



Limited Subsurface Investigation Report

Former Marble Quarry Landfill- Offsite

Site No. C360143A
109-125 Marbledale Road
Village of Tuckahoe
Town of Eastchester
Westchester County, New York

January 12, 2018

Prepared for:
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233
Attn.: Kevin Carpenter



Prepared By:
Aztech Environmental Technologies

Thomas Giamichael, P.G.
Hydrogeologist/ Project Manager

For: William Toran, P.G.
Sr. Project Manager

REMEDICATION
SOLUTIONS

ENVIRONMENTAL
CONSULTING

DRILLING
APPLICATIONS

5 McCrea Hill Road
Ballston Spa, NY 12020
p 518.885.5383
f 518.885.5385

aztechenv.com

TABLE OF CONTENTS

1.0 Introduction	1
1.1 Project Background	1
1.2 Site History	1
1.2 Objectives	1
2.0 Site Background.....	2
2.1 Site Location and Description.....	2
2.2 Geology and Hydrogeology	2
2.3 Previous Investigations	3
3.0 Offsite Soil Vapor Investigation.....	3
3.1 Vapor Probe Installation	3
3.2 Soil Vapor Sampling Methodology	4
3.2.1 Soil Vapor Sampling Results	5
4.0 Offsite Monitoring Well Installations	6
4.1 Bedrock Monitoring Well Installation	6
4.2 Overburden Well Installation	7
4.3 Soil Sampling	8
4.3.1 Soil Sampling Results	8
4.4 Well Surveying.....	9
4.5 Well Development.....	9
4.6 Offsite Groundwater Sampling	9
4.6.1 Groundwater Sampling Results	10
4.7 Data Usability Summary Report	11

APPENDICES

) Figures

1. Site Location Map
2. Soil Vapor Probe Locations
3. Key Chlorinated Solvent and Refrigerant Detections in Offsite Soil Vapor Locations
4. Groundwater Monitoring Well Locations

) Tables

1. Soil Vapor Analytical Table – VOCs
2. Soil Analytical Table – VOCs / SVOCs
3. TOC Survey Data – Offsite Monitoring Wells
4. Groundwater Analytical Table - VOCs
5. Groundwater Analytical Table - SVOCs
6. Groundwater Analytical Table - PCBs
7. Groundwater Analytical Table - Pesticides
8. Groundwater Analytical Table - Metals

) Appendix A – Boring Logs and Well Construction Details

) Appendix B – Photographic Record

) Appendix C – Soil Vapor Analytical Results

) Appendix D – Soil Sampling Analytical Results

) Appendix E – Groundwater Quality Results

) Appendix F – Groundwater Analytical Results

) Appendix G – Data Usability Summary Reports

1.0 Introduction

1.1 Project Background

Aztech Environmental Technologies (Aztech), was contracted by the New York State Department of Environmental Conservation (NYSDEC) to perform a limited subsurface investigation on the surrounding offsite property of the Former Marble Quarry Landfill located at 125 Marbledale Road, Tuckahoe, New York (NYSDEC Site No. C360143A), (**Figure 1**).

The work assignment was conducted under the Callout ID 127163 for the NYSDEC Standby Investigation and Remedial Contract (C100601). The field activities summarized in this report were performed at various intervals from October 24, 2016 to January 29, 2017.

1.2 Site History

The Marble Quarry Landfill site has undergone multiple uses. The onsite property has been historically used for commercial and industrial operations including a quarry, a landfill, and for automotive repair and parking.

Due to contamination identified onsite by others during previous onsite subsurface investigations, the site entered into the Brownfield Cleanup Program (BCP) for redevelopment.

1.2 Objectives

The purpose of the offsite subsurface investigation was to assess the potential migration and presence of impacts to groundwater, soil and soil vapor in the offsite properties located adjacent to the former marble quarry landfill site.

The offsite limited subsurface investigation consisted of installing one (1) overburden groundwater monitoring well, one (1) bedrock groundwater monitoring well and ten (10) soil vapor probes. Subsequently, one (1) groundwater monitoring event and one (1) soil vapor monitoring were conducted. Additionally, the offsite groundwater monitoring wells were surveyed into the existing onsite groundwater monitoring well network that was installed by others. The following sections contain a detailed summary of the methodologies and findings of the limited subsurface investigation.

2.0 Site Background

2.1 Site Location and Description

The onsite property is zoned general commercial. The properties surrounding the southern, eastern, and northern sides of the Site are zoned for light commercial/industrial use and the remaining western side is zoned for residential use. The onsite parcel currently consists of approximately 3.45 acres of vacant, undeveloped land.

The onsite property is bounded to the north by a parking lot; to the east by Marbledale Road and a brewery, gym, martial arts studio, and light industrial facilities; to the south by a parking lot; and to the west by a steep rock face and residential properties.

2.2 Geology and Hydrogeology

The Former Marble Quarry Landfill Site is located in the lower Hudson River Valley within the New England uplands physiographic province. Major topographic features of the province are the result of the variable nature of the underlying bedrock and periods of glaciation that created scoured uplands, glacial troughs, and reworked deposits of deep valley fill.

Review of the geologic map of New York, Lower Hudson Sheet published by the University of the State of New York, the State Education Department, dated 1970, indicates that the Site is underlain by metamorphic bedrock defined as the Inwood Marble Formation. The Inwood Marble consists of Cambrian-Ordovician (approximately 488 million year old) dolomitic marble, granulite, and quartzite overlain by calcite marble.

According to the Natural Resources Conservation Service (NRCS) in Westchester County, the site is underlain by the Chatfield-Charlton complex and Urban Land. This Chatfield-Charlton component is on bedrock-controlled ridges on glaciated uplands with 15-35 percent slopes. The parent material consists of coarse-loamy melt-out till derived from granite, gneiss, and/or schist and is described as being moderately well drained. The Urban Land component consists of nearly level to moderately steep areas where the soils have been altered or obscured by urban works and structures. Buildings and pavement cover more than 85 percent of the surface.

Based on the regional topography, the groundwater flow in the vicinity of the Site is expected to flow to the southeast towards the Hutchinson River drainage system or southwest towards the Bronx River drainage system, both ultimately discharging into the Long Island Sound. However, based on the Site geology, groundwater flow in the marble bedrock is limited to movement through secondary permeability features.

Groundwater at the site has historically been encountered at depths ranging from 13 to 40 feet below ground surface (fbgs).

2.3 Previous Investigations

Previous investigations at the onsite portion, conducted by Hydro Environmental Solutions (HES) have demonstrated that the soil and groundwater beneath the Site at several locations contained concentrations of Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs) and inorganic constituents above laboratory method detection limits (MDLs) and NYSDEC Soil Cleanup Objectives (SCOs).

A Phase I investigation and multiple Phase II investigations were performed at the Site during 2013. Additional Phase II investigations were performed at the Site in 2014 and 2015. These included the advancement of soil borings and installation of groundwater monitoring wells and soil vapor probes.

Details of the investigations performed at the Site are presented in the Remedial Investigation Report, prepared by HES, dated March 9, 2016.

3.0 Offsite Soil Vapor Investigation

3.1 Vapor Probe Installation

Between October 24 and October 27, 2016, an Aztech field crew under the supervision of an Aztech geologist installed ten (10) soil vapor probes within the overburden soils. The locations of the soil vapor probes are presented on **Figure 2**. The soil vapor probes are utilized for sampling VOCs and SVOCs in soil gas.

Each temporary soil vapor sampling point was installed by hand clearing each location using a compressor equipped with an air knife. In general each borehole was advanced to refusal before installing the probe. Refusal depths were typically encountered between three (3) fbgs and six (6) fbgs. Excavated soils were field screened by an Aztech geologist and characterized in the field for color, grain size, moisture content, and presence of petroleum or solvent impacts.

After the soil samples were characterized they were placed in re-sealable, airtight plastic bags and allowed to volatilize. The headspace of each sample was then screened for VOCs using a Minirae 2000 photoionization detector (PID) equipped with a 10.6 eV bulb and calibrated to a gasoline standard using 100 parts per million (ppm) isobutylene gas. No soil samples collected

during the boring advancements exhibited positive response PID readings (i.e. >1.0 ppm). Due to the lack of positive PID response, visual or olfactory evidence of impact in all soil samples recovered, soil samples were not submitted for laboratory analysis during the study.

After excavating each vapor probe borehole, a length of 2.0-inch diameter schedule 40 PVC pipe was inserted into the center of the borehole to serve as a conduit for installation of the vapor probe. The borehole was then back filled with the native excavated soils and sealed from the surface with bentonite. Each soil vapor probe was then inserted into the PVC conduit and were constructed using a 6.0-inch length of ¼-inch diameter stainless steel wire mesh screen attached to ¼-inch diameter Teflon-lined silicone tubing. The screened portion was vertically centered within approximately 12-inches of clean #0 filter pack sand and the Teflon tubing extended to the surface. The #0 filter sand was sealed from the surface with hydrated bentonite to within one (1) foot of grade. The PVC conduit was then extracted and the borehole was topped with hydrated bentonite. Each installed vapor probe was then completed with a 6-inch steel road box set into a 24-inch square concrete pad rated for vehicle traffic.

The construction specifications for the soil vapor points are included in the soil boring and well construction details. Additionally, the headspace readings and soil classification are presented in **Appendix B – Boring Logs and Well Construction Details**.

3.2 Soil Vapor Sampling Methodology

Between November 8 and November 9, 2016 a total of ten (10) soil vapor samples and two (2) ambient air samples were collected. To ensure ambient air from the surface was not drawn into the soil vapor probe, the bentonite seal was tested at each vapor point location prior to sample collection. Testing of the seal was conducted by extending an appropriate length of teflon tubing from the vapor point through a tracer gas enclosure. The tubing was sealed to the tracer gas enclosure and the atmosphere within the enclosure was enriched with helium gas. Once the tracer gas enclosure was enriched with helium, the vapor point was purged of approximately three volumes at a flow rate of less than 0.2 liters per minute (lpm) using a purge pump. After purging was completed, a tedlar bag was filled with subsurface vapor and the contents field screened with a PID for total VOC concentration and percent helium. This test is performed to check the integrity of the seal between the soil vapor sampling point and the surface. Once the seal was confirmed via helium testing, sampling of the subsurface vapor point commenced.

Soil vapor samples were collected using laboratory-supplied summa canisters and flow regulators at each location. Each flow regulator was laboratory-calibrated to obtain the soil vapor sample over a 1.0-hour duration. After collection, soil vapor samples were submitted via overnight

courier to Test Americas' Knoxville, Tennessee laboratory where they were analyzed via analytical method TO-15 for the full list of VOCs.

3.2.1 Soil Vapor Sampling Results

The soil vapor laboratory analytical results for the November 8 and 9, 2016 sampling event are summarized in **Appendix C - Table 1**. Key chlorinated solvent and refrigerant components detected in the soil vapor samples are presented in **Figure 3**. A copy of the soil vapor laboratory analytical report is included as **Attachment D** and summarized below.

New York State currently does not have any standards, criteria or guidance values for concentrations of compounds in soil vapor per the New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York – October, 2006. The following discussion presents a general review of the soil vapor data collected between November 8 and November 9, 2016.

-) In general when reviewing the soil vapor laboratory analytical data, detected analytes appear to be derived of chlorinated solvent, refrigerant and petroleum range compounds.
-) One or more constituents analyzed for were detected above the laboratory reporting limit in all samples collected.
-) Total reported VOCs ranged from 57 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) to 1,888 $\mu\text{g}/\text{m}^3$ in samples OVP-5 and OVP-6, respectively.
-) Trichlorofluoromethane (Freon 11) was detected above the laboratory reporting limit in eight (8) soil vapor samples (OVP-2, OVP-3, OVP-4, OVP-5, OVP-6, OVP-7, OVP-9 and OVP-10). Additionally, Freon 11 was detected in both ambient air samples (OA-1 and OA-2) above the laboratory reporting limit.
-) Dichlorodifluoromethane (Freon 12) was detected in soil vapor samples OVP-3, OVP-6, and OVP-7 at a reported concentration of 230 $\mu\text{g}/\text{m}^3$, 740 $\mu\text{g}/\text{m}^3$, and 210 $\mu\text{g}/\text{m}^3$ respectively. Additionally, this compound was detected above the laboratory reporting limit in all other soil vapor samples and both ambient air samples collected.
-) The compound 1,2 dichlorotetrafluoroethane (Freon 114) was detected above the laboratory reporting limit in eight (8) soil vapor samples (OVP-1, OVP-2, OVP-3, OVP-4, OVP-5, OVP-6, OVP-7 AND OVP-8). Freon 114 was additionally detected above the

laboratory reporting limit in ambient air sample OA-2. However, no regulatory guidance value is provided for this compound.

-) Tetrachloroethene (PCE) was detected above the laboratory reporting limit in all soil vapor samples collected.
-) Trichloroethene (TCE) was above the laboratory reporting limit in all soil vapor samples collected.
-) Several analytes were detected above the laboratory reporting limit in both ambient air samples (OA-1 and OA-2).

4.0 Offsite Monitoring Well Installations

4.1 Bedrock Monitoring Well Installation

Between January 17 and January 19, 2017, Aztech installed bedrock groundwater monitoring well (OMW-1) offsite of the subject property on Marbledale road (**Figure 3**). The boring location was selected by the NYSDEC based on the anticipated direction of groundwater flow and contaminant migration.

A Central Mine Equipment (CME) 55 truck mounted drill rig, equipped with 4-1/4" augers, was utilized to advance the borehole. The borehole was previously excavated by hand to a depth of six (6) fbgs to pre-clear the location of utilities. Continuous split spoon samples of the overburden soils were collected from six (6) fbgs to refusal at 13.5 fbgs during the boring advancement.

An Aztech geologist characterized the soil samples in the field for color, grain size, moisture content, and presence of petroleum or solvent impacts. The samples were further analyzed for total VOCs during boring operations using a PID. Soil headspace readings in OMW-1 ranged from 1.1 ppm to 2.0 ppm at depths ranging from six (6) fbgs to split spoon refusal at 13.5 fbgs. The overburden soils generally consisted of brown sandy gravel with marble and dolostone cobbles.

At the refusal depth, a rock socket was advanced in weathered bedrock to competent bedrock using a 3-7/8-inch roller bit. The rock socket extended from 13.5 fbgs to 18 fbgs to accommodate 3-3/4-inch steel casing. The casing was grouted in-place with neat cement and allowed to cure for 24hrs. The bedrock was then cored through the casing with Nx sized (2-5/32-inch core

diameter) drill tooling. Rock core runs of approximately five (5) feet in length were collected from 18 fbgs to 34 fbgs.

An Aztech geologist analyzed the rock cores and monitored the core drilling patterns to identify water bearing fractures. Various water bearing fractures were identified between 25.5 fbgs to well termination at 34 fbgs. In general fracture planes of 45 degrees or greater were observed. The rock encountered during the coring consisted primarily of dolomitic marble.

The borehole was completed as an open-hole bedrock well and the surface was finished with a flush mount roadbox. Well Construction details, headspace readings, soil and rock classification are presented in Appendix B – Boring Logs and Well Construction Details.

4.2 Overburden Well Installation

Between January 17 and January 18, 2017, Aztech installed overburden groundwater monitoring well (OMW-2) offsite of the subject property on Marbledale road (Figure 3). The boring location was selected by the NYSDEC based on the anticipated direction of groundwater flow and contaminant migration. The boring was anticipated to be completed as a bedrock groundwater monitoring well. However, the well was completed in the overburden soils due to the presence of significant overburden groundwater and the lack of shallow bedrock. Well installation details are provide below.

A CME 55 truck mounted drill rig, equipped with 4-1/4" augers, was utilized to advance the borehole. The borehole was previously excavated by hand to a depth of six (6) fbgs to pre-clear the location of utilities. Continuous split spoon samples of the overburden soils were collected from six (6) fbgs to boring termination at 42 fbgs.

An Aztech geologist characterized the soil samples in the field for color, grain size, moisture content, and presence of petroleum or solvent impacts. The samples were further analyzed for total VOCs during boring operations using a PID. Soil headspace readings in OMW-2 ranged from 0.0 ppm to 8.5 ppm at depths ranging from six (6) fbgs to boring termination at 42.5 fbgs.

Overburden soils from the surface to approximately 20 fbgs consisted of brown sandy gravel with marble and dolostone rock fragments. The soil transitioned into a tannish white medium sand and silt with marble fragments from approximately 20 fbgs to boring termination at 42 fbgs. Groundwater was initially observed during the drilling in the soil samples at approximately 26 fbgs.

The borehole was completed as an overburden groundwater monitoring using two (2) inch diameter PVC with 20 feet of 0.010-inch well screen and two (2) inch diameter PVC riser extending to the surface. The annular space surrounding the well screen was packed with clean #0 filter pack sand to a depth above the screened interval and a hydrated bentonite seal was placed immediately above the sand pack. The remainder of the annular space above the seal was filled with neat cement grout. The well was completed at the surface with a flush mount roadbox.

Well Construction details, headspace readings and soil classification are presented in Appendix B – Boring Logs and Well Construction Details.

4.3 Soil Sampling

During the overburden and bedrock groundwater monitoring well installations an Aztech geologist analyzed the soil samples in the field for total VOCs using a PID. The soil sample for each borehole that exhibited the highest headspace reading was retained for laboratory analysis.

The soil sample submitted for analysis from OMW-1 was retained at the 12 foot interval and exhibited the highest headspace reading in the boring at a concentration of 2.0 ppm. The soil sample submitted for analysis from OMW-2 was retained at the 14 foot interval and exhibited the highest headspace reading in the boring at a concentration of 8.5 ppm. No visual or olfactory evidence of soil impacts were observed from the soil samples retained during the well installations.

The selected soil samples were containerized in laboratory supplied jars, placed on ice and shipped under a chain of custody to Test America (NELAC – NY455) in Amherst, NY. The samples were analyzed for the NYSDEC full list of VOCs, including MtBE, and SVOCs using USEPA Methods 8260C and 8270D.

4.3.1 Soil Sampling Results

The soil sample laboratory analytical results are summarized in **Table 2**. A copy of the soil sampling laboratory analytical report is included in **Appendix E**. The following discussion presents a general review of the soil analytical results as compared to the NYSDEC Unrestricted Use Soil cleanup objective (SCO) as per NYSDEC Subpart 375-6.9(a) or CP-51 for unrestricted use.

-) In general when reviewing the soil vapor laboratory analytical data, no volatile or semi-volatile organic compounds were detected above their respective laboratory reporting limit in the soil sample submitted from OMW-1.

-) Naphthalene was detected at a concentration of 0.73 micrograms per kilogram ($\mu\text{g/Kg}$) in the soil sample retained from OMW-2. This value is below the unrestricted use SCO of 12,000 $\mu\text{g/Kg}$ naphthalene.
-) No SVOCs were detected above the laboratory reporting limit in the soil sample submitted from OMW-2.

4.4 Well Surveying

On January 26, 2017 Aztech performed a stadia survey of the offsite monitoring well installations. The survey was used to incorporate top of casing (TOC) elevations from the offsite bedrock well (OMW-1) and the overburden well (OMW-2) into the existing onsite monitoring well network. The TOC data collected during the survey are presented on **Table 3**.

4.5 Well Development

The newly installed offsite bedrock well (OMW-1) and overburden well (OMW-2) were developed by surging and bailing to remove fine sediment and increase communication with the surrounding aquifer. Additionally a Waterra[®] pump and 3/8-inch diameter polyethylene tubing equipped with a check valve was utilized to evacuate purge water from the wells. A minimum of 10 well volumes were removed from each well. Both wells appeared to produce water with little evidence of slow recharge.

No non-aqueous phase liquid (NAPL) or odor was observed during well development activities. Development water was containerized in 55-gallon steel drums for disposal at an appropriate offsite facility. Drummed waste disposal, including soil cuttings from the well installations, was coordinated directly by the NYSDEC.

4.6 Offsite Groundwater Sampling

On January 26, 2017 Aztech conducted low-flow sampling of the offsite overburden and bedrock monitoring wells. Purging occurred at a sustainable rate that minimized drawdown and stabilized the water table. In accordance with low-flow sampling standards, purging should not exceed 250 mL/min and drawdown could not exceed more than 0.3 feet throughout the purge. Each monitoring well was purged using a peristaltic pump with dedicated polyethylene and silicone tubing until water quality parameters stabilized and groundwater turbidity reached less than 50 nephelometric turbidity units (NTU's). Field sampling records and water quality parameters collected during purging are included in **Appendix F**.

Purge water was analyzed using a Horiba U52 water quality meter, outfitted with a flow thru cell. Water quality parameters (temperature, pH, specific conductivity, oxidation reduction potential [ORP], dissolved oxygen and turbidity) were measured in real time and recorded throughout the well purging process and immediately prior to sample collection.

Groundwater samples were collected subsequent to purging. Samples were transferred into laboratory provided containers and stored on ice. Samples were transported under chain of custody for analysis by Test America, located in Buffalo, New York. The samples were analyzed for VOCs via EPA method 8260C, SVOCs via method 8270D, pesticides via method 8081B, polychlorinated biphenyls (PCBs) via method 8082A and metals via method 6010C/7470A.

4.6.1 Groundwater Sampling Results

A summary of the laboratory analytical results are presented in the groundwater analytical summary tables (**Table 3 to Table 7**). The following discussion presents a general review of the groundwater analytical results as compared to the NYSDEC Technical and Operational Guidance Series (TOGS) Standards and Guidance for Ambient Water Quality Standards (WQS) and Guidance Values and Groundwater Effluent Limitations, June 1998. A copy of the groundwater sampling laboratory analytical report is included in **Appendix G**.

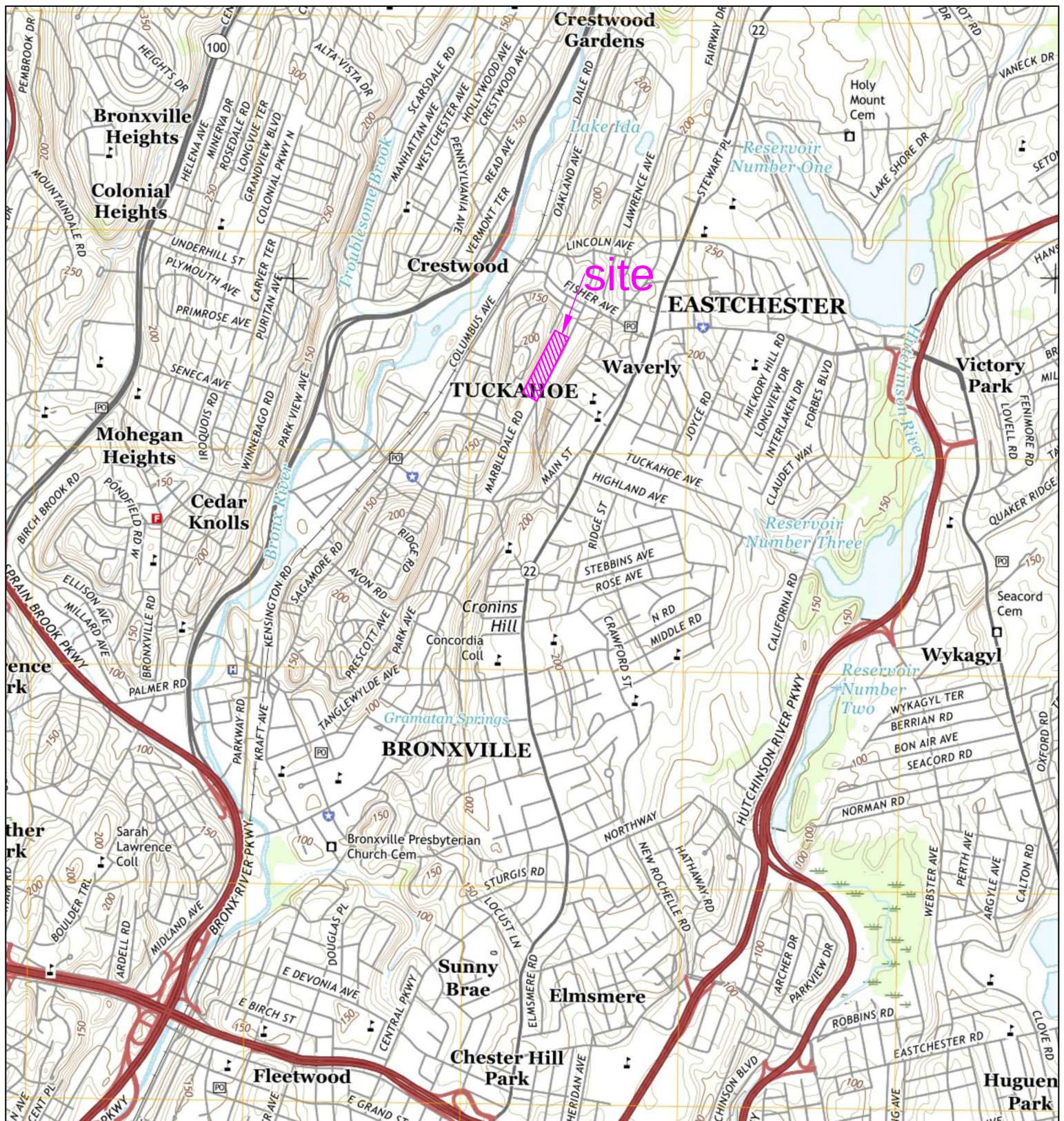
-) Two (2) VOC analytes (chloroform and methylene chloride) were detected above the laboratory reporting limit in the groundwater sample from OMW-1. However, both analytes were below their respective NYSDEC WQS. The two (2) VOCs, chloroform (13 micrograms per liter ($\mu\text{g/L}$)) and tetrachloroethene ($8.9 \mu\text{g/L}$), in monitoring well OMW-2 were detected above their NYSDEC WQS of $7.0 \mu\text{g/Kg}$ and $5.0 \mu\text{g/Kg}$, respectively.
-) No SVOCs were detected above their respective NYSDEC WQS in monitoring wells OMW-1 or OMW-2.
-) No PCBs or pesticides were detected above their respective laboratory reporting limit in the groundwater sample collected from OMW-1 or OMW-2.
-) Several metals constituents were detected above their respective laboratory reporting limit but were below their NYSDEC WQS in samples collected from OMW-1 and OMW-2. However;

-) Iron was detected at a concentration of 5,700 µg/L and manganese was reported at a concentration of 1,500 µg/L in OMW-1. These reported values are both above their respective NYSDEC WQS of 600 µg/L.
-) Magnesium in the groundwater sample from OMW-2 was reported at a concentration of 69,900 µg/L. This is above the respective NYSDEC WQS of 35,000 µg/L.

4.7 Data Usability Summary Report

A third party data usability summary report (DUSR) was completed after both the offsite soil vapor and groundwater sampling events were conducted during the investigation between November 8, 2016 and January 26, 2017. Each DUSR was conducted by Zdata Reports of Syracuse, New York. The purpose of the DUSR is to ensure validation in the quality of data received from the sampling events. The DUSR executive summary indicates that the laboratory analyses were determined to be usable for qualitative and quantitative purposes with minor qualification. Sample results for several compounds were qualified based on deviations from blank analysis, continuing calibration, field duplicate and matrix spike criteria. The DUSR for each sampling event is included in **Attachment H**.

Figures



Aztech Environmental
TECHNOLOGIES
Woman Owned Business
5 McCreia Hill Road, Ballston Spa, NY 12020
518.885-5383 | aztechenv.com



Former Marble Quarry Landfill - Offsite
Marbledale Road
Tuckahoe, New York

FIGURE 1

DATE: October 4, 2017

SCALE: 1" = 2,000'

SITE LOCATION MAP

Note: Aerial Image provided by Google Earth 2017





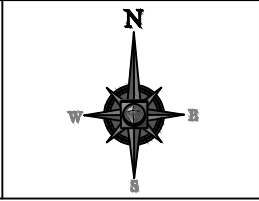
Aztech Environmental
TECHNOLOGIES

Woman Owned Business

5 McCreia Hill Road, Ballston Spa, NY 12020
518.885-5383 | aztechenv.com

Legend:

- Approximate Onsite Boundary
- Offsite Soil Vapor Probe
- Outdoor Ambient Air Sample



Former Marble Quarry Landfill - Offsite
Marbledale Road
Tuckahoe, New York

FIGURE 2

DATE: October 4, 2017

SCALE: 1" = 100'

Offsite Soil Vapor Probe Locations

Note: Aerial Image provided by Google Earth 2017



OVP-1	
Parameter	(ug/m3)
Carbon Tetrachloride	ND
Dichlorodifluoromethane	11
1,2-Dichlorotetrafluoroethane	9.5
Tetrachloroethene	580
1,1,1-Trichloroethane	26
Trichloroethene	72
Trichlorofluoromethane	ND

OVP-2	
Parameter	(ug/m3)
Carbon Tetrachloride	0.6
Dichlorodifluoromethane	52
1,2-Dichlorotetrafluoroethane	25
Tetrachloroethene	290
1,1,1-Trichloroethane	9.0
Trichloroethene	4.7
Trichlorofluoromethane	9.8

OVP-3	
Parameter	(ug/m3)
Carbon Tetrachloride	3.1
Dichlorodifluoromethane	230
1,2-Dichlorotetrafluoroethane	220
Tetrachloroethene	1,000
1,1,1-Trichloroethane	52
Trichloroethene	120
Trichlorofluoromethane	9.8

OVP-5	
Parameter	(ug/m3)
Carbon Tetrachloride	0.3
Dichlorodifluoromethane	2.4
1,2-Dichlorotetrafluoroethane	0.7
Tetrachloroethene	12
1,1,1-Trichloroethane	ND
Trichloroethene	1.0
Trichlorofluoromethane	1.4

OVP-6	
Parameter	(ug/m3)
Carbon Tetrachloride	ND
Dichlorodifluoromethane	740
1,2-Dichlorotetrafluoroethane	830
Tetrachloroethene	280
1,1,1-Trichloroethane	4.0
Trichloroethene	4.9
Trichlorofluoromethane	3.3

OVP-4	
Parameter	(ug/m3)
Carbon Tetrachloride	ND
Dichlorodifluoromethane	63
1,2-Dichlorotetrafluoroethane	62
Tetrachloroethene	94
1,1,1-Trichloroethane	22
Trichloroethene	1.8
Trichlorofluoromethane	2.4

OVP-9	
Parameter	(ug/m3)
Carbon Tetrachloride	0.4
Dichlorodifluoromethane	2.3
1,2-Dichlorotetrafluoroethane	ND
Tetrachloroethene	60
1,1,1-Trichloroethane	ND
Trichloroethene	0.5
Trichlorofluoromethane	1.7

OVP-10	
Parameter	(ug/m3)
Carbon Tetrachloride	0.3
Dichlorodifluoromethane	1.3
1,2-Dichlorotetrafluoroethane	ND
Tetrachloroethene	30
1,1,1-Trichloroethane	ND
Trichloroethene	0.7
Trichlorofluoromethane	1.5

OVP-7	
Parameter	(ug/m3)
Carbon Tetrachloride	2.6
Dichlorodifluoromethane	210
1,2-Dichlorotetrafluoroethane	250
Tetrachloroethene	220
1,1,1-Trichloroethane	3.7
Trichloroethene	1.5
Trichlorofluoromethane	2.3

OVP-8	
Parameter	(ug/m3)
Carbon Tetrachloride	1.0
Dichlorodifluoromethane	44
1,2-Dichlorotetrafluoroethane	96
Tetrachloroethene	220
1,1,1-Trichloroethane	23
Trichloroethene	2.9
Trichlorofluoromethane	ND

Legend:

- Approximate Onsite Boundary
- Offsite Soil Vapor Probe
- Outdoor Ambient Air Sample



Former Marble Quarry Landfill - Offsite
Marbledale Road
Tuckaheo, New York

FIGURE 3

DATE: November 9, 2017

SCALE: 1" = 100'

Key Chlorinated Solvent and Refrigerant
Detections in Offsite Soil Vapor
Locations

Note: Aerial Image provided by Google Earth 2017



Legend:

-  - Approximate Onsite Boundary
-  - Offsite Monitoring Well



Former Marble Quarry Landfill - Offsite
Marbledale Road
Tuckahoe, New York

FIGURE 4

DATE: October 4, 2017

SCALE: 1" = 100'

Offsite Monitoring Well Locations

Note: Aerial Image provided by Google Earth 2017

TABLES

TABLE 1
VAPOR ANALYTICAL RESULTS - 11/8/2016 to 11/9/2016
Volatile Organic Compounds
Former Marble Quarry Landfill - Offsite
109-125 Marbledale Road
Tuckahoe, New York

COMPOUNDS LIST		SOIL VAPOR SAMPLES											
Sample ID	OVP-1	OVP-2	OVP-3	OVP-4	OVP-5	OVP-6	OVP-7	OVP-8	OVP-9	OVP-10	OA-1	OA-2	
Date Sampled	8-Nov-16	8-Nov-16	8-Nov-16	9-Nov-16	9-Nov-16	9-Nov-16	9-Nov-16	9-Nov-16	8-Nov-16	8-Nov-16	8-Nov-16	8-Nov-16	
8260 Full LIST	VOC Analytical Results (ug/m3)												
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	0.4	0.7	2.1	2.2	
Benzyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Bromodichloromethane	ND	ND	ND	ND	0.8	ND	ND	ND	4.4	1.2	ND	ND	
Bromoform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Bromomethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-Butanone (MEK)	ND	2.7	ND	3.4	3.1	ND	ND	ND	1.4	1.4	2.9	3.4	
Tert-butyl alcohol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Carbon tetrachloride	ND	0.6	3.1	ND	0.3	ND	ND	1.0	0.4	0.3	0.5	0.5	
Chlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Dibromochloromethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Chloromethane	ND	0.8	ND	ND	ND	ND	ND	ND	ND	0.4	1.2	1.3	
Chloroform	50	160	150	1.6	18	5.5	ND	17	76	24	ND	ND	
Cyclohexane	ND	2.0	ND	ND	1.2	ND	ND	ND	ND	40	0.9	0.9	
1,2-Dibromoethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,3-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,4-Dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Dichlorodifluoromethane (Freon 12)	11	52	230	63	2.4	740	210	44	2.3	1.3	3.0	3.6	
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Cis-1,2-Dichloroethene	3.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
trans-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-Dichloropropane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
cis-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
trans-1,3-Dichloropropene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2-Dichlorotetraflouroethane (Freon 114)	9.5	25	220	62	0.7	830	250	96	ND	ND	ND	0.6	
1,4-Dioxane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Ethanol	ND	51	ND	9.7	ND	ND	ND	ND	ND	3.8	280	48	
Ethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0	1.3	1.4	
Hexachlorobutadiene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Hexane	ND	ND	ND	2.3	0.9	ND	ND	ND	1.5	3.8	2.5	2.9	
Methylene chloride	11	2.4	11	7.8	2.6	7.3	6.3	6.8	ND	2.0	2.9	4.0	
4-Methyl-2-pentanone (MIBK)	ND	2.7	ND	18	8.7	13	8.7	17	120	ND	1.5	12	
Methyl tert-butyl ether (MtBE)	9.6	ND	ND	ND	1.0	ND	ND	ND	2.2	2.1	ND	ND	
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,2,2-Tetrachloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Tetrachloroethene	580	290	1,000	94	12	280	220	220	60	30	ND	0.6	
Toluene	ND	2.2	ND	2.0	ND	ND	ND	ND	1.4	1.5	10	9.3	
1,2,4-Trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,1-Trichloroethane	26	9.0	52	22	ND	4.0	3.7	23	ND	ND	ND	ND	
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Trichloroethene	72	4.7	120	1.8	1.0	4.9	1.5	2.9	0.5	0.7	1.2	0.9	
Trichlorofluoromethane (Freon 11)	ND	9.8	9.8	2.4	1.4	3.3	2.3	ND	1.7	1.5	1.4	1.4	
1,1,2-Trichlorotrifluoroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,2,4-Trimethylbenzene	ND	0.9	ND	ND	ND	ND	ND	ND	0.7	0.6	1.5	1.6	
1,3,5-Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2,2,4-Trimethylpentane	ND	1.9	ND	ND	2.0	ND	ND	ND	3.0	61	2.2	3.2	
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
m,p-Xylene	ND	1.9	ND	1.4	0.5	ND	2.0	ND	1.3	1.3	4.4	4.8	
o-Xylene	30	ND	ND	ND	ND	ND	ND	ND	0.4	0.46	1.5	1.7	
	TOTAL CONCENTRATIONS (ug/m3)												
*TOTAL VOCs	803	620	1,796	291	57	1,888	705	428	278	179	321	104	
Notes:													
ND: Not Detected Above Applicable Laboratory Detection Limits													
Bold: Detected Values													

Table 2
LABORATORY SOIL ANALYTICAL RESULTS
Volatile Organic Compounds (VOC) Semi-Volatile Organic Compounds (SVOC)- Standard List
Former Marble Quarry Landfill - Offsite
109-125 Marbledale Road
Tuckahoe, New York

COMPOUNDS LIST	Unrestricted Use SCOs Subpart 375-6.8(a) or CP-51 SCO	Soil Sample Location	
Sample ID		OMW-1	OMW-2
Date Sampled		19-Jan-17	19-Jan-17
8260C LIST VOCs	(ug/Kg)	VOC Analytical Results (ug/Kg)	
1,2,4-Trimethylbenzene	3,600	ND	ND
1,3,5-Trimethylbenzene	8,400	ND	ND
4-Isopropyltoluene	10,000	ND	ND
Benzene	60	ND	ND
Ethylbenzene	1,000	ND	ND
Isopropylbenzene	2,300	ND	ND
Methyl tert-butyl ether	930	ND	ND
Naphthalene	12,000	ND	0.7
n-Butylbenzene	12,000	ND	ND
N-Propylbenzene	3,900	ND	ND
sec-Butylbenzene	11,000	ND	ND
Toluene	700	ND	ND
Xylenes, Total	260	ND	ND
tert-Butylbenzene	5,900	ND	ND
TOTAL BTEX	*	0	0
TOTAL VOC	*	0	0.7
8270D LIST SVOCs	(ug/Kg)	SVOC Analytical Results (ug/Kg)	
Acenaphthene	20,000	ND	ND
Acenaphthylene	100,000	ND	ND
Anthracene	100,000	ND	ND
Benzo (a) anthracene	1,000	ND	ND
Benzo (a) pyrene	1,000	ND	ND
Benzo (b) fluoranthene	1,000	ND	ND
Benzo (g,h,i) perylene	100,000	ND	ND
Benzo (k) fluoranthene	800	ND	ND
Chrysene	1,000	ND	ND
Dibenzo (a,h) anthracene	330	ND	ND
Fluoranthene	100,000	ND	ND
Fluorene	30,000	ND	ND
Indeno (1,2,3-cd) pyrene	500	ND	ND
Naphthalene	12,000	ND	ND
Pyrene	100,000	ND	ND
Phenanthrene	100,000	ND	ND
*TOTAL SVOC	-	ND	ND
Notes: MtBE: Methyl tertiary-Butyl Ether Soil Sample Analysis: Volatile Organic Compounds (VOCs) & MtBE by EPA Method 8260C Soil Sample Analysis: Semi-Volatile Organic Compounds (SVOCs) by EPA Method 8270D SCO: Soil Cleanup Objectives Subpart 375-6.8(a) SCO - NYSDEC Remedial Program Soil Cleanup Objectives for Unrestricted Use BTEX: Sum of Benzene, Toluene, Ethylbenzene and mixed Xylenes * denotes that the total VOC concentrations is the sum of all reported VOCs by EPA 8260, except MtBE			

Table 3
TOC SURVEY DATA - OFFSITE MONITORING WELLS

Former Marble Quarry Landfill - Offsite
109-125 Marbledale Road
Tuckahoe, New York

Well ID	Top of Casing Elevation (MSL)
OMW-1	148.37
OMW-2	136.21

Notes:

MSL - Mean Sea Level

Elevations are realative to Noth American Vertical Datum - 1988 (NAVD-88) in feet.

Top of Casing (TOC) data were collected using stadia survey methods.

TOC Benchmark elevations were collected from onsite monitoring wells MW-8 (152.7 MSL) and MW-9 (153.94 MSL)

Benchmark TOC elevations were derived from Figure 3 of the Remedial Investigation Report (RIR) prepared by HydroEnvironmental Solutions, Inc., March 9, 2016

Table 4
LABORATORY GROUNDWATER ANALYTICAL RESULTS
Volatile Organic Compounds - Standard List
Former Marble Quarry Landfill - Offsite
109-125 Marbledale Road
Tuckahoe, New York

COMPOUNDS LIST	TOGS Guidance/Standard	Groundwater Sample Location	
Sample ID		OMW-1	OMW-2
Date Sampled		26-Jan-17	26-Jan-17
8260 Full LIST VOCs	(ug/L)	VOC Analytical Results (ug/L)	
1,1,1-Trichloroethane	5	ND	ND
1,1,2,2-Tetrachloroethane	5	ND	ND
1,1,2-Trichloroethane	5	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	5	ND	ND
1,1-Dichloroethane	5	ND	ND
1,1-Dichloroethene	5	ND	ND
1,2,4-Trichlorobenzene	10	ND	ND
1,2-Dibromo-3-Chloropropane	5	ND	ND
1,2-Dibromoethane	5	ND	ND
1,2-Dichlorobenzene	4.7	ND	ND
1,2-Dichloroethane	5	ND	ND
1,2-Dichloropropane	5	ND	ND
1,3-Dichlorobenzene	5	ND	ND
1,4-Dichlorobenzene	4.7	ND	ND
2-Hexanone	50	ND	ND
2-Butanone (MEK)	50	ND	ND
4-Methyl-2-pentanone (MIBK)	50	ND	ND
Acetone	50	ND	ND
Benzene	1	ND	ND
Bromodichloromethane	50	ND	ND
Bromoform	50	ND	ND
Bromomethane	5	ND	ND
Carbon disulfide	50	ND	ND
Carbon tetrachloride	5	ND	ND
Chlorobenzene	5	ND	ND
Dibromochloromethane	50	ND	ND
Chloroethane	5	ND	ND
Chloroform	7	1.5	13
Chloromethane	50	ND	ND
cis-1,2-Dichloroethene	5	ND	ND
cis-1,3-Dichloropropene	5	ND	ND
Cyclohexane	50	ND	ND
Dichlorodifluoromethane	5	ND	0.9
Ethylbenzene	5	ND	ND
Isopropylbenzene	5	ND	ND
Methyl acetate	50	ND	ND
MtBE	10	ND	ND
Methylcyclohexane	50	ND	ND
Methylene Chloride	5	2.1	2.4
Styrene	5	ND	ND
Tetrachloroethene	5	ND	8.9
Toluene	5	ND	ND
trans-1,2-Dichloroethene	5	ND	ND
trans-1,3-Dichloropropene	5	ND	ND
Trichloroethene	5	ND	ND
Trichlorofluoromethane	5	ND	ND
Vinyl chloride	2	ND	ND
Xylenes, Total	5	ND	ND
Notes: MtBE: Methyl tertiary-Butyl Ether BOLD values indicate exceedance of applicable NYSDEC guidance values ND: Not Detected Above Applicable Laboratory Detection Limits TOGS: Technical and Operational Guidance Series TOGS Standards and Guidance are determined by the NYSDEC Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Technical and Operational Guidance Series, June 1998 All values are reported in parts per billion (ppb or ug/L)			

Table 5
LABORATORY GROUNDWATER ANALYTICAL RESULTS
Semi - Volatile Organic Compounds - Full List
Former Marble Quarry Landfill - Offsite
109-125 Marbledale Road
Tuckahoe, New York

COMPOUNDS LIST	TOGS Guidance/Standard	Groundwater Sample Location	
		OMW-1	OMW-2
Sample ID		26-Jan-17	26-Jan-17
Date Sampled			
8270 Full LIST SVOCs	(ug/L)	VOC Analytical Results (ug/L)	
Biphenyl	5	ND	ND
bis (2-chloroisopropyl) ether	5	ND	ND
2,4,5-Trichlorophenol	50	ND	ND
2,4,6-Trichlorophenol	50	ND	ND
2,4-Dichlorophenol	5	ND	ND
2,4-Dimethylphenol	50	ND	ND
2,4-Dinitrophenol	50	ND	ND
2,4-Dinitrotoluene	5	ND	ND
2,6-Dinitrotoluene	5	ND	ND
2-Chloronaphthalene	10	ND	ND
2-Chlorophenol	50	ND	ND
2-Methylnaphthalene	50	ND	ND
2-Methylphenol	50	ND	ND
2-Nitroaniline	5	ND	ND
2-Nitrophenol	50	ND	ND
3,3'-Dichlorobenzidine	5	ND	ND
3-Nitroaniline	50	ND	ND
4,6-Dinitro-2-methylphenol	50	ND	ND
4-Bromophenyl phenyl ether	50	ND	ND
4-Chloro-3-methylphenol	50	ND	ND
4-Chloroaniline	5	ND	ND
4-Chlorophenyl phenyl ether	50	ND	ND
4-Methylphenol	50	ND	ND
4-Nitroaniline	50	ND	ND
4-Nitrophenol	50	ND	ND
Acenaphthene	20	ND	ND
Acenaphthylene	50	ND	ND
Acetophenone	50	ND	ND
Anthracene	50	ND	ND
Atraizine	7.5	ND	ND
Benzaldehyde	50	ND	ND
Benzo(a)anthracene	0.002	ND	ND
Benzo(a)pyrene	0.002	ND	ND
Benzo(b)fluoranthene	0.002	ND	ND
Benzo(g,h,i)perylene	50	ND	ND
Benzo(k)fluoranthene	0.002	ND	ND
Bis(2-chloroethoxy)methane	5	ND	ND
Bis(2-chloroethyl)ether	1	ND	ND
Bis(2-ethylhexyl) phthalate	5	ND	ND
Butyl benzyl phthalate	50	ND	ND
Caprolactam	50	ND	ND
Carbazole	50	ND	ND
Chrysene	0.002	ND	ND
Di-n-butyl phthalate	50	0.6	0.7
Di-n-octyl phthalate	50	ND	0.7
Dibenz(a,h)anthracene	50	ND	ND
Dibenzofuran	50	ND	ND
Diethyl phthalate	50	ND	ND
Dimethyl phthalate	50	ND	ND
Fluoranthene	50	ND	ND
Fluorene	50	ND	ND
Hexachlorobenzene	0.04	ND	ND
Hexachlorobutadiene	0.5	ND	ND
Hexachlorocyclopentadiene	5	ND	ND
Hexachloroethane	5	ND	ND
Indeno(1,2,3-cd)pyrene	0.002	ND	ND
Isophorone	50	ND	ND
N-Nitrosodi-n-propylamine	50	ND	ND
N-Nitrosodiphenylamine	50	ND	ND
Naphthalene	10	ND	ND
Nitrobenzene	0.4	ND	ND
Pentachlorophenol	0.4	ND	ND
Phenanthrene	50	ND	ND
Phenol	1	ND	ND
Pyrene	50	ND	ND
Notes: SVOC: Semi-Volatile Organic Compounds Groundwater Sample Analysis: SVOCs by EPA Method 8270 ND: Not Detected Above Applicable Laboratory Detection Limits TOGS: Technical and Operational Guidance Series TOGS Standards and Guidance are determined by the NYSDEC Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Technical and Operational Guidance Series, June 1998 BOLD values indicate exceedance of applicable NYSDEC guidance values All values are reported in parts per billion (ppb or ug/L)			

Table 6
LABORATORY GROUNDWATER ANALYTICAL RESULTS
PCB's

Former Marble Quarry Landfill - Offsite
109-125 Marbledale Road
Tuckahoe, New York

COMPOUNDS LIST	TOGS Guidance/Standard	Groundwater Sample Location	
Sample ID		OMW-1	OMW-2
Date Sampled		26-Jan-17	26-Jan-17
8260 Full LIST VOCs	(ug/L)	VOC Analytical Results (ug/L)	
PCB Aroclor - 1016	*	ND	ND
PCB Aroclor - 1221	*	ND	ND
PCB Aroclor - 1232	*	ND	ND
PCB Aroclor - 1242	*	ND	ND
PCB Aroclor - 1248	*	ND	ND
PCB Aroclor - 1254	*	ND	ND
PCB Aroclor - 1260	*	ND	ND
Total PCBs *	0.09	ND	ND
Notes: * = Standard equals total sum of PCB substances BOLD values indicate exceedance of applicable NYSDEC guidance values ND: Not detected above applicable laboratory detection limits TOGS: Technical and Operational Guidance Series TOGS Standards and Guidance are determined by the NYSDEC Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Technical and Operational Guidance Series, June 1998 All values are reported in parts per billion (ppb or ug/L)			

Table 7
LABORATORY GROUNDWATER ANALYTICAL RESULTS
Pesticides

Former Marble Quarry Landfill - Offsite
109-125 Marbledale Road
Tuckahoe, New York

COMPOUNDS LIST	TOGS Guidance/Standard	Groundwater Sample Location	
Sample ID		OMW-1	OMW-2
Date Sampled		26-Jan-17	26-Jan-17
8260 Full LIST VOCs	(ug/L)	VOC Analytical Results (ug/L)	
4,4'-DDD	0.3	ND	ND
4,4'-DDE	0.2	ND	ND
4,4'-DDT	0.2	ND	ND
Aldrin	ND	ND	ND
Alpha-BHC	0.01	ND	ND
Alpha-Chlordane	0.05	ND	ND
Beta-BHC	0.04	ND	ND
Delta-BHC	0.04	ND	ND
Dieldrin	0.004	ND	ND
Endosulfan I	**	ND	ND
Endosulfan II	**	ND	ND
Endosulfan Sulfate	**	ND	ND
Endrin	ND*	ND	ND
Endrin Aldehyde	5	ND	ND
Endrin Ketone	5	ND	ND
Gamma-BHC (Lindane)	0.05	ND	ND
Gamma-Chlordane	0.05	ND	ND
Notes: BOLD values indicate exceedance of applicable NYSDEC guidance values ND: Not detected above applicable laboratory detection limits ND*: Standard equals laboratory reporting TOGS: Technical and Operational Guidance Series TOGS Standards and Guidance are determined by the NYSDEC Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Technical and Operational Guidance Series, June 1998 ** - No applicable groundwater standard All values are reported in parts per billion (ppb or ug/L)			

Table 8
LABORATORY GROUNDWATER ANALYTICAL RESULTS

Metals List

Former Marble Quarry Landfill - Offsite
109-125 Marbledale Road
Tuckahoe, New York

COMPOUNDS LIST	TOGS Guidance/Standard	Groundwater Sample Location	
Sample ID		OMW-1	OMW-2
Date Sampled		26-Jan-17	26-Jan-17
8260 Full LIST VOCs	(ug/L)	VOC Analytical Results (ug/L)	
Aluminum	2,000	360	93
Antimony	6	ND	ND
Arsenic	50	ND	ND
Barium	2,000	82	150
Beryllium	3	ND	ND
Cadmium	10	ND	0.5
Calcium	*	74,200	21,400
Chromium	100	2.9	1.1
Cobalt	*	6.1	ND
Copper	1,000	2.1	3.0
Iron	600	5,700	37
Lead	50	3	ND
Magnesium	35,000	20,000	60,900
Manganese	600	1,500	28
Mercury	0.7	ND	ND
Nickel	200	8.5	ND
Potassium	*	11,100	7,800
Selenium	20	ND	ND
Silver	100	ND	ND
Sodium	*	85,400	25,700
Thallium	0.5	ND	ND
Vanadium	*	ND	ND
Zinc	5,000	24	1.9
Notes: BOLD values indicate exceedance of applicable NYSDEC guidance values ND: Not detected above applicable laboratory detection limits TOGS: Technical and Operational Guidance Series TOGS Standards and Guidance are determined by the NYSDEC Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, Technical and Operational Guidance Series, June 1998 * - No applicable groundwater standard All values are reported in parts per billion (ppb or ug/L)			

APPENDIX A

Boring Logs and Well Construction Details



5 McCrea Hill Rd.
Ballston Spa, New York 12020
Phone: (518) 885-5383 Fax: (518) 885-5385

Boring Log: OVP-1

Client: NYSDEC

Project: Former Marble Quarry - Offsite

Street Address: Marbledale Road

City / State: Tuckahoe, New York

Drilling Co.: Aztech Environmental

Address: 5 McCrea Hill Rd. Ballston Spa, NY

Driller: Mike Deyette

Drilling Method: Handclearing/Air Knife

Drill Fluid: NA

Drilled Borehole Dia: 12"

Total Drilled Depth: 5'

Ground Elevation: NA

Depth to water: NA

Start date and time: 10/24/2016

Finish date and time: 10/24/2016

Depth (Feet)	Sample ID	Sample Interval (feet)	Headspace PID	Recovery	Description	Depth (feet)	Well Construction	Lithology
		(0' - 5')	0.0	HC	(0.0' - 0.4') Asphalt and Gravel sub-base. (0.4' - 5.0') Gray to white MARBLE COBBLES, some fine to medium Sand and fine Gravel, little silt. moist, no odor.			
1						1		
2						2		
3						3		
4						4		
5						5		

Notes:
NA - Not Available
fbg - feet below grade
" - inches

PID - Photoionization Detector
ppm - parts per million
'-feet

Geologist: Tom Giamichael



5 McCrea Hill Rd.
Ballston Spa, New York 12020
Phone: (518) 885-5383 Fax: (518) 885-5385

Boring Log: OVP-2

Client: NYSDEC

Project: Former Marble Quarry - Offsite

Street Address: Marbledale Road

City / State: Tuckahoe, New York

Drilling Co.: Aztech Environmental

Address: 5 McCrea Hill Rd. Ballston Spa, NY

Driller: Mike Deyette

Drilling Method: Handclearing/Air Knife

Drill Fluid: NA

Drilled Borehole Dia: 12"

Total Drilled Depth: 6'

Ground Elevation: NA

Depth to water: NA

Start date and time: 10/26/2016

Finish date and time: 10/26/2016

Depth (Feet)	Sample ID	Sample Interval (feet)	Headspace PID	Recovery	Description	Depth (feet)	Well Construction	Lithology
1		(0' - 6')	0.0	HC	(0.0' - 0.4') Asphalt and Gravel sub-base.	1	Teflon lined Tubing (1/4" O.D.)	
2					(0.4' - 6.0') Gray to white Marble Cobbles, some fine to medium Sand and fine Gravel, little silt. moist, no odor.	2	Native Fill - Steel Roadbox	
3						3	Bentonite	
4						4		
5						5	#0 Filter Pack	
6						6	Stainless Steel Vapor probe	

Notes:

NA - Not Available
fbg - feet below grade
" - inches

PID - Photoionization Detector
ppm - parts per million
'-feet

Geologist: Tom Giamichael



5 McCrea Hill Rd.
Ballston Spa, New York 12020
Phone: (518) 885-5383 Fax: (518) 885-5385

Boring Log: OVP-3

Client: NYSDEC

Project: Former Marble Quarry - Offsite

Street Address: Marbledale Road

City / State: Tuckahoe, New York

Drilling Co.: Aztech Environmental

Address: 5 McCrea Hill Rd. Ballston Spa, NY

Driller: Mike Deyette

Drilling Method: Handclearing/Air Knife

Drill Fluid: NA

Drilled Borehole Dia: 12"

Total Drilled Depth: 5'

Ground Elevation: NA

Depth to water: NA

Start date and time: 10/26/2016

Finish date and time: 10/26/2016

Depth (Feet)	Sample ID	Sample Interval (feet)	Headspace PID	Recovery	Description	Depth (feet)	Well Construction	Lithology
		(0' - 5')	0.0	HC	(0.0' - 0.4') Asphalt and Gravel sub-base. (0.4' - 5.0') Gray to white Marble Cobbles, some fine to medium Sand and fine Gravel, little silt. moist, no odor.			
1						1		
2						2		
3						3		
4						4		
5						5		

Notes:

NA - Not Available
fbg - feet below grade
" - inches

PID - Photoionization Detector
ppm - parts per million
'-feet

Geologist: Tom Giamichael



5 McCrea Hill Rd.
Ballston Spa, New York 12020
Phone: (518) 885-5383 Fax: (518) 885-5385

Boring Log: OVP-4

Client: NYSDEC

Project: Former Marble Quarry - Offsite

Street Address: Marbledale Road

City / State: Tuckahoe, New York

Drilling Co.: Aztech Environmental

Address: 5 McCrea Hill Rd. Ballston Spa, NY

Driller: Mike Deyette

Drilling Method: Handclearing/Air Knife

Drill Fluid: NA

Drilled Borehole Dia: 12"

Total Drilled Depth: 6'

Ground Elevation: NA

Depth to water: NA

Start date and time: 10/26/2016

Finish date and time: 10/26/2016

Depth (Feet)	Sample ID	Sample Interval (feet)	Headspace PID	Recovery	Description	Depth (feet)	Well Construction	Lithology
1		(0' - 6')	0.0	HC	(0.0' - 0.4') Asphalt and Gravel sub-base.	1	Teflon lined Tubing (1/4" O.D.)	
2					(0.4' - 6.0') Gray to white Marble Cobbles, some fine to medium Sand and fine Gravel, little silt. moist, no odor.	2	Native Fill	
3						3	Bentonite	
4						4		
5						5	#0 Filter Pack	
6						6	Stainless Steel Vapor probe	

Notes:

NA - Not Available
fbg - feet below grade
" - inches

PID - Photoionization Detector
ppm - parts per million
'-feet

Geologist: Tom Giamichael



5 McCrea Hill Rd.
Ballston Spa, New York 12020
Phone: (518) 885-5383 Fax: (518) 885-5385

Boring Log: OVP-5

Client: NYSDEC

Project: Former Marble Quarry - Offsite

Street Address: Marbledale Road

City / State: Tuckahoe, New York

Drilling Co.: Aztech Environmental

Address: 5 McCrea Hill Rd. Ballston Spa, NY

Driller: Mike Deyette

Drilling Method: Handclearing/Air Knife

Drill Fluid: NA

Drilled Borehole Dia: 12"

Total Drilled Depth: 4.5'

Ground Elevation: NA

Depth to water: NA

Start date and time: 10/27/2016

Finish date and time: 10/27/2016

Depth (Feet)	Sample ID	Sample Interval (feet)	Headspace PID	Recovery	Description	Depth (feet)	Well Construction	Lithology
		(0' - 4.5')	0.0	HC	(0.0' - 0.4') Asphalt and Gravel sub-base. (0.4' - 4.5') Gray to white Marble Cobbles, some to little fine to medium Sand and fine Gravel, little silt. moist, no odor.			
1						1		
2						2		
3						3		
4						4		

Notes:

NA - Not Available
fbg - feet below grade
" - inches

PID - Photoionization Detector
ppm - parts per million
'-feet

Geologist: Tom Giamichael



5 McCrea Hill Rd.
Ballston Spa, New York 12020
Phone: (518) 885-5383 Fax: (518) 885-5385

Boring Log: OVP-6

Client: NYSDEC

Project: Former Marble Quarry - Offsite

Street Address: Marbledale Road

City / State: Tuckahoe, New York

Drilling Co.: Aztech Environmental

Address: 5 McCrea Hill Rd. Ballston Spa, NY

Driller: Mike Deyette

Drilling Method: Handclearing/Air Knife

Drill Fluid: NA

Drilled Borehole Dia: 12"

Total Drilled Depth: 6'

Ground Elevation: NA

Depth to water: NA

Start date and time: 10/25/2016

Finish date and time: 10/25/2016

Depth (Feet)	Sample ID	Sample Interval (feet)	Headspace PID	Recovery	Description	Depth (feet)	Well Construction	Lithology
1		(0' - 6')	0.0	HC	(0.0' - 0.4') Asphalt and Gravel sub-base.	1	Teflon lined Tubing (1/4" O.D.)	
2					(0.4' - 6.0') Gray to white Marble Cobbles, some fine to medium Sand and fine Gravel, little silt. moist, no odor.	2	Native Fill	
3						3	Bentonite	
4						4		
5						5	#0 Filter Pack	
6						6	Stainless Steel Vapor probe	

Notes:

NA - Not Available
fbg - feet below grade
" - inches

PID - Photoionization Detector
ppm - parts per million
'-feet

Geologist: Tom Giamichael



5 McCrea Hill Rd.
Ballston Spa, New York 12020
Phone: (518) 885-5383 Fax: (518) 885-5385

Boring Log: OVP-7

Client: NYSDEC

Project: Former Marble Quarry - Offsite

Street Address: Marbledale Road

City / State: Tuckahoe, New York

Drilling Co.: Aztech Environmental

Address: 5 McCrea Hill Rd. Ballston Spa, NY

Driller: Mike Deyette

Drilling Method: Handclearing/Air Knife

Drill Fluid: NA

Drilled Borehole Dia: 12"

Total Drilled Depth: 5.5'

Ground Elevation: NA

Depth to water: NA

Start date and time: 10/25/2016

Finish date and time: 10/25/2016

Depth (Feet)	Sample ID	Sample Interval (feet)	Headspace PID	Recovery	Description	Depth (feet)	Well Construction	Lithology
1		(0' - 5.5')	0.0	HC	(0.0' - 0.4') Asphalt and Gravel sub-base.	1	Teflon lined Tubing (1/4" O.D.)	
2					(0.4' - 5.5') Gray to white Marble Cobbles, some fine to medium Sand and fine Gravel, little silt. moist, no odor.	2	Native Fill	
3						3	Bentonite	
4						4	#40 Filter Pack	
5						5	Stainless Steel Vapor probe	
6						6		

Notes:

NA - Not Available
fbg - feet below grade
" - inches

PID - Photoionization Detector
ppm - parts per million
'-feet

Geologist: Tom Giamichael



5 McCrea Hill Rd.
Ballston Spa, New York 12020
Phone: (518) 885-5383 Fax: (518) 885-5385

Boring Log: OVP-8

Client: NYSDEC

Project: Former Marble Quarry - Offsite

Street Address: Marbledale Road

City / State: Tuckahoe, New York

Drilling Co.: Aztech Environmental

Address: 5 McCrea Hill Rd. Ballston Spa, NY

Driller: Mike Deyette

Drilling Method: Handclearing/Air Knife

Drill Fluid: NA

Drilled Borehole Dia: 12"

Total Drilled Depth: 5'

Ground Elevation: NA

Depth to water: NA

Start date and time: 10/25/2016

Finish date and time: 10/25/2016

Depth (Feet)	Sample ID	Sample Interval (feet)	Headspace PID	Recovery	Description	Depth (feet)	Well Construction	Lithology
		(0' - 5')	0.0	HC	(0.0' - 0.4') Asphalt and Gravel sub-base. (0.4' - 5.0') Gray to white Marble Cobbles, some fine to medium Sand and fine Gravel, little silt. moist, no odor.			
1						1		
2						2		
3						3		
4						4		
5						5		

Notes:

NA - Not Available
fbg - feet below grade
" - inches

PID - Photoionization Detector
ppm - parts per million
'-feet

Geologist: Tom Giamichael



5 McCrea Hill Rd.
Ballston Spa, New York 12020
Phone: (518) 885-5383 Fax: (518) 885-5385

Boring Log: OVP-9

Client: NYSDEC

Project: Former Marble Quarry - Offsite

Street Address: Marbledale Road

City / State: Tuckahoe, New York

Drilling Co.: Aztech Environmental

Address: 5 McCrea Hill Rd. Ballston Spa, NY

Driller: Mike Deyette

Drilling Method: Handclearing/Air Knife

Drill Fluid: NA

Drilled Borehole Dia: 12"

Total Drilled Depth: 3'

Ground Elevation: NA

Depth to water: NA

Start date and time: 10/27/2016

Finish date and time: 10/27/2016

Depth (Feet)	Sample ID	Sample Interval (feet)	Headspace PID	Recovery	Description	Depth (feet)	Well Construction	Lithology
		(0.0' - 3.0')	0.0	HC	(0.0' - 0.4') Asphalt and Gravel sub-base.			
1					(0.4' - 3.0') Gray to white Marble Cobbles, some to little fine to medium Sand and fine Gravel, little silt. moist, no odor.	1	Teflon lined Tubing (1/4" O.D.) Steel Roadbox Native Fill Bentonite #0 Filter Pack Stainless Steel Vapor probe	
2						2		
3						3		

Notes:

NA - Not Available
fbg - feet below grade
" - inches

PID - Photoionization Detector
ppm - parts per million
'-feet

Geologist: Tom Giamichael



5 McCrea Hill Rd.
Ballston Spa, New York 12020
Phone: (518) 885-5383 Fax: (518) 885-5385

Boring Log: OVP-10

Client: NYSDEC

Project: Former Marble Quarry - Offsite

Street Address: Marbledale Road

City / State: Tuckahoe, New York

Drilling Co.: Aztech Environmental

Address: 5 McCrea Hill Rd. Ballston Spa, NY

Driller: Mike Deyette

Drilling Method: Handclearing/Air Knife

Drill Fluid: NA

Drilled Borehole Dia: 12"

Total Drilled Depth: 4.5'

Ground Elevation: NA

Depth to water: NA

Start date and time: 10/27/2016

Finish date and time: 10/27/2016

Depth (Feet)	Sample ID	Sample Interval (feet)	Headspace PID	Recovery	Description	Depth (feet)	Well Construction	Lithology
		(0' - 4.5')	0.0	HC	(0.0' - 0.4') Asphalt and Gravel sub-base.			
1					(0.4' - 4.5') Gray to white Marble Cobbles, some to little fine to medium Sand and fine Gravel, little silt. moist, no odor.	1	Teflon lined Tubing (1/4" O.D.)	
2						2	Steel Roadbox	
3						3	Native Fill	
4						4	Bentonite	
							#0 Filter Pack	
							Stainless Steel Vapor probe	

Notes:

NA - Not Available
fbg - feet below grade
" - inches

PID - Photoionization Detector
ppm - parts per million
'-feet

Geologist: Tom Giamichael

Client: NYSDEC

Project: Former Marble Quarry - Offsite

Street Address: Marbledale Road

City / State: Tuckahoe, New York

Drilling Co.: Parratt-Wolff, Inc.

Address: 5879 Fisher Road, East Syracuse, New York

Driller: Glenn Lansing

Drilling Method: Hollow Stem Auger (HSA), Nx Core

Hammer Weight: 140 lbs

Drilled Borehole Dia: 4-1/4" HSA, 2.15" Open Hole

Total Drilled Depth: 34'

Ground Elevation: NA

Depth to water: NA

Start date: 1/17/2017

Finish date: 1/19/2017

Depth (Feet)	Sample ID	Sample Interval (feet)	Recovery	Blow Counts	Headspace PID (ppm)	Description	Well Diagram	Annotation	Depth (Feet)
1		(0' - 6')	HC		1.3	(0.0' - 0.4') Asphalt and Gravel sub-base.		Steel Roadbox HQ Steel Casing (3.7" dia.) Cement Grout Nx Open Hole (2.15" dia.)	1
2						(0.4' - 6.0') Gray to white Marble cobbles, some fine to medium Sand and fine Gravel, little silt. moist, no odor.			2
3									3
4									4
5									5
6		(6' - 8')	8"	2-1-1-2	2.0	(6.0' - 12') Brown fine to medium SAND, some fine Gravel, loose, dry, no odor.			6
7									7
8		(8' - 10')	6"	1-3-9-26	1.1				8
9									9
10		(10' - 12')	1"	11-50/1	1.4				10
11									11
12		(12' - 13.5')	3"	49-50/1	1.2	(12' - 13.5') Weather bedrock becoming more competent. Sampler refusal at 12.1', Advanced auger to 13.5', then switched to 3-7/8" roller bit.			12
13		(13.5' - 18')	NA	NA	NA	(13.5' - 18') Roller bit rock socket and advanced casing to 18'. Competent rock encountered from ~16' - 18'. Significant amounts of mica flakes in recirculation water.			13
14									14
15									15
16						Installed and grouted HQ steel casing (3.7") into the rock socket at 18'. Allowed to cure 24hrs and Switched to Nx Core barrel (2.15") and advanced open hole core sampling.			16
17									17
18		(18' - 19')	7.5"	NA	NA	(18' - 19') Dark banded BIOTITE GNEISS, various fractures > 45 deg to vertical.			18
19		(19' - 23.1')	48"	NA	NA				19
20									20

Notes:

NA - Not Available
fbg - feet below grade
" - inches

PID - Photoionization Detector
ppm - parts per million
'-feet

Geologist: Thomas Giamichael

Boring Log: OMW-1

Client: NYSDEC

Project: Former Marble Quarry - Offsite

Street Address: Marbledale Road

City / State: Tuckahoe, New York

Drilling Co.: Parratt-Wolff, Inc.

Address: 5879 Fisher Road, East Syracuse, New York

Driller: Glenn Lansing

Drilling Method: Hollow Stem Auger (HSA), Nx Core

Hammer Weight: 140 lbs

Drilled Borehole Dia: 4-1/4" HSA, 2.15" Open Hole

Total Drilled Depth: 34'

Ground Elevation: NA

Depth to water: NA

Start date: 1/17/2017

Finish date: 1/19/2017

Depth (Feet)	Sample ID	Sample Interval (feet)	Recovery	Blow Counts	Headspace PID (ppm)	Description	Well Diagram	Annotation	Depth (Feet)
20						(19' - 23.1') BIOTITE GNEISS, transitioned into light gray finely banded DOLOMITIC MARBLE, intermitten fractures > 45 deg., non-water bearing, red oxidation along fracture planes.			20
21									21
22						RQD = 89%			22
23		(23.1' - 24')	12"	NA	NA	(23.1' - 24') Light gray DOLOMITIC MARBLE, finely laminated.			23
24		(24' - 29')	60"	NA	NA	RQD = 100%			24
25						(24' - 29') Light grey DOLOMITIC MARBLE, finely laminated with feldspar porphyroblasts. Fratures >45 deg. from 25.5' to 26.1'. Multiple high angle fractures from 27.5' to 29'. less then 1.0 gpm water bearing.			25
26						RQD = 46%			26
27									27
28									28
29		(29' - 34')	60"	NA	NA	(29' - 34') Light grey DOLOMITIC MARBLE, laminated with large hornblend and feldspar porphyroblasts. Water bearing fractures >45 deg. from 29.8' to 30' and 30.5' to 30.7'. Multiple tight high angle fractures > 45 deg. from 33' to 34'.			29
30						RQD = 65%			30
31									31
32						Borehole terminated at 34'.			32
33									33
34									34
35									35
36									36
37									37
38									38
39									39
40									40

Notes:

NA - Not Available
fbg - feet below grade
" - inches

PID - Photoionization Detector
ppm - parts per million
' -feet

Geologist: Thomas Giamichael

Client: NYSDEC

Project: Former Marble Quarry - Offsite

Street Address: Marbledale Road

City / State: Tuckahoe, New York

Drilling Co.: Parratt-Wolff, Inc.

Address: 5879 Fisher Road, East Syracuse, New York

Driller: Glenn Lansing

Drilling Method: Hollow Stem Auger (HSA)

Hammer Weight: 140 lbs

Drilled Borehole Dia: 4-1/4" HSA

Total Drilled Depth: 42'

Ground Elevation: NA

Depth to water: NA

Start date: 1/17/2017

Finish date: 1/18/2017

Depth (Feet)	Sample ID	Sample Interval (feet)	Recovery	Blow Counts	Headspace PID (ppm)	Description	Well Diagram	Annotation	Depth (Feet)
1						(0.0' - 0.4') Asphalt and Gravel sub-base.			1
2						(0.4' - 6.0') Gray to white Marble cobbles, some fine to medium Sand and fine Gravel, little silt. moist, no odor.			2
3		(0' - 6')	HC	NA	0.0				3
4									4
5									5
6									6
7		(6' - 8')	12"	4-1-3-6	0.0	(6.0' - 8') Brown fine to medium SAND, some fine Gravel, little ash/slag, loose, moist, no odor.			7
8									8
9		(8' - 10')	18"	6-6-6-7	3.6	(8' - 10') Brown fine to medium SAND, some Mica flakes and fine Gravel, loose, moist, no odor.			9
10									10
11		(10' - 12')	24"	3-7-6-9	5.8	(10' - 12') Brown fine to medium SAND, some Mica flakes, little silt and weathered marble rock fragcments, moist, no odor.			11
12									12
13		(12' - 14')	1"	50/3	6.0	(12' - 14') Refusal, augered through rock fragments.			13
14									14
15		(14' - 16')	8"	4-4-4-6	8.5	(14' - 18.8') Brown fine to medium SAND, little silt and weathered marble fragments, loose, moist, no odor,			15
16									16
17		(16' - 18')	8"	47-46-45-9	5.3				17
18									18
19		(18' - 20')	12"	9-12-20-18	2.4	(18.8' - 24') Tan to white fine to medium SAND, loose, moist, no odor. Sampler refusal at 22.9', augered to 24'.			19
20									20
21		(20' - 22')	4"	76-50/2	2.3				21
22									22
23		(22' - 24')	6"	26-50/4	2.3				23

Notes:

NA - Not Available
fbg - feet below grade
" - inches

PID - Photoionization Detector
ppm - parts per million
' - feet

Geologist: Thomas Giamichael

Boring Log: OMW-2

Client: NYSDEC

Project: Former Marble Quarry - Offsite

Street Address: Marbledale Road

City / State: Tuckahoe, New York

Drilling Co.: Parratt-Wolff, Inc.

Address: 5879 Fisher Road, East Syracuse, New York

Driller: Glenn Lansing

Drilling Method: Hollow Stem Auger (HSA)

Hammer Weight: 140 lbs

Drilled Borehole Dia: 4-1/4" HSA

Total Drilled Depth: 42'

Ground Elevation: NA

Depth to water: NA

Start date: 1/17/2017

Finish date: 1/18/2017

Depth (Feet)	Sample ID	Sample Interval (feet)	Recovery	Blow Counts	Headspace PID (ppm)	Description	Well Diagram	Annotation	Depth (Feet)
23									23
24									24
25		(24' - 26')	4"	56/6	3.1	(24' - 26') Tan fine to medium SAND, little silt, very firm, moist, no odor. Sampler refusal at 24.5', advanced augered to 26'.			25
26									26
27		(26' - 28')	4"	50/4	1.5	(26' - 28') Tan fine to medium SAND, little silt, very firm, damp to wet, no odor. Sampler refusal at 26.3', augered to 28'.			27
28									28
29		(28' - 30')	3"	50/3	1.3	(28' - 30') Tan fine to medium SAND, some silt, very firm, wet, no odor. Sampler refusal at 28.2', advanced auger to 30'.			29
30									30
31		(30' - 32')	4"	50/4	1.2	(30' - 32') Tan fine to medium SAND and banded MARBLE fragments, little silt, wet, no odor. sampler refusal at 30.3', advanced auger to 32'.			31
32									32
33		(32' - 34')	4"	50/4	1.2	(32' - 34') Tan to white fine to medium SAND, little silt, densely compacted, wet, no odor. Sampler refusal at 32.3', advanced auger to 34'.			33
34									34
35		(34' - 36')	2"	50/2	1.2	(34' - 40') Similar soil. Sapler rfusal at 34.1', advanced auger to 40 fbg.			35
36									36
37									37
38		(36' - 40')	NA	NA					38
39									39
40									40
41		(40' - 42')	3"	50/3	1.3	(40' - 42') Tan to white fine to medium SAND, little silt, densely compacted, wet, no odor. Sampler refusal at 40.2'.			41
42						Borehole terminated at 42'.			42
43									43
44									44
45									45
46									46

Notes:
NA - Not Available
fbg - feet below grade
" - inches

PID - Photoionization Detector
ppm - parts per million
' - feet

Geologist: Thomas Giamichael

APPENDIX B

Photographic Record

Site: Former Marble Quarry Landfill - Offsite	
Location: Marbledale Road Tuckahoe, New York	
Direction: south	
Subject: View of field crew saw cutting and hand clearing the soil vapor point and monitoring well drilling locations.	

Site: Former Marble Quarry Landfill - Offsite	
Location: Marbledale Road Tuckahoe, New York	
Direction: NA	
Subject: View of pre-cleared soil vapor borehole prior to installing vapor probe.	

Site: Former Marble Quarry Landfill - Offsite	
Location: Marbledale Road Tuckahoe, New York	
Direction: Southwest	
Subject: Installing a soil gas vapor point. A piece of 2" diameter PVC was used as a conduit to hold the surrounding soil back as the probe was installed. The PVC was then extracted and the borehole sealed with bentonite.	

Site: Former Marble Quarry Landfill - Offsite	
Location: Marbledale Road Tuckahoe, New York	
Direction: NA	
Subject: View of vapor point sealed with bentonite, prior to road box installation.	

Site: Former Marble Quarry Landfill - Offsite	
Location: Marbledale Road Tuckahoe, New York	
Direction: Southeast	
Subject: Performing soil vapor sampling event at OVP-3. View of typical sampling setup.	

Site: Former Marble Quarry Landfill - Offsite	
Location: Marbledale Road Tuckahoe, New York	
Direction: North	
Subject: Setting up to drill the overburden and bedrock monitoring wells. This view is a typical setup at location OMW-2.	

Site: Former Marble Quarry Landfill - Offsite	
Location: Marbledale Road Tuckahoe, New York	
Direction: Northwest	
Subject: Advancing augers at overburden well location OMW-2. Upwind air monitoring CAMP setup is shown in the foreground.	

Site: Former Marble Quarry Landfill - Offsite	
Location: Marbledale Road Tuckahoe, New York	
Direction: NA	
Subject: Continuous split spoon samples were collected from the overburden soils for soil classification and field screening with a PID. This sample was from the overburden soil at OMW-2 and consisted of fine grained dolomitic sand resembling quarry tailings.	

Site: Former Marble Quarry Landfill - Offsite	
Location: Marbledale Road Tuckahoe, New York	
Direction: South	
Subject: Rock coring the bedrock well OMW-1. Water was recycled to the extent possible to advance cores.	

Site: Former Marble Quarry Landfill - Offsite	
Location: Marbledale Road Tuckahoe, New York	
Direction: NA	
Subject: View of partial rock core from bedrock well OMW-1. The rock encountered primarily consisted of Dolostone.	

Site: Former Marble Quarry Landfill - Offsite	
Location: Marbledale Road Tuckahoe, New York	
Direction: NA	
Subject: Additional view of the Dolostone recovered during the rock coring process.	

Site: Former Marble Quarry Landfill - Offsite	
Location: Marbledale Road Tuckahoe, New York	
Direction: Southeast	
Subject: All soil cuttings and water generated during the offsite drilling work was containerized and stored onsite for proper offsite disposal by NYSDEC.	

Site: Former Marble Quarry Landfill - Offsite	
Location: Marbledale Road Tuckahoe, New York	
Direction: North	
Subject: All drill tooling was decontaminated at a designated location within the onsite property. Wash water was collected in the shown decontamination pad and transferred into the drums for offsite disposal.	

Site: Former Marble Quarry Landfill - Offsite	
Location: Marbledale Road Tuckahoe, New York	
Direction: East	
Subject: Following well installation, Both OMW-1 and OMW-2 were developed and low flow sampled. Presented is a view of the typical low flow sampling setup.	

APPENDIX C

Soil Vapor Analytical Results

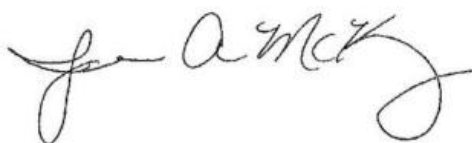
ANALYTICAL REPORT

Job Number: 140-6336-1

Job Description: Off-Site M Quarry #C360143

For:

New York State D.E.C.
625 Broadway
Division of Environmental Remediation
Albany, NY 12233-7014
Attention: Kevin Carpenter



Approved for release.
Jamie A McKinney
Senior Project Manager
11/28/2016 9:54 AM

Jamie A McKinney, Senior Project Manager
5815 Middlebrook Pike, Knoxville, TN, 37921
(865)291-3000
jamie.mckinney@testamericainc.com
11/28/2016

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

Table of Contents

Cover Title Page	1
Data Summaries	4
Definitions	4
Case Narrative	5
Detection Summary	6
Client Sample Results	15
Default Detection Limits	47
Surrogate Summary	49
QC Sample Results	50
QC Association	55
Chronicle	56
Certification Summary	59
Method Summary	60
Sample Summary	61
Organic Sample Data	62
Air - GC/MS VOA	62
Method TO15 Low Level	62
Method TO15 Low Level QC Summary	63
Method TO15 Low Level Sample Data	71
Standards Data	394
Method TO15 Low Level ICAL Data	394
Method TO15 Low Level CCAL Data	460
Raw QC Data	474
Method TO15 Low Level Tune Data	474
Method TO15 Low Level Blank Data	482
Method TO15 Low Level LCS/LCSD Data	489

Table of Contents

Method TO15 Low Level Run Logs	496
Air Canister Dilution	503
Clean Canister Certification	504
Clean Canister Data	504
Shipping and Receiving Documents	516
Client Chain of Custody	517
Sample Receipt Checklist	522

Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Qualifiers

Air - GC/MS VOA

Qualifier	Qualifier Description
E	Result exceeded calibration range.
D	Sample results are obtained from a dilution; the surrogate or matrix spike recoveries reported are calculated from diluted samples.

Glossary

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

Job Narrative
140-6336-1

Comments

No additional comments.

Receipt

The samples were received on 11/11/2016 10:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

Receipt Exceptions

The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): OVP-5 (140-6336-13). The container labels list OVP-4, while the COC lists OVP-5. The sample was logged per the Chain-of-Custody..

Air - GC/MS VOA

Method(s) TO 15 LL, TO-15: Can Certification Comments:

Due to the large number of analytes in the CCV, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for several analytes to recover outside criteria for this method when analyzing for a full list. The CCV associated with the can cleaning batches had analytes outside control limits. These results have been reported and qualified.

Method(s) D1946, TO 15 LL, TO-15: 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.

Method(s) TO 15 LL: The continuing calibration verification (CCV) associated with batch 140-7171 exhibited % difference of > 30% for the following analyte(s) 1,2-Dichlorotetrafluoroethane; however, the results were within the LCS acceptance limits. 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.

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

Detection Summary

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-10

Lab Sample ID: 140-6336-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.13		0.080		ppb v/v	1		TO 15 LL	Total/NA
2,2,4-Trimethylpentane	13		0.20		ppb v/v	1		TO 15 LL	Total/NA
2-Butanone	0.47		0.32		ppb v/v	1		TO 15 LL	Total/NA
Benzene	0.21		0.080		ppb v/v	1		TO 15 LL	Total/NA
Bromodichloromethane	0.17		0.080		ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.043		0.040		ppb v/v	1		TO 15 LL	Total/NA
Chloroform	4.9		0.080		ppb v/v	1		TO 15 LL	Total/NA
Chloromethane	0.21		0.20		ppb v/v	1		TO 15 LL	Total/NA
Cyclohexane	12		0.20		ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.25		0.080		ppb v/v	1		TO 15 LL	Total/NA
Ethanol	2.0		2.0		ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.23		0.080		ppb v/v	1		TO 15 LL	Total/NA
Hexane	1.1		0.20		ppb v/v	1		TO 15 LL	Total/NA
Methyl tert-butyl ether	0.58		0.16		ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	0.57		0.20		ppb v/v	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	0.29		0.080		ppb v/v	1		TO 15 LL	Total/NA
o-Xylene	0.10		0.080		ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	4.5		0.080		ppb v/v	1		TO 15 LL	Total/NA
Toluene	0.41		0.12		ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.13		0.040		ppb v/v	1		TO 15 LL	Total/NA
Trichlorofluoromethane	0.27		0.080		ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.63		0.39		ug/m3	1		TO 15 LL	Total/NA
2,2,4-Trimethylpentane	61		0.93		ug/m3	1		TO 15 LL	Total/NA
2-Butanone	1.4		0.94		ug/m3	1		TO 15 LL	Total/NA
Benzene	0.67		0.26		ug/m3	1		TO 15 LL	Total/NA
Bromodichloromethane	1.2		0.54		ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.27		0.25		ug/m3	1		TO 15 LL	Total/NA
Chloroform	24		0.39		ug/m3	1		TO 15 LL	Total/NA
Chloromethane	0.43		0.41		ug/m3	1		TO 15 LL	Total/NA
Cyclohexane	40		0.69		ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	1.3		0.40		ug/m3	1		TO 15 LL	Total/NA
Ethanol	3.8		3.8		ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.98		0.35		ug/m3	1		TO 15 LL	Total/NA
Hexane	3.8		0.70		ug/m3	1		TO 15 LL	Total/NA
Methyl tert-butyl ether	2.1		0.58		ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	2.0		0.69		ug/m3	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	1.3		0.35		ug/m3	1		TO 15 LL	Total/NA
o-Xylene	0.46		0.35		ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	30		0.54		ug/m3	1		TO 15 LL	Total/NA
Toluene	1.5		0.45		ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	0.71		0.21		ug/m3	1		TO 15 LL	Total/NA
Trichlorofluoromethane	1.5		0.45		ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: OVP-9

Lab Sample ID: 140-6336-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.14		0.080		ppb v/v	1.79		TO 15 LL	Total/NA
2,2,4-Trimethylpentane	0.64		0.20		ppb v/v	1.79		TO 15 LL	Total/NA
2-Butanone	0.47		0.32		ppb v/v	1.79		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-9 (Continued)

Lab Sample ID: 140-6336-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4-Methyl-2-pentanone (MIBK)	29	E	0.20		ppb v/v	1.79		TO 15 LL	Total/NA
Benzene	0.11		0.080		ppb v/v	1.79		TO 15 LL	Total/NA
Bromodichloromethane	0.65		0.080		ppb v/v	1.79		TO 15 LL	Total/NA
Carbon tetrachloride	0.059		0.040		ppb v/v	1.79		TO 15 LL	Total/NA
Chloroform	16		0.080		ppb v/v	1.79		TO 15 LL	Total/NA
Cyclohexane	1.1		0.20		ppb v/v	1.79		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.46		0.080		ppb v/v	1.79		TO 15 LL	Total/NA
Hexane	0.42		0.20		ppb v/v	1.79		TO 15 LL	Total/NA
Methyl tert-butyl ether	0.60		0.16		ppb v/v	1.79		TO 15 LL	Total/NA
Methylene Chloride	1.1		0.20		ppb v/v	1.79		TO 15 LL	Total/NA
m-Xylene & p-Xylene	0.31		0.080		ppb v/v	1.79		TO 15 LL	Total/NA
o-Xylene	0.096		0.080		ppb v/v	1.79		TO 15 LL	Total/NA
Tetrachloroethene	8.8		0.080		ppb v/v	1.79		TO 15 LL	Total/NA
Toluene	0.38		0.12		ppb v/v	1.79		TO 15 LL	Total/NA
Trichloroethene	0.090		0.040		ppb v/v	1.79		TO 15 LL	Total/NA
Trichlorofluoromethane	0.30		0.080		ppb v/v	1.79		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK) - DL	29	D	0.40		ppb v/v	1.79		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.68		0.39		ug/m3	1.79		TO 15 LL	Total/NA
2,2,4-Trimethylpentane	3.0		0.93		ug/m3	1.79		TO 15 LL	Total/NA
2-Butanone	1.4		0.94		ug/m3	1.79		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	120	E	0.82		ug/m3	1.79		TO 15 LL	Total/NA
Benzene	0.35		0.26		ug/m3	1.79		TO 15 LL	Total/NA
Bromodichloromethane	4.4		0.54		ug/m3	1.79		TO 15 LL	Total/NA
Carbon tetrachloride	0.37		0.25		ug/m3	1.79		TO 15 LL	Total/NA
Chloroform	76		0.39		ug/m3	1.79		TO 15 LL	Total/NA
Cyclohexane	3.7		0.69		ug/m3	1.79		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.3		0.40		ug/m3	1.79		TO 15 LL	Total/NA
Hexane	1.5		0.70		ug/m3	1.79		TO 15 LL	Total/NA
Methyl tert-butyl ether	2.2		0.58		ug/m3	1.79		TO 15 LL	Total/NA
Methylene Chloride	3.7		0.69		ug/m3	1.79		TO 15 LL	Total/NA
m-Xylene & p-Xylene	1.3		0.35		ug/m3	1.79		TO 15 LL	Total/NA
o-Xylene	0.42		0.35		ug/m3	1.79		TO 15 LL	Total/NA
Tetrachloroethene	60		0.54		ug/m3	1.79		TO 15 LL	Total/NA
Toluene	1.4		0.45		ug/m3	1.79		TO 15 LL	Total/NA
Trichloroethene	0.48		0.21		ug/m3	1.79		TO 15 LL	Total/NA
Trichlorofluoromethane	1.7		0.45		ug/m3	1.79		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK) - DL	120	D	1.6		ug/m3	1.79		TO 15 LL	Total/NA

Client Sample ID: OVP-1

Lab Sample ID: 140-6336-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	4.7		0.66		ppb v/v	1.66		TO 15 LL	Total/NA
1,2-Dichlorotetrafluoroethane	1.4		0.66		ppb v/v	1.66		TO 15 LL	Total/NA
Chloroform	10		0.66		ppb v/v	1.66		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.91		0.66		ppb v/v	1.66		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.2		0.66		ppb v/v	1.66		TO 15 LL	Total/NA
Methyl tert-butyl ether	2.7		1.3		ppb v/v	1.66		TO 15 LL	Total/NA
Methylene Chloride	3.3		1.7		ppb v/v	1.66		TO 15 LL	Total/NA
Tetrachloroethene	85		0.66		ppb v/v	1.66		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-1 (Continued)

Lab Sample ID: 140-6336-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	13		0.33		ppb v/v	1.66		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	26		3.6		ug/m3	1.66		TO 15 LL	Total/NA
1,2-Dichlorotetrafluoroethane	9.5		4.6		ug/m3	1.66		TO 15 LL	Total/NA
Chloroform	50		3.2		ug/m3	1.66		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	3.6		2.6		ug/m3	1.66		TO 15 LL	Total/NA
Dichlorodifluoromethane	11		3.3		ug/m3	1.66		TO 15 LL	Total/NA
Methyl tert-butyl ether	9.6		4.8		ug/m3	1.66		TO 15 LL	Total/NA
Methylene Chloride	11		5.8		ug/m3	1.66		TO 15 LL	Total/NA
Tetrachloroethene	580		4.5		ug/m3	1.66		TO 15 LL	Total/NA
Trichloroethene	72		1.8		ug/m3	1.66		TO 15 LL	Total/NA

Client Sample ID: OVP-2

Lab Sample ID: 140-6336-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.7		0.16		ppb v/v	1.54		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.18		0.16		ppb v/v	1.54		TO 15 LL	Total/NA
1,2-Dichlorotetrafluoroethane	3.6		0.16		ppb v/v	1.54		TO 15 LL	Total/NA
2,2,4-Trimethylpentane	0.40		0.40		ppb v/v	1.54		TO 15 LL	Total/NA
2-Butanone	1.4		0.64		ppb v/v	1.54		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	0.67		0.40		ppb v/v	1.54		TO 15 LL	Total/NA
Carbon tetrachloride	0.098		0.080		ppb v/v	1.54		TO 15 LL	Total/NA
Chloroform	33	E	0.16		ppb v/v	1.54		TO 15 LL	Total/NA
Chloromethane	0.41		0.40		ppb v/v	1.54		TO 15 LL	Total/NA
Cyclohexane	0.57		0.40		ppb v/v	1.54		TO 15 LL	Total/NA
Dichlorodifluoromethane	10		0.16		ppb v/v	1.54		TO 15 LL	Total/NA
Ethanol	27		4.0		ppb v/v	1.54		TO 15 LL	Total/NA
Methylene Chloride	0.68		0.40		ppb v/v	1.54		TO 15 LL	Total/NA
m-Xylene & p-Xylene	0.44		0.16		ppb v/v	1.54		TO 15 LL	Total/NA
Tetrachloroethene	42	E	0.16		ppb v/v	1.54		TO 15 LL	Total/NA
Toluene	0.59		0.24		ppb v/v	1.54		TO 15 LL	Total/NA
Trichloroethene	0.87		0.080		ppb v/v	1.54		TO 15 LL	Total/NA
Trichlorofluoromethane	1.7		0.16		ppb v/v	1.54		TO 15 LL	Total/NA
Chloroform - DL	34	D	0.31		ppb v/v	1.54		TO 15 LL	Total/NA
Tetrachloroethene - DL	43	D	0.31		ppb v/v	1.54		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	9.0		0.87		ug/m3	1.54		TO 15 LL	Total/NA
1,2,4-Trimethylbenzene	0.90		0.79		ug/m3	1.54		TO 15 LL	Total/NA
1,2-Dichlorotetrafluoroethane	25		1.1		ug/m3	1.54		TO 15 LL	Total/NA
2,2,4-Trimethylpentane	1.9		1.9		ug/m3	1.54		TO 15 LL	Total/NA
2-Butanone	4.0		1.9		ug/m3	1.54		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	2.7		1.6		ug/m3	1.54		TO 15 LL	Total/NA
Carbon tetrachloride	0.62		0.50		ug/m3	1.54		TO 15 LL	Total/NA
Chloroform	160	E	0.78		ug/m3	1.54		TO 15 LL	Total/NA
Chloromethane	0.84		0.83		ug/m3	1.54		TO 15 LL	Total/NA
Cyclohexane	2.0		1.4		ug/m3	1.54		TO 15 LL	Total/NA
Dichlorodifluoromethane	52		0.79		ug/m3	1.54		TO 15 LL	Total/NA
Ethanol	51		7.5		ug/m3	1.54		TO 15 LL	Total/NA
Methylene Chloride	2.4		1.4		ug/m3	1.54		TO 15 LL	Total/NA
m-Xylene & p-Xylene	1.9		0.69		ug/m3	1.54		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-2 (Continued)

Lab Sample ID: 140-6336-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	290	E	1.1		ug/m3	1.54		TO 15 LL	Total/NA
Toluene	2.2		0.90		ug/m3	1.54		TO 15 LL	Total/NA
Trichloroethene	4.7		0.43		ug/m3	1.54		TO 15 LL	Total/NA
Trichlorofluoromethane	9.8		0.90		ug/m3	1.54		TO 15 LL	Total/NA
Chloroform - DL	170	D	1.5		ug/m3	1.54		TO 15 LL	Total/NA
Tetrachloroethene - DL	290	D	2.1		ug/m3	1.54		TO 15 LL	Total/NA

Client Sample ID: OA-1

Lab Sample ID: 140-6336-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.30		0.080		ppb v/v	1.69		TO 15 LL	Total/NA
2,2,4-Trimethylpentane	0.48		0.20		ppb v/v	1.69		TO 15 LL	Total/NA
2-Butanone	1.0		0.32		ppb v/v	1.69		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	0.35		0.20		ppb v/v	1.69		TO 15 LL	Total/NA
Benzene	0.66		0.080		ppb v/v	1.69		TO 15 LL	Total/NA
Carbon tetrachloride	0.075		0.040		ppb v/v	1.69		TO 15 LL	Total/NA
Chloromethane	0.59		0.20		ppb v/v	1.69		TO 15 LL	Total/NA
Cyclohexane	0.27		0.20		ppb v/v	1.69		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.60		0.080		ppb v/v	1.69		TO 15 LL	Total/NA
Ethanol	150	E	2.0		ppb v/v	1.69		TO 15 LL	Total/NA
Ethylbenzene	0.31		0.080		ppb v/v	1.69		TO 15 LL	Total/NA
Hexane	0.72		0.20		ppb v/v	1.69		TO 15 LL	Total/NA
Methylene Chloride	0.83		0.20		ppb v/v	1.69		TO 15 LL	Total/NA
m-Xylene & p-Xylene	1.0		0.080		ppb v/v	1.69		TO 15 LL	Total/NA
o-Xylene	0.35		0.080		ppb v/v	1.69		TO 15 LL	Total/NA
Toluene	2.7		0.12		ppb v/v	1.69		TO 15 LL	Total/NA
Trichloroethene	0.21		0.040		ppb v/v	1.69		TO 15 LL	Total/NA
Trichlorofluoromethane	0.24		0.080		ppb v/v	1.69		TO 15 LL	Total/NA
Ethanol - DL	150	D	8.5		ppb v/v	1.69		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1.5		0.39		ug/m3	1.69		TO 15 LL	Total/NA
2,2,4-Trimethylpentane	2.2		0.93		ug/m3	1.69		TO 15 LL	Total/NA
2-Butanone	2.9		0.94		ug/m3	1.69		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	1.5		0.82		ug/m3	1.69		TO 15 LL	Total/NA
Benzene	2.1		0.26		ug/m3	1.69		TO 15 LL	Total/NA
Carbon tetrachloride	0.47		0.25		ug/m3	1.69		TO 15 LL	Total/NA
Chloromethane	1.2		0.41		ug/m3	1.69		TO 15 LL	Total/NA
Cyclohexane	0.94		0.69		ug/m3	1.69		TO 15 LL	Total/NA
Dichlorodifluoromethane	3.0		0.40		ug/m3	1.69		TO 15 LL	Total/NA
Ethanol	280	E	3.8		ug/m3	1.69		TO 15 LL	Total/NA
Ethylbenzene	1.3		0.35		ug/m3	1.69		TO 15 LL	Total/NA
Hexane	2.5		0.70		ug/m3	1.69		TO 15 LL	Total/NA
Methylene Chloride	2.9		0.69		ug/m3	1.69		TO 15 LL	Total/NA
m-Xylene & p-Xylene	4.4		0.35		ug/m3	1.69		TO 15 LL	Total/NA
o-Xylene	1.5		0.35		ug/m3	1.69		TO 15 LL	Total/NA
Toluene	10		0.45		ug/m3	1.69		TO 15 LL	Total/NA
Trichloroethene	1.2		0.21		ug/m3	1.69		TO 15 LL	Total/NA
Trichlorofluoromethane	1.4		0.45		ug/m3	1.69		TO 15 LL	Total/NA
Ethanol - DL	280	D	16		ug/m3	1.69		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OA-2

Lab Sample ID: 140-6336-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	0.32		0.080		ppb v/v	1.68		TO 15 LL	Total/NA
1,2-Dichlorotetrafluoroethane	0.090		0.080		ppb v/v	1.68		TO 15 LL	Total/NA
2,2,4-Trimethylpentane	0.69		0.20		ppb v/v	1.68		TO 15 LL	Total/NA
2-Butanone	1.2		0.32		ppb v/v	1.68		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	2.8		0.20		ppb v/v	1.68		TO 15 LL	Total/NA
Benzene	0.70		0.080		ppb v/v	1.68		TO 15 LL	Total/NA
Carbon tetrachloride	0.075		0.040		ppb v/v	1.68		TO 15 LL	Total/NA
Chloromethane	0.62		0.20		ppb v/v	1.68		TO 15 LL	Total/NA
Cyclohexane	0.26		0.20		ppb v/v	1.68		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.74		0.080		ppb v/v	1.68		TO 15 LL	Total/NA
Ethanol	25		2.0		ppb v/v	1.68		TO 15 LL	Total/NA
Ethylbenzene	0.32		0.080		ppb v/v	1.68		TO 15 LL	Total/NA
Hexane	0.81		0.20		ppb v/v	1.68		TO 15 LL	Total/NA
Methylene Chloride	1.2		0.20		ppb v/v	1.68		TO 15 LL	Total/NA
m-Xylene & p-Xylene	1.1		0.080		ppb v/v	1.68		TO 15 LL	Total/NA
o-Xylene	0.39		0.080		ppb v/v	1.68		TO 15 LL	Total/NA
Tetrachloroethene	0.082		0.080		ppb v/v	1.68		TO 15 LL	Total/NA
Toluene	2.5		0.12		ppb v/v	1.68		TO 15 LL	Total/NA
Trichloroethene	0.17		0.040		ppb v/v	1.68		TO 15 LL	Total/NA
Trichlorofluoromethane	0.25		0.080		ppb v/v	1.68		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4-Trimethylbenzene	1.6		0.39		ug/m3	1.68		TO 15 LL	Total/NA
1,2-Dichlorotetrafluoroethane	0.63		0.56		ug/m3	1.68		TO 15 LL	Total/NA
2,2,4-Trimethylpentane	3.2		0.93		ug/m3	1.68		TO 15 LL	Total/NA
2-Butanone	3.4		0.94		ug/m3	1.68		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	12		0.82		ug/m3	1.68		TO 15 LL	Total/NA
Benzene	2.2		0.26		ug/m3	1.68		TO 15 LL	Total/NA
Carbon tetrachloride	0.47		0.25		ug/m3	1.68		TO 15 LL	Total/NA
Chloromethane	1.3		0.41		ug/m3	1.68		TO 15 LL	Total/NA
Cyclohexane	0.88		0.69		ug/m3	1.68		TO 15 LL	Total/NA
Dichlorodifluoromethane	3.6		0.40		ug/m3	1.68		TO 15 LL	Total/NA
Ethanol	48		3.8		ug/m3	1.68		TO 15 LL	Total/NA
Ethylbenzene	1.4		0.35		ug/m3	1.68		TO 15 LL	Total/NA
Hexane	2.9		0.70		ug/m3	1.68		TO 15 LL	Total/NA
Methylene Chloride	4.0		0.69		ug/m3	1.68		TO 15 LL	Total/NA
m-Xylene & p-Xylene	4.8		0.35		ug/m3	1.68		TO 15 LL	Total/NA
o-Xylene	1.7		0.35		ug/m3	1.68		TO 15 LL	Total/NA
Tetrachloroethene	0.55		0.54		ug/m3	1.68		TO 15 LL	Total/NA
Toluene	9.3		0.45		ug/m3	1.68		TO 15 LL	Total/NA
Trichloroethene	0.91		0.21		ug/m3	1.68		TO 15 LL	Total/NA
Trichlorofluoromethane	1.4		0.45		ug/m3	1.68		TO 15 LL	Total/NA

Client Sample ID: OVP-3

Lab Sample ID: 140-6336-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	9.5		0.72		ppb v/v	1.8		TO 15 LL	Total/NA
1,2-Dichlorotetrafluoroethane	32		0.72		ppb v/v	1.8		TO 15 LL	Total/NA
Carbon tetrachloride	0.50		0.36		ppb v/v	1.8		TO 15 LL	Total/NA
Chloroform	31		0.72		ppb v/v	1.8		TO 15 LL	Total/NA
Dichlorodifluoromethane	47		0.72		ppb v/v	1.8		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-3 (Continued)

Lab Sample ID: 140-6336-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	3.1		1.8		ppb v/v	1.8		TO 15 LL	Total/NA
Tetrachloroethene	150	E	0.72		ppb v/v	1.8		TO 15 LL	Total/NA
Trichloroethene	22		0.36		ppb v/v	1.8		TO 15 LL	Total/NA
Trichlorofluoromethane	1.7		0.72		ppb v/v	1.8		TO 15 LL	Total/NA
Tetrachloroethene - DL	150	D	1.4		ppb v/v	1.8		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	52		3.9		ug/m3	1.8		TO 15 LL	Total/NA
1,2-Dichlorotetrafluoroethane	220		5.0		ug/m3	1.8		TO 15 LL	Total/NA
Carbon tetrachloride	3.1		2.3		ug/m3	1.8		TO 15 LL	Total/NA
Chloroform	150		3.5		ug/m3	1.8		TO 15 LL	Total/NA
Dichlorodifluoromethane	230		3.6		ug/m3	1.8		TO 15 LL	Total/NA
Methylene Chloride	11		6.3		ug/m3	1.8		TO 15 LL	Total/NA
Tetrachloroethene	1000	E	4.9		ug/m3	1.8		TO 15 LL	Total/NA
Trichloroethene	120		1.9		ug/m3	1.8		TO 15 LL	Total/NA
Trichlorofluoromethane	9.8		4.0		ug/m3	1.8		TO 15 LL	Total/NA
Tetrachloroethene - DL	1000	D	9.8		ug/m3	1.8		TO 15 LL	Total/NA

Client Sample ID: OVP-6

Lab Sample ID: 140-6336-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.73		0.32		ppb v/v	2.27		TO 15 LL	Total/NA
1,2-Dichlorotetrafluoroethane	120	E	0.32		ppb v/v	2.27		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	3.1		0.81		ppb v/v	2.27		TO 15 LL	Total/NA
Chloroform	1.1		0.32		ppb v/v	2.27		TO 15 LL	Total/NA
Dichlorodifluoromethane	150	E	0.32		ppb v/v	2.27		TO 15 LL	Total/NA
Methylene Chloride	2.1		0.81		ppb v/v	2.27		TO 15 LL	Total/NA
Tetrachloroethene	41		0.32		ppb v/v	2.27		TO 15 LL	Total/NA
Trichloroethene	0.92		0.16		ppb v/v	2.27		TO 15 LL	Total/NA
Trichlorofluoromethane	0.58		0.32		ppb v/v	2.27		TO 15 LL	Total/NA
1,2-Dichlorotetrafluoroethane - DL	160	D	1.1		ppb v/v	2.27		TO 15 LL	Total/NA
Dichlorodifluoromethane - DL	220	D	1.1		ppb v/v	2.27		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	4.0		1.8		ug/m3	2.27		TO 15 LL	Total/NA
1,2-Dichlorotetrafluoroethane	830	E	2.3		ug/m3	2.27		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	13		3.3		ug/m3	2.27		TO 15 LL	Total/NA
Chloroform	5.5		1.6		ug/m3	2.27		TO 15 LL	Total/NA
Dichlorodifluoromethane	740	E	1.6		ug/m3	2.27		TO 15 LL	Total/NA
Methylene Chloride	7.3		2.8		ug/m3	2.27		TO 15 LL	Total/NA
Tetrachloroethene	280		2.2		ug/m3	2.27		TO 15 LL	Total/NA
Trichloroethene	4.9		0.87		ug/m3	2.27		TO 15 LL	Total/NA
Trichlorofluoromethane	3.3		1.8		ug/m3	2.27		TO 15 LL	Total/NA
1,2-Dichlorotetrafluoroethane - DL	1100	D	7.9		ug/m3	2.27		TO 15 LL	Total/NA
Dichlorodifluoromethane - DL	1100	D	5.6		ug/m3	2.27		TO 15 LL	Total/NA

Client Sample ID: OVP-7

Lab Sample ID: 140-6336-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.68		0.32		ppb v/v	1.58		TO 15 LL	Total/NA
1,2-Dichlorotetrafluoroethane	35		0.32		ppb v/v	1.58		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	2.1		0.79		ppb v/v	1.58		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-7 (Continued)

Lab Sample ID: 140-6336-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon tetrachloride	0.42		0.16		ppb v/v	1.58		TO 15 LL	Total/NA
Chloroform	24		0.32		ppb v/v	1.58		TO 15 LL	Total/NA
Dichlorodifluoromethane	43		0.32		ppb v/v	1.58		TO 15 LL	Total/NA
Methylene Chloride	1.8		0.79		ppb v/v	1.58		TO 15 LL	Total/NA
m-Xylene & p-Xylene	0.45		0.32		ppb v/v	1.58		TO 15 LL	Total/NA
Tetrachloroethene	32		0.32		ppb v/v	1.58		TO 15 LL	Total/NA
Trichloroethene	0.28		0.16		ppb v/v	1.58		TO 15 LL	Total/NA
Trichlorofluoromethane	0.40		0.32		ppb v/v	1.58		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	3.7		1.7		ug/m3	1.58		TO 15 LL	Total/NA
1,2-Dichlorotetrafluoroethane	250		2.2		ug/m3	1.58		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	8.7		3.2		ug/m3	1.58		TO 15 LL	Total/NA
Carbon tetrachloride	2.6		0.99		ug/m3	1.58		TO 15 LL	Total/NA
Chloroform	120		1.5		ug/m3	1.58		TO 15 LL	Total/NA
Dichlorodifluoromethane	210		1.6		ug/m3	1.58		TO 15 LL	Total/NA
Methylene Chloride	6.3		2.7		ug/m3	1.58		TO 15 LL	Total/NA
m-Xylene & p-Xylene	2.0		1.4		ug/m3	1.58		TO 15 LL	Total/NA
Tetrachloroethene	220		2.1		ug/m3	1.58		TO 15 LL	Total/NA
Trichloroethene	1.5		0.85		ug/m3	1.58		TO 15 LL	Total/NA
Trichlorofluoromethane	2.3		1.8		ug/m3	1.58		TO 15 LL	Total/NA

Client Sample ID: OVP-8

Lab Sample ID: 140-6336-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	4.2		0.32		ppb v/v	1.5		TO 15 LL	Total/NA
1,2-Dichlorotetrafluoroethane	14		0.32		ppb v/v	1.5		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	4.2		0.79		ppb v/v	1.5		TO 15 LL	Total/NA
Carbon tetrachloride	0.16		0.16		ppb v/v	1.5		TO 15 LL	Total/NA
Chloroform	3.4		0.32		ppb v/v	1.5		TO 15 LL	Total/NA
Dichlorodifluoromethane	9.0		0.32		ppb v/v	1.5		TO 15 LL	Total/NA
Methylene Chloride	2.0		0.79		ppb v/v	1.5		TO 15 LL	Total/NA
Tetrachloroethene	33		0.32		ppb v/v	1.5		TO 15 LL	Total/NA
Trichloroethene	0.54		0.16		ppb v/v	1.5		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	23		1.7		ug/m3	1.5		TO 15 LL	Total/NA
1,2-Dichlorotetrafluoroethane	96		2.2		ug/m3	1.5		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	17		3.2		ug/m3	1.5		TO 15 LL	Total/NA
Carbon tetrachloride	1.0		0.99		ug/m3	1.5		TO 15 LL	Total/NA
Chloroform	17		1.5		ug/m3	1.5		TO 15 LL	Total/NA
Dichlorodifluoromethane	44		1.6		ug/m3	1.5		TO 15 LL	Total/NA
Methylene Chloride	6.8		2.7		ug/m3	1.5		TO 15 LL	Total/NA
Tetrachloroethene	220		2.1		ug/m3	1.5		TO 15 LL	Total/NA
Trichloroethene	2.9		0.85		ug/m3	1.5		TO 15 LL	Total/NA

Client Sample ID: OVP-4

Lab Sample ID: 140-6336-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	4.0		0.16		ppb v/v	1.8		TO 15 LL	Total/NA
1,2-Dichlorotetrafluoroethane	8.8		0.16		ppb v/v	1.8		TO 15 LL	Total/NA
2-Butanone	1.1		0.64		ppb v/v	1.8		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-4 (Continued)

Lab Sample ID: 140-6336-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
4-Methyl-2-pentanone (MIBK)	4.4		0.40		ppb v/v	1.8		TO 15 LL	Total/NA
Chloroform	0.33		0.16		ppb v/v	1.8		TO 15 LL	Total/NA
Dichlorodifluoromethane	13		0.16		ppb v/v	1.8		TO 15 LL	Total/NA
Ethanol	5.2		4.0		ppb v/v	1.8		TO 15 LL	Total/NA
Hexane	0.64		0.40		ppb v/v	1.8		TO 15 LL	Total/NA
Methylene Chloride	2.3		0.40		ppb v/v	1.8		TO 15 LL	Total/NA
m-Xylene & p-Xylene	0.32		0.16		ppb v/v	1.8		TO 15 LL	Total/NA
Tetrachloroethene	14		0.16		ppb v/v	1.8		TO 15 LL	Total/NA
Toluene	0.53		0.24		ppb v/v	1.8		TO 15 LL	Total/NA
Trichloroethene	0.34		0.080		ppb v/v	1.8		TO 15 LL	Total/NA
Trichlorofluoromethane	0.42		0.16		ppb v/v	1.8		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	22		0.87		ug/m3	1.8		TO 15 LL	Total/NA
1,2-Dichlorotetrafluoroethane	62		1.1		ug/m3	1.8		TO 15 LL	Total/NA
2-Butanone	3.4		1.9		ug/m3	1.8		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	18		1.6		ug/m3	1.8		TO 15 LL	Total/NA
Chloroform	1.6		0.78		ug/m3	1.8		TO 15 LL	Total/NA
Dichlorodifluoromethane	63		0.79		ug/m3	1.8		TO 15 LL	Total/NA
Ethanol	9.7		7.5		ug/m3	1.8		TO 15 LL	Total/NA
Hexane	2.3		1.4		ug/m3	1.8		TO 15 LL	Total/NA
Methylene Chloride	7.8		1.4		ug/m3	1.8		TO 15 LL	Total/NA
m-Xylene & p-Xylene	1.4		0.69		ug/m3	1.8		TO 15 LL	Total/NA
Tetrachloroethene	94		1.1		ug/m3	1.8		TO 15 LL	Total/NA
Toluene	2.0		0.90		ug/m3	1.8		TO 15 LL	Total/NA
Trichloroethene	1.8		0.43		ug/m3	1.8		TO 15 LL	Total/NA
Trichlorofluoromethane	2.4		0.90		ug/m3	1.8		TO 15 LL	Total/NA

Client Sample ID: DUP-1

Lab Sample ID: 140-6336-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	4.2		0.14		ppb v/v	1.74		TO 15 LL	Total/NA
1,2-Dichlorotetrafluoroethane	11		0.14		ppb v/v	1.74		TO 15 LL	Total/NA
2-Butanone	0.58		0.56		ppb v/v	1.74		TO 15 LL	Total/NA
Chloroform	0.36		0.14		ppb v/v	1.74		TO 15 LL	Total/NA
Dichlorodifluoromethane	10		0.14		ppb v/v	1.74		TO 15 LL	Total/NA
m-Xylene & p-Xylene	0.29		0.14		ppb v/v	1.74		TO 15 LL	Total/NA
t-Butyl alcohol	0.59		0.56		ppb v/v	1.74		TO 15 LL	Total/NA
Tetrachloroethene	15		0.14		ppb v/v	1.74		TO 15 LL	Total/NA
Toluene	0.33		0.21		ppb v/v	1.74		TO 15 LL	Total/NA
Trichloroethene	0.37		0.070		ppb v/v	1.74		TO 15 LL	Total/NA
Trichlorofluoromethane	0.37		0.14		ppb v/v	1.74		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	23		0.76		ug/m3	1.74		TO 15 LL	Total/NA
1,2-Dichlorotetrafluoroethane	79		0.97		ug/m3	1.74		TO 15 LL	Total/NA
2-Butanone	1.7		1.6		ug/m3	1.74		TO 15 LL	Total/NA
Chloroform	1.7		0.68		ug/m3	1.74		TO 15 LL	Total/NA
Dichlorodifluoromethane	50		0.69		ug/m3	1.74		TO 15 LL	Total/NA
m-Xylene & p-Xylene	1.3		0.60		ug/m3	1.74		TO 15 LL	Total/NA
t-Butyl alcohol	1.8		1.7		ug/m3	1.74		TO 15 LL	Total/NA
Tetrachloroethene	100		0.94		ug/m3	1.74		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: DUP-1 (Continued)

Lab Sample ID: 140-6336-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	1.2		0.79		ug/m3	1.74		TO 15 LL	Total/NA
Trichloroethene	2.0		0.37		ug/m3	1.74		TO 15 LL	Total/NA
Trichlorofluoromethane	2.1		0.78		ug/m3	1.74		TO 15 LL	Total/NA

Client Sample ID: OVP-5

Lab Sample ID: 140-6336-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorotetrafluoroethane	0.10		0.080		ppb v/v	1.63		TO 15 LL	Total/NA
2,2,4-Trimethylpentane	0.43		0.20		ppb v/v	1.63		TO 15 LL	Total/NA
2-Butanone	1.1		0.32		ppb v/v	1.63		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	2.1		0.20		ppb v/v	1.63		TO 15 LL	Total/NA
Bromodichloromethane	0.12		0.080		ppb v/v	1.63		TO 15 LL	Total/NA
Carbon tetrachloride	0.045		0.040		ppb v/v	1.63		TO 15 LL	Total/NA
Chloroform	3.6		0.080		ppb v/v	1.63		TO 15 LL	Total/NA
Cyclohexane	0.35		0.20		ppb v/v	1.63		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.49		0.080		ppb v/v	1.63		TO 15 LL	Total/NA
Hexane	0.24		0.20		ppb v/v	1.63		TO 15 LL	Total/NA
Methyl tert-butyl ether	0.27		0.16		ppb v/v	1.63		TO 15 LL	Total/NA
Methylene Chloride	0.75		0.20		ppb v/v	1.63		TO 15 LL	Total/NA
m-Xylene & p-Xylene	0.13		0.080		ppb v/v	1.63		TO 15 LL	Total/NA
t-Butyl alcohol	0.41		0.32		ppb v/v	1.63		TO 15 LL	Total/NA
Tetrachloroethene	1.7		0.080		ppb v/v	1.63		TO 15 LL	Total/NA
Trichloroethene	0.19		0.040		ppb v/v	1.63		TO 15 LL	Total/NA
Trichlorofluoromethane	0.25		0.080		ppb v/v	1.63		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichlorotetrafluoroethane	0.70		0.56		ug/m3	1.63		TO 15 LL	Total/NA
2,2,4-Trimethylpentane	2.0		0.93		ug/m3	1.63		TO 15 LL	Total/NA
2-Butanone	3.1		0.94		ug/m3	1.63		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	8.7		0.82		ug/m3	1.63		TO 15 LL	Total/NA
Bromodichloromethane	0.84		0.54		ug/m3	1.63		TO 15 LL	Total/NA
Carbon tetrachloride	0.28		0.25		ug/m3	1.63		TO 15 LL	Total/NA
Chloroform	18		0.39		ug/m3	1.63		TO 15 LL	Total/NA
Cyclohexane	1.2		0.69		ug/m3	1.63		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.4		0.40		ug/m3	1.63		TO 15 LL	Total/NA
Hexane	0.85		0.70		ug/m3	1.63		TO 15 LL	Total/NA
Methyl tert-butyl ether	0.96		0.58		ug/m3	1.63		TO 15 LL	Total/NA
Methylene Chloride	2.6		0.69		ug/m3	1.63		TO 15 LL	Total/NA
m-Xylene & p-Xylene	0.57		0.35		ug/m3	1.63		TO 15 LL	Total/NA
t-Butyl alcohol	1.2		0.97		ug/m3	1.63		TO 15 LL	Total/NA
Tetrachloroethene	12		0.54		ug/m3	1.63		TO 15 LL	Total/NA
Trichloroethene	1.0		0.21		ug/m3	1.63		TO 15 LL	Total/NA
Trichlorofluoromethane	1.4		0.45		ug/m3	1.63		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-10

Lab Sample ID: 140-6336-1

Date Collected: 11/08/16 13:20

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.080		ppb v/v			11/15/16 16:49	1
1,1,2,2-Tetrachloroethane	ND		0.080		ppb v/v			11/15/16 16:49	1
1,1,2-Trichloroethane	ND		0.080		ppb v/v			11/15/16 16:49	1
1,1,2-Trichlorotrifluoroethane	ND		0.080		ppb v/v			11/15/16 16:49	1
1,1-Dichloroethane	ND		0.080		ppb v/v			11/15/16 16:49	1
1,1-Dichloroethene	ND		0.080		ppb v/v			11/15/16 16:49	1
1,2,4-Trichlorobenzene	ND		0.080		ppb v/v			11/15/16 16:49	1
1,2,4-Trimethylbenzene	0.13		0.080		ppb v/v			11/15/16 16:49	1
1,2-Dibromoethane	ND		0.080		ppb v/v			11/15/16 16:49	1
1,2-Dichlorobenzene	ND		0.080		ppb v/v			11/15/16 16:49	1
1,2-Dichloroethane	ND		0.080		ppb v/v			11/15/16 16:49	1
1,2-Dichloropropane	ND		0.080		ppb v/v			11/15/16 16:49	1
1,2-Dichlorotetrafluoroethane	ND		0.080		ppb v/v			11/15/16 16:49	1
1,3,5-Trimethylbenzene	ND		0.080		ppb v/v			11/15/16 16:49	1
1,3-Dichlorobenzene	ND		0.080		ppb v/v			11/15/16 16:49	1
1,4-Dichlorobenzene	ND		0.080		ppb v/v			11/15/16 16:49	1
1,4-Dioxane	ND		0.20		ppb v/v			11/15/16 16:49	1
2,2,4-Trimethylpentane	13		0.20		ppb v/v			11/15/16 16:49	1
2-Butanone	0.47		0.32		ppb v/v			11/15/16 16:49	1
4-Methyl-2-pentanone (MIBK)	ND		0.20		ppb v/v			11/15/16 16:49	1
Benzene	0.21		0.080		ppb v/v			11/15/16 16:49	1
Benzyl chloride	ND		0.16		ppb v/v			11/15/16 16:49	1
Bromodichloromethane	0.17		0.080		ppb v/v			11/15/16 16:49	1
Bromoform	ND		0.080		ppb v/v			11/15/16 16:49	1
Bromomethane	ND		0.080		ppb v/v			11/15/16 16:49	1
Carbon tetrachloride	0.043		0.040		ppb v/v			11/15/16 16:49	1
Chlorobenzene	ND		0.080		ppb v/v			11/15/16 16:49	1
Chloroethane	ND		0.080		ppb v/v			11/15/16 16:49	1
Chloroform	4.9		0.080		ppb v/v			11/15/16 16:49	1
Chloromethane	0.21		0.20		ppb v/v			11/15/16 16:49	1
cis-1,2-Dichloroethene	ND		0.080		ppb v/v			11/15/16 16:49	1
cis-1,3-Dichloropropene	ND		0.080		ppb v/v			11/15/16 16:49	1
Cyclohexane	12		0.20		ppb v/v			11/15/16 16:49	1
Dibromochloromethane	ND		0.080		ppb v/v			11/15/16 16:49	1
Dichlorodifluoromethane	0.25		0.080		ppb v/v			11/15/16 16:49	1
Ethanol	2.0		2.0		ppb v/v			11/15/16 16:49	1
Ethylbenzene	0.23		0.080		ppb v/v			11/15/16 16:49	1
Hexachlorobutadiene	ND		0.080		ppb v/v			11/15/16 16:49	1
Hexane	1.1		0.20		ppb v/v			11/15/16 16:49	1
Methyl tert-butyl ether	0.58		0.16		ppb v/v			11/15/16 16:49	1
Methylene Chloride	0.57		0.20		ppb v/v			11/15/16 16:49	1
m-Xylene & p-Xylene	0.29		0.080		ppb v/v			11/15/16 16:49	1
o-Xylene	0.10		0.080		ppb v/v			11/15/16 16:49	1
Styrene	ND		0.080		ppb v/v			11/15/16 16:49	1
t-Butyl alcohol	ND		0.32		ppb v/v			11/15/16 16:49	1
Tetrachloroethene	4.5		0.080		ppb v/v			11/15/16 16:49	1
Toluene	0.41		0.12		ppb v/v			11/15/16 16:49	1
trans-1,2-Dichloroethene	ND		0.080		ppb v/v			11/15/16 16:49	1

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-10

Lab Sample ID: 140-6336-1

Date Collected: 11/08/16 13:20

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		0.080		ppb v/v			11/15/16 16:49	1
Trichloroethene	0.13		0.040		ppb v/v			11/15/16 16:49	1
Trichlorofluoromethane	0.27		0.080		ppb v/v			11/15/16 16:49	1
Vinyl chloride	ND		0.040		ppb v/v			11/15/16 16:49	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.44		ug/m3			11/15/16 16:49	1
1,1,2,2-Tetrachloroethane	ND		0.55		ug/m3			11/15/16 16:49	1
1,1,2-Trichloroethane	ND		0.44		ug/m3			11/15/16 16:49	1
1,1,2-Trichlorotrifluoroethane	ND		0.61		ug/m3			11/15/16 16:49	1
1,1-Dichloroethane	ND		0.32		ug/m3			11/15/16 16:49	1
1,1-Dichloroethene	ND		0.32		ug/m3			11/15/16 16:49	1
1,2,4-Trichlorobenzene	ND		0.59		ug/m3			11/15/16 16:49	1
1,2,4-Trimethylbenzene	0.63		0.39		ug/m3			11/15/16 16:49	1
1,2-Dibromoethane	ND		0.61		ug/m3			11/15/16 16:49	1
1,2-Dichlorobenzene	ND		0.48		ug/m3			11/15/16 16:49	1
1,2-Dichloroethane	ND		0.32		ug/m3			11/15/16 16:49	1
1,2-Dichloropropane	ND		0.37		ug/m3			11/15/16 16:49	1
1,2-Dichlorotetrafluoroethane	ND		0.56		ug/m3			11/15/16 16:49	1
1,3,5-Trimethylbenzene	ND		0.39		ug/m3			11/15/16 16:49	1
1,3-Dichlorobenzene	ND		0.48		ug/m3			11/15/16 16:49	1
1,4-Dichlorobenzene	ND		0.48		ug/m3			11/15/16 16:49	1
1,4-Dioxane	ND		0.72		ug/m3			11/15/16 16:49	1
2,2,4-Trimethylpentane	61		0.93		ug/m3			11/15/16 16:49	1
2-Butanone	1.4		0.94		ug/m3			11/15/16 16:49	1
4-Methyl-2-pentanone (MIBK)	ND		0.82		ug/m3			11/15/16 16:49	1
Benzene	0.67		0.26		ug/m3			11/15/16 16:49	1
Benzyl chloride	ND		0.83		ug/m3			11/15/16 16:49	1
Bromodichloromethane	1.2		0.54		ug/m3			11/15/16 16:49	1
Bromoform	ND		0.83		ug/m3			11/15/16 16:49	1
Bromomethane	ND		0.31		ug/m3			11/15/16 16:49	1
Carbon tetrachloride	0.27		0.25		ug/m3			11/15/16 16:49	1
Chlorobenzene	ND		0.37		ug/m3			11/15/16 16:49	1
Chloroethane	ND		0.21		ug/m3			11/15/16 16:49	1
Chloroform	24		0.39		ug/m3			11/15/16 16:49	1
Chloromethane	0.43		0.41		ug/m3			11/15/16 16:49	1
cis-1,2-Dichloroethene	ND		0.32		ug/m3			11/15/16 16:49	1
cis-1,3-Dichloropropene	ND		0.36		ug/m3			11/15/16 16:49	1
Cyclohexane	40		0.69		ug/m3			11/15/16 16:49	1
Dibromochloromethane	ND		0.68		ug/m3			11/15/16 16:49	1
Dichlorodifluoromethane	1.3		0.40		ug/m3			11/15/16 16:49	1
Ethanol	3.8		3.8		ug/m3			11/15/16 16:49	1
Ethylbenzene	0.98		0.35		ug/m3			11/15/16 16:49	1
Hexachlorobutadiene	ND		0.85		ug/m3			11/15/16 16:49	1
Hexane	3.8		0.70		ug/m3			11/15/16 16:49	1
Methyl tert-butyl ether	2.1		0.58		ug/m3			11/15/16 16:49	1
Methylene Chloride	2.0		0.69		ug/m3			11/15/16 16:49	1
m-Xylene & p-Xylene	1.3		0.35		ug/m3			11/15/16 16:49	1
o-Xylene	0.46		0.35		ug/m3			11/15/16 16:49	1

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-10

Lab Sample ID: 140-6336-1

Date Collected: 11/08/16 13:20

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		0.34		ug/m3			11/15/16 16:49	1
t-Butyl alcohol	ND		0.97		ug/m3			11/15/16 16:49	1
Tetrachloroethene	30		0.54		ug/m3			11/15/16 16:49	1
Toluene	1.5		0.45		ug/m3			11/15/16 16:49	1
trans-1,2-Dichloroethene	ND		0.32		ug/m3			11/15/16 16:49	1
trans-1,3-Dichloropropene	ND		0.36		ug/m3			11/15/16 16:49	1
Trichloroethene	0.71		0.21		ug/m3			11/15/16 16:49	1
Trichlorofluoromethane	1.5		0.45		ug/m3			11/15/16 16:49	1
Vinyl chloride	ND		0.10		ug/m3			11/15/16 16:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		60 - 140					11/15/16 16:49	1

Client Sample ID: OVP-9

Lab Sample ID: 140-6336-2

Date Collected: 11/08/16 13:58

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.080		ppb v/v			11/15/16 17:44	1.79
1,1,2,2-Tetrachloroethane	ND		0.080		ppb v/v			11/15/16 17:44	1.79
1,1,2-Trichloroethane	ND		0.080		ppb v/v			11/15/16 17:44	1.79
1,1,2-Trichlorotrifluoroethane	ND		0.080		ppb v/v			11/15/16 17:44	1.79
1,1-Dichloroethane	ND		0.080		ppb v/v			11/15/16 17:44	1.79
1,1-Dichloroethene	ND		0.080		ppb v/v			11/15/16 17:44	1.79
1,2,4-Trichlorobenzene	ND		0.080		ppb v/v			11/15/16 17:44	1.79
1,2,4-Trimethylbenzene	0.14		0.080		ppb v/v			11/15/16 17:44	1.79
1,2-Dibromoethane	ND		0.080		ppb v/v			11/15/16 17:44	1.79
1,2-Dichlorobenzene	ND		0.080		ppb v/v			11/15/16 17:44	1.79
1,2-Dichloroethane	ND		0.080		ppb v/v			11/15/16 17:44	1.79
1,2-Dichloropropane	ND		0.080		ppb v/v			11/15/16 17:44	1.79
1,2-Dichlorotetrafluoroethane	ND		0.080		ppb v/v			11/15/16 17:44	1.79
1,3,5-Trimethylbenzene	ND		0.080		ppb v/v			11/15/16 17:44	1.79
1,3-Dichlorobenzene	ND		0.080		ppb v/v			11/15/16 17:44	1.79
1,4-Dichlorobenzene	ND		0.080		ppb v/v			11/15/16 17:44	1.79
1,4-Dioxane	ND		0.20		ppb v/v			11/15/16 17:44	1.79
2,2,4-Trimethylpentane	0.64		0.20		ppb v/v			11/15/16 17:44	1.79
2-Butanone	0.47		0.32		ppb v/v			11/15/16 17:44	1.79
4-Methyl-2-pentanone (MIBK)	29 E		0.20		ppb v/v			11/15/16 17:44	1.79
Benzene	0.11		0.080		ppb v/v			11/15/16 17:44	1.79
Benzyl chloride	ND		0.16		ppb v/v			11/15/16 17:44	1.79
Bromodichloromethane	0.65		0.080		ppb v/v			11/15/16 17:44	1.79
Bromoform	ND		0.080		ppb v/v			11/15/16 17:44	1.79
Bromomethane	ND		0.080		ppb v/v			11/15/16 17:44	1.79
Carbon tetrachloride	0.059		0.040		ppb v/v			11/15/16 17:44	1.79
Chlorobenzene	ND		0.080		ppb v/v			11/15/16 17:44	1.79
Chloroethane	ND		0.080		ppb v/v			11/15/16 17:44	1.79
Chloroform	16		0.080		ppb v/v			11/15/16 17:44	1.79

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-9

Lab Sample ID: 140-6336-2

Date Collected: 11/08/16 13:58

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		0.20		ppb v/v			11/15/16 17:44	1.79
cis-1,2-Dichloroethene	ND		0.080		ppb v/v			11/15/16 17:44	1.79
cis-1,3-Dichloropropene	ND		0.080		ppb v/v			11/15/16 17:44	1.79
Cyclohexane	1.1		0.20		ppb v/v			11/15/16 17:44	1.79
Dibromochloromethane	ND		0.080		ppb v/v			11/15/16 17:44	1.79
Dichlorodifluoromethane	0.46		0.080		ppb v/v			11/15/16 17:44	1.79
Ethanol	ND		2.0		ppb v/v			11/15/16 17:44	1.79
Ethylbenzene	ND		0.080		ppb v/v			11/15/16 17:44	1.79
Hexachlorobutadiene	ND		0.080		ppb v/v			11/15/16 17:44	1.79
Hexane	0.42		0.20		ppb v/v			11/15/16 17:44	1.79
Methyl tert-butyl ether	0.60		0.16		ppb v/v			11/15/16 17:44	1.79
Methylene Chloride	1.1		0.20		ppb v/v			11/15/16 17:44	1.79
m-Xylene & p-Xylene	0.31		0.080		ppb v/v			11/15/16 17:44	1.79
o-Xylene	0.096		0.080		ppb v/v			11/15/16 17:44	1.79
Styrene	ND		0.080		ppb v/v			11/15/16 17:44	1.79
t-Butyl alcohol	ND		0.32		ppb v/v			11/15/16 17:44	1.79
Tetrachloroethene	8.8		0.080		ppb v/v			11/15/16 17:44	1.79
Toluene	0.38		0.12		ppb v/v			11/15/16 17:44	1.79
trans-1,2-Dichloroethene	ND		0.080		ppb v/v			11/15/16 17:44	1.79
trans-1,3-Dichloropropene	ND		0.080		ppb v/v			11/15/16 17:44	1.79
Trichloroethene	0.090		0.040		ppb v/v			11/15/16 17:44	1.79
Trichlorofluoromethane	0.30		0.080		ppb v/v			11/15/16 17:44	1.79
Vinyl chloride	ND		0.040		ppb v/v			11/15/16 17:44	1.79
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.44		ug/m3			11/15/16 17:44	1.79
1,1,2,2-Tetrachloroethane	ND		0.55		ug/m3			11/15/16 17:44	1.79
1,1,2-Trichloroethane	ND		0.44		ug/m3			11/15/16 17:44	1.79
1,1,2-Trichlorotrifluoroethane	ND		0.61		ug/m3			11/15/16 17:44	1.79
1,1-Dichloroethane	ND		0.32		ug/m3			11/15/16 17:44	1.79
1,1-Dichloroethene	ND		0.32		ug/m3			11/15/16 17:44	1.79
1,2,4-Trichlorobenzene	ND		0.59		ug/m3			11/15/16 17:44	1.79
1,2,4-Trimethylbenzene	0.68		0.39		ug/m3			11/15/16 17:44	1.79
1,2-Dibromoethane	ND		0.61		ug/m3			11/15/16 17:44	1.79
1,2-Dichlorobenzene	ND		0.48		ug/m3			11/15/16 17:44	1.79
1,2-Dichloroethane	ND		0.32		ug/m3			11/15/16 17:44	1.79
1,2-Dichloropropane	ND		0.37		ug/m3			11/15/16 17:44	1.79
1,2-Dichlorotetrafluoroethane	ND		0.56		ug/m3			11/15/16 17:44	1.79
1,3,5-Trimethylbenzene	ND		0.39		ug/m3			11/15/16 17:44	1.79
1,3-Dichlorobenzene	ND		0.48		ug/m3			11/15/16 17:44	1.79
1,4-Dichlorobenzene	ND		0.48		ug/m3			11/15/16 17:44	1.79
1,4-Dioxane	ND		0.72		ug/m3			11/15/16 17:44	1.79
2,2,4-Trimethylpentane	3.0		0.93		ug/m3			11/15/16 17:44	1.79
2-Butanone	1.4		0.94		ug/m3			11/15/16 17:44	1.79
4-Methyl-2-pentanone (MIBK)	120	E	0.82		ug/m3			11/15/16 17:44	1.79
Benzene	0.35		0.26		ug/m3			11/15/16 17:44	1.79
Benzyl chloride	ND		0.83		ug/m3			11/15/16 17:44	1.79
Bromodichloromethane	4.4		0.54		ug/m3			11/15/16 17:44	1.79
Bromoform	ND		0.83		ug/m3			11/15/16 17:44	1.79

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-9

Lab Sample ID: 140-6336-2

Date Collected: 11/08/16 13:58

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		0.31		ug/m3			11/15/16 17:44	1.79
Carbon tetrachloride	0.37		0.25		ug/m3			11/15/16 17:44	1.79
Chlorobenzene	ND		0.37		ug/m3			11/15/16 17:44	1.79
Chloroethane	ND		0.21		ug/m3			11/15/16 17:44	1.79
Chloroform	76		0.39		ug/m3			11/15/16 17:44	1.79
Chloromethane	ND		0.41		ug/m3			11/15/16 17:44	1.79
cis-1,2-Dichloroethene	ND		0.32		ug/m3			11/15/16 17:44	1.79
cis-1,3-Dichloropropene	ND		0.36		ug/m3			11/15/16 17:44	1.79
Cyclohexane	3.7		0.69		ug/m3			11/15/16 17:44	1.79
Dibromochloromethane	ND		0.68		ug/m3			11/15/16 17:44	1.79
Dichlorodifluoromethane	2.3		0.40		ug/m3			11/15/16 17:44	1.79
Ethanol	ND		3.8		ug/m3			11/15/16 17:44	1.79
Ethylbenzene	ND		0.35		ug/m3			11/15/16 17:44	1.79
Hexachlorobutadiene	ND		0.85		ug/m3			11/15/16 17:44	1.79
Hexane	1.5		0.70		ug/m3			11/15/16 17:44	1.79
Methyl tert-butyl ether	2.2		0.58		ug/m3			11/15/16 17:44	1.79
Methylene Chloride	3.7		0.69		ug/m3			11/15/16 17:44	1.79
m-Xylene & p-Xylene	1.3		0.35		ug/m3			11/15/16 17:44	1.79
o-Xylene	0.42		0.35		ug/m3			11/15/16 17:44	1.79
Styrene	ND		0.34		ug/m3			11/15/16 17:44	1.79
t-Butyl alcohol	ND		0.97		ug/m3			11/15/16 17:44	1.79
Tetrachloroethene	60		0.54		ug/m3			11/15/16 17:44	1.79
Toluene	1.4		0.45		ug/m3			11/15/16 17:44	1.79
trans-1,2-Dichloroethene	ND		0.32		ug/m3			11/15/16 17:44	1.79
trans-1,3-Dichloropropene	ND		0.36		ug/m3			11/15/16 17:44	1.79
Trichloroethene	0.48		0.21		ug/m3			11/15/16 17:44	1.79
Trichlorofluoromethane	1.7		0.45		ug/m3			11/15/16 17:44	1.79
Vinyl chloride	ND		0.10		ug/m3			11/15/16 17:44	1.79

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		60 - 140		11/15/16 17:44	1.79

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	29	D	0.40		ppb v/v			11/16/16 05:33	1.79
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone (MIBK)	120	D	1.6		ug/m3			11/16/16 05:33	1.79

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		60 - 140		11/16/16 05:33	1.79

Client Sample ID: OVP-1

Lab Sample ID: 140-6336-3

Date Collected: 11/08/16 15:33

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	4.7		0.66		ppb v/v			11/15/16 18:39	1.66

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-1

Lab Sample ID: 140-6336-3

Date Collected: 11/08/16 15:33

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.66		ppb v/v			11/15/16 18:39	1.66
1,1,2-Trichloroethane	ND		0.66		ppb v/v			11/15/16 18:39	1.66
1,1,2-Trichlorotrifluoroethane	ND		0.66		ppb v/v			11/15/16 18:39	1.66
1,1-Dichloroethane	ND		0.66		ppb v/v			11/15/16 18:39	1.66
1,1-Dichloroethene	ND		0.66		ppb v/v			11/15/16 18:39	1.66
1,2,4-Trichlorobenzene	ND		0.66		ppb v/v			11/15/16 18:39	1.66
1,2,4-Trimethylbenzene	ND		0.66		ppb v/v			11/15/16 18:39	1.66
1,2-Dibromoethane	ND		0.66		ppb v/v			11/15/16 18:39	1.66
1,2-Dichlorobenzene	ND		0.66		ppb v/v			11/15/16 18:39	1.66
1,2-Dichloroethane	ND		0.66		ppb v/v			11/15/16 18:39	1.66
1,2-Dichloropropane	ND		0.66		ppb v/v			11/15/16 18:39	1.66
1,2-Dichlorotetrafluoroethane	1.4		0.66		ppb v/v			11/15/16 18:39	1.66
1,3,5-Trimethylbenzene	ND		0.66		ppb v/v			11/15/16 18:39	1.66
1,3-Dichlorobenzene	ND		0.66		ppb v/v			11/15/16 18:39	1.66
1,4-Dichlorobenzene	ND		0.66		ppb v/v			11/15/16 18:39	1.66
1,4-Dioxane	ND		1.7		ppb v/v			11/15/16 18:39	1.66
2,2,4-Trimethylpentane	ND		1.7		ppb v/v			11/15/16 18:39	1.66
2-Butanone	ND		2.7		ppb v/v			11/15/16 18:39	1.66
4-Methyl-2-pentanone (MIBK)	ND		1.7		ppb v/v			11/15/16 18:39	1.66
Benzene	ND		0.66		ppb v/v			11/15/16 18:39	1.66
Benzyl chloride	ND		1.3		ppb v/v			11/15/16 18:39	1.66
Bromodichloromethane	ND		0.66		ppb v/v			11/15/16 18:39	1.66
Bromoform	ND		0.66		ppb v/v			11/15/16 18:39	1.66
Bromomethane	ND		0.66		ppb v/v			11/15/16 18:39	1.66
Carbon tetrachloride	ND		0.33		ppb v/v			11/15/16 18:39	1.66
Chlorobenzene	ND		0.66		ppb v/v			11/15/16 18:39	1.66
Chloroethane	ND		0.66		ppb v/v			11/15/16 18:39	1.66
Chloroform	10		0.66		ppb v/v			11/15/16 18:39	1.66
Chloromethane	ND		1.7		ppb v/v			11/15/16 18:39	1.66
cis-1,2-Dichloroethene	0.91		0.66		ppb v/v			11/15/16 18:39	1.66
cis-1,3-Dichloropropene	ND		0.66		ppb v/v			11/15/16 18:39	1.66
Cyclohexane	ND		1.7		ppb v/v			11/15/16 18:39	1.66
Dibromochloromethane	ND		0.66		ppb v/v			11/15/16 18:39	1.66
Dichlorodifluoromethane	2.2		0.66		ppb v/v			11/15/16 18:39	1.66
Ethanol	ND		17		ppb v/v			11/15/16 18:39	1.66
Ethylbenzene	ND		0.66		ppb v/v			11/15/16 18:39	1.66
Hexachlorobutadiene	ND		0.66		ppb v/v			11/15/16 18:39	1.66
Hexane	ND		1.7		ppb v/v			11/15/16 18:39	1.66
Methyl tert-butyl ether	2.7		1.3		ppb v/v			11/15/16 18:39	1.66
Methylene Chloride	3.3		1.7		ppb v/v			11/15/16 18:39	1.66
m-Xylene & p-Xylene	ND		0.66		ppb v/v			11/15/16 18:39	1.66
o-Xylene	ND		0.66		ppb v/v			11/15/16 18:39	1.66
Styrene	ND		0.66		ppb v/v			11/15/16 18:39	1.66
t-Butyl alcohol	ND		2.7		ppb v/v			11/15/16 18:39	1.66
Tetrachloroethene	85		0.66		ppb v/v			11/15/16 18:39	1.66
Toluene	ND		1.0		ppb v/v			11/15/16 18:39	1.66
trans-1,2-Dichloroethene	ND		0.66		ppb v/v			11/15/16 18:39	1.66
trans-1,3-Dichloropropene	ND		0.66		ppb v/v			11/15/16 18:39	1.66

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-1

Lab Sample ID: 140-6336-3

Date Collected: 11/08/16 15:33

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	13		0.33		ppb v/v			11/15/16 18:39	1.66
Trichlorofluoromethane	ND		0.66		ppb v/v			11/15/16 18:39	1.66
Vinyl chloride	ND		0.33		ppb v/v			11/15/16 18:39	1.66
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	26		3.6		ug/m3			11/15/16 18:39	1.66
1,1,2,2-Tetrachloroethane	ND		4.6		ug/m3			11/15/16 18:39	1.66
1,1,2-Trichloroethane	ND		3.6		ug/m3			11/15/16 18:39	1.66
1,1,2-Trichlorotrifluoroethane	ND		5.1		ug/m3			11/15/16 18:39	1.66
1,1-Dichloroethane	ND		2.7		ug/m3			11/15/16 18:39	1.66
1,1-Dichloroethene	ND		2.6		ug/m3			11/15/16 18:39	1.66
1,2,4-Trichlorobenzene	ND		4.9		ug/m3			11/15/16 18:39	1.66
1,2,4-Trimethylbenzene	ND		3.3		ug/m3			11/15/16 18:39	1.66
1,2-Dibromoethane	ND		5.1		ug/m3			11/15/16 18:39	1.66
1,2-Dichlorobenzene	ND		4.0		ug/m3			11/15/16 18:39	1.66
1,2-Dichloroethane	ND		2.7		ug/m3			11/15/16 18:39	1.66
1,2-Dichloropropane	ND		3.1		ug/m3			11/15/16 18:39	1.66
1,2-Dichlorotetrafluoroethane	9.5		4.6		ug/m3			11/15/16 18:39	1.66
1,3,5-Trimethylbenzene	ND		3.3		ug/m3			11/15/16 18:39	1.66
1,3-Dichlorobenzene	ND		4.0		ug/m3			11/15/16 18:39	1.66
1,4-Dichlorobenzene	ND		4.0		ug/m3			11/15/16 18:39	1.66
1,4-Dioxane	ND		6.0		ug/m3			11/15/16 18:39	1.66
2,2,4-Trimethylpentane	ND		7.8		ug/m3			11/15/16 18:39	1.66
2-Butanone	ND		7.8		ug/m3			11/15/16 18:39	1.66
4-Methyl-2-pentanone (MIBK)	ND		6.8		ug/m3			11/15/16 18:39	1.66
Benzene	ND		2.1		ug/m3			11/15/16 18:39	1.66
Benzyl chloride	ND		6.9		ug/m3			11/15/16 18:39	1.66
Bromodichloromethane	ND		4.4		ug/m3			11/15/16 18:39	1.66
Bromoform	ND		6.9		ug/m3			11/15/16 18:39	1.66
Bromomethane	ND		2.6		ug/m3			11/15/16 18:39	1.66
Carbon tetrachloride	ND		2.1		ug/m3			11/15/16 18:39	1.66
Chlorobenzene	ND		3.1		ug/m3			11/15/16 18:39	1.66
Chloroethane	ND		1.8		ug/m3			11/15/16 18:39	1.66
Chloroform	50		3.2		ug/m3			11/15/16 18:39	1.66
Chloromethane	ND		3.4		ug/m3			11/15/16 18:39	1.66
cis-1,2-Dichloroethene	3.6		2.6		ug/m3			11/15/16 18:39	1.66
cis-1,3-Dichloropropene	ND		3.0		ug/m3			11/15/16 18:39	1.66
Cyclohexane	ND		5.7		ug/m3			11/15/16 18:39	1.66
Dibromochloromethane	ND		5.7		ug/m3			11/15/16 18:39	1.66
Dichlorodifluoromethane	11		3.3		ug/m3			11/15/16 18:39	1.66
Ethanol	ND		31		ug/m3			11/15/16 18:39	1.66
Ethylbenzene	ND		2.9		ug/m3			11/15/16 18:39	1.66
Hexachlorobutadiene	ND		7.1		ug/m3			11/15/16 18:39	1.66
Hexane	ND		5.9		ug/m3			11/15/16 18:39	1.66
Methyl tert-butyl ether	9.6		4.8		ug/m3			11/15/16 18:39	1.66
Methylene Chloride	11		5.8		ug/m3			11/15/16 18:39	1.66
m-Xylene & p-Xylene	ND		2.9		ug/m3			11/15/16 18:39	1.66
o-Xylene	ND		2.9		ug/m3			11/15/16 18:39	1.66
Styrene	ND		2.8		ug/m3			11/15/16 18:39	1.66

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-1

Lab Sample ID: 140-6336-3

Date Collected: 11/08/16 15:33

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
t-Butyl alcohol	ND		8.1		ug/m3			11/15/16 18:39	1.66
Tetrachloroethene	580		4.5		ug/m3			11/15/16 18:39	1.66
Toluene	ND		3.8		ug/m3			11/15/16 18:39	1.66
trans-1,2-Dichloroethene	ND		2.6		ug/m3			11/15/16 18:39	1.66
trans-1,3-Dichloropropene	ND		3.0		ug/m3			11/15/16 18:39	1.66
Trichloroethene	72		1.8		ug/m3			11/15/16 18:39	1.66
Trichlorofluoromethane	ND		3.7		ug/m3			11/15/16 18:39	1.66
Vinyl chloride	ND		0.85		ug/m3			11/15/16 18:39	1.66
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		60 - 140					11/15/16 18:39	1.66

Client Sample ID: OVP-2

Lab Sample ID: 140-6336-4

Date Collected: 11/08/16 16:15

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	1.7		0.16		ppb v/v			11/15/16 15:55	1.54
1,1,2,2-Tetrachloroethane	ND		0.16		ppb v/v			11/15/16 15:55	1.54
1,1,2-Trichloroethane	ND		0.16		ppb v/v			11/15/16 15:55	1.54
1,1,2-Trichlorotrifluoroethane	ND		0.16		ppb v/v			11/15/16 15:55	1.54
1,1-Dichloroethane	ND		0.16		ppb v/v			11/15/16 15:55	1.54
1,1-Dichloroethene	ND		0.16		ppb v/v			11/15/16 15:55	1.54
1,2,4-Trichlorobenzene	ND		0.16		ppb v/v			11/15/16 15:55	1.54
1,2,4-Trimethylbenzene	0.18		0.16		ppb v/v			11/15/16 15:55	1.54
1,2-Dibromoethane	ND		0.16		ppb v/v			11/15/16 15:55	1.54
1,2-Dichlorobenzene	ND		0.16		ppb v/v			11/15/16 15:55	1.54
1,2-Dichloroethane	ND		0.16		ppb v/v			11/15/16 15:55	1.54
1,2-Dichloropropane	ND		0.16		ppb v/v			11/15/16 15:55	1.54
1,2-Dichlorotetrafluoroethane	3.6		0.16		ppb v/v			11/15/16 15:55	1.54
1,3,5-Trimethylbenzene	ND		0.16		ppb v/v			11/15/16 15:55	1.54
1,3-Dichlorobenzene	ND		0.16		ppb v/v			11/15/16 15:55	1.54
1,4-Dichlorobenzene	ND		0.16		ppb v/v			11/15/16 15:55	1.54
1,4-Dioxane	ND		0.40		ppb v/v			11/15/16 15:55	1.54
2,2,4-Trimethylpentane	0.40		0.40		ppb v/v			11/15/16 15:55	1.54
2-Butanone	1.4		0.64		ppb v/v			11/15/16 15:55	1.54
4-Methyl-2-pentanone (MIBK)	0.67		0.40		ppb v/v			11/15/16 15:55	1.54
Benzene	ND		0.16		ppb v/v			11/15/16 15:55	1.54
Benzyl chloride	ND		0.32		ppb v/v			11/15/16 15:55	1.54
Bromodichloromethane	ND		0.16		ppb v/v			11/15/16 15:55	1.54
Bromoform	ND		0.16		ppb v/v			11/15/16 15:55	1.54
Bromomethane	ND		0.16		ppb v/v			11/15/16 15:55	1.54
Carbon tetrachloride	0.098		0.080		ppb v/v			11/15/16 15:55	1.54
Chlorobenzene	ND		0.16		ppb v/v			11/15/16 15:55	1.54
Chloroethane	ND		0.16		ppb v/v			11/15/16 15:55	1.54
Chloroform	33 E		0.16		ppb v/v			11/15/16 15:55	1.54
Chloromethane	0.41		0.40		ppb v/v			11/15/16 15:55	1.54

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-2

Lab Sample ID: 140-6336-4

Date Collected: 11/08/16 16:15

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND		0.16		ppb v/v			11/15/16 15:55	1.54
cis-1,3-Dichloropropene	ND		0.16		ppb v/v			11/15/16 15:55	1.54
Cyclohexane	0.57		0.40		ppb v/v			11/15/16 15:55	1.54
Dibromochloromethane	ND		0.16		ppb v/v			11/15/16 15:55	1.54
Dichlorodifluoromethane	10		0.16		ppb v/v			11/15/16 15:55	1.54
Ethanol	27		4.0		ppb v/v			11/15/16 15:55	1.54
Ethylbenzene	ND		0.16		ppb v/v			11/15/16 15:55	1.54
Hexachlorobutadiene	ND		0.16		ppb v/v			11/15/16 15:55	1.54
Hexane	ND		0.40		ppb v/v			11/15/16 15:55	1.54
Methyl tert-butyl ether	ND		0.32		ppb v/v			11/15/16 15:55	1.54
Methylene Chloride	0.68		0.40		ppb v/v			11/15/16 15:55	1.54
m-Xylene & p-Xylene	0.44		0.16		ppb v/v			11/15/16 15:55	1.54
o-Xylene	ND		0.16		ppb v/v			11/15/16 15:55	1.54
Styrene	ND		0.16		ppb v/v			11/15/16 15:55	1.54
t-Butyl alcohol	ND		0.64		ppb v/v			11/15/16 15:55	1.54
Tetrachloroethene	42	E	0.16		ppb v/v			11/15/16 15:55	1.54
Toluene	0.59		0.24		ppb v/v			11/15/16 15:55	1.54
trans-1,2-Dichloroethene	ND		0.16		ppb v/v			11/15/16 15:55	1.54
trans-1,3-Dichloropropene	ND		0.16		ppb v/v			11/15/16 15:55	1.54
Trichloroethene	0.87		0.080		ppb v/v			11/15/16 15:55	1.54
Trichlorofluoromethane	1.7		0.16		ppb v/v			11/15/16 15:55	1.54
Vinyl chloride	ND		0.080		ppb v/v			11/15/16 15:55	1.54
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	9.0		0.87		ug/m3			11/15/16 15:55	1.54
1,1,2,2-Tetrachloroethane	ND		1.1		ug/m3			11/15/16 15:55	1.54
1,1,2-Trichloroethane	ND		0.87		ug/m3			11/15/16 15:55	1.54
1,1,2-Trichlorotrifluoroethane	ND		1.2		ug/m3			11/15/16 15:55	1.54
1,1-Dichloroethane	ND		0.65		ug/m3			11/15/16 15:55	1.54
1,1-Dichloroethene	ND		0.63		ug/m3			11/15/16 15:55	1.54
1,2,4-Trichlorobenzene	ND		1.2		ug/m3			11/15/16 15:55	1.54
1,2,4-Trimethylbenzene	0.90		0.79		ug/m3			11/15/16 15:55	1.54
1,2-Dibromoethane	ND		1.2		ug/m3			11/15/16 15:55	1.54
1,2-Dichlorobenzene	ND		0.96		ug/m3			11/15/16 15:55	1.54
1,2-Dichloroethane	ND		0.65		ug/m3			11/15/16 15:55	1.54
1,2-Dichloropropane	ND		0.74		ug/m3			11/15/16 15:55	1.54
1,2-Dichlorotetrafluoroethane	25		1.1		ug/m3			11/15/16 15:55	1.54
1,3,5-Trimethylbenzene	ND		0.79		ug/m3			11/15/16 15:55	1.54
1,3-Dichlorobenzene	ND		0.96		ug/m3			11/15/16 15:55	1.54
1,4-Dichlorobenzene	ND		0.96		ug/m3			11/15/16 15:55	1.54
1,4-Dioxane	ND		1.4		ug/m3			11/15/16 15:55	1.54
2,2,4-Trimethylpentane	1.9		1.9		ug/m3			11/15/16 15:55	1.54
2-Butanone	4.0		1.9		ug/m3			11/15/16 15:55	1.54
4-Methyl-2-pentanone (MIBK)	2.7		1.6		ug/m3			11/15/16 15:55	1.54
Benzene	ND		0.51		ug/m3			11/15/16 15:55	1.54
Benzyl chloride	ND		1.7		ug/m3			11/15/16 15:55	1.54
Bromodichloromethane	ND		1.1		ug/m3			11/15/16 15:55	1.54
Bromoform	ND		1.7		ug/m3			11/15/16 15:55	1.54
Bromomethane	ND		0.62		ug/m3			11/15/16 15:55	1.54

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-2

Lab Sample ID: 140-6336-4

Date Collected: 11/08/16 16:15

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Carbon tetrachloride	0.62		0.50		ug/m3			11/15/16 15:55	1.54
Chlorobenzene	ND		0.74		ug/m3			11/15/16 15:55	1.54
Chloroethane	ND		0.42		ug/m3			11/15/16 15:55	1.54
Chloroform	160	E	0.78		ug/m3			11/15/16 15:55	1.54
Chloromethane	0.84		0.83		ug/m3			11/15/16 15:55	1.54
cis-1,2-Dichloroethene	ND		0.63		ug/m3			11/15/16 15:55	1.54
cis-1,3-Dichloropropene	ND		0.73		ug/m3			11/15/16 15:55	1.54
Cyclohexane	2.0		1.4		ug/m3			11/15/16 15:55	1.54
Dibromochloromethane	ND		1.4		ug/m3			11/15/16 15:55	1.54
Dichlorodifluoromethane	52		0.79		ug/m3			11/15/16 15:55	1.54
Ethanol	51		7.5		ug/m3			11/15/16 15:55	1.54
Ethylbenzene	ND		0.69		ug/m3			11/15/16 15:55	1.54
Hexachlorobutadiene	ND		1.7		ug/m3			11/15/16 15:55	1.54
Hexane	ND		1.4		ug/m3			11/15/16 15:55	1.54
Methyl tert-butyl ether	ND		1.2		ug/m3			11/15/16 15:55	1.54
Methylene Chloride	2.4		1.4		ug/m3			11/15/16 15:55	1.54
m-Xylene & p-Xylene	1.9		0.69		ug/m3			11/15/16 15:55	1.54
o-Xylene	ND		0.69		ug/m3			11/15/16 15:55	1.54
Styrene	ND		0.68		ug/m3			11/15/16 15:55	1.54
t-Butyl alcohol	ND		1.9		ug/m3			11/15/16 15:55	1.54
Tetrachloroethene	290	E	1.1		ug/m3			11/15/16 15:55	1.54
Toluene	2.2		0.90		ug/m3			11/15/16 15:55	1.54
trans-1,2-Dichloroethene	ND		0.63		ug/m3			11/15/16 15:55	1.54
trans-1,3-Dichloropropene	ND		0.73		ug/m3			11/15/16 15:55	1.54
Trichloroethene	4.7		0.43		ug/m3			11/15/16 15:55	1.54
Trichlorofluoromethane	9.8		0.90		ug/m3			11/15/16 15:55	1.54
Vinyl chloride	ND		0.20		ug/m3			11/15/16 15:55	1.54

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		60 - 140		11/15/16 15:55	1.54

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	34	D	0.31		ppb v/v			11/16/16 04:38	1.54
Tetrachloroethene	43	D	0.31		ppb v/v			11/16/16 04:38	1.54
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	170	D	1.5		ug/m3			11/16/16 04:38	1.54
Tetrachloroethene	290	D	2.1		ug/m3			11/16/16 04:38	1.54

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		60 - 140		11/16/16 04:38	1.54

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OA-1

Lab Sample ID: 140-6336-5

Date Collected: 11/08/16 16:50

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.080		ppb v/v			11/15/16 19:33	1.69
1,1,2,2-Tetrachloroethane	ND		0.080		ppb v/v			11/15/16 19:33	1.69
1,1,2-Trichloroethane	ND		0.080		ppb v/v			11/15/16 19:33	1.69
1,1,2-Trichlorotrifluoroethane	ND		0.080		ppb v/v			11/15/16 19:33	1.69
1,1-Dichloroethane	ND		0.080		ppb v/v			11/15/16 19:33	1.69
1,1-Dichloroethene	ND		0.080		ppb v/v			11/15/16 19:33	1.69
1,2,4-Trichlorobenzene	ND		0.080		ppb v/v			11/15/16 19:33	1.69
1,2,4-Trimethylbenzene	0.30		0.080		ppb v/v			11/15/16 19:33	1.69
1,2-Dibromoethane	ND		0.080		ppb v/v			11/15/16 19:33	1.69
1,2-Dichlorobenzene	ND		0.080		ppb v/v			11/15/16 19:33	1.69
1,2-Dichloroethane	ND		0.080		ppb v/v			11/15/16 19:33	1.69
1,2-Dichloropropane	ND		0.080		ppb v/v			11/15/16 19:33	1.69
1,2-Dichlorotetrafluoroethane	ND		0.080		ppb v/v			11/15/16 19:33	1.69
1,3,5-Trimethylbenzene	ND		0.080		ppb v/v			11/15/16 19:33	1.69
1,3-Dichlorobenzene	ND		0.080		ppb v/v			11/15/16 19:33	1.69
1,4-Dichlorobenzene	ND		0.080		ppb v/v			11/15/16 19:33	1.69
1,4-Dioxane	ND		0.20		ppb v/v			11/15/16 19:33	1.69
2,2,4-Trimethylpentane	0.48		0.20		ppb v/v			11/15/16 19:33	1.69
2-Butanone	1.0		0.32		ppb v/v			11/15/16 19:33	1.69
4-Methyl-2-pentanone (MIBK)	0.35		0.20		ppb v/v			11/15/16 19:33	1.69
Benzene	0.66		0.080		ppb v/v			11/15/16 19:33	1.69
Benzyl chloride	ND		0.16		ppb v/v			11/15/16 19:33	1.69
Bromodichloromethane	ND		0.080		ppb v/v			11/15/16 19:33	1.69
Bromoform	ND		0.080		ppb v/v			11/15/16 19:33	1.69
Bromomethane	ND		0.080		ppb v/v			11/15/16 19:33	1.69
Carbon tetrachloride	0.075		0.040		ppb v/v			11/15/16 19:33	1.69
Chlorobenzene	ND		0.080		ppb v/v			11/15/16 19:33	1.69
Chloroethane	ND		0.080		ppb v/v			11/15/16 19:33	1.69
Chloroform	ND		0.080		ppb v/v			11/15/16 19:33	1.69
Chloromethane	0.59		0.20		ppb v/v			11/15/16 19:33	1.69
cis-1,2-Dichloroethene	ND		0.080		ppb v/v			11/15/16 19:33	1.69
cis-1,3-Dichloropropene	ND		0.080		ppb v/v			11/15/16 19:33	1.69
Cyclohexane	0.27		0.20		ppb v/v			11/15/16 19:33	1.69
Dibromochloromethane	ND		0.080		ppb v/v			11/15/16 19:33	1.69
Dichlorodifluoromethane	0.60		0.080		ppb v/v			11/15/16 19:33	1.69
Ethanol	150 E		2.0		ppb v/v			11/15/16 19:33	1.69
Ethylbenzene	0.31		0.080		ppb v/v			11/15/16 19:33	1.69
Hexachlorobutadiene	ND		0.080		ppb v/v			11/15/16 19:33	1.69
Hexane	0.72		0.20		ppb v/v			11/15/16 19:33	1.69
Methyl tert-butyl ether	ND		0.16		ppb v/v			11/15/16 19:33	1.69
Methylene Chloride	0.83		0.20		ppb v/v			11/15/16 19:33	1.69
m-Xylene & p-Xylene	1.0		0.080		ppb v/v			11/15/16 19:33	1.69
o-Xylene	0.35		0.080		ppb v/v			11/15/16 19:33	1.69
Styrene	ND		0.080		ppb v/v			11/15/16 19:33	1.69
t-Butyl alcohol	ND		0.32		ppb v/v			11/15/16 19:33	1.69
Tetrachloroethene	ND		0.080		ppb v/v			11/15/16 19:33	1.69
Toluene	2.7		0.12		ppb v/v			11/15/16 19:33	1.69
trans-1,2-Dichloroethene	ND		0.080		ppb v/v			11/15/16 19:33	1.69

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OA-1

Lab Sample ID: 140-6336-5

Date Collected: 11/08/16 16:50

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		0.080		ppb v/v			11/15/16 19:33	1.69
Trichloroethene	0.21		0.040		ppb v/v			11/15/16 19:33	1.69
Trichlorofluoromethane	0.24		0.080		ppb v/v			11/15/16 19:33	1.69
Vinyl chloride	ND		0.040		ppb v/v			11/15/16 19:33	1.69
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.44		ug/m3			11/15/16 19:33	1.69
1,1,2,2-Tetrachloroethane	ND		0.55		ug/m3			11/15/16 19:33	1.69
1,1,2-Trichloroethane	ND		0.44		ug/m3			11/15/16 19:33	1.69
1,1,2-Trichlorotrifluoroethane	ND		0.61		ug/m3			11/15/16 19:33	1.69
1,1-Dichloroethane	ND		0.32		ug/m3			11/15/16 19:33	1.69
1,1-Dichloroethene	ND		0.32		ug/m3			11/15/16 19:33	1.69
1,2,4-Trichlorobenzene	ND		0.59		ug/m3			11/15/16 19:33	1.69
1,2,4-Trimethylbenzene	1.5		0.39		ug/m3			11/15/16 19:33	1.69
1,2-Dibromoethane	ND		0.61		ug/m3			11/15/16 19:33	1.69
1,2-Dichlorobenzene	ND		0.48		ug/m3			11/15/16 19:33	1.69
1,2-Dichloroethane	ND		0.32		ug/m3			11/15/16 19:33	1.69
1,2-Dichloropropane	ND		0.37		ug/m3			11/15/16 19:33	1.69
1,2-Dichlorotetrafluoroethane	ND		0.56		ug/m3			11/15/16 19:33	1.69
1,3,5-Trimethylbenzene	ND		0.39		ug/m3			11/15/16 19:33	1.69
1,3-Dichlorobenzene	ND		0.48		ug/m3			11/15/16 19:33	1.69
1,4-Dichlorobenzene	ND		0.48		ug/m3			11/15/16 19:33	1.69
1,4-Dioxane	ND		0.72		ug/m3			11/15/16 19:33	1.69
2,2,4-Trimethylpentane	2.2		0.93		ug/m3			11/15/16 19:33	1.69
2-Butanone	2.9		0.94		ug/m3			11/15/16 19:33	1.69
4-Methyl-2-pentanone (MIBK)	1.5		0.82		ug/m3			11/15/16 19:33	1.69
Benzene	2.1		0.26		ug/m3			11/15/16 19:33	1.69
Benzyl chloride	ND		0.83		ug/m3			11/15/16 19:33	1.69
Bromodichloromethane	ND		0.54		ug/m3			11/15/16 19:33	1.69
Bromoform	ND		0.83		ug/m3			11/15/16 19:33	1.69
Bromomethane	ND		0.31		ug/m3			11/15/16 19:33	1.69
Carbon tetrachloride	0.47		0.25		ug/m3			11/15/16 19:33	1.69
Chlorobenzene	ND		0.37		ug/m3			11/15/16 19:33	1.69
Chloroethane	ND		0.21		ug/m3			11/15/16 19:33	1.69
Chloroform	ND		0.39		ug/m3			11/15/16 19:33	1.69
Chloromethane	1.2		0.41		ug/m3			11/15/16 19:33	1.69
cis-1,2-Dichloroethene	ND		0.32		ug/m3			11/15/16 19:33	1.69
cis-1,3-Dichloropropene	ND		0.36		ug/m3			11/15/16 19:33	1.69
Cyclohexane	0.94		0.69		ug/m3			11/15/16 19:33	1.69
Dibromochloromethane	ND		0.68		ug/m3			11/15/16 19:33	1.69
Dichlorodifluoromethane	3.0		0.40		ug/m3			11/15/16 19:33	1.69
Ethanol	280	E	3.8		ug/m3			11/15/16 19:33	1.69
Ethylbenzene	1.3		0.35		ug/m3			11/15/16 19:33	1.69
Hexachlorobutadiene	ND		0.85		ug/m3			11/15/16 19:33	1.69
Hexane	2.5		0.70		ug/m3			11/15/16 19:33	1.69
Methyl tert-butyl ether	ND		0.58		ug/m3			11/15/16 19:33	1.69
Methylene Chloride	2.9		0.69		ug/m3			11/15/16 19:33	1.69
m-Xylene & p-Xylene	4.4		0.35		ug/m3			11/15/16 19:33	1.69
o-Xylene	1.5		0.35		ug/m3			11/15/16 19:33	1.69

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OA-1

Lab Sample ID: 140-6336-5

Date Collected: 11/08/16 16:50

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Styrene	ND		0.34		ug/m3			11/15/16 19:33	1.69
t-Butyl alcohol	ND		0.97		ug/m3			11/15/16 19:33	1.69
Tetrachloroethene	ND		0.54		ug/m3			11/15/16 19:33	1.69
Toluene	10		0.45		ug/m3			11/15/16 19:33	1.69
trans-1,2-Dichloroethene	ND		0.32		ug/m3			11/15/16 19:33	1.69
trans-1,3-Dichloropropene	ND		0.36		ug/m3			11/15/16 19:33	1.69
Trichloroethene	1.2		0.21		ug/m3			11/15/16 19:33	1.69
Trichlorofluoromethane	1.4		0.45		ug/m3			11/15/16 19:33	1.69
Vinyl chloride	ND		0.10		ug/m3			11/15/16 19:33	1.69

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		60 - 140		11/15/16 19:33	1.69

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	150	D	8.5		ppb v/v			11/16/16 09:42	1.69
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	280	D	16		ug/m3			11/16/16 09:42	1.69

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		60 - 140		11/16/16 09:42	1.69

Client Sample ID: OA-2

Lab Sample ID: 140-6336-6

Date Collected: 11/08/16 16:58

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.080		ppb v/v			11/15/16 20:28	1.68
1,1,2,2-Tetrachloroethane	ND		0.080		ppb v/v			11/15/16 20:28	1.68
1,1,2-Trichloroethane	ND		0.080		ppb v/v			11/15/16 20:28	1.68
1,1,2-Trichlorotrifluoroethane	ND		0.080		ppb v/v			11/15/16 20:28	1.68
1,1-Dichloroethane	ND		0.080		ppb v/v			11/15/16 20:28	1.68
1,1-Dichloroethene	ND		0.080		ppb v/v			11/15/16 20:28	1.68
1,2,4-Trichlorobenzene	ND		0.080		ppb v/v			11/15/16 20:28	1.68
1,2,4-Trimethylbenzene	0.32		0.080		ppb v/v			11/15/16 20:28	1.68
1,2-Dibromoethane	ND		0.080		ppb v/v			11/15/16 20:28	1.68
1,2-Dichlorobenzene	ND		0.080		ppb v/v			11/15/16 20:28	1.68
1,2-Dichloroethane	ND		0.080		ppb v/v			11/15/16 20:28	1.68
1,2-Dichloropropane	ND		0.080		ppb v/v			11/15/16 20:28	1.68
1,2-Dichlorotetrafluoroethane	0.090		0.080		ppb v/v			11/15/16 20:28	1.68
1,3,5-Trimethylbenzene	ND		0.080		ppb v/v			11/15/16 20:28	1.68
1,3-Dichlorobenzene	ND		0.080		ppb v/v			11/15/16 20:28	1.68
1,4-Dichlorobenzene	ND		0.080		ppb v/v			11/15/16 20:28	1.68
1,4-Dioxane	ND		0.20		ppb v/v			11/15/16 20:28	1.68
2,2,4-Trimethylpentane	0.69		0.20		ppb v/v			11/15/16 20:28	1.68
2-Butanone	1.2		0.32		ppb v/v			11/15/16 20:28	1.68
4-Methyl-2-pentanone (MIBK)	2.8		0.20		ppb v/v			11/15/16 20:28	1.68

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OA-2

Lab Sample ID: 140-6336-6

Date Collected: 11/08/16 16:58

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	0.70		0.080		ppb v/v			11/15/16 20:28	1.68
Benzyl chloride	ND		0.16		ppb v/v			11/15/16 20:28	1.68
Bromodichloromethane	ND		0.080		ppb v/v			11/15/16 20:28	1.68
Bromoform	ND		0.080		ppb v/v			11/15/16 20:28	1.68
Bromomethane	ND		0.080		ppb v/v			11/15/16 20:28	1.68
Carbon tetrachloride	0.075		0.040		ppb v/v			11/15/16 20:28	1.68
Chlorobenzene	ND		0.080		ppb v/v			11/15/16 20:28	1.68
Chloroethane	ND		0.080		ppb v/v			11/15/16 20:28	1.68
Chloroform	ND		0.080		ppb v/v			11/15/16 20:28	1.68
Chloromethane	0.62		0.20		ppb v/v			11/15/16 20:28	1.68
cis-1,2-Dichloroethene	ND		0.080		ppb v/v			11/15/16 20:28	1.68
cis-1,3-Dichloropropene	ND		0.080		ppb v/v			11/15/16 20:28	1.68
Cyclohexane	0.26		0.20		ppb v/v			11/15/16 20:28	1.68
Dibromochloromethane	ND		0.080		ppb v/v			11/15/16 20:28	1.68
Dichlorodifluoromethane	0.74		0.080		ppb v/v			11/15/16 20:28	1.68
Ethanol	25		2.0		ppb v/v			11/15/16 20:28	1.68
Ethylbenzene	0.32		0.080		ppb v/v			11/15/16 20:28	1.68
Hexachlorobutadiene	ND		0.080		ppb v/v			11/15/16 20:28	1.68
Hexane	0.81		0.20		ppb v/v			11/15/16 20:28	1.68
Methyl tert-butyl ether	ND		0.16		ppb v/v			11/15/16 20:28	1.68
Methylene Chloride	1.2		0.20		ppb v/v			11/15/16 20:28	1.68
m-Xylene & p-Xylene	1.1		0.080		ppb v/v			11/15/16 20:28	1.68
o-Xylene	0.39		0.080		ppb v/v			11/15/16 20:28	1.68
Styrene	ND		0.080		ppb v/v			11/15/16 20:28	1.68
t-Butyl alcohol	ND		0.32		ppb v/v			11/15/16 20:28	1.68
Tetrachloroethene	0.082		0.080		ppb v/v			11/15/16 20:28	1.68
Toluene	2.5		0.12		ppb v/v			11/15/16 20:28	1.68
trans-1,2-Dichloroethene	ND		0.080		ppb v/v			11/15/16 20:28	1.68
trans-1,3-Dichloropropene	ND		0.080		ppb v/v			11/15/16 20:28	1.68
Trichloroethene	0.17		0.040		ppb v/v			11/15/16 20:28	1.68
Trichlorofluoromethane	0.25		0.080		ppb v/v			11/15/16 20:28	1.68
Vinyl chloride	ND		0.040		ppb v/v			11/15/16 20:28	1.68

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.44		ug/m3			11/15/16 20:28	1.68
1,1,2,2-Tetrachloroethane	ND		0.55		ug/m3			11/15/16 20:28	1.68
1,1,2-Trichloroethane	ND		0.44		ug/m3			11/15/16 20:28	1.68
1,1,2-Trichlorotrifluoroethane	ND		0.61		ug/m3			11/15/16 20:28	1.68
1,1-Dichloroethane	ND		0.32		ug/m3			11/15/16 20:28	1.68
1,1-Dichloroethene	ND		0.32		ug/m3			11/15/16 20:28	1.68
1,2,4-Trichlorobenzene	ND		0.59		ug/m3			11/15/16 20:28	1.68
1,2,4-Trimethylbenzene	1.6		0.39		ug/m3			11/15/16 20:28	1.68
1,2-Dibromoethane	ND		0.61		ug/m3			11/15/16 20:28	1.68
1,2-Dichlorobenzene	ND		0.48		ug/m3			11/15/16 20:28	1.68
1,2-Dichloroethane	ND		0.32		ug/m3			11/15/16 20:28	1.68
1,2-Dichloropropane	ND		0.37		ug/m3			11/15/16 20:28	1.68
1,2-Dichlorotetrafluoroethane	0.63		0.56		ug/m3			11/15/16 20:28	1.68
1,3,5-Trimethylbenzene	ND		0.39		ug/m3			11/15/16 20:28	1.68
1,3-Dichlorobenzene	ND		0.48		ug/m3			11/15/16 20:28	1.68

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OA-2

Lab Sample ID: 140-6336-6

Date Collected: 11/08/16 16:58

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.48		ug/m3			11/15/16 20:28	1.68
1,4-Dioxane	ND		0.72		ug/m3			11/15/16 20:28	1.68
2,2,4-Trimethylpentane	3.2		0.93		ug/m3			11/15/16 20:28	1.68
2-Butanone	3.4		0.94		ug/m3			11/15/16 20:28	1.68
4-Methyl-2-pentanone (MIBK)	12		0.82		ug/m3			11/15/16 20:28	1.68
Benzene	2.2		0.26		ug/m3			11/15/16 20:28	1.68
Benzyl chloride	ND		0.83		ug/m3			11/15/16 20:28	1.68
Bromodichloromethane	ND		0.54		ug/m3			11/15/16 20:28	1.68
Bromoform	ND		0.83		ug/m3			11/15/16 20:28	1.68
Bromomethane	ND		0.31		ug/m3			11/15/16 20:28	1.68
Carbon tetrachloride	0.47		0.25		ug/m3			11/15/16 20:28	1.68
Chlorobenzene	ND		0.37		ug/m3			11/15/16 20:28	1.68
Chloroethane	ND		0.21		ug/m3			11/15/16 20:28	1.68
Chloroform	ND		0.39		ug/m3			11/15/16 20:28	1.68
Chloromethane	1.3		0.41		ug/m3			11/15/16 20:28	1.68
cis-1,2-Dichloroethene	ND		0.32		ug/m3			11/15/16 20:28	1.68
cis-1,3-Dichloropropene	ND		0.36		ug/m3			11/15/16 20:28	1.68
Cyclohexane	0.88		0.69		ug/m3			11/15/16 20:28	1.68
Dibromochloromethane	ND		0.68		ug/m3			11/15/16 20:28	1.68
Dichlorodifluoromethane	3.6		0.40		ug/m3			11/15/16 20:28	1.68
Ethanol	48		3.8		ug/m3			11/15/16 20:28	1.68
Ethylbenzene	1.4		0.35		ug/m3			11/15/16 20:28	1.68
Hexachlorobutadiene	ND		0.85		ug/m3			11/15/16 20:28	1.68
Hexane	2.9		0.70		ug/m3			11/15/16 20:28	1.68
Methyl tert-butyl ether	ND		0.58		ug/m3			11/15/16 20:28	1.68
Methylene Chloride	4.0		0.69		ug/m3			11/15/16 20:28	1.68
m-Xylene & p-Xylene	4.8		0.35		ug/m3			11/15/16 20:28	1.68
o-Xylene	1.7		0.35		ug/m3			11/15/16 20:28	1.68
Styrene	ND		0.34		ug/m3			11/15/16 20:28	1.68
t-Butyl alcohol	ND		0.97		ug/m3			11/15/16 20:28	1.68
Tetrachloroethene	0.55		0.54		ug/m3			11/15/16 20:28	1.68
Toluene	9.3		0.45		ug/m3			11/15/16 20:28	1.68
trans-1,2-Dichloroethene	ND		0.32		ug/m3			11/15/16 20:28	1.68
trans-1,3-Dichloropropene	ND		0.36		ug/m3			11/15/16 20:28	1.68
Trichloroethene	0.91		0.21		ug/m3			11/15/16 20:28	1.68
Trichlorofluoromethane	1.4		0.45		ug/m3			11/15/16 20:28	1.68
Vinyl chloride	ND		0.10		ug/m3			11/15/16 20:28	1.68

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		60 - 140		11/15/16 20:28	1.68

Client Sample ID: OVP-3

Lab Sample ID: 140-6336-7

Date Collected: 11/08/16 17:27

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	9.5		0.72		ppb v/v			11/15/16 21:22	1.8

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-3

Lab Sample ID: 140-6336-7

Date Collected: 11/08/16 17:27

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	ND		0.72		ppb v/v			11/15/16 21:22	1.8
1,1,2-Trichloroethane	ND		0.72		ppb v/v			11/15/16 21:22	1.8
1,1,2-Trichlorotrifluoroethane	ND		0.72		ppb v/v			11/15/16 21:22	1.8
1,1-Dichloroethane	ND		0.72		ppb v/v			11/15/16 21:22	1.8
1,1-Dichloroethene	ND		0.72		ppb v/v			11/15/16 21:22	1.8
1,2,4-Trichlorobenzene	ND		0.72		ppb v/v			11/15/16 21:22	1.8
1,2,4-Trimethylbenzene	ND		0.72		ppb v/v			11/15/16 21:22	1.8
1,2-Dibromoethane	ND		0.72		ppb v/v			11/15/16 21:22	1.8
1,2-Dichlorobenzene	ND		0.72		ppb v/v			11/15/16 21:22	1.8
1,2-Dichloroethane	ND		0.72		ppb v/v			11/15/16 21:22	1.8
1,2-Dichloropropane	ND		0.72		ppb v/v			11/15/16 21:22	1.8
1,2-Dichlorotetrafluoroethane	32		0.72		ppb v/v			11/15/16 21:22	1.8
1,3,5-Trimethylbenzene	ND		0.72		ppb v/v			11/15/16 21:22	1.8
1,3-Dichlorobenzene	ND		0.72		ppb v/v			11/15/16 21:22	1.8
1,4-Dichlorobenzene	ND		0.72		ppb v/v			11/15/16 21:22	1.8
1,4-Dioxane	ND		1.8		ppb v/v			11/15/16 21:22	1.8
2,2,4-Trimethylpentane	ND		1.8		ppb v/v			11/15/16 21:22	1.8
2-Butanone	ND		2.9		ppb v/v			11/15/16 21:22	1.8
4-Methyl-2-pentanone (MIBK)	ND		1.8		ppb v/v			11/15/16 21:22	1.8
Benzene	ND		0.72		ppb v/v			11/15/16 21:22	1.8
Benzyl chloride	ND		1.4		ppb v/v			11/15/16 21:22	1.8
Bromodichloromethane	ND		0.72		ppb v/v			11/15/16 21:22	1.8
Bromoform	ND		0.72		ppb v/v			11/15/16 21:22	1.8
Bromomethane	ND		0.72		ppb v/v			11/15/16 21:22	1.8
Carbon tetrachloride	0.50		0.36		ppb v/v			11/15/16 21:22	1.8
Chlorobenzene	ND		0.72		ppb v/v			11/15/16 21:22	1.8
Chloroethane	ND		0.72		ppb v/v			11/15/16 21:22	1.8
Chloroform	31		0.72		ppb v/v			11/15/16 21:22	1.8
Chloromethane	ND		1.8		ppb v/v			11/15/16 21:22	1.8
cis-1,2-Dichloroethene	ND		0.72		ppb v/v			11/15/16 21:22	1.8
cis-1,3-Dichloropropene	ND		0.72		ppb v/v			11/15/16 21:22	1.8
Cyclohexane	ND		1.8		ppb v/v			11/15/16 21:22	1.8
Dibromochloromethane	ND		0.72		ppb v/v			11/15/16 21:22	1.8
Dichlorodifluoromethane	47		0.72		ppb v/v			11/15/16 21:22	1.8
Ethanol	ND		18		ppb v/v			11/15/16 21:22	1.8
Ethylbenzene	ND		0.72		ppb v/v			11/15/16 21:22	1.8
Hexachlorobutadiene	ND		0.72		ppb v/v			11/15/16 21:22	1.8
Hexane	ND		1.8		ppb v/v			11/15/16 21:22	1.8
Methyl tert-butyl ether	ND		1.4		ppb v/v			11/15/16 21:22	1.8
Methylene Chloride	3.1		1.8		ppb v/v			11/15/16 21:22	1.8
m-Xylene & p-Xylene	ND		0.72		ppb v/v			11/15/16 21:22	1.8
o-Xylene	ND		0.72		ppb v/v			11/15/16 21:22	1.8
Styrene	ND		0.72		ppb v/v			11/15/16 21:22	1.8
t-Butyl alcohol	ND		2.9		ppb v/v			11/15/16 21:22	1.8
Tetrachloroethene	150 E		0.72		ppb v/v			11/15/16 21:22	1.8
Toluene	ND		1.1		ppb v/v			11/15/16 21:22	1.8
trans-1,2-Dichloroethene	ND		0.72		ppb v/v			11/15/16 21:22	1.8
trans-1,3-Dichloropropene	ND		0.72		ppb v/v			11/15/16 21:22	1.8

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-3

Lab Sample ID: 140-6336-7

Date Collected: 11/08/16 17:27

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	22		0.36		ppb v/v			11/15/16 21:22	1.8
Trichlorofluoromethane	1.7		0.72		ppb v/v			11/15/16 21:22	1.8
Vinyl chloride	ND		0.36		ppb v/v			11/15/16 21:22	1.8
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	52		3.9		ug/m3			11/15/16 21:22	1.8
1,1,2,2-Tetrachloroethane	ND		4.9		ug/m3			11/15/16 21:22	1.8
1,1,2-Trichloroethane	ND		3.9		ug/m3			11/15/16 21:22	1.8
1,1,2-Trichlorotrifluoroethane	ND		5.5		ug/m3			11/15/16 21:22	1.8
1,1-Dichloroethane	ND		2.9		ug/m3			11/15/16 21:22	1.8
1,1-Dichloroethene	ND		2.9		ug/m3			11/15/16 21:22	1.8
1,2,4-Trichlorobenzene	ND		5.3		ug/m3			11/15/16 21:22	1.8
1,2,4-Trimethylbenzene	ND		3.5		ug/m3			11/15/16 21:22	1.8
1,2-Dibromoethane	ND		5.5		ug/m3			11/15/16 21:22	1.8
1,2-Dichlorobenzene	ND		4.3		ug/m3			11/15/16 21:22	1.8
1,2-Dichloroethane	ND		2.9		ug/m3			11/15/16 21:22	1.8
1,2-Dichloropropane	ND		3.3		ug/m3			11/15/16 21:22	1.8
1,2-Dichlorotetrafluoroethane	220		5.0		ug/m3			11/15/16 21:22	1.8
1,3,5-Trimethylbenzene	ND		3.5		ug/m3			11/15/16 21:22	1.8
1,3-Dichlorobenzene	ND		4.3		ug/m3			11/15/16 21:22	1.8
1,4-Dichlorobenzene	ND		4.3		ug/m3			11/15/16 21:22	1.8
1,4-Dioxane	ND		6.5		ug/m3			11/15/16 21:22	1.8
2,2,4-Trimethylpentane	ND		8.4		ug/m3			11/15/16 21:22	1.8
2-Butanone	ND		8.5		ug/m3			11/15/16 21:22	1.8
4-Methyl-2-pentanone (MIBK)	ND		7.4		ug/m3			11/15/16 21:22	1.8
Benzene	ND		2.3		ug/m3			11/15/16 21:22	1.8
Benzyl chloride	ND		7.5		ug/m3			11/15/16 21:22	1.8
Bromodichloromethane	ND		4.8		ug/m3			11/15/16 21:22	1.8
Bromoform	ND		7.4		ug/m3			11/15/16 21:22	1.8
Bromomethane	ND		2.8		ug/m3			11/15/16 21:22	1.8
Carbon tetrachloride	3.1		2.3		ug/m3			11/15/16 21:22	1.8
Chlorobenzene	ND		3.3		ug/m3			11/15/16 21:22	1.8
Chloroethane	ND		1.9		ug/m3			11/15/16 21:22	1.8
Chloroform	150		3.5		ug/m3			11/15/16 21:22	1.8
Chloromethane	ND		3.7		ug/m3			11/15/16 21:22	1.8
cis-1,2-Dichloroethene	ND		2.9		ug/m3			11/15/16 21:22	1.8
cis-1,3-Dichloropropene	ND		3.3		ug/m3			11/15/16 21:22	1.8
Cyclohexane	ND		6.2		ug/m3			11/15/16 21:22	1.8
Dibromochloromethane	ND		6.1		ug/m3			11/15/16 21:22	1.8
Dichlorodifluoromethane	230		3.6		ug/m3			11/15/16 21:22	1.8
Ethanol	ND		34		ug/m3			11/15/16 21:22	1.8
Ethylbenzene	ND		3.1		ug/m3			11/15/16 21:22	1.8
Hexachlorobutadiene	ND		7.7		ug/m3			11/15/16 21:22	1.8
Hexane	ND		6.3		ug/m3			11/15/16 21:22	1.8
Methyl tert-butyl ether	ND		5.2		ug/m3			11/15/16 21:22	1.8
Methylene Chloride	11		6.3		ug/m3			11/15/16 21:22	1.8
m-Xylene & p-Xylene	ND		3.1		ug/m3			11/15/16 21:22	1.8
o-Xylene	ND		3.1		ug/m3			11/15/16 21:22	1.8
Styrene	ND		3.1		ug/m3			11/15/16 21:22	1.8

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-3

Lab Sample ID: 140-6336-7

Date Collected: 11/08/16 17:27

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
t-Butyl alcohol	ND		8.7		ug/m3			11/15/16 21:22	1.8
Tetrachloroethene	1000	E	4.9		ug/m3			11/15/16 21:22	1.8
Toluene	ND		4.1		ug/m3			11/15/16 21:22	1.8
trans-1,2-Dichloroethene	ND		2.9		ug/m3			11/15/16 21:22	1.8
trans-1,3-Dichloropropene	ND		3.3		ug/m3			11/15/16 21:22	1.8
Trichloroethene	120		1.9		ug/m3			11/15/16 21:22	1.8
Trichlorofluoromethane	9.8		4.0		ug/m3			11/15/16 21:22	1.8
Vinyl chloride	ND		0.92		ug/m3			11/15/16 21:22	1.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		60 - 140		11/15/16 21:22	1.8

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	150	D	1.4		ppb v/v			11/16/16 10:36	1.8

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	1000	D	9.8		ug/m3			11/16/16 10:36	1.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		60 - 140		11/16/16 10:36	1.8

Client Sample ID: OVP-6

Lab Sample ID: 140-6336-8

Date Collected: 11/09/16 08:50

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.73		0.32		ppb v/v			11/15/16 22:16	2.27
1,1,2,2-Tetrachloroethane	ND		0.32		ppb v/v			11/15/16 22:16	2.27
1,1,2-Trichloroethane	ND		0.32		ppb v/v			11/15/16 22:16	2.27
1,1,2-Trichlorotrifluoroethane	ND		0.32		ppb v/v			11/15/16 22:16	2.27
1,1-Dichloroethane	ND		0.32		ppb v/v			11/15/16 22:16	2.27
1,1-Dichloroethene	ND		0.32		ppb v/v			11/15/16 22:16	2.27
1,2,4-Trichlorobenzene	ND		0.32		ppb v/v			11/15/16 22:16	2.27
1,2,4-Trimethylbenzene	ND		0.32		ppb v/v			11/15/16 22:16	2.27
1,2-Dibromoethane	ND		0.32		ppb v/v			11/15/16 22:16	2.27
1,2-Dichlorobenzene	ND		0.32		ppb v/v			11/15/16 22:16	2.27
1,2-Dichloroethane	ND		0.32		ppb v/v			11/15/16 22:16	2.27
1,2-Dichloropropane	ND		0.32		ppb v/v			11/15/16 22:16	2.27
1,2-Dichlorotetrafluoroethane	120	E	0.32		ppb v/v			11/15/16 22:16	2.27
1,3,5-Trimethylbenzene	ND		0.32		ppb v/v			11/15/16 22:16	2.27
1,3-Dichlorobenzene	ND		0.32		ppb v/v			11/15/16 22:16	2.27
1,4-Dichlorobenzene	ND		0.32		ppb v/v			11/15/16 22:16	2.27
1,4-Dioxane	ND		0.81		ppb v/v			11/15/16 22:16	2.27
2,2,4-Trimethylpentane	ND		0.81		ppb v/v			11/15/16 22:16	2.27
2-Butanone	ND		1.3		ppb v/v			11/15/16 22:16	2.27
4-Methyl-2-pentanone (MIBK)	3.1		0.81		ppb v/v			11/15/16 22:16	2.27
Benzene	ND		0.32		ppb v/v			11/15/16 22:16	2.27

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-6

Lab Sample ID: 140-6336-8

Date Collected: 11/09/16 08:50

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzyl chloride	ND		0.65		ppb v/v			11/15/16 22:16	2.27
Bromodichloromethane	ND		0.32		ppb v/v			11/15/16 22:16	2.27
Bromoform	ND		0.32		ppb v/v			11/15/16 22:16	2.27
Bromomethane	ND		0.32		ppb v/v			11/15/16 22:16	2.27
Carbon tetrachloride	ND		0.16		ppb v/v			11/15/16 22:16	2.27
Chlorobenzene	ND		0.32		ppb v/v			11/15/16 22:16	2.27
Chloroethane	ND		0.32		ppb v/v			11/15/16 22:16	2.27
Chloroform	1.1		0.32		ppb v/v			11/15/16 22:16	2.27
Chloromethane	ND		0.81		ppb v/v			11/15/16 22:16	2.27
cis-1,2-Dichloroethene	ND		0.32		ppb v/v			11/15/16 22:16	2.27
cis-1,3-Dichloropropene	ND		0.32		ppb v/v			11/15/16 22:16	2.27
Cyclohexane	ND		0.81		ppb v/v			11/15/16 22:16	2.27
Dibromochloromethane	ND		0.32		ppb v/v			11/15/16 22:16	2.27
Dichlorodifluoromethane	150	E	0.32		ppb v/v			11/15/16 22:16	2.27
Ethanol	ND		8.1		ppb v/v			11/15/16 22:16	2.27
Ethylbenzene	ND		0.32		ppb v/v			11/15/16 22:16	2.27
Hexachlorobutadiene	ND		0.32		ppb v/v			11/15/16 22:16	2.27
Hexane	ND		0.81		ppb v/v			11/15/16 22:16	2.27
Methyl tert-butyl ether	ND		0.65		ppb v/v			11/15/16 22:16	2.27
Methylene Chloride	2.1		0.81		ppb v/v			11/15/16 22:16	2.27
m-Xylene & p-Xylene	ND		0.32		ppb v/v			11/15/16 22:16	2.27
o-Xylene	ND		0.32		ppb v/v			11/15/16 22:16	2.27
Styrene	ND		0.32		ppb v/v			11/15/16 22:16	2.27
t-Butyl alcohol	ND		1.3		ppb v/v			11/15/16 22:16	2.27
Tetrachloroethene	41		0.32		ppb v/v			11/15/16 22:16	2.27
Toluene	ND		0.49		ppb v/v			11/15/16 22:16	2.27
trans-1,2-Dichloroethene	ND		0.32		ppb v/v			11/15/16 22:16	2.27
trans-1,3-Dichloropropene	ND		0.32		ppb v/v			11/15/16 22:16	2.27
Trichloroethene	0.92		0.16		ppb v/v			11/15/16 22:16	2.27
Trichlorofluoromethane	0.58		0.32		ppb v/v			11/15/16 22:16	2.27
Vinyl chloride	ND		0.16		ppb v/v			11/15/16 22:16	2.27
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	4.0		1.8		ug/m3			11/15/16 22:16	2.27
1,1,2,2-Tetrachloroethane	ND		2.2		ug/m3			11/15/16 22:16	2.27
1,1,2-Trichloroethane	ND		1.8		ug/m3			11/15/16 22:16	2.27
1,1,2-Trichlorotrifluoroethane	ND		2.5		ug/m3			11/15/16 22:16	2.27
1,1-Dichloroethane	ND		1.3		ug/m3			11/15/16 22:16	2.27
1,1-Dichloroethene	ND		1.3		ug/m3			11/15/16 22:16	2.27
1,2,4-Trichlorobenzene	ND		2.4		ug/m3			11/15/16 22:16	2.27
1,2,4-Trimethylbenzene	ND		1.6		ug/m3			11/15/16 22:16	2.27
1,2-Dibromoethane	ND		2.5		ug/m3			11/15/16 22:16	2.27
1,2-Dichlorobenzene	ND		1.9		ug/m3			11/15/16 22:16	2.27
1,2-Dichloroethane	ND		1.3		ug/m3			11/15/16 22:16	2.27
1,2-Dichloropropane	ND		1.5		ug/m3			11/15/16 22:16	2.27
1,2-Dichlorotetrafluoroethane	830	E	2.3		ug/m3			11/15/16 22:16	2.27
1,3,5-Trimethylbenzene	ND		1.6		ug/m3			11/15/16 22:16	2.27
1,3-Dichlorobenzene	ND		1.9		ug/m3			11/15/16 22:16	2.27
1,4-Dichlorobenzene	ND		1.9		ug/m3			11/15/16 22:16	2.27

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-6

Date Collected: 11/09/16 08:50

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Lab Sample ID: 140-6336-8

Matrix: Air

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		2.9		ug/m3			11/15/16 22:16	2.27
2,2,4-Trimethylpentane	ND		3.8		ug/m3			11/15/16 22:16	2.27
2-Butanone	ND		3.8		ug/m3			11/15/16 22:16	2.27
4-Methyl-2-pentanone (MIBK)	13		3.3		ug/m3			11/15/16 22:16	2.27
Benzene	ND		1.0		ug/m3			11/15/16 22:16	2.27
Benzyl chloride	ND		3.4		ug/m3			11/15/16 22:16	2.27
Bromodichloromethane	ND		2.2		ug/m3			11/15/16 22:16	2.27
Bromoform	ND		3.4		ug/m3			11/15/16 22:16	2.27
Bromomethane	ND		1.3		ug/m3			11/15/16 22:16	2.27
Carbon tetrachloride	ND		1.0		ug/m3			11/15/16 22:16	2.27
Chlorobenzene	ND		1.5		ug/m3			11/15/16 22:16	2.27
Chloroethane	ND		0.86		ug/m3			11/15/16 22:16	2.27
Chloroform	5.5		1.6		ug/m3			11/15/16 22:16	2.27
Chloromethane	ND		1.7		ug/m3			11/15/16 22:16	2.27
cis-1,2-Dichloroethene	ND		1.3		ug/m3			11/15/16 22:16	2.27
cis-1,3-Dichloropropene	ND		1.5		ug/m3			11/15/16 22:16	2.27
Cyclohexane	ND		2.8		ug/m3			11/15/16 22:16	2.27
Dibromochloromethane	ND		2.8		ug/m3			11/15/16 22:16	2.27
Dichlorodifluoromethane	740	E	1.6		ug/m3			11/15/16 22:16	2.27
Ethanol	ND		15		ug/m3			11/15/16 22:16	2.27
Ethylbenzene	ND		1.4		ug/m3			11/15/16 22:16	2.27
Hexachlorobutadiene	ND		3.5		ug/m3			11/15/16 22:16	2.27
Hexane	ND		2.9		ug/m3			11/15/16 22:16	2.27
Methyl tert-butyl ether	ND		2.3		ug/m3			11/15/16 22:16	2.27
Methylene Chloride	7.3		2.8		ug/m3			11/15/16 22:16	2.27
m-Xylene & p-Xylene	ND		1.4		ug/m3			11/15/16 22:16	2.27
o-Xylene	ND		1.4		ug/m3			11/15/16 22:16	2.27
Styrene	ND		1.4		ug/m3			11/15/16 22:16	2.27
t-Butyl alcohol	ND		3.9		ug/m3			11/15/16 22:16	2.27
Tetrachloroethene	280		2.2		ug/m3			11/15/16 22:16	2.27
Toluene	ND		1.8		ug/m3			11/15/16 22:16	2.27
trans-1,2-Dichloroethene	ND		1.3		ug/m3			11/15/16 22:16	2.27
trans-1,3-Dichloropropene	ND		1.5		ug/m3			11/15/16 22:16	2.27
Trichloroethene	4.9		0.87		ug/m3			11/15/16 22:16	2.27
Trichlorofluoromethane	3.3		1.8		ug/m3			11/15/16 22:16	2.27
Vinyl chloride	ND		0.41		ug/m3			11/15/16 22:16	2.27

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		60 - 140		11/15/16 22:16	2.27

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorotetrafluoroethane	160	D	1.1		ppb v/v			11/16/16 11:30	2.27
Dichlorodifluoromethane	220	D	1.1		ppb v/v			11/16/16 11:30	2.27
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorotetrafluoroethane	1100	D	7.9		ug/m3			11/16/16 11:30	2.27
Dichlorodifluoromethane	1100	D	5.6		ug/m3			11/16/16 11:30	2.27

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-6

Date Collected: 11/09/16 08:50

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Lab Sample ID: 140-6336-8

Matrix: Air

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		60 - 140		11/16/16 11:30	2.27

Client Sample ID: OVP-7

Date Collected: 11/09/16 09:15

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Lab Sample ID: 140-6336-9

Matrix: Air

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.68		0.32		ppb v/v			11/15/16 23:11	1.58
1,1,2,2-Tetrachloroethane	ND		0.32		ppb v/v			11/15/16 23:11	1.58
1,1,2-Trichloroethane	ND		0.32		ppb v/v			11/15/16 23:11	1.58
1,1,2-Trichlorotrifluoroethane	ND		0.32		ppb v/v			11/15/16 23:11	1.58
1,1-Dichloroethane	ND		0.32		ppb v/v			11/15/16 23:11	1.58
1,1-Dichloroethene	ND		0.32		ppb v/v			11/15/16 23:11	1.58
1,2,4-Trichlorobenzene	ND		0.32		ppb v/v			11/15/16 23:11	1.58
1,2,4-Trimethylbenzene	ND		0.32		ppb v/v			11/15/16 23:11	1.58
1,2-Dibromoethane	ND		0.32		ppb v/v			11/15/16 23:11	1.58
1,2-Dichlorobenzene	ND		0.32		ppb v/v			11/15/16 23:11	1.58
1,2-Dichloroethane	ND		0.32		ppb v/v			11/15/16 23:11	1.58
1,2-Dichloropropane	ND		0.32		ppb v/v			11/15/16 23:11	1.58
1,2-Dichlorotetrafluoroethane	35		0.32		ppb v/v			11/15/16 23:11	1.58
1,3,5-Trimethylbenzene	ND		0.32		ppb v/v			11/15/16 23:11	1.58
1,3-Dichlorobenzene	ND		0.32		ppb v/v			11/15/16 23:11	1.58
1,4-Dichlorobenzene	ND		0.32		ppb v/v			11/15/16 23:11	1.58
1,4-Dioxane	ND		0.79		ppb v/v			11/15/16 23:11	1.58
2,2,4-Trimethylpentane	ND		0.79		ppb v/v			11/15/16 23:11	1.58
2-Butanone	ND		1.3		ppb v/v			11/15/16 23:11	1.58
4-Methyl-2-pentanone (MIBK)	2.1		0.79		ppb v/v			11/15/16 23:11	1.58
Benzene	ND		0.32		ppb v/v			11/15/16 23:11	1.58
Benzyl chloride	ND		0.63		ppb v/v			11/15/16 23:11	1.58
Bromodichloromethane	ND		0.32		ppb v/v			11/15/16 23:11	1.58
Bromoform	ND		0.32		ppb v/v			11/15/16 23:11	1.58
Bromomethane	ND		0.32		ppb v/v			11/15/16 23:11	1.58
Carbon tetrachloride	0.42		0.16		ppb v/v			11/15/16 23:11	1.58
Chlorobenzene	ND		0.32		ppb v/v			11/15/16 23:11	1.58
Chloroethane	ND		0.32		ppb v/v			11/15/16 23:11	1.58
Chloroform	24		0.32		ppb v/v			11/15/16 23:11	1.58
Chloromethane	ND		0.79		ppb v/v			11/15/16 23:11	1.58
cis-1,2-Dichloroethene	ND		0.32		ppb v/v			11/15/16 23:11	1.58
cis-1,3-Dichloropropene	ND		0.32		ppb v/v			11/15/16 23:11	1.58
Cyclohexane	ND		0.79		ppb v/v			11/15/16 23:11	1.58
Dibromochloromethane	ND		0.32		ppb v/v			11/15/16 23:11	1.58
Dichlorodifluoromethane	43		0.32		ppb v/v			11/15/16 23:11	1.58
Ethanol	ND		7.9		ppb v/v			11/15/16 23:11	1.58
Ethylbenzene	ND		0.32		ppb v/v			11/15/16 23:11	1.58
Hexachlorobutadiene	ND		0.32		ppb v/v			11/15/16 23:11	1.58
Hexane	ND		0.79		ppb v/v			11/15/16 23:11	1.58
Methyl tert-butyl ether	ND		0.63		ppb v/v			11/15/16 23:11	1.58

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-7

Lab Sample ID: 140-6336-9

Date Collected: 11/09/16 09:15

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	1.8		0.79		ppb v/v			11/15/16 23:11	1.58
m-Xylene & p-Xylene	0.45		0.32		ppb v/v			11/15/16 23:11	1.58
o-Xylene	ND		0.32		ppb v/v			11/15/16 23:11	1.58
Styrene	ND		0.32		ppb v/v			11/15/16 23:11	1.58
t-Butyl alcohol	ND		1.3		ppb v/v			11/15/16 23:11	1.58
Tetrachloroethene	32		0.32		ppb v/v			11/15/16 23:11	1.58
Toluene	ND		0.47		ppb v/v			11/15/16 23:11	1.58
trans-1,2-Dichloroethene	ND		0.32		ppb v/v			11/15/16 23:11	1.58
trans-1,3-Dichloropropene	ND		0.32		ppb v/v			11/15/16 23:11	1.58
Trichloroethene	0.28		0.16		ppb v/v			11/15/16 23:11	1.58
Trichlorofluoromethane	0.40		0.32		ppb v/v			11/15/16 23:11	1.58
Vinyl chloride	ND		0.16		ppb v/v			11/15/16 23:11	1.58
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	3.7		1.7		ug/m3			11/15/16 23:11	1.58
1,1,2,2-Tetrachloroethane	ND		2.2		ug/m3			11/15/16 23:11	1.58
1,1,2-Trichloroethane	ND		1.7		ug/m3			11/15/16 23:11	1.58
1,1,2-Trichlorotrifluoroethane	ND		2.4		ug/m3			11/15/16 23:11	1.58
1,1-Dichloroethane	ND		1.3		ug/m3			11/15/16 23:11	1.58
1,1-Dichloroethene	ND		1.3		ug/m3			11/15/16 23:11	1.58
1,2,4-Trichlorobenzene	ND		2.3		ug/m3			11/15/16 23:11	1.58
1,2,4-Trimethylbenzene	ND		1.6		ug/m3			11/15/16 23:11	1.58
1,2-Dibromoethane	ND		2.4		ug/m3			11/15/16 23:11	1.58
1,2-Dichlorobenzene	ND		1.9		ug/m3			11/15/16 23:11	1.58
1,2-Dichloroethane	ND		1.3		ug/m3			11/15/16 23:11	1.58
1,2-Dichloropropane	ND		1.5		ug/m3			11/15/16 23:11	1.58
1,2-Dichlorotetrafluoroethane	250		2.2		ug/m3			11/15/16 23:11	1.58
1,3,5-Trimethylbenzene	ND		1.6		ug/m3			11/15/16 23:11	1.58
1,3-Dichlorobenzene	ND		1.9		ug/m3			11/15/16 23:11	1.58
1,4-Dichlorobenzene	ND		1.9		ug/m3			11/15/16 23:11	1.58
1,4-Dioxane	ND		2.8		ug/m3			11/15/16 23:11	1.58
2,2,4-Trimethylpentane	ND		3.7		ug/m3			11/15/16 23:11	1.58
2-Butanone	ND		3.7		ug/m3			11/15/16 23:11	1.58
4-Methyl-2-pentanone (MIBK)	8.7		3.2		ug/m3			11/15/16 23:11	1.58
Benzene	ND		1.0		ug/m3			11/15/16 23:11	1.58
Benzyl chloride	ND		3.3		ug/m3			11/15/16 23:11	1.58
Bromodichloromethane	ND		2.1		ug/m3			11/15/16 23:11	1.58
Bromoform	ND		3.3		ug/m3			11/15/16 23:11	1.58
Bromomethane	ND		1.2		ug/m3			11/15/16 23:11	1.58
Carbon tetrachloride	2.6		0.99		ug/m3			11/15/16 23:11	1.58
Chlorobenzene	ND		1.5		ug/m3			11/15/16 23:11	1.58
Chloroethane	ND		0.83		ug/m3			11/15/16 23:11	1.58
Chloroform	120		1.5		ug/m3			11/15/16 23:11	1.58
Chloromethane	ND		1.6		ug/m3			11/15/16 23:11	1.58
cis-1,2-Dichloroethene	ND		1.3		ug/m3			11/15/16 23:11	1.58
cis-1,3-Dichloropropene	ND		1.4		ug/m3			11/15/16 23:11	1.58
Cyclohexane	ND		2.7		ug/m3			11/15/16 23:11	1.58
Dibromochloromethane	ND		2.7		ug/m3			11/15/16 23:11	1.58
Dichlorodifluoromethane	210		1.6		ug/m3			11/15/16 23:11	1.58

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-7

Lab Sample ID: 140-6336-9

Date Collected: 11/09/16 09:15

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		15		ug/m3			11/15/16 23:11	1.58
Ethylbenzene	ND		1.4		ug/m3			11/15/16 23:11	1.58
Hexachlorobutadiene	ND		3.4		ug/m3			11/15/16 23:11	1.58
Hexane	ND		2.8		ug/m3			11/15/16 23:11	1.58
Methyl tert-butyl ether	ND		2.3		ug/m3			11/15/16 23:11	1.58
Methylene Chloride	6.3		2.7		ug/m3			11/15/16 23:11	1.58
m-Xylene & p-Xylene	2.0		1.4		ug/m3			11/15/16 23:11	1.58
o-Xylene	ND		1.4		ug/m3			11/15/16 23:11	1.58
Styrene	ND		1.3		ug/m3			11/15/16 23:11	1.58
t-Butyl alcohol	ND		3.8		ug/m3			11/15/16 23:11	1.58
Tetrachloroethene	220		2.1		ug/m3			11/15/16 23:11	1.58
Toluene	ND		1.8		ug/m3			11/15/16 23:11	1.58
trans-1,2-Dichloroethene	ND		1.3		ug/m3			11/15/16 23:11	1.58
trans-1,3-Dichloropropene	ND		1.4		ug/m3			11/15/16 23:11	1.58
Trichloroethene	1.5		0.85		ug/m3			11/15/16 23:11	1.58
Trichlorofluoromethane	2.3		1.8		ug/m3			11/15/16 23:11	1.58
Vinyl chloride	ND		0.40		ug/m3			11/15/16 23:11	1.58
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		60 - 140					11/15/16 23:11	1.58

Client Sample ID: OVP-8

Lab Sample ID: 140-6336-10

Date Collected: 11/09/16 09:45

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	4.2		0.32		ppb v/v			11/16/16 00:05	1.5
1,1,2,2-Tetrachloroethane	ND		0.32		ppb v/v			11/16/16 00:05	1.5
1,1,2-Trichloroethane	ND		0.32		ppb v/v			11/16/16 00:05	1.5
1,1,2-Trichlorotrifluoroethane	ND		0.32		ppb v/v			11/16/16 00:05	1.5
1,1-Dichloroethane	ND		0.32		ppb v/v			11/16/16 00:05	1.5
1,1-Dichloroethene	ND		0.32		ppb v/v			11/16/16 00:05	1.5
1,2,4-Trichlorobenzene	ND		0.32		ppb v/v			11/16/16 00:05	1.5
1,2,4-Trimethylbenzene	ND		0.32		ppb v/v			11/16/16 00:05	1.5
1,2-Dibromoethane	ND		0.32		ppb v/v			11/16/16 00:05	1.5
1,2-Dichlorobenzene	ND		0.32		ppb v/v			11/16/16 00:05	1.5
1,2-Dichloroethane	ND		0.32		ppb v/v			11/16/16 00:05	1.5
1,2-Dichloropropane	ND		0.32		ppb v/v			11/16/16 00:05	1.5
1,2-Dichlorotetrafluoroethane	14		0.32		ppb v/v			11/16/16 00:05	1.5
1,3,5-Trimethylbenzene	ND		0.32		ppb v/v			11/16/16 00:05	1.5
1,3-Dichlorobenzene	ND		0.32		ppb v/v			11/16/16 00:05	1.5
1,4-Dichlorobenzene	ND		0.32		ppb v/v			11/16/16 00:05	1.5
1,4-Dioxane	ND		0.79		ppb v/v			11/16/16 00:05	1.5
2,2,4-Trimethylpentane	ND		0.79		ppb v/v			11/16/16 00:05	1.5
2-Butanone	ND		1.3		ppb v/v			11/16/16 00:05	1.5
4-Methyl-2-pentanone (MIBK)	4.2		0.79		ppb v/v			11/16/16 00:05	1.5
Benzene	ND		0.32		ppb v/v			11/16/16 00:05	1.5

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-8

Lab Sample ID: 140-6336-10

Date Collected: 11/09/16 09:45

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzyl chloride	ND		0.63		ppb v/v			11/16/16 00:05	1.5
Bromodichloromethane	ND		0.32		ppb v/v			11/16/16 00:05	1.5
Bromoform	ND		0.32		ppb v/v			11/16/16 00:05	1.5
Bromomethane	ND		0.32		ppb v/v			11/16/16 00:05	1.5
Carbon tetrachloride	0.16		0.16		ppb v/v			11/16/16 00:05	1.5
Chlorobenzene	ND		0.32		ppb v/v			11/16/16 00:05	1.5
Chloroethane	ND		0.32		ppb v/v			11/16/16 00:05	1.5
Chloroform	3.4		0.32		ppb v/v			11/16/16 00:05	1.5
Chloromethane	ND		0.79		ppb v/v			11/16/16 00:05	1.5
cis-1,2-Dichloroethene	ND		0.32		ppb v/v			11/16/16 00:05	1.5
cis-1,3-Dichloropropene	ND		0.32		ppb v/v			11/16/16 00:05	1.5
Cyclohexane	ND		0.79		ppb v/v			11/16/16 00:05	1.5
Dibromochloromethane	ND		0.32		ppb v/v			11/16/16 00:05	1.5
Dichlorodifluoromethane	9.0		0.32		ppb v/v			11/16/16 00:05	1.5
Ethanol	ND		7.9		ppb v/v			11/16/16 00:05	1.5
Ethylbenzene	ND		0.32		ppb v/v			11/16/16 00:05	1.5
Hexachlorobutadiene	ND		0.32		ppb v/v			11/16/16 00:05	1.5
Hexane	ND		0.79		ppb v/v			11/16/16 00:05	1.5
Methyl tert-butyl ether	ND		0.63		ppb v/v			11/16/16 00:05	1.5
Methylene Chloride	2.0		0.79		ppb v/v			11/16/16 00:05	1.5
m-Xylene & p-Xylene	ND		0.32		ppb v/v			11/16/16 00:05	1.5
o-Xylene	ND		0.32		ppb v/v			11/16/16 00:05	1.5
Styrene	ND		0.32		ppb v/v			11/16/16 00:05	1.5
t-Butyl alcohol	ND		1.3		ppb v/v			11/16/16 00:05	1.5
Tetrachloroethene	33		0.32		ppb v/v			11/16/16 00:05	1.5
Toluene	ND		0.47		ppb v/v			11/16/16 00:05	1.5
trans-1,2-Dichloroethene	ND		0.32		ppb v/v			11/16/16 00:05	1.5
trans-1,3-Dichloropropene	ND		0.32		ppb v/v			11/16/16 00:05	1.5
Trichloroethene	0.54		0.16		ppb v/v			11/16/16 00:05	1.5
Trichlorofluoromethane	ND		0.32		ppb v/v			11/16/16 00:05	1.5
Vinyl chloride	ND		0.16		ppb v/v			11/16/16 00:05	1.5
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	23		1.7		ug/m3			11/16/16 00:05	1.5
1,1,2,2-Tetrachloroethane	ND		2.2		ug/m3			11/16/16 00:05	1.5
1,1,2-Trichloroethane	ND		1.7		ug/m3			11/16/16 00:05	1.5
1,1,2-Trichlorotrifluoroethane	ND		2.4		ug/m3			11/16/16 00:05	1.5
1,1-Dichloroethane	ND		1.3		ug/m3			11/16/16 00:05	1.5
1,1-Dichloroethene	ND		1.3		ug/m3			11/16/16 00:05	1.5
1,2,4-Trichlorobenzene	ND		2.3		ug/m3			11/16/16 00:05	1.5
1,2,4-Trimethylbenzene	ND		1.6		ug/m3			11/16/16 00:05	1.5
1,2-Dibromoethane	ND		2.4		ug/m3			11/16/16 00:05	1.5
1,2-Dichlorobenzene	ND		1.9		ug/m3			11/16/16 00:05	1.5
1,2-Dichloroethane	ND		1.3		ug/m3			11/16/16 00:05	1.5
1,2-Dichloropropane	ND		1.5		ug/m3			11/16/16 00:05	1.5
1,2-Dichlorotetrafluoroethane	96		2.2		ug/m3			11/16/16 00:05	1.5
1,3,5-Trimethylbenzene	ND		1.6		ug/m3			11/16/16 00:05	1.5
1,3-Dichlorobenzene	ND		1.9		ug/m3			11/16/16 00:05	1.5
1,4-Dichlorobenzene	ND		1.9		ug/m3			11/16/16 00:05	1.5

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-8

Lab Sample ID: 140-6336-10

Date Collected: 11/09/16 09:45

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		2.8		ug/m3			11/16/16 00:05	1.5
2,2,4-Trimethylpentane	ND		3.7		ug/m3			11/16/16 00:05	1.5
2-Butanone	ND		3.7		ug/m3			11/16/16 00:05	1.5
4-Methyl-2-pentanone (MIBK)	17		3.2		ug/m3			11/16/16 00:05	1.5
Benzene	ND		1.0		ug/m3			11/16/16 00:05	1.5
Benzyl chloride	ND		3.3		ug/m3			11/16/16 00:05	1.5
Bromodichloromethane	ND		2.1		ug/m3			11/16/16 00:05	1.5
Bromoform	ND		3.3		ug/m3			11/16/16 00:05	1.5
Bromomethane	ND		1.2		ug/m3			11/16/16 00:05	1.5
Carbon tetrachloride	1.0		0.99		ug/m3			11/16/16 00:05	1.5
Chlorobenzene	ND		1.5		ug/m3			11/16/16 00:05	1.5
Chloroethane	ND		0.83		ug/m3			11/16/16 00:05	1.5
Chloroform	17		1.5		ug/m3			11/16/16 00:05	1.5
Chloromethane	ND		1.6		ug/m3			11/16/16 00:05	1.5
cis-1,2-Dichloroethene	ND		1.3		ug/m3			11/16/16 00:05	1.5
cis-1,3-Dichloropropene	ND		1.4		ug/m3			11/16/16 00:05	1.5
Cyclohexane	ND		2.7		ug/m3			11/16/16 00:05	1.5
Dibromochloromethane	ND		2.7		ug/m3			11/16/16 00:05	1.5
Dichlorodifluoromethane	44		1.6		ug/m3			11/16/16 00:05	1.5
Ethanol	ND		15		ug/m3			11/16/16 00:05	1.5
Ethylbenzene	ND		1.4		ug/m3			11/16/16 00:05	1.5
Hexachlorobutadiene	ND		3.4		ug/m3			11/16/16 00:05	1.5
Hexane	ND		2.8		ug/m3			11/16/16 00:05	1.5
Methyl tert-butyl ether	ND		2.3		ug/m3			11/16/16 00:05	1.5
Methylene Chloride	6.8		2.7		ug/m3			11/16/16 00:05	1.5
m-Xylene & p-Xylene	ND		1.4		ug/m3			11/16/16 00:05	1.5
o-Xylene	ND		1.4		ug/m3			11/16/16 00:05	1.5
Styrene	ND		1.3		ug/m3			11/16/16 00:05	1.5
t-Butyl alcohol	ND		3.8		ug/m3			11/16/16 00:05	1.5
Tetrachloroethene	220		2.1		ug/m3			11/16/16 00:05	1.5
Toluene	ND		1.8		ug/m3			11/16/16 00:05	1.5
trans-1,2-Dichloroethene	ND		1.3		ug/m3			11/16/16 00:05	1.5
trans-1,3-Dichloropropene	ND		1.4		ug/m3			11/16/16 00:05	1.5
Trichloroethene	2.9		0.85		ug/m3			11/16/16 00:05	1.5
Trichlorofluoromethane	ND		1.8		ug/m3			11/16/16 00:05	1.5
Vinyl chloride	ND		0.40		ug/m3			11/16/16 00:05	1.5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	103		60 - 140		11/16/16 00:05	1.5

Client Sample ID: OVP-4

Lab Sample ID: 140-6336-11

Date Collected: 11/09/16 10:35

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	4.0		0.16		ppb v/v			11/16/16 01:00	1.8
1,1,2,2-Tetrachloroethane	ND		0.16		ppb v/v			11/16/16 01:00	1.8

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-4

Lab Sample ID: 140-6336-11

Date Collected: 11/09/16 10:35

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	ND		0.16		ppb v/v			11/16/16 01:00	1.8
1,1,2-Trichlorotrifluoroethane	ND		0.16		ppb v/v			11/16/16 01:00	1.8
1,1-Dichloroethane	ND		0.16		ppb v/v			11/16/16 01:00	1.8
1,1-Dichloroethene	ND		0.16		ppb v/v			11/16/16 01:00	1.8
1,2,4-Trichlorobenzene	ND		0.16		ppb v/v			11/16/16 01:00	1.8
1,2,4-Trimethylbenzene	ND		0.16		ppb v/v			11/16/16 01:00	1.8
1,2-Dibromoethane	ND		0.16		ppb v/v			11/16/16 01:00	1.8
1,2-Dichlorobenzene	ND		0.16		ppb v/v			11/16/16 01:00	1.8
1,2-Dichloroethane	ND		0.16		ppb v/v			11/16/16 01:00	1.8
1,2-Dichloropropane	ND		0.16		ppb v/v			11/16/16 01:00	1.8
1,2-Dichlorotetrafluoroethane	8.8		0.16		ppb v/v			11/16/16 01:00	1.8
1,3,5-Trimethylbenzene	ND		0.16		ppb v/v			11/16/16 01:00	1.8
1,3-Dichlorobenzene	ND		0.16		ppb v/v			11/16/16 01:00	1.8
1,4-Dichlorobenzene	ND		0.16		ppb v/v			11/16/16 01:00	1.8
1,4-Dioxane	ND		0.40		ppb v/v			11/16/16 01:00	1.8
2,2,4-Trimethylpentane	ND		0.40		ppb v/v			11/16/16 01:00	1.8
2-Butanone	1.1		0.64		ppb v/v			11/16/16 01:00	1.8
4-Methyl-2-pentanone (MIBK)	4.4		0.40		ppb v/v			11/16/16 01:00	1.8
Benzene	ND		0.16		ppb v/v			11/16/16 01:00	1.8
Benzyl chloride	ND		0.32		ppb v/v			11/16/16 01:00	1.8
Bromodichloromethane	ND		0.16		ppb v/v			11/16/16 01:00	1.8
Bromoform	ND		0.16		ppb v/v			11/16/16 01:00	1.8
Bromomethane	ND		0.16		ppb v/v			11/16/16 01:00	1.8
Carbon tetrachloride	ND		0.080		ppb v/v			11/16/16 01:00	1.8
Chlorobenzene	ND		0.16		ppb v/v			11/16/16 01:00	1.8
Chloroethane	ND		0.16		ppb v/v			11/16/16 01:00	1.8
Chloroform	0.33		0.16		ppb v/v			11/16/16 01:00	1.8
Chloromethane	ND		0.40		ppb v/v			11/16/16 01:00	1.8
cis-1,2-Dichloroethene	ND		0.16		ppb v/v			11/16/16 01:00	1.8
cis-1,3-Dichloropropene	ND		0.16		ppb v/v			11/16/16 01:00	1.8
Cyclohexane	ND		0.40		ppb v/v			11/16/16 01:00	1.8
Dibromochloromethane	ND		0.16		ppb v/v			11/16/16 01:00	1.8
Dichlorodifluoromethane	13		0.16		ppb v/v			11/16/16 01:00	1.8
Ethanol	5.2		4.0		ppb v/v			11/16/16 01:00	1.8
Ethylbenzene	ND		0.16		ppb v/v			11/16/16 01:00	1.8
Hexachlorobutadiene	ND		0.16		ppb v/v			11/16/16 01:00	1.8
Hexane	0.64		0.40		ppb v/v			11/16/16 01:00	1.8
Methyl tert-butyl ether	ND		0.32		ppb v/v			11/16/16 01:00	1.8
Methylene Chloride	2.3		0.40		ppb v/v			11/16/16 01:00	1.8
m-Xylene & p-Xylene	0.32		0.16		ppb v/v			11/16/16 01:00	1.8
o-Xylene	ND		0.16		ppb v/v			11/16/16 01:00	1.8
Styrene	ND		0.16		ppb v/v			11/16/16 01:00	1.8
t-Butyl alcohol	ND		0.64		ppb v/v			11/16/16 01:00	1.8
Tetrachloroethene	14		0.16		ppb v/v			11/16/16 01:00	1.8
Toluene	0.53		0.24		ppb v/v			11/16/16 01:00	1.8
trans-1,2-Dichloroethene	ND		0.16		ppb v/v			11/16/16 01:00	1.8
trans-1,3-Dichloropropene	ND		0.16		ppb v/v			11/16/16 01:00	1.8
Trichloroethene	0.34		0.080		ppb v/v			11/16/16 01:00	1.8

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-4

Lab Sample ID: 140-6336-11

Date Collected: 11/09/16 10:35

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.42		0.16		ppb v/v			11/16/16 01:00	1.8
Vinyl chloride	ND		0.080		ppb v/v			11/16/16 01:00	1.8
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	22		0.87		ug/m3			11/16/16 01:00	1.8
1,1,2,2-Tetrachloroethane	ND		1.1		ug/m3			11/16/16 01:00	1.8
1,1,2-Trichloroethane	ND		0.87		ug/m3			11/16/16 01:00	1.8
1,1,2-Trichlorotrifluoroethane	ND		1.2		ug/m3			11/16/16 01:00	1.8
1,1-Dichloroethane	ND		0.65		ug/m3			11/16/16 01:00	1.8
1,1-Dichloroethene	ND		0.63		ug/m3			11/16/16 01:00	1.8
1,2,4-Trichlorobenzene	ND		1.2		ug/m3			11/16/16 01:00	1.8
1,2,4-Trimethylbenzene	ND		0.79		ug/m3			11/16/16 01:00	1.8
1,2-Dibromoethane	ND		1.2		ug/m3			11/16/16 01:00	1.8
1,2-Dichlorobenzene	ND		0.96		ug/m3			11/16/16 01:00	1.8
1,2-Dichloroethane	ND		0.65		ug/m3			11/16/16 01:00	1.8
1,2-Dichloropropane	ND		0.74		ug/m3			11/16/16 01:00	1.8
1,2-Dichlorotetrafluoroethane	62		1.1		ug/m3			11/16/16 01:00	1.8
1,3,5-Trimethylbenzene	ND		0.79		ug/m3			11/16/16 01:00	1.8
1,3-Dichlorobenzene	ND		0.96		ug/m3			11/16/16 01:00	1.8
1,4-Dichlorobenzene	ND		0.96		ug/m3			11/16/16 01:00	1.8
1,4-Dioxane	ND		1.4		ug/m3			11/16/16 01:00	1.8
2,2,4-Trimethylpentane	ND		1.9		ug/m3			11/16/16 01:00	1.8
2-Butanone	3.4		1.9		ug/m3			11/16/16 01:00	1.8
4-Methyl-2-pentanone (MIBK)	18		1.6		ug/m3			11/16/16 01:00	1.8
Benzene	ND		0.51		ug/m3			11/16/16 01:00	1.8
Benzyl chloride	ND		1.7		ug/m3			11/16/16 01:00	1.8
Bromodichloromethane	ND		1.1		ug/m3			11/16/16 01:00	1.8
Bromoform	ND		1.7		ug/m3			11/16/16 01:00	1.8
Bromomethane	ND		0.62		ug/m3			11/16/16 01:00	1.8
Carbon tetrachloride	ND		0.50		ug/m3			11/16/16 01:00	1.8
Chlorobenzene	ND		0.74		ug/m3			11/16/16 01:00	1.8
Chloroethane	ND		0.42		ug/m3			11/16/16 01:00	1.8
Chloroform	1.6		0.78		ug/m3			11/16/16 01:00	1.8
Chloromethane	ND		0.83		ug/m3			11/16/16 01:00	1.8
cis-1,2-Dichloroethene	ND		0.63		ug/m3			11/16/16 01:00	1.8
cis-1,3-Dichloropropene	ND		0.73		ug/m3			11/16/16 01:00	1.8
Cyclohexane	ND		1.4		ug/m3			11/16/16 01:00	1.8
Dibromochloromethane	ND		1.4		ug/m3			11/16/16 01:00	1.8
Dichlorodifluoromethane	63		0.79		ug/m3			11/16/16 01:00	1.8
Ethanol	9.7		7.5		ug/m3			11/16/16 01:00	1.8
Ethylbenzene	ND		0.69		ug/m3			11/16/16 01:00	1.8
Hexachlorobutadiene	ND		1.7		ug/m3			11/16/16 01:00	1.8
Hexane	2.3		1.4		ug/m3			11/16/16 01:00	1.8
Methyl tert-butyl ether	ND		1.2		ug/m3			11/16/16 01:00	1.8
Methylene Chloride	7.8		1.4		ug/m3			11/16/16 01:00	1.8
m-Xylene & p-Xylene	1.4		0.69		ug/m3			11/16/16 01:00	1.8
o-Xylene	ND		0.69		ug/m3			11/16/16 01:00	1.8
Styrene	ND		0.68		ug/m3			11/16/16 01:00	1.8
t-Butyl alcohol	ND		1.9		ug/m3			11/16/16 01:00	1.8

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-4

Lab Sample ID: 140-6336-11

Date Collected: 11/09/16 10:35

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	94		1.1		ug/m3			11/16/16 01:00	1.8
Toluene	2.0		0.90		ug/m3			11/16/16 01:00	1.8
trans-1,2-Dichloroethene	ND		0.63		ug/m3			11/16/16 01:00	1.8
trans-1,3-Dichloropropene	ND		0.73		ug/m3			11/16/16 01:00	1.8
Trichloroethene	1.8		0.43		ug/m3			11/16/16 01:00	1.8
Trichlorofluoromethane	2.4		0.90		ug/m3			11/16/16 01:00	1.8
Vinyl chloride	ND		0.20		ug/m3			11/16/16 01:00	1.8
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	102		60 - 140					11/16/16 01:00	1.8

Client Sample ID: DUP-1

Lab Sample ID: 140-6336-12

Date Collected: 11/09/16 10:35

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	4.2		0.14		ppb v/v			11/16/16 08:48	1.74
1,1,2,2-Tetrachloroethane	ND		0.14		ppb v/v			11/16/16 08:48	1.74
1,1,2-Trichloroethane	ND		0.14		ppb v/v			11/16/16 08:48	1.74
1,1,2-Trichlorotrifluoroethane	ND		0.14		ppb v/v			11/16/16 08:48	1.74
1,1-Dichloroethane	ND		0.14		ppb v/v			11/16/16 08:48	1.74
1,1-Dichloroethene	ND		0.14		ppb v/v			11/16/16 08:48	1.74
1,2,4-Trichlorobenzene	ND		0.14		ppb v/v			11/16/16 08:48	1.74
1,2,4-Trimethylbenzene	ND		0.14		ppb v/v			11/16/16 08:48	1.74
1,2-Dibromoethane	ND		0.14		ppb v/v			11/16/16 08:48	1.74
1,2-Dichlorobenzene	ND		0.14		ppb v/v			11/16/16 08:48	1.74
1,2-Dichloroethane	ND		0.14		ppb v/v			11/16/16 08:48	1.74
1,2-Dichloropropane	ND		0.14		ppb v/v			11/16/16 08:48	1.74
1,2-Dichlorotetrafluoroethane	11		0.14		ppb v/v			11/16/16 08:48	1.74
1,3,5-Trimethylbenzene	ND		0.14		ppb v/v			11/16/16 08:48	1.74
1,3-Dichlorobenzene	ND		0.14		ppb v/v			11/16/16 08:48	1.74
1,4-Dichlorobenzene	ND		0.14		ppb v/v			11/16/16 08:48	1.74
1,4-Dioxane	ND		0.35		ppb v/v			11/16/16 08:48	1.74
2,2,4-Trimethylpentane	ND		0.35		ppb v/v			11/16/16 08:48	1.74
2-Butanone	0.58		0.56		ppb v/v			11/16/16 08:48	1.74
4-Methyl-2-pentanone (MIBK)	ND		0.35		ppb v/v			11/16/16 08:48	1.74
Benzene	ND		0.14		ppb v/v			11/16/16 08:48	1.74
Benzyl chloride	ND		0.28		ppb v/v			11/16/16 08:48	1.74
Bromodichloromethane	ND		0.14		ppb v/v			11/16/16 08:48	1.74
Bromoform	ND		0.14		ppb v/v			11/16/16 08:48	1.74
Bromomethane	ND		0.14		ppb v/v			11/16/16 08:48	1.74
Carbon tetrachloride	ND		0.070		ppb v/v			11/16/16 08:48	1.74
Chlorobenzene	ND		0.14		ppb v/v			11/16/16 08:48	1.74
Chloroethane	ND		0.14		ppb v/v			11/16/16 08:48	1.74
Chloroform	0.36		0.14		ppb v/v			11/16/16 08:48	1.74
Chloromethane	ND		0.35		ppb v/v			11/16/16 08:48	1.74
cis-1,2-Dichloroethene	ND		0.14		ppb v/v			11/16/16 08:48	1.74

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: DUP-1

Lab Sample ID: 140-6336-12

Date Collected: 11/09/16 10:35

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	ND		0.14		ppb v/v			11/16/16 08:48	1.74
Cyclohexane	ND		0.35		ppb v/v			11/16/16 08:48	1.74
Dibromochloromethane	ND		0.14		ppb v/v			11/16/16 08:48	1.74
Dichlorodifluoromethane	10		0.14		ppb v/v			11/16/16 08:48	1.74
Ethanol	ND		3.5		ppb v/v			11/16/16 08:48	1.74
Ethylbenzene	ND		0.14		ppb v/v			11/16/16 08:48	1.74
Hexachlorobutadiene	ND		0.14		ppb v/v			11/16/16 08:48	1.74
Hexane	ND		0.35		ppb v/v			11/16/16 08:48	1.74
Methyl tert-butyl ether	ND		0.28		ppb v/v			11/16/16 08:48	1.74
Methylene Chloride	ND		0.35		ppb v/v			11/16/16 08:48	1.74
m-Xylene & p-Xylene	0.29		0.14		ppb v/v			11/16/16 08:48	1.74
o-Xylene	ND		0.14		ppb v/v			11/16/16 08:48	1.74
Styrene	ND		0.14		ppb v/v			11/16/16 08:48	1.74
t-Butyl alcohol	0.59		0.56		ppb v/v			11/16/16 08:48	1.74
Tetrachloroethene	15		0.14		ppb v/v			11/16/16 08:48	1.74
Toluene	0.33		0.21		ppb v/v			11/16/16 08:48	1.74
trans-1,2-Dichloroethene	ND		0.14		ppb v/v			11/16/16 08:48	1.74
trans-1,3-Dichloropropene	ND		0.14		ppb v/v			11/16/16 08:48	1.74
Trichloroethene	0.37		0.070		ppb v/v			11/16/16 08:48	1.74
Trichlorofluoromethane	0.37		0.14		ppb v/v			11/16/16 08:48	1.74
Vinyl chloride	ND		0.070		ppb v/v			11/16/16 08:48	1.74
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	23		0.76		ug/m3			11/16/16 08:48	1.74
1,1,2,2-Tetrachloroethane	ND		0.96		ug/m3			11/16/16 08:48	1.74
1,1,2-Trichloroethane	ND		0.76		ug/m3			11/16/16 08:48	1.74
1,1,2-Trichlorotrifluoroethane	ND		1.1		ug/m3			11/16/16 08:48	1.74
1,1-Dichloroethane	ND		0.56		ug/m3			11/16/16 08:48	1.74
1,1-Dichloroethene	ND		0.55		ug/m3			11/16/16 08:48	1.74
1,2,4-Trichlorobenzene	ND		1.0		ug/m3			11/16/16 08:48	1.74
1,2,4-Trimethylbenzene	ND		0.68		ug/m3			11/16/16 08:48	1.74
1,2-Dibromoethane	ND		1.1		ug/m3			11/16/16 08:48	1.74
1,2-Dichlorobenzene	ND		0.84		ug/m3			11/16/16 08:48	1.74
1,2-Dichloroethane	ND		0.56		ug/m3			11/16/16 08:48	1.74
1,2-Dichloropropane	ND		0.64		ug/m3			11/16/16 08:48	1.74
1,2-Dichlorotetrafluoroethane	79		0.97		ug/m3			11/16/16 08:48	1.74
1,3,5-Trimethylbenzene	ND		0.68		ug/m3			11/16/16 08:48	1.74
1,3-Dichlorobenzene	ND		0.84		ug/m3			11/16/16 08:48	1.74
1,4-Dichlorobenzene	ND		0.84		ug/m3			11/16/16 08:48	1.74
1,4-Dioxane	ND		1.3		ug/m3			11/16/16 08:48	1.74
2,2,4-Trimethylpentane	ND		1.6		ug/m3			11/16/16 08:48	1.74
2-Butanone	1.7		1.6		ug/m3			11/16/16 08:48	1.74
4-Methyl-2-pentanone (MIBK)	ND		1.4		ug/m3			11/16/16 08:48	1.74
Benzene	ND		0.44		ug/m3			11/16/16 08:48	1.74
Benzyl chloride	ND		1.4		ug/m3			11/16/16 08:48	1.74
Bromodichloromethane	ND		0.93		ug/m3			11/16/16 08:48	1.74
Bromoform	ND		1.4		ug/m3			11/16/16 08:48	1.74
Bromomethane	ND		0.54		ug/m3			11/16/16 08:48	1.74
Carbon tetrachloride	ND		0.44		ug/m3			11/16/16 08:48	1.74

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: DUP-1

Lab Sample ID: 140-6336-12

Date Collected: 11/09/16 10:35

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		0.64		ug/m3			11/16/16 08:48	1.74
Chloroethane	ND		0.37		ug/m3			11/16/16 08:48	1.74
Chloroform	1.7		0.68		ug/m3			11/16/16 08:48	1.74
Chloromethane	ND		0.72		ug/m3			11/16/16 08:48	1.74
cis-1,2-Dichloroethene	ND		0.55		ug/m3			11/16/16 08:48	1.74
cis-1,3-Dichloropropene	ND		0.63		ug/m3			11/16/16 08:48	1.74
Cyclohexane	ND		1.2		ug/m3			11/16/16 08:48	1.74
Dibromochloromethane	ND		1.2		ug/m3			11/16/16 08:48	1.74
Dichlorodifluoromethane	50		0.69		ug/m3			11/16/16 08:48	1.74
Ethanol	ND		6.6		ug/m3			11/16/16 08:48	1.74
Ethylbenzene	ND		0.60		ug/m3			11/16/16 08:48	1.74
Hexachlorobutadiene	ND		1.5		ug/m3			11/16/16 08:48	1.74
Hexane	ND		1.2		ug/m3			11/16/16 08:48	1.74
Methyl tert-butyl ether	ND		1.0		ug/m3			11/16/16 08:48	1.74
Methylene Chloride	ND		1.2		ug/m3			11/16/16 08:48	1.74
m-Xylene & p-Xylene	1.3		0.60		ug/m3			11/16/16 08:48	1.74
o-Xylene	ND		0.60		ug/m3			11/16/16 08:48	1.74
Styrene	ND		0.59		ug/m3			11/16/16 08:48	1.74
t-Butyl alcohol	1.8		1.7		ug/m3			11/16/16 08:48	1.74
Tetrachloroethene	100		0.94		ug/m3			11/16/16 08:48	1.74
Toluene	1.2		0.79		ug/m3			11/16/16 08:48	1.74
trans-1,2-Dichloroethene	ND		0.55		ug/m3			11/16/16 08:48	1.74
trans-1,3-Dichloropropene	ND		0.63		ug/m3			11/16/16 08:48	1.74
Trichloroethene	2.0		0.37		ug/m3			11/16/16 08:48	1.74
Trichlorofluoromethane	2.1		0.78		ug/m3			11/16/16 08:48	1.74
Vinyl chloride	ND		0.18		ug/m3			11/16/16 08:48	1.74

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		60 - 140		11/16/16 08:48	1.74

Client Sample ID: OVP-5

Lab Sample ID: 140-6336-13

Date Collected: 11/09/16 12:07

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.080		ppb v/v			11/16/16 03:43	1.63
1,1,2,2-Tetrachloroethane	ND		0.080		ppb v/v			11/16/16 03:43	1.63
1,1,2-Trichloroethane	ND		0.080		ppb v/v			11/16/16 03:43	1.63
1,1,2-Trichlorotrifluoroethane	ND		0.080		ppb v/v			11/16/16 03:43	1.63
1,1-Dichloroethane	ND		0.080		ppb v/v			11/16/16 03:43	1.63
1,1-Dichloroethene	ND		0.080		ppb v/v			11/16/16 03:43	1.63
1,2,4-Trichlorobenzene	ND		0.080		ppb v/v			11/16/16 03:43	1.63
1,2,4-Trimethylbenzene	ND		0.080		ppb v/v			11/16/16 03:43	1.63
1,2-Dibromoethane	ND		0.080		ppb v/v			11/16/16 03:43	1.63
1,2-Dichlorobenzene	ND		0.080		ppb v/v			11/16/16 03:43	1.63
1,2-Dichloroethane	ND		0.080		ppb v/v			11/16/16 03:43	1.63
1,2-Dichloropropane	ND		0.080		ppb v/v			11/16/16 03:43	1.63

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-5

Lab Sample ID: 140-6336-13

Date Collected: 11/09/16 12:07

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dichlorotetrafluoroethane	0.10		0.080		ppb v/v			11/16/16 03:43	1.63
1,3,5-Trimethylbenzene	ND		0.080		ppb v/v			11/16/16 03:43	1.63
1,3-Dichlorobenzene	ND		0.080		ppb v/v			11/16/16 03:43	1.63
1,4-Dichlorobenzene	ND		0.080		ppb v/v			11/16/16 03:43	1.63
1,4-Dioxane	ND		0.20		ppb v/v			11/16/16 03:43	1.63
2,2,4-Trimethylpentane	0.43		0.20		ppb v/v			11/16/16 03:43	1.63
2-Butanone	1.1		0.32		ppb v/v			11/16/16 03:43	1.63
4-Methyl-2-pentanone (MIBK)	2.1		0.20		ppb v/v			11/16/16 03:43	1.63
Benzene	ND		0.080		ppb v/v			11/16/16 03:43	1.63
Benzyl chloride	ND		0.16		ppb v/v			11/16/16 03:43	1.63
Bromodichloromethane	0.12		0.080		ppb v/v			11/16/16 03:43	1.63
Bromoform	ND		0.080		ppb v/v			11/16/16 03:43	1.63
Bromomethane	ND		0.080		ppb v/v			11/16/16 03:43	1.63
Carbon tetrachloride	0.045		0.040		ppb v/v			11/16/16 03:43	1.63
Chlorobenzene	ND		0.080		ppb v/v			11/16/16 03:43	1.63
Chloroethane	ND		0.080		ppb v/v			11/16/16 03:43	1.63
Chloroform	3.6		0.080		ppb v/v			11/16/16 03:43	1.63
Chloromethane	ND		0.20		ppb v/v			11/16/16 03:43	1.63
cis-1,2-Dichloroethene	ND		0.080		ppb v/v			11/16/16 03:43	1.63
cis-1,3-Dichloropropene	ND		0.080		ppb v/v			11/16/16 03:43	1.63
Cyclohexane	0.35		0.20		ppb v/v			11/16/16 03:43	1.63
Dibromochloromethane	ND		0.080		ppb v/v			11/16/16 03:43	1.63
Dichlorodifluoromethane	0.49		0.080		ppb v/v			11/16/16 03:43	1.63
Ethanol	ND		2.0		ppb v/v			11/16/16 03:43	1.63
Ethylbenzene	ND		0.080		ppb v/v			11/16/16 03:43	1.63
Hexachlorobutadiene	ND		0.080		ppb v/v			11/16/16 03:43	1.63
Hexane	0.24		0.20		ppb v/v			11/16/16 03:43	1.63
Methyl tert-butyl ether	0.27		0.16		ppb v/v			11/16/16 03:43	1.63
Methylene Chloride	0.75		0.20		ppb v/v			11/16/16 03:43	1.63
m-Xylene & p-Xylene	0.13		0.080		ppb v/v			11/16/16 03:43	1.63
o-Xylene	ND		0.080		ppb v/v			11/16/16 03:43	1.63
Styrene	ND		0.080		ppb v/v			11/16/16 03:43	1.63
t-Butyl alcohol	0.41		0.32		ppb v/v			11/16/16 03:43	1.63
Tetrachloroethene	1.7		0.080		ppb v/v			11/16/16 03:43	1.63
Toluene	ND		0.12		ppb v/v			11/16/16 03:43	1.63
trans-1,2-Dichloroethene	ND		0.080		ppb v/v			11/16/16 03:43	1.63
trans-1,3-Dichloropropene	ND		0.080		ppb v/v			11/16/16 03:43	1.63
Trichloroethene	0.19		0.040		ppb v/v			11/16/16 03:43	1.63
Trichlorofluoromethane	0.25		0.080		ppb v/v			11/16/16 03:43	1.63
Vinyl chloride	ND		0.040		ppb v/v			11/16/16 03:43	1.63
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.44		ug/m3			11/16/16 03:43	1.63
1,1,2,2-Tetrachloroethane	ND		0.55		ug/m3			11/16/16 03:43	1.63
1,1,2-Trichloroethane	ND		0.44		ug/m3			11/16/16 03:43	1.63
1,1,2-Trichlorotrifluoroethane	ND		0.61		ug/m3			11/16/16 03:43	1.63
1,1-Dichloroethane	ND		0.32		ug/m3			11/16/16 03:43	1.63
1,1-Dichloroethene	ND		0.32		ug/m3			11/16/16 03:43	1.63
1,2,4-Trichlorobenzene	ND		0.59		ug/m3			11/16/16 03:43	1.63

TestAmerica Knoxville

Client Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-5

Lab Sample ID: 140-6336-13

Date Collected: 11/09/16 12:07

Matrix: Air

Date Received: 11/11/16 10:00

Sample Container: Summa Canister 6L

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		0.39		ug/m3			11/16/16 03:43	1.63
1,2-Dibromoethane	ND		0.61		ug/m3			11/16/16 03:43	1.63
1,2-Dichlorobenzene	ND		0.48		ug/m3			11/16/16 03:43	1.63
1,2-Dichloroethane	ND		0.32		ug/m3			11/16/16 03:43	1.63
1,2-Dichloropropane	ND		0.37		ug/m3			11/16/16 03:43	1.63
1,2-Dichlorotetrafluoroethane	0.70		0.56		ug/m3			11/16/16 03:43	1.63
1,3,5-Trimethylbenzene	ND		0.39		ug/m3			11/16/16 03:43	1.63
1,3-Dichlorobenzene	ND		0.48		ug/m3			11/16/16 03:43	1.63
1,4-Dichlorobenzene	ND		0.48		ug/m3			11/16/16 03:43	1.63
1,4-Dioxane	ND		0.72		ug/m3			11/16/16 03:43	1.63
2,2,4-Trimethylpentane	2.0		0.93		ug/m3			11/16/16 03:43	1.63
2-Butanone	3.1		0.94		ug/m3			11/16/16 03:43	1.63
4-Methyl-2-pentanone (MIBK)	8.7		0.82		ug/m3			11/16/16 03:43	1.63
Benzene	ND		0.26		ug/m3			11/16/16 03:43	1.63
Benzyl chloride	ND		0.83		ug/m3			11/16/16 03:43	1.63
Bromodichloromethane	0.84		0.54		ug/m3			11/16/16 03:43	1.63
Bromoform	ND		0.83		ug/m3			11/16/16 03:43	1.63
Bromomethane	ND		0.31		ug/m3			11/16/16 03:43	1.63
Carbon tetrachloride	0.28		0.25		ug/m3			11/16/16 03:43	1.63
Chlorobenzene	ND		0.37		ug/m3			11/16/16 03:43	1.63
Chloroethane	ND		0.21		ug/m3			11/16/16 03:43	1.63
Chloroform	18		0.39		ug/m3			11/16/16 03:43	1.63
Chloromethane	ND		0.41		ug/m3			11/16/16 03:43	1.63
cis-1,2-Dichloroethene	ND		0.32		ug/m3			11/16/16 03:43	1.63
cis-1,3-Dichloropropene	ND		0.36		ug/m3			11/16/16 03:43	1.63
Cyclohexane	1.2		0.69		ug/m3			11/16/16 03:43	1.63
Dibromochloromethane	ND		0.68		ug/m3			11/16/16 03:43	1.63
Dichlorodifluoromethane	2.4		0.40		ug/m3			11/16/16 03:43	1.63
Ethanol	ND		3.8		ug/m3			11/16/16 03:43	1.63
Ethylbenzene	ND		0.35		ug/m3			11/16/16 03:43	1.63
Hexachlorobutadiene	ND		0.85		ug/m3			11/16/16 03:43	1.63
Hexane	0.85		0.70		ug/m3			11/16/16 03:43	1.63
Methyl tert-butyl ether	0.96		0.58		ug/m3			11/16/16 03:43	1.63
Methylene Chloride	2.6		0.69		ug/m3			11/16/16 03:43	1.63
m-Xylene & p-Xylene	0.57		0.35		ug/m3			11/16/16 03:43	1.63
o-Xylene	ND		0.35		ug/m3			11/16/16 03:43	1.63
Styrene	ND		0.34		ug/m3			11/16/16 03:43	1.63
t-Butyl alcohol	1.2		0.97		ug/m3			11/16/16 03:43	1.63
Tetrachloroethene	12		0.54		ug/m3			11/16/16 03:43	1.63
Toluene	ND		0.45		ug/m3			11/16/16 03:43	1.63
trans-1,2-Dichloroethene	ND		0.32		ug/m3			11/16/16 03:43	1.63
trans-1,3-Dichloropropene	ND		0.36		ug/m3			11/16/16 03:43	1.63
Trichloroethene	1.0		0.21		ug/m3			11/16/16 03:43	1.63
Trichlorofluoromethane	1.4		0.45		ug/m3			11/16/16 03:43	1.63
Vinyl chloride	ND		0.10		ug/m3			11/16/16 03:43	1.63

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	106		60 - 140		11/16/16 03:43	1.63

TestAmerica Knoxville

Default Detection Limits

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Analyte	RL	MDL	Units	Method
1,1,1-Trichloroethane	0.080	0.012	ppb v/v	TO 15 LL
1,1,1-Trichloroethane	0.44	0.065	ug/m3	TO 15 LL
1,1,2,2-Tetrachloroethane	0.080	0.024	ppb v/v	TO 15 LL
1,1,2,2-Tetrachloroethane	0.55	0.16	ug/m3	TO 15 LL
1,1,2-Trichloroethane	0.080	0.021	ppb v/v	TO 15 LL
1,1,2-Trichloroethane	0.44	0.11	ug/m3	TO 15 LL
1,1,2-Trichlorotrifluoroethane	0.080	0.012	ppb v/v	TO 15 LL
1,1,2-Trichlorotrifluoroethane	0.61	0.092	ug/m3	TO 15 LL
1,1-Dichloroethane	0.080	0.010	ppb v/v	TO 15 LL
1,1-Dichloroethane	0.32	0.040	ug/m3	TO 15 LL
1,1-Dichloroethene	0.080	0.014	ppb v/v	TO 15 LL
1,1-Dichloroethene	0.32	0.056	ug/m3	TO 15 LL
1,2,4-Trichlorobenzene	0.080	0.039	ppb v/v	TO 15 LL
1,2,4-Trichlorobenzene	0.59	0.29	ug/m3	TO 15 LL
1,2,4-Trimethylbenzene	0.080	0.025	ppb v/v	TO 15 LL
1,2,4-Trimethylbenzene	0.39	0.12	ug/m3	TO 15 LL
1,2-Dibromoethane	0.080	0.018	ppb v/v	TO 15 LL
1,2-Dibromoethane	0.61	0.14	ug/m3	TO 15 LL
1,2-Dichlorobenzene	0.080	0.028	ppb v/v	TO 15 LL
1,2-Dichlorobenzene	0.48	0.17	ug/m3	TO 15 LL
1,2-Dichloroethane	0.080	0.019	ppb v/v	TO 15 LL
1,2-Dichloroethane	0.32	0.077	ug/m3	TO 15 LL
1,2-Dichloropropane	0.080	0.021	ppb v/v	TO 15 LL
1,2-Dichloropropane	0.37	0.097	ug/m3	TO 15 LL
1,2-Dichlorotetrafluoroethane	0.080	0.013	ppb v/v	TO 15 LL
1,2-Dichlorotetrafluoroethane	0.56	0.091	ug/m3	TO 15 LL
1,3,5-Trimethylbenzene	0.080	0.026	ppb v/v	TO 15 LL
1,3,5-Trimethylbenzene	0.39	0.13	ug/m3	TO 15 LL
1,3-Dichlorobenzene	0.080	0.026	ppb v/v	TO 15 LL
1,3-Dichlorobenzene	0.48	0.16	ug/m3	TO 15 LL
1,4-Dichlorobenzene	0.080	0.026	ppb v/v	TO 15 LL
1,4-Dichlorobenzene	0.48	0.16	ug/m3	TO 15 LL
1,4-Dioxane	0.20	0.032	ppb v/v	TO 15 LL
1,4-Dioxane	0.72	0.12	ug/m3	TO 15 LL
2,2,4-Trimethylpentane	0.20	0.016	ppb v/v	TO 15 LL
2,2,4-Trimethylpentane	0.93	0.075	ug/m3	TO 15 LL
2-Butanone	0.32	0.080	ppb v/v	TO 15 LL
2-Butanone	0.94	0.24	ug/m3	TO 15 LL
4-Methyl-2-pentanone (MIBK)	0.20	0.018	ppb v/v	TO 15 LL
4-Methyl-2-pentanone (MIBK)	0.82	0.074	ug/m3	TO 15 LL
Benzene	0.080	0.023	ppb v/v	TO 15 LL
Benzene	0.26	0.073	ug/m3	TO 15 LL
Benzyl chloride	0.16	0.031	ppb v/v	TO 15 LL
Benzyl chloride	0.83	0.16	ug/m3	TO 15 LL
Bromodichloromethane	0.080	0.018	ppb v/v	TO 15 LL
Bromodichloromethane	0.54	0.12	ug/m3	TO 15 LL
Bromoform	0.080	0.019	ppb v/v	TO 15 LL
Bromoform	0.83	0.20	ug/m3	TO 15 LL
Bromomethane	0.080	0.013	ppb v/v	TO 15 LL
Bromomethane	0.31	0.050	ug/m3	TO 15 LL
Carbon tetrachloride	0.040	0.015	ppb v/v	TO 15 LL
Carbon tetrachloride	0.25	0.094	ug/m3	TO 15 LL

Default Detection Limits

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Conti

Analyte	RL	MDL	Units	Method
Chlorobenzene	0.080	0.020	ppb v/v	TO 15 LL
Chlorobenzene	0.37	0.092	ug/m3	TO 15 LL
Chloroethane	0.080	0.014	ppb v/v	TO 15 LL
Chloroethane	0.21	0.037	ug/m3	TO 15 LL
Chloroform	0.080	0.015	ppb v/v	TO 15 LL
Chloroform	0.39	0.073	ug/m3	TO 15 LL
Chloromethane	0.20	0.064	ppb v/v	TO 15 LL
Chloromethane	0.41	0.13	ug/m3	TO 15 LL
cis-1,2-Dichloroethene	0.080	0.024	ppb v/v	TO 15 LL
cis-1,2-Dichloroethene	0.32	0.095	ug/m3	TO 15 LL
cis-1,3-Dichloropropene	0.080	0.029	ppb v/v	TO 15 LL
cis-1,3-Dichloropropene	0.36	0.13	ug/m3	TO 15 LL
Cyclohexane	0.20	0.016	ppb v/v	TO 15 LL
Cyclohexane	0.69	0.055	ug/m3	TO 15 LL
Dibromochloromethane	0.080	0.017	ppb v/v	TO 15 LL
Dibromochloromethane	0.68	0.14	ug/m3	TO 15 LL
Dichlorodifluoromethane	0.080	0.027	ppb v/v	TO 15 LL
Dichlorodifluoromethane	0.40	0.13	ug/m3	TO 15 LL
Ethanol	2.0	0.64	ppb v/v	TO 15 LL
Ethanol	3.8	1.2	ug/m3	TO 15 LL
Ethylbenzene	0.080	0.027	ppb v/v	TO 15 LL
Ethylbenzene	0.35	0.12	ug/m3	TO 15 LL
Hexachlorobutadiene	0.080	0.049	ppb v/v	TO 15 LL
Hexachlorobutadiene	0.85	0.52	ug/m3	TO 15 LL
Hexane	0.20	0.013	ppb v/v	TO 15 LL
Hexane	0.70	0.046	ug/m3	TO 15 LL
Methyl tert-butyl ether	0.16	0.068	ppb v/v	TO 15 LL
Methyl tert-butyl ether	0.58	0.25	ug/m3	TO 15 LL
Methylene Chloride	0.20	0.13	ppb v/v	TO 15 LL
Methylene Chloride	0.69	0.45	ug/m3	TO 15 LL
m-Xylene & p-Xylene	0.080	0.053	ppb v/v	TO 15 LL
m-Xylene & p-Xylene	0.35	0.23	ug/m3	TO 15 LL
o-Xylene	0.080	0.024	ppb v/v	TO 15 LL
o-Xylene	0.35	0.10	ug/m3	TO 15 LL
Styrene	0.080	0.023	ppb v/v	TO 15 LL
Styrene	0.34	0.098	ug/m3	TO 15 LL
t-Butyl alcohol	0.32	0.015	ppb v/v	TO 15 LL
t-Butyl alcohol	0.97	0.045	ug/m3	TO 15 LL
Tetrachloroethene	0.080	0.016	ppb v/v	TO 15 LL
Tetrachloroethene	0.54	0.11	ug/m3	TO 15 LL
Toluene	0.12	0.12	ppb v/v	TO 15 LL
Toluene	0.45	0.45	ug/m3	TO 15 LL
trans-1,2-Dichloroethene	0.080	0.020	ppb v/v	TO 15 LL
trans-1,2-Dichloroethene	0.32	0.079	ug/m3	TO 15 LL
trans-1,3-Dichloropropene	0.080	0.019	ppb v/v	TO 15 LL
trans-1,3-Dichloropropene	0.36	0.086	ug/m3	TO 15 LL
Trichloroethene	0.040	0.014	ppb v/v	TO 15 LL
Trichloroethene	0.21	0.075	ug/m3	TO 15 LL
Trichlorofluoromethane	0.080	0.010	ppb v/v	TO 15 LL
Trichlorofluoromethane	0.45	0.056	ug/m3	TO 15 LL
Vinyl chloride	0.040	0.029	ppb v/v	TO 15 LL
Vinyl chloride	0.10	0.074	ug/m3	TO 15 LL

Surrogate Summary

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Matrix: Air

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	BFB (60-140)
140-6336-1	OVP-10	104
140-6336-2	OVP-9	102
140-6336-2 - DL	OVP-9	101
140-6336-3	OVP-1	104
140-6336-4 - DL	OVP-2	102
140-6336-4	OVP-2	102
140-6336-5	OA-1	102
140-6336-5 - DL	OA-1	104
140-6336-6	OA-2	101
140-6336-7	OVP-3	103
140-6336-7 - DL	OVP-3	102
140-6336-8	OVP-6	101
140-6336-8 - DL	OVP-6	102
140-6336-9	OVP-7	102
140-6336-10	OVP-8	103
140-6336-11	OVP-4	102
140-6336-12	DUP-1	105
140-6336-13	OVP-5	106
LCS 140-7171/1006	Lab Control Sample	104
MB 140-7171/8	Method Blank	98

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

QC Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)

Lab Sample ID: MB 140-7171/8

Matrix: Air

Analysis Batch: 7171

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.080		ppb v/v			11/15/16 15:00	1
1,1,2,2-Tetrachloroethane	ND		0.080		ppb v/v			11/15/16 15:00	1
1,1,2-Trichloroethane	ND		0.080		ppb v/v			11/15/16 15:00	1
1,1,2-Trichlorotrifluoroethane	ND		0.080		ppb v/v			11/15/16 15:00	1
1,1-Dichloroethane	ND		0.080		ppb v/v			11/15/16 15:00	1
1,1-Dichloroethene	ND		0.080		ppb v/v			11/15/16 15:00	1
1,2,4-Trichlorobenzene	ND		0.080		ppb v/v			11/15/16 15:00	1
1,2,4-Trimethylbenzene	ND		0.080		ppb v/v			11/15/16 15:00	1
1,2-Dibromoethane	ND		0.080		ppb v/v			11/15/16 15:00	1
1,2-Dichlorobenzene	ND		0.080		ppb v/v			11/15/16 15:00	1
1,2-Dichloroethane	ND		0.080		ppb v/v			11/15/16 15:00	1
1,2-Dichloropropane	ND		0.080		ppb v/v			11/15/16 15:00	1
1,2-Dichlorotetrafluoroethane	ND		0.080		ppb v/v			11/15/16 15:00	1
1,3,5-Trimethylbenzene	ND		0.080		ppb v/v			11/15/16 15:00	1
1,3-Dichlorobenzene	ND		0.080		ppb v/v			11/15/16 15:00	1
1,4-Dichlorobenzene	ND		0.080		ppb v/v			11/15/16 15:00	1
1,4-Dioxane	ND		0.20		ppb v/v			11/15/16 15:00	1
2,2,4-Trimethylpentane	ND		0.20		ppb v/v			11/15/16 15:00	1
2-Butanone	ND		0.32		ppb v/v			11/15/16 15:00	1
4-Methyl-2-pentanone (MIBK)	ND		0.20		ppb v/v			11/15/16 15:00	1
Benzene	ND		0.080		ppb v/v			11/15/16 15:00	1
Benzyl chloride	ND		0.16		ppb v/v			11/15/16 15:00	1
Bromodichloromethane	ND		0.080		ppb v/v			11/15/16 15:00	1
Bromoform	ND		0.080		ppb v/v			11/15/16 15:00	1
Bromomethane	ND		0.080		ppb v/v			11/15/16 15:00	1
Carbon tetrachloride	ND		0.040		ppb v/v			11/15/16 15:00	1
Chlorobenzene	ND		0.080		ppb v/v			11/15/16 15:00	1
Chloroethane	ND		0.080		ppb v/v			11/15/16 15:00	1
Chloroform	ND		0.080		ppb v/v			11/15/16 15:00	1
Chloromethane	ND		0.20		ppb v/v			11/15/16 15:00	1
cis-1,2-Dichloroethene	ND		0.080		ppb v/v			11/15/16 15:00	1
cis-1,3-Dichloropropene	ND		0.080		ppb v/v			11/15/16 15:00	1
Cyclohexane	ND		0.20		ppb v/v			11/15/16 15:00	1
Dibromochloromethane	ND		0.080		ppb v/v			11/15/16 15:00	1
Dichlorodifluoromethane	ND		0.080		ppb v/v			11/15/16 15:00	1
Ethanol	ND		2.0		ppb v/v			11/15/16 15:00	1
Ethylbenzene	ND		0.080		ppb v/v			11/15/16 15:00	1
Hexachlorobutadiene	ND		0.080		ppb v/v			11/15/16 15:00	1
Hexane	ND		0.20		ppb v/v			11/15/16 15:00	1
Methyl tert-butyl ether	ND		0.16		ppb v/v			11/15/16 15:00	1
Methylene Chloride	ND		0.20		ppb v/v			11/15/16 15:00	1
m-Xylene & p-Xylene	ND		0.080		ppb v/v			11/15/16 15:00	1
o-Xylene	ND		0.080		ppb v/v			11/15/16 15:00	1
Styrene	ND		0.080		ppb v/v			11/15/16 15:00	1
t-Butyl alcohol	ND		0.32		ppb v/v			11/15/16 15:00	1
Tetrachloroethene	ND		0.080		ppb v/v			11/15/16 15:00	1
Toluene	ND		0.12		ppb v/v			11/15/16 15:00	1
trans-1,2-Dichloroethene	ND		0.080		ppb v/v			11/15/16 15:00	1

TestAmerica Knoxville

QC Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-7171/8

Matrix: Air

Analysis Batch: 7171

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		0.080		ppb v/v			11/15/16 15:00	1
Trichloroethene	ND		0.040		ppb v/v			11/15/16 15:00	1
Trichlorofluoromethane	ND		0.080		ppb v/v			11/15/16 15:00	1
Vinyl chloride	ND		0.040		ppb v/v			11/15/16 15:00	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.44		ug/m3			11/15/16 15:00	1
1,1,2,2-Tetrachloroethane	ND		0.55		ug/m3			11/15/16 15:00	1
1,1,2-Trichloroethane	ND		0.44		ug/m3			11/15/16 15:00	1
1,1,2-Trichlorotrifluoroethane	ND		0.61		ug/m3			11/15/16 15:00	1
1,1-Dichloroethane	ND		0.32		ug/m3			11/15/16 15:00	1
1,1-Dichloroethene	ND		0.32		ug/m3			11/15/16 15:00	1
1,2,4-Trichlorobenzene	ND		0.59		ug/m3			11/15/16 15:00	1
1,2,4-Trimethylbenzene	ND		0.39		ug/m3			11/15/16 15:00	1
1,2-Dibromoethane	ND		0.61		ug/m3			11/15/16 15:00	1
1,2-Dichlorobenzene	ND		0.48		ug/m3			11/15/16 15:00	1
1,2-Dichloroethane	ND		0.32		ug/m3			11/15/16 15:00	1
1,2-Dichloropropane	ND		0.37		ug/m3			11/15/16 15:00	1
1,2-Dichlorotetrafluoroethane	ND		0.56		ug/m3			11/15/16 15:00	1
1,3,5-Trimethylbenzene	ND		0.39		ug/m3			11/15/16 15:00	1
1,3-Dichlorobenzene	ND		0.48		ug/m3			11/15/16 15:00	1
1,4-Dichlorobenzene	ND		0.48		ug/m3			11/15/16 15:00	1
1,4-Dioxane	ND		0.72		ug/m3			11/15/16 15:00	1
2,2,4-Trimethylpentane	ND		0.93		ug/m3			11/15/16 15:00	1
2-Butanone	ND		0.94		ug/m3			11/15/16 15:00	1
4-Methyl-2-pentanone (MIBK)	ND		0.82		ug/m3			11/15/16 15:00	1
Benzene	ND		0.26		ug/m3			11/15/16 15:00	1
Benzyl chloride	ND		0.83		ug/m3			11/15/16 15:00	1
Bromodichloromethane	ND		0.54		ug/m3			11/15/16 15:00	1
Bromoform	ND		0.83		ug/m3			11/15/16 15:00	1
Bromomethane	ND		0.31		ug/m3			11/15/16 15:00	1
Carbon tetrachloride	ND		0.25		ug/m3			11/15/16 15:00	1
Chlorobenzene	ND		0.37		ug/m3			11/15/16 15:00	1
Chloroethane	ND		0.21		ug/m3			11/15/16 15:00	1
Chloroform	ND		0.39		ug/m3			11/15/16 15:00	1
Chloromethane	ND		0.41		ug/m3			11/15/16 15:00	1
cis-1,2-Dichloroethene	ND		0.32		ug/m3			11/15/16 15:00	1
cis-1,3-Dichloropropene	ND		0.36		ug/m3			11/15/16 15:00	1
Cyclohexane	ND		0.69		ug/m3			11/15/16 15:00	1
Dibromochloromethane	ND		0.68		ug/m3			11/15/16 15:00	1
Dichlorodifluoromethane	ND		0.40		ug/m3			11/15/16 15:00	1
Ethanol	ND		3.8		ug/m3			11/15/16 15:00	1
Ethylbenzene	ND		0.35		ug/m3			11/15/16 15:00	1
Hexachlorobutadiene	ND		0.85		ug/m3			11/15/16 15:00	1
Hexane	ND		0.70		ug/m3			11/15/16 15:00	1
Methyl tert-butyl ether	ND		0.58		ug/m3			11/15/16 15:00	1
Methylene Chloride	ND		0.69		ug/m3			11/15/16 15:00	1

TestAmerica Knoxville

QC Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: MB 140-7171/8

Matrix: Air

Analysis Batch: 7171

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
m-Xylene & p-Xylene	ND		0.35		ug/m3			11/15/16 15:00	1
o-Xylene	ND		0.35		ug/m3			11/15/16 15:00	1
Styrene	ND		0.34		ug/m3			11/15/16 15:00	1
t-Butyl alcohol	ND		0.97		ug/m3			11/15/16 15:00	1
Tetrachloroethene	ND		0.54		ug/m3			11/15/16 15:00	1
Toluene	ND		0.45		ug/m3			11/15/16 15:00	1
trans-1,2-Dichloroethene	ND		0.32		ug/m3			11/15/16 15:00	1
trans-1,3-Dichloropropene	ND		0.36		ug/m3			11/15/16 15:00	1
Trichloroethene	ND		0.21		ug/m3			11/15/16 15:00	1
Trichlorofluoromethane	ND		0.45		ug/m3			11/15/16 15:00	1
Vinyl chloride	ND		0.10		ug/m3			11/15/16 15:00	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	98		60 - 140		11/15/16 15:00	1

Lab Sample ID: LCS 140-7171/1006

Matrix: Air

Analysis Batch: 7171

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	1.99	2.19		ppb v/v		110	70 - 130
1,1,2,2-Tetrachloroethane	1.99	2.14		ppb v/v		108	70 - 130
1,1,2-Trichloroethane	1.99	2.05		ppb v/v		103	70 - 130
1,1,2-Trichlorotrifluoroethane	1.99	2.26		ppb v/v		114	70 - 130
1,1-Dichloroethane	1.99	2.23		ppb v/v		112	70 - 130
1,1-Dichloroethene	1.99	2.25		ppb v/v		113	70 - 130
1,2,4-Trichlorobenzene	1.99	2.49		ppb v/v		125	60 - 140
1,2,4-Trimethylbenzene	1.99	2.19		ppb v/v		110	70 - 130
1,2-Dibromoethane	1.99	1.99		ppb v/v		100	70 - 130
1,2-Dichlorobenzene	1.99	2.04		ppb v/v		102	70 - 130
1,2-Dichloroethane	1.99	2.23		ppb v/v		112	70 - 130
1,2-Dichloropropane	1.99	2.10		ppb v/v		105	70 - 130
1,2-Dichlorotetrafluoroethane	1.99	2.67		ppb v/v		134	60 - 140
1,3,5-Trimethylbenzene	1.99	2.10		ppb v/v		106	70 - 130
1,3-Dichlorobenzene	1.99	2.05		ppb v/v		103	70 - 130
1,4-Dichlorobenzene	1.99	2.04		ppb v/v		102	70 - 130
1,4-Dioxane	1.99	2.03		ppb v/v		102	60 - 140
2,2,4-Trimethylpentane	1.99	2.25		ppb v/v		113	70 - 130
2-Butanone	1.99	2.07		ppb v/v		104	60 - 140
4-Methyl-2-pentanone (MIBK)	1.99	2.20		ppb v/v		110	60 - 140
Benzene	1.99	2.20		ppb v/v		110	70 - 130
Benzyl chloride	1.99	1.98		ppb v/v		99	70 - 130
Bromodichloromethane	1.99	2.15		ppb v/v		108	70 - 130
Bromoform	1.99	1.89		ppb v/v		95	60 - 140
Bromomethane	1.99	2.37		ppb v/v		119	70 - 130
Carbon tetrachloride	1.99	2.19		ppb v/v		110	70 - 130
Chlorobenzene	1.99	2.01		ppb v/v		101	70 - 130

TestAmerica Knoxville

QC Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-7171/1006

Matrix: Air

Analysis Batch: 7171

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloroethane	1.99	2.45		ppb v/v		123	70 - 130
Chloroform	1.99	2.18		ppb v/v		110	70 - 130
Chloromethane	1.99	2.29		ppb v/v		115	60 - 140
cis-1,2-Dichloroethene	1.99	2.20		ppb v/v		110	70 - 130
cis-1,3-Dichloropropene	1.99	2.00		ppb v/v		101	70 - 130
Cyclohexane	1.99	2.36		ppb v/v		118	70 - 130
Dibromochloromethane	1.99	2.12		ppb v/v		106	70 - 130
Dichlorodifluoromethane	1.99	2.34		ppb v/v		117	60 - 140
Ethanol	9.96	11.1		ppb v/v		111	60 - 140
Ethylbenzene	1.99	2.09		ppb v/v		105	70 - 130
Hexachlorobutadiene	1.99	1.73		ppb v/v		87	60 - 140
Hexane	1.99	2.22		ppb v/v		112	70 - 130
Methyl tert-butyl ether	1.99	2.09		ppb v/v		105	60 - 140
Methylene Chloride	1.99	2.12		ppb v/v		107	70 - 130
m-Xylene & p-Xylene	3.98	4.22		ppb v/v		106	70 - 130
o-Xylene	1.99	2.07		ppb v/v		104	70 - 130
Styrene	1.99	2.21		ppb v/v		111	70 - 130
t-Butyl alcohol	1.99	1.91		ppb v/v		96	60 - 140
Tetrachloroethene	1.99	2.11		ppb v/v		106	70 - 130
Toluene	1.99	2.07		ppb v/v		104	70 - 130
trans-1,2-Dichloroethene	1.99	2.29		ppb v/v		115	70 - 130
trans-1,3-Dichloropropene	1.99	1.89		ppb v/v		95	70 - 130
Trichloroethene	1.99	2.07		ppb v/v		104	70 - 130
Trichlorofluoromethane	1.99	2.28		ppb v/v		114	60 - 140
Vinyl chloride	1.99	2.40		ppb v/v		120	70 - 130

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	11	11.9		ug/m3		110	70 - 130
1,1,1,2-Tetrachloroethane	14	14.7		ug/m3		108	70 - 130
1,1,2-Trichloroethane	11	11.2		ug/m3		103	70 - 130
1,1,2-Trichlorotrifluoroethane	15	17.4		ug/m3		114	70 - 130
1,1-Dichloroethane	8.1	9.01		ug/m3		112	70 - 130
1,1-Dichloroethene	7.9	8.91		ug/m3		113	70 - 130
1,2,4-Trichlorobenzene	15	18.5		ug/m3		125	60 - 140
1,2,4-Trimethylbenzene	9.8	10.8		ug/m3		110	70 - 130
1,2-Dibromoethane	15	15.3		ug/m3		100	70 - 130
1,2-Dichlorobenzene	12	12.3		ug/m3		102	70 - 130
1,2-Dichloroethane	8.1	9.04		ug/m3		112	70 - 130
1,2-Dichloropropane	9.2	9.68		ug/m3		105	70 - 130
1,2-Dichlorotetrafluoroethane	14	18.6		ug/m3		134	60 - 140
1,3,5-Trimethylbenzene	9.8	10.3		ug/m3		106	70 - 130
1,3-Dichlorobenzene	12	12.3		ug/m3		103	70 - 130
1,4-Dichlorobenzene	12	12.2		ug/m3		102	70 - 130
1,4-Dioxane	7.2	7.32		ug/m3		102	60 - 140
2,2,4-Trimethylpentane	9.3	10.5		ug/m3		113	70 - 130
2-Butanone	5.9	6.11		ug/m3		104	60 - 140
4-Methyl-2-pentanone (MIBK)	8.2	9.00		ug/m3		110	60 - 140

TestAmerica Knoxville

QC Sample Results

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Method: TO 15 LL - Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS) (Continued)

Lab Sample ID: LCS 140-7171/1006

Matrix: Air

Analysis Batch: 7171

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	6.4	7.01		ug/m3		110	70 - 130
Benzyl chloride	10	10.2		ug/m3		99	70 - 130
Bromodichloromethane	13	14.4		ug/m3		108	70 - 130
Bromoform	21	19.6		ug/m3		95	60 - 140
Bromomethane	7.7	9.19		ug/m3		119	70 - 130
Carbon tetrachloride	13	13.8		ug/m3		110	70 - 130
Chlorobenzene	9.2	9.26		ug/m3		101	70 - 130
Chloroethane	5.3	6.46		ug/m3		123	70 - 130
Chloroform	9.7	10.7		ug/m3		110	70 - 130
Chloromethane	4.1	4.73		ug/m3		115	60 - 140
cis-1,2-Dichloroethene	7.9	8.70		ug/m3		110	70 - 130
cis-1,3-Dichloropropene	9.0	9.09		ug/m3		101	70 - 130
Cyclohexane	6.9	8.12		ug/m3		118	70 - 130
Dibromochloromethane	17	18.0		ug/m3		106	70 - 130
Dichlorodifluoromethane	9.8	11.6		ug/m3		117	60 - 140
Ethanol	19	20.9		ug/m3		111	60 - 140
Ethylbenzene	8.6	9.07		ug/m3		105	70 - 130
Hexachlorobutadiene	21	18.4		ug/m3		87	60 - 140
Hexane	7.0	7.83		ug/m3		112	70 - 130
Methyl tert-butyl ether	7.2	7.54		ug/m3		105	60 - 140
Methylene Chloride	6.9	7.37		ug/m3		107	70 - 130
m-Xylene & p-Xylene	17	18.3		ug/m3		106	70 - 130
o-Xylene	8.6	8.99		ug/m3		104	70 - 130
Styrene	8.5	9.40		ug/m3		111	70 - 130
t-Butyl alcohol	6.0	5.78		ug/m3		96	60 - 140
Tetrachloroethene	14	14.3		ug/m3		106	70 - 130
Toluene	7.5	7.79		ug/m3		104	70 - 130
trans-1,2-Dichloroethene	7.9	9.07		ug/m3		115	70 - 130
trans-1,3-Dichloropropene	9.0	8.58		ug/m3		95	70 - 130
Trichloroethene	11	11.1		ug/m3		104	70 - 130
Trichlorofluoromethane	11	12.8		ug/m3		114	60 - 140
Vinyl chloride	5.1	6.13		ug/m3		120	70 - 130

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	104		60 - 140

QC Association Summary

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Air - GC/MS VOA

Analysis Batch: 7171

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-6336-1	OVP-10	Total/NA	Air	TO 15 LL	
140-6336-2	OVP-9	Total/NA	Air	TO 15 LL	
140-6336-2 - DL	OVP-9	Total/NA	Air	TO 15 LL	
140-6336-3	OVP-1	Total/NA	Air	TO 15 LL	
140-6336-4	OVP-2	Total/NA	Air	TO 15 LL	
140-6336-4 - DL	OVP-2	Total/NA	Air	TO 15 LL	
140-6336-5	OA-1	Total/NA	Air	TO 15 LL	
140-6336-5 - DL	OA-1	Total/NA	Air	TO 15 LL	
140-6336-6	OA-2	Total/NA	Air	TO 15 LL	
140-6336-7	OVP-3	Total/NA	Air	TO 15 LL	
140-6336-7 - DL	OVP-3	Total/NA	Air	TO 15 LL	
140-6336-8	OVP-6	Total/NA	Air	TO 15 LL	
140-6336-8 - DL	OVP-6	Total/NA	Air	TO 15 LL	
140-6336-9	OVP-7	Total/NA	Air	TO 15 LL	
140-6336-10	OVP-8	Total/NA	Air	TO 15 LL	
140-6336-11	OVP-4	Total/NA	Air	TO 15 LL	
140-6336-12	DUP-1	Total/NA	Air	TO 15 LL	
140-6336-13	OVP-5	Total/NA	Air	TO 15 LL	
MB 140-7171/8	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-7171/1006	Lab Control Sample	Total/NA	Air	TO 15 LL	

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-10

Date Collected: 11/08/16 13:20

Date Received: 11/11/16 10:00

Lab Sample ID: 140-6336-1

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	7171	11/15/16 16:49	HMT	TAL KNX
Instrument ID: MJ										

Client Sample ID: OVP-9

Date Collected: 11/08/16 13:58

Date Received: 11/11/16 10:00

Lab Sample ID: 140-6336-2

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.79	895 mL	500 mL	7171	11/15/16 17:44	HMT	TAL KNX
Instrument ID: MJ										
Total/NA	Analysis	TO 15 LL	DL	1.79	450 mL	500 mL	7171	11/16/16 05:33	HMT	TAL KNX
Instrument ID: MJ										

Client Sample ID: OVP-1

Date Collected: 11/08/16 15:33

Date Received: 11/11/16 10:00

Lab Sample ID: 140-6336-3

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.66	100 mL	500 mL	7171	11/15/16 18:39	HMT	TAL KNX
Instrument ID: MJ										

Client Sample ID: OVP-2

Date Collected: 11/08/16 16:15

Date Received: 11/11/16 10:00

Lab Sample ID: 140-6336-4

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.54	385 mL	500 mL	7171	11/15/16 15:55	HMT	TAL KNX
Instrument ID: MJ										
Total/NA	Analysis	TO 15 LL	DL	1.54	200 mL	500 mL	7171	11/16/16 04:38	HMT	TAL KNX
Instrument ID: MJ										

Client Sample ID: OA-1

Date Collected: 11/08/16 16:50

Date Received: 11/11/16 10:00

Lab Sample ID: 140-6336-5

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.69	845 mL	500 mL	7171	11/15/16 19:33	HMT	TAL KNX
Instrument ID: MJ										
Total/NA	Analysis	TO 15 LL	DL	1.69	200 mL	500 mL	7171	11/16/16 09:42	HMT	TAL KNX
Instrument ID: MJ										

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OA-2

Date Collected: 11/08/16 16:58

Date Received: 11/11/16 10:00

Lab Sample ID: 140-6336-6

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.68	840 mL	500 mL	7171	11/15/16 20:28	HMT	TAL KNX
Instrument ID: MJ										

Client Sample ID: OVP-3

Date Collected: 11/08/16 17:27

Date Received: 11/11/16 10:00

Lab Sample ID: 140-6336-7

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.8	100 mL	500 mL	7171	11/15/16 21:22	HMT	TAL KNX
Instrument ID: MJ										
Total/NA	Analysis	TO 15 LL	DL	1.8	50 mL	500 mL	7171	11/16/16 10:36	HMT	TAL KNX
Instrument ID: MJ										

Client Sample ID: OVP-6

Date Collected: 11/09/16 08:50

Date Received: 11/11/16 10:00

Lab Sample ID: 140-6336-8

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		2.27	280 mL	500 mL	7171	11/15/16 22:16	HMT	TAL KNX
Instrument ID: MJ										
Total/NA	Analysis	TO 15 LL	DL	2.27	80 mL	500 mL	7171	11/16/16 11:30	HMT	TAL KNX
Instrument ID: MJ										

Client Sample ID: OVP-7

Date Collected: 11/09/16 09:15

Date Received: 11/11/16 10:00

Lab Sample ID: 140-6336-9

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.58	200 mL	500 mL	7171	11/15/16 23:11	HMT	TAL KNX
Instrument ID: MJ										

Client Sample ID: OVP-8

Date Collected: 11/09/16 09:45

Date Received: 11/11/16 10:00

Lab Sample ID: 140-6336-10

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.5	190 mL	500 mL	7171	11/16/16 00:05	HMT	TAL KNX
Instrument ID: MJ										

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Client Sample ID: OVP-4

Date Collected: 11/09/16 10:35

Date Received: 11/11/16 10:00

Lab Sample ID: 140-6336-11

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.8	450 mL	500 mL	7171	11/16/16 01:00	HMT	TAL KNX
Instrument ID: MJ										

Client Sample ID: DUP-1

Date Collected: 11/09/16 10:35

Date Received: 11/11/16 10:00

Lab Sample ID: 140-6336-12

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.74	500 mL	500 mL	7171	11/16/16 08:48	HMT	TAL KNX
Instrument ID: MJ										

Client Sample ID: OVP-5

Date Collected: 11/09/16 12:07

Date Received: 11/11/16 10:00

Lab Sample ID: 140-6336-13

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1.63	815 mL	500 mL	7171	11/16/16 03:43	HMT	TAL KNX
Instrument ID: MJ										

Client Sample ID: Method Blank

Date Collected: N/A

Date Received: N/A

Lab Sample ID: MB 140-7171/8

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	7171	11/15/16 15:00	HMT	TAL KNX
Instrument ID: MJ										

Client Sample ID: Lab Control Sample

Date Collected: N/A

Date Received: N/A

Lab Sample ID: LCS 140-7171/1006

Matrix: Air

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	TO 15 LL		1	500 mL	500 mL	7171	11/15/16 13:20	HMT	TAL KNX
Instrument ID: MJ										

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Certification Summary

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Laboratory: TestAmerica Knoxville

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

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10781	03-31-17

The following analytes are included in this report, but are not certified under this certification:

Analysis Method	Prep Method	Matrix	Analyte
TO 15 LL		Air	1,1,2-Trichlorotrifluoroethane
TO 15 LL		Air	1,2,4-Trimethylbenzene
TO 15 LL		Air	1,2-Dichlorotetrafluoroethane
TO 15 LL		Air	1,3,5-Trimethylbenzene
TO 15 LL		Air	1,4-Dioxane
TO 15 LL		Air	Bromodichloromethane
TO 15 LL		Air	Cyclohexane
TO 15 LL		Air	Dibromochloromethane
TO 15 LL		Air	Dichlorodifluoromethane
TO 15 LL		Air	o-Xylene
TO 15 LL		Air	Trichlorofluoromethane

The following analytes are included in this report, but certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
TO 15 LL		Air	Ethanol
TO 15 LL		Air	t-Butyl alcohol

Method Summary

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Method	Method Description	Protocol	Laboratory
TO 15 LL	Volatile Organic Compounds in Ambient Air, Low Concentration (GC/MS)	EPA	TAL KNX

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL KNX = TestAmerica Knoxville, 5815 Middlebrook Pike, Knoxville, TN 37921, TEL (865)291-3000

Sample Summary

Client: New York State D.E.C.
Project/Site: Off-Site M Quarry #C360143

TestAmerica Job ID: 140-6336-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
140-6336-1	OVP-10	Air	11/08/16 13:20	11/11/16 10:00
140-6336-2	OVP-9	Air	11/08/16 13:58	11/11/16 10:00
140-6336-3	OVP-1	Air	11/08/16 15:33	11/11/16 10:00
140-6336-4	OVP-2	Air	11/08/16 16:15	11/11/16 10:00
140-6336-5	OA-1	Air	11/08/16 16:50	11/11/16 10:00
140-6336-6	OA-2	Air	11/08/16 16:58	11/11/16 10:00
140-6336-7	OVP-3	Air	11/08/16 17:27	11/11/16 10:00
140-6336-8	OVP-6	Air	11/09/16 08:50	11/11/16 10:00
140-6336-9	OVP-7	Air	11/09/16 09:15	11/11/16 10:00
140-6336-10	OVP-8	Air	11/09/16 09:45	11/11/16 10:00
140-6336-11	OVP-4	Air	11/09/16 10:35	11/11/16 10:00
140-6336-12	DUP-1	Air	11/09/16 10:35	11/11/16 10:00
140-6336-13	OVP-5	Air	11/09/16 12:07	11/11/16 10:00

Method T015 Low Level

Volatile Organic Compounds - Low
level (GC/MS) by Method TO 15

FORM II
AIR - GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Knoxville

Job No.: 140-6336-1

SDG No.: _____

Matrix: Air

Level: Low

GC Column (1): RTX-5 ID: 0.32 (mm)

Client Sample ID	Lab Sample ID	BFB #
OVP-10	140-6336-1	104
OVP-9	140-6336-2	102
OVP-9 DL	140-6336-2 DL	101
OVP-1	140-6336-3	104
OVP-2	140-6336-4	102
OVP-2 DL	140-6336-4 DL	102
OA-1	140-6336-5	102
OA-1 DL	140-6336-5 DL	104
OA-2	140-6336-6	101
OVP-3	140-6336-7	103
OVP-3 DL	140-6336-7 DL	102
OVP-6	140-6336-8	101
OVP-6 DL	140-6336-8 DL	102
OVP-7	140-6336-9	102
OVP-8	140-6336-10	103
OVP-4	140-6336-11	102
DUP-1	140-6336-12	105
OVP-5	140-6336-13	106
	MB 140-7171/8	98
	LCS 140-7171/1006	104

BFB = 4-Bromofluorobenzene (Surr)

QC LIMITS
60-140

Column to be used to flag recovery values

FORM II TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Matrix: Air Level: Low Lab File ID: JCCVK15A-LCS.d
 Lab ID: LCS 140-7171/1006 Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	1.99	2.19	110	70-130	
1,1,2,2-Tetrachloroethane	1.99	2.14	108	70-130	
1,1,2-Trichloroethane	1.99	2.05	103	70-130	
1,1,2-Trichlorotrifluoroethane	1.99	2.26	114	70-130	
1,1-Dichloroethane	1.99	2.23	112	70-130	
1,1-Dichloroethene	1.99	2.25	113	70-130	
1,2,4-Trichlorobenzene	1.99	2.49	125	60-140	
1,2,4-Trimethylbenzene	1.99	2.19	110	70-130	
1,2-Dibromoethane	1.99	1.99	100	70-130	
1,2-Dichlorobenzene	1.99	2.04	102	70-130	
1,2-Dichloroethane	1.99	2.23	112	70-130	
1,2-Dichloropropane	1.99	2.10	105	70-130	
1,2-Dichlorotetrafluoroethane	1.99	2.67	134	60-140	
1,3,5-Trimethylbenzene	1.99	2.10	106	70-130	
1,3-Dichlorobenzene	1.99	2.05	103	70-130	
1,4-Dichlorobenzene	1.99	2.04	102	70-130	
1,4-Dioxane	1.99	2.03	102	60-140	
2,2,4-Trimethylpentane	1.99	2.25	113	70-130	
2-Butanone	1.99	2.07	104	60-140	
4-Methyl-2-pentanone (MIBK)	1.99	2.20	110	60-140	
Benzene	1.99	2.20	110	70-130	
Benzyl chloride	1.99	1.98	99	70-130	
Bromodichloromethane	1.99	2.15	108	70-130	
Bromoform	1.99	1.89	95	60-140	
Bromomethane	1.99	2.37	119	70-130	
Carbon tetrachloride	1.99	2.19	110	70-130	
Chlorobenzene	1.99	2.01	101	70-130	
Chloroethane	1.99	2.45	123	70-130	
Chloroform	1.99	2.18	110	70-130	
Chloromethane	1.99	2.29	115	60-140	
cis-1,2-Dichloroethene	1.99	2.20	110	70-130	
cis-1,3-Dichloropropene	1.99	2.00	101	70-130	
Cyclohexane	1.99	2.36	118	70-130	
Dibromochloromethane	1.99	2.12	106	70-130	
Dichlorodifluoromethane	1.99	2.34	117	60-140	
Ethanol	9.96	11.1	111	60-140	
Ethylbenzene	1.99	2.09	105	70-130	
Hexachlorobutadiene	1.99	1.73	87	60-140	
Hexane	1.99	2.22	112	70-130	
Methyl tert-butyl ether	1.99	2.09	105	60-140	
Methylene Chloride	1.99	2.12	107	70-130	
m-Xylene & p-Xylene	3.98	4.22	106	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM III
AIR - GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Matrix: Air Level: Low Lab File ID: JCCVK15A-LCS.d
 Lab ID: LCS 140-7171/1006 Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
o-Xylene	1.99	2.07	104	70-130	
Styrene	1.99	2.21	111	70-130	
t-Butyl alcohol	1.99	1.91	96	60-140	
Tetrachloroethene	1.99	2.11	106	70-130	
Toluene	1.99	2.07	104	70-130	
trans-1,2-Dichloroethene	1.99	2.29	115	70-130	
trans-1,3-Dichloropropene	1.99	1.89	95	70-130	
Trichloroethene	1.99	2.07	104	70-130	
Trichlorofluoromethane	1.99	2.28	114	60-140	
Vinyl chloride	1.99	2.40	120	70-130	

Column to be used to flag recovery and RPD values

FORM III TO 15 LL

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Lab File ID: J500BK15.D Lab Sample ID: MB 140-7171/8
 Matrix: Air Heated Purge: (Y/N) N
 Instrument ID: MJ Date Analyzed: 11/15/2016 15:00
 GC Column: RTX-5 ID: 0.32 (mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 140-7171/1006	JCCVK15A-LC S.d	11/15/2016 13:20
OVP-2	140-6336-4	JK15P101.D	11/15/2016 15:55
OVP-10	140-6336-1	JK15P102.D	11/15/2016 16:49
OVP-9	140-6336-2	JK15P103.D	11/15/2016 17:44
OVP-1	140-6336-3	JK15P104.D	11/15/2016 18:39
OA-1	140-6336-5	JK15P105.D	11/15/2016 19:33
OA-2	140-6336-6	JK15P106.D	11/15/2016 20:28
OVP-3	140-6336-7	JK15P107.D	11/15/2016 21:22
OVP-6	140-6336-8	JK15P108.D	11/15/2016 22:16
OVP-7	140-6336-9	JK15P109.D	11/15/2016 23:11
OVP-8	140-6336-10	JK15P110.D	11/16/2016 00:05
OVP-4	140-6336-11	JK15P111.D	11/16/2016 01:00
OVP-5	140-6336-13	JK15P113.D	11/16/2016 03:43
OVP-2 DL	140-6336-4 DL	JK15P101DL. D	11/16/2016 04:38
OVP-9 DL	140-6336-2 DL	JK15P103DL. D	11/16/2016 05:33
DUP-1	140-6336-12	JK15P112R.D	11/16/2016 08:48
OA-1 DL	140-6336-5 DL	JK15P105DL. D	11/16/2016 09:42
OVP-3 DL	140-6336-7 DL	JK15P107DL. D	11/16/2016 10:36
OVP-6 DL	140-6336-8 DL	JK15P108DL. D	11/16/2016 11:30

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Lab File ID: JBFBJ08.D BFB Injection Date: 10/08/2016
 Instrument ID: MJ BFB Injection Time: 17:39
 Analysis Batch No.: 6845

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	20.4
75	30.0 - 60.0 % of mass 95	53.9
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.0
173	Less than 2.0 % of mass 174	0.0 (0.0) 1
174	50.0 - 120.00 % of mass 95	110.4
175	5.0 - 9.0 % of mass 174	8.5 (7.7) 1
176	95.0 - 101.0 % of mass 174	108.2 (98.0) 1
177	5.0 - 9.0 % of mass 176	6.9 (6.4) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 140-6845/3	JJ08ICAL01.D	10/08/2016	19:01
	IC 140-6845/4	JJ08ICAL02.D	10/08/2016	19:54
	IC 140-6845/5	JJ08ICAL03.D	10/08/2016	20:47
	IC 140-6845/6	JJ08ICAL04.D	10/08/2016	21:41
	IC 140-6845/7	JJ08ICAL05.D	10/08/2016	22:36
	ICIS 140-6845/8	JJ08ICAL06.D	10/08/2016	23:29
	IC 140-6845/9	JJ08ICAL07.D	10/09/2016	00:23
	IC 140-6845/10	JJ08ICAL08.D	10/09/2016	01:17
	IC 140-6845/11	JJ07ICAL09.D	10/09/2016	02:10
	ICV 140-6845/17	JJ08LCS.D	10/09/2016	07:04

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Lab File ID: JBFBK15A.D BFB Injection Date: 11/15/2016
 Instrument ID: MJ BFB Injection Time: 12:52
 Analysis Batch No.: 7171

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	21.6
75	30.0 - 60.0 % of mass 95	53.7
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	7.1
173	Less than 2.0 % of mass 174	0.0 (0.0) 1
174	50.0 - 120.00 % of mass 95	101.8
175	5.0 - 9.0 % of mass 174	8.0 (7.8) 1
176	95.0 - 101.0 % of mass 174	99.5 (97.7) 1
177	5.0 - 9.0 % of mass 176	6.5 (6.5) 2

1-Value is % mass 174

2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 140-7171/6	JCCVK15A.D	11/15/2016	13:20
	LCS 140-7171/1006	JCCVK15A-LCS.d	11/15/2016	13:20
	MB 140-7171/8	J500BK15.D	11/15/2016	15:00
OVP-2	140-6336-4	JK15P101.D	11/15/2016	15:55
OVP-10	140-6336-1	JK15P102.D	11/15/2016	16:49
OVP-9	140-6336-2	JK15P103.D	11/15/2016	17:44
OVP-1	140-6336-3	JK15P104.D	11/15/2016	18:39
OA-1	140-6336-5	JK15P105.D	11/15/2016	19:33
OA-2	140-6336-6	JK15P106.D	11/15/2016	20:28
OVP-3	140-6336-7	JK15P107.D	11/15/2016	21:22
OVP-6	140-6336-8	JK15P108.D	11/15/2016	22:16
OVP-7	140-6336-9	JK15P109.D	11/15/2016	23:11
OVP-8	140-6336-10	JK15P110.D	11/16/2016	00:05
OVP-4	140-6336-11	JK15P111.D	11/16/2016	01:00
OVP-5	140-6336-13	JK15P113.D	11/16/2016	03:43
OVP-2 DL	140-6336-4 DL	JK15P101DL.D	11/16/2016	04:38
OVP-9 DL	140-6336-2 DL	JK15P103DL.D	11/16/2016	05:33
DUP-1	140-6336-12	JK15P112R.D	11/16/2016	08:48
OA-1 DL	140-6336-5 DL	JK15P105DL.D	11/16/2016	09:42
OVP-3 DL	140-6336-7 DL	JK15P107DL.D	11/16/2016	10:36
OVP-6 DL	140-6336-8 DL	JK15P108DL.D	11/16/2016	11:30

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Sample No.: ICIS 140-6845/8 Date Analyzed: 10/08/2016 23:29
 Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm)
 Lab File ID (Standard): JJ08ICAL06.D Heated Purge: (Y/N) N
 Calibration ID: 771

	CBM		DFBZ		CBZd5		
	AREA #	RT #	AREA #	RT #	AREA #	RT #	
INITIAL CALIBRATION MID-POINT	292093	9.30	1340770	11.46	1141838	16.13	
UPPER LIMIT	408930	9.63	1877078	11.79	1598573	16.46	
LOWER LIMIT	175256	8.97	804462	11.13	685103	15.80	
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 140-6845/17		290428	9.30	1211046	11.46	1042574	16.13

CBM = Chlorobromomethane (IS)
 DFBZ = 1,4-Difluorobenzene
 CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
 RT Limit = $\pm$ 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII
AIR - GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Sample No.: CCVIS 140-7171/6 Date Analyzed: 11/15/2016 13:20
 Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm)
 Lab File ID (Standard): JCCVK15A.D Heated Purge: (Y/N) N
 Calibration ID: 771

	CBM		DFBZ		CBZd5	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	259247	9.28	1157521	11.44	952995	16.12
UPPER LIMIT	362946	9.61	1620529	11.77	1334193	16.45
LOWER LIMIT	155548	8.95	694513	11.11	571797	15.79
LAB SAMPLE ID	CLIENT SAMPLE ID					
LCS 140-7171/1006		259247	9.28	1157521	11.44	952995
MB 140-7171/8		276737	9.28	1233287	11.44	929310
140-6336-4	OVP-2	255832	9.28	1178349	11.44	932537
140-6336-1	OVP-10	247917	9.28	1139160	11.45	929120
140-6336-2	OVP-9	256044	9.28	1164753	11.44	913811
140-6336-3	OVP-1	256613	9.28	1232448	11.44	1017704
140-6336-5	OA-1	258436	9.28	1216161	11.44	1023380
140-6336-6	OA-2	255661	9.28	1183477	11.44	978853
140-6336-7	OVP-3	259213	9.28	1163816	11.44	943209
140-6336-8	OVP-6	253518	9.28	1169737	11.44	945620
140-6336-9	OVP-7	243410	9.28	1112729	11.44	869145
140-6336-10	OVP-8	238304	9.28	1101584	11.44	873590
140-6336-11	OVP-4	248692	9.28	1150488	11.44	933072
140-6336-13	OVP-5	243993	9.28	1114475	11.44	909568
140-6336-4 DL	OVP-2 DL	249041	9.28	1138367	11.44	922324
140-6336-2 DL	OVP-9 DL	250772	9.28	1168157	11.44	953378
140-6336-12	DUP-1	252572	9.27	1160045	11.43	926988
140-6336-5 DL	OA-1 DL	255345	9.28	1165583	11.44	956359
140-6336-7 DL	OVP-3 DL	248831	9.27	1156842	11.44	948123
140-6336-8 DL	OVP-6 DL	240048	9.28	1117435	11.44	947872

CBM = Chlorobromomethane (IS)
 DFBZ = 1,4-Difluorobenzene
 CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 60%-140% of internal standard area
 RT Limit = $\pm$ 0.33 minutes of internal standard RT

Column used to flag values outside QC limits

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-10 Lab Sample ID: 140-6336-1
 Matrix: Air Lab File ID: JK15P102.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 13:20
 Sample wt/vol: 500 (mL) Date Analyzed: 11/15/2016 16:49
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.080	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.080	
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	120.20	0.13		0.080	
106-93-4	1,2-Dibromoethane	187.87	ND		0.080	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.080	
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	
78-87-5	1,2-Dichloropropane	112.99	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.080	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.080	
123-91-1	1,4-Dioxane	88.11	ND		0.20	
540-84-1	2,2,4-Trimethylpentane	114.23	13		0.20	
78-93-3	2-Butanone	72.11	0.47		0.32	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.20	
71-43-2	Benzene	78.11	0.21		0.080	
100-44-7	Benzyl chloride	126.58	ND		0.16	
75-27-4	Bromodichloromethane	163.83	0.17		0.080	
75-25-2	Bromoform	252.75	ND		0.080	
74-83-9	Bromomethane	94.94	ND		0.080	
56-23-5	Carbon tetrachloride	153.81	0.043		0.040	
108-90-7	Chlorobenzene	112.56	ND		0.080	
75-00-3	Chloroethane	64.52	ND		0.080	
67-66-3	Chloroform	119.38	4.9		0.080	
74-87-3	Chloromethane	50.49	0.21		0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.080	
110-82-7	Cyclohexane	84.16	12		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-10 Lab Sample ID: 140-6336-1
 Matrix: Air Lab File ID: JK15P102.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 13:20
 Sample wt/vol: 500 (mL) Date Analyzed: 11/15/2016 16:49
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.080	
75-71-8	Dichlorodifluoromethane	120.91	0.25		0.080	
64-17-5	Ethanol	46.07	2.0		2.0	
100-41-4	Ethylbenzene	106.17	0.23		0.080	
87-68-3	Hexachlorobutadiene	260.76	ND		0.080	
110-54-3	Hexane	86.17	1.1		0.20	
1634-04-4	Methyl tert-butyl ether	88.15	0.58		0.16	
75-09-2	Methylene Chloride	84.93	0.57		0.20	
179601-23-1	m-Xylene & p-Xylene	106.17	0.29		0.080	
95-47-6	o-Xylene	106.17	0.10		0.080	
100-42-5	Styrene	104.15	ND		0.080	
75-65-0	t-Butyl alcohol	74.12	ND		0.32	
127-18-4	Tetrachloroethene	165.83	4.5		0.080	
108-88-3	Toluene	92.14	0.41		0.12	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.080	
79-01-6	Trichloroethene	131.39	0.13		0.040	
75-69-4	Trichlorofluoromethane	137.37	0.27		0.080	
75-01-4	Vinyl chloride	62.50	ND		0.040	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	104		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-10 Lab Sample ID: 140-6336-1
 Matrix: Air Lab File ID: JK15P102.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 13:20
 Sample wt/vol: 500 (mL) Date Analyzed: 11/15/2016 16:49
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.55	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.61	
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	
95-63-6	1,2,4-Trimethylbenzene	120.20	0.63		0.39	
106-93-4	1,2-Dibromoethane	187.87	ND		0.61	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.48	
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	
78-87-5	1,2-Dichloropropane	112.99	ND		0.37	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.56	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.48	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.48	
123-91-1	1,4-Dioxane	88.11	ND		0.72	
540-84-1	2,2,4-Trimethylpentane	114.23	61		0.93	
78-93-3	2-Butanone	72.11	1.4		0.94	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.82	
71-43-2	Benzene	78.11	0.67		0.26	
100-44-7	Benzyl chloride	126.58	ND		0.83	
75-27-4	Bromodichloromethane	163.83	1.2		0.54	
75-25-2	Bromoform	252.75	ND		0.83	
74-83-9	Bromomethane	94.94	ND		0.31	
56-23-5	Carbon tetrachloride	153.81	0.27		0.25	
108-90-7	Chlorobenzene	112.56	ND		0.37	
75-00-3	Chloroethane	64.52	ND		0.21	
67-66-3	Chloroform	119.38	24		0.39	
74-87-3	Chloromethane	50.49	0.43		0.41	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.36	
110-82-7	Cyclohexane	84.16	40		0.69	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-10 Lab Sample ID: 140-6336-1
 Matrix: Air Lab File ID: JK15P102.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 13:20
 Sample wt/vol: 500 (mL) Date Analyzed: 11/15/2016 16:49
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.68	
75-71-8	Dichlorodifluoromethane	120.91	1.3		0.40	
64-17-5	Ethanol	46.07	3.8		3.8	
100-41-4	Ethylbenzene	106.17	0.98		0.35	
87-68-3	Hexachlorobutadiene	260.76	ND		0.85	
110-54-3	Hexane	86.17	3.8		0.70	
1634-04-4	Methyl tert-butyl ether	88.15	2.1		0.58	
75-09-2	Methylene Chloride	84.93	2.0		0.69	
179601-23-1	m-Xylene & p-Xylene	106.17	1.3		0.35	
95-47-6	o-Xylene	106.17	0.46		0.35	
100-42-5	Styrene	104.15	ND		0.34	
75-65-0	t-Butyl alcohol	74.12	ND		0.97	
127-18-4	Tetrachloroethene	165.83	30		0.54	
108-88-3	Toluene	92.14	1.5		0.45	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.36	
79-01-6	Trichloroethene	131.39	0.71		0.21	
75-69-4	Trichlorofluoromethane	137.37	1.5		0.45	
75-01-4	Vinyl chloride	62.50	ND		0.10	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	104		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D
 Lims ID: 140-6336-A-1
 Client ID: OVP-10
 Sample Type: Client
 Inject. Date: 15-Nov-2016 16:49:30 ALS Bottle#: 2 Worklist Smp#: 10
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003625-010
 Misc. Info.: 140-6336-a-1
 Operator ID: 7126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 08:59:38

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.283	9.281	0.002	96	247917	4.00	
* 2 1,4-Difluorobenzene	114	11.445	11.443	0.002	96	1139160	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.123	16.121	0.002	90	929120	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.747	17.745	0.002	87	584700	4.17	
8 Dichlorodifluoromethane	85	3.981	3.990	-0.009	100	62154	0.2547	
9 Chloromethane	52	4.174	4.183	-0.009	98	5854	0.2092	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.185	4.189	-0.004	43	1751	0.0136	
16 Chloroethane	64	4.960	4.963	-0.003	42	1018	0.0289	
17 Ethanol	31	5.062	5.060	0.002	99	48077	2.04	
20 Trichlorofluoromethane	101	5.573	5.565	0.008	98	56643	0.2662	
28 2-Methyl-2-propanol	59	6.422	6.404	0.018	42	20302	0.1686	
30 1,1,2-Trichloro-1,2,2-trif	101	6.492	6.485	0.007	92	12175	0.0738	
31 Methylene Chloride	84	6.675	6.673	0.002	98	44906	0.5701	
36 Methyl tert-butyl ether	73	7.648	7.635	0.013	94	93827	0.5841	
39 2-Butanone (MEK)	72	8.514	8.507	0.007	77	12359	0.4697	
40 Hexane	56	8.530	8.523	0.007	91	66665	1.07	
44 Chloroform	83	9.294	9.292	0.002	96	763886	4.90	
50 Cyclohexane	69	10.923	10.921	0.002	96	421027	11.6	
51 Benzene	78	10.923	10.921	0.002	42	43892	0.2083	
52 Carbon tetrachloride	117	10.950	10.942	0.008	94	6890	0.0426	
56 Isooctane	57	11.660	11.652	0.008	98	4446953	13.1	
59 Trichloroethene	130	12.149	12.147	0.002	94	11149	0.1318	
62 Dichlorobromomethane	83	12.375	12.378	-0.003	96	25459	0.1733	
68 Toluene	91	14.171	14.169	0.002	93	82700	0.4060	
76 Tetrachloroethene	129	15.306	15.304	0.002	95	341041	4.47	
79 Ethylbenzene	91	16.440	16.449	-0.009	87	50978	0.2266	
81 m-Xylene & p-Xylene	91	16.607	16.610	-0.003	83	49663	0.2950	
85 o-Xylene	91	17.134	17.137	-0.003	98	19361	0.1049	
92 1,3,5-Trimethylbenzene	120	18.451	18.449	0.002	90	3962	0.0397	
96 1,2,4-Trimethylbenzene	105	18.876	18.874	0.002	98	21779	0.1286	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Operator ID: 7126

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Worklist Smp#: 10

Client ID: OVP-10

Purge Vol: 500.000 mL

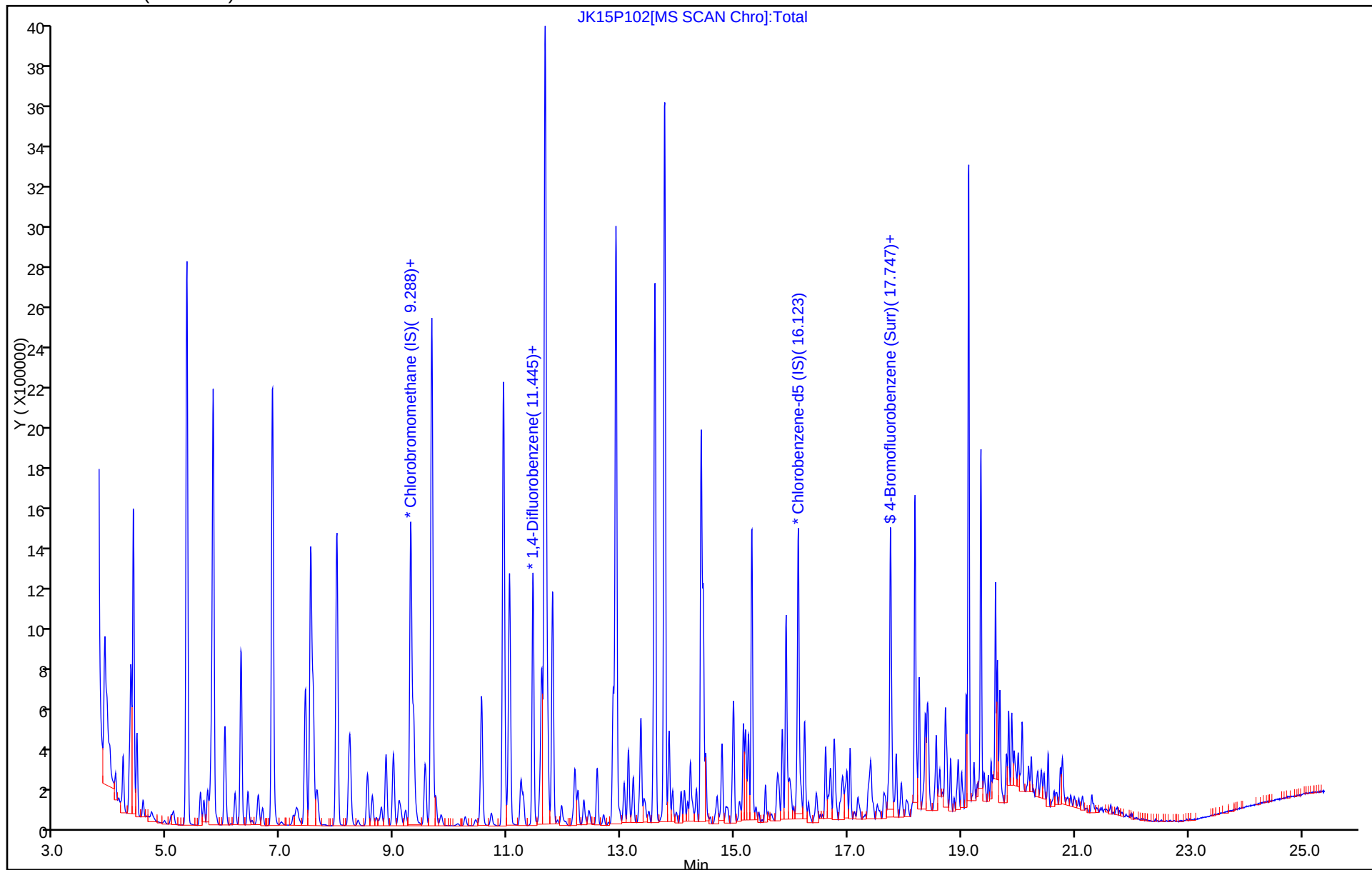
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D
Lims ID: 140-6336-A-1
Client ID: OVP-10
Sample Type: Client
Inject. Date: 15-Nov-2016 16:49:30 ALS Bottle#: 2 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0003625-010
Misc. Info.: 140-6336-a-1
Operator ID: 7126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 08:59:38

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.17	104.36

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

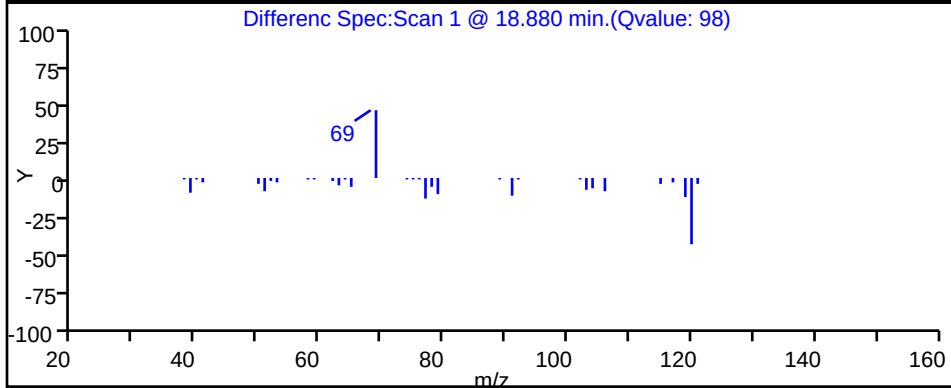
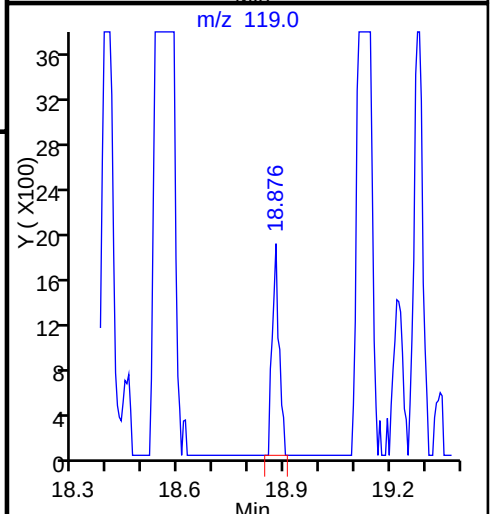
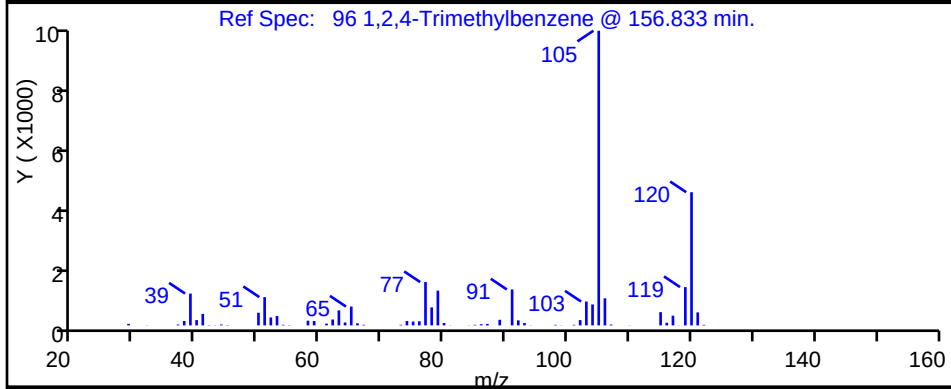
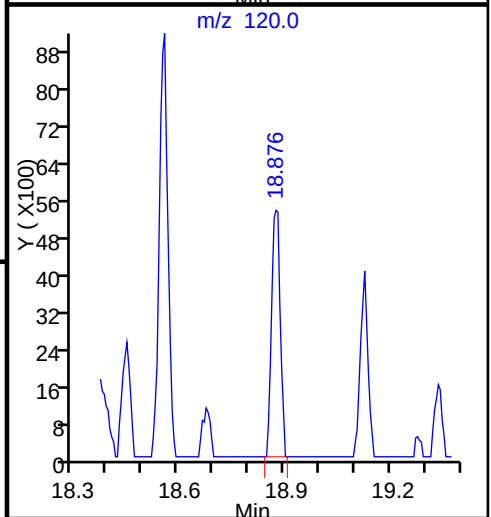
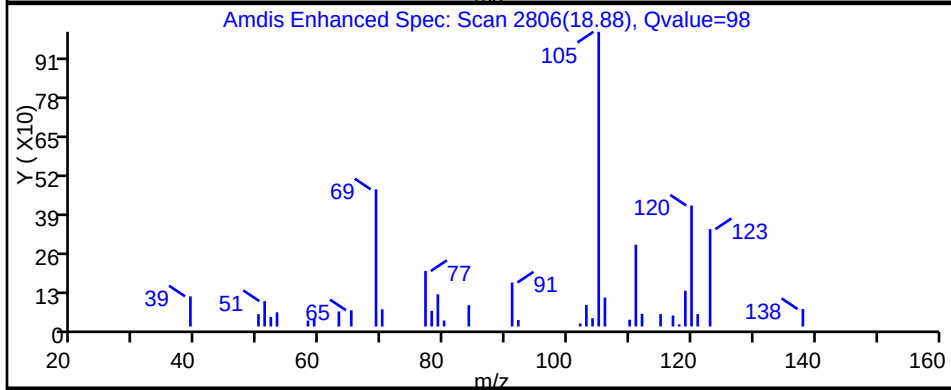
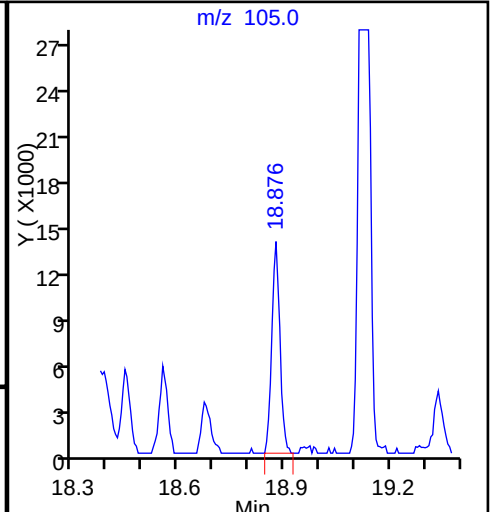
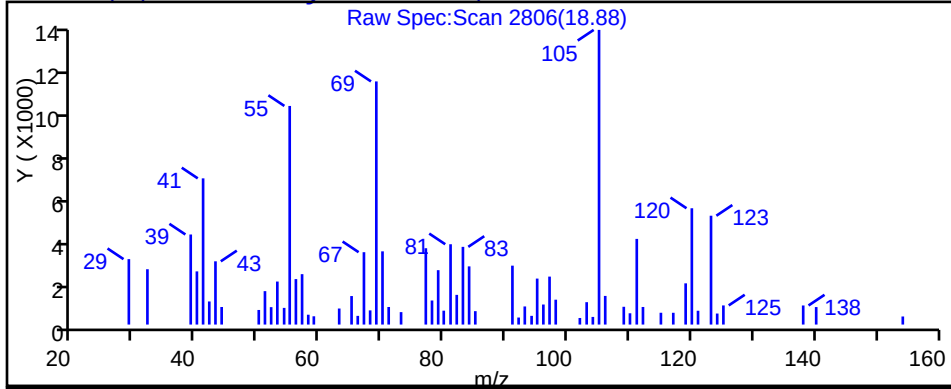
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

96 1,2,4-Trimethylbenzene, CAS: 95-63-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

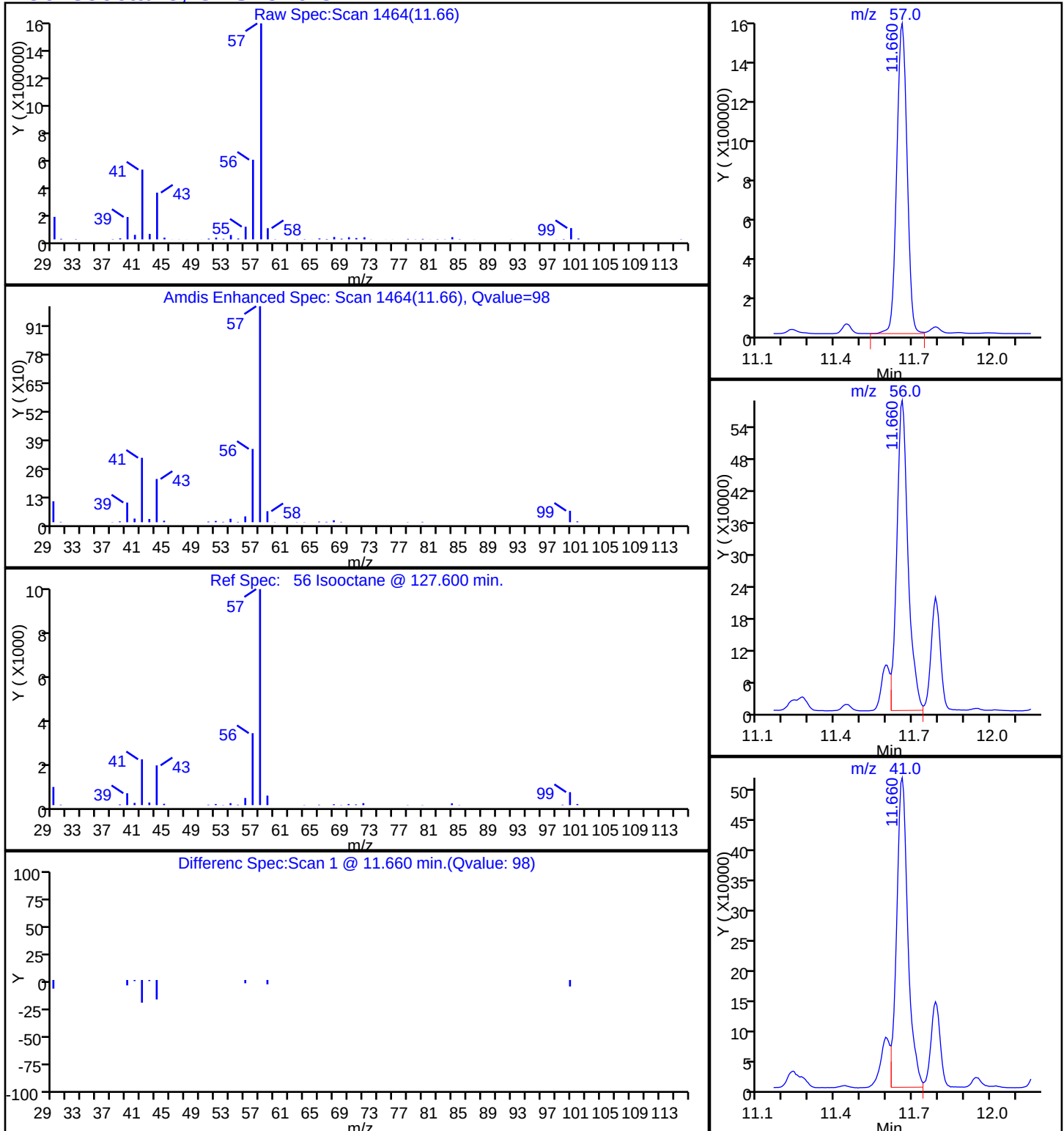
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

56 Isooctane, CAS: 540-84-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

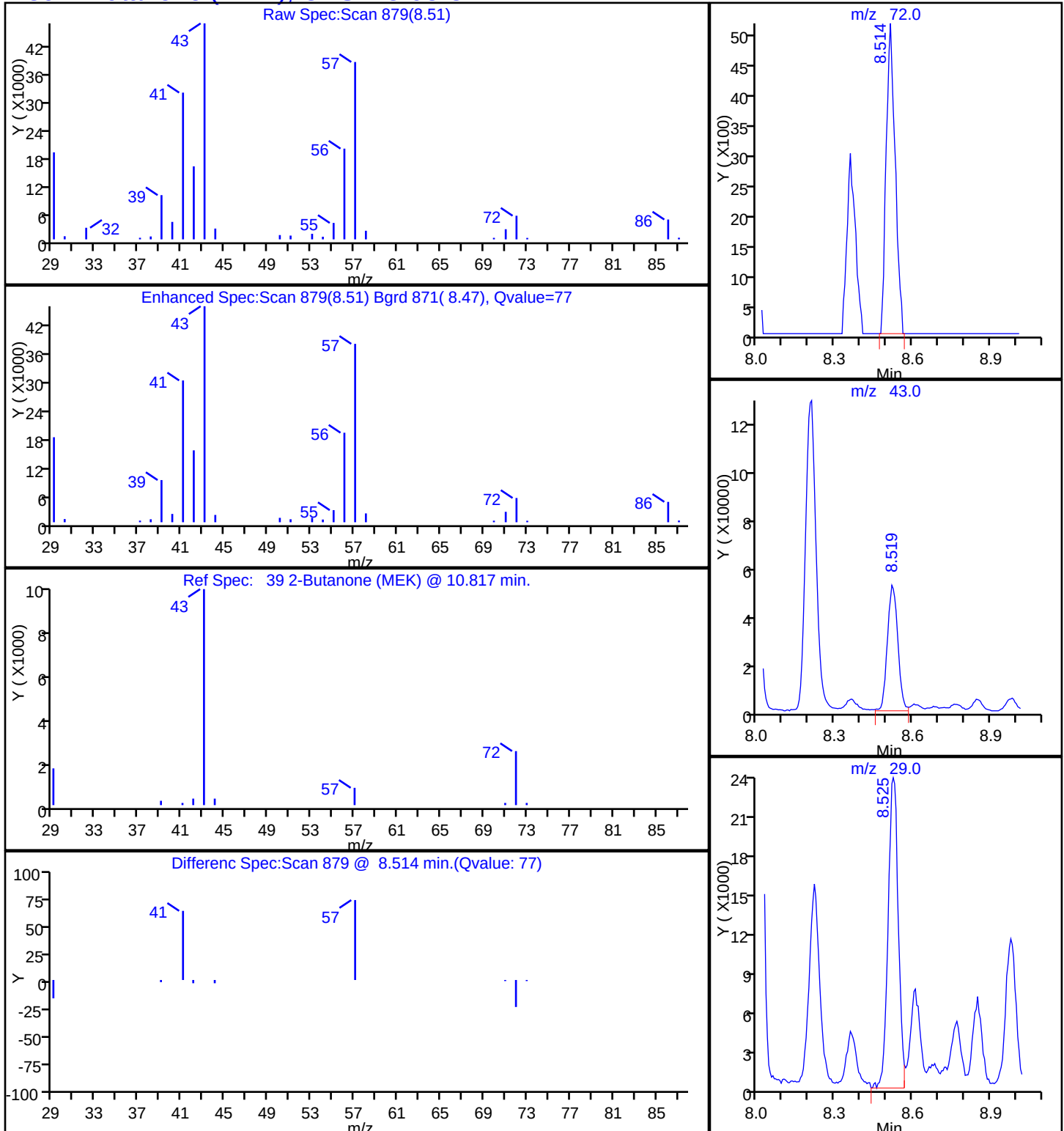
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

39 2-Butanone (MEK), CAS: 78-93-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

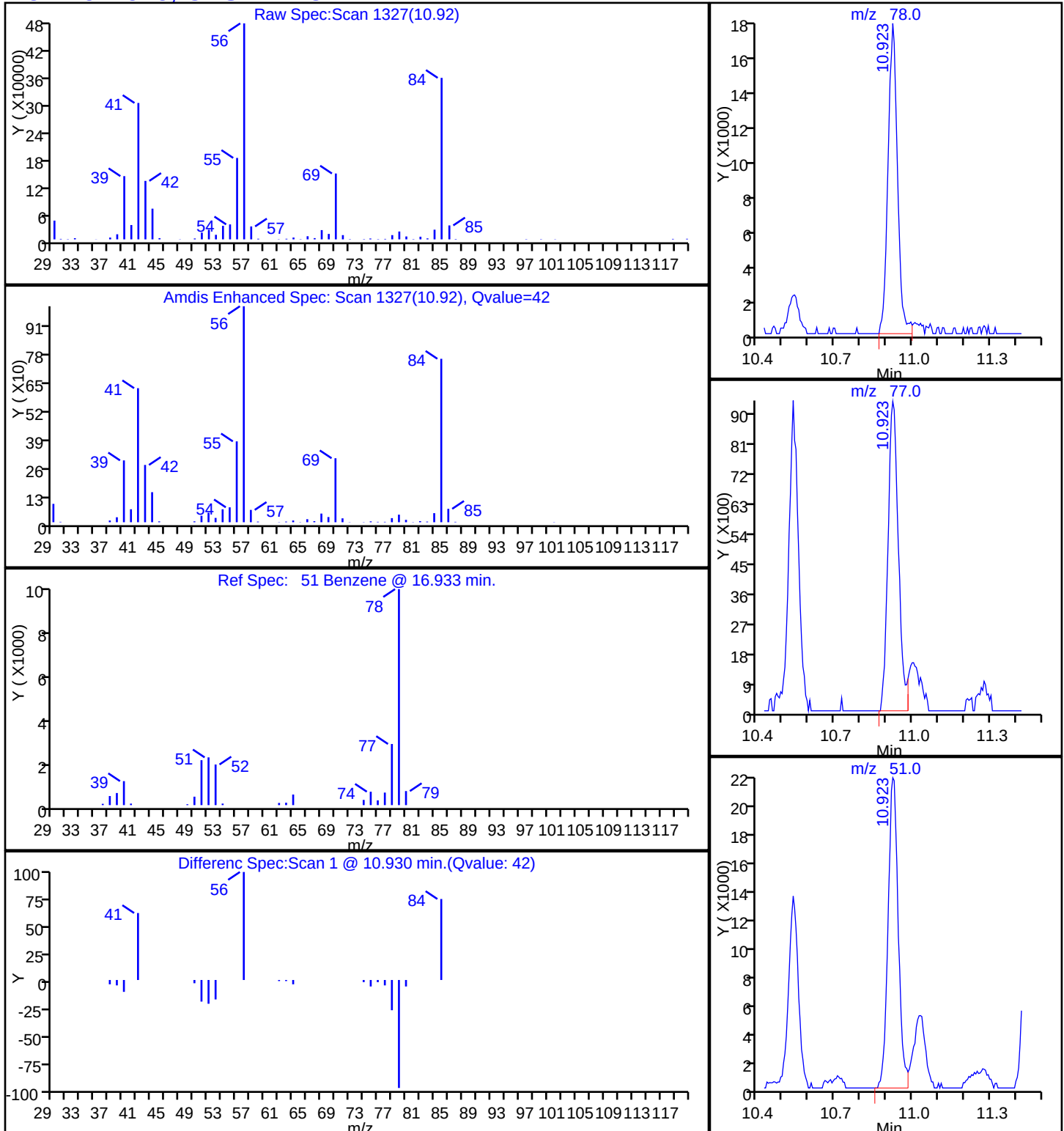
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

51 Benzene, CAS: 71-43-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

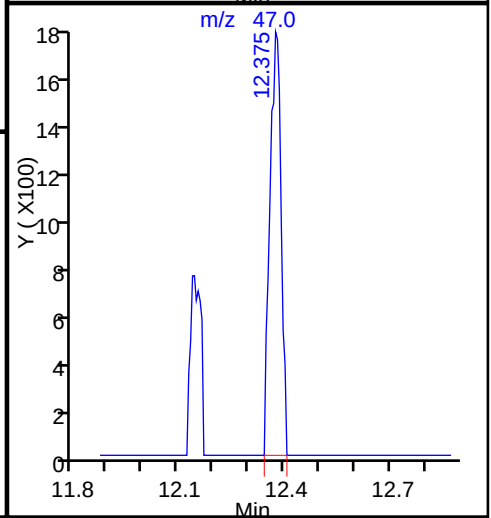
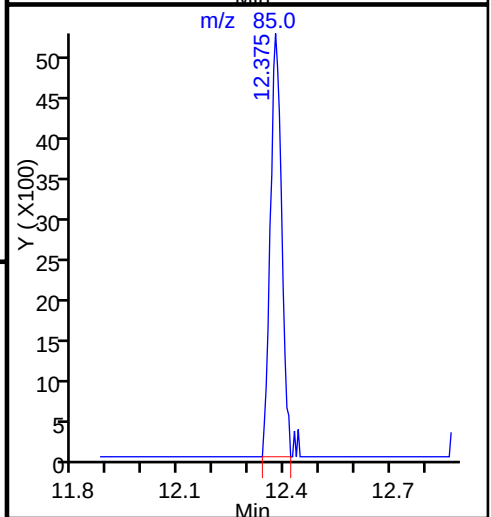
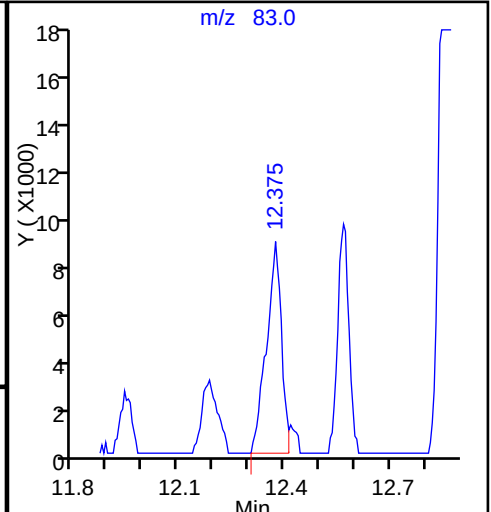
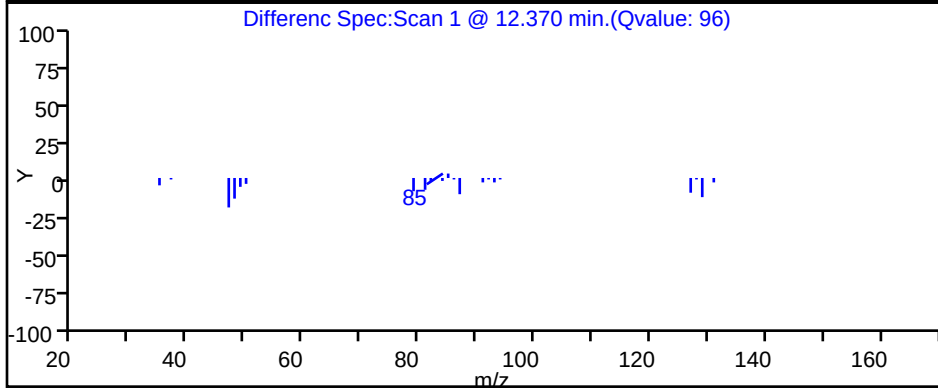
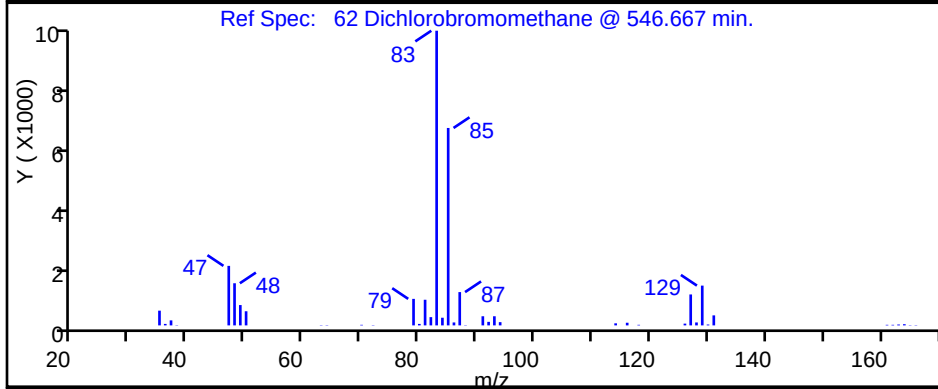
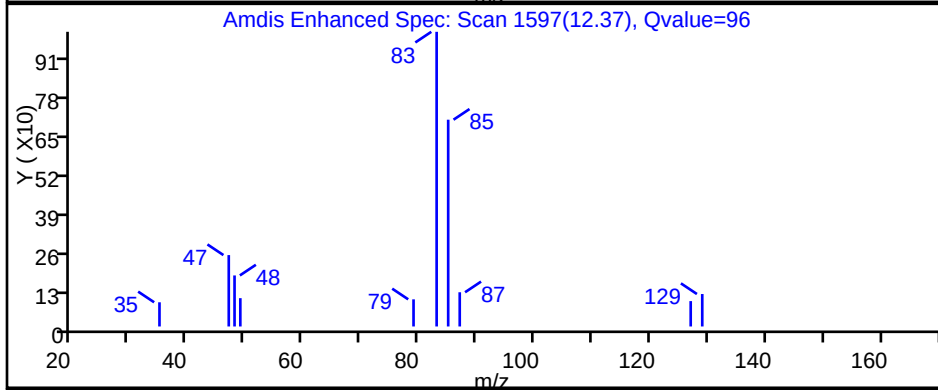
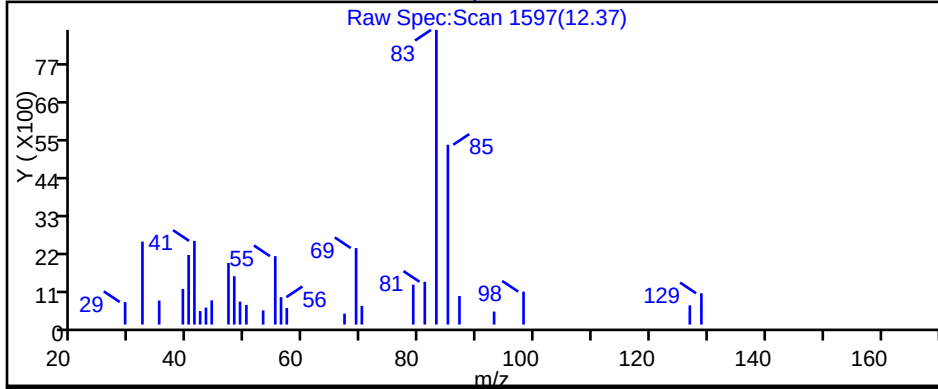
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

62 Dichlorobromomethane, CAS: 75-27-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

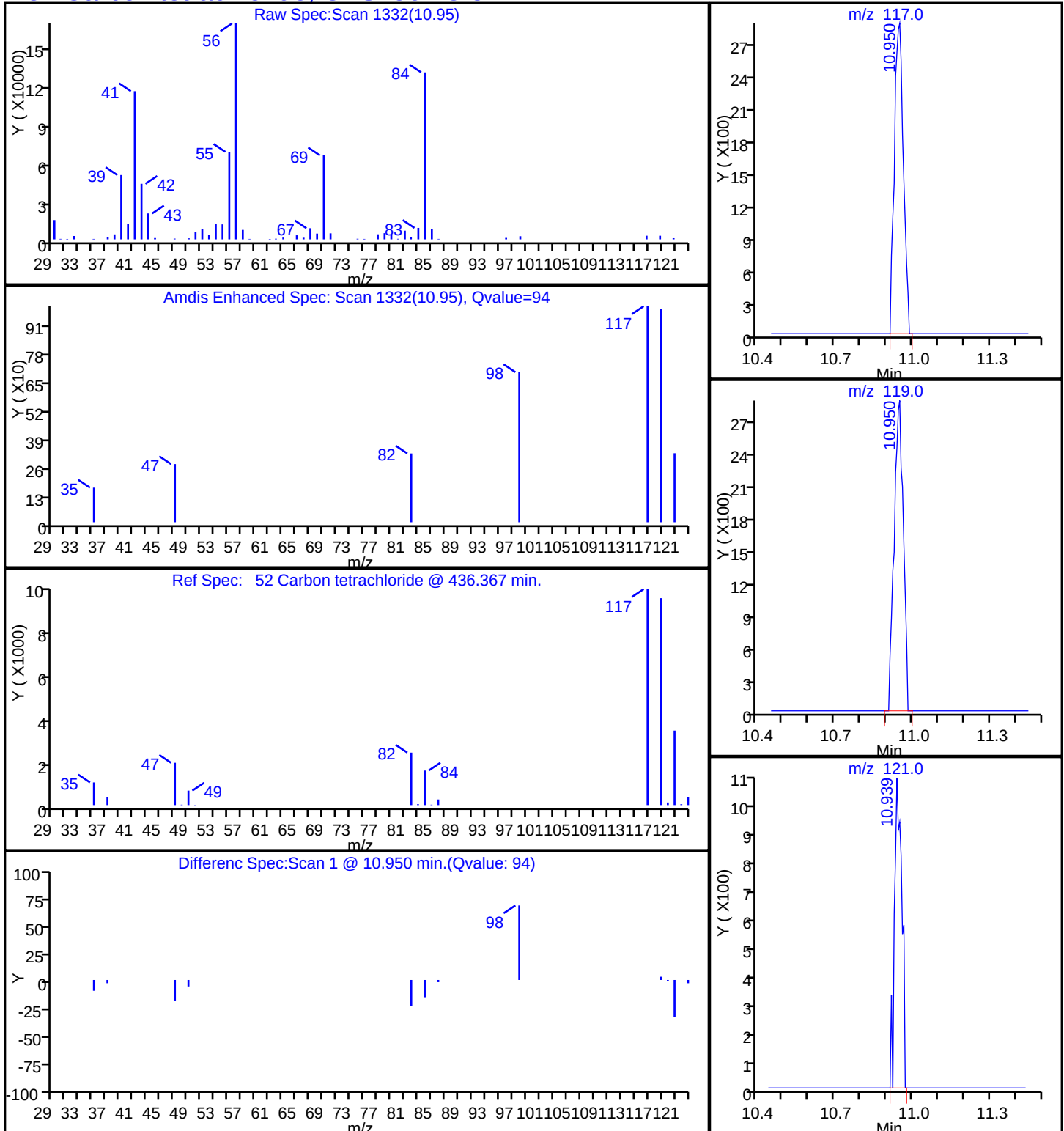
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

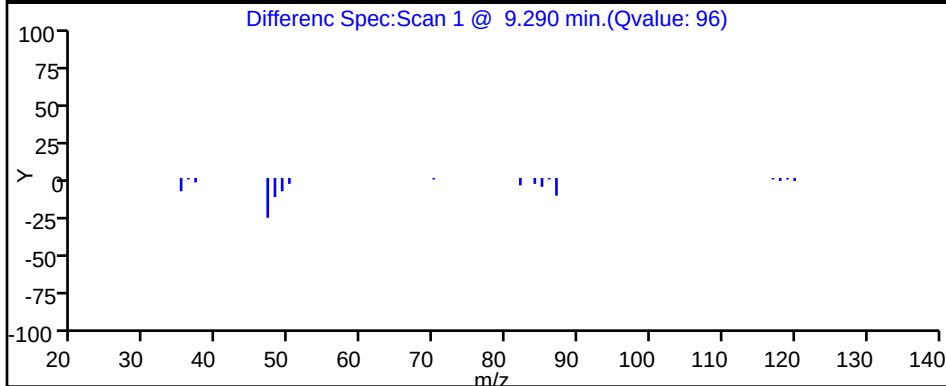
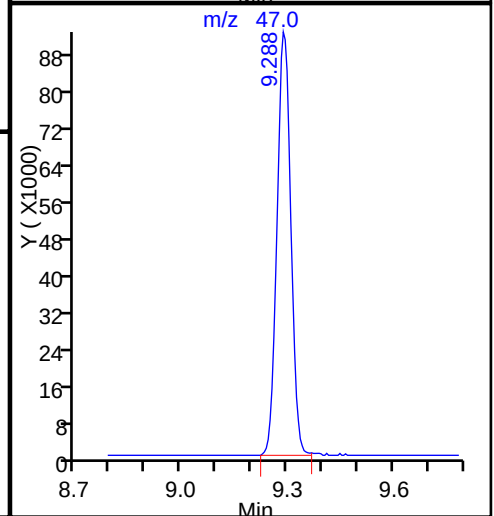
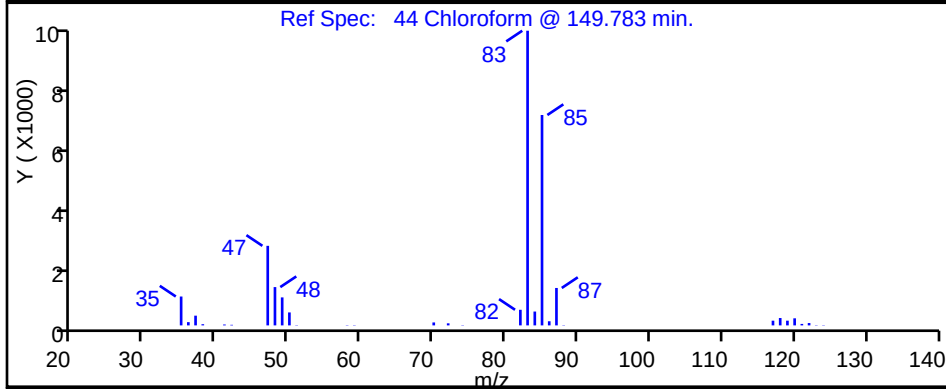
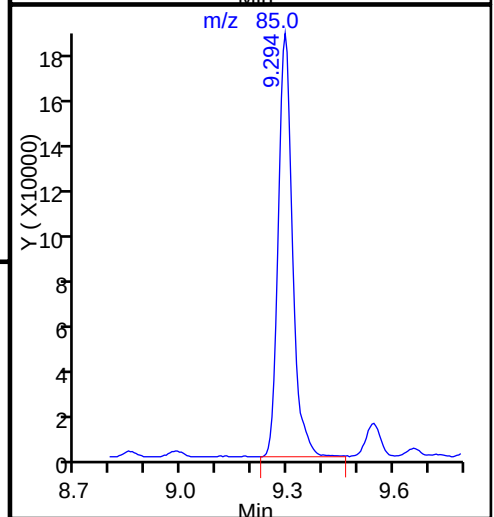
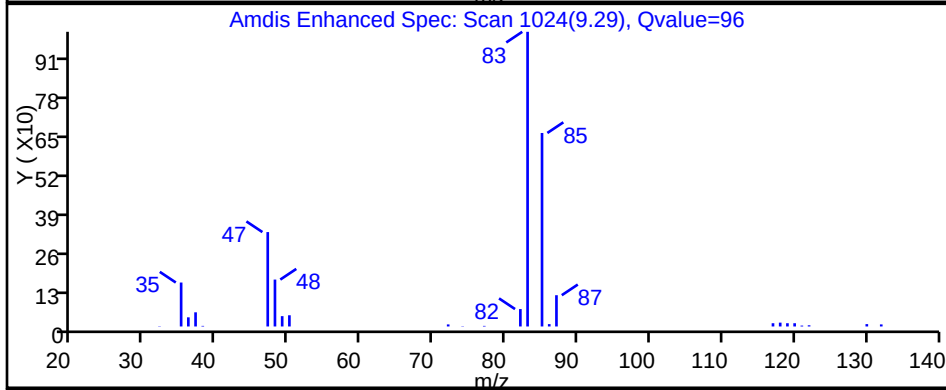
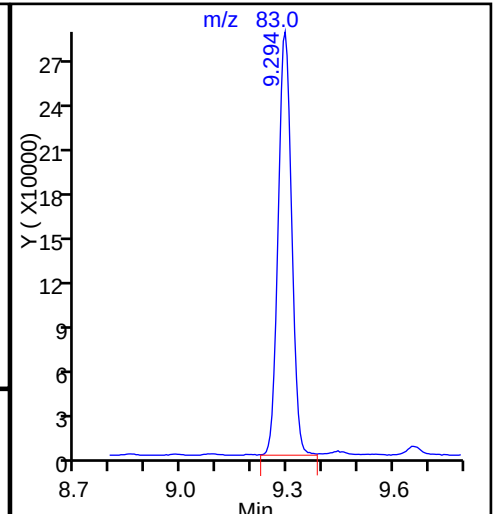
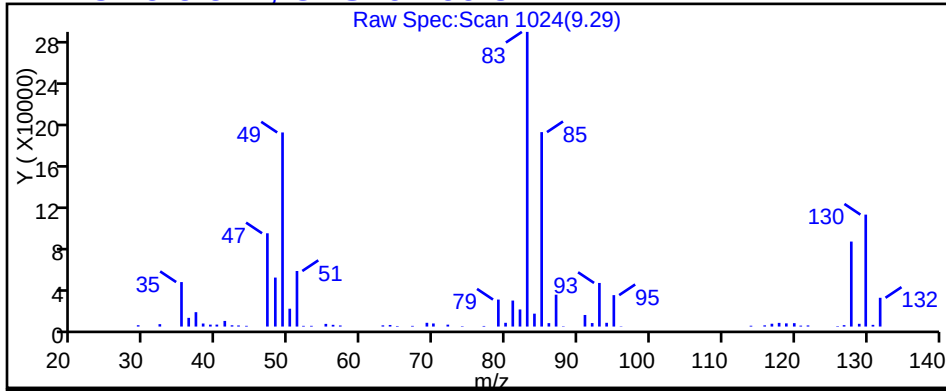
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

TestAmerica Knoxville

Data File: \\ChromNA\\Knoxville\\ChromData\\MJ\\20161114-3625.b\\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

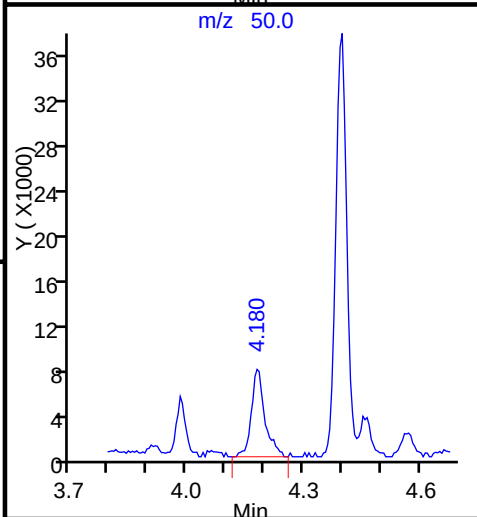
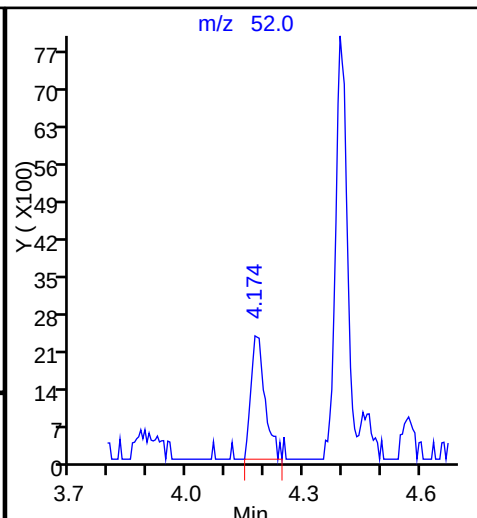
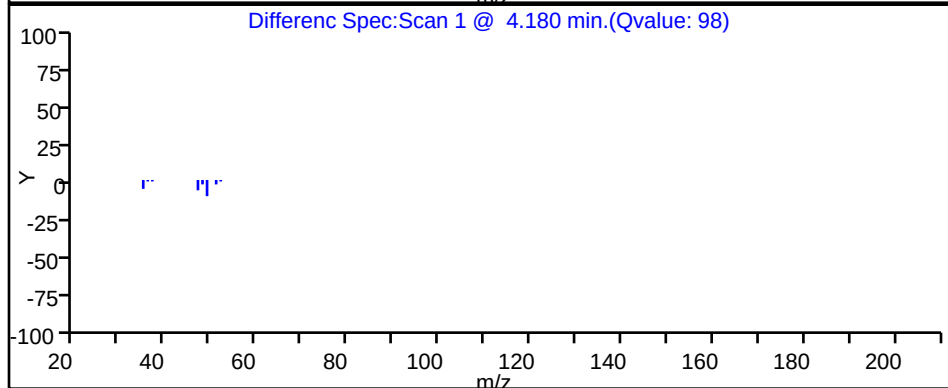
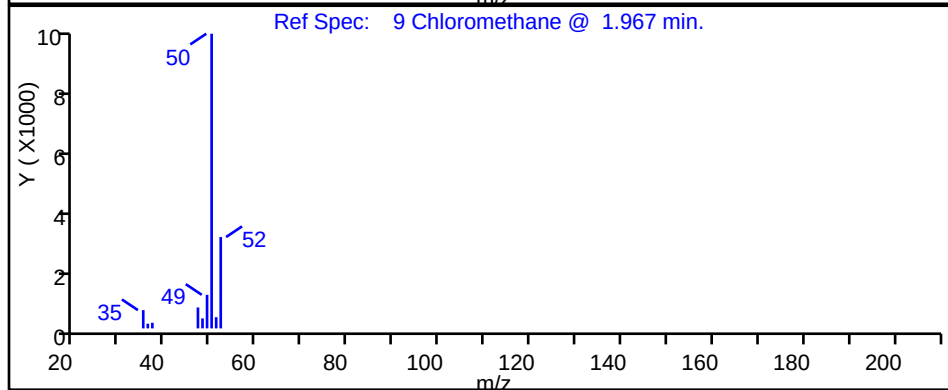
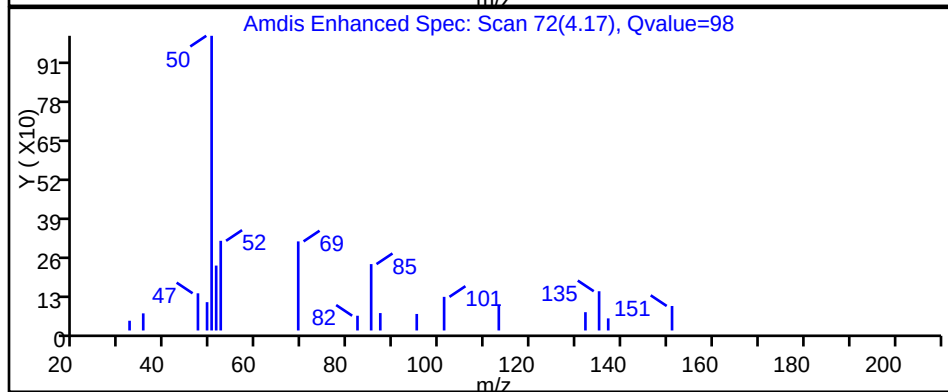
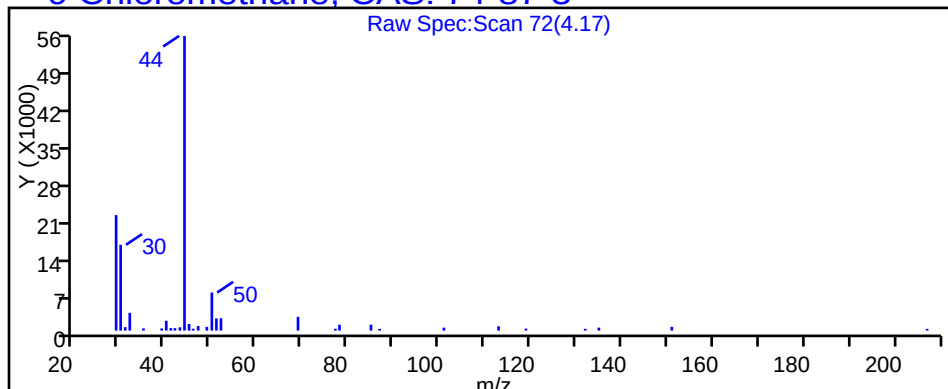
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

9 Chloromethane, CAS: 74-87-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

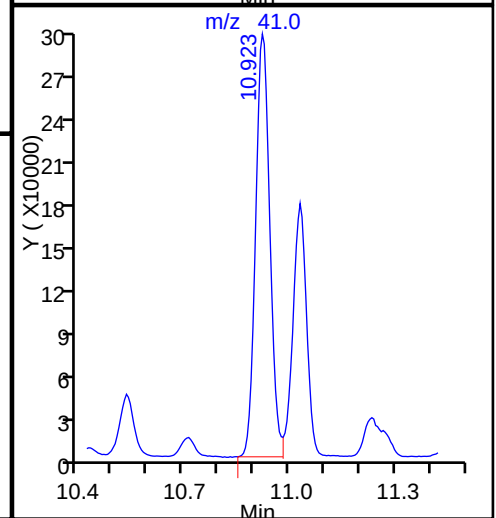
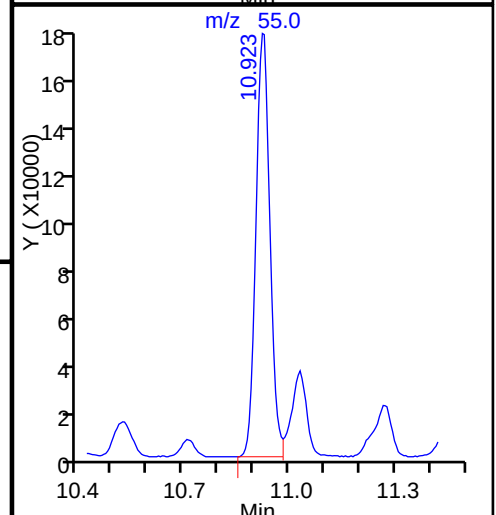
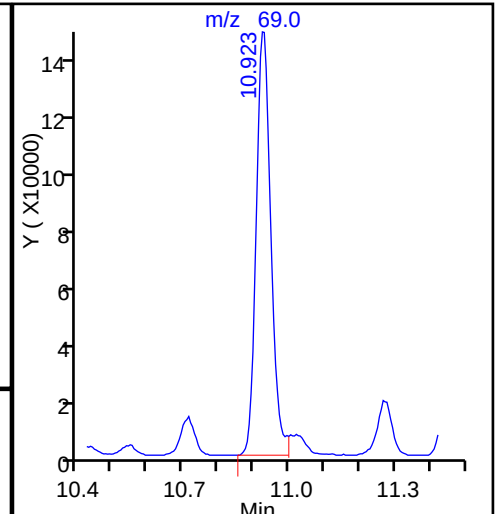
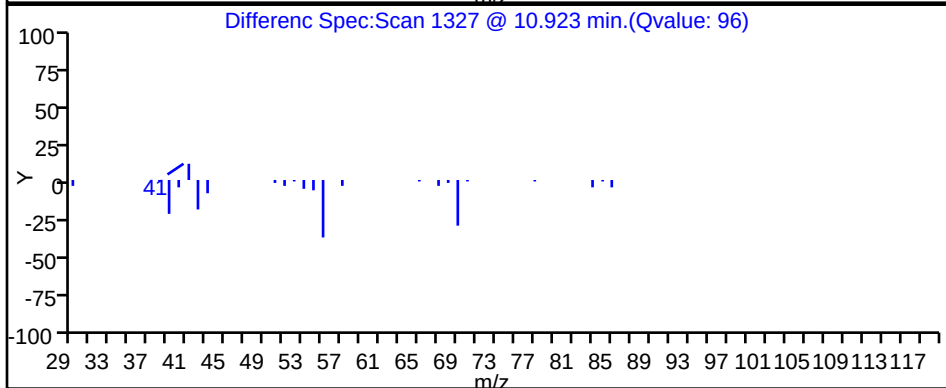
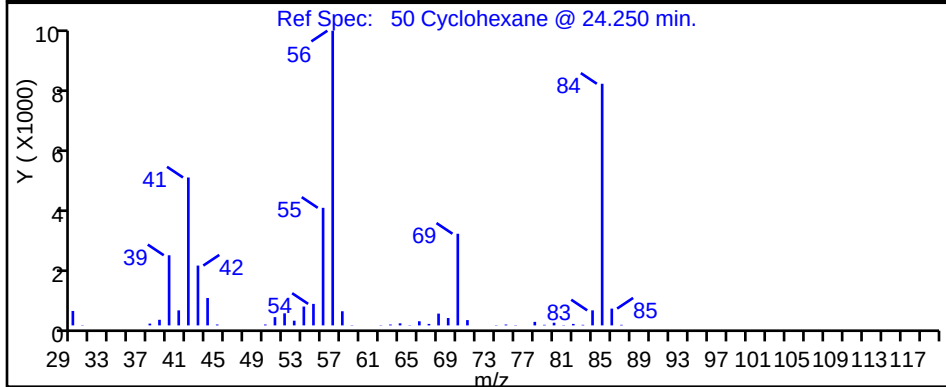
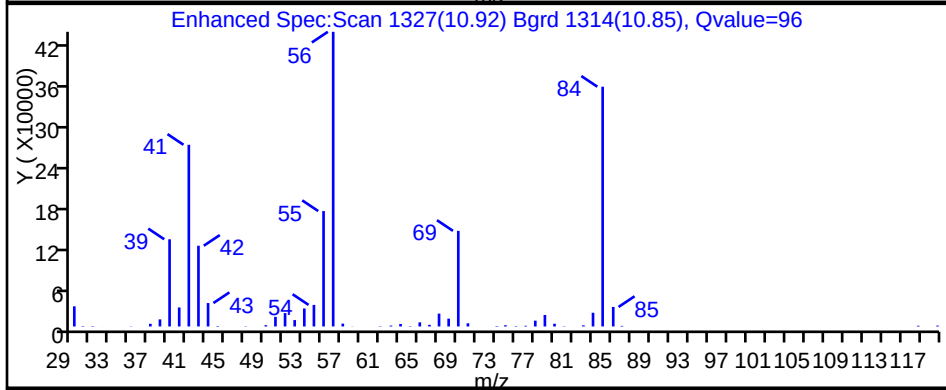
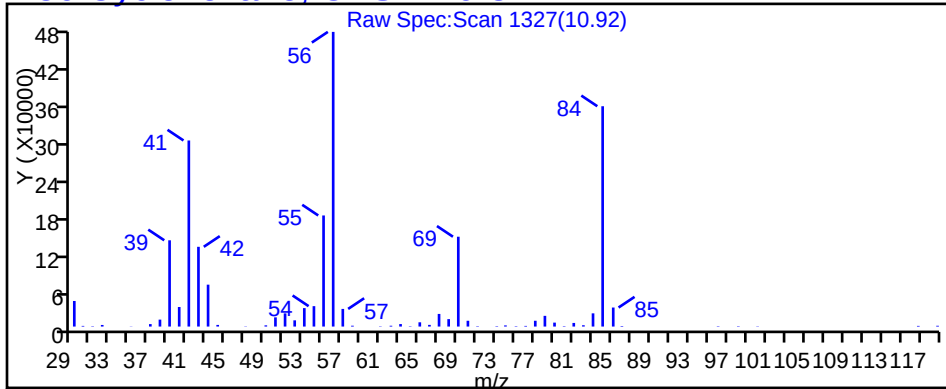
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

50 Cyclohexane, CAS: 110-82-7

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

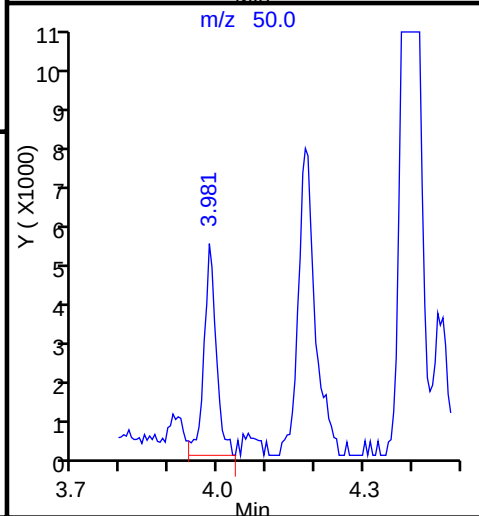
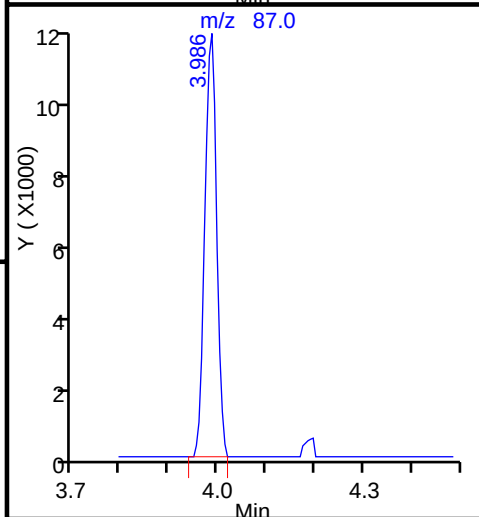
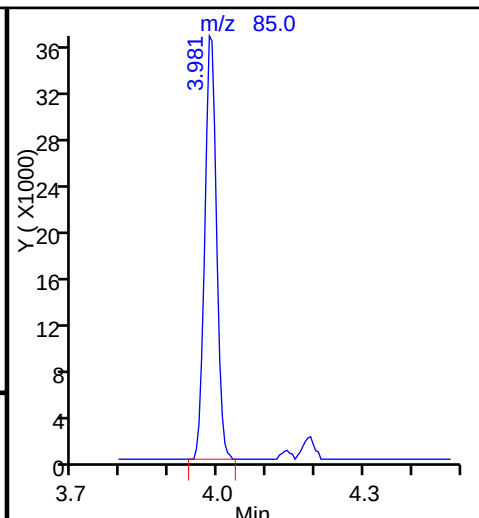
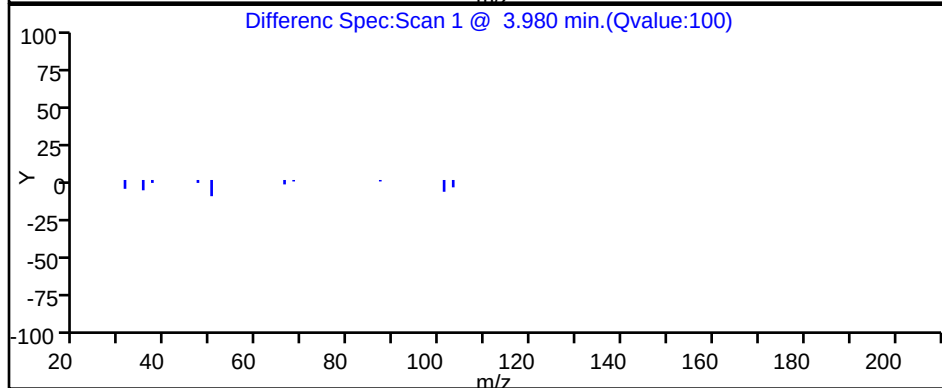
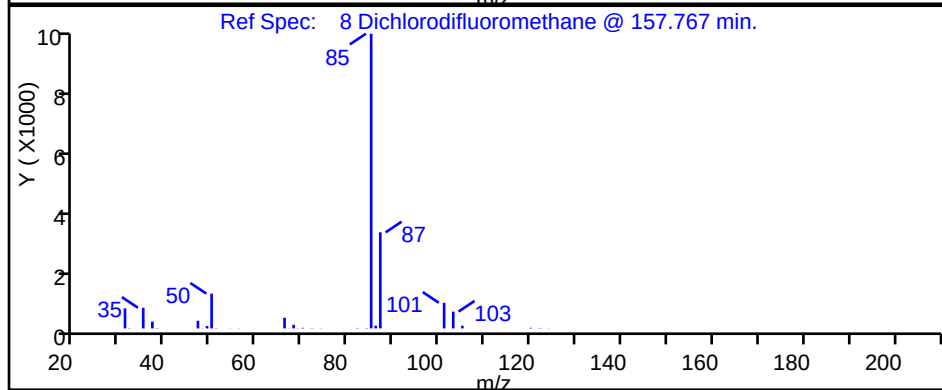
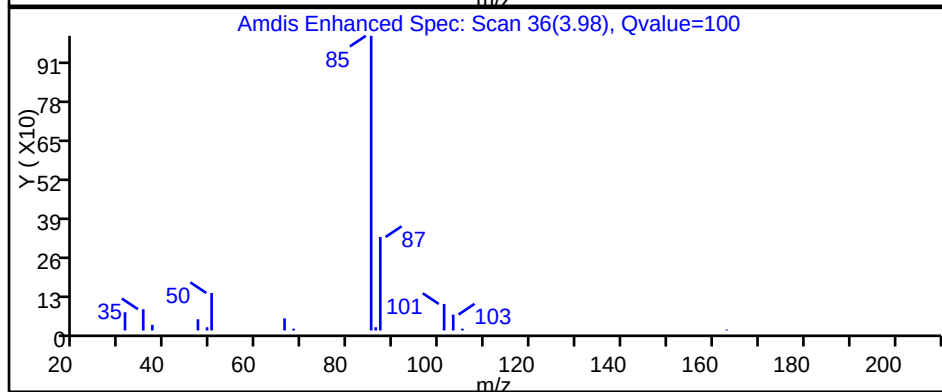
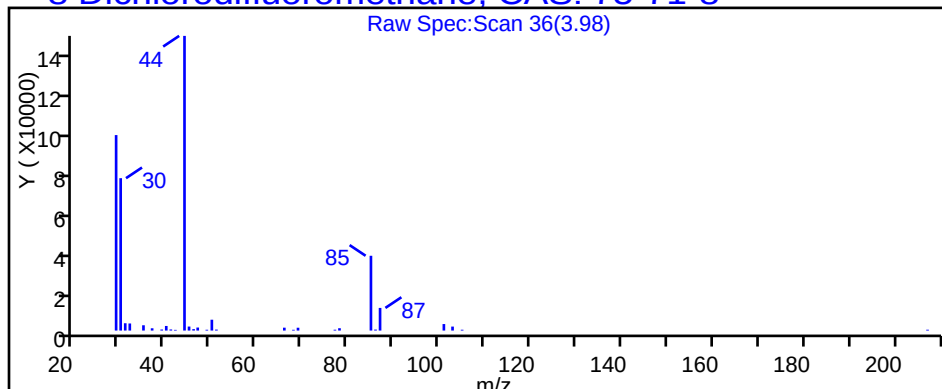
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

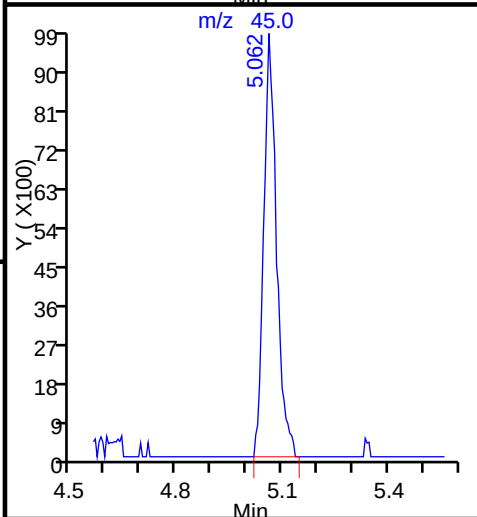
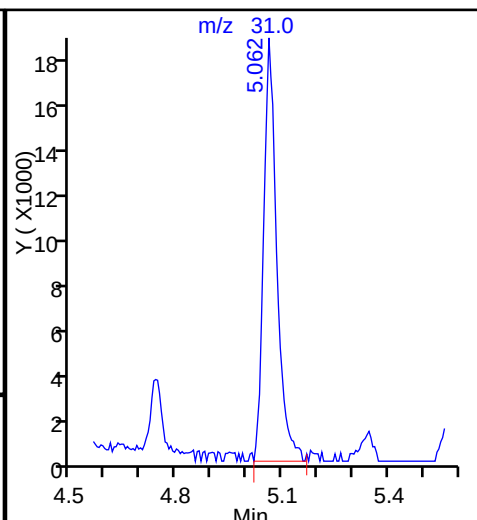
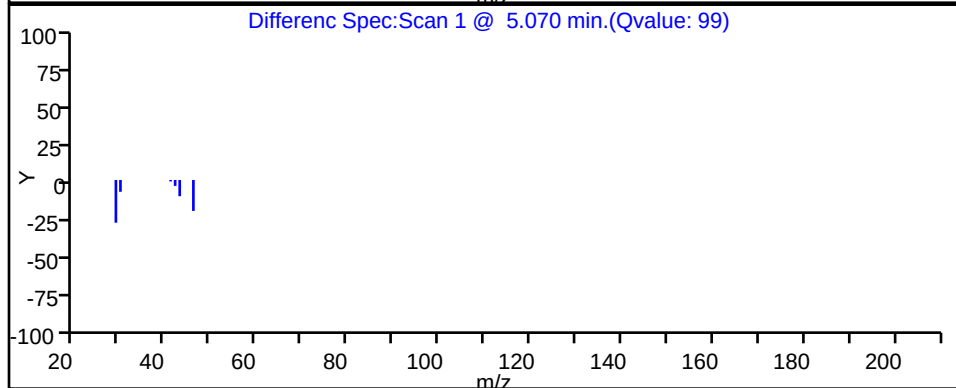
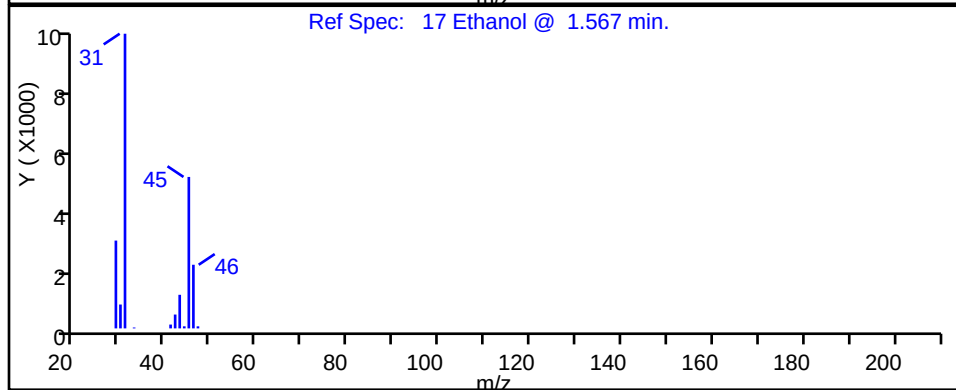
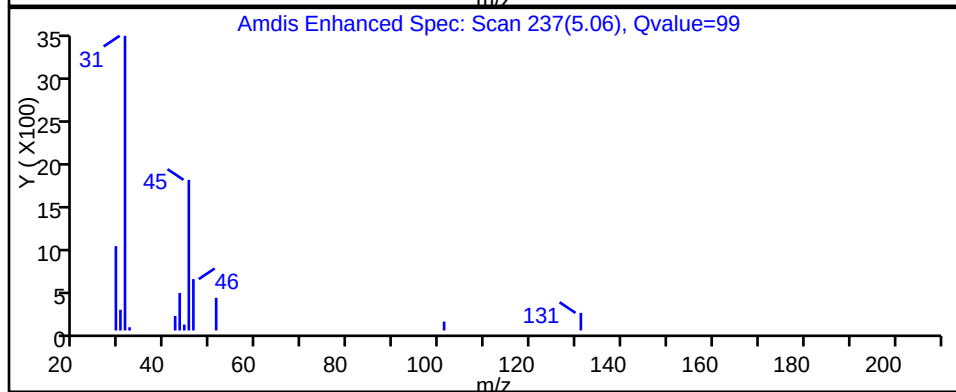
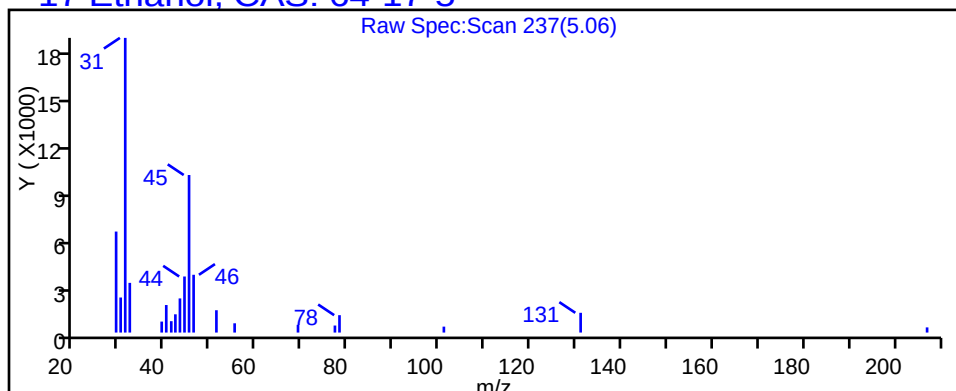
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

TestAmerica Knoxville

Data File: \\ChromNA\\Knoxville\\ChromData\\MJ\\20161114-3625.b\\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

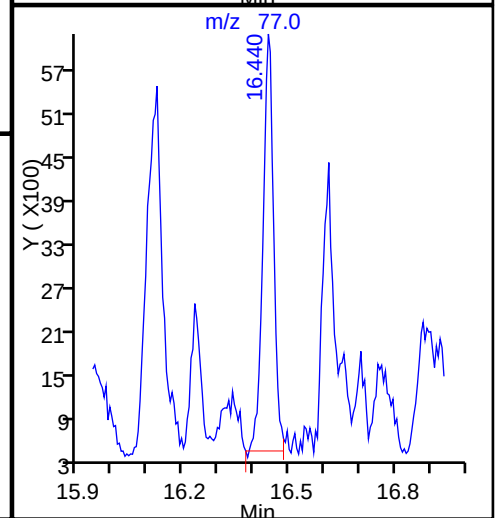
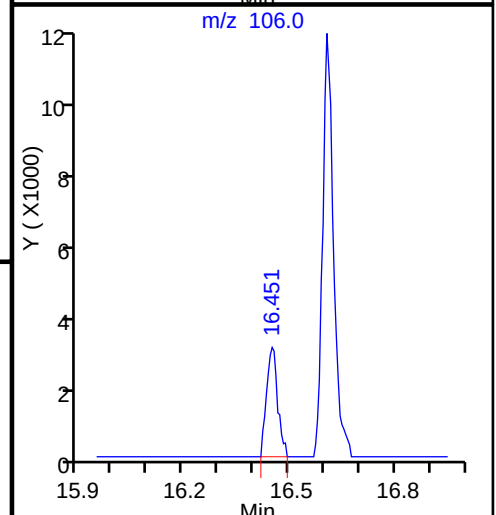
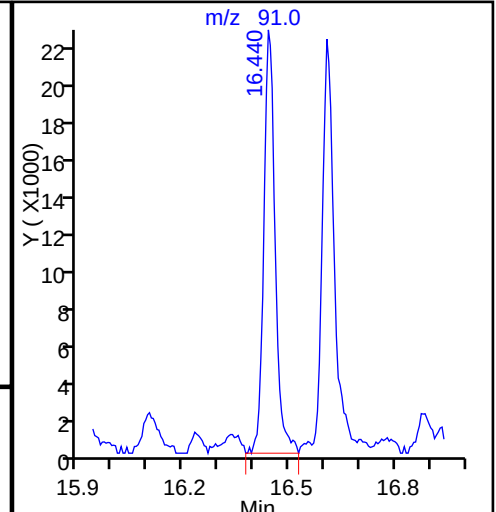
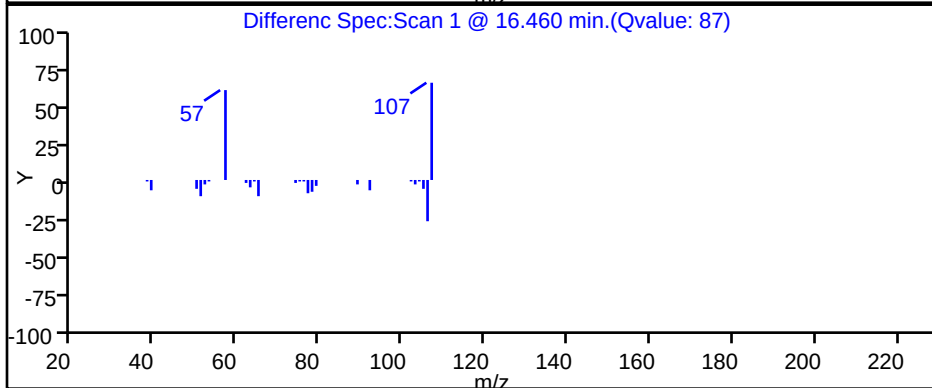
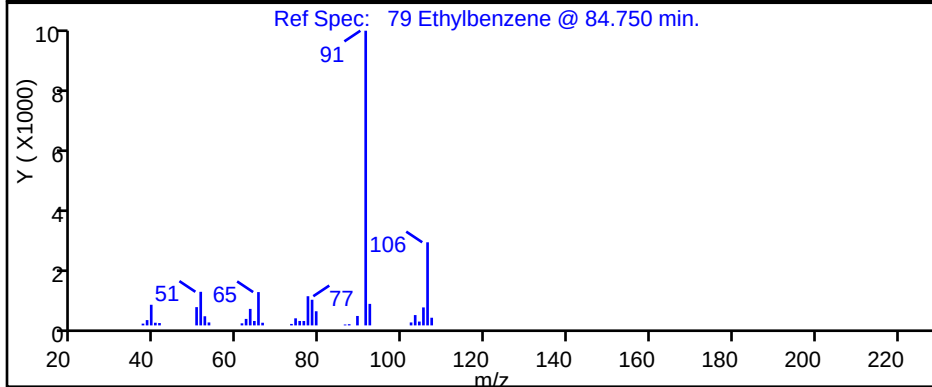
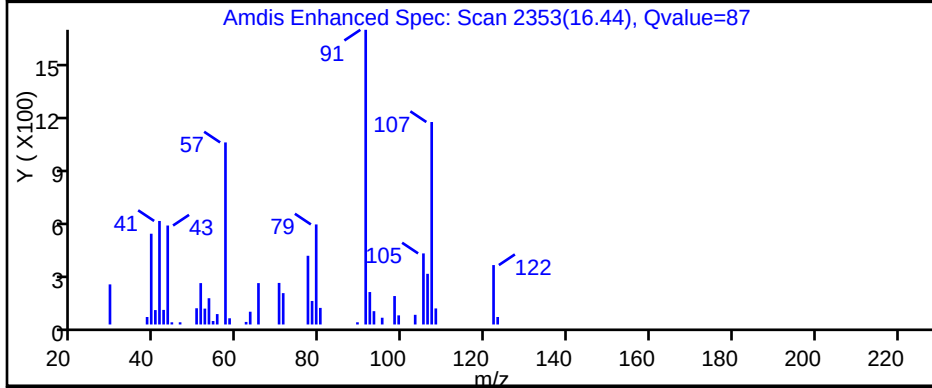
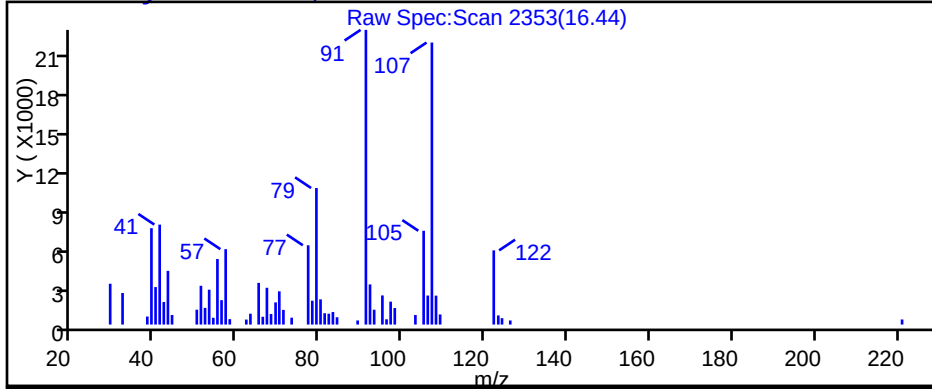
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

79 Ethylbenzene, CAS: 100-41-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

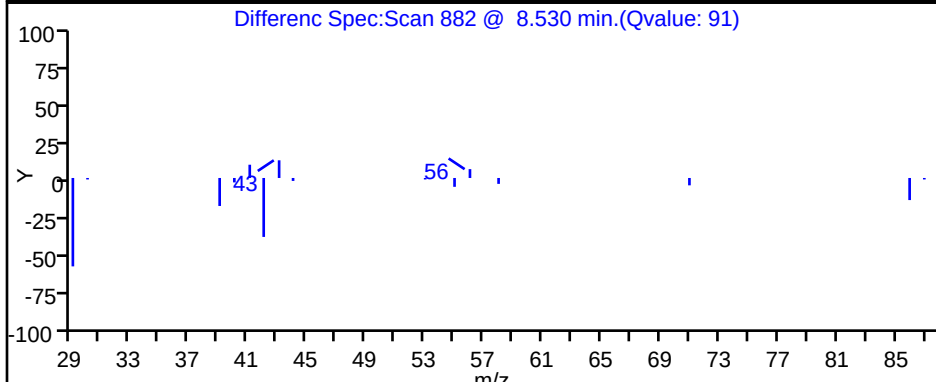
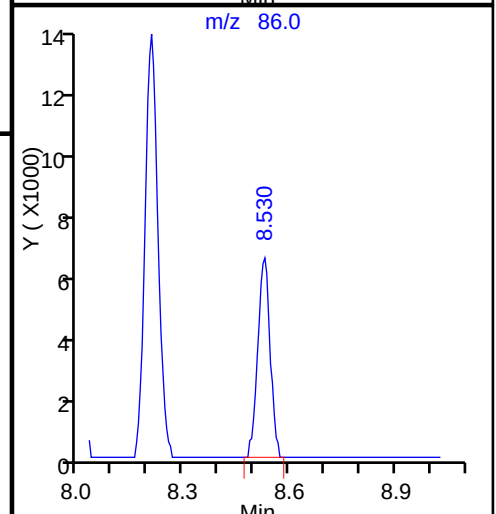
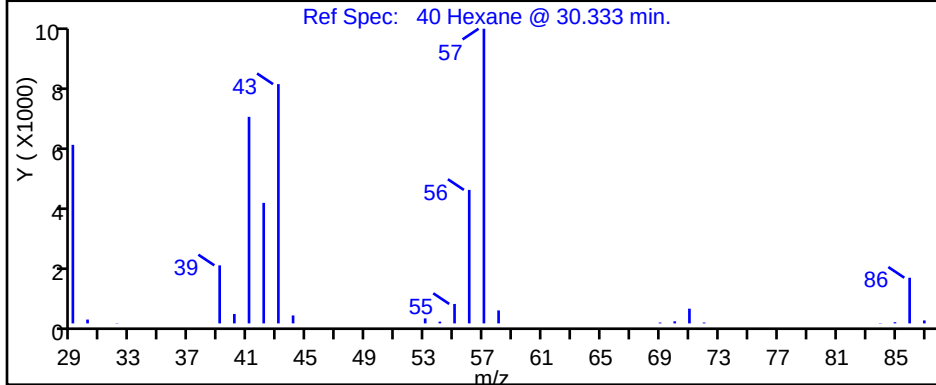
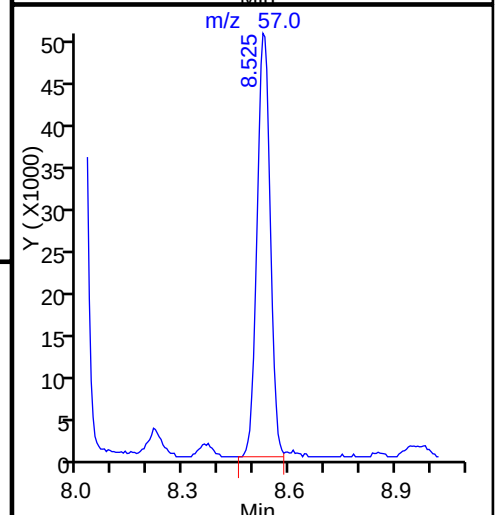
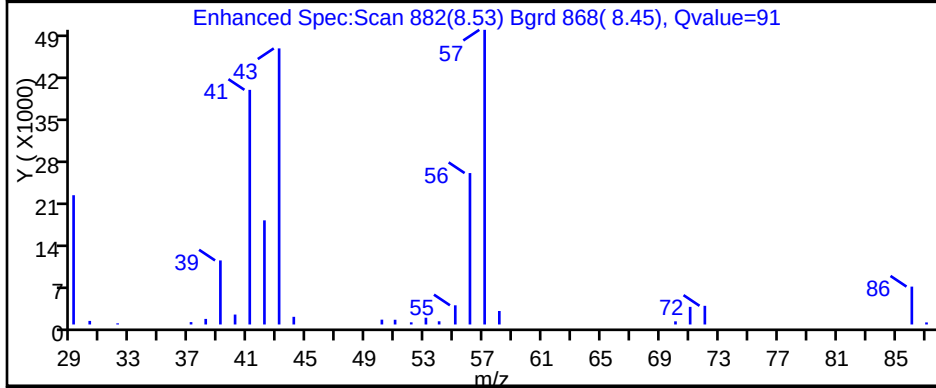
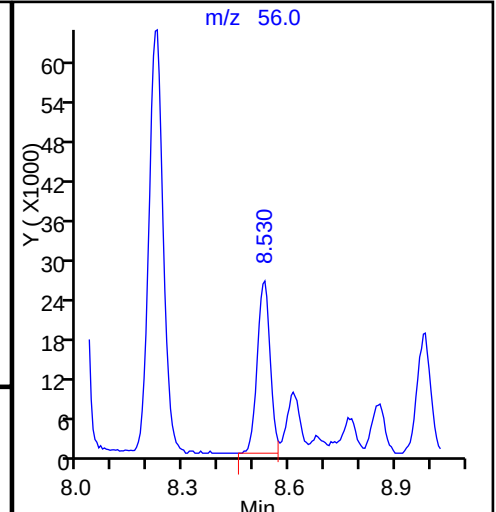
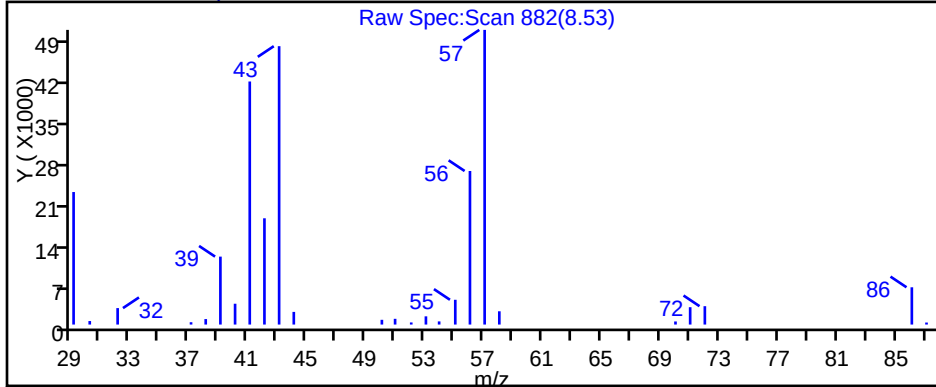
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

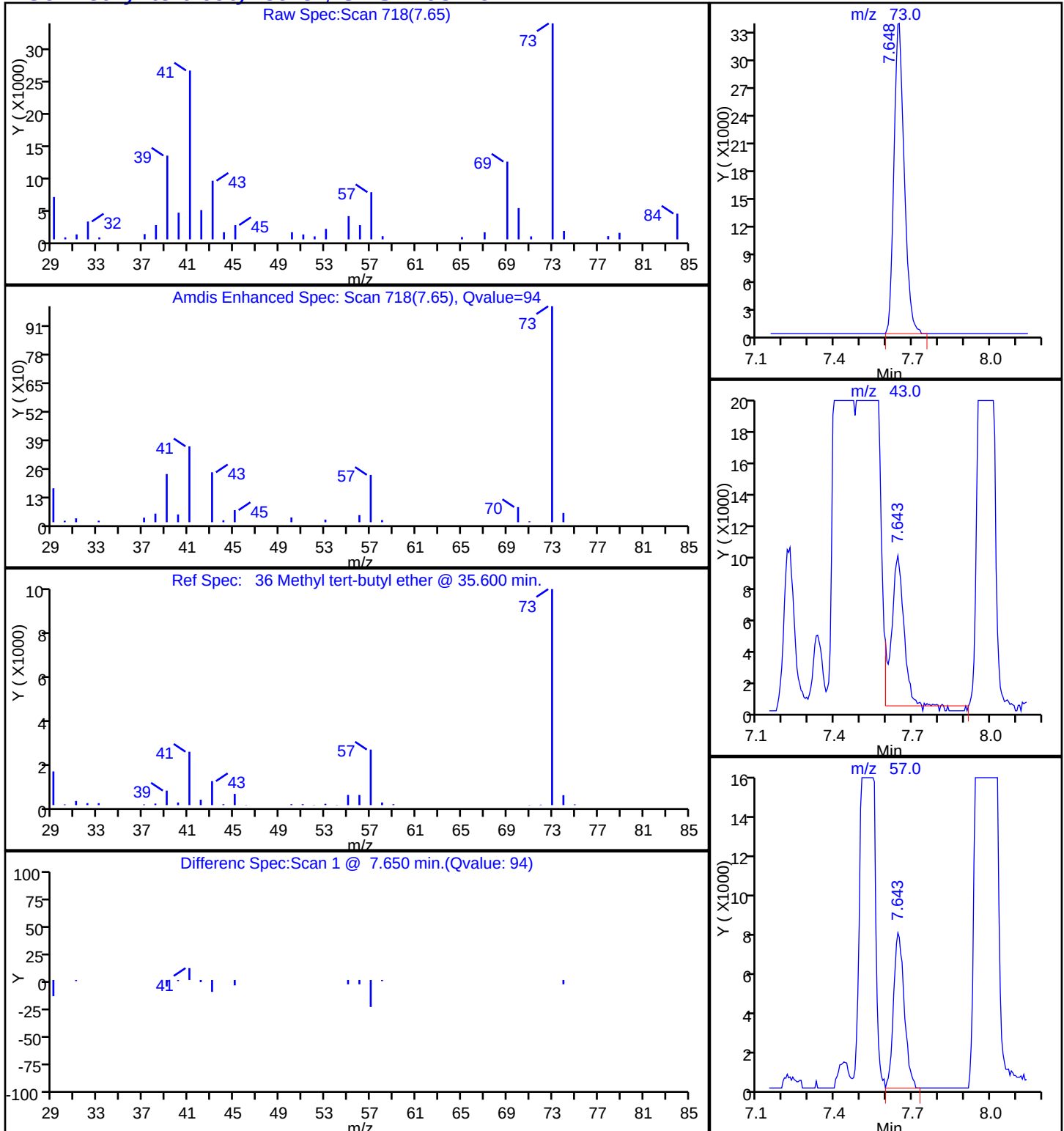
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

36 Methyl tert-butyl ether, CAS: 1634-04-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

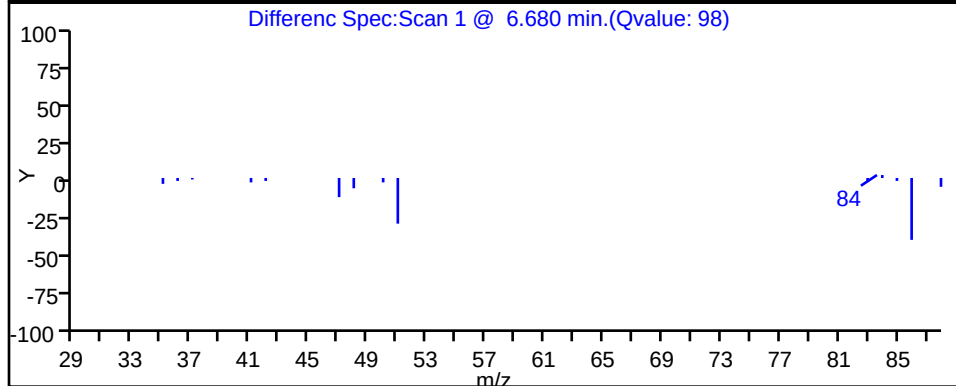
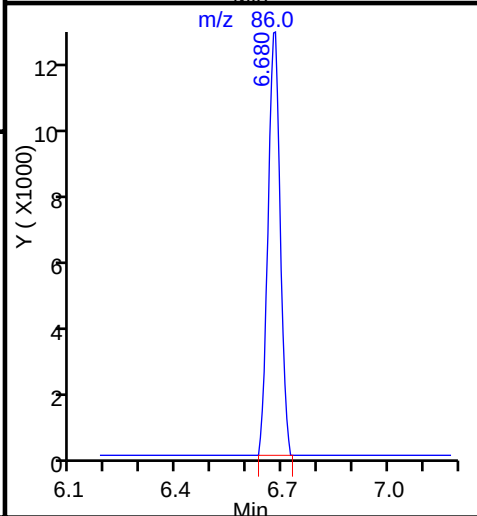
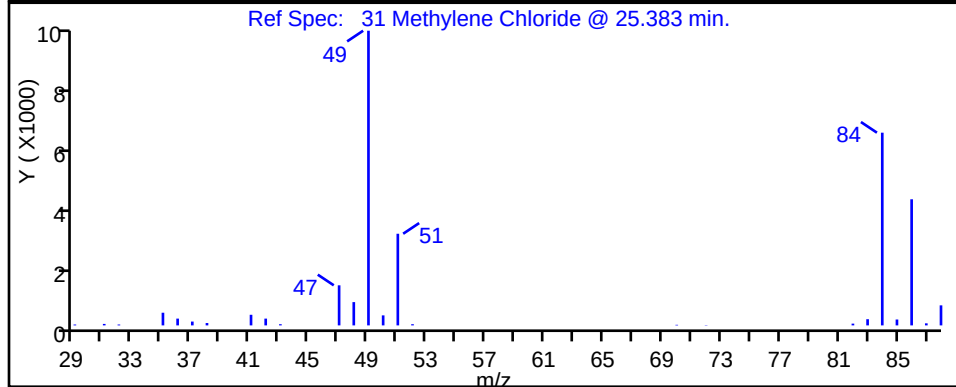
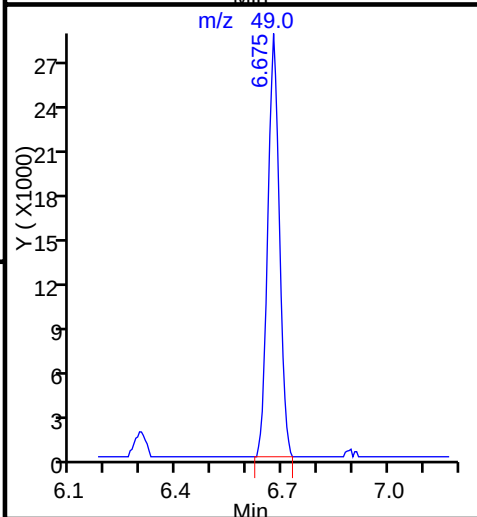
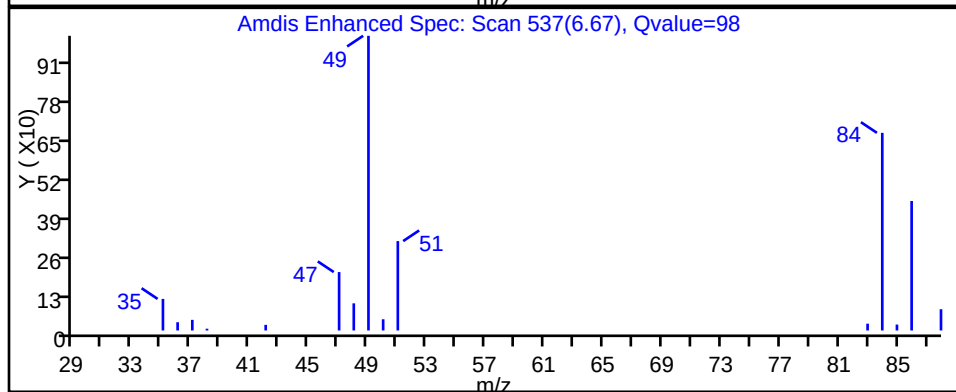
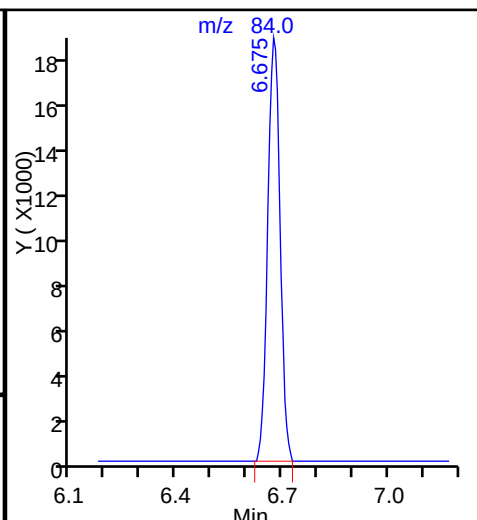
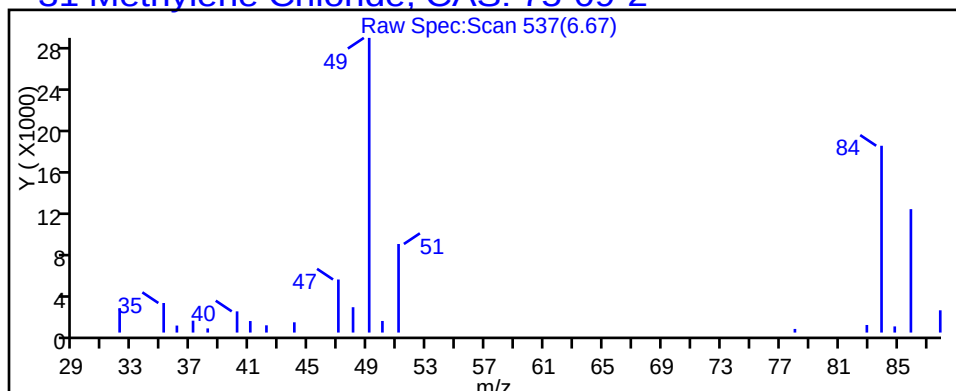
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

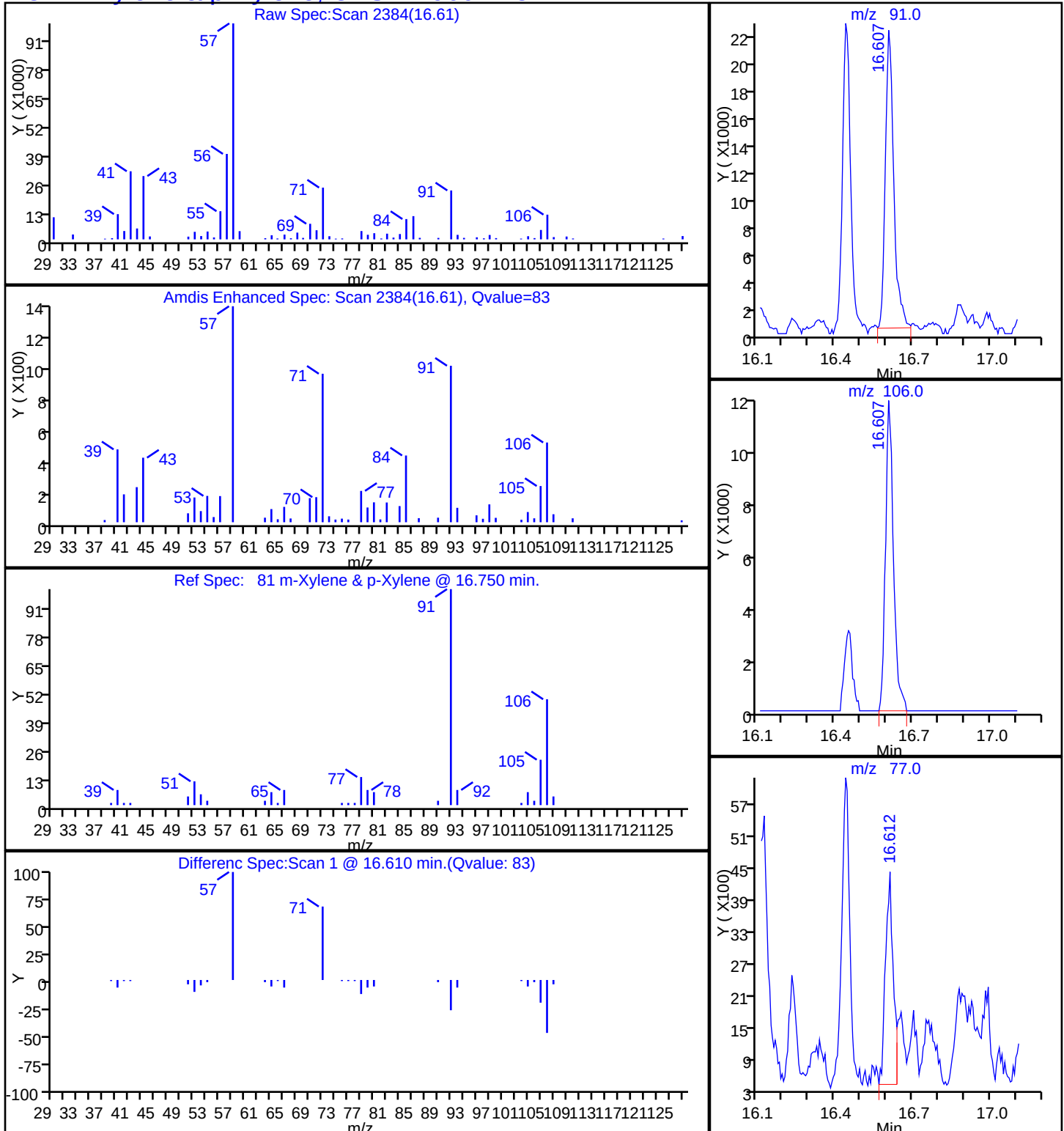
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

81 m-Xylene & p-Xylene, CAS: 179601-23-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

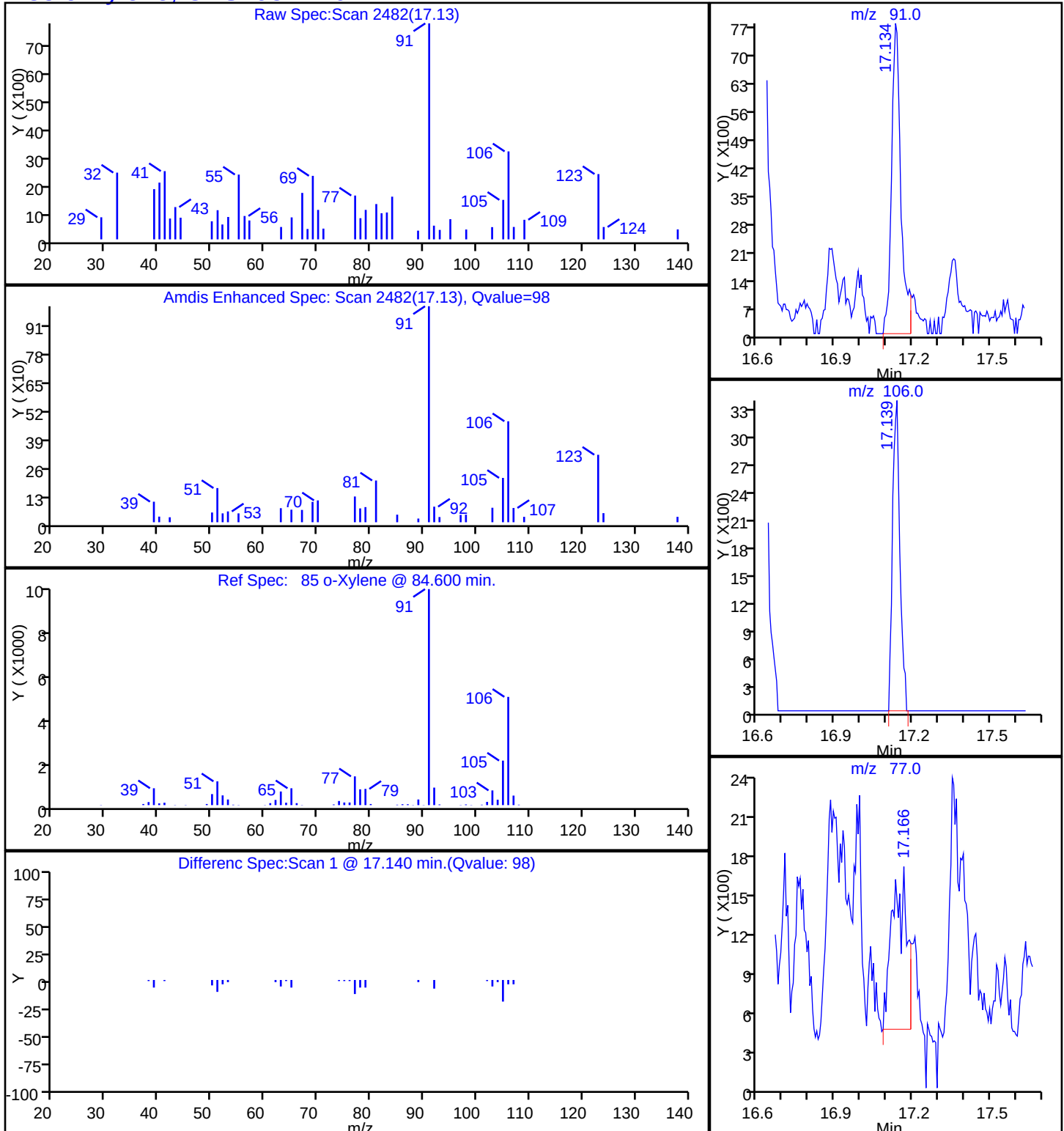
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

85 o-Xylene, CAS: 95-47-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

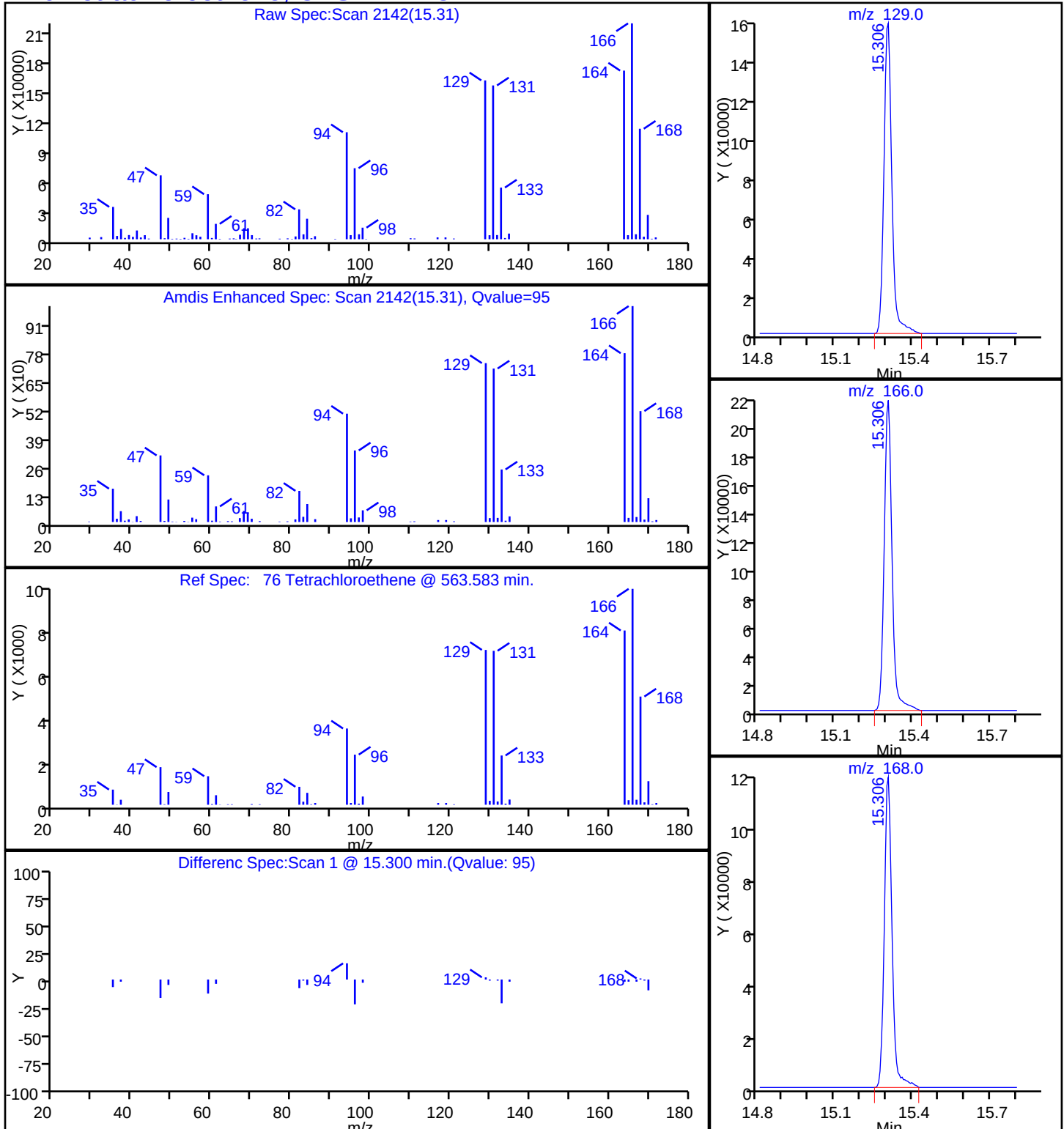
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

76 Tetrachloroethene, CAS: 127-18-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

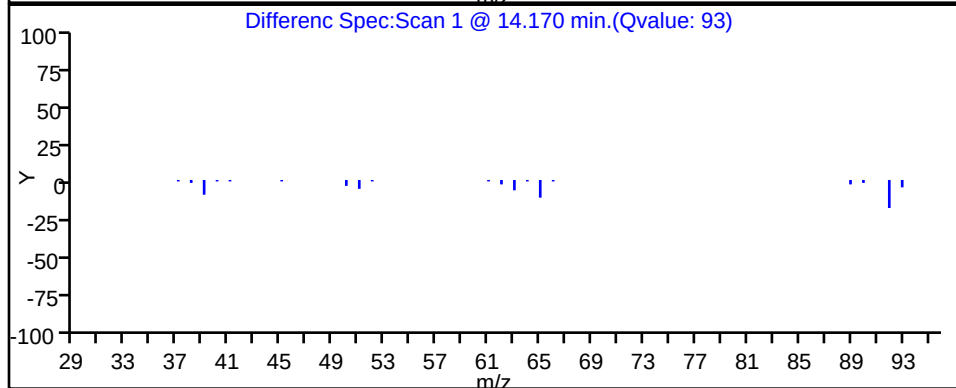
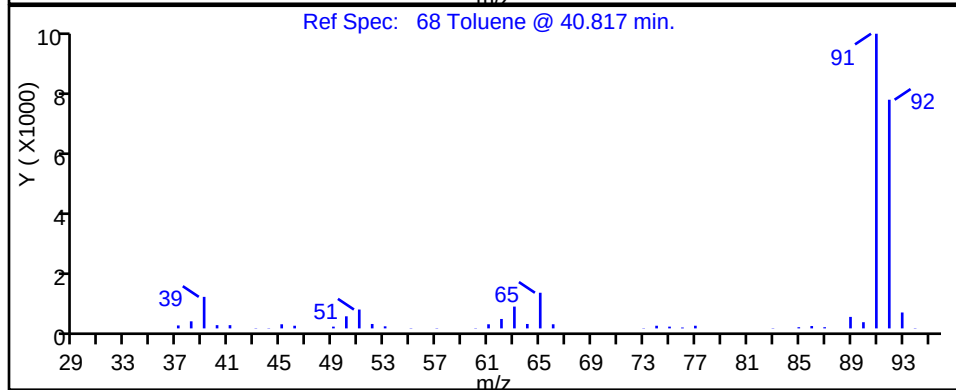
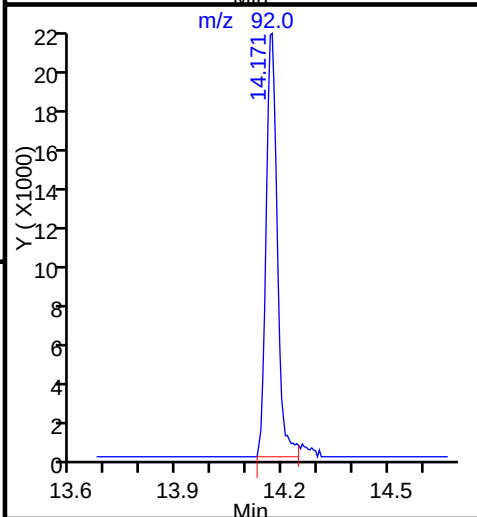
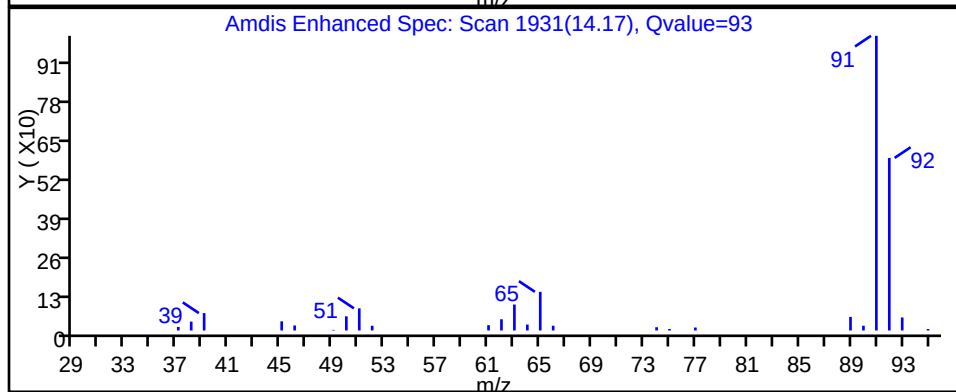
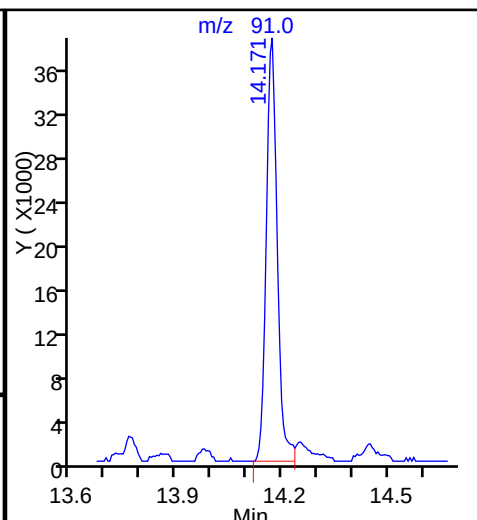
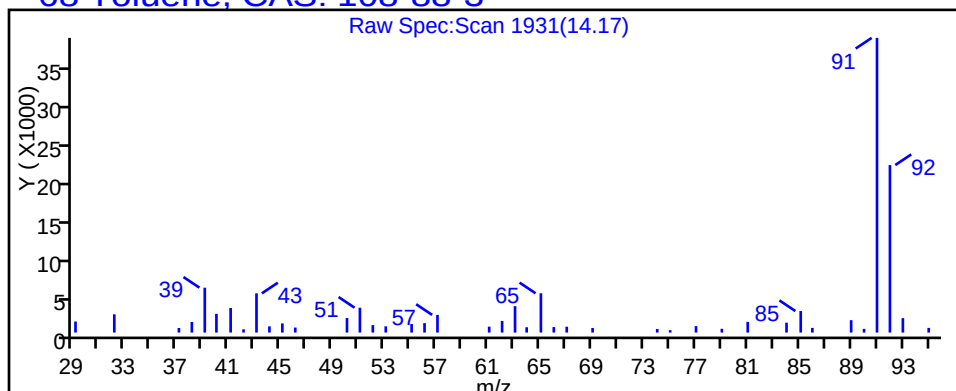
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

68 Toluene, CAS: 108-88-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

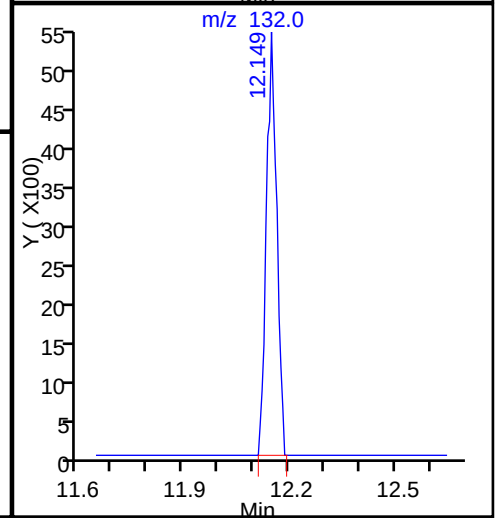
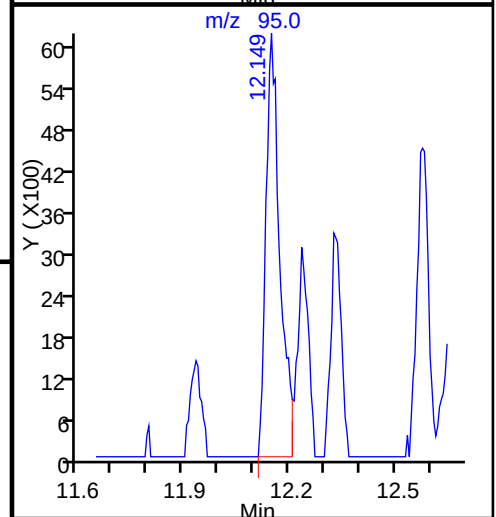
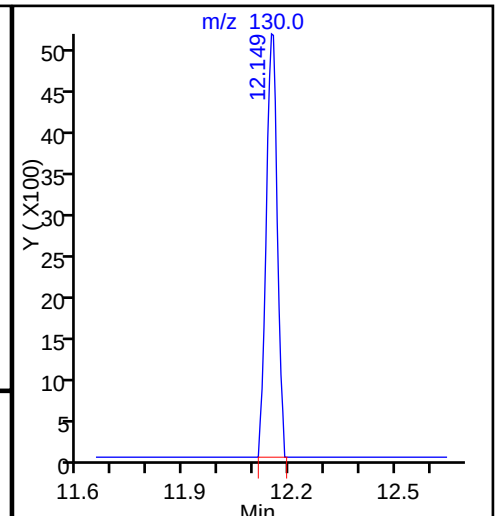
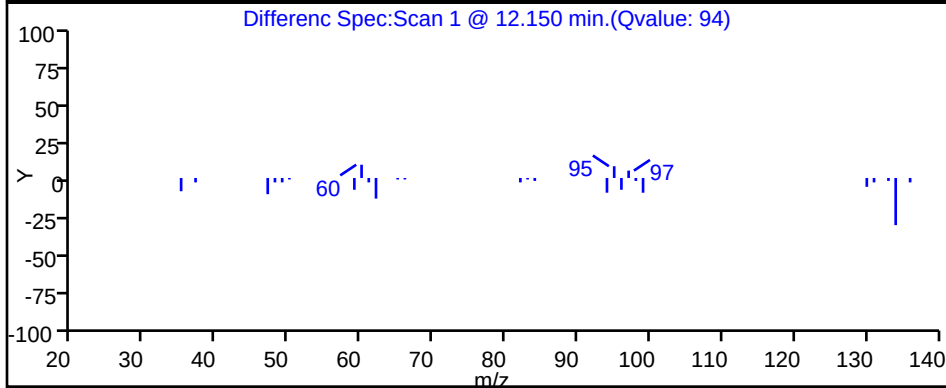
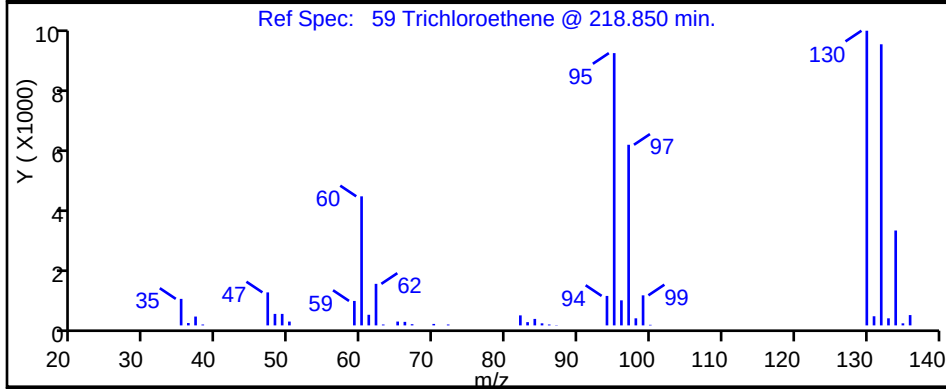
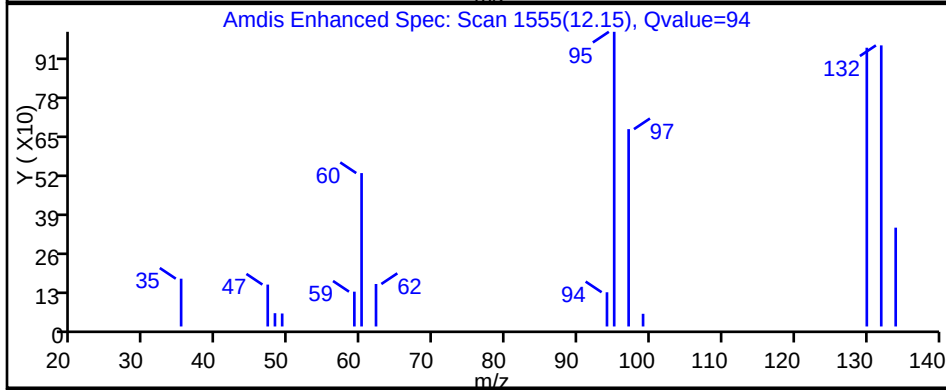
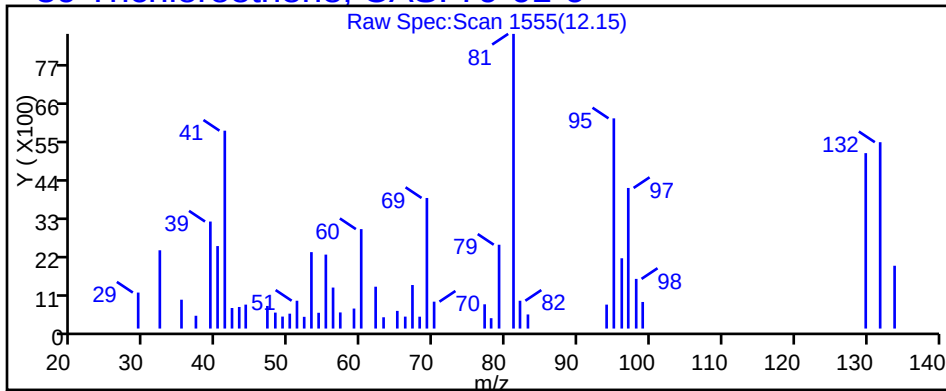
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

59 Trichloroethene, CAS: 79-01-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P102.D

Injection Date: 15-Nov-2016 16:49:30

Instrument ID: MJ

Lims ID: 140-6336-A-1

Lab Sample ID: 140-6336-1

Client ID: OVP-10

Operator ID: 7126

ALS Bottle#: 2

Worklist Smp#: 10

Purge Vol: 500.000 mL

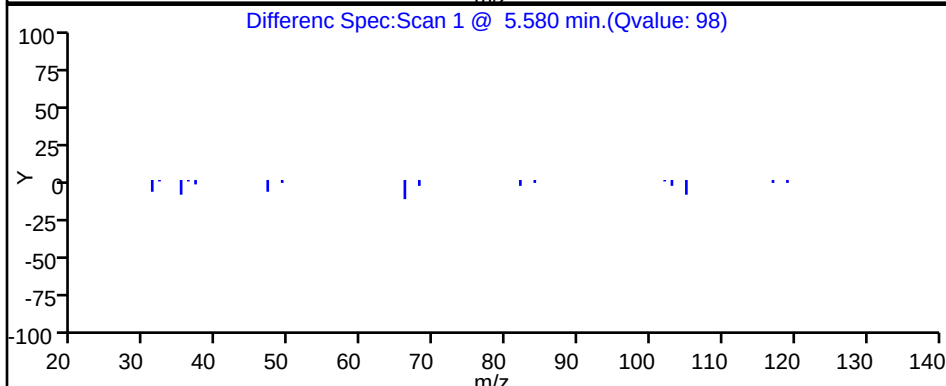
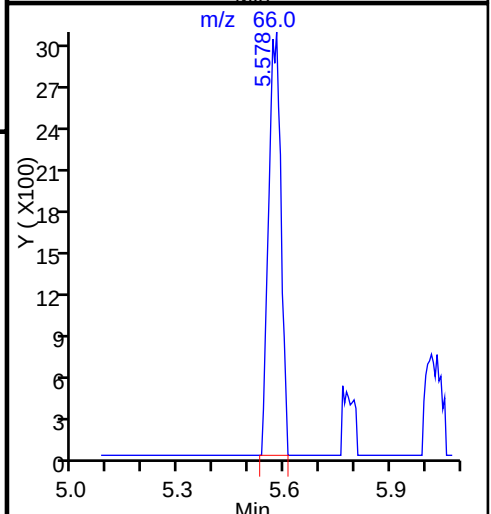
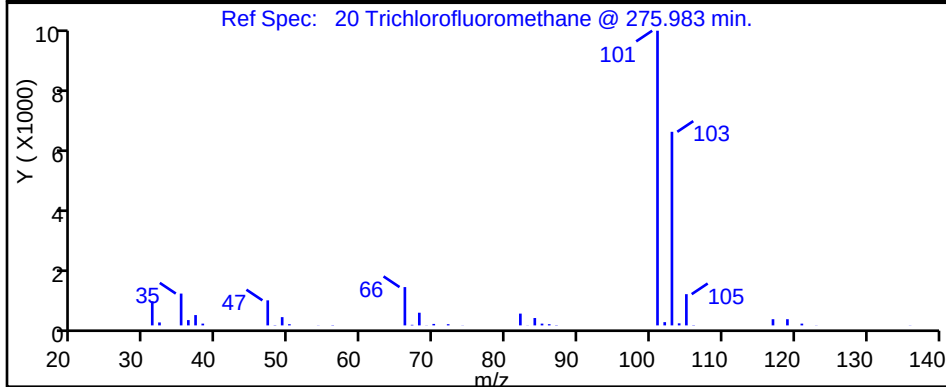
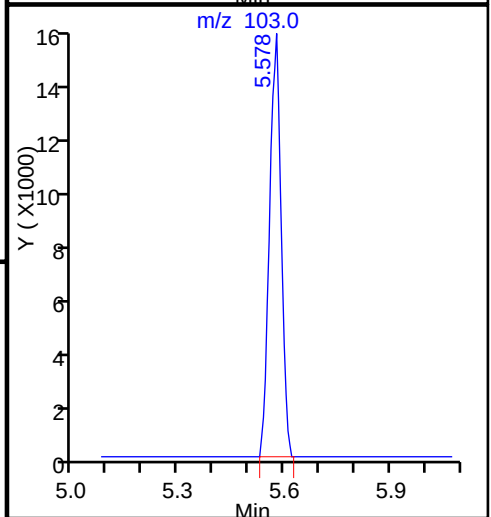
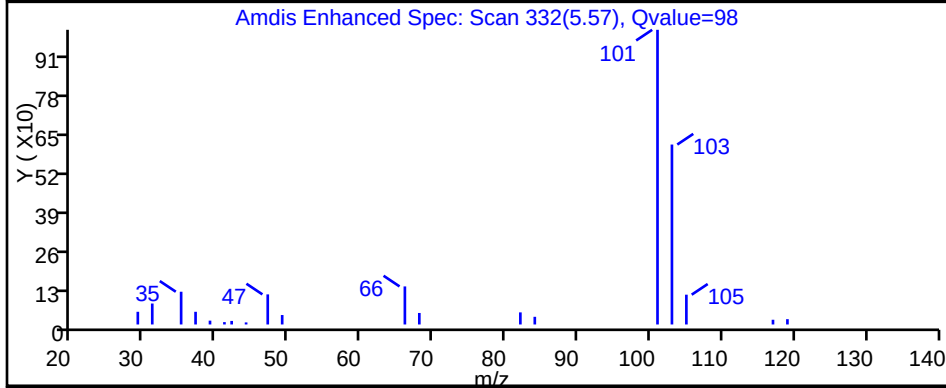
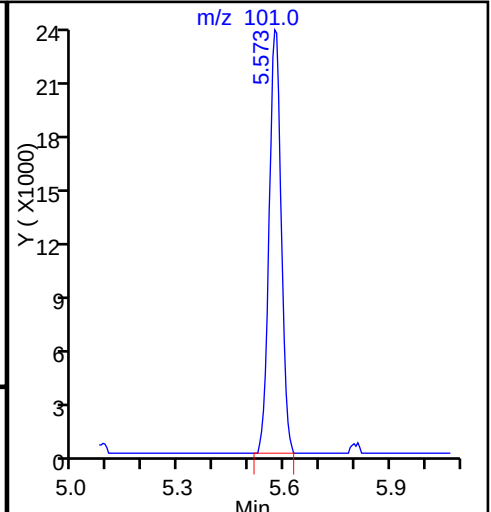
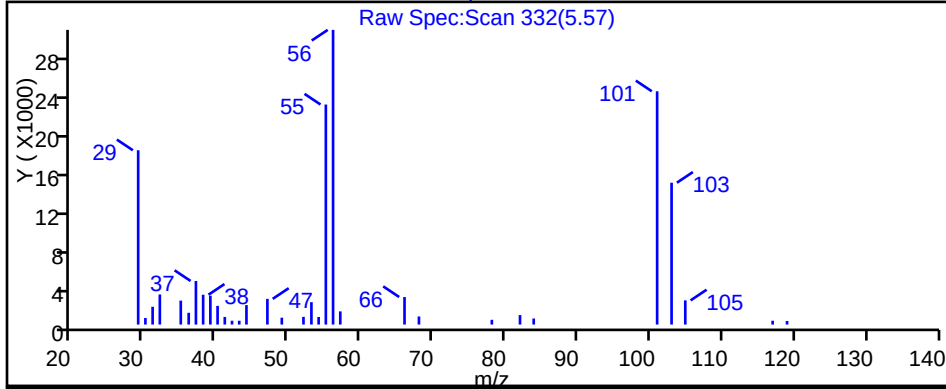
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-9 Lab Sample ID: 140-6336-2
 Matrix: Air Lab File ID: JK15P103.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 13:58
 Sample wt/vol: 895(mL) Date Analyzed: 11/15/2016 17:44
 Soil Aliquot Vol: _____ Dilution Factor: 1.79
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.080	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.080	
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	120.20	0.14		0.080	
106-93-4	1,2-Dibromoethane	187.87	ND		0.080	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.080	
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	
78-87-5	1,2-Dichloropropane	112.99	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.080	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.080	
123-91-1	1,4-Dioxane	88.11	ND		0.20	
540-84-1	2,2,4-Trimethylpentane	114.23	0.64		0.20	
78-93-3	2-Butanone	72.11	0.47		0.32	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	29	E	0.20	
71-43-2	Benzene	78.11	0.11		0.080	
100-44-7	Benzyl chloride	126.58	ND		0.16	
75-27-4	Bromodichloromethane	163.83	0.65		0.080	
75-25-2	Bromoform	252.75	ND		0.080	
74-83-9	Bromomethane	94.94	ND		0.080	
56-23-5	Carbon tetrachloride	153.81	0.059		0.040	
108-90-7	Chlorobenzene	112.56	ND		0.080	
75-00-3	Chloroethane	64.52	ND		0.080	
67-66-3	Chloroform	119.38	16		0.080	
74-87-3	Chloromethane	50.49	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.080	
110-82-7	Cyclohexane	84.16	1.1		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-9 Lab Sample ID: 140-6336-2
 Matrix: Air Lab File ID: JK15P103.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 13:58
 Sample wt/vol: 895(mL) Date Analyzed: 11/15/2016 17:44
 Soil Aliquot Vol: _____ Dilution Factor: 1.79
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.080	
75-71-8	Dichlorodifluoromethane	120.91	0.46		0.080	
64-17-5	Ethanol	46.07	ND		2.0	
100-41-4	Ethylbenzene	106.17	ND		0.080	
87-68-3	Hexachlorobutadiene	260.76	ND		0.080	
110-54-3	Hexane	86.17	0.42		0.20	
1634-04-4	Methyl tert-butyl ether	88.15	0.60		0.16	
75-09-2	Methylene Chloride	84.93	1.1		0.20	
179601-23-1	m-Xylene & p-Xylene	106.17	0.31		0.080	
95-47-6	o-Xylene	106.17	0.096		0.080	
100-42-5	Styrene	104.15	ND		0.080	
75-65-0	t-Butyl alcohol	74.12	ND		0.32	
127-18-4	Tetrachloroethene	165.83	8.8		0.080	
108-88-3	Toluene	92.14	0.38		0.12	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.080	
79-01-6	Trichloroethene	131.39	0.090		0.040	
75-69-4	Trichlorofluoromethane	137.37	0.30		0.080	
75-01-4	Vinyl chloride	62.50	ND		0.040	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-9 Lab Sample ID: 140-6336-2
 Matrix: Air Lab File ID: JK15P103.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 13:58
 Sample wt/vol: 895(mL) Date Analyzed: 11/15/2016 17:44
 Soil Aliquot Vol: _____ Dilution Factor: 1.79
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.55	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.61	
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	
95-63-6	1,2,4-Trimethylbenzene	120.20	0.68		0.39	
106-93-4	1,2-Dibromoethane	187.87	ND		0.61	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.48	
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	
78-87-5	1,2-Dichloropropane	112.99	ND		0.37	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.56	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.48	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.48	
123-91-1	1,4-Dioxane	88.11	ND		0.72	
540-84-1	2,2,4-Trimethylpentane	114.23	3.0		0.93	
78-93-3	2-Butanone	72.11	1.4		0.94	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	120	E	0.82	
71-43-2	Benzene	78.11	0.35		0.26	
100-44-7	Benzyl chloride	126.58	ND		0.83	
75-27-4	Bromodichloromethane	163.83	4.4		0.54	
75-25-2	Bromoform	252.75	ND		0.83	
74-83-9	Bromomethane	94.94	ND		0.31	
56-23-5	Carbon tetrachloride	153.81	0.37		0.25	
108-90-7	Chlorobenzene	112.56	ND		0.37	
75-00-3	Chloroethane	64.52	ND		0.21	
67-66-3	Chloroform	119.38	76		0.39	
74-87-3	Chloromethane	50.49	ND		0.41	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.36	
110-82-7	Cyclohexane	84.16	3.7		0.69	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-9 Lab Sample ID: 140-6336-2
 Matrix: Air Lab File ID: JK15P103.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 13:58
 Sample wt/vol: 895(mL) Date Analyzed: 11/15/2016 17:44
 Soil Aliquot Vol: _____ Dilution Factor: 1.79
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.68	
75-71-8	Dichlorodifluoromethane	120.91	2.3		0.40	
64-17-5	Ethanol	46.07	ND		3.8	
100-41-4	Ethylbenzene	106.17	ND		0.35	
87-68-3	Hexachlorobutadiene	260.76	ND		0.85	
110-54-3	Hexane	86.17	1.5		0.70	
1634-04-4	Methyl tert-butyl ether	88.15	2.2		0.58	
75-09-2	Methylene Chloride	84.93	3.7		0.69	
179601-23-1	m-Xylene & p-Xylene	106.17	1.3		0.35	
95-47-6	o-Xylene	106.17	0.42		0.35	
100-42-5	Styrene	104.15	ND		0.34	
75-65-0	t-Butyl alcohol	74.12	ND		0.97	
127-18-4	Tetrachloroethene	165.83	60		0.54	
108-88-3	Toluene	92.14	1.4		0.45	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.36	
79-01-6	Trichloroethene	131.39	0.48		0.21	
75-69-4	Trichlorofluoromethane	137.37	1.7		0.45	
75-01-4	Vinyl chloride	62.50	ND		0.10	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D
 Lims ID: 140-6336-A-2
 Client ID: OVP-9
 Sample Type: Client
 Inject. Date: 15-Nov-2016 17:44:30 ALS Bottle#: 3 Worklist Smp#: 11
 Purge Vol: 500.000 mL Dil. Factor: 1.7900
 Sample Info: 140-0003625-011
 Misc. Info.: 140-6336-a-2@1.79
 Operator ID: 7126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:02:32

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.279	9.281	-0.002	95	256044	4.00	
* 2 1,4-Difluorobenzene	114	11.441	11.443	-0.002	96	1164753	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.119	16.121	-0.002	89	913811	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.748	17.745	0.003	88	563489	4.09	
8 Dichlorodifluoromethane	85	3.982	3.990	-0.008	100	115976	0.4601	
9 Chloromethane	52	4.176	4.183	-0.007	89	2496	0.0864	M
10 1,2-Dichloro-1,1,2,2-tetra	135	4.192	4.189	0.003	87	2979	0.0225	
17 Ethanol	31	5.058	5.060	-0.002	98	37406	1.53	
20 Trichlorofluoromethane	101	5.569	5.565	0.004	99	66274	0.3016	
28 2-Methyl-2-propanol	59	6.413	6.404	0.009	95	14080	0.1132	
30 1,1,2-Trichloro-1,2,2-trif	101	6.488	6.485	0.003	91	11351	0.0666	
31 Methylene Chloride	84	6.671	6.673	-0.002	98	86912	1.07	
36 Methyl tert-butyl ether	73	7.639	7.635	0.004	97	99452	0.5995	
39 2-Butanone (MEK)	72	8.510	8.507	0.003	95	12846	0.4727	
40 Hexane	56	8.521	8.523	-0.002	80	27280	0.4223	
44 Chloroform	83	9.284	9.292	-0.008	98	2506877	15.6	
47 1,1,1-Trichloroethane	97	10.327	10.335	-0.008	96	10617	0.0642	
50 Cyclohexane	69	10.919	10.921	-0.002	94	40311	1.09	
51 Benzene	78	10.919	10.921	-0.002	61	23824	0.1106	
52 Carbon tetrachloride	117	10.940	10.942	-0.002	91	9700	0.0587	
56 Isooctane	57	11.650	11.652	-0.002	98	221025	0.6355	
59 Trichloroethene	130	12.145	12.147	-0.002	94	7744	0.0895	
62 Dichlorobromomethane	83	12.376	12.378	-0.002	98	98117	0.6533	
65 4-Methyl-2-pentanone (MIBK	43	13.290	13.298	-0.008	97	3837452	28.7	E
68 Toluene	91	14.167	14.169	-0.002	93	77052	0.3846	
76 Tetrachloroethene	129	15.301	15.304	-0.003	98	661600	8.82	
79 Ethylbenzene	91	16.447	16.449	-0.002	98	15140	0.0684	
81 m-Xylene & p-Xylene	91	16.608	16.610	-0.002	99	51452	0.3107	
85 o-Xylene	91	17.135	17.137	-0.002	98	17470	0.0962	
92 1,3,5-Trimethylbenzene	120	18.442	18.449	-0.007	18	2444	0.0249	7
96 1,2,4-Trimethylbenzene	105	18.877	18.874	0.003	99	23091	0.1387	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D

Injection Date: 15-Nov-2016 17:44:30

Instrument ID: MJ

Operator ID: 7126

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Worklist Smp#: 11

Client ID: OVP-9

Purge Vol: 500.000 mL

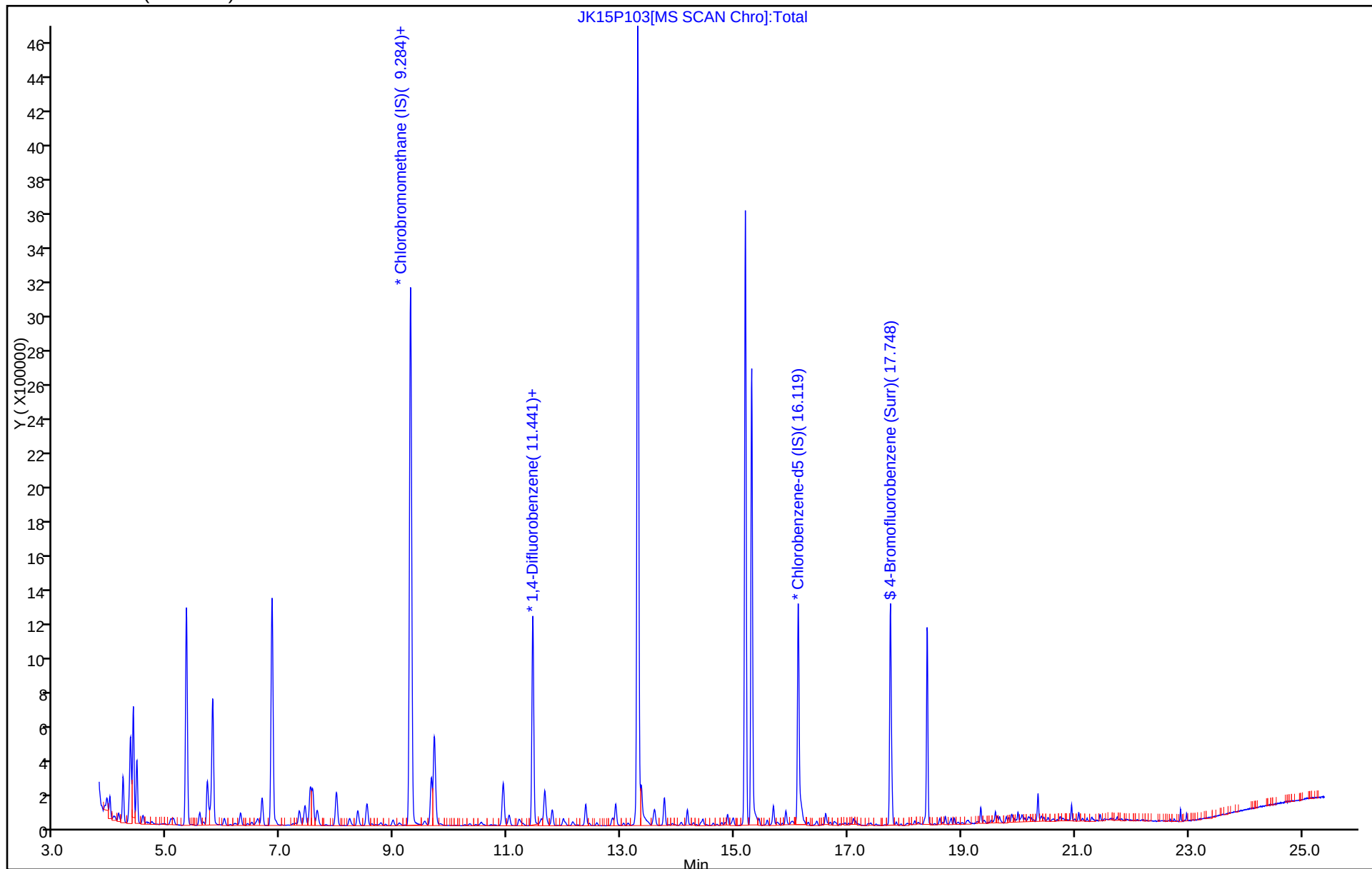
Dil. Factor: 1.7900

ALS Bottle#: 3

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D
Lims ID: 140-6336-A-2
Client ID: OVP-9
Sample Type: Client
Inject. Date: 15-Nov-2016 17:44:30 ALS Bottle#: 3 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.7900
Sample Info: 140-0003625-011
Misc. Info.: 140-6336-a-2@1.79
Operator ID: 7126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:02:32

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.09	102.26

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D

Injection Date: 15-Nov-2016 17:44:30

Instrument ID: MJ

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Client ID: OVP-9

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 11

Purge Vol: 500.000 mL

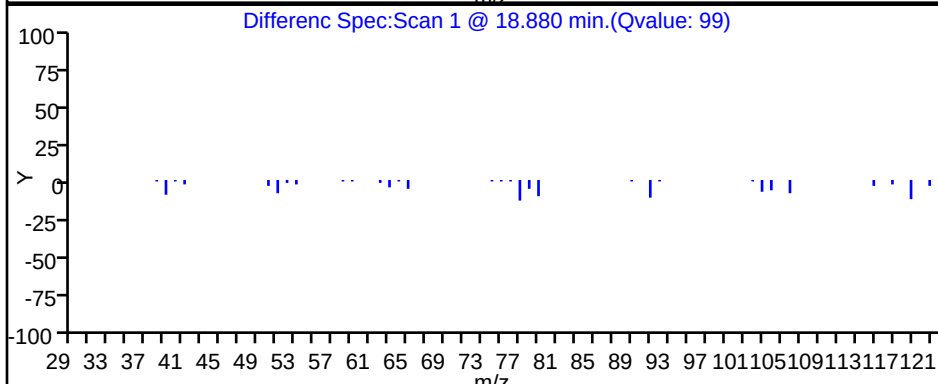
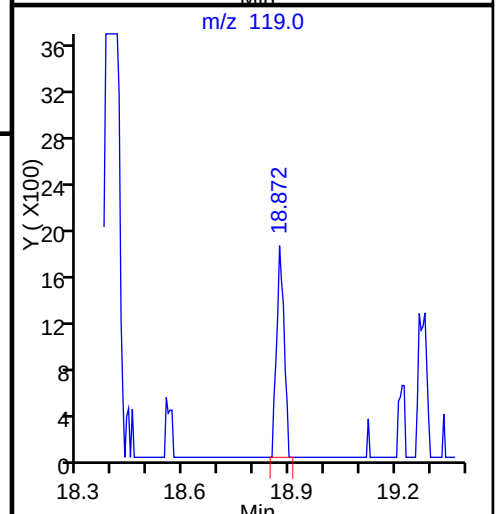
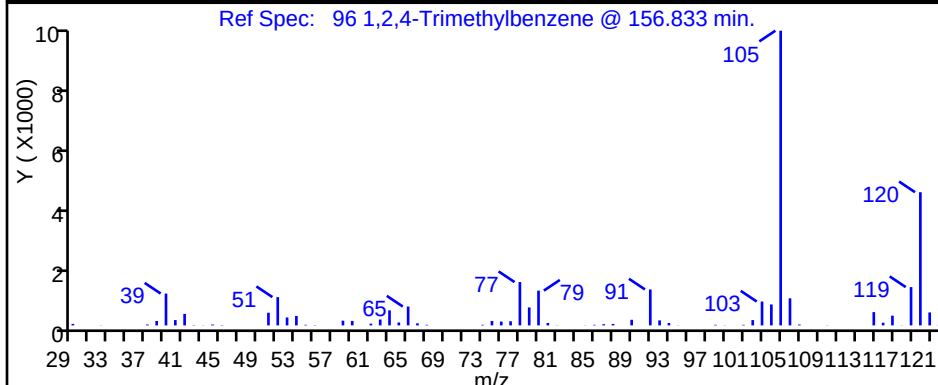
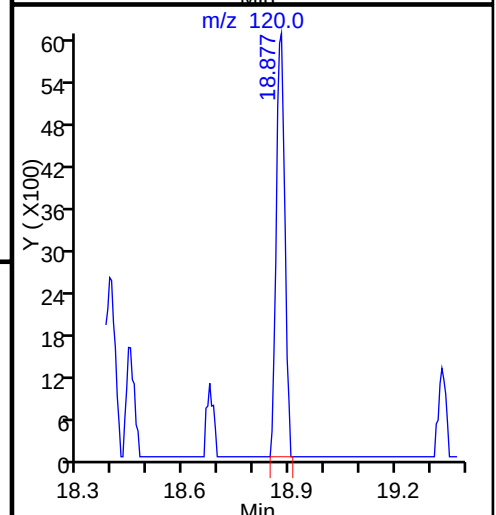
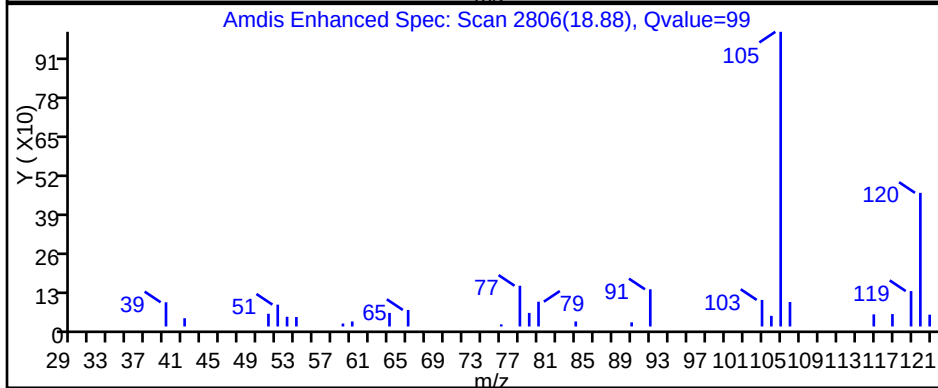
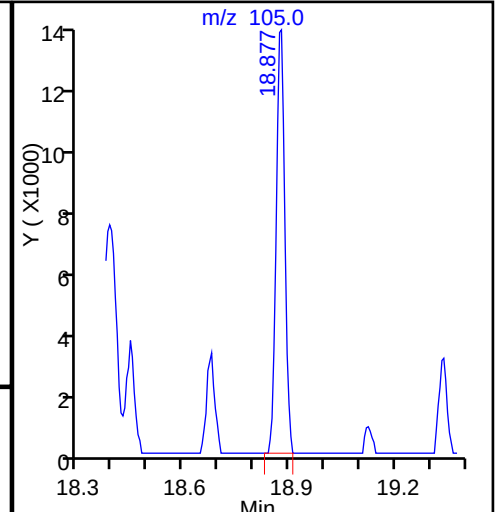
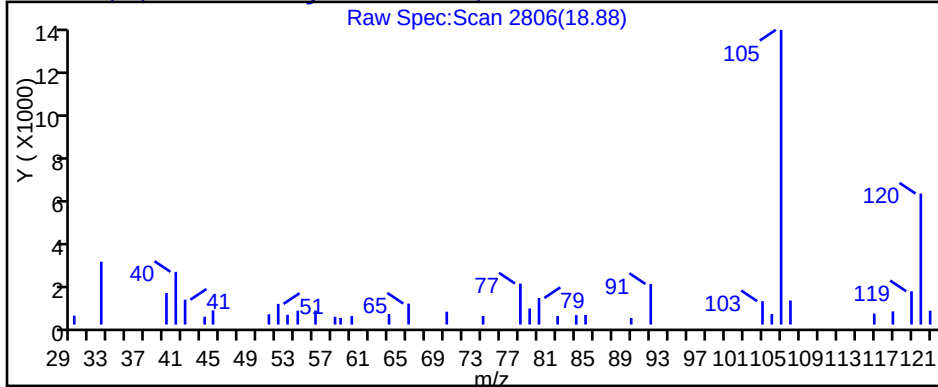
Dil. Factor: 1.7900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

96 1,2,4-Trimethylbenzene, CAS: 95-63-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D

Injection Date: 15-Nov-2016 17:44:30

Instrument ID: MJ

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Client ID: OVP-9

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 11

Purge Vol: 500.000 mL

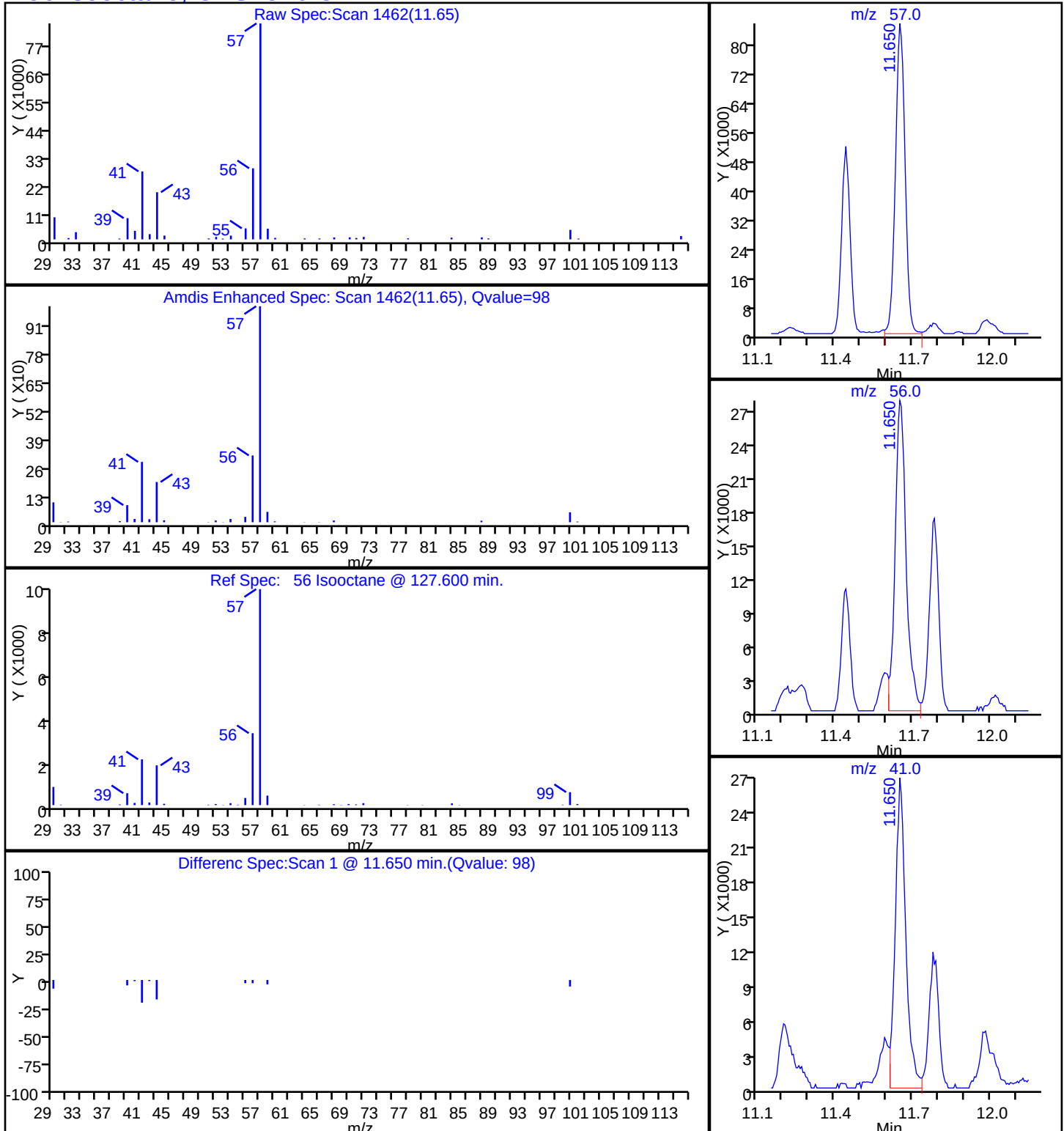
Dil. Factor: 1.7900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

56 Isooctane, CAS: 540-84-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D

Injection Date: 15-Nov-2016 17:44:30

Instrument ID: MJ

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Client ID: OVP-9

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 11

Purge Vol: 500.000 mL

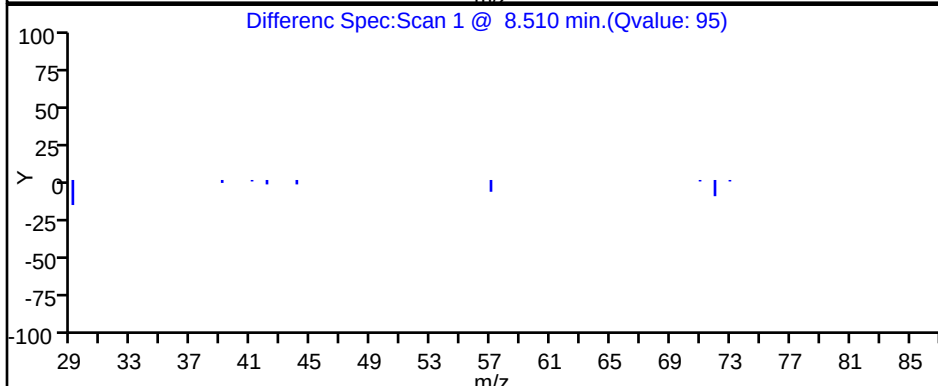
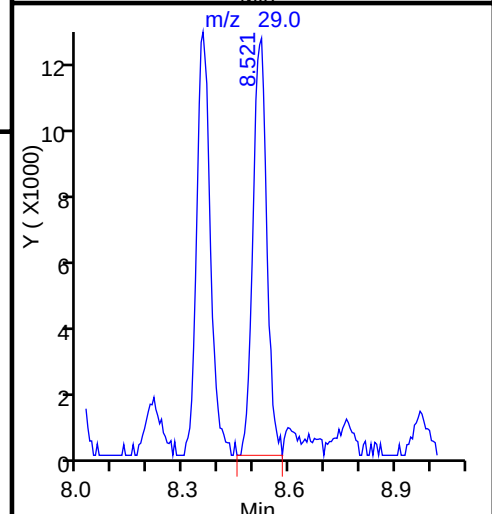
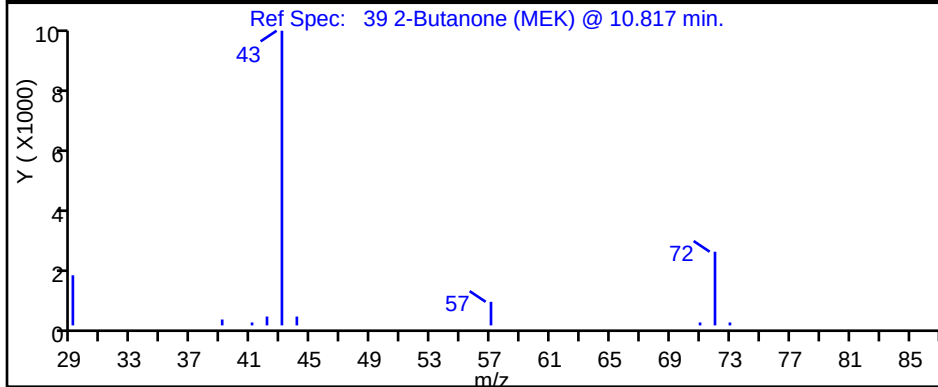
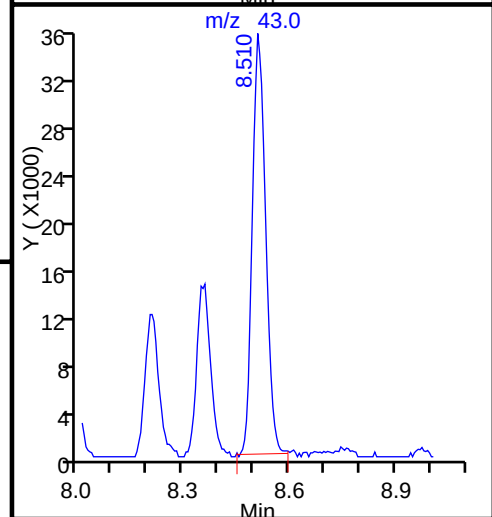
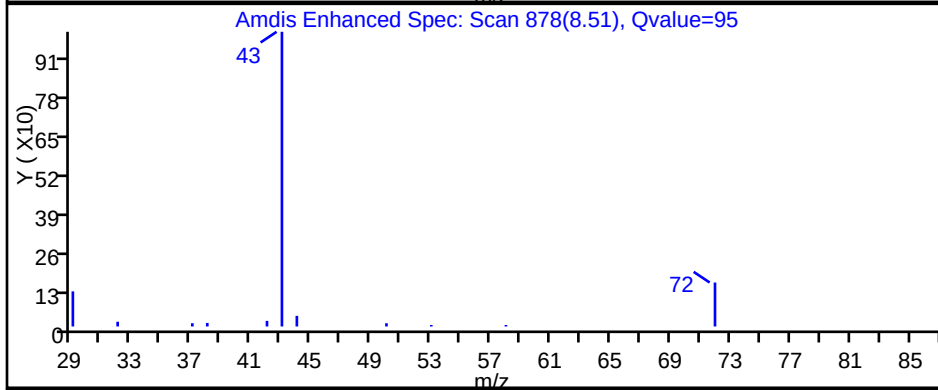
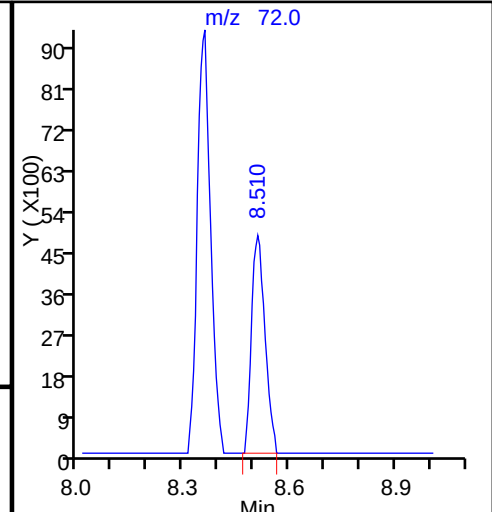
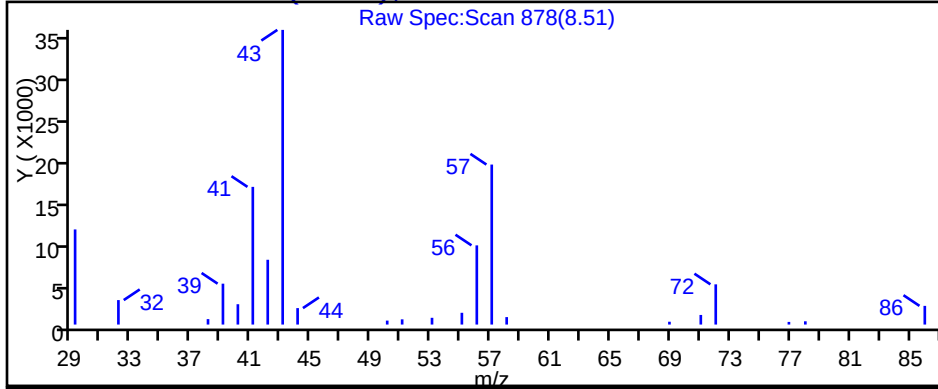
Dil. Factor: 1.7900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

39 2-Butanone (MEK), CAS: 78-93-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D

Injection Date: 15-Nov-2016 17:44:30

Instrument ID: MJ

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Client ID: OVP-9

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 11

Purge Vol: 500.000 mL

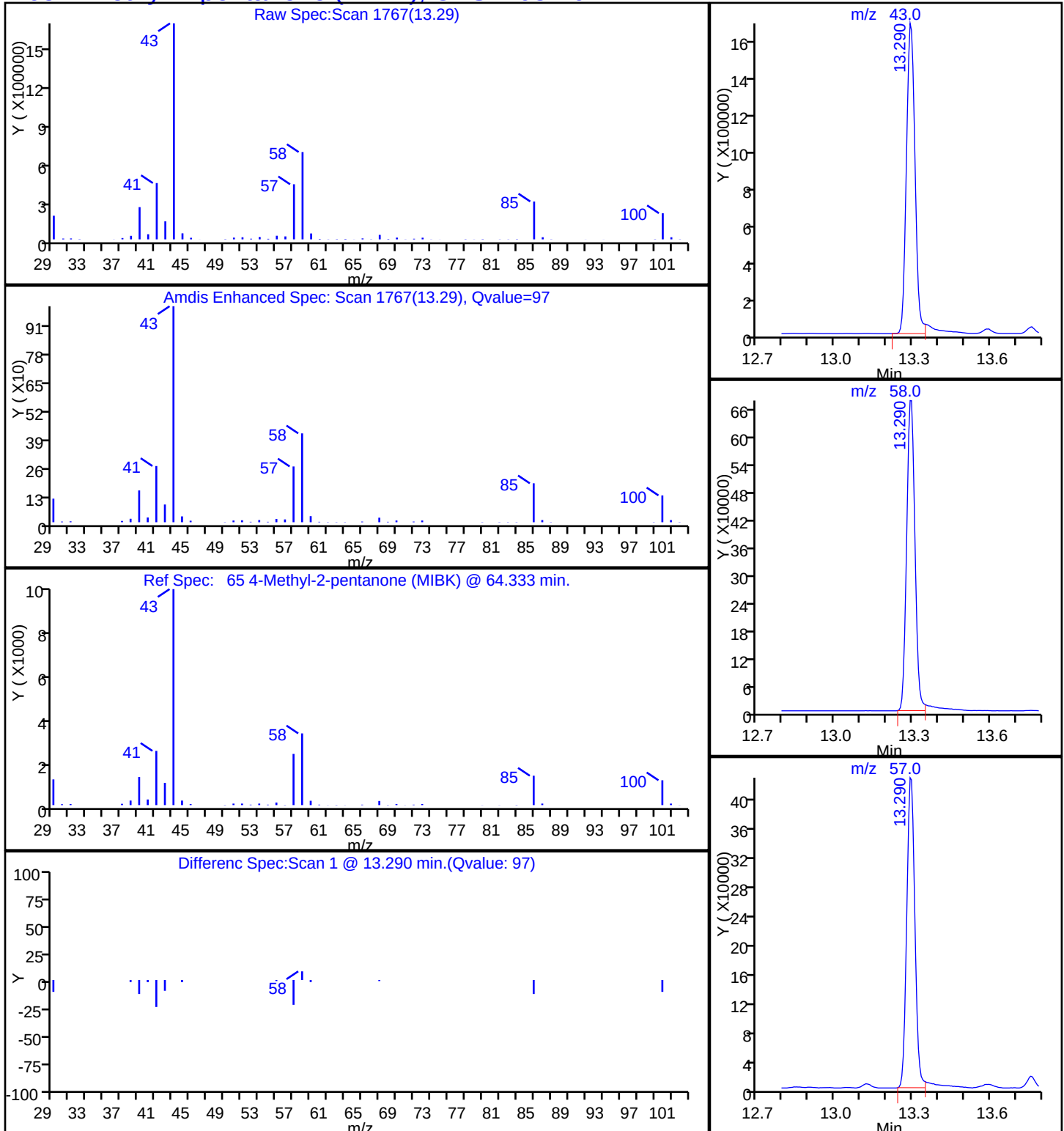
Dil. Factor: 1.7900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

65 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D

Injection Date: 15-Nov-2016 17:44:30

Instrument ID: MJ

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Client ID: OVP-9

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 11

Purge Vol: 500.000 mL

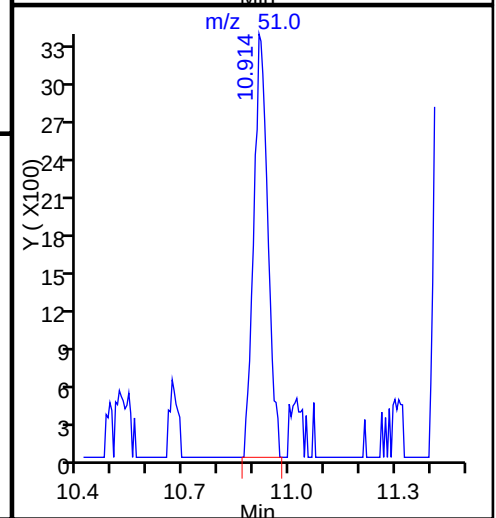
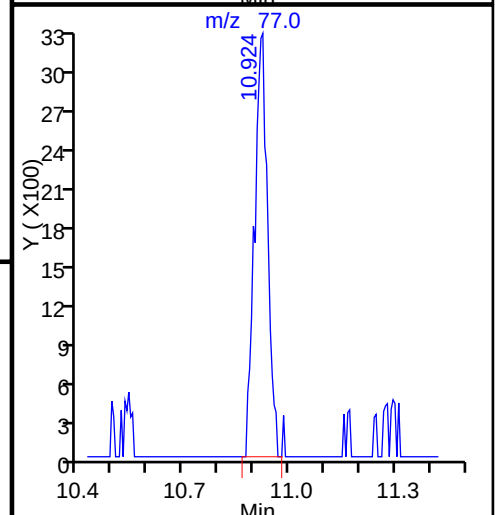
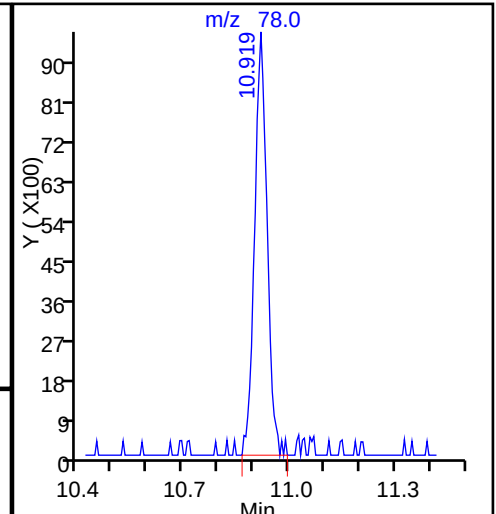
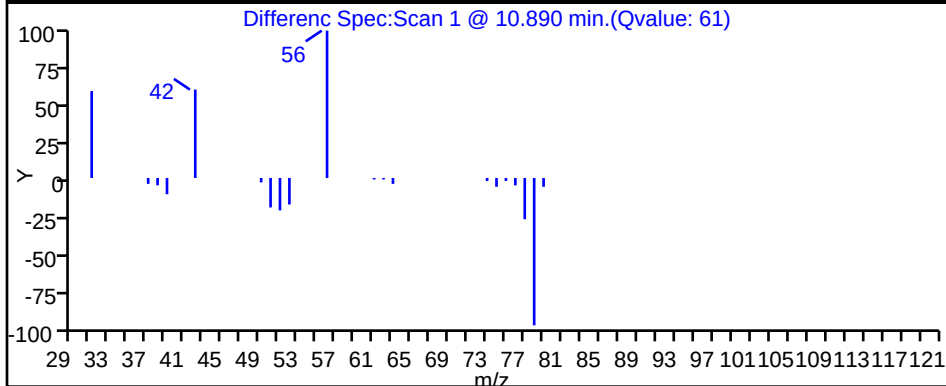
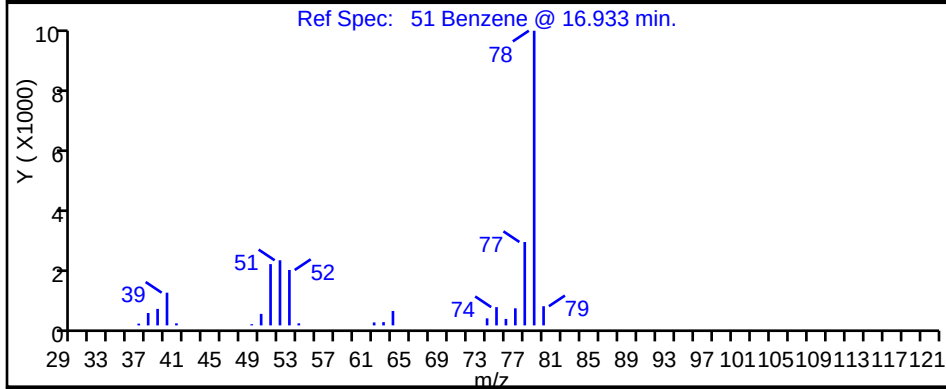
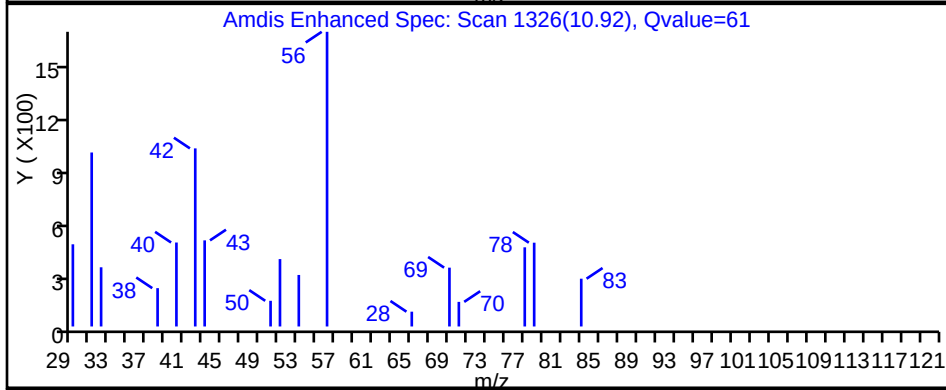
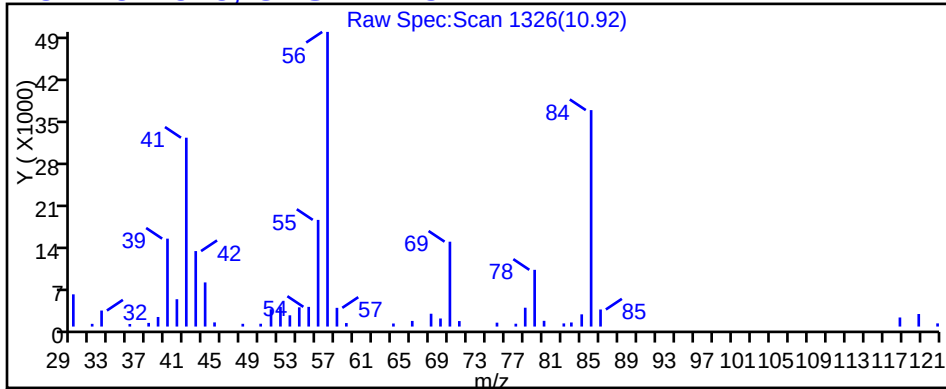
Dil. Factor: 1.7900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

51 Benzene, CAS: 71-43-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D

Injection Date: 15-Nov-2016 17:44:30

Instrument ID: MJ

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Client ID: OVP-9

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 11

Purge Vol: 500.000 mL

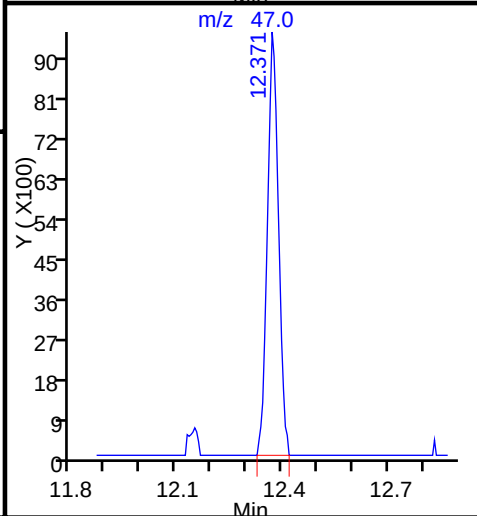
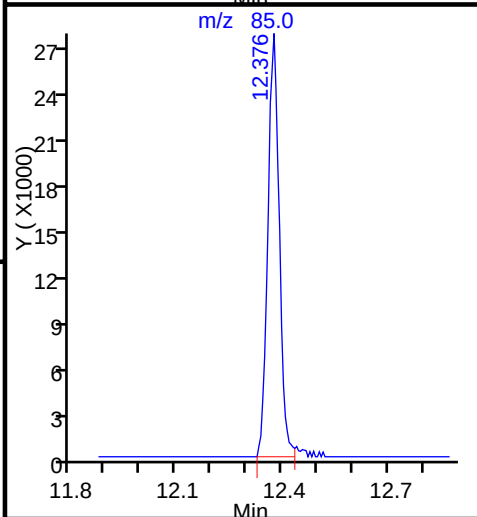
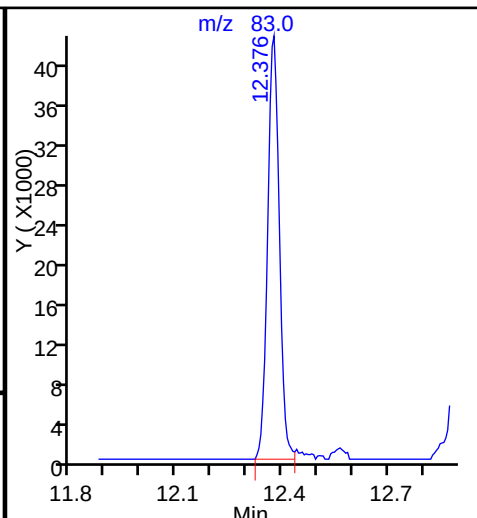
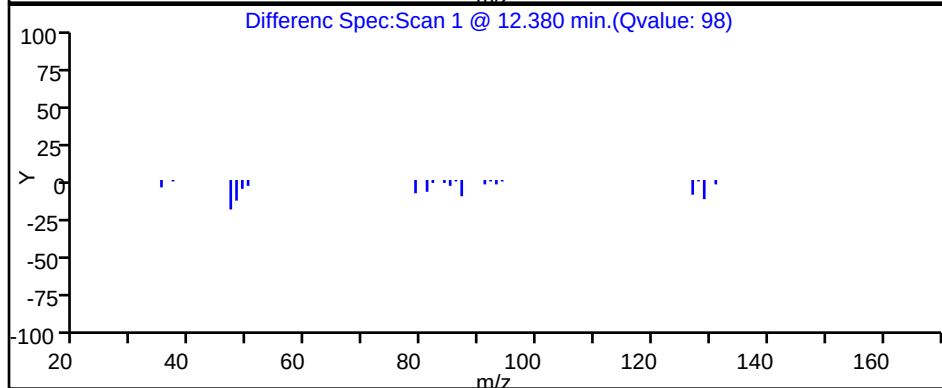
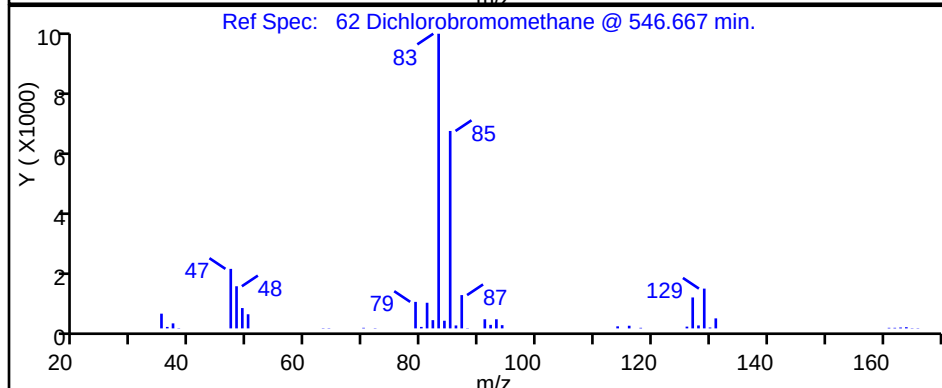
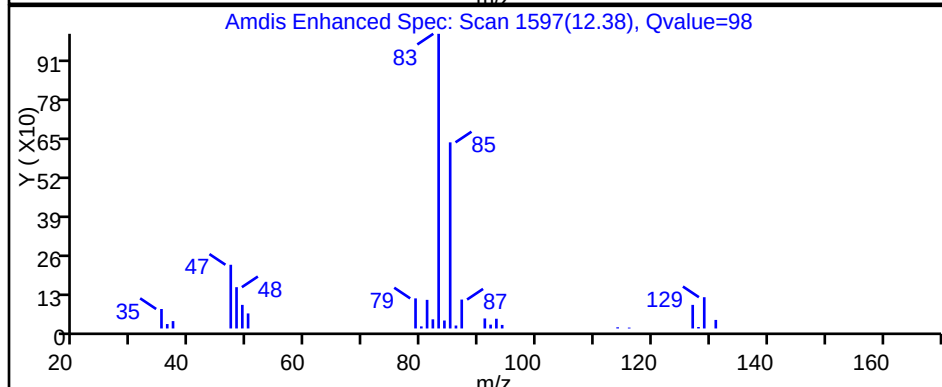
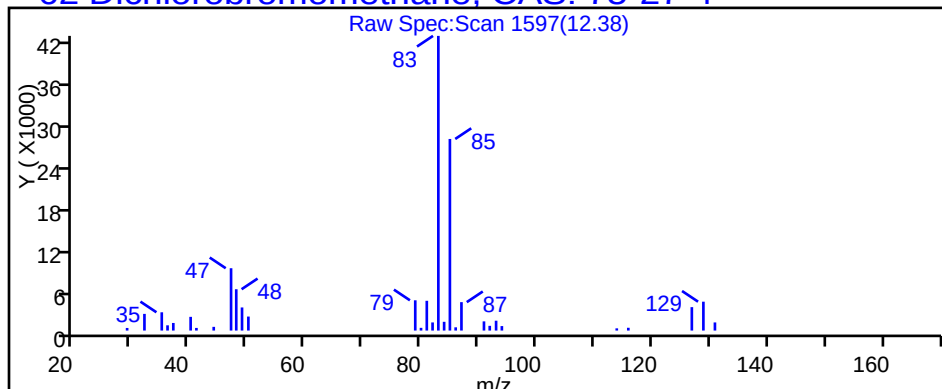
Dil. Factor: 1.7900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

62 Dichlorobromomethane, CAS: 75-27-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D

Injection Date: 15-Nov-2016 17:44:30

Instrument ID: MJ

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Client ID: OVP-9

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 11

Purge Vol: 500.000 mL

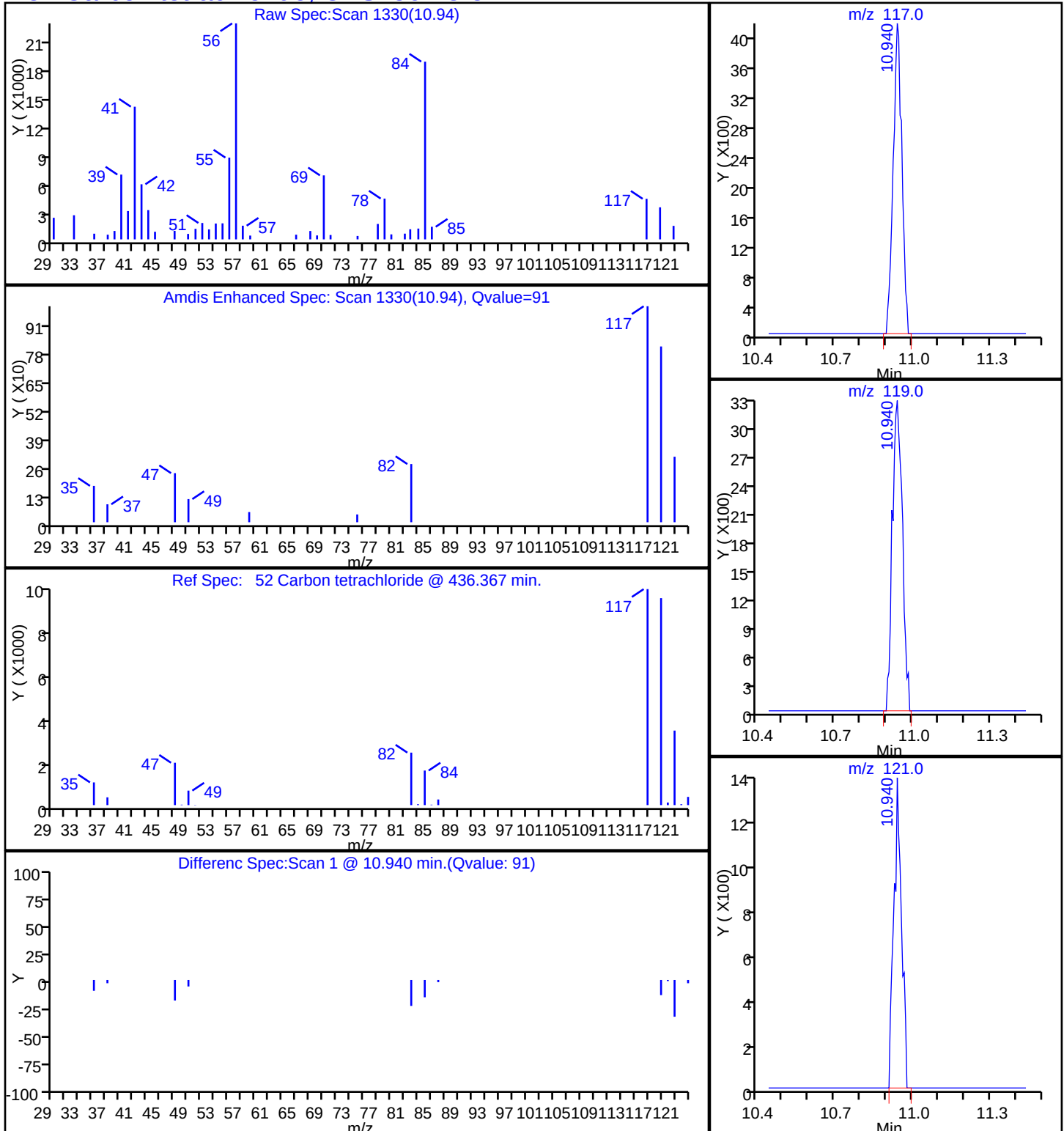
Dil. Factor: 1.7900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D

Injection Date: 15-Nov-2016 17:44:30

Instrument ID: MJ

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Client ID: OVP-9

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 11

Purge Vol: 500.000 mL

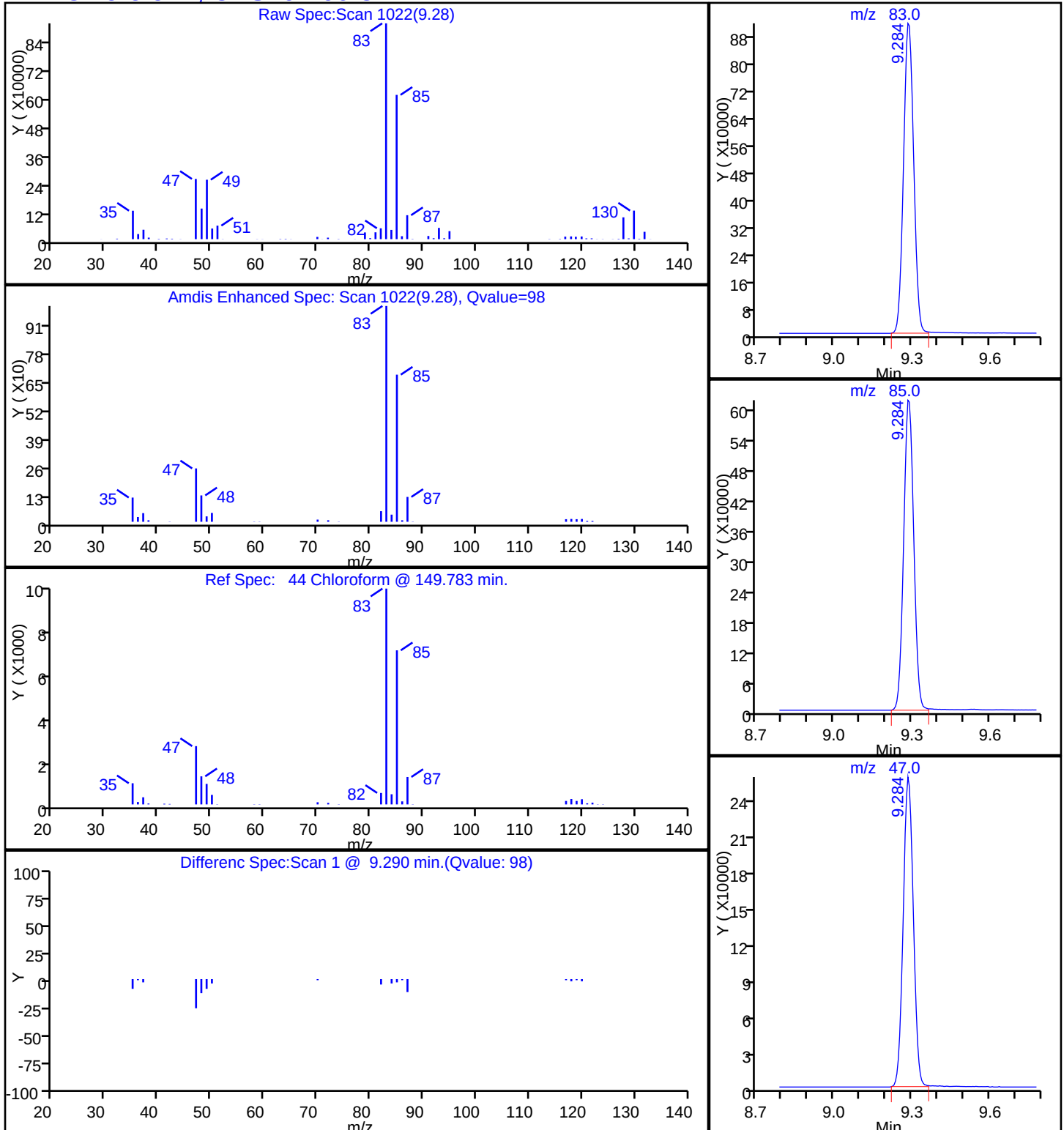
Dil. Factor: 1.7900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D

Injection Date: 15-Nov-2016 17:44:30

Instrument ID: MJ

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Client ID: OVP-9

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 11

Purge Vol: 500.000 mL

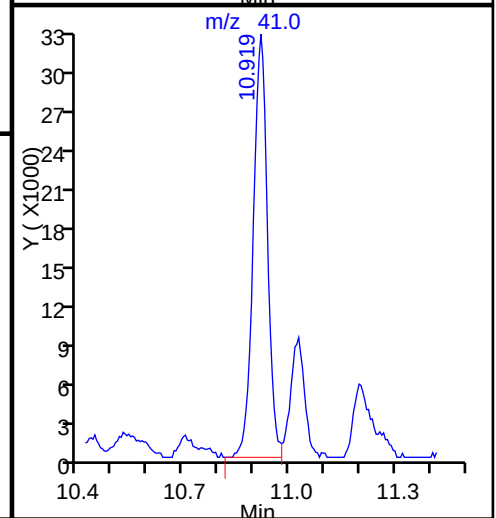
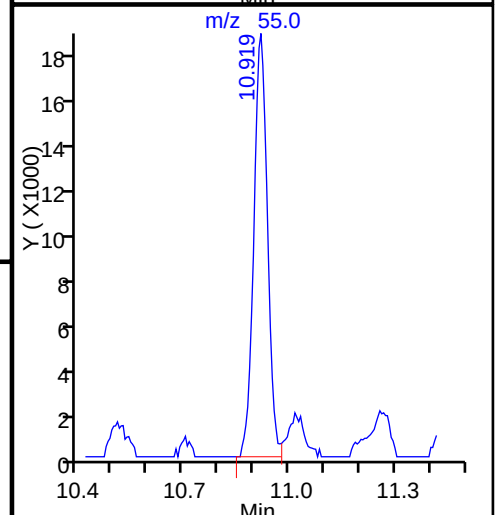
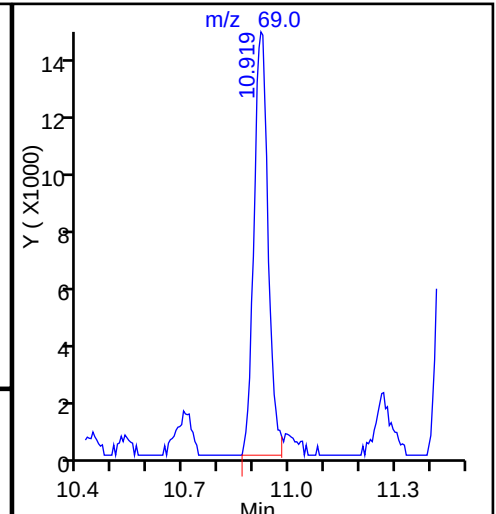
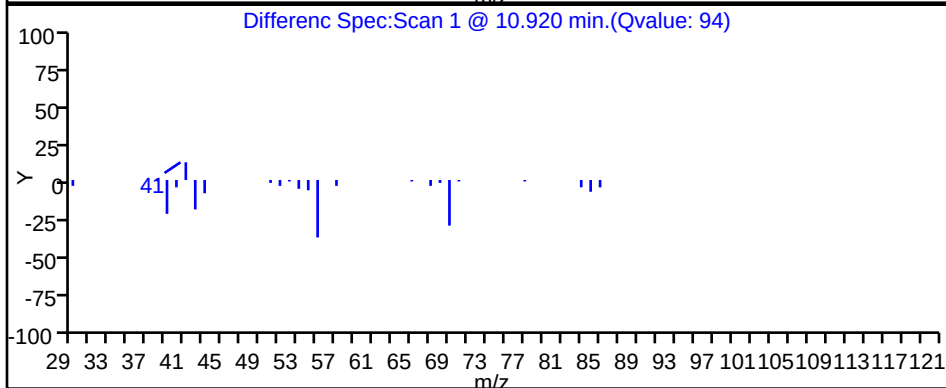
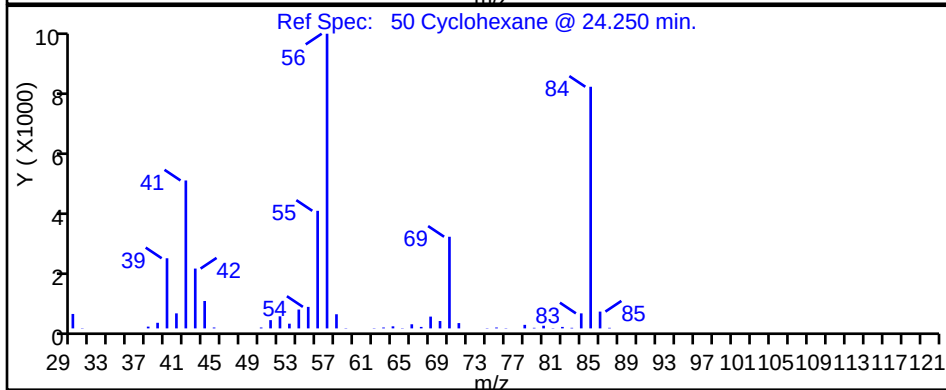
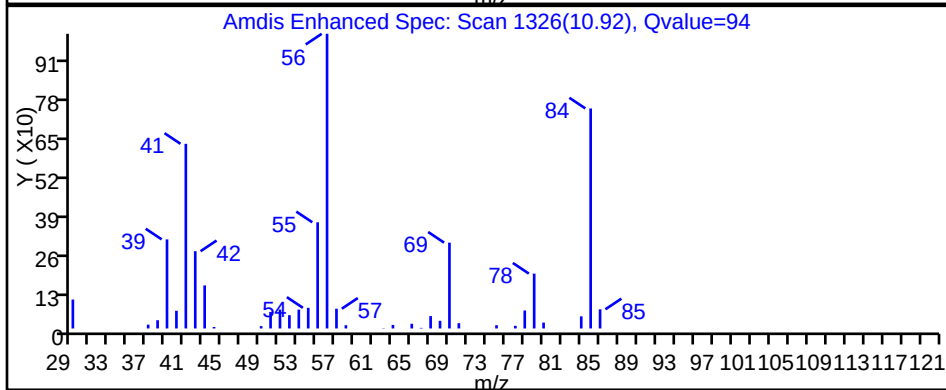
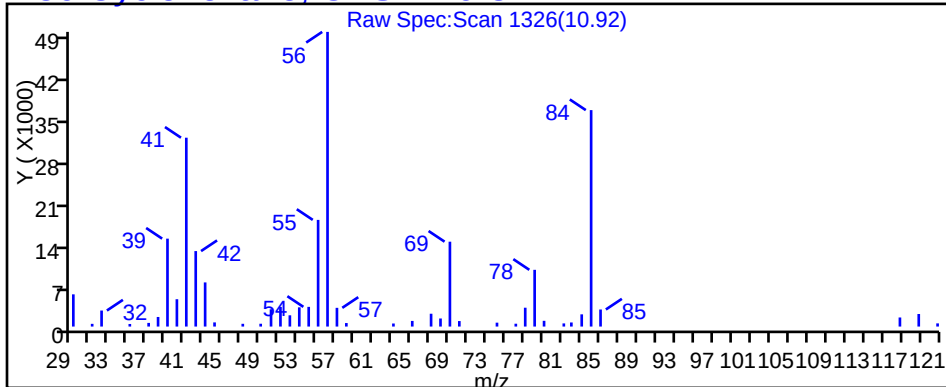
Dil. Factor: 1.7900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

50 Cyclohexane, CAS: 110-82-7

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D

Injection Date: 15-Nov-2016 17:44:30

Instrument ID: MJ

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Client ID: OVP-9

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 11

Purge Vol: 500.000 mL

Dil. Factor: 1.7900

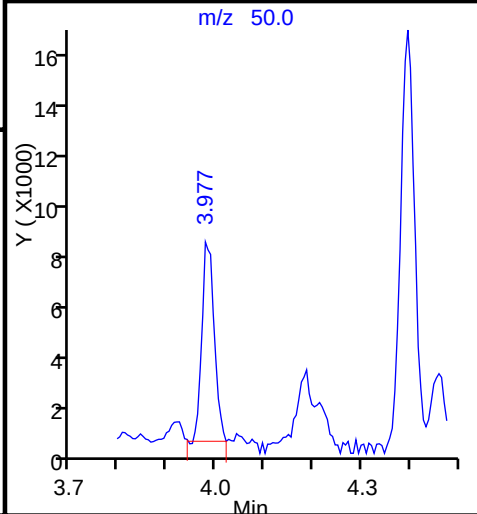
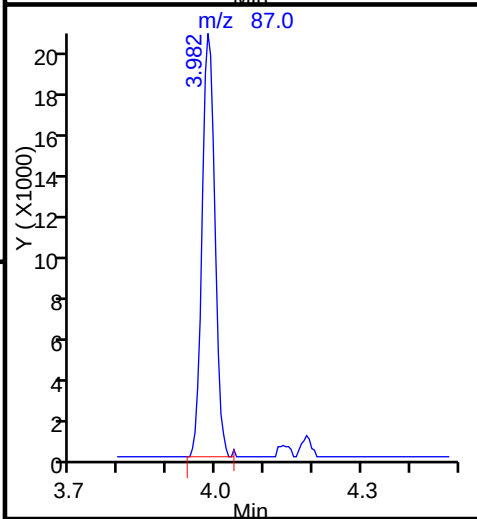
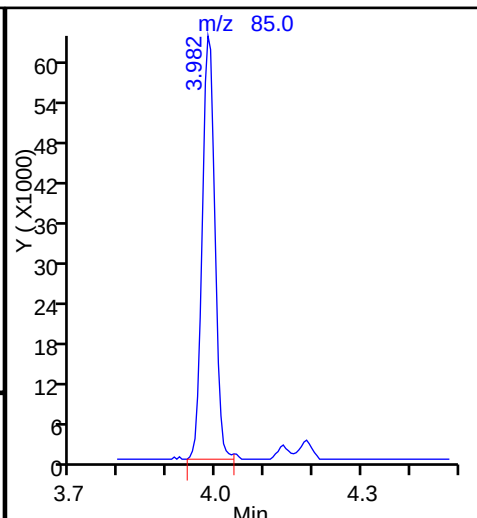
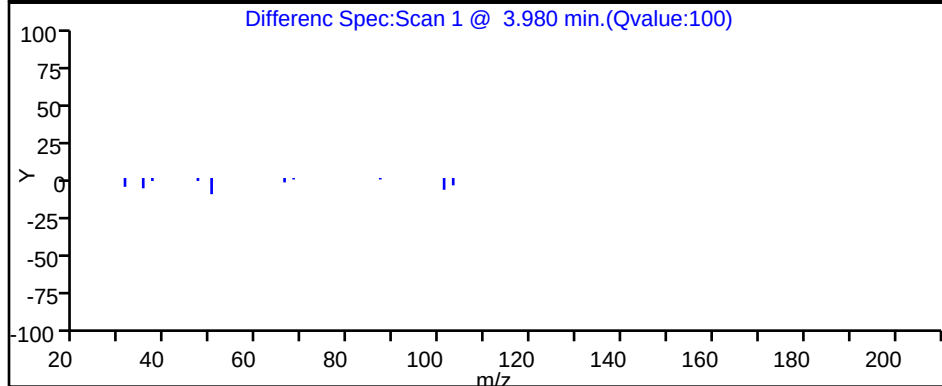
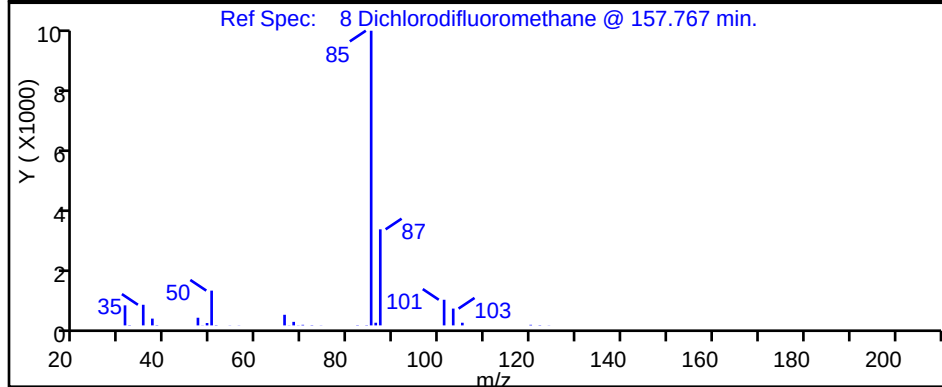
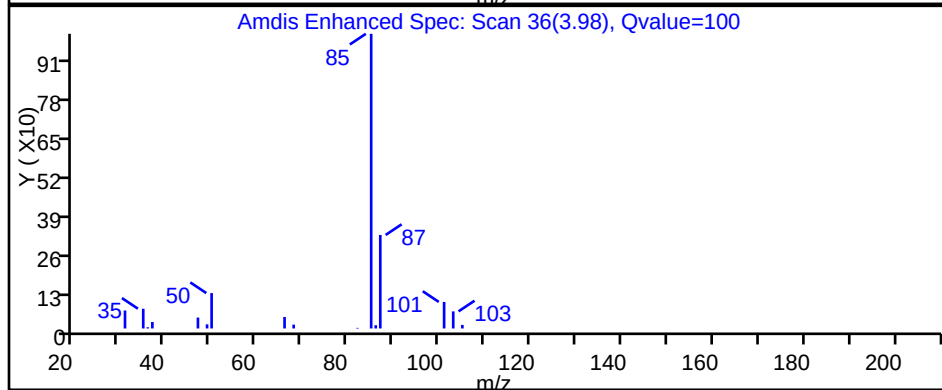
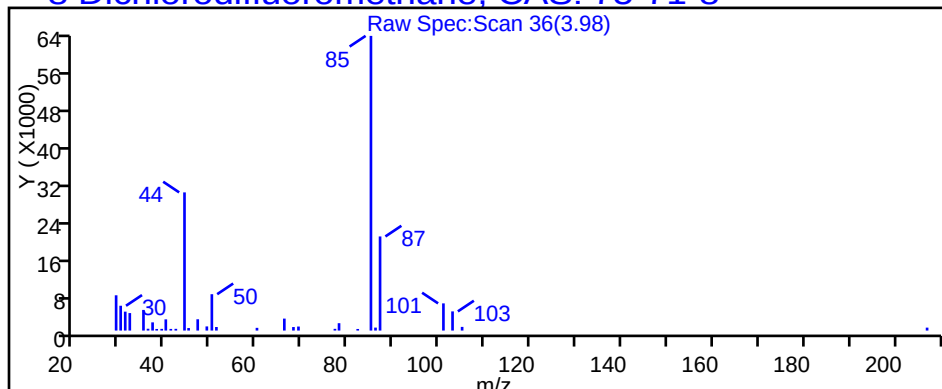
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\\Knoxville\\ChromData\\MJ\\20161114-3625.b\\JK15P103.D

Injection Date: 15-Nov-2016 17:44:30

Instrument ID: MJ

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Client ID: OVP-9

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 11

Purge Vol: 500.000 mL

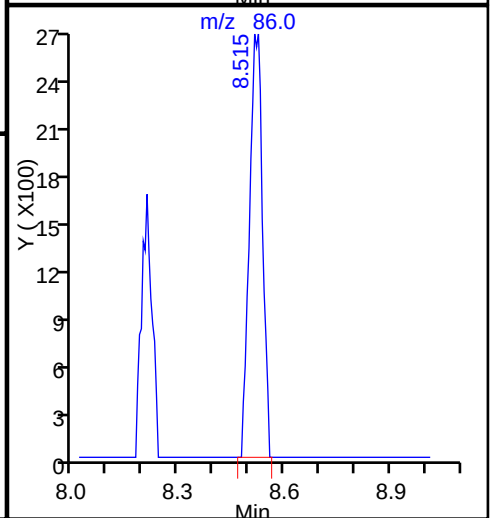
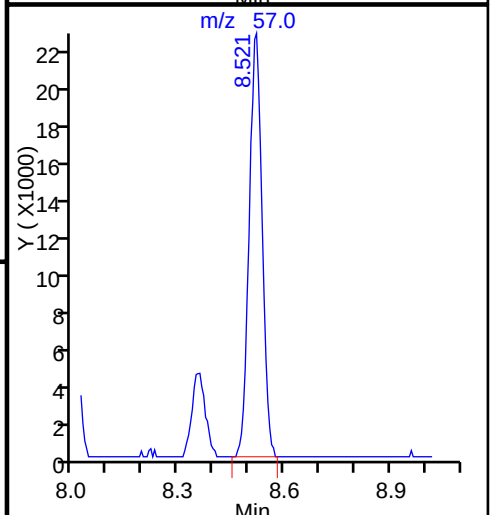
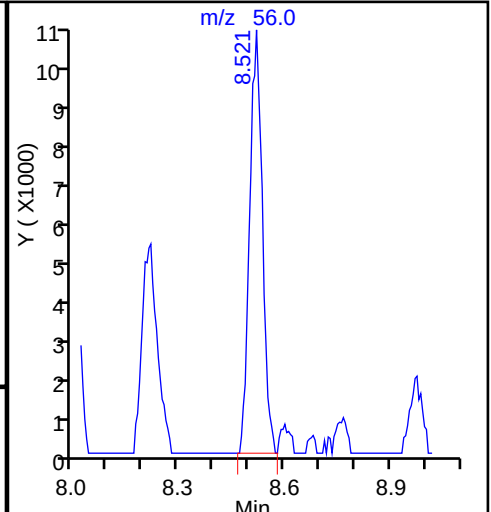
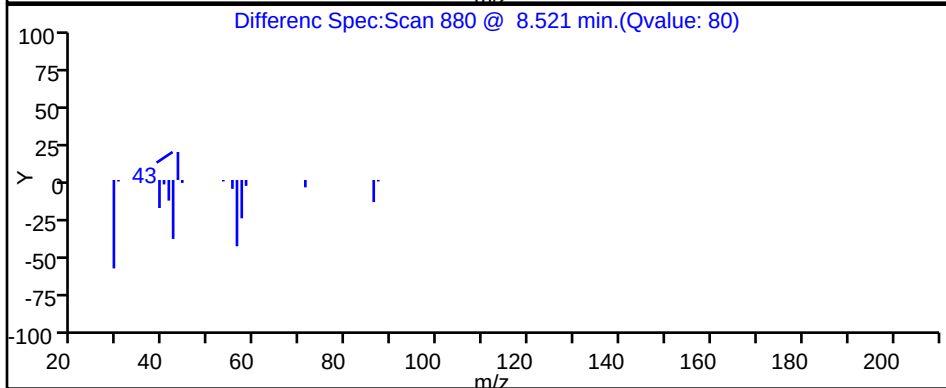
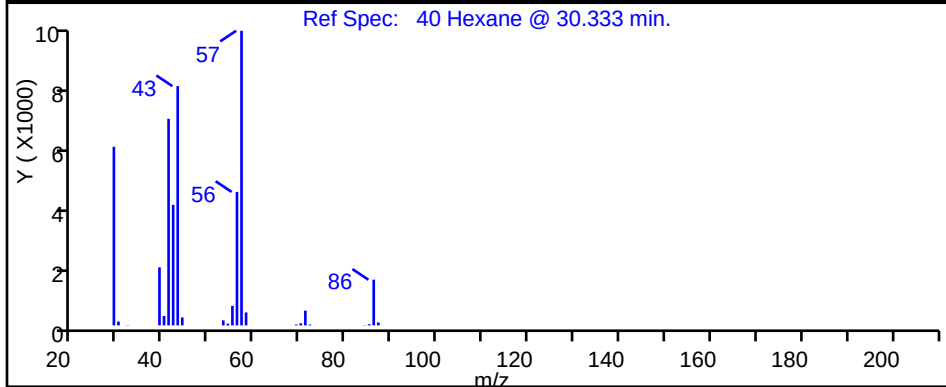
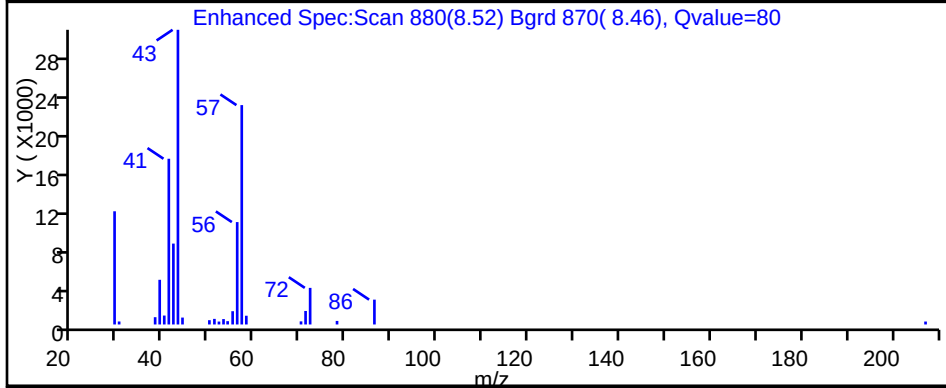
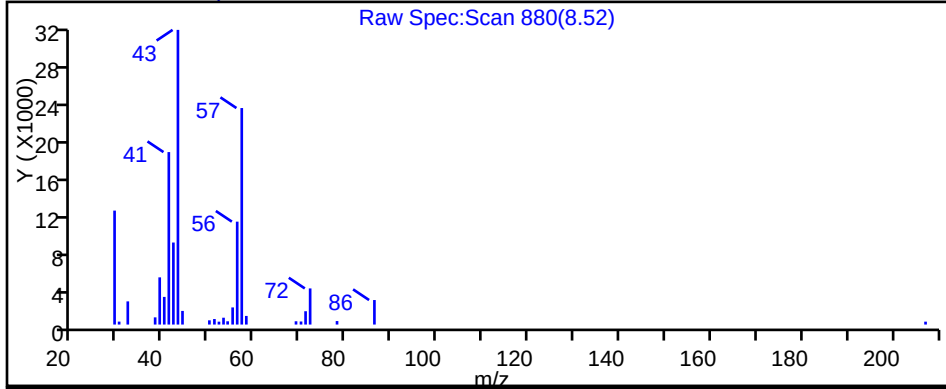
Dil. Factor: 1.7900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D

Injection Date: 15-Nov-2016 17:44:30

Instrument ID: MJ

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Client ID: OVP-9

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 11

Purge Vol: 500.000 mL

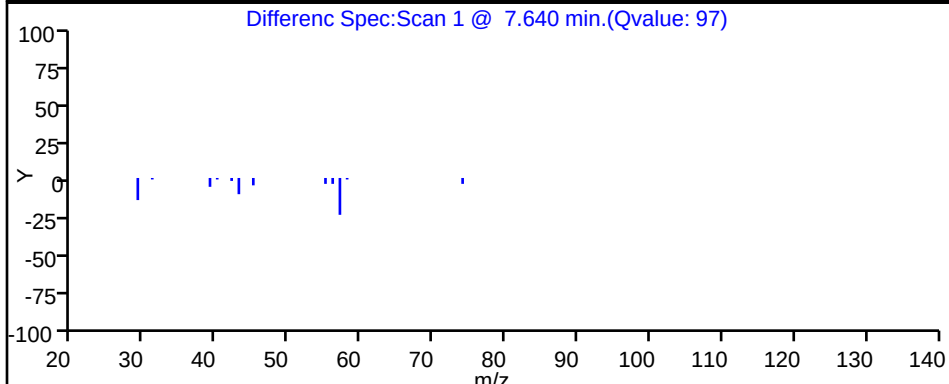
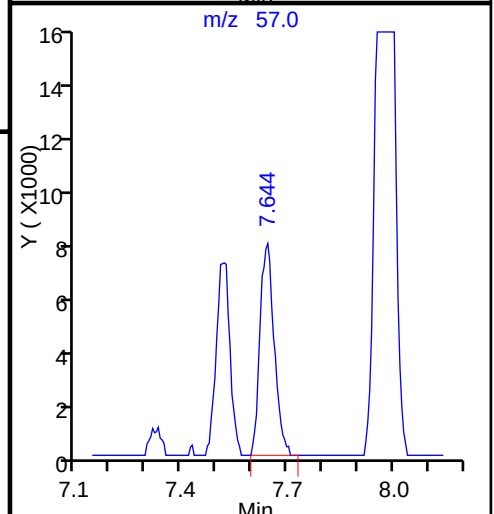
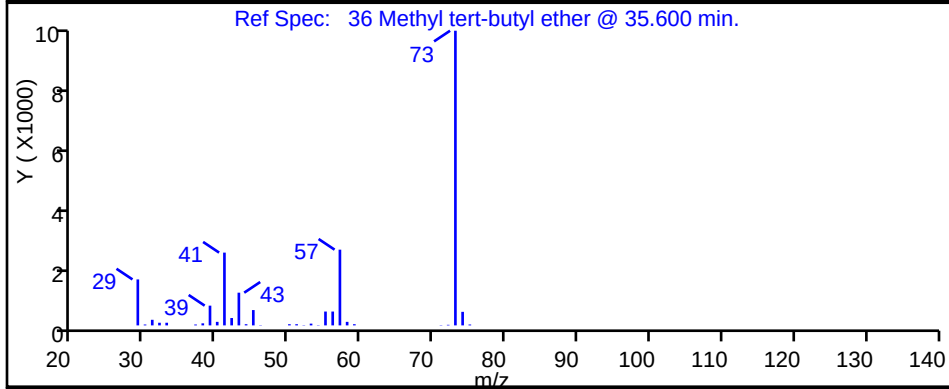
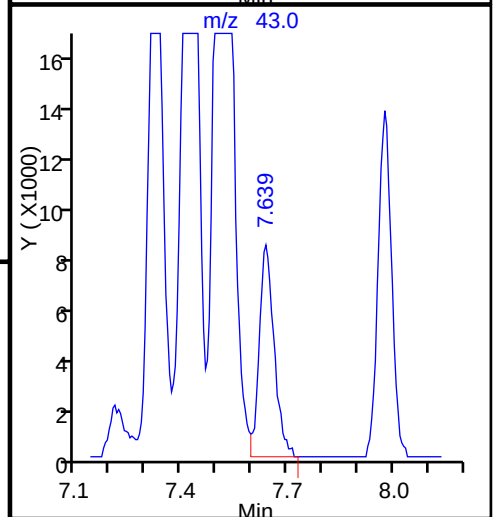
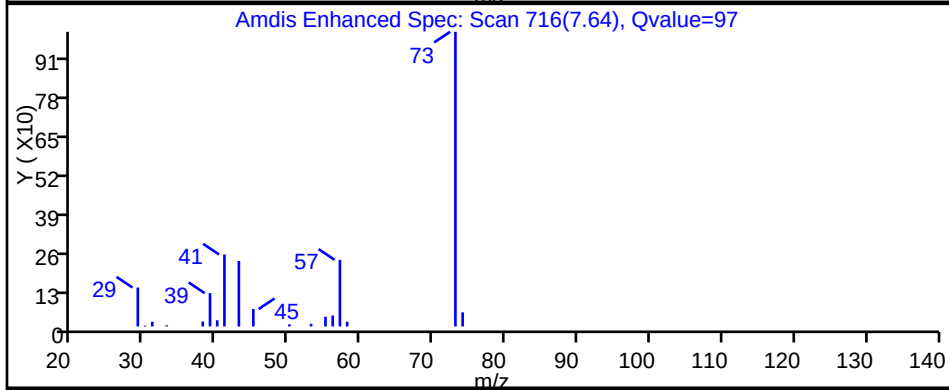
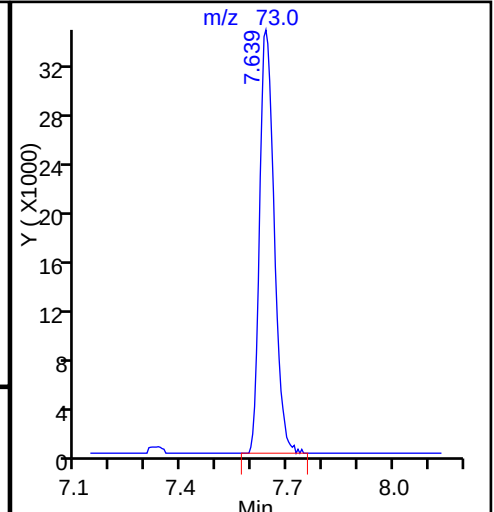
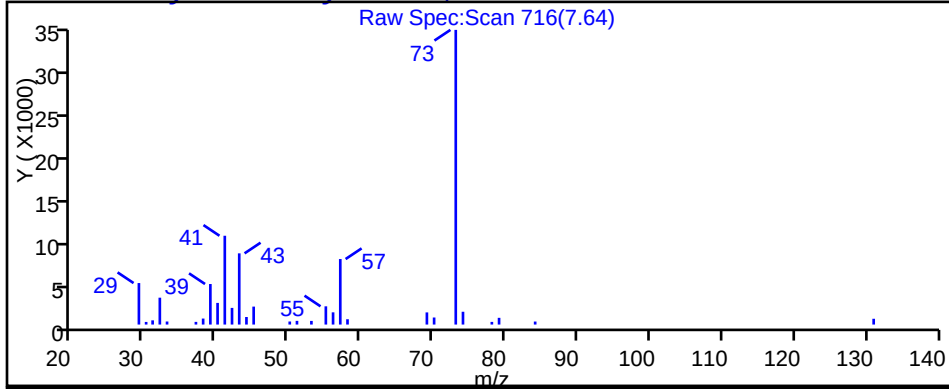
Dil. Factor: 1.7900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

36 Methyl tert-butyl ether, CAS: 1634-04-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D

Injection Date: 15-Nov-2016 17:44:30

Instrument ID: MJ

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Client ID: OVP-9

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 11

Purge Vol: 500.000 mL

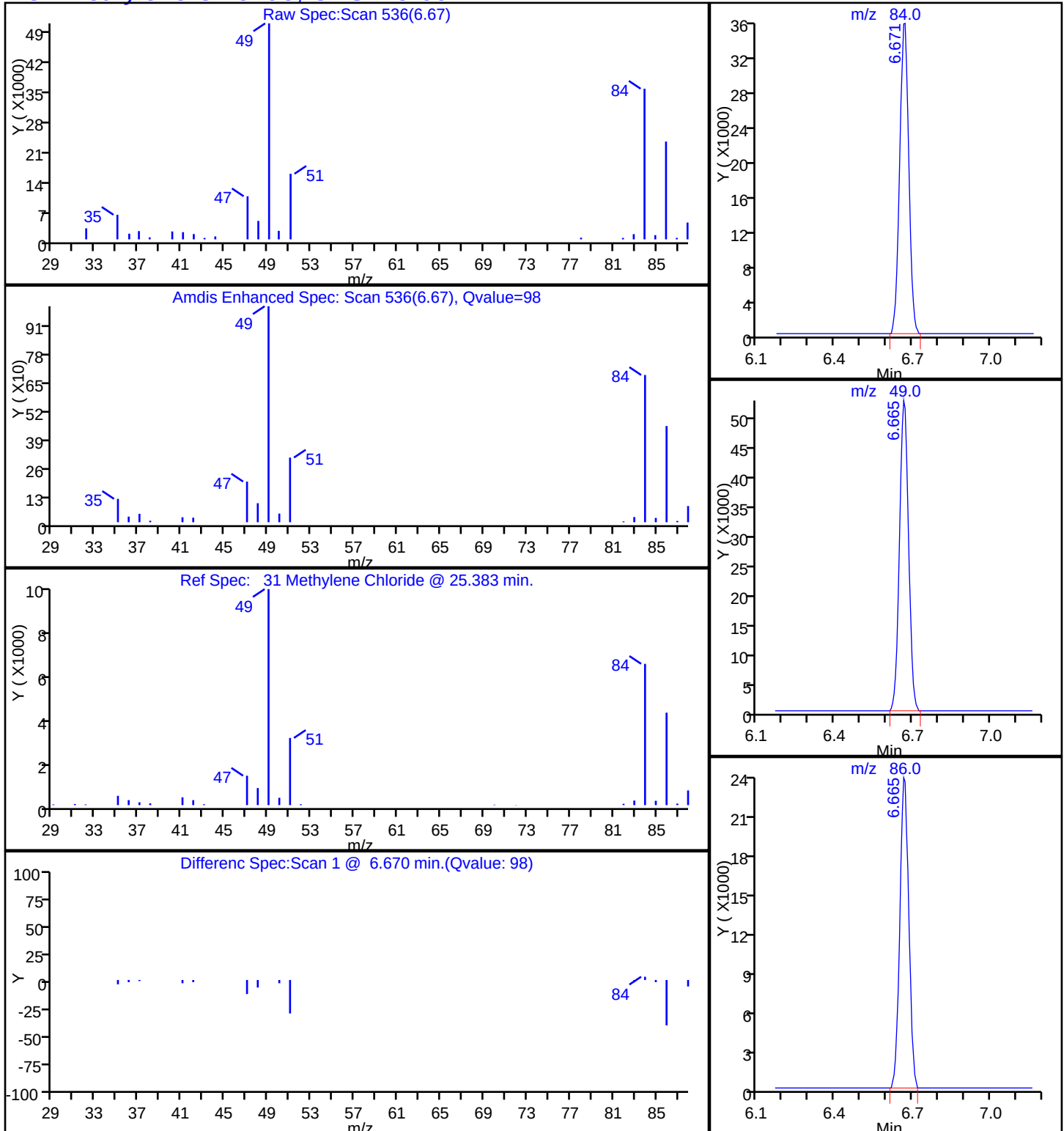
Dil. Factor: 1.7900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D

Injection Date: 15-Nov-2016 17:44:30

Instrument ID: MJ

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Client ID: OVP-9

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 11

Purge Vol: 500.000 mL

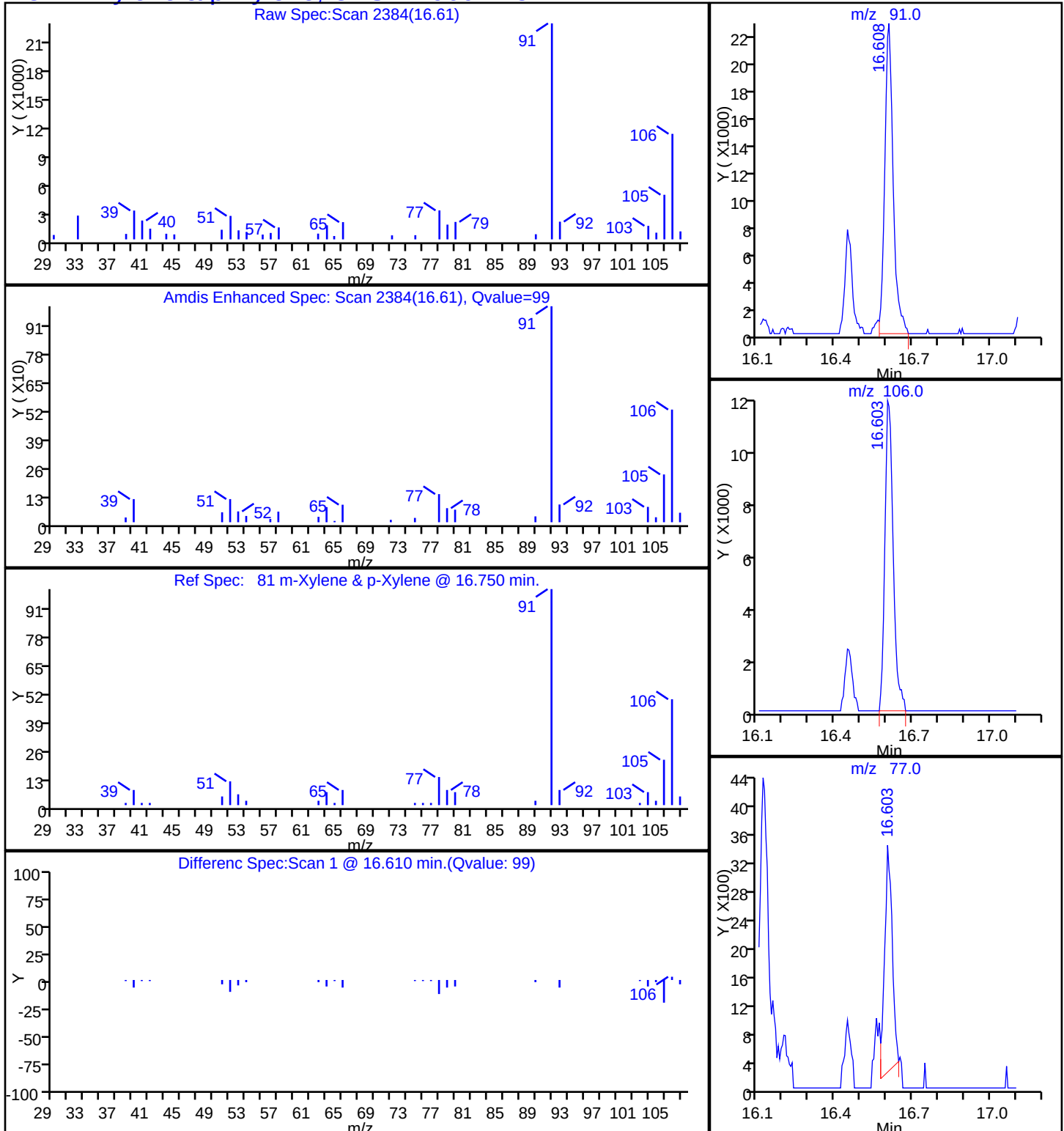
Dil. Factor: 1.7900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

81 m-Xylene & p-Xylene, CAS: 179601-23-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D

Injection Date: 15-Nov-2016 17:44:30

Instrument ID: MJ

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Client ID: OVP-9

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 11

Purge Vol: 500.000 mL

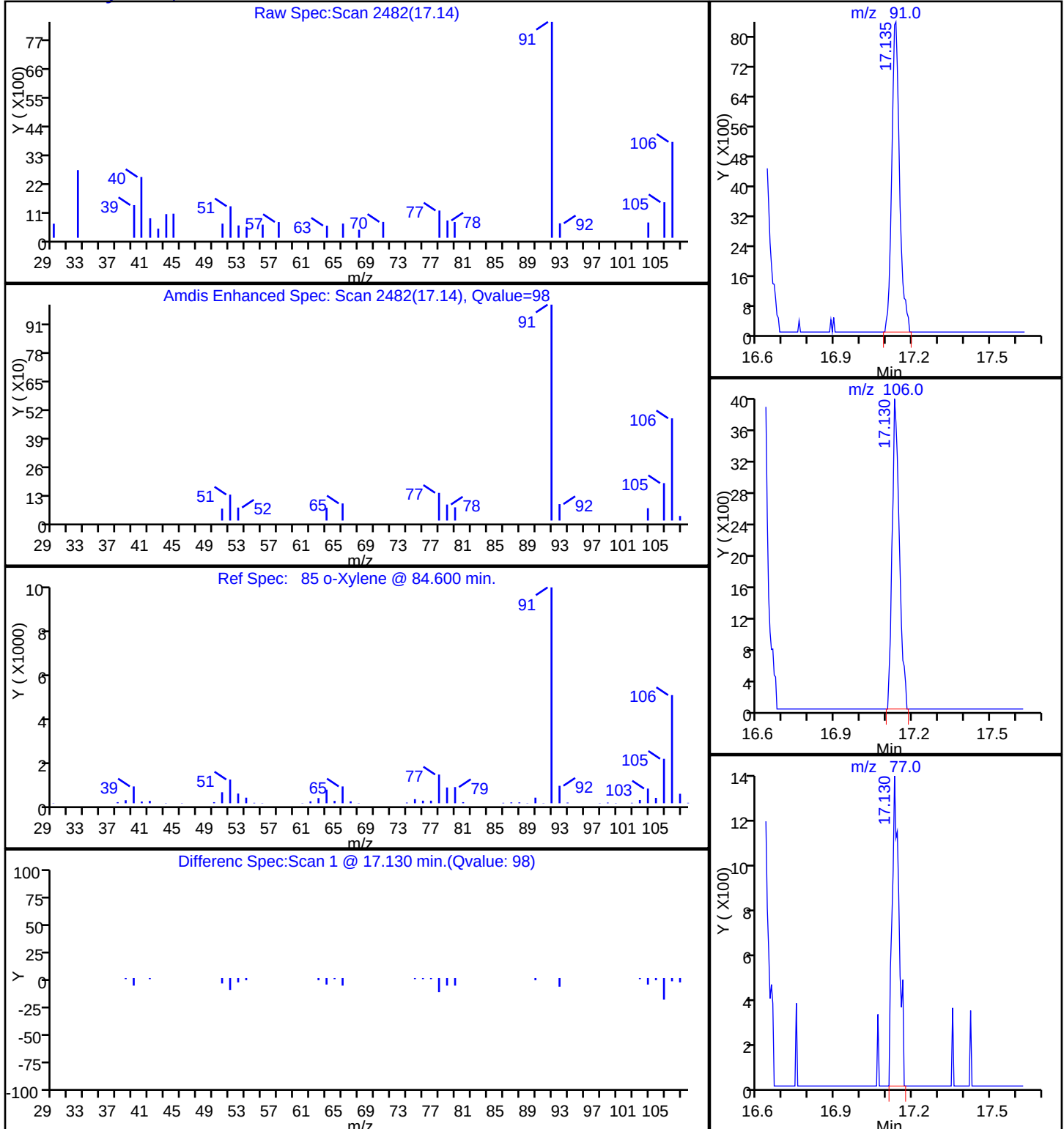
Dil. Factor: 1.7900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

85 o-Xylene, CAS: 95-47-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D

Injection Date: 15-Nov-2016 17:44:30

Instrument ID: MJ

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Client ID: OVP-9

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 11

Purge Vol: 500.000 mL

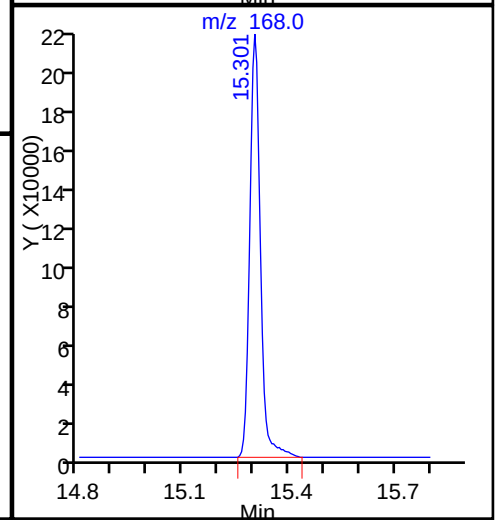
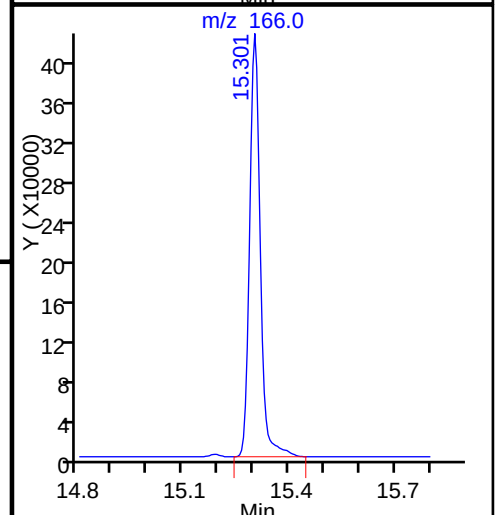
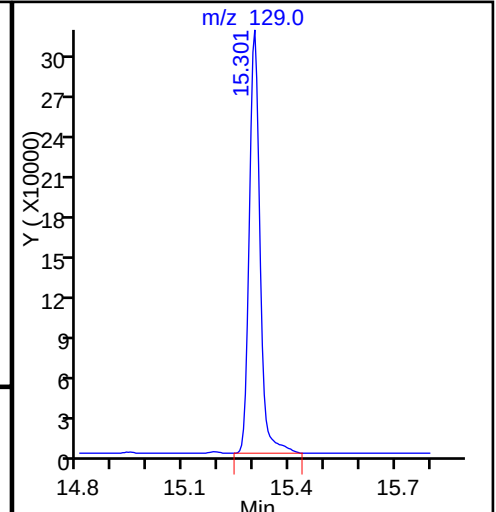
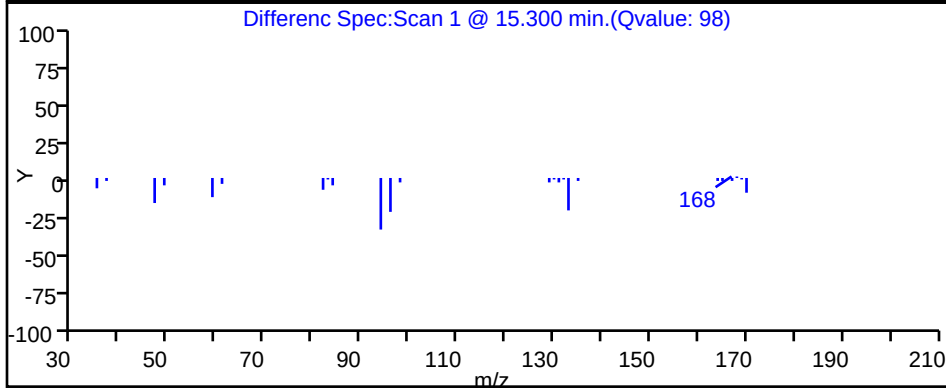
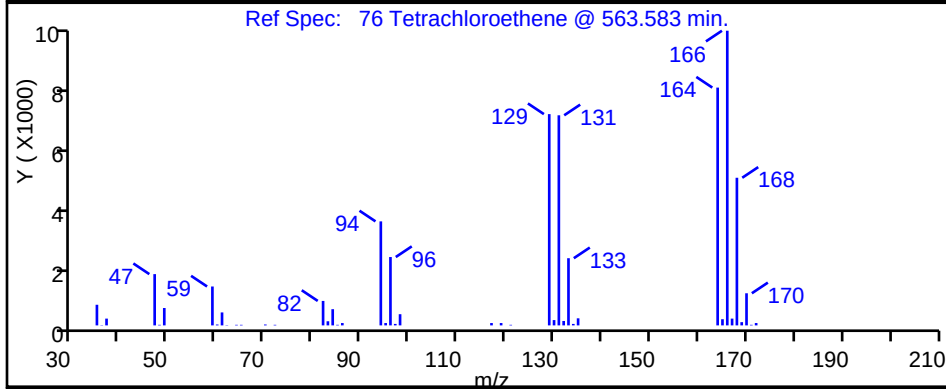
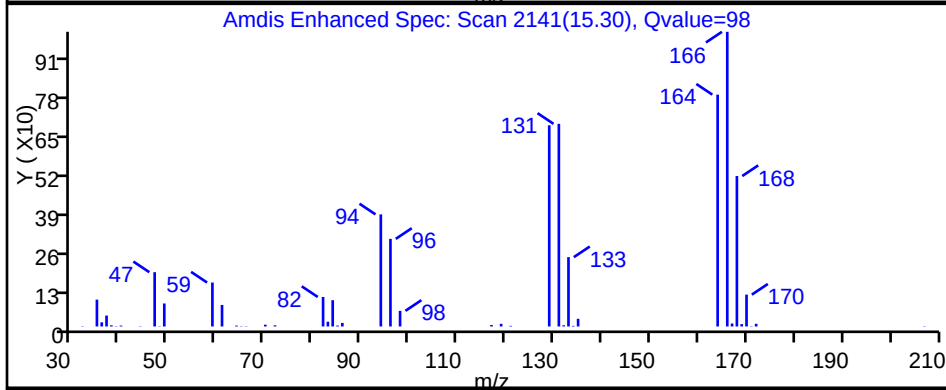
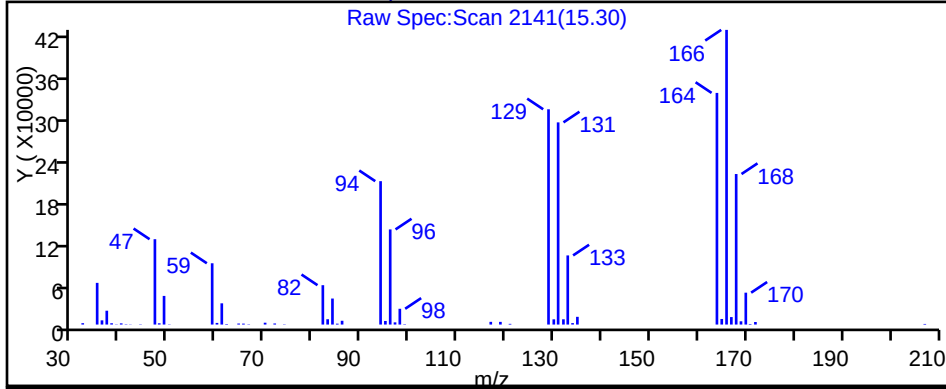
Dil. Factor: 1.7900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

76 Tetrachloroethene, CAS: 127-18-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D

Injection Date: 15-Nov-2016 17:44:30

Instrument ID: MJ

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Client ID: OVP-9

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 11

Purge Vol: 500.000 mL

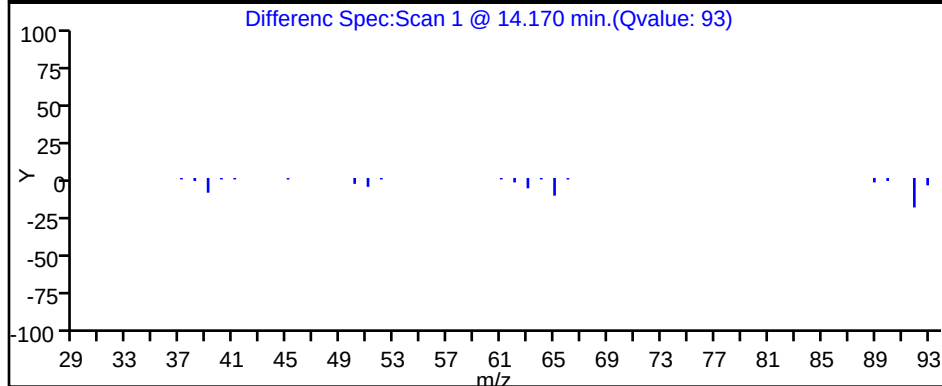
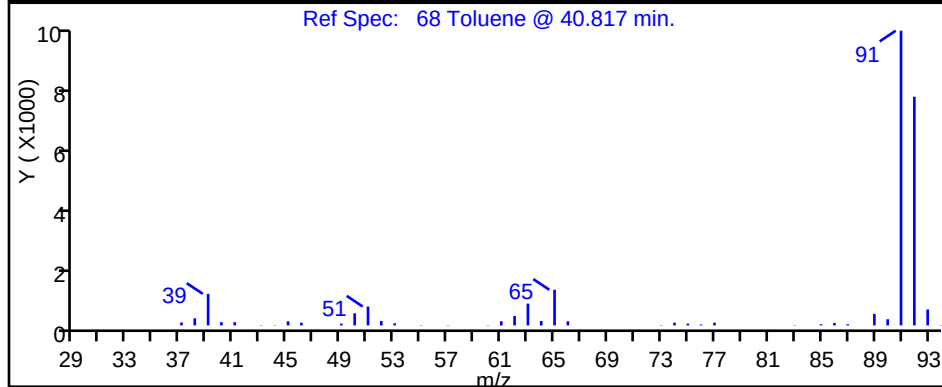
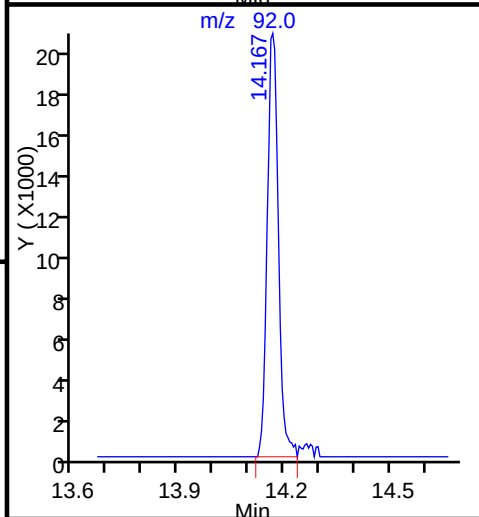
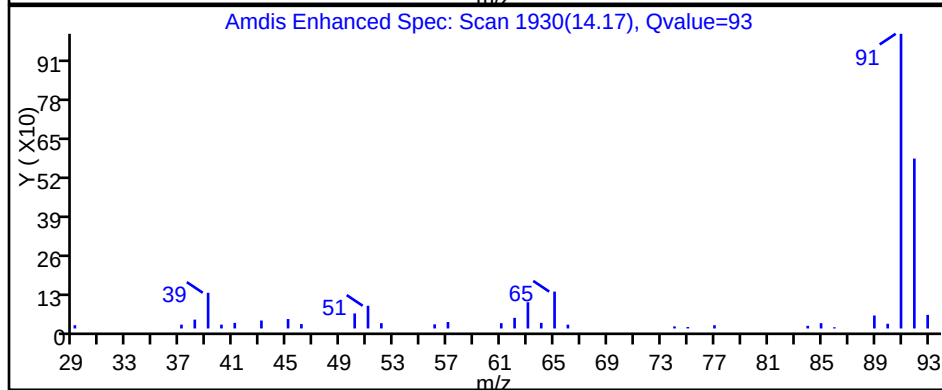
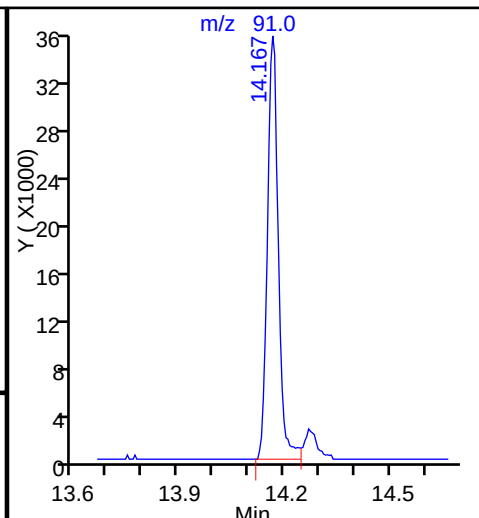
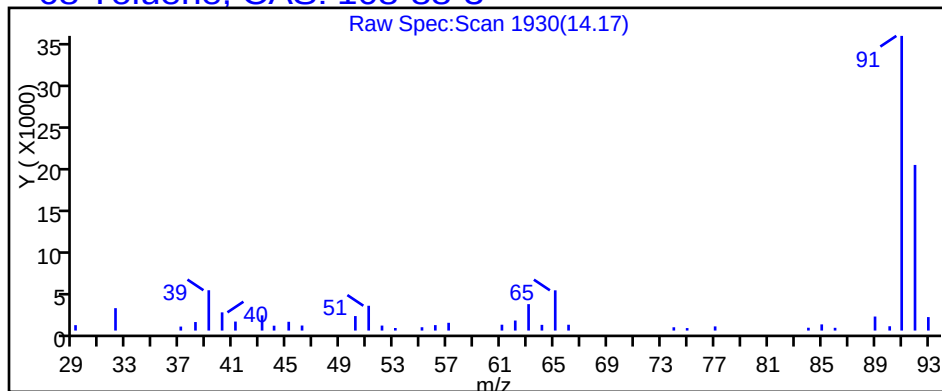
Dil. Factor: 1.7900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

68 Toluene, CAS: 108-88-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D

Injection Date: 15-Nov-2016 17:44:30

Instrument ID: MJ

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Client ID: OVP-9

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 11

Purge Vol: 500.000 mL

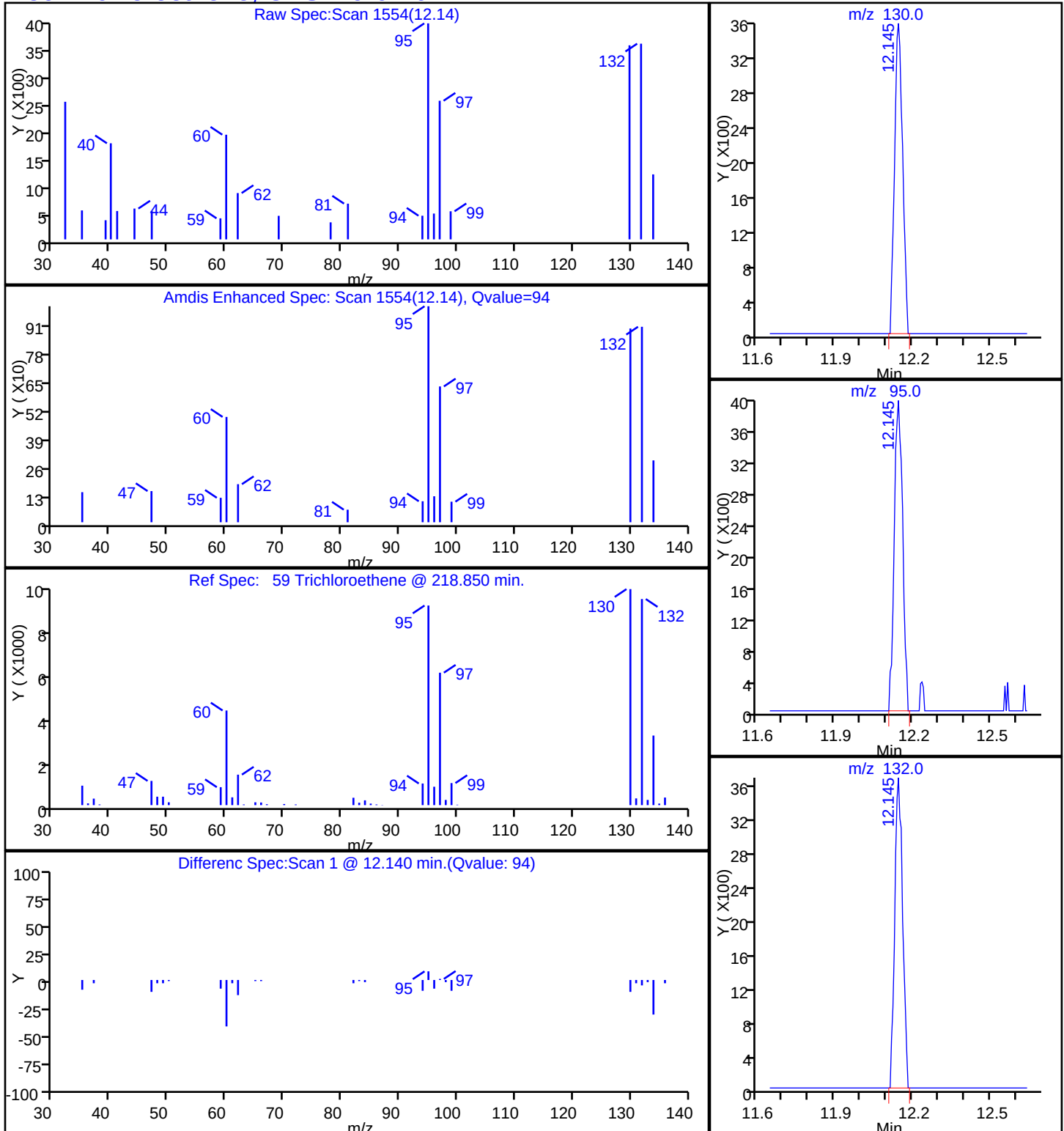
Dil. Factor: 1.7900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

59 Trichloroethene, CAS: 79-01-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D

Injection Date: 15-Nov-2016 17:44:30

Instrument ID: MJ

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Client ID: OVP-9

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 11

Purge Vol: 500.000 mL

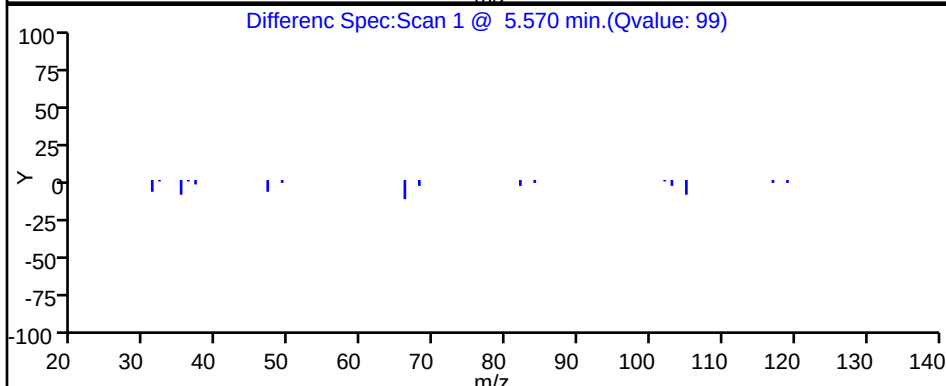
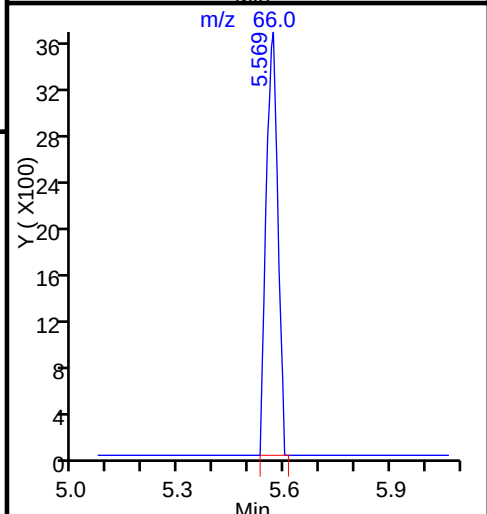
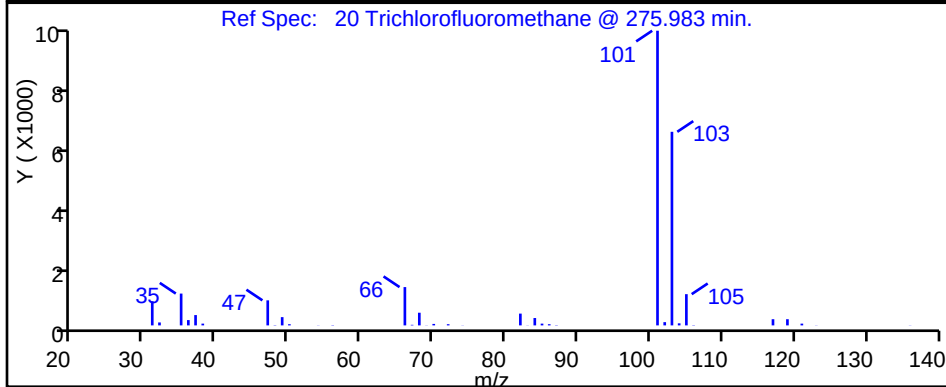
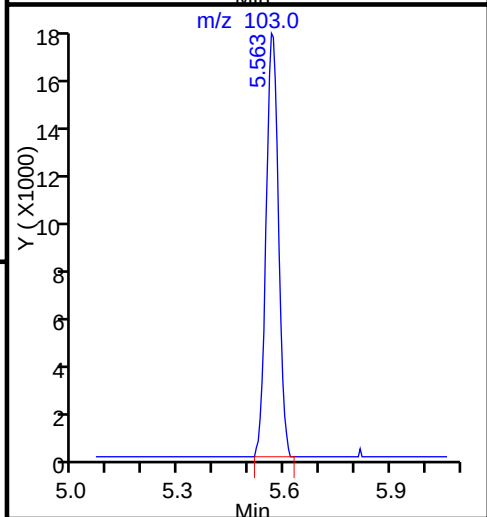
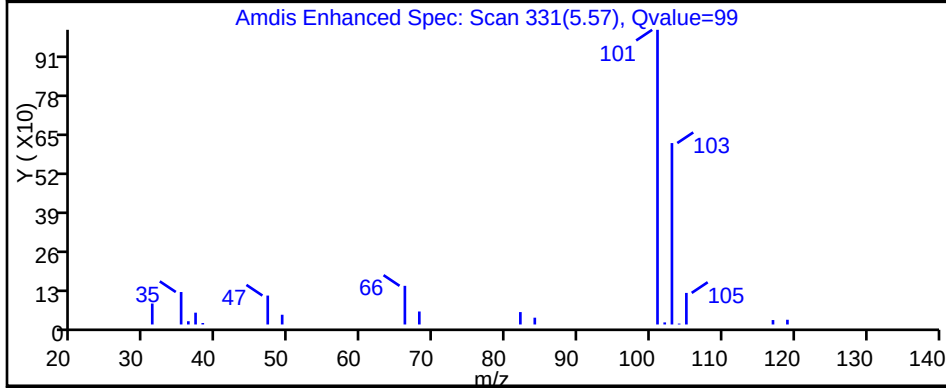
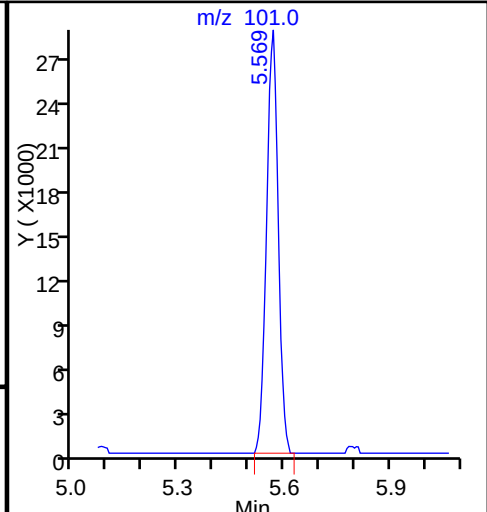
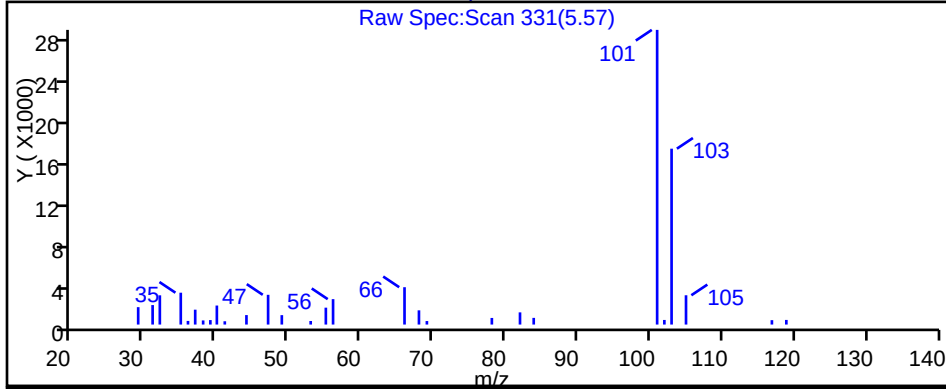
Dil. Factor: 1.7900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

TestAmerica Knoxville

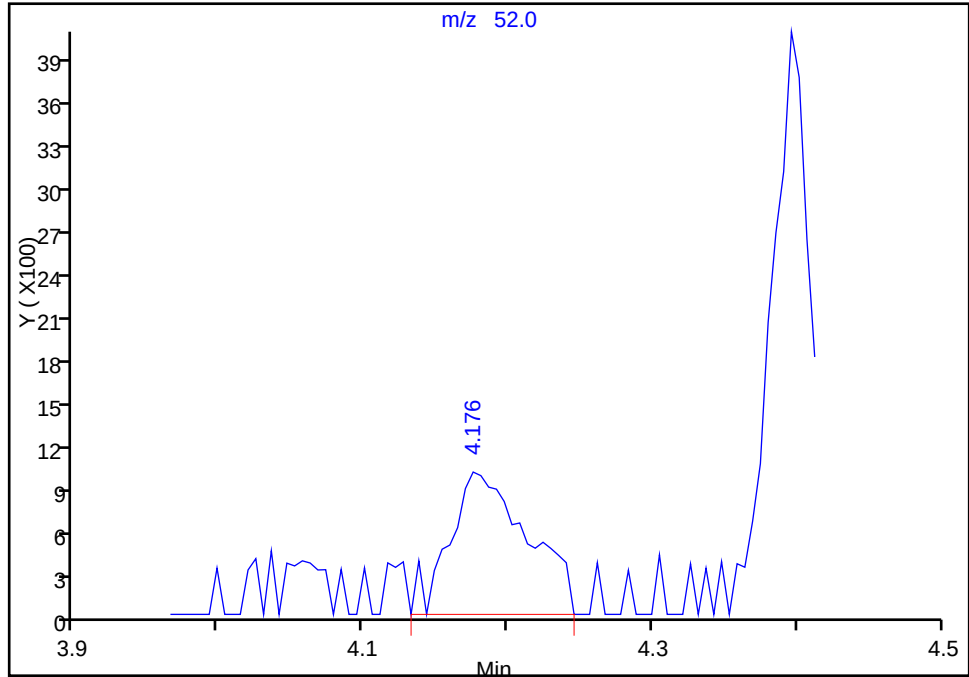
Data File:	\\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103.D		
Injection Date:	15-Nov-2016 17:44:30	Instrument ID:	MJ
Lims ID:	140-6336-A-2	Lab Sample ID:	140-6336-2
Client ID:	OVP-9		
Operator ID:	7126	ALS Bottle#:	3
Purge Vol:	500.000 mL	Dil. Factor:	1.7900
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	11

9 Chloromethane, CAS: 74-87-3

Signal: 1

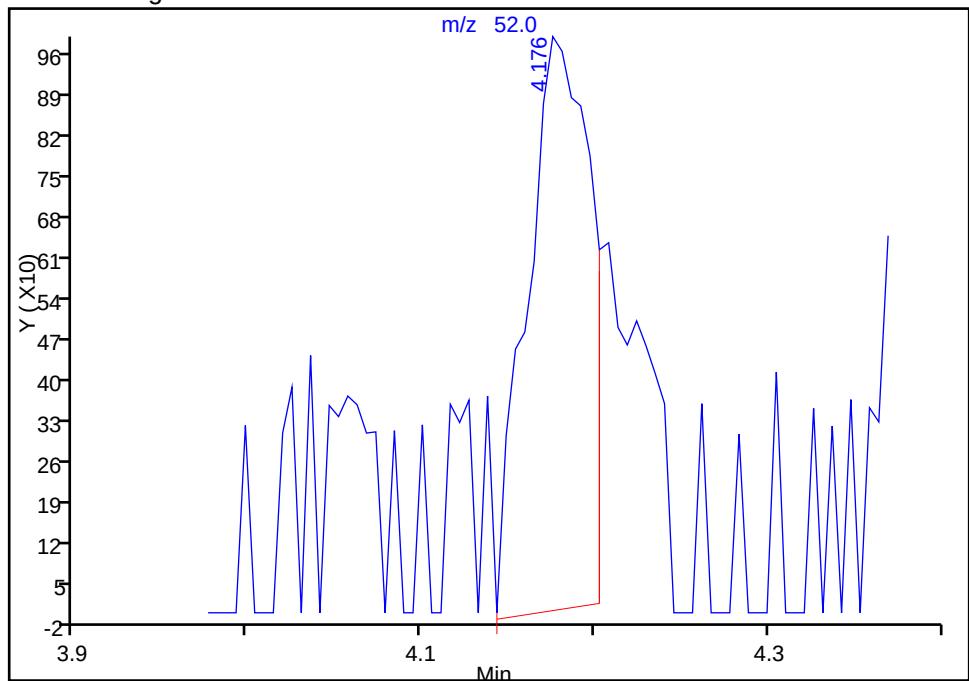
RT: 4.18
Area: 3685
Amount: 0.127518
Amount Units: ppb v/v

Processing Integration Results



RT: 4.18
Area: 2496
Amount: 0.086373
Amount Units: ppb v/v

Manual Integration Results



Reviewer: tajh, 16-Nov-2016 09:02:32

Audit Action: Manually Integrated

Audit Reason: Split Peak

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-9 DL Lab Sample ID: 140-6336-2 DL
 Matrix: Air Lab File ID: JK15P103DL.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 13:58
 Sample wt/vol: 450 (mL) Date Analyzed: 11/16/2016 05:33
 Soil Aliquot Vol: _____ Dilution Factor: 1.79
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	29	D	0.40	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	101		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-9 DL Lab Sample ID: 140-6336-2 DL
 Matrix: Air Lab File ID: JK15P103DL.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 13:58
 Sample wt/vol: 450 (mL) Date Analyzed: 11/16/2016 05:33
 Soil Aliquot Vol: _____ Dilution Factor: 1.79
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	120	D	1.6	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	101		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103DL.D
 Lims ID: 140-6336-A-2
 Client ID: OVP-9
 Sample Type: Client
 Inject. Date: 16-Nov-2016 05:33:30 ALS Bottle#: 3 Worklist Smp#: 25
 Purge Vol: 500.000 mL Dil. Factor: 1.7900
 Sample Info: 140-0003625-025
 Misc. Info.: 140-6336-a-2@1.79
 Operator ID: 7126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:11:02

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.279	9.281	-0.002	96	250772	4.00	
* 2 1,4-Difluorobenzene	114	11.441	11.443	-0.002	96	1168157	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.119	16.121	-0.002	91	953378	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.749	17.745	0.004	87	577914	4.02	
8 Dichlorodifluoromethane	85	3.988	3.990	-0.002	100	70195	0.2843	
9 Chloromethane	52	4.176	4.183	-0.007	90	2300	0.0813	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.187	4.189	-0.002	61	1687	0.0130	
17 Ethanol	31	5.064	5.060	0.004	98	26663	1.12	
20 Trichlorofluoromethane	101	5.564	5.565	-0.001	100	31287	0.1454	
28 2-Methyl-2-propanol	59	6.413	6.404	0.009	95	22604	0.1856	
30 1,1,2-Trichloro-1,2,2-trif	101	6.483	6.485	-0.002	91	5163	0.0309	
31 Methylene Chloride	84	6.666	6.673	-0.007	99	57340	0.7197	
36 Methyl tert-butyl ether	73	7.645	7.635	0.010	96	43532	0.2679	
39 2-Butanone (MEK)	72	8.521	8.507	0.014	81	5809	0.2182	
40 Hexane	56	8.521	8.523	-0.002	78	14426	0.2280	
44 Chloroform	83	9.285	9.292	-0.007	97	1224783	7.77	
47 1,1,1-Trichloroethane	97	10.333	10.335	-0.002	89	4545	0.0281	
50 Cyclohexane	69	10.920	10.921	-0.001	92	17664	0.4746	
51 Benzene	78	10.914	10.921	-0.007	51	11678	0.0540	
52 Carbon tetrachloride	117	10.941	10.942	-0.001	88	4202	0.0253	
56 Isooctane	57	11.651	11.652	-0.001	98	104990	0.3010	
59 Trichloroethene	130	12.146	12.147	-0.001	91	3438	0.0396	
62 Dichlorobromomethane	83	12.371	12.378	-0.007	97	44443	0.2951	
65 4-Methyl-2-pentanone (MIBK	43	13.291	13.298	-0.007	98	1974686	14.7	
68 Toluene	91	14.167	14.169	-0.002	93	33768	0.1616	
76 Tetrachloroethene	129	15.302	15.304	-0.002	94	309828	3.96	
79 Ethylbenzene	91	16.447	16.449	-0.002	97	6778	0.0294	
81 m-Xylene & p-Xylene	91	16.603	16.610	-0.007	98	22493	0.1302	
85 o-Xylene	91	17.130	17.137	-0.007	94	7429	0.0392	
96 1,2,4-Trimethylbenzene	105	18.873	18.874	-0.001	97	8704	0.0501	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103DL.D

Injection Date: 16-Nov-2016 05:33:30

Instrument ID: MJ

Operator ID: 7126

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Worklist Smp#: 25

Client ID: OVP-9

Purge Vol: 500.000 mL

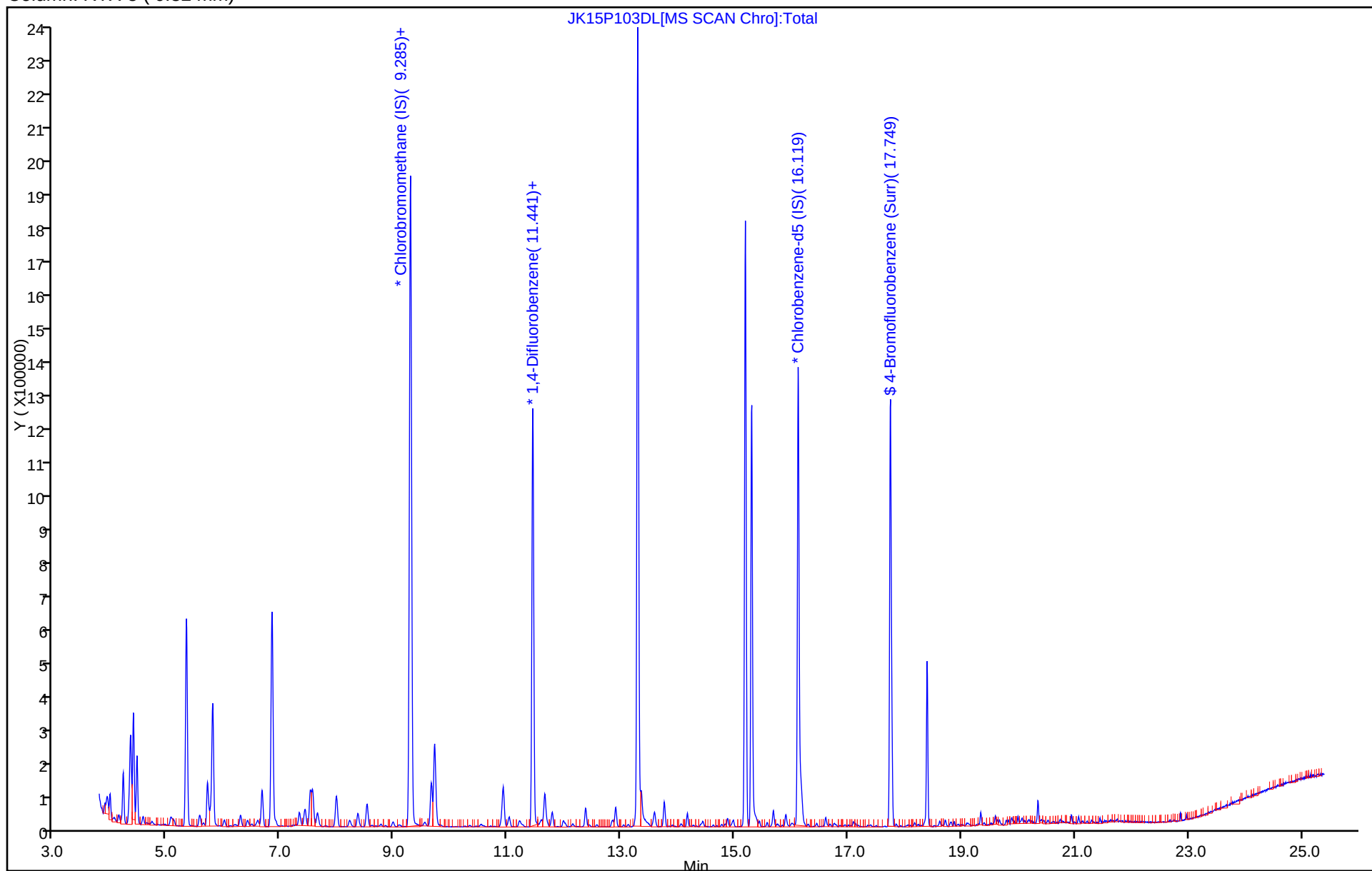
Dil. Factor: 1.7900

ALS Bottle#: 3

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103DL.D
Lims ID: 140-6336-A-2
Client ID: OVP-9
Sample Type: Client
Inject. Date: 16-Nov-2016 05:33:30 ALS Bottle#: 3 Worklist Smp#: 25
Purge Vol: 500.000 mL Dil. Factor: 1.7900
Sample Info: 140-0003625-025
Misc. Info.: 140-6336-a-2@1.79
Operator ID: 7126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:11:02

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.02	100.52

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P103DL.D

Injection Date: 16-Nov-2016 05:33:30

Instrument ID: MJ

Lims ID: 140-6336-A-2

Lab Sample ID: 140-6336-2

Client ID: OVP-9

Operator ID: 7126

ALS Bottle#: 3

Worklist Smp#: 25

Purge Vol: 500.000 mL

Dil. Factor: 1.7900

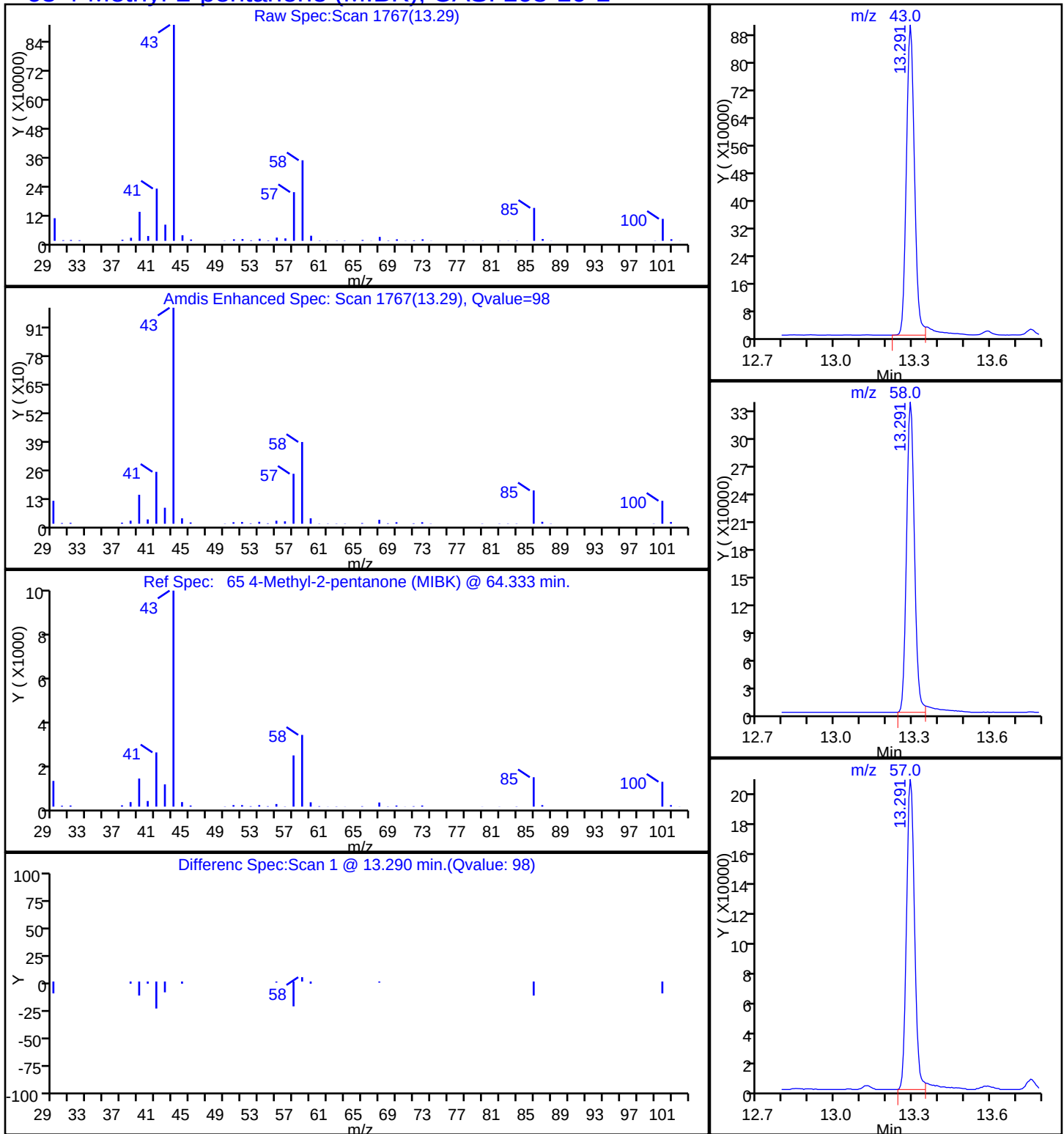
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

65 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-1 Lab Sample ID: 140-6336-3
 Matrix: Air Lab File ID: JK15P104.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 15:33
 Sample wt/vol: 100 (mL) Date Analyzed: 11/15/2016 18:39
 Soil Aliquot Vol: _____ Dilution Factor: 1.66
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	4.7		0.66	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.66	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.66	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.66	
75-34-3	1,1-Dichloroethane	98.96	ND		0.66	
75-35-4	1,1-Dichloroethene	96.94	ND		0.66	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.66	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.66	
106-93-4	1,2-Dibromoethane	187.87	ND		0.66	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.66	
107-06-2	1,2-Dichloroethane	98.96	ND		0.66	
78-87-5	1,2-Dichloropropane	112.99	ND		0.66	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	1.4		0.66	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.66	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.66	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.66	
123-91-1	1,4-Dioxane	88.11	ND		1.7	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		1.7	
78-93-3	2-Butanone	72.11	ND		2.7	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		1.7	
71-43-2	Benzene	78.11	ND		0.66	
100-44-7	Benzyl chloride	126.58	ND		1.3	
75-27-4	Bromodichloromethane	163.83	ND		0.66	
75-25-2	Bromoform	252.75	ND		0.66	
74-83-9	Bromomethane	94.94	ND		0.66	
56-23-5	Carbon tetrachloride	153.81	ND		0.33	
108-90-7	Chlorobenzene	112.56	ND		0.66	
75-00-3	Chloroethane	64.52	ND		0.66	
67-66-3	Chloroform	119.38	10		0.66	
74-87-3	Chloromethane	50.49	ND		1.7	
156-59-2	cis-1,2-Dichloroethene	96.94	0.91		0.66	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.66	
110-82-7	Cyclohexane	84.16	ND		1.7	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-1 Lab Sample ID: 140-6336-3
 Matrix: Air Lab File ID: JK15P104.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 15:33
 Sample wt/vol: 100 (mL) Date Analyzed: 11/15/2016 18:39
 Soil Aliquot Vol: _____ Dilution Factor: 1.66
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.66	
75-71-8	Dichlorodifluoromethane	120.91	2.2		0.66	
64-17-5	Ethanol	46.07	ND		17	
100-41-4	Ethylbenzene	106.17	ND		0.66	
87-68-3	Hexachlorobutadiene	260.76	ND		0.66	
110-54-3	Hexane	86.17	ND		1.7	
1634-04-4	Methyl tert-butyl ether	88.15	2.7		1.3	
75-09-2	Methylene Chloride	84.93	3.3		1.7	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		0.66	
95-47-6	o-Xylene	106.17	ND		0.66	
100-42-5	Styrene	104.15	ND		0.66	
75-65-0	t-Butyl alcohol	74.12	ND		2.7	
127-18-4	Tetrachloroethene	165.83	85		0.66	
108-88-3	Toluene	92.14	ND		1.0	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.66	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.66	
79-01-6	Trichloroethene	131.39	13		0.33	
75-69-4	Trichlorofluoromethane	137.37	ND		0.66	
75-01-4	Vinyl chloride	62.50	ND		0.33	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	104		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-1 Lab Sample ID: 140-6336-3
 Matrix: Air Lab File ID: JK15P104.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 15:33
 Sample wt/vol: 100 (mL) Date Analyzed: 11/15/2016 18:39
 Soil Aliquot Vol: _____ Dilution Factor: 1.66
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	26		3.6	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		4.6	
79-00-5	1,1,2-Trichloroethane	133.41	ND		3.6	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		5.1	
75-34-3	1,1-Dichloroethane	98.96	ND		2.7	
75-35-4	1,1-Dichloroethene	96.94	ND		2.6	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		4.9	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		3.3	
106-93-4	1,2-Dibromoethane	187.87	ND		5.1	
95-50-1	1,2-Dichlorobenzene	147.00	ND		4.0	
107-06-2	1,2-Dichloroethane	98.96	ND		2.7	
78-87-5	1,2-Dichloropropane	112.99	ND		3.1	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	9.5		4.6	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		3.3	
541-73-1	1,3-Dichlorobenzene	147.00	ND		4.0	
106-46-7	1,4-Dichlorobenzene	147.00	ND		4.0	
123-91-1	1,4-Dioxane	88.11	ND		6.0	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		7.8	
78-93-3	2-Butanone	72.11	ND		7.8	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		6.8	
71-43-2	Benzene	78.11	ND		2.1	
100-44-7	Benzyl chloride	126.58	ND		6.9	
75-27-4	Bromodichloromethane	163.83	ND		4.4	
75-25-2	Bromoform	252.75	ND		6.9	
74-83-9	Bromomethane	94.94	ND		2.6	
56-23-5	Carbon tetrachloride	153.81	ND		2.1	
108-90-7	Chlorobenzene	112.56	ND		3.1	
75-00-3	Chloroethane	64.52	ND		1.8	
67-66-3	Chloroform	119.38	50		3.2	
74-87-3	Chloromethane	50.49	ND		3.4	
156-59-2	cis-1,2-Dichloroethene	96.94	3.6		2.6	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		3.0	
110-82-7	Cyclohexane	84.16	ND		5.7	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-1 Lab Sample ID: 140-6336-3
 Matrix: Air Lab File ID: JK15P104.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 15:33
 Sample wt/vol: 100 (mL) Date Analyzed: 11/15/2016 18:39
 Soil Aliquot Vol: _____ Dilution Factor: 1.66
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		5.7	
75-71-8	Dichlorodifluoromethane	120.91	11		3.3	
64-17-5	Ethanol	46.07	ND		31	
100-41-4	Ethylbenzene	106.17	ND		2.9	
87-68-3	Hexachlorobutadiene	260.76	ND		7.1	
110-54-3	Hexane	86.17	ND		5.9	
1634-04-4	Methyl tert-butyl ether	88.15	9.6		4.8	
75-09-2	Methylene Chloride	84.93	11		5.8	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		2.9	
95-47-6	o-Xylene	106.17	ND		2.9	
100-42-5	Styrene	104.15	ND		2.8	
75-65-0	t-Butyl alcohol	74.12	ND		8.1	
127-18-4	Tetrachloroethene	165.83	580		4.5	
108-88-3	Toluene	92.14	ND		3.8	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		2.6	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		3.0	
79-01-6	Trichloroethene	131.39	72		1.8	
75-69-4	Trichlorofluoromethane	137.37	ND		3.7	
75-01-4	Vinyl chloride	62.50	ND		0.85	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	104		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P104.D
 Lims ID: 140-6336-A-3
 Client ID: OVP-1
 Sample Type: Client
 Inject. Date: 15-Nov-2016 18:39:30 ALS Bottle#: 4 Worklist Smp#: 12
 Purge Vol: 500.000 mL Dil. Factor: 1.6600
 Sample Info: 140-0003625-012
 Misc. Info.: 140-6336-a-3@1.66
 Operator ID: 7126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:03:10

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.278	9.281	-0.003	97	256613	4.00	
* 2 1,4-Difluorobenzene	114	11.439	11.443	-0.004	96	1232448	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.123	16.121	0.002	89	1017704	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.747	17.745	0.002	88	640713	4.18	
8 Dichlorodifluoromethane	85	3.981	3.990	-0.009	100	66359	0.2627	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.180	4.189	-0.009	98	21854	0.1643	
17 Ethanol	31	5.062	5.060	0.002	98	16496	0.6746	
20 Trichlorofluoromethane	101	5.557	5.565	-0.008	99	12729	0.0578	
31 Methylene Chloride	84	6.664	6.673	-0.009	97	32248	0.3955	
36 Methyl tert-butyl ether	73	7.648	7.635	0.013	97	53144	0.3196	
40 Hexane	56	8.514	8.523	-0.009	88	4118	0.0636	
42 cis-1,2-Dichloroethene	96	8.939	8.942	-0.003	96	8569	0.1095	
44 Chloroform	83	9.283	9.292	-0.009	97	199411	1.24	
47 1,1,1-Trichloroethane	97	10.332	10.335	-0.003	96	94338	0.5691	
52 Carbon tetrachloride	117	10.939	10.942	-0.003	95	5813	0.0332	
59 Trichloroethene	130	12.144	12.147	-0.003	94	147004	1.61	
65 4-Methyl-2-pentanone (MIBK	43	13.305	13.298	0.007	98	14295	0.1011	
68 Toluene	91	14.166	14.169	-0.003	92	15424	0.0691	
76 Tetrachloroethene	129	15.300	15.304	-0.004	97	855953	10.2	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P104.D

Injection Date: 15-Nov-2016 18:39:30

Instrument ID: MJ

Operator ID: 7126

Lims ID: 140-6336-A-3

Lab Sample ID: 140-6336-3

Worklist Smp#: 12

Client ID: OVP-1

Purge Vol: 500.000 mL

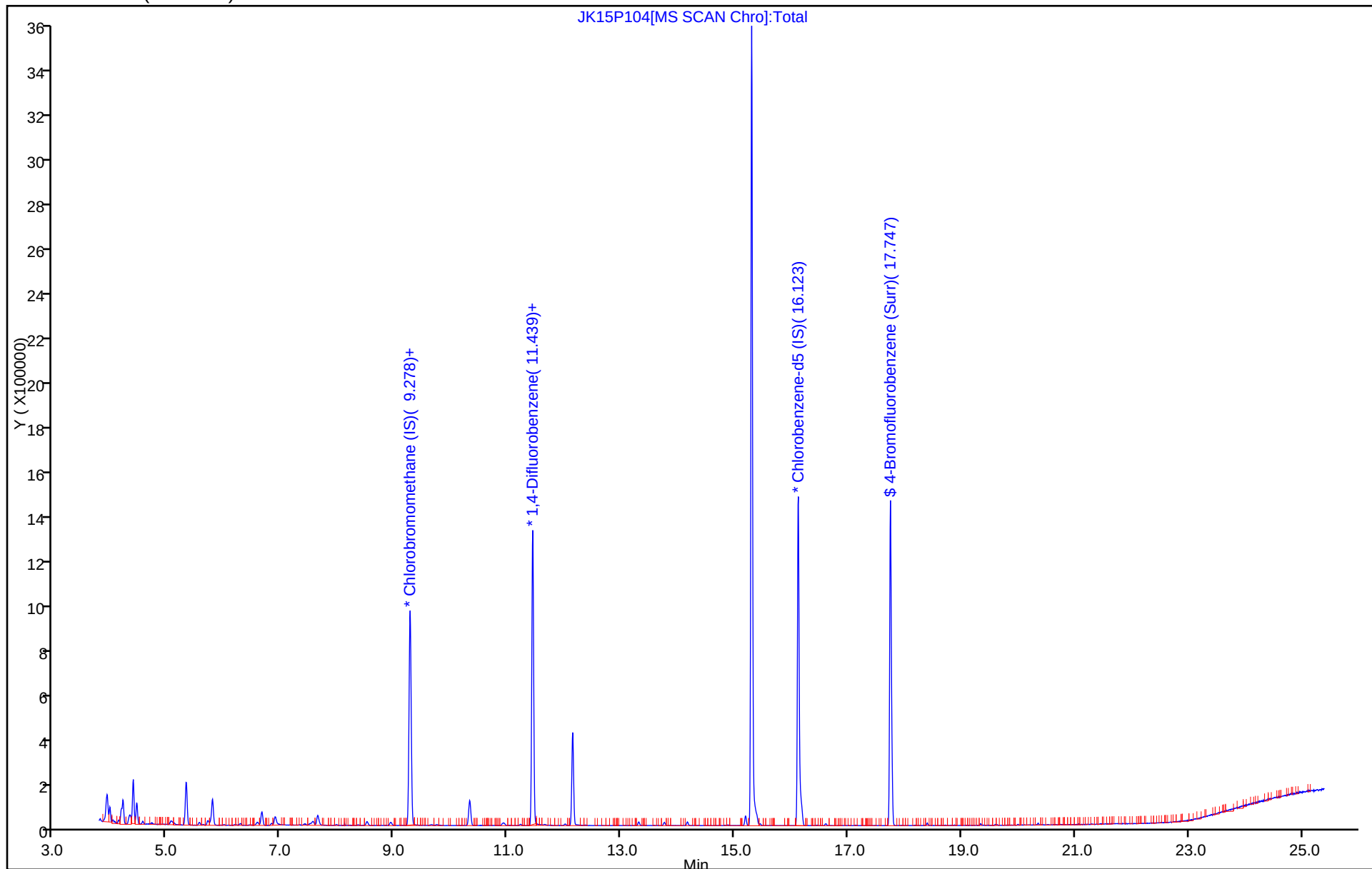
Dil. Factor: 1.6600

ALS Bottle#: 4

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P104.D
Lims ID: 140-6336-A-3
Client ID: OVP-1
Sample Type: Client
Inject. Date: 15-Nov-2016 18:39:30 ALS Bottle#: 4 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.6600
Sample Info: 140-0003625-012
Misc. Info.: 140-6336-a-3@1.66
Operator ID: 7126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:03:10

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.18	104.40

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P104.D

Injection Date: 15-Nov-2016 18:39:30

Instrument ID: MJ

Lims ID: 140-6336-A-3

Lab Sample ID: 140-6336-3

Client ID: OVP-1

Operator ID: 7126

ALS Bottle#: 4

Worklist Smp#: 12

Purge Vol: 500.000 mL

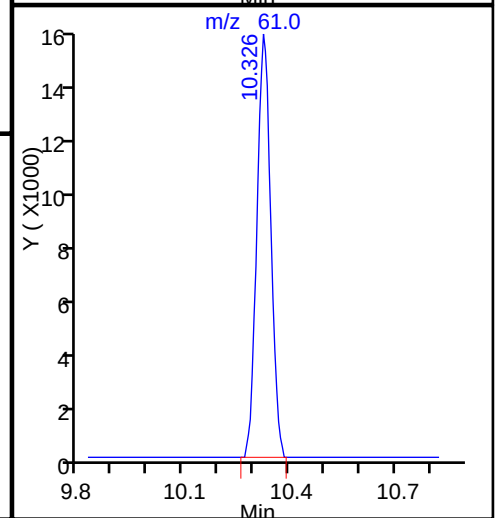
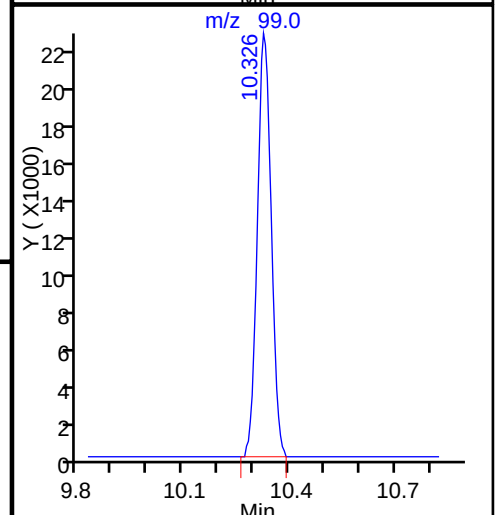
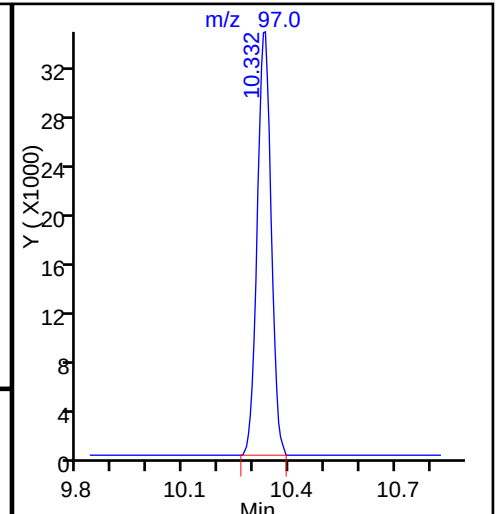
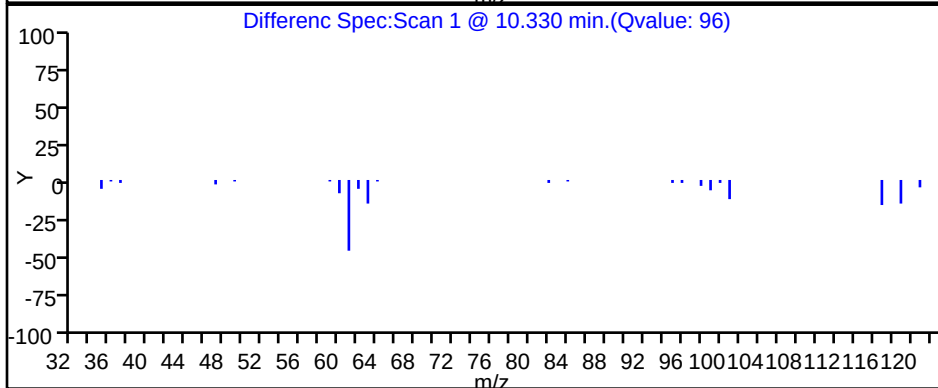
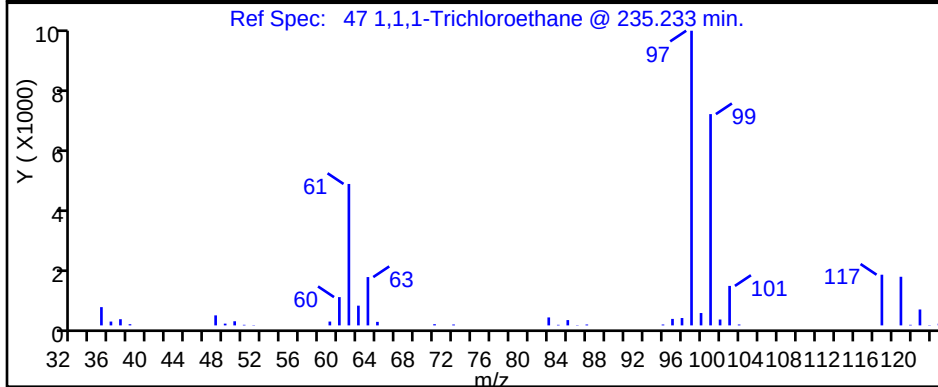
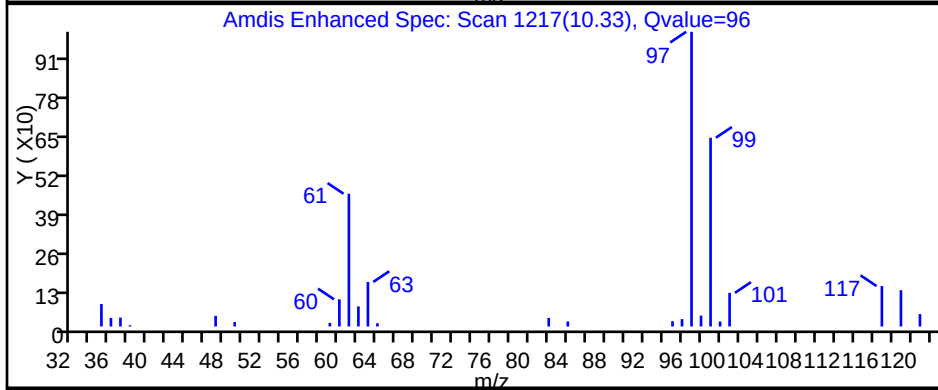
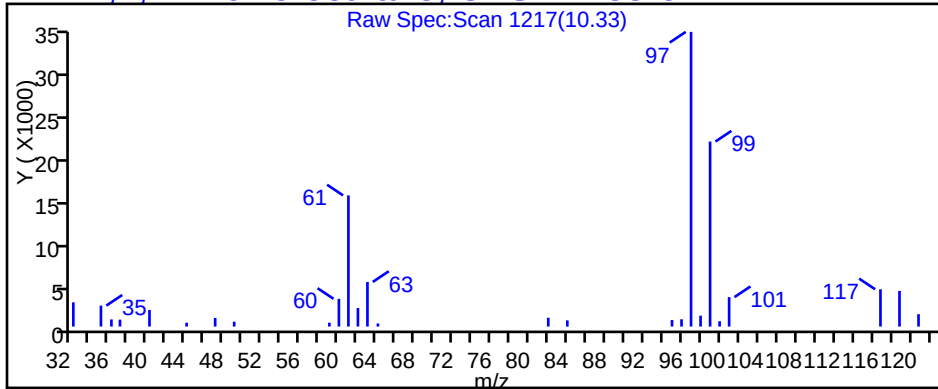
Dil. Factor: 1.6600

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

47 1,1,1-Trichloroethane, CAS: 71-55-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P104.D

Injection Date: 15-Nov-2016 18:39:30

Instrument ID: MJ

Lims ID: 140-6336-A-3

Lab Sample ID: 140-6336-3

Client ID: OVP-1

Operator ID: 7126

ALS Bottle#: 4

Worklist Smp#: 12

Purge Vol: 500.000 mL

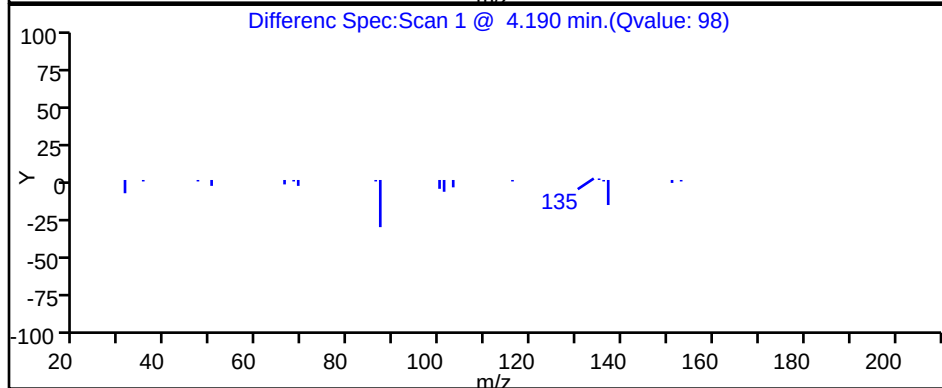
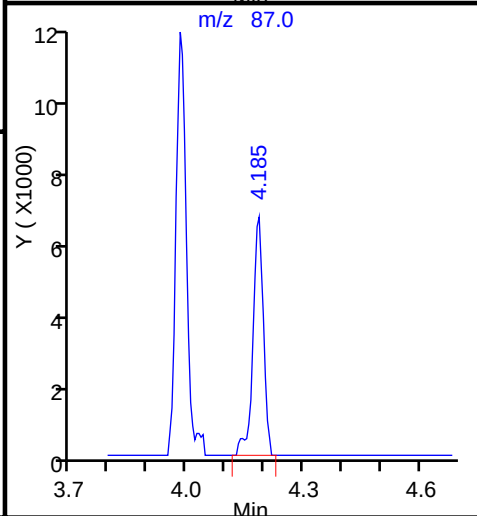
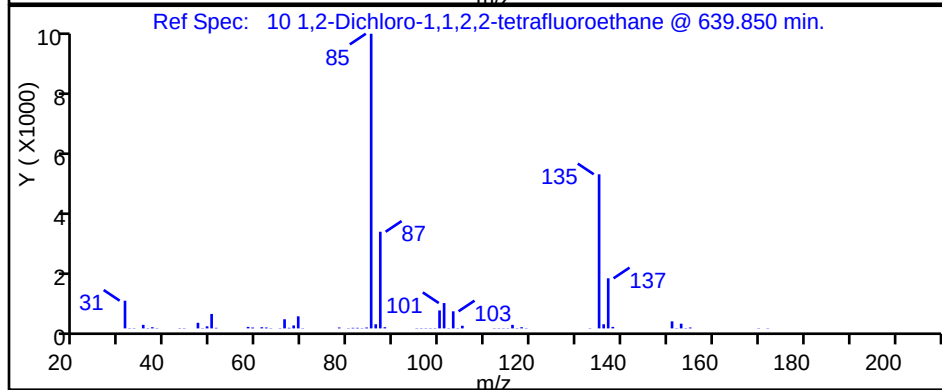
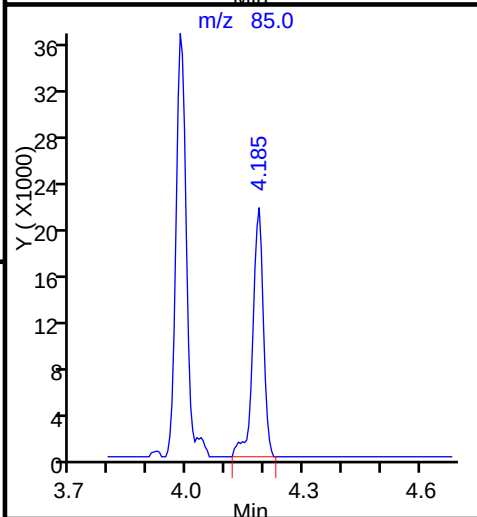
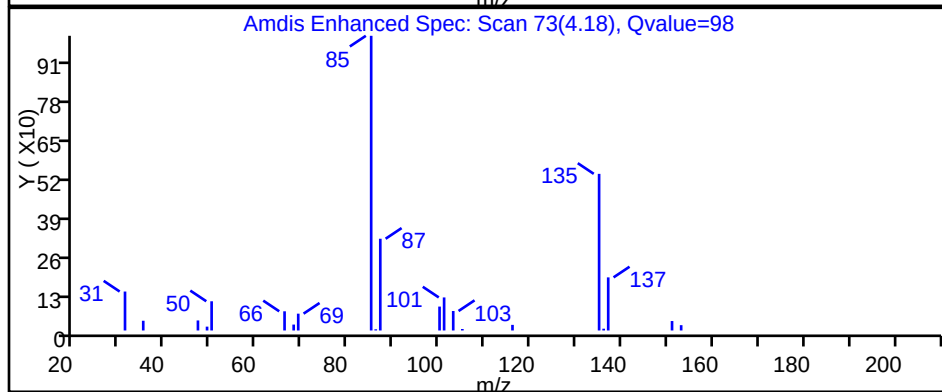
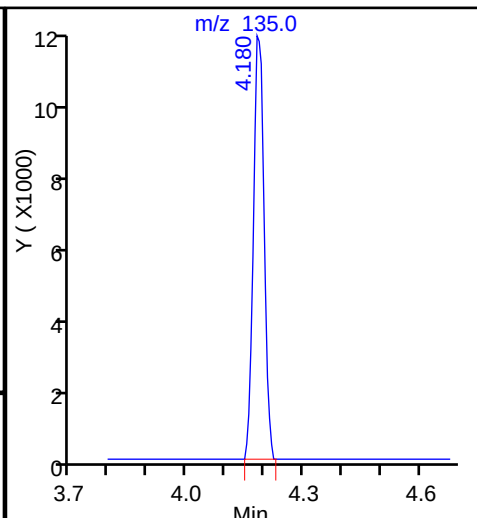
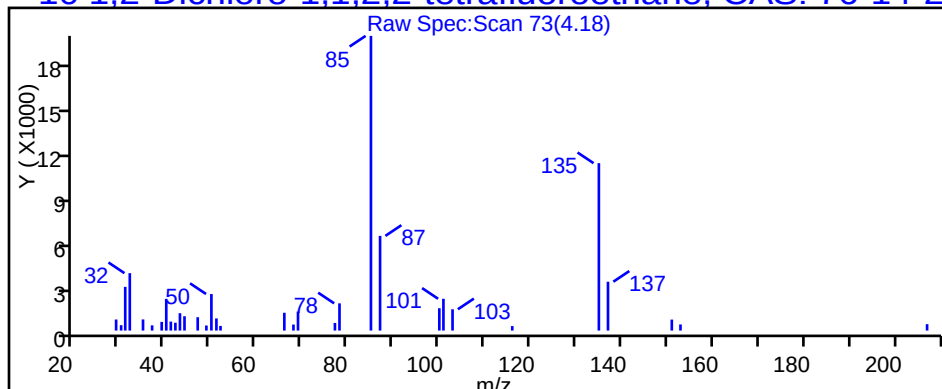
Dil. Factor: 1.6600

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

10 1,2-Dichloro-1,1,2,2-tetrafluoroethane, CAS: 76-14-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P104.D

Injection Date: 15-Nov-2016 18:39:30

Instrument ID: MJ

Lims ID: 140-6336-A-3

Lab Sample ID: 140-6336-3

Client ID: OVP-1

Operator ID: 7126

ALS Bottle#: 4

Worklist Smp#: 12

Purge Vol: 500.000 mL

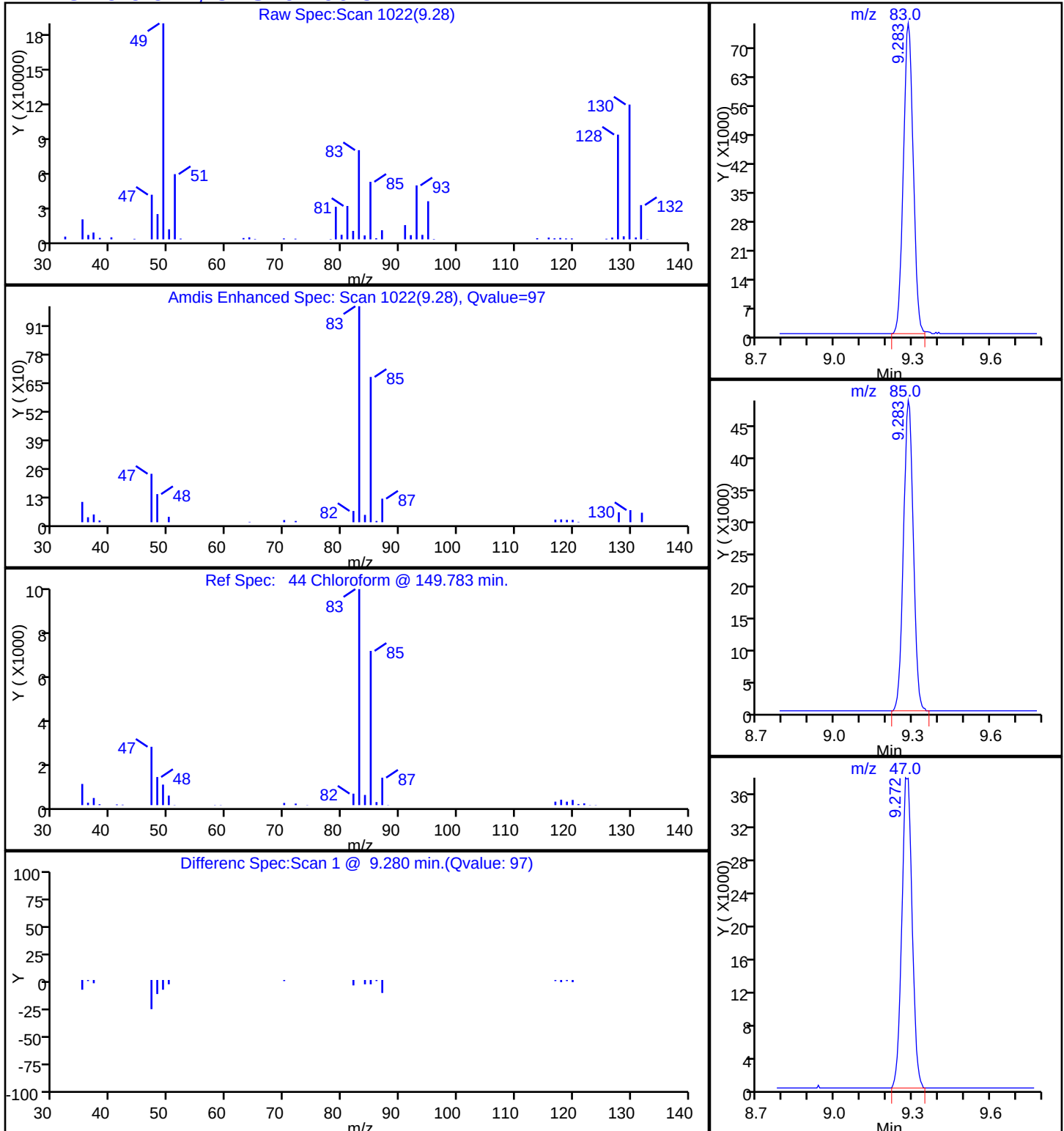
Dil. Factor: 1.6600

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P104.D

Injection Date: 15-Nov-2016 18:39:30

Instrument ID: MJ

Lims ID: 140-6336-A-3

Lab Sample ID: 140-6336-3

Client ID: OVP-1

Operator ID: 7126

ALS Bottle#: 4

Worklist Smp#: 12

Purge Vol: 500.000 mL

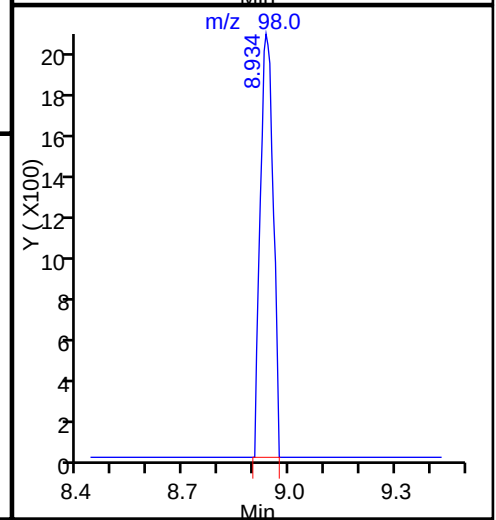
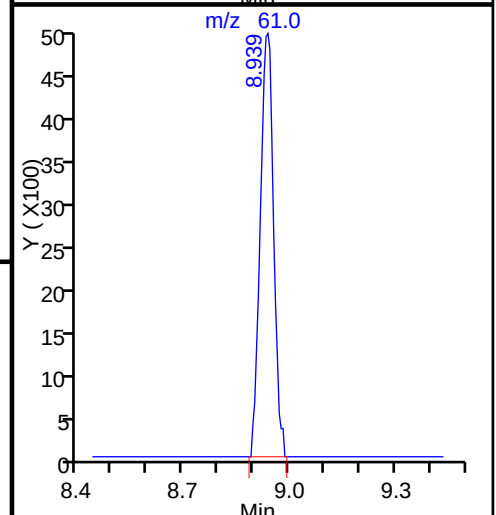
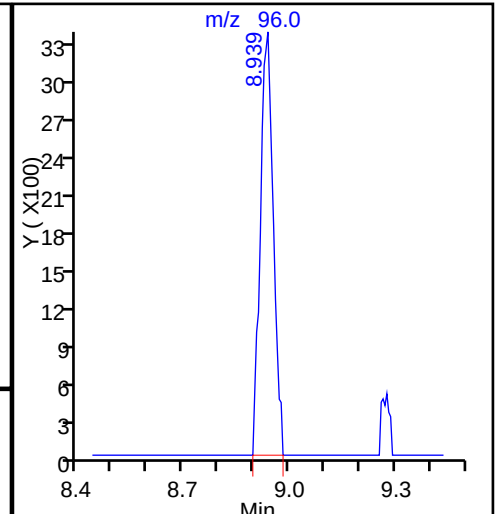
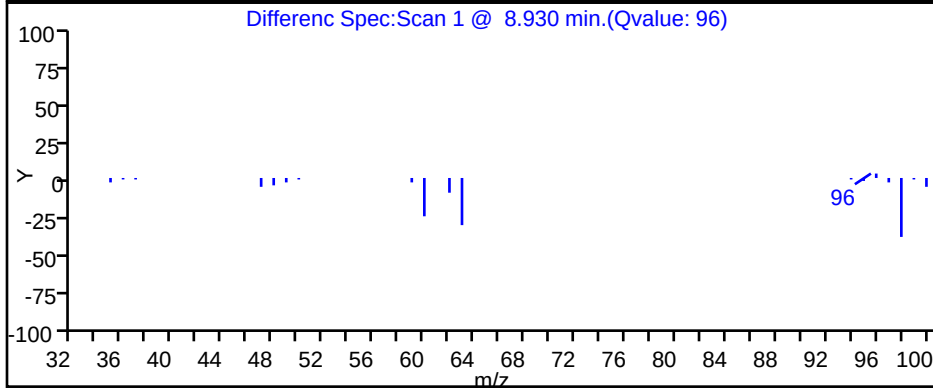
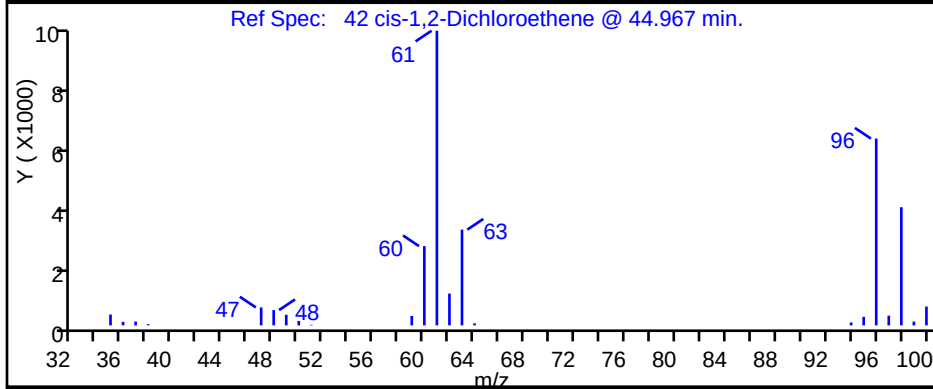
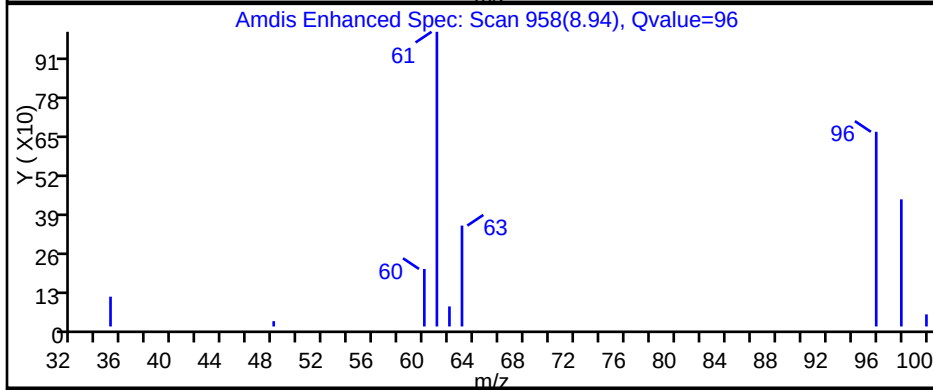
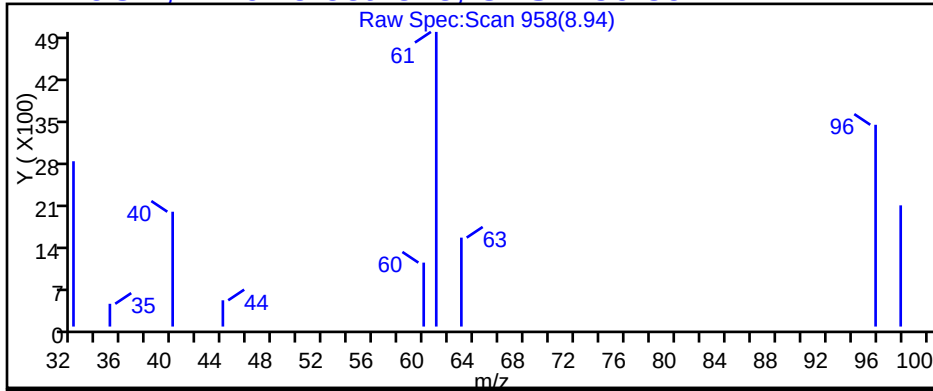
Dil. Factor: 1.6600

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

42 cis-1,2-Dichloroethene, CAS: 156-59-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P104.D

Injection Date: 15-Nov-2016 18:39:30

Instrument ID: MJ

Lims ID: 140-6336-A-3

Lab Sample ID: 140-6336-3

Client ID: OVP-1

Operator ID: 7126

ALS Bottle#: 4

Worklist Smp#: 12

Purge Vol: 500.000 mL

Dil. Factor: 1.6600

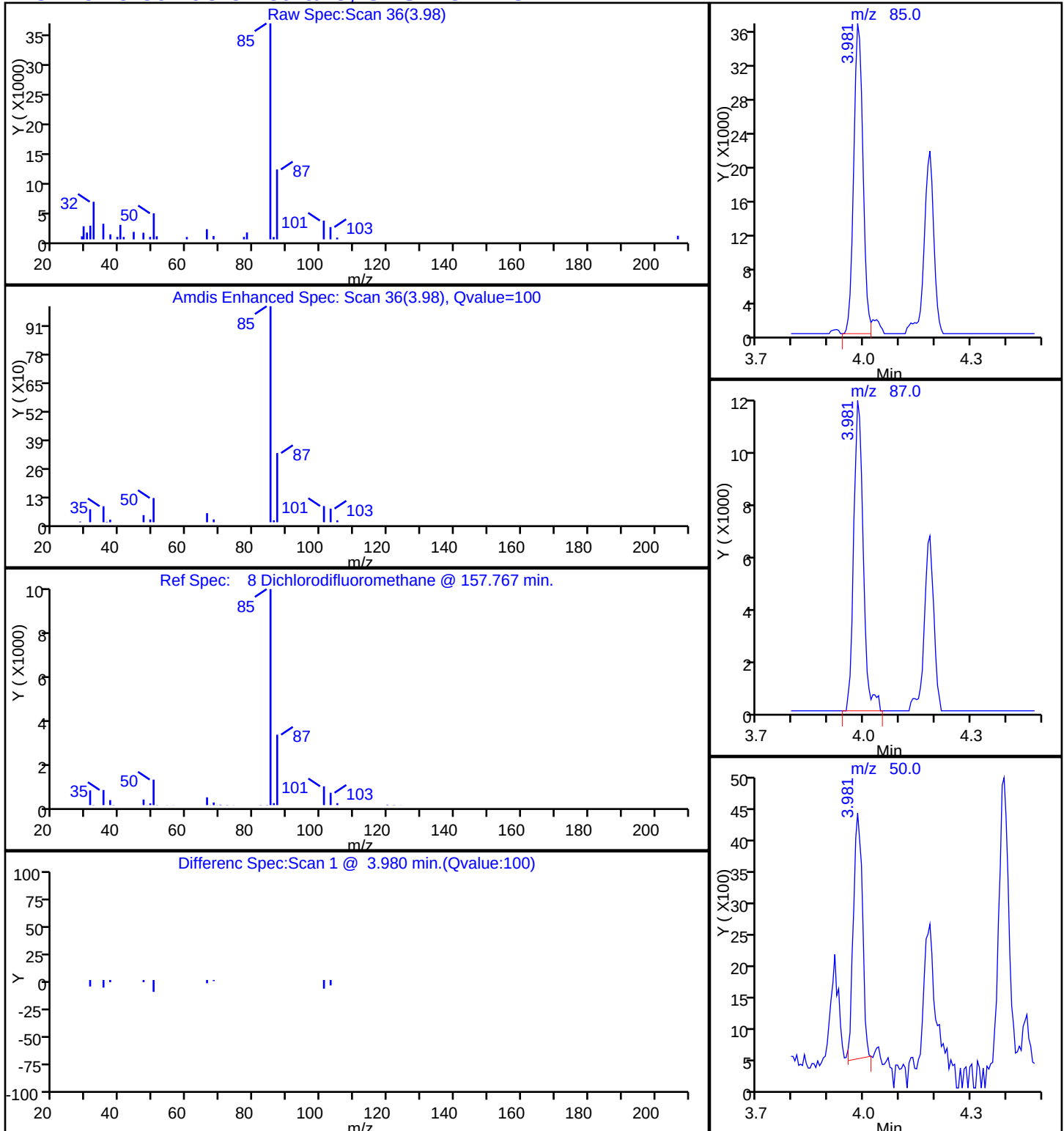
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P104.D

Injection Date: 15-Nov-2016 18:39:30

Instrument ID: MJ

Lims ID: 140-6336-A-3

Lab Sample ID: 140-6336-3

Client ID: OVP-1

Operator ID: 7126

ALS Bottle#: 4

Worklist Smp#: 12

Purge Vol: 500.000 mL

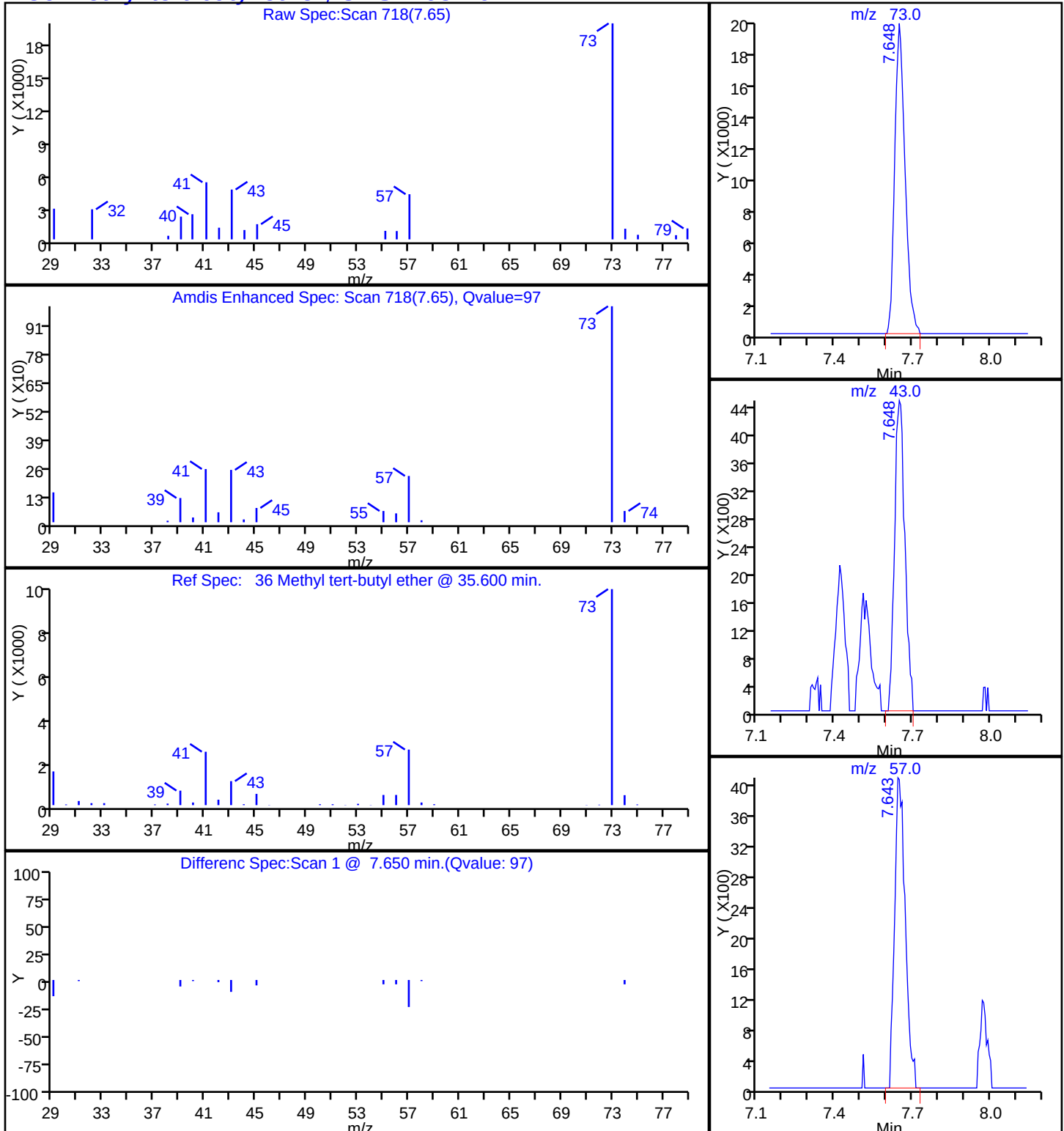
Dil. Factor: 1.6600

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

36 Methyl tert-butyl ether, CAS: 1634-04-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P104.D

Injection Date: 15-Nov-2016 18:39:30

Instrument ID: MJ

Lims ID: 140-6336-A-3

Lab Sample ID: 140-6336-3

Client ID: OVP-1

Operator ID: 7126

ALS Bottle#: 4

Worklist Smp#: 12

Purge Vol: 500.000 mL

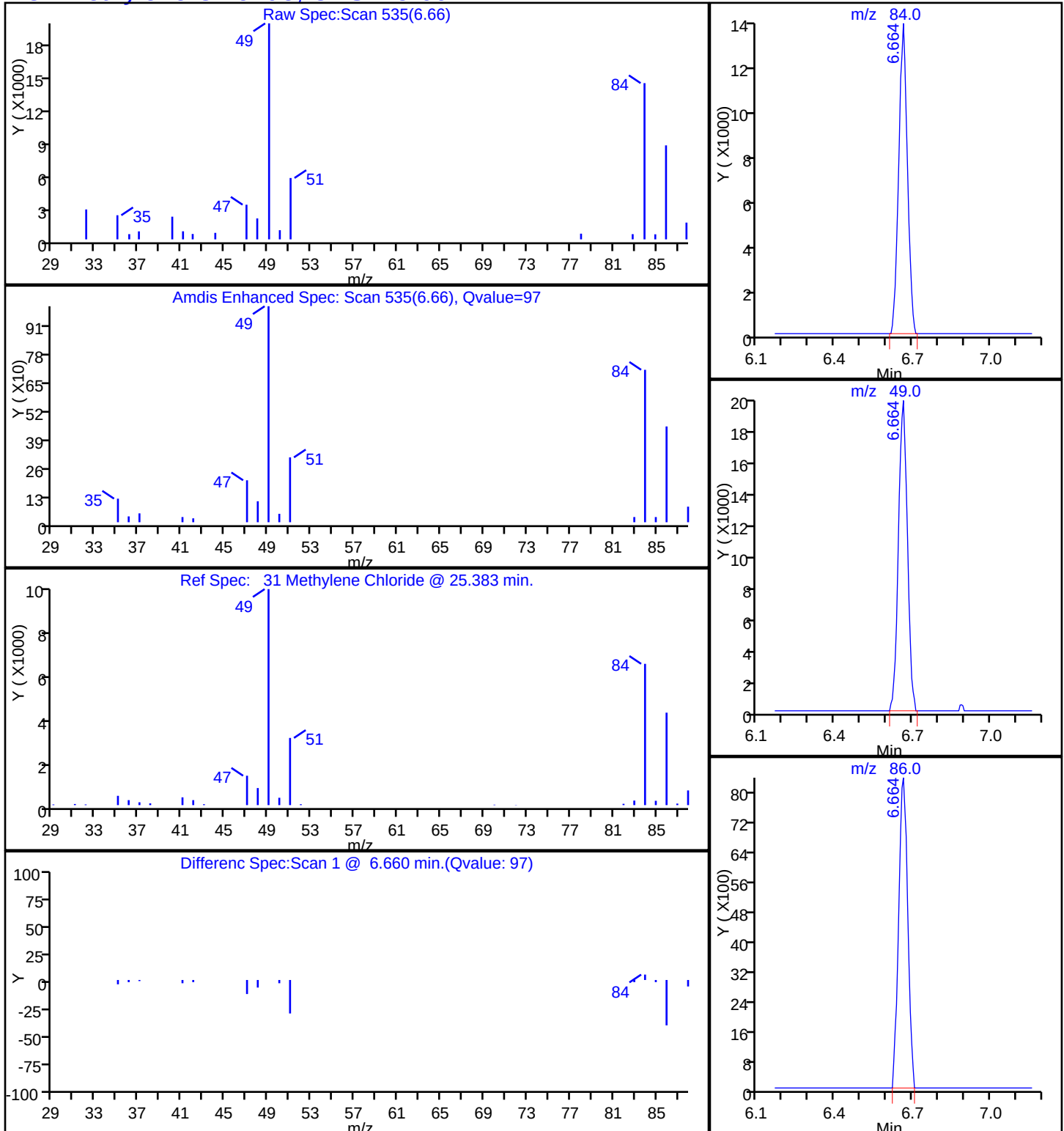
Dil. Factor: 1.6600

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P104.D

Injection Date: 15-Nov-2016 18:39:30

Instrument ID: MJ

Lims ID: 140-6336-A-3

Lab Sample ID: 140-6336-3

Client ID: OVP-1

Operator ID: 7126

ALS Bottle#: 4

Worklist Smp#: 12

Purge Vol: 500.000 mL

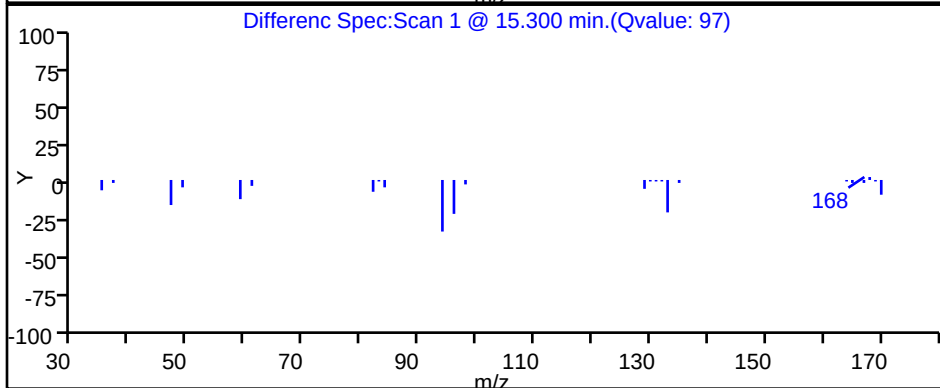
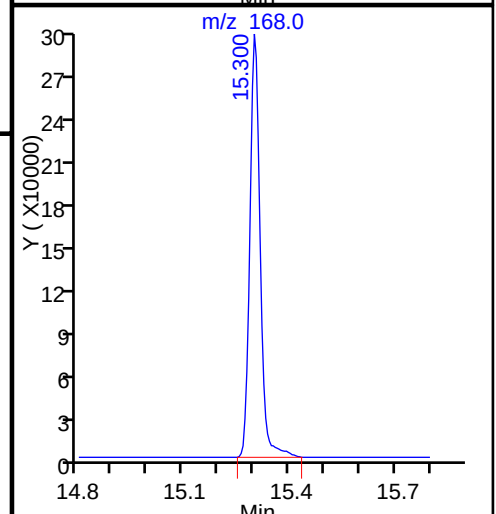
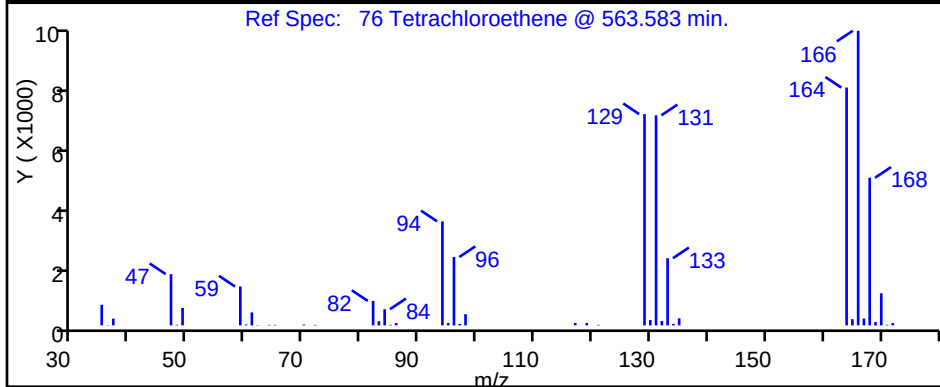
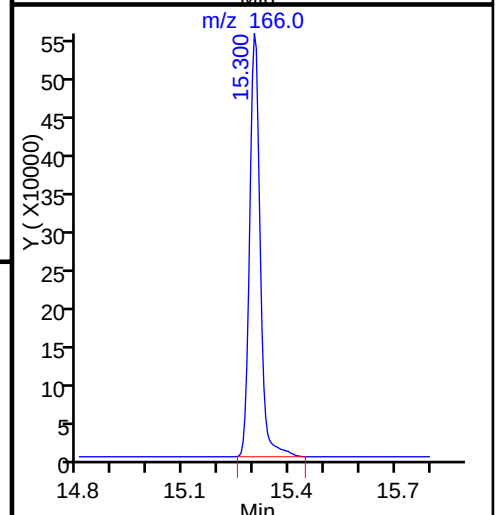
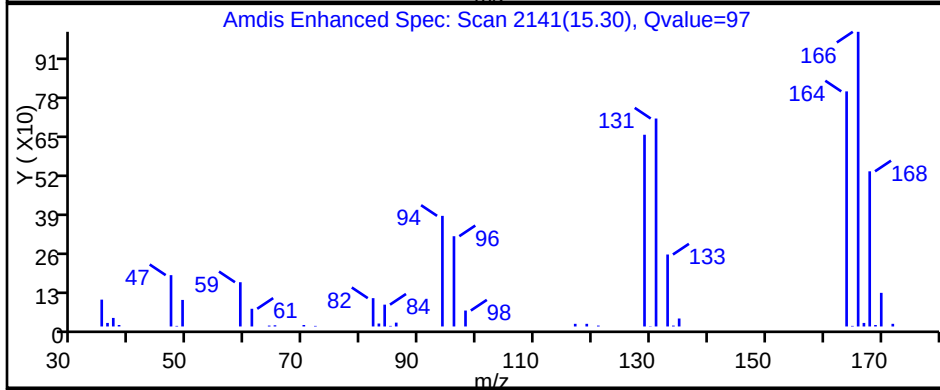
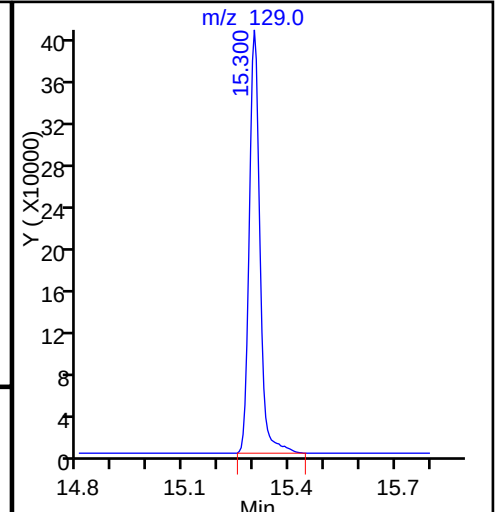
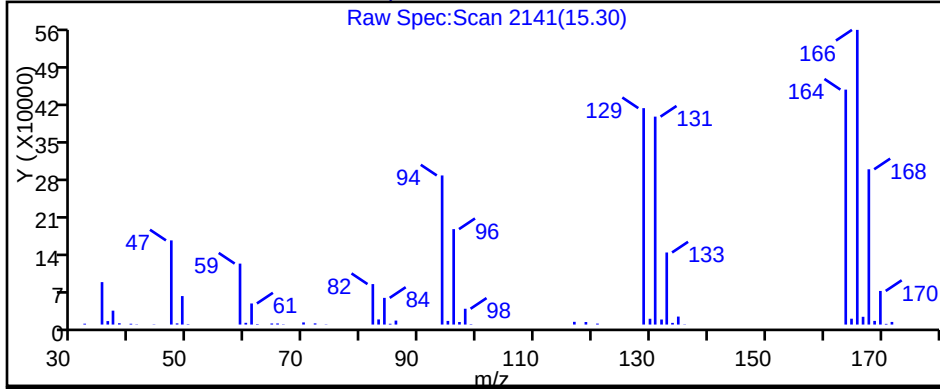
Dil. Factor: 1.6600

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

76 Tetrachloroethene, CAS: 127-18-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P104.D

Injection Date: 15-Nov-2016 18:39:30

Instrument ID: MJ

Lims ID: 140-6336-A-3

Lab Sample ID: 140-6336-3

Client ID: OVP-1

Operator ID: 7126

ALS Bottle#: 4

Worklist Smp#: 12

Purge Vol: 500.000 mL

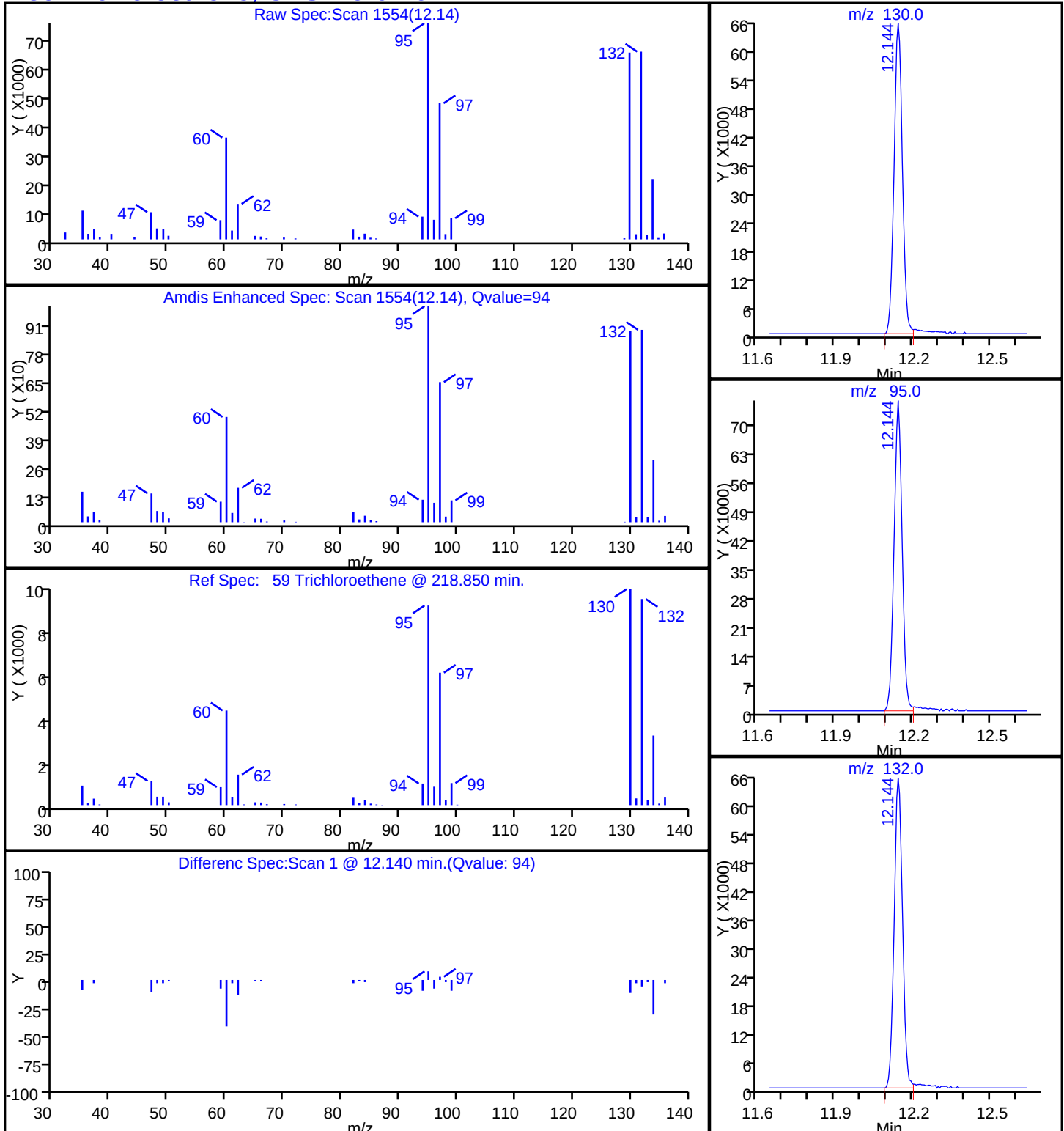
Dil. Factor: 1.6600

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

59 Trichloroethene, CAS: 79-01-6

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-2 Lab Sample ID: 140-6336-4
 Matrix: Air Lab File ID: JK15P101.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 16:15
 Sample wt/vol: 385(mL) Date Analyzed: 11/15/2016 15:55
 Soil Aliquot Vol: _____ Dilution Factor: 1.54
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	1.7		0.16	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.16	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.16	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.16	
75-34-3	1,1-Dichloroethane	98.96	ND		0.16	
75-35-4	1,1-Dichloroethene	96.94	ND		0.16	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.16	
95-63-6	1,2,4-Trimethylbenzene	120.20	0.18		0.16	
106-93-4	1,2-Dibromoethane	187.87	ND		0.16	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.16	
107-06-2	1,2-Dichloroethane	98.96	ND		0.16	
78-87-5	1,2-Dichloropropane	112.99	ND		0.16	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	3.6		0.16	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.16	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.16	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.16	
123-91-1	1,4-Dioxane	88.11	ND		0.40	
540-84-1	2,2,4-Trimethylpentane	114.23	0.40		0.40	
78-93-3	2-Butanone	72.11	1.4		0.64	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	0.67		0.40	
71-43-2	Benzene	78.11	ND		0.16	
100-44-7	Benzyl chloride	126.58	ND		0.32	
75-27-4	Bromodichloromethane	163.83	ND		0.16	
75-25-2	Bromoform	252.75	ND		0.16	
74-83-9	Bromomethane	94.94	ND		0.16	
56-23-5	Carbon tetrachloride	153.81	0.098		0.080	
108-90-7	Chlorobenzene	112.56	ND		0.16	
75-00-3	Chloroethane	64.52	ND		0.16	
67-66-3	Chloroform	119.38	33	E	0.16	
74-87-3	Chloromethane	50.49	0.41		0.40	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.16	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.16	
110-82-7	Cyclohexane	84.16	0.57		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-2 Lab Sample ID: 140-6336-4
 Matrix: Air Lab File ID: JK15P101.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 16:15
 Sample wt/vol: 385 (mL) Date Analyzed: 11/15/2016 15:55
 Soil Aliquot Vol: _____ Dilution Factor: 1.54
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.16	
75-71-8	Dichlorodifluoromethane	120.91	10		0.16	
64-17-5	Ethanol	46.07	27		4.0	
100-41-4	Ethylbenzene	106.17	ND		0.16	
87-68-3	Hexachlorobutadiene	260.76	ND		0.16	
110-54-3	Hexane	86.17	ND		0.40	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.32	
75-09-2	Methylene Chloride	84.93	0.68		0.40	
179601-23-1	m-Xylene & p-Xylene	106.17	0.44		0.16	
95-47-6	o-Xylene	106.17	ND		0.16	
100-42-5	Styrene	104.15	ND		0.16	
75-65-0	t-Butyl alcohol	74.12	ND		0.64	
127-18-4	Tetrachloroethene	165.83	42	E	0.16	
108-88-3	Toluene	92.14	0.59		0.24	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.16	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.16	
79-01-6	Trichloroethene	131.39	0.87		0.080	
75-69-4	Trichlorofluoromethane	137.37	1.7		0.16	
75-01-4	Vinyl chloride	62.50	ND		0.080	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-2 Lab Sample ID: 140-6336-4
 Matrix: Air Lab File ID: JK15P101.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 16:15
 Sample wt/vol: 385(mL) Date Analyzed: 11/15/2016 15:55
 Soil Aliquot Vol: _____ Dilution Factor: 1.54
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	9.0		0.87	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		1.1	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.87	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		1.2	
75-34-3	1,1-Dichloroethane	98.96	ND		0.65	
75-35-4	1,1-Dichloroethene	96.94	ND		0.63	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		1.2	
95-63-6	1,2,4-Trimethylbenzene	120.20	0.90		0.79	
106-93-4	1,2-Dibromoethane	187.87	ND		1.2	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.96	
107-06-2	1,2-Dichloroethane	98.96	ND		0.65	
78-87-5	1,2-Dichloropropane	112.99	ND		0.74	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	25		1.1	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.79	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.96	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.96	
123-91-1	1,4-Dioxane	88.11	ND		1.4	
540-84-1	2,2,4-Trimethylpentane	114.23	1.9		1.9	
78-93-3	2-Butanone	72.11	4.0		1.9	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	2.7		1.6	
71-43-2	Benzene	78.11	ND		0.51	
100-44-7	Benzyl chloride	126.58	ND		1.7	
75-27-4	Bromodichloromethane	163.83	ND		1.1	
75-25-2	Bromoform	252.75	ND		1.7	
74-83-9	Bromomethane	94.94	ND		0.62	
56-23-5	Carbon tetrachloride	153.81	0.62		0.50	
108-90-7	Chlorobenzene	112.56	ND		0.74	
75-00-3	Chloroethane	64.52	ND		0.42	
67-66-3	Chloroform	119.38	160	E	0.78	
74-87-3	Chloromethane	50.49	0.84		0.83	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.63	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.73	
110-82-7	Cyclohexane	84.16	2.0		1.4	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-2 Lab Sample ID: 140-6336-4
 Matrix: Air Lab File ID: JK15P101.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 16:15
 Sample wt/vol: 385 (mL) Date Analyzed: 11/15/2016 15:55
 Soil Aliquot Vol: _____ Dilution Factor: 1.54
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		1.4	
75-71-8	Dichlorodifluoromethane	120.91	52		0.79	
64-17-5	Ethanol	46.07	51		7.5	
100-41-4	Ethylbenzene	106.17	ND		0.69	
87-68-3	Hexachlorobutadiene	260.76	ND		1.7	
110-54-3	Hexane	86.17	ND		1.4	
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.2	
75-09-2	Methylene Chloride	84.93	2.4		1.4	
179601-23-1	m-Xylene & p-Xylene	106.17	1.9		0.69	
95-47-6	o-Xylene	106.17	ND		0.69	
100-42-5	Styrene	104.15	ND		0.68	
75-65-0	t-Butyl alcohol	74.12	ND		1.9	
127-18-4	Tetrachloroethene	165.83	290	E	1.1	
108-88-3	Toluene	92.14	2.2		0.90	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.63	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.73	
79-01-6	Trichloroethene	131.39	4.7		0.43	
75-69-4	Trichlorofluoromethane	137.37	9.8		0.90	
75-01-4	Vinyl chloride	62.50	ND		0.20	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D
 Lims ID: 140-6336-A-4
 Client ID: OVP-2
 Sample Type: Client
 Inject. Date: 15-Nov-2016 15:55:30 ALS Bottle#: 1 Worklist Smp#: 9
 Purge Vol: 500.000 mL Dil. Factor: 1.5400
 Sample Info: 140-0003625-009
 Misc. Info.: 140-6336-a-4@1.54
 Operator ID: 7126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: barlozhetskayaa

Date: 15-Nov-2016 17:19:48

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.279	9.281	-0.002	97	255832	4.00	
* 2 1,4-Difluorobenzene	114	11.440	11.443	-0.003	96	1178349	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.124	16.121	0.003	89	932537	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.748	17.745	0.003	87	575160	4.09	
8 Dichlorodifluoromethane	85	3.982	3.990	-0.008	100	1319627	5.24	
9 Chloromethane	52	4.181	4.183	-0.002	35	5896	0.2042	M
10 1,2-Dichloro-1,1,2,2-tetra	135	4.186	4.189	-0.003	97	236134	1.78	
17 Ethanol	31	5.058	5.060	-0.002	97	327222	13.4	
20 Trichlorofluoromethane	101	5.563	5.565	-0.002	100	191735	0.8732	
28 2-Methyl-2-propanol	59	6.413	6.404	0.009	95	16345	0.1316	
30 1,1,2-Trichloro-1,2,2-trif	101	6.488	6.485	0.003	93	5974	0.0351	
31 Methylene Chloride	84	6.671	6.673	-0.002	97	27674	0.3405	
39 2-Butanone (MEK)	72	8.504	8.507	-0.003	94	18636	0.6863	
40 Hexane	56	8.515	8.523	-0.008	55	12046	0.1866	
44 Chloroform	83	9.290	9.292	-0.002	99	2659869	16.5	E
47 1,1,1-Trichloroethane	97	10.333	10.335	-0.002	96	136420	0.8255	
50 Cyclohexane	69	10.914	10.921	-0.007	87	10784	0.2873	
51 Benzene	78	10.919	10.921	-0.002	59	13872	0.0636	
52 Carbon tetrachloride	117	10.946	10.942	0.004	95	8210	0.0491	
56 Isooctane	57	11.656	11.652	0.004	94	70866	0.2014	
59 Trichloroethene	130	12.145	12.147	-0.002	95	38251	0.4371	
65 4-Methyl-2-pentanone (MIBK	43	13.301	13.298	0.003	97	45100	0.3338	
68 Toluene	91	14.167	14.169	-0.002	93	60433	0.2956	
76 Tetrachloroethene	129	15.301	15.304	-0.003	95	1615857	21.1	E
79 Ethylbenzene	91	16.452	16.449	0.003	97	10332	0.0458	
81 m-Xylene & p-Xylene	91	16.608	16.610	-0.002	99	36779	0.2177	
85 o-Xylene	91	17.135	17.137	-0.002	99	12804	0.0691	
96 1,2,4-Trimethylbenzene	105	18.877	18.874	0.003	97	15634	0.0920	

[QC Flag Legend](#)

Processing Flags

E - Exceeded Maximum Amount

Review Flags

M - Manually Integrated

[Reagents:](#)

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D

Injection Date: 15-Nov-2016 15:55:30

Instrument ID: MJ

Operator ID: 7126

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Worklist Smp#: 9

Client ID: OVP-2

Purge Vol: 500.000 mL

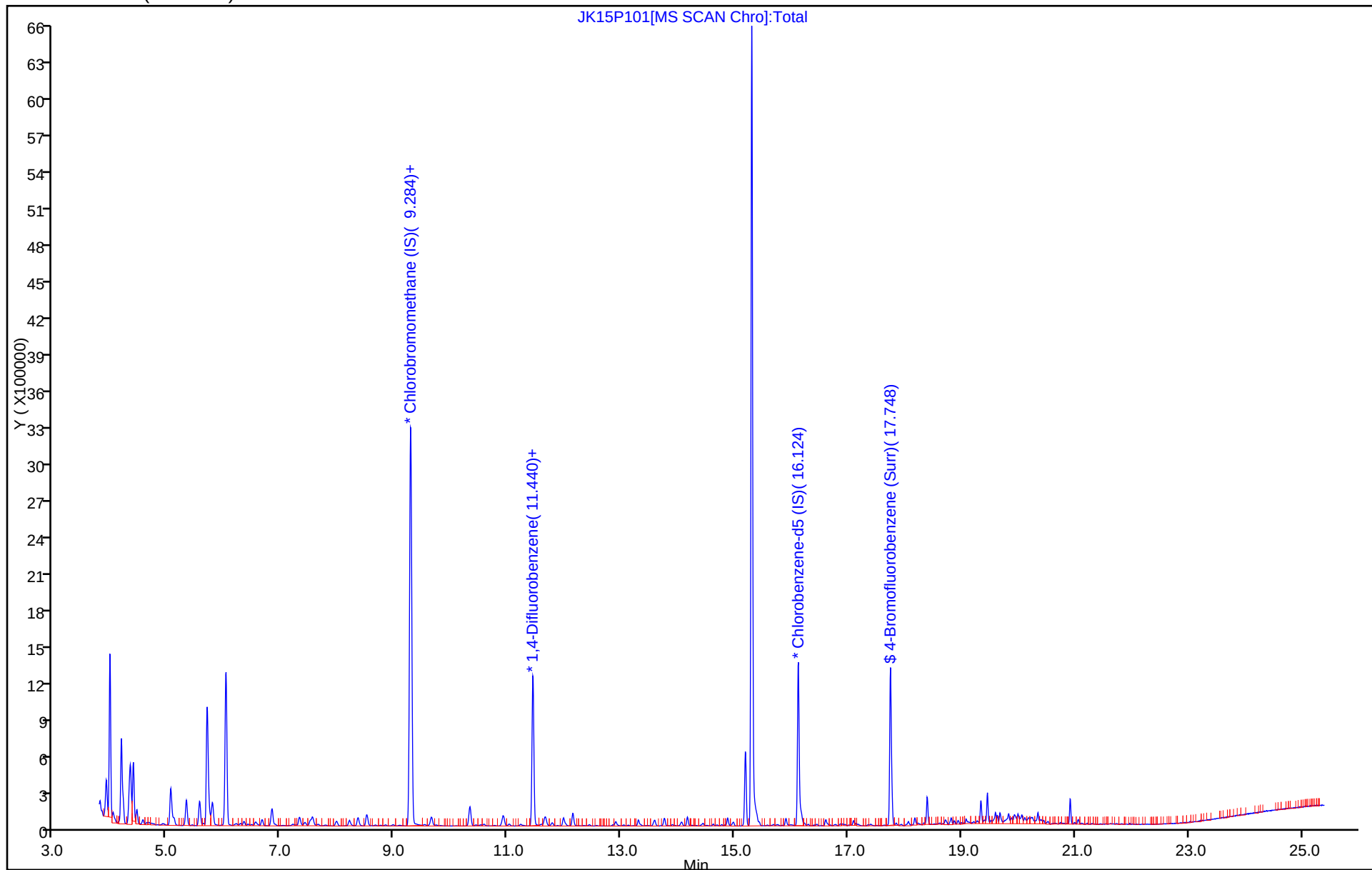
Dil. Factor: 1.5400

ALS Bottle#: 1

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D
Lims ID: 140-6336-A-4
Client ID: OVP-2
Sample Type: Client
Inject. Date: 15-Nov-2016 15:55:30 ALS Bottle#: 1 Worklist Smp#: 9
Purge Vol: 500.000 mL Dil. Factor: 1.5400
Sample Info: 140-0003625-009
Misc. Info.: 140-6336-a-4@1.54
Operator ID: 7126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: barlozhetskayaa

Date: 15-Nov-2016 17:19:48

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.09	102.28

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D

Injection Date: 15-Nov-2016 15:55:30

Instrument ID: MJ

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Client ID: OVP-2

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 9

Purge Vol: 500.000 mL

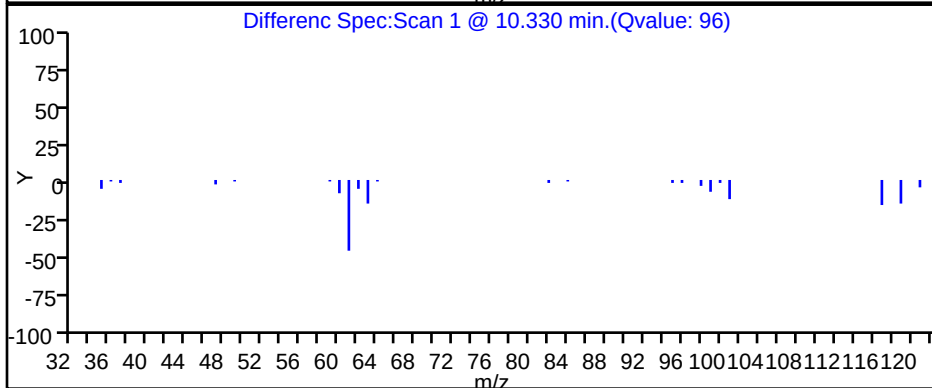
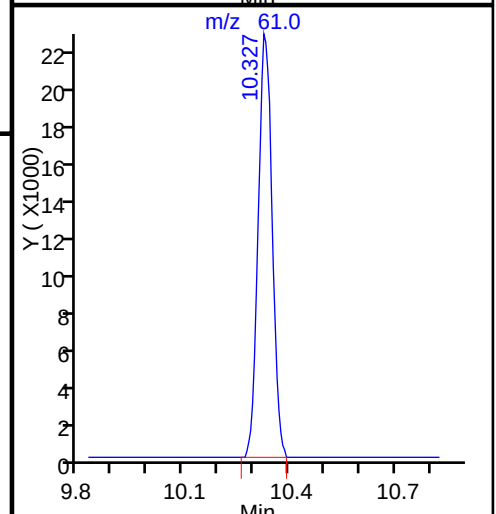
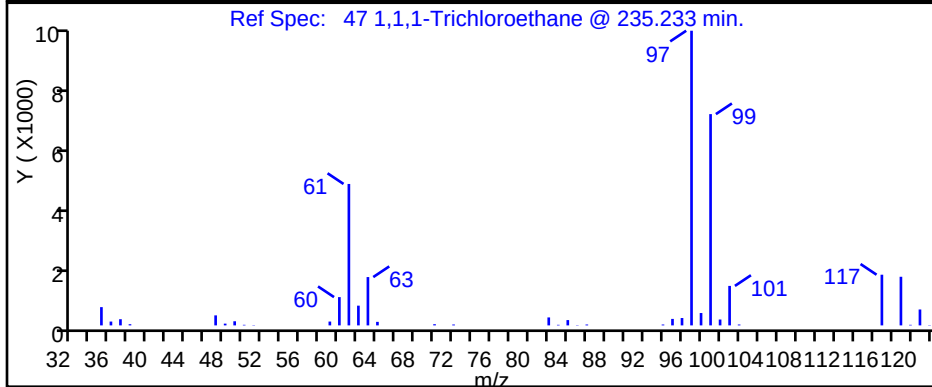
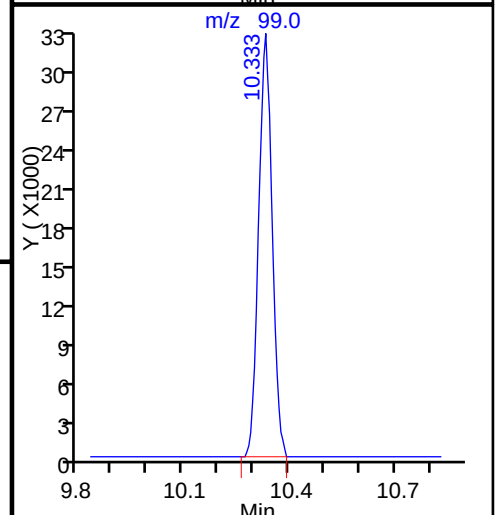
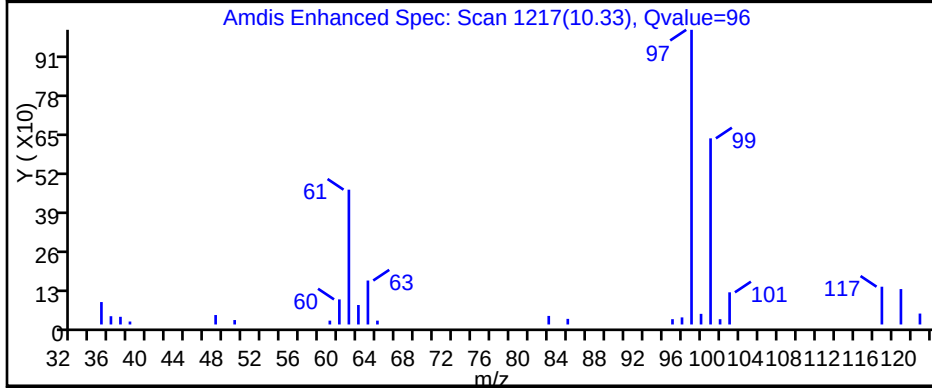
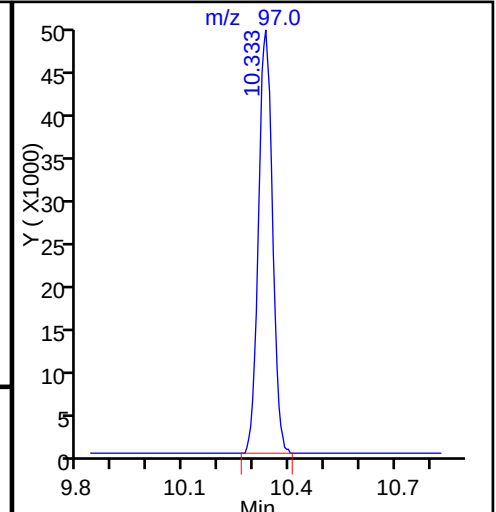
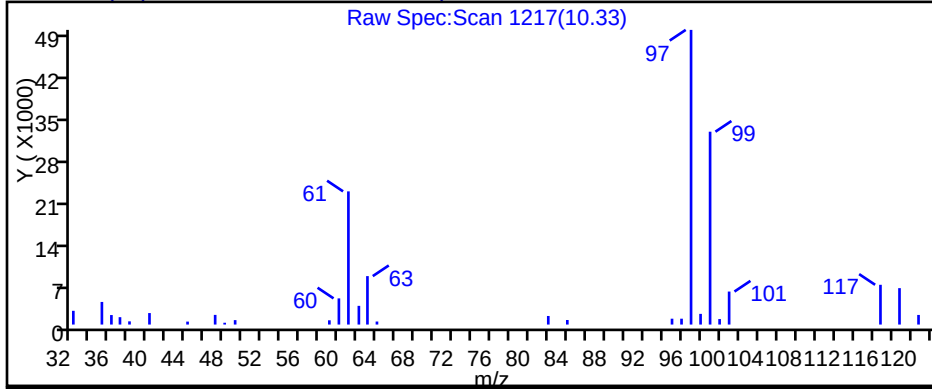
Dil. Factor: 1.5400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

47 1,1,1-Trichloroethane, CAS: 71-55-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D

Injection Date: 15-Nov-2016 15:55:30

Instrument ID: MJ

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Client ID: OVP-2

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 9

Purge Vol: 500.000 mL

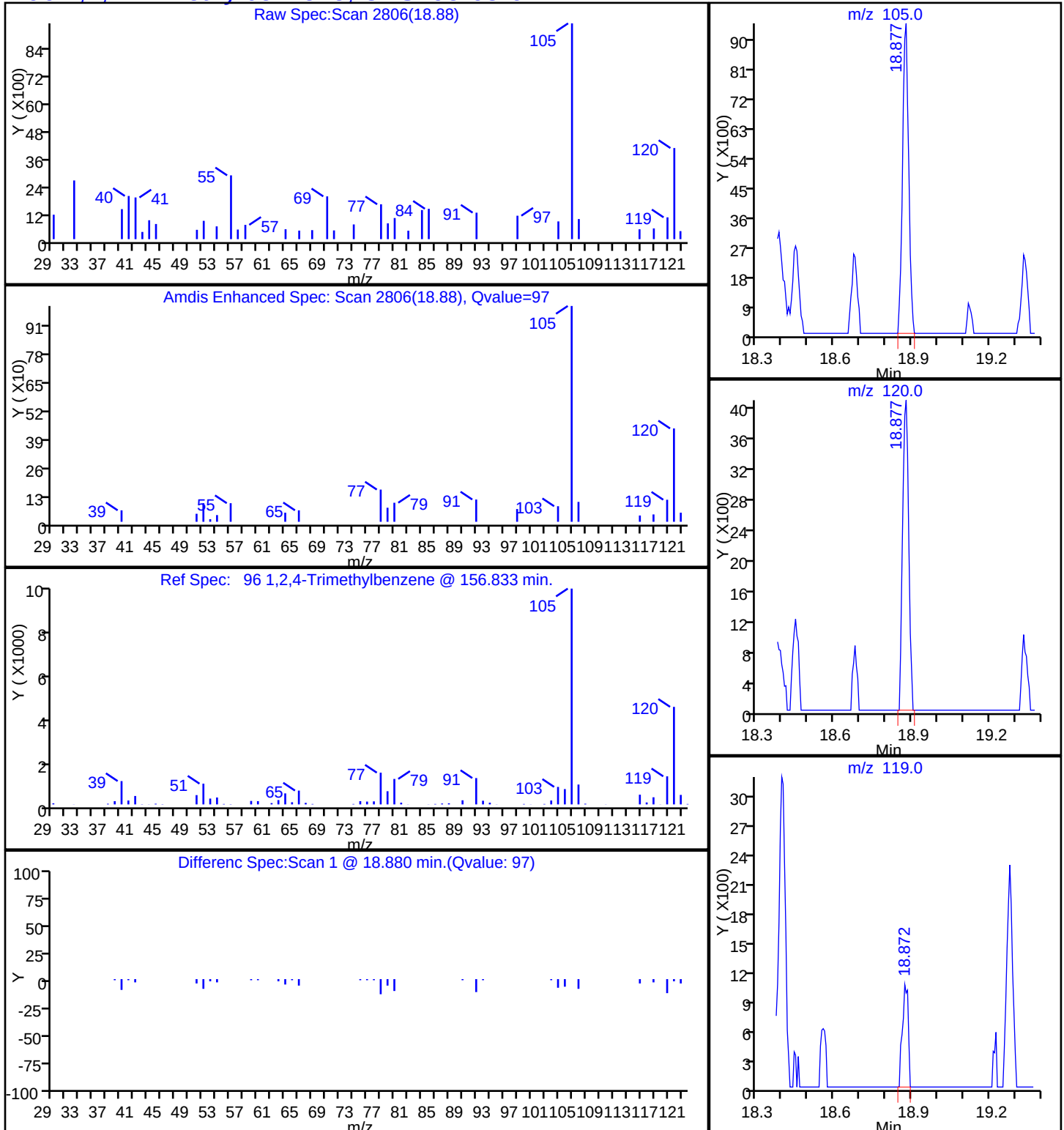
Dil. Factor: 1.5400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

96 1,2,4-Trimethylbenzene, CAS: 95-63-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D

Injection Date: 15-Nov-2016 15:55:30

Instrument ID: MJ

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Client ID: OVP-2

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 9

Purge Vol: 500.000 mL

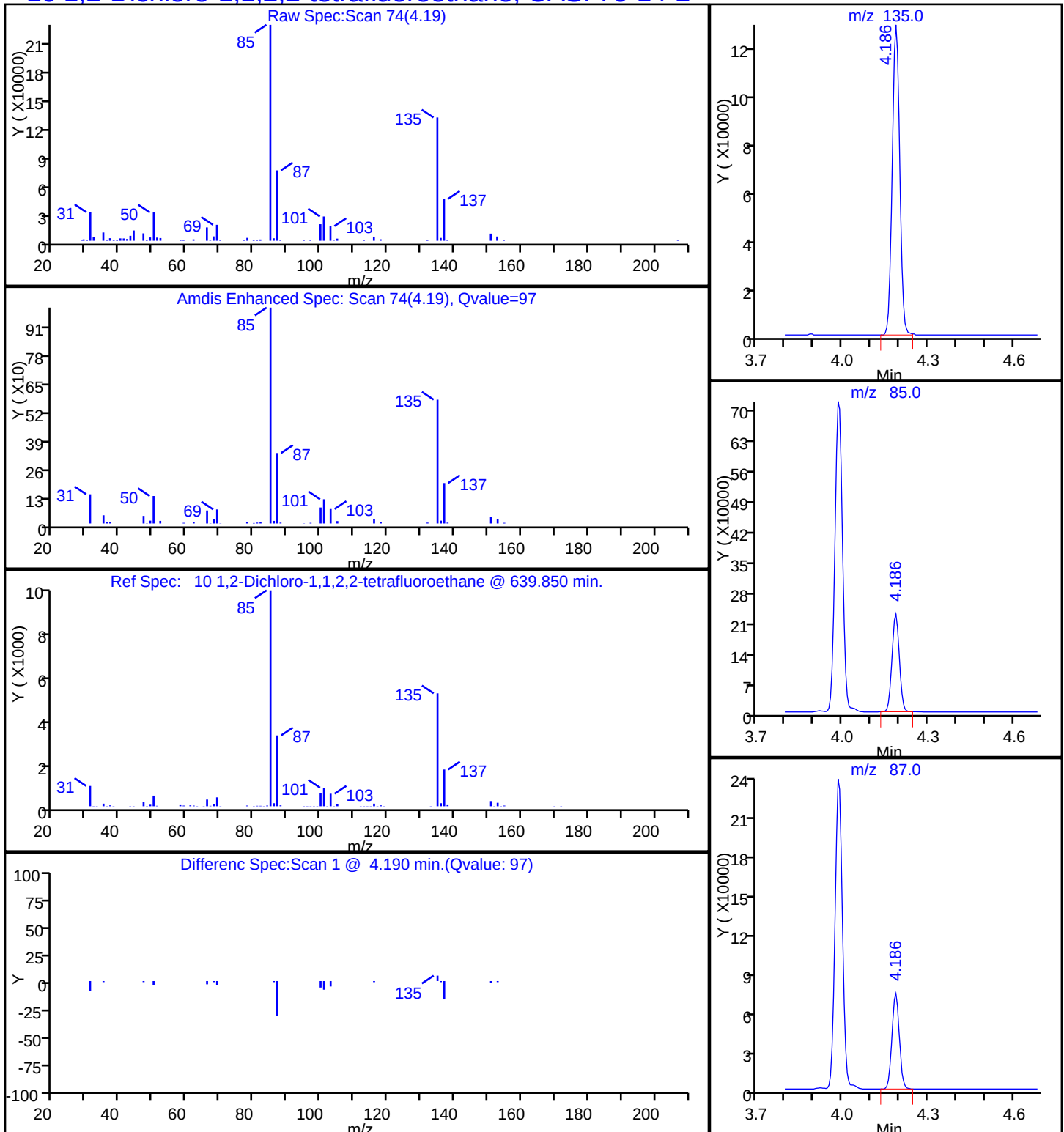
Dil. Factor: 1.5400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

10 1,2-Dichloro-1,1,2,2-tetrafluoroethane, CAS: 76-14-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D

Injection Date: 15-Nov-2016 15:55:30

Instrument ID: MJ

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Client ID: OVP-2

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 9

Purge Vol: 500.000 mL

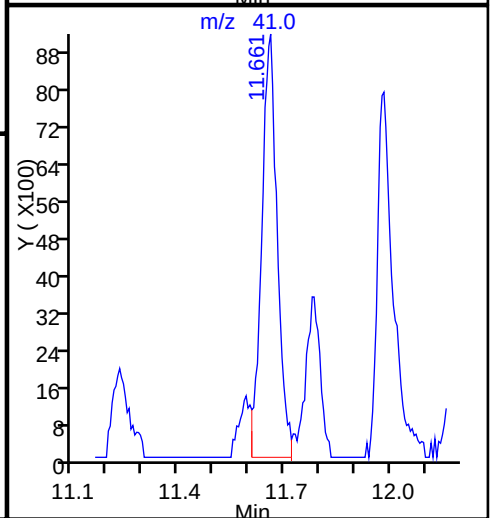
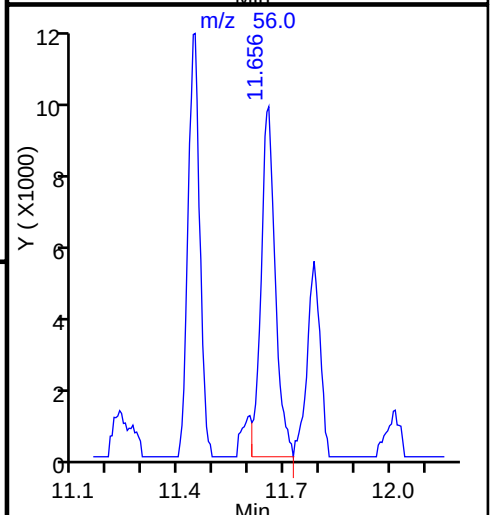
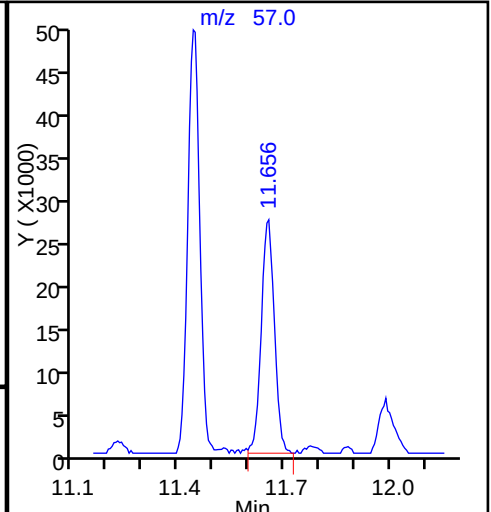
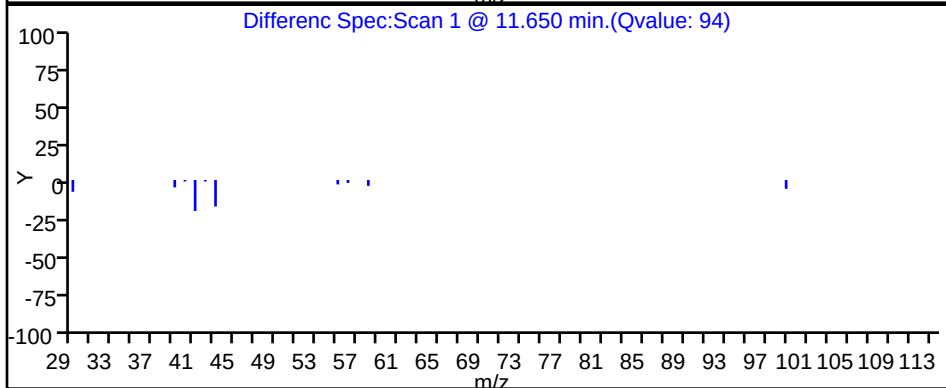
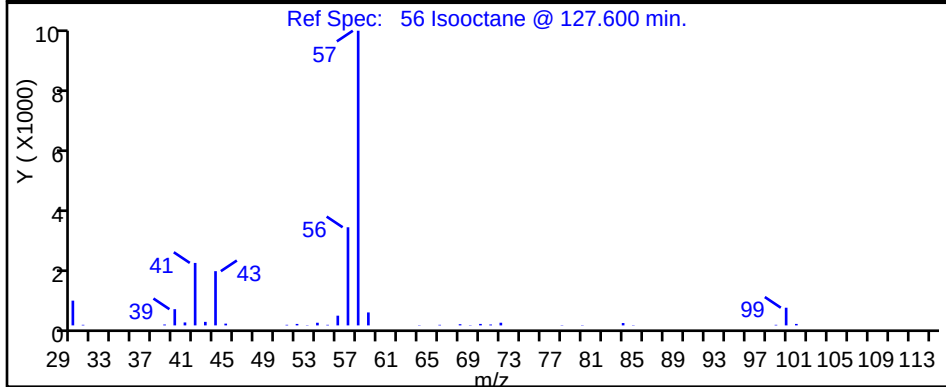
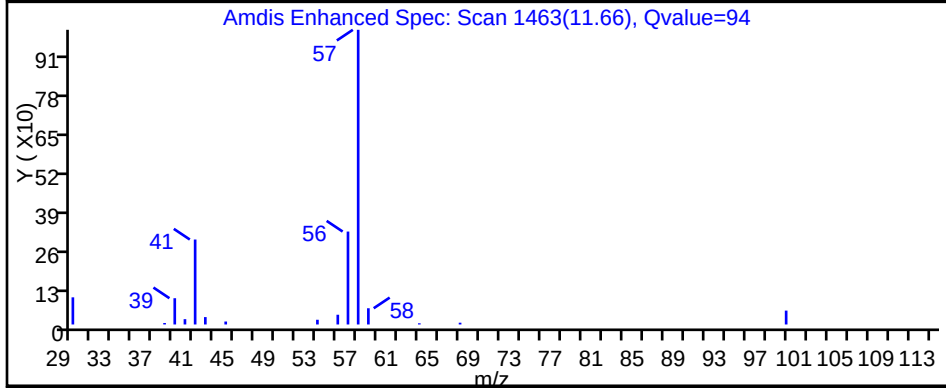
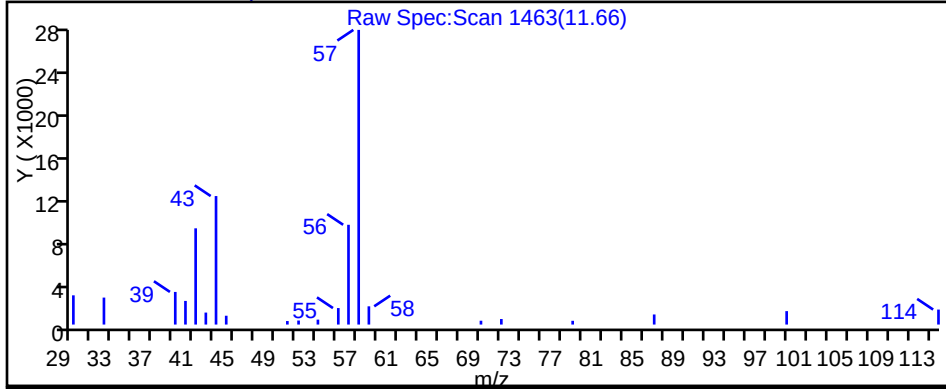
Dil. Factor: 1.5400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

56 Isooctane, CAS: 540-84-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D

Injection Date: 15-Nov-2016 15:55:30

Instrument ID: MJ

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Client ID: OVP-2

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 9

Purge Vol: 500.000 mL

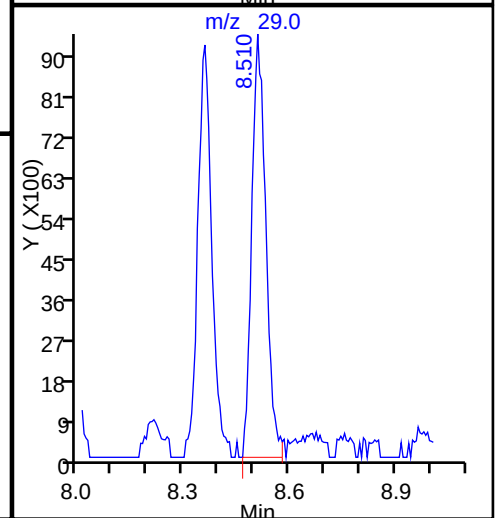
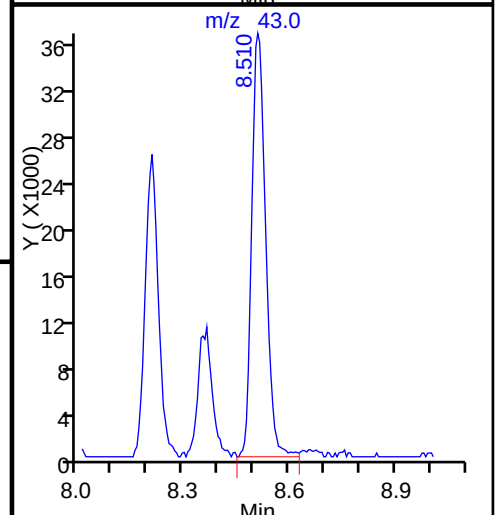
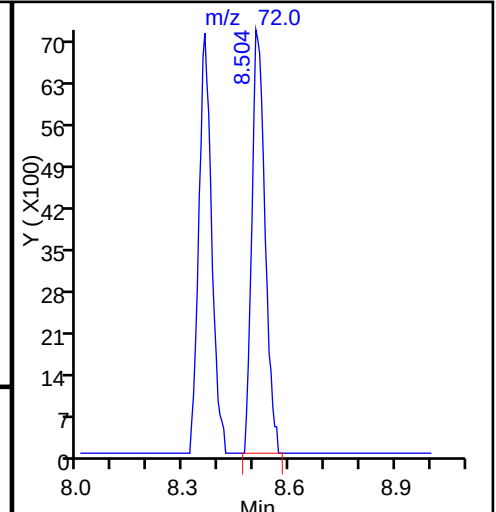
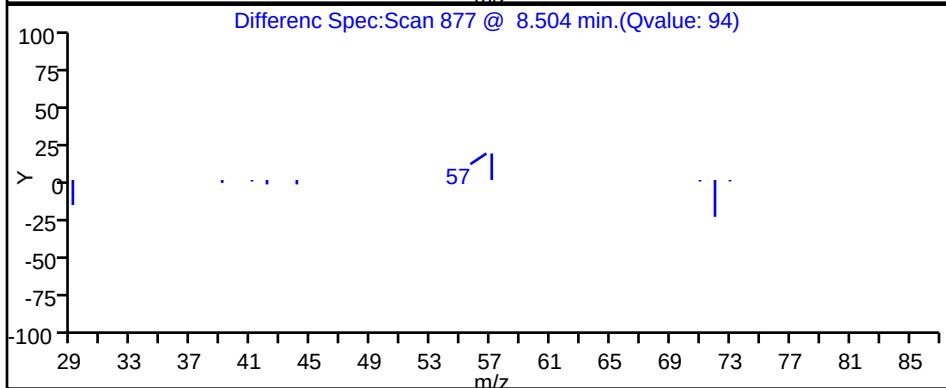
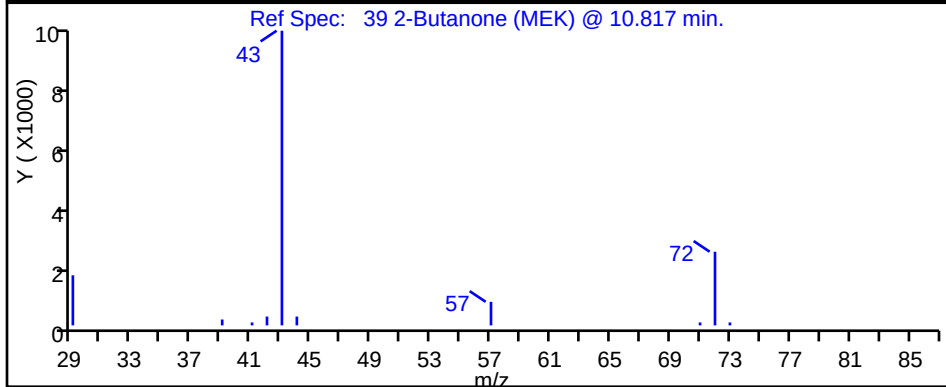
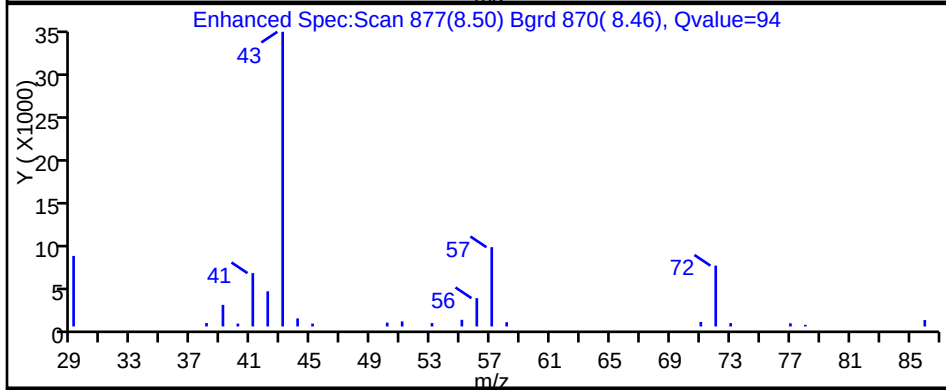
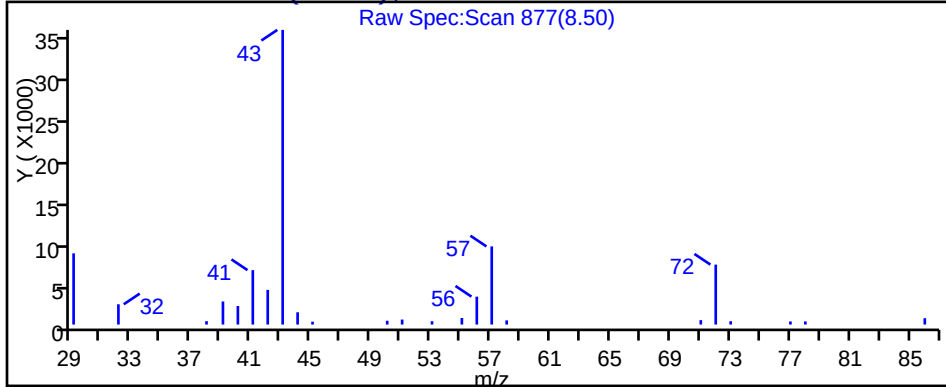
Dil. Factor: 1.5400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

39 2-Butanone (MEK), CAS: 78-93-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D

Injection Date: 15-Nov-2016 15:55:30

Instrument ID: MJ

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Client ID: OVP-2

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 9

Purge Vol: 500.000 mL

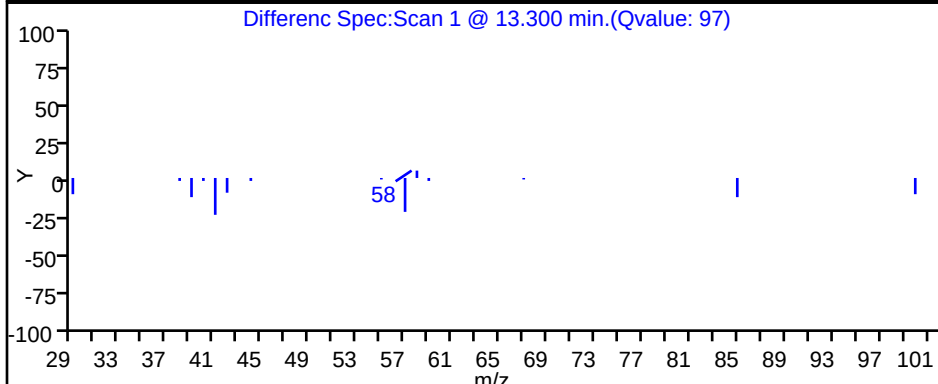
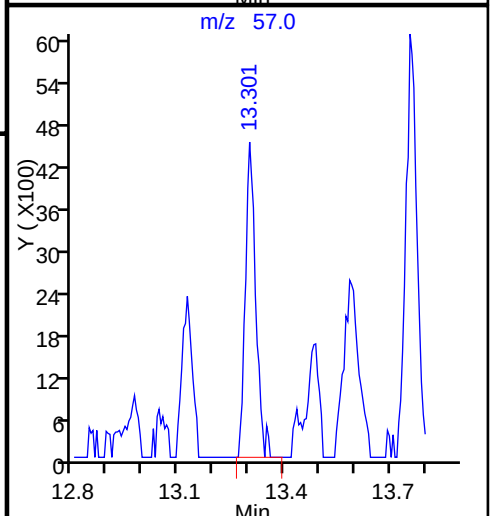
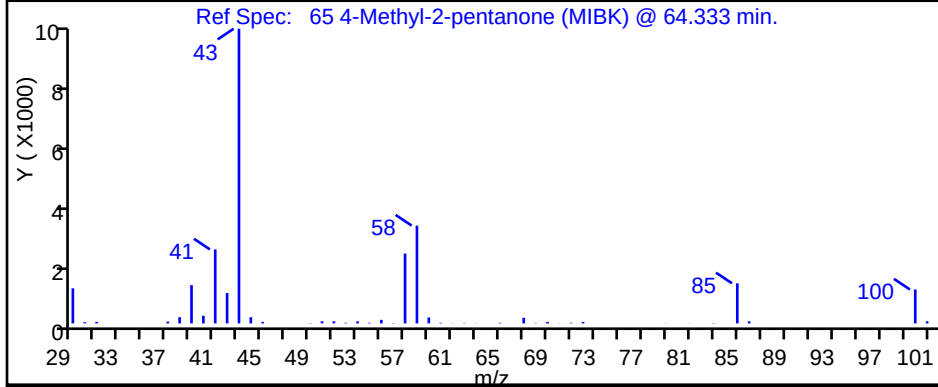
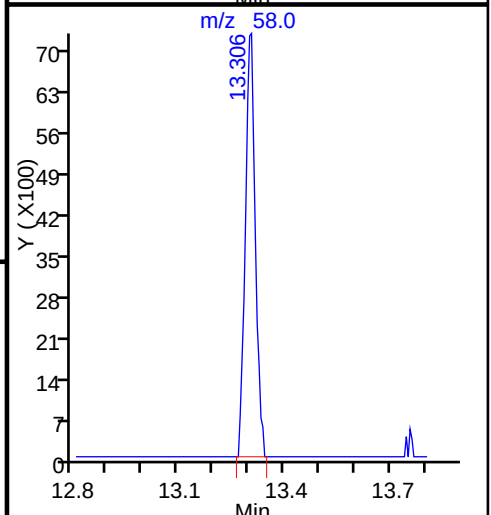
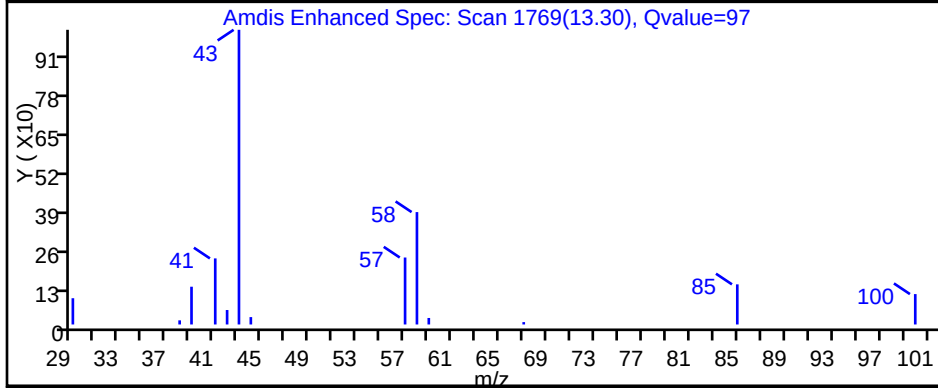
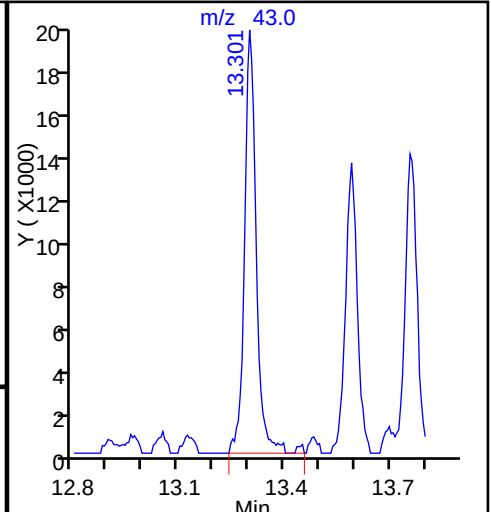
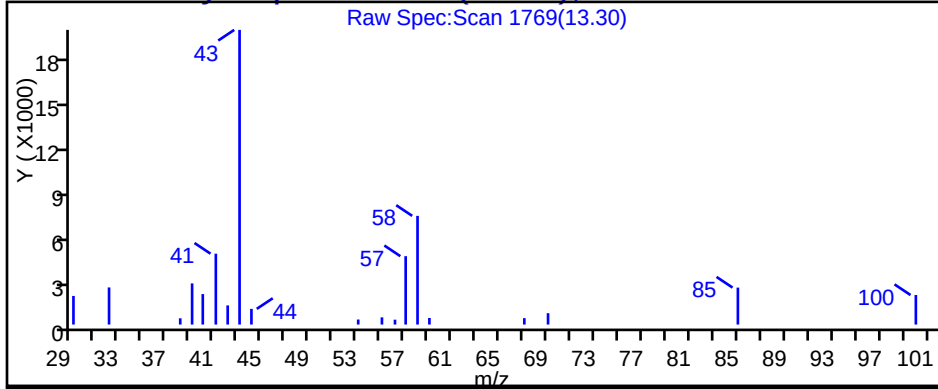
Dil. Factor: 1.5400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

65 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D

Injection Date: 15-Nov-2016 15:55:30

Instrument ID: MJ

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Client ID: OVP-2

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 9

Purge Vol: 500.000 mL

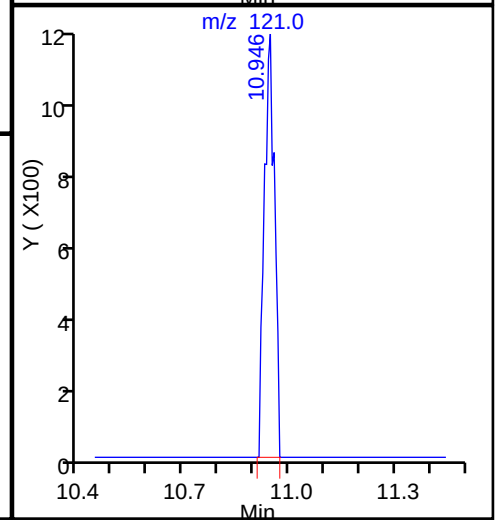
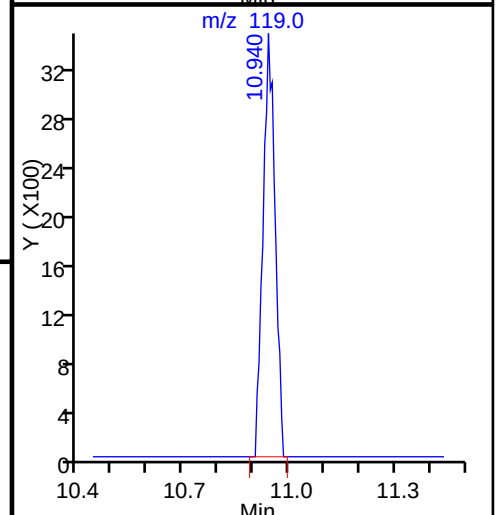
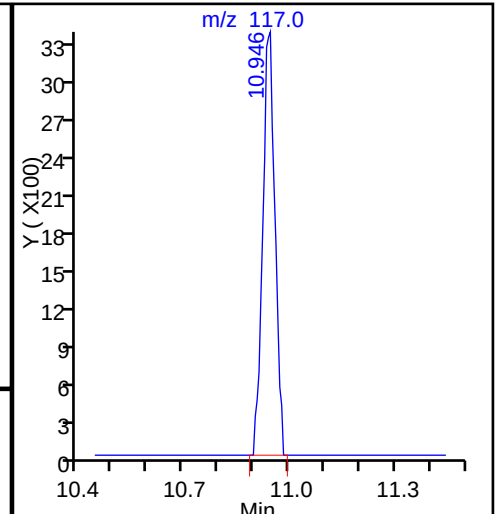
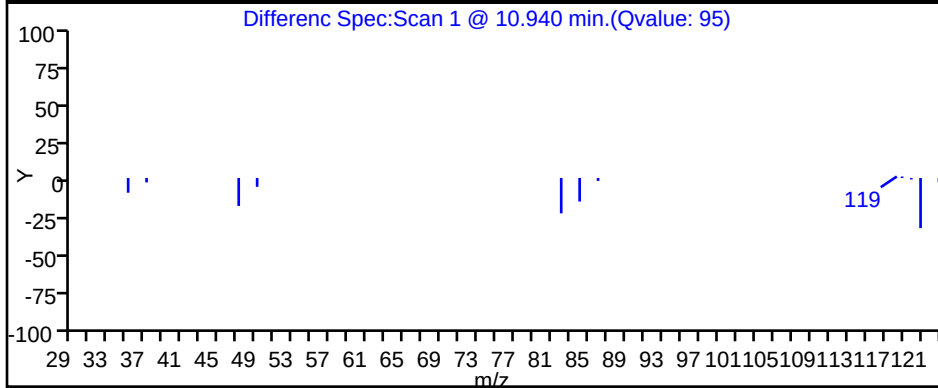
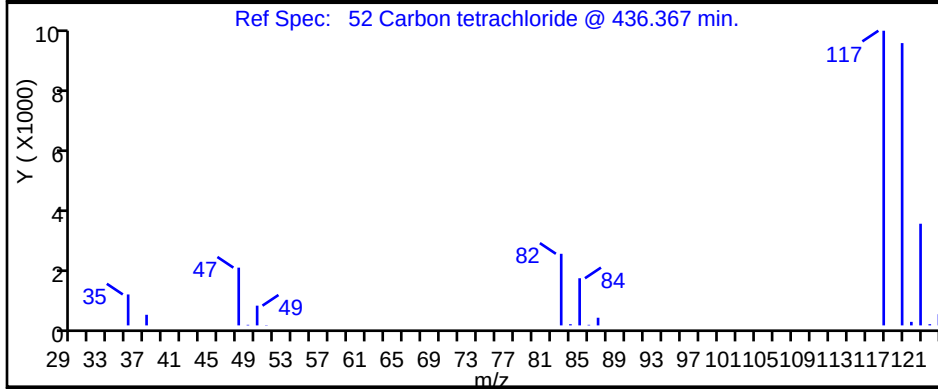
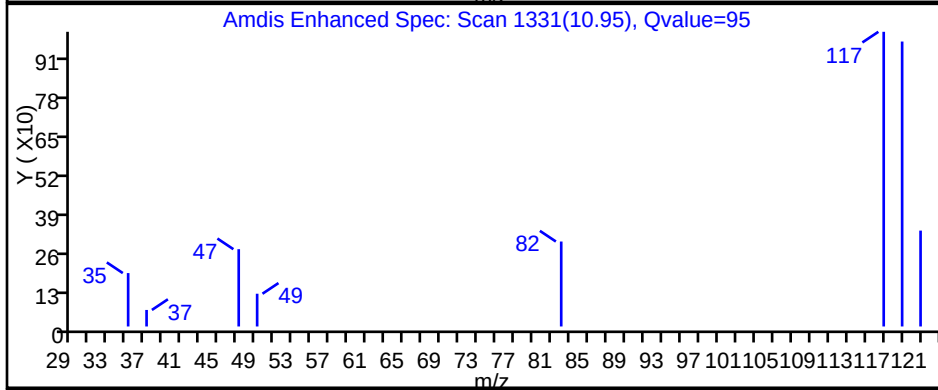
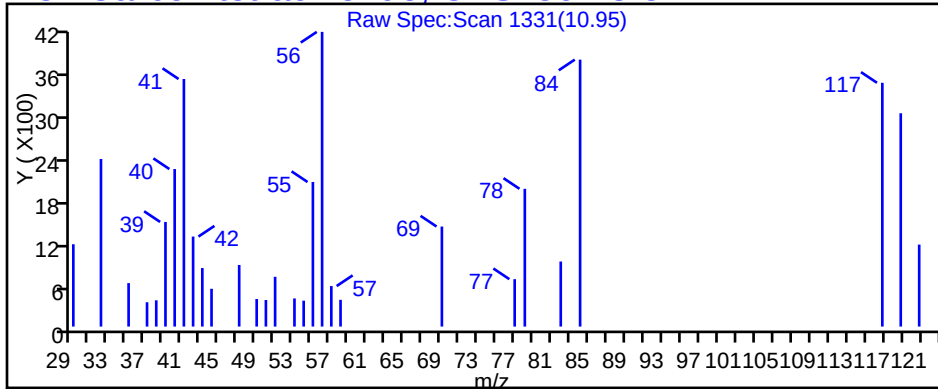
Dil. Factor: 1.5400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D

Injection Date: 15-Nov-2016 15:55:30

Instrument ID: MJ

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Client ID: OVP-2

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 9

Purge Vol: 500.000 mL

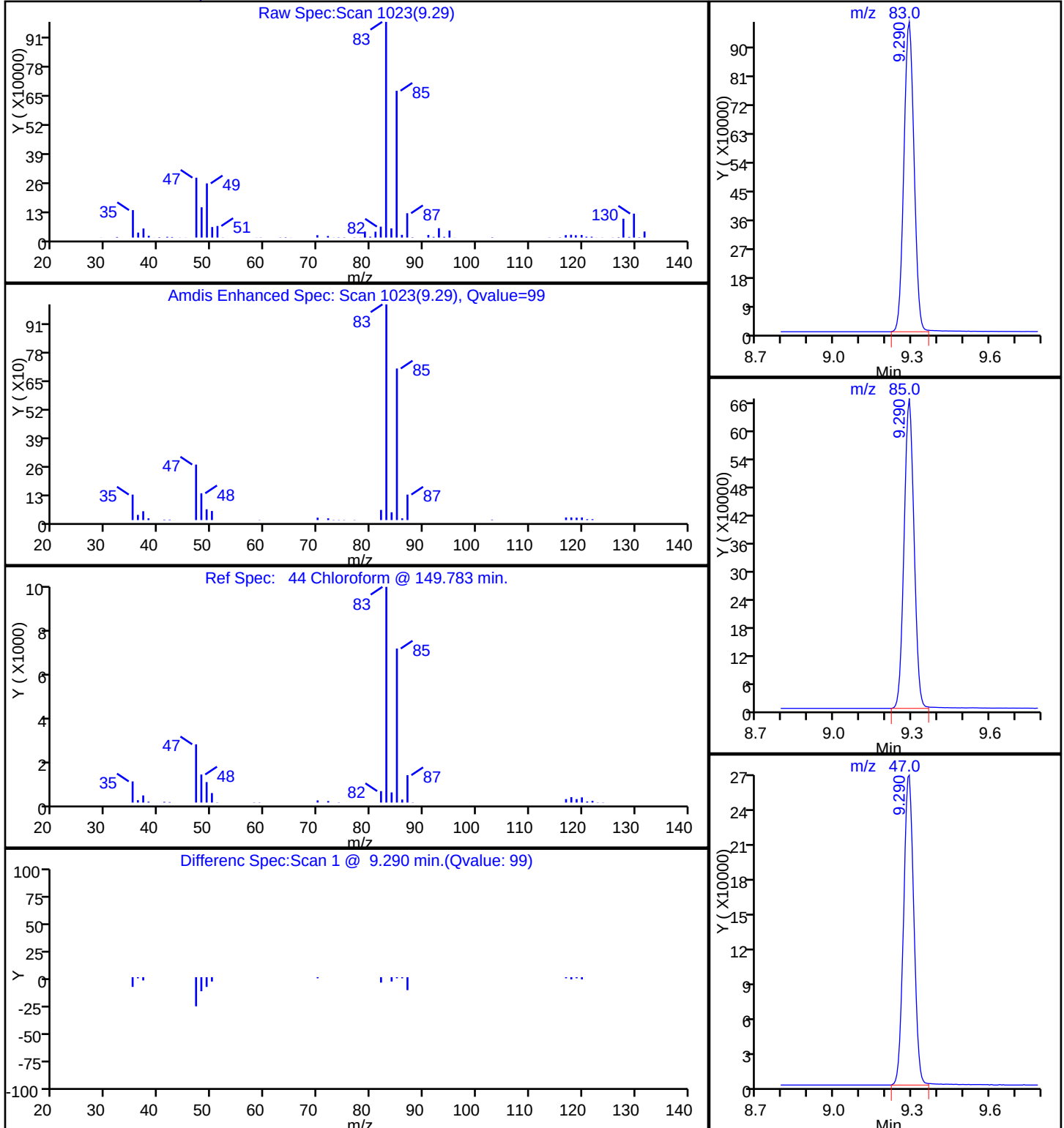
Dil. Factor: 1.5400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D

Injection Date: 15-Nov-2016 15:55:30

Instrument ID: MJ

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Client ID: OVP-2

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 9

Purge Vol: 500.000 mL

Dil. Factor: 1.5400

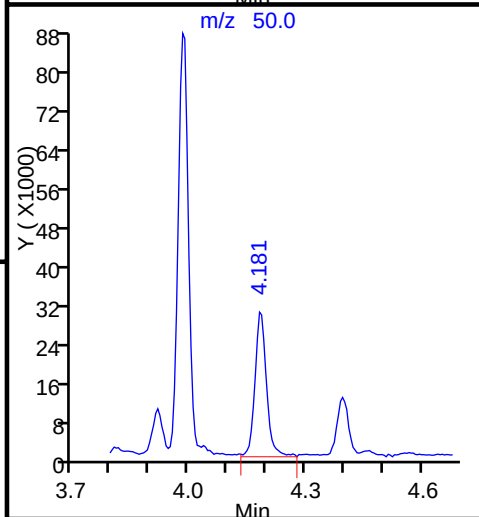
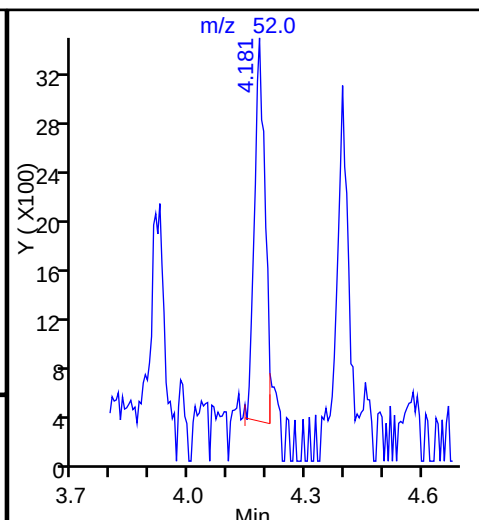
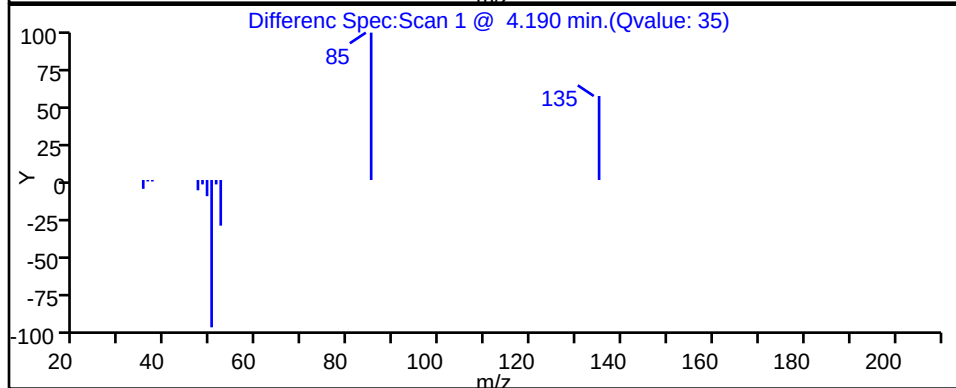
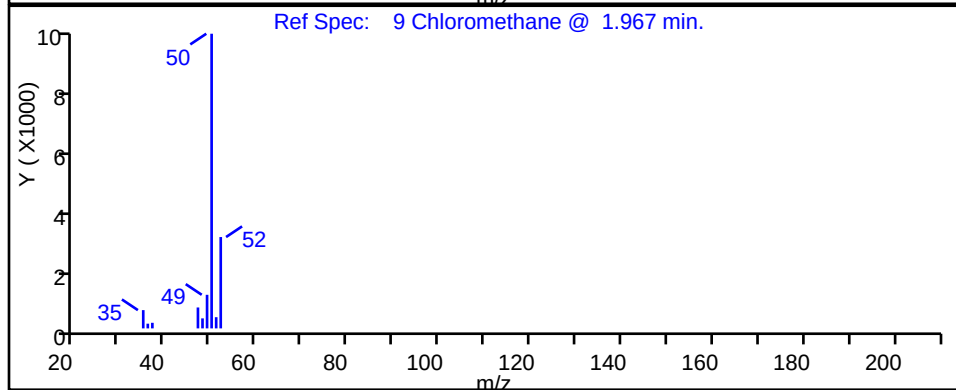
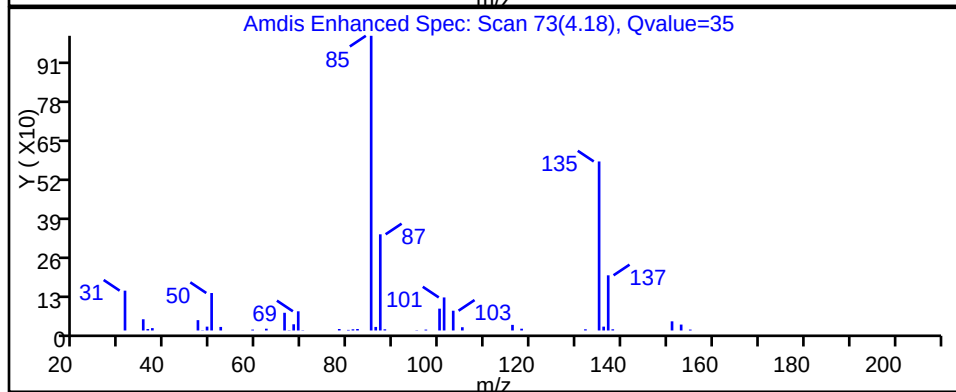
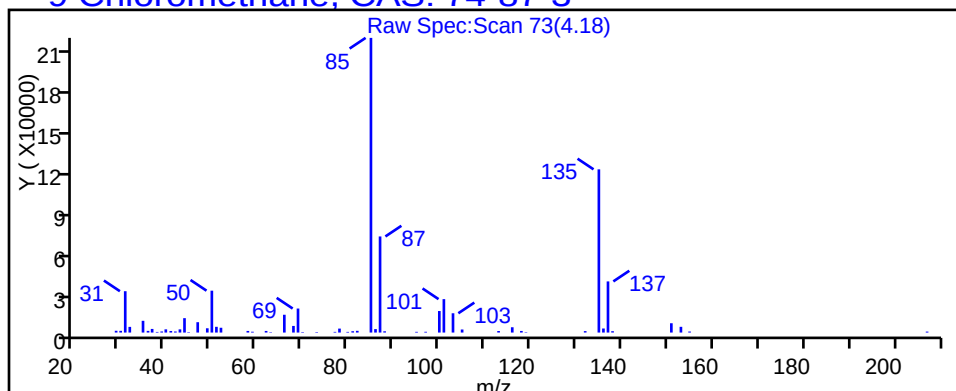
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

9 Chloromethane, CAS: 74-87-3



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D

Injection Date: 15-Nov-2016 15:55:30

Instrument ID: MJ

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Client ID: OVP-2

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 9

Purge Vol: 500.000 mL

Dil. Factor: 1.5400

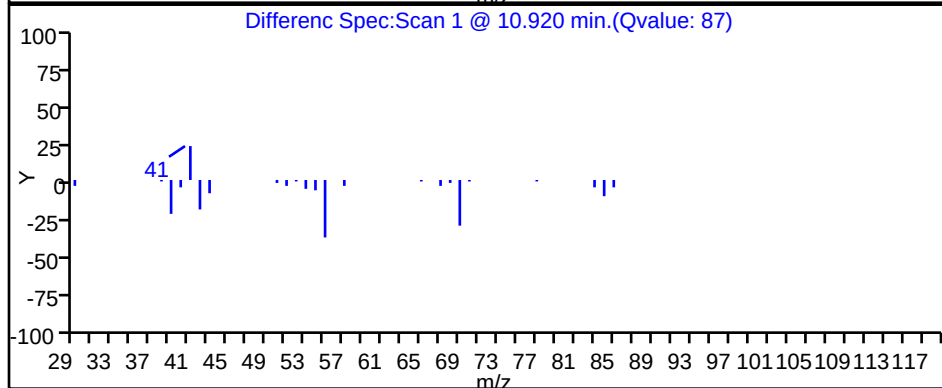
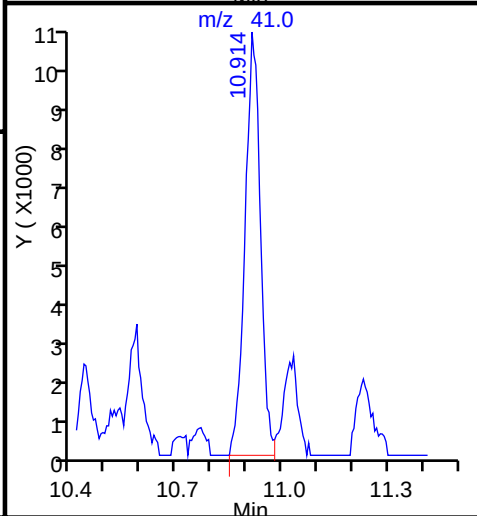
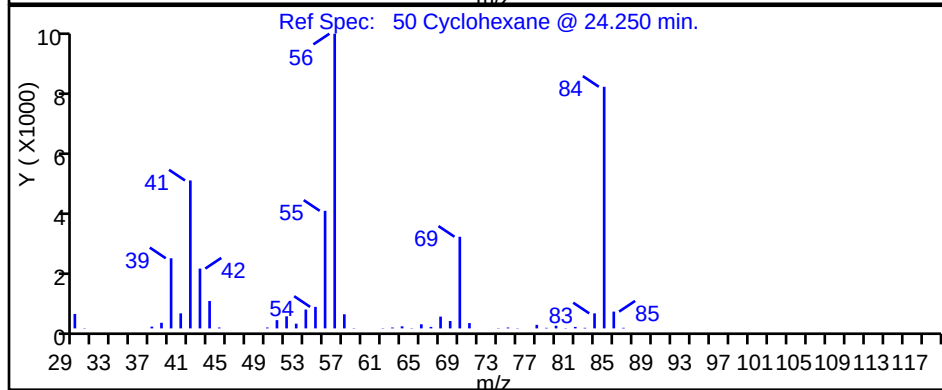
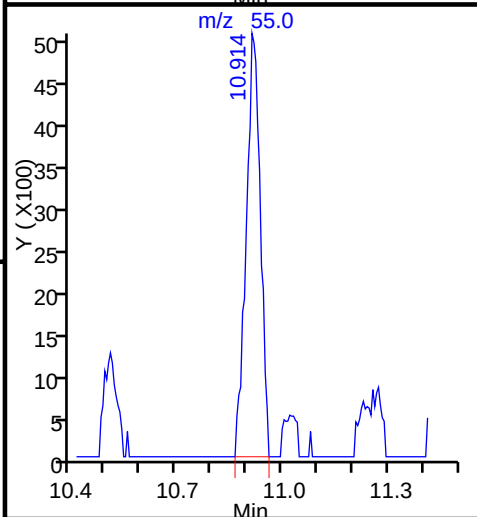
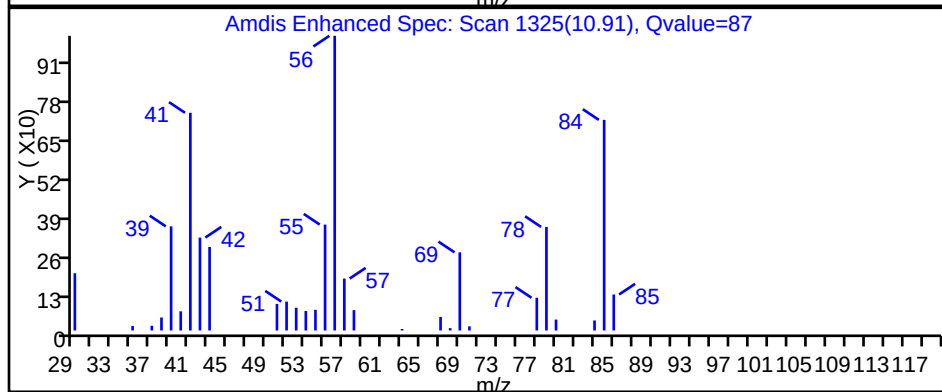
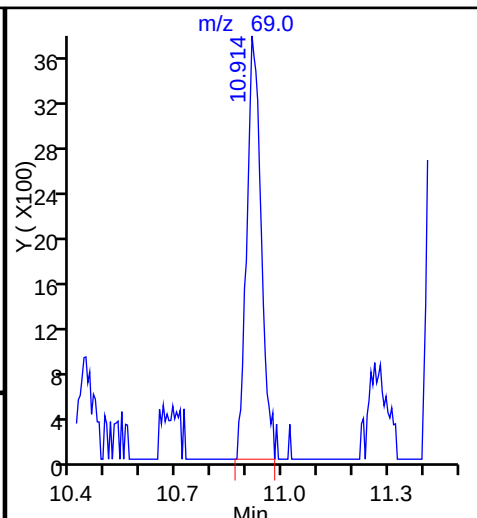
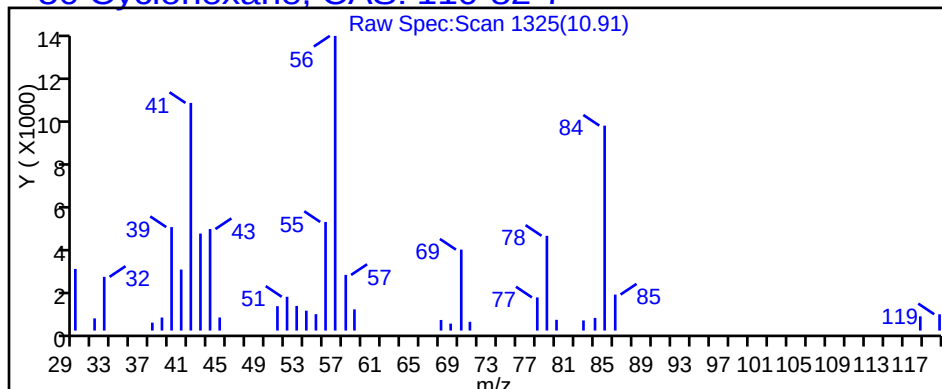
Method: MJ TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector MS SCAN

50 Cyclohexane, CAS: 110-82-7



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D

Injection Date: 15-Nov-2016 15:55:30

Instrument ID: MJ

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Client ID: OVP-2

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 9

Purge Vol: 500.000 mL

Dil. Factor: 1.5400

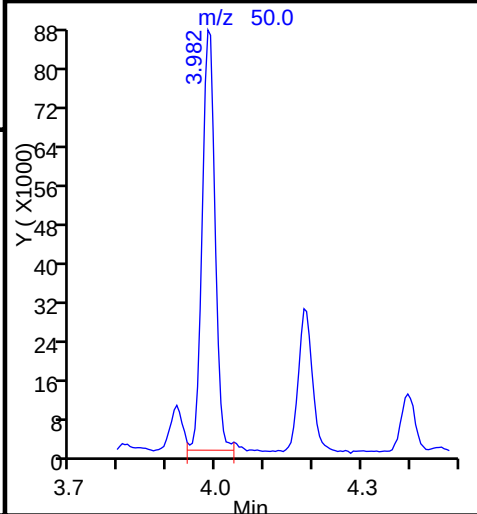
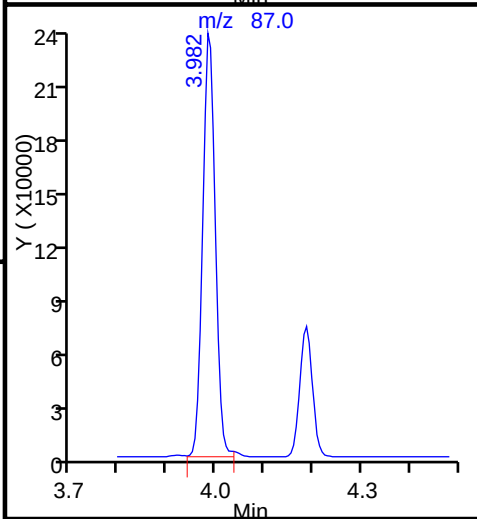
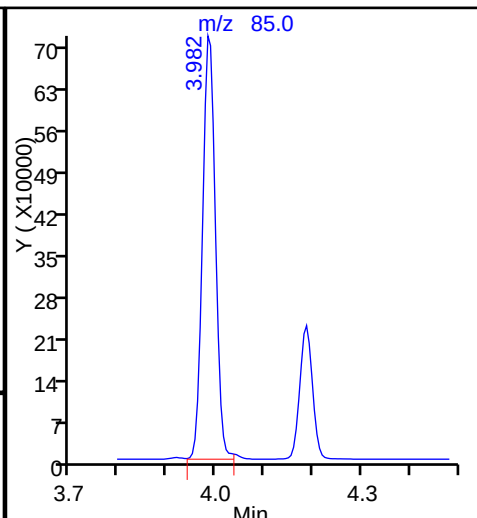
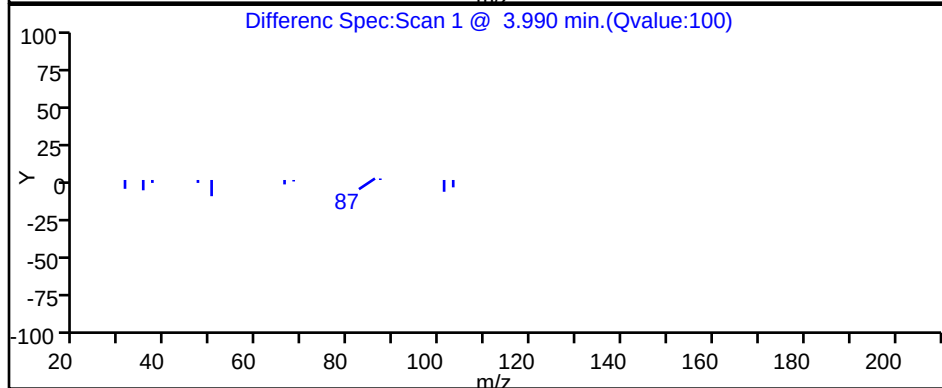
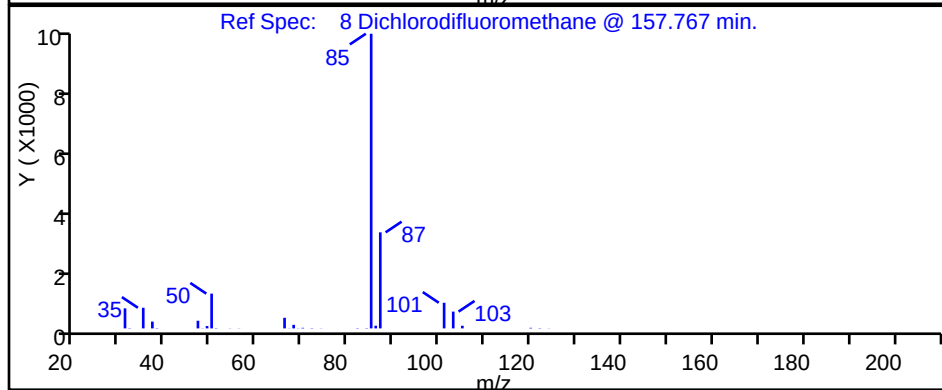
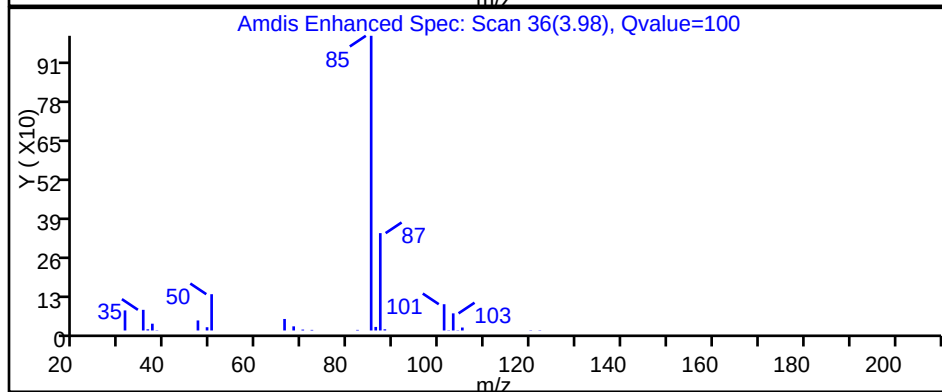
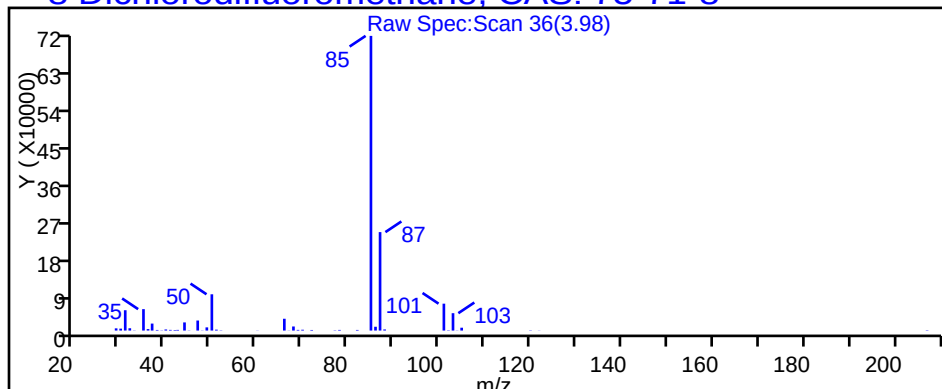
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D

Injection Date: 15-Nov-2016 15:55:30

Instrument ID: MJ

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Client ID: OVP-2

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 9

Purge Vol: 500.000 mL

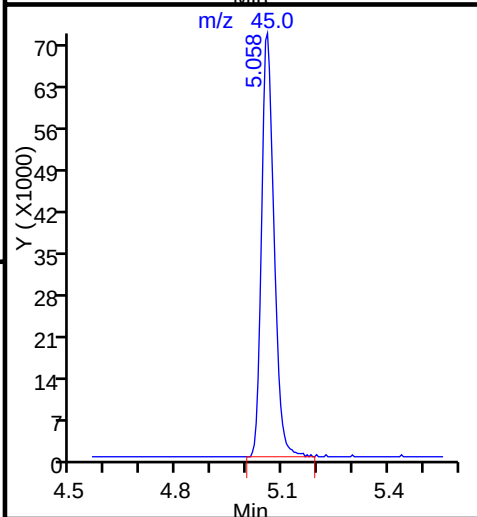
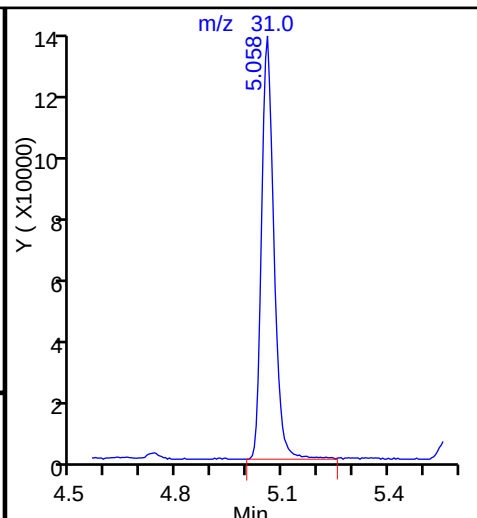
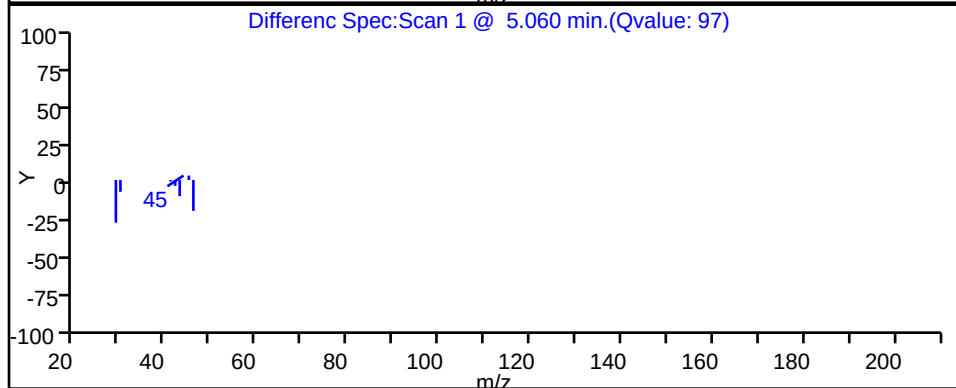
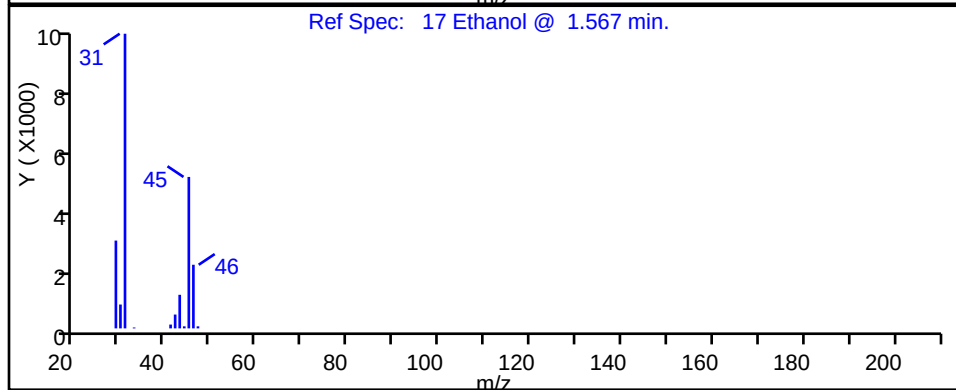
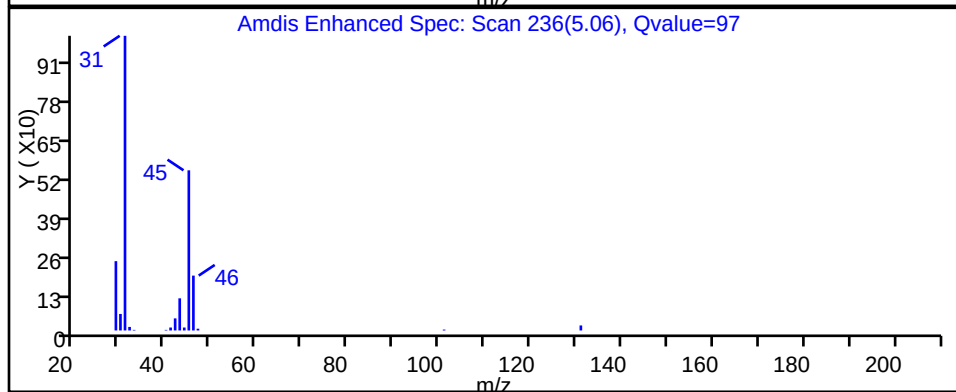
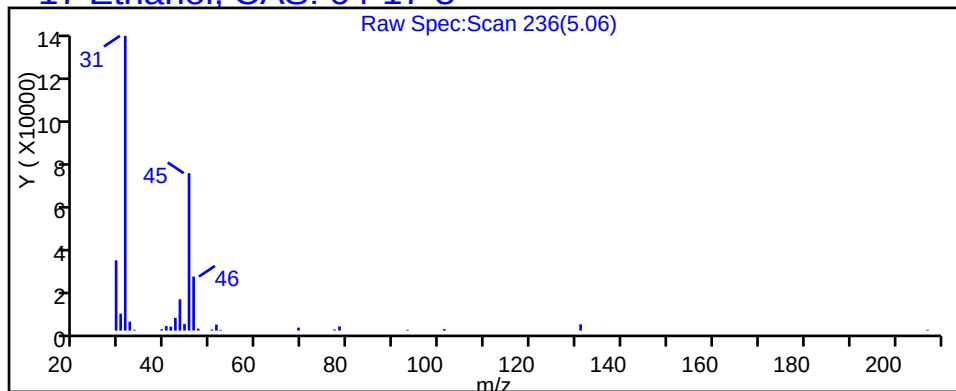
Dil. Factor: 1.5400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D

Injection Date: 15-Nov-2016 15:55:30

Instrument ID: MJ

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Client ID: OVP-2

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 9

Purge Vol: 500.000 mL

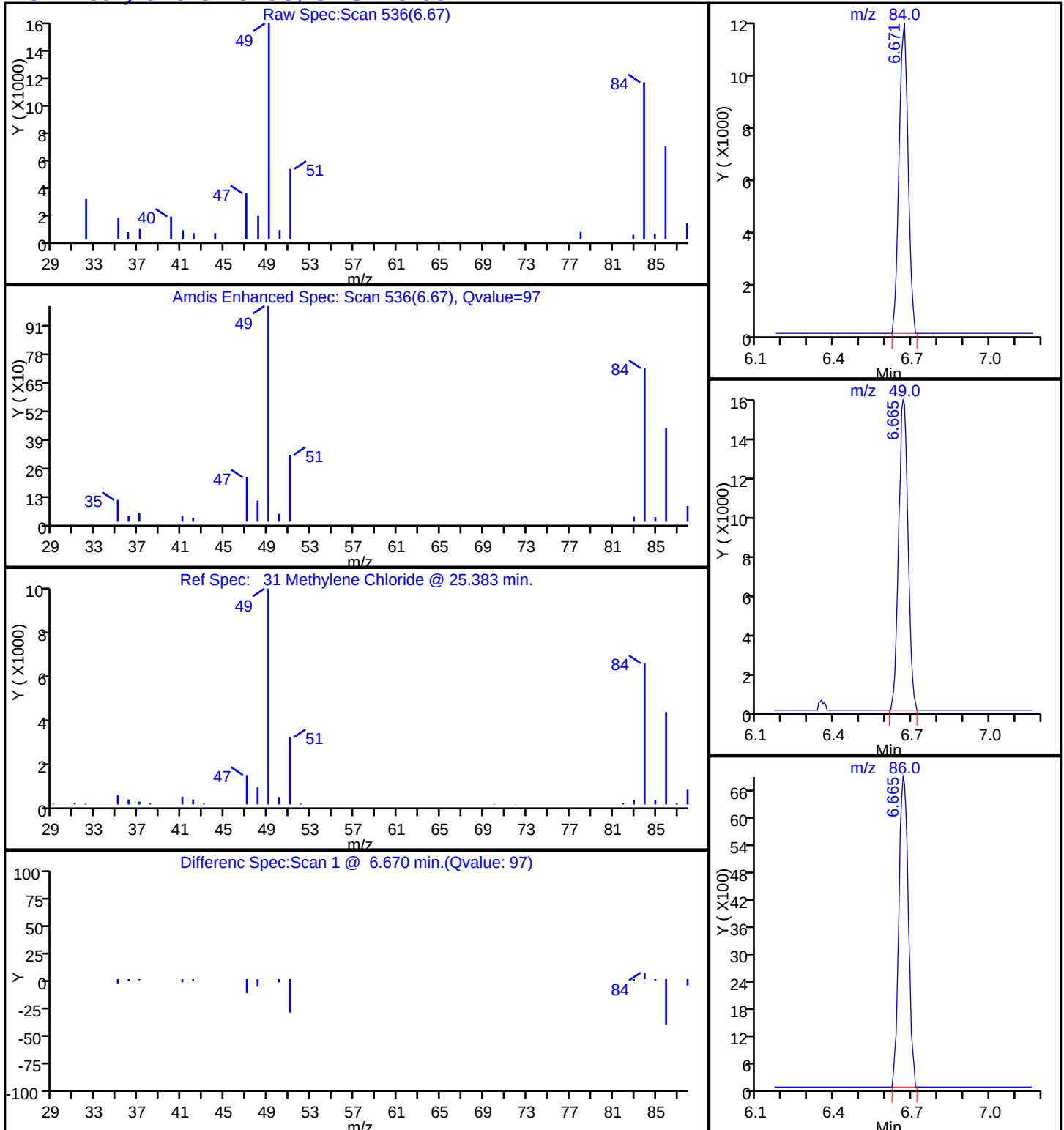
Dil. Factor: 1.5400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D

Injection Date: 15-Nov-2016 15:55:30

Instrument ID: MJ

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Client ID: OVP-2

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 9

Purge Vol: 500.000 mL

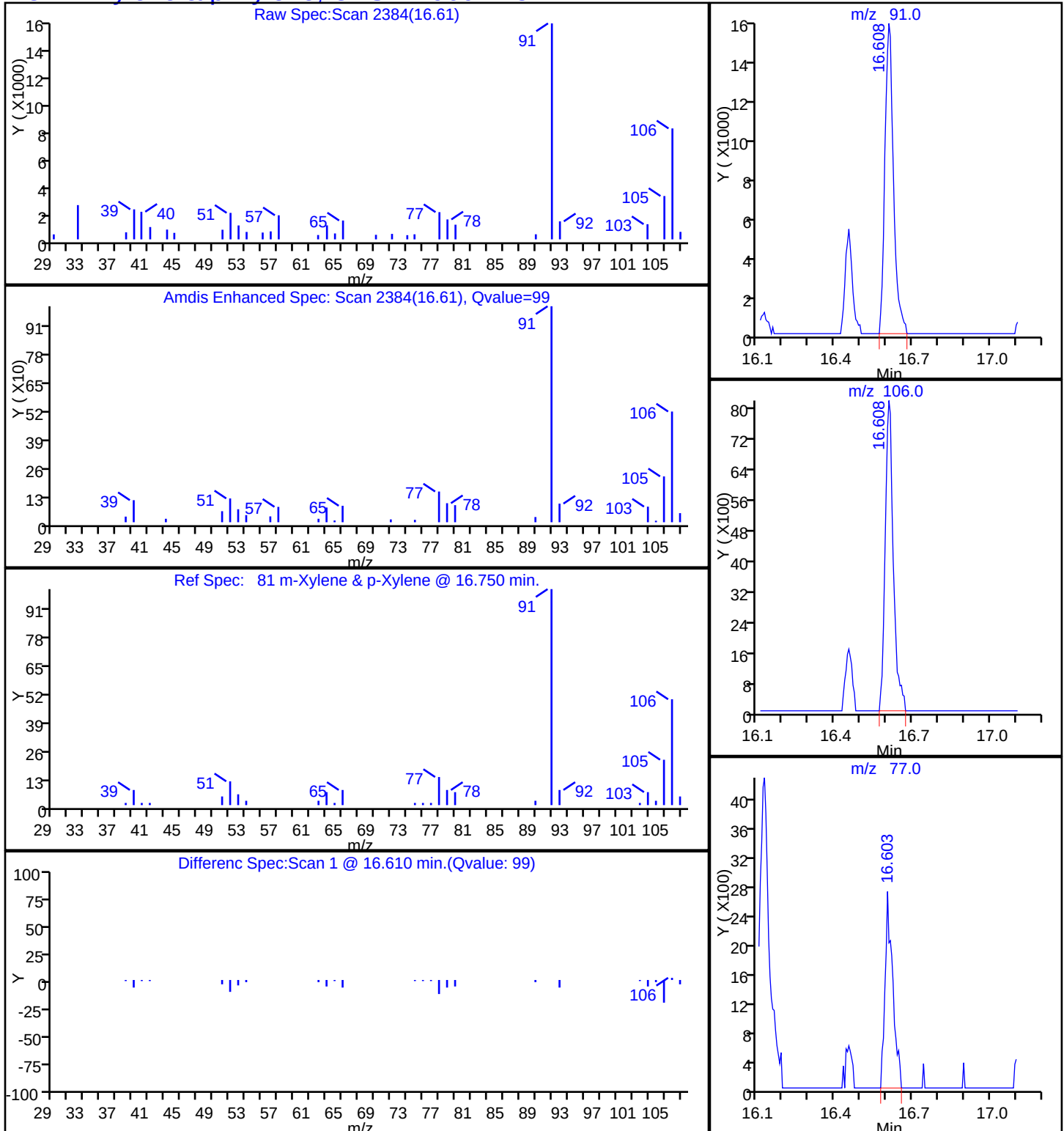
Dil. Factor: 1.5400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

81 m-Xylene & p-Xylene, CAS: 179601-23-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D

Injection Date: 15-Nov-2016 15:55:30

Instrument ID: MJ

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Client ID: OVP-2

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 9

Purge Vol: 500.000 mL

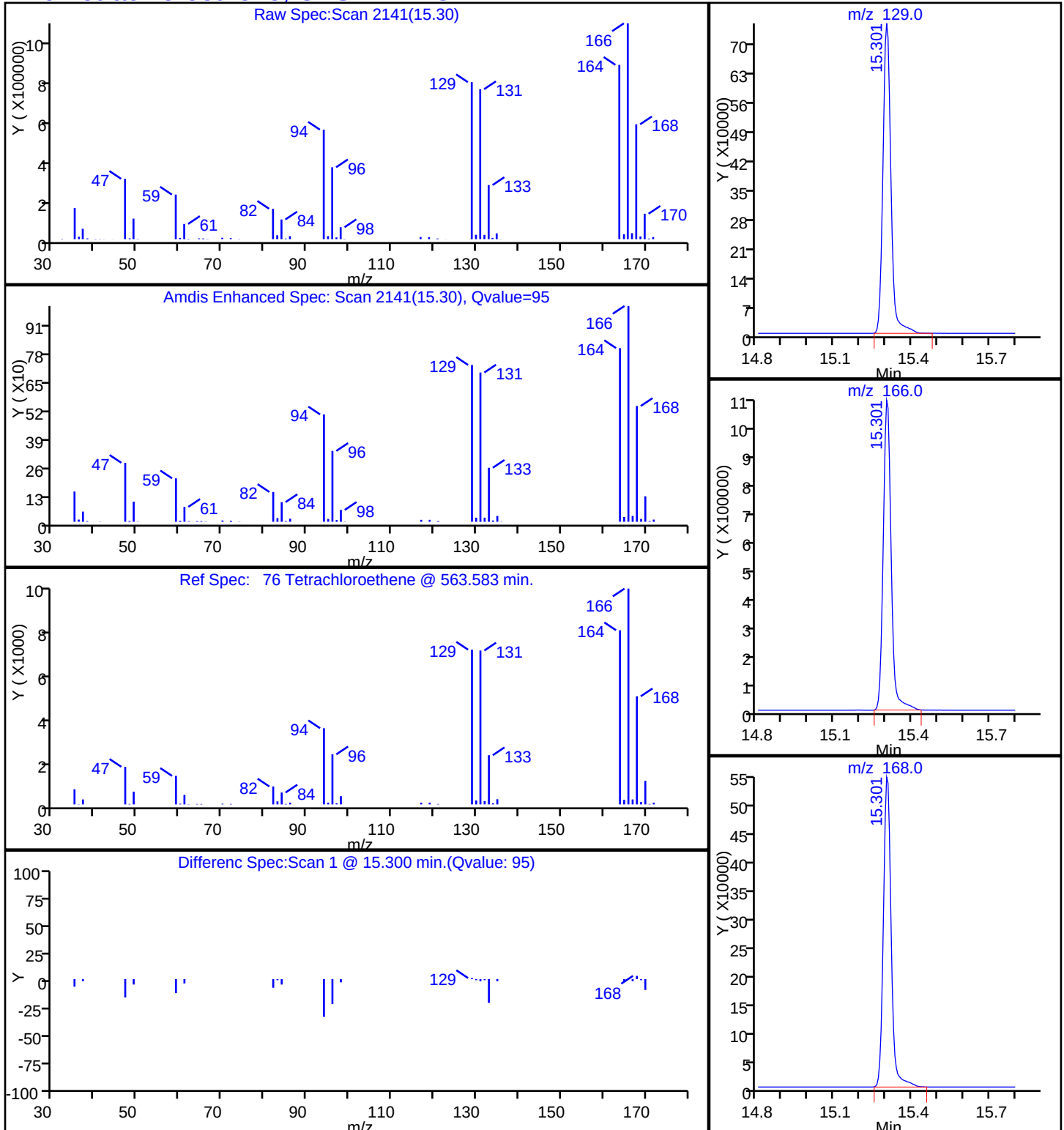
Dil. Factor: 1.5400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

76 Tetrachloroethene, CAS: 127-18-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D

Injection Date: 15-Nov-2016 15:55:30

Instrument ID: MJ

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Client ID: OVP-2

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 9

Purge Vol: 500.000 mL

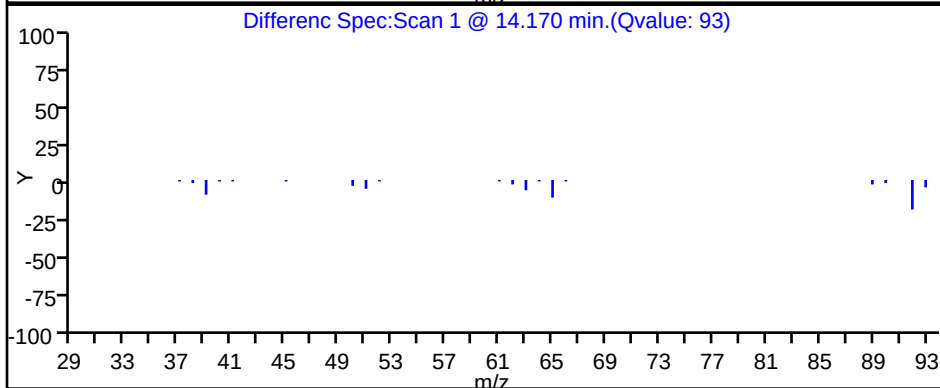
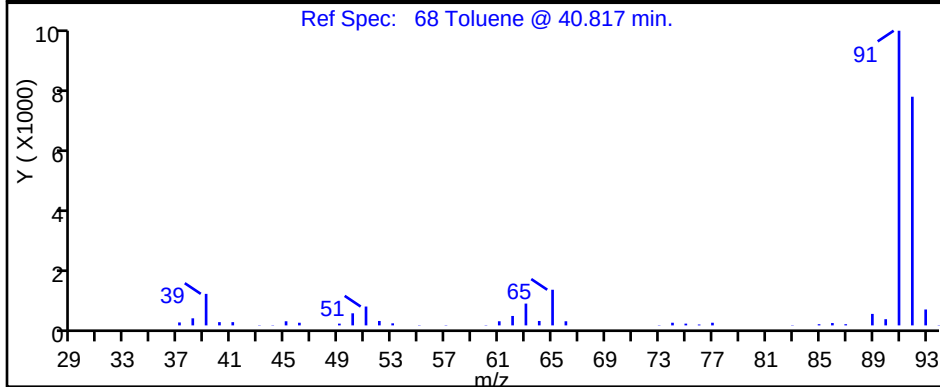
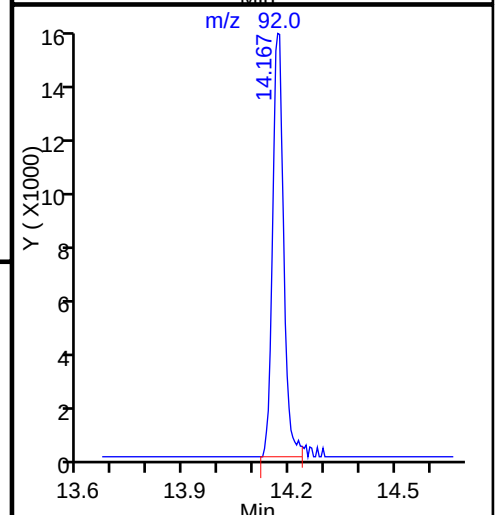
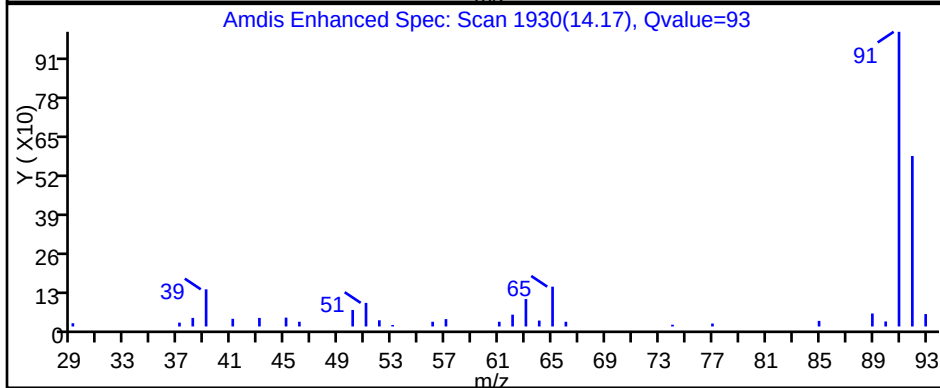
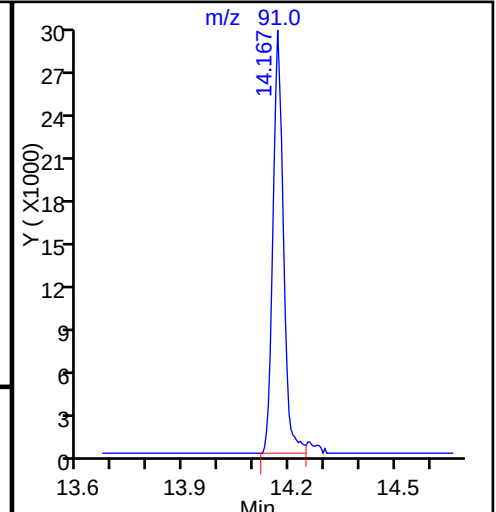
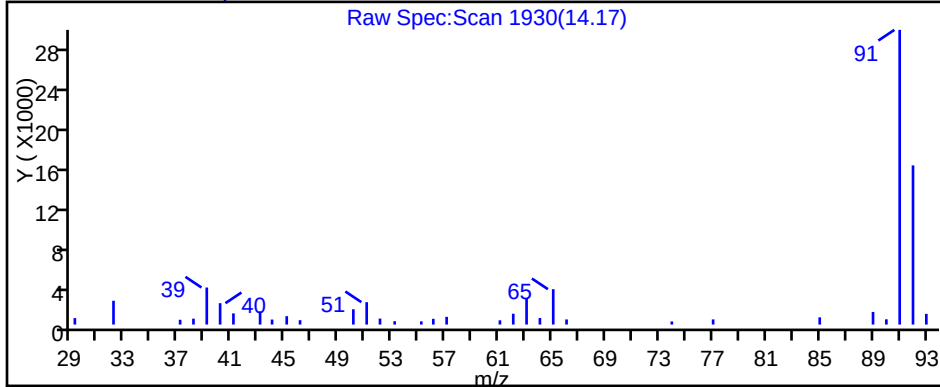
Dil. Factor: 1.5400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

68 Toluene, CAS: 108-88-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D

Injection Date: 15-Nov-2016 15:55:30

Instrument ID: MJ

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Client ID: OVP-2

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 9

Purge Vol: 500.000 mL

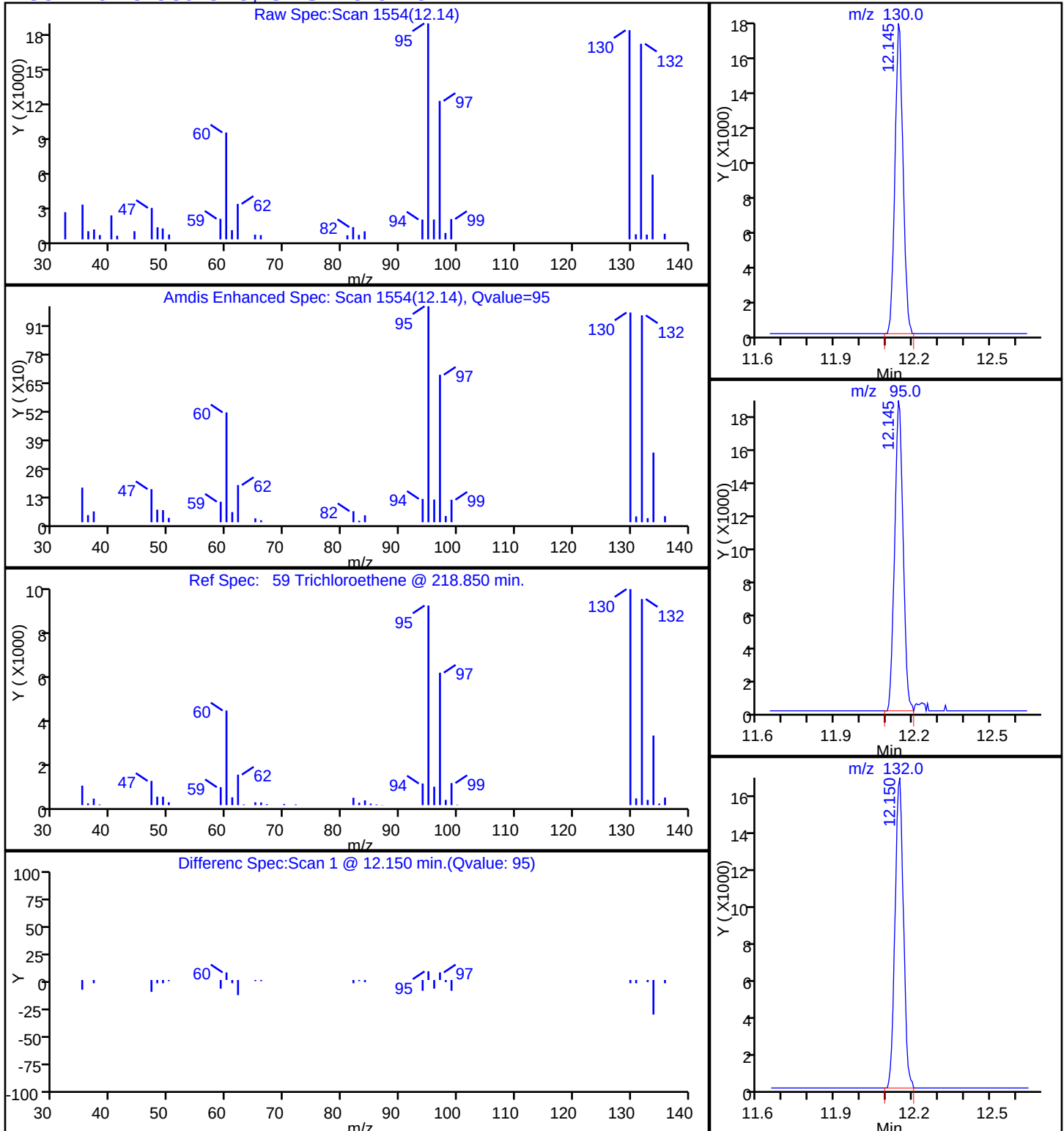
Dil. Factor: 1.5400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

59 Trichloroethene, CAS: 79-01-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D

Injection Date: 15-Nov-2016 15:55:30

Instrument ID: MJ

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Client ID: OVP-2

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 9

Purge Vol: 500.000 mL

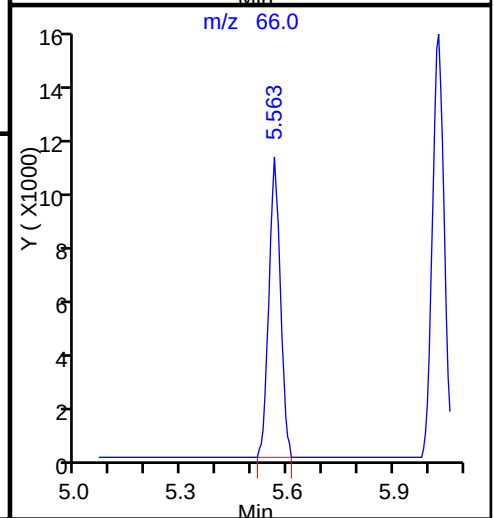
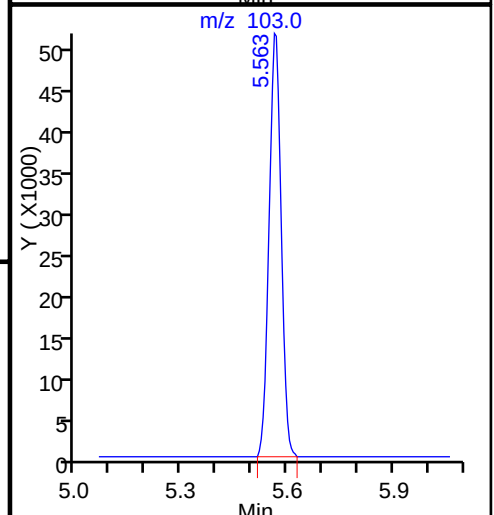
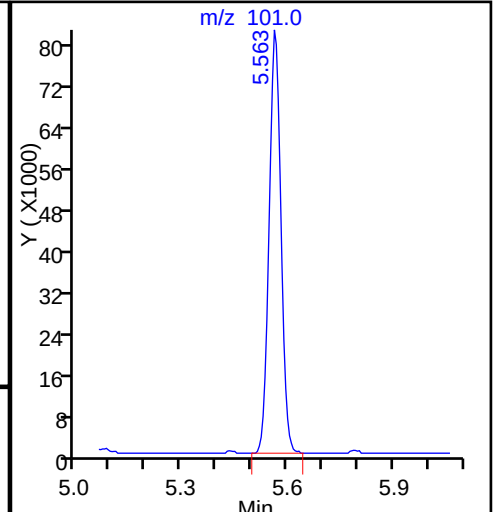
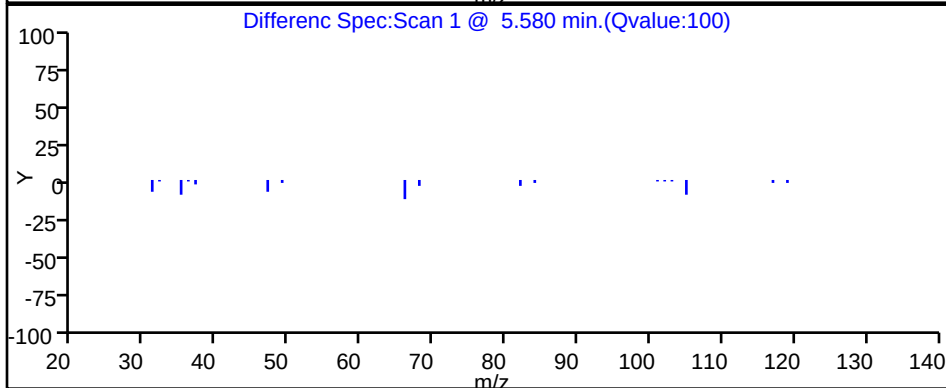
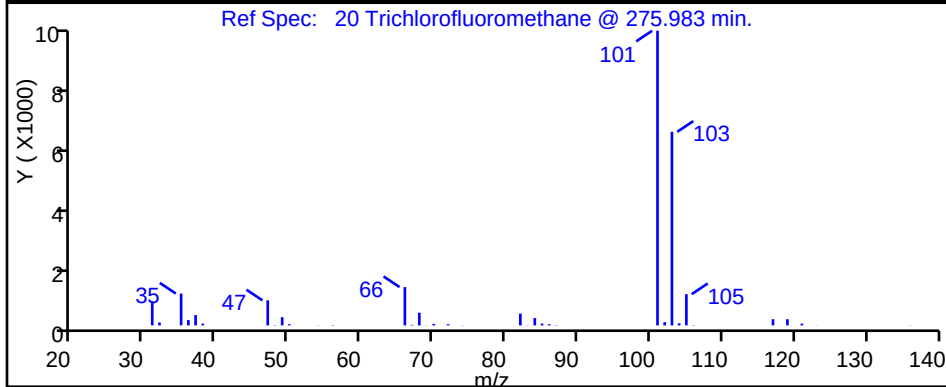
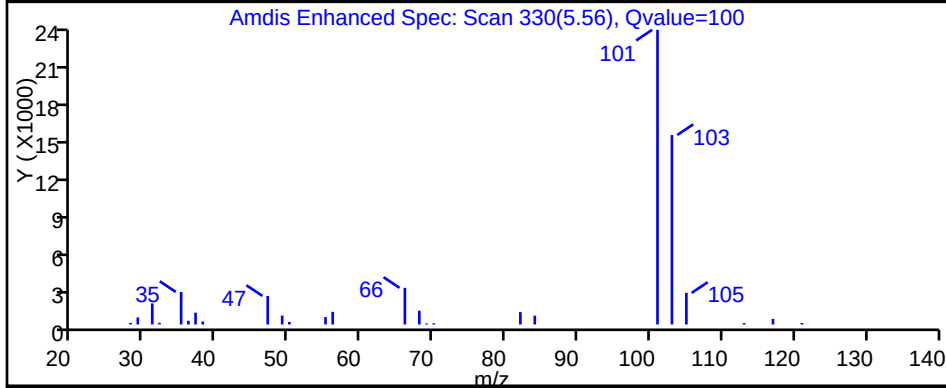
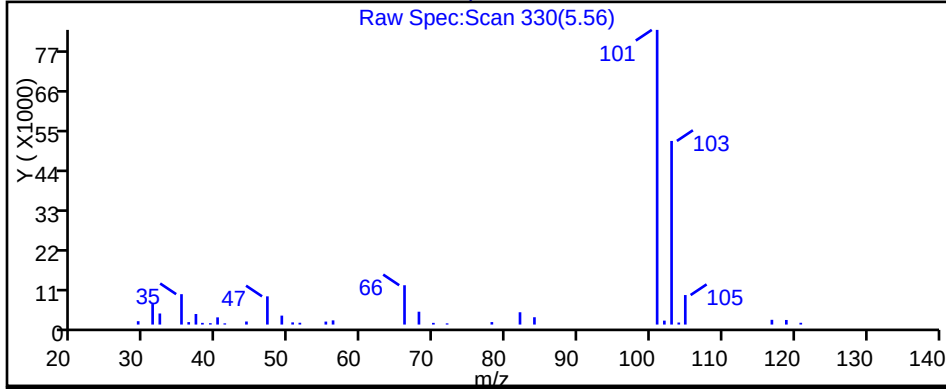
Dil. Factor: 1.5400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

TestAmerica Knoxville

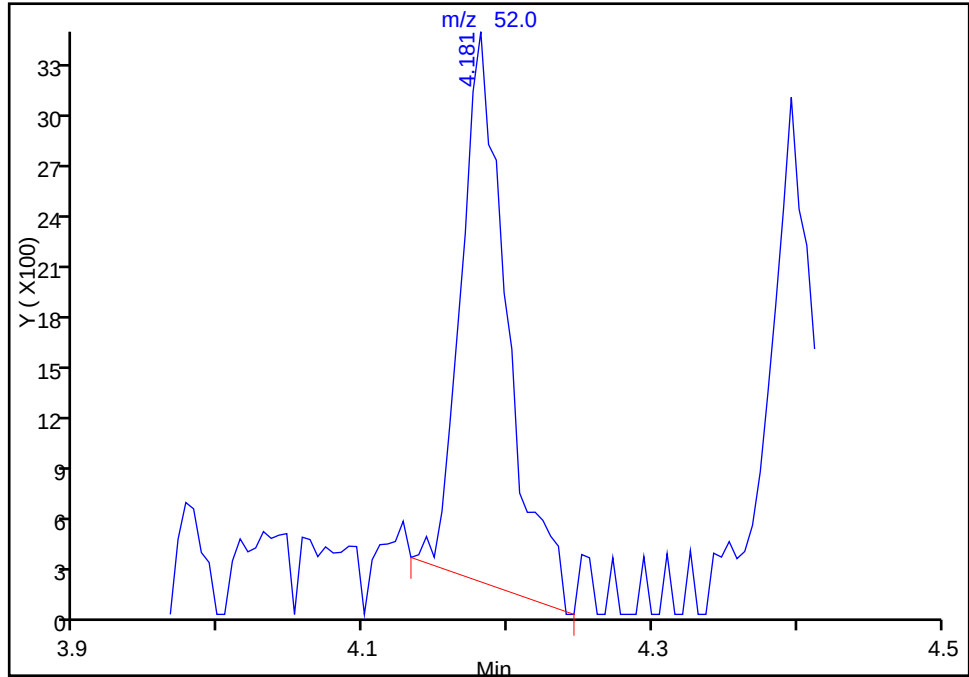
Data File:	\\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101.D		
Injection Date:	15-Nov-2016 15:55:30	Instrument ID:	MJ
Lims ID:	140-6336-A-4	Lab Sample ID:	140-6336-4
Client ID:	OVP-2		
Operator ID:	7126	ALS Bottle#:	1
Purge Vol:	500.000 mL	Dil. Factor:	1.5400
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	9

9 Chloromethane, CAS: 74-87-3

Signal: 1

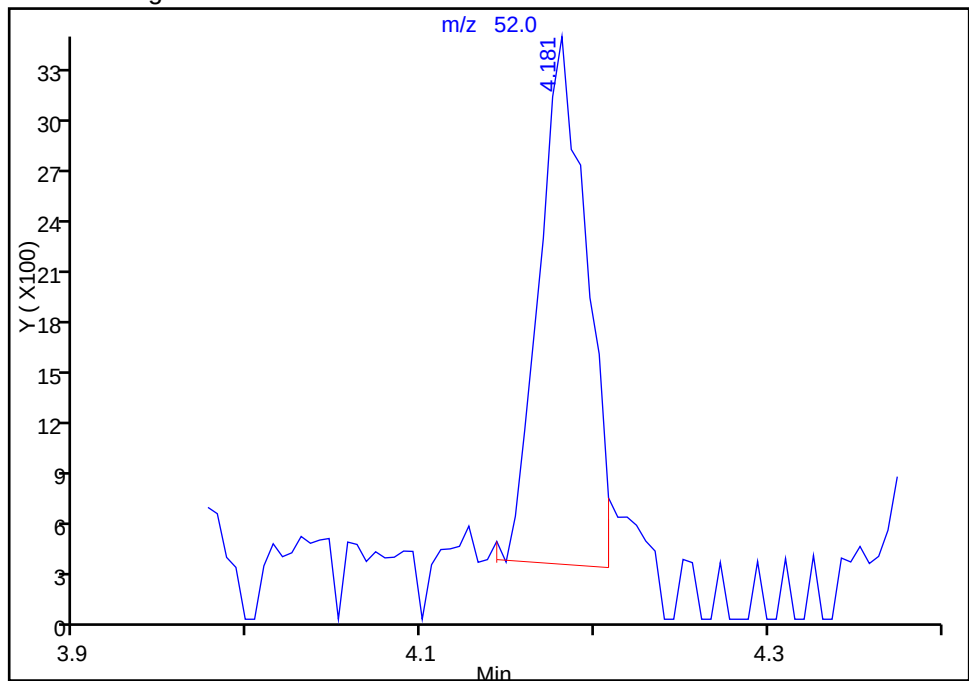
RT: 4.18
Area: 7144
Amount: 0.247420
Amount Units: ppb v/v

Processing Integration Results



RT: 4.18
Area: 5896
Amount: 0.204197
Amount Units: ppb v/v

Manual Integration Results



Reviewer: tajh, 16-Nov-2016 08:59:16

Audit Action: Manually Integrated

Audit Reason: Split Peak

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-2 DL Lab Sample ID: 140-6336-4 DL
 Matrix: Air Lab File ID: JK15P101DL.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 16:15
 Sample wt/vol: 200 (mL) Date Analyzed: 11/16/2016 04:38
 Soil Aliquot Vol: _____ Dilution Factor: 1.54
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
67-66-3	Chloroform	119.38	34	D	0.31	
127-18-4	Tetrachloroethene	165.83	43	D	0.31	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-2 DL Lab Sample ID: 140-6336-4 DL
 Matrix: Air Lab File ID: JK15P101DL.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 16:15
 Sample wt/vol: 200 (mL) Date Analyzed: 11/16/2016 04:38
 Soil Aliquot Vol: _____ Dilution Factor: 1.54
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
67-66-3	Chloroform	119.38	170	D	1.5	
127-18-4	Tetrachloroethene	165.83	290	D	2.1	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101DL.D
 Lims ID: 140-6336-A-4
 Client ID: OVP-2
 Sample Type: Client
 Inject. Date: 16-Nov-2016 04:38:30 ALS Bottle#: 1 Worklist Smp#: 23
 Purge Vol: 500.000 mL Dil. Factor: 1.5400
 Sample Info: 140-0003625-009
 Misc. Info.: 140-6336-a-4@1.54
 Operator ID: 7126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:10:36

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.282	9.281	0.001	96	249041	4.00	
* 2 1,4-Difluorobenzene	114	11.439	11.443	-0.004	96	1138367	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.122	16.121	0.001	90	922324	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.746	17.745	0.001	86	569306	4.09	
8 Dichlorodifluoromethane	85	3.986	3.990	-0.004	100	738837	3.01	
9 Chloromethane	52	4.179	4.183	-0.004	35	4730	0.1683	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.190	4.189	0.001	97	124932	0.9681	
17 Ethanol	31	5.056	5.060	-0.004	98	184382	7.77	
20 Trichlorofluoromethane	101	5.567	5.565	0.001	98	94913	0.4440	
28 2-Methyl-2-propanol	59	6.422	6.404	0.018	94	9482	0.0784	
30 1,1,2-Trichloro-1,2,2-trif	101	6.491	6.485	0.006	88	3070	0.0185	
31 Methylene Chloride	84	6.669	6.673	-0.004	99	32066	0.4053	
39 2-Butanone (MEK)	72	8.508	8.507	0.001	90	9282	0.3511	
40 Hexane	56	8.519	8.523	-0.004	60	7863	0.1251	
44 Chloroform	83	9.288	9.292	-0.004	98	1402981	8.96	
47 1,1,1-Trichloroethane	97	10.325	10.335	-0.010	97	66257	0.4119	
50 Cyclohexane	69	10.917	10.921	-0.004	85	5115	0.1410	
51 Benzene	78	10.917	10.921	-0.004	61	7551	0.0359	
52 Carbon tetrachloride	117	10.933	10.942	-0.009	91	3815	0.0236	
56 Isooctane	57	11.648	11.652	-0.004	93	35798	0.1053	
59 Trichloroethene	130	12.143	12.147	-0.004	93	18503	0.2189	
65 4-Methyl-2-pentanone (MIBK	43	13.304	13.298	0.006	98	21380	0.1638	
68 Toluene	91	14.165	14.169	-0.004	92	28599	0.1414	
76 Tetrachloroethene	129	15.299	15.304	-0.005	95	840760	11.1	
79 Ethylbenzene	91	16.606	16.449	0.157	93	17702	0.0793	
81 m-Xylene & p-Xylene	91	16.606	16.610	-0.004	99	17701	0.1059	
85 o-Xylene	91	17.128	17.137	-0.009	95	6106	0.0333	
96 1,2,4-Trimethylbenzene	105	18.870	18.874	-0.004	96	6778	0.0403	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101DL.D

Injection Date: 16-Nov-2016 04:38:30

Instrument ID: MJ

Operator ID: 7126

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Worklist Smp#: 23

Client ID: OVP-2

Purge Vol: 500.000 mL

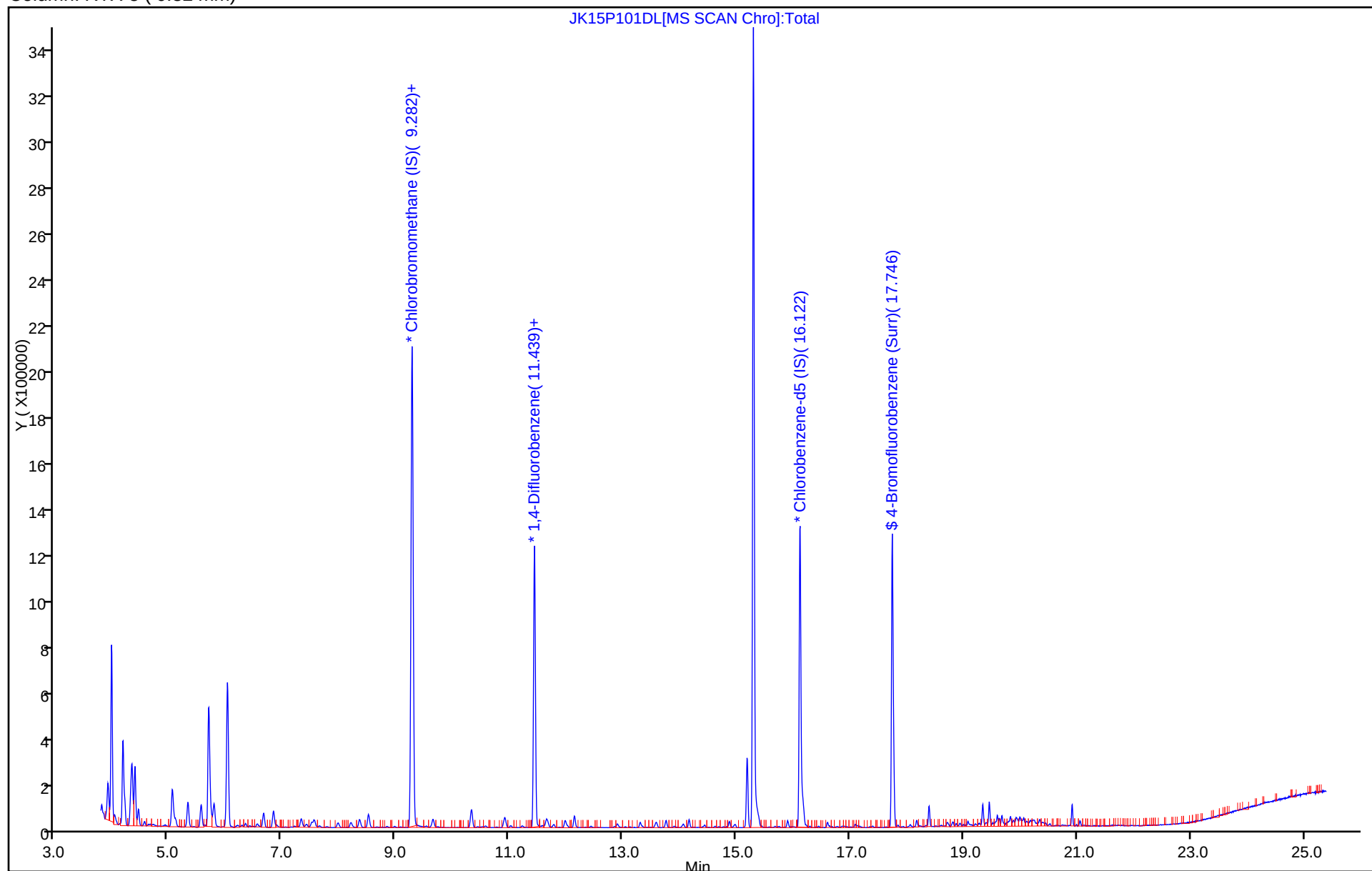
Dil. Factor: 1.5400

ALS Bottle#: 1

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101DL.D
Lims ID: 140-6336-A-4
Client ID: OVP-2
Sample Type: Client
Inject. Date: 16-Nov-2016 04:38:30 ALS Bottle#: 1 Worklist Smp#: 23
Purge Vol: 500.000 mL Dil. Factor: 1.5400
Sample Info: 140-0003625-009
Misc. Info.: 140-6336-a-4@1.54
Operator ID: 7126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:10:36

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.09	102.36

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P101DL.D

Injection Date: 16-Nov-2016 04:38:30

Instrument ID: MJ

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Client ID: OVP-2

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 23

Purge Vol: 500.000 mL

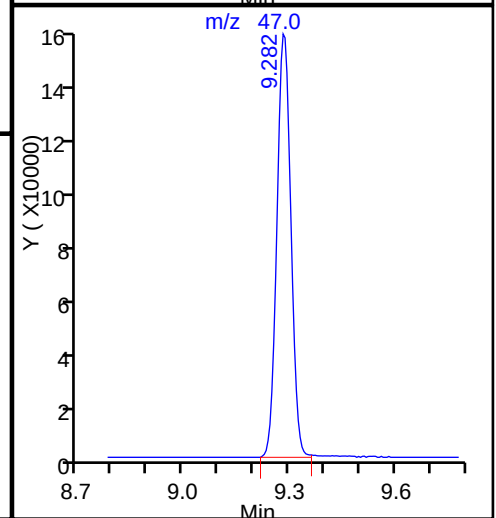
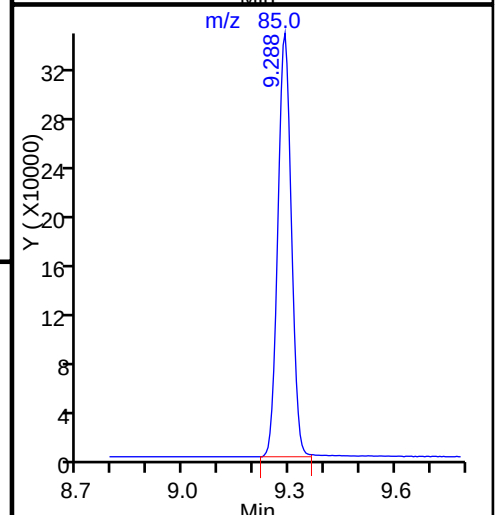
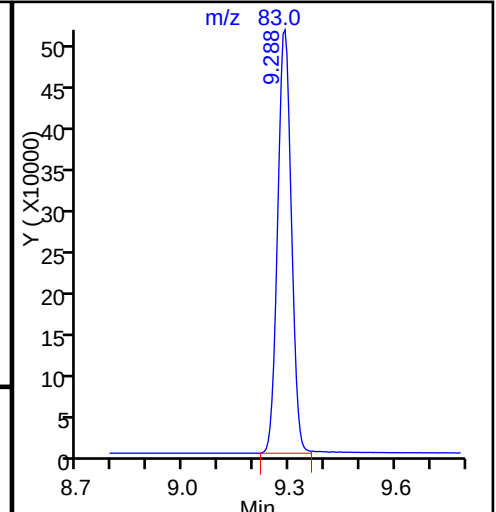
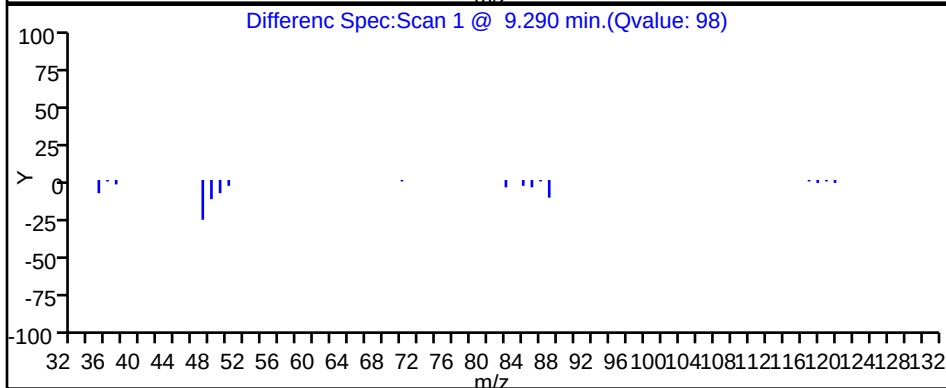
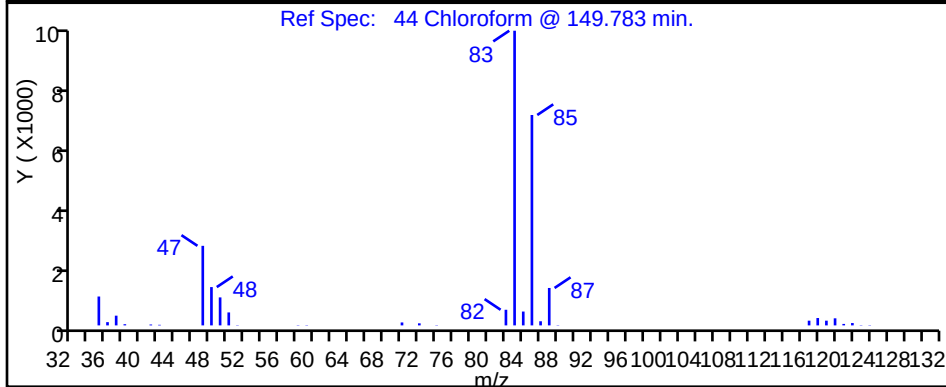
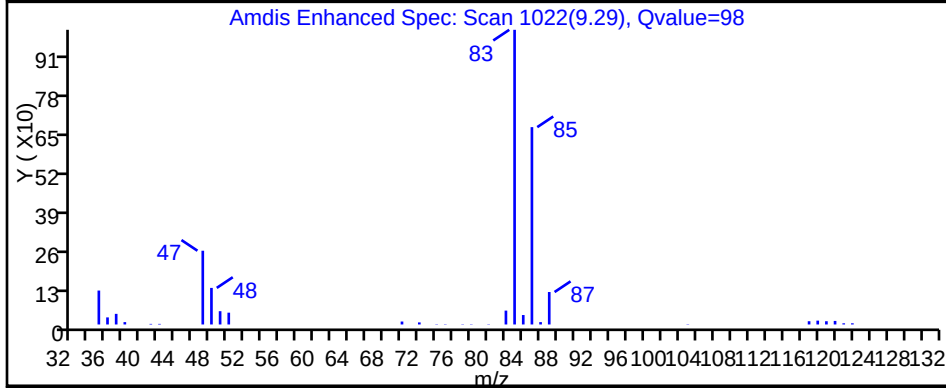
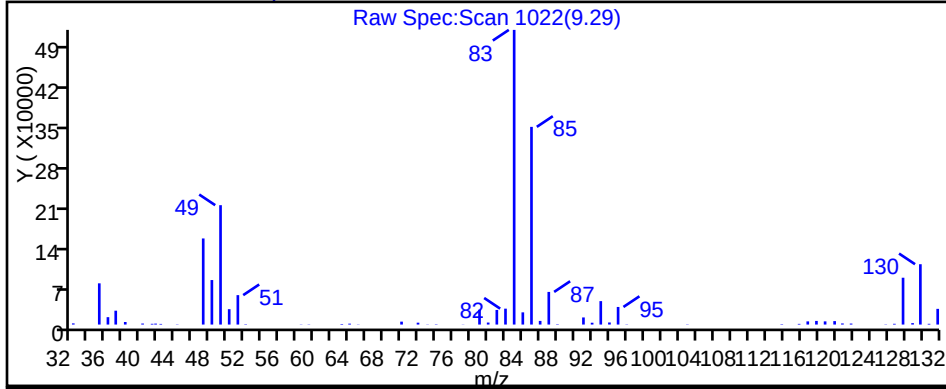
Dil. Factor: 1.5400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

TestAmerica Knoxville

Data File: \\ChromNA\\Knoxville\\ChromData\\MJ\\20161114-3625.b\\JK15P101DL.D

Injection Date: 16-Nov-2016 04:38:30

Instrument ID: MJ

Lims ID: 140-6336-A-4

Lab Sample ID: 140-6336-4

Client ID: OVP-2

Operator ID: 7126

ALS Bottle#: 1

Worklist Smp#: 23

Purge Vol: 500.000 mL

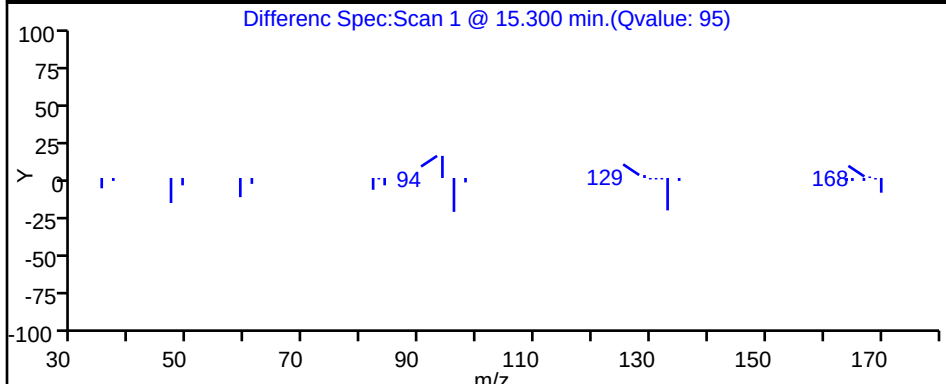
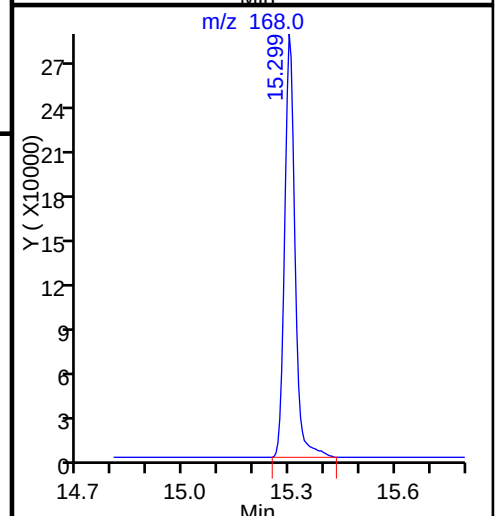
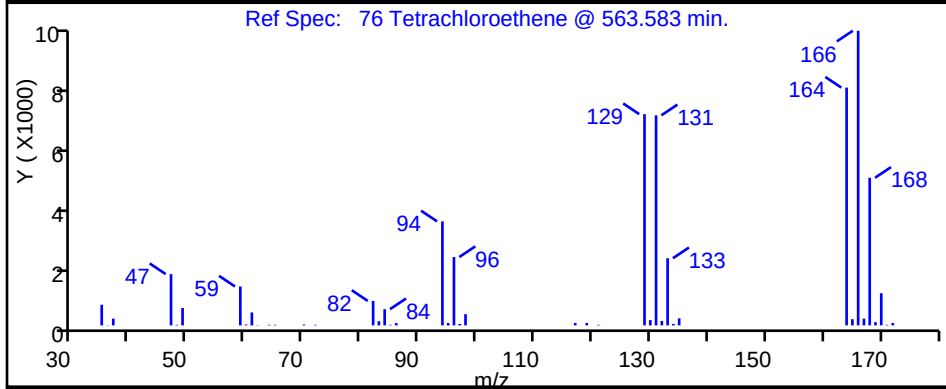
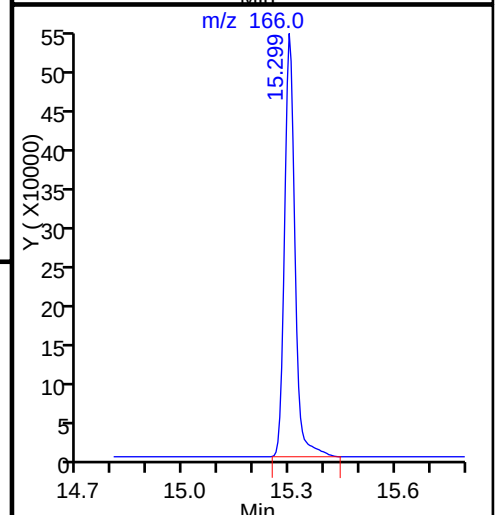
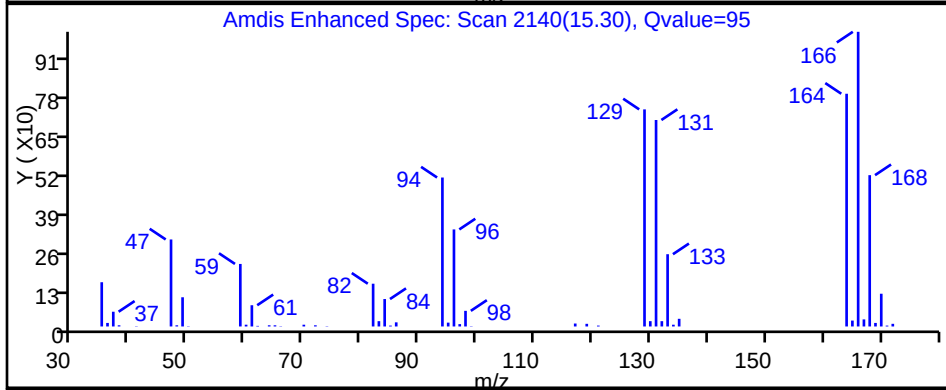
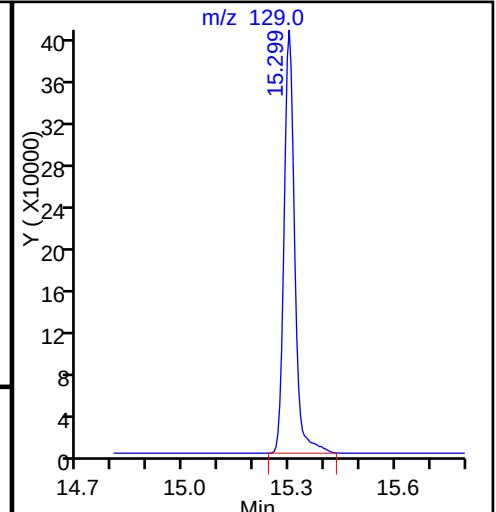
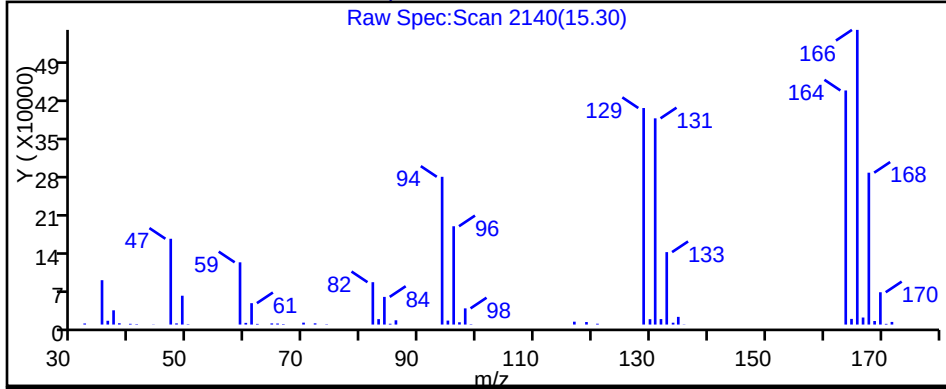
Dil. Factor: 1.5400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

76 Tetrachloroethene, CAS: 127-18-4

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OA-1 Lab Sample ID: 140-6336-5
 Matrix: Air Lab File ID: JK15P105.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 16:50
 Sample wt/vol: 845(mL) Date Analyzed: 11/15/2016 19:33
 Soil Aliquot Vol: _____ Dilution Factor: 1.69
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.080	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.080	
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	120.20	0.30		0.080	
106-93-4	1,2-Dibromoethane	187.87	ND		0.080	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.080	
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	
78-87-5	1,2-Dichloropropane	112.99	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.080	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.080	
123-91-1	1,4-Dioxane	88.11	ND		0.20	
540-84-1	2,2,4-Trimethylpentane	114.23	0.48		0.20	
78-93-3	2-Butanone	72.11	1.0		0.32	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	0.35		0.20	
71-43-2	Benzene	78.11	0.66		0.080	
100-44-7	Benzyl chloride	126.58	ND		0.16	
75-27-4	Bromodichloromethane	163.83	ND		0.080	
75-25-2	Bromoform	252.75	ND		0.080	
74-83-9	Bromomethane	94.94	ND		0.080	
56-23-5	Carbon tetrachloride	153.81	0.075		0.040	
108-90-7	Chlorobenzene	112.56	ND		0.080	
75-00-3	Chloroethane	64.52	ND		0.080	
67-66-3	Chloroform	119.38	ND		0.080	
74-87-3	Chloromethane	50.49	0.59		0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.080	
110-82-7	Cyclohexane	84.16	0.27		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OA-1 Lab Sample ID: 140-6336-5
 Matrix: Air Lab File ID: JK15P105.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 16:50
 Sample wt/vol: 845(mL) Date Analyzed: 11/15/2016 19:33
 Soil Aliquot Vol: _____ Dilution Factor: 1.69
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.080	
75-71-8	Dichlorodifluoromethane	120.91	0.60		0.080	
64-17-5	<i>Ethanol</i>	<i>46.07</i>	<i>150</i>	<i>E</i>	<i>2.0</i>	
100-41-4	Ethylbenzene	106.17	0.31		0.080	
87-68-3	Hexachlorobutadiene	260.76	ND		0.080	
110-54-3	Hexane	86.17	0.72		0.20	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.16	
75-09-2	Methylene Chloride	84.93	0.83		0.20	
179601-23-1	m-Xylene & p-Xylene	106.17	1.0		0.080	
95-47-6	o-Xylene	106.17	0.35		0.080	
100-42-5	Styrene	104.15	ND		0.080	
75-65-0	t-Butyl alcohol	74.12	ND		0.32	
127-18-4	Tetrachloroethene	165.83	ND		0.080	
108-88-3	Toluene	92.14	2.7		0.12	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.080	
79-01-6	Trichloroethene	131.39	0.21		0.040	
75-69-4	Trichlorofluoromethane	137.37	0.24		0.080	
75-01-4	Vinyl chloride	62.50	ND		0.040	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1

SDG No.: _____

Client Sample ID: OA-1 Lab Sample ID: 140-6336-5

Matrix: Air Lab File ID: JK15P105.D

Analysis Method: TO 15 LL Date Collected: 11/08/2016 16:50

Sample wt/vol: 845(mL) Date Analyzed: 11/15/2016 19:33

Soil Aliquot Vol: _____ Dilution Factor: 1.69

Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)

% Moisture: _____ Level: (low/med) Low

Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.55	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.61	
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	
95-63-6	1,2,4-Trimethylbenzene	120.20	1.5		0.39	
106-93-4	1,2-Dibromoethane	187.87	ND		0.61	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.48	
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	
78-87-5	1,2-Dichloropropane	112.99	ND		0.37	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.56	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.48	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.48	
123-91-1	1,4-Dioxane	88.11	ND		0.72	
540-84-1	2,2,4-Trimethylpentane	114.23	2.2		0.93	
78-93-3	2-Butanone	72.11	2.9		0.94	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	1.5		0.82	
71-43-2	Benzene	78.11	2.1		0.26	
100-44-7	Benzyl chloride	126.58	ND		0.83	
75-27-4	Bromodichloromethane	163.83	ND		0.54	
75-25-2	Bromoform	252.75	ND		0.83	
74-83-9	Bromomethane	94.94	ND		0.31	
56-23-5	Carbon tetrachloride	153.81	0.47		0.25	
108-90-7	Chlorobenzene	112.56	ND		0.37	
75-00-3	Chloroethane	64.52	ND		0.21	
67-66-3	Chloroform	119.38	ND		0.39	
74-87-3	Chloromethane	50.49	1.2		0.41	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.36	
110-82-7	Cyclohexane	84.16	0.94		0.69	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OA-1 Lab Sample ID: 140-6336-5
 Matrix: Air Lab File ID: JK15P105.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 16:50
 Sample wt/vol: 845(mL) Date Analyzed: 11/15/2016 19:33
 Soil Aliquot Vol: _____ Dilution Factor: 1.69
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.68	
75-71-8	Dichlorodifluoromethane	120.91	3.0		0.40	
64-17-5	<i>Ethanol</i>	<i>46.07</i>	<i>280</i>	<i>E</i>	<i>3.8</i>	
100-41-4	Ethylbenzene	106.17	1.3		0.35	
87-68-3	Hexachlorobutadiene	260.76	ND		0.85	
110-54-3	Hexane	86.17	2.5		0.70	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.58	
75-09-2	Methylene Chloride	84.93	2.9		0.69	
179601-23-1	m-Xylene & p-Xylene	106.17	4.4		0.35	
95-47-6	o-Xylene	106.17	1.5		0.35	
100-42-5	Styrene	104.15	ND		0.34	
75-65-0	t-Butyl alcohol	74.12	ND		0.97	
127-18-4	Tetrachloroethene	165.83	ND		0.54	
108-88-3	Toluene	92.14	10		0.45	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.36	
79-01-6	Trichloroethene	131.39	1.2		0.21	
75-69-4	Trichlorofluoromethane	137.37	1.4		0.45	
75-01-4	Vinyl chloride	62.50	ND		0.10	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D
 Lims ID: 140-6336-A-5
 Client ID: OA-1
 Sample Type: Client
 Inject. Date: 15-Nov-2016 19:33:30 ALS Bottle#: 5 Worklist Smp#: 13
 Purge Vol: 500.000 mL Dil. Factor: 1.6900
 Sample Info: 140-0003625-013
 Misc. Info.: 140-6336-a-5@1.69
 Operator ID: 7126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:03:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.280	9.281	-0.001	98	258436	4.00	
* 2 1,4-Difluorobenzene	114	11.442	11.443	-0.001	96	1216161	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.120	16.121	-0.001	90	1023380	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.750	17.745	0.005	87	628885	4.08	
8 Dichlorodifluoromethane	85	3.989	3.990	-0.001	100	153148	0.6020	
9 Chloromethane	52	4.188	4.183	0.005	99	17104	0.5864	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.188	4.189	-0.001	38	3253	0.0243	
17 Ethanol	31	5.070	5.060	0.010	97	3621096	147.0	E
20 Trichlorofluoromethane	101	5.565	5.565	0.000	99	53788	0.2425	
28 2-Methyl-2-propanol	59	6.441	6.404	0.037	80	3392	0.0270	
30 1,1,2-Trichloro-1,2,2-trif	101	6.484	6.485	-0.001	91	11669	0.0679	
31 Methylene Chloride	84	6.667	6.673	-0.006	98	67947	0.8275	
39 2-Butanone (MEK)	72	8.511	8.507	0.004	97	27425	1.00	
40 Hexane	56	8.522	8.523	-0.001	78	46841	0.7184	
44 Chloroform	83	9.291	9.292	-0.001	55	5632	0.0347	
50 Cyclohexane	69	10.910	10.921	-0.011	62	10614	0.2739	
51 Benzene	78	10.920	10.921	-0.001	97	149436	0.6643	
52 Carbon tetrachloride	117	10.942	10.942	0.000	95	13019	0.0754	
56 Isooctane	57	11.652	11.652	0.000	98	174370	0.4801	
59 Trichloroethene	130	12.147	12.147	0.000	93	19403	0.2148	
65 4-Methyl-2-pentanone (MIBK	43	13.303	13.298	0.005	98	49430	0.3544	
68 Toluene	91	14.168	14.169	-0.001	93	606289	2.70	
76 Tetrachloroethene	129	15.298	15.304	-0.006	92	6199	0.0738	
79 Ethylbenzene	91	16.448	16.449	-0.001	99	76894	0.3103	
81 m-Xylene & p-Xylene	91	16.604	16.610	-0.006	100	188570	1.02	
84 Styrene	104	17.072	17.073	-0.001	96	7068	0.0603	
85 o-Xylene	91	17.131	17.137	-0.006	99	71478	0.3516	
92 1,3,5-Trimethylbenzene	120	18.449	18.449	0.000	92	8066	0.0734	
96 1,2,4-Trimethylbenzene	105	18.874	18.874	0.000	99	55528	0.2978	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D

Injection Date: 15-Nov-2016 19:33:30

Instrument ID: MJ

Operator ID: 7126

Lims ID: 140-6336-A-5

Lab Sample ID: 140-6336-5

Worklist Smp#: 13

Client ID: OA-1

Purge Vol: 500.000 mL

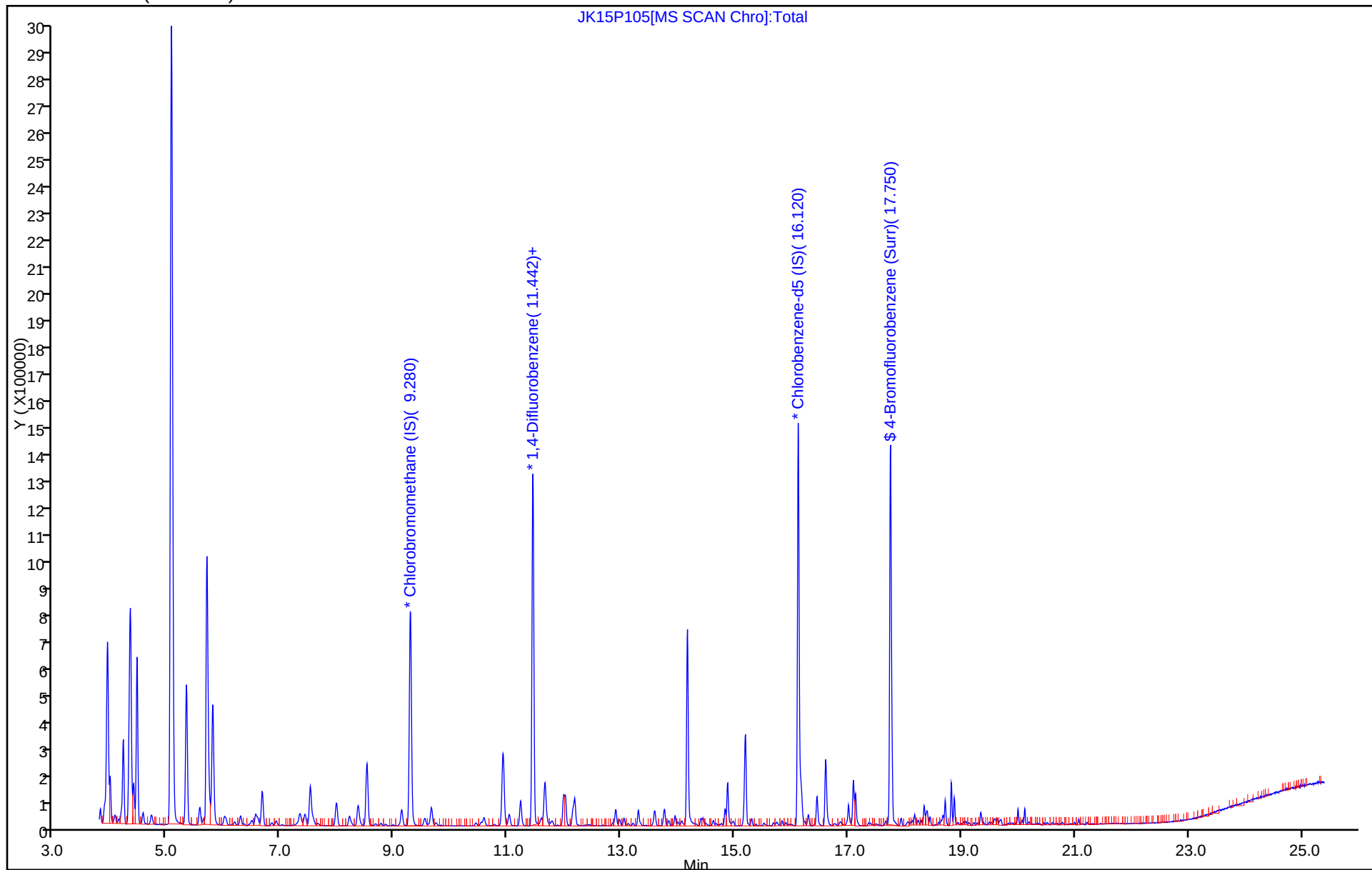
Dil. Factor: 1.6900

ALS Bottle#: 5

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D
Lims ID: 140-6336-A-5
Client ID: OA-1
Sample Type: Client
Inject. Date: 15-Nov-2016 19:33:30 ALS Bottle#: 5 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.6900
Sample Info: 140-0003625-013
Misc. Info.: 140-6336-a-5@1.69
Operator ID: 7126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:03:56

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.08	101.90

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D

Injection Date: 15-Nov-2016 19:33:30

Instrument ID: MJ

Lims ID: 140-6336-A-5

Lab Sample ID: 140-6336-5

Client ID: OA-1

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 13

Purge Vol: 500.000 mL

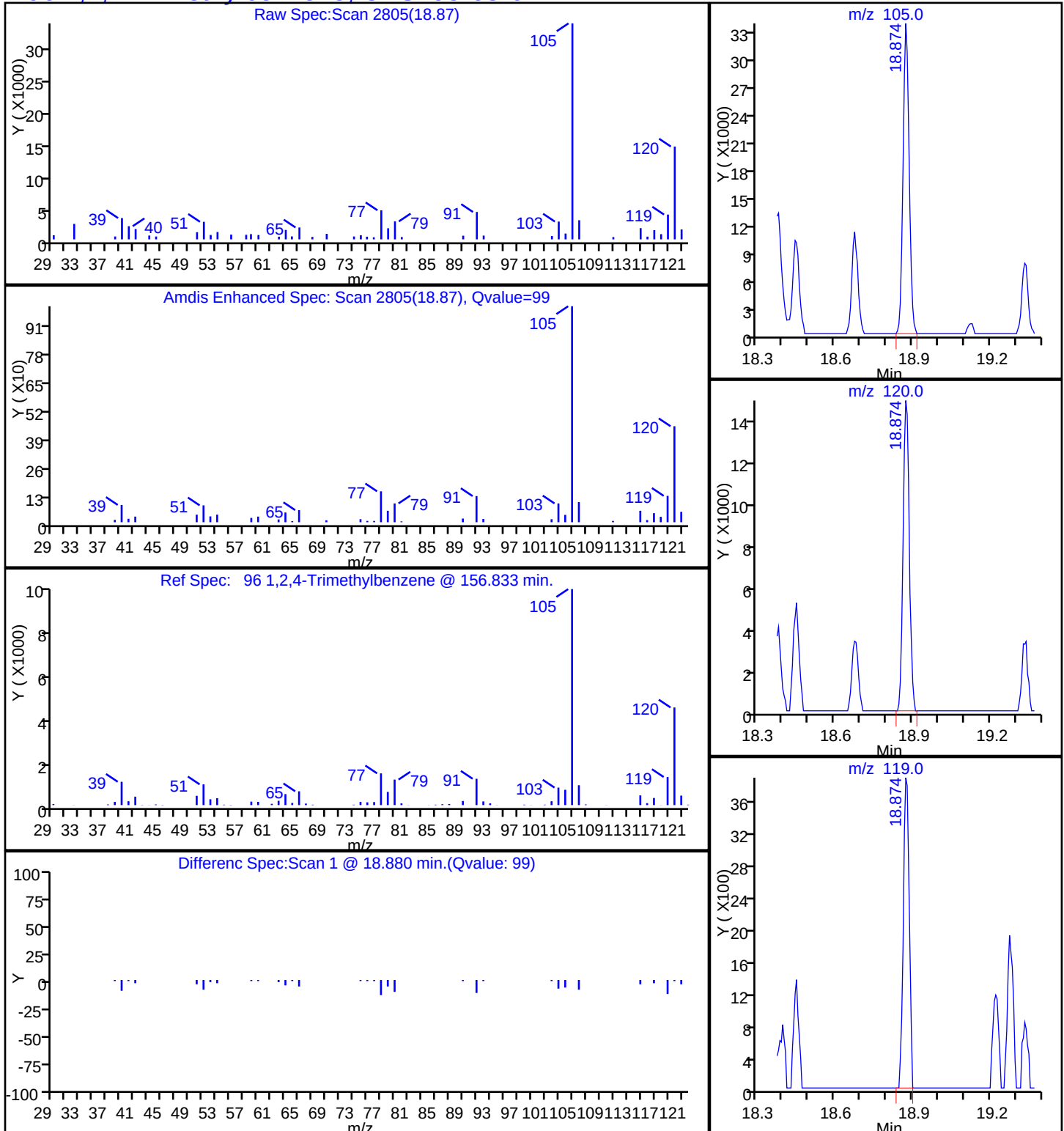
Dil. Factor: 1.6900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

96 1,2,4-Trimethylbenzene, CAS: 95-63-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D

Injection Date: 15-Nov-2016 19:33:30

Instrument ID: MJ

Lims ID: 140-6336-A-5

Lab Sample ID: 140-6336-5

Client ID: OA-1

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 13

Purge Vol: 500.000 mL

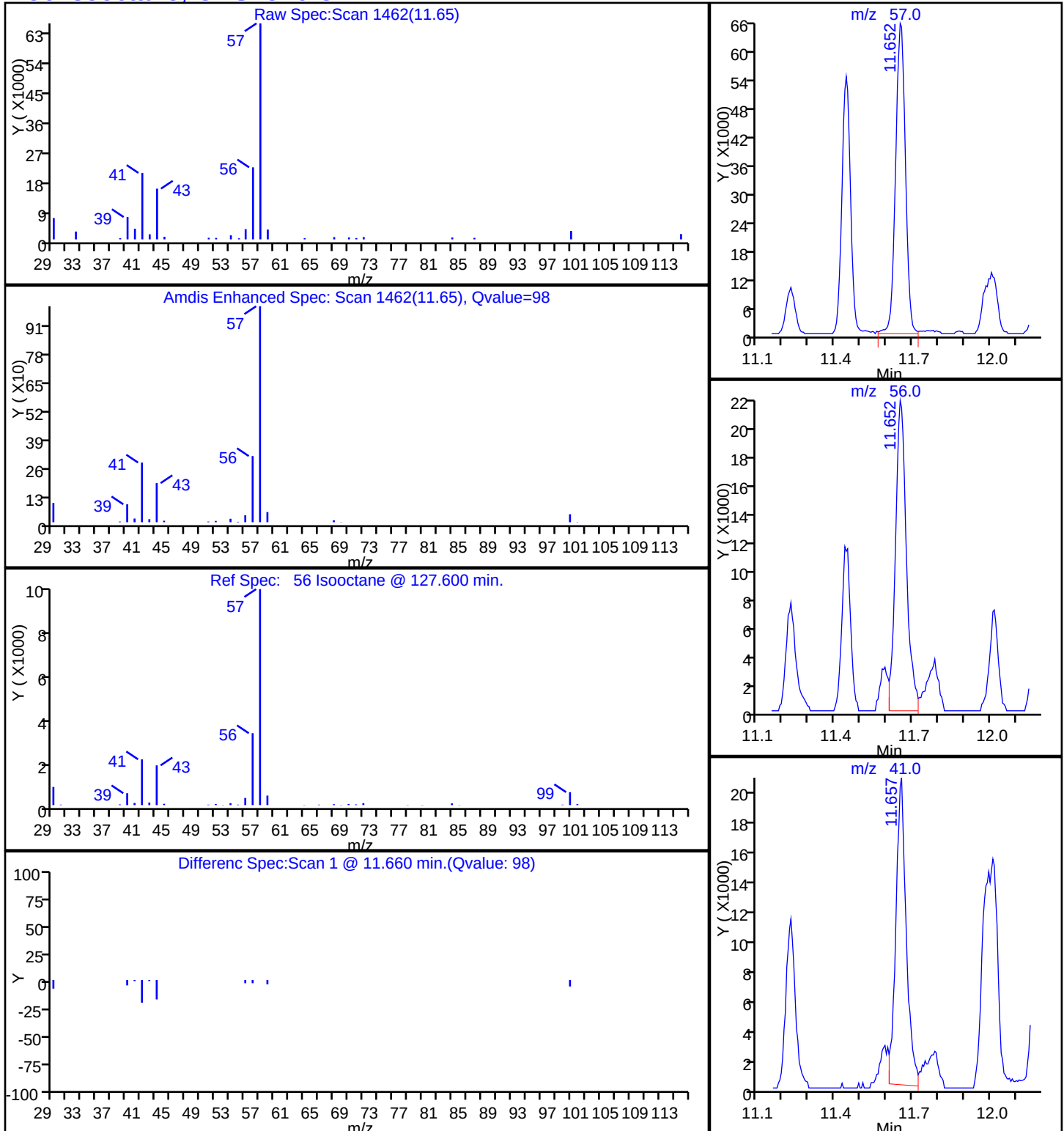
Dil. Factor: 1.6900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

56 Isooctane, CAS: 540-84-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D

Injection Date: 15-Nov-2016 19:33:30

Instrument ID: MJ

Lims ID: 140-6336-A-5

Lab Sample ID: 140-6336-5

Client ID: OA-1

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 13

Purge Vol: 500.000 mL

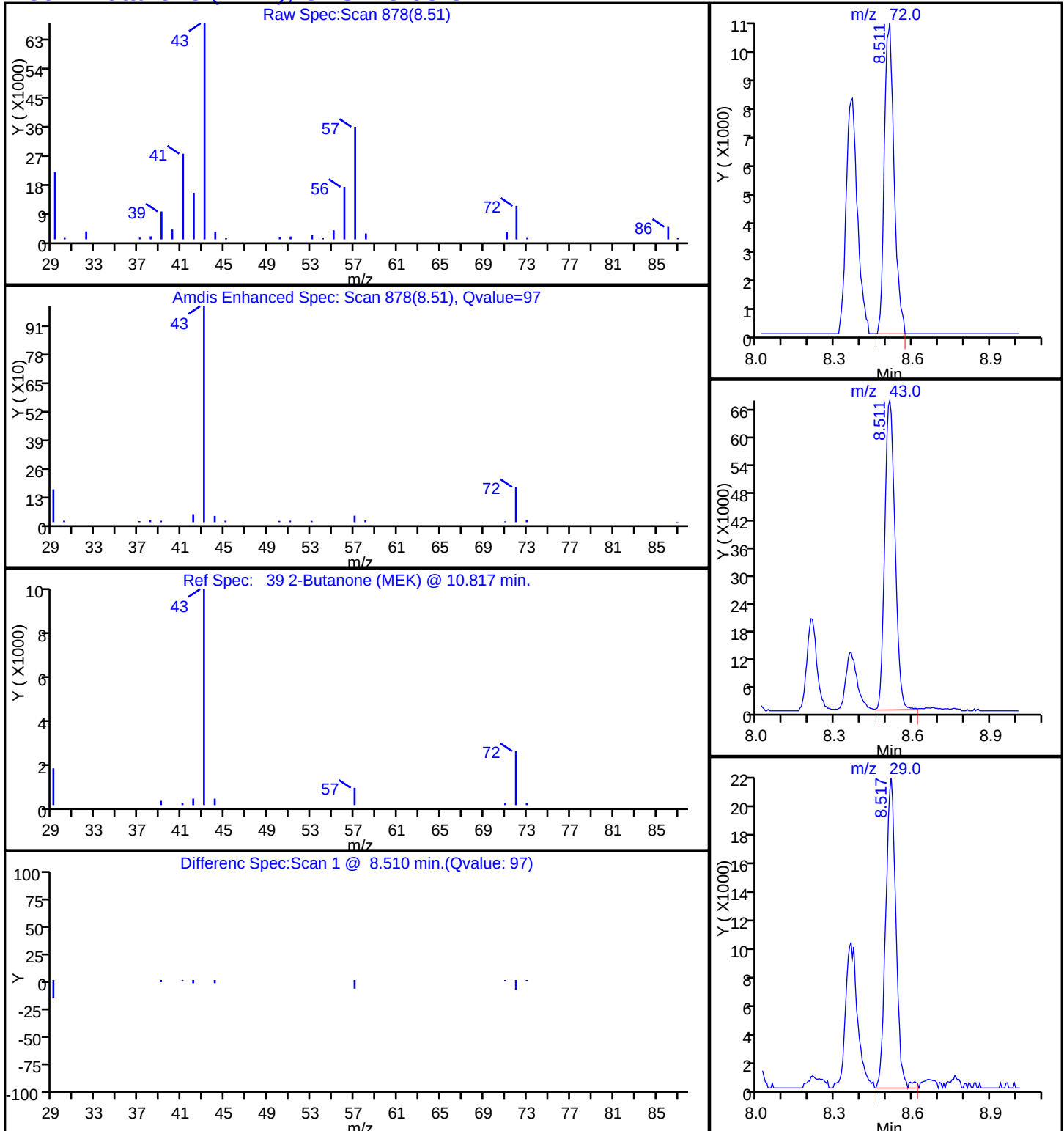
Dil. Factor: 1.6900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

39 2-Butanone (MEK), CAS: 78-93-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D

Injection Date: 15-Nov-2016 19:33:30

Instrument ID: MJ

Lims ID: 140-6336-A-5

Lab Sample ID: 140-6336-5

Client ID: OA-1

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 13

Purge Vol: 500.000 mL

Dil. Factor: 1.6900

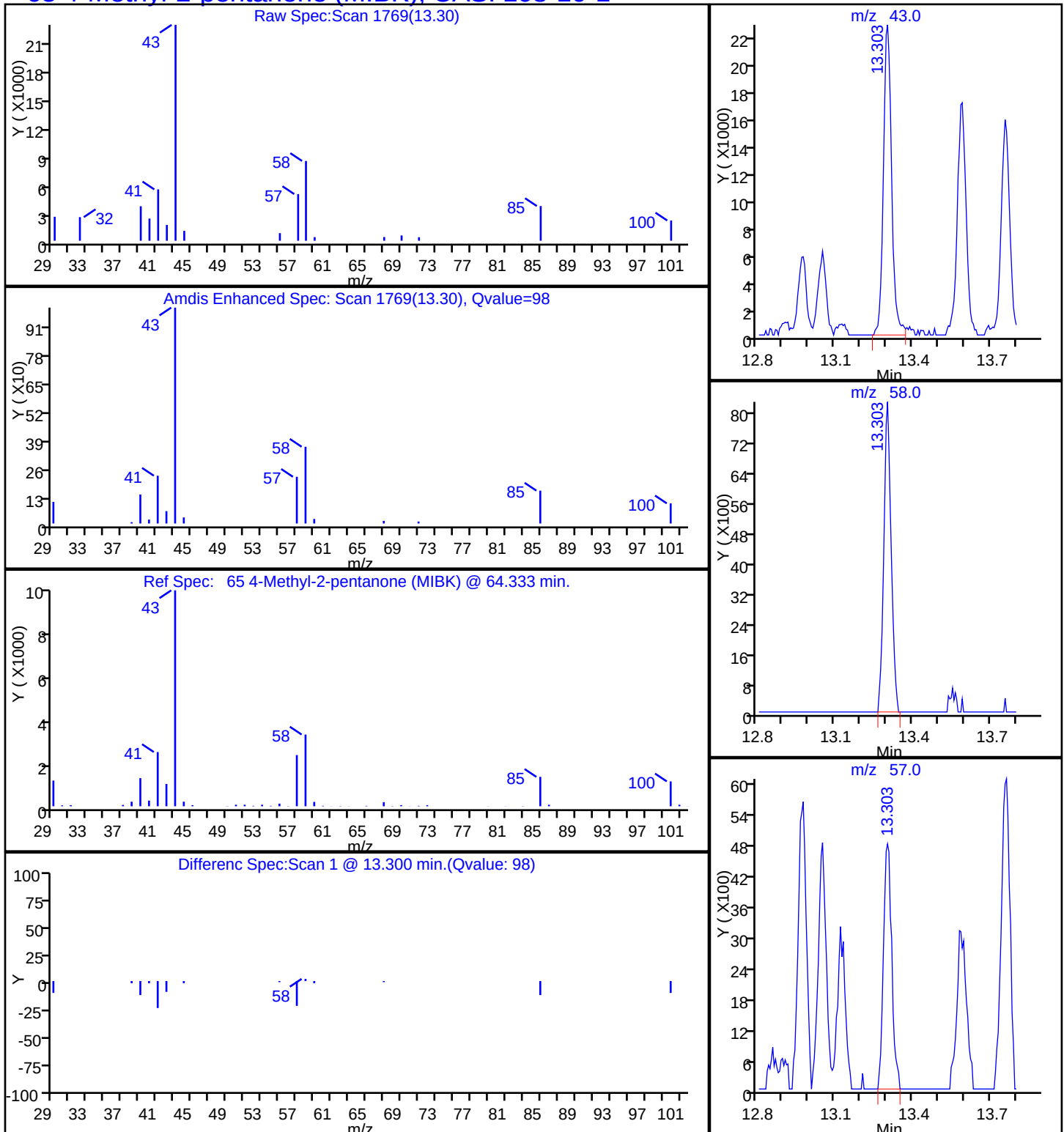
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

65 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D

Injection Date: 15-Nov-2016 19:33:30

Instrument ID: MJ

Lims ID: 140-6336-A-5

Lab Sample ID: 140-6336-5

Client ID: OA-1

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 13

Purge Vol: 500.000 mL

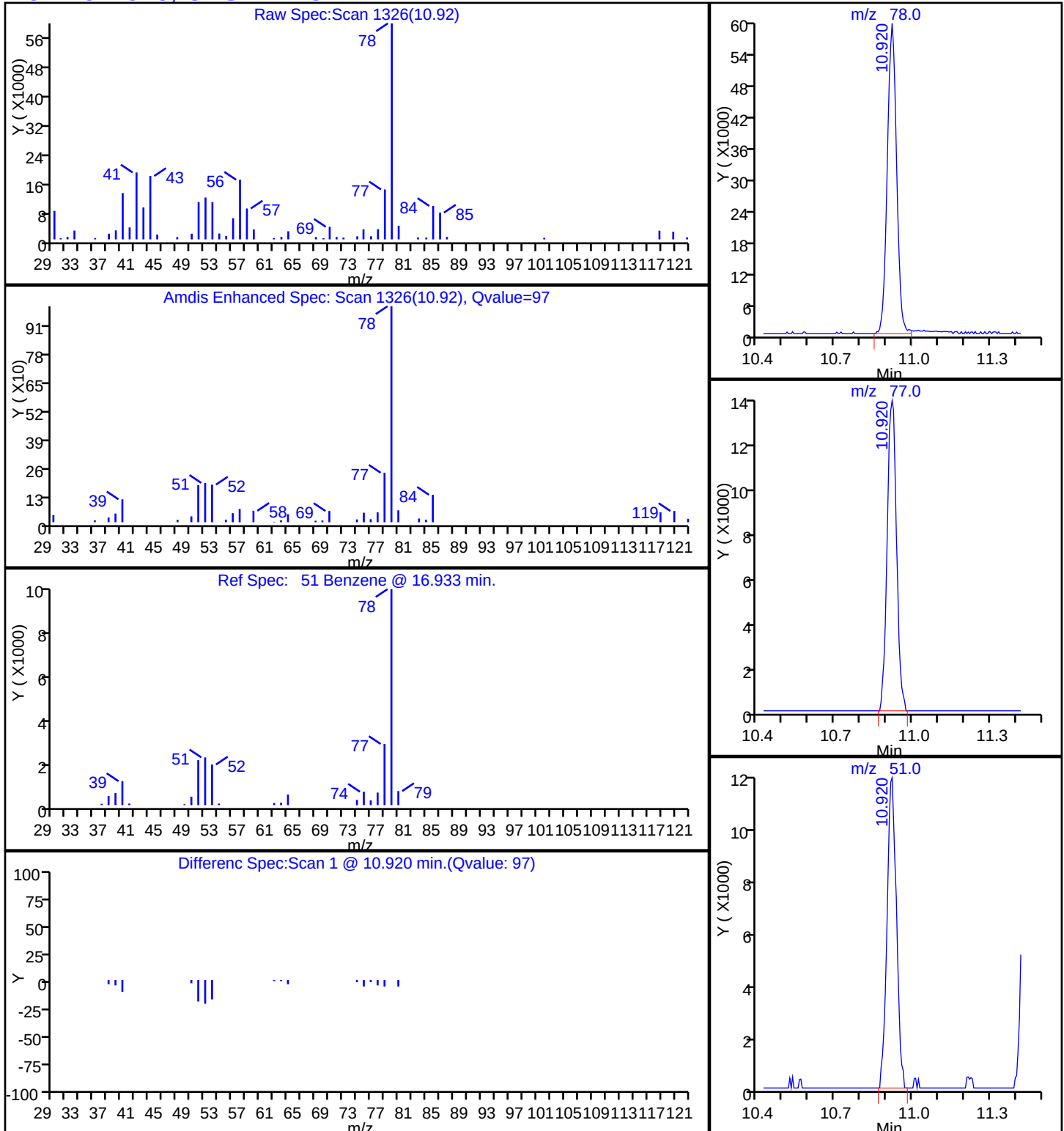
Dil. Factor: 1.6900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

51 Benzene, CAS: 71-43-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D

Injection Date: 15-Nov-2016 19:33:30

Instrument ID: MJ

Lims ID: 140-6336-A-5

Lab Sample ID: 140-6336-5

Client ID: OA-1

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 13

Purge Vol: 500.000 mL

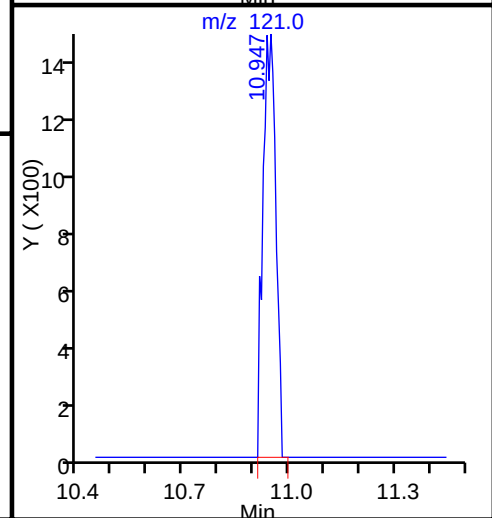
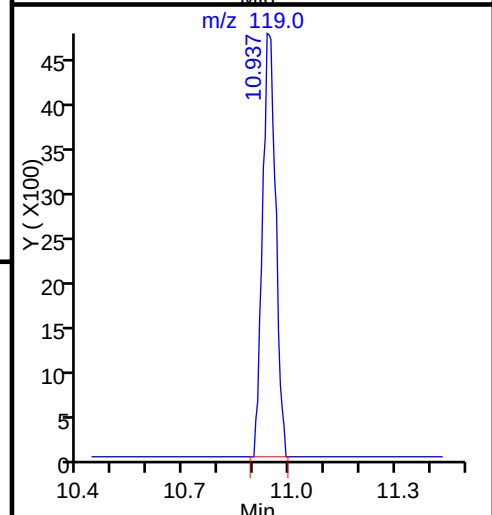
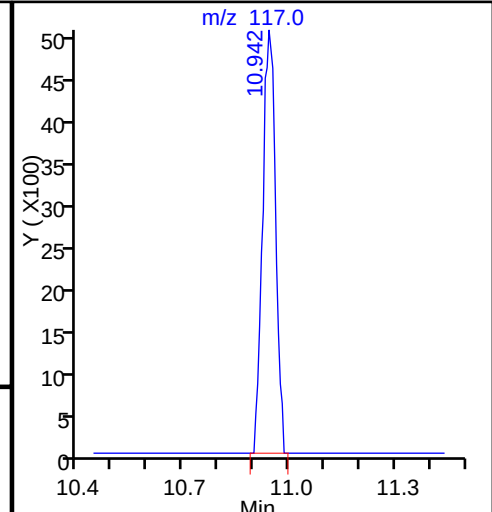
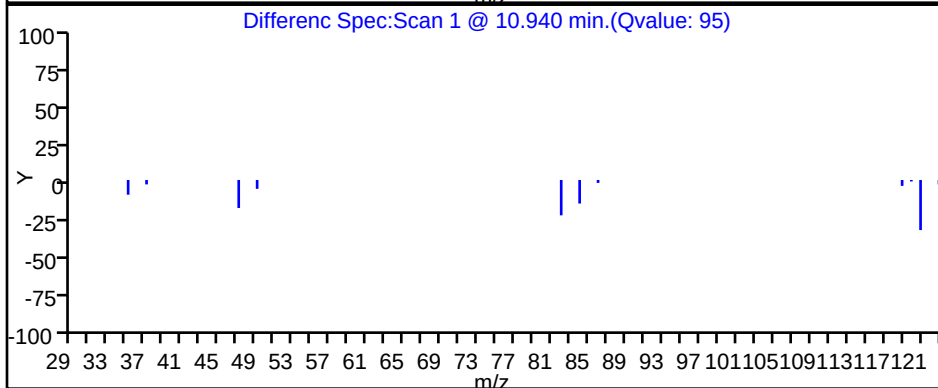
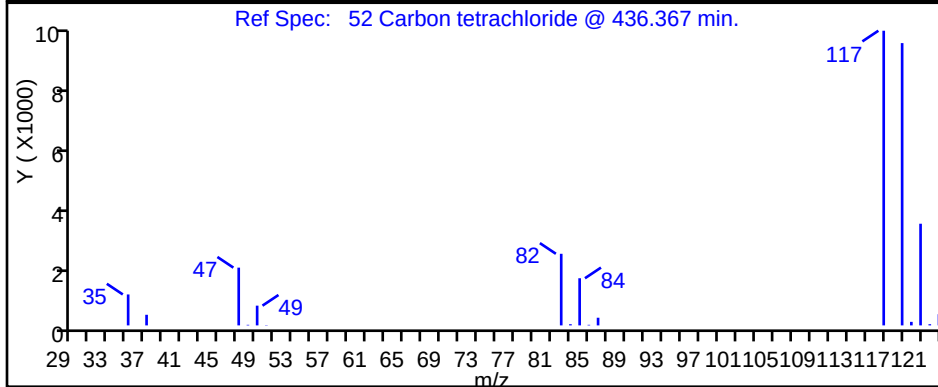
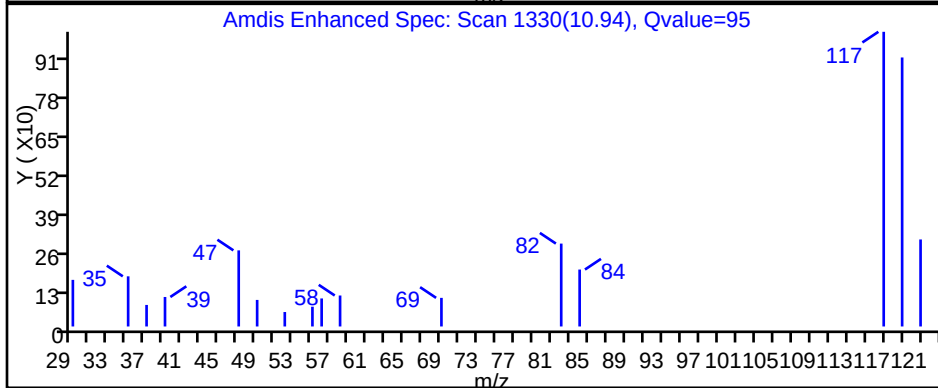
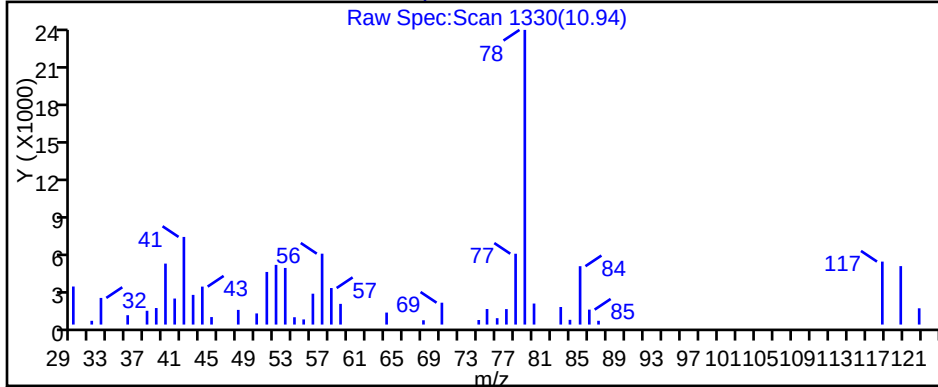
Dil. Factor: 1.6900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D

Injection Date: 15-Nov-2016 19:33:30

Instrument ID: MJ

Lims ID: 140-6336-A-5

Lab Sample ID: 140-6336-5

Client ID: OA-1

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 13

Purge Vol: 500.000 mL

Dil. Factor: 1.6900

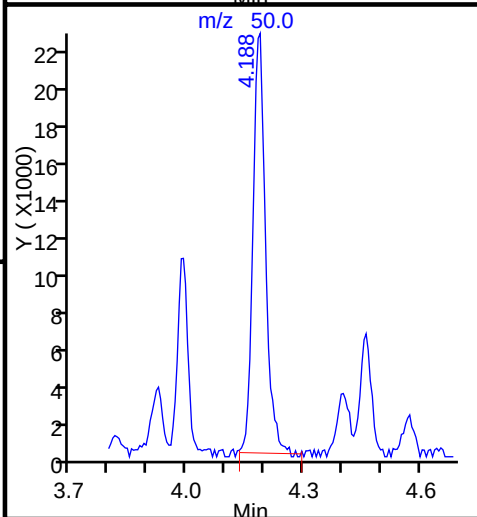
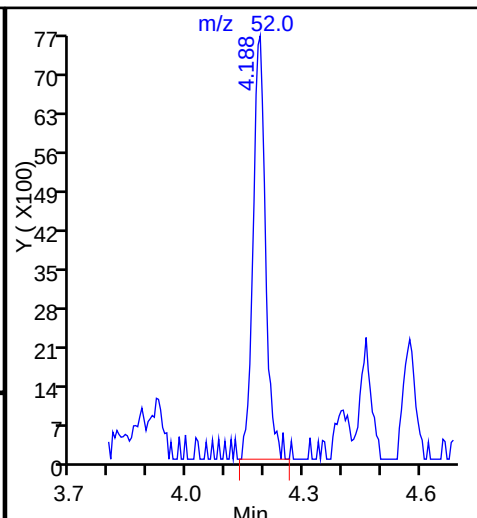
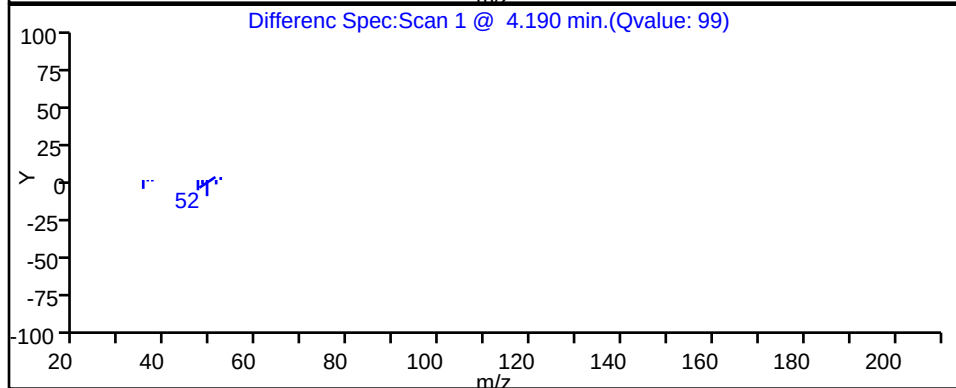
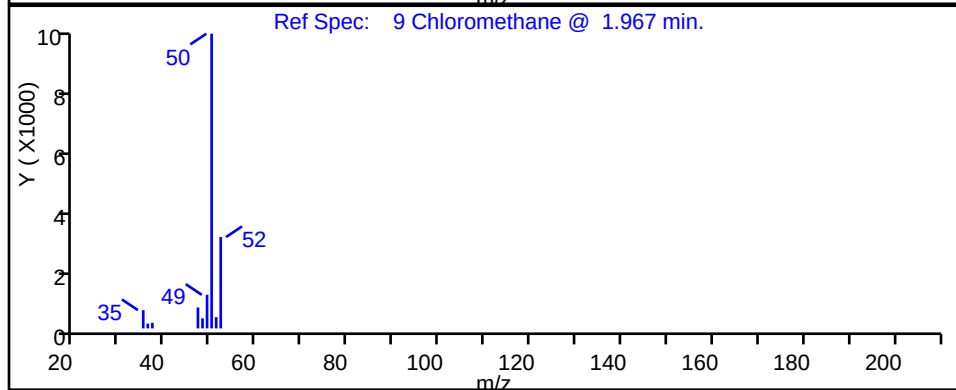
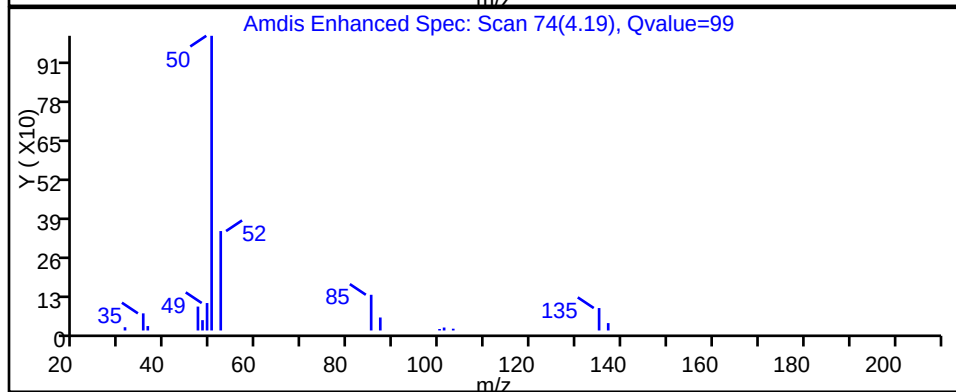
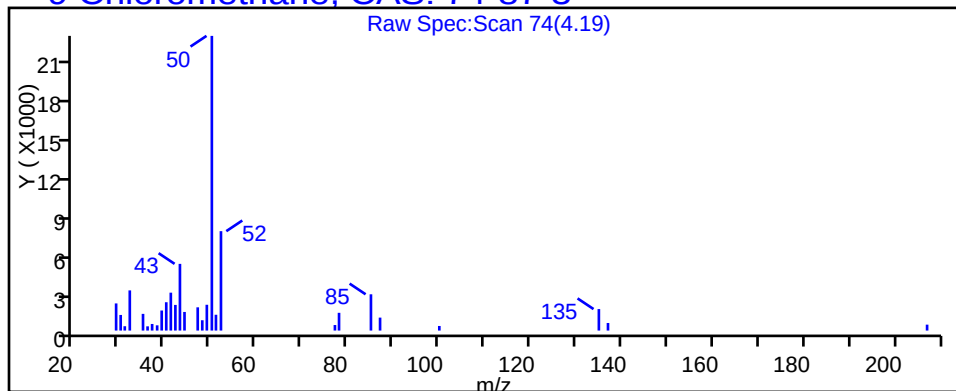
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

9 Chloromethane, CAS: 74-87-3



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D

Injection Date: 15-Nov-2016 19:33:30

Instrument ID: MJ

Lims ID: 140-6336-A-5

Lab Sample ID: 140-6336-5

Client ID: OA-1

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 13

Purge Vol: 500.000 mL

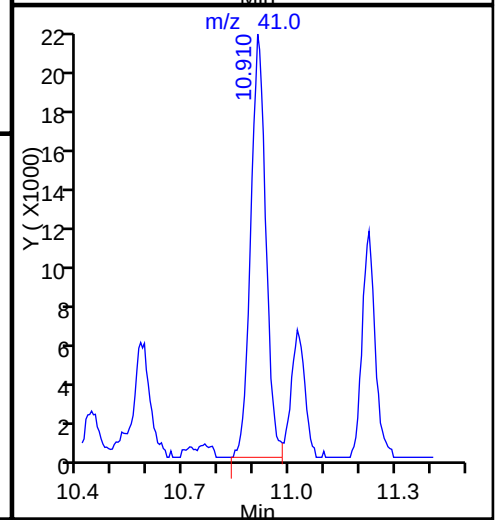
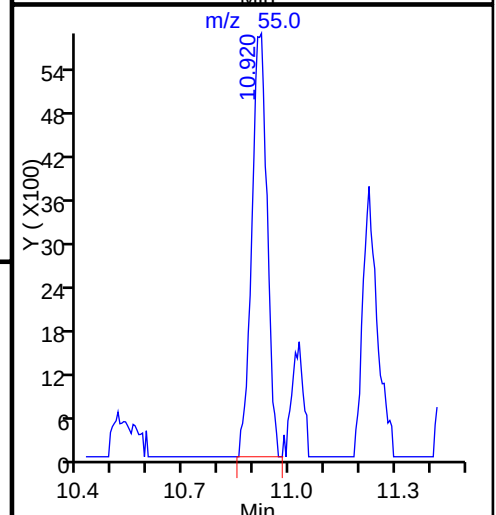
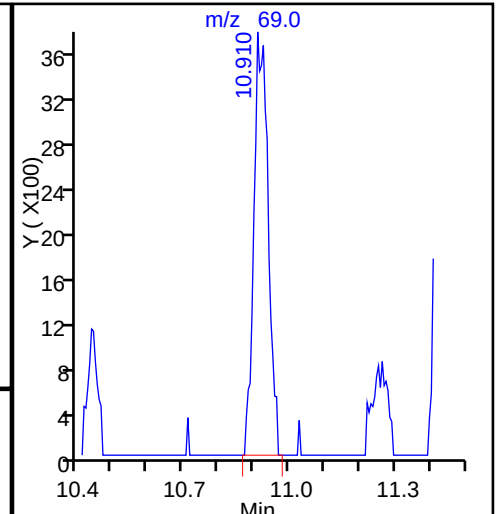
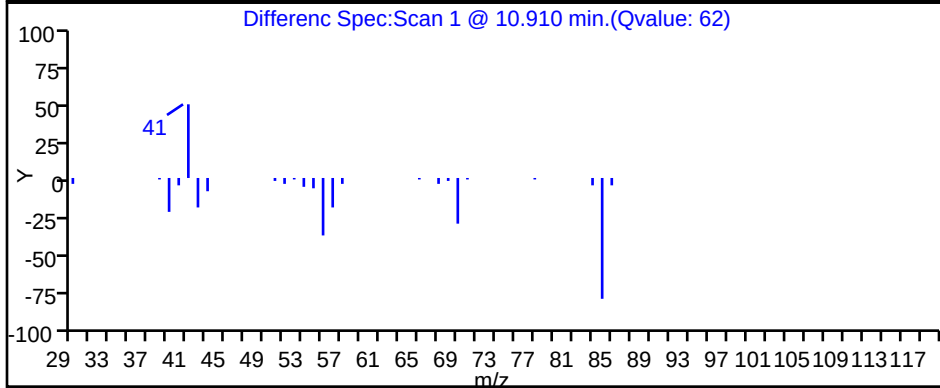
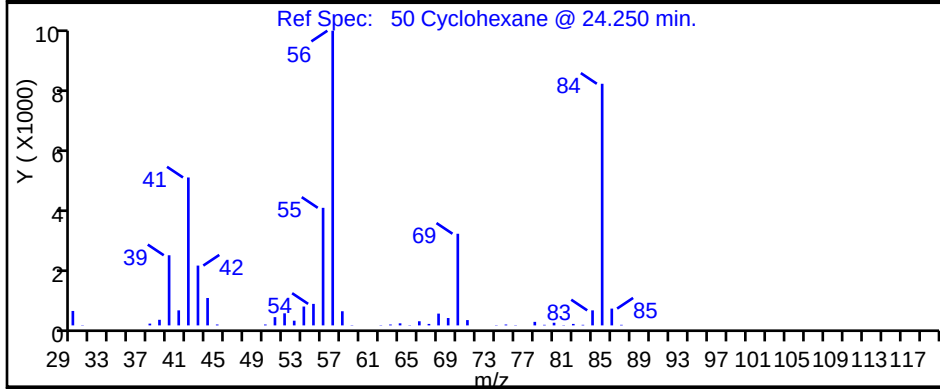
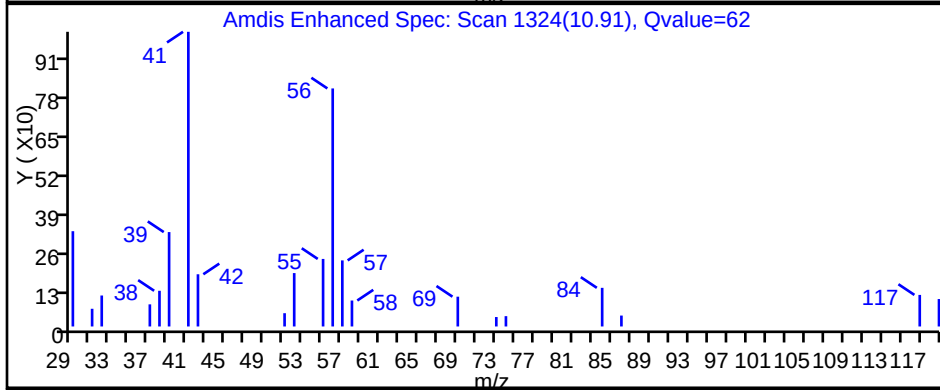
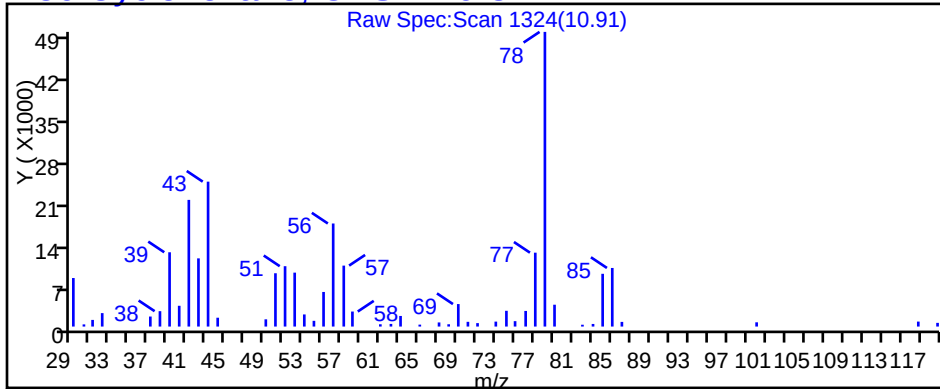
Dil. Factor: 1.6900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

50 Cyclohexane, CAS: 110-82-7

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D

Injection Date: 15-Nov-2016 19:33:30

Instrument ID: MJ

Lims ID: 140-6336-A-5

Lab Sample ID: 140-6336-5

Client ID: OA-1

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 13

Purge Vol: 500.000 mL

Dil. Factor: 1.6900

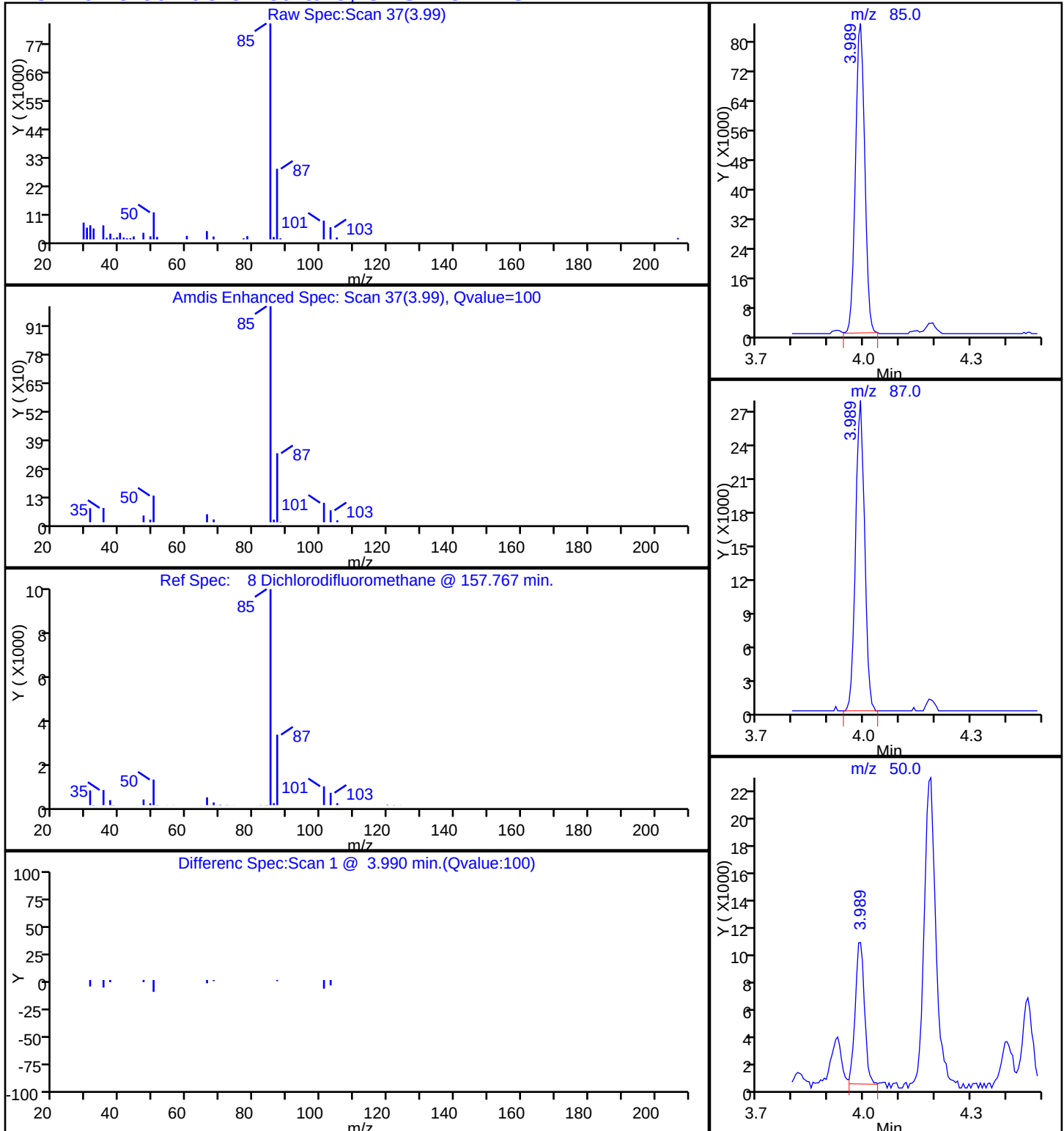
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D

Injection Date: 15-Nov-2016 19:33:30

Instrument ID: MJ

Lims ID: 140-6336-A-5

Lab Sample ID: 140-6336-5

Client ID: OA-1

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 13

Purge Vol: 500.000 mL

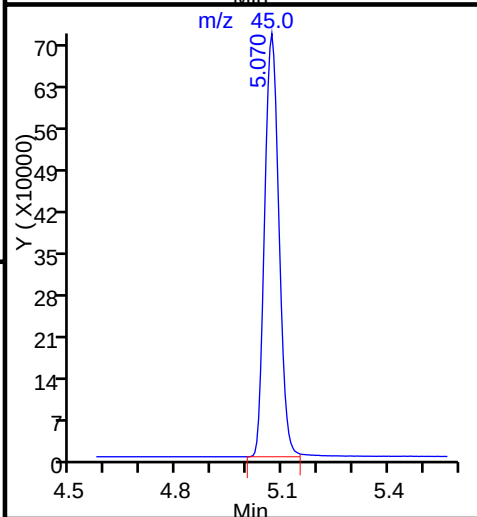
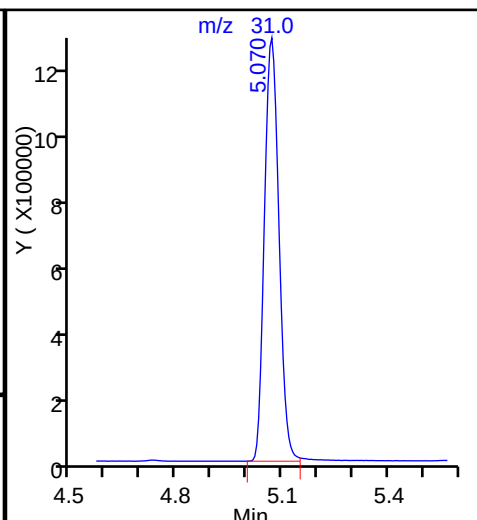
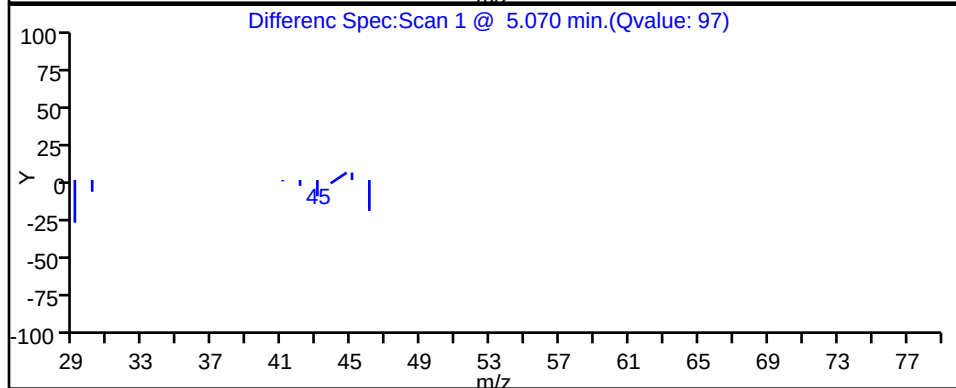
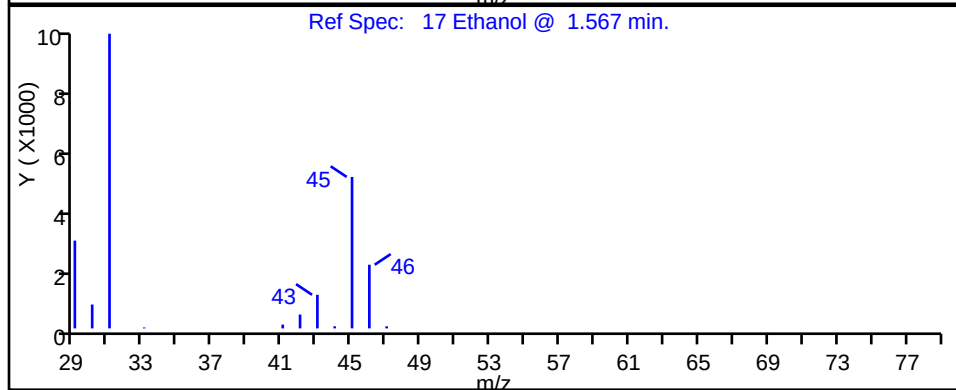
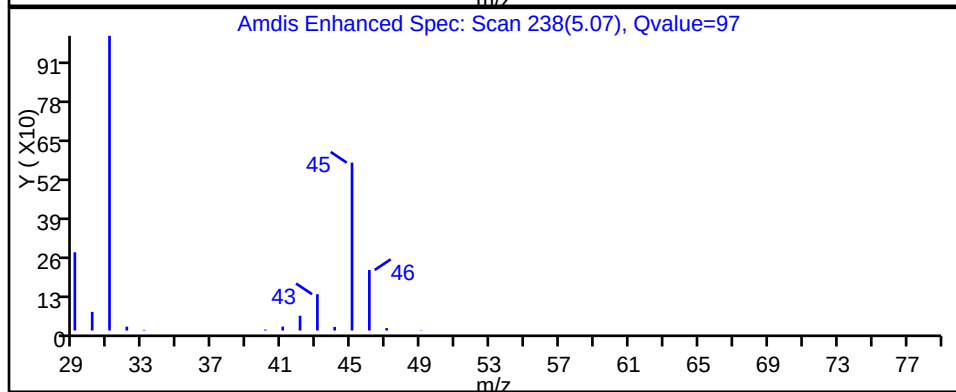
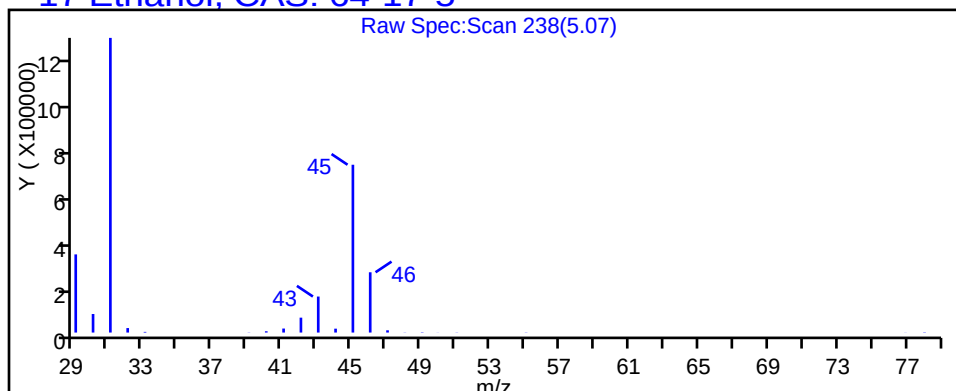
Dil. Factor: 1.6900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D

Injection Date: 15-Nov-2016 19:33:30

Instrument ID: MJ

Lims ID: 140-6336-A-5

Lab Sample ID: 140-6336-5

Client ID: OA-1

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 13

Purge Vol: 500.000 mL

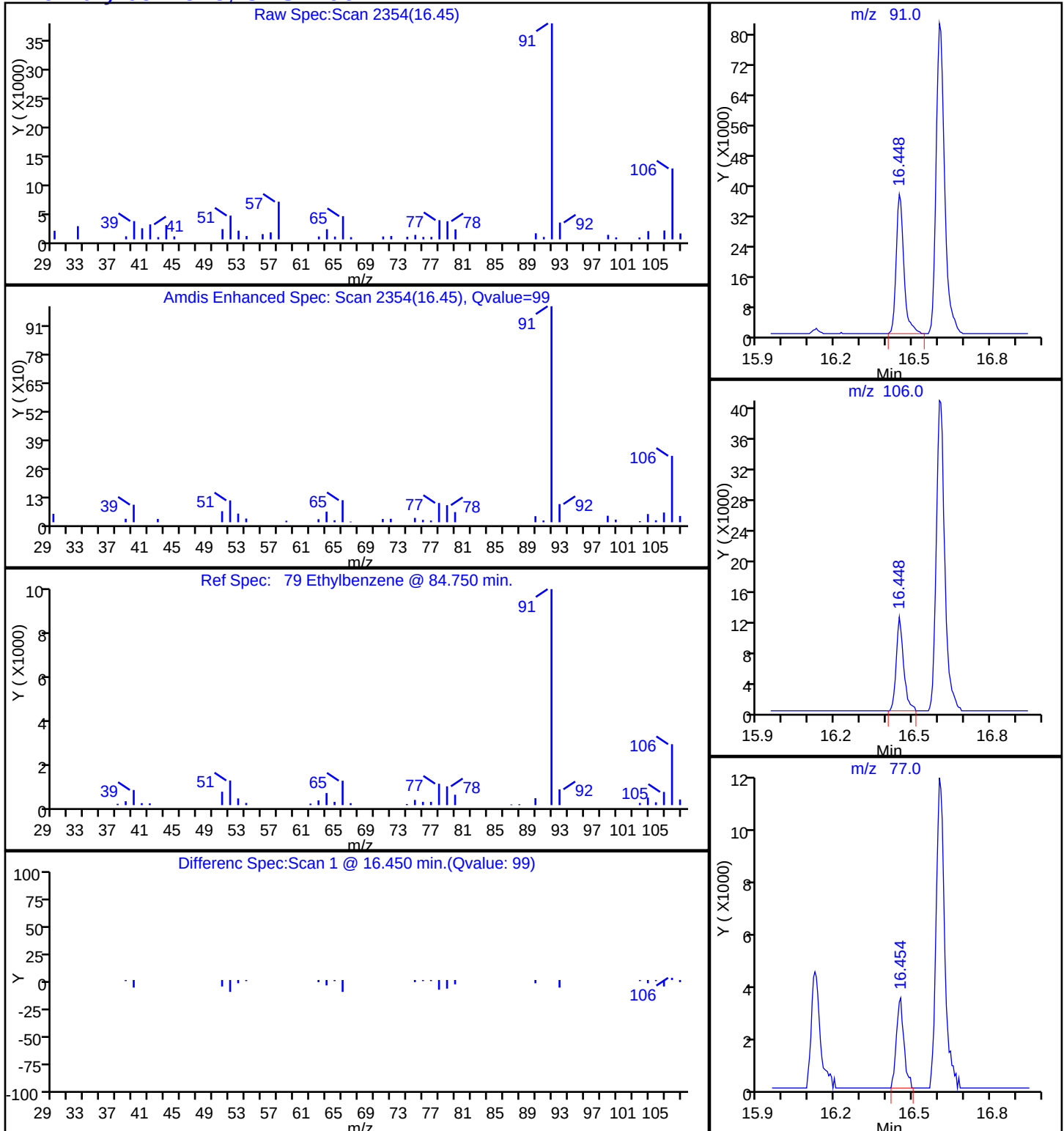
Dil. Factor: 1.6900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

79 Ethylbenzene, CAS: 100-41-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D

Injection Date: 15-Nov-2016 19:33:30

Instrument ID: MJ

Lims ID: 140-6336-A-5

Lab Sample ID: 140-6336-5

Client ID: OA-1

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 13

Purge Vol: 500.000 mL

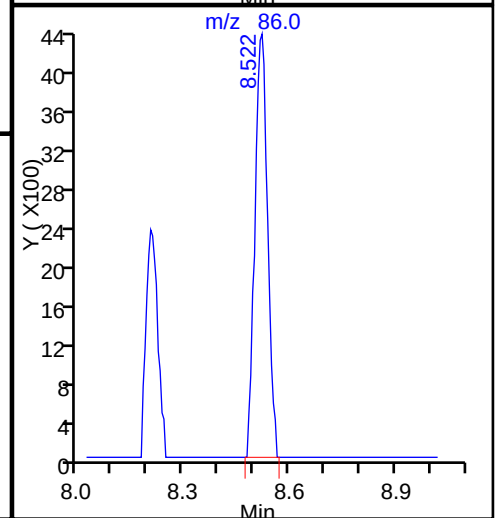
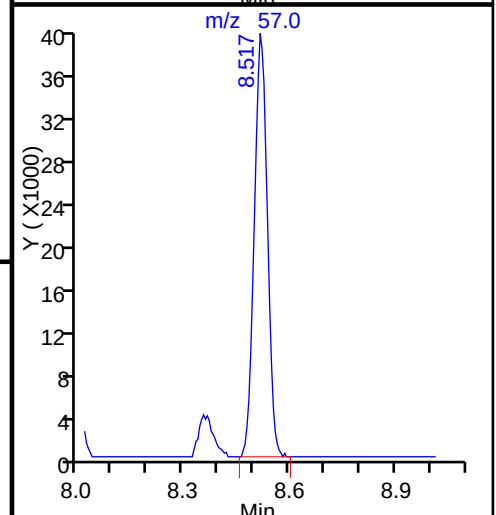
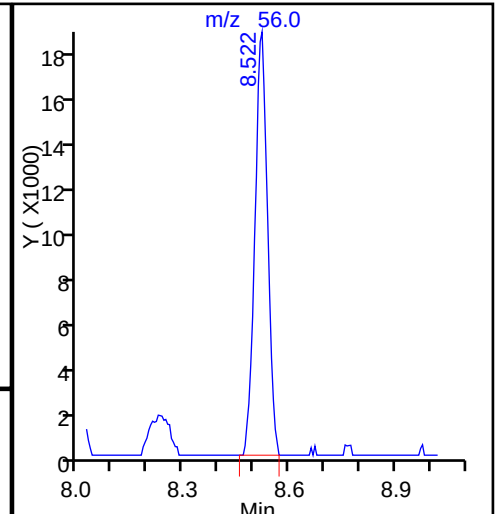
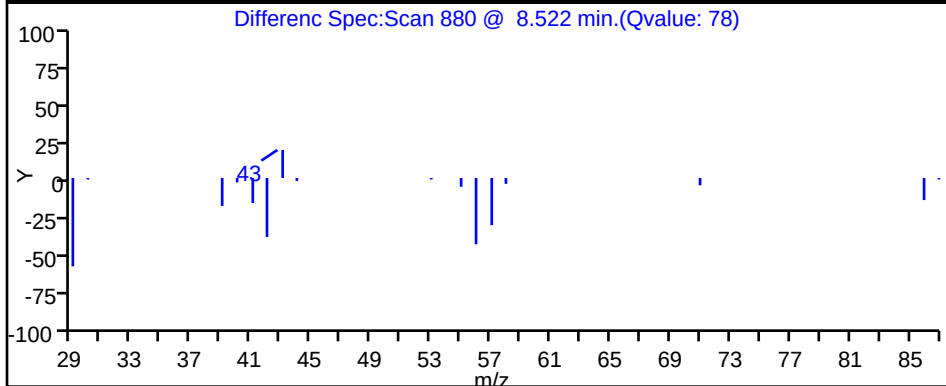
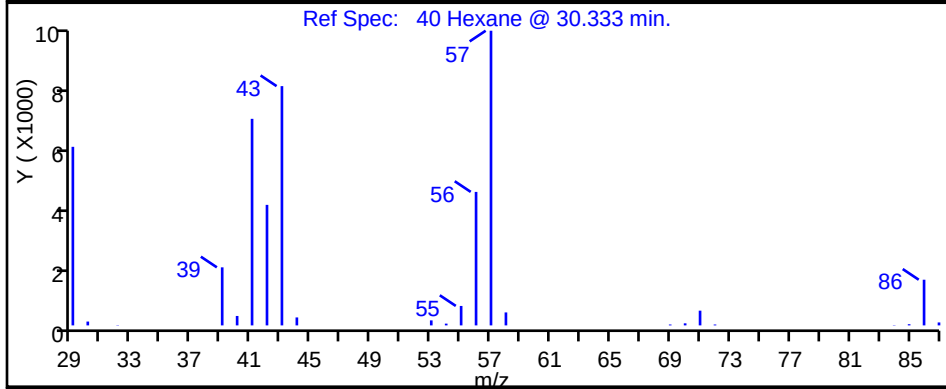
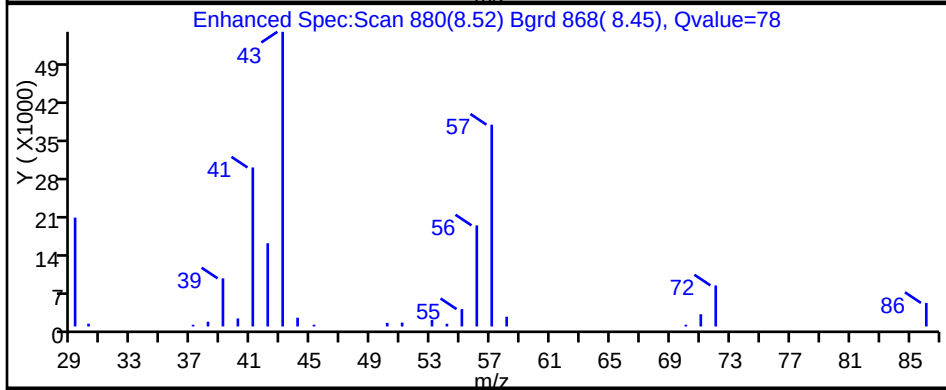
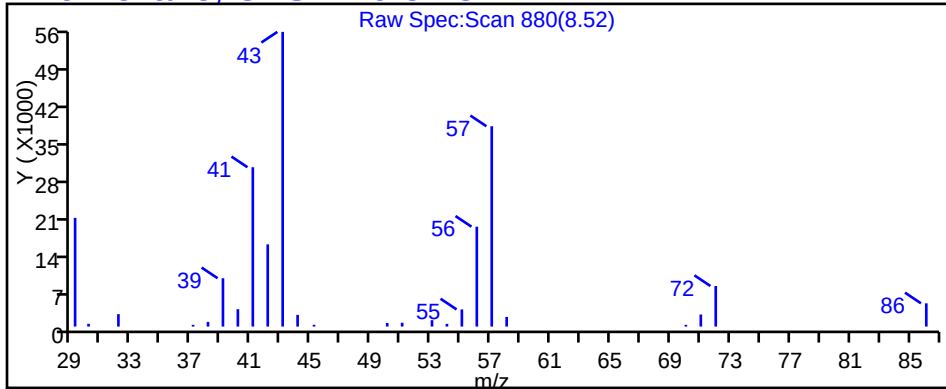
Dil. Factor: 1.6900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D

Injection Date: 15-Nov-2016 19:33:30

Instrument ID: MJ

Lims ID: 140-6336-A-5

Lab Sample ID: 140-6336-5

Client ID: OA-1

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 13

Purge Vol: 500.000 mL

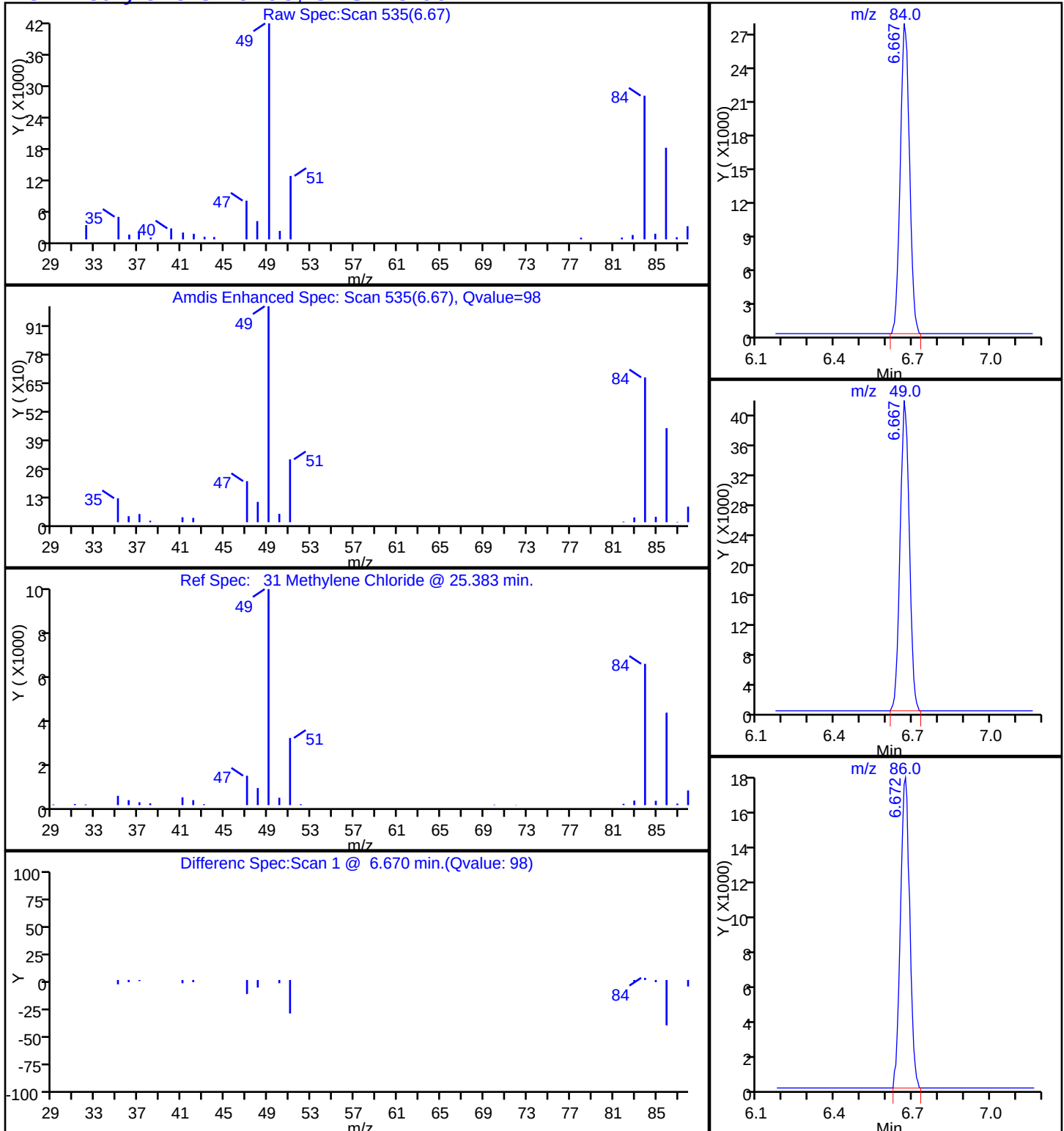
Dil. Factor: 1.6900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D

Injection Date: 15-Nov-2016 19:33:30

Instrument ID: MJ

Lims ID: 140-6336-A-5

Lab Sample ID: 140-6336-5

Client ID: OA-1

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 13

Purge Vol: 500.000 mL

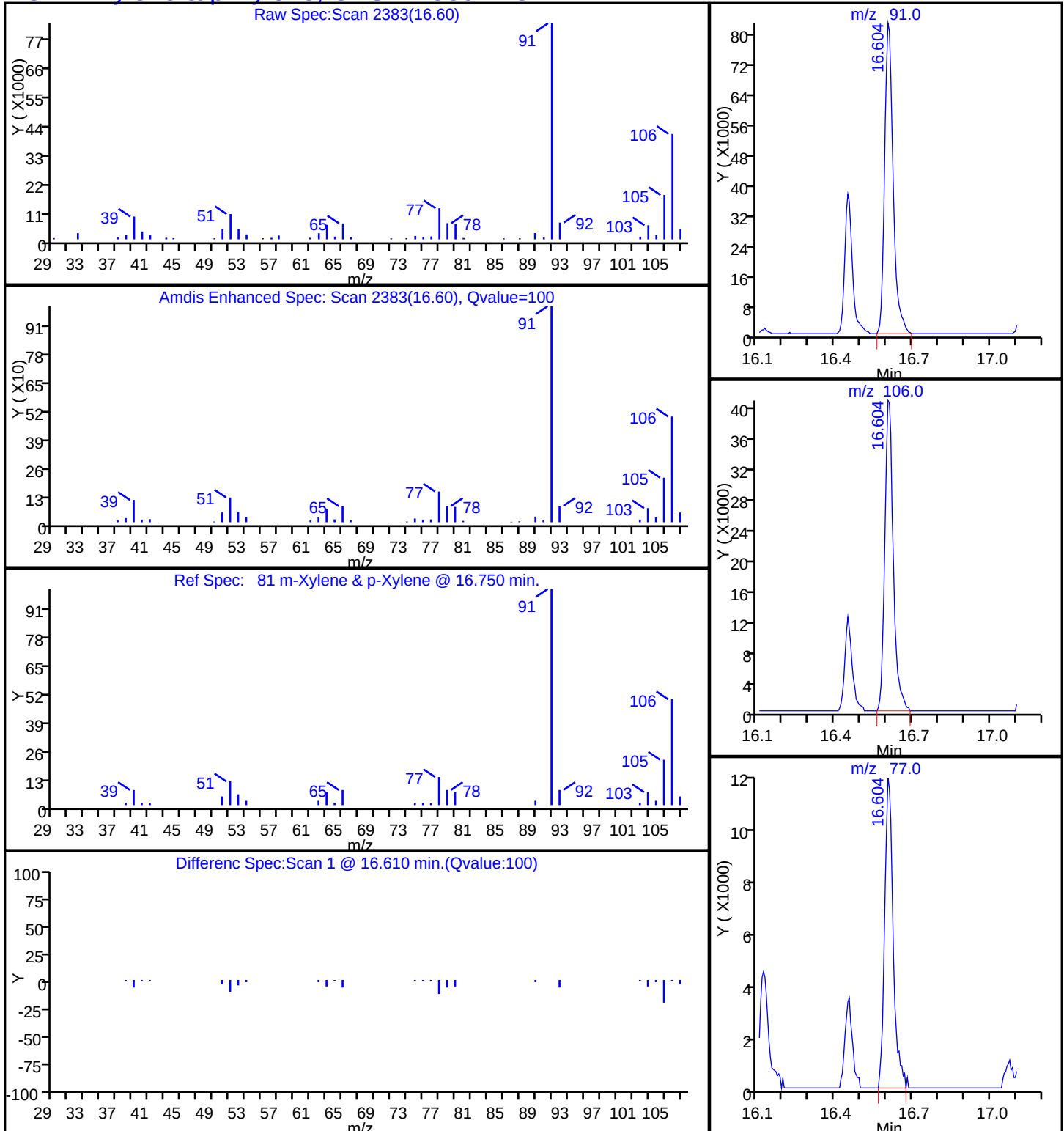
Dil. Factor: 1.6900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

81 m-Xylene & p-Xylene, CAS: 179601-23-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D

Injection Date: 15-Nov-2016 19:33:30

Instrument ID: MJ

Lims ID: 140-6336-A-5

Lab Sample ID: 140-6336-5

Client ID: OA-1

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 13

Purge Vol: 500.000 mL

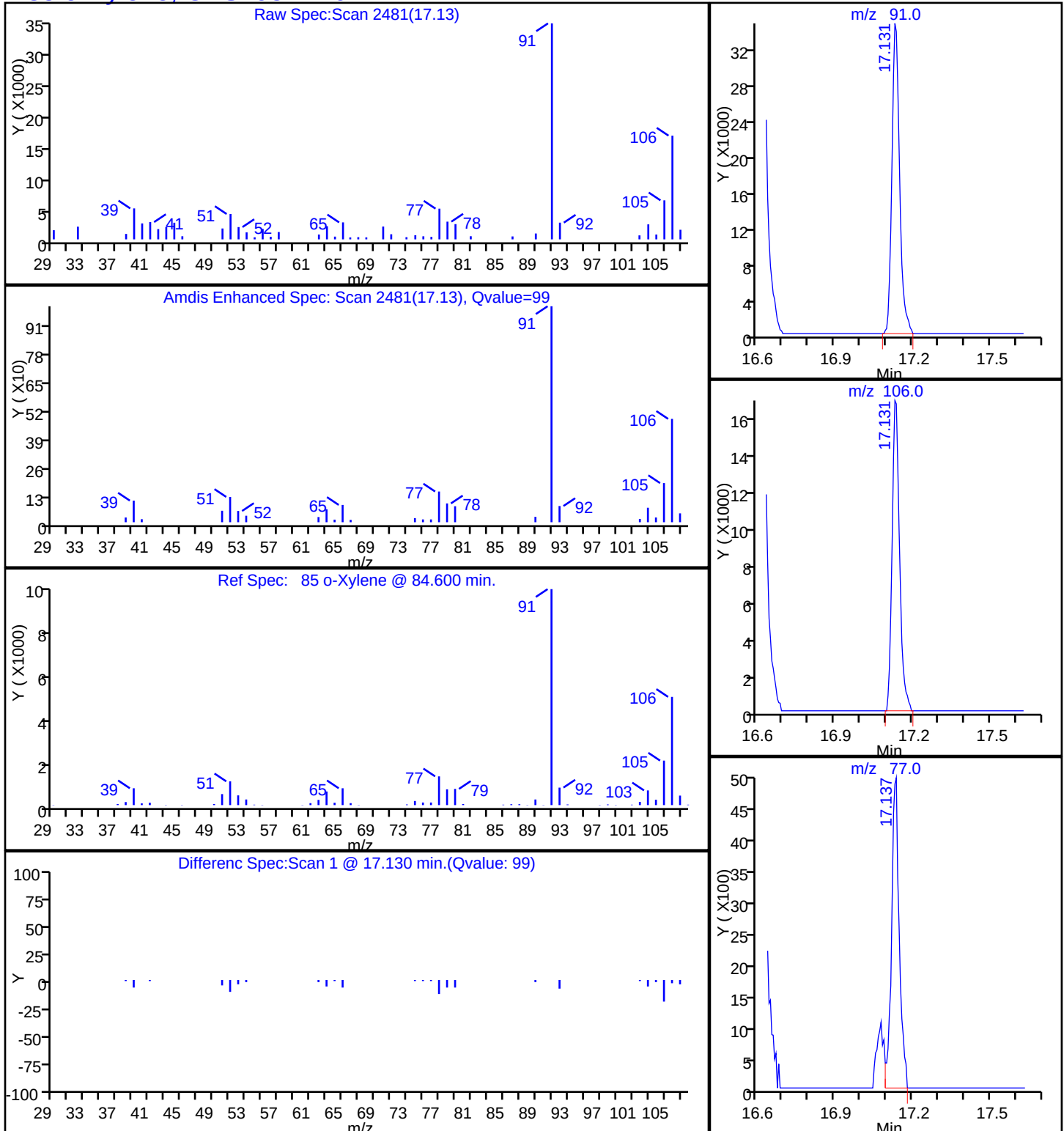
Dil. Factor: 1.6900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

85 o-Xylene, CAS: 95-47-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D

Injection Date: 15-Nov-2016 19:33:30

Instrument ID: MJ

Lims ID: 140-6336-A-5

Lab Sample ID: 140-6336-5

Client ID: OA-1

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 13

Purge Vol: 500.000 mL

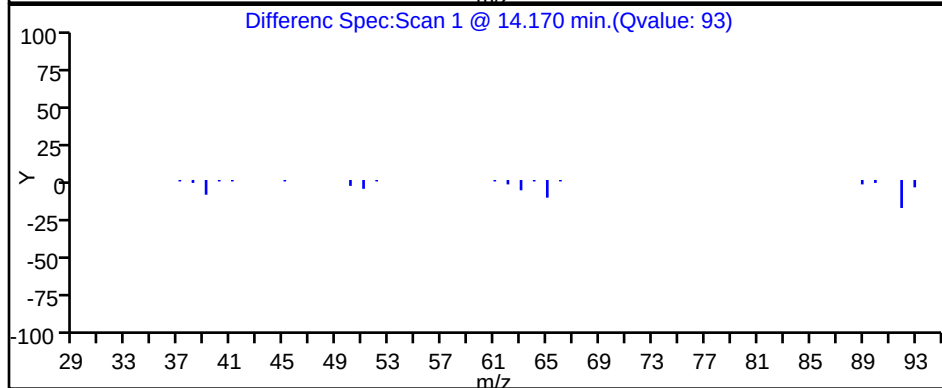
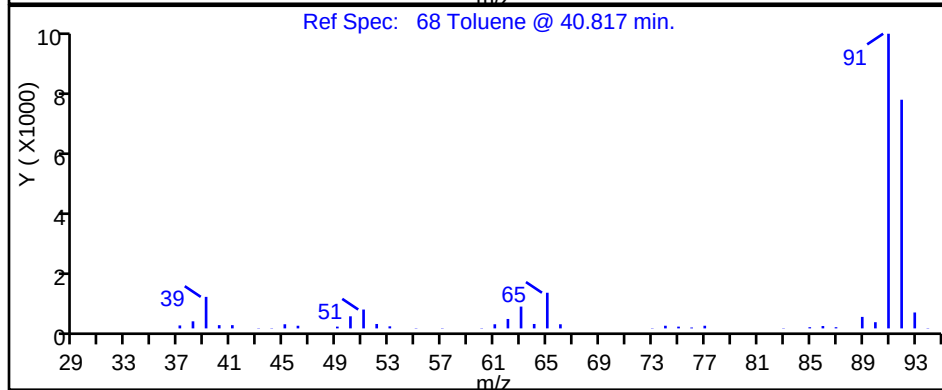
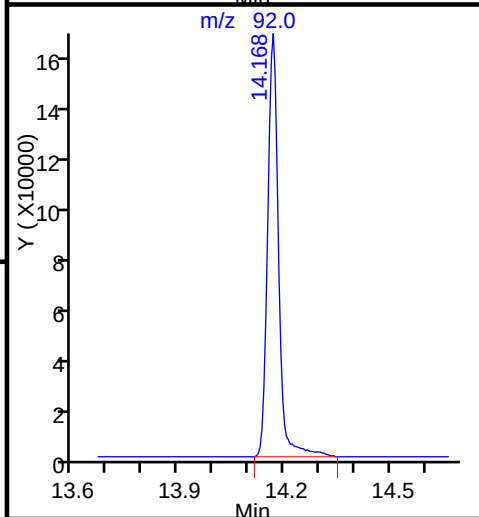
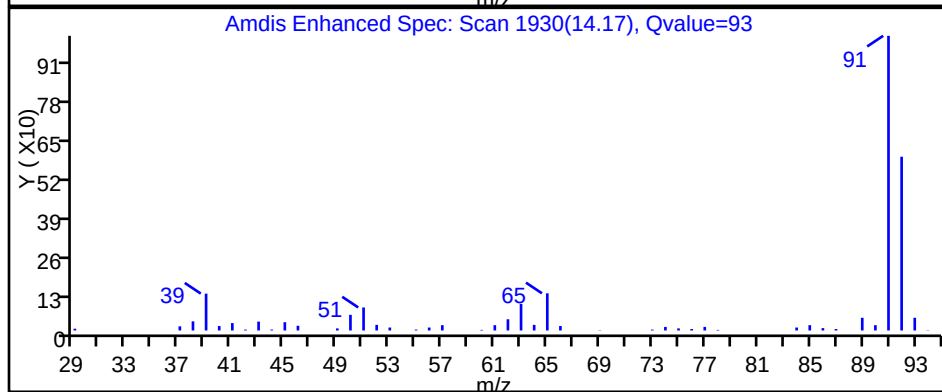
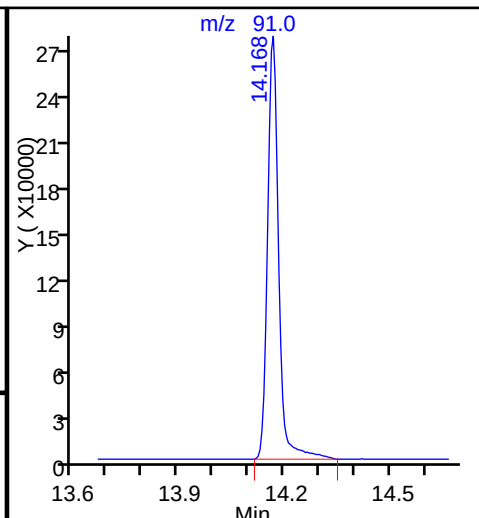
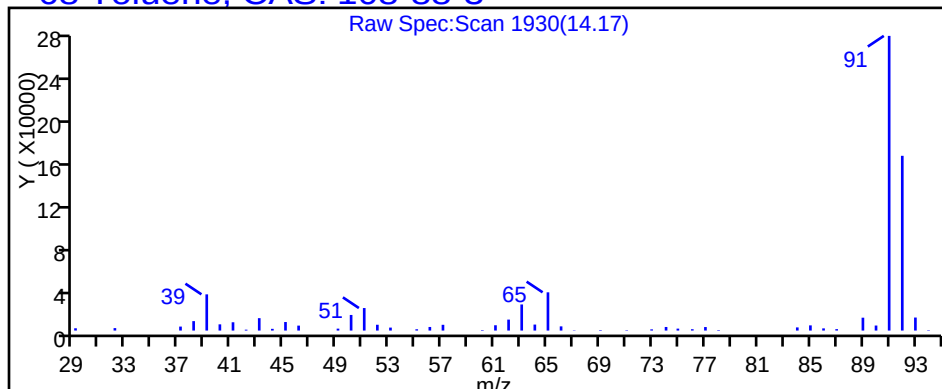
Dil. Factor: 1.6900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

68 Toluene, CAS: 108-88-3

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D

Instrument ID: MJ

Lab Sample ID: 140-6336-5

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 13

Dil. Factor: 1.6900

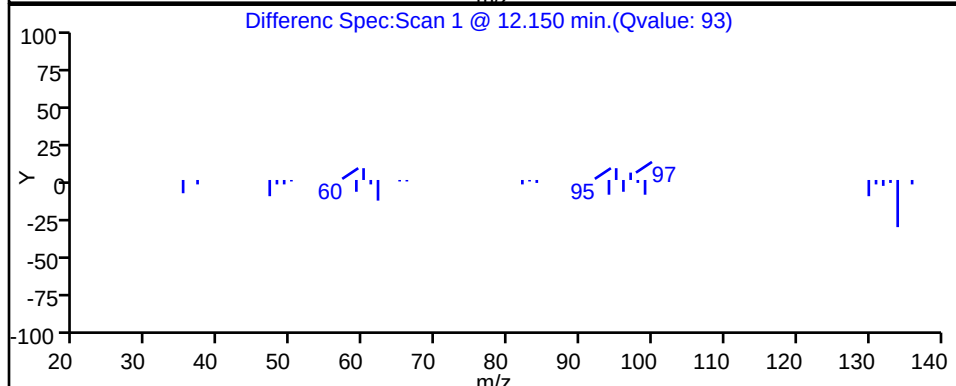
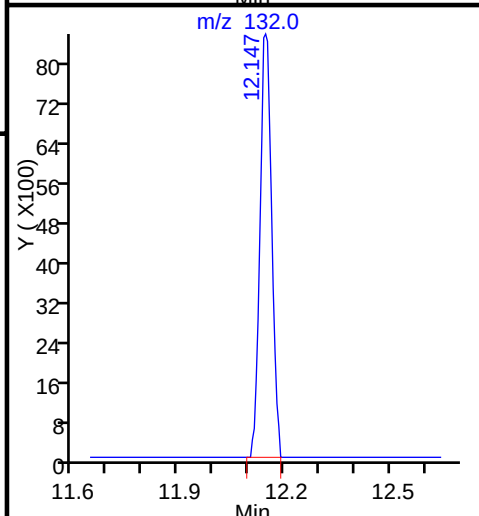
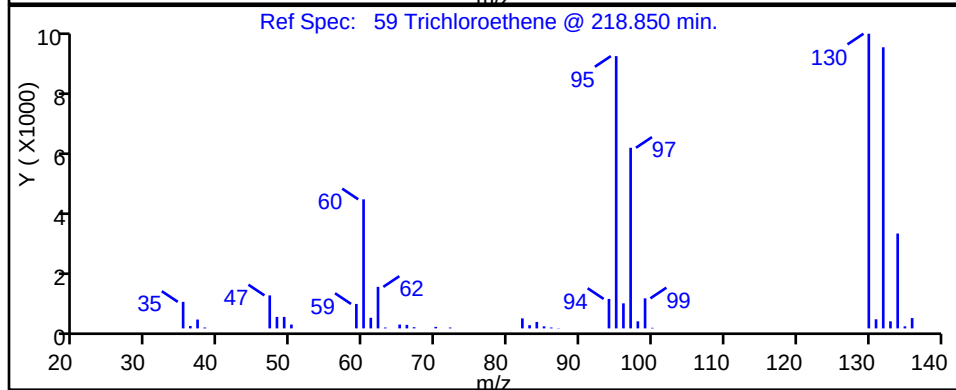
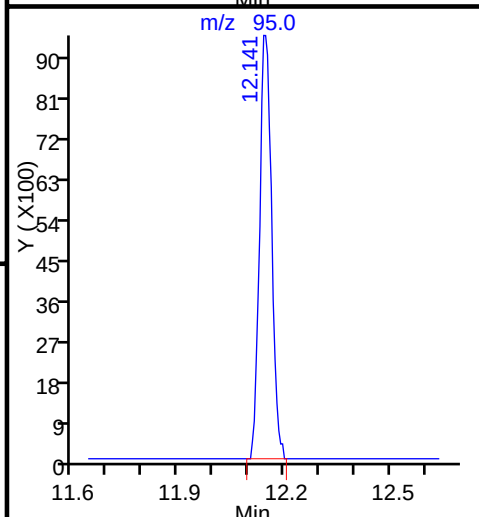
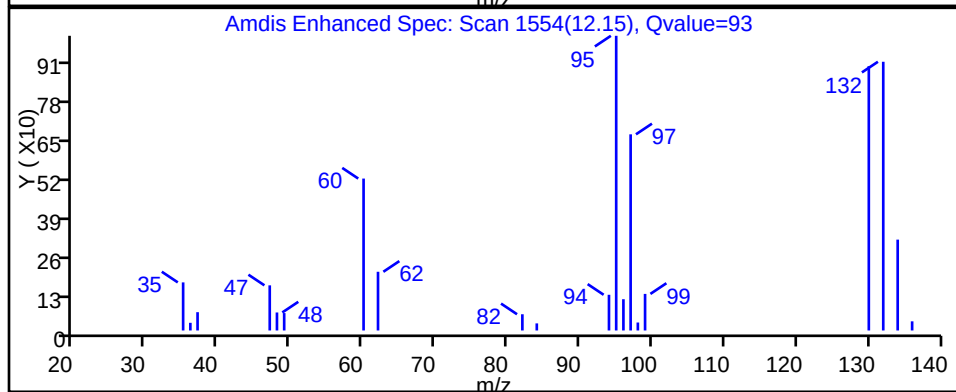
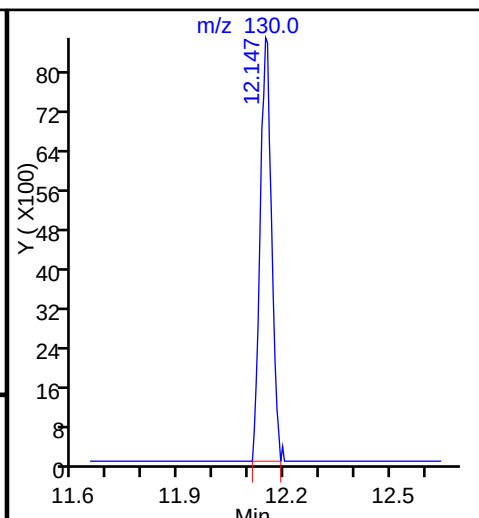
Limit Group: MSA TO14A_15 Routine ICAL

Detector MS SCAN

Raw Spec: Scan 1554(12.15)

Mass spectrum showing relative intensity (Y, X100) versus m/z. The base peak is at m/z 95. Other significant peaks are labeled at m/z 29, 32, 43, 59, 60, 62, 82, 94, 97, 99, 130, and 132.

m/z	Relative Intensity (Y, X100)
29	12
32	24
43	24
59	12
60	48
62	24
82	12
94	12
95	100
97	68
99	12
130	80
132	80



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105.D

Injection Date: 15-Nov-2016 19:33:30

Instrument ID: MJ

Lims ID: 140-6336-A-5

Lab Sample ID: 140-6336-5

Client ID: OA-1

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 13

Purge Vol: 500.000 mL

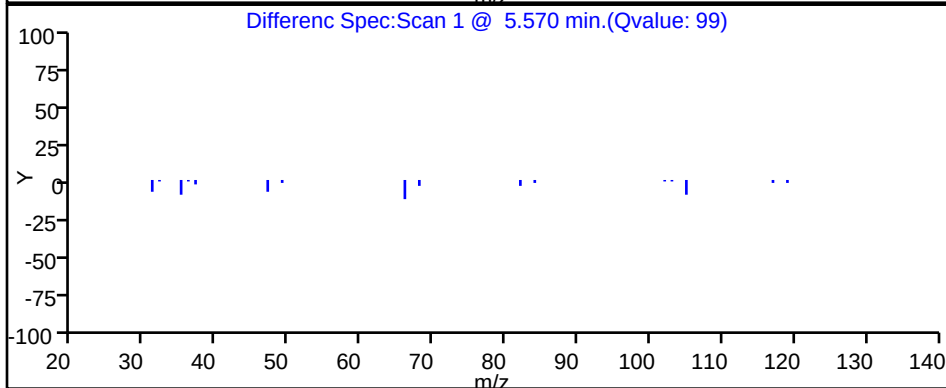
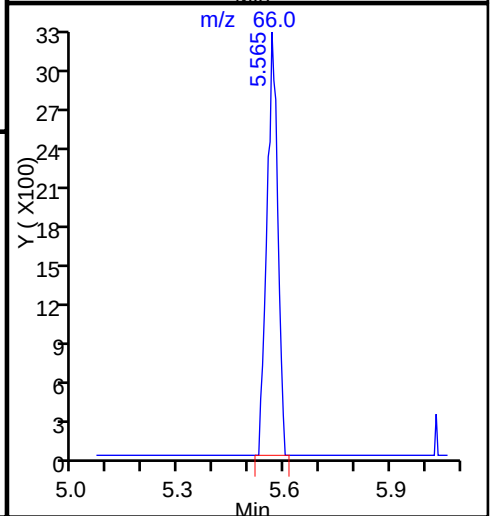
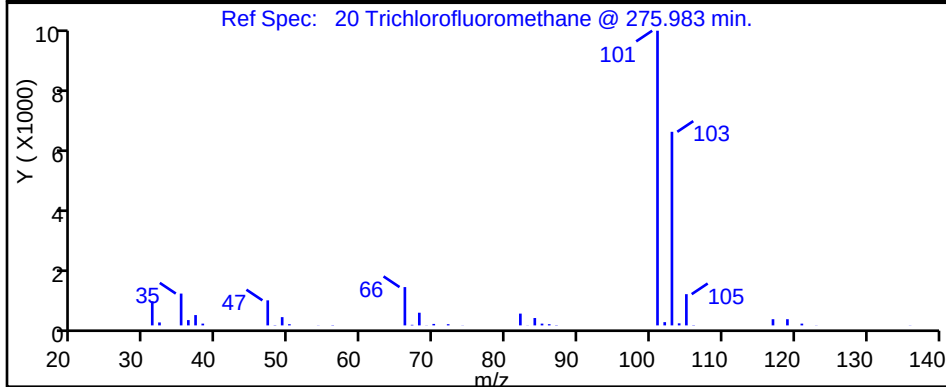
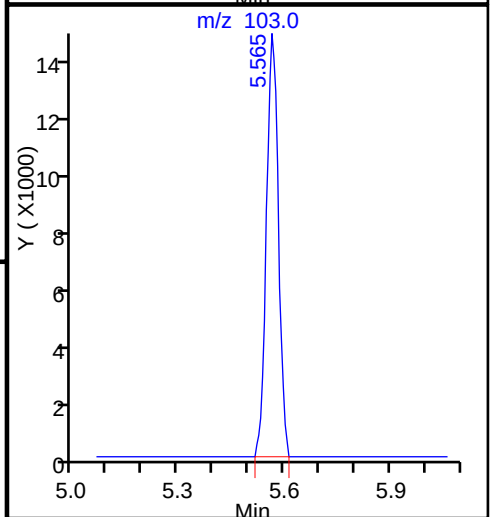
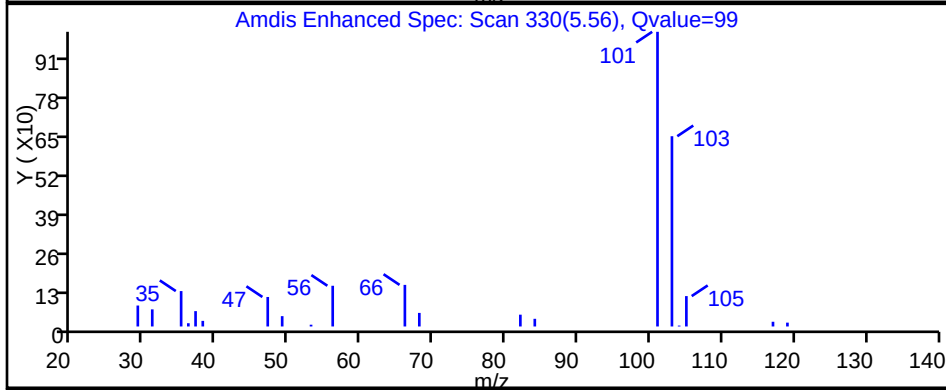
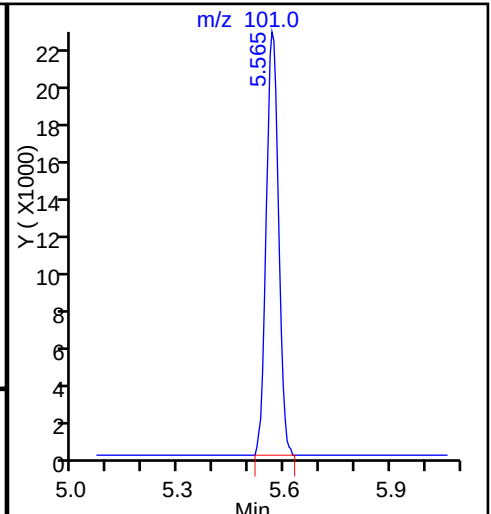
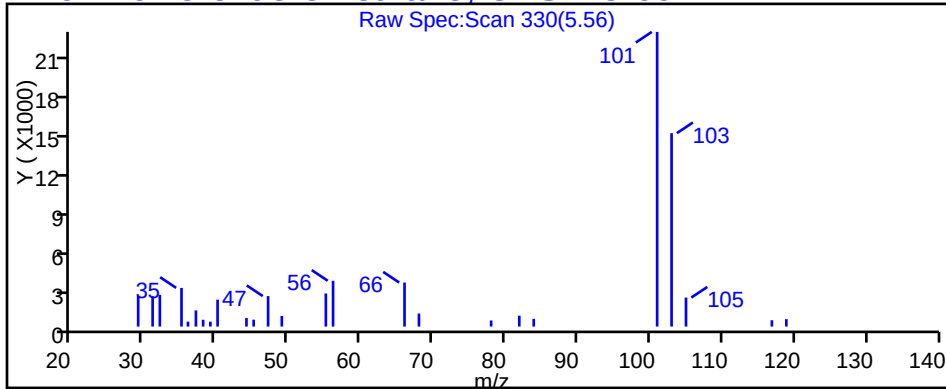
Dil. Factor: 1.6900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OA-1 DL Lab Sample ID: 140-6336-5 DL
 Matrix: Air Lab File ID: JK15P105DL.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 16:50
 Sample wt/vol: 200 (mL) Date Analyzed: 11/16/2016 09:42
 Soil Aliquot Vol: _____ Dilution Factor: 1.69
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
64-17-5	Ethanol	46.07	150	D	8.5	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	104		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OA-1 DL Lab Sample ID: 140-6336-5 DL
 Matrix: Air Lab File ID: JK15P105DL.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 16:50
 Sample wt/vol: 200 (mL) Date Analyzed: 11/16/2016 09:42
 Soil Aliquot Vol: _____ Dilution Factor: 1.69
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
64-17-5	Ethanol	46.07	280	D	16	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	104		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105DL.D
 Lims ID: 140-6336-A-5
 Client ID: OA-1
 Sample Type: Client
 Inject. Date: 16-Nov-2016 09:42:30 ALS Bottle#: 5 Worklist Smp#: 27
 Purge Vol: 500.000 mL Dil. Factor: 1.6900
 Sample Info: 140-0003625-027
 Misc. Info.: 140-6336-a-5@1.69
 Operator ID: 7126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 10:32:00 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 10:31:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.279	9.281	-0.002	97	255345	4.00	
* 2 1,4-Difluorobenzene	114	11.440	11.443	-0.003	96	1165583	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.119	16.121	-0.002	90	956359	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.748	17.745	0.003	96	597817	4.15	
8 Dichlorodifluoromethane	85	3.982	3.990	-0.008	100	36653	0.1458	
9 Chloromethane	52	4.181	4.183	-0.002	98	5272	0.1829	
17 Ethanol	31	5.052	5.060	-0.008	98	866471	35.6	
20 Trichlorofluoromethane	101	5.563	5.565	-0.002	99	12841	0.0586	
28 2-Methyl-2-propanol	59	6.429	6.404	0.025	1	2048	0.0165	
31 Methylene Chloride	84	6.660	6.673	-0.013	98	18512	0.2282	
39 2-Butanone (MEK)	72	8.510	8.507	0.003	82	4572	0.1687	
40 Hexane	56	8.510	8.523	-0.013	75	10934	0.1697	
50 Cyclohexane	69	10.919	10.921	-0.002	57	2115	0.0570	
51 Benzene	78	10.913	10.921	-0.008	97	32468	0.1506	
52 Carbon tetrachloride	117	10.940	10.942	-0.002	87	2495	0.0151	
56 Isooctane	57	11.655	11.652	0.003	98	39237	0.1127	
59 Trichloroethene	130	12.145	12.147	-0.002	91	4260	0.0492	
65 4-Methyl-2-pentanone (MIBK	43	13.306	13.298	0.008	98	9305	0.0696	
68 Toluene	91	14.167	14.169	-0.002	93	106168	0.5064	
76 Tetrachloroethene	129	15.296	15.304	-0.008	86	1393	0.0177	
79 Ethylbenzene	91	16.447	16.449	-0.002	97	12064	0.0521	
81 m-Xylene & p-Xylene	91	16.603	16.610	-0.007	99	29483	0.1701	
85 o-Xylene	91	17.130	17.137	-0.007	97	11695	0.0616	
92 1,3,5-Trimethylbenzene	120	18.345	18.449	-0.104	83	2801	0.0273	
96 1,2,4-Trimethylbenzene	105	18.872	18.874	-0.002	97	8194	0.0470	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105DL.D

Injection Date: 16-Nov-2016 09:42:30

Instrument ID: MJ

Operator ID: 7126

Lims ID: 140-6336-A-5

Lab Sample ID: 140-6336-5

Worklist Smp#: 27

Client ID: OA-1

Purge Vol: 500.000 mL

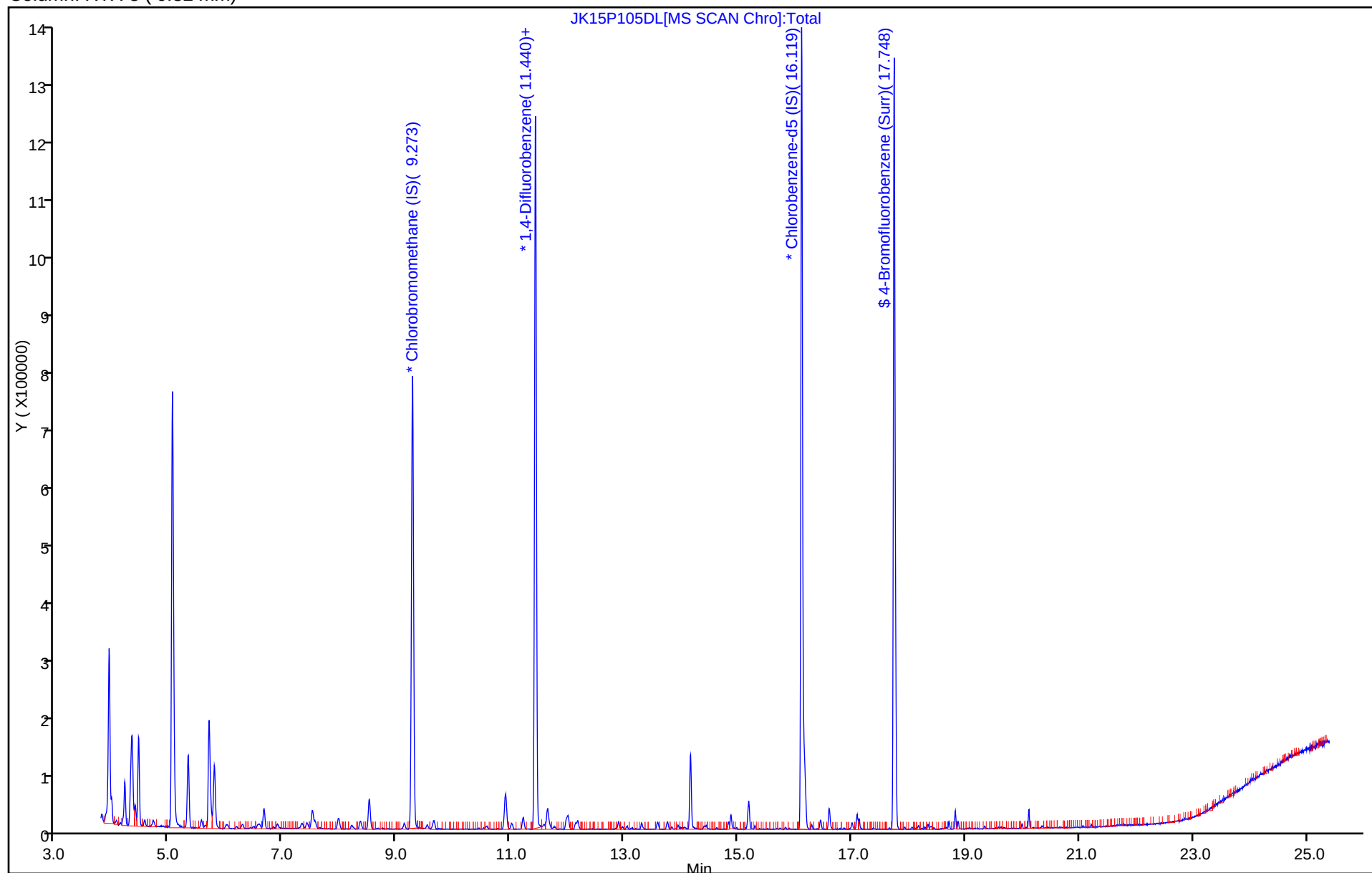
Dil. Factor: 1.6900

ALS Bottle#: 5

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105DL.D
Lims ID: 140-6336-A-5
Client ID: OA-1
Sample Type: Client
Inject. Date: 16-Nov-2016 09:42:30 ALS Bottle#: 5 Worklist Smp#: 27
Purge Vol: 500.000 mL Dil. Factor: 1.6900
Sample Info: 140-0003625-027
Misc. Info.: 140-6336-a-5@1.69
Operator ID: 7126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 10:32:00 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 10:31:59

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.15	103.66

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P105DL.D

Injection Date: 16-Nov-2016 09:42:30

Instrument ID: MJ

Lims ID: 140-6336-A-5

Lab Sample ID: 140-6336-5

Client ID: OA-1

Operator ID: 7126

ALS Bottle#: 5

Worklist Smp#: 27

Purge Vol: 500.000 mL

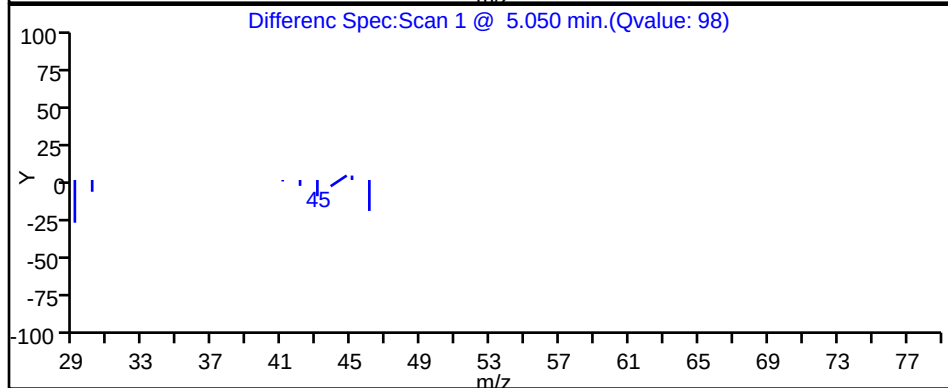
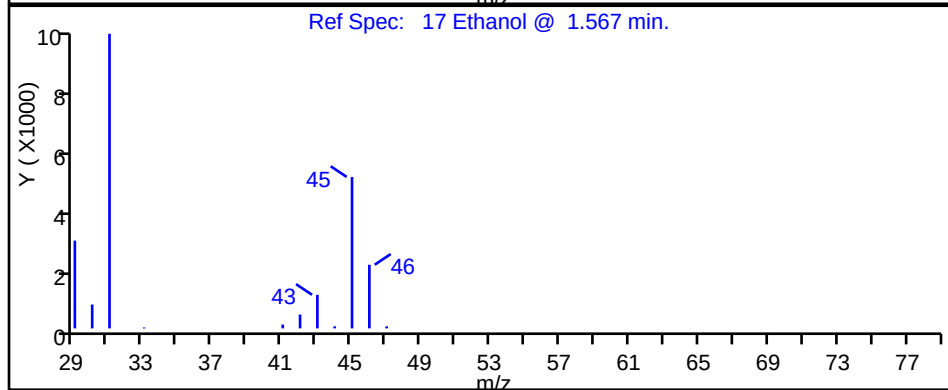
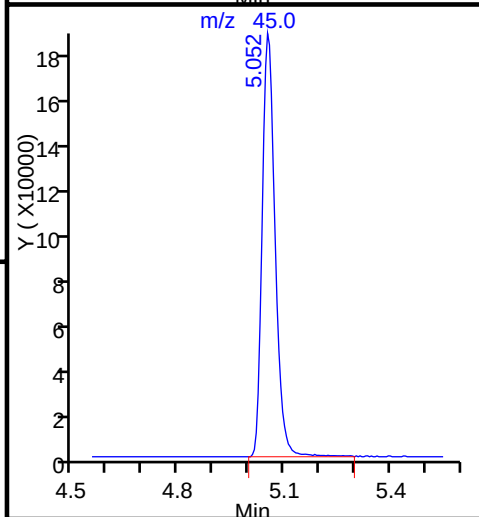
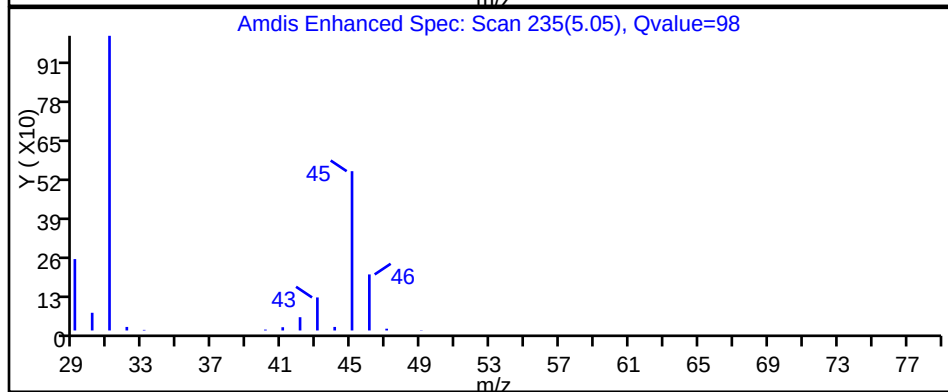
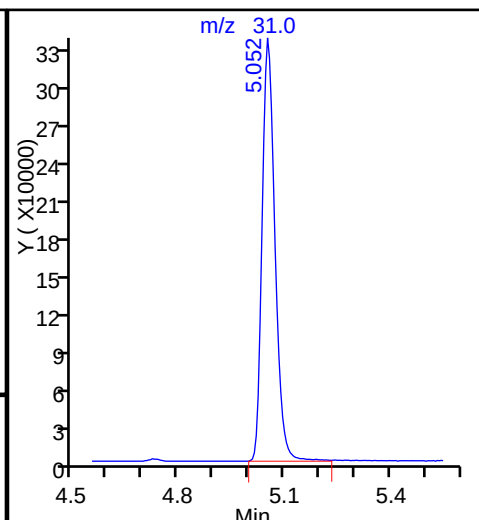
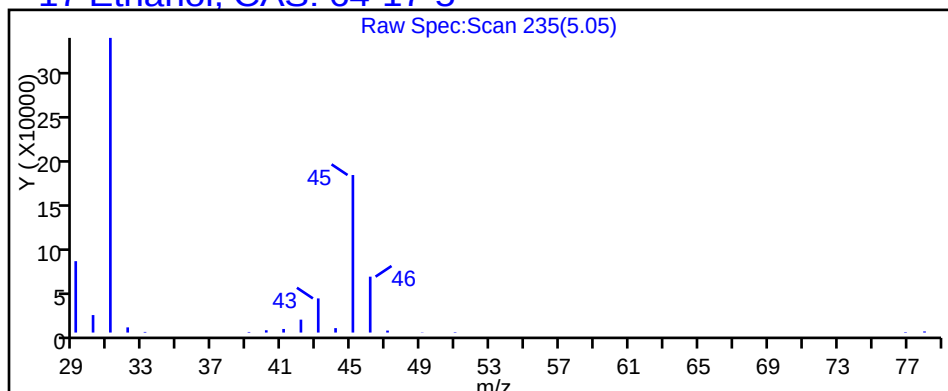
Dil. Factor: 1.6900

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OA-2 Lab Sample ID: 140-6336-6
 Matrix: Air Lab File ID: JK15P106.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 16:58
 Sample wt/vol: 840 (mL) Date Analyzed: 11/15/2016 20:28
 Soil Aliquot Vol: _____ Dilution Factor: 1.68
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.080	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.080	
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	120.20	0.32		0.080	
106-93-4	1,2-Dibromoethane	187.87	ND		0.080	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.080	
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	
78-87-5	1,2-Dichloropropane	112.99	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	0.090		0.080	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.080	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.080	
123-91-1	1,4-Dioxane	88.11	ND		0.20	
540-84-1	2,2,4-Trimethylpentane	114.23	0.69		0.20	
78-93-3	2-Butanone	72.11	1.2		0.32	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	2.8		0.20	
71-43-2	Benzene	78.11	0.70		0.080	
100-44-7	Benzyl chloride	126.58	ND		0.16	
75-27-4	Bromodichloromethane	163.83	ND		0.080	
75-25-2	Bromoform	252.75	ND		0.080	
74-83-9	Bromomethane	94.94	ND		0.080	
56-23-5	Carbon tetrachloride	153.81	0.075		0.040	
108-90-7	Chlorobenzene	112.56	ND		0.080	
75-00-3	Chloroethane	64.52	ND		0.080	
67-66-3	Chloroform	119.38	ND		0.080	
74-87-3	Chloromethane	50.49	0.62		0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.080	
110-82-7	Cyclohexane	84.16	0.26		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OA-2 Lab Sample ID: 140-6336-6
 Matrix: Air Lab File ID: JK15P106.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 16:58
 Sample wt/vol: 840 (mL) Date Analyzed: 11/15/2016 20:28
 Soil Aliquot Vol: _____ Dilution Factor: 1.68
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.080	
75-71-8	Dichlorodifluoromethane	120.91	0.74		0.080	
64-17-5	Ethanol	46.07	25		2.0	
100-41-4	Ethylbenzene	106.17	0.32		0.080	
87-68-3	Hexachlorobutadiene	260.76	ND		0.080	
110-54-3	Hexane	86.17	0.81		0.20	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.16	
75-09-2	Methylene Chloride	84.93	1.2		0.20	
179601-23-1	m-Xylene & p-Xylene	106.17	1.1		0.080	
95-47-6	o-Xylene	106.17	0.39		0.080	
100-42-5	Styrene	104.15	ND		0.080	
75-65-0	t-Butyl alcohol	74.12	ND		0.32	
127-18-4	Tetrachloroethene	165.83	0.082		0.080	
108-88-3	Toluene	92.14	2.5		0.12	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.080	
79-01-6	Trichloroethene	131.39	0.17		0.040	
75-69-4	Trichlorofluoromethane	137.37	0.25		0.080	
75-01-4	Vinyl chloride	62.50	ND		0.040	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	101		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OA-2 Lab Sample ID: 140-6336-6
 Matrix: Air Lab File ID: JK15P106.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 16:58
 Sample wt/vol: 840 (mL) Date Analyzed: 11/15/2016 20:28
 Soil Aliquot Vol: _____ Dilution Factor: 1.68
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.55	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.61	
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	
95-63-6	1,2,4-Trimethylbenzene	120.20	1.6		0.39	
106-93-4	1,2-Dibromoethane	187.87	ND		0.61	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.48	
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	
78-87-5	1,2-Dichloropropane	112.99	ND		0.37	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	0.63		0.56	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.48	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.48	
123-91-1	1,4-Dioxane	88.11	ND		0.72	
540-84-1	2,2,4-Trimethylpentane	114.23	3.2		0.93	
78-93-3	2-Butanone	72.11	3.4		0.94	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	12		0.82	
71-43-2	Benzene	78.11	2.2		0.26	
100-44-7	Benzyl chloride	126.58	ND		0.83	
75-27-4	Bromodichloromethane	163.83	ND		0.54	
75-25-2	Bromoform	252.75	ND		0.83	
74-83-9	Bromomethane	94.94	ND		0.31	
56-23-5	Carbon tetrachloride	153.81	0.47		0.25	
108-90-7	Chlorobenzene	112.56	ND		0.37	
75-00-3	Chloroethane	64.52	ND		0.21	
67-66-3	Chloroform	119.38	ND		0.39	
74-87-3	Chloromethane	50.49	1.3		0.41	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.36	
110-82-7	Cyclohexane	84.16	0.88		0.69	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OA-2 Lab Sample ID: 140-6336-6
 Matrix: Air Lab File ID: JK15P106.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 16:58
 Sample wt/vol: 840 (mL) Date Analyzed: 11/15/2016 20:28
 Soil Aliquot Vol: _____ Dilution Factor: 1.68
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.68	
75-71-8	Dichlorodifluoromethane	120.91	3.6		0.40	
64-17-5	Ethanol	46.07	48		3.8	
100-41-4	Ethylbenzene	106.17	1.4		0.35	
87-68-3	Hexachlorobutadiene	260.76	ND		0.85	
110-54-3	Hexane	86.17	2.9		0.70	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.58	
75-09-2	Methylene Chloride	84.93	4.0		0.69	
179601-23-1	m-Xylene & p-Xylene	106.17	4.8		0.35	
95-47-6	o-Xylene	106.17	1.7		0.35	
100-42-5	Styrene	104.15	ND		0.34	
75-65-0	t-Butyl alcohol	74.12	ND		0.97	
127-18-4	Tetrachloroethene	165.83	0.55		0.54	
108-88-3	Toluene	92.14	9.3		0.45	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.36	
79-01-6	Trichloroethene	131.39	0.91		0.21	
75-69-4	Trichlorofluoromethane	137.37	1.4		0.45	
75-01-4	Vinyl chloride	62.50	ND		0.10	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	101		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D
 Lims ID: 140-6336-A-6
 Client ID: OA-2
 Sample Type: Client
 Inject. Date: 15-Nov-2016 20:28:30 ALS Bottle#: 6 Worklist Smp#: 14
 Purge Vol: 500.000 mL Dil. Factor: 1.6800
 Sample Info: 140-0003625-014
 Misc. Info.: 140-6336-a-6@1.68
 Operator ID: 7126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:04:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.281	9.281	0.000	98	255661	4.00	
* 2 1,4-Difluorobenzene	114	11.443	11.443	0.000	96	1183477	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.121	16.121	0.000	90	978853	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.745	17.745	0.000	87	598248	4.05	
8 Dichlorodifluoromethane	85	3.985	3.990	-0.005	100	185426	0.7368	
9 Chloromethane	52	4.178	4.183	-0.005	99	17979	0.6231	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.189	4.189	0.000	63	11934	0.0901	
17 Ethanol	31	5.055	5.060	-0.005	97	616478	25.3	
20 Trichlorofluoromethane	101	5.560	5.565	-0.005	100	54051	0.2463	
30 1,1,2-Trichloro-1,2,2-trif	101	6.485	6.485	0.000	93	12067	0.0709	
31 Methylene Chloride	84	6.668	6.673	-0.005	98	94657	1.17	
39 2-Butanone (MEK)	72	8.507	8.507	0.000	96	31265	1.15	
40 Hexane	56	8.518	8.523	-0.005	75	52242	0.8100	
44 Chloroform	83	9.287	9.292	-0.005	27	6698	0.0417	
50 Cyclohexane	69	10.916	10.921	-0.005	54	9671	0.2565	
51 Benzene	78	10.916	10.921	-0.005	97	152482	0.6966	
52 Carbon tetrachloride	117	10.943	10.942	0.001	95	12670	0.0754	
56 Isooctane	57	11.653	11.652	0.001	97	242103	0.6851	
59 Trichloroethene	130	12.147	12.147	0.000	94	14839	0.1688	
65 4-Methyl-2-pentanone (MIBK	43	13.293	13.298	-0.005	98	381188	2.81	
68 Toluene	91	14.164	14.169	-0.005	93	528785	2.46	
76 Tetrachloroethene	129	15.299	15.304	-0.005	91	6567	0.0817	
79 Ethylbenzene	91	16.449	16.449	0.000	99	76649	0.3234	
81 m-Xylene & p-Xylene	91	16.605	16.610	-0.005	100	196410	1.11	
84 Styrene	104	17.068	17.073	-0.005	97	7438	0.0664	
85 o-Xylene	91	17.132	17.137	-0.005	99	75471	0.3881	
92 1,3,5-Trimethylbenzene	120	18.444	18.449	-0.005	91	8224	0.0782	
96 1,2,4-Trimethylbenzene	105	18.874	18.874	0.000	98	57684	0.3234	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Operator ID: 7126

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Worklist Smp#: 14

Client ID: OA-2

Purge Vol: 500.000 mL

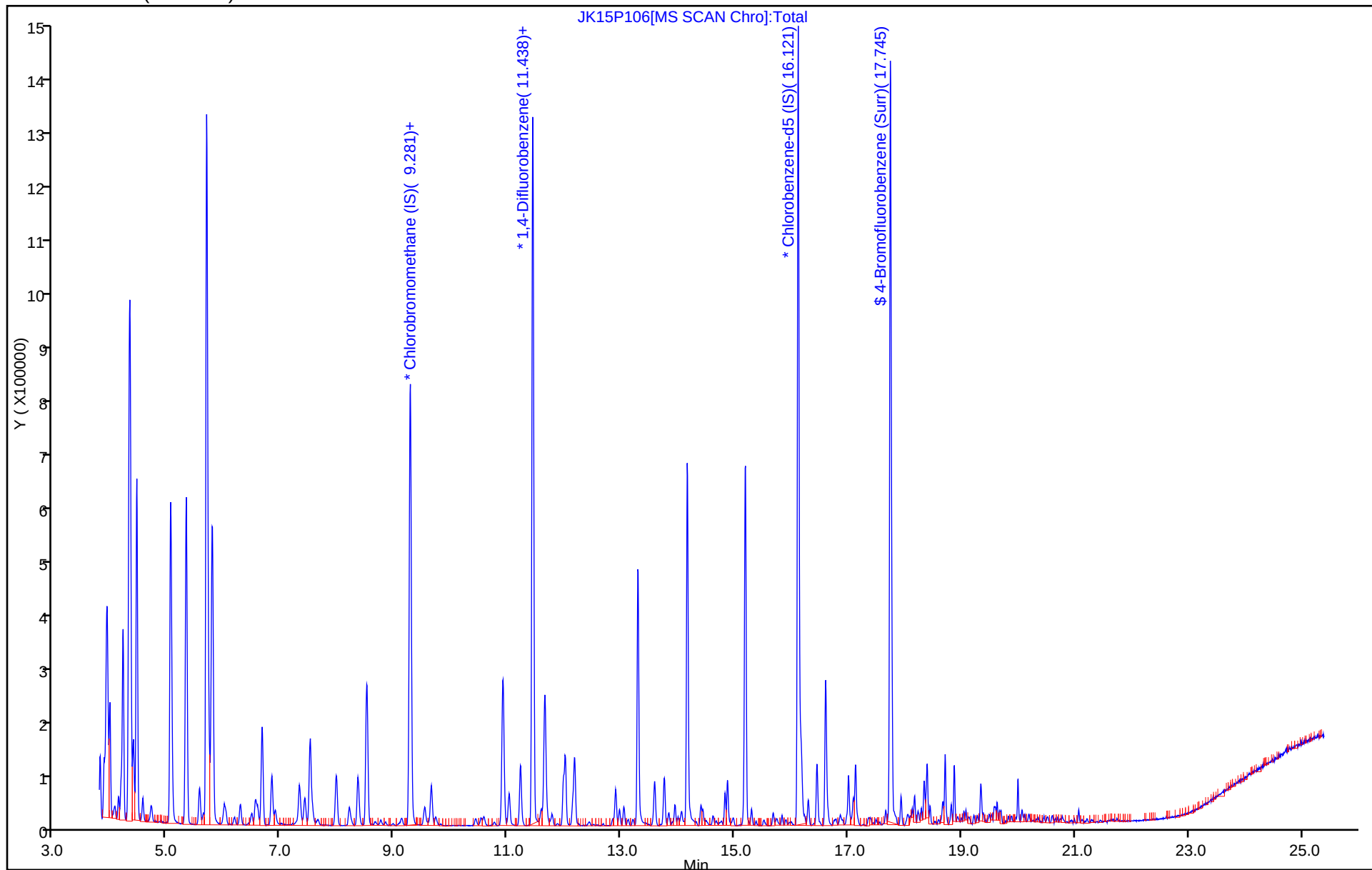
Dil. Factor: 1.6800

ALS Bottle#: 6

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D
Lims ID: 140-6336-A-6
Client ID: OA-2
Sample Type: Client
Inject. Date: 15-Nov-2016 20:28:30 ALS Bottle#: 6 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.6800
Sample Info: 140-0003625-014
Misc. Info.: 140-6336-a-6@1.68
Operator ID: 7126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:04:53

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.05	101.35

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Client ID: OA-2

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 14

Purge Vol: 500.000 mL

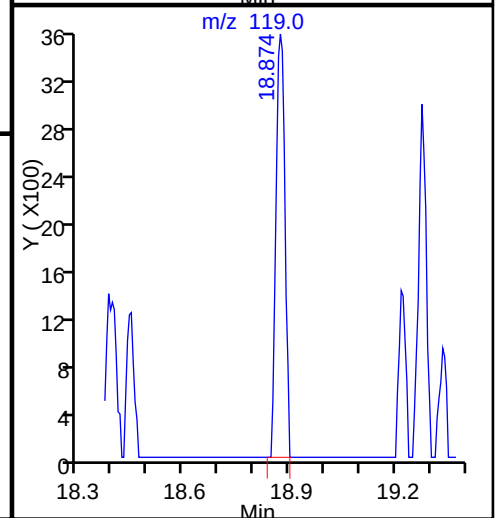
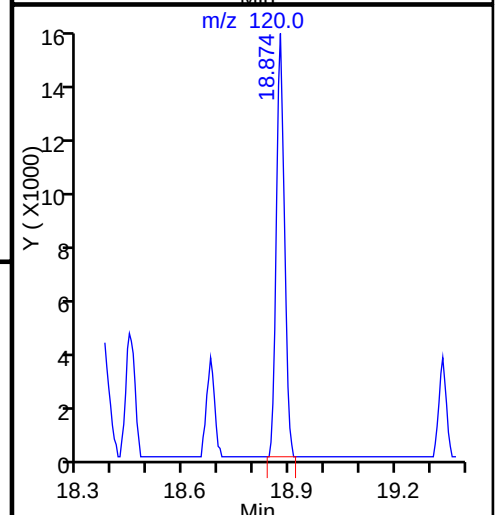
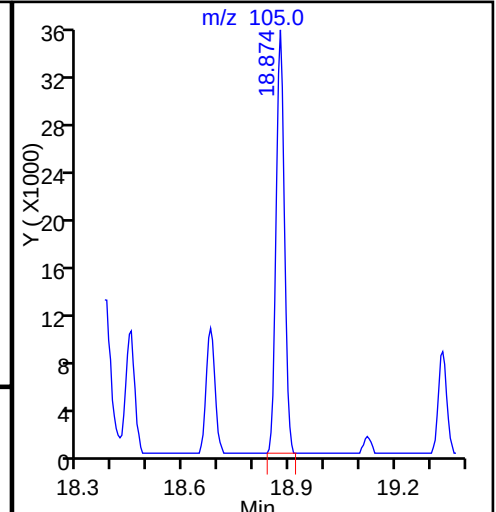
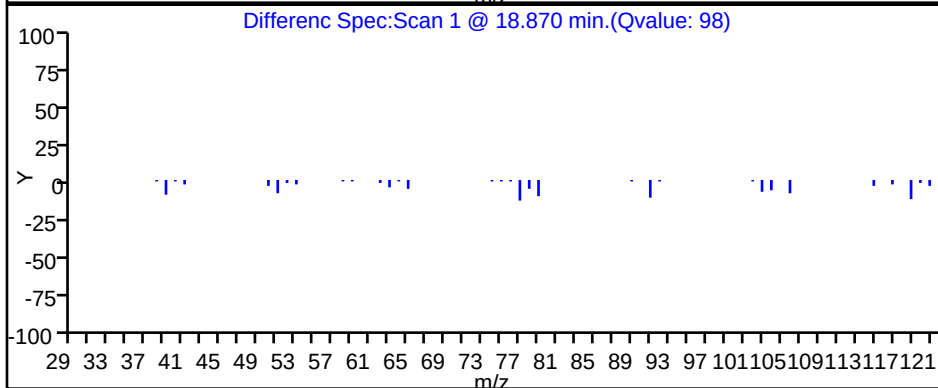
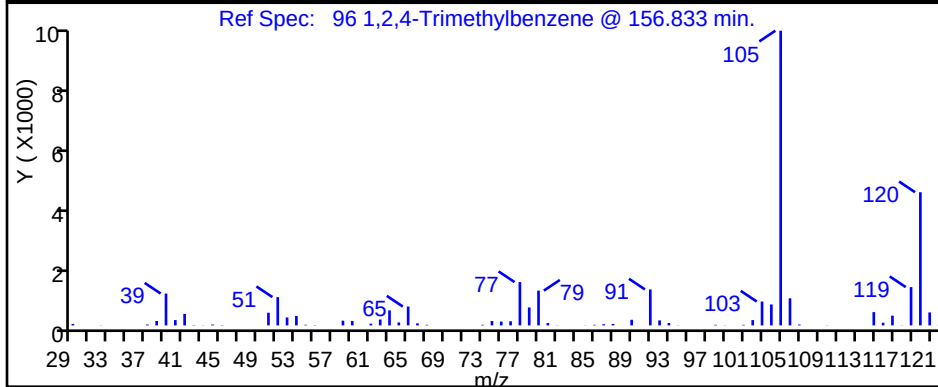
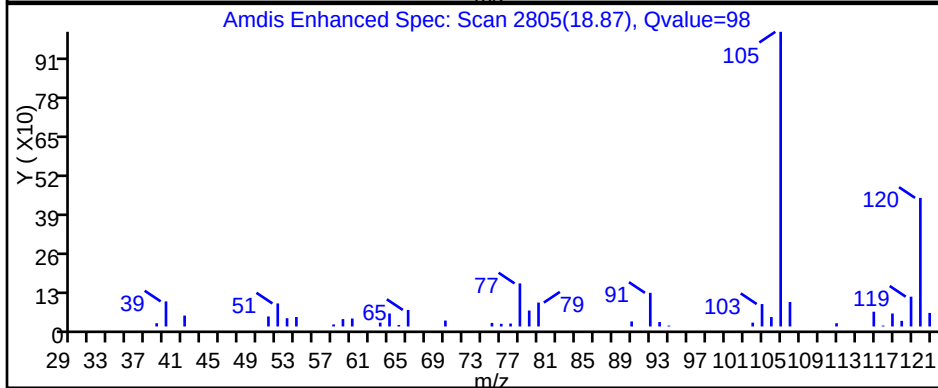
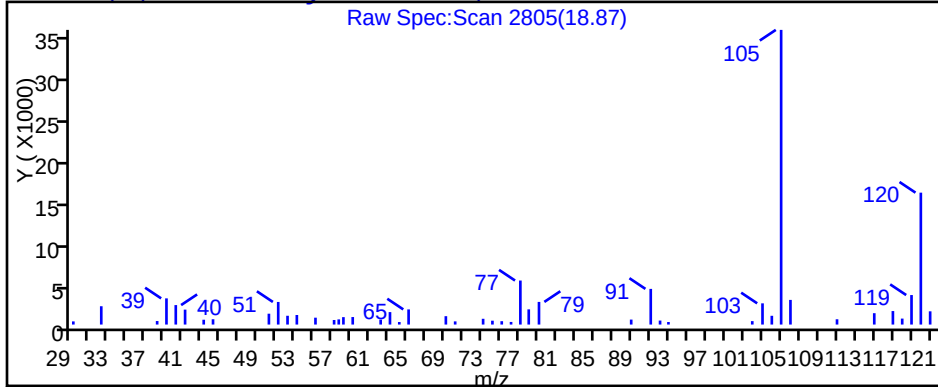
Dil. Factor: 1.6800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

96 1,2,4-Trimethylbenzene, CAS: 95-63-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Client ID: OA-2

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 14

Purge Vol: 500.000 mL

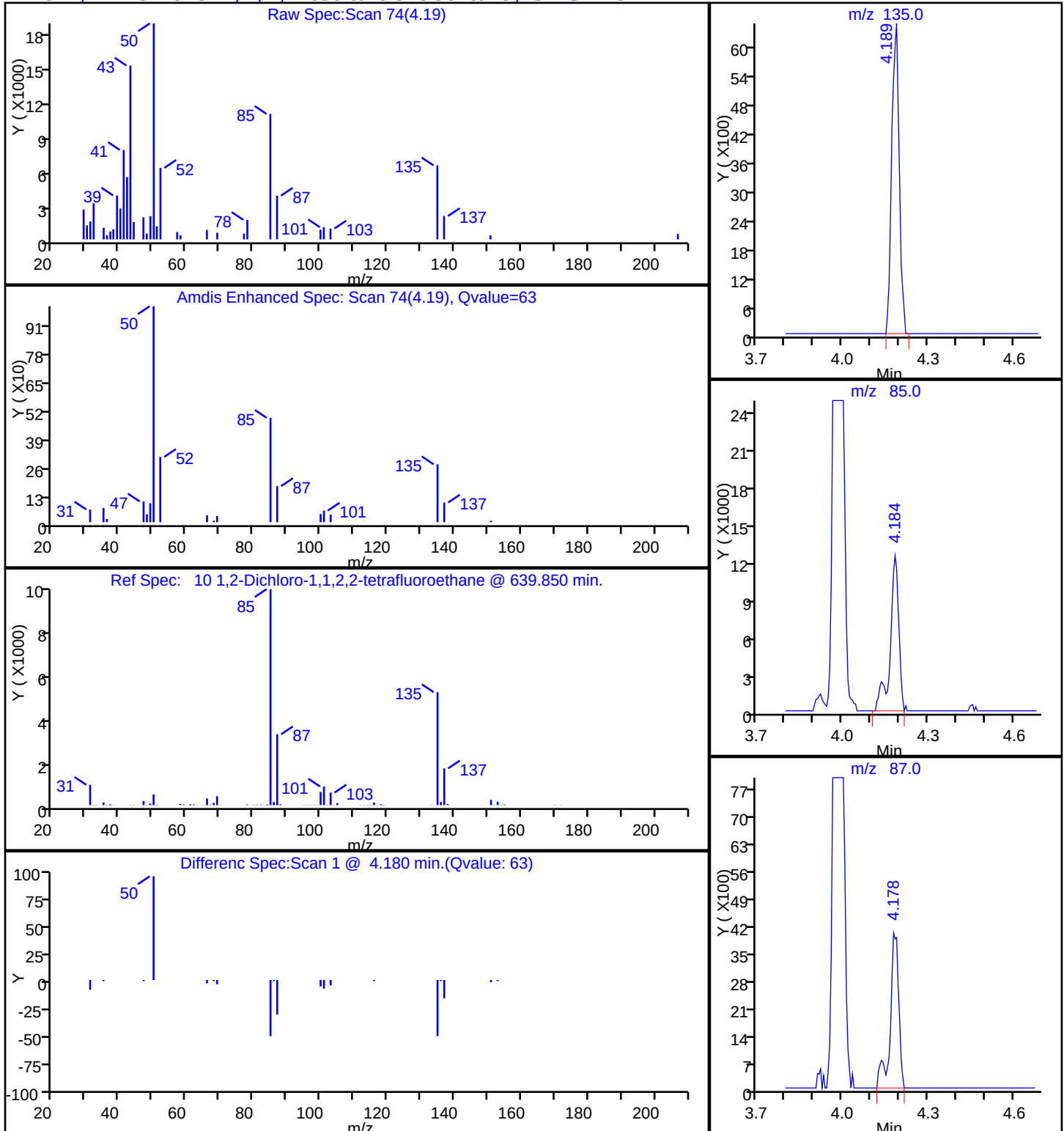
Dil. Factor: 1.6800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

10 1,2-Dichloro-1,1,2,2-tetrafluoroethane, CAS: 76-14-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Client ID: OA-2

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 14

Purge Vol: 500.000 mL

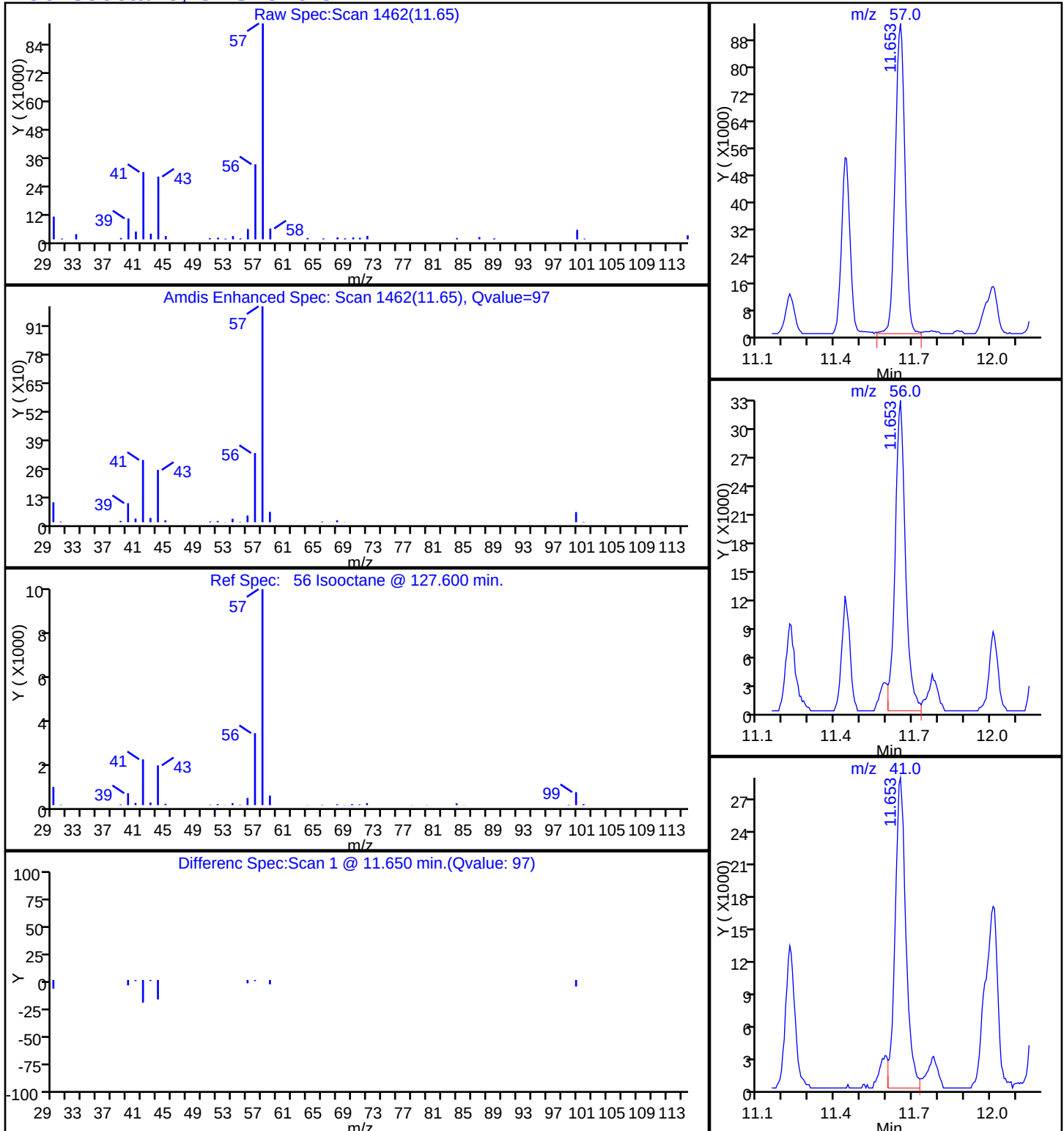
Dil. Factor: 1.6800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

56 Isooctane, CAS: 540-84-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Client ID: OA-2

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 14

Purge Vol: 500.000 mL

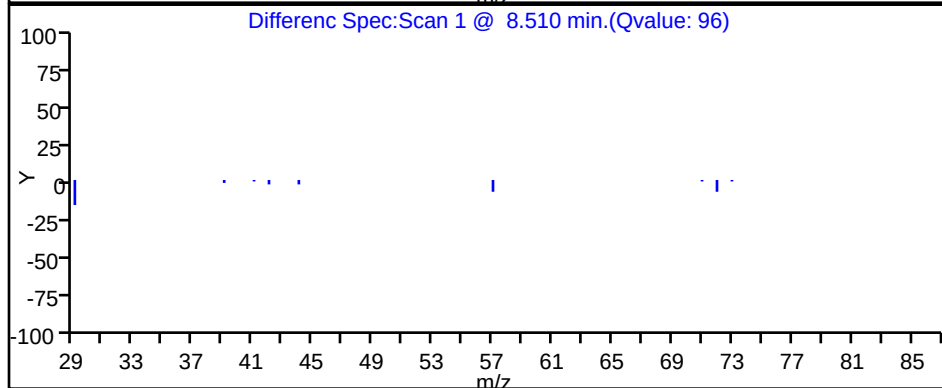
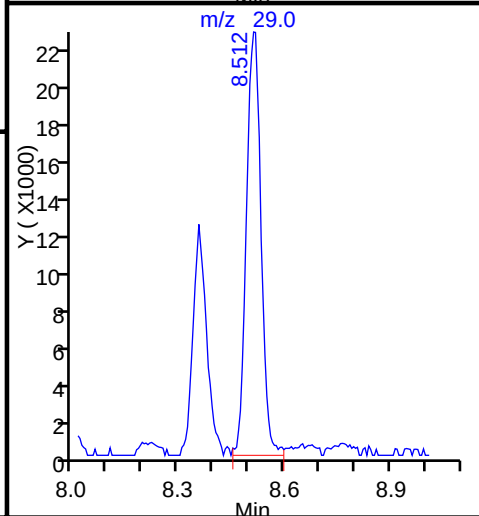
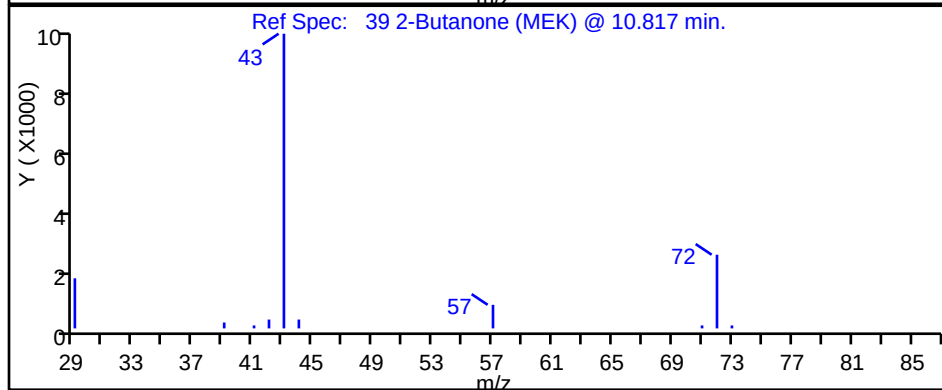
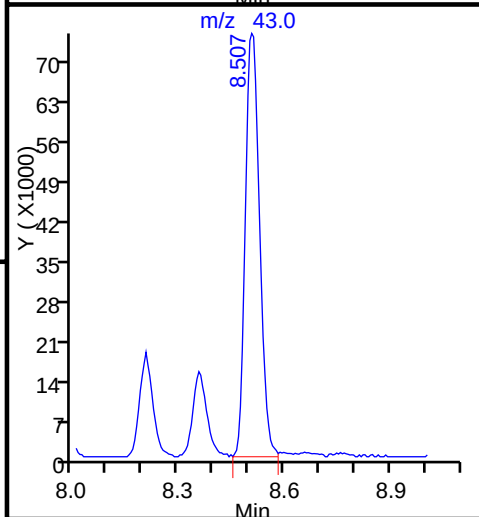
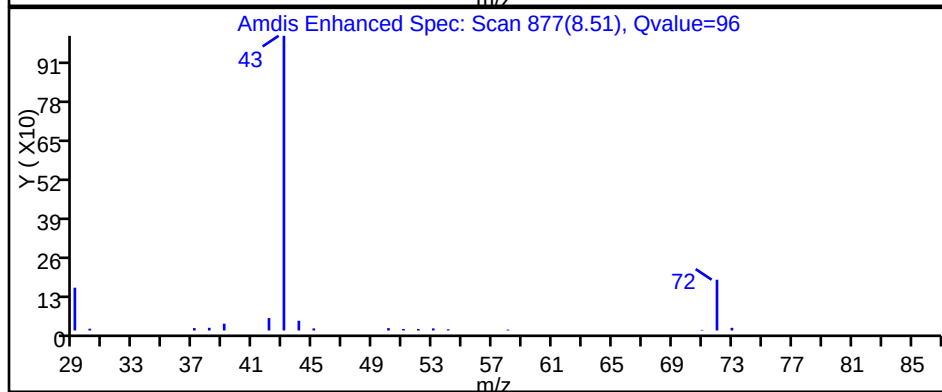
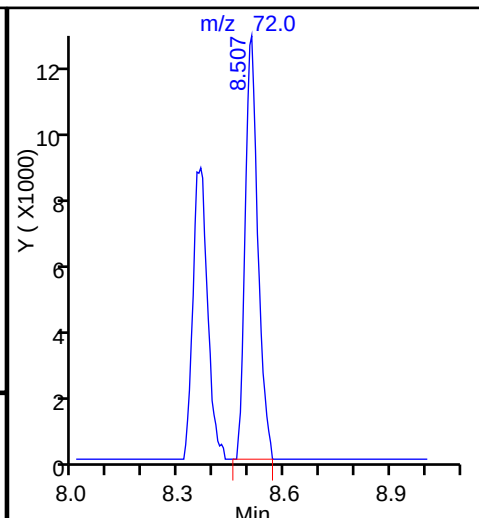
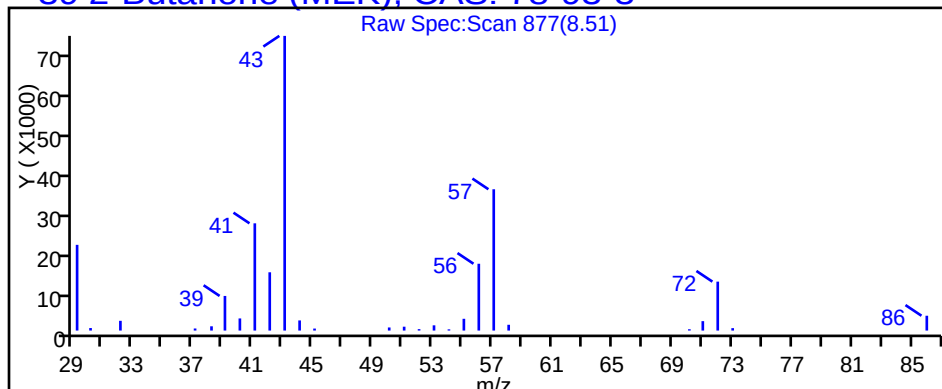
Dil. Factor: 1.6800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

39 2-Butanone (MEK), CAS: 78-93-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Client ID: OA-2

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 14

Purge Vol: 500.000 mL

Dil. Factor: 1.6800

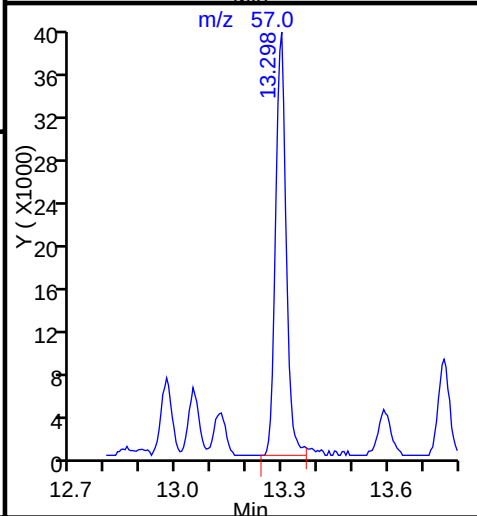
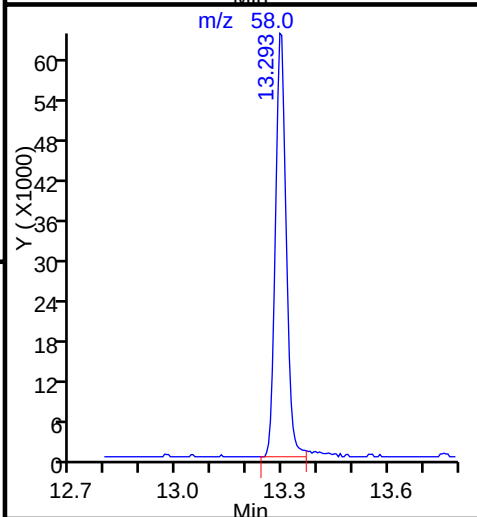
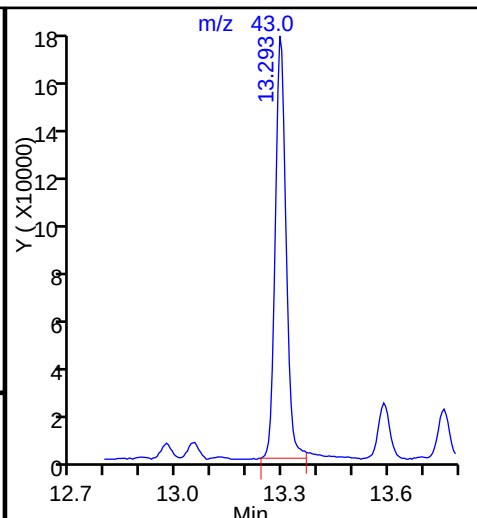
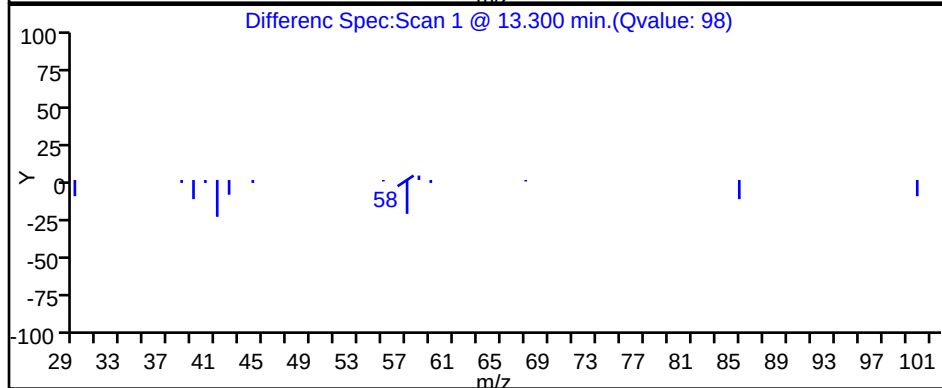
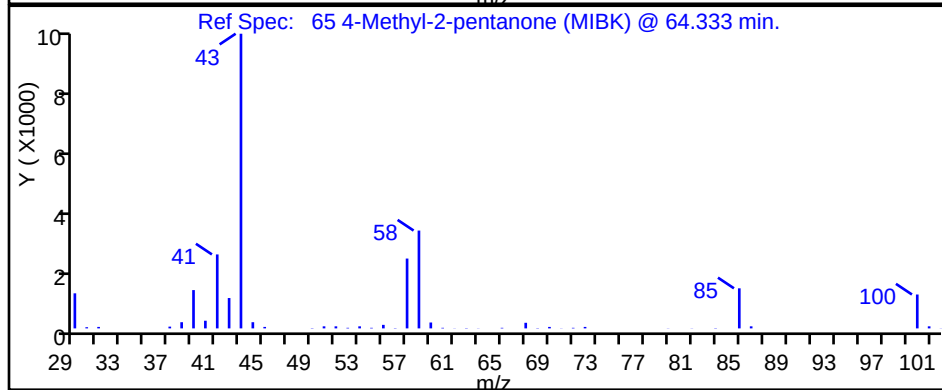
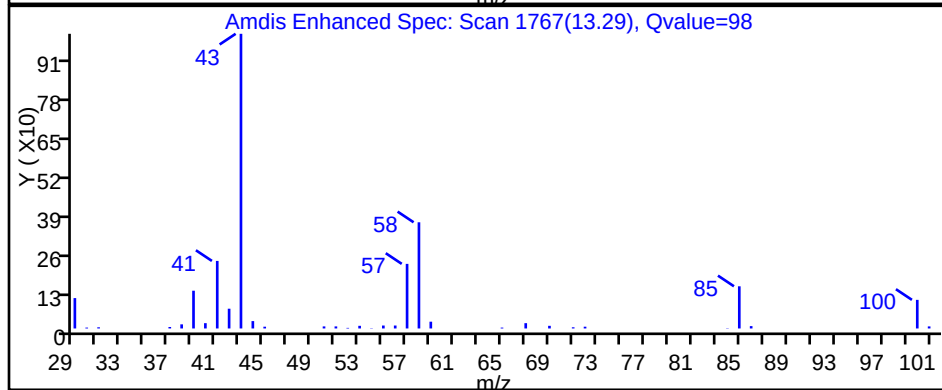
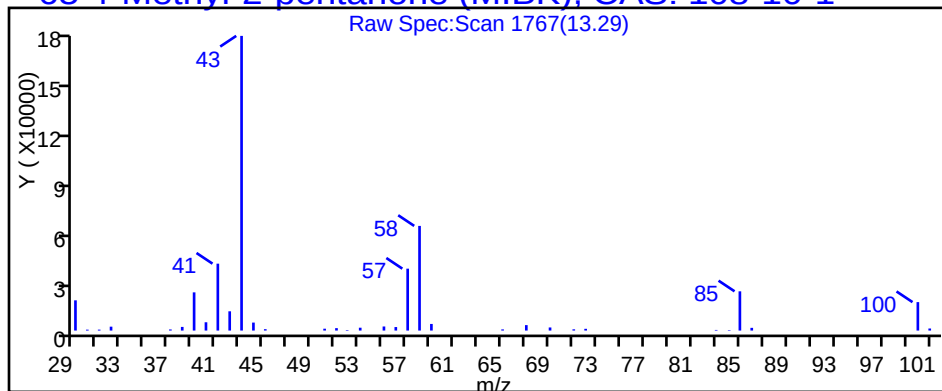
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

65 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Client ID: OA-2

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 14

Purge Vol: 500.000 mL

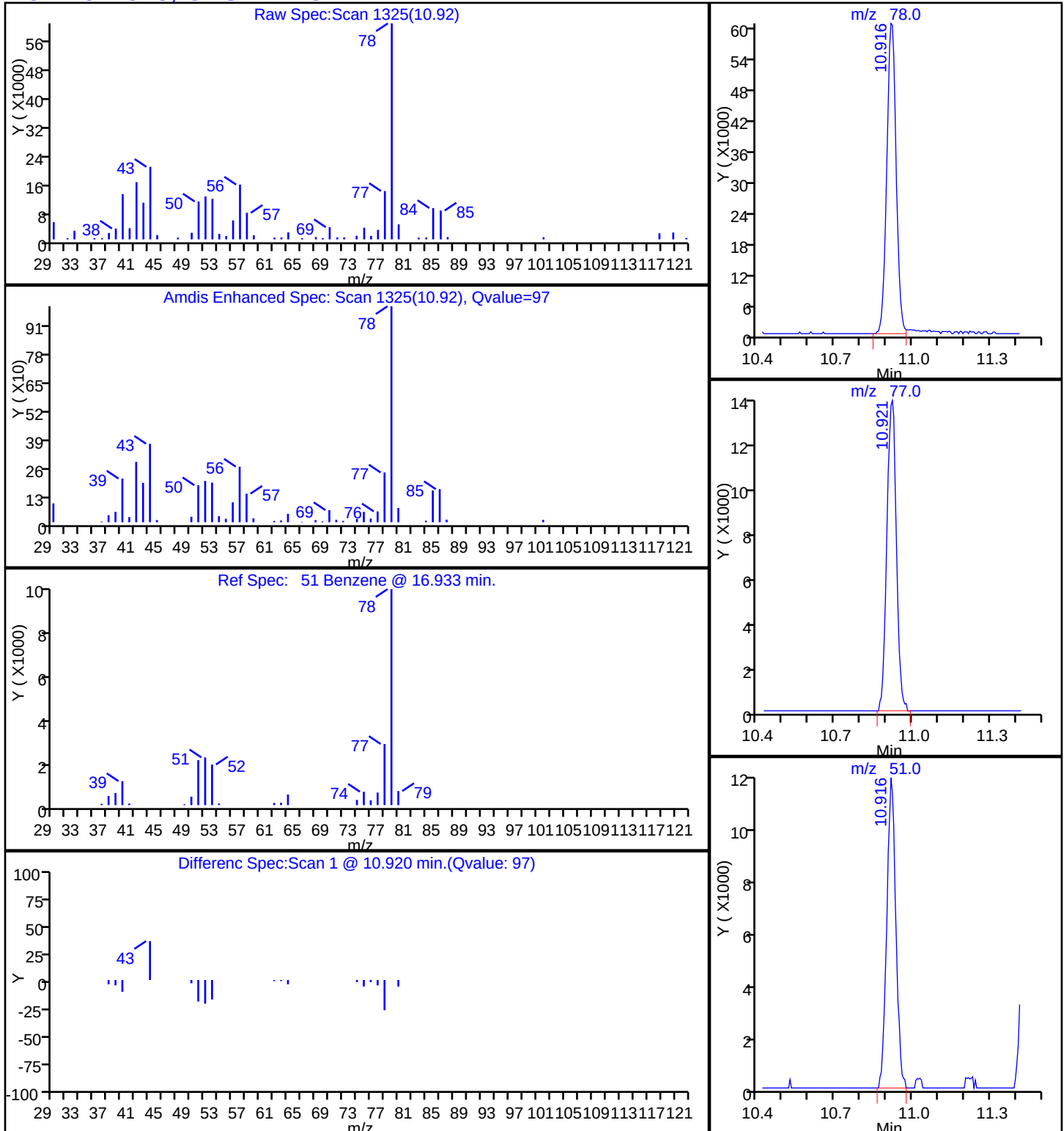
Dil. Factor: 1.6800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

51 Benzene, CAS: 71-43-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Client ID: OA-2

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 14

Purge Vol: 500.000 mL

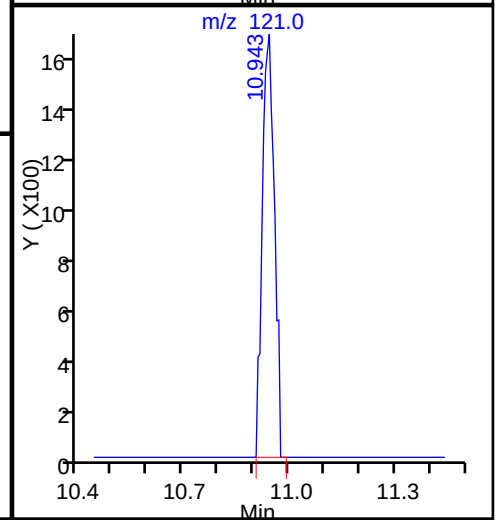
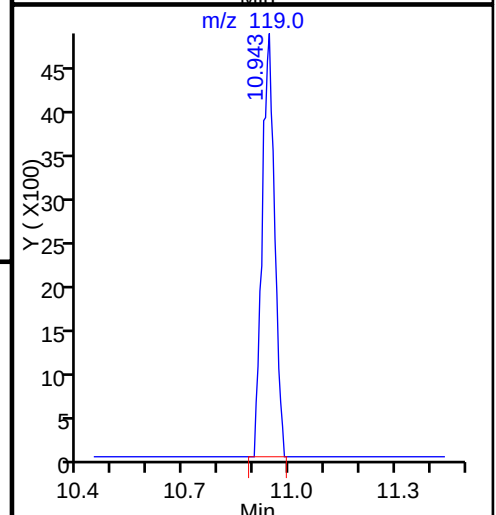
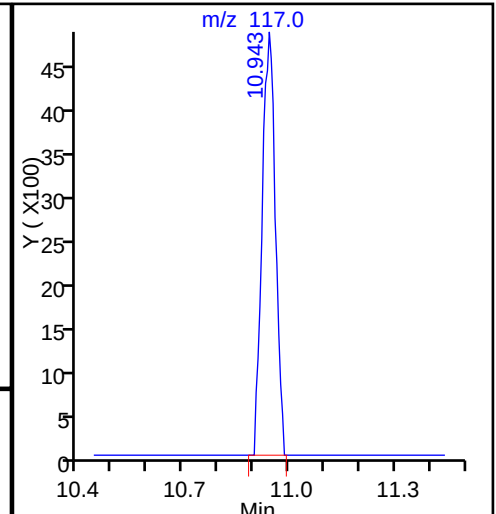
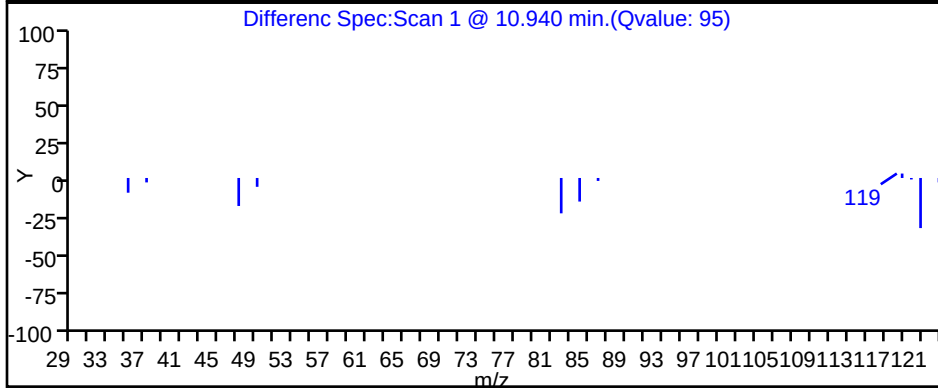
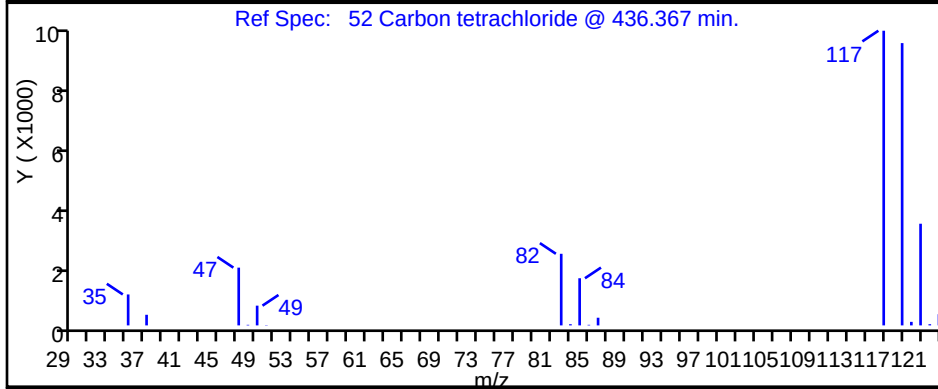
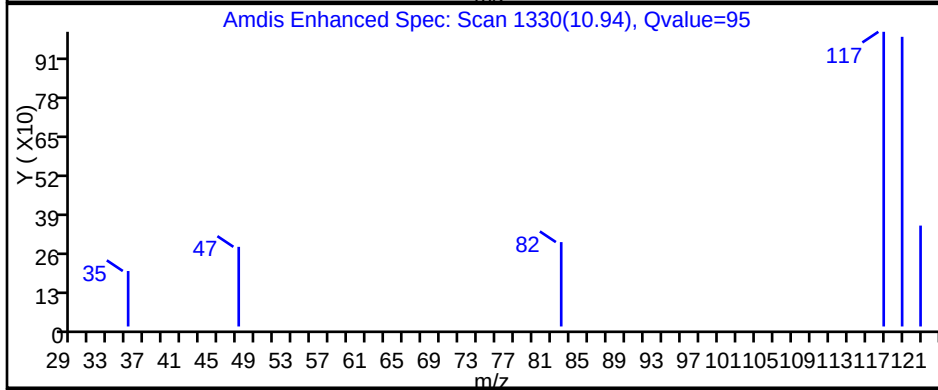
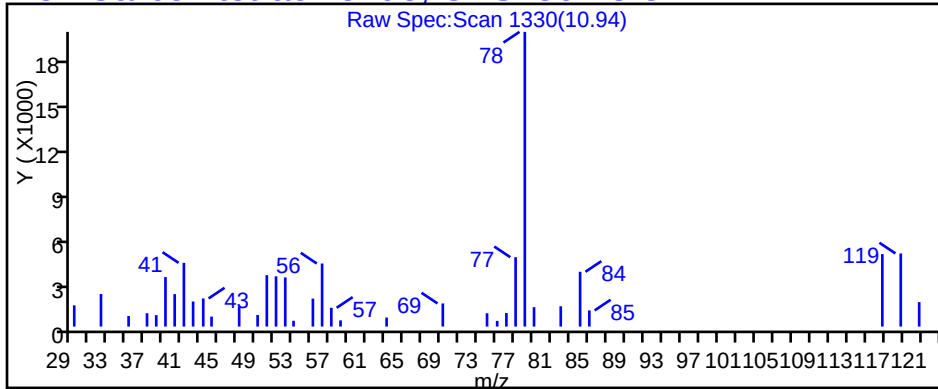
Dil. Factor: 1.6800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Client ID: OA-2

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 14

Purge Vol: 500.000 mL

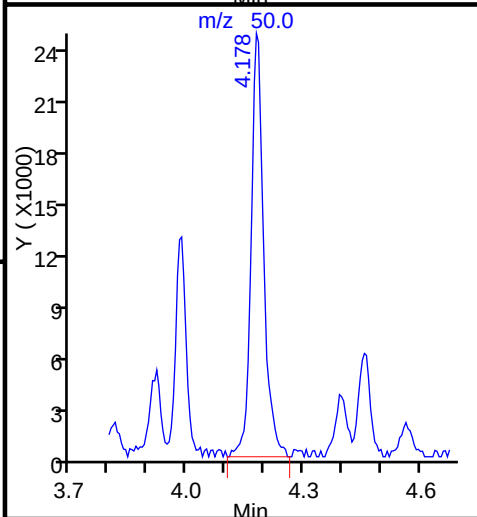
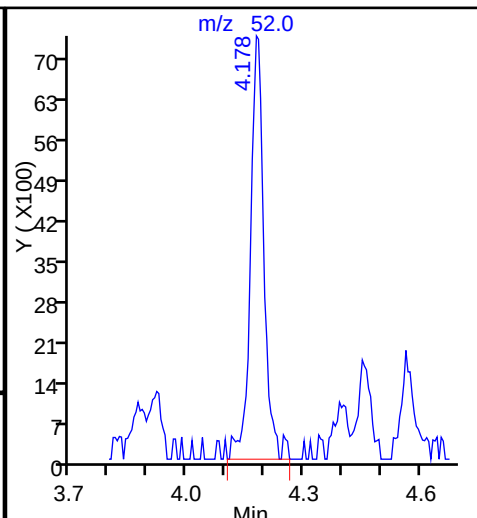
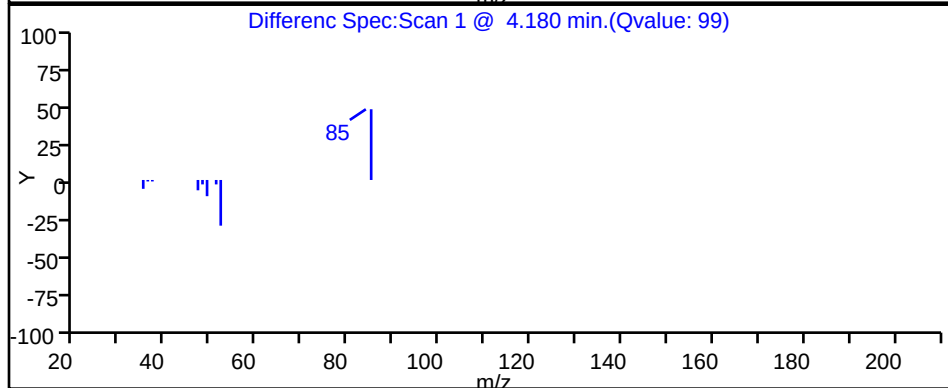
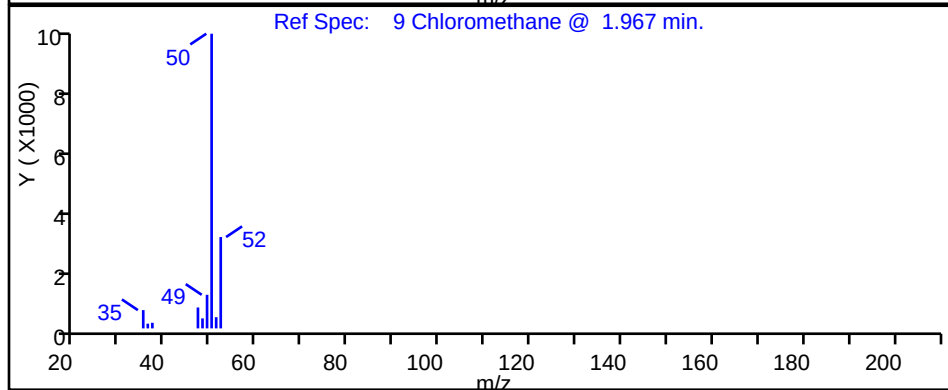
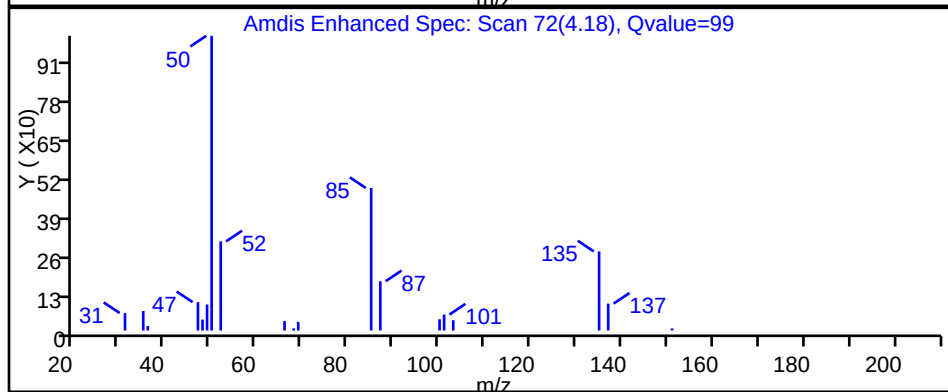
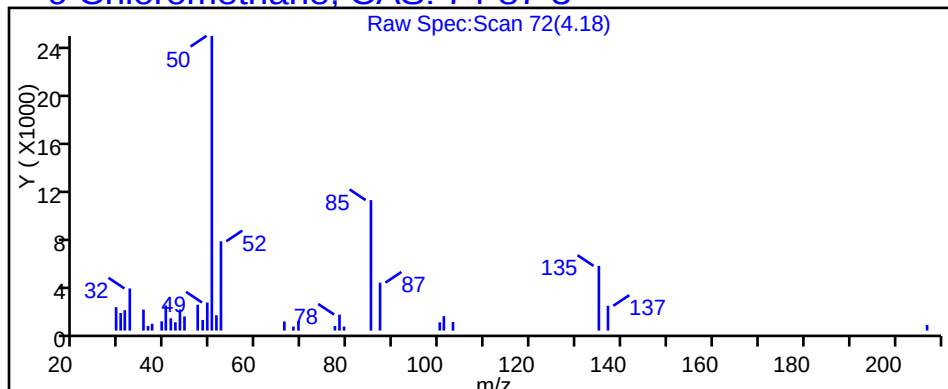
Dil. Factor: 1.6800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

9 Chloromethane, CAS: 74-87-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Client ID: OA-2

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 14

Purge Vol: 500.000 mL

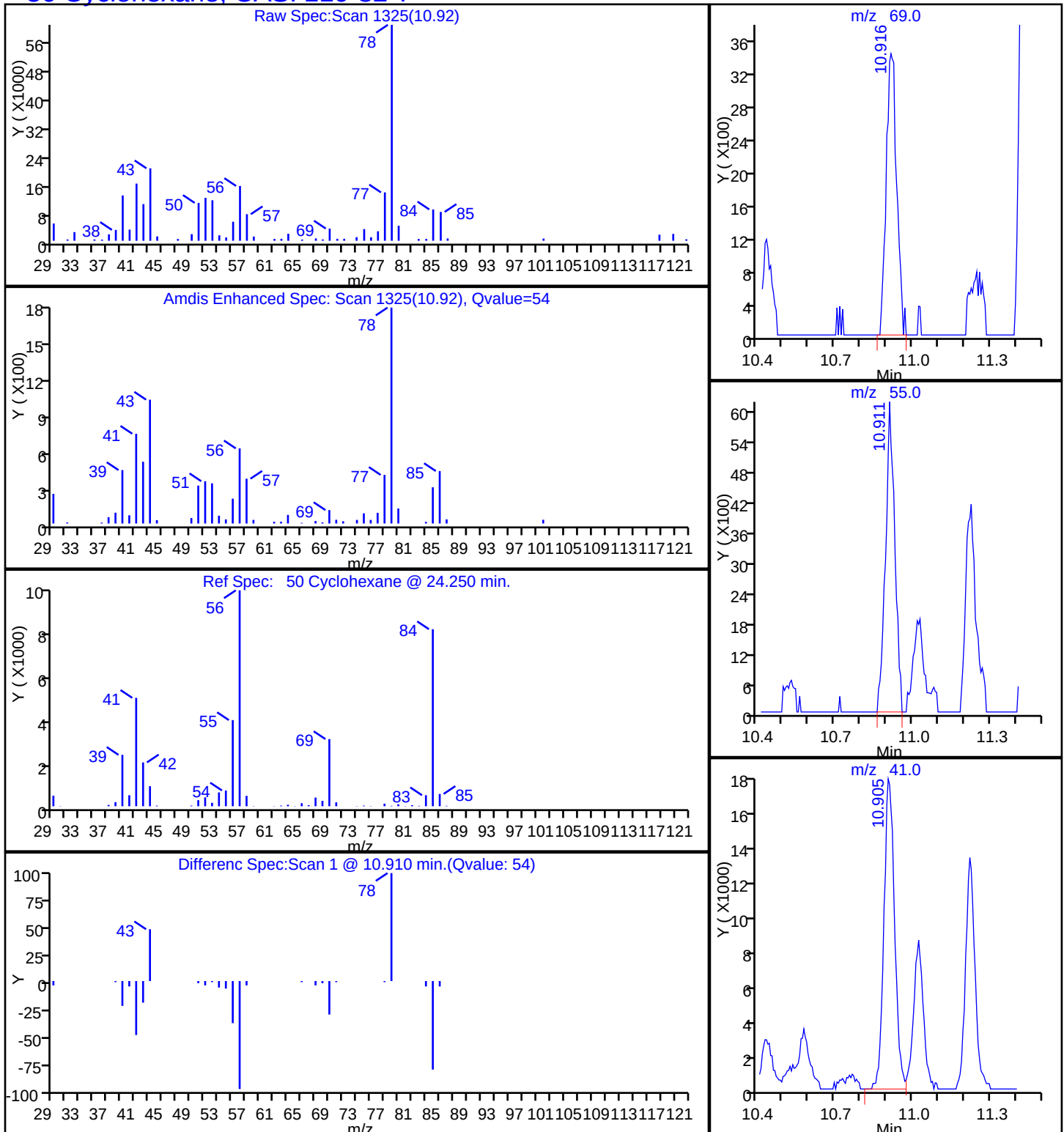
Dil. Factor: 1.6800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

50 Cyclohexane, CAS: 110-82-7

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Client ID: OA-2

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 14

Purge Vol: 500.000 mL

Dil. Factor: 1.6800

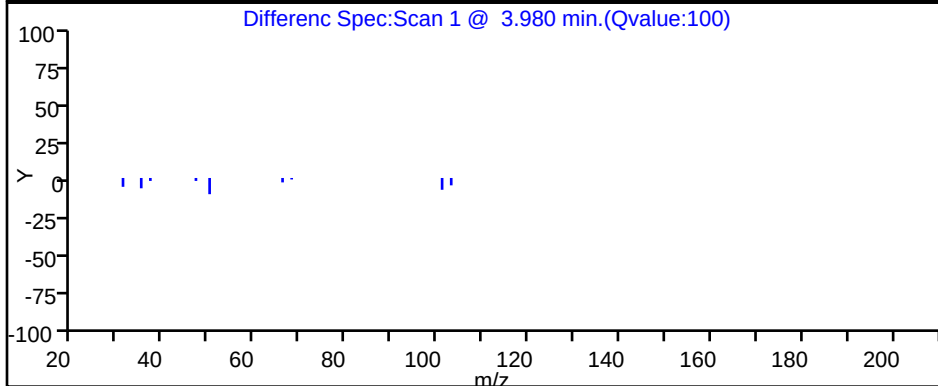
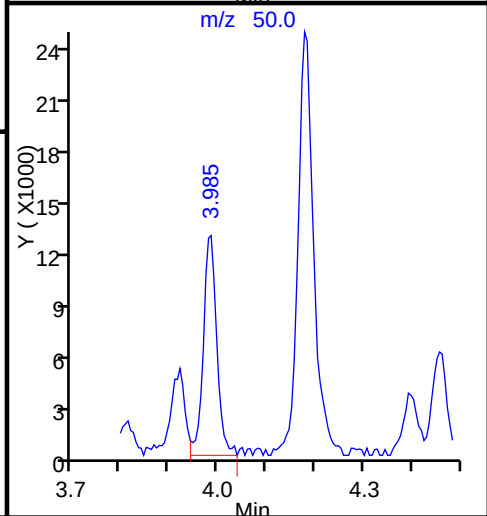
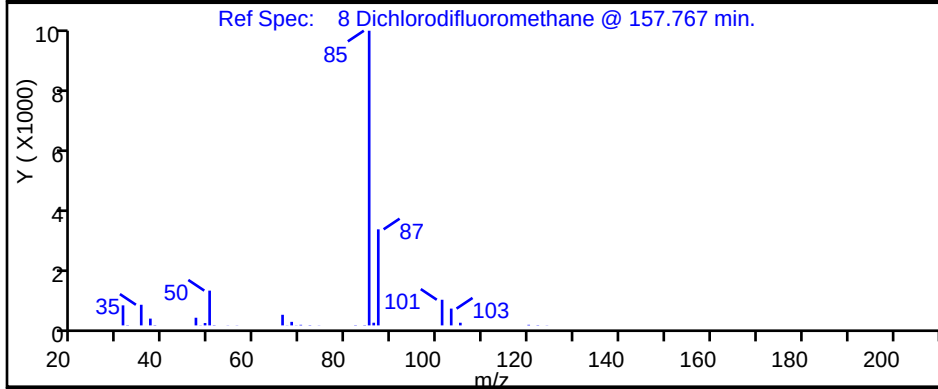
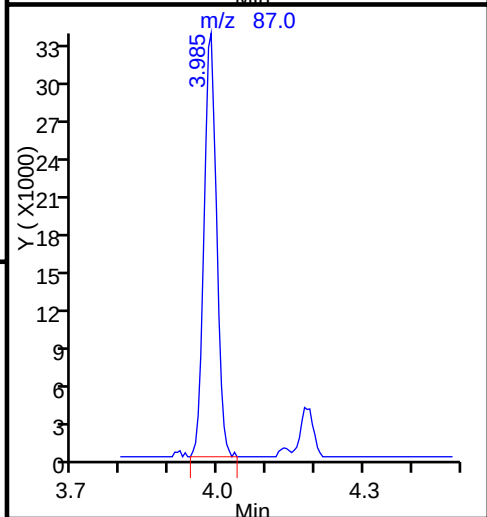
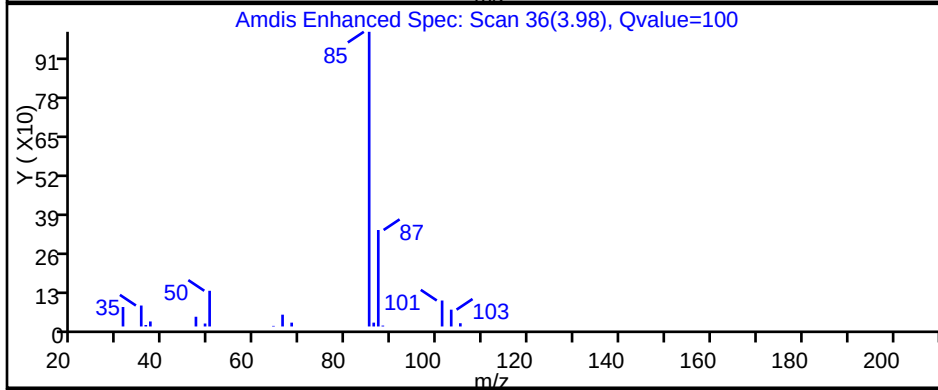
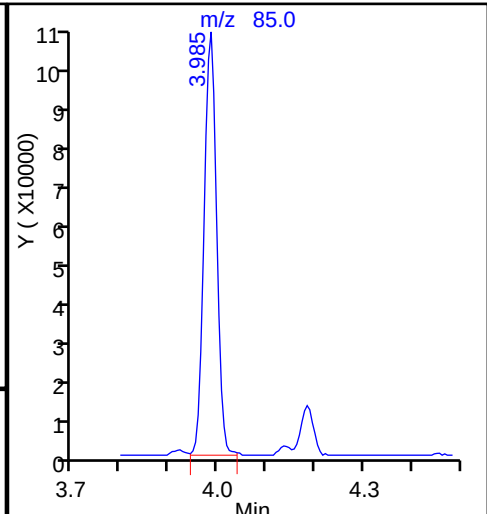
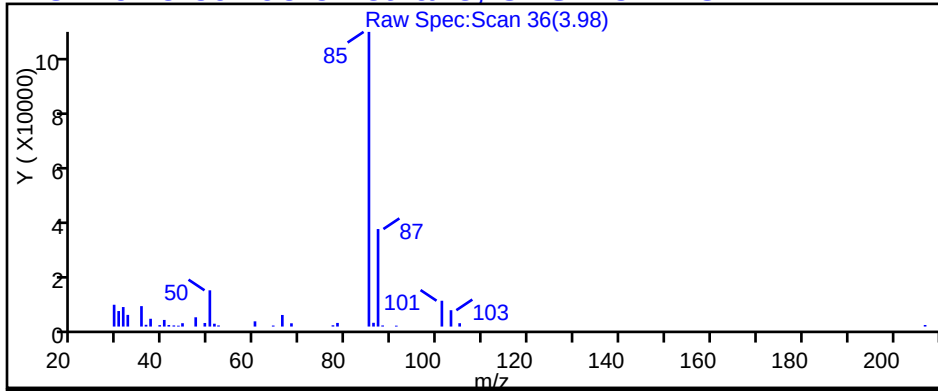
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Client ID: OA-2

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 14

Purge Vol: 500.000 mL

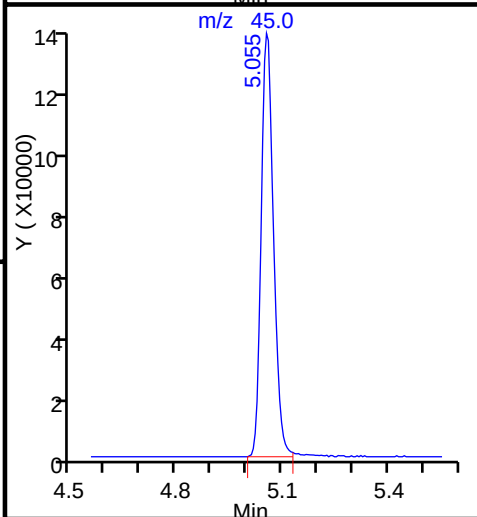
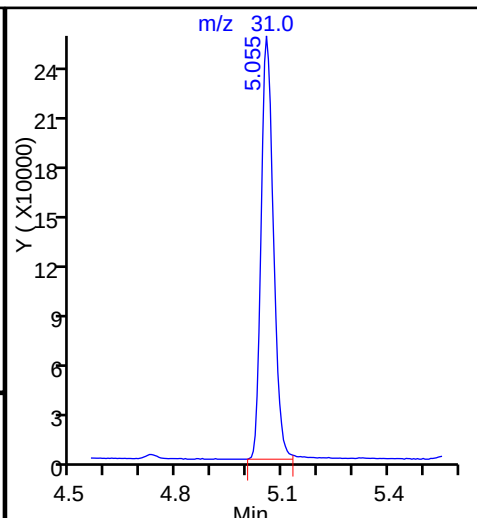
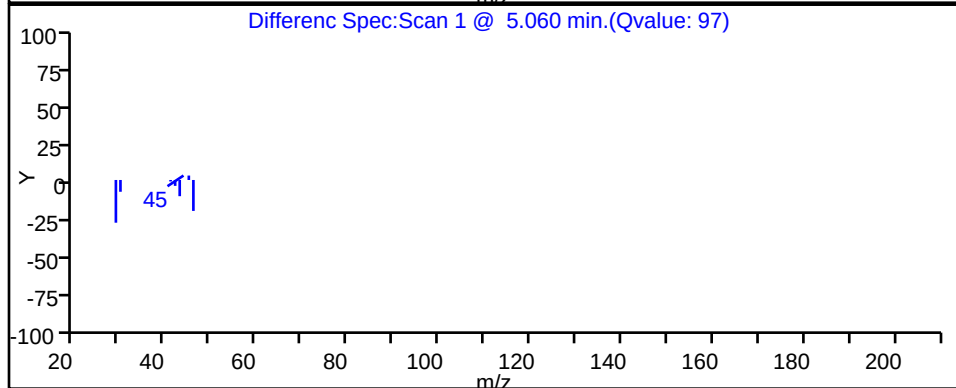
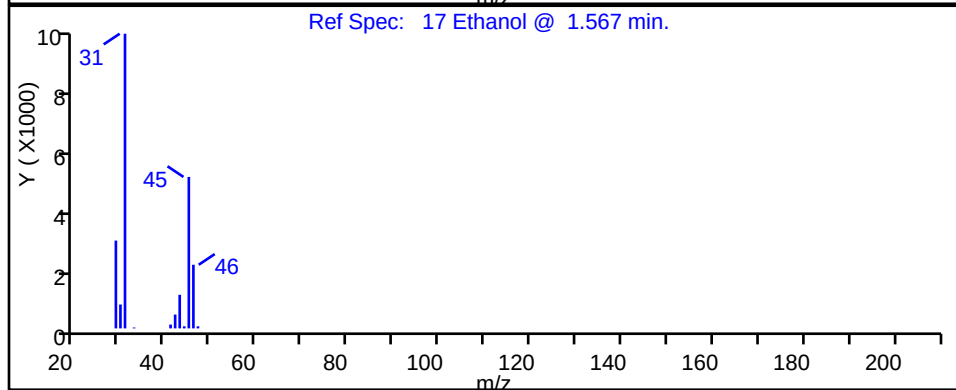
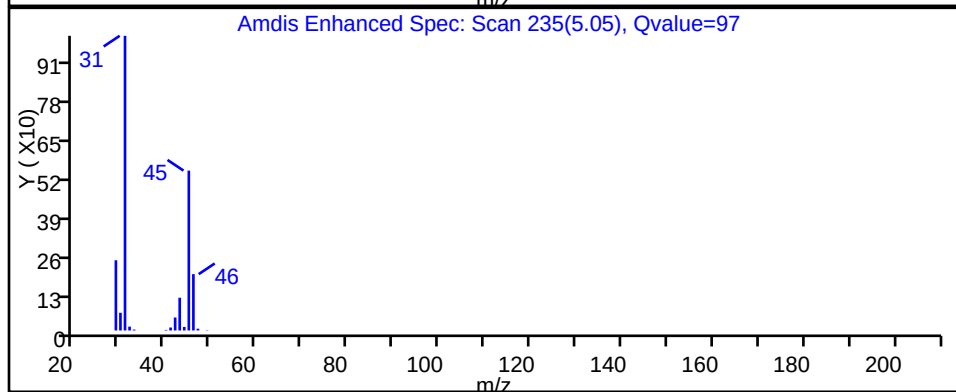
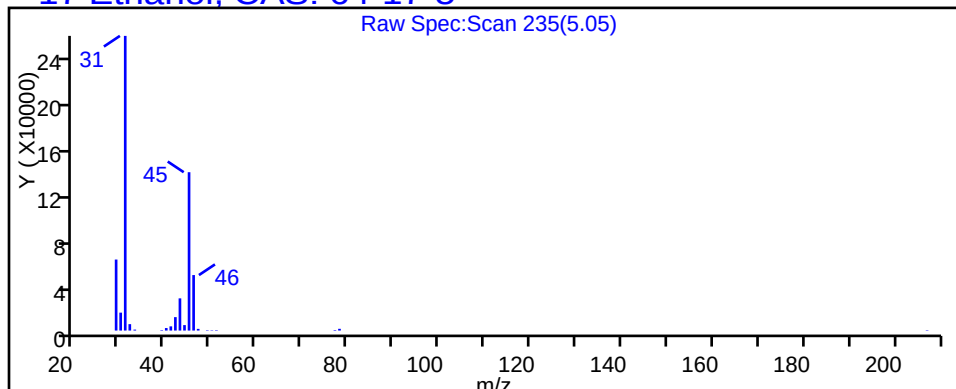
Dil. Factor: 1.6800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Client ID: OA-2

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 14

Purge Vol: 500.000 mL

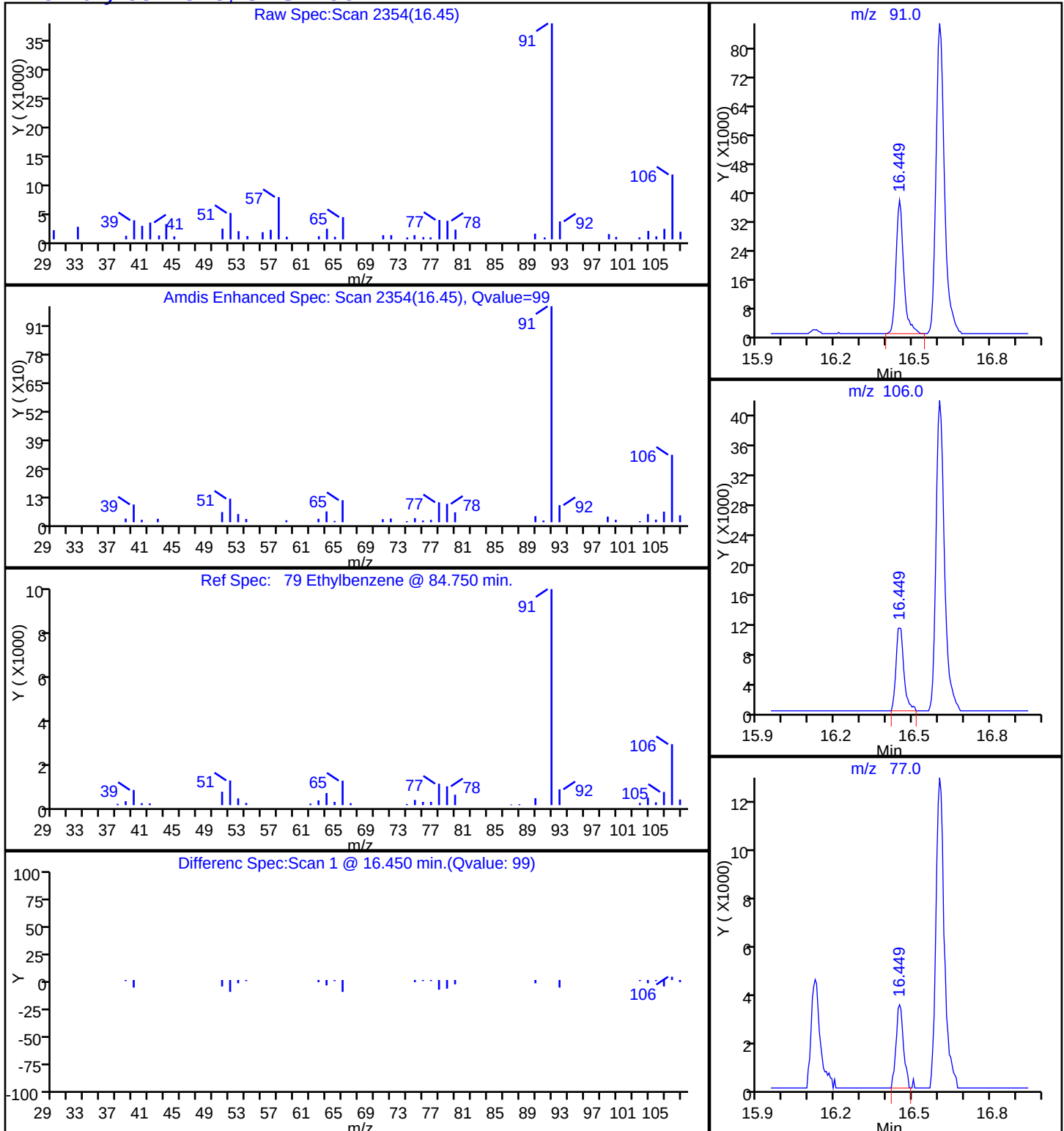
Dil. Factor: 1.6800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

79 Ethylbenzene, CAS: 100-41-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Client ID: OA-2

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 14

Purge Vol: 500.000 mL

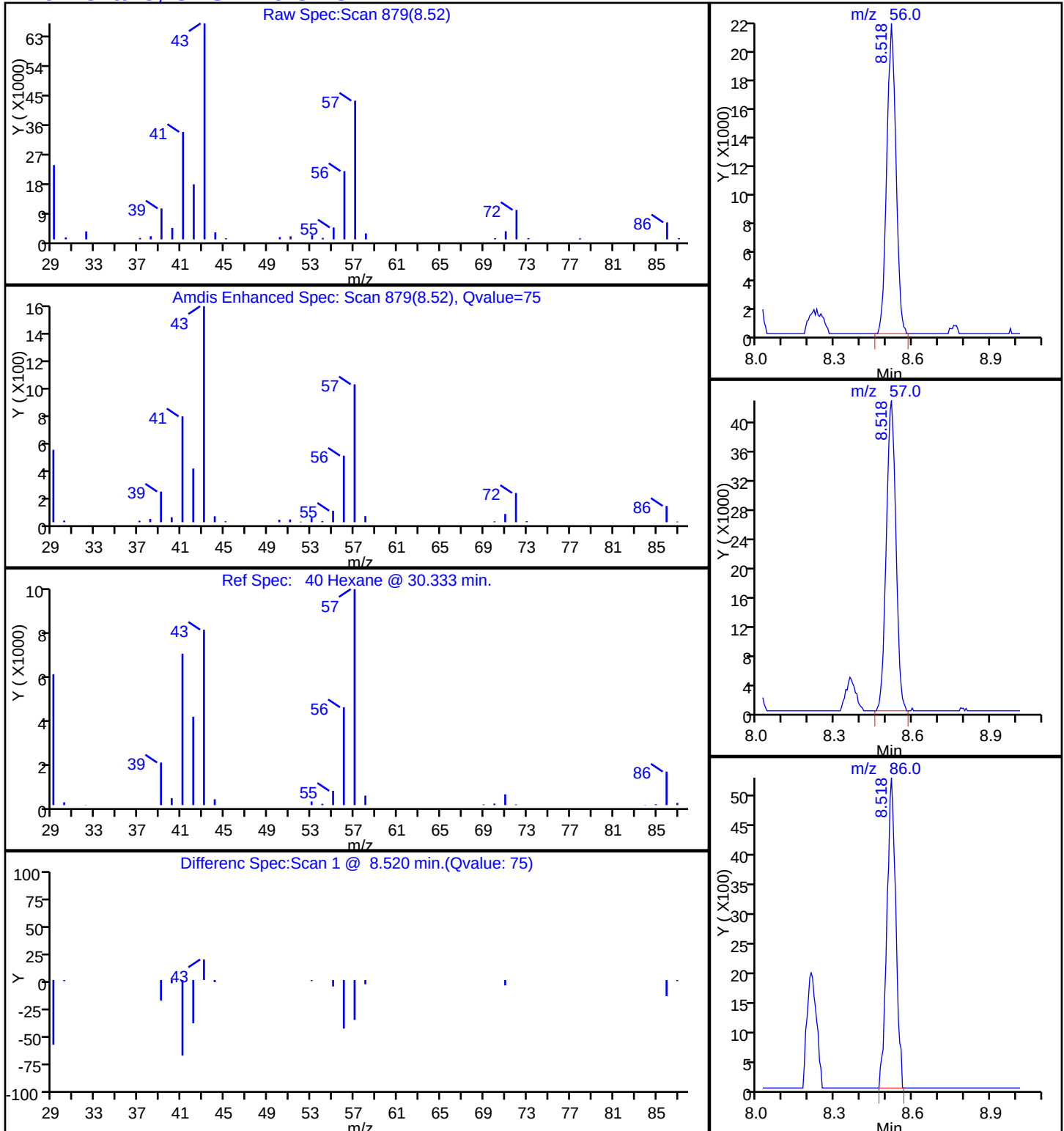
Dil. Factor: 1.6800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Client ID: OA-2

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 14

Purge Vol: 500.000 mL

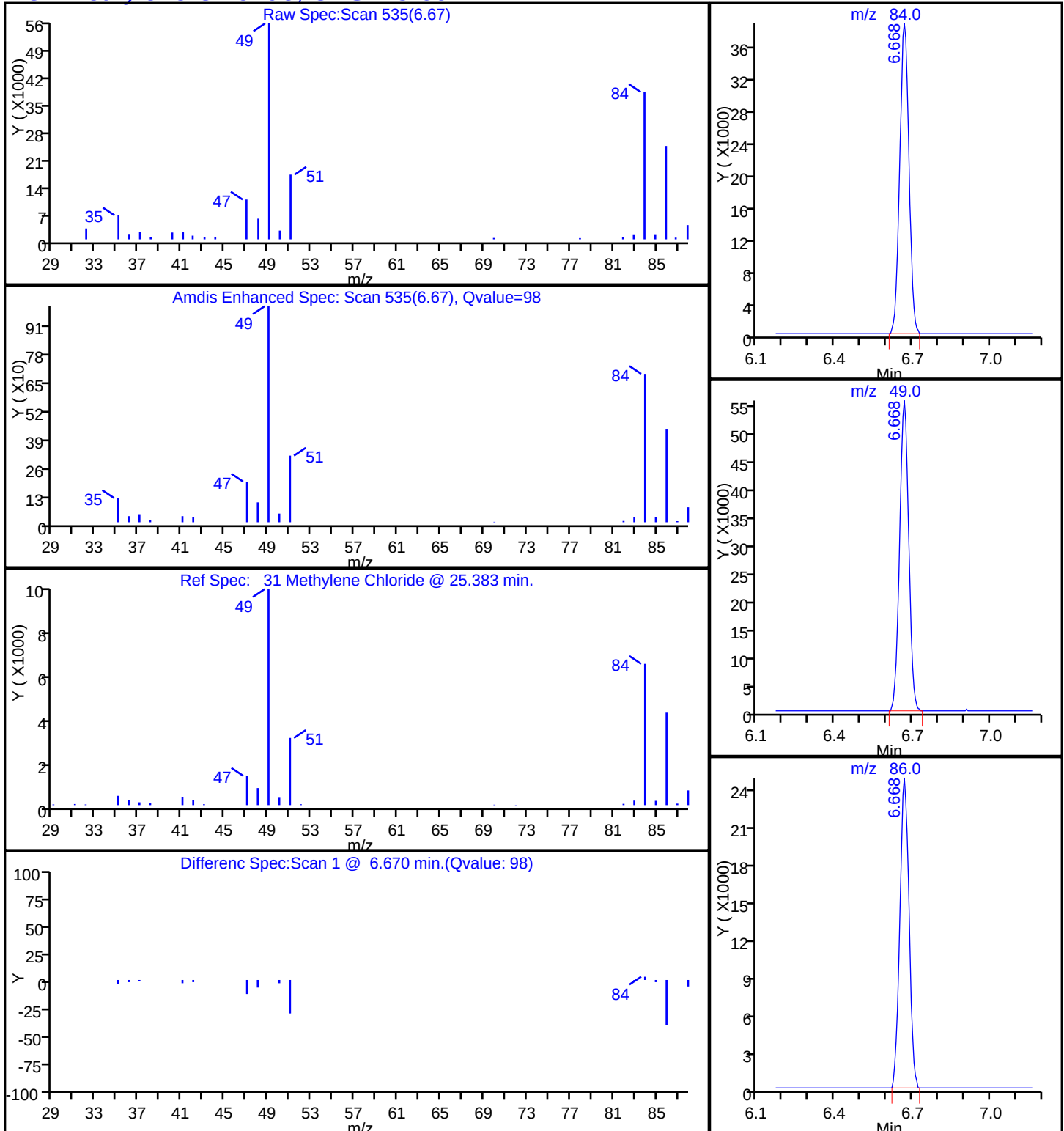
Dil. Factor: 1.6800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Client ID: OA-2

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 14

Purge Vol: 500.000 mL

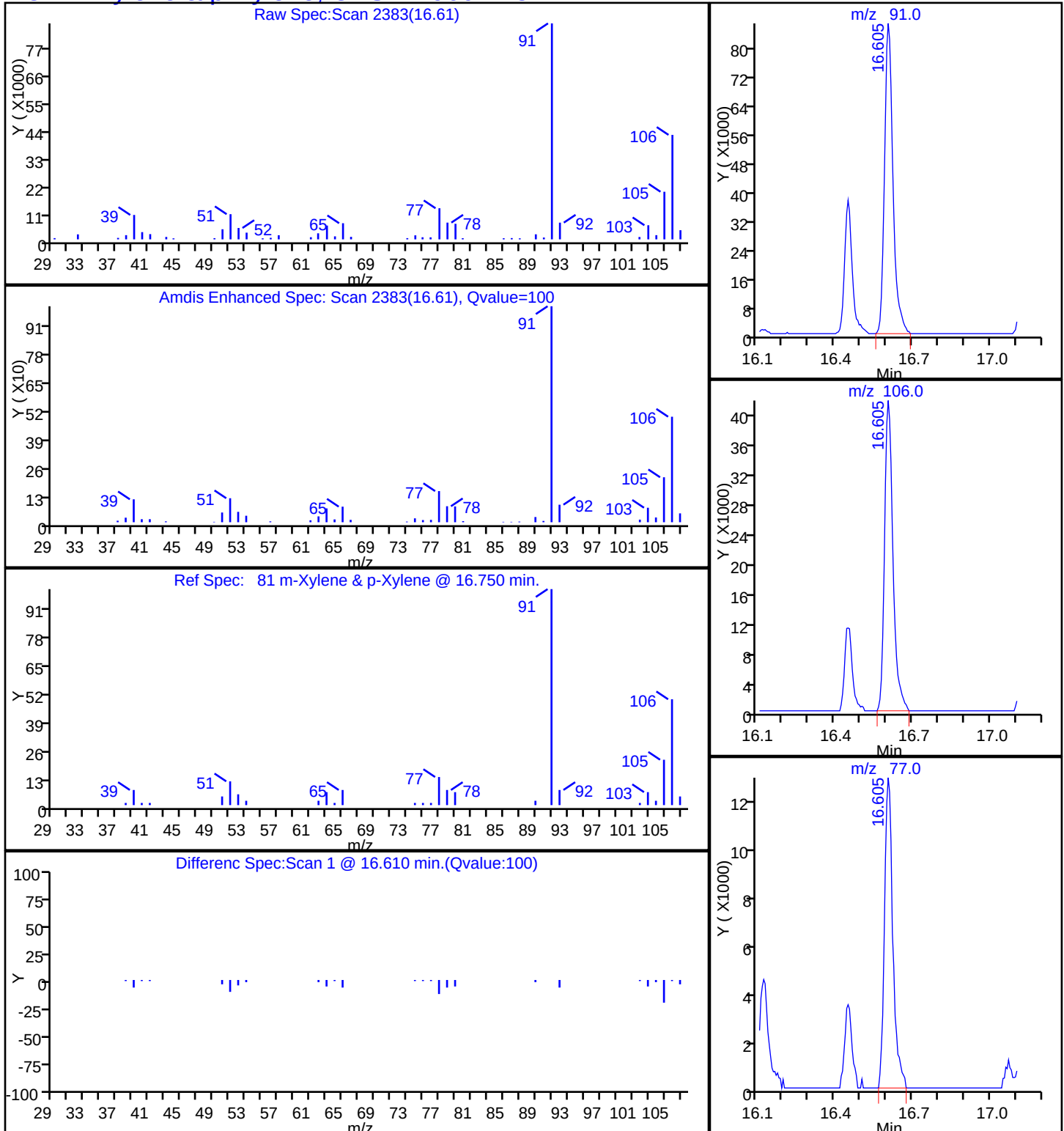
Dil. Factor: 1.6800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

81 m-Xylene & p-Xylene, CAS: 179601-23-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Client ID: OA-2

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 14

Purge Vol: 500.000 mL

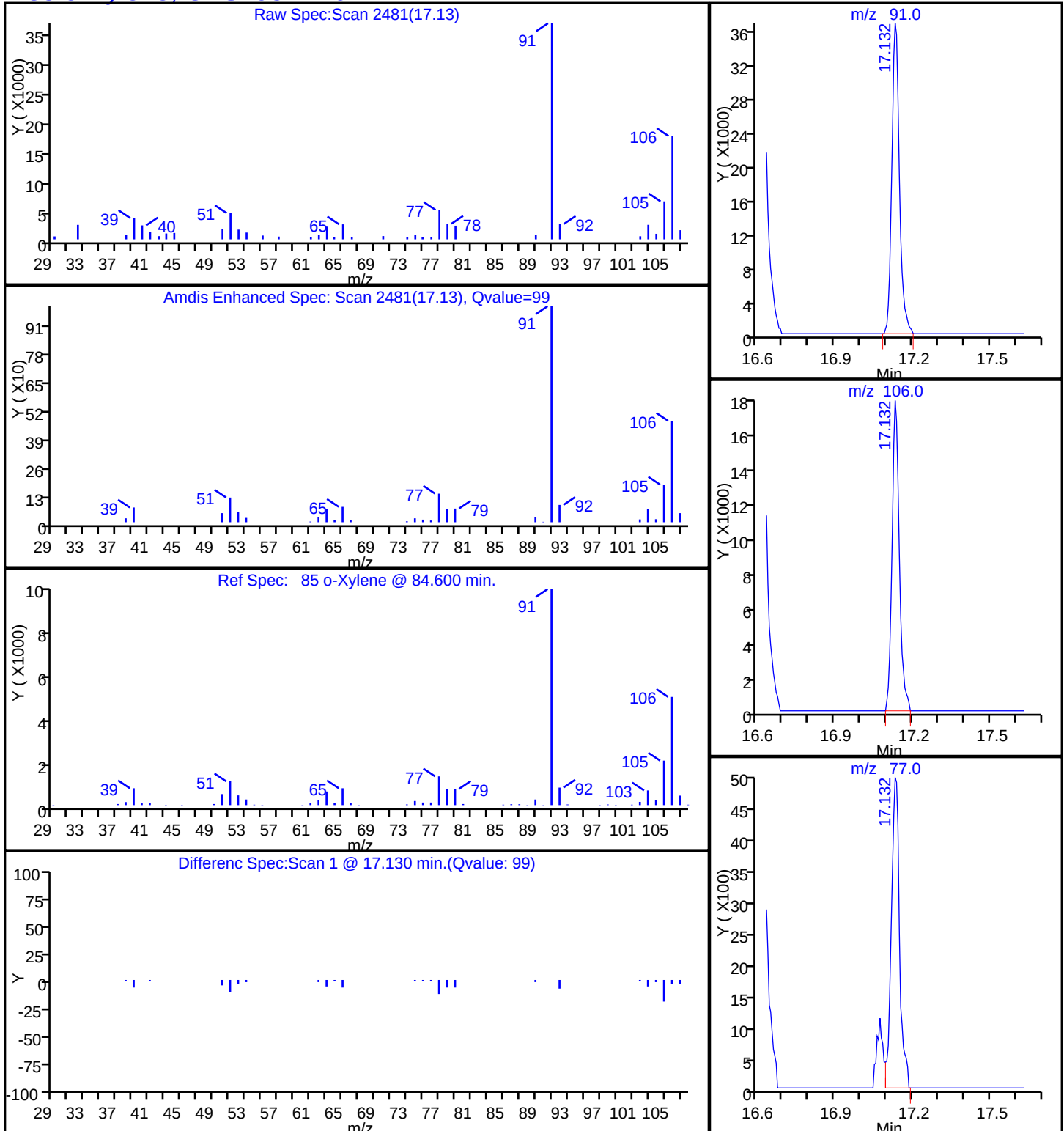
Dil. Factor: 1.6800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

85 o-Xylene, CAS: 95-47-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Client ID: OA-2

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 14

Purge Vol: 500.000 mL

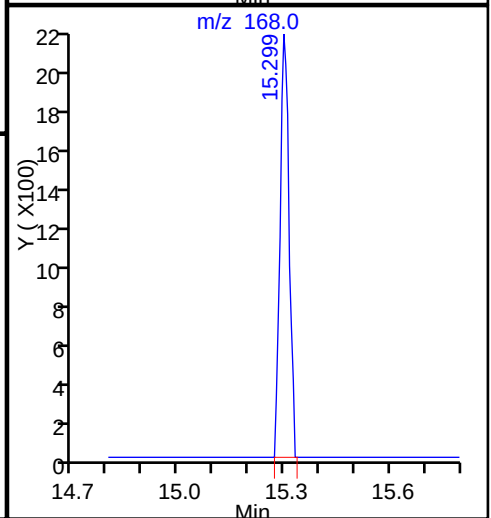
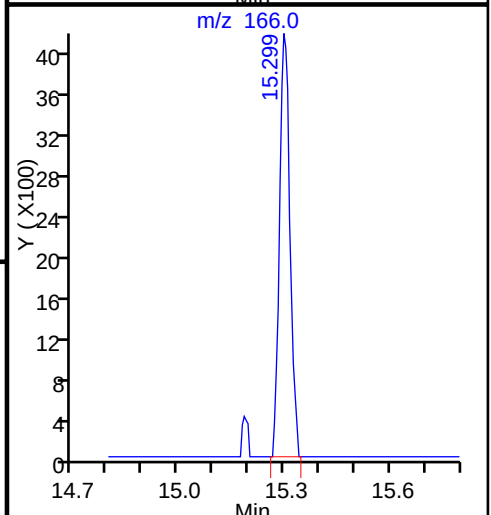
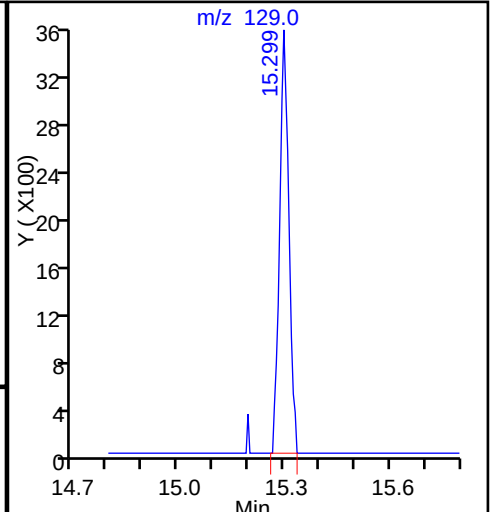
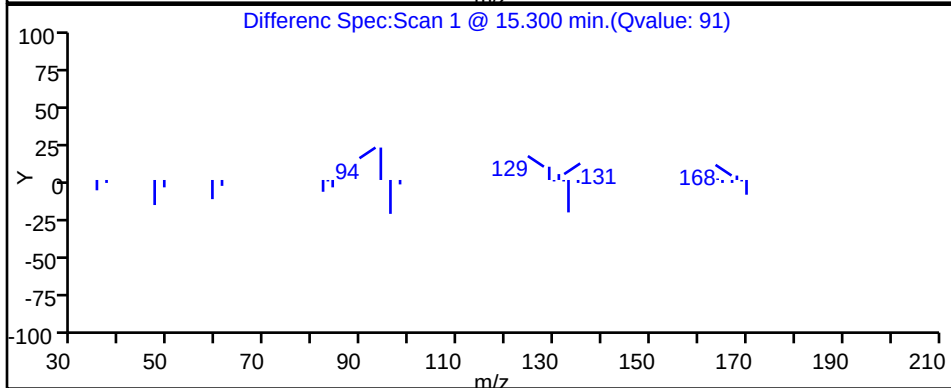
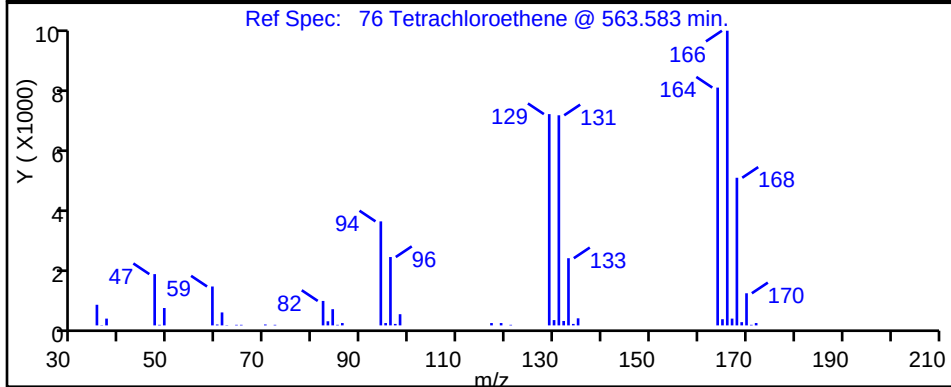
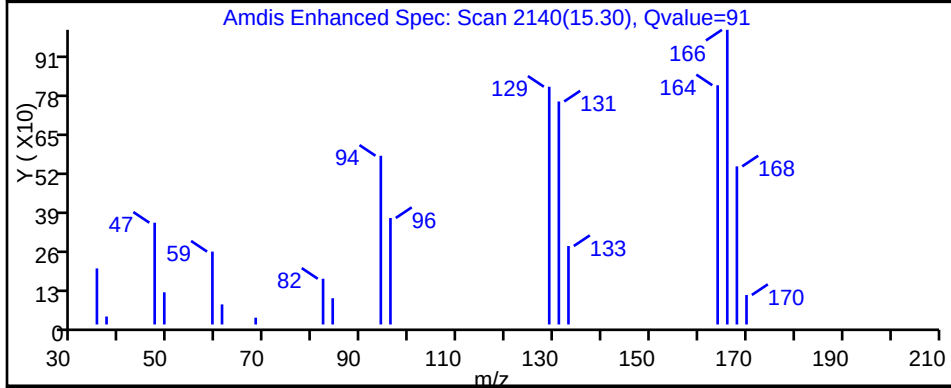
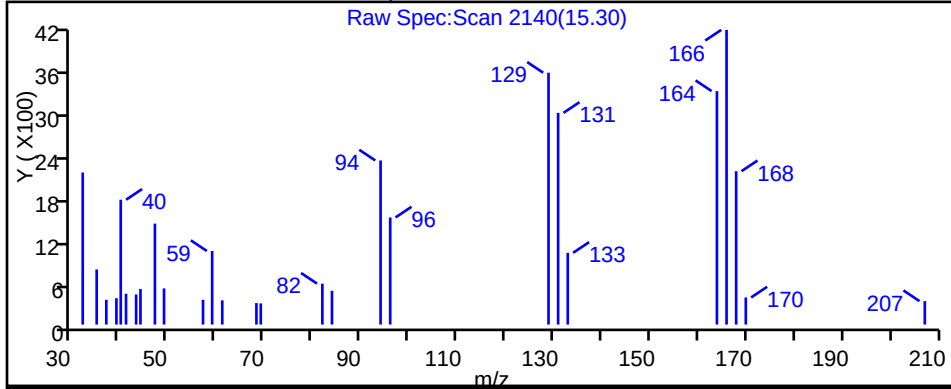
Dil. Factor: 1.6800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

76 Tetrachloroethene, CAS: 127-18-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Client ID: OA-2

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 14

Purge Vol: 500.000 mL

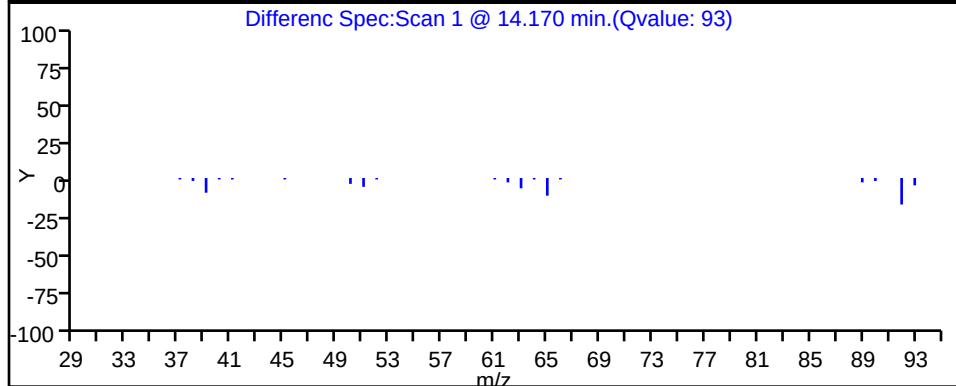
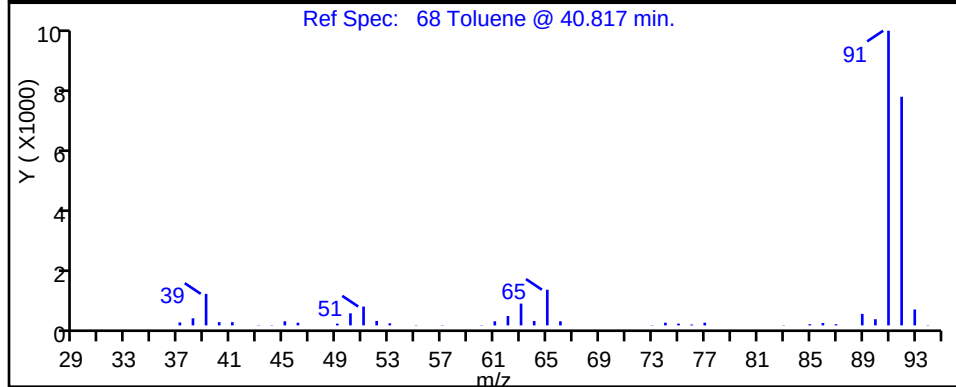
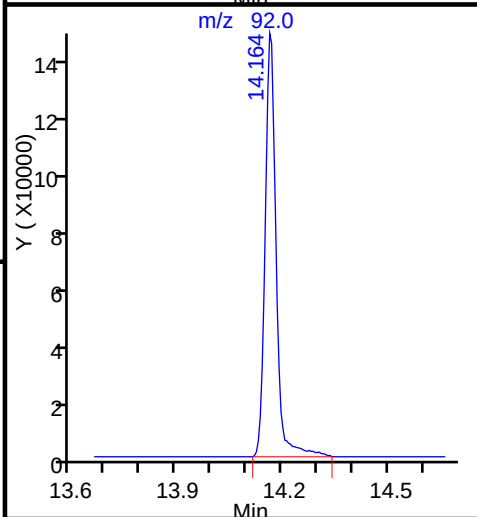
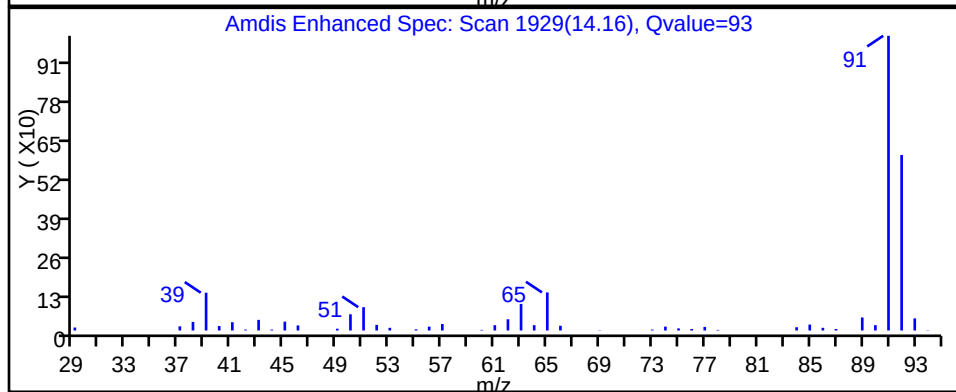
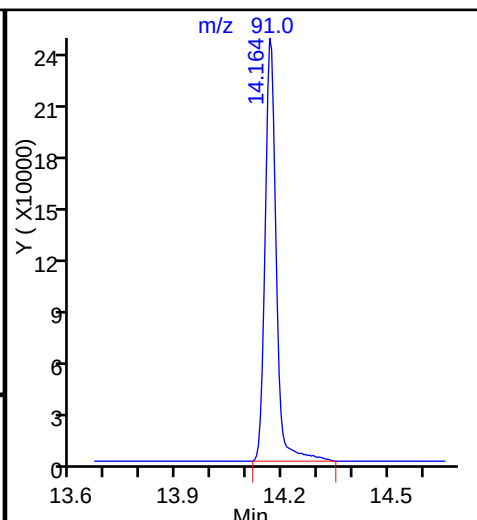
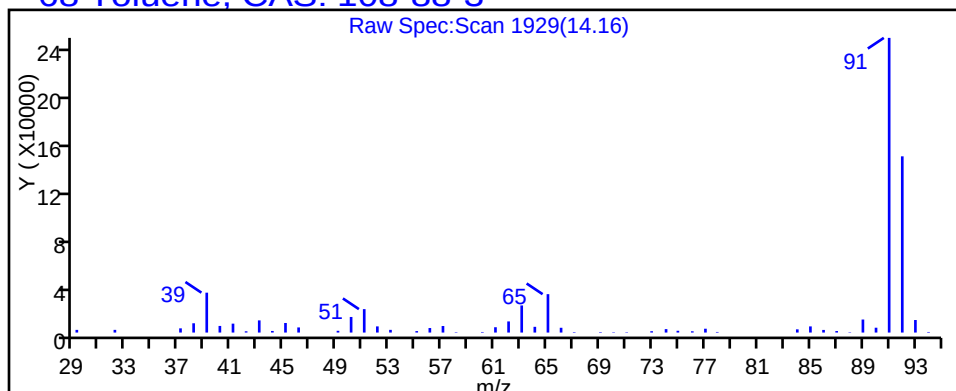
Dil. Factor: 1.6800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

68 Toluene, CAS: 108-88-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Client ID: OA-2

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 14

Purge Vol: 500.000 mL

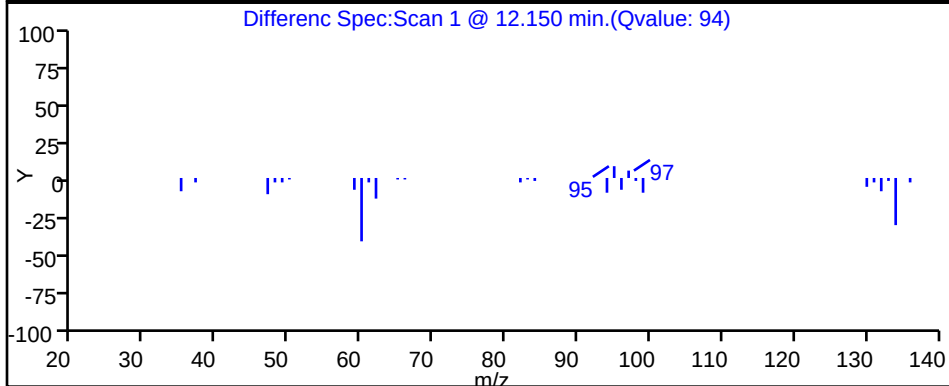
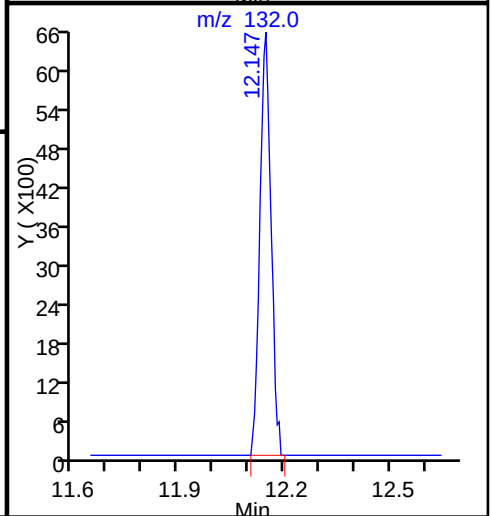
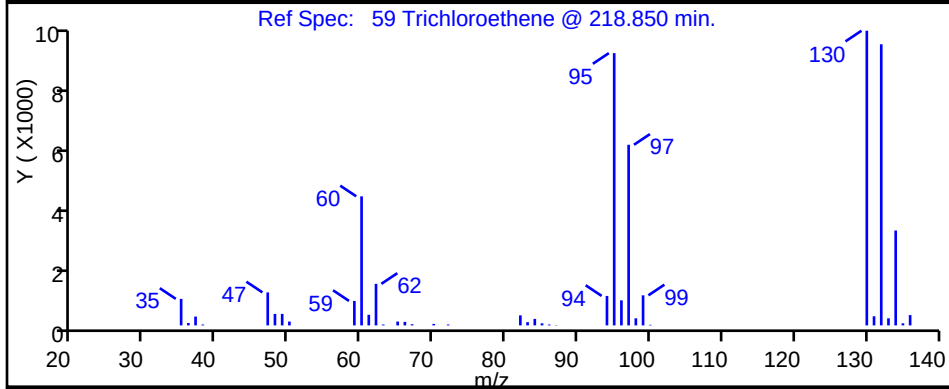
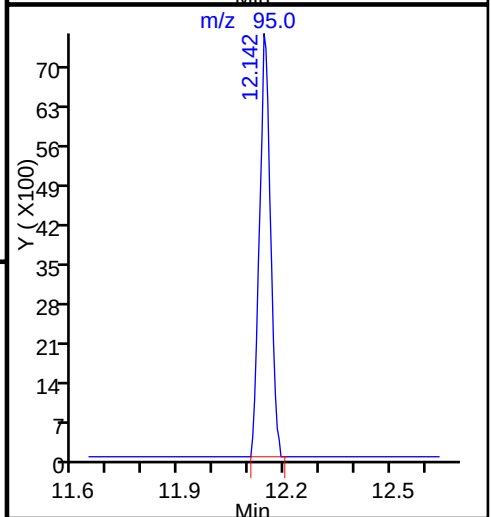
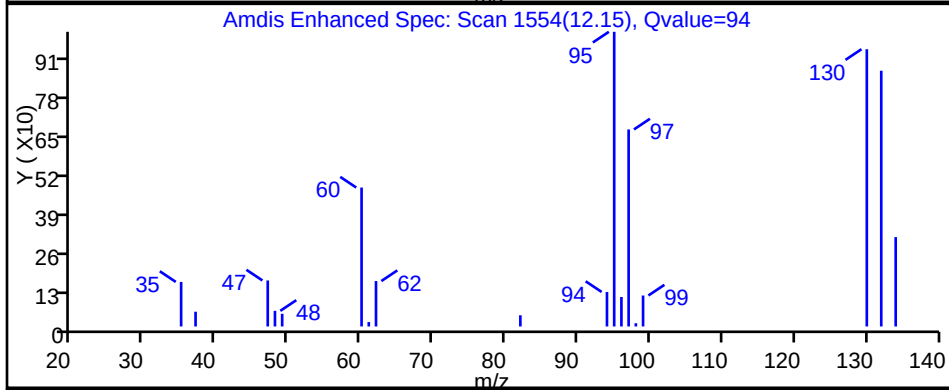
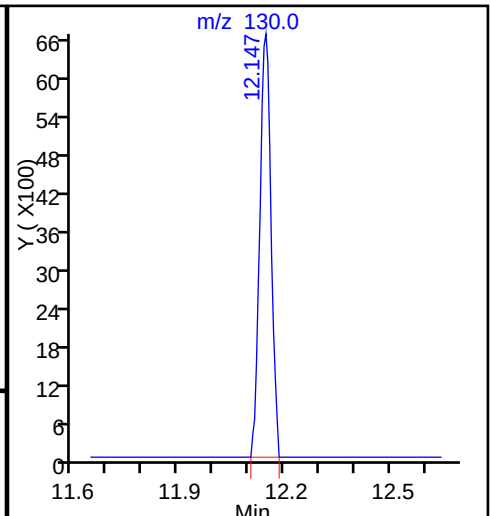
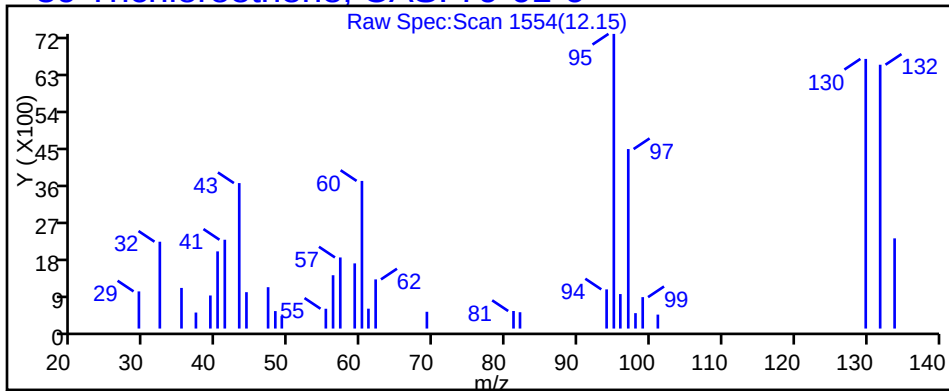
Dil. Factor: 1.6800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

59 Trichloroethene, CAS: 79-01-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P106.D

Injection Date: 15-Nov-2016 20:28:30

Instrument ID: MJ

Lims ID: 140-6336-A-6

Lab Sample ID: 140-6336-6

Client ID: OA-2

Operator ID: 7126

ALS Bottle#: 6

Worklist Smp#: 14

Purge Vol: 500.000 mL

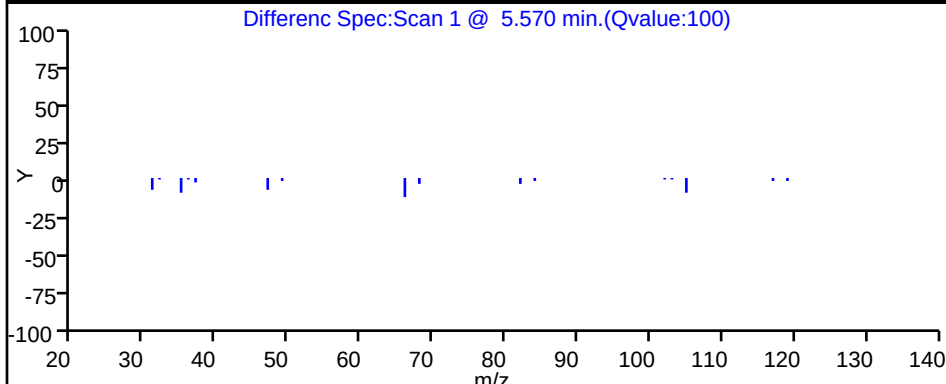
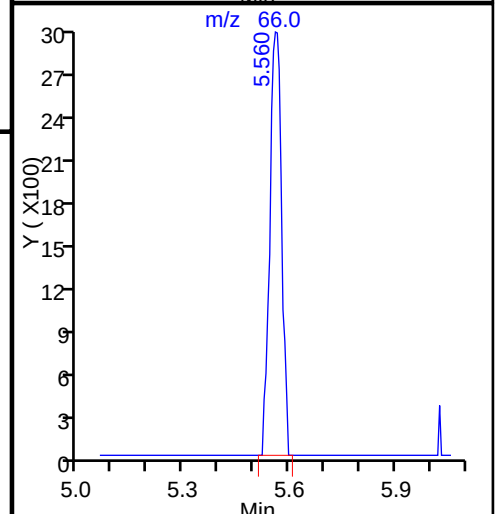
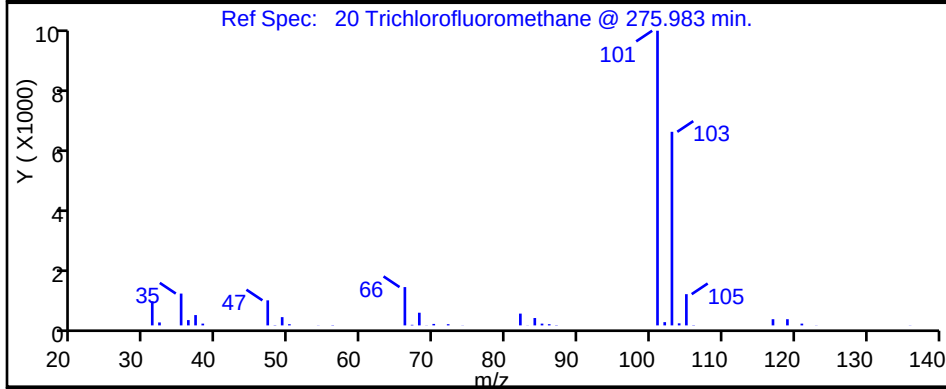
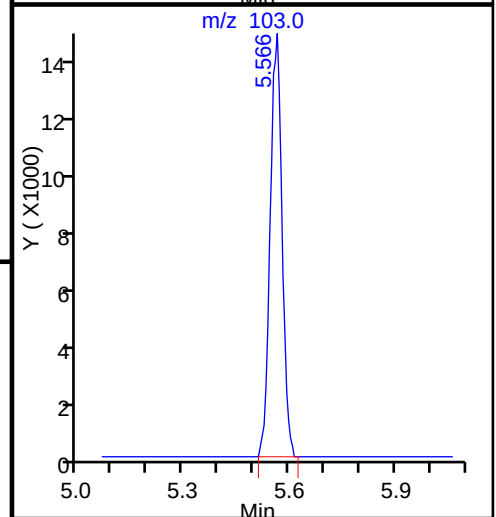
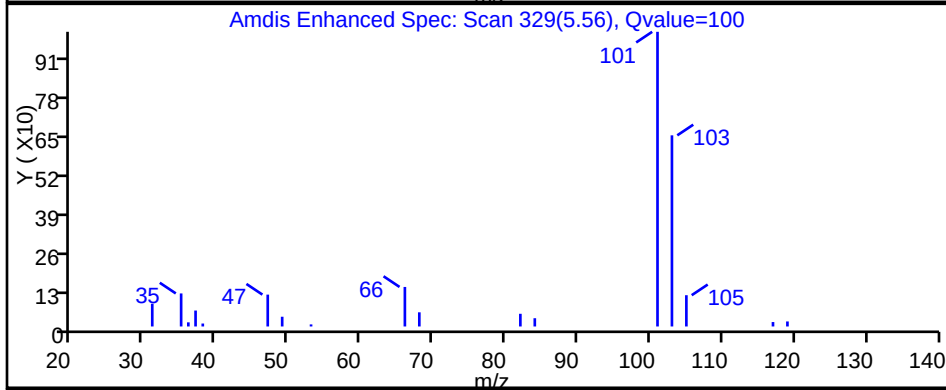
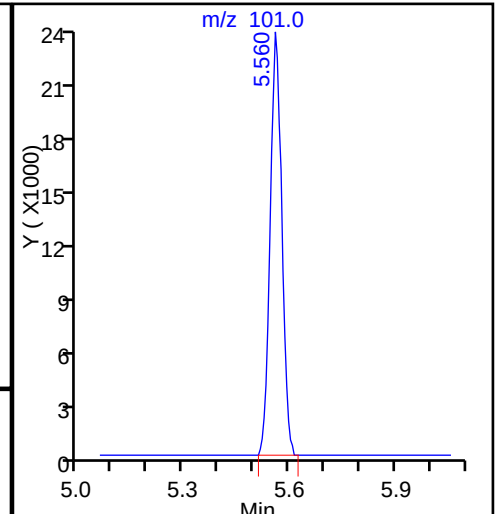
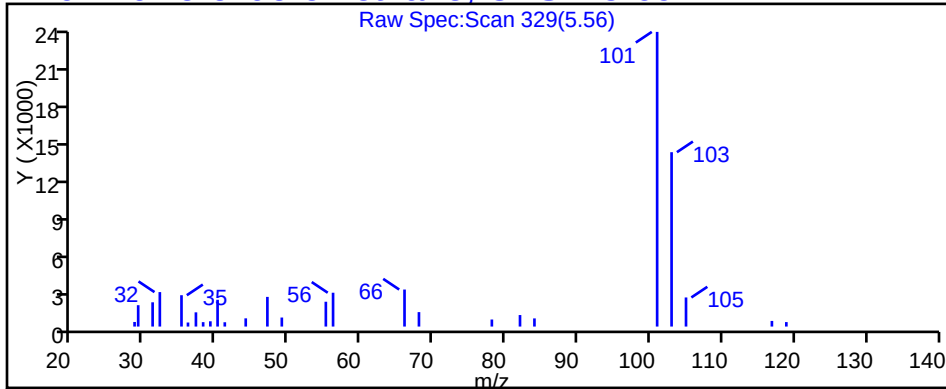
Dil. Factor: 1.6800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-3 Lab Sample ID: 140-6336-7
 Matrix: Air Lab File ID: JK15P107.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 17:27
 Sample wt/vol: 100 (mL) Date Analyzed: 11/15/2016 21:22
 Soil Aliquot Vol: _____ Dilution Factor: 1.8
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	9.5		0.72	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.72	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.72	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.72	
75-34-3	1,1-Dichloroethane	98.96	ND		0.72	
75-35-4	1,1-Dichloroethene	96.94	ND		0.72	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.72	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.72	
106-93-4	1,2-Dibromoethane	187.87	ND		0.72	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.72	
107-06-2	1,2-Dichloroethane	98.96	ND		0.72	
78-87-5	1,2-Dichloropropane	112.99	ND		0.72	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	32		0.72	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.72	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.72	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.72	
123-91-1	1,4-Dioxane	88.11	ND		1.8	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		1.8	
78-93-3	2-Butanone	72.11	ND		2.9	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		1.8	
71-43-2	Benzene	78.11	ND		0.72	
100-44-7	Benzyl chloride	126.58	ND		1.4	
75-27-4	Bromodichloromethane	163.83	ND		0.72	
75-25-2	Bromoform	252.75	ND		0.72	
74-83-9	Bromomethane	94.94	ND		0.72	
56-23-5	Carbon tetrachloride	153.81	0.50		0.36	
108-90-7	Chlorobenzene	112.56	ND		0.72	
75-00-3	Chloroethane	64.52	ND		0.72	
67-66-3	Chloroform	119.38	31		0.72	
74-87-3	Chloromethane	50.49	ND		1.8	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.72	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.72	
110-82-7	Cyclohexane	84.16	ND		1.8	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-3 Lab Sample ID: 140-6336-7
 Matrix: Air Lab File ID: JK15P107.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 17:27
 Sample wt/vol: 100 (mL) Date Analyzed: 11/15/2016 21:22
 Soil Aliquot Vol: _____ Dilution Factor: 1.8
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.72	
75-71-8	Dichlorodifluoromethane	120.91	47		0.72	
64-17-5	Ethanol	46.07	ND		18	
100-41-4	Ethylbenzene	106.17	ND		0.72	
87-68-3	Hexachlorobutadiene	260.76	ND		0.72	
110-54-3	Hexane	86.17	ND		1.8	
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.4	
75-09-2	Methylene Chloride	84.93	3.1		1.8	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		0.72	
95-47-6	o-Xylene	106.17	ND		0.72	
100-42-5	Styrene	104.15	ND		0.72	
75-65-0	t-Butyl alcohol	74.12	ND		2.9	
127-18-4	Tetrachloroethene	165.83	150	E	0.72	
108-88-3	Toluene	92.14	ND		1.1	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.72	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.72	
79-01-6	Trichloroethene	131.39	22		0.36	
75-69-4	Trichlorofluoromethane	137.37	1.7		0.72	
75-01-4	Vinyl chloride	62.50	ND		0.36	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-3 Lab Sample ID: 140-6336-7
 Matrix: Air Lab File ID: JK15P107.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 17:27
 Sample wt/vol: 100 (mL) Date Analyzed: 11/15/2016 21:22
 Soil Aliquot Vol: _____ Dilution Factor: 1.8
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	52		3.9	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		4.9	
79-00-5	1,1,2-Trichloroethane	133.41	ND		3.9	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		5.5	
75-34-3	1,1-Dichloroethane	98.96	ND		2.9	
75-35-4	1,1-Dichloroethene	96.94	ND		2.9	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		5.3	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		3.5	
106-93-4	1,2-Dibromoethane	187.87	ND		5.5	
95-50-1	1,2-Dichlorobenzene	147.00	ND		4.3	
107-06-2	1,2-Dichloroethane	98.96	ND		2.9	
78-87-5	1,2-Dichloropropane	112.99	ND		3.3	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	220		5.0	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		3.5	
541-73-1	1,3-Dichlorobenzene	147.00	ND		4.3	
106-46-7	1,4-Dichlorobenzene	147.00	ND		4.3	
123-91-1	1,4-Dioxane	88.11	ND		6.5	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		8.4	
78-93-3	2-Butanone	72.11	ND		8.5	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		7.4	
71-43-2	Benzene	78.11	ND		2.3	
100-44-7	Benzyl chloride	126.58	ND		7.5	
75-27-4	Bromodichloromethane	163.83	ND		4.8	
75-25-2	Bromoform	252.75	ND		7.4	
74-83-9	Bromomethane	94.94	ND		2.8	
56-23-5	Carbon tetrachloride	153.81	3.1		2.3	
108-90-7	Chlorobenzene	112.56	ND		3.3	
75-00-3	Chloroethane	64.52	ND		1.9	
67-66-3	Chloroform	119.38	150		3.5	
74-87-3	Chloromethane	50.49	ND		3.7	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		2.9	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		3.3	
110-82-7	Cyclohexane	84.16	ND		6.2	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-3 Lab Sample ID: 140-6336-7
 Matrix: Air Lab File ID: JK15P107.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 17:27
 Sample wt/vol: 100 (mL) Date Analyzed: 11/15/2016 21:22
 Soil Aliquot Vol: _____ Dilution Factor: 1.8
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		6.1	
75-71-8	Dichlorodifluoromethane	120.91	230		3.6	
64-17-5	Ethanol	46.07	ND		34	
100-41-4	Ethylbenzene	106.17	ND		3.1	
87-68-3	Hexachlorobutadiene	260.76	ND		7.7	
110-54-3	Hexane	86.17	ND		6.3	
1634-04-4	Methyl tert-butyl ether	88.15	ND		5.2	
75-09-2	Methylene Chloride	84.93	11		6.3	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		3.1	
95-47-6	o-Xylene	106.17	ND		3.1	
100-42-5	Styrene	104.15	ND		3.1	
75-65-0	t-Butyl alcohol	74.12	ND		8.7	
127-18-4	Tetrachloroethene	165.83	1000	E	4.9	
108-88-3	Toluene	92.14	ND		4.1	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		2.9	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		3.3	
79-01-6	Trichloroethene	131.39	120		1.9	
75-69-4	Trichlorofluoromethane	137.37	9.8		4.0	
75-01-4	Vinyl chloride	62.50	ND		0.92	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P107.D
 Lims ID: 140-6336-A-7
 Client ID: OVP-3
 Sample Type: Client
 Inject. Date: 15-Nov-2016 21:22:30 ALS Bottle#: 7 Worklist Smp#: 15
 Purge Vol: 500.000 mL Dil. Factor: 1.8000
 Sample Info: 140-0003625-015
 Misc. Info.: 140-6336-a-7@1.80
 Operator ID: 7126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:05:16

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.275	9.281	-0.006	96	259213	4.00	
* 2 1,4-Difluorobenzene	114	11.436	11.443	-0.007	96	1163816	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.120	16.121	-0.001	90	943209	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.749	17.745	0.004	87	587313	4.13	
8 Dichlorodifluoromethane	85	3.983	3.990	-0.007	100	1344708	5.27	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.188	4.189	-0.001	97	471785	3.51	
20 Trichlorofluoromethane	101	5.559	5.565	-0.006	99	43232	0.1943	
31 Methylene Chloride	84	6.667	6.673	-0.006	98	28306	0.3437	
40 Hexane	56	8.522	8.523	-0.001	90	4584	0.0701	
44 Chloroform	83	9.280	9.292	-0.012	97	557127	3.42	
47 1,1,1-Trichloroethane	97	10.323	10.335	-0.012	97	176120	1.05	
52 Carbon tetrachloride	117	10.936	10.942	-0.006	95	9138	0.0553	
59 Trichloroethene	130	12.146	12.147	-0.001	94	207284	2.40	
65 4-Methyl-2-pentanone (MIBK	43	13.313	13.298	0.015	94	5166	0.0387	
68 Toluene	91	14.163	14.169	-0.006	91	10207	0.0494	
76 Tetrachloroethene	129	15.303	15.304	-0.001	95	1317938	17.0	E

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P107.D

Injection Date: 15-Nov-2016 21:22:30

Instrument ID: MJ

Operator ID: 7126

Lims ID: 140-6336-A-7

Lab Sample ID: 140-6336-7

Worklist Smp#: 15

Client ID: OVP-3

Purge Vol: 500.000 mL

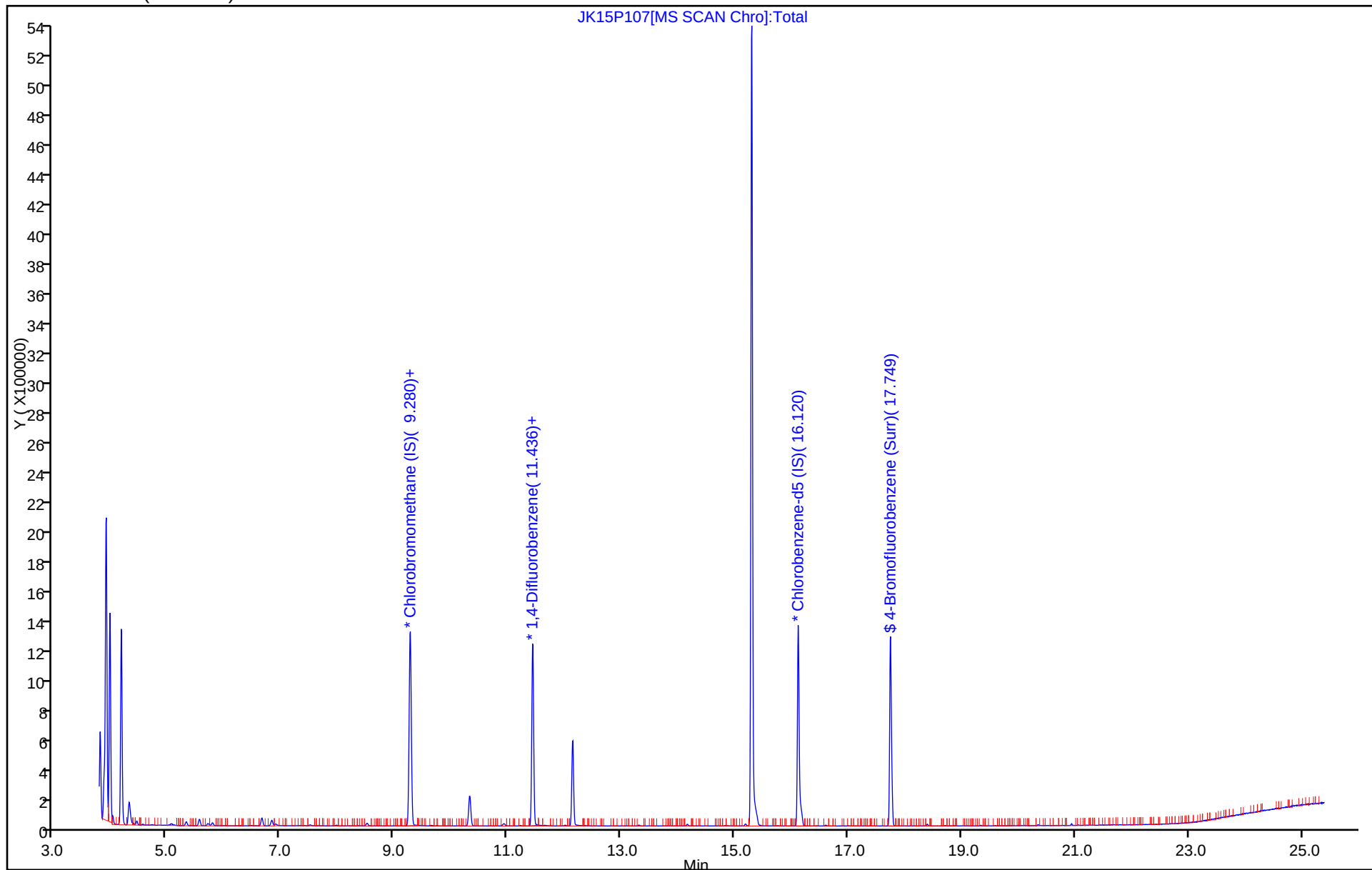
Dil. Factor: 1.8000

ALS Bottle#: 7

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P107.D
Lims ID: 140-6336-A-7
Client ID: OVP-3
Sample Type: Client
Inject. Date: 15-Nov-2016 21:22:30 ALS Bottle#: 7 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.8000
Sample Info: 140-0003625-015
Misc. Info.: 140-6336-a-7@1.80
Operator ID: 7126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:05:16

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.13	103.26

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P107.D

Injection Date: 15-Nov-2016 21:22:30

Instrument ID: MJ

Lims ID: 140-6336-A-7

Lab Sample ID: 140-6336-7

Client ID: OVP-3

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 15

Purge Vol: 500.000 mL

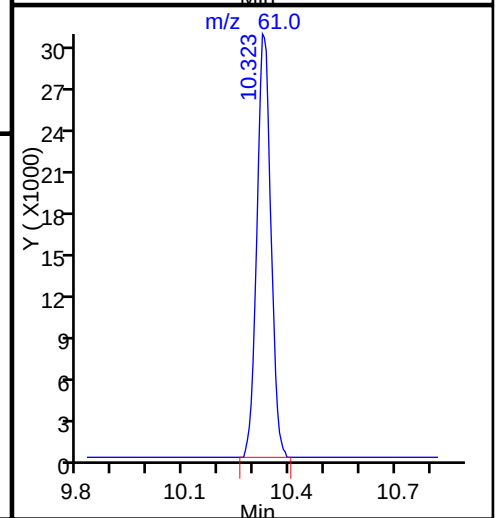
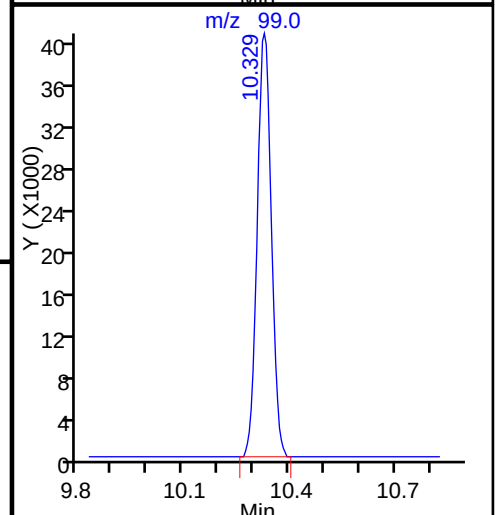
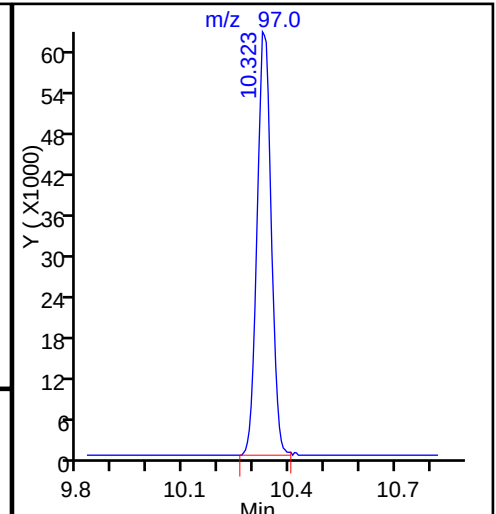
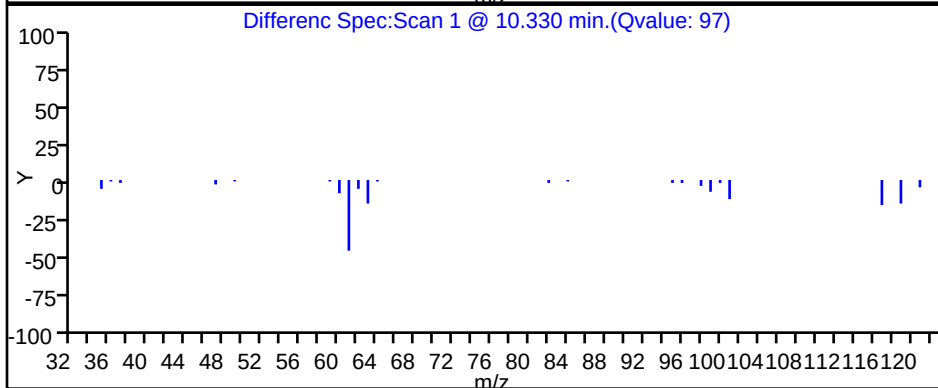
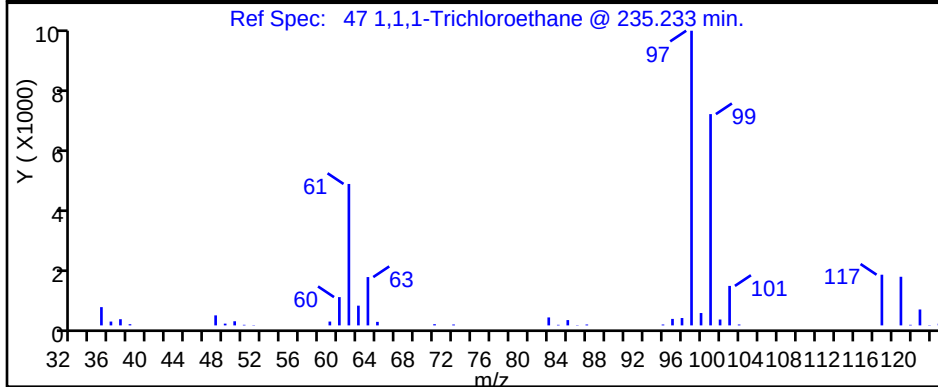
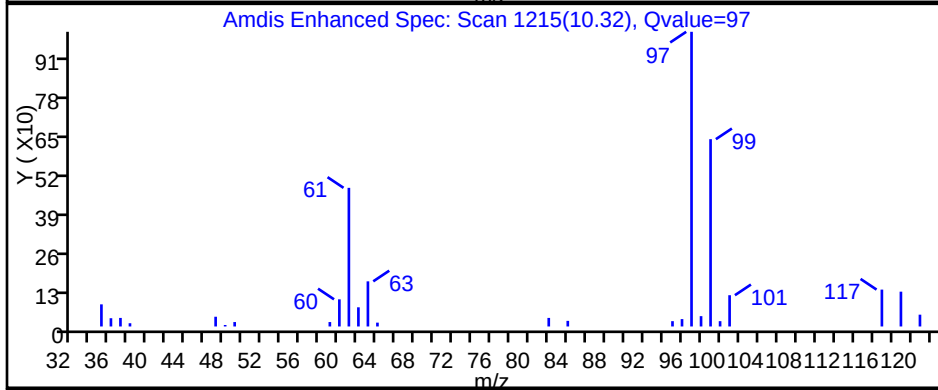
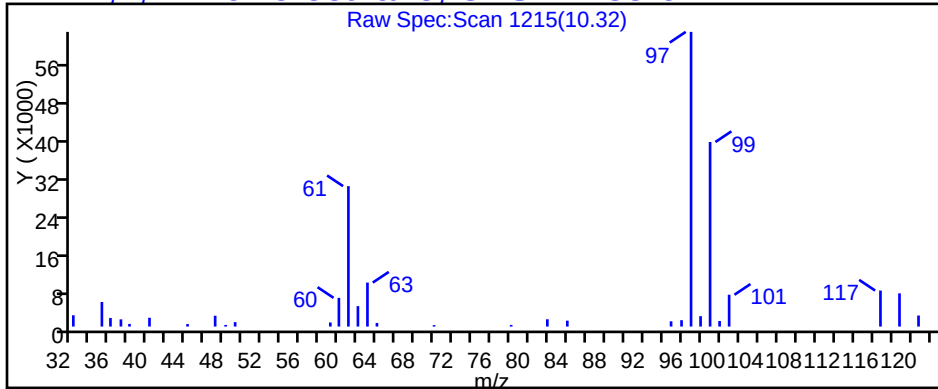
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

47 1,1,1-Trichloroethane, CAS: 71-55-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P107.D

Injection Date: 15-Nov-2016 21:22:30

Instrument ID: MJ

Lims ID: 140-6336-A-7

Lab Sample ID: 140-6336-7

Client ID: OVP-3

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 15

Purge Vol: 500.000 mL

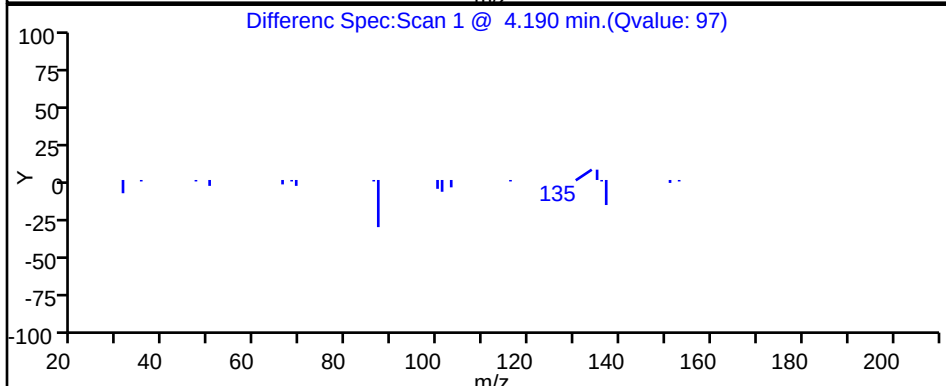
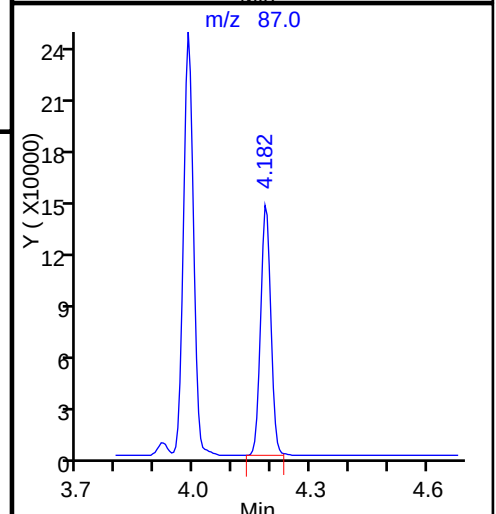
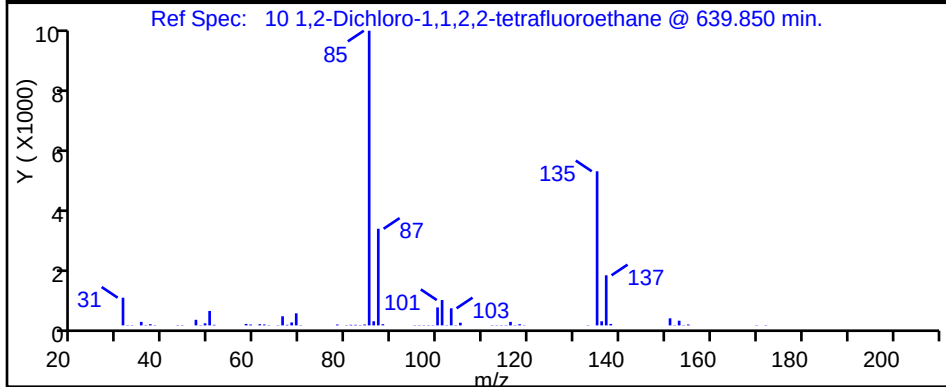
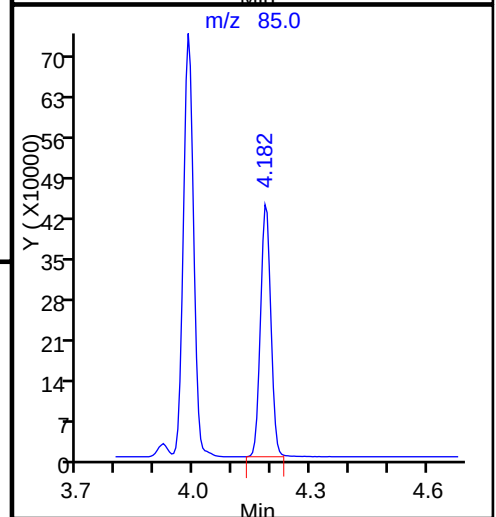
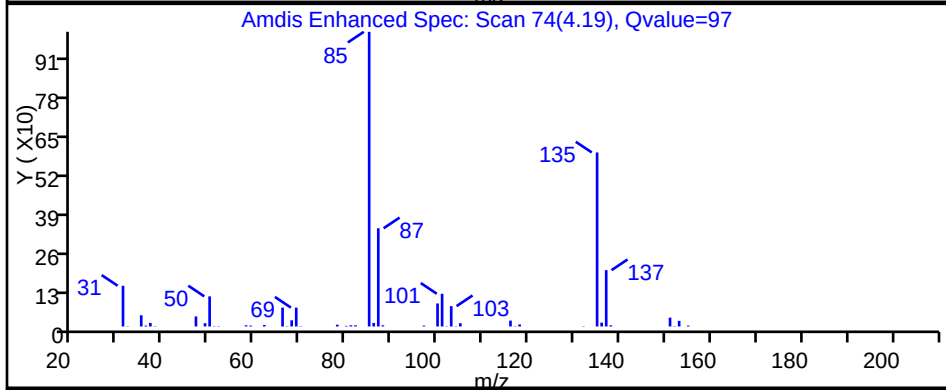
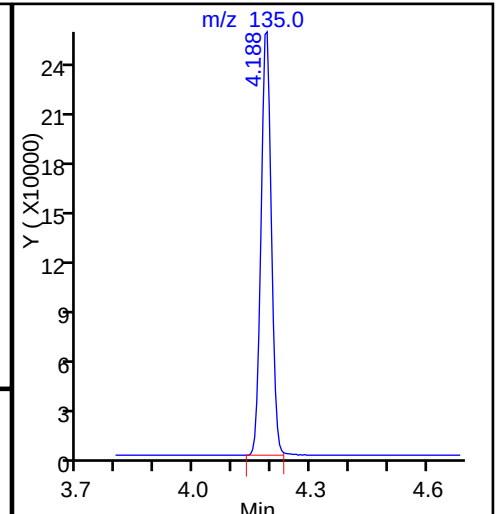
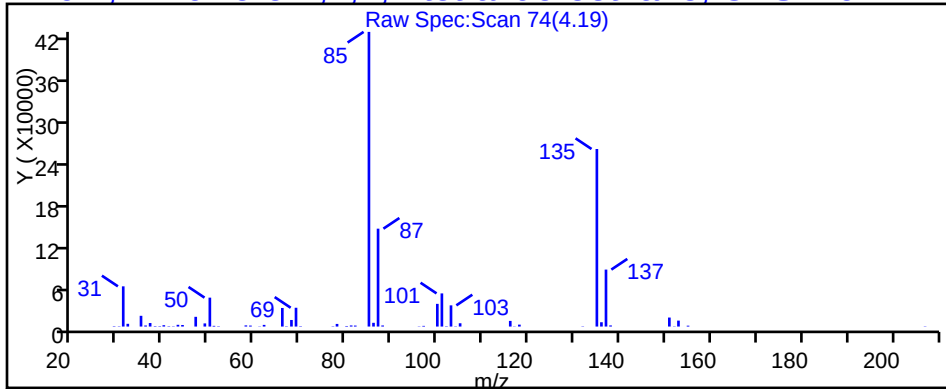
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector MS SCAN

10 1,2-Dichloro-1,1,2,2-tetrafluoroethane, CAS: 76-14-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P107.D

Injection Date: 15-Nov-2016 21:22:30

Instrument ID: MJ

Lims ID: 140-6336-A-7

Lab Sample ID: 140-6336-7

Client ID: OVP-3

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 15

Purge Vol: 500.000 mL

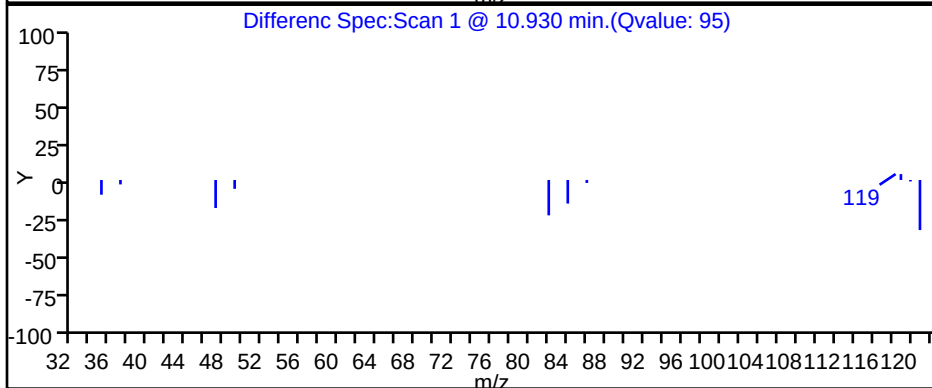
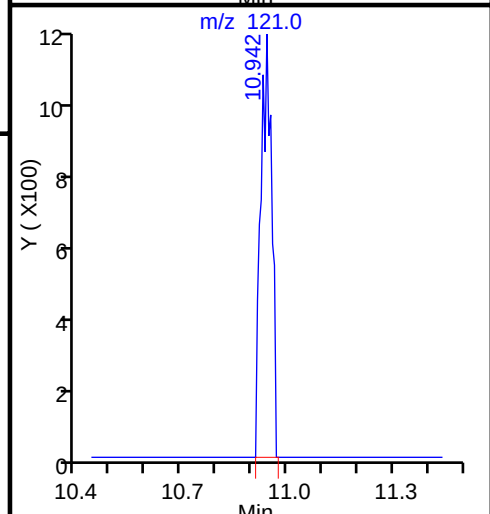
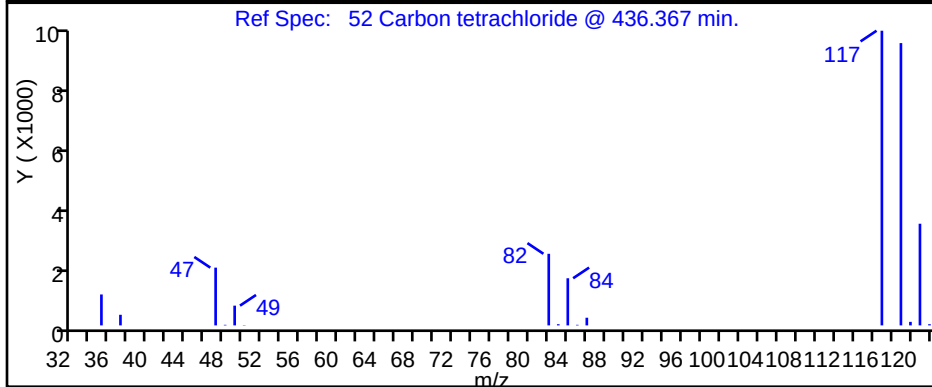
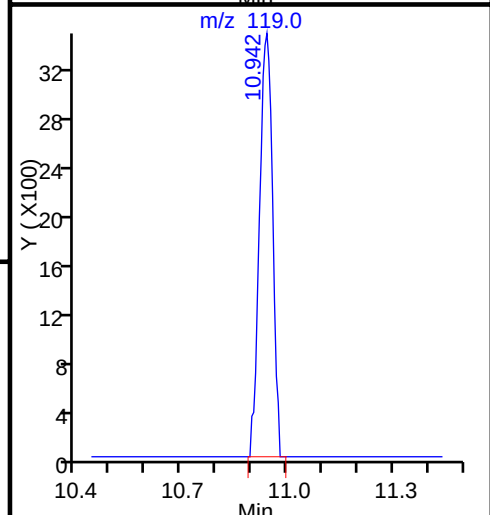
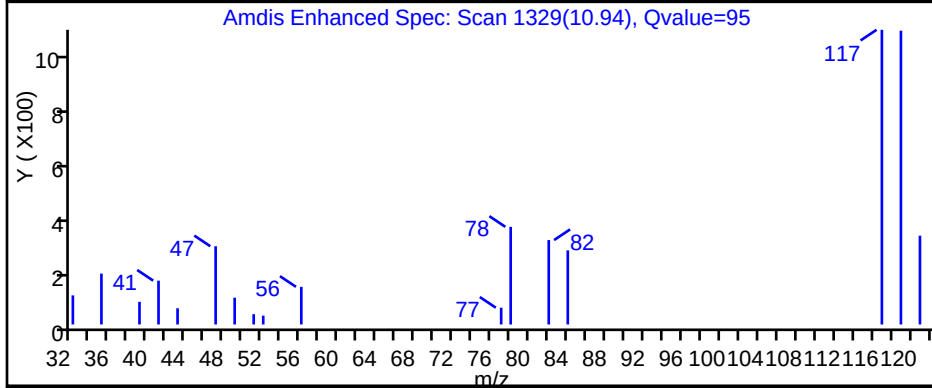
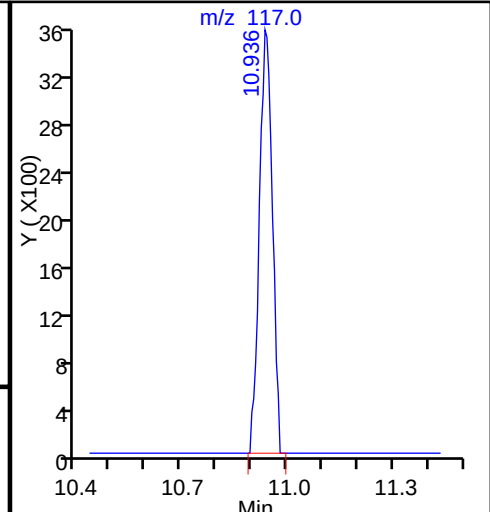
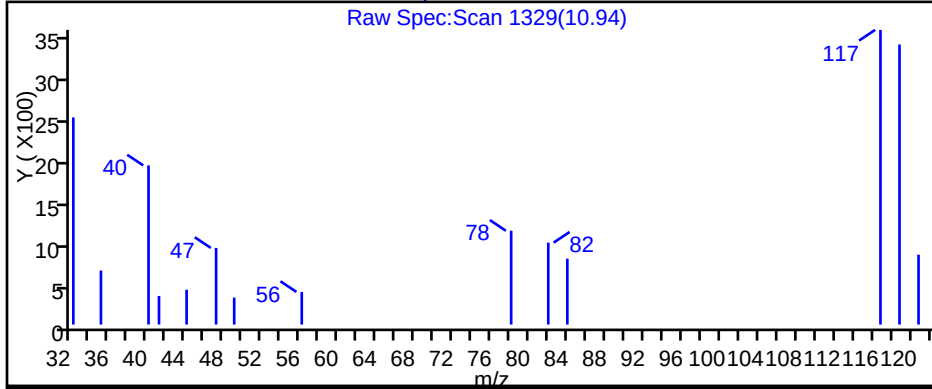
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P107.D

Injection Date: 15-Nov-2016 21:22:30

Instrument ID: MJ

Lims ID: 140-6336-A-7

Lab Sample ID: 140-6336-7

Client ID: OVP-3

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 15

Purge Vol: 500.000 mL

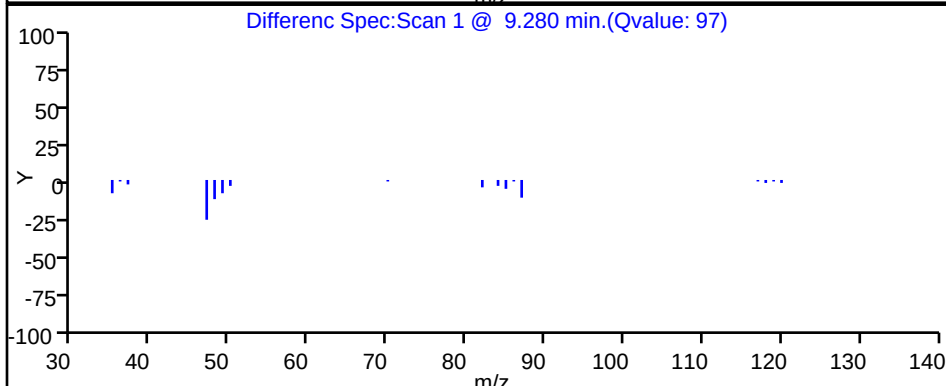
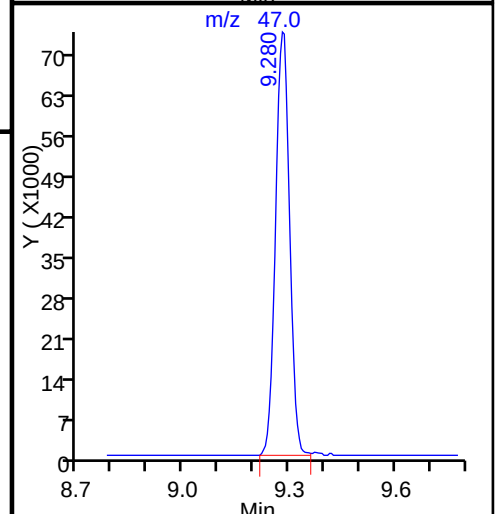
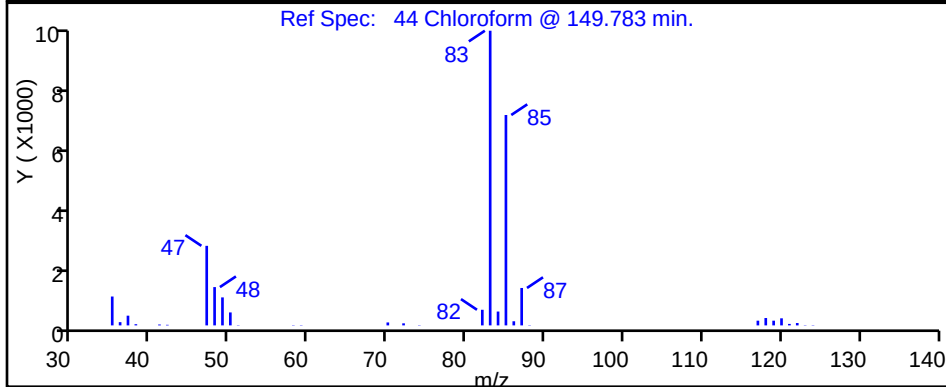
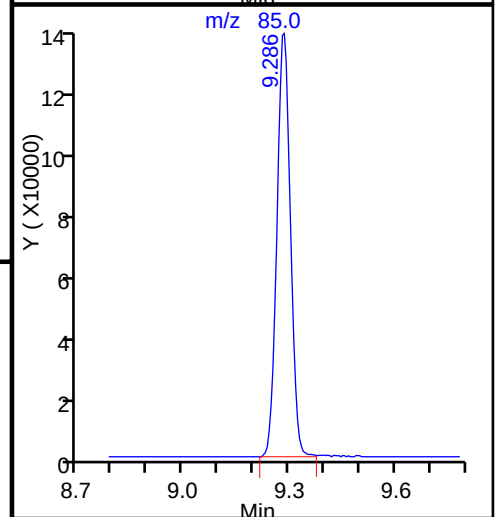
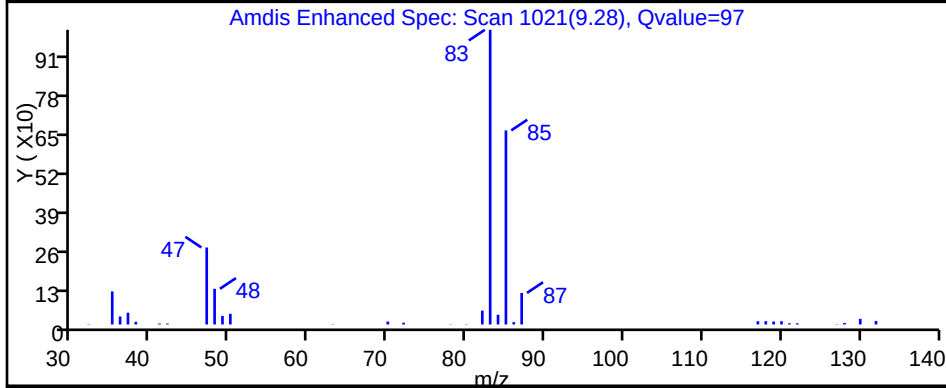
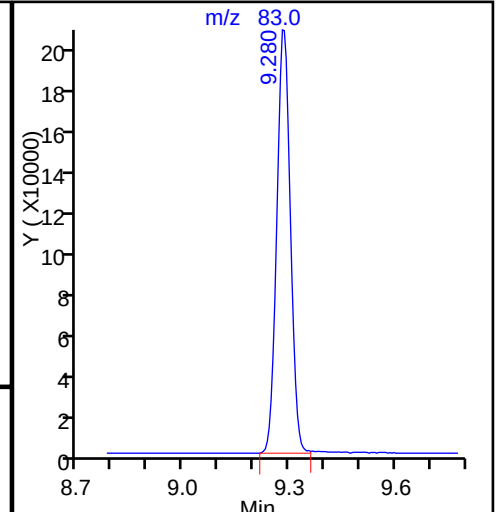
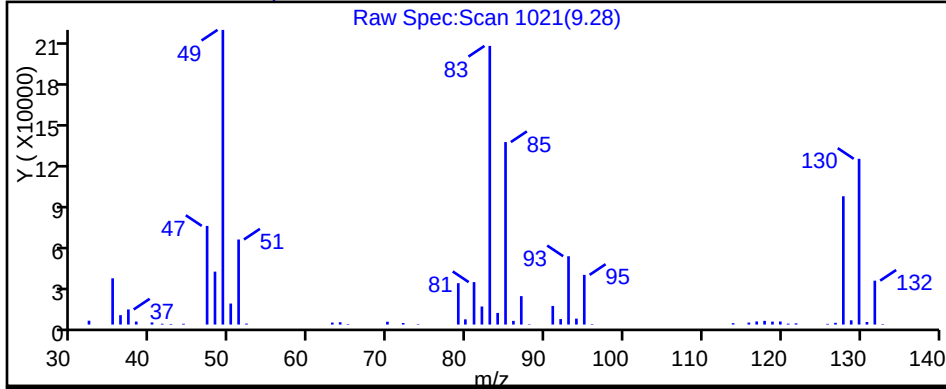
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P107.D

Injection Date: 15-Nov-2016 21:22:30

Instrument ID: MJ

Lims ID: 140-6336-A-7

Lab Sample ID: 140-6336-7

Client ID: OVP-3

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 15

Purge Vol: 500.000 mL

Dil. Factor: 1.8000

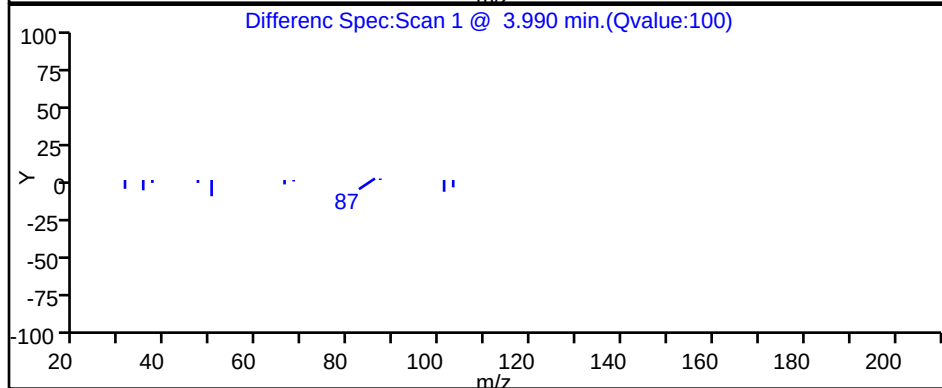
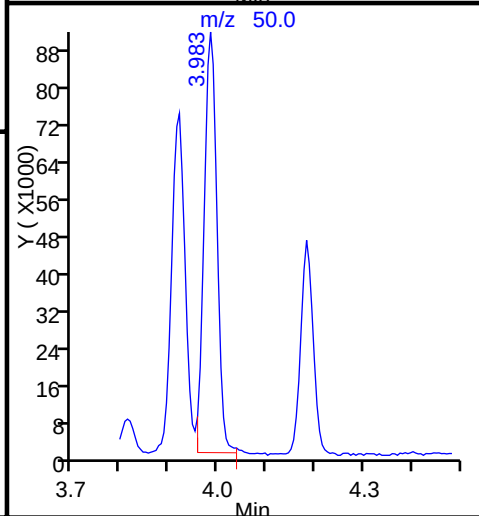
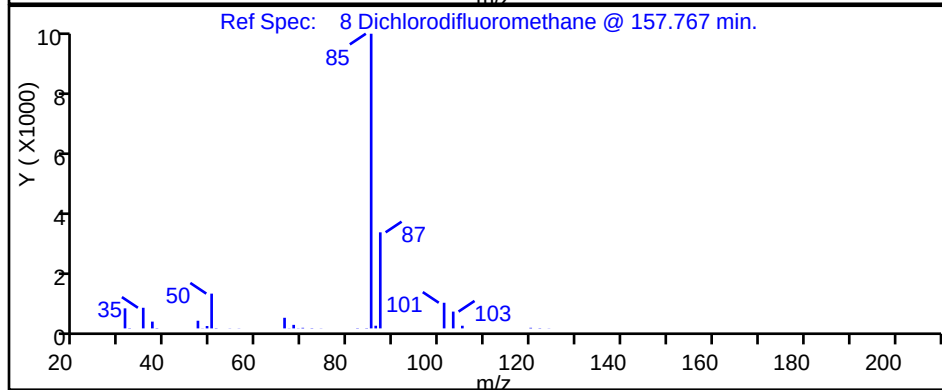
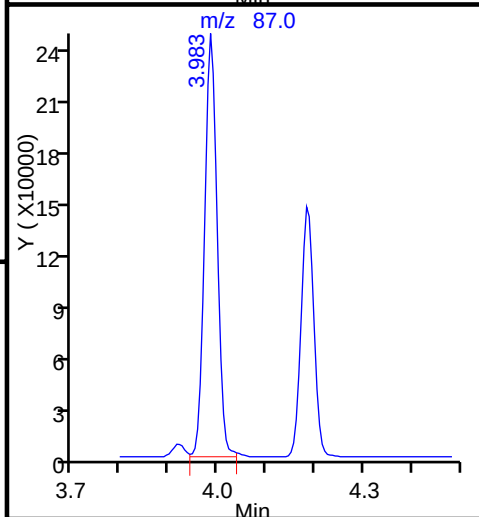
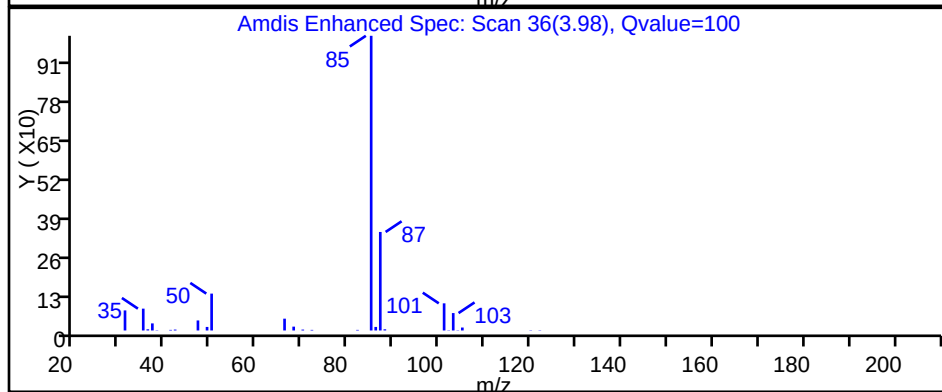
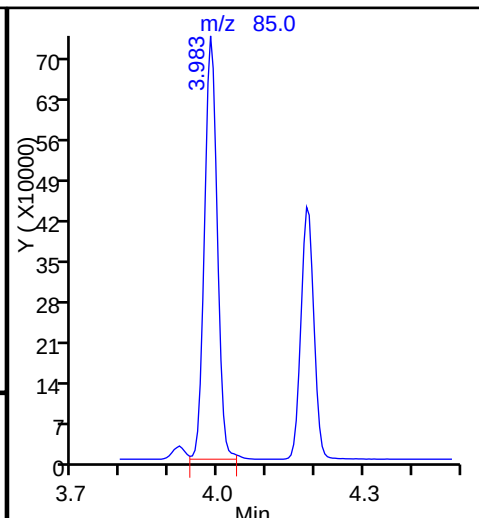
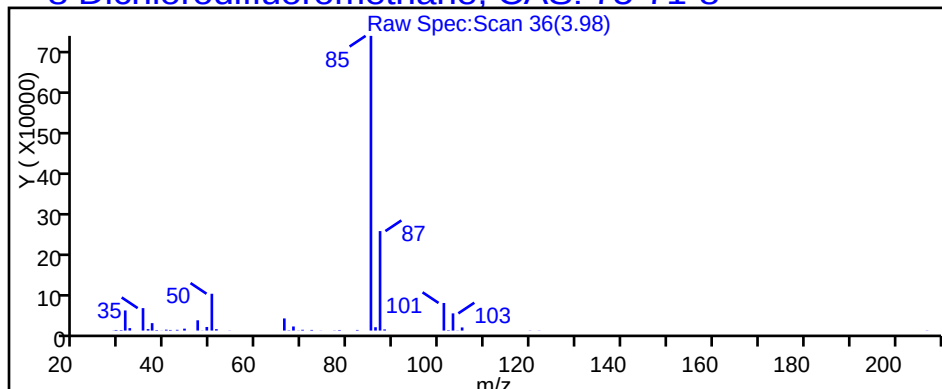
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P107.D

Injection Date: 15-Nov-2016 21:22:30

Instrument ID: MJ

Lims ID: 140-6336-A-7

Lab Sample ID: 140-6336-7

Client ID: OVP-3

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 15

Purge Vol: 500.000 mL

Dil. Factor: 1.8000

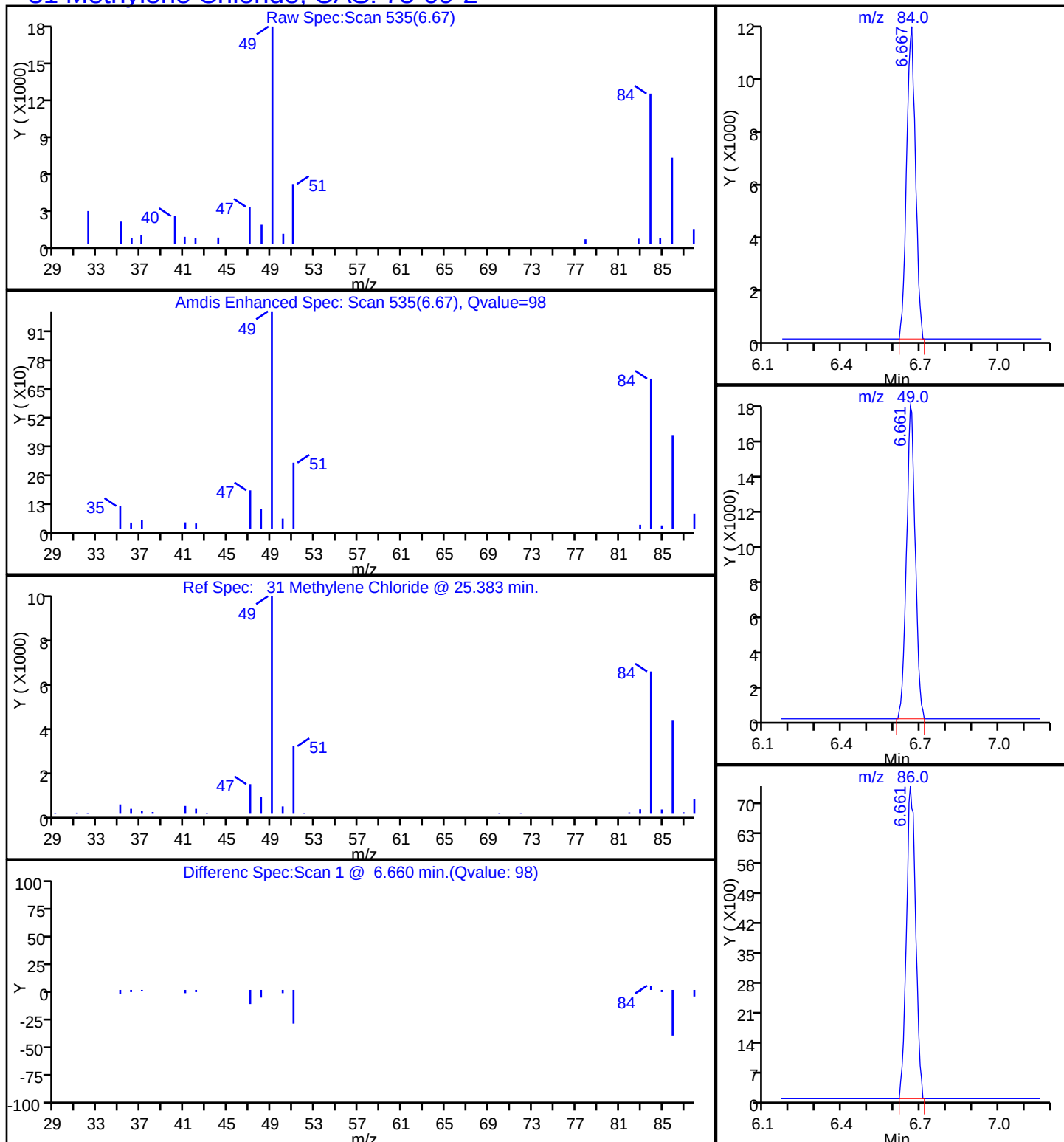
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector MS SCAN

31 Methylene Chloride, CAS: 75-09-2



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P107.D

Injection Date: 15-Nov-2016 21:22:30

Instrument ID: MJ

Lims ID: 140-6336-A-7

Lab Sample ID: 140-6336-7

Client ID: OVP-3

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 15

Purge Vol: 500.000 mL

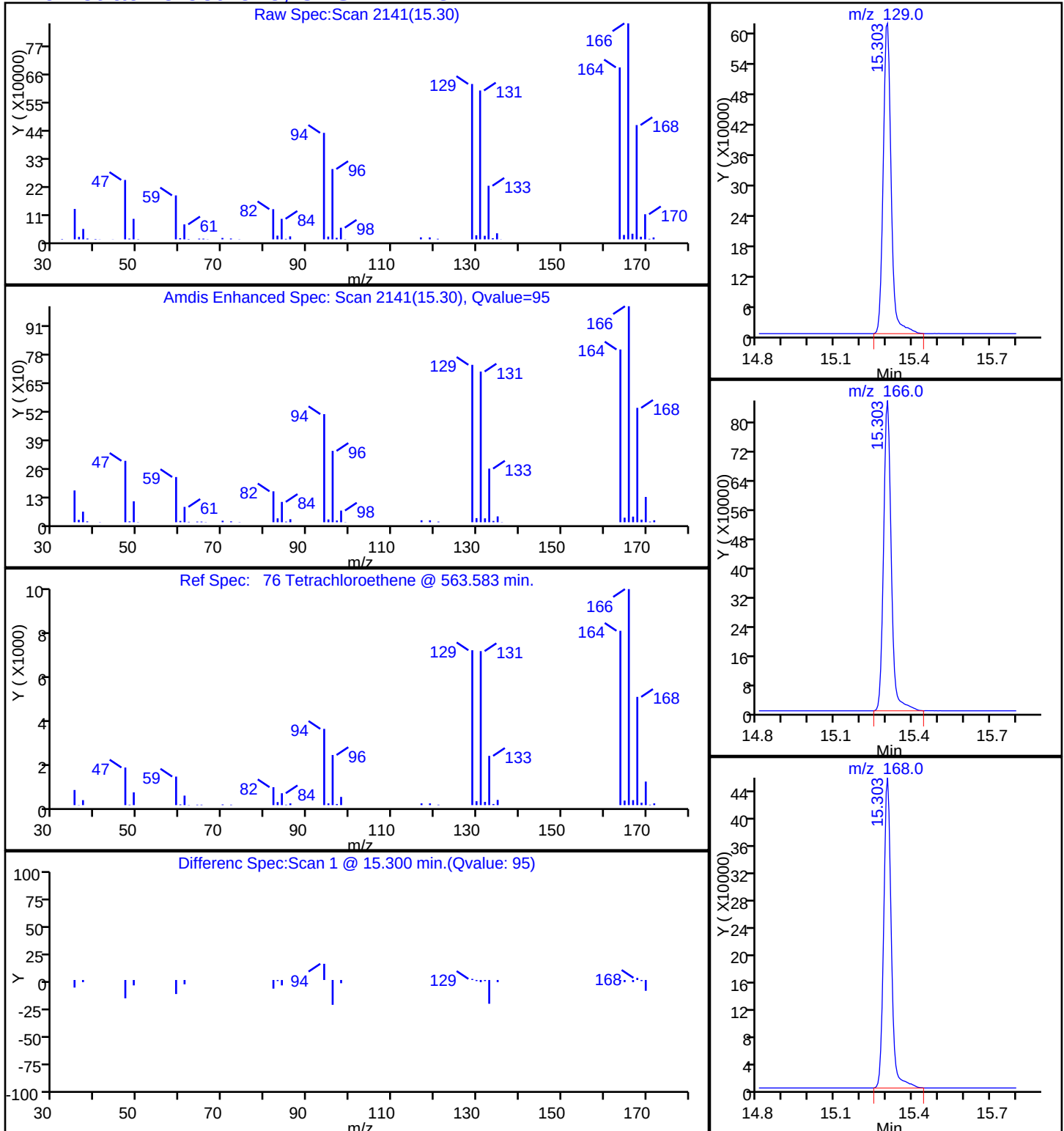
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

76 Tetrachloroethene, CAS: 127-18-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P107.D

Injection Date: 15-Nov-2016 21:22:30

Instrument ID: MJ

Lims ID: 140-6336-A-7

Lab Sample ID: 140-6336-7

Client ID: OVP-3

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 15

Purge Vol: 500.000 mL

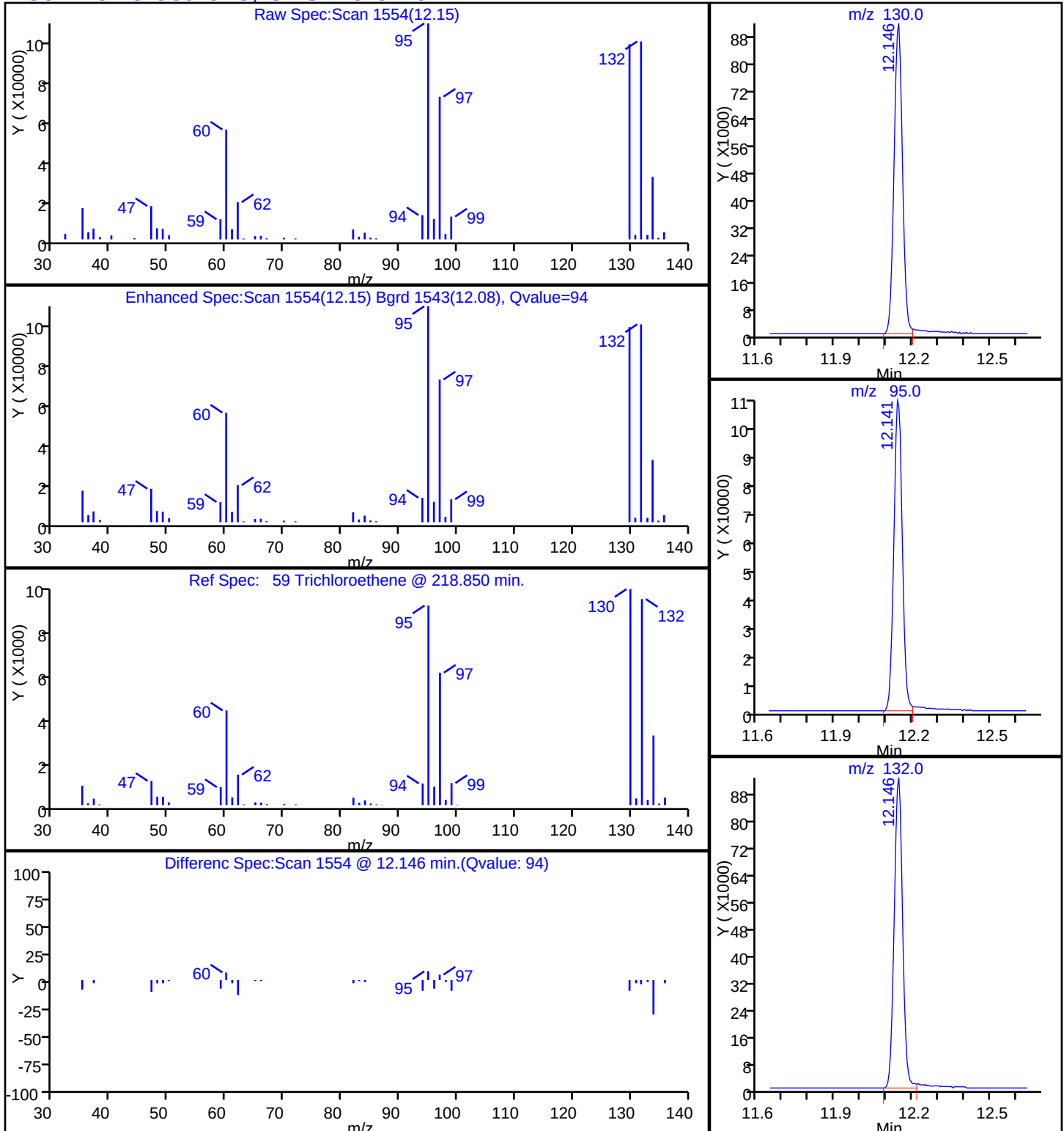
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

59 Trichloroethene, CAS: 79-01-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P107.D

Injection Date: 15-Nov-2016 21:22:30

Instrument ID: MJ

Lims ID: 140-6336-A-7

Lab Sample ID: 140-6336-7

Client ID: OVP-3

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 15

Purge Vol: 500.000 mL

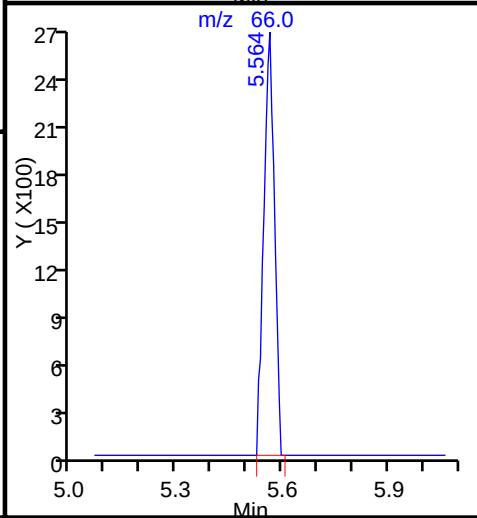
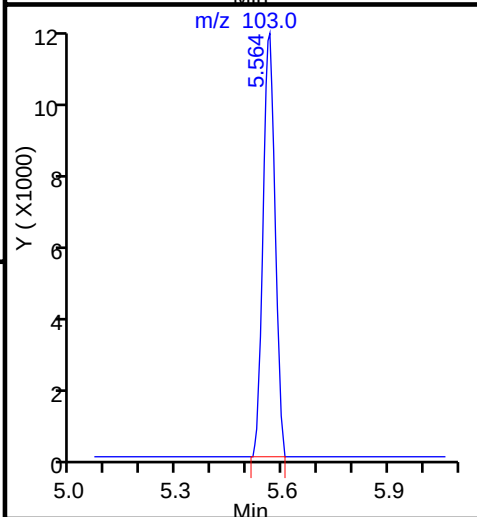
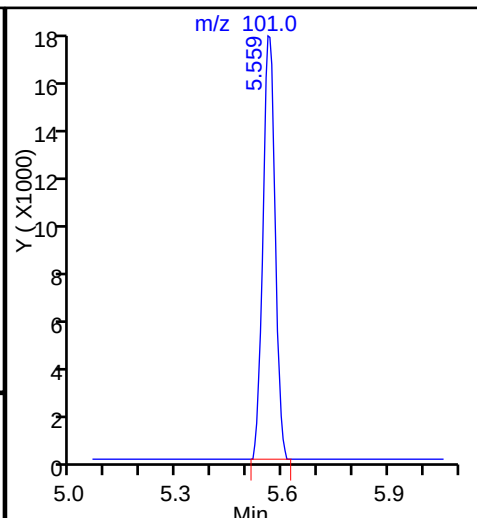
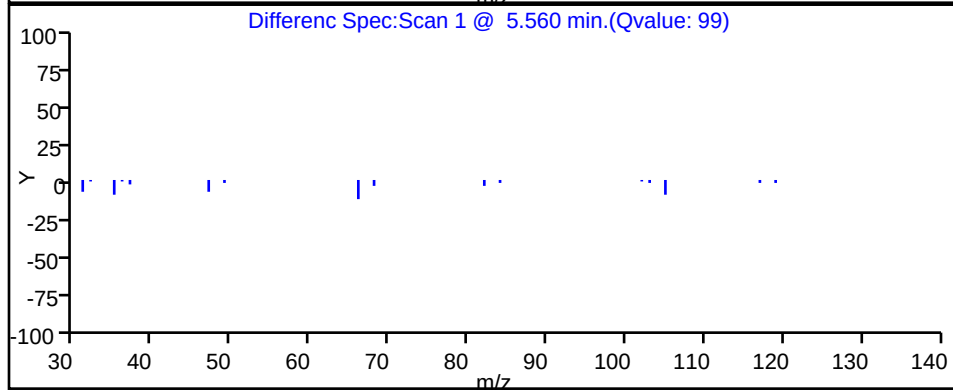
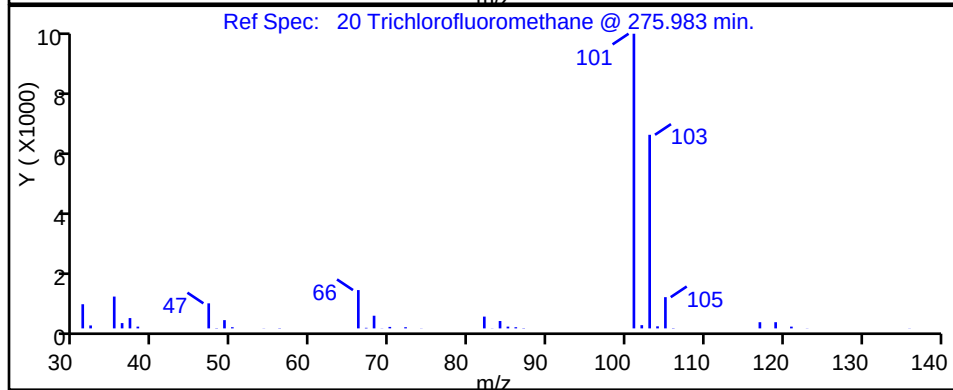
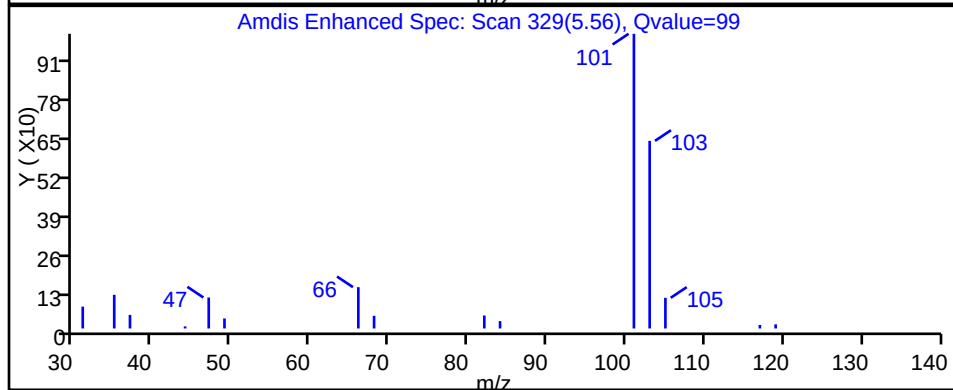
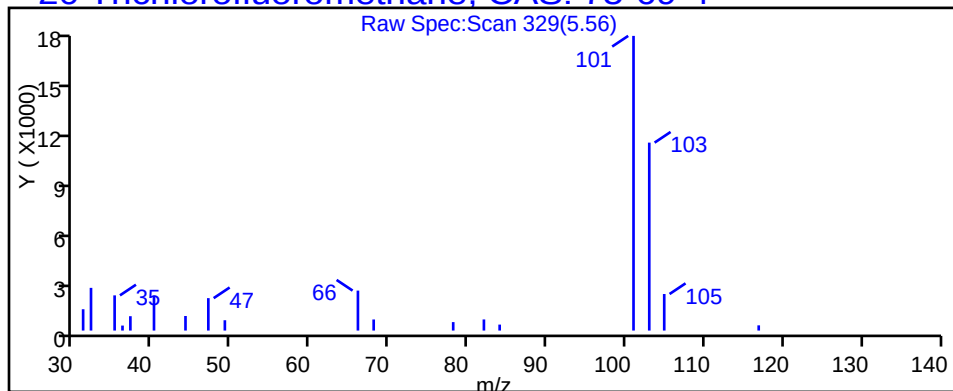
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-3 DL Lab Sample ID: 140-6336-7 DL
 Matrix: Air Lab File ID: JK15P107DL.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 17:27
 Sample wt/vol: 50 (mL) Date Analyzed: 11/16/2016 10:36
 Soil Aliquot Vol: _____ Dilution Factor: 1.8
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
127-18-4	Tetrachloroethene	165.83	150	D	1.4	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-3 DL Lab Sample ID: 140-6336-7 DL
 Matrix: Air Lab File ID: JK15P107DL.D
 Analysis Method: TO 15 LL Date Collected: 11/08/2016 17:27
 Sample wt/vol: 50 (mL) Date Analyzed: 11/16/2016 10:36
 Soil Aliquot Vol: _____ Dilution Factor: 1.8
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
127-18-4	Tetrachloroethene	165.83	1000	D	9.8	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P107DL.D
 Lims ID: 140-6336-A-7
 Client ID: OVP-3
 Sample Type: Client
 Inject. Date: 16-Nov-2016 10:36:30 ALS Bottle#: 7 Worklist Smp#: 28
 Purge Vol: 500.000 mL Dil. Factor: 1.8000
 Sample Info: 140-0003625-028
 Misc. Info.: 140-6336-a-7@1.80
 Operator ID: 7126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 11:25:22 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 11:25:22

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.274	9.281	-0.007	96	248831	4.00	
* 2 1,4-Difluorobenzene	114	11.441	11.443	-0.002	96	1156842	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.119	16.121	-0.002	90	948123	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.748	17.745	0.003	87	582754	4.08	
8 Dichlorodifluoromethane	85	3.982	3.990	-0.008	100	692576	2.83	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.187	4.189	-0.002	98	246734	1.91	
20 Trichlorofluoromethane	101	5.563	5.565	-0.002	99	21445	0.1004	
31 Methylene Chloride	84	6.660	6.673	-0.013	98	10376	0.1312	
40 Hexane	56	8.521	8.523	-0.002	89	1881	0.0300	
44 Chloroform	83	9.284	9.292	-0.008	96	297058	1.90	
47 1,1,1-Trichloroethane	97	10.328	10.335	-0.007	97	87240	0.5428	
48 1,2-Dichloroethane	62	10.322	10.442	-0.120	40	6549	0.0661	
52 Carbon tetrachloride	117	10.935	10.942	-0.007	97	4308	0.0262	
59 Trichloroethene	130	12.145	12.147	-0.002	93	104602	1.22	
76 Tetrachloroethene	129	15.296	15.304	-0.008	94	644550	8.28	

Reagents:

40MXISSURP_00001 Amount Added: 40.00 Units: mL Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P107DL.D

Injection Date: 16-Nov-2016 10:36:30

Instrument ID: MJ

Operator ID: 7126

Lims ID: 140-6336-A-7

Lab Sample ID: 140-6336-7

Worklist Smp#: 28

Client ID: OVP-3

Purge Vol: 500.000 mL

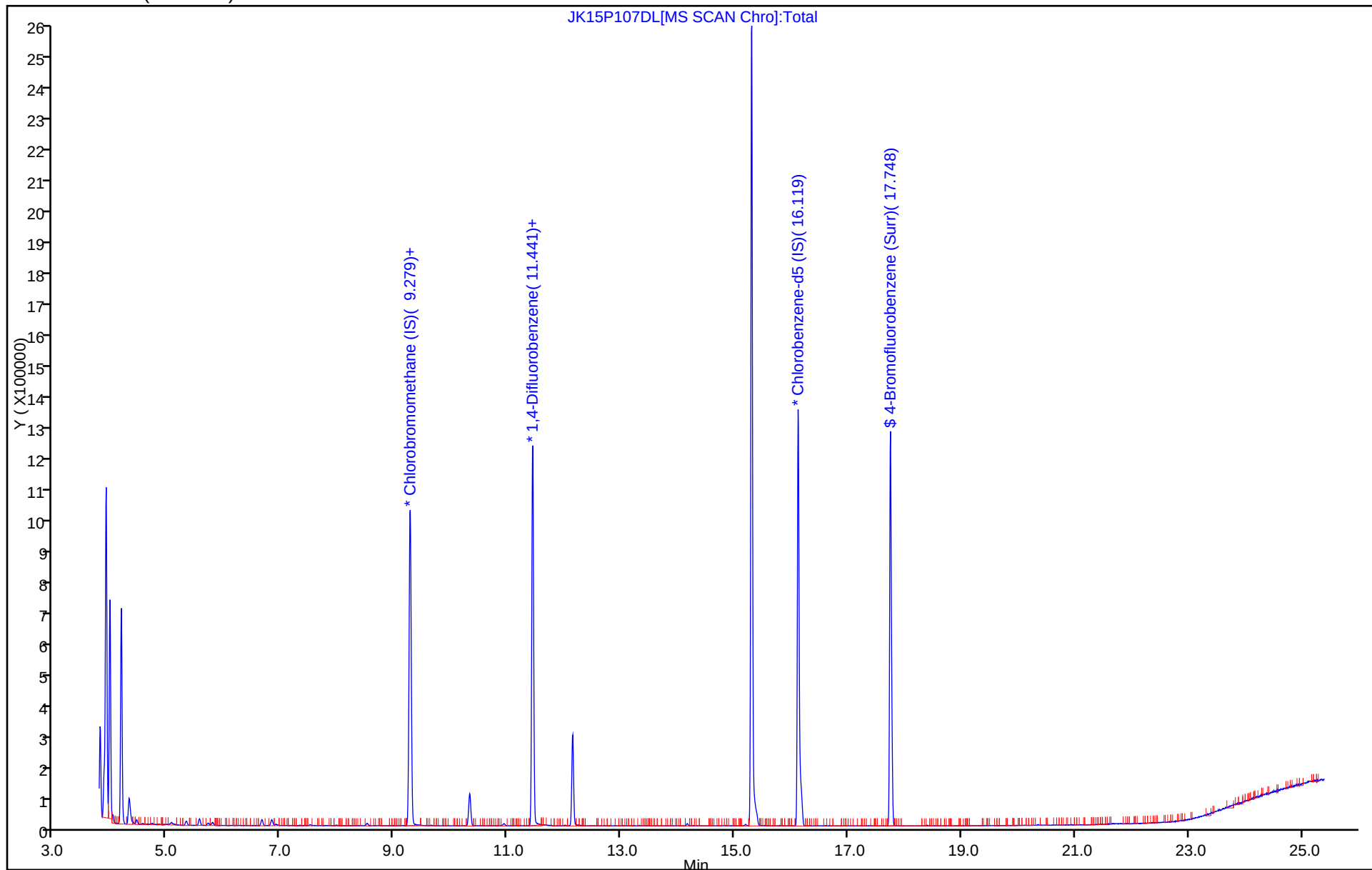
Dil. Factor: 1.8000

ALS Bottle#: 7

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P107DL.D
Lims ID: 140-6336-A-7
Client ID: OVP-3
Sample Type: Client
Inject. Date: 16-Nov-2016 10:36:30 ALS Bottle#: 7 Worklist Smp#: 28
Purge Vol: 500.000 mL Dil. Factor: 1.8000
Sample Info: 140-0003625-028
Misc. Info.: 140-6336-a-7@1.80
Operator ID: 7126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 11:25:22 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 11:25:22

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.08	101.92

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P107DL.D

Injection Date: 16-Nov-2016 10:36:30

Instrument ID: MJ

Lims ID: 140-6336-A-7

Lab Sample ID: 140-6336-7

Client ID: OVP-3

Operator ID: 7126

ALS Bottle#: 7

Worklist Smp#: 28

Purge Vol: 500.000 mL

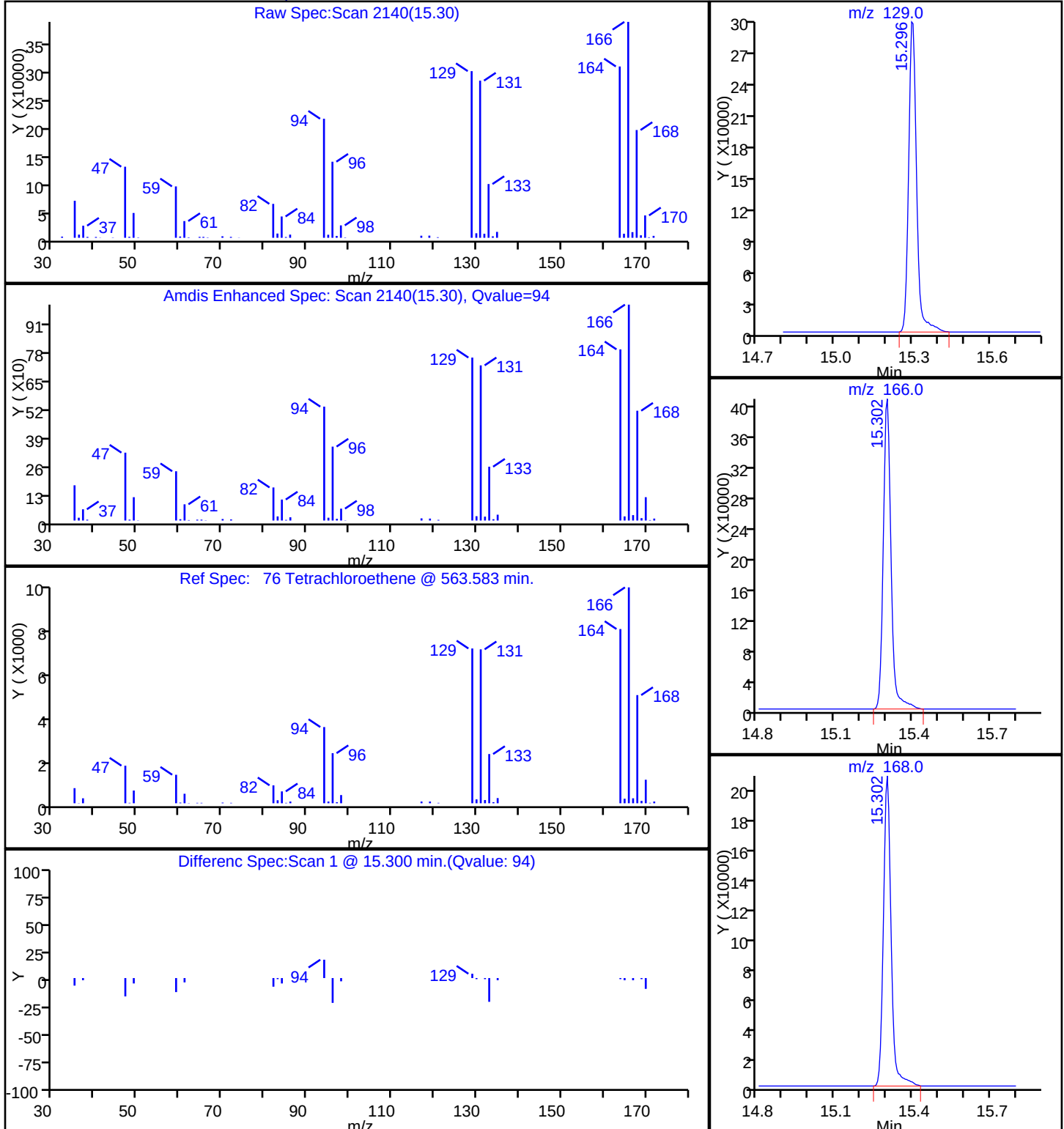
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

76 Tetrachloroethene, CAS: 127-18-4

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-6 Lab Sample ID: 140-6336-8
 Matrix: Air Lab File ID: JK15P108.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 08:50
 Sample wt/vol: 280 (mL) Date Analyzed: 11/15/2016 22:16
 Soil Aliquot Vol: _____ Dilution Factor: 2.27
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	0.73		0.32	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.32	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.32	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.32	
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.32	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.32	
106-93-4	1,2-Dibromoethane	187.87	ND		0.32	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.32	
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	
78-87-5	1,2-Dichloropropane	112.99	ND		0.32	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	120	E	0.32	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.32	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.32	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.32	
123-91-1	1,4-Dioxane	88.11	ND		0.81	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.81	
78-93-3	2-Butanone	72.11	ND		1.3	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	3.1		0.81	
71-43-2	Benzene	78.11	ND		0.32	
100-44-7	Benzyl chloride	126.58	ND		0.65	
75-27-4	Bromodichloromethane	163.83	ND		0.32	
75-25-2	Bromoform	252.75	ND		0.32	
74-83-9	Bromomethane	94.94	ND		0.32	
56-23-5	Carbon tetrachloride	153.81	ND		0.16	
108-90-7	Chlorobenzene	112.56	ND		0.32	
75-00-3	Chloroethane	64.52	ND		0.32	
67-66-3	Chloroform	119.38	1.1		0.32	
74-87-3	Chloromethane	50.49	ND		0.81	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.32	
110-82-7	Cyclohexane	84.16	ND		0.81	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-6 Lab Sample ID: 140-6336-8
 Matrix: Air Lab File ID: JK15P108.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 08:50
 Sample wt/vol: 280 (mL) Date Analyzed: 11/15/2016 22:16
 Soil Aliquot Vol: _____ Dilution Factor: 2.27
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.32	
75-71-8	Dichlorodifluoromethane	120.91	150	E	0.32	
64-17-5	Ethanol	46.07	ND		8.1	
100-41-4	Ethylbenzene	106.17	ND		0.32	
87-68-3	Hexachlorobutadiene	260.76	ND		0.32	
110-54-3	Hexane	86.17	ND		0.81	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.65	
75-09-2	Methylene Chloride	84.93	2.1		0.81	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		0.32	
95-47-6	o-Xylene	106.17	ND		0.32	
100-42-5	Styrene	104.15	ND		0.32	
75-65-0	t-Butyl alcohol	74.12	ND		1.3	
127-18-4	Tetrachloroethene	165.83	41		0.32	
108-88-3	Toluene	92.14	ND		0.49	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.32	
79-01-6	Trichloroethene	131.39	0.92		0.16	
75-69-4	Trichlorofluoromethane	137.37	0.58		0.32	
75-01-4	Vinyl chloride	62.50	ND		0.16	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	101		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-6 Lab Sample ID: 140-6336-8
 Matrix: Air Lab File ID: JK15P108.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 08:50
 Sample wt/vol: 280 (mL) Date Analyzed: 11/15/2016 22:16
 Soil Aliquot Vol: _____ Dilution Factor: 2.27
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	4.0		1.8	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		2.2	
79-00-5	1,1,2-Trichloroethane	133.41	ND		1.8	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		2.5	
75-34-3	1,1-Dichloroethane	98.96	ND		1.3	
75-35-4	1,1-Dichloroethene	96.94	ND		1.3	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		2.4	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		1.6	
106-93-4	1,2-Dibromoethane	187.87	ND		2.5	
95-50-1	1,2-Dichlorobenzene	147.00	ND		1.9	
107-06-2	1,2-Dichloroethane	98.96	ND		1.3	
78-87-5	1,2-Dichloropropane	112.99	ND		1.5	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	830	E	2.3	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		1.6	
541-73-1	1,3-Dichlorobenzene	147.00	ND		1.9	
106-46-7	1,4-Dichlorobenzene	147.00	ND		1.9	
123-91-1	1,4-Dioxane	88.11	ND		2.9	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		3.8	
78-93-3	2-Butanone	72.11	ND		3.8	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	13		3.3	
71-43-2	Benzene	78.11	ND		1.0	
100-44-7	Benzyl chloride	126.58	ND		3.4	
75-27-4	Bromodichloromethane	163.83	ND		2.2	
75-25-2	Bromoform	252.75	ND		3.4	
74-83-9	Bromomethane	94.94	ND		1.3	
56-23-5	Carbon tetrachloride	153.81	ND		1.0	
108-90-7	Chlorobenzene	112.56	ND		1.5	
75-00-3	Chloroethane	64.52	ND		0.86	
67-66-3	Chloroform	119.38	5.5		1.6	
74-87-3	Chloromethane	50.49	ND		1.7	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.3	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		1.5	
110-82-7	Cyclohexane	84.16	ND		2.8	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-6 Lab Sample ID: 140-6336-8
 Matrix: Air Lab File ID: JK15P108.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 08:50
 Sample wt/vol: 280 (mL) Date Analyzed: 11/15/2016 22:16
 Soil Aliquot Vol: _____ Dilution Factor: 2.27
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		2.8	
75-71-8	Dichlorodifluoromethane	120.91	740	E	1.6	
64-17-5	Ethanol	46.07	ND		15	
100-41-4	Ethylbenzene	106.17	ND		1.4	
87-68-3	Hexachlorobutadiene	260.76	ND		3.5	
110-54-3	Hexane	86.17	ND		2.9	
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.3	
75-09-2	Methylene Chloride	84.93	7.3		2.8	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		1.4	
95-47-6	o-Xylene	106.17	ND		1.4	
100-42-5	Styrene	104.15	ND		1.4	
75-65-0	t-Butyl alcohol	74.12	ND		3.9	
127-18-4	Tetrachloroethene	165.83	280		2.2	
108-88-3	Toluene	92.14	ND		1.8	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.3	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		1.5	
79-01-6	Trichloroethene	131.39	4.9		0.87	
75-69-4	Trichlorofluoromethane	137.37	3.3		1.8	
75-01-4	Vinyl chloride	62.50	ND		0.41	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	101		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P108.D
 Lims ID: 140-6336-A-8
 Client ID: OVP-6
 Sample Type: Client
 Inject. Date: 15-Nov-2016 22:16:30 ALS Bottle#: 8 Worklist Smp#: 16
 Purge Vol: 500.000 mL Dil. Factor: 2.2700
 Sample Info: 140-0003625-016
 Misc. Info.: 140-6336-a-8@2.27
 Operator ID: 7126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 08:28:20

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.275	9.281	-0.006	97	253518	4.00	
* 2 1,4-Difluorobenzene	114	11.437	11.443	-0.006	96	1169737	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.121	16.121	0.000	90	945620	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.744	17.745	-0.001	86	577352	4.05	
8 Dichlorodifluoromethane	85	3.984	3.990	-0.006	95	9254966	37.1	E
10 1,2-Dichloro-1,1,2,2-tetra	135	4.183	4.189	-0.006	90	3825431	29.1	E
17 Ethanol	31	5.059	5.060	-0.001	98	27140	1.12	
20 Trichlorofluoromethane	101	5.565	5.565	0.000	98	31169	0.1432	
28 2-Methyl-2-propanol	59	6.425	6.404	0.021	91	4562	0.0371	
30 1,1,2-Trichloro-1,2,2-trif	101	6.479	6.485	-0.006	91	2651	0.0157	
31 Methylene Chloride	84	6.667	6.673	-0.006	98	41522	0.5155	
39 2-Butanone (MEK)	72	8.506	8.507	-0.001	88	5876	0.2184	
40 Hexane	56	8.522	8.523	-0.001	63	7067	0.1105	
44 Chloroform	83	9.286	9.292	-0.006	95	44045	0.2763	
47 1,1,1-Trichloroethane	97	10.329	10.335	-0.006	96	29365	0.1793	
52 Carbon tetrachloride	117	10.942	10.942	0.000	93	2965	0.0179	
59 Trichloroethene	130	12.141	12.147	-0.006	94	19634	0.2260	
65 4-Methyl-2-pentanone (MIBK	43	13.297	13.298	-0.001	98	101001	0.7529	
68 Toluene	91	14.169	14.169	0.000	92	17615	0.0850	
76 Tetrachloroethene	129	15.298	15.304	-0.006	97	780451	10.1	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P108.D

Injection Date: 15-Nov-2016 22:16:30

Instrument ID: MJ

Operator ID: 7126

Lims ID: 140-6336-A-8

Lab Sample ID: 140-6336-8

Worklist Smp#: 16

Client ID: OVP-6

Purge Vol: 500.000 mL

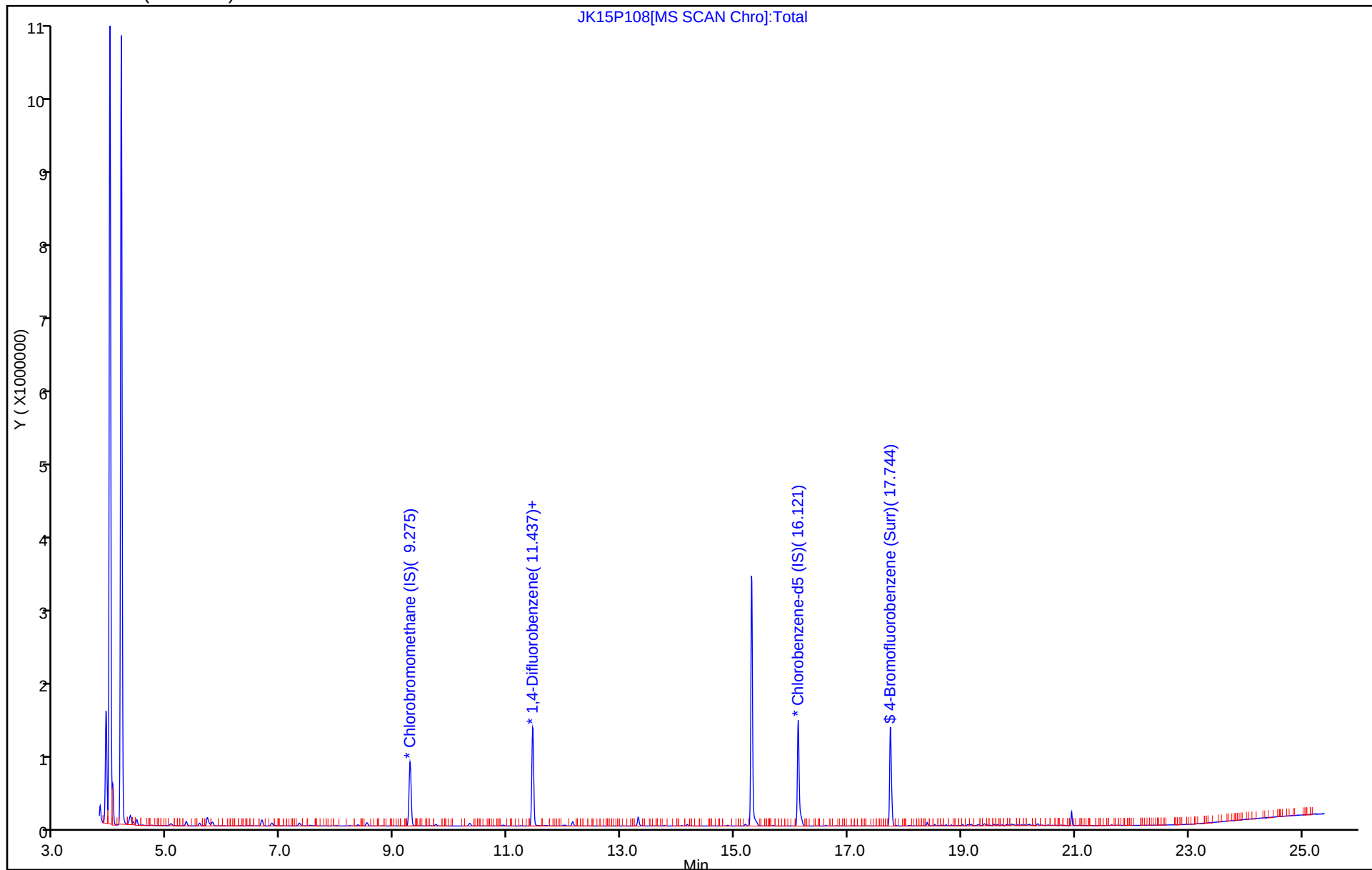
Dil. Factor: 2.2700

ALS Bottle#: 8

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P108.D
Lims ID: 140-6336-A-8
Client ID: OVP-6
Sample Type: Client
Inject. Date: 15-Nov-2016 22:16:30 ALS Bottle#: 8 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 2.2700
Sample Info: 140-0003625-016
Misc. Info.: 140-6336-a-8@2.27
Operator ID: 7126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 08:28:20

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.05	101.25

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P108.D

Injection Date: 15-Nov-2016 22:16:30

Instrument ID: MJ

Lims ID: 140-6336-A-8

Lab Sample ID: 140-6336-8

Client ID: OVP-6

Operator ID: 7126

ALS Bottle#: 8

Worklist Smp#: 16

Purge Vol: 500.000 mL

Dil. Factor: 2.2700

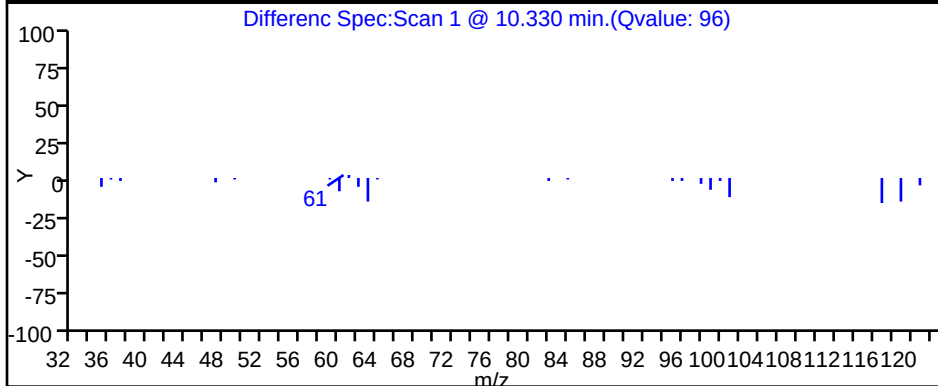
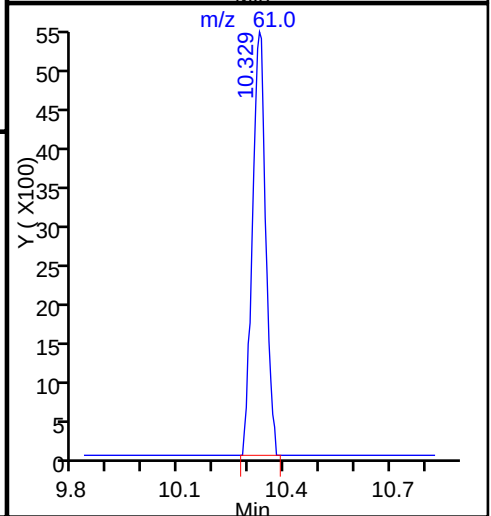
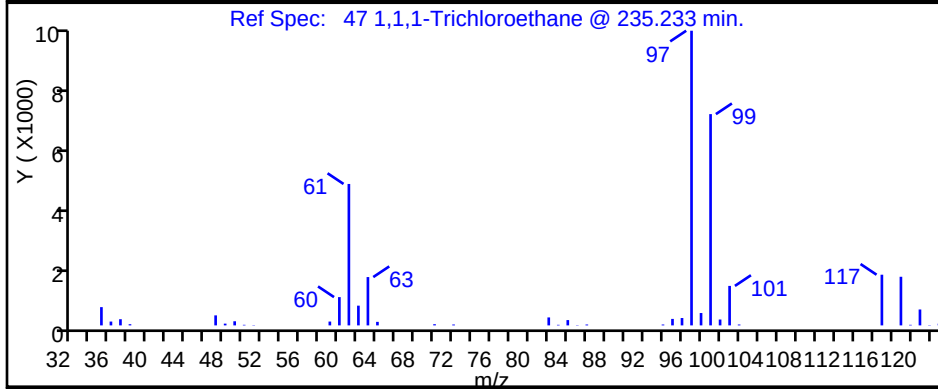
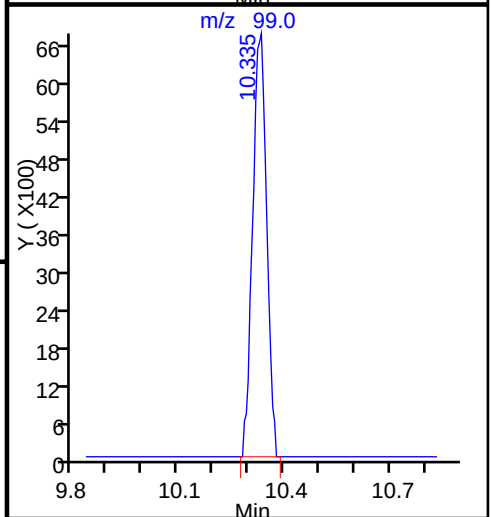
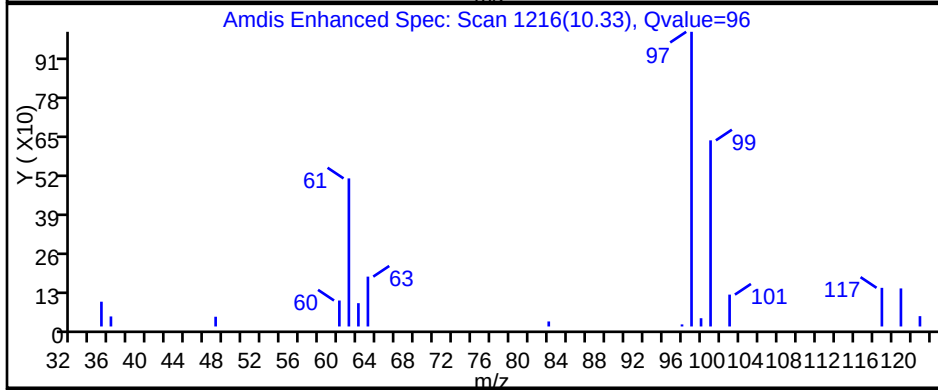
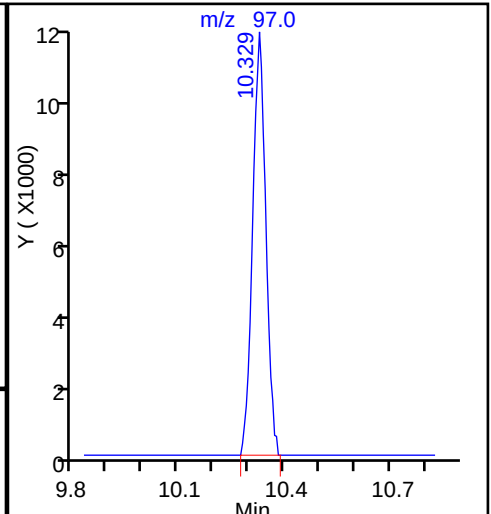
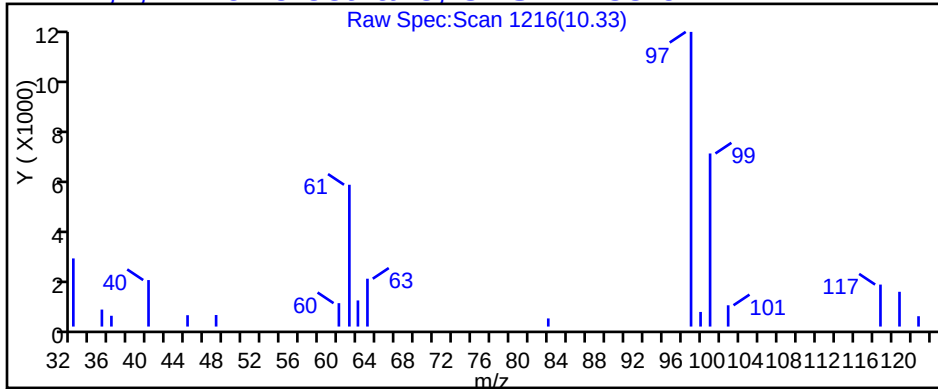
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

47 1,1,1-Trichloroethane, CAS: 71-55-6



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P108.D

Injection Date: 15-Nov-2016 22:16:30

Instrument ID: MJ

Lims ID: 140-6336-A-8

Lab Sample ID: 140-6336-8

Client ID: OVP-6

Operator ID: 7126

ALS Bottle#: 8

Worklist Smp#: 16

Purge Vol: 500.000 mL

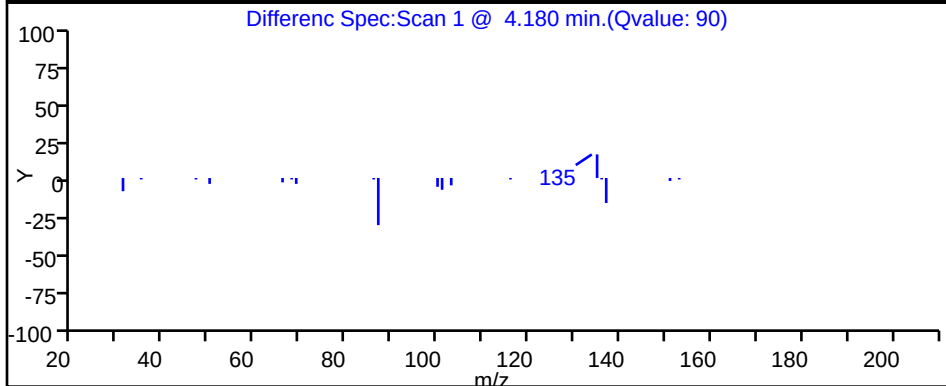
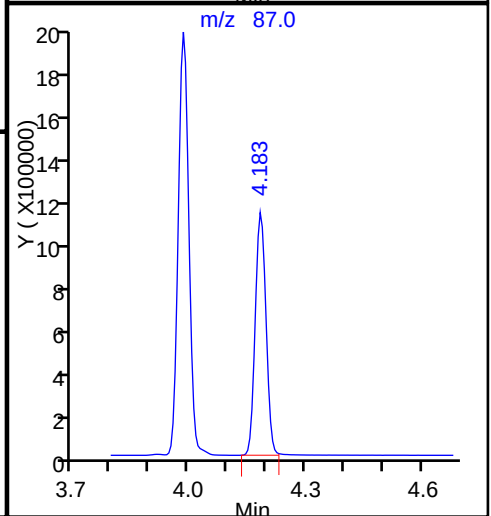
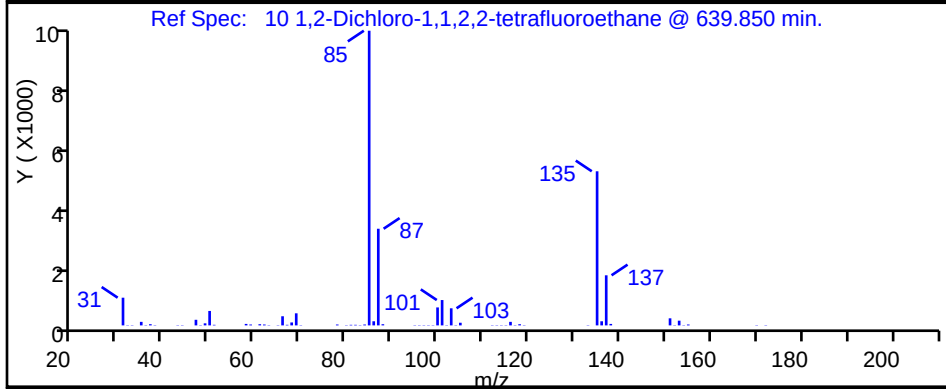
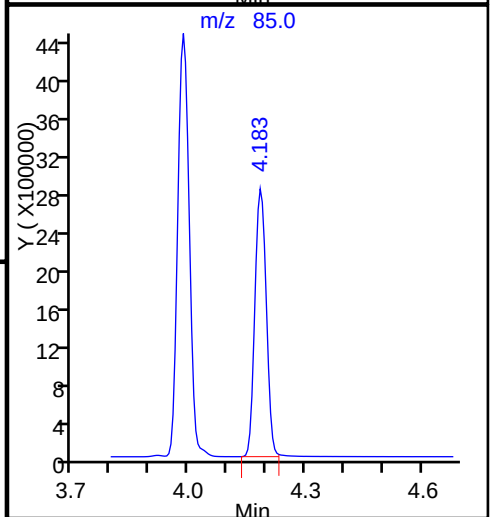
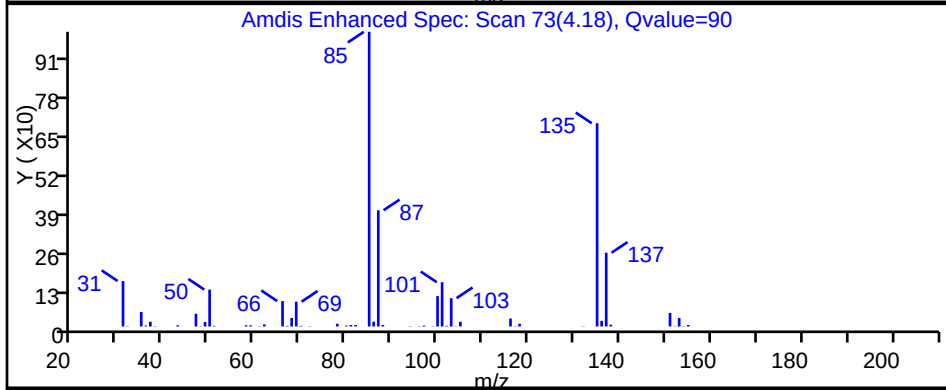
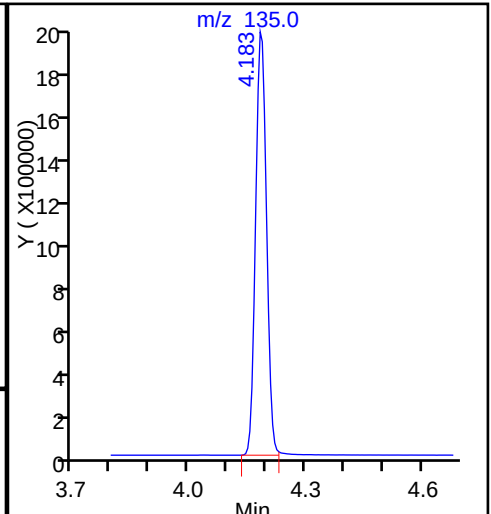
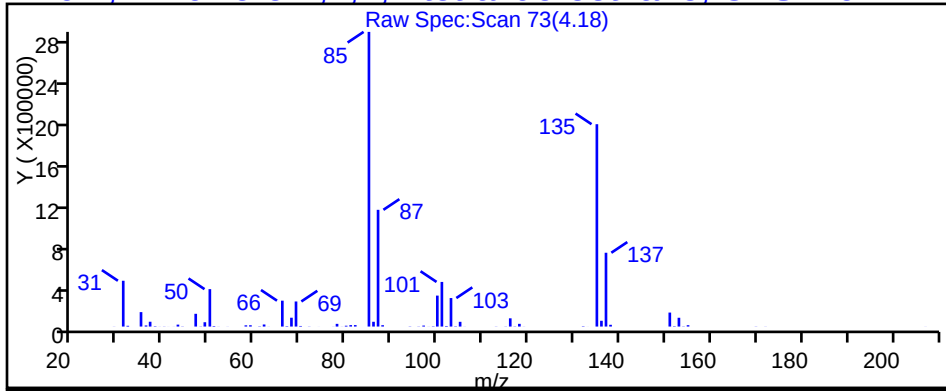
Dil. Factor: 2.2700

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

10 1,2-Dichloro-1,1,2,2-tetrafluoroethane, CAS: 76-14-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P108.D

Injection Date: 15-Nov-2016 22:16:30

Instrument ID: MJ

Lims ID: 140-6336-A-8

Lab Sample ID: 140-6336-8

Client ID: OVP-6

Operator ID: 7126

ALS Bottle#: 8

Worklist Smp#: 16

Purge Vol: 500.000 mL

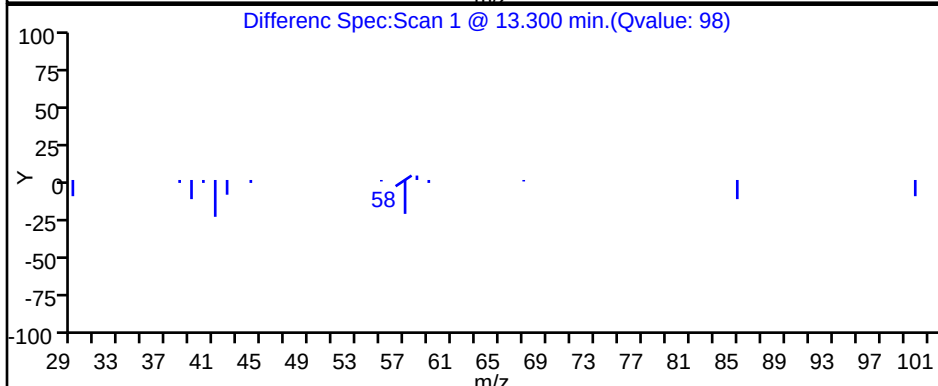
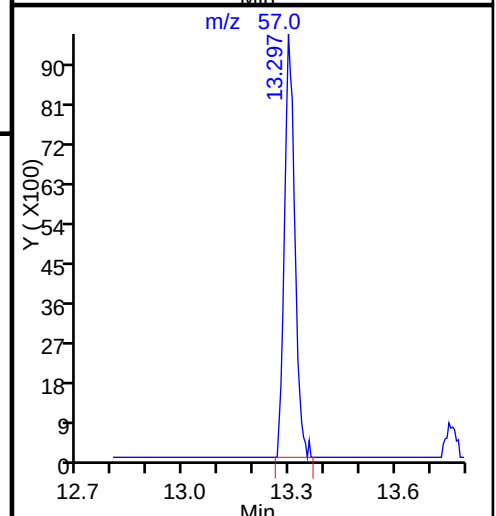
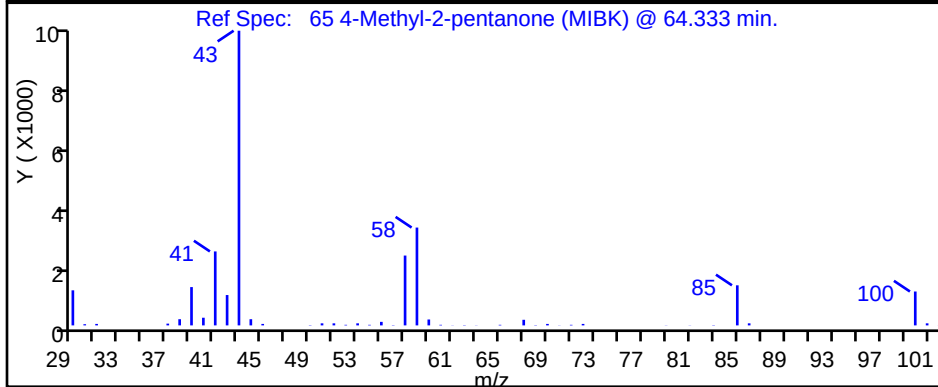
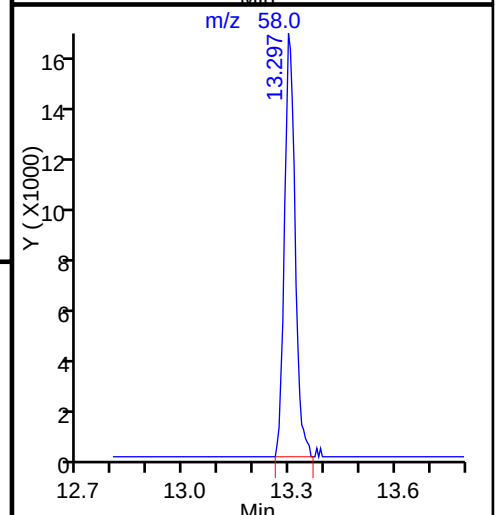
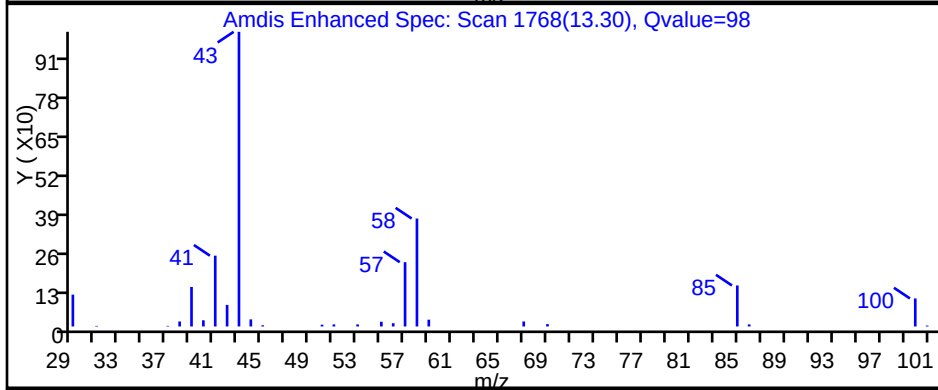
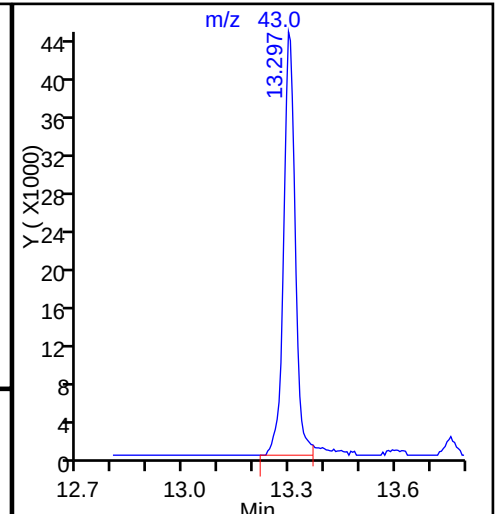
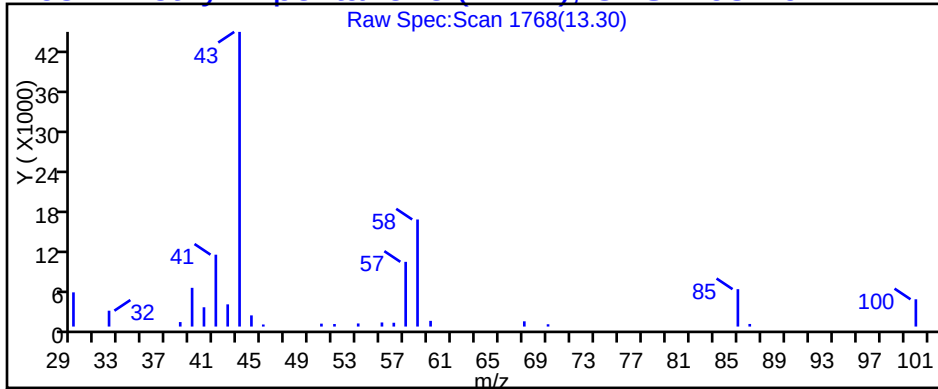
Dil. Factor: 2.2700

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

65 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P108.D

Injection Date: 15-Nov-2016 22:16:30

Instrument ID: MJ

Lims ID: 140-6336-A-8

Lab Sample ID: 140-6336-8

Client ID: OVP-6

Operator ID: 7126

ALS Bottle#: 8

Worklist Smp#: 16

Purge Vol: 500.000 mL

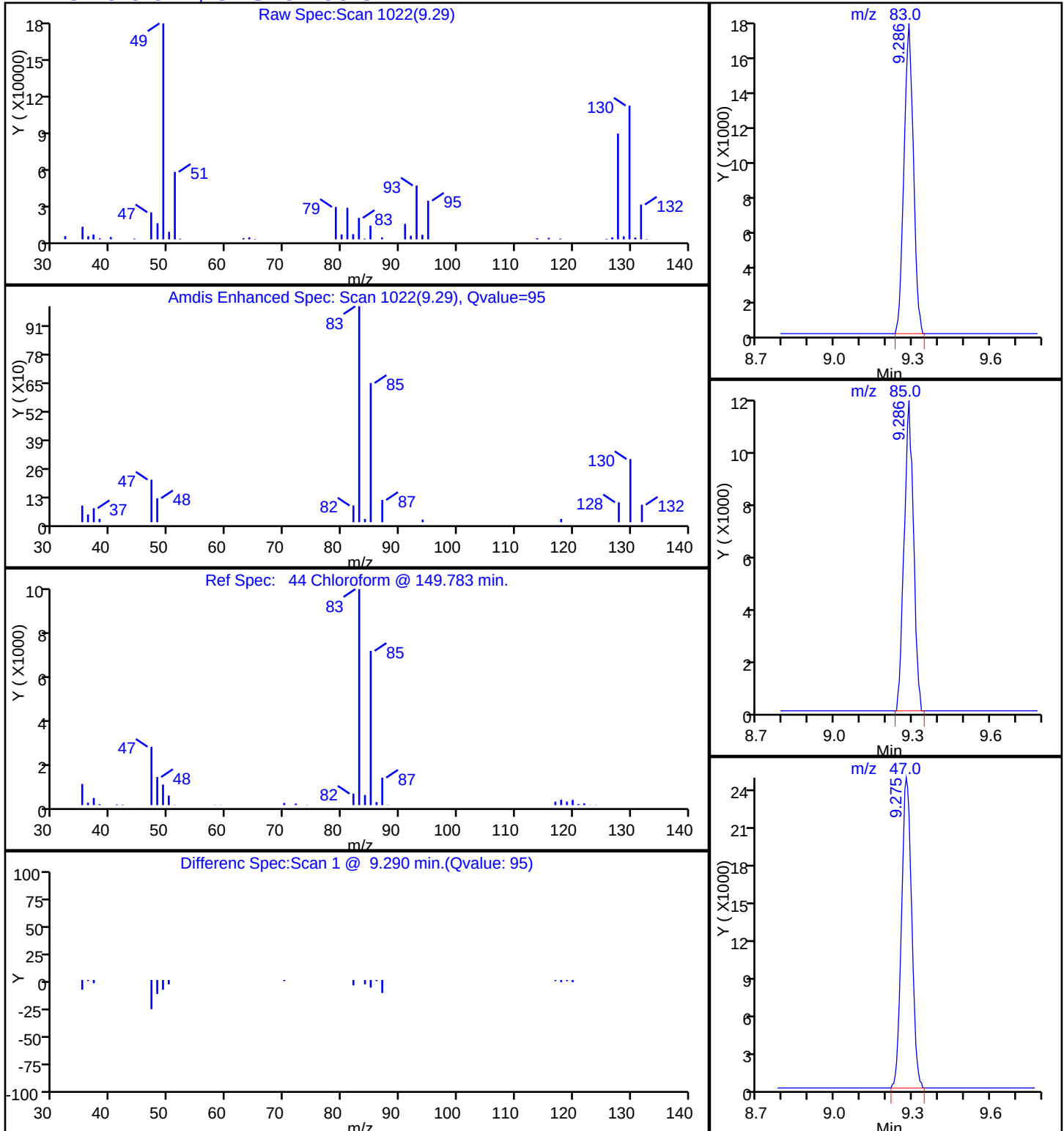
Dil. Factor: 2.2700

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P108.D

Injection Date: 15-Nov-2016 22:16:30

Instrument ID: MJ

Lims ID: 140-6336-A-8

Lab Sample ID: 140-6336-8

Client ID: OVP-6

Operator ID: 7126

ALS Bottle#: 8

Worklist Smp#: 16

Purge Vol: 500.000 mL

Dil. Factor: 2.2700

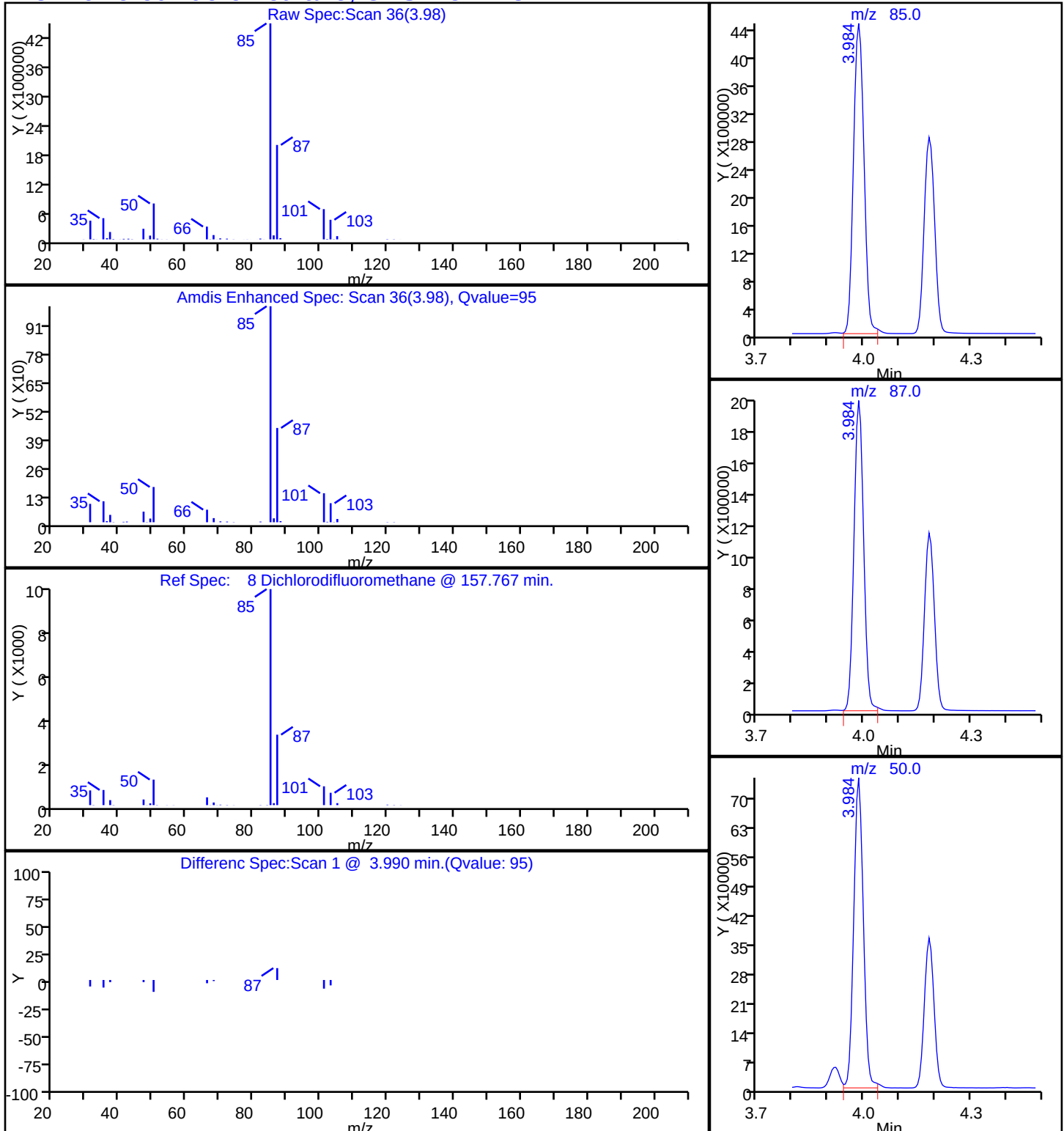
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P108.D

Injection Date: 15-Nov-2016 22:16:30

Instrument ID: MJ

Lims ID: 140-6336-A-8

Lab Sample ID: 140-6336-8

Client ID: OVP-6

Operator ID: 7126

ALS Bottle#: 8

Worklist Smp#: 16

Purge Vol: 500.000 mL

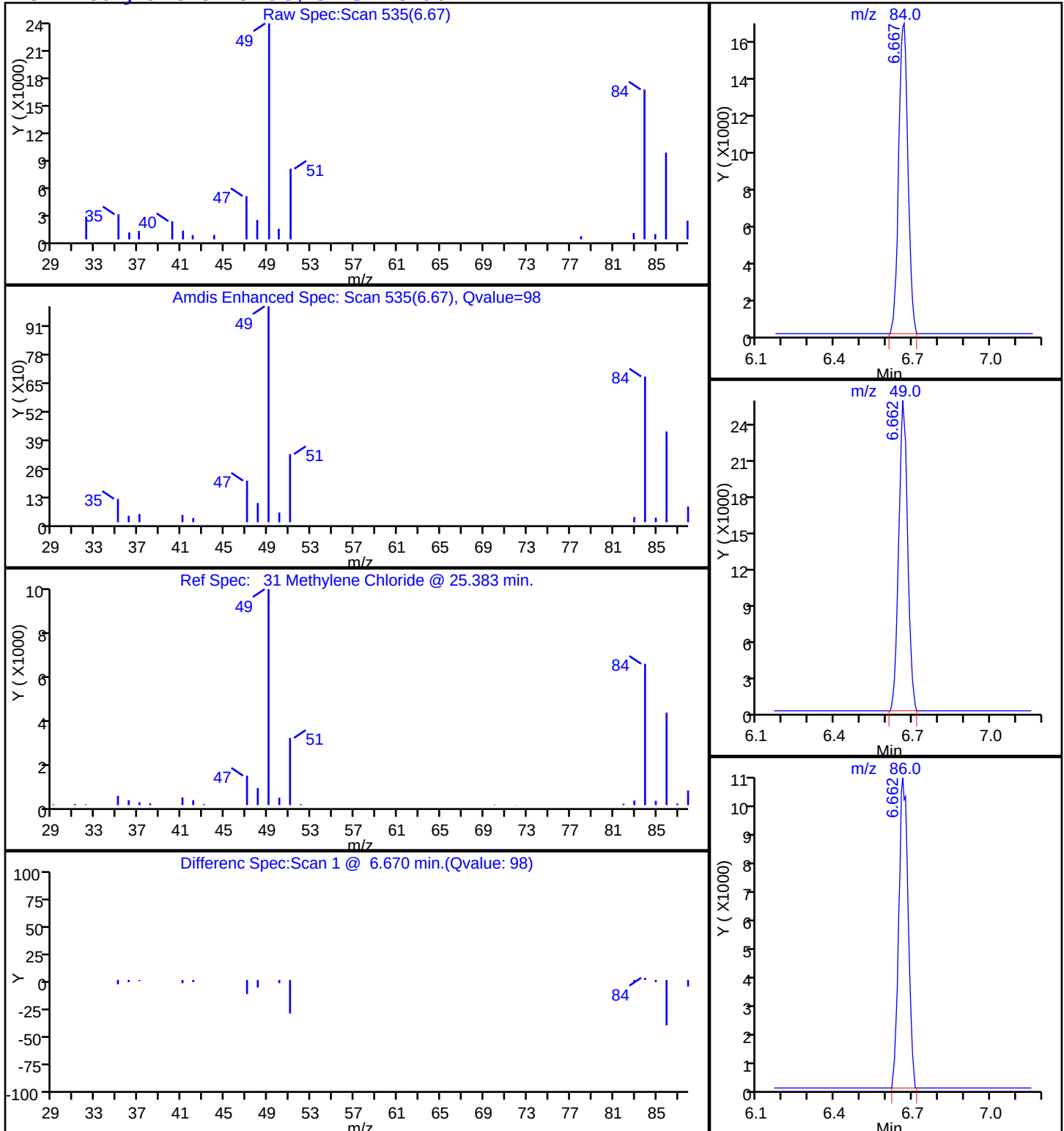
Dil. Factor: 2.2700

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P108.D

Injection Date: 15-Nov-2016 22:16:30

Instrument ID: MJ

Lims ID: 140-6336-A-8

Lab Sample ID: 140-6336-8

Client ID: OVP-6

Operator ID: 7126

ALS Bottle#: 8

Worklist Smp#: 16

Purge Vol: 500.000 mL

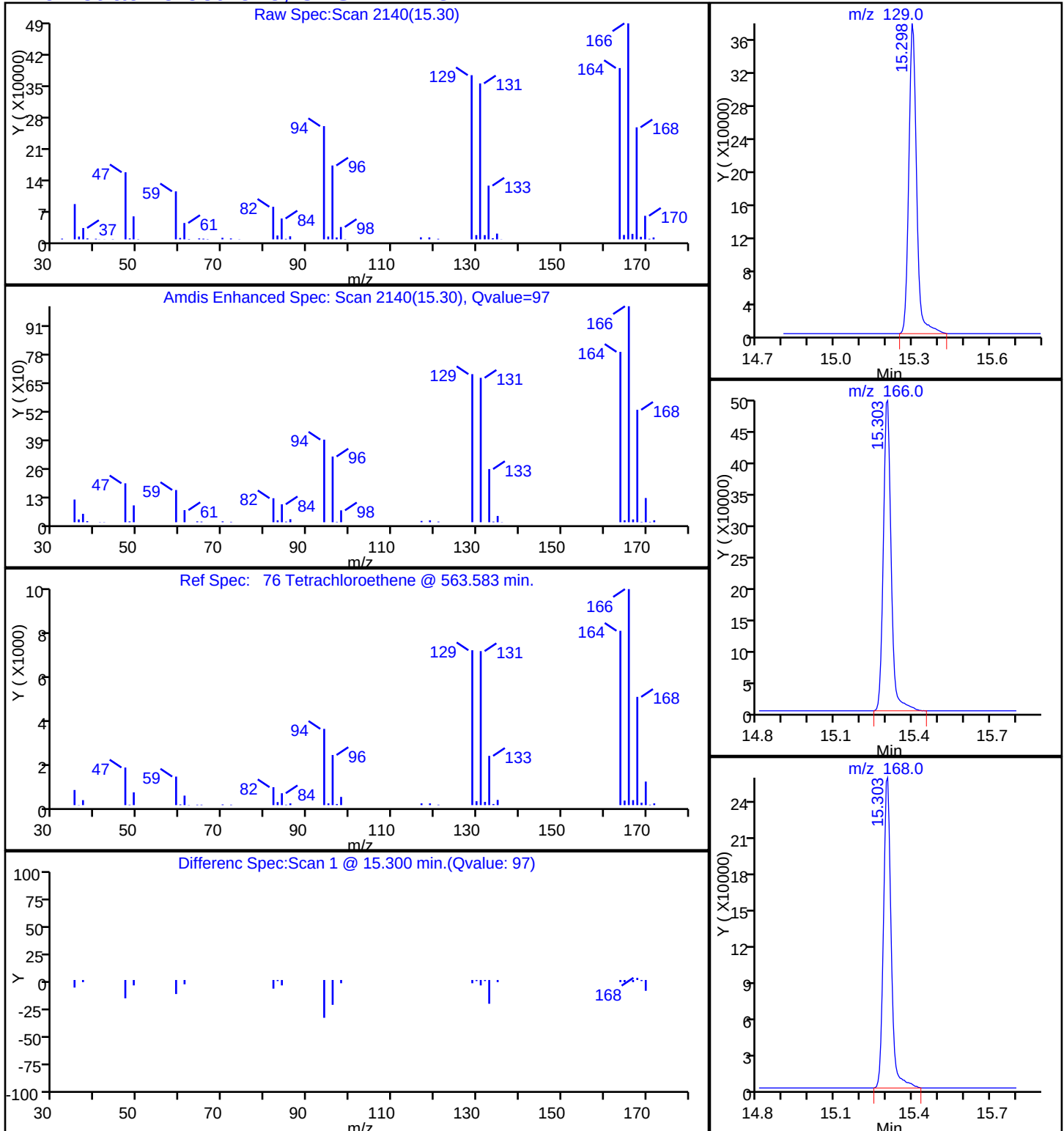
Dil. Factor: 2.2700

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

76 Tetrachloroethene, CAS: 127-18-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P108.D

Injection Date: 15-Nov-2016 22:16:30

Instrument ID: MJ

Lims ID: 140-6336-A-8

Lab Sample ID: 140-6336-8

Client ID: OVP-6

Operator ID: 7126

ALS Bottle#: 8

Worklist Smp#: 16

Purge Vol: 500.000 mL

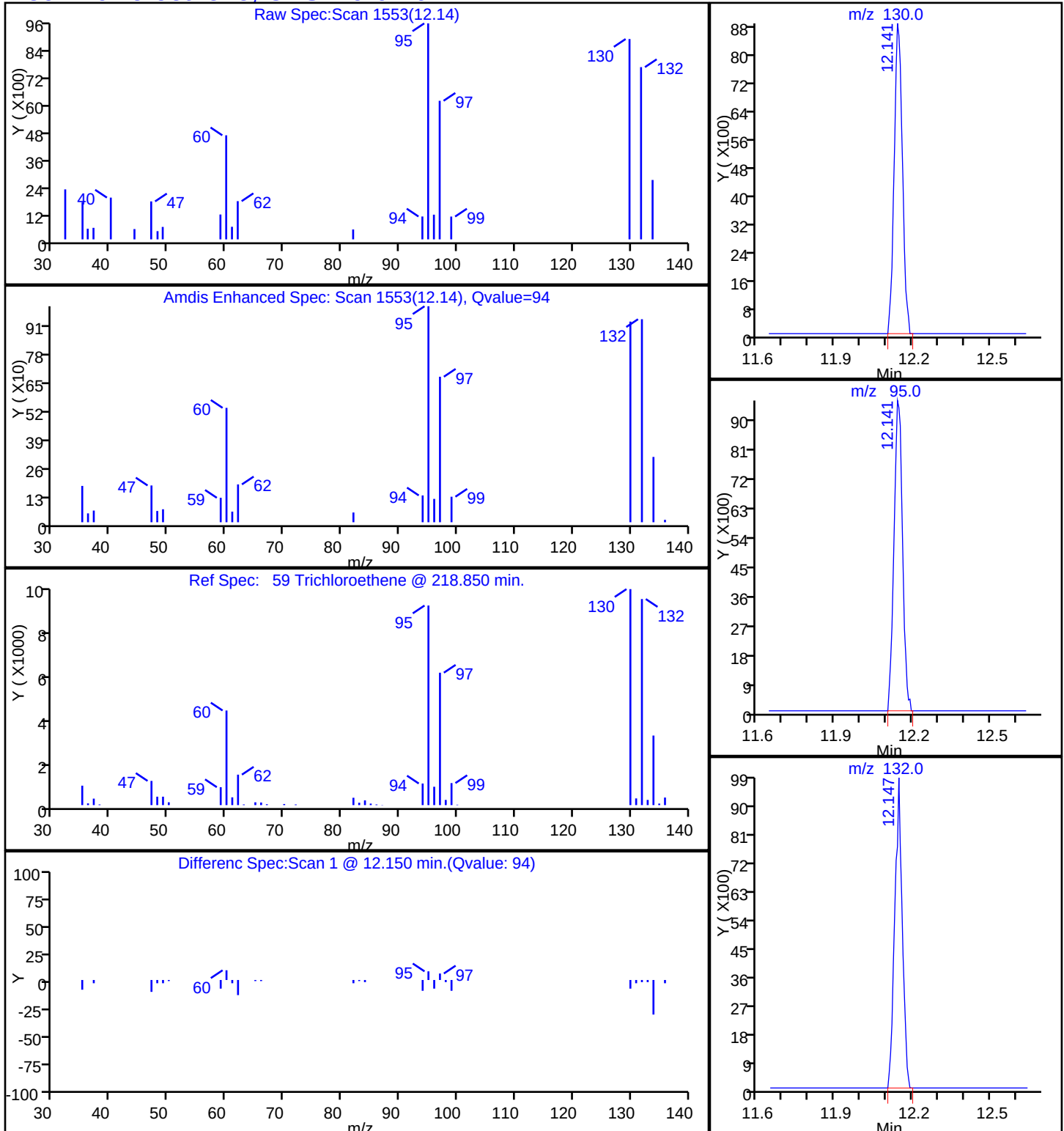
Dil. Factor: 2.2700

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

59 Trichloroethene, CAS: 79-01-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P108.D

Injection Date: 15-Nov-2016 22:16:30

Instrument ID: MJ

Lims ID: 140-6336-A-8

Lab Sample ID: 140-6336-8

Client ID: OVP-6

Operator ID: 7126

ALS Bottle#: 8

Worklist Smp#: 16

Purge Vol: 500.000 mL

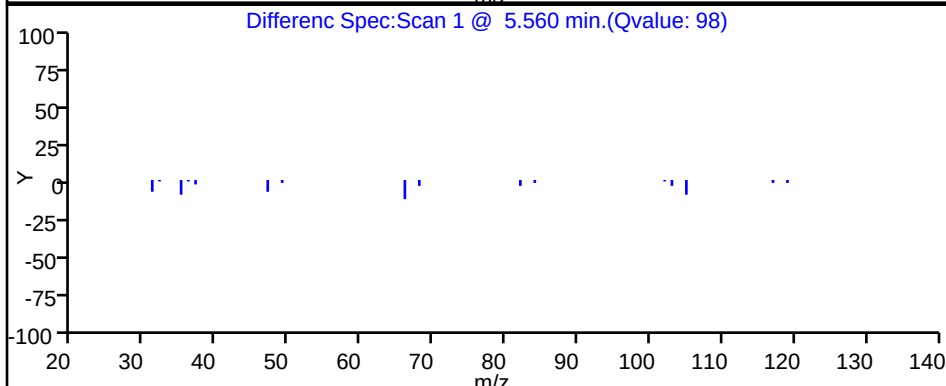
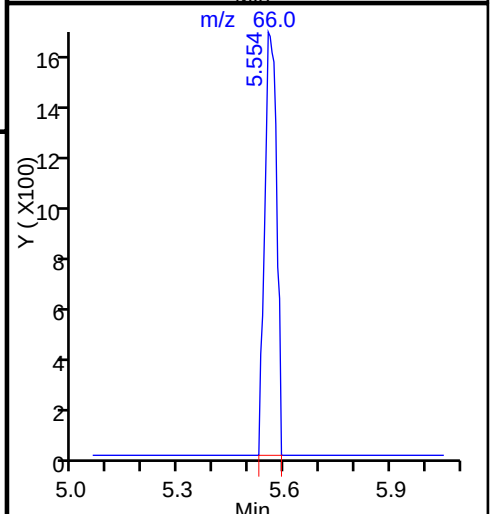
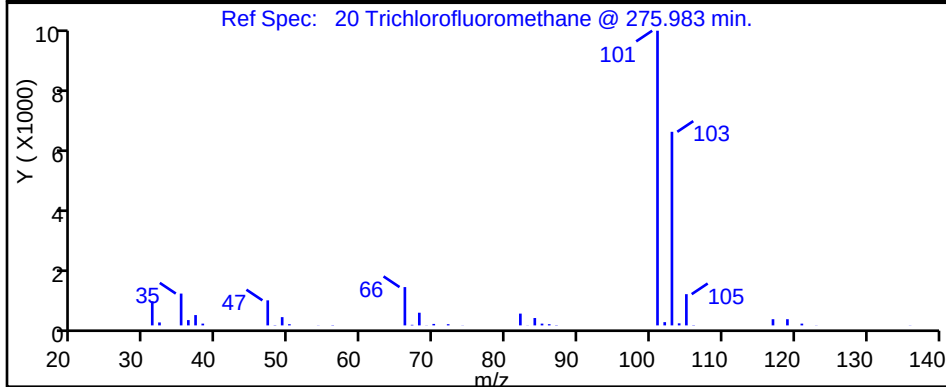
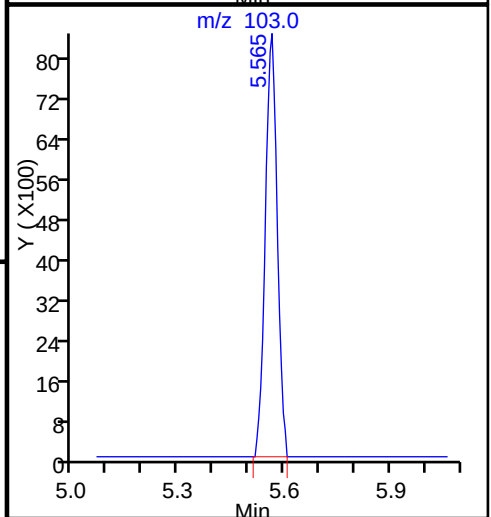
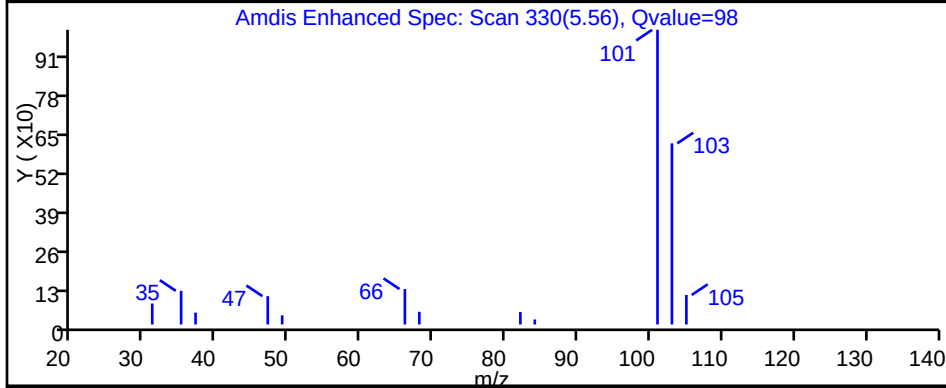
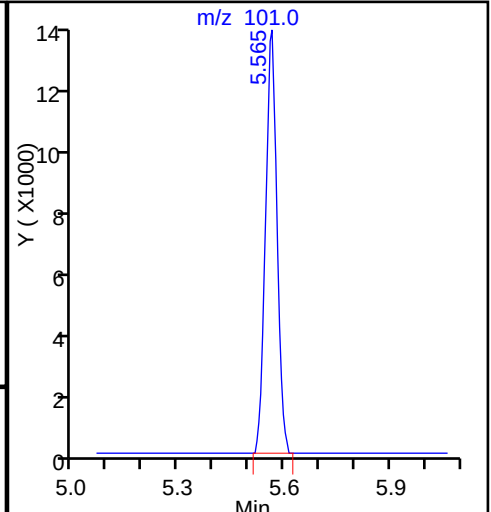
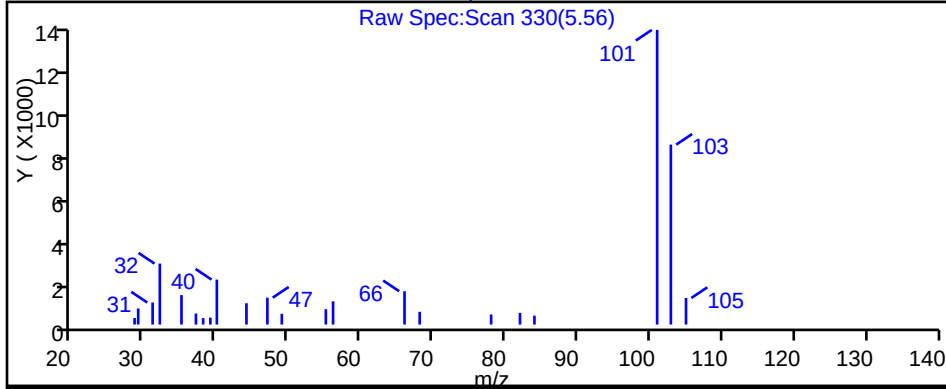
Dil. Factor: 2.2700

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-6 DL Lab Sample ID: 140-6336-8 DL
 Matrix: Air Lab File ID: JK15P108DL.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 08:50
 Sample wt/vol: 80 (mL) Date Analyzed: 11/16/2016 11:30
 Soil Aliquot Vol: _____ Dilution Factor: 2.27
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	160	D	1.1	
75-71-8	Dichlorodifluoromethane	120.91	220	D	1.1	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-6 DL Lab Sample ID: 140-6336-8 DL
 Matrix: Air Lab File ID: JK15P108DL.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 08:50
 Sample wt/vol: 80 (mL) Date Analyzed: 11/16/2016 11:30
 Soil Aliquot Vol: _____ Dilution Factor: 2.27
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	1100	D	7.9	
75-71-8	Dichlorodifluoromethane	120.91	1100	D	5.6	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P108DL.D
 Lims ID: 140-6336-A-8
 Client ID: OVP-6
 Sample Type: Client
 Inject. Date: 16-Nov-2016 11:30:30 ALS Bottle#: 8 Worklist Smp#: 29
 Purge Vol: 500.000 mL Dil. Factor: 2.2700
 Sample Info: 140-0003625-029
 Misc. Info.: 140-6336-a-8@2.27
 Operator ID: 7126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 12:49:25 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 12:49:25

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.275	9.281	-0.006	97	240048	4.00	
* 2 1,4-Difluorobenzene	114	11.437	11.443	-0.006	96	1117435	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.121	16.121	0.000	90	947872	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.745	17.745	0.000	85	584865	4.09	
8 Dichlorodifluoromethane	85	3.984	3.990	-0.006	99	3600206	15.2	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.183	4.189	-0.006	96	1365767	11.0	
12 Vinyl chloride	62	4.183	4.366	-0.183	32	12690	0.1556	
20 Trichlorofluoromethane	101	5.565	5.565	0.000	98	8393	0.0407	
31 Methylene Chloride	84	6.662	6.673	-0.011	98	10482	0.1374	
40 Hexane	56	8.523	8.523	0.000	63	1011	0.0167	
44 Chloroform	83	9.281	9.292	-0.011	36	11548	0.0765	
47 1,1,1-Trichloroethane	97	10.335	10.335	0.000	96	7567	0.0488	
59 Trichloroethene	130	12.142	12.147	-0.005	91	5197	0.0626	
65 4-Methyl-2-pentanone (MIBK	43	13.303	13.298	0.005	98	20770	0.1621	
76 Tetrachloroethene	129	15.298	15.304	-0.006	92	201326	2.59	

Reagents:

40MXISSURP_00001 Amount Added: 40.00 Units: mL Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P108DL.D

Injection Date: 16-Nov-2016 11:30:30

Instrument ID: MJ

Operator ID: 7126

Lims ID: 140-6336-A-8

Lab Sample ID: 140-6336-8

Worklist Smp#: 29

Client ID: OVP-6

Purge Vol: 500.000 mL

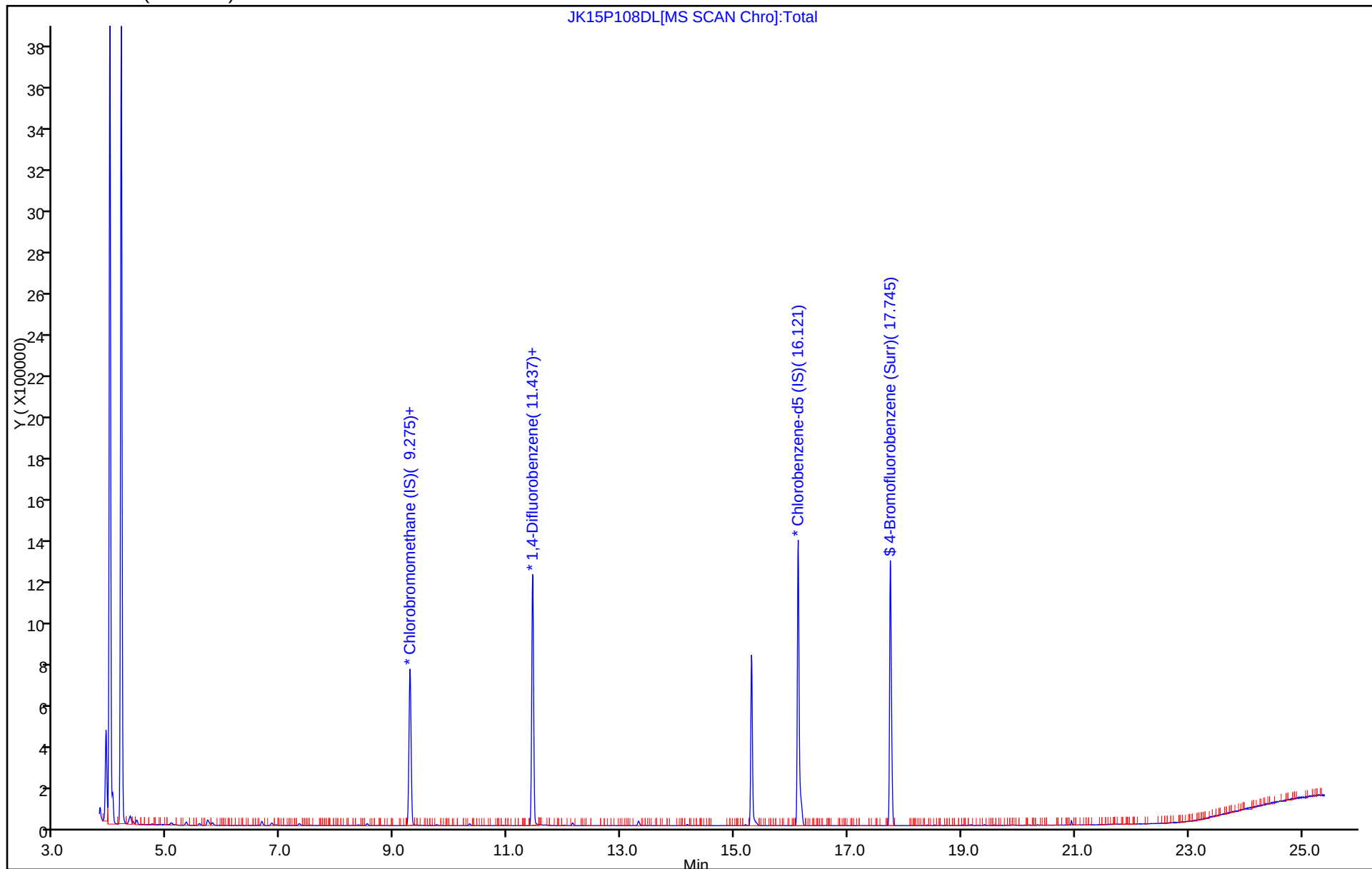
Dil. Factor: 2.2700

ALS Bottle#: 8

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P108DL.D
Lims ID: 140-6336-A-8
Client ID: OVP-6
Sample Type: Client
Inject. Date: 16-Nov-2016 11:30:30 ALS Bottle#: 8 Worklist Smp#: 29
Purge Vol: 500.000 mL Dil. Factor: 2.2700
Sample Info: 140-0003625-029
Misc. Info.: 140-6336-a-8@2.27
Operator ID: 7126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 12:49:25 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 12:49:25

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.09	102.32

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P108DL.D

Injection Date: 16-Nov-2016 11:30:30

Instrument ID: MJ

Lims ID: 140-6336-A-8

Lab Sample ID: 140-6336-8

Client ID: OVP-6

Operator ID: 7126

ALS Bottle#: 8

Worklist Smp#: 29

Purge Vol: 500.000 mL

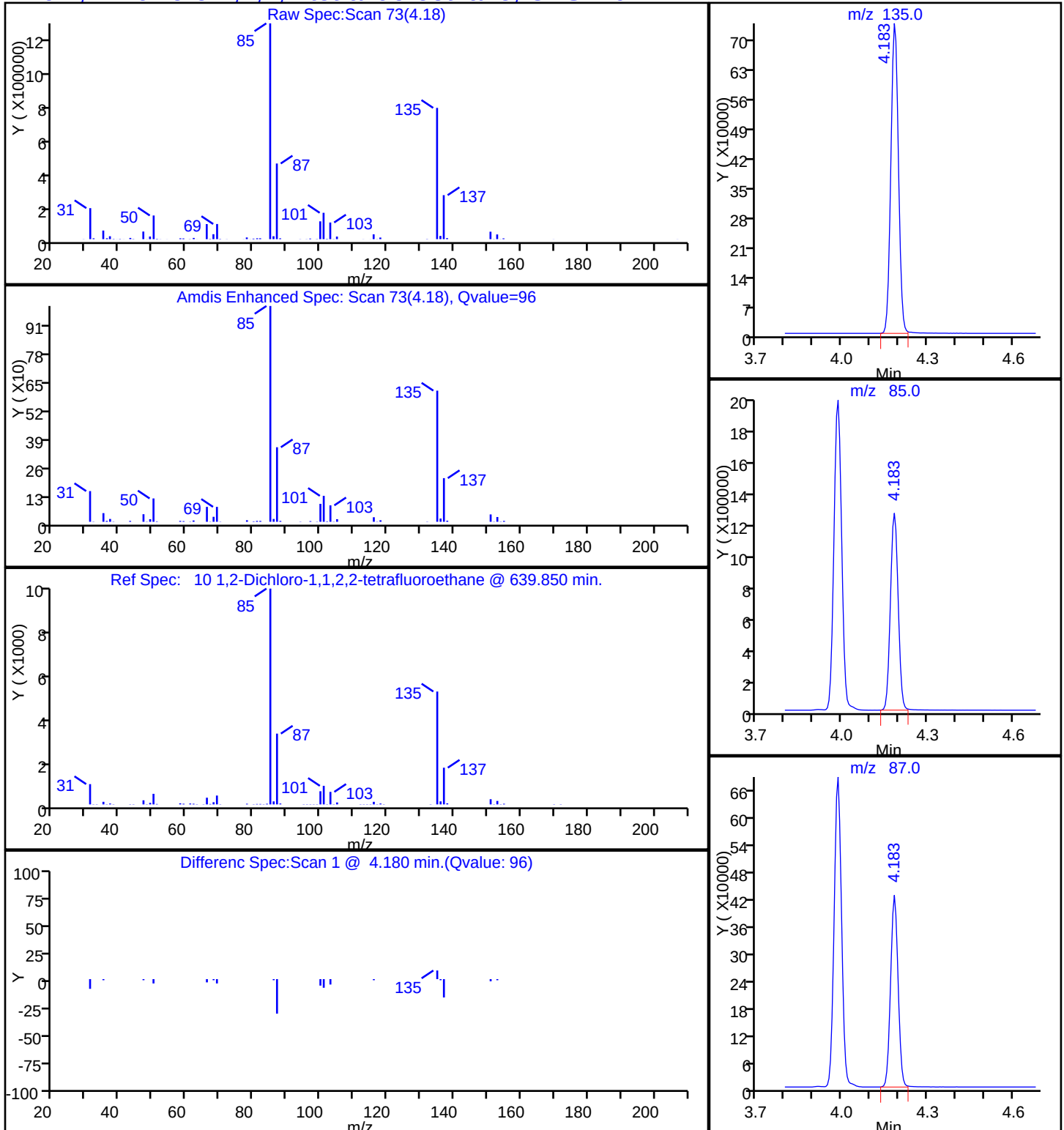
Dil. Factor: 2.2700

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector MS SCAN

10 1,2-Dichloro-1,1,2,2-tetrafluoroethane, CAS: 76-14-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P108DL.D

Injection Date: 16-Nov-2016 11:30:30

Instrument ID: MJ

Lims ID: 140-6336-A-8

Lab Sample ID: 140-6336-8

Client ID: OVP-6

Operator ID: 7126

ALS Bottle#: 8

Worklist Smp#: 29

Purge Vol: 500.000 mL

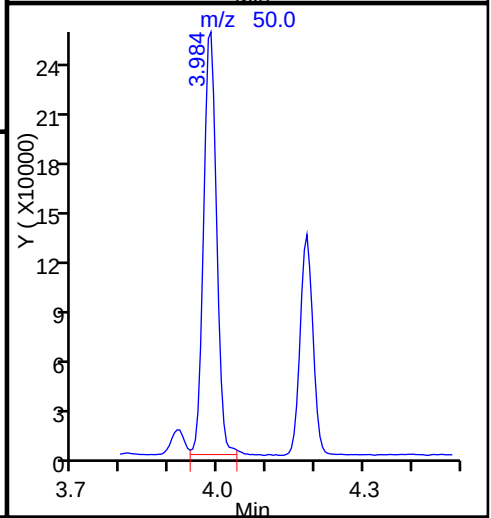
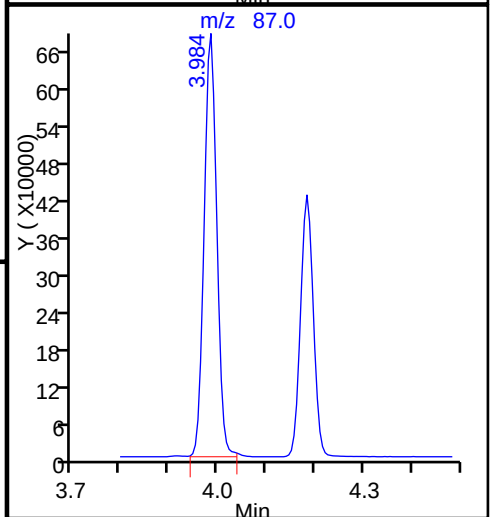
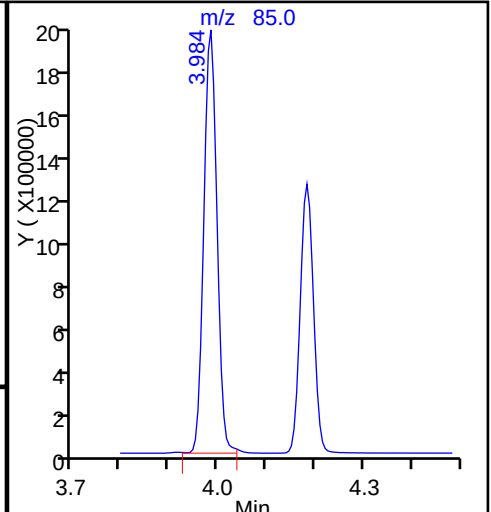
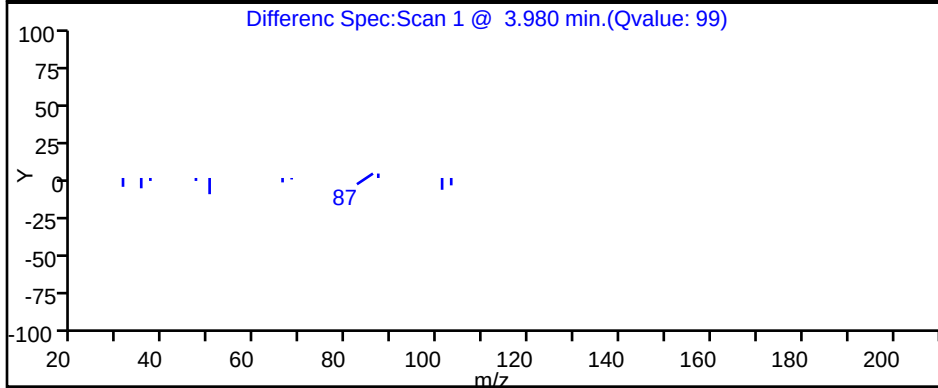
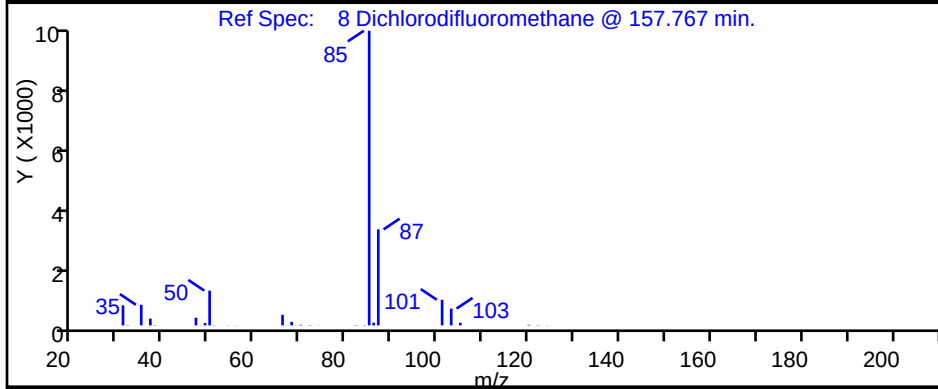
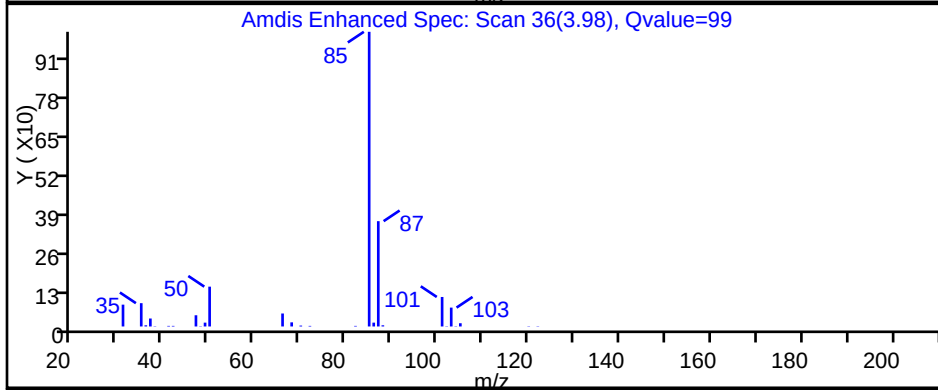
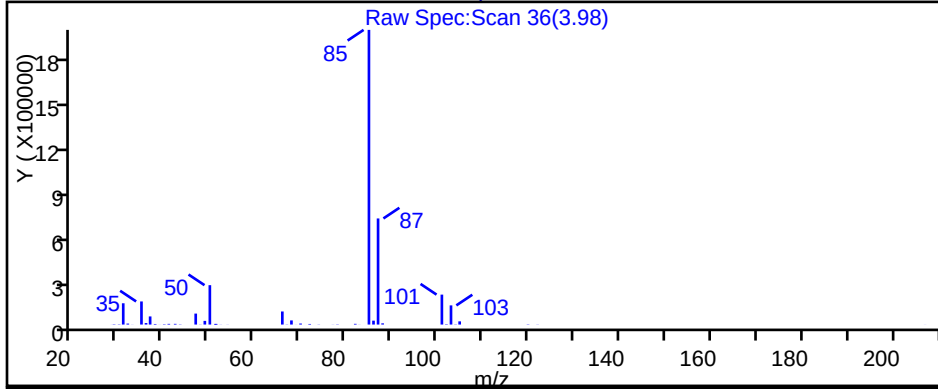
Dil. Factor: 2.2700

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1

SDG No.: _____

Client Sample ID: OVP-7 Lab Sample ID: 140-6336-9

Matrix: Air Lab File ID: JK15P109.D

Analysis Method: TO 15 LL Date Collected: 11/09/2016 09:15

Sample wt/vol: 200 (mL) Date Analyzed: 11/15/2016 23:11

Soil Aliquot Vol: _____ Dilution Factor: 1.58

Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)

% Moisture: _____ Level: (low/med) Low

Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	0.68		0.32	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.32	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.32	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.32	
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.32	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.32	
106-93-4	1,2-Dibromoethane	187.87	ND		0.32	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.32	
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	
78-87-5	1,2-Dichloropropane	112.99	ND		0.32	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	35		0.32	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.32	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.32	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.32	
123-91-1	1,4-Dioxane	88.11	ND		0.79	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.79	
78-93-3	2-Butanone	72.11	ND		1.3	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	2.1		0.79	
71-43-2	Benzene	78.11	ND		0.32	
100-44-7	Benzyl chloride	126.58	ND		0.63	
75-27-4	Bromodichloromethane	163.83	ND		0.32	
75-25-2	Bromoform	252.75	ND		0.32	
74-83-9	Bromomethane	94.94	ND		0.32	
56-23-5	Carbon tetrachloride	153.81	0.42		0.16	
108-90-7	Chlorobenzene	112.56	ND		0.32	
75-00-3	Chloroethane	64.52	ND		0.32	
67-66-3	Chloroform	119.38	24		0.32	
74-87-3	Chloromethane	50.49	ND		0.79	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.32	
110-82-7	Cyclohexane	84.16	ND		0.79	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-7 Lab Sample ID: 140-6336-9
 Matrix: Air Lab File ID: JK15P109.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 09:15
 Sample wt/vol: 200 (mL) Date Analyzed: 11/15/2016 23:11
 Soil Aliquot Vol: _____ Dilution Factor: 1.58
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.32	
75-71-8	Dichlorodifluoromethane	120.91	43		0.32	
64-17-5	Ethanol	46.07	ND		7.9	
100-41-4	Ethylbenzene	106.17	ND		0.32	
87-68-3	Hexachlorobutadiene	260.76	ND		0.32	
110-54-3	Hexane	86.17	ND		0.79	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.63	
75-09-2	Methylene Chloride	84.93	1.8		0.79	
179601-23-1	m-Xylene & p-Xylene	106.17	0.45		0.32	
95-47-6	o-Xylene	106.17	ND		0.32	
100-42-5	Styrene	104.15	ND		0.32	
75-65-0	t-Butyl alcohol	74.12	ND		1.3	
127-18-4	Tetrachloroethene	165.83	32		0.32	
108-88-3	Toluene	92.14	ND		0.47	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.32	
79-01-6	Trichloroethene	131.39	0.28		0.16	
75-69-4	Trichlorofluoromethane	137.37	0.40		0.32	
75-01-4	Vinyl chloride	62.50	ND		0.16	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-7 Lab Sample ID: 140-6336-9
 Matrix: Air Lab File ID: JK15P109.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 09:15
 Sample wt/vol: 200 (mL) Date Analyzed: 11/15/2016 23:11
 Soil Aliquot Vol: _____ Dilution Factor: 1.58
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	3.7		1.7	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		2.2	
79-00-5	1,1,2-Trichloroethane	133.41	ND		1.7	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		2.4	
75-34-3	1,1-Dichloroethane	98.96	ND		1.3	
75-35-4	1,1-Dichloroethene	96.94	ND		1.3	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		2.3	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		1.6	
106-93-4	1,2-Dibromoethane	187.87	ND		2.4	
95-50-1	1,2-Dichlorobenzene	147.00	ND		1.9	
107-06-2	1,2-Dichloroethane	98.96	ND		1.3	
78-87-5	1,2-Dichloropropane	112.99	ND		1.5	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	250		2.2	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		1.6	
541-73-1	1,3-Dichlorobenzene	147.00	ND		1.9	
106-46-7	1,4-Dichlorobenzene	147.00	ND		1.9	
123-91-1	1,4-Dioxane	88.11	ND		2.8	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		3.7	
78-93-3	2-Butanone	72.11	ND		3.7	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	8.7		3.2	
71-43-2	Benzene	78.11	ND		1.0	
100-44-7	Benzyl chloride	126.58	ND		3.3	
75-27-4	Bromodichloromethane	163.83	ND		2.1	
75-25-2	Bromoform	252.75	ND		3.3	
74-83-9	Bromomethane	94.94	ND		1.2	
56-23-5	Carbon tetrachloride	153.81	2.6		0.99	
108-90-7	Chlorobenzene	112.56	ND		1.5	
75-00-3	Chloroethane	64.52	ND		0.83	
67-66-3	Chloroform	119.38	120		1.5	
74-87-3	Chloromethane	50.49	ND		1.6	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.3	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		1.4	
110-82-7	Cyclohexane	84.16	ND		2.7	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-7 Lab Sample ID: 140-6336-9
 Matrix: Air Lab File ID: JK15P109.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 09:15
 Sample wt/vol: 200 (mL) Date Analyzed: 11/15/2016 23:11
 Soil Aliquot Vol: _____ Dilution Factor: 1.58
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		2.7	
75-71-8	Dichlorodifluoromethane	120.91	210		1.6	
64-17-5	Ethanol	46.07	ND		15	
100-41-4	Ethylbenzene	106.17	ND		1.4	
87-68-3	Hexachlorobutadiene	260.76	ND		3.4	
110-54-3	Hexane	86.17	ND		2.8	
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.3	
75-09-2	Methylene Chloride	84.93	6.3		2.7	
179601-23-1	m-Xylene & p-Xylene	106.17	2.0		1.4	
95-47-6	o-Xylene	106.17	ND		1.4	
100-42-5	Styrene	104.15	ND		1.3	
75-65-0	t-Butyl alcohol	74.12	ND		3.8	
127-18-4	Tetrachloroethene	165.83	220		2.1	
108-88-3	Toluene	92.14	ND		1.8	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.3	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		1.4	
79-01-6	Trichloroethene	131.39	1.5		0.85	
75-69-4	Trichlorofluoromethane	137.37	2.3		1.8	
75-01-4	Vinyl chloride	62.50	ND		0.40	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P109.D
 Lims ID: 140-6336-A-9
 Client ID: OVP-7
 Sample Type: Client
 Inject. Date: 15-Nov-2016 23:11:30 ALS Bottle#: 9 Worklist Smp#: 17
 Purge Vol: 500.000 mL Dil. Factor: 1.5800
 Sample Info: 140-0003625-017
 Misc. Info.: 140-6336-a-9@1.58
 Operator ID: 7126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:06:44

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.278	9.281	-0.003	96	243410	4.00	
* 2 1,4-Difluorobenzene	114	11.440	11.443	-0.003	96	1112729	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.118	16.121	-0.003	91	869145	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.748	17.745	0.003	93	535743	4.09	
8 Dichlorodifluoromethane	85	3.982	3.990	-0.008	99	2615419	10.9	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.186	4.189	-0.003	96	1125464	8.92	
17 Ethanol	31	5.063	5.060	0.003	97	26354	1.14	
20 Trichlorofluoromethane	101	5.563	5.565	-0.002	99	21194	0.1014	
28 2-Methyl-2-propanol	59	6.418	6.404	0.014	94	11127	0.0941	
30 1,1,2-Trichloro-1,2,2-trif	101	6.493	6.485	0.008	33	3134	0.0194	
31 Methylene Chloride	84	6.665	6.673	-0.008	98	35324	0.4568	
39 2-Butanone (MEK)	72	8.515	8.507	0.008	87	5215	0.2018	
40 Hexane	56	8.520	8.523	-0.003	67	7054	0.1149	
44 Chloroform	83	9.284	9.292	-0.008	98	949162	6.20	
47 1,1,1-Trichloroethane	97	10.332	10.335	-0.003	96	26875	0.1709	
50 Cyclohexane	69	10.924	10.921	0.003	83	2330	0.0657	
51 Benzene	78	10.919	10.921	-0.002	84	6487	0.0315	
52 Carbon tetrachloride	117	10.940	10.942	-0.002	94	16752	0.1061	
56 Isooctane	57	11.650	11.652	-0.002	95	30297	0.0912	
59 Trichloroethene	130	12.145	12.147	-0.002	91	5799	0.0702	
62 Dichlorobromomethane	83	12.370	12.378	-0.008	97	10495	0.0731	
65 4-Methyl-2-pentanone (MIBK	43	13.301	13.298	0.003	98	68593	0.5375	
68 Toluene	91	14.166	14.169	-0.003	92	22337	0.1172	
76 Tetrachloroethene	129	15.301	15.304	-0.003	97	574903	8.06	
81 m-Xylene & p-Xylene	91	16.608	16.610	-0.002	99	18108	0.1150	
85 o-Xylene	91	17.135	17.137	-0.002	96	8658	0.0501	
96 1,2,4-Trimethylbenzene	105	18.872	18.874	-0.002	96	10235	0.0646	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P109.D

Injection Date: 15-Nov-2016 23:11:30

Instrument ID: MJ

Operator ID: 7126

Lims ID: 140-6336-A-9

Lab Sample ID: 140-6336-9

Worklist Smp#: 17

Client ID: OVP-7

Purge Vol: 500.000 mL

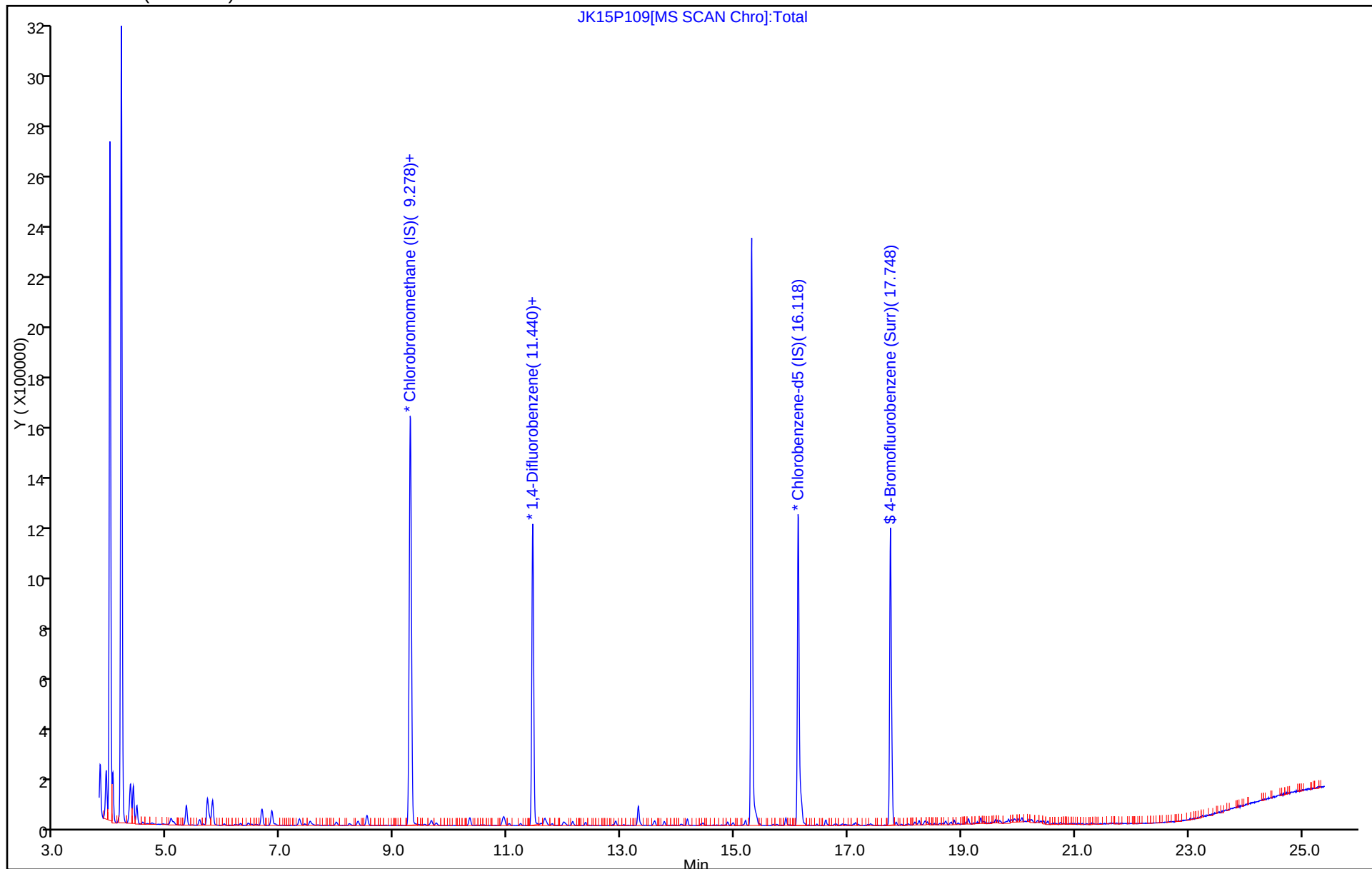
Dil. Factor: 1.5800

ALS Bottle#: 9

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P109.D
Lims ID: 140-6336-A-9
Client ID: OVP-7
Sample Type: Client
Inject. Date: 15-Nov-2016 23:11:30 ALS Bottle#: 9 Worklist Smp#: 17
Purge Vol: 500.000 mL Dil. Factor: 1.5800
Sample Info: 140-0003625-017
Misc. Info.: 140-6336-a-9@1.58
Operator ID: 7126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:06:44

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.09	102.22

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P109.D

Injection Date: 15-Nov-2016 23:11:30

Instrument ID: MJ

Lims ID: 140-6336-A-9

Lab Sample ID: 140-6336-9

Client ID: OVP-7

Operator ID: 7126

ALS Bottle#: 9

Worklist Smp#: 17

Purge Vol: 500.000 mL

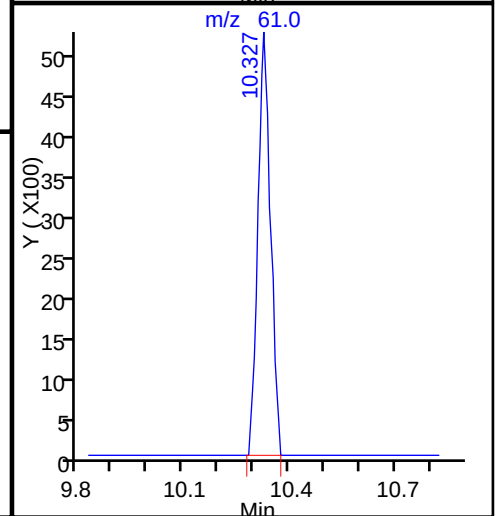
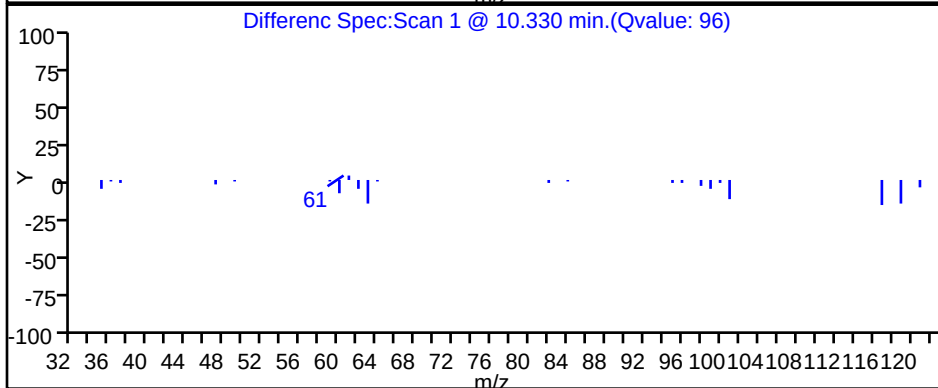
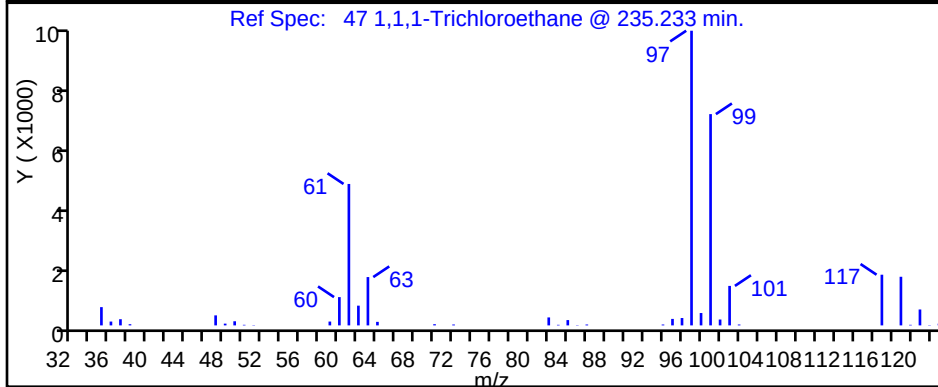
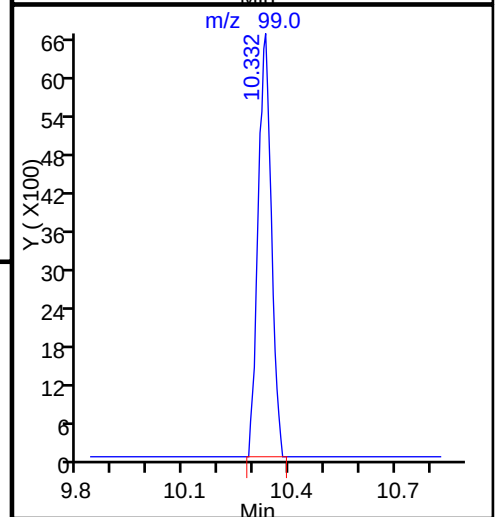
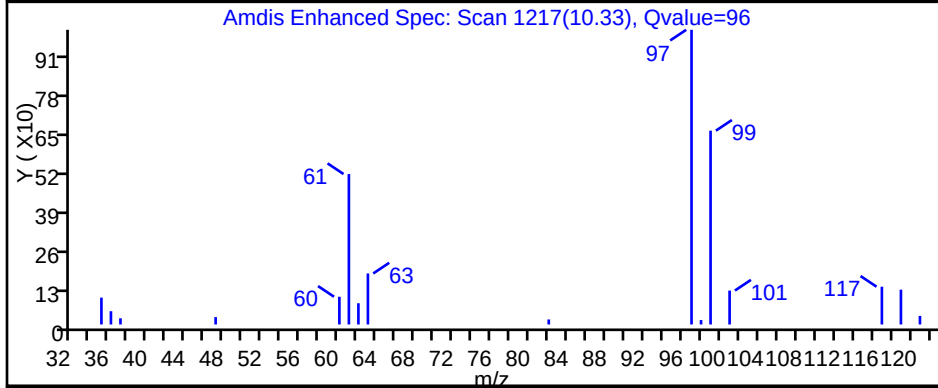
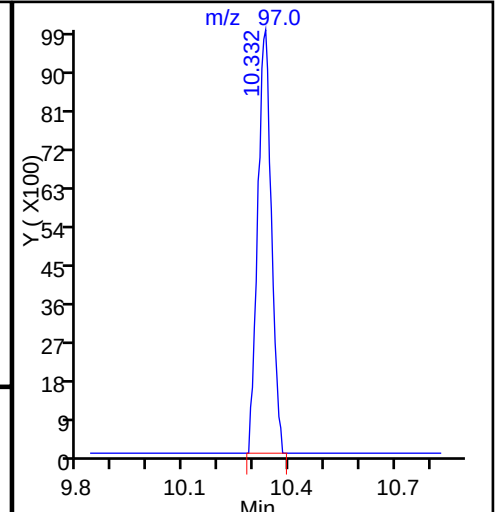
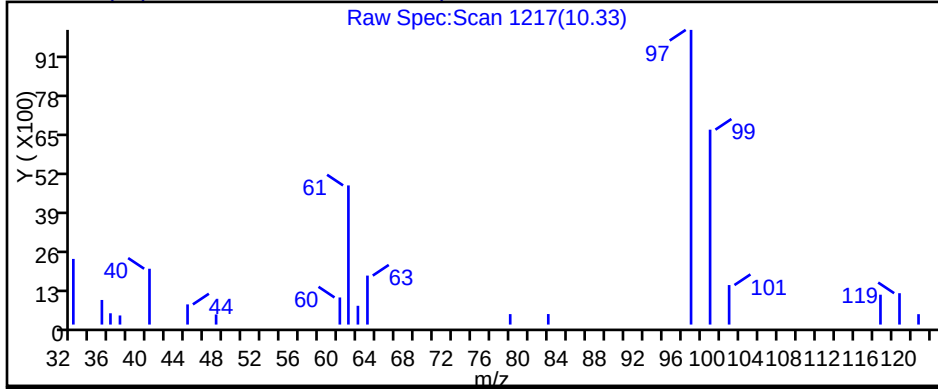
Dil. Factor: 1.5800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

47 1,1,1-Trichloroethane, CAS: 71-55-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P109.D

Injection Date: 15-Nov-2016 23:11:30

Instrument ID: MJ

Lims ID: 140-6336-A-9

Lab Sample ID: 140-6336-9

Client ID: OVP-7

Operator ID: 7126

ALS Bottle#: 9

Worklist Smp#: 17

Purge Vol: 500.000 mL

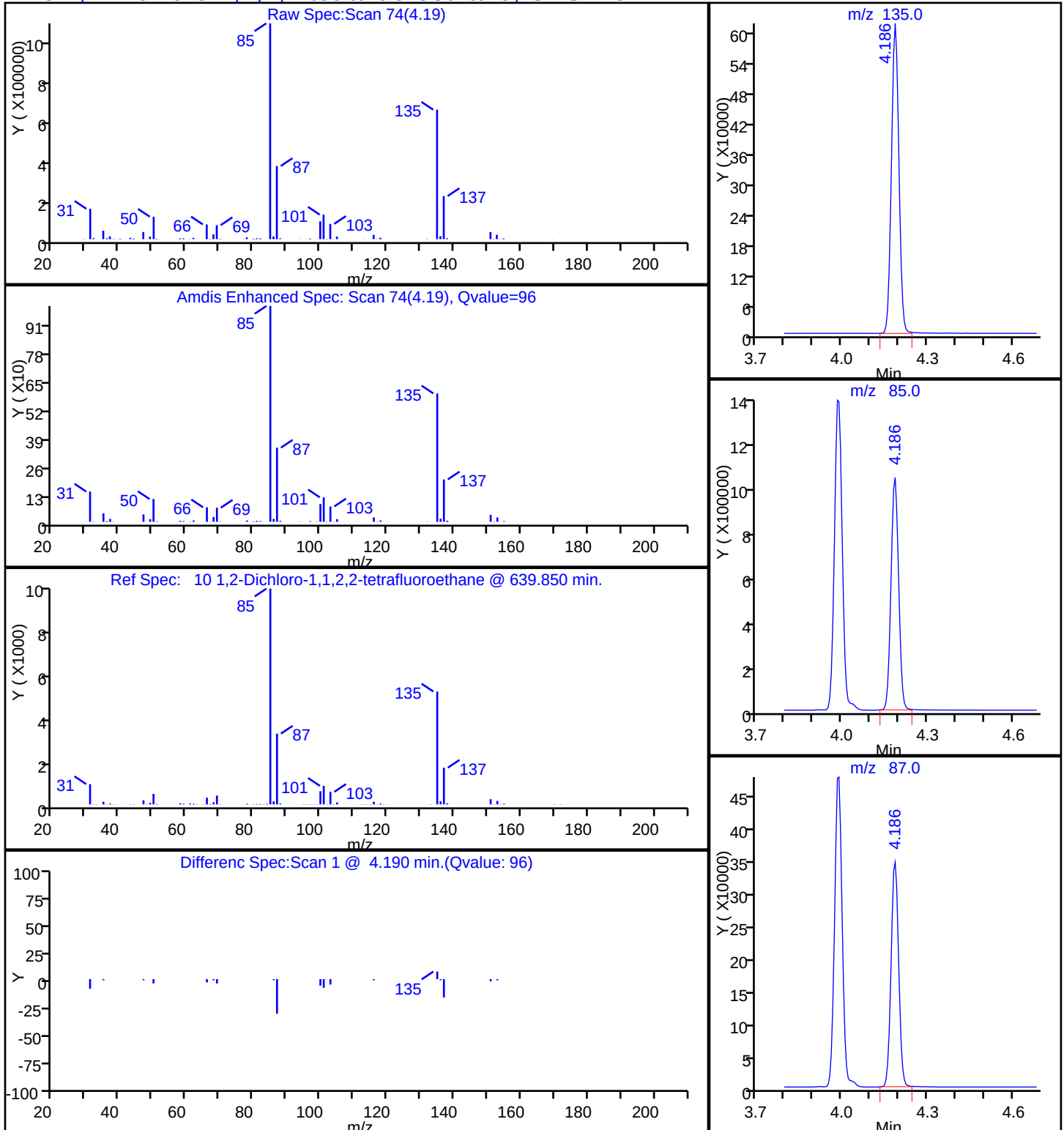
Dil. Factor: 1.5800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

10 1,2-Dichloro-1,1,2,2-tetrafluoroethane, CAS: 76-14-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P109.D

Injection Date: 15-Nov-2016 23:11:30

Instrument ID: MJ

Lims ID: 140-6336-A-9

Lab Sample ID: 140-6336-9

Client ID: OVP-7

Operator ID: 7126

ALS Bottle#: 9

Worklist Smp#: 17

Purge Vol: 500.000 mL

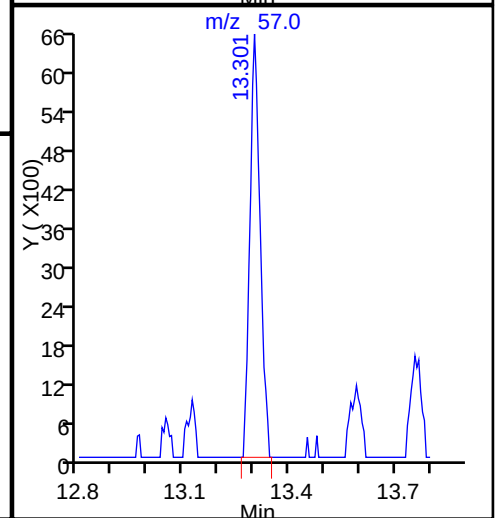
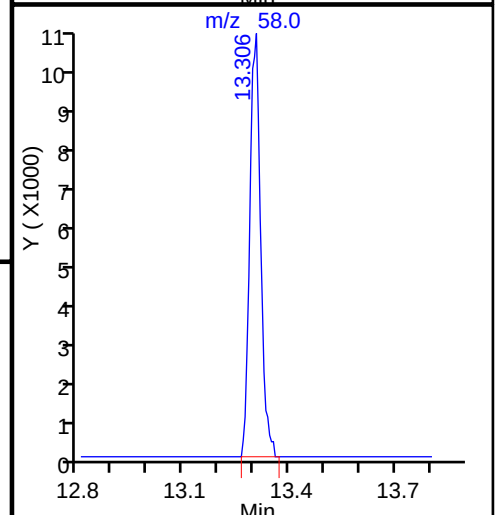
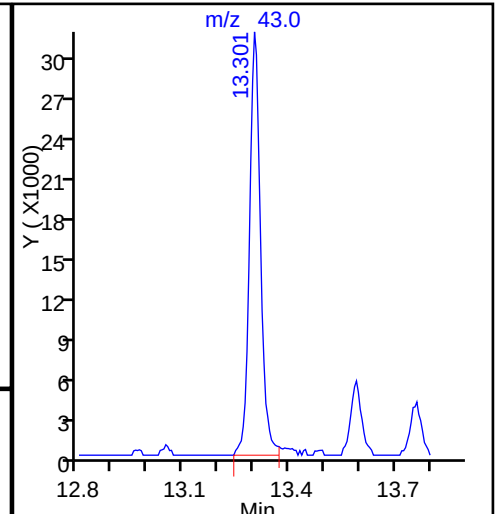
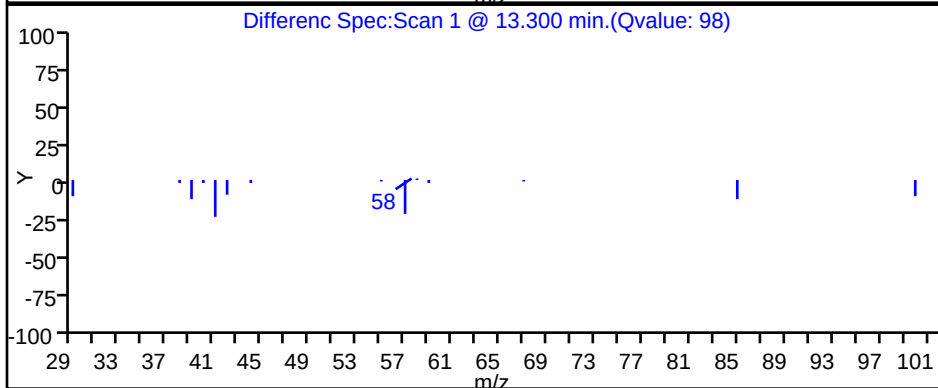
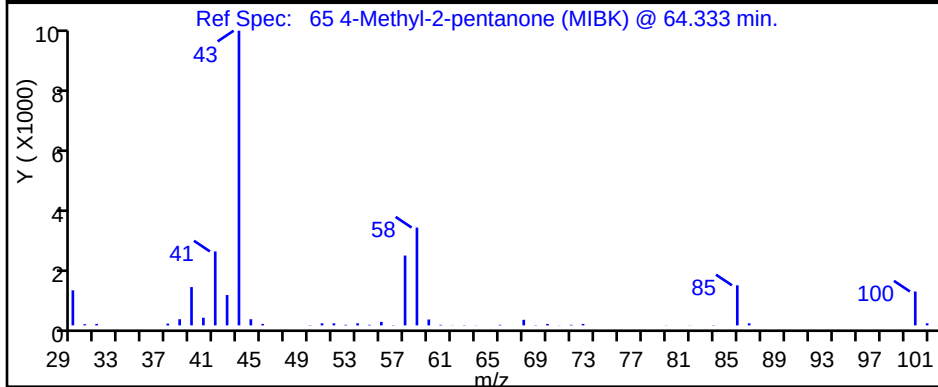
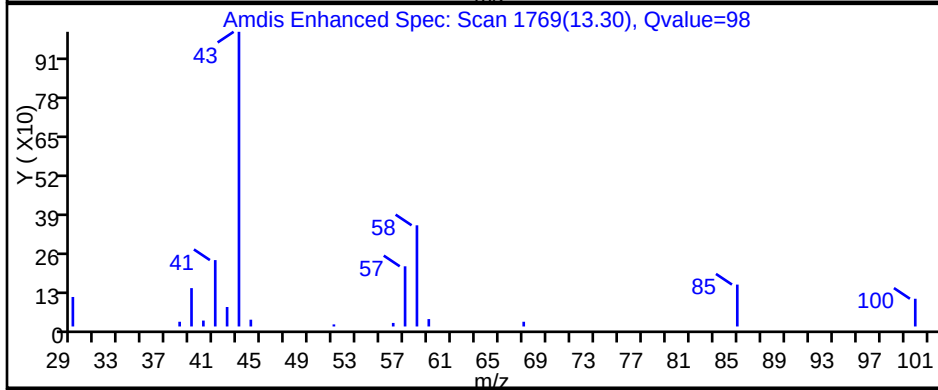
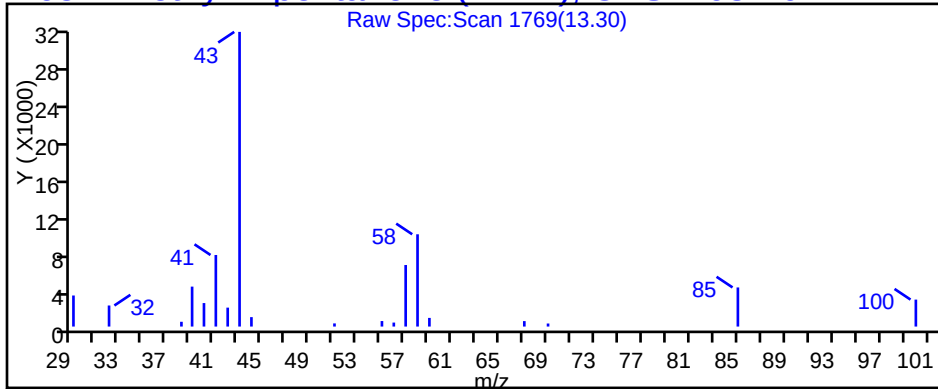
Dil. Factor: 1.5800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

65 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P109.D

Injection Date: 15-Nov-2016 23:11:30

Instrument ID: MJ

Lims ID: 140-6336-A-9

Lab Sample ID: 140-6336-9

Client ID: OVP-7

Operator ID: 7126

ALS Bottle#: 9

Worklist Smp#: 17

Purge Vol: 500.000 mL

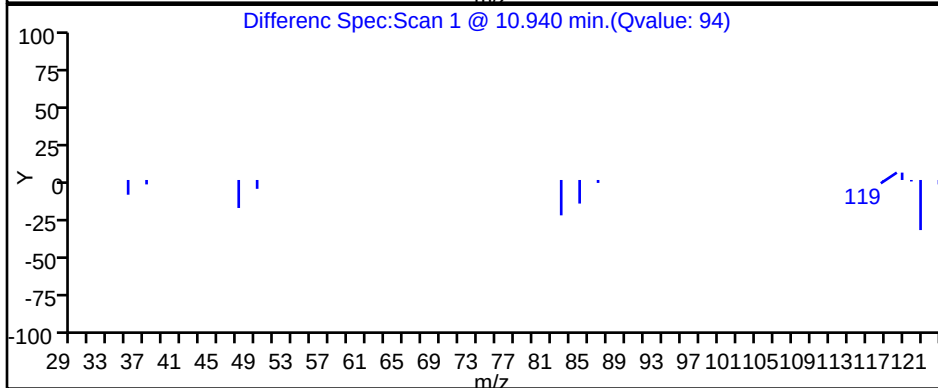
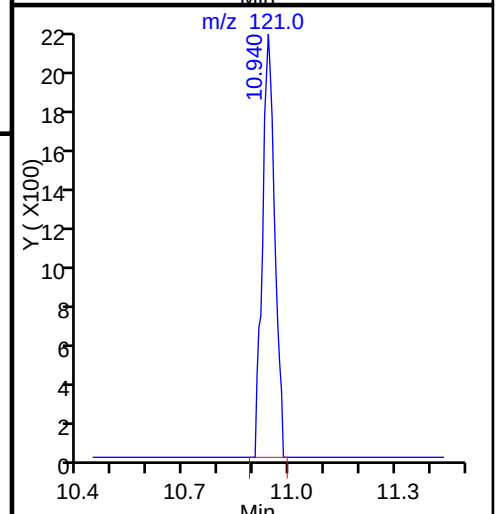
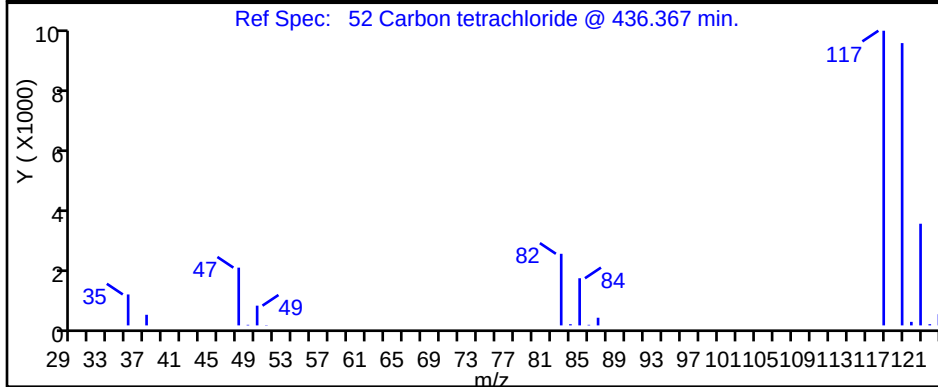
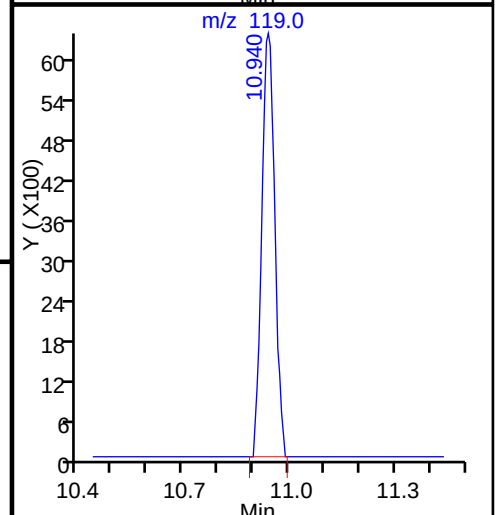
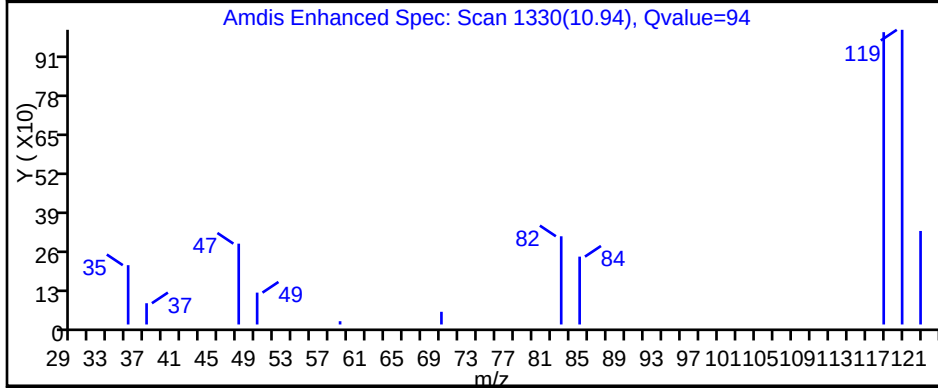
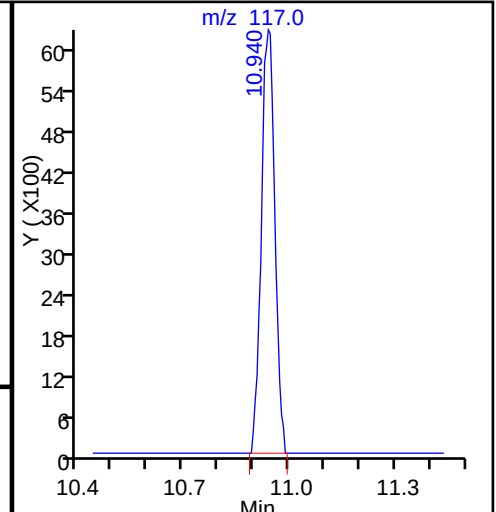
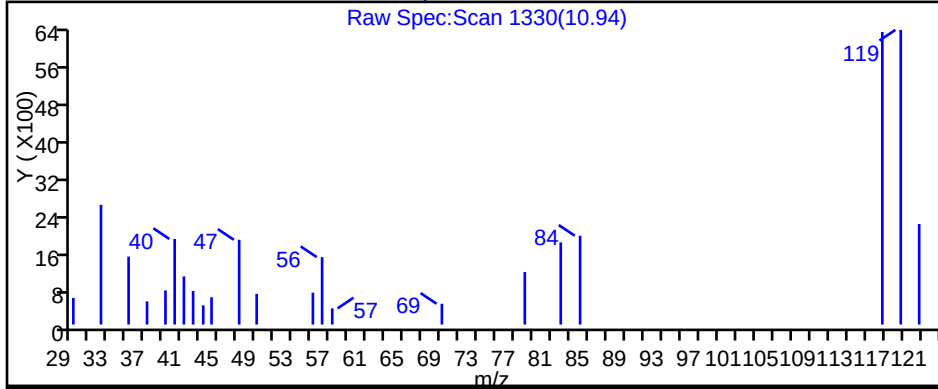
Dil. Factor: 1.5800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P109.D

Injection Date: 15-Nov-2016 23:11:30

Instrument ID: MJ

Lims ID: 140-6336-A-9

Lab Sample ID: 140-6336-9

Client ID: OVP-7

Operator ID: 7126

ALS Bottle#: 9

Worklist Smp#: 17

Purge Vol: 500.000 mL

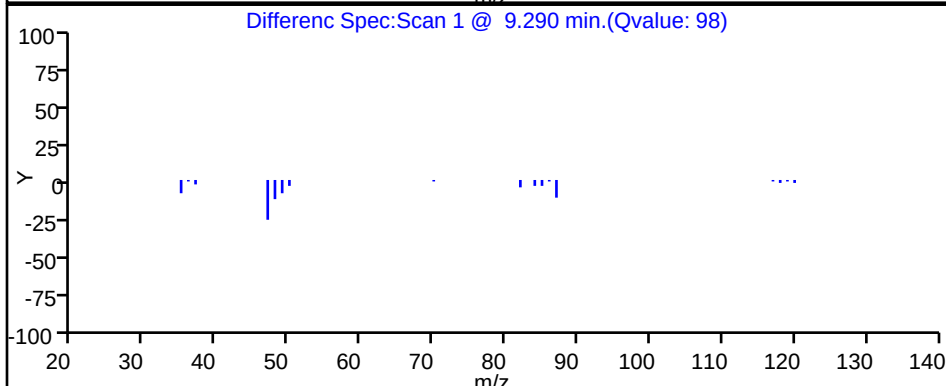
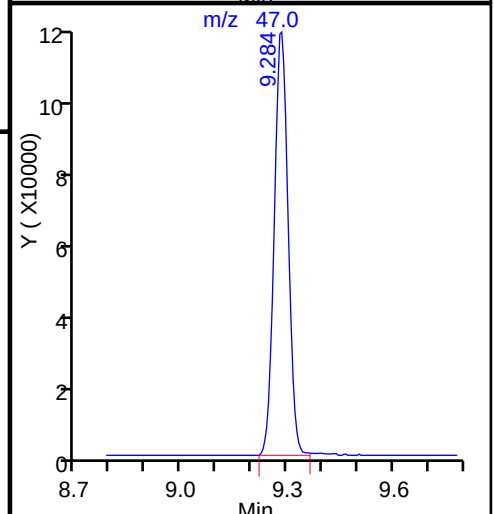
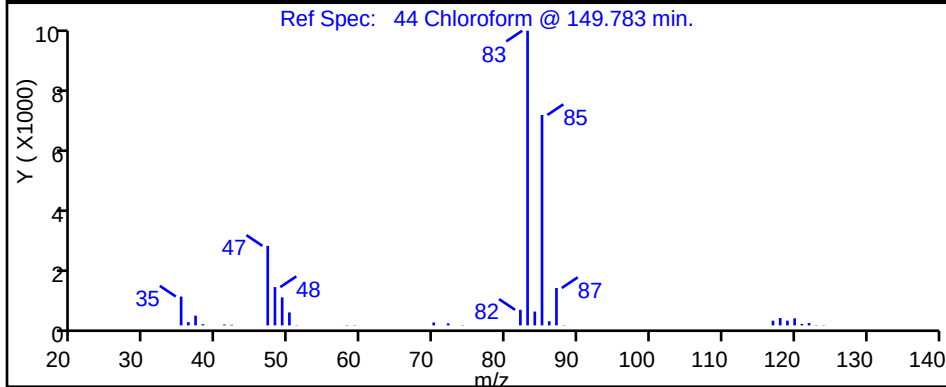
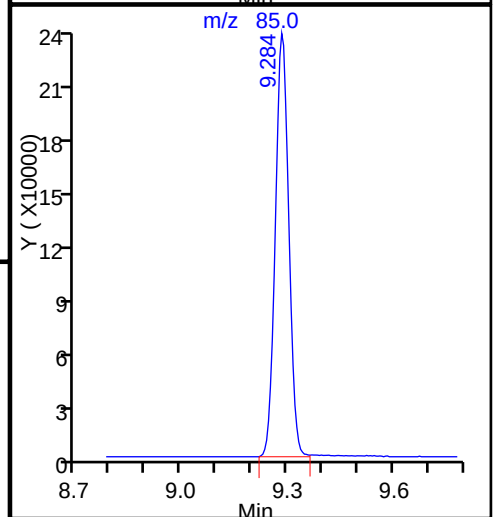
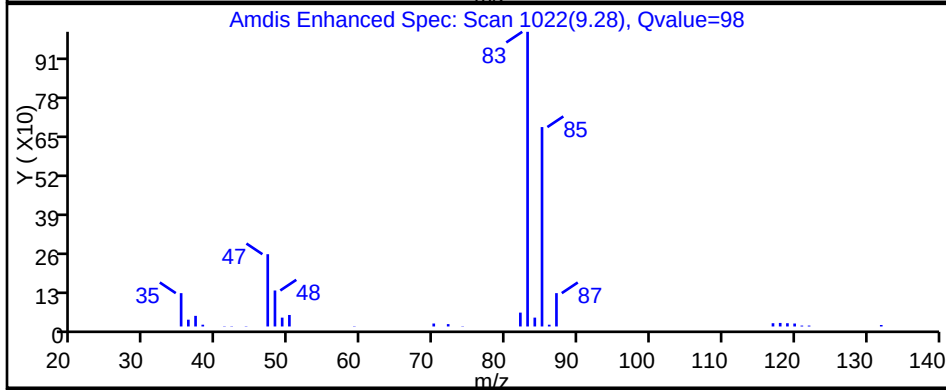
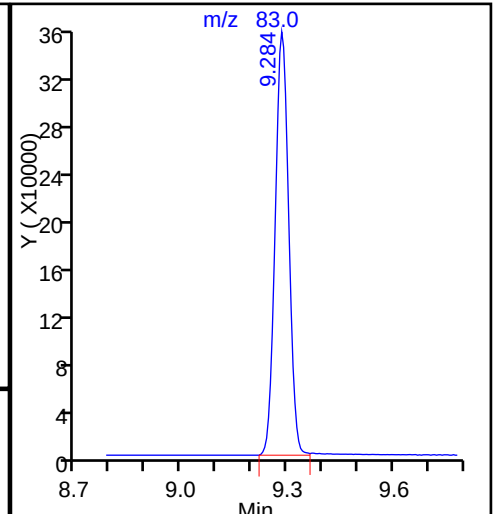
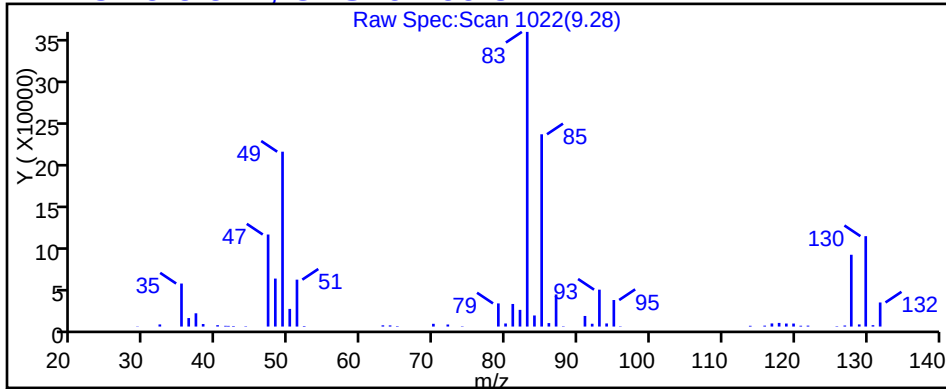
Dil. Factor: 1.5800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P109.D

Injection Date: 15-Nov-2016 23:11:30

Instrument ID: MJ

Lims ID: 140-6336-A-9

Lab Sample ID: 140-6336-9

Client ID: OVP-7

Operator ID: 7126

ALS Bottle#: 9

Worklist Smp#: 17

Purge Vol: 500.000 mL

Dil. Factor: 1.5800

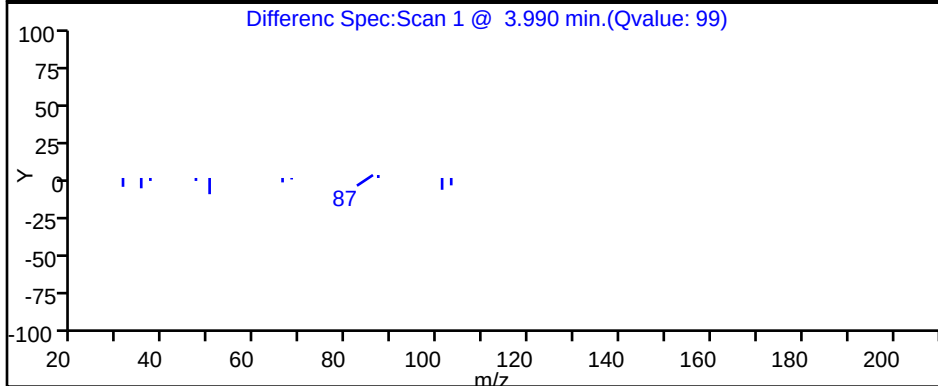
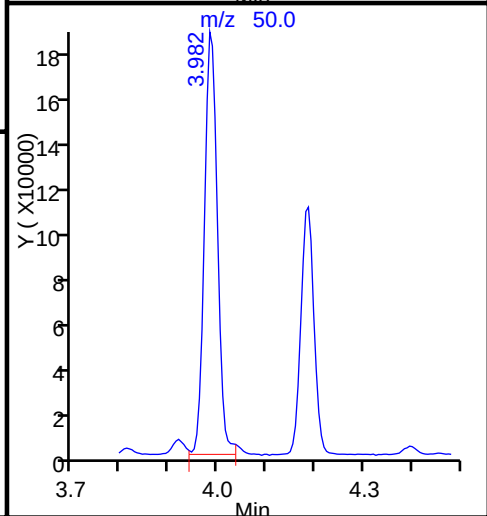
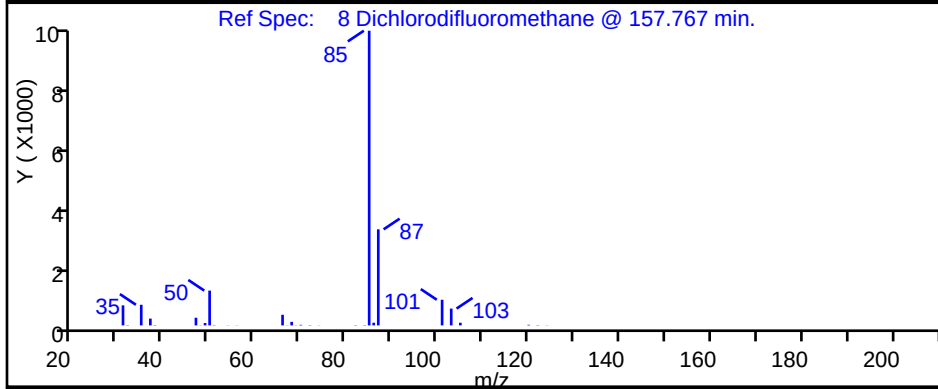
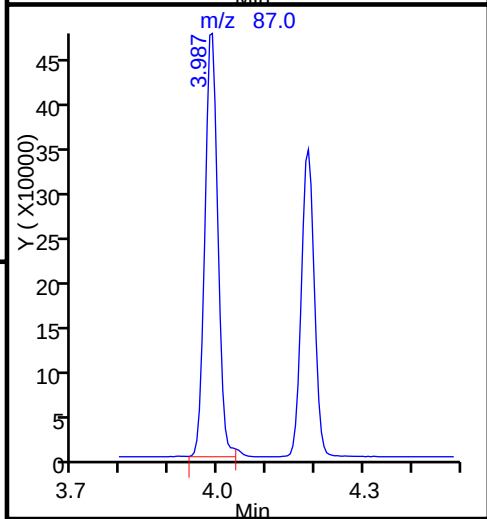
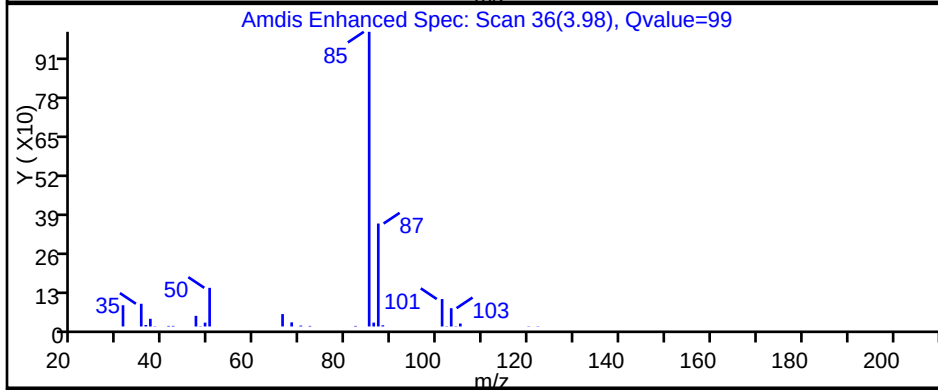
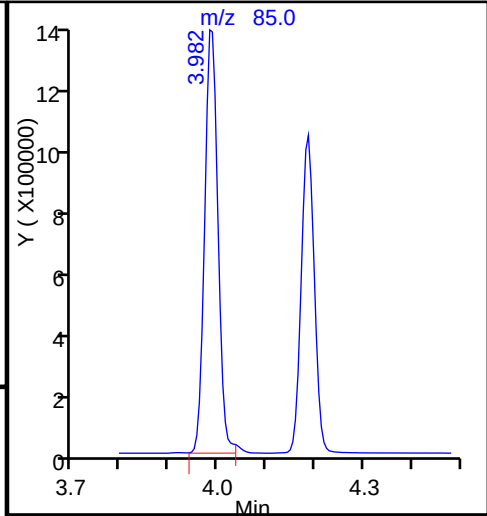
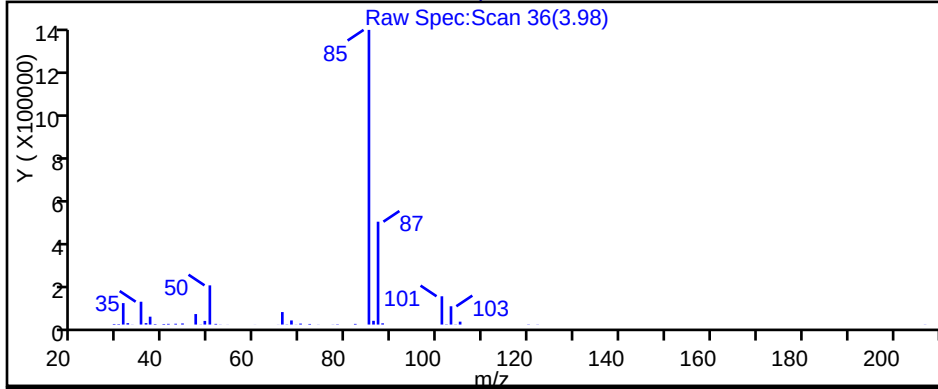
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P109.D

Injection Date: 15-Nov-2016 23:11:30

Instrument ID: MJ

Lims ID: 140-6336-A-9

Lab Sample ID: 140-6336-9

Client ID: OVP-7

Operator ID: 7126

ALS Bottle#: 9

Worklist Smp#: 17

Purge Vol: 500.000 mL

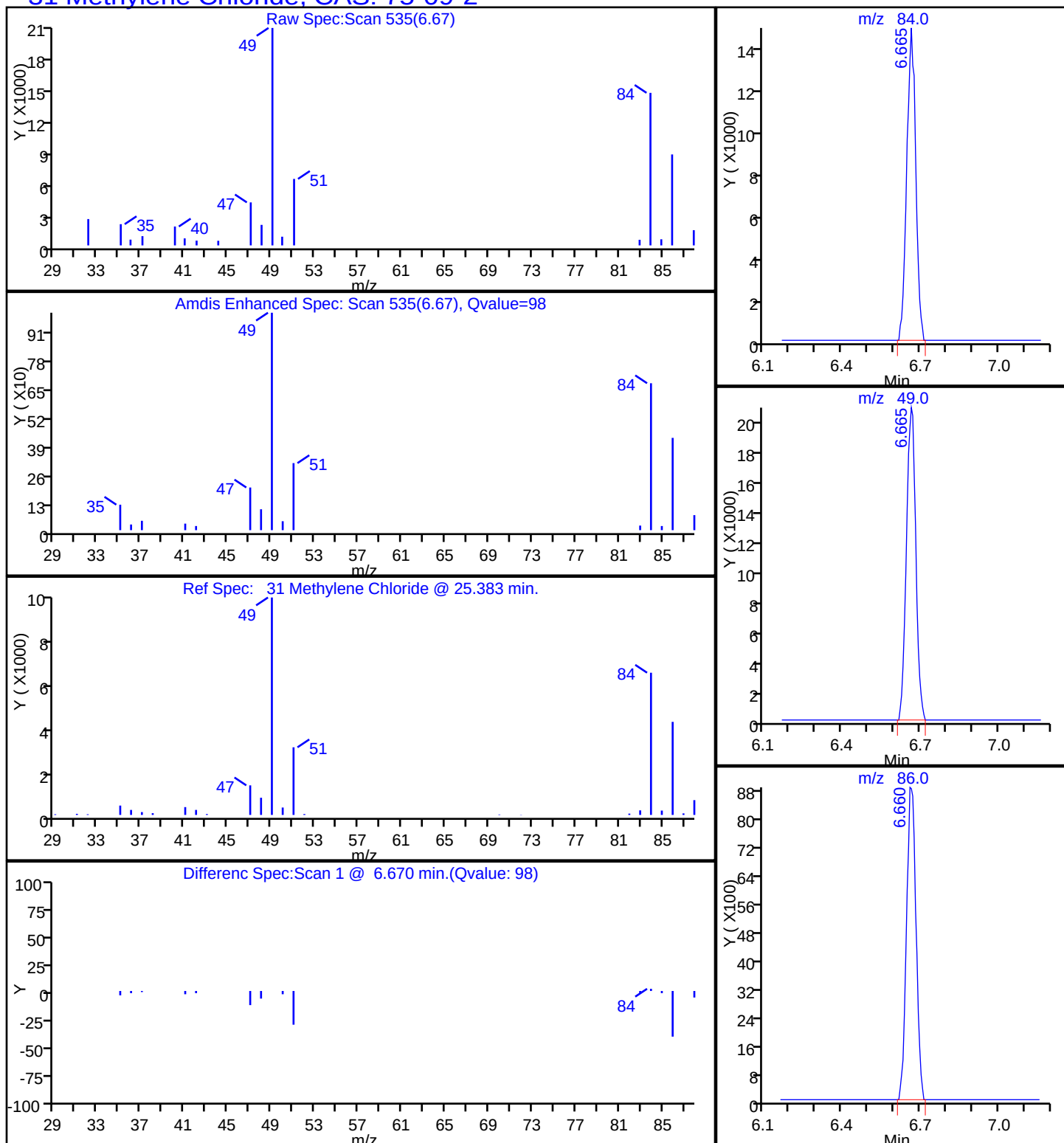
Dil. Factor: 1.5800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P109.D

Injection Date: 15-Nov-2016 23:11:30

Instrument ID: MJ

Lims ID: 140-6336-A-9

Lab Sample ID: 140-6336-9

Client ID: OVP-7

Operator ID: 7126

ALS Bottle#: 9

Worklist Smp#: 17

Purge Vol: 500.000 mL

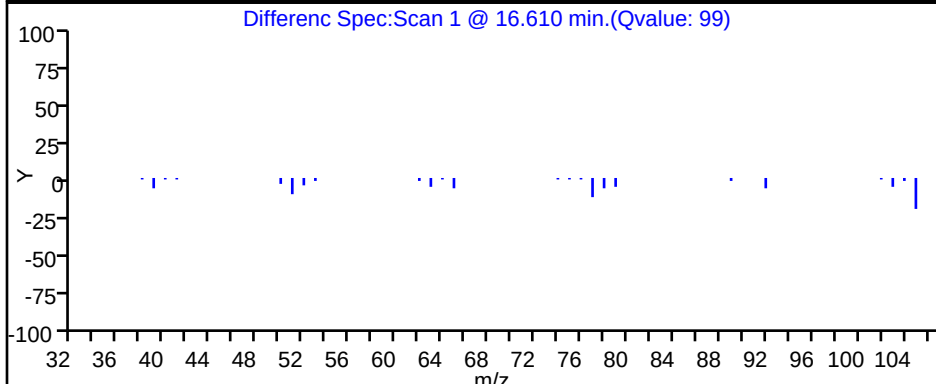
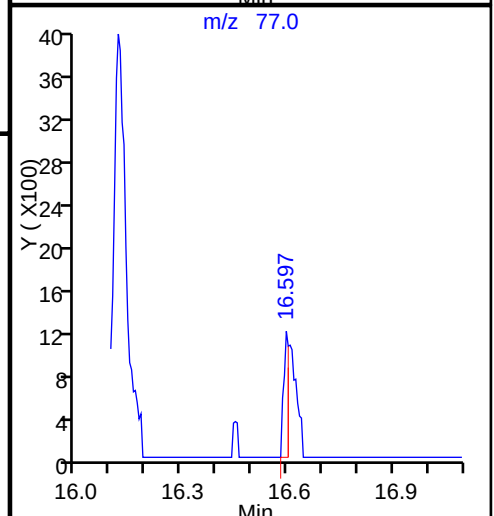
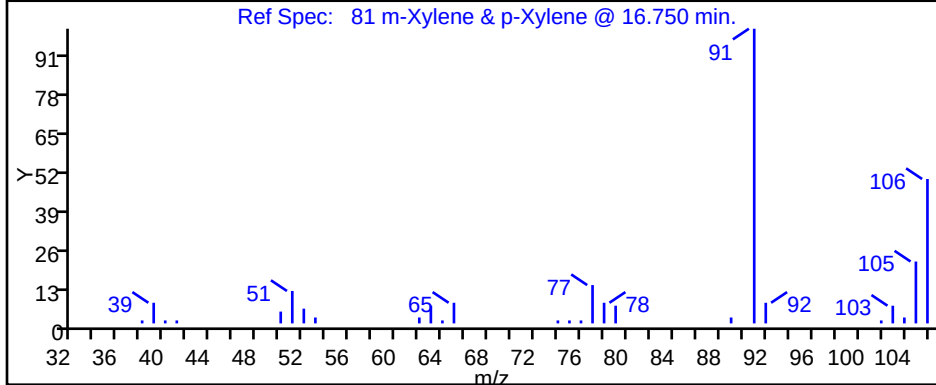
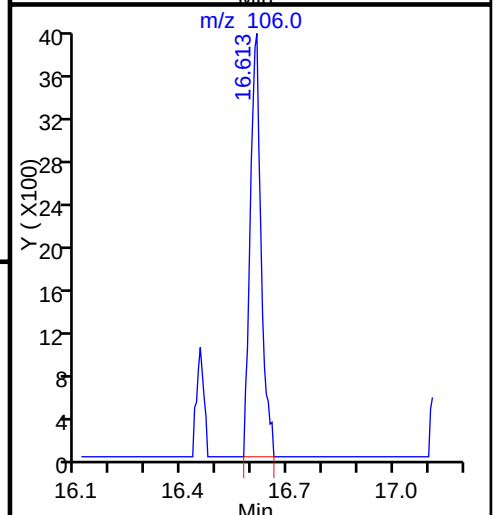
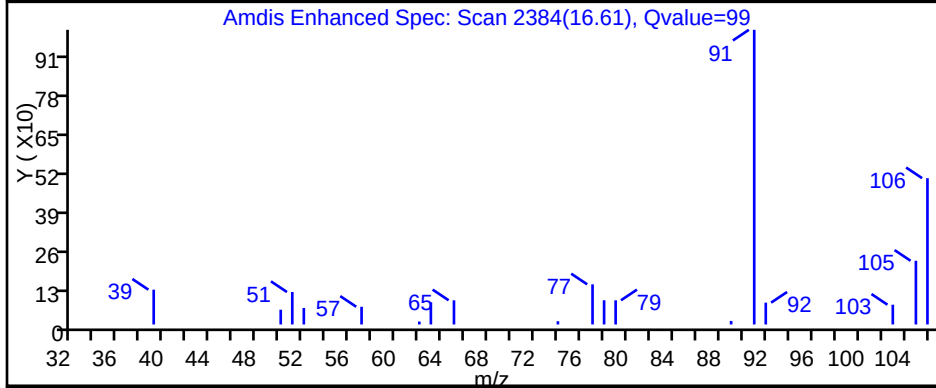
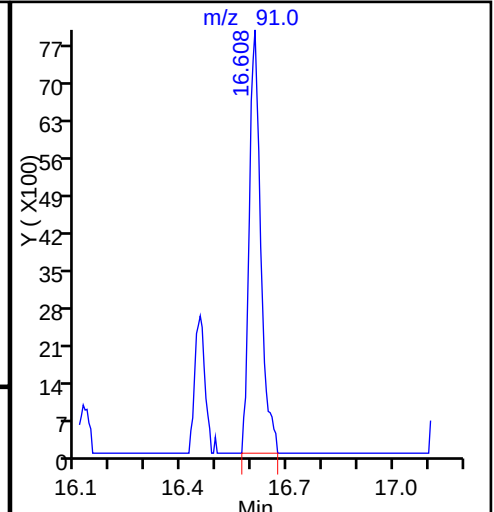
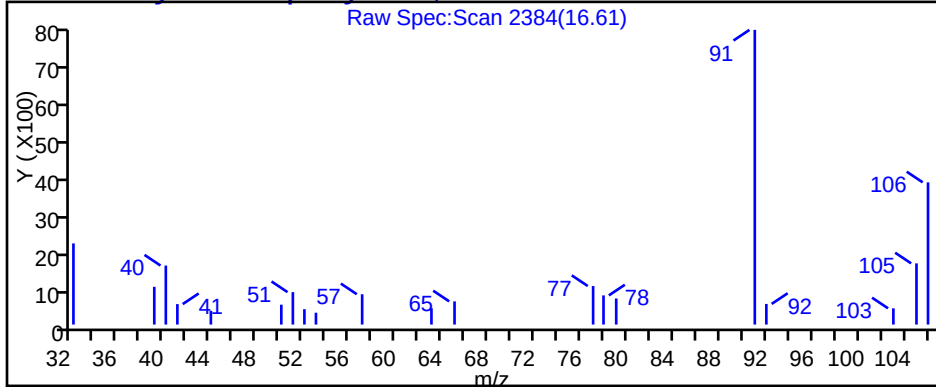
Dil. Factor: 1.5800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

81 m-Xylene & p-Xylene, CAS: 179601-23-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P109.D

Injection Date: 15-Nov-2016 23:11:30

Instrument ID: MJ

Lims ID: 140-6336-A-9

Lab Sample ID: 140-6336-9

Client ID: OVP-7

Operator ID: 7126

ALS Bottle#: 9

Worklist Smp#: 17

Purge Vol: 500.000 mL

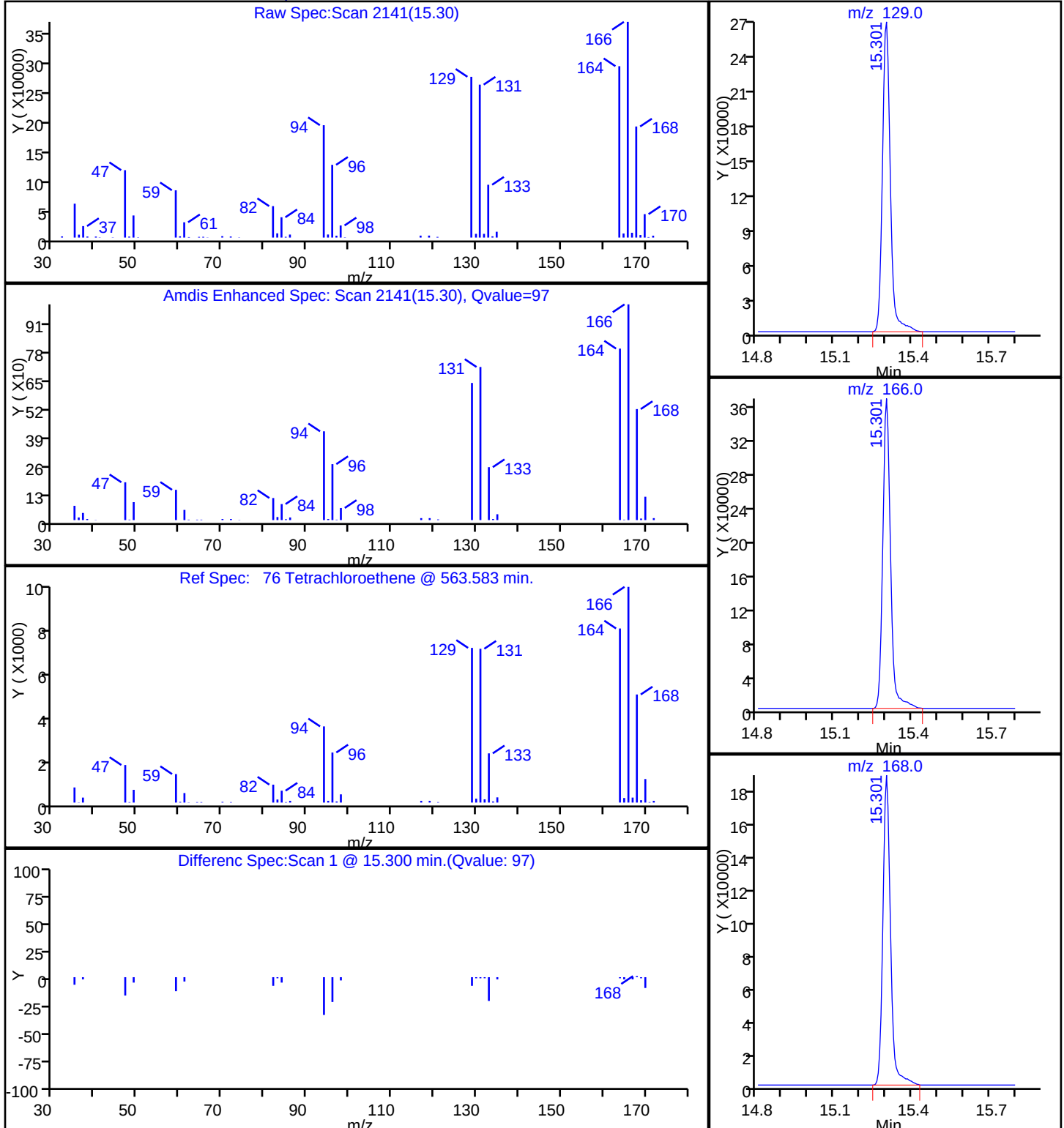
Dil. Factor: 1.5800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

76 Tetrachloroethene, CAS: 127-18-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P109.D

Injection Date: 15-Nov-2016 23:11:30

Instrument ID: MJ

Lims ID: 140-6336-A-9

Lab Sample ID: 140-6336-9

Client ID: OVP-7

Operator ID: 7126

ALS Bottle#: 9

Worklist Smp#: 17

Purge Vol: 500.000 mL

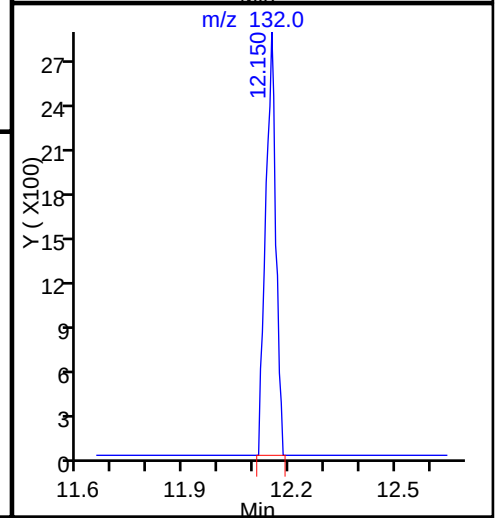
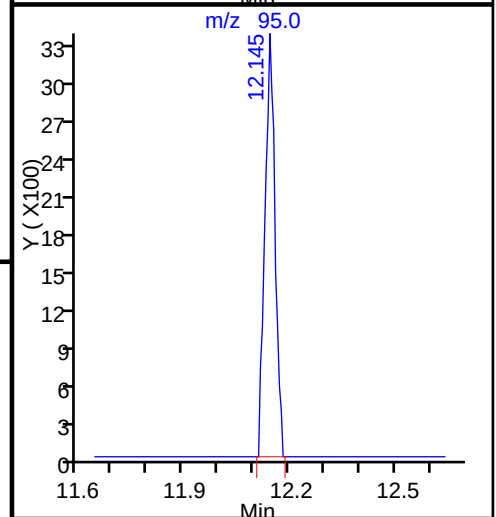
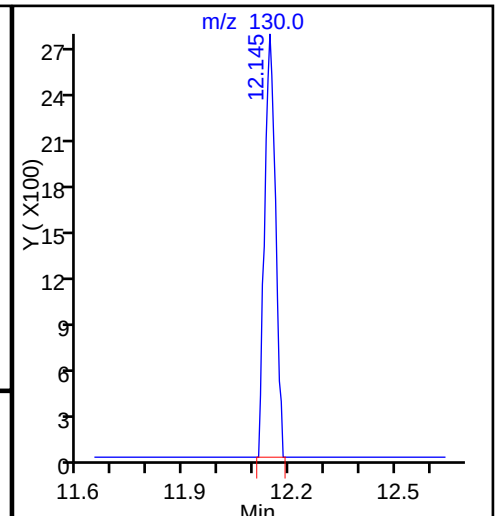
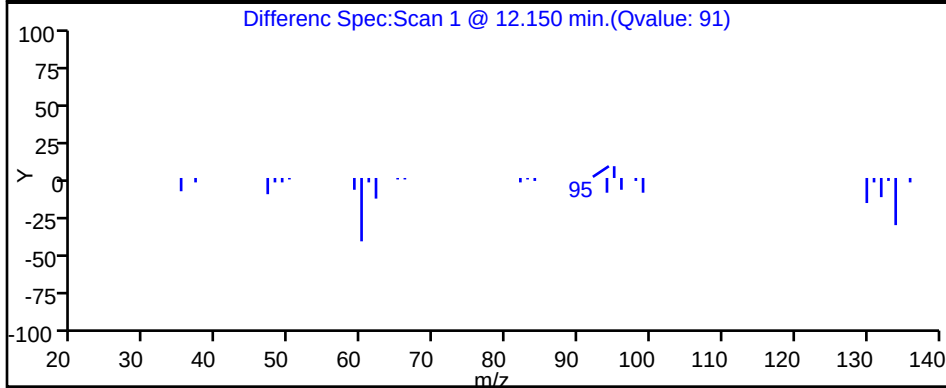
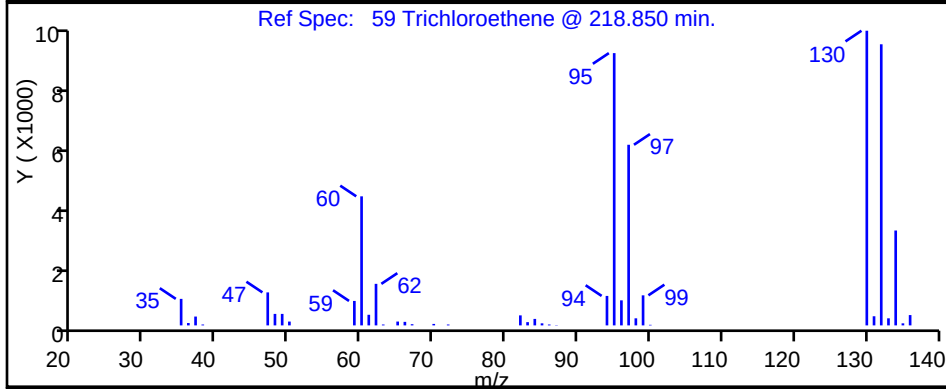
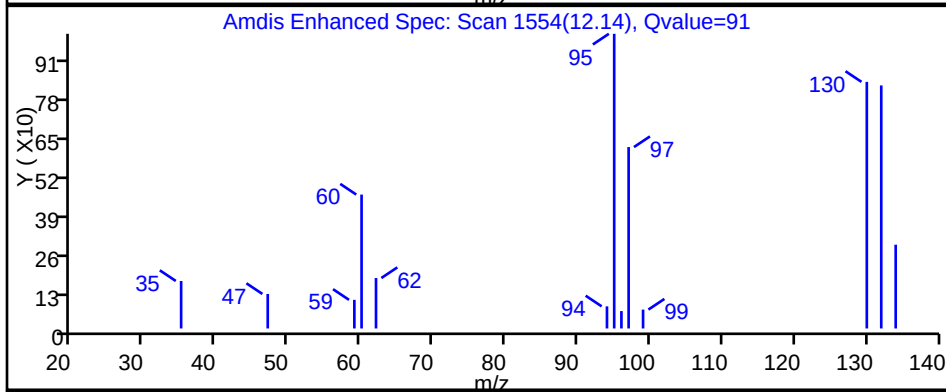
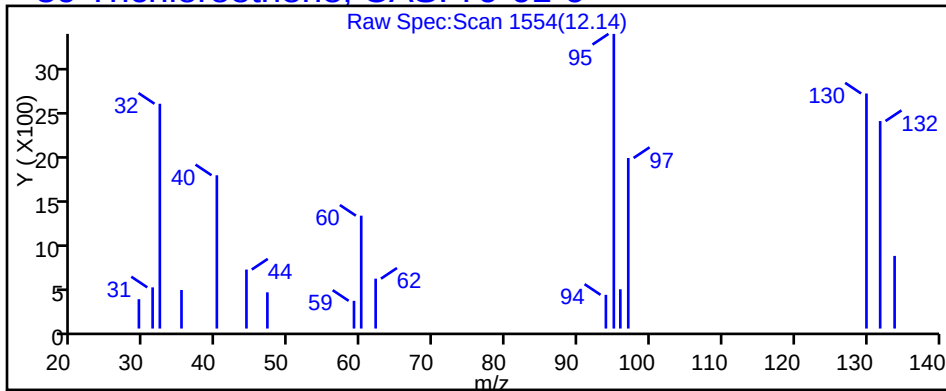
Dil. Factor: 1.5800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

59 Trichloroethene, CAS: 79-01-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P109.D

Injection Date: 15-Nov-2016 23:11:30

Instrument ID: MJ

Lims ID: 140-6336-A-9

Lab Sample ID: 140-6336-9

Client ID: OVP-7

Operator ID: 7126

ALS Bottle#: 9

Worklist Smp#: 17

Purge Vol: 500.000 mL

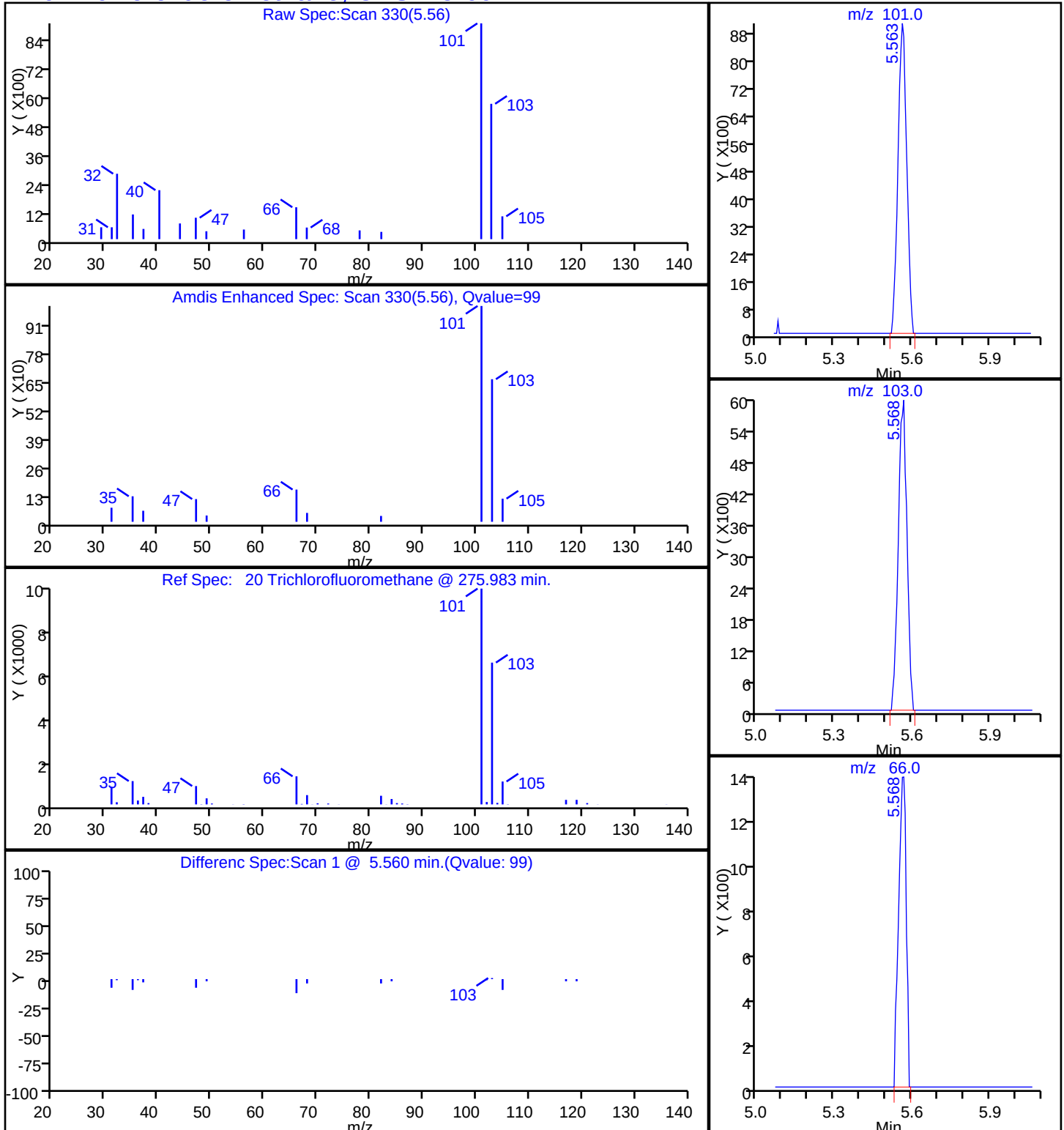
Dil. Factor: 1.5800

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-8 Lab Sample ID: 140-6336-10
 Matrix: Air Lab File ID: JK15P110.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 09:45
 Sample wt/vol: 190 (mL) Date Analyzed: 11/16/2016 00:05
 Soil Aliquot Vol: _____ Dilution Factor: 1.5
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	4.2		0.32	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.32	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.32	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.32	
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.32	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.32	
106-93-4	1,2-Dibromoethane	187.87	ND		0.32	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.32	
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	
78-87-5	1,2-Dichloropropane	112.99	ND		0.32	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	14		0.32	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.32	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.32	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.32	
123-91-1	1,4-Dioxane	88.11	ND		0.79	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.79	
78-93-3	2-Butanone	72.11	ND		1.3	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	4.2		0.79	
71-43-2	Benzene	78.11	ND		0.32	
100-44-7	Benzyl chloride	126.58	ND		0.63	
75-27-4	Bromodichloromethane	163.83	ND		0.32	
75-25-2	Bromoform	252.75	ND		0.32	
74-83-9	Bromomethane	94.94	ND		0.32	
56-23-5	Carbon tetrachloride	153.81	0.16		0.16	
108-90-7	Chlorobenzene	112.56	ND		0.32	
75-00-3	Chloroethane	64.52	ND		0.32	
67-66-3	Chloroform	119.38	3.4		0.32	
74-87-3	Chloromethane	50.49	ND		0.79	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.32	
110-82-7	Cyclohexane	84.16	ND		0.79	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-8 Lab Sample ID: 140-6336-10
 Matrix: Air Lab File ID: JK15P110.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 09:45
 Sample wt/vol: 190 (mL) Date Analyzed: 11/16/2016 00:05
 Soil Aliquot Vol: _____ Dilution Factor: 1.5
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.32	
75-71-8	Dichlorodifluoromethane	120.91	9.0		0.32	
64-17-5	Ethanol	46.07	ND		7.9	
100-41-4	Ethylbenzene	106.17	ND		0.32	
87-68-3	Hexachlorobutadiene	260.76	ND		0.32	
110-54-3	Hexane	86.17	ND		0.79	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.63	
75-09-2	Methylene Chloride	84.93	2.0		0.79	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		0.32	
95-47-6	o-Xylene	106.17	ND		0.32	
100-42-5	Styrene	104.15	ND		0.32	
75-65-0	t-Butyl alcohol	74.12	ND		1.3	
127-18-4	Tetrachloroethene	165.83	33		0.32	
108-88-3	Toluene	92.14	ND		0.47	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.32	
79-01-6	Trichloroethene	131.39	0.54		0.16	
75-69-4	Trichlorofluoromethane	137.37	ND		0.32	
75-01-4	Vinyl chloride	62.50	ND		0.16	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-8 Lab Sample ID: 140-6336-10
 Matrix: Air Lab File ID: JK15P110.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 09:45
 Sample wt/vol: 190 (mL) Date Analyzed: 11/16/2016 00:05
 Soil Aliquot Vol: _____ Dilution Factor: 1.5
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	23		1.7	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		2.2	
79-00-5	1,1,2-Trichloroethane	133.41	ND		1.7	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		2.4	
75-34-3	1,1-Dichloroethane	98.96	ND		1.3	
75-35-4	1,1-Dichloroethene	96.94	ND		1.3	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		2.3	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		1.6	
106-93-4	1,2-Dibromoethane	187.87	ND		2.4	
95-50-1	1,2-Dichlorobenzene	147.00	ND		1.9	
107-06-2	1,2-Dichloroethane	98.96	ND		1.3	
78-87-5	1,2-Dichloropropane	112.99	ND		1.5	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	96		2.2	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		1.6	
541-73-1	1,3-Dichlorobenzene	147.00	ND		1.9	
106-46-7	1,4-Dichlorobenzene	147.00	ND		1.9	
123-91-1	1,4-Dioxane	88.11	ND		2.8	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		3.7	
78-93-3	2-Butanone	72.11	ND		3.7	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	17		3.2	
71-43-2	Benzene	78.11	ND		1.0	
100-44-7	Benzyl chloride	126.58	ND		3.3	
75-27-4	Bromodichloromethane	163.83	ND		2.1	
75-25-2	Bromoform	252.75	ND		3.3	
74-83-9	Bromomethane	94.94	ND		1.2	
56-23-5	Carbon tetrachloride	153.81	1.0		0.99	
108-90-7	Chlorobenzene	112.56	ND		1.5	
75-00-3	Chloroethane	64.52	ND		0.83	
67-66-3	Chloroform	119.38	17		1.5	
74-87-3	Chloromethane	50.49	ND		1.6	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.3	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		1.4	
110-82-7	Cyclohexane	84.16	ND		2.7	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-8 Lab Sample ID: 140-6336-10
 Matrix: Air Lab File ID: JK15P110.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 09:45
 Sample wt/vol: 190 (mL) Date Analyzed: 11/16/2016 00:05
 Soil Aliquot Vol: _____ Dilution Factor: 1.5
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		2.7	
75-71-8	Dichlorodifluoromethane	120.91	44		1.6	
64-17-5	Ethanol	46.07	ND		15	
100-41-4	Ethylbenzene	106.17	ND		1.4	
87-68-3	Hexachlorobutadiene	260.76	ND		3.4	
110-54-3	Hexane	86.17	ND		2.8	
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.3	
75-09-2	Methylene Chloride	84.93	6.8		2.7	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		1.4	
95-47-6	o-Xylene	106.17	ND		1.4	
100-42-5	Styrene	104.15	ND		1.3	
75-65-0	t-Butyl alcohol	74.12	ND		3.8	
127-18-4	Tetrachloroethene	165.83	220		2.1	
108-88-3	Toluene	92.14	ND		1.8	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.3	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		1.4	
79-01-6	Trichloroethene	131.39	2.9		0.85	
75-69-4	Trichlorofluoromethane	137.37	ND		1.8	
75-01-4	Vinyl chloride	62.50	ND		0.40	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	103		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P110.D
 Lims ID: 140-6336-A-10
 Client ID: OVP-8
 Sample Type: Client
 Inject. Date: 16-Nov-2016 00:05:30 ALS Bottle#: 10 Worklist Smp#: 18
 Purge Vol: 500.000 mL Dil. Factor: 1.5000
 Sample Info: 140-0003625-018
 Misc. Info.: 140-6336-a-10@1.50
 Operator ID: 7126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 08:58:12

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.275	9.281	-0.006	97	238304	4.00	
* 2 1,4-Difluorobenzene	114	11.442	11.443	-0.001	96	1101584	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.121	16.121	0.000	90	873590	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.745	17.745	0.000	87	543695	4.13	
8 Dichlorodifluoromethane	85	3.984	3.990	-0.006	100	532039	2.27	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.188	4.189	-0.001	98	431562	3.49	
17 Ethanol	31	5.065	5.060	0.005	98	17248	0.7596	
20 Trichlorofluoromethane	101	5.560	5.565	-0.005	98	14603	0.0714	
28 2-Methyl-2-propanol	59	6.436	6.404	0.032	90	4164	0.0360	
30 1,1,2-Trichloro-1,2,2-trif	101	6.484	6.485	-0.001	89	2517	0.0159	
31 Methylene Chloride	84	6.667	6.673	-0.006	98	37622	0.4969	
40 Hexane	56	8.517	8.523	-0.006	85	6866	0.1142	
44 Chloroform	83	9.286	9.292	-0.006	93	129548	0.8646	
47 1,1,1-Trichloroethane	97	10.329	10.335	-0.006	97	162048	1.05	
51 Benzene	78	10.915	10.921	-0.006	95	8562	0.0420	
52 Carbon tetrachloride	117	10.948	10.942	0.006	96	6522	0.0417	
56 Isooctane	57	11.652	11.652	0.000	93	7947	0.0242	
59 Trichloroethene	130	12.147	12.147	0.000	93	11196	0.1369	
65 4-Methyl-2-pentanone (MIBK	43	13.298	13.298	0.000	98	133123	1.05	
68 Toluene	91	14.169	14.169	0.000	94	16420	0.0857	
76 Tetrachloroethene	129	15.298	15.304	-0.006	94	596752	8.32	
81 m-Xylene & p-Xylene	91	16.610	16.610	0.000	97	9366	0.0592	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P110.D

Injection Date: 16-Nov-2016 00:05:30

Instrument ID: MJ

Operator ID: 7126

Lims ID: 140-6336-A-10

Lab Sample ID: 140-6336-10

Worklist Smp#: 18

Client ID: OVP-8

Purge Vol: 500.000 mL

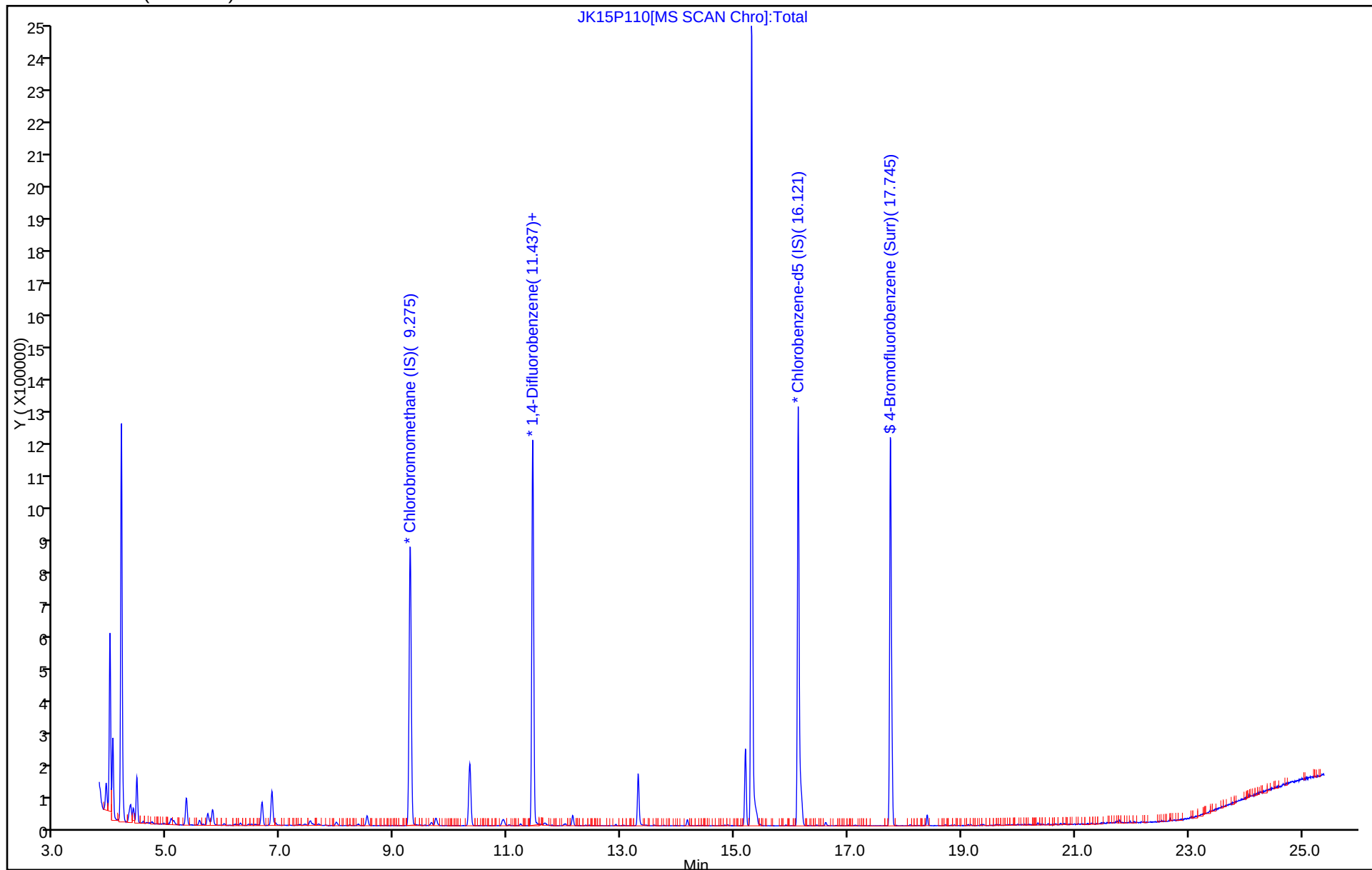
Dil. Factor: 1.5000

ALS Bottle#: 10

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P110.D
Lims ID: 140-6336-A-10
Client ID: OVP-8
Sample Type: Client
Inject. Date: 16-Nov-2016 00:05:30 ALS Bottle#: 10 Worklist Smp#: 18
Purge Vol: 500.000 mL Dil. Factor: 1.5000
Sample Info: 140-0003625-018
Misc. Info.: 140-6336-a-10@1.50
Operator ID: 7126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 08:58:12

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.13	103.21

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P110.D

Injection Date: 16-Nov-2016 00:05:30

Instrument ID: MJ

Lims ID: 140-6336-A-10

Lab Sample ID: 140-6336-10

Client ID: OVP-8

Operator ID: 7126

ALS Bottle#: 10

Worklist Smp#: 18

Purge Vol: 500.000 mL

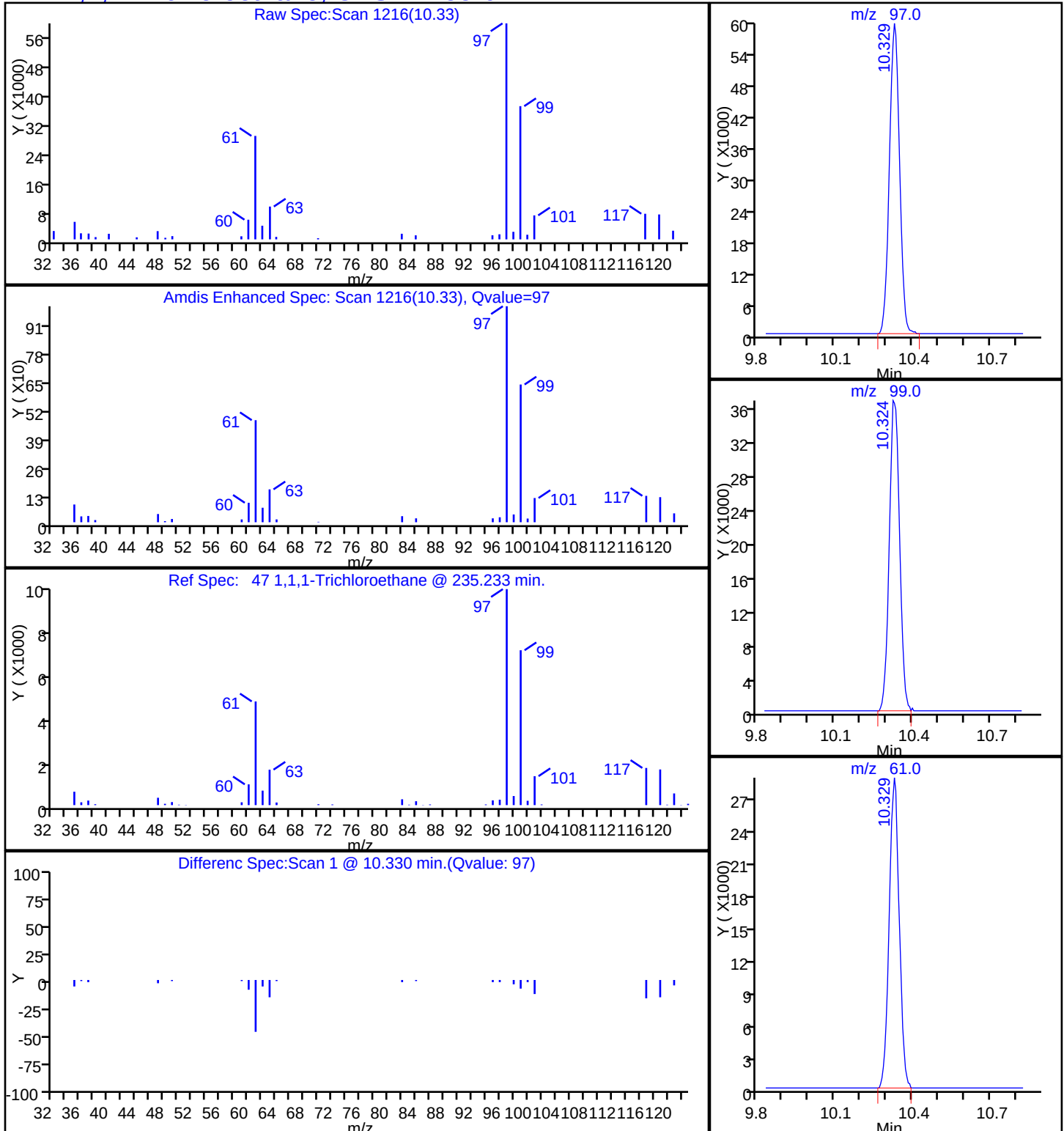
Dil. Factor: 1.5000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

47 1,1,1-Trichloroethane, CAS: 71-55-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P110.D

Injection Date: 16-Nov-2016 00:05:30

Instrument ID: MJ

Lims ID: 140-6336-A-10

Lab Sample ID: 140-6336-10

Client ID: OVP-8

Operator ID: 7126

ALS Bottle#: 10

Worklist Smp#: 18

Purge Vol: 500.000 mL

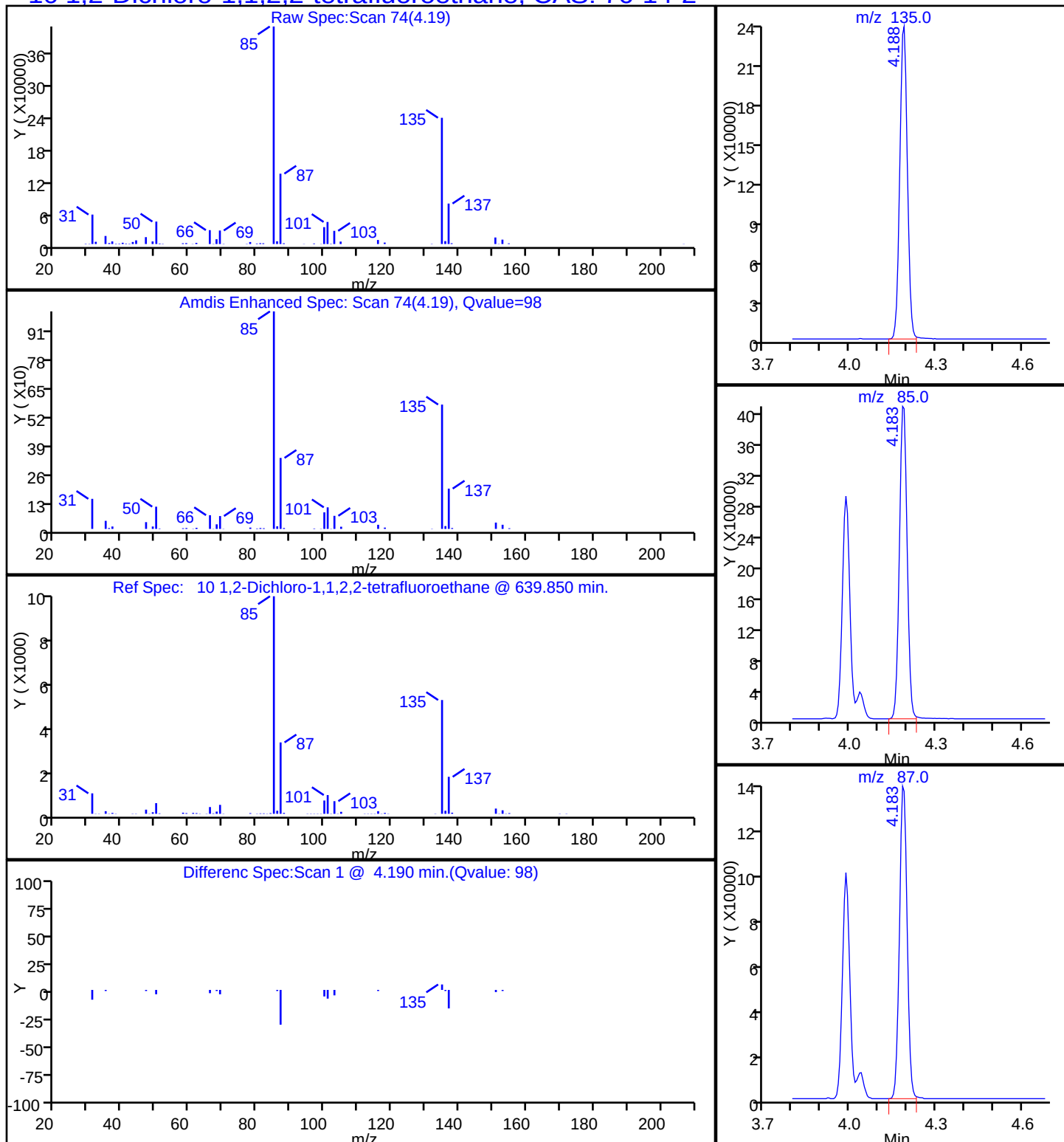
Dil. Factor: 1.5000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

10 1,2-Dichloro-1,1,2,2-tetrafluoroethane, CAS: 76-14-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P110.D

Injection Date: 16-Nov-2016 00:05:30

Instrument ID: MJ

Lims ID: 140-6336-A-10

Lab Sample ID: 140-6336-10

Client ID: OVP-8

Operator ID: 7126

ALS Bottle#: 10

Worklist Smp#: 18

Purge Vol: 500.000 mL

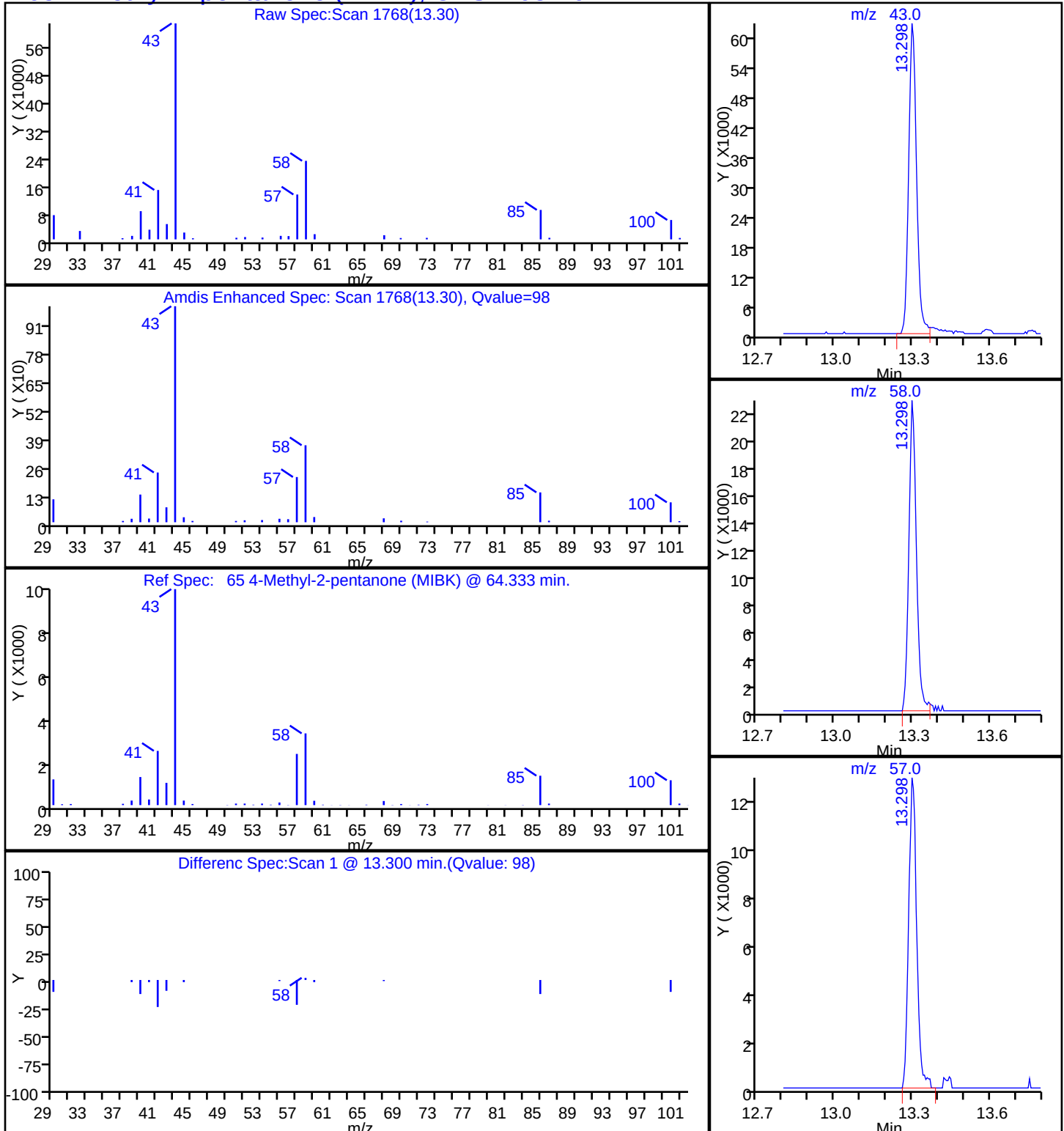
Dil. Factor: 1.5000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

65 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P110.D

Injection Date: 16-Nov-2016 00:05:30

Instrument ID: MJ

Lims ID: 140-6336-A-10

Lab Sample ID: 140-6336-10

Client ID: OVP-8

Operator ID: 7126

ALS Bottle#: 10

Worklist Smp#: 18

Purge Vol: 500.000 mL

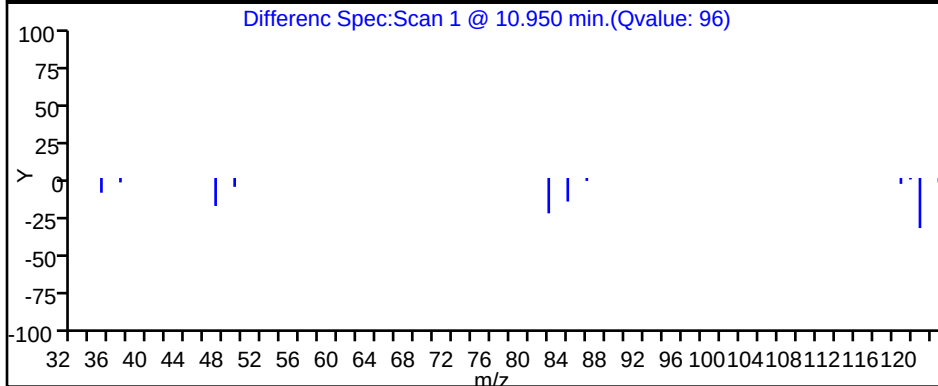
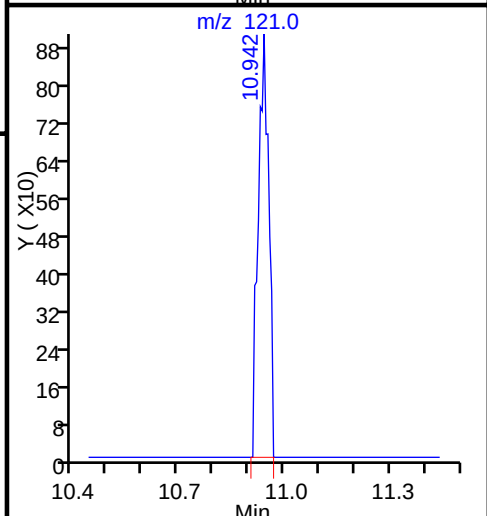
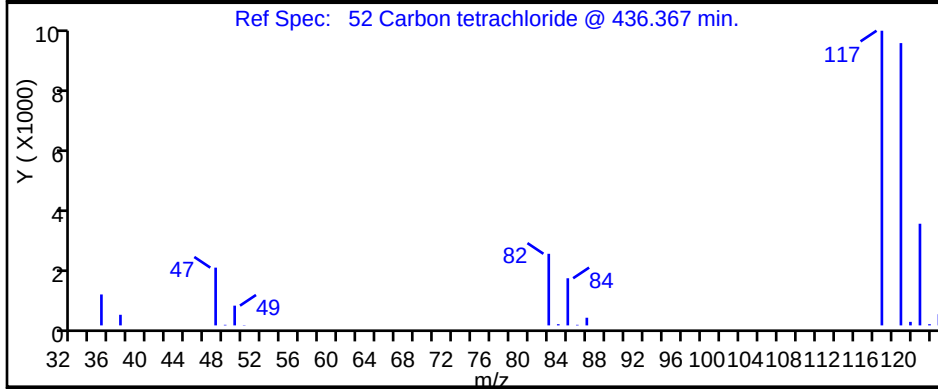
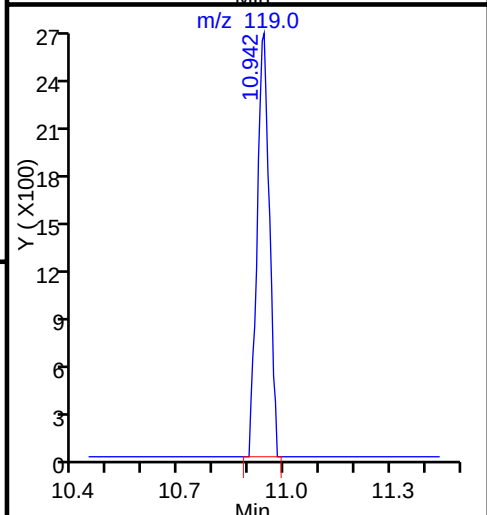
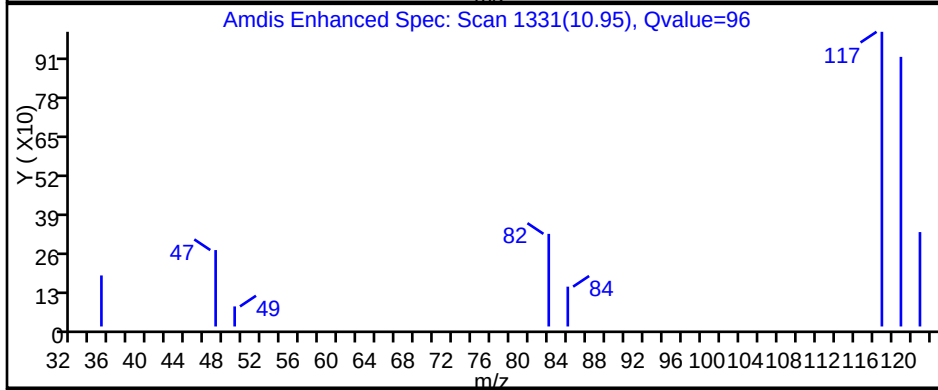
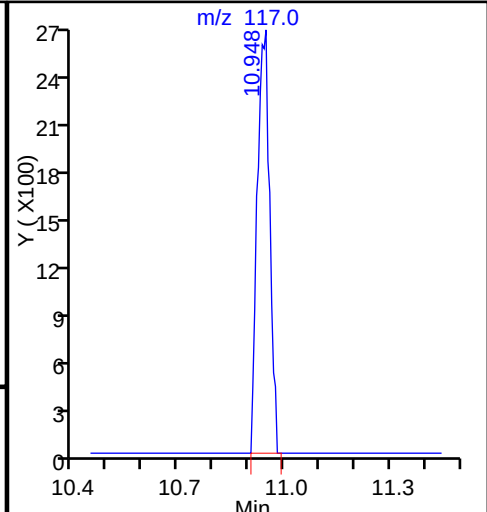
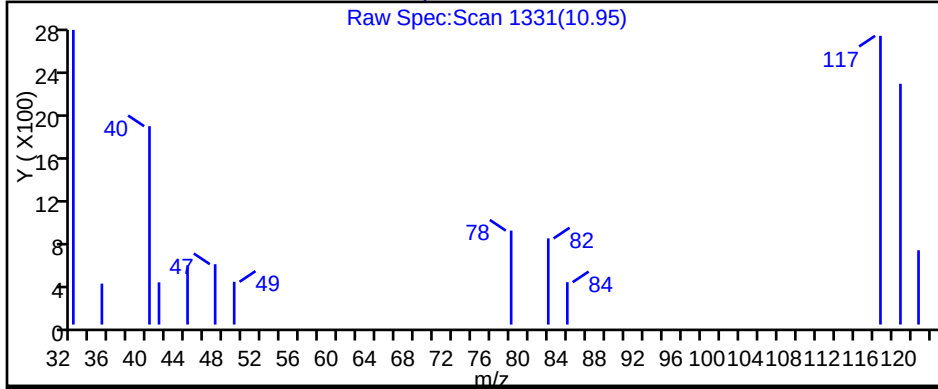
Dil. Factor: 1.5000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P110.D

Injection Date: 16-Nov-2016 00:05:30

Instrument ID: MJ

Lims ID: 140-6336-A-10

Lab Sample ID: 140-6336-10

Client ID: OVP-8

Operator ID: 7126

ALS Bottle#: 10

Worklist Smp#: 18

Purge Vol: 500.000 mL

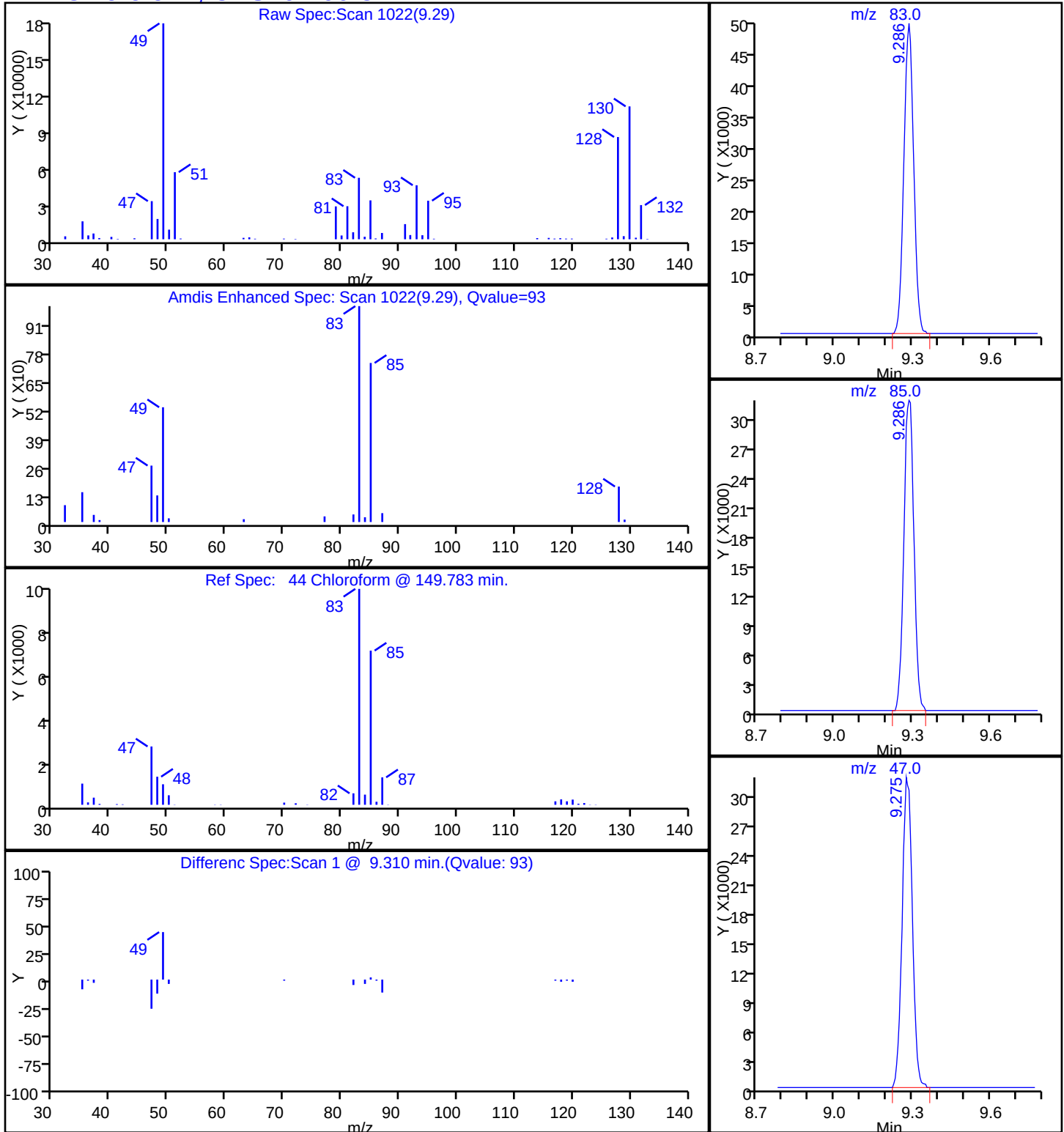
Dil. Factor: 1.5000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P110.D

Injection Date: 16-Nov-2016 00:05:30

Instrument ID: MJ

Lims ID: 140-6336-A-10

Lab Sample ID: 140-6336-10

Client ID: OVP-8

Operator ID: 7126

ALS Bottle#: 10

Worklist Smp#: 18

Purge Vol: 500.000 mL

Dil. Factor: 1.5000

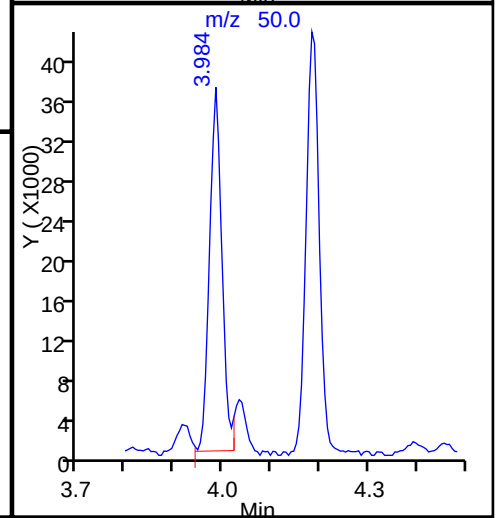
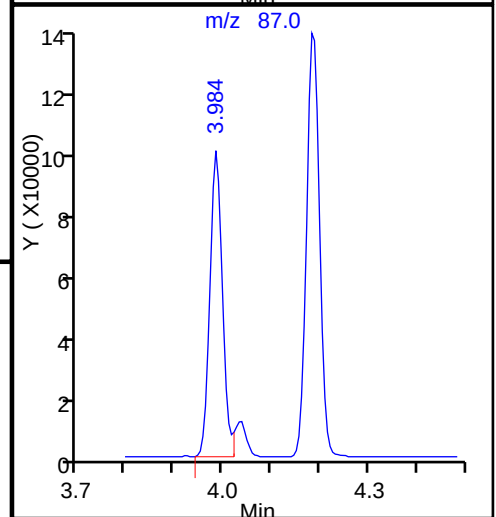
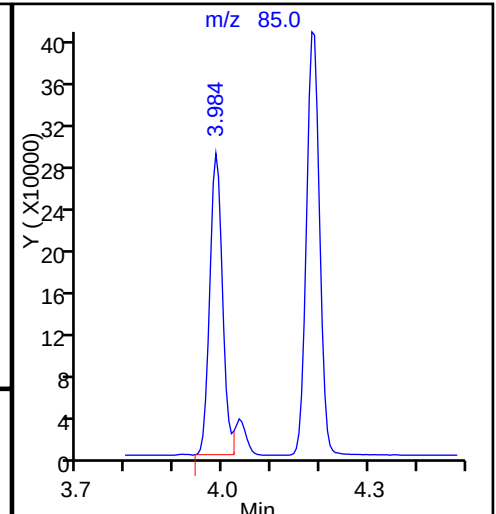
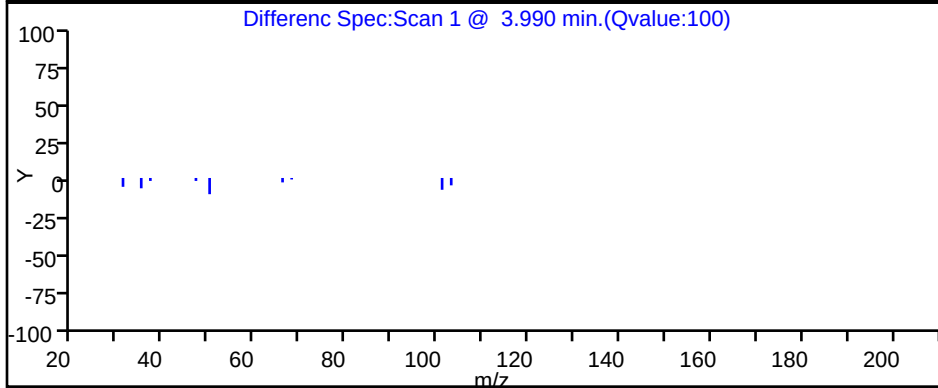
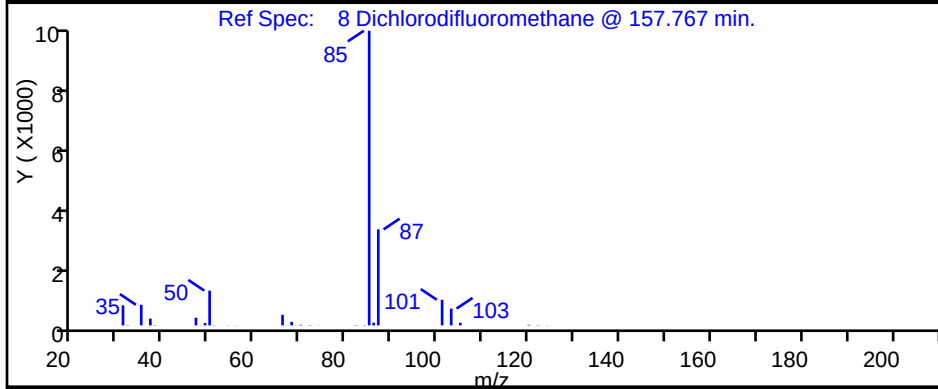
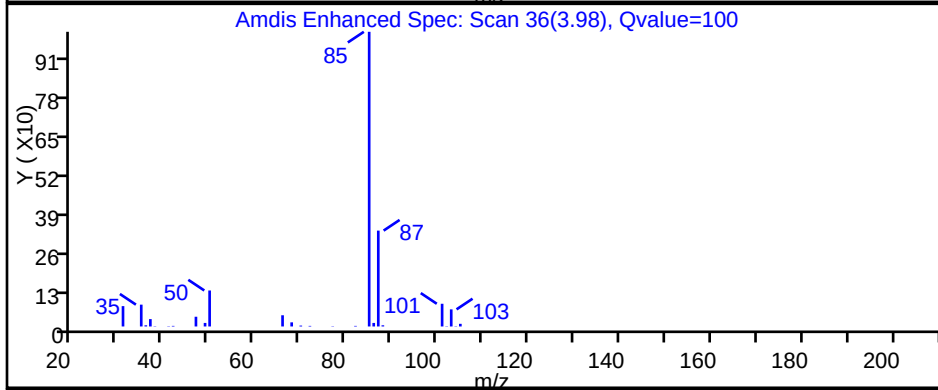
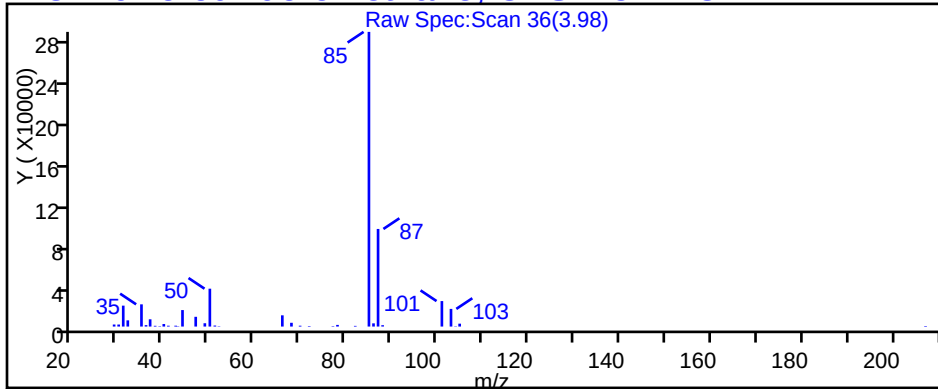
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P110.D

Injection Date: 16-Nov-2016 00:05:30

Instrument ID: MJ

Lims ID: 140-6336-A-10

Lab Sample ID: 140-6336-10

Client ID: OVP-8

Operator ID: 7126

ALS Bottle#: 10

Worklist Smp#: 18

Purge Vol: 500.000 mL

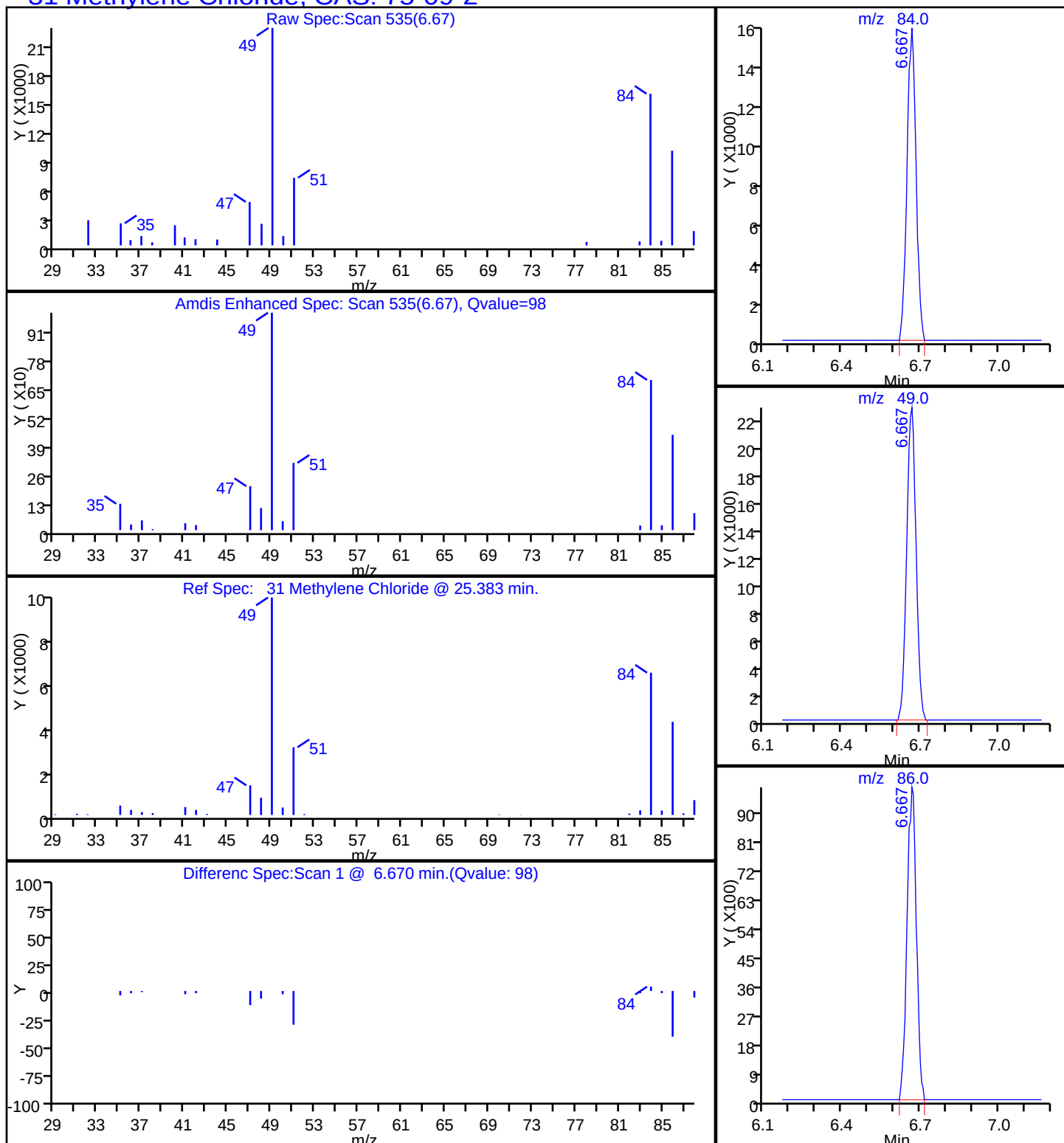
Dil. Factor: 1.5000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\\Knoxville\\ChromData\\MJ\\20161114-3625.b\\JK15P110.D

Injection Date: 16-Nov-2016 00:05:30

Instrument ID: MJ

Lims ID: 140-6336-A-10

Lab Sample ID: 140-6336-10

Client ID: OVP-8

Operator ID: 7126

ALS Bottle#: 10

Worklist Smp#: 18

Purge Vol: 500.000 mL

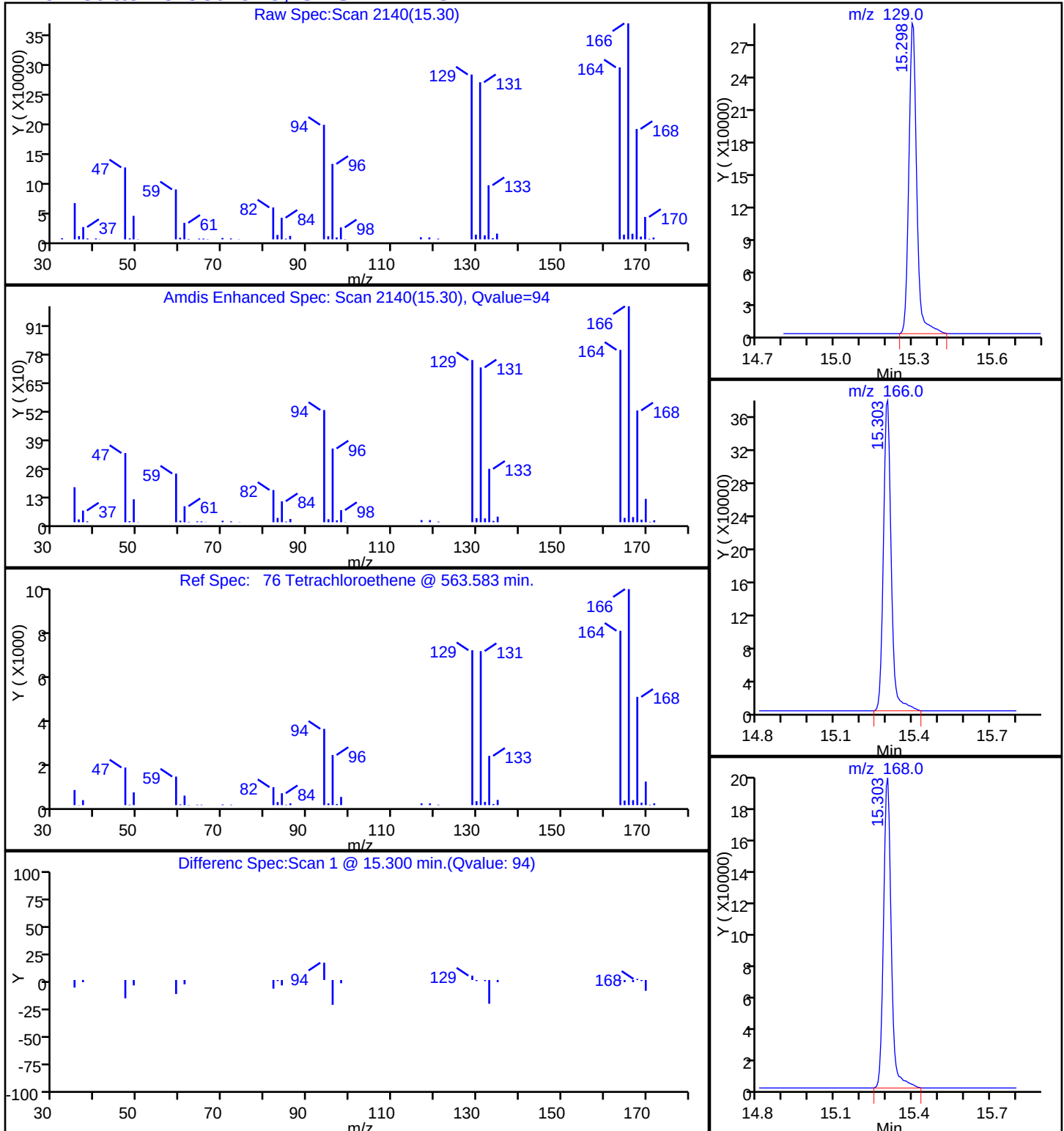
Dil. Factor: 1.5000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

76 Tetrachloroethene, CAS: 127-18-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P110.D

Injection Date: 16-Nov-2016 00:05:30

Instrument ID: MJ

Lims ID: 140-6336-A-10

Lab Sample ID: 140-6336-10

Client ID: OVP-8

Operator ID: 7126

ALS Bottle#: 10

Worklist Smp#: 18

Purge Vol: 500.000 mL

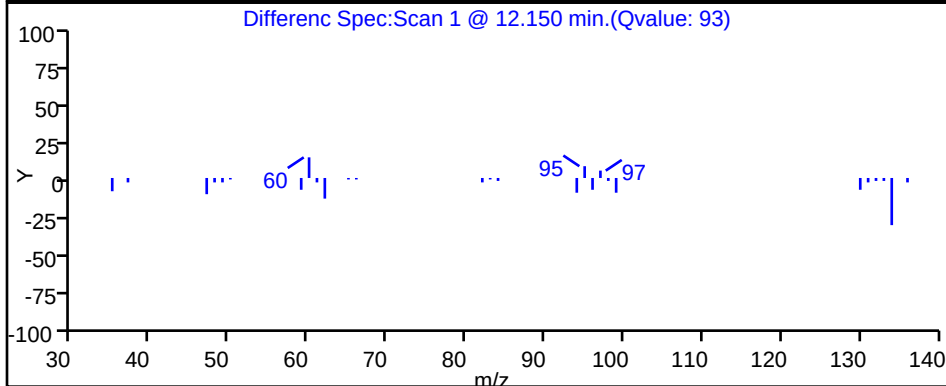
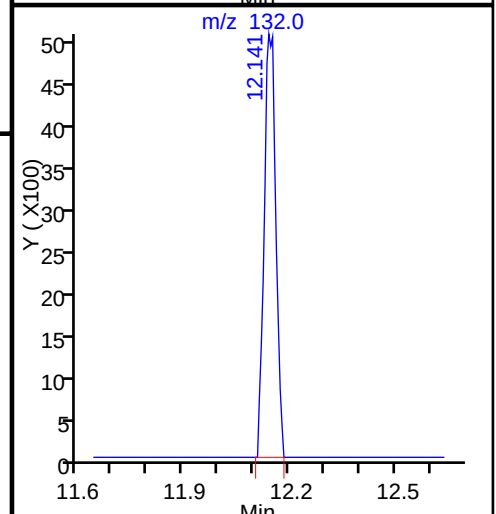
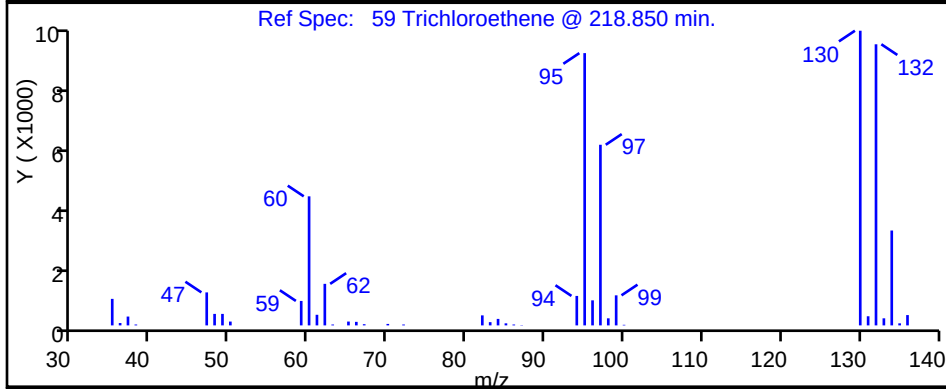
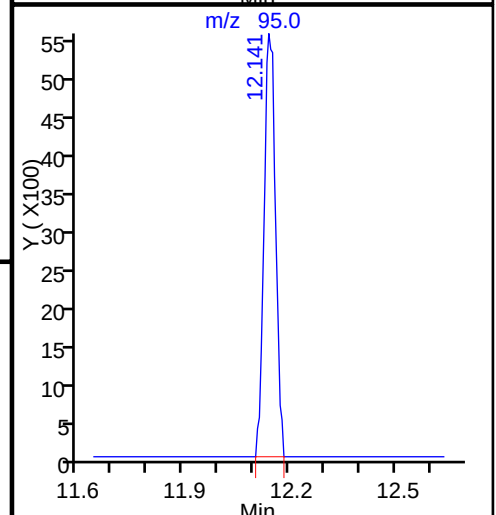
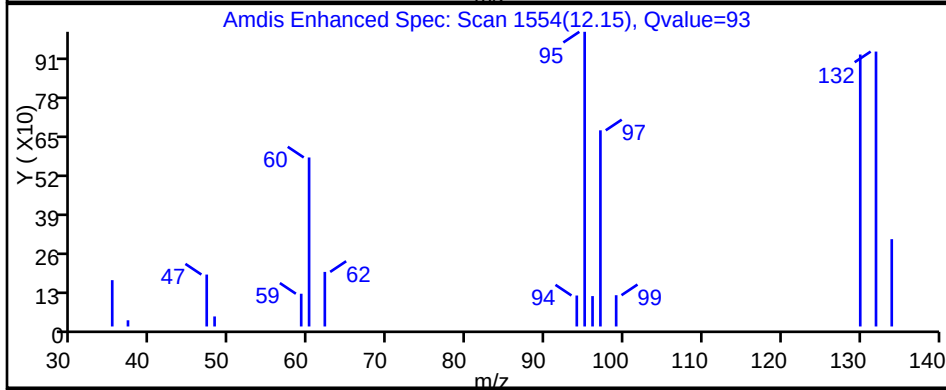
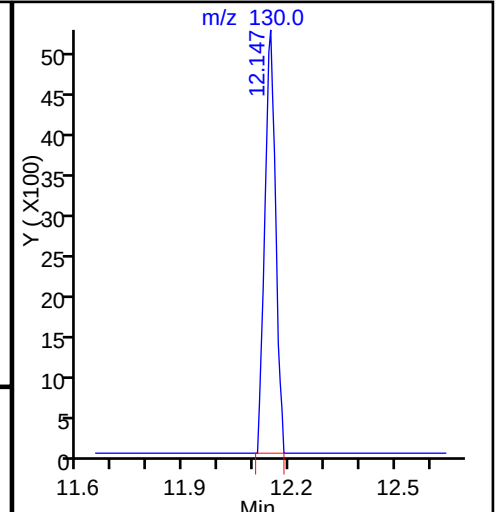
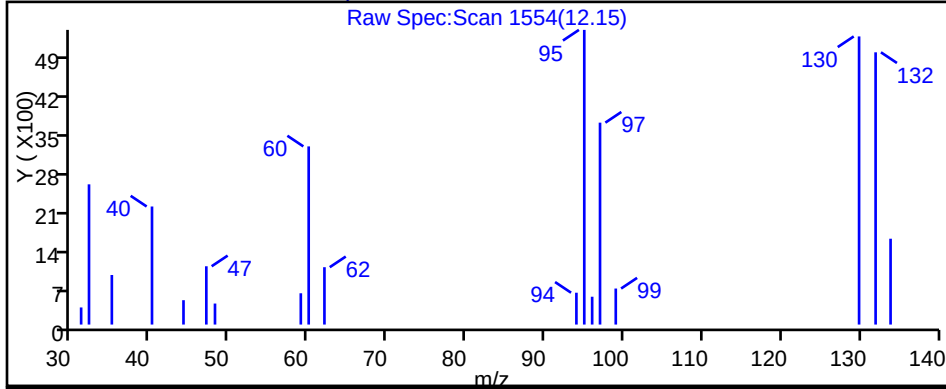
Dil. Factor: 1.5000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

59 Trichloroethene, CAS: 79-01-6

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-4 Lab Sample ID: 140-6336-11
 Matrix: Air Lab File ID: JK15P111.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 10:35
 Sample wt/vol: 450 (mL) Date Analyzed: 11/16/2016 01:00
 Soil Aliquot Vol: _____ Dilution Factor: 1.8
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	4.0		0.16	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.16	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.16	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.16	
75-34-3	1,1-Dichloroethane	98.96	ND		0.16	
75-35-4	1,1-Dichloroethene	96.94	ND		0.16	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.16	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.16	
106-93-4	1,2-Dibromoethane	187.87	ND		0.16	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.16	
107-06-2	1,2-Dichloroethane	98.96	ND		0.16	
78-87-5	1,2-Dichloropropane	112.99	ND		0.16	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	8.8		0.16	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.16	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.16	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.16	
123-91-1	1,4-Dioxane	88.11	ND		0.40	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.40	
78-93-3	2-Butanone	72.11	1.1		0.64	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	4.4		0.40	
71-43-2	Benzene	78.11	ND		0.16	
100-44-7	Benzyl chloride	126.58	ND		0.32	
75-27-4	Bromodichloromethane	163.83	ND		0.16	
75-25-2	Bromoform	252.75	ND		0.16	
74-83-9	Bromomethane	94.94	ND		0.16	
56-23-5	Carbon tetrachloride	153.81	ND		0.080	
108-90-7	Chlorobenzene	112.56	ND		0.16	
75-00-3	Chloroethane	64.52	ND		0.16	
67-66-3	Chloroform	119.38	0.33		0.16	
74-87-3	Chloromethane	50.49	ND		0.40	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.16	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.16	
110-82-7	Cyclohexane	84.16	ND		0.40	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-4 Lab Sample ID: 140-6336-11
 Matrix: Air Lab File ID: JK15P111.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 10:35
 Sample wt/vol: 450 (mL) Date Analyzed: 11/16/2016 01:00
 Soil Aliquot Vol: _____ Dilution Factor: 1.8
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.16	
75-71-8	Dichlorodifluoromethane	120.91	13		0.16	
64-17-5	Ethanol	46.07	5.2		4.0	
100-41-4	Ethylbenzene	106.17	ND		0.16	
87-68-3	Hexachlorobutadiene	260.76	ND		0.16	
110-54-3	Hexane	86.17	0.64		0.40	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.32	
75-09-2	Methylene Chloride	84.93	2.3		0.40	
179601-23-1	m-Xylene & p-Xylene	106.17	0.32		0.16	
95-47-6	o-Xylene	106.17	ND		0.16	
100-42-5	Styrene	104.15	ND		0.16	
75-65-0	t-Butyl alcohol	74.12	ND		0.64	
127-18-4	Tetrachloroethene	165.83	14		0.16	
108-88-3	Toluene	92.14	0.53		0.24	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.16	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.16	
79-01-6	Trichloroethene	131.39	0.34		0.080	
75-69-4	Trichlorofluoromethane	137.37	0.42		0.16	
75-01-4	Vinyl chloride	62.50	ND		0.080	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-4 Lab Sample ID: 140-6336-11
 Matrix: Air Lab File ID: JK15P111.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 10:35
 Sample wt/vol: 450 (mL) Date Analyzed: 11/16/2016 01:00
 Soil Aliquot Vol: _____ Dilution Factor: 1.8
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	22		0.87	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		1.1	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.87	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		1.2	
75-34-3	1,1-Dichloroethane	98.96	ND		0.65	
75-35-4	1,1-Dichloroethene	96.94	ND		0.63	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		1.2	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.79	
106-93-4	1,2-Dibromoethane	187.87	ND		1.2	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.96	
107-06-2	1,2-Dichloroethane	98.96	ND		0.65	
78-87-5	1,2-Dichloropropane	112.99	ND		0.74	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	62		1.1	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.79	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.96	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.96	
123-91-1	1,4-Dioxane	88.11	ND		1.4	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		1.9	
78-93-3	2-Butanone	72.11	3.4		1.9	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	18		1.6	
71-43-2	Benzene	78.11	ND		0.51	
100-44-7	Benzyl chloride	126.58	ND		1.7	
75-27-4	Bromodichloromethane	163.83	ND		1.1	
75-25-2	Bromoform	252.75	ND		1.7	
74-83-9	Bromomethane	94.94	ND		0.62	
56-23-5	Carbon tetrachloride	153.81	ND		0.50	
108-90-7	Chlorobenzene	112.56	ND		0.74	
75-00-3	Chloroethane	64.52	ND		0.42	
67-66-3	Chloroform	119.38	1.6		0.78	
74-87-3	Chloromethane	50.49	ND		0.83	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.63	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.73	
110-82-7	Cyclohexane	84.16	ND		1.4	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-4 Lab Sample ID: 140-6336-11
 Matrix: Air Lab File ID: JK15P111.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 10:35
 Sample wt/vol: 450 (mL) Date Analyzed: 11/16/2016 01:00
 Soil Aliquot Vol: _____ Dilution Factor: 1.8
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		1.4	
75-71-8	Dichlorodifluoromethane	120.91	63		0.79	
64-17-5	Ethanol	46.07	9.7		7.5	
100-41-4	Ethylbenzene	106.17	ND		0.69	
87-68-3	Hexachlorobutadiene	260.76	ND		1.7	
110-54-3	Hexane	86.17	2.3		1.4	
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.2	
75-09-2	Methylene Chloride	84.93	7.8		1.4	
179601-23-1	m-Xylene & p-Xylene	106.17	1.4		0.69	
95-47-6	o-Xylene	106.17	ND		0.69	
100-42-5	Styrene	104.15	ND		0.68	
75-65-0	t-Butyl alcohol	74.12	ND		1.9	
127-18-4	Tetrachloroethene	165.83	94		1.1	
108-88-3	Toluene	92.14	2.0		0.90	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.63	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.73	
79-01-6	Trichloroethene	131.39	1.8		0.43	
75-69-4	Trichlorofluoromethane	137.37	2.4		0.90	
75-01-4	Vinyl chloride	62.50	ND		0.20	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	102		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P111.D
 Lims ID: 140-6336-A-11
 Client ID: OVP-4
 Sample Type: Client
 Inject. Date: 16-Nov-2016 01:00:30 ALS Bottle#: 11 Worklist Smp#: 19
 Purge Vol: 500.000 mL Dil. Factor: 1.8000
 Sample Info: 140-0003625-019
 Misc. Info.: 140-6336-a-11@1.80
 Operator ID: 7126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:08:23

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.278	9.281	-0.003	98	248692	4.00	
* 2 1,4-Difluorobenzene	114	11.440	11.443	-0.003	96	1150488	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.118	16.121	-0.003	90	933072	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.748	17.745	0.003	87	574916	4.09	
8 Dichlorodifluoromethane	85	3.982	3.990	-0.008	100	1553920	6.35	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.186	4.189	-0.003	97	569921	4.42	
17 Ethanol	31	5.057	5.060	-0.003	98	61203	2.58	
20 Trichlorofluoromethane	101	5.563	5.565	-0.002	100	45328	0.2124	
28 2-Methyl-2-propanol	59	6.407	6.404	0.003	96	34856	0.2886	
30 1,1,2-Trichloro-1,2,2-trif	101	6.482	6.485	-0.003	92	5177	0.0313	
31 Methylene Chloride	84	6.665	6.673	-0.008	98	89145	1.13	
39 2-Butanone (MEK)	72	8.504	8.507	-0.003	96	15055	0.5703	
40 Hexane	56	8.515	8.523	-0.008	70	20137	0.3210	
44 Chloroform	83	9.284	9.292	-0.008	94	25606	0.1638	
47 1,1,1-Trichloroethane	97	10.327	10.335	-0.008	97	319876	1.99	
50 Cyclohexane	69	10.902	10.921	-0.019	71	2013	0.0549	
51 Benzene	78	10.913	10.921	-0.008	95	9427	0.0443	
52 Carbon tetrachloride	117	10.935	10.942	-0.007	88	2689	0.0165	
56 Isooctane	57	11.650	11.652	-0.002	95	23574	0.0686	
59 Trichloroethene	130	12.144	12.147	-0.003	92	14321	0.1676	
65 4-Methyl-2-pentanone (MIBK	43	13.295	13.298	-0.003	98	291393	2.21	
68 Toluene	91	14.166	14.169	-0.003	93	54494	0.2664	
76 Tetrachloroethene	129	15.301	15.304	-0.003	94	530343	6.92	
79 Ethylbenzene	91	16.452	16.449	0.003	96	9915	0.0439	
81 m-Xylene & p-Xylene	91	16.602	16.610	-0.008	98	26647	0.1576	
85 o-Xylene	91	17.129	17.137	-0.008	96	10215	0.0551	
96 1,2,4-Trimethylbenzene	105	18.877	18.874	0.003	97	8938	0.0526	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P111.D

Injection Date: 16-Nov-2016 01:00:30

Instrument ID: MJ

Operator ID: 7126

Lims ID: 140-6336-A-11

Lab Sample ID: 140-6336-11

Worklist Smp#: 19

Client ID: OVP-4

Purge Vol: 500.000 mL

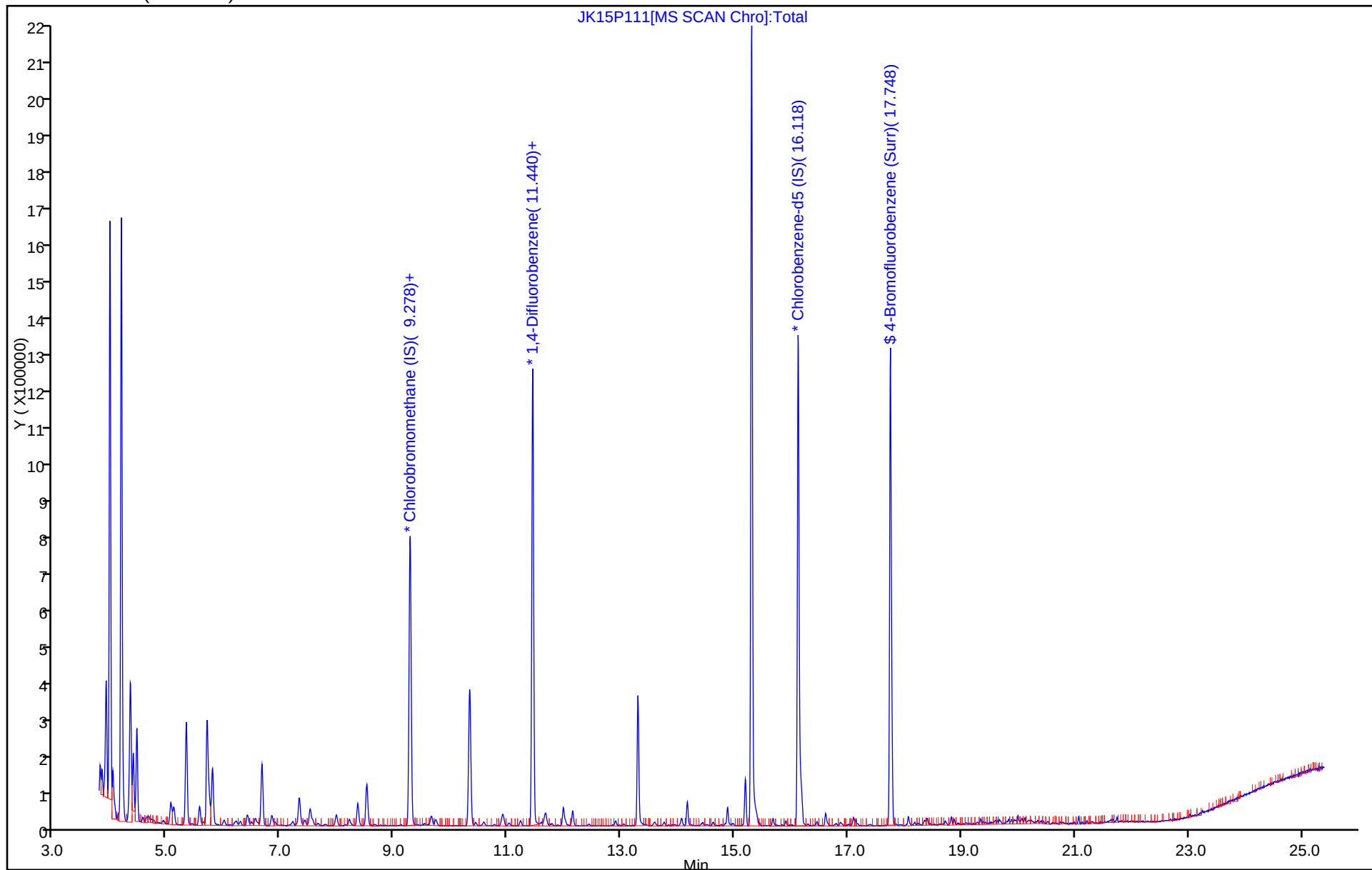
Dil. Factor: 1.8000

ALS Bottle#: 11

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P111.D
Lims ID: 140-6336-A-11
Client ID: OVP-4
Sample Type: Client
Inject. Date: 16-Nov-2016 01:00:30 ALS Bottle#: 11 Worklist Smp#: 19
Purge Vol: 500.000 mL Dil. Factor: 1.8000
Sample Info: 140-0003625-019
Misc. Info.: 140-6336-a-11@1.80
Operator ID: 7126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:08:23

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.09	102.18

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P111.D

Injection Date: 16-Nov-2016 01:00:30

Instrument ID: MJ

Lims ID: 140-6336-A-11

Lab Sample ID: 140-6336-11

Client ID: OVP-4

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 19

Purge Vol: 500.000 mL

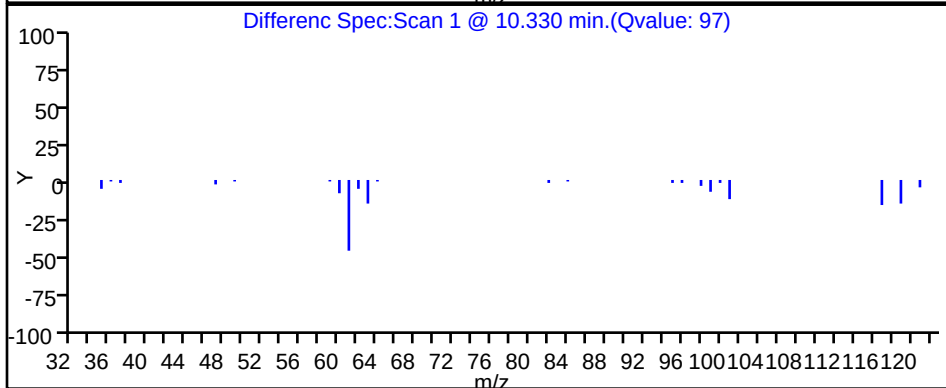
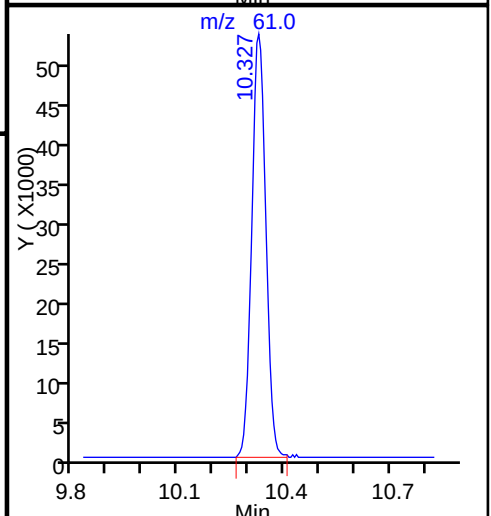
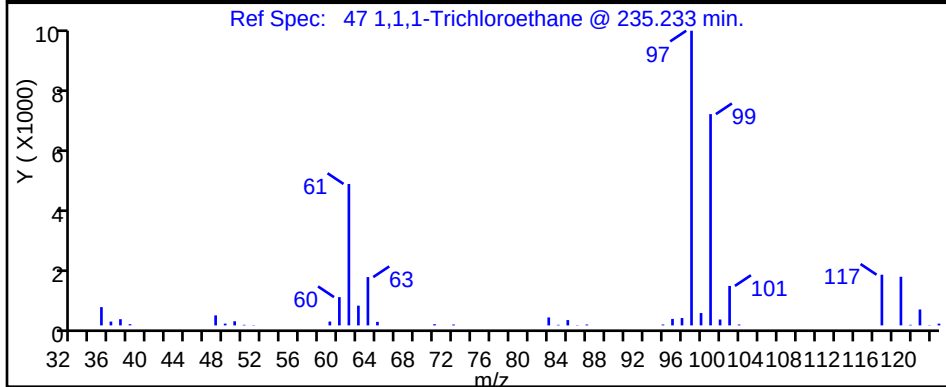
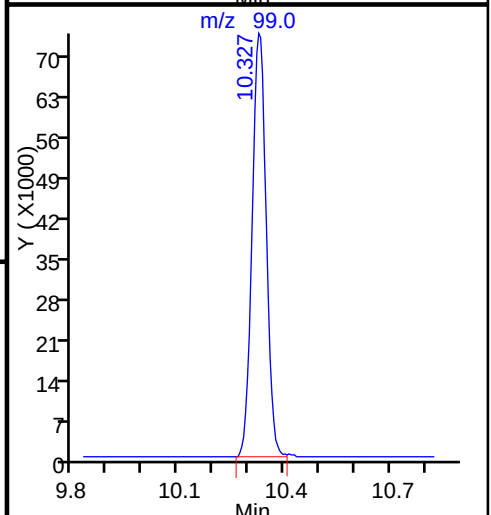
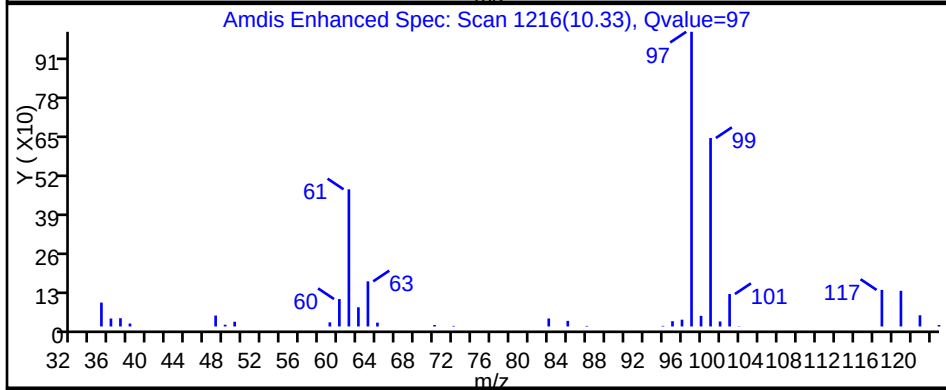
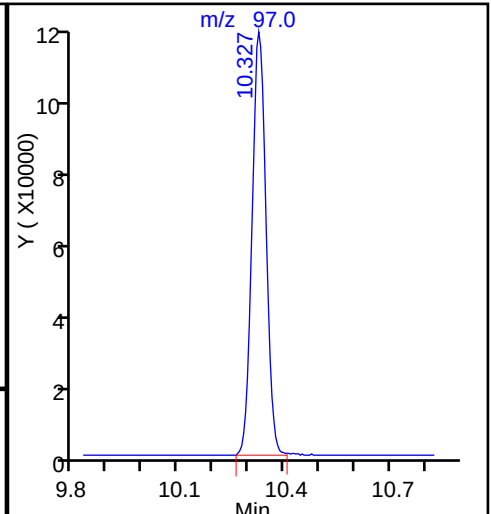
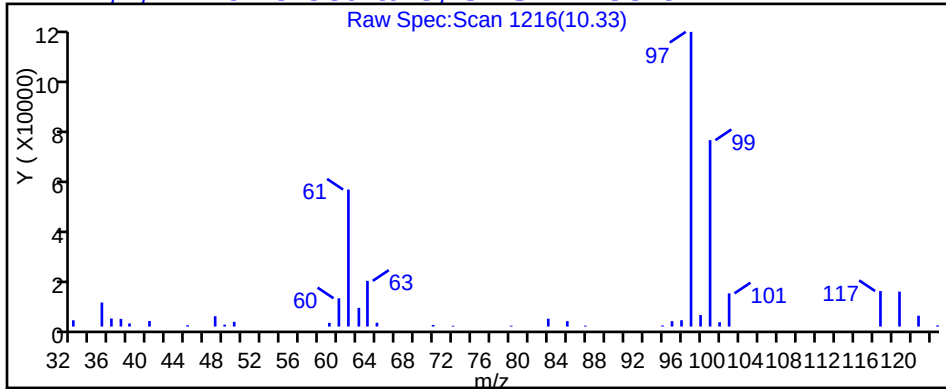
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

47 1,1,1-Trichloroethane, CAS: 71-55-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P111.D

Injection Date: 16-Nov-2016 01:00:30

Instrument ID: MJ

Lims ID: 140-6336-A-11

Lab Sample ID: 140-6336-11

Client ID: OVP-4

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 19

Purge Vol: 500.000 mL

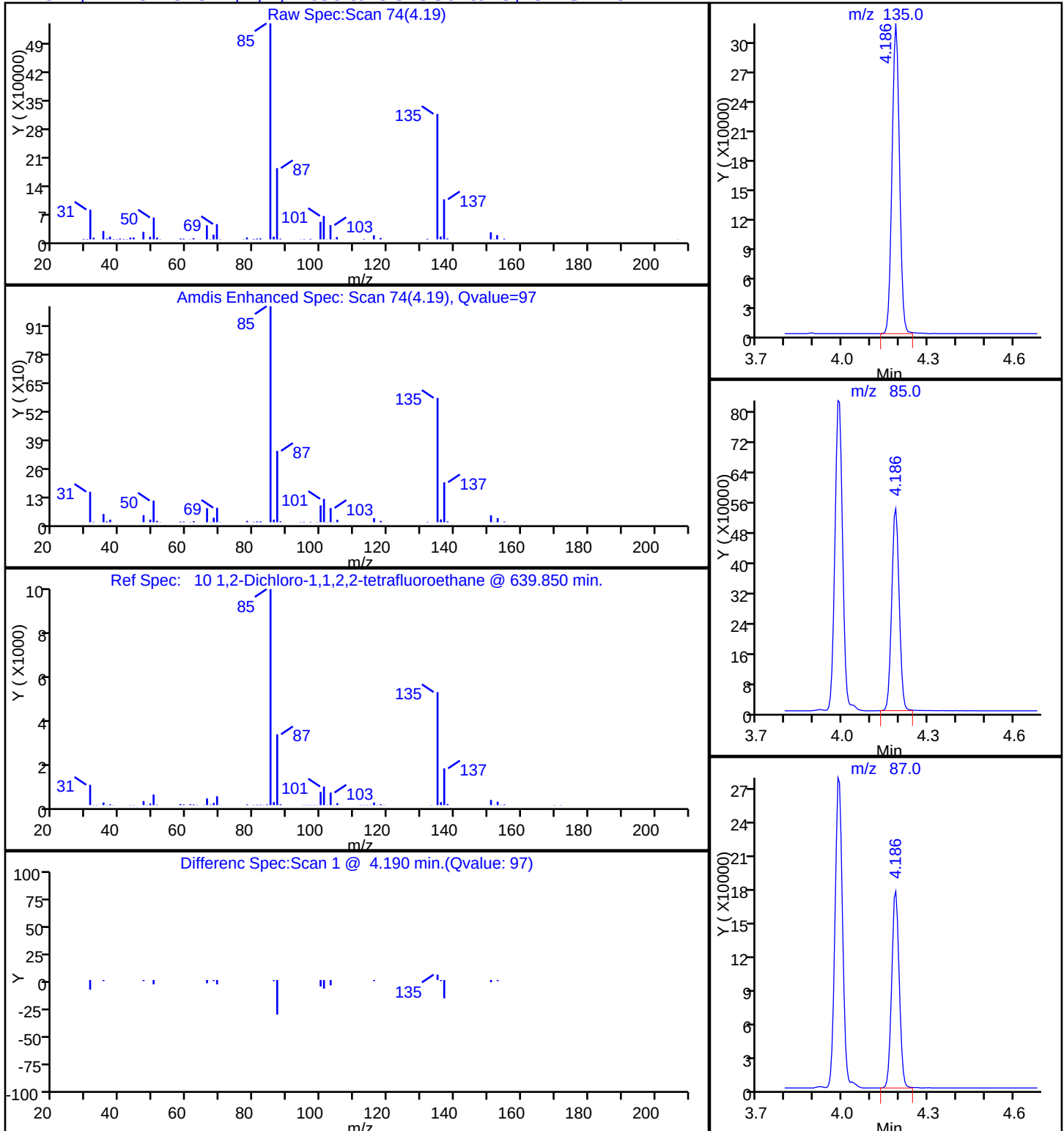
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector MS SCAN

10 1,2-Dichloro-1,1,2,2-tetrafluoroethane, CAS: 76-14-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P111.D

Injection Date: 16-Nov-2016 01:00:30

Instrument ID: MJ

Lims ID: 140-6336-A-11

Lab Sample ID: 140-6336-11

Client ID: OVP-4

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 19

Purge Vol: 500.000 mL

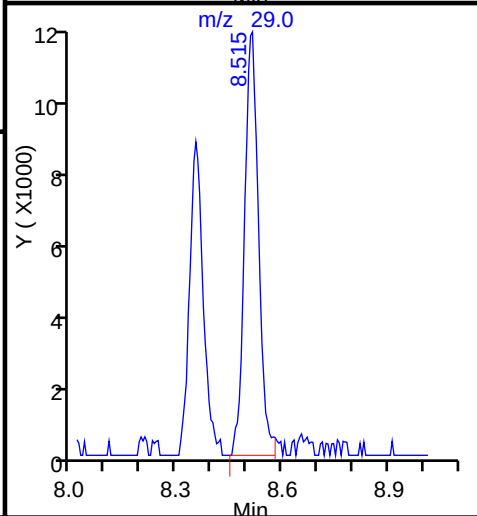
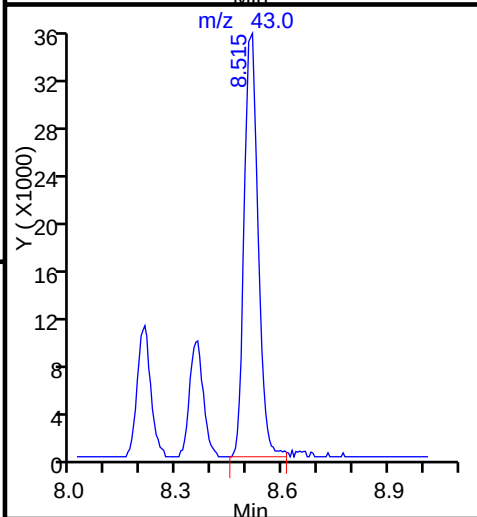
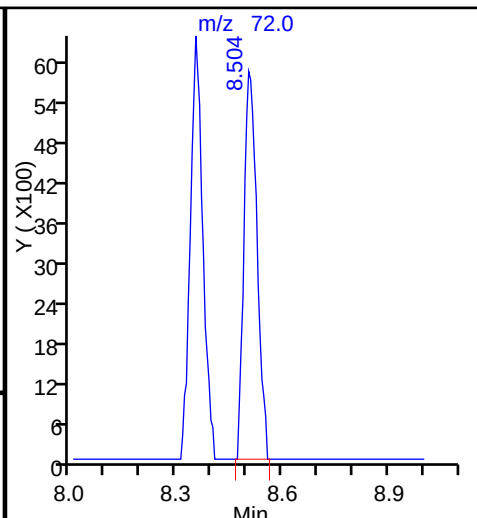
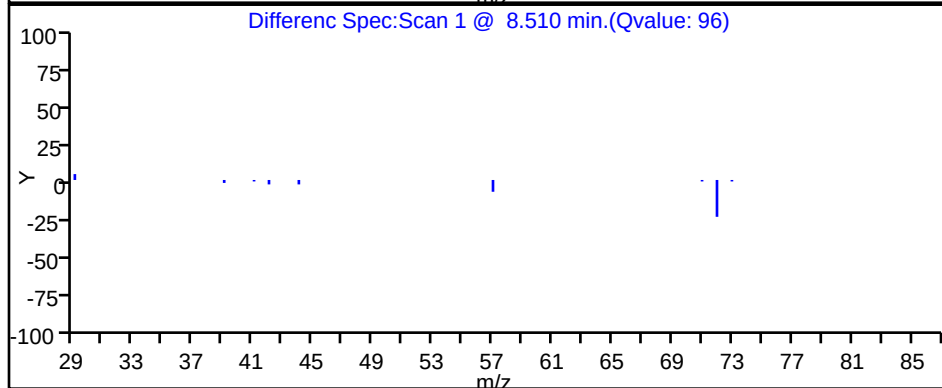
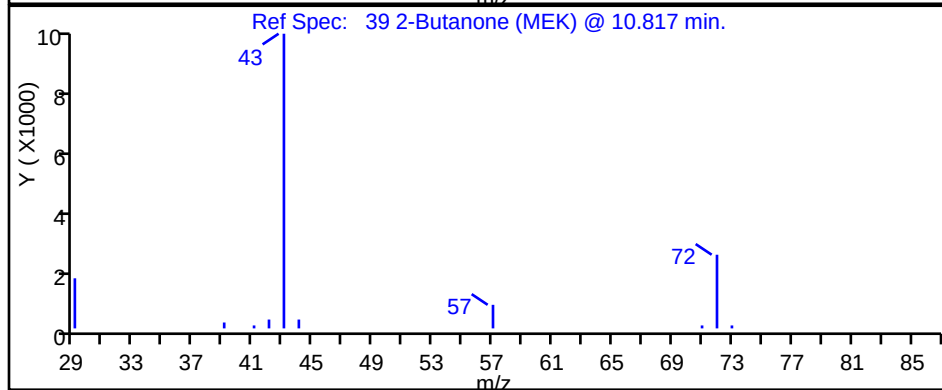
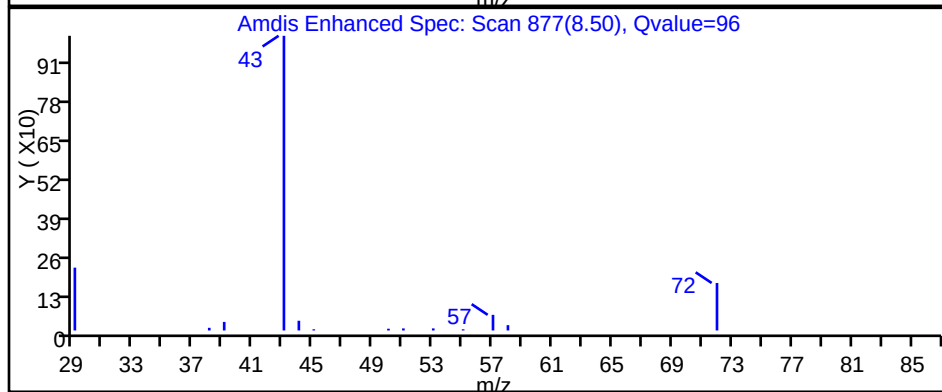
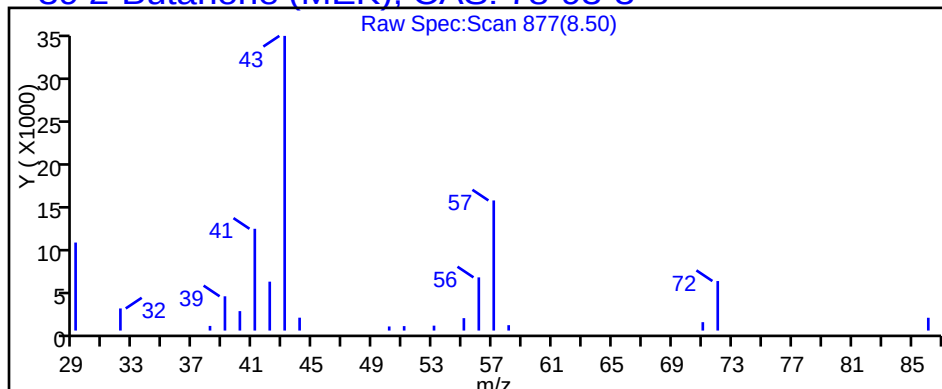
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

39 2-Butanone (MEK), CAS: 78-93-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P111.D

Injection Date: 16-Nov-2016 01:00:30

Instrument ID: MJ

Lims ID: 140-6336-A-11

Lab Sample ID: 140-6336-11

Client ID: OVP-4

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 19

Purge Vol: 500.000 mL

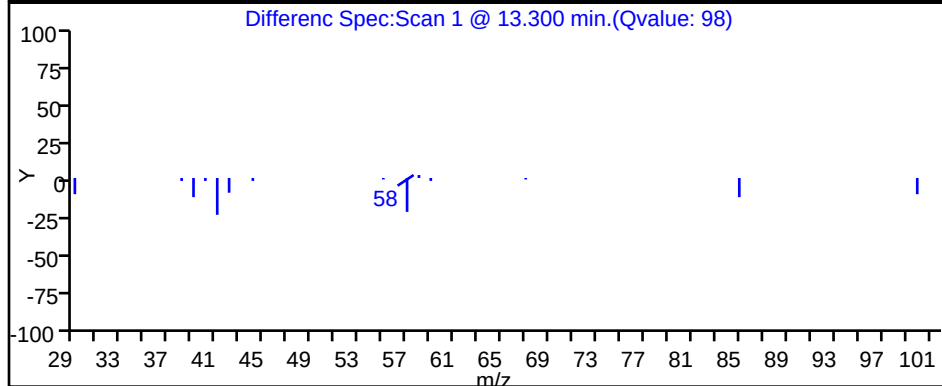
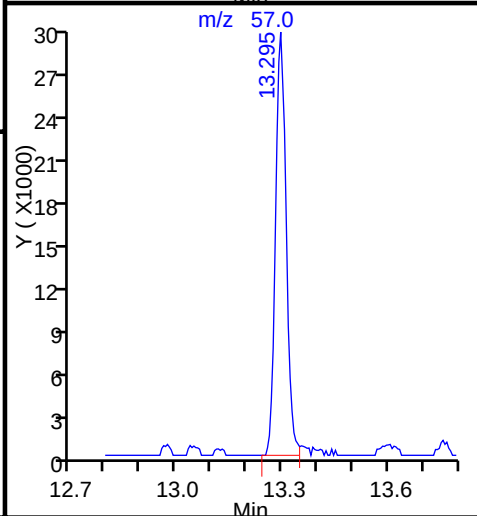
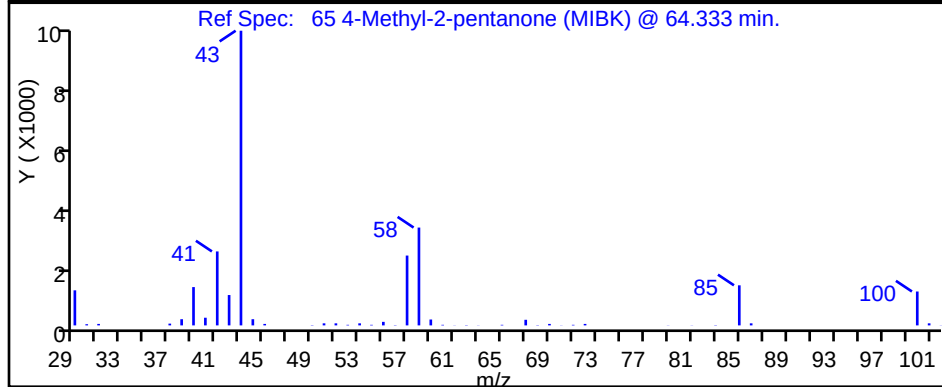
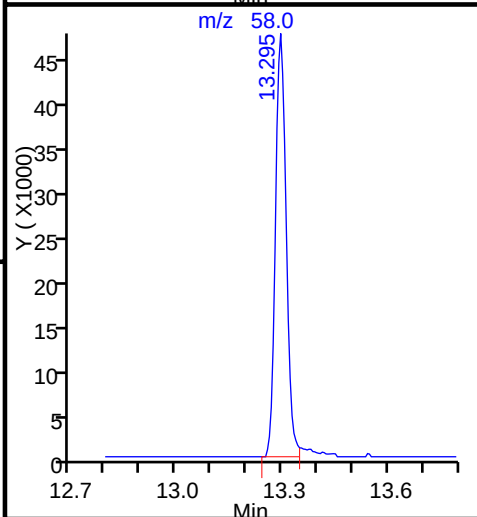
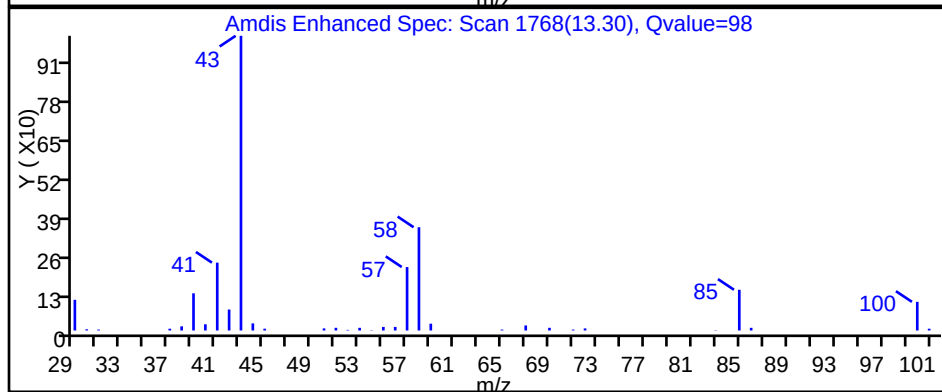
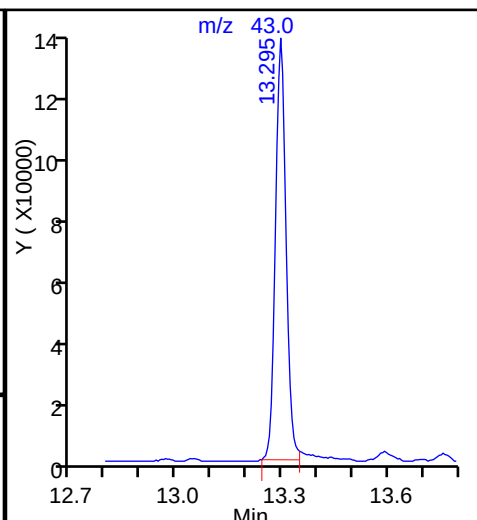
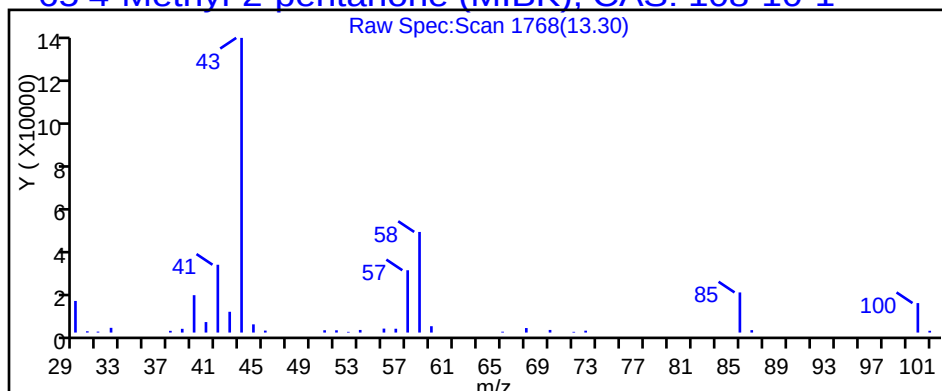
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

65 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P111.D

Injection Date: 16-Nov-2016 01:00:30

Instrument ID: MJ

Lims ID: 140-6336-A-11

Lab Sample ID: 140-6336-11

Client ID: OVP-4

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 19

Purge Vol: 500.000 mL

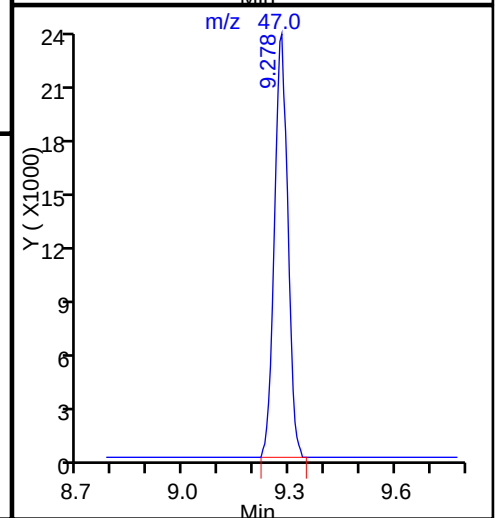
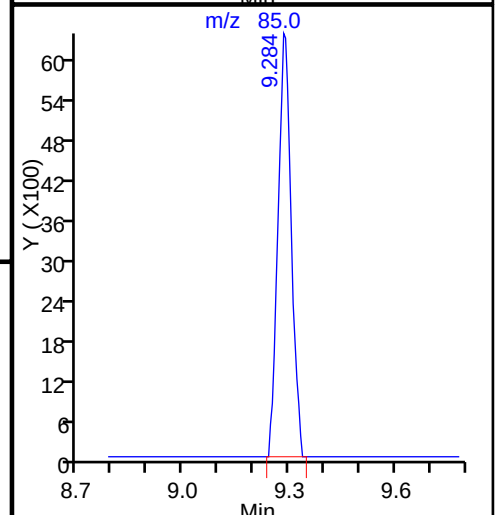
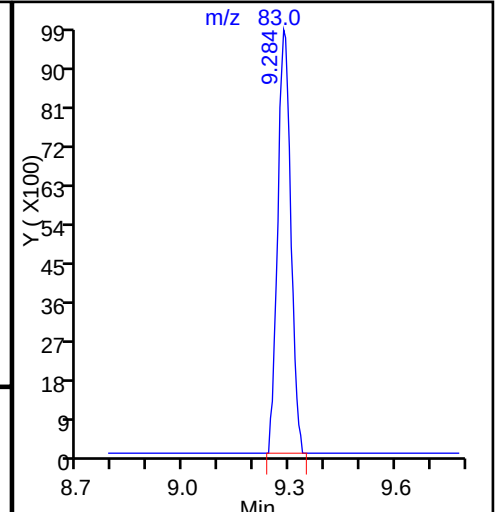
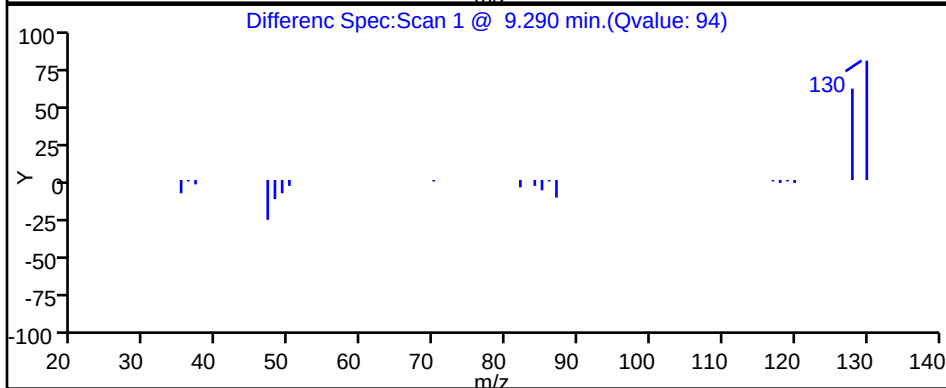
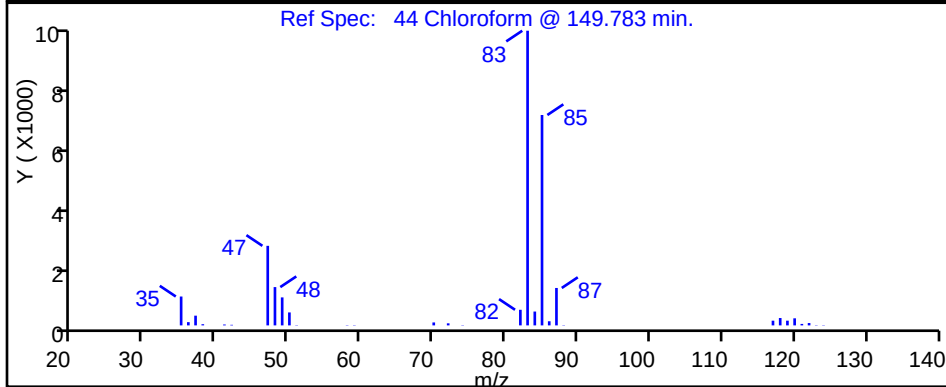
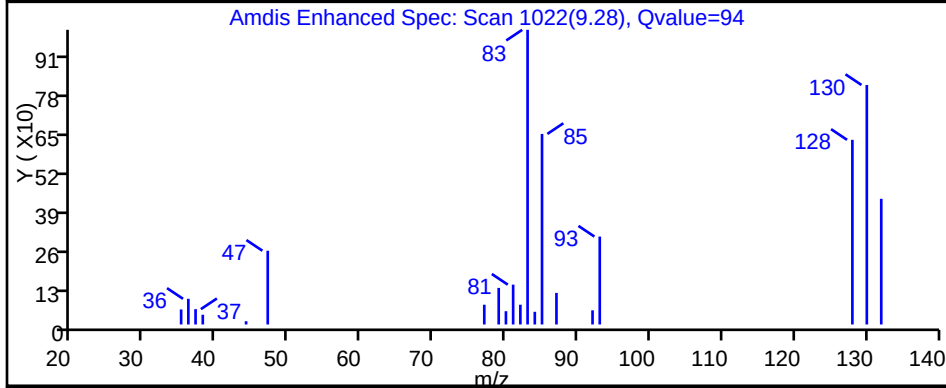
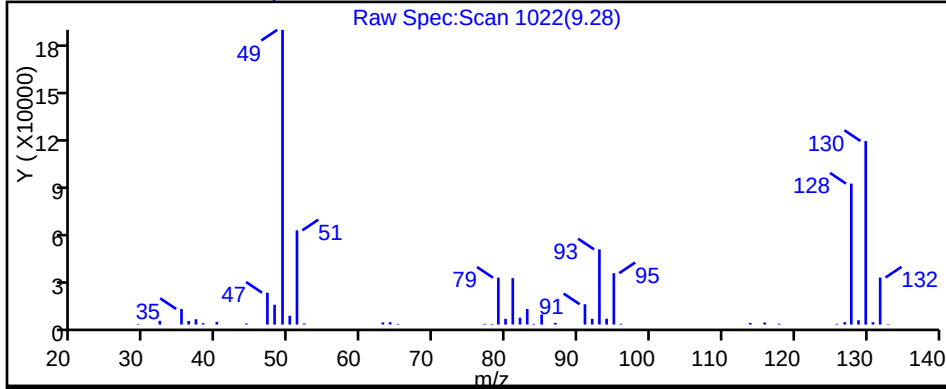
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P111.D

Injection Date: 16-Nov-2016 01:00:30

Instrument ID: MJ

Lims ID: 140-6336-A-11

Lab Sample ID: 140-6336-11

Client ID: OVP-4

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 19

Purge Vol: 500.000 mL

Dil. Factor: 1.8000

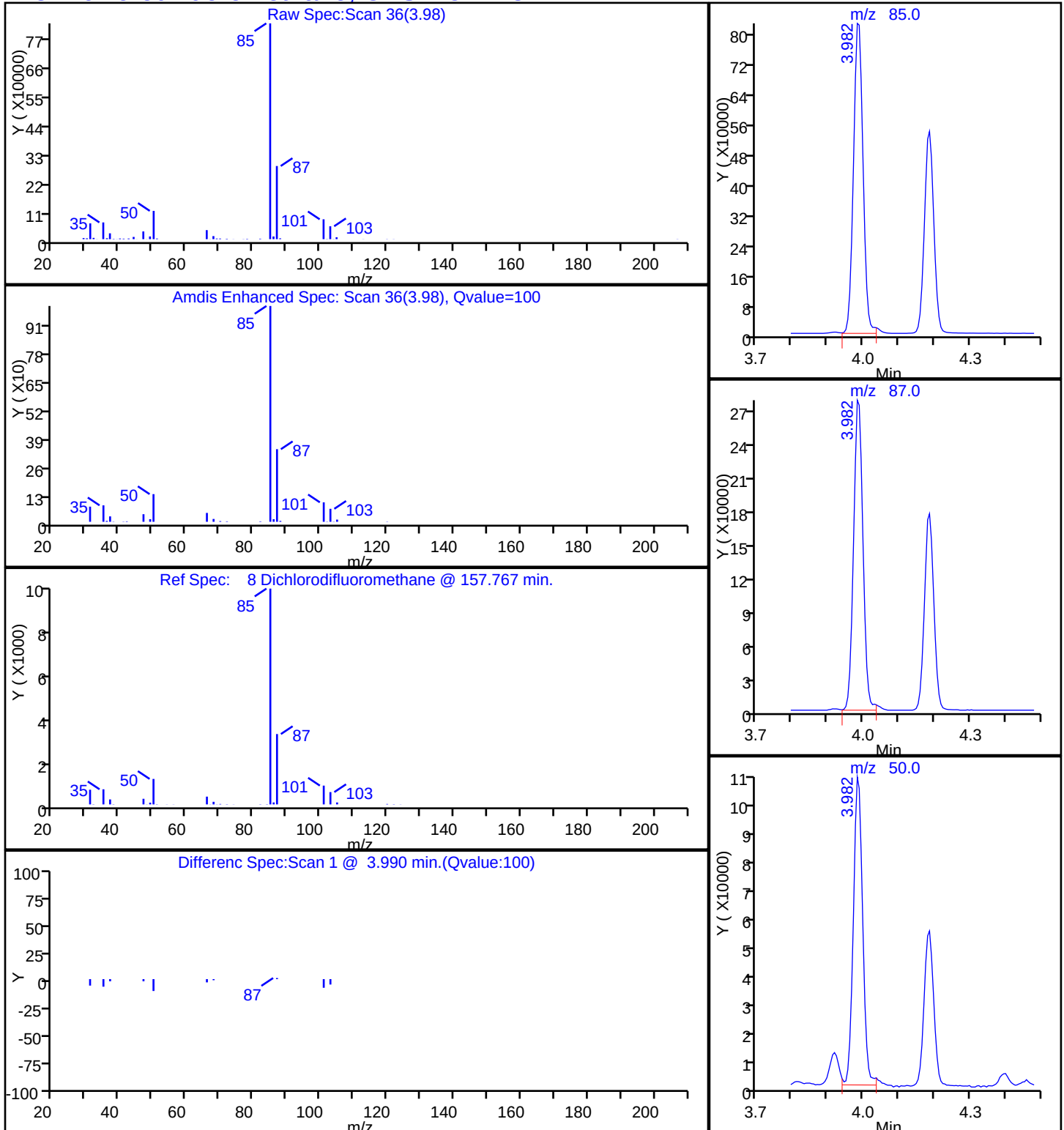
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P111.D

Injection Date: 16-Nov-2016 01:00:30

Instrument ID: MJ

Lims ID: 140-6336-A-11

Lab Sample ID: 140-6336-11

Client ID: OVP-4

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 19

Purge Vol: 500.000 mL

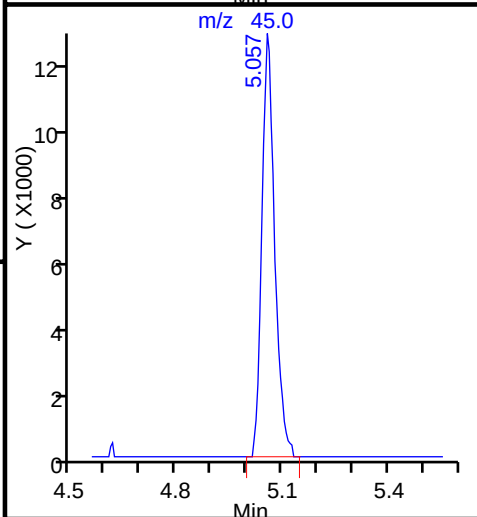
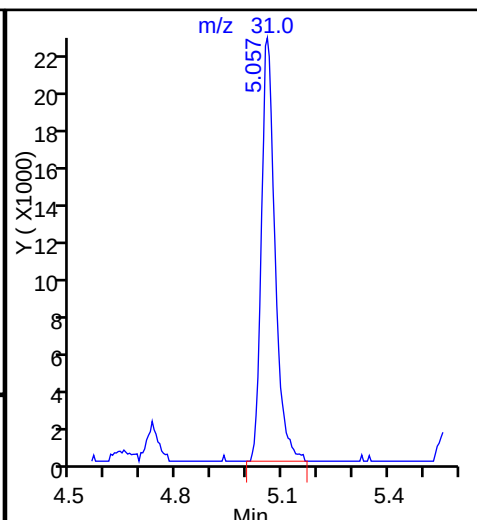
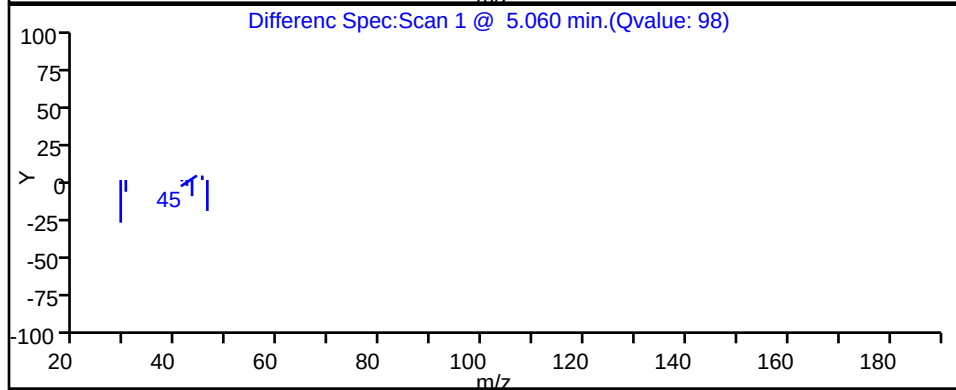
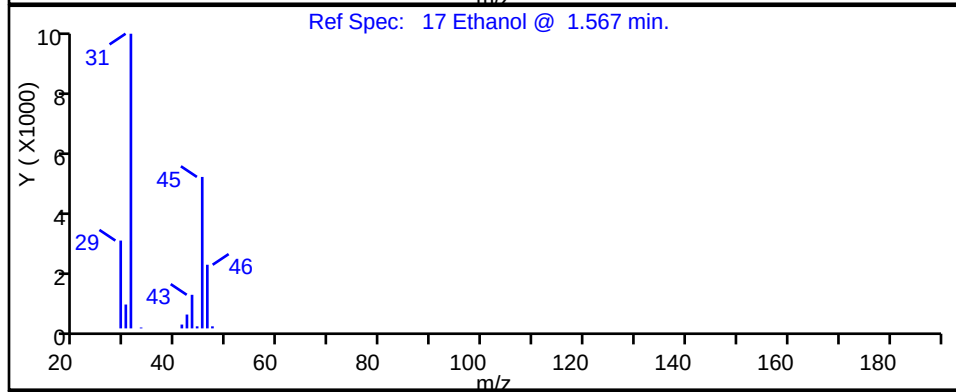
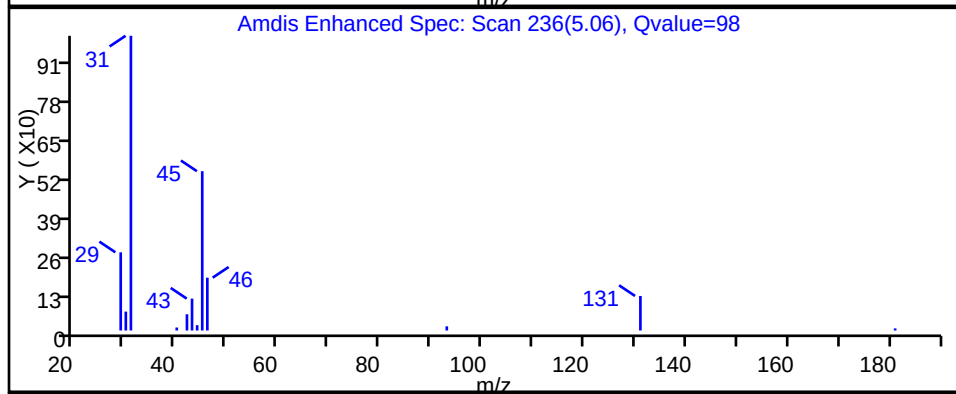
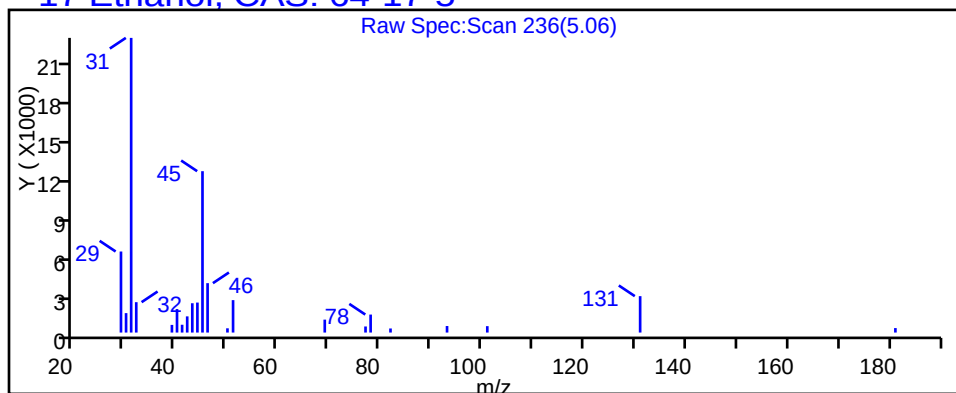
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P111.D

Injection Date: 16-Nov-2016 01:00:30

Instrument ID: MJ

Lims ID: 140-6336-A-11

Lab Sample ID: 140-6336-11

Client ID: OVP-4

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 19

Purge Vol: 500.000 mL

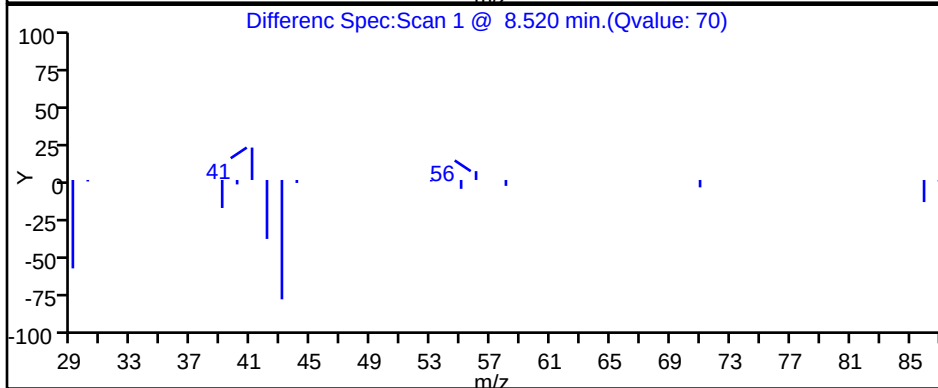
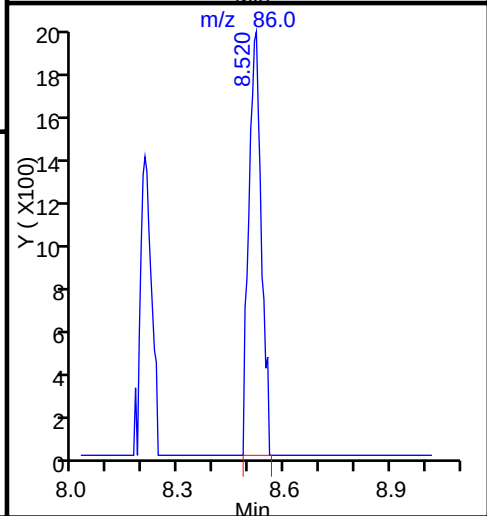
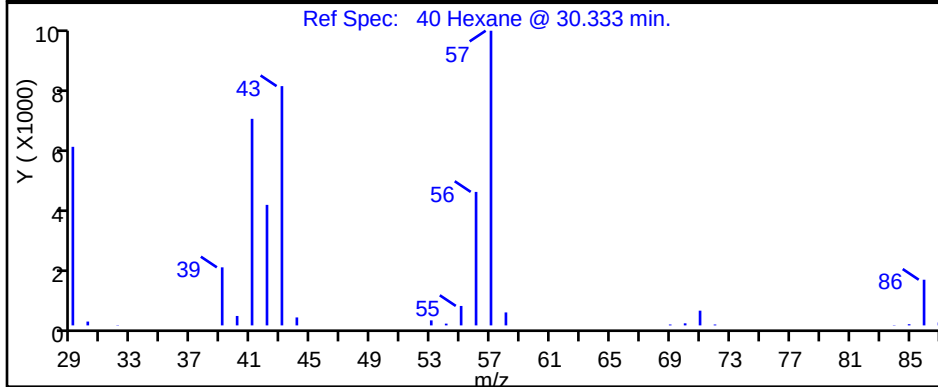
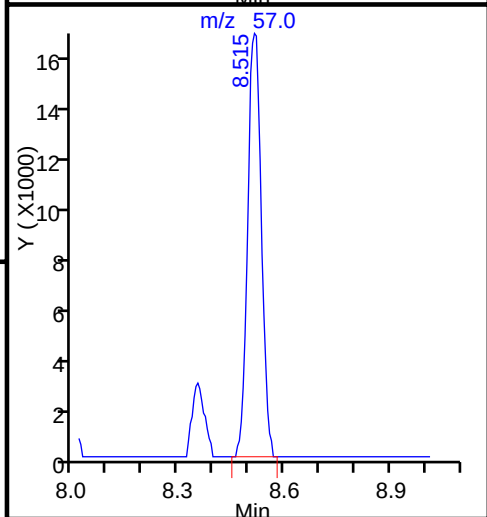
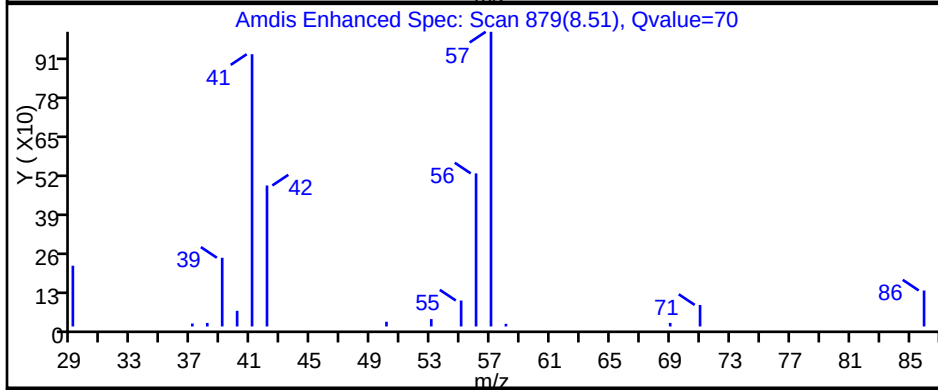
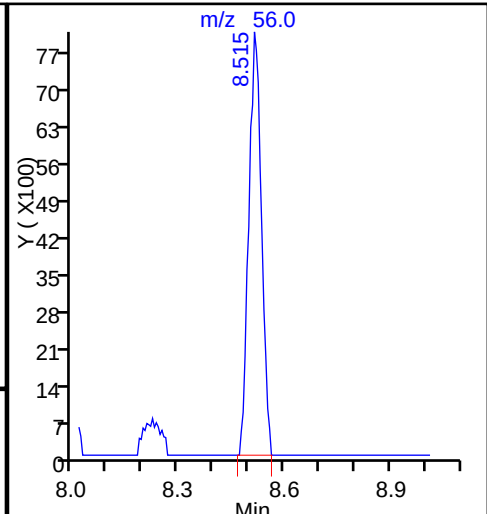
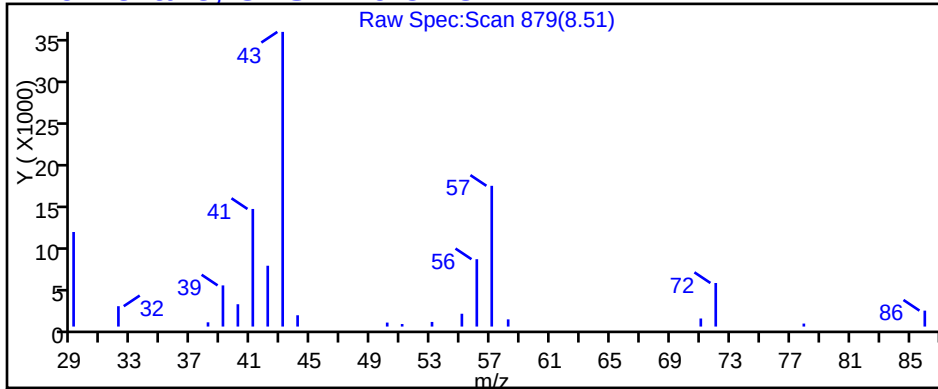
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P111.D

Injection Date: 16-Nov-2016 01:00:30

Instrument ID: MJ

Lims ID: 140-6336-A-11

Lab Sample ID: 140-6336-11

Client ID: OVP-4

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 19

Purge Vol: 500.000 mL

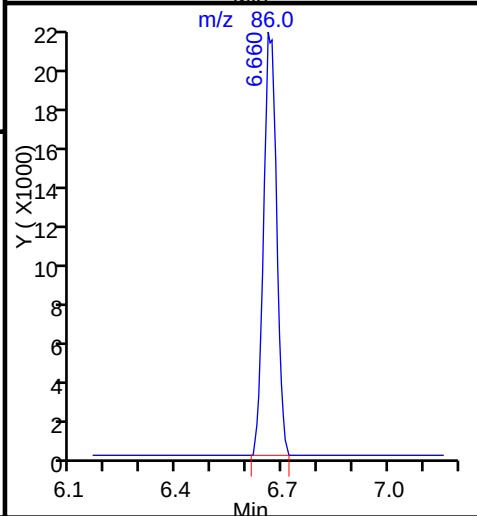
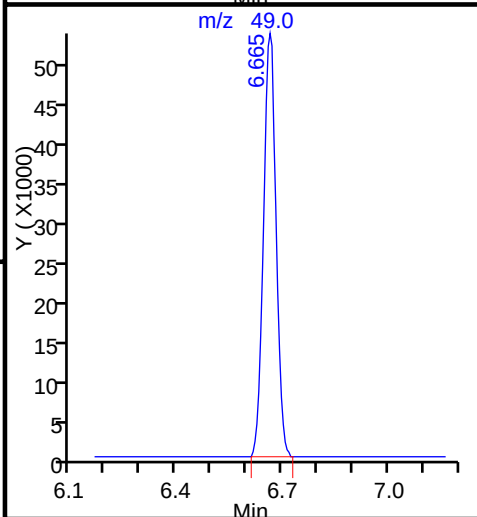
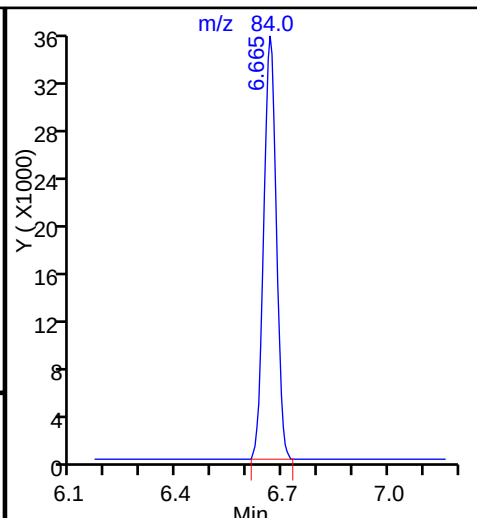
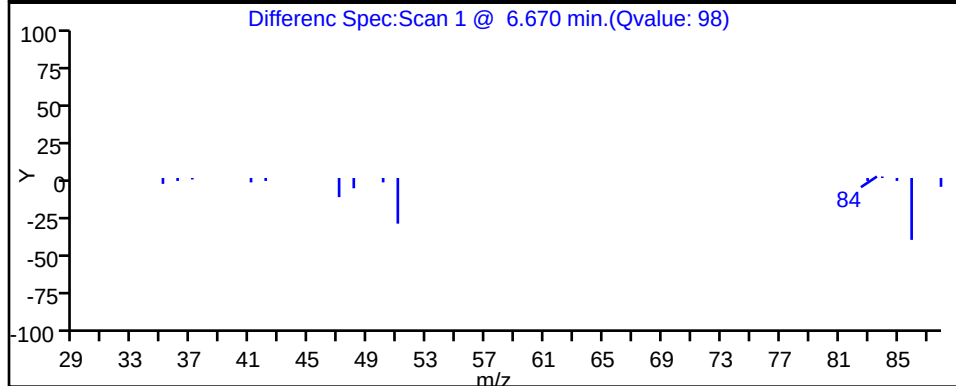
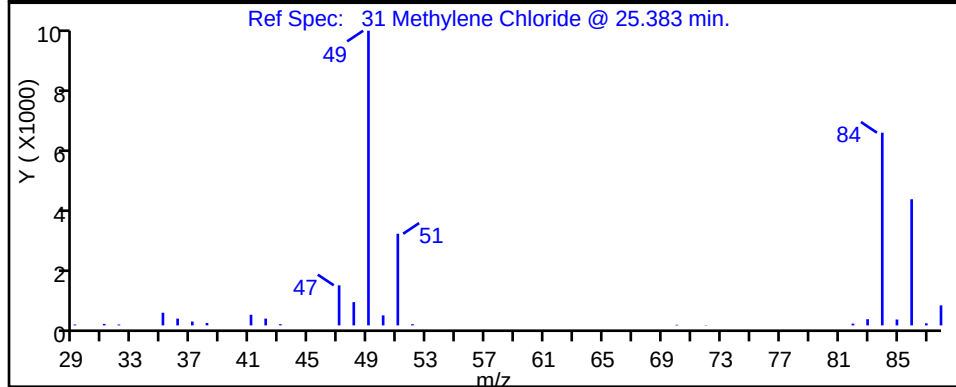
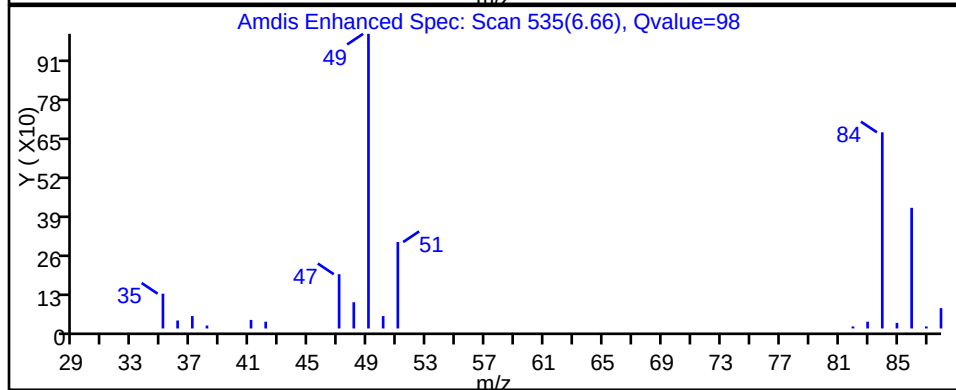
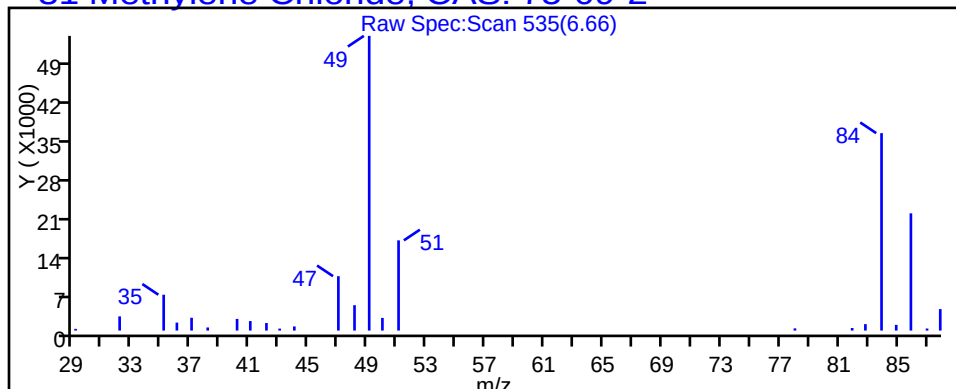
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P111.D

Injection Date: 16-Nov-2016 01:00:30

Instrument ID: MJ

Lims ID: 140-6336-A-11

Lab Sample ID: 140-6336-11

Client ID: OVP-4

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 19

Purge Vol: 500.000 mL

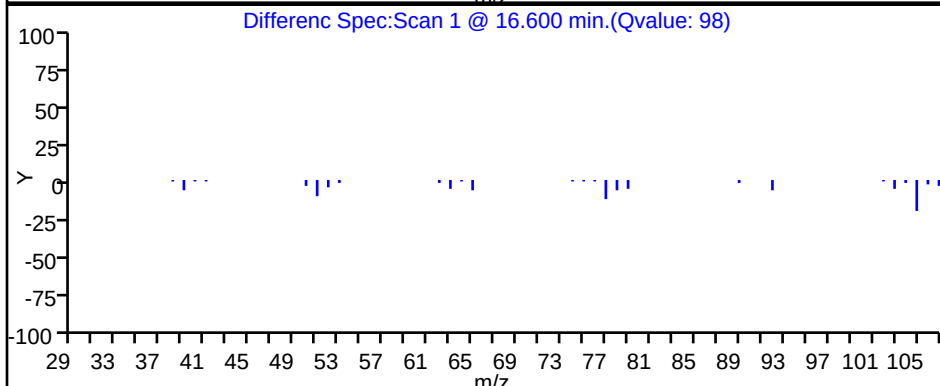
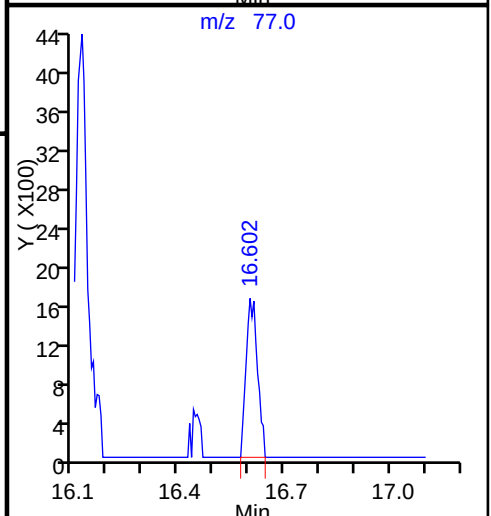
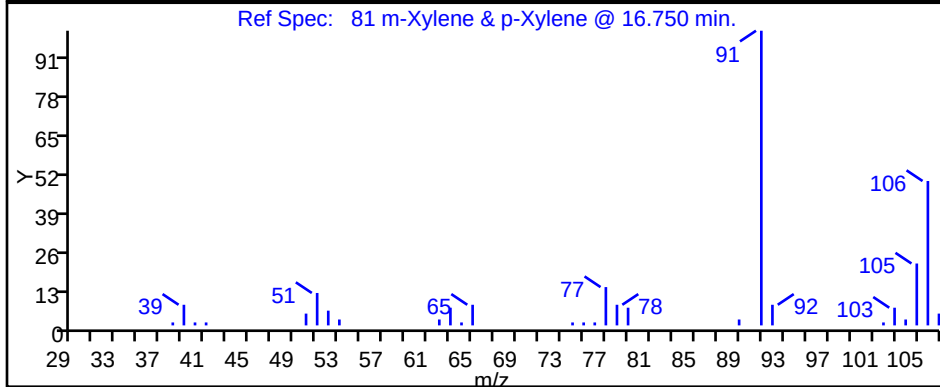
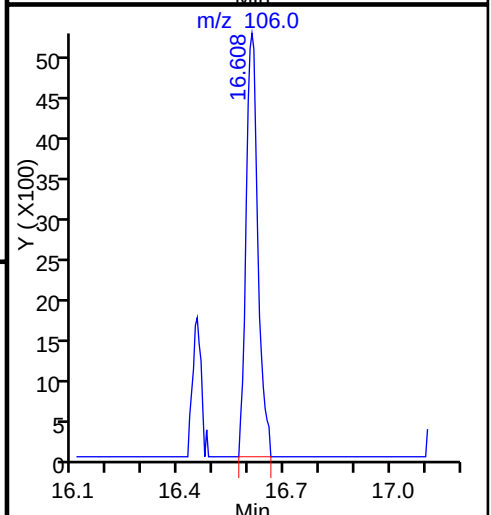
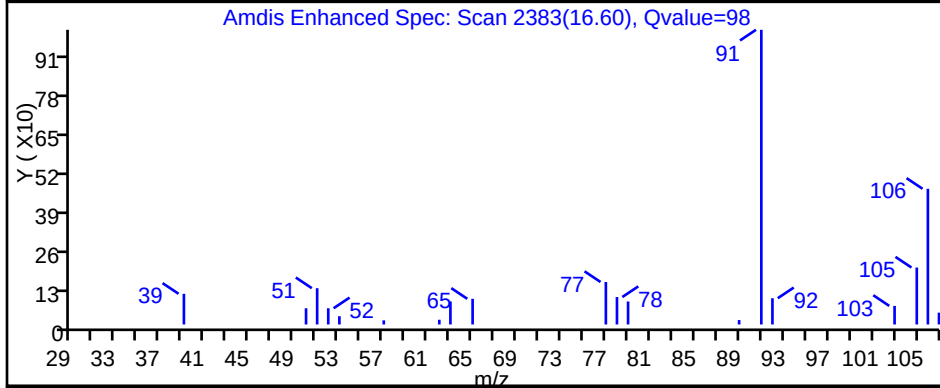
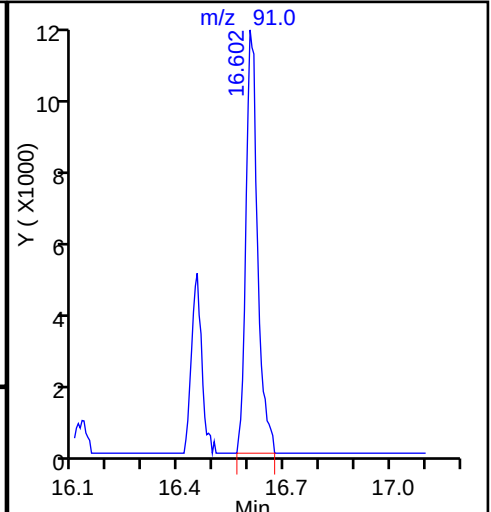
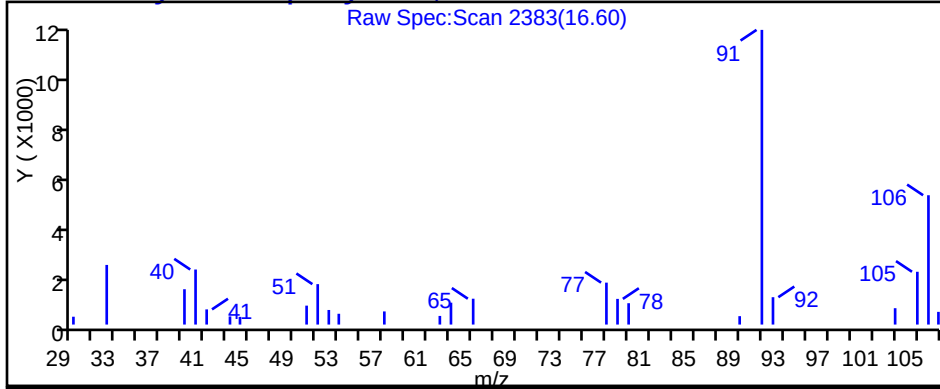
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

81 m-Xylene & p-Xylene, CAS: 179601-23-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P111.D

Injection Date: 16-Nov-2016 01:00:30

Instrument ID: MJ

Lims ID: 140-6336-A-11

Lab Sample ID: 140-6336-11

Client ID: OVP-4

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 19

Purge Vol: 500.000 mL

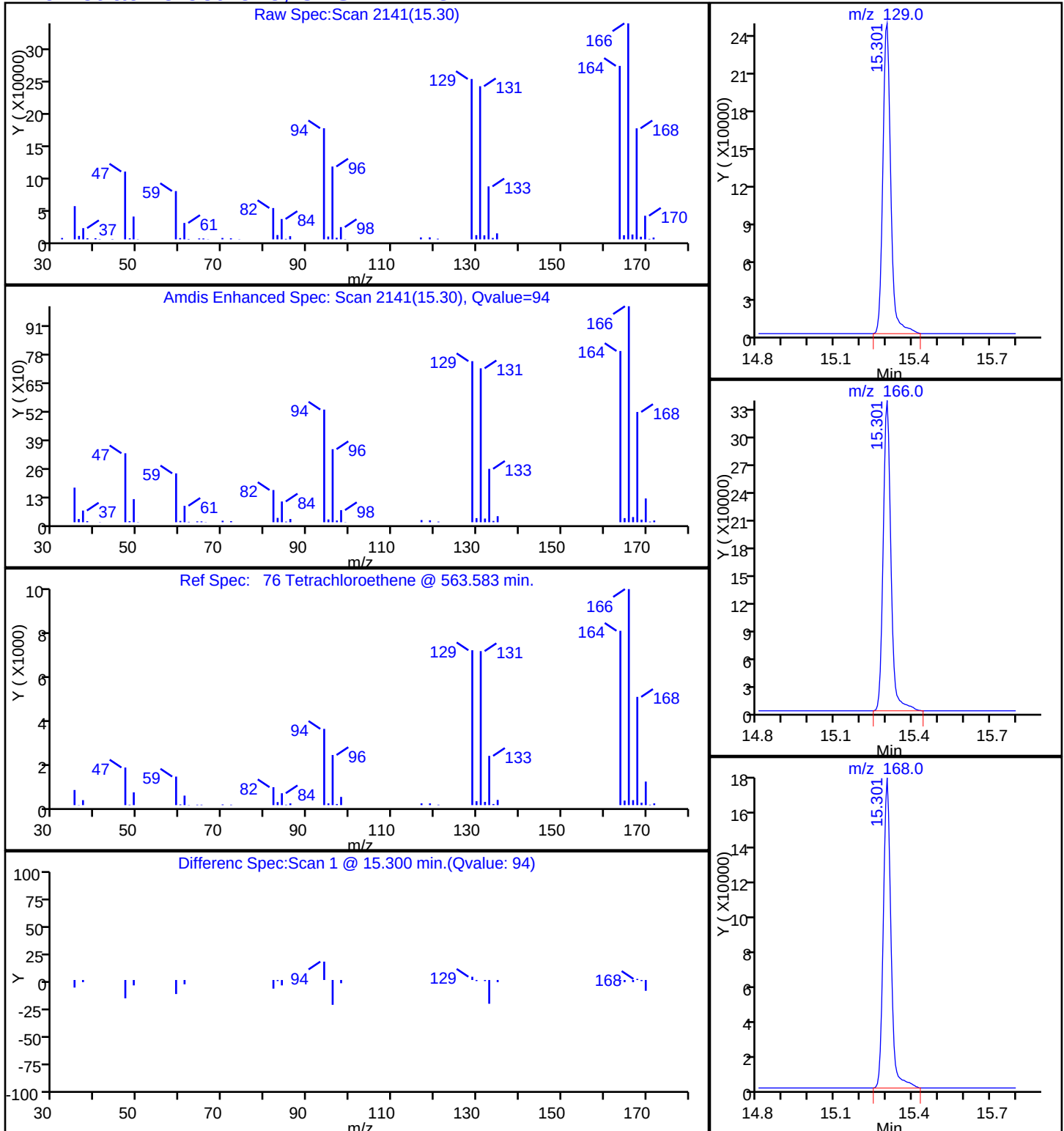
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

76 Tetrachloroethene, CAS: 127-18-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P111.D

Injection Date: 16-Nov-2016 01:00:30

Instrument ID: MJ

Lims ID: 140-6336-A-11

Lab Sample ID: 140-6336-11

Client ID: OVP-4

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 19

Purge Vol: 500.000 mL

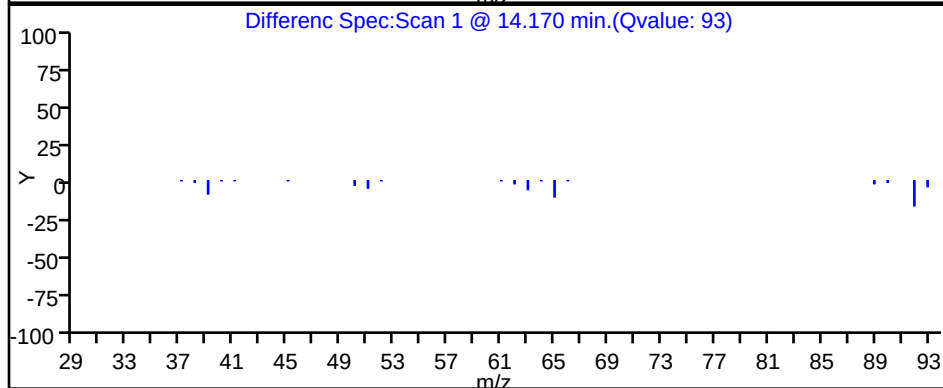
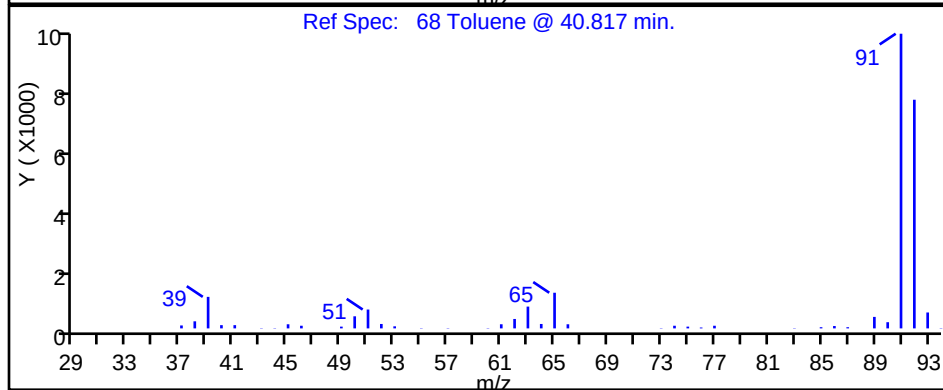
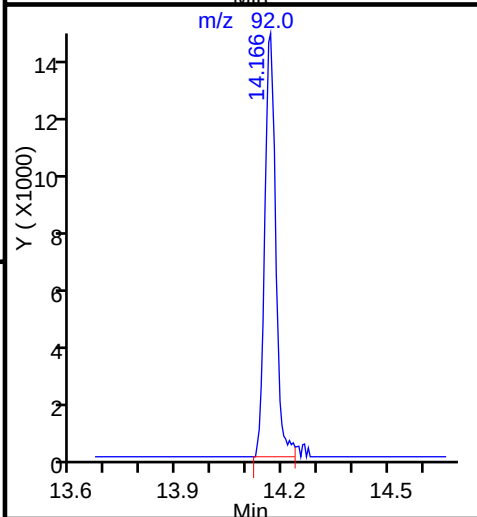
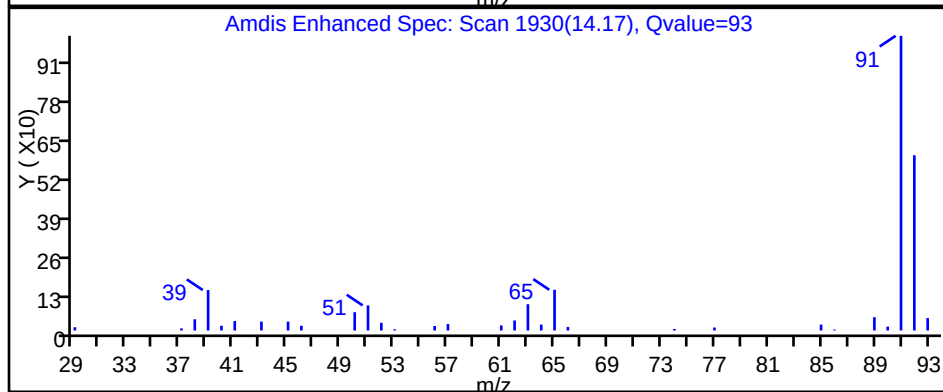
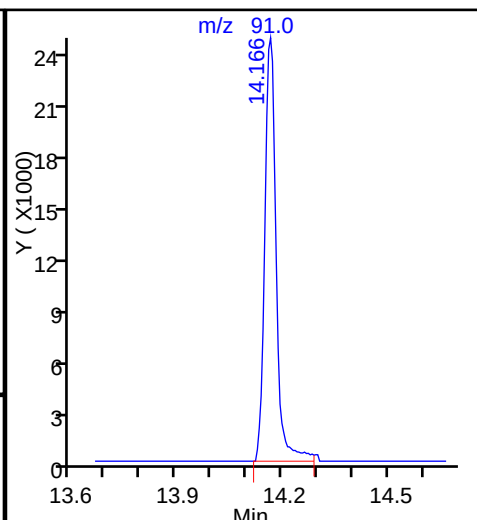
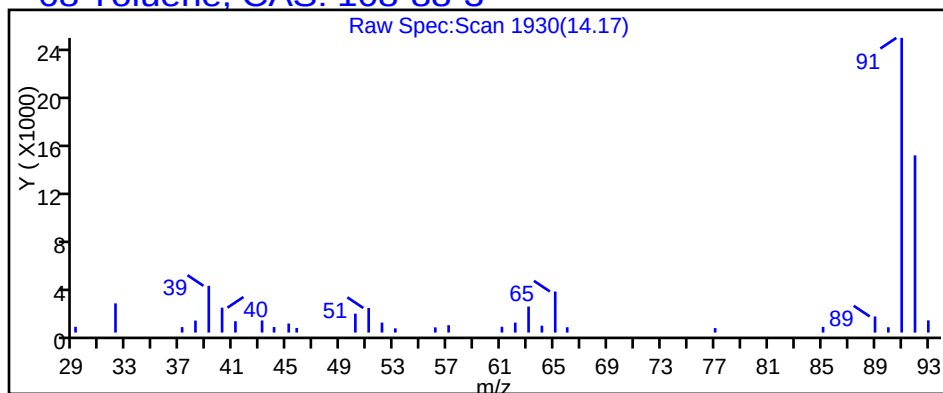
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

68 Toluene, CAS: 108-88-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P111.D

Injection Date: 16-Nov-2016 01:00:30

Instrument ID: MJ

Lims ID: 140-6336-A-11

Lab Sample ID: 140-6336-11

Client ID: OVP-4

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 19

Purge Vol: 500.000 mL

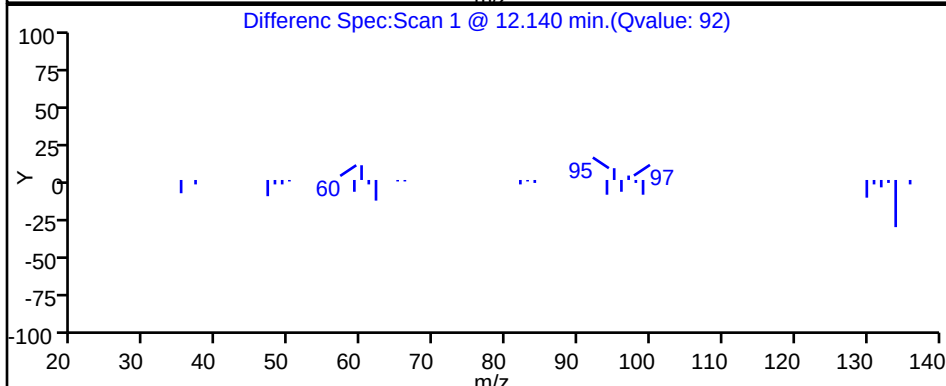
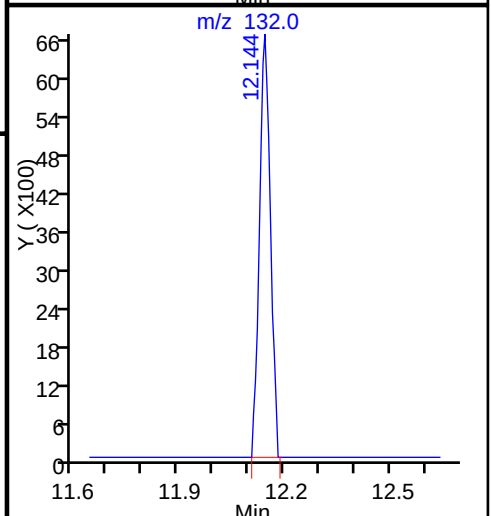
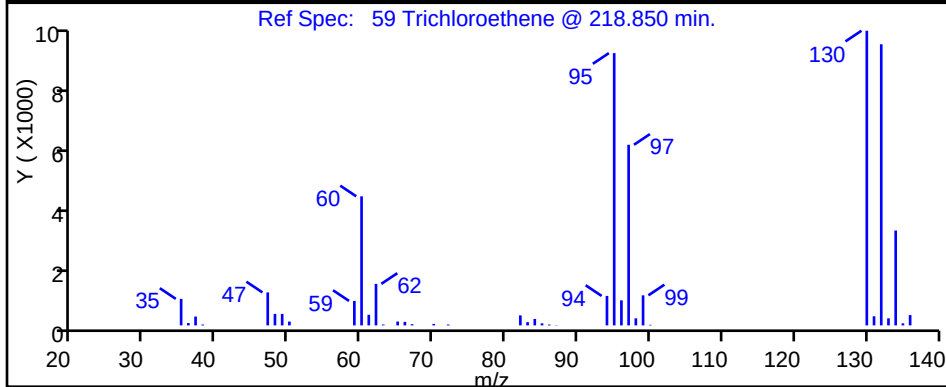
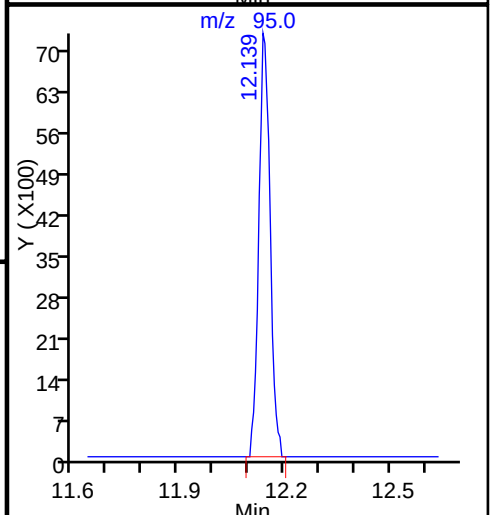
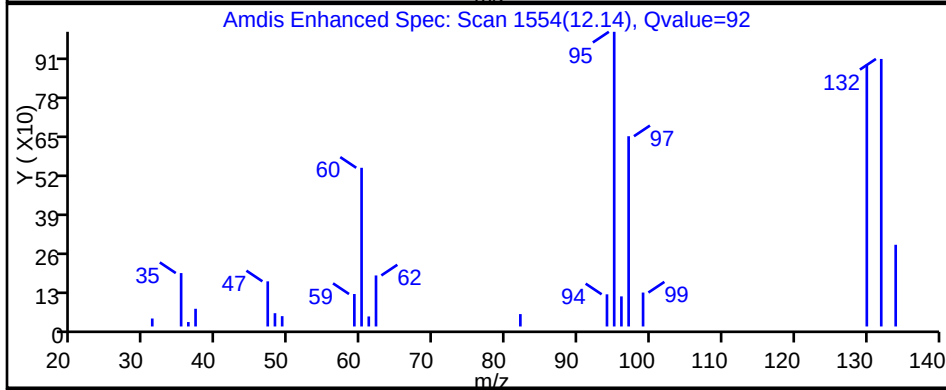
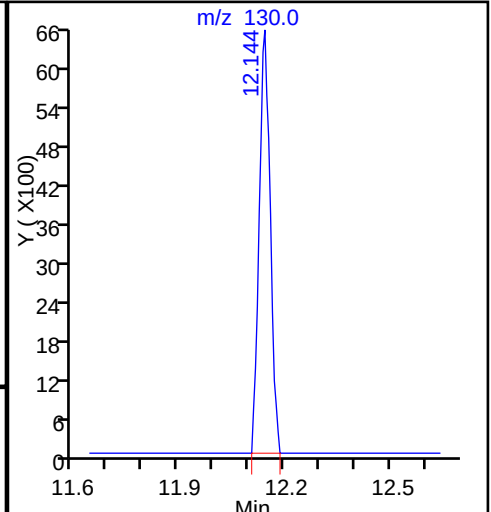
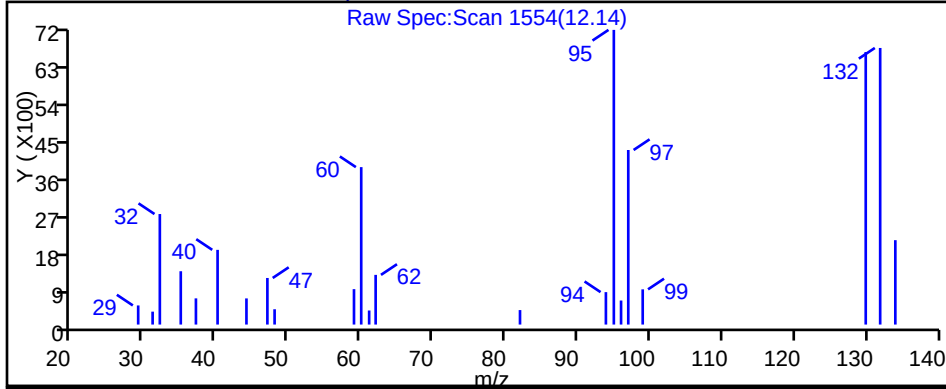
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

59 Trichloroethene, CAS: 79-01-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P111.D

Injection Date: 16-Nov-2016 01:00:30

Instrument ID: MJ

Lims ID: 140-6336-A-11

Lab Sample ID: 140-6336-11

Client ID: OVP-4

Operator ID: 7126

ALS Bottle#: 11

Worklist Smp#: 19

Purge Vol: 500.000 mL

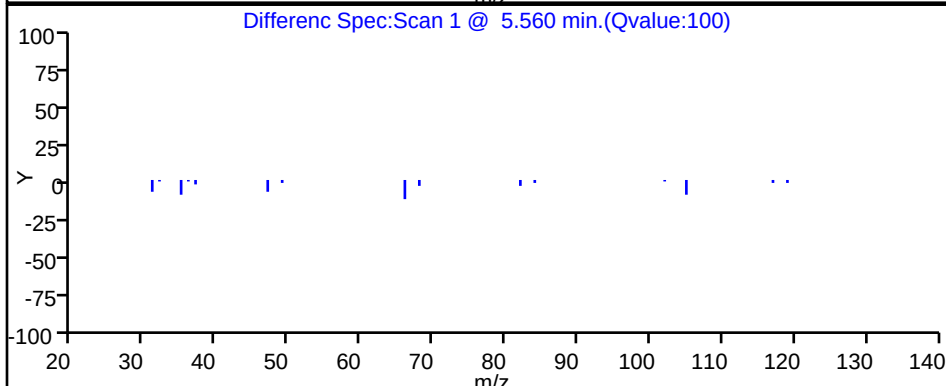
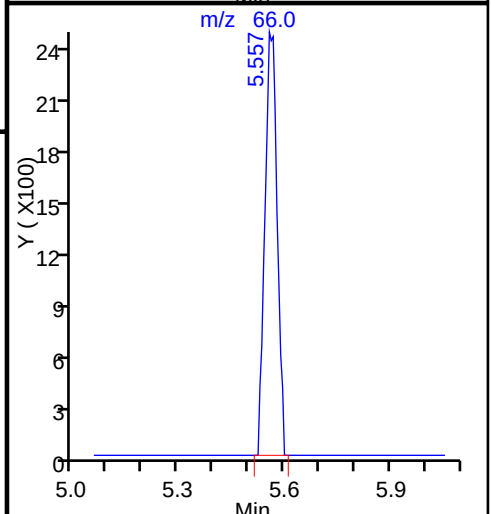
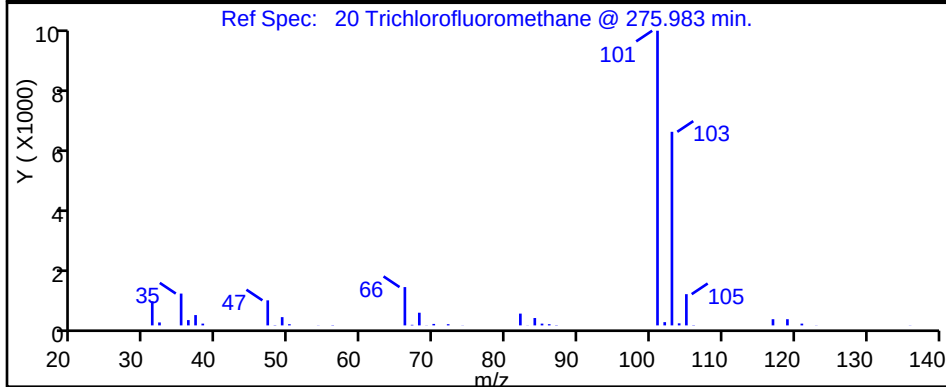
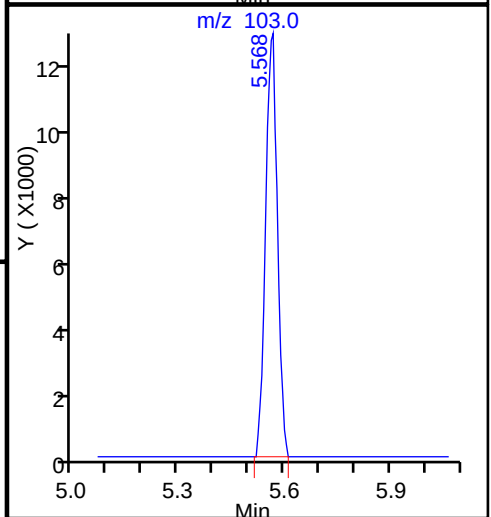
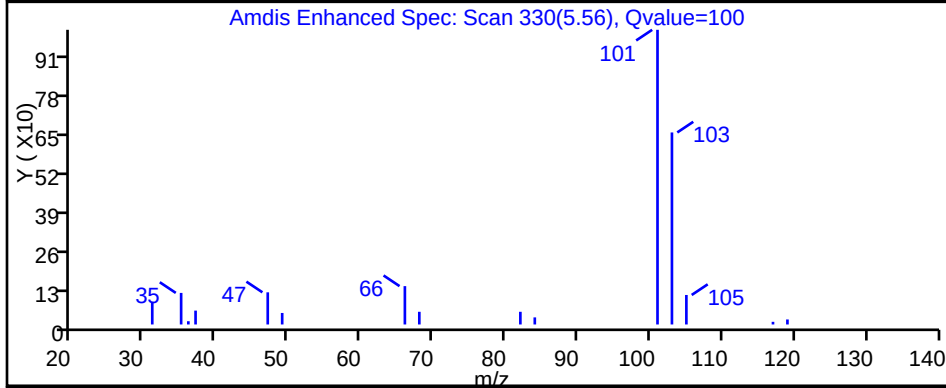
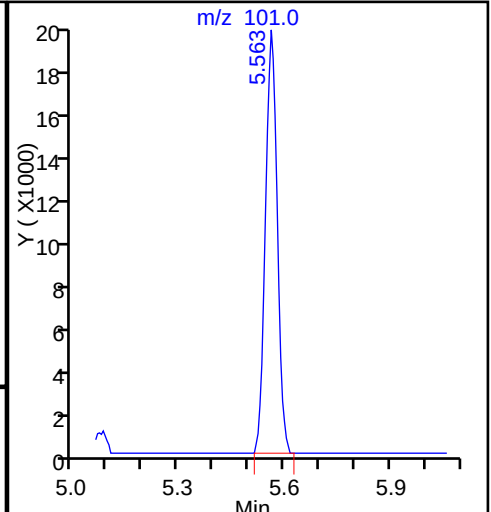
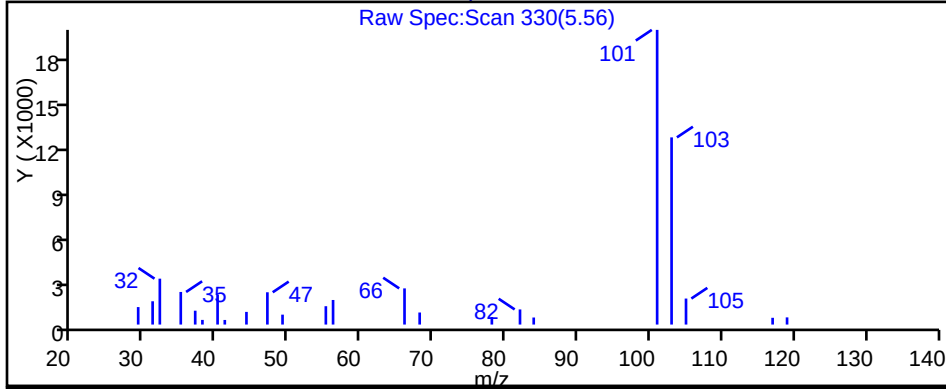
Dil. Factor: 1.8000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: DUP-1 Lab Sample ID: 140-6336-12
 Matrix: Air Lab File ID: JK15P112R.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 10:35
 Sample wt/vol: 500 (mL) Date Analyzed: 11/16/2016 08:48
 Soil Aliquot Vol: _____ Dilution Factor: 1.74
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	4.2		0.14	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.14	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.14	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.14	
75-34-3	1,1-Dichloroethane	98.96	ND		0.14	
75-35-4	1,1-Dichloroethene	96.94	ND		0.14	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.14	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.14	
106-93-4	1,2-Dibromoethane	187.87	ND		0.14	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.14	
107-06-2	1,2-Dichloroethane	98.96	ND		0.14	
78-87-5	1,2-Dichloropropane	112.99	ND		0.14	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	11		0.14	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.14	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.14	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.14	
123-91-1	1,4-Dioxane	88.11	ND		0.35	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.35	
78-93-3	2-Butanone	72.11	0.58		0.56	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.35	
71-43-2	Benzene	78.11	ND		0.14	
100-44-7	Benzyl chloride	126.58	ND		0.28	
75-27-4	Bromodichloromethane	163.83	ND		0.14	
75-25-2	Bromoform	252.75	ND		0.14	
74-83-9	Bromomethane	94.94	ND		0.14	
56-23-5	Carbon tetrachloride	153.81	ND		0.070	
108-90-7	Chlorobenzene	112.56	ND		0.14	
75-00-3	Chloroethane	64.52	ND		0.14	
67-66-3	Chloroform	119.38	0.36		0.14	
74-87-3	Chloromethane	50.49	ND		0.35	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.14	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.14	
110-82-7	Cyclohexane	84.16	ND		0.35	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: DUP-1 Lab Sample ID: 140-6336-12
 Matrix: Air Lab File ID: JK15P112R.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 10:35
 Sample wt/vol: 500 (mL) Date Analyzed: 11/16/2016 08:48
 Soil Aliquot Vol: _____ Dilution Factor: 1.74
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.14	
75-71-8	Dichlorodifluoromethane	120.91	10		0.14	
64-17-5	Ethanol	46.07	ND		3.5	
100-41-4	Ethylbenzene	106.17	ND		0.14	
87-68-3	Hexachlorobutadiene	260.76	ND		0.14	
110-54-3	Hexane	86.17	ND		0.35	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.28	
75-09-2	Methylene Chloride	84.93	ND		0.35	
179601-23-1	m-Xylene & p-Xylene	106.17	0.29		0.14	
95-47-6	o-Xylene	106.17	ND		0.14	
100-42-5	Styrene	104.15	ND		0.14	
75-65-0	t-Butyl alcohol	74.12	0.59		0.56	
127-18-4	Tetrachloroethene	165.83	15		0.14	
108-88-3	Toluene	92.14	0.33		0.21	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.14	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.14	
79-01-6	Trichloroethene	131.39	0.37		0.070	
75-69-4	Trichlorofluoromethane	137.37	0.37		0.14	
75-01-4	Vinyl chloride	62.50	ND		0.070	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: DUP-1 Lab Sample ID: 140-6336-12
 Matrix: Air Lab File ID: JK15P112R.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 10:35
 Sample wt/vol: 500 (mL) Date Analyzed: 11/16/2016 08:48
 Soil Aliquot Vol: _____ Dilution Factor: 1.74
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	23		0.76	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.96	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.76	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		1.1	
75-34-3	1,1-Dichloroethane	98.96	ND		0.56	
75-35-4	1,1-Dichloroethene	96.94	ND		0.55	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		1.0	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.68	
106-93-4	1,2-Dibromoethane	187.87	ND		1.1	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.84	
107-06-2	1,2-Dichloroethane	98.96	ND		0.56	
78-87-5	1,2-Dichloropropane	112.99	ND		0.64	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	79		0.97	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.68	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.84	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.84	
123-91-1	1,4-Dioxane	88.11	ND		1.3	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		1.6	
78-93-3	2-Butanone	72.11	1.7		1.6	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		1.4	
71-43-2	Benzene	78.11	ND		0.44	
100-44-7	Benzyl chloride	126.58	ND		1.4	
75-27-4	Bromodichloromethane	163.83	ND		0.93	
75-25-2	Bromoform	252.75	ND		1.4	
74-83-9	Bromomethane	94.94	ND		0.54	
56-23-5	Carbon tetrachloride	153.81	ND		0.44	
108-90-7	Chlorobenzene	112.56	ND		0.64	
75-00-3	Chloroethane	64.52	ND		0.37	
67-66-3	Chloroform	119.38	1.7		0.68	
74-87-3	Chloromethane	50.49	ND		0.72	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.55	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.63	
110-82-7	Cyclohexane	84.16	ND		1.2	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: DUP-1 Lab Sample ID: 140-6336-12
 Matrix: Air Lab File ID: JK15P112R.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 10:35
 Sample wt/vol: 500 (mL) Date Analyzed: 11/16/2016 08:48
 Soil Aliquot Vol: _____ Dilution Factor: 1.74
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		1.2	
75-71-8	Dichlorodifluoromethane	120.91	50		0.69	
64-17-5	Ethanol	46.07	ND		6.6	
100-41-4	Ethylbenzene	106.17	ND		0.60	
87-68-3	Hexachlorobutadiene	260.76	ND		1.5	
110-54-3	Hexane	86.17	ND		1.2	
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.0	
75-09-2	Methylene Chloride	84.93	ND		1.2	
179601-23-1	m-Xylene & p-Xylene	106.17	1.3		0.60	
95-47-6	o-Xylene	106.17	ND		0.60	
100-42-5	Styrene	104.15	ND		0.59	
75-65-0	t-Butyl alcohol	74.12	1.8		1.7	
127-18-4	Tetrachloroethene	165.83	100		0.94	
108-88-3	Toluene	92.14	1.2		0.79	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.55	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.63	
79-01-6	Trichloroethene	131.39	2.0		0.37	
75-69-4	Trichlorofluoromethane	137.37	2.1		0.78	
75-01-4	Vinyl chloride	62.50	ND		0.18	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P112R.D
 Lims ID: 140-6336-A-12
 Client ID: DUP-1
 Sample Type: Client
 Inject. Date: 16-Nov-2016 08:48:30 ALS Bottle#: 12 Worklist Smp#: 26
 Purge Vol: 500.000 mL Dil. Factor: 1.7400
 Sample Info: 140-0003625-026
 Misc. Info.: 140-6336-a-12@1.74
 Operator ID: 7126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 09:35:36 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:35:36

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.268	9.281	-0.013	98	252572	4.00	
* 2 1,4-Difluorobenzene	114	11.429	11.443	-0.014	96	1160045	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.118	16.121	-0.003	90	926988	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.742	17.745	-0.003	87	589718	4.22	
8 Dichlorodifluoromethane	85	3.982	3.990	-0.008	100	1455792	5.86	
9 Chloromethane	52	4.175	4.183	-0.008	44	2540	0.0891	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.186	4.189	-0.003	97	851346	6.50	
17 Ethanol	31	5.052	5.060	-0.008	99	38192	1.59	
20 Trichlorofluoromethane	101	5.557	5.565	-0.008	99	46164	0.2130	
28 2-Methyl-2-propanol	59	6.407	6.404	0.003	96	41588	0.3391	
30 1,1,2-Trichloro-1,2,2-trif	101	6.482	6.485	-0.003	95	6576	0.0391	
31 Methylene Chloride	84	6.660	6.673	-0.013	98	12574	0.1567	
39 2-Butanone (MEK)	72	8.504	8.507	-0.003	88	9013	0.3362	
40 Hexane	56	8.504	8.523	-0.019	63	8841	0.1387	
44 Chloroform	83	9.278	9.292	-0.014	94	32598	0.2053	
47 1,1,1-Trichloroethane	97	10.316	10.335	-0.019	97	389186	2.39	
50 Cyclohexane	69	10.902	10.921	-0.019	76	2082	0.0563	
51 Benzene	78	10.919	10.921	-0.002	93	8465	0.0395	
52 Carbon tetrachloride	117	10.935	10.942	-0.007	52	3120	0.0190	
56 Isooctane	57	11.639	11.652	-0.013	96	23343	0.0674	
59 Trichloroethene	130	12.139	12.147	-0.008	92	18125	0.2104	
65 4-Methyl-2-pentanone (MIBK	43	13.301	13.298	0.003	98	13650	0.1026	
68 Toluene	91	14.161	14.169	-0.008	92	38574	0.1898	
76 Tetrachloroethene	129	15.296	15.304	-0.008	96	655782	8.62	
79 Ethylbenzene	91	16.446	16.449	-0.003	97	10598	0.0472	
81 m-Xylene & p-Xylene	91	16.602	16.610	-0.008	99	28385	0.1690	
85 o-Xylene	91	17.135	17.137	-0.002	97	10609	0.0576	
96 1,2,4-Trimethylbenzene	105	18.877	18.874	0.003	97	8527	0.0505	

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P112R.D

Injection Date: 16-Nov-2016 08:48:30

Instrument ID: MJ

Operator ID: 7126

Lims ID: 140-6336-A-12

Lab Sample ID: 140-6336-12

Worklist Smp#: 26

Client ID: DUP-1

Purge Vol: 500.000 mL

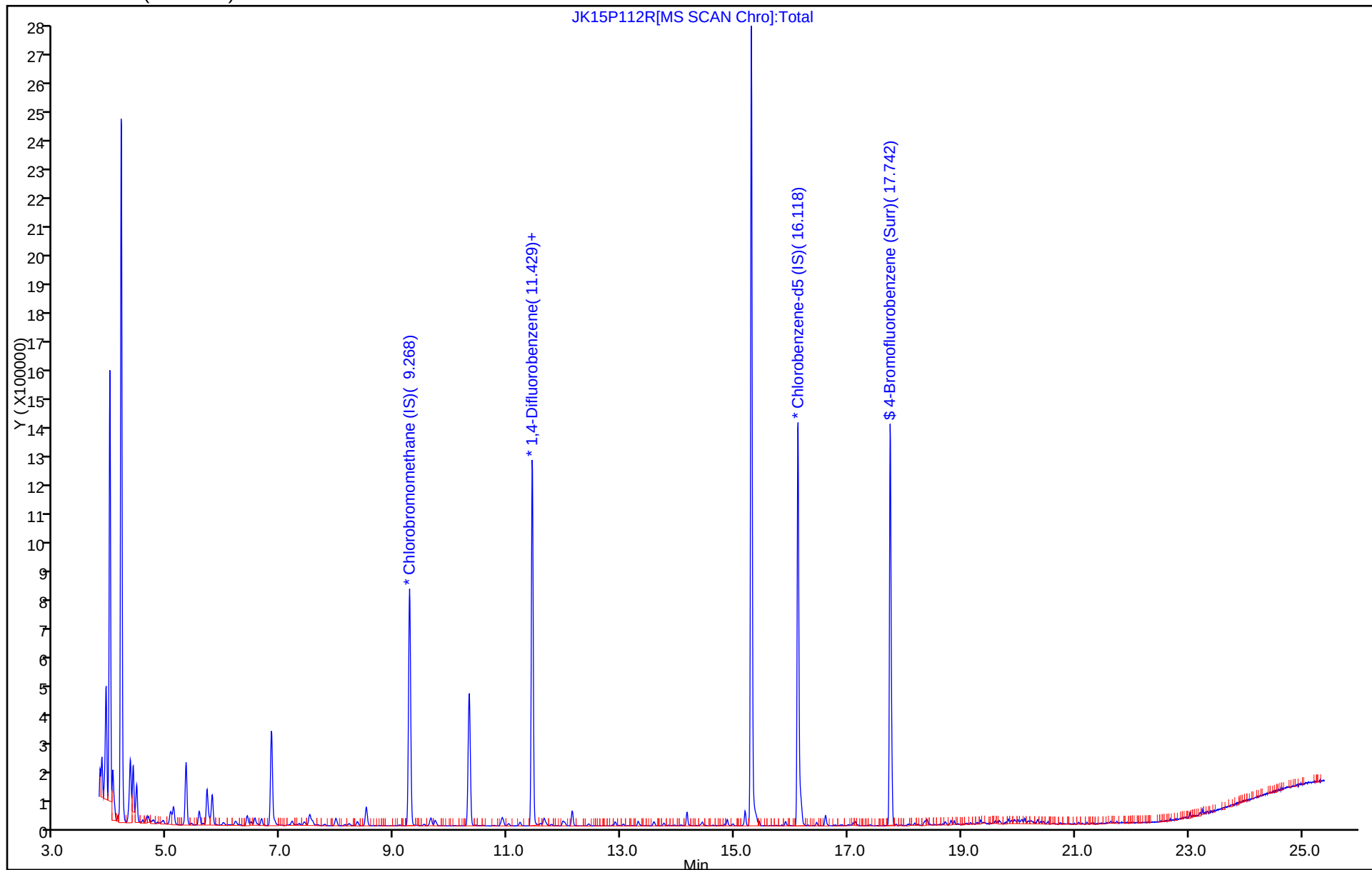
Dil. Factor: 1.7400

ALS Bottle#: 12

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P112R.D
Lims ID: 140-6336-A-12
Client ID: DUP-1
Sample Type: Client
Inject. Date: 16-Nov-2016 08:48:30 ALS Bottle#: 12 Worklist Smp#: 26
Purge Vol: 500.000 mL Dil. Factor: 1.7400
Sample Info: 140-0003625-026
Misc. Info.: 140-6336-a-12@1.74
Operator ID: 7126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 09:35:36 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:35:36

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.22	105.49

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P112R.D

Injection Date: 16-Nov-2016 08:48:30

Instrument ID: MJ

Lims ID: 140-6336-A-12

Lab Sample ID: 140-6336-12

Client ID: DUP-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 26

Purge Vol: 500.000 mL

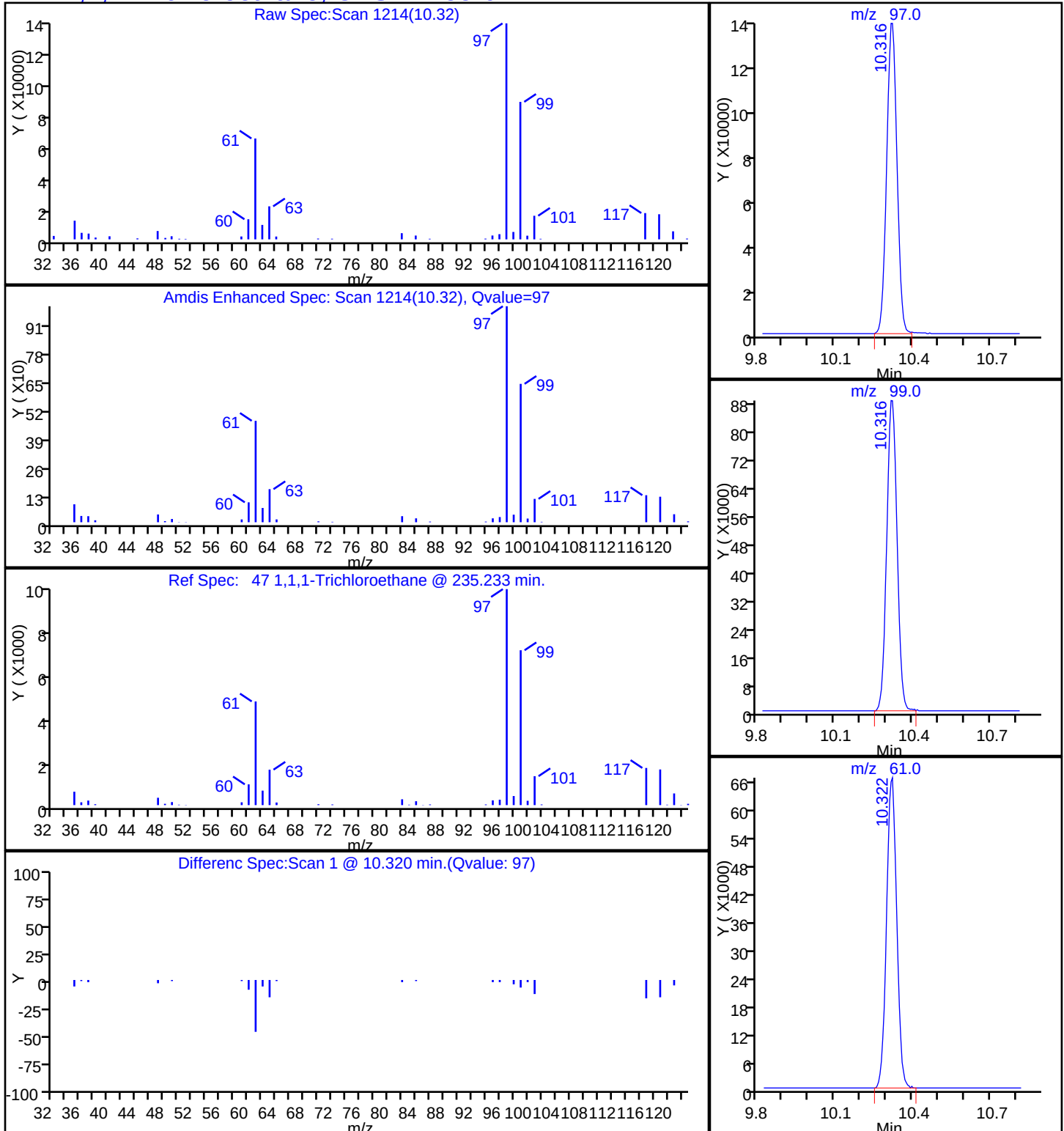
Dil. Factor: 1.7400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

47 1,1,1-Trichloroethane, CAS: 71-55-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P112R.D

Injection Date: 16-Nov-2016 08:48:30

Instrument ID: MJ

Lims ID: 140-6336-A-12

Lab Sample ID: 140-6336-12

Client ID: DUP-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 26

Purge Vol: 500.000 mL

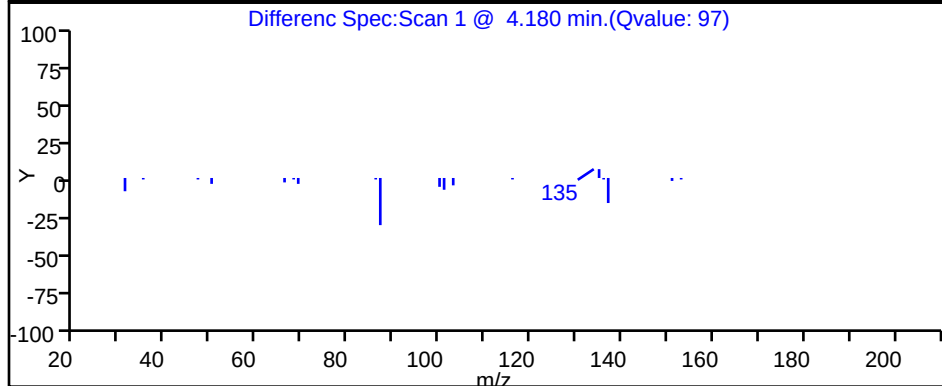
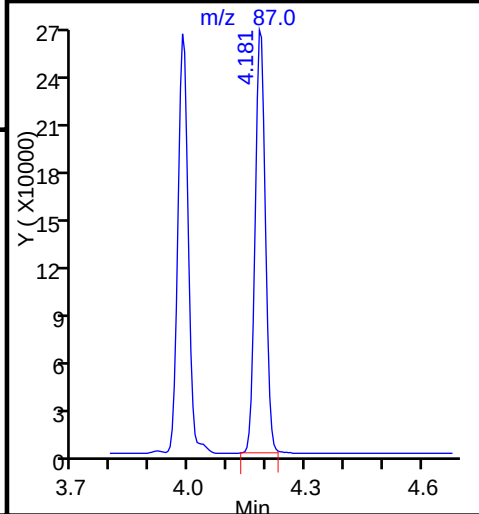
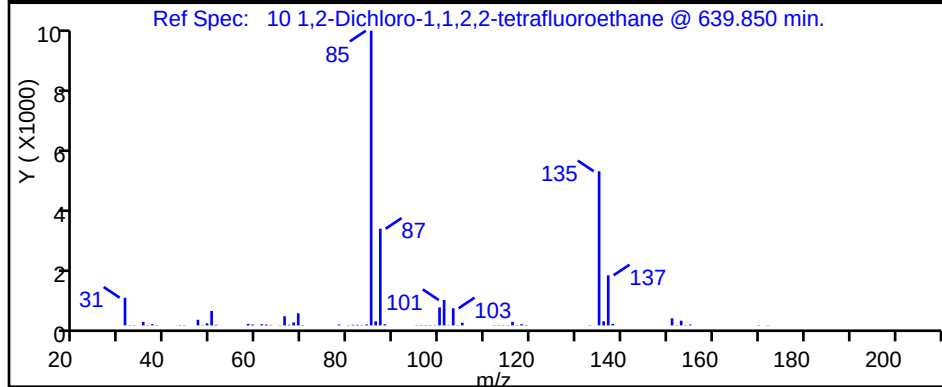
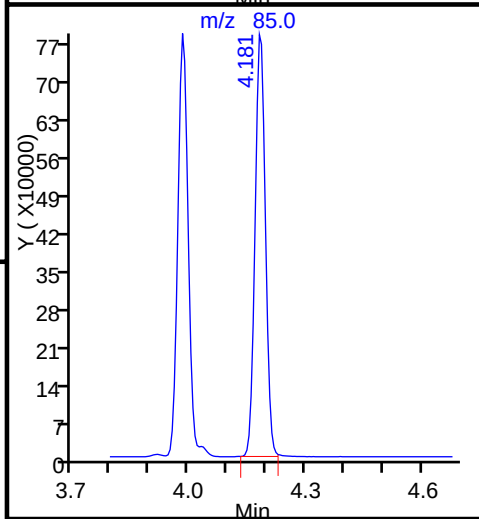
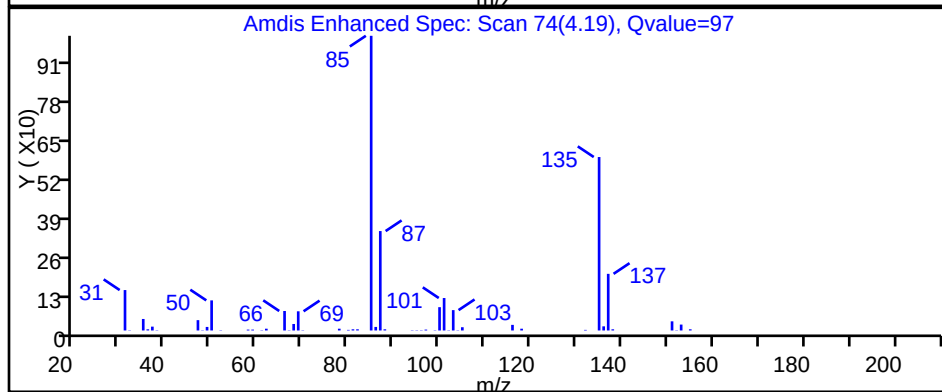
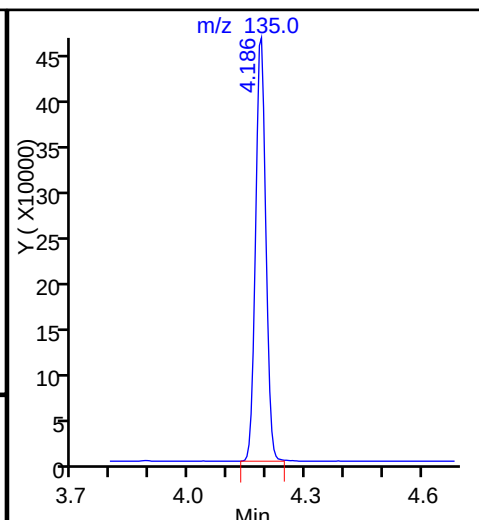
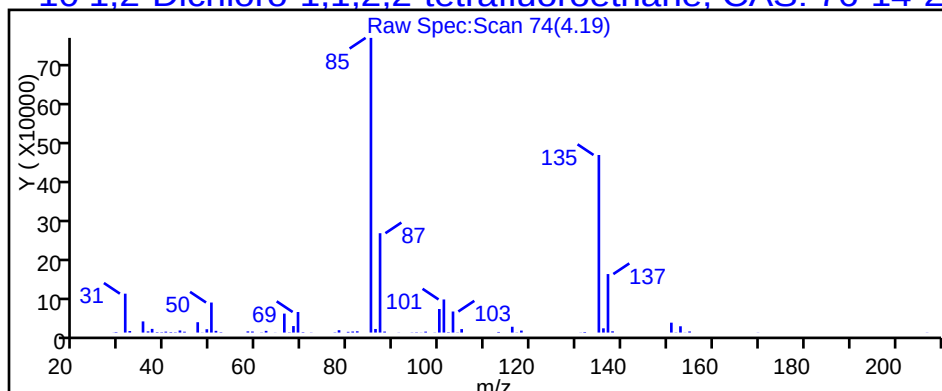
Dil. Factor: 1.7400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector MS SCAN

10 1,2-Dichloro-1,1,2,2-tetrafluoroethane, CAS: 76-14-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P112R.D

Injection Date: 16-Nov-2016 08:48:30

Instrument ID: MJ

Lims ID: 140-6336-A-12

Lab Sample ID: 140-6336-12

Client ID: DUP-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 26

Purge Vol: 500.000 mL

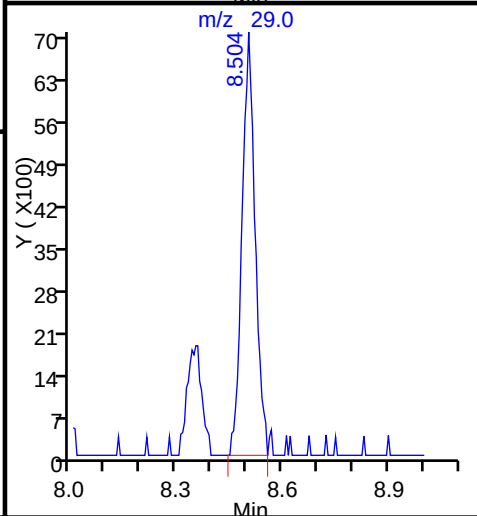
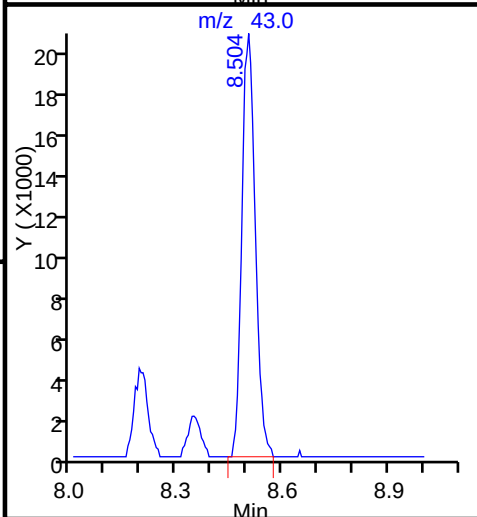
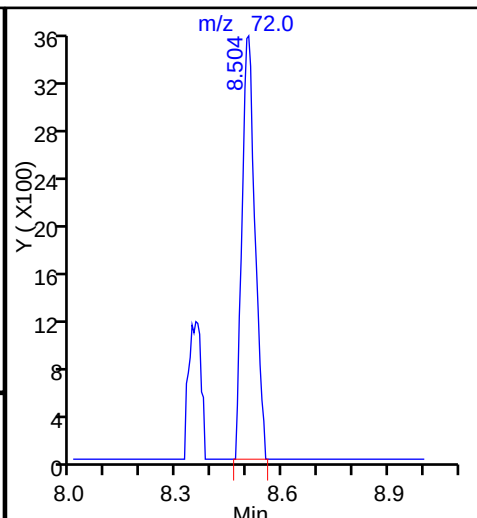
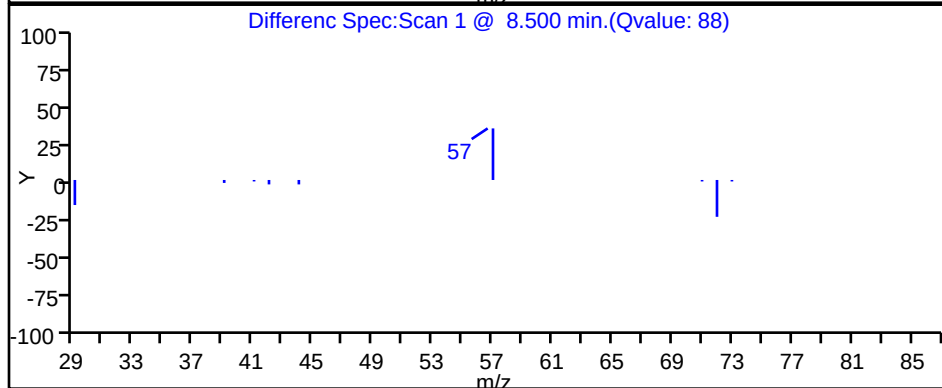
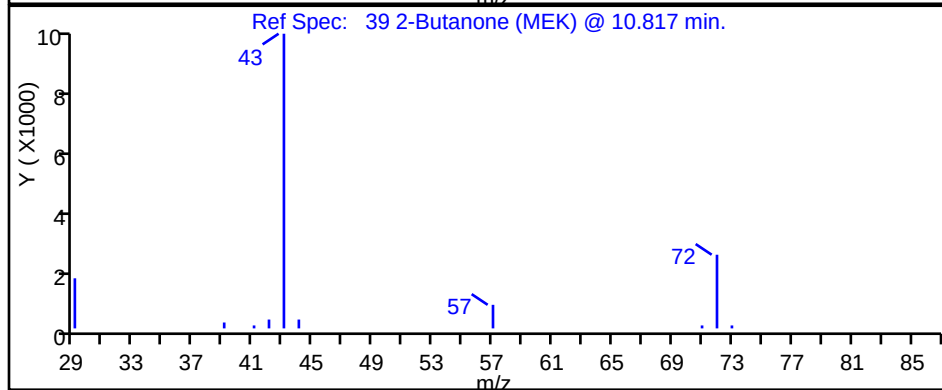
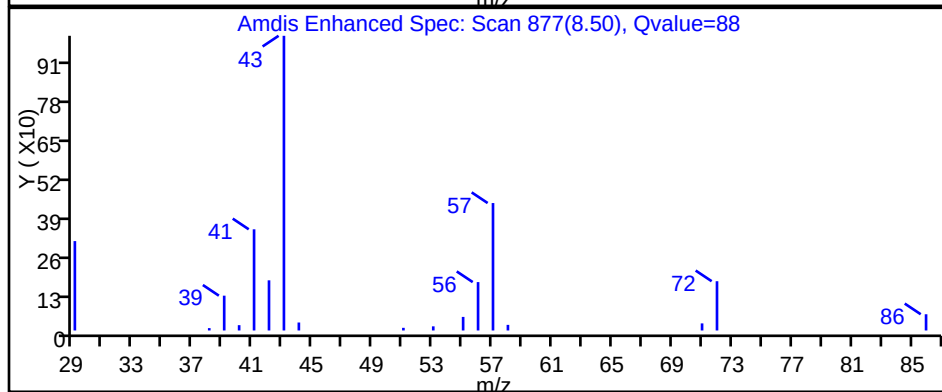
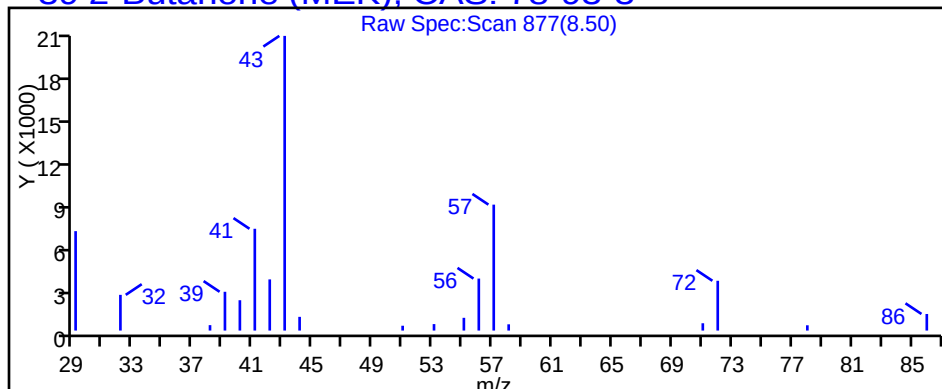
Dil. Factor: 1.7400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

39 2-Butanone (MEK), CAS: 78-93-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P112R.D

Injection Date: 16-Nov-2016 08:48:30

Instrument ID: MJ

Lims ID: 140-6336-A-12

Lab Sample ID: 140-6336-12

Client ID: DUP-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 26

Purge Vol: 500.000 mL

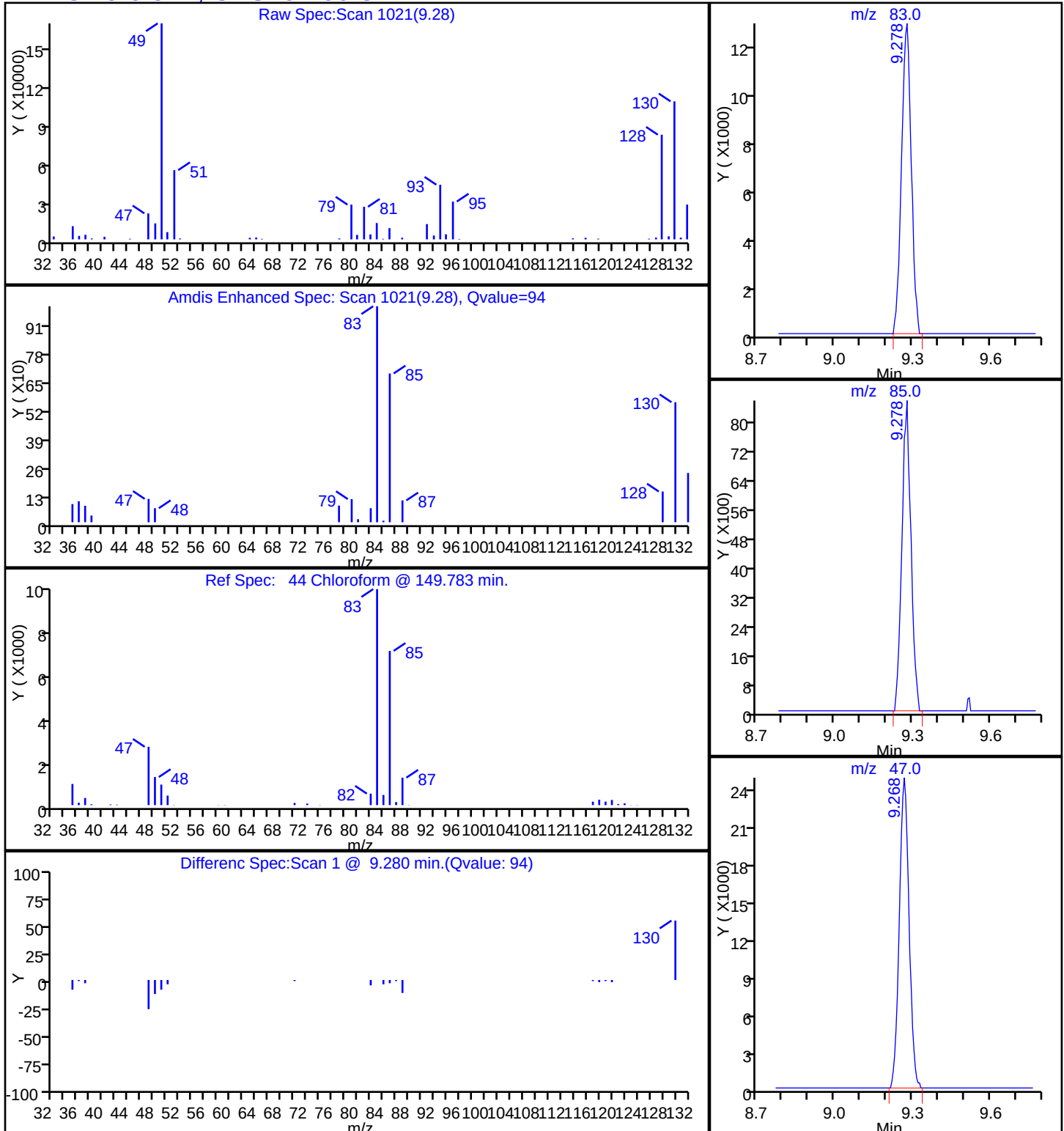
Dil. Factor: 1.7400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P112R.D

Injection Date: 16-Nov-2016 08:48:30

Instrument ID: MJ

Lims ID: 140-6336-A-12

Lab Sample ID: 140-6336-12

Client ID: DUP-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 26

Purge Vol: 500.000 mL

Dil. Factor: 1.7400

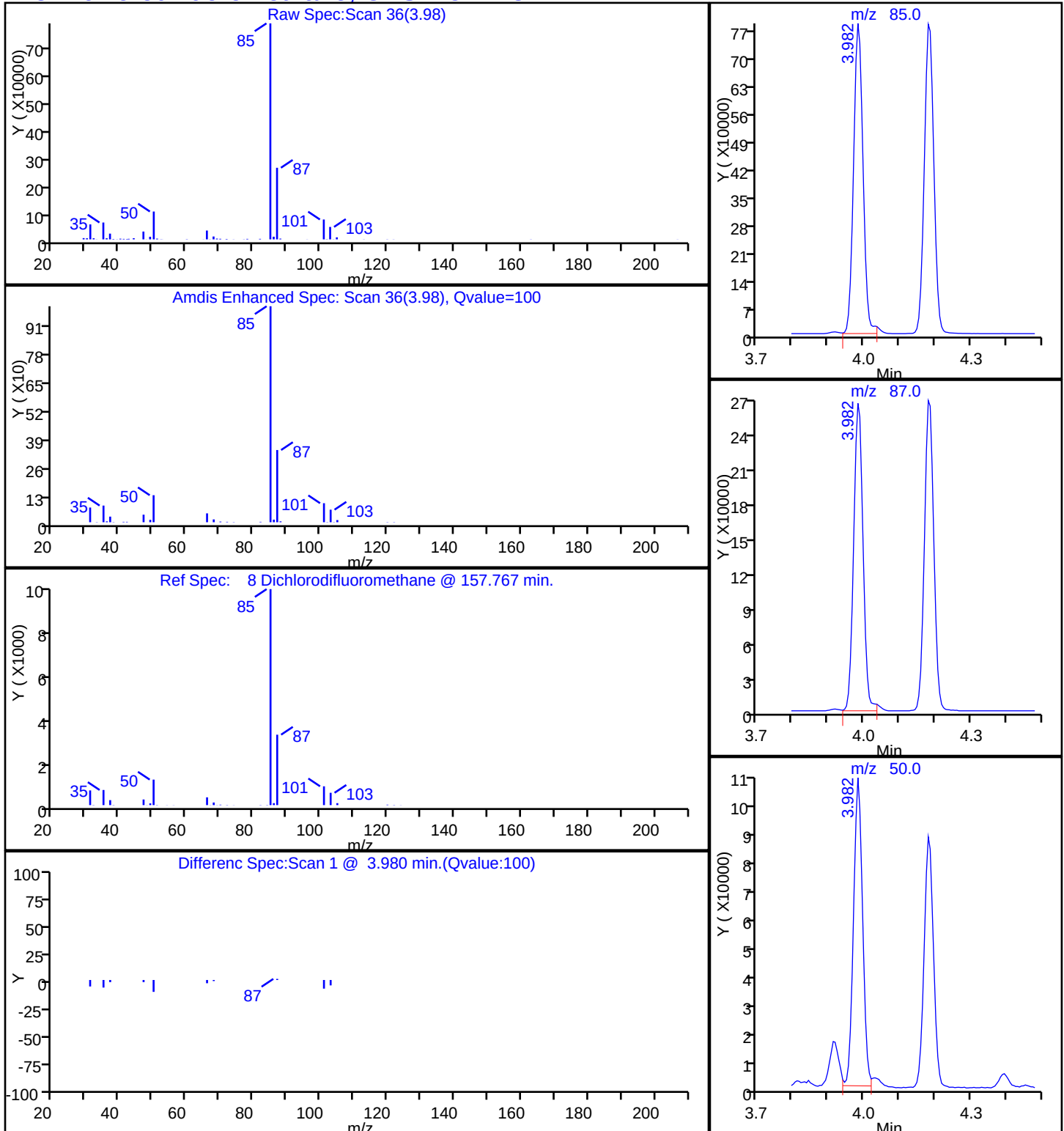
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P112R.D

Injection Date: 16-Nov-2016 08:48:30

Instrument ID: MJ

Lims ID: 140-6336-A-12

Lab Sample ID: 140-6336-12

Client ID: DUP-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 26

Purge Vol: 500.000 mL

Dil. Factor: 1.7400

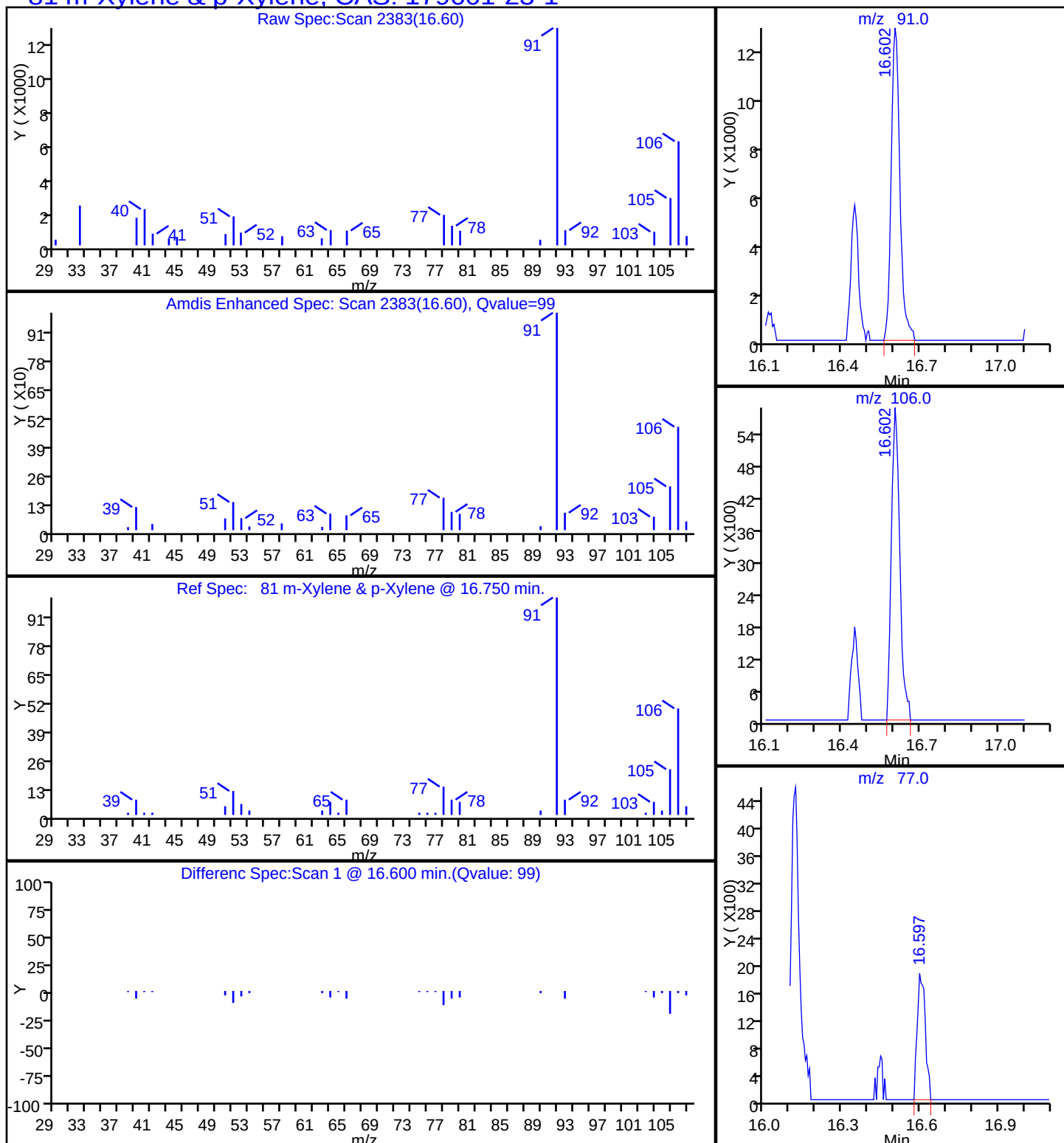
Method: MJ TO15

Limit Group: MSA TO14A 15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector MS SCAN

81 m-Xylene & p-Xylene, CAS: 179601-23-1



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P112R.D

Injection Date: 16-Nov-2016 08:48:30

Instrument ID: MJ

Lims ID: 140-6336-A-12

Lab Sample ID: 140-6336-12

Client ID: DUP-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 26

Purge Vol: 500.000 mL

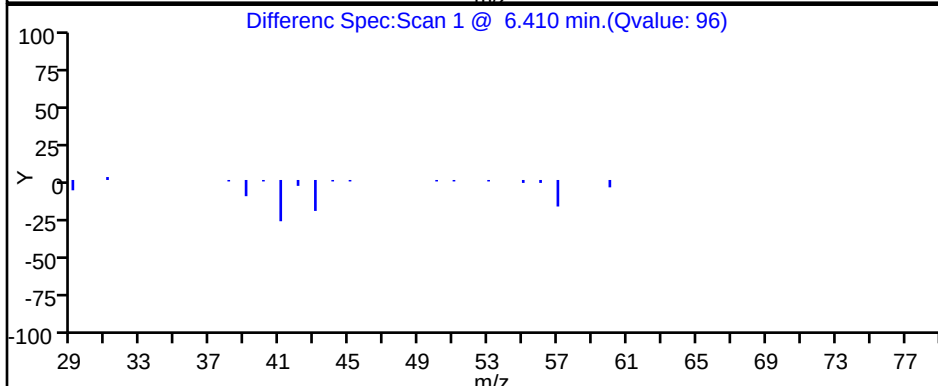
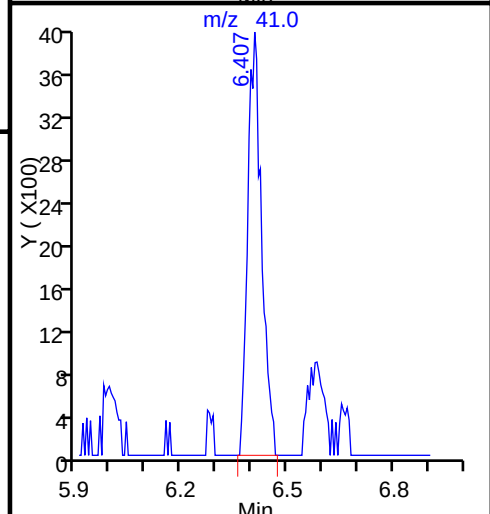
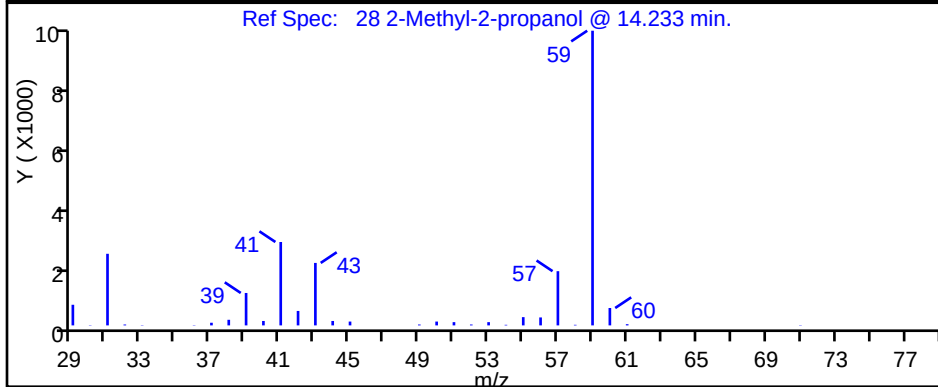
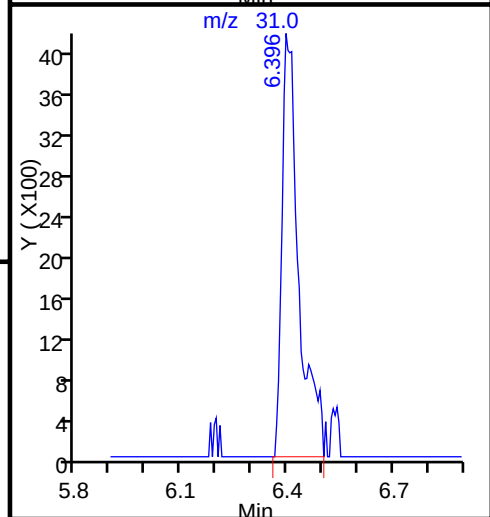
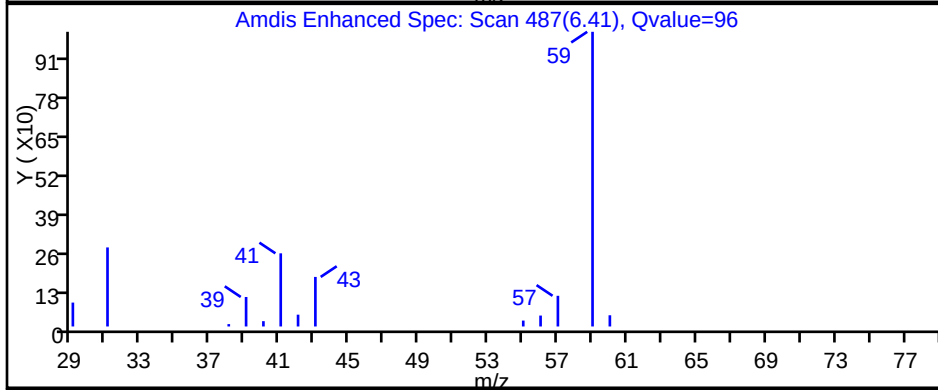
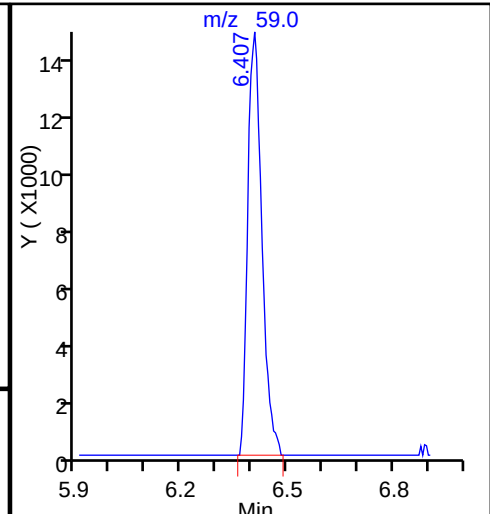
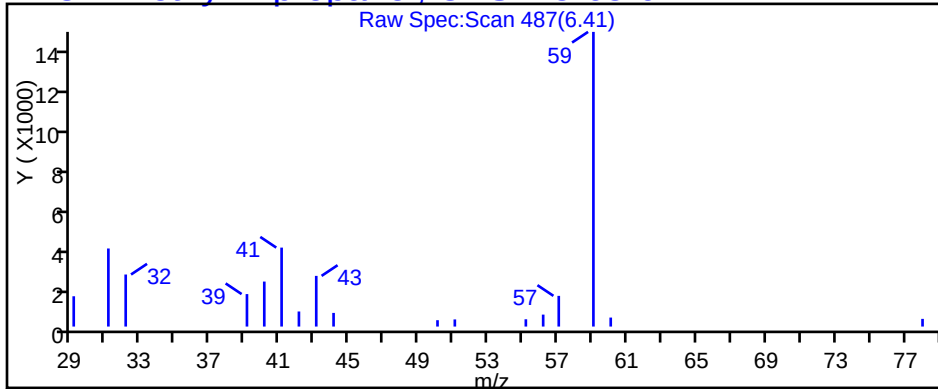
Dil. Factor: 1.7400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

28 2-Methyl-2-propanol, CAS: 75-65-0

TestAmerica Knoxville

Data File: \\ChromNA\\Knoxville\\ChromData\\MJ\\20161114-3625.b\\JK15P112R.D

Injection Date: 16-Nov-2016 08:48:30

Instrument ID: MJ

Lims ID: 140-6336-A-12

Lab Sample ID: 140-6336-12

Client ID: DUP-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 26

Purge Vol: 500.000 mL

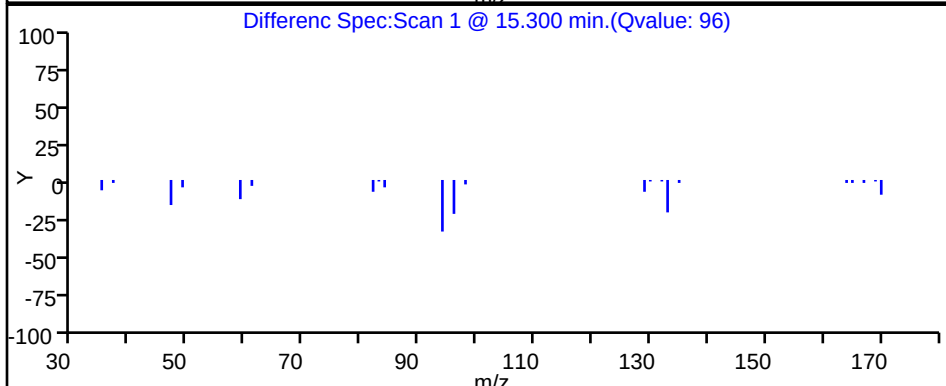
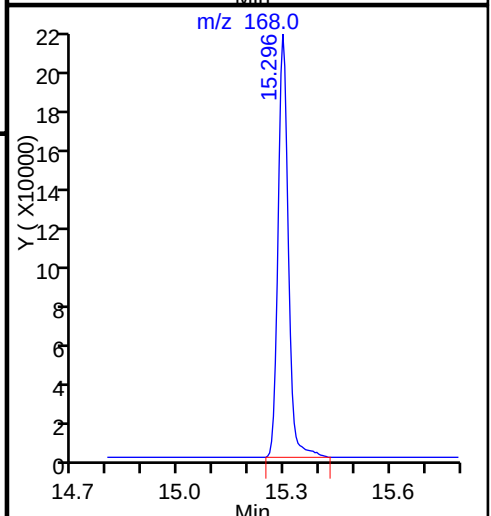
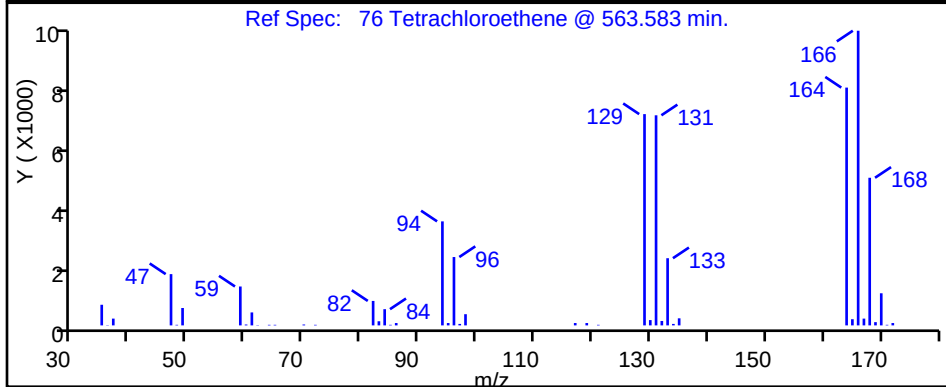
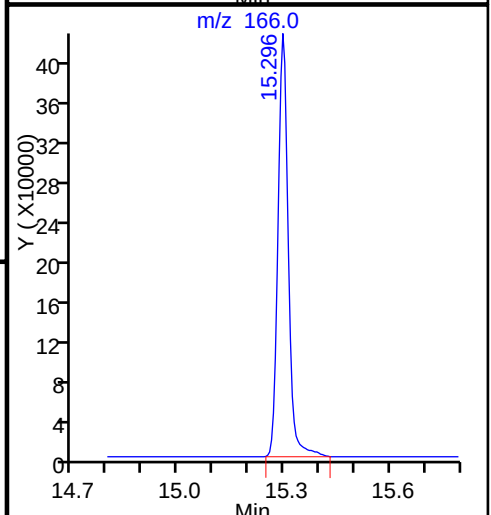
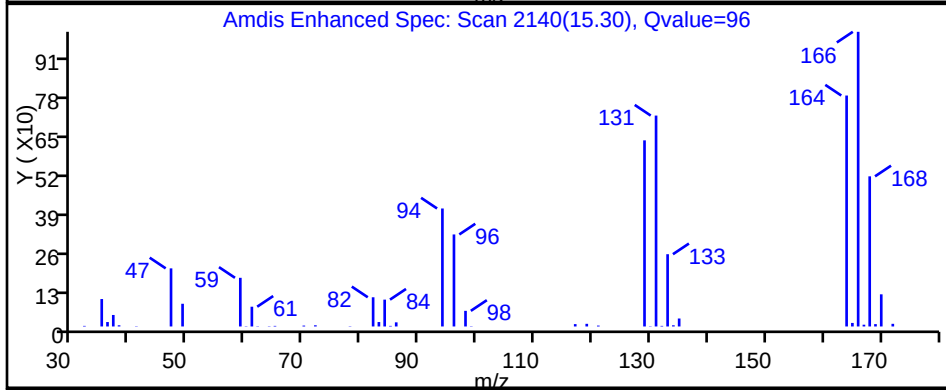
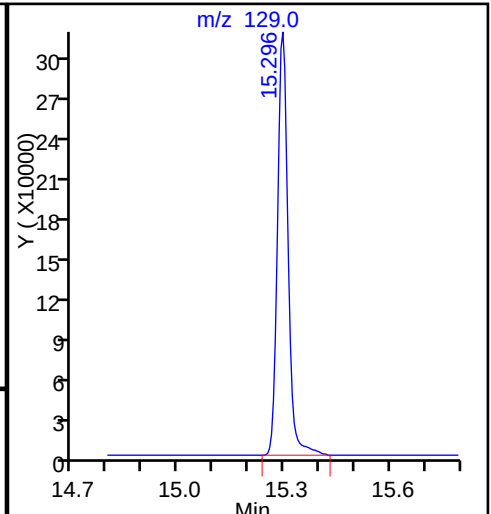
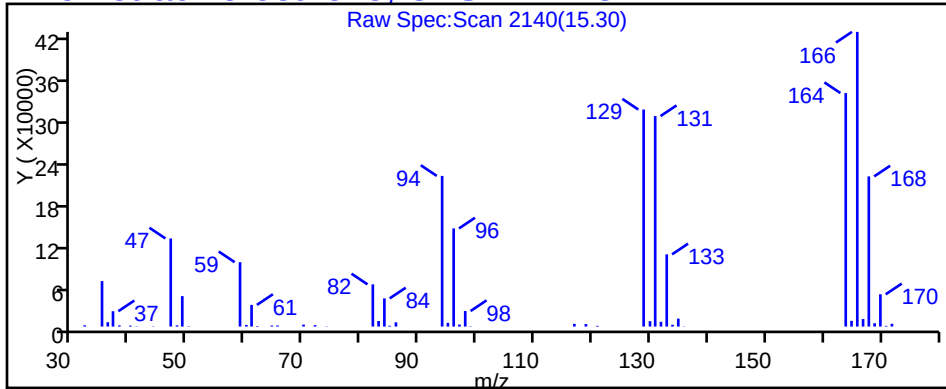
Dil. Factor: 1.7400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

76 Tetrachloroethene, CAS: 127-18-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P112R.D

Injection Date: 16-Nov-2016 08:48:30

Instrument ID: MJ

Lims ID: 140-6336-A-12

Lab Sample ID: 140-6336-12

Client ID: DUP-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 26

Purge Vol: 500.000 mL

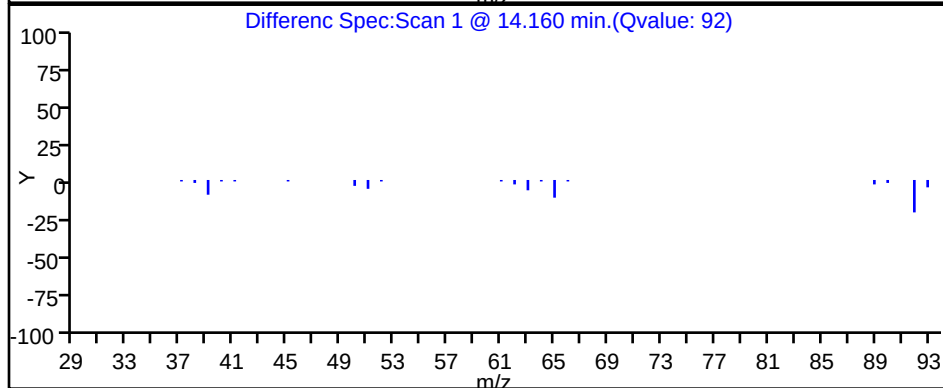
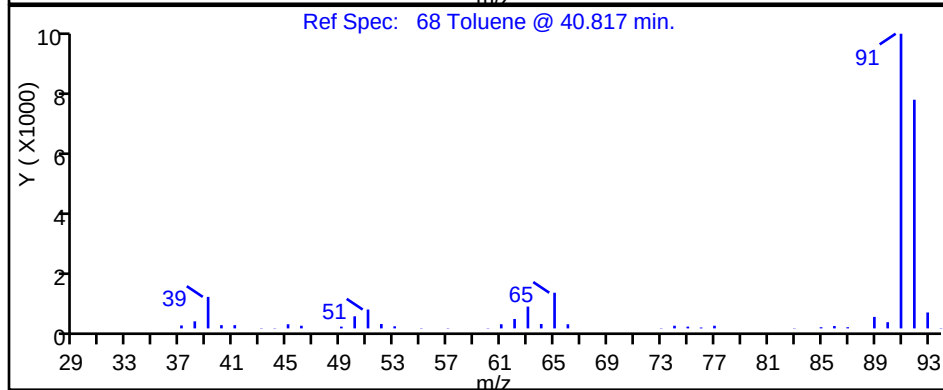
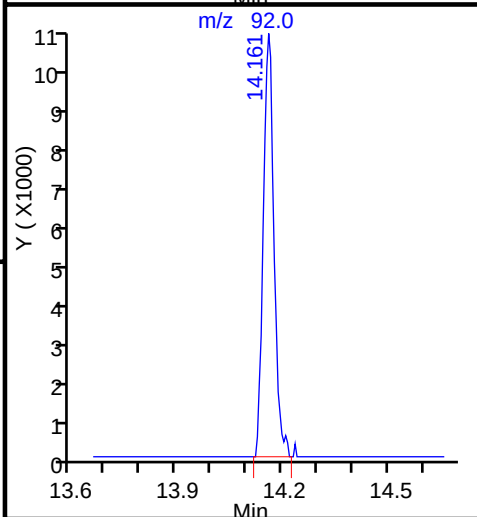
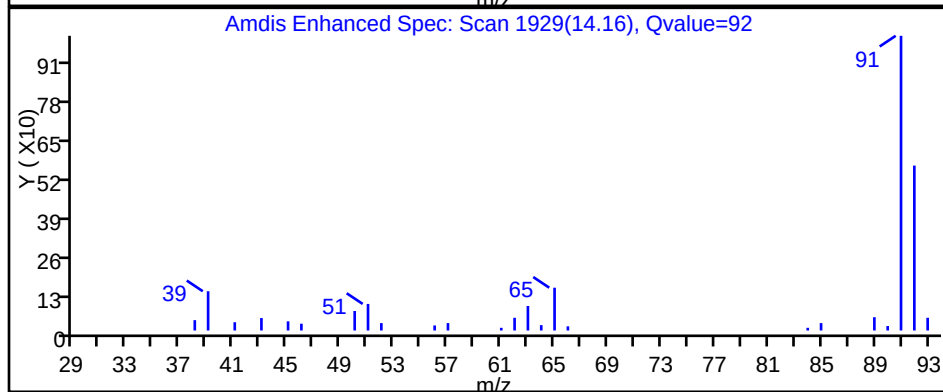
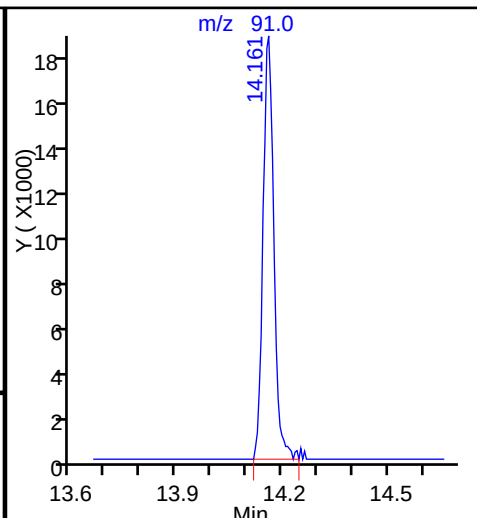
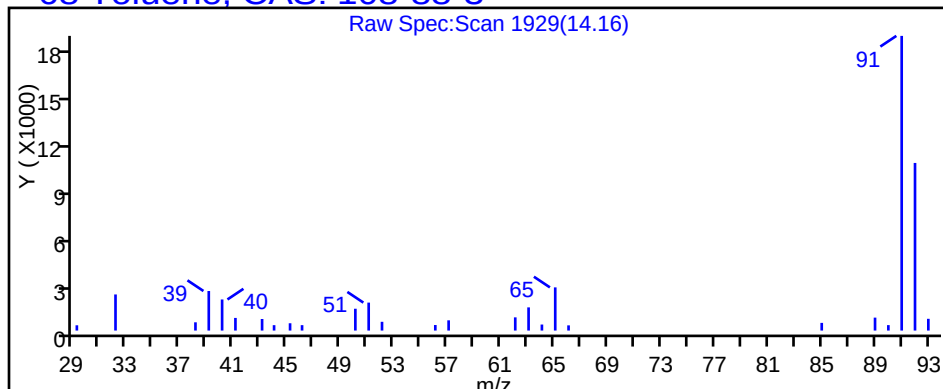
Dil. Factor: 1.7400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

68 Toluene, CAS: 108-88-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P112R.D

Injection Date: 16-Nov-2016 08:48:30

Instrument ID: MJ

Lims ID: 140-6336-A-12

Lab Sample ID: 140-6336-12

Client ID: DUP-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 26

Purge Vol: 500.000 mL

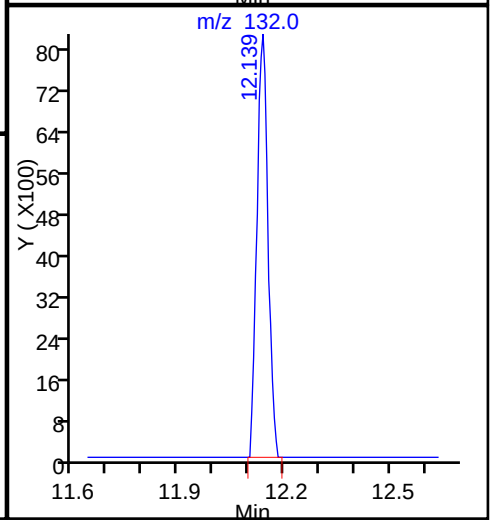
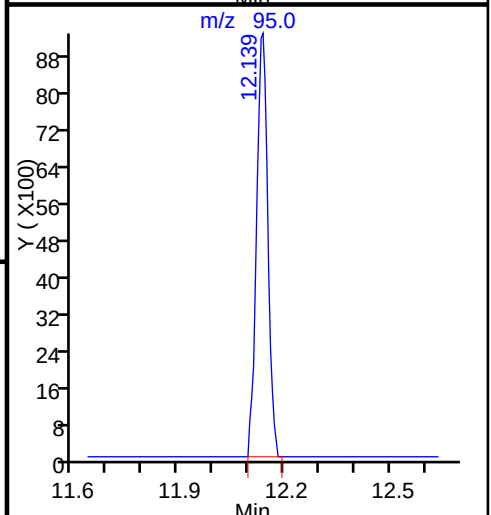
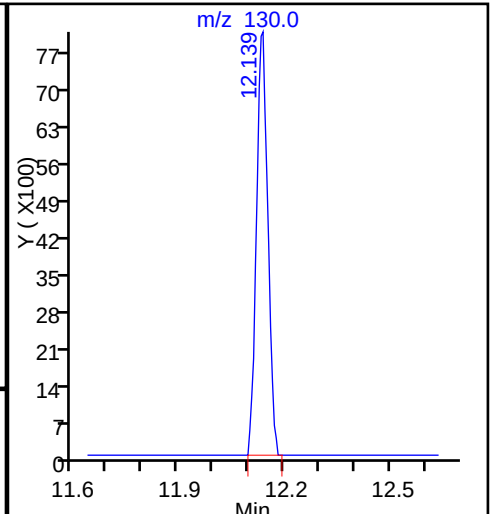
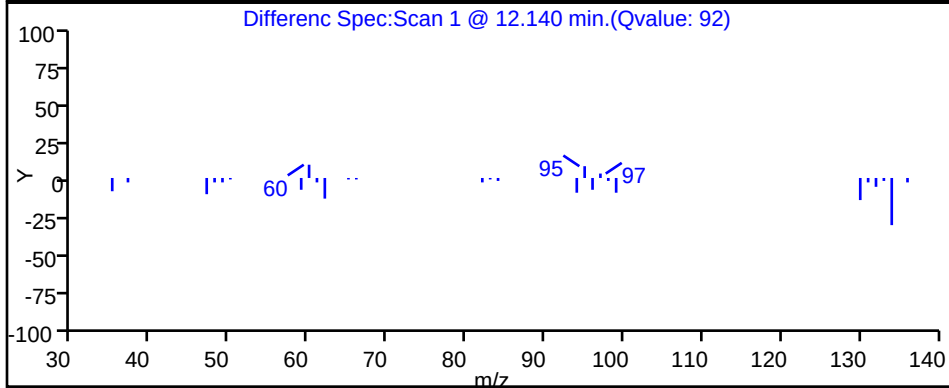
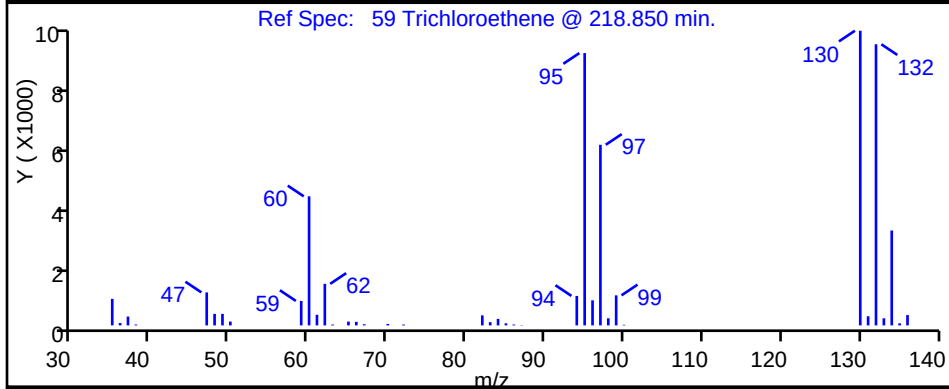
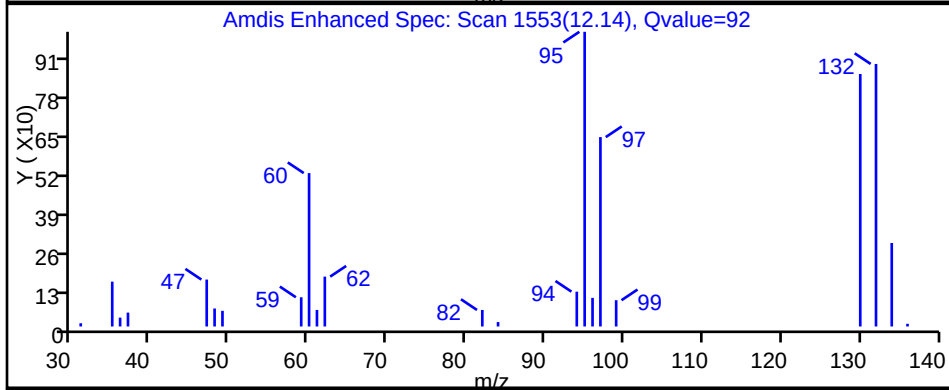
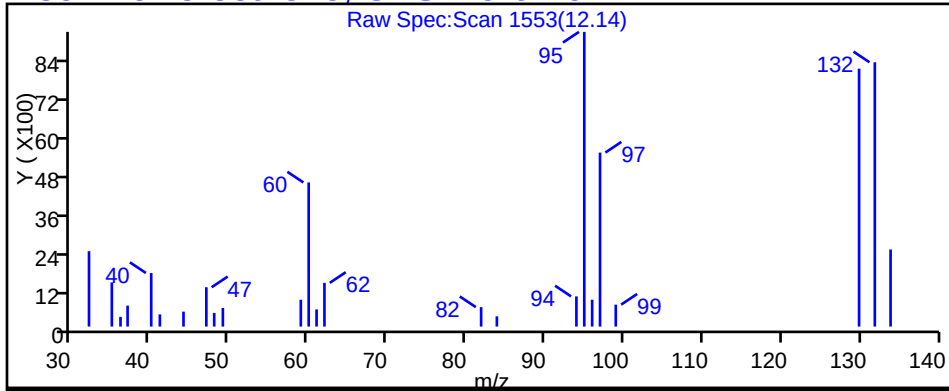
Dil. Factor: 1.7400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

59 Trichloroethene, CAS: 79-01-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P112R.D

Injection Date: 16-Nov-2016 08:48:30

Instrument ID: MJ

Lims ID: 140-6336-A-12

Lab Sample ID: 140-6336-12

Client ID: DUP-1

Operator ID: 7126

ALS Bottle#: 12

Worklist Smp#: 26

Purge Vol: 500.000 mL

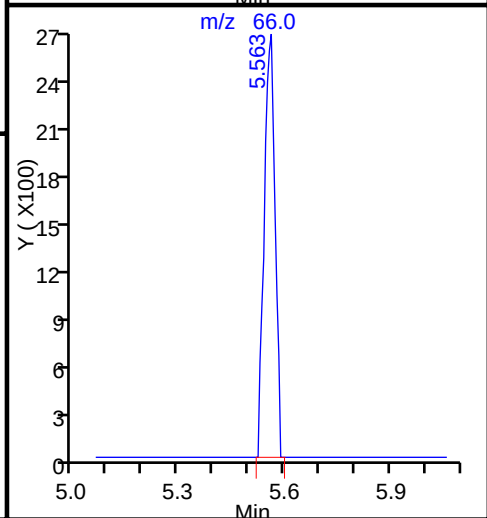
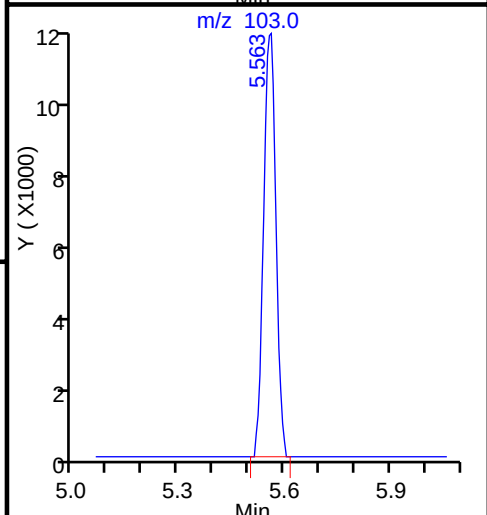
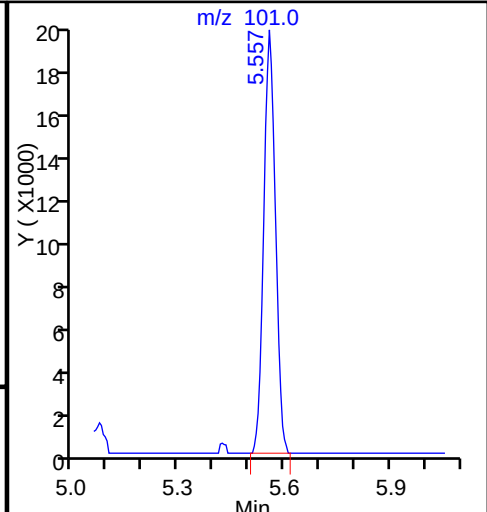
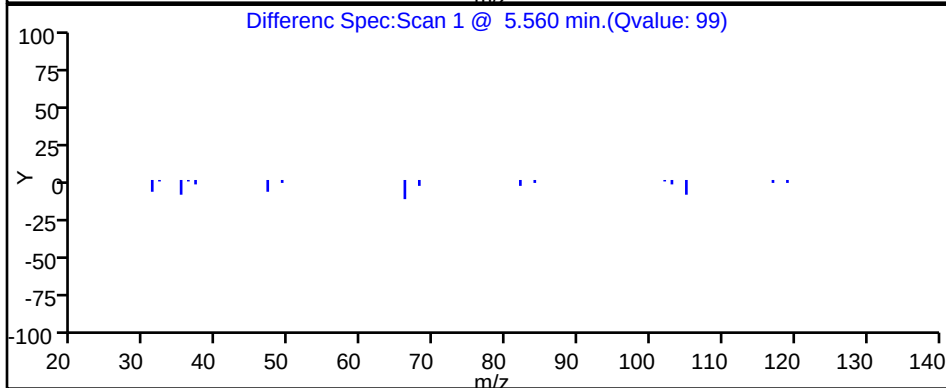
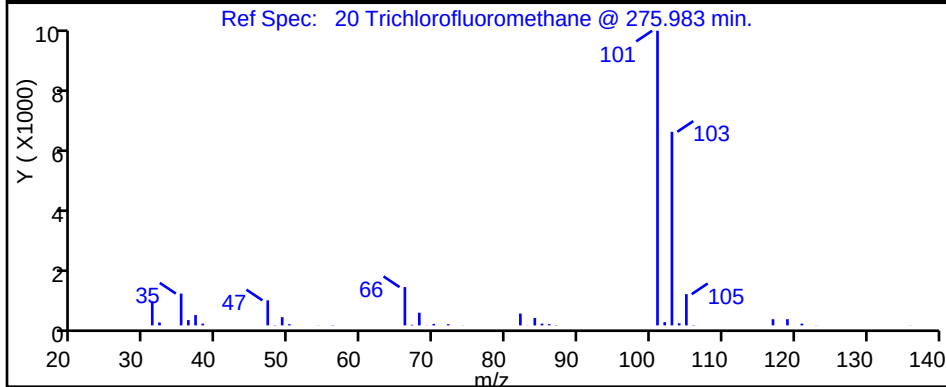
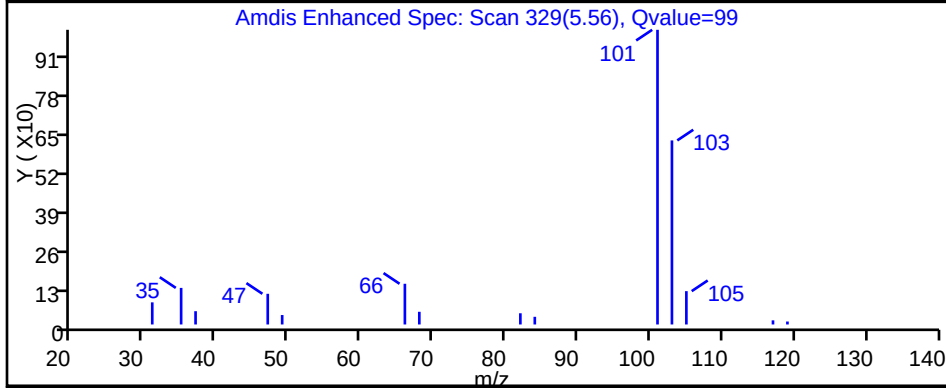
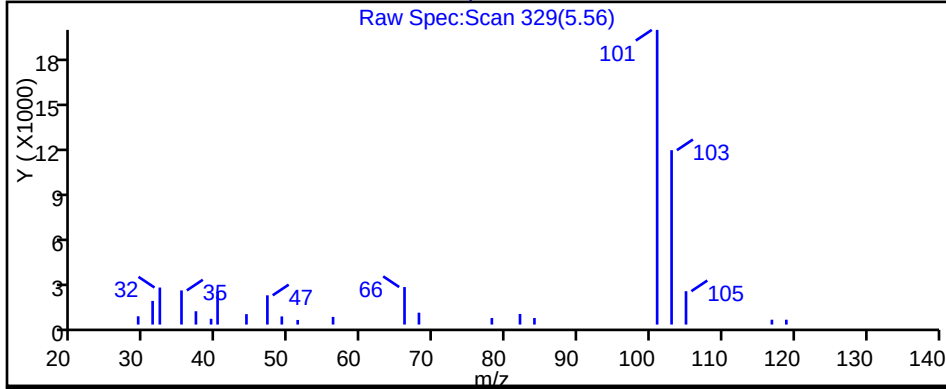
Dil. Factor: 1.7400

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-5 Lab Sample ID: 140-6336-13
 Matrix: Air Lab File ID: JK15P113.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 12:07
 Sample wt/vol: 815(mL) Date Analyzed: 11/16/2016 03:43
 Soil Aliquot Vol: _____ Dilution Factor: 1.63
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.080	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.080	
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	
106-93-4	1,2-Dibromoethane	187.87	ND		0.080	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.080	
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	
78-87-5	1,2-Dichloropropane	112.99	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	0.10		0.080	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.080	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.080	
123-91-1	1,4-Dioxane	88.11	ND		0.20	
540-84-1	2,2,4-Trimethylpentane	114.23	0.43		0.20	
78-93-3	2-Butanone	72.11	1.1		0.32	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	2.1		0.20	
71-43-2	Benzene	78.11	ND		0.080	
100-44-7	Benzyl chloride	126.58	ND		0.16	
75-27-4	Bromodichloromethane	163.83	0.12		0.080	
75-25-2	Bromoform	252.75	ND		0.080	
74-83-9	Bromomethane	94.94	ND		0.080	
56-23-5	Carbon tetrachloride	153.81	0.045		0.040	
108-90-7	Chlorobenzene	112.56	ND		0.080	
75-00-3	Chloroethane	64.52	ND		0.080	
67-66-3	Chloroform	119.38	3.6		0.080	
74-87-3	Chloromethane	50.49	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.080	
110-82-7	Cyclohexane	84.16	0.35		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-5 Lab Sample ID: 140-6336-13
 Matrix: Air Lab File ID: JK15P113.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 12:07
 Sample wt/vol: 815(mL) Date Analyzed: 11/16/2016 03:43
 Soil Aliquot Vol: _____ Dilution Factor: 1.63
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.080	
75-71-8	Dichlorodifluoromethane	120.91	0.49		0.080	
64-17-5	Ethanol	46.07	ND		2.0	
100-41-4	Ethylbenzene	106.17	ND		0.080	
87-68-3	Hexachlorobutadiene	260.76	ND		0.080	
110-54-3	Hexane	86.17	0.24		0.20	
1634-04-4	Methyl tert-butyl ether	88.15	0.27		0.16	
75-09-2	Methylene Chloride	84.93	0.75		0.20	
179601-23-1	m-Xylene & p-Xylene	106.17	0.13		0.080	
95-47-6	o-Xylene	106.17	ND		0.080	
100-42-5	Styrene	104.15	ND		0.080	
75-65-0	t-Butyl alcohol	74.12	0.41		0.32	
127-18-4	Tetrachloroethene	165.83	1.7		0.080	
108-88-3	Toluene	92.14	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.080	
79-01-6	Trichloroethene	131.39	0.19		0.040	
75-69-4	Trichlorofluoromethane	137.37	0.25		0.080	
75-01-4	Vinyl chloride	62.50	ND		0.040	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	106		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-5 Lab Sample ID: 140-6336-13
 Matrix: Air Lab File ID: JK15P113.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 12:07
 Sample wt/vol: 815(mL) Date Analyzed: 11/16/2016 03:43
 Soil Aliquot Vol: _____ Dilution Factor: 1.63
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.55	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.61	
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	
106-93-4	1,2-Dibromoethane	187.87	ND		0.61	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.48	
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	
78-87-5	1,2-Dichloropropane	112.99	ND		0.37	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	0.70		0.56	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.48	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.48	
123-91-1	1,4-Dioxane	88.11	ND		0.72	
540-84-1	2,2,4-Trimethylpentane	114.23	2.0		0.93	
78-93-3	2-Butanone	72.11	3.1		0.94	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	8.7		0.82	
71-43-2	Benzene	78.11	ND		0.26	
100-44-7	Benzyl chloride	126.58	ND		0.83	
75-27-4	Bromodichloromethane	163.83	0.84		0.54	
75-25-2	Bromoform	252.75	ND		0.83	
74-83-9	Bromomethane	94.94	ND		0.31	
56-23-5	Carbon tetrachloride	153.81	0.28		0.25	
108-90-7	Chlorobenzene	112.56	ND		0.37	
75-00-3	Chloroethane	64.52	ND		0.21	
67-66-3	Chloroform	119.38	18		0.39	
74-87-3	Chloromethane	50.49	ND		0.41	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.36	
110-82-7	Cyclohexane	84.16	1.2		0.69	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: OVP-5 Lab Sample ID: 140-6336-13
 Matrix: Air Lab File ID: JK15P113.D
 Analysis Method: TO 15 LL Date Collected: 11/09/2016 12:07
 Sample wt/vol: 815(mL) Date Analyzed: 11/16/2016 03:43
 Soil Aliquot Vol: _____ Dilution Factor: 1.63
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.68	
75-71-8	Dichlorodifluoromethane	120.91	2.4		0.40	
64-17-5	Ethanol	46.07	ND		3.8	
100-41-4	Ethylbenzene	106.17	ND		0.35	
87-68-3	Hexachlorobutadiene	260.76	ND		0.85	
110-54-3	Hexane	86.17	0.85		0.70	
1634-04-4	Methyl tert-butyl ether	88.15	0.96		0.58	
75-09-2	Methylene Chloride	84.93	2.6		0.69	
179601-23-1	m-Xylene & p-Xylene	106.17	0.57		0.35	
95-47-6	o-Xylene	106.17	ND		0.35	
100-42-5	Styrene	104.15	ND		0.34	
75-65-0	t-Butyl alcohol	74.12	1.2		0.97	
127-18-4	Tetrachloroethene	165.83	12		0.54	
108-88-3	Toluene	92.14	ND		0.45	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.36	
79-01-6	Trichloroethene	131.39	1.0		0.21	
75-69-4	Trichlorofluoromethane	137.37	1.4		0.45	
75-01-4	Vinyl chloride	62.50	ND		0.10	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	106		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D
 Lims ID: 140-6336-A-13
 Client ID: OVP-5
 Sample Type: Client
 Inject. Date: 16-Nov-2016 03:43:30 ALS Bottle#: 13 Worklist Smp#: 22
 Purge Vol: 500.000 mL Dil. Factor: 1.6300
 Sample Info: 140-0003625-022
 Misc. Info.: 140-6336-a-12@1.74
 Operator ID: 7126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:10:16

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.275	9.281	-0.006	96	243993	4.00	
* 2 1,4-Difluorobenzene	114	11.437	11.443	-0.006	96	1114475	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.121	16.121	0.000	91	909568	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.745	17.745	0.000	86	582468	4.25	
8 Dichlorodifluoromethane	85	3.984	3.990	-0.006	100	117471	0.4891	
9 Chloromethane	52	4.183	4.183	0.000	58	4823	0.1751	M
10 1,2-Dichloro-1,1,2,2-tetra	135	4.183	4.189	-0.006	95	12692	0.1004	
15 Bromomethane	94	4.807	4.812	-0.005	29	1492	0.0199	
16 Chloroethane	64	4.957	4.963	-0.006	12	611	0.0176	
17 Ethanol	31	5.060	5.060	0.000	98	40577	1.75	
20 Trichlorofluoromethane	101	5.560	5.565	-0.005	99	51602	0.2464	
28 2-Methyl-2-propanol	59	6.404	6.404	0.000	96	48600	0.4102	
30 1,1,2-Trichloro-1,2,2-trif	101	6.479	6.485	-0.006	93	10919	0.0673	
31 Methylene Chloride	84	6.667	6.673	-0.006	99	57856	0.7463	
36 Methyl tert-butyl ether	73	7.641	7.635	0.006	94	42077	0.2662	
39 2-Butanone (MEK)	72	8.496	8.507	-0.011	97	27565	1.06	
40 Hexane	56	8.512	8.523	-0.011	73	14818	0.2407	
44 Chloroform	83	9.286	9.292	-0.006	97	555051	3.62	
47 1,1,1-Trichloroethane	97	10.324	10.335	-0.011	87	2460	0.0156	
50 Cyclohexane	69	10.916	10.921	-0.005	86	12319	0.3470	M
51 Benzene	78	10.921	10.921	0.000	47	6039	0.0293	
52 Carbon tetrachloride	117	10.932	10.942	-0.010	95	7060	0.0446	
56 Isooctane	57	11.652	11.652	0.000	94	144557	0.4344	
59 Trichloroethene	130	12.147	12.147	0.000	92	16014	0.1935	
62 Dichlorobromomethane	83	12.373	12.378	-0.005	97	17949	0.1249	
65 4-Methyl-2-pentanone (MIBK	43	13.292	13.298	-0.006	98	271114	2.12	
68 Toluene	91	14.163	14.169	-0.006	93	22466	0.1127	
76 Tetrachloroethene	129	15.298	15.304	-0.006	93	128542	1.72	
79 Ethylbenzene	91	16.449	16.449	0.000	53	7374	0.0335	
81 m-Xylene & p-Xylene	91	16.605	16.610	-0.005	99	21466	0.1302	
85 o-Xylene	91	17.137	17.137	0.000	93	6484	0.0359	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
96 1,2,4-Trimethylbenzene	105	18.874	18.874	0.000	98	9272	0.0559	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D

Injection Date: 16-Nov-2016 03:43:30

Instrument ID: MJ

Operator ID: 7126

Lims ID: 140-6336-A-13

Lab Sample ID: 140-6336-13

Worklist Smp#: 22

Client ID: OVP-5

Purge Vol: 500.000 mL

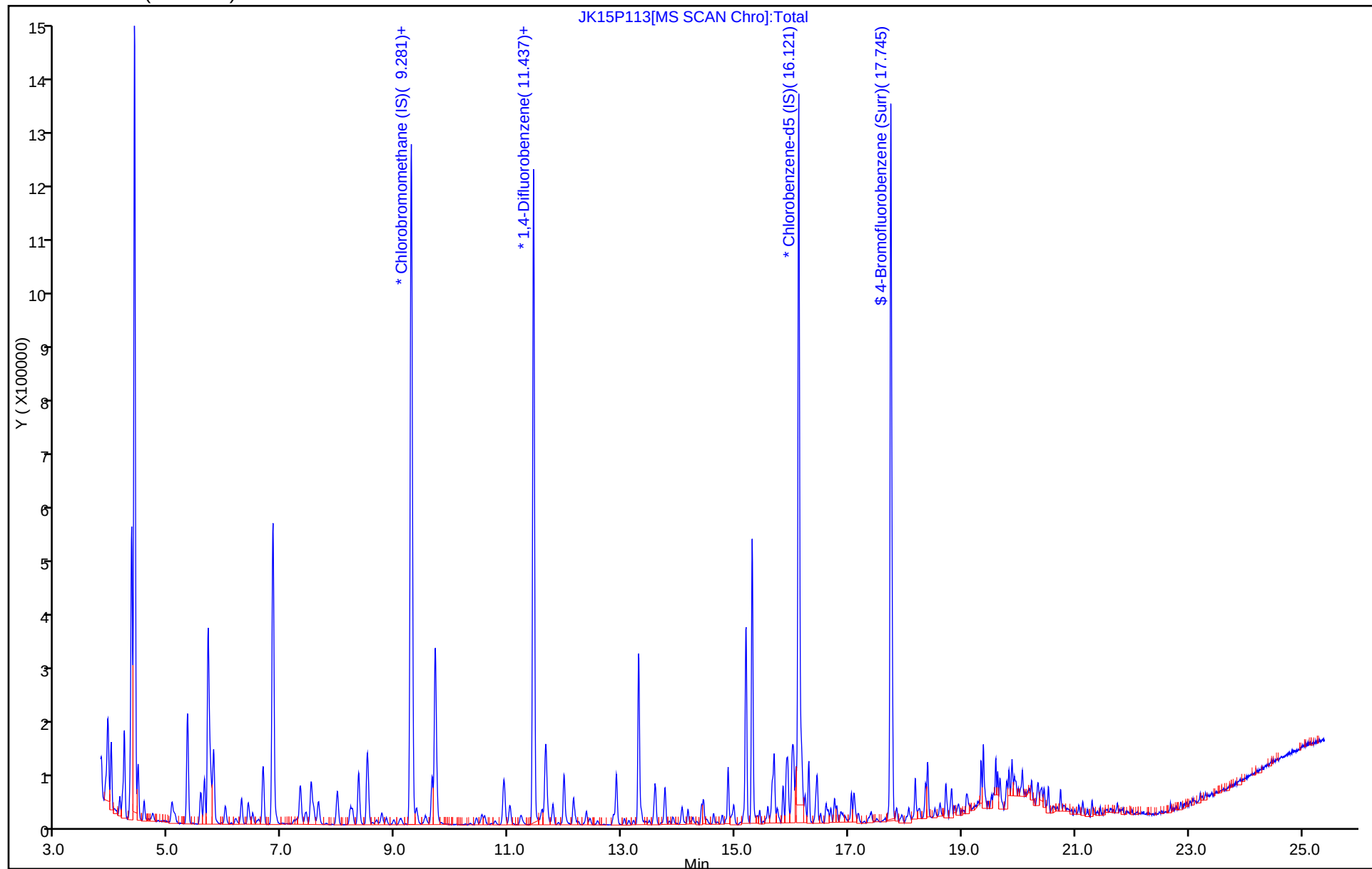
Dil. Factor: 1.6300

ALS Bottle#: 13

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D
Lims ID: 140-6336-A-13
Client ID: OVP-5
Sample Type: Client
Inject. Date: 16-Nov-2016 03:43:30 ALS Bottle#: 13 Worklist Smp#: 22
Purge Vol: 500.000 mL Dil. Factor: 1.6300
Sample Info: 140-0003625-022
Misc. Info.: 140-6336-a-12@1.74
Operator ID: 7126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: tajh

Date: 16-Nov-2016 09:10:16

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.25	106.19

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D

Injection Date: 16-Nov-2016 03:43:30

Instrument ID: MJ

Lims ID: 140-6336-A-13

Lab Sample ID: 140-6336-13

Client ID: OVP-5

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 22

Purge Vol: 500.000 mL

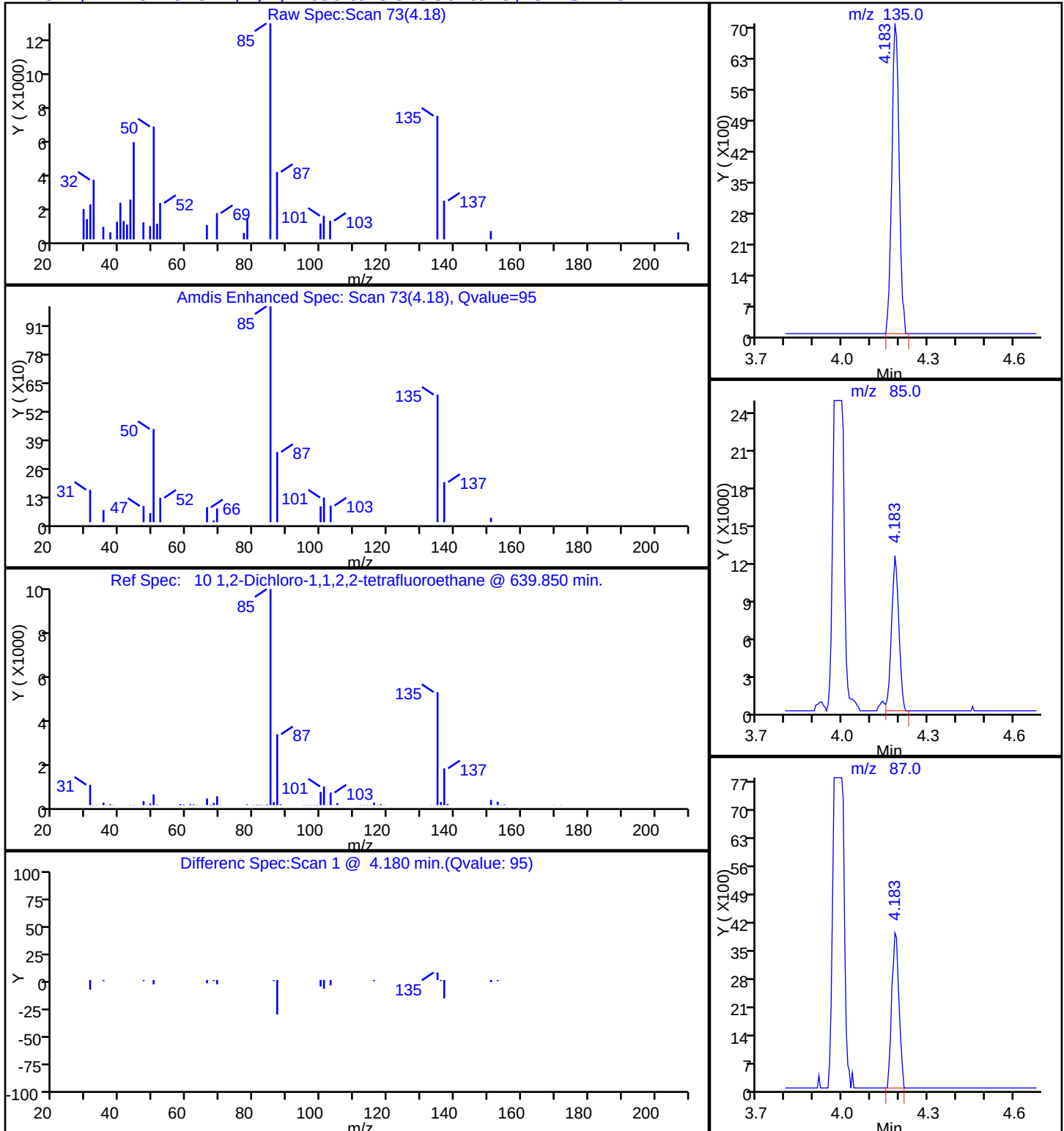
Dil. Factor: 1.6300

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector MS SCAN

10 1,2-Dichloro-1,1,2,2-tetrafluoroethane, CAS: 76-14-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D

Injection Date: 16-Nov-2016 03:43:30

Instrument ID: MJ

Lims ID: 140-6336-A-13

Lab Sample ID: 140-6336-13

Client ID: OVP-5

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 22

Purge Vol: 500.000 mL

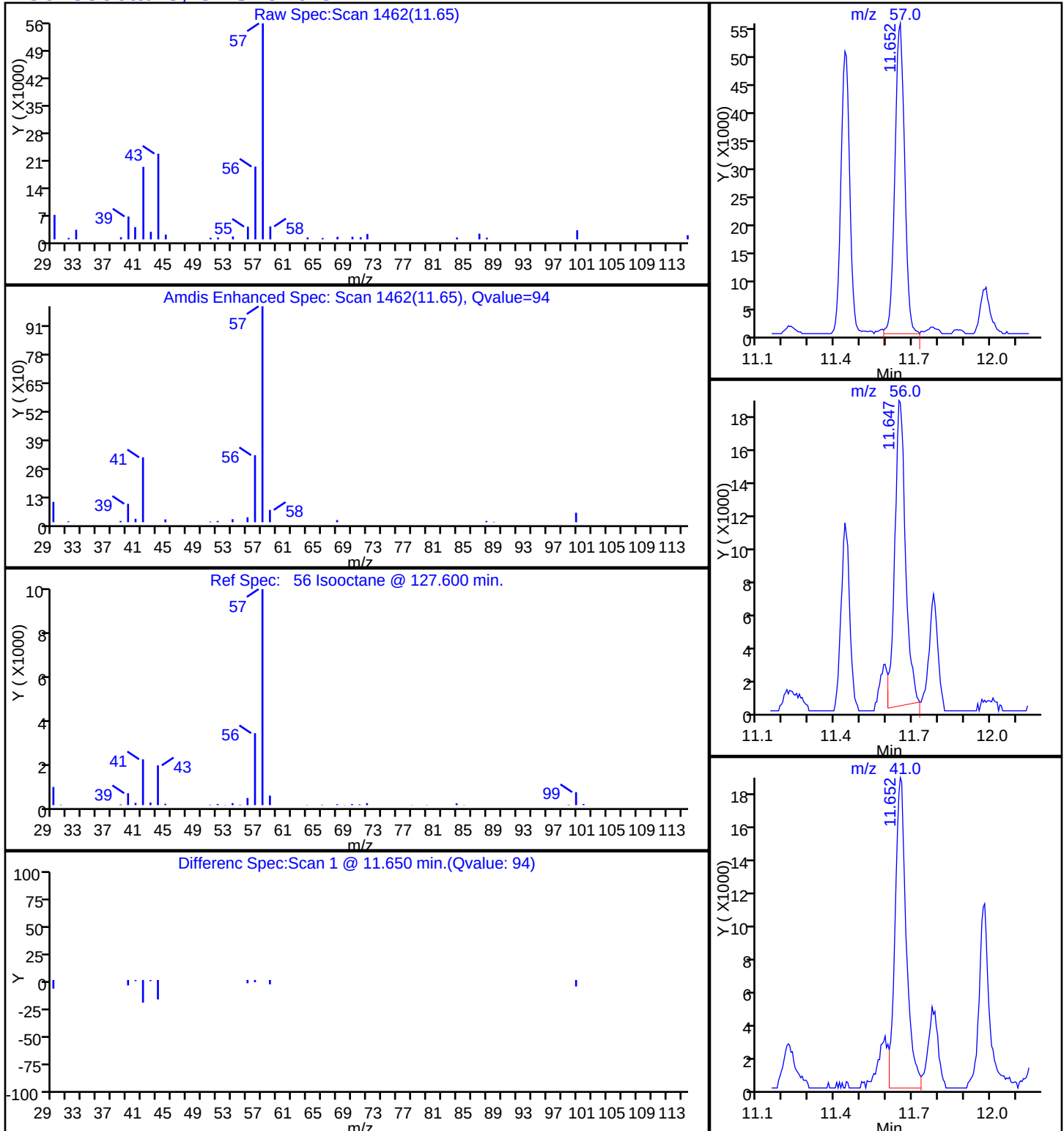
Dil. Factor: 1.6300

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

56 Isooctane, CAS: 540-84-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D

Injection Date: 16-Nov-2016 03:43:30

Instrument ID: MJ

Lims ID: 140-6336-A-13

Lab Sample ID: 140-6336-13

Client ID: OVP-5

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 22

Purge Vol: 500.000 mL

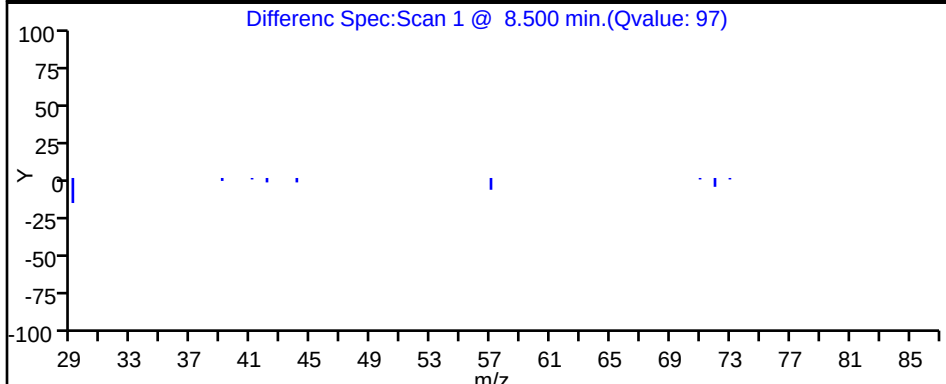
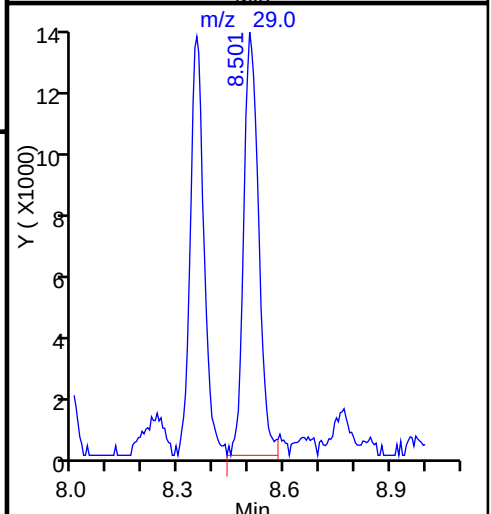
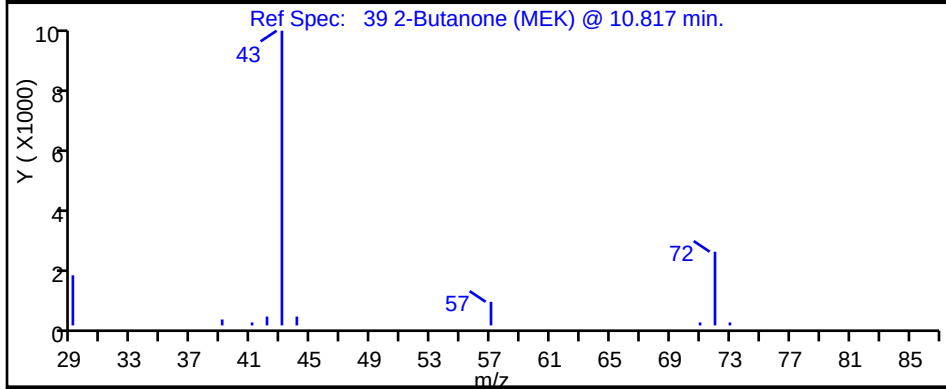
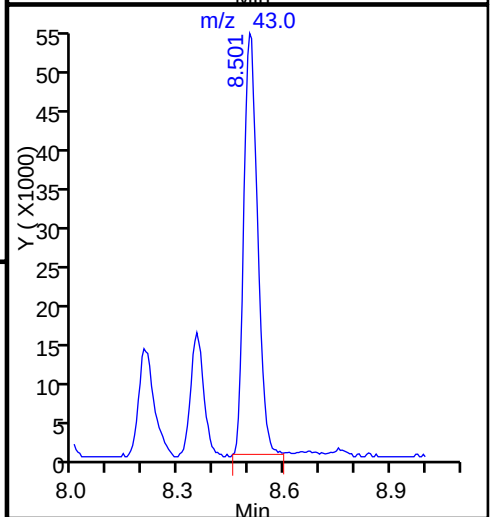
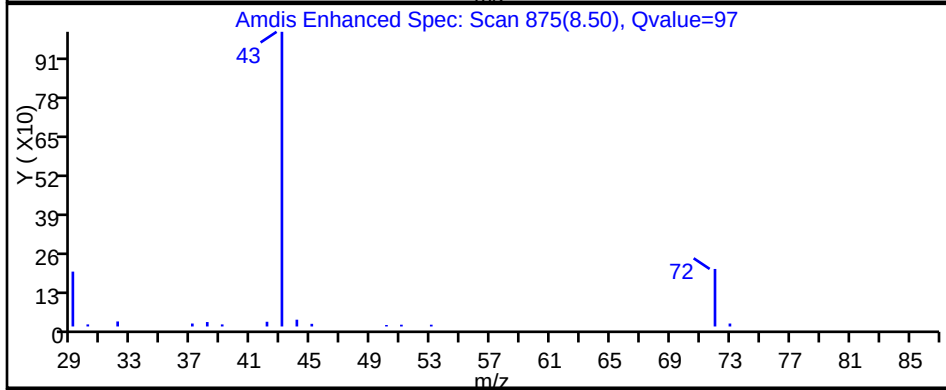
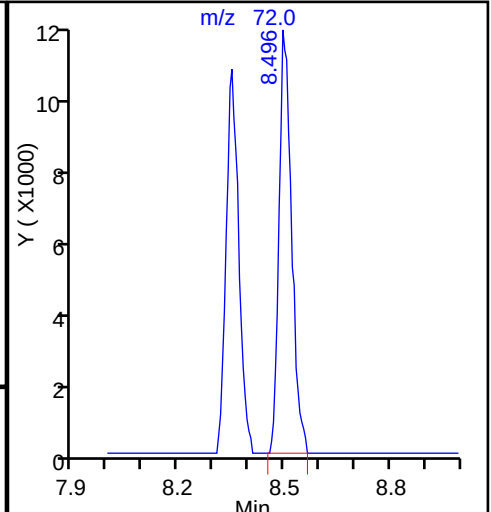
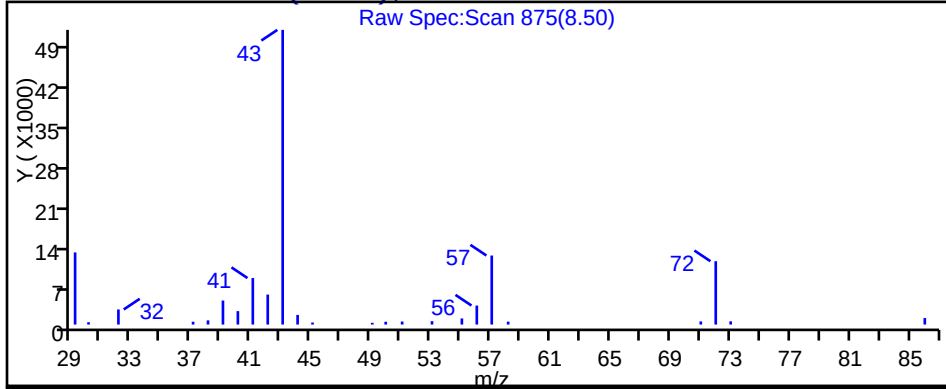
Dil. Factor: 1.6300

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

39 2-Butanone (MEK), CAS: 78-93-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D

Injection Date: 16-Nov-2016 03:43:30

Instrument ID: MJ

Lims ID: 140-6336-A-13

Lab Sample ID: 140-6336-13

Client ID: OVP-5

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 22

Purge Vol: 500.000 mL

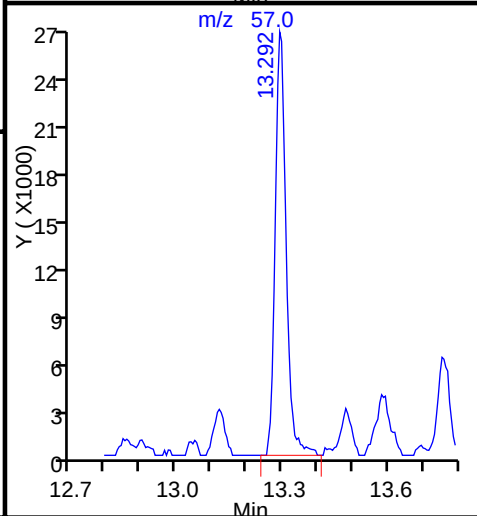
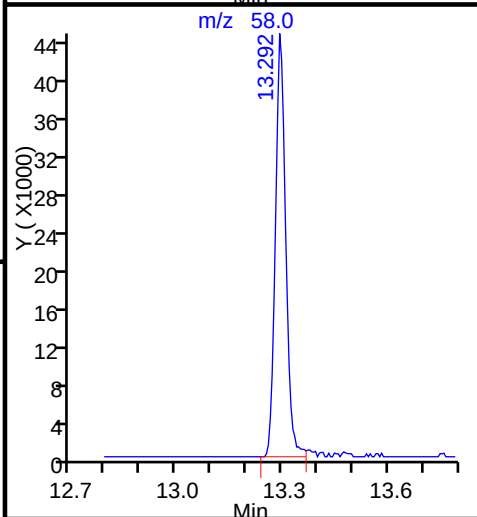
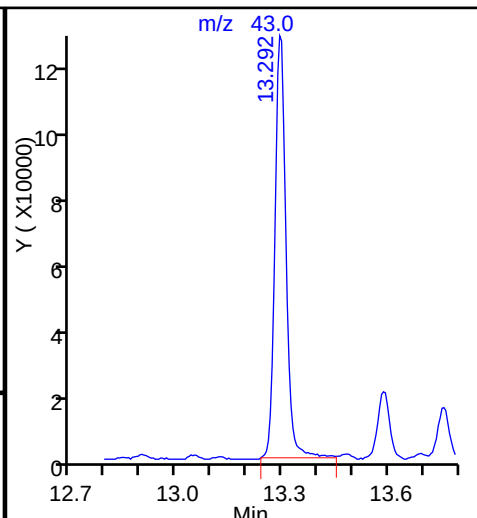
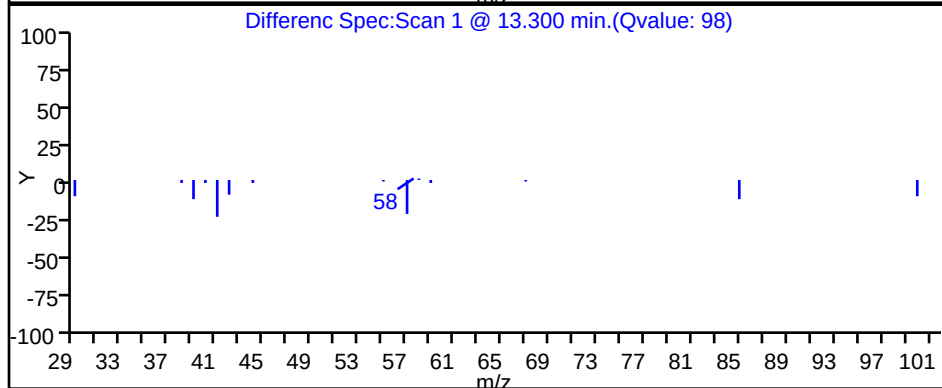
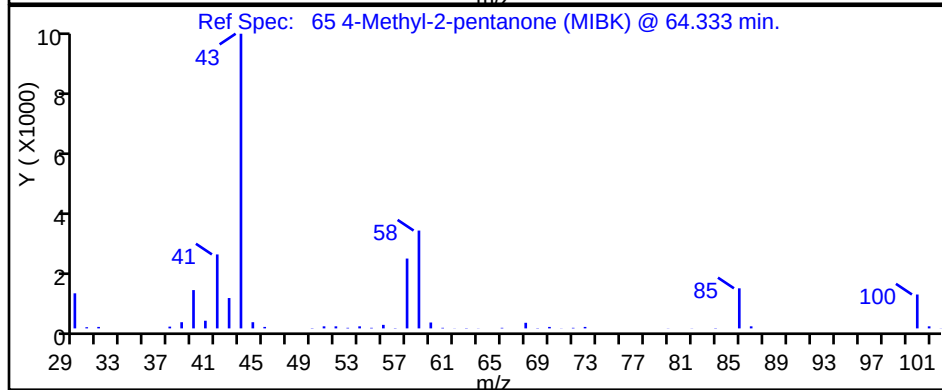
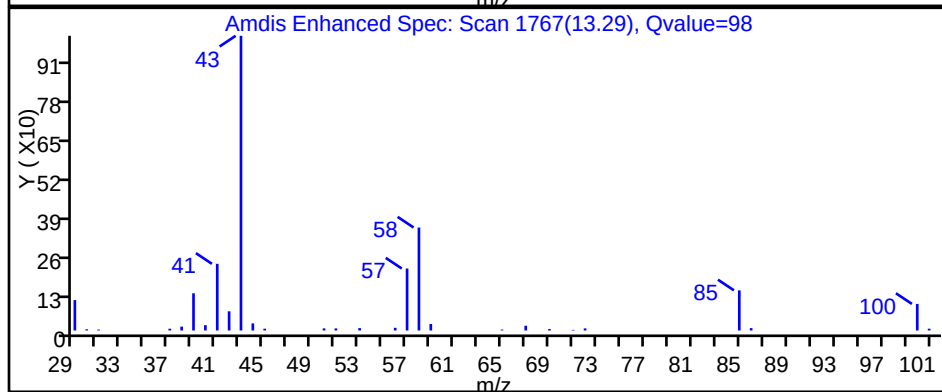
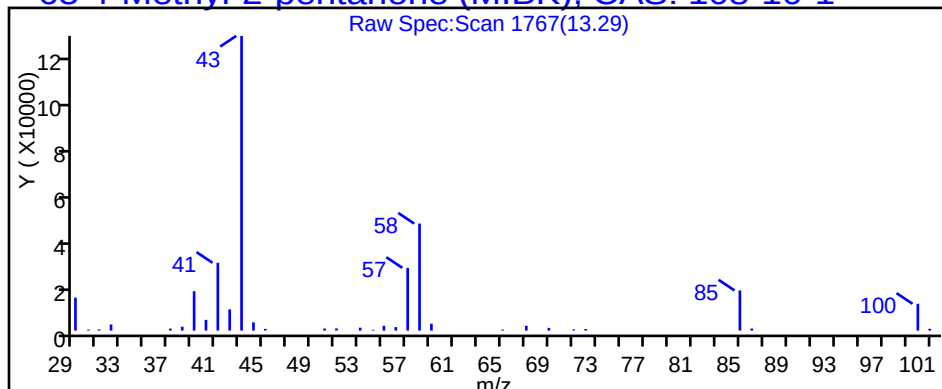
Dil. Factor: 1.6300

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

65 4-Methyl-2-pentanone (MIBK), CAS: 108-10-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D

Injection Date: 16-Nov-2016 03:43:30

Instrument ID: MJ

Lims ID: 140-6336-A-13

Lab Sample ID: 140-6336-13

Client ID: OVP-5

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 22

Purge Vol: 500.000 mL

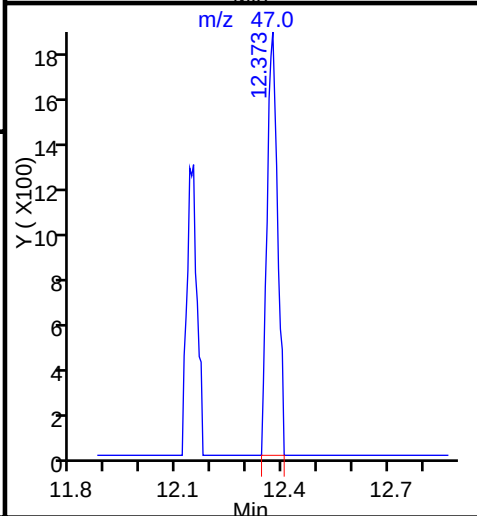
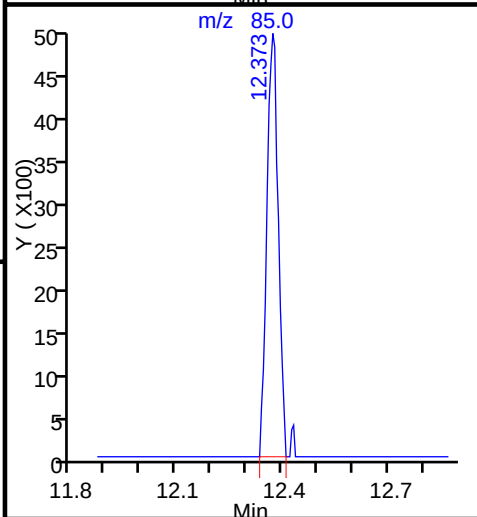
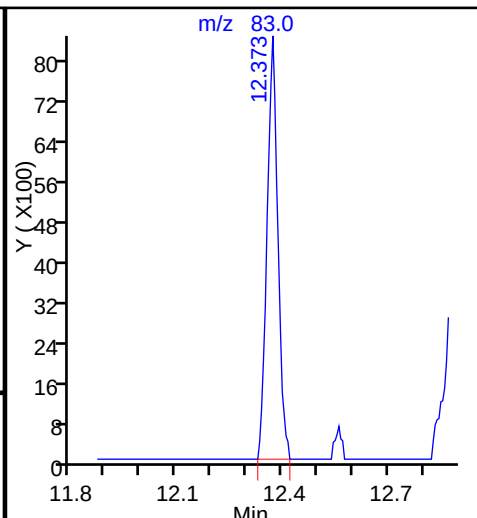
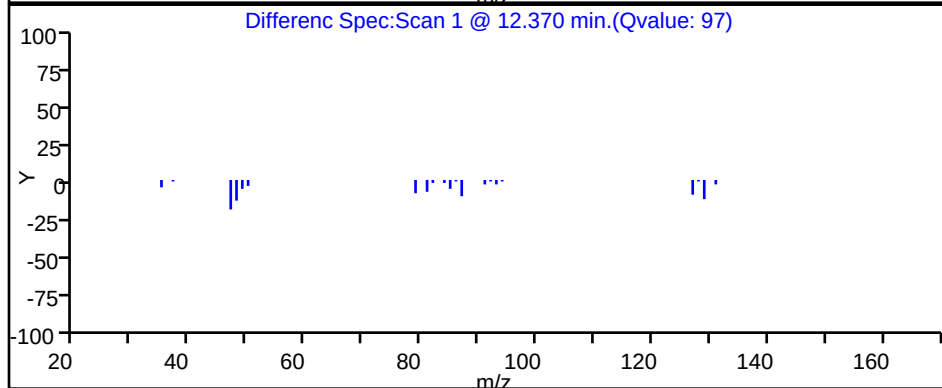
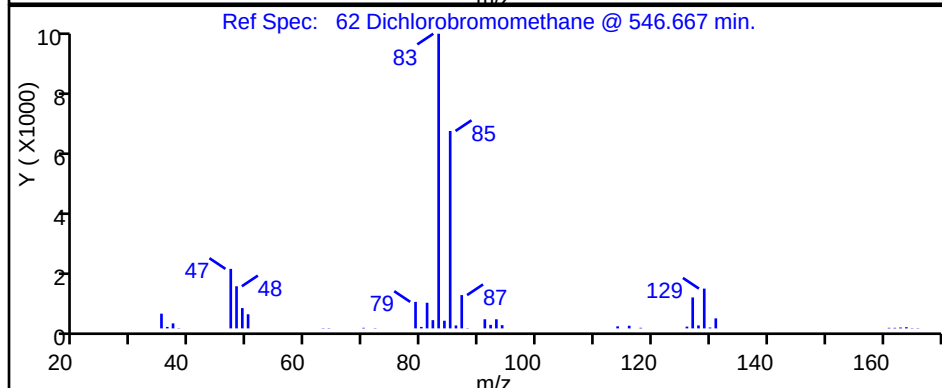
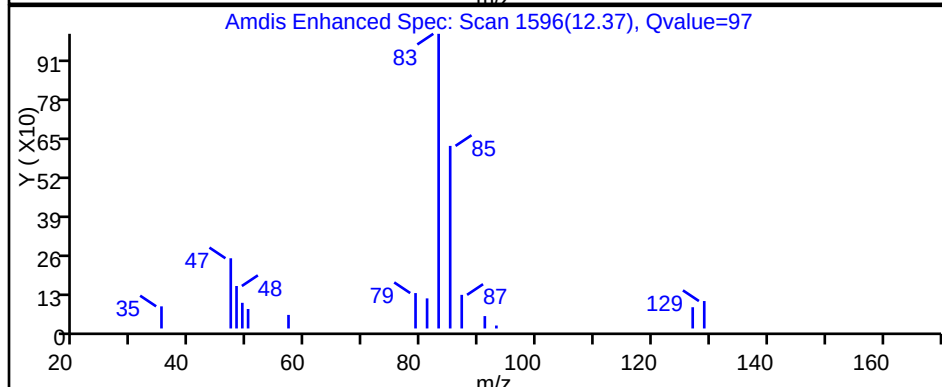
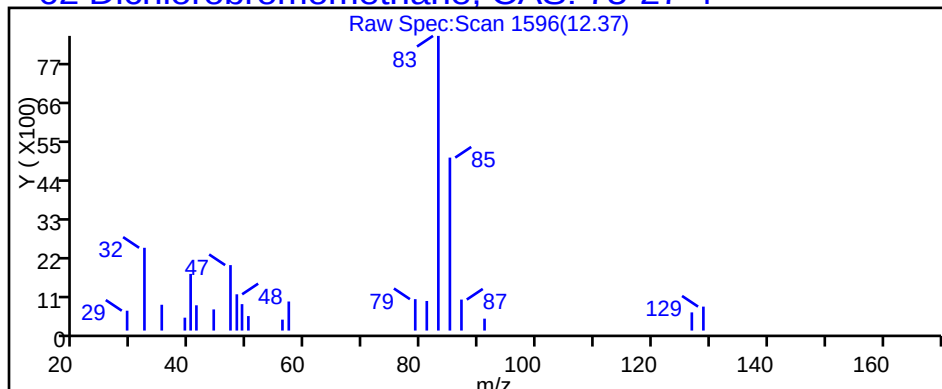
Dil. Factor: 1.6300

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

62 Dichlorobromomethane, CAS: 75-27-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D

Injection Date: 16-Nov-2016 03:43:30

Instrument ID: MJ

Lims ID: 140-6336-A-13

Lab Sample ID: 140-6336-13

Client ID: OVP-5

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 22

Purge Vol: 500.000 mL

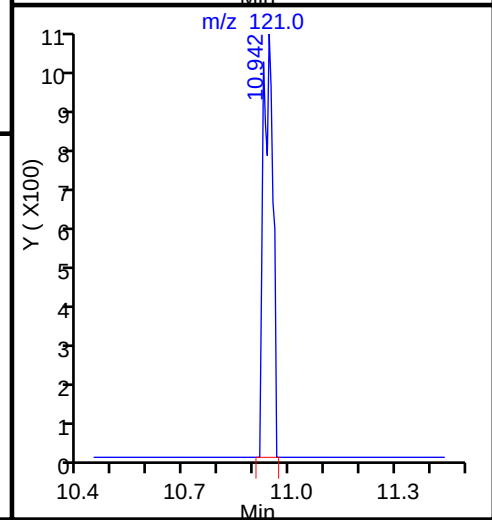
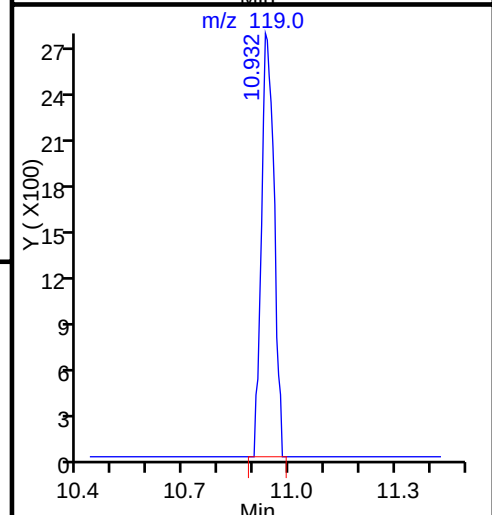
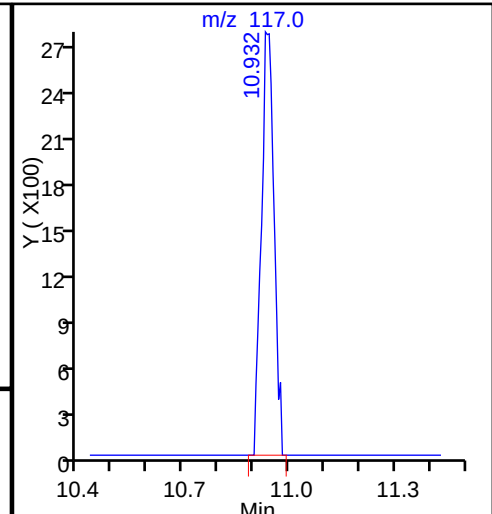
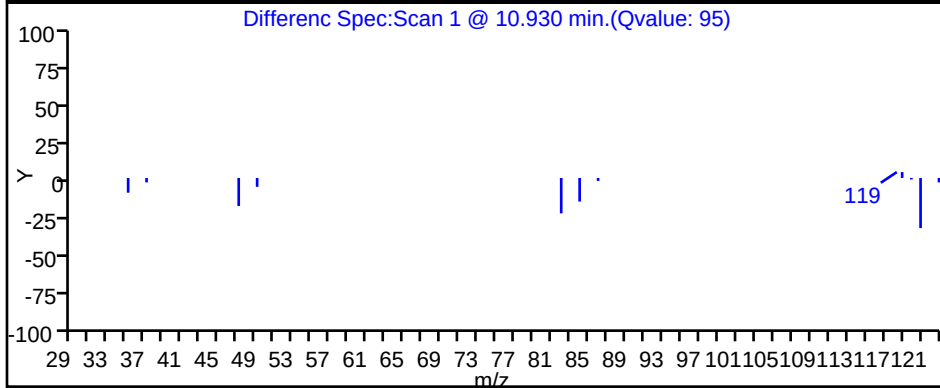
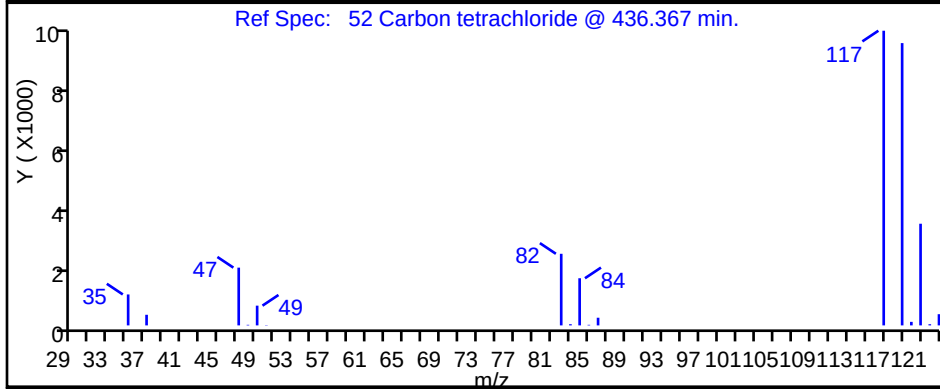
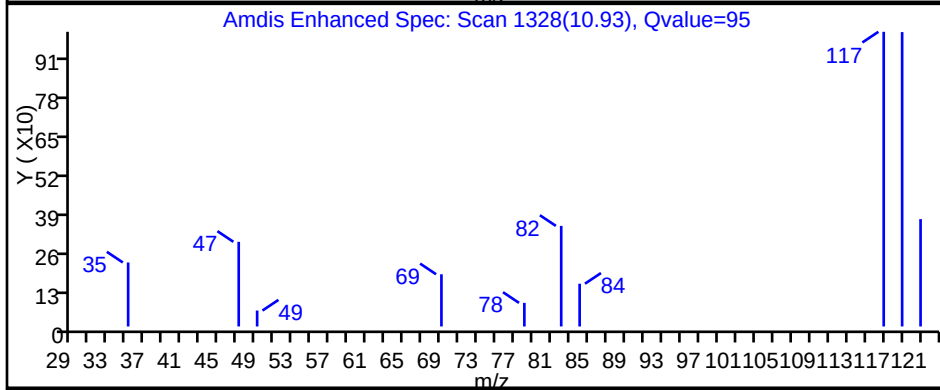
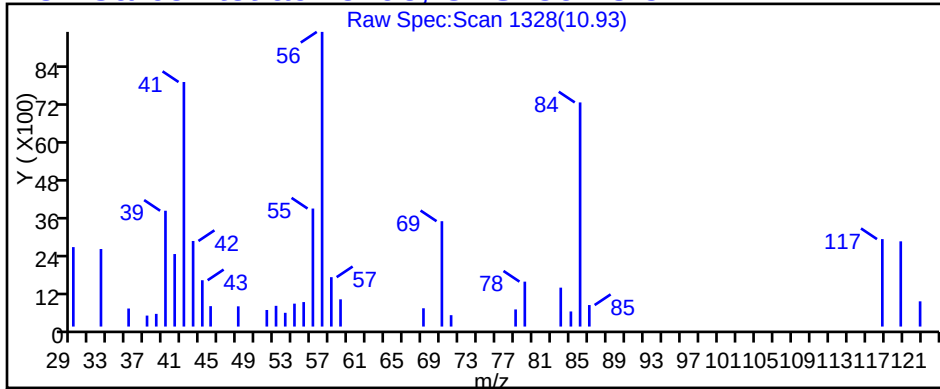
Dil. Factor: 1.6300

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

52 Carbon tetrachloride, CAS: 56-23-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D

Injection Date: 16-Nov-2016 03:43:30

Instrument ID: MJ

Lims ID: 140-6336-A-13

Lab Sample ID: 140-6336-13

Client ID: OVP-5

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 22

Purge Vol: 500.000 mL

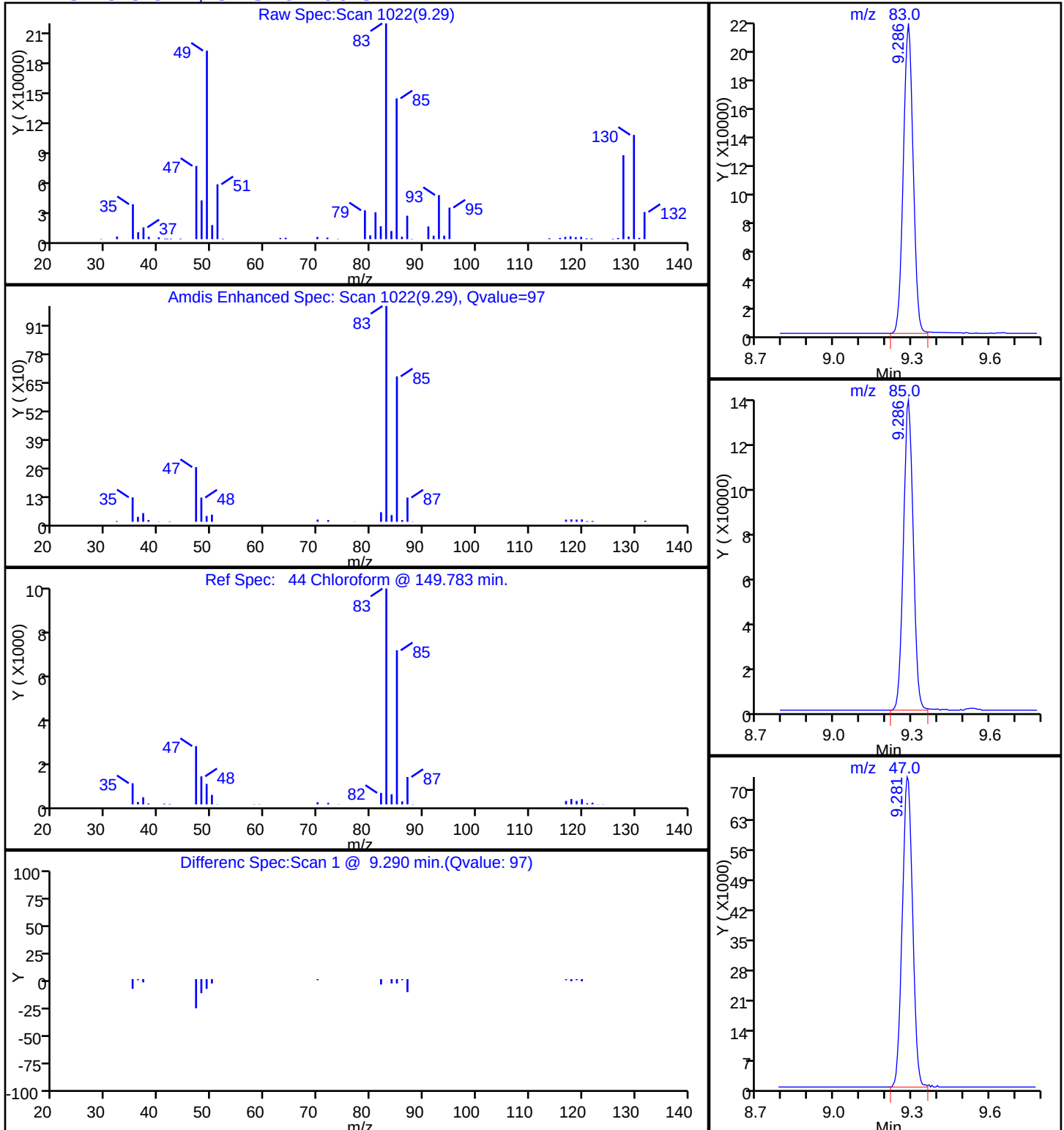
Dil. Factor: 1.6300

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D

Injection Date: 16-Nov-2016 03:43:30

Instrument ID: MJ

Lims ID: 140-6336-A-13

Lab Sample ID: 140-6336-13

Client ID: OVP-5

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 22

Purge Vol: 500.000 mL

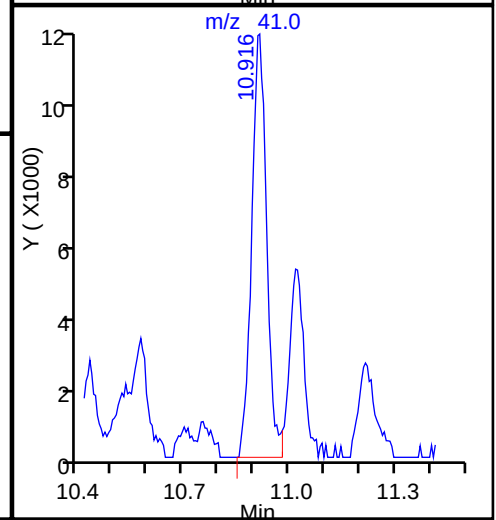
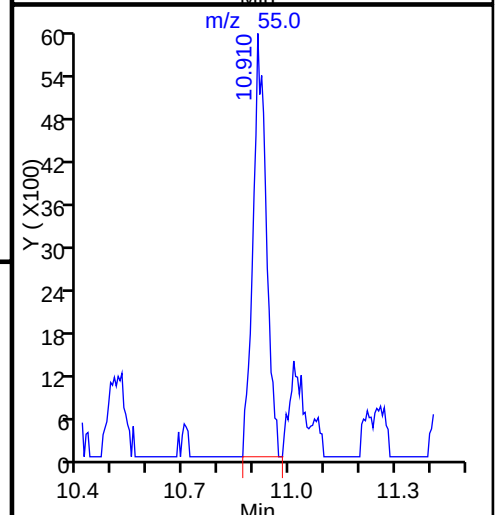
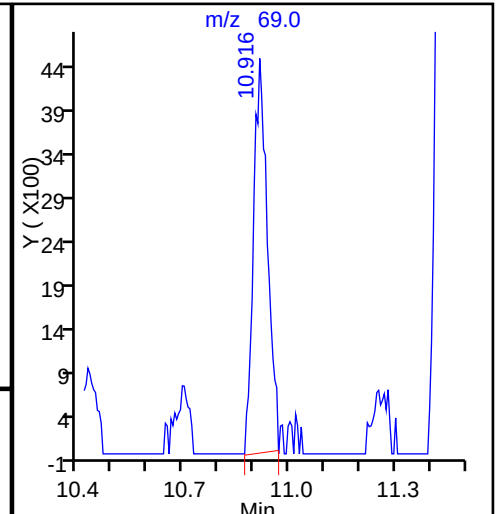
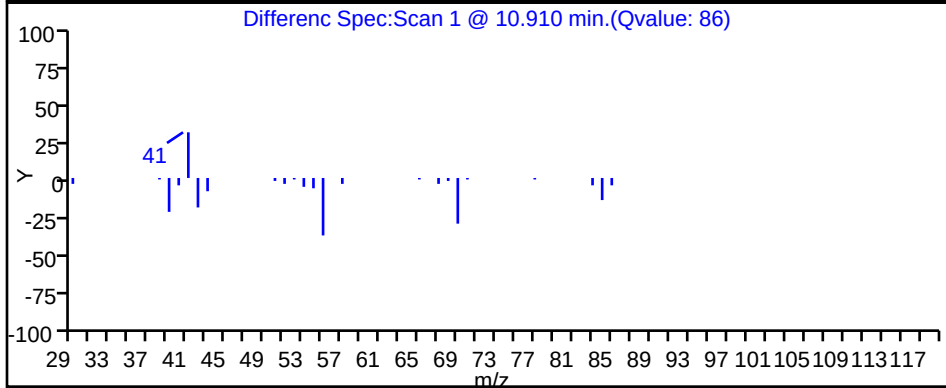
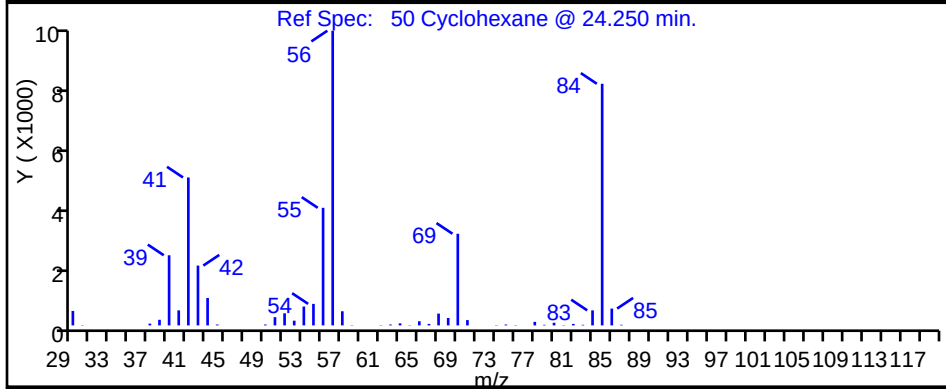
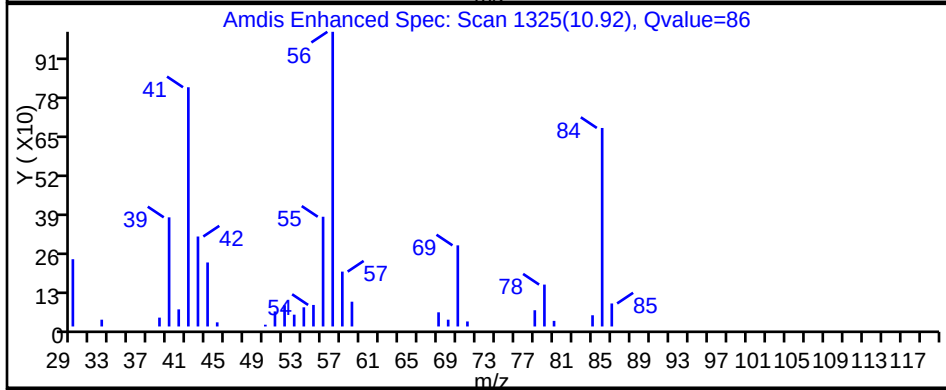
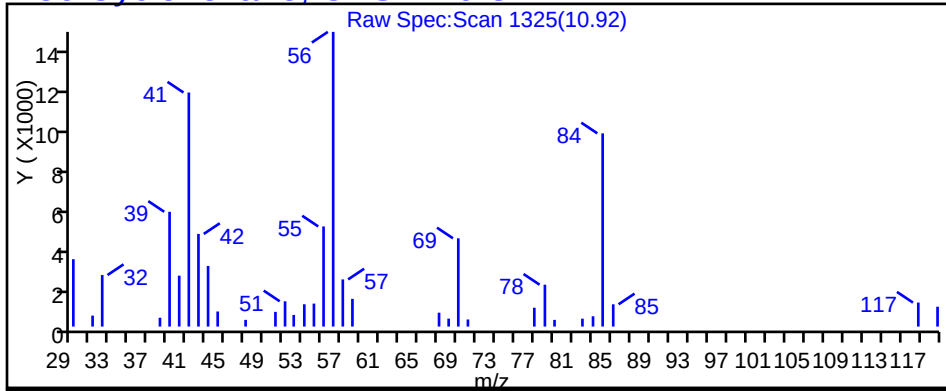
Dil. Factor: 1.6300

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

50 Cyclohexane, CAS: 110-82-7

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D

Injection Date: 16-Nov-2016 03:43:30

Instrument ID: MJ

Lims ID: 140-6336-A-13

Lab Sample ID: 140-6336-13

Client ID: OVP-5

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 22

Purge Vol: 500.000 mL

Dil. Factor: 1.6300

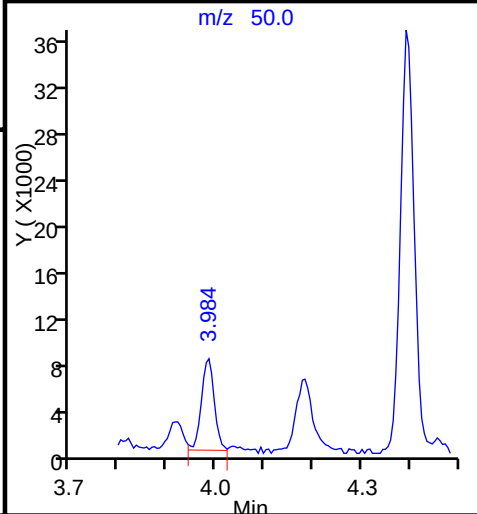
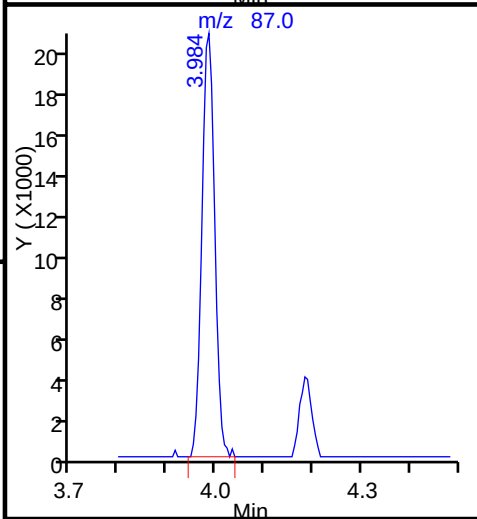
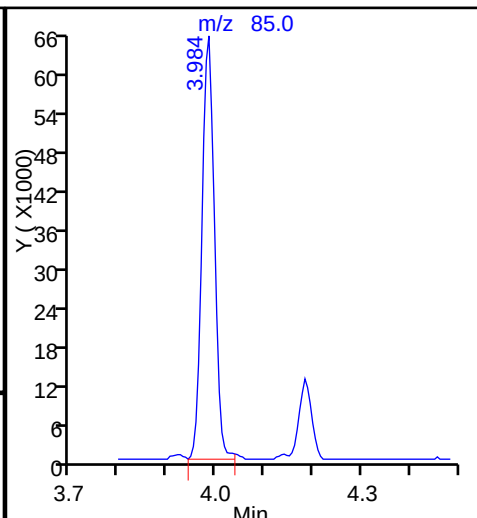
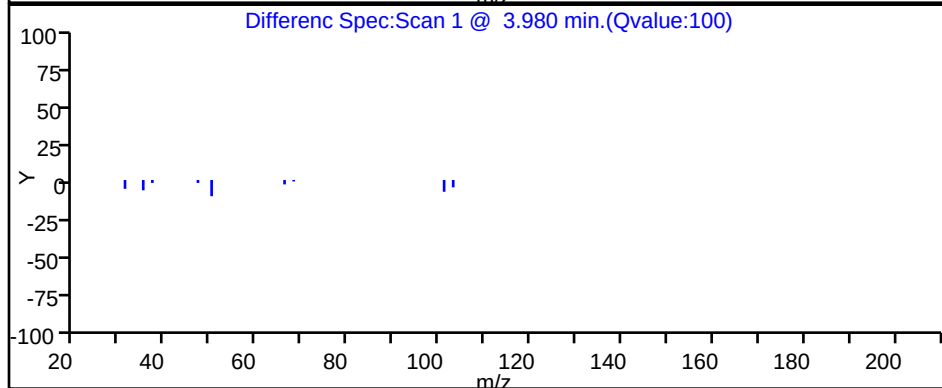
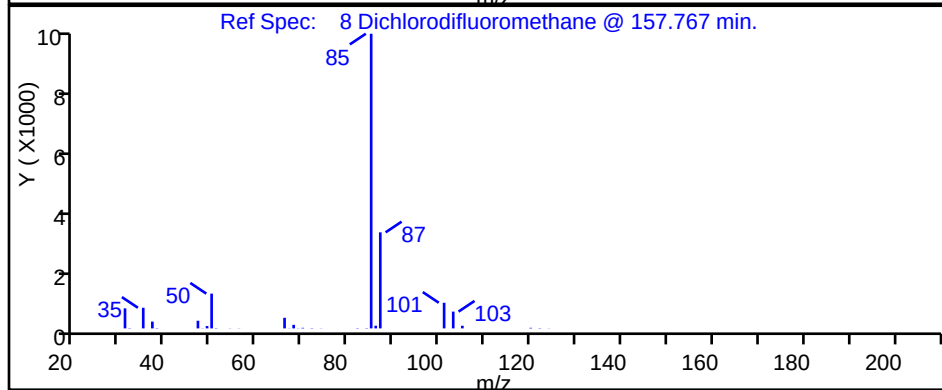
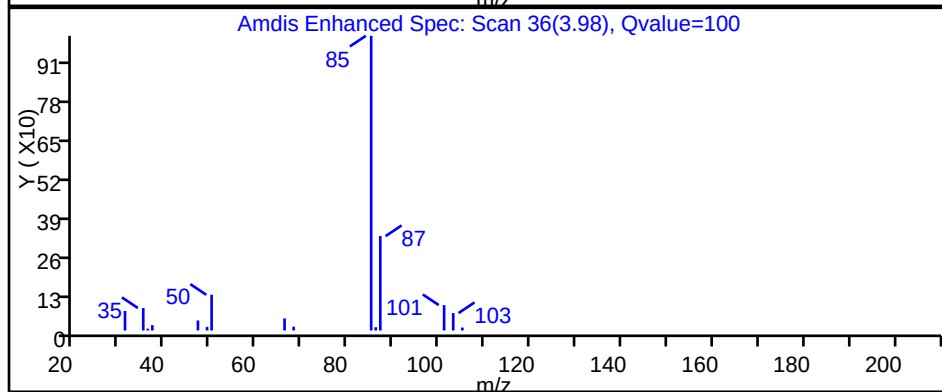
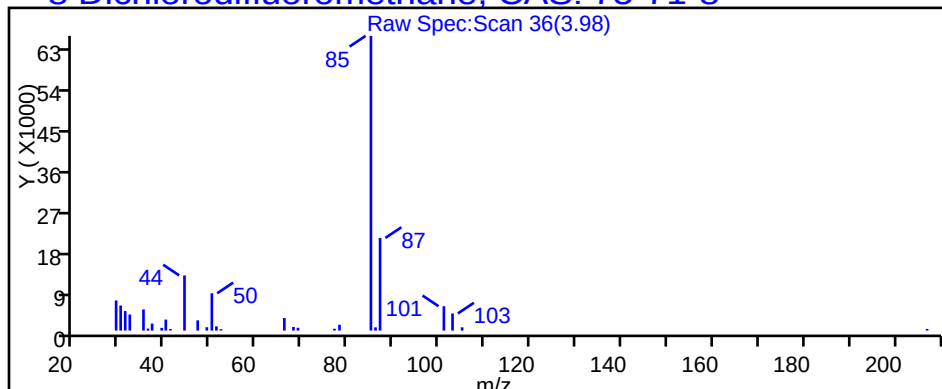
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D

Injection Date: 16-Nov-2016 03:43:30

Instrument ID: MJ

Lims ID: 140-6336-A-13

Lab Sample ID: 140-6336-13

Client ID: OVP-5

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 22

Purge Vol: 500.000 mL

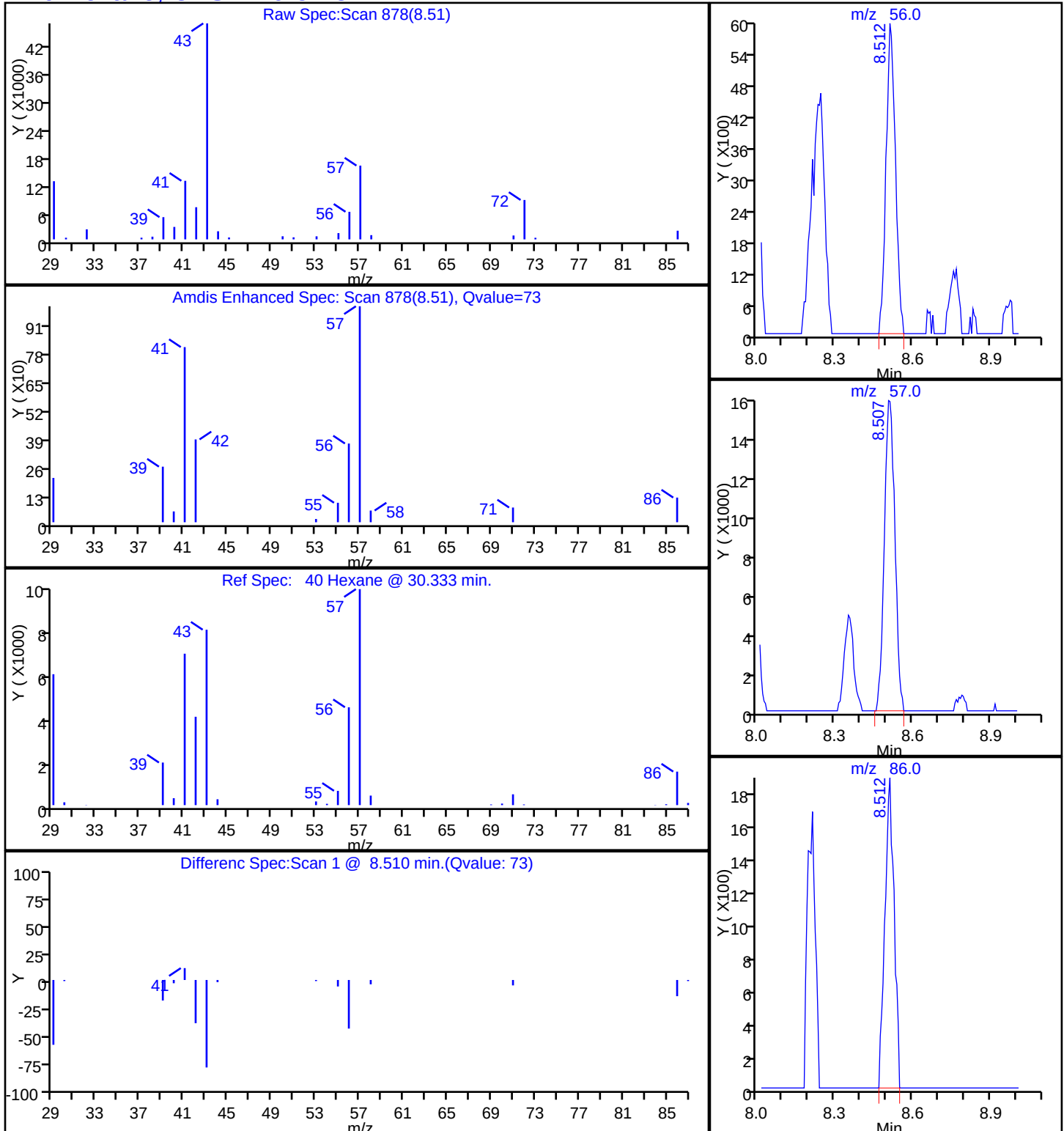
Dil. Factor: 1.6300

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D

Injection Date: 16-Nov-2016 03:43:30

Instrument ID: MJ

Lims ID: 140-6336-A-13

Lab Sample ID: 140-6336-13

Client ID: OVP-5

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 22

Purge Vol: 500.000 mL

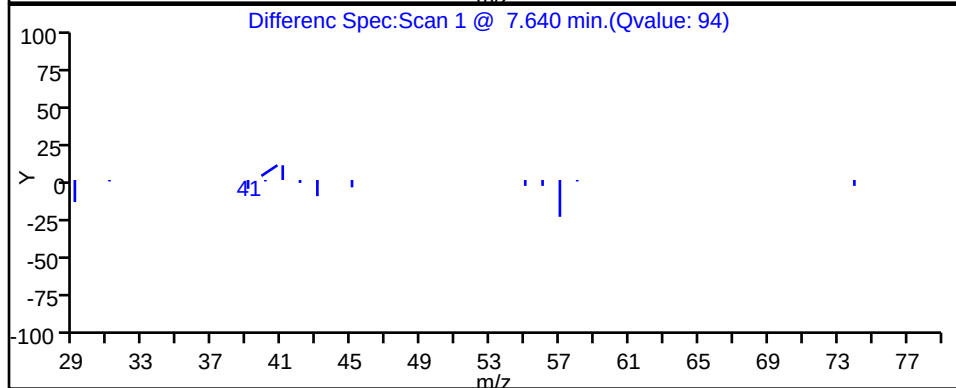
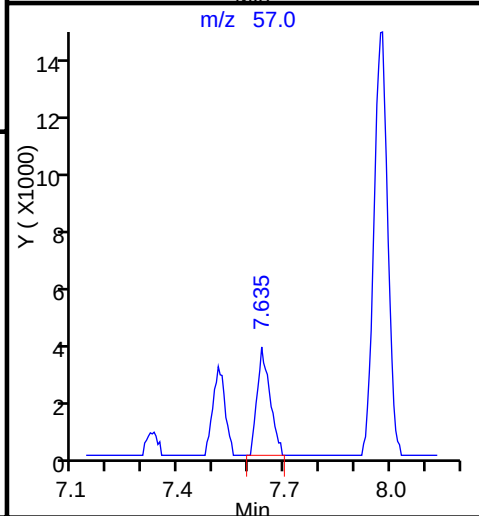
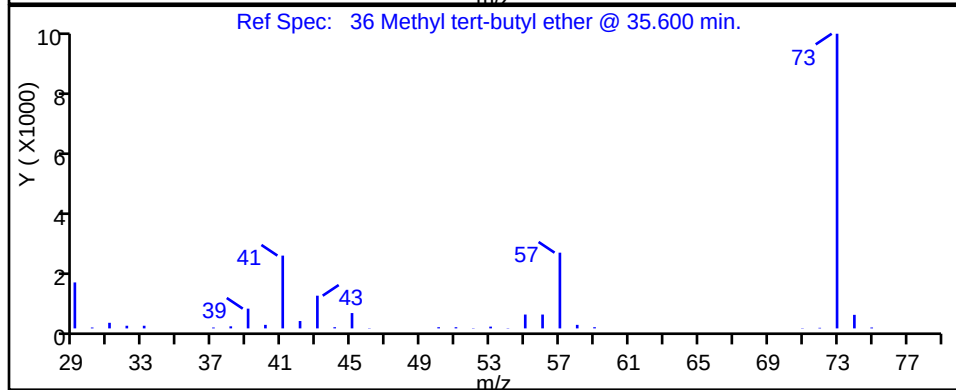
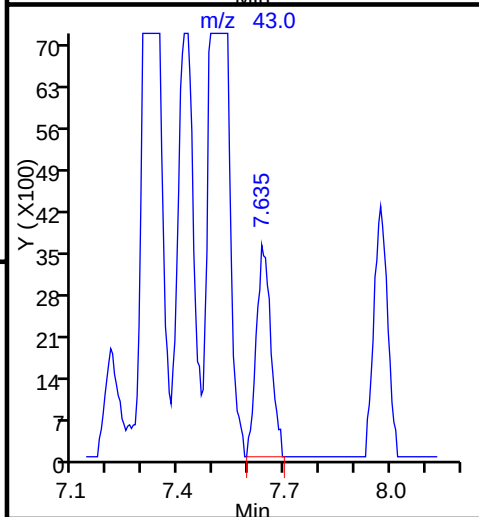
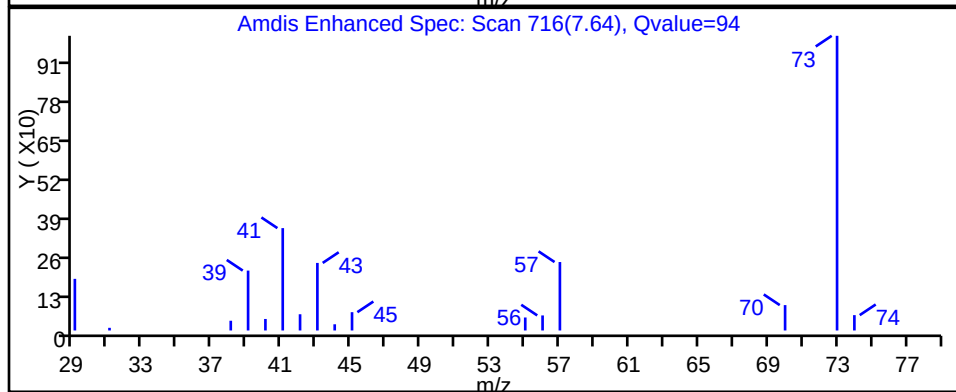
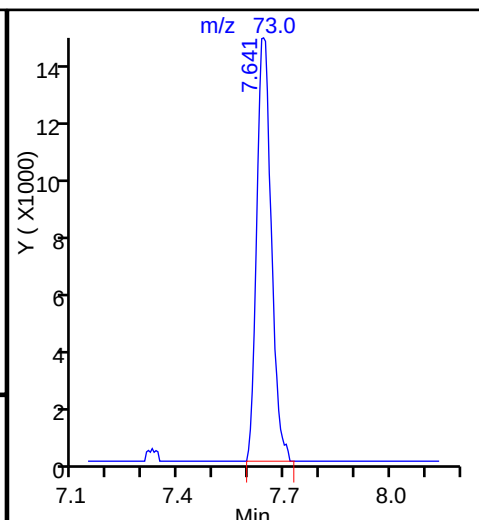
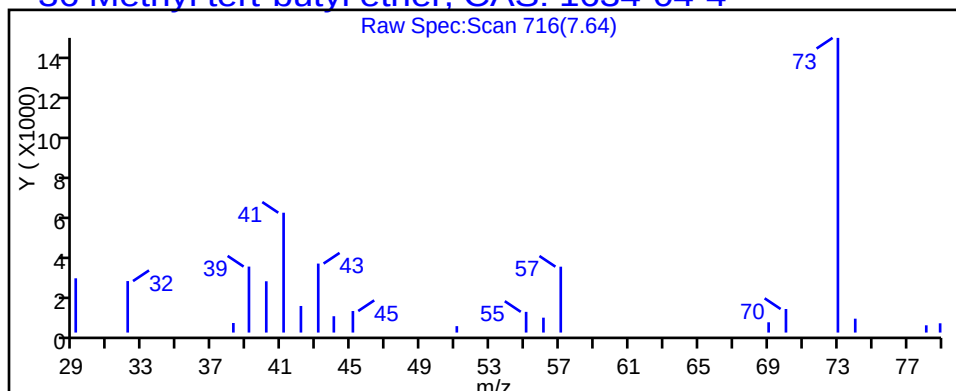
Dil. Factor: 1.6300

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

36 Methyl tert-butyl ether, CAS: 1634-04-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D

Injection Date: 16-Nov-2016 03:43:30

Instrument ID: MJ

Lims ID: 140-6336-A-13

Lab Sample ID: 140-6336-13

Client ID: OVP-5

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 22

Purge Vol: 500.000 mL

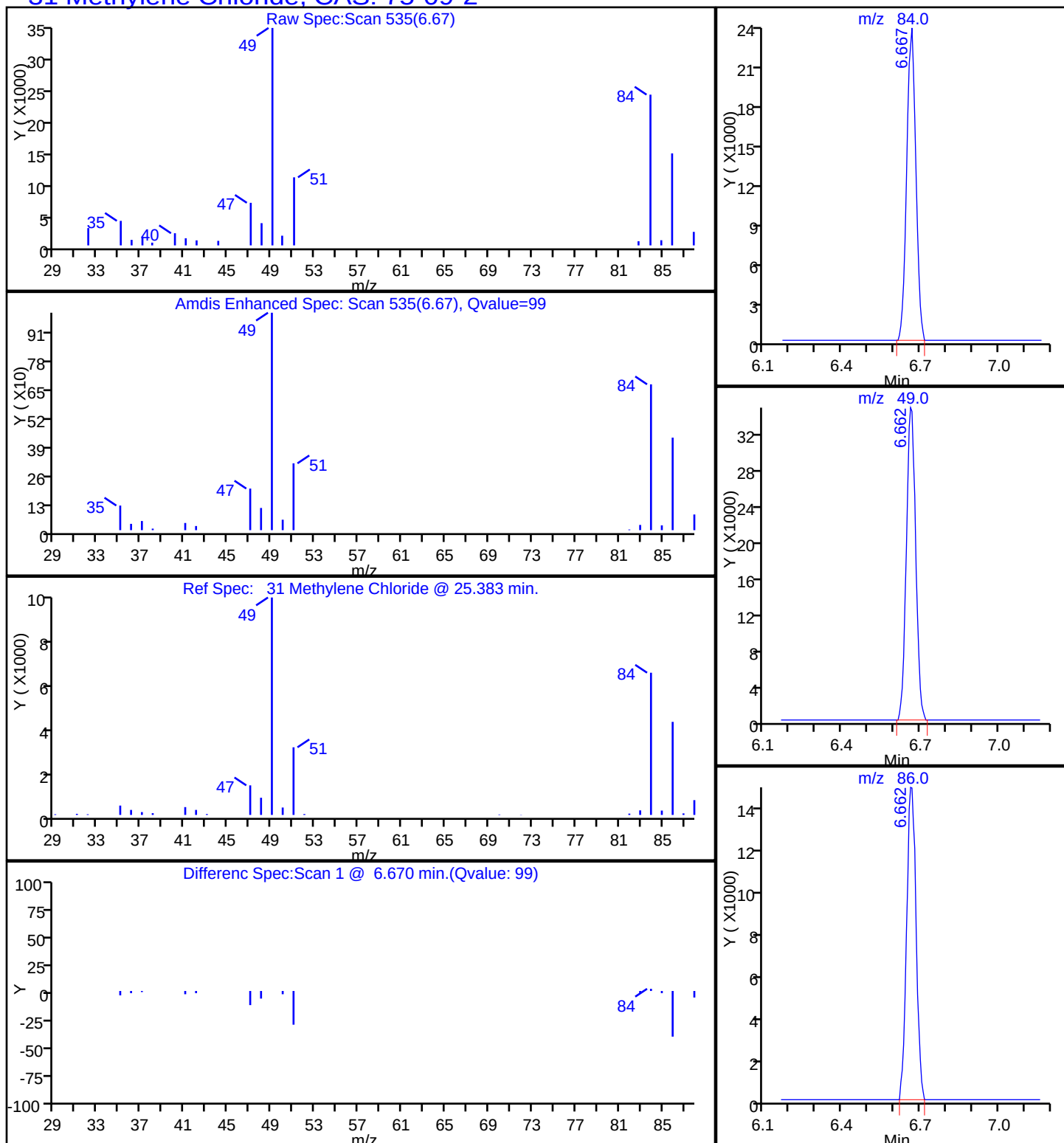
Dil. Factor: 1.6300

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D

Injection Date: 16-Nov-2016 03:43:30

Instrument ID: MJ

Lims ID: 140-6336-A-13

Lab Sample ID: 140-6336-13

Client ID: OVP-5

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 22

Purge Vol: 500.000 mL

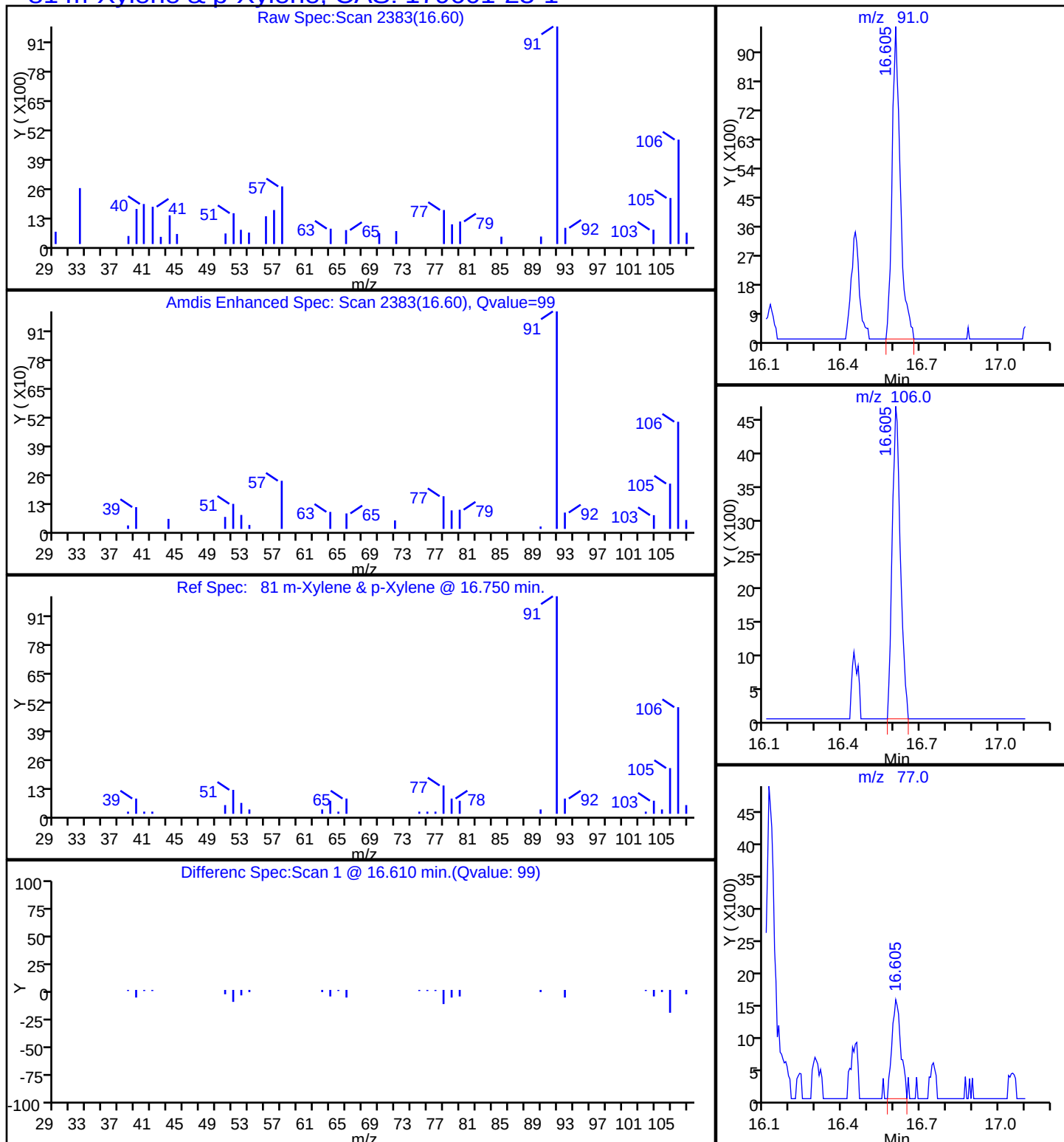
Dil. Factor: 1.6300

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

81 m-Xylene & p-Xylene, CAS: 179601-23-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D

Injection Date: 16-Nov-2016 03:43:30

Instrument ID: MJ

Lims ID: 140-6336-A-13

Lab Sample ID: 140-6336-13

Client ID: OVP-5

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 22

Purge Vol: 500.000 mL

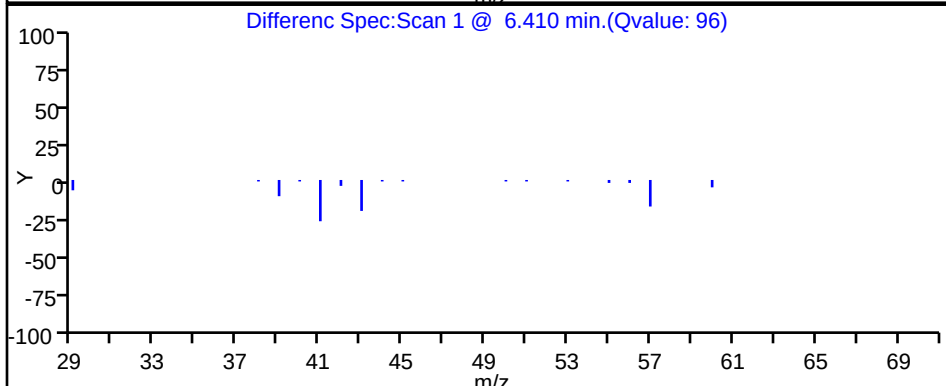
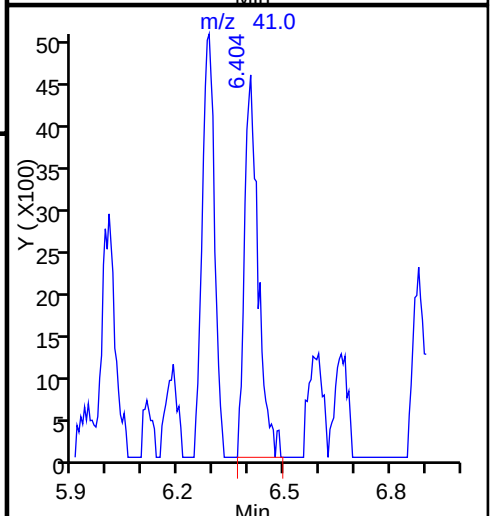
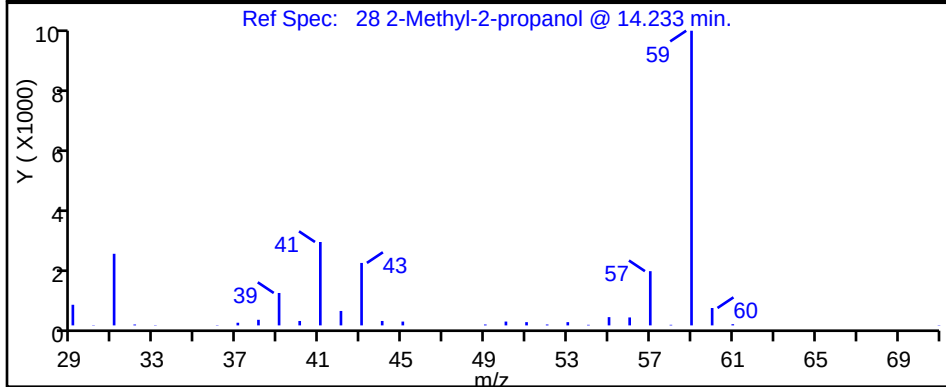
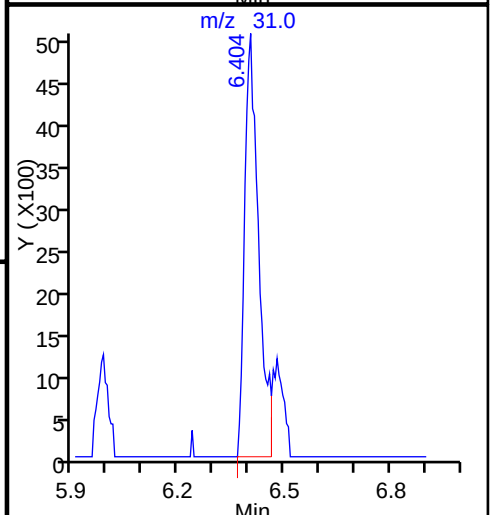
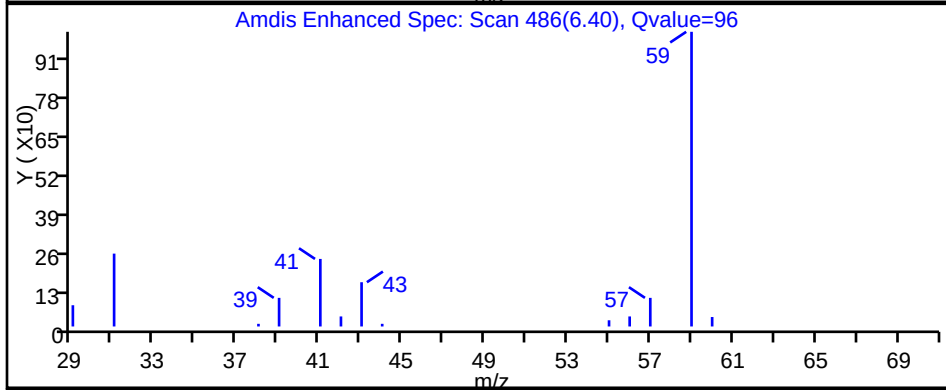
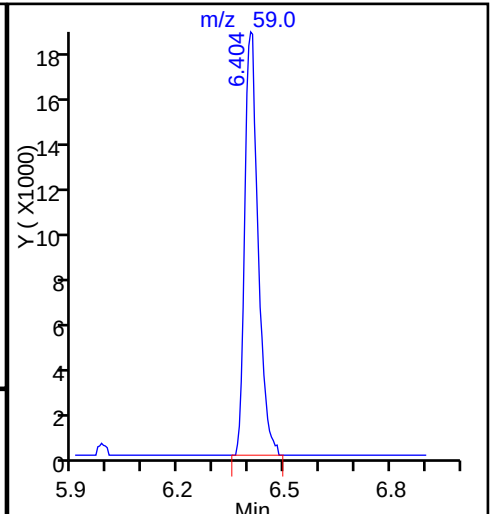
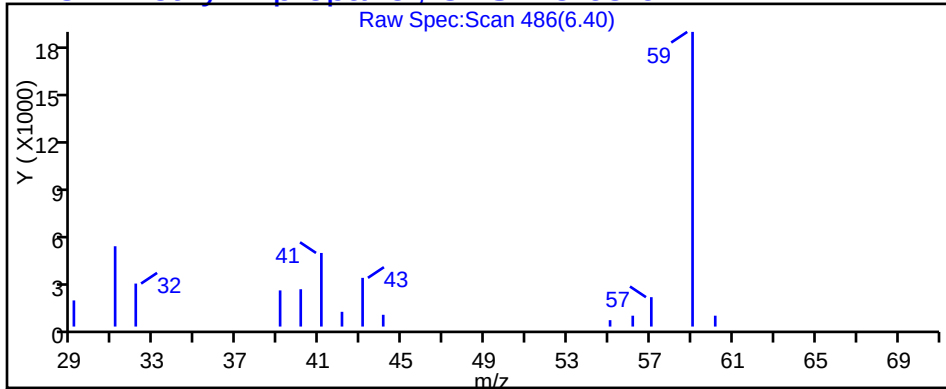
Dil. Factor: 1.6300

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

28 2-Methyl-2-propanol, CAS: 75-65-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D

Injection Date: 16-Nov-2016 03:43:30

Instrument ID: MJ

Lims ID: 140-6336-A-13

Lab Sample ID: 140-6336-13

Client ID: OVP-5

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 22

Purge Vol: 500.000 mL

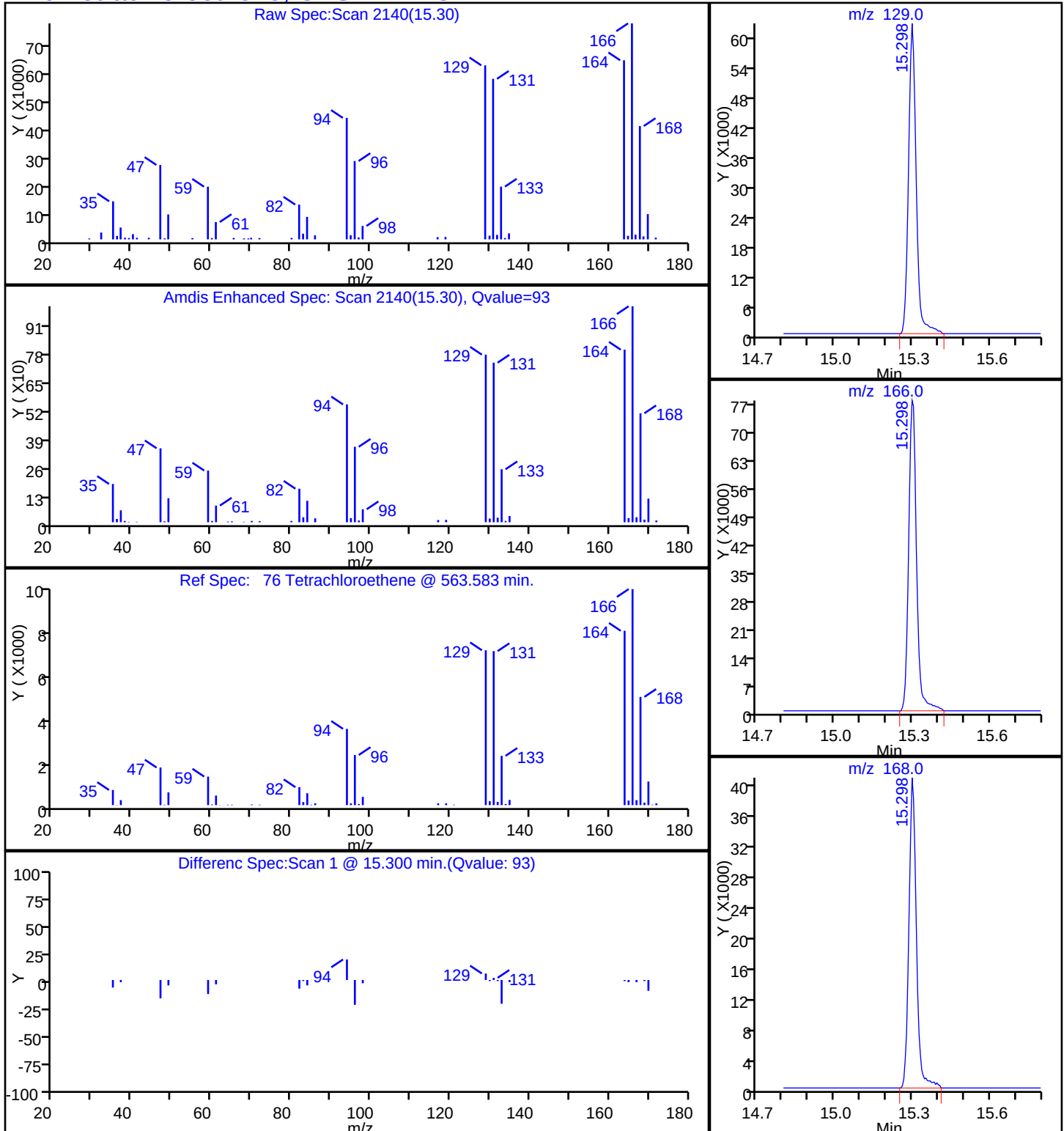
Dil. Factor: 1.6300

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

76 Tetrachloroethene, CAS: 127-18-4

TestAmerica Knoxville

Data File: \\ChromNA\\Knoxville\\ChromData\\MJ\\20161114-3625.b\\JK15P113.D

Injection Date: 16-Nov-2016 03:43:30

Instrument ID: MJ

Lims ID: 140-6336-A-13

Lab Sample ID: 140-6336-13

Client ID: OVP-5

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 22

Purge Vol: 500.000 mL

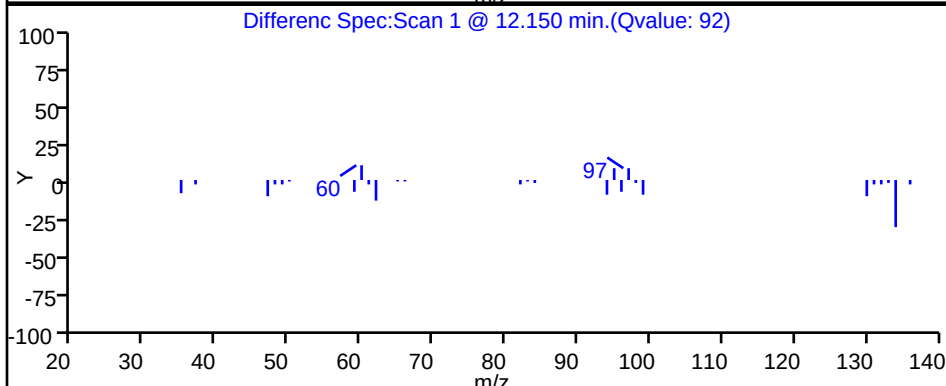
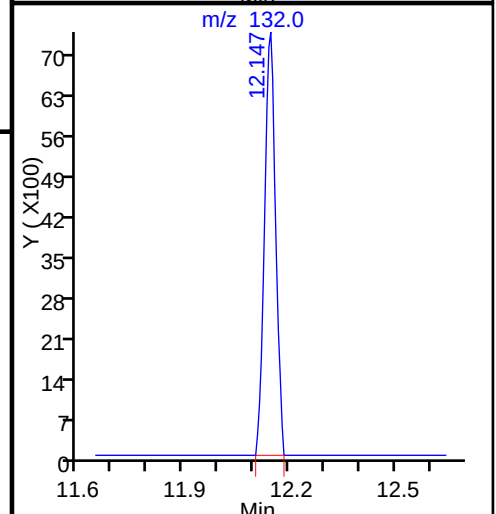
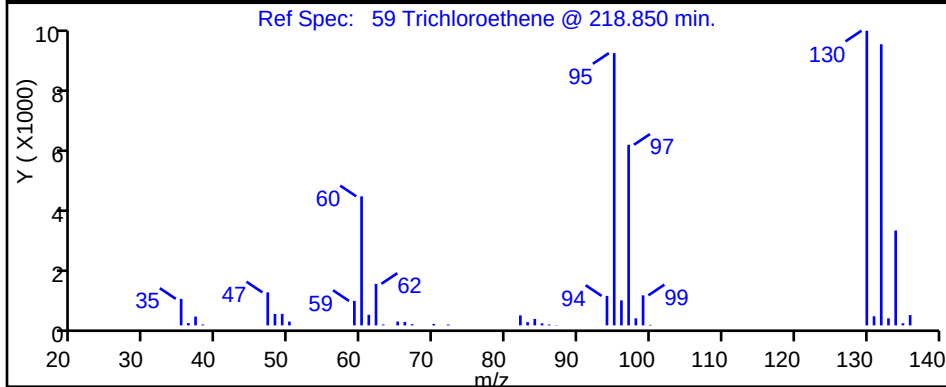
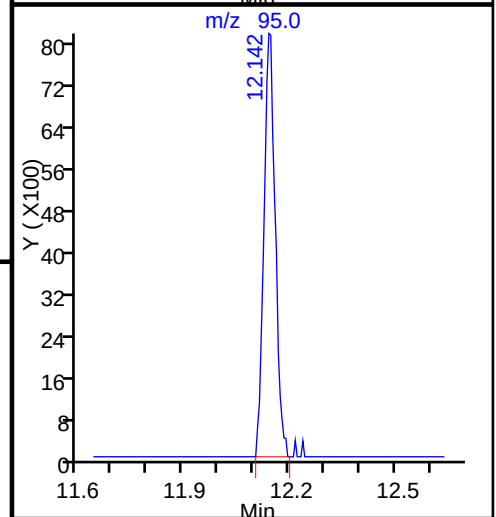
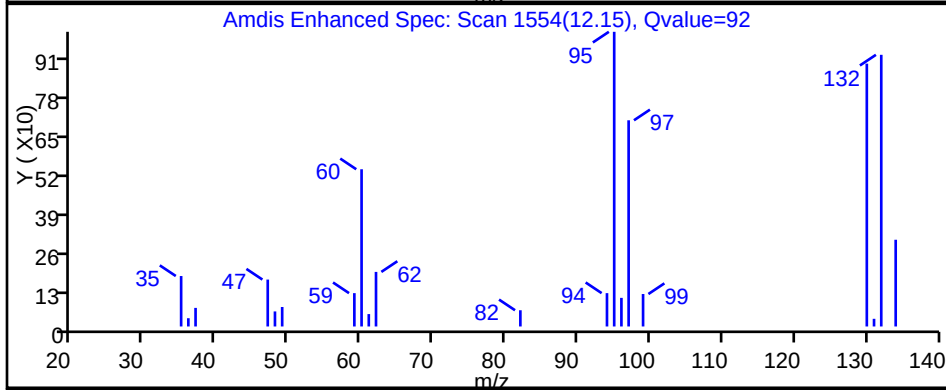
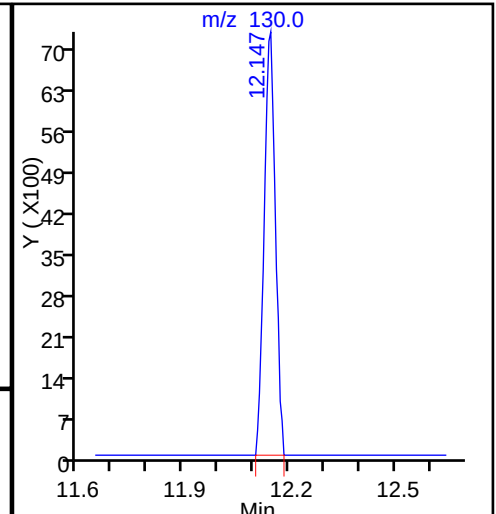
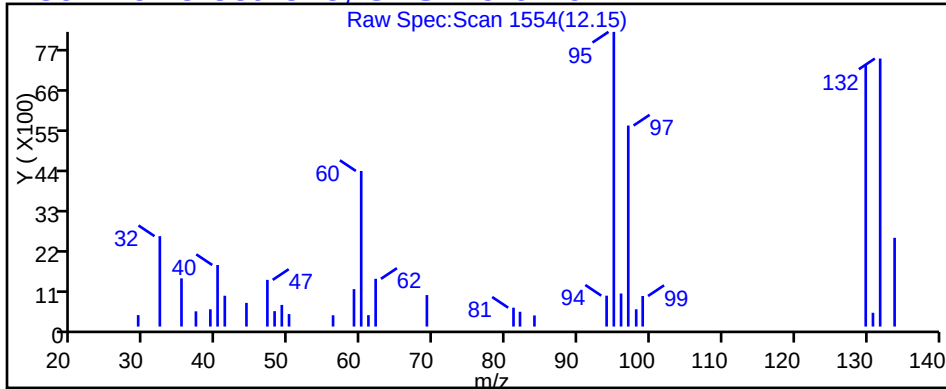
Dil. Factor: 1.6300

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

59 Trichloroethene, CAS: 79-01-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D

Injection Date: 16-Nov-2016 03:43:30

Instrument ID: MJ

Lims ID: 140-6336-A-13

Lab Sample ID: 140-6336-13

Client ID: OVP-5

Operator ID: 7126

ALS Bottle#: 13

Worklist Smp#: 22

Purge Vol: 500.000 mL

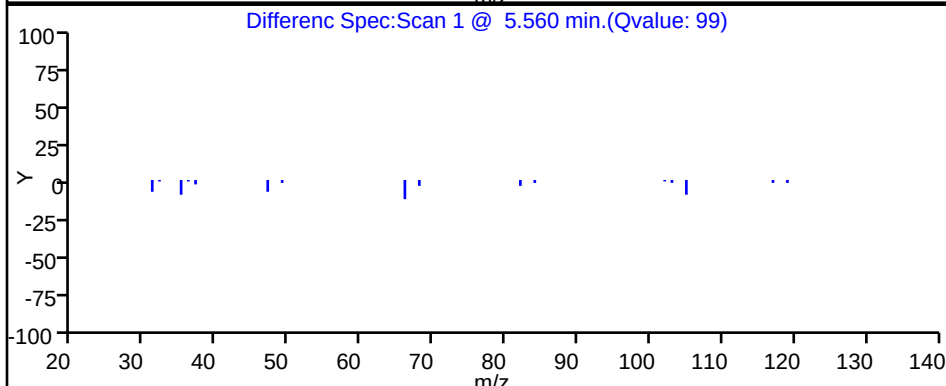
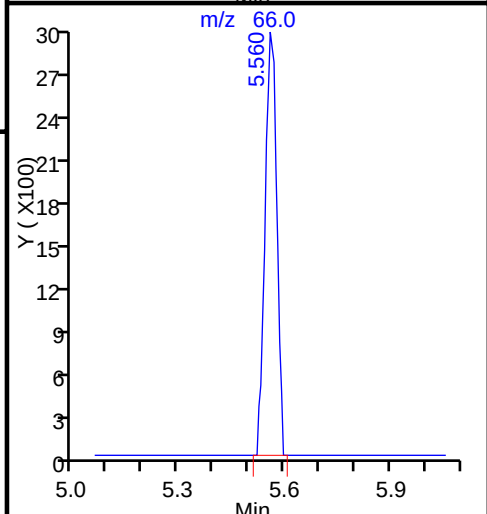
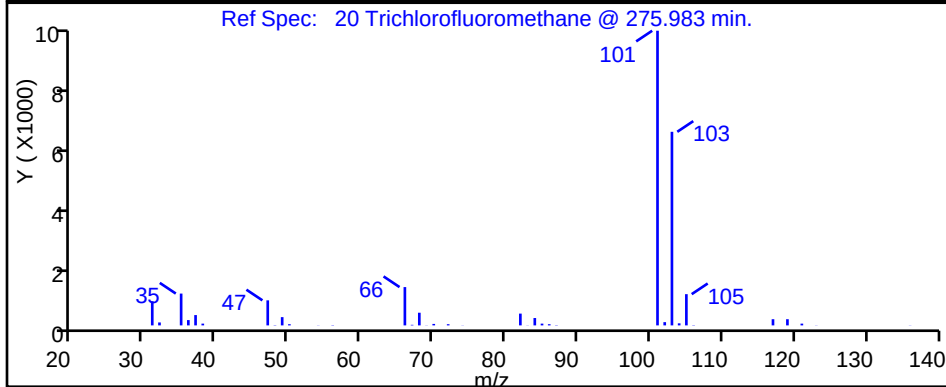
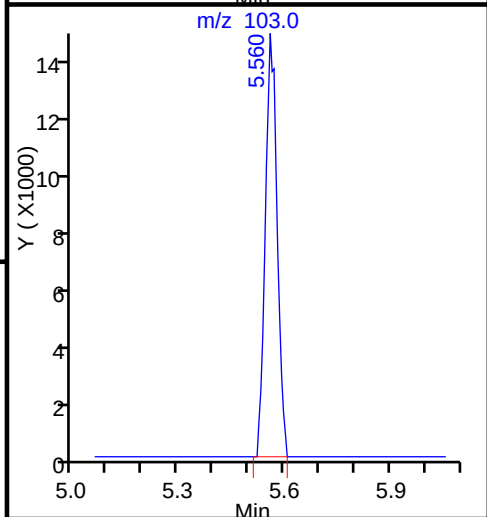
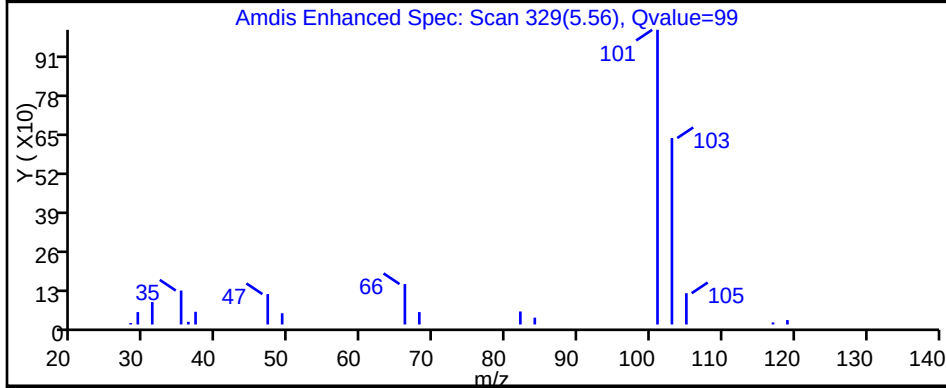
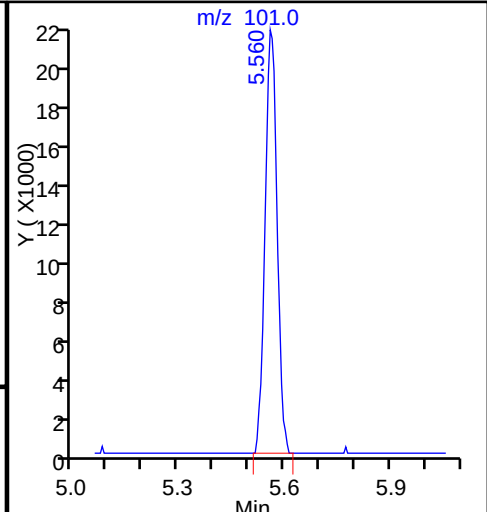
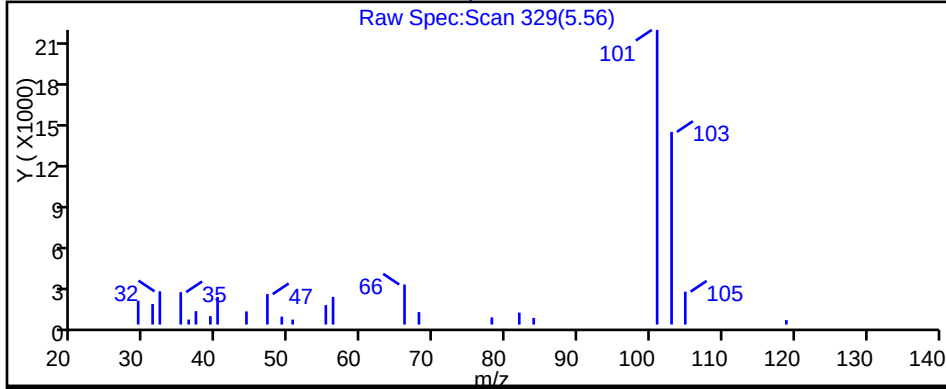
Dil. Factor: 1.6300

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

TestAmerica Knoxville

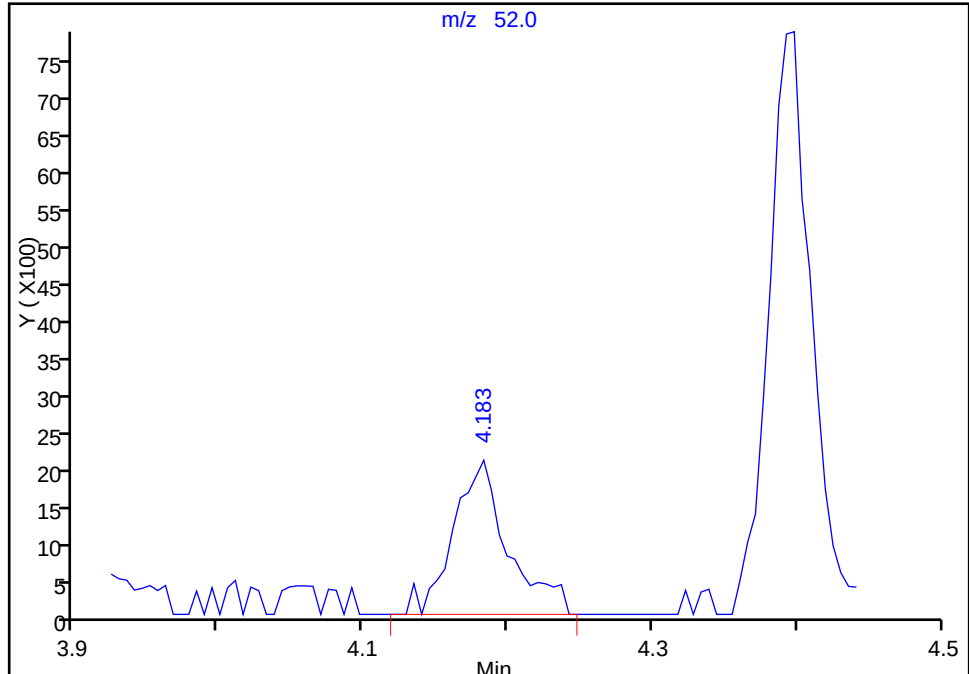
Data File:	\\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D		
Injection Date:	16-Nov-2016 03:43:30	Instrument ID:	MJ
Lims ID:	140-6336-A-13	Lab Sample ID:	140-6336-13
Client ID:	OVP-5		
Operator ID:	7126	ALS Bottle#:	13
Purge Vol:	500.000 mL	Dil. Factor:	1.6300
Method:	MJ_TO15	Limit Group:	MSA TO14A_15 Routine ICAL
Column:	RTX-5 (0.32 mm)	Detector:	MS SCAN
		Worklist Smp#:	22

9 Chloromethane, CAS: 74-87-3

Signal: 1

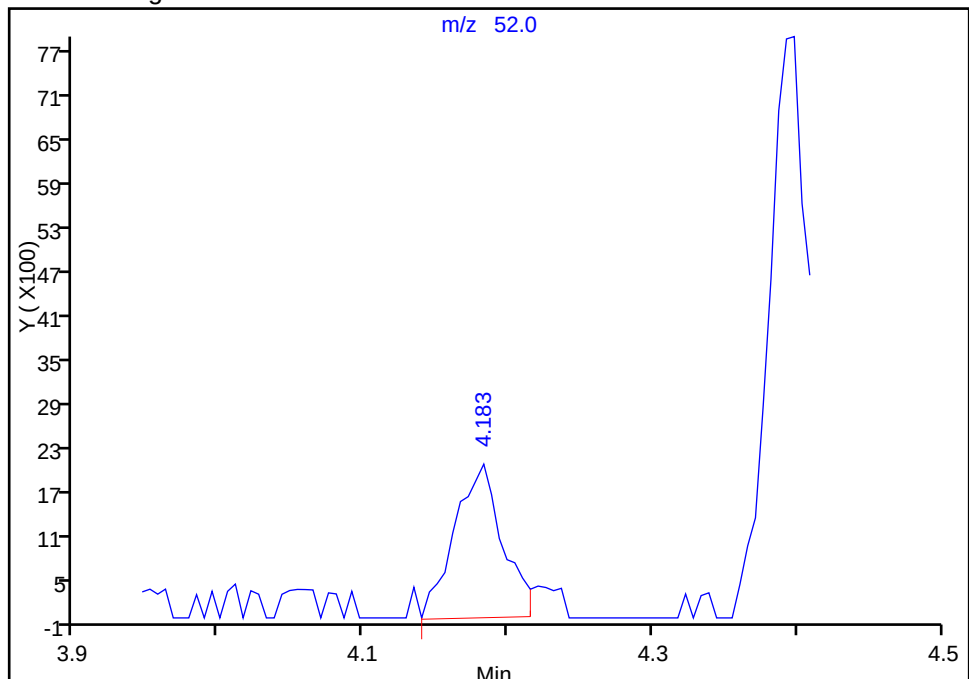
RT: 4.18
Area: 5478
Amount: 0.198926
Amount Units: ppb v/v

Processing Integration Results



RT: 4.18
Area: 4823
Amount: 0.175141
Amount Units: ppb v/v

Manual Integration Results



Reviewer: tajh, 16-Nov-2016 09:10:16
Audit Action: Manually Integrated

Audit Reason: Split Peak
Page 392 of 522

11/28/2016

TestAmerica Knoxville

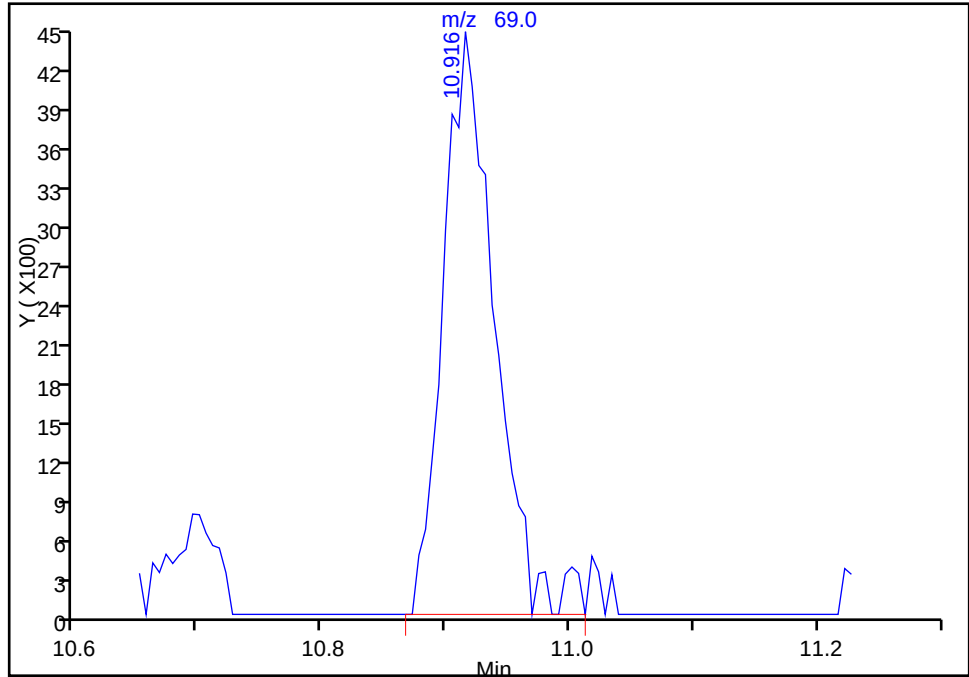
Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JK15P113.D
Injection Date: 16-Nov-2016 03:43:30 Instrument ID: MJ
Lims ID: 140-6336-A-13 Lab Sample ID: 140-6336-13
Client ID: OVP-5
Operator ID: 7126 ALS Bottle#: 13 Worklist Smp#: 22
Purge Vol: 500.000 mL Dil. Factor: 1.6300
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector: MS SCAN

50 Cyclohexane, CAS: 110-82-7

Signal: 1

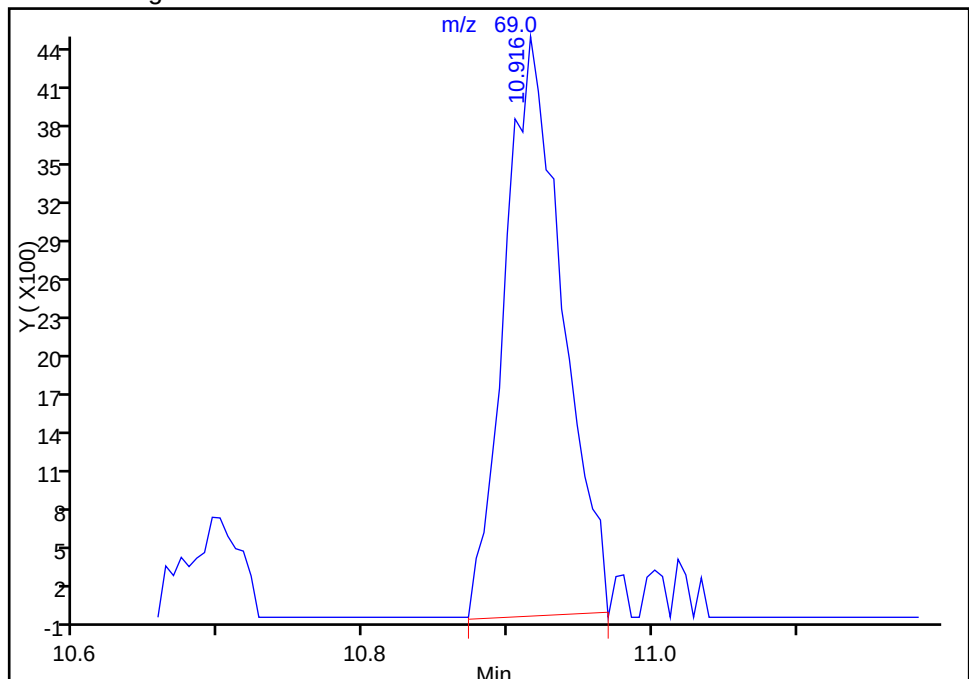
RT: 10.92
Area: 12915
Amount: 0.363738
Amount Units: ppb v/v

Processing Integration Results



RT: 10.92
Area: 12319
Amount: 0.346953
Amount Units: ppb v/v

Manual Integration Results



Reviewer: tajh, 16-Nov-2016 09:10:16

Audit Action: Manually Integrated

Audit Reason: Split Peak

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1 Analy Batch No.: 6845

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/08/2016 19:01 Calibration End Date: 10/09/2016 02:10 Calibration ID: 771

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-6845/3	JJ08ICAL01.D
Level 2	IC 140-6845/4	JJ08ICAL02.D
Level 3	IC 140-6845/5	JJ08ICAL03.D
Level 4	IC 140-6845/6	JJ08ICAL04.D
Level 5	IC 140-6845/7	JJ08ICAL05.D
Level 6	ICIS 140-6845/8	JJ08ICAL06.D
Level 7	IC 140-6845/9	JJ08ICAL07.D
Level 8	IC 140-6845/10	JJ08ICAL08.D
Level 9	IC 140-6845/11	JJ07ICAL09.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Chlorodifluoromethane	+++++ 0.4186	0.4157 0.4125	0.4022 0.4084	0.3928 0.4079	0.4000	Ave		0.4073				2.1		30.0			
Propene	+++++ 1.3470	1.7441 1.3443	1.5319 1.3038	1.3837 1.1977	1.3404	Ave		1.3991				12.0		30.0			
Dichlorodifluoromethane	4.3867 4.0555	4.0039 3.9541	3.9227 3.7496	3.9004 3.4402	4.0262	Ave		3.9377				6.4		30.0			
Chloromethane	+++++ 0.4472	+++++ 0.4268	0.5613 0.4031	0.4830 0.3656	0.4732	Ave		0.4515				14.0		30.0			
1,2-Dichlorotetrafluoroethane	2.2403 2.2928	2.0622 1.9867	2.1683 1.7832	2.0958 1.9912	2.0349	Ave		2.0728				7.3		30.0			
Acetaldehyde	+++++ 0.4506	+++++ 0.3641	+++++ 0.3895	0.4878 0.3853	0.4261	Ave		0.4172				11.1		30.0			
Vinyl chloride	1.5467 1.3770	1.3347 1.3400	1.3544 1.2722	1.3770 1.2231	1.4068	Ave		1.3591				6.6		30.0			
1,3-Butadiene	+++++ 1.0385	1.0584 1.0045	1.0178 0.9583	1.0175 0.9273	1.0615	Ave		1.0105				4.7		30.0			
Butane	+++++ 1.9704	2.1676 1.8993	2.0666 1.8058	2.0727 1.7180	2.0660	Ave		1.9708				7.8		30.0			
Bromomethane	+++++ 1.2454	1.2520 1.2333	1.2480 1.1935	1.1949 1.2009	1.2700	Ave		1.2298				2.4		30.0			
Chloroethane	+++++ 0.5869	0.5567 0.5785	0.5646 0.5517	0.5564 0.5592	0.5960	Ave		0.5688				2.9		30.0			
Ethanol	+++++ 0.4132	+++++ 0.3546	0.4099 0.3813	0.4155 0.3046	0.3890	Ave		0.3812				10.5		30.0			
Vinyl bromide	+++++ 1.3173	1.2295 1.3057	1.2524 1.2595	1.2344 1.3070	1.3088	Ave		1.2768				2.9		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1 Analy Batch No.: 6845

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/08/2016 19:01 Calibration End Date: 10/09/2016 02:10 Calibration ID: 771

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Methylbutane	++++ 1.6787	++++ 1.6188	1.7660 1.5052	1.6389 1.4899	1.6551	Ave		1.6218				6.0		30.0			
Trichlorofluoromethane	++++ 3.6044	3.3732 3.4877	3.4768 3.2913	3.4028 3.2746	3.5545	Ave		3.4332				3.5		30.0			
Acrolein	++++ 0.3422	++++ 0.3024	0.3857 0.3812	0.3729 0.3583	0.3170	Ave		0.3514				9.2		30.0			
Acetonitrile	++++ 0.5163	++++ 0.3937	0.3667 0.4816	0.4178 0.4326	0.4204	Ave		0.4327				11.8		30.0			
Acetone	++++ 0.4741	++++ 0.3542	++++ 0.4443	0.5513 0.3573	0.4148	Ave		0.4327				17.3		30.0			
Isopropyl alcohol	++++ 1.6271	++++ 1.4436	1.5685 1.4524	1.6082 1.2370	1.5364	Ave		1.4962				9.0		30.0			
Pentane	++++ 0.2082	++++ 0.2022	0.1944 0.1942	0.1976 0.1947	0.2085	Ave		0.2000				3.2		30.0			
Ethyl ether	++++ 1.3842	++++ 1.1056	1.2065 1.3336	1.3602 1.2216	1.2100	Ave		1.2602				8.0		30.0			
1,1-Dichloroethene	++++ 1.3083	1.2437 1.2904	1.2431 1.2390	1.1766 1.2776	1.2750	Ave		1.2567				3.2		30.0			
t-Butyl alcohol	++++ 2.0739	1.9778 1.8957	1.9349 1.9623	1.9180 1.8923	1.8857	Ave		1.9426				3.2		30.0			
Acrylonitrile	++++ 0.8206	++++ 0.6262	0.6700 0.7884	0.7911 0.6932	0.6619	Ave		0.7216				10.6		30.0			
1,1,2-Trichlorotrifluoroethane	++++ 2.8222	2.6127 2.7177	2.6947 2.5337	2.6183 2.4890	2.8021	Ave		2.6613				4.5		30.0			
Methylene Chloride	++++ 1.2505	++++ 1.1812	1.6551 1.1049	1.3333 1.0821	1.2891	Ave		1.2709				15.2		30.0			
3-Chloropropene	++++ 1.2310	1.3666 1.1542	1.2758 1.1214	1.1838 1.0626	1.1910	Ave		1.1983				7.8		30.0			
Carbon disulfide	++++ 4.1094	3.8928 3.8963	3.9099 3.6597	3.9253 3.7186	3.9321	Ave		3.8805				3.6		30.0			
trans-1,2-Dichloroethene	++++ 1.3121	1.2366 1.2781	1.2286 1.2045	1.2164 1.1454	1.2894	Ave		1.2389				4.3		30.0			
2-Methylpentane	++++ 2.8638	2.8718 2.7004	2.8813 2.4925	2.7507 2.3412	2.8676	Ave		2.7212				7.5		30.0			
Methyl tert-butyl ether	++++ 2.9186	++++ 2.2934	2.4189 2.8242	2.8315 2.4194	2.4363	Ave		2.5917				9.9		30.0			
1,1-Dichloroethane	++++ 2.4921	2.4104 2.2051	2.3161 2.2519	2.2784 2.1313	2.2888	Ave		2.2968				4.9		30.0			
Vinyl acetate	++++ 2.8860	++++ 2.1312	2.3151 2.8848	2.6963 2.4666	2.2996	Ave		2.5257				11.9		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1 Analy Batch No.: 6845

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/08/2016 19:01 Calibration End Date: 10/09/2016 02:10 Calibration ID: 771

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2-Butanone	++++ 0.4587	++++ 0.3792	0.4404 0.4775	0.4574 0.3717	0.3871	Ave		0.4246				10.3		30.0			
Hexane	++++ 1.0592	1.0744 0.9805	1.0500 0.9642	1.0026 0.9024	1.0397	Ave		1.0091				5.8		30.0			
Isopropyl ether	3.6585 3.8039	4.1325 3.0167	3.2889 3.5892	3.7210 2.9568	3.2520	Ave		3.4911				11.1		30.0			
cis-1,2-Dichloroethene	++++ 1.3103	1.2673 1.1822	1.2254 1.2263	1.1796 1.1622	1.2083	Ave		1.2202				4.0		30.0			
Ethyl acetate	++++ 2.1111	++++ 1.7369	1.8467 2.1266	2.0366 1.7664	1.7678	Ave		1.9131				9.0		30.0			
Chloroform	++++ 2.7285	2.6649 2.3181	2.5664 2.5048	2.4949 2.3514	2.4902	Ave		2.5149				5.6		30.0			
Tert-butyl ethyl ether	2.9714 3.1339	3.2822 2.5245	2.6210 3.0336	3.0431 2.5249	2.6452	Ave		2.8644				10.0		30.0			
Tetrahydrofuran	++++ 1.1757	++++ 0.9192	1.0120 1.1874	1.1292 1.0403	0.9632	Ave		1.0610				9.9		30.0			
1,1,1-Trichloroethane	++++ 2.8004	2.5440 2.4811	2.6857 2.5817	2.5828 2.3960	2.5988	Ave		2.5838				4.7		30.0			
1,2-Dichloroethane	++++ 0.3729	0.3517 0.3238	0.3603 0.3452	0.3394 0.3100	0.3382	Ave		0.3427				5.8		30.0			
1-Butanol	++++ 0.1028	++++ 0.0974	0.0929 0.1029	0.0801 0.0974	0.0872	Ave		0.0944				8.9		30.0			
Cyclohexane	0.1458 0.1376	0.1245 0.1259	0.1370 0.1165	0.1244 0.0987	0.1365	Ave		0.1274				11.0		30.0			
Benzene	++++ 0.8021	0.8407 0.6741	0.8260 0.7057	0.7545 0.5845	0.7314	Ave		0.7399				11.6		30.0			
Carbon tetrachloride	0.6556 0.6175	0.5523 0.5488	0.5883 0.5437	0.5376 0.4674	0.5976	Ave		0.5676				9.6		30.0			
2,3-Dimethylpentane	++++ 0.1834	0.1733 0.1619	0.1797 0.1675	0.1693 0.1496	0.1719	Ave		0.1696				6.2		30.0			
Thiophene	0.4726 0.4434	0.4160 0.3821	0.4232 0.4159	0.3991 0.3675	0.3942	Ave		0.4127				7.7		30.0			
Tert-amyl methyl ether	0.6538 0.7324	0.7284 0.5781	0.6755 0.6850	0.6888 0.5211	0.6147	Ave		0.6531				10.7		30.0			
2,2,4-Trimethylpentane	++++ 1.3053	1.3743 1.0944	1.3317 1.1189	1.1928 0.9582	1.1802	Ave		1.1945				11.6		30.0			
Heptane	0.3049 0.2761	0.2634 0.2381	0.2681 0.2558	0.2417 0.2313	0.2433	Ave		0.2581				8.9		30.0			
1,2-Dichloropropane	0.3403 0.3068	0.2858 0.2582	0.2870 0.2838	0.2693 0.2480	0.2678	Ave		0.2830				9.8		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1 Analy Batch No.: 6845

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/08/2016 19:01 Calibration End Date: 10/09/2016 02:10 Calibration ID: 771

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Trichloroethene	0.3627 0.3172	0.3027 0.2712	0.3023 0.2920	0.2777 0.2605	0.2872	Ave		0.2971				10.1		30.0			
Dibromomethane	0.3337 0.3141	0.2804 0.2673	0.2956 0.2945	0.2715 0.2625	0.2784	Ave		0.2887				8.1		30.0			
Bromodichloromethane	0.5666 0.5741	0.5086 0.4858	0.5089 0.5400	0.4770 0.4862	0.4945	Ave		0.5158				7.0		30.0			
1,4-Dioxane	++++ 0.0924	++++ 0.0873	++++ 0.0884	++++ 0.0763	0.0847	Ave		0.0833				7.9		30.0			
Methyl methacrylate	0.2389 0.2514	0.2477 0.2091	0.2751 0.2608	0.2192 0.2109	0.2069	Ave		0.2356				10.6		30.0			
Methylcyclohexane	++++ 0.6101	++++ 0.5232	++++ 0.5301	++++ 0.4577	0.5619	Ave		0.5478				8.8		30.0			
4-Methyl-2-pentanone (MIBK)	++++ 0.4940	++++ 0.4525	++++ 0.4903	++++ 0.4131	0.4233	Ave		0.4587				6.9		30.0			
cis-1,3-Dichloropropene	++++ 0.4251	++++ 0.3505	++++ 0.4070	++++ 0.3703	0.3450	Ave		0.3725				7.9		30.0			
trans-1,3-Dichloropropene	++++ 0.4044	++++ 0.3365	++++ 0.4085	++++ 0.3668	0.3361	Ave		0.3515				10.6		30.0			
Toluene	++++ 0.9935	++++ 0.7890	++++ 0.8879	++++ 0.7618	0.8548	Ave		0.8769				9.2		30.0			
Toluene Range	++++ 2.2197	++++ 1.7946	++++ 2.1871	++++ 1.8111	1.9108	Ave		1.9822				8.5		30.0			
1,1,2-Trichloroethane	0.2932 0.3078	0.2834 0.2448	0.2714 0.2802	0.2705 0.2446	0.2638	Ave		0.2733				7.6		30.0			
2-Methylthiophene	0.8146 0.8152	0.6557 0.6571	0.6731 0.7234	0.6973 0.6213	0.7059	Ave		0.7071				9.7		30.0			
3-Methylthiophene	0.7286 0.7701	0.6979 0.6205	0.6971 0.6981	0.6011 0.6098	0.6600	Ave		0.6759				8.5		30.0			
2-Hexanone	++++ 0.2764	++++ 0.2408	++++ 0.2631	++++ 0.2248	0.2348	Ave		0.2377				10.5		30.0			
C8 Range	++++ 3.0891	++++ 2.4712	++++ 2.6546	++++ 2.2296	2.7258	Ave		2.6543				10.9		30.0			
Octane	0.3344 0.3234	0.2947 0.2623	0.3166 0.2883	0.2833 0.2473	0.2837	Ave		0.2927				9.7		30.0			
Dibromochloromethane	0.4978 0.5925	0.4561 0.4839	0.5118 0.5535	0.4577 0.4840	0.4926	Ave		0.5033				8.8		30.0			
1,2-Dibromoethane	0.3923 0.5003	0.4178 0.4094	0.4494 0.4807	0.4177 0.4265	0.4242	Ave		0.4354				8.0		30.0			
Tetrachloroethene	0.3873 0.3598	0.3396 0.2842	0.3682 0.3107	0.3167 0.2667	0.3225	Ave		0.3284				12.0		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1 Analy Batch No.: 6845

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/08/2016 19:01 Calibration End Date: 10/09/2016 02:10 Calibration ID: 771

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
2,3-Dimethylheptane	++++ 0.9545	1.0278 0.7543	1.0752 0.7481	0.9073 0.5735	0.8691	Ave		0.8637				19.1		30.0			
Chlorobenzene	0.6540 0.6898	0.6488 0.5569	0.6679 0.6251	0.5842 0.5256	0.5874	Ave		0.6155				8.9		30.0			
Ethylbenzene	1.0369 1.1165	1.0061 0.8450	0.9685 1.0340	0.9593 0.8469	0.9044	Ave		0.9686				9.4		30.0			
2-Ethylthiophene	0.7221 0.7933	0.6809 0.6225	0.6893 0.7581	0.6594 0.6422	0.6545	Ave		0.6914				8.2		30.0			
m-Xylene & p-Xylene	0.7975 0.8326	0.7783 0.6224	0.7480 0.7322	0.7454 0.5750	0.6919	Ave		0.7248				11.4		30.0			
Nonane	0.5955 0.6515	0.5791 0.5307	0.5909 0.5706	0.5741 0.4727	0.5858	Ave		0.5723				8.5		30.0			
Bromoform	0.3161 0.4607	0.2848 0.4032	0.3239 0.4967	0.3091 0.4509	0.3629	Ave		0.3787				20.3		30.0			
Styrene	0.3749 0.5815	0.3610 0.4561	0.4078 0.5845	0.4200 0.4811	0.4530	Ave		0.4578				17.6		30.0			
o-Xylene	0.8722 0.8939	0.8716 0.6618	0.8252 0.8094	0.8165 0.6533	0.7476	Ave		0.7946				11.2		30.0			
1,1,2,2-Tetrachloroethane	0.5544 0.6657	0.5575 0.5314	0.5721 0.6447	0.5681 0.5326	0.5561	Ave		0.5758				8.2		30.0			
1,2,3-Trichloropropane	0.1139 0.1517	0.1284 0.1217	0.1317 0.1553	0.1289 0.1327	0.1277	Ave		0.1324				10.0		30.0			
Isopropylbenzene	++++ 1.1771	++++ 0.8812	1.0596 1.0647	1.0626 0.8458	0.9717	Ave		1.0089				11.5		30.0			
Propylbenzene	++++ 0.2895	++++ 0.2252	0.2304 0.2936	0.2354 0.2455	0.2248	Ave		0.2492				12.0		30.0			
2-Chlorotoluene	0.2255 0.2807	0.2426 0.2222	0.2362 0.2744	0.2286 0.2384	0.2384	Ave		0.2430				8.5		30.0			
4-Ethyltoluene	++++ 1.0203	++++ 0.7867	0.7969 0.9812	0.8226 0.7942	0.8068	Ave		0.8584				11.5		30.0			
1,3,5-Trimethylbenzene	0.4012 0.4982	0.4570 0.3776	0.4234 0.4677	0.4452 0.3864	0.4090	Ave		0.4295				9.4		30.0			
Alpha Methyl Styrene	++++ 0.3705	++++ 0.3087	0.2123 0.4203	0.2250 0.3623	0.2694	Ave		0.3098				25.3		30.0			
Decane	++++ 0.7019	++++ 0.5485	0.5700 0.6164	0.6005 0.4900	0.5836	Ave		0.5873				11.1		30.0			
tert-Butylbenzene	++++ 0.9675	++++ 0.7326	0.8703 0.8661	0.8931 0.6883	0.8080	Ave		0.8323				11.6		30.0			
1,2,4-Trimethylbenzene	0.6720 0.8683	0.7359 0.6694	0.7226 0.7970	0.7494 0.6317	0.7140	Ave		0.7289				9.8		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1 Analy Batch No.: 6845
SDG No.: _____
Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 10/08/2016 19:01 Calibration End Date: 10/09/2016 02:10 Calibration ID: 771

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
sec-Butylbenzene	1.0812 1.3235	1.2299 1.0158	1.1697 1.1914	1.2077 0.9224	1.1219	Ave		1.1404				10.6		30.0			
1,3-Dichlorobenzene	0.3042 0.3988	0.2488 0.3396	0.3111 0.4504	0.2778 0.4007	0.3178	Ave		0.3388				19.3		30.0			
Benzyl chloride	++++ 0.4137	++++ 0.3879	0.2767 0.5417	0.2353 0.4910	0.3060	Ave		0.3789				29.8		30.0			
1,4-Dichlorobenzene	0.2369 0.3351	0.2227 0.2924	0.2556 0.4086	0.2246 0.3737	0.2617	Ave		0.2901				23.3		30.0			
4-Isopropyltoluene	0.7601 0.9782	0.8524 0.7688	0.8171 0.8965	0.8275 0.7200	0.8265	Ave		0.8275				9.3		30.0			
1,2,3-Trimethylbenzene	0.5253 0.6467	0.5863 0.5050	0.5730 0.6154	0.5714 0.5047	0.5391	Ave		0.5630				8.7		30.0			
Butylcyclohexane	++++ 0.8395	0.8197 0.6568	0.7836 0.7208	0.7644 0.5891	0.7454	Ave		0.7399				11.3		30.0			
Indane	0.5863 0.7062	0.5662 0.5539	0.6014 0.6799	0.5659 0.5488	0.5774	Ave		0.5985				9.4		30.0			
1,2-Dichlorobenzene	0.2967 0.4151	0.2907 0.3436	0.3383 0.4379	0.3135 0.3755	0.3383	Ave		0.3500				14.5		30.0			
Butylbenzene	0.5990 0.8374	0.5748 0.6931	0.6820 0.8102	0.6323 0.6592	0.6837	Ave		0.6858				12.8		30.0			
Indene	++++ 0.4221	++++ 0.3594	0.2909 0.4649	0.2818 0.3932	0.3289	Ave		0.3630				18.7		30.0			
Undecane	++++ 0.6214	++++ 0.5053	0.5591 0.6002	0.4661 0.4838	0.5178	Ave		0.5362				11.0		30.0			
1,2-Dimethyl-4-Ethylbenzene	++++ 0.6250	0.4772 0.5259	0.5086 0.6148	0.4656 0.5289	0.5163	Ave		0.5328				10.9		30.0			
1,2-Dibromo-3-Chloropropane	++++ 0.1294	0.0646 0.1212	0.0845 ++++	0.0747 ++++	0.0973	Ave		0.0953				27.1		30.0			
1,2,4,5-Tetramethylbenzene	0.5376 0.7346	0.5764 0.6284	0.6177 0.7200	0.5605 0.6193	0.6246	Ave		0.6244				10.6		30.0			
1,2,3,5-Tetramethylbenzene	0.3759 0.4705	0.3845 0.3885	0.3856 0.4452	0.3482 0.3903	0.3986	Ave		0.3986				9.3		30.0			
1,2,3,4-Tetramethylbenzene	0.4543 0.5872	0.4507 0.4875	0.5159 0.5678	0.4265 0.5028	0.4911	Ave		0.4982				10.7		30.0			
Dodecane	++++ 0.5426	++++ 0.4614	0.5226 0.4842	0.3050 0.4318	0.4752	Ave		0.4604				16.9		30.0			
1,2,4-Trichlorobenzene	0.0661 0.1102	0.0530 0.1122	0.0745 ++++	0.0560 ++++	0.0873	Ave		0.0799				30.4	*	30.0			
Naphthalene	0.1965 0.3183	0.1595 0.3046	0.2368 ++++	0.1613 ++++	0.2567	Ave		0.2334				27.6		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1 Analy Batch No.: 6845
SDG No.: _____
Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 10/08/2016 19:01 Calibration End Date: 10/09/2016 02:10 Calibration ID: 771

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
	LVL 6	LVL 7	LVL 8	LVL 9													
Benzo(b)thiophene	+++++ 0.1112	+++++ 0.1141	0.0940 +++++	0.0575 +++++	0.0947	Ave		0.0943				23.9		30.0			
Hexachlorobutadiene	0.3283 0.4113	0.3541 0.3265	0.4058 0.4016	0.3257 0.3566	0.3583	Ave		0.3631				9.6		30.0			
1,2,3-Trichlorobenzene	0.0822 0.1233	0.0609 0.1155	0.1040 +++++	0.0671 +++++	0.1060	Ave		0.0941				25.8		30.0			
2-Methylnaphthalene	+++++ 0.0121	+++++ 0.0136	0.0127 0.0155	0.0054 +++++	0.0128	Ave		0.0120				28.8		50.0			
1-Methylnaphthalene	+++++ 0.0176	+++++ 0.0181	0.0191 0.0192	0.0058 +++++	0.0169	Ave		0.0161				31.9		50.0			
4-Bromofluorobenzene (Surr)	0.5601 0.6012	0.5859 0.6226	0.5756 0.6286	0.6091 0.6240	0.6203	Ave		0.6030				4.0		30.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1 Analy Batch No.: 6845

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/08/2016 19:01 Calibration End Date: 10/09/2016 02:10 Calibration ID: 771

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-6845/3	JJ08ICAL01.D
Level 2	IC 140-6845/4	JJ08ICAL02.D
Level 3	IC 140-6845/5	JJ08ICAL03.D
Level 4	IC 140-6845/6	JJ08ICAL04.D
Level 5	IC 140-6845/7	JJ08ICAL05.D
Level 6	ICIS 140-6845/8	JJ08ICAL06.D
Level 7	IC 140-6845/9	JJ08ICAL07.D
Level 8	IC 140-6845/10	JJ08ICAL08.D
Level 9	IC 140-6845/11	JJ07ICAL09.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Chlorodifluoromethane	CBM	Ave	+++++ 61051	2638 118016	5039 232629	12104 435440	29990	+++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Propene	CBM	Ave	+++++ 196459	11069 384576	19193 742703	42644 1278552	100490	+++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Dichlorodifluoromethane	CBM	Ave	13591 591503	25411 1131161	49148 2135941	120201 3672524	301850	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Chloromethane	CBM	Ave	+++++ 65224	+++++ 122109	7032 229632	14884 390327	35473	+++++ 2.00	+++++ 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dichlorotetrafluoroethane	CBM	Ave	6941 334403	13088 568337	27167 1015771	64587 2125671	152559	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Acetaldehyde	CBM	Ave	+++++ 328610	+++++ 520734	+++++ 1109442	75172 2056351	159716	+++++ 9.99	+++++ 20.0	+++++ 40.0	2.00 80.0	5.01
Vinyl chloride	CBM	Ave	4792 200832	8471 383339	16970 724665	42435 1305672	105472	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,3-Butadiene	CBM	Ave	+++++ 151466	6717 287374	12752 545901	31358 989900	79582	+++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Butane	CBM	Ave	+++++ 287380	13757 543330	25893 1028652	63876 1833996	154888	+++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Bromomethane	CBM	Ave	+++++ 181639	7946 352830	15636 679891	36824 1281974	95216	+++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Chloroethane	CBM	Ave	+++++ 85607	3533 165501	7074 314274	17148 596998	44680	+++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Ethanol	CBM	Ave	+++++ 301353	+++++ 507219	25681 1085964	64022 1625717	145811	+++++ 9.99	+++++ 20.0	0.793 40.0	2.00 80.0	5.01
Vinyl bromide	CBM	Ave	+++++ 192126	7803 373522	15692 717438	38043 1395283	98119	+++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Methylbutane	CBM	Ave	+++++ 244836	+++++ 463108	22126 857434	50507 1590512	124087	+++++ 2.00	+++++ 4.00	0.159 8.00	0.400 16.0	1.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1 Analy Batch No.: 6845

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/08/2016 19:01 Calibration End Date: 10/09/2016 02:10 Calibration ID: 771

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Trichlorofluoromethane	CBM	Ave	++++ 525714	21408 997746	43561 1874869	104867 3495723	266484	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Acrolein	CBM	Ave	++++ 49912	++++ 86518	4832 217138	11492 382502	23762	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
Acetonitrile	CBM	Ave	++++ 75306	++++ 112623	4594 274355	12877 461794	31521	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
Acetone	CBM	Ave	++++ 207471	++++ 304007	++++ 759323	50972 1144445	93302	++++ 5.99	++++ 12.0	++++ 24.0	1.20 48.0	3.01
Isopropyl alcohol	CBM	Ave	++++ 712005	++++ 1238996	58959 2482177	148690 3961946	345581	++++ 5.99	++++ 12.0	0.476 24.0	1.20 48.0	3.01
Pentane	CBM	Ave	++++ 30363	++++ 57831	++++ 110628	2436 207814	15634	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
Ethyl ether	CBM	Ave	++++ 201882	++++ 316288	15116 759662	41918 1304099	90717	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
1,1-Dichloroethene	CBM	Ave	++++ 190825	++++ 369158	7893 705786	36261 1363879	95585	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
t-Butyl alcohol	CBM	Ave	++++ 302486	12552 542301	24242 1117829	59107 2020125	141369	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Acrylonitrile	CBM	Ave	++++ 119684	++++ 179147	++++ 449131	8395 739993	49621	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
1,1,2-Trichlorotrifluoroethane	CBM	Ave	++++ 411617	16582 777472	33762 1443316	80689 2657038	210076	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Methylene Chloride	CBM	Ave	++++ 182390	++++ 337926	++++ 629410	20737 1155194	96642	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
3-Chloropropene	CBM	Ave	++++ 179546	8673 330186	15985 638806	36483 1134376	89293	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Carbon disulfide	CBM	Ave	++++ 599369	24706 1114641	48987 2084710	120970 3969758	294789	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
trans-1,2-Dichloroethene	CBM	Ave	++++ 191375	7848 365640	15393 686121	37486 1222745	96669	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Methylpentane	CBM	Ave	++++ 417695	18226 772529	36100 1419823	84772 2499321	214982	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Methyl tert-butyl ether	CBM	Ave	++++ 425689	++++ 656085	30306 1608749	87262 2582783	182647	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
1,1-Dichloroethane	CBM	Ave	++++ 363477	15298 630813	29019 1282760	70214 2275244	171595	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Vinyl acetate	CBM	Ave	++++ 420925	++++ 609691	29006 1643291	83094 2633160	172403	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
2-Butanone	CBM	Ave	++++ 66905	++++ 108487	5518 272011	14095 396756	29020	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
Hexane	CBM	Ave	++++ 154493	6819 280492	13156 549243	30899 963328	77947	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1 Analy Batch No.: 6845

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/08/2016 19:01 Calibration End Date: 10/09/2016 02:10 Calibration ID: 771

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Isopropyl ether	CBM	Ave	11335 554804	26227 862998	41207 2044544	114673 3156431	243807	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
cis-1,2-Dichloroethene	CBM	Ave	++++ 191110	8043 338207	15353 698544	36353 1240681	90586	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Ethyl acetate	CBM	Ave	++++ 307905	++++ 496876	23137 1211378	62762 1885712	132536	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
Chloroform	CBM	Ave	++++ 397963	16913 663152	32155 1426851	76886 2510211	186688	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Tert-butyl ethyl ether	CBM	Ave	9206 457083	20831 722189	32839 1728031	93782 2695405	198310	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Tetrahydrofuran	CBM	Ave	++++ 171477	++++ 262975	12679 676405	34798 1110580	72211	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
1,1,1-Trichloroethane	CBM	Ave	++++ 408450	16146 709770	33649 1470609	79596 2557765	194833	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dichloroethane	DFBZ	Ave	++++ 249655	10433 422239	20012 914302	49288 1621122	116411	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1-Butanol	DFBZ	Ave	++++ 68834	++++ 127066	5158 272506	11630 509145	30007	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
Cyclohexane	DFBZ	Ave	2042 92091	3694 164249	7611 308561	18070 516001	46974	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Benzene	DFBZ	Ave	++++ 536994	24939 879174	45872 1869237	109572 3056544	251778	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Carbon tetrachloride	DFBZ	Ave	9181 413385	16383 715806	32675 1440199	78074 2444049	205702	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2,3-Dimethylpentane	DFBZ	Ave	++++ 122807	5141 211129	9980 443680	24581 782517	59164	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Thiophene	DFBZ	Ave	6618 296880	12339 498367	23502 1101723	57959 1921978	135687	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Tert-amyl methyl ether	CBZd 5	Ave	7379 417595	18197 661965	29936 1626808	84309 2536568	177159	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2,2,4-Trimethylpentane	DFBZ	Ave	++++ 873863	40767 1427378	73960 2963724	173210 5010864	406239	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Heptane	DFBZ	Ave	4270 184827	7814 310519	14892 677602	35102 1209602	83748	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dichloropropane	DFBZ	Ave	4766 205421	8477 336735	15940 751794	39101 1297014	92168	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Trichloroethene	DFBZ	Ave	5079 212389	8979 353658	16787 773499	40331 1362381	98859	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Dibromomethane	DFBZ	Ave	4674 210316	8317 348638	16419 780137	39421 1372684	95834	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Bromodichloromethane	DFBZ	Ave	7935 384377	15087 633628	28262 1430339	69273 2542594	170211	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1 Analy Batch No.: 6845

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/08/2016 19:01 Calibration End Date: 10/09/2016 02:10 Calibration ID: 771

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,4-Dioxane	DFBZ	Ave	++++ 61859	++++ 113820	4230 234207	11296 399104	29141	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
Methyl methacrylate	DFBZ	Ave	3346 168295	7348 272756	15280 690931	31834 1102637	71233	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Methylcyclohexane	DFBZ	Ave	++++ 408489	16458 682362	33529 1404210	78499 2393729	193416	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	++++ 330708	++++ 590218	26499 1298660	66898 2160191	145694	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
cis-1,3-Dichloropropene	DFBZ	Ave	++++ 284607	11154 457130	19690 1078107	50995 1936451	118765	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
trans-1,3-Dichloropropene	CBZd 5	Ave	++++ 230569	7945 385334	14032 970039	39823 1785545	96862	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Toluene	CBZd 5	Ave	++++ 566445	24101 903425	40667 2108567	103555 3708453	246370	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Toluene Range	CBZd 5	Ave	++++ 1265569	++++ 2054791	89052 5193956	237815 8816266	550707	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
1,1,2-Trichloroethane	CBZd 5	Ave	3309 175475	7080 280309	12026 665355	33101 1190782	76042	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Methylthiophene	CBZd 5	Ave	9194 464807	16381 752389	29831 1718039	85346 3024608	203436	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
3-Methylthiophene	CBZd 5	Ave	8224 439094	17436 710507	30896 1657917	73571 2968551	190205	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Hexanone	CBZd 5	Ave	++++ 157568	++++ 275764	9665 624917	25177 1094375	67673	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
C8 Range	CBZd 5	Ave	++++ 1761285	++++ 2829479	++++ 6304355	333608 10853398	794228	++++ 2.00	++++ 4.00	++++ 8.00	0.400 16.0	1.00
Octane	CBZd 5	Ave	3774 184411	7363 300317	14033 684728	34674 1203931	81751	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Dibromochloromethane	CBZd 5	Ave	5619 337791	11396 554019	22682 1314407	56014 2356036	141975	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dibromoethane	CBZd 5	Ave	4428 285225	10438 468707	19919 1141646	51123 2076091	122262	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Tetrachloroethene	CBZd 5	Ave	4371 205117	8484 325398	16317 737763	38757 1298341	92953	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2,3-Dimethylheptane	CBZd 5	Ave	++++ 544214	25678 863711	47652 1776582	111048 2791997	250479	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Chlorobenzene	CBZd 5	Ave	7382 393318	16210 637698	29601 1484475	71495 2558548	169300	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Ethylbenzene	CBZd 5	Ave	11703 636564	25136 967485	42924 2455584	117415 4122632	260654	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
2-Ethylthiophene	CBZd 5	Ave	8150 452306	17012 712797	30549 1800351	80706 3126145	188635	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1 Analy Batch No.: 6845

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/08/2016 19:01 Calibration End Date: 10/09/2016 02:10 Calibration ID: 771

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
m-Xylene & p-Xylene	CBZd 5	Ave	18003 949395	38891 1425239	66297 3477596	182466 5598414	398815	0.0784 3.99	0.157 8.00	0.317 16.0	0.800 32.0	2.00
Nonane	CBZd 5	Ave	6721 371467	14468 607688	26189 1354981	70266 2301308	168829	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Bromoform	CBZd 5	Ave	3568 262668	7115 461674	14356 1179650	37833 2195036	104598	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Styrene	CBZd 5	Ave	4232 331575	9020 522211	18072 1388066	51409 2341796	130563	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
o-Xylene	CBZd 5	Ave	9845 509651	21775 757783	36573 1922332	99937 3180197	215453	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	6258 379555	13928 608436	25353 1531082	69531 2592834	160274	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2,3-Trichloropropane	CBZd 5	Ave	1286 86518	3208 139309	5836 368725	15771 646183	36811	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Isopropylbenzene	CBZd 5	Ave	++++ 671114	++++ 1008946	46960 2528390	130051 4117496	280044	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
Propylbenzene	CBZd 5	Ave	++++ 165071	++++ 257802	10213 697239	28816 1195062	64778	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
2-Chlorotoluene	CBZd 5	Ave	2545 160028	6062 254370	10469 651542	27973 1160412	68698	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
4-Ethyltoluene	CBZd 5	Ave	++++ 581752	++++ 900723	35318 2330147	100681 3866352	232530	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
1,3,5-Trimethylbenzene	CBZd 5	Ave	4528 284025	11417 432339	18765 1110666	54490 1880990	117867	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Alpha Methyl Styrene	CBZd 5	Ave	++++ 211230	++++ 353509	9408 998190	27543 1763503	77630	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
Decane	CBZd 5	Ave	++++ 400184	++++ 627966	25264 1463837	73499 2385192	168207	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
tert-Butylbenzene	CBZd 5	Ave	++++ 551609	++++ 838868	38571 2056871	109302 3350611	232863	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
1,2,4-Trimethylbenzene	CBZd 5	Ave	7585 495080	18385 766460	32026 1892775	91716 3075224	205772	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
sec-Butylbenzene	CBZd 5	Ave	12204 754625	30727 1163047	51842 2829320	147815 4490227	323335	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,3-Dichlorobenzene	CBZd 5	Ave	3434 227357	6217 388834	13786 1069569	33997 1950364	91599	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Benzyl chloride	CBZd 5	Ave	++++ 235854	++++ 444170	12262 1286505	28804 2389971	88177	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
1,4-Dichlorobenzene	CBZd 5	Ave	2674 191069	5564 334767	11326 970323	27489 1819109	75433	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
4-Isopropyltoluene	CBZd 5	Ave	8579 557746	21296 880317	36212 2129135	101281 3504694	238195	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1 Analy Batch No.: 6845

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 10/08/2016 19:01 Calibration End Date: 10/09/2016 02:10 Calibration ID: 771

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (PPB V/V)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
1,2,3-Trimethylbenzene	CBZd 5	Ave	5929 368722	14647 578208	25395 1461513	69930 2457067	155360	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Butylcyclohexane	CBZd 5	Ave	++++ 478656	20480 752044	34728 1711828	93553 2867784	214826	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Indane	CBZd 5	Ave	6618 402661	14146 634195	26653 1614772	69259 2671703	166405	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dichlorobenzene	CBZd 5	Ave	3349 236698	7263 393466	14992 1039844	38368 1828104	97487	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Butylbenzene	CBZd 5	Ave	6761 477429	14360 793620	30226 1924163	77391 3209166	197055	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Indene	CBZd 5	Ave	++++ 240660	++++ 411536	12894 1104068	34494 1914125	94798	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
Undecane	CBZd 5	Ave	++++ 354292	++++ 578505	24778 1425412	57043 2355117	149237	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dimethyl-4-Ethylbenzene	CBZd 5	Ave	++++ 356341	11922 602152	22541 1459951	56986 2574855	148792	++++ 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	++++ 73775	1615 138821	3744 ++++	9138 ++++	28029	++++ 2.00	0.0784 4.00	0.159 ++++	0.400 ++++	1.00
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	6068 418851	14401 719532	27377 1709923	68600 3014619	180026	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2,3,5-Tetramethylbenzene	CBZd 5	Ave	4243 268243	9607 444831	17088 1057205	42619 1900079	114877	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2,3,4-Tetramethylbenzene	CBZd 5	Ave	5128 334774	11261 558141	22862 1348346	52196 2447419	141541	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
Dodecane	CBZd 5	Ave	++++ 309370	++++ 528290	23162 1149872	37327 2101742	136966	++++ 2.00	++++ 4.00	0.159 8.00	0.400 16.0	1.00
1,2,4-Trichlorobenzene	CBZd 5	Ave	746 62804	1324 128473	3301 ++++	6853 ++++	25163	0.0392 2.00	0.0784 4.00	0.159 ++++	0.400 ++++	1.00
Naphthalene	CBZd 5	Ave	2218 181491	3986 348810	10494 ++++	19745 ++++	73981	0.0392 2.00	0.0784 4.00	0.159 ++++	0.400 ++++	1.00
Benzo(b)thiophene	CBZd 5	Ave	++++ 63388	++++ 130640	4165 ++++	7041 ++++	27289	++++ 2.00	++++ 4.00	0.159 ++++	0.400 ++++	1.00
Hexachlorobutadiene	CBZd 5	Ave	3706 234515	8846 373791	17985 953838	39860 1735997	103265	0.0392 2.00	0.0784 4.00	0.159 8.00	0.400 16.0	1.00
1,2,3-Trichlorobenzene	CBZd 5	Ave	928 70305	1521 132264	4611 ++++	8210 ++++	30545	0.0392 2.00	0.0784 4.00	0.159 ++++	0.400 ++++	1.00
2-Methylnaphthalene	CBZd 5	Ave	++++ 21556	++++ 48712	1760 114956	2050 ++++	11518	++++ 6.24	++++ 12.5	0.496 25.0	1.25 ++++	3.13
1-Methylnaphthalene	CBZd 5	Ave	++++ 31380	++++ 64798	2651 142356	2215 ++++	15193	++++ 6.24	++++ 12.5	0.496 25.0	1.25 ++++	3.13
4-Bromofluorobenzene (Surr)	CBZd 5	Ave	645028 686528	746842 712827	643066 746473	745431 759449	713913	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1 Analy Batch No.: 6845
SDG No.: _____
Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 10/08/2016 19:01 Calibration End Date: 10/09/2016 02:10 Calibration ID: 771

Curve Type Legend:

Ave = Average ISTD

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL01.D
 Lims ID: IC L1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 08-Oct-2016 19:01:30 ALS Bottle#: 1 Worklist Smp#: 3
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003509-003
 Misc. Info.: 059244
 Operator ID: 403648 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 11-Oct-2016 11:30:28 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK014

First Level Reviewer: barlozhetskayaa

Date: 09-Oct-2016 19:42:35

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.299	9.302	-0.003	95	316146	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.456	11.461	-0.005	95	1429056	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.128	16.131	-0.003	89	1151730	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.752	17.753	-0.001	96	645028	4.00	3.71	
6 Chlorodifluoromethane	67	3.917	3.918	-0.001	96	1445	0.0392	0.0449	
7 Propene	41	3.933	3.933	0.000	98	5658	0.0392	0.0512	
8 Dichlorodifluoromethane	85	3.986	3.987	-0.001	100	13591	0.0392	0.0437	
9 Chloromethane	52	4.185	4.183	0.002	61	2222	0.0392	0.0623	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.185	4.188	-0.003	93	6941	0.0392	0.0424	
11 Acetaldehyde	44	4.352	4.349	0.003	99	11285	0.1960	0.3422	
12 Vinyl chloride	62	4.368	4.369	-0.001	93	4792	0.0392	0.0446	
14 Butadiene	54	4.465	4.463	0.002	67	3828	0.0392	0.0479	
13 Butane	43	4.465	4.465	0.000	84	9524	0.0392	0.0611	
15 Bromomethane	94	4.815	4.815	0.000	94	4835	0.0392	0.0497	
16 Chloroethane	64	4.965	4.964	0.001	92	1962	0.0392	0.0436	
17 Ethanol	31	5.062	5.063	-0.001	97	9618	0.1960	0.3193	
18 Vinyl bromide	106	5.282	5.290	-0.008	94	4683	0.0392	0.0464	
19 2-Methylbutane	43	5.342	5.341	0.001	92	6850	0.0392	0.0534	
20 Trichlorofluoromethane	101	5.578	5.576	0.002	98	12527	0.0392	0.0462	
21 Acrolein	56	5.583	5.586	-0.003	58	2380	0.0392	0.0857	
22 Acetonitrile	40	5.653	5.657	-0.004	97	1404	0.0392	0.0411	
23 Acetone	58	5.718	5.712	0.006	98	6999	0.1176	0.2047	
24 Isopropyl alcohol	45	5.799	5.793	0.006	75	16075	0.1176	0.1359	
26 Ethyl ether	31	6.003	5.987	0.016	95	4338	0.0392	0.0436	
27 1,1-Dichloroethene	96	6.320	6.319	0.001	96	4590	0.0392	0.0462	
28 2-Methyl-2-propanol	59	6.433	6.419	0.014	92	6291	0.0392	0.0410	
29 Acrylonitrile	53	6.422	6.429	-0.007	87	2499	0.0392	0.0438	
30 1,1,2-Trichloro-1,2,2-trif	101	6.498	6.499	-0.001	94	9768	0.0392	0.0464	
31 Methylene Chloride	84	6.680	6.682	-0.002	96	10424	0.0392	0.1038	
32 3-Chloro-1-propene	39	6.697	6.698	-0.001	93	5003	0.0392	0.0528	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.858	6.857	0.001	98	15422	0.0392	0.0503	
34 trans-1,2-Dichloroethene	96	7.519	7.521	-0.002	96	4504	0.0392	0.0460	
35 2-Methylpentane	43	7.530	7.532	-0.002	94	10566	0.0392	0.0491	
36 Methyl tert-butyl ether	73	7.670	7.653	0.017	95	8946	0.0392	0.0437	
37 1,1-Dichloroethane	63	7.950	7.955	-0.005	95	8526	0.0392	0.0470	
38 Vinyl acetate	43	8.057	8.055	0.002	99	8589	0.0392	0.0430	
39 2-Butanone (MEK)	72	8.536	8.524	0.012	81	1154	0.0392	0.0344	
40 Hexane	56	8.536	8.537	-0.001	79	3796	0.0392	0.0476	
41 Isopropyl ether	45	8.718	8.702	0.016	96	11335	0.0392	0.0411	
42 cis-1,2-Dichloroethene	96	8.960	8.961	-0.001	91	4341	0.0392	0.0450	
43 Ethyl acetate	43	9.154	9.146	0.008	93	6219	0.0392	0.0411	
44 Chloroform	83	9.310	9.310	0.000	28	9722	0.0392	0.0489	
45 Tert-butyl ethyl ether	59	9.407	9.392	0.015	94	9206	0.0392	0.0407	
46 Tetrahydrofuran	42	9.756	9.738	0.018	89	3994	0.0392	0.0476	
47 1,1,1-Trichloroethane	97	10.353	10.352	0.001	95	9570	0.0392	0.0469	
48 1,2-Dichloroethane	62	10.461	10.461	0.000	94	5789	0.0392	0.0473	
49 n-Butanol	31	10.907	10.884	0.023	32	987	0.0392	0.0293	
50 Cyclohexane	69	10.945	10.937	0.008	70	2042	0.0392	0.0449	
51 Benzene	78	10.934	10.939	-0.005	96	14269	0.0392	0.0540	
52 Carbon tetrachloride	117	10.961	10.963	-0.002	94	9181	0.0392	0.0453	
53 2,3-Dimethylpentane	71	11.047	11.044	0.003	90	3123	0.0392	0.0515	
54 Thiophene	84	11.208	11.210	-0.002	93	6618	0.0392	0.0449	
55 Tert-amyl methyl ether	73	11.407	11.396	0.011	90	7379	0.0392	0.0392	
56 Isooctane	57	11.671	11.670	0.001	97	24401	0.0392	0.0572	
57 n-Heptane	71	12.031	12.033	-0.002	92	4270	0.0392	0.0463	
58 1,2-Dichloropropane	63	12.128	12.130	-0.002	89	4766	0.0392	0.0471	
59 Trichloroethene	130	12.165	12.163	0.002	91	5079	0.0392	0.0479	
60 Dibromomethane	93	12.246	12.252	-0.006	92	4674	0.0392	0.0453	
62 Dichlorobromomethane	83	12.380	12.388	-0.008	97	7935	0.0392	0.0431	
63 Methyl methacrylate	41	12.472	12.470	0.002	85	3346	0.0392	0.0398	
64 Methylcyclohexane	83	12.924	12.919	0.005	96	9976	0.0392	0.0510	
65 4-Methyl-2-pentanone (MIBK)	43	13.316	13.310	0.006	94	6775	0.0392	0.0413	
66 cis-1,3-Dichloropropene	75	13.364	13.369	-0.005	92	5710	0.0392	0.0429	
67 trans-1,3-Dichloropropene	75	14.047	14.051	-0.004	89	3206	0.0392	0.0317	
68 Toluene	91	14.176	14.180	-0.004	94	11915	0.0392	0.0472	
69 1,1,2-Trichloroethane	83	14.246	14.253	-0.007	90	3309	0.0392	0.0421	
70 2-Methylthiophene	97	14.332	14.332	0.000	96	9194	0.0392	0.0452	
71 3-Methylthiophene	97	14.526	14.530	-0.004	97	8224	0.0392	0.0423	
72 2-Hexanone	58	14.634	14.624	0.010	88	1850	0.0392	0.0270	
73 n-Octane	85	14.838	14.841	-0.003	93	3774	0.0392	0.0448	
74 Chlorodibromomethane	129	14.951	14.954	-0.003	95	5619	0.0392	0.0388	
75 Ethylene Dibromide	107	15.247	15.245	0.002	95	4428	0.0392	0.0353	
76 Tetrachloroethene	129	15.311	15.312	-0.001	94	4371	0.0392	0.0462	
77 2,3-Dimethylheptane	43	16.177	16.176	0.001	92	13751	0.0392	0.0553	
78 Chlorobenzene	112	16.182	16.180	0.002	58	7382	0.0392	0.0417	
79 Ethylbenzene	91	16.456	16.458	-0.002	95	11703	0.0392	0.0420	
80 2-Ethylthiophene	97	16.559	16.563	-0.004	96	8150	0.0392	0.0409	
81 m-Xylene & p-Xylene	91	16.612	16.616	-0.004	97	18003	0.0784	0.0863	
82 n-Nonane	57	17.016	17.015	0.001	92	6721	0.0392	0.0408	
83 Bromoform	173	17.080	17.077	0.003	85	3568	0.0392	0.0327	
84 Styrene	104	17.080	17.082	-0.002	91	4232	0.0392	0.0321	
85 o-Xylene	91	17.145	17.142	0.003	98	9845	0.0392	0.0430	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
86 1,1,2,2-Tetrachloroethane	83	17.462	17.462	0.000	94	6258	0.0392	0.0377	
87 1,2,3-Trichloropropane	110	17.618	17.623	-0.005	94	1286	0.0392	0.0337	
88 Isopropylbenzene	105	17.715	17.719	-0.004	88	13574	0.0392	0.0467	
89 N-Propylbenzene	120	18.242	18.237	0.005	98	2446	0.0392	0.0341	
90 2-Chlorotoluene	126	18.285	18.287	-0.002	96	2545	0.0392	0.0364	
91 4-Ethyltoluene	105	18.387	18.382	0.005	96	8596	0.0392	0.0348	
92 1,3,5-Trimethylbenzene	120	18.457	18.452	0.005	91	4528	0.0392	0.0366	
93 Alpha Methyl Styrene	118	18.677	18.678	-0.001	89	2239	0.0392	0.0251	
94 n-Decane	57	18.715	18.716	-0.001	90	5972	0.0392	0.0353	
95 tert-Butylbenzene	119	18.866	18.865	0.001	87	9542	0.0392	0.0398	
96 1,2,4-Trimethylbenzene	105	18.876	18.879	-0.003	93	7585	0.0392	0.0361	
97 sec-Butylbenzene	105	19.124	19.127	-0.003	97	12204	0.0392	0.0372	
98 1,3-Dichlorobenzene	146	19.156	19.151	0.005	57	3434	0.0392	0.0352	
99 Benzyl chloride	91	19.226	19.222	0.004	92	2566	0.0392	0.0235	
100 1,4-Dichlorobenzene	146	19.237	19.236	0.001	83	2674	0.0392	0.0320	
101 4-Isopropyltoluene	119	19.280	19.283	-0.003	96	8579	0.0392	0.0360	
102 1,2,3-Trimethylbenzene	105	19.339	19.340	-0.001	95	5929	0.0392	0.0366	
103 Butylcyclohexane	83	19.387	19.387	0.000	90	9090	0.0392	0.0427	
104 2,3-Dihydroindene	117	19.586	19.585	0.001	90	6618	0.0392	0.0384	
105 1,2-Dichlorobenzene	146	19.591	19.588	0.003	71	3349	0.0392	0.0332	
106 n-Butylbenzene	91	19.704	19.706	-0.002	95	6761	0.0392	0.0342	
107 Indene	116	19.710	19.711	-0.001	60	2594	0.0392	0.0248	
108 Undecane	57	20.000	19.997	0.003	91	5785	0.0392	0.0375	
109 1,2-Dimethyl-4-Ethylbenzen	119	20.070	20.071	-0.001	95	4942	0.0392	0.0322	
110 1,2-Dibromo-3-Chloropropan	157	20.178	20.176	0.002	76	616	0.0392	0.0225	
111 1,2,4,5-Tetramethylbenzene	119	20.457	20.454	0.003	93	6068	0.0392	0.0338	
112 1,2,3,5-Tetramethylbenzene	119	20.506	20.509	-0.003	92	4243	0.0392	0.0370	
113 1,2,3,4-Tetramethylbenzene	119	20.925	20.922	0.003	93	5128	0.0392	0.0357	
114 Dodecane	57	21.065	21.067	-0.002	89	4792	0.0392	0.0361	
115 1,2,4-Trichlorobenzene	180	21.296	21.300	-0.004	66	746	0.0392	0.0324	
116 Naphthalene	128	21.447	21.446	0.001	93	2218	0.0392	0.0330	
117 Benzo(b)thiophene	134	21.549	21.545	0.004	94	1009	0.0392	0.0372	
118 Hexachlorobutadiene	225	21.629	21.631	-0.002	91	3706	0.0392	0.0354	
119 1,2,3-Trichlorobenzene	180	21.699	21.697	0.002	74	928	0.0392	0.0342	
121 1-Methylnaphthalene	142	22.377	22.359	0.018	1	384	0.1225	0.0827	
A 124 Toluene Range	1	14.176	(14.146-14.206)		0	27423	0.0392	0.0480	
S 126 Xylenes, Total	100				0		0.1176	0.1293	
S 127 1,2-Dichloroethene, Total	1				0		0.0784	0.0910	

Reagents:

40L12DNP_00007

Amount Added: 100.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 11-Oct-2016 11:30:30

Chrom Revision: 2.2 08-Sep-2016 14:45:52

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL01.D

Injection Date: 08-Oct-2016 19:01:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: IC L1

Worklist Smp#: 3

Client ID:

Purge Vol: 500.000 mL

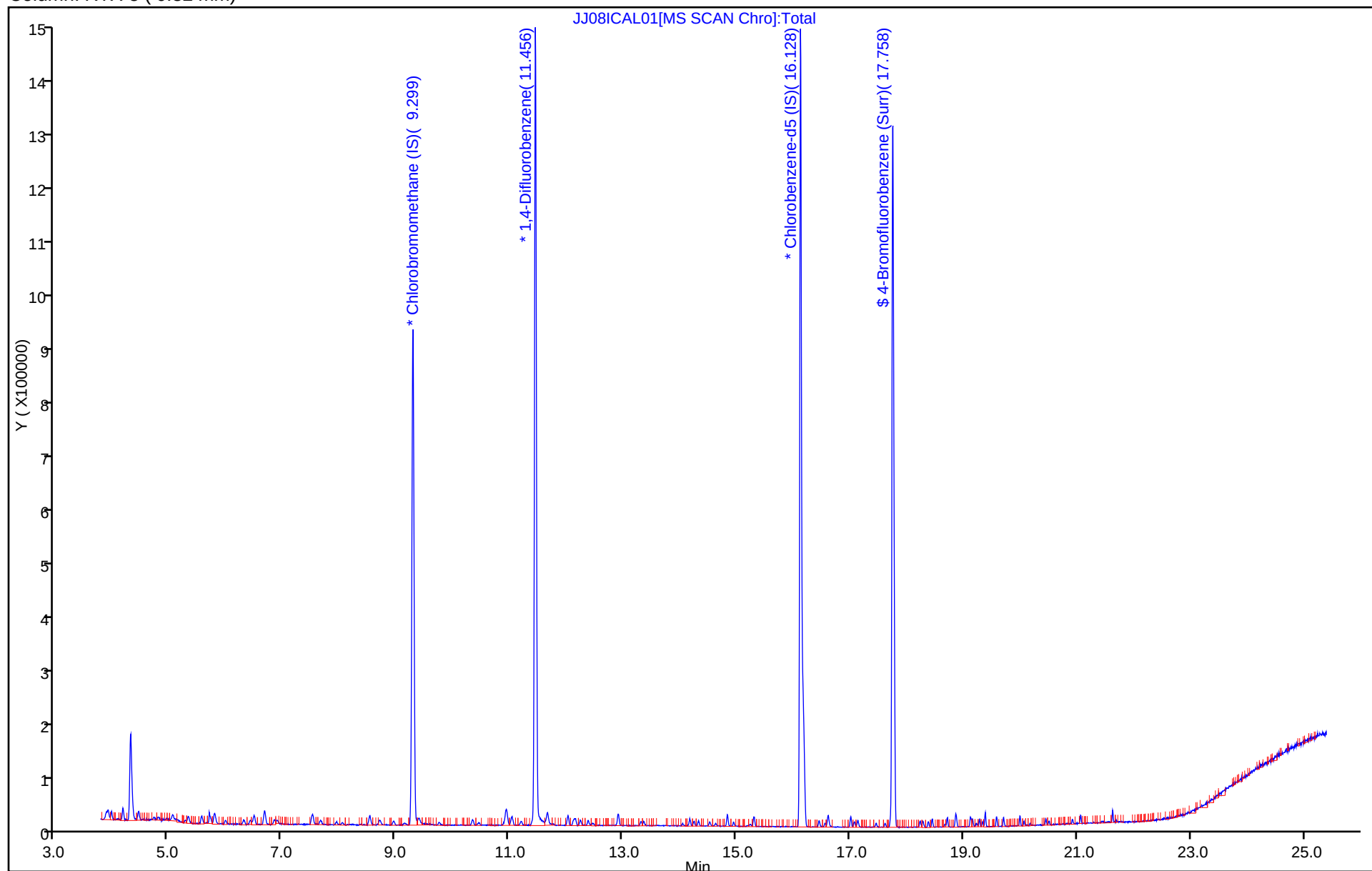
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL01.D

Injection Date: 08-Oct-2016 19:01:30

Instrument ID: MJ

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#: 1

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

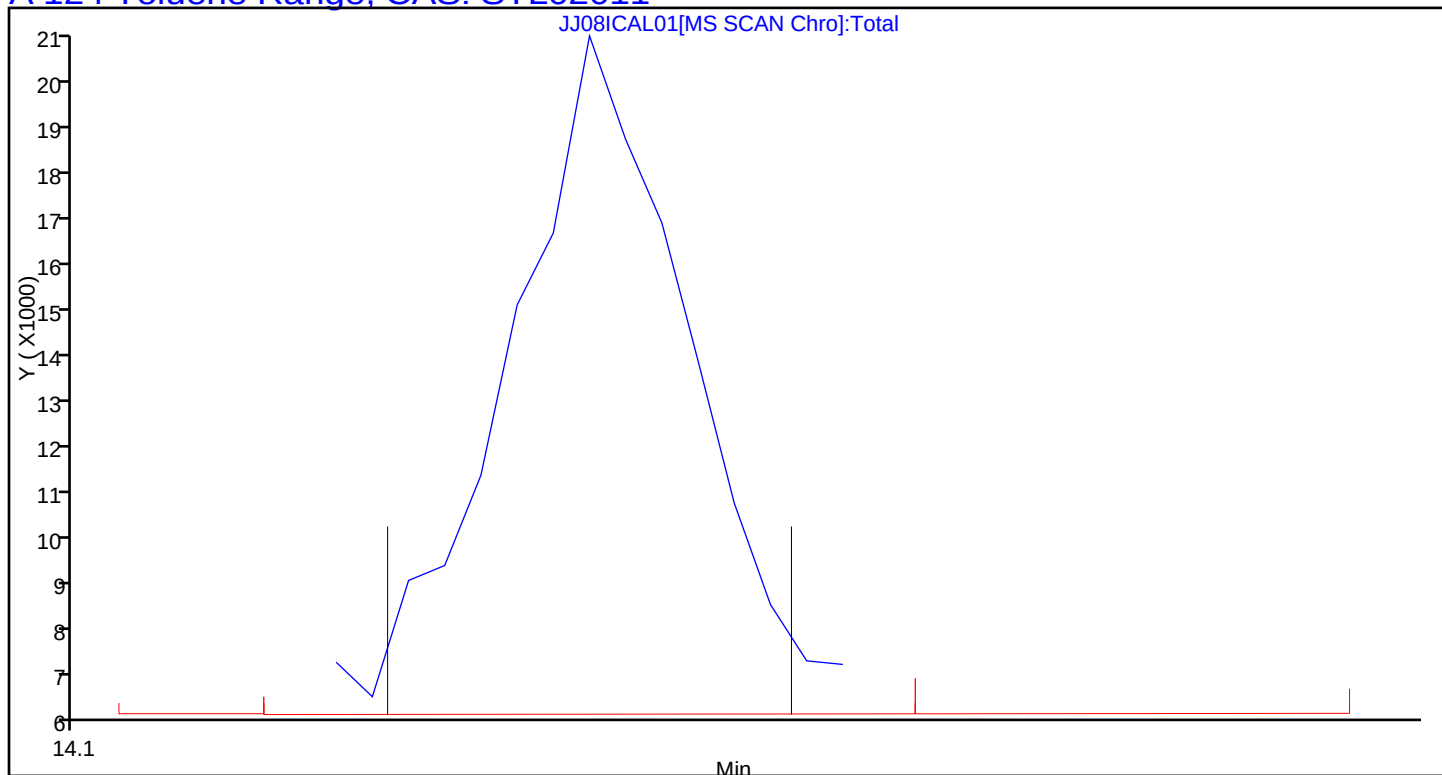
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL02.D
 Lims ID: IC L2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 08-Oct-2016 19:54:30 ALS Bottle#: 1 Worklist Smp#: 4
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003509-004
 Misc. Info.: 059244
 Operator ID: 403648 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 11-Oct-2016 11:30:35 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK014

First Level Reviewer: barlozhetskayaa

Date: 09-Oct-2016 19:44:30

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.302	9.302	0.000	96	323805	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.458	11.461	-0.003	95	1513431	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.131	16.131	0.000	89	1274678	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.755	17.753	0.002	90	746842	4.00	3.89	
6 Chlorodifluoromethane	67	3.913	3.918	-0.005	97	2638	0.0784	0.0800	
7 Propene	41	3.935	3.933	0.002	98	11069	0.0784	0.0977	
8 Dichlorodifluoromethane	85	3.983	3.987	-0.004	99	25411	0.0784	0.0797	
9 Chloromethane	52	4.182	4.183	-0.001	55	2966	0.0784	0.0812	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.193	4.188	0.005	93	13088	0.0784	0.0780	
11 Acetaldehyde	44	4.349	4.349	0.000	88	26535	0.3920	0.7856	
12 Vinyl chloride	62	4.371	4.369	0.002	96	8471	0.0784	0.0770	
14 Butadiene	54	4.462	4.463	-0.001	69	6717	0.0784	0.0821	
13 Butane	43	4.467	4.465	0.002	86	13757	0.0784	0.0862	
15 Bromomethane	94	4.817	4.815	0.002	98	7946	0.0784	0.0798	
16 Chloroethane	64	4.962	4.964	-0.002	95	3533	0.0784	0.0767	
17 Ethanol	31	5.064	5.063	0.001	97	20532	0.3920	0.6654	
18 Vinyl bromide	106	5.295	5.290	0.005	97	7803	0.0784	0.0755	
19 2-Methylbutane	43	5.344	5.341	0.003	91	11468	0.0784	0.0874	
20 Trichlorofluoromethane	101	5.575	5.576	-0.001	99	21408	0.0784	0.0770	
21 Acrolein	56	5.586	5.586	0.000	32	4693	0.0784	0.1650	
22 Acetonitrile	40	5.661	5.657	0.004	92	1163	0.0784	0.0332	
23 Acetone	58	5.715	5.712	0.003	98	15730	0.2352	0.4491	
24 Isopropyl alcohol	45	5.796	5.793	0.003	91	33754	0.2352	0.2787	
25 Pentane	72	5.806	5.805	0.001	94	1097	0.0784	0.0678	
26 Ethyl ether	31	5.995	5.987	0.007	90	9682	0.0784	0.0949	
27 1,1-Dichloroethene	96	6.317	6.319	-0.002	96	7893	0.0784	0.0776	
28 2-Methyl-2-propanol	59	6.430	6.419	0.011	94	12552	0.0784	0.0798	
29 Acrylonitrile	53	6.425	6.429	-0.004	67	5589	0.0784	0.0957	
30 1,1,2-Trichloro-1,2,2-trif	101	6.500	6.499	0.001	93	16582	0.0784	0.0770	
31 Methylene Chloride	84	6.677	6.682	-0.005	98	14030	0.0784	0.1364	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.699	6.698	0.001	96	8673	0.0784	0.0894	
33 Carbon disulfide	76	6.855	6.857	-0.002	100	24706	0.0784	0.0786	
34 trans-1,2-Dichloroethene	96	7.516	7.521	-0.005	98	7848	0.0784	0.0783	
35 2-Methylpentane	43	7.532	7.532	0.000	94	18226	0.0784	0.0827	
36 Methyl tert-butyl ether	73	7.667	7.653	0.014	96	19624	0.0784	0.0935	
37 1,1-Dichloroethane	63	7.957	7.955	0.002	98	15298	0.0784	0.0823	
38 Vinyl acetate	43	8.054	8.055	-0.001	100	18449	0.0784	0.0902	
39 2-Butanone (MEK)	72	8.527	8.524	0.003	84	3425	0.0784	0.0997	
40 Hexane	56	8.533	8.537	-0.004	72	6819	0.0784	0.0835	
41 Isopropyl ether	45	8.705	8.702	0.003	96	26227	0.0784	0.0928	
42 cis-1,2-Dichloroethene	96	8.952	8.961	-0.009	94	8043	0.0784	0.0814	
43 Ethyl acetate	43	9.151	9.146	0.005	97	14896	0.0784	0.0962	
44 Chloroform	83	9.307	9.310	-0.003	29	16913	0.0784	0.0831	
45 Tert-butyl ethyl ether	59	9.398	9.392	0.006	97	20831	0.0784	0.0898	
46 Tetrahydrofuran	42	9.759	9.738	0.021	94	8380	0.0784	0.0976	
47 1,1,1-Trichloroethane	97	10.350	10.352	-0.002	96	16146	0.0784	0.0772	
48 1,2-Dichloroethane	62	10.452	10.461	-0.009	95	10433	0.0784	0.0805	
49 n-Butanol	31	10.888	10.884	0.004	37	1798	0.0784	0.0504	
50 Cyclohexane	69	10.936	10.937	-0.001	69	3694	0.0784	0.0766	
51 Benzene	78	10.942	10.939	0.003	97	24939	0.0784	0.0891	
52 Carbon tetrachloride	117	10.963	10.963	0.000	95	16383	0.0784	0.0763	
53 2,3-Dimethylpentane	71	11.044	11.044	0.000	92	5141	0.0784	0.0801	
54 Thiophene	84	11.211	11.210	0.001	94	12339	0.0784	0.0790	
55 Tert-amyl methyl ether	73	11.399	11.396	0.003	95	18197	0.0784	0.0874	
56 Isooctane	57	11.668	11.670	-0.002	98	40767	0.0784	0.0902	
57 n-Heptane	71	12.028	12.033	-0.005	93	7814	0.0784	0.0800	
58 1,2-Dichloropropane	63	12.125	12.130	-0.005	89	8477	0.0784	0.0792	
59 Trichloroethene	130	12.162	12.163	-0.001	94	8979	0.0784	0.0799	
60 Dibromomethane	93	12.248	12.252	-0.004	95	8317	0.0784	0.0761	
62 Dichlorobromomethane	83	12.383	12.388	-0.005	98	15087	0.0784	0.0773	
61 1,4-Dioxane	88	12.420	12.413	0.007	78	2096	0.0784	0.0665	
63 Methyl methacrylate	41	12.474	12.470	0.004	93	7348	0.0784	0.0824	
64 Methylcyclohexane	83	12.921	12.919	0.001	95	16458	0.0784	0.0794	
65 4-Methyl-2-pentanone (MIBK)	43	13.313	13.310	0.003	98	15115	0.0784	0.0871	
66 cis-1,3-Dichloropropene	75	13.367	13.369	-0.002	94	11154	0.0784	0.0791	
67 trans-1,3-Dichloropropene	75	14.044	14.051	-0.007	97	7945	0.0784	0.0709	
68 Toluene	91	14.179	14.180	-0.001	92	24101	0.0784	0.0862	
69 1,1,2-Trichloroethane	83	14.249	14.253	-0.004	90	7080	0.0784	0.0813	
70 2-Methylthiophene	97	14.329	14.332	-0.003	97	16381	0.0784	0.0727	
71 3-Methylthiophene	97	14.534	14.530	0.004	98	17436	0.0784	0.0809	
72 2-Hexanone	58	14.625	14.624	0.001	91	5121	0.0784	0.0676	
73 n-Octane	85	14.840	14.841	-0.001	95	7363	0.0784	0.0789	
74 Chlorodibromomethane	129	14.953	14.954	-0.001	96	11396	0.0784	0.0711	
75 Ethylene Dibromide	107	15.244	15.245	-0.001	99	10438	0.0784	0.0752	
76 Tetrachloroethene	129	15.313	15.312	0.001	94	8484	0.0784	0.0811	
77 2,3-Dimethylheptane	43	16.174	16.176	-0.002	94	25678	0.0784	0.0933	
78 Chlorobenzene	112	16.179	16.180	-0.001	66	16210	0.0784	0.0826	
79 Ethylbenzene	91	16.459	16.458	0.001	98	25136	0.0784	0.0814	
80 2-Ethylthiophene	97	16.561	16.563	-0.002	97	17012	0.0784	0.0772	
81 m-Xylene & p-Xylene	91	16.615	16.616	-0.001	99	38891	0.1568	0.1684	
82 n-Nonane	57	17.013	17.015	-0.002	94	14468	0.0784	0.0793	
83 Bromoform	173	17.077	17.077	0.000	78	7115	0.0784	0.0590	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	17.088	17.082	0.006	95	9020	0.0784	0.0618	
85 o-Xylene	91	17.136	17.142	-0.006	98	21775	0.0784	0.0860	
86 1,1,2,2-Tetrachloroethane	83	17.459	17.462	-0.003	97	13928	0.0784	0.0759	
87 1,2,3-Trichloropropane	110	17.626	17.623	0.003	96	3208	0.0784	0.0760	
88 Isopropylbenzene	105	17.717	17.719	-0.002	90	28786	0.0784	0.0895	
89 N-Propylbenzene	120	18.233	18.237	-0.004	99	5652	0.0784	0.0712	
90 2-Chlorotoluene	126	18.287	18.287	0.000	97	6062	0.0784	0.0783	
91 4-Ethyltoluene	105	18.379	18.382	-0.004	98	19960	0.0784	0.0730	
92 1,3,5-Trimethylbenzene	120	18.448	18.452	-0.004	91	11417	0.0784	0.0834	
93 Alpha Methyl Styrene	118	18.680	18.678	0.002	86	5067	0.0784	0.0513	
94 n-Decane	57	18.717	18.716	0.001	90	14185	0.0784	0.0758	
95 tert-Butylbenzene	119	18.862	18.865	-0.003	90	23590	0.0784	0.0889	
96 1,2,4-Trimethylbenzene	105	18.879	18.879	0.000	96	18385	0.0784	0.0791	
97 sec-Butylbenzene	105	19.126	19.127	-0.001	98	30727	0.0784	0.0846	
98 1,3-Dichlorobenzene	146	19.147	19.151	-0.004	95	6217	0.0784	0.0576	
99 Benzyl chloride	91	19.223	19.222	0.001	75	5373	0.0784	0.0445	
100 1,4-Dichlorobenzene	146	19.234	19.236	-0.002	90	5564	0.0784	0.0602	
101 4-Isopropyltoluene	119	19.282	19.283	-0.001	96	21296	0.0784	0.0808	
102 1,2,3-Trimethylbenzene	105	19.341	19.340	0.001	99	14647	0.0784	0.0816	
103 Butylcyclohexane	83	19.384	19.387	-0.003	91	20480	0.0784	0.0869	
104 2,3-Dihydroindene	117	19.583	19.585	-0.002	93	14146	0.0784	0.0742	
105 1,2-Dichlorobenzene	146	19.588	19.588	0.000	93	7263	0.0784	0.0651	
106 n-Butylbenzene	91	19.707	19.706	0.001	96	14360	0.0784	0.0657	
107 Indene	116	19.712	19.711	0.001	60	6325	0.0784	0.0547	
108 Undecane	57	19.997	19.997	0.000	93	11008	0.0784	0.0644	
109 1,2-Dimethyl-4-Ethylbenzen	119	20.072	20.071	0.001	97	11922	0.0784	0.0702	
110 1,2-Dibromo-3-Chloropropan	157	20.175	20.176	-0.001	80	1615	0.0784	0.0532	
111 1,2,4,5-Tetramethylbenzene	119	20.454	20.454	0.000	97	14401	0.0784	0.0724	
112 1,2,3,5-Tetramethylbenzene	119	20.508	20.509	-0.001	94	9607	0.0784	0.0756	
113 1,2,3,4-Tetramethylbenzene	119	20.922	20.922	0.000	96	11261	0.0784	0.0709	
114 Dodecane	57	21.067	21.067	0.000	93	8328	0.0784	0.0568	
115 1,2,4-Trichlorobenzene	180	21.304	21.300	0.004	85	1324	0.0784	0.0520	
116 Naphthalene	128	21.444	21.446	-0.002	96	3986	0.0784	0.0536	
117 Benzo(b)thiophene	134	21.540	21.545	-0.005	94	1503	0.0784	0.0500	
118 Hexachlorobutadiene	225	21.632	21.631	0.001	94	8846	0.0784	0.0764	
119 1,2,3-Trichlorobenzene	180	21.696	21.697	-0.001	89	1521	0.0784	0.0507	
120 2-Methylnaphthalene	142	22.250	22.263	-0.013	92	678	0.2450	0.1771	
A 124 Toluene Range	1	14.179	(14.149-14.209)		0	52597	0.0784	0.0833	
S 126 Xylenes, Total	100				0		0.2352	0.2544	
S 127 1,2-Dichloroethene, Total	1				0		0.1568	0.1597	

Reagents:

40L12DNP_00007

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 11-Oct-2016 11:30:36

Chrom Revision: 2.2 08-Sep-2016 14:45:52

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL02.D

Injection Date: 08-Oct-2016 19:54:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: IC L2

Worklist Smp#: 4

Client ID:

Purge Vol: 500.000 mL

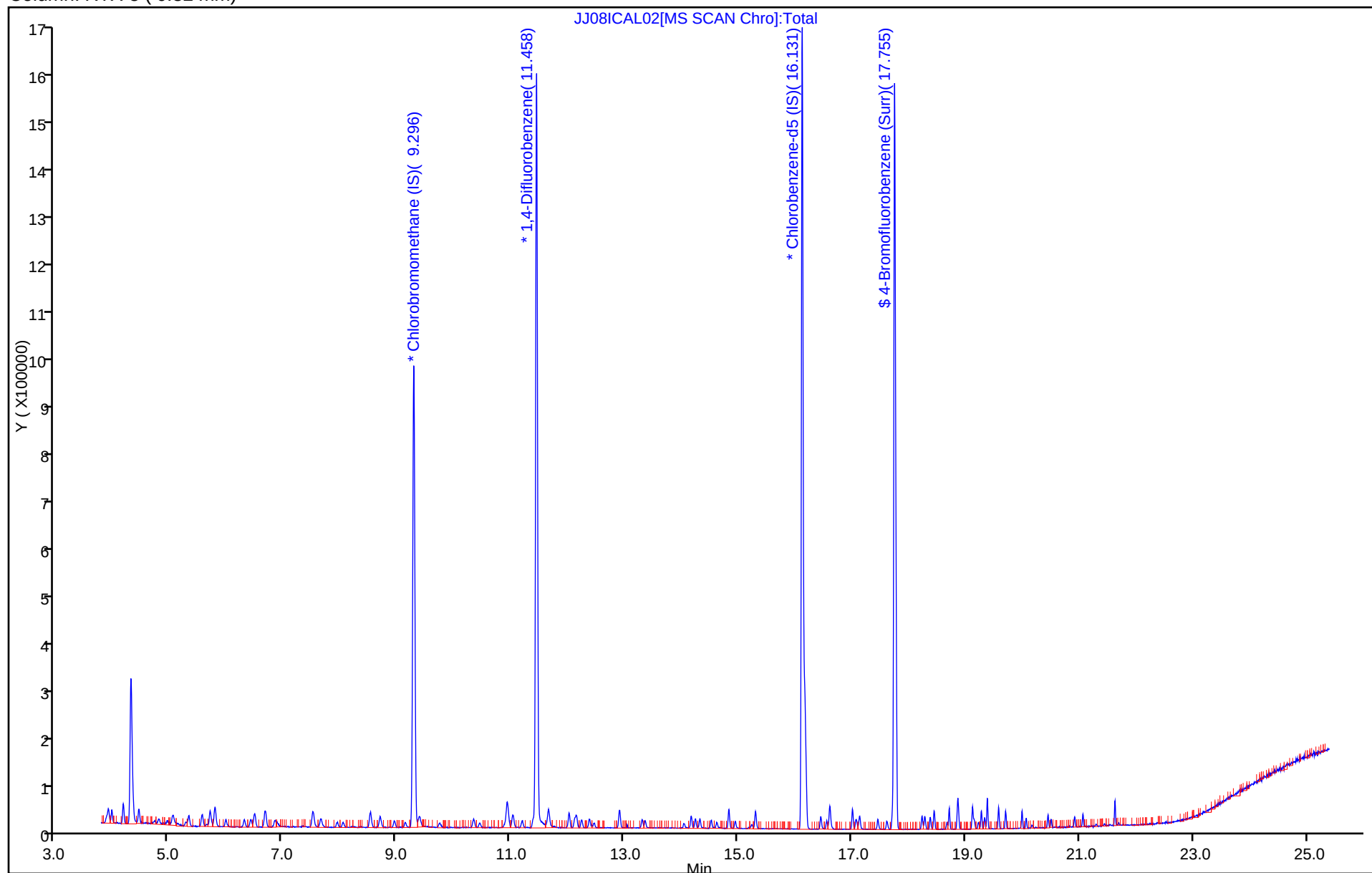
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL02.D

Injection Date: 08-Oct-2016 19:54:30

Instrument ID: MJ

Lims ID: IC L2

Client ID:

Operator ID: 403648

ALS Bottle#:

1

Worklist Smp#:

4

Purge Vol: 500.000 mL

Dil. Factor:

1.0000

Method: MJ_TO15

Limit Group:

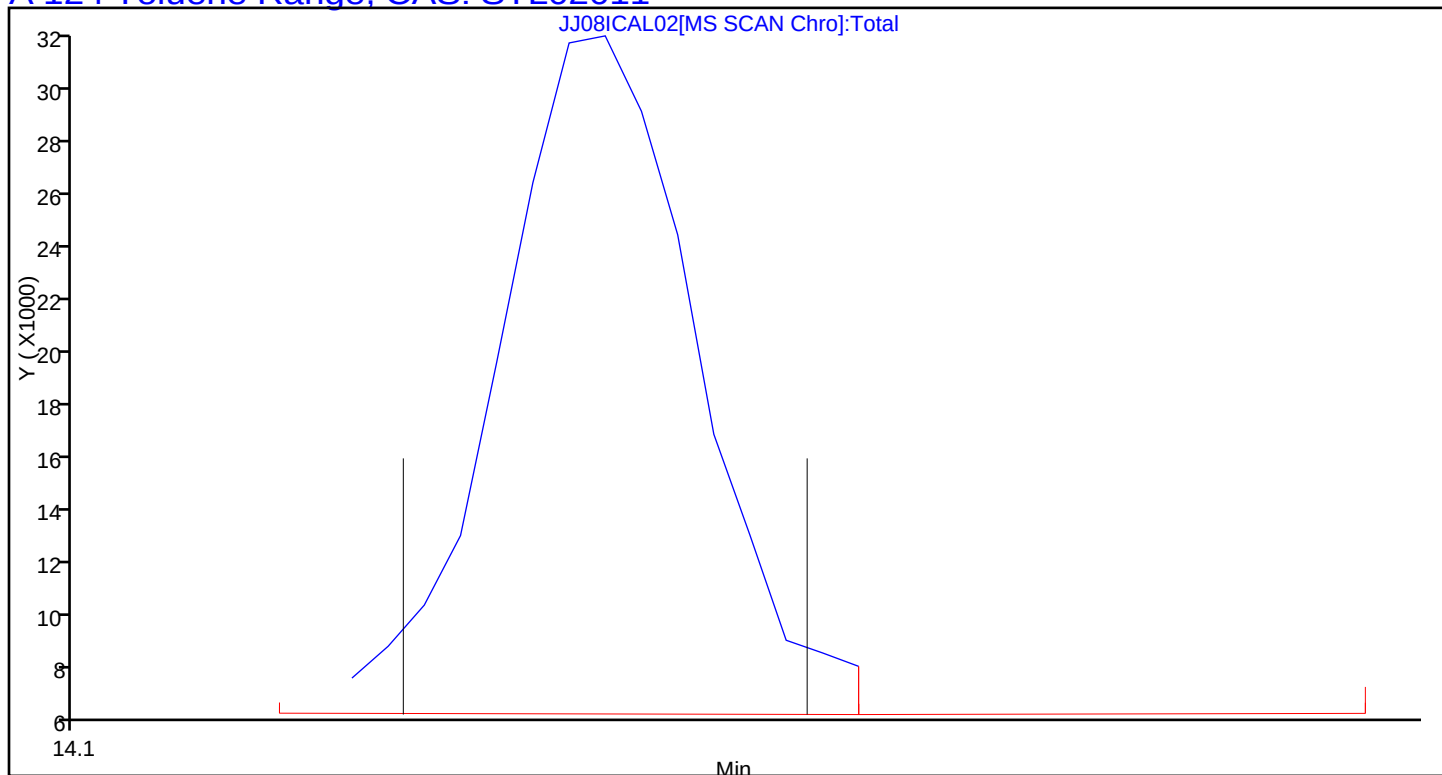
MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector

MS SCAN

A 124 Toluene Range, CAS: STL02011



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL03.D
 Lims ID: IC L3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 08-Oct-2016 20:47:30 ALS Bottle#: 2 Worklist Smp#: 5
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003509-005
 Misc. Info.: 059243
 Operator ID: 403648 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 11-Oct-2016 11:30:44 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK014

First Level Reviewer: barlozhetskayaa

Date: 09-Oct-2016 11:09:21

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.294	9.302	-0.008	97	315859	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.456	11.461	-0.005	95	1400120	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.129	16.131	-0.002	89	1117287	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.753	17.753	0.000	88	643066	4.00	3.82	
6 Chlorodifluoromethane	67	3.922	3.918	0.004	97	5039	0.1587	0.1567	
7 Propene	41	3.933	3.933	0.000	98	19193	0.1587	0.1737	
8 Dichlorodifluoromethane	85	3.987	3.987	0.000	99	49148	0.1587	0.1581	
9 Chloromethane	52	4.186	4.183	0.003	55	7032	0.1587	0.1973	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.186	4.188	-0.002	92	27167	0.1587	0.1660	
11 Acetaldehyde	44	4.347	4.349	-0.002	95	40112	0.7933	1.22	
12 Vinyl chloride	62	4.369	4.369	0.000	98	16970	0.1587	0.1581	
14 Butadiene	54	4.460	4.463	-0.003	66	12752	0.1587	0.1598	
13 Butane	43	4.466	4.465	0.001	87	25893	0.1587	0.1664	
15 Bromomethane	94	4.815	4.815	0.000	97	15636	0.1587	0.1610	
16 Chloroethane	64	4.960	4.964	-0.004	95	7074	0.1587	0.1575	
17 Ethanol	31	5.057	5.063	-0.006	97	25681	0.7933	0.8532	
18 Vinyl bromide	106	5.283	5.290	-0.007	98	15692	0.1587	0.1556	
19 2-Methylbutane	43	5.337	5.341	-0.004	91	22126	0.1587	0.1728	
20 Trichlorofluoromethane	101	5.573	5.576	-0.003	99	43561	0.1587	0.1607	
21 Acrolein	56	5.584	5.586	-0.002	30	4832	0.1587	0.1741	
22 Acetonitrile	40	5.654	5.657	-0.003	99	4594	0.1587	0.1344	
23 Acetone	58	5.718	5.712	0.006	99	23253	0.4760	0.6806	
24 Isopropyl alcohol	45	5.788	5.793	-0.005	93	58959	0.4760	0.4990	
25 Pentane	72	5.799	5.805	-0.006	97	2436	0.1587	0.1543	
26 Ethyl ether	31	5.993	5.987	0.006	92	15116	0.1587	0.1519	
27 1,1-Dichloroethene	96	6.315	6.319	-0.004	97	15575	0.1587	0.1569	
28 2-Methyl-2-propanol	59	6.428	6.419	0.009	93	24242	0.1587	0.1580	
29 Acrylonitrile	53	6.428	6.429	-0.001	54	8395	0.1587	0.1473	
30 1,1,2-Trichloro-1,2,2-trif	101	6.493	6.499	-0.006	94	33762	0.1587	0.1607	
31 Methylene Chloride	84	6.681	6.682	-0.001	98	20737	0.1587	0.2066	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.692	6.698	-0.006	96	15985	0.1587	0.1689	
33 Carbon disulfide	76	6.853	6.857	-0.004	99	48987	0.1587	0.1599	
34 trans-1,2-Dichloroethene	96	7.520	7.521	-0.001	98	15393	0.1587	0.1573	
35 2-Methylpentane	43	7.531	7.532	-0.001	94	36100	0.1587	0.1680	
36 Methyl tert-butyl ether	73	7.654	7.653	0.001	96	30306	0.1587	0.1481	
37 1,1-Dichloroethane	63	7.950	7.955	-0.005	99	29019	0.1587	0.1600	
38 Vinyl acetate	43	8.052	8.055	-0.003	100	29006	0.1587	0.1454	
39 2-Butanone (MEK)	72	8.525	8.524	0.001	82	5518	0.1587	0.1646	
40 Hexane	56	8.536	8.537	-0.001	77	13156	0.1587	0.1651	
41 Isopropyl ether	45	8.703	8.702	0.001	98	41207	0.1587	0.1495	
42 cis-1,2-Dichloroethene	96	8.956	8.961	-0.005	96	15353	0.1587	0.1593	
43 Ethyl acetate	43	9.144	9.146	-0.002	98	23137	0.1587	0.1532	
44 Chloroform	83	9.305	9.310	-0.005	30	32155	0.1587	0.1619	
45 Tert-butyl ethyl ether	59	9.391	9.392	-0.001	97	32839	0.1587	0.1452	
46 Tetrahydrofuran	42	9.751	9.738	0.013	92	12679	0.1587	0.1513	
47 1,1,1-Trichloroethane	97	10.348	10.352	-0.004	96	33649	0.1587	0.1649	
48 1,2-Dichloroethane	62	10.456	10.461	-0.005	97	20012	0.1587	0.1668	
49 n-Butanol	31	10.891	10.884	0.007	48	5158	0.1587	0.1561	
50 Cyclohexane	69	10.934	10.937	-0.003	71	7611	0.1587	0.1706	
51 Benzene	78	10.934	10.939	-0.005	96	45872	0.1587	0.1771	
52 Carbon tetrachloride	117	10.961	10.963	-0.002	96	32675	0.1587	0.1645	
53 2,3-Dimethylpentane	71	11.037	11.044	-0.007	92	9980	0.1587	0.1681	
54 Thiophene	84	11.209	11.210	-0.001	96	23502	0.1587	0.1627	
55 Tert-amyl methyl ether	73	11.402	11.396	0.006	95	29936	0.1587	0.1641	
56 Isooctane	57	11.666	11.670	-0.004	98	73960	0.1587	0.1769	
57 n-Heptane	71	12.031	12.033	-0.002	93	14892	0.1587	0.1648	
58 1,2-Dichloropropane	63	12.128	12.130	-0.002	90	15940	0.1587	0.1609	
59 Trichloroethene	130	12.161	12.163	-0.003	92	16787	0.1587	0.1614	
60 Dibromomethane	93	12.252	12.252	0.000	92	16419	0.1587	0.1625	
62 Dichlorobromomethane	83	12.386	12.388	-0.002	97	28262	0.1587	0.1566	
61 1,4-Dioxane	88	12.419	12.413	0.006	93	4230	0.1587	0.1451	
63 Methyl methacrylate	41	12.467	12.470	-0.003	92	15280	0.1587	0.1853	
64 Methylcyclohexane	83	12.919	12.919	0.000	95	33529	0.1587	0.1749	
65 4-Methyl-2-pentanone (MIBK)	43	13.311	13.310	0.001	98	26499	0.1587	0.1650	
66 cis-1,3-Dichloropropene	75	13.370	13.369	0.001	96	19690	0.1587	0.1510	
67 trans-1,3-Dichloropropene	75	14.053	14.051	0.002	97	14032	0.1587	0.1429	
68 Toluene	91	14.177	14.180	-0.003	93	40667	0.1587	0.1660	
69 1,1,2-Trichloroethane	83	14.252	14.253	-0.001	96	12026	0.1587	0.1575	
70 2-Methylthiophene	97	14.333	14.332	0.001	97	29831	0.1587	0.1510	
71 3-Methylthiophene	97	14.527	14.530	-0.003	99	30896	0.1587	0.1636	
72 2-Hexanone	58	14.623	14.624	-0.001	92	9665	0.1587	0.1456	
73 n-Octane	85	14.838	14.841	-0.003	95	14033	0.1587	0.1717	
74 Chlorodibromomethane	129	14.951	14.954	-0.003	96	22682	0.1587	0.1613	
75 Ethylene Dibromide	107	15.242	15.245	-0.003	95	19919	0.1587	0.1638	
76 Tetrachloroethene	129	15.312	15.312	0.000	93	16317	0.1587	0.1779	
77 2,3-Dimethylheptane	43	16.177	16.176	0.001	95	47652	0.1587	0.1975	
78 Chlorobenzene	112	16.177	16.180	-0.003	68	29601	0.1587	0.1722	
79 Ethylbenzene	91	16.457	16.458	-0.001	98	42924	0.1587	0.1587	
80 2-Ethylthiophene	97	16.565	16.563	0.002	97	30549	0.1587	0.1582	
81 m-Xylene & p-Xylene	91	16.613	16.616	-0.003	99	66297	0.3173	0.3275	
82 n-Nonane	57	17.016	17.015	0.001	92	26189	0.1587	0.1638	
83 Bromoform	173	17.075	17.077	-0.002	87	14356	0.1587	0.1357	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	17.081	17.082	-0.001	98	18072	0.1587	0.1413	
85 o-Xylene	91	17.140	17.142	-0.002	98	36573	0.1587	0.1648	
86 1,1,2,2-Tetrachloroethane	83	17.463	17.462	0.001	97	25353	0.1587	0.1576	
87 1,2,3-Trichloropropane	110	17.624	17.623	0.001	97	5836	0.1587	0.1577	
88 Isopropylbenzene	105	17.721	17.719	0.002	95	46960	0.1587	0.1666	
89 N-Propylbenzene	120	18.237	18.237	0.000	98	10213	0.1587	0.1467	
90 2-Chlorotoluene	126	18.285	18.287	-0.002	97	10469	0.1587	0.1543	
91 4-Ethyltoluene	105	18.382	18.382	0.000	98	35318	0.1587	0.1473	
92 1,3,5-Trimethylbenzene	120	18.452	18.452	0.000	92	18765	0.1587	0.1564	
93 Alpha Methyl Styrene	118	18.678	18.678	0.000	85	9408	0.1587	0.1087	
94 n-Decane	57	18.715	18.716	-0.001	91	25264	0.1587	0.1540	
95 tert-Butylbenzene	119	18.866	18.865	0.001	92	38571	0.1587	0.1659	
96 1,2,4-Trimethylbenzene	105	18.877	18.879	-0.002	95	32026	0.1587	0.1573	
97 sec-Butylbenzene	105	19.130	19.127	0.003	98	51842	0.1587	0.1627	
98 1,3-Dichlorobenzene	146	19.151	19.151	0.000	97	13786	0.1587	0.1457	
99 Benzyl chloride	91	19.226	19.222	0.004	95	12262	0.1587	0.1159	
100 1,4-Dichlorobenzene	146	19.237	19.236	0.001	91	11326	0.1587	0.1398	
101 4-Isopropyltoluene	119	19.280	19.283	-0.003	96	36212	0.1587	0.1567	
102 1,2,3-Trimethylbenzene	105	19.339	19.340	-0.001	99	25395	0.1587	0.1615	
103 Butylcyclohexane	83	19.388	19.387	0.001	92	34728	0.1587	0.1680	
104 2,3-Dihydroindene	117	19.587	19.585	0.002	92	26653	0.1587	0.1594	
105 1,2-Dichlorobenzene	146	19.592	19.588	0.004	74	14992	0.1587	0.1534	
106 n-Butylbenzene	91	19.705	19.706	-0.001	97	30226	0.1587	0.1578	
107 Indene	116	19.710	19.711	-0.001	87	12894	0.1587	0.1272	
108 Undecane	57	19.995	19.997	-0.002	97	24778	0.1587	0.1654	
109 1,2-Dimethyl-4-Ethylbenzen	119	20.071	20.071	0.000	97	22541	0.1587	0.1515	
110 1,2-Dibromo-3-Chloropropan	157	20.178	20.176	0.002	86	3744	0.1587	0.1407	
111 1,2,4,5-Tetramethylbenzene	119	20.452	20.454	-0.002	96	27377	0.1587	0.1570	
112 1,2,3,5-Tetramethylbenzene	119	20.512	20.509	0.003	94	17088	0.1587	0.1535	
113 1,2,3,4-Tetramethylbenzene	119	20.920	20.922	-0.002	97	22862	0.1587	0.1643	
114 Dodecane	57	21.065	21.067	-0.002	94	23162	0.1587	0.1801	
115 1,2,4-Trichlorobenzene	180	21.302	21.300	0.002	87	3301	0.1587	0.1479	
116 Naphthalene	128	21.447	21.446	0.001	98	10494	0.1587	0.1610	
117 Benzo(b)thiophene	134	21.544	21.545	-0.001	97	4165	0.1587	0.1581	
118 Hexachlorobutadiene	225	21.630	21.631	-0.001	95	17985	0.1587	0.1773	
119 1,2,3-Trichlorobenzene	180	21.700	21.697	0.003	92	4611	0.1587	0.1753	
120 2-Methylnaphthalene	142	22.248	22.263	-0.015	93	1760	0.4958	0.5246	
121 1-Methylnaphthalene	142	22.372	22.359	0.013	96	2651	0.4958	0.5888	
A 124 Toluene Range	1	14.177	(14.147-14.207)		0	89052	0.1587	0.1608	
A 125 C8 Range	1	14.829	(14.811-14.847)		0	141889	0.1587	0.1914	
S 126 Xylenes, Total	100				0		0.4760	0.4922	
S 127 1,2-Dichloroethene, Total	1				0		0.3173	0.3167	

Reagents:

40L3DNP_00008

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 11-Oct-2016 11:30:45

Chrom Revision: 2.2 08-Sep-2016 14:45:52

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL03.D

Injection Date: 08-Oct-2016 20:47:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: IC L3

Worklist Smp#: 5

Client ID:

Purge Vol: 500.000 mL

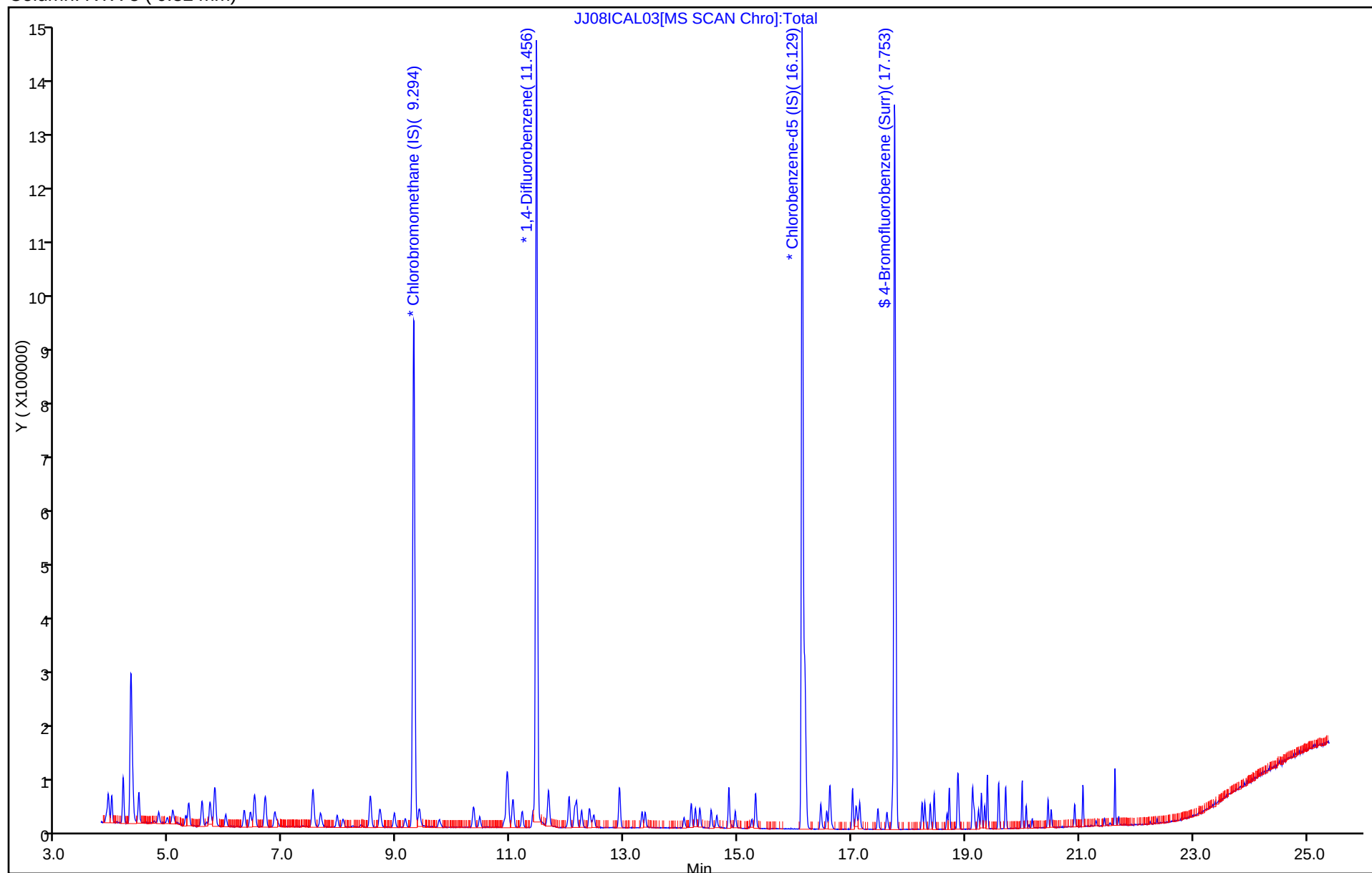
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL03.D

Injection Date: 08-Oct-2016 20:47:30

Instrument ID: MJ

Lims ID: IC L3

Client ID:

Operator ID: 403648

ALS Bottle#: 2

Worklist Smp#: 5

Purge Vol: 500.000 mL

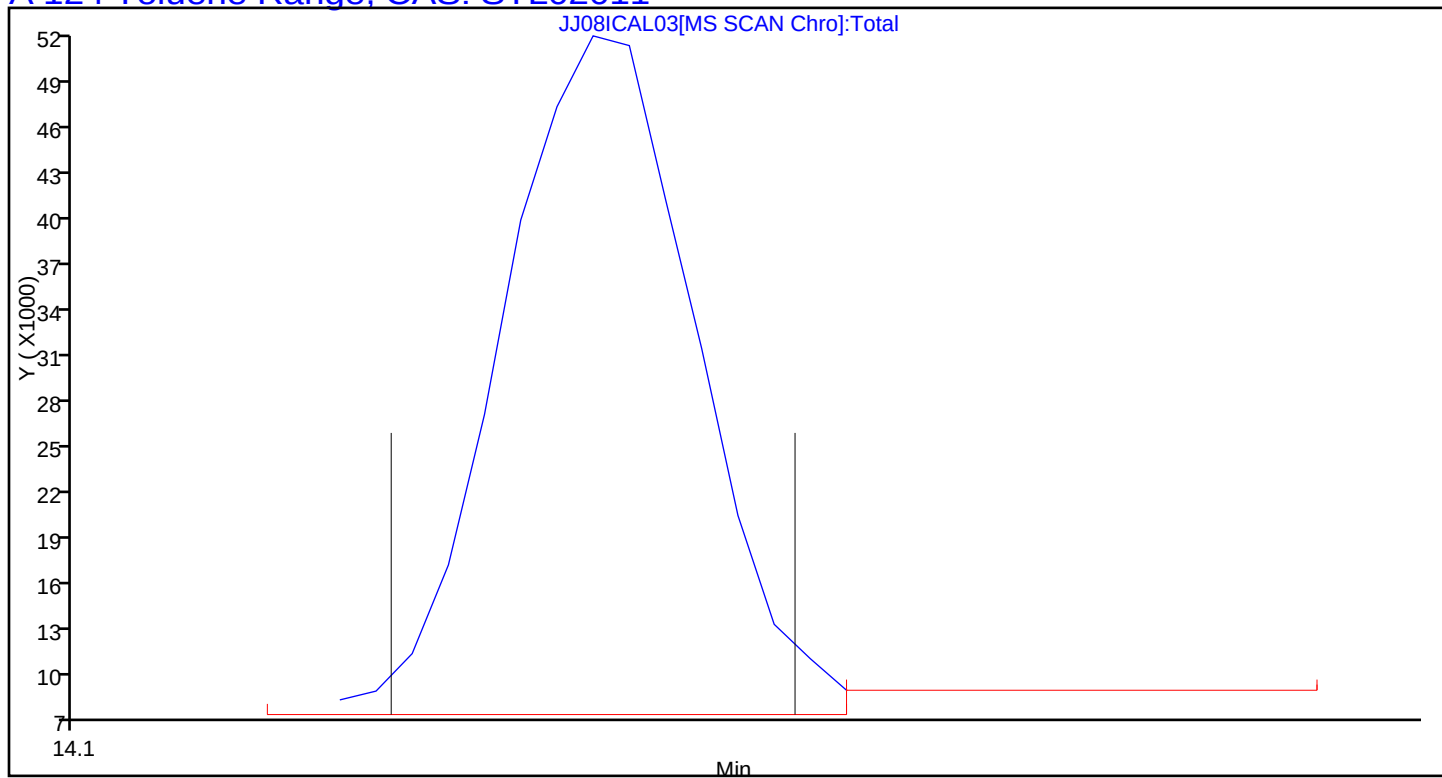
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL03.D

Injection Date: 08-Oct-2016 20:47:30

Instrument ID: MJ

Lims ID: IC L3

Client ID:

Operator ID: 403648

ALS Bottle#: 2

Worklist Smp#: 5

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

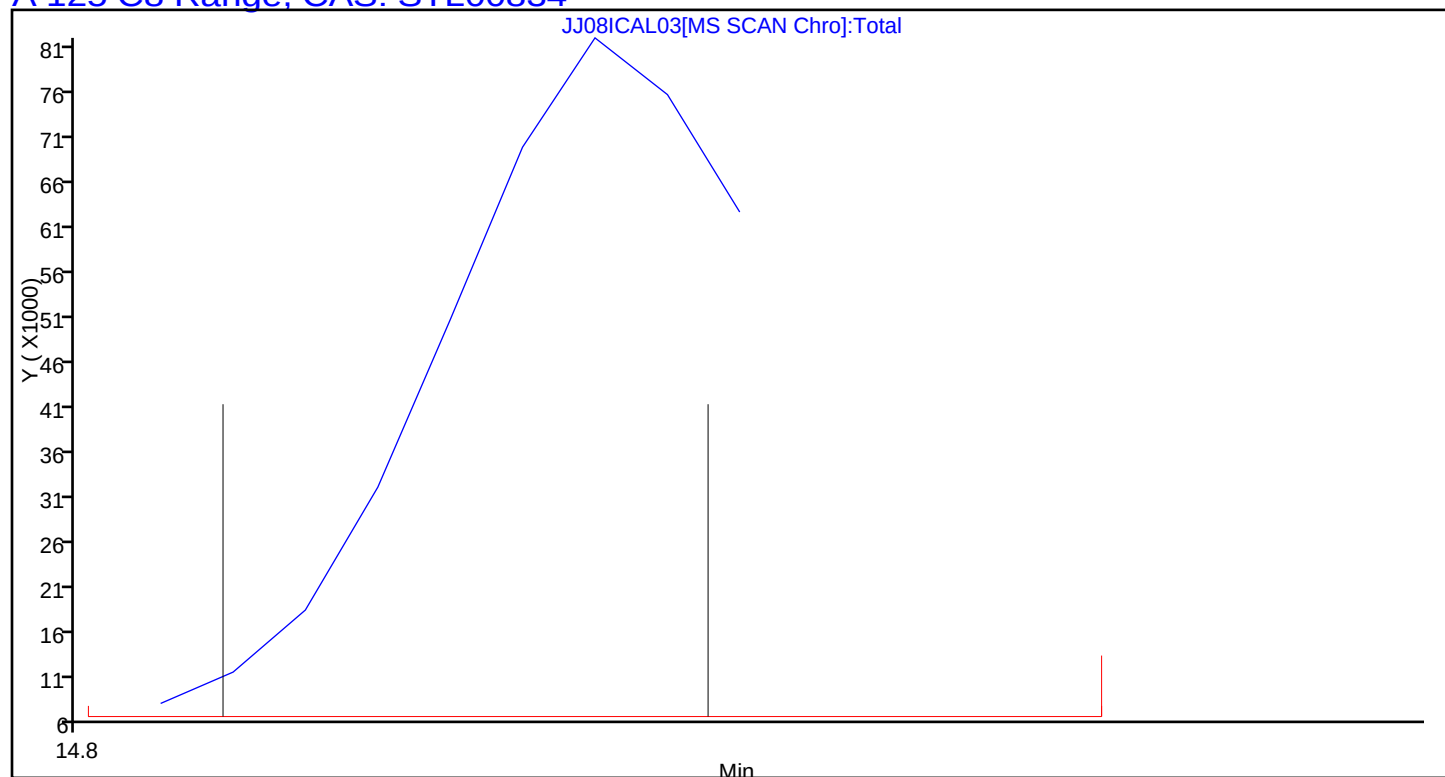
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL04.D
 Lims ID: IC L4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 08-Oct-2016 21:41:30 ALS Bottle#: 3 Worklist Smp#: 6
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003509-006
 Misc. Info.: 059242
 Operator ID: 403648 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 11-Oct-2016 11:30:51 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK014

First Level Reviewer: barlozhetskayaa

Date: 09-Oct-2016 11:09:12

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.301	9.302	-0.001	96	308178	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.457	11.461	-0.004	95	1452182	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.130	16.131	-0.001	89	1223912	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.754	17.753	0.001	88	745431	4.00	4.04	
6 Chlorodifluoromethane	67	3.918	3.918	0.000	97	12104	0.4000	0.3858	
7 Propene	41	3.934	3.933	0.001	99	42644	0.4000	0.3956	
8 Dichlorodifluoromethane	85	3.988	3.987	0.001	100	120201	0.4000	0.3962	
9 Chloromethane	52	4.181	4.183	-0.002	65	14884	0.4000	0.4279	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.187	4.188	-0.001	92	64587	0.4000	0.4044	
11 Acetaldehyde	44	4.348	4.349	-0.001	97	75172	2.00	2.34	
12 Vinyl chloride	62	4.370	4.369	0.001	99	42435	0.4000	0.4053	
14 Butadiene	54	4.461	4.463	-0.002	66	31358	0.4000	0.4028	
13 Butane	43	4.466	4.465	0.001	86	63876	0.4000	0.4207	
15 Bromomethane	94	4.816	4.815	0.001	98	36824	0.4000	0.3887	
16 Chloroethane	64	4.967	4.964	0.003	94	17148	0.4000	0.3913	
17 Ethanol	31	5.058	5.063	-0.005	97	64022	2.00	2.18	
18 Vinyl bromide	106	5.289	5.290	-0.001	97	38043	0.4000	0.3867	
19 2-Methylbutane	43	5.338	5.341	-0.003	92	50507	0.4000	0.4042	
20 Trichlorofluoromethane	101	5.574	5.576	-0.002	100	104867	0.4000	0.3965	
21 Acrolein	56	5.590	5.586	0.004	96	11492	0.4000	0.4245	
22 Acetonitrile	40	5.655	5.657	-0.002	97	12877	0.4000	0.3862	
23 Acetone	58	5.709	5.712	-0.003	98	50972	1.20	1.53	
24 Isopropyl alcohol	45	5.789	5.793	-0.004	94	148690	1.20	1.29	
25 Pentane	72	5.800	5.805	-0.005	96	6090	0.4000	0.3953	
26 Ethyl ether	31	5.988	5.987	0.001	92	41918	0.4000	0.4317	
27 1,1-Dichloroethene	96	6.322	6.319	0.003	97	36261	0.4000	0.3745	
28 2-Methyl-2-propanol	59	6.413	6.419	-0.006	95	59107	0.4000	0.3949	
29 Acrylonitrile	53	6.429	6.429	0.000	95	24380	0.4000	0.4385	
30 1,1,2-Trichloro-1,2,2-trif	101	6.499	6.499	0.000	94	80689	0.4000	0.3935	
31 Methylene Chloride	84	6.682	6.682	0.000	97	41089	0.4000	0.4196	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.698	6.698	0.000	93	36483	0.4000	0.3952	
33 Carbon disulfide	76	6.859	6.857	0.002	99	120970	0.4000	0.4046	
34 trans-1,2-Dichloroethene	96	7.521	7.521	0.000	98	37486	0.4000	0.3927	
35 2-Methylpentane	43	7.532	7.532	0.000	95	84772	0.4000	0.4043	
36 Methyl tert-butyl ether	73	7.655	7.653	0.002	97	87262	0.4000	0.4370	
37 1,1-Dichloroethane	63	7.951	7.955	-0.004	100	70214	0.4000	0.3968	
38 Vinyl acetate	43	8.053	8.055	-0.002	100	83094	0.4000	0.4270	
39 2-Butanone (MEK)	72	8.526	8.524	0.002	96	14095	0.4000	0.4309	
40 Hexane	56	8.532	8.537	-0.005	80	30899	0.4000	0.3974	
41 Isopropyl ether	45	8.698	8.702	-0.004	97	114673	0.4000	0.4263	
42 cis-1,2-Dichloroethene	96	8.962	8.961	0.001	97	36353	0.4000	0.3867	
43 Ethyl acetate	43	9.145	9.146	-0.001	99	62762	0.4000	0.4258	
44 Chloroform	83	9.306	9.310	-0.004	34	76886	0.4000	0.3968	
45 Tert-butyl ethyl ether	59	9.387	9.392	-0.005	96	93782	0.4000	0.4250	
46 Tetrahydrofuran	42	9.736	9.738	-0.002	93	34798	0.4000	0.4257	
47 1,1,1-Trichloroethane	97	10.355	10.352	0.003	95	79596	0.4000	0.3998	
48 1,2-Dichloroethane	62	10.457	10.461	-0.004	97	49288	0.4000	0.3962	
49 n-Butanol	31	10.887	10.884	0.003	82	11630	0.4000	0.3394	
50 Cyclohexane	69	10.930	10.937	-0.007	83	18070	0.4000	0.3906	
51 Benzene	78	10.935	10.939	-0.004	96	109572	0.4000	0.4079	
52 Carbon tetrachloride	117	10.962	10.963	-0.001	96	78074	0.4000	0.3789	
53 2,3-Dimethylpentane	71	11.043	11.044	-0.001	91	24581	0.4000	0.3993	
54 Thiophene	84	11.204	11.210	-0.006	97	57959	0.4000	0.3869	
55 Tert-amyl methyl ether	73	11.398	11.396	0.002	97	84309	0.4000	0.4219	
56 Isooctane	57	11.672	11.670	0.002	98	173210	0.4000	0.3994	
57 n-Heptane	71	12.032	12.033	-0.001	93	35102	0.4000	0.3746	
58 1,2-Dichloropropane	63	12.129	12.130	-0.001	90	39101	0.4000	0.3806	
59 Trichloroethene	130	12.161	12.163	-0.002	93	40331	0.4000	0.3740	
60 Dibromomethane	93	12.253	12.252	0.001	93	39421	0.4000	0.3761	
62 Dichlorobromomethane	83	12.387	12.388	-0.001	98	69273	0.4000	0.3700	
61 1,4-Dioxane	88	12.414	12.413	0.001	94	11296	0.4000	0.3736	
63 Methyl methacrylate	41	12.468	12.470	-0.002	92	31834	0.4000	0.3722	
64 Methylcyclohexane	83	12.914	12.919	-0.005	95	78499	0.4000	0.3947	
65 4-Methyl-2-pentanone (MIBK)	43	13.312	13.310	0.002	98	66898	0.4000	0.4017	
66 cis-1,3-Dichloropropene	75	13.366	13.369	-0.003	95	50995	0.4000	0.3771	
67 trans-1,3-Dichloropropene	75	14.054	14.051	0.003	98	39823	0.4000	0.3702	
68 Toluene	91	14.178	14.180	-0.002	93	103555	0.4000	0.3859	
69 1,1,2-Trichloroethane	83	14.253	14.253	0.000	97	33101	0.4000	0.3959	
70 2-Methylthiophene	97	14.328	14.332	-0.004	97	85346	0.4000	0.3945	
71 3-Methylthiophene	97	14.527	14.530	-0.003	99	73571	0.4000	0.3557	
72 2-Hexanone	58	14.624	14.624	0.000	92	25177	0.4000	0.3462	
73 n-Octane	85	14.839	14.841	-0.002	95	34674	0.4000	0.3872	
74 Chlorodibromomethane	129	14.952	14.954	-0.002	97	56014	0.4000	0.3637	
75 Ethylene Dibromide	107	15.243	15.245	-0.002	98	51123	0.4000	0.3838	
76 Tetrachloroethene	129	15.313	15.312	0.001	95	38757	0.4000	0.3857	
77 2,3-Dimethylheptane	43	16.173	16.176	-0.003	95	111048	0.4000	0.4202	
78 Chlorobenzene	112	16.178	16.180	-0.002	72	71495	0.4000	0.3796	
79 Ethylbenzene	91	16.458	16.458	0.000	99	117415	0.4000	0.3962	
80 2-Ethylthiophene	97	16.560	16.563	-0.003	98	80706	0.4000	0.3815	
81 m-Xylene & p-Xylene	91	16.614	16.616	-0.002	100	182466	0.8000	0.8228	
82 n-Nonane	57	17.012	17.015	-0.003	94	70266	0.4000	0.4012	
83 Bromoform	173	17.076	17.077	-0.001	92	37833	0.4000	0.3265	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	17.082	17.082	0.000	99	51409	0.4000	0.3670	
85 o-Xylene	91	17.141	17.142	-0.001	98	99937	0.4000	0.4110	
86 1,1,2,2-Tetrachloroethane	83	17.463	17.462	0.001	99	69531	0.4000	0.3946	
87 1,2,3-Trichloropropane	110	17.619	17.623	-0.004	98	15771	0.4000	0.3892	
88 Isopropylbenzene	105	17.716	17.719	-0.003	93	130051	0.4000	0.4213	
89 N-Propylbenzene	120	18.238	18.237	0.001	98	28816	0.4000	0.3779	
90 2-Chlorotoluene	126	18.286	18.287	-0.001	97	27973	0.4000	0.3763	
91 4-Ethyltoluene	105	18.383	18.382	0.001	98	100681	0.4000	0.3833	
92 1,3,5-Trimethylbenzene	120	18.453	18.452	0.001	92	54490	0.4000	0.4146	
93 Alpha Methyl Styrene	118	18.679	18.678	0.001	85	27543	0.4000	0.2906	
94 n-Decane	57	18.716	18.716	0.000	90	73499	0.4000	0.4090	
95 tert-Butylbenzene	119	18.862	18.865	-0.003	91	109302	0.4000	0.4292	
96 1,2,4-Trimethylbenzene	105	18.878	18.879	-0.001	96	91716	0.4000	0.4112	
97 sec-Butylbenzene	105	19.125	19.127	-0.002	98	147815	0.4000	0.4236	
98 1,3-Dichlorobenzene	146	19.152	19.151	0.001	98	33997	0.4000	0.3280	
99 Benzyl chloride	91	19.222	19.222	0.000	97	28804	0.4000	0.2485	
100 1,4-Dichlorobenzene	146	19.238	19.236	0.002	91	27489	0.4000	0.3096	
101 4-Isopropyltoluene	119	19.281	19.283	-0.002	96	101281	0.4000	0.4000	
102 1,2,3-Trimethylbenzene	105	19.340	19.340	0.000	99	69930	0.4000	0.4060	
103 Butylcyclohexane	83	19.389	19.387	0.002	91	93553	0.4000	0.4132	
104 2,3-Dihydroindene	117	19.582	19.585	-0.003	93	69259	0.4000	0.3782	
105 1,2-Dichlorobenzene	146	19.588	19.588	0.000	95	38368	0.4000	0.3583	
106 n-Butylbenzene	91	19.706	19.706	0.000	98	77391	0.4000	0.3688	
107 Indene	116	19.711	19.711	0.000	90	34494	0.4000	0.3105	
108 Undecane	57	19.996	19.997	-0.001	96	57043	0.4000	0.3477	
109 1,2-Dimethyl-4-Ethylbenzen	119	20.071	20.071	0.000	98	56986	0.4000	0.3496	
110 1,2-Dibromo-3-Chloropropan	157	20.174	20.176	-0.002	88	9138	0.4000	0.3134	
111 1,2,4,5-Tetramethylbenzene	119	20.453	20.454	-0.001	96	68600	0.4000	0.3591	
112 1,2,3,5-Tetramethylbenzene	119	20.507	20.509	-0.002	95	42619	0.4000	0.3495	
113 1,2,3,4-Tetramethylbenzene	119	20.921	20.922	-0.001	97	52196	0.4000	0.3424	
114 Dodecane	57	21.066	21.067	-0.001	95	37327	0.4000	0.2650	
115 1,2,4-Trichlorobenzene	180	21.298	21.300	-0.002	92	6853	0.4000	0.2803	
116 Naphthalene	128	21.448	21.446	0.002	99	19745	0.4000	0.2765	
117 Benzo(b)thiophene	134	21.545	21.545	0.000	99	7041	0.4000	0.2440	
118 Hexachlorobutadiene	225	21.631	21.631	0.000	95	39860	0.4000	0.3587	
119 1,2,3-Trichlorobenzene	180	21.695	21.697	-0.002	93	8210	0.4000	0.2850	
120 2-Methylnaphthalene	142	22.249	22.263	-0.014	93	2050	1.25	0.5578	
121 1-Methylnaphthalene	142	22.373	22.359	0.014	92	2215	1.25	0.4491	
A 124 Toluene Range	1	14.178	(14.148-14.208)		0	237815	0.4000	0.3921	
A 125 C8 Range	1	14.830	(14.812-14.848)		0	333608	0.4000	0.4108	
S 126 Xylenes, Total	100				0		1.20	1.23	
S 127 1,2-Dichloroethene, Total	1				0		0.8000	0.7794	

Reagents:

40L4DNP_00007

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 11-Oct-2016 11:30:53

Chrom Revision: 2.2 08-Sep-2016 14:45:52

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL04.D

Injection Date: 08-Oct-2016 21:41:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: IC L4

Worklist Smp#: 6

Client ID:

Purge Vol: 500.000 mL

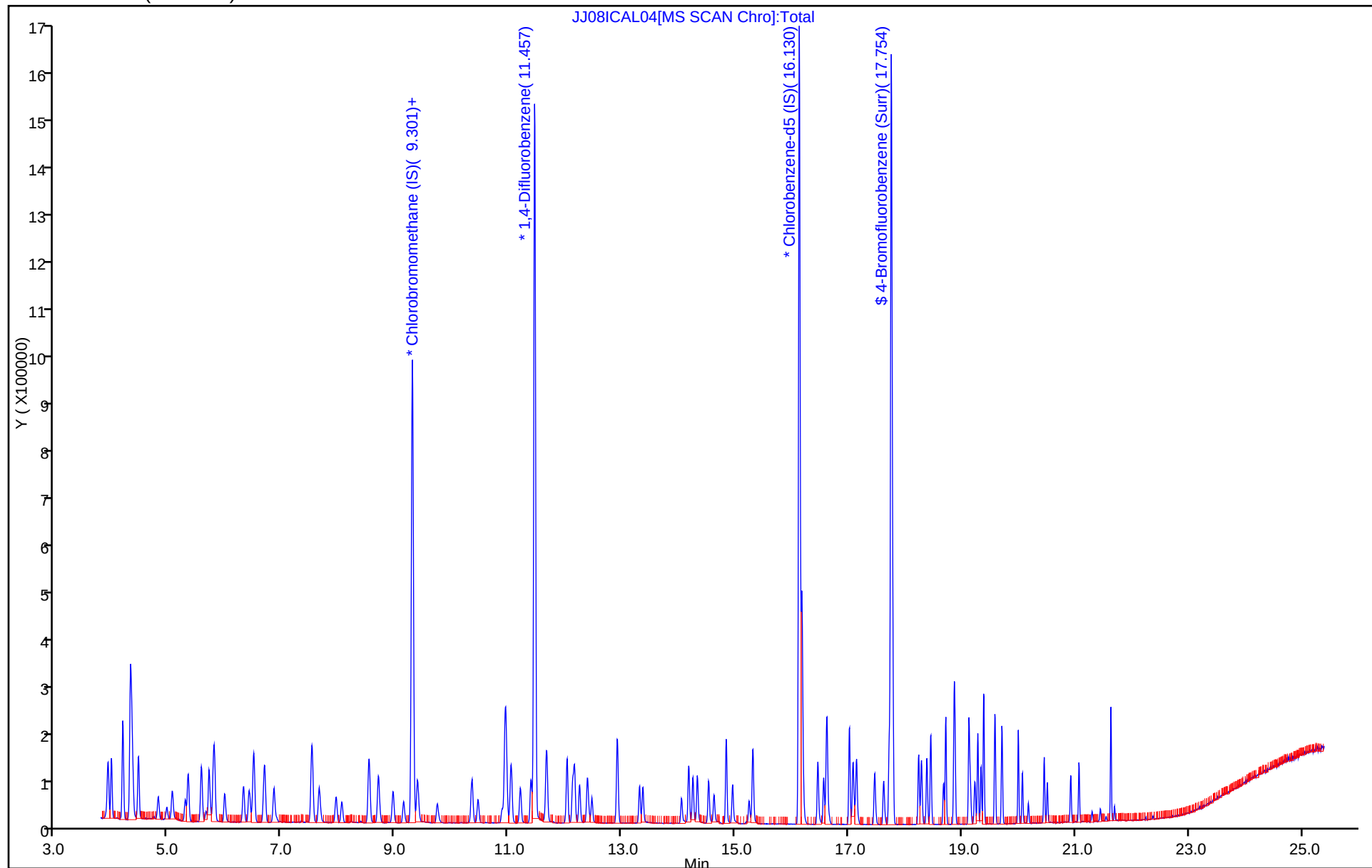
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL04.D

Injection Date: 08-Oct-2016 21:41:30

Instrument ID: MJ

Lims ID: IC L4

Client ID:

Operator ID: 403648

ALS Bottle#:

3

Worklist Smp#:

6

Purge Vol: 500.000 mL

Dil. Factor:

1.0000

Method: MJ_TO15

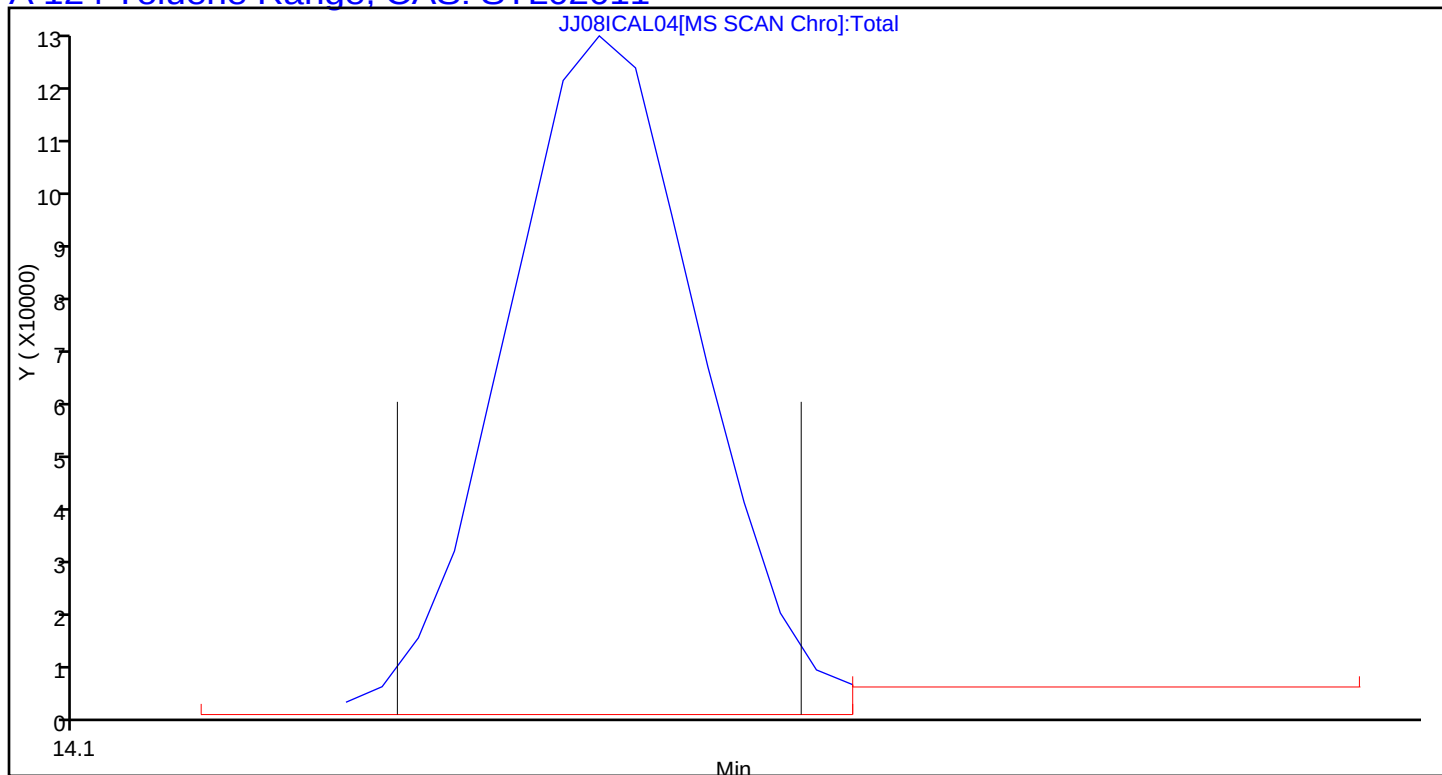
Limit Group:

MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector

MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL04.D

Injection Date: 08-Oct-2016 21:41:30

Instrument ID: MJ

Lims ID: IC L4

Client ID:

Operator ID: 403648

ALS Bottle#: 3

Worklist Smp#: 6

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

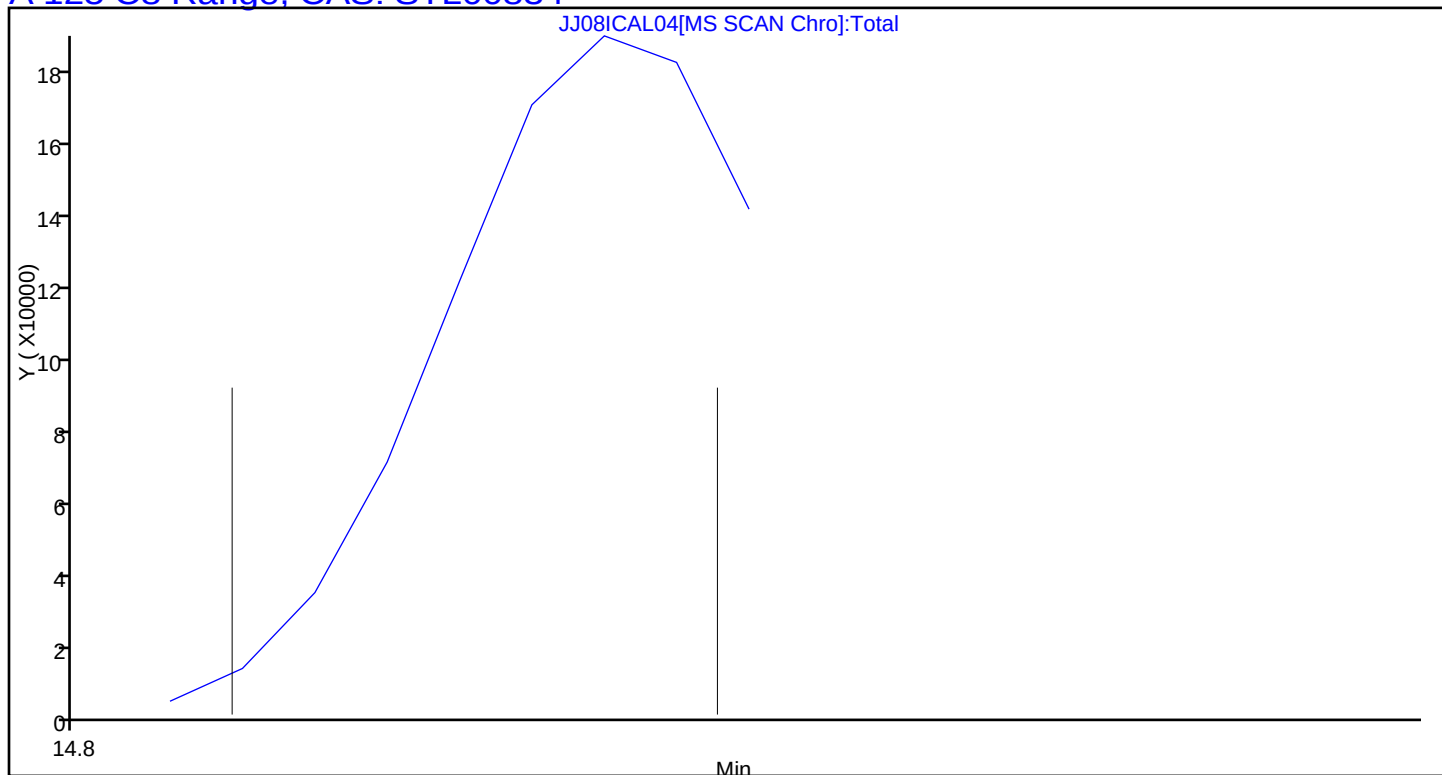
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL05.D
 Lims ID: IC L5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 08-Oct-2016 22:36:30 ALS Bottle#: 4 Worklist Smp#: 7
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003509-007
 Misc. Info.: 059241
 Operator ID: 403648 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 11-Oct-2016 11:30:59 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK014

First Level Reviewer: barlozhetskayaa

Date: 09-Oct-2016 11:09:05

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.303	9.302	0.001	97	299403	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.459	11.461	-0.002	95	1374704	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.132	16.131	0.001	88	1150982	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.751	17.753	-0.002	89	713913	4.00	4.11	
6 Chlorodifluoromethane	67	3.920	3.918	0.002	97	29990	1.00	0.9838	
7 Propene	41	3.931	3.933	-0.002	99	100490	1.00	0.9596	
8 Dichlorodifluoromethane	85	3.985	3.987	-0.002	100	301850	1.00	1.02	
9 Chloromethane	52	4.178	4.183	-0.005	98	35473	1.00	1.05	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.189	4.188	0.001	93	152559	1.00	0.9833	
11 Acetaldehyde	44	4.350	4.349	0.001	99	159716	5.01	5.11	
12 Vinyl chloride	62	4.366	4.369	-0.003	99	105472	1.00	1.04	
14 Butadiene	54	4.463	4.463	0.000	90	79582	1.00	1.05	
13 Butane	43	4.463	4.465	-0.002	90	154888	1.00	1.05	
15 Bromomethane	94	4.813	4.815	-0.002	98	95216	1.00	1.03	
16 Chloroethane	64	4.963	4.964	-0.001	95	44680	1.00	1.05	
17 Ethanol	31	5.060	5.063	-0.003	98	145811	5.01	5.11	
18 Vinyl bromide	106	5.291	5.290	0.001	99	98119	1.00	1.03	
19 2-Methylbutane	43	5.340	5.341	-0.001	91	124087	1.00	1.02	
20 Trichlorofluoromethane	101	5.576	5.576	0.000	99	266484	1.00	1.04	
21 Acrolein	56	5.582	5.586	-0.004	30	23762	1.00	0.9035	
22 Acetonitrile	40	5.652	5.657	-0.005	97	31521	1.00	0.9731	
23 Acetone	58	5.711	5.712	-0.001	98	93302	3.01	2.88	
24 Isopropyl alcohol	45	5.786	5.793	-0.007	94	345581	3.01	3.09	
25 Pentane	72	5.802	5.805	-0.003	96	15634	1.00	1.04	
26 Ethyl ether	31	5.980	5.987	-0.007	92	90717	1.00	0.9617	
27 1,1-Dichloroethene	96	6.318	6.319	-0.001	97	95585	1.00	1.02	
28 2-Methyl-2-propanol	59	6.410	6.419	-0.009	96	141369	1.00	0.9723	
29 Acrylonitrile	53	6.426	6.429	-0.003	94	49621	1.00	0.9187	
30 1,1,2-Trichloro-1,2,2-trif	101	6.501	6.499	0.002	94	210076	1.00	1.05	
31 Methylene Chloride	84	6.679	6.682	-0.003	97	96642	1.00	1.02	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.695	6.698	-0.003	95	89293	1.00	1.00	
33 Carbon disulfide	76	6.856	6.857	-0.001	99	294789	1.00	1.01	
34 trans-1,2-Dichloroethene	96	7.518	7.521	-0.003	97	96669	1.00	1.04	
35 2-Methylpentane	43	7.528	7.532	-0.004	95	214982	1.00	1.06	
36 Methyl tert-butyl ether	73	7.652	7.653	-0.001	97	182647	1.00	0.9415	
37 1,1-Dichloroethane	63	7.953	7.955	-0.002	100	171595	1.00	1.00	
38 Vinyl acetate	43	8.050	8.055	-0.005	100	172403	1.00	0.9120	
39 2-Butanone (MEK)	72	8.523	8.524	-0.001	96	29020	1.00	0.9132	
40 Hexane	56	8.534	8.537	-0.003	87	77947	1.00	1.03	
41 Isopropyl ether	45	8.695	8.702	-0.007	98	243807	1.00	0.9330	
42 cis-1,2-Dichloroethene	96	8.959	8.961	-0.002	95	90586	1.00	0.99	
43 Ethyl acetate	43	9.147	9.146	0.001	98	132536	1.00	0.9255	
44 Chloroform	83	9.308	9.310	-0.002	95	186688	1.00	0.99	
45 Tert-butyl ethyl ether	59	9.389	9.392	-0.003	96	198310	1.00	0.9249	
46 Tetrahydrofuran	42	9.733	9.738	-0.005	93	72211	1.00	0.9093	
47 1,1,1-Trichloroethane	97	10.351	10.352	-0.001	97	194833	1.00	1.01	
48 1,2-Dichloroethane	62	10.459	10.461	-0.002	97	116411	1.00	0.9884	
49 n-Butanol	31	10.878	10.884	-0.006	94	30007	1.00	0.9252	
50 Cyclohexane	69	10.932	10.937	-0.005	73	46974	1.00	1.07	
51 Benzene	78	10.938	10.939	-0.001	97	251778	1.00	0.99	
52 Carbon tetrachloride	117	10.959	10.963	-0.004	96	205702	1.00	1.05	
53 2,3-Dimethylpentane	71	11.040	11.044	-0.004	92	59164	1.00	1.02	
54 Thiophene	84	11.206	11.210	-0.004	97	135687	1.00	0.9567	
55 Tert-amyl methyl ether	73	11.389	11.396	-0.007	97	177159	1.00	0.9427	
56 Isooctane	57	11.669	11.670	-0.001	98	406239	1.00	0.9896	
57 n-Heptane	71	12.029	12.033	-0.004	93	83748	1.00	0.9442	
58 1,2-Dichloropropane	63	12.126	12.130	-0.004	90	92168	1.00	0.9477	
59 Trichloroethene	130	12.158	12.163	-0.005	94	98859	1.00	0.9683	
60 Dibromomethane	93	12.250	12.252	-0.002	93	95834	1.00	0.9660	
62 Dichlorobromomethane	83	12.389	12.388	0.001	99	170211	1.00	0.9603	
61 1,4-Dioxane	88	12.411	12.413	-0.002	92	29141	1.00	1.02	
63 Methyl methacrylate	41	12.465	12.470	-0.005	92	71233	1.00	0.8799	
64 Methylcyclohexane	83	12.916	12.919	-0.003	95	193416	1.00	1.03	
65 4-Methyl-2-pentanone (MIBK)	43	13.304	13.310	-0.006	98	145694	1.00	0.9242	
66 cis-1,3-Dichloropropene	75	13.368	13.369	-0.001	96	118765	1.00	0.9278	
67 trans-1,3-Dichloropropene	75	14.051	14.051	0.000	99	96862	1.00	0.9576	
68 Toluene	91	14.180	14.180	0.000	94	246370	1.00	0.9764	
69 1,1,2-Trichloroethane	83	14.250	14.253	-0.003	97	76042	1.00	0.9670	
70 2-Methylthiophene	97	14.331	14.332	-0.001	98	203436	1.00	1.00	
71 3-Methylthiophene	97	14.530	14.530	0.000	99	190205	1.00	0.9779	
72 2-Hexanone	58	14.621	14.624	-0.003	92	67673	1.00	0.9895	
73 n-Octane	85	14.841	14.841	0.000	95	81751	1.00	0.9707	
74 Chlorodibromomethane	129	14.954	14.954	0.000	98	141975	1.00	0.9803	
75 Ethylene Dibromide	107	15.239	15.245	-0.006	98	122262	1.00	0.9760	
76 Tetrachloroethene	129	15.309	15.312	-0.003	95	92953	1.00	0.9837	
77 2,3-Dimethylheptane	43	16.175	16.176	-0.001	96	250479	1.00	1.01	
78 Chlorobenzene	112	16.180	16.180	0.000	94	169300	1.00	0.9559	
79 Ethylbenzene	91	16.460	16.458	0.002	99	260654	1.00	0.9352	
80 2-Ethylthiophene	97	16.562	16.563	-0.001	97	188635	1.00	0.9482	
81 m-Xylene & p-Xylene	91	16.616	16.616	0.000	100	398815	2.00	1.91	
82 n-Nonane	57	17.014	17.015	-0.001	93	168829	1.00	1.03	
83 Bromoform	173	17.078	17.077	0.001	93	104598	1.00	0.9599	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	17.078	17.082	-0.004	99	130563	1.00	0.99	
85 o-Xylene	91	17.138	17.142	-0.004	98	215453	1.00	0.9423	
86 1,1,2,2-Tetrachloroethane	83	17.460	17.462	-0.002	99	160274	1.00	0.9673	
87 1,2,3-Trichloropropane	110	17.622	17.623	-0.001	99	36811	1.00	0.9659	
88 Isopropylbenzene	105	17.718	17.719	-0.001	96	280044	1.00	0.9646	
89 N-Propylbenzene	120	18.235	18.237	-0.002	98	64778	1.00	0.9034	
90 2-Chlorotoluene	126	18.288	18.287	0.001	98	68698	1.00	0.9826	
91 4-Ethyltoluene	105	18.380	18.382	-0.002	97	232530	1.00	0.9414	
92 1,3,5-Trimethylbenzene	120	18.450	18.452	-0.002	94	117867	1.00	0.9537	
93 Alpha Methyl Styrene	118	18.676	18.678	-0.002	87	77630	1.00	0.8709	
94 n-Decane	57	18.713	18.716	-0.003	90	168207	1.00	1.00	
95 tert-Butylbenzene	119	18.864	18.865	-0.001	91	232863	1.00	0.9724	
96 1,2,4-Trimethylbenzene	105	18.880	18.879	0.001	96	205772	1.00	0.9811	
97 sec-Butylbenzene	105	19.127	19.127	0.000	98	323335	1.00	0.9853	
98 1,3-Dichlorobenzene	146	19.149	19.151	-0.002	98	91599	1.00	0.9396	
99 Benzyl chloride	91	19.219	19.222	-0.003	97	88177	1.00	0.8088	
100 1,4-Dichlorobenzene	146	19.235	19.236	-0.001	93	75433	1.00	0.9035	
101 4-Isopropyltoluene	119	19.283	19.283	0.000	97	238195	1.00	1.00	
102 1,2,3-Trimethylbenzene	105	19.337	19.340	-0.003	99	155360	1.00	0.9590	
103 Butylcyclohexane	83	19.385	19.387	-0.002	92	214826	1.00	1.01	
104 2,3-Dihydroindene	117	19.584	19.585	-0.001	93	166405	1.00	0.9663	
105 1,2-Dichlorobenzene	146	19.584	19.588	-0.004	98	97487	1.00	0.9681	
106 n-Butylbenzene	91	19.708	19.706	0.002	98	197055	1.00	1.00	
107 Indene	116	19.713	19.711	0.002	89	94798	1.00	0.9075	
108 Undecane	57	19.998	19.997	0.001	96	149237	1.00	0.9672	
109 1,2-Dimethyl-4-Ethylbenzen	119	20.068	20.071	-0.003	98	148792	1.00	0.9706	
110 1,2-Dibromo-3-Chloropropan	157	20.176	20.176	0.000	90	28029	1.00	1.02	
111 1,2,4,5-Tetramethylbenzene	119	20.455	20.454	0.001	97	180026	1.00	1.00	
112 1,2,3,5-Tetramethylbenzene	119	20.509	20.509	0.000	94	114877	1.00	1.00	
113 1,2,3,4-Tetramethylbenzene	119	20.923	20.922	0.001	97	141541	1.00	0.9874	
114 Dodecane	57	21.068	21.067	0.001	95	136966	1.00	1.03	
115 1,2,4-Trichlorobenzene	180	21.300	21.300	0.000	93	25163	1.00	1.09	
116 Naphthalene	128	21.445	21.446	-0.001	99	73981	1.00	1.10	
117 Benzo(b)thiophene	134	21.547	21.545	0.002	99	27289	1.00	1.01	
118 Hexachlorobutadiene	225	21.633	21.631	0.002	95	103265	1.00	0.9883	
119 1,2,3-Trichlorobenzene	180	21.698	21.697	0.001	95	30545	1.00	1.13	
120 2-Methylnaphthalene	142	22.246	22.263	-0.017	99	11518	3.13	3.33	
121 1-Methylnaphthalene	142	22.370	22.359	0.011	100	15193	3.13	3.28	
A 124 Toluene Range	1	14.180	(14.150-14.210)		0	550707	1.00	0.9655	
A 125 C8 Range	1	14.837	(14.808-14.866)		0	794228	1.00	1.04	
S 126 Xylenes, Total	100				0		3.00	2.85	
S 127 1,2-Dichloroethene, Total	1				0		2.00	2.03	

Reagents:

40L5DNP_00007

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 11-Oct-2016 11:31:00

Chrom Revision: 2.2 08-Sep-2016 14:45:52

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL05.D

Injection Date: 08-Oct-2016 22:36:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: IC L5

Worklist Smp#: 7

Client ID:

Purge Vol: 500.000 mL

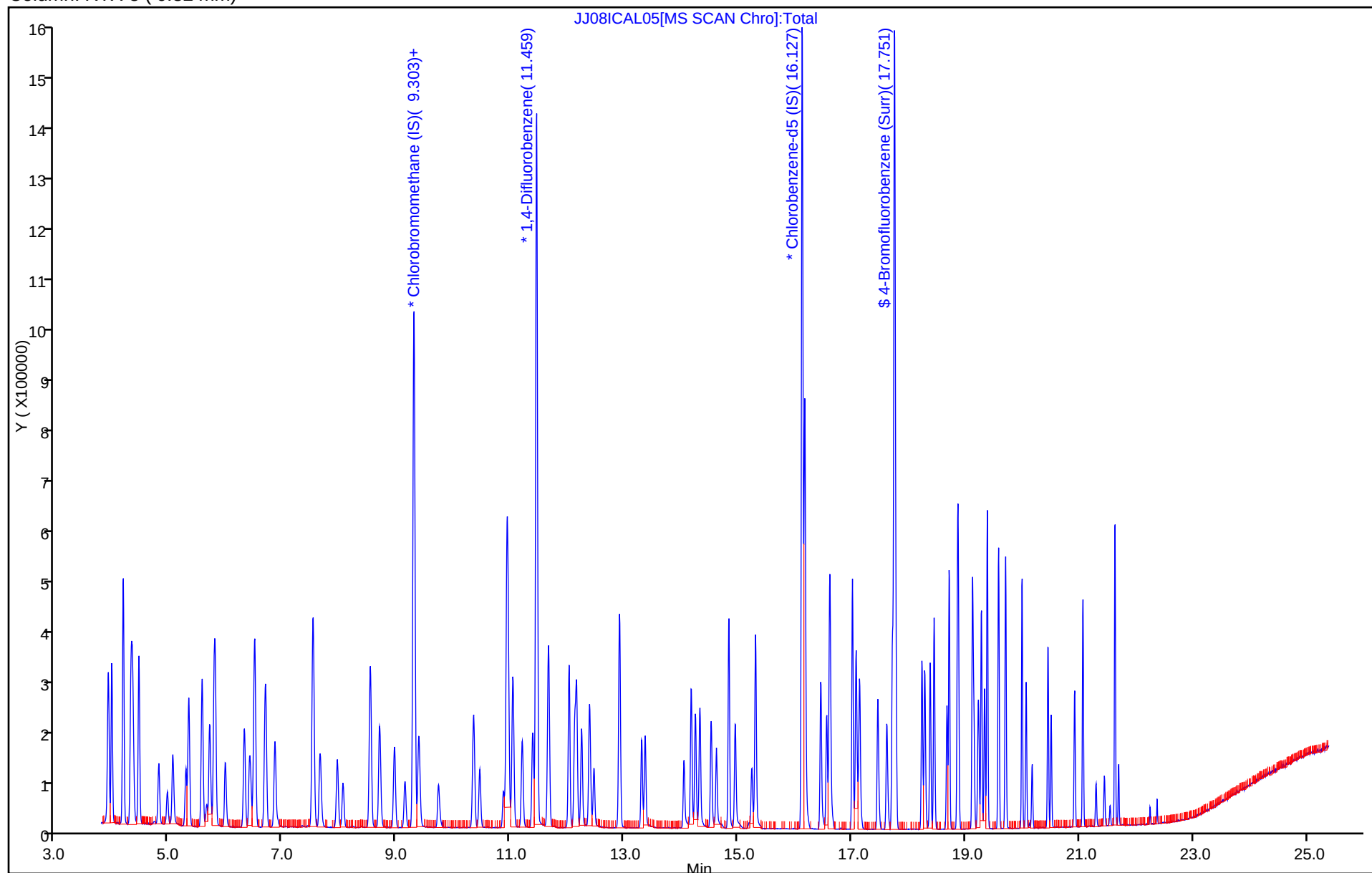
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL05.D

Injection Date: 08-Oct-2016 22:36:30

Instrument ID: MJ

Lims ID: IC L5

Client ID:

Operator ID: 403648

ALS Bottle#: 4

Worklist Smp#: 7

Purge Vol: 500.000 mL

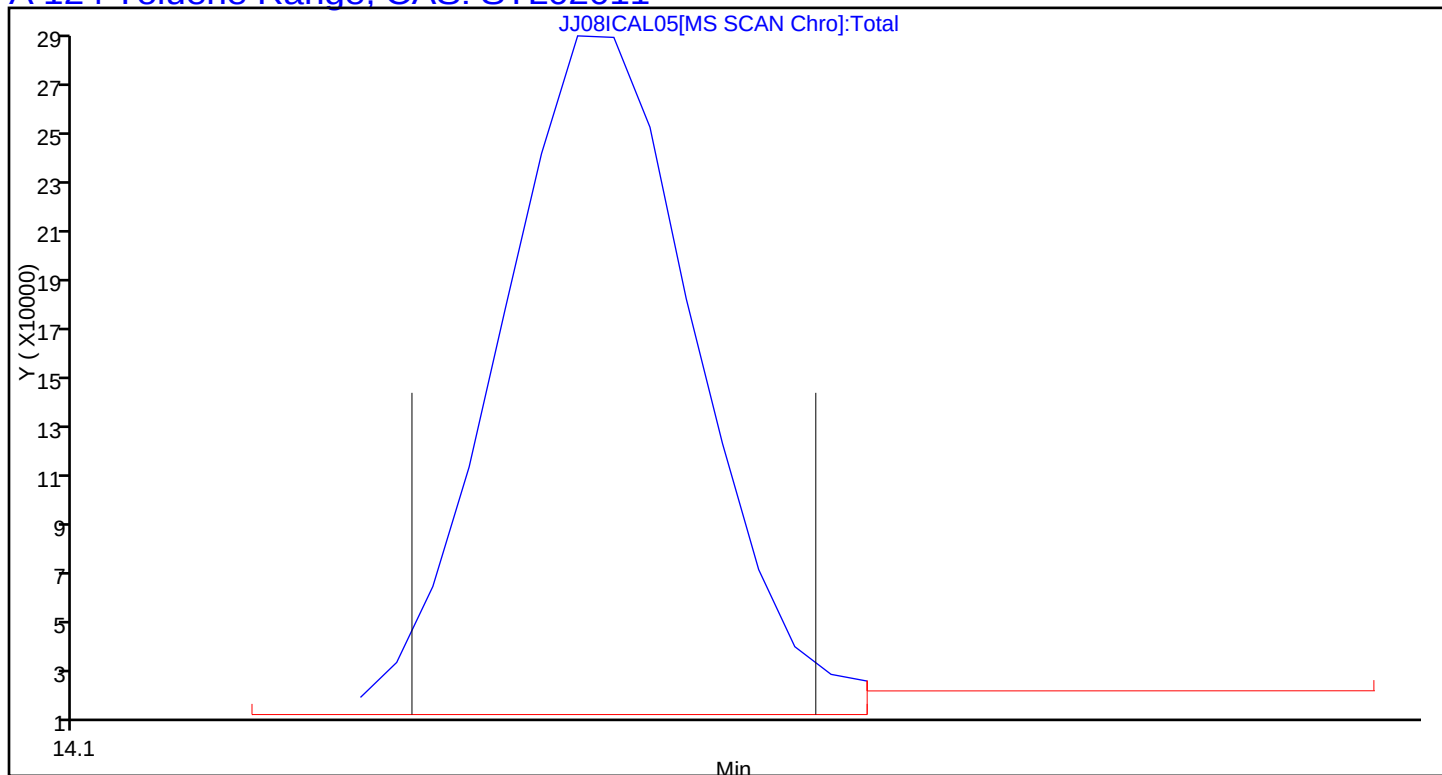
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL05.D

Injection Date: 08-Oct-2016 22:36:30

Instrument ID: MJ

Lims ID: IC L5

Client ID:

Operator ID: 403648

ALS Bottle#:

4

Worklist Smp#:

7

Purge Vol: 500.000 mL

Dil. Factor:

1.0000

Method: MJ_TO15

Limit Group:

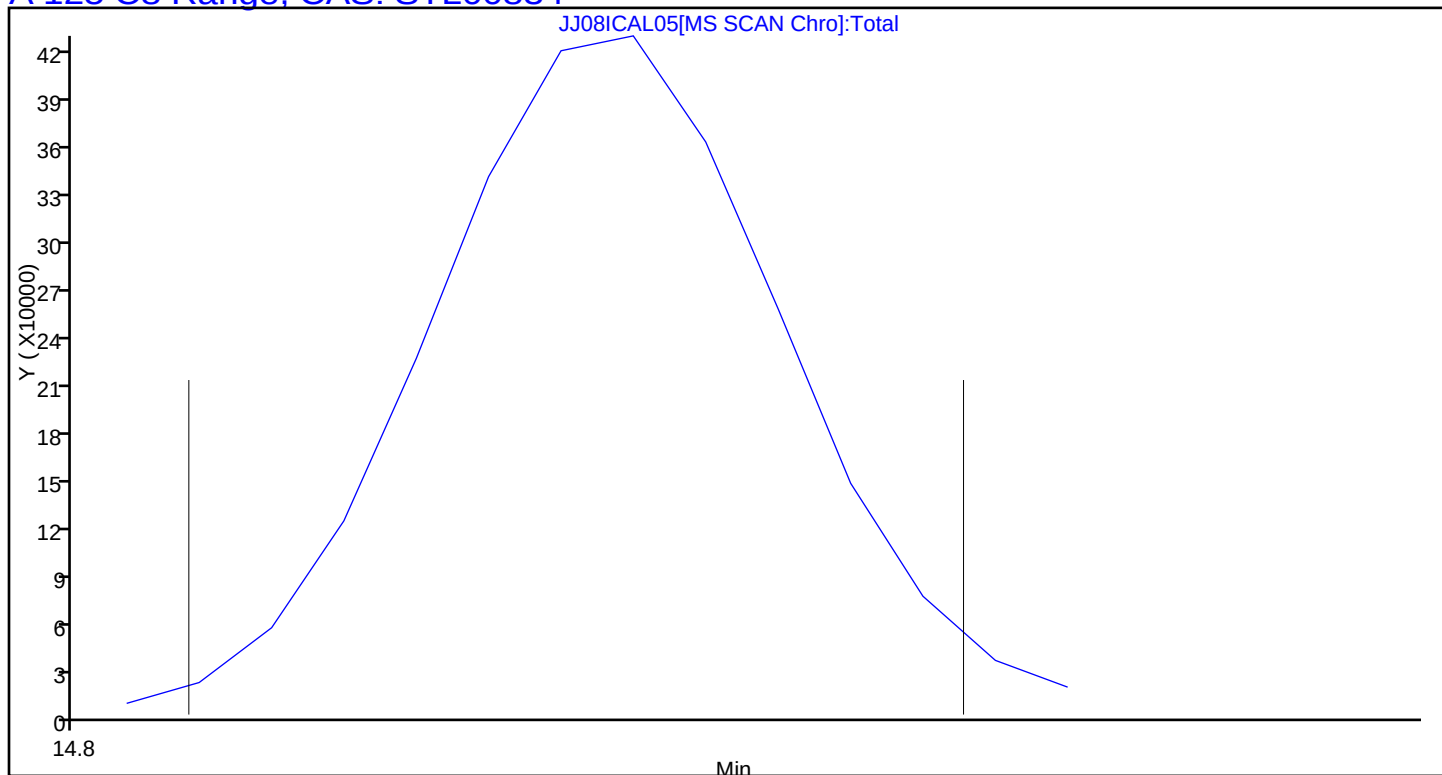
MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector

MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL06.D
 Lims ID: ICIS L6
 Client ID:
 Sample Type: ICIS Calib Level: 6
 Inject. Date: 08-Oct-2016 23:29:30 ALS Bottle#: 5 Worklist Smp#: 8
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003509-008
 Misc. Info.: 059240
 Operator ID: 403648 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 11-Oct-2016 11:31:09 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK014

First Level Reviewer: barlozhetskayaa

Date: 09-Oct-2016 10:47:33

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.302	9.302	0.000	97	292093	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.464	11.461	0.003	95	1340770	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.131	16.131	0.000	88	1141838	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.755	17.753	0.002	89	686528	4.00	3.99	
6 Chlorodifluoromethane	67	3.919	3.918	0.001	97	61051	2.00	2.05	
7 Propene	41	3.930	3.933	-0.003	99	196459	2.00	1.92	
8 Dichlorodifluoromethane	85	3.989	3.987	0.002	100	591503	2.00	2.06	
9 Chloromethane	52	4.183	4.183	0.000	98	65224	2.00	1.98	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.188	4.188	0.000	92	334403	2.00	2.21	
11 Acetaldehyde	44	4.350	4.349	0.001	99	328610	9.99	10.8	
12 Vinyl chloride	62	4.371	4.369	0.002	99	200832	2.00	2.02	
14 Butadiene	54	4.462	4.463	-0.001	69	151466	2.00	2.05	
13 Butane	43	4.462	4.465	-0.003	85	287380	2.00	2.00	
15 Bromomethane	94	4.812	4.815	-0.003	98	181639	2.00	2.02	
16 Chloroethane	64	4.963	4.964	-0.001	94	85607	2.00	2.06	
17 Ethanol	31	5.059	5.063	-0.004	97	301353	9.99	10.8	
18 Vinyl bromide	106	5.291	5.290	0.001	99	192126	2.00	2.06	
19 2-Methylbutane	43	5.339	5.341	-0.002	93	244836	2.00	2.07	
20 Trichlorofluoromethane	101	5.576	5.576	0.000	100	525714	2.00	2.10	
21 Acrolein	56	5.586	5.586	0.000	95	49912	2.00	1.95	
22 Acetonitrile	40	5.656	5.657	-0.001	97	75306	2.00	2.38	
23 Acetone	58	5.710	5.712	-0.002	98	207471	5.99	6.57	
24 Isopropyl alcohol	45	5.785	5.793	-0.008	96	712005	5.99	6.52	
25 Pentane	72	5.807	5.805	0.002	97	30363	2.00	2.08	
26 Ethyl ether	31	5.979	5.987	-0.008	93	201882	2.00	2.19	
27 1,1-Dichloroethene	96	6.318	6.319	-0.001	97	190825	2.00	2.08	
28 2-Methyl-2-propanol	59	6.409	6.419	-0.010	96	302486	2.00	2.13	
29 Acrylonitrile	53	6.431	6.429	0.002	94	119684	2.00	2.27	
30 1,1,2-Trichloro-1,2,2-trif	101	6.500	6.499	0.001	95	411617	2.00	2.12	
31 Methylene Chloride	84	6.683	6.682	0.001	97	182390	2.00	1.97	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.699	6.698	0.001	95	179546	2.00	2.05	
33 Carbon disulfide	76	6.855	6.857	-0.002	99	599369	2.00	2.12	
34 trans-1,2-Dichloroethene	96	7.522	7.521	0.001	98	191375	2.00	2.12	
35 2-Methylpentane	43	7.533	7.532	0.001	95	417695	2.00	2.10	
36 Methyl tert-butyl ether	73	7.646	7.653	-0.007	97	425689	2.00	2.25	
37 1,1-Dichloroethane	63	7.958	7.955	0.003	100	363477	2.00	2.17	
38 Vinyl acetate	43	8.055	8.055	0.000	100	420925	2.00	2.28	
39 2-Butanone (MEK)	72	8.517	8.524	-0.007	96	66905	2.00	2.16	
40 Hexane	56	8.538	8.537	0.001	90	154493	2.00	2.10	
41 Isopropyl ether	45	8.700	8.702	-0.002	98	554804	2.00	2.18	
42 cis-1,2-Dichloroethene	96	8.963	8.961	0.002	95	191110	2.00	2.14	
43 Ethyl acetate	43	9.141	9.146	-0.005	99	307905	2.00	2.20	
44 Chloroform	83	9.313	9.310	0.003	96	397963	2.00	2.17	
45 Tert-butyl ethyl ether	59	9.388	9.392	-0.004	96	457083	2.00	2.19	
46 Tetrahydrofuran	42	9.727	9.738	-0.011	93	171477	2.00	2.21	
47 1,1,1-Trichloroethane	97	10.351	10.352	-0.001	96	408450	2.00	2.16	
48 1,2-Dichloroethane	62	10.464	10.461	0.003	97	249655	2.00	2.17	
49 n-Butanol	31	10.867	10.884	-0.017	93	68834	2.00	2.18	
50 Cyclohexane	69	10.937	10.937	0.000	69	92091	2.00	2.16	
51 Benzene	78	10.937	10.939	-0.002	97	536994	2.00	2.17	
52 Carbon tetrachloride	117	10.964	10.963	0.001	96	413385	2.00	2.17	
53 2,3-Dimethylpentane	71	11.044	11.044	0.000	92	122807	2.00	2.16	
54 Thiophene	84	11.211	11.210	0.001	97	296880	2.00	2.15	
55 Tert-amyl methyl ether	73	11.388	11.396	-0.008	98	417595	2.00	2.24	
56 Isooctane	57	11.668	11.670	-0.002	98	873863	2.00	2.18	
57 n-Heptane	71	12.034	12.033	0.001	93	184827	2.00	2.14	
58 1,2-Dichloropropane	63	12.131	12.130	0.001	91	205421	2.00	2.17	
59 Trichloroethene	130	12.163	12.163	0.000	95	212389	2.00	2.13	
60 Dibromomethane	93	12.254	12.252	0.002	93	210316	2.00	2.17	
62 Dichlorobromomethane	83	12.389	12.388	0.001	99	384377	2.00	2.22	
61 1,4-Dioxane	88	12.405	12.413	-0.008	90	61859	2.00	2.22	
63 Methyl methacrylate	41	12.469	12.470	-0.001	92	168295	2.00	2.13	
64 Methylcyclohexane	83	12.916	12.919	-0.003	95	408489	2.00	2.22	
65 4-Methyl-2-pentanone (MIBK)	43	13.303	13.310	-0.007	98	330708	2.00	2.15	
66 cis-1,3-Dichloropropene	75	13.367	13.369	-0.002	95	284607	2.00	2.28	
67 trans-1,3-Dichloropropene	75	14.050	14.051	-0.001	99	230569	2.00	2.30	
68 Toluene	91	14.179	14.180	-0.001	94	566445	2.00	2.26	
69 1,1,2-Trichloroethane	83	14.255	14.253	0.002	97	175475	2.00	2.25	
70 2-Methylthiophene	97	14.330	14.332	-0.002	97	464807	2.00	2.30	
71 3-Methylthiophene	97	14.529	14.530	-0.001	99	439094	2.00	2.28	
72 2-Hexanone	58	14.620	14.624	-0.004	92	157568	2.00	2.32	
73 n-Octane	85	14.841	14.841	0.000	95	184411	2.00	2.21	
74 Chlorodibromomethane	129	14.954	14.954	0.000	98	337791	2.00	2.35	
75 Ethylene Dibromide	107	15.244	15.245	-0.001	98	285225	2.00	2.30	
76 Tetrachloroethene	129	15.309	15.312	-0.003	95	205117	2.00	2.19	
77 2,3-Dimethylheptane	43	16.174	16.176	-0.002	96	544214	2.00	2.21	
78 Chlorobenzene	112	16.180	16.180	0.000	91	393318	2.00	2.24	
79 Ethylbenzene	91	16.459	16.458	0.001	99	636564	2.00	2.30	
80 2-Ethylthiophene	97	16.561	16.563	-0.002	98	452306	2.00	2.29	
81 m-Xylene & p-Xylene	91	16.615	16.616	-0.001	99	949395	3.99	4.59	
82 n-Nonane	57	17.013	17.015	-0.002	93	371467	2.00	2.27	
83 Bromoform	173	17.078	17.077	0.001	93	262668	2.00	2.43	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	17.083	17.082	0.001	99	331575	2.00	2.54	
85 o-Xylene	91	17.142	17.142	0.000	98	509651	2.00	2.25	
86 1,1,2,2-Tetrachloroethane	83	17.459	17.462	-0.003	98	379555	2.00	2.31	
87 1,2,3-Trichloropropane	110	17.621	17.623	-0.002	99	86518	2.00	2.29	
88 Isopropylbenzene	105	17.718	17.719	-0.001	97	671114	2.00	2.33	
89 N-Propylbenzene	120	18.239	18.237	0.002	99	165071	2.00	2.32	
90 2-Chlorotoluene	126	18.288	18.287	0.001	98	160028	2.00	2.31	
91 4-Ethyltoluene	105	18.379	18.382	-0.003	98	581752	2.00	2.37	
92 1,3,5-Trimethylbenzene	120	18.449	18.452	-0.003	92	284025	2.00	2.32	
93 Alpha Methyl Styrene	118	18.675	18.678	-0.003	86	211230	2.00	2.39	
94 n-Decane	57	18.718	18.716	0.002	90	400184	2.00	2.39	
95 tert-Butylbenzene	119	18.863	18.865	-0.002	91	551609	2.00	2.32	
96 1,2,4-Trimethylbenzene	105	18.879	18.879	0.000	96	495080	2.00	2.38	
97 sec-Butylbenzene	105	19.126	19.127	-0.001	98	754625	2.00	2.32	
98 1,3-Dichlorobenzene	146	19.148	19.151	-0.003	99	227357	2.00	2.35	
99 Benzyl chloride	91	19.218	19.222	-0.004	97	235854	2.00	2.18	
100 1,4-Dichlorobenzene	146	19.234	19.236	-0.002	94	191069	2.00	2.31	
101 4-Isopropyltoluene	119	19.282	19.283	-0.001	96	557746	2.00	2.36	
102 1,2,3-Trimethylbenzene	105	19.342	19.340	0.002	99	368722	2.00	2.29	
103 Butylcyclohexane	83	19.385	19.387	-0.002	92	478656	2.00	2.27	
104 2,3-Dihydroindene	117	19.584	19.585	-0.001	94	402661	2.00	2.36	
105 1,2-Dichlorobenzene	146	19.589	19.588	0.001	96	236698	2.00	2.37	
106 n-Butylbenzene	91	19.707	19.706	0.001	98	477429	2.00	2.44	
107 Indene	116	19.713	19.711	0.002	93	240660	2.00	2.32	
108 Undecane	57	19.998	19.997	0.001	96	354292	2.00	2.31	
109 1,2-Dimethyl-4-Ethylbenzen	119	20.067	20.071	-0.004	98	356341	2.00	2.34	
110 1,2-Dibromo-3-Chloropropan	157	20.175	20.176	-0.001	92	73775	2.00	2.71	
111 1,2,4,5-Tetramethylbenzene	119	20.455	20.454	0.001	97	418851	2.00	2.35	
112 1,2,3,5-Tetramethylbenzene	119	20.508	20.509	-0.001	95	268243	2.00	2.36	
113 1,2,3,4-Tetramethylbenzene	119	20.922	20.922	0.000	97	334774	2.00	2.35	
114 Dodecane	57	21.068	21.067	0.001	95	309370	2.00	2.35	
115 1,2,4-Trichlorobenzene	180	21.299	21.300	-0.001	94	62804	2.00	2.75	
116 Naphthalene	128	21.444	21.446	-0.002	99	181491	2.00	2.72	
117 Benzo(b)thiophene	134	21.546	21.545	0.001	99	63388	2.00	2.35	
118 Hexachlorobutadiene	225	21.632	21.631	0.001	96	234515	2.00	2.26	
119 1,2,3-Trichlorobenzene	180	21.697	21.697	0.000	95	70305	2.00	2.62	
120 2-Methylnaphthalene	142	22.251	22.263	-0.012	98	21556	6.24	6.29	
121 1-Methylnaphthalene	142	22.374	22.359	0.015	98	31380	6.24	6.82	
A 124 Toluene Range	1	14.179	(14.149-14.209)		0	1265569	2.00	2.24	
A 125 C8 Range	1	14.836	(14.808-14.865)		0	1761285	2.00	2.32	
S 126 Xylenes, Total	100				0		5.99	6.84	
S 127 1,2-Dichloroethene, Total	1				0		3.99	4.26	

Reagents:

40L6DNP_00008

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 11-Oct-2016 11:31:10

Chrom Revision: 2.2 08-Sep-2016 14:45:52

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL06.D

Injection Date: 08-Oct-2016 23:29:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: ICIS L6

Worklist Smp#: 8

Client ID:

Purge Vol: 500.000 mL

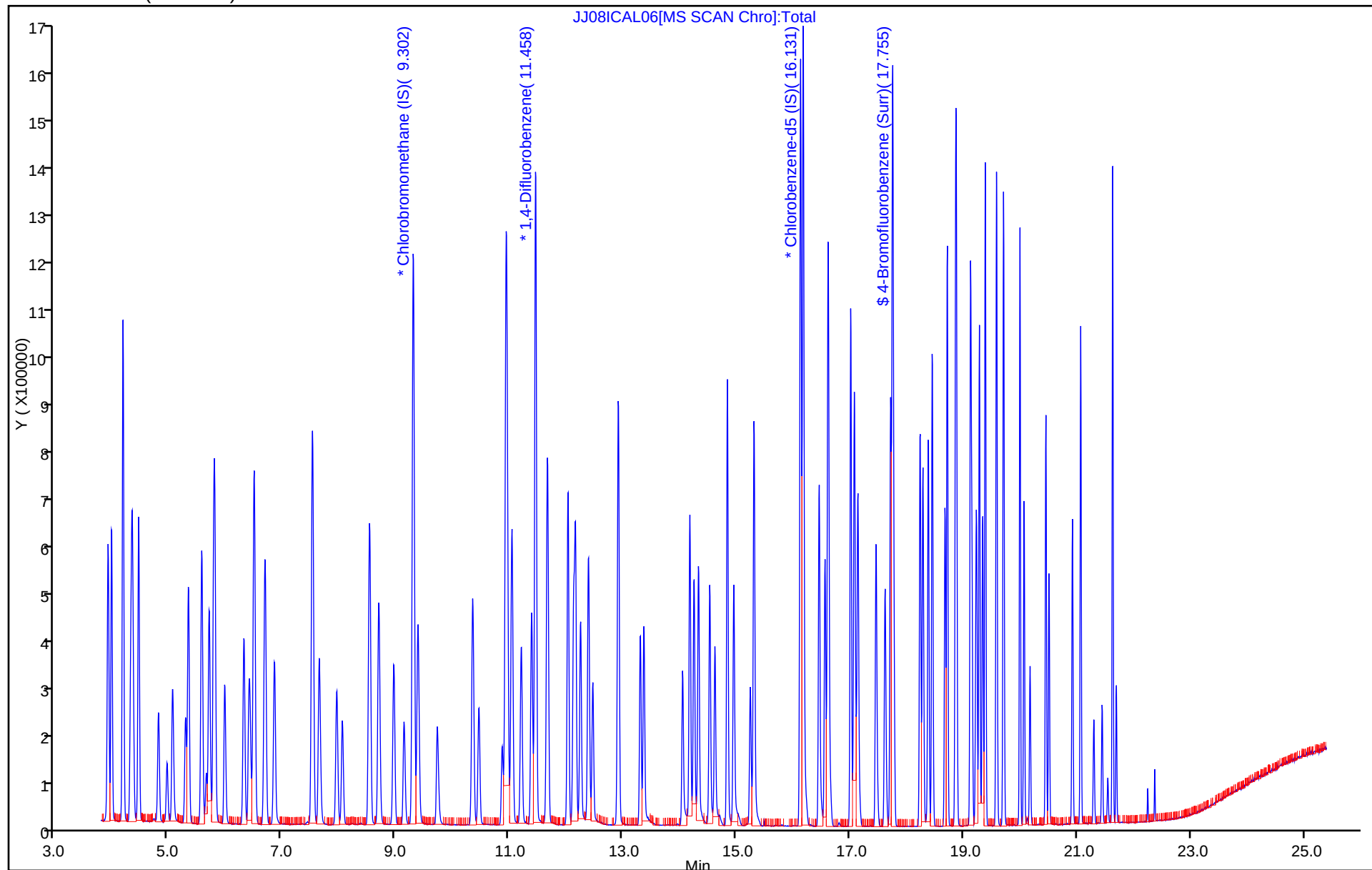
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL06.D

Injection Date: 08-Oct-2016 23:29:30

Instrument ID: MJ

Lims ID: ICIS L6

Client ID:

Operator ID: 403648

ALS Bottle#: 5

Worklist Smp#: 8

Purge Vol: 500.000 mL

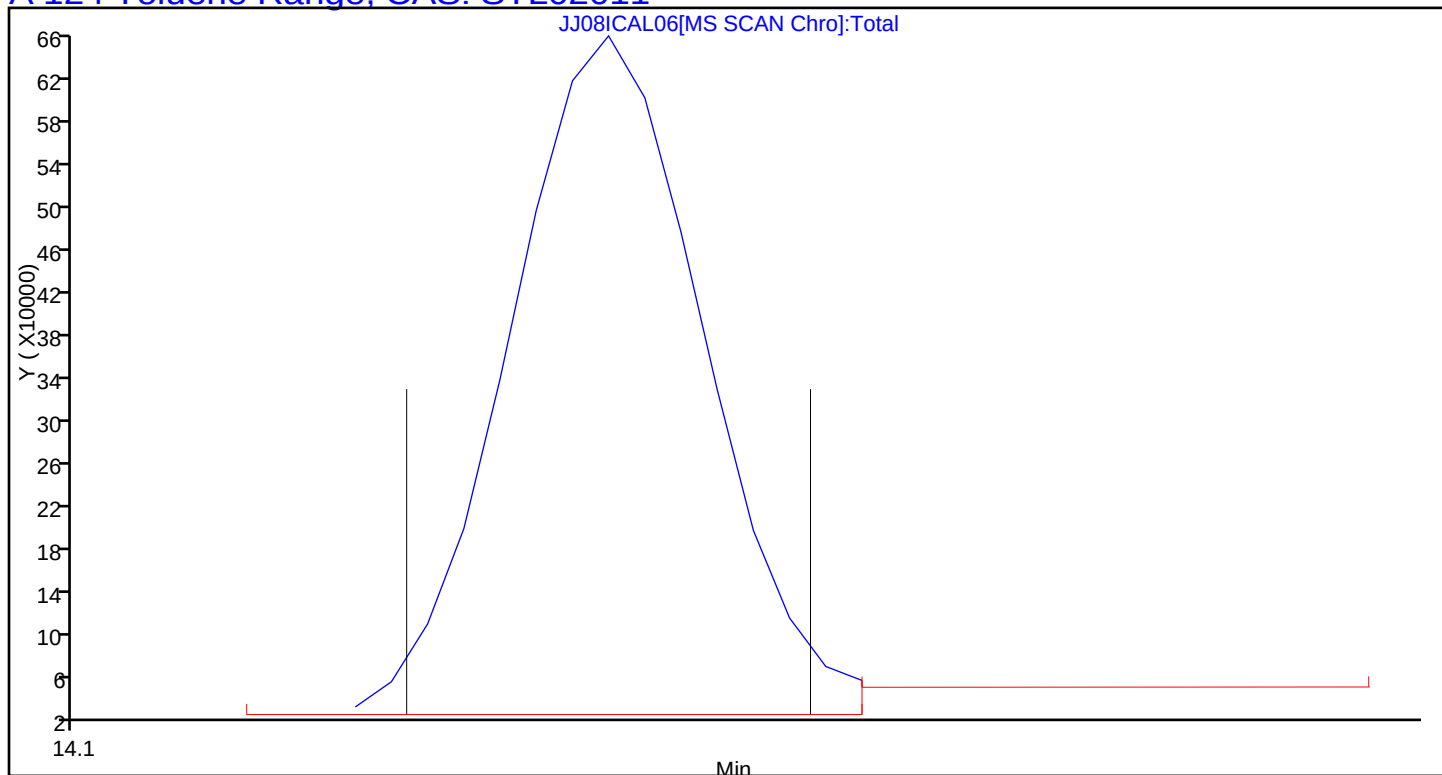
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL06.D

Injection Date: 08-Oct-2016 23:29:30

Instrument ID: MJ

Lims ID: ICIS L6

Client ID:

Operator ID: 403648

ALS Bottle#:

5

Worklist Smp#:

8

Purge Vol: 500.000 mL

Dil. Factor:

1.0000

Method: MJ_TO15

Limit Group:

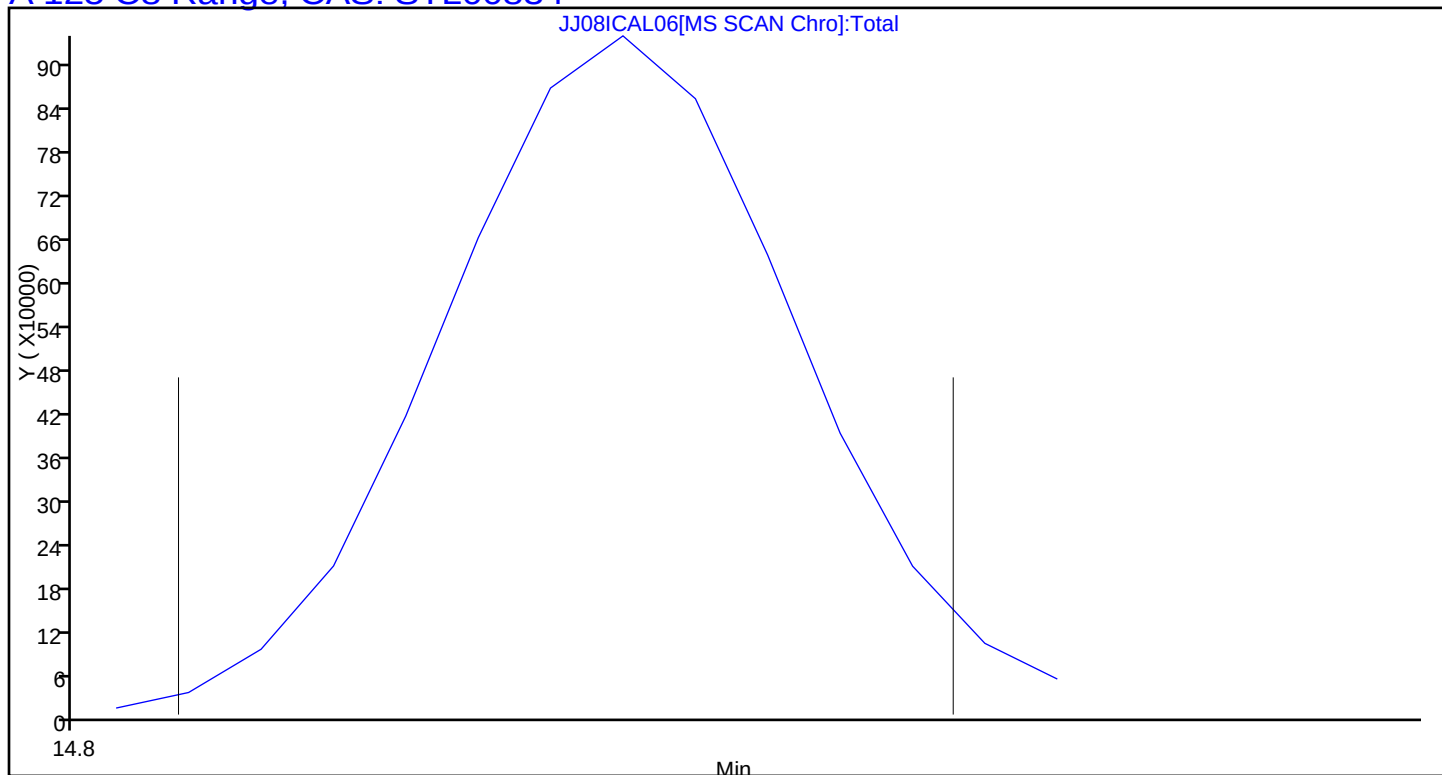
MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector

MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL07.D
 Lims ID: IC L7
 Client ID:
 Sample Type: IC Calib Level: 7
 Inject. Date: 09-Oct-2016 00:23:30 ALS Bottle#: 6 Worklist Smp#: 9
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003509-009
 Misc. Info.: 059239
 Operator ID: 403648 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 11-Oct-2016 11:31:15 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK014

First Level Reviewer: barlozhetskayaa

Date: 09-Oct-2016 11:09:44

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.305	9.302	0.003	97	286076	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.461	11.461	0.000	95	1304213	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.134	16.131	0.003	88	1144983	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.753	17.753	0.000	89	712827	4.00	4.13	
6 Chlorodifluoromethane	67	3.917	3.918	-0.001	97	118016	4.00	4.05	
7 Propene	41	3.927	3.933	-0.006	99	384576	4.00	3.84	
8 Dichlorodifluoromethane	85	3.987	3.987	0.000	100	1131161	4.00	4.02	
9 Chloromethane	52	4.186	4.183	0.003	99	122109	4.00	3.78	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.186	4.188	-0.002	97	568337	4.00	3.83	
11 Acetaldehyde	44	4.347	4.349	-0.002	98	520734	20.0	17.5	
12 Vinyl chloride	62	4.368	4.369	-0.001	99	383339	4.00	3.94	
14 Butadiene	54	4.465	4.463	0.002	69	287374	4.00	3.98	
13 Butane	43	4.465	4.465	0.000	85	543330	4.00	3.85	
15 Bromomethane	94	4.815	4.815	0.000	99	352830	4.00	4.01	
16 Chloroethane	64	4.965	4.964	0.001	96	165501	4.00	4.07	
17 Ethanol	31	5.062	5.063	-0.001	97	507219	20.0	18.6	
18 Vinyl bromide	106	5.288	5.290	-0.002	98	373522	4.00	4.09	
19 2-Methylbutane	43	5.342	5.341	0.001	92	463108	4.00	3.99	
20 Trichlorofluoromethane	101	5.573	5.576	-0.003	100	997746	4.00	4.06	
21 Acrolein	56	5.584	5.586	-0.002	94	86518	4.00	3.44	
22 Acetonitrile	40	5.659	5.657	0.002	98	112623	4.00	3.64	
23 Acetone	58	5.707	5.712	-0.005	98	304007	12.0	9.82	
24 Isopropyl alcohol	45	5.788	5.793	-0.005	97	1238996	12.0	11.6	
25 Pentane	72	5.804	5.805	-0.001	98	57831	4.00	4.04	
26 Ethyl ether	31	5.982	5.987	-0.005	93	316288	4.00	3.51	
27 1,1-Dichloroethene	96	6.320	6.319	0.001	97	369158	4.00	4.11	
28 2-Methyl-2-propanol	59	6.406	6.419	-0.013	96	542301	4.00	3.90	
29 Acrylonitrile	53	6.428	6.429	-0.001	95	179147	4.00	3.47	
30 1,1,2-Trichloro-1,2,2-trif	101	6.498	6.499	-0.001	95	777472	4.00	4.08	
31 Methylene Chloride	84	6.681	6.682	-0.001	97	337926	4.00	3.72	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.697	6.698	-0.001	96	330186	4.00	3.85	
33 Carbon disulfide	76	6.858	6.857	0.001	99	1114641	4.00	4.02	
34 trans-1,2-Dichloroethene	96	7.520	7.521	-0.001	98	365640	4.00	4.13	
35 2-Methylpentane	43	7.530	7.532	-0.002	95	772529	4.00	3.97	
36 Methyl tert-butyl ether	73	7.643	7.653	-0.010	97	656085	4.00	3.54	
37 1,1-Dichloroethane	63	7.955	7.955	0.000	100	630813	4.00	3.84	
38 Vinyl acetate	43	8.052	8.055	-0.003	100	609691	4.00	3.38	
39 2-Butanone (MEK)	72	8.520	8.524	-0.004	97	108487	4.00	3.57	
40 Hexane	56	8.536	8.537	-0.001	91	280492	4.00	3.89	
41 Isopropyl ether	45	8.697	8.702	-0.005	97	862998	4.00	3.46	
42 cis-1,2-Dichloroethene	96	8.961	8.961	0.000	95	338207	4.00	3.88	
43 Ethyl acetate	43	9.143	9.146	-0.003	99	496876	4.00	3.63	
44 Chloroform	83	9.310	9.310	0.000	96	663152	4.00	3.69	
45 Tert-butyl ethyl ether	59	9.385	9.392	-0.007	96	722189	4.00	3.53	
46 Tetrahydrofuran	42	9.724	9.738	-0.014	93	262975	4.00	3.47	
47 1,1,1-Trichloroethane	97	10.353	10.352	0.001	96	709770	4.00	3.84	
48 1,2-Dichloroethane	62	10.461	10.461	0.000	97	422239	4.00	3.78	
49 n-Butanol	31	10.875	10.884	-0.009	92	127066	4.00	4.13	
50 Cyclohexane	69	10.940	10.937	0.003	73	164249	4.00	3.95	
51 Benzene	78	10.940	10.939	0.001	97	879174	4.00	3.64	
52 Carbon tetrachloride	117	10.961	10.963	-0.002	96	715806	4.00	3.87	
53 2,3-Dimethylpentane	71	11.047	11.044	0.003	92	211129	4.00	3.82	
54 Thiophene	84	11.208	11.210	-0.002	97	498367	4.00	3.70	
55 Tert-amyl methyl ether	73	11.391	11.396	-0.005	98	661965	4.00	3.54	
56 Isooctane	57	11.671	11.670	0.001	98	1427378	4.00	3.67	
57 n-Heptane	71	12.031	12.033	-0.002	93	310519	4.00	3.69	
58 1,2-Dichloropropane	63	12.133	12.130	0.003	91	336735	4.00	3.65	
59 Trichloroethene	130	12.166	12.163	0.003	94	353658	4.00	3.65	
60 Dibromomethane	93	12.252	12.252	0.000	94	348638	4.00	3.70	
62 Dichlorobromomethane	83	12.391	12.388	0.003	99	633628	4.00	3.77	
61 1,4-Dioxane	88	12.402	12.413	-0.011	90	113820	4.00	4.19	
63 Methyl methacrylate	41	12.467	12.470	-0.003	92	272756	4.00	3.55	
64 Methylcyclohexane	83	12.918	12.919	-0.001	96	682362	4.00	3.82	
65 4-Methyl-2-pentanone (MIBK)	43	13.306	13.310	-0.004	98	590218	4.00	3.95	
66 cis-1,3-Dichloropropene	75	13.370	13.369	0.001	95	457130	4.00	3.76	
67 trans-1,3-Dichloropropene	75	14.053	14.051	0.002	98	385334	4.00	3.83	
68 Toluene	91	14.182	14.180	0.002	94	903425	4.00	3.60	
69 1,1,2-Trichloroethane	83	14.252	14.253	-0.001	97	280309	4.00	3.58	
70 2-Methylthiophene	97	14.333	14.332	0.001	97	752389	4.00	3.72	
71 3-Methylthiophene	97	14.532	14.530	0.002	99	710507	4.00	3.67	
72 2-Hexanone	58	14.623	14.624	-0.001	92	275764	4.00	4.05	
73 n-Octane	85	14.843	14.841	0.002	94	300317	4.00	3.58	
74 Chlorodibromomethane	129	14.956	14.954	0.002	98	554019	4.00	3.85	
75 Ethylene Dibromide	107	15.247	15.245	0.002	98	468707	4.00	3.76	
76 Tetrachloroethene	129	15.311	15.312	-0.001	95	325398	4.00	3.46	
77 2,3-Dimethylheptane	43	16.177	16.176	0.001	96	863711	4.00	3.49	
78 Chlorobenzene	112	16.177	16.180	-0.003	94	637698	4.00	3.62	
79 Ethylbenzene	91	16.457	16.458	-0.001	98	967485	4.00	3.49	
80 2-Ethylthiophene	97	16.564	16.563	0.001	98	712797	4.00	3.60	
81 m-Xylene & p-Xylene	91	16.618	16.616	0.002	99	1425239	8.00	6.87	
82 n-Nonane	57	17.016	17.015	0.001	92	607688	4.00	3.71	
83 Bromoform	173	17.075	17.077	-0.002	93	461674	4.00	4.26	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	17.080	17.082	-0.002	99	522211	4.00	3.99	
85 o-Xylene	91	17.145	17.142	0.003	98	757783	4.00	3.33	
86 1,1,2,2-Tetrachloroethane	83	17.462	17.462	0.000	99	608436	4.00	3.69	
87 1,2,3-Trichloropropane	110	17.624	17.623	0.001	99	139309	4.00	3.67	
88 Isopropylbenzene	105	17.720	17.719	0.001	97	1008946	4.00	3.49	
89 N-Propylbenzene	120	18.237	18.237	0.000	99	257802	4.00	3.61	
90 2-Chlorotoluene	126	18.285	18.287	-0.002	98	254370	4.00	3.66	
91 4-Ethyltoluene	105	18.382	18.382	0.000	98	900723	4.00	3.67	
92 1,3,5-Trimethylbenzene	120	18.452	18.452	0.000	92	432339	4.00	3.52	
93 Alpha Methyl Styrene	118	18.678	18.678	0.000	87	353509	4.00	3.99	
94 n-Decane	57	18.715	18.716	-0.001	90	627966	4.00	3.74	
95 tert-Butylbenzene	119	18.866	18.865	0.001	91	838868	4.00	3.52	
96 1,2,4-Trimethylbenzene	105	18.876	18.879	-0.003	96	766460	4.00	3.67	
97 sec-Butylbenzene	105	19.129	19.127	0.002	98	1163047	4.00	3.56	
98 1,3-Dichlorobenzene	146	19.151	19.151	0.000	99	388834	4.00	4.01	
99 Benzyl chloride	91	19.221	19.222	-0.001	98	444170	4.00	4.10	
100 1,4-Dichlorobenzene	146	19.237	19.236	0.001	95	334767	4.00	4.03	
101 4-Isopropyltoluene	119	19.285	19.283	0.002	96	880317	4.00	3.72	
102 1,2,3-Trimethylbenzene	105	19.339	19.340	-0.001	99	578208	4.00	3.59	
103 Butylcyclohexane	83	19.387	19.387	0.000	92	752044	4.00	3.55	
104 2,3-Dihydroindene	117	19.586	19.585	0.001	94	634195	4.00	3.70	
105 1,2-Dichlorobenzene	146	19.586	19.588	-0.002	95	393466	4.00	3.93	
106 n-Butylbenzene	91	19.705	19.706	-0.001	98	793620	4.00	4.04	
107 Indene	116	19.710	19.711	-0.001	90	411536	4.00	3.96	
108 Undecane	57	19.995	19.997	-0.002	96	578505	4.00	3.77	
109 1,2-Dimethyl-4-Ethylbenzen	119	20.070	20.071	-0.001	98	602152	4.00	3.95	
110 1,2-Dibromo-3-Chloropropan	157	20.178	20.176	0.002	94	138821	4.00	5.09	
111 1,2,4,5-Tetramethylbenzene	119	20.452	20.454	-0.002	97	719532	4.00	4.03	
112 1,2,3,5-Tetramethylbenzene	119	20.511	20.509	0.002	95	444831	4.00	3.90	
113 1,2,3,4-Tetramethylbenzene	119	20.920	20.922	-0.002	97	558141	4.00	3.91	
114 Dodecane	57	21.065	21.067	-0.002	95	528290	4.00	4.01	
115 1,2,4-Trichlorobenzene	180	21.302	21.300	0.002	94	128473	4.00	5.62	
116 Naphthalene	128	21.447	21.446	0.001	99	348810	4.00	5.22	
117 Benzo(b)thiophene	134	21.544	21.545	-0.001	99	130640	4.00	4.84	
118 Hexachlorobutadiene	225	21.630	21.631	-0.001	96	373791	4.00	3.60	
119 1,2,3-Trichlorobenzene	180	21.694	21.697	-0.003	95	132264	4.00	4.91	
120 2-Methylnaphthalene	142	22.248	22.263	-0.015	98	48712	12.5	14.2	
121 1-Methylnaphthalene	142	22.372	22.359	0.013	99	64798	12.5	14.0	
A 124 Toluene Range	1	14.182	(14.152-14.212)		0	2054791	4.00	3.62	
A 125 C8 Range	1	14.834	(14.800-14.900)		0	2829479	4.00	3.72	
S 126 Xylenes, Total	100				0		12.0	10.2	
S 127 1,2-Dichloroethene, Total	1				0		8.00	8.00	

Reagents:

40L7DNP_00007

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 11-Oct-2016 11:31:17

Chrom Revision: 2.2 08-Sep-2016 14:45:52

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL07.D

Injection Date: 09-Oct-2016 00:23:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: IC L7

Worklist Smp#: 9

Client ID:

Purge Vol: 500.000 mL

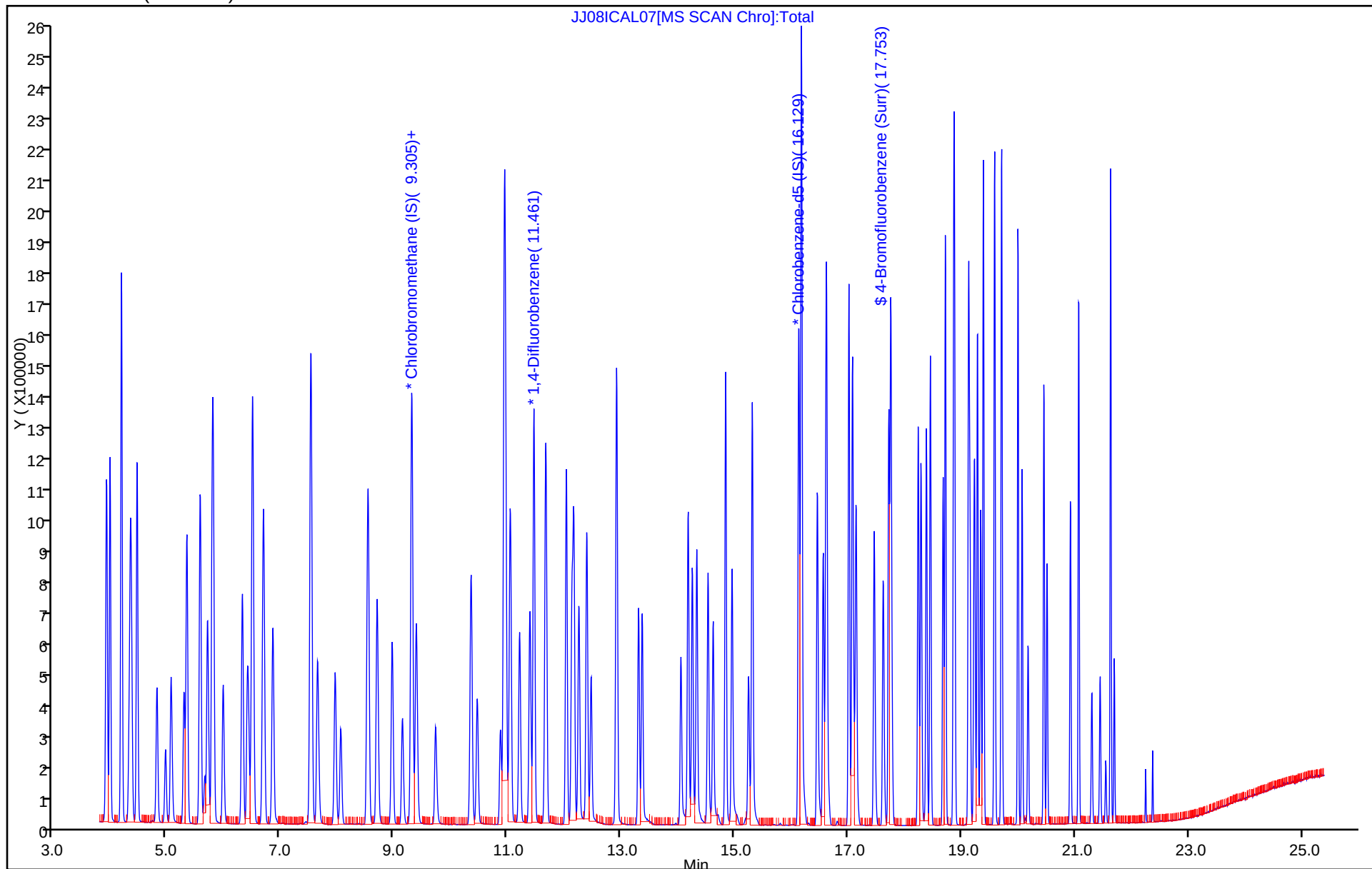
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL07.D

Injection Date: 09-Oct-2016 00:23:30

Instrument ID: MJ

Lims ID: IC L7

Client ID:

Operator ID: 403648

ALS Bottle#: 6

Worklist Smp#: 9

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

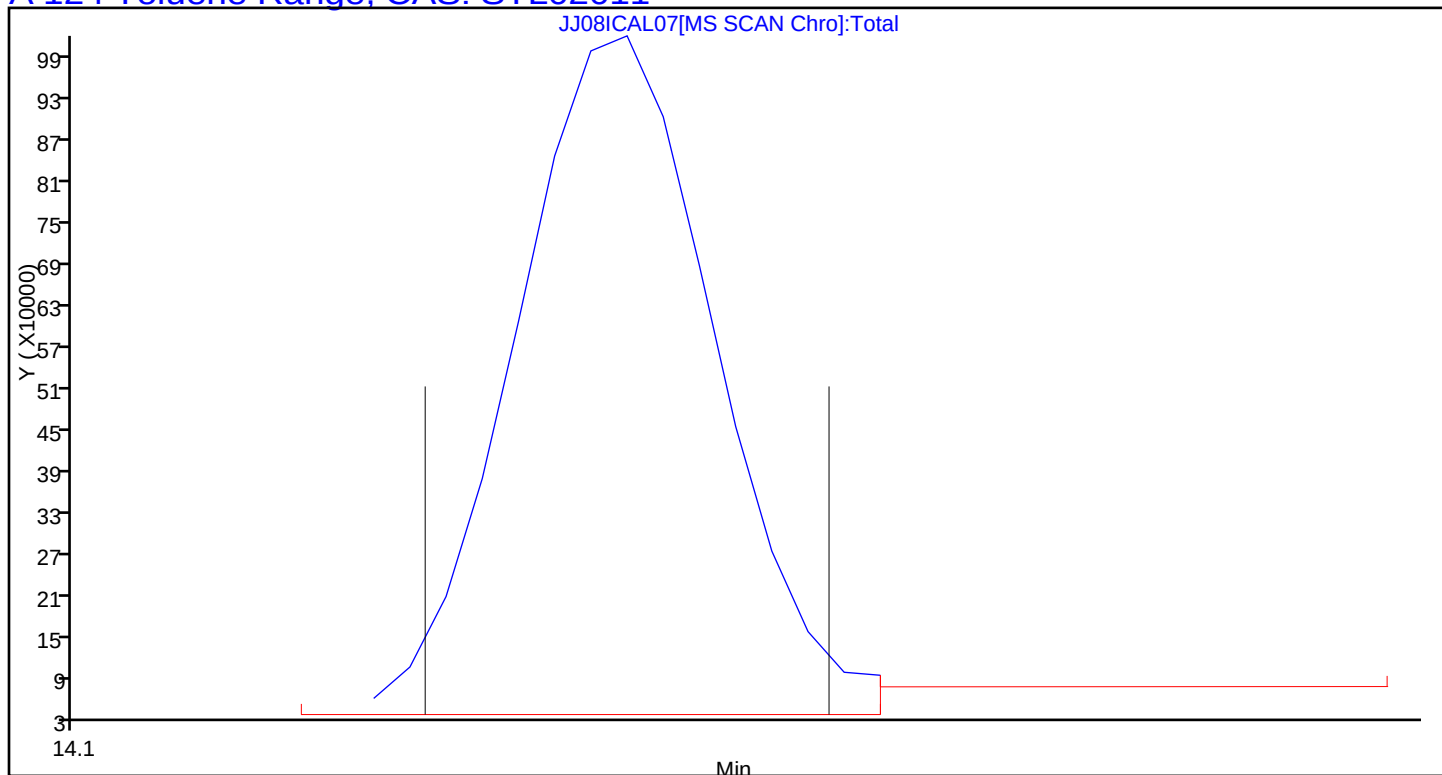
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL07.D

Injection Date: 09-Oct-2016 00:23:30

Instrument ID: MJ

Lims ID: IC L7

Client ID:

Operator ID: 403648

ALS Bottle#: 6

Worklist Smp#: 9

Purge Vol: 500.000 mL

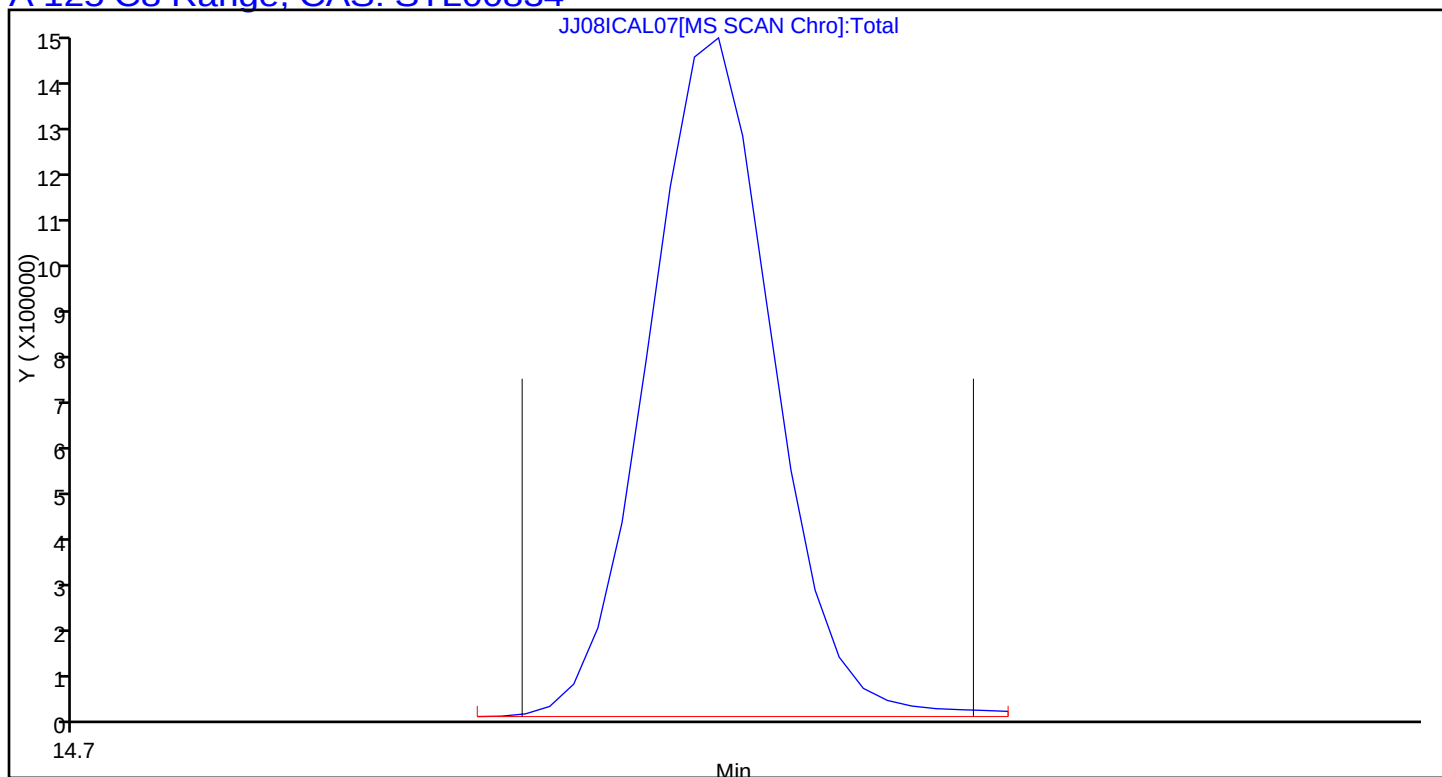
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL08.D
 Lims ID: IC I8
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 09-Oct-2016 01:17:30 ALS Bottle#: 7 Worklist Smp#: 10
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003509-010
 Misc. Info.: 059238
 Operator ID: 403648 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 11-Oct-2016 11:31:25 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK014

First Level Reviewer: barlozhetskayaa

Date: 09-Oct-2016 11:09:53

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.306	9.302	0.004	98	284819	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.467	11.461	0.006	95	1324409	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.135	16.131	0.004	88	1187427	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.753	17.753	0.000	90	746473	4.00	4.17	
6 Chlorodifluoromethane	67	3.917	3.918	-0.001	97	232629	8.00	8.02	
7 Propene	41	3.934	3.933	0.001	99	742703	8.00	7.46	
8 Dichlorodifluoromethane	85	3.987	3.987	0.000	100	2135941	8.00	7.62	
9 Chloromethane	52	4.186	4.183	0.003	99	229632	8.00	7.14	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.192	4.188	0.004	91	1015771	8.00	6.88	
11 Acetaldehyde	44	4.348	4.349	-0.001	98	1109442	40.0	37.3	
12 Vinyl chloride	62	4.369	4.369	0.000	99	724665	8.00	7.49	
14 Butadiene	54	4.466	4.463	0.003	70	545901	8.00	7.59	
13 Butane	43	4.466	4.465	0.001	85	1028652	8.00	7.33	
15 Bromomethane	94	4.815	4.815	0.000	99	679891	8.00	7.76	
16 Chloroethane	64	4.966	4.964	0.002	96	314274	8.00	7.76	
17 Ethanol	31	5.068	5.063	0.005	97	1085964	40.0	40.0	
18 Vinyl bromide	106	5.294	5.290	0.004	99	717438	8.00	7.89	
19 2-Methylbutane	43	5.342	5.341	0.001	92	857434	8.00	7.42	
20 Trichlorofluoromethane	101	5.574	5.576	-0.002	100	1874869	8.00	7.67	
21 Acrolein	56	5.590	5.586	0.004	94	217138	8.00	8.68	
22 Acetonitrile	40	5.660	5.657	0.003	99	274355	8.00	8.90	
23 Acetone	58	5.708	5.712	-0.004	97	759323	24.0	24.6	
24 Isopropyl alcohol	45	5.794	5.793	0.001	95	2482177	24.0	23.3	
25 Pentane	72	5.810	5.805	0.005	98	110628	8.00	7.77	
26 Ethyl ether	31	5.982	5.987	-0.005	94	759662	8.00	8.47	
27 1,1-Dichloroethene	96	6.321	6.319	0.002	98	705786	8.00	7.89	
28 2-Methyl-2-propanol	59	6.418	6.419	-0.001	96	1117829	8.00	8.08	
29 Acrylonitrile	53	6.434	6.429	0.005	93	449131	8.00	8.74	
30 1,1,2-Trichloro-1,2,2-trif	101	6.499	6.499	0.000	95	1443316	8.00	7.62	
31 Methylene Chloride	84	6.687	6.682	0.005	96	629410	8.00	6.96	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.703	6.698	0.005	96	638806	8.00	7.49	
33 Carbon disulfide	76	6.859	6.857	0.002	99	2084710	8.00	7.54	
34 trans-1,2-Dichloroethene	96	7.526	7.521	0.005	98	686121	8.00	7.78	
35 2-Methylpentane	43	7.536	7.532	0.004	94	1419823	8.00	7.33	
36 Methyl tert-butyl ether	73	7.644	7.653	-0.009	97	1608749	8.00	8.72	
37 1,1-Dichloroethane	63	7.961	7.955	0.006	100	1282760	8.00	7.84	
38 Vinyl acetate	43	8.058	8.055	0.003	100	1643291	8.00	9.14	
39 2-Butanone (MEK)	72	8.520	8.524	-0.004	98	272011	8.00	9.00	
40 Hexane	56	8.542	8.537	0.005	90	549243	8.00	7.64	
41 Isopropyl ether	45	8.698	8.702	-0.004	97	2044544	8.00	8.22	
42 cis-1,2-Dichloroethene	96	8.967	8.961	0.006	95	698544	8.00	8.04	
43 Ethyl acetate	43	9.144	9.146	-0.002	99	1211378	8.00	8.89	
44 Chloroform	83	9.316	9.310	0.006	97	1426851	8.00	7.97	
45 Tert-butyl ethyl ether	59	9.392	9.392	0.000	96	1728031	8.00	8.47	
46 Tetrahydrofuran	42	9.725	9.738	-0.013	93	676405	8.00	8.95	
47 1,1,1-Trichloroethane	97	10.354	10.352	0.002	97	1470609	8.00	7.99	
48 1,2-Dichloroethane	62	10.467	10.461	0.006	97	914302	8.00	8.06	
49 n-Butanol	31	10.876	10.884	-0.008	91	272506	8.00	8.72	
50 Cyclohexane	69	10.940	10.937	0.003	94	308561	8.00	7.31	
51 Benzene	78	10.946	10.939	0.007	97	1869237	8.00	7.63	
52 Carbon tetrachloride	117	10.967	10.963	0.004	98	1440199	8.00	7.66	
53 2,3-Dimethylpentane	71	11.048	11.044	0.004	91	443680	8.00	7.90	
54 Thiophene	84	11.215	11.210	0.004	96	1101723	8.00	8.06	
55 Tert-amyl methyl ether	73	11.392	11.396	-0.004	98	1626808	8.00	8.39	
56 Isooctane	57	11.672	11.670	0.002	97	2963724	8.00	7.49	
57 n-Heptane	71	12.037	12.033	0.004	92	677602	8.00	7.93	
58 1,2-Dichloropropane	63	12.134	12.130	0.004	90	751794	8.00	8.02	
59 Trichloroethene	130	12.166	12.163	0.003	95	773499	8.00	7.86	
60 Dibromomethane	93	12.258	12.252	0.006	95	780137	8.00	8.16	
62 Dichlorobromomethane	83	12.392	12.388	0.004	99	1430339	8.00	8.38	
61 1,4-Dioxane	88	12.408	12.413	-0.005	90	234207	8.00	8.49	
63 Methyl methacrylate	41	12.473	12.470	0.003	91	690931	8.00	8.86	
64 Methylcyclohexane	83	12.919	12.919	0.000	95	1404210	8.00	7.74	
65 4-Methyl-2-pentanone (MIBK)	43	13.312	13.310	0.002	98	1298660	8.00	8.55	
66 cis-1,3-Dichloropropene	75	13.371	13.369	0.002	95	1078107	8.00	8.74	
67 trans-1,3-Dichloropropene	75	14.054	14.051	0.003	99	970039	8.00	9.30	
68 Toluene	91	14.183	14.180	0.003	94	2108567	8.00	8.10	
69 1,1,2-Trichloroethane	83	14.258	14.253	0.005	97	665355	8.00	8.20	
70 2-Methylthiophene	97	14.333	14.332	0.001	97	1718039	8.00	8.19	
71 3-Methylthiophene	97	14.532	14.530	0.002	99	1657917	8.00	8.26	
72 2-Hexanone	58	14.624	14.624	0.000	93	624917	8.00	8.86	
73 n-Octane	85	14.844	14.841	0.003	93	684728	8.00	7.88	
74 Chlorodibromomethane	129	14.957	14.954	0.003	97	1314407	8.00	8.80	
75 Ethylene Dibromide	107	15.248	15.245	0.003	98	1141646	8.00	8.83	
76 Tetrachloroethene	129	15.312	15.312	0.000	95	737763	8.00	7.57	
77 2,3-Dimethylheptane	43	16.178	16.176	0.002	93	1776582	8.00	6.93	
78 Chlorobenzene	112	16.183	16.180	0.003	85	1484475	8.00	8.12	
79 Ethylbenzene	91	16.457	16.458	-0.001	98	2455584	8.00	8.54	
80 2-Ethylthiophene	97	16.565	16.563	0.002	97	1800351	8.00	8.77	
81 m-Xylene & p-Xylene	91	16.619	16.616	0.003	98	3477596	16.0	16.2	
82 n-Nonane	57	17.017	17.015	0.002	90	1354981	8.00	7.98	
83 Bromoform	173	17.076	17.077	-0.001	93	1179650	8.00	10.5	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	17.081	17.082	-0.001	100	1388066	8.00	10.2	
85 o-Xylene	91	17.146	17.142	0.004	100	1922232	8.00	8.15	
86 1,1,2,2-Tetrachloroethane	83	17.463	17.462	0.001	99	1531082	8.00	8.96	
87 1,2,3-Trichloropropane	110	17.624	17.623	0.001	98	368725	8.00	9.38	
88 Isopropylbenzene	105	17.721	17.719	0.002	97	2528390	8.00	8.44	
89 N-Propylbenzene	120	18.237	18.237	0.000	99	697239	8.00	9.43	
90 2-Chlorotoluene	126	18.291	18.287	0.004	97	651542	8.00	9.03	
91 4-Ethyltoluene	105	18.382	18.382	0.000	97	2330147	8.00	9.14	
92 1,3,5-Trimethylbenzene	120	18.452	18.452	0.000	92	1110666	8.00	8.71	
93 Alpha Methyl Styrene	118	18.678	18.678	0.000	87	998190	8.00	10.9	
94 n-Decane	57	18.716	18.716	0.000	92	1463837	8.00	8.40	
95 tert-Butylbenzene	119	18.866	18.865	0.001	90	2056871	8.00	8.33	
96 1,2,4-Trimethylbenzene	105	18.883	18.879	0.004	96	1892775	8.00	8.75	
97 sec-Butylbenzene	105	19.130	19.127	0.003	97	2829320	8.00	8.36	
98 1,3-Dichlorobenzene	146	19.151	19.151	0.000	98	1069569	8.00	10.6	
99 Benzyl chloride	91	19.221	19.222	-0.001	98	1286505	8.00	11.4	
100 1,4-Dichlorobenzene	146	19.237	19.236	0.001	94	970323	8.00	11.3	
101 4-Isopropyltoluene	119	19.286	19.283	0.003	95	2129135	8.00	8.67	
102 1,2,3-Trimethylbenzene	105	19.340	19.340	0.000	98	1461513	8.00	8.75	
103 Butylcyclohexane	83	19.388	19.387	0.001	93	1711828	8.00	7.79	
104 2,3-Dihydroindene	117	19.587	19.585	0.002	94	1614772	8.00	9.09	
105 1,2-Dichlorobenzene	146	19.587	19.588	-0.001	95	1039844	8.00	10.0	
106 n-Butylbenzene	91	19.705	19.706	-0.001	99	1924163	8.00	9.45	
107 Indene	116	19.711	19.711	0.000	90	1104068	8.00	10.2	
108 Undecane	57	19.996	19.997	-0.001	95	1425412	8.00	8.95	
109 1,2-Dimethyl-4-Ethylbenzen	119	20.071	20.071	0.000	98	1459951	8.00	9.23	
110 1,2-Dibromo-3-Chloropropan	157	20.179	20.176	0.003	97	392578	8.00	13.9	
111 1,2,4,5-Tetramethylbenzene	119	20.453	20.454	-0.001	97	1709923	8.00	9.23	
112 1,2,3,5-Tetramethylbenzene	119	20.512	20.509	0.003	96	1057205	8.00	8.93	
113 1,2,3,4-Tetramethylbenzene	119	20.921	20.922	-0.001	97	1348346	8.00	9.12	
114 Dodecane	57	21.066	21.067	-0.001	95	1149872	8.00	8.41	
115 1,2,4-Trichlorobenzene	180	21.297	21.300	-0.003	94	408232	8.00	17.2	
116 Naphthalene	128	21.448	21.446	0.002	99	1018535	8.00	14.7	
117 Benzo(b)thiophene	134	21.544	21.545	-0.001	99	405817	8.00	14.5	
118 Hexachlorobutadiene	225	21.630	21.631	-0.001	96	953838	8.00	8.85	
119 1,2,3-Trichlorobenzene	180	21.695	21.697	-0.002	94	371167	8.00	13.3	
120 2-Methylnaphthalene	142	22.249	22.263	-0.014	99	114956	25.0	32.2	
121 1-Methylnaphthalene	142	22.372	22.359	0.013	99	142356	25.0	29.8	
A 124 Toluene Range	1	14.183	(14.153-14.213)		0	5193956	8.00	8.83	
A 125 C8 Range	1	14.850	(14.800-14.944)		0	6304355	8.00	8.00	
S 126 Xylenes, Total	100				0		24.0	24.3	
S 127 1,2-Dichloroethene, Total	1				0		16.0	15.8	

Reagents:

40L8DNP_00007

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 11-Oct-2016 11:31:27

Chrom Revision: 2.2 08-Sep-2016 14:45:52

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL08.D

Injection Date: 09-Oct-2016 01:17:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: IC I8

Worklist Smp#: 10

Client ID:

Purge Vol: 500.000 mL

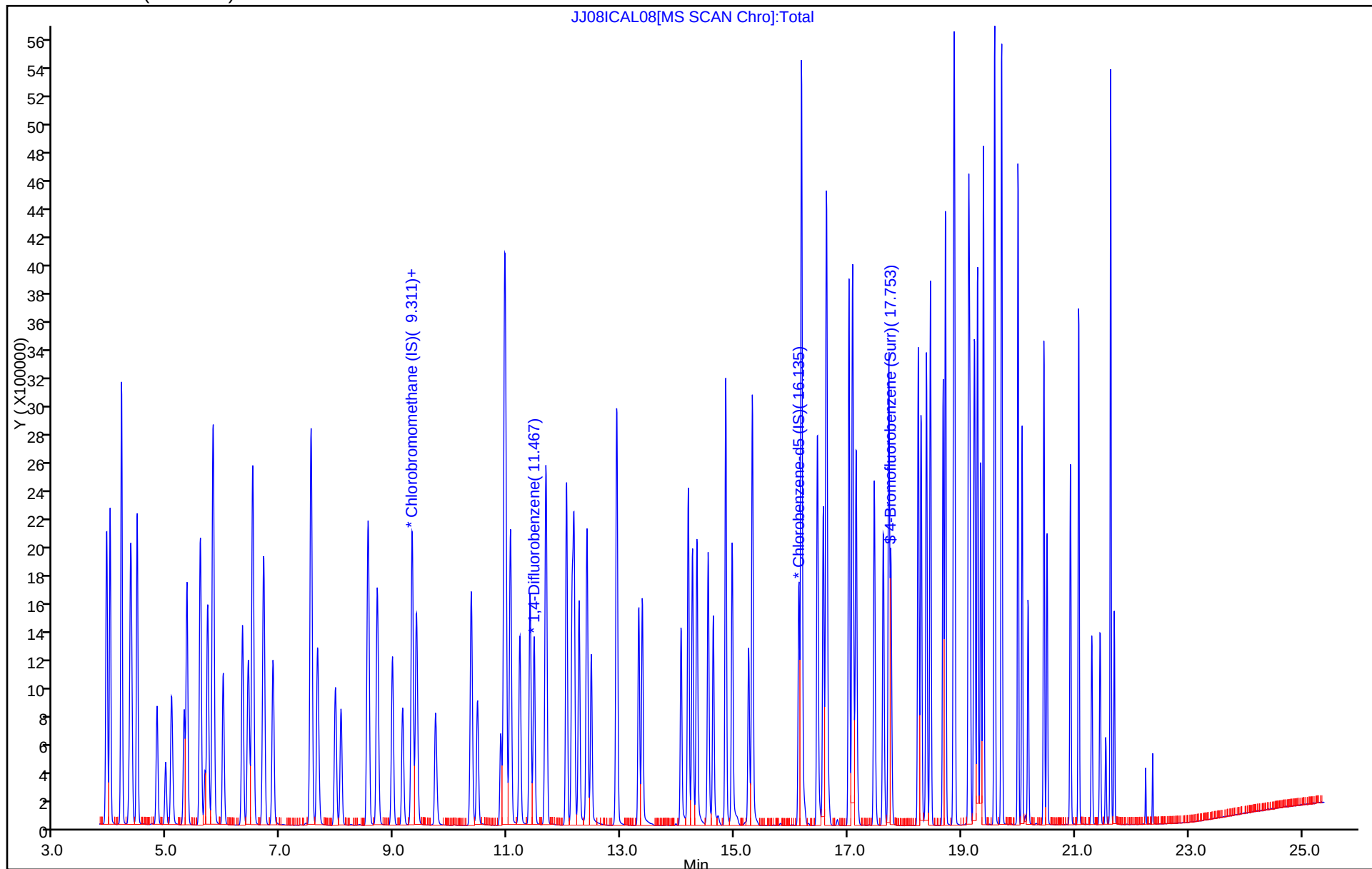
Dil. Factor: 1.0000

ALS Bottle#: 7

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL08.D

Injection Date: 09-Oct-2016 01:17:30

Instrument ID: MJ

Lims ID: IC I8

Client ID:

Operator ID: 403648

ALS Bottle#: 7

Worklist Smp#: 10

Purge Vol: 500.000 mL

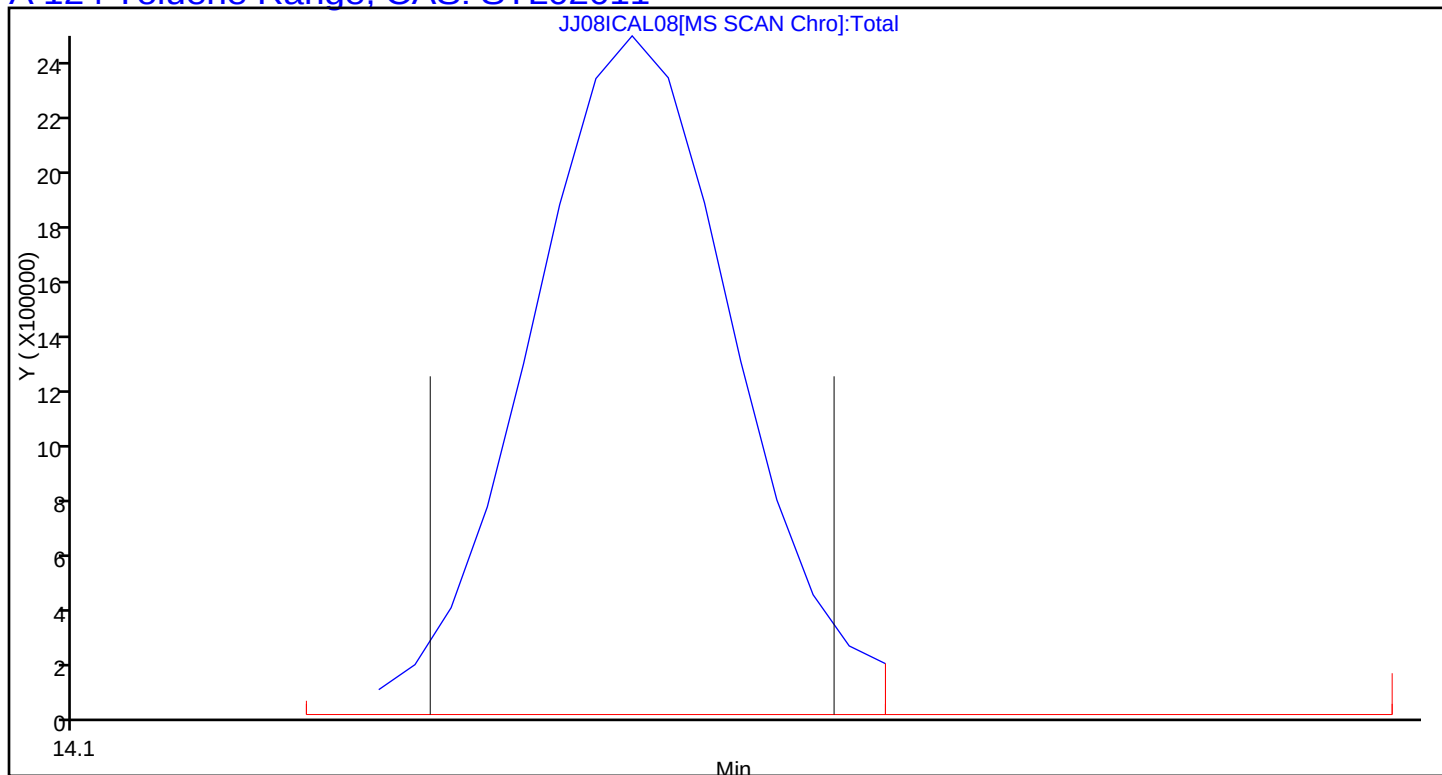
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08ICAL08.D

Injection Date: 09-Oct-2016 01:17:30

Instrument ID: MJ

Lims ID: IC I8

Client ID:

Operator ID: 403648

ALS Bottle#: 7

Worklist Smp#: 10

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

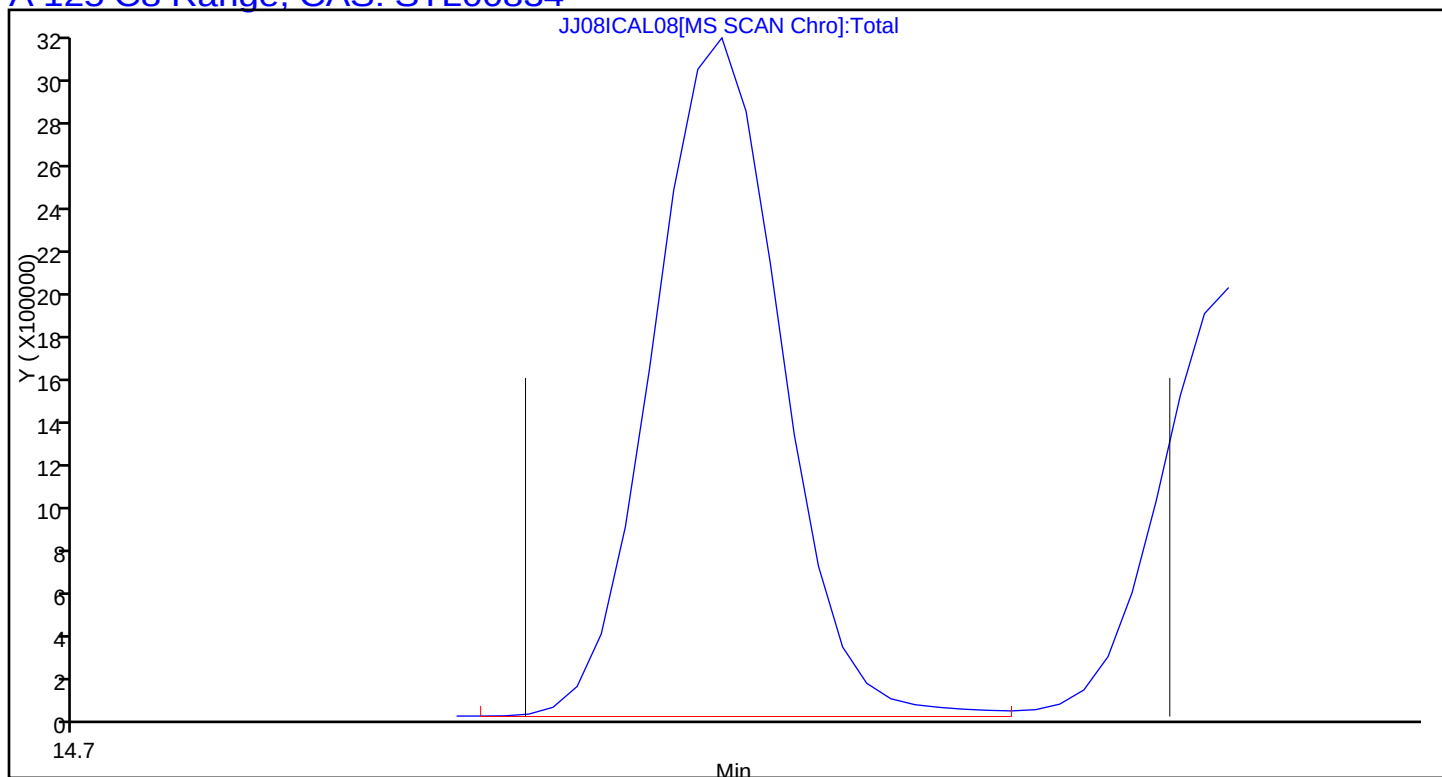
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Lims ID: IC L9
 Client ID:
 Sample Type: IC Calib Level: 9
 Inject. Date: 09-Oct-2016 02:10:30 ALS Bottle#: 8 Worklist Smp#: 11
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003509-011
 Misc. Info.: 059233
 Operator ID: 403648 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 11-Oct-2016 11:31:36 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK014

First Level Reviewer: barlozhetskayaa

Date: 09-Oct-2016 11:10:50

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.308	9.302	0.006	96	266883	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.470	11.461	0.009	95	1307339	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.132	16.131	0.001	88	1216984	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.756	17.753	0.003	90	759449	4.00	4.14	
6 Chlorodifluoromethane	67	3.920	3.918	0.002	97	435440	16.0	16.0	
7 Propene	41	3.936	3.933	0.003	99	1278552	16.0	13.7	
8 Dichlorodifluoromethane	85	3.990	3.987	0.003	99	3672524	16.0	14.0	
9 Chloromethane	52	4.183	4.183	0.000	98	390327	16.0	13.0	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.189	4.188	0.001	93	2125671	16.0	15.4	
11 Acetaldehyde	44	4.350	4.349	0.001	98	2056351	80.0	73.9	
12 Vinyl chloride	62	4.372	4.369	0.003	99	1305672	16.0	14.4	
14 Butadiene	54	4.463	4.463	0.000	71	989900	16.0	14.7	
13 Butane	43	4.463	4.465	-0.002	84	1833996	16.0	13.9	
15 Bromomethane	94	4.818	4.815	0.003	99	1281974	16.0	15.6	
16 Chloroethane	64	4.968	4.964	0.004	97	596998	16.0	15.7	
17 Ethanol	31	5.076	5.063	0.013	97	1625717	80.0	63.9	
18 Vinyl bromide	106	5.296	5.290	0.006	99	1395283	16.0	16.4	
19 2-Methylbutane	43	5.345	5.341	0.004	91	1590512	16.0	14.7	
20 Trichlorofluoromethane	101	5.581	5.576	0.005	100	3495723	16.0	15.3	
21 Acrolein	56	5.592	5.586	0.006	95	382502	16.0	16.3	
22 Acetonitrile	40	5.667	5.657	0.010	99	461794	16.0	16.0	
23 Acetone	58	5.711	5.712	-0.002	97	1144445	48.0	39.6	
24 Isopropyl alcohol	45	5.807	5.793	0.014	93	3961946	48.0	39.7	
25 Pentane	72	5.813	5.805	0.008	98	207814	16.0	15.6	
26 Ethyl ether	31	5.985	5.987	-0.002	94	1304099	16.0	15.5	
27 1,1-Dichloroethene	96	6.324	6.319	0.005	99	1363879	16.0	16.3	
28 2-Methyl-2-propanol	59	6.426	6.419	0.007	96	2020125	16.0	15.6	
29 Acrylonitrile	53	6.436	6.429	0.007	94	739993	16.0	15.4	
30 1,1,2-Trichloro-1,2,2-trif	101	6.501	6.499	0.002	96	2657038	16.0	15.0	
31 Methylene Chloride	84	6.689	6.682	0.007	98	1155194	16.0	13.6	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.705	6.698	0.007	98	1134376	16.0	14.2	
33 Carbon disulfide	76	6.861	6.857	0.004	99	3969758	16.0	15.3	
34 trans-1,2-Dichloroethene	96	7.528	7.521	0.007	99	1222745	16.0	14.8	
35 2-Methylpentane	43	7.539	7.532	0.007	93	2499321	16.0	13.8	
36 Methyl tert-butyl ether	73	7.646	7.653	-0.007	97	2582783	16.0	14.9	
37 1,1-Dichloroethane	63	7.964	7.955	0.009	100	2275244	16.0	14.8	
38 Vinyl acetate	43	8.060	8.055	0.005	100	2633160	16.0	15.6	
39 2-Butanone (MEK)	72	8.523	8.524	-0.001	97	396756	16.0	14.0	
40 Hexane	56	8.544	8.537	0.007	90	963328	16.0	14.3	
41 Isopropyl ether	45	8.700	8.702	-0.002	96	3156431	16.0	13.6	
42 cis-1,2-Dichloroethene	96	8.969	8.961	0.008	94	1240681	16.0	15.2	
43 Ethyl acetate	43	9.147	9.146	0.001	99	1885712	16.0	14.8	
44 Chloroform	83	9.319	9.310	0.009	97	2510211	16.0	15.0	
45 Tert-butyl ethyl ether	59	9.394	9.392	0.002	96	2695405	16.0	14.1	
46 Tetrahydrofuran	42	9.727	9.738	-0.011	92	1110580	16.0	15.7	
47 1,1,1-Trichloroethane	97	10.357	10.352	0.005	97	2557765	16.0	14.8	
48 1,2-Dichloroethane	62	10.469	10.461	0.008	97	1621122	16.0	14.5	
49 n-Butanol	31	10.883	10.884	-0.001	92	509145	16.0	16.5	
50 Cyclohexane	69	10.943	10.937	0.006	88	516001	16.0	12.4	
51 Benzene	78	10.943	10.939	0.004	97	3056544	16.0	12.6	
52 Carbon tetrachloride	117	10.964	10.963	0.001	98	2444049	16.0	13.2	
53 2,3-Dimethylpentane	71	11.050	11.044	0.006	91	782517	16.0	14.1	
54 Thiophene	84	11.217	11.210	0.007	97	1921978	16.0	14.3	
55 Tert-amyl methyl ether	73	11.394	11.396	-0.002	98	2536568	16.0	12.8	
56 Isooctane	57	11.674	11.670	0.004	96	5010864	16.0	12.8	
57 n-Heptane	71	12.040	12.033	0.007	91	1209602	16.0	14.3	
58 1,2-Dichloropropane	63	12.136	12.130	0.006	90	1297014	16.0	14.0	
59 Trichloroethene	130	12.169	12.163	0.006	96	1362381	16.0	14.0	
60 Dibromomethane	93	12.260	12.252	0.008	96	1372684	16.0	14.5	
62 Dichlorobromomethane	83	12.395	12.388	0.007	99	2542594	16.0	15.1	
61 1,4-Dioxane	88	12.411	12.413	-0.002	88	399104	16.0	14.7	
63 Methyl methacrylate	41	12.475	12.470	0.005	91	1102637	16.0	14.3	
64 Methylcyclohexane	83	12.922	12.919	0.003	96	2393729	16.0	13.4	
65 4-Methyl-2-pentanone (MIBK)	43	13.314	13.310	0.004	97	2160191	16.0	14.4	
66 cis-1,3-Dichloropropene	75	13.373	13.369	0.004	95	1936451	16.0	15.9	
67 trans-1,3-Dichloropropene	75	14.056	14.051	0.005	99	1785545	16.0	16.7	
68 Toluene	91	14.185	14.180	0.005	94	3708453	16.0	13.9	
69 1,1,2-Trichloroethane	83	14.260	14.253	0.007	97	1190782	16.0	14.3	
70 2-Methylthiophene	97	14.336	14.332	0.004	97	3024608	16.0	14.1	
71 3-Methylthiophene	97	14.535	14.530	0.005	98	2968551	16.0	14.4	
72 2-Hexanone	58	14.626	14.624	0.002	94	1094375	16.0	15.1	
73 n-Octane	85	14.847	14.841	0.006	91	1203931	16.0	13.5	
74 Chlorodibromomethane	129	14.960	14.954	0.006	96	2356036	16.0	15.4	
75 Ethylene Dibromide	107	15.250	15.245	0.005	98	2076091	16.0	15.7	
76 Tetrachloroethene	129	15.314	15.312	0.002	95	1298341	16.0	13.0	
77 2,3-Dimethylheptane	43	16.180	16.176	0.004	91	2791997	16.0	10.6	
78 Chlorobenzene	112	16.186	16.180	0.006	94	2558548	16.0	13.7	
79 Ethylbenzene	91	16.460	16.458	0.002	98	4122632	16.0	14.0	
80 2-Ethylthiophene	97	16.567	16.563	0.004	97	3126145	16.0	14.9	
81 m-Xylene & p-Xylene	91	16.621	16.616	0.005	97	5598414	32.0	25.4	
82 n-Nonane	57	17.019	17.015	0.004	88	2301308	16.0	13.2	
83 Bromoform	173	17.078	17.077	0.001	95	2195036	16.0	19.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	17.084	17.082	0.002	99	2341796	16.0	16.8	
85 o-Xylene	91	17.148	17.142	0.006	100	3180197	16.0	13.2	
86 1,1,2,2-Tetrachloroethane	83	17.465	17.462	0.003	99	2592834	16.0	14.8	
87 1,2,3-Trichloropropane	110	17.627	17.623	0.004	98	646183	16.0	16.0	
88 Isopropylbenzene	105	17.723	17.719	0.004	98	4117496	16.0	13.4	
89 N-Propylbenzene	120	18.240	18.237	0.003	98	1195062	16.0	15.8	
90 2-Chlorotoluene	126	18.288	18.287	0.001	96	1160412	16.0	15.7	
91 4-Ethyltoluene	105	18.385	18.382	0.003	96	3866352	16.0	14.8	
92 1,3,5-Trimethylbenzene	120	18.455	18.452	0.003	93	1880990	16.0	14.4	
93 Alpha Methyl Styrene	118	18.681	18.678	0.003	86	1763503	16.0	18.7	
94 n-Decane	57	18.718	18.716	0.002	94	2385192	16.0	13.3	
95 tert-Butylbenzene	119	18.869	18.865	0.004	91	3350611	16.0	13.2	
96 1,2,4-Trimethylbenzene	105	18.885	18.879	0.006	95	3075224	16.0	13.9	
97 sec-Butylbenzene	105	19.127	19.127	0.000	96	4490227	16.0	12.9	
98 1,3-Dichlorobenzene	146	19.154	19.151	0.003	98	1950364	16.0	18.9	
99 Benzyl chloride	91	19.224	19.222	0.002	98	2389971	16.0	20.7	
100 1,4-Dichlorobenzene	146	19.240	19.236	0.004	92	1819109	16.0	20.6	
101 4-Isopropyltoluene	119	19.288	19.283	0.005	95	3504694	16.0	13.9	
102 1,2,3-Trimethylbenzene	105	19.342	19.340	0.002	98	2457067	16.0	14.3	
103 Butylcyclohexane	83	19.390	19.387	0.003	93	2867784	16.0	12.7	
104 2,3-Dihydroindene	117	19.584	19.585	-0.001	94	2671703	16.0	14.7	
105 1,2-Dichlorobenzene	146	19.589	19.588	0.001	93	1828104	16.0	17.2	
106 n-Butylbenzene	91	19.708	19.706	0.002	99	3209166	16.0	15.4	
107 Indene	116	19.713	19.711	0.002	89	1914125	16.0	17.3	
108 Undecane	57	19.998	19.997	0.001	93	2355117	16.0	14.4	
109 1,2-Dimethyl-4-Ethylbenzen	119	20.073	20.071	0.002	97	2574855	16.0	15.9	
110 1,2-Dibromo-3-Chloropropan	157	20.176	20.176	0.000	96	796269	16.0	27.5	
111 1,2,4,5-Tetramethylbenzene	119	20.455	20.454	0.001	98	3014619	16.0	15.9	
112 1,2,3,5-Tetramethylbenzene	119	20.509	20.509	0.000	96	1900079	16.0	15.7	
113 1,2,3,4-Tetramethylbenzene	119	20.923	20.922	0.001	98	2447419	16.0	16.1	
114 Dodecane	57	21.068	21.067	0.001	94	2101742	16.0	15.0	
115 1,2,4-Trichlorobenzene	180	21.299	21.300	-0.001	94	937716	16.0	38.6	
116 Naphthalene	128	21.445	21.446	-0.001	98	2037663	16.0	28.7	
117 Benzo(b)thiophene	134	21.547	21.545	0.002	99	902790	16.0	31.5	
118 Hexachlorobutadiene	225	21.633	21.631	0.002	95	1735997	16.0	15.7	
119 1,2,3-Trichlorobenzene	180	21.697	21.697	0.000	95	786968	16.0	27.5	
120 2-Methylnaphthalene	142	22.251	22.263	-0.012	99	307877	50.0	84.3	
121 1-Methylnaphthalene	142	22.375	22.359	0.016	99	369497	50.0	75.3	
A 124 Toluene Range	1	14.185	(14.155-14.215)		0	8816266	16.0	14.6	
A 125 C8 Range	1	14.855	(14.808-14.952)		0	10853398	16.0	13.4	
S 126 Xylenes, Total	100				0		48.0	38.5	
S 127 1,2-Dichloroethene, Total	1				0		32.0	30.0	

Reagents:

40L9DNP_00009

Amount Added: 200.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 11-Oct-2016 11:31:37

Chrom Revision: 2.2 08-Sep-2016 14:45:52

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D

Injection Date: 09-Oct-2016 02:10:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: IC L9

Worklist Smp#: 11

Client ID:

Purge Vol: 500.000 mL

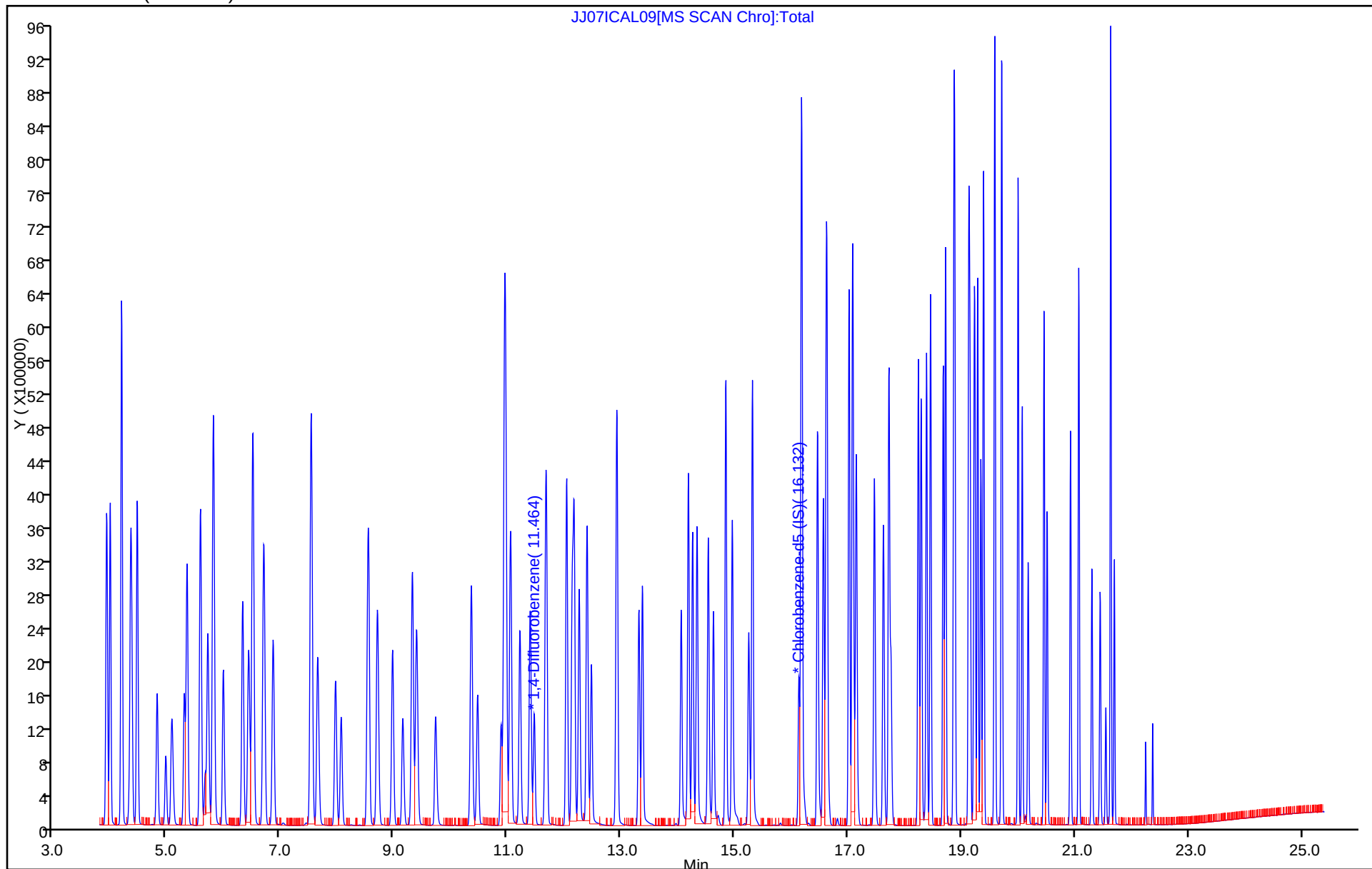
Dil. Factor: 1.0000

ALS Bottle#: 8

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D

Injection Date: 09-Oct-2016 02:10:30

Instrument ID: MJ

Lims ID: IC L9

Client ID:

Operator ID: 403648

ALS Bottle#: 8

Worklist Smp#: 11

Purge Vol: 500.000 mL

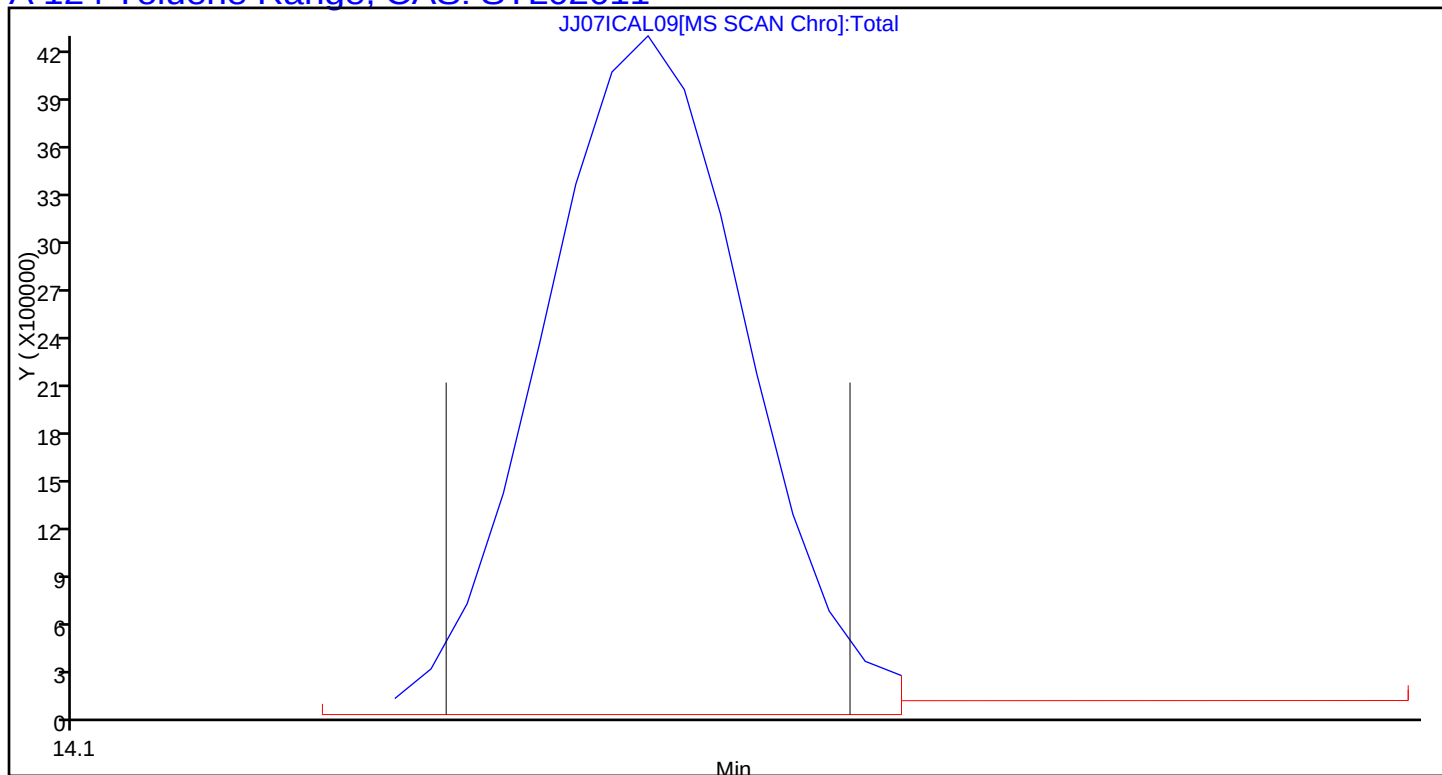
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 124 Toluene Range, CAS: STL02011

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D

Injection Date: 09-Oct-2016 02:10:30

Instrument ID: MJ

Lims ID: IC L9

Client ID:

Operator ID: 403648

ALS Bottle#: 8

Worklist Smp#: 11

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

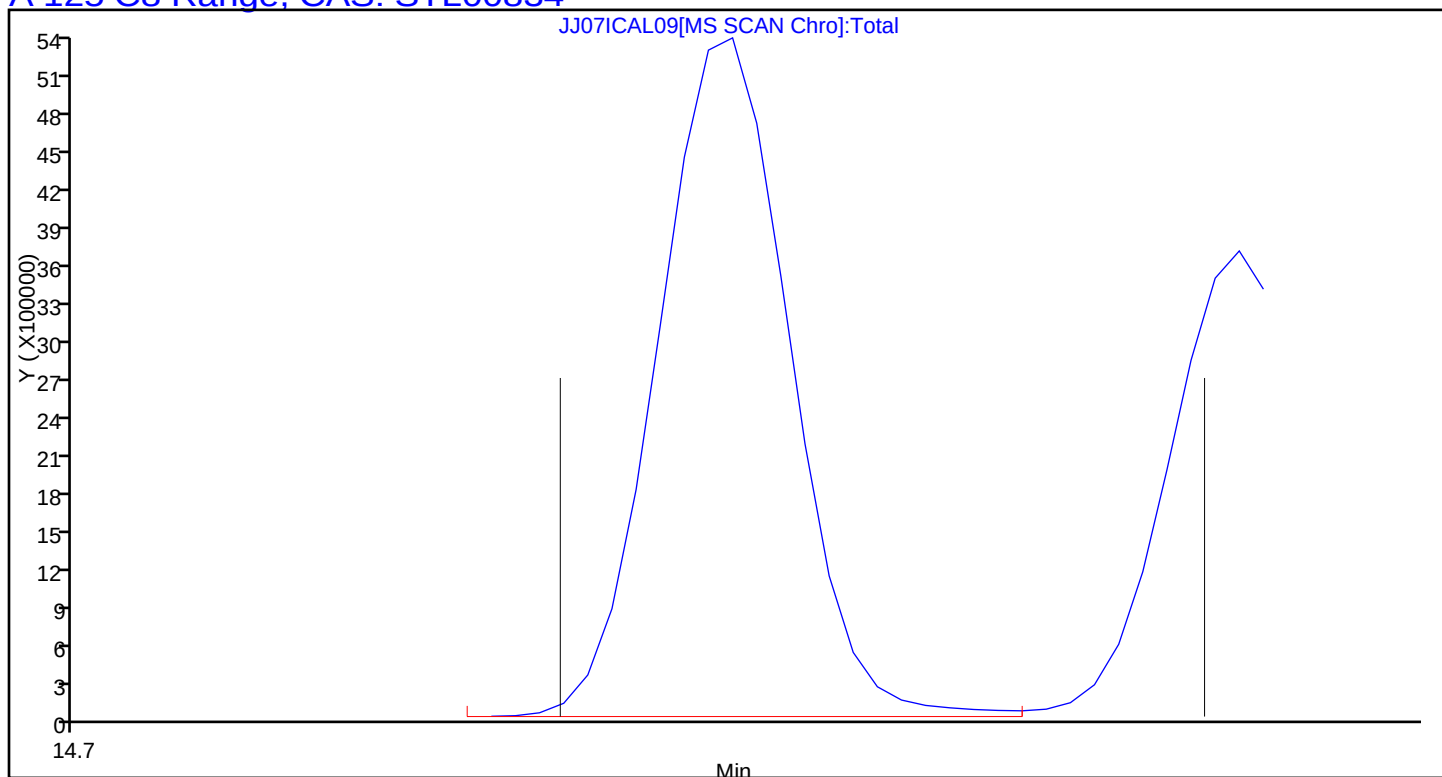
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 125 C8 Range, CAS: STL00834



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Lab Sample ID: ICV 140-6845/17 Calibration Date: 10/09/2016 07:04
 Instrument ID: MJ Calib Start Date: 10/08/2016 19:01
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 10/09/2016 02:10
 Lab File ID: JJ08LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	0.4073	0.4360		2.14	2.00	7.1	35.0
Propene	Ave	1.399	1.498		2.14	2.00	7.1	35.0
Dichlorodifluoromethane	Ave	3.938	4.219		2.14	2.00	7.1	35.0
Chloromethane	Ave	0.4515	0.4605		2.04	2.00	2.0	35.0
1,2-Dichlorotetrafluoroethane	Ave	2.073	2.123		2.05	2.00	2.4	35.0
Acetaldehyde	Ave	0.4172	0.3708		8.89	10.0	-11.1	35.0
Vinyl chloride	Ave	1.359	1.477		2.18	2.00	8.7	35.0
1,3-Butadiene	Ave	1.010	1.081		2.14	2.00	7.0	35.0
Butane	Ave	1.971	2.080		2.11	2.00	5.5	35.0
Bromomethane	Ave	1.230	1.299		2.11	2.00	5.6	35.0
Chloroethane	Ave	0.5688	0.6180		2.17	2.00	8.7	35.0
Ethanol	Ave	0.3812	0.3603		9.46	10.0	-5.5	35.0
Vinyl bromide	Ave	1.277	1.456		2.28	2.00	14.0	35.0
2-Methylbutane	Ave	1.622	1.794		2.21	2.00	10.6	35.0
Trichlorofluoromethane	Ave	3.433	3.741		2.18	2.00	9.0	35.0
Acrolein	Ave	0.3514	0.3286		1.87	2.00	-6.5	35.0
Acetonitrile	Ave	0.4327	0.4317		2.00	2.00	-0.2	35.0
Acetone	Ave	0.4327	0.4021		5.58	6.00	-7.1	35.0
Isopropyl alcohol	Ave	1.496	1.528		6.13	6.00	2.1	35.0
Pentane	Ave	0.2000	0.2291		2.29	2.00	14.6	35.0
Ethyl ether	Ave	1.260	1.162		1.84	2.00	-7.8	35.0
1,1-Dichloroethene	Ave	1.257	1.371		2.18	2.00	9.1	35.0
t-Butyl alcohol	Ave	1.943	1.906		1.96	2.00	-1.9	35.0
Acrylonitrile	Ave	0.7216	0.6765		1.88	2.00	-6.3	35.0
1,1,2-Trichlorotrifluoroethane	Ave	2.661	2.992		2.25	2.00	12.4	35.0
Methylene Chloride	Ave	1.271	1.315		2.07	2.00	3.5	35.0
3-Chloropropene	Ave	1.198	1.267		2.12	2.00	5.8	35.0
Carbon disulfide	Ave	3.881	4.087		2.11	2.00	5.3	35.0
trans-1,2-Dichloroethene	Ave	1.239	1.372		2.22	2.00	10.8	35.0
2-Methylpentane	Ave	2.721	3.325		2.44	2.00	22.2	35.0
Methyl tert-butyl ether	Ave	2.592	2.382		1.84	2.00	-8.1	35.0
1,1-Dichloroethane	Ave	2.297	2.533		2.21	2.00	10.3	35.0
Vinyl acetate	Ave	2.526	2.213		1.75	2.00	-12.4	35.0
2-Butanone	Ave	0.4246	0.3850		1.81	2.00	-9.3	35.0
Hexane	Ave	1.009	1.097		2.17	2.00	8.7	35.0
Isopropyl ether	Ave	3.491	2.967		1.70	2.00	-15.0	35.0
cis-1,2-Dichloroethene	Ave	1.220	1.353		2.22	2.00	10.9	35.0
Ethyl acetate	Ave	1.913	1.712		1.79	2.00	-10.5	35.0
Chloroform	Ave	2.515	2.586		2.06	2.00	2.8	35.0
Tert-butyl ethyl ether	Ave	2.864	2.813		1.97	2.00	-1.8	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1

SDG No.: _____

Lab Sample ID: ICV 140-6845/17 Calibration Date: 10/09/2016 07:04

Instrument ID: MJ Calib Start Date: 10/08/2016 19:01

GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 10/09/2016 02:10

Lab File ID: JJ08LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.061	0.9762		1.84	2.00	-8.0	35.0
1,1,1-Trichloroethane	Ave	2.584	2.783		2.16	2.00	7.7	35.0
1,2-Dichloroethane	Ave	0.3427	0.3958		2.31	2.00	15.5	35.0
1-Butanol	Ave	0.0944	0.1025		2.17	2.00	8.7	35.0
Benzene	Ave	0.7399	0.8480		2.29	2.00	14.6	35.0
Cyclohexane	Ave	0.1274	0.1553		2.44	2.00	21.9	35.0
Carbon tetrachloride	Ave	0.5676	0.6786		2.39	2.00	19.6	35.0
2,3-Dimethylpentane	Ave	0.1696	0.1865		2.20	2.00	10.0	35.0
Thiophene	Ave	0.4127	0.4847		2.35	2.00	17.5	35.0
Tert-amyl methyl ether	Ave	0.6531	0.6553		2.01	2.00	0.3	35.0
2,2,4-Trimethylpentane	Ave	1.194	1.356		2.27	2.00	13.5	35.0
Heptane	Ave	0.2581	0.2849		2.21	2.00	10.4	35.0
1,2-Dichloropropane	Ave	0.2830	0.3049		2.16	2.00	7.7	35.0
Trichloroethene	Ave	0.2971	0.3390		2.28	2.00	14.1	35.0
Dibromomethane	Ave	0.2887	0.3263		2.26	2.00	13.0	35.0
Bromodichloromethane	Ave	0.5158	0.5761		2.24	2.00	11.7	35.0
1,4-Dioxane	Ave	0.0833	0.0886		2.13	2.00	6.3	35.0
Methyl methacrylate	Ave	0.2356	0.2237		1.90	2.00	-5.0	35.0
Methylcyclohexane	Ave	0.5478	0.5258		1.92	2.00	-4.0	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4587	0.4841		2.11	2.00	5.5	35.0
cis-1,3-Dichloropropene	Ave	0.3725	0.4136		2.22	2.00	11.0	35.0
trans-1,3-Dichloropropene	Ave	0.3515	0.3792		2.16	2.00	7.9	35.0
Toluene	Ave	0.8769	0.9365		2.14	2.00	6.8	35.0
1,1,2-Trichloroethane	Ave	0.2733	0.2849		2.09	2.00	4.3	35.0
2-Methylthiophene	Ave	0.7071	0.8099		2.29	2.00	14.5	35.0
3-Methylthiophene	Ave	0.6759	0.7922		2.35	2.00	17.2	35.0
2-Hexanone	Ave	0.2377	0.2522		2.12	2.00	6.1	35.0
Octane	Ave	0.2927	0.3177		2.17	2.00	8.5	35.0
Dibromochloromethane	Ave	0.5033	0.5559		2.21	2.00	10.5	35.0
1,2-Dibromoethane	Ave	0.4354	0.4760		2.19	2.00	9.3	35.0
Tetrachloroethene	Ave	0.3284	0.3556		2.17	2.00	8.3	35.0
2,3-Dimethylheptane	Ave	0.8637	0.9400		2.18	2.00	8.8	35.0
Chlorobenzene	Ave	0.6155	0.6685		2.17	2.00	8.6	35.0
Ethylbenzene	Ave	0.9686	0.9699		2.00	2.00	0.1	35.0
2-Ethylthiophene	Ave	0.6914	0.7018		2.03	2.00	1.5	35.0
m-Xylene & p-Xylene	Ave	0.7248	0.7307		4.03	4.00	0.8	35.0
Nonane	Ave	0.5723	0.6149		2.15	2.00	7.4	35.0
Bromoform	Ave	0.3787	0.4257		2.25	2.00	12.4	35.0
Styrene	Ave	0.4578	0.5106		2.23	2.00	11.5	35.0
o-Xylene	Ave	0.7946	0.7726		1.95	2.00	-2.8	35.0
1,1,2,2-Tetrachloroethane	Ave	0.5758	0.5832		2.03	2.00	1.3	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Lab Sample ID: ICV 140-6845/17 Calibration Date: 10/09/2016 07:04
 Instrument ID: MJ Calib Start Date: 10/08/2016 19:01
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 10/09/2016 02:10
 Lab File ID: JJ08LCS.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.1324	0.1339		2.02	2.00	1.1	35.0
Isopropylbenzene	Ave	1.009	1.036		2.05	2.00	2.6	35.0
Propylbenzene	Ave	0.2492	0.2586		2.08	2.00	3.8	35.0
2-Chlorotoluene	Ave	0.2430	0.2558		2.11	2.00	5.3	35.0
4-Ethyltoluene	Ave	0.8584	0.8422		1.96	2.00	-1.9	35.0
1,3,5-Trimethylbenzene	Ave	0.4295	0.4357		2.03	2.00	1.5	35.0
Alpha Methyl Styrene	Ave	0.3098	0.3159		2.04	2.00	2.0	35.0
Decane	Ave	0.5873	0.6059		2.06	2.00	3.2	35.0
tert-Butylbenzene	Ave	0.8323	0.8488		2.04	2.00	2.0	35.0
1,2,4-Trimethylbenzene	Ave	0.7289	0.7687		2.11	2.00	5.5	35.0
sec-Butylbenzene	Ave	1.140	1.162		2.04	2.00	1.9	35.0
1,3-Dichlorobenzene	Ave	0.3388	0.3542		2.09	2.00	4.6	35.0
Benzyl chloride	Ave	0.3789	0.3714		1.96	2.00	-2.0	35.0
1,4-Dichlorobenzene	Ave	0.2901	0.2939		2.03	2.00	1.3	35.0
4-Isopropyltoluene	Ave	0.8275	0.8626		2.09	2.00	4.3	35.0
1,2,3-Trimethylbenzene	Ave	0.5630	0.6328		2.25	2.00	12.4	35.0
Butylcyclohexane	Ave	0.7399	0.7529		2.04	2.00	1.8	35.0
Indane	Ave	0.5985	0.5941		1.99	2.00	-0.7	35.0
1,2-Dichlorobenzene	Ave	0.3500	0.3648		2.09	2.00	4.3	35.0
Butylbenzene	Ave	0.6858	0.7376		2.15	2.00	7.6	35.0
Indene	Ave	0.3630	0.4709		2.60	2.00	29.7	35.0
Undecane	Ave	0.5362	0.5224		1.95	2.00	-2.6	35.0
1,2-Dimethyl-4-Ethylbenzene	Ave	0.5328	0.6957		2.61	2.00	30.6	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.0953	0.0888		1.86	2.00	-6.8	35.0
1,2,4,5-Tetramethylbenzene	Ave	0.6244	0.7067		2.26	2.00	13.2	35.0
1,2,3,5-Tetramethylbenzene	Ave	0.3986	0.4571		2.29	2.00	14.7	35.0
1,2,3,4-Tetramethylbenzene	Ave	0.4982	0.5408		2.17	2.00	8.6	35.0
Dodecane	Ave	0.4604	0.4600		2.00	2.00	-0.0	35.0
1,2,4-Trichlorobenzene	Ave	0.0799	0.0917		2.30	2.00	14.7	35.0
Naphthalene	Ave	0.2334	0.2634		2.26	2.00	12.8	35.0
Benzo (b) thiophene	Ave	0.0943	0.1047		2.22	2.00	11.0	35.0
Hexachlorobutadiene	Ave	0.3631	0.3101		1.71	2.00	-14.6	35.0
1,2,3-Trichlorobenzene	Ave	0.0941	0.0989		2.10	2.00	5.0	35.0
2-Methylnaphthalene	Ave	0.0120	0.0115		6.00	6.25	-4.0	50.0
1-Methylnaphthalene	Ave	0.0161	0.0136		5.28	6.25	-15.5	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6030	0.6447		4.28	4.00	6.9	35.0

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08LCS.D
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 09-Oct-2016 07:04:30 ALS Bottle#: 10 Worklist Smp#: 17
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003509-017
 Misc. Info.: 059230
 Operator ID: 403648 Instrument ID: MJ
 Sublist:
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 11-Oct-2016 12:05:23 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK014

First Level Reviewer: barlozhetskayaa

Date: 11-Oct-2016 12:05:23

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.299	9.302	-0.003	97	290428	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.461	11.461	0.000	95	1211046	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.128	16.131	-0.003	88	1042574	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.752	17.750	-0.001	88	672133	4.00	4.28	
6 Chlorodifluoromethane	67	3.916	3.917	-0.002	97	63342	2.00	2.14	
7 Propene	41	3.927	3.931	-0.006	99	217637	2.00	2.14	
8 Dichlorodifluoromethane	85	3.986	3.986	-0.001	100	612992	2.00	2.14	
9 Chloromethane	52	4.180	4.182	-0.003	99	66902	2.00	2.04	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.185	4.187	-0.003	92	308406	2.00	2.05	
11 Acetaldehyde	44	4.347	4.348	-0.002	100	269335	10.0	8.89	
12 Vinyl chloride	62	4.368	4.368	-0.001	99	214639	2.00	2.18	
14 Butadiene	54	4.459	4.462	-0.004	68	157055	2.00	2.14	
13 Butane	43	4.459	4.463	-0.006	86	302205	2.00	2.11	
15 Bromomethane	94	4.809	4.813	-0.006	99	188724	2.00	2.11	
16 Chloroethane	64	4.960	4.963	-0.004	97	89791	2.00	2.17	
17 Ethanol	31	5.056	5.061	-0.007	98	261752	10.0	9.46	
18 Vinyl bromide	106	5.288	5.288	-0.002	99	211537	2.00	2.28	
19 2-Methylbutane	43	5.336	5.339	-0.005	92	260686	2.00	2.21	
20 Trichlorofluoromethane	101	5.573	5.574	-0.003	100	543594	2.00	2.18	
21 Acrolein	56	5.583	5.585	-0.003	95	47736	2.00	1.87	
22 Acetonitrile	40	5.653	5.656	-0.004	99	62723	2.00	2.00	
23 Acetone	58	5.702	5.710	-0.010	98	175266	6.00	5.58	
24 Isopropyl alcohol	45	5.782	5.791	-0.011	97	666200	6.00	6.13	
25 Pentane	72	5.804	5.803	-0.001	97	33292	2.00	2.29	
26 Ethyl ether	31	5.981	5.985	-0.006	93	168771	2.00	1.84	
27 1,1-Dichloroethene	96	6.315	6.317	-0.004	97	199162	2.00	2.18	
28 2-Methyl-2-propanol	59	6.406	6.417	-0.013	95	276883	2.00	1.96	
29 Acrylonitrile	53	6.428	6.427	-0.001	94	98293	2.00	1.88	
30 1,1,2-Trichloro-1,2,2-trif	101	6.497	6.497	-0.002	95	434702	2.00	2.25	
31 Methylene Chloride	84	6.680	6.680	-0.002	97	191023	2.00	2.07	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.696	6.696	-0.002	96	184128	2.00	2.12	
33 Carbon disulfide	76	6.858	6.855	0.001	99	593873	2.00	2.11	
34 trans-1,2-Dichloroethene	96	7.519	7.519	-0.002	98	199394	2.00	2.22	
35 2-Methylpentane	43	7.530	7.530	-0.002	95	483025	2.00	2.44	
36 Methyl tert-butyl ether	73	7.643	7.651	-0.010	97	346127	2.00	1.84	
37 1,1-Dichloroethane	63	7.949	7.953	-0.006	100	367991	2.00	2.21	
38 Vinyl acetate	43	8.052	8.052	-0.003	100	321595	2.00	1.75	
39 2-Butanone (MEK)	72	8.519	8.521	-0.005	96	55943	2.00	1.81	
40 Hexane	56	8.536	8.534	-0.001	90	159317	2.00	2.17	
41 Isopropyl ether	45	8.691	8.699	-0.011	98	431058	2.00	1.70	
42 cis-1,2-Dichloroethene	96	8.955	8.958	-0.006	95	196616	2.00	2.22	
43 Ethyl acetate	43	9.143	9.143	-0.003	99	248704	2.00	1.79	
44 Chloroform	83	9.310	9.307	0.000	97	375741	2.00	2.06	
45 Tert-butyl ethyl ether	59	9.385	9.389	-0.007	96	408722	2.00	1.97	
46 Tetrahydrofuran	42	9.729	9.734	-0.009	93	141837	2.00	1.84	
47 1,1,1-Trichloroethane	97	10.348	10.349	-0.004	96	404365	2.00	2.16	
48 1,2-Dichloroethane	62	10.461	10.456	0.000	98	239762	2.00	2.31	
49 n-Butanol	31	10.869	10.878	-0.015	91	62123	2.00	2.17	
50 Cyclohexane	69	10.939	10.932	0.002	72	94106	2.00	2.44	
51 Benzene	78	10.939	10.933	0.000	97	513774	2.00	2.29	
52 Carbon tetrachloride	117	10.961	10.957	-0.002	97	411138	2.00	2.39	
53 2,3-Dimethylpentane	71	11.041	11.039	-0.003	92	113015	2.00	2.20	
54 Thiophene	84	11.208	11.205	-0.002	97	293664	2.00	2.35	
55 Tert-amyl methyl ether	73	11.391	11.394	-0.005	98	341818	2.00	2.01	
56 Isooctane	57	11.665	11.664	-0.005	98	821283	2.00	2.27	
57 n-Heptane	71	12.031	12.027	-0.002	93	172588	2.00	2.21	
58 1,2-Dichloropropane	63	12.128	12.124	-0.002	91	184700	2.00	2.16	
59 Trichloroethene	130	12.160	12.158	-0.003	95	205397	2.00	2.28	
60 Dibromomethane	93	12.251	12.247	-0.001	93	197677	2.00	2.26	
62 Dichlorobromomethane	83	12.386	12.382	-0.002	99	349032	2.00	2.24	
61 1,4-Dioxane	88	12.402	12.407	-0.011	93	53657	2.00	2.13	
63 Methyl methacrylate	41	12.466	12.464	-0.004	91	135535	2.00	1.90	
64 Methylcyclohexane	83	12.918	12.913	-0.001	95	318536	2.00	1.92	
65 4-Methyl-2-pentanone (MIBK)	43	13.305	13.304	-0.005	98	293313	2.00	2.11	
66 cis-1,3-Dichloropropene	75	13.370	13.362	0.001	95	250575	2.00	2.22	
67 trans-1,3-Dichloropropene	75	14.053	14.049	0.002	98	197773	2.00	2.16	
68 Toluene	91	14.176	14.177	-0.004	94	488441	2.00	2.14	
69 1,1,2-Trichloroethane	83	14.252	14.248	-0.001	97	148611	2.00	2.09	
70 2-Methylthiophene	97	14.332	14.329	0.000	97	422434	2.00	2.29	
71 3-Methylthiophene	97	14.531	14.527	0.001	99	413182	2.00	2.35	
72 2-Hexanone	58	14.623	14.622	-0.001	92	131514	2.00	2.12	
73 n-Octane	85	14.843	14.839	0.002	95	165697	2.00	2.17	
74 Chlorodibromomethane	129	14.951	14.951	-0.003	98	289960	2.00	2.21	
75 Ethylene Dibromide	107	15.241	15.242	-0.004	98	248278	2.00	2.19	
76 Tetrachloroethene	129	15.311	15.309	-0.001	95	185443	2.00	2.17	
77 2,3-Dimethylheptane	43	16.177	16.173	0.001	96	490258	2.00	2.18	
78 Chlorobenzene	112	16.177	16.177	-0.003	75	348675	2.00	2.17	
79 Ethylbenzene	91	16.456	16.455	-0.002	99	505889	2.00	2.00	
80 2-Ethylthiophene	97	16.558	16.560	-0.005	98	366040	2.00	2.03	
81 m-Xylene & p-Xylene	91	16.618	16.613	0.002	99	762243	4.00	4.03	
82 n-Nonane	57	17.016	17.012	0.001	93	320711	2.00	2.15	
83 Bromoform	173	17.075	17.074	-0.002	92	222043	2.00	2.25	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	17.080	17.079	-0.002	99	266334	2.00	2.23	
85 o-Xylene	91	17.139	17.139	-0.003	99	402947	2.00	1.95	
86 1,1,2,2-Tetrachloroethane	83	17.456	17.459	-0.006	99	304189	2.00	2.03	
87 1,2,3-Trichloropropane	110	17.618	17.619	-0.005	99	69823	2.00	2.02	
88 Isopropylbenzene	105	17.715	17.715	-0.004	97	540094	2.00	2.05	
89 N-Propylbenzene	120	18.236	18.234	-0.001	99	134863	2.00	2.08	
90 2-Chlorotoluene	126	18.285	18.284	-0.002	98	133435	2.00	2.11	
91 4-Ethyltoluene	105	18.381	18.379	-0.001	98	439253	2.00	1.96	
92 1,3,5-Trimethylbenzene	120	18.451	18.448	-0.001	92	227267	2.00	2.03	
93 Alpha Methyl Styrene	118	18.677	18.674	-0.001	87	164775	2.00	2.04	
94 n-Decane	57	18.715	18.712	-0.001	90	315988	2.00	2.06	
95 tert-Butylbenzene	119	18.865	18.861	0.000	90	442717	2.00	2.04	
96 1,2,4-Trimethylbenzene	105	18.876	18.876	-0.003	96	400946	2.00	2.11	
97 sec-Butylbenzene	105	19.123	19.123	-0.004	98	606177	2.00	2.04	
98 1,3-Dichlorobenzene	146	19.145	19.147	-0.006	98	184753	2.00	2.09	
99 Benzyl chloride	91	19.220	19.218	-0.002	98	193714	2.00	1.96	
100 1,4-Dichlorobenzene	146	19.231	19.233	-0.005	95	153293	2.00	2.03	
101 4-Isopropyltoluene	119	19.279	19.279	-0.004	96	449920	2.00	2.09	
102 1,2,3-Trimethylbenzene	105	19.339	19.336	-0.001	98	330018	2.00	2.25	
103 Butylcyclohexane	83	19.387	19.383	0.000	92	392685	2.00	2.04	
104 2,3-Dihydroindene	117	19.581	19.581	-0.004	94	309857	2.00	1.99	
105 1,2-Dichlorobenzene	146	19.586	19.585	-0.002	96	190286	2.00	2.09	
106 n-Butylbenzene	91	19.704	19.702	-0.002	98	384717	2.00	2.15	
107 Indene	116	19.710	19.708	-0.001	90	245592	2.00	2.60	
108 Undecane	57	19.995	19.993	-0.002	96	272459	2.00	1.95	
109 1,2-Dimethyl-4-Ethylbenzen	119	20.070	20.067	-0.001	98	362852	2.00	2.61	
110 1,2-Dibromo-3-Chloropropan	157	20.177	20.172	0.001	91	46307	2.00	1.86	
111 1,2,4,5-Tetramethylbenzene	119	20.452	20.450	-0.002	97	368574	2.00	2.26	
112 1,2,3,5-Tetramethylbenzene	119	20.505	20.505	-0.004	95	238392	2.00	2.29	
113 1,2,3,4-Tetramethylbenzene	119	20.920	20.918	-0.002	97	282060	2.00	2.17	
114 Dodecane	57	21.065	21.063	-0.002	95	239909	2.00	2.00	
115 1,2,4-Trichlorobenzene	180	21.301	21.296	0.001	94	47814	2.00	2.30	
116 Naphthalene	128	21.446	21.442	0.000	99	137359	2.00	2.26	
117 Benzo(b)thiophene	134	21.543	21.541	-0.002	99	54595	2.00	2.22	
118 Hexachlorobutadiene	225	21.629	21.627	-0.002	96	161730	2.00	1.71	
119 1,2,3-Trichlorobenzene	180	21.694	21.693	-0.003	95	51585	2.00	2.10	
120 2-Methylnaphthalene	142	22.248	22.259	-0.015	99	18796	6.25	6.00	
121 1-Methylnaphthalene	142	22.371	22.355	0.012	98	22203	6.25	5.28	
A 124 Toluene Range	1	14.180	(14.155-14.204)		0	1189423	2.00	2.30	
A 125 C8 Range	1	14.880	(14.808-14.952)		0	1558269	2.00	2.25	
S 126 Xylenes, Total	100				0		6.00	5.98	
S 127 1,2-Dichloroethene, Total	1				0		4.00	4.44	

Reagents:

40CV101S_00019

Amount Added: 100.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 11-Oct-2016 12:05:25

Chrom Revision: 2.2 08-Sep-2016 14:45:52

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ08LCS.D

Injection Date: 09-Oct-2016 07:04:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: ICV

Worklist Smp#: 17

Client ID:

Purge Vol: 500.000 mL

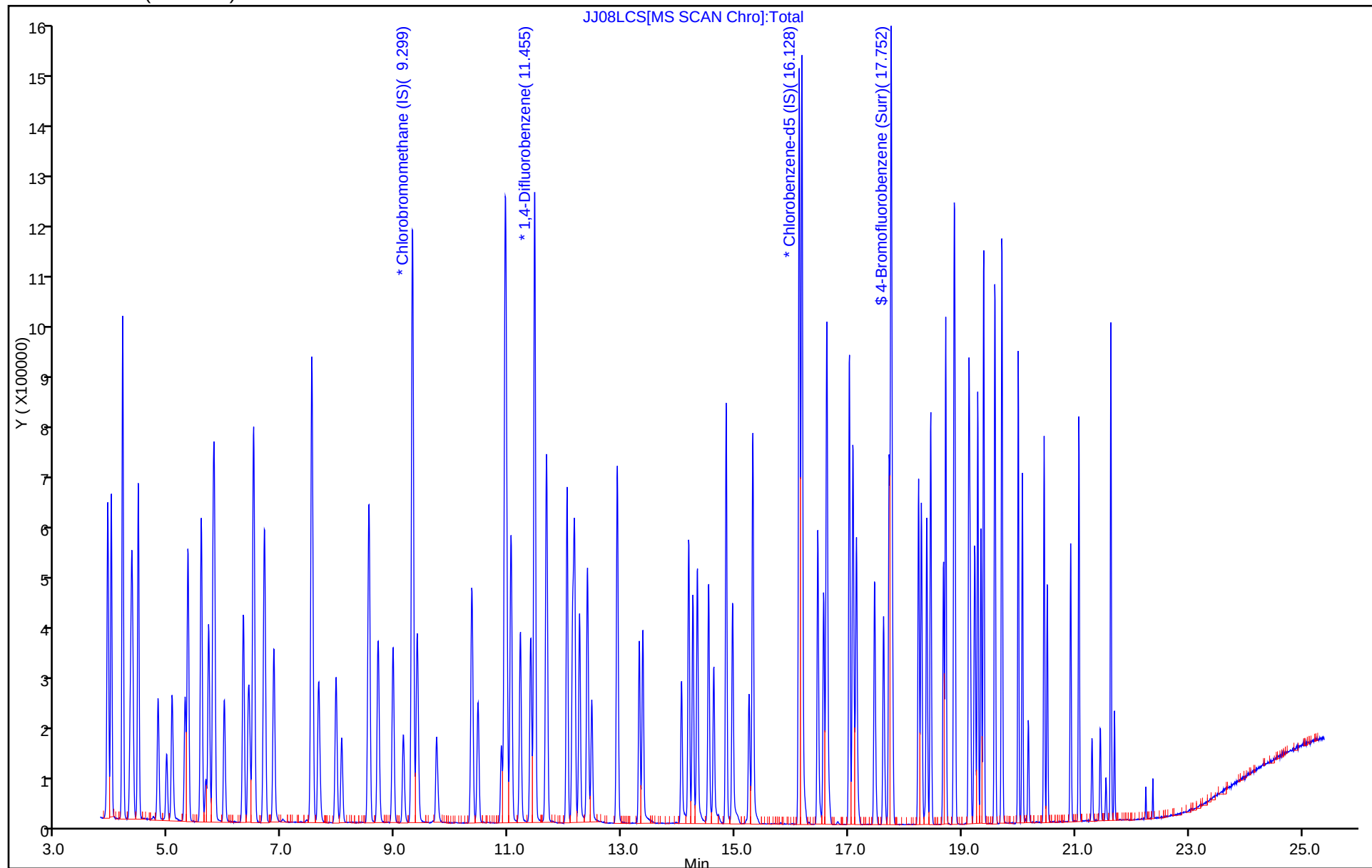
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1

SDG No.: _____

Lab Sample ID: CCVIS 140-7171/6 Calibration Date: 11/15/2016 13:20

Instrument ID: MJ Calib Start Date: 10/08/2016 19:01

GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 10/09/2016 02:10

Lab File ID: JCCVK15A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Chlorodifluoromethane	Ave	0.4073	0.4578		2.24	1.99	12.4	30.0
Propene	Ave	1.399	1.626		2.31	1.99	16.2	30.0
Dichlorodifluoromethane	Ave	3.938	4.621		2.34	1.99	17.4	30.0
Chloromethane	Ave	0.4515	0.5196		2.29	1.99	15.1	30.0
1,2-Dichlorotetrafluoroethane	Ave	2.073	2.776		2.67	1.99	33.9*	30.0
Acetaldehyde	Ave	0.4172	0.4335		10.3	9.96	3.9	30.0
Vinyl chloride	Ave	1.359	1.638		2.40	1.99	20.5	30.0
1,3-Butadiene	Ave	1.010	1.243		2.45	1.99	23.0	30.0
Butane	Ave	1.971	2.447		2.47	1.99	24.2	30.0
Bromomethane	Ave	1.230	1.461		2.37	1.99	18.8	30.0
Chloroethane	Ave	0.5688	0.6997		2.45	1.99	23.0	30.0
Ethanol	Ave	0.3812	0.4249		11.1	9.96	11.5	30.0
Vinyl bromide	Ave	1.277	1.448		2.26	1.99	13.4	30.0
2-Methylbutane	Ave	1.622	1.933		2.37	1.99	19.2	30.0
Trichlorofluoromethane	Ave	3.433	3.924		2.28	1.99	14.3	30.0
Acrolein	Ave	0.3514	0.3268		1.85	1.99	-7.0	30.0
Acetonitrile	Ave	0.4327	0.5085		2.34	1.99	17.5	30.0
Acetone	Ave	0.4327	0.4653		6.43	5.97	7.5	30.0
Isopropyl alcohol	Ave	1.496	1.538		6.14	5.97	2.8	30.0
Pentane	Ave	0.2000	0.2347		2.34	1.99	17.4	30.0
Ethyl ether	Ave	1.260	1.388		2.19	1.99	10.2	30.0
1,1-Dichloroethene	Ave	1.257	1.418		2.25	1.99	12.8	30.0
t-Butyl alcohol	Ave	1.943	1.860		1.91	1.99	-4.3	30.0
Acrylonitrile	Ave	0.7216	0.7371		2.03	1.99	2.1	30.0
1,1,2-Trichlorotrifluoroethane	Ave	2.661	3.026		2.26	1.99	13.7	30.0
Methylene Chloride	Ave	1.271	1.354		2.12	1.99	6.5	30.0
3-Chloropropene	Ave	1.198	1.334		2.22	1.99	11.3	30.0
Carbon disulfide	Ave	3.881	4.459		2.29	1.99	14.9	30.0
trans-1,2-Dichloroethene	Ave	1.239	1.423		2.29	1.99	14.9	30.0
2-Methylpentane	Ave	2.721	3.228		2.36	1.99	18.6	30.0
Methyl tert-butyl ether	Ave	2.592	2.722		2.09	1.99	5.0	30.0
1,1-Dichloroethane	Ave	2.297	2.566		2.23	1.99	11.7	30.0
Vinyl acetate	Ave	2.526	2.693		2.12	1.99	6.6	30.0
2-Butanone	Ave	0.4246	0.4417		2.07	1.99	4.0	30.0
Hexane	Ave	1.009	1.126		2.22	1.99	11.5	30.0
Isopropyl ether	Ave	3.491	3.709		2.12	1.99	6.2	30.0
cis-1,2-Dichloroethene	Ave	1.220	1.345		2.20	1.99	10.2	30.0
Ethyl acetate	Ave	1.913	2.133		2.22	1.99	11.5	30.0
Chloroform	Ave	2.515	2.755		2.18	1.99	9.5	30.0
Tert-butyl ethyl ether	Ave	2.864	2.973		2.07	1.99	3.8	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Lab Sample ID: CCVIS 140-7171/6 Calibration Date: 11/15/2016 13:20
 Instrument ID: MJ Calib Start Date: 10/08/2016 19:01
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 10/09/2016 02:10
 Lab File ID: JCCVK15A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Tetrahydrofuran	Ave	1.061	1.140		2.14	1.99	7.5	30.0
1,1,1-Trichloroethane	Ave	2.584	2.840		2.19	1.99	9.9	30.0
1,2-Dichloroethane	Ave	0.3427	0.3841		2.23	1.99	12.1	30.0
1-Butanol	Ave	0.0944	0.0940		1.98	1.99	-0.4	30.0
Benzene	Ave	0.7399	0.8157		2.20	1.99	10.3	30.0
Cyclohexane	Ave	0.1274	0.1509		2.36	1.99	18.4	30.0
Carbon tetrachloride	Ave	0.5676	0.6253		2.19	1.99	10.2	30.0
2,3-Dimethylpentane	Ave	0.1696	0.1953		2.29	1.99	15.2	30.0
Thiophene	Ave	0.4127	0.4453		2.15	1.99	7.9	30.0
Tert-amyl methyl ether	Ave	0.6531	0.7334		2.24	1.99	12.3	30.0
2,2,4-Trimethylpentane	Ave	1.194	1.352		2.25	1.99	13.2	30.0
Heptane	Ave	0.2581	0.2788		2.15	1.99	8.0	30.0
1,2-Dichloropropane	Ave	0.2830	0.2978		2.10	1.99	5.2	30.0
Trichloroethene	Ave	0.2971	0.3085		2.07	1.99	3.8	30.0
Dibromomethane	Ave	0.2887	0.3177		2.19	1.99	10.0	30.0
Bromodichloromethane	Ave	0.5158	0.5561		2.15	1.99	7.8	30.0
1,4-Dioxane	Ave	0.0833	0.0849		2.03	1.99	1.9	30.0
Methyl methacrylate	Ave	0.2356	0.2513		2.12	1.99	6.7	30.0
Methylcyclohexane	Ave	0.5478	0.6289		2.29	1.99	14.8	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.4587	0.5060		2.20	1.99	10.3	30.0
cis-1,3-Dichloropropene	Ave	0.3725	0.3745		2.00	1.99	0.5	30.0
trans-1,3-Dichloropropene	Ave	0.3515	0.3336		1.89	1.99	-5.1	30.0
Toluene	Ave	0.8769	0.9108		2.07	1.99	3.9	30.0
1,1,2-Trichloroethane	Ave	0.2733	0.2810		2.05	1.99	2.8	30.0
2-Methylthiophene	Ave	0.7071	0.7199		2.03	1.99	1.8	30.0
3-Methylthiophene	Ave	0.6759	0.6664		1.96	1.99	-1.4	30.0
2-Hexanone	Ave	0.2377	0.2687		2.25	1.99	13.1	30.0
Octane	Ave	0.2927	0.3156		2.15	1.99	7.8	30.0
Dibromochloromethane	Ave	0.5033	0.5354		2.12	1.99	6.4	30.0
1,2-Dibromoethane	Ave	0.4354	0.4345		1.99	1.99	-0.2	30.0
Tetrachloroethene	Ave	0.3284	0.3479		2.11	1.99	5.9	30.0
2,3-Dimethylheptane	Ave	0.8637	0.998		2.30	1.99	15.6	30.0
Chlorobenzene	Ave	0.6155	0.6220		2.01	1.99	1.0	30.0
Ethylbenzene	Ave	0.9686	1.016		2.09	1.99	4.9	30.0
2-Ethylthiophene	Ave	0.6914	0.7163		2.06	1.99	3.6	30.0
m-Xylene & p-Xylene	Ave	0.7248	0.7677		4.22	3.98	5.9	30.0
Nonane	Ave	0.5723	0.6112		2.13	1.99	6.8	30.0
Bromoform	Ave	0.3787	0.3597		1.89	1.99	-5.0	30.0
Styrene	Ave	0.4578	0.5074		2.21	1.99	10.8	30.0
o-Xylene	Ave	0.7946	0.8257		2.07	1.99	3.9	30.0
1,1,2,2-Tetrachloroethane	Ave	0.5758	0.6199		2.14	1.99	7.6	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Lab Sample ID: CCVIS 140-7171/6 Calibration Date: 11/15/2016 13:20
 Instrument ID: MJ Calib Start Date: 10/08/2016 19:01
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 10/09/2016 02:10
 Lab File ID: JCCVK15A.D Conc. Units: ppb v/v Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.1324	0.1393		2.09	1.99	5.2	30.0
Isopropylbenzene	Ave	1.009	1.080		2.13	1.99	7.0	30.0
Propylbenzene	Ave	0.2492	0.2591		2.07	1.99	4.0	30.0
2-Chlorotoluene	Ave	0.2430	0.2504		2.05	1.99	3.1	30.0
4-Ethyltoluene	Ave	0.8584	0.9338		2.17	1.99	8.8	30.0
1,3,5-Trimethylbenzene	Ave	0.4295	0.4536		2.10	1.99	5.6	30.0
Alpha Methyl Styrene	Ave	0.3098	0.3175		2.04	1.99	2.5	30.0
Decane	Ave	0.5873	0.6289		2.13	1.99	7.1	30.0
tert-Butylbenzene	Ave	0.8323	0.8764		2.10	1.99	5.3	30.0
1,2,4-Trimethylbenzene	Ave	0.7289	0.8031		2.19	1.99	10.2	30.0
sec-Butylbenzene	Ave	1.140	1.209		2.11	1.99	6.0	30.0
1,3-Dichlorobenzene	Ave	0.3388	0.3481		2.05	1.99	2.7	30.0
Benzyl chloride	Ave	0.3789	0.3760		1.98	1.99	-0.8	30.0
1,4-Dichlorobenzene	Ave	0.2901	0.2968		2.04	1.99	2.3	30.0
4-Isopropyltoluene	Ave	0.8275	0.8946		2.15	1.99	8.1	30.0
1,2,3-Trimethylbenzene	Ave	0.5630	0.5937		2.10	1.99	5.5	30.0
Butylcyclohexane	Ave	0.7399	0.7370		1.98	1.99	-0.4	30.0
1,2-Dichlorobenzene	Ave	0.3500	0.3583		2.04	1.99	2.4	30.0
Indane	Ave	0.5985	0.6409		2.13	1.99	7.1	30.0
Butylbenzene	Ave	0.6858	0.7784		2.26	1.99	13.5	30.0
Indene	Ave	0.3630	0.3738		2.05	1.99	2.9	30.0
Undecane	Ave	0.5362	0.5484		2.04	1.99	2.3	30.0
1,2-Dimethyl-4-Ethylbenzene	Ave	0.5328	0.5485		2.05	1.99	3.0	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.0953	0.1026		2.14	1.99	7.6	30.0
1,2,4,5-Tetramethylbenzene	Ave	0.6244	0.6248		1.99	1.99	0.0	30.0
1,2,3,5-Tetramethylbenzene	Ave	0.3986	0.3844		1.92	1.99	-3.6	30.0
1,2,3,4-Tetramethylbenzene	Ave	0.4982	0.4681		1.87	1.99	-6.0	30.0
Dodecane	Ave	0.4604	0.4712		2.04	1.99	2.4	30.0
1,2,4-Trichlorobenzene	Ave	0.0799	0.0998		2.49	1.99	24.9	30.0
Naphthalene	Ave	0.2334	0.2895		2.47	1.99	24.0	30.0
Benzo (b) thiophene	Ave	0.0943	0.1177		2.49	1.99	24.8	30.0
Hexachlorobutadiene	Ave	0.3631	0.3152		1.73	1.99	-13.2	30.0
1,2,3-Trichlorobenzene	Ave	0.0941	0.1095		2.32	1.99	16.3	30.0
2-Methylnaphthalene	Ave	0.0120	0.0124		6.40	6.22	2.9	50.0
1-Methylnaphthalene	Ave	0.0161	0.0154		5.96	6.22	-4.3	50.0
4-Bromofluorobenzene (Surr)	Ave	0.6030	0.6257		4.15	4.00	3.8	30.0

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JCCVK15A.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 15-Nov-2016 13:20:30 ALS Bottle#: 15 Worklist Smp#: 6
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003625-002
 Misc. Info.: P24
 Operator ID: 007126 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub5
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: tajh

Date: 15-Nov-2016 14:57:01

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.281	9.281	0.000	97	259247	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.443	11.443	0.000	96	1157521	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.121	16.121	0.000	90	952995	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.745	17.745	0.000	87	596256	4.00	4.15	
6 Chlorodifluoromethane	67	3.920	3.920	0.000	97	59092	1.99	2.24	
7 Propene	41	3.936	3.936	0.000	99	209890	1.99	2.31	
8 Dichlorodifluoromethane	85	3.990	3.990	0.000	100	596474	1.99	2.34	
9 Chloromethane	52	4.183	4.183	0.000	59	67066	1.99	2.29	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.189	4.189	0.000	93	358363	1.99	2.67	
11 Acetaldehyde	44	4.350	4.350	0.000	98	279758	9.96	10.3	
12 Vinyl chloride	62	4.366	4.366	0.000	99	211368	1.99	2.40	
14 Butadiene	54	4.463	4.463	0.000	68	160454	1.99	2.45	
13 Butane	43	4.463	4.463	0.000	85	315841	1.99	2.47	
15 Bromomethane	94	4.812	4.812	0.000	99	188555	1.99	2.37	
16 Chloroethane	64	4.963	4.963	0.000	93	90307	1.99	2.45	
17 Ethanol	31	5.060	5.060	0.000	97	274226	9.96	11.1	
18 Vinyl bromide	106	5.280	5.280	0.000	99	186879	1.99	2.26	
19 2-Methylbutane	43	5.334	5.334	0.000	92	249525	1.99	2.37	
20 Trichlorofluoromethane	101	5.565	5.565	0.000	100	506417	1.99	2.28	
21 Acrolein	56	5.576	5.576	0.000	95	42180	1.99	1.85	
22 Acetonitrile	40	5.651	5.651	0.000	100	65637	1.99	2.34	
23 Acetone	58	5.700	5.700	0.000	98	180177	5.97	6.43	
24 Isopropyl alcohol	45	5.780	5.780	0.000	94	595540	5.97	6.14	
25 Pentane	72	5.796	5.796	0.000	96	30295	1.99	2.34	
26 Ethyl ether	31	5.974	5.974	0.000	92	179179	1.99	2.19	
27 1,1-Dichloroethene	96	6.307	6.307	0.000	96	182997	1.99	2.25	
28 2-Methyl-2-propanol	59	6.404	6.404	0.000	95	240041	1.99	1.91	
29 Acrylonitrile	53	6.415	6.415	0.000	94	95139	1.99	2.03	
30 1,1,2-Trichloro-1,2,2-trif	101	6.485	6.485	0.000	96	390596	1.99	2.26	
31 Methylene Chloride	84	6.673	6.673	0.000	98	174750	1.99	2.12	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
32 3-Chloro-1-propene	39	6.684	6.684	0.000	95	172118	1.99	2.22	
33 Carbon disulfide	76	6.845	6.845	0.000	99	575572	1.99	2.29	
34 trans-1,2-Dichloroethene	96	7.506	7.506	0.000	97	183652	1.99	2.29	
35 2-Methylpentane	43	7.517	7.517	0.000	95	416689	1.99	2.36	
36 Methyl tert-butyl ether	73	7.635	7.635	0.000	97	351272	1.99	2.09	
37 1,1-Dichloroethane	63	7.937	7.937	0.000	100	331234	1.99	2.23	
38 Vinyl acetate	43	8.039	8.039	0.000	100	347529	1.99	2.12	
39 2-Butanone (MEK)	72	8.507	8.507	0.000	96	57013	1.99	2.07	
40 Hexane	56	8.523	8.523	0.000	89	145275	1.99	2.22	
41 Isopropyl ether	45	8.679	8.679	0.000	98	478696	1.99	2.12	
42 cis-1,2-Dichloroethene	96	8.942	8.942	0.000	96	173621	1.99	2.20	
43 Ethyl acetate	43	9.125	9.125	0.000	99	275276	1.99	2.22	
44 Chloroform	83	9.292	9.292	0.000	96	355575	1.99	2.18	
45 Tert-butyl ethyl ether	59	9.372	9.372	0.000	96	383738	1.99	2.07	
46 Tetrahydrofuran	42	9.711	9.711	0.000	94	147189	1.99	2.14	
47 1,1,1-Trichloroethane	97	10.335	10.335	0.000	97	366615	1.99	2.19	
48 1,2-Dichloroethane	62	10.442	10.442	0.000	97	221367	1.99	2.23	
49 n-Butanol	31	10.867	10.867	0.000	90	54191	1.99	1.98	
50 Cyclohexane	69	10.921	10.921	0.000	75	86946	1.99	2.36	
51 Benzene	78	10.921	10.921	0.000	96	470105	1.99	2.20	
52 Carbon tetrachloride	117	10.942	10.942	0.000	96	360354	1.99	2.19	
53 2,3-Dimethylpentane	71	11.029	11.029	0.000	92	112552	1.99	2.29	
54 Thiophene	84	11.190	11.190	0.000	97	256600	1.99	2.15	
55 Tert-amyl methyl ether	73	11.378	11.378	0.000	97	347971	1.99	2.24	
56 Isooctane	57	11.652	11.652	0.000	98	779349	1.99	2.25	
57 n-Heptane	71	12.018	12.018	0.000	94	160684	1.99	2.15	
58 1,2-Dichloropropane	63	12.115	12.115	0.000	90	171624	1.99	2.10	
59 Trichloroethene	130	12.147	12.147	0.000	94	177761	1.99	2.07	
60 Dibromomethane	93	12.238	12.238	0.000	91	183072	1.99	2.19	
62 Dichlorobromomethane	83	12.378	12.378	0.000	99	320488	1.99	2.15	
61 1,4-Dioxane	88	12.394	12.394	0.000	94	48933	1.99	2.03	
63 Methyl methacrylate	41	12.459	12.459	0.000	92	144798	1.99	2.12	
64 Methylcyclohexane	83	12.905	12.905	0.000	95	362422	1.99	2.29	
65 4-Methyl-2-pentanone (MIBK)	43	13.298	13.298	0.000	98	291598	1.99	2.20	
66 cis-1,3-Dichloropropene	75	13.357	13.357	0.000	96	215807	1.99	2.00	
67 trans-1,3-Dichloropropene	75	14.040	14.040	0.000	99	158302	1.99	1.89	
68 Toluene	91	14.169	14.169	0.000	94	432136	1.99	2.07	
69 1,1,2-Trichloroethane	83	14.239	14.239	0.000	97	133341	1.99	2.05	
70 2-Methylthiophene	97	14.319	14.319	0.000	98	341583	1.99	2.03	
71 3-Methylthiophene	97	14.518	14.518	0.000	99	316171	1.99	1.96	
72 2-Hexanone	58	14.615	14.615	0.000	91	127506	1.99	2.25	
73 n-Octane	85	14.836	14.836	0.000	95	149736	1.99	2.15	
74 Chlorodibromomethane	129	14.943	14.943	0.000	98	254007	1.99	2.12	
75 Ethylene Dibromide	107	15.234	15.234	0.000	98	206153	1.99	1.99	
76 Tetrachloroethene	129	15.304	15.304	0.000	94	165058	1.99	2.11	
77 2,3-Dimethylheptane	43	16.169	16.169	0.000	96	473579	1.99	2.30	
78 Chlorobenzene	112	16.169	16.169	0.000	72	295092	1.99	2.01	
79 Ethylbenzene	91	16.449	16.449	0.000	99	482195	1.99	2.09	
80 2-Ethylthiophene	97	16.556	16.556	0.000	98	339846	1.99	2.06	
81 m-Xylene & p-Xylene	91	16.610	16.610	0.000	100	728470	3.98	4.22	
82 n-Nonane	57	17.008	17.008	0.000	93	290001	1.99	2.13	
83 Bromoform	173	17.073	17.073	0.000	92	170654	1.99	1.89	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Styrene	104	17.073	17.073	0.000	99	240764	1.99	2.21	
85 o-Xylene	91	17.137	17.137	0.000	99	391758	1.99	2.07	
86 1,1,2,2-Tetrachloroethane	83	17.454	17.454	0.000	98	294116	1.99	2.14	
87 1,2,3-Trichloropropane	110	17.616	17.616	0.000	98	66083	1.99	2.09	
88 Isopropylbenzene	105	17.713	17.713	0.000	97	512322	1.99	2.13	
89 N-Propylbenzene	120	18.234	18.234	0.000	98	122933	1.99	2.07	
90 2-Chlorotoluene	126	18.283	18.283	0.000	98	118809	1.99	2.05	
91 4-Ethyltoluene	105	18.379	18.379	0.000	98	443066	1.99	2.17	
92 1,3,5-Trimethylbenzene	120	18.449	18.449	0.000	92	215198	1.99	2.10	
93 Alpha Methyl Styrene	118	18.675	18.675	0.000	87	150635	1.99	2.04	
94 n-Decane	57	18.713	18.713	0.000	90	298389	1.99	2.13	
95 tert-Butylbenzene	119	18.863	18.863	0.000	89	415798	1.99	2.10	
96 1,2,4-Trimethylbenzene	105	18.874	18.874	0.000	96	381022	1.99	2.19	
97 sec-Butylbenzene	105	19.121	19.121	0.000	98	573403	1.99	2.11	
98 1,3-Dichlorobenzene	146	19.148	19.148	0.000	98	165150	1.99	2.05	
99 Benzyl chloride	91	19.218	19.218	0.000	97	178386	1.99	1.98	
100 1,4-Dichlorobenzene	146	19.229	19.229	0.000	94	140824	1.99	2.04	
101 4-Isopropyltoluene	119	19.283	19.283	0.000	96	424459	1.99	2.15	
102 1,2,3-Trimethylbenzene	105	19.336	19.336	0.000	99	281673	1.99	2.10	
103 Butylcyclohexane	83	19.385	19.385	0.000	91	349666	1.99	1.98	
104 2,3-Dihydroindene	117	19.584	19.584	0.000	93	304060	1.99	2.13	
105 1,2-Dichlorobenzene	146	19.584	19.584	0.000	95	169979	1.99	2.04	
106 n-Butylbenzene	91	19.708	19.708	0.000	98	369342	1.99	2.26	
107 Indene	116	19.708	19.708	0.000	94	177333	1.99	2.05	
108 Undecane	57	19.998	19.998	0.000	96	260196	1.99	2.04	
109 1,2-Dimethyl-4-Ethylbenzen	119	20.068	20.068	0.000	98	260263	1.99	2.05	
110 1,2-Dibromo-3-Chloropropan	157	20.175	20.175	0.000	90	48664	1.99	2.14	
111 1,2,4,5-Tetramethylbenzene	119	20.455	20.455	0.000	96	296453	1.99	1.99	
112 1,2,3,5-Tetramethylbenzene	119	20.509	20.509	0.000	94	182395	1.99	1.92	
113 1,2,3,4-Tetramethylbenzene	119	20.923	20.923	0.000	97	222074	1.99	1.87	
114 Dodecane	57	21.068	21.068	0.000	94	223588	1.99	2.04	
115 1,2,4-Trichlorobenzene	180	21.299	21.299	0.000	93	47356	1.99	2.49	
116 Naphthalene	128	21.444	21.444	0.000	99	137347	1.99	2.47	
117 Benzo(b)thiophene	134	21.547	21.547	0.000	99	55843	1.99	2.49	
118 Hexachlorobutadiene	225	21.633	21.633	0.000	96	149532	1.99	1.73	
119 1,2,3-Trichlorobenzene	180	21.697	21.697	0.000	94	51947	1.99	2.32	
120 2-Methylnaphthalene	142	22.251	22.251	0.000	100	18327	6.22	6.40	
121 1-Methylnaphthalene	142	22.375	22.375	0.000	99	22873	6.22	5.96	
A 124 Toluene Range	1	14.169	(14.139-14.199)		0	1046691	1.99	2.22	
A 125 C8 Range	1	14.826	(14.803-14.849)		0	1484114	1.99	2.35	
S 126 Xylenes, Total	100				0		5.97	6.29	
S 127 1,2-Dichloroethene, Total	1				0		3.98	4.48	

Reagents:

40CV101P_00024

Amount Added: 100.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 16-Nov-2016 09:11:14

Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JCCVK15A.D

Injection Date: 15-Nov-2016 13:20:30

Instrument ID: MJ

Operator ID: 007126

Lims ID: CCVIS

Worklist Smp#: 6

Client ID:

Purge Vol: 500.000 mL

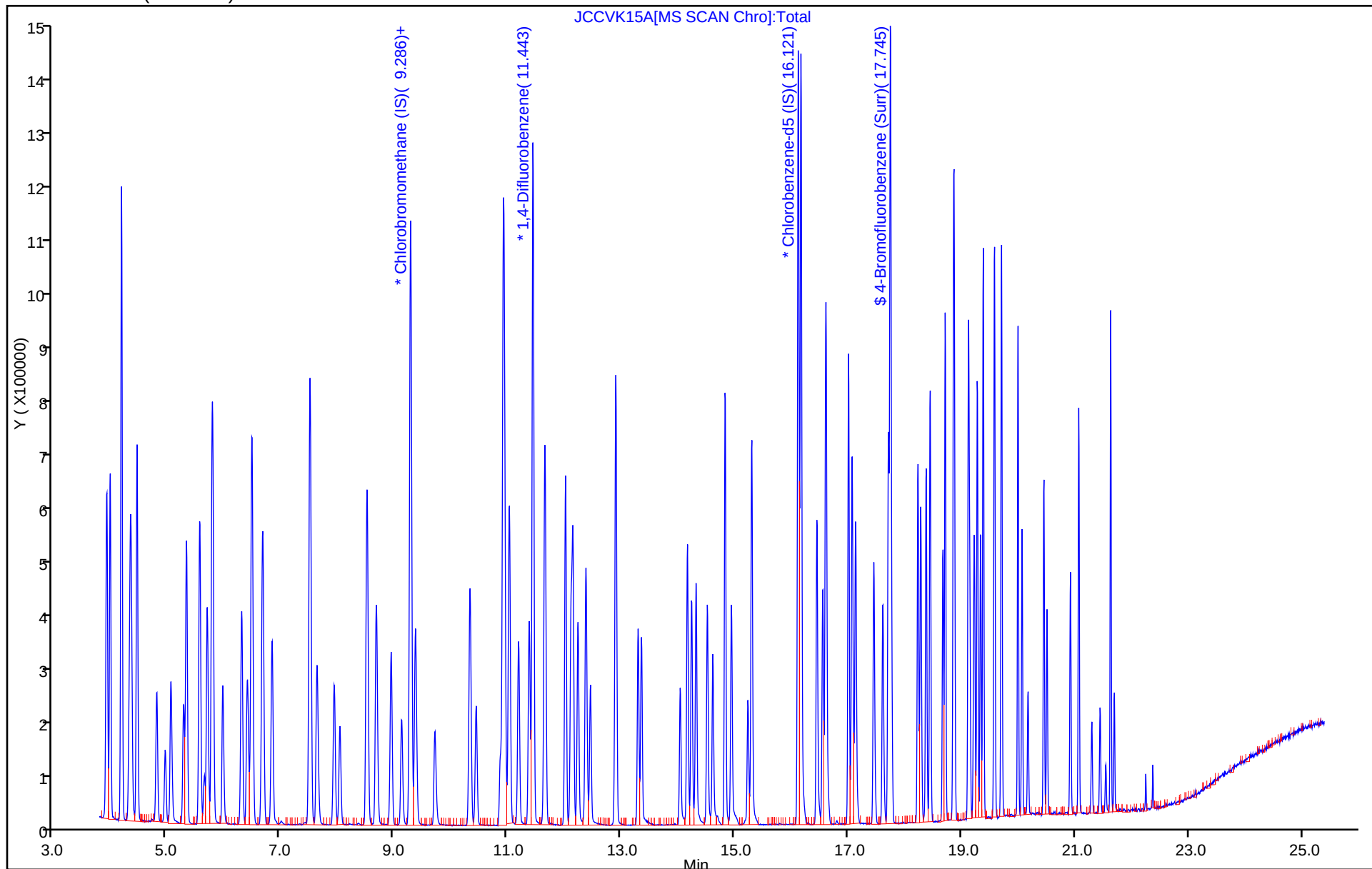
Dil. Factor: 1.0000

ALS Bottle#: 15

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JBFBJ08.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 08-Oct-2016 17:39:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0003509-001
Misc. Info.: BFB
Operator ID: 403648 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 11-Oct-2016 11:30:12 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK014

First Level Reviewer: barlozhetskayaa

Date: 08-Oct-2016 18:15:31

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags

\$ 5 BFB	95	4.039	4.039	0.000	0	254915	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

40MXSUR_00001

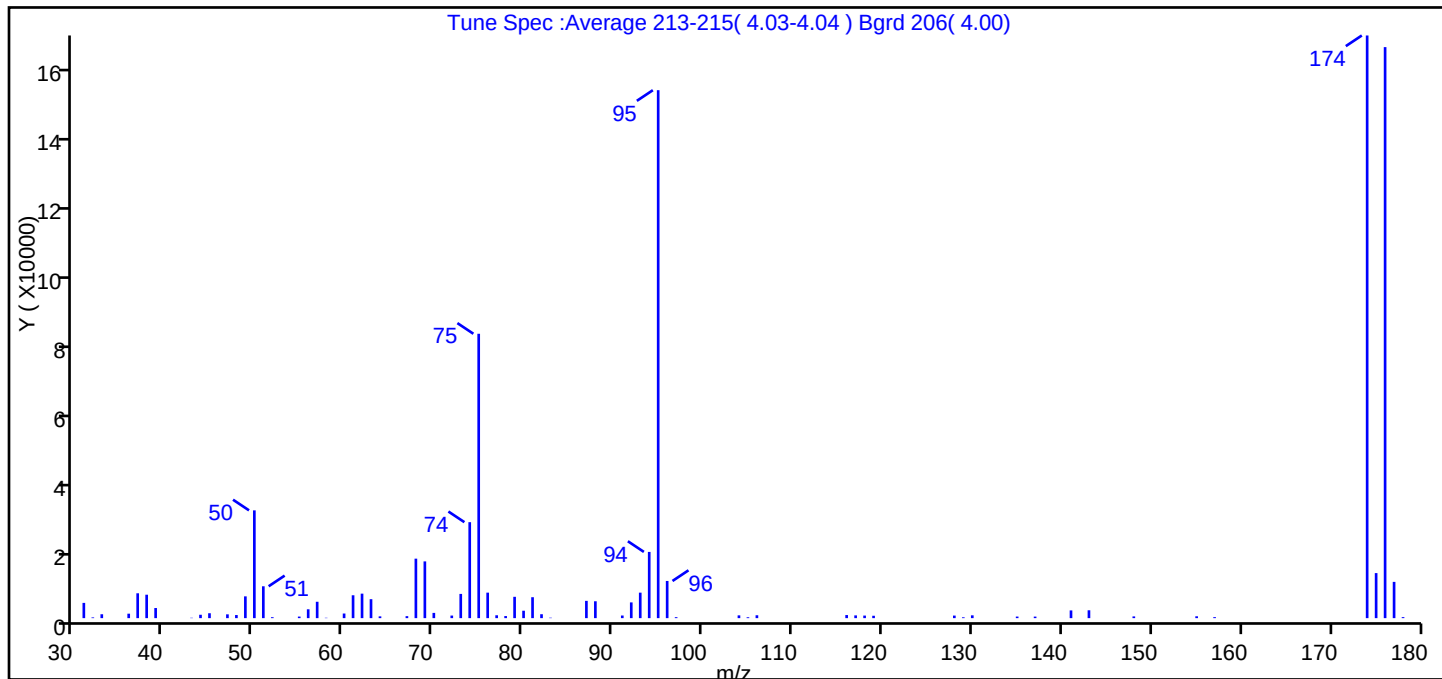
Amount Added: 40.00

Units: mL

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JBFBJ08.D
Injection Date: 08-Oct-2016 17:39:30 Instrument ID: MJ
Lims ID: BFB
Client ID:
Operator ID: 403648 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

\$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	20.4
75	30 to 60% of m/z 95	53.9
96	5 to 9% of m/z 95	7.0
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	110.4
175	5 to 9% of m/z 174	8.5 (7.7)
176	Greater than 95% but less than 101% of m/z 174	108.2 (98.0)
177	5 to 9% of m/z 176	6.9 (6.4)

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JBFBJ08.D\MJ_TO15.rslt\spectra.d
Injection Date: 08-Oct-2016 17:39:30
Spectrum: Tune Spec :Average 213-215(4.03-4.04) Bgrd 206(4.00)
Base Peak: 174.00
Minimum % Base Peak: 0
Number of Points: 72

m/z	Y	m/z	Y	m/z	Y	m/z	Y
31.00	4194	57.00	4502	79.00	5865	117.00	759
32.00	200	58.00	100	80.00	2039	118.00	708
33.00	1072	60.00	1271	81.00	5753	119.00	655
36.00	1226	61.00	6290	82.00	1080	128.00	708
37.00	6834	62.00	6736	83.00	120	129.00	228
38.00	6441	63.00	5213	87.00	4750	130.00	774
39.00	2781	64.00	489	88.00	4639	135.00	434
43.00	101	67.00	549	91.00	724	137.00	423
44.00	931	68.00	16354	92.00	4329	141.00	2125
45.00	1349	69.00	15602	93.00	7009	143.00	2162
47.00	1046	70.00	1443	94.00	18208	148.00	476
48.00	853	72.00	711	95.00	145152	155.00	512
49.00	5990	73.00	6661	96.00	10220	157.00	274
50.00	29632	74.00	26384	97.00	262	174.00	160192
51.00	8759	75.00	78184	104.00	766	175.00	12385
52.00	256	76.00	7010	105.00	239	176.00	156992
55.00	431	77.00	792	106.00	795	177.00	9970
56.00	2436	78.00	573	116.00	850	178.00	275

Report Date: 11-Oct-2016 11:30:14

Chrom Revision: 2.2 08-Sep-2016 14:45:52

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JBFBJ08.D

Injection Date: 08-Oct-2016 17:39:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 500.0 mL

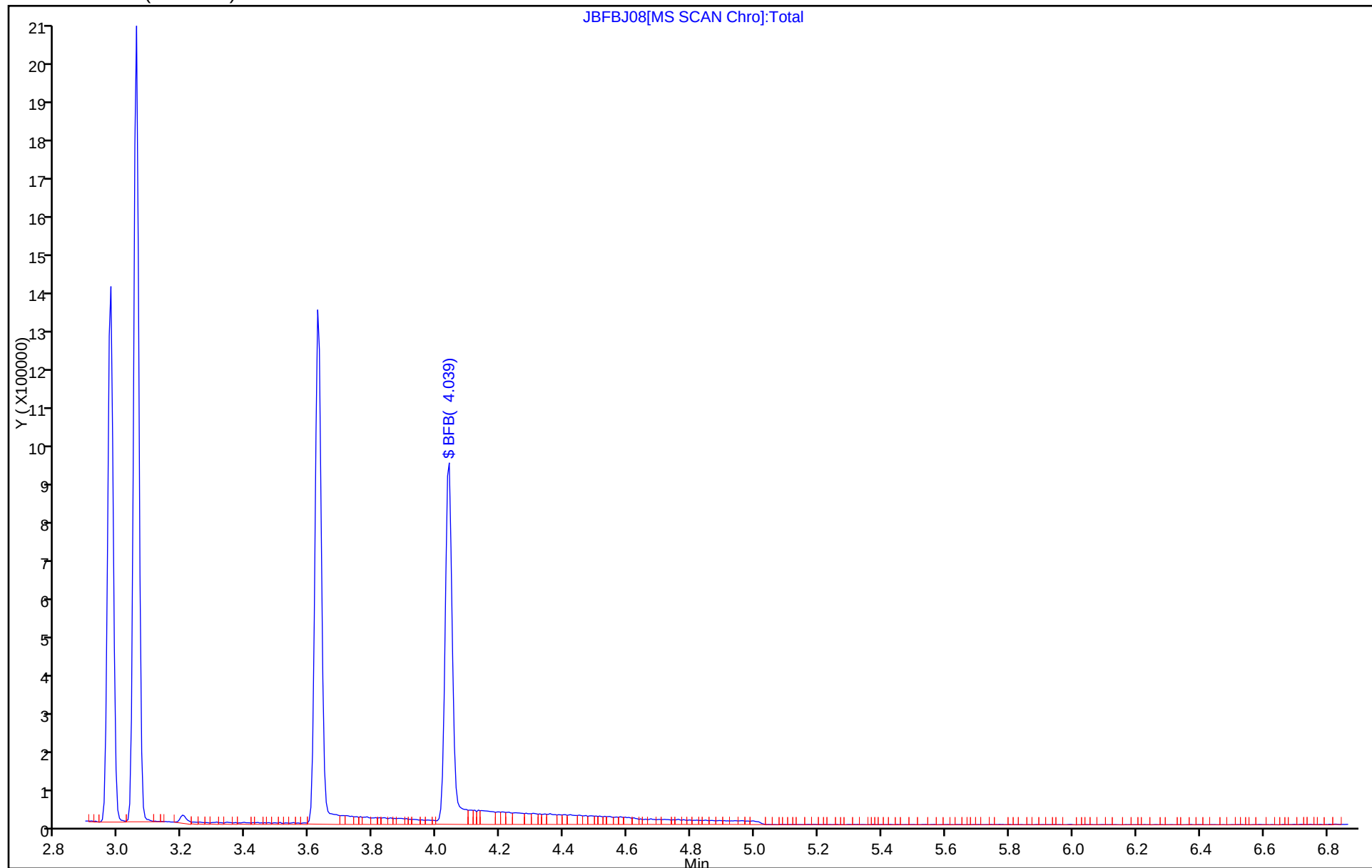
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JBFBK15A.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 15-Nov-2016 12:52:30 ALS Bottle#: 16 Worklist Smp#: 5
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0003625-001
Misc. Info.: BFB
Operator ID: 007126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 09:11:11 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags

\$ 5 BFB	95	4.028	4.028	0.000	0	202246	NR	NR	

QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

40MXSUR_00001

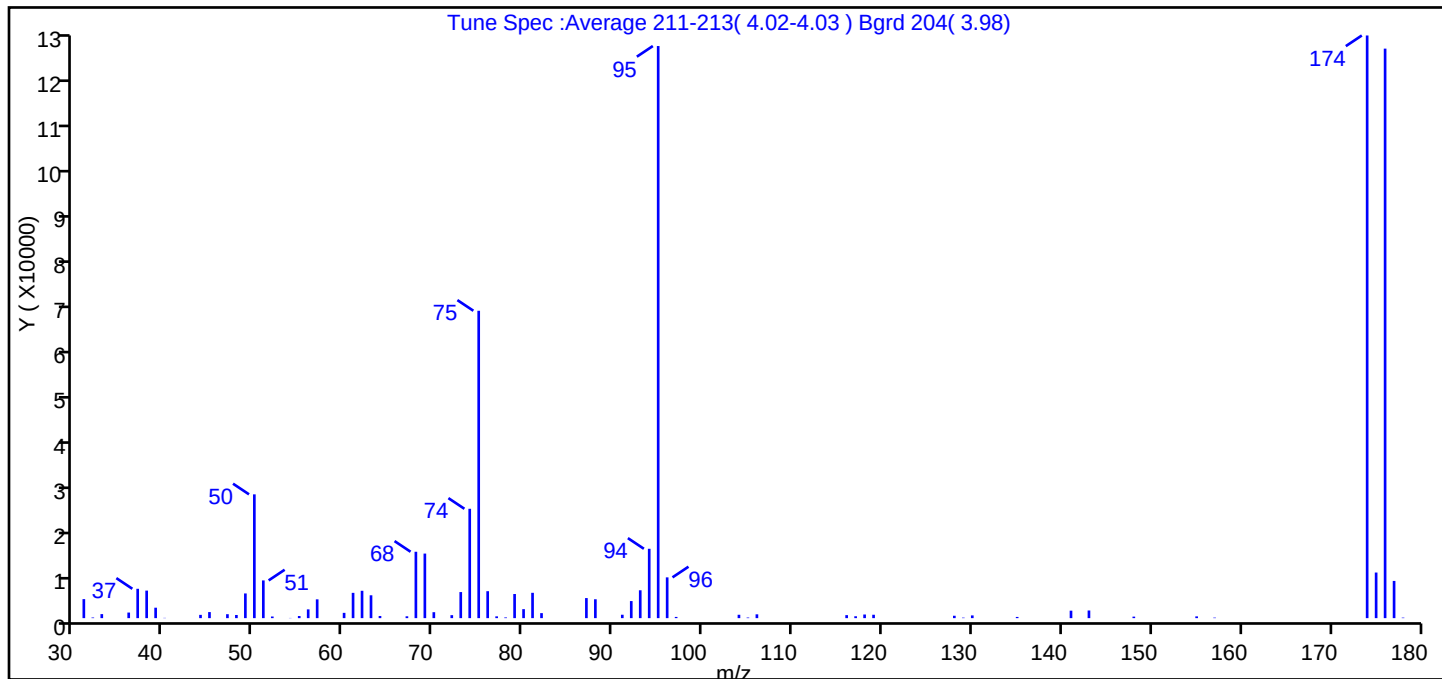
Amount Added: 40.00

Units: mL

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JBFBK15A.D
Injection Date: 15-Nov-2016 12:52:30 Instrument ID: MJ
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 5
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Tune Method: BFB Method 8260

\$ 5 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	21.6
75	30 to 60% of m/z 95	53.7
96	5 to 9% of m/z 95	7.1
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	101.8
175	5 to 9% of m/z 174	8.0 (7.8)
176	Greater than 95% but less than 101% of m/z 174	99.5 (97.7)
177	5 to 9% of m/z 176	6.5 (6.5)

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JBFBK15A.D\MJ_TO15.rslt\spectra.d
Injection Date: 15-Nov-2016 12:52:30
Spectrum: Tune Spec :Average 211-213(4.02-4.03) Bgrd 204(3.98)
Base Peak: 174.00
Minimum % Base Peak: 0
Number of Points: 70

m/z	Y	m/z	Y	m/z	Y	m/z	Y
31.00	3922	56.00	1809	79.00	4975	118.00	750
32.00	131	57.00	3877	80.00	1856	119.00	700
33.00	832	60.00	1091	81.00	5223	128.00	494
36.00	1152	61.00	5215	82.00	1034	129.00	103
37.00	6051	62.00	5641	87.00	4137	130.00	563
38.00	5677	63.00	4712	88.00	3893	135.00	248
39.00	2152	64.00	445	91.00	703	141.00	1541
40.00	53	67.00	381	92.00	3521	143.00	1577
44.00	677	68.00	13686	93.00	5745	148.00	312
45.00	1249	69.00	13310	94.00	14299	155.00	364
47.00	812	70.00	1226	95.00	117944	157.00	105
48.00	650	72.00	617	96.00	8407	174.00	120120
49.00	5092	73.00	5376	97.00	252	175.00	9402
50.00	25520	74.00	22544	104.00	699	176.00	117408
51.00	7778	75.00	63368	105.00	124	177.00	7672
52.00	338	76.00	5556	106.00	787	178.00	106
54.00	40	77.00	369	116.00	621		
55.00	436	78.00	145	117.00	389		

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JBFBK15A.D

Injection Date: 15-Nov-2016 12:52:30

Instrument ID: MJ

Operator ID: 007126

Lims ID: BFB

Worklist Smp#: 5

Client ID:

Injection Vol: 500.0 mL

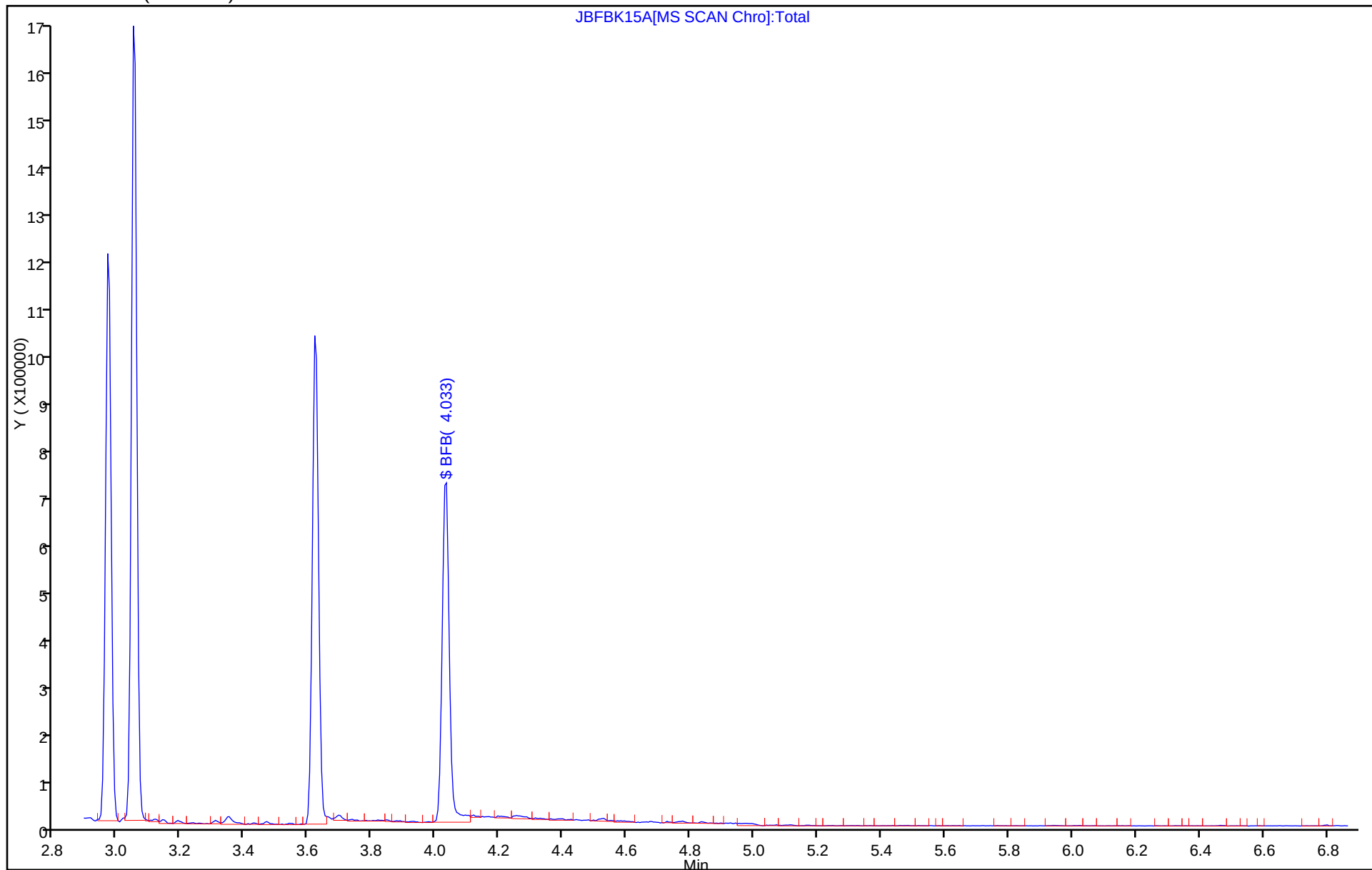
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 140-7171/8
 Matrix: Air Lab File ID: J500BK15.D
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 11/15/2016 15:00
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.080	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.080	
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	
75-35-4	1,1-Dichloroethene	96.94	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.080	
106-93-4	1,2-Dibromoethane	187.87	ND		0.080	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.080	
107-06-2	1,2-Dichloroethane	98.96	ND		0.080	
78-87-5	1,2-Dichloropropane	112.99	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.080	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.080	
123-91-1	1,4-Dioxane	88.11	ND		0.20	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.20	
78-93-3	2-Butanone	72.11	ND		0.32	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.20	
71-43-2	Benzene	78.11	ND		0.080	
100-44-7	Benzyl chloride	126.58	ND		0.16	
75-27-4	Bromodichloromethane	163.83	ND		0.080	
75-25-2	Bromoform	252.75	ND		0.080	
74-83-9	Bromomethane	94.94	ND		0.080	
56-23-5	Carbon tetrachloride	153.81	ND		0.040	
108-90-7	Chlorobenzene	112.56	ND		0.080	
75-00-3	Chloroethane	64.52	ND		0.080	
67-66-3	Chloroform	119.38	ND		0.080	
74-87-3	Chloromethane	50.49	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.080	
110-82-7	Cyclohexane	84.16	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 140-7171/8
 Matrix: Air Lab File ID: J500BK15.D
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 11/15/2016 15:00
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.080	
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	
64-17-5	Ethanol	46.07	ND		2.0	
100-41-4	Ethylbenzene	106.17	ND		0.080	
87-68-3	Hexachlorobutadiene	260.76	ND		0.080	
110-54-3	Hexane	86.17	ND		0.20	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.16	
75-09-2	Methylene Chloride	84.93	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		0.080	
95-47-6	o-Xylene	106.17	ND		0.080	
100-42-5	Styrene	104.15	ND		0.080	
75-65-0	t-Butyl alcohol	74.12	ND		0.32	
127-18-4	Tetrachloroethene	165.83	ND		0.080	
108-88-3	Toluene	92.14	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.080	
79-01-6	Trichloroethene	131.39	ND		0.040	
75-69-4	Trichlorofluoromethane	137.37	ND		0.080	
75-01-4	Vinyl chloride	62.50	ND		0.040	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: MB 140-7171/8

Matrix: Air Lab File ID: J500BK15.D

Analysis Method: TO 15 LL Date Collected: _____

Sample wt/vol: 500 (mL) Date Analyzed: 11/15/2016 15:00

Soil Aliquot Vol: _____ Dilution Factor: 1

Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)

% Moisture: _____ Level: (low/med) Low

Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.55	
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	ND		0.61	
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	
75-35-4	1,1-Dichloroethene	96.94	ND		0.32	
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	
95-63-6	1,2,4-Trimethylbenzene	120.20	ND		0.39	
106-93-4	1,2-Dibromoethane	187.87	ND		0.61	
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.48	
107-06-2	1,2-Dichloroethane	98.96	ND		0.32	
78-87-5	1,2-Dichloropropane	112.99	ND		0.37	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	ND		0.56	
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.48	
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.48	
123-91-1	1,4-Dioxane	88.11	ND		0.72	
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.93	
78-93-3	2-Butanone	72.11	ND		0.94	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.82	
71-43-2	Benzene	78.11	ND		0.26	
100-44-7	Benzyl chloride	126.58	ND		0.83	
75-27-4	Bromodichloromethane	163.83	ND		0.54	
75-25-2	Bromoform	252.75	ND		0.83	
74-83-9	Bromomethane	94.94	ND		0.31	
56-23-5	Carbon tetrachloride	153.81	ND		0.25	
108-90-7	Chlorobenzene	112.56	ND		0.37	
75-00-3	Chloroethane	64.52	ND		0.21	
67-66-3	Chloroform	119.38	ND		0.39	
74-87-3	Chloromethane	50.49	ND		0.41	
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.36	
110-82-7	Cyclohexane	84.16	ND		0.69	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 140-7171/8
 Matrix: Air Lab File ID: J500BK15.D
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 11/15/2016 15:00
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	ND		0.68	
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	
64-17-5	Ethanol	46.07	ND		3.8	
100-41-4	Ethylbenzene	106.17	ND		0.35	
87-68-3	Hexachlorobutadiene	260.76	ND		0.85	
110-54-3	Hexane	86.17	ND		0.70	
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.58	
75-09-2	Methylene Chloride	84.93	ND		0.69	
179601-23-1	m-Xylene & p-Xylene	106.17	ND		0.35	
95-47-6	o-Xylene	106.17	ND		0.35	
100-42-5	Styrene	104.15	ND		0.34	
75-65-0	t-Butyl alcohol	74.12	ND		0.97	
127-18-4	Tetrachloroethene	165.83	ND		0.54	
108-88-3	Toluene	92.14	ND		0.45	
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.36	
79-01-6	Trichloroethene	131.39	ND		0.21	
75-69-4	Trichlorofluoromethane	137.37	ND		0.45	
75-01-4	Vinyl chloride	62.50	ND		0.10	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	98		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\J500BK15.D
 Lims ID: mb
 Client ID:
 Sample Type: MB
 Inject. Date: 15-Nov-2016 15:00:30 ALS Bottle#: 16 Worklist Smp#: 8
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003625-008
 Misc. Info.: 500ml blk
 Operator ID: 7126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: tajh

Date: 15-Nov-2016 15:54:40

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.278	9.281	-0.003	97	276737	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.440	11.443	-0.003	95	1233287	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.124	16.121	0.003	89	929310	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.748	17.745	0.003	87	547091	4.00	3.90	
31 Methylene Chloride	84	6.665	6.673	-0.008	98	6734		0.0766	

Reagents:

40MXISSURP_00001 Amount Added: 40.00 Units: mL Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\J500BK15.D

Injection Date: 15-Nov-2016 15:00:30

Instrument ID: MJ

Operator ID: 7126

Lims ID: mb

Worklist Smp#: 8

Client ID:

Purge Vol: 500.000 mL

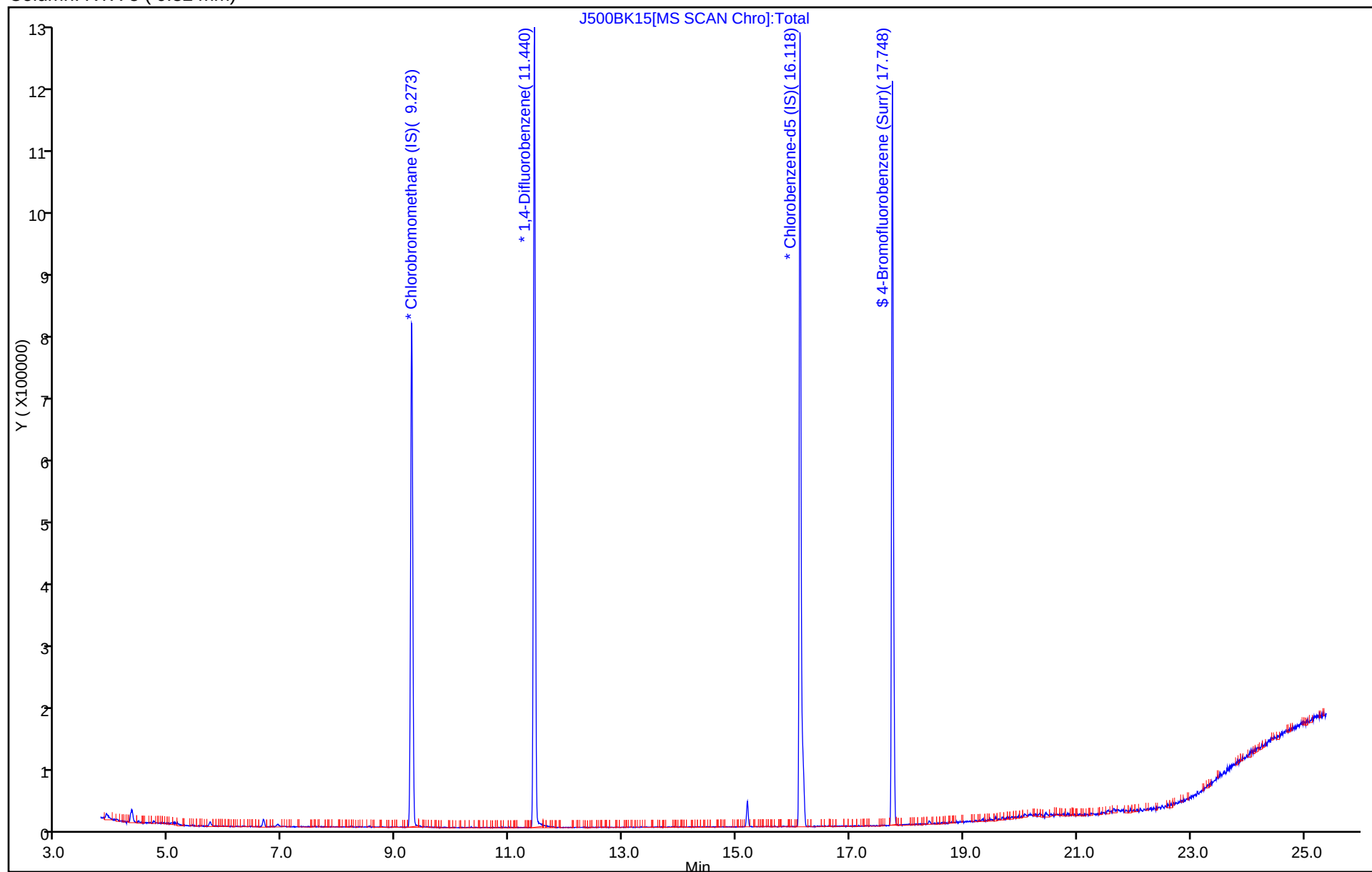
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\J500BK15.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 15-Nov-2016 15:00:30 ALS Bottle#: 16 Worklist Smp#: 8
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0003625-008
Misc. Info.: 500ml blk
Operator ID: 7126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: tajh

Date: 15-Nov-2016 15:54:40

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	3.90	97.62

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 140-7171/1006
 Matrix: Air Lab File ID: JCCVK15A-LCS.d
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 11/15/2016 13:20
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	133.41	2.19		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	167.85	2.14		0.080	
79-00-5	1,1,2-Trichloroethane	133.41	2.05		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	187.38	2.26		0.080	
75-34-3	1,1-Dichloroethane	98.96	2.23		0.080	
75-35-4	1,1-Dichloroethene	96.94	2.25		0.080	
120-82-1	1,2,4-Trichlorobenzene	181.45	2.49		0.080	
95-63-6	1,2,4-Trimethylbenzene	120.20	2.19		0.080	
106-93-4	1,2-Dibromoethane	187.87	1.99		0.080	
95-50-1	1,2-Dichlorobenzene	147.00	2.04		0.080	
107-06-2	1,2-Dichloroethane	98.96	2.23		0.080	
78-87-5	1,2-Dichloropropane	112.99	2.10		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	170.92	2.67		0.080	
108-67-8	1,3,5-Trimethylbenzene	120.20	2.10		0.080	
541-73-1	1,3-Dichlorobenzene	147.00	2.05		0.080	
106-46-7	1,4-Dichlorobenzene	147.00	2.04		0.080	
123-91-1	1,4-Dioxane	88.11	2.03		0.20	
540-84-1	2,2,4-Trimethylpentane	114.23	2.25		0.20	
78-93-3	2-Butanone	72.11	2.07		0.32	
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	2.20		0.20	
71-43-2	Benzene	78.11	2.20		0.080	
100-44-7	Benzyl chloride	126.58	1.98		0.16	
75-27-4	Bromodichloromethane	163.83	2.15		0.080	
75-25-2	Bromoform	252.75	1.89		0.080	
74-83-9	Bromomethane	94.94	2.37		0.080	
56-23-5	Carbon tetrachloride	153.81	2.19		0.040	
108-90-7	Chlorobenzene	112.56	2.01		0.080	
75-00-3	Chloroethane	64.52	2.45		0.080	
67-66-3	Chloroform	119.38	2.18		0.080	
74-87-3	Chloromethane	50.49	2.29		0.20	
156-59-2	cis-1,2-Dichloroethene	96.94	2.20		0.080	
10061-01-5	cis-1,3-Dichloropropene	110.97	2.00		0.080	
110-82-7	Cyclohexane	84.16	2.36		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 140-7171/1006
 Matrix: Air Lab File ID: JCCVK15A-LCS.d
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 11/15/2016 13:20
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 7171 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	
124-48-1	Dibromochloromethane	208.29	2.12		0.080	
75-71-8	Dichlorodifluoromethane	120.91	2.34		0.080	
64-17-5	Ethanol	46.07	11.1		2.0	
100-41-4	Ethylbenzene	106.17	2.09		0.080	
87-68-3	Hexachlorobutadiene	260.76	1.73		0.080	
110-54-3	Hexane	86.17	2.22		0.20	
1634-04-4	Methyl tert-butyl ether	88.15	2.09		0.16	
75-09-2	Methylene Chloride	84.93	2.12		0.20	
179601-23-1	m-Xylene & p-Xylene	106.17	4.22		0.080	
95-47-6	o-Xylene	106.17	2.07		0.080	
100-42-5	Styrene	104.15	2.21		0.080	
75-65-0	t-Butyl alcohol	74.12	1.91		0.32	
127-18-4	Tetrachloroethene	165.83	2.11		0.080	
108-88-3	Toluene	92.14	2.07		0.12	
156-60-5	trans-1,2-Dichloroethene	96.94	2.29		0.080	
10061-02-6	trans-1,3-Dichloropropene	110.97	1.89		0.080	
79-01-6	Trichloroethene	131.39	2.07		0.040	
75-69-4	Trichlorofluoromethane	137.37	2.28		0.080	
75-01-4	Vinyl chloride	62.50	2.40		0.040	

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	104		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JCCVK15A-LCS.d
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 15-Nov-2016 13:20:30 ALS Bottle#: 15 Worklist Smp#: 1006
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003625-002
 Misc. Info.: P24
 Operator ID: 007126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK017

First Level Reviewer: tajh

Date: 15-Nov-2016 14:57:01

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.281	9.281	0.000	97	259247	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.443	11.443	0.000	96	1157521	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.121	16.121	0.000	90	952995	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.745	17.745	0.000	87	596256	4.00	4.15	
6 Chlorodifluoromethane	67	3.920	3.920	0.000	97	59092	1.99	2.24	
7 Propene	41	3.936	3.936	0.000	99	209890	1.99	2.31	
8 Dichlorodifluoromethane	85	3.990	3.990	0.000	100	596474	1.99	2.34	
9 Chloromethane	52	4.183	4.183	0.000	59	67066	1.99	2.29	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.189	4.189	0.000	93	358363	1.99	2.67	
11 Acetaldehyde	44	4.350	4.350	0.000	98	279758	9.96	10.3	
12 Vinyl chloride	62	4.366	4.366	0.000	99	211368	1.99	2.40	
14 Butadiene	54	4.463	4.463	0.000	68	160454	1.99	2.45	
13 Butane	43	4.463	4.463	0.000	85	315841	1.99	2.47	
15 Bromomethane	94	4.812	4.812	0.000	99	188555	1.99	2.37	
16 Chloroethane	64	4.963	4.963	0.000	93	90307	1.99	2.45	
17 Ethanol	31	5.060	5.060	0.000	97	274226	9.96	11.1	
18 Vinyl bromide	106	5.280	5.280	0.000	99	186879	1.99	2.26	
19 2-Methylbutane	43	5.334	5.334	0.000	92	249525	1.99	2.37	
20 Trichlorofluoromethane	101	5.565	5.565	0.000	100	506417	1.99	2.28	
21 Acrolein	56	5.576	5.576	0.000	95	42180	1.99	1.85	
22 Acetonitrile	40	5.651	5.651	0.000	100	65637	1.99	2.34	
23 Acetone	58	5.700	5.700	0.000	98	180177	5.97	6.43	
24 Isopropyl alcohol	45	5.780	5.780	0.000	94	595540	5.97	6.14	
25 Pentane	72	5.796	5.796	0.000	96	30295	1.99	2.34	
26 Ethyl ether	31	5.974	5.974	0.000	92	179179	1.99	2.19	
27 1,1-Dichloroethene	96	6.307	6.307	0.000	96	182997	1.99	2.25	
28 2-Methyl-2-propanol	59	6.404	6.404	0.000	95	240041	1.99	1.91	
29 Acrylonitrile	53	6.415	6.415	0.000	94	95139	1.99	2.03	
30 1,1,2-Trichloro-1,2,2-trif	101	6.485	6.485	0.000	96	390596	1.99	2.26	
31 Methylene Chloride	84	6.673	6.673	0.000	98	174750	1.99	2.12	
32 3-Chloro-1-propene	39	6.684	6.684	0.000	95	172118	1.99	2.22	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
33 Carbon disulfide	76	6.845	6.845	0.000	99	575572	1.99	2.29	
34 trans-1,2-Dichloroethene	96	7.506	7.506	0.000	97	183652	1.99	2.29	
35 2-Methylpentane	43	7.517	7.517	0.000	95	416689	1.99	2.36	
36 Methyl tert-butyl ether	73	7.635	7.635	0.000	97	351272	1.99	2.09	
37 1,1-Dichloroethane	63	7.937	7.937	0.000	100	331234	1.99	2.23	
38 Vinyl acetate	43	8.039	8.039	0.000	100	347529	1.99	2.12	
39 2-Butanone (MEK)	72	8.507	8.507	0.000	96	57013	1.99	2.07	
40 Hexane	56	8.523	8.523	0.000	89	145275	1.99	2.22	
41 Isopropyl ether	45	8.679	8.679	0.000	98	478696	1.99	2.12	
42 cis-1,2-Dichloroethene	96	8.942	8.942	0.000	96	173621	1.99	2.20	
43 Ethyl acetate	43	9.125	9.125	0.000	99	275276	1.99	2.22	
44 Chloroform	83	9.292	9.292	0.000	96	355575	1.99	2.18	
45 Tert-butyl ethyl ether	59	9.372	9.372	0.000	96	383738	1.99	2.07	
46 Tetrahydrofuran	42	9.711	9.711	0.000	94	147189	1.99	2.14	
47 1,1,1-Trichloroethane	97	10.335	10.335	0.000	97	366615	1.99	2.19	
48 1,2-Dichloroethane	62	10.442	10.442	0.000	97	221367	1.99	2.23	
49 n-Butanol	31	10.867	10.867	0.000	90	54191	1.99	1.98	
50 Cyclohexane	69	10.921	10.921	0.000	75	86946	1.99	2.36	
51 Benzene	78	10.921	10.921	0.000	96	470105	1.99	2.20	
52 Carbon tetrachloride	117	10.942	10.942	0.000	96	360354	1.99	2.19	
53 2,3-Dimethylpentane	71	11.029	11.029	0.000	92	112552	1.99	2.29	
54 Thiophene	84	11.190	11.190	0.000	97	256600	1.99	2.15	
55 Tert-amyl methyl ether	73	11.378	11.378	0.000	97	347971	1.99	2.24	
56 Isooctane	57	11.652	11.652	0.000	98	779349	1.99	2.25	
57 n-Heptane	71	12.018	12.018	0.000	94	160684	1.99	2.15	
58 1,2-Dichloropropane	63	12.115	12.115	0.000	90	171624	1.99	2.10	
59 Trichloroethene	130	12.147	12.147	0.000	94	177761	1.99	2.07	
60 Dibromomethane	93	12.238	12.238	0.000	91	183072	1.99	2.19	
62 Dichlorobromomethane	83	12.378	12.378	0.000	99	320488	1.99	2.15	
61 1,4-Dioxane	88	12.394	12.394	0.000	94	48933	1.99	2.03	
63 Methyl methacrylate	41	12.459	12.459	0.000	92	144798	1.99	2.12	
64 Methylcyclohexane	83	12.905	12.905	0.000	95	362422	1.99	2.29	
65 4-Methyl-2-pentanone (MIBK)	43	13.298	13.298	0.000	98	291598	1.99	2.20	
66 cis-1,3-Dichloropropene	75	13.357	13.357	0.000	96	215807	1.99	2.00	
67 trans-1,3-Dichloropropene	75	14.040	14.040	0.000	99	158302	1.99	1.89	
68 Toluene	91	14.169	14.169	0.000	94	432136	1.99	2.07	
69 1,1,2-Trichloroethane	83	14.239	14.239	0.000	97	133341	1.99	2.05	
70 2-Methylthiophene	97	14.319	14.319	0.000	98	341583	1.99	2.03	
71 3-Methylthiophene	97	14.518	14.518	0.000	99	316171	1.99	1.96	
72 2-Hexanone	58	14.615	14.615	0.000	91	127506	1.99	2.25	
73 n-Octane	85	14.836	14.836	0.000	95	149736	1.99	2.15	
74 Chlorodibromomethane	129	14.943	14.943	0.000	98	254007	1.99	2.12	
75 Ethylene Dibromide	107	15.234	15.234	0.000	98	206153	1.99	1.99	
76 Tetrachloroethene	129	15.304	15.304	0.000	94	165058	1.99	2.11	
77 2,3-Dimethylheptane	43	16.169	16.169	0.000	96	473579	1.99	2.30	
78 Chlorobenzene	112	16.169	16.169	0.000	72	295092	1.99	2.01	
79 Ethylbenzene	91	16.449	16.449	0.000	99	482195	1.99	2.09	
80 2-Ethylthiophene	97	16.556	16.556	0.000	98	339846	1.99	2.06	
81 m-Xylene & p-Xylene	91	16.610	16.610	0.000	100	728470	3.98	4.22	
82 n-Nonane	57	17.008	17.008	0.000	93	290001	1.99	2.13	
83 Bromoform	173	17.073	17.073	0.000	92	170654	1.99	1.89	
84 Styrene	104	17.073	17.073	0.000	99	240764	1.99	2.21	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
85 o-Xylene	91	17.137	17.137	0.000	99	391758	1.99	2.07	
86 1,1,2,2-Tetrachloroethane	83	17.454	17.454	0.000	98	294116	1.99	2.14	
87 1,2,3-Trichloropropane	110	17.616	17.616	0.000	98	66083	1.99	2.09	
88 Isopropylbenzene	105	17.713	17.713	0.000	97	512322	1.99	2.13	
89 N-Propylbenzene	120	18.234	18.234	0.000	98	122933	1.99	2.07	
90 2-Chlorotoluene	126	18.283	18.283	0.000	98	118809	1.99	2.05	
91 4-Ethyltoluene	105	18.379	18.379	0.000	98	443066	1.99	2.17	
92 1,3,5-Trimethylbenzene	120	18.449	18.449	0.000	92	215198	1.99	2.10	
93 Alpha Methyl Styrene	118	18.675	18.675	0.000	87	150635	1.99	2.04	
94 n-Decane	57	18.713	18.713	0.000	90	298389	1.99	2.13	
95 tert-Butylbenzene	119	18.863	18.863	0.000	89	415798	1.99	2.10	
96 1,2,4-Trimethylbenzene	105	18.874	18.874	0.000	96	381022	1.99	2.19	
97 sec-Butylbenzene	105	19.121	19.121	0.000	98	573403	1.99	2.11	
98 1,3-Dichlorobenzene	146	19.148	19.148	0.000	98	165150	1.99	2.05	
99 Benzyl chloride	91	19.218	19.218	0.000	97	178386	1.99	1.98	
100 1,4-Dichlorobenzene	146	19.229	19.229	0.000	94	140824	1.99	2.04	
101 4-Isopropyltoluene	119	19.283	19.283	0.000	96	424459	1.99	2.15	
102 1,2,3-Trimethylbenzene	105	19.336	19.336	0.000	99	281673	1.99	2.10	
103 Butylcyclohexane	83	19.385	19.385	0.000	91	349666	1.99	1.98	
104 2,3-Dihydroindene	117	19.584	19.584	0.000	93	304060	1.99	2.13	
105 1,2-Dichlorobenzene	146	19.584	19.584	0.000	95	169979	1.99	2.04	
106 n-Butylbenzene	91	19.708	19.708	0.000	98	369342	1.99	2.26	
107 Indene	116	19.708	19.708	0.000	94	177333	1.99	2.05	
108 Undecane	57	19.998	19.998	0.000	96	260196	1.99	2.04	
109 1,2-Dimethyl-4-Ethylbenzen	119	20.068	20.068	0.000	98	260263	1.99	2.05	
110 1,2-Dibromo-3-Chloropropan	157	20.175	20.175	0.000	90	48664	1.99	2.14	
111 1,2,4,5-Tetramethylbenzene	119	20.455	20.455	0.000	96	296453	1.99	1.99	
112 1,2,3,5-Tetramethylbenzene	119	20.509	20.509	0.000	94	182395	1.99	1.92	
113 1,2,3,4-Tetramethylbenzene	119	20.923	20.923	0.000	97	222074	1.99	1.87	
114 Dodecane	57	21.068	21.068	0.000	94	223588	1.99	2.04	
115 1,2,4-Trichlorobenzene	180	21.299	21.299	0.000	93	47356	1.99	2.49	
116 Naphthalene	128	21.444	21.444	0.000	99	137347	1.99	2.47	
117 Benzo(b)thiophene	134	21.547	21.547	0.000	99	55843	1.99	2.49	
118 Hexachlorobutadiene	225	21.633	21.633	0.000	96	149532	1.99	1.73	
119 1,2,3-Trichlorobenzene	180	21.697	21.697	0.000	94	51947	1.99	2.32	
120 2-Methylnaphthalene	142	22.251	22.251	0.000	100	18327	6.22	6.40	
121 1-Methylnaphthalene	142	22.375	22.375	0.000	99	22873	6.22	5.96	
A 124 Toluene Range	1	14.169	(14.139-14.199)		0	1046691	1.99	2.22	
A 125 C8 Range	1	14.826	(14.803-14.849)		0	1484114	1.99	2.35	
S 126 Xylenes, Total	100				0		5.97	6.29	
S 127 1,2-Dichloroethene, Total	1				0		3.98	4.48	

Reagents:

40CV101P_00024

Amount Added: 100.00

Units: mL

40MXISSURP_00001

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 16-Nov-2016 09:11:15

Chrom Revision: 2.2 14-Nov-2016 08:15:18

TestAmerica Laboratories

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JCCVK15A-LCS.d

Injection Date: 15-Nov-2016 13:20:30

Instrument ID: MJ

Operator ID: 007126

Lims ID: LCS

Worklist Smp#: 1006

Client ID:

Purge Vol: 500.000 mL

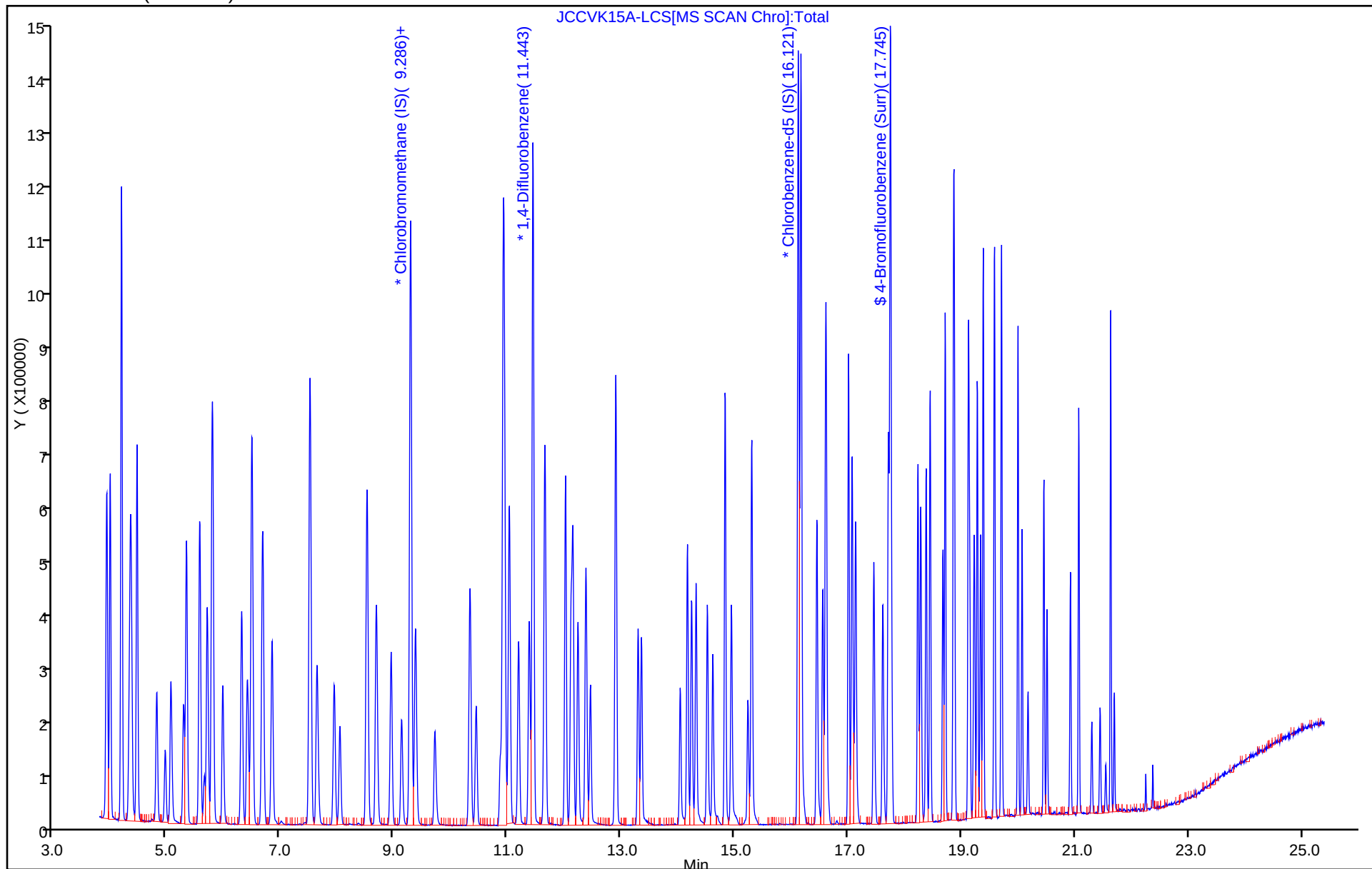
Dil. Factor: 1.0000

ALS Bottle#: 15

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Laboratories
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\JCCVK15A-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 15-Nov-2016 13:20:30 ALS Bottle#: 15 Worklist Smp#: 1006
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0003625-002
Misc. Info.: P24
Operator ID: 007126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20161114-3625.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 16-Nov-2016 09:11:13 Calib Date: 09-Oct-2016 02:10:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20161008-3509.b\JJ07ICAL09.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK017

First Level Reviewer: tajh

Date: 15-Nov-2016 14:57:01

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.15	103.75

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Knoxville Job No.: 140-6336-1

SDG No.: _____

Instrument ID: MJ Start Date: 10/08/2016 17:39Analysis Batch Number: 6845 End Date: 10/09/2016 07:04

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-6845/1		10/08/2016 17:39	1	JBFBJ08.D	RTX-5 0.32 (mm)
IC 140-6845/3		10/08/2016 19:01	1	JJ08ICAL01.D	RTX-5 0.32 (mm)
IC 140-6845/4		10/08/2016 19:54	1	JJ08ICAL02.D	RTX-5 0.32 (mm)
IC 140-6845/5		10/08/2016 20:47	1	JJ08ICAL03.D	RTX-5 0.32 (mm)
IC 140-6845/6		10/08/2016 21:41	1	JJ08ICAL04.D	RTX-5 0.32 (mm)
IC 140-6845/7		10/08/2016 22:36	1	JJ08ICAL05.D	RTX-5 0.32 (mm)
ICIS 140-6845/8		10/08/2016 23:29	1	JJ08ICAL06.D	RTX-5 0.32 (mm)
IC 140-6845/9		10/09/2016 00:23	1	JJ08ICAL07.D	RTX-5 0.32 (mm)
IC 140-6845/10		10/09/2016 01:17	1	JJ08ICAL08.D	RTX-5 0.32 (mm)
IC 140-6845/11		10/09/2016 02:10	1	JJ07ICAL09.D	RTX-5 0.32 (mm)
ICV 140-6845/17		10/09/2016 07:04	1	JJ08LCS.D	RTX-5 0.32 (mm)

161008

TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	39.3	10/8/2016	5:39:43 PM
CLEAN	16 - 201 mL	23.5	10/8/2016	6:07:34 PM
ICAL01	1 - 100 mL	35.1	10/8/2016	7:01:14 PM
ICAL02	1 - 200 mL	34.3	10/8/2016	7:54:20 PM
ICAL03	2 - 202 mL	33.2	10/8/2016	8:47:56 PM
ICAL04	3 - 200 mL	34	10/8/2016	9:41:56 PM
ICAL05	4 - 200 mL	33.3	10/8/2016	10:36:28 PM
ICAL06	5 - 202 mL	33.5	10/8/2016	11:29:40 PM
ICAL07	6 - 201 mL	31.7	10/9/2016	12:23:14 AM
ICAL08	7 - 201 mL	30.4	10/9/2016	1:17:09 AM
ICAL09	8 - 200 mL	33.5	10/9/2016	2:10:38 AM
PRIME	9 - 50 mL	34.1	10/9/2016	3:04:49 AM
ICV-DNU	9 - 101 mL	32.6	10/9/2016	3:58:42 AM
DNU	16 - 101 mL	23.5	10/9/2016	4:46:56 AM
blk	16 - 501 mL	22.7	10/9/2016	5:16:16 AM
MDL	1 - 50 mL	33.8	10/9/2016	6:10:29 AM
LCS-ICV	10 - 101 mL	29.5	10/9/2016	7:04:41 AM
CAN10818	11 - 500 mL	16.8	10/9/2016	7:59:03 AM
CAN11009	12 - 501 mL	20.3	10/9/2016	8:53:04 AM
CAN10886	13 - 501 mL	19.2	10/9/2016	9:47:15 AM
CAN11000	14 - 500 mL	19	10/9/2016	10:41:47 AM
CAN11296	15 - 501 mL	22.3	10/9/2016	11:35:09 AM

MJ ICAL WL 3509

TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 17 & KNOX-MS-0023, Rev 2

Analysis Date:	10/8/16	Instrument:	MJ	Chrom WL #:	3509	TALS Batch & Event #	TO14/15: 6045/771	AFCEE: 6048/774
							DOD: 6047/773	OHIO: 6046/772

Chrom/Worklist Review	1 st	Comments	2 nd
1. Re-read each Limit Group [method editor-limit groups]	✓		
2. Verify LODV in Chrom [method editor -> edit -> MDL]	✓		
3. Are the reagents and init/final volumes correct and first level "unlock/clear"? (Verify reagents & amt. injected at each level) [WL Sample Reagents Tab vs. Entech]	✓		✓
4. Files linked properly to calibration levels? [Sample List- Lab ID vs. Info]	✓		✓
5. Did BFB meet tune criteria? [F8]	✓		✓
6. Were all standards injected within 24 hr of BFB? [F7]	✓		✓
7. High point checked for saturation and point removed if so? [Chrom]	✓		✓
8. If manual integrations performed, are they properly performed, correct, baseline clearly identified, and correct reason given? [Chrom]	NA		NA
9. RT for each IS ±20 sec avg. RT? [F6 IstdRec]	✓		✓
10. Area for each IS ± 40% avg. area? [F6 IstdRec]	✓		✓
11. Each analyte ± 0.06 RRT of avg. RRT? [F6 - RRT]	✓		✓
12. Elution order checked on isomeric pairs? [Chrom]			
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane	✓		✓
• 2-methyl butane / acrolein	✓		✓
• 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/sec-butylbenzene	✓		✓
• tert-butylbenzene/4-isopropyltoluene	✓		✓
• 1,3-, 1,4-, and 1,2-dichlorobenzene	✓		✓
• 1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	✓		✓
• 1,2,4- and 1,2,3-trichlorobenzenes	✓		✓
• 2-, and 1-methylnaphthalene	✓		✓
13. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?	✓	DMU TPH as CL6	✓

MLG Review	TO-	AFC	DOD	OH	Comments	TO-	AFC	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1 & 2 methylnaphthalene ≤ 50% [F6 Σ]	✓	✓	✓	✓	124tclbz	✓	✓	✓	✓
15. Were at least 5 levels of each compound analyzed? [F6]	✓	✓	✓	✓		✓	✓	✓	✓
16. Is low level std at or <RL and are the remaining points consec.? [F6]	✓	✓	✓	✓		✓	✓	✓	✓
17. At least 6 consec. points used for quad curves; at least 5 consec. points for linear curves? Note: Ohio does not allow quad [F6]	NA					NA			
18. If curves were used, is correlation coefficient ≥0.990? [F6]	NA					NA			
19. Is the intercept less than the RL for each curve? [F6]	NA					NA			
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]	NA					NA			
21. Is the second source analysis within limits? [F8] jcv	✓	✓	✓	✓		✓	✓	✓	✓

22. Analyst/Date: AKS 10/10/16 2nd Level Reviewer/Date: DMU 10/11/16

Comments:

TALS Review	TO-	AFC	DOD	OH	Comments	TO-	AFC	DOD	OH
23. Upload ICAL	✓	✓	✓	✓		✓	✓	✓	✓
24. Graphics uploaded? [Sample List Tab]	✓	✓	✓	✓		✓	✓	✓	✓
25. All points are in the most recent active calibration event? [Calibration Events - 'Fix ICAL linkage' if needed]	✓	✓	✓	✓		✓	✓	✓	✓
26. Runs linked to BFB? [QC Links]	✓	✓	✓	✓		✓	✓	✓	✓
27. If criteria not met, was a NCM generated?	NA					NA	NA	NA	NA
28. After review in TALS, approve the method in TALS.						✓	✓	✓	✓
29. After verifying TALS is correct, lock method in Chrom <resolve any error issues>								✓	
30. Checklist & Entech report scanned, attached & assigned properly?						✓	✓	✓	✓

Analyst: AKS Date: 10/11/16 2nd Level Reviewer: DMU Date: 10/11/16

Comments:

UR → 4: 124tclbz, 124tclbz, benz (b), # 123tclbz # 122B-3clp

UR → 25: 1 & 2 methylnaphth.

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica KnoxvilleJob No.: 140-6336-1

SDG No.: _____

Instrument ID: MJStart Date: 11/15/2016 12:52Analysis Batch Number: 7171End Date: 11/16/2016 11:30

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-7171/5		11/15/2016 12:52	1	JBFBK15A.D	RTX-5 0.32 (mm)
CCVIS 140-7171/6		11/15/2016 13:20	1	JCCVK15A.D	RTX-5 0.32 (mm)
LCS 140-7171/1006		11/15/2016 13:20	1	JCCVK15A-LCS.d	RTX-5 0.32 (mm)
MB 140-7171/8		11/15/2016 15:00	1	J500BK15.D	RTX-5 0.32 (mm)
140-6336-4		11/15/2016 15:55	1.54	JK15P101.D	RTX-5 0.32 (mm)
140-6336-1		11/15/2016 16:49	1	JK15P102.D	RTX-5 0.32 (mm)
140-6336-2		11/15/2016 17:44	1.79	JK15P103.D	RTX-5 0.32 (mm)
140-6336-3		11/15/2016 18:39	1.66	JK15P104.D	RTX-5 0.32 (mm)
140-6336-5		11/15/2016 19:33	1.69	JK15P105.D	RTX-5 0.32 (mm)
140-6336-6		11/15/2016 20:28	1.68	JK15P106.D	RTX-5 0.32 (mm)
140-6336-7		11/15/2016 21:22	1.8	JK15P107.D	RTX-5 0.32 (mm)
140-6336-8		11/15/2016 22:16	2.27	JK15P108.D	RTX-5 0.32 (mm)
140-6336-9		11/15/2016 23:11	1.58	JK15P109.D	RTX-5 0.32 (mm)
140-6336-10		11/16/2016 00:05	1.5	JK15P110.D	RTX-5 0.32 (mm)
140-6336-11		11/16/2016 01:00	1.8	JK15P111.D	RTX-5 0.32 (mm)
ZZZZZ		11/16/2016 01:54	1.74		RTX-5 0.32 (mm)
ZZZZZ		11/16/2016 02:48	1.74		RTX-5 0.32 (mm)
140-6336-13		11/16/2016 03:43	1.63	JK15P113.D	RTX-5 0.32 (mm)
140-6336-4 DL		11/16/2016 04:38	1.54	JK15P101DL.D	RTX-5 0.32 (mm)
140-6336-2 DL		11/16/2016 05:33	1.79	JK15P103DL.D	RTX-5 0.32 (mm)
140-6336-12		11/16/2016 08:48	1.74	JK15P112R.D	RTX-5 0.32 (mm)
140-6336-5 DL		11/16/2016 09:42	1.69	JK15P105DL.D	RTX-5 0.32 (mm)
140-6336-7 DL		11/16/2016 10:36	1.8	JK15P107DL.D	RTX-5 0.32 (mm)
140-6336-8 DL		11/16/2016 11:30	2.27	JK15P108DL.D	RTX-5 0.32 (mm)

161115

TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 100 mL	26	11/15/2016	12:52:49 PM
CCV	15 - 101 mL	17.3	11/15/2016	1:20:46 PM
dnuflush	16 - 20 mL	26.1	11/15/2016	2:31:26 PM
mb500	16 - 500 mL	25.3	11/15/2016	3:00:42 PM
6336-04	1 - 386 mL	9.6	11/15/2016	3:55:33 PM
6336-01	2 - 501 mL	2.2	11/15/2016	4:49:16 PM
6336-02	3 - 896 mL	7.4	11/15/2016	5:44:37 PM
6336-03	4 - 101 mL	10.5	11/15/2016	6:39:19 PM
6336-05	5 - 845 mL	9.5	11/15/2016	7:33:23 PM
6336-06	6 - 841 mL	8.9	11/15/2016	8:28:25 PM
6336-07	7 - 101 mL	13	11/15/2016	9:22:45 PM
6336-08	8 - 281 mL	10.2	11/15/2016	10:16:54 PM
6336-09	9 - 201 mL	11.2	11/15/2016	11:11:01 PM
6336-10	10 - 191 mL	9.5	11/16/2016	12:05:36 AM
6336-11	11 - 451 mL	11.2	11/16/2016	1:00:36 AM
6336-12	12 - 101 mL	13	11/16/2016	1:54:17 AM
6336-12DU	12 - 101 mL	12	11/16/2016	2:48:37 AM
6336-13	13 - 816 mL	7	11/16/2016	3:43:12 AM
6336-04DL	1 - 200 mL	8.7	11/16/2016	4:38:29 AM
6336-02DL	3 - 450 mL	3.5	11/16/2016	5:33:12 AM
6336-12	12 - 501 mL	9.9	11/16/2016	8:48:38 AM
6336-05	5 - 201 mL	8.9	11/16/2016	9:42:42 AM
6336-07	7 - 51 mL	12	11/16/2016	10:36:23 AM
6336-08	8 - 81 mL	10.2	11/16/2016	11:30:42 AM

WL MJ 3625

TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 17 & KNOX-MS-0023, Rev 2

Page 1 of 2

Instrument/Date	KJ 11/15/16	Routine	AFCEE	DOD	OHIO
CCAL Chrom WL #	3625	CCAL Batch #	7171		
ICAL Chrom WL #	3509	ICAL Batch # / Event #	6845 / 771	/	/
Chrom Review		1 st	If No, why is data reportable? 2 nd		
1. Are the reagents & init/final volumes correct? (Verify reagents & amt. injected) [WL Sample Reagent Tab]		/	/		
2. Did BFB meet tune criteria? [F8]		/	/		
3. Was the CCAL compared to the most recent & correct ICAL (correct last ICAL File batch #/start/end Cal date/time)? [F8]		/	/		
4. Is the %D ≤ 30% for all target analytes? [≤ 40% for AFCEE non-table analytes] [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]		120% clean +34	☒ CCV - %D - LCS criteria met (NCM# 5432) ☐ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM#)		
5. Elution order checked on isomeric pairs? [Chrom]		/	/		
• dichlorodifluoromethane / 1,2-dichlorotetrafluoroethane		/	/		
• 2-methyl butane / acrolein		/	/		
• 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/sec-butylbenzene		/	/		
• tert-butylbenzene/4-isopropyltoluene		/	/		
• 1,3-, 1,4-, and 1,2-dichlorobenzene		/	/		
• 1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes		/	/		
• 1,2,4-trichlorobenzene/1,2,3-trichlorobenzene		/	/		
• 2-, and 1-methylnaphthalene		/	/		
6. "Range" analytes & internal standard RIC ID'd correctly, inspected for interferences & proper integration?		/	/		
7. Has the RT been updated to the method?		/	/		
Analyst: [Signature]		Date: 11/16/16	2nd Level Reviewer: [Signature]		Date: 11/16/16
Comments:		Comments:			
8. Has the vol injected been verified vs Entech & corrected if actual amount differs >5%? [WL Sample Info: init amt = sample amt; final amt = 500 mL]		/	/		
9. Do the lab ID, Info 1 and Dilution Factor columns correlate in Chrom? [Sample List - Lab ID vs. Info 1 vs. Dilution]		/	/		
10. Were all samples/QC analyzed within 24 hr of BFB? [F7]		/	/		
11. Are all analytes present in the system blank < RL? (<1/2 RL for DoD). If no, list blank ID:		/	☐ Method Blank - Report, ND (NCM#) ☐ Method Blank - Report, 10X (NCM#)		
12. All runs - peaks ID'd correctly and false positives removed?		/	/		
13. If manual integrations performed, are they properly performed, correctly ID'd, baseline clearly identified, and reason given?		/	/		
14. IS/Surr within limits? List samples and reason (e.g., 1 thru 5): [Batch Results IS & SUR Tab]		/	☒ (1) Surrogate - Matrix (NCM#) ☐ (2) Surrogate - High, ND (NCM#) ☐ (3) ISTD - RA/RA Concurs (NCM#) ☐ (4) Surrogate -RX concur, Report both (NCM#) ☐ (5) ISTD - Matrix, DL required (NCM#) ☐ ICAL - Range Exceeded; Minimum Dilution		
Sample	Reason	Sample	Reason		
15. Samples outside calibration range scheduled for dilution?		/	/		
Samples:					
Chrom Review		1 st	If No, why is data reportable? 2 nd		
16. For first analysis that is at a dilution, is highest target analyte >20% cal range? List samples and reason:		/	☐ (1) Reporting Limit - Dilution, Matrix (NCM#) ☐ (2) Reporting Limit - Dilution, Non-Target (NCM#) ☐ (3) Issues with initial collection volume; see DRC.		
Sample	Reason	Sample	Reason		
17. RIC inspected for proper integration for TPH?		/	/		
18. Obvious non-TPH peaks excluded?		/	/		

Page 2 of 2

11/28/2016

Summa Canister Dilution Worksheet

Client: New York State D.E.C.

Job No.: 140-6336-1

Lab Sample ID	Canister Volume (L)	Preadjusted Pressure ("Hg)	Preadjusted Pressure (atm)	Preadjusted Volume (L)	Adjusted Pressure (psig)	Adjusted Pressure (atm)	Adjusted Volume (L)	Initial Volume (mL)	Dilution Factor	Final Dilution Factor	Date	Analyst
140-6336-2	6	-12.0	0.60	3.59	1.1	1.07	6.45		1.79	1.79	11/14/16 15:06	Taj, Holly M
140-6336-3	6	-11.9	0.60	3.61	0.0	1.00	6.00		1.66	1.66	11/14/16 15:08	Taj, Holly M
140-6336-4	6	-9.8	0.67	4.03	0.5	1.03	6.20		1.54	1.54	11/14/16 15:09	Taj, Holly M
140-6336-5	6	-9.7	0.68	4.05	2.1	1.14	6.86		1.69	1.69	11/14/16 15:09	Taj, Holly M
140-6336-6	6	-10.4	0.65	3.91	1.4	1.10	6.57		1.68	1.68	11/14/16 15:09	Taj, Holly M
140-6336-7	6	-11.1	0.63	3.77	1.9	1.13	6.78		1.80	1.80	11/14/16 15:15	Taj, Holly M
140-6336-8	6	-16.0	0.47	2.79	0.8	1.05	6.33		2.27	2.27	11/14/16 15:15	Taj, Holly M
140-6336-9	6	-9.6	0.68	4.07	1.1	1.07	6.45		1.58	1.58	11/14/16 15:15	Taj, Holly M
140-6336-10	6	-10.0	0.67	3.99	0.0	1.00	6.00		1.50	1.50	11/14/16 15:15	Taj, Holly M
140-6336-11	6	-11.5	0.62	3.69	1.6	1.11	6.65		1.80	1.80	11/14/16 15:19	Taj, Holly M
140-6336-12	6	-10.4	0.65	3.91	2.0	1.14	6.82		1.74	1.74	11/14/16 15:20	Taj, Holly M
140-6336-13	6	-10.8	0.64	3.83	0.6	1.04	6.24		1.63	1.63	11/14/16 15:20	Taj, Holly M

Formulae:

Preadjusted Volume (L) = (Preadjusted Pressure ("Hg) + 29.92 "Hg * Vol L) / 29.92 "Hg

Adjusted Volume (L) = (Adjusted Pressure (psig) + 14.7 psig * Vol L) / 14.7 psig

Dilution Factor = Adjusted Volume (L) / Preadjusted Volume (L)

Where:

29.92 "Hg = Standard atmospheric pressure in inches of Mercury ("Hg)

14.7 psig = Standard atmospheric pressure in pounds per square inch gauge (psig)

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-5954-1
 SDG No.: _____
 Client Sample ID: 11007 Lab Sample ID: 140-5954-4
 Matrix: Air Lab File ID: LOT5954.D
 Analysis Method: TO 15 LL Date Collected: 09/29/2016 10:20
 Sample wt/vol: 500 (mL) Date Analyzed: 10/01/2016 06:06
 Soil Aliquot Vol: _____ Dilution Factor: 1
 Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
 % Moisture: _____ Level: (low/med) Low
 Analysis Batch No.: 6742 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
74-83-9	Bromomethane	ND		0.080	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
67-66-3	Chloroform	ND		0.080	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
74-87-3	Chloromethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
75-71-8	Dichlorodifluoromethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
78-93-3	2-Butanone	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
95-49-8	2-Chlorotoluene	ND		0.16	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
591-78-6	2-Hexanone	ND		0.20	
107-05-1	3-Chloroprene	ND		0.080	
100-41-4	Ethylbenzene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
75-69-4	Trichlorofluoromethane	ND		0.080	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		0.080	
67-64-1	Acetone	ND		2.0	
75-09-2	Methylene Chloride	ND		0.20	
75-05-8	Acetonitrile	ND		0.40	
100-42-5	Styrene	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-5954-1

SDG No.: _____

Client Sample ID: 11007 Lab Sample ID: 140-5954-4

Matrix: Air Lab File ID: LOT5954.D

Analysis Method: TO 15 LL Date Collected: 09/29/2016 10:20

Sample wt/vol: 500 (mL) Date Analyzed: 10/01/2016 06:06

Soil Aliquot Vol: _____ Dilution Factor: 1

Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)

% Moisture: _____ Level: (low/med) Low

Analysis Batch No.: 6742 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
107-02-8	Acrolein	ND		0.16	
107-13-1	Acrylonitrile	ND		0.80	
127-18-4	Tetrachloroethene	ND		0.040	
98-83-9	Alpha Methyl Styrene	ND		0.16	
108-88-3	Toluene	ND		0.12	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
75-27-4	Bromodichloromethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-97-8	Butane	ND		0.16	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
75-15-0	Carbon disulfide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.040	
95-47-6	o-Xylene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
110-82-7	Cyclohexane	ND		0.20	
124-18-5	n-Decane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
112-40-3	n-Dodecane	ND		0.40	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
142-82-5	n-Heptane	ND		0.20	
110-54-3	Hexane	ND		0.20	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	
91-20-3	Naphthalene	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-5954-1</u>
SDG No.: _____	
Client Sample ID: <u>11007</u>	Lab Sample ID: <u>140-5954-4</u>
Matrix: <u>Air</u>	Lab File ID: <u>LOT5954.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>09/29/2016 10:20</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>10/01/2016 06:06</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>RTX-5</u> ID: <u>0.32 (mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>6742</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
104-51-8	n-Butylbenzene	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
111-65-9	n-Octane	ND		0.16	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
98-06-6	tert-Butylbenzene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		0.40	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.080	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.080	
90-12-0	1-Methylnaphthalene	ND	*	1.0	
3074-71-3	2,3-Dimethylheptane	ND		0.080	
872-55-9	2-Ethylthiophene	ND		0.080	
554-14-3	2-Methylthiophene	ND		0.080	
91-57-6	2-Methylnaphthalene	ND		1.0	
616-44-4	3-Methylthiophene	ND		0.080	
95-15-8	Benzo (b) thiophene	ND		0.16	
110-02-1	Thiophene	ND		0.080	
1678-93-9	Butylcyclohexane	ND		0.080	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadiene	ND		0.16	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-78-4	2-Methylbutane	ND		0.20	
107-83-5	2-Methylpentane	ND		0.080	
75-07-0	Acetaldehyde	ND		4.0	
98-82-8	Cumene	ND		0.16	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-5954-1
SDG No.: _____
Client Sample ID: 11007 Lab Sample ID: 140-5954-4
Matrix: Air Lab File ID: LOT5954.D
Analysis Method: TO 15 LL Date Collected: 09/29/2016 10:20
Sample wt/vol: 500 (mL) Date Analyzed: 10/01/2016 06:06
Soil Aliquot Vol: _____ Dilution Factor: 1
Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
% Moisture: _____ Level: (low/med) Low
Analysis Batch No.: 6742 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
99-87-6	p-Cymene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
108-87-2	Methylcyclohexane	ND		0.080	
111-84-2	n-Nonane	ND		0.20	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20160927-3473.b\LOT5954.D
 Lims ID: 140-5954-A-4
 Client ID: 11007
 Sample Type: Client
 Inject. Date: 01-Oct-2016 06:06:30 ALS Bottle#: 16 Worklist Smp#: 26
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003473-026
 Misc. Info.: 11007
 Operator ID: 7126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20160927-3473.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 01-Oct-2016 18:01:53 Calib Date: 22-Jun-2016 23:00:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20160622-3070.b\JF22IC09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK050

First Level Reviewer: barlozhetskayaa

Date: 01-Oct-2016 18:02:17

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.316	9.324	-0.008	93	173237	4.00	
* 2 1,4-Difluorobenzene	114	11.484	11.487	-0.003	98	788381	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.169	16.172	-0.003	93	695372	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.799	17.797	0.002	82	460000	4.48	
31 Methylene Chloride	84	6.691	6.699	-0.008	93	3131	0.0658	
33 Carbon disulfide	76	6.863	6.871	-0.008	99	10326	0.0710	

Reagents:

40MXISSURP_00001 Amount Added: 40.00 Units: mL Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20160927-3473.b\LOT5954.D

Injection Date: 01-Oct-2016 06:06:30

Instrument ID: MJ

Operator ID: 7126

Lims ID: 140-5954-A-4

Lab Sample ID: 140-5954-4

Worklist Smp#: 26

Client ID: 11007

Purge Vol: 500.000 mL

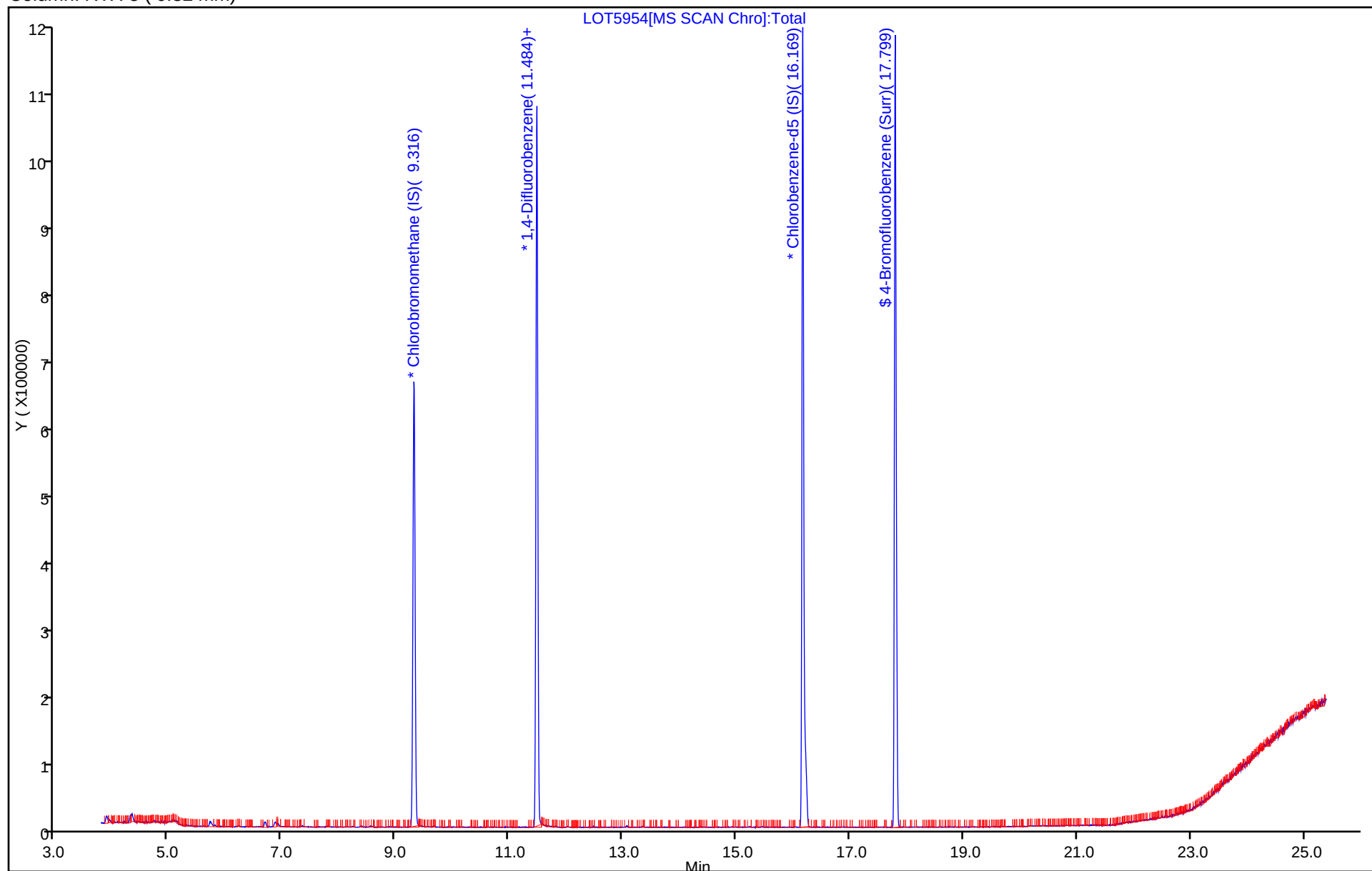
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-5963-1</u>
SDG No.: _____	
Client Sample ID: <u>09514</u>	Lab Sample ID: <u>140-5963-2</u>
Matrix: <u>Air</u>	Lab File ID: <u>LOT5963.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>09/30/2016 07:45</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>10/02/2016 04:09</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>RTX-5</u> ID: <u>0.32 (mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>6751</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND	*	0.16	
74-83-9	Bromomethane	ND		0.080	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
67-66-3	Chloroform	ND		0.080	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
74-87-3	Chloromethane	ND		0.20	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
75-71-8	Dichlorodifluoromethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
78-93-3	2-Butanone	ND		0.32	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
95-49-8	2-Chlorotoluene	ND		0.16	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
591-78-6	2-Hexanone	ND		0.20	
107-05-1	3-Chloroprene	ND		0.080	
100-41-4	Ethylbenzene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
75-69-4	Trichlorofluoromethane	ND		0.080	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
87-68-3	Hexachlorobutadiene	ND		0.080	
67-64-1	Acetone	ND		2.0	
75-09-2	Methylene Chloride	ND		0.20	
75-05-8	Acetonitrile	ND		0.40	
100-42-5	Styrene	ND		0.080	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-5963-1</u>
SDG No.: _____	
Client Sample ID: <u>09514</u>	Lab Sample ID: <u>140-5963-2</u>
Matrix: <u>Air</u>	Lab File ID: <u>LOT5963.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>09/30/2016 07:45</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>10/02/2016 04:09</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>RTX-5</u> ID: <u>0.32 (mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>6751</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
107-02-8	Acrolein	ND		0.16	
107-13-1	Acrylonitrile	ND		0.80	
127-18-4	Tetrachloroethene	ND		0.040	
98-83-9	Alpha Methyl Styrene	ND		0.16	
108-88-3	Toluene	ND		0.12	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
75-27-4	Bromodichloromethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-97-8	Butane	ND		0.16	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
75-15-0	Carbon disulfide	ND		0.20	
75-01-4	Vinyl chloride	ND		0.040	
95-47-6	o-Xylene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
110-82-7	Cyclohexane	ND		0.20	
124-18-5	n-Decane	ND		0.40	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
112-40-3	n-Dodecane	ND		0.40	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
142-82-5	n-Heptane	ND		0.20	
110-54-3	Hexane	ND		0.20	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	ND		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	
91-20-3	Naphthalene	ND		0.20	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-5963-1</u>
SDG No.: _____	
Client Sample ID: <u>09514</u>	Lab Sample ID: <u>140-5963-2</u>
Matrix: <u>Air</u>	Lab File ID: <u>LOT5963.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>09/30/2016 07:45</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>10/02/2016 04:09</u>
Soil Aliquot Vol: _____	Dilution Factor: <u>1</u>
Soil Extract Vol.: _____	GC Column: <u>RTX-5</u> ID: <u>0.32 (mm)</u>
% Moisture: _____	Level: (low/med) <u>Low</u>
Analysis Batch No.: <u>6751</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
104-51-8	n-Butylbenzene	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
111-65-9	n-Octane	ND		0.16	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
98-06-6	tert-Butylbenzene	ND		0.20	
109-99-9	Tetrahydrofuran	ND		0.40	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
1120-21-4	Undecane	ND		0.40	
108-05-4	Vinyl acetate	ND		0.40	
593-60-2	Vinyl bromide	ND		0.080	
488-23-3	1,2,3,4-Tetramethylbenzene	ND		0.080	
527-53-7	1,2,3,5-Tetramethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
934-80-5	1,2-Dimethyl-4-Ethylbenzene	ND		0.080	
90-12-0	1-Methylnaphthalene	ND		1.0	
3074-71-3	2,3-Dimethylheptane	ND		0.080	
872-55-9	2-Ethylthiophene	ND		0.080	
554-14-3	2-Methylthiophene	ND		0.080	
91-57-6	2-Methylnaphthalene	ND		1.0	
616-44-4	3-Methylthiophene	ND		0.080	
95-15-8	Benzo (b) thiophene	ND		0.16	
110-02-1	Thiophene	ND		0.080	
1678-93-9	Butylcyclohexane	ND		0.080	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadiene	ND		0.16	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-78-4	2-Methylbutane	ND		0.20	
107-83-5	2-Methylpentane	ND		0.080	
75-07-0	Acetaldehyde	ND		4.0	
98-82-8	Cumene	ND		0.16	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Knoxville Job No.: 140-5963-1
SDG No.: _____
Client Sample ID: 09514 Lab Sample ID: 140-5963-2
Matrix: Air Lab File ID: LOT5963.D
Analysis Method: TO 15 LL Date Collected: 09/30/2016 07:45
Sample wt/vol: 500 (mL) Date Analyzed: 10/02/2016 04:09
Soil Aliquot Vol: _____ Dilution Factor: 1
Soil Extract Vol.: _____ GC Column: RTX-5 ID: 0.32 (mm)
% Moisture: _____ Level: (low/med) Low
Analysis Batch No.: 6751 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
99-87-6	p-Cymene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
108-87-2	Methylcyclohexane	ND		0.080	
111-84-2	n-Nonane	ND		0.20	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MG\20160929-3477.b\LOT5963.D
 Lims ID: 140-5963-A-2
 Client ID: 09514
 Sample Type: Client
 Inject. Date: 02-Oct-2016 04:09:30 ALS Bottle#: 16 Worklist Smp#: 22
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0003477-022
 Misc. Info.: 09514
 Operator ID: 403648 Instrument ID: MG
 Method: \\ChromNA\Knoxville\ChromData\MG\20160929-3477.b\MG_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 03-Oct-2016 12:00:12 Calib Date: 26-Sep-2016 23:10:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MG\20160922-3454.b\GI26IC09.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK051

First Level Reviewer: tajh

Date: 03-Oct-2016 11:57:54

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	8.433	8.444	-0.011	97	267535	4.00	
* 2 1,4-Difluorobenzene	114	10.601	10.606	-0.005	96	1158343	4.00	
* 3 Chlorobenzene-d5 (IS)	117	15.384	15.389	-0.005	91	1071194	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.039	17.045	-0.006	84	732146	3.85	
31 Methylene Chloride	84	6.039	6.050	-0.011	97	6335	0.1012	
33 Carbon disulfide	76	6.184	6.195	-0.011	98	4098	0.0174	

Reagents:

40MXISSURP_00001 Amount Added: 40.00 Units: mL Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MG\20160929-3477.b\LOT5963.D

Injection Date: 02-Oct-2016 04:09:30

Instrument ID: MG

Operator ID: 403648

Lims ID: 140-5963-A-2

Lab Sample ID: 140-5963-2

Worklist Smp#: 22

Client ID: 09514

Purge Vol: 500.000 mL

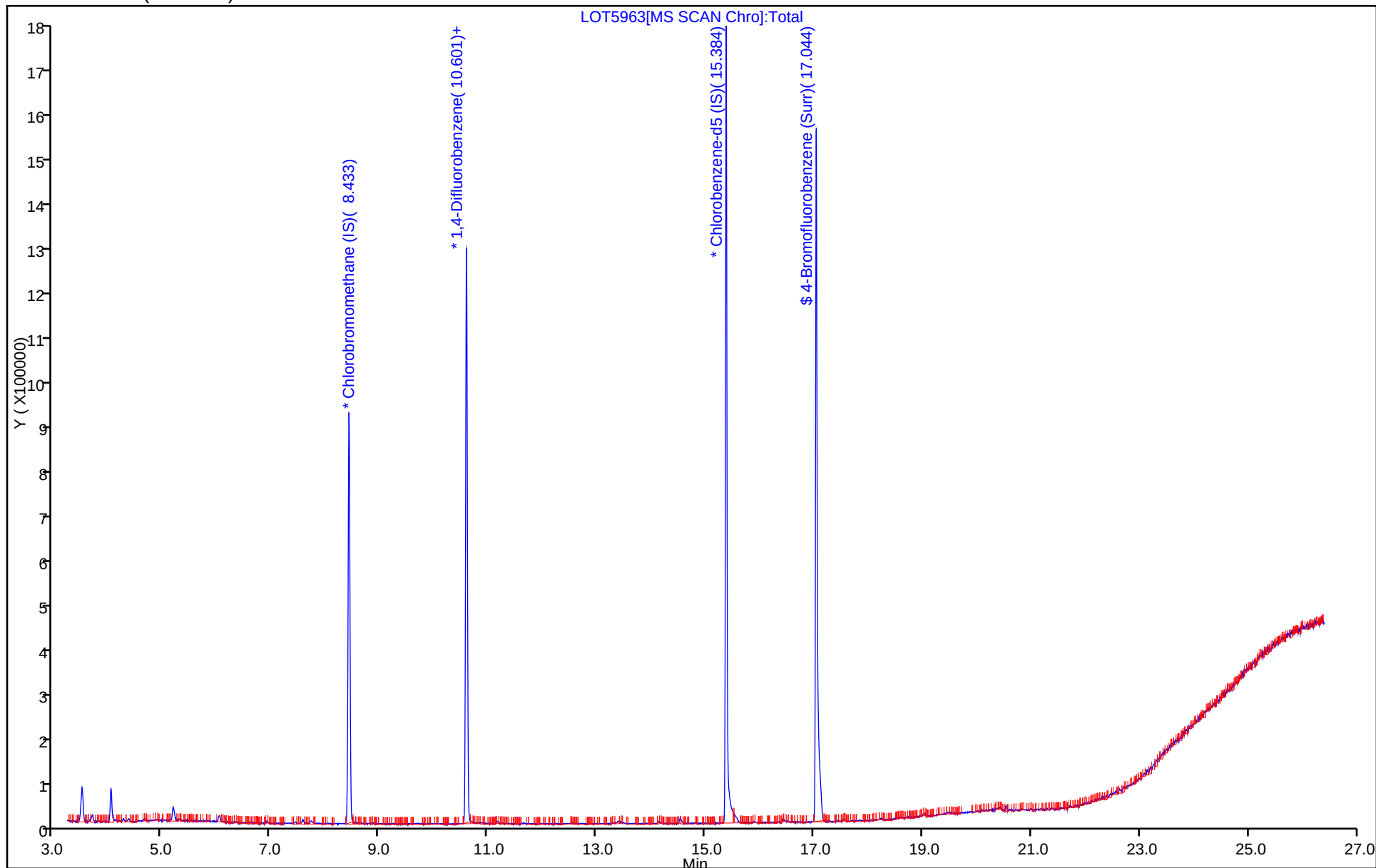
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: MG_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



Shipping and Receiving Documents

McKinney, Jamie

From: Tommy Giamichael <tgiamichael@aztechenv.com>
Sent: Tuesday, November 15, 2016 1:56 PM
To: McKinney, Jamie; Bill Toran; Kevin Carpenter
Subject: RE: TestAmerica Sample Login Confirmation files from 140-6336 Off-Site M Quarry #C360143

Hi jamie, please run the sample labeled MS/MSD, if possible please change its name to DUP-1 on the chain.

This was a duplicate sample needed for validation and should have been labeled dup-1 originally not ms/msd.

If you have any questions, please call me at 518-337-7635

Tommy

Sent via the Samsung Galaxy S® 5 ACTIVE™, an AT&T 4G LTE smartphone

----- Original message -----

From: "McKinney, Jamie" <jamie.mckinney@testamericainc.com>
Date: 11/15/16 1:46 PM (GMT-05:00)
To: Bill Toran <btoran@aztechenv.com>, Kevin Carpenter <kevin.carpenter@dec.ny.gov>, Tommy Giamichael <tgiamichael@aztechenv.com>
Subject: TestAmerica Sample Login Confirmation files from 140-6336 Off-Site M Quarry #C360143

We can't analyze a MS/MSD for this method. Please let me know if you want to cancel sample MS/MSD or if you want us to analyze it as a sample.

Please let us know if we met your expectations by rating the service you received from TestAmerica on this project by visiting our website at: [Project Feedback](#)

JAMIE A MCKINNEY
Senior Project Manager

TestAmerica Knoxville
THE LEADER IN ENVIRONMENTAL TESTING

Tel: 865.291.3000
www.testamericainc.com

Reference: [012348]
Attachments: 2

THE LEADER IN ENVIRONMENTAL TESTING

11/28/2016

Client Contact Information		Project Manager: <u>Tom / Bill</u>		Sampled By: <u>Todo Rolleno</u>		2 of 3 COCs	
Company: <u>ARTECH ENVIRONMENTAL</u>		Phone: _____		Site Contact: _____		STEFAN TRUEN	
Address: <u>5 MCCREA HILL RD</u>		City/State/Zip: <u>BALSTON SPG, NY 12020</u>		Phone: <u>518.885.5383</u>		FAX: _____	
Project Name: <u>MARBLE QUARRY</u>		Analysis Turnaround Time		Standard (Specify) <u>30 DAY 10 DAY</u>		Rush (Specify) _____	
Site/location: <u>TUCKAHOE, NY</u>		Time Start		Time Stop		Canister ID	
PO # _____		Canister Vacuum in Field, "Hg (Start)		Canister Vacuum in Field, "Hg (Stop)		Flow Controller ID	
Sample Identification		Sample Date(s)		Time Start		Time Stop	
OA-2		11/8/16		16:03		16:58	
OVP-3		11/8/16		16:35		17:27	
OVP-6		11/9/16		7:55		8:50	
OVP-7		11/9/16		8:20		9:15	
OVP-8		11/9/16		8:51		9:45	
OVP-4		11/9/16		9:41		10:35	
Sampled by:		Temperature (Fahrenheit)		Interior		Ambient	
		Start					
		Stop					
		Pressure (inches of Hg)		Interior		Ambient	
		Start					
		Stop					
Special Instructions/QC Requirements & Comments:		Contract Item #AT-07, VOCs in AIR BY TO-15, SOIL GAS ANALYSIS		Albany		480501	
Canisters Shipped by:		Date/Time:		Canisters Received by:			
Samples Relinquished by:		Date/Time: 11/9/16 15:30		Received by: <u>TAALB</u>			
Relinquished by:		Date/Time: 11/10/16 1800		Received by: <u>11/11/16</u>		000	

480501-Albany

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: Tom / Bill		Sampled By: Todd Rolleno STEFAN TRUZA		3 of 3 COCs																			
Company: AZTECH ENVIRONMENTAL							Phone:																							
Address: 5 McCREA Hill Rd							Site Contact:																							
City/State/Zip: BAULSTON SpT , NY 12020							TAL Contact:																							
Phone: 518.885.5383																														
FAX:																														
Project Name: MARBLE QUARRY							Analysis Turnaround Time																							
Site/location: TUCKAHOE, NY							Standard (Specify) ~~30 DAY~~ 10 DAY																							
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)					
MS/MSD							11/9/16	9:41	10:35	>-30	-12	10853	09926	✓																
OVP - 5							11/9/16	11:13	12:07	-29	-11	10654	10165	✓																
Sampled by : 							Temperature (Fahrenheit)																							
							Interior		Ambient																					
							Start																							
							Stop																							
							Pressure (Inches of Hg)																							
							Interior		Ambient																					
							Start																							
							Stop																							
Special Instructions/QC Requirements & Comments: Contract Item # AT-07, VOCs IN AIR BY TO-15, SOIL GAS ANALYSIS																														
Canisters Shipped by:							Date/Time:				Canisters Received by:																			
Samples Relinquished by: 							Date/Time:		11/9/16 15:30		Received by:				T-4 AND															
Relinquished by: 							Date/Time:		11/20/16 1800		Received by:				11/16/16 1000															

Log In Number:

TESTAMERICA KNOXVILLE SAMPLE RECEIPT/CONDITION UPON RECEIPT ANOMALY CHECKLIST

Review Items	Yes	No	NA	If No, what was the problem?	Comments/Actions Taken
1. Are the shipping containers intact?	/			☐ Containers, Broken	
2. Were ambient air containers received intact?			/	☒ Checked in lab	
3. The coolers/containers custody seal if present, is it intact?			/	☐ Yes ☐ NA	
4. Is the cooler temperature within limits? (> freezing temp. of water to 6°C, VOST: 10°C) Thermometer ID: _____ Correction factor: _____			/	☐ Cooler Out of Temp, Client Contacted, Proceed/Cancel ☐ Cooler Out of Temp, Same Day Receipt	
5. Were all of the sample containers received intact?	/			☐ Containers, Broken	
6. Were samples received in appropriate containers?	/			☐ Containers, Improper; Client Contacted; Proceed/Cancel	
7. Do sample container labels match COC? (IDs, Dates, Times)		/		☒ COC & Samples Do Not Match ☐ COC Incorrect/Incomplete ☐ COC Not Received	
8. Were all of the samples listed on the COC received?	/			☐ Sample Received, Not on COC ☐ Sample on COC, Not Received	
9. Is the date/time of sample collection noted?	/			☐ COC; No Date/Time; Client Contacted	
10. Was the sampler identified on the COC?	/			☐ Sampler Not Listed on COC	
11. Is the client and project name/# identified?	/			☐ COC Incorrect/Incomplete	
12. Are tests/parameters listed for each sample?	/			☐ COC No tests on COC	
13. Is the matrix of the samples noted?	/			☐ COC Incorrect/Incomplete	
14. Was COC relinquished? (Signed/Dated/Timed)	/			☐ COC Incorrect/Incomplete	
15. Were samples received within holding time?	/			☐ Holding Time - Receipt	
16. Were samples received with correct chemical preservative (excluding Encore)?			/	☐ pH Adjusted, pH Included (See box 16A) ☐ Incorrect Preservative	
17. Were VOA samples received without headspace?			/	☐ Headspace (VOA only)	
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number: _____			/	☐ Residual Chlorine	
19. For 1613B water samples is pH<9?			/	☐ If no, lab will adjust	
20. For rad samples was sample activity info. Provided?			/	☐ Project missing info	
Project #: 14003268 PM Instructions: _____					
Sample Receiving Associate:  Date: 11/17/16					

Box 16A: pH Preservation	Box 18A: Residual Chlorine
Preservative:	
Lot Number:	
Exp Date:	
Analyst:	
Date:	
Time:	

QA026R30.doc, 080916

140-6336

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G5

Date: 11/14/2016

[illegible]

APPENDIX D

Soil Sampling Analytical Results

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-112692-1

Client Project/Site: Fmr Marble Quarry Landfill #C360143

For:

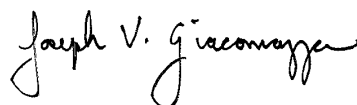
New York State D.E.C.

625 Broadway

Division of Environmental Remediation

Albany, New York 12233-7014

Attn: Kevin Carpenter



Authorized for release by:

2/1/2017 10:38:56 AM

Joe Giacomazza, Project Management Assistant II

joe.giacomazza@testamericainc.com

Designee for

Judy Stone, Senior Project Manager

(484)685-0868

judy.stone@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

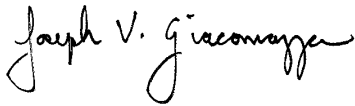
www.testamericainc.com

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

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

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

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Joe Giacomazza
Project Management Assistant II
2/1/2017 10:38:56 AM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	6
Lab Chronicle	8
Certification Summary	9
Method Summary	10
Sample Summary	11
Receipt Checklists	12
Chain of Custody	13



Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112692-1

Qualifiers

GC/MS VOA

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

GC/MS Semi VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
X	Surrogate is outside control limits

Glossary

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

Case Narrative

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112692-1

Job ID: 480-112692-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-112692-1

Receipt

The samples were received on 1/26/2017 12:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.9° C.

GC/MS VOA

Method(s) 8260C: Reported analyte concentrations in the following sample is below 200 ug/kg and may be biased low due to the samples not being collected according to 5035-L/5035A-L low-level specifications: MW-1 (480-112692-1) and MW-2 (480-112692-2).

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

GC/MS Semi VOA

Method(s) 8270D: The following samples were diluted due to color and, viscosity: MW-1 (480-112692-1), MW-2 (480-112692-2), (480-112692-A-1-A MS) and (480-112692-A-1-B MSD). Elevated reporting limits (RL) are provided.

Method(s) 8270D: The following sample was diluted due to the nature of the sample matrix: MW-1 (480-112692-1) and MW-2 (480-112692-2). As such, surrogate recoveries are below the calibration range or are not reported, and elevated reporting limits (RLs) are provided.

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-341690 recovered above the upper control limit for 2,4,6-Tribromophenol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following sample is impacted: MW-1 (480-112692-1) and MW-2 (480-112692-2).

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

Organic Prep

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

Client Sample Results

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112692-1

Client Sample ID: MW-1

Lab Sample ID: 480-112692-1

Date Collected: 01/19/17 10:00

Matrix: Solid

Date Received: 01/26/17 00:30

Percent Solids: 88.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.5	1.1	ug/Kg	☼	01/27/17 08:41	01/27/17 17:37	1
1,3,5-Trimethylbenzene	ND		5.5	0.35	ug/Kg	☼	01/27/17 08:41	01/27/17 17:37	1
4-Isopropyltoluene	ND		5.5	0.44	ug/Kg	☼	01/27/17 08:41	01/27/17 17:37	1
Benzene	ND		5.5	0.27	ug/Kg	☼	01/27/17 08:41	01/27/17 17:37	1
Ethylbenzene	ND		5.5	0.38	ug/Kg	☼	01/27/17 08:41	01/27/17 17:37	1
Isopropylbenzene	ND		5.5	0.83	ug/Kg	☼	01/27/17 08:41	01/27/17 17:37	1
Methyl tert-butyl ether	ND		5.5	0.54	ug/Kg	☼	01/27/17 08:41	01/27/17 17:37	1
m-Xylene & p-Xylene	ND		11	0.92	ug/Kg	☼	01/27/17 08:41	01/27/17 17:37	1
Naphthalene	ND		5.5	0.74	ug/Kg	☼	01/27/17 08:41	01/27/17 17:37	1
n-Butylbenzene	ND		5.5	0.48	ug/Kg	☼	01/27/17 08:41	01/27/17 17:37	1
N-Propylbenzene	ND		5.5	0.44	ug/Kg	☼	01/27/17 08:41	01/27/17 17:37	1
o-Xylene	ND		5.5	0.72	ug/Kg	☼	01/27/17 08:41	01/27/17 17:37	1
sec-Butylbenzene	ND		5.5	0.48	ug/Kg	☼	01/27/17 08:41	01/27/17 17:37	1
Toluene	ND		5.5	0.42	ug/Kg	☼	01/27/17 08:41	01/27/17 17:37	1
Xylenes, Total	ND		11	0.92	ug/Kg	☼	01/27/17 08:41	01/27/17 17:37	1
tert-Butylbenzene	ND		5.5	0.57	ug/Kg	☼	01/27/17 08:41	01/27/17 17:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		64 - 126	01/27/17 08:41	01/27/17 17:37	1
4-Bromofluorobenzene (Surr)	100		72 - 126	01/27/17 08:41	01/27/17 17:37	1
Toluene-d8 (Surr)	114		71 - 125	01/27/17 08:41	01/27/17 17:37	1
Dibromofluoromethane (Surr)	108		60 - 140	01/27/17 08:41	01/27/17 17:37	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		1900	280	ug/Kg	☼	01/27/17 08:35	01/27/17 20:57	10
Acenaphthylene	ND		1900	250	ug/Kg	☼	01/27/17 08:35	01/27/17 20:57	10
Anthracene	ND		1900	470	ug/Kg	☼	01/27/17 08:35	01/27/17 20:57	10
Benzo[a]anthracene	ND		1900	190	ug/Kg	☼	01/27/17 08:35	01/27/17 20:57	10
Benzo[a]pyrene	ND		1900	280	ug/Kg	☼	01/27/17 08:35	01/27/17 20:57	10
Benzo[b]fluoranthene	ND	F1	1900	300	ug/Kg	☼	01/27/17 08:35	01/27/17 20:57	10
Benzo[g,h,i]perylene	ND		1900	200	ug/Kg	☼	01/27/17 08:35	01/27/17 20:57	10
Benzo[k]fluoranthene	ND		1900	250	ug/Kg	☼	01/27/17 08:35	01/27/17 20:57	10
Chrysene	ND		1900	420	ug/Kg	☼	01/27/17 08:35	01/27/17 20:57	10
Dibenz(a,h)anthracene	ND	F1	1900	330	ug/Kg	☼	01/27/17 08:35	01/27/17 20:57	10
Fluoranthene	ND		1900	200	ug/Kg	☼	01/27/17 08:35	01/27/17 20:57	10
Fluorene	ND		1900	220	ug/Kg	☼	01/27/17 08:35	01/27/17 20:57	10
Indeno[1,2,3-cd]pyrene	ND	F1	1900	230	ug/Kg	☼	01/27/17 08:35	01/27/17 20:57	10
Naphthalene	ND		1900	250	ug/Kg	☼	01/27/17 08:35	01/27/17 20:57	10
Pyrene	ND		1900	220	ug/Kg	☼	01/27/17 08:35	01/27/17 20:57	10
Phenanthrene	ND		1900	280	ug/Kg	☼	01/27/17 08:35	01/27/17 20:57	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	93		54 - 120	01/27/17 08:35	01/27/17 20:57	10
2-Fluorobiphenyl	72		60 - 120	01/27/17 08:35	01/27/17 20:57	10
2-Fluorophenol (Surr)	72		52 - 120	01/27/17 08:35	01/27/17 20:57	10
Phenol-d5 (Surr)	56		54 - 120	01/27/17 08:35	01/27/17 20:57	10
p-Terphenyl-d14 (Surr)	77		65 - 121	01/27/17 08:35	01/27/17 20:57	10
Nitrobenzene-d5 (Surr)	65		53 - 120	01/27/17 08:35	01/27/17 20:57	10

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112692-1

Client Sample ID: MW-2

Lab Sample ID: 480-112692-2

Date Collected: 01/19/17 10:05

Matrix: Solid

Date Received: 01/26/17 00:30

Percent Solids: 90.9

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	ND		5.5	1.1	ug/Kg	☼	01/27/17 08:41	01/27/17 18:03	1
1,3,5-Trimethylbenzene	ND		5.5	0.35	ug/Kg	☼	01/27/17 08:41	01/27/17 18:03	1
4-Isopropyltoluene	ND		5.5	0.44	ug/Kg	☼	01/27/17 08:41	01/27/17 18:03	1
Benzene	ND		5.5	0.27	ug/Kg	☼	01/27/17 08:41	01/27/17 18:03	1
Ethylbenzene	ND		5.5	0.38	ug/Kg	☼	01/27/17 08:41	01/27/17 18:03	1
Isopropylbenzene	ND		5.5	0.83	ug/Kg	☼	01/27/17 08:41	01/27/17 18:03	1
Methyl tert-butyl ether	ND		5.5	0.54	ug/Kg	☼	01/27/17 08:41	01/27/17 18:03	1
m-Xylene & p-Xylene	ND		11	0.92	ug/Kg	☼	01/27/17 08:41	01/27/17 18:03	1
Naphthalene	0.73	J	5.5	0.73	ug/Kg	☼	01/27/17 08:41	01/27/17 18:03	1
n-Butylbenzene	ND		5.5	0.48	ug/Kg	☼	01/27/17 08:41	01/27/17 18:03	1
N-Propylbenzene	ND		5.5	0.44	ug/Kg	☼	01/27/17 08:41	01/27/17 18:03	1
o-Xylene	ND		5.5	0.72	ug/Kg	☼	01/27/17 08:41	01/27/17 18:03	1
sec-Butylbenzene	ND		5.5	0.48	ug/Kg	☼	01/27/17 08:41	01/27/17 18:03	1
Toluene	ND		5.5	0.41	ug/Kg	☼	01/27/17 08:41	01/27/17 18:03	1
Xylenes, Total	ND		11	0.92	ug/Kg	☼	01/27/17 08:41	01/27/17 18:03	1
tert-Butylbenzene	ND		5.5	0.57	ug/Kg	☼	01/27/17 08:41	01/27/17 18:03	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		64 - 126	01/27/17 08:41	01/27/17 18:03	1
4-Bromofluorobenzene (Surr)	102		72 - 126	01/27/17 08:41	01/27/17 18:03	1
Toluene-d8 (Surr)	114		71 - 125	01/27/17 08:41	01/27/17 18:03	1
Dibromofluoromethane (Surr)	111		60 - 140	01/27/17 08:41	01/27/17 18:03	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		1800	270	ug/Kg	☼	01/27/17 08:35	01/27/17 21:24	10
Acenaphthylene	ND		1800	240	ug/Kg	☼	01/27/17 08:35	01/27/17 21:24	10
Anthracene	ND		1800	450	ug/Kg	☼	01/27/17 08:35	01/27/17 21:24	10
Benzo[a]anthracene	ND		1800	180	ug/Kg	☼	01/27/17 08:35	01/27/17 21:24	10
Benzo[a]pyrene	ND		1800	270	ug/Kg	☼	01/27/17 08:35	01/27/17 21:24	10
Benzo[b]fluoranthene	ND		1800	290	ug/Kg	☼	01/27/17 08:35	01/27/17 21:24	10
Benzo[g,h,i]perylene	ND		1800	190	ug/Kg	☼	01/27/17 08:35	01/27/17 21:24	10
Benzo[k]fluoranthene	ND		1800	240	ug/Kg	☼	01/27/17 08:35	01/27/17 21:24	10
Chrysene	ND		1800	410	ug/Kg	☼	01/27/17 08:35	01/27/17 21:24	10
Dibenz(a,h)anthracene	ND		1800	320	ug/Kg	☼	01/27/17 08:35	01/27/17 21:24	10
Fluoranthene	ND		1800	190	ug/Kg	☼	01/27/17 08:35	01/27/17 21:24	10
Fluorene	ND		1800	220	ug/Kg	☼	01/27/17 08:35	01/27/17 21:24	10
Indeno[1,2,3-cd]pyrene	ND		1800	230	ug/Kg	☼	01/27/17 08:35	01/27/17 21:24	10
Naphthalene	ND		1800	240	ug/Kg	☼	01/27/17 08:35	01/27/17 21:24	10
Pyrene	ND		1800	220	ug/Kg	☼	01/27/17 08:35	01/27/17 21:24	10
Phenanthrene	ND		1800	270	ug/Kg	☼	01/27/17 08:35	01/27/17 21:24	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	85		54 - 120	01/27/17 08:35	01/27/17 21:24	10
2-Fluorobiphenyl	74		60 - 120	01/27/17 08:35	01/27/17 21:24	10
2-Fluorophenol (Surr)	54		52 - 120	01/27/17 08:35	01/27/17 21:24	10
Phenol-d5 (Surr)	52	X	54 - 120	01/27/17 08:35	01/27/17 21:24	10
p-Terphenyl-d14 (Surr)	73		65 - 121	01/27/17 08:35	01/27/17 21:24	10
Nitrobenzene-d5 (Surr)	60		53 - 120	01/27/17 08:35	01/27/17 21:24	10

TestAmerica Buffalo

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112692-1

Client Sample ID: MW-1

Date Collected: 01/19/17 10:00

Date Received: 01/26/17 00:30

Lab Sample ID: 480-112692-1

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	341448	01/26/17 06:02	CSW	TAL BUF

Client Sample ID: MW-1

Date Collected: 01/19/17 10:00

Date Received: 01/26/17 00:30

Lab Sample ID: 480-112692-1

Matrix: Solid

Percent Solids: 88.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			341640	01/27/17 08:41	CDC	TAL BUF
Total/NA	Analysis	8260C		1	341683	01/27/17 17:37	CDC	TAL BUF
Total/NA	Prep	3550C			341638	01/27/17 08:35	RJS	TAL BUF
Total/NA	Analysis	8270D		10	341690	01/27/17 20:57	DMR	TAL BUF

Client Sample ID: MW-2

Date Collected: 01/19/17 10:05

Date Received: 01/26/17 00:30

Lab Sample ID: 480-112692-2

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	Moisture		1	341448	01/26/17 06:02	CSW	TAL BUF

Client Sample ID: MW-2

Date Collected: 01/19/17 10:05

Date Received: 01/26/17 00:30

Lab Sample ID: 480-112692-2

Matrix: Solid

Percent Solids: 90.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035A			341640	01/27/17 08:41	CDC	TAL BUF
Total/NA	Analysis	8260C		1	341683	01/27/17 18:03	CDC	TAL BUF
Total/NA	Prep	3550C			341638	01/27/17 08:35	RJS	TAL BUF
Total/NA	Analysis	8270D		10	341690	01/27/17 21:24	DMR	TAL BUF

Laboratory References:

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

Certification Summary

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112692-1

Laboratory: TestAmerica Buffalo

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

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-17 *

The following analytes are included in this report, but certification is not offered by the governing authority:

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

* Certification renewal pending - certification considered valid.

TestAmerica Buffalo

Method Summary

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112692-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
Moisture	Percent Moisture	EPA	TAL BUF

Protocol References:

EPA = US Environmental Protection Agency

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

Laboratory References:

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

Sample Summary

Client: New York State D.E.C.

TestAmerica Job ID: 480-112692-1

Project/Site: Frmr Marble Quarry Landfill #C360143

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-112692-1	MW-1	Solid	01/19/17 10:00	01/26/17 00:30
480-112692-2	MW-2	Solid	01/19/17 10:05	01/26/17 00:30

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-112692-1

Login Number: 112692

List Source: TestAmerica Buffalo

List Number: 1

Creator: Williams, Christopher S

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

10 Hazelwood Drive

Amherst, NY 14228

phone 716.504.9852 fax 716.691.7991

480501-Albany

Chain of Custody Record



TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact NNYSEDEC Central Office/Aztech Technologies 5 McCrea Hill Road Ballston Spa NY		Project Manager: K. Carpenter/T. Giamichael Tel/Fax: (518)885-5383		Site Contact: T. Giamichael Lab Contact: J Stone		Date: Carrier:	
Sample Identification Project Name: Former Marble Quarry Offsite Site: Spill# C360143 P O# 126957 Project# 48014725		Analysis Turnaround Time Calendar (C) or Work Days (W) TAT if different from Below <u>STD</u> 2 weeks 1 week 2 days 1 day		Sample Date 1/19/17 1/19/17		Sample Time 10:00 10:05	
Sample Type 501 ↓		Matrix 501 6		# of Cont. 2 4		Filtered Sample EPA 8270 CP-51 EPA 8260 CP-51	
MW-1 MW-2		X X		X X		Sample Specific Notes:	
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other 1 Possible Hazard Identification Non-Hazard Flammable Skin Irritant Poison B Unknown							
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) Return To Client Disposal By Lab Archive For _____ Months							
Special Instructions/QC Requirements & Comments: Please send copy of report to bioran@aztech.com, giamichael@aztech.com, and kcarpenter@aztech.com T. Giamichael@aztech.com							
Relinquished by: <u>See Giamichael</u> Relinquished by: <u>Tim Knollmeyer</u> Relinquished by:		Company: <u>Aztech</u> Company: <u>TA</u> Company:		Date/Time: <u>1/19/17</u> Date/Time: <u>1-25-17</u> Date/Time:		Received by: <u>Tim Knollmeyer</u> Received by: <u>TA</u> Received by:	
Relinquished by:		Company:		Date/Time:		Received by:	

Form No. CA-C-WI-002, dated 04/07/2011

53

APPENDIX E

Groundwater Quality Results

APPENDIX F

Groundwater Analytical Results

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Buffalo

10 Hazelwood Drive

Amherst, NY 14228-2298

Tel: (716)691-2600

TestAmerica Job ID: 480-112809-1

Client Project/Site: Fmr Marble Quarry Landfill #C360143

For:

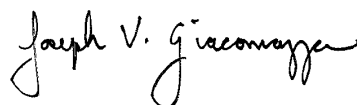
New York State D.E.C.

625 Broadway

Division of Environmental Remediation

Albany, New York 12233-7014

Attn: Kevin Carpenter



Authorized for release by:

2/6/2017 5:10:43 PM

Joe Giacomazza, Project Management Assistant II

joe.giacomazza@testamericainc.com

Designee for

Judy Stone, Senior Project Manager

(484)685-0868

judy.stone@testamericainc.com

LINKS

Review your project
results through

TotalAccess

Have a Question?



Visit us at:

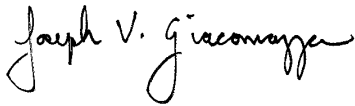
www.testamericainc.com

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

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

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

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed within the body of this report. Release of the data contained in this sample data package and in the electronic data deliverable has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.



Joe Giacomazza
Project Management Assistant II
2/6/2017 5:10:43 PM

Table of Contents

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Client Sample Results	7
Lab Chronicle	20
Certification Summary	22
Method Summary	23
Sample Summary	24
Receipt Checklists	25
Chain of Custody	26



Definitions/Glossary

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112809-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F1	MS and/or MSD Recovery is outside acceptance limits.

GC/MS Semi VOA

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

GC Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits

Metals

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

Glossary

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

Case Narrative

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112809-1

Job ID: 480-112809-1

Laboratory: TestAmerica Buffalo

Narrative

Job Narrative 480-112809-1

Receipt

The samples were received on 1/28/2017 1:30 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.5° C.

Receipt Exceptions

The plastic preserved containers for Metals is not preserved with HNO₃, they are preserved with NaOH. The metals test have been placed on hold pending PM review.

The following samples for metals were received unpreserved and were preserved upon receipt to the laboratory: OMW-1 (480-112809-1), OMW-2 (480-112809-2), OMW-2 (480-112809-2[MS]), OMW-2 (480-112809-2[MSD]) and DUP-1 (480-112809-3). Regulatory documents require a 24-hour waiting period from the time of the addition of the acid preservative to the time of digestion. Sample Control added 2.0ML HNO₃ lot #145075 at 1200 on 1/30/17.

GC/MS VOA

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 480-342530 recovered above the upper control limit for 2-Butanone (MEK), 2-Hexanone and Trichlorofluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The following samples are impacted: OMW-1 (480-112809-1), OMW-2 (480-112809-2) and DUP-1 (480-112809-3).

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

GC/MS Semi VOA

Method(s) 8270D: Due to an increase in the spiking concentration required for other analytes of interest, the following compounds have been elevated to a level above the upper range of the initial calibration: 3,3'-Dichlorobenzidine. The laboratory control sample (LCS 480-341811/2) recovered within acceptable limits for these analytes and have been qualified with an "E" flag.

Method(s) 8270D: The continuing calibration verification (CCV) associated with batch 480-342180 recovered outside acceptance criteria, low biased, for 2,4-Dinitrophenol and Pentachlorophenol. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated sample was non-detect for this analyte, the data have been reported. DUP-1 (480-112809-3).

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

GC Semi VOA

Method(s) 8081B: The matrix spike / matrix spike duplicate(MS/MSD) precision for preparation batch 341803 was outside control limits for Aldrin. The matrix spike, matrix spike duplicate, and laboratory control sample (LCS) recoveries are all acceptable, therefore the data has been reported.

Method(s) 8081B: All primary data for analytical batch 341952 is reported from the RTX-CLPI column.

Method(s) 8082A: All primary data for analytical batch 341941 is reported from the ZB-5 column.

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

Metals

Method(s) 3005A: The following samples for metals were received unpreserved and were preserved upon receipt to the laboratory: OMW-1 (480-112809-1), OMW-2 (480-112809-2), OMW-2 (480-112809-2[MS]), OMW-2 (480-112809-2[MSD]) and DUP-1 (480-112809-3). Regulatory documents require a 24-hour waiting period from the time of the addition of the acid preservative to the time of digestion.

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

Organic Prep

Case Narrative

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112809-1

Job ID: 480-112809-1 (Continued)

Laboratory: TestAmerica Buffalo (Continued)

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

1

2

3

4

5

6

7

8

9

10

11

Client Sample Results

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112809-1

Client Sample ID: OMW-1

Lab Sample ID: 480-112809-1

Date Collected: 01/26/17 09:15

Matrix: Water

Date Received: 01/28/17 01:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/03/17 12:09	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/03/17 12:09	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/03/17 12:09	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/03/17 12:09	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/03/17 12:09	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/03/17 12:09	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/03/17 12:09	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/03/17 12:09	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/03/17 12:09	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/03/17 12:09	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/03/17 12:09	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/03/17 12:09	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/03/17 12:09	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/03/17 12:09	1
2-Hexanone	ND		5.0	1.2	ug/L			02/03/17 12:09	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/03/17 12:09	1
Acetone	ND		10	3.0	ug/L			02/03/17 12:09	1
Benzene	ND		1.0	0.41	ug/L			02/03/17 12:09	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/03/17 12:09	1
Bromoform	ND		1.0	0.26	ug/L			02/03/17 12:09	1
Bromomethane	ND		1.0	0.69	ug/L			02/03/17 12:09	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/03/17 12:09	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/03/17 12:09	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/03/17 12:09	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/03/17 12:09	1
Chloroethane	ND		1.0	0.32	ug/L			02/03/17 12:09	1
Chloroform	1.5		1.0	0.34	ug/L			02/03/17 12:09	1
Chloromethane	ND		1.0	0.35	ug/L			02/03/17 12:09	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/03/17 12:09	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/03/17 12:09	1
Cyclohexane	ND		1.0	0.18	ug/L			02/03/17 12:09	1
Dichlorodifluoromethane	ND		1.0	0.68	ug/L			02/03/17 12:09	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/03/17 12:09	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/03/17 12:09	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/03/17 12:09	1
Methyl acetate	ND		2.5	1.3	ug/L			02/03/17 12:09	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/03/17 12:09	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/03/17 12:09	1
Methylene Chloride	2.1 B		1.0	0.44	ug/L			02/03/17 12:09	1
Styrene	ND		1.0	0.73	ug/L			02/03/17 12:09	1
Tetrachloroethene	ND		1.0	0.36	ug/L			02/03/17 12:09	1
Toluene	ND		1.0	0.51	ug/L			02/03/17 12:09	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/03/17 12:09	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/03/17 12:09	1
Trichloroethene	ND		1.0	0.46	ug/L			02/03/17 12:09	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/03/17 12:09	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/03/17 12:09	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/03/17 12:09	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112809-1

Client Sample ID: OMW-1

Lab Sample ID: 480-112809-1

Date Collected: 01/26/17 09:15

Matrix: Water

Date Received: 01/28/17 01:30

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	99		80 - 120		02/03/17 12:09	1
1,2-Dichloroethane-d4 (Surr)	105		77 - 120		02/03/17 12:09	1
4-Bromofluorobenzene (Surr)	101		73 - 120		02/03/17 12:09	1
Dibromofluoromethane (Surr)	104		75 - 123		02/03/17 12:09	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		4.8	0.62	ug/L		01/30/17 08:20	01/31/17 18:50	1
bis (2-chloroisopropyl) ether	ND		4.8	0.49	ug/L		01/30/17 08:20	01/31/17 18:50	1
2,4,5-Trichlorophenol	ND		4.8	0.46	ug/L		01/30/17 08:20	01/31/17 18:50	1
2,4,6-Trichlorophenol	ND		4.8	0.58	ug/L		01/30/17 08:20	01/31/17 18:50	1
2,4-Dichlorophenol	ND		4.8	0.48	ug/L		01/30/17 08:20	01/31/17 18:50	1
2,4-Dimethylphenol	ND		4.8	0.48	ug/L		01/30/17 08:20	01/31/17 18:50	1
2,4-Dinitrophenol	ND		9.5	2.1	ug/L		01/30/17 08:20	01/31/17 18:50	1
2,4-Dinitrotoluene	ND		4.8	0.43	ug/L		01/30/17 08:20	01/31/17 18:50	1
2,6-Dinitrotoluene	ND		4.8	0.38	ug/L		01/30/17 08:20	01/31/17 18:50	1
2-Chloronaphthalene	ND		4.8	0.44	ug/L		01/30/17 08:20	01/31/17 18:50	1
2-Chlorophenol	ND		4.8	0.50	ug/L		01/30/17 08:20	01/31/17 18:50	1
2-Methylphenol	ND		4.8	0.38	ug/L		01/30/17 08:20	01/31/17 18:50	1
2-Methylnaphthalene	ND		4.8	0.57	ug/L		01/30/17 08:20	01/31/17 18:50	1
2-Nitroaniline	ND		9.5	0.40	ug/L		01/30/17 08:20	01/31/17 18:50	1
2-Nitrophenol	ND		4.8	0.46	ug/L		01/30/17 08:20	01/31/17 18:50	1
3,3'-Dichlorobenzidine	ND		4.8	0.38	ug/L		01/30/17 08:20	01/31/17 18:50	1
3-Nitroaniline	ND		9.5	0.46	ug/L		01/30/17 08:20	01/31/17 18:50	1
4,6-Dinitro-2-methylphenol	ND		9.5	2.1	ug/L		01/30/17 08:20	01/31/17 18:50	1
4-Bromophenyl phenyl ether	ND		4.8	0.43	ug/L		01/30/17 08:20	01/31/17 18:50	1
4-Chloro-3-methylphenol	ND		4.8	0.43	ug/L		01/30/17 08:20	01/31/17 18:50	1
4-Chloroaniline	ND		4.8	0.56	ug/L		01/30/17 08:20	01/31/17 18:50	1
4-Chlorophenyl phenyl ether	ND		4.8	0.33	ug/L		01/30/17 08:20	01/31/17 18:50	1
4-Methylphenol	ND		9.5	0.34	ug/L		01/30/17 08:20	01/31/17 18:50	1
4-Nitroaniline	ND		9.5	0.24	ug/L		01/30/17 08:20	01/31/17 18:50	1
4-Nitrophenol	ND		9.5	1.4	ug/L		01/30/17 08:20	01/31/17 18:50	1
Acenaphthene	ND		4.8	0.39	ug/L		01/30/17 08:20	01/31/17 18:50	1
Acenaphthylene	ND		4.8	0.36	ug/L		01/30/17 08:20	01/31/17 18:50	1
Acetophenone	ND		4.8	0.51	ug/L		01/30/17 08:20	01/31/17 18:50	1
Anthracene	ND		4.8	0.27	ug/L		01/30/17 08:20	01/31/17 18:50	1
Atrazine	ND		4.8	0.44	ug/L		01/30/17 08:20	01/31/17 18:50	1
Benzaldehyde	ND		4.8	0.25	ug/L		01/30/17 08:20	01/31/17 18:50	1
Benzo[a]anthracene	ND		4.8	0.34	ug/L		01/30/17 08:20	01/31/17 18:50	1
Benzo[a]pyrene	ND		4.8	0.45	ug/L		01/30/17 08:20	01/31/17 18:50	1
Benzo[b]fluoranthene	ND		4.8	0.32	ug/L		01/30/17 08:20	01/31/17 18:50	1
Benzo[g,h,i]perylene	ND		4.8	0.33	ug/L		01/30/17 08:20	01/31/17 18:50	1
Benzo[k]fluoranthene	ND		4.8	0.69	ug/L		01/30/17 08:20	01/31/17 18:50	1
Bis(2-chloroethoxy)methane	ND		4.8	0.33	ug/L		01/30/17 08:20	01/31/17 18:50	1
Bis(2-chloroethyl)ether	ND		4.8	0.38	ug/L		01/30/17 08:20	01/31/17 18:50	1
Bis(2-ethylhexyl) phthalate	ND		4.8	2.1	ug/L		01/30/17 08:20	01/31/17 18:50	1
Butyl benzyl phthalate	ND		4.8	0.95	ug/L		01/30/17 08:20	01/31/17 18:50	1
Caprolactam	ND		4.8	2.1	ug/L		01/30/17 08:20	01/31/17 18:50	1
Carbazole	ND		4.8	0.29	ug/L		01/30/17 08:20	01/31/17 18:50	1
Chrysene	ND		4.8	0.31	ug/L		01/30/17 08:20	01/31/17 18:50	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112809-1

Client Sample ID: OMW-1

Lab Sample ID: 480-112809-1

Date Collected: 01/26/17 09:15

Matrix: Water

Date Received: 01/28/17 01:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenz(a,h)anthracene	ND		4.8	0.40	ug/L		01/30/17 08:20	01/31/17 18:50	1
Di-n-butyl phthalate	0.64	J B	4.8	0.29	ug/L		01/30/17 08:20	01/31/17 18:50	1
Di-n-octyl phthalate	ND		4.8	0.45	ug/L		01/30/17 08:20	01/31/17 18:50	1
Dibenzofuran	ND		9.5	0.48	ug/L		01/30/17 08:20	01/31/17 18:50	1
Diethyl phthalate	ND		4.8	0.21	ug/L		01/30/17 08:20	01/31/17 18:50	1
Dimethyl phthalate	ND		4.8	0.34	ug/L		01/30/17 08:20	01/31/17 18:50	1
Fluoranthene	ND		4.8	0.38	ug/L		01/30/17 08:20	01/31/17 18:50	1
Fluorene	ND		4.8	0.34	ug/L		01/30/17 08:20	01/31/17 18:50	1
Hexachlorobenzene	ND		4.8	0.48	ug/L		01/30/17 08:20	01/31/17 18:50	1
Hexachlorobutadiene	ND		4.8	0.65	ug/L		01/30/17 08:20	01/31/17 18:50	1
Hexachlorocyclopentadiene	ND		4.8	0.56	ug/L		01/30/17 08:20	01/31/17 18:50	1
Hexachloroethane	ND		4.8	0.56	ug/L		01/30/17 08:20	01/31/17 18:50	1
Indeno[1,2,3-cd]pyrene	ND		4.8	0.45	ug/L		01/30/17 08:20	01/31/17 18:50	1
Isophorone	ND		4.8	0.41	ug/L		01/30/17 08:20	01/31/17 18:50	1
N-Nitrosodi-n-propylamine	ND		4.8	0.51	ug/L		01/30/17 08:20	01/31/17 18:50	1
N-Nitrosodiphenylamine	ND		4.8	0.48	ug/L		01/30/17 08:20	01/31/17 18:50	1
Naphthalene	ND		4.8	0.72	ug/L		01/30/17 08:20	01/31/17 18:50	1
Nitrobenzene	ND		4.8	0.28	ug/L		01/30/17 08:20	01/31/17 18:50	1
Pentachlorophenol	ND		9.5	2.1	ug/L		01/30/17 08:20	01/31/17 18:50	1
Phenanthrene	ND		4.8	0.42	ug/L		01/30/17 08:20	01/31/17 18:50	1
Phenol	ND		4.8	0.37	ug/L		01/30/17 08:20	01/31/17 18:50	1
Pyrene	ND		4.8	0.32	ug/L		01/30/17 08:20	01/31/17 18:50	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	66		46 - 120	01/30/17 08:20	01/31/17 18:50	1
Phenol-d5 (Surr)	42		22 - 120	01/30/17 08:20	01/31/17 18:50	1
p-Terphenyl-d14 (Surr)	91		59 - 136	01/30/17 08:20	01/31/17 18:50	1
2,4,6-Tribromophenol (Surr)	80		41 - 120	01/30/17 08:20	01/31/17 18:50	1
2-Fluorobiphenyl	75		48 - 120	01/30/17 08:20	01/31/17 18:50	1
2-Fluorophenol (Surr)	55		35 - 120	01/30/17 08:20	01/31/17 18:50	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.046	0.0086	ug/L		01/30/17 08:05	01/31/17 11:59	1
4,4'-DDE	ND		0.046	0.011	ug/L		01/30/17 08:05	01/31/17 11:59	1
4,4'-DDT	ND		0.046	0.010	ug/L		01/30/17 08:05	01/31/17 11:59	1
Aldrin	ND		0.046	0.0075	ug/L		01/30/17 08:05	01/31/17 11:59	1
alpha-BHC	ND		0.046	0.0072	ug/L		01/30/17 08:05	01/31/17 11:59	1
alpha-Chlordane	ND		0.046	0.014	ug/L		01/30/17 08:05	01/31/17 11:59	1
beta-BHC	ND		0.046	0.023	ug/L		01/30/17 08:05	01/31/17 11:59	1
delta-BHC	ND		0.046	0.0093	ug/L		01/30/17 08:05	01/31/17 11:59	1
Dieldrin	ND		0.046	0.0091	ug/L		01/30/17 08:05	01/31/17 11:59	1
Endosulfan I	ND		0.046	0.010	ug/L		01/30/17 08:05	01/31/17 11:59	1
Endosulfan II	ND		0.046	0.011	ug/L		01/30/17 08:05	01/31/17 11:59	1
Endosulfan sulfate	ND		0.046	0.015	ug/L		01/30/17 08:05	01/31/17 11:59	1
Endrin	ND		0.046	0.013	ug/L		01/30/17 08:05	01/31/17 11:59	1
Endrin aldehyde	ND		0.046	0.015	ug/L		01/30/17 08:05	01/31/17 11:59	1
Endrin ketone	ND		0.046	0.011	ug/L		01/30/17 08:05	01/31/17 11:59	1
gamma-BHC (Lindane)	ND		0.046	0.0074	ug/L		01/30/17 08:05	01/31/17 11:59	1
gamma-Chlordane	ND		0.046	0.010	ug/L		01/30/17 08:05	01/31/17 11:59	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112809-1

Client Sample ID: OMW-1

Lab Sample ID: 480-112809-1

Date Collected: 01/26/17 09:15

Matrix: Water

Date Received: 01/28/17 01:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptachlor	ND		0.046	0.0079	ug/L		01/30/17 08:05	01/31/17 11:59	1
Heptachlor epoxide	ND		0.046	0.0069	ug/L		01/30/17 08:05	01/31/17 11:59	1
Methoxychlor	ND		0.046	0.013	ug/L		01/30/17 08:05	01/31/17 11:59	1
Toxaphene	ND		0.46	0.11	ug/L		01/30/17 08:05	01/31/17 11:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	70		20 - 120				01/30/17 08:05	01/31/17 11:59	1
DCB Decachlorobiphenyl	77		20 - 120				01/30/17 08:05	01/31/17 11:59	1
Tetrachloro-m-xylene	74		44 - 120				01/30/17 08:05	01/31/17 11:59	1
Tetrachloro-m-xylene	76		44 - 120				01/30/17 08:05	01/31/17 11:59	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		01/30/17 14:14	01/31/17 03:17	1
PCB-1221	ND		0.50	0.18	ug/L		01/30/17 14:14	01/31/17 03:17	1
PCB-1232	ND		0.50	0.18	ug/L		01/30/17 14:14	01/31/17 03:17	1
PCB-1242	ND		0.50	0.18	ug/L		01/30/17 14:14	01/31/17 03:17	1
PCB-1248	ND		0.50	0.18	ug/L		01/30/17 14:14	01/31/17 03:17	1
PCB-1254	ND		0.50	0.25	ug/L		01/30/17 14:14	01/31/17 03:17	1
PCB-1260	ND		0.50	0.25	ug/L		01/30/17 14:14	01/31/17 03:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	58		39 - 121				01/30/17 14:14	01/31/17 03:17	1
Tetrachloro-m-xylene	49		39 - 121				01/30/17 14:14	01/31/17 03:17	1
DCB Decachlorobiphenyl	48		19 - 120				01/30/17 14:14	01/31/17 03:17	1
DCB Decachlorobiphenyl	39		19 - 120				01/30/17 14:14	01/31/17 03:17	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.36		0.20	0.060	mg/L		02/01/17 08:55	02/02/17 16:48	1
Antimony	ND		0.020	0.0068	mg/L		02/01/17 08:55	02/02/17 16:48	1
Arsenic	ND		0.015	0.0056	mg/L		02/01/17 08:55	02/02/17 16:48	1
Barium	0.082		0.0020	0.00070	mg/L		02/01/17 08:55	02/02/17 16:48	1
Beryllium	ND		0.0020	0.00030	mg/L		02/01/17 08:55	02/02/17 16:48	1
Cadmium	ND		0.0020	0.00050	mg/L		02/01/17 08:55	02/02/17 16:48	1
Calcium	74.2		0.50	0.10	mg/L		02/01/17 08:55	02/02/17 16:48	1
Chromium	0.0029	J	0.0040	0.0010	mg/L		02/01/17 08:55	02/02/17 16:48	1
Cobalt	0.0061		0.0040	0.00063	mg/L		02/01/17 08:55	02/02/17 16:48	1
Copper	0.0021	J	0.010	0.0016	mg/L		02/01/17 08:55	02/03/17 12:42	1
Iron	5.7		0.050	0.019	mg/L		02/01/17 08:55	02/02/17 16:48	1
Lead	0.0030	J	0.010	0.0030	mg/L		02/01/17 08:55	02/02/17 16:48	1
Magnesium	20.0		0.20	0.043	mg/L		02/01/17 08:55	02/02/17 16:48	1
Manganese	1.5		0.0030	0.00040	mg/L		02/01/17 08:55	02/02/17 16:48	1
Nickel	0.0085	J	0.010	0.0013	mg/L		02/01/17 08:55	02/02/17 16:48	1
Potassium	11.1		0.50	0.10	mg/L		02/01/17 08:55	02/02/17 16:48	1
Selenium	ND		0.025	0.0087	mg/L		02/01/17 08:55	02/02/17 16:48	1
Silver	ND		0.0060	0.0017	mg/L		02/01/17 08:55	02/02/17 16:48	1
Sodium	85.4		1.0	0.32	mg/L		02/01/17 08:55	02/02/17 16:48	1
Thallium	ND		0.020	0.010	mg/L		02/01/17 08:55	02/02/17 16:48	1
Vanadium	ND		0.0050	0.0015	mg/L		02/01/17 08:55	02/02/17 16:48	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112809-1

Client Sample ID: OMW-1

Date Collected: 01/26/17 09:15

Date Received: 01/28/17 01:30

Lab Sample ID: 480-112809-1

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	0.024	B	0.010	0.0015	mg/L		02/01/17 08:55	02/02/17 16:48	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		02/01/17 09:40	02/01/17 14:52	1

Client Sample ID: OMW-2

Date Collected: 01/26/17 11:00

Date Received: 01/28/17 01:30

Lab Sample ID: 480-112809-2

Matrix: Water

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/03/17 12:32	1
1,1,1,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/03/17 12:32	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/03/17 12:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/03/17 12:32	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/03/17 12:32	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/03/17 12:32	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/03/17 12:32	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/03/17 12:32	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/03/17 12:32	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/03/17 12:32	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/03/17 12:32	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/03/17 12:32	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/03/17 12:32	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/03/17 12:32	1
2-Hexanone	ND		5.0	1.2	ug/L			02/03/17 12:32	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/03/17 12:32	1
Acetone	ND		10	3.0	ug/L			02/03/17 12:32	1
Benzene	ND		1.0	0.41	ug/L			02/03/17 12:32	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/03/17 12:32	1
Bromoform	ND		1.0	0.26	ug/L			02/03/17 12:32	1
Bromomethane	ND		1.0	0.69	ug/L			02/03/17 12:32	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/03/17 12:32	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/03/17 12:32	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/03/17 12:32	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/03/17 12:32	1
Chloroethane	ND		1.0	0.32	ug/L			02/03/17 12:32	1
Chloroform	13		1.0	0.34	ug/L			02/03/17 12:32	1
Chloromethane	ND		1.0	0.35	ug/L			02/03/17 12:32	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/03/17 12:32	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/03/17 12:32	1
Cyclohexane	ND		1.0	0.18	ug/L			02/03/17 12:32	1
Dichlorodifluoromethane	0.99	J	1.0	0.68	ug/L			02/03/17 12:32	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/03/17 12:32	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/03/17 12:32	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/03/17 12:32	1
Methyl acetate	ND		2.5	1.3	ug/L			02/03/17 12:32	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/03/17 12:32	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/03/17 12:32	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112809-1

Client Sample ID: OMW-2

Lab Sample ID: 480-112809-2

Date Collected: 01/26/17 11:00

Matrix: Water

Date Received: 01/28/17 01:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	2.4	F1 B	1.0	0.44	ug/L			02/03/17 12:32	1
Styrene	ND		1.0	0.73	ug/L			02/03/17 12:32	1
Tetrachloroethene	8.9		1.0	0.36	ug/L			02/03/17 12:32	1
Toluene	ND		1.0	0.51	ug/L			02/03/17 12:32	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/03/17 12:32	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/03/17 12:32	1
Trichloroethene	ND		1.0	0.46	ug/L			02/03/17 12:32	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/03/17 12:32	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/03/17 12:32	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/03/17 12:32	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	98		80 - 120		02/03/17 12:32	1
1,2-Dichloroethane-d4 (Surr)	103		77 - 120		02/03/17 12:32	1
4-Bromofluorobenzene (Surr)	102		73 - 120		02/03/17 12:32	1
Dibromofluoromethane (Surr)	104		75 - 123		02/03/17 12:32	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		5.0	0.65	ug/L		01/30/17 08:20	01/31/17 19:19	1
bis (2-chloroisopropyl) ether	ND		5.0	0.52	ug/L		01/30/17 08:20	01/31/17 19:19	1
2,4,5-Trichlorophenol	ND		5.0	0.48	ug/L		01/30/17 08:20	01/31/17 19:19	1
2,4,6-Trichlorophenol	ND		5.0	0.61	ug/L		01/30/17 08:20	01/31/17 19:19	1
2,4-Dichlorophenol	ND		5.0	0.51	ug/L		01/30/17 08:20	01/31/17 19:19	1
2,4-Dimethylphenol	ND		5.0	0.50	ug/L		01/30/17 08:20	01/31/17 19:19	1
2,4-Dinitrophenol	ND		10	2.2	ug/L		01/30/17 08:20	01/31/17 19:19	1
2,4-Dinitrotoluene	ND		5.0	0.45	ug/L		01/30/17 08:20	01/31/17 19:19	1
2,6-Dinitrotoluene	ND		5.0	0.40	ug/L		01/30/17 08:20	01/31/17 19:19	1
2-Chloronaphthalene	ND		5.0	0.46	ug/L		01/30/17 08:20	01/31/17 19:19	1
2-Chlorophenol	ND		5.0	0.53	ug/L		01/30/17 08:20	01/31/17 19:19	1
2-Methylphenol	ND		5.0	0.40	ug/L		01/30/17 08:20	01/31/17 19:19	1
2-Methylnaphthalene	ND		5.0	0.60	ug/L		01/30/17 08:20	01/31/17 19:19	1
2-Nitroaniline	ND		10	0.42	ug/L		01/30/17 08:20	01/31/17 19:19	1
2-Nitrophenol	ND		5.0	0.48	ug/L		01/30/17 08:20	01/31/17 19:19	1
3,3'-Dichlorobenzidine	ND		5.0	0.40	ug/L		01/30/17 08:20	01/31/17 19:19	1
3-Nitroaniline	ND		10	0.48	ug/L		01/30/17 08:20	01/31/17 19:19	1
4,6-Dinitro-2-methylphenol	ND		10	2.2	ug/L		01/30/17 08:20	01/31/17 19:19	1
4-Bromophenyl phenyl ether	ND		5.0	0.45	ug/L		01/30/17 08:20	01/31/17 19:19	1
4-Chloro-3-methylphenol	ND		5.0	0.45	ug/L		01/30/17 08:20	01/31/17 19:19	1
4-Chloroaniline	ND		5.0	0.59	ug/L		01/30/17 08:20	01/31/17 19:19	1
4-Chlorophenyl phenyl ether	ND		5.0	0.35	ug/L		01/30/17 08:20	01/31/17 19:19	1
4-Methylphenol	ND		10	0.36	ug/L		01/30/17 08:20	01/31/17 19:19	1
4-Nitroaniline	ND		10	0.25	ug/L		01/30/17 08:20	01/31/17 19:19	1
4-Nitrophenol	ND		10	1.5	ug/L		01/30/17 08:20	01/31/17 19:19	1
Acenaphthene	ND		5.0	0.41	ug/L		01/30/17 08:20	01/31/17 19:19	1
Acenaphthylene	ND		5.0	0.38	ug/L		01/30/17 08:20	01/31/17 19:19	1
Acetophenone	ND		5.0	0.54	ug/L		01/30/17 08:20	01/31/17 19:19	1
Anthracene	ND		5.0	0.28	ug/L		01/30/17 08:20	01/31/17 19:19	1
Atrazine	ND		5.0	0.46	ug/L		01/30/17 08:20	01/31/17 19:19	1
Benzaldehyde	ND		5.0	0.27	ug/L		01/30/17 08:20	01/31/17 19:19	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112809-1

Client Sample ID: OMW-2

Lab Sample ID: 480-112809-2

Date Collected: 01/26/17 11:00

Matrix: Water

Date Received: 01/28/17 01:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[a]anthracene	ND		5.0	0.36	ug/L		01/30/17 08:20	01/31/17 19:19	1
Benzo[a]pyrene	ND		5.0	0.47	ug/L		01/30/17 08:20	01/31/17 19:19	1
Benzo[b]fluoranthene	ND		5.0	0.34	ug/L		01/30/17 08:20	01/31/17 19:19	1
Benzo[g,h,i]perylene	ND		5.0	0.35	ug/L		01/30/17 08:20	01/31/17 19:19	1
Benzo[k]fluoranthene	ND		5.0	0.73	ug/L		01/30/17 08:20	01/31/17 19:19	1
Bis(2-chloroethoxy)methane	ND		5.0	0.35	ug/L		01/30/17 08:20	01/31/17 19:19	1
Bis(2-chloroethyl)ether	ND		5.0	0.40	ug/L		01/30/17 08:20	01/31/17 19:19	1
Bis(2-ethylhexyl) phthalate	ND		5.0	2.2	ug/L		01/30/17 08:20	01/31/17 19:19	1
Butyl benzyl phthalate	ND		5.0	1.0	ug/L		01/30/17 08:20	01/31/17 19:19	1
Caprolactam	ND		5.0	2.2	ug/L		01/30/17 08:20	01/31/17 19:19	1
Carbazole	ND		5.0	0.30	ug/L		01/30/17 08:20	01/31/17 19:19	1
Chrysene	ND		5.0	0.33	ug/L		01/30/17 08:20	01/31/17 19:19	1
Dibenz(a,h)anthracene	ND		5.0	0.42	ug/L		01/30/17 08:20	01/31/17 19:19	1
Di-n-butyl phthalate	0.65	J B	5.0	0.31	ug/L		01/30/17 08:20	01/31/17 19:19	1
Di-n-octyl phthalate	0.73	J	5.0	0.47	ug/L		01/30/17 08:20	01/31/17 19:19	1
Dibenzofuran	ND		10	0.51	ug/L		01/30/17 08:20	01/31/17 19:19	1
Diethyl phthalate	ND		5.0	0.22	ug/L		01/30/17 08:20	01/31/17 19:19	1
Dimethyl phthalate	ND		5.0	0.36	ug/L		01/30/17 08:20	01/31/17 19:19	1
Fluoranthene	ND		5.0	0.40	ug/L		01/30/17 08:20	01/31/17 19:19	1
Fluorene	ND		5.0	0.36	ug/L		01/30/17 08:20	01/31/17 19:19	1
Hexachlorobenzene	ND		5.0	0.51	ug/L		01/30/17 08:20	01/31/17 19:19	1
Hexachlorobutadiene	ND		5.0	0.68	ug/L		01/30/17 08:20	01/31/17 19:19	1
Hexachlorocyclopentadiene	ND		5.0	0.59	ug/L		01/30/17 08:20	01/31/17 19:19	1
Hexachloroethane	ND		5.0	0.59	ug/L		01/30/17 08:20	01/31/17 19:19	1
Indeno[1,2,3-cd]pyrene	ND		5.0	0.47	ug/L		01/30/17 08:20	01/31/17 19:19	1
Isophorone	ND		5.0	0.43	ug/L		01/30/17 08:20	01/31/17 19:19	1
N-Nitrosodi-n-propylamine	ND		5.0	0.54	ug/L		01/30/17 08:20	01/31/17 19:19	1
N-Nitrosodiphenylamine	ND		5.0	0.51	ug/L		01/30/17 08:20	01/31/17 19:19	1
Naphthalene	ND		5.0	0.76	ug/L		01/30/17 08:20	01/31/17 19:19	1
Nitrobenzene	ND		5.0	0.29	ug/L		01/30/17 08:20	01/31/17 19:19	1
Pentachlorophenol	ND		10	2.2	ug/L		01/30/17 08:20	01/31/17 19:19	1
Phenanthrene	ND		5.0	0.44	ug/L		01/30/17 08:20	01/31/17 19:19	1
Phenol	ND		5.0	0.39	ug/L		01/30/17 08:20	01/31/17 19:19	1
Pyrene	ND		5.0	0.34	ug/L		01/30/17 08:20	01/31/17 19:19	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	68		46 - 120	01/30/17 08:20	01/31/17 19:19	1
Phenol-d5 (Surr)	44		22 - 120	01/30/17 08:20	01/31/17 19:19	1
p-Terphenyl-d14 (Surr)	100		59 - 136	01/30/17 08:20	01/31/17 19:19	1
2,4,6-Tribromophenol (Surr)	79		41 - 120	01/30/17 08:20	01/31/17 19:19	1
2-Fluorobiphenyl	79		48 - 120	01/30/17 08:20	01/31/17 19:19	1
2-Fluorophenol (Surr)	57		35 - 120	01/30/17 08:20	01/31/17 19:19	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.046	0.0085	ug/L		01/30/17 08:05	01/31/17 11:39	1
4,4'-DDE	ND		0.046	0.011	ug/L		01/30/17 08:05	01/31/17 11:39	1
4,4'-DDT	ND		0.046	0.010	ug/L		01/30/17 08:05	01/31/17 11:39	1
Aldrin	ND	F2	0.046	0.0075	ug/L		01/30/17 08:05	01/31/17 11:39	1
alpha-BHC	ND		0.046	0.0071	ug/L		01/30/17 08:05	01/31/17 11:39	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112809-1

Client Sample ID: OMW-2

Lab Sample ID: 480-112809-2

Date Collected: 01/26/17 11:00

Matrix: Water

Date Received: 01/28/17 01:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
alpha-Chlordane	ND		0.046	0.014	ug/L		01/30/17 08:05	01/31/17 11:39	1
beta-BHC	ND		0.046	0.023	ug/L		01/30/17 08:05	01/31/17 11:39	1
delta-BHC	ND		0.046	0.0093	ug/L		01/30/17 08:05	01/31/17 11:39	1
Dieldrin	ND		0.046	0.0091	ug/L		01/30/17 08:05	01/31/17 11:39	1
Endosulfan I	ND		0.046	0.010	ug/L		01/30/17 08:05	01/31/17 11:39	1
Endosulfan II	ND		0.046	0.011	ug/L		01/30/17 08:05	01/31/17 11:39	1
Endosulfan sulfate	ND		0.046	0.015	ug/L		01/30/17 08:05	01/31/17 11:39	1
Endrin	ND		0.046	0.013	ug/L		01/30/17 08:05	01/31/17 11:39	1
Endrin aldehyde	ND		0.046	0.015	ug/L		01/30/17 08:05	01/31/17 11:39	1
Endrin ketone	ND		0.046	0.011	ug/L		01/30/17 08:05	01/31/17 11:39	1
gamma-BHC (Lindane)	ND		0.046	0.0074	ug/L		01/30/17 08:05	01/31/17 11:39	1
gamma-Chlordane	ND		0.046	0.010	ug/L		01/30/17 08:05	01/31/17 11:39	1
Heptachlor	ND		0.046	0.0079	ug/L		01/30/17 08:05	01/31/17 11:39	1
Heptachlor epoxide	ND		0.046	0.0069	ug/L		01/30/17 08:05	01/31/17 11:39	1
Methoxychlor	ND		0.046	0.013	ug/L		01/30/17 08:05	01/31/17 11:39	1
Toxaphene	ND		0.46	0.11	ug/L		01/30/17 08:05	01/31/17 11:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		20 - 120	01/30/17 08:05	01/31/17 11:39	1
DCB Decachlorobiphenyl	100		20 - 120	01/30/17 08:05	01/31/17 11:39	1
Tetrachloro-m-xylene	79		44 - 120	01/30/17 08:05	01/31/17 11:39	1
Tetrachloro-m-xylene	77		44 - 120	01/30/17 08:05	01/31/17 11:39	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		01/30/17 14:14	01/31/17 03:01	1
PCB-1221	ND		0.50	0.18	ug/L		01/30/17 14:14	01/31/17 03:01	1
PCB-1232	ND		0.50	0.18	ug/L		01/30/17 14:14	01/31/17 03:01	1
PCB-1242	ND		0.50	0.18	ug/L		01/30/17 14:14	01/31/17 03:01	1
PCB-1248	ND		0.50	0.18	ug/L		01/30/17 14:14	01/31/17 03:01	1
PCB-1254	ND		0.50	0.25	ug/L		01/30/17 14:14	01/31/17 03:01	1
PCB-1260	ND		0.50	0.25	ug/L		01/30/17 14:14	01/31/17 03:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	69		39 - 121	01/30/17 14:14	01/31/17 03:01	1
Tetrachloro-m-xylene	54		39 - 121	01/30/17 14:14	01/31/17 03:01	1
DCB Decachlorobiphenyl	65		19 - 120	01/30/17 14:14	01/31/17 03:01	1
DCB Decachlorobiphenyl	53		19 - 120	01/30/17 14:14	01/31/17 03:01	1

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	0.093	J	0.20	0.060	mg/L		02/01/17 08:55	02/03/17 12:49	1
Antimony	ND		0.020	0.0068	mg/L		02/01/17 08:55	02/03/17 12:49	1
Arsenic	ND		0.015	0.0056	mg/L		02/01/17 08:55	02/03/17 12:49	1
Barium	0.15		0.0020	0.00070	mg/L		02/01/17 08:55	02/03/17 12:49	1
Beryllium	ND		0.0020	0.00030	mg/L		02/01/17 08:55	02/03/17 12:49	1
Cadmium	0.00057	J	0.0020	0.00050	mg/L		02/01/17 08:55	02/03/17 12:49	1
Calcium	214		0.50	0.10	mg/L		02/01/17 08:55	02/03/17 12:49	1
Chromium	0.0011	J	0.0040	0.0010	mg/L		02/01/17 08:55	02/03/17 12:49	1
Cobalt	ND		0.0040	0.00063	mg/L		02/01/17 08:55	02/03/17 12:49	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112809-1

Client Sample ID: OMW-2

Lab Sample ID: 480-112809-2

Date Collected: 01/26/17 11:00

Matrix: Water

Date Received: 01/28/17 01:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.0030	J	0.010	0.0016	mg/L		02/01/17 08:55	02/03/17 12:49	1
Iron	0.037	J	0.050	0.019	mg/L		02/01/17 08:55	02/03/17 12:49	1
Lead	ND		0.010	0.0030	mg/L		02/01/17 08:55	02/03/17 12:49	1
Magnesium	60.9		0.20	0.043	mg/L		02/01/17 08:55	02/03/17 12:49	1
Manganese	0.028		0.0030	0.00040	mg/L		02/01/17 08:55	02/03/17 12:49	1
Nickel	ND		0.010	0.0013	mg/L		02/01/17 08:55	02/03/17 12:49	1
Potassium	7.8		0.50	0.10	mg/L		02/01/17 08:55	02/03/17 12:49	1
Selenium	ND		0.025	0.0087	mg/L		02/01/17 08:55	02/03/17 12:49	1
Silver	ND		0.0060	0.0017	mg/L		02/01/17 08:55	02/03/17 12:49	1
Sodium	257		1.0	0.32	mg/L		02/01/17 08:55	02/03/17 12:49	1
Thallium	ND		0.020	0.010	mg/L		02/01/17 08:55	02/03/17 12:49	1
Vanadium	ND		0.0050	0.0015	mg/L		02/01/17 08:55	02/03/17 12:49	1
Zinc	0.0019	J	0.010	0.0015	mg/L		02/01/17 08:55	02/03/17 12:49	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		02/01/17 09:40	02/01/17 14:57	1

Client Sample ID: DUP-1

Lab Sample ID: 480-112809-3

Date Collected: 01/26/17 00:00

Matrix: Water

Date Received: 01/28/17 01:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.82	ug/L			02/03/17 14:08	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.21	ug/L			02/03/17 14:08	1
1,1,2-Trichloroethane	ND		1.0	0.23	ug/L			02/03/17 14:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.0	0.31	ug/L			02/03/17 14:08	1
1,1-Dichloroethane	ND		1.0	0.38	ug/L			02/03/17 14:08	1
1,1-Dichloroethene	ND		1.0	0.29	ug/L			02/03/17 14:08	1
1,2,4-Trichlorobenzene	ND		1.0	0.41	ug/L			02/03/17 14:08	1
1,2-Dibromo-3-Chloropropane	ND		1.0	0.39	ug/L			02/03/17 14:08	1
1,2-Dichlorobenzene	ND		1.0	0.79	ug/L			02/03/17 14:08	1
1,2-Dichloroethane	ND		1.0	0.21	ug/L			02/03/17 14:08	1
1,2-Dichloropropane	ND		1.0	0.72	ug/L			02/03/17 14:08	1
1,3-Dichlorobenzene	ND		1.0	0.78	ug/L			02/03/17 14:08	1
1,4-Dichlorobenzene	ND		1.0	0.84	ug/L			02/03/17 14:08	1
2-Butanone (MEK)	ND		10	1.3	ug/L			02/03/17 14:08	1
2-Hexanone	ND		5.0	1.2	ug/L			02/03/17 14:08	1
4-Methyl-2-pentanone (MIBK)	ND		5.0	2.1	ug/L			02/03/17 14:08	1
Acetone	ND		10	3.0	ug/L			02/03/17 14:08	1
Benzene	ND		1.0	0.41	ug/L			02/03/17 14:08	1
Bromodichloromethane	ND		1.0	0.39	ug/L			02/03/17 14:08	1
Bromoform	ND		1.0	0.26	ug/L			02/03/17 14:08	1
Bromomethane	ND		1.0	0.69	ug/L			02/03/17 14:08	1
Carbon disulfide	ND		1.0	0.19	ug/L			02/03/17 14:08	1
Carbon tetrachloride	ND		1.0	0.27	ug/L			02/03/17 14:08	1
Chlorobenzene	ND		1.0	0.75	ug/L			02/03/17 14:08	1
Dibromochloromethane	ND		1.0	0.32	ug/L			02/03/17 14:08	1
Chloroethane	ND		1.0	0.32	ug/L			02/03/17 14:08	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112809-1

Client Sample ID: DUP-1

Lab Sample ID: 480-112809-3

Date Collected: 01/26/17 00:00

Matrix: Water

Date Received: 01/28/17 01:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	14		1.0	0.34	ug/L			02/03/17 14:08	1
Chloromethane	ND		1.0	0.35	ug/L			02/03/17 14:08	1
cis-1,2-Dichloroethene	ND		1.0	0.81	ug/L			02/03/17 14:08	1
cis-1,3-Dichloropropene	ND		1.0	0.36	ug/L			02/03/17 14:08	1
Cyclohexane	ND		1.0	0.18	ug/L			02/03/17 14:08	1
Dichlorodifluoromethane	1.0		1.0	0.68	ug/L			02/03/17 14:08	1
Ethylbenzene	ND		1.0	0.74	ug/L			02/03/17 14:08	1
1,2-Dibromoethane	ND		1.0	0.73	ug/L			02/03/17 14:08	1
Isopropylbenzene	ND		1.0	0.79	ug/L			02/03/17 14:08	1
Methyl acetate	ND		2.5	1.3	ug/L			02/03/17 14:08	1
Methyl tert-butyl ether	ND		1.0	0.16	ug/L			02/03/17 14:08	1
Methylcyclohexane	ND		1.0	0.16	ug/L			02/03/17 14:08	1
Methylene Chloride	1.8 B		1.0	0.44	ug/L			02/03/17 14:08	1
Styrene	ND		1.0	0.73	ug/L			02/03/17 14:08	1
Tetrachloroethene	8.5		1.0	0.36	ug/L			02/03/17 14:08	1
Toluene	ND		1.0	0.51	ug/L			02/03/17 14:08	1
trans-1,2-Dichloroethene	ND		1.0	0.90	ug/L			02/03/17 14:08	1
trans-1,3-Dichloropropene	ND		1.0	0.37	ug/L			02/03/17 14:08	1
Trichloroethene	ND		1.0	0.46	ug/L			02/03/17 14:08	1
Trichlorofluoromethane	ND		1.0	0.88	ug/L			02/03/17 14:08	1
Vinyl chloride	ND		1.0	0.90	ug/L			02/03/17 14:08	1
Xylenes, Total	ND		2.0	0.66	ug/L			02/03/17 14:08	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	100		80 - 120		02/03/17 14:08	1
1,2-Dichloroethane-d4 (Surr)	104		77 - 120		02/03/17 14:08	1
4-Bromofluorobenzene (Surr)	103		73 - 120		02/03/17 14:08	1
Dibromofluoromethane (Surr)	105		75 - 123		02/03/17 14:08	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biphenyl	ND		4.6	0.60	ug/L		01/30/17 08:20	02/01/17 10:58	1
bis (2-chloroisopropyl) ether	ND		4.6	0.48	ug/L		01/30/17 08:20	02/01/17 10:58	1
2,4,5-Trichlorophenol	ND		4.6	0.44	ug/L		01/30/17 08:20	02/01/17 10:58	1
2,4,6-Trichlorophenol	ND		4.6	0.56	ug/L		01/30/17 08:20	02/01/17 10:58	1
2,4-Dichlorophenol	ND		4.6	0.47	ug/L		01/30/17 08:20	02/01/17 10:58	1
2,4-Dimethylphenol	ND		4.6	0.46	ug/L		01/30/17 08:20	02/01/17 10:58	1
2,4-Dinitrophenol	ND		9.2	2.0	ug/L		01/30/17 08:20	02/01/17 10:58	1
2,4-Dinitrotoluene	ND		4.6	0.41	ug/L		01/30/17 08:20	02/01/17 10:58	1
2,6-Dinitrotoluene	ND		4.6	0.37	ug/L		01/30/17 08:20	02/01/17 10:58	1
2-Chloronaphthalene	ND		4.6	0.42	ug/L		01/30/17 08:20	02/01/17 10:58	1
2-Chlorophenol	ND		4.6	0.49	ug/L		01/30/17 08:20	02/01/17 10:58	1
2-Methylphenol	ND		4.6	0.37	ug/L		01/30/17 08:20	02/01/17 10:58	1
2-Methylnaphthalene	ND		4.6	0.55	ug/L		01/30/17 08:20	02/01/17 10:58	1
2-Nitroaniline	ND		9.2	0.39	ug/L		01/30/17 08:20	02/01/17 10:58	1
2-Nitrophenol	ND		4.6	0.44	ug/L		01/30/17 08:20	02/01/17 10:58	1
3,3'-Dichlorobenzidine	ND		4.6	0.37	ug/L		01/30/17 08:20	02/01/17 10:58	1
3-Nitroaniline	ND		9.2	0.44	ug/L		01/30/17 08:20	02/01/17 10:58	1
4,6-Dinitro-2-methylphenol	ND		9.2	2.0	ug/L		01/30/17 08:20	02/01/17 10:58	1
4-Bromophenyl phenyl ether	ND		4.6	0.41	ug/L		01/30/17 08:20	02/01/17 10:58	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112809-1

Client Sample ID: DUP-1

Lab Sample ID: 480-112809-3

Date Collected: 01/26/17 00:00

Matrix: Water

Date Received: 01/28/17 01:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloro-3-methylphenol	ND		4.6	0.41	ug/L		01/30/17 08:20	02/01/17 10:58	1
4-Chloroaniline	ND		4.6	0.54	ug/L		01/30/17 08:20	02/01/17 10:58	1
4-Chlorophenyl phenyl ether	ND		4.6	0.32	ug/L		01/30/17 08:20	02/01/17 10:58	1
4-Methylphenol	ND		9.2	0.33	ug/L		01/30/17 08:20	02/01/17 10:58	1
4-Nitroaniline	ND		9.2	0.23	ug/L		01/30/17 08:20	02/01/17 10:58	1
4-Nitrophenol	ND		9.2	1.4	ug/L		01/30/17 08:20	02/01/17 10:58	1
Acenaphthene	ND		4.6	0.38	ug/L		01/30/17 08:20	02/01/17 10:58	1
Acenaphthylene	ND		4.6	0.35	ug/L		01/30/17 08:20	02/01/17 10:58	1
Acetophenone	ND		4.6	0.50	ug/L		01/30/17 08:20	02/01/17 10:58	1
Anthracene	ND		4.6	0.26	ug/L		01/30/17 08:20	02/01/17 10:58	1
Atrazine	ND		4.6	0.42	ug/L		01/30/17 08:20	02/01/17 10:58	1
Benzaldehyde	ND		4.6	0.25	ug/L		01/30/17 08:20	02/01/17 10:58	1
Benzo[a]anthracene	ND		4.6	0.33	ug/L		01/30/17 08:20	02/01/17 10:58	1
Benzo[a]pyrene	ND		4.6	0.43	ug/L		01/30/17 08:20	02/01/17 10:58	1
Benzo[b]fluoranthene	ND		4.6	0.31	ug/L		01/30/17 08:20	02/01/17 10:58	1
Benzo[g,h,i]perylene	ND		4.6	0.32	ug/L		01/30/17 08:20	02/01/17 10:58	1
Benzo[k]fluoranthene	ND		4.6	0.67	ug/L		01/30/17 08:20	02/01/17 10:58	1
Bis(2-chloroethoxy)methane	ND		4.6	0.32	ug/L		01/30/17 08:20	02/01/17 10:58	1
Bis(2-chloroethyl)ether	ND		4.6	0.37	ug/L		01/30/17 08:20	02/01/17 10:58	1
Bis(2-ethylhexyl) phthalate	ND		4.6	2.0	ug/L		01/30/17 08:20	02/01/17 10:58	1
Butyl benzyl phthalate	ND		4.6	0.92	ug/L		01/30/17 08:20	02/01/17 10:58	1
Caprolactam	ND		4.6	2.0	ug/L		01/30/17 08:20	02/01/17 10:58	1
Carbazole	ND		4.6	0.28	ug/L		01/30/17 08:20	02/01/17 10:58	1
Chrysene	ND		4.6	0.30	ug/L		01/30/17 08:20	02/01/17 10:58	1
Dibenz(a,h)anthracene	ND		4.6	0.39	ug/L		01/30/17 08:20	02/01/17 10:58	1
Di-n-butyl phthalate	0.46	J B	4.6	0.29	ug/L		01/30/17 08:20	02/01/17 10:58	1
Di-n-octyl phthalate	ND		4.6	0.43	ug/L		01/30/17 08:20	02/01/17 10:58	1
Dibenzofuran	ND		9.2	0.47	ug/L		01/30/17 08:20	02/01/17 10:58	1
Diethyl phthalate	ND		4.6	0.20	ug/L		01/30/17 08:20	02/01/17 10:58	1
Dimethyl phthalate	ND		4.6	0.33	ug/L		01/30/17 08:20	02/01/17 10:58	1
Fluoranthene	ND		4.6	0.37	ug/L		01/30/17 08:20	02/01/17 10:58	1
Fluorene	ND		4.6	0.33	ug/L		01/30/17 08:20	02/01/17 10:58	1
Hexachlorobenzene	ND		4.6	0.47	ug/L		01/30/17 08:20	02/01/17 10:58	1
Hexachlorobutadiene	ND		4.6	0.63	ug/L		01/30/17 08:20	02/01/17 10:58	1
Hexachlorocyclopentadiene	ND		4.6	0.54	ug/L		01/30/17 08:20	02/01/17 10:58	1
Hexachloroethane	ND		4.6	0.54	ug/L		01/30/17 08:20	02/01/17 10:58	1
Indeno[1,2,3-cd]pyrene	ND		4.6	0.43	ug/L		01/30/17 08:20	02/01/17 10:58	1
Isophorone	ND		4.6	0.40	ug/L		01/30/17 08:20	02/01/17 10:58	1
N-Nitrosodi-n-propylamine	ND		4.6	0.50	ug/L		01/30/17 08:20	02/01/17 10:58	1
N-Nitrosodiphenylamine	ND		4.6	0.47	ug/L		01/30/17 08:20	02/01/17 10:58	1
Naphthalene	ND		4.6	0.70	ug/L		01/30/17 08:20	02/01/17 10:58	1
Nitrobenzene	ND		4.6	0.27	ug/L		01/30/17 08:20	02/01/17 10:58	1
Pentachlorophenol	ND		9.2	2.0	ug/L		01/30/17 08:20	02/01/17 10:58	1
Phenanthrene	ND		4.6	0.41	ug/L		01/30/17 08:20	02/01/17 10:58	1
Phenol	ND		4.6	0.36	ug/L		01/30/17 08:20	02/01/17 10:58	1
Pyrene	ND		4.6	0.31	ug/L		01/30/17 08:20	02/01/17 10:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5 (Surr)	78		46 - 120	01/30/17 08:20	02/01/17 10:58	1
Phenol-d5 (Surr)	47		22 - 120	01/30/17 08:20	02/01/17 10:58	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112809-1

Client Sample ID: DUP-1

Lab Sample ID: 480-112809-3

Date Collected: 01/26/17 00:00

Matrix: Water

Date Received: 01/28/17 01:30

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14 (Surr)	101		59 - 136	01/30/17 08:20	02/01/17 10:58	1
2,4,6-Tribromophenol (Surr)	78		41 - 120	01/30/17 08:20	02/01/17 10:58	1
2-Fluorobiphenyl	90		48 - 120	01/30/17 08:20	02/01/17 10:58	1
2-Fluorophenol (Surr)	64		35 - 120	01/30/17 08:20	02/01/17 10:58	1

Method: 8081B - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.048	0.0088	ug/L		01/30/17 08:05	01/31/17 12:18	1
4,4'-DDE	ND		0.048	0.011	ug/L		01/30/17 08:05	01/31/17 12:18	1
4,4'-DDT	ND		0.048	0.011	ug/L		01/30/17 08:05	01/31/17 12:18	1
Aldrin	ND		0.048	0.0078	ug/L		01/30/17 08:05	01/31/17 12:18	1
alpha-BHC	ND		0.048	0.0074	ug/L		01/30/17 08:05	01/31/17 12:18	1
alpha-Chlordane	ND		0.048	0.014	ug/L		01/30/17 08:05	01/31/17 12:18	1
beta-BHC	ND		0.048	0.024	ug/L		01/30/17 08:05	01/31/17 12:18	1
delta-BHC	ND		0.048	0.0096	ug/L		01/30/17 08:05	01/31/17 12:18	1
Dieldrin	ND		0.048	0.0094	ug/L		01/30/17 08:05	01/31/17 12:18	1
Endosulfan I	ND		0.048	0.011	ug/L		01/30/17 08:05	01/31/17 12:18	1
Endosulfan II	ND		0.048	0.012	ug/L		01/30/17 08:05	01/31/17 12:18	1
Endosulfan sulfate	ND		0.048	0.015	ug/L		01/30/17 08:05	01/31/17 12:18	1
Endrin	ND		0.048	0.013	ug/L		01/30/17 08:05	01/31/17 12:18	1
Endrin aldehyde	ND		0.048	0.016	ug/L		01/30/17 08:05	01/31/17 12:18	1
Endrin ketone	ND		0.048	0.012	ug/L		01/30/17 08:05	01/31/17 12:18	1
gamma-BHC (Lindane)	ND		0.048	0.0077	ug/L		01/30/17 08:05	01/31/17 12:18	1
gamma-Chlordane	ND		0.048	0.011	ug/L		01/30/17 08:05	01/31/17 12:18	1
Heptachlor	ND		0.048	0.0082	ug/L		01/30/17 08:05	01/31/17 12:18	1
Heptachlor epoxide	ND		0.048	0.0071	ug/L		01/30/17 08:05	01/31/17 12:18	1
Methoxychlor	ND		0.048	0.014	ug/L		01/30/17 08:05	01/31/17 12:18	1
Toxaphene	ND		0.48	0.12	ug/L		01/30/17 08:05	01/31/17 12:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	87		20 - 120	01/30/17 08:05	01/31/17 12:18	1
DCB Decachlorobiphenyl	101		20 - 120	01/30/17 08:05	01/31/17 12:18	1
Tetrachloro-m-xylene	92		44 - 120	01/30/17 08:05	01/31/17 12:18	1
Tetrachloro-m-xylene	89		44 - 120	01/30/17 08:05	01/31/17 12:18	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.50	0.18	ug/L		01/30/17 14:14	01/31/17 03:33	1
PCB-1221	ND		0.50	0.18	ug/L		01/30/17 14:14	01/31/17 03:33	1
PCB-1232	ND		0.50	0.18	ug/L		01/30/17 14:14	01/31/17 03:33	1
PCB-1242	ND		0.50	0.18	ug/L		01/30/17 14:14	01/31/17 03:33	1
PCB-1248	ND		0.50	0.18	ug/L		01/30/17 14:14	01/31/17 03:33	1
PCB-1254	ND		0.50	0.25	ug/L		01/30/17 14:14	01/31/17 03:33	1
PCB-1260	ND		0.50	0.25	ug/L		01/30/17 14:14	01/31/17 03:33	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	78		39 - 121	01/30/17 14:14	01/31/17 03:33	1
Tetrachloro-m-xylene	61		39 - 121	01/30/17 14:14	01/31/17 03:33	1
DCB Decachlorobiphenyl	77		19 - 120	01/30/17 14:14	01/31/17 03:33	1
DCB Decachlorobiphenyl	65		19 - 120	01/30/17 14:14	01/31/17 03:33	1

TestAmerica Buffalo

Client Sample Results

Client: New York State D.E.C.

TestAmerica Job ID: 480-112809-1

Project/Site: Frmr Marble Quarry Landfill #C360143

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		0.20	0.060	mg/L		02/01/17 08:55	02/02/17 16:51	1
Antimony	ND		0.020	0.0068	mg/L		02/01/17 08:55	02/02/17 16:51	1
Arsenic	ND		0.015	0.0056	mg/L		02/01/17 08:55	02/02/17 16:51	1
Barium	0.14		0.0020	0.00070	mg/L		02/01/17 08:55	02/02/17 16:51	1
Beryllium	ND		0.0020	0.00030	mg/L		02/01/17 08:55	02/02/17 16:51	1
Cadmium	ND		0.0020	0.00050	mg/L		02/01/17 08:55	02/02/17 16:51	1
Calcium	201		0.50	0.10	mg/L		02/01/17 08:55	02/02/17 16:51	1
Chromium	0.0011	J	0.0040	0.0010	mg/L		02/01/17 08:55	02/02/17 16:51	1
Cobalt	ND		0.0040	0.00063	mg/L		02/01/17 08:55	02/02/17 16:51	1
Copper	0.0031	J	0.010	0.0016	mg/L		02/01/17 08:55	02/03/17 12:46	1
Iron	0.034	J	0.050	0.019	mg/L		02/01/17 08:55	02/02/17 16:51	1
Lead	ND		0.010	0.0030	mg/L		02/01/17 08:55	02/02/17 16:51	1
Magnesium	57.4		0.20	0.043	mg/L		02/01/17 08:55	02/02/17 16:51	1
Manganese	0.027		0.0030	0.00040	mg/L		02/01/17 08:55	02/02/17 16:51	1
Nickel	ND		0.010	0.0013	mg/L		02/01/17 08:55	02/02/17 16:51	1
Potassium	7.5		0.50	0.10	mg/L		02/01/17 08:55	02/02/17 16:51	1
Selenium	ND		0.025	0.0087	mg/L		02/01/17 08:55	02/02/17 16:51	1
Silver	ND		0.0060	0.0017	mg/L		02/01/17 08:55	02/02/17 16:51	1
Sodium	246		1.0	0.32	mg/L		02/01/17 08:55	02/02/17 16:51	1
Thallium	ND		0.020	0.010	mg/L		02/01/17 08:55	02/02/17 16:51	1
Vanadium	ND		0.0050	0.0015	mg/L		02/01/17 08:55	02/02/17 16:51	1
Zinc	0.0041	J B	0.010	0.0015	mg/L		02/01/17 08:55	02/02/17 16:51	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.00020	0.00012	mg/L		02/01/17 09:40	02/01/17 15:05	1

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112809-1

Client Sample ID: OMW-1

Date Collected: 01/26/17 09:15

Date Received: 01/28/17 01:30

Lab Sample ID: 480-112809-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	342530	02/03/17 12:09	GTG	TAL BUF
Total/NA	Prep	3510C			341811	01/30/17 08:20	NMC	TAL BUF
Total/NA	Analysis	8270D		1	341973	01/31/17 18:50	LMW	TAL BUF
Total/NA	Prep	3510C			341803	01/30/17 08:05	NMC	TAL BUF
Total/NA	Analysis	8081B		1	341952	01/31/17 11:59	MAN	TAL BUF
Total/NA	Prep	3510C			341911	01/30/17 14:14	ARS	TAL BUF
Total/NA	Analysis	8082A		1	341941	01/31/17 03:17	JMO	TAL BUF
Total/NA	Prep	3005A			342158	02/01/17 08:55	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	342549	02/02/17 16:48	AMH	TAL BUF
Total/NA	Prep	3005A			342158	02/01/17 08:55	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	342769	02/03/17 12:42	AMH	TAL BUF
Total/NA	Prep	7470A			342195	02/01/17 09:40	RMZ	TAL BUF
Total/NA	Analysis	7470A		1	342284	02/01/17 14:52	RMZ	TAL BUF

Client Sample ID: OMW-2

Date Collected: 01/26/17 11:00

Date Received: 01/28/17 01:30

Lab Sample ID: 480-112809-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	342530	02/03/17 12:32	GTG	TAL BUF
Total/NA	Prep	3510C			341811	01/30/17 08:20	NMC	TAL BUF
Total/NA	Analysis	8270D		1	341973	01/31/17 19:19	LMW	TAL BUF
Total/NA	Prep	3510C			341803	01/30/17 08:05	NMC	TAL BUF
Total/NA	Analysis	8081B		1	341952	01/31/17 11:39	MAN	TAL BUF
Total/NA	Prep	3510C			341911	01/30/17 14:14	ARS	TAL BUF
Total/NA	Analysis	8082A		1	341941	01/31/17 03:01	JMO	TAL BUF
Total/NA	Prep	3005A			342158	02/01/17 08:55	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	342769	02/03/17 12:49	AMH	TAL BUF
Total/NA	Prep	7470A			342195	02/01/17 09:40	RMZ	TAL BUF
Total/NA	Analysis	7470A		1	342284	02/01/17 14:57	RMZ	TAL BUF

Client Sample ID: DUP-1

Date Collected: 01/26/17 00:00

Date Received: 01/28/17 01:30

Lab Sample ID: 480-112809-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	342530	02/03/17 14:08	GTG	TAL BUF
Total/NA	Prep	3510C			341811	01/30/17 08:20	NMC	TAL BUF
Total/NA	Analysis	8270D		1	342180	02/01/17 10:58	LMW	TAL BUF
Total/NA	Prep	3510C			341803	01/30/17 08:05	NMC	TAL BUF
Total/NA	Analysis	8081B		1	341952	01/31/17 12:18	MAN	TAL BUF
Total/NA	Prep	3510C			341911	01/30/17 14:14	ARS	TAL BUF
Total/NA	Analysis	8082A		1	341941	01/31/17 03:33	JMO	TAL BUF

TestAmerica Buffalo

Lab Chronicle

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112809-1

Client Sample ID: DUP-1

Lab Sample ID: 480-112809-3

Date Collected: 01/26/17 00:00

Matrix: Water

Date Received: 01/28/17 01:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			342158	02/01/17 08:55	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	342549	02/02/17 16:51	AMH	TAL BUF
Total/NA	Prep	3005A			342158	02/01/17 08:55	MVZ	TAL BUF
Total/NA	Analysis	6010C		1	342769	02/03/17 12:46	AMH	TAL BUF
Total/NA	Prep	7470A			342195	02/01/17 09:40	RMZ	TAL BUF
Total/NA	Analysis	7470A		1	342284	02/01/17 15:05	RMZ	TAL BUF

Laboratory References:

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

Certification Summary

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112809-1

Laboratory: TestAmerica Buffalo

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
New York	NELAP	2	10026	03-31-17 *

* Certification renewal pending - certification considered valid.

TestAmerica Buffalo

Method Summary

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112809-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL BUF
8270D	Semivolatile Organic Compounds (GC/MS)	SW846	TAL BUF
8081B	Organochlorine Pesticides (GC)	SW846	TAL BUF
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL BUF
6010C	Metals (ICP)	SW846	TAL BUF
7470A	Mercury (CVAA)	SW846	TAL BUF

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: New York State D.E.C.
Project/Site: Frmr Marble Quarry Landfill #C360143

TestAmerica Job ID: 480-112809-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
480-112809-1	OMW-1	Water	01/26/17 09:15	01/28/17 01:30
480-112809-2	OMW-2	Water	01/26/17 11:00	01/28/17 01:30
480-112809-3	DUP-1	Water	01/26/17 00:00	01/28/17 01:30

Login Sample Receipt Checklist

Client: New York State D.E.C.

Job Number: 480-112809-1

Login Number: 112809

List Source: TestAmerica Buffalo

List Number: 1

Creator: Williams, Christopher S

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

Chain of Custody Record

Client Information Client Contact: Tom Giemichael Phone: 518-337-7635 E-Mail: judy.stone@testamericainc.com		Lab PMT: Stone, Judy L E-Mail: judy.stone@testamericainc.com		Carrier:	
Company: Aztech Technologies Inc Address: 5 McCrea Hill Road City: Ballston Spa State, Zip: NY, 12020 Phone: 518-402-9799 (Tel) 518-402-9679 (Fax) Email: tgiemichael@aztechenv.com Project Name: Fmr Marble Quarry Landfill #C360143 Site:		Due Date Requested: TAT Requested (days): 5 days PO #: 126957 WO #: 48014725 Project #: 48014725 SSOW#:		COC No: 480-92409-22273.1 Page: Page 1 of 1 Job #: 480-112809 COC	
Analysis Requested					
Sample Identification ~~MS/MSD~~ OMW-1 ~~MS/MSD~~ OMW-2 MS/MSD (OMW-2) Dup-1		Sample Date 1/26/17 ↓ 11:00 ↓ 11:00 ↓ 11:00	Sample Time 6:15 6:15 6:15 6:15 6:15	Sample Type (C=Comp, G=grab) G G G G G	Matrix (W=water, S=solid, O=oil, BT=Tissue, A=Air) Water Water Water Water Water
Field Filtered Sample (Yes or No) Performing MS/MSD (Yes or No)		8082A - TCL PCBs - OLMO4.2 8081B - TCL Pesticides - OLMO4.2 8270D - TCL SVOA - OLMO4.2 8010C, 7470A 8260C - TCL list OLMO4.2		Total Number of Containers 10 10 10 10	
Special Instructions/Note: 1-27-16		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecalhydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify)			
Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological					
Deliverable Requested: I, II, III, IV, Other (specify) CAT B					
Empty Kit Relinquished by:					
Relinquished by: Tom Giemichael Date/Time: 1/26/17 19:00 Company: Aztech		Relinquished by: Tim Kroll Date/Time: 1-27-17 1800 Company: TX		Relinquished by:	
Relinquished by:		Relinquished by:		Relinquished by:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 0.5 #3	

APPENDIX G

Data Usability Summary Reports

Data Usability Summary Report

**Former Marble Quarry Landfill – Offsite
109-125 Marbledale Road
Westchester County
Tuckahoe, New York**

**Air Monitoring Samples
Lot # #C360143**

November 2016

ZDATA REPORTS

Data Management and Validation Services

118 Rose Lane Terrace, Syracuse, NY 13219, (716) 907-2341

Data Usability Summary Report

**Air Monitoring Samples
Lot # #C360143**

**Former Marble Quarry Landfill – Offsite
109-125 Marbledale Road
Westchester County
Tuckahoe, New York**

Prepared By:

ZDATA REPORTS

Data Management and Validation Services

118 Rose Lane Terrace, Syracuse, NY 13219, (716) 907-2341

EXECUTIVE SUMMARY

This report addresses data quality for thirteen air samples collected at the Former Marble Quarry Landfill – Offsite Area located in Tuckahoe, New York. The samples were analyzed for volatile organics (VOCs) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies. Sample collection was performed by Aztech Technologies, Inc. of Ballston Spa, New York. Analytical services were provided by TestAmerica Laboratories, Inc. located in Knoxville, Tennessee.

The TO-15 volatile organic analyses data were determined to be usable for qualitative and quantitative purposes with additional qualification. Qualification of sample data included the approximation of several compounds based on deviations from initial and continuing calibration, and field duplicate criteria.

TABLE of CONTENTS

SECTION 1 - INTRODUCTION	1
1.1 Introduction	1
1.2 Analytical Methods	1
1.3 Validation Protocols	1
1.4 Data Qualifiers	2
SECTION 2 - DATA VALIDATION SUMMARY	4
2.1 Volatile Organics Analysis	4
3.1 Data Usability	6
3.2 PARCC Evaluation	6
3.2.1 Precision	6
3.2.2 Accuracy	6
3.2.3 Representativeness	6
3.2.4 Comparability	6
3.2.5 Completeness	7

Appendices

Appendix A - Data Validation Checklists

SECTION 1 - INTRODUCTION

1.1 Introduction

This report addresses data quality for thirteen air samples collected at the Former Marble Quarry Landfill – Offsite Area located in Tuckahoe, New York. The samples were analyzed for volatile organics (VOCs) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies. Sample collection was performed by Aztech Technologies, Inc. of Ballston Spa, New York. Analytical services were provided by TestAmerica Laboratories, Inc. located in Knoxville, Tennessee. The quantity and type of samples submitted for data validation are tabulated below.

Table 1: Introduction - Sample Summary Table

SDG#	Date Collected	Sample Matrix	Sample Identification	
			Client ID	Laboratory ID
140-6336-1	11/08/2016	Air	OPV-10	140-6336-1
			OPV-9	140-6336-2
			OPV-1	140-6336-3
			OPV-2	140-6336-4
			OA-1	140-6336-5
			OA-2	140-6336-6
			OVP-3	140-6336-7
	11/09/2016	Air	OVP-6	140-6336-8
			OVP-7	140-6336-9
			OVP-8	140-6336-10
			OVP-4	140-6336-11
			DUP-1	140-6336-12
			OVP-5	140-6336-13

1.2 Analytical Methods

The samples were analyzed for TO-15 volatile organics (VOCs) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies (2005 update). Laboratory analyses were provided by TestAmerica Laboratories, Inc. located in Knoxville, Tennessee.

1.3 Validation Protocols

Data validation is a process that involves the evaluation of analytical data against prescribed quality control criteria to determine the usefulness of the data. The analytical data addressed in this report were evaluated utilizing the quality control criteria presented in the following documents:

- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, EPA-540-R-08-01, June 2008.
- *CLP Organics Data Review and Preliminary Review*, SOP No. HW-6 Revision #14, USEPA Region II, September 2006.
- *Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8260B*, SOP No. HW-24 Revision #2, USEPA Hazardous Waste Support Branch, October 2006.

- *Validating Air Samples Volatile Organic Analysis of Ambient Air in Canister by Method TO-15*, SOP No. HW-31 Revision #4, USEPA Hazardous Waste Support Branch, October 2006.
- *Exhibit E of New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP)*, NYSDEC June 2005.

1.3.1 Organic Parameters

The validation of organic parameters for this project followed the requirements presented in the analytical methodology and the data validation guidelines presented above. The following QA/QC parameters were evaluated:

TO-15 Volatile Organics Analyses

1. Holding Times
2. GC/MS Instrument Tuning Criteria
3. Calibration
 - a. Initial Calibration
 - b. Continuing Calibration
4. Blank Analysis
5. Surrogate Recovery
6. Matrix Spike / Matrix Spike Duplicate Analysis
7. Reference Standard Analysis
8. Internal Standards Recovery
9. Compound Identification and Quantification
10. Field Duplicate Analysis
11. System Performance
12. Documentation Completeness
13. Overall Data Assessment

1.4 Data Qualifiers

The following qualifiers as specified in the guidance documents presented in Section 1.3 of this report have been used for this data validation.

U	Indicates that the compound was analyzed for, but was not detected. The sample quantification limit is presented and adjusted for dilution. This qualifier is also used to signify that the detection limit of an analyte was raised due to blank contamination.
J	Indicates that the result should be considered approximate. This qualifier is used when the data validation procedure identifies a deficiency in the data generation process.
UJ	Indicates that the detection limit for the analyte in this sample should be considered approximate. This qualifier is used when the data validation process identifies a deficiency in the data generation process.

- R Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data are considered to be unusable for both qualitative and quantitative purposes.

The following sections of this document present a summary of the data validation process. Section 2 discusses data compliance with established QA/QC criteria and qualifications performed on the sample data. A discussion of the Precision, Accuracy, Representativeness, Comparability, and Completeness (PARCC) of the data and data usability are discussed in Section 3. The USEPA Region II Data Validation Checklist is presented in Appendix A.

SECTION 2 - DATA VALIDATION SUMMARY

This section presents a discussion of QA/QC parameter compliance with established criteria and the qualification of data performed when QA/ QC parameter deviations were identified. When several deviations from established QA/QC criteria were observed, the final qualifier assigned to the data was based on the cumulative effect of the deviations.

2.1 Volatile Organics Analysis

Data validation was performed for thirteen soil vapor samples. The QA/QC parameters presented in Section 1.3.1 of this report were found to be within specified limits with the exception of the following:

Initial Calibration

The initial calibration relative percent difference (RPD) limit, which requires the RPD to be less than 30 percent, was exceeded for one compound. Sample qualification included the approximation (J, UJ) of results when RPD criteria were exceeded, but were less than 90 percent. Non-detected results were rejected (R) for compounds with RPD values greater than 90 percent. Samples requiring qualification due to these deviations are tabulated below.

Table 2: Volatile Organics Analysis – Initial Calibration Deviations

Date Analyzed	Compound	RPD	Result Qualifier	Affected Samples
11/09/2016 Inst. MJ	1,2,4-Trichlorobenzene	30.4 %	UJ	OPV-10 OPV-9 OPV-1 OPV-2 OA-1 OA-2 OVP-3 OVP-6 OVP-7 OVP-8 OVP-4 DUP-1 OVP-5

Continuing Calibration

The continuing calibration percent difference (%D) limit, which requires the %D to be less than 25 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %D criteria were exceeded, but were less than 90 percent. Non-detected results were rejected (R) for compounds with %D values greater than 90 percent. Samples requiring qualification due to these deviations are tabulated below.

Table 3: Volatile Organics Analysis - Continuing Calibration Deviations

Date Analyzed	Compound	%D	Result Qualifier	Affected Samples
Inst. MJ 11/15/2016 (13:20)	1,2-Dichlorotetrafluoroethane	33.9 %	J, UJ	OPV-10 OPV-9 OPV-1 OPV-2 OA-1 OA-2 OVP-3 OVP-6 OVP-7 OVP-8 OVP-4 DUP-1 OVP-5

Field Duplicates

The percent difference (%D) between sample OVP-4 and the field duplicate sample DUP-1 were within control limits for compounds detected in both samples. However, several analytes were detected in one sample that were not detected in the other. For this reason, these compounds have been qualified as estimated (J, UJ) in the parent sample OPV-4. Compounds qualified are presented in Table 4.

Table 4: Volatile Organics Analysis – Field Duplicate Deviations

Compound	OVP-4 (ppb v/v)	DUP-1 (ppb v/v)	Result Qualifier	Affected Samples
4-Methyl-2-pentanone	4.4	ND	J	OVP-4
Ethanol	5.2	ND	J	
Hexane	0.64	ND	J	
Methylene Chloride	2.3	ND	J	
1,1,1-Trichloroethane	ND	4.2	UJ	
t-Butyl Alcohol	ND	0.59	UJ	
Trichlorofluoromethane	ND	0.37	UJ	

Overall Data Assessment

Overall, the laboratory performed TO-15 volatile organic analyses in accordance with the requirements specified in the methods listed in Section 1.2. These data were determined to be usable for qualitative and quantitative purposes with minor qualification. Sample results for several compounds were qualified based on deviations from initial calibration, continuing calibration and field duplicate criteria.

SECTION 3 - DATA USABILITY and PARCC EVALUATION

3.1 Data Usability

This section presents a summary of the usability of the analytical data and an evaluation of the PARCC parameters. Data usability was calculated as the percentage of data that was not qualified as rejected based on a significant deviation from established QA/QC criteria. Data usability which was calculated separately for each type of analysis is tabulated below.

Table 5: Data Usability and PARCC Evaluation - Data Usability

Parameter	Usability	Deviations
TO-15 Volatile Organics	100 %	None resulting in the rejection of data.

3.2 PARCC Evaluation

The following sections provide an evaluation of the analytical data with respect to the precision, accuracy, representativeness, comparability, and completeness (PARCC) parameters.

3.2.1 Precision

Precision is measured through field duplicate samples, split samples, and laboratory duplicate samples. For this sampling program, none of the data were qualified for laboratory duplicate criteria deviations and 1.03 percent of the data were qualified for field duplicate criteria deviations.

3.2.2 Accuracy

Matrix spike sample, surrogate recovery, internal standard recovery, laboratory control samples, and calibration criteria indicate the accuracy of the data. For this sampling program, none of the analytical data were qualified for deviations from matrix spike recovery criteria; none of the data were qualified for surrogate recovery criteria deviations; none of the data were qualified for internal standard recovery criteria deviations or laboratory control sample deviations, and 3.85 percent of the data were qualified for calibration criteria deviations.

3.2.3 Representativeness

Holding times, sample preservation, and blank analysis are indicators of the representativeness of the analytical data. For this investigation, none of the analytical data required qualification for holding time deviations and none of the analytical data required qualification for blank analysis deviations.

3.2.4 Comparability

Comparability is not compromised provided that the analytical methods did not change over time. A major component of comparability is the use of standard reference materials for calibration and QC. These standards are compared to other unknowns to verify their

concentrations. Since standard analytical methods and reporting procedures were consistently used by the laboratory, the comparability criteria for the analytical data were met.

3.2.5 Completeness

The percent usability or completeness of the data was determined to be 100 percent.

APPENDIX A

DATA VALIDATION CHECKLISTS

Table of Contents

	<u>Page</u>
I. Part A: TO-15 VOA Analyses	2

Data Validation Checklist - Part A: TO-15 VOA Analyses

No:	Parameter	YES	NO	N/A
1.0	<u>Data Completeness and Deliverables</u>			
1.1	Have any missing deliverables been received and added to the data package?		X	
2.0	<u>Cover Letter, Narrative, and Data Reporting Forms</u>			
2.1	Is the Lab. Narrative and Cover Page Present?	X		
2.2	Is Case Number contained in the Narrative?	X		
2.3	Are the following Data Reporting Forms present?			
	Analysis Data Sheet [Form I/Equivalent]	X		
	Tentatively Identified Compounds [Form I-TIC]	X		
	Blank Summary [Form IV/Equivalent]	X		
	Laboratory Control Sample Data Sheet [Form III/Equivalent]	X		
	GC/MS Instrument Performance Check and Mass Calibration [Form V/Equivalent]	X		
	Initial Calibration [Form VI/Equivalent]	X		
	Continuing Calibration [Form VII/Equivalent]	X		
	Internal Standard Area and RT Summary [Form VIII/Equivalent]	X		
	Canister Certification [Form IX/Equivalent]	X		
3.0	<u>Canister Receipt/Log-in Sheet</u>			
3.1	Do all info items agree with each sample?	X		
4.0	<u>Traffic Reports and Laboratory Narrative</u>			
4.1	Are the Traffic Report Forms present for all samples?	X		
5.0	<u>Holding Times</u>			
5.1	Have any VOA technical holding times of 30 days, determined from the date of sample collection to the date of analysis, been exceeded?		X	
6.0	<u>Leak Test Evaluation</u>			
6.1	Did the pressure test not vary by more than ± 13.8 kPa (± 2 psi) over the 24 hours period?	X		
7.0	<u>Canister Certification Form IX/Equivalent</u>			
7.1	Blank Analysis			
	Were the <u>target</u> analytes < the required detection limits specified in the task order?	X		
7.2	Is the canister certification form provided, and the associated canister sample identification included? When contamination, included contamination detected (all raw data), analyte and reference mass spectra.	X		

Data Validation Checklist - Part A: TO-15 VOA Analyses

No:	Parameter	YES	NO	N/A
8.0	<u>Laboratory Control Samples</u>			
8.1	Is an LCS Data Sheet [Form III/Equivalent] present and complete for each LCS?	X		
8.2	Was an LCS prepared (10 ppbv total scan, 0.1 ppbv SIM) and analyzed at the required frequency (once per 24 hour analytical sequence, and concurrently with the samples in the SDG)?	X		
8.3	Are there any transcription/calculation errors between the raw data and Form III/Equivalent?		X	
8.4	Is the % recovery within 70 – 130 % for each LCS <u>target compound</u> reported on Form III/Equivalent?	X		
8.5	Is the RT of <u>each reported LCS compound</u> within the windows established during the most recent valid calibration?	X		
8.6	Do the Internal Standards meet the requirements specified in Sections 18.1 and 18.2?	X		
9.0	<u>GC/MS Instrument Performance Check</u>			
9.1	Are the GC/MS Instrument Performance Check Forms [Form V/Equivalent] present for Bromofluorobenzene (BFB)?	X		
9.2	Are the enhanced bar graph spectrum and mass/charge (m/z) listing for the 50 ng BFB provided for each twenty-four hour shift?	X		
9.3	Has the instrument performance compound been analyzed for every twenty-four hours of sample analysis per instrument?	X		
9.4	Have the ion abundances been normalized to m/z 95?	X		
9.5	Have the ion abundance criteria been met for each instrument used?	X		
9.6	Are there any transcription/calculation errors between mass lists and Form Vs?		X	
9.7	Have the appropriate number of significant figures (two) been reported?	X		
9.8	Are the spectra of the mass calibration compound acceptable?	X		
10.0	<u>Performance Evaluation Sample (Optional)</u>			
10.1	Was a PE sample submitted from the Agency with each SDG?			X
10.2	Do the Internal Standards meet the requirements specified in Section 18.1 and 18.2?			X
11.0	<u>Laboratory Method Blanks</u>			
11.1	Is an Analysis Data Sheet [Form IV/Equivalent] present and complete for each method blank?	X		
11.2	Frequency of Analysis:			
	Has a method blank analysis been reported per instrument for each 24-hour analytical sequence?	X		
	Has a method blank been analyzed after the initial calibration or a valid calibration check standard, and before the LCS, prior to sample analysis?	X		
11.3	Is the chromatographic performance (baseline stability) for each instrument acceptable?	X		
11.4	Was the area response of each Internal Standard (IS) in the blank within ± 40 % of the mean area response of the IS of the most recent valid calibration?	X		

Data Validation Checklist - Part A: TO-15 VOA Analyses

No:	Parameter	YES	NO	N/A
11.5	Were the RTs of each IS within ± 0.33 min (20 sec.) between blanks and most recent valid calibration?	<u> X </u>	<u> </u>	<u> </u>
12.0	<u>Blank Contamination</u>			
12.1	Do any method blanks have positive target and non-target VOA results?	<u> </u>	<u> X </u>	<u> </u>
13.0	<u>Target Compound Analytes</u>			
13.1	Are the Organic Analysis Data Sheets [Form I/Equivalent], VOA chromatograms, and data system printouts present and complete with required header information for each of the following:			
	a. Samples?	<u> X </u>	<u> </u>	<u> </u>
	b. Method blanks?	<u> X </u>	<u> </u>	<u> </u>
	c. Laboratory Control Sample (LCS)?	<u> X </u>	<u> </u>	<u> </u>
	d. Performance Evaluation Sample (PES)?	<u> X </u>	<u> </u>	<u> </u>
13.2	Is the chromatographic performance acceptable with respect to:			
	a. Baseline stability?	<u> X </u>	<u> </u>	<u> </u>
	b. Resolution?	<u> X </u>	<u> </u>	<u> </u>
	c. Peak shape?	<u> X </u>	<u> </u>	<u> </u>
	d. Full-scale graph (attenuation)?	<u> X </u>	<u> </u>	<u> </u>
	e. Other?	<u> </u>	<u> </u>	<u> X </u>
13.3	Were any electropositive displacement (negative peaks) or unusual peaks seen?	<u> </u>	<u> X </u>	<u> </u>
13.4	Is the sample component relative retention time (RRT) within ± 0.06 RRT units of the RRT of the standard component from the most recent continuing calibration?	<u> X </u>	<u> </u>	<u> </u>
13.5	Was Nafion dryer used?	<u> </u>	<u> </u>	<u> X </u>
14.0	<u>Tentatively Identified Compounds (TIC)</u>			
14.1	Are all Tentatively Identified Compound Forms [Form I-TIC] present and are retention time, estimated concentration and "JN" qualifier listed corresponding to each TIC?	<u> </u>	<u> </u>	<u> X </u>
14.2	Are the mass spectra for the tentatively identified compounds and associated "best match" spectra included in the sample package for each of the following?			
	a. Samples	<u> </u>	<u> </u>	<u> X </u>
	b. Blanks	<u> </u>	<u> </u>	<u> X </u>
14.3	Are all ions present in the reference mass spectrum with a relative intensity greater than 10 % also present in the sample mass spectrum?	<u> </u>	<u> </u>	<u> X </u>
14.4	Do TIC and "best match" standard relative ion intensities agree within 20 %?	<u> </u>	<u> </u>	<u> X </u>
15.0	<u>Initial Calibration and System Performance [Form VI/Equivalent]</u>			
15.1	Were each GC/MS system calibrated at 5 concentrations that span the monitoring range of the interest in an initial calibration sequence to determine the sensitivity and the linearity of the GC/MS response for the target compounds?	<u> X </u>	<u> </u>	<u> </u>
15.2	Was the same volume introduced into the trap consistently for all field and QC-sample analyses?	<u> X </u>	<u> </u>	<u> </u>

Data Validation Checklist - Part A: TO-15 VOA Analyses

No:	Parameter	YES	NO	N/A
15.3	Was the area response (Y) at each calibration level within $\pm 40\%$ of the mean area response (mean Y) over the initial calibration range for each Internal Standard?	X		
	Did the laboratory tabulate the area response (Y) of the primary ions and the corresponding concentration for each compound and Internal Standard?	X		
15.4	Are the relative retention times (RRTs) for each of the target compounds at each calibration level within ± 0.06 RRT units of the mean relative retention time for the compound?	X		
15.5	Are all individual RRF and average RRFs ≥ 0.050 ?	X		
15.6	Are the response factors (RF) stable i.e., % Relative Standard Deviation (%RSD) $\leq 30.0\%$?		X	
15.7	Are there any transcription/calculation errors in the reporting of average response factors (RRFs) or %RSDs?		X	
15.8	Are the RT shift for each Internal Standard (IS) at each calibration level within 20 seconds of the mean RT over the initial calibration range of each IS?	X		
16.0	<u>Daily Calibration (Form VII/Equivalent)</u>			
16.1	Are the daily Calibration Forms [Form VII/Equivalent] present and complete for the volatile fraction?	X		
16.2	Has the daily calibration standard (20 ppbv total scan, 0.1 ppbv SIM) been analyzed for every twenty-four hours of sample analysis per instrument after the BFB tuning analysis?	X		
16.3	Do any volatile compounds have a % Difference (%D) between the initial and daily RRFs which exceed the $\pm 30\%$ criteria?		X	
16.4	Are there any transcription/calculation errors in the reporting of the average response factors (RRF) or % difference (%D) between initial and daily RRFs?		X	
17.0	<u>Compound Quantitation and Reported Detection Limits</u>			
17.1	Are there any transcription/calculations errors in Form I results?		X	
17.2	Are the reported detection limits adjusted to reflect sample dilutions?	X		
17.3	Have any target compound concentrations exceeded the calibration range of the GC?		X	
17.4	Was more than one method of quantitation used to calculate sample results within a batch or 24-hour analytical sequence?		X	
17.5	Did the lab report the target compounds below CRQLs with the suffix "J"?			X
18.0	<u>Internal Standards (Form VIII/Equivalent)</u>			
18.1	Are the 3 internal standard areas [Form VIII] of every sample, LCS, PE, and blank within the upper and lower limits ($+40\%$ to -40%) for each continuing calibration or 10 ppb level of initial calibration?	X		
18.2	Are the internal standard retention times in each sample, LCS, PE, and blank within 20 seconds of the corresponding retention times in the associated calibration standard?	X		
19.0	<u>Mass Spectral Interpretation/Identification</u>			
19.1	Are the Organic Analysis Data Sheets present with required header information on each page, for each of the following:			
	a. Samples and/or fractions as appropriate?	X		

Data Validation Checklist - Part A: TO-15 VOA Analyses

No:	Parameter	YES	NO	N/A
	b. Laboratory Control Samples?	<u> X </u>	<u> </u>	<u> </u>
	c. Blanks?	<u> X </u>	<u> </u>	<u> </u>
19.2	Are the VOA Reconstructed Ion Chromatograms, the mass spectra for the identified compounds, and the data system printouts (quant reports) included in the sample package for each of the following:			
	a. Samples and/or fractions as appropriate?	<u> X </u>	<u> </u>	<u> </u>
	b. Laboratory Control Samples?	<u> X </u>	<u> </u>	<u> </u>
	c. Blanks?	<u> X </u>	<u> </u>	<u> </u>
19.3	Is chromatographic performance acceptable with respect to:			
	a. Baseline stability?	<u> X </u>	<u> </u>	<u> </u>
	b. Resolution?	<u> X </u>	<u> </u>	<u> </u>
	c. Peak shape?	<u> X </u>	<u> </u>	<u> </u>
	d. Full-scale graph (attenuation)?	<u> X </u>	<u> </u>	<u> </u>
	e. Other:	<u> </u>	<u> </u>	<u> X </u>
19.4	Are the lab-generated standard mass spectra of the identified compounds present for each sample?	<u> X </u>	<u> </u>	<u> </u>
19.5	Is the RRT of each reported compound within 0.06 RRT units of the standard RRT in the continuing calibration?	<u> X </u>	<u> </u>	<u> </u>
19.6	Are all ions present in the reference standard mass spectrum at a relative intensity greater than 10 % also present in the sample mass spectrum?	<u> X </u>	<u> </u>	<u> </u>
19.7	Do sample and reference standard relative ion intensities agree within ± 20 %?	<u> X </u>	<u> </u>	<u> </u>
20.0	<u>Field Duplicates</u>			
15.1	Were any field duplicates submitted for VOA analysis?	<u> X </u>	<u> </u>	<u> </u>

Data Usability Summary Report

**Former Marble Quarry Landfill – Offsite
109-125 Marbledale Road
Westchester County
Tuckahoe, New York**

**Groundwater Samples
Collected January 2017**

**Prepared in
March 2017**

ZDATA REPORTS

Data Management and Validation Services

118 Rose Lane Terrace, Syracuse, NY 13219, (716) 907-2341

Data Usability Summary Report

**Groundwater Samples
Collected January 2017**

**Former Marble Quarry Landfill – Offsite
109-125 Marbledale Road
Westchester County
Tuckahoe, New York**

Prepared By:

ZDATA REPORTS

Data Management and Validation Services

118 Rose Lane Terrace, Syracuse, NY 13219, (716) 907-2341

EXECUTIVE SUMMARY

This report addresses data quality for three water samples collected the Former Marble Quarry Landfill – Offsite Area located in Tuckahoe, New York. The samples were analyzed for Volatile organics (VOCs), Semivolatile organics (SVOCs), PCB/Pesticides and Metals following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies. Sample collection was performed by Aztech Technologies, Inc. located in Ballston Spa, New York. Analytical services were provided by TestAmerica Laboratories, Inc. located in Amherst, New York.

The inorganics analyses data have been determined to be usable for qualitative and quantitative purposes as reported.

The volatile organics analysis data were determined to be usable for qualitative and quantitative purposes with no exceptions. Sample results for several compounds were also qualified based on deviations from method blank, continuing calibration and matrix spike recovery criteria.

The semivolatile organics analyses data were determined to be usable for qualitative and quantitative purposes with no exceptions. Sample results for several compounds were qualified based on deviations in continuing calibration criteria.

The Pesticide/PCB analyses data were determined to be usable for qualitative and quantitative purposes as reported.

TABLE of CONTENTS

SECTION 1 - INTRODUCTION	1
1.1 Introduction	1
1.2 Analytical Methods	1
1.3 Validation Protocols	1
1.3.1 Inorganic Parameters	2
1.3.2 Organic Parameters	2
SECTION 2 - DATA VALIDATION SUMMARY	5
2.1 Inorganics Analysis	5
2.2 Volatiles Analysis	5
2.3 Semivolatiles Analysis	7
2.4 Pesticides/PCBs Analyses	8
3.1 Data Usability	9
3.2 PARCC Evaluation	9
3.2.1 Precision	9
3.2.2 Accuracy	9
3.2.3 Representativeness	9
3.2.4 Comparability	9
3.2.5 Completeness	10

Appendices

Appendix A - Data Validation Checklists

SECTION 1 - INTRODUCTION

1.1 Introduction

This report addresses data quality for three water samples collected at the Former Marble Quarry Landfill – Offsite Area located in Tuckahoe, New York. The samples were analyzed for Volatile organics (VOCs), Semivolatile organics (SVOCs), PCB/Pesticides and Metals following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies. Sample collection was performed by Aztech Technologies, Inc. located in Ballston Spa, New York. Analytical services were provided by TestAmerica Laboratories, Inc. located in Amherst, New York. The quantity and types of samples submitted for data validation are tabulated below.

Table 1: Introduction - Sample Summary Table

SDG#	Date Collected	Matrix	Sample Identification	
			Client ID	Laboratory ID
J112809-1	01/26/2017	Water	OMW-1	J112809-1
			OMW-2	J112809-2
			DUP-1	J112809-3

1.2 Analytical Methods

The samples were analyzed for volatile organics (VOCs) following New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methodologies (2005 update). Laboratory analyses were provided by TestAmerica Laboratories, Inc. located in Amherst, New York.

1.3 Validation Protocols

Data validation is a process that involves the evaluation of analytical data against prescribed quality control criteria to determine the usefulness of the data. The analytical data addressed in this report were evaluated utilizing the quality control criteria presented in the following documents:

- *USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review*, USEPA-540-R-08-01, June 2008.
- *CLP Organics Data Review and Preliminary Review*, SOP No. HW-6 Revision #14, USEPA Region II, September 2006.
- *Validation of Metals for the Contract Laboratory Program (CLP) based on SOW ILMO5.3*, SOP No. HW-2, Revision #13, USEPA Region II, September 2006.
- *Validating Volatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8260B*, SOP No. HW-24 Revision #2, USEPA Hazardous Waste Support Branch, August 2008.

- *Validating Semivolatile Organic Compounds By Gas Chromatography/Mass Spectrometry SW-846 Method 8270D*, SOP No. HW-22 Revision #4, USEPA Hazardous Waste Support Branch, August 2008.
- *Validating PCB Compounds by Gas Chromatography SW-846 Method 8082A*, SOP No. HW-45 Revision #1, USEPA Hazardous Waste Support Branch, October 2006.
- *Validating Pesticide Compounds, Organochlorine Pesticides by Gas Chromatography SW-846 Method 8081B*, SOP No. HW-44 Revision #1, USEPA Hazardous Waste Support Branch, October 2006.
- *Validating Air Samples Volatile Organic Analysis of Ambient Air in Canister by Method TO-15*, SOP No. HW-31 Revision #4, USEPA Hazardous Waste Support Branch, October 2006.
- *Exhibit E of New York State Department of Environmental Conservation Analytical Services Protocol (NYSDEC ASP)*, NYSDEC June 2005.

1.3.1 Inorganic Parameters

The validation of inorganics for this project followed the requirements presented in the analytical methodology and the data validation guidelines presented above. The following QA/QC parameters were evaluated:

1. Holding Times
2. Calibration
 - a. Initial Calibration Verification
 - b. Continuing Calibration Verification
3. Blank Analysis
4. ICP Interference Check Sample Analysis (ICP only)
5. Matrix Spike Analysis
6. Laboratory Duplicate Analysis
7. Laboratory Control Sample Analysis
8. ICP Serial Dilution Analysis (ICP only)
9. Furnace Atomic Absorption Analysis
10. Method of Standard Addition Results
11. Field Blanks
12. Element Quantification and Reported Detection Limits
13. Document Completeness
14. Overall Data Assessment

1.3.2 Organic Parameters

The validation of organic parameters for this project followed the requirements presented in the analytical methodology and the data validation guidelines presented above. The following QA/QC parameters were evaluated:

Volatile and Semivolatile Organics Analyses

1. Holding Times
2. GC/MS Instrument Tuning Criteria
3. Calibration
 - a. Initial Calibration
 - b. Continuing Calibration
4. Blank Analysis
5. Surrogate Recovery
6. Matrix Spike / Matrix Spike Duplicate Analysis
7. Reference Standard Analysis
8. Internal Standards Recovery
9. Compound Identification and Quantification
10. Field Duplicate Analysis
11. System Performance
12. Documentation Completeness
13. Overall Data Assessment

Pesticides and PCBs Analyses

1. Holding Times
2. Instrument Performance
 - a. Standards Retention Time Windows
 - b. DCBP Retention Time Shift
 - c. Baseline Stability
 - d. Chromatographic Resolution
3. Calibration
 - a. Initial Calibration
 - b. Analytical Sequence Verification
 - c. Continuing Calibration Verification
4. Blank Analysis
5. Surrogate Recovery
6. Matrix Spike/Matrix Spike Duplicate Analysis
7. Reference Standard Analysis
8. Compound Identification and Quantification
9. Documentation Completeness
10. Overall Data Assessment

1.4 Data Qualifiers

The following qualifiers as specified in the guidance documents presented in Section 1.3 of this report have been used for this data validation.

- U Indicates that the compound was analyzed for, but was not detected. The sample quantification limit is presented and adjusted for dilution. This qualifier is also used to signify that the detection limit of an analyte was raised due to blank contamination.

- J Indicates that the result should be considered approximate. This qualifier is used when the data validation procedure identifies a deficiency in the data generation process.

- UJ Indicates that the detection limit for the analyte in this sample should be considered approximate. This qualifier is used when the data validation process identifies a deficiency in the data generation process.

- R Indicates that the previously reported detection limit or sample result has been rejected due to a major deficiency in the data generation procedure. The data are considered to be unusable for both qualitative and quantitative purposes.

The following sections of this document present a summary of the data validation process. Section 2 discusses data compliance with established QA/QC criteria and qualifications performed on the sample data. A discussion of the Precision, Accuracy, Representativeness, Comparability, and Completeness (PARCC) of the data and data usability are discussed in Section 3. The USEPA Region II Data Validation Checklists are presented in Appendix A.

SECTION 2 - DATA VALIDATION SUMMARY

This section presents a discussion of QA/QC parameter compliance with established criteria and the qualification of data performed when QA/QC parameter deviations were identified. When several deviations from established QA/QC criteria were observed, the final qualifier assigned to the data was based on the cumulative effect of the deviations.

2.1 Inorganics Analysis

Data validation was performed for seventy-eight soil samples and eighteen water samples for inorganic parameters. The QA/QC parameters presented in Section 1.3.1 of this report were found to be within specified limits with the exception of the following:

Method Blank Analysis

The preparation blank associated had a detectable concentration of Zinc. The sample results for Zinc which were greater than the detection limit and less than ten-times the blank concentration were qualified as estimated (J) in samples OMW-1, OMW-2 and DUP-1.

Table 2: Inorganics Analyses - Blank Analysis Deviations

Blank Matrix	Compound	Blank Action Level	Associated Samples	Qualified Sample Result
Water 480-342158/1-A	Zinc	0.0246 mg/L	OMW-1 OMW-2 DUP-1	0.024 J mg/L 0.0019 J mg/L 0.0041 J mg/L

Overall Data Assessment

Overall, the laboratory performed inorganics analyses in accordance with the requirements specified in the methods listed in Section 1.2 of this report. These data have been determined to be usable for qualitative and quantitative purposes with no exceptions.

2.2 Volatiles Analysis

Data validation was performed for fourteen air/vapor samples, sixty soil samples and thirty-one water samples including trip blank samples. The QA/QC parameters presented in Section 1.3.2 of this report were found to be within specified limits with the exception of the following:

Blank Analysis

The method blanks contained detectable concentrations of several target compounds. Blank action levels were calculated at ten times the blank concentrations for the common laboratory contaminants and five times for other target compounds. Detected sample results, which were less than the blank action levels were qualified with a "U" in the associated samples. Results that were detected below the contract required detection limit (CRDL) were raised to the CRDL and qualified with a "U" qualifier. The "U" qualifier indicates that the volatile

organic was analyzed for but was not detected above the CRDL. Samples qualified for blank contamination are tabulated below.

Table 3: Volatile Organics Analysis - Blank Analysis Deviations

Blank Matrix	Date Analyzed	Compound	Blank Action Level	Associated Samples	Qualified Sample Result
Water MB480-342530/8	02/03/2017	Methylene Chloride	7.55 µg/L	OMW-1 OMW-2 DUP-1	2.1 U µg/L 2.4 U µg/L 1.8 U µg/L

Continuing Calibration

The continuing calibration percent difference (%D) limit, which requires the %D to be less than 25 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %D criteria were exceeded, but were less than 90 percent. Non-detected results were rejected (R) for compounds with %D values greater than 90 percent. Samples requiring qualification due to these deviations are tabulated below.

Table 4: Volatile Organics Analysis - Continuing Calibration Deviations

Date Analyzed	Compound	%D	Result Qualifier	Affected Samples
HP5793S 02/23/2017 09:36	Trichlorofluoromethane	28.9%	UJ	OMW-1
	2-Butanone	25.5%	UJ	OMW-2
	2-Hexanone	26.8%	UJ	DUP-1

Matrix Spike Recovery

Matrix spike/matrix spike duplicate (MS/MSD) recovery criteria requiring compound recoveries to be within laboratory generated control limits were exceeded for several compounds. Qualification of sample results included the approximation of results when spike recoveries were greater than the upper limit, but less than 200 percent or less than the lower limit, but greater than 10 percent. Non-detected sample results were rejected (R) for compounds with recoveries less than 10 percent. Samples qualified due to MS/MSD recovery deviations are tabulated below.

Table 5: Volatile Organics Analyses - MS/MSD Analysis Deviations

MS/MSD Sample ID	Compound	Percent Recovery (MS/MSD)	Control Limits	Qualifier	Affected Samples
OMW-2	Methylene Chloride	136 % / 155 %	75% to 124%	UJ	OMW-1 OMW-2 DUP-1

Overall Data Assessment

Overall, the laboratory performed volatile organics analyses in accordance with the requirements specified in the method listed in Section 1.2. These data were determined to be usable for qualitative and quantitative purposes with no exceptions. Sample results for several compounds were also qualified based on deviations from method blank, continuing calibration and matrix spike recovery criteria.

2.3 Semivolatiles Analysis

Data validation was performed for seventy-three soil samples and eleven water sample. The QA/QC parameters presented in Section 1.3.2 of this report were found to be within specified limits with the exception of the following:

Continuing Calibration

The continuing calibration percent difference (%D) limit, which requires the %D to be less than 25 percent, was exceeded for several compounds. Sample qualification included the approximation (J, UJ) of results when %D criteria were exceeded, but were less than 90 percent. Non-detected samples with a %D at 90 percent or greater are rejected. Samples requiring qualification due to these deviations are tabulated below.

Table 6: Semivolatile Organics Analysis - Continuing Calibration Deviations

Date Analyzed	Compound	%D	Result Qualifier	Affected Samples
HP5973Y 01/31/2017 08:39	Benzoic Acid	-25.2 %	UJ	OMW-1 OMW-2
HP5973Y 02/01/2017 09:01	Pentachlorophenol Benzidine	-33.8 % -37.0 %	UJ UJ	DUP-1

Blank Analysis

The method blanks contained detectable concentrations of several target compounds. Blank action levels were calculated at ten times the blank concentrations for the common laboratory contaminants and five times for other target compounds. Detected sample results, which were less than the blank action levels were qualified with a "U" in the associated samples. Results that were detected below the contract required detection limit (CRDL) were raised to the CRDL and qualified with a "U" qualifier. The "U" qualifier indicates that the semivolatile organic was analyzed for but was not detected above the CRDL. Samples qualified for blank contamination are tabulated below.

Table 7: Semivolatile Organics Analysis - Blank Analysis Deviations

Blank Matrix	Date Analyzed	Compound	Blank Action Level	Associated Samples	Qualified Sample Result
Water MB480-341811/A-1	01/31/2017	Di-n-butylphthalate	6.53 µg/L	OMW-1 OMW-2 DUP-1	2.1 U µg/L 2.4 U µg/L 1.8 U µg/L

Overall Data Assessment

Overall, the laboratory performed semivolatile organics analyses in accordance with the requirements specified in the method listed in Section 1.2. These data were determined to be usable for qualitative and quantitative purposes with no exceptions. Sample results for several compounds were qualified based on deviations in continuing calibration criteria.

2.4 Pesticides/PCBs Analyses

Data validation was performed for thirty-nine soil samples and seven water samples. The QA/QC parameters presented in Section 1.3.2 of this report were found to be within specified limits with the exception of the following:

Overall Data Assessment

Overall, the laboratory performed pesticides analyses in accordance with the requirements specified in the method listed in Section 1.2. These data were determined to be usable for qualitative and quantitative purposes as reported by the laboratory.

SECTION 3 - DATA USABILITY and PARCC EVALUATION

3.1 Data Usability

This section presents a summary of the usability of the analytical data and an evaluation of the PARCC parameters. Data usability was calculated as the percentage of data that was not qualified as rejected based on a significant deviation from established QA/QC criteria. Data usability, which was calculated separately for each type of analysis, is tabulated below.

Table 8: Data Usability and PARCC Evaluation - Data Usability

Parameter	Usability	Deviations
Inorganic Parameters	100 %	None resulting in the rejection of data.
Volatile Organic Parameters	100 %	None resulting in the rejection of data.
Semivolatile Organic Parameters	100 %	None resulting in the rejection of data.
PCB and Pesticides Parameters	100 %	None resulting in the rejection of data.

3.2 PARCC Evaluation

The following sections provide an evaluation of the analytical data with respect to the precision, accuracy, representativeness, comparability, and completeness (PARCC) parameters.

3.2.1 Precision

Precision is measured through field duplicate samples, split samples, and laboratory duplicate samples. For this sampling program, none of the analytical data required qualification from serial dilution criteria deviations or field duplicate criteria deviations.

3.2.2 Accuracy

Matrix spike sample, surrogate recovery, internal standard recovery, laboratory control samples, and calibration criteria indicate the accuracy of the data. For this sampling program, 0.51 percent pf the data were qualified for deviations from matrix spike recovery criteria, none of the data were qualified due to surrogate standard recovery criteria deviations, none of the data were qualified due to internal standard recovery criteria deviations, and 2.38 percent of the data were qualified for calibration criteria deviations.

3.2.3 Representativeness

Holding times, sample preservation, and blank analysis are indicators of the representativeness of the analytical data. For this investigation, 1.53 percent of the analytical data required qualification for blank analysis deviations.

3.2.4 Comparability

Comparability is not compromised provided that the analytical methods did not change over time. A major component of comparability is the use of standard reference materials for calibration and QC. These standards are compared to other unknowns to

verify their concentrations. Since standard analytical methods and reporting procedures were consistently used by the laboratory, the comparability criteria for the analytical data were met.

3.2.5 Completeness

The overall percent usability or completeness of the data was 100 percent.

APPENDIX A

DATA VALIDATION CHECKLISTS

Table of Contents

	<u>Page</u>
I. Part A: VOA Analyses	2
II. Part B: SVOA Analyses	6
III. Part C: Pesticides/PCBs Analyses	10
IV. Part D: Metals Analyses	14

Data Validation Checklist - Part A: VOA Analyses

No:	Parameter	YES	NO	N/A
1.0	<u>Traffic Reports and Laboratory Narrative</u>			
1.1	Are the traffic Report Forms present for all samples?	X		
1.2	Do the Traffic Reports or Lab Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data?		X	
2.0	<u>Holding Times</u>			
2.1	Have any VOA technical holding times, determined from date of collection to date of analysis, been exceeded?		X	
3.0	<u>System Monitoring Compound (SMC) Recovery (Form II)</u>			
3.1	Are the VOA SMC Recovery Summaries (FORM II) present for each of the following matrices:			
a.	Low Water	X		
b.	Low Soil			X
c.	Air			X
3.2	Are all the VOA samples listed on the appropriate System Monitoring Compound Recovery Summary for each of the following matrices:			
a.	Low Water	X		
b.	Low Soil			X
c.	Air			X
3.3	Were outliers marked correctly with an asterisk?			X
3.4	Was one or more VOA system monitoring compound recovery outside of contract specifications for any sample or method blank?		X	
	If yes, were samples re-analyzed?			X
	Were method blanks re-analyzed?			X
3.5	Are there any transcription/calculation errors between raw data and Form II?		X	
4.0	<u>Matrix Spikes (Form III)</u>			
4.1	Is the Matrix Spike/Matrix Spike Duplicate Recovery Form (Form III) present?	X		
4.2	Were matrix spikes analyzed at the required frequency for each of the following matrices?			
a.	Low Water	X		
b.	Low Soil			X
c.	Air			X
4.3	How many VOA spike recoveries are outside QC limits?			
	Water <u> 1 </u> out of 67 Soils <u> 0 </u> out of 67			
4.4	How many RPD's for matrix spike and matrix spike duplicate recoveries are outside QC limits?			
	Water <u> 0 </u> out of 67 Soils <u> 0 </u> out of 67			

Data Validation Checklist - Part A: VOA Analyses

No:	Parameter	YES	NO	N/A
5.0	<u>Blanks (Form IV)</u>			
5.1	Is the Method Blank Summary (Form IV) present?	X		
5.2	Frequency of Analysis: for the analysis of VOA TCL compounds, has a reagent/method blank been analyzed for each SDG or every 20 samples of similar matrix (low water, low soil, medium soil), whichever is more frequent?	X		
5.3	Has a VOA method/instrument blank been analyzed at least once every twelve hours for each concentration level and GC/MS system used?	X		
5.4	Is the chromatographic performance (baseline stability) for each instrument acceptable for VOAs?	X		
6.0	<u>Contamination</u>			
6.1	Do any method/instrument/reagent blanks have positive results (TCL and/or TIC) for VOAs?	X		
6.2	Do any field/trip/rinse blanks have positive VOA results (TCL and/or TIC)?			X
6.3	Are there field/rinse/equipment blanks associated with every sample?		X	
7.0	<u>GC/MS Instrument Performance Check (Form V)</u>			
7.1	Are the GC/MS Instrument Performance Check Forms (Form V) present for Bromofluorobenzene (BFB)?	X		
7.2	Are the enhanced bar graph spectrum and mass/charge (m/z) listing for the BFB provided for each twelve hour shift?	X		
7.3	Has an instrument performance compound been analyzed for every twelve hours of sample analysis per instrument?	X		
7.4	Have the ion abundances been normalized to m/z 95?	X		
7.5	Have the ion abundance criteria been met for each instrument used?	X		
7.6	Are there any transcription/calculation errors between mass lists and Form V's?		X	
7.7	Have the appropriate number of significant figures (two) been reported?	X		
7.8	Are the spectra of the mass calibration compound acceptable?	X		
8.0	<u>Target Compound List (TCL) Analyses</u>			
8.1	Are the Organic Analysis Data Sheets (Form I VOA) present with required header information on each page, for each of the following:			
	a. Sample and/or fractions as appropriate?	X		
	b. Matrix spikes and matrix spike duplicates?	X		
	c. Blanks?	X		
8.2	Are the VOA Reconstructed Ion Chromatograms, the mass spectra for the identified compounds, and the data system printouts (Quant Reports) included in the sample package for each of the following?			
	a. Samples and/or fractions as appropriate?	X		
	b. Matrix spikes and matrix spike duplicates (Mass spectra not required)?	X		
	c. Blanks?	X		
8.3	Are the response factors shown in the Quant Report?	X		

Data Validation Checklist - Part A: VOA Analyses

No:	Parameter	YES	NO	N/A
8.4	Is the chromatographic performance acceptable with respect to:			
	Baseline stability?	X		
	Resolution?	X		
	Peak shape?	X		
	Full-scale graph (attenuation)?	X		
	Other:			
8.5	Are the lab-generated standard mass spectra of the identified VOA compounds present for each sample?	X		
8.6	Is the RRT of each reported compound within 0.06 RRT units of the standard RRT in the continuing calibration?	X		
8.7	Are all ions in the standard mass spectrum at a relative intensity greater than 10% also present in the sample mass spectrum?	X		
8.8	Do sample and standard relative ion intensities agree within 20%?	X		
9.0	<u>Tentatively Identified Compounds (TIC)</u>			
9.1	Are all Tentatively Identified Compound Forms (Form I Part B) present; and do listed TICs include scan number or retention time, estimated concentration and "JN" qualifier?			X
9.2	Are the mass spectra for the tentatively identified compounds and associated "best match" spectra included in the sample package for each of the following:			
	a. Samples and/or fractions as appropriate?			X
	b. Blanks?			X
9.3	Are any TCL compounds (from any fraction) listed as TIC compounds?			X
9.4	Are all ions present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?			X
9.5	Do TIC and "best match" standard relative ion intensities agree within 20%?			X
10.0	<u>Compound Quantitation and Reported Detection Limits</u>			
10.1	Are there any transcription/calculation errors in Form I results?		X	
10.2	Are the CRQLs adjusted to reflect sample dilutions and, for soils, sample moisture?	X		
11.0	<u>Standards Data (GC/MS)</u>			
11.1	Are the Reconstructed Ion Chromatograms, and data system printouts present for initial and continuing calibration?	X		
12.0	<u>GC/MS Initial Calibration (Form VI)</u>			
12.1	Are the Initial Calibration Forms (Form VI) present and complete for the volatile fraction at concentrations of 10, 20, 50, 100, 200 ug/L? Are there separate calibrations for low/med soils and low soil samples?	X		
12.2	Were all low level soil standards, blanks, and samples analyzed by heated purge?			X
12.3	Are the response factors stable for VOA's over the concentration range of the calibration (%Relative Standard Deviation (%RSD) <30%)	X		
12.4	Are the RRFs above 0.01?	X		
12.5	Are there any transcription/calculation errors in the reporting of average response factors (RRF) or %RSD?		X	

Data Validation Checklist - Part A: VOA Analyses

No:	Parameter	YES	NO	N/A
13.0	<u>GC/MS Continuing Calibration (Form VII)</u>			
13.1	Are the Continuing Calibration Forms (Form VII) present and complete for the volatile fraction?	<u>X</u>	<u> </u>	<u> </u>
13.2	Has a continuing calibration standard been analyzed for every twelve hours of sample analysis per instrument?	<u>X</u>	<u> </u>	<u> </u>
13.3	Do any volatile compounds have a percent difference (%D) between the initial and continuing RRF which exceeds the +/- 25% criteria?	<u>X</u>	<u> </u>	<u> </u>
13.4	Do any volatile compounds have a RRF <0.01?	<u> </u>	<u>X</u>	<u> </u>
13.5	Are there any transcription/calculation errors in the reporting of average response factor (RRF) or %difference (%D) between initial and continuing RRFs?	<u> </u>	<u>X</u>	<u> </u>
14.0	<u>Internal Standard (Form VIII)</u>			
14.1	Are the internal standard areas (Form VIII) of every sample and blank within the upper and lower limits (-50% to +100%) for each continuing calibration?	<u>X</u>	<u> </u>	<u> </u>
14.2	Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	<u>X</u>	<u> </u>	<u> </u>
15.0	<u>Field Duplicates</u>			
15.1	Were any field duplicates submitted for VOA analysis?	<u>X</u>	<u> </u>	<u> </u>

Data Validation Checklist - Part B: BNA Analyses

No:	Parameter	YES	NO	N/A
1.0	<u>Traffic Reports and Laboratory Narrative</u>			
1.1	Are the traffic Report Forms present for all samples?	<u> X </u>	<u> </u>	<u> </u>
1.2	Do the Traffic Reports or Lab Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data?	<u> </u>	<u> X </u>	<u> </u>
2.0	<u>Holding Times</u>			
2.1	Have any BNA technical holding times, determined from date of collection to date of extraction, been exceeded?	<u> </u>	<u> X </u>	<u> </u>
3.0	<u>System Monitoring Compound (SMC) Recovery (Form II)</u>			
3.1	Are the BNA Surrogate Recovery Summaries (FORM II) present for each of the following matrices:			
	a. Low Water	<u> X </u>	<u> </u>	<u> </u>
	b. Low Soil	<u> </u>	<u> </u>	<u> X </u>
	c. Med Soil	<u> </u>	<u> </u>	<u> X </u>
3.2	Are all the BNA samples listed on the appropriate System Monitoring Compound Recovery Summary for each of the following matrices:			
	a. Low Water	<u> X </u>	<u> </u>	<u> </u>
	b. Low Soil	<u> </u>	<u> </u>	<u> X </u>
	c. Med Soil	<u> </u>	<u> </u>	<u> X </u>
3.3	Were outliers marked correctly with an asterisk?	<u> X </u>	<u> </u>	<u> </u>
3.4	Were two or more base neutral or acid surrogate compound recoveries out of specification for any sample or method blank?	<u> </u>	<u> X </u>	<u> </u>
	If yes, were samples re-analyzed?	<u> </u>	<u> </u>	<u> X </u>
	Were method blanks re-analyzed?	<u> </u>	<u> </u>	<u> X </u>
3.5	Are there any transcription/calculation errors between raw data and Form II?	<u> </u>	<u> X </u>	<u> </u>
4.0	<u>Matrix Spikes (Form III)</u>			
4.1	Is the Matrix Spike/Matrix Spike Duplicate Recovery Form (Form III) present?	<u> X </u>	<u> </u>	<u> </u>
4.2	Were matrix spikes analyzed at the required frequency for each of the following matrices?	<u> X </u>	<u> </u>	<u> </u>
	a. Low Water	<u> X </u>	<u> </u>	<u> </u>
	b. Low Soil	<u> </u>	<u> </u>	<u> X </u>
	c. Med Soil	<u> </u>	<u> </u>	<u> X </u>
4.3	How many BNA spike recoveries are outside QC limits? X			
4.4	How many RPD's for matrix spike and matrix spike duplicate recoveries are outside QC limits?			

Data Validation Checklist - Part B: BNA Analyses

No:	Parameter	YES	NO	N/A
	Water <u> 0 </u> out of 66 Soils <u> 0 </u> out of 66			
5.0	<u>Blanks (Form IV)</u>			
5.1	Is the Method Blank Summary (Form IV) present?	<u> X </u>	<u> </u>	<u> </u>
5.2	Frequency of Analysis: Has a reagent/method blank analysis been reported per 20 samples of a similar matrix, or concentration level, for each extraction batch?	<u> X </u>	<u> </u>	<u> </u>
5.3	Has a BNA method blank been analyzed for each GC/MS system used?	<u> X </u>	<u> </u>	<u> </u>
5.4	Is the chromatographic performance (baseline stability) for each instrument acceptable for BNAs?	<u> X </u>	<u> </u>	<u> </u>
6.0	<u>Contamination</u>			
6.1	Do any method/instrument/reagent blanks have positive results (TCL and/or TIC) for BNAs?	<u> X </u>	<u> </u>	<u> </u>
6.2	Do any field/rinse blanks have positive BNA results (TCL and/or TIC)?	<u> </u>	<u> </u>	<u> X </u>
6.3	Are there field/rinse/equipment blanks associated with every sample?	<u> </u>	<u> X </u>	<u> </u>
7.0	<u>GC/MS Instrument Performance Check (Form V)</u>			
7.1	Are the GC/MS Instrument Performance Check Forms (Form V) present for Decafluorotriphenylphosphine (DFTPP)?	<u> X </u>	<u> </u>	<u> </u>
7.2	Are the enhanced bar graph spectrum and mass/charge (m/z) listing for the DFTPP provided for each twelve-hour shift?	<u> X </u>	<u> </u>	<u> </u>
7.3	Has an instrument performance check solution been analyzed for every twelve hours of sample analysis per instrument?	<u> X </u>	<u> </u>	<u> </u>
7.4	Have the ion abundances been normalized to m/z 198?	<u> X </u>	<u> </u>	<u> </u>
7.5	Have the ion abundance criteria been met for each instrument used?	<u> X </u>	<u> </u>	<u> </u>
7.6	Are there any transcription/calculation errors between mass lists and Form V's?	<u> </u>	<u> X </u>	<u> </u>
7.7	Have the appropriate number of significant figures (two) been reported?	<u> X </u>	<u> </u>	<u> </u>
7.8	Are the spectra of the mass calibration compound acceptable?	<u> X </u>	<u> </u>	<u> </u>
8.0	<u>Target Compound List (TCL) Analyses</u>			
8.1	Are the Organic Analysis Data Sheets (Form I BNA) present with required header information on each page, for each of the following:			
	a. Sample and/or fractions as appropriate?	<u> X </u>	<u> </u>	<u> </u>
	b. Matrix spikes and matrix spike duplicates?	<u> X </u>	<u> </u>	<u> </u>
	c. Blanks?	<u> X </u>	<u> </u>	<u> </u>
8.2	Has GPC cleanup been performed on all soil/sediment sample extracts?	<u> </u>	<u> </u>	<u> X </u>
8.3	Are the BNA Reconstructed Ion Chromatograms, the mass spectra for the identified compounds, and the data system printouts (Quant Reports) included in the sample package for each of the following?			
	a. Samples and/or fractions as appropriate?	<u> X </u>	<u> </u>	<u> </u>
	b. Matrix spikes and matrix spike duplicates (Mass spectra not required)?	<u> X </u>	<u> </u>	<u> </u>

Data Validation Checklist - Part B: BNA Analyses

No:	Parameter	YES	NO	N/A
	c. Blanks?	<u>X</u>	<u> </u>	<u> </u>
8.4	Are the response factors shown in the Quant Report?	<u>X</u>	<u> </u>	<u> </u>
8.5	Is the chromatographic performance acceptable with respect to:			
	Baseline stability?	<u>X</u>	<u> </u>	<u> </u>
	Resolution	<u>X</u>	<u> </u>	<u> </u>
	Peak shape?	<u>X</u>	<u> </u>	<u> </u>
	Full-scale graph (attenuation)?	<u>X</u>	<u> </u>	<u> </u>
	Other:			
8.6	Are the lab-generated standard mass spectra of identified BNA compounds present for each sample?	<u>X</u>	<u> </u>	<u> </u>
8.7	Is the RRT of each reported compound within 0.06 RRT units of the standard RRT in the continuing calibration?	<u>X</u>	<u> </u>	<u> </u>
8.8	Are all ions in the standard mass spectrum at a relative intensity greater than 10% also present in the sample mass spectrum?	<u>X</u>	<u> </u>	<u> </u>
8.9	Do sample and standard relative ion intensities agree within 20%?	<u>X</u>	<u> </u>	<u> </u>
9.0	<u>Tentatively Identified Compounds (TIC)</u>			
9.1	Are all Tentatively Identified Compound Forms (Form I, Part B) present; and do listed TICs include scan number or retention time, estimated concentration and "JN" qualifier?	<u> </u>	<u> </u>	<u>X</u>
9.2	Are the mass spectra for the tentatively identified compounds and associated "best match" spectra included in the sample package for each of the following:			
	a. Samples and/or fractions as appropriate?	<u> </u>	<u> </u>	<u>X</u>
	b. Blanks?	<u> </u>	<u> </u>	<u>X</u>
9.3	Are any TCL compounds (from any fraction) listed as TIC compounds?	<u> </u>	<u> </u>	<u>X</u>
9.4	Are all ions present in the reference mass spectrum with a relative intensity greater than 10% also present in the sample mass spectrum?	<u> </u>	<u> </u>	<u>X</u>
9.5	Do TIC and "best match" standard relative ion intensities agree within 20%?	<u> </u>	<u> </u>	<u>X</u>
10.0	<u>Compound Quantitation and Reported Detection Limits</u>			
10.1	Are there any transcription/calculation errors in Form I results?	<u> </u>	<u>X</u>	<u> </u>
10.2	Are the CRQLs adjusted to reflect sample dilutions and, for soils, sample moisture?	<u>X</u>	<u> </u>	<u> </u>
11.0	<u>Standards Data (GC/MS)</u>			
11.1	Are the Reconstructed Ion Chromatograms, and data system printouts present for initial and continuing calibration?	<u>X</u>	<u> </u>	<u> </u>
12.0	<u>GC/MS Initial Calibration (Form VI)</u>			
12.1	Are the Initial Calibration Forms (Form VI) present and complete for the BNA fraction?	<u>X</u>	<u> </u>	<u> </u>

Data Validation Checklist - Part B: BNA Analyses

No:	Parameter	YES	NO	N/A
12.2	Are response factors stable for BNA's over the concentration range of the calibration (%Relative Standard Deviation (%RSD) <30%)	<u>X</u>	<u> </u>	<u> </u>
12.3	Are all BNA compound RRFs > 0.01?	<u>X</u>	<u> </u>	<u> </u>
12.4	Are there any transcription/calculation errors in the reporting of average response factors (RRF) or %RSD?	<u>X</u>	<u> </u>	<u> </u>
13.0	<u>GC/MS Continuing Calibration (Form VII)</u>			
13.1	Are the Continuing Calibration Forms (Form VII) present and complete for the BNA fraction?	<u>X</u>	<u> </u>	<u> </u>
13.2	Has a continuing calibration standard been analyzed for every twelve hours of sample analysis per instrument?	<u>X</u>	<u> </u>	<u> </u>
13.3	Do any semivolatile compounds have a percent difference (%D) between the initial and continuing RRF which exceeds the +/- 25% criteria?	<u> </u>	<u>X</u>	<u> </u>
13.4	Do any semivolatile compounds have a RRF <0.01?	<u> </u>	<u>X</u>	<u> </u>
13.5	Are there any transcription/calculation errors in the reporting of average response factor (RRF) or percent difference (%D) between initial and continuing RRFs?	<u>X</u>	<u> </u>	<u> </u>
14.0	<u>Internal Standard (Form VIII)</u>			
14.1	Are the internal standard areas (Form VIII) of every sample and blank within the upper and lower limits (-50% to +100%) for each continuing calibration?	<u>X</u>	<u> </u>	<u> </u>
14.2	Are the retention times of the internal standards within 30 seconds of the associated calibration standard?	<u>X</u>	<u> </u>	<u> </u>
15.0	<u>Field Duplicates</u>			
15.1	Were any field duplicates submitted for BNA analysis?	<u>X</u>	<u> </u>	<u> </u>

Data Validation Checklist - Part C: Pesticides/PCB Analyses

No:	Parameter	YES	NO	N/A
1.0	<u>Traffic Reports and Laboratory Narrative</u>			
1.1	Are the traffic Report Forms present for all samples?	X		
1.2	Do the Traffic Reports or SDG Narrative indicate any problems with sample receipt, condition of samples, analytical problems or special circumstances affecting the quality of the data?	X		
2.0	<u>Holding Times</u>			
2.1	Have any PEST/PCB technical holding times, determined from date of collection to date of extraction, been exceeded?		X	
3.0	<u>System Monitoring Compound (SMC) Recovery (Form II)</u>			
3.1	Are the PEST/PCB Surrogate Recovery Summaries (FORM II) present for each of the following matrices:			
	a. Low Water	X		
	b. Soil			X
3.2	Are all the PEST/PCB samples listed on the appropriate Surrogate Recovery Summary for each of the following matrices:			
	a. Low Water	X		
	b. Soil			X
3.3	Were outliers marked correctly with an asterisk?			X
3.4	Were surrogate recoveries of TCX or DCB outside of the contract specifications for any sample or method blank? (60-150%)	X		
3.5	Were surrogate retention times (RT) within the windows established during the initial 3-point analysis of Individual Standard Mixture A?	X		
3.6	Are there any transcription/calculation errors between raw data and Form II?		X	
4.0	<u>Matrix Spikes (Form III)</u>			
4.1	Is the Matrix Spike/Matrix Spike Duplicate Recovery Form (Form III) present?	X		
4.2	Were matrix spikes analyzed at the required frequency for each of the following matrices?	X		
	a. Low Water			X
	b. Soil	X		
4.3	How many PEST/PCB spike recoveries are outside QC limits? Water <u> 0 </u> out of 0 Soils <u> 0 </u> out of 22			
4.4	How many RPD's for matrix spike and matrix spike duplicate recoveries are outside QC limits? Water <u> 0 </u> out of 0 Soils <u> 0 </u> out of 22			
5.0	<u>Blanks (Form IV)</u>			
5.1	Is the Method Blank Summary (Form IV) present?	X		

Data Validation Checklist - Part C: Pesticides/PCB Analyses

No:	Parameter	YES	NO	N/A
5.2	Frequency of Analysis: For the analysis of Pesticide/PCB TCL compounds, has a reagent/method blank been analyzed for each SDG or every 20 samples of similar matrix or concentration or each extraction batch, whichever is more frequent?	X		
5.3	Has a PEST/PCB instrument blank been analyzed at the beginning of every 12 hr. period following the initial calibration sequence?	X		
5.4	Is the chromatographic performance (baseline stability) for each instrument acceptable for PEST/PCBs?	X		
6.0	<u>Contamination</u>			
6.1	Do any method/instrument/reagent blanks have positive results PEST/PCBs?		X	
6.2	Do any field/rinse blanks have positive PEST/PCB results?		X	
6.3	Are there field/rinse/equipment blanks associated with every sample?		X	
7.0	<u>Calibration and GC Performance</u>			
7.1	Are the following Gas Chromatograms and Data Systems Printouts for both columns present for all samples, blanks, MS/MSD?			
	a. Peak resolution check	X		
	b. Performance evaluation mixtures	X		
	c. Aroclor 1016/1260	X		
	d. Aroclors 1221, 1232, 1242, 1248, 1254, 1262, 1268	X		
	e. Toxaphene	X		
	f. Low points individual mixtures A & B	X		
	g. Med points individual mixtures A & B	X		
	h. High points individual mixtures A & B	X		
	I. Instrument blanks	X		
7.2	Are Forms VI - PEST 1-4 present and complete for each column and each analytical sequence?	X		
7.3	Are there any transcription/calculation errors between raw data and Forms VI?		X	
7.4	Do all standard retention times, including each pesticide in each level of Individual Mixtures A & B, fall within the windows established during the initial calibration analytical sequence?	X		
7.5	Are the linearity criteria for the initial analyses of Individual Standards A & B within limits for both columns?	X		
7.6	Is the resolution between any two adjacent peaks in the Resolution Check Mixture > 60.0% for both columns?	X		
7.7	Is Form VII - Pest-1 present and complete for each Performance Evaluation Mixture analyzed during the analytical sequence for both columns?	X		
7.8	Has the individual percent breakdown exceeded 20.0% on either column?		X	
	- for 4,4' - DDT?		X	
	- for endrin?		X	

Data Validation Checklist - Part C: Pesticides/PCB Analyses

No:	Parameter	YES	NO	N/A
	Has the combined %breakdown for 4,4' - DDT/Endrin exceeded 30.0% on either column?		X	
7.9	Are the relative percent difference (RPD) values for all PEM analytes <25.0%?	X		
7.10	Have all samples been injected within a 12 hr. Period beginning with the injection of an Instrument Blank?	X		
7.11	Is Form VII - Pest-2 present and complete for each INDA and INDB Verification Calibration analyzed?	X		
7.12	Are there any transcription/calculation errors between raw data and Form VII - Pest-2?		X	
7.13	Do all standard retention times for each INDA and INDB Verification Calibration fall within the windows established by the initial calibration sequence?	X		
7.14	Are the RPD values for all verification calibration standard compounds <25.0%?		X	
8.0	<u>Analytical Sequence Check (Form VIII-PEST)</u>			
8.1	Is Form VIII present and complete for each column and each period of analyses?	X		
8.2	Was the proper analytical sequence followed for each initial calibration and subsequent analyses?	X		
9.0	<u>Cleanup Efficiency Verification (Form IX)</u>			
9.1	Is Form IX - Pest-1 present and complete for each lot of Florisil Cartridges used?	X		
9.2	Are all samples listed on the Pesticide Florisil Cartridge Check Form?	X		
9.3	If GPC Cleanup was performed, is Form IX - Pest-2 present?		X	
9.4	Are percent recoveries (%R) of the pesticide and surrogate compounds used to check the efficiency of the cleanup procedures within QC limits:			
	80-120% for florisil cartridge check?	X		
	80-110% for GPC calibration?			X
10.0	<u>Pesticide/PCB Identification</u>			
10.1	Is Form X complete for every sample in which a pesticide or PCB was detected?	X		
10.2	Are there any transcription/calculation errors between raw data and Forms 6E, 6G, 7E, 7D, 8D, 9A, 9B, 10A?		X	
10.3	Are retention times (RT) of the sample compounds within the established windows for both analyses?	X		
10.4	Is the percent difference (%D) calculated for the positive sample results on the two GC columns < 25.0%?	X		
10.5	Check chromatograms for false negatives, especially the multiple peak compounds toxaphene and PCBs. Were there any false negatives?		X	
11.0	<u>Compound Quantitation and Reported Detection Limits</u>			
11.1	Are there any transcription/calculation errors in Form I results?		X	
11.2	Are the CRQLs adjusted to reflect sample dilutions and, for soils, percent moisture?	X		
12.0	<u>Chromatogram Quality</u>			
12.1	Were baselines stable?	X		

Data Validation Checklist - Part C: Pesticides/PCB Analyses

No:	Parameter	YES	NO	N/A
12.2	Were any electropositive displacement (negative peaks) or unusual peaks seen?	_____	X	_____
13.0	<u>Field Duplicates</u>			
13.1	Were any field duplicates submitted for PEST/PCB analysis?	X	_____	_____

Data Validation Checklist - Part D: Metals Analyses

No:	Parameter	YES	NO	N/A
1.0	<u>Form I to IX</u>			
1.1	Are all the Form I through Form IX labeled with:			
	Laboratory Name?	<u>X</u>	<u> </u>	<u> </u>
	Case/SAS No.?	<u> </u>	<u> </u>	<u>X</u>
	EPA sample No.?	<u> </u>	<u> </u>	<u>X</u>
	SDG No.?	<u>X</u>	<u> </u>	<u> </u>
	Contract No.?	<u>X</u>	<u> </u>	<u> </u>
	Correct units?	<u>X</u>	<u> </u>	<u> </u>
	Matrix?	<u>X</u>	<u> </u>	<u> </u>
1.2	Do any computer/transcription errors exceed 10% of reported values on Forms I-IX for:			
	A. All analytes analyzed by ICP?	<u> </u>	<u>X</u>	<u> </u>
	B. All analytes analyzed by GFAA?	<u> </u>	<u> </u>	<u>X</u>
	C. All analytes analyzed by AA Flame?	<u> </u>	<u> </u>	<u>X</u>
	D. Mercury?	<u> </u>	<u>X</u>	<u> </u>
	E. Cyanide?	<u> </u>	<u>X</u>	<u> </u>
2.0	<u>Raw Data</u>			
2.1	Digestion Log for flame AA/ICP (Form XIII) present?	<u>X</u>	<u> </u>	<u> </u>
2.2	Digestion Log for furnace AA (Form XIII) present?	<u> </u>	<u> </u>	<u>X</u>
2.3	Distillation Log for mercury (Form XIII) present?	<u>X</u>	<u> </u>	<u> </u>
2.4	Distillation Log for cyanides (Form XIII) present?	<u> </u>	<u> </u>	<u>X</u>
2.5	Are pH values (pH<2 for all metals, pH>12 for cyanide) present?	<u>X</u>	<u> </u>	<u> </u>
2.6	Percent solids calculation dates present on sample preparation logs/bench sheets?	<u>X</u>	<u> </u>	<u> </u>
		<u> </u>	<u> </u>	<u> </u>
2.7	Are preparation dates present on sample preparation logs/bench sheets?	<u>X</u>	<u> </u>	<u> </u>
2.8	Measurement read out record present?			
	A. ICP	<u>X</u>	<u> </u>	<u> </u>
	B. Flame AA	<u> </u>	<u> </u>	<u>X</u>
	C. Furnace AA	<u> </u>	<u> </u>	<u>X</u>
	D. Mercury	<u>X</u>	<u> </u>	<u> </u>
	E. Cyanides	<u>X</u>	<u> </u>	<u> </u>
2.9	Are all raw data to support all sample analyses and QC operations present?	<u>X</u>	<u> </u>	<u> </u>
3.0	<u>Holding Times</u>			
3.1	A. Mercury analysis (28 days) exceeded?	<u> </u>	<u>X</u>	<u> </u>

Data Validation Checklist - Part D: Metals Analyses

No:	Parameter	YES	NO	N/A
	B. Cyanide distillation (14 days) exceeded?		<input checked="" type="text"/>	
	C. Other Metals analysis (6 months) exceeded?		<input checked="" type="text"/>	
3.2	Is pH of aqueous samples for:			
	A. Metals Analysis >2?		<input checked="" type="text"/>	
	B. Cyanides Analysis <12?		<input checked="" type="text"/>	
4.0	<u>Form I (Final Data)</u>			
4.1	Are all Forms I's present and complete?	<input checked="" type="text"/>		
4.2	Are correct units (ug/l for waters and mg/kg for soils) indicated on Form I's?	<input checked="" type="text"/>		
4.3	Are soil sample results for each parameter corrected for percent solids?	<input checked="" type="text"/>		
4.4	Are all "less than IDL" values properly coded with "U"?	<input checked="" type="text"/>		
4.5	Are the correct concentration qualifiers used with final data?	<input checked="" type="text"/>		
4.6	Are EPA sample #s and corresponding laboratory sample ID #s the same as on the Cover Page, Form I's and in the raw data?	<input checked="" type="text"/>		
4.7	Was a brief physical description of samples given on Form I's?	<input checked="" type="text"/>		
4.8	Was the dilution of any sample diluted beyond the requirements of the contract noted on Form I or Form XIV?		<input checked="" type="text"/>	
5.0	<u>Calibration</u>			
5.1	Is record of at least 2 point calibration present for ICP analysis?	<input checked="" type="text"/>		
5.2	Is record of 5 point calibration present for Hg analysis?	<input checked="" type="text"/>		
5.3	Is record of 4 point calibration present for:			<input checked="" type="text"/>
	Flame AA?			<input checked="" type="text"/>
	Furnace AA?			<input checked="" type="text"/>
	Cyanides?	<input checked="" type="text"/>		
5.4	Is one calibration standard at the CRDL level for all AA (except Hg) and cyanides analyses?	<input checked="" type="text"/>		
5.5	Is correlation coefficient less than 0.995 for:			
	Mercury Analysis?	<input checked="" type="text"/>		
	Cyanide Analysis?	<input checked="" type="text"/>		
	Atomic Absorption Analysis?			<input checked="" type="text"/>
5.6	In the instance where less than 4 standards are measured in absorbance (or peak area, peak height, etc.) Mode, are remaining standards analyzed in concentration mode immediately after calibration within +/- 10% of the true values?			<input checked="" type="text"/>
6.0	<u>Form II A (Initial and Continuing Calibration Verification)</u>			
6.1	Present and complete for every metal and cyanide?	<input checked="" type="text"/>		
6.2	Present and complete for AA ICP when both are used for the same analyte?			<input checked="" type="text"/>
6.3	Are all calibration standards (initial and continuing) within control limits:			
	Metals - 90 - 110%R	<input checked="" type="text"/>		

Data Validation Checklist - Part D: Metals Analyses

No:	Parameter	YES	NO	N/A
	Hg - 80 - 120%R	X		
	Cyanides - 85 - 115%R	X		
6.4	Was continuing calibration performed every 10 samples or every 2 hours?	X		
6.5	Was ICV for cyanides distilled?			X
7.0	<u>Form II B (CRDL Standards for AA and ICP)</u>			
7.1	Was a CRDL standard (CRA) analyzed after initial calibration for all AA metals (except Hg)?	X		
7.2	Was a mid range calibration verification standard distilled and analyzed for cyanide analysis?	X		
7.3	Was a 2xCRDL (or 2xIDL when IDL>CRDL) analyzed (CRI) for each ICP run?	X		
7.4	Was CRI analyzed after ICV/ICB and before the final CCV/CCB, and twice every eight hours of ICP run?	X		
7.5	Are CRA and CRI standards within control limits: Metals 70 – 130 %R?	X		
7.6	Is mid-range standard within control limits: Cyanide 70 – 130 %R?	X		
8.0	<u>Form III (Initial and Continuing Calibration Blanks)</u>			
8.1	Present and complete?	X		
8.2	For both AA and ICP when both are used for the same analyte?			X
8.3	Was an initial calibration blank analyzed?	X		
8.4	Was a continuing calibration blank analyzed after every 10 samples or every 2 hours (which ever is more frequent)?	X		
8.5	Are all calibration blanks (when IDL<CRDL) less than or equal to the Contract Required Detection Limits (CRDLs)?	X		
8.6	Are all calibration blanks less than two times Instrument Detection Limit (when IDL>CRDL)?			X
9.0	<u>Form III (Preparation Blank)</u>			
9.1	Was one preparation blank analyzed for: each Sample Delivery Group?	X		
9.2	Is concentration of preparation blank value greater than the CRDL when IDL is less than or equal to CRDL?	X		
9.3	If yes, is the concentration of the sample with the least concentrated analyte less than 10 times the preparation blank?			X
9.4	Is concentration of preparation blank value (Form III) less than two times IDL, when IDL is greater than CRDL?			X
9.5	Is concentration of preparation blank below the negative CRDL?		X	
10.0	<u>Form IV (Interference Check Sample)</u>			
10.1	Present and Complete?	X		
10.2	Are all Interference Check Sample results inside the control limits (+/- 20%)?	X		

Data Validation Checklist - Part D: Metals Analyses

No:	Parameter	YES	NO	N/A
10.3	If no, is concentration of Al, Ca, Fe, or Mg lower than the respective concentration in ICS?			X
11.0	<u>Form V A (Spiked Sample recovery - Pre-Digestion/Pre-Distillation)</u>			
11.1	Present and complete for:			
	each SDG?	X		
	each matrix type?	X		
	each concentration range (i.e., low, medium, high)?	X		
	For both AA and ICP when both are used for the same analyte?			X
11.2	Was field blank used for spiked sample?		X	
11.3	Are all recoveries within control limits?		X	
11.4	If no, is sample concentration greater than or equal to four times spike concentration?		X	
12.0	<u>Form VI (Lab Duplicates)</u>			
12.1	Present and complete for :			
	each SDG?	X		
	each matrix type?	X		
	each concentration range (i.e., low, medium, high)?	X		
	both AA and ICP when both are used for the same analyte?			X
12.2	Was field blank used for duplicate analysis?		X	
12.3	Are all values within control limits (RPD 20% or difference $\leq \pm$ CRDL)?		X	
12.4	If no, are all results outside the control limits flagged with an * on Form I's and VI?	X		
13.0	<u>Field Duplicates</u>			
13.1	Were field duplicates analyzed?	X		
13.2	<u>Aqueous</u>			
	Is any RPD greater than 50% where sample and duplicate are both greater than or equal to 5 times CRDL?			X
	Is any difference between sample and duplicate greater than CRDL where sample and/or duplicate is less than 5 times CRDL?			X
13.3	<u>Soil/Sediment</u>			
	Is any RPD (where sample and duplicate are both greater than 5 times CRDL): $>100\%$?			X
	Is any difference between sample and duplicate (where sample and/or duplicate is less than 5x CRDL): $>2x$ CRDL?			X
14.0	<u>Form VII (Laboratory Control Sample)</u>			
14.1	Was one LCS prepared and analyzed for:			
	each SDG?	X		
	each batch samples digested/distilled?	X		
	both AA and ICP when both are used for the same analyte?			X
14.2	<u>Aqueous LCS</u>			

Data Validation Checklist - Part D: Metals Analyses

No:	Parameter	YES	NO	N/A
	Is any LCS recovery:			
	less than 50%?		X	
	between 50% and 79%?		X	
	between 121% and 150%?		X	
	greater than 150%?		X	
14.3	<u>Solid LCS</u>			
	Is LCS "Found" value higher than the control limits on Form VII?			X
	Is LCS "Found" value lower than the control limits on Form VII?			X
15.0	<u>Form IX (ICP Serial Dilution)</u>			
15.1	Was serial dilution analysis performed for:			
	each SDG?	X		
	each matrix type?	X		
	each concentration range (i.e., low, medium, high)?	X		
15.2	Was field blank(s) used for Serial Dilution Analysis?		X	
15.3	Are results outside control limit flagged with an "E" on Form I's and Form IX when initial concentration on Form IX is equal to 50 times IDL or greater?			X
15.4	Are any percent difference values:			
	>10%		X	
	>=100%		X	
16.0	<u>Furnace Atomic Absorption (AA) QC Analysis</u>			
16.1	Are duplicate injections present in furnace raw data for each sample analyzed by GFAA?			X
16.2	Do the duplicate injection readings agree within 20% Relative Standard Deviation (RSD) or Coefficient of Variation (CV) for concentration greater than CRDL?			X
16.3	Was a dilution analyzed for sample with analytical spike recovery less than 40%?			X
16.4	Is analytical spike recovery outside the control limits (85 - 115%) for any sample?			X
17.0	<u>Form VIII (Method of Standard Addition Results)</u>			
17.1	Present?			X
17.2	If no, is any Form I result coded with "S" or a "+"?			X
17.3	Is coefficient of correlation for MSA less than 0.990 for any sample?			X
17.4	Was MSA required for any sample but not performed?			X
17.5	Is coefficient of correlation for MSA less than 0.995?			X
17.6	Are MSA calculations outside the linear range of the calibration curve generated at the beginning of the analytical run?			X
17.7	Was proper Quantitation procedure followed correctly as outlined in the SOW on page E-23?			X
18.0	<u>Dissolved/Total or Inorganic/Total Analytes</u>			

Data Validation Checklist - Part D: Metals Analyses

No:	Parameter	YES	NO	N/A
18.1	Were any analyses performed for dissolved as well as total analytes on the same sample(s)?	<u> X </u>	<u> </u>	<u> </u>
18.2	Were any analyses performed for inorganic as well as total (organic and inorganic) analytes on the same sample(s)?	<u> X </u>	<u> </u>	<u> </u>
18.3	Is the concentration of any dissolved (or inorganic) analyte greater than its total concentration by more than 10%?	<u> </u>	<u> X </u>	<u> </u>
18.4	Is the concentration of any dissolved (or inorganic) analyte greater than its total concentration by more than 50%?	<u> </u>	<u> X </u>	<u> </u>
19.0	<u>Form I (Field Blank)</u>			
19.1	Is field blank concentration less than CRDL (or 2 x IDL when IDL>CRDL) for all parameters of associated aqueous and soil samples?	<u> X </u>	<u> </u>	<u> </u>
19.2	If no, was field blank value already rejected due to other QC criteria?	<u> </u>	<u> </u>	<u> X </u>
20.0	<u>Form X, XI, XII (Verification of Instrumental Parameters)</u>			
20.1	Is verification report present for:			
	Instrument Detection Limits (quarterly)?	<u> X </u>	<u> </u>	<u> </u>
	ICP Interelement Correction Factors (annually)?	<u> X </u>	<u> </u>	<u> </u>
	ICP Linear Ranges (quarterly)?	<u> X </u>	<u> </u>	<u> </u>
21.0	<u>Form X (Instrument Detection Limits)</u>			
21.1	Are IDLs present for:			
	all the analytes?	<u> X </u>	<u> </u>	<u> </u>
	all the instruments used?	<u> X </u>	<u> </u>	<u> </u>
	For both AA and ICP when both are used for the same analyte?	<u> </u>	<u> </u>	<u> X </u>
21.2	Is IDL greater than CRDL for any analytes?	<u> </u>	<u> X </u>	<u> </u>
21.3	If yes, is the concentration on Form I of the sample analyzed on the instrument whose IDL exceeds CRDL, greater than 5 x IDL?	<u> </u>	<u> </u>	<u> X </u>
22.0	<u>Form XI (Linear Ranges)</u>			
22.1	Was any sample result higher than the high linear range of ICP?	<u> </u>	<u> X </u>	<u> </u>
22.2	Was any sample result higher than the highest calibration standard for non-ICP parameters?	<u> </u>	<u> X </u>	<u> </u>
22.3	If yes for any of the above, was the sample diluted to obtain the result on Form I?	<u> </u>	<u> </u>	<u> X </u>
23.0	<u>Percent Solids of Sediments</u>			
23.1	Are percent solids in sediment(s):			
	<50%?	<u> </u>	<u> X </u>	<u> </u>
	<10%?	<u> </u>	<u> X </u>	<u> </u>