1aa.d
Report Date: 10-Sep-2010 14:47

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HFK1AA
Client Smp ID: SV-B-4-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.951	98.78	70-130

Data File: /var/chem/gcms/mg.i/G090810.b/l6hf61aa.d
Report Date: 10-Sep-2010 14:49

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mg.i
Lab File ID: l6hf61aa.d
Lab Smp Id: L6HF61AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

Calibration Date: 08-SEP-2010
Calibration Time: 10:04
Client Smp ID: SV-C1-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	181293	107869	254717	183861	1.42
2 1,4-Difluorobenze	811912	483088	1140736	902705	11.18
3 Chlorobenzene-d5	656939	390879	922999	753812	14.75

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	8.83	8.50	9.16	8.83	-0.06
2 1,4-Difluorobenze	11.00	10.67	11.33	10.99	-0.05
3 Chlorobenzene-d5	15.73	15.40	16.06	15.73	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mg.i/G090810.b/l6hf61aa.d
Report Date: 10-Sep-2010 14:49

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HF61AA
Client Smp ID: SV-C1-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.765	94.14	70-130

Data File: /var/chem/gcms/mg.i/G090810.b/l6hf41aa.d
Report Date: 10-Sep-2010 14:49

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mg.i
Lab File ID: l6hf41aa.d
Lab Smp Id: L6HF41AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

Calibration Date: 08-SEP-2010
Calibration Time: 10:04
Client Smp ID: SV-C-7-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	181293	107869	254717	189617	4.59
2 1,4-Difluorobenze	811912	483088	1140736	885257	9.03
3 Chlorobenzene-d5	656939	390879	922999	733412	11.64

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	8.83	8.50	9.16	8.83	-0.06
2 1,4-Difluorobenze	11.00	10.67	11.33	10.99	-0.05
3 Chlorobenzene-d5	15.73	15.40	16.06	15.73	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mg.i/G090810.b/l6hf41aa.d
Report Date: 10-Sep-2010 14:49

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HF41AA
Client Smp ID: SV-C-7-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mg.i/G090810.b/TO155.m
Misc Info: G090810,TO155,tetranj.sub,,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.944	98.59	70-130

Data File: /var/chem/gcms/mj.i/J090910.b/l6hhg1aa.d
Report Date: 10-Sep-2010 11:38

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6hhg1aa.d
Lab Smp Id: L6HHG1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

Calibration Date: 09-SEP-2010
Calibration Time: 09:40
Client Smp ID: SV-DUP-1-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	166835	99267	234403	186443	11.75
2 1,4-Difluorobenze	787366	468483	1106249	892577	13.36
3 Chlorobenzene-d5	701011	417102	984920	786499	12.19

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.47	9.14	9.80	9.48	0.09
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.03
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	-0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090910.b/l6hhg1aa.d
Report Date: 10-Sep-2010 11:38

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HHG1AA
Client Smp ID: SV-DUP-1-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.149	103.72	70-130

Data File: /var/chem/gcms/mg.i/G091410.b/l6hhg2aa.d
Report Date: 15-Sep-2010 09:24

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mg.i
Lab File ID: l6hhg2aa.d
Lab Smp Id: L6HHG2AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mg.i/G091410.b/TO155.m
Misc Info: G091410,TO155,tetranj.sub,,,,

Calibration Date: 14-SEP-2010
Calibration Time: 08:03
Client Smp ID: SV-DUP-1-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	185531	110391	260671	149741	-19.29
2 1,4-Difluorobenze	853291	507708	1198874	769159	-9.86
3 Chlorobenzene-d5	724094	430836	1017352	668090	-7.73

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	8.82	8.49	9.15	8.82	0.00
2 1,4-Difluorobenze	10.99	10.66	11.32	10.99	0.00
3 Chlorobenzene-d5	15.73	15.40	16.06	15.73	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mg.i/G091410.b/16hhg2aa.d
Report Date: 15-Sep-2010 09:24

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030418
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HHG2AA
Client Smp ID: SV-DUP-1-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: 111napth.sub
Method File: /var/chem/gcms/mg.i/G091410.b/TO155.m
Misc Info: G091410,TO155,tetranj.sub,,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.250	106.24	70-130

Tetra Tech NUS

INTERNAL CORRESPONDENCE

TO: E. SAMUELS **DATE:** OCTOBER 14, 2010

FROM: LEIGH A. CIOFANI **COPIES:** DV FILE

SUBJECT: ORGANIC DATA VALIDATION - VOC
LOCKHEED MR-IAQ
SAMPLE DELIVERY GROUP (SDG) H0I030405

SAMPLES: 26 / Air /

IAQ-A-4-9	IAQ-A11-9	IAQ-A12-9
IAQ-A13-9	IAQ-A14-9	IAQ-A15-9
IAQ-A16-9	IAQ-A17-9	IAQ-A5-9
IAQ-A6-9	IAQ-A8-9	IAQ-A9-9
IAQ-B15-9	SV-15-A-9	SV-16-A-9
SV-18-A-9	SV-19-A-9	SV-20-A-9
SV-21-A-9	SV-22-A-9	SV-23-A-9
SV-A-7-9	SV-A-8-9	SV-A3-9
SV-A6-9	SV-DUP-2-9	

OVERVIEW

The sample set for Lockheed MR-IAQ, SDG H0I030405, consists of twenty-six (26) air environmental samples. There is one field duplicate pair associated with this SDG: SV-16-A-9 (original) / SV-DUP-2-9 (duplicate).

Samples were analyzed for volatile organic compounds (VOC). The samples were collected by Tetra Tech NUS on August 30 and 31, 2010 and analyzed by TestAmerica Laboratories, Inc. All analyses were conducted in accordance with USEPA Method TO-15 analysis and reporting protocols.

The data in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method/field blank results, surrogate spike recovery, internal standard recoveries, blank spike/blank spike duplicate results, matrix spike/matrix spike duplicate results, field duplicate precision, compound identification, compound quantitation, and detection limits. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

Major

- None.

Minor

- The continuing calibration run on 09/08/10 at 12:07 on instrument ME had percent difference results that were outside the quality control limit of ±30% (but within ±50%) for 1,2,4-trichlorobenzene and naphthalene. The following samples were associated with this calibration: IAQ-A11-9, IAQ-A16-9, IAQ-B15-9, SV-15-A-9, SV-16-A-9, SV-18-A-9, SV-19-A-9, SV-20-A-9, SV-21-A-9, SV-22-A-9, SV-23-A-9, SV-A-7-9, SV-A-8-9, SV-A3-9, and SV-A6-9. No action was necessary for 1,2,4-trichlorobenzene because all results were non-detected. Positive results for naphthalene in the associated samples were qualified as estimated (J).

- The following analytes were detected in the method blanks at the following maximum concentrations:

Analyte	Maximum Concentration	Action Level
Methylene chloride[(1)]	0.23 ug/m^3	2.3 ug/m^3
Methylene chloride[(2)]	0.31 ug/m^3	3.1 ug/m^3
Toluene[(2)]	0.082 ug/m^3	0.41 ug/m^3
1,1,1-Trichloroethane[(2)]	0.067 ug/m^3	0.335 ug/m^3

1 – Maximum concentration in method blank associated with Preparation Batch 0252116 affecting samples IAQ-A11-9, IAQ-A16-9, IAQ-B15-9, SV-15-A-9, SV-16-A-9, SV-18-A-9, SV-19-A-9, SV-20-A-9, SV-21-A-9, SV-22-A-9, SV-23-A-9, SV-A-7-9, SV-A-8-9, SV-A3-9, and SV-A6-9.

2 – Maximum concentration in method blank associated with Preparation Batch 0253090 affecting samples IAQ-A-4-9, IAQ-A12-9, IAQ-A13-9, IAQ-A14-9, IAQ-A15-9, IAQ-A17-9, IAQ-A5-9, IAQ-A6-9, IAQ-A8-9, IAQ-A9-9, and SV-DUP-2-9.

Action levels of 10x the maximum concentration of methylene chloride and 5x the maximum concentrations of toluene and 1,1,1-trichloroethane were used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were considered in evaluating for blank contamination. Positive results less than the associated action levels in the associated samples were qualified as non-detected (B) due to blank contamination.

- Positive results less than the reporting limit but greater than the method detection limit were qualified as estimated (J) due to uncertainty near the detection limit.

Notes

The Chain of Custody (COC) listed the sample ID IAQ-AI6-9, while the sample label listed this sample as IAQ-A16-9. The laboratory reported the sample ID for this sample as IAQ-A16-9 on the forms and in the database. Additionally, according to the laboratory narrative, the canister IDs on the COC did not match the IDs listed on the sample canister for several samples. These discrepancies are noted on the laboratory sample receipt/condition upon receipt anomaly checklist.

The laboratory reported results in units of ppbv and ug/m^3 on the Form I reports. Results are in ug/m3 in the database.

Non-detected results were originally reported to the reporting limit in the database. Additionally, non-detected results did not match the laboratory electronic data deliverable (EDD) for samples with dilution factors greater than 1. The laboratory was contacted by the data validator, and the laboratory submitted a revised EDD on 10/12/10.

The laboratory reported results for the following samples from dilutions with the following dilution factors (DFs):

Sample	Analytes	DF
IAQ-A5-9	All	2.5
IAQ-A6-9	All	2
IAQ-A8-9	All	2.5
IAQ-A9-9	All except toluene	5
IAQ-A9-9	Toluene only	45.45
SV-15-A-9	All	45.45
SV-16-A-9	All	29.6

SV-18-A-9	All	2106
SV-19-A-9	All	2.1
SV-21-A-9	All	10
SV-22-A-9	All	5
SV-23-A-9	All	45.45
SV-A-7-9	All	2.5
SV-A-8-9	All	2.5
SV-A6-9	All	173.75
SV-DUP-2-9	All	30

The result for toluene was taken from a separate analysis for sample IAQ-A9-9 because the toluene result exceeded the instrument calibration range in this sample.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Some positive results for naphthalene were qualified due to calibration noncompliance. Some positive results for methylene chloride, toluene, and 1,1,1-trichloroethane were qualified as non-detected due to laboratory blank contamination.

Other Factors Affecting Data Quality: Positive results between the reporting limit and the method detection limit were qualified due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to the "Region III Modifications to the National Functional Guidelines for Organic Data Review" (09/94). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS

Leigh A. Ciofani
Environmental Scientist/Data Validator

TetraTech NUS

Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:

Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

PROJ_NO: 02757	NSAMPLE	IAQ-A11-9			IAQ-A12-9			IAQ-A13-9			IAQ-A14-9		
SDG: H0I030405	LAB_ID	H0I030405014			H0I030405020			H0I030405017			H0I030405018		
FRACTION: OV	SAMP_DATE	8/31/2010			8/31/2010			8/31/2010			8/31/2010		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.099	J	P	0.19	B	A	0.068	B	A	0.076	B	A
1,1,2-TRICHLOROETHANE		0.11	U		0.29	U		0.46			0.11	U	
1,1-DICHLOROETHANE		0.04	U		0.1	U		0.04	U		0.04	U	
1,1-DICHLOROETHENE		0.052	U		0.96			0.099	J	P	0.052	U	
1,2,4-TRICHLOROBENZENE		0.29	U		0.72	U		0.29	U		0.29	U	
1,2-DICHLOROETHANE		0.077	U		0.19	U		0.19	J	P	0.077	U	
BENZENE		0.55			0.71			0.61			0.54		
CARBON TETRACHLORIDE		0.72			0.54	J	P	1.8			0.51		
CHLORODIFLUOROMETHANE		3.6			3.7			2.7			5.4		
CHLOROFORM		0.76			1			4.1			0.22	J	P
CIS-1,2-DICHLOROETHENE		0.095	U		0.3	J	P	0.095	U		0.095	U	
DICHLORODIFLUOROMETHANE		2.4			2.7			2.4			2.6		
ETHYLBENZENE		0.99			1.3			0.61			0.93		
M+P-XYLENES		2.9			3.6			1.8			2.2		
METHYL TERT-BUTYL ETHER		0.25	U		0.61	U		0.25	U		0.25	U	
METHYLENE CHLORIDE		0.92	B	A	1.5	B	A	2	B	A	0.86	B	A
NAPHTHALENE		1.9	J	C	0.75	J	P	5			0.73	J	P
O-XYLENE		0.95			1.2			0.64			0.6		
TETRACHLOROETHENE		0.38	J	P	0.36	J	P	25			0.3	J	P
TOLUENE		26			56			12			28		
TRANS-1,2-DICHLOROETHENE		0.079	U		0.2	U		0.079	U		0.079	U	
TRICHLOROETHENE		0.29			5.4			1.2			0.075	U	
VINYL CHLORIDE		0.074	U		0.19	U		0.074	U		0.074	U	

PROJ_NO: 02757	NSAMPLE	IAQ-A15-9			IAQ-A16-9			IAQ-A17-9			IAQ-A-4-9		
SDG: H0I030405	LAB_ID	H0I030405021			H0I030405016			H0I030405024			H0I030405015		
FRACTION: OV	SAMP_DATE	8/31/2010			8/31/2010			8/31/2010			8/31/2010		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.065	U		0.5	J	P	0.16	U		0.14	B	A
1,1,2-TRICHLOROETHANE		0.11	U		0.29	U		0.29	U		0.14	U	
1,1-DICHLOROETHANE		0.04	U		0.1	U		0.1	U		0.066	J	P
1,1-DICHLOROETHENE		0.052	U		0.13	U		0.13	U		0.064	U	
1,2,4-TRICHLOROBENZENE		0.29	U		0.72	U		0.72	U		0.36	U	
1,2-DICHLOROETHANE		0.077	U		0.19	U		0.19	U		0.12	J	P
BENZENE		0.6			0.54	J	P	0.56	J	P	0.7		
CARBON TETRACHLORIDE		0.5	J	P	0.43	J	P	0.47	J	P	0.59	J	P
CHLORODIFLUOROMETHANE		2.1			8.2			4.8			10		
CHLOROFORM		0.19	J	P	0.4	J	P	0.7	J	P	0.56		
CIS-1,2-DICHLOROETHENE		0.095	U		0.24	U		0.24	U		0.12	U	
DICHLORODIFLUOROMETHANE		2.4			2.4			2.5			2.7		
ETHYLBENZENE		0.68			1.5			2.2			2		
M+P-XYLENES		2			4.7			5.7			5.8		
METHYL TERT-BUTYL ETHER		0.25	U		0.61	U		0.61	U		0.31	U	
METHYLENE CHLORIDE		0.94	B	A	1.3	B	A	2.6	B	A	1.6	B	A
NAPHTHALENE		0.98	J	P	0.47	U		0.47	U		0.24	U	
O-XYLENE		0.67			1.5			1.7			1.6		
TETRACHLOROETHENE		0.34	J	P	0.45	J	P	0.34	J	P	0.51	J	P
TOLUENE		6.8			49			140			69		
TRANS-1,2-DICHLOROETHENE		0.079	U		0.2	U		0.2	U		0.099	U	
TRICHLOROETHENE		0.075	U		0.19	U		0.44	J	P	0.18	J	P
VINYL CHLORIDE		0.074	U		0.19	U		0.19	U		0.093	U	

PROJ_NO: 02757	NSAMPLE	IAQ-A5-9			IAQ-A6-9			IAQ-A8-9			IAQ-A9-9		
SDG: H0I030405	LAB_ID	H0I030405025			H0I030405019			H0I030405023			H0I030405022		
FRACTION: OV	SAMP_DATE	8/31/2010			8/31/2010			8/31/2010			8/31/2010		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.16	B	A	0.22	B	A	0.16	U		0.52	B	A
1,1,2-TRICHLOROETHANE		0.29	U		0.23	U		0.29	U		0.57	U	
1,1-DICHLOROETHANE		0.1	U		0.15	J	P	0.1	U		0.2	U	
1,1-DICHLOROETHENE		0.13	U		1.5			0.13	U		0.26	U	
1,2,4-TRICHLOROBENZENE		0.72	U		0.58	U		0.72	U		1.4	U	
1,2-DICHLOROETHANE		0.19	U		0.15	U		0.19	U		0.38	U	
BENZENE		0.6	J	P	1.2			0.71			0.88	J	P
CARBON TETRACHLORIDE		0.48	J	P	0.57	J	P	0.52	J	P	0.53	J	P
CHLORODIFLUOROMETHANE		32			3			3.8			24		
CHLOROFORM		0.36	J	P	1.9			0.28	J	P	0.46	J	P
CIS-1,2-DICHLOROETHENE		0.24	U		0.55	J	P	0.24	U		0.48	U	
DICHLORODIFLUOROMETHANE		2.5			2.8			2.8			4.4		
ETHYLBENZENE		2.1			1.1			2.8			9.5		
M+P-XYLENES		5.7			3.3			7.6			39		
METHYL TERT-BUTYL ETHER		0.61	U		0.49	U		0.61	U		1.2	U	
METHYLENE CHLORIDE		3.4	B	A	1.7	B	A	1.2	B	A	2.5	B	A
NAPHTHALENE		0.47	U		3.7			0.47	U		0.94	U	
O-XYLENE		1.8			1.1			2.5			14		
TETRACHLOROETHENE		0.31	J	P	0.27	J	P	0.45	J	P	0.57	J	P
TOLUENE		130			36			130					
TRANS-1,2-DICHLOROETHENE		0.2	U		0.16	U		0.2	U		0.4	U	
TRICHLOROETHENE		0.19	U		4.5			0.49	J	P	0.38	U	
VINYL CHLORIDE		0.19	U		0.15	U		0.19	U		0.37	U	

PROJ_NO: 02757	NSAMPLE	IAQ-A9-9-DL			IAQ-B15-9			SV-15-A-9			SV-16-A-9		
SDG: H0I030405	LAB_ID	H0I030405022			H0I030405013			H0I030405007			H0I030405006		
FRACTION: OV	SAMP_DATE	8/31/2010			8/30/2010			8/31/2010			8/31/2010		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE					0.12	J	P	1200			5.7	J	P
1,1,2-TRICHLOROETHANE					0.11	U		5.2	U		3.4	U	
1,1-DICHLOROETHANE					0.04	U		58			40		
1,1-DICHLOROETHENE					0.052	U		1200			770		
1,2,4-TRICHLOROBENZENE					0.29	U		13	U		8.6	U	
1,2-DICHLOROETHANE					0.077	U		3.5	U		2.3	U	
BENZENE					0.73			3.3	U		2.2	U	
CARBON TETRACHLORIDE					0.78			4.3	U		2.8	U	
CHLORODIFLUOROMETHANE					12			6.5	J	P	3.2	J	P
CHLOROFORM					0.68			5.5	J	P	2.2	U	
CIS-1,2-DICHLOROETHENE					0.88			1800			88		
DICHLORODIFLUOROMETHANE					2.5			6.1	U		4	U	
ETHYLBENZENE					0.9			5.3	U		3.5	U	
M+P-XYLENES					2.8			9.9	U		6.4	U	
METHYL TERT-BUTYL ETHER					0.25	U		11	U		7.3	U	
METHYLENE CHLORIDE					3			8.1	B	A	5.9	B	A
NAPHTHALENE					0.47	J	CP	8.6	U		5.6	U	
O-XYLENE					0.9			4.7	U		3.1	U	
TETRACHLOROETHENE					5.3			4.9	U		3.2	U	
TOLUENE		200			28			14			7.9	J	P
TRANS-1,2-DICHLOROETHENE					0.12	J	P	99			9.7		
TRICHLOROETHENE					2.1			1300			130		
VINYL CHLORIDE					0.14	J	P	9.8			6.4		

PROJ_NO: 02757	NSAMPLE	SV-18-A-9			SV-19-A-9			SV-20-A-9			SV-21-A-9		
SDG: H0I030405	LAB_ID	H0I030405001			H0I030405002			H0I030405011			H0I030405012		
FRACTION: OV	SAMP_DATE	8/31/2010			8/31/2010			8/31/2010			8/31/2010		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		280	J	P	0.18	J	P	0.094	J	P	4.8		
1,1,2-TRICHLOROETHANE		240	U		0.24	U		0.11	U		1.1	U	
1,1-DICHLOROETHANE		660	J	P	0.78			0.04	U		0.4	U	
1,1-DICHLOROETHENE		32000			2.1			0.052	U		0.52	U	
1,2,4-TRICHLOROBENZENE		610	U		0.61	U		0.29	U		2.9	U	
1,2-DICHLOROETHANE		750			0.16	U		0.077	U		0.77	U	
BENZENE		150	U		0.5	J	P	1.4			3.1		
CARBON TETRACHLORIDE		200	U		0.46	J	P	0.74			0.94	U	
CHLORODIFLUOROMETHANE		110	U		2			2.7			3.9		
CHLOROFORM		150	U		0.66	J	P	1.3			2.9	J	P
CIS-1,2-DICHLOROETHENE		3200			0.37	J	P	0.1	J	P	0.95	U	
DICHLORODIFLUOROMETHANE		280	U		2.4			2.7			2.6	J	P
ETHYLBENZENE		250	U		2.1			2.9			23		
M+P-XYLENES		460	U		6.6			9.9			95		
METHYL TERT-BUTYL ETHER		520	U		0.51	U		0.25	U		2.5	U	
METHYLENE CHLORIDE		540	B	A	0.87	B	A	1.1	B	A	2.7	B	A
NAPHTHALENE		400	U		8	J	C	9.9	J	C	550	J	C
O-XYLENE		220	U		2.5			4.6			53		
TETRACHLOROETHENE		230	U		0.53	J	P	0.45	J	P	1.1	U	
TOLUENE		170	U		55			12			78		
TRANS-1,2-DICHLOROETHENE		170	U		0.17	U		0.079	U		0.79	U	
TRICHLOROETHENE		64000			8.5			3			7.9		
VINYL CHLORIDE		160	U		0.16	U		0.074	U		0.74	U	

PROJ_NO: 02757	NSAMPLE	SV-22-A-9			SV-23-A-9			SV-A3-9			SV-A6-9		
SDG: H0I030405	LAB_ID	H0I030405003			H0I030405010			H0I030405008			H0I030405009		
FRACTION: OV	SAMP_DATE	8/31/2010			8/31/2010			8/31/2010			8/31/2010		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1.4	J	P	3	U		1.1			11	U	
1,1,2-TRICHLOROETHANE		0.57	U		5.2	U		0.11	U		20	U	
1,1-DICHLOROETHANE		0.2	U		1.8	U		0.04	U		7	U	
1,1-DICHLOROETHENE		0.89	J	P	2.3	U		0.052	U		9	U	
1,2,4-TRICHLOROBENZENE		1.4	U		13	U		0.29	U		50	U	
1,2-DICHLOROETHANE		0.38	U		3.5	U		0.077	U		13	U	
BENZENE		5.2			3.3	U		0.57			13	U	
CARBON TETRACHLORIDE		1.5	J	P	4.3	U		0.5	J	P	16	U	
CHLORODIFLUOROMETHANE		2.8			13			6.2			20	J	P
CHLOROFORM		3.8			5.6	J	P	1.1			13	J	P
CIS-1,2-DICHLOROETHENE		0.48	U		4.3	U		0.095	U		2000		
DICHLORODIFLUOROMETHANE		2.6			6.1	U		2.5			23	U	
ETHYLBENZENE		120			590			0.57			20	U	
M+P-XYLENES		460			3200			0.68			38	U	
METHYL TERT-BUTYL ETHER		1.2	U		11	U		0.25	U		43	U	
METHYLENE CHLORIDE		2.5	B	A	13	B	A	0.6	B	A	28	B	A
NAPHTHALENE		29	J	C	76	J	C	0.27	J	CP	33	U	
O-XYLENE		140			1900			0.49			18	U	
TETRACHLOROETHENE		3			4.9	U		0.48	J	P	20	J	P
TOLUENE		74			30			3.6			14	U	
TRANS-1,2-DICHLOROETHENE		0.4	U		3.6	U		0.079	U		430		
TRICHLOROETHENE		7.4			3.5	J	P	3.5			4800		
VINYL CHLORIDE		0.37	U		3.4	U		0.074	U		13	U	

PROJ_NO: 02757	NSAMPLE	SV-A-7-9			SV-A-8-9			SV-DUP-2-9		
SDG: H0I030405	LAB_ID	H0I030405005			H0I030405004			H0I030405026		
FRACTION: OV	SAMP_DATE	8/31/2010			8/31/2010			8/31/2010		
MEDIA: AIR	QC_TYPE	NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS									
	DUP_OF							SV-16-A-9		
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		20			1.3			7	B	A
1,1,2-TRICHLOROETHANE		0.29	U		0.29	U		3.4	U	
1,1-DICHLOROETHANE		0.71	J	P	0.1	U		52		
1,1-DICHLOROETHENE		1.1			0.13	U		890		
1,2,4-TRICHLOROBENZENE		0.72	U		0.72	U		8.7	U	
1,2-DICHLOROETHANE		0.19	U		0.19	U		2.3	U	
BENZENE		0.78			0.26	J	P	2.2	U	
CARBON TETRACHLORIDE		0.55	J	P	0.93	J	P	2.8	U	
CHLORODIFLUOROMETHANE		3.4			13			3.8	J	P
CHLOROFORM		1.9			1.5			2.5	J	P
CIS-1,2-DICHLOROETHENE		0.24	U		0.24	U		110		
DICHLORODIFLUOROMETHANE		2.6			2.8			4	U	
ETHYLBENZENE		1.9			28			3.5	U	
M+P-XYLENES		5.9			58			6.5	U	
METHYL TERT-BUTYL ETHER		0.61	U		0.61	U		7.4	U	
METHYLENE CHLORIDE		6			1.2	B	A	6.7	B	A
NAPHTHALENE		0.47	U		0.49	J	CP	5.7	U	
O-XYLENE		2			73			3.1	U	
TETRACHLOROETHENE		7.6			0.99	J	P	3.3	U	
TOLUENE		69			45			12	B	A
TRANS-1,2-DICHLOROETHENE		0.2	U		0.2	U		11		
TRICHLOROETHENE		11			0.19	U		160		
VINYL CHLORIDE		0.19	U		0.19	U		7.4		

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Tetra Tech NUS, Inc

Client Sample ID: IAQ-A-4-9

GC/MS Volatiles

Lot-Sample #	H01030405 - 015	**Work Order #**	L6HCM1AA	**Matrix.....:**	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253090				
Dilution Factor.:	1.25	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.22**	**0.10**	**0.029**	**0.70**	**0.32**	**0.092**
Carbon tetrachloride	**0.093**	**0.10**	**0.019**	**0.59 J**	**0.63**	**0.12**
Chlorodifluoromethane	**2.8**	**0.10**	**0.019**	**10**	**0.35**	**0.066**
Chloroform	**0.11**	**0.10**	**0.019**	**0.56**	**0.49**	**0.092**
Dichlorodifluoromethane	**0.55**	**0.10**	**0.034**	**2.7**	**0.49**	**0.17**
1,1-Dichloroethane	**0.016**	**0.10**	**0.012**	**0.066 J**	**0.40**	**0.051**
1,2-Dichloroethane	**0.028**	**0.10**	**0.024**	**0.12 J**	**0.40**	**0.096**
cis-1,2-Dichloroethene	ND	0.10	0.030	ND	0.40	0.12
trans-1,2-Dichloroethene	ND	0.10	0.025	ND	0.40	0.099
1,1-Dichloroethene	ND	0.10	0.016	ND	0.40	0.064
Ethylbenzene	**0.45**	**0.10**	**0.034**	**2.0**	**0.43**	**0.15**
Methylene chloride	**0.46**	**0.25**	**0.022**	**1.6 B**	**0.87**	**0.078**
Methyl tert-butyl ether	ND	0.50	0.085	ND	1.8	0.31
Naphthalene	ND	0.25	0.045	ND	1.3	0.24
Tetrachloroethene	**0.075**	**0.10**	**0.020**	**0.51 J**	**0.68**	**0.14**
Toluene	**18**	**0.10**	**0.026**	**69 B**	**0.38**	**0.099**
1,2,4-Trichlorobenzene	ND	0.50	0.049	ND	3.7	0.36
1,1,1-Trichloroethane	**0.026**	**0.10**	**0.015**	**0.14 J B**	**0.55**	**0.082**
1,1,2-Trichloroethane	ND	0.10	0.026	ND	0.55	0.14
Trichloroethene	**0.034**	**0.050**	**0.018**	**0.18 J**	**0.27**	**0.094**
Vinyl chloride	ND	0.10	0.036	ND	0.26	0.093
m-Xylene & p-Xylene	**1.3**	**0.10**	**0.062**	**5.8**	**0.43**	**0.27**
o-Xylene	**0.36**	**0.10**	**0.030**	**1.6**	**0.43**	**0.13**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	99	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-A11-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 014	Work Order #	L6HCK1AA	Matrix.....:	AIR
Date Sampled...:	08/31/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252116				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.17**	**0.080**	**0.023**	**0.55**	**0.26**	**0.073**
Carbon tetrachloride	**0.11**	**0.080**	**0.015**	**0.72**	**0.50**	**0.094**
Chlorodifluoromethane	**1.0**	**0.080**	**0.015**	**3.6**	**0.28**	**0.053**
Chloroform	**0.16**	**0.080**	**0.015**	**0.76**	**0.39**	**0.073**
Dichlorodifluoromethane	**0.49**	**0.080**	**0.027**	**2.4**	**0.40**	**0.13**
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	**0.23**	**0.080**	**0.027**	**0.99**	**0.35**	**0.12**
Methylene chloride	**0.26**	**0.20**	**0.018**	**0.92 B**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	**0.36**	**0.20**	**0.036**	**1.9**	**1.0**	**0.19**
Tetrachloroethene	**0.056**	**0.080**	**0.016**	**0.38 J**	**0.54**	**0.11**
Toluene	**7.0**	**0.080**	**0.021**	**26**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	**0.018**	**0.080**	**0.012**	**0.099 J**	**0.44**	**0.065**
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	**0.053**	**0.040**	**0.014**	**0.29**	**0.21**	**0.075**
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	**0.68**	**0.080**	**0.050**	**2.9**	**0.35**	**0.22**
o-Xylene	**0.22**	**0.080**	**0.024**	**0.95**	**0.35**	**0.10**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	97	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-A12-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 020	**Work Order #**	L6HC61AA	**Matrix.....:**	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253090				
Dilution Factor.:	2.5	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.22**	**0.20**	**0.058**	**0.71**	**0.64**	**0.18**
Carbon tetrachloride	**0.085**	**0.20**	**0.038**	**0.54 J**	**1.3**	**0.24**
Chlorodifluoromethane	**1.0**	**0.20**	**0.038**	**3.7**	**0.71**	**0.13**
Chloroform	**0.21**	**0.20**	**0.038**	**1.0**	**0.98**	**0.18**
Dichlorodifluoromethane	**0.55**	**0.20**	**0.068**	**2.7**	**0.99**	**0.33**
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	**0.075**	**0.20**	**0.060**	**0.30 J**	**0.79**	**0.24**
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	**0.24**	**0.20**	**0.032**	**0.96**	**0.79**	**0.13**
Ethylbenzene	**0.31**	**0.20**	**0.068**	**1.3**	**0.87**	**0.29**
Methylene chloride	**0.43**	**0.50**	**0.045**	**1.5 J B**	**1.7**	**0.16**
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	**0.14**	**0.50**	**0.090**	**0.75 J**	**2.6**	**0.47**
Tetrachloroethene	**0.053**	**0.20**	**0.040**	**0.36 J**	**1.4**	**0.27**
Toluene	**15**	**0.20**	**0.052**	**56 B**	**0.75**	**0.20**
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	**0.035**	**0.20**	**0.030**	**0.19 J B**	**1.1**	**0.16**
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	**1.0**	**0.10**	**0.035**	**5.4**	**0.54**	**0.19**
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	**0.82**	**0.20**	**0.12**	**3.6**	**0.87**	**0.54**
o-Xylene	**0.27**	**0.20**	**0.060**	**1.2**	**0.87**	**0.26**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-A13-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 017	**Work Order #**	L6HCT1AA	**Matrix.....:**	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253090				
Dilution Factor.:	1	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.19**	**0.080**	**0.023**	**0.61**	**0.26**	**0.073**
Carbon tetrachloride	**0.29**	**0.080**	**0.015**	**1.8**	**0.50**	**0.094**
Chlorodifluoromethane	**0.75**	**0.080**	**0.015**	**2.7**	**0.28**	**0.053**
Chloroform	**0.84**	**0.080**	**0.015**	**4.1**	**0.39**	**0.073**
Dichlorodifluoromethane	**0.48**	**0.080**	**0.027**	**2.4**	**0.40**	**0.13**
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	**0.047**	**0.080**	**0.019**	**0.19 J**	**0.32**	**0.077**
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	**0.025**	**0.080**	**0.013**	**0.099 J**	**0.32**	**0.052**
Ethylbenzene	**0.14**	**0.080**	**0.027**	**0.61**	**0.35**	**0.12**
Methylene chloride	**0.57**	**0.20**	**0.018**	**2.0 B**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	**0.96**	**0.20**	**0.036**	**5.0**	**1.0**	**0.19**
Tetrachloroethene	**3.6**	**0.080**	**0.016**	**25**	**0.54**	**0.11**
Toluene	**3.3**	**0.080**	**0.021**	**12 B**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	**0.012**	**0.080**	**0.012**	**0.068 J B**	**0.44**	**0.065**
1,1,2-Trichloroethane	**0.085**	**0.080**	**0.021**	**0.46**	**0.44**	**0.11**
Trichloroethene	**0.22**	**0.040**	**0.014**	**1.2**	**0.21**	**0.075**
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	**0.41**	**0.080**	**0.050**	**1.8**	**0.35**	**0.22**
o-Xylene	**0.15**	**0.080**	**0.024**	**0.64**	**0.35**	**0.10**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-A14-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 018	Work Order #	L6HC01AA	Matrix.....:	AIR
Date Sampled...:	08/31/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/09/2010	Analysis Date...	09/10/2010		
Prep Batch #.....:	0253090				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.17**	**0.080**	**0.023**	**0.54**	**0.26**	**0.073**
Carbon tetrachloride	**0.081**	**0.080**	**0.015**	**0.51**	**0.50**	**0.094**
Chlorodifluoromethane	**1.5**	**0.080**	**0.015**	**5.4**	**0.28**	**0.053**
Chloroform	**0.046**	**0.080**	**0.015**	**0.22 J**	**0.39**	**0.073**
Dichlorodifluoromethane	**0.53**	**0.080**	**0.027**	**2.6**	**0.40**	**0.13**
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	**0.21**	**0.080**	**0.027**	**0.93**	**0.35**	**0.12**
Methylene chloride	**0.25**	**0.20**	**0.018**	**0.86 B**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	**0.14**	**0.20**	**0.036**	**0.73 J**	**1.0**	**0.19**
Tetrachloroethene	**0.045**	**0.080**	**0.016**	**0.30 J**	**0.54**	**0.11**
Toluene	**7.4**	**0.080**	**0.021**	**28 B**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	**0.014**	**0.080**	**0.012**	**0.076 J B**	**0.44**	**0.065**
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	ND	0.040	0.014	ND	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	**0.50**	**0.080**	**0.050**	**2.2**	**0.35**	**0.22**
o-Xylene	**0.14**	**0.080**	**0.024**	**0.60**	**0.35**	**0.10**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	96	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-A15-9

GC/MS Volatiles

Lot-Sample #	H01030405 - 021	**Work Order #**	L6HC71AA	**Matrix.....:**	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/10/2010		
Prep Batch #.....:	0253090				
Dilution Factor.:	1	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.19**	**0.080**	**0.023**	**0.60**	**0.26**	**0.073**
Carbon tetrachloride	**0.079**	**0.080**	**0.015**	**0.50 J**	**0.50**	**0.094**
Chlorodifluoromethane	**0.60**	**0.080**	**0.015**	**2.1**	**0.28**	**0.053**
Chloroform	**0.040**	**0.080**	**0.015**	**0.19 J**	**0.39**	**0.073**
Dichlorodifluoromethane	**0.49**	**0.080**	**0.027**	**2.4**	**0.40**	**0.13**
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	**0.16**	**0.080**	**0.027**	**0.68**	**0.35**	**0.12**
Methylene chloride	**0.27**	**0.20**	**0.018**	**0.94 B**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	**0.19**	**0.20**	**0.036**	**0.98 J**	**1.0**	**0.19**
Tetrachloroethene	**0.050**	**0.080**	**0.016**	**0.34 J**	**0.54**	**0.11**
Toluene	**1.8**	**0.080**	**0.021**	**6.8 B**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	ND	0.080	0.012	ND	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	ND	0.040	0.014	ND	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	**0.45**	**0.080**	**0.050**	**2.0**	**0.35**	**0.22**
o-Xylene	**0.16**	**0.080**	**0.024**	**0.67**	**0.35**	**0.10**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-A16-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 016	**Work Order #**	L6HCP1AA	**Matrix.....:**	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0252116				
Dilution Factor.:	2.5	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.17**	**0.20**	**0.058**	**0.54 J**	**0.64**	**0.18**
Carbon tetrachloride	**0.069**	**0.20**	**0.038**	**0.43 J**	**1.3**	**0.24**
Chlorodifluoromethane	**2.3**	**0.20**	**0.038**	**8.2**	**0.71**	**0.13**
Chloroform	**0.082**	**0.20**	**0.038**	**0.40 J**	**0.98**	**0.18**
Dichlorodifluoromethane	**0.48**	**0.20**	**0.068**	**2.4**	**0.99**	**0.33**
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	**0.34**	**0.20**	**0.068**	**1.5**	**0.87**	**0.29**
Methylene chloride	**0.39**	**0.50**	**0.045**	**1.3 J B**	**1.7**	**0.16**
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	ND	0.50	0.090	ND	2.6	0.47
Tetrachloroethene	**0.067**	**0.20**	**0.040**	**0.45 J**	**1.4**	**0.27**
Toluene	**13**	**0.20**	**0.052**	**49**	**0.75**	**0.20**
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	**0.092**	**0.20**	**0.030**	**0.50 J**	**1.1**	**0.16**
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	ND	0.10	0.035	ND	0.54	0.19
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	**1.1**	**0.20**	**0.12**	**4.7**	**0.87**	**0.54**
o-Xylene	**0.34**	**0.20**	**0.060**	**1.5**	**0.87**	**0.26**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-A17-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 024	**Work Order #**	L6HDA1AA	**Matrix.....:**	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253090				
Dilution Factor.:	2.5	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.17**	**0.20**	**0.058**	**0.56 J**	**0.64**	**0.18**
Carbon tetrachloride	**0.075**	**0.20**	**0.038**	**0.47 J**	**1.3**	**0.24**
Chlorodifluoromethane	**1.4**	**0.20**	**0.038**	**4.8**	**0.71**	**0.13**
Chloroform	**0.14**	**0.20**	**0.038**	**0.70 J**	**0.98**	**0.18**
Dichlorodifluoromethane	**0.51**	**0.20**	**0.068**	**2.5**	**0.99**	**0.33**
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	**0.51**	**0.20**	**0.068**	**2.2**	**0.87**	**0.29**
Methylene chloride	**0.76**	**0.50**	**0.045**	**2.6 B**	**1.7**	**0.16**
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	ND	0.50	0.090	ND	2.6	0.47
Tetrachloroethene	**0.050**	**0.20**	**0.040**	**0.34 J**	**1.4**	**0.27**
Toluene	**36**	**0.20**	**0.052**	**140 B**	**0.75**	**0.20**
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	ND	0.20	0.030	ND	1.1	0.16
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	**0.082**	**0.10**	**0.035**	**0.44 J**	**0.54**	**0.19**
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	**1.3**	**0.20**	**0.12**	**5.7**	**0.87**	**0.54**
o-Xylene	**0.39**	**0.20**	**0.060**	**1.7**	**0.87**	**0.26**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-A5-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 025	**Work Order #**	L6HDC1AA	**Matrix.....:**	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253090				
Dilution Factor.:	2.5	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.19**	**0.20**	**0.058**	**0.60 J**	**0.64**	**0.18**
Carbon tetrachloride	**0.076**	**0.20**	**0.038**	**0.48 J**	**1.3**	**0.24**
Chlorodifluoromethane	**9.1**	**0.20**	**0.038**	**32**	**0.71**	**0.13**
Chloroform	**0.075**	**0.20**	**0.038**	**0.36 J**	**0.98**	**0.18**
Dichlorodifluoromethane	**0.50**	**0.20**	**0.068**	**2.5**	**0.99**	**0.33**
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	**0.48**	**0.20**	**0.068**	**2.1**	**0.87**	**0.29**
Methylene chloride	**0.97**	**0.50**	**0.045**	**3.4 B**	**1.7**	**0.16**
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	ND	0.50	0.090	ND	2.6	0.47
Tetrachloroethene	**0.046**	**0.20**	**0.040**	**0.31 J**	**1.4**	**0.27**
Toluene	**35**	**0.20**	**0.052**	**130 B**	**0.75**	**0.20**
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	**0.030**	**0.20**	**0.030**	**0.16 J B**	**1.1**	**0.16**
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	ND	0.10	0.035	ND	0.54	0.19
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	**1.3**	**0.20**	**0.12**	**5.7**	**0.87**	**0.54**
o-Xylene	**0.42**	**0.20**	**0.060**	**1.8**	**0.87**	**0.26**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-A6-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 019	Work Order #	L6HC51AA	Matrix.....:	AIR
Date Sampled...:	08/31/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/09/2010	Analysis Date...	09/10/2010		
Prep Batch #.....:	0253090				
Dilution Factor.:	2	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.37**	**0.16**	**0.046**	**1.2**	**0.51**	**0.15**
Carbon tetrachloride	**0.090**	**0.16**	**0.030**	**0.57 J**	**1.0**	**0.19**
Chlorodifluoromethane	**0.84**	**0.16**	**0.030**	**3.0**	**0.57**	**0.11**
Chloroform	**0.39**	**0.16**	**0.030**	**1.9**	**0.78**	**0.15**
Dichlorodifluoromethane	**0.57**	**0.16**	**0.054**	**2.8**	**0.79**	**0.27**
1,1-Dichloroethane	**0.036**	**0.16**	**0.020**	**0.15 J**	**0.65**	**0.081**
1,2-Dichloroethane	ND	0.16	0.038	ND	0.65	0.15
cis-1,2-Dichloroethene	**0.14**	**0.16**	**0.048**	**0.55 J**	**0.63**	**0.19**
trans-1,2-Dichloroethene	ND	0.16	0.040	ND	0.63	0.16
1,1-Dichloroethene	**0.38**	**0.16**	**0.026**	**1.5**	**0.63**	**0.10**
Ethylbenzene	**0.26**	**0.16**	**0.054**	**1.1**	**0.69**	**0.23**
Methylene chloride	**0.50**	**0.40**	**0.036**	**1.7 B**	**1.4**	**0.13**
Methyl tert-butyl ether	ND	0.80	0.14	ND	2.9	0.49
Naphthalene	**0.70**	**0.40**	**0.072**	**3.7**	**2.1**	**0.38**
Tetrachloroethene	**0.040**	**0.16**	**0.032**	**0.27 J**	**1.1**	**0.22**
Toluene	**9.4**	**0.16**	**0.042**	**36 B**	**0.60**	**0.16**
1,2,4-Trichlorobenzene	ND	0.80	0.078	ND	5.9	0.58
1,1,1-Trichloroethane	**0.041**	**0.16**	**0.024**	**0.22 J B**	**0.87**	**0.13**
1,1,2-Trichloroethane	ND	0.16	0.042	ND	0.87	0.23
Trichloroethene	**0.84**	**0.080**	**0.028**	**4.5**	**0.43**	**0.15**
Vinyl chloride	ND	0.16	0.058	ND	0.41	0.15
m-Xylene & p-Xylene	**0.76**	**0.16**	**0.10**	**3.3**	**0.69**	**0.43**
o-Xylene	**0.26**	**0.16**	**0.048**	**1.1**	**0.69**	**0.21**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-A8-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 023	**Work Order #**	L6HC91AA	**Matrix.....:**	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253090				
Dilution Factor.:	2.5	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.22**	**0.20**	**0.058**	**0.71**	**0.64**	**0.18**
Carbon tetrachloride	**0.083**	**0.20**	**0.038**	**0.52 J**	**1.3**	**0.24**
Chlorodifluoromethane	**1.1**	**0.20**	**0.038**	**3.8**	**0.71**	**0.13**
Chloroform	**0.057**	**0.20**	**0.038**	**0.28 J**	**0.98**	**0.18**
Dichlorodifluoromethane	**0.57**	**0.20**	**0.068**	**2.8**	**0.99**	**0.33**
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	**0.64**	**0.20**	**0.068**	**2.8**	**0.87**	**0.29**
Methylene chloride	**0.34**	**0.50**	**0.045**	**1.2 J B**	**1.7**	**0.16**
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	ND	0.50	0.090	ND	2.6	0.47
Tetrachloroethene	**0.066**	**0.20**	**0.040**	**0.45 J**	**1.4**	**0.27**
Toluene	**36**	**0.20**	**0.052**	**130 B**	**0.75**	**0.20**
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	ND	0.20	0.030	ND	1.1	0.16
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	**0.092**	**0.10**	**0.035**	**0.49 J**	**0.54**	**0.19**
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	**1.7**	**0.20**	**0.12**	**7.6**	**0.87**	**0.54**
o-Xylene	**0.57**	**0.20**	**0.060**	**2.5**	**0.87**	**0.26**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	96	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-A9-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 022	**Work Order #**	L6HC81AA	**Matrix.....:**	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/10/2010		
Prep Batch #.....:	0253090				
Dilution Factor.:	5	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.28**	**0.40**	**0.12**	**0.88 J**	**1.3**	**0.37**
Carbon tetrachloride	**0.085**	**0.40**	**0.075**	**0.53 J**	**2.5**	**0.47**
Chlorodifluoromethane	**6.8**	**0.40**	**0.075**	**24**	**1.4**	**0.27**
Chloroform	**0.095**	**0.40**	**0.075**	**0.46 J**	**2.0**	**0.37**
Dichlorodifluoromethane	**0.90**	**0.40**	**0.14**	**4.4**	**2.0**	**0.67**
1,1-Dichlorocthane	ND	0.40	0.050	ND	1.6	0.20
1,2-Dichloroethane	ND	0.40	0.095	ND	1.6	0.38
cis-1,2-Dichloroethene	ND	0.40	0.12	ND	1.6	0.48
trans-1,2-Dichloroethene	ND	0.40	0.10	ND	1.6	0.40
1,1-Dichloroethene	ND	0.40	0.065	ND	1.6	0.26
Ethylbenzene	**2.2**	**0.40**	**0.14**	**9.5**	**1.7**	**0.59**
Methylene chloride	**0.71**	**1.0**	**0.090**	**2.5 J B**	**3.5**	**0.31**
Methyl tert-butyl ether	ND	2.0	0.34	ND	7.2	1.2
Naphthalene	ND	1.0	0.18	ND	5.2	0.94
Tetrachloroethene	**0.085**	**0.40**	**0.080**	**0.57 J**	**2.7**	**0.54**
Toluene	**85**	**0.40**	**0.10**	**320 B E**	**1.5**	**0.40**
1,2,4-Trichlorobenzene	ND	2.0	0.20	ND	15	1.4
1,1,1-Trichloroethane	**0.096**	**0.40**	**0.060**	**0.52 J B**	**2.2**	**0.33**
1,1,2-Trichloroethane	ND	0.40	0.10	ND	2.2	0.57
Trichloroethene	ND	0.20	0.070	ND	1.1	0.38
Vinyl chloride	ND	0.40	0.14	ND	1.0	0.37
m-Xylene & p-Xylene	**9.0**	**0.40**	**0.25**	**39**	**1.7**	**1.1**
o-Xylene	**3.2**	**0.40**	**0.12**	**14**	**1.7**	**0.52**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	106	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-A9-9

GC/MS Volatiles

Lot-Sample #	II0I030405 - 022	**Work Order #**	L6HC82AA	**Matrix.....:**	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253090				
Dilution Factor.:	45.45	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Toluene	**54**	**3.6**	**0.95**	**200 B D**	**14**	**3.6**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	98	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
D	Result was obtained from the analysis of a dilution.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-B15-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 013	Work Order #	L6HCG1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252116				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.23**	**0.080**	**0.023**	**0.73**	**0.26**	**0.073**
Carbon tetrachloride	**0.12**	**0.080**	**0.015**	**0.78**	**0.50**	**0.094**
Chlorodifluoromethane	**3.3**	**0.080**	**0.015**	**12**	**0.28**	**0.053**
Chloroform	**0.14**	**0.080**	**0.015**	**0.68**	**0.39**	**0.073**
Dichlorodifluoromethane	**0.50**	**0.080**	**0.027**	**2.5**	**0.40**	**0.13**
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	**0.22**	**0.080**	**0.024**	**0.88**	**0.32**	**0.095**
trans-1,2-Dichloroethene	**0.030**	**0.080**	**0.020**	**0.12 J**	**0.32**	**0.079**
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	**0.21**	**0.080**	**0.027**	**0.90**	**0.35**	**0.12**
Methylene chloride	**0.86**	**0.20**	**0.018**	**3.0 B**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	**0.090**	**0.20**	**0.036**	**0.47 J**	**1.0**	**0.19**
Tetrachloroethene	**0.79**	**0.080**	**0.016**	**5.3**	**0.54**	**0.11**
Toluene	**7.4**	**0.080**	**0.021**	**28**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	**0.022**	**0.080**	**0.012**	**0.12 J**	**0.44**	**0.065**
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	**0.40**	**0.040**	**0.014**	**2.1**	**0.21**	**0.075**
Vinyl chloride	**0.056**	**0.080**	**0.029**	**0.14 J**	**0.20**	**0.074**
m-Xylene & p-Xylene	**0.65**	**0.080**	**0.050**	**2.8**	**0.35**	**0.22**
o-Xylene	**0.21**	**0.080**	**0.024**	**0.90**	**0.35**	**0.10**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	98	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-15-A-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 007	Work Order #	L6HA51AA	Matrix.....:	AIR
Date Sampled...:	08/31/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252116				
Dilution Factor.:	45.45	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	3.6	1.0	ND	12	3.3
Carbon tetrachloride	ND	3.6	0.68	ND	23	4.3
Chlorodifluoromethane	**1.8**	**3.6**	**0.68**	**6.5 J**	**13**	**2.4**
Chloroform	**1.1**	**3.6**	**0.68**	**5.5 J**	**18**	**3.3**
Dichlorodifluoromethane	ND	3.6	1.2	ND	18	6.1
1,1-Dichloroethane	**14**	**3.6**	**0.45**	**58**	**15**	**1.8**
1,2-Dichloroethane	ND	3.6	0.86	ND	15	3.5
cis-1,2-Dichloroethene	**460**	**3.6**	**1.1**	**1800**	**14**	**4.3**
trans-1,2-Dichloroethene	**25**	**3.6**	**0.91**	**99**	**14**	**3.6**
1,1-Dichloroethene	**310**	**3.6**	**0.59**	**1200**	**14**	**2.3**
Ethylbenzene	ND	3.6	1.2	ND	16	5.3
Methylene chloride	**2.3**	**9.1**	**0.82**	**8.1 J B**	**32**	**2.8**
Methyl tert-butyl ether	ND	18	3.1	ND	66	11
Naphthalene	ND	9.1	1.6	ND	48	8.6
Tetrachloroethene	ND	3.6	0.73	ND	25	4.9
Toluene	**3.8**	**3.6**	**0.95**	**14**	**14**	**3.6**
1,2,4-Trichlorobenzene	ND	18	1.8	ND	130	13
1,1,1-Trichloroethane	**220**	**3.6**	**0.55**	**1200**	**20**	**3.0**
1,1,2-Trichloroethane	ND	3.6	0.95	ND	20	5.2
Trichloroethene	**240**	**1.8**	**0.64**	**1300**	**9.8**	**3.4**
Vinyl chloride	**3.8**	**3.6**	**1.3**	**9.8**	**9.3**	**3.4**
m-Xylene & p-Xylene	ND	3.6	2.3	ND	16	9.9
o-Xylene	ND	3.6	1.1	ND	16	4.7

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	100	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-16-A-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 006	Work Order #	L6HA11AA	Matrix.....:	AIR
Date Sampled...:	08/31/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252116				
Dilution Factor.:	29.6	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	2.4	0.68	ND	7.6	2.2
Carbon tetrachloride	ND	2.4	0.44	ND	15	2.8
Chlorodifluoromethane	**0.90**	**2.4**	**0.44**	**3.2 J**	**8.4**	**1.6**
Chloroform	ND	2.4	0.44	ND	12	2.2
Dichlorodifluoromethane	ND	2.4	0.80	ND	12	4.0
1,1-Dichloroethane	**9.8**	**2.4**	**0.30**	**40**	**9.6**	**1.2**
1,2-Dichloroethane	ND	2.4	0.56	ND	9.6	2.3
cis-1,2-Dichloroethene	**22**	**2.4**	**0.71**	**88**	**9.4**	**2.8**
trans-1,2-Dichloroethene	**2.4**	**2.4**	**0.59**	**9.7**	**9.4**	**2.3**
1,1-Dichloroethene	**190**	**2.4**	**0.38**	**770**	**9.4**	**1.5**
Ethylbenzene	ND	2.4	0.80	ND	10	3.5
Methylene chloride	**1.7**	**5.9**	**0.53**	**5.9 J B**	**21**	**1.9**
Methyl tert-butyl ether	ND	12	2.0	ND	43	7.3
Naphthalene	ND	5.9	1.1	ND	31	5.6
Tetrachloroethene	ND	2.4	0.47	ND	16	3.2
Toluene	**2.1**	**2.4**	**0.62**	**7.9 J**	**8.9**	**2.3**
1,2,4-Trichlorobenzene	ND	12	1.2	ND	88	8.6
1,1,1-Trichloroethane	**1.0**	**2.4**	**0.36**	**5.7 J**	**13**	**1.9**
1,1,2-Trichloroethane	ND	2.4	0.62	ND	13	3.4
Trichloroethene	**25**	**1.2**	**0.41**	**130**	**6.4**	**2.2**
Vinyl chloride	**2.5**	**2.4**	**0.86**	**6.4**	**6.1**	**2.2**
m-Xylene & p-Xylene	ND	2.4	1.5	ND	10	6.4
o-Xylene	ND	2.4	0.71	ND	10	3.1

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	94	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-18-A-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 001	**Work Order #**	L6HAT1AA	**Matrix.....:**	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252116				
Dilution Factor.:	2106	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	170	48	ND	540	150
Carbon tetrachloride	ND	170	32	ND	1100	200
Chlorodifluoromethane	ND	170	32	ND	600	110
Chloroform	ND	170	32	ND	820	150
Dichlorodifluoromethane	ND	170	57	ND	830	280
1,1-Dichloroethane	**160**	**170**	**21**	**660 J**	**680**	**85**
1,2-Dichloroethane	**180**	**170**	**40**	**750**	**680**	**160**
cis-1,2-Dichloroethene	**820**	**170**	**51**	**3200**	**670**	**200**
trans-1,2-Dichloroethene	ND	170	42	ND	670	170
1,1-Dichloroethene	**8000**	**170**	**27**	**32000**	**670**	**110**
Ethylbenzene	ND	170	57	ND	730	250
Methylene chloride	**150**	**420**	**38**	**540 J B**	**1500**	**130**
Methyl tert-butyl ether	ND	840	140	ND	3000	520
Naphthalene	ND	420	76	ND	2200	400
Tetrachloroethene	ND	170	34	ND	1100	230
Toluene	ND	170	44	ND	630	170
1,2,4-Trichlorobenzene	ND	840	82	ND	6300	610
1,1,1-Trichloroethane	**52**	**170**	**25**	**280 J**	**920**	**140**
1,1,2-Trichloroethane	ND	170	44	ND	920	240
Trichloroethene	**12000**	**84**	**29**	**64000**	**450**	**160**
Vinyl chloride	ND	170	61	ND	430	160
m-Xylene & p-Xylene	ND	170	110	ND	730	460
o-Xylene	ND	170	51	ND	730	220

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	93	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-19-A-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 002	**Work Order #**	L6HAV1AA	**Matrix.....:**	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252116				
Dilution Factor.:	2.1	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.16**	**0.17**	**0.048**	**0.50 J**	**0.54**	**0.15**
Carbon tetrachloride	**0.073**	**0.17**	**0.032**	**0.46 J**	**1.1**	**0.20**
Chlorodifluoromethane	**0.57**	**0.17**	**0.032**	**2.0**	**0.59**	**0.11**
Chloroform	**0.14**	**0.17**	**0.032**	**0.66 J**	**0.82**	**0.15**
Dichlorodifluoromethane	**0.48**	**0.17**	**0.057**	**2.4**	**0.83**	**0.28**
1,1-Dichloroethane	**0.19**	**0.17**	**0.021**	**0.78**	**0.68**	**0.085**
1,2-Dichloroethane	ND	0.17	0.040	ND	0.68	0.16
cis-1,2-Dichloroethene	**0.095**	**0.17**	**0.050**	**0.37 J**	**0.67**	**0.20**
trans-1,2-Dichloroethene	ND	0.17	0.042	ND	0.67	0.17
1,1-Dichloroethene	**0.54**	**0.17**	**0.027**	**2.1**	**0.67**	**0.11**
Ethylbenzene	**0.49**	**0.17**	**0.057**	**2.1**	**0.73**	**0.25**
Methylene chloride	**0.25**	**0.42**	**0.038**	**0.87 J B**	**1.5**	**0.13**
Methyl tert-butyl ether	ND	0.84	0.14	ND	3.0	0.51
Naphthalene	**1.5**	**0.42**	**0.076**	**8.0**	**2.2**	**0.40**
Tetrachloroethene	**0.078**	**0.17**	**0.034**	**0.53 J**	**1.1**	**0.23**
Toluene	**15**	**0.17**	**0.044**	**55**	**0.63**	**0.17**
1,2,4-Trichlorobenzene	ND	0.84	0.082	ND	6.2	0.61
1,1,1-Trichloroethane	**0.033**	**0.17**	**0.025**	**0.18 J**	**0.92**	**0.14**
1,1,2-Trichloroethane	ND	0.17	0.044	ND	0.92	0.24
Trichloroethene	**1.6**	**0.084**	**0.029**	**8.5**	**0.45**	**0.16**
Vinyl chloride	ND	0.17	0.061	ND	0.43	0.16
m-Xylene & p-Xylene	**1.5**	**0.17**	**0.10**	**6.6**	**0.73**	**0.46**
o-Xylene	**0.58**	**0.17**	**0.050**	**2.5**	**0.73**	**0.22**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	99	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-20-A-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 011	**Work Order #**	L6HCA1AA	**Matrix.....:**	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252116				
Dilution Factor.:	1	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.43**	**0.080**	**0.023**	**1.4**	**0.26**	**0.073**
Carbon tetrachloride	**0.12**	**0.080**	**0.015**	**0.74**	**0.50**	**0.094**
Chlorodifluoromethane	**0.77**	**0.080**	**0.015**	**2.7**	**0.28**	**0.053**
Chloroform	**0.27**	**0.080**	**0.015**	**1.3**	**0.39**	**0.073**
Dichlorodifluoromethane	**0.54**	**0.080**	**0.027**	**2.7**	**0.40**	**0.13**
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	**0.025**	**0.080**	**0.024**	**0.10 J**	**0.32**	**0.095**
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	**0.67**	**0.080**	**0.027**	**2.9**	**0.35**	**0.12**
Methylene chloride	**0.32**	**0.20**	**0.018**	**1.1 B**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	**1.9**	**0.20**	**0.036**	**9.9**	**1.0**	**0.19**
Tetrachloroethene	**0.067**	**0.080**	**0.016**	**0.45 J**	**0.54**	**0.11**
Toluene	**3.1**	**0.080**	**0.021**	**12**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	**0.017**	**0.080**	**0.012**	**0.094 J**	**0.44**	**0.065**
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	**0.57**	**0.040**	**0.014**	**3.0**	**0.21**	**0.075**
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	**2.3**	**0.080**	**0.050**	**9.9**	**0.35**	**0.22**
o-Xylene	**1.1**	**0.080**	**0.024**	**4.6**	**0.35**	**0.10**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-21-A-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 012	**Work Order #**	L6HCC1AA	**Matrix.....:**	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252116				
Dilution Factor.:	10	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.99**	**0.80**	**0.23**	**3.1**	**2.6**	**0.73**
Carbon tetrachloride	ND	0.80	0.15	ND	5.0	0.94
Chlorodifluoromethane	**1.1**	**0.80**	**0.15**	**3.9**	**2.8**	**0.53**
Chloroform	**0.60**	**0.80**	**0.15**	**2.9 J**	**3.9**	**0.73**
Dichlorodifluoromethane	**0.52**	**0.80**	**0.27**	**2.6 J**	**4.0**	**1.3**
1,1-Dichloroethane	ND	0.80	0.10	ND	3.2	0.40
1,2-Dichloroethane	ND	0.80	0.19	ND	3.2	0.77
cis-1,2-Dichloroethene	ND	0.80	0.24	ND	3.2	0.95
trans-1,2-Dichloroethene	ND	0.80	0.20	ND	3.2	0.79
1,1-Dichloroethene	ND	0.80	0.13	ND	3.2	0.52
Ethylbenzene	**5.3**	**0.80**	**0.27**	**23**	**3.5**	**1.2**
Methylene chloride	**0.77**	**2.0**	**0.18**	**2.7 J B**	**6.9**	**0.63**
Methyl tert-butyl ether	ND	4.0	0.68	ND	14	2.5
Naphthalene	**110**	**2.0**	**0.36**	**550**	**10**	**1.9**
Tetrachloroethene	ND	0.80	0.16	ND	5.4	1.1
Toluene	**21**	**0.80**	**0.21**	**78**	**3.0**	**0.79**
1,2,4-Trichlorobenzene	ND	4.0	0.39	ND	30	2.9
1,1,1-Trichloroethane	**0.88**	**0.80**	**0.12**	**4.8**	**4.4**	**0.65**
1,1,2-Trichloroethane	ND	0.80	0.21	ND	4.4	1.1
Trichloroethene	**1.5**	**0.40**	**0.14**	**7.9**	**2.1**	**0.75**
Vinyl chloride	ND	0.80	0.29	ND	2.0	0.74
m-Xylene & p-Xylene	**22**	**0.80**	**0.50**	**95**	**3.5**	**2.2**
o-Xylene	**12**	**0.80**	**0.24**	**53**	**3.5**	**1.0**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	108	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-22-A-9

GC/MS Volatiles

Lot-Sample #	H01030405 - 003	Work Order #	L6HAW1AA	Matrix.....:	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252116				
Dilution Factor.:	5	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**1.6**	**0.40**	**0.12**	**5.2**	**1.3**	**0.37**
Carbon tetrachloride	**0.25**	**0.40**	**0.075**	**1.5 J**	**2.5**	**0.47**
Chlorodifluoromethane	**0.80**	**0.40**	**0.075**	**2.8**	**1.4**	**0.27**
Chloroform	**0.77**	**0.40**	**0.075**	**3.8**	**2.0**	**0.37**
Dichlorodifluoromethane	**0.52**	**0.40**	**0.14**	**2.6**	**2.0**	**0.67**
1,1-Dichloroethane	ND	0.40	0.050	ND	1.6	0.20
1,2-Dichloroethane	ND	0.40	0.095	ND	1.6	0.38
cis-1,2-Dichloroethene	ND	0.40	0.12	ND	1.6	0.48
trans-1,2-Dichloroethene	ND	0.40	0.10	ND	1.6	0.40
1,1-Dichloroethene	**0.22**	**0.40**	**0.065**	**0.89 J**	**1.6**	**0.26**
Ethylbenzene	**27**	**0.40**	**0.14**	**120**	**1.7**	**0.59**
Methylene chloride	**0.71**	**1.0**	**0.090**	**2.5 J B**	**3.5**	**0.31**
Methyl tert-butyl ether	ND	2.0	0.34	ND	7.2	1.2
Naphthalene	**5.6**	**1.0**	**0.18**	**29**	**5.2**	**0.94**
Tetrachloroethene	**0.44**	**0.40**	**0.080**	**3.0**	**2.7**	**0.54**
Toluene	**20**	**0.40**	**0.10**	**74**	**1.5**	**0.40**
1,2,4-Trichlorobenzene	ND	2.0	0.20	ND	15	1.4
1,1,1-Trichloroethane	**0.26**	**0.40**	**0.060**	**1.4 J**	**2.2**	**0.33**
1,1,2-Trichloroethane	ND	0.40	0.10	ND	2.2	0.57
Trichloroethene	**1.4**	**0.20**	**0.070**	**7.4**	**1.1**	**0.38**
Vinyl chloride	ND	0.40	0.14	ND	1.0	0.37
m-Xylene & p-Xylene	**110**	**0.40**	**0.25**	**460**	**1.7**	**1.1**
o-Xylene	**32**	**0.40**	**0.12**	**140**	**1.7**	**0.52**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-23-A-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 010	**Work Order #**	L6HA81AA	**Matrix.....:**	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252116				
Dilution Factor.:	45.45	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	3.6	1.0	ND	12	3.3
Carbon tetrachloride	ND	3.6	0.68	ND	23	4.3
Chlorodifluoromethane	**3.7**	**3.6**	**0.68**	**13**	**13**	**2.4**
Chloroform	**1.2**	**3.6**	**0.68**	**5.6 J**	**18**	**3.3**
Dichlorodifluoromethane	ND	3.6	1.2	ND	18	6.1
1,1-Dichloroethane	ND	3.6	0.45	ND	15	1.8
1,2-Dichloroethane	ND	3.6	0.86	ND	15	3.5
cis-1,2-Dichloroethene	ND	3.6	1.1	ND	14	4.3
trans-1,2-Dichloroethene	ND	3.6	0.91	ND	14	3.6
1,1-Dichloroethene	ND	3.6	0.59	ND	14	2.3
Ethylbenzene	**140**	**3.6**	**1.2**	**590**	**16**	**5.3**
Methylene chloride	**3.7**	**9.1**	**0.82**	**13 J B**	**32**	**2.8**
Methyl tert-butyl ether	ND	18	3.1	ND	66	11
Naphthalene	**15**	**9.1**	**1.6**	**76**	**48**	**8.6**
Tetrachloroethene	ND	3.6	0.73	ND	25	4.9
Toluene	**7.9**	**3.6**	**0.95**	**30**	**14**	**3.6**
1,2,4-Trichlorobenzene	ND	18	1.8	ND	130	13
1,1,1-Trichloroethane	ND	3.6	0.55	ND	20	3.0
1,1,2-Trichloroethane	ND	3.6	0.95	ND	20	5.2
Trichloroethene	**0.66**	**1.8**	**0.64**	**3.5 J**	**9.8**	**3.4**
Vinyl chloride	ND	3.6	1.3	ND	9.3	3.4
m-Xylene & p-Xylene	**740**	**3.6**	**2.3**	**3200**	**16**	**9.9**
o-Xylene	**440**	**3.6**	**1.1**	**1900**	**16**	**4.7**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-A-7-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 005	**Work Order #**	L6HA01AA	**Matrix.....:**	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252116				
Dilution Factor.:	2.5	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.25**	**0.20**	**0.058**	**0.78**	**0.64**	**0.18**
Carbon tetrachloride	**0.087**	**0.20**	**0.038**	**0.55 J**	**1.3**	**0.24**
Chlorodifluoromethane	**0.96**	**0.20**	**0.038**	**3.4**	**0.71**	**0.13**
Chloroform	**0.38**	**0.20**	**0.038**	**1.9**	**0.98**	**0.18**
Dichlorodifluoromethane	**0.52**	**0.20**	**0.068**	**2.6**	**0.99**	**0.33**
1,1-Dichloroethane	**0.18**	**0.20**	**0.025**	**0.71 J**	**0.81**	**0.10**
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	**0.28**	**0.20**	**0.032**	**1.1**	**0.79**	**0.13**
Ethylbenzene	**0.44**	**0.20**	**0.068**	**1.9**	**0.87**	**0.29**
Methylene chloride	**1.7**	**0.50**	**0.045**	**6.0 B**	**1.7**	**0.16**
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	ND	0.50	0.090	ND	2.6	0.47
Tetrachloroethene	**1.1**	**0.20**	**0.040**	**7.6**	**1.4**	**0.27**
Toluene	**18**	**0.20**	**0.052**	**69**	**0.75**	**0.20**
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	**3.7**	**0.20**	**0.030**	**20**	**1.1**	**0.16**
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	**2.0**	**0.10**	**0.035**	**11**	**0.54**	**0.19**
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	**1.4**	**0.20**	**0.12**	**5.9**	**0.87**	**0.54**
o-Xylene	**0.45**	**0.20**	**0.060**	**2.0**	**0.87**	**0.26**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	100	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-A-8-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 004	Work Order #	L6HAX1AA	Matrix.....:	AIR
Date Sampled...:	08/31/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252116				
Dilution Factor.:	2.5	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.083**	**0.20**	**0.058**	**0.26 J**	**0.64**	**0.18**
Carbon tetrachloride	**0.15**	**0.20**	**0.038**	**0.93 J**	**1.3**	**0.24**
Chlorodifluoromethane	**3.8**	**0.20**	**0.038**	**13**	**0.71**	**0.13**
Chloroform	**0.32**	**0.20**	**0.038**	**1.5**	**0.98**	**0.18**
Dichlorodifluoromethane	**0.56**	**0.20**	**0.068**	**2.8**	**0.99**	**0.33**
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	**6.4**	**0.20**	**0.068**	**28**	**0.87**	**0.29**
Methylene chloride	**0.34**	**0.50**	**0.045**	**1.2 J B**	**1.7**	**0.16**
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	**0.093**	**0.50**	**0.090**	**0.49 J**	**2.6**	**0.47**
Tetrachloroethene	**0.15**	**0.20**	**0.040**	**0.99 J**	**1.4**	**0.27**
Toluene	**12**	**0.20**	**0.052**	**45**	**0.75**	**0.20**
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	**0.23**	**0.20**	**0.030**	**1.3**	**1.1**	**0.16**
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	ND	0.10	0.035	ND	0.54	0.19
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	**13**	**0.20**	**0.12**	**58**	**0.87**	**0.54**
o-Xylene	**17**	**0.20**	**0.060**	**73**	**0.87**	**0.26**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	105	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-A3-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 008	**Work Order #**	L6HA61AA	**Matrix.....:**	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252116				
Dilution Factor.:	1	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.18**	**0.080**	**0.023**	**0.57**	**0.26**	**0.073**
Carbon tetrachloride	**0.079**	**0.080**	**0.015**	**0.50 J**	**0.50**	**0.094**
Chlorodifluoromethane	**1.8**	**0.080**	**0.015**	**6.2**	**0.28**	**0.053**
Chloroform	**0.23**	**0.080**	**0.015**	**1.1**	**0.39**	**0.073**
Dichlorodifluoromethane	**0.51**	**0.080**	**0.027**	**2.5**	**0.40**	**0.13**
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	**0.13**	**0.080**	**0.027**	**0.57**	**0.35**	**0.12**
Methylene chloride	**0.17**	**0.20**	**0.018**	**0.60 J B**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	**0.051**	**0.20**	**0.036**	**0.27 J**	**1.0**	**0.19**
Tetrachloroethene	**0.070**	**0.080**	**0.016**	**0.48 J**	**0.54**	**0.11**
Toluene	**0.95**	**0.080**	**0.021**	**3.6**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	**0.21**	**0.080**	**0.012**	**1.1**	**0.44**	**0.065**
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	**0.66**	**0.040**	**0.014**	**3.5**	**0.21**	**0.075**
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	**0.16**	**0.080**	**0.050**	**0.68**	**0.35**	**0.22**
o-Xylene	**0.11**	**0.080**	**0.024**	**0.49**	**0.35**	**0.10**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	99	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-A6-9

GC/MS Volatiles

Lot-Sample #	H01030405 - 009	**Work Order #**	L6HA71AA	**Matrix.....:**	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252116				
Dilution Factor.:	173.75	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	14	4.0	ND	44	13
Carbon tetrachloride	ND	14	2.6	ND	87	16
Chlorodifluoromethane	**5.7**	**14**	**2.6**	**20 J**	**49**	**9.2**
Chloroform	**2.7**	**14**	**2.6**	**13 J**	**68**	**13**
Dichlorodifluoromethane	ND	14	4.7	ND	69	23
1,1-Dichloroethane	ND	14	1.7	ND	56	7.0
1,2-Dichloroethane	ND	14	3.3	ND	56	13
cis-1,2-Dichloroethene	**510**	**14**	**4.2**	**2000**	**55**	**17**
trans-1,2-Dichloroethene	**110**	**14**	**3.5**	**430**	**55**	**14**
1,1-Dichloroethene	ND	14	2.3	ND	55	9.0
Ethylbenzene	ND	14	4.7	ND	60	20
Methylene chloride	**7.9**	**35**	**3.1**	**28 J B**	**120**	**11**
Methyl tert-butyl ether	ND	70	12	ND	250	43
Naphthalene	ND	35	6.3	ND	180	33
Tetrachloroethene	**3.0**	**14**	**2.8**	**20 J**	**94**	**19**
Toluene	ND	14	3.6	ND	52	14
1,2,4-Trichlorobenzene	ND	70	6.8	ND	520	50
1,1,1-Trichloroethane	ND	14	2.1	ND	76	11
1,1,2-Trichloroethane	ND	14	3.6	ND	76	20
Trichloroethene	**900**	**7.0**	**2.4**	**4800**	**37**	**13**
Vinyl chloride	ND	14	5.0	ND	36	13
m-Xylene & p-Xylene	ND	14	8.7	ND	60	38
o-Xylene	ND	14	4.2	ND	60	18

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	98	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-DUP-2-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 026	**Work Order #**	L6HDD1AA	**Matrix.....:**	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253090				
Dilution Factor.:	30	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	2.4	0.69	ND	7.7	2.2
Carbon tetrachloride	ND	2.4	0.45	ND	15	2.8
Chlorodifluoromethane	**1.1**	**2.4**	**0.45**	**3.8 J**	**8.5**	**1.6**
Chloroform	**0.51**	**2.4**	**0.45**	**2.5 J**	**12**	**2.2**
Dichlorodifluoromethane	ND	2.4	0.81	ND	12	4.0
1,1-Dichloroethane	**13**	**2.4**	**0.30**	**52**	**9.7**	**1.2**
1,2-Dichloroethane	ND	2.4	0.57	ND	9.7	2.3
cis-1,2-Dichloroethene	**28**	**2.4**	**0.72**	**110**	**9.5**	**2.9**
trans-1,2-Dichloroethene	**2.9**	**2.4**	**0.60**	**11**	**9.5**	**2.4**
1,1-Dichloroethene	**220**	**2.4**	**0.39**	**890**	**9.5**	**1.5**
Ethylbenzene	ND	2.4	0.81	ND	10	3.5
Methylene chloride	**1.9**	**6.0**	**0.54**	**6.7 J B**	**21**	**1.9**
Methyl tert-butyl ether	ND	12	2.0	ND	43	7.4
Naphthalene	ND	6.0	1.1	ND	31	5.7
Tetrachloroethene	ND	2.4	0.48	ND	16	3.3
Toluene	**3.1**	**2.4**	**0.63**	**12 B**	**9.0**	**2.4**
1,2,4-Trichlorobenzene	ND	12	1.2	ND	89	8.7
1,1,1-Trichloroethane	**1.3**	**2.4**	**0.36**	**7.0 J B**	**13**	**2.0**
1,1,2-Trichloroethane	ND	2.4	0.63	ND	13	3.4
Trichloroethene	**30**	**1.2**	**0.42**	**160**	**6.4**	**2.3**
Vinyl chloride	**2.9**	**2.4**	**0.87**	**7.4**	**6.1**	**2.2**
m-Xylene & p-Xylene	ND	2.4	1.5	ND	10	6.5
o-Xylene	ND	2.4	0.72	ND	10	3.1

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	97	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

APPENDIX C

SUPPORT DOCUMENTATION

HOI030405

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:	1 of 5 COCs
Company: TetraTech, NUS	Phone: 770-413-0965		
Address: 20251 Century Blvd.	Site Contact: Tony Apanavage (301) 528-3021		
City/State/Zip Germantown, MD	TAL Contact:		
Phone (301) 528-3021			
FAX: (301) 528-3000			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112IC02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, 'Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SV-18-A-9	8/31/10	0723	0859	-30	0.0	K-287	03851	X											
SV-19-A-9		1023	1126	-30	-15.5	K-269	12404												
SV-20-A-9		0846	0945	-30	-9.0	K-098	92091												
SV-A-8-9		0839	1006	-28	-4.0	K-424	S-1502												
SV-A-7-9		0747	0905	-29	0.0	K-242	93168												
12876 SV-16-A-9	↓	0800	0910	-30	-10	K-368	12591	↓											

Sampled by :	Temperature (Fahrenheit)	Interior	Ambient
	Start		
	Stop		

	Pressure (inches of Hg)	Interior	Ambient
	Start		
	Stop		

REC. AT AMBIENT
CUSTODY SEALS INTACT
14 BOXES RH 9/3/10
FED EX # 796205813336
796205786887

Special Instructions/QC Requirements & Comments:

80 CANS / 80 FLOWS

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 / 1030	Canisters Received by:	
Samples Relinquished by:	Date/Time: 9/1/10 / 1220	Received by: RyAN Henry	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

HOI 130405

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** Rick Samuels	**Sampled By:**	2 of 5 COCs
Company: TetraTech, NUS	Phone: (770) 413-0965		
Address: 20251 Century Blvd	Site Contact: Tony Apanavage (301) 528-3031		
City/State/Zip Germantown, MD	TAL Contact:		
Phone: (301) 528-3025			
FAX: (301) 528-3000			
Project Name: MRC-IAQ Sampling	**Analysis Turnaround Time**		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112IC02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SV-15-A-9	8/31/10	0855	1013	-30	-7.0	K-293	1010	X											
SV-A3-9		0726	0903	N/A	N/A	K-359	7480												
SV-A16-9		0742	0906	-29	-6.0	K-330	1364												
SV-23-A-9		0746	0908	-30	-5.0	K-225	7492												
6601 SV-20-A-9		0804	0914	-30	-5.0	K-325	6601												
14323 SV-21-A-9	↓	0833	0935	-30	-8.0	K-381	8768	↓											

Sampled by :	Temperature (Fahrenheit)		
	Interior	Ambient	
Start			
Stop			

	Pressure (inches of Hg)		
	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 1030	Canisters Received by:
Samples Relinquished by:	Date/Time: 9/1/10 1220	Received by: Ryan Henry 9/2/10 0930
Relinquished by:	Date/Time:	Received by:

HOI 030405

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** Rick Samuels	**Sampled By:**	3 of 5 COCs
Company: Tetra Tech NUS	**Phone:** 770-413-0965		
Address: 20251 Century Blvd	**Site Contact:** Tony Aparavage (301) 528-3031		
City/State/Zip Germantown, MD	**TAL Contact:**		
Phone: 301 528-3023			
FAX: 301 528 3000			
Project Name: MRC IAQ Sampling	**Analysis Turnaround Time**		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112ICO 2757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-B15-9	8/30/10	1045	1737	-30	-12	K384	1145	X											
IAQ-A11-9	8/31/10	0726	1533	NA	-5	K-187	92084	↓											
IAQ-A-4-9		0742	1535	-30	-5	K-502	1142												
A16 IAQ-A16-9		0746	1536	-30	-6	K-447	04165												
IAQ-A13-9		0804	1540	-30	-6	K-337	7488												
IAQ-A14-9	↓	0830	1542	-30	-7	K-500	93089	↓											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 1020	Canisters Received by: Paul Bryant	
Samples Relinquished by: Paul Bryant	Date/Time: 9/1/10 1220	Received by: Ryan Henry	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

HOLDTIME

SDG H0I030405

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	PPB(V	IAQ-A9-9	H0I030405022	NM	08/31/2010	09/09/2010	09/10/2010	9	1	10
OV	PPB(V	IAQ-A11-9	H0I030405014	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	PPB(V	SV-A-7-9	H0I030405005	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	PPB(V	SV-A6-9	H0I030405009	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	PPB(V	SV-A3-9	H0I030405008	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	PPB(V	SV-23-A-9	H0I030405010	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	PPB(V	SV-22-A-9	H0I030405003	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	PPB(V	SV-21-A-9	H0I030405012	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	PPB(V	SV-20-A-9	H0I030405011	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	PPB(V	SV-19-A-9	H0I030405002	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	PPB(V	SV-18-A-9	H0I030405001	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	PPB(V	SV-16-A-9	H0I030405006	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	PPB(V	SV-A-8-9	H0I030405004	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	PPB(V	IAQ-B15-9	H0I030405013	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	PPB(V	SV-DUP-2-9	H0I030405026	NM	08/31/2010	09/09/2010	09/09/2010	9	0	9

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	PPB(V	IAQ-A9-9	H0I030405022	NM	08/31/2010	09/09/2010	09/09/2010	9	0	9
OV	PPB(V	IAQ-A8-9	H0I030405023	NM	08/31/2010	09/09/2010	09/09/2010	9	0	9
OV	PPB(V	IAQ-A6-9	H0I030405019	NM	08/31/2010	09/09/2010	09/10/2010	9	1	10
OV	PPB(V	IAQ-A5-9	H0I030405025	NM	08/31/2010	09/09/2010	09/09/2010	9	0	9
OV	PPB(V	IAQ-A-4-9	H0I030405015	NM	08/31/2010	09/09/2010	09/09/2010	9	0	9
OV	PPB(V	IAQ-A17-9	H0I030405024	NM	08/31/2010	09/09/2010	09/09/2010	9	0	9
OV	PPB(V	IAQ-A16-9	H0I030405016	NM	08/31/2010	09/08/2010	09/09/2010	8	1	9
OV	PPB(V	IAQ-A15-9	H0I030405021	NM	08/31/2010	09/09/2010	09/10/2010	9	1	10
OV	PPB(V	IAQ-A14-9	H0I030405018	NM	08/31/2010	09/09/2010	09/10/2010	9	1	10
OV	PPB(V	IAQ-A13-9	H0I030405017	NM	08/31/2010	09/09/2010	09/09/2010	9	0	9
OV	PPB(V	IAQ-A12-9	H0I030405020	NM	08/31/2010	09/09/2010	09/09/2010	9	0	9
OV	PPB(V	SV-15-A-9	H0I030405007	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	UG/M3	IAQ-A9-9	H0I030405022	NM	08/31/2010	09/09/2010	09/10/2010	9	1	10
OV	UG/M3	SV-A-8-9	H0I030405004	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	UG/M3	SV-A-7-9	H0I030405005	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	UG/M3	SV-A6-9	H0I030405009	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	UG/M3	SV-A3-9	H0I030405008	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	UG/M3	SV-23-A-9	H0I030405010	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/M3	SV-22-A-9	H0I030405003	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	UG/M3	SV-21-A-9	H0I030405012	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	UG/M3	SV-20-A-9	H0I030405011	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	UG/M3	SV-19-A-9	H0I030405002	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	UG/M3	SV-18-A-9	H0I030405001	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	UG/M3	SV-16-A-9	H0I030405006	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	UG/M3	IAQ-A11-9	H0I030405014	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8
OV	UG/M3	IAQ-B15-9	H0I030405013	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-DUP-2-9	H0I030405026	NM	08/31/2010	09/09/2010	09/09/2010	9	0	9
OV	UG/M3	IAQ-A9-9	H0I030405022	NM	08/31/2010	09/09/2010	09/09/2010	9	0	9
OV	UG/M3	IAQ-A8-9	H0I030405023	NM	08/31/2010	09/09/2010	09/09/2010	9	0	9
OV	UG/M3	IAQ-A6-9	H0I030405019	NM	08/31/2010	09/09/2010	09/10/2010	9	1	10
OV	UG/M3	IAQ-A5-9	H0I030405025	NM	08/31/2010	09/09/2010	09/09/2010	9	0	9
OV	UG/M3	IAQ-A-4-9	H0I030405015	NM	08/31/2010	09/09/2010	09/09/2010	9	0	9
OV	UG/M3	IAQ-A17-9	H0I030405024	NM	08/31/2010	09/09/2010	09/09/2010	9	0	9
OV	UG/M3	IAQ-A16-9	H0I030405016	NM	08/31/2010	09/08/2010	09/09/2010	8	1	9
OV	UG/M3	IAQ-A15-9	H0I030405021	NM	08/31/2010	09/09/2010	09/10/2010	9	1	10
OV	UG/M3	IAQ-A14-9	H0I030405018	NM	08/31/2010	09/09/2010	09/10/2010	9	1	10

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/M3	IAQ-A13-9	H0I030405017	NM	08/31/2010	09/09/2010	09/09/2010	9	0	9
OV	UG/M3	IAQ-A12-9	H0I030405020	NM	08/31/2010	09/09/2010	09/09/2010	9	0	9
OV	UG/M3	SV-15-A-9	H0I030405007	NM	08/31/2010	09/08/2010	09/08/2010	8	0	8

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

HDI 130405

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:
Company: TetraTech, NUS	Phone: (770) 413-0965	4 of 5 COCs
Address: 20251 Century Blvd	Site Contact: Tony Apanavage (301) 528-3021	
City/State/Zip: Germantown, MD	TAL Contact:	
Phone: (301) 528-3022		
FAX: (301) 528-3000		
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time	
Site/location: LMC-MRC	Standard (Specify)	
PO # 112IC02757	Rush (Specify)	

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-A6-9	8/31/10	0723	1532	-30	0.0	K-499	12440	X											
IAQ-A12-9		0728	1533	-30	-4.0	K-494	12574												
IAQ-A15-9		0734	1536	-30	-5.5	K-492	4497N												
IAQ-A9-9		0739	1538	-30	-8.0	K-403	93212												
IAQ-A8-9		0745	1540	-29	-5.5	K-498	12181												
IAQ-A17-9	↓	0759	1544	-30	-7.0	K-112	6026	↓											

Sampled by :	Temperature (Fahrenheit)	Interior	Ambient
	Start		
	Stop		

	Pressure (inches of Hg)	Interior	Ambient
	Start		
	Stop		

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Ruth Samuels	Date/Time: 9/1/10 1030	Canisters Received by: Paul Hyland	
Samples Relinquished by: Paul Hyland	Date/Time: 9/1/10 1230	Received by: Ryan Henry	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

HOI 030405

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information
Company: TetraTech, NUS
Address: 20251 Century Blvd.
City/State/Zip Germantown, MD
Phone: (301) 528-3022
FAX: (301) 528-3000
Project Name: MRC-IAQ Sampling
Site/location: LMC-MRC
PO # 1121C02757

Project Manager: Rick Samuels
Phone: (770) 413-0965
Site Contact: Tony Apanavage (301) 528-3021
TAL Contact:

Analysis Turnaround Time
Standard (Specify)
Rush (Specify)

Sampled By:

5 of 5 COCs

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, 'Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-A5-9	8/31/10	0854	1628	-30	-6	K-189	02795	X											
SV-DUP-2-9	↓	0800	0910	-30	-10	K-368	12521	↓											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 / 10:30	Canisters Received by: [signature]
Samples Relinquished by: [signature]	Date/Time: 9/1/10 / 1220	Received by: Ryan Henry 9/2/10 0930
Relinquished by:	Date/Time:	Received by:

LOCKHEED MR-IAQ

AIR DATA

H0I030405

FRACTION	CHEMICAL	SV-16-A-9	UNITS	SV-DUP-2-9	RPD	D
OV	1,1,1-TRICHLOROETHANE	5.7 J	UG/M3	7 B	20.47	1.30
OV	1,1-DICHLOROETHANE	40	UG/M3	52	26.09	12.00
OV	1,1-DICHLOROETHENE	770	UG/M3	890	14.46	120.00
OV	CHLORODIFLUOROMETHANE	3.2 J	UG/M3	3.8 J	17.14	0.60
OV	CHLOROFORM	~~ND 0.14~~ 2.24	UG/M3	2.5 J	200.00	~~2.50~~ 0.3 OK
OV	CIS-1,2-DICHLOROETHENE	88	UG/M3	110	22.22	22.00
OV	METHYLENE CHLORIDE	5.9 B	UG/M3	6.7 B	12.70	0.80
OV	TOLUENE	7.9 J	UG/M3	12 B	41.21	4.10
OV	TRANS-1,2-DICHLOROETHENE	9.7	UG/M3	11	12.56	1.30
OV	TRICHLOROETHENE	130	UG/M3	160	20.69	30.00
OV	VINYL CHLORIDE	6.4	UG/M3	7.4	14.49	1.00

RL 12

Current RPD Quality Control Limit: 50 %.
Shaded cells indicate RPDs that exceed the applicable quality control limit.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 112IC02757

MRC-IAQ Sampling, LMC-MRC

Lot #: H0I030405

Tobrena Skeen

Tetra Tech NUS Inc
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

TESTAMERICA LABORATORIES, INC.

Terry Wasmund
Project Manager

September 29, 2010

ANALYTICAL METHODS SUMMARY

H0I030405

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO15	EPA-2 TO-15

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H0I030405

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L6HAT	001	SV-18-A-9	08/31/10	08:59
L6HAV	002	SV-19-A-9	08/31/10	11:26
L6HAW	003	SV-22-A-9	08/31/10	09:45
L6HAX	004	SV-A-8-9	08/31/10	10:06
L6HA0	005	SV-A-7-9	08/31/10	09:05
L6HA1	006	SV-16-A-9	08/31/10	09:10
L6HA5	007	SV-15-A-9	08/31/10	10:13
L6HA6	008	SV-A3-9	08/31/10	09:03
L6HA7	009	SV-A6-9	08/31/10	09:06
L6HA8	010	SV-23-A-9	08/31/10	09:08
L6HCA	011	SV-20-A-9	08/31/10	09:14
L6HCC	012	SV-21-A-9	08/31/10	09:35
L6HCG	013	IAQ-B15-9	08/30/10	17:37
L6HCK	014	IAQ-A11-9	08/31/10	15:33
L6HCM	015	IAQ-A-4-9	08/31/10	15:35
L6HCP	016	IAQ-A16-9	08/31/10	15:36
L6HCT	017	IAQ-A13-9	08/31/10	15:40
L6HC0	018	IAQ-A14-9	08/31/10	15:47
L6HC5	019	IAQ-A6-9	08/31/10	15:32
L6HC6	020	IAQ-A12-9	08/31/10	15:33
L6HC7	021	IAQ-A15-9	08/31/10	15:36
L6HC8	022	IAQ-A9-9	08/31/10	15:38
L6HC9	023	IAQ-A8-9	08/31/10	15:40
L6HDA	024	IAQ-A17-9	08/31/10	15:44
L6HDC	025	IAQ-A5-9	08/31/10	16:28
L6HDD	026	SV-DUP-2-9	08/31/10	09:10

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H0I030405

The results reported herein are applicable to the samples submitted for analysis only.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

The canister IDs listed on the chain of custody documentation did not match the IDs listed on the sample canister for several samples.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria. Even though the calibration verification analyzed on 9/8/10 exhibited a % difference of > 30% for napthalene and 1,2,4-trichlorobenzene, the results were within the LCS acceptance limits.

The concentration of toluene in sample IAQ-A9-9 exceeded the calibration level of the instrument. The sample was analyzed at a dilution to bring the concentration of the compound into the instrument calibration range. The results for both analyses are reported in order to provide the lowest possible reporting limits.

TestAmerica Knoxville maintains the following certifications, approvals and accreditations: Arkansas DEQ Lab #88-0688, California DHS ELAP Cert. #2423, Colorado DPHE, Connecticut DPH Lab #PH-0223, Florida DOH Lab #E87177, Georgia DNR Lab #906, Hawaii DOH, Illinois EPA Lab #200012, Indiana DOH Lab #C-TN-02, Iowa DNR Lab #375, Kansas DHE Cert. #E-10349, Kentucky DEP Lab #90101, Louisiana DEQ Cert. #03079, Louisiana DOHH, Maryland DOE Cert. #277, Michigan DEQ Lab #9933, Nevada DEP, New Jersey DEP Lab #TN001, New York DOH Lab #10781, North Carolina DPH Lab #21705, North Carolina DEHNR Cert. #64, Ohio EPA VAP Lab #CL0059, Oklahoma DEQ Lab #9415, Pennsylvania DEP Lab #68-00576, South Carolina DHEC Cert #84001001, Tennessee DOH Lab #02014, Texas CEQ, Utah DOH Lab # QUAN3, Virginia DGS Lab #00165, Washington DOE Lab #C1314, West Virginia DEP Cert. #345, West Virginia DHHR Cert #9955C, Wisconsin DNR Lab #998044300, Naval Facilities Engineering Service Center and USDA Soil Permit #S-46424. This list of approvals is subject to change and does not imply that laboratory certification is available for all parameters reported in this environmental sample data report.

HOI030405

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** Rick Samuels	**Sampled By:**
Company: TetraTech, NUS	Phone: 770-413-0965	1 of 5 COCs
Address: 20251 Century Blvd.	Site Contact: Tony Apanavage (301) 528-3021	
City/State/Zip Germantown, MD	TAL Contact:	
Phone: (301) 528-3021		
FAX: (301) 528-3000		
Project Name: MRC-IAQ Sampling	**Analysis Turnaround Time**	
Site/location: LMC-MRC	Standard (Specify)	
PO # 112IC02757	Rush (Specify)	

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SV-18-A-9	8/31/10	0723	0859	-30	0.0	K-287	03854	X											
SV-19-A-9		1023	1126	-30	-15.5	K-269	12404												
SV-20-A-9		0846	0945	-30	-9.0	K-098	9208												
SV-A-8-9		0839	1006	-28	-4.0	K-424	S-1502												
SV-A-7-9		0747	0905	-29	0.0	K-242	93168												
12875 SV-16-A-9	↓	0800	0910	-30	-10	K-368	12531	↓											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

REC. AT AMBIENT
CUSTODY SEALS INTACT
14 BOXES RH 9/3/10
FED EX # 796205813336
796205786887

Special Instructions/QC Requirements & Comments:

80 CANS / 80 FLOWS

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 / 10.30	Canisters Received by:	
Samples Relinquished by:	Date/Time: 9/1/10 / 1220	Received by: RyAN Henry	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

HOI 13D405

TAL Knoxville
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Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** Rick Samuels	**Sampled By:**
Company: TetraTech, NUS	Phone: (770) 413-0965	2 of 5 COCs
Address: 20251 Century Blvd	Site Contact: Tony Apanavage (301) 528-3021	
City/State/Zip: Germantown, MD	TAL Contact:	
Phone: (301) 528-3025		
FAX: (301) 528-3000		
Project Name: MRC-IAQ Sampling	**Analysis Turnaround Time**	
Site/location: LMC-MRC	Standard (Specify)	
PO # 112IC02757	Rush (Specify)	

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SV-15-A-9	8/31/10	0855	1013	-30	-7.0	K-293	1010	X											
SV-A3-9		0726	0903	N/A	N/A	K-359	7480												
SV-A6-9		0742	0906	-29	-6.0	K-330	1364												
SV-23-A-9		0746	0908	-30	-5.0	K-225	7492												
6601 SV-20-A-9		0804	0914	-30	-5.0	K-325	6601												
14323 SV-21-A-9	↓	0833	0935	-30	-8.0	K-381	8768	↓											

Sampled by :	Temperature (Fahrenheit)			
		Interior	Ambient	
	Start			
	Stop			
	Pressure (inches of Hg)			
		Interior	Ambient	
	Start			
	Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 1030	Canisters Received by:	
Samples Relinquished by:	Date/Time: 9/1/10 1220	Received by: Ryan Henry	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

TAL Knoxville
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HOI 030405

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:	3 of 5 COCs
Company: Tetra Tech NUS	Phone: 770-413-0965		
Address: 20251 Century Blvd	Site Contact: Tony Apanavage (301) 528-3031		
City/State/Zip Germantown, MD	TAL Contact:		
Phone: 301 515-3023			
FAX: 301 528 3000			
Project Name: MRC IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112ICO 2757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-B15-9	8/30/10	1045	1737	-30	-12	K384	1145	X											
IAQ-A11-9	8/31/10	0726	1533	NA	-5	K-187	92084	↓											
IAQ-A-4-9	↓	0742	1535	-30	-5	K-502	1142												
IAQ-A16-9		0746	1536	-30	-6	K-447	04165												
IAQ-A13-9		0804	1540	-30	-6	K-337	7488												
IAQ-A14-9	↓	0830	1547	-30	-7	K-500	93089	↓											

A16

Sampled by :	Temperature (Fahrenheit)			
		Interior	Ambient	
	Start			
	Stop			
	Pressure (inches of Hg)			
		Interior	Ambient	
	Start			
	Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 1020	Canisters Received by:	
Samples Relinquished by:	Date/Time: 9/1/10 1220	Received by: Ryan Henry	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

TAL Knoxville
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Knoxville, TN 37921
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HDI 130405

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:	4 of 5 COCs
Company: TetraTech, NUS	Phone: (770) 413-0965		
Address: 20251 Century Blvd	Site Contact: Tony Apanavage (301) 528-3021		
City/State/Zip: Germantown, MD	TAL Contact:		
Phone: (301) 528-3022			
FAX: (301) 528-3099			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112IC02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-A6-9	8/31/10	0723	1532	-30	0.0	K-499	12440	X											
IAQ-A12-9		0728	1533	-30	-4.0	K-494	12574												
IAQ-A15-9		0734	1536	-30	-5.5	K-492	4497N												
IAQ-A9-9		0739	1538	-30	-8.0	K-403	93212												
IAQ-A8-9		0745	1540	-29	-5.5	K-498	12181												
IAQ-A17-9	↓	0759	1544	-30	-7.0	K-112	6026	↓											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 1030	Canisters Received by:	
Samples Relinquished by:	Date/Time: 9/1/10 1230	Received by: Ryan Henry	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

1401 130405

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:
Company: TetraTech, NUS	Phone: (770) 413-0965	5 of 5 COCs
Address: 20251 Century Blvd.	Site Contact: Tony Apanavage (301) 528-3021	
City/State/Zip Germantown, MD	TAL Contact:	
Phone: (301) 528-3021		
FAX: (301) 528-3000		
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time	
Site/location: LMC-MRC	Standard (Specify)	
PO # 1121c02757	Rush (Specify)	

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-A5-9	8/31/10	0854	1628	-30	-6	K-189	03795	X											
SV-DUP-2-9	↓	0800	0910	-30	-10	K-368	12591	↓											

Sampled by :	Temperature (Fahrenheit)		
		Interior	Ambient
	Start		
	Stop		

	Pressure (inches of Hg)		
		Interior	Ambient
	Start		
	Stop		

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 / 10:30	Canisters Received by: Paul Hayward	
Samples Relinquished by: Paul Hayward	Date/Time: 9/1/10 / 1220	Received by: Ryan Henry	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: 480I 030405

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)		✓		☑ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☑ **1g** Other:	1g - 'SV-16-A-9' COC LISTS CAN ID AS 12521, SHOULD BE 12875. 'SV-20-A-9' COC LISTS CAN ID AS 6661, SHOULD BE 6601. 'SV-21-A-9' COC LISTS CAN ID AS 8768, SHOULD BE 04323.
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C; NC, 1668, 1613B: 0-4°C; VOST: 10°C; MA: 2-6 °C)			✓	☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	1a - COC LISTS 'IAQ-A16-9', SAMPLE LABEL LISTS 'IAQ-A16-9' LOG PER SAMPLE LABEL
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	COC LISTS 'IAQ-A17-9', SAMPLE LABEL LISTS 'IAQ-A[illegible]-9' LOG PER COC; MATCHED BY CAN ID
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓			

Quote #: 80374 PM Instructions: NA

Sample Receiving Associate: Ryan Henry Date: 9/3/10

QA026R21.doc, 090409

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H0I030405*

Initial Can Pressure							Subsequent Dilutions												
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
CW 9/3/10	NA	28.84	L6HAT	03854	-0.1	—	CW 9/7/10	S	29.14	-0.5	0.0 ~~0.5~~ CW 9/7/10				1126	10	0.5	8768
			L6HAV	12404	-14.9	0.2												8776
			L6HAW	92021	-7.7	—												8720
			L6HAX	S1502	-4.7													8730
			L6HA0	93168	0.2													8707
			L6HA1	12875	-9.4	0.0												8774
			L6HA5	1010	-5.5	—												8778
			L6HA6	7480	-1.5													8774
			L6HA7	1364	-5.1		HLH 9.8.10	I	29.08	-6.0	33.0							8759
			L6HA8	7492	-2.5													8781
			L6HCA	6601	-4.8													8774
			L6HCC	04323	-10.2	0.1												8768
			L6HCG	1145	-10.9	0.3												8796
			L6HCK	92084	-4.2	—												8793
			L6HCM	1142	-5.4													8794
			L6HCP	04165	-5.0													8796
			L6HCT	7488	-6.1													8793
			L6HC0	93239	-6.7													8795
			L6HC5	12440	0.1													8783
			L6HC6	12574	-4.5													8796

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H0I030405*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
CW 7/3/10	NA	28.84	L6HC7	4497N	-4.5													8795
↓	↓	↓	L6HC8	93212	-4.8	↓												8796
			L6HC9	12181	-5.8													8795
			L6HDA	6626	-5.9													8783
			L6HDC	02795	-5.1	↓												↓
↓	↓	↓	L6HDD	12521	-8.6	0.7												8720

Sample Data Summary

Tetra Tech NUS, Inc

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample #	H0I090000 - 116B	**Work Order #**	L6N9F1AA	**Matrix.....:**	AIR
	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252116				
Dilution Factor.:	1	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.080	0.023	ND	0.26	0.073
Carbon tetrachloride	ND	0.080	0.015	ND	0.50	0.094
Chlorodifluoromethane	ND	0.080	0.015	ND	0.28	0.053
Chloroform	ND	0.080	0.015	ND	0.39	0.073
Dichlorodifluoromethane	ND	0.080	0.027	ND	0.40	0.13
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	ND	0.080	0.027	ND	0.35	0.12
Methylene chloride	**0.066**	**0.20**	**0.018**	**0.23 J**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	ND	0.20	0.036	ND	1.0	0.19
Tetrachloroethene	ND	0.080	0.016	ND	0.54	0.11
Toluene	ND	0.080	0.021	ND	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	ND	0.080	0.012	ND	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	ND	0.040	0.014	ND	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	ND	0.080	0.050	ND	0.35	0.22
o-Xylene	ND	0.080	0.024	ND	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	98	60 - 140

Qualifiers

J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample #	H0I090000 - 116C	**Work Order #**	L6N9F1AC	**Matrix.....:**	AIR
	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252116				
Dilution Factor.:	1	**Method.....:**	TO-15		

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Benzene	5.00	4.92	16	16	98	70 - 130
Carbon tetrachloride	5.00	5.20	31	33	104	70 - 130
Chlorodifluoromethane	5.00	5.24	18	19	105	60 - 140
Chloroform	5.00	4.77	24	23	95	70 - 130
Dichlorodifluoromethane	5.00	5.68	25	28	114	60 - 140
1,1-Dichloroethane	5.00	4.91	20	20	98	70 - 130
1,2-Dichloroethane	5.00	5.14	20	21	103	70 - 130
cis-1,2-Dichloroethene	5.00	4.78	20	19	96	70 - 130
trans-1,2-Dichloroethene	5.00	5.41	20	21	108	70 - 130
1,1-Dichloroethene	5.00	4.73	20	19	95	70 - 130
Ethylbenzene	5.00	4.83	22	21	97	70 - 130
Methylene chloride	5.00	4.50	17	16	90	70 - 130
Methyl tert-butyl ether	5.00	4.62	18	17	92	60 - 140
Naphthalene	5.00	3.03	26	16	61	60 - 140
Tetrachloroethene	5.00	5.07	34	34	101	70 - 130
Toluene	5.00	4.93	19	19	99	70 - 130
1,2,4-Trichlorobenzene	5.00	3.16	37	23	63	60 - 140
1,1,1-Trichloroethane	5.00	4.86	27	27	97	70 - 130
1,1,2-Trichloroethane	5.00	5.24	27	29	105	70 - 130
Trichloroethene	5.00	4.95	27	27	99	70 - 130
Vinyl chloride	5.00	5.68	13	15	114	70 - 130
m-Xylene & p-Xylene	10.0	9.73	43	42	97	70 - 130
o-Xylene	5.00	4.75	22	21	95	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	100	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample #	H0I100000 - 090B	**Work Order #**	L6RJP1AA	**Matrix.....:**	AIR
	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253090				
Dilution Factor.:	1	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.080	0.023	ND	0.26	0.073
Carbon tetrachloride	ND	0.080	0.015	ND	0.50	0.094
Chlorodifluoromethane	ND	0.080	0.015	ND	0.28	0.053
Chloroform	ND	0.080	0.015	ND	0.39	0.073
Dichlorodifluoromethane	ND	0.080	0.027	ND	0.40	0.13
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	ND	0.080	0.027	ND	0.35	0.12
Methylene chloride	**0.089**	**0.20**	**0.018**	**0.31 J**	**0.69**	**0.063**
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	ND	0.20	0.036	ND	1.0	0.19
Tetrachloroethene	ND	0.080	0.016	ND	0.54	0.11
Toluene	**0.022**	**0.080**	**0.021**	**0.082 J**	**0.30**	**0.079**
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	**0.012**	**0.080**	**0.012**	**0.067 J**	**0.44**	**0.065**
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	ND	0.040	0.014	ND	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	ND	0.080	0.050	ND	0.35	0.22
o-Xylene	ND	0.080	0.024	ND	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	96	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample #	H0I100000 - 090C	**Work Order #**	L6RJP1AC	**Matrix.....:**	AIR
	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/09/2010	**Analysis Date...**	09/09/2010		
Prep Batch #.....:	0253090				
Dilution Factor.:	1	**Method.....:**	TO-15		

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Benzene	5.00	4.82	16	15	96	70 - 130
Carbon tetrachloride	5.00	4.75	31	30	95	70 - 130
Chlorodifluoromethane	5.00	5.59	18	20	112	60 - 140
Chloroform	5.00	5.22	24	26	104	70 - 130
Dichlorodifluoromethane	5.00	5.69	25	28	114	60 - 140
1,1-Dichloroethane	5.00	5.44	20	22	109	70 - 130
1,2-Dichloroethane	5.00	5.12	20	21	102	70 - 130
cis-1,2-Dichloroethene	5.00	5.16	20	20	103	70 - 130
trans-1,2-Dichloroethene	5.00	5.22	20	21	104	70 - 130
1,1-Dichloroethene	5.00	5.20	20	21	104	70 - 130
Ethylbenzene	5.00	5.06	22	22	101	70 - 130
Methylene chloride	5.00	4.81	17	17	96	70 - 130
Methyl tert-butyl ether	5.00	5.53	18	20	111	60 - 140
Naphthalene	5.00	5.38	26	28	108	60 - 140
Tetrachloroethene	5.00	4.68	34	32	94	70 - 130
Toluene	5.00	4.81	19	18	96	70 - 130
1,2,4-Trichlorobenzene	5.00	5.44	37	40	109	60 - 140
1,1,1-Trichloroethane	5.00	5.25	27	29	105	70 - 130
1,1,2-Trichloroethane	5.00	4.86	27	27	97	70 - 130
Trichloroethene	5.00	4.59	27	25	92	70 - 130
Vinyl chloride	5.00	5.76	13	15	115	70 - 130
m-Xylene & p-Xylene	10.0	10.2	43	44	102	70 - 130
o-Xylene	5.00	4.93	22	21	99	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	106	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Sample Receipt Documentation

TestAmerica Knoxville GC/MS Air Initial Calibration Data Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 11

Analysis Date: 9/2/10	Instrument:: MSE	ICAL Batch/Scan Name: EM102101	Scanned □

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd ➡
1. Did BFB meet tune criteria?		✓			✓
2. Were all standards injected within 24 hr of BFB?		✓			✓
3. Was date/time of analysis verified and logbook as correct?		✓			✓
4. Is low level std at or <RL and are the remaining points consecutive?		✓			✓
5. Are the calibration levels correct? (Calculate standard concentration & amt. injected with quan rpt at each level)		✓			✓
6. Was ICAL processed using correct methods and files?		✓			✓
7. Are the ICAL start and end dates/times correct?		✓			✓
8. Were at least 5 levels of each compound analyzed?		✓			✓
9. At least 6 consecutive points used for quadratic curves, and at least 5 consecutive points for linear curves?		✓			✓
10. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%)		✓		Acetone = 36%, 2Butanone = 32% (9.3.10)	✓
11. If curves were used, is correlation coefficient ≥0.990?	✓				NA
12. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous.	✓				NA
13. For linear or quadratic: origin NOT "included"? (NOTE: OHIO does NOT allow "FORCE" through origin).	✓			(9.7.10)	NA
14. Is the "Y" intercept less than the RL for each curve?	✓	✗			NA
15. RT for each IS ±20 sec avg. RT?		✓			✓
16. Area for each IS ± 40% avg. area?		✓			✓
17. Each analyte ± 0.06 RRT of avg. RRT?		✓			✓
18. Have all peaks been auto identified? If not, list:		✓			✓
19. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓			Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	NA
20. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in ICAL summary?		✓			✓
21. Are all the active compounds listed on each quan report?		✓			✓
22. High point checked for saturation and point removed if saturated?		✓		Sec-butyl benzene (9/3/10)	✓
23. Elution order checked on isomeric pairs?					
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane		✓			✓
• vinyl acetate / hexane		✓			✓
• cis- and trans- isomers		✓			✓
• ethyl benzene / m/p-xylene / o-xylene		✓			✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene		✓			✓
• tert-butylbenzene/p-cymene		✓			✓
• 1,2,4-trimethylbenzene/sec-butylbenzene		✓			✓
• 1,3-, 1,4-, and 1,2-dichlorobenzene		✓			✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene		✓			✓
24. Is the second source analysis of a reference standard within limits? (65-135% R)		✓			✓
25. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder? (9.9.10)	✓				NA
26. Does the ICAL folder contain complete data in the following order: Data review checklist, a complete runlog, Entech report, BFB info, ICAL summary, curves, followed by [Quan reports, chromatograms, manual integrations], in increasing amount order, 2nd source info.		✓			✓

Analyst:	Date: 9/3/10	2nd Level Reviewer :	Date: 9/7/10
Comments:		Comments:	
Upper limit 8ppb for: Sec-butylbenzene, 124Trichlorobenzen + 123TClBenzen			
Upper limit for Bromoform = 2.0ppb			

TestAmerica Laboratories, Inc. - Knoxville
CANISTER RUN LOG

GCMS Analysis: AIR Inst: ME

Analyst: [signature] Qtims Batch: _____

Date: 9/2/10 ICAL Batch: E090210I Target Batch: E090210I IS #1 Area: 0621313,

Surr/IS ID & Vol.: 40mL V320 System Date/Time ok (y/n): Y

Preventive Maintenance Performed ☒ Daily _____

Time	Use	Lot No.	File ID	Can #	Pos	Vol* (mL)	Can DF	Comments
1110	Y	Tune	EBFBI02	—	16	100	1	
1139		MOLCHK0.02	EMOLI02	CX-2127	1	50		
1219		½RL0.04	EICI021	↓	1	100		
1258		ICAL0.04	2		1	200		
1337		0.16	3	CX-2126	2			
1417		0.32	4	CX-2125	3			
1502		1.0	5	CX-2122	4			
1547		2.0	6	CX-2121	5			
1645		4.0	7	CX-2120	6			9/3/10
1724		8.0	8	CX-2119	7			
1803	↓	16.0	9	CX-2118	8			
1842	N	BIK	BIK1	—	9			9/3/10
1926	Y	ICV	ICV902	CX-2117	9			
2012	N	LCS	LCS90L	↓	9			
2050	Y	~~Lot#8824~~ 1pt	EIPTI02	CX-2104	Std	40		9/3/10
2133	N	Lot#8824	6646R	6646	10	500		
2212	↓		6646	↓	10			9/3/10
2252	Y		1363 →		11			
2331	Y		62345N →		12			
0012	Y		93149 →		13			
0053	N		6665 →		14			
0137	↓		1492 →		15			
0220	Y		1366 →		16			
0906	N		BIK2 →	1366	16	200		
0945	N	Std Verification	CX-2120	CX-2120	6	200		
1025	Y	ICV	CX-2117	CX-2117	9	50		Bromoform Only
			9/3/10					

* Entech programmed Volume. If the Entech report amount differs from the programmed amount by >5%, the Entech report amount is used for calulations.

Analyst: [signature] Date: 9/3/10

Test America - Knoxville

Entech Autosampler Log

Position	Volume		Date	Time
16	100		9/2/2010	11:10
1	52		9/2/2010	11:39
1	100		9/2/2010	12:18
1	200		9/2/2010	12:58
2	200		9/2/2010	13:37
3	200		9/2/2010	14:17
4	200		9/2/2010	15:02
5	201		9/2/2010	15:47
6	201		9/2/2010	16:45
7	200		9/2/2010	17:24
8	201		9/2/2010	18:03
16	202		9/2/2010	18:42
9	201		9/2/2010	19:26
9	202		9/2/2010	20:12
16	0	41(Std)	9/2/2010	20:50
10	501		9/2/2010	21:33
10	501		9/2/2010	22:12
11	500		9/2/2010	22:52
12	501		9/2/2010	23:31
13	502		9/3/2010	0:12
14	500		9/3/2010	0:53
15	500		9/3/2010	1:37
16	501		9/3/2010	2:20
16	201		9/3/2010	9:06
6	201		9/3/2010	9:45
9	50		9/3/2010	10:25

Data File: /chem/gcms/me.i/E090210I.b/ebfbi02.d

Date : 02-SEP-2010 11:10

Client ID: BFB

Instrument: me.i

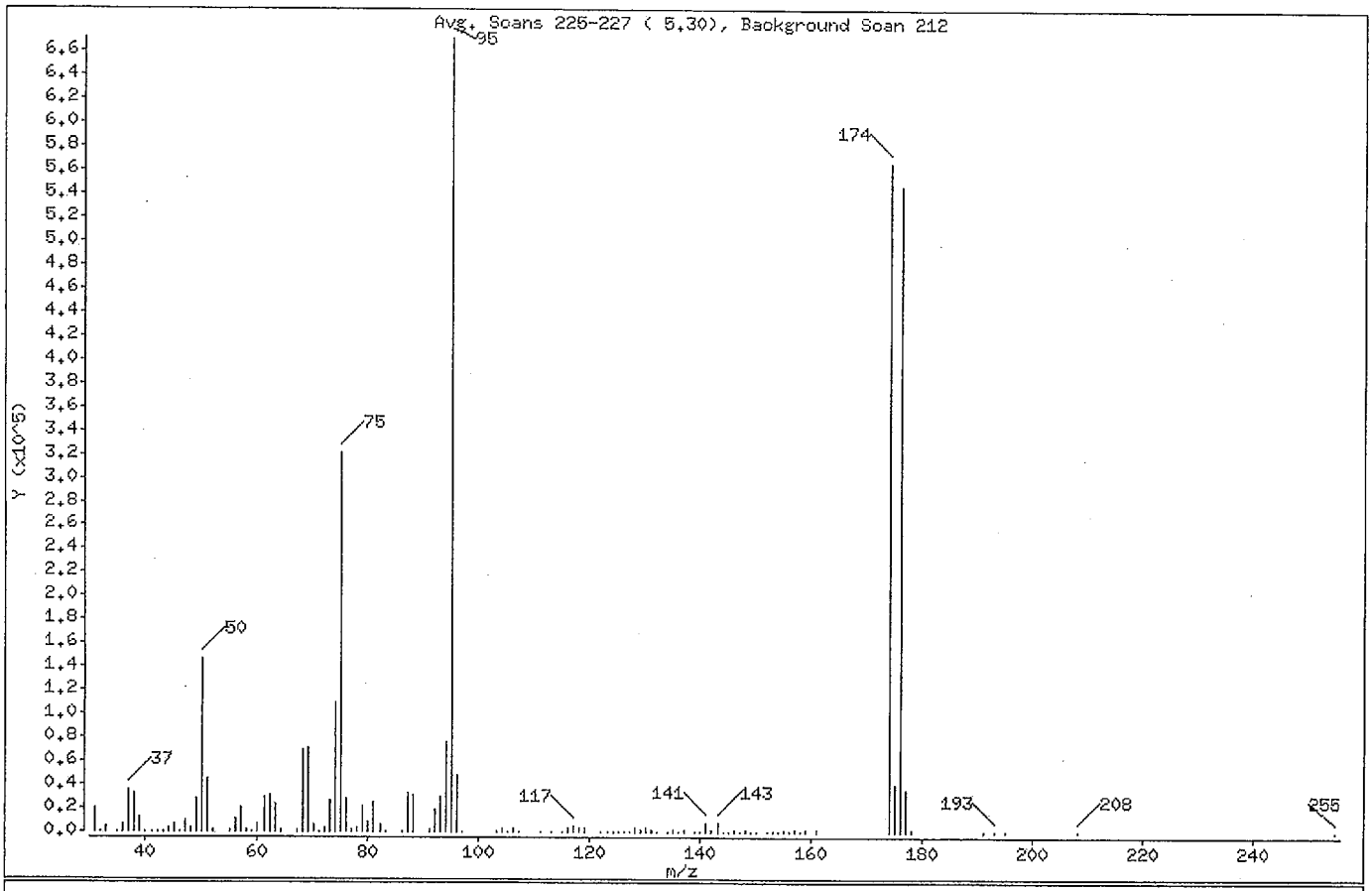
Sample Info: BFB,,3,,,BFB

Operator: 22980

Column phase: RTX-5

Column diameter: 0.32

1 BFB



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	21.82
75	30.00 - 60.00% of mass 95	47.72
96	5.00 - 9.00% of mass 95	7.23
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	84.30
175	5.00 - 9.00% of mass 174	6.02 (7.14)
176	95.00 - 101.00% of mass 174	81.41 (96.57)
177	5.00 - 9.00% of mass 176	5.36 (6.59)

Data File: /chem/gcms/me.i/E090210I.b/ebfbi02.d

Date : 02-SEP-2010 11:10

Client ID: BFB

Instrument: me.i

Sample Info: BFB,,3,,,BFB

Operator: 22980

Column phase: RTX-5

Column diameter: 0.32

Data File: ebfbi02.d

Spectrum: Avg. Scans 225-227 (5.30), Background Scan 212

Location of Maximum: 95.00

Number of points: 116

m/z	Y	m/z	Y	m/z	Y	m/z	Y
31.00	20672	64.00	1825	105.00	183	144.00	459
32.00	269	67.00	1493	106.00	3201	145.00	620
33.00	3943	68.00	70144	107.00	709	146.00	893
35.00	69	69.00	70472	111.00	695	147.00	300
36.00	5461	70.00	5678	113.00	767	148.00	1680
37.00	35472	71.00	310	115.00	558	149.00	458
38.00	31920	72.00	3151	116.00	2515	150.00	672
39.00	11938	73.00	26832	117.00	3908	152.00	389
40.00	293	74.00	109144	118.00	2811	153.00	471
41.00	139	75.00	320256	119.00	3390	154.00	399
42.00	199	76.00	27688	122.00	151	155.00	1690
43.00	353	77.00	2303	123.00	275	156.00	638
44.00	3661	78.00	3010	124.00	427	157.00	1204
45.00	6745	79.00	21952	125.00	159	158.00	273
46.00	512	80.00	7113	126.00	356	159.00	879
47.00	9443	81.00	24000	127.00	77	161.00	818
48.00	3731	82.00	5661	128.00	2438	174.00	565824
49.00	27184	83.00	43	129.00	1031	175.00	40384
50.00	146432	86.00	678	130.00	2396	176.00	546432
51.00	44088	87.00	31704	131.00	972	177.00	35984
52.00	1955	88.00	31176	132.00	90	178.00	1095
55.00	1707	91.00	2244	134.00	73	191.00	139
56.00	10582	92.00	19176	135.00	1161	193.00	203
57.00	20184	93.00	28600	136.00	195	195.00	158
58.00	846	94.00	75944	137.00	1243	208.00	224
59.00	172	95.00	671168	139.00	311	255.00	66
60.00	5591	96.00	48520	140.00	344		
61.00	29648	97.00	590	141.00	7241		
62.00	30272	103.00	181	142.00	941		
63.00	22920	104.00	3024	143.00	7269		

Data File: /chem/goms/me.i/E090210I.b/ebfbi02.d

Date : 02-SEP-2010 11:10

Client ID: BFB

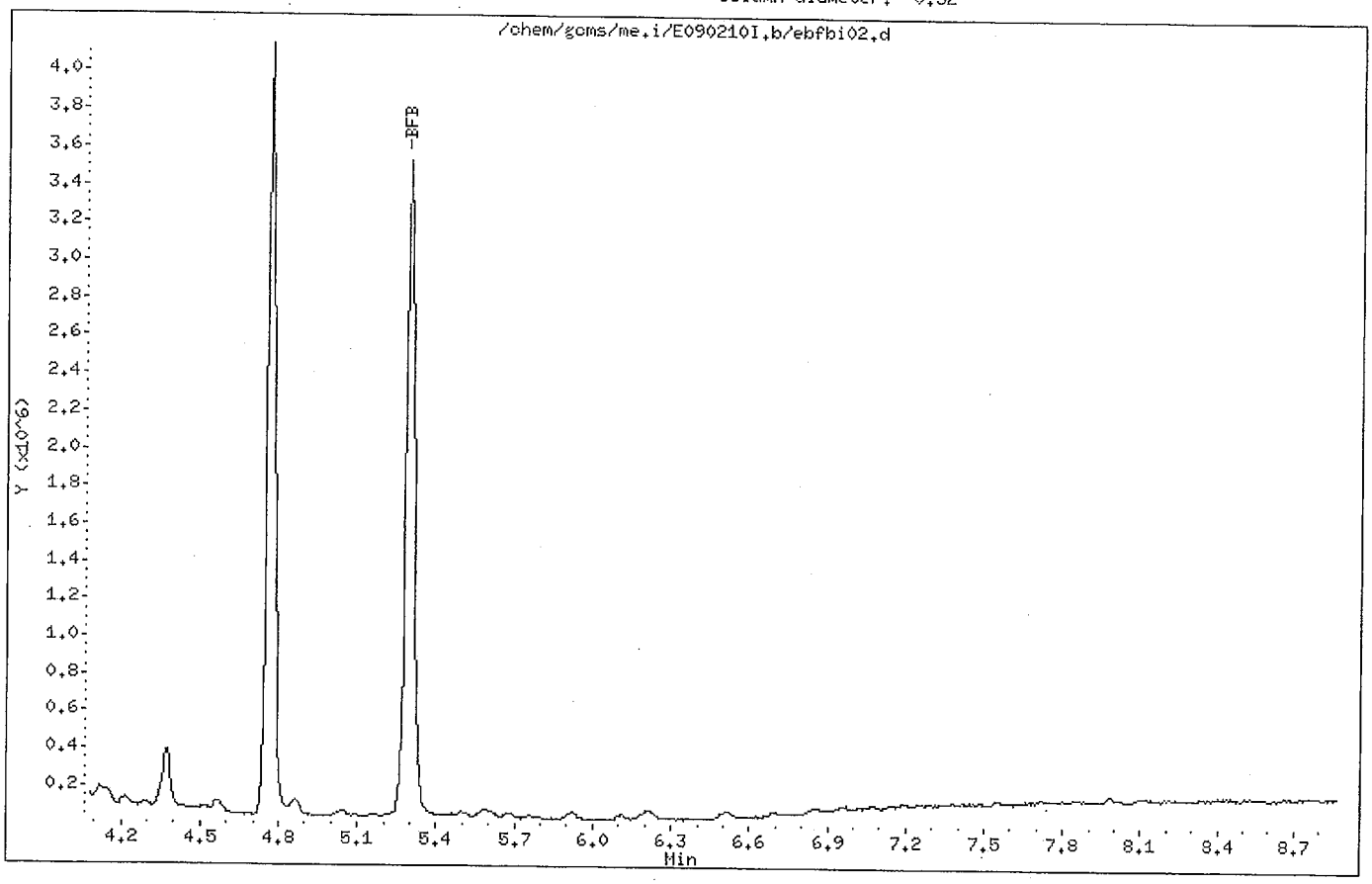
Instrument: me.i

Sample Info: BFB,,3,,,BFB

Operator: 22980

Column phase: RTX-5

Column diameter: 0.32



Report Date : 07-Sep-2010 11:26

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 12:19
End Cal Date : 03-SEP-2010 09:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/gcms/me.i/E090210I.b/TO155.m
Cal Date : 07-Sep-2010 11:22 wilesd
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcms/me.i/E090210I.b/eici021.d
Level 2: /var/chem/gcms/me.i/E090210I.b/eici022.d
Level 3: /var/chem/gcms/me.i/E090210I.b/eici023.d
Level 4: /var/chem/gcms/me.i/E090210I.b/eici024.d
Level 5: /var/chem/gcms/me.i/E090210I.b/eici025.d
Level 6: /chem/gcms/me.i/E090210I.b/e1pti02.d
Level 7: /var/chem/gcms/me.i/E090210I.b/eici027.d
Level 8: /var/chem/gcms/me.i/E090210I.b/eici028.d
Level 9: /var/chem/gcms/me.i/E090210I.b/eici029.d

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
7 Chlorodifluoromethane	0.50616	0.44259	0.35607	0.37326	0.44118	0.35610		
	0.34783	0.31078	0.30266				0.38185	17.700
8 Propene	+++++	+++++	1.40232	1.27270	1.45820	1.17229		
	1.15742	1.01461	0.96119				1.20554	15.395
9 Dichlorodifluoromethane	3.95104	3.81010	3.55594	3.53039	4.29133	3.60740		
	3.47261	2.95637	2.74708				3.54692	13.317
10 Chloromethane	+++++	0.54968	0.48171	0.46633	0.57492	0.46181		
	0.45664	0.39912	0.38156				0.47147	14.019
11 1,2-Dichlorotetrafluoroethane	2.89260	2.69297	2.45356	2.51067	3.02367	2.53117		
	2.55133	2.32057	2.33131				2.58976	9.255

Report Date : 07-Sep-2010 11:26

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 12:19
End Cal Date : 03-SEP-2010 09:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/gcms/me.i/E090210I.b/TO155.m
Cal Date : 07-Sep-2010 11:22 wilesd
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
12 Methanol	+++++	+++++	+++++	+++++	2.14496	1.09224		
	0.65514	0.39631	0.27245				0.91222	83.010
13 Vinyl Chloride	1.82493	1.67180	1.45746	1.48245	1.80039	1.47241		
	1.43776	1.25691	1.20405				1.51202	14.366
14 n-Butane	+++++	2.74486	2.42400	2.47801	2.95098	2.43135		
	2.31710	1.97730	1.82608				2.39371	15.348
15 1,3-Butadiene	1.25372	1.26216	1.16517	1.11487	1.42287	1.17777		
	1.14877	1.00778	0.98411				1.17080	11.454
16 Bromomethane	1.83336	1.52447	1.34033	1.29715	1.59320	1.33592		
	1.30056	1.15519	1.14171				1.39132	15.965
17 Chloroethane	0.89274	0.82164	0.68317	0.66799	0.82645	0.70562		
	0.66752	0.58923	0.56960				0.71377	15.498
18 Vinyl Bromide	1.38460	1.32050	1.18120	1.16362	1.45568	1.24481		
	1.21014	1.09635	1.10164				1.23984	10.037
19 2-methyl butane	+++++	2.20277	1.83198	1.87332	2.26729	1.86672		
	1.79333	1.56892	1.48635				1.86134	14.546
20 Trichlorofluoromethane	3.65017	3.60260	3.15574	3.23311	3.94295	3.30814		
	3.18992	2.84452	2.73212				3.29547	11.727

<- NA

Report Date : 07-Sep-2010 11:26

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 12:19
End Cal Date : 03-SEP-2010 09:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/gcms/me.i/E090210I.b/TO15S.m
Cal Date : 07-Sep-2010 11:22 wilesd
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
21 Acrolein	+++++	0.44098	0.40912	0.31430	0.48690	0.32976		
	0.24106	0.34495	0.36377				0.36636	21.179
22 Acetonitrile	+++++	0.55144	0.48864	0.38075	0.62957	0.53496		
	0.49045	0.44586	0.42202				0.49296	16.031
23 Acetone	+++++	+++++	+++++	+++++	1.03171	0.60484		
	0.53923	0.56599	0.43995				0.63634	36.029
24 Pentane	+++++	0.23080	0.18932	0.20076	0.24389	0.21066		
	0.20073	0.17963	0.17639				0.20402	11.638
25 Isopropyl Alcohol	+++++	+++++	2.40756	1.47319	1.73208	1.51527		
	1.36431	1.19950	1.20361				1.55650	26.911
26 Ethyl Ether	+++++	1.82664	1.67300	1.38716	2.07308	1.77869		
	1.61114	1.41496	1.31217				1.63460	15.774
27 1,1-Dichloroethene	1.42881	1.38205	1.18872	1.20807	1.47741	1.27878		
	1.24252	1.11963	1.10731				1.27037	10.456
28 Acrylonitrile	+++++	0.95379	0.88301	0.69034	1.10794	0.94813		
	0.88966	0.83421	0.82817				0.89191	13.518
29 tert-butanol	+++++	+++++	2.87244	1.90663	1.98345	1.82817		
	1.64333	1.41838	1.54957				1.88599	25.402

<- NA

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TestAmerica Knoxville

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Integrator : HP RTE
Method file : /chem/gcms/me.i/E090210I.b/TO155.m
Cal Date : 07-Sep-2010 11:22 wilesd
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
30 1,1,2-Trichlorotrifluoroethan	2.92201	2.90982	2.55686	2.56296	3.13823	2.76195		
	2.63631	2.34599	2.32255				2.68408	10.186
31 Methylene Chloride	+++++	+++++	1.74098	1.51079	1.46896	1.23338		
	1.17356	1.01510	0.98788				1.30438	21.373
32 3-Chloropropene	+++++	1.34679	1.13898	1.19146	1.44621	1.23489		
	1.16024	1.03412	0.97113				1.19048	13.011
33 Carbon Disulfide	+++++	4.57042	3.84661	3.80591	4.62188	3.84206		
	3.69216	3.24810	3.05592				3.83538	14.392
34 trans-1,2-Dichloroethene	1.46602	1.38780	1.25123	1.20062	1.50395	1.31619		
	1.28207	1.14246	1.13871				1.29878	10.205
35 Methyl-t-Butyl Ether	+++++	3.50495	3.06917	2.31018	3.53555	3.13126		
	2.86062	2.58678	2.37002				2.92107	16.248
36 1,1-Dichloroethane	2.80259	2.87908	2.49281	2.38119	3.00473	2.53300		
	2.37124	2.10860	2.02177				2.51056	13.380
37 Vinyl Acetate	+++++	3.15035	2.77288	2.31393	3.79073	3.25585		
	3.03407	2.84505	2.62666				2.97369	15.010
38 Hexane	+++++	1.51351	1.29796	1.28146	1.39312	1.17559		
	1.10346	1.01104	0.98040				1.21957	15.265

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	4.000 Level 7	8.000 Level 8	16.000 Level 9					
39 2-Butanone	+++++	+++++	+++++	0.46305	0.60230	0.52276		
	0.47706	0.47351	0.43289				0.49526	12.096
40 cis 1,2-Dichloroethene	+++++	1.51221	1.28072	1.23470	1.58403	1.39283		
	1.31466	1.18087	1.18702				1.33588	11.169
41 Ethyl Acetate	+++++	0.49265	0.40277	0.32432	0.46880	0.41152		
	0.36626	0.35638	0.32216				0.39311	16.061
42 Chloroform	3.07913	3.10566	2.71445	2.59023	3.23449	2.77368		
	2.61271	2.33146	2.24171				2.74261	12.557
43 Tetrahydrofuran	+++++	1.64957	1.40900	1.14488	1.76734	1.54246		
	1.39059	1.30094	1.17117				1.42199	15.523
44 1,1,1-Trichloroethane	3.06545	2.94722	2.64215	2.56124	3.26623	2.83439		
	2.71185	2.41613	2.36656				2.75680	10.873
45 1,2-Dichloroethane	0.41258	0.41500	0.36577	0.34640	0.48284	0.42700		
	0.42761	0.34130	0.35029				0.39653	12.157
46 Benzene	+++++	1.00882	0.84237	0.77779	1.05069	0.91242		
	0.94350	0.78467	0.82216				0.89280	11.501
47 1-Butanol	+++++	0.09172	0.11419	0.08768	0.09351	0.09111		
	0.09122	0.06765	0.07246				0.08869	15.956

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	4.000 Level 7	8.000 Level 8	16.000 Level 9					
48 Cyclohexane	0.15653	0.14749	0.13869	0.13582	0.17668	0.15627		
	0.16553	0.13388	0.14293				0.15042	9.630
49 Carbon Tetrachloride	0.63158	0.62821	0.57478	0.57579	0.77099	0.68679		
	0.73892	0.61436	0.66886				0.65447	10.437
50 2,2,4-trimethylpentane	+++++	1.69075	1.47840	1.43661	1.87562	1.65221		
	1.66260	1.27928	1.24851				1.54050	14.103
51 Heptane	0.69912	0.67725	0.59951	0.57169	0.74568	0.64659		
	0.64725	0.52141	0.51979				0.62536	12.520
52 1,2-Dichloropropane	0.36075	0.36746	0.30804	0.29134	0.41689	0.35884		
	0.36633	0.30013	0.31316				0.34255	12.118
53 Trichloroethene	0.39980	0.40610	0.36674	0.36549	0.46993	0.42317		
	0.44535	0.36834	0.41856				0.40705	8.992
54 Dibromomethane	+++++	0.34043	0.30043	0.30338	0.41507	0.36851		
	0.44669	0.31953	0.34487				0.35486	14.840
55 Bromodichloromethane	0.54401	0.56789	0.50726	0.50766	0.73775	0.64690		
	0.62788	0.56448	0.59194				0.58842	12.512
56 1,4-dioxane	+++++	+++++	0.09727	0.08148	0.11233	0.10064		
	0.09701	0.07536	0.08332				0.09249	13.975

Report Date : 07-Sep-2010 11:26

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Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
57 Methyl Methacrylate	+++++	0.30253	0.26698	0.22923	0.41316	0.38159		
	0.38222	0.33382	0.32348				0.32912	18.952
58 4-Methyl-2-pentanone	+++++	0.54957	0.54664	0.47707	0.70675	0.63107		
	0.62069	0.49541	0.52396				0.56889	13.660
59 cis-1,3-Dichloropropene	0.41640	0.42519	0.37762	0.36933	0.52821	0.45874		
	0.47867	0.39723	0.41583				0.42969	11.851
60 trans-1,3-Dichloropropene	0.42007	0.42936	0.38758	0.36689	0.55919	0.47293		
	0.48628	0.41484	0.45051				0.44307	13.037
61 Toluene	+++++	1.19249	0.98311	0.92856	1.30744	1.09241		
	1.11000	0.91208	0.92962				1.05696	13.585
62 1,1,2-Trichloroethane	0.36821	0.37734	0.33129	0.32078	0.45938	0.38431		
	0.39177	0.33112	0.35961				0.36931	11.432
63 2-Hexanone	0.22612	0.24125	0.27707	0.23738	0.35588	0.31787		
	0.31822	0.26072	0.29994				0.28160	15.696
64 Octane	0.34882	0.34957	0.31263	0.31293	0.41660	0.36302		
	0.37209	0.30076	0.33264				0.34545	10.439
65 Dibromochloromethane	+++++	0.52966	0.47223	0.50009	0.78812	0.68384		
	0.50836	0.67026	0.74765				0.61252	20.237

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Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
66 1,2-Dibromoethane	0.44408	0.49975	0.44168	0.44243	0.66313	0.54949		
	0.57445	0.51927	0.57460				0.52321	14.420
67 Tetrachloroethene	0.40072	0.44265	0.36353	0.38146	0.50672	0.42137		
	0.43790	0.38198	0.44485				0.42013	10.465
68 Chlorobenzene	0.77764	0.82677	0.70099	0.70437	1.00323	0.81868		
	0.84312	0.72739	0.77131				0.79706	11.710
69 Ethylbenzene	+++++	1.28621	1.12389	1.01670	1.59966	1.34960		
	1.34714	1.11676	1.10330				1.24291	15.270
70 m&p-Xylene	0.90756	0.99510	0.84987	0.77790	1.23284	1.02979		
	1.03919	0.84909	0.80464				0.94289	15.399
M 176 Xylene (total)	0.93701	1.01682	0.88009	0.79081	1.24725	1.04535		
	1.04951	0.85660	0.83136				0.96164	14.879
71 Bromoform	0.36843	0.38290	0.36588	0.38941	0.68318	0.59594		
	+++++	+++++	+++++				0.46429	29.899
72 Nonane	+++++	0.75212	0.66938	0.63662	0.95927	0.82172		
	0.82154	0.65190	0.65947				0.74650	15.285
73 Styrene	0.42796	0.48417	0.46794	0.47726	0.85393	0.72015		
	0.74428	0.73470	0.83695				0.63859	26.904

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Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
74 o-Xylene	+++++	1.06025	0.94054	0.81664	1.27608	1.07645		
	1.07016	0.87163	0.88481				0.99957	15.007
75 1,1,2,2-Tetrachloroethane	+++++	0.73939	0.67608	0.62164	0.96571	0.81972		
	0.81547	0.69280	0.73126				0.75776	14.185
76 1,2,3-Trichloropropane	+++++	0.18014	0.16539	0.15328	0.23955	0.20244		
	0.20469	0.18110	0.20116				0.19097	14.098
77 Cumene	+++++	1.50801	1.33829	1.10968	1.80385	1.54753		
	1.52977	1.23586	1.21106				1.41051	16.149
78 n-Propylbenzene	+++++	0.34739	0.31181	0.27920	0.48003	0.40732		
	0.42390	0.37377	0.43747				0.38261	17.627
79 2-chlorotoluene	+++++	0.36076	0.32026	0.30794	0.47613	0.39567		
	0.41238	0.35249	0.41552				0.38014	14.641
80 4-Ethyltoluene	+++++	1.16473	1.13976	0.99865	1.70494	1.43567		
	1.44690	1.21019	1.19785				1.28734	17.517
81 1,3,5-Trimethylbenzene	+++++	0.56021	0.50034	0.41923	0.71146	0.61100		
	0.62423	0.54351	0.61811				0.57351	15.488
82 Alpha-Methylstyrene	+++++	0.31654	0.31887	0.32177	0.62061	0.54439		
	0.59666	0.55435	0.64727				0.49006	29.666

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	4.000 Level 7	8.000 Level 8	16.000 Level 9					
83 Decane	+++++	0.84494	0.73868	0.60254	1.13139	0.96584		
	0.94472	0.75310	0.73729				0.83981	19.950
84 Tert-butylbenzene	+++++	1.22337	1.13852	0.92797	1.58202	1.36746		
	1.38161	1.20566	1.25348				1.26001	15.277
85 1,2,4-Trimethylbenzene	+++++	0.99721	0.93206	0.81533	1.41292	1.20344		
	1.21163	1.05941	1.08417				1.08952	17.062
86 sec-butylbenzene	+++++	1.60394	1.47944	1.26482	2.17558	1.83846		
	1.81723	1.50725	+++++				1.66953	17.919
87 1,3-Dichlorobenzene	0.57460	0.56132	0.55680	0.55972	0.87443	0.70045		
	0.79041	0.77919	0.99221				0.70990	22.523
88 Benzyl Chloride	+++++	0.56054	0.56679	0.59000	0.96362	0.78413		
	0.86584	0.82409	0.92846				0.76043	21.764
89 1,4-Dichlorobenzene	0.56937	0.51981	0.51531	0.52917	0.81434	0.63049		
	0.71931	0.71432	0.93623				0.66093	22.274
90 p-Cymene	+++++	1.20854	1.11252	0.96345	1.67754	1.43382		
	1.41742	1.19607	1.16476				1.27176	17.676
91 1,2-Dichlorobenzene	+++++	0.57986	0.55444	0.53313	0.85987	0.70227		
	0.73590	0.66933	0.81237				0.68090	17.639

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	4.000 Level 7	8.000 Level 8	16.000 Level 9					
92 n-butylbenzene	+++++	0.92651	0.89388	0.84613	1.49943	1.26701		
	1.24842	1.07413	1.05793				1.10168	20.265
93 Undecane	+++++	0.61192	0.61207	0.63452	0.84386	0.67066		
	0.74380	0.75148	0.73817				0.70081	11.736
94 Dodecane	+++++	0.55166	0.58187	0.54203	0.56620	0.46871		
	0.42232	0.35836	0.57613				0.50841	16.258
95 1,2,4-Trichlorobenzene	0.35468	0.22848	0.26516	0.25103	0.28886	0.25362		
	0.24574	0.24325	+++++				0.26635	14.950
96 Napthalene	+++++	0.48360	0.70604	0.68997	0.76540	0.68832		
	0.63131	0.59689	1.00238				0.69549	21.602
97 Hexachlorobutadiene	+++++	0.45130	0.42506	0.35748	0.52166	0.46716		
	0.41741	0.42540	0.81923				0.48559	29.381
98 1,2,3-trichlorobenzene	0.30988	0.20356	0.28200	0.25403	0.25847	0.22012		
	0.20224	0.17645	+++++				0.23834	18.997
99 ~ Thiophene	+++++	+++++	+++++	+++++	+++++	0.43641		
	+++++	+++++	+++++				0.43641	0.000
100 ~ 1,2,3-trimethylbenzene	+++++	+++++	+++++	+++++	+++++	0.67599		
	+++++	+++++	+++++				0.67599	0.000

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	4.000 Level 7	8.000 Level 8	16.000 Level 9					
101 ~ Indane	+++++	+++++	+++++	+++++	+++++	0.65632		
	+++++	+++++	+++++				0.65632	0.000
102 ~ Indene	+++++	+++++	+++++	+++++	+++++	0.38039		
	+++++	+++++	+++++				0.38039	0.000
103 ~ 2-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	0.09792		
	+++++	+++++	+++++				0.09792	0.000
104 ~ 1-Methylnaphthalene	+++++	+++++	+++++	+++++	+++++	0.12771		
	+++++	+++++	+++++				0.12771	0.000
162 ~ methyl cyclohexane	+++++	+++++	+++++	+++++	+++++	0.53262		
	+++++	+++++	+++++				0.53262	0.000
163 ~ acetaldehyde	+++++	+++++	+++++	+++++	+++++	0.85865		
	+++++	+++++	+++++				0.85865	0.000
164 ~ Ethanol	+++++	+++++	+++++	+++++	+++++	1.04625		
	+++++	+++++	+++++				1.04625	0.000
165 ~ 2,3,-Dimethyl pentane	+++++	+++++	+++++	+++++	+++++	0.59083		
	+++++	+++++	+++++				0.59083	0.000
166 ~ 2-Methyl thiophene	+++++	+++++	+++++	+++++	+++++	0.76680		
	+++++	+++++	+++++				0.76680	0.000

Report Date : 07-Sep-2010 11:26

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 12:19
End Cal Date : 03-SEP-2010 09:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/gcms/me.i/E090210I.b/TO15S.m
Cal Date : 07-Sep-2010 11:22 wilesd
Curve Type : Average

Compound	0.04000 Level 1 / 4.000 Level 7	0.08000 Level 2 / 8.000 Level 8	0.16000 Level 3 / 16.000 Level 9	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
167 ~ 3-Methyl thiophene	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	0.78400	0.78400	0.000
168 ~ 2,3-Dimethyl heptane	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	1.16049	1.16049	0.000
169 ~ 2-Ethyl thiophene	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	0.75128	0.75128	0.000
170 ~ n-butylcyclohexane	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	0.68759	0.68759	0.000
171 ~ 1,2-Dimethyl-4-ethyl benzen	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	0.56273	0.56273	0.000
172 ~ 1,2,4,5-tetramethylbenzene	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	0.51806	0.51806	0.000
173 ~ 1,2,3,5-tetramethylbenzene	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	0.44175	0.44175	0.000
174 ~ 1,2,3,4-tetramethylbenzene	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	0.40126	0.40126	0.000
175 ~ benzo(b) thiophene	+++++ / +++++	+++++ / +++++	+++++ / +++++	+++++	+++++	0.23503	0.23503	0.000

Report Date : 07-Sep-2010 11:26

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 02-SEP-2010 12:19
End Cal Date : 03-SEP-2010 09:45
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /chem/gcms/me.i/E090210I.b/TO155.m
Cal Date : 07-Sep-2010 11:22 wilesd
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
$ 4 1,2-Dichloroethane-d4	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
$ 5 Toluene-d8	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
$ 6 4-Bromofluorobenzene	0.65425	0.64370	0.65448	0.63053	0.66053	0.66162		
	0.66251	0.67054	0.67282				0.65677	2.006

Report Date:09/07/2010 Page 1

INITIAL CALIBRATION RT and RRT REPORT

STD 1 = /chem/gcms/me.i/E090210I.b/eici021.d
STD 2 = /chem/gcms/me.i/E090210I.b/eici022.d
STD 3 = /chem/gcms/me.i/E090210I.b/eici023.d
STD 4 = /chem/gcms/me.i/E090210I.b/eici024.d
STD 5 = /chem/gcms/me.i/E090210I.b/eici025.d
STD 6 = /chem/gcms/me.i/E090210I.b/eici026.d
STD 7 = /chem/gcms/me.i/E090210I.b/eici027.d
STD 8 = /chem/gcms/me.i/E090210I.b/eici028.d
STD 9 = /chem/gcms/me.i/E090210I.b/eici029.d

COMPOUND	STD 1	STD 2	STD 3	STD 4	STD 5	STD 6	STD 7	STD 8	STD 9	MEAN
1,4-Difluorobenzene	11.282	11.298	11.282	11.282	11.282	11.298	11.287	11.292	11.287	11.288
Chlorobenzene-d5	15.978	15.984	15.978	15.978	15.978	15.983	15.978	15.983	15.984	15.980
Bromochloromethane	9.130	9.157	9.130	9.130	9.135	9.151	9.135	9.140	9.141	9.139
4-Bromofluorobenzene	1.102	1.102	1.102	1.102	1.102	1.102	1.103	1.102	1.102	1.102
Hexachlorobutadiene	NA	1.348	1.349	1.349	1.349	1.348	1.349	1.348	1.348	1.348
Chlorodifluoromethane	0.430	0.434	0.430	0.430	0.430	0.432	0.430	0.431	0.430	0.431
Propene	NA	NA	0.431	0.431	0.431	0.433	0.431	0.432	0.431	0.431
Dichlorodifluoromethane	0.437	0.440	0.437	0.437	0.437	0.439	0.437	0.438	0.437	0.438
Chloromethane	NA	0.461	0.458	0.457	0.458	0.460	0.458	0.458	0.457	0.458
1,2-Dichlorotetrafluoroethan	0.458	0.461	0.458	0.458	0.458	0.461	0.458	0.459	0.458	0.459
Methanol	NA	NA	NA	NA	0.474	0.476	0.474	0.474	0.473	0.474
Vinyl Chloride	0.477	0.481	0.477	0.477	0.477	0.480	0.477	0.478	0.477	0.478
n-Butane	NA	0.490	0.487	0.487	0.487	0.490	0.486	0.488	0.486	0.488
1,3-Butadiene	0.487	0.491	0.487	0.487	0.487	0.490	0.486	0.488	0.486	0.488
Bromomethane	0.524	0.526	0.524	0.523	0.524	0.526	0.524	0.524	0.523	0.524
Chloroethane	0.540	0.542	0.540	0.539	0.540	0.542	0.539	0.540	0.539	0.540
Vinyl Bromide	0.574	0.576	0.573	0.573	0.574	0.576	0.574	0.574	0.573	0.574
2-methyl butane	NA	0.582	0.579	0.579	0.579	0.581	0.579	0.580	0.579	0.580
Trichlorofluoromethane	0.603	0.606	0.603	0.603	0.603	0.606	0.603	0.604	0.603	0.604
Acrolein	NA	0.609	0.606	0.606	0.605	0.608	0.605	0.606	0.605	0.606
Acetonitrile	NA	0.616	0.614	0.613	0.614	0.615	0.614	0.614	0.613	0.614
Acetone	NA	NA	NA	NA	0.620	0.622	0.620	0.620	0.619	0.620
Pentane	NA	0.630	0.628	0.628	0.628	0.630	0.628	0.629	0.627	0.628
Isopropyl Alcohol	NA	NA	0.630	0.630	0.629	0.632	0.629	0.630	0.629	0.630
Ethyl Ether	NA	0.653	0.649	0.649	0.648	0.650	0.648	0.649	0.647	0.649
1,1-Dichloroethene	0.682	0.684	0.682	0.682	0.681	0.684	0.682	0.682	0.682	0.682
Acrylonitrile	NA	0.697	0.695	0.694	0.694	0.696	0.695	0.695	0.694	0.695
tert-butanol	NA	NA	0.696	0.696	0.695	0.699	0.695	0.696	0.694	0.696
1,1,2-Trichlorotrifluoroetha	0.701	0.703	0.701	0.701	0.701	0.703	0.701	0.702	0.700	0.701
Methylene Chloride	NA	NA	0.720	0.720	0.720	0.722	0.720	0.721	0.720	0.720
3-Chloropropene	NA	0.724	0.722	0.722	0.722	0.724	0.722	0.723	0.722	0.723
Carbon Disulfide	NA	0.741	0.738	0.738	0.738	0.740	0.738	0.739	0.738	0.739
trans-1,2-Dichloroethene	0.809	0.811	0.810	0.809	0.809	0.811	0.809	0.810	0.809	0.810
Methyl-t-Butyl Ether	NA	0.834	0.828	0.828	0.827	0.828	0.826	0.826	0.826	0.828
1,1-Dichloroethane	0.856	0.857	0.856	0.856	0.856	0.856	0.856	0.856	0.855	0.856
Vinyl Acetate	NA	0.870	0.868	0.868	0.868	0.869	0.868	0.868	0.868	0.868
Hexane	NA	0.919	0.918	0.918	0.918	0.919	0.918	0.918	0.918	0.918

Evaluation Criteria
Internal Standard RT shift within 20 seconds of mean RT
Target compound RRT within 0.06 RRT of the RRT mean
Note: IS data is RT, SS and Target Compound Data is RRT.

Report Date:09/07/2010

INITIAL CALIBRATION RT and RRT REPORT

STD 1 = /chem/gcms/me.i/E090210I.b/eici021.d
STD 2 = /chem/gcms/me.i/E090210I.b/eici022.d
STD 3 = /chem/gcms/me.i/E090210I.b/eici023.d
STD 4 = /chem/gcms/me.i/E090210I.b/eici024.d
STD 5 = /chem/gcms/me.i/E090210I.b/eici025.d
STD 6 = /chem/gcms/me.i/E090210I.b/eici026.d
STD 7 = /chem/gcms/me.i/E090210I.b/eici027.d
STD 8 = /chem/gcms/me.i/E090210I.b/eici028.d
STD 9 = /chem/gcms/me.i/E090210I.b/eici029.d

COMPOUND	STD 1	STD 2	STD 3	STD 4	STD 5	STD 6	STD 7	STD 8	STD 9	MEAN
2-Butanone	NA	NA	NA	0.920	0.919	0.920	0.919	0.919	0.919	0.919
cis 1,2-Dichloroethene	NA	0.964	0.963	0.963	0.963	0.964	0.963	0.964	0.963	0.963
Ethyl acetate	NA	0.990	0.987	0.988	0.986	0.987	0.986	0.986	0.986	0.987
Chloroform	1.001	1.001	1.001	1.001	1.001	1.001	1.002	1.002	1.001	1.001
Tetrahydrofuran	NA	1.057	1.053	1.052	1.051	1.051	1.051	1.050	1.049	1.052
1,1,1-Trichloroethane	1.113	1.113	1.114	1.113	1.113	1.113	1.114	1.114	1.113	1.113
1,2-Dichloroethane	0.910	0.911	0.911	0.911	0.911	0.911	0.911	0.911	0.911	0.911
Cyclohexane	0.953	0.953	0.953	0.953	0.953	0.953	0.953	0.953	0.953	0.953
Benzene	NA	0.953	0.953	0.953	0.953	0.953	0.953	0.953	0.953	0.953
1-Butanol	NA	0.960	0.954	0.954	0.953	0.955	0.952	0.952	0.952	0.954
Carbon Tetrachloride	0.955	0.956	0.955	0.955	0.955	0.955	0.955	0.955	0.955	0.955
2,2,4-trimethylpentane	NA	1.020	1.018	1.018	1.018	1.018	1.018	1.018	1.018	1.018
Heptane	1.051	1.052	1.051	1.051	1.051	1.051	1.051	1.051	1.051	1.051
1,2,3-trichlorobenzene	1.354	1.353	1.354	1.354	1.354	1.353	1.354	1.353	NA	1.354
1,2-Dichloropropane	1.060	1.060	1.060	1.059	1.060	1.059	1.059	1.059	1.060	1.060
Trichloroethene	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062
Dibromomethane	NA	1.070	1.070	1.070	1.070	1.070	1.070	1.070	1.070	1.070
Bromodichloromethane	1.082	1.083	1.082	1.082	1.083	1.082	1.082	1.082	1.083	1.082
1,4-dioxane	NA	NA	1.089	1.088	1.087	1.087	1.087	1.086	1.087	1.087
methyl methacrylate	NA	1.093	1.092	1.092	1.092	1.091	1.092	1.091	1.092	1.092
4-Methyl-2-pentanone	NA	1.169	1.167	1.167	1.167	1.167	1.167	1.166	1.167	1.167
cis-1,3-Dichloropropene	1.170	1.170	1.170	1.170	1.170	1.170	1.170	1.170	1.170	1.170
trans-1,3-Dichloropropene	0.869	0.870	0.869	0.869	0.869	0.870	0.870	0.869	0.869	0.869
Toluene	NA	0.877	0.877	0.877	0.877	0.877	0.877	0.877	0.877	0.877
1,1,2-Trichloroethane	0.882	0.882	0.882	0.882	0.882	0.882	0.882	0.882	0.882	0.882
2-Hexanone	0.907	0.908	0.907	0.907	0.907	0.907	0.907	0.907	0.907	0.907
Octane	0.920	0.920	0.919	0.919	0.920	0.920	0.920	0.919	0.919	0.920
Dibromochloromethane	NA	0.926	0.926	0.926	0.926	0.926	0.926	0.926	0.926	0.926
1,2-Dibromoethane	0.944	0.944	0.944	0.944	0.944	0.944	0.944	0.944	0.944	0.944
Tetrachloroethene	0.948	0.948	0.948	0.948	0.948	0.948	0.948	0.948	0.948	0.948
Chlorobenzene	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003
Ethylbenzene	NA	1.021	1.021	1.021	1.021	1.021	1.021	1.021	1.021	1.021
m&p-Xylene	1.031	1.031	1.031	1.031	1.031	1.031	1.031	1.031	1.031	1.031
Nonane	NA	1.056	1.056	1.056	1.056	1.056	1.056	1.056	1.056	1.056
Bromoform	1.060	1.059	1.059	1.059	1.059	1.059	NA	NA	NA	1.059
Styrene	1.060	1.060	1.060	1.060	1.060	1.060	1.060	1.060	1.060	1.060
o-Xylene	NA	1.064	1.064	1.064	1.064	1.064	1.064	1.064	1.064	1.064

Evaluation Criteria
Internal Standard RT shift within 20 seconds of mean RT
Target compound RRT within 0.06 RRT of the RRT mean
Note: IS data is RT, SS and Target Compound Data is RRT.

Report Date:09/07/2010

INITIAL CALIBRATION RT and RRT REPORT

STD 1 = /chem/gcms/me.i/E090210I.b/eici021.d
STD 2 = /chem/gcms/me.i/E090210I.b/eici022.d
STD 3 = /chem/gcms/me.i/E090210I.b/eici023.d
STD 4 = /chem/gcms/me.i/E090210I.b/eici024.d
STD 5 = /chem/gcms/me.i/E090210I.b/eici025.d
STD 6 = /chem/gcms/me.i/E090210I.b/eici026.d
STD 7 = /chem/gcms/me.i/E090210I.b/eici027.d
STD 8 = /chem/gcms/me.i/E090210I.b/eici028.d
STD 9 = /chem/gcms/me.i/E090210I.b/eici029.d

COMPOUND	STD 1	STD 2	STD 3	STD 4	STD 5	STD 6	STD 7	STD 8	STD 9	MEAN
1,1,2,2-Tetrachloroethane	NA	1.084	1.084	1.084	1.084	1.084	1.084	1.084	1.084	1.084
1,2,3-Trichloropropane	NA	1.094	1.094	1.094	1.094	1.094	1.094	1.094	1.094	1.094
Cumene	NA	1.100	1.100	1.100	1.100	1.100	1.101	1.100	1.100	1.100
n-Propylbenzene	NA	1.133	1.133	1.133	1.133	1.133	1.134	1.133	1.133	1.133
2-chlorotoluene	NA	1.136	1.136	1.136	1.136	1.136	1.136	1.136	1.136	1.136
4-Ethyltoluene	NA	1.142	1.142	1.142	1.142	1.142	1.143	1.142	1.142	1.142
1,3,5-Trimethylbenzene	NA	1.147	1.147	1.147	1.147	1.147	1.147	1.147	1.147	1.147
Alpha-Methylstyrene	NA	1.161	1.161	1.161	1.161	1.161	1.161	1.161	1.161	1.161
Decane	NA	1.164	1.164	1.164	1.164	1.164	1.165	1.164	1.164	1.164
tert-butylbenzene	NA	1.173	1.173	1.173	1.173	1.173	1.173	1.173	1.173	1.173
1,2,4-Trimethylbenzene	NA	1.174	1.174	1.174	1.174	1.174	1.174	1.174	1.174	1.174
sec-butylbenzene	NA	1.189	1.190	1.190	1.190	1.189	1.190	1.189	NA	1.190
1,3-Dichlorobenzene	1.190	1.190	1.191	1.191	1.191	1.190	1.191	1.190	1.191	1.190
Benzyl Chloride	NA	1.195	1.195	1.196	1.195	1.195	1.196	1.195	1.196	1.195
1,4-Dichlorobenzene	1.196	1.196	1.196	1.196	1.196	1.196	1.196	1.196	1.196	1.196
p-Cymene	NA	1.200	1.200	1.200	1.200	1.199	1.200	1.200	1.200	1.200
1,2-Dichlorobenzene	NA	1.218	1.218	1.218	1.218	1.218	1.218	1.218	1.218	1.218
n-butylbenzene	NA	1.226	1.226	1.226	1.226	1.226	1.226	1.226	1.226	1.226
Undecane	NA	1.245	1.245	1.245	1.245	1.245	1.245	1.245	1.245	1.245
Dodecane	NA	1.312	1.312	1.312	1.312	1.312	1.312	1.312	1.312	1.312
1,2,4-Trichlorobenzene	1.326	1.325	1.326	1.326	1.326	1.325	1.326	1.325	NA	1.326
Napthalene	NA	1.334	1.335	1.335	1.335	1.334	1.335	1.334	1.334	1.334

Evaluation Criteria
Internal Standard RT shift within 20 seconds of mean RT
Target compound RRT within 0.06 RRT of the RRT mean
Note: IS data is RT, SS and Target Compound Data is RRT.

Data File: /var/chem/gcms/me.i/E090210I.b/eici021.d
Report Date: 03-Sep-2010 10:42

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/me.i/E090210I.b/eici021.d
Lab Smp Id: ICAL Client Smp ID: ICAL0.04
Inj Date : 02-SEP-2010 12:19
Operator : 22980 Inst ID: me.i
Smp Info : ICAL,,1,1,,ICAL0.04
Misc Info : E090210I,TO155,1-allmdl.sub,,,
Comment :
Method : /var/chem/gcms/me.i/E090210I.b/TO155.m
Meth Date : 03-Sep-2010 10:41 gosss Quant Type: ISTD
Cal Date : 02-SEP-2010 12:19 Cal File: eici021.d
Als bottle: 1 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-allmdl.sub
Target Version: 3.50

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	1.00000	Dilution Factor
Vt	500.00000	default calibration
Vo	200.00000	default sample volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ppb(v/v))	AMOUNTS ON-COL (ppb(v/v))
*	1 Bromochloromethane	128	9.130	9.135	(1.000)	628847	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.282	11.287	(1.000)	3011517	4.00000	4.000
*	3 Chlorobenzene-d5	117	15.978	15.978	(1.000)	2660993	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.613	17.619	(1.102)	1740944	4.00000	3.985
	7 Chlorodifluoromethane	67	3.928	3.928	(0.430)	3183	0.04000	0.05302
	8 Propene	41	3.944	3.939	(0.432)	9749	0.04000	0.05144
	9 Dichlorodifluoromethane	85	3.992	3.992	(0.437)	24846	0.04000	0.04456
	10 Chloromethane	52	4.181	4.181	(0.458)	3836	0.04000	0.05175
	11 1,2-Dichlorotetrafluoroethane	135	4.186	4.186	(0.458)	18190	0.04000	0.04468
	12 Methanol	31	4.320	4.326	(0.473)	137614	0.04000	0.9596
	13 Vinyl Chloride	62	4.358	4.358	(0.477)	11476	0.04000	0.04828
	14 n-Butane	43	4.450	4.444	(0.487)	17897	0.04000	0.04756
	15 1,3-Butadiene	54	4.450	4.444	(0.487)	7884	0.04000	0.04283
	16 Bromomethane	94	4.783	4.783	(0.524)	11529	0.04000	0.05271
	17 Chloroethane	64	4.934	4.928	(0.540)	5614	0.04000	0.05003
	18 Vinyl Bromide	106	5.240	5.240	(0.574)	8707	0.04000	0.04467

Data File: /var/chem/gcms/me.i/E090210I.b/icv902.d
Report Date: 03-Sep-2010 10:51

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: icv902.d
Lab Smp Id: ICV
Analysis Type: OTHER
Quant Type: ISTD
Operator: 22980
Method File: /var/chem/gcms/me.i/E090210I.b/TO155.m
Misc Info: E090210I,TO155,1-all.sub,,,

Calibration Date: 02-SEP-2010
Calibration Time: 15:47
Client Smp ID: 4.0PPB
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	621313	369681	872945	661431	6.46
2 1,4-Difluorobenze	2715211	1615551	3814871	2911649	7.23
3 Chlorobenzene-d5	2464944	1466642	3463246	2616420	6.15

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.15	8.82	9.48	9.14	-0.18
2 1,4-Difluorobenze	11.30	10.97	11.63	11.29	-0.09
3 Chlorobenzene-d5	15.98	15.65	16.31	15.98	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /chem/gcms/me.i/E090210I.b/icv902.d
Report Date: 07-Sep-2010 11:48

TestAmerica Knoxville

RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id: ICV
Level: LOW
Data Type: MS DATA
SpikeList File: icv4ppbv.spk
Sublist File: 1-all.sub
Client SDG: E090210I
Fraction: OTHER
Client Smp ID: 4.0PPB
Operator: 22980
SampleType: LCS
Quant Type: ISTD
Method File: /var/chem/gcms/me.i/E090210I.b/TO155.m
Misc Info: E090210I,TO155,1-all.sub,,,

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
7 Chlorodifluorometh	4.000	3.695	92.38	65-135
8 Propene	4.000	3.991	99.78	65-135
9 Dichlorodifluorome	4.000	4.035	100.87	65-135
10 Chloromethane	4.000	4.106	102.66	65-135
11 1,2-Dichlorotetraf	4.000	4.176	104.41	65-135
12 Methanol	4.000	2.859	71.48	65-135
13 Vinyl Chloride	4.000	4.030	100.75	65-135
14 n-Butane	4.000	4.034	100.85	65-135
15 1,3-Butadiene	4.000	3.964	99.09	65-135
16 Bromomethane	4.000	4.024	100.60	65-135
17 Chloroethane	4.000	3.953	98.83	65-135
18 Vinyl Bromide	4.000	3.901	97.52	65-135
19 2-methyl butane	4.000	3.987	99.67	65-135
20 Trichlorofluoromet	4.000	4.056	101.40	65-135
21 Acrolein	4.000	4.892	122.30	65-135
22 Acetonitrile	4.000	3.877	96.93	65-135
23 Acetone	4.000	3.070	76.74	65-135
24 Pentane	4.000	4.202	105.04	65-135
25 Isopropyl Alcohol	4.000	3.639	90.98	65-135
26 Ethyl Ether	4.000	4.010	100.24	65-135
27 1,1-Dichloroethene	4.000	3.431	85.77	65-135
29 tert-butanol	4.000	3.818	95.45	65-135
28 Acrylonitrile	4.000	3.870	96.74	65-135
30 1,1,2-Trichlorotri	4.000	3.451	86.27	65-135
31 Methylene Chloride	4.000	3.163	79.07	65-135
32 3-Chloropropene	4.000	4.079	101.97	65-135
33 Carbon Disulfide	4.000	3.944	98.61	65-135
34 trans-1,2-Dichloro	4.000	3.949	98.74	65-135
35 Methyl-t-Butyl Eth	4.000	3.645	91.12	65-135
36 1,1-Dichloroethane	4.000	3.680	92.00	65-135
37 Vinyl Acetate	4.000	3.998	99.95	65-135
39 2-Butanone	4.000	3.729	93.23	65-135
38 Hexane	4.000	3.774	94.34	65-135

Data File: /chem/gcms/me.i/E090210I.b/icv902.d
Report Date: 07-Sep-2010 11:48

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS	
40 cis 1,2-Dichloroet	4.000	3.678	91.94	65-135	
41 Ethyl acetate	4.000	3.615	90.39	65-135	
42 Chloroform	4.000	3.706	92.66	65-135	
43 Tetrahydrofuran	4.000	3.662	91.56	65-135	
44 1,1,1-Trichloroeth	4.000	3.775	94.37	65-135	
45 1,2-Dichloroethane	4.000	3.751	93.77	65-135	
47 1-Butanol	4.000	4.268	106.69	65-135	
46 Benzene	4.000	3.734	93.36	65-135	
48 Cyclohexane	4.000	4.014	100.35	65-135	
49 Carbon Tetrachlori	4.000	3.994	99.84	65-135	
50 2,2,4-trimethylpen	4.000	3.978	99.45	65-135	
51 Heptane	4.000	3.926	98.14	65-135	
52 1,2-Dichloropropan	4.000	3.809	95.23	65-135	
53 Trichloroethene	4.000	3.931	98.29	65-135	
54 Dibromomethane	4.000	4.079	101.99	65-135	
55 Bromodichlorometha	4.000	4.275	106.87	65-135	
56 1,4-dioxane	4.000	4.148	103.70	65-135	
57 methyl methacrylat	4.000	4.115	102.88	65-135	
58 4-Methyl-2-pentano	4.000	4.227	105.68	65-135	
59 cis-1,3-Dichloropr	4.000	4.032	100.80	65-135	
60 trans-1,3-Dichloro	4.000	4.165	104.12	65-135	
61 Toluene	4.000	3.828	95.69	65-135	
62 1,1,2-Trichloroeth	4.000	4.083	102.07	65-135	
63 2-Hexanone	4.000	4.498	112.44	65-135	
64 Octane	4.000	4.074	101.86	65-135	
65 Dibromochlorometha	4.000	4.656	116.40	65-135	
66 1,2-Dibromoethane	4.000	4.326	108.16	65-135	
67 Tetrachloroethene	4.000	4.023	100.58	65-135	
68 Chlorobenzene	4.000	4.067	101.68	65-135	
69 Ethylbenzene	4.000	3.898	97.44	65-135	
70 m&p-Xylene	8.000	7.937	99.21	65-135	
72 Nonane	4.000	4.146	103.65	65-135	
71 Bromoform	4.000	5.810	145.26*	65-135	- over range see rerun
73 Styrene	4.000	4.599	114.97	65-135	
74 o-Xylene	4.000	3.845	96.13	65-135	
75 1,1,2,2-Tetrachlor	4.000	4.069	101.73	65-135	
76 1,2,3-Trichloropro	4.000	4.060	101.51	65-135	
77 Cumene	4.000	3.890	97.26	65-135	
78 n-Propylbenzene	4.000	4.012	100.29	65-135	
79 2-chlorotoluene	4.000	4.003	100.07	65-135	
80 4-Ethyltoluene	4.000	4.055	101.38	65-135	
81 1,3,5-Trimethylben	4.000	3.720	93.01	65-135	
82 Alpha-Methylstyren	4.000	4.560	114.00	65-135	
83 Decane	4.000	4.080	101.99	65-135	
84 tert-butylbenzene	4.000	3.821	95.52	65-135	
85 1,2,4-Trimethylben	4.000	3.910	97.75	65-135	
86 sec-butylbenzene	4.000	3.849	96.23	65-135	

Data File: /chem/gcms/me.i/E090210I.b/icv902.d
Report Date: 07-Sep-2010 11:48

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
87 1,3-Dichlorobenzen	4.000	4.292	107.29	65-135
88 Benzyl Chloride	4.000	4.480	112.00	65-135
89 1,4-Dichlorobenzen	4.000	4.356	108.91	65-135
90 p-Cymene	4.000	3.898	97.46	65-135
91 1,2-Dichlorobenzen	4.000	4.094	102.34	65-135
92 n-butylbenzene	4.000	4.027	100.67	65-135
93 Undecane	4.000	3.966	99.16	65-135
94 Dodecane	4.000	4.194	104.85	65-135
95 1,2,4-Trichloroben	4.000	4.276	106.89	65-135
96 Napthalene	4.000	3.901	97.53	65-135
97 Hexachlorobutadien	4.000	3.450	86.24	65-135
98 1,2,3-trichloroben	4.000	3.881	97.03	65-135

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.175	104.37	70-130

Data File: /var/chem/gcms/me.i/E090210I.b/e1pti02.d
Report Date: 03-Sep-2010 11:43

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: me.i
Lab File ID: e1pti02.d
Analysis Type: AIR
Lab Sample ID:
Method: /var/chem/gcms/me.i/E090210I.b/TO155.m

Injection Date: 02-SEP-2010 20:50
Init. Cal. Date(s): 02-SEP-2010 03-SEP-2010
Init. Cal. Times: 12:19 09:45
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 ~ Thiophene	0.01746	0.01746	0.000	0.000e+00	25.00000	Averaged
100 ~ 1,2,3-trimethylbenzene	0.02704	0.02704	0.000	0.000e+00	25.00000	Averaged
101 ~ Indane	0.02625	0.02625	0.000	0.000e+00	25.00000	Averaged
102 ~ Indene	0.01522	0.01522	0.000	0.000e+00	25.00000	Averaged
103 ~ 2-Methylnaphthalene	0.04896	0.04896	0.000	0.000e+00	25.00000	Averaged
104 ~ 1-Methylnaphthalene	0.06386	0.06386	0.000	0.000e+00	25.00000	Averaged
162 ~ methyl cyclohexane	0.02130	0.02130	0.000	0.000e+00	25.00000	Averaged
163 ~ acetaldehyde	0.16314	0.16314	0.000	0.000e+00	25.00000	Averaged
165 ~ 2,3,-Dimethyl pentane	0.02363	0.02363	0.000	0.000e+00	25.00000	Averaged
168 ~ 2,3-Dimethyl heptane	0.04642	0.04642	0.000	0.000e+00	25.00000	Averaged
164 ~ Ethanol	0.20402	0.20402	0.000	0.000e+00	25.00000	Averaged
166 ~ 2-Methyl thiophene	0.03067	0.03067	0.000	0.000e+00	25.00000	Averaged
167 ~ 3-Methyl thiophene	0.03136	0.03136	0.000	0.000e+00	25.00000	Averaged
169 ~ 2-Ethyl thiophene	0.03005	0.03005	0.000	0.000e+00	25.00000	Averaged
170 ~ n-butylcyclohexane	0.02750	0.02750	0.000	0.000e+00	25.00000	Averaged
171 ~ 1,2-Dimethyl-4-ethyl benz	0.02251	0.02251	0.000	0.000e+00	25.00000	Averaged
172 ~ 1,2,4,5-tetramethylbenzen	0.02072	0.02072	0.000	0.000e+00	25.00000	Averaged
173 ~ 1,2,3,5-tetramethylbenzen	0.01767	0.01767	0.000	0.000e+00	25.00000	Averaged
174 ~ 1,2,3,4-tetramethylbenzen	0.01605	0.01605	0.000	0.000e+00	25.00000	Averaged
175 ~ benzo(b) thiophene	0.00940	0.00940	0.000	0.000e+00	25.00000	Averaged

TestAmerica Knoxville GC/MS Air Continuing Calibration Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 11

Analysis Date:	9/8/10	CCAL Batch/ Scan Name:	E090810	Instrument:	ME	ICAL Batch/ Scan Name:	E090210I	Scanned ☐ ✓

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd
1. Did BFB meet tune criteria?		✓		☐ failed for TO-14A, but passes for TO-15	✓
2. Were all standards injected within 24 hr of BFB?		✓			✓
3. Have the Entech position no. & vol. been verified with run log & sample vol. corrected if actual amount differs >5%?		✓			✓
4. Was date/time of analysis in logbook correct?		✓			✓
5. Was the CCAL compared to the correct ICAL (date & time on CCAL matches the ICAL)		✓		naphthalene -39% 124tcb2 -27%	✓
6. Is the %D ≤ 30% for all target analytes? (Narrative req'd.).		✓		☐ [ccal] analytes > 30% but passes LCS criteria.	✓
7. Have all peaks been auto identified? If not, list:		✓			✓
8. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓			Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	NA
9. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in CCAL summary?	✓				NA
10. Is the first IS documented correctly on the log?		✓			✓
11. Elution order checked on isomeric pairs?		✓			✓
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane		✓			✓
• vinyl acetate / hexane		✓			✓
• cis- and trans- isomers		✓			✓
• ethyl benzene / m/p-xylene / o-xylene		✓			✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene		✓			✓
• tert-butylbenzene/p-cymene		✓			✓
• 1,2,4-trimethylbenzene/sec-butylbenzene		✓			✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene		✓			✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene		✓			✓
12. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%).		✓		☐ [lcs6] LCS analyte(s) flagged as being outside control limits but within marginal limits ☐ [lcs5] LCS outside marginal exceedences high, but analytes were not detected	✓
13. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				NA
14. Does the CCAL folder contain **complete** data in the following order: data review checklist, a **complete** runlog, Entech report, tune pass/fail page, m/z list, tune chromatogram, Target CCAL summary, Quan report, chromatogram, manual integrations.		✓			✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst:	Date: 9/9/10	2nd Level Reviewer : AB	Date: 9/9/10
Comments:		Comments:	

TestAmerica Laboratories, Inc. - Knoxville
CANISTER RUN LOG

GCMS Analysis: AIR Inst: ME

Analyst: HW Qtims Batch: 0252116 L6N9F

Date: 9/8/10 ICAL Batch: E090210S Target Batch: E090810 IS #1 Area: 776872

Surr/IS ID & Vol.: 40mlV320 System Date/Time ok (y/n): y

Preventive Maintenance Performed ☑ Daily

Time	Use	Lot No.	File ID	Can #	Pos	Vol* (mL)	Can DF	Comments
1037	✓	tune	EBFBID8	—	16	100	1	
1207	✓	CCV	CCVID8A	CX2117	15	100		naph 38 123 39 dodec 34, 124, 39, naph 40
1207	✓	LCS	LCSID8A	↓	↓	↓		
1253	✓	IPT	IPTID8	CX2104	500	40	9/8/10	
1334	✓	Blk	Blk ↓	—	16	500		
1106	N	CCV	ECCVID8	CX2123	15	100		
1412	✓	HOI030405	L6HATIAA	1126	1	150	631.8	2106
1452	✓		HAV	12404	2	500	2.1	
1531	✓		HAW	92021	3	100	1	
1610	✓		HAX	51502	4	200		
1649	✓		HAO	93168	5	200	↓	
1727	✓		HAI	12875	6	25	1.48	
1806	✓		HAS	1010	7	11	1	10mL
1848	✓		HA6	7480	8	500	1	
1926	✓		HA7	1364	9	12	4.17	10mL
2006	✓		HA8	7492	10	11	1	10mL
2048	✓		HCA	6601	11	500	1	
2128	✓		HCC	04323	12	78	1.56	
2213	✓		HCG	1145	13	820	1.64	
2259	✓		HCK	92084	14	500	1	
2339	RR 500mL		HCM	1142	15	100		
0018	dup 0kasdep		HCMD	1142	15	100	↓	
0217	OK	lot 8821	7787 →		16	500	1	
0256	OK	lot 8827	12579 →		STD	↓	1	Benz. 200mL
0058	✓	HOI030405	L6HCP1AA	04165	1	200	1	
0136	RR500mL	↓	↓ HCT ↓	7488	2	↓	1	
							9/9/10	

* Entech programmed Volume. If the Entech report amount differs from the programmed amount by >5%, the Entech report amount is used for calulations.

Analyst: _____ Date: 9/9/10

Test America - Knoxville

Entech Autosampler Log

Position	Volume		Date	Time
16	101		9/8/2010	10:37
15	101		9/8/2010	11:06
15	100		9/8/2010	12:07
15	0	41(Std)	9/8/2010	12:53
16	501		9/8/2010	13:34
1	151		9/8/2010	14:12
2	501		9/8/2010	14:52
3	101		9/8/2010	15:30
4	201		9/8/2010	16:10
5	201		9/8/2010	16:49
6	26		9/8/2010	17:27
7	11		9/8/2010	18:06
8	501		9/8/2010	18:48
9	12		9/8/2010	19:26
10	11		9/8/2010	20:06
11	501		9/8/2010	20:48
12	79		9/8/2010	21:28
13	821		9/8/2010	22:13
14	501		9/8/2010	22:59
15	101		9/8/2010	23:39
15	101		9/9/2010	0:18
1	201		9/9/2010	0:58
2	201		9/9/2010	1:36
16	501		9/9/2010	2:17
16	0	501(Std)	9/9/2010	2:56

Data File: /chem/gcms/me.i/E090810.b/ebfbi08.d

Date : 08-SEP-2010 10:37

Client ID: BFB

Instrument: me.i

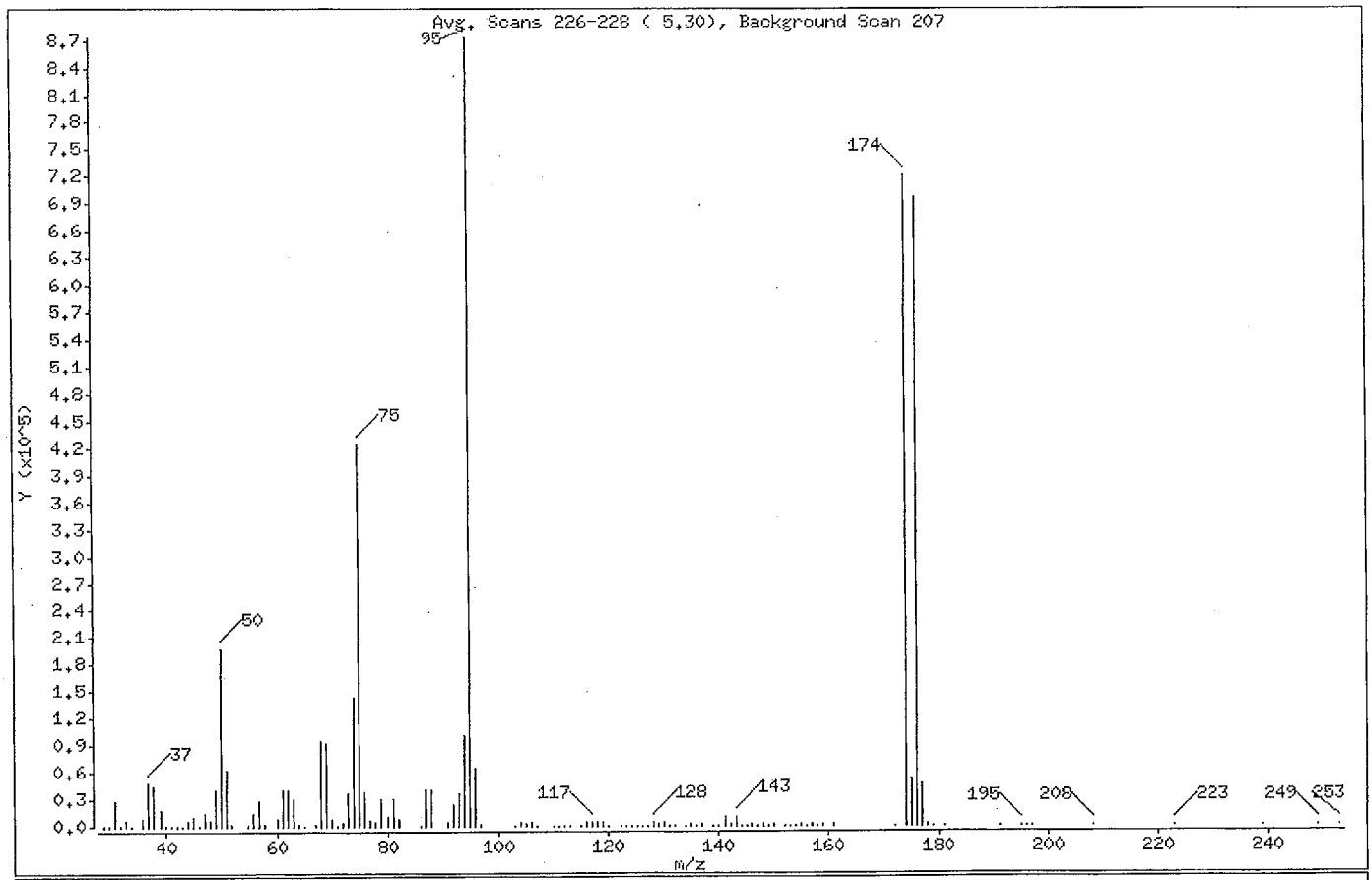
Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: RTX-5

Column diameter: 0.32

1 BFB



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	22.63
75	30.00 - 60.00% of mass 95	48.56
96	5.00 - 9.00% of mass 95	7.32
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	82.51
175	5.00 - 9.00% of mass 174	5.99 (7.26)
176	95.00 - 101.00% of mass 174	79.69 (96.59)
177	5.00 - 9.00% of mass 176	5.33 (6.68)

Data File: /chem/gcms/me.i/E090810.b/ebfbi08.d

Date : 08-SEP-2010 10:37

Client ID: BFB

Instrument: me.i

Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: RTX-5

Column diameter: 0.32

Data File: ebfbi08.d
Spectrum: Avg. Scans 226-228 (5.30), Background Scan 207
Location of Maximum: 95.00
Number of points: 127

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	277	65.00	369	110.00	542	146.00	1306
30.00	143	67.00	2052	111.00	898	147.00	732
31.00	27832	68.00	93792	112.00	532	148.00	2116
32.00	627	69.00	92088	113.00	865	149.00	471
33.00	5809	70.00	8285	115.00	942	150.00	1046
34.00	68	71.00	470	116.00	3172	152.00	576
36.00	8387	72.00	4259	117.00	4938	153.00	709
37.00	47840	73.00	35792	118.00	3345	154.00	478
38.00	45088	74.00	142400	119.00	4788	155.00	1933
39.00	17312	75.00	424064	120.00	353	156.00	244
40.00	716	76.00	37248	122.00	69	157.00	1594
41.00	211	77.00	5129	123.00	329	158.00	325
42.00	111	78.00	3832	124.00	492	159.00	1027
43.00	554	79.00	30232	125.00	290	161.00	1122
44.00	5420	80.00	10202	126.00	362	172.00	93
45.00	9759	81.00	30616	127.00	279	174.00	720512
46.00	736	82.00	8245	128.00	3227	175.00	52320
47.00	13835	86.00	958	129.00	1490	176.00	695936
48.00	5063	87.00	40984	130.00	3096	177.00	46512
49.00	39288	88.00	40352	131.00	827	178.00	1400
50.00	197632	91.00	3287	132.00	142	179.00	67
51.00	61480	92.00	23504	134.00	236	181.00	75
52.00	2677	93.00	36360	135.00	1802	191.00	111
55.00	2284	94.00	100096	136.00	301	195.00	118
56.00	14707	95.00	873280	137.00	1640	196.00	68
57.00	27496	96.00	63896	139.00	306	197.00	66
58.00	1134	97.00	1598	140.00	552	208.00	355
60.00	7049	103.00	391	141.00	9334	223.00	236
61.00	39448	104.00	4053	142.00	1077	239.00	69
62.00	39392	105.00	1878	143.00	9530	249.00	73
63.00	30552	106.00	4317	144.00	523	253.00	415
64.00	2781	107.00	840	145.00	890		

Data File: /chem/gcms/me.i/E090810.b/ebfbi08.d

Date : 08-SEP-2010 10:37

Client ID: BFB

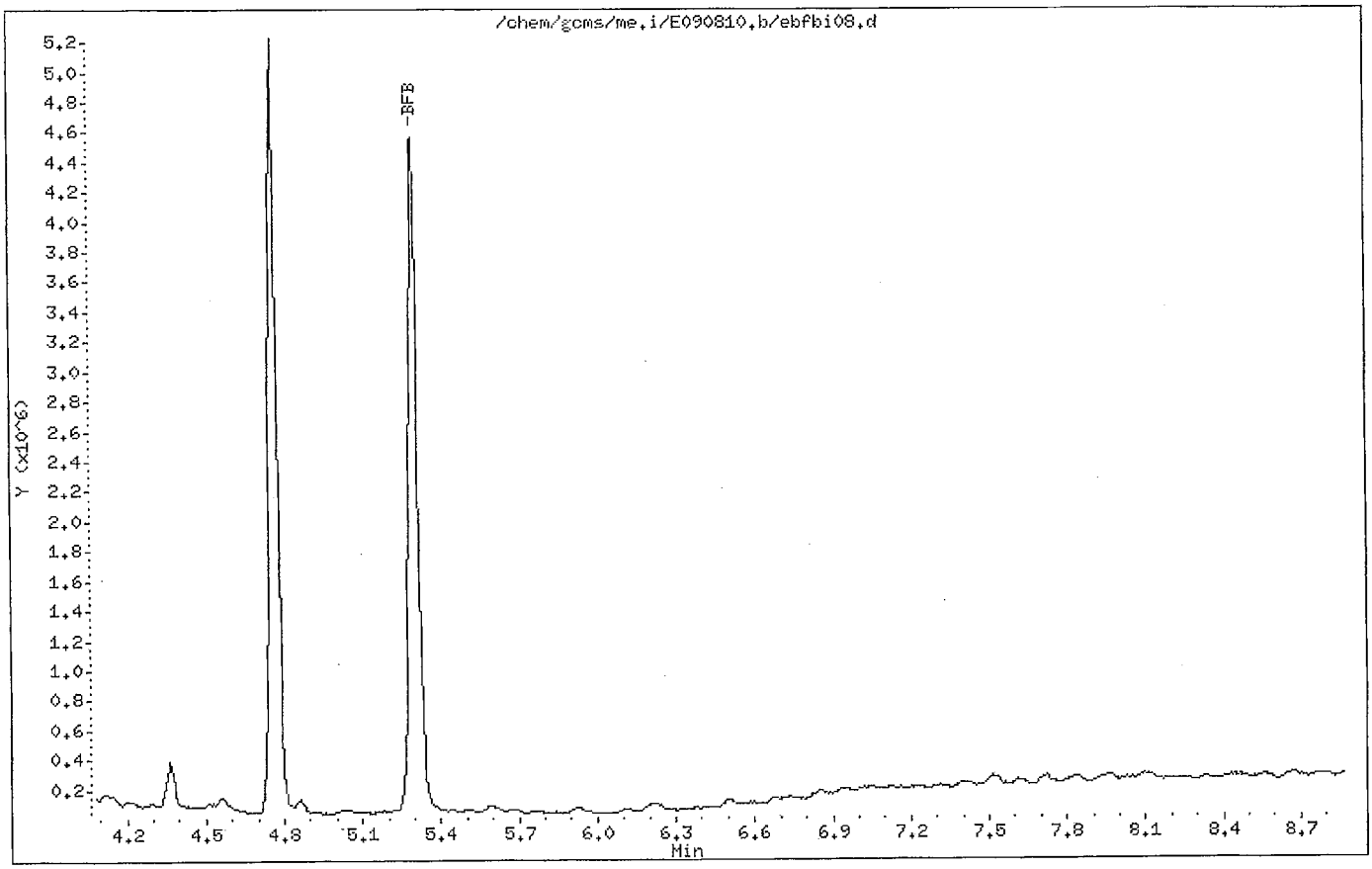
Instrument: me.i

Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: RTX-5

Column diameter: 0.32



Data File: /var/chem/gcms/me.i/E090810.b/eccvi08a.d
Report Date: 08-Sep-2010 13:24

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: me.i
Lab File ID: eccvi08a.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/me.i/E090810.b/TO155.m

Injection Date: 08-SEP-2010 12:07
Init. Cal. Date(s): 02-SEP-2010 08-SEP-2010
Init. Cal. Times: 12:19 12:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 6 4-Bromofluorobenzene	0.65677	0.66030	0.000	-0.53643	30.00000	Averaged
7 Chlorodifluoromethane	0.38185	0.40036	0.000	-4.84790	30.00000	Averaged
8 Propene	1.20554	1.40967	0.000	-16.93320	30.00000	Averaged
9 Dichlorodifluoromethane	3.54692	4.03019	0.000	-13.62514	30.00000	Averaged
10 Chloromethane	0.47147	0.55847	0.000	-18.45190	30.00000	Averaged
11 1,2-Dichlorotetrafluoroetha	2.58976	2.86557	0.000	-10.65010	30.00000	Averaged
12 Methanol	0.91222	0.00052	0.000	NA 100	30.00000	Averaged <-WT
13 Vinyl Chloride	1.51202	1.71873	0.000	-13.67115	30.00000	Averaged
14 n-Butane	2.39371	2.79659	0.000	-16.83083	30.00000	Averaged
15 1,3-Butadiene	1.17080	1.30048	0.000	-11.07576	30.00000	Averaged
16 Bromomethane	1.39132	1.51392	0.000	-8.81147	30.00000	Averaged
17 Chloroethane	0.71377	0.81021	0.000	-13.51079	30.00000	Averaged
18 Vinyl Bromide	1.23984	1.32132	0.000	-6.57229	30.00000	Averaged
19 2-methyl butane	1.86134	2.16667	0.000	-16.40395	30.00000	Averaged
20 Trichlorofluoromethane	3.29547	3.66602	0.000	-11.24393	30.00000	Averaged
21 Acrolein	0.36636	0.42467	0.000	-15.91723	30.00000	Averaged
22 Acetonitrile	0.49296	0.49577	0.000	-0.57074	30.00000	Averaged
23 Acetone	0.63634	0.54672	0.000	14.08350	30.00000	Averaged
24 Pentane	0.20402	0.23626	0.000	-15.80388	30.00000	Averaged
25 Isopropyl Alcohol	1.55650	1.45722	0.000	6.37854	30.00000	Averaged
26 Ethyl Ether ✓	1.63460	1.79111	0.000	-9.57481	30.00000	Averaged
27 1,1-Dichloroethene	1.27037	1.20064	0.000	5.48865	30.00000	Averaged
28 Acrylonitrile	0.89191	0.88368	0.000	0.92219	30.00000	Averaged
29 tert-butanol	1.88599	1.82018	0.000	3.48962	30.00000	Averaged
30 1,1,2-Trichlorotrifluoroeth	2.68408	2.53232	0.000	5.65392	30.00000	Averaged
31 Methylene Chloride	1.30438	1.17254	0.000	10.10701	30.00000	Averaged
32 3-Chloropropene	1.19048	1.30395	0.000	-9.53158	30.00000	Averaged
33 Carbon Disulfide	3.83538	4.21545	0.000	-9.90949	30.00000	Averaged
34 trans-1,2-Dichloroethene	1.29878	1.40636	0.000	-8.28299	30.00000	Averaged
35 Methyl-t-Butyl Ether	2.92107	2.69783	0.000	7.64226	30.00000	Averaged
36 1,1-Dichloroethane	2.51056	2.46714	0.000	1.72948	30.00000	Averaged
37 Vinyl Acetate	2.97369	3.10407	0.000	-4.38452	30.00000	Averaged
38 Hexane	1.21957	1.25306	0.000	-2.74603	30.00000	Averaged
39 2-Butanone	0.49526	0.42602	0.000	13.98023	30.00000	Averaged
40 cis 1,2-Dichloroethene	1.33588	1.27626	0.000	4.46302	30.00000	Averaged
41 Ethyl Acetate	0.39311	0.34103	0.000	13.24835	30.00000	Averaged

Data File: /var/chem/gcms/me.i/E090810.b/eccvi08a.d
Report Date: 08-Sep-2010 13:24

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: me.i
Lab File ID: eccvi08a.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/me.i/E090810.b/TO155.m

Injection Date: 08-SEP-2010 12:07
Init. Cal. Date(s): 02-SEP-2010 08-SEP-2010
Init. Cal. Times: 12:19 12:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
42 Chloroform	2.74261	2.61859	0.000	4.52225	30.00000	Averaged
43 Tetrahydrofuran	1.42199	1.35739	0.000	4.54324	30.00000	Averaged
44 1,1,1-Trichloroethane	2.75680	2.68073	0.000	2.75954	30.00000	Averaged
45 1,2-Dichloroethane	0.39653	0.40743	0.000	-2.74912	30.00000	Averaged
48 Cyclohexane	0.15042	0.16645	0.000	-10.65573	30.00000	Averaged
46 Benzene	0.89280	0.87761	0.000	1.70214	30.00000	Averaged
47 1-Butanol	0.08869	0.10496	0.000	-18.34424	30.00000	Averaged
49 Carbon Tetrachloride	0.65447	0.68057	0.000	-3.98775	30.00000	Averaged
50 2,2,4-trimethylpentane	1.54050	1.68547	0.000	-9.41105	30.00000	Averaged
51 Heptane	0.62536	0.68552	0.000	-9.61947	30.00000	Averaged
52 1,2-Dichloropropane	0.34255	0.34687	0.000	-1.26109	30.00000	Averaged
53 Trichloroethene	0.40705	0.40327	0.000	0.92994	30.00000	Averaged
54 Dibromomethane	0.35486	0.37643	0.000	-6.07792	30.00000	Averaged
55 Bromodichloromethane	0.58842	0.65139	0.000	-10.70129	30.00000	Averaged
56 1,4-dioxane	0.09249	0.09182	0.000	0.72395	30.00000	Averaged
57 Methyl Methacrylate	0.32912	0.33751	0.000	-2.54938	30.00000	Averaged
58 4-Methyl-2-pentanone	0.56889	0.55716	0.000	2.06199	30.00000	Averaged
59 cis-1,3-Dichloropropene	0.42969	0.44854	0.000	-4.38754	30.00000	Averaged
60 trans-1,3-Dichloropropene	0.44307	0.47441	0.000	-7.07239	30.00000	Averaged
61 Toluene	1.05696	1.04205	0.000	1.41065	30.00000	Averaged
62 1,1,2-Trichloroethane	0.36931	0.38682	0.000	-4.74096	30.00000	Averaged
63 2-Hexanone	0.28160	0.28675	0.000	-1.82600	30.00000	Averaged
64 Octane	0.34545	0.36283	0.000	-5.02970	30.00000	Averaged
65 Dibromochloromethane	0.61252	0.69547	0.000	-13.54202	30.00000	Averaged
66 1,2-Dibromoethane	0.52321	0.55533	0.000	-6.14040	30.00000	Averaged
67 Tetrachloroethene	0.42013	0.42584	0.000	-1.35880	30.00000	Averaged
68 Chlorobenzene	0.79706	0.80138	0.000	-0.54304	30.00000	Averaged
69 Ethylbenzene	1.24291	1.19981	0.000	3.46741	30.00000	Averaged
70 m&p-Xylene	0.94289	0.91715	0.000	2.72953	30.00000	Averaged
M 176 Xylene (total)	0.96164	0.92778	0.000	3.52182	30.00000	Averaged
72 Nonane	0.74650	0.81148	0.000	-8.70495	30.00000	Averaged
71 Bromoform	0.46429	0.56718	0.000	-22.15998	30.00000	Averaged
73 Styrene	0.63859	0.66342	0.000	-3.88778	30.00000	Averaged
74 o-Xylene	0.99957	0.94903	0.000	5.05583	30.00000	Averaged
75 1,1,2,2-Tetrachloroethane	0.75776	0.72347	0.000	4.52481	30.00000	Averaged

Data File: /var/chem/gcms/me.i/E090810.b/eccvi08a.d
Report Date: 08-Sep-2010 13:24

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: me.i
Lab File ID: eccvi08a.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/me.i/E090810.b/TO155.m

Injection Date: 08-SEP-2010 12:07
Init. Cal. Date(s): 02-SEP-2010 08-SEP-2010
Init. Cal. Times: 12:19 12:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
76 1,2,3-Trichloropropane	0.19097	0.17579	0.000	7.94763	30.00000	Averaged	
77 Cumene	1.41051	1.33111	0.000	5.62913	30.00000	Averaged	
78 n-Propylbenzene	0.38261	0.34547	0.000	9.70623	30.00000	Averaged	
79 2-chlorotoluene	0.38014	0.35172	0.000	7.47573	30.00000	Averaged	
80 4-Ethyltoluene	1.28734	1.19666	0.000	7.04356	30.00000	Averaged	
81 1,3,5-Trimethylbenzene	0.57351	0.48467	0.000	15.49146	30.00000	Averaged	
82 Alpha-Methylstyrene	0.49006	0.46386	0.000	5.34630	30.00000	Averaged	
83 Decane	0.83981	0.85572	0.000	-1.89426	30.00000	Averaged	
84 Tert-butylbenzene	1.26001	1.08798	0.000	13.65302	30.00000	Averaged	
85 1,2,4-Trimethylbenzene	1.08952	0.95290	0.000	12.54003	30.00000	Averaged	
86 sec-butylbenzene	1.66953	1.48596	0.000	10.99522	30.00000	Averaged	
87 1,3-Dichlorobenzene	0.70990	0.61359	0.000	13.56698	30.00000	Averaged	
88 Benzyl Chloride	0.76043	0.68266	0.000	10.22803	30.00000	Averaged	
89 1,4-Dichlorobenzene	0.66093	0.56318	0.000	14.78943	30.00000	Averaged	
90 p-Cymene	1.27176	1.09611	0.000	13.81195	30.00000	Averaged	
91 1,2-Dichlorobenzene	0.68090	0.58212	0.000	14.50746	30.00000	Averaged	
92 n-butylbenzene	1.10168	0.95625	0.000	13.20079	30.00000	Averaged	
93 Undecane	0.70081	0.49473	0.000	29.40567	30.00000	Averaged	
94 Dodecane	0.50841	0.33469	0.000	34.16939	30.00000	Averaged	<- NA
95 1,2,4-Trichlorobenzene	0.26635	0.16817	0.000	36.86023	30.00000	Averaged	<- 60-140
96 Napthalene	0.69549	0.42146	0.000	39.40155	30.00000	Averaged	<- 60-140
97 Hexachlorobutadiene	0.48559	0.30359	0.000	37.47927	30.00000	Averaged	<- NA
98 1,2,3-trichlorobenzene	0.23834	0.14676	0.000	38.42386	30.00000	Averaged	<- NA

Data File: /var/chem/gcms/me.i/E090810.b/e1pti08.d
Report Date: 08-Sep-2010 13:23

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: me.i
Lab File ID: e1pti08.d
Analysis Type: AIR
Lab Sample ID: 1PTCAL
Method: /var/chem/gcms/me.i/E090810.b/TO155.m

Injection Date: 08-SEP-2010 12:53
Init. Cal. Date(s): 02-SEP-2010 08-SEP-2010
Init. Cal. Times: 12:19 12:53
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 ~ Thiophene	0.53843	0.53843	0.000	0.000e+00	25.00000	Averaged
100 ~ 1,2,3-trimethylbenzene	0.76113	0.76113	0.000	1.459e-14	25.00000	Averaged
101 ~ Indane	0.79284	0.79284	0.000	0.000e+00	25.00000	Averaged
102 ~ Indene	0.45172	0.45172	0.000	0.000e+00	25.00000	Averaged
103 ~ 2-Methylnaphthalene	0.09640	0.09640	0.000	0.000e+00	25.00000	Averaged
104 ~ 1-Methylnaphthalene	0.12669	0.12669	0.000	0.000e+00	25.00000	Averaged
162 ~ methyl cyclohexane	0.61649	0.61649	0.000	0.000e+00	25.00000	Averaged
163 ~ acetaldehyde	1.02994	1.02994	0.000	0.000e+00	25.00000	Averaged
165 ~ 2,3,-Dimethyl pentane	0.75799	0.75799	0.000	0.000e+00	25.00000	Averaged
168 ~ 2,3-Dimethyl heptane	1.50716	1.50716	0.000	0.000e+00	25.00000	Averaged
164 ~ Ethanol	1.08897	1.08897	0.000	-2.039e-14	25.00000	Averaged
166 ~ 2-Methyl thiophene	0.92746	0.92746	0.000	0.000e+00	25.00000	Averaged
167 ~ 3-Methyl thiophene	0.93127	0.93127	0.000	0.000e+00	25.00000	Averaged
169 ~ 2-Ethyl thiophene	0.89101	0.89101	0.000	1.246e-14	25.00000	Averaged
170 ~ n-butylcyclohexane	0.83783	0.83783	0.000	0.000e+00	25.00000	Averaged
171 ~ 1,2-Dimethyl-4-ethyl benz	0.63127	0.63127	0.000	1.759e-14	25.00000	Averaged
172 ~ 1,2,4,5-tetramethylbenzen	0.57235	0.57235	0.000	1.940e-14	25.00000	Averaged
173 ~ 1,2,3,5-tetramethylbenzen	0.45246	0.45246	0.000	0.000e+00	25.00000	Averaged
174 ~ 1,2,3,4-tetramethylbenzen	0.49902	0.49902	0.000	1.112e-14	25.00000	Averaged
175 ~ benzo(b) thiophene	0.24972	0.24972	0.000	0.000e+00	25.00000	Averaged

TestAmerica Knoxville GC/MS Air Continuing Calibration Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 11

Analysis Date:	9/9/10	CCAL Batch/ Scan Name:	E090910	Instrument:	ME	ICAL Batch/ Scan Name:	E090210I	Scanned

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd
1. Did BFB meet tune criteria?		✓		☐ failed for TO-14A, but passes for TO-15	✓
2. Were all standards injected within 24 hr of BFB?		✓			✓
3. Have the Entech position no. & vol. been verified with run log & sample vol. corrected if actual amount differs >5%?		✓			✓
4. Was date/time of analysis in logbook correct?		✓			✓
5. Was the CCAL compared to the correct ICAL (date & time on CCAL matches the ICAL)		✓			✓
6. Is the %D ≤ 30% for all target analytes? (Narrative req'd.).		✓		☐ [ccal] analytes > 30% but passes LCS criteria.	✓
7. Have all peaks been auto identified? If not, list:		✓			✓
8. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓			Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	NA
9. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in CCAL summary?	✓				NA
10. Is the first IS documented correctly on the log?		✓			✓
11. Elution order checked on isomeric pairs?		✓			✓
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane		✓			✓
• vinyl acetate / hexane		✓			✓
• cis- and trans- isomers		✓			✓
• ethyl benzene / m/p-xylene / o-xylene		✓			✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene		✓			✓
• tert-butylbenzene/p-cymene		✓			✓
• 1,2,4-trimethylbenzene/sec-butylbenzene		✓			✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene		✓			✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene		✓			✓
12. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%).		✓		☐ [lcs6] LCS analyte(s) flagged as being outside control limits but within marginal limits ☐ [lcs5] LCS outside marginal exceedences high, but analytes were not detected	✓
13. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				NA
14. Does the CCAL folder contain **complete** data in the following order: data review checklist, a **complete** runlog, Entech report, tune pass/fail page, m/z list, tune chromatogram, Target CCAL summary, Quan report, chromatogram, manual integrations.		✓			✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst:	Date: 9/10/10	2nd Level Reviewer: AR	Date: 9/10/10
Comments:		Comments:	

TestAmerica Laboratories, Inc. - Knoxville

CANISTER RUN LOG

GCMS Analysis: AIR 7M Inst: ME

Analyst: NLS Qtims Batch: 0253088 L6RJM 0253090 L6RJP

Date: 9/8 9/9/10 (9/9/10 ok) ICAL Batch: E090210F Target Batch: E090910 IS #1 Area: 727105

Surr/IS ID & Vol.: 40MLV320 System Date/Time ok (y/n): y

Preventive Maintenance Performed ☑ Daily

Time	Use	Lot No.	File ID	Can #	Pos	Vol* (mL)	Can DF	Comments
1031	✓	tune	EBFBI09	–	16	100	1	
1059	✓	CCV	CCV	CX2123	15	100		
1059	✓	LCS	LCS	↓	↓	↓		
1226	✓	IPT	IPT	CX 2130	↓	40		
1312	✓	Blk	Blk	–	16	500		
1357	✓	HOI030405	L6HCM1AA	1142	~~15~~ (9/9/10 ok)	~~500~~	1	400mL
1442	✓	↓	↓HCT↓	2488	2	500	1	
1581	RR 500mL		HCØ	93239	3	100	1	
1600	RR 250mL		HC5	12440	4	↓	↓	
1638	✓		HC6	12574	5	↓	200	
1717	RR 500mL		HC7	4497N	6	200 (9/9/10 ok)	200	
1755	RR 100mL OK 9/10/10 ok		HC8	93212	7	4		(2AA) 10mL OK "D" for tol.
1833	✓		HC9	12181	8	200		
1912	✓		HRA	6626	9	↓		
1951	✓		HDC	02795	10	↓	↓	
2030	✓	↓	HDD	12501	11	25	1.50	
	dup	↓	L6HDCD		~~10~~	~~100~~	1	9/9/10 ok
2112	✓	HOI080497	L6NCM1AA	6670	12	440	2.20	
2155	✓	↓	NCX	6375	13	200	1	
2238	✓		NC4	93143	14	↓	↓	
2318	✓		NC6	11287	15			
2356	dup	↓	NC6D (9/9/10 ok)	↓	15	↓	↓	-1AD
0356	✓	lot ✓	8831	62359N	16	500	1	
0436	200mL lot 8827		12579 →		500	↓	1	
0035	✓	HOI030418	L6HF21AA	93182	1	200	1	E#7, MTP, 0, mark RR 50mL
0114	RR500mL ↓		↓HHT↓	11413	2	↓	1	
0155	✓	HOI030405	L6HCØR	93239	3	500	1	
0233	✓	↓	C5R	12440	4	250	1	
0316	✓ (9/10/10 ok)	↓	C7R	4497N	6	500	↓	
0740	M OK	↓	C8R	93212	7	100	1	E-tol.

* Entech programmed volume. If the Entech report amount differs from the programmed amount by >5%, the Entech report amount is used for calulations.

Analyst: _____ Date: 9/10/10

Test America - Knoxville

Entech Autosampler Log

Position	Volume	Date	Time
16	100	9/9/2010	10:31
15	101	9/9/2010	10:59
15	40	9/9/2010	12:26
16	501	9/9/2010	13:12
1	402	9/9/2010	13:57
2	501	9/9/2010	14:42
3	101	9/9/2010	15:21
4	101	9/9/2010	16:00
5	201	9/9/2010	16:38
6	201	9/9/2010	17:17
7	11	9/9/2010	17:55
8	201	9/9/2010	18:33
9	201	9/9/2010	19:12
10	201	9/9/2010	19:51
11	26	9/9/2010	20:30
12	441	9/9/2010	21:12
13	201	9/9/2010	21:55
14	201	9/9/2010	22:38
15	201	9/9/2010	23:18
15	201	9/9/2010	23:56
1	201	9/10/2010	0:35
2	201	9/10/2010	1:14
3	501	9/10/2010	1:55
4	251	9/10/2010	2:33
6	501	9/10/2010	3:16
16	501	9/10/2010	3:56

Position	Volume		Date	Time
16	0	501(Std)	9/10/2010	4:36
7	101		9/10/2010	7:40

Data File: /chem/gcms/me.i/E090910.b/ebfbi09.d

Date : 09-SEP-2010 10:31

Client ID: BFB

Instrument: me.i

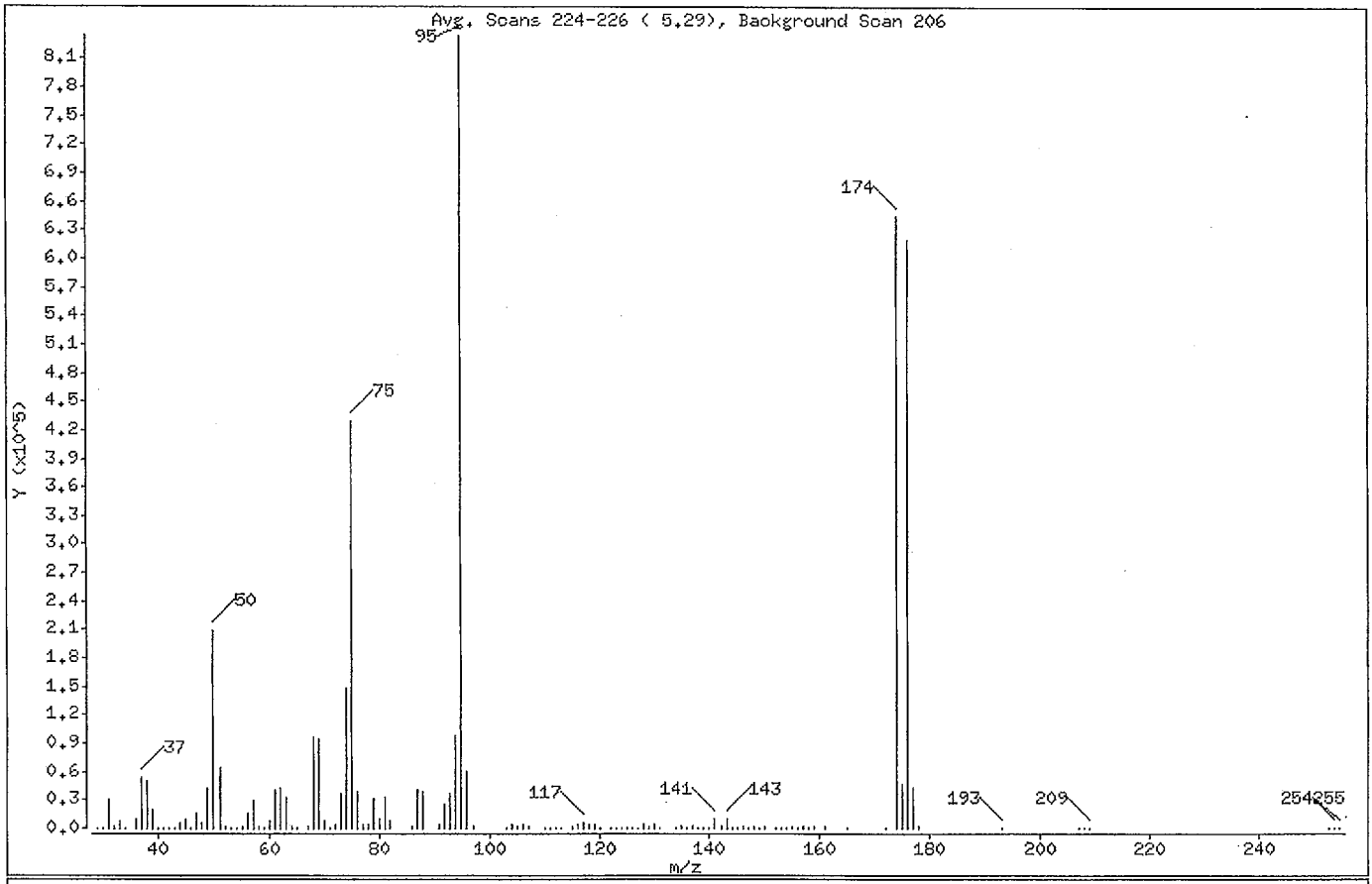
Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: RTX-5

Column diameter: 0.32

1 BFB



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	25.06
75	30.00 - 60.00% of mass 95	51.48
96	5.00 - 9.00% of mass 95	7.12
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 120.00% of mass 95	77.33
175	5.00 - 9.00% of mass 174	5.58 (7.21)
176	95.00 - 101.00% of mass 174	74.24 (96.01)
177	5.00 - 9.00% of mass 176	4.99 (6.72)

Data File: /chem/gcms/me.i/E090910.b/ebfbi09.d

Date : 09-SEP-2010 10:31

Client ID: BFB

Instrument: me.i

Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: RTX-5

Column diameter: 0.32

Data File: ebfbi09.d

Spectrum: Avg. Scans 224-226 (5.29), Background Scan 206

Location of Maximum: 95.00

Number of points: 127

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	92	62.00	41776	105.00	2047	143.00	9944
30.00	67	63.00	32696	106.00	4226	144.00	630
31.00	31544	64.00	2848	107.00	1033	145.00	787
32.00	1748	65.00	272	110.00	288	146.00	1112
33.00	7005	67.00	2279	111.00	873	147.00	611
34.00	77	68.00	95712	112.00	592	148.00	2029
36.00	9348	69.00	94752	113.00	820	149.00	822
37.00	52880	70.00	8315	115.00	1042	150.00	1068
38.00	48976	71.00	392	116.00	3210	152.00	587
39.00	19072	72.00	4275	117.00	5374	153.00	662
40.00	566	73.00	36280	118.00	3151	154.00	415
41.00	246	74.00	146880	119.00	4510	155.00	2016
42.00	96	75.00	429120	120.00	320	156.00	217
43.00	446	76.00	37824	122.00	265	157.00	1502
44.00	5999	77.00	4784	123.00	320	158.00	328
45.00	9923	78.00	3495	124.00	607	159.00	1164
46.00	706	79.00	31384	125.00	288	161.00	984
47.00	14578	80.00	9757	126.00	368	165.00	86
48.00	5089	81.00	31952	127.00	163	172.00	67
49.00	41776	82.00	8163	128.00	3184	174.00	644672
50.00	208832	86.00	993	129.00	1379	175.00	46504
51.00	62376	87.00	40856	130.00	3172	176.00	618944
52.00	2581	88.00	38664	131.00	950	177.00	41584
53.00	69	91.00	3221	134.00	313	178.00	1068
54.00	98	92.00	24072	135.00	1531	193.00	188
55.00	2444	93.00	35784	136.00	392	207.00	83
56.00	15027	94.00	98544	137.00	1612	208.00	86
57.00	28824	95.00	833664	138.00	70	209.00	96
58.00	1299	96.00	59360	139.00	323	253.00	171
59.00	280	97.00	1359	140.00	603	254.00	354
60.00	7667	103.00	674	141.00	9059	255.00	16
61.00	40792	104.00	4305	142.00	1050		

Data File: /chem/gcms/me.i/E090910.b/ebfbi09.d

Date : 09-SEP-2010 10:31

Client ID: BFB

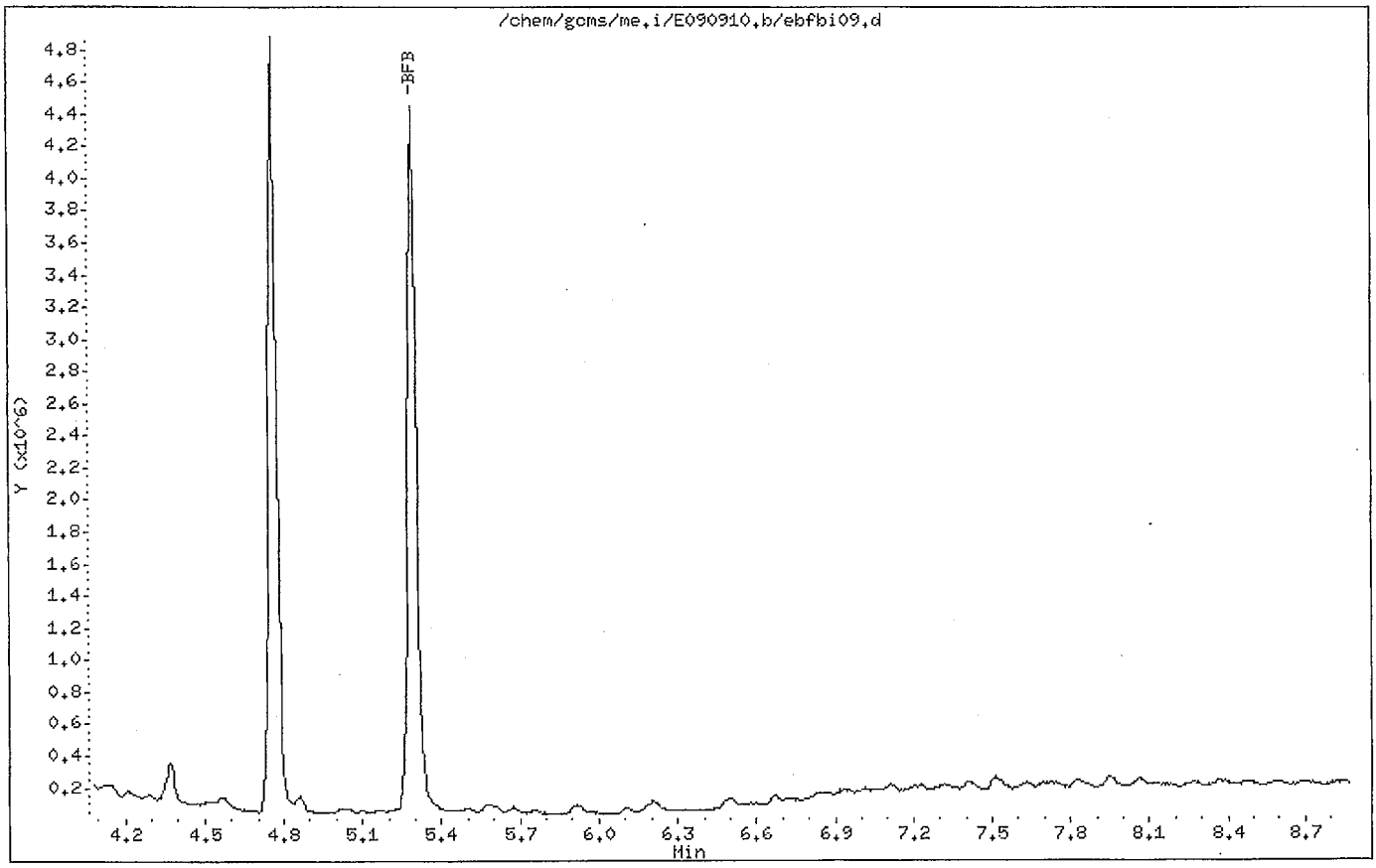
Instrument: me.i

Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: RTX-5

Column diameter: 0.32



Data File: /var/chem/gcms/me.i/E090910.b/eccvi09.d
Report Date: 09-Sep-2010 13:43

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: me.i
Lab File ID: eccvi09.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/me.i/E090910.b/TO155.m

Injection Date: 09-SEP-2010 10:59
Init. Cal. Date(s): 02-SEP-2010 09-SEP-2010
Init. Cal. Times: 12:19 12:26
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 6 4-Bromofluorobenzene	0.65677	0.69406	0.000	-5.67645	30.00000	Averaged
7 Chlorodifluoromethane	0.38185	0.42694	0.000	-11.80974	30.00000	Averaged
8 Propene	1.20554	1.47616	0.000	-22.44838	30.00000	Averaged
9 Dichlorodifluoromethane	3.54692	4.03354	0.000	-13.71965	30.00000	Averaged
10 Chloromethane	0.47147	0.58017	0.000	-23.05478	30.00000	Averaged
11 1,2-Dichlorotetrafluoroetha	2.58976	2.74370	0.000	-5.94422	30.00000	Averaged
12 Methanol	0.91222	0.86141	0.000	5.56973	30.00000	Averaged
13 Vinyl Chloride	1.51202	1.74156	0.000	-15.18115	30.00000	Averaged
14 n-Butane	2.39371	3.00875	0.000	-25.69411	30.00000	Averaged
15 1,3-Butadiene	1.17080	1.41225	0.000	-20.62236	30.00000	Averaged
16 Bromomethane	1.39132	1.47259	0.000	-5.84106	30.00000	Averaged
17 Chloroethane	0.71377	0.78379	0.000	-9.80894	30.00000	Averaged
18 Vinyl Bromide	1.23984	1.28913	0.000	-3.97605	30.00000	Averaged
19 2-methyl butane	1.86134	2.20834	0.000	-18.64266	30.00000	Averaged
20 Trichlorofluoromethane	3.29547	3.51045	0.000	-6.52343	30.00000	Averaged
21 Acrolein	0.36636	0.42869	0.000	-17.01560	30.00000	Averaged
22 Acetonitrile	0.49296	0.60324	0.000	-22.37019	30.00000	Averaged
23 Acetone	0.63634	0.67229	0.000	-5.64879	30.00000	Averaged
24 Pentane	0.20402	0.22750	0.000	-11.50966	30.00000	Averaged
25 Isopropyl Alcohol	1.55650	1.70693	0.000	-9.66415	30.00000	Averaged
26 Ethyl Ether	1.63460	2.06152	0.000	-26.11752	30.00000	Averaged
27 1,1-Dichloroethene	1.27037	1.32169	0.000	-4.03999	30.00000	Averaged
28 Acrylonitrile	0.89191	1.02416	0.000	-14.82839	30.00000	Averaged
29 tert-butanol	1.88599	1.99228	0.000	-5.63561	30.00000	Averaged
30 1,1,2-Trichlorotrifluoroeth	2.68408	2.82056	0.000	-5.08501	30.00000	Averaged
31 Methylene Chloride	1.30438	1.25548	0.000	3.74833	30.00000	Averaged
32 3-Chloropropene	1.19048	1.30227	0.000	-9.39076	30.00000	Averaged
33 Carbon Disulfide	3.83538	4.10195	0.000	-6.95008	30.00000	Averaged
34 trans-1,2-Dichloroethene	1.29878	1.35568	0.000	-4.38081	30.00000	Averaged
35 Methyl-t-Butyl Ether	2.92107	3.23076	0.000	-10.60213	30.00000	Averaged
36 1,1-Dichloroethane	2.51056	2.73252	0.000	-8.84135	30.00000	Averaged
37 Vinyl Acetate	2.97369	3.71880	0.000	-25.05654	30.00000	Averaged
38 Hexane	1.21957	1.29655	0.000	-6.31224	30.00000	Averaged
39 2-Butanone	0.49526	0.54055	0.000	-9.14388	30.00000	Averaged
40 cis 1,2-Dichloroethene	1.33588	1.37758	0.000	-3.12160	30.00000	Averaged
41 Ethyl Acetate	0.39311	0.45804	0.000	-16.51803	30.00000	Averaged

Data File: /var/chem/gcms/me.i/E090910.b/eccvi09.d
Report Date: 09-Sep-2010 13:43

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: me.i
Lab File ID: eccvi09.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/me.i/E090910.b/TO155.m

Injection Date: 09-SEP-2010 10:59
Init. Cal. Date(s): 02-SEP-2010 09-SEP-2010
Init. Cal. Times: 12:19 12:26
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
42 Chloroform	2.74261	2.86573	0.000	-4.48905	30.00000	Averaged
43 Tetrahydrofuran	1.42199	1.75877	0.000	-23.68354	30.00000	Averaged
44 1,1,1-Trichloroethane	2.75680	2.89690	0.000	-5.08172	30.00000	Averaged
45 1,2-Dichloroethane	0.39653	0.40640	0.000	-2.48752	30.00000	Averaged
48 Cyclohexane	0.15042	0.15051	0.000	-0.05871	30.00000	Averaged
46 Benzene	0.89280	0.86153	0.000	3.50296	30.00000	Averaged
47 1-Butanol	0.08869	0.10346	0.000	-16.65076	30.00000	Averaged
49 Carbon Tetrachloride	0.65447	0.62188	0.000	4.97999	30.00000	Averaged
50 2,2,4-trimethylpentane	1.54050	1.59147	0.000	-3.30911	30.00000	Averaged
51 Heptane	0.62536	0.66760	0.000	-6.75409	30.00000	Averaged
52 1,2-Dichloropropane	0.34255	0.34379	0.000	-0.36222	30.00000	Averaged
53 Trichloroethene	0.40705	0.37405	0.000	8.10837	30.00000	Averaged
54 Dibromomethane	0.35486	0.34366	0.000	3.15857	30.00000	Averaged
55 Bromodichloromethane	0.58842	0.61172	0.000	-3.96058	30.00000	Averaged
56 1,4-dioxane	0.09249	0.09088	0.000	1.74216	30.00000	Averaged
57 Methyl Methacrylate	0.32912	0.39902	0.000	-21.23562	30.00000	Averaged
58 4-Methyl-2-pentanone	0.56889	0.60722	0.000	-6.73745	30.00000	Averaged
59 cis-1,3-Dichloropropene	0.42969	0.43537	0.000	-1.32195	30.00000	Averaged
60 trans-1,3-Dichloropropene	0.44307	0.45915	0.000	-3.62992	30.00000	Averaged
61 Toluene	1.05696	1.01772	0.000	3.71279	30.00000	Averaged
62 1,1,2-Trichloroethane	0.36931	0.35906	0.000	2.77591	30.00000	Averaged
63 2-Hexanone	0.28160	0.29287	0.000	-3.99920	30.00000	Averaged
64 Octane	0.34545	0.33041	0.000	4.35346	30.00000	Averaged
65 Dibromochloromethane	0.61252	0.63779	0.000	-4.12426	30.00000	Averaged
66 1,2-Dibromoethane	0.52321	0.52733	0.000	-0.78875	30.00000	Averaged
67 Tetrachloroethene	0.42013	0.39355	0.000	6.32727	30.00000	Averaged
68 Chlorobenzene	0.79706	0.77180	0.000	3.16858	30.00000	Averaged
69 Ethylbenzene	1.24291	1.25872	0.000	-1.27242	30.00000	Averaged
70 m&p-Xylene	0.94289	0.96536	0.000	-2.38386	30.00000	Averaged
M 176 Xylene (total)	0.96164	0.97240	0.000	-1.11874	30.00000	Averaged
72 Nonane	0.74650	0.79082	0.000	-5.93644	30.00000	Averaged
71 Bromoform	0.46429	0.55874	0.000	-20.34203	30.00000	Averaged
73 Styrene	0.63859	0.68758	0.000	-7.67166	30.00000	Averaged
74 o-Xylene	0.99957	0.98648	0.000	1.30918	30.00000	Averaged
75 1,1,2,2-Tetrachloroethane	0.75776	0.78267	0.000	-3.28759	30.00000	Averaged

Data File: /var/chem/gcms/me.i/E090910.b/eccvi09.d
Report Date: 09-Sep-2010 13:43

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: me.i
Lab File ID: eccvi09.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/me.i/E090910.b/TO15S.m

Injection Date: 09-SEP-2010 10:59
Init. Cal. Date(s): 02-SEP-2010 09-SEP-2010
Init. Cal. Times: 12:19 12:26
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
76 1,2,3-Trichloropropane	0.19097	0.19191	0.000	-0.49037	30.00000	Averaged
77 Cumene	1.41051	1.38933	0.000	1.50105	30.00000	Averaged
78 n-Propylbenzene	0.38261	0.37531	0.000	1.90859	30.00000	Averaged
79 2-chlorotoluene	0.38014	0.35913	0.000	5.52738	30.00000	Averaged
80 4-Ethyltoluene	1.28734	1.31740	0.000	-2.33530	30.00000	Averaged
81 1,3,5-Trimethylbenzene	0.57351	0.54724	0.000	4.58070	30.00000	Averaged
82 Alpha-Methylstyrene	0.49006	0.50725	0.000	-3.50735	30.00000	Averaged
83 Decane	0.83981	0.93098	0.000	-10.85610	30.00000	Averaged
84 Tert-butylbenzene	1.26001	1.22741	0.000	2.58714	30.00000	Averaged
85 1,2,4-Trimethylbenzene	1.08952	1.09946	0.000	-0.91226	30.00000	Averaged
86 sec-butylbenzene	1.66953	1.66685	0.000	0.16041	30.00000	Averaged
87 1,3-Dichlorobenzene	0.70990	0.67665	0.000	4.68348	30.00000	Averaged
88 Benzyl Chloride	0.76043	0.79459	0.000	-4.49202	30.00000	Averaged
89 1,4-Dichlorobenzene	0.66093	0.62038	0.000	6.13448	30.00000	Averaged
90 p-Cymene	1.27176	1.28227	0.000	-0.82646	30.00000	Averaged
91 1,2-Dichlorobenzene	0.68090	0.65280	0.000	4.12703	30.00000	Averaged
92 n-butylbenzene	1.10168	1.17662	0.000	-6.80204	30.00000	Averaged
93 Undecane	0.70081	0.72657	0.000	-3.67531	30.00000	Averaged
94 Dodecane	0.50841	0.50027	0.000	1.60179	30.00000	Averaged
95 1,2,4-Trichlorobenzene	0.26635	0.28954	0.000	-8.70509	30.00000	Averaged
96 Napthalene	0.69549	0.74889	0.000	-7.67823	30.00000	Averaged
97 Hexachlorobutadiene	0.48559	0.48351	0.000	0.42694	30.00000	Averaged
98 1,2,3-trichlorobenzene	0.23834	0.26737	0.000	-12.17727	30.00000	Averaged

Data File: /var/chem/gcms/me.i/E090910.b/e1pti09.d
Report Date: 09-Sep-2010 13:42

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: me.i
Lab File ID: e1pti09.d
Analysis Type: AIR
Lab Sample ID: 1PTCAL
Method: /var/chem/gcms/me.i/E090910.b/TO155.m

Injection Date: 09-SEP-2010 12:26
Init. Cal. Date(s): 02-SEP-2010 09-SEP-2010
Init. Cal. Times: 12:19 12:26
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
99 ~ Thiophene	0.45106	0.45106	0.000	-1.231e-14	25.00000	Averaged
100 ~ 1,2,3-trimethylbenzene	0.70794	0.70794	0.000	0.000e+00	25.00000	Averaged
101 ~ Indane	0.72289	0.72289	0.000	0.000e+00	25.00000	Averaged
102 ~ Indene	0.43121	0.43121	0.000	1.287e-14	25.00000	Averaged
103 ~ 2-Methylnaphthalene	0.05528	0.05528	0.000	0.000e+00	25.00000	Averaged
104 ~ 1-Methylnaphthalene	0.07181	0.07181	0.000	0.000e+00	25.00000	Averaged
162 ~ methyl cyclohexane	0.48103	0.48103	0.000	0.000e+00	25.00000	Averaged
163 ~ acetaldehyde	2.56426	2.56426	0.000	0.000e+00	25.00000	Averaged
165 ~ 2,3,-Dimethyl pentane	0.59413	0.59413	0.000	0.000e+00	25.00000	Averaged
168 ~ 2,3-Dimethyl heptane	1.33841	1.33841	0.000	0.000e+00	25.00000	Averaged
164 ~ Ethanol	1.14766	1.14766	0.000	1.935e-14	25.00000	Averaged
166 ~ 2-Methyl thiophene	0.81962	0.81962	0.000	-1.355e-14	25.00000	Averaged
167 ~ 3-Methyl thiophene	0.81850	0.81850	0.000	0.000e+00	25.00000	Averaged
169 ~ 2-Ethyl thiophene	0.80793	0.80793	0.000	0.000e+00	25.00000	Averaged
170 ~ n-butylcyclohexane	0.71393	0.71393	0.000	0.000e+00	25.00000	Averaged
171 ~ 1,2-Dimethyl-4-ethyl benz	0.60188	0.60188	0.000	1.845e-14	25.00000	Averaged
172 ~ 1,2,4,5-tetramethylbenzen	0.64586	0.64586	0.000	0.000e+00	25.00000	Averaged
173 ~ 1,2,3,5-tetramethylbenzen	0.53534	0.53534	0.000	0.000e+00	25.00000	Averaged
174 ~ 1,2,3,4-tetramethylbenzen	0.51536	0.51536	0.000	0.000e+00	25.00000	Averaged
175 ~ benzo(b) thiophene	0.30256	0.30256	0.000	1.835e-14	25.00000	Averaged

Data File: /var/chem/gcms/me.i/E090810.b/l6hatlaa.d
Report Date: 10-Sep-2010 10:11

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030405
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HATlAA
Client Smp ID: SV-18-A-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.704	92.59	70-130

Data File: /var/chem/gcms/me.i/E090810.b/l6hav1aa.d
Report Date: 10-Sep-2010 10:11

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030405
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HAV1AA
Client Smp ID: SV-19-A-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.976	99.40	70-130

Data File: /var/chem/gcms/me.i/E090810.b/l6haw1aa.d
Report Date: 10-Sep-2010 10:11

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6HAW1AA
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: tetra.sub
Client SDG: H0I030405
Fraction: OTHER
Client Smp ID: SV-22-A-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.065	101.63	70-130

Data File: /var/chem/gcms/me.i/E090810.b/l6hax1aa.d
Report Date: 10-Sep-2010 10:12

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030405
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HAX1AA
Client Smp ID: SV-A-8-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.196	104.89	70-130

Data File: /var/chem/gcms/me.i/E090810.b/l6ha01aa.d
Report Date: 10-Sep-2010 10:09

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6HA01AA
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: tetra.sub
Client SDG: H0I030405
Fraction: OTHER
Client Smp ID: SV-A-7-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.985	99.62	70-130

Data File: /var/chem/gcms/me.i/E090810.b/l6ha11aa.d
Report Date: 10-Sep-2010 10:09

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6HA11AA
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: tetra.sub
Client SDG: H0I030405
Fraction: OTHER
Client Smp ID: SV-16-A-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.768	94.21	70-130

Data File: /var/chem/gcms/me.i/E090810.b/l6ha51aa.d
Report Date: 10-Sep-2010 10:10

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6HA51AA
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

Client SDG: H0I030405
Fraction: OTHER
Client Smp ID: SV-15-A-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.990	99.74	70-130

Data File: /var/chem/gcms/me.i/E090810.b/l6ha61aa.d
Report Date: 10-Sep-2010 10:10

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030405
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HA61AA
Client Smp ID: SV-A3-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.976	99.41	70-130

Data File: /var/chem/gcms/me.i/E090810.b/l6ha71aa.d
Report Date: 10-Sep-2010 10:10

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6HA71AA
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

Client SDG: H0I030405
Fraction: OTHER
Client Smp ID: SV-A6-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.940	98.51	70-130

Data File: /var/chem/gcms/me.i/E090810.b/l6ha81aa.d
Report Date: 10-Sep-2010 10:11

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030405
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HA81AA
Client Smp ID: SV-23-A-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.042	101.05	70-130

Data File: /var/chem/gcms/me.i/E090810.b/l6hca1aa.d
Report Date: 10-Sep-2010 10:12

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030405
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HCA1AA
Client Smp ID: SV-20-A-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.052	101.29	70-130

Data File: /var/chem/gcms/me.i/E090810.b/l6hcc1aa.d
Report Date: 10-Sep-2010 10:13

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6HCC1AA
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: tetra.sub
Client SDG: H0I030405
Fraction: OTHER
Client Smp ID: SV-21-A-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.308	107.69	70-130

Data File: /var/chem/gcms/me.i/E090810.b/l6hcg1aa.d
Report Date: 10-Sep-2010 10:13

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030405
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HCG1AA
Client Smp ID: IAQ-B15-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.931	98.27	70-130

Data File: /var/chem/gcms/me.i/E090810.b/l6hck1aa.d
Report Date: 10-Sep-2010 10:14

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030405
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HCK1AA
Client Smp ID: IAQ-A11-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.867	96.68	70-130

Data File: /var/chem/gcms/me.i/E090910.b/l6hcm1aa.d
Report Date: 10-Sep-2010 09:42

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030405
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HCM1AA
Client Smp ID: IAQ-A-4-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.976	99.39	70-130

Data File: /var/chem/gcms/me.i/E090810.b/l6hcp1aa.d
Report Date: 10-Sep-2010 10:14

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030405
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HCP1AA
Client Smp ID: IAQ-A16-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.032	100.81	70-130

Data File: /var/chem/gcms/me.i/E090910.b/l6hct1aa.d
Report Date: 10-Sep-2010 09:43

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030405
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HCT1AA
Client Smp ID: IAQ-A13-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.074	101.84	70-130

Data File: /var/chem/gcms/me.i/E090910.b/l6hc0r.d
Report Date: 10-Sep-2010 09:39

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6HC01AA
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

Client SDG: H0I030405
Fraction: OTHER
Client Smp ID: IAQ-A14-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.838	95.95	70-130

Data File: /var/chem/gcms/me.i/E090910.b/l6hc61aa.d
Report Date: 10-Sep-2010 09:40

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030405
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HC61AA
Client Smp ID: IAQ-A12-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.083	102.07	70-130

Data File: /var/chem/gcms/me.i/E090910.b/l6hc7r.d
Report Date: 10-Sep-2010 09:41

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030405
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HC71AA
Client Smp ID: IAQ-A15-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.086	102.16	70-130

Data File: /var/chem/gcms/me.i/E090910.b/l6hc8r.d
Report Date: 10-Sep-2010 09:41

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6HC81AA
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: tetra.sub
Client SDG: H0I030405
Fraction: OTHER
Client Smp ID: IAQ-A9-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.229	105.72	70-130

Data File: /var/chem/gcms/me.i/E090910.b/16hc81aa.d
Report Date: 10-Sep-2010 09:41

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030405
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HC82AA
Client Smp ID: IAQ-A9-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetranj.sub
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.902	97.55	70-130

Data File: /var/chem/gcms/me.i/E090910.b/l6hc91aa.d
Report Date: 10-Sep-2010 09:42

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6HC91AA
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: tetra.sub
Client SDG: H0I030405
Fraction: OTHER
Client Smp ID: IAQ-A8-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub;,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.854	96.36	70-130

Data File: /var/chem/gcms/me.i/E090910.b/l6hda1aa.d
Report Date: 10-Sep-2010 09:43

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030405
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6HDA1AA
Client Smp ID: IAQ-A17-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: all.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.122	103.06	70-130

Data File: /var/chem/gcms/me.i/E090910.b/l6hdc1aa.d
Report Date: 10-Sep-2010 09:44

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6HDC1AA
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: tetra.sub
Client SDG: H0I030405
Fraction: OTHER
Client Smp ID: IAQ-A5-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.125	103.12	70-130

Data File: /var/chem/gcms/me.i/E090910.b/l6hdd1aa.d
Report Date: 10-Sep-2010 09:44

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6HDD1AA
Level: LOW
Data Type: MS DATA
SpikeList File: all.spk
Sublist File: tetra.sub
Client SDG: H0I030405
Fraction: OTHER
Client Smp ID: SV-DUP-2-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.879	96.97	70-130

Data File: /var/chem/gcms/me.i/E090810.b/l6hat1aa.d
Report Date: 10-Sep-2010 10:11

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hat1aa.d
Lab Smp Id: L6HAT1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

Calibration Date: 08-SEP-2010
Calibration Time: 12:07
Client Smp ID: SV-18-A-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	776872	462239	1091505	655599	-15.61
2 1,4-Difluorobenze	3291310	1958329	4624291	3117823	-5.27
3 Chlorobenzene-d5	2895062	1722562	4067562	2686095	-7.22

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.15	8.82	9.48	9.13	-0.18
2 1,4-Difluorobenze	11.29	10.96	11.62	11.28	-0.10
3 Chlorobenzene-d5	15.98	15.65	16.31	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090810.b/l6hav1aa.d
Report Date: 10-Sep-2010 10:11

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hav1aa.d
Lab Smp Id: L6HAV1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

Calibration Date: 08-SEP-2010
Calibration Time: 12:07
Client Smp ID: SV-19-A-9
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	776872	462239	1091505	718086	-7.57
2 1,4-Difluorobenze	3291310	1958329	4624291	3429761	4.21
3 Chlorobenzene-d5	2895062	1722562	4067562	2964456	2.40

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.15	8.82	9.48	9.13	-0.18
2 1,4-Difluorobenze	11.29	10.96	11.62	11.28	-0.14
3 Chlorobenzene-d5	15.98	15.65	16.31	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090810.b/l6haw1aa.d
Report Date: 10-Sep-2010 10:11

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6haw1aa.d
Lab Smp Id: L6HAW1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

Calibration Date: 08-SEP-2010
Calibration Time: 12:07
Client Smp ID: SV-22-A-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	776872	462239	1091505	670882	-13.64
2 1,4-Difluorobenze	3291310	1958329	4624291	3208402	-2.52
3 Chlorobenzene-d5	2895062	1722562	4067562	2791096	-3.59

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.15	8.82	9.48	9.12	-0.24
2 1,4-Difluorobenze	11.29	10.96	11.62	11.28	-0.14
3 Chlorobenzene-d5	15.98	15.65	16.31	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090810.b/l6hax1aa.d
Report Date: 10-Sep-2010 10:12

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hax1aa.d
Lab Smp Id: L6HAX1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

Calibration Date: 08-SEP-2010
Calibration Time: 12:07
Client Smp ID: SV-A-8-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	776872	462239	1091505	714915	-7.98
2 1,4-Difluorobenze	3291310	1958329	4624291	3341230	1.52
3 Chlorobenzene-d5	2895062	1722562	4067562	3000389	3.64

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.15	8.82	9.48	9.14	-0.12
2 1,4-Difluorobenze	11.29	10.96	11.62	11.29	-0.05
3 Chlorobenzene-d5	15.98	15.65	16.31	15.98	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090810.b/l6ha01aa.d
Report Date: 10-Sep-2010 10:09

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6ha01aa.d
Lab Smp Id: L6HA01AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Calibration Date: 08-SEP-2010
Calibration Time: 12:07
Client Smp ID: SV-A-7-9
Level: LOW
Sample Type: AIR
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	776872	462239	1091505	783838	0.90
2 1,4-Difluorobenze	3291310	1958329	4624291	3752397	14.01
3 Chlorobenzene-d5	2895062	1722562	4067562	3337188	15.27

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.15	8.82	9.48	9.13	-0.18
2 1,4-Difluorobenze	11.29	10.96	11.62	11.28	-0.09
3 Chlorobenzene-d5	15.98	15.65	16.31	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090810.b/l6ha11aa.d
Report Date: 10-Sep-2010 10:09

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6ha11aa.d
Lab Smp Id: L6HA11AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Calibration Date: 08-SEP-2010
Calibration Time: 12:07
Client Smp ID: SV-16-A-9
Level: LOW
Sample Type: AIR
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	776872	462239	1091505	623480	-19.74
2 1,4-Difluorobenze	3291310	1958329	4624291	2566661	-22.02
3 Chlorobenzene-d5	2895062	1722562	4067562	2262779	-21.84

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.15	8.82	9.48	9.12	-0.24
2 1,4-Difluorobenze	11.29	10.96	11.62	11.28	-0.14
3 Chlorobenzene-d5	15.98	15.65	16.31	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090810.b/l6ha51aa.d
Report Date: 10-Sep-2010 10:10

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6ha51aa.d
Lab Smp Id: L6HA51AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

Calibration Date: 08-SEP-2010
Calibration Time: 12:07
Client Smp ID: SV-15-A-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	776872	462239	1091505	687309	-11.53
2 1,4-Difluorobenze	3291310	1958329	4624291	3254225	-1.13
3 Chlorobenzene-d5	2895062	1722562	4067562	2865846	-1.01

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.15	8.82	9.48	9.13	-0.18
2 1,4-Difluorobenze	11.29	10.96	11.62	11.28	-0.10
3 Chlorobenzene-d5	15.98	15.65	16.31	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090810.b/l6ha61aa.d
Report Date: 10-Sep-2010 10:10

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6ha61aa.d
Lab Smp Id: L6HA61AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Calibration Date: 08-SEP-2010
Calibration Time: 12:07
Client Smp ID: SV-A3-9
Level: LOW
Sample Type: AIR
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	776872	462239	1091505	665437	-14.34
2 1,4-Difluorobenze	3291310	1958329	4624291	2744198	-16.62
3 Chlorobenzene-d5	2895062	1722562	4067562	2386654	-17.56

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.15	8.82	9.48	9.13	-0.18
2 1,4-Difluorobenze	11.29	10.96	11.62	11.28	-0.14
3 Chlorobenzene-d5	15.98	15.65	16.31	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090810.b/16ha71aa.d
Report Date: 10-Sep-2010 10:10

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: 16ha71aa.d
Lab Smp Id: L6HA71AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

Calibration Date: 08-SEP-2010
Calibration Time: 12:07
Client Smp ID: SV-A6-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	776872	462239	1091505	674882	-13.13
2 1,4-Difluorobenze	3291310	1958329	4624291	3336158	1.36
3 Chlorobenzene-d5	2895062	1722562	4067562	2859481	-1.23

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.15	8.82	9.48	9.12	-0.29
2 1,4-Difluorobenze	11.29	10.96	11.62	11.28	-0.14
3 Chlorobenzene-d5	15.98	15.65	16.31	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090810.b/l6ha81aa.d
Report Date: 10-Sep-2010 10:11

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6ha81aa.d
Lab Smp Id: L6HA81AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

Calibration Date: 08-SEP-2010
Calibration Time: 12:07
Client Smp ID: SV-23-A-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	776872	462239	1091505	639923	-17.63
2 1,4-Difluorobenze	3291310	1958329	4624291	2669955	-18.88
3 Chlorobenzene-d5	2895062	1722562	4067562	2418970	-16.44

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.15	8.82	9.48	9.13	-0.18
2 1,4-Difluorobenze	11.29	10.96	11.62	11.28	-0.10
3 Chlorobenzene-d5	15.98	15.65	16.31	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090810.b/l6hca1aa.d
Report Date: 10-Sep-2010 10:12

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hca1aa.d
Lab Smp Id: L6HCA1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Calibration Date: 08-SEP-2010
Calibration Time: 12:07
Client Smp ID: SV-20-A-9
Level: LOW
Sample Type: AIR
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	776872	462239	1091505	646259	-16.81
2 1,4-Difluorobenze	3291310	1958329	4624291	2743148	-16.65
3 Chlorobenzene-d5	2895062	1722562	4067562	2332426	-19.43

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.15	8.82	9.48	9.13	-0.18
2 1,4-Difluorobenze	11.29	10.96	11.62	11.28	-0.14
3 Chlorobenzene-d5	15.98	15.65	16.31	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090810.b/16hcc1aa.d
Report Date: 10-Sep-2010 10:13

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: 16hcc1aa.d
Lab Smp Id: L6HCC1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

Calibration Date: 08-SEP-2010
Calibration Time: 12:07
Client Smp ID: SV-21-A-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	776872	462239	1091505	691761	-10.96
2 1,4-Difluorobenze	3291310	1958329	4624291	3335015	1.33
3 Chlorobenzene-d5	2895062	1722562	4067562	2958076	2.18

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.15	8.82	9.48	9.12	-0.24
2 1,4-Difluorobenze	11.29	10.96	11.62	11.28	-0.14
3 Chlorobenzene-d5	15.98	15.65	16.31	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090810.b/l6hcg1aa.d
Report Date: 10-Sep-2010 10:13

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hcg1aa.d
Lab Smp Id: L6HCG1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

Calibration Date: 08-SEP-2010
Calibration Time: 12:07
Client Smp ID: IAQ-B15-9
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	776872	462239	1091505	677451	-12.80
2 1,4-Difluorobenze	3291310	1958329	4624291	3112709	-5.43
3 Chlorobenzene-d5	2895062	1722562	4067562	2659184	-8.15

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.15	8.82	9.48	9.14	-0.06
2 1,4-Difluorobenze	11.29	10.96	11.62	11.28	-0.10
3 Chlorobenzene-d5	15.98	15.65	16.31	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090810.b/l6hck1aa.d
Report Date: 10-Sep-2010 10:14

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hck1aa.d
Lab Smp Id: L6HCK1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

Calibration Date: 08-SEP-2010
Calibration Time: 12:07
Client Smp ID: IAQ-A11-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	776872	462239	1091505	699550	-9.95
2 1,4-Difluorobenze	3291310	1958329	4624291	3306854	0.47
3 Chlorobenzene-d5	2895062	1722562	4067562	2722558	-5.96

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.15	8.82	9.48	9.14	-0.06
2 1,4-Difluorobenze	11.29	10.96	11.62	11.29	-0.05
3 Chlorobenzene-d5	15.98	15.65	16.31	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090910.b/l6hcm1aa.d
Report Date: 10-Sep-2010 09:42

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hcm1aa.d
Lab Smp Id: L6HCM1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

Calibration Date: 09-SEP-2010
Calibration Time: 10:59
Client Smp ID: IAQ-A-4-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	727105	432627	1021583	631273	-13.18
2 1,4-Difluorobenze	3463709	2060907	4866511	2908795	-16.02
3 Chlorobenzene-d5	3119759	1856257	4383261	2560155	-17.94

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.14	8.81	9.47	9.14	0.06
2 1,4-Difluorobenze	11.28	10.95	11.61	11.28	0.00
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090810.b/l6hcp1aa.d
Report Date: 10-Sep-2010 10:14

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hcp1aa.d
Lab Smp Id: L6HCP1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090810.b/TO155.m
Misc Info: E090810,TO155,tetranj.sub,,

Calibration Date: 08-SEP-2010
Calibration Time: 12:07
Client Smp ID: IAQ-A16-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	776872	462239	1091505	725333	-6.63
2 1,4-Difluorobenze	3291310	1958329	4624291	3487128	5.95
3 Chlorobenzene-d5	2895062	1722562	4067562	3025109	4.49

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.15	8.82	9.48	9.14	-0.12
2 1,4-Difluorobenze	11.29	10.96	11.62	11.28	-0.10
3 Chlorobenzene-d5	15.98	15.65	16.31	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090910.b/l6hct1aa.d
Report Date: 10-Sep-2010 09:43

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hct1aa.d
Lab Smp Id: L6HCT1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

Calibration Date: 09-SEP-2010
Calibration Time: 10:59
Client Smp ID: IAQ-A13-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	727105	432627	1021583	711529	-2.14
2 1,4-Difluorobenze	3463709	2060907	4866511	3331985	-3.80
3 Chlorobenzene-d5	3119759	1856257	4383261	2964276	-4.98

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.14	8.81	9.47	9.14	0.00
2 1,4-Difluorobenze	11.28	10.95	11.61	11.28	0.00
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090910.b/l6hc0r.d
Report Date: 10-Sep-2010 09:39

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hc0r.d
Lab Smp Id: L6HC01AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Calibration Date: 09-SEP-2010
Calibration Time: 10:59
Client Smp ID: IAQ-A14-9
Level: LOW
Sample Type: AIR
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	727105	432627	1021583	647502	-10.95
2 1,4-Difluorobenze	3463709	2060907	4866511	2997494	-13.46
3 Chlorobenzene-d5	3119759	1856257	4383261	2470929	-20.80

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.14	8.81	9.47	9.14	0.00
2 1,4-Difluorobenze	11.28	10.95	11.61	11.28	-0.05
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090910.b/l6hc61aa.d
Report Date: 10-Sep-2010 09:40

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hc61aa.d
Lab Smp Id: L6HC61AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

Calibration Date: 09-SEP-2010
Calibration Time: 10:59
Client Smp ID: IAQ-A12-9
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	727105	432627	1021583	657085	-9.63
2 1,4-Difluorobenze	3463709	2060907	4866511	2998641	-13.43
3 Chlorobenzene-d5	3119759	1856257	4383261	2608829	-16.38

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.14	8.81	9.47	9.12	-0.12
2 1,4-Difluorobenze	11.28	10.95	11.61	11.28	-0.05
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090910.b/16hc7r.d
Report Date: 10-Sep-2010 09:41

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: 16hc7r.d
Lab Smp Id: L6HC71AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

Calibration Date: 09-SEP-2010
Calibration Time: 10:59
Client Smp ID: IAQ-A15-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	727105	432627	1021583	708459	-2.56
2 1,4-Difluorobenze	3463709	2060907	4866511	3213509	-7.22
3 Chlorobenzene-d5	3119759	1856257	4383261	2832058	-9.22

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.14	8.81	9.47	9.12	-0.12
2 1,4-Difluorobenze	11.28	10.95	11.61	11.28	-0.05
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090910.b/16hc8r.d
Report Date: 10-Sep-2010 09:41

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: 16hc8r.d
Lab Smp Id: L6HC81AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

Calibration Date: 09-SEP-2010
Calibration Time: 10:59
Client Smp ID: IAQ-A9-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	727105	432627	1021583	613113	-15.68
2 1,4-Difluorobenze	3463709	2060907	4866511	2915861	-15.82
3 Chlorobenzene-d5	3119759	1856257	4383261	2483823	-20.38

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.14	8.81	9.47	9.12	-0.12
2 1,4-Difluorobenze	11.28	10.95	11.61	11.27	-0.09
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090910.b/l6hc81aa.d
Report Date: 10-Sep-2010 09:41

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hc81aa.d
Lab Smp Id: L6HC82AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

Calibration Date: 09-SEP-2010
Calibration Time: 10:59
Client Smp ID: IAQ-A9-9
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	727105	432627	1021583	644207	-11.40
2 1,4-Difluorobenze	3463709	2060907	4866511	2629289	-24.09
3 Chlorobenzene-d5	3119759	1856257	4383261	2241799	-28.14

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.14	8.81	9.47	9.12	-0.18
2 1,4-Difluorobenze	11.28	10.95	11.61	11.27	-0.09
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090910.b/l6hc91aa.d
Report Date: 10-Sep-2010 09:42

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hc91aa.d
Lab Smp Id: L6HC91AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

Calibration Date: 09-SEP-2010
Calibration Time: 10:59
Client Smp ID: IAQ-A8-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	727105	432627	1021583	640106	-11.97
2 1,4-Difluorobenze	3463709	2060907	4866511	2912743	-15.91
3 Chlorobenzene-d5	3119759	1856257	4383261	2457781	-21.22

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.14	8.81	9.47	9.12	-0.12
2 1,4-Difluorobenze	11.28	10.95	11.61	11.28	-0.05
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090910.b/l6hda1aa.d
Report Date: 10-Sep-2010 09:43

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hda1aa.d
Lab Smp Id: L6HDA1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Calibration Date: 09-SEP-2010
Calibration Time: 10:59
Client Smp ID: IAQ-A17-9
Level: LOW
Sample Type: AIR
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	727105	432627	1021583	730307	0.44
2 1,4-Difluorobenze	3463709	2060907	4866511	3489159	0.73
3 Chlorobenzene-d5	3119759	1856257	4383261	3053598	-2.12

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.14	8.81	9.47	9.13	-0.06
2 1,4-Difluorobenze	11.28	10.95	11.61	11.28	-0.05
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090910.b/l6hdc1aa.d
Report Date: 10-Sep-2010 09:44

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hdc1aa.d
Lab Smp Id: L6HDC1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

Calibration Date: 09-SEP-2010
Calibration Time: 10:59
Client Smp ID: IAQ-A5-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	727105	432627	1021583	740166	1.80
2 1,4-Difluorobenze	3463709	2060907	4866511	3602909	4.02
3 Chlorobenzene-d5	3119759	1856257	4383261	3180315	1.94

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.14	8.81	9.47	9.14	0.00
2 1,4-Difluorobenze	11.28	10.95	11.61	11.28	0.00
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/me.i/E090910.b/l6hdd1aa.d
Report Date: 10-Sep-2010 09:44

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: me.i
Lab File ID: l6hdd1aa.d
Lab Smp Id: L6HDD1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/me.i/E090910.b/TO155.m
Misc Info: E090910,TO155,tetranj.sub,,

Calibration Date: 09-SEP-2010
Calibration Time: 10:59
Client Smp ID: SV-DUP-2-9
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	727105	432627	1021583	654447	-9.99
2 1,4-Difluorobenze	3463709	2060907	4866511	2827693	-18.36
3 Chlorobenzene-d5	3119759	1856257	4383261	2455476	-21.29

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.14	8.81	9.47	9.12	-0.18
2 1,4-Difluorobenze	11.28	10.95	11.61	11.27	-0.10
3 Chlorobenzene-d5	15.97	15.64	16.30	15.97	-0.03

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Miscellaneous Data

TestAmerica Knoxville GC/MS Air Data Review / Narrative Checklist LOT/Project # HOI 030405
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 11

Instrument:	ME			
Scanned File:	E090210I			
	E090810			
	E090910			

Review Items A. Tune / Continuing Calibration	N/A	Yes	No	Why is data reportable?	2nd
1. Were all samples injected within 24 hr of BFB?		✓			✓
2. Has a Continuing Calibration Checklist & run log been completed for each analytical batch and scanned properly?		✓			✓
3. Was the correct ICAL used for quantitation?		✓			✓
B. CLIENT SAMPLE AND QC SAMPLE Results	**N/A**	**Yes**	**No**	**Why is data reportable?**	
1. Were all special project requirements met?		✓			✓
2. Were samples received in cans?		✓		□ [Tedlar1] analyzed w/n 72 hours. □ [Tedlar2] X-fer within 72 hours.	✓
3. Can pressure/vac on receipt acceptable?		✓		□ see narrative	✓
4. Were dilution factors/can prep information verified?		✓			✓
5. Have the can number & lab ID been verified between the analysis log & sample prep log?		✓			✓
6. Sample analyses done within analytical holding time (HT)? *If no, list samples:* _____		✓		□ [ht2] Client requested analysis after HT expired. □ Other: _____	✓
7. Are surrogates and internal standards within QC limits? (60-140% R for surr.; 60-140%R from CCAL for IS) *If no, list samples/reason (e.g.,* sur1*):* Sample Reason Sample Reason		✓		□ [sur7] Obvious matrix effect □ **[sur12] high recovery, no hits.** □ [sur14] entire sample consumed □ **[is1] Per client, reanalysis was not performed *** □ [is2] Reanalysis confirmed a matrix effect.	✓
8. Were all positive results and false negatives on quan report verified to be correct in LIMS?		✓			✓
9. For dilutions, is highest concentration hit ≥ 20% cal range and not above calibration range? *List samples and reason (e.g.,* elev1*):* Sample Reason Sample Reason #22 dil3 tot		✓		□ [elev1] Elevated RL for due to sample matrix interferences. □ [elev3] Elevated RLs for all analytes due to difficult sample matrix. □ [elev4] Elevated RLs based on screening □ [elev5] Elevated RLs for all analytes due to presence of non-target compounds. □ [elev7] Elevated RLs due to sample volume	✓
10. If manual integrations were performed, are they clearly identified, initialed, dated and reason given & alternate hits verified.		✓		Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	✓
C. Preparation QC					
1. System blank run every 24 hours prior to samples?		✓			✓
2. System blank surrogate recoveries within QC limits (60-140% R) ?		✓		□ **[mb1] All sample surrogates OK and there is no analyte >RL in samples associated with blank.***	✓
3. Are all analytes present in the system blank < RL? *If no, list blank ID:* _____		✓		□ **[mb3] No analyte > RL in associated samples.*** □ **[mb4] Sample results > 20x higher than blank.**	✓
4. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for methanol and n-butanol) *If no, list DUP ID:*		✓			✓
5. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%).		✓		□ [lcs6] LCS analyte(s) flagged as being outside control limits but within marginal limits □ [lcs5] LCS outside marginal exceedences high, but analytes were not detected LCS ID: _____	✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

D. Other					
1. Final report acceptable? (Results correct, RLs calculated correctly, units correct, surrogate %R correct, appropriate flags used, dilution factor correct, analysis dates correct.)		✓			✓
2. Are all nonconformances documented appropriately and copy included with deliverable?	✓				MJ
4. Was a narrative prepared and all deviations noted?		✓		□ [1pt6]; □ [1pt11]; □ [1ptsur]	✓
5. TO14A Autotext included in narrative (for TO14A samples only).	✓			□ [TO14]	MJ
6. All target analytes on c.cal >30%D but passes LCS criteria noted in the narrative?		✓		□ [ccal] The ccal exhibited a %D ICAL >30% but passes LCS…list analytes on narrative. 9/8 Napth, 124-tcbz	✓

Analyst: AKS	Date: 9/10/10	2nd Level Reviewer: [signature]	Date: 10/20/10

□ [see following page for comments.

*Such action must be taken in consultation with client.

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/09/10
Time: 7:43:18

LEV 1	LEV 2		LEV 1	LEV 2	
_	_	Blank	_	_	Weights/Volumes
_	_	Check	_	_	Spike & Surrogate Worksheet
_	_	MS/MSD	_	_	Vial contains correct volume
			_	_	Labels, greenbars, worksheets
					computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
_ Bench Sheet Copied
_ Package Submitted to AnalyticalGroup
_ Bench Sheet Copied per COC

Extractionist: _____

Concentrationist: _____

****
* *
* QC BATCH: 0252116 *
* *
****

PREP DATE: 9/08/10
COMP DATE: 9/09/10

Reviewer/Date: _____ / 0/00/00

Volatile Organics by GC/MS TO-15 low-level ppbv/v
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030405-001 **L6HAT-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-002 **L6HAV-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-003 **L6HAW-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-004 **L6HAX-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-005 **L6HA0-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-006 **L6HA1-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-007 **L6HA5-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/09/10
Time: 7:43:18

QC BATCH: 0252116

PREP DATE: 9/08/10
COMP DATE: 9/09/10

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION VOL	SOLVENTS EXCHANGE VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030405-008 **L6HA6-1-AA**	D	88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	9/21/10	H0I030405-009 **L6HA7-1-AA**	D	88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	9/21/10	H0I030405-010 **L6HA8-1-AA**	D	88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	9/21/10	H0I030405-011 **L6HCA-1-AA**	D	88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	9/21/10	H0I030405-012 **L6HCC-1-AA**	D	88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	9/21/10	H0I030405-013 **L6HCG-1-AA**	D	88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	9/21/10	H0I030405-014 **L6HCK-1-AA**	D	88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	9/21/10	H0I030405-016 **L6HCP-1-AA**	D	88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	0/00/00	H0I090000-116 **L6N9F-1-AAB**		88	7M	AIR	mL	NA	NA	NA	.0	.0	
COMMENTS:													
0/00/00	0/00/00	H0I090000-116 **L6N9F-1-ACC**		88	7M	AIR	**100mL** 100.00mL	NA	NA	NA	.0	.0	
COMMENTS:													

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/10/10
Time: 7:22:12

LEV 1	LEV 2		LEV 1	LEV 2	
_	_	Blank	_	_	Weights/Volumes
_	_	Check	_	_	Spike & Surrogate Worksheet
_	_	MS/MSD	_	_	Vial contains correct volume
			_	_	Labels, greenbars, worksheets
			_	_	computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
_ Bench Sheet Copied
_ Package Submitted to AnalyticalGroup
_ Bench Sheet Copied per COC

Extractionist: _____
_____
Concentrationist: _____
_____

****
* *
* QC BATCH: 0253090 *
* *
****

PREP DATE: 9/09/10
COMP DATE: 9/10/10

Reviewer/Date: _____ / 0/00/00

Volatile Organics by GC/MS TO-15 low-level ppbv/v
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

EXTR EXPR	ANL DUE	LOT#,MSRUN# / WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030405-015 **L6HCM-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-017 **L6HCT-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-018 **L6HC0-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-019 **L6HC5-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-020 **L6HC6-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-021 **L6HC7-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-022 **L6HC8-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/10/10
Time: 7:22:12

QC BATCH: 0253090

PREP DATE: 9/09/10
COMP DATE: 9/10/10

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030405-022 **L6HC8-2-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-023 **L6HC9-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-024 **L6HDA-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-025 **L6HDC-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030405-026 **L6HDD-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-006 **L6HF2-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	0/00/00	H0I100000-090 **L6RJP-1-AAB**		88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	0/00/00	H0I100000-090 **L6RJP-1-ACC**		88	7M	AIR	**100mL** 100.00mL	NA	NA	NA		.0		.0	
COMMENTS:															

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 15

TestAmerica Knoxville
Can Dilution Worksheet

Canister Volume: 6000 mL

h0i030405 **Serial Dilution**

W/O #	Barometer inches Hg	Knoxville mm Hg	Initial Volume (ml)	P final psig	P final Abs,mm	Dilution Factor (Serial)	Dilution Factor (Total)		
L6H AT	29.14	740.2	10.0	0.5	766.0	620.96	631.80	(AT)	(*1.02)
L6H AV									
L6H AW									
L6H AX									
L6H A0									
L6H A1									
L6H A5									
L6H A6									
L6H A7									
L6H A8									
L6H CA									
L6H CC									
L6H CG									
L6H CK									
L6H CM									
L6H CP									
L6H CT									
L6H C0									
L6H C5									
L6H C6									
L6H C7									
L6H C8									
L6H C9									
L6H DA									
L6H DC									
L6H DD									

1 psig = 2.036 inch Hg
Pinit(Abs,mm)=(Pinit(inch)*25.4mm/inch)+Pbar(mm)
Pfinal(Abs,mm)=(Pfinal(psig)*2.036 (inch Hg/psig)*25.4 (mm/inch))+Pbar(mm)
Dilution factor = [(Pfinal(Abs,mm)/Pbar(Abs,mm))*CanVol(mL)] / InitialVolume(ml)
mm-Hg = in-Hg * 25.4

TestAmerica Knoxville
Can Dilution Worksheet

Lot: *h0i030405* **Initial**

W/O #	Barometer inches Hg	Knoxville mm Hg	P init inches	P init Abs,mm	P final psig	P final Abs,mm	Dilution Factor	
L6H AT	29.14	740.2	- 0.5	727.5	0.0	740.2	1.02	(AT,DF*200=204)
L6H AV	28.84	732.5	- 14.9	354.1	0.2	742.9	2.10	(AV,DF*200=420)
L6H AW								
L6H AX								
L6H A0								
L6H A1	28.84	732.5	- 9.4	493.8	0.0	732.5	1.48	(A1,DF*200=296)
L6H A5								
L6H A6								
L6H A7	29.08	738.6	- 6.0	586.2	33.0	2445.2	4.17	(A7,DF*200=834)
L6H A8								
L6H CA								
L6H CC	28.84	732.5	- 10.2	473.5	0.1	737.7	1.56	(CC,DF*200=312)
L6H CG	28.84	732.5	- 10.9	455.7	0.3	748.1	1.64	(CG,DF*200=328)
L6H CK								
L6H CM								
L6H CP								
L6H CT								
L6H C0								
L6H C5								
L6H C6								
L6H C7								
L6H C8								
L6H C9								
L6H DA								
L6H DC								
L6H DD	28.84	732.5	- 8.6	514.1	0.7	768.7	1.50	(DD,DF*200=300)

1 psig = 2.036 inch Hg
Pinit(Abs,mm)=(Pinit(inch)*25.4mm/inch)+Pbar(mm)
Pfinal(Abs,mm)=(Pfinal(psig)*2.036 (inch Hg/psig)*25.4 (mm/inch))+Pbar(mm)
dilution factor = Pfinal(Abs,mm)/Pinit(Abs,mm)
mm-Hg = in-Hg * 25.4

Sample Quantitation - Trichloroethene

Tetra Tech NUS, Inc

Client Sample ID: SV-18-A-9

GC/MS Volatiles

Lot-Sample #	H0I030405 - 001	**Work Order #**	L6HAT1AA	**Matrix.....:**	AIR
Date Sampled...:	08/31/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #.....:	0252116				
Dilution Factor.:	2106	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	170	48	ND	540	150
Carbon tetrachloride	ND	170	32	ND	1100	200
Chlorodifluoromethane	ND	170	32	ND	600	110
Chloroform	ND	170	32	ND	820	150
Dichlorodifluoromethane	ND	170	57	ND	830	280
1,1-Dichloroethane	**160**	**170**	**21**	**660 J**	**680**	**85**
1,2-Dichloroethane	**180**	**170**	**40**	**750**	**680**	**160**
cis-1,2-Dichloroethene	**820**	**170**	**51**	**3200**	**670**	**200**
trans-1,2-Dichloroethene	ND	170	42	ND	670	170
1,1-Dichloroethene	**8000**	**170**	**27**	**32000**	**670**	**110**
Ethylbenzene	ND	170	57	ND	730	250
Methylene chloride	**150**	**420**	**38**	**540 J B**	**1500**	**130**
Methyl tert-butyl ether	ND	840	140	ND	3000	520
Naphthalene	ND	420	76	ND	2200	400
Tetrachloroethene	ND	170	34	ND	1100	230
Toluene	ND	170	44	ND	630	170
1,2,4-Trichlorobenzene	ND	840	82	ND	6300	610
1,1,1-Trichloroethane	**52**	**170**	**25**	**280 J**	**920**	**140**
1,1,2-Trichloroethane	ND	170	44	ND	920	240
Trichloroethene	**12000**	**84**	**29**	**64000**	**450**	**160**
Vinyl chloride	ND	170	61	ND	430	160
m-Xylene & p-Xylene	ND	170	110	ND	730	460
o-Xylene	ND	170	51	ND	730	220

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	93	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/me.i/E090810.b/l6hat1aa.d
Report Date: 10-Sep-2010 10:11

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/me.i/E090810.b/l6hat1aa.d
Lab Smp Id: L6HAT1AA Client Smp ID: SV-18-A-9
Inj Date : 08-SEP-2010 14:12
Operator : 7126 Inst ID: me.i
Smp Info : ,2106,0,,,
Misc Info : E090810,TO155,tetranj.sub,,
Comment :
Method : /var/chem/gcms/me.i/E090810.b/TO155.m
Meth Date : 10-Sep-2010 10:03 tajh Quant Type: ISTD
Cal Date : 08-SEP-2010 12:53 Cal File: e1pti08.d
Als bottle: 1
Dil Factor: 2106.00000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	2106.00000	Dilution Factor
Vt	500.00000	default calibration
Vo	500.00000	default sample volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
*	1 Bromochloromethane	128	9.130	9.146	(1.000)	655599	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.282	11.292	(1.000)	3117823	4.00000	4.000
*	3 Chlorobenzene-d5	117	15.973	15.978	(1.000)	2686095	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.608	17.613	(1.102)	1633519	3.70379	3.704
	27 1,1-Dichloroethene	96	6.230	6.252	(0.682)	794774	3.81712	8039
	31 Methylene Chloride	84	6.580	6.601	(0.721)	15703	0.07346	154.7
	36 1,1-Dichloroethane	63	7.812	7.833	(0.856)	31988	0.07774	163.7
	40 cis 1,2-Dichloroethene	96	8.796	8.812	(0.963)	84890	0.38772	816.5
	44 1,1,1-Trichloroethane	97	10.163	10.179	(1.113)	11083	0.02453	51.66
	45 1,2-Dichloroethane	62	10.270	10.292	(0.910)	27016	0.08741	184.1
	53 Trichloroethene	130	11.981	11.992	(1.062)	1795553	5.65919	11920

$$\text{Conc} = \frac{1795553}{3117823} \times \frac{4.0\ \text{ppbv}}{0.40705} = 5.65925\ \text{ppbv} \times 2106$$

$$= 11918\ \text{ppbv}$$

0.40705 = RRF from initial calibration

Tetra Tech NUS **INTERNAL CORRESPONDENCE**

TO: **E. SAMUELS** **DATE:** **OCTOBER 14, 2010**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION - VOC**
LOCKHEED MR-IAQ
SAMPLE DELIVERY GROUP (SDG) H0I030404

SAMPLES: 20 / Air /

IAQ-C1-9	IAQ-C10-9	IAQ-C17-9
IAQ-C19-9	IAQ-C2-9	IAQ-C5-9
IAQ-C6-9	IAQ-C7-9	IAQ-C8-9
IAQ-C9-9	ISG-01-9	ISG-14-C-9
ISG-3-C-9	SV-1-C-9	SV-28-C-9
SV-5-C-9	SV-C-2-9	SV-C-3-9
SV-C-4-9	SV-C-5-9	

OVERVIEW

The sample set for Lockheed MR-IAQ, SDG H0I030404, consists of twenty (20) air environmental samples. There are no field duplicate pairs associated with this SDG.

Samples were analyzed for volatile organic compounds (VOC). The samples were collected by Tetra Tech NUS on August 30, 2010 and analyzed by TestAmerica Laboratories, Inc. All analyses were conducted in accordance with USEPA Method TO-15 analysis and reporting protocols.

The data in this SDG were validated with regard to the following parameters: data completeness, holding times, GC/MS tuning, initial/continuing calibrations, laboratory method/field blank results, surrogate spike recovery, internal standard recoveries, blank spike/blank spike duplicate results, matrix spike/matrix spike duplicate results, compound identification, compound quantitation, and detection limits. Problems affecting data quality are discussed below; documentation supporting these findings is presented in Appendix C. Qualified Analytical results are presented in Appendix A. Results as reported by the laboratory are presented in Appendix B.

Major

- None.

Minor

- The continuing calibration run on 09/08/10 at 09:50 on instrument MJ had a percent difference that was outside the quality control limit of ±30% (but within ±50%) for naphthalene. The following samples were affected: IAQ-C10-9, IAQ-C17-9, IAQ-C5-9, IAQ-C6-9, IAQ-C7-9, IAQ-C8-9, IAQ-C9-9, ISG-01-9, ISG-14-C-9, ISG-3-C-9, SV-1-C-9, SV-28-C-9, SV-5-C-9, SV-C-2-9, SV-C-3-9, SV-C-4-9, and SV-C-5-9. Positive results for naphthalene were qualified as estimated (J) in the affected samples. Non-detected naphthalene results were not qualified on this basis.

- The following analyte was detected in the method blank at the following maximum concentration:

Analyte	Maximum Concentration	Action Level
Methylene chloride[1]	0.36 ug/m^3	36 ug/m^3

1 – Maximum concentration in method blank associated with Preparation Batch 0253092 affecting samples IAQ-C1-9, IAQ-C19-9, and IAQ-C2-9.

An action level of 10x the maximum concentration of methylene chloride was used to evaluate sample data for blank contamination. Sample aliquot and dilution factors, if applicable, were considered in evaluating for blank contamination. Positive results less than the associated action level were qualified as non-detected (B) due to blank contamination in the affected samples.

- Positive results less than the reporting limit but greater than the method detection limit were qualified as estimated (J) due to uncertainty near the detection limit.

Notes

According to the laboratory narrative, the Chain of Custody listed the Summa canister ID for sample ISG-3-C-9 as 8770, but the laboratory stated that the canister ID should be 12455. The canister ID is listed as 12455 on the canister run log sheet.

The laboratory reported results in units of ppbv and ug/m^3 on the Form I reports. Results are in ug/m3 in the database. Non-detected results are reported to the method detection limits.

The laboratory reported results for the following samples from dilutions with the following dilution factors (DFs):

Sample	Analytes	DF
IAQ-C1-9	All	2
IAQ-C10-9	All	10
IAQ-C17-9	All except chlorodifluoromethane	2.5
IAQ-C17-9	Chlorodifluoromethane only	20
IAQ-C2-9	All	5
IAQ-C5-9	All	6.25
IAQ-C6-9	All	5
IAQ-C7-9	All	10
IAQ-C8-9	All except chlorodifluoromethane	2.5
IAQ-C8-9	Chlorodifluoromethane only	10
IAQ-C9-9	All	25
ISG-01-9	All	5
ISG-14-C-9	All	50
ISG-3-C-9	All	10
SV-1-C-9	All	25
SV-28-C-9	All	172.73
SV-C-2-9	All	2.5
SV-C-3-9	All	50
SV-C-4-9	All	5

Results for chlorodifluoromethane were analyzed in separate analyses for samples IAQ-C17-9 and IAQ-C8-9 because chlorodifluoromethane results exceeded the instrument calibration range in these samples.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Some positive naphthalene results were qualified due to calibration noncompliance. Several positive methylene chloride results were qualified due to blank contamination.

Other Factors Affecting Data Quality: Some positive results were qualified due to uncertainty near the detection limit.

The data for these analyses were reviewed with reference to the "Region III Modifications to the National Functional Guidelines for Organic Data Review" (09/94). The text of this report has been formulated to address only those problem areas affecting data quality.

Tetra Tech NUS

Leigh A. Ciofani
Environmental Scientist/Data Validator

TetraTech NUS

Joseph A. Samchuck
Data Validation Quality Assurance Officer

Attachments:

Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Validation Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (e.g. % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = GFAA PDS - GFAA MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (e.g. base-line drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can be any number of issues; e.g. poor chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = % Difference between columns/detectors >25% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 sigma deviation is greater than sample activity

PROJ_NO: 02757	NSAMPLE	IAQ-C10-9			IAQ-C17-9			IAQ-C17-9-DL			IAQ-C1-9		
SDG: H0I030404	LAB_ID	H0I030404011			H0I030404017			H0I030404017			H0I030404018		
FRACTION: OV	SAMP_DATE	8/30/2010			8/30/2010			8/30/2010			8/30/2010		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.65	U		0.77	J	P				0.15	J	P
1,1,2-TRICHLOROETHANE		1.1	U		0.29	U					0.23	U	
1,1-DICHLOROETHANE		0.4	U		0.1	U					0.081	U	
1,1-DICHLOROETHENE		0.52	U		0.13	U					0.1	U	
1,2,4-TRICHLOROBENZENE		2.9	U		0.72	U					0.58	U	
1,2-DICHLOROETHANE		0.77	U		0.19	U					0.15	U	
BENZENE		0.78	J	P	0.84						0.41	J	P
CARBON TETRACHLORIDE		0.94	U		0.55	J	P				0.56	J	P
CHLORODIFLUOROMETHANE		430						560			52		
CHLOROFORM		0.73	U		0.59	J	P				0.17	J	P
CIS-1,2-DICHLOROETHENE		0.95	U		0.24	U					0.19	U	
DICHLORODIFLUOROMETHANE		3.3	J	P	2.7						2.6		
ETHYLBENZENE		1.2	U		1.7						0.57	J	P
M+P-XYLENES		2.8	J	P	6.3						2.2		
METHYL TERT-BUTYL ETHER		2.5	U		0.61	U					0.49	U	
METHYLENE CHLORIDE		13			6.8						2.5	B	A
NAPHTHALENE		3.1	J	CP	0.47	U					0.81	J	P
O-XYLENE		1.2	J	P	2.4						0.94		
TETRACHLOROETHENE		1.1	U		0.27	J	P				0.22	U	
TOLUENE		5.3			12						3.3		
TRANS-1,2-DICHLOROETHENE		0.79	U		0.2	U					0.16	U	
TRICHLOROETHENE		0.75	U		0.58						0.15	U	
VINYL CHLORIDE		0.74	U		0.19	U					0.15	U	

PROJ_NO: 02757	NSAMPLE	IAQ-C19-9			IAQ-C2-9			IAQ-C5-9			IAQ-C6-9		
SDG: H0I030404	LAB_ID	H0I030404020			H0I030404019			H0I030404014			H0I030404013		
FRACTION: OV	SAMP_DATE	8/30/2010			8/30/2010			8/30/2010			8/30/2010		
MEDIA: AIR	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.15	J	P	0.33	J	P	0.56	J	P	0.33	U	
1,1,2-TRICHLOROETHANE		0.11	U		0.57	U		0.72	U		0.57	U	
1,1-DICHLOROETHANE		0.04	U		0.2	U		0.25	U		0.2	U	
1,1-DICHLOROETHENE		0.052	U		0.26	U		0.32	U		0.26	U	
1,2,4-TRICHLOROBENZENE		0.29	U		1.4	U		1.8	U		1.4	U	
1,2-DICHLOROETHANE		3			0.38	U		0.48	U		0.38	U	
BENZENE		0.48			0.63	J	P	0.7	J	P	0.58	J	P
CARBON TETRACHLORIDE		0.54			0.54	J	P	0.59	U		0.52	J	P
CHLORODIFLUOROMETHANE		2.8			190			300			180		
CHLOROFORM		1.9			0.37	U		0.55	J	P	0.37	U	
CIS-1,2-DICHLOROETHENE		0.25	J	P	0.48	U		0.59	U		0.48	U	
DICHLORODIFLUOROMETHANE		2.6			2.6			2.7			2.9		
ETHYLBENZENE		0.74			0.86	J	P	1	J	P	0.67	J	P
M+P-XYLENES		2.2			3.3			3.9			2.4		
METHYL TERT-BUTYL ETHER		0.25	U		1.2	U		1.5	U		1.2	U	
METHYLENE CHLORIDE		0.97	B	A	4.9	B	A	6.1			6.3		
NAPHTHALENE		0.19	U		0.94	U		1.2	U		0.94	U	
O-XYLENE		0.64			1.4	J	P	1.6	J	P	0.98	J	P
TETRACHLOROETHENE		7.7			0.54	U		0.68	U		0.54	U	
TOLUENE		3.9			6.4			8.9			5.2		
TRANS-1,2-DICHLOROETHENE		2.1			0.4	U		0.5	U		0.4	U	
TRICHLOROETHENE		1.4			0.38	U		0.47	U		0.38	U	
VINYL CHLORIDE		0.074	U		0.37	U		0.46	U		0.37	U	

PROJ_NO: 02757 SDG: H0I030404 FRACTION: OV MEDIA: AIR	NSAMPLE	IAQ-C7-9			IAQ-C8-9			IAQ-C8-9-DL			IAQ-C9-9		
	LAB_ID	H0I030404015			H0I030404016			H0I030404016			H0I030404012		
	SAMP_DATE	8/30/2010			8/30/2010			8/30/2010			8/30/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.68	J	P	0.66	J	P				1.6	U	
1,1,2-TRICHLOROETHANE		1.1	U		0.29	U					2.9	U	
1,1-DICHLOROETHANE		0.4	U		0.1	U					1	U	
1,1-DICHLOROETHENE		0.52	U		0.13	U					1.3	U	
1,2,4-TRICHLOROBENZENE		2.9	U		0.72	U					7.2	U	
1,2-DICHLOROETHANE		0.77	U		0.19	U					1.9	U	
BENZENE		0.88	J	P	0.86						1.8	U	
CARBON TETRACHLORIDE		0.94	U		0.57	J	P				2.4	U	
CHLORODIFLUOROMETHANE		380						430			960		
CHLOROFORM		0.73	U		0.62	J	P				1.8	U	
CIS-1,2-DICHLOROETHENE		0.95	U		0.24	U					2.4	U	
DICHLORODIFLUOROMETHANE		2.8	J	P	2.7						3.3	U	
ETHYLBENZENE		1.3	J	P	1.6						2.9	U	
M+P-XYLENES		5.3			6.2						6.5	J	P
METHYL TERT-BUTYL ETHER		2.5	U		0.61	U					6.1	U	
METHYLENE CHLORIDE		8.6			5.3						17	J	P
NAPHTHALENE		2.3	J	CP	0.97	J	CP				4.7	U	
O-XYLENE		2.2	J	P	2.6						2.6	U	
TETRACHLOROETHENE		1.1	U		0.27	U					2.7	U	
TOLUENE		12			16						6.1	J	P
TRANS-1,2-DICHLOROETHENE		0.79	U		0.2	U					2	U	
TRICHLOROETHENE		0.75	U		0.76						1.9	U	
VINYL CHLORIDE		0.74	U		0.19	U					1.9	U	

PROJ_NO: 02757 SDG: H0I030404 FRACTION: OV MEDIA: AIR	NSAMPLE	ISG-01-9			ISG-14-C-9			ISG-3-C-9			SV-1-C-9		
	LAB_ID	H0I030404010			H0I030404001			H0I030404004			H0I030404008		
	SAMP_DATE	8/30/2010			8/30/2010			8/30/2010			8/30/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.37	J	P	7.7	J	P	3.2	J	P	2.1	J	P
1,1,2-TRICHLOROETHANE		0.57	U		5.7	U		1.1	U		2.9	U	
1,1-DICHLOROETHANE		0.2	U		2	U		0.4	U		1	U	
1,1-DICHLOROETHENE		0.26	U		2.6	U		0.52	U		1.3	U	
1,2,4-TRICHLOROBENZENE		1.4	U		14	U		2.9	U		7.2	U	
1,2-DICHLOROETHANE		0.38	U		3.8	U		0.77	U		1.9	U	
BENZENE		0.57	J	P	5.7	J	P	0.73	U		1.8	U	
CARBON TETRACHLORIDE		1.7	J	P	4.7	U		3.4	J	P	2.4	U	
CHLORODIFLUOROMETHANE		1.8			130			7.8			7.5		
CHLOROFORM		0.44	J	P	3.7	U		16			18		
CIS-1,2-DICHLOROETHENE		0.48	U		4.8	U		1.9	J	P	360		
DICHLORODIFLUOROMETHANE		2.5			6.7	U		2.8	J	P	3.3	U	
ETHYLBENZENE		1.3	J	P	15	J	P	1.6	J	P	2.9	U	
M+P-XYLENES		5.2			62			7.9			13		
METHYL TERT-BUTYL ETHER		1.2	U		12	U		2.5	U		6.1	U	
METHYLENE CHLORIDE		1.8	J	P	24	J	P	1.9	J	P	7.4	J	P
NAPHTHALENE		130	J	C	15	J	CP	4	J	CP	4.7	U	
O-XYLENE		2.9			33			8.9			5.6	J	P
TETRACHLOROETHENE		18			5.4	U		12			6.2	J	P
TOLUENE		14			1700			11			2	U	
TRANS-1,2-DICHLOROETHENE		2.6			4	U		0.79	U		88		
TRICHLOROETHENE		10			3.8	U		370			620		
VINYL CHLORIDE		0.37	U		3.7	U		0.74	U		1.9	U	

PROJ_NO: 02757 SDG: H0I030404 FRACTION: OV MEDIA: AIR	NSAMPLE	SV-28-C-9			SV-5-C-9			SV-C-2-9			SV-C-3-9		
	LAB_ID	H0I030404007			H0I030404009			H0I030404006			H0I030404002		
	SAMP_DATE	8/30/2010			8/30/2010			8/30/2010			8/30/2010		
	QC_TYPE	NM			NM			NM			NM		
	UNITS	UG/M3			UG/M3			UG/M3			UG/M3		
	PCT_SOLIDS												
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		1000			4.6			3.7			14	J	P
1,1,2-TRICHLOROETHANE		20	U		0.11	U		0.29	U		5.7	U	
1,1-DICHLOROETHANE		4400			0.12	J	P	0.1	U		87		
1,1-DICHLOROETHENE		1200			0.052	U		0.13	U		3	J	P
1,2,4-TRICHLOROBENZENE		50	U		0.29	U		0.72	U		14	U	
1,2-DICHLOROETHANE		13	U		0.077	U		0.19	U		3.8	U	
BENZENE		13	U		0.39			0.7			3.7	U	
CARBON TETRACHLORIDE		16	U		0.61			0.56	J	P	4.7	U	
CHLORODIFLUOROMETHANE		31	J	P	6.1			120			190		
CHLOROFORM		87			13			0.98			67		
CIS-1,2-DICHLOROETHENE		83			0.095	U		0.24	U		140		
DICHLORODIFLUOROMETHANE		23	U		0.73			2			6.7	U	
ETHYLBENZENE		590			0.41			2.3			53		
M+P-XYLENES		3700			1			1.9			110		
METHYL TERT-BUTYL ETHER		42	U		0.25	U		0.61	U		12	U	
METHYLENE CHLORIDE		20	J	P	0.58	J	P	0.88	J	P	12	J	P
NAPHTHALENE		400	J	C	0.29	J	CP	0.47	U		9.4	U	
O-XYLENE		1200			0.64			1.2			130		
TETRACHLOROETHENE		19	U		110			1.3			25	J	P
TOLUENE		52			0.56			3.2			7.6	J	P
TRANS-1,2-DICHLOROETHENE		14	U		0.079	U		0.2	U		17		
TRICHLOROETHENE		2800			2.6			7.2			2200		
VINYL CHLORIDE		13	U		0.074	U		0.19	U		3.7	U	

PROJ_NO: 02757 SDG: H0I030404 FRACTION: OV MEDIA: AIR	NSAMPLE	SV-C-4-9			SV-C-5-9		
	LAB_ID	H0I030404005			H0I030404003		
	SAMP_DATE	8/30/2010			8/30/2010		
	QC_TYPE	NM			NM		
	UNITS	UG/M3			UG/M3		
	PCT_SOLIDS						
	DUP_OF						
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD
1,1,1-TRICHLOROETHANE		0.54	J	P	0.2	J	P
1,1,2-TRICHLOROETHANE		0.57	U		0.11	U	
1,1-DICHLOROETHANE		0.2	U		0.04	U	
1,1-DICHLOROETHENE		0.26	U		0.052	U	
1,2,4-TRICHLOROBENZENE		1.4	U		0.29	U	
1,2-DICHLOROETHANE		0.38	U		0.077	U	
BENZENE		1.3			0.59		
CARBON TETRACHLORIDE		0.66	J	P	0.57		
CHLORODIFLUOROMETHANE		49			15		
CHLOROFORM		2.8			0.25	J	P
CIS-1,2-DICHLOROETHENE		73			0.095	U	
DICHLORODIFLUOROMETHANE		2.7			2.5		
ETHYLBENZENE		2.9			0.94		
M+P-XYLENES		14			3.6		
METHYL TERT-BUTYL ETHER		1.2	U		0.25	U	
METHYLENE CHLORIDE		3.3	J	P	1.3		
NAPHTHALENE		3.2	J	CP	1.4	J	C
O-XYLENE		10			1.9		
TETRACHLOROETHENE		0.54	U		0.29	J	P
TOLUENE		9.2			3		
TRANS-1,2-DICHLOROETHENE		1.4	J	P	0.079	U	
TRICHLOROETHENE		270			0.29		
VINYL CHLORIDE		0.37	U		0.074	U	

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C1-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 018	Work Order #	L6G921AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/09/2010	Analysis Date...	09/10/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	2	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.13	0.16	0.046	0.41 J	0.51	0.15
Carbon tetrachloride	0.088	0.16	0.030	0.56 J	1.0	0.19
Chlorodifluoromethane	15	0.16	0.030	52	0.57	0.11
Chloroform	0.036	0.16	0.030	0.17 J	0.78	0.15
Dichlorodifluoromethane	0.52	0.16	0.054	2.6	0.79	0.27
1,1-Dichloroethane	ND	0.16	0.020	ND	0.65	0.081
1,2-Dichloroethane	ND	0.16	0.038	ND	0.65	0.15
cis-1,2-Dichloroethene	ND	0.16	0.048	ND	0.63	0.19
trans-1,2-Dichloroethene	ND	0.16	0.040	ND	0.63	0.16
1,1-Dichloroethene	ND	0.16	0.026	ND	0.63	0.10
Ethylbenzene	0.13	0.16	0.054	0.57 J	0.69	0.23
Methylene chloride	0.71	0.40	0.036	2.5 B	1.4	0.13
Methyl tert-butyl ether	ND	0.80	0.14	ND	2.9	0.49
Naphthalene	0.16	0.40	0.072	0.81 J	2.1	0.38
Tetrachloroethene	ND	0.16	0.032	ND	1.1	0.22
Toluene	0.87	0.16	0.042	3.3	0.60	0.16
1,2,4-Trichlorobenzene	ND	0.80	0.078	ND	5.9	0.58
1,1,1-Trichloroethane	0.028	0.16	0.024	0.15 J	0.87	0.13
1,1,2-Trichloroethane	ND	0.16	0.042	ND	0.87	0.23
Trichloroethene	ND	0.080	0.028	ND	0.43	0.15
Vinyl chloride	ND	0.16	0.058	ND	0.41	0.15
m-Xylene & p-Xylene	0.51	0.16	0.10	2.2	0.69	0.43
o-Xylene	0.22	0.16	0.048	0.94	0.69	0.21

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	107	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C10-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 011	Work Order #	L6G9Q1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	10	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.24**	**0.80**	**0.23**	**0.78 J**	**2.6**	**0.73**
Carbon tetrachloride	ND	0.80	0.15	ND	5.0	0.94
Chlorodifluoromethane	**120**	**0.80**	**0.15**	**430**	**2.8**	**0.53**
Chloroform	ND	0.80	0.15	ND	3.9	0.73
Dichlorodifluoromethane	**0.67**	**0.80**	**0.27**	**3.3 J**	**4.0**	**1.3**
1,1-Dichloroethane	ND	0.80	0.10	ND	3.2	0.40
1,2-Dichloroethane	ND	0.80	0.19	ND	3.2	0.77
cis-1,2-Dichloroethene	ND	0.80	0.24	ND	3.2	0.95
trans-1,2-Dichloroethene	ND	0.80	0.20	ND	3.2	0.79
1,1-Dichloroethene	ND	0.80	0.13	ND	3.2	0.52
Ethylbenzene	ND	0.80	0.27	ND	3.5	1.2
Methylene chloride	**3.7**	**2.0**	**0.18**	**13**	**6.9**	**0.63**
Methyl tert-butyl ether	ND	4.0	0.68	ND	14	2.5
Naphthalene	**0.58**	**2.0**	**0.36**	**3.1 J**	**10**	**1.9**
Tetrachloroethene	ND	0.80	0.16	ND	5.4	1.1
Toluene	**1.4**	**0.80**	**0.21**	**5.3**	**3.0**	**0.79**
1,2,4-Trichlorobenzene	ND	4.0	0.39	ND	30	2.9
1,1,1-Trichloroethane	ND	0.80	0.12	ND	4.4	0.65
1,1,2-Trichloroethane	ND	0.80	0.21	ND	4.4	1.1
Trichloroethene	ND	0.40	0.14	ND	2.1	0.75
Vinyl chloride	ND	0.80	0.29	ND	2.0	0.74
m-Xylene & p-Xylene	**0.65**	**0.80**	**0.50**	**2.8 J**	**3.5**	**2.2**
o-Xylene	**0.27**	**0.80**	**0.24**	**1.2 J**	**3.5**	**1.0**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	100	60 - 140

Qualifiers

J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C17-9

GC/MS Volatiles

Lot-Sample #	H01030404 - 017	Work Order #	L6G911AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/09/2010		
Prep Batch #....:	0252108				
Dilution Factor.:	2.5	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.26**	**0.20**	**0.058**	**0.84**	**0.64**	**0.18**
Carbon tetrachloride	**0.088**	**0.20**	**0.038**	**0.55 J**	**1.3**	**0.24**
Chlorodifluoromethane	**130**	**0.20**	**0.038**	**460 E**	**0.71**	**0.13**
Chloroform	**0.12**	**0.20**	**0.038**	**0.59 J**	**0.98**	**0.18**
Dichlorodifluoromethane	**0.54**	**0.20**	**0.068**	**2.7**	**0.99**	**0.33**
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	**0.38**	**0.20**	**0.068**	**1.7**	**0.87**	**0.29**
Methylene chloride	**2.0**	**0.50**	**0.045**	**6.8**	**1.7**	**0.16**
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	ND	0.50	0.090	ND	2.6	0.47
Tetrachloroethene	**0.040**	**0.20**	**0.040**	**0.27 J**	**1.4**	**0.27**
Toluene	**3.3**	**0.20**	**0.052**	**12**	**0.75**	**0.20**
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	**0.14**	**0.20**	**0.030**	**0.77 J**	**1.1**	**0.16**
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	**0.11**	**0.10**	**0.035**	**0.58**	**0.54**	**0.19**
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	**1.4**	**0.20**	**0.12**	**6.3**	**0.87**	**0.54**
o-Xylene	**0.55**	**0.20**	**0.060**	**2.4**	**0.87**	**0.26**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C17-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 017	Work Order #	L6G912AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/09/2010	Analysis Date...	09/09/2010		
Prep Batch #....:	0253092				
Dilution Factor.:	20	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Chlorodifluoromethane	160	1.6	0.30	560 D	5.7	1.1

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

D	Result was obtained from the analysis of a dilution.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C19-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 020	Work Order #	L6G961AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/09/2010	Analysis Date...	09/10/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.15	0.080	0.023	0.48	0.26	0.073
Carbon tetrachloride	0.087	0.080	0.015	0.54	0.50	0.094
Chlorodifluoromethane	0.80	0.080	0.015	2.8	0.28	0.053
Chloroform	0.38	0.080	0.015	1.9	0.39	0.073
Dichlorodifluoromethane	0.53	0.080	0.027	2.6	0.40	0.13
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	0.74	0.080	0.019	3.0	0.32	0.077
cis-1,2-Dichloroethene	0.063	0.080	0.024	0.25 J	0.32	0.095
trans-1,2-Dichloroethene	0.53	0.080	0.020	2.1	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	0.17	0.080	0.027	0.74	0.35	0.12
Methylene chloride	0.28	0.20	0.018	0.97 B	0.69	0.063
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	ND	0.20	0.036	ND	1.0	0.19
Tetrachloroethene	1.1	0.080	0.016	7.7	0.54	0.11
Toluene	1.0	0.080	0.021	3.9	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	0.028	0.080	0.012	0.15 J	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	0.25	0.040	0.014	1.4	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	0.50	0.080	0.050	2.2	0.35	0.22
o-Xylene	0.15	0.080	0.024	0.64	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C2-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 019	Work Order #	L6G951AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/09/2010	Analysis Date...	09/09/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	5	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.20	0.40	0.12	0.63 J	1.3	0.37
Carbon tetrachloride	0.086	0.40	0.075	0.54 J	2.5	0.47
Chlorodifluoromethane	54	0.40	0.075	190	1.4	0.27
Chloroform	ND	0.40	0.075	ND	2.0	0.37
Dichlorodifluoromethane	0.53	0.40	0.14	2.6	2.0	0.67
1,1-Dichloroethane	ND	0.40	0.050	ND	1.6	0.20
1,2-Dichloroethane	ND	0.40	0.095	ND	1.6	0.38
cis-1,2-Dichloroethene	ND	0.40	0.12	ND	1.6	0.48
trans-1,2-Dichloroethene	ND	0.40	0.10	ND	1.6	0.40
1,1-Dichloroethene	ND	0.40	0.065	ND	1.6	0.26
Ethylbenzene	0.20	0.40	0.14	0.86 J	1.7	0.59
Methylene chloride	1.4	1.0	0.090	4.9 B	3.5	0.31
Methyl tert-butyl ether	ND	2.0	0.34	ND	7.2	1.2
Naphthalene	ND	1.0	0.18	ND	5.2	0.94
Tetrachloroethene	ND	0.40	0.080	ND	2.7	0.54
Toluene	1.7	0.40	0.10	6.4	1.5	0.40
1,2,4-Trichlorobenzene	ND	2.0	0.20	ND	15	1.4
1,1,1-Trichloroethane	0.060	0.40	0.060	0.33 J	2.2	0.33
1,1,2-Trichloroethane	ND	0.40	0.10	ND	2.2	0.57
Trichloroethene	ND	0.20	0.070	ND	1.1	0.38
Vinyl chloride	ND	0.40	0.14	ND	1.0	0.37
m-Xylene & p-Xylene	0.77	0.40	0.25	3.3	1.7	1.1
o-Xylene	0.31	0.40	0.12	1.4 J	1.7	0.52

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

B	Method blank contamination. The associated method blank contains the target analyte at a reportable level.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C5-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 014	Work Order #	L6G9W1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	6.25	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.22**	**0.50**	**0.14**	**0.70 J**	**1.6**	**0.46**
Carbon tetrachloride	ND	0.50	0.094	ND	3.1	0.59
Chlorodifluoromethane	**84**	**0.50**	**0.094**	**300**	**1.8**	**0.33**
Chloroform	**0.11**	**0.50**	**0.094**	**0.55 J**	**2.4**	**0.46**
Dichlorodifluoromethane	**0.55**	**0.50**	**0.17**	**2.7**	**2.5**	**0.83**
1,1-Dichloroethane	ND	0.50	0.062	ND	2.0	0.25
1,2-Dichloroethane	ND	0.50	0.12	ND	2.0	0.48
cis-1,2-Dichloroethene	ND	0.50	0.15	ND	2.0	0.59
trans-1,2-Dichloroethene	ND	0.50	0.12	ND	2.0	0.50
1,1-Dichloroethene	ND	0.50	0.081	ND	2.0	0.32
Ethylbenzene	**0.24**	**0.50**	**0.17**	**1.0 J**	**2.2**	**0.73**
Methylene chloride	**1.7**	**1.2**	**0.11**	**6.1**	**4.3**	**0.39**
Methyl tert-butyl ether	ND	2.5	0.42	ND	9.0	1.5
Naphthalene	ND	1.2	0.22	ND	6.6	1.2
Tetrachloroethene	ND	0.50	0.10	ND	3.4	0.68
Toluene	**2.4**	**0.50**	**0.13**	**8.9**	**1.9**	**0.49**
1,2,4-Trichlorobenzene	ND	2.5	0.24	ND	19	1.8
1,1,1-Trichloroethane	**0.10**	**0.50**	**0.075**	**0.56 J**	**2.7**	**0.41**
1,1,2-Trichloroethane	ND	0.50	0.13	ND	2.7	0.72
Trichloroethene	ND	0.25	0.088	ND	1.3	0.47
Vinyl chloride	ND	0.50	0.18	ND	1.3	0.46
m-Xylene & p-Xylene	**0.89**	**0.50**	**0.31**	**3.9**	**2.2**	**1.4**
o-Xylene	**0.38**	**0.50**	**0.15**	**1.6 J**	**2.2**	**0.65**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C6-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 013	Work Order #	L6G9V1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	5	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.18	0.40	0.12	0.58 J	1.3	0.37
Carbon tetrachloride	0.083	0.40	0.075	0.52 J	2.5	0.47
Chlorodifluoromethane	50	0.40	0.075	180	1.4	0.27
Chloroform	ND	0.40	0.075	ND	2.0	0.37
Dichlorodifluoromethane	0.59	0.40	0.14	2.9	2.0	0.67
1,1-Dichloroethane	ND	0.40	0.050	ND	1.6	0.20
1,2-Dichloroethane	ND	0.40	0.095	ND	1.6	0.38
cis-1,2-Dichloroethene	ND	0.40	0.12	ND	1.6	0.48
trans-1,2-Dichloroethene	ND	0.40	0.10	ND	1.6	0.40
1,1-Dichloroethene	ND	0.40	0.065	ND	1.6	0.26
Ethylbenzene	0.15	0.40	0.14	0.67 J	1.7	0.59
Methylene chloride	1.8	1.0	0.090	6.3	3.5	0.31
Methyl tert-butyl ether	ND	2.0	0.34	ND	7.2	1.2
Naphthalene	ND	1.0	0.18	ND	5.2	0.94
Tetrachloroethene	ND	0.40	0.080	ND	2.7	0.54
Toluene	1.4	0.40	0.10	5.2	1.5	0.40
1,2,4-Trichlorobenzene	ND	2.0	0.20	ND	15	1.4
1,1,1-Trichloroethane	ND	0.40	0.060	ND	2.2	0.33
1,1,2-Trichloroethane	ND	0.40	0.10	ND	2.2	0.57
Trichloroethene	ND	0.20	0.070	ND	1.1	0.38
Vinyl chloride	ND	0.40	0.14	ND	1.0	0.37
m-Xylene & p-Xylene	0.55	0.40	0.25	2.4	1.7	1.1
o-Xylene	0.23	0.40	0.12	0.98 J	1.7	0.52

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C7-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 015	Work Order #	L6G9X1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/09/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	10	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	**0.28**	**0.80**	**0.23**	**0.88 J**	**2.6**	**0.73**
Carbon tetrachloride	ND	0.80	0.15	ND	5.0	0.94
Chlorodifluoromethane	**110**	**0.80**	**0.15**	**380**	**2.8**	**0.53**
Chloroform	ND	0.80	0.15	ND	3.9	0.73
Dichlorodifluoromethane	**0.57**	**0.80**	**0.27**	**2.8 J**	**4.0**	**1.3**
1,1-Dichloroethane	ND	0.80	0.10	ND	3.2	0.40
1,2-Dichloroethane	ND	0.80	0.19	ND	3.2	0.77
cis-1,2-Dichloroethene	ND	0.80	0.24	ND	3.2	0.95
trans-1,2-Dichloroethene	ND	0.80	0.20	ND	3.2	0.79
1,1-Dichloroethene	ND	0.80	0.13	ND	3.2	0.52
Ethylbenzene	**0.31**	**0.80**	**0.27**	**1.3 J**	**3.5**	**1.2**
Methylene chloride	**2.5**	**2.0**	**0.18**	**8.6**	**6.9**	**0.63**
Methyl tert-butyl ether	ND	4.0	0.68	ND	14	2.5
Naphthalene	**0.45**	**2.0**	**0.36**	**2.3 J**	**10**	**1.9**
Tetrachloroethene	ND	0.80	0.16	ND	5.4	1.1
Toluene	**3.2**	**0.80**	**0.21**	**12**	**3.0**	**0.79**
1,2,4-Trichlorobenzene	ND	4.0	0.39	ND	30	2.9
1,1,1-Trichloroethane	**0.12**	**0.80**	**0.12**	**0.68 J**	**4.4**	**0.65**
1,1,2-Trichloroethane	ND	0.80	0.21	ND	4.4	1.1
Trichloroethene	ND	0.40	0.14	ND	2.1	0.75
Vinyl chloride	ND	0.80	0.29	ND	2.0	0.74
m-Xylene & p-Xylene	**1.2**	**0.80**	**0.50**	**5.3**	**3.5**	**2.2**
o-Xylene	**0.50**	**0.80**	**0.24**	**2.2 J**	**3.5**	**1.0**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C8-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 016	Work Order #	L6G901AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/09/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	2.5	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.27	0.20	0.058	0.86	0.64	0.18
Carbon tetrachloride	0.091	0.20	0.038	0.57 J	1.3	0.24
Chlorodifluoromethane	110	0.20	0.038	380 E	0.71	0.13
Chloroform	0.13	0.20	0.038	0.62 J	0.98	0.18
Dichlorodifluoromethane	0.55	0.20	0.068	2.7	0.99	0.33
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	0.36	0.20	0.068	1.6	0.87	0.29
Methylene chloride	1.5	0.50	0.045	5.3	1.7	0.16
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	0.18	0.50	0.090	0.97 J	2.6	0.47
Tetrachloroethene	ND	0.20	0.040	ND	1.4	0.27
Toluene	4.2	0.20	0.052	16	0.75	0.20
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	0.12	0.20	0.030	0.66 J	1.1	0.16
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	0.14	0.10	0.035	0.76	0.54	0.19
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	1.4	0.20	0.12	6.2	0.87	0.54
o-Xylene	0.60	0.20	0.060	2.6	0.87	0.26

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	105	60 - 140

Qualifiers

E	Estimated result. Result concentration exceeds the calibration range.
J	Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C8-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 016	Work Order #	L6G902AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/09/2010	Analysis Date...	09/09/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	10	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Chlorodifluoromethane	120	0.80	0.15	430 D	2.8	0.53

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	106	60 - 140

Qualifiers

D Result was obtained from the analysis of a dilution.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: IAQ-C9-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 012	Work Order #	L6G9R1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	25	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	2.0	0.58	ND	6.4	1.8
Carbon tetrachloride	ND	2.0	0.38	ND	13	2.4
Chlorodifluoromethane	**270**	**2.0**	**0.38**	**960**	**7.1**	**1.3**
Chloroform	ND	2.0	0.38	ND	9.8	1.8
Dichlorodifluoromethane	ND	2.0	0.68	ND	9.9	3.3
1,1-Dichloroethane	ND	2.0	0.25	ND	8.1	1.0
1,2-Dichloroethane	ND	2.0	0.48	ND	8.1	1.9
cis-1,2-Dichloroethene	ND	2.0	0.60	ND	7.9	2.4
trans-1,2-Dichloroethene	ND	2.0	0.50	ND	7.9	2.0
1,1-Dichloroethene	ND	2.0	0.32	ND	7.9	1.3
Ethylbenzene	ND	2.0	0.68	ND	8.7	2.9
Methylene chloride	**4.8**	**5.0**	**0.45**	**17 J**	**17**	**1.6**
Methyl tert-butyl ether	ND	10	1.7	ND	36	6.1
Naphthalene	ND	5.0	0.90	ND	26	4.7
Tetrachloroethene	ND	2.0	0.40	ND	14	2.7
Toluene	**1.6**	**2.0**	**0.52**	**6.1 J**	**7.5**	**2.0**
1,2,4-Trichlorobenzene	ND	10	0.98	ND	74	7.2
1,1,1-Trichloroethane	ND	2.0	0.30	ND	11	1.6
1,1,2-Trichloroethane	ND	2.0	0.52	ND	11	2.9
Trichloroethene	ND	1.0	0.35	ND	5.4	1.9
Vinyl chloride	ND	2.0	0.72	ND	5.1	1.9
m-Xylene & p-Xylene	**1.5**	**2.0**	**1.2**	**6.5 J**	**8.7**	**5.4**
o-Xylene	ND	2.0	0.60	ND	8.7	2.6

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: ISG-01-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 010	Work Order #	L6G9P1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	5	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.18	0.40	0.12	0.57 J	1.3	0.37
Carbon tetrachloride	0.27	0.40	0.075	1.7 J	2.5	0.47
Chlorodifluoromethane	0.50	0.40	0.075	1.8	1.4	0.27
Chloroform	0.090	0.40	0.075	0.44 J	2.0	0.37
Dichlorodifluoromethane	0.50	0.40	0.14	2.5	2.0	0.67
1,1-Dichloroethane	ND	0.40	0.050	ND	1.6	0.20
1,2-Dichloroethane	ND	0.40	0.095	ND	1.6	0.38
cis-1,2-Dichloroethene	ND	0.40	0.12	ND	1.6	0.48
trans-1,2-Dichloroethene	0.65	0.40	0.10	2.6	1.6	0.40
1,1-Dichloroethene	ND	0.40	0.065	ND	1.6	0.26
Ethylbenzene	0.30	0.40	0.14	1.3 J	1.7	0.59
Methylene chloride	0.53	1.0	0.090	1.8 J	3.5	0.31
Methyl tert-butyl ether	ND	2.0	0.34	ND	7.2	1.2
Naphthalene	24	1.0	0.18	130	5.2	0.94
Tetrachloroethene	2.7	0.40	0.080	18	2.7	0.54
Toluene	3.7	0.40	0.10	14	1.5	0.40
1,2,4-Trichlorobenzene	ND	2.0	0.20	ND	15	1.4
1,1,1-Trichloroethane	0.068	0.40	0.060	0.37 J	2.2	0.33
1,1,2-Trichloroethane	ND	0.40	0.10	ND	2.2	0.57
Trichloroethene	1.9	0.20	0.070	10	1.1	0.38
Vinyl chloride	ND	0.40	0.14	ND	1.0	0.37
m-Xylene & p-Xylene	1.2	0.40	0.25	5.2	1.7	1.1
o-Xylene	0.67	0.40	0.12	2.9	1.7	0.52

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: ISG-14-C-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 001	Work Order #	L6G9D1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/09/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	50	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	1.8	4.0	1.2	5.7 J	13	3.7
Carbon tetrachloride	ND	4.0	0.75	ND	25	4.7
Chlorodifluoromethane	36	4.0	0.75	130	14	2.7
Chloroform	ND	4.0	0.75	ND	20	3.7
Dichlorodifluoromethane	ND	4.0	1.4	ND	20	6.7
1,1-Dichloroethane	ND	4.0	0.50	ND	16	2.0
1,2-Dichloroethane	ND	4.0	0.95	ND	16	3.8
cis-1,2-Dichloroethene	ND	4.0	1.2	ND	16	4.8
trans-1,2-Dichloroethene	ND	4.0	1.0	ND	16	4.0
1,1-Dichlorocthene	ND	4.0	0.65	ND	16	2.6
Ethylbenzene	3.5	4.0	1.4	15 J	17	5.9
Methylene chloride	6.8	10	0.90	24 J	35	3.1
Methyl tert-butyl ether	ND	20	3.4	ND	72	12
Naphthalene	2.9	10	1.8	15 J	52	9.4
Tetrachloroethene	ND	4.0	0.80	ND	27	5.4
Toluene	460	4.0	1.0	1700	15	4.0
1,2,4-Trichlorobenzene	ND	20	2.0	ND	150	14
1,1,1-Trichloroethane	1.4	4.0	0.60	7.7 J	22	3.3
1,1,2-Trichloroethane	ND	4.0	1.0	ND	22	5.7
Trichloroethene	ND	2.0	0.70	ND	11	3.8
Vinyl chloride	ND	4.0	1.4	ND	10	3.7
m-Xylene & p-Xylene	14	4.0	2.5	62	17	11
o-Xylene	7.6	4.0	1.2	33	17	5.2

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: ISG-3-C-9

GC/MS Volatiles

Lot-Sample #	H01030404 - 004	Work Order #	L6G9H1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	10	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.80	0.23	ND	2.6	0.73
Carbon tetrachloride	0.55	0.80	0.15	3.4 J	5.0	0.94
Chlorodifluoromethane	2.2	0.80	0.15	7.8	2.8	0.53
Chloroform	3.3	0.80	0.15	16	3.9	0.73
Dichlorodifluoromethane	0.56	0.80	0.27	2.8 J	4.0	1.3
1,1-Dichloroethane	ND	0.80	0.10	ND	3.2	0.40
1,2-Dichloroethane	ND	0.80	0.19	ND	3.2	0.77
cis-1,2-Dichloroethene	0.47	0.80	0.24	1.9 J	3.2	0.95
trans-1,2-Dichloroethene	ND	0.80	0.20	ND	3.2	0.79
1,1-Dichloroethene	ND	0.80	0.13	ND	3.2	0.52
Ethylbenzene	0.37	0.80	0.27	1.6 J	3.5	1.2
Methylene chloride	0.54	2.0	0.18	1.9 J	6.9	0.63
Methyl tert-butyl ether	ND	4.0	0.68	ND	14	2.5
Naphthalene	0.75	2.0	0.36	4.0 J	10	1.9
Tetrachloroethene	1.8	0.80	0.16	12	5.4	1.1
Toluene	3.0	0.80	0.21	11	3.0	0.79
1,2,4-Trichlorobenzene	ND	4.0	0.39	ND	30	2.9
1,1,1-Trichloroethane	0.59	0.80	0.12	3.2 J	4.4	0.65
1,1,2-Trichloroethane	ND	0.80	0.21	ND	4.4	1.1
Trichloroethene	70	0.40	0.14	370	2.1	0.75
Vinyl chloride	ND	0.80	0.29	ND	2.0	0.74
m-Xylene & p-Xylene	1.8	0.80	0.50	7.9	3.5	2.2
o-Xylene	2.1	0.80	0.24	8.9	3.5	1.0

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-1-C-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 008 Work Order # L6G9M1AA Matrix.....: AIR

Date Sampled...: 08/30/2010
Prep Date.....: 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 25

Date Received..: 09/02/2010
Analysis Date... 09/08/2010
Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	2.0	0.58	ND	6.4	1.8
Carbon tetrachloride	ND	2.0	0.38	ND	13	2.4
Chlorodifluoromethane	**2.1**	**2.0**	**0.38**	**7.5**	**7.1**	**1.3**
Chloroform	**3.7**	**2.0**	**0.38**	**18**	**9.8**	**1.8**
Dichlorodifluoromethane	ND	2.0	0.68	ND	9.9	3.3
1,1-Dichloroethane	ND	2.0	0.25	ND	8.1	1.0
1,2-Dichloroethane	ND	2.0	0.48	ND	8.1	1.9
cis-1,2-Dichloroethene	**90**	**2.0**	**0.60**	**360**	**7.9**	**2.4**
trans-1,2-Dichloroethene	**22**	**2.0**	**0.50**	**88**	**7.9**	**2.0**
1,1-Dichloroethene	ND	2.0	0.32	ND	7.9	1.3
Ethylbenzene	ND	2.0	0.68	ND	8.7	2.9
Methylene chloride	**2.1**	**5.0**	**0.45**	**7.4 J**	**17**	**1.6**
Methyl tert-butyl ether	ND	10	1.7	ND	36	6.1
Naphthalene	ND	5.0	0.90	ND	26	4.7
Tetrachloroethene	**0.91**	**2.0**	**0.40**	**6.2 J**	**14**	**2.7**
Toluene	ND	2.0	0.52	ND	7.5	2.0
1,2,4-Trichlorobenzene	ND	10	0.98	ND	74	7.2
1,1,1-Trichloroethane	**0.38**	**2.0**	**0.30**	**2.1 J**	**11**	**1.6**
1,1,2-Trichloroethane	ND	2.0	0.52	ND	11	2.9
Trichloroethene	**120**	**1.0**	**0.35**	**620**	**5.4**	**1.9**
Vinyl chloride	ND	2.0	0.72	ND	5.1	1.9
m-Xylene & p-Xylene	**3.1**	**2.0**	**1.2**	**13**	**8.7**	**5.4**
o-Xylene	**1.3**	**2.0**	**0.60**	**5.6 J**	**8.7**	**2.6**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-28-C-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 007	Work Order #	L6G9L1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	172.73	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	14	4.0	ND	44	13
Carbon tetrachloride	ND	14	2.6	ND	87	16
Chlorodifluoromethane	**8.7**	**14**	**2.6**	**31 J**	**49**	**9.2**
Chloroform	**18**	**14**	**2.6**	**87**	**67**	**13**
Dichlorodifluoromethane	ND	14	4.7	ND	68	23
1,1-Dichloroethane	**1100**	**14**	**1.7**	**4400**	**56**	**7.0**
1,2-Dichloroethane	ND	14	3.3	ND	56	13
cis-1,2-Dichloroethene	**21**	**14**	**4.1**	**83**	**55**	**16**
trans-1,2-Dichloroethene	ND	14	3.5	ND	55	14
1,1-Dichloroethene	**290**	**14**	**2.2**	**1200**	**55**	**8.9**
Ethylbenzene	**140**	**14**	**4.7**	**590**	**60**	**20**
Methylene chloride	**5.7**	**35**	**3.1**	**20 J**	**120**	**11**
Methyl tert-butyl ether	ND	69	12	ND	250	42
Naphthalene	**76**	**35**	**6.2**	**400**	**180**	**33**
Tetrachloroethene	ND	14	2.8	ND	94	19
Toluene	**14**	**14**	**3.6**	**52**	**52**	**14**
1,2,4-Trichlorobenzene	ND	69	6.7	ND	510	50
1,1,1-Trichloroethane	**180**	**14**	**2.1**	**1000**	**75**	**11**
1,1,2-Trichloroethane	ND	14	3.6	ND	75	20
Trichloroethene	**530**	**6.9**	**2.4**	**2800**	**37**	**13**
Vinyl chloride	ND	14	5.0	ND	35	13
m-Xylene & p-Xylene	**840**	**14**	**8.6**	**3700**	**60**	**38**
o-Xylene	**290**	**14**	**4.1**	**1200**	**60**	**18**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-5-C-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 009	Work Order #	L6G9N1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.12	0.080	0.023	0.39	0.26	0.073
Carbon tetrachloride	0.097	0.080	0.015	0.61	0.50	0.094
Chlorodifluoromethane	1.7	0.080	0.015	6.1	0.28	0.053
Chloroform	2.6	0.080	0.015	13	0.39	0.073
Dichlorodifluoromethane	0.15	0.080	0.027	0.73	0.40	0.13
1,1-Dichloroethane	0.029	0.080	0.010	0.12 J	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	0.094	0.080	0.027	0.41	0.35	0.12
Methylene chloride	0.17	0.20	0.018	0.58 J	0.69	0.063
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	0.054	0.20	0.036	0.29 J	1.0	0.19
Tetrachloroethene	16	0.080	0.016	110	0.54	0.11
Toluene	0.15	0.080	0.021	0.56	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	0.84	0.080	0.012	4.6	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	0.49	0.040	0.014	2.6	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	0.24	0.080	0.050	1.0	0.35	0.22
o-Xylene	0.15	0.080	0.024	0.64	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	106	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-C-2-9

GC/MS Volatiles

Lot-Sample # H0I030404 - 006 Work Order # L6G9K1AA Matrix.....: AIR

Date Sampled...: 08/30/2010
Prep Date.....: 09/08/2010
Prep Batch #.....: 0252108
Dilution Factor.: 2.5

Date Received..: 09/02/2010
Analysis Date... 09/08/2010

Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.22	0.20	0.058	0.70	0.64	0.18
Carbon tetrachloride	0.088	0.20	0.038	0.56 J	1.3	0.24
Chlorodifluoromethane	33	0.20	0.038	120	0.71	0.13
Chloroform	0.20	0.20	0.038	0.98	0.98	0.18
Dichlorodifluoromethane	0.40	0.20	0.068	2.0	0.99	0.33
1,1-Dichloroethane	ND	0.20	0.025	ND	0.81	0.10
1,2-Dichloroethane	ND	0.20	0.048	ND	0.81	0.19
cis-1,2-Dichloroethene	ND	0.20	0.060	ND	0.79	0.24
trans-1,2-Dichloroethene	ND	0.20	0.050	ND	0.79	0.20
1,1-Dichloroethene	ND	0.20	0.032	ND	0.79	0.13
Ethylbenzene	0.53	0.20	0.068	2.3	0.87	0.29
Methylene chloride	0.25	0.50	0.045	0.88 J	1.7	0.16
Methyl tert-butyl ether	ND	1.0	0.17	ND	3.6	0.61
Naphthalene	ND	0.50	0.090	ND	2.6	0.47
Tetrachloroethene	0.20	0.20	0.040	1.3	1.4	0.27
Toluene	0.85	0.20	0.052	3.2	0.75	0.20
1,2,4-Trichlorobenzene	ND	1.0	0.098	ND	7.4	0.72
1,1,1-Trichloroethane	0.68	0.20	0.030	3.7	1.1	0.16
1,1,2-Trichloroethane	ND	0.20	0.052	ND	1.1	0.29
Trichloroethene	1.3	0.10	0.035	7.2	0.54	0.19
Vinyl chloride	ND	0.20	0.072	ND	0.51	0.19
m-Xylene & p-Xylene	0.44	0.20	0.12	1.9	0.87	0.54
o-Xylene	0.28	0.20	0.060	1.2	0.87	0.26

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-C-3-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 002	Work Order #	L6G9E1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	50	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	4.0	1.2	ND	13	3.7
Carbon tetrachloride	ND	4.0	0.75	ND	25	4.7
Chlorodifluoromethane	**53**	**4.0**	**0.75**	**190**	**14**	**2.7**
Chloroform	**14**	**4.0**	**0.75**	**67**	**20**	**3.7**
Dichlorodifluoromethane	ND	4.0	1.4	ND	20	6.7
1,1-Dichloroethane	**21**	**4.0**	**0.50**	**87**	**16**	**2.0**
1,2-Dichloroethane	ND	4.0	0.95	ND	16	3.8
cis-1,2-Dichloroethene	**34**	**4.0**	**1.2**	**140**	**16**	**4.8**
trans-1,2-Dichloroethene	**4.4**	**4.0**	**1.0**	**17**	**16**	**4.0**
1,1-Dichloroethene	**0.75**	**4.0**	**0.65**	**3.0 J**	**16**	**2.6**
Ethylbenzene	**12**	**4.0**	**1.4**	**53**	**17**	**5.9**
Methylene chloride	**3.6**	**10**	**0.90**	**12 J**	**35**	**3.1**
Methyl tert-butyl ether	ND	20	3.4	ND	72	12
Naphthalene	ND	10	1.8	ND	52	9.4
Tetrachloroethene	**3.7**	**4.0**	**0.80**	**25 J**	**27**	**5.4**
Toluene	**2.0**	**4.0**	**1.0**	**7.6 J**	**15**	**4.0**
1,2,4-Trichlorobenzene	ND	20	2.0	ND	150	14
1,1,1-Trichloroethane	**2.7**	**4.0**	**0.60**	**14 J**	**22**	**3.3**
1,1,2-Trichloroethane	ND	4.0	1.0	ND	22	5.7
Trichloroethene	**400**	**2.0**	**0.70**	**2200**	**11**	**3.8**
Vinyl chloride	ND	4.0	1.4	ND	10	3.7
m-Xylene & p-Xylene	**25**	**4.0**	**2.5**	**110**	**17**	**11**
o-Xylene	**29**	**4.0**	**1.2**	**130**	**17**	**5.2**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	104	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-C-4-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 005	Work Order #	L6G9J1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	5	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.42	0.40	0.12	1.3	1.3	0.37
Carbon tetrachloride	0.10	0.40	0.075	0.66 J	2.5	0.47
Chlorodifluoromethane	14	0.40	0.075	49	1.4	0.27
Chloroform	0.58	0.40	0.075	2.8	2.0	0.37
Dichlorodifluoromethane	0.55	0.40	0.14	2.7	2.0	0.67
1,1-Dichloroethane	ND	0.40	0.050	ND	1.6	0.20
1,2-Dichloroethane	ND	0.40	0.095	ND	1.6	0.38
cis-1,2-Dichloroethene	18	0.40	0.12	73	1.6	0.48
trans-1,2-Dichloroethene	0.34	0.40	0.10	1.4 J	1.6	0.40
1,1-Dichloroethene	ND	0.40	0.065	ND	1.6	0.26
Ethylbenzene	0.68	0.40	0.14	2.9	1.7	0.59
Methylene chloride	0.95	1.0	0.090	3.3 J	3.5	0.31
Methyl tert-butyl ether	ND	2.0	0.34	ND	7.2	1.2
Naphthalene	0.61	1.0	0.18	3.2 J	5.2	0.94
Tetrachloroethene	ND	0.40	0.080	ND	2.7	0.54
Toluene	2.4	0.40	0.10	9.2	1.5	0.40
1,2,4-Trichlorobenzene	ND	2.0	0.20	ND	15	1.4
1,1,1-Trichloroethane	0.098	0.40	0.060	0.54 J	2.2	0.33
1,1,2-Trichloroethane	ND	0.40	0.10	ND	2.2	0.57
Trichloroethene	50	0.20	0.070	270	1.1	0.38
Vinyl chloride	ND	0.40	0.14	ND	1.0	0.37
m-Xylene & p-Xylene	3.2	0.40	0.25	14	1.7	1.1
o-Xylene	2.3	0.40	0.12	10	1.7	0.52

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	104	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: SV-C-5-9

GC/MS Volatiles

Lot-Sample #	H101030404 - 003	Work Order #	L6G9G1AA	Matrix.....:	AIR
Date Sampled...:	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	0.18	0.080	0.023	0.59	0.26	0.073
Carbon tetrachloride	0.090	0.080	0.015	0.57	0.50	0.094
Chlorodifluoromethane	4.4	0.080	0.015	15	0.28	0.053
Chloroform	0.050	0.080	0.015	0.25 J	0.39	0.073
Dichlorodifluoromethane	0.51	0.080	0.027	2.5	0.40	0.13
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	0.22	0.080	0.027	0.94	0.35	0.12
Methylene chloride	0.37	0.20	0.018	1.3	0.69	0.063
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	0.27	0.20	0.036	1.4	1.0	0.19
Tetrachloroethene	0.042	0.080	0.016	0.29 J	0.54	0.11
Toluene	0.81	0.080	0.021	3.0	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	0.037	0.080	0.012	0.20 J	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	0.053	0.040	0.014	0.29	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	0.82	0.080	0.050	3.6	0.35	0.22
o-Xylene	0.43	0.080	0.024	1.9	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	99	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

APPENDIX C

SUPPORT DOCUMENTATION

HOLDTIME

SDG H0I030404

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/M3	IAQ-C2-9	H0I030404019	NM	08/30/2010	09/09/2010	09/09/2010	10	0	10
OV	UG/M3	IAQ-C10-9	H0I030404011	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	IAQ-C8-9	H0I030404016	NM	08/30/2010	09/09/2010	09/09/2010	10	0	10
OV	UG/M3	IAQ-C8-9	H0I030404016	NM	08/30/2010	09/08/2010	09/09/2010	9	1	10
OV	UG/M3	IAQ-C7-9	H0I030404015	SUR	08/30/2010	09/08/2010	09/09/2010	9	1	10
OV	UG/M3	IAQ-C7-9	H0I030404015	NM	08/30/2010	09/08/2010	09/09/2010	9	1	10
OV	UG/M3	IAQ-C6-9	H0I030404013	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	IAQ-C6-9	H0I030404013	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	IAQ-C5-9	H0I030404014	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	IAQ-C8-9	H0I030404016	SUR	08/30/2010	09/09/2010	09/09/2010	10	0	10
OV	UG/M3	IAQ-C2-9	H0I030404019	SUR	08/30/2010	09/09/2010	09/09/2010	10	0	10
OV	UG/M3	IAQ-C9-9	H0I030404012	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	IAQ-C19-9	H0I030404020	SUR	08/30/2010	09/09/2010	09/10/2010	10	1	11
OV	UG/M3	IAQ-C19-9	H0I030404020	NM	08/30/2010	09/09/2010	09/10/2010	10	1	11
OV	UG/M3	IAQ-C1-9	H0I030404018	SUR	08/30/2010	09/09/2010	09/10/2010	10	1	11

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/M3	IAQ-C1-9	H0I030404018	NM	08/30/2010	09/09/2010	09/10/2010	10	1	11
OV	UG/M3	IAQ-C17-9	H0I030404017	SUR	08/30/2010	09/09/2010	09/09/2010	10	0	10
OV	UG/M3	IAQ-C17-9	H0I030404017	SUR	08/30/2010	09/08/2010	09/09/2010	9	1	10
OV	UG/M3	IAQ-C17-9	H0I030404017	NM	08/30/2010	09/09/2010	09/09/2010	10	0	10
OV	UG/M3	IAQ-C17-9	H0I030404017	NM	08/30/2010	09/08/2010	09/09/2010	9	1	10
OV	UG/M3	IAQ-C10-9	H0I030404011	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	IAQ-C5-9	H0I030404014	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-28-C-9	H0I030404007	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-C-5-9	H0I030404003	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-C-4-9	H0I030404005	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-C-4-9	H0I030404005	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-C-3-9	H0I030404002	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-C-3-9	H0I030404002	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-C-2-9	H0I030404006	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-C-2-9	H0I030404006	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-5-C-9	H0I030404009	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	IAQ-C8-9	H0I030404016	SUR	08/30/2010	09/08/2010	09/09/2010	9	1	10
OV	UG/M3	SV-28-C-9	H0I030404007	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9

SORT	UNITS	NSAMPLE	LAB_ID	QC_TYPE	SAMP_DATE	EXTR_DATE	ANAL_DATE	SMP_EXTR	EXTR_ANL	SMP_ANL
OV	UG/M3	SV-C-5-9	H0I030404003	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-1-C-9	H0I030404008	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-1-C-9	H0I030404008	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	ISG-3-C-9	H0I030404004	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	ISG-3-C-9	H0I030404004	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	ISG-14-C-9	H0I030404001	SUR	08/30/2010	09/08/2010	09/09/2010	9	1	10
OV	UG/M3	ISG-14-C-9	H0I030404001	NM	08/30/2010	09/08/2010	09/09/2010	9	1	10
OV	UG/M3	ISG-01-9	H0I030404010	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	ISG-01-9	H0I030404010	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	IAQ-C9-9	H0I030404012	SUR	08/30/2010	09/08/2010	09/08/2010	9	0	9
OV	UG/M3	SV-5-C-9	H0I030404009	NM	08/30/2010	09/08/2010	09/08/2010	9	0	9

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

HDI D30404

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** Rick Samuels	**Sampled By:**
Company: TetraTech, NUS	Phone (770) 413-0965 Ext. 232	1 of 9 COCs
Address: 20251 Century Blvd.	Site Contact: Tony Apanavage (301) 233-8230	
City/State/Zip Germantown, MD	TAL Contact:	
Phone (301) 528-3032		
FAX: (301) 528-3000		
Project Name: MRC-TAG Sampling	**Analysis Turnaround Time**	
Site/location: LMC-MRC	Standard (Specify)	
PO # 112c02757	Rush (Specify)	

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
ISG-14-C-9	8/30/10	0913	1041	-29.5	-3.5	K-116	6641	X											
SV-C-3-9	"	0919	1046	-30	0.0	K-414	6645	"											
SV-C-5-9	"	0924	1051	-29	-2.5	K-334	7785	"											
ISG-3-C-9	"	0932	1058	-30	-5.0	K-429	8770	"											
SV-C-4-9	"	0936	1102	-29	-3.0	K-416	04173	"											
SV-C-2-9	↓	0943	1119	-30	-0.5	K-423	6359	↓											

1455

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

REC. AT AMBIENT
CUSTODY SEALS INTACT
14 BOXES RH 9/3/10
FED EX # 796205786887
796205813336

Special Instructions/QC Requirements & Comments:

80 CANS / 80 FLOWS

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 1030	Canisters Received by:	
Samples Relinquished by:	Date/Time: 9/1/10 1220	Received by: Ryan Henry	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

HDI 130404

TAL Knoxville
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Knoxville, TN 37921
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Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:	2 of 9 COCs
Company: TetraTech, NUS	Phone (770) 413-0965 Ext. 232		
Address: 10951 Century Blvd.	Site Contact: Tony Aparavage (301) 233-8230		
City/State/Zip: Germantown, MD	TAL Contact:		
Phone: (301) 528-3022			
FAX: (301) 528-3000			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112IC02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SV-28-C-9	8/30/10	0951	1108	-30	-5.0	K-434	1147												
SV-1-C-9		1009	1139	-30	-3.5	K-373	12188												
SV-5-C-9		1014	1145	-30	-3.0	K-412	S-1538												
ISG-01-9		1018	1137	-30	-6.0	K-131	1407												

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)	Interior	Ambient	
Start			
Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 1030	Canisters Received by:	
Samples Relinquished by:	Date/Time: 9/1/10 1220	Received by: Ryan Henry	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
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HOI 130404

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:	3 of 9 COCs
Company: TetraTech, NUS	Phone: (770) 413-0965 Ext. 232		
Address: 10251 Century Blvd.	Site Contact: Tony Apanavage (301) 233-8230		
City/State/Zip: Germantown, MD	TAL Contact:		
Phone: (301) 528-3030			
FAX: (301) 528-3000			
Project Name: MRC - IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC - MRC	Standard (Specify)		
PO # 112re02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-C10-9	8/30/10	0912	1651	-30	-7.5	K-497	1524	X											
IAQ-C9-9		0918	1654	-30	-7.0	K-383	CH741												
IAQ-C6-9		0924	1704	-29.5	-7.5	K-495	6576												
IAQ-C5-9		0930	1710	-30	-7.0	K-489	1350												
IAQ-C7-9		0936	1712	-30	-4.0	K-438	6619												
IAQ-C8-9		0941	1714	-29.5	0.0	K-496	6348												

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10/1030	Canisters Received by: Paul Hayward	
Samples Relinquished by: Paul Hayward	Date/Time: 9/1/10 /1220	Received by: Ryan Henry	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

L70I13404

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** Rick Samuels	**Sampled By:**
Company: TetraTech, NUS	Phone: (770) 413-0965 Ext. 232	4 of 9 COCs
Address: 10251 Century Blvd	Site Contact: Tony Apanavage (301) 233-8230	
City/State/Zip Germantown, MD	TAL Contact:	
Phone: (301) 528-3032		
FAX: (301) 528-3000		
Project Name: MRC-IAQ Sampling	**Analysis Turnaround Time**	
Site/location: LMC-MRC	Standard (Specify)	
PO # 112c02757	Rush (Specify)	

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-C17-9	8/30/10	0949	1721	-30	-7.0	K-150	9388	X											
IAQ-C1-9		1007	1724	-30	-8.0	K-113B	12820												
IAQ-C2-9		1012	1730	-30	-8.5	K-493	0120												
IAQ-C19-9		1025	1745	-30	-7.5	K-490	6574												

Sampled by :	Temperature (Fahrenheit)			
		Interior	Ambient	
	Start			
	Stop			
	Pressure (inches of Hg)			
		Interior	Ambient	
	Start			
	Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 1030	Canisters Received by:	
Samples Relinquished by: Paul Lefrand	Date/Time: 9/1/10 1220	Received by: Ryan Henry	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. 112IC02757

MRC-IAQ Sampling, LMC-MRC

Lot #: H0I030404

Tobrena Skeen

Tetra Tech NUS Inc
Foster Plaza 7
661 Anderson Drive
Pittsburgh, PA 15220-2745

TESTAMERICA LABORATORIES, INC.

Terry Wasmund
Project Manager

September 17, 2010

ANALYTICAL METHODS SUMMARY

H0I030404

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO15	EPA-2 TO-15

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H0I030404

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L6G9D	001	ISG-14-C-9	08/30/10	10:41
L6G9E	002	SV-C-3-9	08/30/10	10:46
L6G9G	003	SV-C-5-9	08/30/10	10:51
L6G9H	004	ISG-3-C-9	08/30/10	10:58
L6G9J	005	SV-C-4-9	08/30/10	11:02
L6G9K	006	SV-C-2-9	08/30/10	11:19
L6G9L	007	SV-28-C-9	08/30/10	11:08
L6G9M	008	SV-1-C-9	08/30/10	11:39
L6G9N	009	SV-5-C-9	08/30/10	11:45
L6G9P	010	ISG-01-9	08/30/10	11:37
L6G9Q	011	IAQ-C10-9	08/30/10	16:51
L6G9R	012	IAQ-C9-9	08/30/10	16:54
L6G9V	013	IAQ-C6-9	08/30/10	17:04
L6G9W	014	IAQ-C5-9	08/30/10	17:10
L6G9X	015	IAQ-C7-9	08/30/10	17:12
L6G90	016	IAQ-C8-9	08/30/10	17:14
L6G91	017	IAQ-C17-9	08/30/10	17:21
L6G92	018	IAQ-C1-9	08/30/10	17:24
L6G95	019	IAQ-C2-9	08/30/10	17:30
L6G96	020	IAQ-C19-9	08/30/10	17:45

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H0I030404

The results reported herein are applicable to the samples submitted for analysis only.

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The original chain of custody documentation is included with this report.

Sample Receipt

The chain of custody listed the Summa canister ID for sample ISG-3-C-9 as 8770; however, the can ID should be 12455.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria. Even though the calibration verification analyzed on 9/8/10 exhibited a % difference of > 30% for napthalene, the results were within the LCS acceptance limits.

The concentration of chlorodifluoromethane in samples IAQ-C8-9 and IAQ-C17-9 exceeded the calibration level of the instrument. The sample was analyzed at a dilution to bring the concentration of the compound into the instrument calibration range. The results for both analyses are reported in order to provide the lowest possible reporting limits.

TestAmerica Knoxville maintains the following certifications, approvals and accreditations: Arkansas DEQ Lab #88-0688, California DHS ELAP Cert. #2423, Colorado DPHE, Connecticut DPH Lab #PH-0223, Florida DOH Lab #E87177, Georgia DNR Lab #906, Hawaii DOH, Illinois EPA Lab #200012, Indiana DOH Lab #C-TN-02, Iowa DNR Lab #375, Kansas DHE Cert. #E-10349, Kentucky DEP Lab #90101, Louisiana DEQ Cert. #03079, Louisiana DOHH, Maryland DOE Cert. #277, Michigan DEQ Lab #9933, Nevada DEP, New Jersey DEP Lab #TN001, New York DOH Lab #10781, North Carolina DPH Lab #21705, North Carolina DEHNR Cert. #64, Ohio EPA VAP Lab #CL0059, Oklahoma DEQ Lab #9415, Pennsylvania DEP Lab #68-00576, South Carolina DHEC Cert #84001001, Tennessee DOH Lab #02014, Texas CEQ, Utah DOH Lab # QUAN3, Virginia DGS Lab #00165, Washington DOE Lab #C1314, West Virginia DEP Cert. #345, West Virginia DHHR Cert #9955C, Wisconsin DNR Lab #998044300, Naval Facilities Engineering Service Center and USDA Soil Permit #S-46424. This list of approvals is subject to change and does not imply that laboratory certification is available for all parameters reported in this environmental sample data report.

EDD Checker
Ticket Key Reference

TETRA TECH ISG
TtNUS, Information Systems Group

Completion Ticket

On 9/15/2010 at 3:50 PM the following files were submitted to Tetra Tech by annette.ribet@testamericainc.com with T/

H0I03404A1.txt
H0I03404A3.txt

If you need to identify this session at a later date refer to Ticket Key:

2010915_1146358_ledd_TAK

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Sample Receipt Documentation

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

HDI 030404

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** Rick Samuels	**Sampled By:**	1 of 9 COCs
Company: TetraTech, NUS	Phone (770) 413-0965 Ext. 232		
Address: 20251 Century Blvd.	Site Contact: Tony Apanovage (301)233-8230		
City/State/Zip: Germantown, MD	TAL Contact:		
Phone: (301) 528-3032			
FAX: (301) 528-3000			
Project Name: MRC-IAQ Sampling	**Analysis Turnaround Time**		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112IC02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
ISG-14-C-9	8/30/10	0913	1041	-29.5	-3.5	K-116	6641	X											
SV-C-3-9		0919	1046	-30	0.0	K-414	6645												
SV-C-5-9		0924	1051	-29	-2.5	K-334	7785												
4955 ISG-3-C-9		0932	1058	-30	-5.0	K-429	8770												
SV-C-4-9		0936	1102	-29	-3.0	K-416	04173												
SV-C-2-9	↓	0943	1119	-30	-0.5	K-423	6359	↓											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

REC. AT AMBIENT
CUSTODY SEALS INTACT
14 BOXES KH 9/3/10
FED EX # 796205786887
796205813336

Special Instructions/QC Requirements & Comments:

80 CANS / 80 FLOWS

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 1030	Canisters Received by:	
Samples Relinquished by:	Date/Time: 9/1/10 1220	Received by: Ryan Henley	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

HDI 130404

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:	2 of 9 COCs
Company: TetraTech, NUS	Phone (770) 413-0965 Ext. 232		
Address: 20251 Century Blvd.	Site Contact: Tony Aparavage (301) 233-8230		
City/State/Zip Germantown, MD	TAL Contact:		
Phone: (301) 528-3022			
FAX: (301) 528-3000			
Project Name: MRC - IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC - MRC	Standard (Specify)		
PO # 112K 02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
SV-28-C-9	8/30/10	0951	1108	-30	-5.0	K-434	1147												
SV-1-C-9		1009	1139	-30	-3.5	K-373	12188												
SV-5-C-9		1014	1145	-30	-3.0	K-412	S-1508												
IAQ-01-9		1018	1137	-30	-6.0	K-131	1407												

Sampled by :	Temperature (Fahrenheit)			
		Interior	Ambient	
	Start			
	Stop			

	Pressure (inches of Hg)			
		Interior	Ambient	
	Start			
	Stop			

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 1030	Canisters Received by:
Samples Relinquished by:	Date/Time: 9/1/10 1220	Received by: Ryan Henry 9/2/10 0930
Relinquished by:	Date/Time:	Received by:

HOI 030404

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:	3 of 9 COCs
Company: TetraTech, NUS	Phone: (770) 413-0965 Ext. 232		
Address: 20251 Century Blvd.	Site Contact: Tony Aparnwage (301) 233-8230		
City/State/Zip: Germantown, MD	TAL Contact:		
Phone: (301) 528-3900			
FAX: (301) 528-3000			
Project Name: MRC - IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC - MRC	Standard (Specify)		
PO # 1121E02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type:	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-C10-9	8/30/10	0912	1651	-30	-7.5	K-497	1524	X											
IAQ-C9-9		0918	1654	-30	-7.0	K-383	04741												
IAQ-C6-9		0924	1704	-29.5	-7.5	K-495	6576												
IAQ-C5-9		0930	1710	-30	-7.0	K-489	1350												
IAQ-C7-9		0936	1712	-30	-4.0	K-438	6619												
IAQ-C8-9	↓	0941	1714	-29.5	0.0	K-496	6348	↓											

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 1030	Canisters Received by:	
Samples Relinquished by:	Date/Time: 9/1/10 1220	Received by: Ryan Henry	9/2/10 0930
Relinquished by:	Date/Time:	Received by:	

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

1-0I03U404

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	Project Manager: Rick Samuels	Sampled By:	4 of 9 COCs
Company: TetraTech, NUS	Phone: (770) 413-0965 Ext. 232		
Address: 20251 Century Blvd	Site Contact: Tony Apanavage (301) 233-8230		
City/State/Zip Germantown MD	TAL Contact:		
Phone: (301) 528-3022			
FAX: (301) 528-3000			
Project Name: MRC-IAQ Sampling	Analysis Turnaround Time		
Site/location: LMC-MRC	Standard (Specify)		
PO # 112IC02757	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, 'Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
IAQ-C17-9	8/30/10	0949	1721	-30	-7.0	K-150	93286	X											
IAQ-C1-9		1007	1724	-30	-8.0	K-113B	12820												
IAQ-C2-9		1012	1730	-30	-8.5	K-493	0120												
IAQ-C19-9		1025	1745	-30	-7.5	K-490	6574												

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: Rick Samuels	Date/Time: 9/1/10 / 1030	Canisters Received by: [signature]
Samples Relinquished by: Paul Gofrad	Date/Time: 9/1/10 / 1220	Received by: Ryan Henry 9/2/10 0930
Relinquished by:	Date/Time:	Received by:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: HOI 030404

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☑ **1g** Other:	1g - 'ISG-3-C-9' LISTS CAN ID ON COC AS 8770, CAN ID SHOULD BE 12455.
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C; NC, 1668, 1613B: 0-4°C; VOST: 10°C; MA: 2-6 °C)			✓	☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?		✓			

Quote #: 80374 PM Instructions: _____

Sample Receiving Associate: Ryan Henry Date: 9/3/10

QA026R21.doc, 090409

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H0I030404*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
[illegible] 9/3/10	NA	28.81	L6G9D	6641	-2.1													8770
			L6G9E	6645	-0.9													8726
			L6G9G	7785	-1.3													8778
			L6G9H	12455	-3.6													8770
			L6G9J	04173	-2.6													8774
			L6G9K	6359	-0.4													↓
			L6G9L	1147	-3.4	–	HW 9-8-10	I	29.08 ~~-4.3~~ 9/8/10 H	-4.3	32.0							8778
			L6G9M	12188	-2.1													8772
			L6G9N	S1528	-2.0													↓
			L6G9P	1407	-5.2													8769
			L6G9Q	1524	-6.3													8796
			L6G9R	04741	-5.7													8789
			L6G9V	6576	-6.8													↓
			L6G9W	1350	-6.0													8794
			L6G9X	6619	-4.1													8796
			L6G90	6348	-0.7													8795
			L6G91	93286	-5.8													↓
			L6G92	12820	-7.1													8794
			L6G95	0120	-7.4													8796
↓	↓	↓	L6G96	6574	-6.2													8793

Tetra Tech NUS, Inc

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample #	H0I090000 - 108B	Work Order #	L6N851AA	Matrix.....:	AIR
	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010		
Prep Batch #.....:	0252108				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.080	0.023	ND	0.26	0.073
Carbon tetrachloride	ND	0.080	0.015	ND	0.50	0.094
Chlorodifluoromethane	ND	0.080	0.015	ND	0.28	0.053
Chloroform	ND	0.080	0.015	ND	0.39	0.073
Dichlorodifluoromethane	ND	0.080	0.027	ND	0.40	0.13
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	ND	0.080	0.027	ND	0.35	0.12
Methylene chloride	ND	0.20	0.018	ND	0.69	0.063
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	ND	0.20	0.036	ND	1.0	0.19
Tetrachloroethene	ND	0.080	0.016	ND	0.54	0.11
Toluene	ND	0.080	0.021	ND	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	ND	0.080	0.012	ND	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	ND	0.040	0.014	ND	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	ND	0.080	0.050	ND	0.35	0.22
o-Xylene	ND	0.080	0.024	ND	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	99	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample #	H0I090000 - 108C	Work Order #	L6N851AC
	08/30/2010	Date Received..:	09/02/2010
Prep Date.....:	09/08/2010	Analysis Date...	09/08/2010
Prep Batch #.....:	0252108		
Dilution Factor.:	1	Method.....:	TO-15

Matrix.....: AIR

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Benzene	5.00	4.10	16	13	82	70 - 130
Carbon tetrachloride	5.00	5.57	31	35	111	70 - 130
Chlorodifluoromethane	5.00	4.95	18	18	99	60 - 140
Chloroform	5.00	5.17	24	25	103	70 - 130
Dichlorodifluoromethane	5.00	4.98	25	25	100	60 - 140
1,1-Dichloroethane	5.00	4.88	20	20	98	70 - 130
1,2-Dichloroethane	5.00	5.01	20	20	100	70 - 130
cis-1,2-Dichloroethene	5.00	4.80	20	19	96	70 - 130
trans-1,2-Dichloroethene	5.00	4.75	20	19	95	70 - 130
1,1-Dichloroethene	5.00	4.68	20	19	94	70 - 130
Ethylbenzene	5.00	4.73	22	21	95	70 - 130
Methylene chloride	5.00	4.32	17	15	86	70 - 130
Methyl tert-butyl ether	5.00	5.23	18	19	105	60 - 140
Naphthalene	5.00	3.42	26	18	68	60 - 140
Tetrachloroethene	5.00	4.48	34	30	90	70 - 130
Toluene	5.00	4.40	19	17	88	70 - 130
1,2,4-Trichlorobenzene	5.00	3.78	37	28	76	60 - 140
1,1,1-Trichloroethane	5.00	5.63	27	31	113	70 - 130
1,1,2-Trichloroethane	5.00	4.48	27	24	90	70 - 130
Trichloroethene	5.00	4.50	27	24	90	70 - 130
Vinyl chloride	5.00	5.11	13	13	102	70 - 130
m-Xylene & p-Xylene	10.0	9.58	43	42	96	70 - 130
o-Xylene	5.00	4.80	22	21	96	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample #	H01100000 - 092B	Work Order #	L6RJX1AA	Matrix.....:	AIR
	08/30/2010	Date Received..:	09/02/2010		
Prep Date.....:	09/09/2010	Analysis Date...	09/09/2010		
Prep Batch #.....:	0253092				
Dilution Factor.:	1	Method.....:	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	0.080	0.023	ND	0.26	0.073
Carbon tetrachloride	ND	0.080	0.015	ND	0.50	0.094
Chlorodifluoromethane	ND	0.080	0.015	ND	0.28	0.053
Chloroform	ND	0.080	0.015	ND	0.39	0.073
Dichlorodifluoromethane	ND	0.080	0.027	ND	0.40	0.13
1,1-Dichloroethane	ND	0.080	0.010	ND	0.32	0.040
1,2-Dichloroethane	ND	0.080	0.019	ND	0.32	0.077
cis-1,2-Dichloroethene	ND	0.080	0.024	ND	0.32	0.095
trans-1,2-Dichloroethene	ND	0.080	0.020	ND	0.32	0.079
1,1-Dichloroethene	ND	0.080	0.013	ND	0.32	0.052
Ethylbenzene	ND	0.080	0.027	ND	0.35	0.12
Methylene chloride	0.10	0.20	0.018	0.36 J	0.69	0.063
Methyl tert-butyl ether	ND	0.40	0.068	ND	1.4	0.25
Naphthalene	ND	0.20	0.036	ND	1.0	0.19
Tetrachloroethene	ND	0.080	0.016	ND	0.54	0.11
Toluene	ND	0.080	0.021	ND	0.30	0.079
1,2,4-Trichlorobenzene	ND	0.40	0.039	ND	3.0	0.29
1,1,1-Trichloroethane	ND	0.080	0.012	ND	0.44	0.065
1,1,2-Trichloroethane	ND	0.080	0.021	ND	0.44	0.11
Trichloroethene	ND	0.040	0.014	ND	0.21	0.075
Vinyl chloride	ND	0.080	0.029	ND	0.20	0.074
m-Xylene & p-Xylene	ND	0.080	0.050	ND	0.35	0.22
o-Xylene	ND	0.080	0.024	ND	0.35	0.10

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Tetra Tech NUS, Inc

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0I100000 - 092C Work Order # L6RJX1AC Matrix.....: AIR

	08/30/2010	Date Received..:	09/02/2010
Prep Date.....:	09/09/2010	Analysis Date...	09/09/2010
Prep Batch #.....:	0253092		
Dilution Factor.:	1	Method.....:	TO-15

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Benzene	5.00	3.83	16	12	77	70 - 130
Carbon tetrachloride	5.00	5.31	31	33	106	70 - 130
Chlorodifluoromethane	5.00	5.35	18	19	107	60 - 140
Chloroform	5.00	4.82	24	24	96	70 - 130
Dichlorodifluoromethane	5.00	5.38	25	27	108	60 - 140
1,1-Dichloroethane	5.00	4.55	20	18	91	70 - 130
1,2-Dichloroethane	5.00	4.94	20	20	99	70 - 130
cis-1,2-Dichloroethene	5.00	4.41	20	17	88	70 - 130
trans-1,2-Dichloroethene	5.00	4.48	20	18	90	70 - 130
1,1-Dichloroethene	5.00	4.67	20	19	93	70 - 130
Ethylbenzene	5.00	4.42	22	19	88	70 - 130
Methylene chloride	5.00	4.13	17	14	83	70 - 130
Methyl tert-butyl ether	5.00	4.70	18	17	94	60 - 140
Naphthalene	5.00	3.79	26	20	76	60 - 140
Tetrachloroethene	5.00	4.11	34	28	82	70 - 130
Toluene	5.00	4.16	19	16	83	70 - 130
1,2,4-Trichlorobenzene	5.00	3.98	37	30	80	60 - 140
1,1,1-Trichloroethane	5.00	5.22	27	28	104	70 - 130
1,1,2-Trichloroethane	5.00	4.18	27	23	84	70 - 130
Trichloroethene	5.00	3.85	27	21	77	70 - 130
Vinyl chloride	5.00	4.73	13	12	95	70 - 130
m-Xylene & p-Xylene	10.0	8.90	43	39	89	70 - 130
o-Xylene	5.00	4.46	22	19	89	70 - 130

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	106	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

TestAmerica Knoxville GC/MS Air Initial Calibration Data Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 11

Analysis Date: 7/28/10	Instrument:: XMU 7/29/10 H	ICAL Batch/Scan Name: J072810I	Scanned ☐

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd
1. Did BFB meet tune criteria?		✓			✓
2. Were all standards injected within 24 hr of BFB?		✓			✓
3. Was date/time of analysis verified and logbook as correct?		✓			✓
4. Is low level std at or <RL and are the remaining points consecutive?		✓			✓
5. Are the calibration levels correct? (Calculate standard concentration & amt. injected with quan rpt at each level)		✓			✓
6. Was ICAL processed using correct methods and files?		✓			✓
7. Are the ICAL start and end dates/times correct?		✓			✓
8. Were at least 5 levels of each compound analyzed?		✓			✓
9. At least 6 consecutive points used for quadratic curves, and at least 5 consecutive points for linear curves?		✓			✓
10. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%)		✓			✓
11. If curves were used, is correlation coefficient ≥0.990?	✓				N/A
12. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous.	✓				N/A
13. For linear or quadratic: origin NOT "included"? (NOTE: OHIO does NOT allow "FORCE" through origin).	✓				N/A
14. Is the "Y" intercept less than the RL for each curve?	✓				N/A
15. RT for each IS ±20 sec avg. RT?		✓			✓
16. Area for each IS ± 40% avg. area?		✓			✓
17. Each analyte ± 0.06 RRT of avg. RRT?		✓			✓
18. Have all peaks been auto identified? If not, list:		✓			✓
19. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓			Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	N/A
20. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in ICAL summary?	✓				✓
21. Are all the active compounds listed on each quan report?		✓			✓
22. High point checked for saturation and point removed if saturated?		✓			✓
23. Elution order checked on isomeric pairs?		✓			✓
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane		✓			✓
• vinyl acetate / hexane		✓			✓
• cis- and trans- isomers		✓			✓
• ethyl benzene / m/p-xylene / o-xylene		✓			✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene		✓			✓
• tert-butylbenzene/p-cymene		✓			✓
• 1,2,4-trimethylbenzene/sec-butylbenzene		✓			✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene		✓			✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene		✓			✓
24. Is the second source analysis of a reference standard within limits? (65-135% R)		✓			✓
25. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				N/A
26. Does the ICAL folder contain complete data in the following order: Data review checklist, a complete runlog, Entech report, BFB info, ICAL summary, curves, followed by [Quan reports, chromatograms, manual integrations], in increasing amount order, 2nd source info.		✓			✓

Analyst:	Date: 7/29/10	2nd Level Reviewer:	Date: 7/29/10
Comments:		Comments:	

TestAmerica Laboratories, Inc. - Knoxville
CANISTER RUN LOG

GCMS Analysis: AIR Inst: MJ

Analyst: HLL Qtims Batch: NA

Date: 7/28/10 ICAL Batch: J072810L Target Batch: J072810L IS #1 Area: 263385

Surr/IS ID & Vol.: 40mL V36 System Date/Time ok (y/n): y lvl 7

Preventive Maintenance Performed ☑ Daily changed col.

Time	Use	Lot No.	File ID	Can #	Pos	Vol* (mL)	Can DF	Comments
1117	✓	tune	JBFBG28	–	16	100	1	
1145	✓	MDL CHK 0.02	JMDLG28	CX2109	1	50		0.2
1239	✓	½RL 0.04	J1CG281	↓	↓	100		
1330	✓	0.08	2	↓	↓	200		
1424	✓	0.16	3	CX2108	2			0.4
1537	✓	0.32	4	CX2098	3			0.8
1623	✓	1.0	5	CX2097	4			2.5
1713	✓	2.0	6	CX2096A	5			5.0
1806	✓	4.0	7	CX2095	6			10
1859	✓	8.0	8	CX2094	7			20
1950	✓	16.0	9	CX2093	8	↓		40
2041	✓	BLK	BLK1	–	16	200	↓	
2131	✓	ICV	J1CVG28	CX2091	9	200	1	
2223	✓	lot ✓	8759	1367	10	500	1	
2315	✓	↓	B760	6659	11	↓	1	200mL

7/29/10

* Entech programmed Volume. If the Entech report amount differs from the programmed amount by >5%, the Entech report amount is used for calulations.

Analyst: _____ Date: 7/29/10

Test America - Knoxville

Entech Autosampler Log

Position	Volume	Date	Time
16	202	7/28/2010	11:17
1	52	7/28/2010	11:45
1	100	7/28/2010	12:39
1	201	7/28/2010	13:30
2	202	7/28/2010	14:24
3	200	7/28/2010	15:32
4	200	7/28/2010	16:23
5	201	7/28/2010	17:13
6	200	7/28/2010	18:06
7	200	7/28/2010	18:59
8	201	7/28/2010	19:50
16	201	7/28/2010	20:41
9	201	7/28/2010	21:31
10	500	7/28/2010	22:23
11	501	7/28/2010	23:15

Data File: /var/chem/gcms/mj.i/J072810I.b/jbfbg28.d

Date : 28-JUL-2010 11:17

Client ID: BFB

Instrument: mj.i

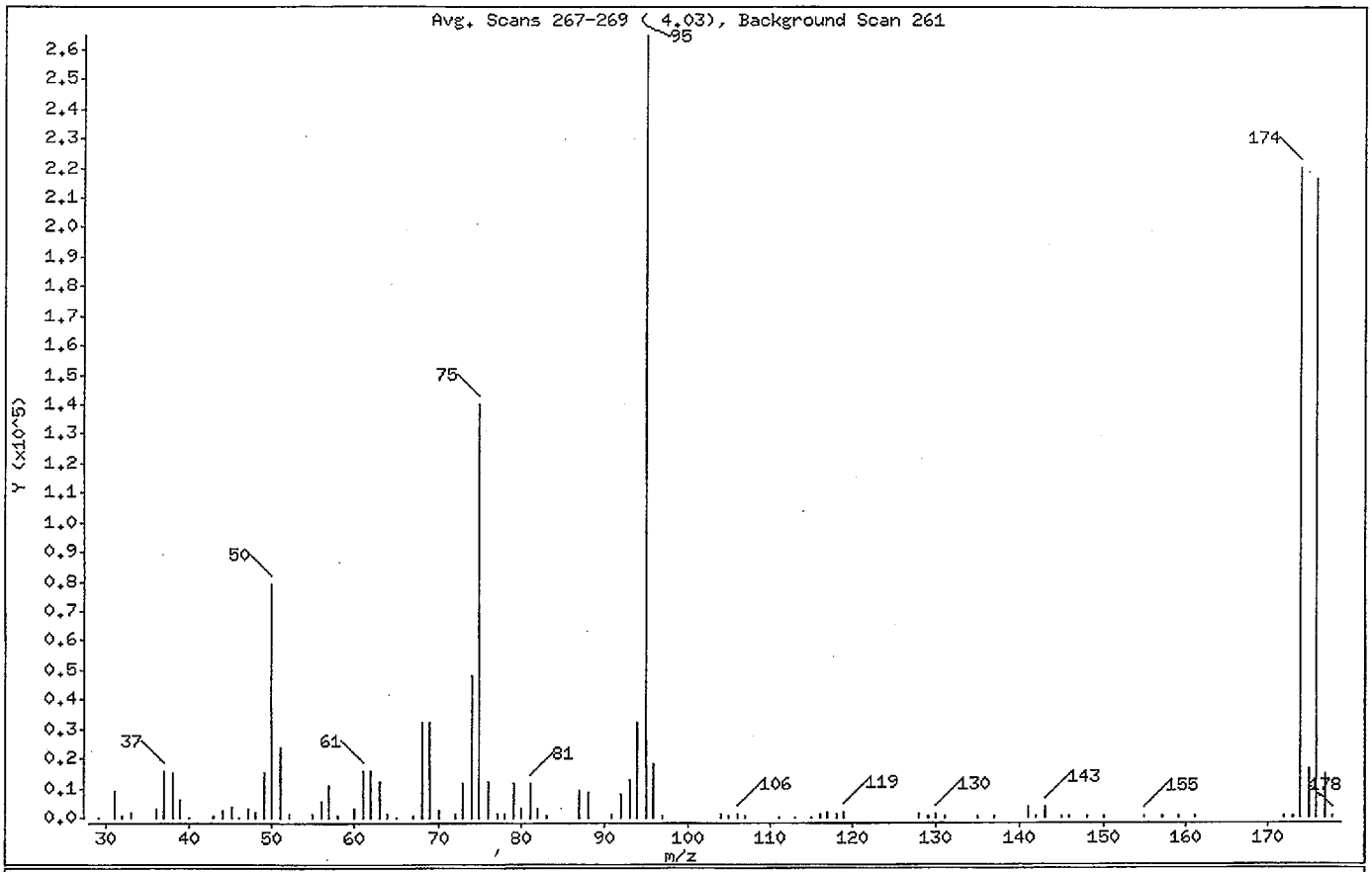
Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: Rtx-5

Column diameter: 0.32

1 BFB



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	29.94
75	30.00 - 60.00% of mass 95	52.83
96	5.00 - 9.00% of mass 95	6.99
173	Less than 2.00% of mass 174	0.22 (0.26)
174	50.00 - 120.00% of mass 95	83.26
175	5.00 - 9.00% of mass 174	6.17 (7.42)
176	95.00 - 101.00% of mass 174	81.80 (98.25)
177	5.00 - 9.00% of mass 176	5.51 (6.74)

Data File: /var/chem/gcms/mj.i/J072810I.b/jbfbg28.d

Date : 28-JUL-2010 11:17

Client ID: BFB

Instrument: mj.i

Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: Rtx-5

Column diameter: 0.32

Data File: jbfbg28.d
Spectrum: Avg. Scans 267-269 (4.03), Background Scan 261
Location of Maximum: 95.00
Number of points: 89

m/z	Y	m/z	Y	m/z	Y	m/z	Y
29.00	213	60.00	2865	88.00	8497	135.00	627
31.00	9138	61.00	15691	91.00	1391	137.00	557
32.00	434	62.00	15639	92.00	7972	141.00	3402
33.00	1853	63.00	12113	93.00	12619	142.00	344
36.00	2855	64.00	1156	94.00	32496	143.00	3894
37.00	15752	65.00	297	95.00	264768	145.00	348
38.00	14950	67.00	858	96.00	18512	146.00	474
39.00	6074	68.00	32176	97.00	604	148.00	730
40.00	234	69.00	32080	104.00	1362	150.00	359
43.00	340	70.00	2313	105.00	577	155.00	707
44.00	2158	72.00	1262	106.00	1492	157.00	462
45.00	3527	73.00	11686	107.00	415	159.00	456
46.00	106	74.00	48272	111.00	239	161.00	331
47.00	3251	75.00	139840	113.00	101	172.00	673
48.00	1912	76.00	12164	115.00	280	173.00	583
49.00	15045	77.00	1404	116.00	1195	174.00	220480
50.00	79280	78.00	1087	117.00	1945	175.00	16349
51.00	23888	79.00	11308	118.00	1243	176.00	216576
52.00	1180	80.00	3341	119.00	1995	177.00	14597
55.00	999	81.00	11653	128.00	1201	178.00	401
56.00	5628	82.00	3102	129.00	564		
57.00	11047	83.00	337	130.00	1181		
58.00	434	87.00	9309	131.00	536		

Data File: /var/chem/gcms/mj.i/J072810I.b/jbfbg28.d

Date : 28-JUL-2010 11:17

Client ID: BFB

Instrument: mj.i

Sample Info: BFB,,3,,,BFB

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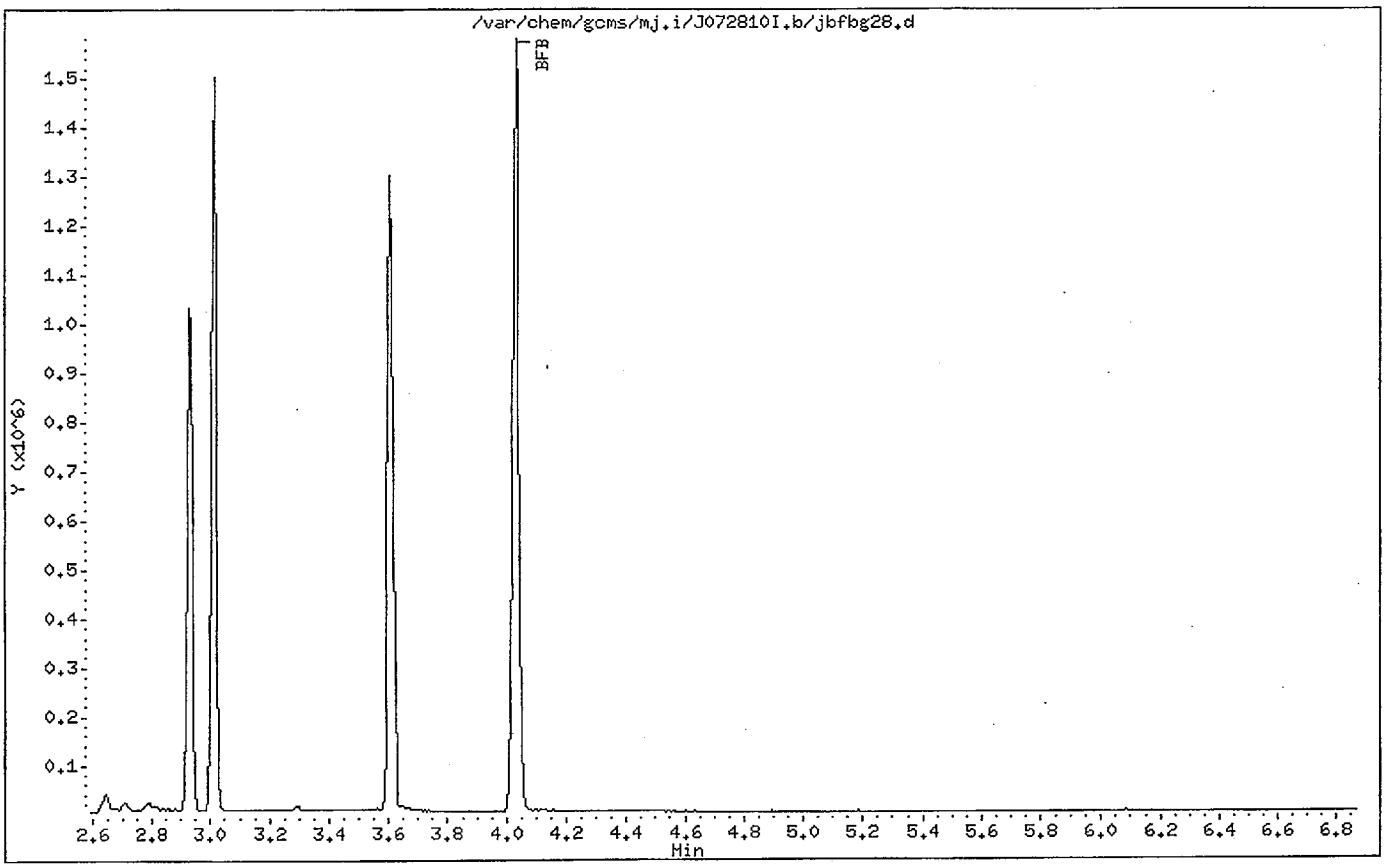
Column phase: Rtx-5

Column diameter: 0.32



Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 28-JUL-2010 12:39
End Cal Date : 28-JUL-2010 19:50
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Calibration File Names:
Level 1: /var/chem/gcms/mj.i/J072810I.b/jicg281.d
Level 2: /var/chem/gcms/mj.i/J072810I.b/jicg282.d
Level 3: /var/chem/gcms/mj.i/J072810I.b/jicg283.d
Level 4: /var/chem/gcms/mj.i/J072810I.b/jicg284.d
Level 5: /var/chem/gcms/mj.i/J072810I.b/jicg285.d
Level 6: /var/chem/gcms/mj.i/J072810I.b/jicg286.d
Level 7: /var/chem/gcms/mj.i/J072810I.b/jicg287.d
Level 8: /var/chem/gcms/mj.i/J072810I.b/jicg288.d
Level 9: /var/chem/gcms/mj.i/J072810I.b/jicg289.d

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
7 Chlorodifluoromethane	0.45308	0.50247	0.51253	0.60384	0.49602	0.51072		
	0.46590	0.48624	0.52188				0.50586	8.503
8 Dichlorodifluoromethane	4.50730	4.46065	4.21359	5.19504	4.26779	4.39430		
	3.96126	3.97550	4.11665				4.34357	8.629
9 Propene	+++++	+++++	2.74700	2.46266	1.91208	1.94709		
	1.73341	1.77782	1.79612				2.05374	19.112
10 Chloromethane	+++++	0.56846	0.49328	0.71188	0.52955	0.51871		
	0.51287	0.45135	0.47054				0.53208	15.238
11 1,2-Dichlorotetrafluoroethane	+++++	2.49303	2.14470	2.22050	2.32993	2.50898		
	1.88350	2.02236	2.34391				2.24337	9.811

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Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
12 Methanol	+++++	+++++	+++++	+++++	0.45304	0.25034		
	0.28534	0.25179	0.24910				0.29792	29.547
13 Vinyl Chloride	1.85087	1.56070	1.36201	1.71793	1.39644	1.42305		
	1.42515	1.34081	1.50166				1.50874	11.486
14 n-Butane	+++++	2.84078	2.31764	2.76838	2.23594	2.15235		
	2.25725	1.95226	2.09169				2.32704	13.573
15 1,3-Butadiene	1.79286	1.41660	1.23081	1.44148	1.17617	1.16840		
	1.20732	1.08688	1.17988				1.30004	16.817
16 Bromomethane	1.65701	1.37602	1.14321	1.28555	1.01375	1.00219		
	1.01928	0.98640	1.12465				1.17867	19.067
17 Chloroethane	0.79895	0.82178	0.73094	0.89685	0.74208	0.76092		
	0.72316	0.71520	0.79186				0.77575	7.541
18 Vinyl Bromide	1.37907	1.33791	1.29582	1.53296	1.31150	1.35395		
	1.25635	1.28409	1.38645				1.34868	6.054
19 2-methyl butane	+++++	3.27917	2.92779	3.30088	2.72416	2.78259		
	2.52081	2.53006	2.59682				2.83278	11.054
20 Trichlorofluoromethane	3.97822	3.95817	3.70106	4.42037	3.78830	3.88851		
	3.55770	3.66451	3.90571				3.87362	6.447

Report Date : 29-Jul-2010 09:30

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Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
21 Acrolein	+++++	+++++	+++++	0.55127	0.51459	0.45167		
	0.38545	0.47710	0.46352				0.47393	11.964
22 Acetonitrile	+++++	+++++	+++++	0.86252	0.73581	0.63782		
	0.55217	0.66643	0.63270				0.68124	15.668
23 Acetone	+++++	+++++	+++++	+++++	3.40418	2.59489		
	2.05295	2.09828	2.09656				2.44937	23.610
24 Pentane	+++++	+++++	0.19258	0.23357	0.20823	0.21443		
	0.20136	0.20033	0.21292				0.20906	6.335
25 Isopropyl alcohol	+++++	+++++	2.56050	2.52626	2.07527	2.09413		
	2.03022	2.08042	2.15679				2.21766	10.183
26 Ethyl Ether	+++++	+++++	2.38747	2.51451	2.25173	2.05913		
	1.70103	1.87153	1.83657				2.08885	14.613
27 1,1-Dichloroethene	1.34309	1.35118	1.24112	1.49477	1.27668	1.33392		
	1.23192	1.25081	1.36404				1.32084	6.267
28 tert-butanol	+++++	+++++	2.59822	2.65708	2.09962	2.30923		
	2.28322	2.32640	2.53764				2.40163	8.359
29 Acrylonitrile	+++++	+++++	1.23277	1.29385	1.18963	1.06842		
	0.95268	1.15807	1.14907				1.14921	9.714

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Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
30 1,1,2-Trichlorotrifluoroethan	2.84185	2.94355	2.71105	3.22597	2.74751	2.84196		
	2.59965	2.67370	2.83047				2.82397	6.482
31 Methylene Chloride	+++++	+++++	1.46640	1.62330	1.33904	1.27774		
	1.11614	1.11511	1.17328				1.30157	14.654
32 3-Chloropropene	+++++	1.95756	1.83310	2.13976	1.85056	1.88619		
	1.63398	1.74413	1.73427				1.84744	8.394
33 Carbon Disulfide	+++++	+++++	3.74417	4.64258	3.89347	3.98878		
	3.68423	3.74001	3.92433				3.94537	8.291
34 trans-1,2-Dichloroethene	1.32473	1.31516	1.28443	1.49854	1.31382	1.35796		
	1.23210	1.27778	1.36950				1.33045	5.677
35 Methyl-t-Butyl Ether	+++++	2.71981	2.96138	3.07342	2.72920	2.58406		
	2.32424	2.53228	2.66779				2.69902	8.777
36 1,1-Dichloroethane	3.41756	3.21356	3.15199	3.63133	3.22208	3.18260		
	2.79790	2.95877	3.03410				3.17888	7.706
37 Vinyl Acetate	+++++	+++++	+++++	4.34565	4.20559	3.61598		
	3.17273	3.86398	3.67903				3.81383	11.168
38 Hexane	1.65407	1.63807	1.53986	1.80339	1.57026	1.62531		
	1.45172	1.50660	1.58725				1.59739	6.326

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Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
39 2-Butanone	+++++	+++++	0.57548	0.50262	0.42041	0.43952		
	0.39315	0.40852	0.43926				0.45413	14.056
40 cis 1,2-Dichloroethene	1.31004	1.36351	1.33805	1.57971	1.39192	1.38647		
	1.22788	1.30569	1.35677				1.36223	7.029
41 Ethyl acetate	+++++	+++++	3.72610	3.67182	3.14887	3.26012		
	2.92877	3.11970	3.23799				3.29905	8.910
42 Chloroform	3.17707	3.05011	2.90128	3.36677	2.96175	2.84973		
	2.47502	2.66196	2.69106				2.90386	9.465
43 Tetrahydrofuran	+++++	2.00573	2.02293	2.02446	1.78669	1.70402		
	1.53049	1.72202	1.75441				1.81884	9.960
44 1,1,1-Trichloroethane	3.21709	2.99797	2.90295	3.49836	3.01783	3.07044		
	2.69649	2.87834	2.94700				3.02516	7.522
45 1,2-Dichloroethane	0.53674	0.56968	0.53255	0.63305	0.55936	0.65669		
	0.49647	0.54166	0.52921				0.56171	9.201
46 Cyclohexane	+++++	0.14015	0.13261	0.16018	0.13734	0.17295		
	0.13136	0.13479	0.13126				0.14258	10.865
47 1-Butanol	+++++	+++++	+++++	0.15526	0.11638	0.15868		
	0.13414	0.14420	0.14316				0.14197	10.813

Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

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Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
48 Benzene	0.93553	0.94924	0.84884	0.97312	0.83302	0.93790		
	0.69821	0.73568	0.69879				0.84559	13.165
49 Carbon Tetrachloride	0.66101	0.63622	0.58404	0.70229	0.64297	0.83547		
	0.63098	0.72241	0.54808				0.66261	12.673
50 2,2,4-trimethylpentane	2.02991	2.00060	1.80007	2.22500	1.87689	2.22806		
	1.67375	1.78030	1.68084				1.92171	11.040
51 Heptane	1.01314	1.00743	0.88287	1.03066	0.89475	1.02172		
	0.76424	0.81548	0.75734				0.90974	12.389
52 1,2-Dichloropropane	0.34896	0.38482	0.36219	0.42316	0.36461	0.40452		
	0.30834	0.34446	0.34388				0.36499	9.531
53 Trichloroethene	0.43268	0.41009	0.37385	0.46988	0.39628	0.47729		
	0.36795	0.38849	0.38395				0.41116	9.812
54 Dibromomethane	0.39569	0.40804	0.36977	0.44095	0.38059	0.44868		
	0.33708	0.36284	0.35527				0.38877	9.806
55 Bromodichloromethane	0.59988	0.64814	0.60763	0.73659	0.65216	0.76335		
	0.58010	0.62532	0.61404				0.64747	9.675
56 1,4-dioxane	0.04906	0.07435	0.06555	0.08673	0.06480	0.08759		
	0.07835	0.08077	0.08255				0.07442	16.873

Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 28-JUL-2010 12:39
End Cal Date : 28-JUL-2010 19:50
Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
57 Methyl Methacrylate	+++++	0.44979	0.43888	0.45305	0.37836	0.49368		
	0.39549	0.43291	0.44203				0.43552	8.152
58 4-Methyl-2-pentanone	0.82357	0.88270	0.73694	0.86905	0.65241	0.96620		
	0.78800	0.80836	0.83127				0.81761	10.935
59 cis-1,3-Dichloropropene	0.40590	0.43545	0.43759	0.49220	0.43573	0.52534		
	0.40055	0.44510	0.44423				0.44690	8.805
60 trans-1,3-Dichloropropene	0.40564	0.47374	0.46490	0.53413	0.48418	0.57922		
	0.43880	0.49153	0.52038				0.48806	10.613
61 Toluene	0.90612	0.99415	0.96695	1.06030	0.94240	1.04375		
	0.78906	0.87333	0.90207				0.94202	9.092
62 1,1,2-Trichloroethane	0.31028	0.35431	0.32567	0.38825	0.33789	0.38403		
	0.29022	0.31686	0.33290				0.33782	9.697
63 2-Hexanone	+++++	+++++	0.30173	0.39992	0.30674	0.44977		
	0.37868	0.38269	0.42776				0.37819	14.890
64 Octane	0.28767	0.31497	0.29747	0.35092	0.30265	0.35089		
	0.26973	0.27892	0.28336				0.30407	9.771
65 Dibromochloromethane	+++++	0.57089	0.57598	0.71872	0.64462	0.78165		
	0.60240	0.66632	0.69649				0.65713	11.228

Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

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Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
66 1,2-Dibromoethane	0.52229	0.59080	0.58090	0.65850	0.56508	0.63890		
	0.48782	0.52712	0.55291				0.56937	9.682
67 Tetrachloroethene	0.40300	0.42736	0.37947	0.45410	0.39459	0.44149		
	0.33377	0.34790	0.36050				0.39357	10.684
68 Chlorobenzene	0.76518	0.82352	0.77969	0.88262	0.73919	0.85502		
	0.64753	0.69968	0.72998				0.76916	9.792
69 Ethylbenzene	0.96884	1.14550	1.02804	1.27323	1.06935	1.21714		
	0.92121	1.03922	1.05889				1.08016	10.501
70 m&p-Xylene	0.74288	0.85512	0.78004	0.96346	0.82509	0.92715		
	0.69663	0.78184	0.77952				0.81686	10.521
M 178 Xylene (total)	+++++	+++++	+++++	0.97474	0.83759	0.93266		
	0.70159	0.79138	0.79294				0.83848	11.982
71 Nonane	+++++	0.86629	0.78309	0.98698	0.84012	1.00793		
	0.78036	0.82524	0.84105				0.86638	9.943
72 Bromoform	+++++	0.35416	0.36498	0.55831	0.48405	0.61847		
	0.48899	0.55648	0.59973				0.50315	19.927
73 Styrene	0.45561	0.52408	0.48943	0.64161	0.55949	0.67276		
	0.52490	0.58591	0.61081				0.56273	12.716

Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

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Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
74 o-Xylene	0.77917	0.90177	0.82075	0.99730	0.86260	0.94369		
	0.71150	0.81047	0.81979				0.84967	10.264
75 1,1,2,2-Tetrachloroethane	0.63472	0.69609	0.61261	0.77549	0.63510	0.75178		
	0.58258	0.61469	0.62854				0.65907	10.121
76 1,2,3-Trichloropropane	0.12580	0.16282	0.14855	0.18300	0.15280	0.18132		
	0.14220	0.15492	0.16469				0.15734	11.557
77 Cumene	1.04159	1.12416	1.04144	1.23221	1.07132	1.17732		
	0.89963	1.01944	1.04006				1.07191	9.023
78 n-Propylbenzene	0.23075	0.29887	0.25635	0.32163	0.26735	0.32490		
	0.25745	0.28478	0.30200				0.28268	11.327
79 2-chlorotoluene	0.26814	0.30911	0.28346	0.35439	0.29159	0.34870		
	0.27062	0.28999	0.30686				0.30254	10.271
80 4-Ethyltoluene	0.92019	1.05616	0.94036	1.13894	0.95335	1.18446		
	0.92578	0.99481	1.02342				1.01527	9.381
81 1,3,5-Trimethylbenzene	0.34714	0.42593	0.37865	0.44921	0.38424	0.46935		
	0.37268	0.40146	0.42754				0.40624	9.753
82 Alpha-Methylstyrene	+++++	+++++	0.31900	0.42310	0.37295	0.48775		
	0.40027	0.44355	0.46645				0.41615	13.878

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Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
83 Decane	+++++	0.86948	0.82363	0.92832	0.90524	1.05462		
	0.83712	0.92853	0.90593				0.90661	7.905
84 1,2,4-Trimethylbenzene	+++++	0.82267	0.73459	0.89697	0.75423	0.93600		
	0.73488	0.77769	0.80795				0.80812	9.244
85 tert-butylbenzene	0.79835	0.91958	0.83816	0.97582	0.83632	1.00654		
	0.78703	0.85958	0.90894				0.88115	8.696
86 sec-butylbenzene	1.04256	1.25507	1.14477	1.31881	1.12364	1.36552		
	1.05349	1.12257	1.14378				1.17447	9.660
87 1,3-Dichlorobenzene	+++++	0.69637	0.58330	0.74010	0.59201	0.74122		
	0.58226	0.61777	0.66256				0.65195	10.396
88 Benzyl Chloride	0.69041	0.74452	0.62240	0.84506	0.69560	0.94352		
	0.77390	0.79485	0.84339				0.77263	12.616
89 1,4-Dichlorobenzene	+++++	0.67942	0.56270	0.73213	0.58509	0.72796		
	0.57146	0.60514	0.65033				0.63928	10.705
90 p-Cymene	+++++	0.95787	0.89507	1.03277	0.87404	1.12378		
	0.88666	0.92630	0.98117				0.95971	8.867
91 1,2-Dichlorobenzene	+++++	0.63918	0.51439	0.65862	0.53057	0.65566		
	0.51636	0.55494	0.58520				0.58187	10.640

Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

INITIAL CALIBRATION DATA

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Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
92 n-butylbenzene	+++++	0.98472	0.86050	1.01792	0.85980	1.13607		
	0.89454	0.92170	0.95065				0.95324	9.743
93 Undecane	+++++	+++++	0.46069	0.84091	0.55787	1.01830		
	0.80262	0.79827	0.85702				0.76224	24.913
94 Dodecane	+++++	+++++	+++++	0.89711	0.51515	1.13674		
	0.85072	0.80775	0.77747				0.83082	24.157
95 1,2,4-Trichlorobenzene	0.48464	0.44512	0.19128	0.41482	0.23750	0.46739		
	0.37158	0.38990	0.42586				0.38090	26.616
96 Napthalene	1.06825	0.95558	0.41427	0.88414	0.51782	1.04184		
	0.82854	0.82610	0.87291				0.82327	26.890
97 Hexachlorobutadiene	0.32981	0.30940	0.14764	0.27757	0.20713	0.32288		
	0.25475	0.28949	0.34507				0.27597	23.214
98 1,2,3-trichlorobenzene	0.42324	0.36702	0.16524	0.34786	0.18323	0.38894		
	0.29620	0.30559	0.31451				0.31020	28.148
99 ~ Thiophene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++
100 ~ 1,2,3- Trimethylbenzene	+++++	+++++	+++++	+++++	+++++	+++++		
	+++++	+++++	+++++				+++++	+++++

Report Date : 29-Jul-2010 09:30

TestAmerica Knoxville

INITIAL CALIBRATION DATA

Start Cal Date : 28-JUL-2010 12:39
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Quant Method : ISTD
Origin : Disabled
Target Version : 3.50
Integrator : HP RTE
Method file : /var/chem/gcms/mj.i/J072810I.b/TO15.m
Cal Date : 29-Jul-2010 09:29 tajh
Curve Type : Average

Compound	0.04000 Level 1	0.08000 Level 2	0.16000 Level 3	0.32000 Level 4	1.000 Level 5	2.000 Level 6	___ RRF	% RSD
	4.000 Level 7	8.000 Level 8	16.000 Level 9					
$ 6 4-Bromofluorobenzene	0.73749	0.75432	0.74888	0.76161	0.76379	0.79867		
	0.74849	0.75020	0.76937				0.75920	2.322

Report Date:07/29/2010 Page 1

INITIAL CALIBRATION RT and RRT REPORT

STD 1 = /var/chem/gcms/mj.i/J072810I.b/jicg281.d
STD 2 = /var/chem/gcms/mj.i/J072810I.b/jicg282.d
STD 3 = /var/chem/gcms/mj.i/J072810I.b/jicg283.d
STD 4 = /var/chem/gcms/mj.i/J072810I.b/jicg284.d
STD 5 = /var/chem/gcms/mj.i/J072810I.b/jicg285.d
STD 6 = /var/chem/gcms/mj.i/J072810I.b/jicg286.d
STD 7 = /var/chem/gcms/mj.i/J072810I.b/jicg287.d
STD 8 = /var/chem/gcms/mj.i/J072810I.b/jicg288.d
STD 9 = /var/chem/gcms/mj.i/J072810I.b/jicg289.d

COMPOUND	STD 1	STD 2	STD 3	STD 4	STD 5	STD 6	STD 7	STD 8	STD 9	MEAN
1,4-Difluorobenzene	11.662	11.663	11.659	11.658	11.660	11.667	11.662	11.663	11.668	11.662
Chlorobenzene-d5	16.321	16.322	16.323	16.322	16.324	16.326	16.326	16.322	16.327	16.324
Bromochloromethane	9.489	9.495	9.491	9.490	9.492	9.494	9.494	9.495	9.500	9.493
4-Bromofluorobenzene	1.099	1.098	1.098	1.098	1.098	1.098	1.098	1.099	1.098	1.098
Benzyl Chloride	1.188	1.188	1.188	1.188	1.188	1.187	1.187	1.188	1.187	1.188
Chlorodifluoromethane	0.411	0.411	0.410	0.411	0.411	0.411	0.411	0.411	0.410	0.411
1,4-Dichlorobenzene	NA	1.188	1.188	1.188	1.188	1.188	1.188	1.188	1.188	1.188
Dichlorodifluoromethane	0.419	0.418	0.418	0.418	0.418	0.418	0.418	0.418	0.418	0.418
Chloromethane	NA	0.440	0.440	0.440	0.440	0.440	0.440	0.440	0.439	0.440
1,2-Dichlorotetrafluoroethan	NA	0.440	0.440	0.440	0.441	0.440	0.440	0.440	0.440	0.440
Methanol	NA	NA	NA	NA	0.454	0.454	0.453	0.454	0.454	0.454
Vinyl Chloride	0.460	0.461	0.460	0.460	0.460	0.460	0.460	0.460	0.460	0.460
n-Butane	NA	0.471	0.471	0.471	0.471	0.471	0.471	0.471	0.470	0.471
1,3-Butadiene	0.472	0.471	0.471	0.471	0.471	0.471	0.471	0.471	0.470	0.471
Bromomethane	0.510	0.509	0.509	0.510	0.510	0.509	0.509	0.509	0.510	0.509
Chloroethane	0.527	0.527	0.526	0.527	0.526	0.526	0.526	0.526	0.526	0.526
Vinyl Bromide	0.562	0.563	0.562	0.562	0.562	0.562	0.562	0.562	0.562	0.562
p-Cymene	NA	1.191	1.191	1.191	1.191	1.191	1.191	1.191	1.191	1.191
Trichlorofluoromethane	0.595	0.594	0.594	0.594	0.594	0.594	0.594	0.594	0.594	0.594
Acrolein	NA	NA	NA	0.594	0.594	0.594	0.594	0.594	0.594	0.594
Acetonitrile	NA	NA	NA	0.602	0.602	0.602	0.602	0.602	0.602	0.602
Acetone	NA	NA	NA	NA	0.607	0.607	0.607	0.606	0.606	0.607
Pentane	NA	NA	0.619	0.619	0.620	0.620	0.620	0.619	0.619	0.619
1,2-Dichlorobenzene	NA	1.210	1.210	1.210	1.210	1.210	1.210	1.210	1.210	1.210
Ethyl Ether	NA	NA	0.637	0.638	0.637	0.637	0.637	0.637	0.636	0.637
1,1-Dichloroethene	0.676	0.676	0.676	0.676	0.676	0.676	0.676	0.676	0.676	0.676
Acrylonitrile	NA	NA	0.687	0.687	0.687	0.687	0.687	0.687	0.687	0.687
tert-butanol	NA	NA	0.684	0.683	0.683	0.682	0.682	0.681	0.682	0.682
1,1,2-Trichlorotrifluoroetha	0.697	0.696	0.696	0.696	0.696	0.696	0.696	0.696	0.695	0.696
Methylene Chloride	NA	NA	0.715	0.716	0.716	0.716	0.716	0.716	0.716	0.716
3-Chloropropene	NA	0.717	0.717	0.718	0.718	0.717	0.718	0.717	0.717	0.717
Carbon Disulfide	NA	NA	0.735	0.735	0.735	0.735	0.735	0.735	0.735	0.735
trans-1,2-Dichloroethene	0.808	0.807	0.807	0.807	0.807	0.807	0.807	0.807	0.807	0.807
Methyl-t-Butyl Ether	0.821	0.820	0.820	0.820	0.819	0.819	0.819	0.818	0.818	0.819
1,1-Dichloroethane	0.854	0.855	0.854	0.855	0.855	0.855	0.854	0.854	0.854	0.854
Vinyl Acetate	NA	NA	NA	0.864	0.864	0.864	0.864	0.864	0.864	0.864
Hexane	0.918	0.918	0.918	0.918	0.918	0.918	0.918	0.917	0.917	0.918

Evaluation Criteria
Internal Standard RT shift within 20 seconds of mean RT
Target compound RRT within 0.06 RRT of the RRT mean
Note: IS data is RT, SS and Target Compound Data is RRT.

Report Date:07/29/2010

INITIAL CALIBRATION RT and RRT REPORT

STD 1 = /var/chem/gcms/mj.i/J072810I.b/jicg281.d
STD 2 = /var/chem/gcms/mj.i/J072810I.b/jicg282.d
STD 3 = /var/chem/gcms/mj.i/J072810I.b/jicg283.d
STD 4 = /var/chem/gcms/mj.i/J072810I.b/jicg284.d
STD 5 = /var/chem/gcms/mj.i/J072810I.b/jicg285.d
STD 6 = /var/chem/gcms/mj.i/J072810I.b/jicg286.d
STD 7 = /var/chem/gcms/mj.i/J072810I.b/jicg287.d
STD 8 = /var/chem/gcms/mj.i/J072810I.b/jicg288.d
STD 9 = /var/chem/gcms/mj.i/J072810I.b/jicg289.d

COMPOUND	STD 1	STD 2	STD 3	STD 4	STD 5	STD 6	STD 7	STD 8	STD 9	MEAN
2-Butanone	NA	NA	0.914	0.914	0.913	0.913	0.913	0.912	0.912	0.913
cis 1,2-Dichloroethene	0.963	0.963	0.962	0.964	0.963	0.964	0.963	0.963	0.963	0.963
n-butylbenzene	NA	1.217	1.217	1.217	1.217	1.216	1.216	1.217	1.216	1.217
Chloroform	1.001	1.000	1.000	1.001	1.000	1.000	1.000	1.000	1.000	1.000
Undecane	NA	NA	1.234	1.234	1.234	1.234	1.234	1.234	1.234	1.234
1,1,1-Trichloroethane	1.112	1.112	1.112	1.113	1.113	1.113	1.113	1.112	1.112	1.112
1,2-Dichloroethane	0.915	0.914	0.914	0.915	0.915	0.914	0.915	0.914	0.914	0.914
Cyclohexane	NA	0.956	0.956	0.957	0.956	0.956	0.956	0.956	0.956	0.956
Benzene	0.955	0.956	0.956	0.956	0.956	0.955	0.956	0.956	0.956	0.956
1-Butanol	NA	NA	NA	0.947	0.946	0.946	0.946	0.945	0.945	0.946
Carbon Tetrachloride	0.957	0.958	0.958	0.958	0.958	0.958	0.958	0.958	0.958	0.958
2,2,4-trimethylpentane	1.018	1.018	1.018	1.018	1.018	1.018	1.018	1.018	1.018	1.018
Heptane	1.048	1.049	1.049	1.049	1.049	1.048	1.049	1.049	1.049	1.049
Hexachlorobutadiene	1.336	1.336	1.336	1.336	1.336	1.336	1.336	1.336	1.336	1.336
1,2-Dichloropropane	1.058	1.058	1.058	1.058	1.058	1.058	1.058	1.058	1.058	1.058
Trichloroethene	1.060	1.061	1.060	1.060	1.060	1.060	1.060	1.060	1.060	1.060
Dibromomethane	1.068	1.068	1.068	1.068	1.068	1.068	1.068	1.068	1.068	1.068
Bromodichloromethane	1.079	1.079	1.079	1.080	1.080	1.079	1.080	1.080	1.080	1.080
Napthalene	1.325	1.324	1.324	1.324	1.324	1.324	1.324	1.324	1.324	1.324
1,2,4-Trichlorobenzene	1.315	1.315	1.315	1.315	1.315	1.315	1.315	1.315	1.315	1.315
4-Methyl-2-pentanone	1.157	1.157	1.157	1.157	1.157	1.156	1.156	1.156	1.156	1.156
cis-1,3-Dichloropropene	1.164	1.163	1.163	1.164	1.163	1.163	1.163	1.163	1.163	1.163
trans-1,3-Dichloropropene	0.872	0.873	0.872	0.873	0.873	0.873	0.872	0.873	0.873	0.873
Toluene	0.881	0.881	0.881	0.881	0.881	0.881	0.881	0.881	0.881	0.881
1,1,2-Trichloroethane	0.885	0.886	0.885	0.885	0.885	0.885	0.885	0.885	0.885	0.885
2-Hexanone	NA	NA	0.907	0.907	0.906	0.906	0.906	0.906	0.906	0.906
Octane	0.921	0.921	0.920	0.920	0.920	0.920	0.920	0.921	0.920	0.920
Dibromochloromethane	NA	0.928	0.928	0.928	0.928	0.928	0.928	0.928	0.928	0.928
1,2-Dibromoethane	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946	0.946
Tetrachloroethene	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950	0.950
Chlorobenzene	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003	1.003
Ethylbenzene	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020	1.020
m&p-Xylene	1.030	1.029	1.029	1.029	1.029	1.029	1.029	1.030	1.030	1.029
Nonane	NA	1.053	1.053	1.053	1.053	1.053	1.053	1.053	1.053	1.053
Bromoform	NA	1.058	1.058	1.058	1.058	1.058	1.058	1.058	1.058	1.058
Styrene	1.058	1.058	1.058	1.058	1.058	1.058	1.058	1.058	1.058	1.058
o-Xylene	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062	1.062

Evaluation Criteria
Internal Standard RT shift within 20 seconds of mean RT
Target compound RRT within 0.06 RRT of the RRT mean
Note: IS data is RT, SS and Target Compound Data is RRT.

Report Date:07/29/2010 Page 3

INITIAL CALIBRATION RT and RRT REPORT

STD 1 = /var/chem/gcms/mj.i/J072810I.b/jicg281.d
STD 2 = /var/chem/gcms/mj.i/J072810I.b/jicg282.d
STD 3 = /var/chem/gcms/mj.i/J072810I.b/jicg283.d
STD 4 = /var/chem/gcms/mj.i/J072810I.b/jicg284.d
STD 5 = /var/chem/gcms/mj.i/J072810I.b/jicg285.d
STD 6 = /var/chem/gcms/mj.i/J072810I.b/jicg286.d
STD 7 = /var/chem/gcms/mj.i/J072810I.b/jicg287.d
STD 8 = /var/chem/gcms/mj.i/J072810I.b/jicg288.d
STD 9 = /var/chem/gcms/mj.i/J072810I.b/jicg289.d

COMPOUND	STD 1	STD 2	STD 3	STD 4	STD 5	STD 6	STD 7	STD 8	STD 9	MEAN
1,1,2,2-Tetrachloroethane	1.081	1.081	1.081	1.081	1.081	1.081	1.081	1.081	1.081	1.081
1,2,3-Trichloropropane	1.091	1.091	1.091	1.091	1.091	1.091	1.091	1.091	1.091	1.091
Cumene	1.097	1.096	1.096	1.096	1.096	1.096	1.096	1.096	1.096	1.096
n-Propylbenzene	1.128	1.128	1.128	1.128	1.128	1.128	1.128	1.128	1.128	1.128
2-chlorotoluene	1.131	1.131	1.131	1.131	1.131	1.131	1.131	1.131	1.131	1.131
4-Ethyltoluene	1.137	1.136	1.136	1.136	1.136	1.136	1.136	1.136	1.136	1.136
1,3,5-Trimethylbenzene	1.141	1.141	1.141	1.141	1.141	1.140	1.141	1.141	1.140	1.141
Alpha-Methylstyrene	NA	NA	1.154	1.154	1.154	1.154	1.154	1.154	1.154	1.154
Decane	NA	1.156	1.156	1.156	1.156	1.156	1.156	1.156	1.156	1.156
Dodecane	NA	NA	NA	1.300	1.300	1.300	1.300	1.300	1.300	1.300
1,2,4-Trimethylbenzene	NA	1.167	1.166	1.167	1.166	1.166	1.166	1.167	1.166	1.166
sec-butylbenzene	1.182	1.182	1.182	1.182	1.182	1.182	1.182	1.182	1.182	1.182
1,3-Dichlorobenzene	NA	1.183	1.183	1.183	1.183	1.183	1.183	1.183	1.183	1.183
Propene	NA	NA	0.412	0.412	0.412	0.412	0.412	0.412	0.412	0.412
2-methyl butane	NA	0.568	0.568	0.568	0.568	0.568	0.568	0.568	0.568	0.568
Isopropyl Alcohol	NA	NA	0.614	0.614	0.614	0.614	0.614	0.614	0.614	0.614
Ethyl acetate	NA	NA	0.981	0.981	0.980	0.980	0.980	0.980	0.979	0.980
Tetrahydrofuran	NA	1.044	1.044	1.043	1.042	1.042	1.041	1.041	1.041	1.042
1,4-dioxane	1.080	1.081	1.079	1.080	1.079	1.078	1.078	1.078	1.078	1.079
methyl methacrylate	NA	1.085	1.085	1.085	1.085	1.084	1.085	1.085	1.084	1.085
tert-butylbenzene	1.166	1.166	1.166	1.166	1.166	1.166	1.166	1.166	1.166	1.166
1,2,3-trichlorobenzene	1.341	1.340	1.340	1.341	1.340	1.340	1.340	1.340	1.340	1.340

Evaluation Criteria
Internal Standard RT shift within 20 seconds of mean RT
Target compound RRT within 0.06 RRT of the RRT mean
Note: IS data is RT, SS and Target Compound Data is RRT.

TestAmerica Knoxville GC/MS Air Continuing Calibration Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 11

Analysis Date:	9/8/10	CCAL Batch/ Scan Name:	J090810	Instrument:	MJ	ICAL Batch/ Scan Name:	J072810I	Scanned □

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd
1. Did BFB meet tune criteria?		✓		□ failed for TO-14A, but passes for TO-15	✓
2. Were all standards injected within 24 hr of BFB?		✓			✓
3. Have the Entech position no. & vol. been verified with run log & sample vol. corrected if actual amount differs >5%?		✓			✓
4. Was date/time of analysis in logbook correct?		✓			✓
5. Was the CCAL compared to the correct ICAL (date & time on CCAL matches the ICAL)		✓		naph 32%	✓
6. Is the %D ≤ 30% for all target analytes? (Narrative req'd.).		✓		□ [ccal] analytes > 30% but passes LCS criteria.	✓
7. Have all peaks been auto identified? If not, list:		✓			✓
8. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓			Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	N/A
9. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in CCAL summary?	✓				N/A
10. Is the first IS documented correctly on the log?		✓			✓
11. Elution order checked on isomeric pairs?		✓			✓
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane		✓			✓
• vinyl acetate / hexane		✓			✓
• cis- and trans- isomers		✓			✓
• ethyl benzene / m/p-xylene / o-xylene		✓			✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene		✓			✓
• tert-butylbenzene/p-cymene		✓			✓
• 1,2,4-trimethylbenzene/sec-butylbenzene		✓			✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene		✓			✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene		✓			✓
12. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%).		✓		□ [lcs6] LCS analyte(s) flagged as being outside control limits but within marginal limits □ [lcs5] LCS outside marginal exceedences high, but analytes were not detected	✓
13. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	—				N/A
14. Does the CCAL folder contain **complete** data in the following order: data review checklist, a **complete** runlog, Entech report, tune pass/fail page, m/z list, tune chromatogram, Target CCAL summary, Quan report, chromatogram, manual integrations.		✓			✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
<11	0

Analyst:	Date: 9/9/10	2nd Level Reviewer:	Date: 9/9/10
Comments:		Comments:	

TestAmerica Laboratories, Inc. – Knoxville
CANISTER RUN LOG

GCMS Analysis: AIR Inst: MJ

Analyst: HLL Qtims Batch: 0252108 L6N85

Date: 9/8/10 ICAL Batch: J072810I Target Batch: ~~J080910~~ 9/8/10 J090810 IS #1 Area: 195069

Surr/IS ID & Vol.: 40mL V320 System Date/Time ok (y/n): y

Preventive Maintenance Performed ☑ Daily

Time	Use	Lot No.	File ID	Can #	Pos	Vol* (mL)	Can DF	Comments
0922	✓	7UW	JBFBI08	–	16	100	1	
0950	✓	CCV	CCV	CX2124	15	100		
0950	✓	LCS	LCS	↓	↓	↓		
1037	✓	IPT	IPT	CX2129	STD	40		
1132	✓	BLK	BLK ↓	–	16	500	↓	
1227	✓ RR w/ Methanol	H0I030404	L6G9D1AA	6641	1	11	1	10mL tetrahy
1316	✓		G9E	6645	2	10		10mL
1409	✓		G9G	7785	3	500		
1502	✓		G9H	12455	4	50		
1554	✓		G9J	04173	5	100		
1648	~~RK 500mL~~ 9/9/10 ✓		G9K	6359	6	200	↓	
1744	✓		G9L	1147	7	11	3,80 ✓	10mL
1839	✓		G9M	12188	8	20	1	
1931	✓		G9N	51528	9	500		
2022	~~RK~~ 9/9/10 ✓		G9P	1407	10	100		
2117	✓		G9Q	1524	11	50		
2209	✓		G9R	04741	12	20		
2300	✓		G9V	6576	13	100		
2354	✓		G9W	1350	14	80		
0047	✓		G9X ↓	6619	15	50		
0139	dup	↓	G9XD	↓	15	50	↓	RR to confirm.
0234	✓	↓	L6G9DR	6641	1	10	1	10mL
0334	✓	↓	L6G91AA	6348	2	200	1	E#7 RR 50mL
0519	✓	10+8821	6525 →		16	500	1	
06181	✓	↓	1369 →		STD	↓	1	
0926	✓ 9/10/10	H0I030404	L6G92AA	93286	3	200	1	E#7 RR 25mL

9/9/10

* Entech programmed Volume. If the Entech report amount differs from the programmed amount by >5%, the Entech report amount is used for calulations.

Analyst: _____ Date: 9/9/10

Test America - Knoxville

Entech Autosampler Log

Position	Volume		Date	Time
16	100		9/8/2010	9:22
15	101		9/8/2010	9:50
1	0	40(Std)	9/8/2010	10:37
16	502		9/8/2010	11:32
1	11		9/8/2010	12:27
2	10		9/8/2010	13:16
3	501		9/8/2010	14:09
4	51		9/8/2010	15:02
5	102		9/8/2010	15:54
6	200		9/8/2010	16:48
7	11		9/8/2010	17:44
8	20		9/8/2010	18:39
9	501		9/8/2010	19:31
10	101		9/8/2010	20:22
11	51		9/8/2010	21:17
12	21		9/8/2010	22:08
13	100		9/8/2010	23:00
14	80		9/8/2010	23:54
15	51		9/9/2010	0:47
15	50		9/9/2010	1:39
1	10		9/9/2010	2:34
2	201		9/9/2010	3:34
3	202		9/9/2010	4:26
16	501		9/9/2010	5:19
16	0	500(Std)	9/9/2010	6:11

Data File: /var/chem/gcms/mj.i/J090810.b/jccvi08.d
Report Date: 08-Sep-2010 12:18

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: jccvi08.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /chem/gcms/mj.i/J090810.b/TO15.m

Injection Date: 08-SEP-2010 09:50
Init. Cal. Date(s): 28-JUL-2010 08-SEP-2010
Init. Cal. Times: 12:39 10:37
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 6 4-Bromofluorobenzene	0.75920	0.77144	0.000	-1.61167	30.00000	Averaged
7 Chlorodifluoromethane	0.50586	0.50088	0.000	0.98434	30.00000	Averaged
9 Propene	2.05374	1.69028	0.000	17.69721	30.00000	Averaged
8 Dichlorodifluoromethane	4.34357	4.32446	0.000	0.43985	30.00000	Averaged
10 Chloromethane	0.53208	0.57847	0.000	-8.71908	30.00000	Averaged
11 1,2-Dichlorotetrafluoroetha	2.24337	2.63250	0.000	-17.34598	30.00000	Averaged
12 Methanol	0.29792	0.64851	0.000	-118	30.00000	Averaged
13 Vinyl Chloride	1.50874	1.54224	0.000	-2.22034	30.00000	Averaged
14 n-Butane	2.32704	2.54176	0.000	-9.22718	30.00000	Averaged
15 1,3-Butadiene	1.30004	1.33293	0.000	-2.52977	30.00000	Averaged
16 Bromomethane	1.17867	1.12569	0.000	4.49554	30.00000	Averaged
17 Chloroethane	0.77575	0.70136	0.000	9.58881	30.00000	Averaged
18 Vinyl Bromide	1.34868	1.28542	0.000	4.69027	30.00000	Averaged
19 2-methyl butane	2.83278	2.51729	0.000	11.13744	30.00000	Averaged
20 Trichlorofluoromethane	3.87362	4.22348	0.000	-9.03195	30.00000	Averaged
21 Acrolein	0.47393	0.49544	0.000	-4.53869	30.00000	Averaged
22 Acetonitrile	0.68124	0.64675	0.000	5.06296	30.00000	Averaged
23 Acetone	2.44937	2.55597	0.000	-4.35206	30.00000	Averaged
24 Pentane	0.20906	0.18929	0.000	9.45859	30.00000	Averaged
25 Isopropyl alcohol	2.21766	2.19969	0.000	0.80997	30.00000	Averaged
26 Ethyl Ether	2.08885	2.07596	0.000	0.61705	30.00000	Averaged
27 1,1-Dichloroethene	1.32084	1.23691	0.000	6.35417	30.00000	Averaged
29 Acrylonitrile	1.14921	1.16004	0.000	-0.94212	30.00000	Averaged
28 tert-butanol	2.40163	2.44403	0.000	-1.76545	30.00000	Averaged
30 1,1,2-Trichlorotrifluoroeth	2.82397	2.80959	0.000	0.50928	30.00000	Averaged
31 Methylene Chloride	1.30157	1.12453	0.000	13.60241	30.00000	Averaged
32 3-Chloropropene	1.84744	1.68559	0.000	8.76122	30.00000	Averaged
33 Carbon Disulfide	3.94537	3.60081	0.000	8.73317	30.00000	Averaged
34 trans-1,2-Dichloroethene	1.33045	1.26511	0.000	4.91082	30.00000	Averaged
35 Methyl-t-Butyl Ether	2.69902	2.82250	0.000	-4.57491	30.00000	Averaged
36 1,1-Dichloroethane	3.17888	3.10025	0.000	2.47328	30.00000	Averaged
37 Vinyl Acetate	3.81383	3.88640	0.000	-1.90301	30.00000	Averaged
38 Hexane	1.59739	1.51696	0.000	5.03536	30.00000	Averaged
39 2-Butanone	0.45413	0.38810	0.000	14.54016	30.00000	Averaged
40 cis 1,2-Dichloroethene	1.36223	1.30900	0.000	3.90735	30.00000	Averaged
41 Ethyl acetate	3.29905	3.09731	0.000	6.11529	30.00000	Averaged

NA

Data File: /var/chem/gcms/mj.i/J090810.b/jccvi08.d
Report Date: 08-Sep-2010 12:18

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: jccvi08.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /chem/gcms/mj.i/J090810.b/TO15.m

Injection Date: 08-SEP-2010 09:50
Init. Cal. Date(s): 28-JUL-2010 08-SEP-2010
Init. Cal. Times: 12:39 10:37
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
42 Chloroform	2.90386	3.00295	0.000	-3.41227	30.00000	Averaged
43 Tetrahydrofuran	1.81884	1.73695	0.000	4.50251	30.00000	Averaged
44 1,1,1-Trichloroethane	3.02516	3.40704	0.000	-12.62332	30.00000	Averaged
45 1,2-Dichloroethane	0.56171	0.56277	0.000	-0.18852	30.00000	Averaged
46 Cyclohexane	0.14258	0.11642	0.000	18.34974	30.00000	Averaged
48 Benzene	0.84559	0.69350	0.000	17.98622	30.00000	Averaged
47 1-Butanol	0.14197	0.10771	0.000	24.13474	30.00000	Averaged
49 Carbon Tetrachloride	0.66261	0.73799	0.000	-11.37637	30.00000	Averaged
50 2,2,4-trimethylpentane	1.92171	1.67975	0.000	12.59101	30.00000	Averaged
51 Heptane	0.90974	0.75064	0.000	17.48840	30.00000	Averaged
52 1,2-Dichloropropane	0.36499	0.31396	0.000	13.98286	30.00000	Averaged
53 Trichloroethene	0.41116	0.37028	0.000	9.94286	30.00000	Averaged
54 Dibromomethane	0.38877	0.34843	0.000	10.37624	30.00000	Averaged
55 Bromodichloromethane	0.64747	0.64114	0.000	0.97785	30.00000	Averaged
56 1,4-dioxane	0.07442	0.06962	0.000	6.44010	30.00000	Averaged
57 Methyl Methacrylate	0.43552	0.38419	0.000	11.78661	30.00000	Averaged
58 4-Methyl-2-pentanone	0.81761	0.63117	0.000	22.80336	30.00000	Averaged
59 cis-1,3-Dichloropropene	0.44690	0.39445	0.000	11.73582	30.00000	Averaged
60 trans-1,3-Dichloropropene	0.48806	0.46768	0.000	4.17511	30.00000	Averaged
61 Toluene	0.94202	0.82875	0.000	12.02325	30.00000	Averaged
62 1,1,2-Trichloroethane	0.33782	0.30240	0.000	10.48481	30.00000	Averaged
63 2-Hexanone	0.37819	0.31019	0.000	17.97938	30.00000	Averaged
64 Octane	0.30407	0.25457	0.000	16.27927	30.00000	Averaged
65 Dibromochloromethane	0.65713	0.65315	0.000	0.60571	30.00000	Averaged
66 1,2-Dibromoethane	0.56937	0.51368	0.000	9.78116	30.00000	Averaged
67 Tetrachloroethene	0.39357	0.35234	0.000	10.47673	30.00000	Averaged
68 Chlorobenzene	0.76916	0.65732	0.000	14.53988	30.00000	Averaged
69 Ethylbenzene	1.08016	1.02152	0.000	5.42840	30.00000	Averaged
70 m&p-Xylene	0.81686	0.78241	0.000	4.21779	30.00000	Averaged
M 178 Xylene (total)	0.83848	0.79365	0.000	5.34752	25.00000	Averaged
71 Nonane	0.86638	0.78538	0.000	9.34932	30.00000	Averaged
72 Bromoform	0.50315	0.53561	0.000	-6.45270	30.00000	Averaged
73 Styrene	0.56273	0.51064	0.000	9.25634	30.00000	Averaged
74 o-Xylene	0.84967	0.81613	0.000	3.94774	30.00000	Averaged
75 1,1,2,2-Tetrachloroethane	0.65907	0.55609	0.000	15.62457	30.00000	Averaged

Data File: /var/chem/gcms/mj.i/J090810.b/jccvi08.d
Report Date: 08-Sep-2010 12:18

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: jccvi08.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /chem/gcms/mj.i/J090810.b/TO15.m

Injection Date: 08-SEP-2010 09:50
Init. Cal. Date(s): 28-JUL-2010 08-SEP-2010
Init. Cal. Times: 12:39 10:37
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE	
76 1,2,3-Trichloropropane	0.15734	0.15222	0.000	3.25422	30.00000	Averaged	
77 Cumene	1.07191	1.01811	0.000	5.01859	30.00000	Averaged	
78 n-Propylbenzene	0.28268	0.26089	0.000	7.70922	30.00000	Averaged	
79 2-chlorotoluene	0.30254	0.27484	0.000	9.15480	30.00000	Averaged	
80 4-Ethyltoluene	1.01527	0.93738	0.000	7.67268	30.00000	Averaged	
81 1,3,5-Trimethylbenzene	0.40624	0.36783	0.000	9.45658	30.00000	Averaged	
82 Alpha-Methylstyrene	0.41615	0.36812	0.000	11.54272	30.00000	Averaged	
83 Decane	0.90661	0.84316	0.000	6.99901	30.00000	Averaged	
85 tert-butylbenzene	0.88115	0.82658	0.000	6.19259	30.00000	Averaged	
84 1,2,4-Trimethylbenzene	0.80812	0.74374	0.000	7.96699	30.00000	Averaged	
86 sec-butylbenzene	1.17447	1.09186	0.000	7.03361	30.00000	Averaged	
87 1,3-Dichlorobenzene	0.65195	0.56789	0.000	12.89299	30.00000	Averaged	
88 Benzyl Chloride	0.77263	0.73423	0.000	4.96999	30.00000	Averaged	
89 1,4-Dichlorobenzene	0.63928	0.54380	0.000	14.93604	30.00000	Averaged	
90 p-Cymene	0.95971	0.88145	0.000	8.15392	30.00000	Averaged	
91 1,2-Dichlorobenzene	0.58187	0.50334	0.000	13.49590	30.00000	Averaged	
92 n-butylbenzene	0.95324	0.85313	0.000	10.50147	30.00000	Averaged	
93 Undecane	0.76224	0.49359	0.000	35.24517	30.00000	Averaged	<-
94 Dodecane	0.83082	0.49906	0.000	39.93161	30.00000	Averaged	<-
95 1,2,4-Trichlorobenzene	0.38090	0.28801	0.000	24.38659	30.00000	Averaged	
96 Napthalene	0.82327	0.56289	0.000	31.62817	30.00000	Averaged	<-
97 Hexachlorobutadiene	0.27597	0.26526	0.000	3.88046	30.00000	Averaged	
98 1,2,3-trichlorobenzene	0.31020	0.20235	0.000	34.76824	30.00000	Averaged	<-

NA NA OK 60-140

TestAmerica Knoxville GC/MS Air Continuing Calibration Review / Narrative Checklist
Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 11

Analysis Date:	9/9/10	CCAL Batch/ Scan Name:	J090910	Instrument:	MJ	ICAL Batch/ Scan Name:	J072810I	Scanned ☐

Review Items	N/A	Yes	No	If No, why is data reportable?	2nd
1. Did BFB meet tune criteria?		✓		☐ failed for TO-14A, but passes for TO-15	✓
2. Were all standards injected within 24 hr of BFB?		✓			✓
3. Have the Entech position no. & vol. been verified with run log & sample vol. corrected if actual amount differs >5%?		✓			✓
4. Was date/time of analysis in logbook correct?		✓			✓
5. Was the CCAL compared to the correct ICAL (date & time on CCAL matches the ICAL)		✓			✓
6. Is the %D ≤ 30% for all target analytes? (Narrative req'd.).		✓		☐ [ccal] analytes > 30% but passes LCS criteria.	✓
7. Have all peaks been auto identified? If not, list:		✓			✓
8. If manual integrations were performed, are they clearly identified, initialed, dated and reason given?	✓			Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	NA
9. Have alternate hits/manual integrations been verified as correct and are correct RFs listed in CCAL summary?	✓				NA
10. Is the first IS documented correctly on the log?		✓			✓
11. Elution order checked on isomeric pairs?					
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		✓			✓
• trichlorofluoromethane / 1,1,2-trichlorotrifluoroethane		✓			✓
• vinyl acetate / hexane		✓			✓
• cis- and trans- isomers		✓			✓
• ethyl benzene / m/p-xylene / o-xylene		✓			✓
• n-propylbenzene/4-ethyl toluene/1,3,5-trimethylbenzene/1,2,4-trimethylbenzene		✓			✓
• tert-butylbenzene/p-cymene		✓			✓
• 1,2,4-trimethylbenzene/sec-butylbenzene		✓			✓
• 1,3- , 1,4- , and 1,2-dichlorobenzene		✓			✓
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene		✓			✓
12. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%).		✓		☐ [lcs6] LCS analyte(s) flagged as being outside control limits but within marginal limits ☐ [lcs5] LCS outside marginal exceedences high, but analytes were not detected	✓
13. If criteria were not met, was a NCM generated, approved by supervisor, and copy included in folder?	✓				NA
14. Does the CCAL folder contain **complete** data in the following order: data review checklist, a **complete** runlog, Entech report, tune pass/fail page, m/z list, tune chromatogram, Target CCAL summary, Quan report, chromatogram, manual integrations.		✓			✓

Number of target analytes in LCS	# marginal exceedances of LCS control limits allowed
>90	5
71 - 90	4
51 - 70	3
31 - 50	2
11 - 30	1
< 11	0

Analyst:	Date: 9/10/10	2nd Level Reviewer: AHL	Date: 9/16/10
Comments:		Comments:	

TestAmerica Laboratories, Inc. – Knoxville
CANISTER RUN LOG

GCMS Analysis: AIR Inst: MJ

Analyst: HMT Qtims Batch: 0253092 L6RJY

Date: 9/9/10 ICAL Batch: J072810F Target Batch: J090910 IS #1 Area: 166835

Surr/IS ID & Vol.: 40mLV320 System Date/Time ok (y/n): y

Preventive Maintenance Performed ☑ Daily

Time	Use	Lot No.	File ID	Can #	Pos	Vol* (mL)	Can DF	Comments
0909	✓	tune	JBFB I09	–	16	100	1	
0940	✓	CCV	CCV	CX2124	15	100		
0940	✓	LCS	LCS	↓	↓	↓		
1043	✓	IPT	IPT	CX2129	STD	40		
1136	✓	Blk	Blk	–	16	500		
1227	Confirmed	HOI030404	L6G9XDR	6619	15	50	1	tetrany matched Dup
1320	RR 250mL		L6G921AA	12820	14	100	1	
1410	✓		G95	0120	5	100		
1503	RR500mL		G96	6574	6	100		
1552	✓		G902AA	6348	2	50		#7
1645	✓		G912AA	93286	3	25		#7
1740	✓	HOI030418	HG41AA	7472	1	200	1	E #7 RR 50mL
1833	RR 50mL		HG5	0008	7	10	1.43	10mL
1925	✓		HG7	93175	8	200	1.42	3.55
2018	✓		HG9	4499N	9	200	1	
2110	RR 790mL		HHC	12539	10	200	1.58	3.95
2203	RR 755mL		HHD	7485	11	↓	1.51	3.78
2255	✓		HHG	1411	12	200	1	E 111TCA, naph RR50mL
2347	RR500mL		HHK	62341N	13			no c/o
0039	RR500mL		HHN	7475	14			
0134	RR500mL		HHQ	6376	15			
			HHT		5	200	1	9/9/10
0234	✓		G92R	12820	4	250	1	
0510	200mL	lot 8827	11411	→	16	500	1	
0602	N	↓	1316N	→	STD	↓	1	
0325	✓	HOI030404	L6G92D	12820	4	250	1	
0416	✓	↓	L6G96R	6574	6	500	1	
						9/10/10		

* Entech programmed Volume. If the Entech report amount differs from the programmed amount by >5%, the Entech report amount is used for calulations.

Analyst: [signature] Date: 9/10/10

MS027r16.DOC, 051210

100909

TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	Date	Time
BFB	16 - 101 mL	9/9/2010	9:09:41 AM
CCV	15 - 101 mL	9/9/2010	9:40:31 AM
1PT	STD- 40 mL	9/9/2010	10:43:29 AM
BLK	16 - 501 mL	9/9/2010	11:36:35 AM
POS15	15 - 50 mL	9/9/2010	12:27:16 PM
POS04	4 - 101 mL	9/9/2010	1:20:22 PM
POS05	5 - 101 mL	9/9/2010	2:10:32 PM
POS06	6 - 101 mL	9/9/2010	3:03:13 PM
POS02	2 - 50 mL	9/9/2010	3:52:16 PM
POS03	3 - 26 mL	9/9/2010	4:45:38 PM
POS01	1 - 201 mL	9/9/2010	5:40:18 PM
POS07	7 - 10 mL	9/9/2010	6:33:42 PM
POS08	8 - 200 mL	9/9/2010	7:25:56 PM
POS09	9 - 201 mL	9/9/2010	8:18:55 PM
POS10	10 - 201 mL	9/9/2010	9:10:22 PM
POS11	11 - 201 mL	9/9/2010	10:03:35 PM
POS12	12 - 200 mL	9/9/2010	10:55:16 PM
POS13	13 - 202 mL	9/9/2010	11:47:05 PM
POS14	14 - 200 mL	9/10/2010	12:39:24 AM
POS15	15 - 200 mL	9/10/2010	1:34:21 AM
POS04	4 - 250 mL	9/10/2010	2:34:06 AM
POS04	4 - 251 mL	9/10/2010	3:25:43 AM
POS06	6 - 500 mL	9/10/2010	4:19:15 AM
BLK	16 - 501 mL	9/10/2010	5:10:29 AM
BLK	STD- 499 mL	9/10/2010	6:02:14 AM

Data File: /chem/gcms/mj.i/J090910.b/jbfbi09.d

Date : 09-SEP-2010 09:09

Client ID: BFB

Instrument: mj.i

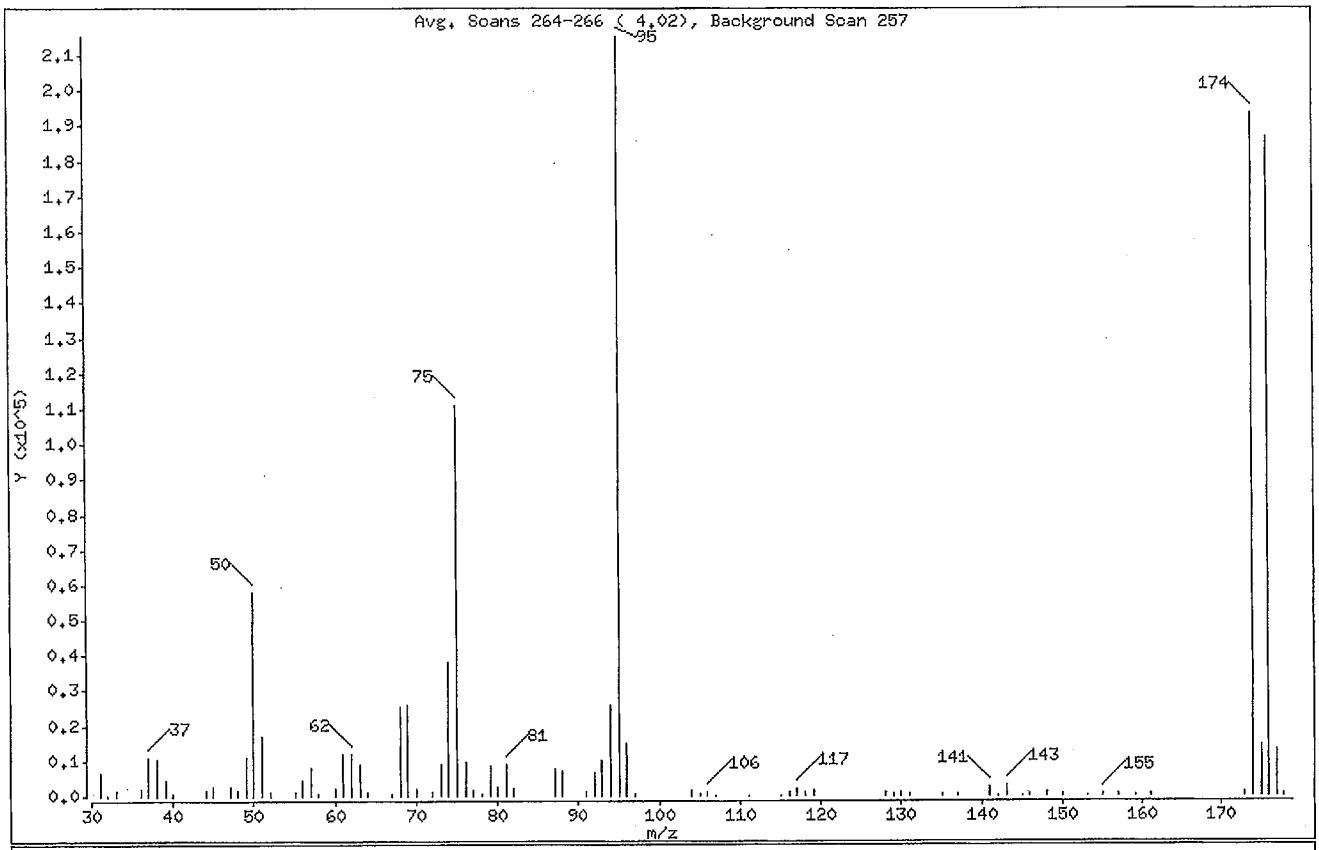
Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: Rtx-5

Column diameter: 0.32

1 BFB



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	26.83
75	30.00 - 60.00% of mass 95	51.47
96	5.00 - 9.00% of mass 95	6.82
173	Less than 2.00% of mass 174	0.39 (0.43)
174	50.00 - 120.00% of mass 95	89.79
175	5.00 - 9.00% of mass 174	6.75 (7.52)
176	95.00 - 101.00% of mass 174	86.65 (96.51)
177	5.00 - 9.00% of mass 176	5.89 (6.80)

Data File: /chem/gcms/mj.i/J090910.b/jbfbi09.d

Date : 09-SEP-2010 09:09

Client ID: BFB

Instrument: mj.i

Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: Rtx-5

Column diameter: 0.32

Data File: jbfbi09.d
Spectrum: Avg. Scans 264-266 (4.02), Background Scan 257
Location of Maximum: 95.00
Number of points: 83

m/z	Y	m/z	Y	m/z	Y	m/z	Y
31.00	6596	61.00	11670	91.00	962	135.00	565
32.00	69	62.00	12071	92.00	6470	137.00	530
33.00	1443	63.00	9002	93.00	10115	141.00	2641
36.00	2085	64.00	753	94.00	25560	142.00	213
37.00	11137	67.00	607	95.00	215488	143.00	2883
38.00	10388	68.00	25080	96.00	14705	145.00	112
39.00	4320	69.00	25544	97.00	449	146.00	284
40.00	447	70.00	1863	104.00	1261	148.00	764
44.00	1469	72.00	1015	105.00	364	150.00	251
45.00	2416	73.00	9083	106.00	1072	153.00	102
47.00	2278	74.00	38136	107.00	121	155.00	648
48.00	1391	75.00	110928	111.00	104	157.00	461
49.00	11057	76.00	9535	115.00	103	159.00	225
50.00	57816	77.00	1249	116.00	848	161.00	250
51.00	16752	78.00	523	117.00	1833	173.00	840
52.00	827	79.00	8509	118.00	1077	174.00	193472
55.00	774	80.00	2481	119.00	1375	175.00	14544
56.00	4379	81.00	9080	128.00	989	176.00	186752
57.00	7877	82.00	2017	129.00	520	177.00	12693
58.00	266	87.00	7320	130.00	1139	178.00	407
60.00	2132	88.00	7173	131.00	440		

Data File: /chem/gcms/mj.i/J090910.b/jbfbi09.d

Date : 09-SEP-2010 09:09

Client ID: BFB

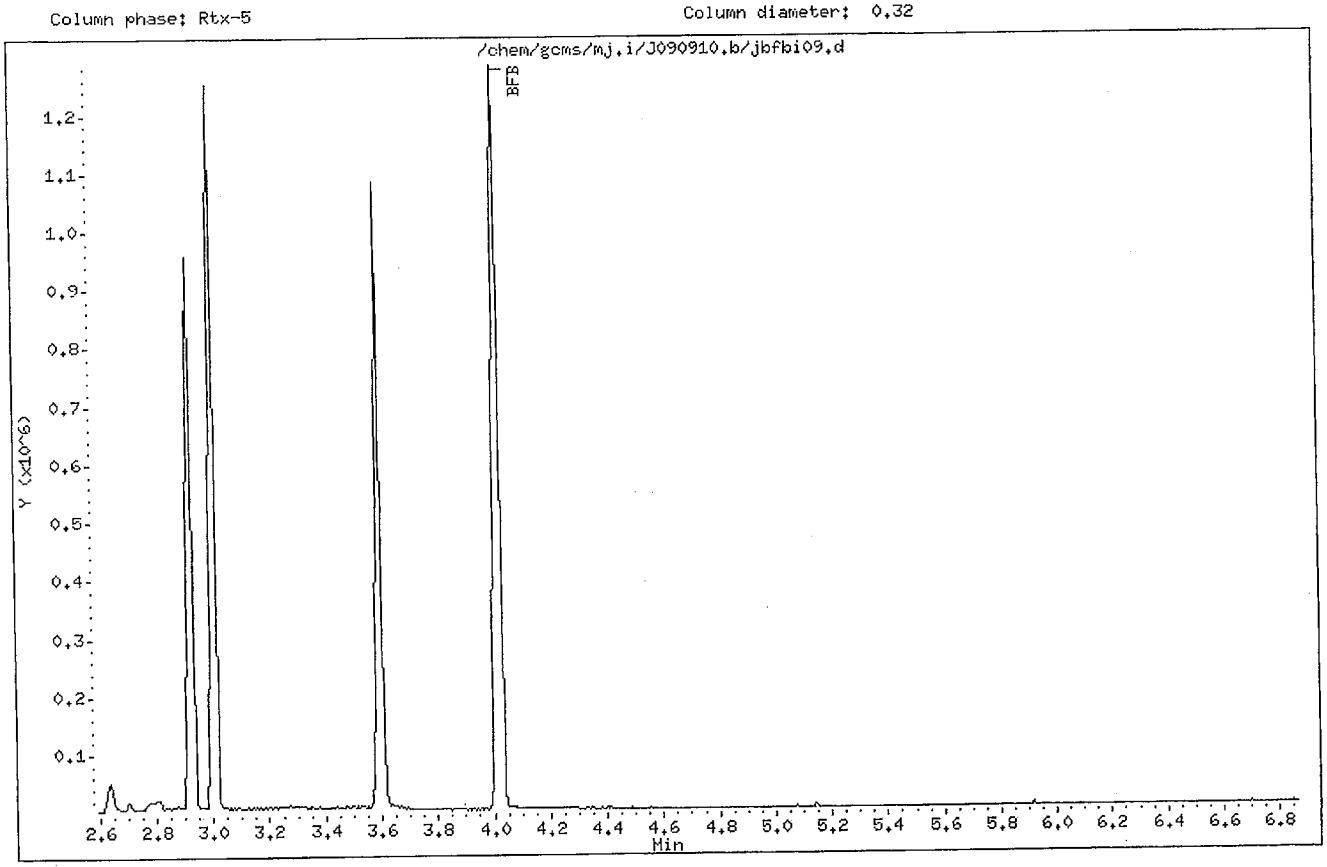
Instrument: mj.i

Sample Info: BFB,,3,,,BFB

Operator: 7126

Column phase: Rtx-5

Column diameter: 0.32



Data File: /var/chem/gcms/mj.i/J090910.b/jccvi09.d
Report Date: 09-Sep-2010 12:20

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: jccvi09.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mj.i/J090910.b/TO15.m

Injection Date: 09-SEP-2010 09:40
Init. Cal. Date(s): 28-JUL-2010 09-SEP-2010
Init. Cal. Times: 12:39 10:43
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
$ 6 4-Bromofluorobenzene	0.75920	0.80598	0.000	-6.16160	30.00000	Averaged
7 Chlorodifluoromethane	0.50586	0.54127	0.000	-7.00050	30.00000	Averaged
9 Propene	2.05374	1.94490	0.000	5.29960	30.00000	Averaged
8 Dichlorodifluoromethane	4.34357	4.67227	0.000	-7.56754	30.00000	Averaged
10 Chloromethane	0.53208	0.52199	0.000	1.89687	30.00000	Averaged
11 1,2-Dichlorotetrafluoroetha	2.24337	2.23870	0.000	0.20791	30.00000	Averaged
12 Methanol	0.29792	0.53985	0.000	-81.20489	30.00000	Averaged
13 Vinyl Chloride	1.50874	1.42689	0.000	5.42475	30.00000	Averaged
14 n-Butane	2.32704	2.21952	0.000	4.62030	30.00000	Averaged
15 1,3-Butadiene	1.30004	1.20241	0.000	7.51021	30.00000	Averaged
16 Bromomethane	1.17867	1.10827	0.000	5.97315	30.00000	Averaged
17 Chloroethane	0.77575	0.69715	0.000	10.13220	30.00000	Averaged
18 Vinyl Bromide	1.34868	1.26845	0.000	5.94879	30.00000	Averaged
19 2-methyl butane	2.83278	2.71966	0.000	3.99349	30.00000	Averaged
20 Trichlorofluoromethane	3.87362	4.36535	0.000	-12.69449	30.00000	Averaged
21 Acrolein	0.47393	0.47398	0.000	-0.01041	30.00000	Averaged
22 Acetonitrile	0.68124	0.64833	0.000	4.83137	30.00000	Averaged
23 Acetone	2.44937	3.64295	0.000	-48.72985	30.00000	Averaged
24 Pentane	0.20906	0.19198	0.000	8.17126	30.00000	Averaged
25 Isopropyl alcohol	2.21766	2.26465	0.000	-2.11898	30.00000	Averaged
26 Ethyl Ether	2.08885	2.07127	0.000	0.84158	30.00000	Averaged
27 1,1-Dichloroethene	1.32084	1.23452	0.000	6.53521	30.00000	Averaged
29 Acrylonitrile	1.14921	1.10218	0.000	4.09258	30.00000	Averaged
28 tert-butanol	2.40163	2.50022	0.000	-4.10515	30.00000	Averaged
30 1,1,2-Trichlorotrifluoroeth	2.82397	2.76015	0.000	2.25997	30.00000	Averaged
31 Methylene Chloride	1.30157	1.07562	0.000	17.36022	30.00000	Averaged
32 3-Chloropropene	1.84744	1.67489	0.000	9.34026	30.00000	Averaged
33 Carbon Disulfide	3.94537	3.52370	0.000	10.68777	30.00000	Averaged
34 trans-1,2-Dichloroethene	1.33045	1.19323	0.000	10.31353	30.00000	Averaged
35 Methyl-t-Butyl Ether	2.69902	2.53864	0.000	5.94230	30.00000	Averaged
36 1,1-Dichloroethane	3.17888	2.89146	0.000	9.04148	30.00000	Averaged
37 Vinyl Acetate	3.81383	3.55828	0.000	6.70053	30.00000	Averaged
38 Hexane	1.59739	1.45925	0.000	8.64776	30.00000	Averaged
39 2-Butanone	0.45413	0.34197	0.000	24.69897	30.00000	Averaged
40 cis 1,2-Dichloroethene	1.36223	1.20191	0.000	11.76844	30.00000	Averaged
41 Ethyl acetate	3.29905	2.84294	0.000	13.82564	30.00000	Averaged

Data File: /var/chem/gcms/mj.i/J090910.b/jccvi09.d
Report Date: 09-Sep-2010 12:20

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: jccvi09.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mj.i/J090910.b/TO15.m

Injection Date: 09-SEP-2010 09:40
Init. Cal. Date(s): 28-JUL-2010 09-SEP-2010
Init. Cal. Times: 12:39 10:43
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
42 Chloroform	2.90386	2.80174	0.000	3.51666	30.00000	Averaged
43 Tetrahydrofuran	1.81884	1.62977	0.000	10.39528	30.00000	Averaged
44 1,1,1-Trichloroethane	3.02516	3.15521	0.000	-4.29881	30.00000	Averaged
45 1,2-Dichloroethane	0.56171	0.55532	0.000	1.13868	30.00000	Averaged
46 Cyclohexane	0.14258	0.11208	0.000	21.38990	30.00000	Averaged
48 Benzene	0.84559	0.64820	0.000	23.34409	30.00000	Averaged
47 1-Butanol	0.14197	0.11524	0.000	18.83094	30.00000	Averaged
49 Carbon Tetrachloride	0.66261	0.70325	0.000	-6.13421	30.00000	Averaged
50 2,2,4-trimethylpentane	1.92171	1.63321	0.000	15.01306	30.00000	Averaged
51 Heptane	0.90974	0.74708	0.000	17.87943	30.00000	Averaged
52 1,2-Dichloropropane	0.36499	0.30629	0.000	16.08341	30.00000	Averaged
53 Trichloroethene	0.41116	0.31642	0.000	23.04220	30.00000	Averaged
54 Dibromomethane	0.38877	0.33402	0.000	14.08244	30.00000	Averaged
55 Bromodichloromethane	0.64747	0.61854	0.000	4.46759	30.00000	Averaged
56 1,4-dioxane	0.07442	0.06733	0.000	9.51947	30.00000	Averaged
57 Methyl Methacrylate	0.43552	0.35029	0.000	19.56994	30.00000	Averaged
58 4-Methyl-2-pentanone	0.81761	0.66711	0.000	18.40769	30.00000	Averaged
59 cis-1,3-Dichloropropene	0.44690	0.38259	0.000	14.39110	30.00000	Averaged
60 trans-1,3-Dichloropropene	0.48806	0.44760	0.000	8.28882	30.00000	Averaged
61 Toluene	0.94202	0.78319	0.000	16.85972	30.00000	Averaged
62 1,1,2-Trichloroethane	0.33782	0.28276	0.000	16.29847	30.00000	Averaged
63 2-Hexanone	0.37819	0.31101	0.000	17.76375	30.00000	Averaged
64 Octane	0.30407	0.23821	0.000	21.65919	30.00000	Averaged
65 Dibromochloromethane	0.65713	0.61024	0.000	7.13533	30.00000	Averaged
66 1,2-Dibromoethane	0.56937	0.48653	0.000	14.54966	30.00000	Averaged
67 Tetrachloroethene	0.39357	0.32334	0.000	17.84405	30.00000	Averaged
68 Chlorobenzene	0.76916	0.62670	0.000	18.52082	30.00000	Averaged
69 Ethylbenzene	1.08016	0.95398	0.000	11.68144	30.00000	Averaged
70 m&p-Xylene	0.81686	0.72691	0.000	11.01134	30.00000	Averaged
M 178 Xylene (total)	0.83848	0.73696	0.000	12.10810	25.00000	Averaged
71 Nonane	0.86638	0.79301	0.000	8.46840	30.00000	Averaged
72 Bromoform	0.50315	0.52120	0.000	-3.58837	30.00000	Averaged
73 Styrene	0.56273	0.49111	0.000	12.72667	30.00000	Averaged
74 o-Xylene	0.84967	0.75706	0.000	10.90006	30.00000	Averaged
75 1,1,2,2-Tetrachloroethane	0.65907	0.54986	0.000	16.56954	30.00000	Averaged

Data File: /var/chem/gcms/mj.i/J090910.b/jccvi09.d
Report Date: 09-Sep-2010 12:20

TestAmerica Knoxville

CONTINUING CALIBRATION COMPOUNDS

Instrument ID: mj.i
Lab File ID: jccvi09.d
Analysis Type: AIR
Lab Sample ID: CCV
Method: /var/chem/gcms/mj.i/J090910.b/TO15.m

Injection Date: 09-SEP-2010 09:40
Init. Cal. Date(s): 28-JUL-2010 09-SEP-2010
Init. Cal. Times: 12:39 10:43
Quant Type: ISTD

COMPOUND	RRF / AMOUNT	RF2	MIN RRF	%D / %DRIFT	MAX %D / %DRIFT	CURVE TYPE
76 1,2,3-Trichloropropane	0.15734	0.14908	0.000	5.25312	30.00000	Averaged
77 Cumene	1.07191	0.95118	0.000	11.26248	30.00000	Averaged
78 n-Propylbenzene	0.28268	0.24390	0.000	13.71658	30.00000	Averaged
79 2-chlorotoluene	0.30254	0.27068	0.000	10.53217	30.00000	Averaged
80 4-Ethyltoluene	1.01527	0.88955	0.000	12.38321	30.00000	Averaged
81 1,3,5-Trimethylbenzene	0.40624	0.34835	0.000	14.25131	30.00000	Averaged
82 Alpha-Methylstyrene	0.41615	0.35506	0.000	14.68025	30.00000	Averaged
83 Decane	0.90661	0.86035	0.000	5.10266	30.00000	Averaged
85 tert-butylbenzene	0.88115	0.77054	0.000	12.55215	30.00000	Averaged
84 1,2,4-Trimethylbenzene	0.80812	0.71074	0.000	12.05006	30.00000	Averaged
86 sec-butylbenzene	1.17447	1.04151	0.000	11.32099	30.00000	Averaged
87 1,3-Dichlorobenzene	0.65195	0.57561	0.000	11.70985	30.00000	Averaged
88 Benzyl Chloride	0.77263	0.72378	0.000	6.32238	30.00000	Averaged
89 1,4-Dichlorobenzene	0.63928	0.56565	0.000	11.51745	30.00000	Averaged
90 p-Cymene	0.95971	0.83890	0.000	12.58801	30.00000	Averaged
91 1,2-Dichlorobenzene	0.58187	0.51399	0.000	11.66528	30.00000	Averaged
92 n-butylbenzene	0.95324	0.83545	0.000	12.35716	30.00000	Averaged
93 Undecane	0.76224	0.62402	0.000	18.13307	30.00000	Averaged
94 Dodecane	0.83082	0.66427	0.000	20.04687	30.00000	Averaged
95 1,2,4-Trichlorobenzene	0.38090	0.30355	0.000	20.30695	30.00000	Averaged
96 Napthalene	0.82327	0.62421	0.000	24.17983	30.00000	Averaged
97 Hexachlorobutadiene	0.27597	0.26330	0.000	4.59007	30.00000	Averaged
98 1,2,3-trichlorobenzene	0.31020	0.24268	0.000	21.76752	30.00000	Averaged

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9j1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9J1AA
Client Smp ID: SV-C-4-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.150	103.74	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9k1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6G9K1AA
Level: LOW
Data Type: MS DATA
SpikeList File: allnew.spk
Sublist File: tetra.sub
Client SDG: H0I030404
Fraction: OTHER
Client Smp ID: SV-C-2-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.074	101.84	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9l1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9L1AA
Client Smp ID: SV-28-C-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.035	100.87	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9m1aa.d
Report Date: 10-Sep-2010 14:30

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9M1AA
Client Smp ID: SV-1-C-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.134	103.34	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9n1aa.d
Report Date: 10-Sep-2010 14:30

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6G9N1AA
Level: LOW
Data Type: MS DATA
SpikeList File: allnew.spk
Sublist File: tetra.sub
Client SDG: H0I030404
Fraction: OTHER
Client Smp ID: SV-5-C-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.238	105.96	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9p1aa.d
Report Date: 10-Sep-2010 14:30

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9P1AA
Client Smp ID: ISG-01-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.132	103.29	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9q1aa.d
Report Date: 10-Sep-2010 14:31

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9Q1AA
Client Smp ID: IAQ-C10-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.015	100.37	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9r1aa.d
Report Date: 10-Sep-2010 14:31

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6G9R1AA
Level: LOW
Data Type: MS DATA
SpikeList File: allnew.spk
Sublist File: tetra.sub
Client SDG: H0I030404
Fraction: OTHER
Client Smp ID: IAQ-C9-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.119	102.97	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9v1aa.d
Report Date: 10-Sep-2010 14:31

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9V1AA
Client Smp ID: IAQ-C6-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.121	103.02	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9w1aa.d
Report Date: 10-Sep-2010 14:32

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9W1AA
Client Smp ID: IAQ-C5-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.066	101.66	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9xd.d
Report Date: 10-Sep-2010 14:32

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6G9X1AA
Level: LOW
Data Type: MS DATA
SpikeList File: allnew.spk
Sublist File: tetra.sub
Client SDG: H0I030404
Fraction: OTHER
Client Smp ID: IAQ-C7-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.052	101.30	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/16g901aa.d
Report Date: 10-Sep-2010 14:27

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6G901AA
Level: LOW
Data Type: MS DATA
SpikeList File: allnew.spk
Sublist File: tetra.sub
Client SDG: H0I030404
Fraction: OTHER
Client Smp ID: IAQ-C8-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.214	105.34	70-130

Data File: /var/chem/gcms/mj.i/J090910.b/l6g902aa.d
Report Date: 10-Sep-2010 11:37

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6G902AA
Level: LOW
Data Type: MS DATA
SpikeList File: allnew.spk
Sublist File: 7.sub
Client SDG: H0I030404
Fraction: OTHER
Client Smp ID: IAQ-C8-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.225	105.63	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/l6g911aa.d
Report Date: 10-Sep-2010 14:28

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6G911AA
Level: LOW
Data Type: MS DATA
SpikeList File: allnew.spk
Sublist File: tetra.sub
Client SDG: H0I030404
Fraction: OTHER
Client Smp ID: IAQ-C17-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb (v/v)	CONC RECOVERED ppb (v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.059	101.47	70-130

Data File: /var/chem/gcms/mj.i/J090910.b/16g912aa.d
Report Date: 10-Sep-2010 11:37

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6G912AA
Level: LOW
Data Type: MS DATA
SpikeList File: allnew.spk
Sublist File: 7.sub
Client SDG: H0I030404
Fraction: OTHER
Client Smp ID: IAQ-C17-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.137	103.43	70-130

Data File: /var/chem/gcms/mj.i/J090910.b/l6g92r.d
Report Date: 10-Sep-2010 11:38

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6G921AA
Level: LOW
Data Type: MS DATA
SpikeList File: allnew.spk
Sublist File: tetra.sub
Client SDG: H0I030404
Fraction: OTHER
Client Smp ID: IAQ-C1-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.295	107.37	70-130

Data File: /var/chem/gcms/mj.i/J090910.b/l6g951aa.d
Report Date: 10-Sep-2010 11:37

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6G951AA
Level: LOW
Data Type: MS DATA
SpikeList File: allnew.spk
Sublist File: tetra.sub
Client SDG: H0I030404
Fraction: OTHER
Client Smp ID: IAQ-C2-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb (v/v)	CONC RECOVERED ppb (v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.137	103.43	70-130

Data File: /var/chem/gcms/mj.i/J090910.b/l6g96r.d
Report Date: 10-Sep-2010 11:39

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6G961AA
Level: LOW
Data Type: MS DATA
SpikeList File: allnew.spk
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

Client SDG: H0I030404
Fraction: OTHER
Client Smp ID: IAQ-C19-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.099	102.48	70-130

Data File: /var/chem/gcms/mj.i/J072810I.b/jicvg28.d
Report Date: 29-Jul-2010 09:23

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: jicvg28.d
Lab Smp Id: ICV
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J072810I.b/TO15.m
Misc Info: J07280I,TO15,1-all.sub,,,

Calibration Date: 28-JUL-2010
Calibration Time: 18:06
Client Smp ID: LCS
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	263385	156714	370056	263457	0.03
2 1,4-Difluorobenze	1165388	693406	1637370	1199775	2.95
3 Chlorobenzene-d5	1053163	626632	1479694	1085542	3.07

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.49	9.16	9.82	9.50	0.03
2 1,4-Difluorobenze	11.66	11.33	11.99	11.66	0.03
3 Chlorobenzene-d5	16.33	16.00	16.66	16.32	-0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J072810I.b/jicvg28.d
Report Date: 29-Jul-2010 09:30

TestAmerica Knoxville

RECOVERY REPORT

Client Name:
Sample Matrix: GAS
Lab Smp Id: ICV
Level: LOW
Data Type: MS DATA
SpikeList File: icv.spk
Sublist File: 1-all.sub
Client SDG: J07280I
Fraction: OTHER
Client Smp ID: LCS
Operator: 7126
SampleType: 2ND SOURCE
Quant Type: ISTD
Method File: /var/chem/gcms/mj.i/J072810I.b/TO15.m
Misc Info: J07280I,TO15,1-all.sub,,,

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
7 Chlorodifluorometh	10.00	9.013	90.13	65-135
8 Dichlorodifluorome	10.00	9.289	92.89	65-135
9 Propene	10.00	8.798	87.98	65-135
11 1,2-Dichlorotetraf	10.00	8.478	84.78	65-135
10 Chloromethane	10.00	8.947	89.47	65-135
12 Methanol	10.00	9.194	91.94	65-135
13 Vinyl Chloride	10.00	8.997	89.97	65-135
14 n-Butane	10.00	8.761	87.61	65-135
15 1,3-Butadiene	10.00	8.316	83.16	65-135
16 Bromomethane	10.00	8.618	86.18	65-135
17 Chloroethane	10.00	9.332	93.32	65-135
18 Vinyl Bromide	10.00	8.974	89.74	65-135
19 2-methyl butane	10.00	8.953	89.53	65-135
20 Trichlorofluoromet	10.00	9.402	94.02	65-135
21 Acrolein	10.00	9.713	97.13	65-135
22 Acetonitrile	10.00	8.078	80.79	65-135
23 Acetone	10.00	8.760	87.60	65-135
24 Pentane	10.00	9.779	97.79	65-135
25 Isopropyl Alcohol	10.00	7.981	79.81	65-135
26 Ethyl Ether	10.00	8.680	86.80	65-135
27 1,1-Dichloroethene	10.00	8.090	80.90	65-135
29 Acrylonitrile	10.00	8.240	82.40	65-135
28 tert-butanol	10.00	8.665	86.65	65-135
30 1,1,2-Trichlorotri	10.00	8.136	81.36	65-135
31 Methylene Chloride	10.00	7.560	75.60	65-135
32 3-Chloropropene	10.00	8.641	86.41	65-135
33 Carbon Disulfide	10.00	9.332	93.32	65-135
34 trans-1,2-Dichloro	10.00	9.452	94.52	65-135
35 Methyl-t-Butyl Eth	10.00	9.019	90.19	65-135
36 1,1-Dichloroethane	10.00	8.308	83.08	65-135
37 Vinyl Acetate	10.00	8.826	88.26	65-135
39 2-Butanone	10.00	9.074	90.74	65-135
38 Hexane	10.00	9.044	90.44	65-135

Data File: /var/chem/gcms/mj.i/J072810I.b/jicvg28.d
Report Date: 29-Jul-2010 09:30

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
40 cis 1,2-Dichloroet	10.00	8.349	83.49	65-135
41 Ethyl acetate	10.00	9.612	96.12	65-135
42 Chloroform	10.00	8.185	81.85	65-135
43 Tetrahydrofuran	10.00	8.928	89.28	65-135
44 1,1,1-Trichloroeth	10.00	8.541	85.41	65-135
45 1,2-Dichloroethane	10.00	8.303	83.03	65-135
47 1-Butanol	10.00	8.452	84.52	65-135
46 Cyclohexane	10.00	9.075	90.75	65-135
48 Benzene	10.00	7.871	78.71	65-135
49 Carbon Tetrachlori	10.00	8.926	89.26	65-135
50 2,2,4-trimethylpen	10.00	8.616	86.16	65-135
51 Heptane	10.00	8.490	84.90	65-135
52 1,2-Dichloropropan	10.00	8.405	84.05	65-135
53 Trichloroethene	10.00	8.450	84.50	65-135
54 Dibromomethane	10.00	8.681	86.81	65-135
55 Bromodichlorometha	10.00	8.810	88.10	65-135
56 1,4-dioxane	10.00	9.442	94.42	65-135
57 methyl methacrylat	10.00	9.740	97.40	65-135
58 4-Methyl-2-pentano	10.00	9.814	98.15	65-135
59 cis-1,3-Dichloropr	10.00	8.779	87.79	65-135
60 trans-1,3-Dichloro	10.00	8.925	89.25	65-135
61 Toluene	10.00	8.307	83.07	65-135
62 1,1,2-Trichloroeth	10.00	8.682	86.82	65-135
63 2-Hexanone	10.00	10.04	100.37	65-135
64 Octane	10.00	8.737	87.37	65-135
65 Dibromochlorometha	10.00	9.126	91.26	65-135
66 1,2-Dibromoethane	10.00	8.492	84.92	65-135
67 Tetrachloroethene	10.00	8.352	83.52	65-135
68 Chlorobenzene	10.00	8.430	84.30	65-135
69 Ethylbenzene	10.00	8.439	84.39	65-135
70 m&p-Xylene	20.00	17.14	85.68	65-135
71 Nonane	10.00	8.977	89.77	65-135
72 Bromoform	10.00	9.927	99.27	65-135
73 Styrene	10.00	9.088	90.88	65-135
74 o-Xylene	10.00	8.634	86.34	65-135
75 1,1,2,2-Tetrachlor	10.00	8.843	88.43	65-135
76 1,2,3-Trichloropro	10.00	9.437	94.37	65-135
77 Cumene	10.00	8.803	88.03	65-135
78 n-Propylbenzene	10.00	9.505	95.05	65-135
79 2-chlorotoluene	10.00	8.791	87.91	65-135
80 4-Ethyltoluene	10.00	9.414	94.14	65-135
81 1,3,5-Trimethylben	10.00	9.346	93.46	65-135
82 Alpha-Methylstyren	10.00	10.01	100.13	65-135
83 Decane	10.00	9.339	93.39	65-135
84 1,2,4-Trimethylben	10.00	9.372	93.72	65-135
85 tert-butylbenzene	10.00	9.280	92.80	65-135
86 sec-butylbenzene	10.00	9.304	93.04	65-135

Data File: /var/chem/gcms/mj.i/J072810I.b/jicvg28.d
Report Date: 29-Jul-2010 09:30

SPIKE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
87 1,3-Dichlorobenzen	10.00	8.754	87.54	65-135
89 1,4-Dichlorobenzen	10.00	8.877	88.77	65-135
88 Benzyl Chloride	10.00	10.31	103.09	65-135
90 p-Cymene	10.00	9.506	95.06	65-135
91 1,2-Dichlorobenzen	10.00	8.950	89.51	65-135
92 n-butylbenzene	10.00	9.523	95.23	65-135
93 Undecane	10.00	11.10	111.02	65-135
94 Dodecane	10.00	10.12	101.19	65-135
95 1,2,4-Trichloroben	10.00	9.399	93.99	65-135
96 Napthalene	10.00	9.567	95.67	65-135
97 Hexachlorobutadien	10.00	9.084	90.84	65-135
98 1,2,3-trichloroben	10.00	8.689	86.89	65-135

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	10.00	9.777	97.77	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9j1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9j1aa.d
Lab Smp Id: L6G9J1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: SV-C-4-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	184906	-5.21
2 1,4-Difluorobenze	936174	557024	1315324	808168	-13.67
3 Chlorobenzene-d5	815161	485021	1145301	641271	-21.33

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.06
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.01
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9k1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9k1aa.d
Lab Smp Id: L6G9K1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: SV-C-2-9
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	184057	-5.65
2 1,4-Difluorobenze	936174	557024	1315324	902573	-3.59
3 Chlorobenzene-d5	815161	485021	1145301	816032	0.11

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.11
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.05
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9l1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9l1aa.d
Lab Smp Id: L6G9L1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: SV-28-C-9
Level: LOW
Sample Type: AIR
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	186776	-4.25
2 1,4-Difluorobenze	936174	557024	1315324	903531	-3.49
3 Chlorobenzene-d5	815161	485021	1145301	797198	-2.20

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.09
2 1,4-Difluorobenze	11.64	11.31	11.97	11.63	-0.07
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	-0.02

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9m1aa.d
Report Date: 10-Sep-2010 14:30

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9m1aa.d
Lab Smp Id: L6G9M1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: SV-1-C-9
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	186545	-4.37
2 1,4-Difluorobenze	936174	557024	1315324	879725	-6.03
3 Chlorobenzene-d5	815161	485021	1145301	782970	-3.95

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.12
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.01
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9n1aa.d
Report Date: 10-Sep-2010 14:30

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9n1aa.d
Lab Smp Id: L6G9N1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: SV-5-C-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	180916	-7.26
2 1,4-Difluorobenze	936174	557024	1315324	874877	-6.55
3 Chlorobenzene-d5	815161	485021	1145301	742083	-8.96

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.11
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.05
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9p1aa.d
Report Date: 10-Sep-2010 14:30

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9p1aa.d
Lab Smp Id: L6G9P1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: ISG-01-9
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	174833	-10.37
2 1,4-Difluorobenze	936174	557024	1315324	851496	-9.05
3 Chlorobenzene-d5	815161	485021	1145301	733481	-10.02

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.06
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.05
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9q1aa.d
Report Date: 10-Sep-2010 14:31

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9q1aa.d
Lab Smp Id: L6G9Q1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: IAQ-C10-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	162933	-16.47
2 1,4-Difluorobenze	936174	557024	1315324	792425	-15.35
3 Chlorobenzene-d5	815161	485021	1145301	719808	-11.70

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.13
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.06
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	-0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9r1aa.d
Report Date: 10-Sep-2010 14:31

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9r1aa.d
Lab Smp Id: L6G9R1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: IAQ-C9-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	162197	-16.85
2 1,4-Difluorobenze	936174	557024	1315324	791535	-15.45
3 Chlorobenzene-d5	815161	485021	1145301	701396	-13.96

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.07
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.01
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	-0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9v1aa.d
Report Date: 10-Sep-2010 14:31

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9v1aa.d
Lab Smp Id: L6G9V1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: IAQ-C6-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	161442	-17.24
2 1,4-Difluorobenze	936174	557024	1315324	809160	-13.57
3 Chlorobenzene-d5	815161	485021	1145301	722029	-11.42

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.48	-0.03
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.03
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9w1aa.d
Report Date: 10-Sep-2010 14:32

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9w1aa.d
Lab Smp Id: L6G9W1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: IAQ-C5-9
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	184879	-5.22
2 1,4-Difluorobenze	936174	557024	1315324	919454	-1.79
3 Chlorobenzene-d5	815161	485021	1145301	792202	-2.82

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.48	0.00
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.00
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9xd.d
Report Date: 10-Sep-2010 14:32

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9xd.d
Lab Smp Id: L6G9X1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: IAQ-C7-9
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	187563	-3.85
2 1,4-Difluorobenze	936174	557024	1315324	915969	-2.16
3 Chlorobenzene-d5	815161	485021	1145301	795348	-2.43

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.48	-0.03
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.02
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.02

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g901aa.d
Report Date: 10-Sep-2010 14:27

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g901aa.d
Lab Smp Id: L6G901AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: IAQ-C8-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	196847	0.91
2 1,4-Difluorobenze	936174	557024	1315324	943804	0.82
3 Chlorobenzene-d5	815161	485021	1145301	786338	-3.54

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.48	0.05
2 1,4-Difluorobenze	11.64	11.31	11.97	11.65	0.04
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	-0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090910.b/l6g902aa.d
Report Date: 10-Sep-2010 11:37

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g902aa.d
Lab Smp Id: L6G902AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

Calibration Date: 09-SEP-2010
Calibration Time: 09:40
Client Smp ID: IAQ-C8-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	166835	99267	234403	181816	8.98
2 1,4-Difluorobenze	787366	468483	1106249	860859	9.33
3 Chlorobenzene-d5	701011	417102	984920	719484	2.64

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.47	9.14	9.80	9.47	0.05
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.04
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g911aa.d
Report Date: 10-Sep-2010 14:28

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g911aa.d
Lab Smp Id: L6G911AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: IAQ-C17-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	196186	0.57
2 1,4-Difluorobenze	936174	557024	1315324	932731	-0.37
3 Chlorobenzene-d5	815161	485021	1145301	762009	-6.52

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.48	0.00
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.00
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090910.b/l6g912aa.d
Report Date: 10-Sep-2010 11:37

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g912aa.d
Lab Smp Id: L6G912AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

Calibration Date: 09-SEP-2010
Calibration Time: 09:40
Client Smp ID: IAQ-C17-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	166835	99267	234403	180377	8.12
2 1,4-Difluorobenze	787366	468483	1106249	892417	13.34
3 Chlorobenzene-d5	701011	417102	984920	760619	8.50

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.47	9.14	9.80	9.47	0.07
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.01
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090910.b/l6g92r.d
Report Date: 10-Sep-2010 11:38

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g92r.d
Lab Smp Id: L6G921AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

Calibration Date: 09-SEP-2010
Calibration Time: 09:40
Client Smp ID: IAQ-C1-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	166835	99267	234403	180749	8.34
2 1,4-Difluorobenze	787366	468483	1106249	868358	10.29
3 Chlorobenzene-d5	701011	417102	984920	716457	2.20

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.47	9.14	9.80	9.48	0.15
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.07
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	-0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090910.b/l6g951aa.d
Report Date: 10-Sep-2010 11:37

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g951aa.d
Lab Smp Id: L6G951AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

Calibration Date: 09-SEP-2010
Calibration Time: 09:40
Client Smp ID: IAQ-C2-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	166835	99267	234403	185784	11.36
2 1,4-Difluorobenze	787366	468483	1106249	909160	15.47
3 Chlorobenzene-d5	701011	417102	984920	771486	10.05

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.47	9.14	9.80	9.47	0.07
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.01
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090910.b/l6g96r.d
Report Date: 10-Sep-2010 11:39

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g96r.d
Lab Smp Id: L6G961AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090910.b/TO15.m
Misc Info: J090910,TO15,tetranj.sub,,,

Calibration Date: 09-SEP-2010
Calibration Time: 09:40
Client Smp ID: IAQ-C19-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	166835	99267	234403	180613	8.26
2 1,4-Difluorobenze	787366	468483	1106249	836974	6.30
3 Chlorobenzene-d5	701011	417102	984920	729343	4.04

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.47	9.14	9.80	9.47	0.00
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.04
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Miscellaneous Data

TestAmerica Knoxville GC/MS Air Data Review / Narrative Checklist LOT/Project # HOI030404

Method: TO-14 and TO-15 - KNOX-MS-0001, Rev 11

Instrument:	MJ			
Scanned File:	J072810I			
	J090810			
	J090910			

Review Items A. Tune / Continuing Calibration	N/A	Yes	No	Why is data reportable?	2nd
1. Were all samples injected within 24 hr of BFB?		✓			
2. Has a Continuing Calibration Checklist & run log been completed for each analytical batch **and scanned properly?**		✓			✓
3. Was the correct ICAL used for quantitation?		✓			✓
B. CLIENT SAMPLE AND QC SAMPLE Results	**N/A**	**Yes**	**No**	**Why is data reportable?**	
1. Were all special project requirements met?		✓			✓
2. Were samples received in cans?		✓		☐ [Tedlar1] analyzed w/n 72 hours. ☐ [Tedlar2] X-fer within 72 hours.	✓
3. Can pressure/vac on receipt acceptable?		✓		☐ see narrative	✓
4. Were dilution factors/can prep information verified?		✓			✓
5. Have the can number & lab ID been verified between the analysis log & sample prep log?		✓			✓
6. Sample analyses done within analytical holding time (HT)? *If no, list samples:* _____		✓		☐ [ht2] Client requested analysis after HT expired. ☐ Other: _____	✓
7. Are surrogates and internal standards within QC limits? (60-140% R for surr.; 60-140%R from CCAL for IS) *If no, list samples/reason (e.g.,* **surr***):* Sample Reason Sample Reason _____ _____ _____ _____ _____ _____ _____ _____		✓		☐ [sur7] Obvious matrix effect ☐ **[sur12] high recovery, no hits.** ☐ [sur14] entire sample consumed ☐ **[is1] Per client, reanalysis was not performed *** ☐ [is2] Reanalysis confirmed a matrix effect.	✓
8. Were all positive results and false negatives on quan report verified to be correct in LIMS?		✓			✓
9. For dilutions, is highest concentration hit ≥ 20% cal range and not above calibration range? *List samples and reason (e.g.,* elev1*):* Sample Reason Sample Reason #16,17 dil 3 (#7) _____ _____ _____ _____ _____		✓		☐ [elev1] Elevated RL for due to sample matrix interferences. ☐ [elev3] Elevated RLs for all analytes due to difficult sample matrix. ☐ [elev4] Elevated RLs based on screening ☐ [elev5] Elevated RLs for all analytes due to presence of non-target compounds. ☐ [elev7] Elevated RLs due to sample volume	✓
10. If manual integrations were performed, are they clearly identified, initialed, dated and reason given & alternate hits verified.		✓		Reasons: 1)Corrected split peak; 2)Unresolved peak; 3)tailing; 4)RT shift; 5)wrong peak selected; 6)other	✓
C. Preparation QC					
1. System blank run every 24 hours prior to samples?		✓			✓
2. System blank surrogate recoveries within QC limits (60-140% R) ?		✓		☐ **[mb1] All sample surrogates OK and there is no analyte >RL in samples associated with blank.***	✓
3. Are all analytes present in the system blank < RL? *If no, list blank ID:* _____		✓		☐ **[mb3] No analyte > RL in associated samples.*** ☐ **[mb4] Sample results > 20x higher than blank.**	✓
4. DUP done per 20 samples and are all RPDs within limits? (for target analytes >5x RL, <25% RPD; no criteria for methanol and n-butanol) *If no, list DUP ID:*		✓			✓
5. Did the LCS meet criteria (70-130% with a limited # allowed 60-140% (see table) provisional analyte limit 60-140% with a limited # allowed 50-150%). Number of target analytes in LCS / # marginal exceedances of LCS control limits allowed >90: 5; 71-90: 4; 51-70: 3; 31-50: 2; 11-30: 1; <11: 0		✓		☐ [lcs6] LCS analyte(s) flagged as being outside control limits but within marginal limits ☐ [lcs5] LCS outside marginal exceedences high, but analytes were not detected LCS ID: _____	✓
D. Other					
1. Final report acceptable? (Results correct, RLs calculated correctly, units correct, surrogate %R correct, appropriate flags used, dilution factor correct, analysis dates correct.)		✓			✓
2. Are all nonconformances documented appropriately and copy included with deliverable?	✓				MS
4. Was a narrative prepared and all deviations noted?		✓		☐ [1pt6]; ☐ [1pt11]; ☐ [1ptsur]	✓
5. TO14A Autotext included in narrative (for TO14A samples only).	✓			☐ [TO14]	MS
6. All target analytes on c.cal >30%D but passes LCS criteria noted in the narrative?		✓		☐ [ccal] The ccal exhibited a %D ICAL >30% but passes LCS...list analytes on narrative. 9/8 napth	✓

Analyst: AHS **Date:** 9/10/10 **2nd Level Reviewer:** [signature] **Date:** 9/15/10

☐ [see following page for comments.

*Such action must be taken in consultation with client.

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/09/10
Time: 7:31:31

LEV 1	LEV 2		LEV 1	LEV 2	
_	_	Blank	_	_	Weights/Volumes
_	_	Check	_	_	Spike & Surrogate Worksheet
_	_	MS/MSD	_	_	Vial contains correct volume
			_	_	Labels, greenbars, worksheets
					computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
_ Bench Sheet Copied
_ Package Submitted to AnalyticalGroup
_ Bench Sheet Copied per COC

Extractionist: _____
_____
Concentrationist: _____
_____

****
* *
* QC BATCH: 0252108 *
* *
****

PREP DATE: 9/08/10
COMP DATE: 9/09/10

Reviewer/Date: _____ / 0/00/00

Volatile Organics by GC/MS TO-15 low-level ppbv/v
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030404-001 **L6G9D-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-002 **L6G9E-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-003 **L6G9G-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-004 **L6G9H-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-005 **L6G9J-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-006 **L6G9K-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-007 **L6G9L-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/09/10
Time: 7:31:31

****
* *
* QC BATCH: 0252108 *
* *
****

PREP DATE: 9/08/10
COMP DATE: 9/09/10

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030404-008 **L6G9M-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-009 **L6G9N-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-010 **L6G9P-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-011 **L6G9Q-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-012 **L6G9R-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-013 **L6G9V-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-014 **L6G9W-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-015 **L6G9X-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-016 **L6G90-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-017 **L6G91-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/09/10
Time: 7:31:31

QC BATCH: 0252108

PREP DATE: 9/08/10
COMP DATE: 9/09/10

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	0/00/00	H0I090000-108 **L6N85-1-AAB**		88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	0/00/00	H0I090000-108 **L6N85-1-ACC**		88	7M	AIR	**100mL** 100.00mL	NA	NA	NA		.0		.0	
COMMENTS:															

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 19

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/10/10
Time: 8:57:20

LEV 1	LEV 2		LEV 1	LEV 2	
_	_	Blank	_	_	Weights/Volumes
_	_	Check	_	_	Spike & Surrogate Worksheet
_	_	MS/MSD	_	_	Vial contains correct volume
			_	_	Labels, greenbars, worksheets
					computer batch: correct & all match
			_	_	Anomalies to Extraction Method

_ Expanded Deliverable
_ COC Completed
_ Bench Sheet Copied
_ Package Submitted to AnalyticalGroup
_ Bench Sheet Copied per COC

Extractionist: _____
_____
Concentrationist: _____
_____

****
* *
* QC BATCH: 0253092 *
* *
****

PREP DATE: 9/09/10
COMP DATE: 9/10/10

Reviewer/Date: _____ / 0/00/00

Volatile Organics by GC/MS TO-15 low-level ppbv/v
NO SAMPLE PREPARATION PERFORMED / DIRECT INJECTION

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030404-016 **L6G90-2-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-017 **L6G91-2-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-018 **L6G92-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-019 **L6G95-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030404-020 **L6G96-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-016 **L6HG4-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-018 **L6HG7-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															

RQC058

TestAmerica Laboratories, Inc.
EXTRACTION BENCH WORKSHEET

Run Date: 9/10/10
Time: 8:57:20

QC BATCH: 0253092

PREP DATE: 9/09/10
COMP DATE: 9/10/10

EXTR EXPR	ANL DUE	LOT#,MSRUN#/ WORK ORDER	TEST FLGS	EXT	MTH	MATRIX	INIT/FIN WT/VOL	PH"S INIT	PH"S ADJ1	PH"S ADJ2	SOLVENTS EXTRACTION	SOLVENTS VOL	SOLVENTS EXCHANGE	SOLVENTS VOL	SPIKE STANDARD/ SURROGATE ID
0/00/00	9/21/10	H0I030418-019 **L6HG9-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	9/21/10	H0I030418-022 **L6HHG-1-AA**	D	88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	0/00/00	H0I100000-092 **L6RJX-1-AAB**		88	7M	AIR	mL	NA	NA	NA		.0		.0	
COMMENTS:															
0/00/00	0/00/00	H0I100000-092 **L6RJX-1-ACC**		88	7M	AIR	**100mL** 100.00mL	NA	NA	NA		.0		.0	
COMMENTS:															

R = RUSH C = CLP
E = EPA 600 D = EXP.DEL)
M = CLIENT REQ MS/MSD

NUMBER OF WORK ORDERS IN BATCH: 11

TestAmerica Knoxville
Can Dilution Worksheet

Lot: *h0i030404* **Initial**

W/O #	Barometer inches Hg	Knoxville mm Hg	P init inches	P init Abs,mm	P final psig	P final Abs,mm	Dilution Factor	
L6G 9D								
L6G 9E								
L6G 9G								
L6G 9H								
L6G 9J								
L6G 9K								
L6G 9L	29.08	738.6	- 4.3	629.4	32.0	2393.5	3.80	(9L,DF*200=760)
L6G 9M								
L6G 9N								
L6G 9P								
L6G 9Q								
L6G 9R								
L6G 9V								
L6G 9W								
L6G 9X								
L6G 90								
L6G 91								
L6G 92								
L6G 95								
L6G 96								

1 psig = 2.036 inch Hg
Pinit(Abs,mm)=(Pinit(inch)*25.4mm/inch)+Pbar(mm)
Pfinal(Abs,mm)=(Pfinal(psig)*2.036 (inch Hg/psig)*25.4 (mm/inch))+Pbar(mm)
dilution factor = Pfinal(Abs,mm)/Pinit(Abs,mm)
mm-Hg = in-Hg * 25.4

Data File: /var/chem/gcms/mj.i/J090810.b/16g9dr.d
Report Date: 10-Sep-2010 14:28

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: 16g9dr.d
Lab Smp Id: L6G9D1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: ISG-14-C-9
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	190549	-2.32
2 1,4-Difluorobenze	936174	557024	1315324	932270	-0.42
3 Chlorobenzene-d5	815161	485021	1145301	801748	-1.65

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.48	0.01
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.01
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.01

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9dr.d
Report Date: 10-Sep-2010 14:28

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6G9D1AA
Level: LOW
Data Type: MS DATA
SpikeList File: allnew.spk
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Client SDG: H0I030404
Fraction: OTHER
Client Smp ID: ISG-14-C-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.092	102.30	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9e1aa.d
Report Date: 10-Sep-2010 14:28

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9e1aa.d
Lab Smp Id: L6G9E1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: SV-C-3-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	164473	-15.68
2 1,4-Difluorobenze	936174	557024	1315324	844875	-9.75
3 Chlorobenzene-d5	815161	485021	1145301	787930	-3.34

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.06
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.01
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9e1aa.d
Report Date: 10-Sep-2010 14:28

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6G9E1AA
Level: LOW
Data Type: MS DATA
SpikeList File: allnew.spk
Sublist File: tetra.sub
Client SDG: H0I030404
Fraction: OTHER
Client Smp ID: SV-C-3-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb (v/v)	CONC RECOVERED ppb (v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.175	104.38	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9g1aa.d
Report Date: 10-Sep-2010 14:28

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9g1aa.d
Lab Smp Id: L6G9G1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: SV-C-5-9
Level: LOW
Sample Type: AIR

		AREA LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	194076	-0.51
2 1,4-Difluorobenze	936174	557024	1315324	922900	-1.42
3 Chlorobenzene-d5	815161	485021	1145301	800076	-1.85

		RT LIMIT			
COMPOUND	STANDARD	LOWER	UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.48	0.00
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	0.00
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9g1aa.d
Report Date: 10-Sep-2010 14:28

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Client SDG: H0I030404
Sample Matrix: GAS
Fraction: OTHER
Lab Smp Id: L6G9G1AA
Client Smp ID: SV-C-5-9
Level: LOW
Operator: 7126
Data Type: MS DATA
SampleType: SAMPLE
SpikeList File: allnew.spk
Quant Type: ISTD
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	3.975	99.38	70-130

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9h1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: mj.i
Lab File ID: l6g9h1aa.d
Lab Smp Id: L6G9H1AA
Analysis Type: OTHER
Quant Type: ISTD
Operator: 7126
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Calibration Date: 08-SEP-2010
Calibration Time: 09:50
Client Smp ID: ISG-3-C-9
Level: LOW
Sample Type: AIR

COMPOUND	STANDARD	AREA LIMIT LOWER	AREA LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	195069	116066	274072	185310	-5.00
2 1,4-Difluorobenze	936174	557024	1315324	920889	-1.63
3 Chlorobenzene-d5	815161	485021	1145301	793824	-2.62

COMPOUND	STANDARD	RT LIMIT LOWER	RT LIMIT UPPER	SAMPLE	%DIFF
1 Bromochloromethan	9.48	9.15	9.81	9.47	-0.12
2 1,4-Difluorobenze	11.64	11.31	11.97	11.64	-0.05
3 Chlorobenzene-d5	16.30	15.97	16.63	16.30	0.00

AREA UPPER LIMIT = + 40% of internal standard area.
AREA LOWER LIMIT = - 40% of internal standard area.
RT UPPER LIMIT = + 0.33 minutes of internal standard RT.
RT LOWER LIMIT = - 0.33 minutes of internal standard RT.

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9h1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

RECOVERY REPORT

Client Name: Tetra Tech NUS, Inc
Sample Matrix: GAS
Lab Smp Id: L6G9H1AA
Level: LOW
Data Type: MS DATA
SpikeList File: allnew.spk
Sublist File: tetra.sub
Method File: /var/chem/gcms/mj.i/J090810.b/TO15.m
Misc Info: J090810,TO15,tetranj.sub,,,

Client SDG: H0I030404
Fraction: OTHER
Client Smp ID: ISG-3-C-9
Operator: 7126
SampleType: SAMPLE
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ppb(v/v)	CONC RECOVERED ppb(v/v)	% RECOVERED	LIMITS
$ 6 4-Bromofluorobenze	4.000	4.071	101.78	70-130

Sample Quantitation

Tetra Tech NUS, Inc

Client Sample ID: SV-28-C-9

GC/MS Volatiles

Lot-Sample #	H0I030404 - 007	**Work Order #**	L6G9L1AA	**Matrix.....:**	AIR
Date Sampled...:	08/30/2010	**Date Received..:**	09/02/2010		
Prep Date.....:	09/08/2010	**Analysis Date...**	09/08/2010		
Prep Batch #....:	0252108				
Dilution Factor.:	172.73	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	MDL (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)	MDL (ug/m3)
Benzene	ND	14	4.0	ND	44	13
Carbon tetrachloride	ND	14	2.6	ND	87	16
Chlorodifluoromethane	**8.7**	**14**	**2.6**	**31 J**	**49**	**9.2**
Chloroform	**18**	**14**	**2.6**	**87**	**67**	**13**
Dichlorodifluoromethane	ND	14	4.7	ND	68	23
1,1-Dichloroethane	**1100**	**14**	**1.7**	**4400**	**56**	**7.0**
1,2-Dichloroethane	ND	14	3.3	ND	56	13
cis-1,2-Dichloroethene	**21**	**14**	**4.1**	**83**	**55**	**16**
trans-1,2-Dichloroethene	ND	14	3.5	ND	55	14
1,1-Dichloroethene	**290**	**14**	**2.2**	**1200**	**55**	**8.9**
Ethylbenzene	**140**	**14**	**4.7**	**590**	**60**	**20**
Methylene chloride	**5.7**	**35**	**3.1**	**20 J**	**120**	**11**
Methyl tert-butyl ether	ND	69	12	ND	250	42
Naphthalene	**76**	**35**	**6.2**	**400**	**180**	**33**
Tetrachloroethene	ND	14	2.8	ND	94	19
Toluene	**14**	**14**	**3.6**	**52**	**52**	**14**
1,2,4-Trichlorobenzene	ND	69	6.7	ND	510	50
1,1,1-Trichloroethane	**180**	**14**	**2.1**	**1000**	**75**	**11**
1,1,2-Trichloroethane	ND	14	3.6	ND	75	20
Trichloroethene	**530** ✓	**6.9**	**2.4**	**2800**	**37**	**13**
Vinyl chloride	ND	14	5.0	ND	35	13
m-Xylene & p-Xylene	**840**	**14**	**8.6**	**3700**	**60**	**38**
o-Xylene	**290**	**14**	**4.1**	**1200**	**60**	**18**

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	101	60 - 140

Qualifiers

J Estimated result. Result is less than RL.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

Data File: /var/chem/gcms/mj.i/J090810.b/l6g9l1aa.d
Report Date: 10-Sep-2010 14:29

TestAmerica Knoxville

Modified Method TO-14/TO-15

Data file : /var/chem/gcms/mj.i/J090810.b/l6g9l1aa.d
Lab Smp Id: L6G9L1AA Client Smp ID: SV-28-C-9
Inj Date : 08-SEP-2010 17:44
Operator : 7126 Inst ID: mj.i
Smp Info : ,172.73,0,,,
Misc Info : J090810,TO15,tetranj.sub,,,
Comment :
Method : /var/chem/gcms/mj.i/J090810.b/TO15.m
Meth Date : 10-Sep-2010 14:16 barlozha Quant Type: ISTD
Cal Date : 08-SEP-2010 10:37 Cal File: j1pti08.d
Als bottle: 7
Dil Factor: 172.73000
Integrator: HP RTE Compound Sublist: tetra.sub
Target Version: 3.50
Processing Host: qmidhp01

Concentration Formula: Amt * DF * Vt/Vo * CpndVariable

Name	Value	Description
DF	172.73000	Dilution Factor
Vt	500.00000	Default Calibration Volume
Vo	500.00000	Default Sample Volume

Cpnd Variable Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
*	1 Bromochloromethane	128	9.471	9.479	(1.000)	186776	4.00000	4.000
*	2 1,4-Difluorobenzene	114	11.633	11.642	(1.000)	903531 Ai	4.00000 IS	4.000
*	3 Chlorobenzene-d5	117	16.297	16.300	(1.000)	797198	4.00000	4.000
$	6 4-Bromofluorobenzene	95	17.911	17.914	(1.099)	610514	4.03488	4.035
	7 Chlorodifluoromethane	67	3.903	3.901	(0.412)	1191	0.05045	8.714
	27 1,1-Dichloroethene	96	6.404	6.413	(0.676)	104074	1.68746	291.5
	31 Methylene Chloride	84	6.781	6.784	(0.716)	2019	0.03323	5.739
	36 1,1-Dichloroethane	63	8.088	8.102	(0.854)	924991	6.23163	1076
	40 cis 1,2-Dichloroethene	96	9.121	9.129	(0.963)	7697	0.12102	20.90
	42 Chloroform	83	9.471	9.479	(1.000)	13916	0.10263	17.73
	44 1,1,1-Trichloroethane	97	10.531	10.544	(1.112)	150478	1.06528	184.0
	45 1,2-Dichloroethane	62	10.536	10.646	(0.906)	12143	0.09571	~~16.53~~
	53 Trichloroethene	130	12.343	12.352	(1.061)	283157 Ax	3.04882	526.6
	61 Toluene	91	14.355	14.358	(0.881)	14905	0.07939	13.71
	69 Ethylbenzene	91	16.625	16.623	(1.020)	168560	0.78300	135.2

Data File: /var/chem/gcms/mj.i/J090810.b/l6g911aa.d
Report Date: 10-Sep-2010 14:29

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ppb(v/v))	FINAL (ppb(v/v))
70 m&p-Xylene	91	16.776	16.784	(1.029)	795517	4.88647	844.0
74 o-Xylene	91	17.303	17.306	(1.062)	281729	1.66370	287.4
96 Napthalene	128	21.596	21.594	(1.325)	72211	0.44011	76.02

$$\text{Concentration} = \frac{Ax}{Ai} \times \frac{Is}{RRF} = \frac{283157}{903531} \times \frac{4.00\ ppbv}{0.41116} = 3.04883\ ppbv$$ ✓

Ax = analyte response
Ai = internal std. response
Is = internal std. concentration
RRF = relative response factor from Initial calibration = 0.41116

$3.04883\ ppbv \times 172.73 = 526.6\ ppbv$ ✓

APPENDIX E—COMPARISON TO BACKGROUND

SAMPLE ID: / LOCATION: / SAMPLE DATE: / SAMPLE AREA: / VOLATILES (ug/m3)	Maximum Background Concentration	Positive Detects	Detects not in Blanks	Positive Detects Blanks	Number of Samples > Background	Number of Samples = Background	IAQ-A-4-9	IAQ-A5-9	IAQ-A6-9	IAQ-A8-9	IAQ-A9-9	IAQ-A11-9	IAQ-A12-9	IAQ-A13-9	IAQ-A14-9	IAQ-A15-9	IAQ-A16-9	IAQ-A17-9	**IAQ-B2-9**
1,1,1-Trichloroethane	0.95	22	15	7	0		0.14	0.16	0.22	--	0.52	0.099	0.19	0.068	0.076	--	0.5	--	0.22
1,1,2-Trichloroethane	--	2	2		2		--	--	--	--	--	--	--	0.46	--	--	--	--	--
1,1-Dichloroethane	--	3	3		3		0.066	--	0.15	--	--	--	--	--	--	--	--	--	--
1,1-Dichloroethene	--	4	4		4		--	--	1.5	--	--	--	0.96	0.099	--	--	--	--	--
~~1,2,4-Trichlorobenzene~~	~~0.41~~	~~0~~	~~0~~				--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichloroethane	0.24	4	4		1		0.12	--	--	--	--	--	--	0.19	--	--	--	--	--
Benzene	1.1	31	31		2	1	0.7	0.6	1.2	0.71	0.88	0.55	0.71	0.61	0.54	0.6	0.54	0.56	0.91
Carbon Tetrachloride	0.8	27	27		1		0.59	0.48	0.57	0.52	0.53	0.72	0.54	1.8	0.51	0.5	0.43	0.47	0.57
Chlorodifluoromethane	4.7	33	33		26		10	32	3	3.8	24	3.6	3.7	2.7	5.4	2.1	8.2	4.8	230
Chloroform	0.48	25	25		11		0.56	0.36	1.9	0.28	0.46	0.76	1	4.1	0.22	0.19	0.4	0.7	0.42
Cis-1,2-Dichloroethene	--	4	4		4		--	--	0.55		--	--	0.3	--	--	--	--	--	--
Dichlorodifluoromethane	3.2	32	32		2		2.7	2.5	2.8	2.8	4.4	2.4	2.7	2.4	2.6	2.4	2.4	2.5	2.7
Ethylbenzene	0.87	30	30		20		2	2.1	1.1	2.8	9.5	0.99	1.3	0.61	0.93	0.68	1.5	2.2	1.6
		0	0				--	--	--		--	--	--	--	--	--	--	--	--
Methylene Chloride	--	33	11	22	7		1.6	3.4	1.7	1.2	2.5	0.92	1.5	2	0.86	0.94	1.3	2.6	94
Naphthalene*	2	18	16		5		--	--	3.7		--	1.9	0.75	5	0.73	0.98	--	--	2.3
Tetrachloroethene	0.31	19	19		12	1	0.51	0.31	0.27	0.45	0.57	0.38	0.36	25	0.3	0.34	0.45	0.34	0.28
Toluene	6.1	33	33		26	1	69	130	36	130	200	26	56	12	28	6.8	49	140	13
Total Xylenes	4.2	32	32		18		7.4	7.5	4.4	10.1	53	3.85	4.8	2.44	2.8	2.67	6.2	7.4	6.2
Trans-1,2-Dichloroethene	--	2	2		2		--	--	--	--	--	--	--	--	--	--	--	--	--
Trichloroethene	--	16	16		16		0.18	--	4.5	0.49	--	0.29	5.4	1.2	--	--	--	0.44	0.67
Vinyl Chloride	--	1	1		1		--	--	--	--	--	--	--	--	--	--	--	--	--

J - Positive value is considered estimated as a result of technical noncompliance.

B = blank contaminated

-- Not detected

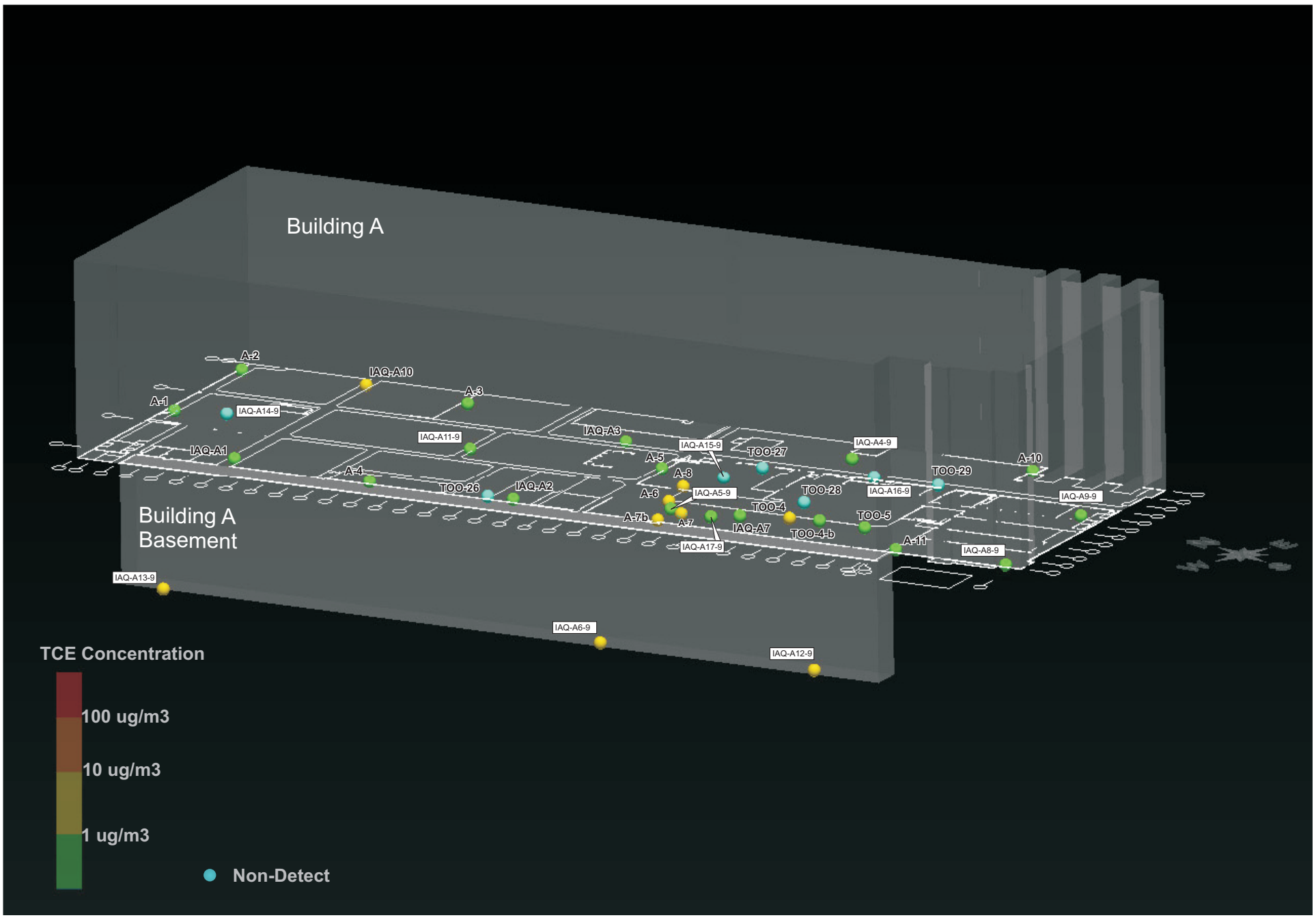
ug/m3 - micrograms per cubic meter

Gray shaded values exceed background concentration.

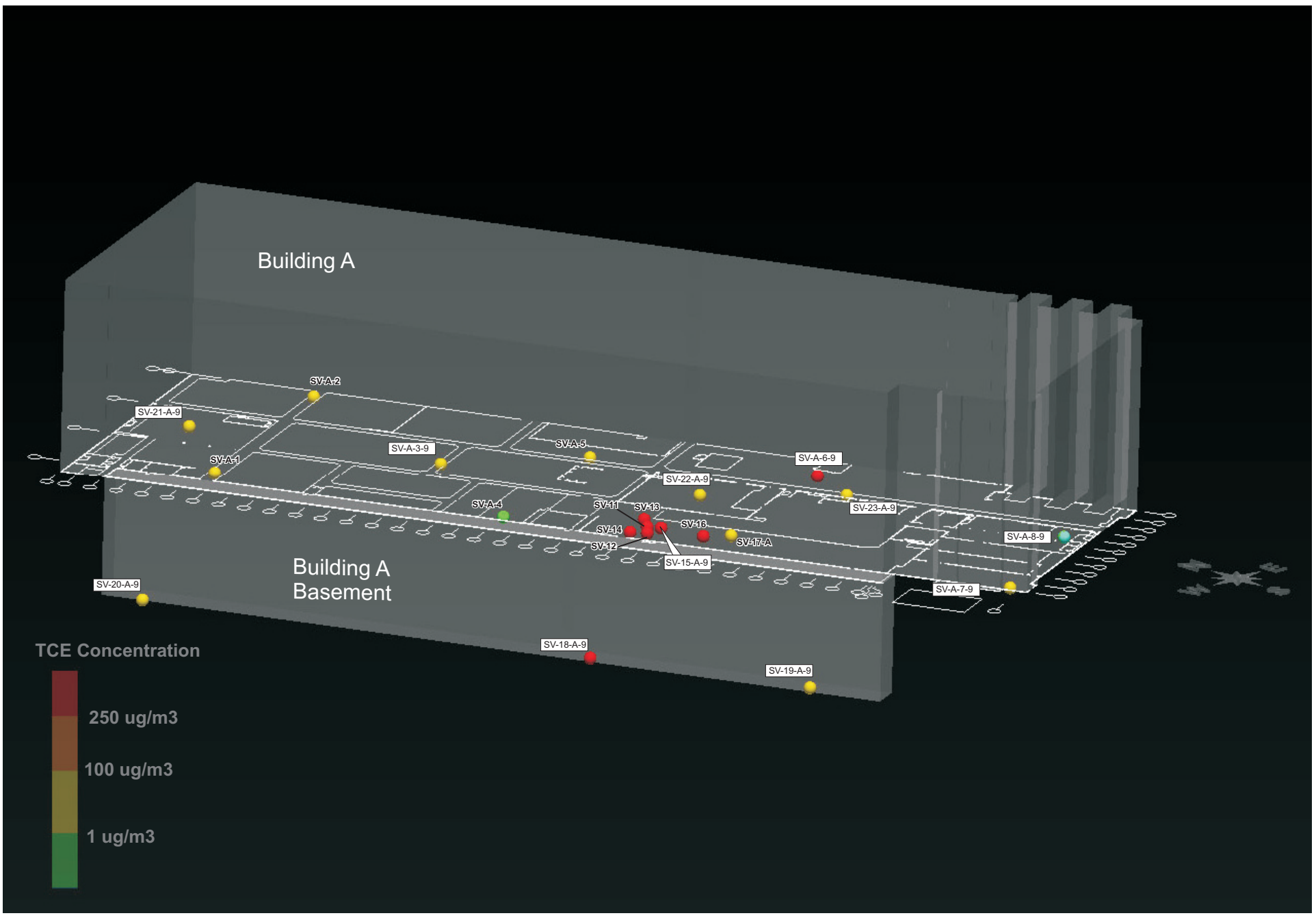
IAQ-B12-9	IAQ-B14-9	IAQ-B15-9	IAQ-B16-9	IAQ-B17-9	IAQ-FC-30-9	IAQ-C1-9	IAQ-C2-9	IAQ-C5-9	IAQ-C6-9	IAQ-C7-9	IAQ-C8-9	IAQ-C9-9	IAQ-C10-9	IAQ-C12-9	IAQ-C14-9	IAQ-C15-9	IAQ-C17-9	IAQ-C18-9	IAQ-C19-9
--	--	0.12	0.095	0.094	--	0.15	0.33	0.56	--	0.68	0.66	--	--	0.15	0.26	--	0.77	--	0.15
--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.15	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.079	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.062	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.14	--	--	--	--	3
0.4	0.38	0.73	0.41	0.44	--	0.41	0.63	0.7	0.58	0.88	0.86	--	0.78	1	1.1	0.86	0.84	1.2	0.48
0.45	0.52	0.78	0.49	0.44	--	0.56	0.54	--	0.52	--	0.57	--	--	0.62	0.48	0.45	0.55	--	0.54
11	13	12	9.2	9.9	5.9	52	190	300	180	380	430	960	430	17	530	210	560	260	2.8
0	0.32	0.68	0.32	0.47	0	0.17	0	0.55	0	0	0.62	0	0	0.24	0.44	0.3	0.59	0	1.9
--	--	0.88	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	0.25
2.5	2.6	2.5	2.6	2.9	2.9	2.6	2.6	2.7	2.9	2.8	2.7	--	3.3	2.7	2.6	2.5	2.7	2.5	2.6
1	1.6	0.9	0.94	0.45	5	0.57	0.86	1	0.67	1.3	1.6	0	0	0.63	1.1	0.72	1.7	0	0.74
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1.2	1.1	3	3	1	4.9	2.5	4.9	6.1	6.3	8.6	5.3	17	13	1.4	11	5.2	6.8	4.2	0.97
--	--	0.47	0.95	0.7	--	0.81	--	--	--	2.3	0.97	4.7	3.1	0.91	1.7	1	--	--	--
--	--	5.3	0.12	0.13	--	--	--	--	--	--	--	--	--	0.39	--	--	0.27	--	7.7
47	46	28	21	13	630	3.3	6.4	8.9	5.2	12	16	6.1	5.3	1.8	7.6	4.3	12	3.6	3.9
2.51	6.4	3.7	3.99	1.62	12.2	3.14	4.7	5.5	3.38	7.5	8.8	9.1	4	3.03	5.2	3.49	8.7	--	2.84
--	--	0.12	--	--	--	--	--	--	--	--	--	--	--		--	--	--	--	2.1
--	--	2.1	0.081	0.19	--	--	--	--	--	--	0.76	--	--	0.16	0.2	--	0.58	--	1.4
--	--	0.14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

APPENDIX F—HISTORICAL-DATA TABLES AND PLOTS

Appendix F
Building A Historic IAQ
TCE Concentrations



Appendix F
Building A Historic SV
TCE Concentrations



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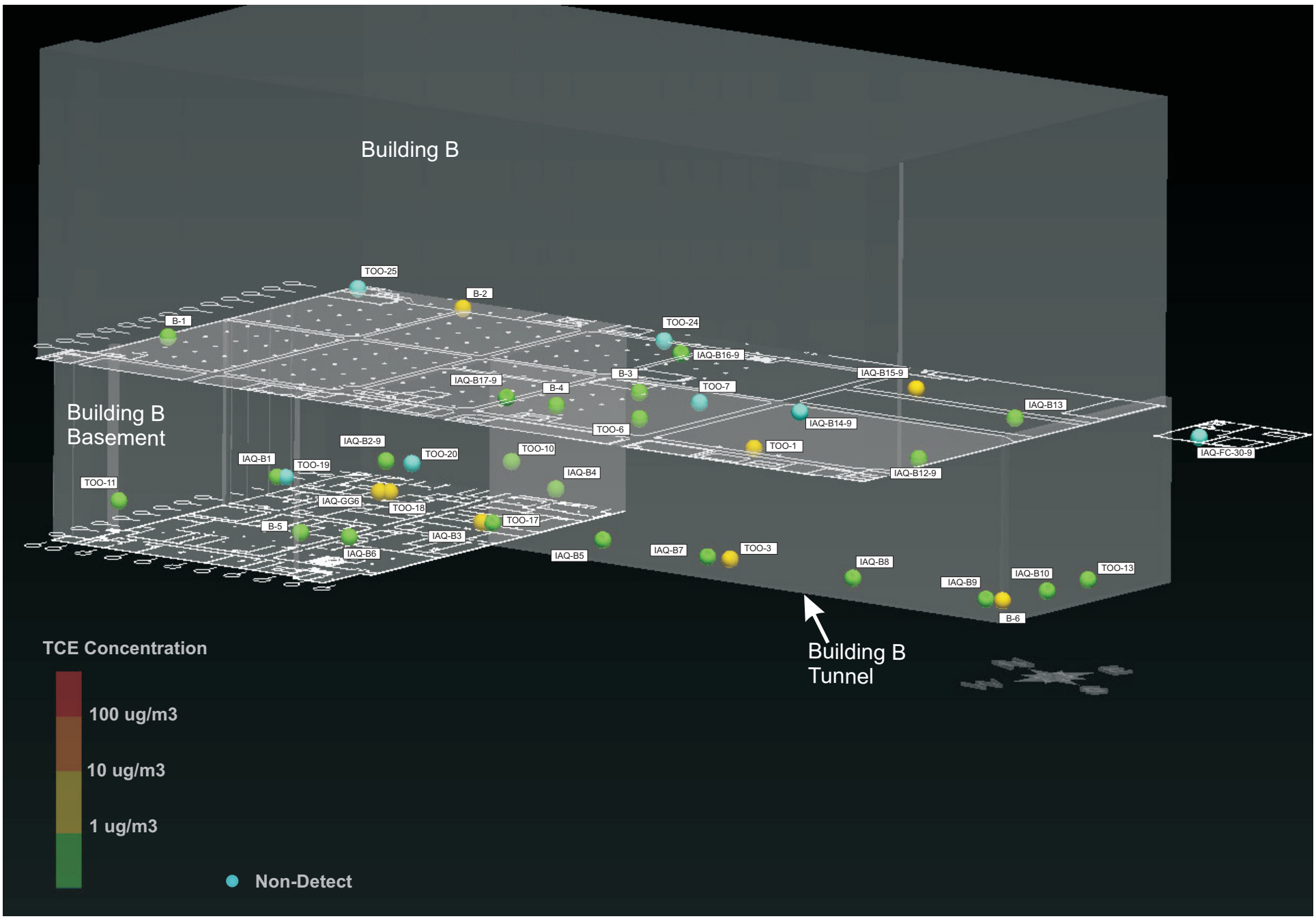
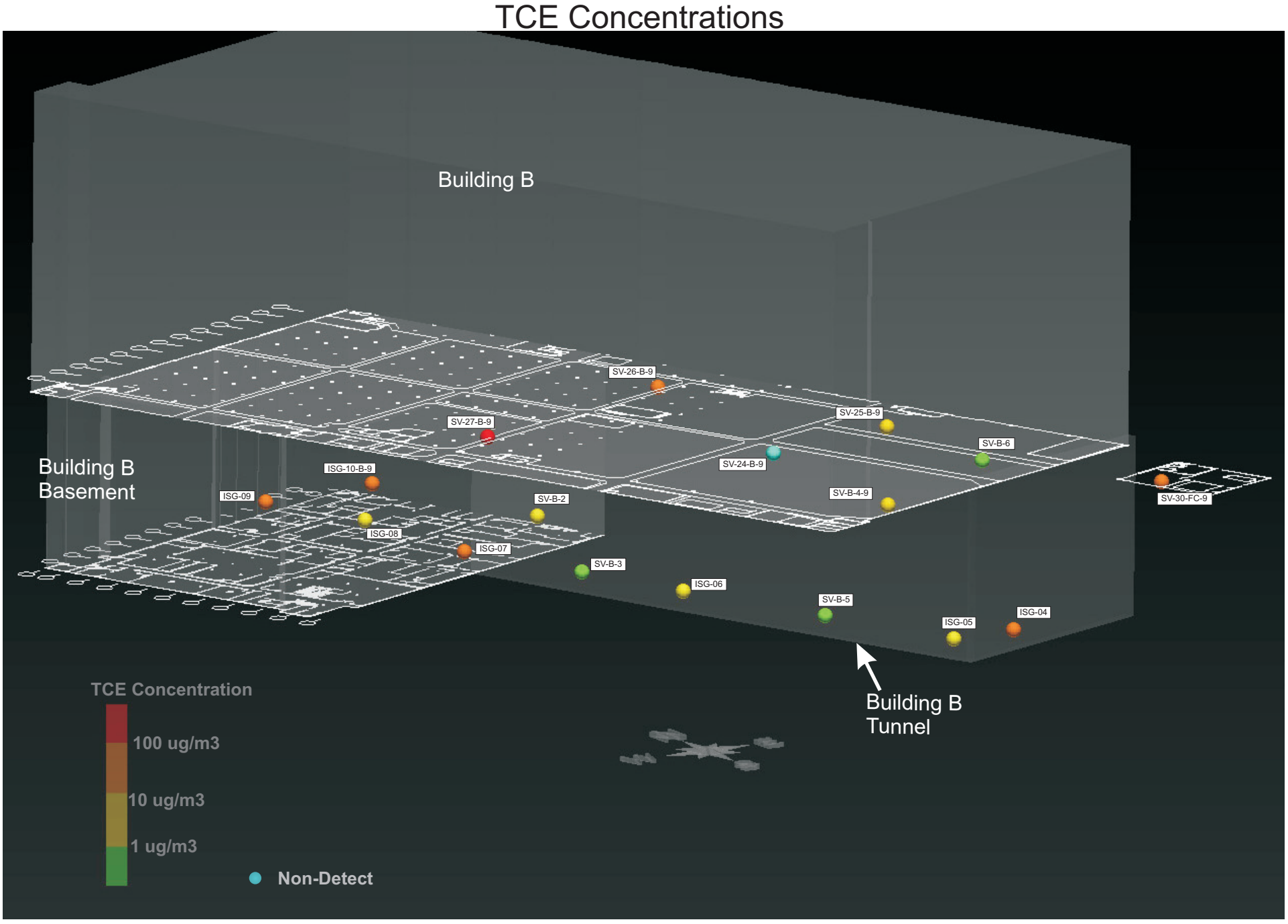
Appendix F
Building B Historic IAQ
TCE Concentrations



Appendix F
Building B Historic SV
TCE Concentrations



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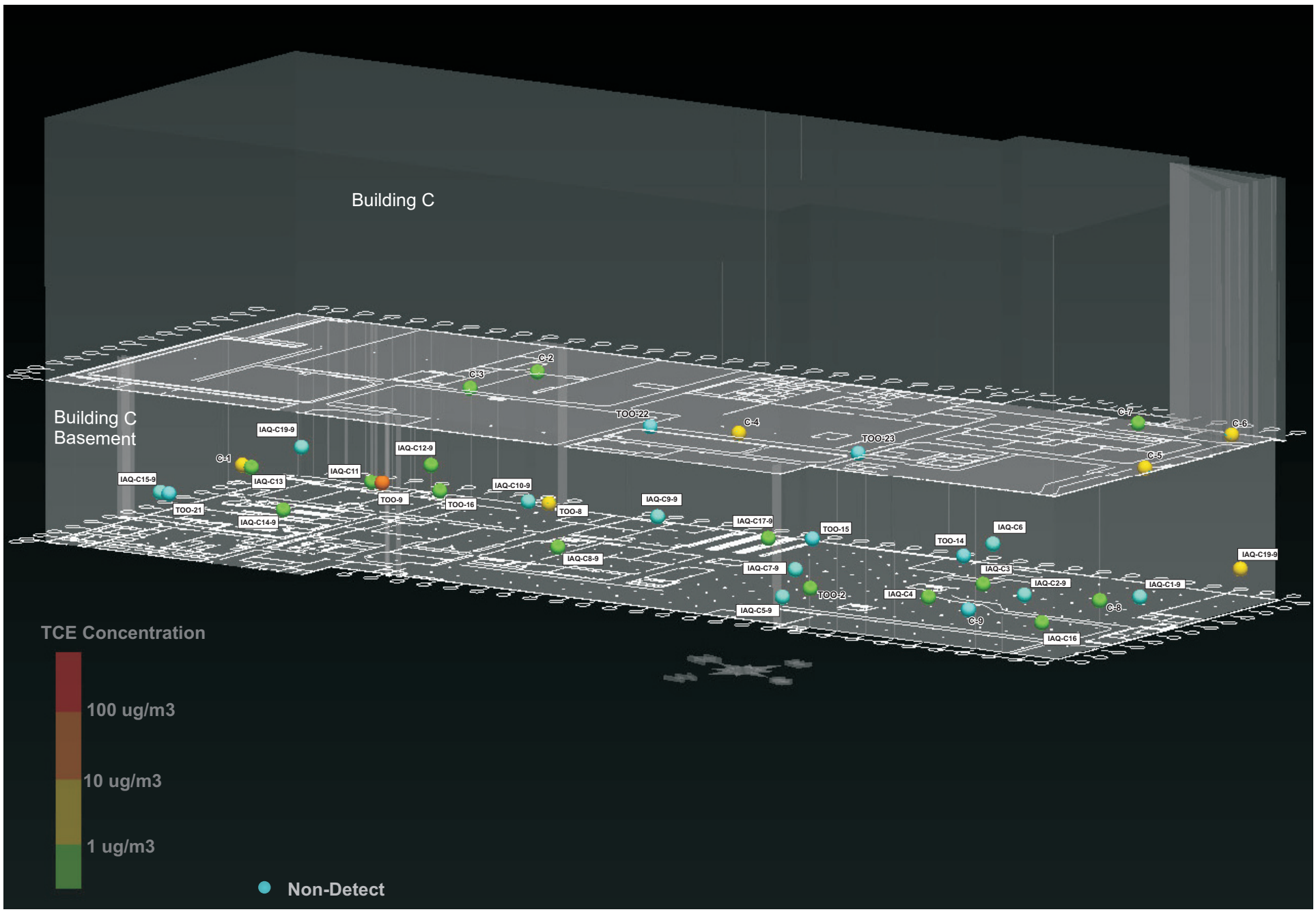
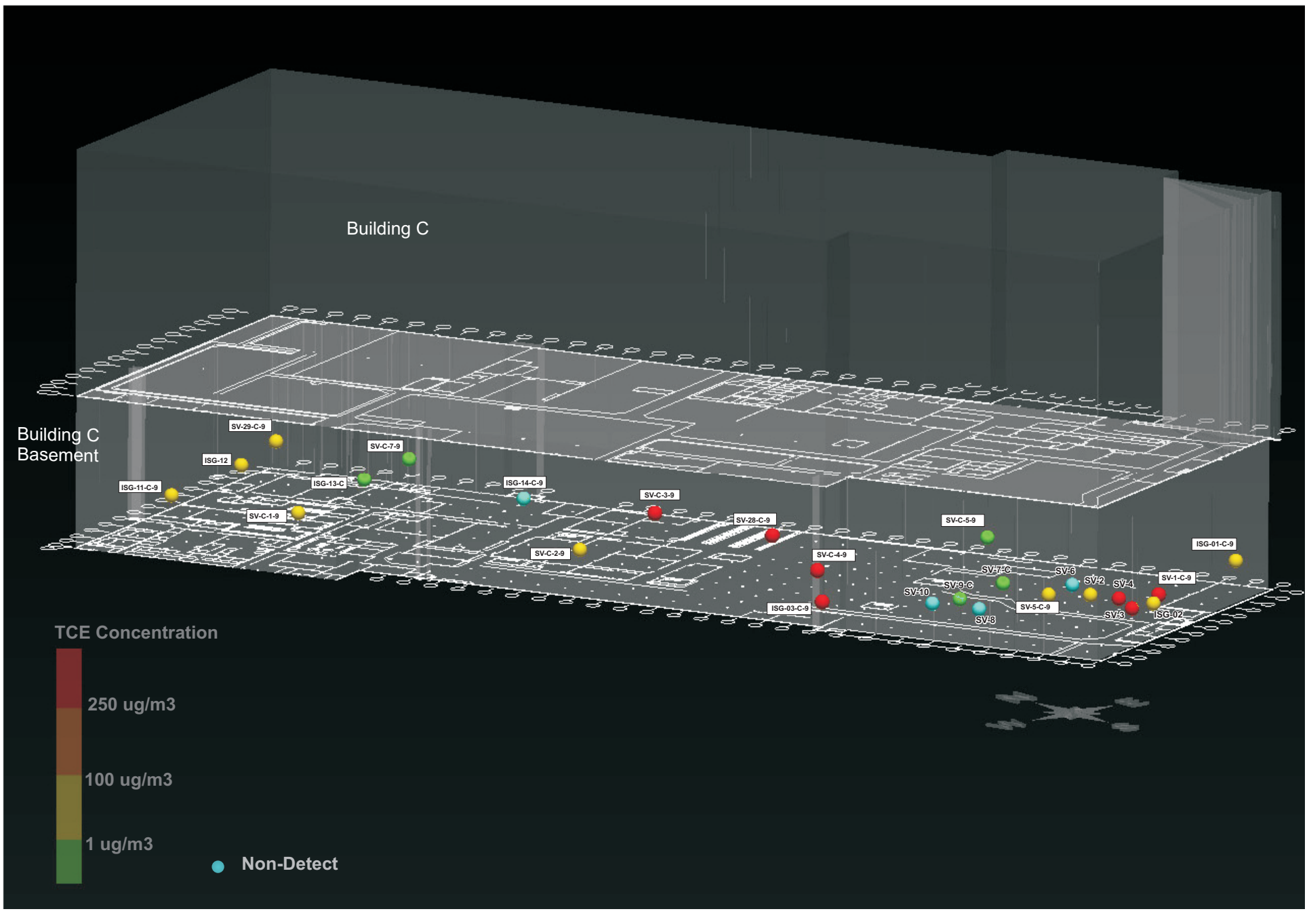
Appendix F
Building C Historic IAQ
TCE Concentrations



Appendix F
Building C Historic SV
TCE Concentrations



K:\GProject\MartinStateAirport-LMC\GeoData\MVS\Building C TCE AS and SV Sample Locations_round 9.cdr

Appendix F

Indoor Air and Sub-Slab Vapor Sample Locations for Buildings A, B, and C
Round 9 August 2010



Legend

- Round 9 Sample Location
- IAQ, Basement
- IAQ, 1st Floor
- SV/ISG
- Tunnel
- Buildings A, B, and C
- Building B and C Basement
- SSD Treatment Unit

N

0 25 50 100 150 200 Feet

Lockheed Martin Middle River Complex
Middle River, Maryland

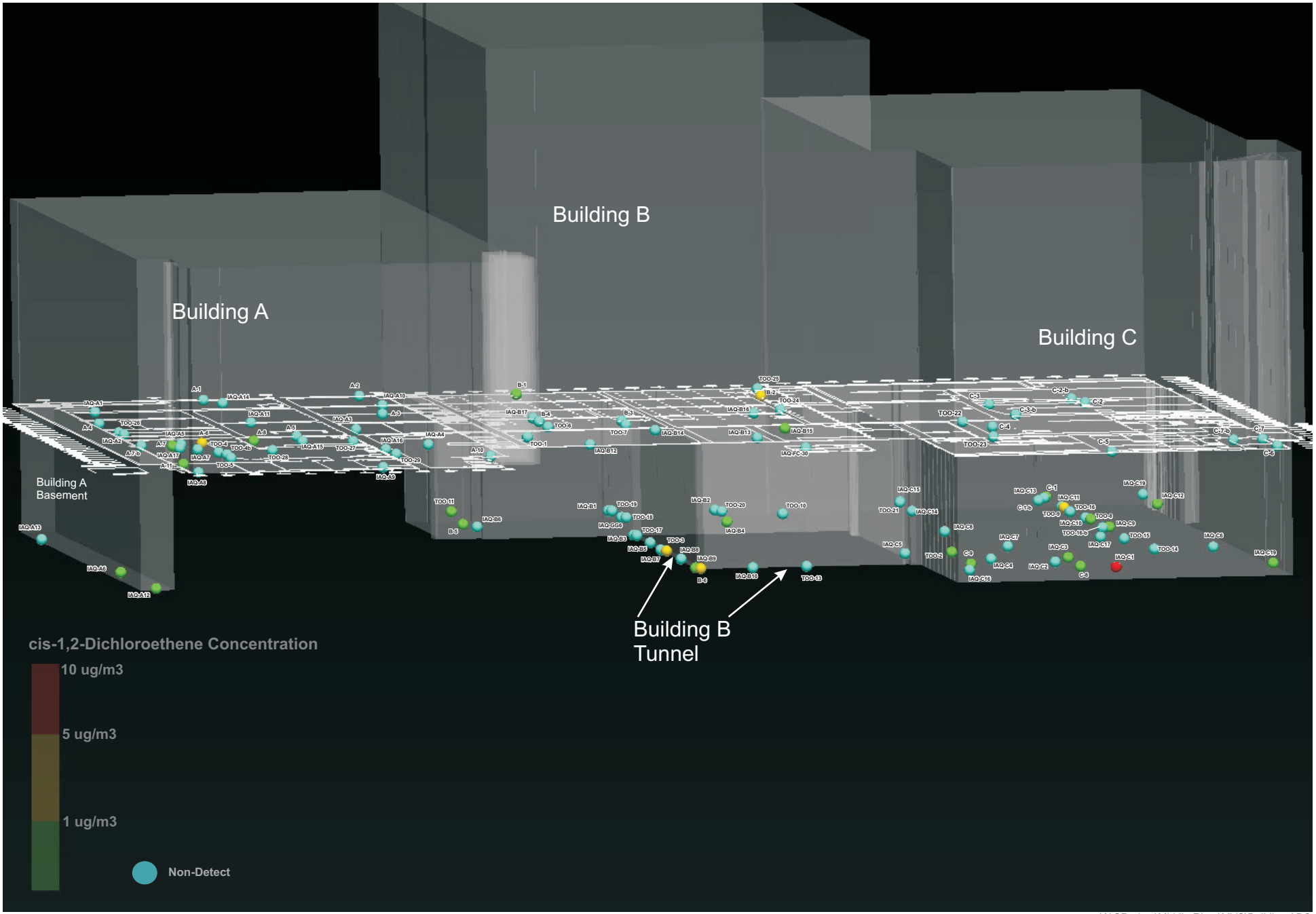
DATE MODIFIED: 12/15/10

CREATED BY: MP

Tetra Tech, Inc.

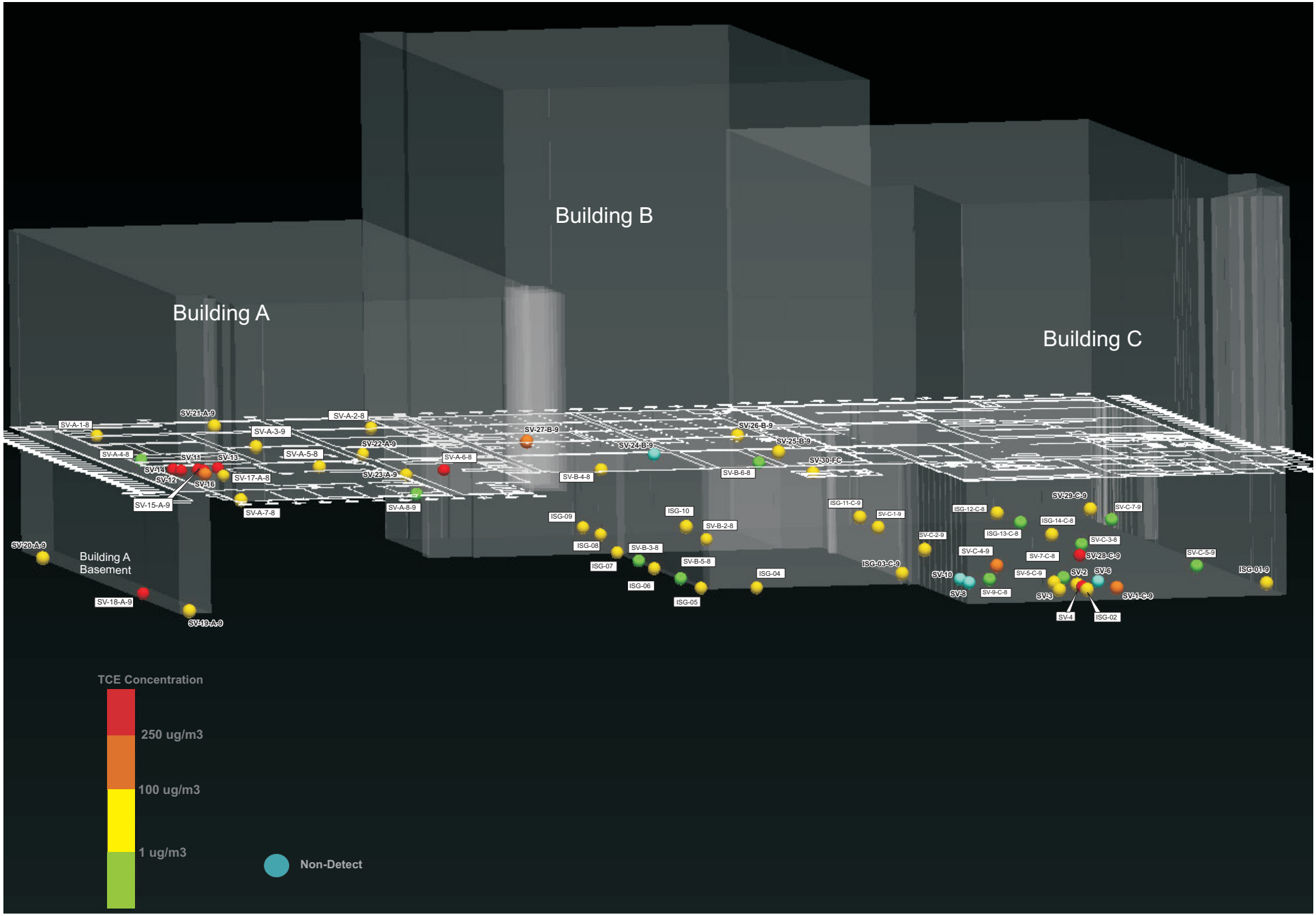
Map Document: (K:\GProject\middle_river\Maps\Block I bldg ABC showing B C basement_round 9_121510 .mxd)
12/15/2010 -- 1:40:50 PM

Buildings A, B, and C Historic IAQ
cis-1,2-Dichloroethene Concentrations



K:\GProject\Middle River\MVS\Building ABC
cis-1,2-Dichloroethene Sample Locations.cdr

Buildings A, B, and C Historic SV
TCE Concentrations Through August 2010



K:\GProject\Middle River\MVS\Building ABC
TCE_SV Sample Locations_thru August2010.cdr

APPENDIX G—SSD-SYSTEM
REMEDIAL-ACTION PROGRESS REPORT #5

REMEDIAL ACTION PROGRESS REPORT #6

Sub-Slab Depressurization Systems
Buildings A and C
Lockheed Martin Corporation
Middle River Complex
Middle River, Maryland

Project # EESHBDF-00897_R642

Period Beginning: April 1, 2010
Period Ending: September 30, 2010

October 8, 2010

Prepared for:

LOCKHEED MARTIN

Strategic Sourcing Solutions
6801 Rockledge Drive
Bethesda, Maryland 20817

Prepared by:

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TABLE OF CONTENTS

1.0 INTRODUCTION 1-1
1.1 Site Location and Background Information 1-1
1.2 SSD System Description 1-1

2.0 SITE ACTIVITIES 2-1
2.1 Bi-Weekly Monitoring 2-1
2.1.1 General System Checks 2-1
2.1.2 Vacuum Influence Monitoring 2-1
2.1.3 VOC Concentrations Monitoring 2-1
2.2 Quarterly System Checks 2-2
2.3 Differential Pressure Monitoring 2-2
2.4 GAC Change-Outs 2-3
2.5 System Shutdowns 2-3
2.6 System Upgrades 2-3
2.7 Vapor Sampling 2-4
2.8 Remediation Summary 2-4

3.0 CONCLUSIONS & RECOMMENDATIONS 3-1
3.1 System Performance 3-1
3.2 Continued Monitoring 3-1
3.3 Future Plans 3-1

FIGURES
Figure 1: SSD System Locations
Figure 2: SSD System Layout – Building A
Figure 3: SSD System Layout – Building C
Figure 4: Process and Instrumentation Diagram – Building A
Figure 5: Process and Instrumentation Diagram – Building C
Figure 6: Induced Vacuum – Building A
Figure 7: Induced Vacuum – Building C
Figure 8: Induced Vacuum Isocontour Map – Building A
Figure 9: Induced Vacuum Isocontour Map – Building C
Figure 10: Total Influent VOCs – Building A
Figure 11: Total Influent VOCs – Building C

TABLES
Table 1: Building A Pre-GAC Laboratory Data
Table 2: Building A Mid-GAC Laboratory Data
Table 3: Building A Post-GAC Laboratory Data
Table 4: Building C Pre-GAC Laboratory Data
Table 5: Building C Mid-GAC Laboratory Data
Table 6: Building C Post-GAC Laboratory Data

APPENDICES
Appendix A: System Field Data Sheets
Appendix B: Quarterly System Checks Forms
Appendix C: 24 Hour Vacuum Monitoring Data
Appendix D: Spent GAC Disposal Documentation
Appendix E: Laboratory Results

1.0 INTRODUCTION

1.1 Site Location and Background Information

This report documents the monitoring activities completed from April 1, 2010 to September 30, 2010 (ninth and tenth quarters of operation) for the sub-slab depressurization (SSD) systems operating in the Building A Plating Shop and the south end of the Building C Basement of the Middle River Aircraft (MRA) facilities located at Lockheed Martin Corporation's Middle River Complex in Middle River, Maryland. The locations of these systems are shown in **Figure 1**. The purpose of these remedial systems is to control and eliminate sub-slab volatile organic compounds (VOCs) thus preventing the migration of the VOCs into indoor air.

1.2 SSD System Description

The SSD system in the Building A Plating Shop consists of two horizontal soil vapor extraction laterals (North Leg and South Leg), and the system in the Building C Basement consists of two vertical soil vapor extraction wells (SV-21 and SV-23). These serve as extraction points for drawing air through the sub-slab zone to stimulate volatilization of adsorbed-phase VOCs. Regenerative blower systems (one 10HP blower in Building A and two 3HP blowers in Building C) are used to draw the soil vapor from the extraction points. Following extraction, the vapors enter a moisture separator where entrained condensate droplets are removed to reduce the chance of fouling in the vapor lines and the possibility of saturating the vapor-phase carbon. The extracted vapors are treated to remove VOCs in both systems using two granular activated carbon (GAC) units prior to being discharged to the atmosphere via an exhaust stack that extends above the roof of each building. The layout of the systems is shown in **Figures 2** and **3** and the process and instrumentation diagrams are presented in **Figures 4** and **5**.

2.0 SITE ACTIVITIES

2.1 Bi-Weekly Monitoring

2.1.1 General System Checks

Biweekly site visits were conducted to monitor the performance of the SSD systems and to make necessary adjustments to increase remediation effectiveness. System field data sheets are included in **Appendix A**. The site visits/system checks included the following tasks:

1. Record the vacuum and flow velocity from each extraction point and adjust as needed to maximize induced vacuum at all monitoring points.
2. Record temperature and vacuum influent and pressure effluent near the blower.
3. Check moisture separator for condensate.
4. Check vacuum gauges, pressure gauges, piping and fittings for leaks and signs of heat stress.

2.1.2 Vacuum Influence Monitoring

Vacuum (differential versus indoor air) influence monitoring in permanent sub-slab vapor monitoring points (VMPs) for each SSD system was also conducted during the site visits. In the Building A Plating Shop (**Figure 2**), SV-11, SV-12, SV-13, SV-15, and SV-16 have been monitored since system start-up. In January and February 2010, newly installed VMPs SV-1A, SV-2A and SV-3A were added to the biweekly monitoring. In the Building C Basement (**Figure 3**), SV-1, SV-2, SV-3, and SV-4 were monitored. Beginning in January 2010, newly installed VMPs SV-1C, SV-2C and SV-3C were added to the biweekly monitoring. Existing VMP SV-22 was added to the biweekly monitoring in the Building C Basement in February 2010 replacing SV-1C which was not showing vacuum influence. Vacuum influence data are used to determine the area of system influence and to identify short-circuiting or other problems, which would be indicated by a significant drop in vacuum at the monitoring points. Process and Instrumentation diagrams for the systems are included as **Figures 4 and 5**.

Induced vacuum levels over time are graphed on **Figures 6** and **7** and values from monitoring on July 19, 2010 are included as **Figures 8** and **9**.

2.1.3 VOC Concentrations Monitoring

During the site visits, VOC concentrations at the combined influent, mid-point, and effluent of the GAC units were recorded using a calibrated photo-ionization detector (PID). PID readings were

taken both directly from the sample ports and from tedlar bags which were used to collect vapor samples from the same ports.

2.2 Quarterly System Checks

Quarterly system checks were completed on June 18, 2010 and September 3, 2010 and included the following tasks:

1. Visually inspect air filters and replace if necessary.
2. Inspect level, temperature, and pressure switches for fouling. Clean if necessary. Check for proper operation.
3. Measure and record amperage draw from blowers.
4. Check vacuum relief valves.
5. Inspect GAC units for corrosion and leakage.
6. Check autodialer callout.

No problems were identified during the quarterly system checks and the systems appear to be running within the operating parameters. The quarterly system check forms are included in **Appendix B**.

2.3 Differential Pressure Monitoring

Monthly 24-Hour differential pressure monitoring of the SSD systems at the Building A Plating shop and Building C Basement was conducted to verify system radius of influence and quantify differential pressure changes over daily cycles. Dwyer Magnesense MS121 differential pressure transmitters with a 0.0 to 0.5-inch water column (WC) range (accuracy to 0.005" WC) and Dwyer DW-USB programmable data-loggers set at 5 minute sampling rates were deployed at three selected VMPs at each system each month. After 24 continuous hours of data collection the equipment is retrieved and the data downloaded and graphed for analysis. Analysis of the 24-hour differential pressure data (**Appendix C**) verifies the induced vacuum is relatively stable with the majority of the data within a range of .02-inches WC.

We monitored a total of five (5) and four (4) points during the six month period at the Building A and Building C Systems respectively. Monitoring points are limited because several points have vacuum influence above the 0.5-inch WC range specified in the scope of work.

2.4 GAC Change-Outs

The granular activated carbon units, each containing 200 pounds of GAC, have typically been replaced when the effluent concentration equals 15% of the influent concentration, taking into consideration the carbon change-out history, PID background levels, and laboratory results. During a change-out, the lag carbon canister is installed as the lead unit and a new carbon canister is installed as the lag unit. GAC change-outs were completed on June 11, 2010 and September 17, 2010 for the Building A system. GAC change-outs were completed on June 11, 2010 and on October 1, 2010 for the Building C system. Spent GAC units were shipped off-site for proper disposal on June 11, 2010 by Siemens Water Technologies Corporation. An additional disposal shipment will be scheduled in the next period. The non-hazardous bill of lading is included in **Appendix D**.

2.5 System Shutdowns

Building A system had one System Shutdown between April 1, 2010 and September 30, 2010.The system shutdown was due to a defective GAC drum (the drum did not permit adequate flow) delivered by Siemens Water Technologies Corp. The shutdown occurred on July 7, 2010 and the system was restarted on July 8, 2010. Building C had two shutdowns due to high water level alarms after significant periods of rain. These alarms occurred on August 12, 2010 and September 30, 2010. In both instances the water separator tanks were emptied and the water was placed in 55- gallon drums located in Block E. After the August 12, 2010 shutdown the system was restarted the next morning after the removal of material clogging the outlet of the moisture separator tank. After the September 30, 2010 shutdown the system was restarted October 5, 2010, after several attempts to restart the system without success due to high water table levels after the remnants of Tropical Storm Nicole dropped over 6” of rain within 24-hours. Both systems were briefly shut down for GAC change outs, and while switching operation between blowers.

2.6 System Upgrades

The following system upgrades were completed during the reporting period:

1. The PVC piping which connects the Building A system to the GAC units was replaced with CPVC piping after damage to the PVC pipe thread connection was found.
2. In response to FMEA comments, push to connect fittings were placed on sample ports at both Building A and C.

3. Plastic zip ties were placed on the quick connect hose fittings to prevent tampering by unauthorized personal with the systems.
4. Grout was used to repair a slight crack in the slab near the Building C system extraction points.

2.7 Vapor Sampling

Pre-GAC, Mid-GAC and Post-GAC vapor samples from both systems were collected on April 16, May 13, June 18, July 17, August 19 and September 17, 2010, 2010. Vapor samples were collected directly from the sample ports using 1-liter summa canisters. All samples were analyzed by Test America Laboratories in Knoxville, Tennessee for VOCs by EPA Method TO-15 and the results are included in **Appendix E**.

2.8 Remediation Summary

Continuous operation of the SSD systems in the Building A Plating Shop and the Building C Basement began on March 31, 2008. Based on pilot test results, extraction points in Building A were set to maximize vacuum at a total flow of about 100 standard cubic feet per minute (SCFM) and, Building C extraction points were opened to allow approximately 25 to 30 SCFM flow from each extraction point. In Building A, flow from the north leg has been kept slightly higher than that of the south leg due to its greater length.

Since system start-up on March 31, 2008, total VOCs have decreased from 94,310 µg/m^3 to 2334 µg/m^3 or 97.5% in the Building A system influent and from 31,170 µg/m^3 to 103 µg/m^3 or 99.7% in the Building C system influent. VOCs trends are shown in **Tables 1** through **6** and **Figures 10** and **11**. Individual VOC percentages have remained relatively consistent at both systems. In the Building A system, 1,1,1-Trichloroethane and Trichloroethene have typically each accounted for 35 to 50% of the total influent VOCs. In the Building C system, cis-1,2-Dichloroethene has typically been about 50% to 70% of the total VOCs.

The reported concentrations were used to calculate mass removal rates for the period of April 2010 through September 2010. For the Building A SSD system, mass removal rates ranged from 0.017 to 0.034 lbs/day VOCs. The total VOC mass removed in Building A was approximately 4.67 pounds for a cumulative removal total since system start-up of approximately 56.24 pounds. Mass removal rates for the Building C SSD ranged from 0.0006 lbs/day to 0.0037 lbs/day. The total VOC mass removed in Building C was approximately 0.24 pounds for a cumulative removal

total of 4.5 pounds. The VOC mass removal is far lower than levels requiring MDE permitting (20 lbs/day VOCs, 20 lbs/yr vinyl chloride) even without treatment.

3.0 CONCLUSIONS & RECOMMENDATIONS

3.1 System Performance

The systems are performing as designed. Each system has induced vacuum influence over an approximate 80-foot by 80-foot area encompassing all the monitoring points with VOCs at relatively elevated levels. The systems have removed VOC mass and treated emissions with GAC. During the first ten quarters of system operation, twenty one (21) 200-pound GAC units were used for the Building A system and eight (8) units for the Building C system. Approximately 74 pounds of GAC have been used per pound of VOC removed by the Building A system and 353 pounds of GAC used per pound of VOC removed by the Building C system. Note that GAC removal efficiency is reduced as vapor concentrations decrease. Influent VOC concentrations have decreased significantly since system startup on March 31, 2008 with fluctuations within the decreasing trend (see **Figures 8** and **9**).

3.2 Continued Monitoring

Biweekly system monitoring, monthly vapor samples, and monthly 24-hour vacuum monitoring will continue in the next two quarters (tenth and eleventh quarters) of operation in the Building A plating shop and Building C basement. GAC change-outs will occur when the mid-GAC laboratory result reaches 15% of the influent reading based on laboratory analysis. Quarterly system checks will be completed in December and March 2011.

3.3 Future Plans

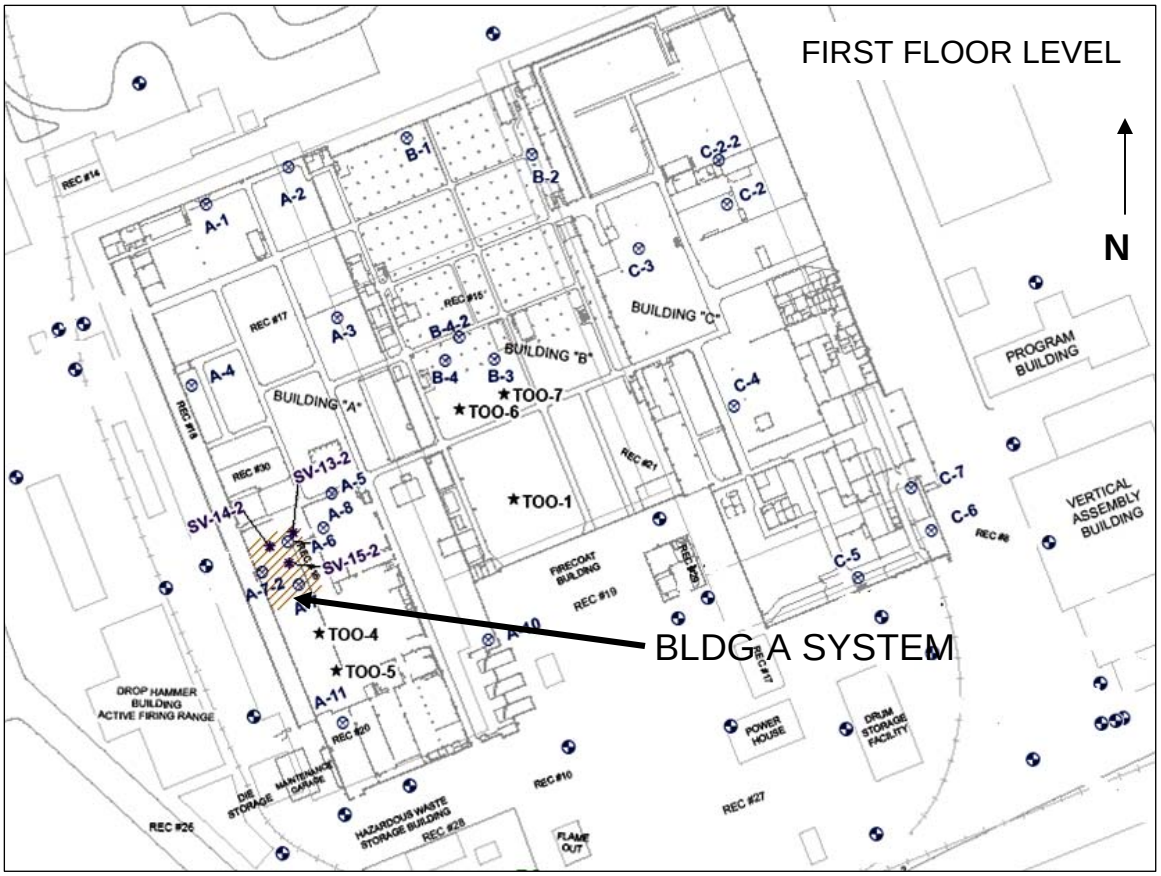
Mobilization for an extension for the Building A system is planned for October 18th, 2010. The extension will be constructed in the basement of Building A and connected to the main system on the loading dock. The trenches installed in the basement will be in a “V” shape pattern in the agreed upon location. With this extension, the GAC drums will upgraded from (2) 200-lb drums to (2) 400 lb drums. The need for this upgrade is to accommodate higher flow rates.

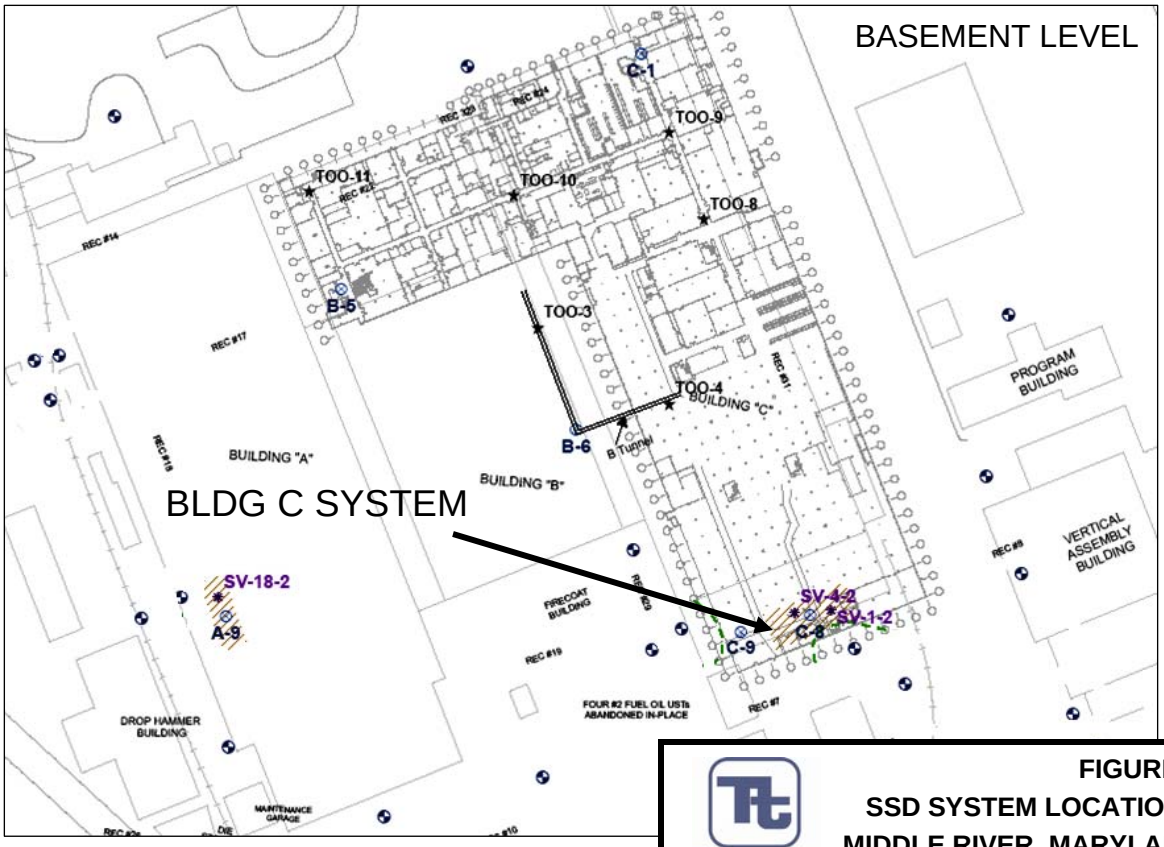
The current plan is that the systems will be run continuously to maintain the barrier to vapor migration. Should any unplanned system shutdown occur, Tetra Tech will be alerted by the system autodialer and will restart the system as soon as possible.

Influent vapor concentrations at the Building C System are relatively low compared to concentrations of VOCs in other subslab sampling points located in areas without SSD and are below or approaching potential guidance levels. A shut down test should be considered for the

Building C System to determine if VOC concentrations will increase if the SSD system is not operated.

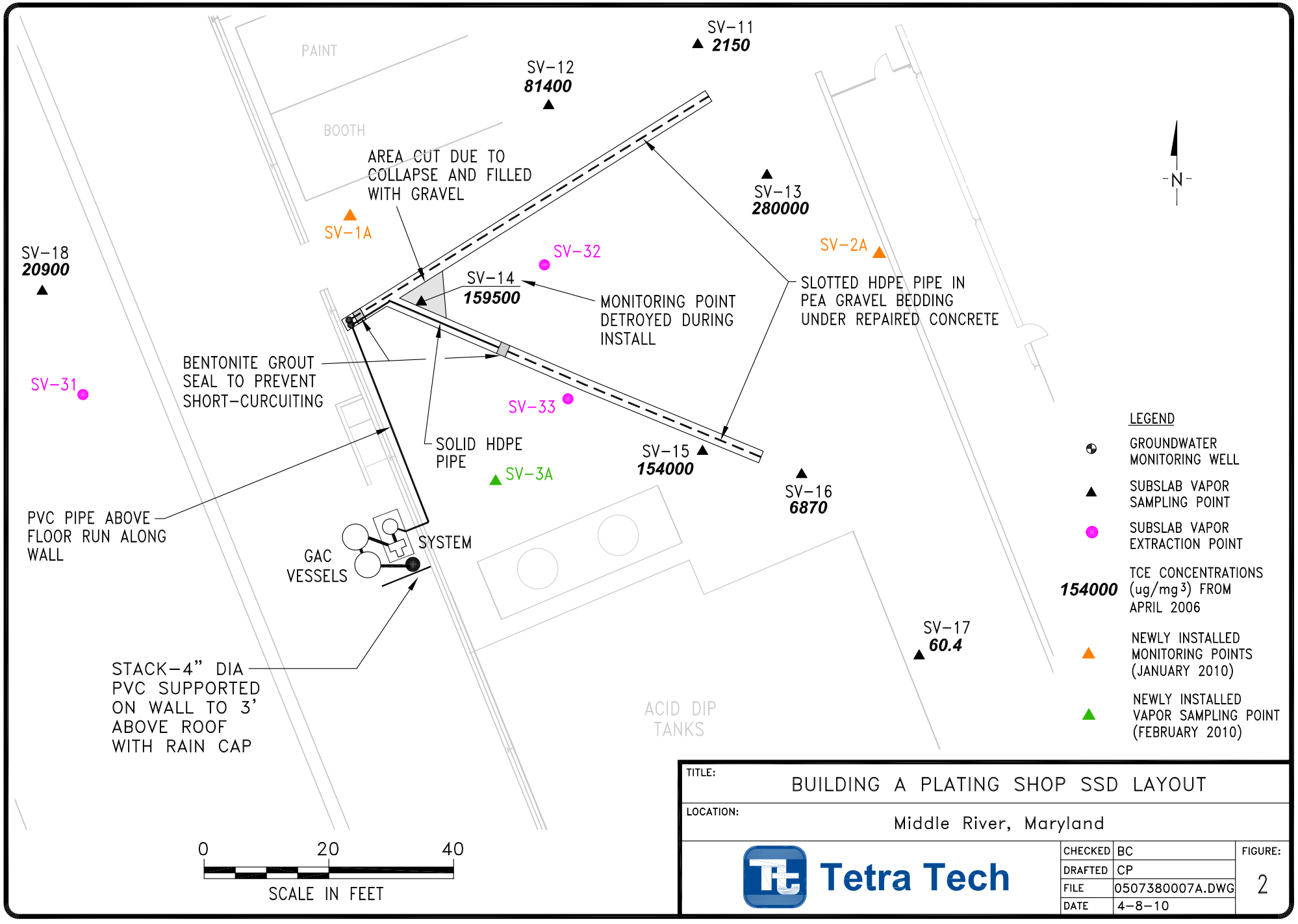
FIGURES





TETRA TECH, INC.

FIGURE 1
SSD SYSTEM LOCATIONS
MIDDLE RIVER, MARYLAND



TITLE: BUILDING A PLATING SHOP SSD LAYOUT

LOCATION: Middle River, Maryland

Tetra Tech

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DRAFTED	CP
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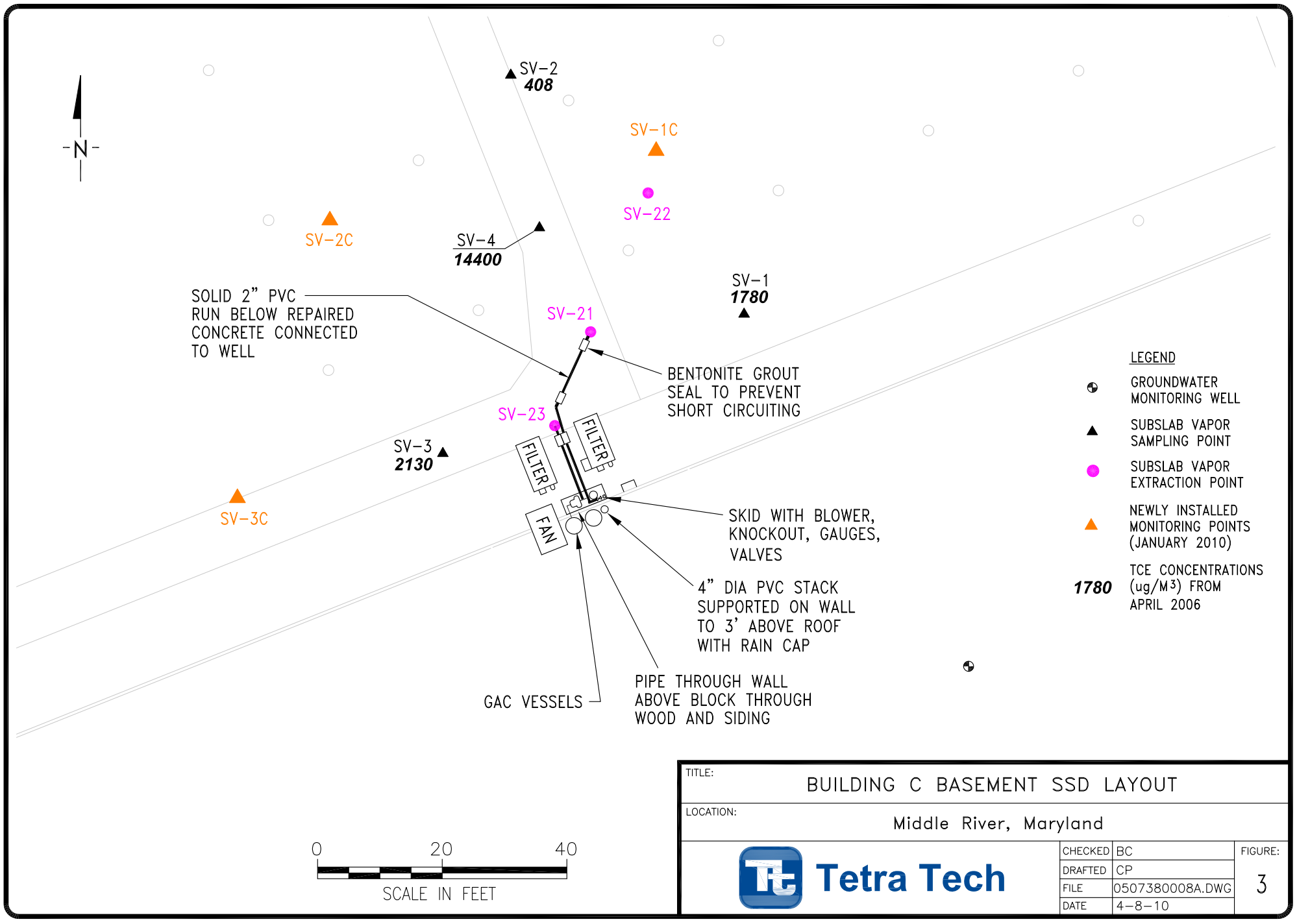
DATE	4-8-10

FIGURE: 2



TITLE: BUILDING C BASEMENT SSD LAYOUT

LOCATION: Middle River, Maryland

Tetra Tech

CHECKED	BC
DRAFTED	CP
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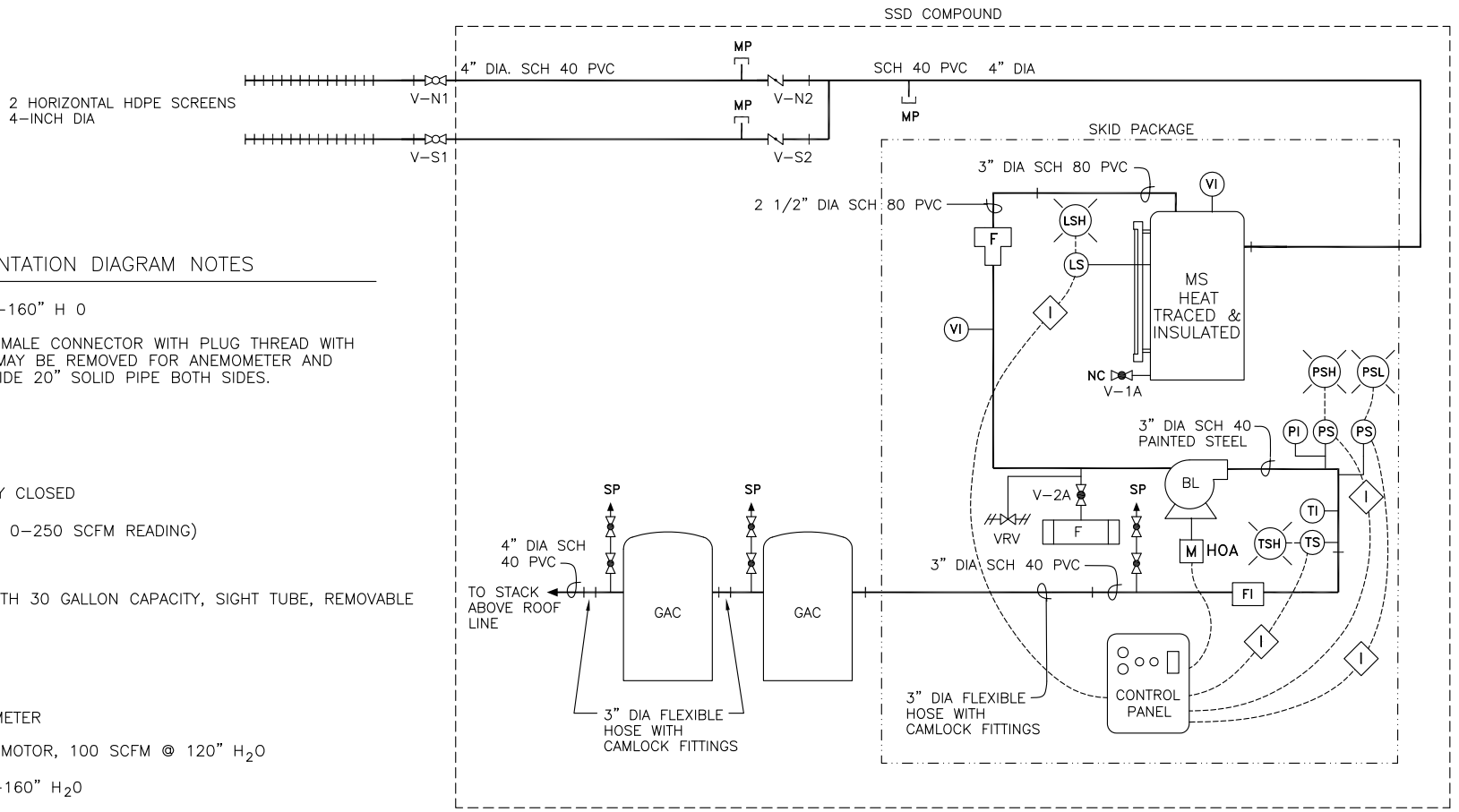
DATE	4-8-10

FIGURE: 3



PROCESS AND INSTRUMENTATION DIAGRAM NOTES

VI	VACUUM INDICATOR – 0–160" H 0
MP	MEASURING POINT 1/4" MALE CONNECTOR WITH PLUG THREAD WITH TEFLON TAPE. FITTING MAY BE REMOVED FOR ANEMOMETER AND VACUUM READINGS PROVIDE 20" SOLID PIPE BOTH SIDES.
	BUTTERFLY VALVE
	BALL VALVE
	BALL VALVE – NORMALLY CLOSED
FI	FLOW INDICATOR (DIRECT 0–250 SCFM READING)
F	INLET AIR FILTER
MS	MOISTURE SEPARATOR WITH 30 GALLON CAPACITY, SIGHT TUBE, REMOVABLE TOP, DRAIN VALVE
LS	LEVEL SWITCH
VRV	VACUUM RELIEF VALVE
SP	SAMPLE PORT 1/4" DIAMETER
BL	ROTRON DR833, 10 HP MOTOR, 100 SCFM @ 120" H_2O
PI	PRESSURE INDICATOR 0–160" H_2O
TS	TEMPERATURE SWITCH
GAC	GRANULAR ACTIVATED CARBON VAPOR TREATMENT (SIEMENS VENT SCRUB 200)
TI	TEMPERATURE INDICATOR 0–250° F
PS	PRESSURE SWITCH (LOW AND HIGH)
V–N1	PROCESS VALVE LABELS
HOA	PANEL MOUNTED HAND/OFF/AUTO SWITCH FOR BLOWER
I	INTERLOCK BLOWER SHUTDOWN
	LOCALLY MOUNTED INSTRUMENT
	PANEL ALARM LIGHT
H	HIGH
L	LOW

TITLE:

BUILDING A SYSTEM
PROCESS AND INSTRUMENTATION DIAGRAM

LOCATION: Middle River, Maryland

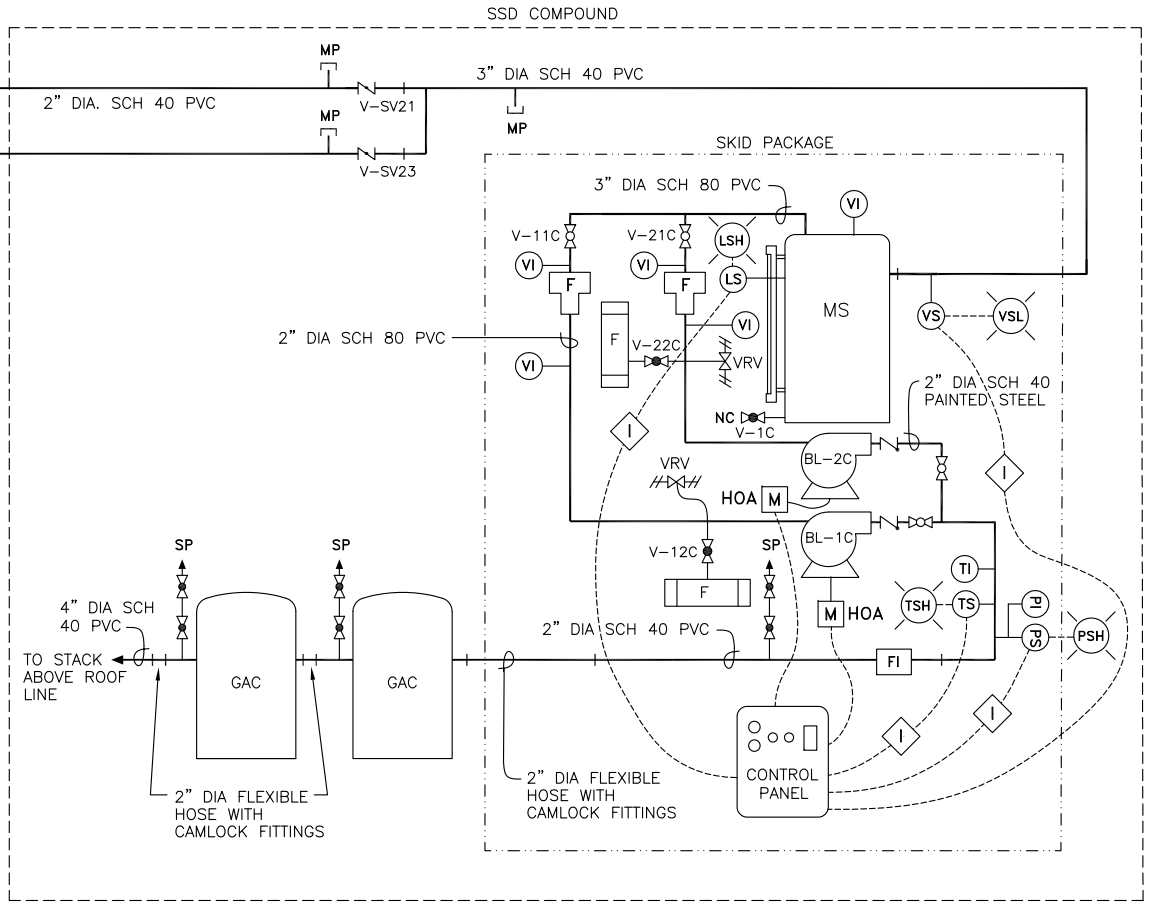
Tetra Tech

CHECKED	PR
DRAFTED	CP
FILE	0512038001A.DWG
DATE	8–31–09

FIGURE: 4

PROCESS AND INSTRUMENTATION DIAGRAM NOTES

VI	VACUUM INDICATOR – 0–160" H 0
MP	MEASURING POINT 1/4" MALE CONNECTOR WITH PLUG THREAD WITH TEFLON TAPE. FITTING MAY BE REMOVED FOR ANEMOMETER AND VACUUM READINGS PROVIDE 20" SOLID PIPE BOTH SIDES.
	BUTTERFLY VALVE
	BALL VALVE
	BALL VALVE – NORMALLY CLOSED
	CHECK VALVE
FI	FLOW INDICATOR (DIRECT 0–125 SCFM READING)
F	INLET AIR FILTER
MS	MOISTURE SEPARATOR WITH 30 GALLON CAPACITY, SIGHT TUBE, REMOVABLE TOP, DRAIN VALVE
LS	LEVEL SWITCH
VRV	VACUUM RELIEF VALVE
SP	SAMPLE PORT 1/4" DIAMETER
BL	ROTRON DR523, 3 HP MOTOR, 30 SCFM @ 80" H_2O
PI	PRESSURE INDICATOR 0–160" H_2O
TS	TEMPERATURE SWITCH
GAC	GRANULAR ACTIVATED CARBON VAPOR TREATMENT (SIEMENS VENT SCRUB 200)
TI	TEMPERATURE INDICATOR 0–250° F
PS	PRESSURE SWITCH (HIGH)
VS	VACUUM SWITCH (LOW)
V–SV21	PROCESS VALVE LABELS
HOA	PANEL MOUNTED HAND/OFF/AUTO SWITCH FOR BLOWER
I	INTERLOCK BLOWER SHUTDOWN
	LOCALLY MOUNTED INSTRUMENT
	PANEL ALARM LIGHT
H	HIGH
L	LOW



TITLE:

BUILDING C SYSTEM
PROCESS AND INSTRUMENTATION DIAGRAM

LOCATION: Middle River, Maryland

Tetra Tech

CHECKED	PR
DRAFTED	CP
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DATE	8–31–09

FIGURE: 5

FIGURE 6
INDUCED VACUUM
BUILDING A SSD SYSTEM

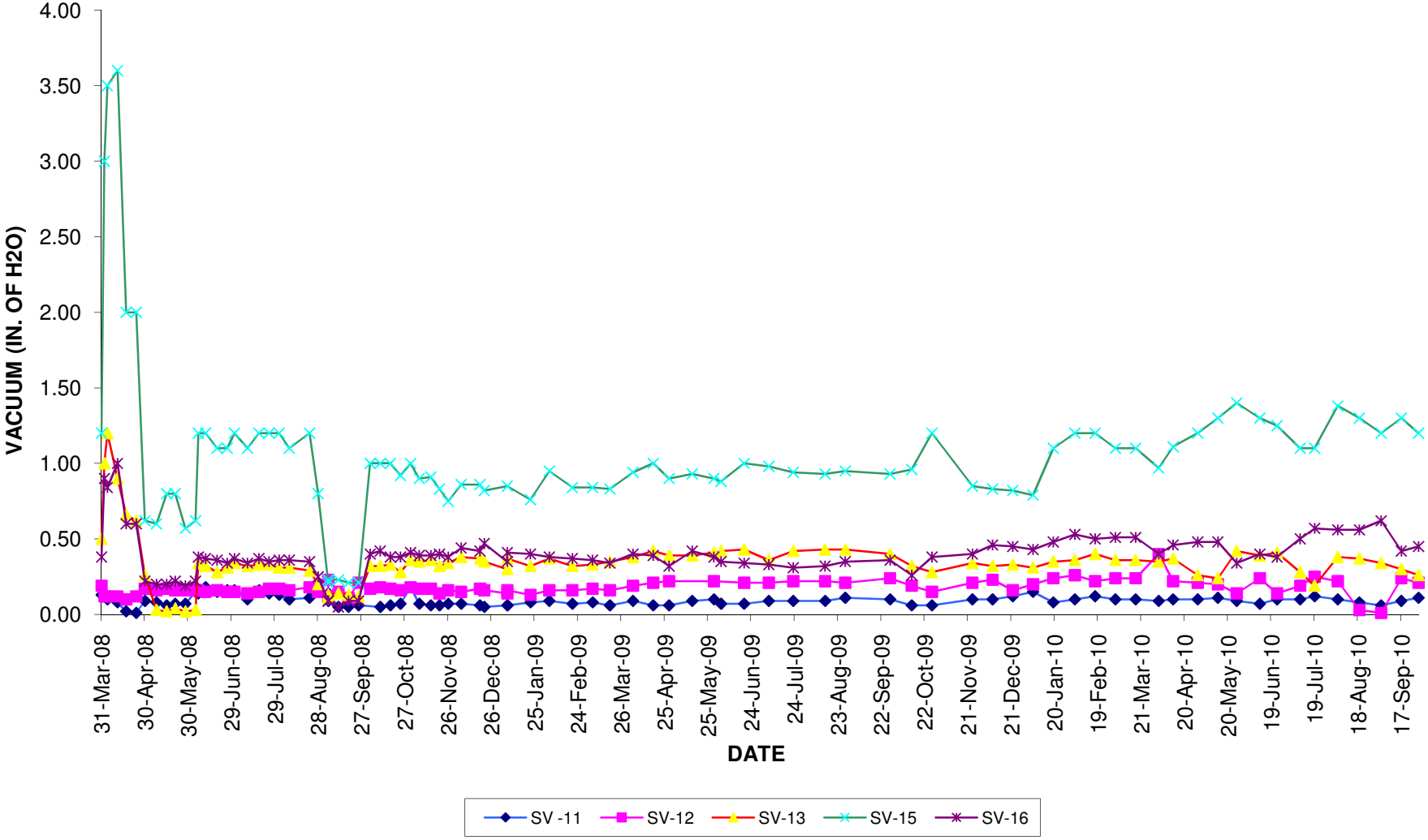
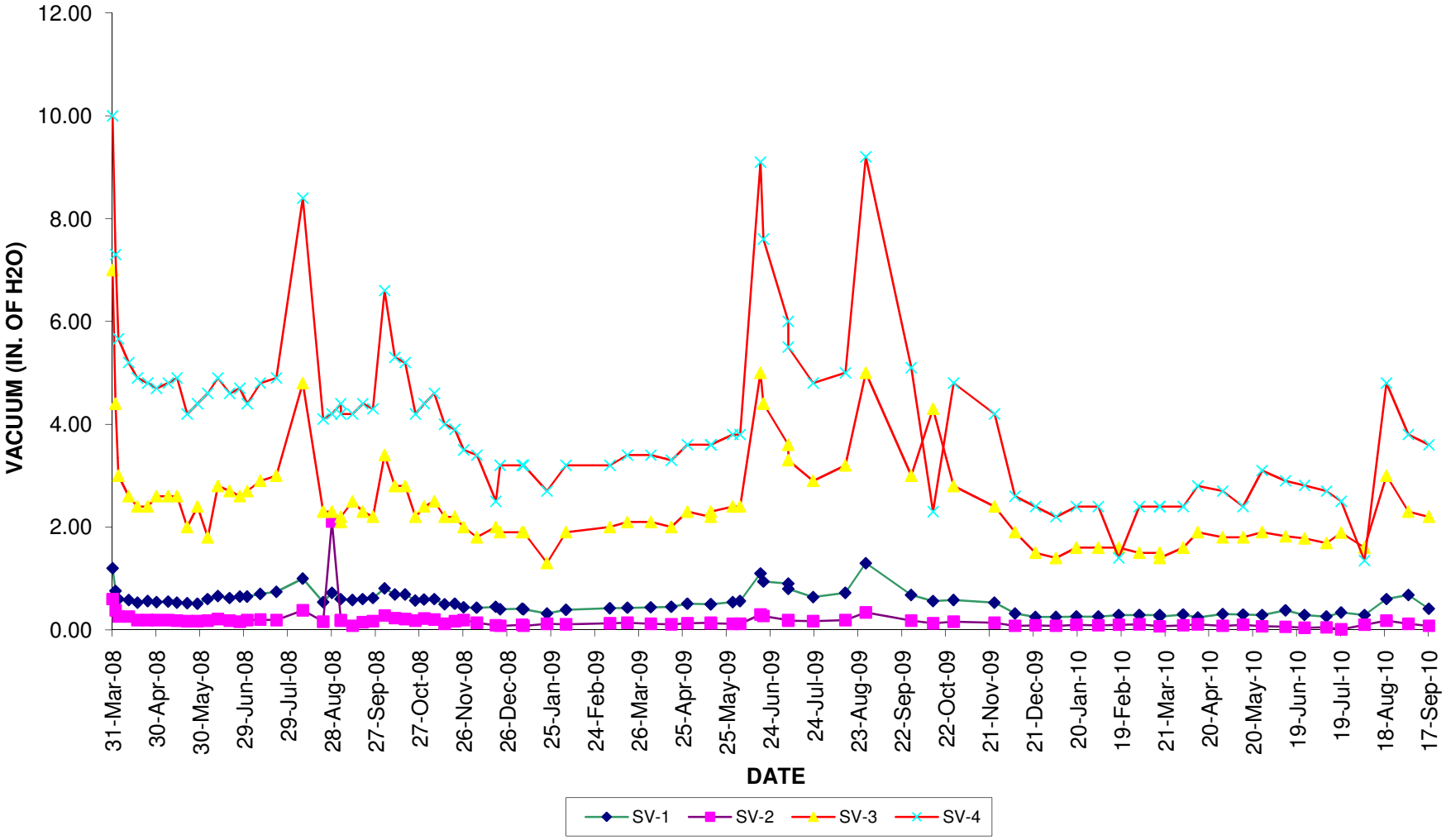
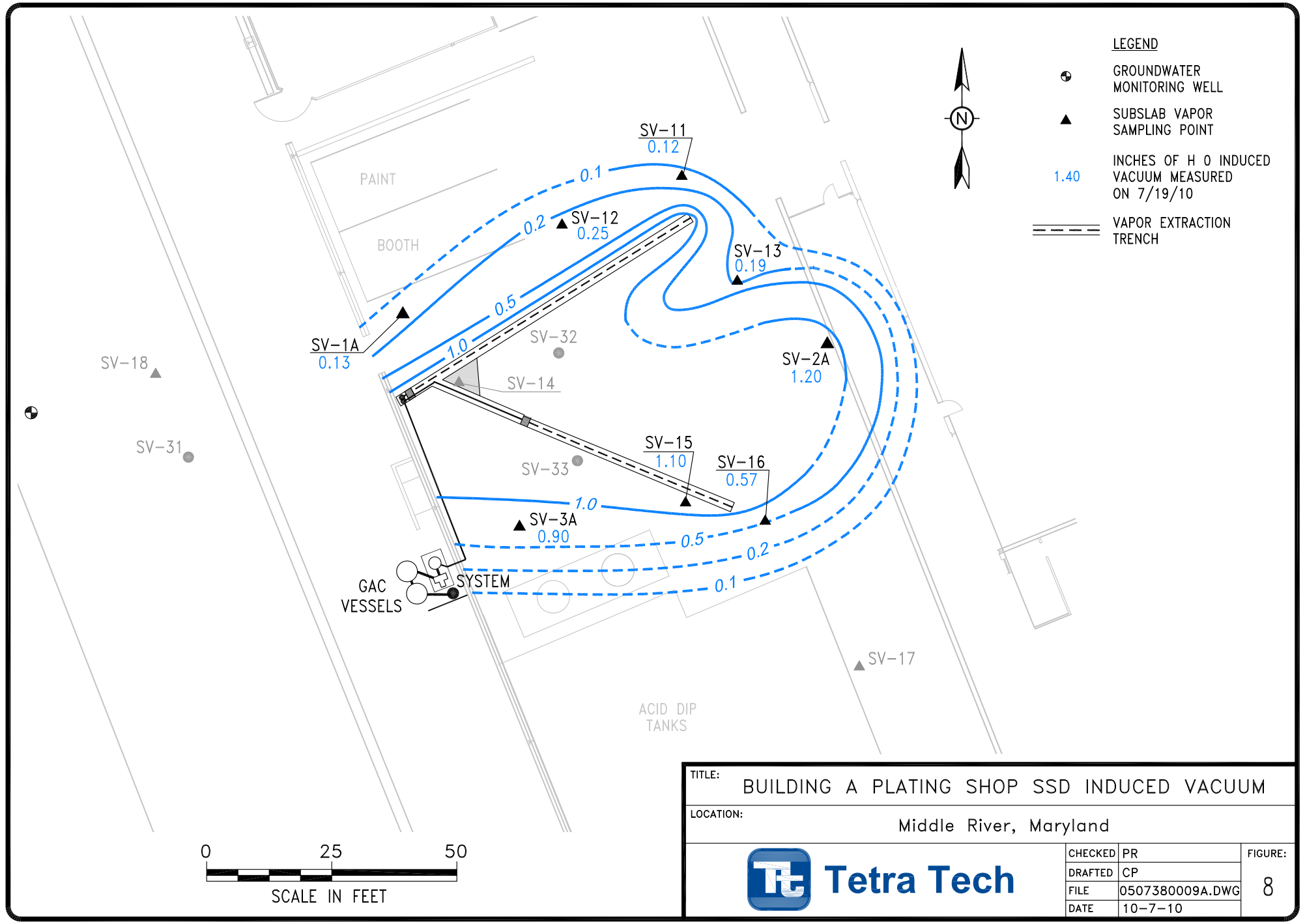


FIGURE 7
INDUCED VACUUM
BUILDING C SSD SYSTEM





TITLE: BUILDING A PLATING SHOP SSD INDUCED VACUUM

LOCATION: Middle River, Maryland

Tetra Tech

CHECKED	PR
DRAFTED	CP
FILE	0507380009A.DWG
DATE	10-7-10

FIGURE: 8

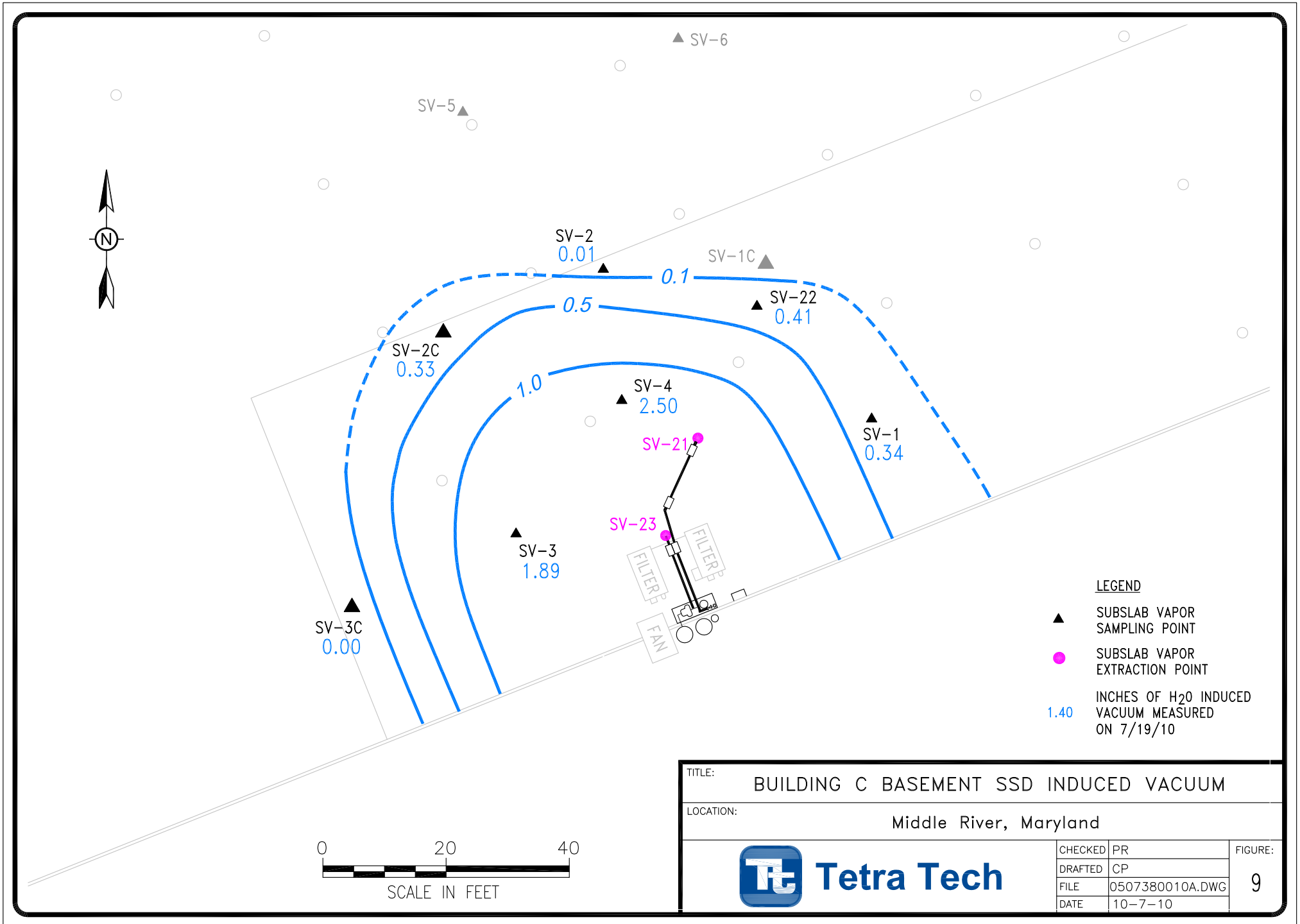

SV-6
SV-5
N
SV-2
0.01
SV-1C
0.1
SV-22
0.41
0.5
SV-2C
0.33
1.0
SV-4
2.50
SV-1
0.34
SV-21
SV-23
SV-3
1.89
FILTER
FILTER
FAN
SV-3C
0.00
LEGEND
SUBSLAB VAPOR SAMPLING POINT
SUBSLAB VAPOR EXTRACTION POINT
1.40
INCHES OF H2O INDUCED VACUUM MEASURED ON 7/19/10
0
20
40
SCALE IN FEET
TITLE:
BUILDING C BASEMENT SSD INDUCED VACUUM
LOCATION:
Middle River, Maryland
Tetra Tech
CHECKED PR
DRAFTED CP
FILE 0507380010A.DWG
DATE 10-7-10
FIGURE:
9

FIGURE 10
TOTAL INFLUENT VOCs
BUILDING A SSD SYSTEM

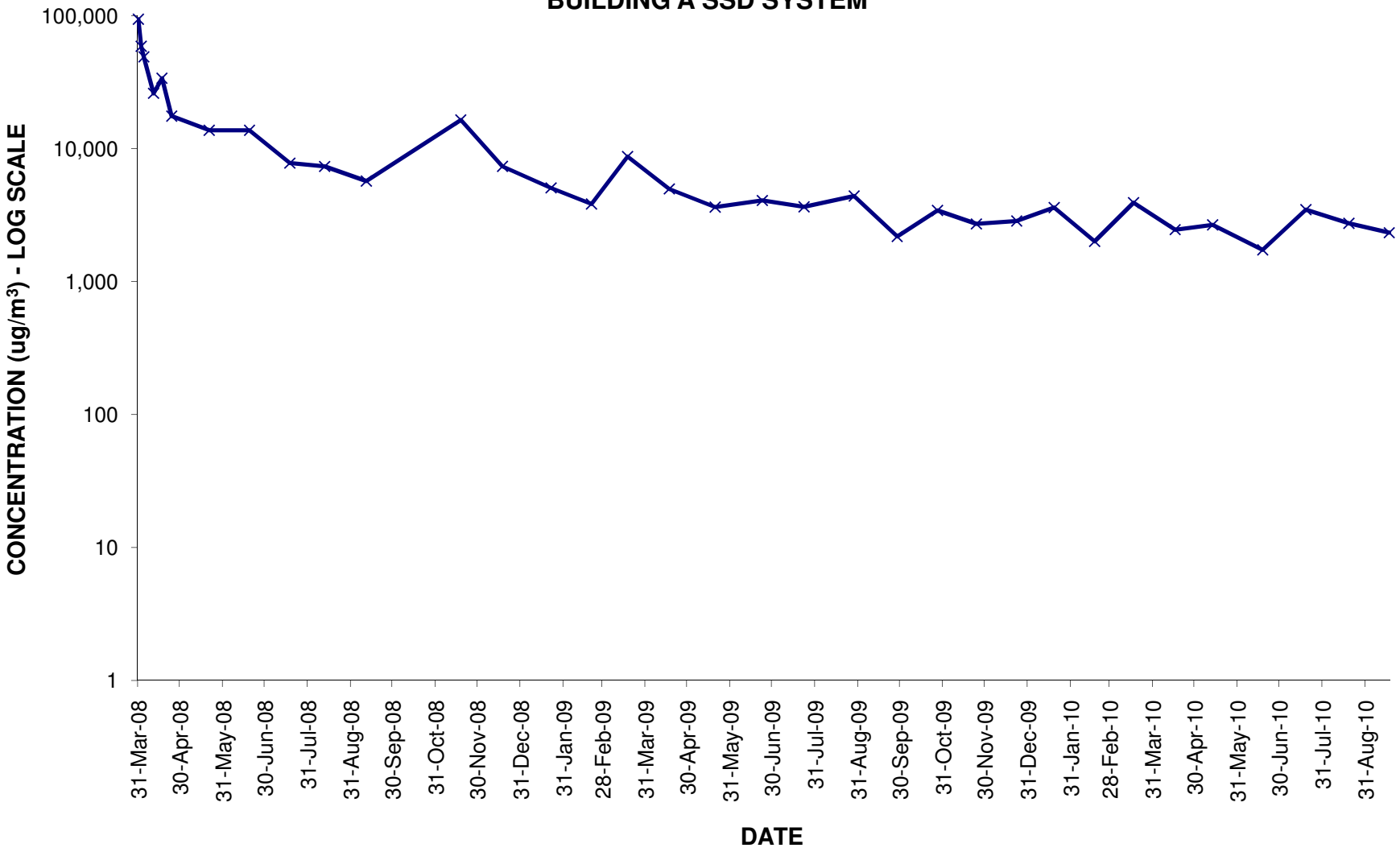
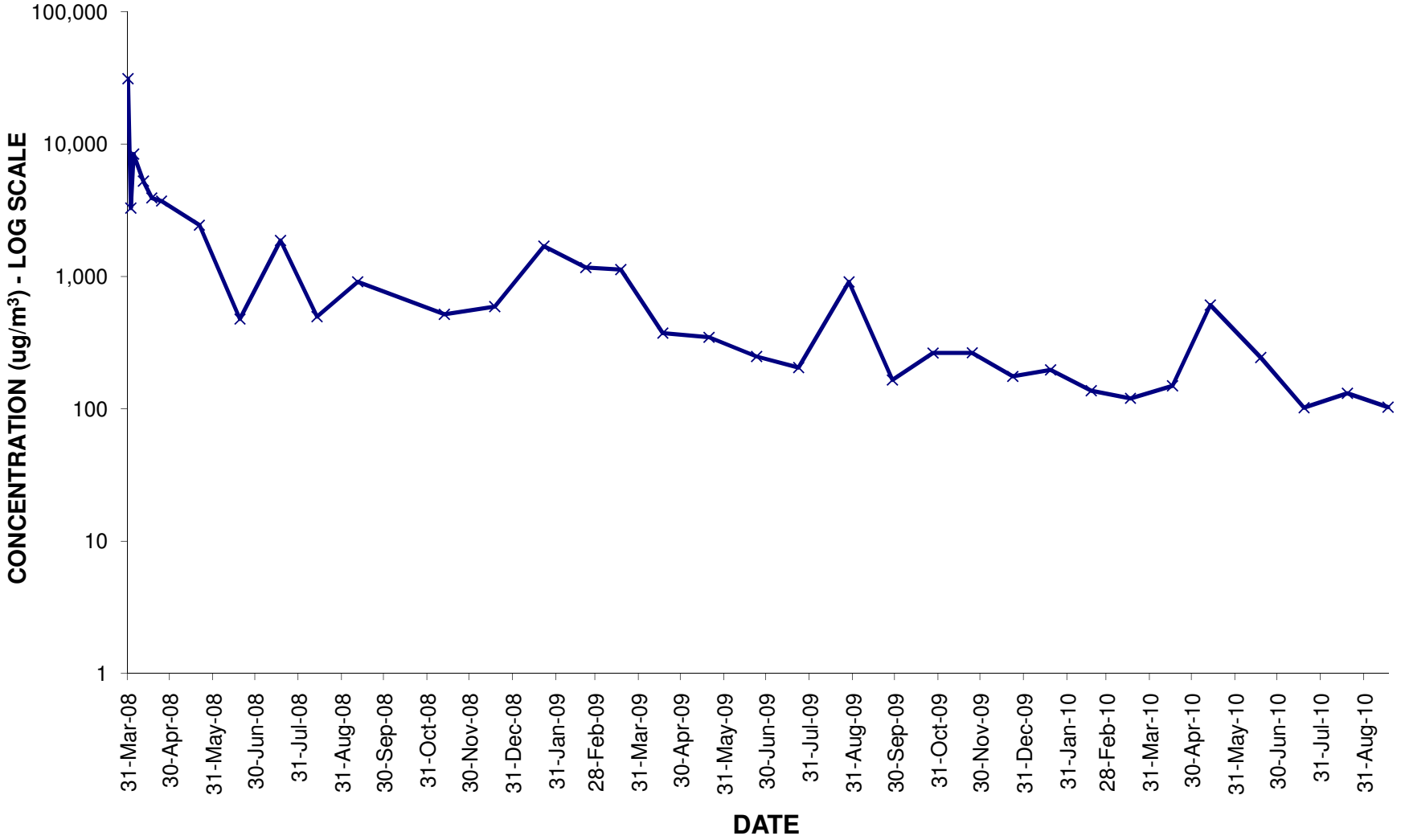


FIGURE 11
TOTAL INFLUENT VOCs
BUILDING C SSD SYSTEM



TABLES

TABLE 1
LABORATORY DATA SUMMARY
Building A - Pre GAC (ug/m^3)
SSD System O&M, Middle River Complex, Middle River, Maryland

Date	Benzene	1,1,1,-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	cis-1,2-Dichloroethene	Ethylbenzene	Methylene chloride	m-Xylene & p-Xylene	o-Xylene	Tetrachloroethene	Toluene	Trichloroethene	Trichlorofluoromethane	Vinyl chloride	Total VOCs (ug/m3)	Total VOCs (ppm v/v)**	Field PID Readings* (ppm)	Mass (lbs/day)	Mass (lbs removed in period)
3/31/2008	ND	30,000	2,100	7,900	ND	ND	8,300	300	ND	1,100	280	ND	330	44,000	ND	ND	94,310	18.69	90.0	1.190	3.570
4/2/2008	ND	16,000	660	4,500	ND	ND	3,800	ND	ND	ND	ND	ND	ND	34,000	ND	ND	58,960	11.62	20.0	0.740	1.480
4/4/2008	ND	13,000	460	3,300	ND	ND	2,300	ND	ND	ND	ND	ND	ND	30,000	ND	ND	49,060	9.41	26.2	0.620	4.340
4/11/2008	ND	9,100	280	1,500	ND	ND	1,100	ND	ND	ND	ND	ND	120	14,000	ND	ND	26,100	5.06	9.0	0.330	1.980
4/17/2008	ND	11,000	480	2,200	ND	ND	2,000	ND	ND	110	ND	ND	120	18,000	ND	ND	33,910	6.53	3.1	0.340	2.380
4/24/2008	ND	6,500	260	1,200	ND	ND	930	ND	ND	ND	ND	ND	86	8,600	ND	ND	17,576	3.42	1.7	0.130	3.510
5/21/2008	ND	6,000	320	950	ND	ND	1,000	ND	ND	ND	ND	ND	ND	5,500	ND	ND	13,770	2.68	0.6	0.100	3.100
6/19/2008	180	4,800	180	760	ND	ND	720	ND	ND	ND	ND	ND	ND	7,100	ND	ND	13,740	2.64	1.0	0.090	2.700
7/18/2008	ND	3,200	110	430	ND	ND	350	ND	ND	ND	ND	ND	ND	3,700	ND	ND	7,790	1.50	0.0	0.060	1.860
8/12/2008	ND	2,900	150	400	ND	ND	470	ND	ND	ND	ND	ND	28	3,400	ND	ND	7,348	1.44	0.3	0.040	1.240
9/11/2008	ND	1,900	130	430	ND	ND	380	ND	17	ND	ND	70	52	2,700	32	ND	5,711	1.11	1.4	0.040	2.440
11/18/2008	ND	6,500	300	1,100	ND	ND	1,300	ND	ND	ND	ND	ND	72	7,200	ND	ND	16,472	3.19	1.6	0.105	3.142
12/18/2008	ND	2,300	120	380	ND	ND	420	ND	ND	53	ND	ND	ND	4,100	ND	ND	7,373	1.44	0.8	0.056	1.724
1/22/2009	ND	2,100	110	380	ND	ND	380	ND	ND	ND	ND	ND	ND	2,100	ND	ND	5,070	0.93	0.9	0.038	1.185
2/20/2009	ND	1,600	78	260	ND	ND	270	ND	ND	ND	ND	ND	24	1,600	ND	ND	3,832	0.75	1.7	0.029	0.809
3/18/2009	ND	3,800	470	150	ND	ND	620	ND	ND	ND	ND	ND	ND	3,700	ND	ND	8,740	1.71	1.3	0.063	1.946
4/17/2009	ND	1,900	100	220	ND	ND	360	ND	ND	ND	ND	ND	ND	2,400	ND	ND	4,980	0.97	0.9	0.056	1.677
5/20/2009	ND	1,700	62	140	ND	ND	200	ND	ND	ND	ND	ND	32	1,500	ND	ND	3,634	0.70	1.3	0.041	1.264
6/23/2009	ND	1,700	77	200	ND	ND	280	ND	ND	ND	ND	ND	19	1,800	ND	ND	4,076	0.79	-	0.049	1.471
7/23/2009	ND	1,400	68	180	ND	ND	250	ND	27	ND	ND	ND	13	1,700	14	ND	3,652	0.72	0.8	0.044	1.352
8/28/2009	ND	1,900	79	200	ND	ND	280	ND	ND	ND	ND	ND	42	1,900	ND	ND	4,401	0.85	-	0.051	1.568
9/28/2009	ND	870	40	110	ND	ND	150	ND	ND	ND	ND	ND	13	1,000	ND	ND	2,183	0.43	-	0.025	0.735
10/27/2009	ND	1,500	64	210	ND	ND	230	ND	ND	9.7	ND	ND	20	1,400	ND	ND	3,434	0.66	0.0	0.026	0.803
11/24/2009	ND	1,200	43	180	ND	ND	180	ND	ND	ND	ND	ND	14	1,100	ND	ND	2,717	0.55	0.0	0.032	0.960
12/23/2009	ND	1,100	48	180	ND	ND	190	ND	ND	ND	ND	ND	39	1,300	ND	ND	2,857	0.57	1.2	0.035	1.074
1/19/2010	ND	1,500	67	180	ND	ND	240	ND	ND	ND	ND	ND	16	1,600	ND	ND	3,603	0.69	0.3	0.042	1.304
2/17/2010	ND	760	35	120	ND	ND	140	ND	ND	ND	ND	ND	24	930	ND	ND	2,009	0.39	1.2	0.023	0.657
3/17/2010	ND	1,500	62	190	ND	ND	250	ND	ND	ND	ND	ND	21	1,900	ND	ND	3,923	0.76	0.6	0.042	1.302
4/16/2010	ND	1,100	41	160	ND	ND	160	ND	ND	ND	ND	ND	ND	1,000	ND	ND	2,461	0.44	1.8	0.024	0.730
5/13/2010	ND	960	42	170	18	ND	170	19	ND	75	23	ND	95	1,100	ND	ND	2,672	0.53	0.0	0.026	0.819
6/18/2010	ND	630	24	110	130	28	96	12	ND	50	26	ND	15	600	12	ND	1,733	0.35	1.2	0.017	0.514
7/19/2010	ND	1,500	52	180	24	ND	220	ND	ND	ND	ND	ND	ND	1,500	ND	ND	3,476	0.66	0.0	0.034	1.066
8/19/2010	ND	1,200	45	170	ND	ND	200	ND	ND	ND	ND	ND	12	1,100	16	ND	2,743	0.54	0.5	0.027	0.841
9/17/2010	ND	860	35	150	ND	ND	140	ND	ND	ND	ND	ND	29	1,100	20	ND	2,334	0.45	1.3	0.023	0.692
Samples analyzed by EPA Method TO-15																					56.236

* Field PID readings collected using Tedlar bag.

** Sum of results in ppb(v/v) divided by 1000. This presents a value comparable to the field PID reading.

TABLE 2
LABORATORY DATA SUMMARY
Building A - Mid GAC (ug/m^3)
SSD System O&M, Middle River Complex, Middle River, Maryland

Date	1,1,1,-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	cis-1,2-Dichloroethene	Ethylbenzene	Methylene chloride	m-Xylene & p-Xylene	o-Xylene	Toluene	Trichloroethene	Vinyl chloride	Chloroform	Trichlorofluoromethane	Benzene	Total VOCs (ug/m3)	Total VOCs (ppm v/v)	Field PID Readings* (ppm)	Mass (lbs/day)
4/2/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.9	6.9	0	0.0	0.000
4/24/2008	2,100	240	2,200	ND	ND	810	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5,350	1.21	0.2	0.040
5/21/2008	410	100	740	ND	ND	280	ND	ND	ND	ND	ND	11	ND	ND	ND	ND	1,541	0.36	0.0	0.010
6/19/2008	1,200	830	2,200	ND	ND	2,300	ND	53	ND	ND	ND	ND	ND	ND	ND	110	6,693	1.60	0.2	0.040
7/18/2008	100	27	270	ND	ND	60	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	457	0.11	0.0	0.003
8/12/2008	1,500	130	400	ND	ND	60	ND	ND	ND	ND	ND	30	ND	15	16	ND	2,151	0.52	0.0	0.010
9/11/2008	890	170	520	ND	ND	ND	ND	ND	ND	ND	ND	53	ND	15	30	ND	1,678	0.45	1.1	0.010
11/18/2008	150	60	97	ND	ND	ND	ND	ND	ND	ND	ND	180	ND	ND	ND	ND	487	0.16	0.0	0.003
12/18/2008	51	38	330	ND	ND	98	ND	ND	ND	ND	ND	18	ND	ND	ND	ND	535	0.13	0.0	0.004
1/22/2009	25	19	490	ND	ND	42	ND	ND	ND	ND	ND	12	ND	ND	11	ND	599	0.14	0.1	0.005
2/20/2009	380	91	310	ND	ND	220	ND	ND	ND	ND	ND	68	ND	ND	ND	ND	1,069	0.24	0.9	0.008
3/18/2009	1,900	69	280	ND	ND	210	ND	ND	ND	ND	ND	190	ND	ND	ND	ND	2,649	0.53	0.0	0.007
4/17/2009	ND	ND	140	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	140	0.04	0.1	0.002
5/20/2009	200	42	140	ND	ND	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	492	0.11	0.3	0.006
6/23/2009	82	130	320	ND	ND	66	ND	ND	ND	ND	ND	ND	ND	ND	18	ND	616	0.15	-	0.007
7/23/2009	890	88	210	ND	ND	250	ND	ND	ND	ND	ND	ND	ND	ND	12	ND	1,450	0.30	0.0	0.017
8/28/2009	1,100	130	290	ND	ND	330	ND	ND	ND	ND	ND	ND	ND	ND	14	ND	1,864	0.38	-	0.021
9/28/2009	580	38	110	ND	ND	130	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	858	0.18	-	0.010
10/27/2009	180	94	260	ND	ND	170	ND	ND	ND	ND	ND	35	ND	ND	ND	ND	739	0.74	0.0	0.009
11/24/2009	710	84	210	ND	ND	250	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1,254	0.27	0.0	0.015
12/23/2009	19	30	180	ND	ND	28	ND	ND	ND	ND	ND	29	ND	ND	ND	ND	286	0.07	0.3	0.003
1/19/2010	16	100	260	ND	ND	190	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	566	0.14	0.0	0.007
2/17/2010	16	100	110	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	226	0.03	0.0	0.003
3/17/2010	ND	ND	19	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	19	0.00	0.2	0.000
4/16/2010	600	89	200	ND	ND	260	ND	ND	ND	ND	ND	14	ND	ND	ND	ND	1,163	0.25	1.6	0.013
5/13/2010	1,300	61	180	12	ND	260	15	ND	55	16	67	ND	ND	ND	13	13	1,992	0.40	0.0	0.021
6/18/2010	18	ND	19	76	16	20	ND	ND	25	14	ND	ND	ND	ND	ND	ND	188	0.06	0.5	0.002
7/19/2010	87	24	89	11	ND	74	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	285	0.07	0.0	0.003
8/19/2010	720	55	210	ND	ND	210	ND	ND	ND	ND	ND	ND	ND	ND	13	ND	1,208	0.24	0.0	0.012
9/17/2010	430	110	310	ND	ND	330	ND	ND	ND	ND	ND	ND	ND	ND	24	ND	1,204	0.27	0.2	0.012

Samples analyzed by EPA Method TO-15

* Field PID readings collected using Tedlar bag.

** Sum of results in ppb(v/v) divided by 1000. This presents a value comparable to the field PID reading.

TABLE 3
LABORATORY DATA SUMMARY
Building A - Post GAC (ug/m^3)
SSD System O&M, Middle River Complex, Middle River, Maryland

Date	Benzene	1,1,1,-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	cis-1,2-Dichloroethene	Ethylbenzene	Methylene Chloride	m-Xylene & p-Xylene	o-Xylene	Toluene	Trichloroethene	Trichlorofluoromethane	Vinyl chloride	Total VOCs (ug/m3)	Total VOCs (ppm v/v)	Field PID Readings* (ppm)	Mass (lbs/day)
3/31/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	0	0	0.000
4/2/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	0	0	0.000
4/4/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**110**	**110**	0	0	**0.001**
4/11/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	0	0	0.000
4/17/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	0	0	0.000
4/24/2008	ND	ND	**13**	**470**	ND	ND	**30**	ND	ND	ND	ND	ND	ND	ND	ND	**513**	**0.13**	0	**0.004**
5/21/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	0	0	0.000
6/19/2008	**76**	ND	**65**	**2,200**	ND	ND	**67**	ND	ND	ND	ND	ND	ND	ND	ND	**2,408**	**0.6**	**0.1**	**0.015**
8/1/2008	ND	ND	**15**	**300**	ND	ND	**14**	ND	ND	ND	ND	ND	ND	ND	ND	**329**	**0.082**	0.0	**0.005**
8/12/2008	ND	ND	**42**	**310**	ND	ND	**55**	ND	**19**	ND	ND	ND	ND	ND	ND	**426**	**0.108**	0.0	**0.005**
9/11/2008	ND	**11**	ND	**46**	ND	ND	ND	ND	**18**	ND	ND	ND	ND	ND	ND	**75**	**0.019**	10.1	**0.001**
11/18/2008	ND	ND	ND	ND	ND	ND	ND	ND	**61**	ND	ND	ND	ND	ND	ND	**61**	**0.018**	0.0	**0.000**
12/18/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	0	0.0	0.000
1/22/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	0	0.0	0.000
2/20/2009	ND	ND	ND	**110**	ND	ND	**10**	ND	ND	ND	ND	ND	ND	ND	ND	**120**	**0.032**	**0.4**	**0.000**
3/18/2009	ND	ND	ND	**14**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	14	**0.003**	**0.0**	**0.000**
4/17/2009	ND	**26**	**20**	**53**	ND	ND	**64**	ND	ND	ND	ND	ND	ND	ND	ND	163	**0.039**	**0.1**	**0.001**
5/20/2009	ND	**38**	ND	**46**	ND	ND	**9.9**	ND	ND	ND	ND	ND	ND	ND	ND	**63**	**0.021**	**0.8**	**0.000**
6/23/2009	ND	**44**	ND	ND	ND	ND	**11.0**	ND	ND	ND	ND	ND	ND	ND	ND	55	**0.011**	**-**	**0.000**
7/23/2009	ND	ND	**21**	**190**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**211**	**0.054**	**0.0**	**0.002**
8/28/2009	ND	**250**	**29**	**46**	ND	ND	**52**	ND	ND	ND	ND	**7.7**	ND	ND	ND	**385**	**0.079**	**-**	**0.003**
9/28/2009	ND	**93**	**19**	**100**	ND	ND	**27**	ND	ND	ND	ND	ND	ND	ND	ND	**239**	**0.054**	**-**	**0.002**
10/27/2009	ND	**24**	ND	ND	ND	ND	ND	ND	ND	ND	ND	**40**	ND	ND	ND	**64**	**0.015**	**0.0**	**0.001**
11/24/2009	ND	**21**	ND	**53**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**74**	**0.017**	**0.6**	**0.001**
12/23/2009	ND	**190**	**10**	**11**	ND	ND	**21**	ND	ND	ND	ND	**8.8**	**16**	ND	ND	**257**	**0.052**	**0.5**	**0.003**
1/19/2010	ND	**200**	**10**	**18**	ND	ND	**27**	ND	ND	ND	ND	ND	ND	ND	ND	**255**	**0.052**	**0.0**	**0.003**
2/17/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0**	**0.000**	**0.0**	**0.000**
3/17/2010	ND	**17**	ND	**20**	ND	ND	**11**	ND	ND	ND	ND	ND	**11**	ND	ND	**59**	**0.013**	**0.1**	**0.001**
4/16/2010	ND	**27**	**9.4**	**330**	ND	ND	**12**	ND	ND	ND	ND	ND	**31**	ND	ND	**409**	**0.100**	**1.3**	**0.004**
5/13/2010	**7.2**	**1,100**	**57.0**	**160**	**33**	ND	**250**	**19**	ND	**77**	**24**	**58**	**24**	**12**	ND	**1,821**	**0.376**	**0.0**	**0.019**
6/18/2010	ND	ND	ND	**90**	**62**	**13**	ND	ND	ND	**16**	**9.3**	ND	ND	ND	ND	**190**	**0.044**	**0.4**	**0.002**
7/19/2010	ND	**40**	ND	**100**	ND	ND	**8.7**	ND	ND	ND	ND	ND	**16**	ND	ND	**165**	**0.038**	**0.0**	**0.002**
8/19/2010	ND	**41**	**47**	**270**	ND	ND	**90**	ND	ND	ND	ND	ND	ND	**15**	ND	**463**	**0.113**	**1.2**	**0.005**
9/17/2010	ND	**120**	**39**	**260**	ND	ND	**88**	ND	ND	ND	ND	ND	ND	ND	ND	**507**	**0.118**	**0.5**	**0.01**

Samples analyzed by EPA Method TO-15

* Field PID readings collected using Tedlar bag.

** Sum of results in ppb(v/v) divided by 1000. This presents a value comparable to the field PID reading.

TABLE 4
LABORATORY DATA SUMMARY
Building C - Pre GAC (ug/m^3)
SSD System O&M, Middle River Complex, Middle River, Maryland

Date	Benzene	Chloroform	1,1,1,-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	cis-1,2-Dichloroethene	Ethylbenzene	Methylene chloride	m-Xylene & p-Xylene	o-Xylene	Tetrachloroethene	Toluene	Trichloroethene	Vinyl chloride	Total VOCs (ug/m3)	Total VOCs (ppm v/v)	Field PID Readings* (ppm)	Mass (lbs/day)	Removal in Time Period
3/31/2008	ND	ND	ND	ND	ND	**990**	**740**	**25,000**	**320**	ND	**1,100**	**370**	ND	ND	**550**	**2,100**	**31,170**	**8.1**	**31.5**	**0.1500**	0.450
4/2/2008	ND	ND	ND	ND	ND	**63**	**56**	**2,700**	ND	ND	**65**	ND	ND	ND	**84**	**320**	**3,288**	**0.9**	**20.0**	**0.0200**	0.040
4/4/2008	ND	ND	ND	ND	**32**	**180**	**170**	**6,600**	**44**	ND	**180**	**68**	ND	ND	**440**	**690**	**8,404**	**2.2**	**15.0**	**0.0500**	0.350
4/11/2008	ND	ND	ND	ND	ND	**73**	**61**	**4,100**	ND	ND	**48**	ND	ND	ND	**600**	**370**	**5,252**	**1.3**	**0.0**	**0.0300**	0.180
4/17/2008	ND	ND	ND	ND	ND	**69**	**55**	**2,900**	ND	ND	**34**	ND	ND	ND	**670**	**190**	**3,918**	**1.0**	**1.7**	**0.0200**	0.140
4/24/2008	ND	ND	ND	ND	ND	**85**	**70**	**2,600**	ND	ND	**32**	**17**	**28**	ND	**750**	**130**	**3,712**	**0.90**	**1.3**	**0.0200**	0.540
5/21/2008	ND	ND	ND	ND	ND	**65**	**51**	**1,600**	ND	ND	**15**	ND	**17**	ND	**650**	**41**	**2,439**	**0.56**	**0.2**	**0.0100**	0.310
6/19/2008	**7.4**	ND	ND	ND	ND	**23**	**19**	**300**	ND	ND	**9**	ND	ND	**110**	ND	**8**	**476**	**0.11**	**1.0**	**0.0030**	0.090
7/18/2008	ND	ND	ND	ND	ND	**45**	**36**	**1,300**	ND	ND	ND	ND	**14**	ND	**440**	**35**	**1,870**	**0.43**	**0.0**	**0.0090**	0.279
8/13/2008	ND	**16**	ND	ND	ND	ND	ND	**410**	ND	ND	ND	ND	ND	ND	**58**	**13**	**497**	**0.12**	**0.0**	**0.0030**	0.093
9/11/2008	ND	ND	**13**	ND	ND	ND	ND	**730**	ND	**18**	ND	ND	ND	ND	**130**	**20**	**911**	**0.22**	**21.6**	**0.0050**	0.305
11/12/2008	ND	ND	ND	ND	ND	ND	ND	**390**	ND	ND	ND	ND	ND	ND	**110**	**17**	**517**	**0.12**	**0.16**	**0.0029**	0.086
12/18/2008	ND	ND	ND	ND	ND	ND	ND	**420**	ND	ND	ND	ND	ND	ND	**150**	**22**	**592**	**0.15**	**0.20**	**0.0035**	0.105
1/22/2009	ND	ND	ND	ND	ND	**37**	**29**	**810**	ND	ND	**17**	**14**	**170**	ND	**580**	**38**	**1,695**	**0.36**	**0.68**	**0.0102**	0.306
2/21/2009	ND	ND	ND	ND	ND	**39**	**34**	**630**	ND	ND	**16**	**12**	**140**	ND	**270**	**25**	**1,166**	**0.26**	**4.73**	**0.0068**	0.204
3/18/2009	ND	ND	ND	ND	ND	**62**	**51**	**460**	ND	ND	**14**	**13**	**160**	ND	**350**	**16**	**1,126**	**0.24**	**1.21**	**0.0067**	0.200
4/17/2009	ND	ND	ND	ND	ND	**19**	**16**	**200**	ND	ND	ND	ND	**46**	ND	**86**	**6.1**	**373**	**0.08**	**1.50**	**0.0022**	0.066
5/20/2009	ND	ND	ND	ND	ND	**14**	**14**	**210**	ND	ND	ND	ND	**24**	ND	**79**	**5.7**	**347**	**0.08**	**1.20**	**0.0020**	0.060
6/23/2009	ND	ND	ND	ND	ND	ND	ND	**190**	ND	ND	ND	ND	ND	ND	**58**	ND	**248**	**0.06**	**-**	**0.0012**	0.037
7/23/2009	ND	ND	ND	ND	ND	ND	ND	**150**	ND	ND	ND	ND	ND	ND	**55**	ND	**205**	**0.05**	**0.00**	**0.0011**	0.033
8/28/2009	ND	ND	ND	ND	ND	ND	ND	**720**	ND	**17**	ND	ND	ND	ND	**160**	**13**	**910**	**0.22**	**-**	**0.0049**	0.147
9/28/2009	ND	ND	ND	ND	ND	ND	ND	**39**	ND	**110**	ND	ND	ND	ND	**16**	ND	**165**	**0.04**	**-**	**0.0009**	0.027
10/27/2009	ND	ND	ND	ND	ND	ND	ND	**200**	ND	ND	ND	ND	ND	ND	**64**	ND	**264**	**0.26**	**0.0**	**0.0014**	0.043
11/24/2009	ND	ND	ND	ND	ND	ND	ND	**190**	ND	ND	ND	ND	ND	ND	**75**	ND	**265**	**0.06**	**2.2**	**0.0014**	0.043
12/23/2009	ND	ND	ND	ND	ND	ND	ND	**96**	ND	ND	**8.7**	ND	ND	**26**	**45**	ND	**176**	**0.04**	**0.5**	**0.0010**	0.031
1/19/2010	ND	ND	ND	ND	ND	ND	ND	**140**	ND	ND	ND	ND	ND	ND	**57**	ND	**197**	**0.05**	**0.0**	**0.0011**	0.034
2/17/2010	ND	ND	ND	ND	ND	ND	ND	**100**	ND	ND	ND	ND	ND	ND	37	ND	**137**	**0.03**	**0.0**	**0.0008**	0.025
3/17/2010	ND	ND	ND	ND	ND	ND	ND	**87**	ND	ND	ND	ND	ND	ND	**33**	ND	**120**	**0.03**	**0.0**	**0.0010**	0.030
4/16/2010	ND	ND	ND	ND	ND	ND	ND	**110**	ND	ND	ND	ND	ND	ND	**39**	ND	**149**	**0.15**	**1.6**	**0.0016**	0.027
5/13/2010	**58**	ND	ND	ND	ND	**25**	ND	**65**	**38**	**ND**	**140**	**39**	ND	**220**	**22**	ND	**607**	**0.15**	**0.0**	**0.0037**	0.110
6/18/2010	ND	ND	ND	ND	ND	**83**	**17**	**72**	ND	ND	**30**	**17**	ND	ND	**25**	ND	**244**	**0.05**	**1.2**	**0.0014**	0.044
7/19/2010	ND	ND	ND	ND	ND	ND	ND	**68**	ND	ND	ND	ND	ND	ND	**34**	ND	**102**	**0.10**	**0.0**	**0.0006**	0.018
8/19/2010	ND	ND	ND	ND	ND	ND	ND	**100**	ND	ND	ND	ND	ND	ND	**31**	ND	**131**	**0.03**	**0.3**	**0.0007**	0.024
9/17/2010	ND	ND	ND	ND	ND	ND	ND	**70**	ND	ND	ND	ND	ND	ND	**33**	ND	**103**	**0.02**	**0.0**	**0.0006**	0.019
																					4.496 (lbs to date)

Samples analyzed by EPA Method TO-15

* Field PID readings collected using Tedlar bag.

** Sum of results in ppb(v/v) divided by 1000. This presents a value comparable to the field PID reading.

TABLE 5
LABORATORY DATA SUMMARY
Building C - Mid GAC (ug/m^3)
SSD System O&M, Middle River Complex, Middle River, Maryland

Date	Benzene	1,1,1,-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	cis-1,2-Dichloroethene	Ethylbenzene	Methylene chloride	m-Xylene & p-Xylene	o-Xylene	Toluene	Trichloroethene	Vinyl chloride	Total VOCs (ug/m3)	Total VOCs (ppm v/v)	Field PID Readings* (ppm)	Mass (lbs/day)
4/2/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**720**	**720**	**0.3**	0	**0.004**
4/24/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**230**	**230**	**0.09**	0	**0.001**
5/21/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**50**	**50**	**0.02**	0	**0.000**
6/19/2008	**28**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**51**	**79**	**0.03**	**0.2**	**0.000**
7/18/2008	ND	ND	ND	ND	ND	ND	**150**	ND	ND	ND	ND	ND	ND	**40**	**190**	**0.05**	0	**0.001**
8/13/2008	ND	ND	ND	ND	ND	ND	**750**	ND	ND	ND	ND	ND	ND	**15**	**765**	**0.20**	0	**0.004**
9/11/2008	ND	ND	ND	ND	ND	ND	**13**	ND	ND	ND	ND	ND	ND	**10**	**23**	**0.007**	**27.7**	**0.000**
11/12/2008	ND	ND	ND	ND	ND	ND	**160**	ND	**50**	ND	ND	ND	ND	**17**	**227**	**0.060**	0.0	**0.001**
12/18/2008	ND	ND	ND	ND	ND	ND	**180**	ND	ND	ND	ND	ND	ND	**25**	**205**	**0.054**	0.0	**0.001**
1/22/2009	ND	ND	ND	ND	ND	ND	**13**	ND	ND	ND	ND	ND	ND	**35**	**48**	**0.017**	0.0	**0.000**
2/20/2009	ND	ND	ND	ND	ND	ND	**14**	ND	ND	ND	ND	ND	ND	**15**	**29**	**0.009**	**1.7**	**0.000**
3/18/2009	ND	ND	ND	ND	ND	ND	**100**	ND	ND	ND	ND	ND	ND	**19**	**119**	**0.033**	**0.0**	**0.001**
4/17/2009	ND	ND	ND	ND	ND	ND	**340**	ND	ND	ND	ND	ND	ND	**7.1**	**347**	**0.090**	**0.3**	**0.002**
5/20/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0**	**0.000**	**1.0**	0.000
6/23/2009	ND	ND	ND	ND	ND	ND	**70**	ND	ND	ND	ND	ND	ND	**5.2**	**75**	**0.020**	**-**	**0.000**
7/23/2009	ND	ND	ND	ND	ND	ND	**360**	ND	**21**	ND	ND	ND	ND	ND	**381**	**0.097**	**0.0**	**0.002**
8/28/2009	ND	ND	ND	ND	ND	ND	ND	ND	**20**	ND	ND	ND	ND	ND	**20**	**0.006**	**-**	**0.000**
9/28/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0**	**0.000**	**-**	0.000
10/27/2009	ND	ND	ND	ND	ND	ND	**13**	ND	ND	ND	ND	ND	ND	ND	**13**	**0.013**	**0.0**	**0.000**
11/24/2009	ND	ND	ND	ND	ND	ND	**23**	ND	ND	ND	ND	ND	ND	ND	**23**	**0.023**	**0.0**	**0.000**
12/23/2009	ND	ND	ND	ND	ND	ND	**23**	ND	ND	ND	ND	**13**	ND	ND	**36**	**0.009**	**0.5**	**0.000**
1/19/2010	ND	ND	ND	ND	ND	ND	**21**	ND	ND	ND	ND	ND	ND	ND	**21**	**0.005**	**0.0**	**0.000**
2/17/2010	ND	ND	ND	ND	ND	ND	**23**	ND	ND	ND	ND	ND	ND	ND	**23**	**0.006**	**0.0**	**0.000**
3/17/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0**	**0.000**	**0.0**	**0.000**
4/16/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0**	**0.000**	**0.8**	**0.000**
5/13/2010	**15**	ND	ND	ND	ND	ND	**9.6**	**9.8**	ND	**36**	**10**	**51**	ND	ND	**131**	**0.034**	**0.0**	**0.001**
6/18/2010	ND	ND	ND	ND	**79**	**16**	ND	ND	ND	**26**	**15**	ND	ND	ND	**136**	**0.029**	**0.5**	**0.001**
7/19/2010	**11**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**11**	**0.011**	**0.0**	**0.000**
8/19/2010	ND	ND	ND	ND	ND	ND	**15**	ND	ND	ND	ND	ND	ND	ND	**15**	**0.004**	**0.2**	**0.000**
9/17/2010	**35**	ND	ND	ND	ND	ND	**26**	ND	ND	ND	ND	ND	ND	ND	**61**	**0.017**	**0.0**	**0.000**

Samples analyzed by EPA Method TO-15

* Field PID readings collected using Tedlar bag.

** Sum of results in ppb(v/v) divided by 1000. This presents a value comparable to the field PID reading.

TABLE 6
LABORATORY DATA SUMMARY
Building C - Post GAC (ug/m^3)
SSD System O&M, Middle River Complex, Middle River, Maryland

Date	Benzene	1,1,1,-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	cis-1,2-Dichloroethene	Ethylbenzene	Methylene chloride	m-Xylene & p-Xylene	o-Xylene	Toluene	Trichloroethene	Vinyl chloride	Total VOCs (ug/m3)	Total VOCs (ppm v/v)	Field PID Readings* (ppm)	Mass (lbs/day)
3/31/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0	0.00	0	0.000
4/2/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**170**	**170**	**0.07**	0	**0.001**
4/4/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**360**	**360**	**0.14**	0	**0.002**
4/11/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**25**	**550**	**575**	**2.15**	0	**0.003**
4/17/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**100**	**100**	**0.41**	0	**0.001**
4/24/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**260**	**260**	**0.10**	0	**0.001**
5/23/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**52**	**52**	**0.02**	0	**0.000**
6/19/2008	**51**	ND	ND	ND	ND	ND	ND	ND	**50**	ND	ND	ND	ND	**54**	**155**	**0.05**	0.1	**0.001**
7/18/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**29**	**29**	**0.01**	0	**0.000**
8/13/2008	ND	ND	ND	ND	**10**	ND	ND	ND	ND	ND	ND	ND	ND	**16**	**26**	**0.01**	0	**0.000**
9/11/2008	ND	ND	ND	ND	ND	ND	ND	ND	**63**	ND	ND	**28**	ND	**6.1**	**97**	**0.02**	**36.2**	**0.001**
11/12/2008	ND	ND	ND	ND	ND	ND	ND	ND	**47**	ND	ND	ND	ND	**16**	**63**	**0.019**	0.0	**0.000**
12/18/2008	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**31**	**31**	**0.012**	0.0	**0.000**
2/4/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**29**	**29**	**0.011**	0.0	**0.000**
2/20/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**6.8**	**7**	**0.003**	1.3	**0.000**
3/18/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**26**	**26**	**0.010**	0.0	**0.000**
4/17/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**8.9**	**9**	**0.004**	0.2	**0.000**
5/20/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0**	**0.000**	0.1	0.000
6/23/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	**9.4**	ND	ND	ND	**5.5**	**15**	**0.004**	-	**0.000**
7/23/2009	ND	ND	ND	ND	ND	ND	ND	ND	**29**	ND	ND	ND	ND	ND	**29**	**0.009**	0.0	**0.000**
8/28/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0**	**0.000**	**-**	0.000
9/28/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0**	**0.000**	**-**	0.000
10/27/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0**	**0.000**	**0.0**	0.000
11/24/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0**	**0.000**	**0.0**	0.000
12/23/2009	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**	ND	ND	**10**	**0.003**	**0.2**	0.000
1/19/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0**	**0.000**	**0.0**	0.000
2/17/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0**	**0.000**	**0.0**	0.000
3/17/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0**	**0.000**	**0.0**	0.000
4/16/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0**	**0.000**	**0.0**	0.000
5/13/2010	**36**	ND	ND	ND	**17**	ND	ND	**24**	**31**	**89**	**25**	**140**	ND	ND	**362**	**0.093**	**0.0**	0.002
6/18/2010	ND	ND	ND	ND	**68**	**16**	ND	ND	ND	**28**	**16**	ND	ND	ND	**128**	**0.027**	**0.0**	0.001
7/19/2010	**10**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**10**	**0.010**	**0.0**	0.000
8/19/2010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**0**	**0.000**	**2.0**	0.000
9/17/2010	**13**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**13**	**0.004**	**0.0**	0.000

Samples analyzed by EPA Method TO-15

* Field PID readings collected using Tedlar bag.

** Sum of results in ppb(v/v) divided by 1000. This presents a value comparable to the field PID reading.

APPENDIX A

SYSTEM FIELD DATA SHEETS

SSD SYSTEM FIELD DATA SHEET - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date/Time: 4/2/10 @ 1402 **Barometric Pressure:** _____

Field Personnel: DLM **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	**Time**	**Vacuum post-KO (in. H2O)**	**Vacuum post-Filter (in. H2O)**	**Pressure post-Blower (in. H2O)**	**Temp (°F)**	**Flow (scfm)**	**Leg Vacuum (in. H2O)**	**Leg Air Velocity (ft/min)**
Both	1403	2.4	22	50	126	115	—	—
North Leg	1412						1.5	1481
South Leg								517

PID READINGS (ppm)					
Location	**Time**	**Direct**	**Tedlar Bag**	**Breakthrough ?**	**Comments**
Pre-GAC	1409	0.8	0.6		
Mid-GAC	1407	0.2	0.1		
Post-GAC	1405	0.3	0.3		
Pre-GAC (N only)	—	—	—	**PID CALIBRATION? YES NO RESULT:** _____	
Pre-GAC (S only)	—	—	—		

MONITORING		
Well	**Time**	**Vacuum ("H2O)**
SV-11	1424	0.09
SV-12	1426	0.40
SV-13	1428	0.35
SV-15	1430	0.97
SV-16	1432	0.40
SV-1A	1434	0.14
SV-2A	1436	1.3
SV-3A	1438	0.80

Vapor Samples Taken (Summa Canister)

PRE MID POST (NONE)

1. Was the blower running upon arrival?

(YES) NO

2. Where there any alarm conditions upon arrival?

YES (NO) Comment: _____

3. Was the blower ambient air valve open?

YES (NO)

4. Was there water in the knockout (KO) tank?

YES (NO) Volume: _____

***Drain into drum** Drum Volume: _____

5. Was the vacuum/flow on either leg adjusted?

YES (NO) Which Leg? _____

6. Was there a GAC change out?

YES (NO)

ADDITIONAL COMMENTS:

Field Rep. Signature: _____ Date/Time: 4/2/10 @ 1437

SSD SYSTEM FIELD DATA SHEET - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date/Time: 4/12/10 1020 + 4/16/10

Field Personnel: TSM

Barometric Pressure: _____

Room Temperature: _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	1020	2.2	20	51	125	120	=	=
North Leg	1022						1.9	1414
South Leg	1024						2.0	660

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	0932	3.7	1.8		
Mid-GAC	0935	2.6	1.6		
Post-GAC	0930	2.3	1.3		
Pre-GAC (N only)				PID CALIBRATION? YES NO RESULT: _____	
Pre-GAC (S only)					

MONITORING		
Well	Time	Vacuum ("H2O)
SV-11	1153	.10
SV-12	1113	.22
SV-13	1158	.37
SV-15	1215	1.11
SV-16	1202	.46
SV-1A	1111	.16
SV-2A	1205	1.3
SV-3A	1208	.81

Vapor Samples Taken (Summa Canister)

(PRE) (MID) (POST) NONE

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   ***Drain into drum** Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES (NO) Which Leg? _____
6. **Was there a GAC change out?**
   YES (NO)

ADDITIONAL COMMENTS:

Broken PID coming Back later this week.

Field Rep. Signature: J. McArtyne

Date/Time: _____

SSD SYSTEM FIELD DATA SHEET - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date/Time: 4/29/10
Field Personnel: TSM

Barometric Pressure: 29.92 Hg
Room Temperature: 74.4°F

GENERAL SYSTEM CHECK

Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	1451	2.4	22	52	125	115	—	—
North Leg	1455						1.5	1414
South Leg	1501						1.6	539

PID READINGS (ppm)

Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	1341	0.0	0.0		
Mid-GAC	1346	0.0	0.0		
Post-GAC	1339	0.0	0.0		
Pre-GAC (N only)	—	—	—	PID CALIBRATION? (YES) NO RESULT: 98.1	
Pre-GAC (S only)	—	—	—		

MONITORING

Well	Time	Vacuum ("H2O)
SV-11	1517	.1
SV-12	1514	.21
SV-13	1319	.26
SV-15	1520	1.2
SV-16	1530	.98
SV-1A	1510	.16
SV-2A	1538	1.2
SV-3A	1534	.81

Vapor Samples Taken (Summa Canister)

PRE MID POST (NONE)

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   *Drain into drum Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES (NO) Which Leg? _____
6. **Was there a GAC change out?**
   YES (NO)

ADDITIONAL COMMENTS:

Watch? Sharpie Pens Pen Case
Clip Clock + Binder Clip

Field Rep. Signature: Tyler McArthur Date/Time: 4/29/10

SSD SYSTEM FIELD DATA SHEET - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date/Time: 5/13/10 0610 **Barometric Pressure:** _____

Field Personnel: TSM. **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	0711	20	30	50	120	119	—	—
North Leg	0708						1.5	1507
South Leg	0706						1.6	506

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	0713	0.0	0.0		
Mid-GAC	0715	0.0	0.0		
Post-GAC	0724	0.0	0.0		
Pre-GAC (N only)				PID CALIBRATION? YES NO RESULT: _____	
Pre-GAC (S only)					

MONITORING		
Well	Time	Vacuum ("H2O)
SV-11	0730	.11 LT
SV-12	0747	.20
SV-13	0750	.24 LT
SV-15	0758	1.3 N/A
SV-16	0755	.48
SV-1A	0745	.18 LT
SV-2A	0753	1.3 N/A
SV-3A	0801	.68

Vapor Samples Taken (Summa Canister)

(PRE) (MID) (POST) NONE

1. Was the blower running upon arrival?

(YES) NO

2. Where there any alarm conditions upon arrival?

YES (NO) Comment: _____

3. Was the blower ambient air valve open?

YES (NO)

4. Was there water in the knockout (KO) tank?

YES (NO) Volume: _____

***Drain into drum** Drum Volume: _____

5. Was the vacuum/flow on either leg adjusted?

YES (NO) Which Leg? _____

6. Was there a GAC change out?

YES (NO)

ADDITIONAL COMMENTS:

0753 Dawn stopped by

0801 Water in Well SV-3A

Field Rep. Signature: _____ Date/Time: 5/13/10

SSD SYSTEM FIELD DATA SHEET - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date/Time: 5/26/10 **Barometric Pressure:** _____

Field Personnel: TSM **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	1140	2.5	22	48	132	118	—	—
North Leg	1149						1.8	1553
South Leg	1155						1.9	568

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	1158	0.0	0.0		
Mid-GAC	1200	0.0	0.0		
Post-GAC	1202	0.0	0.0		
Pre-GAC (N only)	—	—	—	PID CALIBRATION? (YES) NO	RESULT: 97.7
Pre-GAC (S only)	—	—	—		

MONITORING			
Well	Time	Vacuum ("H2O)	
SV-11	1118	.09	
SV-12	1112	.14	#
SV-13	1122	.42	
SV-15	1106	1.4	
SV-16	1110	.34	#
SV-1A	1128	.16	#
SV-2A	1102	1.4	
SV-3A	1125	.84	

Vapor Samples Taken (Summa Canister)

PRE MID POST (NONE)

1. Was the blower running upon arrival?

(YES) NO

2. Where there any alarm conditions upon arrival?

YES (NO) Comment: _____

3. Was the blower ambient air valve open?

YES (NO)

4. Was there water in the knockout (KO) tank?

YES (NO) Volume: _____

*Drain into drum Drum Volume: _____

5. Was the vacuum/flow on either leg adjusted?

YES (NO) Which Leg? _____

6. Was there a GAC change out?

YES (NO)

ADDITIONAL COMMENTS:

tested also w/ sharpie

Field Rep. Signature: _____ Date/Time: 5/26/10

SSD SYSTEM FIELD DATA SHEET - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date/Time: 6-11-10 **Barometric Pressure:** _____

Field Personnel: TSM **Room Temperature:** _____

GENERAL SYSTEM CHECK

Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	0955	2.8	20	52	132	112		
North Leg	0957						1.5	1614
South Leg	0959						1.5	614

PID READINGS (ppm)

Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	0947	.7	1.2		
Mid-GAC	0950	0.0	.5		
Post-GAC	0953	0.3	N/A.4		
Pre-GAC (N only)				PID CALIBRATION? (YES) NO RESULT: 99.8	
Pre-GAC (S only)	-				

MONITORING

Well	Time	Vacuum ("H2O)
SV-11	1014	.07
SV-12	1011	.24
SV-13	1017	.39
SV-15	1004	1.3
SV-16	1008	.4
SV-1A	1020	.21
SV-2A	1002	1.5
SV-3A	1022	.82

Vapor Samples Taken (Summa Canister)

PRE MID POST (NONE)

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   *Drain into drum Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES (NO) Which Leg? _____
6. **Was there a GAC change out?**
   YES (NO)

ADDITIONAL COMMENTS:

Siemens dropped off / Pick-up

Field Rep. Signature: _____ Date/Time: 6/11/10

SSD SYSTEM FIELD DATA SHEET - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date/Time: 6/23/10 **Barometric Pressure:** _____

Field Personnel: TSM **Room Temperature:** _____

GENERAL SYSTEM CHECK

Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	1602	2.2	2.0	88	160	100	—	—
North Leg	1605							
South Leg	1608							

PID READINGS (ppm)

Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	1614	0.0	0.0		
Mid-GAC	1612	0.0	0.0		
Post-GAC	1610	0.0	0.4		
Pre-GAC (N only)	—	—	—	PID CALIBRATION? (YES) NO RESULT: 99.7	
Pre-GAC (S only)	—	—	—		

MONITORING

Well	Time	Vacuum ("H2O)
SV-11	1620	.1
SV-12	1622	.194
SV-13	1625	.41
SV-15	1636	1.25
SV-16	1633	.38
SV-1A	1640	.19
SV-2A	1630	1.4
SV-3A	1628	.79

Vapor Samples Taken (Summa Canister)

PRE MID POST (NONE)

1. Was the blower running upon arrival?

(YES) NO

2. Where there any alarm conditions upon arrival?

YES (NO) Comment: _____

3. Was the blower ambient air valve open?

YES (NO)

4. Was there water in the knockout (KO) tank?

YES (NO) Volume: _____

*Drain into drum Drum Volume: _____

5. Was the vacuum/flow on either leg adjusted?

YES (NO) Which Leg? _____

6. Was there a GAC change out?

YES (NO)

ADDITIONAL COMMENTS:

Need Duct Tape; Batteries

Field Rep. Signature: J. McIntyre Date/Time: 6/23/10

July I

SSD SYSTEM FIELD DATA SHEET - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date/Time: 7/9/10 **Barometric Pressure:** _____

Field Personnel: TSM **Room Temperature:** _____

GENERAL SYSTEM CHECK

Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	1030	2.3	24	58	135	110	—	—
North Leg							1.6	1502
South Leg							1.6	571

PID READINGS (ppm)

Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	1035	0.0	0.4		
Mid-GAC	1038	0.0	0.1		
Post-GAC	1041	0.0	0.0		
Pre-GAC (N only)				PID CALIBRATION? YES (NO) RESULT: 100.1	
Pre-GAC (S only)				BUMP	

MONITORING

Well	Time	Vacuum ("H2O)
SV-11	1057	.1
SV-12	1048	.19
SV-13	1059	.28
SV-15	1049	1.1
SV-16	1103	.5
SV-1A	1045	.10
SV-2A	1052	1.4
SV-3A	1054	.79

Vapor Samples Taken (Summa Canister)

PRE MID POST NONE

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   ***Drain into drum** Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES (NO) Which Leg? _____
6. **Was there a GAC change out?**
   (YES) NO

ADDITIONAL COMMENTS:

BAD DRUM → High Temp → Melted PVC

Replaced w/ CPVC

Field Rep. Signature: _____ Date/Time: 7/9/10

July II

SSD SYSTEM FIELD DATA SHEET - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date/Time: 7/19/10 1300 **Barometric Pressure:** _____

Field Personnel: TSM **Room Temperature:** _____

GENERAL SYSTEM CHECK

Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	1300	2.8	22	53	140	110		
North Leg	1257						1.5	1613
South Leg	1258						1.5	575

PID READINGS (ppm)

Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	1303	0.0	0.0		
Mid-GAC	1307	0.0	0.0		
Post-GAC	1310	0.0	0.0		
Pre-GAC (N only)				PID CALIBRATION? YES NO RESULT: _____	
Pre-GAC (S only)					

MONITORING

Well	Time	Vacuum ("H2O)
SV-11	1327	.12
SV-12	1315	.25
SV-13	1330	.19
SV-15	1321	1.10
SV-16	1336	.57
SV-1A	1318	.13
SV-2A	1332	1.2
SV-3A	1324	.90

Vapor Samples Taken (Summa Canister)

(PRE) (MID) (POST) NONE

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   *Drain into drum Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES (NO) Which Leg? _____
6. **Was there a GAC change out?**
   YES (NO)

ADDITIONAL COMMENTS:

Field Rep. Signature: J. M. Whyn Date/Time: 7/19/10

SSD SYSTEM FIELD DATA SHEET - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date/Time: TSM+PAR 8-4-10 **Barometric Pressure:** _____

Field Personnel: _____ **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	0915	2.6	21	60	141	115	—	—
North Leg	0917						1.6	1379
South Leg	0924						1.5	460

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	0934	20.9	5.3		
Mid-GAC	0937	11.7	2.8		
Post-GAC	0939	4.5	1.3		
Pre-GAC (N only)				PID CALIBRATION? (YES) NO RESULT: 99.4	
Pre-GAC (S only)					

MONITORING		
Well	Time	Vacuum ("H2O)
SV-11	0946	0.10
SV-12	0944	0.22
SV-13	0948	0.38
SV-15	0956	1.38
SV-16	0952	0.56
SV-1A	0943	0.14
SV-2A	0949	1.40
SV-3A	0953	0.80

Vapor Samples Taken (Summa Canister)

PRE MID POST (NONE)

1. Was the blower running upon arrival?

(YES) NO

2. Where there any alarm conditions upon arrival?

YES (NO) Comment: _____

3. Was the blower ambient air valve open?

YES (NO)

4. Was there water in the knockout (KO) tank?

YES (NO) Volume: _____

*Drain into drum Drum Volume: _____

5. Was the vacuum/flow on either leg adjusted?

YES (NO) Which Leg? _____

6. Was there a GAC change out?

YES (NO)

ADDITIONAL COMMENTS:

Field Rep. Signature: J. McIntyre Date/Time: 8-4-10

SSD SYSTEM FIELD DATA SHEET - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date/Time: 8-19-10/1020 **Barometric Pressure:** _____

Field Personnel: SC **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	1022	2.4	20	70	142	110	—	—
North Leg	1023						1.5	1043
South Leg	1024						1.6	1016

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	1100	1.1	0.5	NO	
Mid-GAC	1101	0.2	0.0	↓	
Post-GAC	1102	4.4	1.2	↓	
Pre-GAC (N only)	—	—	—	PID CALIBRATION? (YES) NO RESULT: 105	
Pre-GAC (S only)	—	—	—		

MONITORING		
Well	Time	Vacuum ("H2O)
SV-11	1033	0.08
SV-12	1034	0.03
SV-13	1035	0.37
SV-15	1036	1.3
SV-16	1037	0.56
SV-1A	1038	NA
SV-2A	1039	1.2
SV-3A	1040	0.73

Vapor Samples Taken (Summa Canister)

(PRE) (MID) (POST) NONE

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   ***Drain into drum** Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES (NO) Which Leg? _____
6. **Was there a GAC change out?**
   YES (NO)

ADDITIONAL COMMENTS:

SV-1A - manhole flooded. Removed water & still got no reading. There appears to be some water in tube. May need a vacuum pump to evacuate water if cant get a reading next time.

Field Rep. Signature: _____ Date/Time: 8-19-10

SSD SYSTEM FIELD DATA SHEET - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date/Time: 9-3-10 / 1045 **Barometric Pressure:** _____

Field Personnel: SC **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	1046	2.4	20	68	142	105	–	–
North Leg	1050						1.4	1445
South Leg	1051						1.6	212

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	1120	0.7	0.6	No	
Mid-GAC	1121	0.0	0.0	↓	
Post-GAC	1122	0.6	0.6		
Pre-GAC (N only)	–	–	–	PID CALIBRATION? (YES) NO RESULT: 99.8	
Pre-GAC (S only)	–	–	–		

MONITORING		
Well	Time	Vacuum ("H2O)
SV-11	1100	0.06
SV-12	1059	0.01
SV-13	1101	0.34
SV-15	1104	1.2
SV-16	1102	0.62
SV-1A	1058	0.14
SV-2A	1103	1.2
SV-3A	1105	0.71

Vapor Samples Taken (Summa Canister)

PRE MID POST (NONE)

1. Was the blower running upon arrival?

(YES) NO

2. Where there any alarm conditions upon arrival?

YES (NO) Comment: _____

3. Was the blower ambient air valve open?

YES (NO)

4. Was there water in the knockout (KO) tank?

YES (NO) Volume: _____

*Drain into drum Drum Volume: _____

5. Was the vacuum/flow on either leg adjusted?

YES (NO) Which Leg? _____

6. Was there a GAC change out?

YES (NO)

ADDITIONAL COMMENTS: NEED MORE SHEETS

Field Rep. Signature: _____ Date/Time: 9-3-10 / 1130

SSD SYSTEM FIELD DATA SHEET - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date/Time: 9/17/10 1400 **Barometric Pressure:** _____

Field Personnel: TM **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	1540	2.4	22	56	134	108	—	—
North Leg	1548						1.6	1330
South Leg	1551						1.8	632

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	1442	1.0	1.3		
Mid-GAC	1445	0.0	0.2		
Post-GAC	1448	0.4	0.5		
Pre-GAC (N only)				PID CALIBRATION? (YES) NO RESULT: 100.1	
Pre-GAC (S only)					

MONITORING			
Well	Time	Vacuum ("H2O)	
SV-11	1554	.09	
SV-12	1600	.24	
SV-13 9/16	1620	.30	-3
SV-15	1557	1.3	
SV-16 9/16	1625	.42	-2
SV-1A 9/16	1623	0.1	-1
SV-2A	1603	1.4	
SV-3A	1609	.85	

Vapor Samples Taken (Summa Canister)

(PRE) (MID) (POST) NONE

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   *Drain into drum Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES (NO) Which Leg? _____
6. **Was there a GAC change out?**
   (YES) NO G.C. on 9/13/10

ADDITIONAL COMMENTS:

Defective Drum Removed Post Sampling

New GAC in Place 9/17/10

Field Rep. Signature: _____ Date/Time: 9/17/10 1630

September II

SSD SYSTEM FIELD DATA SHEET - BUILDING A

LMC Middle River Complex, Middle River, Maryland

Date/Time: 9/29/10 **Barometric Pressure:** _____

Field Personnel: TSM **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	0902	2.3	24	60	150	100		
North Leg	0905						1.6	1460
South Leg	0906						1.8	650

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	0910	0.4	0.8		
Mid-GAC	0914	0.0	0.6		
Post-GAC	0920	0.0	0.2		
Pre-GAC (N only)				PID CALIBRATION? (YES) NO RESULT: 99.6	
Pre-GAC (S only)					

MONITORING		
Well	Time	Vacuum ("H2O)
SV-11	0930	.11
SV-12	0938	.21
SV-13	0941	.26
SV-15	0935	1.2
SV-16	0945	.45
SV-1A	0933	.13
SV-2A	0948	1.5
SV-3A	0952	.81

Vapor Samples Taken (Summa Canister)

PRE MID POST (NONE)

1. Was the blower running upon arrival?

(YES) NO

2. Where there any alarm conditions upon arrival?

YES (NO) Comment: _____

3. Was the blower ambient air valve open?

YES (NO)

4. Was there water in the knockout (KO) tank?

YES (NO) Volume: _____

*Drain into drum Drum Volume: _____

5. Was the vacuum/flow on either leg adjusted?

YES (NO) Which Leg? _____

6. Was there a GAC change out?

YES (NO)

ADDITIONAL COMMENTS:

Field Rep. Signature: J. McIntyre Date/Time: 9/29/10 1001

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: 11/5/10 @ 1040
Field Personnel: DLM

Barometric Pressure: _____
Room Temperature: _____

GENERAL SYSTEM CHECK

Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	1050	14	21	16	96	66	—	—
SV-21	1107						16	1325
SV-23	1110						17	1964

PID READINGS (ppm)

Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	1104	0.0	0.0	—	
Mid-GAC	1101	0.0	0.0	No	
Post-GAC	1058	0.0	0.0	No	
Pre-GAC (21 only)	—	—	—	PID CALIBRATION? YES NO RESULT: _____	
Pre-GAC (23 only)	—	—	—		

MONITORING

Well	Time	Vacuum ("H2O)
SV-1	1112	0.25
SV-2	1118	0.08*
SV-3	1116	1.4
SV-4	1114	2.2
SV-5	1120	0.0
SV-6	1122	0.0

Vapor Samples Taken (Summa Canister)

PRE MID POST (NONE)

Blower(s) in Use

Blower 1 (Blower 2)

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   ***Drain into drum** Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES (NO) Which Leg? _____
6. **Was there a GAC change out?**
   YES (NO)

ADDITIONAL COMMENTS:

1051 - Switch system to Blower 2.
* ~~Drained~~ Boiled H_2O from casing.

Field Rep. Signature: Dawn L Mushinski

Date/Time: 11/5/10 @ 1130

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: 1/19/10 @ 0815 **Barometric Pressure:** _____

Field Personnel: DLM **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	0830	16	22	14	102	65	—	—
SV-21	0921						16	1394
SV-23	0920						18	2000

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	0845	0.0	0.0	—	P.I.D. 2000
Mid-GAC	0843	0.0	0.0	No	
Post-GAC	0840	0.0	0.0	No	
Pre-GAC (21 only)	—	—	—	PID CALIBRATION? (YES) NO RESULT: 110ppm	
Pre-GAC (23 only)	—	—	—		

MONITORING		
Well	Time	Vacuum ("H2O)
SV-1	0851	0.26 ①
SV-2	0936	0.10 ②
SV-3	0926	1.6
SV-4	0925	2.4
SV-5	0929	0.000
SV-6	0932	0.000

Vapor Samples Taken (Summa Canister)

(PRE) (MID) (POST) NONE

Blower(s) in Use

Blower 1 (Blower 2)

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   *Drain into drum Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES (NO) Which Leg? _____
6. **Was there a GAC change out?**
   YES (NO)

ADDITIONAL COMMENTS:

SV-1C = 0.000 ④
SV-2C = 0.36 ③
SV-3C = 0.000 ⑤
- SV-1 @ 1014
- SV-2 @ 1019
- SV-2C @ 1026

} 24 hr vacuum monitoring.

Field Rep. Signature: Daniel L Murphy Date/Time: 1/19/10 @ 1045

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: 2/3/10 @ 0916 **Barometric Pressure:** _____

Field Personnel: DLM / TSM **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	0916	16	23	15	102	67		
SV-21							16	1242
SV-23							18	1889

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	0953	0.0	0.0	—	
Mid-GAC	0951	0.0	0.0	NO	
Post-GAC	0950	0.0	0.0	NO	
Pre-GAC (21 only)				PID CALIBRATION? YES NO RESULT: _____	
Pre-GAC (23 only)					

MONITORING		
Well	Time	Vacuum ("H2O)
SV-1	0922	.260
SV-2	0925	.090
SV-3	0938	~~1.6~~
SV-4	0945	2.4
SV-2C	0934	.440
SV-3C	0937	.015

New (N)

Vapor Samples Taken (Summa Canister)

PRE MID POST (NONE)

Blower(s) in Use

Blower 1 (Blower 2)

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   *Drain into drum Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES (NO) Which Leg? _____
6. **Was there a GAC change out?**
   YES (NO)

ADDITIONAL COMMENTS:

Switched to Blower 1

Field Rep. Signature: _____ Date/Time: _____

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: 2/17/10 @ 0930
Field Personnel: DLM / TSM

Barometric Pressure: _____
Room Temperature: _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	0943	18	31	12	101	68	—	—
SV-21	0957						16	1428
SV-23	0959						19	2034

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	1000	0.0	0.0	—	
Mid-GAC	1005	0.0	0.0	No	
Post-GAC	1010	0.0	0.0	No	
Pre-GAC (21 only)	—	—	—	PID CALIBRATION? YES NO RESULT: _____	
Pre-GAC (23 only)	—	—	—		

MONITORING		
Well	Time	Vacuum ("H2O)
SV-1	1003	0.29
SV-2	1007	0.10
SV-3	1017	1.60
SV-4	1020	1.40
SV-2C	1010	0.52
SV-3C	0937	0.015
SV-22	1000	0.06

Vapor Samples Taken (Summa Canister)
(PRE) (MID) (POST) NONE

Blower(s) in Use
(Blower 1) Blower 2

1. Was the blower running upon arrival?
(YES) NO

2. Where there any alarm conditions upon arrival?
YES (NO) Comment: _____

3. Was the blower ambient air valve open?
YES (NO)

4. Was there water in the knockout (KO) tank?
YES (NO) Volume: _____
*Drain into drum Drum Volume: _____

5. Was the vacuum/flow on either leg adjusted?
YES (NO) Which Leg? _____

6. Was there a GAC change out?
YES (NO)

ADDITIONAL COMMENTS:

Field Rep. Signature: Dawn L Mueller

Date/Time: 2/17/10 @ 1023

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: 3/3/10 @ 0758 **Barometric Pressure:** _____

Field Personnel: DLM **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	0759	-19	-32	13	110	65	—	—
SV-21	1340						19	1387
SV-23							20	2232

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	1417	0.3	0.3		Collected 3/4/10
Mid-GAC					
Post-GAC					
Pre-GAC (21 only)	—	—	—	PID CALIBRATION? (YES) NO RESULT: 100.0	
Pre-GAC (23 only)	—	—	—		

MONITORING		
Well	Time	Vacuum ("H2O)
SV-1	1307	0.29
SV-2	1309	0.11
SV-3	1313	1.5
SV-4	0808	2.4
SV-2C	1310	0.38
SV-3C	1316	0.01
SV-22	1318	0.05

Vapor Samples Taken (Summa Canister)

PRE MID POST (NONE)

Blower(s) in Use

(Blower 1) Blower 2

1. Was the blower running upon arrival?

(YES) NO

2. Where there any alarm conditions upon arrival?

YES (NO) Comment: _____

3. Was the blower ambient air valve open?

YES (NO)

4. Was there water in the knockout (KO) tank?

YES (NO) Volume: _____

*Drain into drum Drum Volume: _____

5. Was the vacuum/flow on either leg adjusted?

YES (NO) Which Leg? _____

6. Was there a GAC change out?

(YES) NO

ADDITIONAL COMMENTS:

* Vacuum gauge on SV-21 is not working properly
* Broken PVC on GAC. Replacing
1303 - Turn system back on. Blower 2
3/4/10 @ 1422 - Shut system down for PVC repair
1520 - Turn system back on.

Field Rep. Signature: Dawn L McPhail Date/Time: 3/3/10 @ 1342

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: 3/17/10 @ 1248 **Barometric Pressure:** 30.08"

Field Personnel: DLM **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	1249	17	24	14	110	65	—	—
SV-21	1255						19	1302
SV-23	1252						19	1845 1260 S

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	1314	0.0	0.0	—	
Mid-GAC	1316	0.0	0.0	No	
Post-GAC	1318	0.0	0.0	No	
Pre-GAC (21 only)	—	—	—	PID CALIBRATION? YES NO RESULT: _____	
Pre-GAC (23 only)	—	—	—		

MONITORING			
Well	Time	Vacuum ("H2O)	
SV-1	1301	0.29	0.22
SV-2	1302	0.07	0.01
SV-3	1310	1.5	1.1
SV-4	1308	2.4	2.0
SV-2C	1304	0.34	0.24
SV-3C	1306	0.015	0.01
SV-22	1312	0.06	0.05

Vapor Samples Taken (Summa Canister)

(PRE) (MID) (POST) NONE

Blower(s) in Use

Blower 1 (Blower 2)

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   *Drain into drum Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES (NO) Which Leg? _____
6. **Was there a GAC change out?**
   YES (NO)

ADDITIONAL COMMENTS:

Field Rep. Signature: _____ Date/Time: _____

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: 3/17/10 @ 1553 **Barometric Pressure:** _____

Field Personnel: DLM **Room Temperature:** _____

GENERAL SYSTEM CHECK

Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	1555	18	22	14	115	65	—	—
SV-21	1553						18	1402
SV-23	1554						18	1840

PID READINGS (ppm)

~~Location~~	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC					
Mid-GAC					
Post-GAC					
Pre-GAC (21 only)				PID CALIBRATION? YES NO RESULT: _____	
~~Pre-GAC (23 only)~~					

MONITORING

Well	Time	Vacuum ("H2O)
SV-1	1602	0.26
SV-2	1607	0.07
SV-3	1600	1.4
SV-4	1558	2.4
SV-2C	1609	0.30
SV-3C	1612	0.005
SV-22	1603	0.05

0.1 > 2.5

Vapor Samples Taken (Summa Canister)

PRE MID POST (NONE)

Blower(s) in Use

Blower 1 (Blower 2)

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   ***Drain into drum** Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   (YES) NO Which Leg? Both @ 100%
6. **Was there a GAC change out?**
   YES (NO)

ADDITIONAL COMMENTS:

Field Rep. Signature: _____ Date/Time: 3/17/10 @ 1613

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: 4/2/10 @ 1319
Field Personnel: DLM

Barometric Pressure: _____
Room Temperature: 73°

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	1320	18	24	13	113	65	—	—
SV-21	1324						19	1456
SV-23	1327						19	2004

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	1354	0.3	0.2		
Mid-GAC	1352	0.1	0.1		
Post-GAC	1350	0.0	0.0		
Pre-GAC (21 only)	—	—	—	PID CALIBRATION? YES NO RESULT: _____	
Pre-GAC (23 only)	—	—	—		

MONITORING		
Well	Time	Vacuum ("H2O)
SV-1	1339	0.30
SV-2	1334	0.09
SV-3	1330	1.6
SV-4	1328	2.4
SV-2C	1336	0.35
SV-3C	1338	0.01
SV-22	1340	0.06

Vapor Samples Taken (Summa Canister)

PRE MID POST (NONE)

Blower(s) in Use

Blower 1 (Blower 2)

1. Was the blower running upon arrival?

(YES) NO

2. Where there any alarm conditions upon arrival?

YES (NO) Comment: _____

3. Was the blower ambient air valve open?

YES (NO)

4. Was there water in the knockout (KO) tank?

YES (NO) Volume: _____

*Drain into drum Drum Volume: _____

5. Was the vacuum/flow on either leg adjusted?

YES (NO) Which Leg? _____

6. Was there a GAC change out?

YES (NO)

ADDITIONAL COMMENTS:

1347: Switch to Blower 1

Field Rep. Signature: Dawn L Mueller

Date/Time: 4/2/10 @ 1355

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: 4/12/10 @ 0820 **Barometric Pressure:** _____

Field Personnel: TSM **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	0822	20	34	12	120	65	—	—
SV-21	0828							1255
SV-23	0830							1940

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	0849	.2	1.6		
Mid-GAC	0900	.1	0.8		
Post-GAC	0910	0.0	0.0		
Pre-GAC (21 only)	—	—	—	PID CALIBRATION? (YES) NO RESULT: 100.1	
Pre-GAC (23 only)	—	—	—		

MONITORING		
Well	Time	Vacuum ("H2O)
SV-1	0920	.24
SV-2	0930	.11
SV-3	0950	1.90
SV-4	0950	2.8
SV-2C	0940	.29
SV-3C	0945	.09
SV-22		

Large Plane wing over well w/ Man at Work

Vapor Samples Taken (Summa Canister)

PRE MID POST NONE

Blower(s) ~~In Use~~

(Blower 1) Blower 2

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   ***Drain into drum** Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES (NO) Which Leg? _____
6. **Was there a GAC change out?**
   YES (NO)

ADDITIONAL COMMENTS:

Exterior Reading of 3.7 in Area. Possible Reading From Painting being done. Dow Corning 92-009 being Used

Field Rep. Signature: J. McIntyre Date/Time: 4/12/10

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: 4/29/10 1330 **Barometric Pressure:** 29.92 Hg

Field Personnel: T&M **Room Temperature:** 72.9°F

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	1340	20	35	11	120	65	—	—
SV-21	1342						20	1303
SV-23	1349						20	2063

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	1429	0.0	~~1.4~~		
Mid-GAC	1435	0.0	.7		
Post-GAC	1431	0.0	—		
Pre-GAC (21 only)	—	—	—	PID CALIBRATION? YES NO RESULT: 98.1	
Pre-GAC (23 only)	—	—	—		

MONITORING		
Well	Time	Vacuum ("H2O)
SV-1	1353	.05
SV-2	1356	.08
SV-3	1412	1.8
SV-4	1418	2.7
SV-2C	1335	.29
SV-3C	1405	.05
SV-22	—	—

Vapor Samples Taken (Summa Canister)

PRE MID POST NONE

Blower(s) in Use

Blower 1 Blower 2

1. **Was the blower running upon arrival?**
   YES NO
2. **Where there any alarm conditions upon arrival?**
   YES NO Comment: _____
3. **Was the blower ambient air valve open?**
   YES NO
4. **Was there water in the knockout (KO) tank?**
   YES NO Volume: _____
   ***Drain into drum** Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES NO Which Leg? _____
6. **Was there a GAC change out?**
   YES NO

ADDITIONAL COMMENTS:

Do we Need SV-1C added to Sheet? or SV-23?

Switched to Pump 2 - Low Vacuum Alarm → Switched Back to Pump 1

Need Batteries

Field Rep. Signature: _____ Date/Time: 4-29-10 1437

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: 0611 5/13/10 **Barometric Pressure:** _____

Field Personnel: TSM **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	0611	20	37	10	110	68		
SV-21	0615						20	1185
SV-23	V. balls						20	2000

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	0649	0.0	0.0	—	—
Mid-GAC	0656	0.0	0.0	—	—
Post-GAC	0659	0.0	0.0	—	—
Pre-GAC (21 only)	—	—	—	PID CALIBRATION? (YES) NO RESULT: 99.8	
Pre-GAC (23 only)	—	—	—		

MONITORING		
Well	Time	Vacuum ("H2O)
SV-1	0621	.30
SV-2	0626	.10
SV-3	0633	1.9
SV-4	0638	2.4
SV-2C	0628	.39
SV-3C	0631	.03
SV-22		

Vapor Samples Taken (Summa Canister)

(PRE) (MID) (POST) NONE

Blower(s) in Use

(Blower 1) Blower 2

1. Was the blower running upon arrival?

(YES) NO

2. Where there any alarm conditions upon arrival?

YES (NO) Comment: _____

3. Was the blower ambient air valve open?

YES (NO)

4. Was there water in the knockout (KO) tank?

YES (NO) Volume: _____

*Drain into drum Drum Volume: _____

5. Was the vacuum/flow on either leg adjusted?

YES (NO) Which Leg? _____

6. Was there a GAC change out?

YES (NO)

ADDITIONAL COMMENTS:

ADD 1C - SEE LAST SHEET

23?

Field Rep. Signature: _____ Date/Time: 5/13/10

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: 5/26/10 0917
Field Personnel: TSM

Barometric Pressure: _____
Room Temperature: _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	0920	21	36	10	126	62	—	—
SV-21	0922						20	1296
SV-23	0928						22	1771

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	1016	5.0	0.0		
Mid-GAC	1018	8.3	0.0		
Post-GAC	1014	0.0	—		
Pre-GAC (21 only)				PID CALIBRATION? YES NO RESULT: _____	
Pre-GAC (23 only)					

MONITORING		
Well	Time	Vacuum ("H2O)
SV-1	0930	.29
SV-2	0932	.07
SV-3	0942	1.9
SV-4	0939	3.1
SV-2C	0935	.48
SV-3C	0947	.10
SV-22	Airplane Wing	

Vapor Samples Taken (Summa Canister)
PRE MID POST (NONE)

Blower(s) in Use
(Blower 1) Blower 2

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   *Drain into drum Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES (NO) Which Leg? _____
6. **Was there a GAC change out?**
   YES (NO)

ADDITIONAL COMMENTS:
Ask Peter about SV-1C + SV-23. Ask why not SV-21

Field Rep. Signature: Jeffrey McIntyre Date/Time: 5/26/10

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: 6-11-10 **Barometric Pressure:** _____

Field Personnel: TSM **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	0857	22	38	10	129	66	—	—
SV-21	0859						20	1500
SV-23	0901						21	1785

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	0845	.4	1.2		
Mid-GAC	0850	.0	.0		
Post-GAC	0855	.0	—		
Pre-GAC (21 only)				PID CALIBRATION? YES NO RESULT: 99.8	
Pre-GAC (23 only)					

MONITORING		
Well	Time	Vacuum ("H2O)
SV-1	0904	.38
SV-2	0912	.06
SV-3	0919	1.82
SV-4	0923	2.9
SV-2C	0914	.43
SV-3C	0917	.08
SV-22	0908	N/A

Vapor Samples Taken (Summa Canister)

PRE MID POST NONE

Blower(s) in Use

Blower 1 Blower 2

1. **Was the blower running upon arrival?**
   YES NO
2. **Where there any alarm conditions upon arrival?**
   YES NO Comment: _____
3. **Was the blower ambient air valve open?**
   YES NO
4. **Was there water in the knockout (KO) tank?**
   YES NO Volume: _____
   *Drain into drum Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES NO Which Leg? _____
6. **Was there a GAC change out?**
   YES NO

ADDITIONAL COMMENTS:

Batteries - 55-Gallon Drum Tool

Field Rep. Signature: J. McIntyre Date/Time: 6/11/10

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: 6/24/10 **Barometric Pressure:** _____

Field Personnel: TSM **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	0910	~~22~~	28	10	136	66	~~24~~	~~—~~
SV-21	0912						24	.
SV-23	0914						24	.

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	0934	0.0	0.0		
Mid-GAC	0932	0.0	0.0		
Post-GAC	0930	0.0	N/A		
Pre-GAC (21 only)	—	—	—	PID CALIBRATION? (YES) NO RESULT: 99.9	
Pre-GAC (23 only)	—	—	—		

MONITORING		
Well	Time	Vacuum ("H2O)
SV-1	0916	.2942
SV-2	0918	.0400
SV-3	0921	1.78
SV-4	0923	2.81
SV-2C	0925	.41
SV-3C	0927	.003
SV-22		N/A

Vapor Samples Taken (Summa Canister)

PRE MID POST (NONE)

Blower(s) in Use

Blower 1 (Blower 2)

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   *Drain into drum Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES (NO) Which Leg? _____
6. **Was there a GAC change out?**
   YES (NO)

ADDITIONAL COMMENTS:

Airplane Engine Cover on 22 SV-1C?

Field Rep. Signature: J. McIntyre Date/Time: 6/24/10

July I

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: 7/9/10 **Barometric Pressure:** _____

Field Personnel: TSM **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	0930	20	28	10	136	64	—	—
SV-21							—	—
SV-23							—	—

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	0935	0.0	0.0		
Mid-GAC	0937	0.0	0.0		
Post-GAC	0940	0.0	N/A		
Pre-GAC (21 only)				PID CALIBRATION? YES NO RESULT: 100.1	
Pre-GAC (23 only)				BUMP	

MONITORING		
Well	Time	Vacuum ("H2O)
SV-1	0951	.26
SV-2	0944	.05
SV-3	1000	1.69
SV-4	0954	2.70
SV-2C	0948	.35
SV-3C	0957	0.0
SV-22	—	—

Vapor Samples Taken (Summa Canister)

PRE MID POST (NONE)

Blower(s) in Use

Blower 1 (Blower 2)

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   ***Drain into drum** Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES (NO) Which Leg? _____
6. **Was there a GAC change out?**
   YES (NO)

ADDITIONAL COMMENTS:

Field Rep. Signature: J. McIntyre Date/Time: 7/9/10

July II

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: 7/19/10 1345 **Barometric Pressure:** _____

Field Personnel: TSM **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	1345	2.6	40	10	140	60		
SV-21	1344						24	1348
SV-23	1343						24	1909

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	1348	0.0	0.0		
Mid-GAC	1351	0.0	0.0		
Post-GAC	1355	0.0	0.0		
Pre-GAC (21 only)				PID CALIBRATION? YES NO RESULT: _____	
Pre-GAC (23 only)					

MONITORING		
Well	Time	Vacuum ("H2O)
SV-1	1400	.34
SV-2	1411	.01
SV-3	1416	1.89
SV-4	1403	2.5
SV-2C	1420	.33
SV-3C	1413	.00
SV-22	1408	.41

Vapor Samples Taken (Summa Canister)

(PRE) (MID) (POST) NONE

Blower(s) in Use

Blower 1 (Blower 2)

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   ***Drain into drum** Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES (NO) Which Leg? _____
6. **Was there a GAC change out?**
   YES (NO)

ADDITIONAL COMMENTS:

Field Rep. Signature: J. McIntyre Date/Time: 7/19/10

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: 8-4-10 **Barometric Pressure:** _____

Field Personnel: TSM + PAR **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	1002	28	43	10	138	63	-	-
SV-21	1005						24	1340
SV-23	1007						28	2113

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	1011	0.0	0.0		
Mid-GAC	1015	0.0	0.0		
Post-GAC	1017	0.0	N/A		
Pre-GAC (21 only)				PID CALIBRATION? (YES) ~~NO~~ RESULT: 99.4	
Pre-GAC (23 only)					

MONITORING		
Well	Time	Vacuum ("H2O)
SV-1	1021	.29
SV-2	1024	0.10
SV-3	1026	1.60
SV-4	1029	1.35
SV-2C	1033	.49
SV-3C	1037	.015
SV-22	1040	N/A

Vapor Samples Taken (Summa Canister)

PRE MID POST (NONE)

Blower(s) in Use

(Blower 1) Blower 2

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   ***Drain into drum** Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES (NO) Which Leg? _____
6. **Was there a GAC change out?**
   YES (NO)

ADDITIONAL COMMENTS:

Field Rep. Signature: J. McIntyre Date/Time: 8/4/10

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: 8-19-10 **Barometric Pressure:** _____

Field Personnel: SC **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	0855	24	38	8	130	61	–	–
SV-21	0856						23	1638
SV-23	0857						20	1576

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	0950	0.6	0.3	No	
Mid-GAC	0955	0.7	0.2	No	
Post-GAC	1000	2.0	—	No	No flow for Tedlar
Pre-GAC (21 only)	–	–	–	PID CALIBRATION? (YES) NO RESULT: 105	
Pre-GAC (23 only)	–	–	–		

MONITORING		
Well	Time	Vacuum ("H2O)
SV-1	0925	0.60
SV-2	0926	0.18
SV-3	0927	3.0
SV-4	0929	4.8
SV-2C	0929	0.56
SV-3C	0930	0.04
SV-22	0931	—

Vapor Samples Taken (Summa Canister)

(PRE) (MID) (POST) NONE

Blower(s) in Use

(Blower 1) Blower 2

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   ***Drain into drum** Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES (NO) Which Leg? _____
6. **Was there a GAC change out?**
   YES (NO)

ADDITIONAL COMMENTS:

Field Rep. Signature: _____ Date/Time: 8-19-10

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: 9-3-10/1000 **Barometric Pressure:** _____

Field Personnel: SC **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	1000	20	34	8	129	60	–	–
SV-21	1001						22	3304
SV-23	1002						21	3028

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	1031	0.0	0.5	No	
Mid-GAC	1032	0.0	0.2	↓	
Post-GAC	1033	1.3	–		No flow for leg
Pre-GAC (21 only)	–	–	–	PID CALIBRATION? (YES) NO RESULT: 99.8	
Pre-GAC (23 only)	–	–	–		

MONITORING		
Well	Time	Vacuum ("H2O)
SV-1	1008	0.68
SV-2	1015	0.12
SV-3	1016	2.3
SV-4	1014	3.8
SV-2C	1012	0.43
SV-3C	1017	0.02
SV-22	–	–

Vapor Samples Taken (Summa Canister)

PRE MID POST (NONE)

Blower(s) in Use

(Blower 1) Blower 2

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   ***Drain into drum** Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES (NO) Which Leg? _____
6. **Was there a GAC change out?**
   YES (NO)

ADDITIONAL COMMENTS: Switched to blower 2 after reading 5

Field Rep. Signature: _____ Date/Time: 9-3-10/1040

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: 9/17/10 1330 **Barometric Pressure:** _____

Field Personnel: TM **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	1411	20	26	10	126	63	—	—
SV-21	1413						19	1712
SV-23	1415						20	3250

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	1344	0.2	0.0	No	
Mid-GAC	1347	0.0	0.0	↓	
Post-GAC	1350	0.0	—	↓	
Pre-GAC (21 only)				PID CALIBRATION? (YES) NO RESULT: 100.1	
Pre-GAC (23 only)					

MONITORING		
Well	Time	Vacuum ("H2O)
SV-1	1417	0.41
SV-2	1421	0.08
SV-3	1424	2.2
SV-4	1430	3.6
SV-2C	1419	0.43
SV-3C	1427	0.0
SV-22	N/A	N/A

Vapor Samples Taken (Summa Canister)

(PRE) (MID) (POST) NONE

Blower(s) in Use

Blower 1 (Blower 2)

1. **Was the blower running upon arrival?**
   (YES) NO
2. **Where there any alarm conditions upon arrival?**
   YES (NO) Comment: _____
3. **Was the blower ambient air valve open?**
   YES (NO)
4. **Was there water in the knockout (KO) tank?**
   YES (NO) Volume: _____
   ***Drain into drum** Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?**
   YES (NO) Which Leg? _____
6. **Was there a GAC change out?**
   (YES) NO

Ask Sean about 9/12/10

ADDITIONAL COMMENTS: Switch to Blower 1

Field Rep. Signature: J. McIntyre Date/Time: 9/17/10 1435

SSD SYSTEM FIELD DATA SHEET - BUILDING C

LMC Middle River Complex, Middle River, Maryland

Date/Time: ~~8~~ 10/5/10 **Barometric Pressure:** _____

Field Personnel: TSM w/ DB Tech MikeSmith **Room Temperature:** _____

GENERAL SYSTEM CHECK								
Location	Time	Vacuum post-KO (in. H2O)	Vacuum post-Filter (in. H2O)	Pressure post-Blower (in. H2O)	Temp (°F)	Flow (scfm)	Leg Vacuum (in. H2O)	Leg Air Velocity (ft/min)
Both	1422	36	48	10	138	62		
SV-21							—	1183
SV-23							—	1650

PID READINGS (ppm)					
Location	Time	Direct	Tedlar Bag	Breakthrough ?	Comments
Pre-GAC	1428	0.0	0.4	—	Zipties added
Mid-GAC	1432	0.0	0.3	—	
Post-GAC	1435	0.0	0.2	—	
Pre-GAC (21 only)				PID CALIBRATION? (YES) NO RESULT: PPM6	
Pre-GAC (23 only)					

MONITORING		
Well	Time	Vacuum ("H2O)
SV-1	1455	1.1
SV-2	1502	0.3
SV-3	1511	4.8
SV-4	1508	8.1
SV-2C	1505	1.1
SV-3C	1515	.04
SV-22	1458	.24

Vapor Samples Taken (Summa Canister)

PRE MID POST (NONE)

Blower(s) in Use

(Blower 1) Blower 2 Leak Detected Fixed w/ Mike Smith on 10/1/10 w/ Daunt Walt

1. **Was the blower running upon arrival?** ~~YES~~ (NO) Yes
2. **Where there any alarm conditions upon arrival?** YES (NO) Comment: At start up Low Vac
3. **Was the blower ambient air valve open?** YES (NO)
4. **Was there water in the knockout (KO) tank?** YES (NO) Volume: _____
   ***Drain into drum** Drum Volume: _____
5. **Was the vacuum/flow on either leg adjusted?** YES (NO) Which Leg? _____
6. **Was there a GAC change out?** (YES) NO

ADDITIONAL COMMENTS:

Worked w/ Mike Smith (1) CAT 1950P-2-ZF to Determine Vaccuum Gage (2) 0-50" Liquid Filled Gages 1/4" Threads 2" Face malfunction

Fixed Grout on 10/1/10 & 10/5/10

Gauges Broken from Water

Field Rep. Signature: J. McIntyre Date/Time: 10/5/10 1600

APPENDIX B

QUARTERLY SYSTEM CHECKS FORMS

SSD SYSTEM QUARTERLY SYSTEM CHECK

LMC MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Date: 6-18-10 **Time:** 0835

Personnel: TSM + MS **Building:** A

BLOWER SKID

Check Water Level Switch? (YES) NO Comments: _____

Visually Inspect Air Filter? Blower 1: (YES) NO Need Replaced? YES (NO)

~~Blower 2: YES NO~~ Need Replaced? YES NO

(replace filter when AP = 2-3 in. Hg)

Check Vacuum Relief Valve? Blower 1: (YES) NO Comments: _____

~~Blower 2: YES NO~~ Comments: _____

Check Temperature Switch? (YES) NO Comments: _____

Check Pressure Switch? (YES) NO Comments: _____

Check Low Vacuum Switch? (YES) NO Comments: _____

Measure and Record Amperage Draw on Blower? Line 1 = 6.02 Line 2 = 6.52 Line 3 = 6.72

CARBON UNITS

Check GAC Units for Corrosion and Leaks? (YES) NO Comments: _____

Check Condition of Sample Ports? (YES) NO Comments: _____

Number of Spent Carbon Units On-site: 3 Contain Non-Haz Waste Labels? YES (NO) N/A

Number of Unused Carbon Units On-site: 3

MONITORING POINTS

Cover Lids on the Monitoring Points in Good Condition? (YES) NO Comments: _____

Vacuum Ports at Extraction Points in Good Condition? (YES) NO Comments: _____

AUTO-DIALER

Did the Auto-Dialer Dial Out When Alarm Swtich was Triggered? Zone 1: (YES) NO

Zone 2: (YES) NO Zone 3: (YES) NO Zone 4: (YES) NO

Does the Battery Need Replaced? YES (NO) Comments: _____

ADDITIONAL COMMENTS

Personnel's Signature: J. McIntyre Date: 6-18-10

SSD SYSTEM QUARTERLY SYSTEM CHECK

LMC MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Date: 9-3-10 **Time:** 0805

Personnel: SJS JSC **Building:** A

BLOWER SKID

Check Water Level Switch? (YES) NO Comments: _____

Visually Inspect Air Filter? Blower 1: (YES) NO Need Replaced? YES (NO)

~~Blower 2: YES NO~~ ~~Need Replaced? YES NO~~

(replace filter when AP = 2-3 in. Hg)

Check Vacuum Relief Valve? Blower 1: (YES) NO Comments: _____

~~Blower 2: YES NO Comments:~~ _____

Check Temperature Switch? (YES) NO Comments: OK

Check Pressure Switch? (YES) NO Comments: OK

Check Low Vacuum Switch? (YES) NO Comments: OK

Measure and Record Amperage Draw on Blower? Line 1 = 5.67 Line 2 = 6.34 Line 3 = 6.33

CARBON UNITS

Check GAC Units for Corrosion and Leaks? (YES) NO Comments: OK

Check Condition of Sample Ports? (YES) NO Comments: OK

Number of Spent Carbon Units On-site: 0 Contain Non-Haz Waste Labels? YES NO (NA)

Number of Unused Carbon Units On-site: 3

MONITORING POINTS

Cover Lids on the Monitoring Points in Good Condition? (YES) NO Comments: _____

Vacuum Ports at Extraction Points in Good Condition? (YES) NO Comments: _____

AUTO-DIALER

Did the Auto-Dialer Dial Out When Alarm Swtich was Triggered? Zone 1: (YES) NO

Zone 2: (YES) NO Zone 3: (YES) NO Zone 4: (YES) NO

Does the Battery Need Replaced? YES (NO) Comments: _____

ADDITIONAL COMMENTS

Personnel's Signature: _____ Date: 9-3-10

SSD SYSTEM QUARTERLY SYSTEM CHECK

LMC MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Date: 6-18-10 **Time:** 0857

Personnel: TSM **Building:** C

BLOWER SKID

Check Water Level Switch? (YES) NO Comments: _____

Visually Inspect Air Filter? Blower 1: (YES) NO Need Replaced? YES (NO)

Blower 2: (YES) NO Need Replaced? YES (NO)

(replace filter when AP = 2-3 in. Hg)

Check Vacuum Relief Valve? Blower 1: (YES) NO Comments: _____

Blower 2: YES NO Comments: _____

Check Temperature Switch? (YES) NO Comments: _____

Check Pressure Switch? (YES) NO Comments: _____

Check Low Vacuum Switch? (YES) NO Comments: _____

Measure and Record Amperage Draw on Blower? Line 1 = 2.26 Line 2 = 2.39 Line 3 = 2.28

CARBON UNITS

Check GAC Units for Corrosion and Leaks? (YES) NO Comments: _____

Check Condition of Sample Ports? (YES) NO Comments: _____

Number of Spent Carbon Units On-site: 0 Contain Non-Haz Waste Labels? YES NO N/A

Number of Unused Carbon Units On-site: _____

MONITORING POINTS

Cover Lids on the Monitoring Points in Good Condition? (YES) NO Comments: _____

Vacuum Ports at Extraction Points in Good Condition? (YES) NO Comments: _____

AUTO-DIALER

Did the Auto-Dialer Dial Out When Alarm Swtich was Triggered? Zone 1: (YES) NO

Zone 2: (YES) NO Zone 3: (YES) NO Zone 4: (YES) NO

Does the Battery Need Replaced? YES NO Comments: _____

ADDITIONAL COMMENTS

Personnel's Signature: J. McIntyre Date: 6-18-10

SSD SYSTEM QUARTERLY SYSTEM CHECK

LMC MIDDLE RIVER COMPLEX, MIDDLE RIVER, MARYLAND

Date: 9-3-10 **Time:** 0855

Personnel: SAS JSC **Building:** C

BLOWER SKID

Check Water Level Switch? (YES) NO Comments: OK

Visually Inspect Air Filter? Blower 1: (YES) NO Need Replaced? YES (NO)

Blower 2: (YES) NO Need Replaced? YES (NO)
(replace filter when AP = 2-3 in. Hg)

Check Vacuum Relief Valve? Blower 1: (YES) NO Comments:

Blower 2: (YES) NO Comments:

Check Temperature Switch? (YES) NO Comments: OK

Check Pressure Switch? (YES) NO Comments: OK

Check Low Vacuum Switch? (YES) NO Comments: OK

Measure and Record Amperage Draw on Blower? Line 1 = 2.27 Line 2 = 2.42 Line 3 = 2.22

CARBON UNITS

Check GAC Units for Corrosion and Leaks? (YES) NO Comments: OK

Check Condition of Sample Ports? (YES) NO Comments: OK

Number of Spent Carbon Units On-site: 0 Contain Non-Haz Waste Labels? YES NO (N/A)

Number of Unused Carbon Units On-site: 3

MONITORING POINTS

Cover Lids on the Monitoring Points in Good Condition? (YES) NO Comments:

Vacuum Ports at Extraction Points in Good Condition? (YES) NO Comments:

AUTO-DIALER

Did the Auto-Dialer Dial Out When Alarm Swtich was Triggered? Zone 1: (YES) NO

Zone 2: (YES) NO Zone 3: (YES) NO Zone 4: (YES) NO

Does the Battery Need Replaced? (YES) NO Comments: Replaced batteries

ADDITIONAL COMMENTS

Personnel's Signature: [signature] Date: 9-3-10

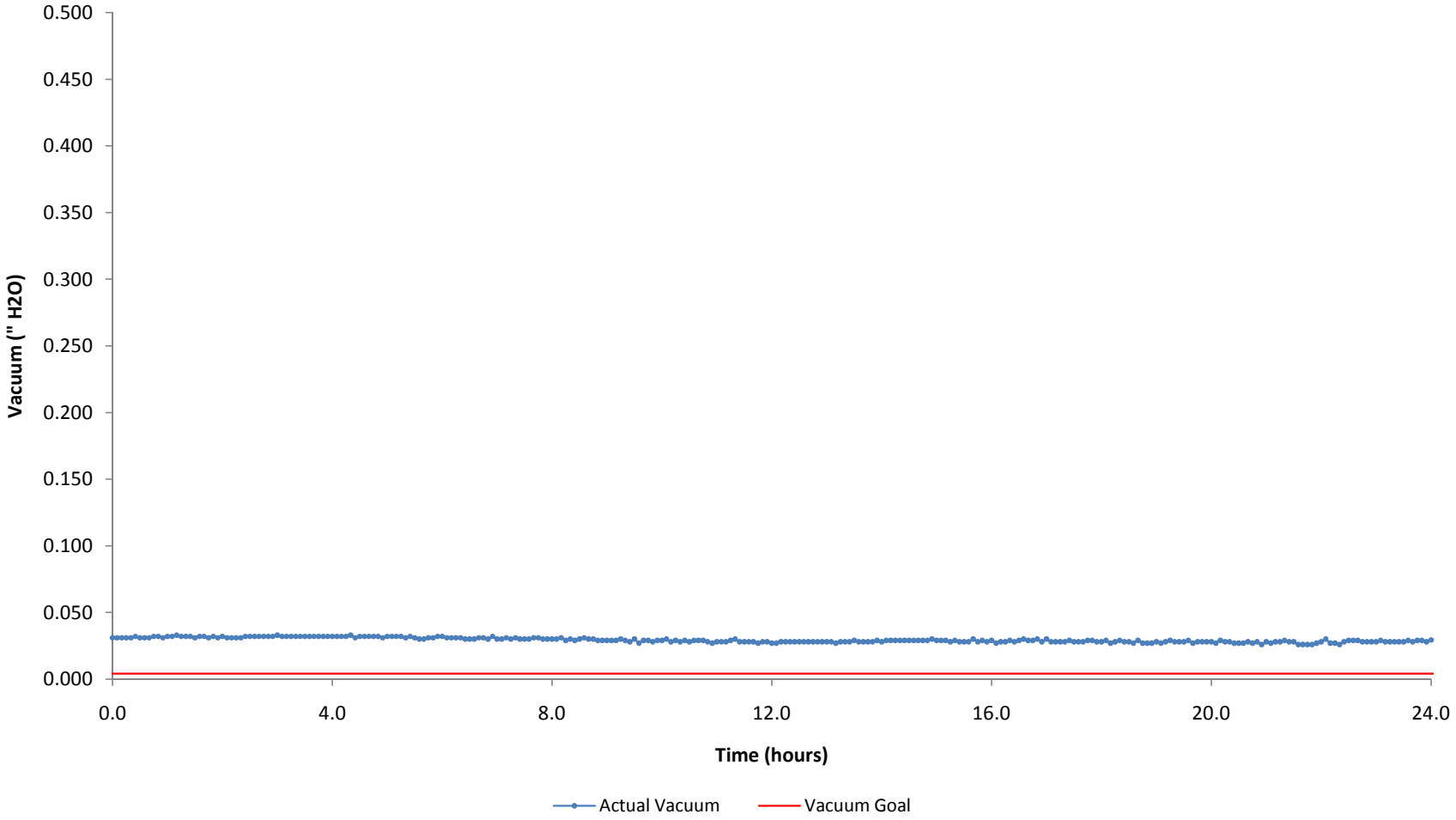
APPENDIX C

24 Hour Vacuum Monitoring Data

24-HOUR VACUUM MONITORING DATA FOR SV-11

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING A

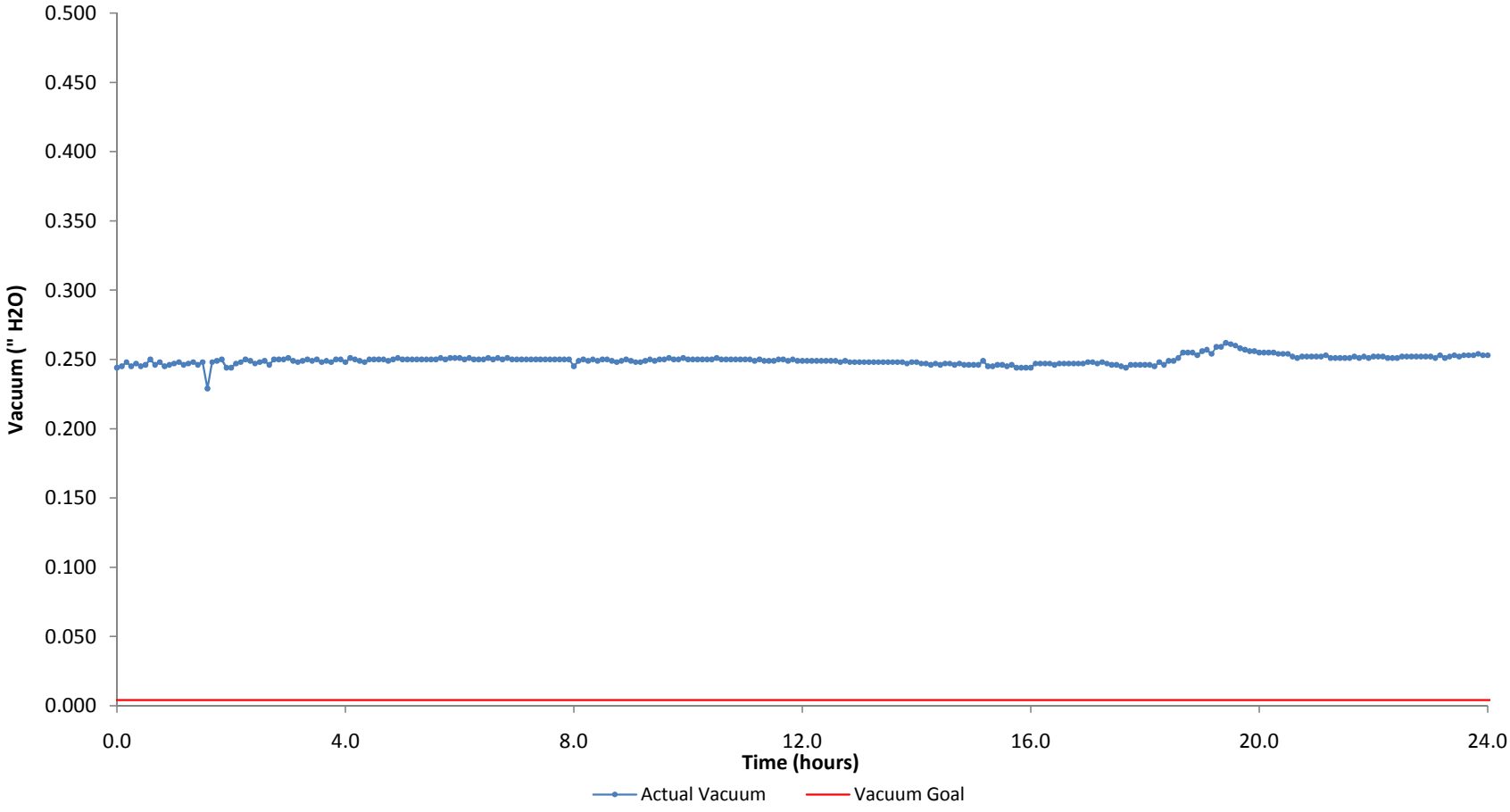
APRIL 2010



24-HOUR VACUUM MONITORING DATA FOR SV-13

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING A

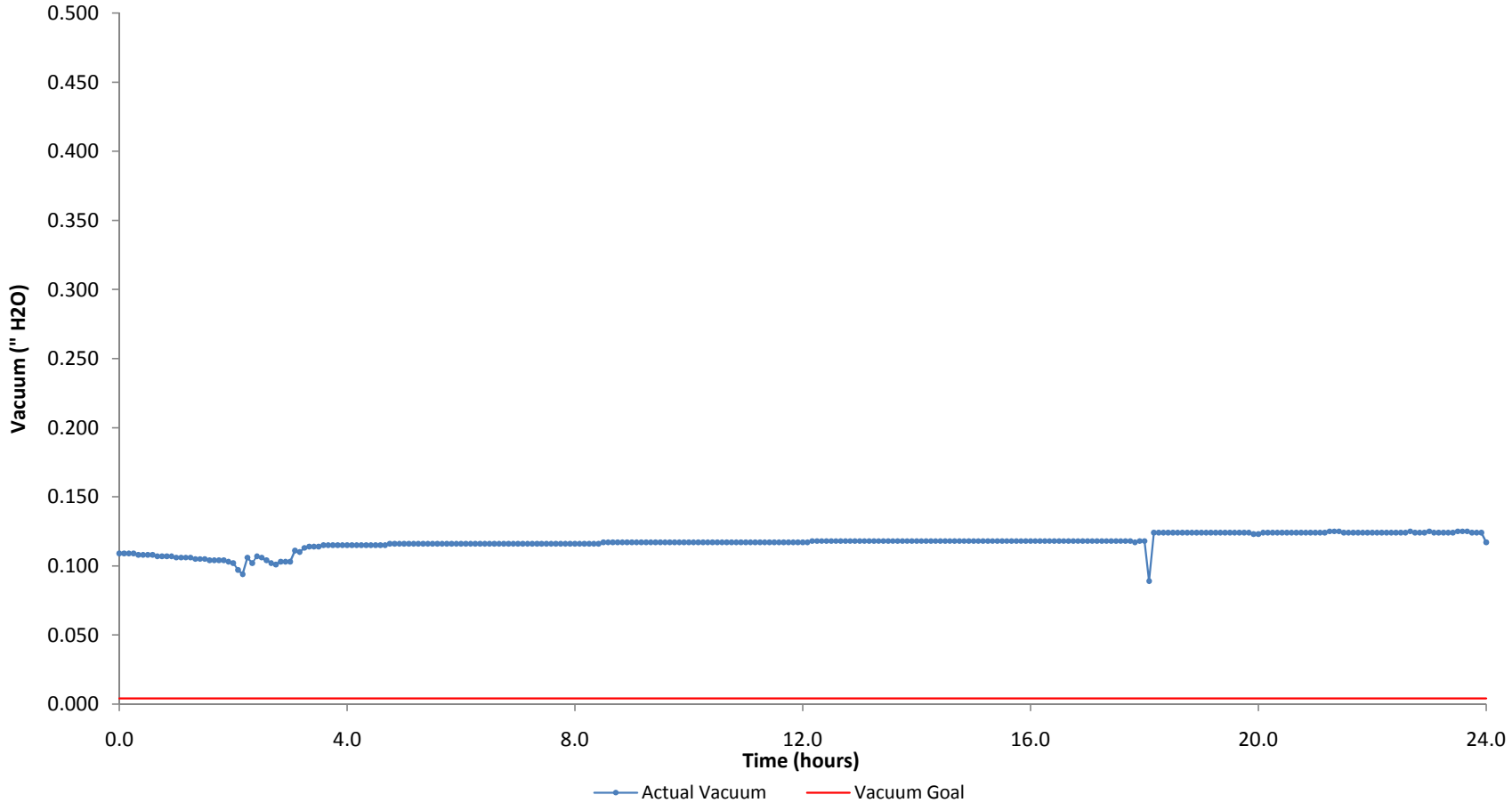
APRIL 2010



24-HOUR VACUUM MONITORING DATA FOR SV-1A

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING A

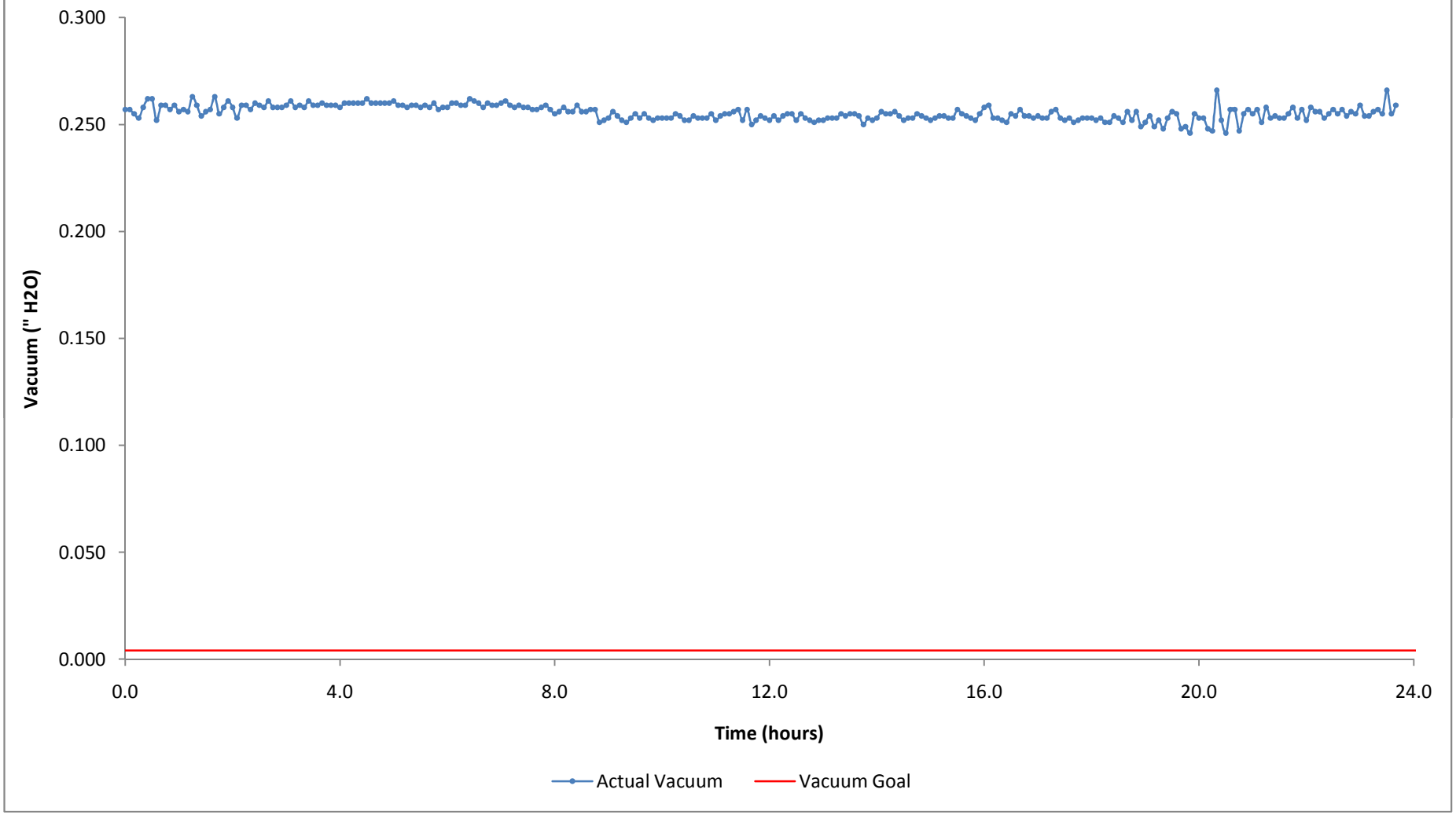
APRIL 2010

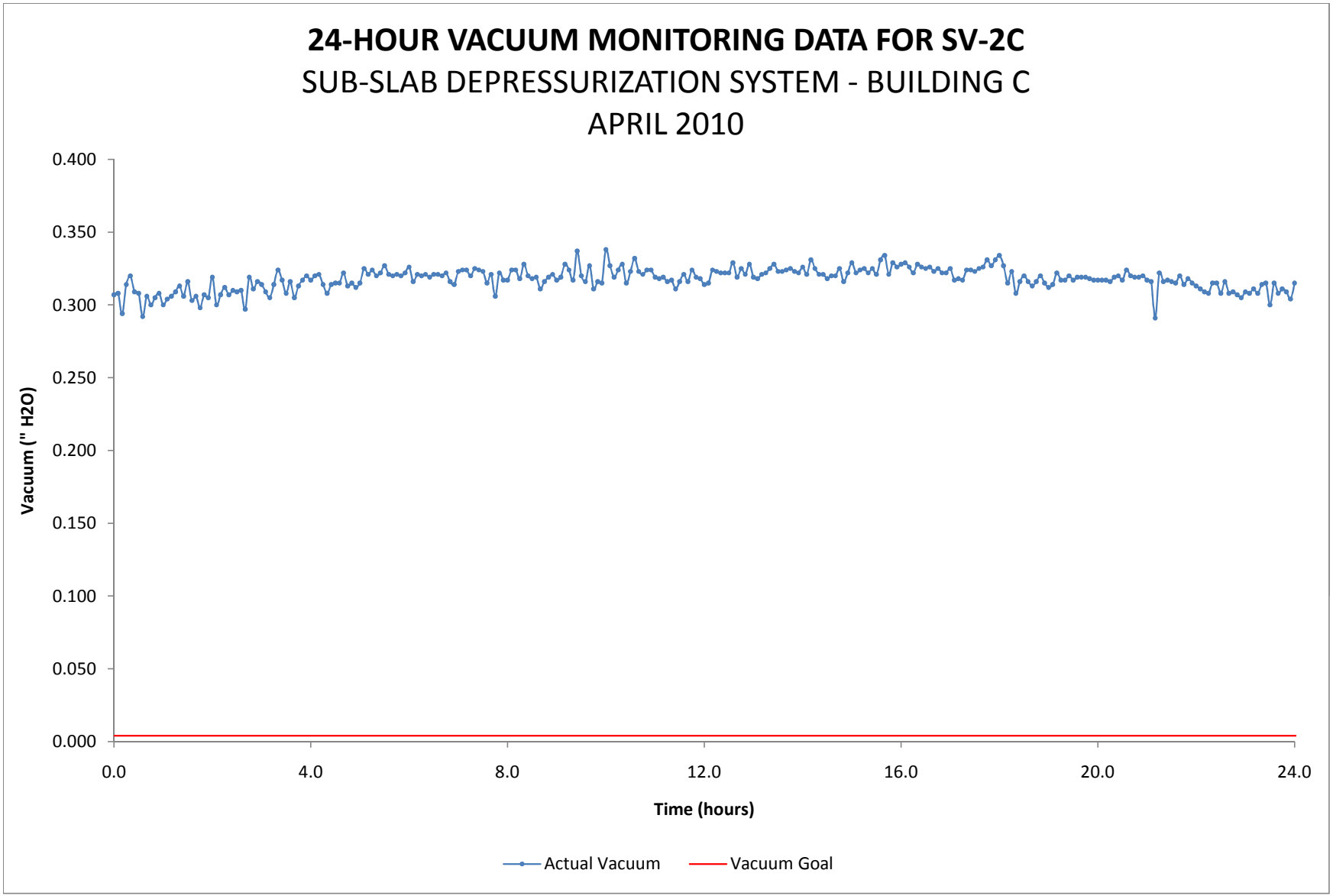


24-HOUR VACUUM MONITORING DATA FOR SV-1

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING C

APRIL 2010

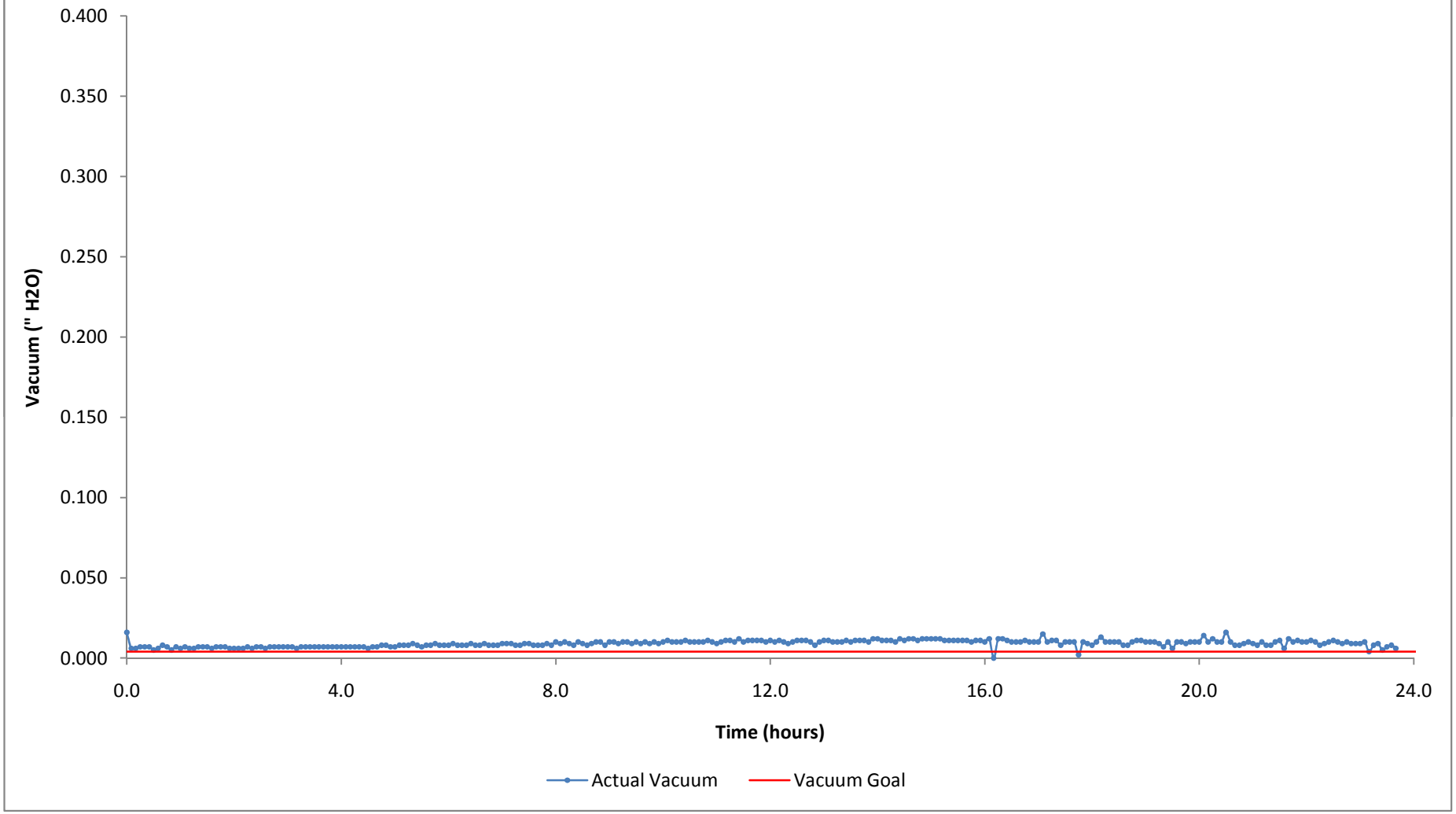



24-HOUR VACUUM MONITORING DATA FOR SV-2C
SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING C
APRIL 2010
0.400
0.350
0.300
0.250
0.200
0.150
0.100
0.050
0.000
Vacuum (" H2O)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
Time (hours)
Actual Vacuum
Vacuum Goal

24-HOUR VACUUM MONITORING DATA FOR SV-3C

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING C

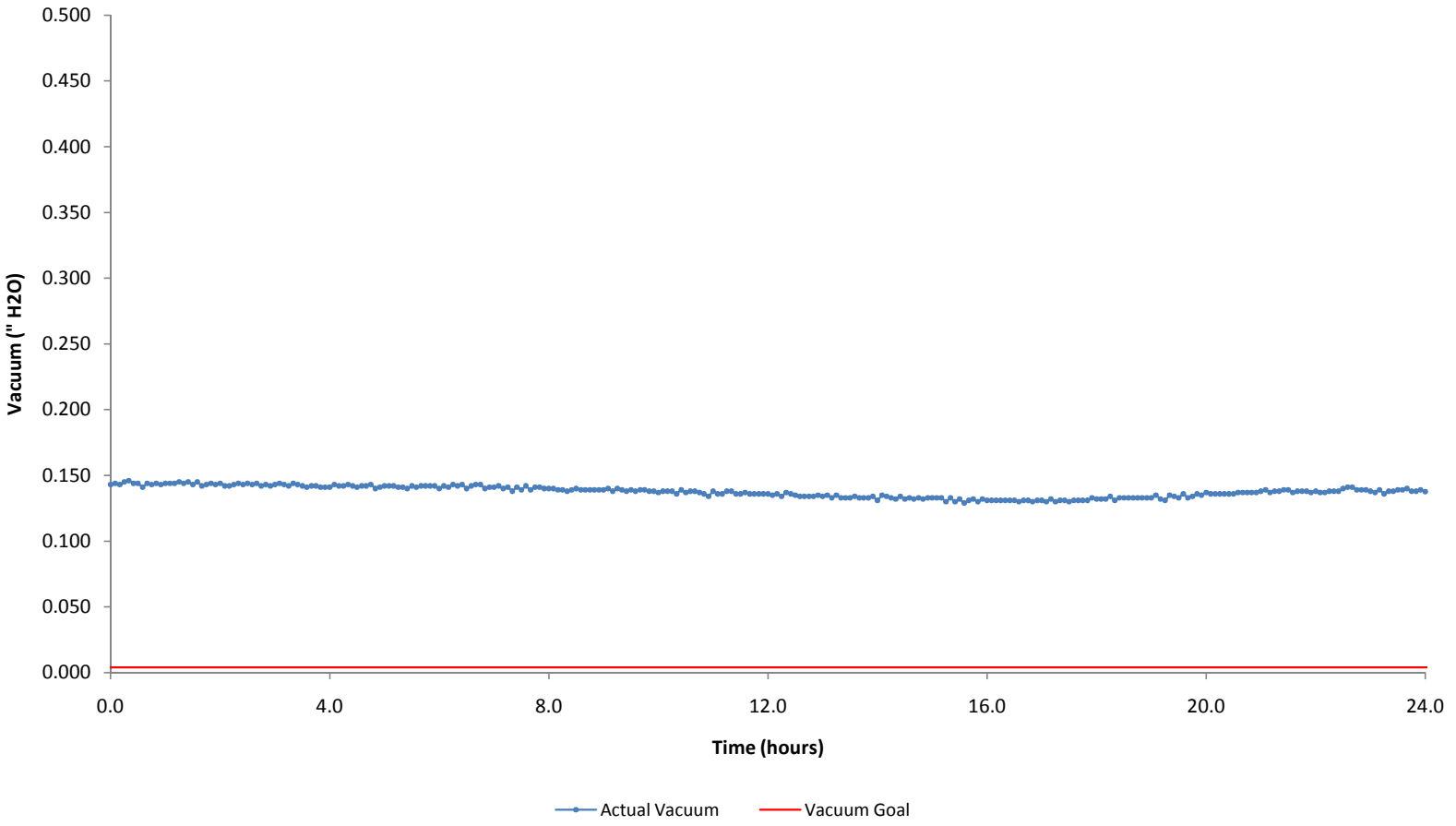
APRIL 2010



24-HOUR VACUUM MONITORING DATA FOR SV-12

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING A

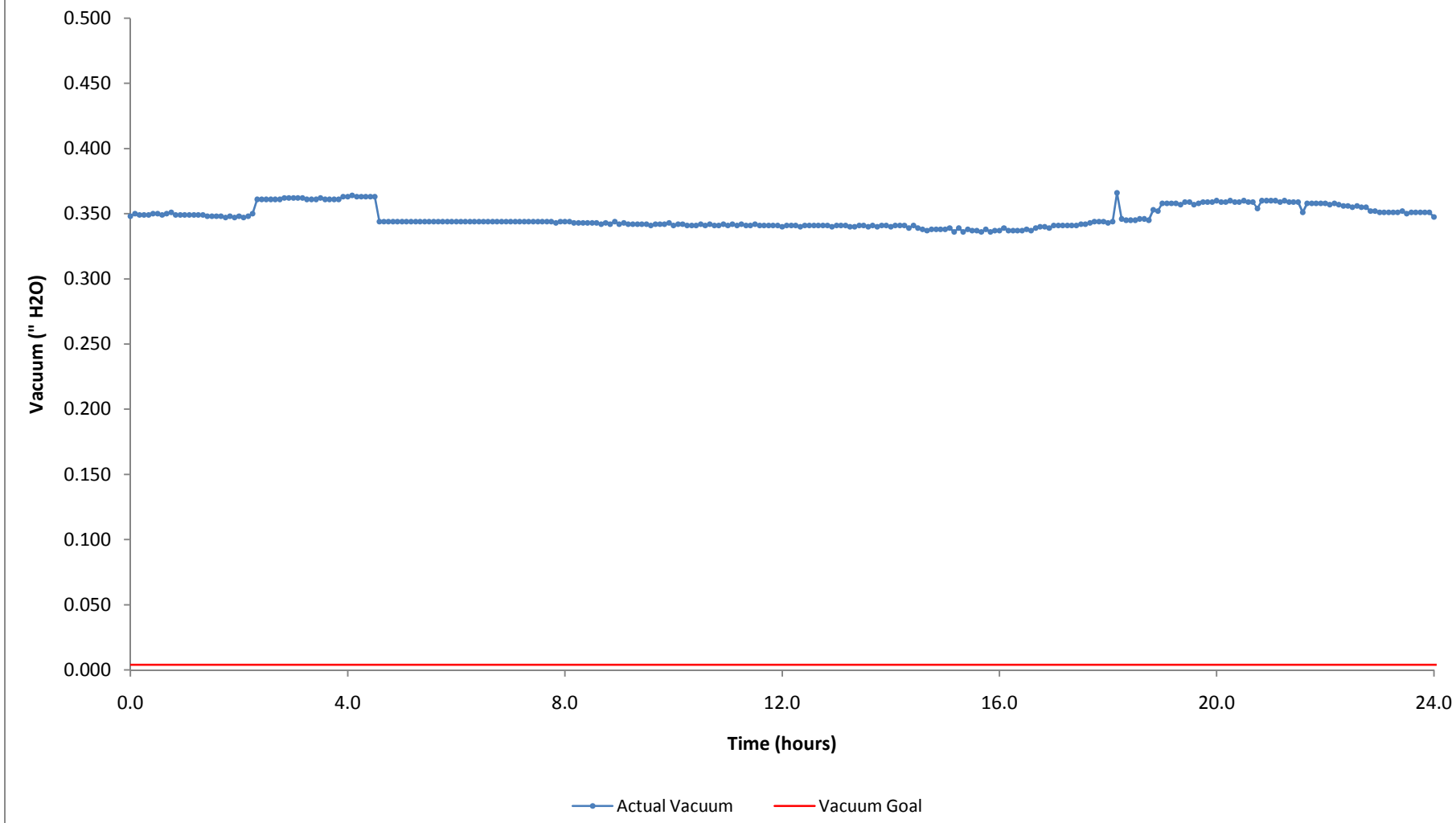
MAY 2010



24-HOUR VACUUM MONITORING DATA FOR SV-16

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING A

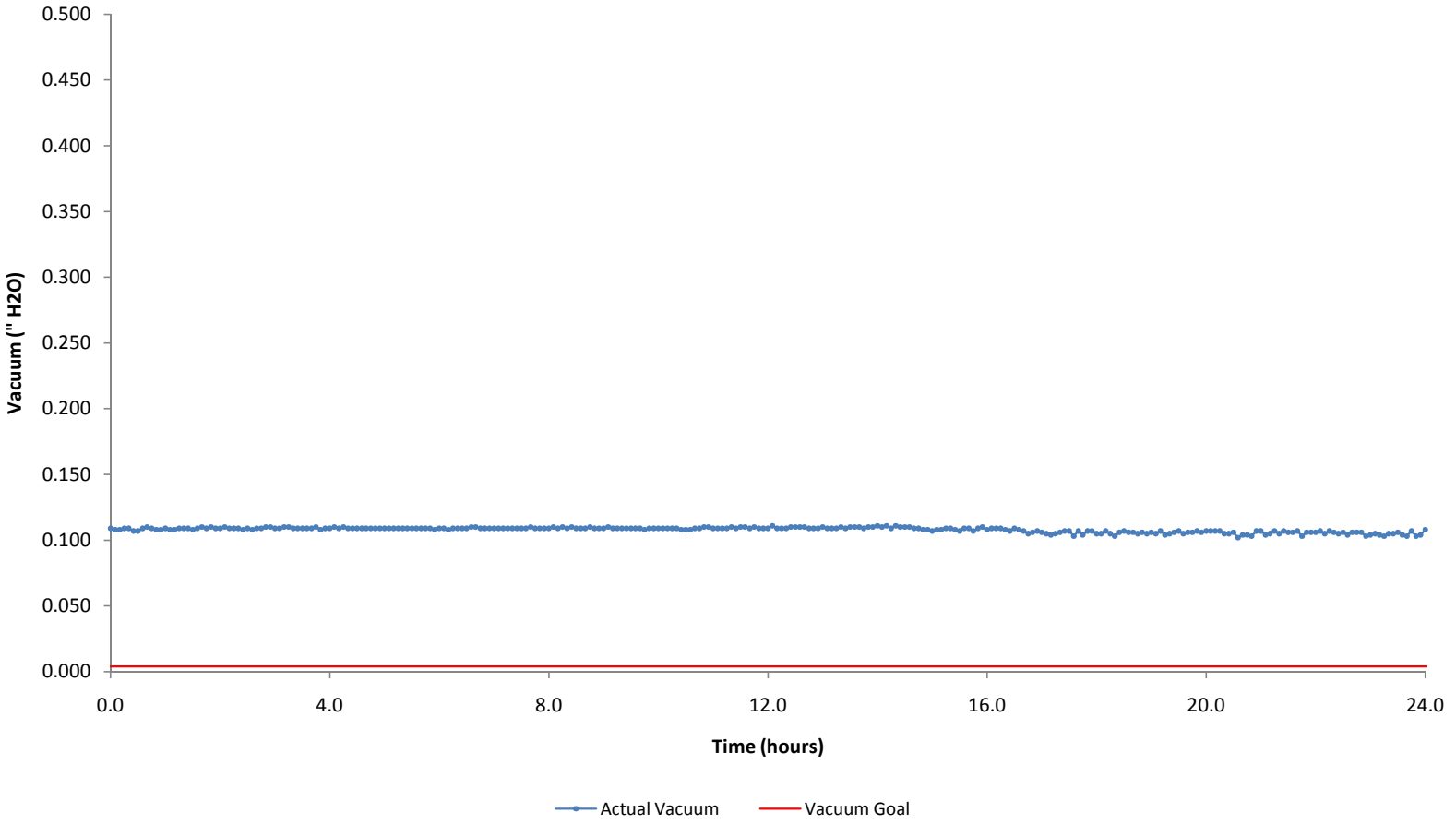
MAY 2010



24-HOUR VACUUM MONITORING DATA FOR SV-1A

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING A

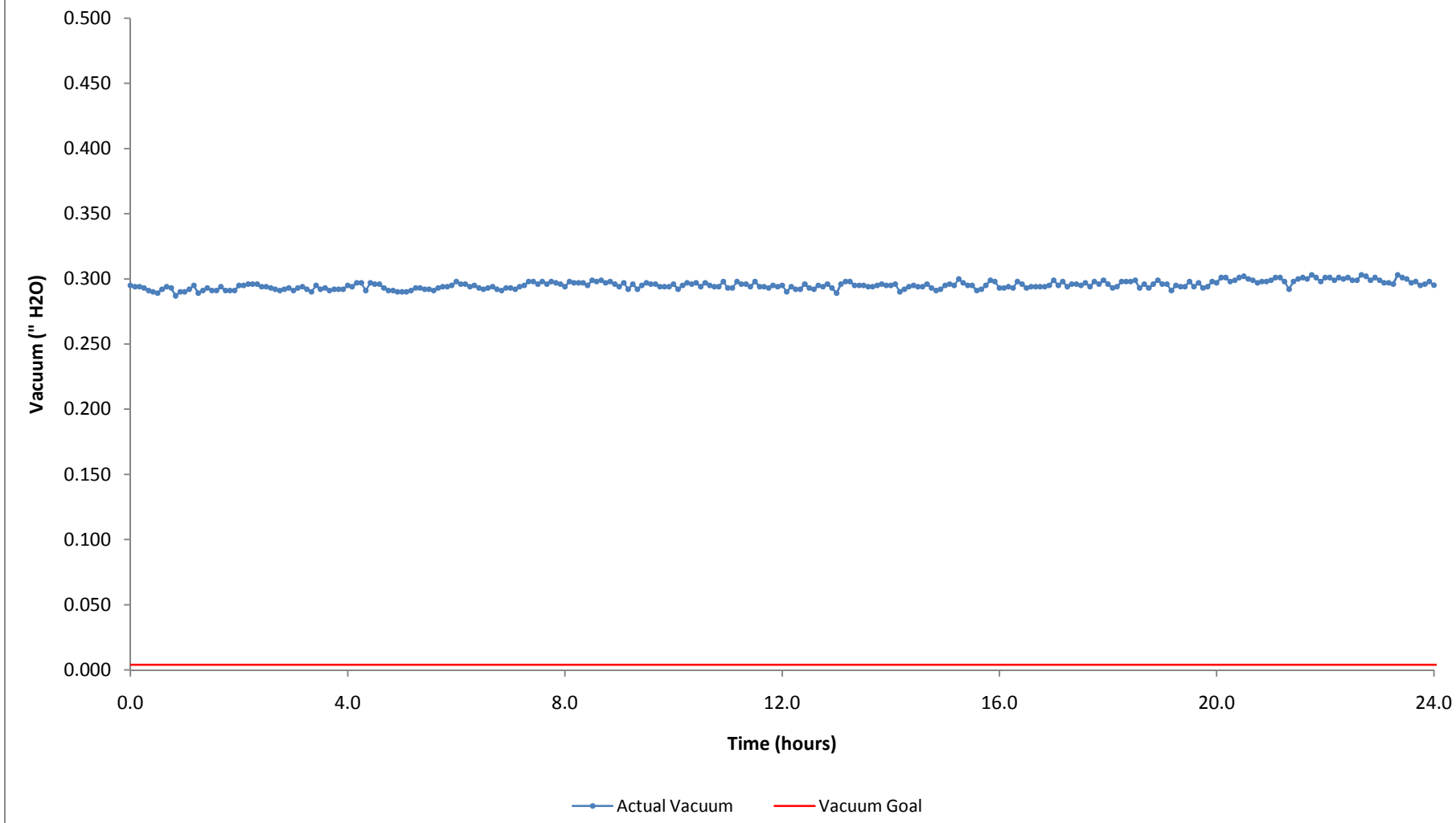
MAY 2010



24-HOUR VACUUM MONITORING DATA FOR SV-1

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING C

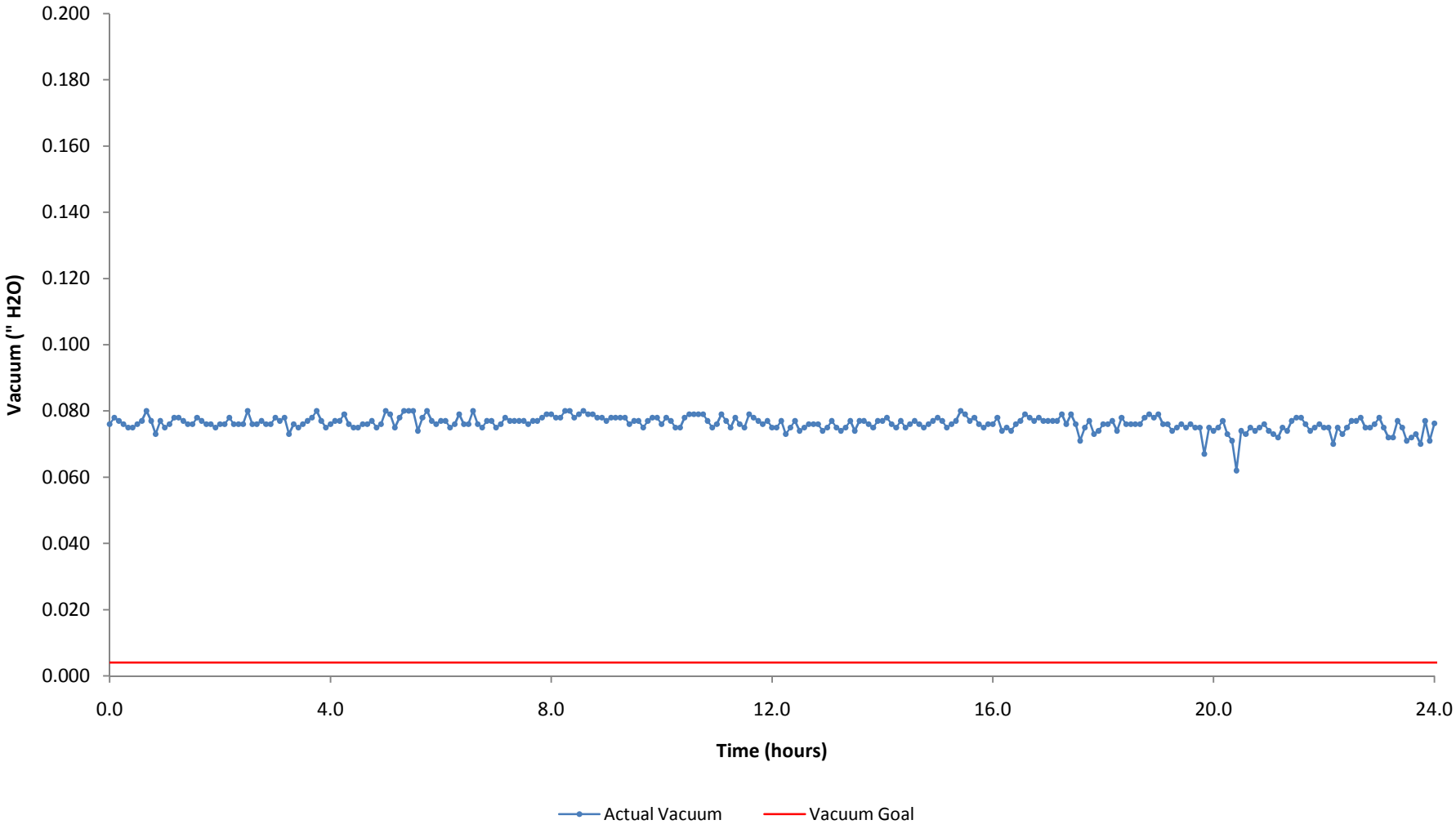
MAY 2010



24-HOUR VACUUM MONITORING DATA FOR SV-2

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING C

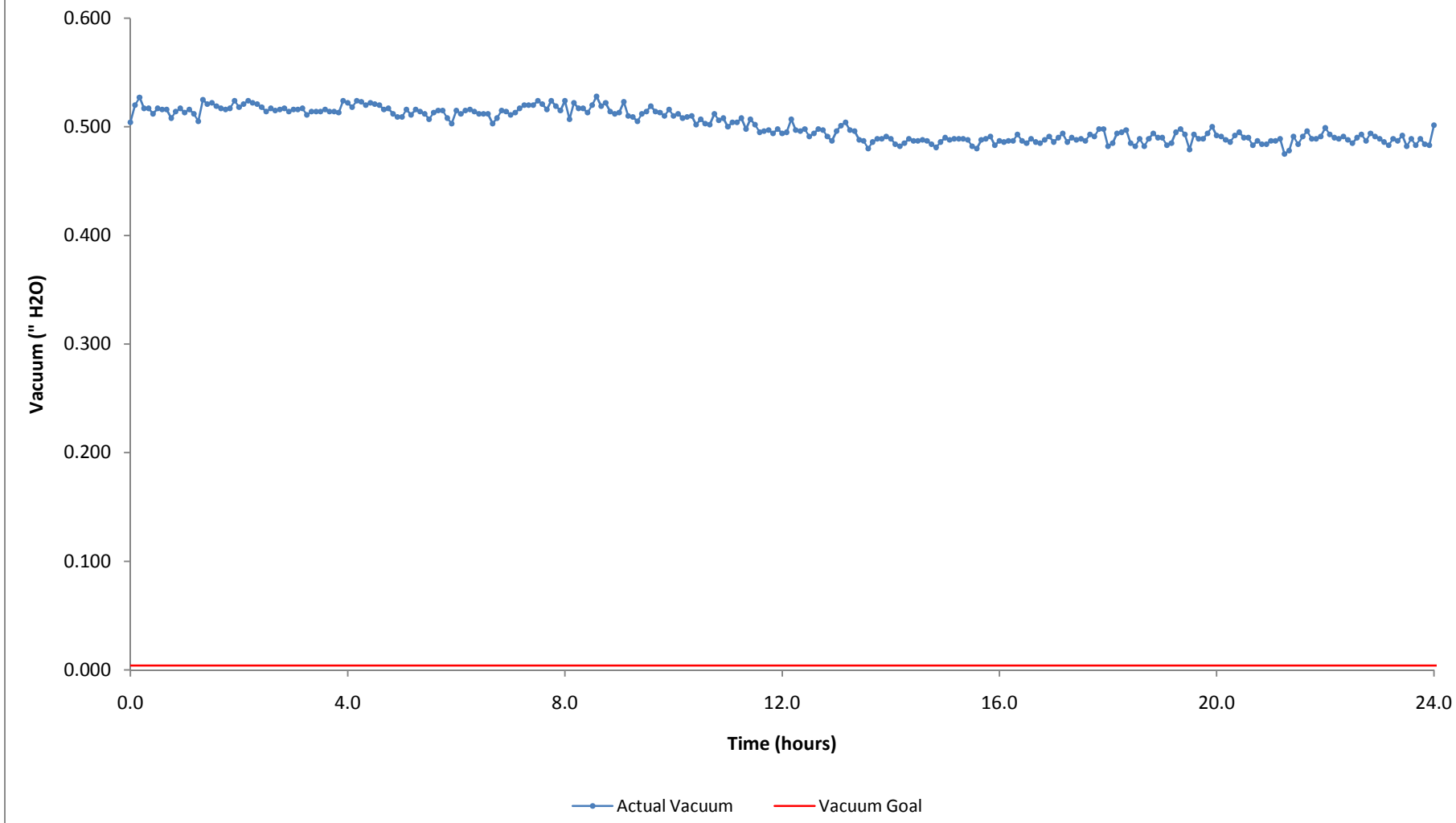
MAY 2010



24-HOUR VACUUM MONITORING DATA FOR SV-2C

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING C

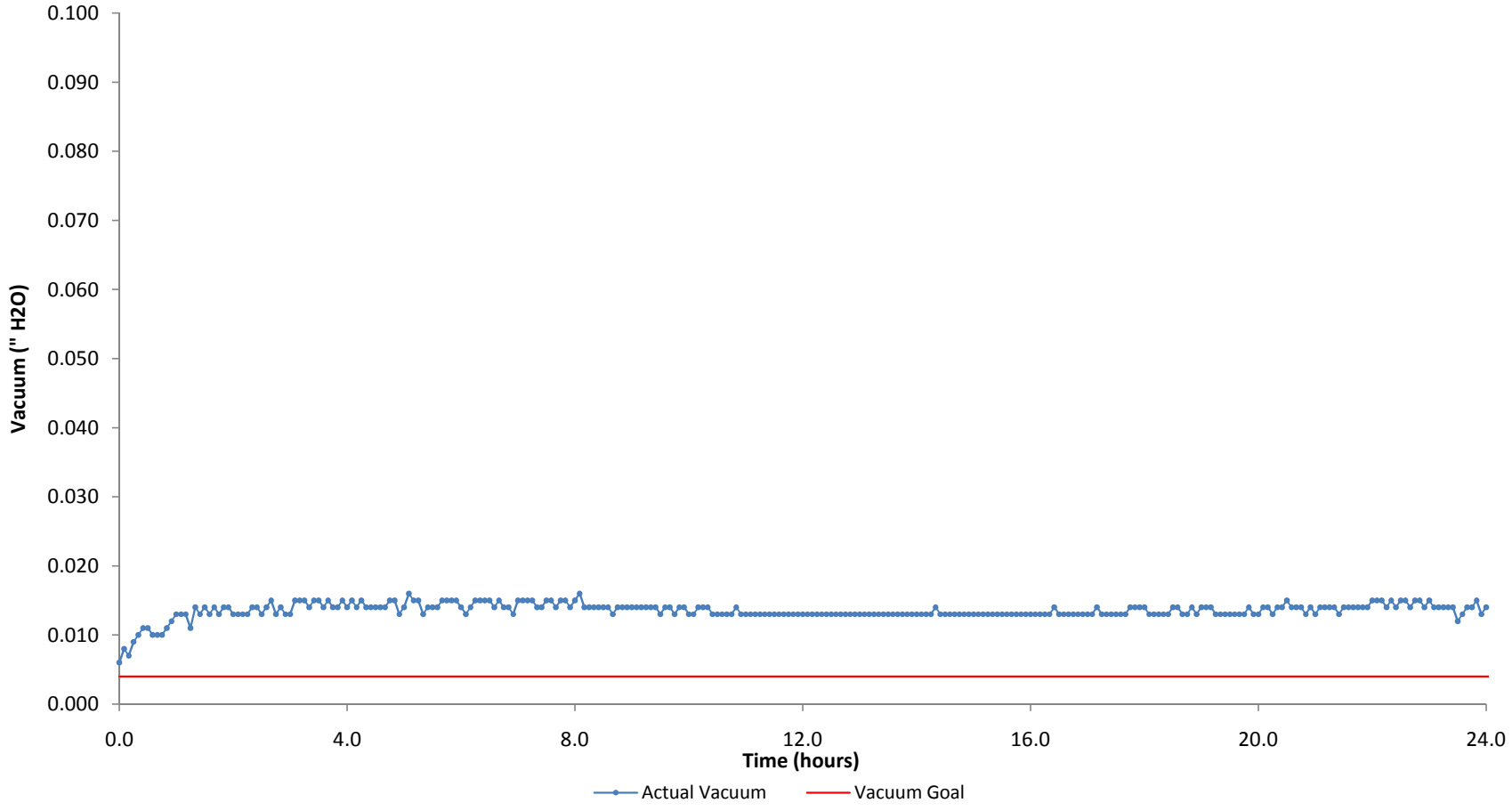
MAY 2010



24-HOUR VACUUM MONITORING DATA FOR SV-11

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING A

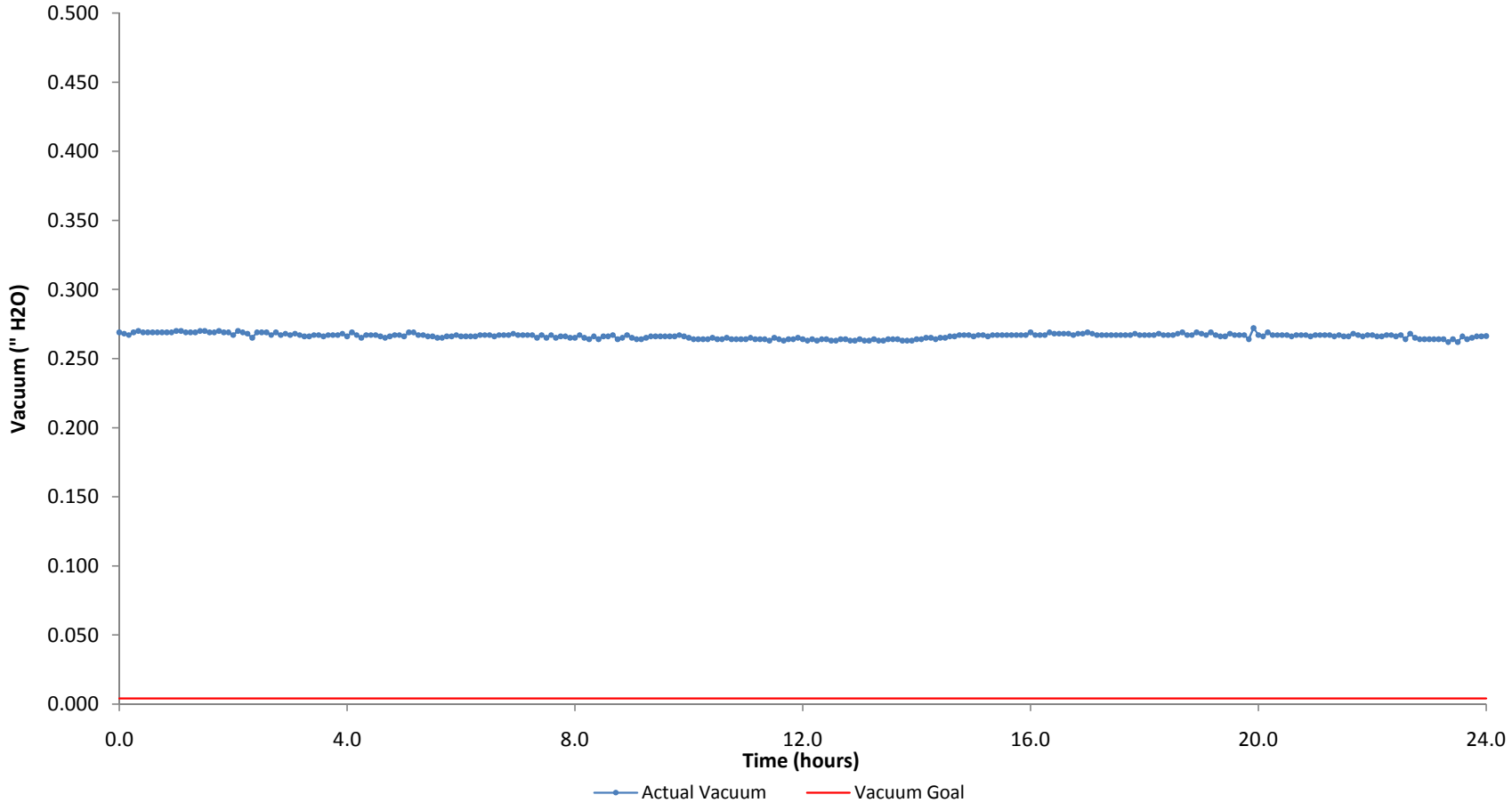
JUNE 2010



24-HOUR VACUUM MONITORING DATA FOR SV-13

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING A

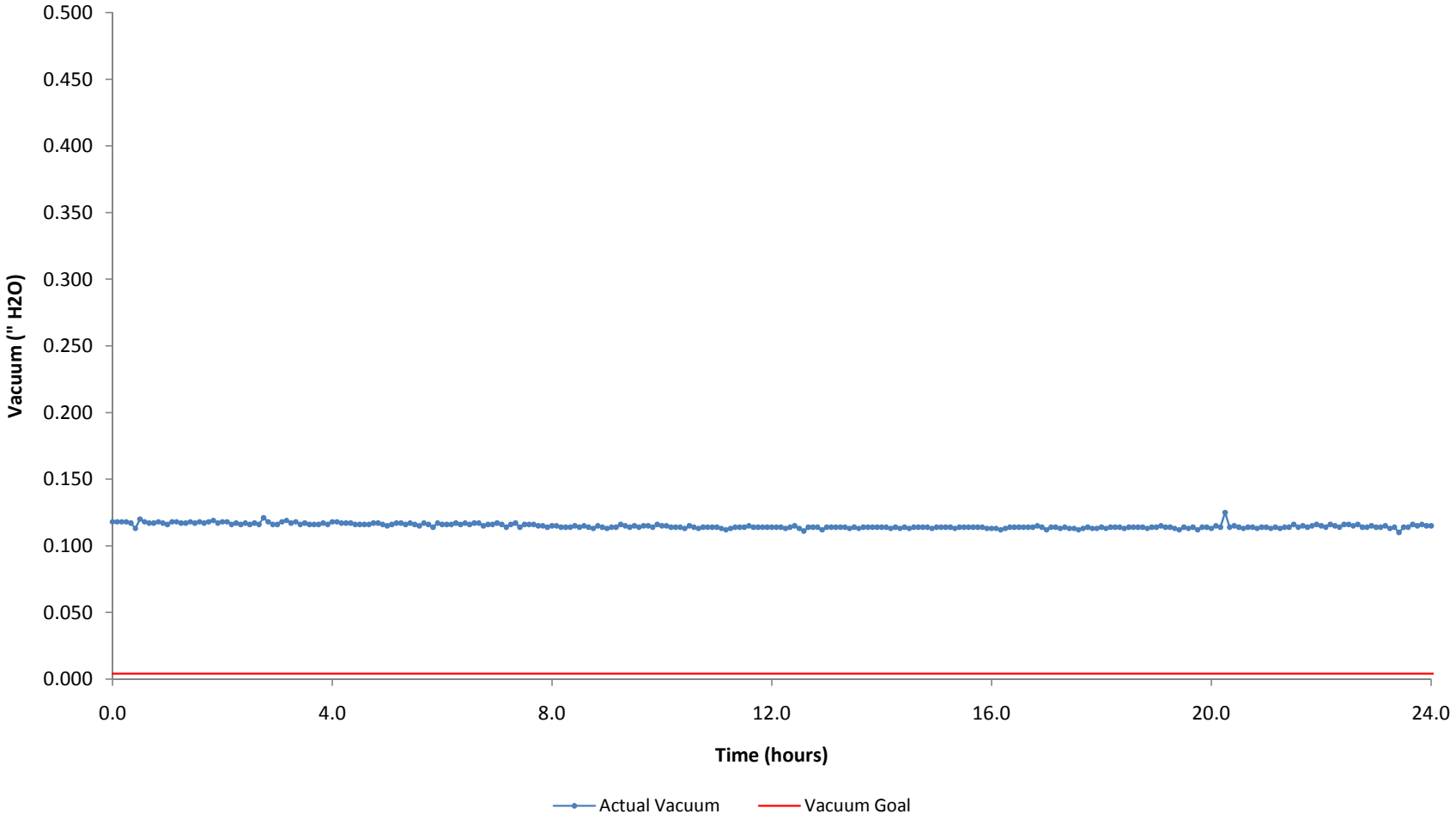
JUNE 2010



24-HOUR VACUUM MONITORING DATA FOR SV-12

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING A

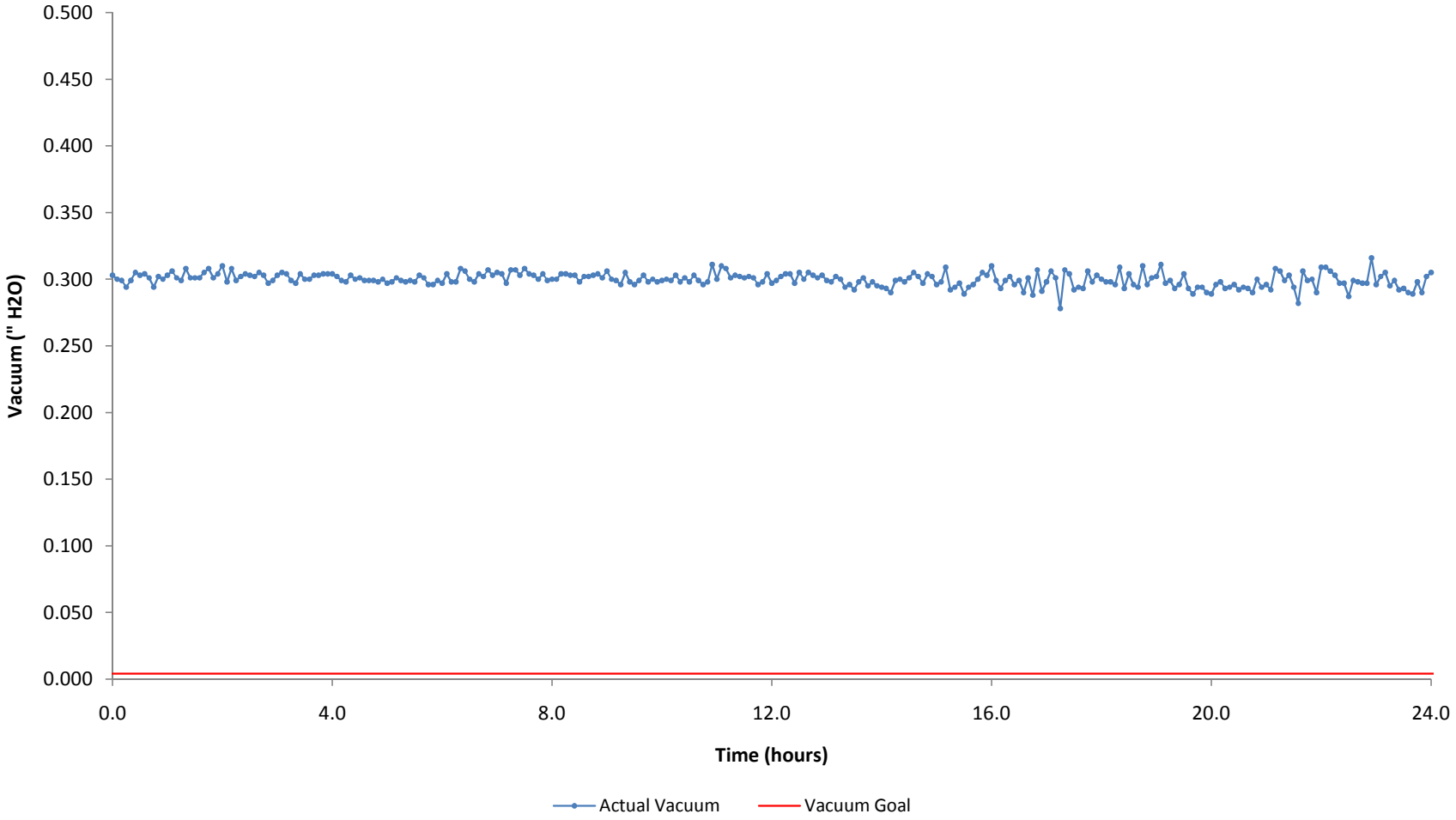
JUNE 2010



24-HOUR VACUUM MONITORING DATA FOR SV-1

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING C

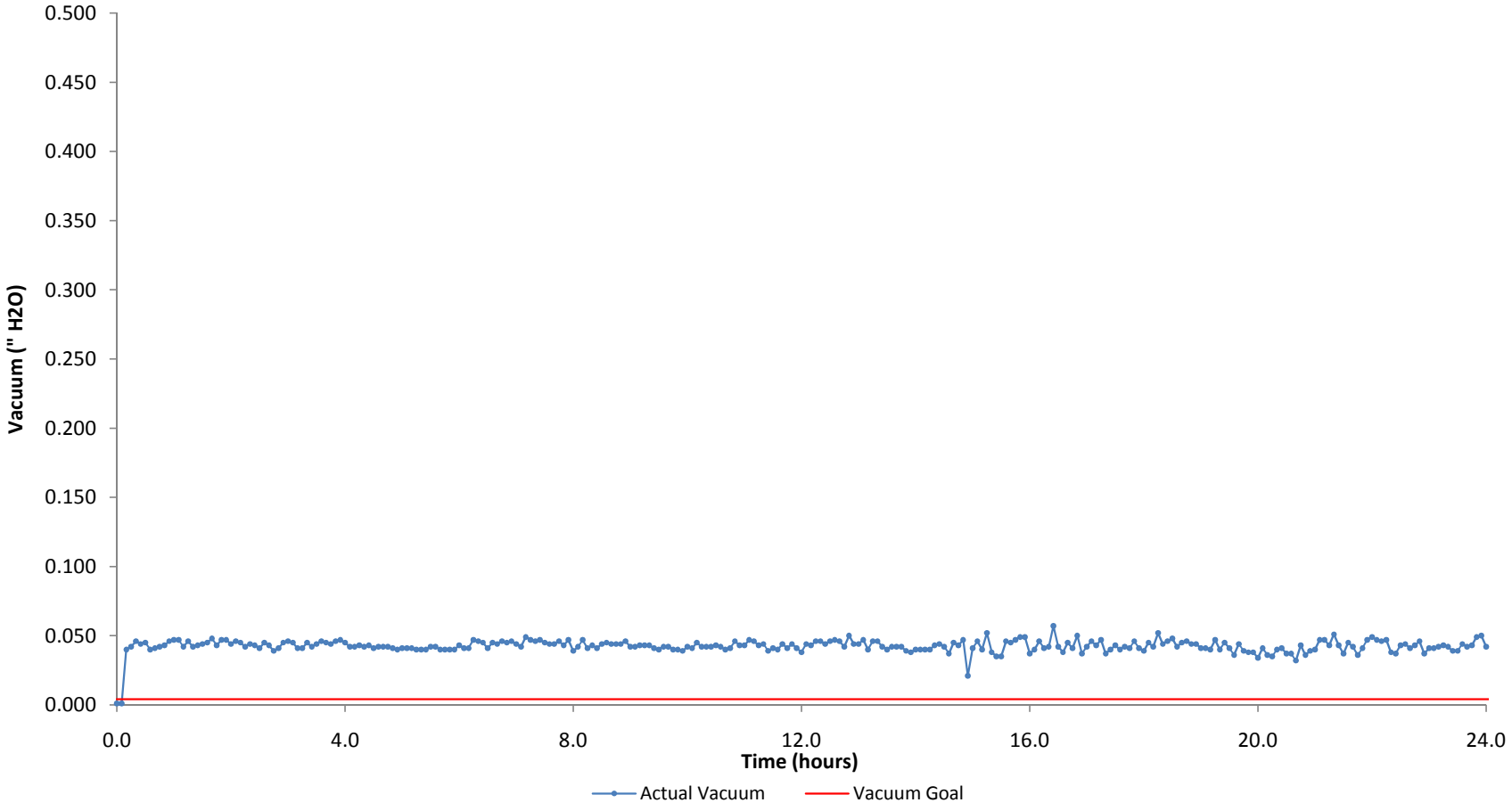
JUNE 2010



24-HOUR VACUUM MONITORING DATA FOR SV-2

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING C

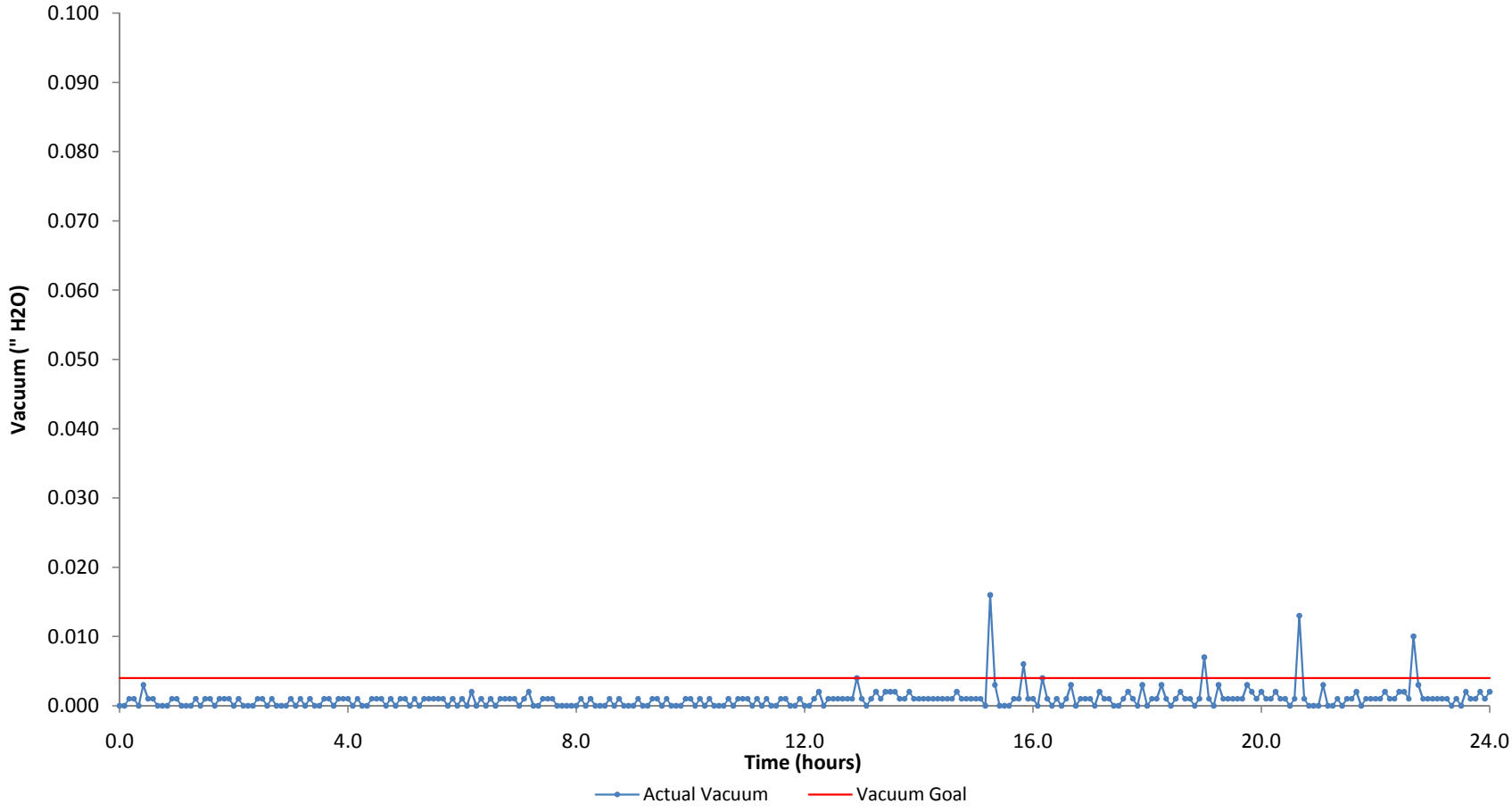
JUNE 2010



24-HOUR VACUUM MONITORING DATA FOR SV-3C

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING C

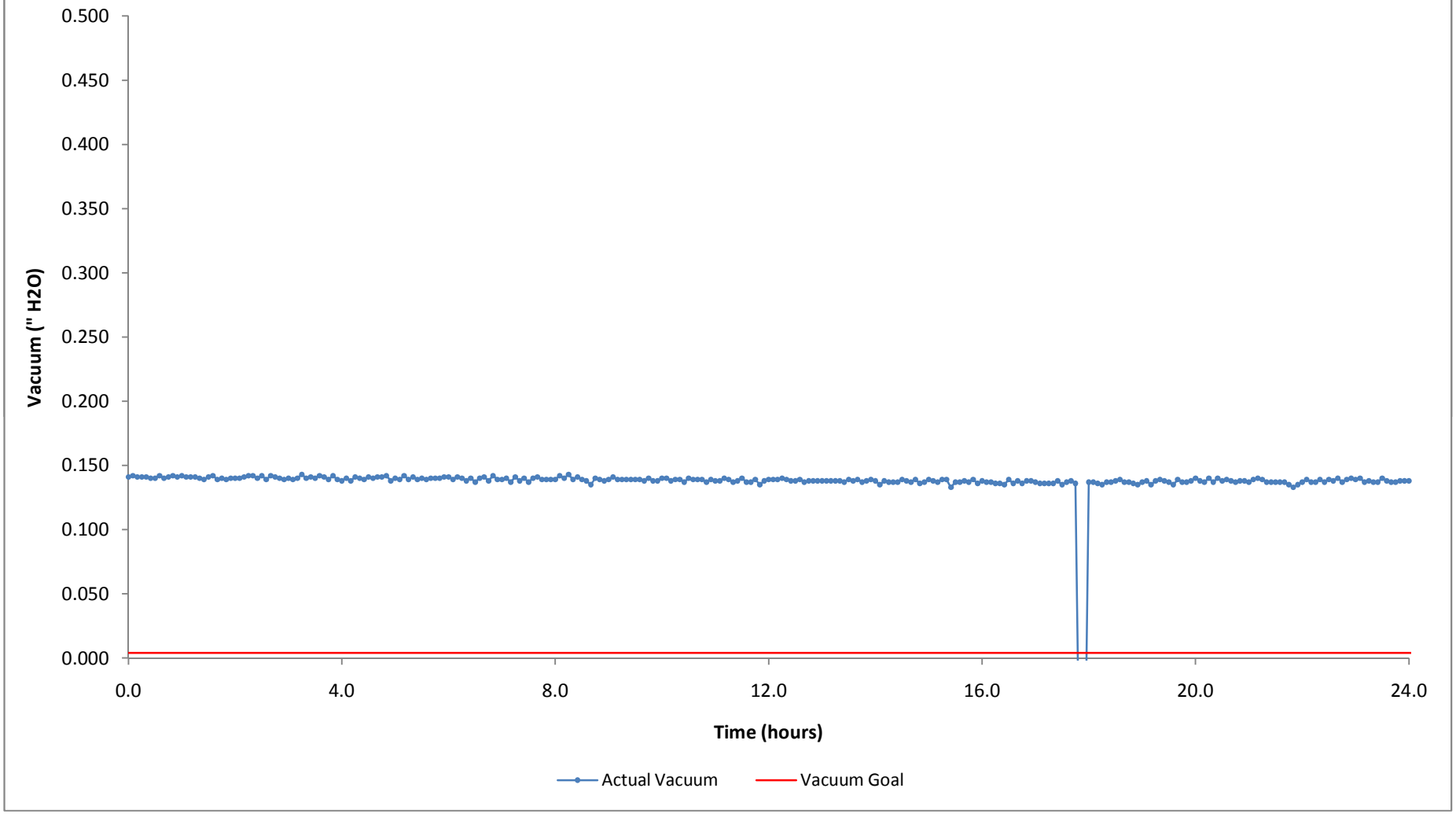
JUNE 2010



24-HOUR VACUUM MONITORING DATA FOR SV-12

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING A

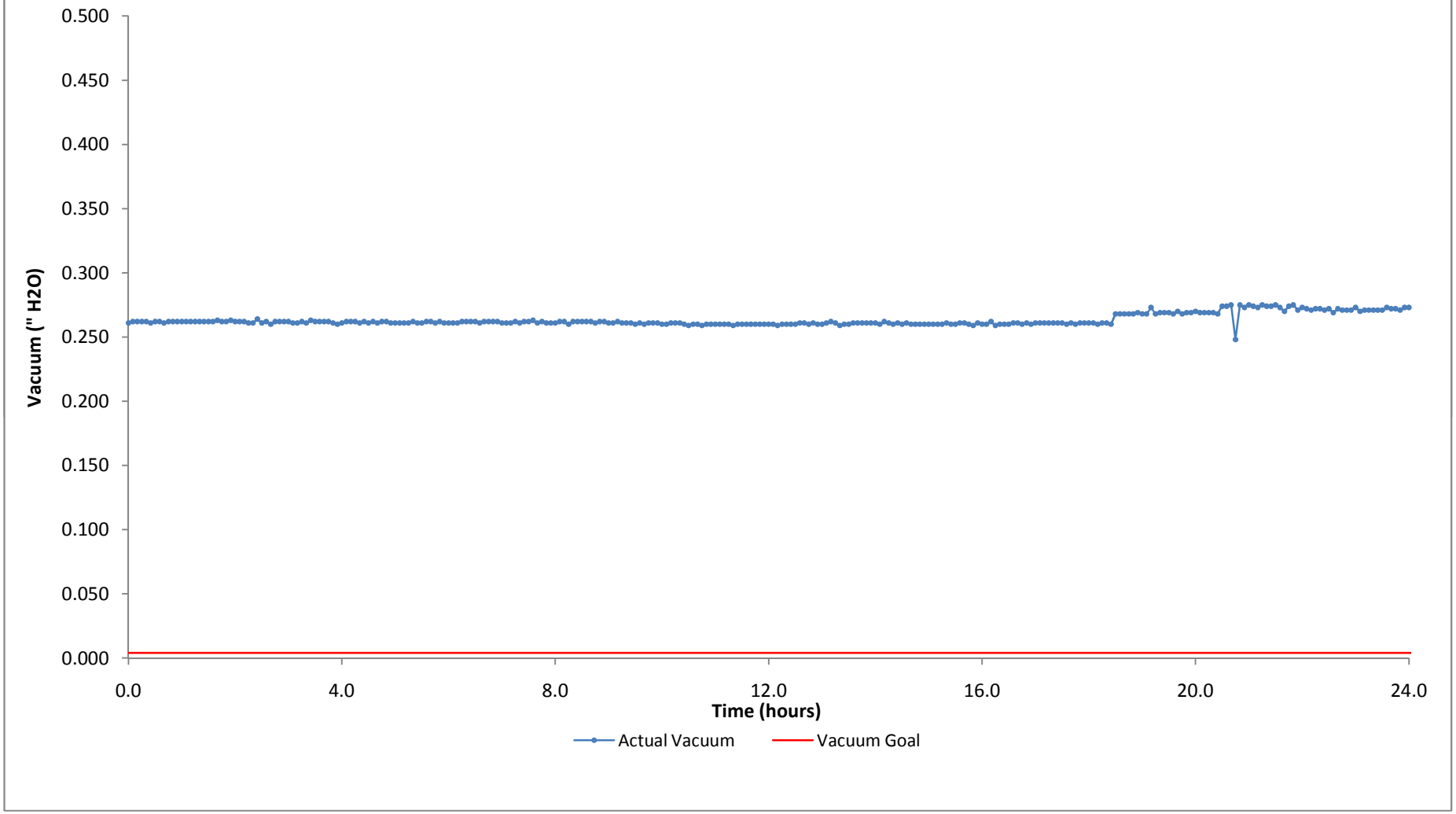
JULY 2010



24-HOUR VACUUM MONITORING DATA FOR SV-13

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING A

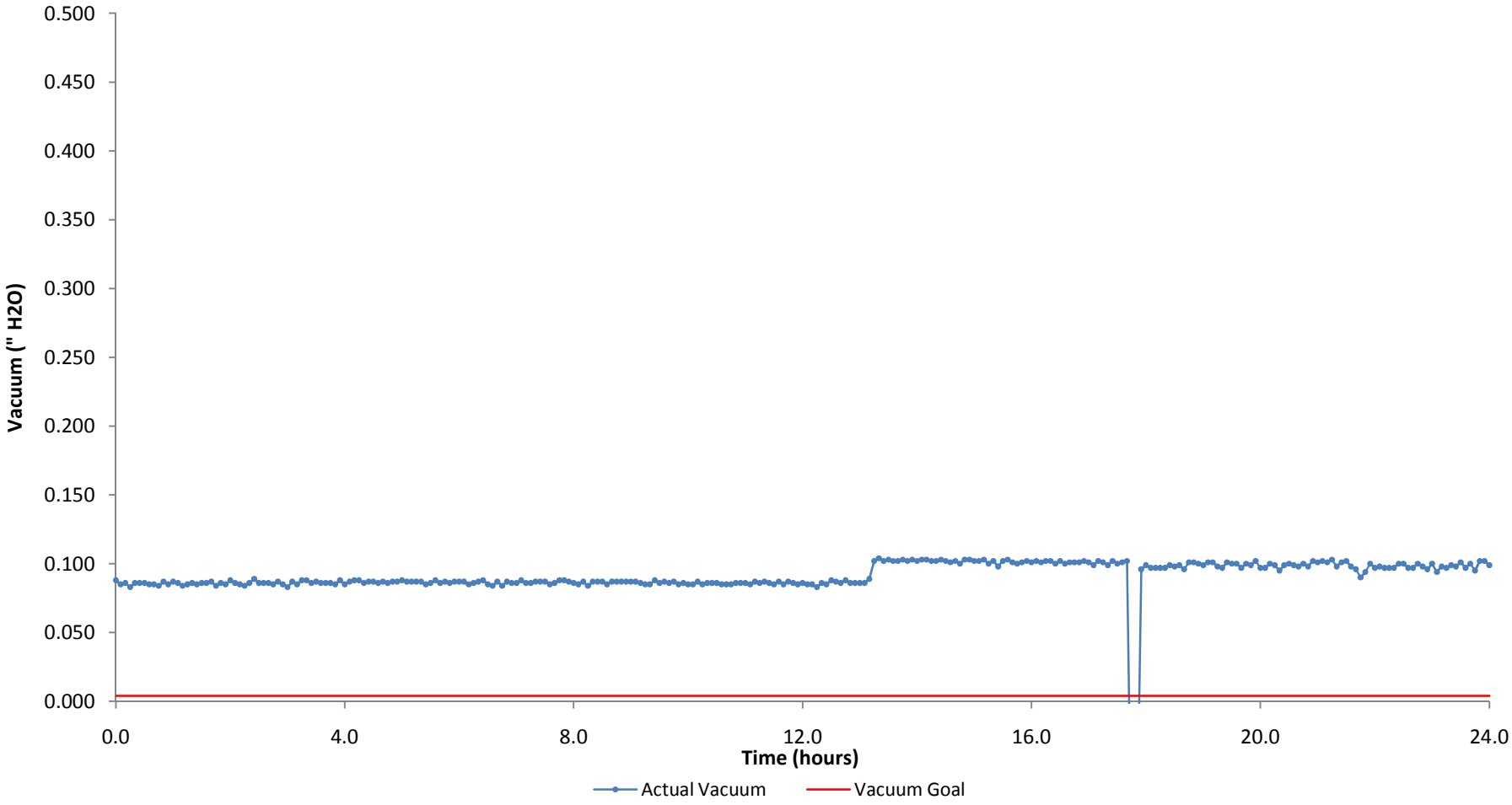
JULY 2010



24-HOUR VACUUM MONITORING DATA FOR SV-1A

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING A

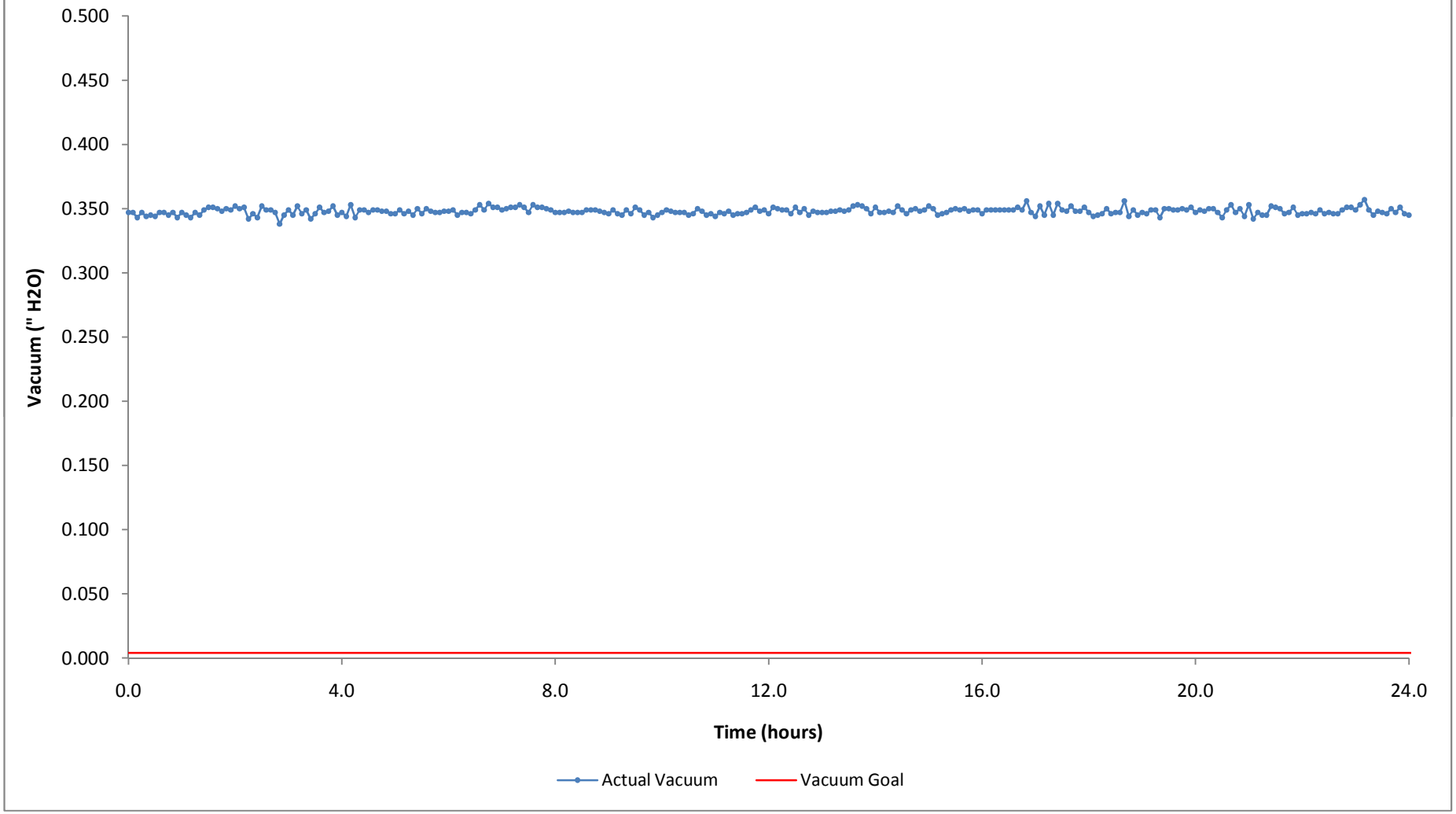
JULY 2010



24-HOUR VACUUM MONITORING DATA FOR SV-1

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING C

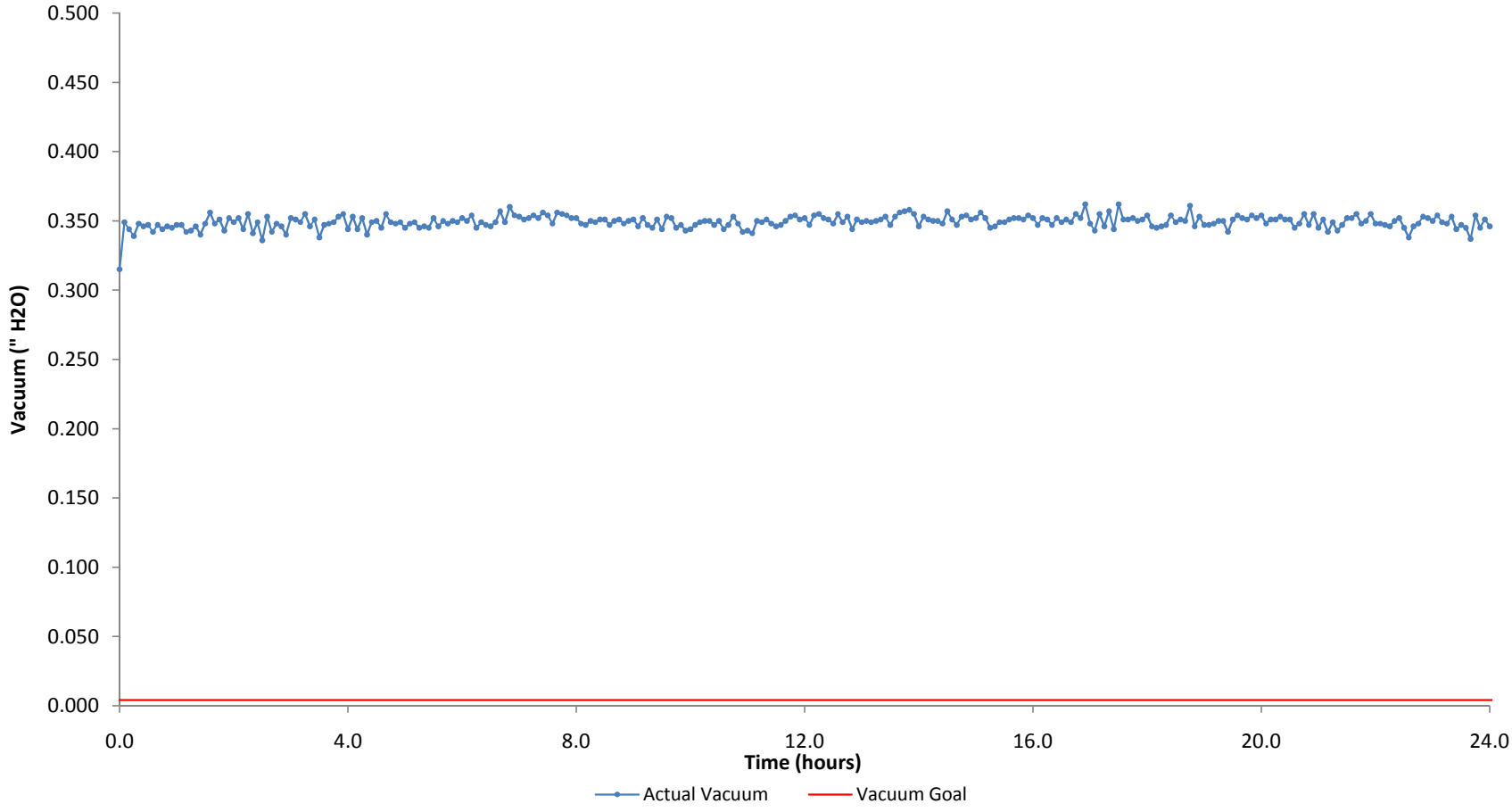
JULY 2010



24-HOUR VACUUM MONITORING DATA FOR SV-2C

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING C

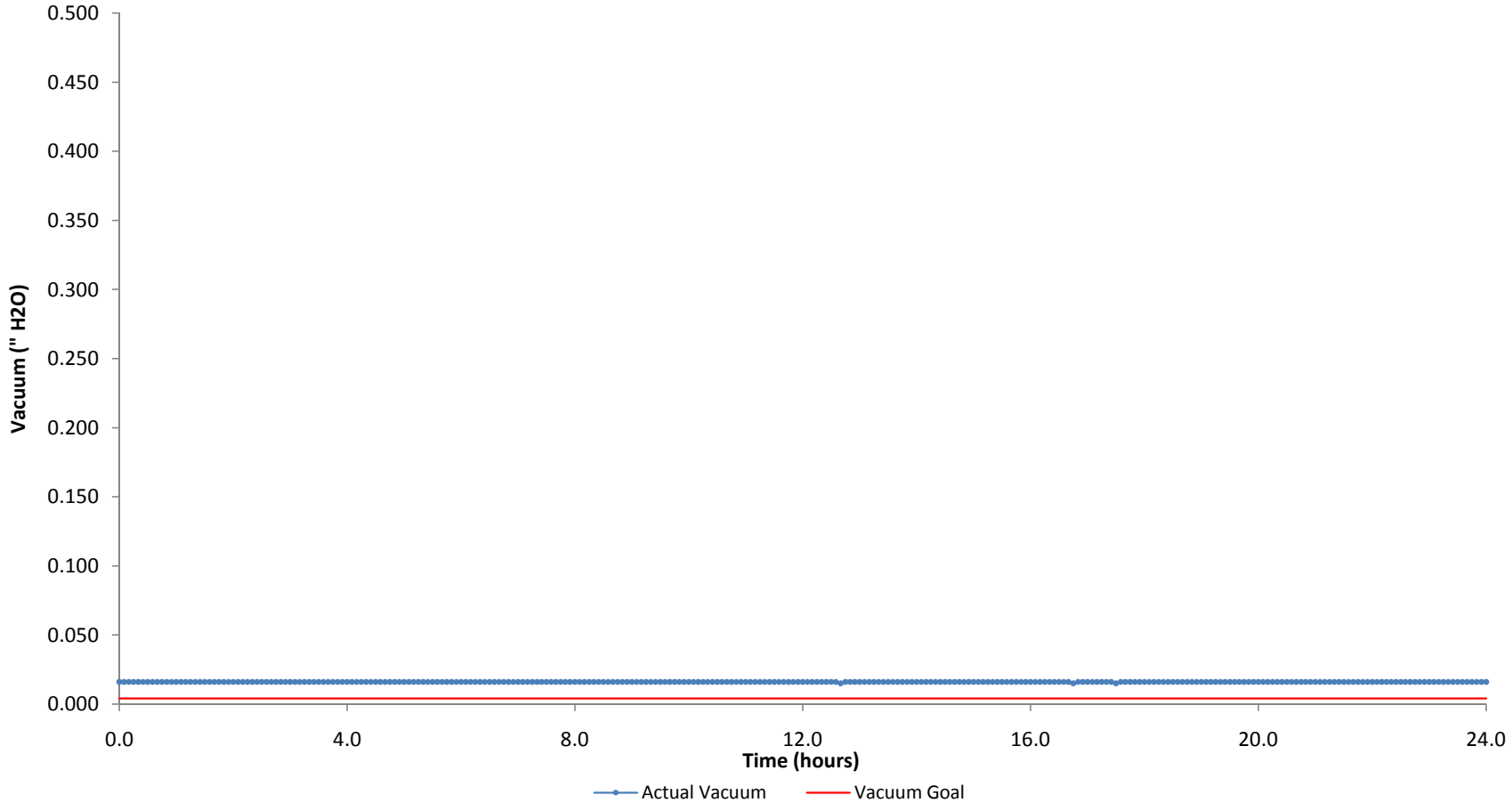
JULY 2010



24-HOUR VACUUM MONITORING DATA FOR SV-3C

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING C

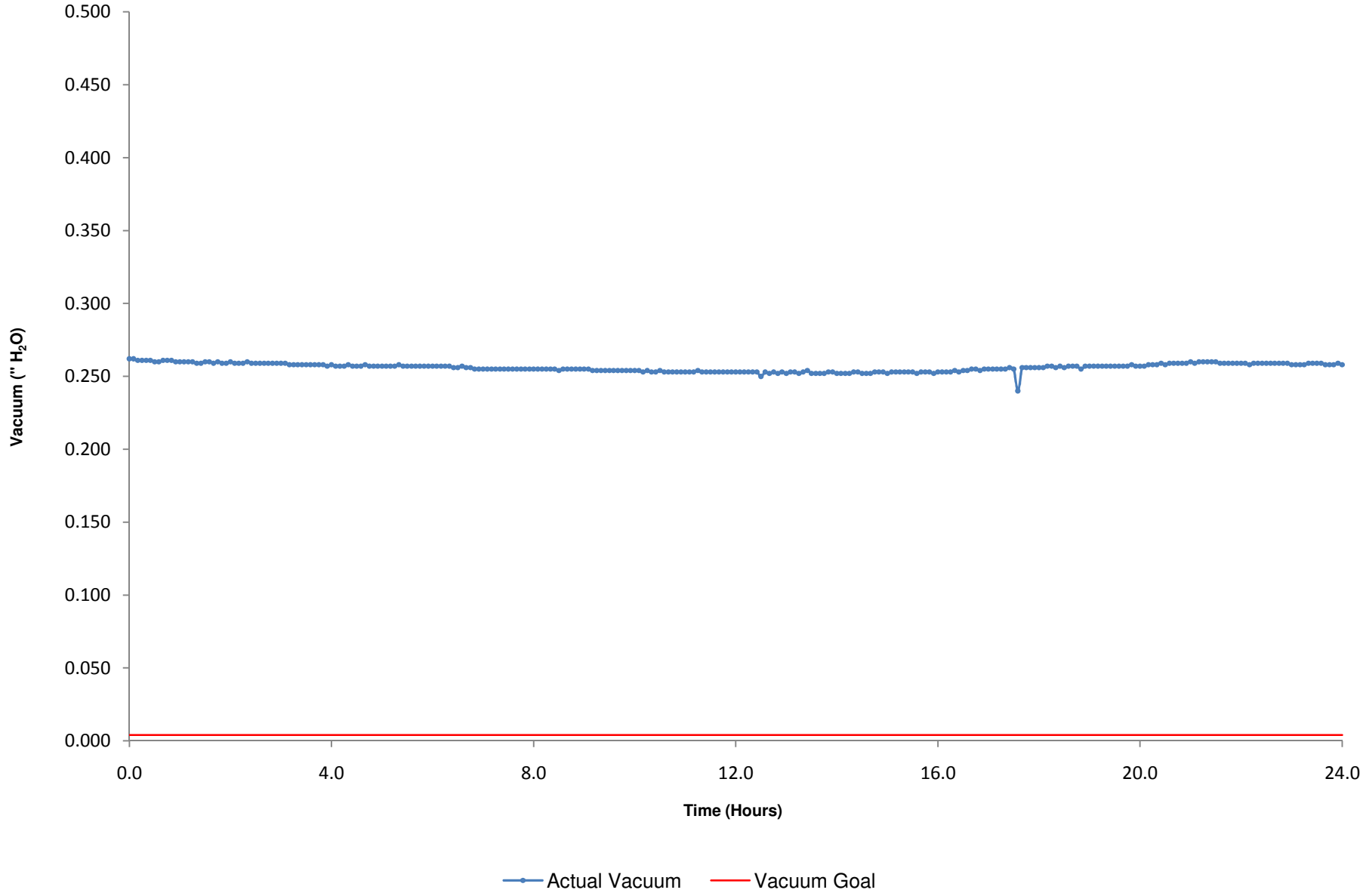
JULY 2010



24-HOUR VACUUM MONITORING DATA FOR SV-13

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING A

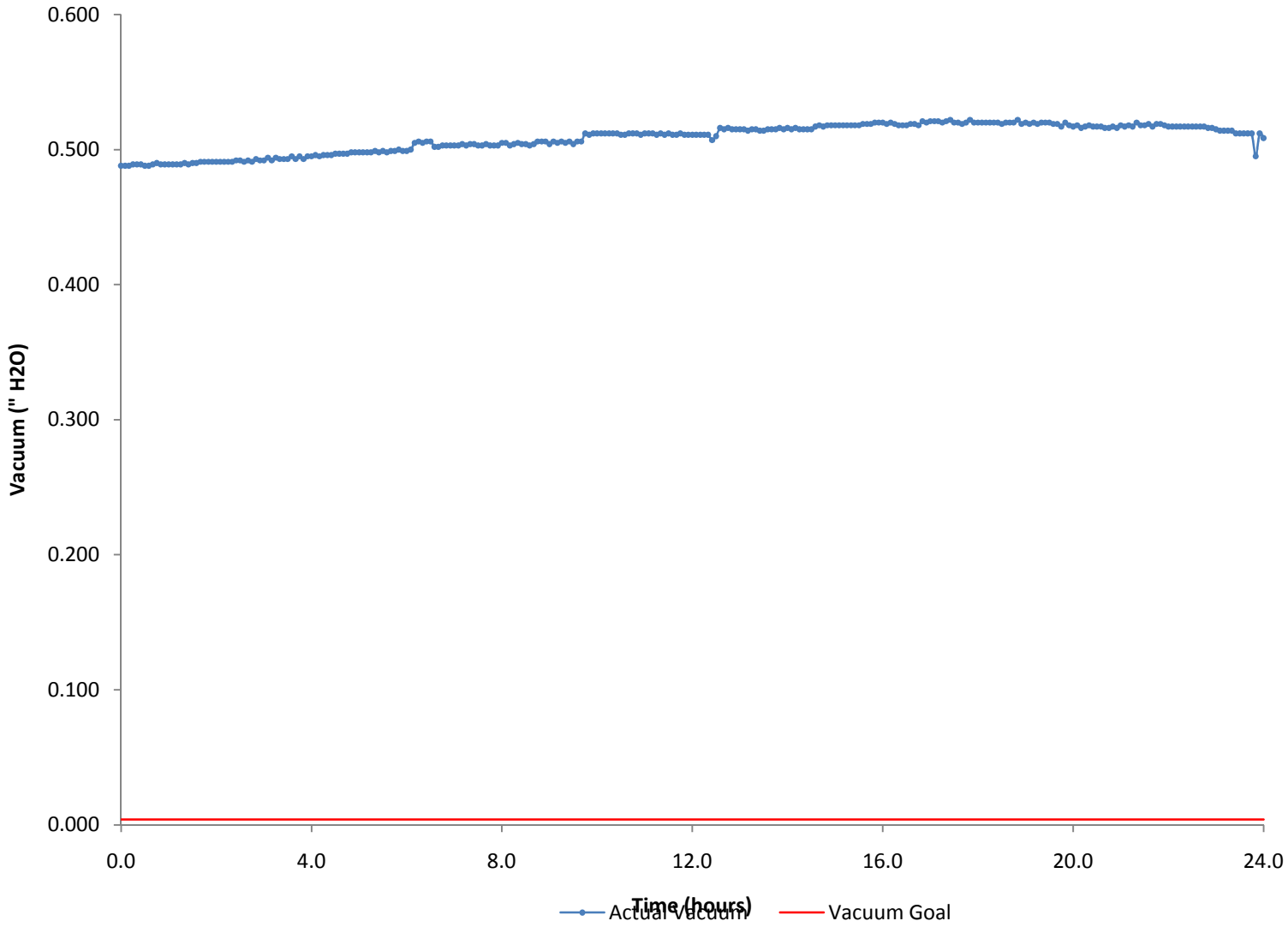
AUGUST 2010



24-HOUR VACUUM MONITORING DATA FOR SV-16

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING A

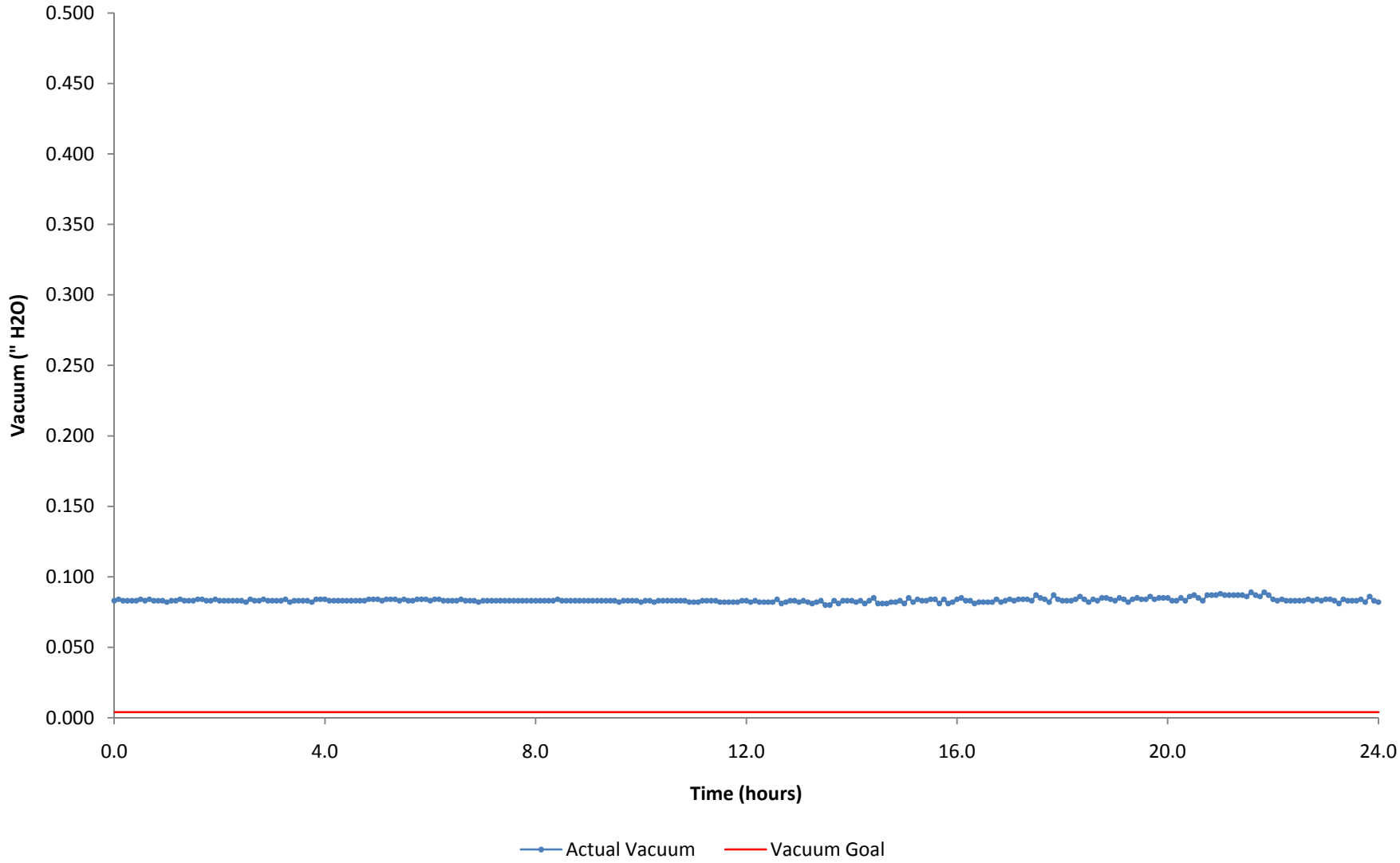
AUGUST 2010



24-HOUR VACUUM MONITORING DATA FOR SV-1A

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING A

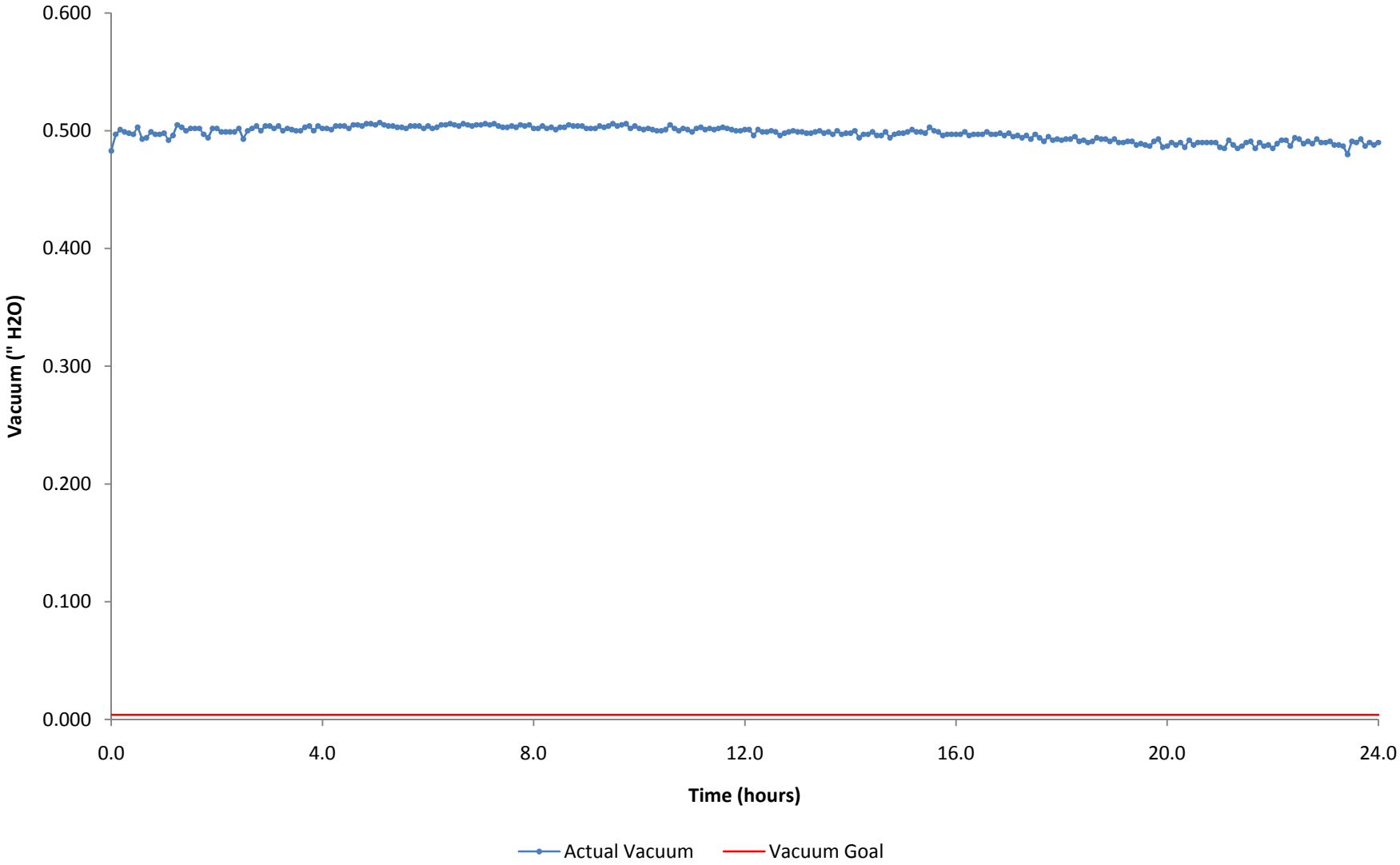
AUGUST 2010



24-HOUR VACUUM MONITORING DATA FOR SV-1

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING C

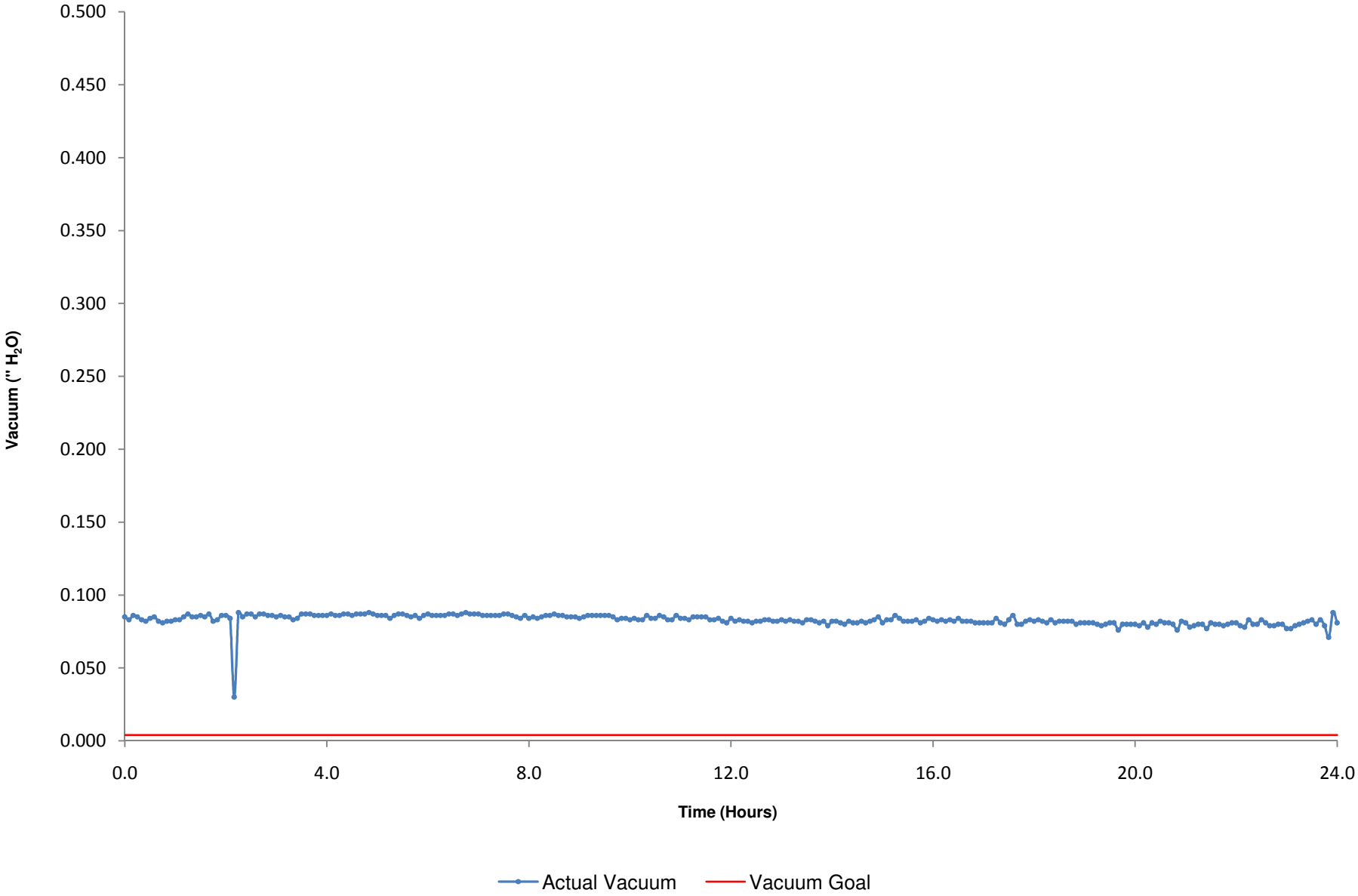
AUGUST 2010



24-HOUR VACUUM MONITORING DATA FOR SV-2

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING C

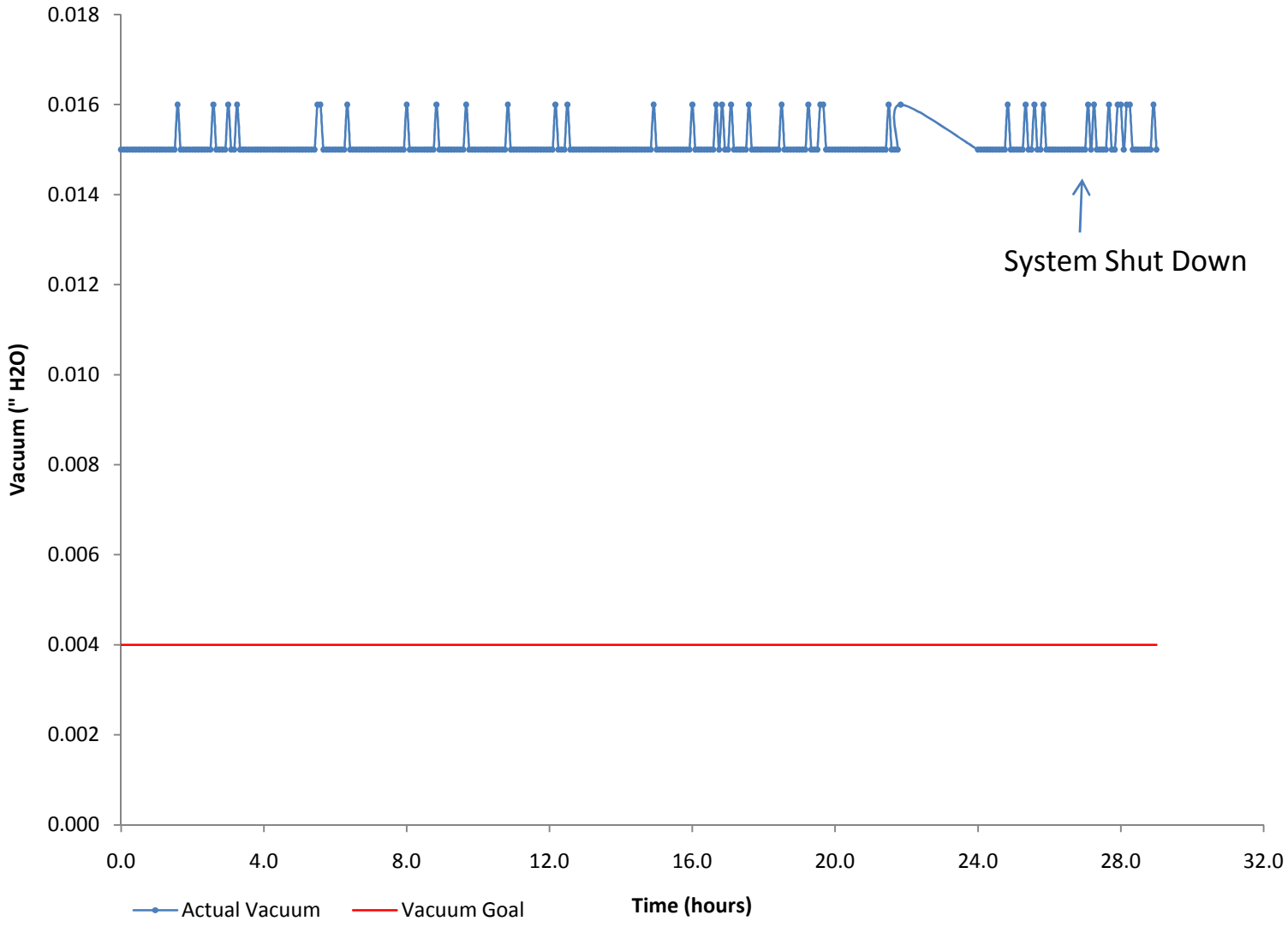
AUGUST 2010



24-HOUR VACUUM MONITORING DATA FOR SV-2C

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING C

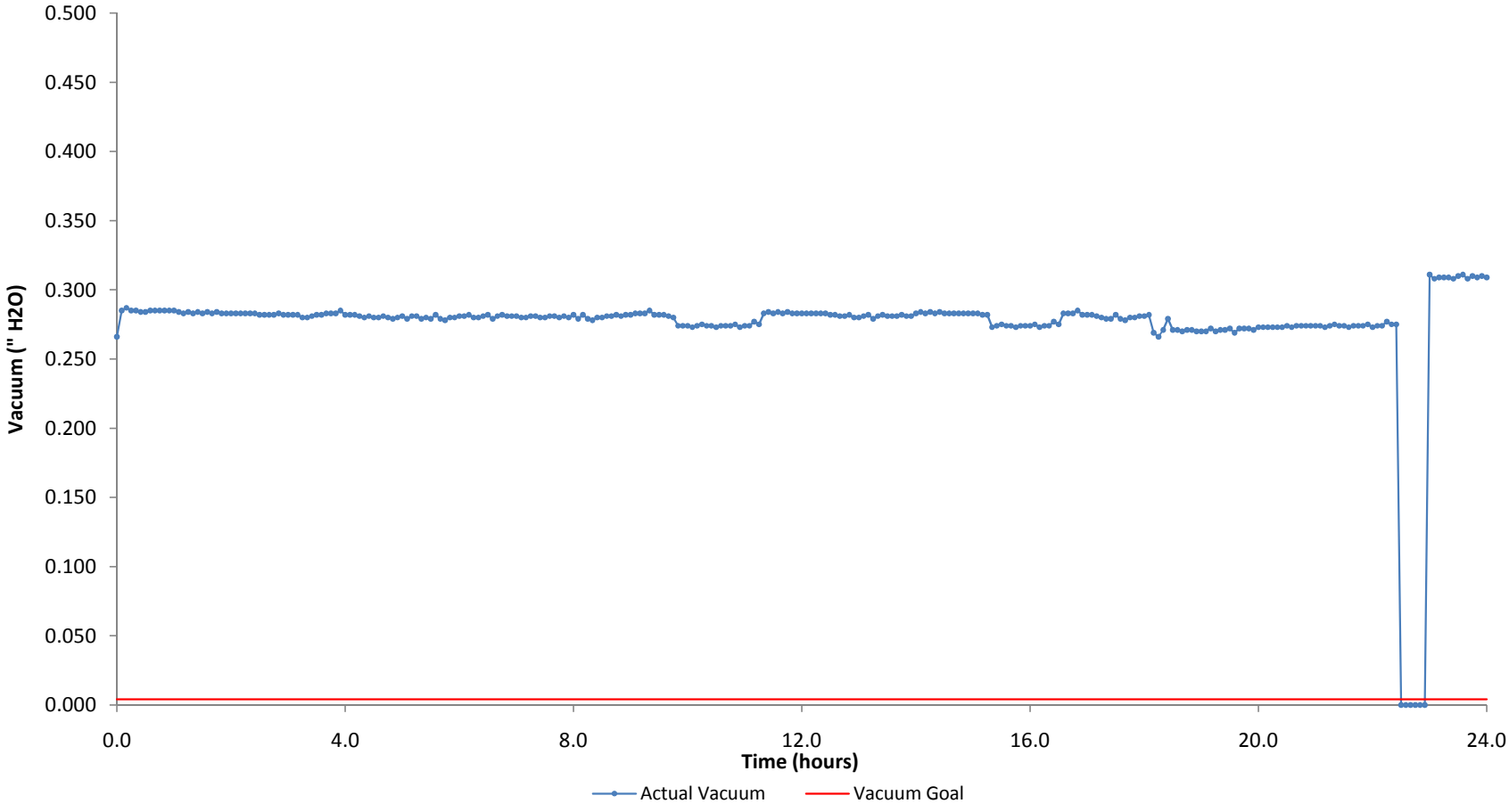
AUGUST 2010



24-HOUR VACUUM MONITORING DATA FOR SV-13

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING A

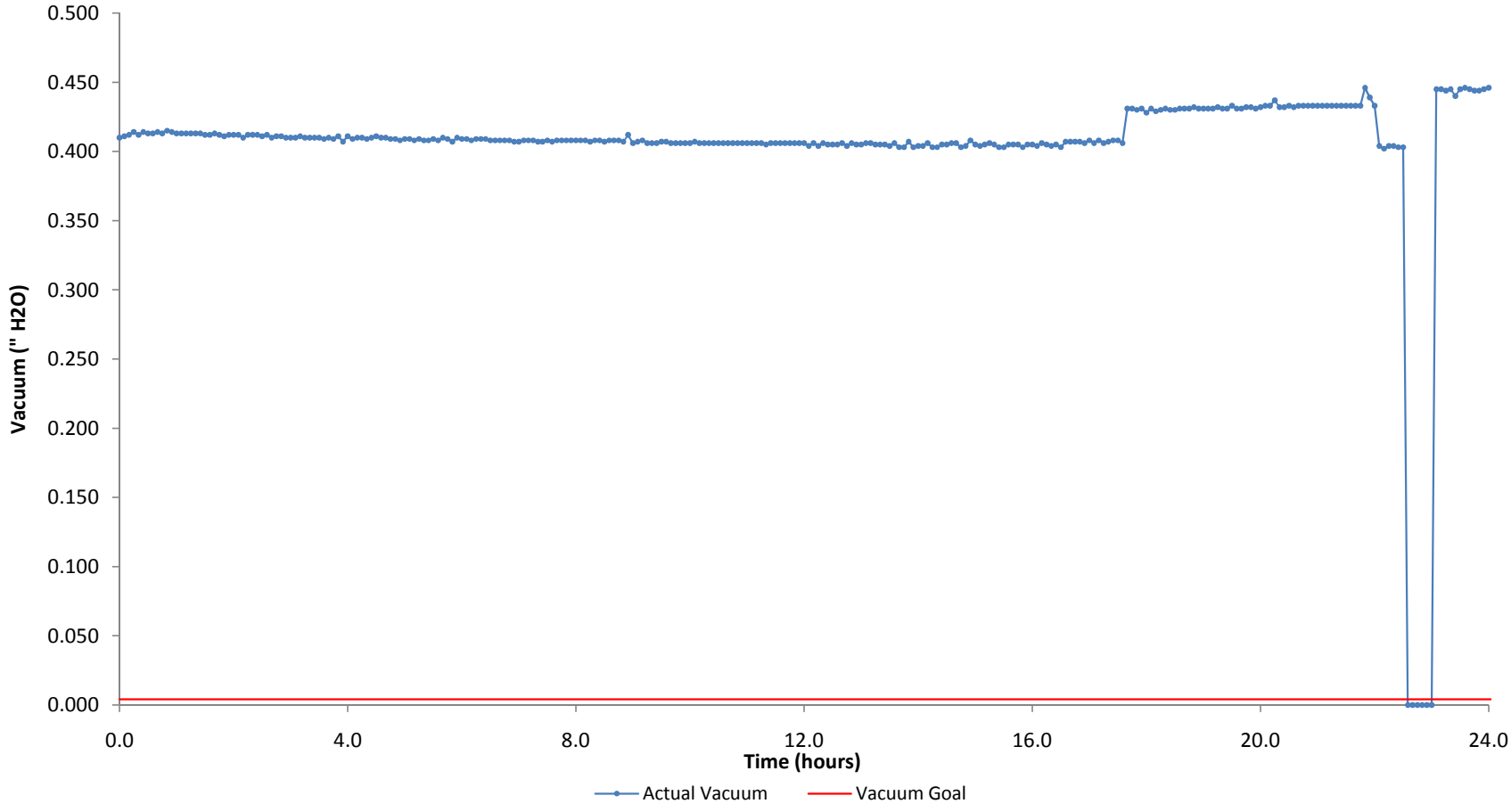
SEPTEMBER 2010



24-HOUR VACUUM MONITORING DATA FOR SV-16

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING A

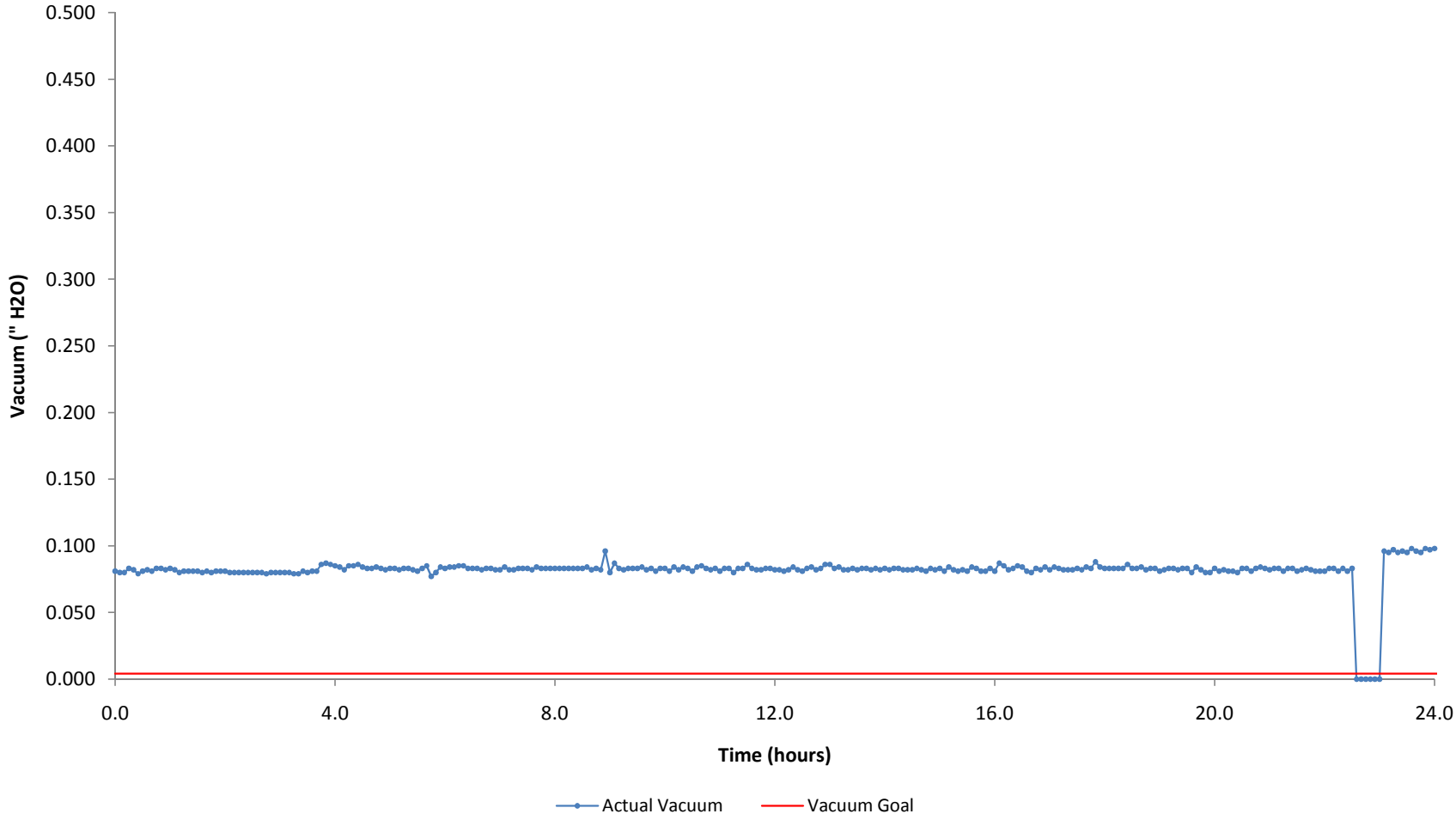
SEPTEMBER 2010



24-HOUR VACUUM MONITORING DATA FOR SV-1A

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING A

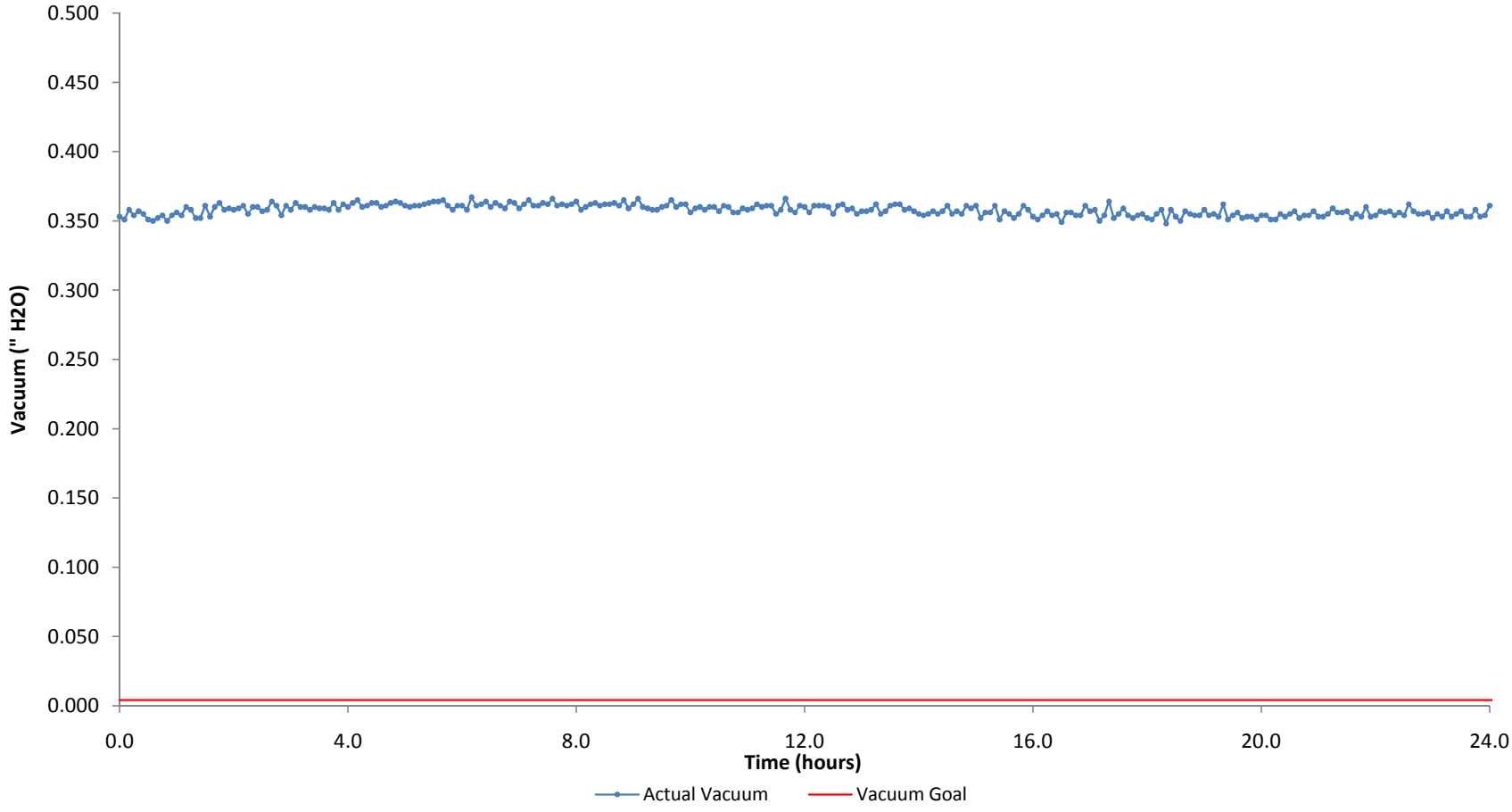
SEPTEMBER 2010



24-HOUR VACUUM MONITORING DATA FOR SV-1

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING C

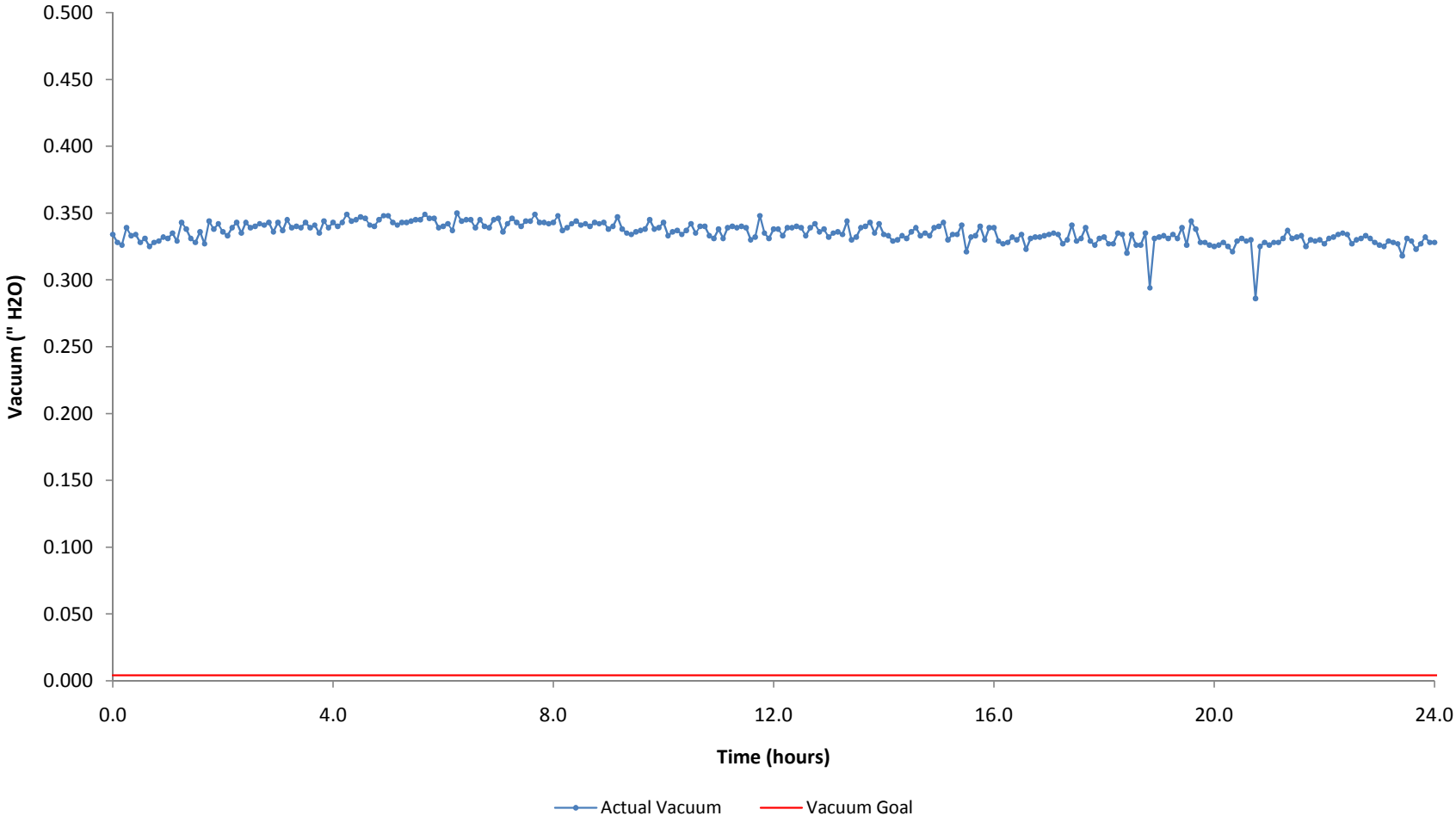
SEPTEMBER 2010



24-HOUR VACUUM MONITORING DATA FOR SV-2C

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING C

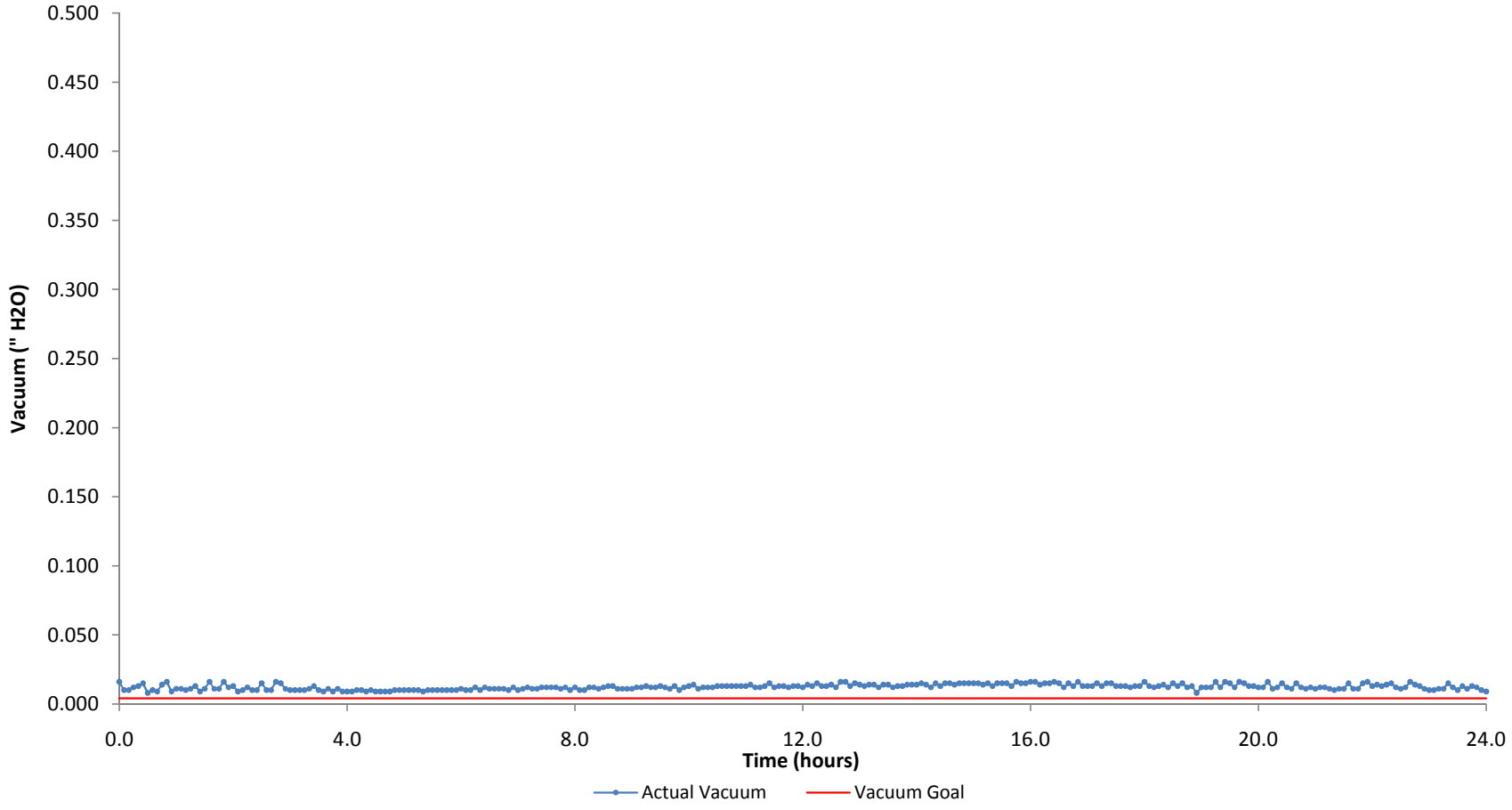
SEPTEMBER 2010



24-HOUR VACUUM MONITORING DATA FOR SV-3C

SUB-SLAB DEPRESSURIZATION SYSTEM - BUILDING C

SEPTEMBER 2010



APPENDIX D

SPENT GAC DISPOSAL DOCUMENTATION

908-353-7400 SWT 5121

SIEMENS

WATER TECHNOLOGIES CORP.

Bill of Lading

CONSIGNEE (TO): SIEMENS WATER TECHNOLOGIES CORP.	SHIPPER (FROM):
☐ 2523 Mutahar Street Parker, AZ 85344	1 Lockheed Martin 2 2323 Eastern BLVD. Middle River MD 21220
☐ 11711 Reading Road Red Buff, CA 96080	
☒ 118 Park Road Darlington, PA 16115	

Job#: 3

No. Shipping Units	TYPE*	DESCRIPTION	WEIGHT
4	5	**Spent Carbon - Non Hazardous Waste**	6
		Not DOT Regulated Material	
5	DM	**Circle one: AQUA (VAPOR)**	1000
		Profile # 7 SLJTC-LOCKMD-AF	

CUSTOMER INFORMATION:

DATE 8	PRINT NAME: 9	SIGNATURE: 10
6/17/10	Tyler McIntyre	

TRANSPORTER:

NAME OF CARRIER #1: Siemens Water Technologies Corp	DATE: 11 6/17/10	SIGNATURE: 12
NAME OF CARRIER #2: 13	DATE: 14	SIGNATURE: 15
RECEIVED BY (FULL NAME): 16 Tyler McIntyre	DATE: 17	SIGNATURE: 18

1.) Name of Generator
2.) Generator site address
3.) Given job number
4.) Number of units being picked up
5.) Type of unit being picked up
6.) Total weight
7.) Profile number, MANDATORY
8.) Date service and/or pick up performed
9.) Name of person signing for Generator
10.) Signature of person in box 9
11.) Same as box 8
12.) Signature of driver for Transporter #1
13.) Name of carrier transporting to Plant
14.) Date the load was picked up to go to the Plant
15.) Driver's signature for Transporter #2
16.) Full name of Receiving person
17.) Date received to Plant
18.) Signature of Receiving person

WHITE: THE PLANT YELLOW: TRANSPORTER #2 PINK: FILE REV 2/09

APPENDIX E

LABORATORY DATA

Original Chain of Custody Documentation

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

HOD1904D1

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** PR	**Sampled By:** TSM	1 of 1 COCs
Company: GeoTrans Inc	**Phone:** 410-990-4607		
Address: 844 West St Suite 200	**Site Contact:**		
City/State/Zip Annapolis MD 21401	**TAL Contact:** Ryan Henry		
Phone: 410-990-4607			
FAX: N/A			
Project Name: LMC-Middle River	**Analysis Turnaround Time**		
Site/location: Building A+C	Standard (Specify) TSM		
PO #	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, 'Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
L-8189	4-16-10	0836					L-8189	✓							✓				
L-5139		0848					L-5139	✓							✓				
L-A7056		0857					L-A7056	✓							✓				
L-A7120		0922					L-A7120	✓							✓				
L-3841		0925					L-3841	✓							✓				
L-A7057		0930					L-A7057	✓							✓				

Sampled by : T.S.M.

Temperature (Fahrenheit)	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)	Interior	Ambient	
Start			
Stop			

1 COOLER REC'D AMBIENT
FED EX # 8693 4240 3694
CUSTODY SEALS INTACT
6 CANS, 0 FLOWS
TS 4/17/10

Special Instructions/QC Requirements & Comments: N/A

Canisters Shipped by: T. McIntyre	Date/Time: 4-16-10 1005	Canisters Received by:
Samples Relinquished by: T. McIntyre	Date/Time: 4-16-10 1007	Received by: [signature] 4/17/10 9:10
Relinquished by:	Date/Time:	Received by:

H0D190401 Analytical Report 1
Sample Receipt Documentation 21
Total Number of Pages 23

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

LMC-Middle River - Bldg A & C

Lot #: H0D190401

Peter Rich

GeoTrans, Inc.
844 West Street
Suite 100
Annapolis, MD 21401

TESTAMERICA LABORATORIES, INC.

Terry Wasmund
Project Manager

April 29, 2010

ANALYTICAL METHODS SUMMARY

H0D190401

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO15	EPA-2 TO-15

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H0D190401

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
LX587	001	L-8189	04/16/10	08:36
LX588	002	L-5139	04/16/10	08:48
LX589	003	L-A7056	04/16/10	08:57
LX59A	004	L-A7120	04/16/10	09:22
LX59C	005	L-3841	04/16/10	09:25
LX59D	006	L-A7057	04/16/10	09:30

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H0D190401

The results reported herein are applicable to the samples submitted for analysis only.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

TestAmerica Knoxville maintains the following certifications, approvals and accreditations: Arkansas DEQ Lab #88-0688, California DHS ELAP Cert. #2423, Colorado DPHE, Connecticut DPH Lab #PH-0223, Florida DOH Lab #E87177, Georgia DNR Lab #906, Hawaii DOH, Illinois EPA Lab #200012, Indiana DOH Lab #C-TN-02, Iowa DNR Lab #375, Kansas DHE Cert. #E-10349, Kentucky DEP Lab #90101, Louisiana DEQ Cert. #03079, Louisiana DOHH, Maryland DOE Cert. #277, Michigan DEQ Lab #9933, Nevada DEP, New Jersey DEP Lab #TN001, New York DOH Lab #10781, North Carolina DPH Lab #21705, North Carolina DEHNR Cert. #64, Ohio EPA VAP Lab #CL0059, Oklahoma DEQ Lab #9415, Pennsylvania DEP Lab #68-00576, South Carolina DHEC Cert #84001001, Tennessee DOH Lab #02014, Texas CEQ, Utah DOH Lab # QUAN3, Virginia DGS Lab #00165, Washington DOE Lab #C1314, West Virginia DEP Cert. #345, West Virginia DHHR Cert #9955C, Wisconsin DNR Lab #998044300, Naval Facilities Engineering Service Center and USDA Soil Permit #S-46424. This list of approvals is subject to change and does not imply that laboratory certification is available for all parameters reported in this environmental sample data report.

GeoTrans, Inc.

Client Sample ID: L-8189

GC/MS Volatiles

Lot-Sample #	H0D190401 - 001	**Work Order #**	LX5871AC	**Matrix.....:**	AIR
Date Sampled...:	04/16/2010	**Date Received..:**	04/17/2010		
Prep Date.....:	04/20/2010	**Analysis Date...**	04/20/2010		
Prep Batch #.....:	0111123				
Dilution Factor.:	10	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	ND	2.0	ND	7.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	**27**	**2.0**	**110**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	**7.3**	**2.0**	**39**	**11**
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: L-8189

GC/MS Volatiles

Lot-Sample # H0D190401 - 001 Work Order # LX5871AC Matrix.....: AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	91	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: L-5139

GC/MS Volatiles

Lot-Sample #	H0D190401 - 002	**Work Order #**	LX5881AC	**Matrix.....:**	AIR
Date Sampled...:	04/16/2010	**Date Received..:**	04/17/2010		
Prep Date.....:	04/20/2010	**Analysis Date...**	04/20/2010		
Prep Batch #.....:	0111123				
Dilution Factor.:	10	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	ND	2.0	ND	7.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	ND	2.0	ND	7.9
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: L-5139

GC/MS Volatiles

Lot-Sample # H0D190401 - 002 Work Order # LX5881AC Matrix.....: AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	91	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: L-A7056

GC/MS Volatiles

Lot-Sample # H0D190401 - 003 **Work Order #** LX5891AC **Matrix.....:** AIR

Date Sampled...: 04/16/2010 **Date Received..:** 04/17/2010
Prep Date.....: 04/20/2010 **Analysis Date...** 04/20/2010
Prep Batch #.....: 0111123
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	ND	2.0	ND	7.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	ND	2.0	ND	7.9
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: L-A7056

GC/MS Volatiles

Lot-Sample # H0D190401 - 003 Work Order # LX5891AC Matrix.....: AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	92	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: L-A7120

GC/MS Volatiles

Lot-Sample #	H0D190401 - 004	**Work Order #**	LX59A1AC	**Matrix.....:**	AIR
Date Sampled...:	04/16/2010	**Date Received..:**	04/17/2010		
Prep Date.....:	04/20/2010	**Analysis Date...**	04/20/2010		
Prep Batch #.....:	0111123				
Dilution Factor.:	10	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	**41**	**2.0**	**160**	**7.9**
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	**10**	**2.0**	**41**	**8.1**
cis-1,2-Dichloroethene	**41**	**2.0**	**160**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	**200**	**2.0**	**1100**	**11**
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	**190**	**2.0**	**1000**	**11**
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: L-A7120

GC/MS Volatiles

Lot-Sample # H0D190401 - 004 Work Order # LX59A1AC Matrix.....: AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	91	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: L-3841

GC/MS Volatiles

Lot-Sample # H0D190401 - 005 Work Order # LX59C1AC Matrix.....: AIR

Date Sampled...: 04/16/2010 Date Received..: 04/17/2010
Prep Date.....: 04/20/2010 Analysis Date... 04/20/2010
Prep Batch #....: 0111123
Dilution Factor.: 10 Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	**51**	**2.0**	**200**	**7.9**
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	**22**	**2.0**	**89**	**8.1**
cis-1,2-Dichloroethene	**67**	**2.0**	**260**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	**110**	**2.0**	**600**	**11**
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	**2.7**	**2.0**	**14**	**11**
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: L-3841

GC/MS Volatiles

Lot-Sample # H0D190401 - 005 Work Order # LX59C1AC Matrix.....: AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	92	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: L-A7057

GC/MS Volatiles

Lot-Sample # H0D190401 - 006 **Work Order #** LX59D1AC **Matrix.....:** AIR

Date Sampled...: 04/16/2010 **Date Received..:** 04/17/2010
Prep Date.....: 04/20/2010 **Analysis Date...** 04/20/2010
Prep Batch #.....: 0111123
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	**84**	**2.0**	**330**	**7.9**
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	**2.3**	**2.0**	**9.4**	**8.1**
cis-1,2-Dichloroethene	**2.9**	**2.0**	**12**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	**5.0**	**2.0**	**27**	**11**
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	**5.9**	**2.0**	**31**	**11**
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: L-A7057

GC/MS Volatiles

Lot-Sample # H0D190401 - 006 **Work Order #** LX59D1AC **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	92	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample #	H0D210000 - 123B	**Work Order #**	LX9DN1AA	**Matrix.....:**	AIR
	04/18/2010	**Date Received..:**	04/20/2010		
Prep Date.....:	04/20/2010	**Analysis Date...**	04/20/2010		
Prep Batch #.....:	0111123				
Dilution Factor.:	1	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	0.20	ND	0.99
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.20	ND	1.4
Chloromethane	ND	0.50	ND	1.0
Vinyl chloride	ND	0.20	ND	0.51
Bromomethane	ND	0.20	ND	0.78
Chloroethane	ND	0.20	ND	0.53
Trichlorofluoromethane	ND	0.20	ND	1.1
1,1-Dichloroethene	ND	0.20	ND	0.79
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.20	ND	1.5
Methylene chloride	ND	0.50	ND	1.7
1,1-Dichloroethane	ND	0.20	ND	0.81
cis-1,2-Dichloroethene	ND	0.20	ND	0.79
Chloroform	ND	0.20	ND	0.98
1,1,1-Trichloroethane	ND	0.20	ND	1.1
Carbon tetrachloride	ND	0.20	ND	1.3
Benzene	ND	0.20	ND	0.64
1,2-Dichloroethane	ND	0.20	ND	0.81
Trichloroethene	ND	0.20	ND	1.1
1,2-Dichloropropane	ND	0.20	ND	0.92
cis-1,3-Dichloropropene	ND	0.20	ND	0.91
Toluene	ND	0.20	ND	0.75
trans-1,3-Dichloropropene	ND	0.20	ND	0.91
1,1,2-Trichloroethane	ND	0.20	ND	1.1
Tetrachloroethene	ND	0.20	ND	1.4
1,2-Dibromoethane (EDB)	ND	0.20	ND	1.5
Chlorobenzene	ND	0.20	ND	0.92
Ethylbenzene	ND	0.20	ND	0.87
m-Xylene & p-Xylene	ND	0.20	ND	0.87
o-Xylene	ND	0.20	ND	0.87
Styrene	ND	0.20	ND	0.85
1,1,2,2-Tetrachloroethane	ND	0.20	ND	1.4
1,3,5-Trimethylbenzene	ND	0.20	ND	0.98
1,2,4-Trimethylbenzene	ND	0.20	ND	0.98
1,3-Dichlorobenzene	ND	0.20	ND	1.2
1,4-Dichlorobenzene	ND	0.20	ND	1.2
1,2-Dichlorobenzene	ND	0.20	ND	1.2
Benzyl chloride	ND	0.40	ND	2.1
1,2,4-Trichlorobenzene	ND	1.0	ND	7.4

GeoTrans, Inc.

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H0D210000 - 123B **Work Order #** LX9DN1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	1.0	ND	11

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	93	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0D210000 - 123C **Work Order #** LX9DN1AC **Matrix.....:** AIR

	04/18/2010	**Date Received..:**	04/20/2010
Prep Date.....:	04/20/2010	**Analysis Date...**	04/20/2010
Prep Batch #.....:	0111123		
Dilution Factor.:	1	**Method.....:**	TO-15

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Dichlorodifluoromethane	5.00	4.44	25	22	89	60 - 140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5.00	5.31	35	37	106	60 - 140
Chloromethane	5.00	4.46	10	9.2	89	60 - 140
Vinyl chloride	5.00	4.40	13	11	88	70 - 130
Bromomethane	5.00	4.45	19	17	89	70 - 130
Chloroethane	5.00	4.39	13	12	88	70 - 130
Trichlorofluoromethane	5.00	4.69	28	26	94	60 - 140
1,1-Dichloroethene	5.00	4.51	20	18	90	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	4.61	38	35	92	70 - 130
Methylene chloride	5.00	4.31	17	15	86	70 - 130
1,1-Dichloroethane	5.00	4.36	20	18	87	70 - 130
cis-1,2-Dichloroethene	5.00	4.42	20	18	88	70 - 130
Chloroform	5.00	4.17	24	20	83	70 - 130
1,1,1-Trichloroethane	5.00	4.62	27	25	92	70 - 130
Carbon tetrachloride	5.00	4.68	31	29	94	70 - 130
Benzene	5.00	4.13	16	13	83	70 - 130
1,2-Dichloroethane	5.00	4.05	20	16	81	70 - 130
Trichloroethene	5.00	4.61	27	25	92	70 - 130
1,2-Dichloropropane	5.00	3.90	23	18	78	70 - 130
cis-1,3-Dichloropropene	5.00	3.81	23	17	76	70 - 130
Toluene	5.00	3.90	19	15	78	70 - 130
trans-1,3-Dichloropropene	5.00	3.88	23	18	78	70 - 130
1,1,2-Trichloroethane	5.00	4.05	27	22	81	70 - 130
Tetrachloroethene	5.00	4.34	34	29	87	70 - 130
1,2-Dibromoethane (EDB)	5.00	4.08	38	31	82	70 - 130
Chlorobenzene	5.00	4.25	23	20	85	70 - 130
Ethylbenzene	5.00	4.29	22	19	86	70 - 130
m-Xylene & p-Xylene	10.0	8.70	43	38	87	70 - 130
o-Xylene	5.00	4.27	22	19	85	70 - 130
Styrene	5.00	4.62	21	20	92	70 - 130
1,1,2,2-Tetrachloroethane	5.00	3.98	34	27	80	70 - 130
1,3,5-Trimethylbenzene	5.00	4.45	25	22	89	70 - 130
1,2,4-Trimethylbenzene	5.00	4.62	25	23	92	70 - 130
1,3-Dichlorobenzene	5.00	4.58	30	28	92	70 - 130
1,4-Dichlorobenzene	5.00	4.57	30	28	91	70 - 130
1,2-Dichlorobenzene	5.00	4.52	30	27	90	70 - 130
Benzyl chloride	5.00	4.15	26	21	83	70 - 130
1,2,4-Trichlorobenzene	5.00	3.71	37	28	74	60 - 140

GeoTrans, Inc.

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0D210000 - 123C Work Order # LX9DN1AC Matrix.....: AIR

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Hexachlorobutadiene	5.00	3.82	53	41	76	60 - 140

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	96	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

HOD150401

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** PR	**Sampled By:** TSM	1 of 1 COCs
Company: GeoTrans Inc	Phone: 410-990-4607		
Address: 844 West St Suite 200	Site Contact:		
City/State/Zip Annapolis MD 21401	TAL Contact: Ryan Henry		
Phone: 410-990-4607			
FAX: N/A			
Project Name: LMC-Middle River	**Analysis Turnaround Time**		
Site/location: Building A+C	Standard (Specify) TSM		
PO #	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type: Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
L-8189	4-16-10	0836					L-8189	✓						✓				
L-5139		0848					L-5139	✓						✓				
L-A7056		0857					L-A7056	✓						✓				
L-A7120		0922					L-A7120	✓						✓				
L-3841		0925					L-3841	✓						✓				
L-A7057	↓	0930					L-A7057	✓						✓				

Sampled by : TSM

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

1 COOLER REC'D AMBIENT
FED EX # 8093 4210 3694
CUSTODY SEALS INTACT
6 CANS, 1Q FLOWS
TS 4/17/10

Special Instructions/QC Requirements & Comments: N/A

Canisters Shipped by: T. McIntyre	Date/Time: 4-16-10 1005	Canisters Received by:
Samples Relinquished by: T. McIntyre	Date/Time: 4-16-10 1007	Received by: [signature] 4/17/10 9:10
Relinquished by:	Date/Time:	Received by:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: 440519401

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ 1a Do not match COC ☐ 1b Incomplete information ☐ 1c Marking smeared ☐ 1d Label torn ☐ 1e No label ☐ 1f COC not received ☐ 1g Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C; NC, 1668, 1613B: 0-4°C; VOST: 10°C; MA: 2-6 °C)			✓	☐ 2a Temp Blank = _____ ☐ 2b Cooler Temp = _____	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ 3a Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ 4a Not present ☐ 4b Not intact ☐ 4c Other:	
5. Were all of the samples listed on the COC received?	✓			☐ 5a Samples received-not on COC ☐ 5b Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ 6a Leaking ☐ 6b Broken	
7. Were VOA samples received without headspace?			✓	☐ 7a Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ 8a Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ 9a Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ 10a Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ 13a Leaking ☐ 13b Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ 14a Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ 15a Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ 15a Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ 15a Incomplete information	
18. Is the client and project name/# identified?	✓			☐ 15a Incomplete information	
19. Was the sampler identified on the COC?	✓				

Quote #: _____ PM Instructions: _____

Sample Receiving Associate: Jill Smith Date: 4/17/10

QA026R21.doc, 090409

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H0D190401*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
DDF 4-19-10	NA	29.02	LX587	L8189	+0.6													8477
			LX588	L5139	+0.1													
			LX589	LA7056	-0.4													
			LX59A	LA7120	+1.3													
			LX59C	L3841	+0.7													
			LX59D	LA7057	-0.2													

H0H200573 Analytical Report 1

Sample Receipt Documentation 21

Total Number of Pages 23

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. LMC - Middle River

Middle River, MD

Lot #: H0H200573

Peter Rich

GeoTrans, Inc.
844 West Street
Suite 100
Annapolis, MD 21401

TESTAMERICA LABORATORIES, INC.

Terry Wasmund
Project Manager

September 1, 2010

ANALYTICAL METHODS SUMMARY

H0H200573

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO15	EPA-2 TO-15

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H0H200573

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L5XLQ	001	BLD C-PRE GAC	08/19/10	09:50
L5XLX	002	BLD C-MID GAC	08/19/10	09:55
L5XL0	003	BLD C-POST GAC	08/19/10	10:00
L5XL3	004	BLD A-PRE GAC	08/19/10	11:10
L5XL7	005	BLD A-MID GAC	08/19/10	11:15
L5XL9	006	BLD A-POST GAC	08/19/10	11:20

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H0H200573

The results reported herein are applicable to the samples submitted for analysis only.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

The chain of custody lists BLDG C-Pre GAC for can ID L-8193, but the tag showed BLDG A-Pre GAC. The samples was logged by matching the date and time.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

TestAmerica Knoxville maintains the following certifications, approvals and accreditations: Arkansas DEQ Lab #88-0688, California DHS ELAP Cert. #2423, Colorado DPHE, Connecticut DPH Lab #PH-0223, Florida DOH Lab #E87177, Georgia DNR Lab #906, Hawaii DOH, Illinois EPA Lab #200012, Indiana DOH Lab #C-TN-02, Iowa DNR Lab #375, Kansas DHE Cert. #E-10349, Kentucky DEP Lab #90101, Louisiana DEQ Cert. #03079, Louisiana DOHH, Maryland DOE Cert. #277, Michigan DEQ Lab #9933, Nevada DEP, New Jersey DEP Lab #TN001, New York DOH Lab #10781, North Carolina DPH Lab #21705, North Carolina DEHNR Cert. #64, Ohio EPA VAP Lab #CL0059, Oklahoma DEQ Lab #9415, Pennsylvania DEP Lab #68-00576, South Carolina DHEC Cert #84001001, Tennessee DOH Lab #02014, Texas CEQ, Utah DOH Lab # QUAN3, Virginia DGS Lab #00165, Washington DOE Lab #C1314, West Virginia DEP Cert. #345, West Virginia DHHR Cert #9955C, Wisconsin DNR Lab #998044300, Naval Facilities Engineering Service Center and USDA Soil Permit #S-46424. This list of approvals is subject to change and does not imply that laboratory certification is available for all parameters reported in this environmental sample data report.

GeoTrans, Inc.

Client Sample ID: BLD C-PRE GAC

GC/MS Volatiles

Lot-Sample # H0H200573 - 001 **Work Order #** L5XLQ1AA **Matrix.....:** AIR

Date Sampled...: 08/19/2010 **Date Received..:** 08/20/2010
Prep Date.....: 08/24/2010 **Analysis Date...** 08/24/2010
Prep Batch #.....: 0237083
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	ND	2.0	ND	7.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	**26**	**2.0**	**100**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	**5.8**	**2.0**	**31**	**11**
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: BLD C-PRE GAC

GC/MS Volatiles

Lot-Sample # H0H200573 - 001 **Work Order #** L5XLQ1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	98	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: BLD C-MID GAC

GC/MS Volatiles

Lot-Sample # H0H200573 - 002 **Work Order #** L5XLX1AA **Matrix.....:** AIR

Date Sampled...: 08/19/2010 **Date Received..:** 08/20/2010
Prep Date.....: 08/24/2010 **Analysis Date...** 08/24/2010
Prep Batch #.....: 0237083
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	ND	2.0	ND	7.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	**3.7**	**2.0**	**15**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: BLD C-MID GAC

GC/MS Volatiles

Lot-Sample # H0H200573 - 002 **Work Order #** L5XLX1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	98	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: BLD C-POST GAC

GC/MS Volatiles

Lot-Sample # H0H200573 - 003 **Work Order #** L5XL01AA **Matrix.....:** AIR

Date Sampled...: 08/19/2010 **Date Received..:** 08/20/2010
Prep Date.....: 08/24/2010 **Analysis Date...** 08/24/2010
Prep Batch #.....: 0237083
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	ND	2.0	ND	7.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	ND	2.0	ND	7.9
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: BLD C-POST GAC

GC/MS Volatiles

Lot-Sample # H0H200573 - 003 **Work Order #** L5XL01AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	98	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: BLD A-PRE GAC

GC/MS Volatiles

Lot-Sample # H0H200573 - 004 **Work Order #** L5XL31AA **Matrix.....:** AIR

Date Sampled...: 08/19/2010
Prep Date.....: 08/24/2010
Prep Batch #.....: 0237083
Dilution Factor.: 10

Date Received..: 08/20/2010
Analysis Date... 08/24/2010

Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	**2.8**	**2.0**	**16**	**11**
1,1-Dichloroethene	**42**	**2.0**	**170**	**7.9**
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	**11**	**2.0**	**45**	**8.1**
cis-1,2-Dichloroethene	**49**	**2.0**	**200**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	**220**	**2.0**	**1200**	**11**
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	**210**	**2.0**	**1100**	**11**
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	**3.1**	**2.0**	**12**	**7.5**
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: BLD A-PRE GAC

GC/MS Volatiles

Lot-Sample # H0H200573 - 004 **Work Order #** L5XL31AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	97	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: BLD A-MID GAC

GC/MS Volatiles

Lot-Sample # H0H200573 - 005 **Work Order #** L5XL71AA **Matrix.....:** AIR

Date Sampled...: 08/19/2010 **Date Received..:** 08/20/2010
Prep Date.....: 08/24/2010 **Analysis Date...** 08/25/2010
Prep Batch #.....: 0237083
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	**2.3**	**2.0**	**13**	**11**
1,1-Dichloroethene	**39**	**2.0**	**150**	**7.9**
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	**14**	**2.0**	**55**	**8.1**
cis-1,2-Dichloroethene	**54**	**2.0**	**210**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	**130**	**2.0**	**720**	**11**
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: BLD A-MID GAC

GC/MS Volatiles

Lot-Sample # H0H200573 - 005 **Work Order #** L5XL71AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	96	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: BLD A-POST GAC

GC/MS Volatiles

Lot-Sample # H0H200573 - 006 **Work Order #** L5XL91AA **Matrix.....:** AIR

Date Sampled...: 08/19/2010 **Date Received..:** 08/20/2010
Prep Date.....: 08/24/2010 **Analysis Date...** 08/25/2010
Prep Batch #.....: 0237083
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	**2.6**	**2.0**	**15**	**11**
1,1-Dichloroethene	**68**	**2.0**	**270**	**7.9**
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	**12**	**2.0**	**47**	**8.1**
cis-1,2-Dichloroethene	**23**	**2.0**	**90**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	**7.5**	**2.0**	**41**	**11**
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: BLD A-POST GAC

GC/MS Volatiles

Lot-Sample # H0H200573 - 006 **Work Order #** L5XL91AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	97	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H0H250000 - 083B **Work Order #** L534W1AA **Matrix.....:** AIR

	08/19/2010	**Date Received..:**	08/20/2010
Prep Date.....:	08/24/2010	**Analysis Date...**	08/24/2010
Prep Batch #.....:	0237083		
Dilution Factor.:	1	**Method.....:**	TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	0.20	ND	0.99
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.20	ND	1.4
Chloromethane	ND	0.50	ND	1.0
Vinyl chloride	ND	0.20	ND	0.51
Bromomethane	ND	0.20	ND	0.78
Chloroethane	ND	0.20	ND	0.53
Trichlorofluoromethane	ND	0.20	ND	1.1
1,1-Dichloroethene	ND	0.20	ND	0.79
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.20	ND	1.5
Methylene chloride	ND	0.50	ND	1.7
1,1-Dichloroethane	ND	0.20	ND	0.81
cis-1,2-Dichloroethene	ND	0.20	ND	0.79
Chloroform	ND	0.20	ND	0.98
1,1,1-Trichloroethane	ND	0.20	ND	1.1
Carbon tetrachloride	ND	0.20	ND	1.3
Benzene	ND	0.20	ND	0.64
1,2-Dichloroethane	ND	0.20	ND	0.81
Trichloroethene	ND	0.20	ND	1.1
1,2-Dichloropropane	ND	0.20	ND	0.92
cis-1,3-Dichloropropene	ND	0.20	ND	0.91
Toluene	ND	0.20	ND	0.75
trans-1,3-Dichloropropene	ND	0.20	ND	0.91
1,1,2-Trichloroethane	ND	0.20	ND	1.1
Tetrachloroethene	ND	0.20	ND	1.4
1,2-Dibromoethane (EDB)	ND	0.20	ND	1.5
Chlorobenzene	ND	0.20	ND	0.92
Ethylbenzene	ND	0.20	ND	0.87
m-Xylene & p-Xylene	ND	0.20	ND	0.87
o-Xylene	ND	0.20	ND	0.87
Styrene	ND	0.20	ND	0.85
1,1,2,2-Tetrachloroethane	ND	0.20	ND	1.4
1,3,5-Trimethylbenzene	ND	0.20	ND	0.98
1,2,4-Trimethylbenzene	ND	0.20	ND	0.98
1,3-Dichlorobenzene	ND	0.20	ND	1.2
1,4-Dichlorobenzene	ND	0.20	ND	1.2
1,2-Dichlorobenzene	ND	0.20	ND	1.2
Benzyl chloride	ND	0.40	ND	2.1
1,2,4-Trichlorobenzene	ND	1.0	ND	7.4

GeoTrans, Inc.

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H0H250000 - 083B **Work Order #** L534W1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	1.0	ND	11

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	98	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0H250000 - 083C **Work Order #** L534W1AC **Matrix.....:** AIR

	08/19/2010	**Date Received..:**	08/20/2010
Prep Date.....:	08/24/2010	**Analysis Date...**	08/24/2010
Prep Batch #.....:	0237083		
Dilution Factor.:	1	**Method.....:**	TO-15

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Dichlorodifluoromethane	5.00	4.87	25	24	97	60 - 140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5.00	5.34	35	37	107	60 - 140
Chloromethane	5.00	4.34	10	9.0	87	60 - 140
Vinyl chloride	5.00	4.29	13	11	86	70 - 130
Bromomethane	5.00	4.23	19	16	85	70 - 130
Chloroethane	5.00	4.34	13	11	87	70 - 130
Trichlorofluoromethane	5.00	4.99	28	28	100	60 - 140
1,1-Dichloroethene	5.00	4.66	20	18	93	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	4.76	38	37	95	70 - 130
Methylene chloride	5.00	4.30	17	15	86	70 - 130
1,1-Dichloroethane	5.00	4.60	20	19	92	70 - 130
cis-1,2-Dichloroethene	5.00	4.57	20	18	91	70 - 130
Chloroform	5.00	4.57	24	22	91	70 - 130
1,1,1-Trichloroethane	5.00	4.99	27	27	100	70 - 130
Carbon tetrachloride	5.00	4.25	31	27	85	70 - 130
Benzene	5.00	3.85	16	12	77	70 - 130
1,2-Dichloroethane	5.00	4.22	20	17	84	70 - 130
Trichloroethene	5.00	4.34	27	23	87	70 - 130
1,2-Dichloropropane	5.00	3.82	23	18	76	70 - 130
cis-1,3-Dichloropropene	5.00	3.89	23	18	78	70 - 130
Toluene	5.00	3.87	19	15	77	70 - 130
trans-1,3-Dichloropropene	5.00	4.02	23	18	80	70 - 130
1,1,2-Trichloroethane	5.00	4.01	27	22	80	70 - 130
Tetrachloroethene	5.00	3.99	34	27	80	70 - 130
1,2-Dibromoethane (EDB)	5.00	3.98	38	31	80	70 - 130
Chlorobenzene	5.00	3.80	23	17	76	70 - 130
Ethylbenzene	5.00	4.00	22	17	80	70 - 130
m-Xylene & p-Xylene	10.0	7.97	43	35	80	70 - 130
o-Xylene	5.00	3.92	22	17	78	70 - 130
Styrene	5.00	3.97	21	17	79	70 - 130
1,1,2,2-Tetrachloroethane	5.00	3.77	34	26	75	70 - 130
1,3,5-Trimethylbenzene	5.00	3.71	25	18	74	70 - 130
1,2,4-Trimethylbenzene	5.00	3.74	25	18	75	70 - 130
1,3-Dichlorobenzene	5.00	3.87	30	23	77	70 - 130
1,4-Dichlorobenzene	5.00	3.85	30	23	77	70 - 130
1,2-Dichlorobenzene	5.00	3.82	30	23	76	70 - 130
Benzyl chloride	5.00	3.68	26	19	74	70 - 130
1,2,4-Trichlorobenzene	5.00	3.55	37	26	71	60 - 140

GeoTrans, Inc.

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0H250000 - 083C **Work Order #** L534W1AC **Matrix.....:** AIR

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Hexachlorobutadiene	5.00	3.70	53	39	74	60 - 140

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	97	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

HOH 200573

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** Peter Rich	**Sampled By:** Sean Crouch	1 of 1 COCs
Company: GeoTrans	**Phone:** 410-990-4607		
Address: 844 West Street, STE 200	**Site Contact:**		
City/State/Zip Annapolis, MD 21401	**TAL Contact:**		
Phone: 410-990-4607			
FAX:			
Project Name: LMC - Middle River	**Analysis Turnaround Time**		
Site/location: Middle River, MD	Standard (Specify) Standard TAT		
PO # 117-0507390.01	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
Bld C - Pre GAC	8-19-10	0950					L-9193	X									X		
Bld C - Mid GAC		0955					L-5164												
Bld C - Post GAC		1000					L-A7109												
Bld A - Pre GAC		1110					L-5167												
Bld A - Mid GAC		1115					L-A7165												
Bld A - Post GAC		1120					SL-1230												

Sampled by :

Temperature (Fahrenheit)	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)	Interior	Ambient	
Start			
Stop			

1 BOX RECEIVED AMBIENT
FEDEX# 8735 4207 4072
CUSTODY SEALS INTACT
6 CANS, 6 FLOWS TS 8/20/10

Special Instructions/QC Requirements & Comments:

Canisters Shipped by:	Date/Time: 8-19-10 1300	Canisters Received by:
Samples Relinquished by:	Date/Time: 8-19-10 1300	Received by: 8/20/10 9:45
Relinquished by:	Date/Time:	Received by:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: KDH 200573

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)		✓		☑ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	1A COC LISTS BLDG C-PRE GAC FOR MAN ID L58193; TAG SAYS BLDG A-PRE GAC, MATCHED BY DATE & TIME.
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C; NC, 1668, 1613B: 0-4°C; VOST: 10°C; MA: 2-6 °C)			✓	☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?	✓				

Quote #: 78944 PM Instructions: NA

Sample Receiving Associate: [signature] Date: 8/20/10

QA026R21.doc, 090409

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H0H200573*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
DDF 8-21-10	NA	28.7	L5XLQ	L8193	0													8619
↓	↓	↓	L5XLX	L5164	-0.7													8650
			L5XL0	LA7109	-1.0													8636
			L5XL3	L5167	-1.4													↓
			L5XL7	LA7165	-0.6													
↓	↓	↓	L5XL9	SL1230	-0.5													↓

H0G210414 Analytical Report 1

Sample Receipt Documentation 21

Total Number of Pages 23

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

Middle River LMC

Lot #: H0G210414

Peter Rich

GeoTrans, Inc.
844 West Street
Suite 100
Annapolis, MD 21401

TESTAMERICA LABORATORIES, INC.

Terry Wasmund
Project Manager

July 29, 2010

ANALYTICAL METHODS SUMMARY

H0G210414

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO15	EPA-2 TO-15

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H0G210414

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L4F2M	001	PRE-A	07/19/10	13:19
L4F2Q	002	MID-A	07/19/10	13:23
L4F2R	003	POST-A	07/19/10	13:26
L4F2W	004	PRE-C	07/19/10	13:48
L4F2X	005	MID-C	07/19/10	13:51
L4F20	006	POST-C	07/19/10	13:55

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H0G210414

The results reported herein are applicable to the samples submitted for analysis only.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

TestAmerica Knoxville maintains the following certifications, approvals and accreditations: Arkansas DEQ Lab #88-0688, California DHS ELAP Cert. #2423, Colorado DPHE, Connecticut DPH Lab #PH-0223, Florida DOH Lab #E87177, Georgia DNR Lab #906, Hawaii DOH, Illinois EPA Lab #200012, Indiana DOH Lab #C-TN-02, Iowa DNR Lab #375, Kansas DHE Cert. #E-10349, Kentucky DEP Lab #90101, Louisiana DEQ Cert. #03079, Louisiana DOHH, Maryland DOE Cert. #277, Michigan DEQ Lab #9933, Nevada DEP, New Jersey DEP Lab #TN001, New York DOH Lab #10781, North Carolina DPH Lab #21705, North Carolina DEHNR Cert. #64, Ohio EPA VAP Lab #CL0059, Oklahoma DEQ Lab #9415, Pennsylvania DEP Lab #68-00576, South Carolina DHEC Cert #84001001, Tennessee DOH Lab #02014, Texas CEQ, Utah DOH Lab # QUAN3, Virginia DGS Lab #00165, Washington DOE Lab #C1314, West Virginia DEP Cert. #345, West Virginia DHHR Cert #9955C, Wisconsin DNR Lab #998044300, Naval Facilities Engineering Service Center and USDA Soil Permit #S-46424. This list of approvals is subject to change and does not imply that laboratory certification is available for all parameters reported in this environmental sample data report.

GeoTrans, Inc.

Client Sample ID: PRE-A

GC/MS Volatiles

Lot-Sample # H0G210414 - 001 **Work Order #** L4F2M1AA **Matrix.....:** AIR

Date Sampled...: 07/19/2010 **Date Received..:** 07/21/2010
Prep Date.....: 07/23/2010 **Analysis Date...** 07/23/2010
Prep Batch #.....: 0207135
Dilution Factor.: 18.18 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	3.6	ND	18
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	3.6	ND	25
Chloromethane	ND	9.1	ND	19
Vinyl chloride	ND	3.6	ND	9.3
Bromomethane	ND	3.6	ND	14
Chloroethane	ND	3.6	ND	9.6
Trichlorofluoromethane	ND	3.6	ND	20
1,1-Dichloroethene	**45**	**3.6**	**180**	**14**
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	3.6	ND	28
Methylene chloride	ND	9.1	ND	32
1,1-Dichloroethane	**13**	**3.6**	**52**	**15**
cis-1,2-Dichloroethene	**55**	**3.6**	**220**	**14**
Chloroform	ND	3.6	ND	18
1,1,1-Trichloroethane	**270**	**3.6**	**1500**	**20**
Carbon tetrachloride	ND	3.6	ND	23
Benzene	ND	3.6	ND	12
1,2-Dichloroethane	ND	3.6	ND	15
Trichloroethene	**270**	**3.6**	**1500**	**20**
1,2-Dichloropropane	ND	3.6	ND	17
cis-1,3-Dichloropropene	ND	3.6	ND	17
Toluene	ND	3.6	ND	14
trans-1,3-Dichloropropene	ND	3.6	ND	17
1,1,2-Trichloroethane	ND	3.6	ND	20
Tetrachloroethene	ND	3.6	ND	25
1,2-Dibromoethane (EDB)	ND	3.6	ND	28
Chlorobenzene	ND	3.6	ND	17
Ethylbenzene	ND	3.6	ND	16
m-Xylene & p-Xylene	ND	3.6	ND	16
o-Xylene	ND	3.6	ND	16
Styrene	ND	3.6	ND	15
1,1,2,2-Tetrachloroethane	ND	3.6	ND	25
1,3,5-Trimethylbenzene	ND	3.6	ND	18
1,2,4-Trimethylbenzene	**4.8**	**3.6**	**24**	**18**
1,3-Dichlorobenzene	ND	3.6	ND	22
1,4-Dichlorobenzene	ND	3.6	ND	22
1,2-Dichlorobenzene	ND	3.6	ND	22
Benzyl chloride	ND	7.3	ND	38
1,2,4-Trichlorobenzene	ND	18	ND	130

GeoTrans, Inc.

Client Sample ID: PRE-A

GC/MS Volatiles

Lot-Sample # H0G210414 - 001 **Work Order #** L4F2M1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	18	ND	190

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	98	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: MID-A

GC/MS Volatiles

Lot-Sample # H0G210414 - 002 **Work Order #** L4F2Q1AA **Matrix.....:** AIR

Date Sampled...: 07/19/2010 **Date Received..:** 07/21/2010
Prep Date.....: 07/23/2010 **Analysis Date...** 07/23/2010
Prep Batch #.....: 0207135
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	**22**	**2.0**	**89**	**7.9**
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	**5.9**	**2.0**	**24**	**8.1**
cis-1,2-Dichloroethene	**19**	**2.0**	**74**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	**16**	**2.0**	**87**	**11**
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	**2.2**	**2.0**	**11**	**9.8**
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: MID-A

GC/MS Volatiles

Lot-Sample # H0G210414 - 002 **Work Order #** L4F2Q1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	96	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: POST-A

GC/MS Volatiles

Lot-Sample # H0G210414 - 003 **Work Order #** L4F2R1AA **Matrix.....:** AIR

Date Sampled...: 07/19/2010 **Date Received..:** 07/21/2010
Prep Date.....: 07/23/2010 **Analysis Date...** 07/23/2010
Prep Batch #.....: 0207135
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	**25**	**2.0**	**100**	**7.9**
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	**2.2**	**2.0**	**8.7**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	**7.3**	**2.0**	**40**	**11**
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	**3.0**	**2.0**	**16**	**11**
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: POST-A

GC/MS Volatiles

Lot-Sample # H0G210414 - 003 **Work Order #** L4F2R1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	95	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: PRE-C

GC/MS Volatiles

Lot-Sample # H0G210414 - 004 **Work Order #** L4F2W1AA **Matrix.....:** AIR

Date Sampled...: 07/19/2010 **Date Received..:** 07/21/2010
Prep Date.....: 07/23/2010 **Analysis Date...** 07/24/2010
Prep Batch #.....: 0207135
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	ND	2.0	ND	7.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	**17**	**2.0**	**68**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	**6.3**	**2.0**	**34**	**11**
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: PRE-C

GC/MS Volatiles

Lot-Sample # H0G210414 - 004 **Work Order #** L4F2W1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	95	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: MID-C

GC/MS Volatiles

Lot-Sample # H0G210414 - 005 **Work Order #** L4F2X1AA **Matrix.....:** AIR

Date Sampled...: 07/19/2010 **Date Received..:** 07/21/2010
Prep Date.....: 07/23/2010 **Analysis Date...** 07/23/2010
Prep Batch #.....: 0207135
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	ND	2.0	ND	7.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	ND	2.0	ND	7.9
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon tetrachloride	ND	2.0	ND	13
Benzene	**3.4**	**2.0**	**11**	**6.4**
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: MID-C

GC/MS Volatiles

Lot-Sample # H0G210414 - 005 **Work Order #** L4F2X1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	97	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: POST-C

GC/MS Volatiles

Lot-Sample # H0G210414 - 006 **Work Order #** L4F201AA **Matrix.....:** AIR

Date Sampled...: 07/19/2010 **Date Received..:** 07/21/2010
Prep Date.....: 07/23/2010 **Analysis Date...** 07/23/2010
Prep Batch #.....: 0207135
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	ND	2.0	ND	7.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	ND	2.0	ND	7.9
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon tetrachloride	ND	2.0	ND	13
Benzene	**3.2**	**2.0**	**10**	**6.4**
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: POST-C

GC/MS Volatiles

Lot-Sample # H0G210414 - 006 **Work Order #** L4F201AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	94	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H0G260000 - 135B **Work Order #** L4NFN1AA **Matrix.....:** AIR

	07/19/2010	**Date Received..:**	07/21/2010
Prep Date.....:	07/23/2010	**Analysis Date...**	07/23/2010
Prep Batch #.....:	0207135		
Dilution Factor.:	1	**Method.....:**	TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	0.20	ND	0.99
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.20	ND	1.4
Chloromethane	ND	0.50	ND	1.0
Vinyl chloride	ND	0.20	ND	0.51
Bromomethane	ND	0.20	ND	0.78
Chloroethane	ND	0.20	ND	0.53
Trichlorofluoromethane	ND	0.20	ND	1.1
1,1-Dichloroethene	ND	0.20	ND	0.79
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.20	ND	1.5
Methylene chloride	ND	0.50	ND	1.7
1,1-Dichloroethane	ND	0.20	ND	0.81
cis-1,2-Dichloroethene	ND	0.20	ND	0.79
Chloroform	ND	0.20	ND	0.98
1,1,1-Trichloroethane	ND	0.20	ND	1.1
Carbon tetrachloride	ND	0.20	ND	1.3
Benzene	ND	0.20	ND	0.64
1,2-Dichloroethane	ND	0.20	ND	0.81
Trichloroethene	ND	0.20	ND	1.1
1,2-Dichloropropane	ND	0.20	ND	0.92
cis-1,3-Dichloropropene	ND	0.20	ND	0.91
Toluene	ND	0.20	ND	0.75
trans-1,3-Dichloropropene	ND	0.20	ND	0.91
1,1,2-Trichloroethane	ND	0.20	ND	1.1
Tetrachloroethene	ND	0.20	ND	1.4
1,2-Dibromoethane (EDB)	ND	0.20	ND	1.5
Chlorobenzene	ND	0.20	ND	0.92
Ethylbenzene	ND	0.20	ND	0.87
m-Xylene & p-Xylene	ND	0.20	ND	0.87
o-Xylene	ND	0.20	ND	0.87
Styrene	ND	0.20	ND	0.85
1,1,2,2-Tetrachloroethane	ND	0.20	ND	1.4
1,3,5-Trimethylbenzene	ND	0.20	ND	0.98
1,2,4-Trimethylbenzene	ND	0.20	ND	0.98
1,3-Dichlorobenzene	ND	0.20	ND	1.2
1,4-Dichlorobenzene	ND	0.20	ND	1.2
1,2-Dichlorobenzene	ND	0.20	ND	1.2
Benzyl chloride	ND	0.40	ND	2.1
1,2,4-Trichlorobenzene	ND	1.0	ND	7.4

GeoTrans, Inc.

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H0G260000 - 135B **Work Order #** L4NFN1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	1.0	ND	11

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	92	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0G260000 - 135C **Work Order #** L4NFN1AC **Matrix.....:** AIR

	07/19/2010	**Date Received..:**	07/21/2010
Prep Date.....:	07/23/2010	**Analysis Date...**	07/23/2010
Prep Batch #.....:	0207135		
Dilution Factor.:	1	**Method.....:**	TO-15

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Dichlorodifluoromethane	5.00	3.80	25	19	76	60 - 140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5.00	3.62	35	25	72	60 - 140
Chloromethane	5.00	3.56	10	7.4	71	60 - 140
Vinyl chloride	5.00	3.54	13	9.0	71	70 - 130
Bromomethane	5.00	3.55	19	14	71	70 - 130
Chloroethane	5.00	3.97	13	10	79	70 - 130
Trichlorofluoromethane	5.00	3.79	28	21	76	60 - 140
1,1-Dichloroethene	5.00	3.58	20	14	72	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	4.01	38	31	80	70 - 130
Methylene chloride	5.00	3.64	17	13	73	70 - 130
1,1-Dichloroethane	5.00	4.04	20	16	81	70 - 130
cis-1,2-Dichloroethene	5.00	3.93	20	16	79	70 - 130
Chloroform	5.00	4.10	24	20	82	70 - 130
1,1,1-Trichloroethane	5.00	4.20	27	23	84	70 - 130
Carbon tetrachloride	5.00	4.17	31	26	83	70 - 130
Benzene	5.00	3.90	16	12	78	70 - 130
1,2-Dichloroethane	5.00	4.54	20	18	91	70 - 130
Trichloroethene	5.00	3.88	27	21	78	70 - 130
1,2-Dichloropropane	5.00	4.21	23	19	84	70 - 130
cis-1,3-Dichloropropene	5.00	4.51	23	20	90	70 - 130
Toluene	5.00	4.09	19	15	82	70 - 130
trans-1,3-Dichloropropene	5.00	4.50	23	20	90	70 - 130
1,1,2-Trichloroethane	5.00	4.10	27	22	82	70 - 130
Tetrachloroethene	5.00	3.88	34	26	78	70 - 130
1,2-Dibromoethane (EDB)	5.00	4.24	38	33	85	70 - 130
Chlorobenzene	5.00	4.00	23	18	80	70 - 130
Ethylbenzene	5.00	4.54	22	20	91	70 - 130
m-Xylene & p-Xylene	10.0	9.21	43	40	92	70 - 130
o-Xylene	5.00	4.65	22	20	93	70 - 130
Styrene	5.00	4.35	21	19	87	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.73	34	32	95	70 - 130
1,3,5-Trimethylbenzene	5.00	4.80	25	24	96	70 - 130
1,2,4-Trimethylbenzene	5.00	5.04	25	25	101	70 - 130
1,3-Dichlorobenzene	5.00	4.19	30	25	84	70 - 130
1,4-Dichlorobenzene	5.00	4.02	30	24	80	70 - 130
1,2-Dichlorobenzene	5.00	4.42	30	27	88	70 - 130
Benzyl chloride	5.00	4.34	26	22	87	70 - 130
1,2,4-Trichlorobenzene	5.00	4.82	37	36	96	60 - 140

GeoTrans, Inc.

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0G260000 - 135C **Work Order #** L4NFN1AC **Matrix.....:** AIR

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Hexachlorobutadiene	5.00	5.79	53	62	116	60 - 140

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	97	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

1T06210414

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:**	**Sampled By:** T&M	___ of ___ COCs
Company: GeoTrans	**Phone:**		
Address: 844 West St	**Site Contact:**		
City/State/Zip Annapolis, MD 21401	**TAL Contact:**		
Phone: 410-990-4607			
FAX:			
Project Name: Middle River LMC	**Analysis Turnaround Time**		
Site/location: Middle River	Standard (Specify)		
PO # 0507 380.01	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
Pre-A	7/19	1319					L-A7115	✓							/				
Mid-A	7/19	1323					L-4149	✓							/				
Post-A	7/19	1326					L-A7212	/							/				
Pre-C	7/19	1348					L-5188	/							/				
Mid-C	7/19	1351					L-A7205	/							/				
Post-C	7/19	1355					L-5181	/							/				

Sampled by: T. McIntyre

Temperature (Fahrenheit)			
	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)			
	Interior	Ambient	
Start			
Stop			

1 box
custody seals intact
rec. at ambient temp.
Fed ex # 8728 8627 0548
6 cans | 0 flows

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: T. McIntyre	Date/Time: 7/19/10 1735	Canisters Received by:
Samples Relinquished by: T. McIntyre	Date/Time:	Received by:
Relinquished by: T. McIntyre	Date/Time:	Received by: Dawn Upton 7/21/10 9:40

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H062104114

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☑ **1g** Other: X 7.21.10	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C; NC, 1668, 1613B: 0-4°C; VOST: 10°C; MA: 2-6 °C)			✓	☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?		✓	✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	✓			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?	✓				

Quote #: 78944 PM Instructions: NA

Sample Receiving Associate: Daniel Archer Date: 7/21/10

QA026R21.doc, 090409

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H0G210414*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
DDF 7-21-10	NA	29.08	L4F2M	LA7115	0													8660
			L4F2Q	L4149	-0.7													8694
			L4F2R	LA7212	-1.9													
			L4F2W	L5188	-1.8													
			L4F2X	LA7205	-2.5													
			L4F20	L5181	-3.1													

Original Chain of Custody Documentation

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

H0F190421

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** Sean Crouch	**Sampled By:** T. McIntyre	1 of 1 COCs
Company: GeoTrans Inc	Phone: 410-990-4607		
Address: 844 West St Suite 200	Site Contact:		
City/State/Zip Annapolis MD 21401	TAL Contact:		
Phone: 410-990-4607			
FAX:			
Project Name: LMC- Middle River	**Analysis Turnaround Time**		
Site/location: Middle River	Standard (Specify)		
PO # 117-0507-380	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, 'Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
Pre A - L-5134	6-18	0848					L-5134	✓							✓				
Mid A - L-5142	6-18	0950					L-5142	✓							✓				
Post A - L-5190	6-18	0952					L-5190	✓							✓				
Pre C L-A7211	6-18	0925					L-A7211	✓							✓				
Mid C L-5113	6-18	0927					L-5113	✓							✓				
Post C SL-1216	6-18	0929					SL-1216	✓							✓				

Sampled by :

T.S.M.

Temperature (Fahrenheit)	Interior	Ambient	
Start			
Stop			

Pressure (inches of Hg)	Interior	Ambient	
Start			
Stop			

1 COOLER REC'D AMBIENT
FEDEX #8720 7618 7040
CUSTODY SEALS INTACT
TS 6/19/10

6 CANS, 0 FLOWS

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: T. McIntyre	Date/Time: 6-18-1300	Canisters Received by:
Samples Relinquished by:	Date/Time:	Received by: 6/19/10 9:00
Relinquished by:	Date/Time:	Received by:

H0F190421 Analytical Report 1
Sample Receipt Documentation 21
Total Number of Pages 23

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. LMC-MIDDLE RIVER

MIDDLE RIVER

Lot #: H0F190421

Peter Rich

GeoTrans, Inc.
844 West Street
Suite 100
Annapolis, MD 21401

TESTAMERICA LABORATORIES, INC.

Terry Wasmund
Project Manager

July 9, 2010

ANALYTICAL METHODS SUMMARY

H0F190421

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO15	EPA-2 TO-15

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H0F190421

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L251X	001	PRE-A L5134	06/18/10	08:48
L2511	002	MID-A L5142	06/18/10	09:50
L2514	003	POST-A L5190	06/18/10	09:52
L2516	004	PRE-C L-A7211	06/18/10	09:25
L2517	005	MID-C L5113	06/18/10	09:27
L2518	006	POST-C SL1216	06/18/10	09:29

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H0F190421

The results reported herein are applicable to the samples submitted for analysis only.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria. Even though the calibration verification analyzed on 6/23/10 exhibited a % difference of > 30% for dichlorodifluoromethane, the results were within the LCS acceptance limits.

The daily standard and laboratory control sample recovery for and 1,2-dichloro-1,1,2,2-tetrafluoroethane was above QC limits for batch 0175068. However, since the recovery was high, and and 1,2-dichloro-1,1,2,2-tetrafluoroethane was not detected above the reporting limit in the associated samples, the validity of the data is unaffected.

TestAmerica Knoxville maintains the following certifications, approvals and accreditations: Arkansas DEQ Lab #88-0688, California DHS ELAP Cert. #2423, Colorado DPHE, Connecticut DPH Lab #PH-0223, Florida DOH Lab #E87177, Georgia DNR Lab #906, Hawaii DOH, Illinois EPA Lab #200012, Indiana DOH Lab #C-TN-02, Iowa DNR Lab #375, Kansas DHE Cert. #E-10349, Kentucky DEP Lab #90101, Louisiana DEQ Cert. #03079, Louisiana DOHH, Maryland DOE Cert. #277, Michigan DEQ Lab #9933, Nevada DEP, New Jersey DEP Lab #TN001, New York DOH Lab #10781, North Carolina DPH Lab #21705, North Carolina DEHNR Cert. #64, Ohio EPA VAP Lab #CL0059, Oklahoma DEQ Lab #9415, Pennsylvania DEP Lab #68-00576, South Carolina DHEC Cert #84001001, Tennessee DOH Lab #02014, Texas CEQ, Utah DOH Lab # QUAN3, Virginia DGS Lab #00165, Washington DOE Lab #C1314, West Virginia DEP Cert. #345, West Virginia DHHR Cert #9955C, Wisconsin DNR Lab #998044300, Naval Facilities Engineering Service Center and USDA Soil Permit #S-46424. This list of approvals is subject to change and does not imply that laboratory certification is available for all parameters reported in this environmental sample data report.

GeoTrans, Inc.

Client Sample ID: PRE-A L5134

GC/MS Volatiles

Lot-Sample # H0F190421 - 001 Work Order # L251X1AA Matrix.....: AIR

Date Sampled...: 06/18/2010 Date Received..: 06/19/2010
Prep Date.....: 06/23/2010 Analysis Date... 06/23/2010
Prep Batch #.....: 0175068
Dilution Factor.: 10 Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroeth ane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	**2.0**	**2.0**	**12**	**11**
1,1-Dichloroethene	**28**	**2.0**	**110**	**7.9**
1,1,2-Trichloro-1,2,2-trifluoroetha ne	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	**6.0**	**2.0**	**24**	**8.1**
cis-1,2-Dichloroethene	**24**	**2.0**	**96**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	**120**	**2.0**	**630**	**11**
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	**110**	**2.0**	**600**	**11**
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	**4.0**	**2.0**	**15**	**7.5**
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	**2.7**	**2.0**	**12**	**8.7**
m-Xylene & p-Xylene	**11**	**2.0**	**50**	**8.7**
o-Xylene	**6.0**	**2.0**	**26**	**8.7**
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	**5.7**	**2.0**	**28**	**9.8**
1,2,4-Trimethylbenzene	**27**	**2.0**	**130**	**9.8**
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74
Hexachlorobutadiene	ND	10	ND	110

GeoTrans, Inc.

Client Sample ID: PRE-A L5134

GC/MS Volatiles

Lot-Sample # H0F190421 - 001 Work Order # L251X1AA Matrix.....: AIR

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	94	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: MID-A L5142

GC/MS Volatiles

Lot-Sample #	H0F190421 - 002	**Work Order #**	L25111AA	**Matrix.....:**	AIR
Date Sampled...:	06/18/2010	**Date Received..:**	06/19/2010		
Prep Date.....:	06/23/2010	**Analysis Date...**	06/23/2010		
Prep Batch #.....:	0175068				
Dilution Factor.:	10	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	**4.8**	**2.0**	**19**	**7.9**
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	**5.0**	**2.0**	**20**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	**18**	**2.0**	**99**	**11**
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	**5.8**	**2.0**	**25**	**8.7**
o-Xylene	**3.2**	**2.0**	**14**	**8.7**
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	**3.3**	**2.0**	**16**	**9.8**
1,2,4-Trimethylbenzene	**15**	**2.0**	**76**	**9.8**
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: MID-A L5142

GC/MS Volatiles

Lot-Sample # H0F190421 - 002 **Work Order #** L25111AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	93	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: POST-A L5190

GC/MS Volatiles

Lot-Sample #	H0F190421 - 003	**Work Order #**	L25141AA	**Matrix.....:**	AIR
Date Sampled...:	06/18/2010	**Date Received..:**	06/19/2010		
Prep Date.....:	06/23/2010	**Analysis Date...**	06/23/2010		
Prep Batch #.....:	0175068				
Dilution Factor.:	10	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	**23**	**2.0**	**90**	**7.9**
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	ND	2.0	ND	7.9
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	**3.6**	**2.0**	**16**	**8.7**
o-Xylene	**2.1**	**2.0**	**9.3**	**8.7**
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	**2.6**	**2.0**	**13**	**9.8**
1,2,4-Trimethylbenzene	**13**	**2.0**	**62**	**9.8**
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: POST-A L5190

GC/MS Volatiles

Lot-Sample # H0F190421 - 003 Work Order # L25141AA Matrix.....: AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	93	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: PRE-C L-A7211

GC/MS Volatiles

Lot-Sample #	H0F190421 - 004	**Work Order #**	L25161AA	**Matrix.....:**	AIR
Date Sampled...:	06/18/2010	**Date Received..:**	06/19/2010		
Prep Date.....:	06/23/2010	**Analysis Date...**	06/23/2010		
Prep Batch #.....:	0175068				
Dilution Factor.:	10	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	ND	2.0	ND	7.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	**18**	**2.0**	**72**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	**4.7**	**2.0**	**25**	**11**
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	**6.9**	**2.0**	**30**	**8.7**
o-Xylene	**3.9**	**2.0**	**17**	**8.7**
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	**3.6**	**2.0**	**17**	**9.8**
1,2,4-Trimethylbenzene	**17**	**2.0**	**83**	**9.8**
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: PRE-C L-A7211

GC/MS Volatiles

Lot-Sample # H0F190421 - 004 Work Order # L25161AA Matrix.....: AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexaehlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	94	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: MID-C L5113

GC/MS Volatiles

Lot-Sample # H0F190421 - 005 **Work Order #** L25171AA **Matrix.....:** AIR

Date Sampled...: 06/18/2010 **Date Received..:** 06/19/2010
Prep Date.....: 06/23/2010 **Analysis Date...** 06/23/2010
Prep Batch #.....: 0175068
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	ND	2.0	ND	7.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	ND	2.0	ND	7.9
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	**6.0**	**2.0**	**26**	**8.7**
o-Xylene	**3.4**	**2.0**	**15**	**8.7**
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	**3.2**	**2.0**	**16**	**9.8**
1,2,4-Trimethylbenzene	**16**	**2.0**	**79**	**9.8**
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: MID-C L5113

GC/MS Volatiles

Lot-Sample # H0F190421 - 005 **Work Order #** L25171AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	94	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: POST-C SL1216

GC/MS Volatiles

Lot-Sample #	H0F190421 - 006	**Work Order #**	L25181AA	**Matrix.....:**	AIR
Date Sampled...:	06/18/2010	**Date Received..:**	06/19/2010		
Prep Date.....:	06/23/2010	**Analysis Date...**	06/23/2010		
Prep Batch #.....:	0175068				
Dilution Factor.:	10	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	ND	2.0	ND	7.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	ND	2.0	ND	7.9
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	**6.3**	**2.0**	**28**	**8.7**
o-Xylene	**3.6**	**2.0**	**16**	**8.7**
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	**3.3**	**2.0**	**16**	**9.8**
1,2,4-Trimethylbenzene	**14**	**2.0**	**68**	**9.8**
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: POST-C SL1216

GC/MS Volatiles

Lot-Sample # H0F190421 - 006 Work Order # L25181AA Matrix.....: AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	95	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample #	H0F240000 - 068B	**Work Order #**	L3CE81AA	**Matrix.....:**	AIR
	06/18/2010	**Date Received..:**	06/19/2010		
Prep Date.....:	06/23/2010	**Analysis Date...**	06/23/2010		
Prep Batch #.....:	0175068				
Dilution Factor.:	1	**Method.....:**	TO-15		

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	0.20	ND	0.99
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.20	ND	1.4
Chloromethane	ND	0.50	ND	1.0
Vinyl chloride	ND	0.20	ND	0.51
Bromomethane	ND	0.20	ND	0.78
Chloroethane	ND	0.20	ND	0.53
Trichlorofluoromethane	ND	0.20	ND	1.1
1,1-Dichloroethene	ND	0.20	ND	0.79
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.20	ND	1.5
Methylene chloride	ND	0.50	ND	1.7
1,1-Dichloroethane	ND	0.20	ND	0.81
cis-1,2-Dichloroethene	ND	0.20	ND	0.79
Chloroform	ND	0.20	ND	0.98
1,1,1-Trichloroethane	ND	0.20	ND	1.1
Carbon tetrachloride	ND	0.20	ND	1.3
Benzene	ND	0.20	ND	0.64
1,2-Dichloroethane	ND	0.20	ND	0.81
Trichloroethene	ND	0.20	ND	1.1
1,2-Dichloropropane	ND	0.20	ND	0.92
cis-1,3-Dichloropropene	ND	0.20	ND	0.91
Toluene	ND	0.20	ND	0.75
trans-1,3-Dichloropropene	ND	0.20	ND	0.91
1,1,2-Trichloroethane	ND	0.20	ND	1.1
Tetrachloroethene	ND	0.20	ND	1.4
1,2-Dibromoethane (EDB)	ND	0.20	ND	1.5
Chlorobenzene	ND	0.20	ND	0.92
Ethylbenzene	ND	0.20	ND	0.87
m-Xylene & p-Xylene	ND	0.20	ND	0.87
o-Xylene	ND	0.20	ND	0.87
Styrene	ND	0.20	ND	0.85
1,1,2,2-Tetrachloroethane	ND	0.20	ND	1.4
1,3,5-Trimethylbenzene	ND	0.20	ND	0.98
1,2,4-Trimethylbenzene	ND	0.20	ND	0.98
1,3-Dichlorobenzene	ND	0.20	ND	1.2
1,4-Dichlorobenzene	ND	0.20	ND	1.2
1,2-Dichlorobenzene	ND	0.20	ND	1.2
Benzyl chloride	ND	0.40	ND	2.1
1,2,4-Trichlorobenzene	ND	1.0	ND	7.4

GeoTrans, Inc.

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H0F240000 - 068B Work Order # L3CE81AA Matrix.....: AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	1.0	ND	11

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	92	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0F240000 - 068C Work Order # L3CE81AC Matrix.....: AIR

	06/18/2010	Date Received..:	06/19/2010
Prep Date.....:	06/23/2010	Analysis Date...	06/23/2010
Prep Batch #.....:	0175068		
Dilution Factor.:	1	Method.....:	TO-15

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY		RECOVERY LIMITS
Dichlorodifluoromethane	10.0	13.8	49	68	138		60 - 140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	10.0	15.2	70	110	152	a	60 - 140
Chloromethane	10.0	12.1	21	25	121		60 - 140
Vinyl chloride	10.0	10.9	26	28	109		70 - 130
Bromomethane	10.0	10.8	39	42	108		70 - 130
Chloroethane	10.0	9.45	26	25	95		70 - 130
Trichlorofluoromethane	10.0	13.0	56	73	130		60 - 140
1,1-Dichloroethene	10.0	9.01	40	36	90		70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	8.59	77	66	86		70 - 130
Methylene chloride	10.0	7.26	35	25	73		70 - 130
1,1-Dichloroethane	10.0	8.10	40	33	81		70 - 130
cis-1,2-Dichloroethene	10.0	7.93	40	31	79		70 - 130
Chloroform	10.0	8.37	49	41	84		70 - 130
1,1,1-Trichloroethane	10.0	9.88	55	54	99		70 - 130
Carbon tetrachloride	10.0	8.67	63	55	87		70 - 130
Benzene	10.0	7.00	32	22	70		70 - 130
1,2-Dichloroethane	10.0	8.66	40	35	87		70 - 130
Trichloroethene	10.0	7.73	54	42	77		70 - 130
1,2-Dichloropropane	10.0	7.45	46	34	74		70 - 130
cis-1,3-Dichloropropene	10.0	8.06	45	37	81		70 - 130
Toluene	10.0	7.16	38	27	72		70 - 130
trans-1,3-Dichloropropene	10.0	8.36	45	38	84		70 - 130
1,1,2-Trichloroethane	10.0	8.07	55	44	81		70 - 130
Tetrachloroethene	10.0	8.59	68	58	86		70 - 130
1,2-Dibromoethane (EDB)	10.0	8.65	77	66	86		70 - 130
Chlorobenzene	10.0	8.60	46	40	86		70 - 130
Ethylbenzene	10.0	8.64	43	38	86		70 - 130
m-Xylene & p-Xylene	20.0	18.1	87	79	90		70 - 130
o-Xylene	10.0	8.87	43	38	89		70 - 130
Styrene	10.0	10.0	43	43	100		70 - 130
1,1,2,2-Tetrachloroethane	10.0	9.16	69	63	92		70 - 130
1,3,5-Trimethylbenzene	10.0	9.54	49	47	95		70 - 130
1,2,4-Trimethylbenzene	10.0	10.3	49	51	103		70 - 130
1,3-Dichlorobenzene	10.0	10.5	60	63	105		70 - 130
1,4-Dichlorobenzene	10.0	10.5	60	63	105		70 - 130
1,2-Dichlorobenzene	10.0	10.7	60	64	107		70 - 130
Benzyl chloride	10.0	11.0	52	57	110		70 - 130
1,2,4-Trichlorobenzene	10.0	8.86	74	66	89		60 - 140

GeoTrans, Inc.

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0F240000 - 068C **Work Order #** L3CE81AC **Matrix.....:** AIR

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Hexachlorobutadiene	10.0	9.88	110	110	99	60 - 140

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

Qualifiers

a Spiked analyte recovery is outside stated control limits.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

H0F190421

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** Sean Crouch	**Sampled By:** T. McIntyre	1 of 1 COCs
Company: GeoTrans Inc	Phone: 410-990-4607		
Address: 844 West St Suite 200	Site Contact:		
City/State/Zip Annapolis MD 21401	TAL Contact:		
Phone: 410-990-4607			
FAX:			
Project Name: LMC-Middle River	**Analysis Turnaround Time**		
Site/location: Middle River	Standard (Specify)		
PO # 117-0507-380	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, 'Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
Pre A - L-5134	6-18	0848					L-5134	✓							✓				
Mid A - L-5142	6-18	0950					L-5142	✓							✓				
Post A - L-5190	6-18	0952					L-5190	✓							✓				
Pre C L-A7211	6-18	0925					L-A7211	✓							✓				
Mid C L-5113	6-18	0927					L-5113	✓							✓				
Post C SL-1216	6-18	0929					SL-1216	✓							✓				

Sampled by : T.S.M.

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

1 COOLER, RECD AMBIENT
FEDEX #8720 7618 7040
CUSTODY SEALS INTACT
TS 6/19/10

6 CANS, 0 FLOWS

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: T. McIntyre	Date/Time: 6-18-1300	Canisters Received by:	
Samples Relinquished by:	Date/Time:	Received by: [illegible] 6/19/10 9:00	
Relinquished by:	Date/Time:	Received by:	

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: H0F190421

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	√			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C; NC, 1668, 1613B: 0-4°C; VOST: 10°C; MA: 2-6 °C)			√	☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____	
3. Were samples received with correct chemical preservative (excluding Encore)?			√	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	√			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	√			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	√			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			√	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	√			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			√	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	√			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			√	☐ Incomplete information	
12. For 1613B water samples is pH<9?			√	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	√			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	√			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	√			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	√			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	√			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	√			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?	√				

Quote #: 78944 PM Instructions: _____

Sample Receiving Associate: Dell Smith Date: 6/19/10

QA026R21.doc, 090409

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H0F190421*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
DDF 6-22-10	NA	29.11	L251X	L5134	0										8507			
↓	↓	↓	L2511	L5142	+1.0													
			L2514	L5190	-1.1													
			L2516	LA7211	0										8563			
			L2517	L5113	-0.7										8507			
↓	↓	↓	L2518	SL1216	-1.3										8660			

H0E170405 Analytical Report..... 1
Total Number of Pages 21
Total Number of Pages 23

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

--

LMC - Middle River

Lot #: H0E170405

Peter Rich

GeoTrans, Inc.
844 West Street
Suite 100
Annapolis, MD 21401

TESTAMERICA LABORATORIES, INC.

Terry Wasmund
Project Manager

June 2, 2010

ANALYTICAL METHODS SUMMARY

H0E170405

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO15	EPA-2 TO-15

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H0E170405

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L1LFA	001	PRE-C	05/13/10	06:49
L1LFD	002	MID-C	05/13/10	06:56
L1LFG	003	POST-C	05/13/10	06:59
L1LFH	004	PRE-A	05/13/10	07:13
L1LFJ	005	MID-A	05/13/10	07:15
L1LFK	006	POST-A	05/13/10	07:24

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H0E170405

The results reported herein are applicable to the samples submitted for analysis only.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

The chain of custody documentation was received with incomplete information. The tests/parameters were not listed on the chain of custody for each sample.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

The EPA method requires that all target analytes in the continuing calibration verification standard be within 30% difference from the initial calibration. According to the laboratory standard operating procedure, the continuing calibration is acceptable if it meets the laboratory control sample acceptance criteria. Even though the calibration verification analyzed on 5/18/10 exhibited a % difference of > 30% for 1,2,4-trichlorobenzene and hexachlorobutadiene, the results were within the LCS acceptance limits.

Although 1,2,4-trichlorobenzene is flagged as being outside recovery limits in the laboratory control sample for batch 0139077, the laboratory control sample is in control. The standard operating procedure allows for 2 analytes to be outside the control limits, but within marginal exceedence limit.

TestAmerica Knoxville maintains the following certifications, approvals and accreditations: Arkansas DEQ Lab #88-0688, California DHS ELAP Cert. #2423, Colorado DPHE, Connecticut DPH Lab #PH-0223, Florida DOH Lab #E87177, Georgia DNR Lab #906, Hawaii DOH, Illinois EPA Lab #200012, Indiana DOH Lab #C-TN-02, Iowa DNR Lab #375, Kansas DHE Cert. #E-10349, Kentucky DEP Lab #90101, Louisiana DEQ Cert. #03079, Louisiana DOHH, Maryland DOE Cert. #277, Michigan DEQ Lab #9933, Nevada DEP, New Jersey DEP Lab #TN001, New York DOH Lab #10781, North Carolina DPH Lab #21705, North Carolina DEHNR Cert. #64, Ohio EPA VAP Lab #CL0059, Oklahoma DEQ Lab #9415, Pennsylvania DEP Lab #68-00576, South Carolina DHEC Cert #84001001, Tennessee DOH Lab #02014, Texas CEQ, Utah DOH Lab # QUAN3, Virginia DGS Lab #00165, Washington DOE Lab #C1314, West Virginia DEP Cert. #345, West Virginia DHHR Cert #9955C, Wisconsin DNR Lab #998044300, Naval Facilities Engineering Service Center and USDA Soil Permit #S-46424. This list of approvals is subject to change and does not imply that laboratory certification is available for all parameters reported in this environmental sample data report.

GeoTrans, Inc.

Client Sample ID: PRE-C

GC/MS Volatiles

Lot-Sample # H0E170405 - 001 **Work Order #** L1LFA1AA **Matrix.....:** AIR

Date Sampled...: 05/13/2010 **Date Received..:** 05/17/2010
Prep Date.....: 05/18/2010 **Analysis Date...** 05/18/2010
Prep Batch #.....: 0139077
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	ND	2.0	ND	7.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	**16**	**2.0**	**65**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon tetrachloride	ND	2.0	ND	13
Benzene	**18**	**2.0**	**58**	**6.4**
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	**4.1**	**2.0**	**22**	**11**
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	**59**	**2.0**	**220**	**7.5**
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	**8.8**	**2.0**	**38**	**8.7**
m-Xylene & p-Xylene	**32**	**2.0**	**140**	**8.7**
o-Xylene	**9.0**	**2.0**	**39**	**8.7**
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	**5.1**	**2.0**	**25**	**9.8**
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: PRE-C

GC/MS Volatiles

Lot-Sample # H0E170405 - 001 **Work Order #** L1LFA1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: MID-C

GC/MS Volatiles

Lot-Sample # H0E170405 - 002 **Work Order #** L1LFD1AA **Matrix.....:** AIR

Date Sampled...: 05/13/2010 **Date Received..:** 05/17/2010
Prep Date.....: 05/18/2010 **Analysis Date...** 05/18/2010
Prep Batch #.....: 0139077
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	ND	2.0	ND	7.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	**2.4**	**2.0**	**9.6**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon tetrachloride	ND	2.0	ND	13
Benzene	**4.7**	**2.0**	**15**	**6.4**
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	**14**	**2.0**	**51**	**7.5**
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	**2.2**	**2.0**	**9.8**	**8.7**
m-Xylene & p-Xylene	**8.3**	**2.0**	**36**	**8.7**
o-Xylene	**2.4**	**2.0**	**10**	**8.7**
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: MID-C

GC/MS Volatiles

Lot-Sample # H0E170405 - 002 **Work Order #** L1LFD1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: POST-C

GC/MS Volatiles

Lot-Sample # H0E170405 - 003 **Work Order #** L1LFG1AA **Matrix.....:** AIR

Date Sampled...: 05/13/2010 **Date Received..:** 05/17/2010
Prep Date.....: 05/18/2010 **Analysis Date...** 05/18/2010
Prep Batch #.....: 0139077
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	**2.1**	**2.0**	**5.4**	**5.3**
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	ND	2.0	ND	7.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	**8.8**	**5.0**	**31**	**17**
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	ND	2.0	ND	7.9
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon tetrachloride	ND	2.0	ND	13
Benzene	**11**	**2.0**	**36**	**6.4**
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	**36**	**2.0**	**140**	**7.5**
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	**5.6**	**2.0**	**24**	**8.7**
m-Xylene & p-Xylene	**20**	**2.0**	**89**	**8.7**
o-Xylene	**5.8**	**2.0**	**25**	**8.7**
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	**3.4**	**2.0**	**17**	**9.8**
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: POST-C

GC/MS Volatiles

Lot-Sample # H0E170405 - 003 **Work Order #** L1LFG1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: PRE-A

GC/MS Volatiles

Lot-Sample # H0E170405 - 004 **Work Order #** L1LFH1AA **Matrix.....:** AIR

Date Sampled...: 05/13/2010 **Date Received..:** 05/17/2010
Prep Date.....: 05/18/2010 **Analysis Date...** 05/18/2010
Prep Batch #.....: 0139077
Dilution Factor.: 18.18 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	3.6	ND	18
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	3.6	ND	25
Chloromethane	ND	9.1	ND	19
Vinyl chloride	ND	3.6	ND	9.3
Bromomethane	ND	3.6	ND	14
Chloroethane	ND	3.6	ND	9.6
Trichlorofluoromethane	ND	3.6	ND	20
1,1-Dichloroethene	**42**	**3.6**	**170**	**14**
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	3.6	ND	28
Methylene chloride	ND	9.1	ND	32
1,1-Dichloroethane	**10**	**3.6**	**42**	**15**
cis-1,2-Dichloroethene	**44**	**3.6**	**170**	**14**
Chloroform	ND	3.6	ND	18
1,1,1-Trichloroethane	**180**	**3.6**	**960**	**20**
Carbon tetrachloride	ND	3.6	ND	23
Benzene	ND	3.6	ND	12
1,2-Dichloroethane	ND	3.6	ND	15
Trichloroethene	**200**	**3.6**	**1100**	**20**
1,2-Dichloropropane	ND	3.6	ND	17
cis-1,3-Dichloropropene	ND	3.6	ND	17
Toluene	**25**	**3.6**	**95**	**14**
trans-1,3-Dichloropropene	ND	3.6	ND	17
1,1,2-Trichloroethane	ND	3.6	ND	20
Tetrachloroethene	ND	3.6	ND	25
1,2-Dibromoethane (EDB)	ND	3.6	ND	28
Chlorobenzene	ND	3.6	ND	17
Ethylbenzene	**4.4**	**3.6**	**19**	**16**
m-Xylene & p-Xylene	**17**	**3.6**	**75**	**16**
o-Xylene	**5.2**	**3.6**	**23**	**16**
Styrene	ND	3.6	ND	15
1,1,2,2-Tetrachloroethane	ND	3.6	ND	25
1,3,5-Trimethylbenzene	ND	3.6	ND	18
1,2,4-Trimethylbenzene	**3.7**	**3.6**	**18**	**18**
1,3-Dichlorobenzene	ND	3.6	ND	22
1,4-Dichlorobenzene	ND	3.6	ND	22
1,2-Dichlorobenzene	ND	3.6	ND	22
Benzyl chloride	ND	7.3	ND	38
1,2,4-Trichlorobenzene	ND	18	ND	130
Hexachlorobutadiene	ND	18	ND	190

GeoTrans, Inc.

Client Sample ID: PRE-A

GC/MS Volatiles

Lot-Sample # H0E170405 - 004 **Work Order #** L1LFH1AA **Matrix.....:** AIR

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	100	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: MID-A

GC/MS Volatiles

Lot-Sample # H0E170405 - 005 **Work Order #** L1LFJ1AA **Matrix.....:** AIR

Date Sampled...: 05/13/2010 **Date Received..:** 05/17/2010
Prep Date.....: 05/18/2010 **Analysis Date...** 05/18/2010
Prep Batch #.....: 0139077
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	**2.2**	**2.0**	**13**	**11**
1,1-Dichloroethene	**46**	**2.0**	**180**	**7.9**
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	**15**	**2.0**	**61**	**8.1**
cis-1,2-Dichloroethene	**66**	**2.0**	**260**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	**230**	**2.0**	**1300**	**11**
Carbon tetrachloride	ND	2.0	ND	13
Benzene	**4.0**	**2.0**	**13**	**6.4**
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	**18**	**2.0**	**67**	**7.5**
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	**3.4**	**2.0**	**15**	**8.7**
m-Xylene & p-Xylene	**13**	**2.0**	**55**	**8.7**
o-Xylene	**3.8**	**2.0**	**16**	**8.7**
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	**2.5**	**2.0**	**12**	**9.8**
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74
Hexachlorobutadiene	ND	10	ND	110

GeoTrans, Inc.

Client Sample ID: MID-A

GC/MS Volatiles

Lot-Sample # H0E170405 - 005 **Work Order #** L1LFJ1AA **Matrix.....:** AIR

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: POST-A

GC/MS Volatiles

Lot-Sample # H0E170405 - 006 **Work Order #** L1LFK1AA **Matrix.....:** AIR

Date Sampled...: 05/13/2010
Prep Date.....: 05/18/2010
Prep Batch #.....: 0139077
Dilution Factor.: 10

Date Received..: 05/17/2010
Analysis Date... 05/18/2010
Method.....: TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroeth ane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	**2.1**	**2.0**	**12**	**11**
1,1-Dichloroethene	**41**	**2.0**	**160**	**7.9**
1,1,2-Trichloro-1,2,2-trifluoroetha ne	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	**14**	**2.0**	**57**	**8.1**
cis-1,2-Dichloroethene	**62**	**2.0**	**250**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	**200**	**2.0**	**1100**	**11**
Carbon tetrachloride	ND	2.0	ND	13
Benzene	**2.3**	**2.0**	**7.2**	**6.4**
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	**4.5**	**2.0**	**24**	**11**
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	**15**	**2.0**	**58**	**7.5**
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	**4.4**	**2.0**	**19**	**8.7**
m-Xylene & p-Xylene	**18**	**2.0**	**77**	**8.7**
o-Xylene	**5.5**	**2.0**	**24**	**8.7**
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	**6.8**	**2.0**	**33**	**9.8**
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74
Hexachlorobutadiene	ND	10	ND	110

GeoTrans, Inc.

Client Sample ID: POST-A

GC/MS Volatiles

Lot-Sample # H0E170405 - 006 **Work Order #** L1LFK1AA **Matrix.....:** AIR

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	107	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H0E190000 - 077B **Work Order #** L1PHP1AA **Matrix.....:** AIR

	05/13/2010	**Date Received..:**	05/17/2010
Prep Date.....:	05/18/2010	**Analysis Date...**	05/18/2010
Prep Batch #.....:	0139077		
Dilution Factor.:	1	**Method.....:**	TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	0.20	ND	0.99
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.20	ND	1.4
Chloromethane	ND	0.50	ND	1.0
Vinyl chloride	ND	0.20	ND	0.51
Bromomethane	ND	0.20	ND	0.78
Chloroethane	ND	0.20	ND	0.53
Trichlorofluoromethane	ND	0.20	ND	1.1
1,1-Dichloroethene	ND	0.20	ND	0.79
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.20	ND	1.5
Methylene chloride	ND	0.50	ND	1.7
1,1-Dichloroethane	ND	0.20	ND	0.81
cis-1,2-Dichloroethene	ND	0.20	ND	0.79
Chloroform	ND	0.20	ND	0.98
1,1,1-Trichloroethane	ND	0.20	ND	1.1
Carbon tetrachloride	ND	0.20	ND	1.3
Benzene	ND	0.20	ND	0.64
1,2-Dichloroethane	ND	0.20	ND	0.81
Trichloroethene	ND	0.20	ND	1.1
1,2-Dichloropropane	ND	0.20	ND	0.92
cis-1,3-Dichloropropene	ND	0.20	ND	0.91
Toluene	ND	0.20	ND	0.75
trans-1,3-Dichloropropene	ND	0.20	ND	0.91
1,1,2-Trichloroethane	ND	0.20	ND	1.1
Tetrachloroethene	ND	0.20	ND	1.4
1,2-Dibromoethane (EDB)	ND	0.20	ND	1.5
Chlorobenzene	ND	0.20	ND	0.92
Ethylbenzene	ND	0.20	ND	0.87
m-Xylene & p-Xylene	ND	0.20	ND	0.87
o-Xylene	ND	0.20	ND	0.87
Styrene	ND	0.20	ND	0.85
1,1,2,2-Tetrachloroethane	ND	0.20	ND	1.4
1,3,5-Trimethylbenzene	ND	0.20	ND	0.98
1,2,4-Trimethylbenzene	ND	0.20	ND	0.98
1,3-Dichlorobenzene	ND	0.20	ND	1.2
1,4-Dichlorobenzene	ND	0.20	ND	1.2
1,2-Dichlorobenzene	ND	0.20	ND	1.2
Benzyl chloride	ND	0.40	ND	2.1
1,2,4-Trichlorobenzene	ND	1.0	ND	7.4

GeoTrans, Inc.

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H0E190000 - 077B **Work Order #** L1PHP1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	1.0	ND	11

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	102	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0E190000 - 077C **Work Order #** L1PHP1AC **Matrix.....:** AIR

	05/13/2010	**Date Received..:**	05/17/2010
Prep Date.....:	05/18/2010	**Analysis Date...**	05/18/2010
Prep Batch #.....:	0139077		
Dilution Factor.:	1	**Method.....:**	TO-15

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Dichlorodifluoromethane	10.0	10.3	49	51	103	60 - 140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	10.0	10.9	70	76	109	60 - 140
Chloromethane	10.0	10.2	21	21	102	60 - 140
Vinyl chloride	10.0	9.94	26	25	99	70 - 130
Bromomethane	10.0	10.1	39	39	101	70 - 130
Chloroethane	10.0	10.5	26	28	105	70 - 130
Trichlorofluoromethane	10.0	9.92	56	56	99	60 - 140
1,1-Dichloroethene	10.0	9.77	40	39	98	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	10.0	9.52	77	73	95	70 - 130
Methylene chloride	10.0	8.86	35	31	89	70 - 130
1,1-Dichloroethane	10.0	9.20	40	37	92	70 - 130
cis-1,2-Dichloroethene	10.0	9.28	40	37	93	70 - 130
Chloroform	10.0	9.00	49	44	90	70 - 130
1,1,1-Trichloroethane	10.0	9.49	55	52	95	70 - 130
Carbon tetrachloride	10.0	10.9	63	69	109	70 - 130
Benzene	10.0	9.35	32	30	94	70 - 130
1,2-Dichloroethane	10.0	10.3	40	42	103	70 - 130
Trichloroethene	10.0	10.0	54	54	100	70 - 130
1,2-Dichloropropane	10.0	9.56	46	44	96	70 - 130
cis-1,3-Dichloropropene	10.0	9.95	45	45	99	70 - 130
Toluene	10.0	9.37	38	35	94	70 - 130
trans-1,3-Dichloropropene	10.0	9.91	45	45	99	70 - 130
1,1,2-Trichloroethane	10.0	9.76	55	53	98	70 - 130
Tetrachloroethene	10.0	9.20	68	62	92	70 - 130
1,2-Dibromoethane (EDB)	10.0	9.83	77	76	98	70 - 130
Chlorobenzene	10.0	9.22	46	42	92	70 - 130
Ethylbenzene	10.0	9.55	43	41	95	70 - 130
m-Xylene & p-Xylene	20.0	18.8	87	82	94	70 - 130
o-Xylene	10.0	9.05	43	39	91	70 - 130
Styrene	10.0	9.94	43	42	99	70 - 130
1,1,2,2-Tetrachloroethane	10.0	9.60	69	66	96	70 - 130
1,3,5-Trimethylbenzene	10.0	7.73	49	38	77	70 - 130
1,2,4-Trimethylbenzene	10.0	7.63	49	38	76	70 - 130
1,3-Dichlorobenzene	10.0	8.50	60	51	85	70 - 130
1,4-Dichlorobenzene	10.0	8.54	60	51	85	70 - 130
1,2-Dichlorobenzene	10.0	8.25	60	50	82	70 - 130
Benzyl chloride	10.0	8.80	52	46	88	70 - 130
1,2,4-Trichlorobenzene	10.0	5.63	74	42	56 a	60 - 140

GeoTrans, Inc.

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0E190000 - 077C **Work Order #** L1PHP1AC **Matrix.....:** AIR

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Hexachlorobutadiene	10.0	6.26	110	67	63	60 - 140

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	103	60 - 140

Qualifiers

a Spiked analyte recovery is outside stated control limits.

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

H0E170405

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** Sean Crouch	**Sampled By:** Tyler McIntyre	1 of 1 COCs
Company: Geo Trans	Phone: 410 990 4607		
Address: 749 West Street	Site Contact:		
City/State/Zip Annapolis MD 21401	TAL Contact:		
Phone: 410-990-4607			
FAX:			
Project Name: LMC - Middle River	**Analysis Turnaround Time**		
Site/location:	Standard (Specify)		
PO # LMC-Middle River O+M	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
Pre-C	5/13/10	0649					L-A7077								✓				
M.D.-C	5/13/10	0656					L-5131								✓				
Post-C	5/13/10	0659					L-5172								✓				
Pre-A	5/13/10	0713					L-A7167								✓				
M.D.-A	5/13/10	0715					L-A7118								✓				
Post-A	5/13/10	0724					L-5183								✓				

Sampled by: Tyler McIntyre

Temperature (Fahrenheit)	Interior	Ambient	
Start			
Stop			

Pressure (Inches of Hg)	Interior	Ambient	
Start			
Stop			

- 1 box
- rec. at ambient temp.
- 6 cans/no flows
- Fed ex # 8709 2860 5894
- custody seal intact

Special Instructions/QC Requirements & Comments: N/A

Canisters Shipped by:	Date/Time: 5/13/10 1840	Canisters Received by:	Date/Time: 5/17/10 9:45
Samples Relinquished by:	Date/Time:	Received by:	
Relinquished by:	Date/Time:	Received by:	

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: ~~HOE170~~ RH HOE170405

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	✓			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	15a
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C; NC, 1668, 1613B: 0-4°C; VOST: 10°C; MA: 2-6 °C)			✓	☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____	
3. Were samples received with correct chemical preservative (excluding Encore)?			✓	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	✓			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	✓			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	✓			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			✓	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	✓			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			✓	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	✓			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			✓	☐ Incomplete information	
12. For 1613B water samples is pH<9?			✓	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	✓			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	✓			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	~~✓~~ RH	✓		☑ **15a** Incomplete information	
16. Is the matrix of the samples noted?	✓			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	✓			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	✓			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?	✓				

Quote #: 78944 PM Instructions: _____

Sample Receiving Associate: David Upton Date: 5/17/10

QA026R21.doc, 090409

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H0E170405*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
DDF 5-17-10	NA	28.84	L1LFA	LA7077	+0.4													8583
			L1LFD	L5131	+0.3													
			L1LFG	L5172	+0.2													
			L1LFH	LA7167	+1.6													
			L1LFJ	LA7118	+0.9													
			L1LFK	L5183	-0.1													5481

H0I200404 Analytical Report 1

Sample Receipt Documentation 21

Total Number of Pages 23

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

ANALYTICAL REPORT

PROJECT NO. SSD

LMC-MR

Lot #: H0I200404

Peter Rich

GeoTrans, Inc.
844 West Street
Suite 100
Annapolis, MD 21401

TESTAMERICA LABORATORIES, INC.

Terry Wasmund
Project Manager

September 29, 2010

ANALYTICAL METHODS SUMMARY

H0I200404

PARAMETER	ANALYTICAL METHOD
Volatile Organics by TO15	EPA-2 TO-15

References:

EPA-2 "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999.

SAMPLE SUMMARY

H0I200404

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
L67F6	001	PRE-C	09/17/10	13:44
L67F7	002	MID-C	09/17/10	13:47
L67F8	003	POST-C	09/17/10	13:50
L67F9	004	PRE-A	09/17/10	14:42
L67GA	005	MID-A	09/17/10	14:45
L67GC	006	POST-A	09/17/10	14:48

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

PROJECT NARRATIVE
H0I200404

The results reported herein are applicable to the samples submitted for analysis only.

This report shall not be reproduced except in full, without the written approval of the laboratory.

The original chain of custody documentation is included with this report.

Sample Receipt

There were no problems with the condition of the samples received.

Quality Control and Data Interpretation

Unless otherwise noted, all holding times and QC criteria were met and the test results shown in this report meet all applicable NELAC requirements.

EPA methods TO-14A and TO-15 specify the use of humidified "zero air" as the blank reagent for canister cleaning, instrument calibration and sample analysis. Ultra-high purity humidified nitrogen from a cryogenic reservoir is used in place of "zero air" by TestAmerica Knoxville.

TestAmerica Knoxville maintains the following certifications, approvals and accreditations: Arkansas DEQ Lab #88-0688, California DHS ELAP Cert. #2423, Colorado DPHE, Connecticut DPH Lab #PH-0223, Florida DOH Lab #E87177, Georgia DNR Lab #906, Hawaii DOH, Illinois EPA Lab #200012, Indiana DOH Lab #C-TN-02, Iowa DNR Lab #375, Kansas DHE Cert. #E-10349, Kentucky DEP Lab #90101, Louisiana DEQ Cert. #03079, Louisiana DOHH, Maryland DOE Cert. #277, Michigan DEQ Lab #9933, Nevada DEP, New Jersey DEP Lab #TN001, New York DOH Lab #10781, North Carolina DPH Lab #21705, North Carolina DEHNR Cert. #64, Ohio EPA VAP Lab #CL0059, Oklahoma DEQ Lab #9415, Pennsylvania DEP Lab #68-00576, South Carolina DHEC Cert #84001001, Tennessee DOH Lab #02014, Texas CEQ, Utah DOH Lab # QUAN3, Virginia DGS Lab #00165, Washington DOE Lab #C1314, West Virginia DEP Cert. #345, West Virginia DHHR Cert #9955C, Wisconsin DNR Lab #998044300, Naval Facilities Engineering Service Center and USDA Soil Permit #S-46424. This list of approvals is subject to change and does not imply that laboratory certification is available for all parameters reported in this environmental sample data report.

GeoTrans, Inc.

Client Sample ID: PRE-C

GC/MS Volatiles

Lot-Sample # H0I200404 - 001 **Work Order #** L67F61AA **Matrix.....:** AIR

Date Sampled...: 09/17/2010 **Date Received..:** 09/18/2010
Prep Date.....: 09/21/2010 **Analysis Date...** 09/21/2010
Prep Batch #.....: 0265106
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	ND	2.0	ND	7.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	**18**	**2.0**	**70**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	**6.2**	**2.0**	**33**	**11**
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: PRE-C

GC/MS Volatiles

Lot-Sample # H0I200404 - 001 **Work Order #** L67F61AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	98	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: MID-C

GC/MS Volatiles

Lot-Sample # H0I200404 - 002 **Work Order #** L67F71AA **Matrix.....:** AIR

Date Sampled...: 09/17/2010 **Date Received..:** 09/18/2010
Prep Date.....: 09/21/2010 **Analysis Date...** 09/21/2010
Prep Batch #.....: 0265106
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	ND	2.0	ND	7.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	**8.9**	**2.0**	**35**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon tetrachloride	ND	2.0	ND	13
Benzene	**8.1**	**2.0**	**26**	**6.4**
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: MID-C

GC/MS Volatiles

Lot-Sample # H0I200404 - 002 **Work Order #** L67F71AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	96	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: POST-C

GC/MS Volatiles

Lot-Sample # H0I200404 - 003 **Work Order #** L67F81AA **Matrix.....:** AIR

Date Sampled...: 09/17/2010 **Date Received..:** 09/18/2010
Prep Date.....: 09/21/2010 **Analysis Date...** 09/21/2010
Prep Batch #.....: 0265106
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	**2.2**	**2.0**	**5.9**	**5.3**
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	ND	2.0	ND	7.9
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	ND	2.0	ND	8.1
cis-1,2-Dichloroethene	ND	2.0	ND	7.9
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	ND	2.0	ND	11
Carbon tetrachloride	ND	2.0	ND	13
Benzene	**3.9**	**2.0**	**13**	**6.4**
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: POST-C

GC/MS Volatiles

Lot-Sample # H0I200404 - 003 **Work Order #** L67F81AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	98	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: PRE-A

GC/MS Volatiles

Lot-Sample # H0I200404 - 004 **Work Order #** L67F91AA **Matrix.....:** AIR

Date Sampled...: 09/17/2010 **Date Received..:** 09/18/2010
Prep Date.....: 09/21/2010 **Analysis Date...** 09/21/2010
Prep Batch #.....: 0265106
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	**3.5**	**2.0**	**20**	**11**
1,1-Dichloroethene	**38**	**2.0**	**150**	**7.9**
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	**8.7**	**2.0**	**35**	**8.1**
cis-1,2-Dichloroethene	**35**	**2.0**	**140**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	**160**	**2.0**	**860**	**11**
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	**200**	**2.0**	**1100**	**11**
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	**7.8**	**2.0**	**29**	**7.5**
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: PRE-A

GC/MS Volatiles

Lot-Sample # H0I200404 - 004 **Work Order #** L67F91AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	97	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: MID-A

GC/MS Volatiles

Lot-Sample # H0I200404 - 005 **Work Order #** L67GA1AA **Matrix.....:** AIR

Date Sampled...: 09/17/2010 **Date Received..:** 09/18/2010
Prep Date.....: 09/21/2010 **Analysis Date...** 09/21/2010
Prep Batch #.....: 0265106
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	**4.4**	**2.0**	**24**	**11**
1,1-Dichloroethene	**78**	**2.0**	**310**	**7.9**
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	**27**	**2.0**	**110**	**8.1**
cis-1,2-Dichloroethene	**84**	**2.0**	**330**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	**78**	**2.0**	**430**	**11**
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: MID-A

GC/MS Volatiles

Lot-Sample # H0I200404 - 005 **Work Order #** L67GA1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	97	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: POST-A

GC/MS Volatiles

Lot-Sample # H0I200404 - 006 **Work Order #** L67GC1AA **Matrix.....:** AIR

Date Sampled...: 09/17/2010 **Date Received..:** 09/18/2010
Prep Date.....: 09/21/2010 **Analysis Date...** 09/22/2010
Prep Batch #.....: 0265106
Dilution Factor.: 10 **Method.....:** TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	2.0	ND	9.9
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	2.0	ND	14
Chloromethane	ND	5.0	ND	10
Vinyl chloride	ND	2.0	ND	5.1
Bromomethane	ND	2.0	ND	7.8
Chloroethane	ND	2.0	ND	5.3
Trichlorofluoromethane	ND	2.0	ND	11
1,1-Dichloroethene	**64**	**2.0**	**260**	**7.9**
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	2.0	ND	15
Methylene chloride	ND	5.0	ND	17
1,1-Dichloroethane	**9.6**	**2.0**	**39**	**8.1**
cis-1,2-Dichloroethene	**22**	**2.0**	**88**	**7.9**
Chloroform	ND	2.0	ND	9.8
1,1,1-Trichloroethane	**22**	**2.0**	**120**	**11**
Carbon tetrachloride	ND	2.0	ND	13
Benzene	ND	2.0	ND	6.4
1,2-Dichloroethane	ND	2.0	ND	8.1
Trichloroethene	ND	2.0	ND	11
1,2-Dichloropropane	ND	2.0	ND	9.2
cis-1,3-Dichloropropene	ND	2.0	ND	9.1
Toluene	ND	2.0	ND	7.5
trans-1,3-Dichloropropene	ND	2.0	ND	9.1
1,1,2-Trichloroethane	ND	2.0	ND	11
Tetrachloroethene	ND	2.0	ND	14
1,2-Dibromoethane (EDB)	ND	2.0	ND	15
Chlorobenzene	ND	2.0	ND	9.2
Ethylbenzene	ND	2.0	ND	8.7
m-Xylene & p-Xylene	ND	2.0	ND	8.7
o-Xylene	ND	2.0	ND	8.7
Styrene	ND	2.0	ND	8.5
1,1,2,2-Tetrachloroethane	ND	2.0	ND	14
1,3,5-Trimethylbenzene	ND	2.0	ND	9.8
1,2,4-Trimethylbenzene	ND	2.0	ND	9.8
1,3-Dichlorobenzene	ND	2.0	ND	12
1,4-Dichlorobenzene	ND	2.0	ND	12
1,2-Dichlorobenzene	ND	2.0	ND	12
Benzyl chloride	ND	4.0	ND	21
1,2,4-Trichlorobenzene	ND	10	ND	74

GeoTrans, Inc.

Client Sample ID: POST-A

GC/MS Volatiles

Lot-Sample # H0I200404 - 006 **Work Order #** L67GC1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	10	ND	110

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	99	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H0I220000 - 106B **Work Order #** L693K1AA **Matrix.....:** AIR

	09/17/2010	**Date Received..:**	09/18/2010
Prep Date.....:	09/21/2010	**Analysis Date...**	09/21/2010
Prep Batch #.....:	0265106		
Dilution Factor.:	1	**Method.....:**	TO-15

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Dichlorodifluoromethane	ND	0.20	ND	0.99
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	0.20	ND	1.4
Chloromethane	ND	0.50	ND	1.0
Vinyl chloride	ND	0.20	ND	0.51
Bromomethane	ND	0.20	ND	0.78
Chloroethane	ND	0.20	ND	0.53
Trichlorofluoromethane	ND	0.20	ND	1.1
1,1-Dichloroethene	ND	0.20	ND	0.79
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	0.20	ND	1.5
Methylene chloride	ND	0.50	ND	1.7
1,1-Dichloroethane	ND	0.20	ND	0.81
cis-1,2-Dichloroethene	ND	0.20	ND	0.79
Chloroform	ND	0.20	ND	0.98
1,1,1-Trichloroethane	ND	0.20	ND	1.1
Carbon tetrachloride	ND	0.20	ND	1.3
Benzene	ND	0.20	ND	0.64
1,2-Dichloroethane	ND	0.20	ND	0.81
Trichloroethene	ND	0.20	ND	1.1
1,2-Dichloropropane	ND	0.20	ND	0.92
cis-1,3-Dichloropropene	ND	0.20	ND	0.91
Toluene	ND	0.20	ND	0.75
trans-1,3-Dichloropropene	ND	0.20	ND	0.91
1,1,2-Trichloroethane	ND	0.20	ND	1.1
Tetrachloroethene	ND	0.20	ND	1.4
1,2-Dibromoethane (EDB)	ND	0.20	ND	1.5
Chlorobenzene	ND	0.20	ND	0.92
Ethylbenzene	ND	0.20	ND	0.87
m-Xylene & p-Xylene	ND	0.20	ND	0.87
o-Xylene	ND	0.20	ND	0.87
Styrene	ND	0.20	ND	0.85
1,1,2,2-Tetrachloroethane	ND	0.20	ND	1.4
1,3,5-Trimethylbenzene	ND	0.20	ND	0.98
1,2,4-Trimethylbenzene	ND	0.20	ND	0.98
1,3-Dichlorobenzene	ND	0.20	ND	1.2
1,4-Dichlorobenzene	ND	0.20	ND	1.2
1,2-Dichlorobenzene	ND	0.20	ND	1.2
Benzyl chloride	ND	0.40	ND	2.1
1,2,4-Trichlorobenzene	ND	1.0	ND	7.4

GeoTrans, Inc.

Client Sample ID: INTRA-LAB BLANK

GC/MS Volatiles

Lot-Sample # H0I220000 - 106B **Work Order #** L693K1AA **Matrix.....:** AIR

PARAMETER	RESULTS (ppb(v/v))	REPORTING LIMIT (ppb(v/v))	RESULTS (ug/m3)	REPORTING LIMIT (ug/m3)
Hexachlorobutadiene	ND	1.0	ND	11

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	93	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

GeoTrans, Inc.

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0I220000 - 106C **Work Order #** L693K1AC **Matrix.....:** AIR

	09/17/2010	**Date Received..:**	09/18/2010
Prep Date.....:	09/21/2010	**Analysis Date...**	09/21/2010
Prep Batch #.....:	0265106		
Dilution Factor.:	1	**Method.....:**	TO-15

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Dichlorodifluoromethane	5.00	5.29	25	26	106	60 - 140
1,2-Dichloro-1,1,2,2-tetrafluoroethane	5.00	5.23	35	37	105	60 - 140
Chloromethane	5.00	6.05	10	12	121	60 - 140
Vinyl chloride	5.00	5.53	13	14	111	70 - 130
Bromomethane	5.00	4.92	19	19	98	70 - 130
Chloroethane	5.00	4.86	13	13	97	70 - 130
Trichlorofluoromethane	5.00	4.22	28	24	84	60 - 140
1,1-Dichloroethene	5.00	4.59	20	18	92	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	5.00	4.74	38	36	95	70 - 130
Methylene chloride	5.00	4.67	17	16	93	70 - 130
1,1-Dichloroethane	5.00	4.48	20	18	90	70 - 130
cis-1,2-Dichloroethene	5.00	4.50	20	18	90	70 - 130
Chloroform	5.00	4.32	24	21	86	70 - 130
1,1,1-Trichloroethane	5.00	4.24	27	23	85	70 - 130
Carbon tetrachloride	5.00	4.28	31	27	86	70 - 130
Benzene	5.00	4.60	16	15	92	70 - 130
1,2-Dichloroethane	5.00	4.25	20	17	85	70 - 130
Trichloroethene	5.00	4.30	27	23	86	70 - 130
1,2-Dichloropropane	5.00	4.56	23	21	91	70 - 130
cis-1,3-Dichloropropene	5.00	4.41	23	20	88	70 - 130
Toluene	5.00	4.26	19	16	85	70 - 130
trans-1,3-Dichloropropene	5.00	3.89	23	18	78	70 - 130
1,1,2-Trichloroethane	5.00	4.28	27	23	86	70 - 130
Tetrachloroethene	5.00	4.09	34	28	82	70 - 130
1,2-Dibromoethane (EDB)	5.00	4.01	38	31	80	70 - 130
Chlorobenzene	5.00	4.21	23	19	84	70 - 130
Ethylbenzene	5.00	4.19	22	18	84	70 - 130
m-Xylene & p-Xylene	10.0	8.42	43	37	84	70 - 130
o-Xylene	5.00	4.28	22	19	86	70 - 130
Styrene	5.00	4.09	21	17	82	70 - 130
1,1,2,2-Tetrachloroethane	5.00	4.36	34	30	87	70 - 130
1,3,5-Trimethylbenzene	5.00	4.21	25	21	84	70 - 130
1,2,4-Trimethylbenzene	5.00	4.21	25	21	84	70 - 130
1,3-Dichlorobenzene	5.00	3.84	30	23	77	70 - 130
1,4-Dichlorobenzene	5.00	3.88	30	23	78	70 - 130
1,2-Dichlorobenzene	5.00	3.95	30	24	79	70 - 130
Benzyl chloride	5.00	4.04	26	21	81	70 - 130
1,2,4-Trichlorobenzene	5.00	4.26	37	32	85	60 - 140

GeoTrans, Inc.

Client Sample ID: CHECK SAMPLE

GC/MS Volatiles

Lot-Sample # H0I220000 - 106C **Work Order #** L693K1AC **Matrix.....:** AIR

PARAMETER	SPIKE AMOUNT (ppb(v/v))	MEASURED AMOUNT (ppb(v/v))	SPIKE AMOUNT (ug/m3)	MEASURED AMOUNT (ug/m3)	PERCENT RECOVERY	RECOVERY LIMITS
Hexachlorobutadiene	5.00	4.02	53	43	80	60 - 140

SURROGATE	PERCENT RECOVERY	LABORATORY CONTROL LIMITS (%)
4-Bromofluorobenzene	106	60 - 140

The 'Result' in ug/m3 is calculated using the following equation: Amount Found(before rounding)*(Molecular Weight/24.45)

The 'Reporting Limit' in ug/m3 is calculated using the following equation: (Reporting Limit(before rounding) * Dilution Factor) * (Molecular Weight/24.45)

TAL Knoxville
5815 Middlebrook Pike
Knoxville, TN 37921
phone 865-291-3000 fax 865-584-4315

170I200404

Canister Samples Chain of Custody Record

TestAmerica assumes no liability with respect to the collection and shipment of these samples.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Contact Information	**Project Manager:** P. Rich	**Sampled By:** T. McIntyre	1 of 1 COCs
Company: GeoTrans / Tetra Tech	Phone: 410.990.4607		
Address: 849 West St	Site Contact:		
City/State/Zip Annapolis MD 21401	TAL Contact:		
Phone: 410-990-4607			
FAX:			
Project Name: ~~TBS~~ SSD	**Analysis Turnaround Time**		
Site/location: LMC-MR	Standard (Specify) ✓		
PO # 117-0507-380	Rush (Specify)		

Sample Identification	Sample Date(s)	Time Start	Time Stop	Canister Vacuum in Field, "Hg (Start)	Canister Vacuum in Field, "Hg (Stop)	Flow Controller ID	Canister ID	TO-15	TO-14A	EPA 3C	EPA 25C	ASTM D-1946	Other (Please specify in notes section)	Sample Type	Indoor Air	Ambient Air	Soil Gas	Landfill Gas	Other (Please specify in notes section)
PRE-C	9/17	1344		~~-~~	~~-~~		L-5153	✓							✓				
MID-C	9/17	1347		~~-~~	~~-~~		L-8183	✓							✓				
POST-C	9/17	1350		~~-~~	~~-~~		A7124	✓							✓				
PRE-A	9/17	1442		~~-~~	~~-~~		A7114	✓							✓				
MID-A	9/17	1445		~~-~~	~~-~~		A7174	✓							✓				
POST-A	9/17	1448		~~-~~	~~-~~		L-5201	✓							✓				

Sampled by : T.S.M.

Temperature (Fahrenheit)	Interior	Ambient
Start		
Stop		

Pressure (inches of Hg)	Interior	Ambient
Start		
Stop		

1 BOX RECEIVED AMBIENT
FED EX # 8735 4207 4937
CUSTODY SEAL INTACT
TS 9/18/10
6 CANS; 10 FLOWS TS 9/18/10

Special Instructions/QC Requirements & Comments:

Canisters Shipped by: T. McIntyre	Date/Time: 9/17/10	Canisters Received by:	
Samples Relinquished by:	Date/Time:	Received by: [illegible] Smith 9/18/10 9:30	
Relinquished by:	Date/Time:	Received by:	

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Lot Number: HDT200404

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Do sample container labels match COC? (IDs, Dates, Times)	√			☐ **1a** Do not match COC ☐ **1b** Incomplete information ☐ **1c** Marking smeared ☐ **1d** Label torn ☐ **1e** No label ☐ **1f** COC not received ☐ **1g** Other:	
2. Is the cooler temperature within limits? (> freezing temp. of water to 6 °C; NC, 1668, 1613B: 0-4°C; VOST: 10°C; MA: 2-6 °C)			√	☐ **2a** Temp Blank = _____ ☐ **2b** Cooler Temp = _____	
3. Were samples received with correct chemical preservative (excluding Encore)?			√	☐ **3a** Sample preservative =	
4. Were custody seals present/intact on cooler and/or containers?	√			☐ **4a** Not present ☐ **4b** Not intact ☐ **4c** Other:	
5. Were all of the samples listed on the COC received?	√			☐ **5a** Samples received-not on COC ☐ **5b** Samples not received-on COC	
6. Were all of the sample containers received intact?	√			☐ **6a** Leaking ☐ **6b** Broken	
7. Were VOA samples received without headspace?			√	☐ **7a** Headspace (VOA only)	
8. Were samples received in appropriate containers?	√			☐ **8a** Improper container	
9. Did you check for residual chlorine, if necessary?			√	☐ **9a** Could not be determined due to matrix interference	
10. Were samples received within holding time?	√			☐ **10a** Holding time expired	
11. For rad samples, was sample activity info. provided?			√	☐ Incomplete information	
12. For 1613B water samples is pH<9?			√	If no, was pH adjusted to pH 7 - 9 with sulfuric acid? _____	
13. Are the shipping containers intact?	√			☐ **13a** Leaking ☐ **13b** Other:	
14. Was COC relinquished? (Signed/Dated/Timed)	√			☐ **14a** Not relinquished	
15. Are tests/parameters listed for each sample?	√			☐ **15a** Incomplete information	
16. Is the matrix of the samples noted?	√			☐ **15a** Incomplete information	
17. Is the date/time of sample collection noted?	√			☐ **15a** Incomplete information	
18. Is the client and project name/# identified?	√			☐ **15a** Incomplete information	
19. Was the sampler identified on the COC?	√				

Quote #: 78944 PM Instructions: NA

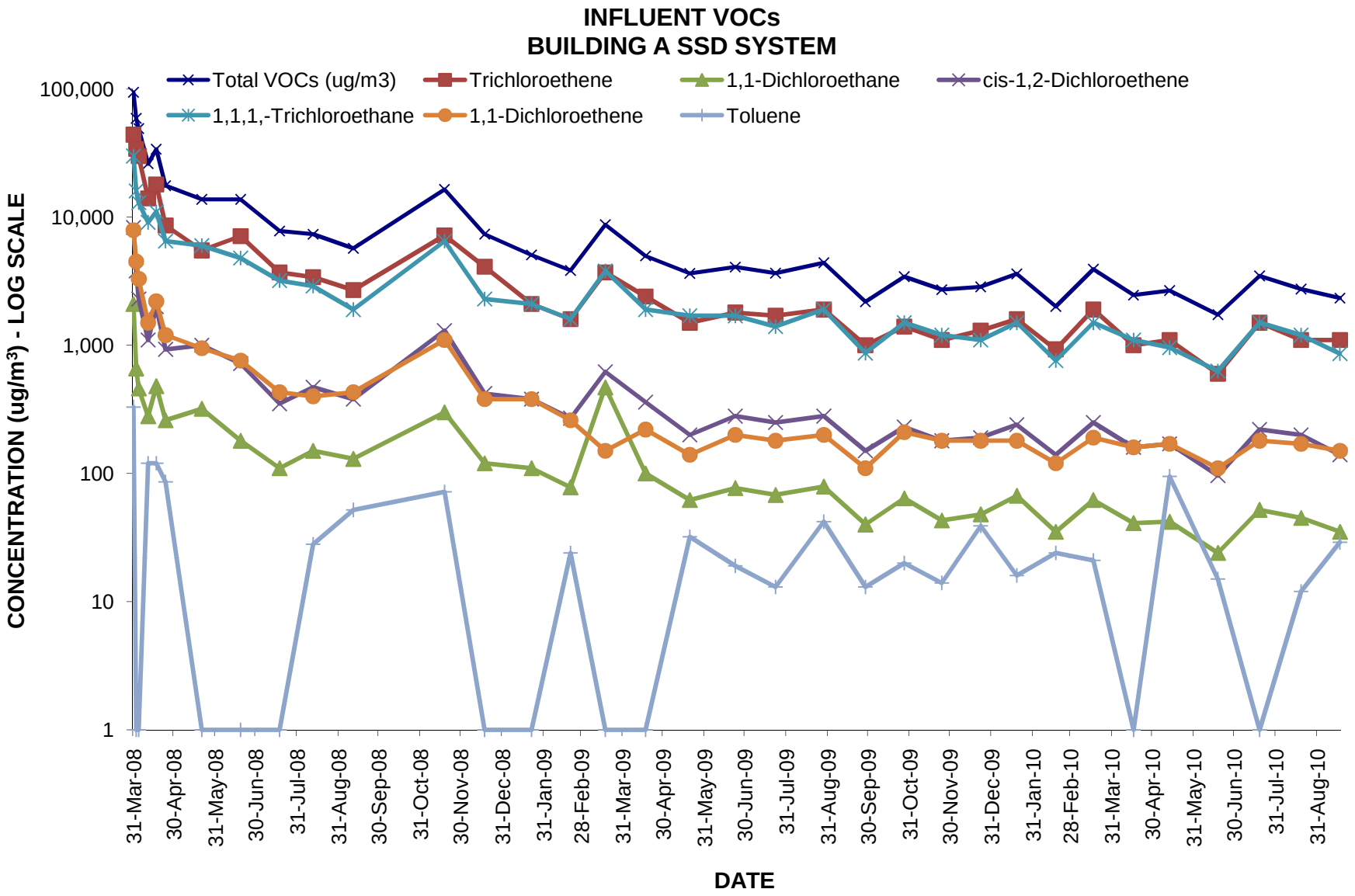
Sample Receiving Associate: _____ Date: 9/20/10

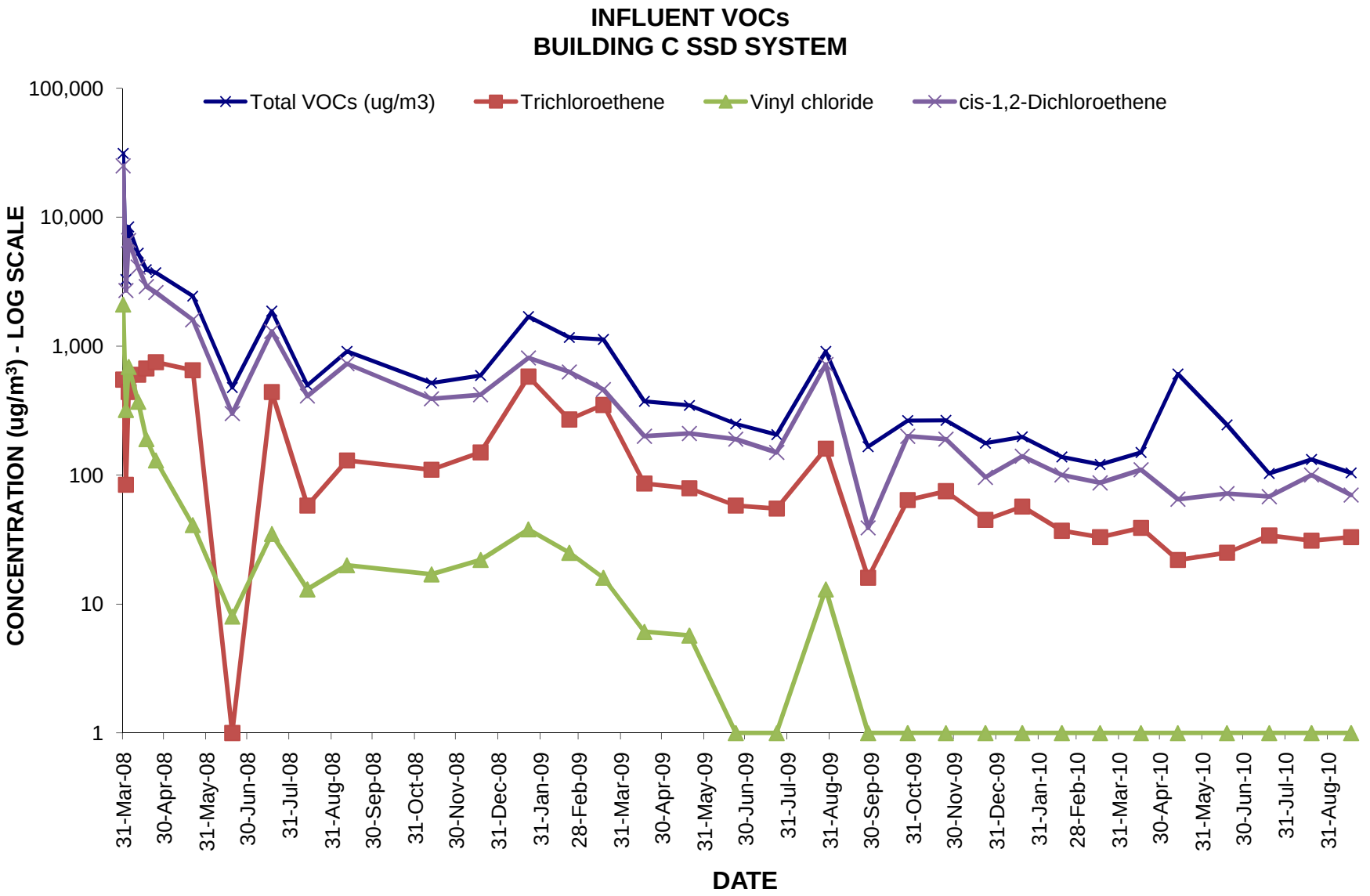
QA026R21.doc, 090409

Test America - Knoxville ---- Air Canister Dilution Log

Lot Number: *H0I200404*

Initial Can Pressure							Subsequent Dilutions											
Analyst/Date	Tedlar Bag Time	Pbarr (in)	Sample ID	Can #	Pres. upon receipt (-in or + psig)	Adj. Initial Pres. (-in or + psig)	Analyst/Date	I / S	Pbarr (in)	Initial Pres. Pi (in)	Final Pres. Pf (psig)	First InCan Final Pres. Pf (psig)	Second In-can Final Pres. Pf (psig)	Third InCan Final Pres. Pf (psig)	Serial Dilution Can #	Vol (mL)	Final Pres. Pf (psig)	Comments
AJ 8/20/20	NA	29.05	L67F6	L5153 ✓	-0.7	-												8784
↓	↓	↓	L67F7	L8183 ✓	-1.4	-												85
			L67F8	LA7124 ✓	-1.8	-												84
			L67F9	LA7114 ✓	+1.8	-												↓
			L67GA	LA7174 ✓	+1.0	-												85
↓	↓	↓	L67GC	L5201 ✓	-2.9	-												↓ 84


INFLUENT VOCs
BUILDING A SSD SYSTEM
Total VOCs (ug/m3)
Trichloroethene
1,1-Dichloroethane
cis-1,2-Dichloroethene
1,1,1,-Trichloroethane
1,1-Dichloroethene
Toluene
CONCENTRATION (ug/m³) - LOG SCALE
100,000
10,000
1,000
100
10
1
31-Mar-08
30-Apr-08
31-May-08
30-Jun-08
31-Jul-08
31-Aug-08
30-Sep-08
31-Oct-08
30-Nov-08
31-Dec-08
31-Jan-09
28-Feb-09
31-Mar-09
30-Apr-09
31-May-09
30-Jun-09
31-Jul-09
31-Aug-09
30-Sep-09
31-Oct-09
30-Nov-09
31-Dec-09
31-Jan-10
28-Feb-10
31-Mar-10
30-Apr-10
31-May-10
30-Jun-10
31-Jul-10
31-Aug-10
DATE


INFLUENT VOCs
BUILDING C SSD SYSTEM
Total VOCs (ug/m3)
Trichloroethene
Vinyl chloride
cis-1,2-Dichloroethene
CONCENTRATION (ug/m³) - LOG SCALE
100,000
10,000
1,000
100
10
1
31-Mar-08
30-Apr-08
31-May-08
30-Jun-08
31-Jul-08
31-Aug-08
30-Sep-08
31-Oct-08
30-Nov-08
31-Dec-08
31-Jan-09
28-Feb-09
31-Mar-09
30-Apr-09
31-May-09
30-Jun-09
31-Jul-09
31-Aug-09
30-Sep-09
31-Oct-09
30-Nov-09
31-Dec-09
31-Jan-10
28-Feb-10
31-Mar-10
30-Apr-10
31-May-10
30-Jun-10
31-Jul-10
31-Aug-10
DATE