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June 14, 2018

SUBMITTED VIA ELECTRONIC MAIL

Mr. Glenn May
New York State Department of Environmental Conservation
Region 9
270 Michigan Avenue
Buffalo, NY 14203
glenn.may@dec.ny.gov

**RE: Soil Vapor Intrusion Investigation Summary Report
Former Chemical Leaman Tank Lines Site, Tonawanda, New York
NYSDEC Site No. 915014**

Dear Mr. May,

On behalf of Quality Distribution, Inc. (QDI), AECOM Technical Services, Inc. (AECOM), herein submits this summary report of the Soil Vapor Intrusion (SVI) investigation and data collected at former Chemical Leaman Tank Lines Site located at 470 Fillmore Avenue, Tonawanda, New York (Figure 1).

BACKGROUND

From March to June 2015, AECOM completed the remediation of operable units (OU) OU 1 through OU 3 (Figure 1) in accordance with the New York State Department of Environmental Conservation (NYSDEC) approved Phase II Remedial Design/Remedial Action Work Plan prepared by AECOM (formerly URS Corporation) in December 2012. Details of the remedial action were described in the Draft Final Engineering Report submitted to NYSDEC in April 2016. In addition, a Draft Site Management Plan (SMP) was submitted to NYSDEC in January 2016.

In the February 10, 2017, Draft SMP comment letter, NYSDEC requested an evaluation of the potential for soil vapor intrusion for all current site buildings and future buildings. In response to this request, AECOM submitted a technical memo in November 2017 evaluating the potential for vapor intrusion. Based on evaluation of the current site conditions, the memo stated that vapor intrusion was unlikely to be an issue for the site buildings.

On January 12, 2018, New York State Department of Health (NYSDOH) responded to the AECOM memo and requested that QDI evaluate the potential for exposure via SVI by performing a SVI investigation. Based on the current use of the on-site buildings, NYSDOH requested that SVI sampling be conducted at the office building during this current heating season. NYSDEC concurred with this request in an email dated January 26, 2018.

On February 26, 2018, AECOM submitted to NYSDEC a Soil Vapor Intrusion Investigation Work Plan (SVI Work Plan). The proposed scope of work (SOW) included collecting one sub-slab vapor sample, one indoor air sample (with duplicate), and one outdoor ambient air sample. In an email dated March 15, 2018, the NYSDEC gave authorization to proceed with the SOW as outlined in the work plan. However, in an email dated March 26, 2018, NYSDEC stated that NYSDOH had requested that one additional pair of sub-slab vapor and indoor air samples be collected. Therefore, the SOW was modified to include the requested additional samples.

INVESTIGATION SUMMARY

SVI Sampling Program Summary

On March 27 and April 10, 2018, AECOM performed the SVI investigation in accordance with the approved SVI Work Plan. The activities conducted during the investigation consisted of the following tasks:

- On March 27, 2018, AECOM completed the NYSDEC/ NYSDOH Structure Sampling Questionnaire and Building Inventory Form. The purpose was to obtain an inventory of chemicals, if present, in the sampling areas in order to evaluate their potential to affect air sample results and also to determine if building conditions could impact results.
- On April 10, 2018, AECOM collected six (6) SVI samples, as follows:
 - One sub-slab vapor (CL-SSV-1) and indoor air (CL-IA-1) sample pair in the eastern portion of the building.
 - One sub-slab vapor (CL-SSV-2) and indoor air (CL-IA-2) sample pair in the western portion of the building.
 - One indoor air field duplicate sample in the western portion of the building (CL-IA-2 duplicate FD-180410).
 - One outdoor air sample (CL-OA-1).

Sample locations are shown in the NYSDEC Structure Sampling Questionnaire and Building Inventory Form provided in Attachment 1. The sub-slab vapor and indoor air sample locations are provided on the Lowest Building Level Layout Sketch, and the outdoor air sample location is provided on the Outdoor Plot Layout Sketch. Photographs of the sample locations are provided in Attachment 2.

Structure Sampling Questionnaire and Building Inventory

As summarized above, AECOM personnel completed a survey for the presence of chemicals in the office building prior to sampling. No chemicals containing the target compounds were identified in the office building. Subsequently, a RAE Systems Model ppbRAE Plus PGM 7240 part-per-billion (ppb) range photoionization detector (PID) was used to screen indoor air to identify potential sources of VOCs prior to collecting the air samples; no VOCs were detected above background. Based on the survey and PID screening, no sources were identified in the office building which might contribute to the presence of compounds of interest in the indoor air sample.

Results of this survey are summarized in the Factors Affecting Indoor Air Quality section of the NYSDEC Structure Sampling Questionnaire and Building Inventory Form provided in Attachment 1.

Sub-slab Vapor, Indoor Air, and Outdoor Air Sampling

AECOM selected the sampling locations in accordance with the SVI Work Plan and NYSDOH SVI Guidelines (NYSDOH, October 2006). The sub-slab vapor samples were collected from the drivers' locker room in the eastern portion of the building (sample CL-SSV-1) and in a hallway in the western portion of the building (sample CL-SSV-2). The sample canister for indoor sample CL-IA-1 was placed on a table in the drivers' locker room in close proximity to sub-slab vapor sample CL-SSV-1. The sample canister for indoor sample CL-IA-2 was placed on a small table in an office in close proximity to sub-slab vapor sample CL-SSV-2. The outdoor air sample was hung from a metal post located outside of the building to the west. This location was the nearest position in the upwind direction that was not within the main site entrance driveway. Photographs of the sample locations are provided in Attachment 2.

Sample collection was performed in accordance with the procedures outlined in the SVI Work Plan. All samples were collected on April 10, 2018 using laboratory-evacuated 6-liter Summa[®] canisters with 8-hour laboratory calibrated flow regulators. The regulators were calibrated at the flow rate of approximately 11 milliliters per minute (mL/min).

The initial vacuum pressure for each sample was read upon opening the canister valve from the built-in gauge on the flow controller and recorded onto the NYSDEC Structure Sampling Questionnaire and Building Inventory Form. After completion of the required sampling period, canister vacuum was recorded on the NYSDEC Structure Sampling Questionnaire and Building Inventory Form and the valve was then closed.

Samples were transported under chain-of-custody to TestAmerica Laboratories, Inc., located in Amherst, New York (TestAmerica Amherst). TestAmerica Amherst transferred the samples to TestAmerica, Knoxville, Tennessee (TestAmerica Knoxville), a NYSDOH Environmental Laboratory Approval Program (ELAP) certified laboratory, for the analysis of VOCs by modified United States Environmental Protection Agency (USEPA) Method TO-15 low-level. The target analytes included the following VOCs listed in the NYSDOH Soil Vapor/Indoor Air Decision Matrix:

NYSDOH Soil Vapor/Indoor Air Decision Matrix (May 2017)	Compounds
Matrix A	carbon tetrachloride 1,1-dichloroethene (1,1-DCE) cis-1,2-dichloroethene (cis-1,2-DCE) trichloroethene (TCE)
Matrix B	methylene chloride (MC) tetrachloroethene (PCE) 1,1,1-trichloroethane (1,1,1-TCA)
Matrix C	vinyl chloride (VC)

The method detection limits, as well as the respective reporting limits, for each of the parameters represent the lowest achievable by the laboratory due to the presence of target compounds and/or matrix interference.

Data Usability

A Data Usability Summary Report (DUSR) was prepared in accordance with NYSDEC *DER-10 Technical Guidance for Site Investigation and remediation, Appendix 2B, Guidance for Data Deliverables and the Development of Data Usability Summary Reports*, May 2010. The DUSR is provided as Attachment 3. The laboratory analytical data report is included in Attachment 4. All sample analyses were found to be compliant with the method criteria. All sample results are usable as reported.

SVI Analytical Results Summary

Analytical results for the compounds included in the NYSDOH 2017 Soil Vapor/Indoor Air Matrices A, B, and C (NYSDOH, May 2017) (included as Attachment 5) are presented in Table 1. A summary of the results, presented for each NYSDOH Soil Vapor/Indoor Air Decision Matrix is presented below. Laboratory reporting limits for each compound were sufficiently low to make a definitive determination regarding any action recommended by the NYSDOH 2017 Soil Vapor/Indoor Air Matrices with the exception of TCE and VC as discussed below. Based on comparison of these sampling results to the NYSDOH 2017 Soil Vapor/Indoor Air Matrices, the recommended actions are presented in Table 1.

Matrix A

Three of the four NYSDOH Soil Vapor/Indoor Air Decision Matrix A compounds were detected: carbon tetrachloride, cis-1,2-DCE, and TCE. These analytes were detected in the sub-slab vapor, indoor air, and outdoor air samples, as follows:

- Carbon tetrachloride was detected in indoor air sample CL-IA-2 (and duplicate) at a concentration of 0.63 J (0.57 J) $\mu\text{g}/\text{m}^3$. Carbon tetrachloride was not detected in sub-slab vapor or outdoor air samples.
- cis-1,2-DCE was also detected in indoor air sample CL-IA-2 (and duplicate) at a concentration of 0.51 J (0.59 J) $\mu\text{g}/\text{m}^3$. cis-1,2-DCE was not detected in sub-slab vapor or outdoor air samples.
- TCE was detected in both sub-slab vapor samples at concentrations of 27 $\mu\text{g}/\text{m}^3$ (CL-SSV-1) and 1.6 J $\mu\text{g}/\text{m}^3$ (CL-SSV-2). TCE was not detected in indoor air or outdoor air samples. However, due to the presence of target compounds and/or matrix interference, the TCE reporting limit for indoor air sample CL-IA-1 (0.75 $\mu\text{g}/\text{m}^3$) exceeded the matrix limit of 0.2 $\mu\text{g}/\text{m}^3$ for a determination of 4. *No Further Action*. Therefore, a definitive determination of either 4. *No Further Action* or 5. *Monitor* cannot be made.

1,1-DCE was not detected in the sub-slab vapor, indoor air, or outdoor air samples.

Matrix B

Two of the three NYSDOH Soil Vapor/Indoor Air Decision Matrix B compounds were detected: MC and PCE. MC was detected in the indoor air and outdoor air samples. PCE was detected in the sub-slab vapor, indoor air, and outdoor air samples. A summary of detections follows:

- MC was detected in indoor air sample CL-IA-1 at a concentration 6.5 J $\mu\text{g}/\text{m}^3$, indoor air sample CL-IA-2 (and duplicate) at a concentration 3.6 (5.1) $\mu\text{g}/\text{m}^3$, and in outdoor air sample CL-OA-1 at a concentration of 1.6 $\mu\text{g}/\text{m}^3$.
- PCE was detected in sub-slab vapor sample CL-SSV-1 at a concentration of 67 $\mu\text{g}/\text{m}^3$, sub-slab vapor sample CL-SSV-2 at a concentration of 95 $\mu\text{g}/\text{m}^3$, indoor air sample CL-IA-1 at a concentration 30 $\mu\text{g}/\text{m}^3$, indoor air sample CL-IA-2 (and duplicate) at a concentration of 30 (34) $\mu\text{g}/\text{m}^3$, and outdoor air sample CL-OA-1 at a concentration of 0.24 J $\mu\text{g}/\text{m}^3$.

1,1,1-TCA was not detected in the sub-slab vapor, indoor air, or outdoor air, samples.

Matrix C

The NYSDOH Soil Vapor/Indoor Air Decision Matrix C compound VC was not detected in any of the sub-slab vapor, indoor air, or outdoor air samples collected. The VC reporting limit for indoor air samples CL-IA-1 (0.74 $\mu\text{g}/\text{m}^3$) and CL-IA-2 (0.37 $\mu\text{g}/\text{m}^3$) exceeded the matrix limit of 0.2 $\mu\text{g}/\text{m}^3$ for a determination of 1. *No Further Action*. Therefore, a definitive determination of either 1. *No Further Action* or 2. *Identify Source(s) and Resample or Mitigate* cannot be made.

FINDINGS

Sample collection parameters and analytical data for the sub-slab vapor, indoor air, and outdoor air samples collected at 470 Fillmore Avenue, Tonawanda, New York were evaluated in conjunction with the information collected during the pre-sampling building survey to evaluate whether the data indicate evidence of a complete vapor intrusion pathway. The May 2017 NYSDOH's Soil Vapor/Indoor Air Decision Matrices A, B, and C were used to evaluate the analytical results. A copy of the Soil Vapor/Indoor Air Decision Matrices is provided in Attachment 5 for reference. Based on this evaluation, the recommended actions for each compound are presented in Table 1.

RECOMMENDATIONS

The April 2018 SVI investigation samples were collected in accordance with the NYSDEC-approved SVI Work Plan. Evaluation of the sample data using the May 2017 NYSDOH Sub-slab Vapor/Indoor Air Decision Matrices provides a recommended action of 3. *Identify Source(s) and Resample or Mitigate* for PCE.

Since the sub-slab sample PCE concentrations are below the lowest tier of Matrix B (i.e., less than 100 µg/m³), it is unclear whether PCE detected in the indoor air samples results from indoor sources or soil vapor intrusion. Therefore, it is recommended that steps should be taken to identify potential PCE source(s).

The office building is attached to a truck servicing garage that can be accessed via two interior doors connecting the two areas. It is possible that chemical solvents containing PCE are being used in the garage area. An inspection of the garage area and preparation of a chemical inventory was not completed during this SVI investigation. It is recommended that another round of sampling be conducted to verify the initial results and further evaluate the potential for a SVI pathway. Prior to such sampling, a full inspection and inventory of the truck service areas should be conducted to identify possible sources of PCE. If any PCE-containing products are identified, those products should be removed from the area to the maximum extent possible prior to sampling activities. The garage should also be as empty of vehicles as possible and no vehicle motors should be running the evening before the sampling. All garage doors should be opened for as long as possible prior to the sampling period and during the sampling.

Please feel free to contact me via e-mail or at (716) 923-1164 if you have any questions regarding this submittal.

Sincerely yours,



Colin Wasteneys, PG
Project Manager
colin.wasteneys@aecom.com

Table 1 and Figure 1
Attachments 1 through 5

cc: E. O'Neil – NYSDOH
Project File 60567553

Table

Table 1

Summary of Analytical Results
Soil Vapor Intrusion Investigation
Former Chemical Leaman Tank Lines Site
Tonawanda, New York
Sample Date: April 10, 2018

NYSDOH Soil Vapor/Indoor Air Decision Matrix	Compounds	Sub-Slab Vapor		Indoor Air			Outdoor Air	NYSDOH Soil Vapor/Indoor Air Decision Matrix Action
		CL-SSV-1	CL-SSV-2	CL-IA-1	CL-IA-2 Primary	CL-IA-2 Duplicate	CL-OA-1	
		4/10/2018	4/10/2018	4/10/2018	4/10/2018	4/10/2018	4/10/2018	
Matrix A	carbon tetrachloride	ND (0.59)	ND (1.9)	ND (0.94)	0.63 J	0.57 J	ND (1.9)	No further action
	1,1-DCE	ND (0.35)	ND (1.1)	ND (0.56)	ND (0.28)	ND (0.28)	ND (0.056)	No further action
	cis-1,2-DCE	ND (0.59)	ND (1.9)	ND (0.95)	0.51 J	0.59 J	ND (0.095)	No further action
	TCE	27	1.6 J	ND (0.75)	ND (0.38)	ND (0.38)	ND (0.075)	Undetermined
Matrix B	MC	ND (2.8)	ND (9.0)	6.5 J	3.6	5.1	1.6	No further action
	PCE	67	95	30	30	34	0.24 J	Identify source(s) and resample or mitigate
	1,1,1-TCA	ND (0.41)	ND (1.3)	ND (0.65)	ND (0.33)	ND (0.33)	ND (0.065)	No further action
Matrix C	VC	ND (0.46)	ND (1.5)	ND (0.74)	ND (0.37)	ND (0.37)	ND (0.074)	Undetermined

Notes:Units - µg/m³ (micrograms per cubic meter)

ND (xxx) - Not Detected (reporting limit)

Bold - value triggers the action identified in the right column.

NYSDOH - New York State Department of Health

J - result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

1,1-DCE - 1,1-dichloroethene

cis-1,2-DCE - cis-1,2-dichloroethene

TCE - trichloroethene

MC - methylene chloride

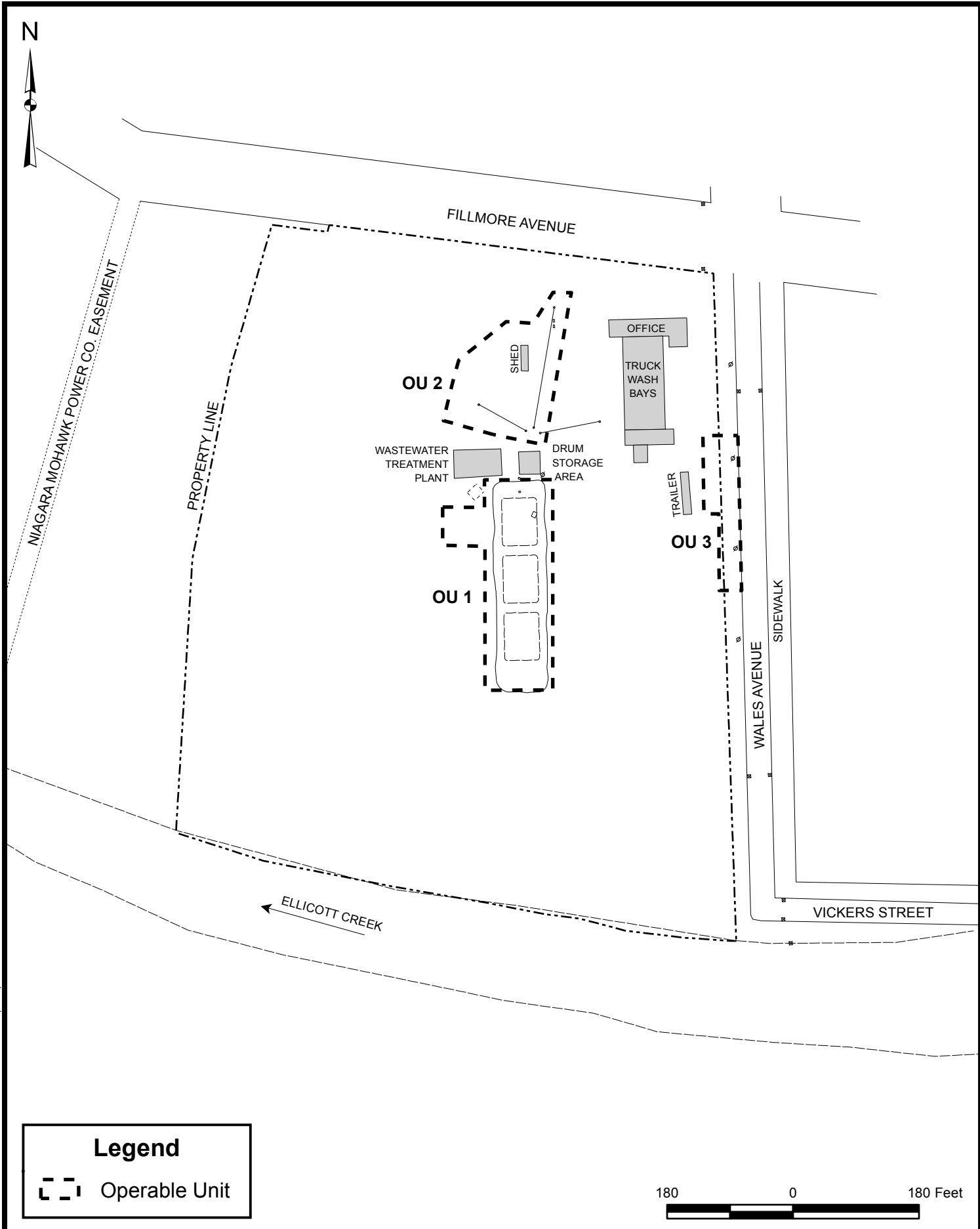
PCE - tetrachloroethene

1,1,1-TCA - 1,1,1-trichloroethane

VC - vinyl chloride

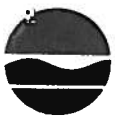
Reference: NYSDEC matrices accessed at https://www.health.ny.gov/environmental/indoors/vapor_intrusion/docs/svi_decision_matrices_abc.pdf

Figure



Attachment 1

NYSDEC Structure Sampling Questionnaire and Building Inventory Form



Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

Site Name: Former Chemical Leaman Tank Lines Site Code: 91504 Operable Unit: _____
Building Code: _____ Building Name: Office Bldg.
Address: 470 Fillmore Ave Apt/Suite No: _____
City: Tonawanda State: NY Zip: 14150 County: Erie

Contact Information

Preparer's Name: Tom Urban Phone No: 716-923-1128
Preparer's Affiliation: AECOM Company Code: _____
Purpose of Investigation: SVI sampling Date of Inspection: 3/27/18
Contact Name: Dave Texido / Dr. Trailer Repair, Inc. Affiliation: Owner
Phone No: 716-605-6409 Alt. Phone No: _____ Email: dtexido@drtrailerrepair.com
Number of Occupants (total): _____ Number of Children: 0
☐ Occupant Interviewed? ☐ Owner Occupied? ☐ Owner Interviewed?
Owner Name (if different): _____ Owner Phone: _____
Owner Mailing Address: _____

Building Details

Bldg Type (Res/Com/Ind/Mixed): Commercial Bldg Size (S/M/L): M
If Commercial or Industrial Facility, Select Operations: Trailer/Rig repair
If Residential Select Structure Type: _____
Number of Floors: 1 Approx. Year Construction: 1960 ☒ Building Insulated? ☒ Attached Garage?

Describe Overall Building 'Tightness' and Airflows (e.g., results of smoke tests):
not very tight - doors do not close fully; holes in roof/ceiling

Foundation Description

Foundation Type: concrete slab on grade Foundation Depth (bgs): N/A Unit: FEET
Foundation Floor Material: concrete Foundation Floor Thickness: 8 Unit: INCHES
Foundation Wall Material: cinder block Foundation Wall Thickness: 4
☐ Floor penetrations? Describe Floor Penetrations: carpeted + tiled
☐ Wall penetrations? Describe Wall Penetrations: pipes/cracks
Basement is: N/A Basement is: N/A ☒ Sumps/Drains? Water In Sump?: N/A
Describe Foundation Condition (cracks, seepage, etc.): solid
☒ Radon Mitigation System Installed? ☒ VOC Mitigation System Installed? ☒ Mitigation System On?

Heating/Cooling/Ventilation Systems

Heating System: gas forced air Heat Fuel Type: Nat'l gas ☐ Central A/C Present? in office

Vented Appliances

Water Heater Fuel Type: nat'l gas Clothes Dryer Fuel Type: N/A
Water Htr Vent Location: outside Dryer Vent Location: N/A



Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

Site Name: Former Chemical Leaman Tank Lines Site Code: 915014 Operable Unit: _____
Building Code: _____ Building Name: Office Bldg.
Address: 470 Fillmore Ave Apt/Suite No: _____
City: Tonawanda State: NY Zip: 14150 County: Erie

Factors Affecting Indoor Air Quality

Frequency Basement/Lowest Level is Occupied?: _____ Floor Material: carpeted + tiled
☐ Inhabited? ☐ HVAC System On? ☒ Bathroom Exhaust Fan? ☐ Kitchen Exhaust Fan?
Alternate Heat Source: _____ ☐ Is there smoking in the building?
☒ Air Fresheners? Description/Location of Air Freshener: NO
☐ Cleaning Products Used Recently?: Description of Cleaning Products: bathrooms once a week
☒ Cosmetic Products Used Recently?: Description of Cosmetic Products: NO
☒ New Carpet or Furniture? Location of New Carpet/Furniture: NO
☒ Recent Dry Cleaning? Location of Recently Dry Cleaned Fabrics: uniforms once a week
☒ Recent Painting/Staining? Location of New Painting: truck painting - not sprayed every wednesday
☒ Solvent or Chemical Odors? Describe Odors (if any): in garage bays
☒ Do Any Occupants Use Solvents At Work? If So, List Solvents Used: parts cleaner
☒ Recent Pesticide/Rodenticide? Description of Last Use: last summer

Describe Any Household Activities (chemical use, storage, unvented appliances, hobbies, etc.) That May Affect Indoor Air Quality:
vehicle repair shop attached

☒ Any Prior Testing For Radon? If So, When?: _____
☒ Any Prior Testing For VOCs? If So, When?: _____

Sampling Conditions

Weather Conditions: Overcast Outdoor Temperature: 30 °F
Current Building Use: office Barometric Pressure: 30.22 in(hg)
Product Inventory Complete? ☒ Building Questionnaire Completed? ☒

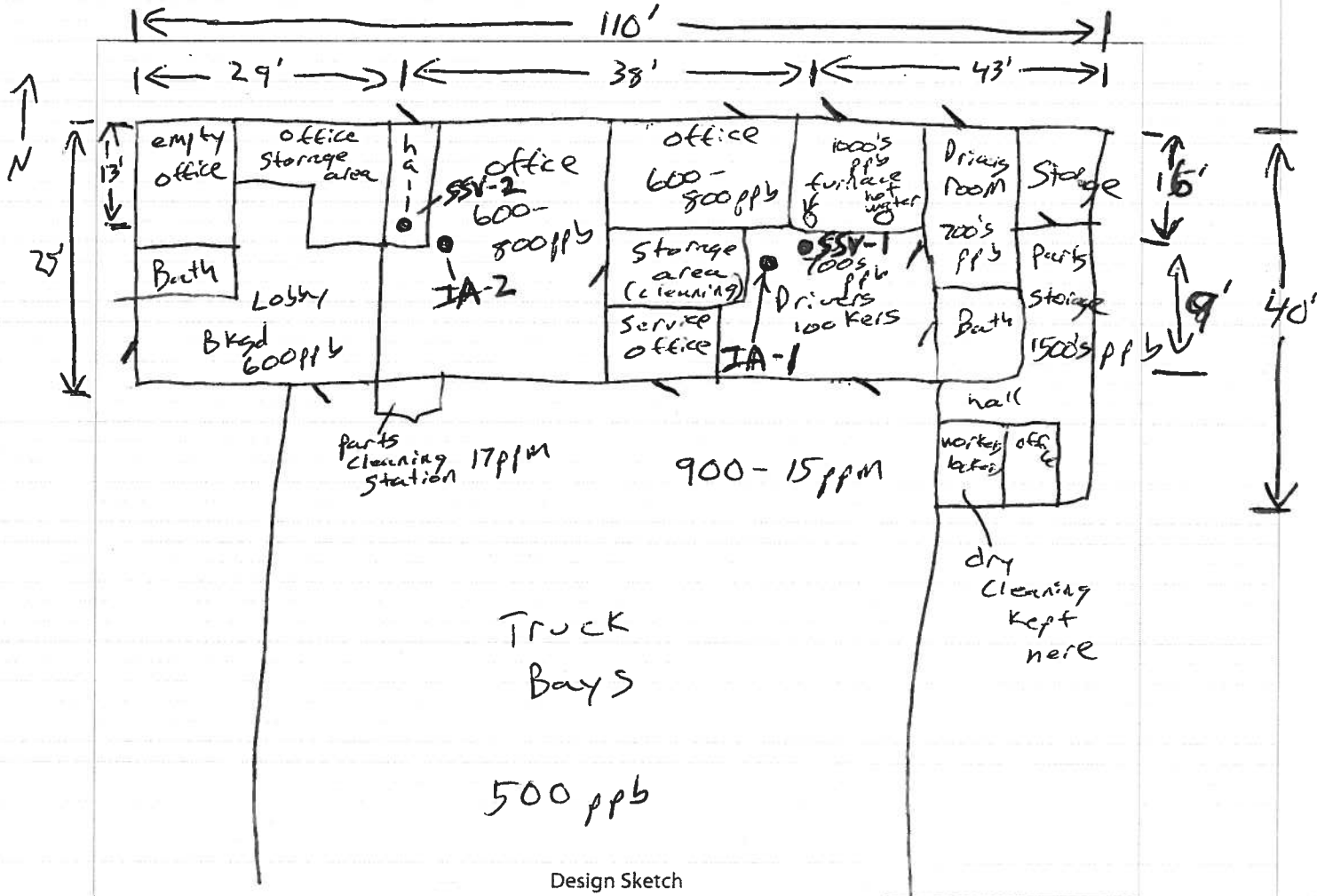


Structure Sampling Questionnaire and Building Inventory
New York State Department of Environmental Conservation

LOWEST BUILDING LEVEL LAYOUT SKETCH

Please click the box with the blue border below to upload a sketch of the lowest building level.
The sketch should be in a standard image format (.jpg, .png, .tiff)

Clear Image



Design Sketch Guidelines and Recommended Symbolology

- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch.
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sketch.
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

B or F	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
HW	Hot Water Heater	xxxxxxx	Perimeter Drains (draw inside or outside outer walls as appropriate)
FP	Fireplaces	#####	Areas of broken-up concrete
WS	Wood Stoves	● SS-1	Location & label of sub-slab samples
W/D	Washer / Dryer	● IA-1	Location & label of indoor air samples
S	Sumps	● OA-1	Location & label of outdoor air samples
@	Floor Drains	● PFET-1	Location and label of any pressure field test holes.



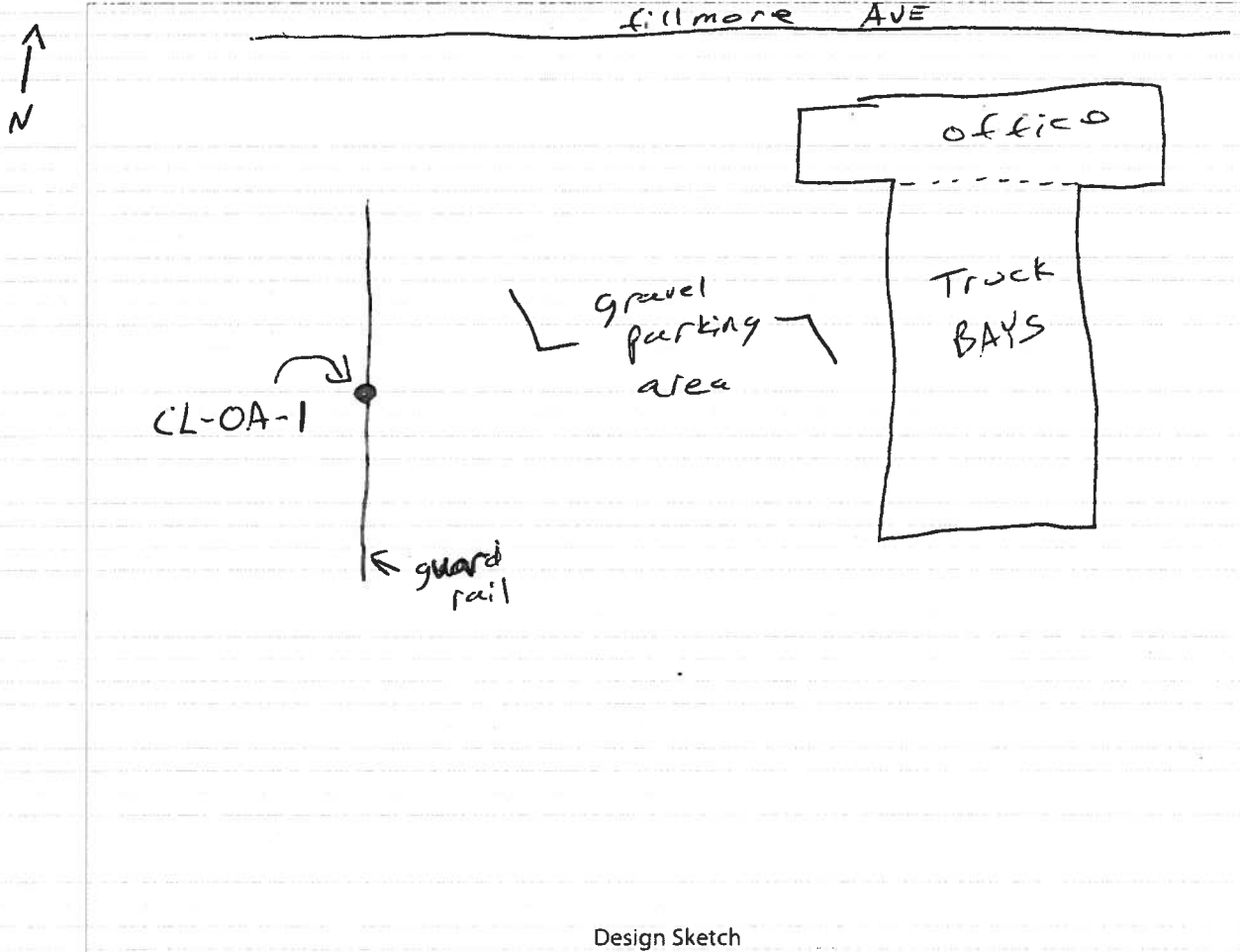
Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

OUTDOOR PLOT LAYOUT SKETCH

Please click the box with the blue border below to upload a sketch of the outdoor plot of the building as well as the surrounding area. The sketch should be in a standard image format (.jpg, .png, .tiff)

Clear Image



Design Sketch

Design Sketch Guidelines and Recommended Symbology

- Identify and label the locations of all sub-slab, indoor air, and outdoor air samples on the layout sketch
- Measure the distance of all sample locations from identifiable features, and include on the layout sketch.
- Identify room use (bedroom, living room, den, kitchen, etc.) on the layout sketch
- Identify the locations of the following features on the layout sketch, using the appropriate symbols:

B or F	Boiler or Furnace	o	Other floor or wall penetrations (label appropriately)
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WS	Wood Stoves	● SS-1	Location & label of sub-slab samples
W/D	Washer / Dryer	● IA-1	Location & label of indoor air samples
S	Sumps	● OA-1	Location & label of outdoor air samples
@	Floor Drains	● PFET-1	Location and label of any pressure field test holes

Summa Canister Sampling Field Data Sheet

Site: Chemical Leaman - Tonawanda, NY

Samplers: Tom Urban

Date: 4/10/18

Sample ID	CL-SSV-1	CL-IA-1	CL-SSV-2	CL-IA-2	FD-180410	
Location	NE - driver's locker room	NE - driver's locker room	NW - hallway	NW office	NW office D-up. of IA-2	
Summa Canister ID	10210	10765	10512	11173	11473	
Flow Controller ID	11054	10872	10448	11479	11513	
Additional Tubing Added	NO (YES) How much? 3'	NO (YES) How much?	NO (YES) How much? 3'	NO (YES) How much? 1'	NO (YES) How much? 1'	
Purge Time (Start)	0830	NA	0844	NA	NA	
Purge Time (Stop)	0835	↓	0849	↓	↓	
Total Purge Time (min)	5 min	↓	5 min	↓	↓	
Purge Volume	1 Liter	1 Liter	1 Liter	1 Liter	1 Liter	
Initial Tracer Gas Results	0 ppm	NA	0 ppm	NA	NA	
PID (ppb)	0	↓	1260	↓	↓	
CH ₄ (ppm)	0	↓	0	↓	↓	
O ₂ (%)	19.9	↓	19.4	↓	↓	
CO ₂	0.2	↓	0.2	↓	↓	
H ₂ S (ppm)	0	↓	0	↓	↓	
Pressure Gauge - before sampling	Gauge -30	Regulator -30	Gauge -30	Regulator -30	Gauge -30	Regulator -28
Sample Time (Start)	0836	0836	0850	0855	0855	0855
Sample Time (Stop)	1636	1636	1650	1655	1655	1655
Total Sample Time (min)	480	480	480	480	480	480
Pressure Gauge - after sampling	Gauge -4	Regulator -5	Gauge -4	Regulator -2	Gauge -5	Regulator -1
Sample Volume	6 Liters	6 Liters	6 Liters	6 Liters	6 Liters	6 Liters
Canister Pressure Went To Ambient Pressure?	YES (NO)	YES (NO)	YES (NO)	YES (NO)	YES (NO)	YES (NO)
General Comments:						

Summa Canister Sampling Field Data Sheet

Site: Chemical Leaman - Tonawanda, NY

Samplers: Tom Urban

Date: 4/10/18

Sample ID	CL-0A-1					
Location	west side of parking lot					
Summa Canister ID	10471					
Flow Controller ID	11313					
Additional Tubing Added	NO/YES How much?	NO/YES How much?	NO/YES How much?	NO/YES How much?	NO/YES How much?	NO/YES How much?
Purge Time (Start)	NA					
Purge Time (Stop)						
Total Purge Time (min)						
Purge Volume	1 Liter		1 Liter	1 Liter	1 Liter	1 Liter
Initial Tracer Gas Results	NA					
PID (ppb)						
CH ₄ (ppm)						
O ₂ (%)						
CO ₂						
H ₂ S (ppm)						
Pressure Gauge - before sampling	Gauge -30 ⁺	Regulator -30	Gauge	Regulator	Gauge	Regulator
Sample Time (Start)	0858					
Sample Time (Stop)	1658					
Total Sample Time (min)	480					
Pressure Gauge - after sampling	Gauge -3	Regulator -2	Gauge	Regulator	Gauge	Regulator
Sample Volume	6 Liters		6 Liters	6 Liters	6 Liters	6 Liters
Canister Pressure Went To Ambient Pressure?	YES (NO)		YES / NO	YES / NO	YES / NO	YES / NO
General Comments:						



Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

pg 1 of 3

PRODUCT INVENTORY

Building Name: Dr Trailer Repair Bldg Code: _____ Date: 3/27/18
 Bldg Address: 470 Fillmore Ave Apt/Suite No: —
 Bldg City/State/Zip: Tongawanda, NY 14150
 Make and Model of PID: pgb RAE 3000 Date of Calibration: 3/23/18

Location	Product Name/Description	Size (oz)	Condition *	Chemical Ingredients	PID Reading	COC Y/N?
ingd ood ppb Central Storage area	hitmen insecticide	32 x 3	New UO	deltamethrin	Bkgd	N
	raid	15	Used	d-phenothrin pm (deltamethrin) pet. distillates	"	N
	liquid Ant Bait	0.45	used	dinotefuran	"	N
	isop wipers	17.7	used	alkyl dimethyl benzyl	"	N
central office Dave's office	Cleaning duster	10	used	N.L.	"	N
furnace room	floor finish "Metalist"	5 gal	Used	N.L.	"	N
	floor sealer	5 gal	USED	N.L.	"	N
	liquid carpet detergent	5 gal	used	N.L.	"	N
drivers Bath	clorox bleaching gel	24	used	sodium hypochlorite	"	N
drivers lockers	drain cleaner	1 gal	used	N.L.	"	N
	SNO-EE + bleach family dollar	1 gal x 3	used	sodium hypochlorite	"	N
	ZEP cleaner + degreaser	1 gal	used	sodium hydroxide 2-Butoxyethanol	320	N
	HDX Bleach	1 gal	used	sodium hypochlorite	Bkgd	N
	pine-sol	1 gal	used	alkyl alcohol ethoxylates	130	N
	orange cleaner	33	used	surfactant	Bkgd	N
	scrubbing bubbles	32	used	lactic acid	Bkgd	N

* Describe the condition of the product containers as **Unopened (UO)**, **Used (U)**, or **Deteriorated (D)**

** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

Product Inventory Complete? ☒ Y Were there any elevated PID readings taken on site? ☒ Y ☒ Products with COC?



Structure Sampling Questionnaire and Building Inventory

New York State Department of Environmental Conservation

PRODUCT INVENTORY

Building Name: Dr. Trailer Repair Bldg Code: _____ Date: 3/27/18
 Bldg Address: 470 Fillmore Ave Apt/Suite No: —
 Bldg City/State/Zip: Tonawanda, NY 14150
 Make and Model of PID: ppb RAE 3000 Date of Calibration: 3/23/18

Location	Product Name/Description	Size (oz)	Condition *	Chemical Ingredients	PID Reading	COC Y/N?
Service office	propane torch	14	UO	propane	Bkgd	N
Storage cabinet 12 ppm	Butane fuel	5.1	UO	Butane	"	N
	clear PVC cement	(42) 302	U	MEK; cyclohexane tetrahydroturan; acetone	31 ppm	N
	purple primer	802	U	acetone, cyclohexane; MEK; tetrahydroturan	173 ppm	N
	thread sealant	402	UO	ethanol, titanium oxide, methanol	1200 ppb	N
	weld spatter release solution	1702	U	amines, tert-alkyl-ethoxylated propoxyrate	Bkgd	N
	threadlocker - red	1.22 oz	U	Methacrylate ester	Bkgd	N
	lubrication	3	U	N.L.	Bkgd	N
	electric space heater used in this office					┐
	8" x 4" heater					┐
						┐
						┐
						┐
						┐
						┐
						┐
						┐

* Describe the condition of the product containers as **Unopened (UO)**, **Used (U)**, or **Deteriorated (D)**

** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.

Product Inventory Complete? ☒ Y Were there any elevated PID readings taken on site? ☒ Y ☒ N Products with COC?

New York State Department of Environmental Conservation

PRODUCT INVENTORY			
Building Name:	Dr. Trailer Repair	Bldg Code:	Date: 3/27/18
Bldg Address:	470 Fillmore Ave	Apt/Suite No:	—
Bldg City/State/Zip:	Tonawanda, NY	14150	
Make and Model of PID:	ppb RAE 3000	Date of Calibration:	3/23/18

[illegible]

**** Photographs of the front and back of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.**

Product Inventory Complete? ☒ Were there any elevated PID readings taken on site? ☒ Products with COC? ☒

Attachment 2

Photograph Log

AECOM		PHOTOGRAPH LOG	
Client Name: Quality Distribution, Inc.		Site Location: 470 Fillmore Ave., Tonawanda, New York	
Site No. 915014			
Photo No. 1	Date: 04/10/18		
Direction Photo Taken: Looking northwest.			
Description: Location of sub-slab vapor sample CL-SSV-1 and indoor air sample CL-IA-1.			

Photo No. 2	Date: 04/10/18	
Direction Photo Taken: Looking southeast.		
Description: Location of indoor air sample CL-IA-2 and field duplicate FD-180410.		

AECOM		PHOTOGRAPH LOG	
Client Name: Quality Distribution, Inc.		Site Location: 470 Fillmore Ave., Tonawanda, New York	Site No. 915014
Photo No. 3	Date: 04/10/18		
Direction Photo Taken: Looking north.			
Description: Location of sub-slab vapor sample CL-SSV-2.			

Photo No. 4	Date: 04/10/18	
Direction Photo Taken: Looking southwest.		
Description: Location of outdoor air sample CL-OA-1.		

Attachment 3

Data Usability Summary Report

DATA USABILITY SUMMARY REPORT

**SOIL VAPOR INTRUSION INVESTIGATION
FORMER CHEMICAL LEAMAN TANK LINES SITE
TONAWANDA, NEW YORK**

Analyses Performed by:

**TESTAMERICA LABORATORIES, INC.
KNOXVILLE, TN**

Prepared for:

QUALITY DISTRIBUTION, INC.

Prepared by:

**AECOM
257 WEST GENESEE STREET, SUITE 400
BUFFALO, NY 14202-2657**

MAY 2018

TABLE OF CONTENTS

	<u>Page No.</u>
1.0 INTRODUCTION.....	1
2.0 ANALYTICAL METHODOLOGIES/DATA VALIDATION PROCEDURES	1
3.0 DATA DELIVERABLE COMPLETENESS	2
4.0 SAMPLE RECEIPT/PRESERVATION/HOLDING TIMES	2
5.0 NONCONFORMANCES	2
6.0 SAMPLE RESULTS AND REPORTING	2
7.0 SUMMARY	2

TABLES (Following Text)

Table 1	Validated Indoor Air, Sub-Slab Vapor, and Outdoor Air Sample Results
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ATTACHMENTS

Attachment A	Validated Form I's
Attachment B	Support Documentation

1.0 INTRODUCTION

This Data Usability Summary Report (DUSR) has been prepared following the guidelines provided in New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation *DER-10 Technical Guidance for Site Investigation and Remediation, Appendix 2B, Guidance for Data Deliverables and the Development of Data Usability Summary Reports*, May 2010. Discussed in this DUSR are analytical data for 2 indoor air samples plus 1 field duplicate, 2 sub-slab vapor (soil gas) samples, and 1 ambient (outdoor) air sample collected April 10, 2018. The samples were collected in support of the soil vapor intrusion investigation at the former Chemical Leaman Tank Lines site located in Tonawanda, New York.

2.0 ANALYTICAL METHODOLOGIES/DATA VALIDATION PROCEDURES

All samples were sent to TestAmerica Laboratories, Inc. (Knoxville, TN) for analysis. The samples were analyzed for volatile organic compounds (VOCs) following United States Environmental Protection Agency (USEPA) *Compendium Method TO-15, Determination of VOCs in Air Collected in Specially Prepared Canisters and Analyzed By Gas Chromatography/Mass Spectrometry (GC/MS)*, EPA/625/R-96/010b, January 1999.

A limited data validation was performed in accordance with the guidelines in the following USEPA Region II document:

- *Analysis of Volatile Organic Compounds in Air Contained in Canisters by Method TO-15, SOP HW-31, Rev. 6, June 2014.*

The limited data validation included: a completeness review of all required deliverables; holding times; a review of quality control (QC) results [blanks, instrument tunings, calibration standards, duplicate analyses, and laboratory control sample (LCS) recoveries] to determine if the data are within the protocol-required limits and specifications; a determination that all samples were analyzed using established and agreed upon analytical protocols; an evaluation of the raw data to confirm the results provided in the data summary sheets; and a review of laboratory data qualifiers.

Data qualifiers applied to the results during the validation included 'UJ' (estimated quantitation limit) and 'U' (non-detect). Definitions of USEPA Region II data qualifiers are presented at the end of this text. The validated analytical results are presented on Table 1 (indoor air, sub-slab vapor, and outdoor air sample results). Copies of the validated laboratory results (i.e., Form 1's) are presented in Attachment A. Documentation supporting the qualification of data is presented in Attachment B. Only analytical deviations affecting data usability are discussed in this report.

3.0 DATA DELIVERABLE COMPLETENESS

Full deliverable data packages (i.e., NYSDEC ASP (Category B or equivalent) were provided by the laboratory, which included all reporting forms and raw data necessary to fully evaluate and verify the reported analytical results.

4.0 SAMPLE RECEIPT/PRESERVATION/HOLDING TIMES

All samples were received by the laboratory intact, properly preserved, and under proper chain-of-custody (COC). All samples were analyzed within the required holding times.

5.0 NONCONFORMANCES

Instrument Calibration

The percent differences (%D) between the initial calibration (ICAL) average relative response factor (RRF) and the RRFs in the continuing calibration standard (CCAL) associated with the samples were greater than 30% for the following VOCs: 1-methylnapthalene and 2-methylnapthalene. The results for these compounds in all samples were qualified 'UJ'.

Method Blank/Field Blank/Rinse Blank

Tetrachloroethene (PCE) was detected in the batch laboratory Summa[®] canister cleaning verification blank at a concentration equal to the reporting limit (RL). The detected result for PCE in sample CL-OA-1 (sample result < RL, 'J' value) has been qualified 'U' at the RL. Since the concentrations of PCE in the remaining samples were 2 orders of magnitude higher than the both the RL and blank concentration, no qualification has been added to the sample results.

Field Duplicate Samples

The field duplicate was collected at location CL-IA-2. The field duplicate relative percent differences (RPDs) exhibited good analytical precision (i.e., RPD < 50%).

6.0 SAMPLE RESULTS AND REPORTING

All quantitation/reporting limits were reported in accordance with method requirements. Due to the presence of elevated levels of target compounds, the samples were analyzed utilizing reduced sample volume. The RLs for the non-detect compounds represent the lowest achievable at the reduced sample sizes utilized for the analyses.

7.0 SUMMARY

All sample analyses were found to be compliant with the method criteria, except where previously noted. Those results qualified 'UJ' (estimated quantitation limit) and 'U' (non-detect) are considered conditionally usable. AECOM does not recommend the recollection of any samples at this time.

Prepared By: Ann Marie Kropovitch, Chemist



Date:

5/4/18

Reviewed By: Peter R. Fairbanks, Senior Chemist



Date:

5/4/18

DEFINITIONS OF USEPA DATA QUALIFIERS

- U – The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
- J – The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
- UJ – The analyte was analyzed for, but not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
- R – The data are unusable. The sample results are rejected due to serious deficiencies in meeting quality control criteria. The analyte may or may not be present in the sample.
- D – The sample result was reported from a secondary dilution analysis.

TABLE 1
VALIDATED INDOOR AIR, SUB-SLAB VAPOR, AND OUTDOOR AIR SAMPLE RESULTS
FORMER CHEMICAL LEAMAN TANK LINES SITE

Location ID		AMBIENT AIR	IA-1	IA-2	IA-2	SSV-1
Sample ID		CL-OA-1	CL-IA-1	CL-IA-2	FD-180410	CL-SSV-1
Matrix		Ambient Air	Indoor Air	Indoor Air	Indoor Air	Sub-Slab Air
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/10/18	04/10/18	04/10/18	04/10/18	04/10/18
Parameter	Units				Field Duplicate (1-1)	
Volatiles						
1,1,1-Trichloroethane	UG/M3	0.065 U	0.65 U	0.33 U	0.33 U	0.41 U
1,1,2,2-Tetrachloroethane	UG/M3	0.16 U	1.6 U	0.82 U	0.82 U	1.0 U
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	0.60 J	0.92 U	0.63 J	0.59 J	0.66 J
1,1,2-Trichloroethane	UG/M3	0.11 U	1.1 U	0.57 U	0.57 U	0.72 U
1,1-Dichloroethane	UG/M3	0.040 U	0.40 U	0.20 U	0.20 U	0.25 U
1,1-Dichloroethene	UG/M3	0.056 U	0.56 U	0.28 U	0.28 U	0.35 U
1,2,4,5-Tetramethylbenzene	UG/M3	0.19 U	2.4 J	0.96 U	1.6 J	2.4 J
1,2,4-Trichlorobenzene	UG/M3	0.29 U	2.9 U	1.4 U	1.4 U	1.8 U
1,2-Dibromoethane (Ethylene dibromide)	UG/M3	0.14 U	1.4 U	0.69 U	0.69 U	0.86 U
1,2-Dichlorobenzene	UG/M3	0.17 U	1.7 U	0.84 U	0.84 U	1.1 U
1,2-Dichloroethene (cis)	UG/M3	0.095 U	0.95 U	0.51 J	0.59 J	0.59 U
1,2-Dichloroethene (trans)	UG/M3	0.079 U	0.79 U	0.40 U	0.40 U	0.50 U
1,2-Dichloropropane	UG/M3	0.097 U	0.97 U	0.49 U	0.49 U	0.61 U
1,2-Dichlorotetrafluoroethane	UG/M3	0.15 J	0.91 U	0.45 U	0.45 U	0.57 U
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	0.13 U	8.4	4.7	6.3	6.1
1,3-Butadiene	UG/M3	0.055 U	0.55 U	0.28 U	0.28 U	0.35 U
1,3-Dichlorobenzene	UG/M3	0.16 U	1.6 U	0.78 U	0.78 U	0.98 U
1,3-Dichloropropene (cis)	UG/M3	0.13 U	1.3 U	0.66 U	0.66 U	0.82 U
1,3-Dichloropropene (trans)	UG/M3	0.086 U	0.86 U	0.43 U	0.43 U	0.54 U
1,4-Dichlorobenzene	UG/M3	0.16 U	1.6 U	0.78 U	0.78 U	0.98 U
1,4-Dioxane	UG/M3	0.12 U	1.2 U	0.58 U	0.58 U	1.5 J
1-Methylnaphthalene	UG/M3	2.2 UJ	22 UJ	11 UJ	11 UJ	13 UJ
2,2,4-Trimethylpentane	UG/M3	0.12 J	3.0 J	2.3 J	2.6 J	0.47 U

Flags assigned during chemistry validation are shown.

MADE BY: AMK 5/4/18
 CHECKED BY: PRF 5/4/18

Detection Limits shown are MDL

TABLE 1
VALIDATED INDOOR AIR, SUB-SLAB VAPOR, AND OUTDOOR AIR SAMPLE RESULTS
FORMER CHEMICAL LEAMAN TANK LINES SITE

Location ID		AMBIENT AIR	IA-1	IA-2	IA-2	SSV-1
Sample ID		CL-OA-1	CL-IA-1	CL-IA-2	FD-180410	CL-SSV-1
Matrix		Ambient Air	Indoor Air	Indoor Air	Indoor Air	Sub-Slab Air
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/10/18	04/10/18	04/10/18	04/10/18	04/10/18
Parameter	Units				Field Duplicate (1-1)	
Volatiles						
2-Hexanone	UG/M3	0.36 J	0.94 U	0.47 U	0.47 U	0.59 U
2-Methylnaphthalene	UG/M3	2.0 UJ	20 UJ	10 UJ	10 UJ	13 UJ
4-Ethyltoluene	UG/M3	0.13 U	3.2 J	2.2 J	2.5 J	8.9
4-Methyl-2-pentanone	UG/M3	0.87	3.2 U	1.6 U	2.1 J	5.5
Acetone	UG/M3	15 Cl	300	160	200	93
Allyl chloride	UG/M3	0.059 U	0.59 U	0.30 U	0.30 U	0.37 U
Benzene	UG/M3	0.47	1.0 J	1.6	2.0	11
Benzyl chloride	UG/M3	0.16 U	1.6 U	0.80 U	0.80 U	1.0 U
Bromodichloromethane	UG/M3	0.12 U	1.2 U	0.60 U	0.60 U	0.75 U
Bromoform	UG/M3	0.20 U	2.0 U	0.98 U	0.98 U	1.2 U
Bromomethane	UG/M3	0.050 U	0.50 U	0.25 U	0.25 U	0.32 U
Butane	UG/M3	2.7	30	39	46	37
Carbon disulfide	UG/M3	0.13 J	0.37 U	0.35 J	0.26 J	1.5 J
Carbon tetrachloride	UG/M3	0.56	0.94 U	0.63 J	0.57 J	0.59 U
Chlorobenzene	UG/M3	0.092 U	0.92 U	0.46 U	0.46 U	0.58 U
Chloroethane	UG/M3	0.037 U	0.37 U	0.18 U	0.18 U	0.73 J
Chloroform	UG/M3	0.11 J	0.73 U	0.37 U	0.37 U	0.46 U
Chloromethane	UG/M3	1.4	1.9 J	2.1 J	2.1	0.83 U
Cyclohexane	UG/M3	0.62 J	0.55 U	4.1	4.5	9.7
Decane	UG/M3	0.34 J	70	44	56	24
Dibromochloromethane	UG/M3	0.14 U	1.4 U	0.72 U	0.72 U	0.91 U
Dichlorodifluoromethane	UG/M3	2.8	3.1 J	3.3	3.4	3.4
Ethanol	UG/M3	14	140	270	340	15 J

Flags assigned during chemistry validation are shown.

MADE BY: AMK 5/4/18

CHECKED BY: PRF 5/4/18

Detection Limits shown are MDL

TABLE 1
VALIDATED INDOOR AIR, SUB-SLAB VAPOR, AND OUTDOOR AIR SAMPLE RESULTS
FORMER CHEMICAL LEAMAN TANK LINES SITE

Location ID		AMBIENT AIR	IA-1	IA-2	IA-2	SSV-1
Sample ID		CL-OA-1	CL-IA-1	CL-IA-2	FD-180410	CL-SSV-1
Matrix		Ambient Air	Indoor Air	Indoor Air	Indoor Air	Sub-Slab Air
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/10/18	04/10/18	04/10/18	04/10/18	04/10/18
Parameter	Units				Field Duplicate (1-1)	
Volatiles						
Ethyl acetate	UG/M3	1.4 J	2.9 U	1.4 U	1.4 U	1.8 U
Dodecane	UG/M3	0.22 U	6.0 J	1.4 J	4.4 J	14 J
Ethylbenzene	UG/M3	0.25 J	2.7 J	2.1	2.5	15
Heptane	UG/M3	0.77 J	150	96	110	32
Hexachlorobutadiene	UG/M3	0.52 U	5.2 U	2.6 U	2.6 U	3.3 U
Hexane	UG/M3	0.78	3.4 J	3.8	3.7	22
Indane	UG/M3	0.16 U	1.6 U	0.80 U	0.80 U	19
Indene	UG/M3	0.15 U	1.5 U	0.76 U	0.76 U	0.95 U
Isopropyl alcohol	UG/M3	2.9	7.3 J	5.6 J	7.2 J	3.5 J
m&p-Xylene	UG/M3	0.85	12	8.9	11	17
Methyl ethyl ketone (2-Butanone)	UG/M3	2.6	15	8.9	10	4.3 J
Methyl tert-butyl ether	UG/M3	0.25 U	2.5 U	1.2 U	1.2 U	1.5 U
Methylene chloride	UG/M3	1.6	6.5 J	3.6	5.1	2.8 U
Nonane	UG/M3	0.40 J	49	38	47	25
Octane	UG/M3	0.30 J	4.5 J	3.3 J	4.2	100
o-Xylene	UG/M3	0.40	4.6	3.4	4.3	8.8
Pentane	UG/M3	6.5	9.8 J	8.8	11	30
Styrene	UG/M3	0.098 U	2.1 J	0.88 J	1.2 J	0.61 U
tert-Butyl alcohol	UG/M3	0.17 J	0.76 J	0.54 J	0.68 J	48
Tetrachloroethene	UG/M3	0.54 U	30	30	34	67
Tetrahydrofuran	UG/M3	0.12 J	1.1 J	4.4 J	1.8 J	0.46 U
Thiophene	UG/M3	0.10 U	1.0 U	0.52 U	0.52 U	0.65 U
Toluene	UG/M3	4.2	31	29	33	23

Flags assigned during chemistry validation are shown.

MADE BY: AMK 5/4/18
 CHECKED BY: PRF 5/4/18

Detection Limits shown are MDL

TABLE 1
VALIDATED INDOOR AIR, SUB-SLAB VAPOR, AND OUTDOOR AIR SAMPLE RESULTS
FORMER CHEMICAL LEAMAN TANK LINES SITE

Location ID		AMBIENT AIR	IA-1	IA-2	IA-2	SSV-1
Sample ID		CL-OA-1	CL-IA-1	CL-IA-2	FD-180410	CL-SSV-1
Matrix		Ambient Air	Indoor Air	Indoor Air	Indoor Air	Sub-Slab Air
Depth Interval (ft)		-	-	-	-	-
Date Sampled		04/10/18	04/10/18	04/10/18	04/10/18	04/10/18
Parameter	Units				Field Duplicate (1-1)	
Volatiles						
Trichloroethene	UG/M3	0.075 U	0.75 U	0.38 U	0.38 U	27
Trichlorofluoromethane	UG/M3	1.8	2.3 J	2.5	2.2 J	3.0
Undecane	UG/M3	0.16 U	45	21	32	24
Vinyl bromide	UG/M3	0.061 U	0.61 U	0.31 U	0.31 U	0.38 U
Vinyl chloride	UG/M3	0.074 U	0.74 U	0.37 U	0.37 U	0.46 U

Flags assigned during chemistry validation are shown.

MADE BY: AMK 5/4/18

CHECKED BY: PRF 5/4/18

Detection Limits shown are MDL

TABLE 1
VALIDATED INDOOR AIR, SUB-SLAB VAPOR, AND OUTDOOR AIR SAMPLE RESULTS
FORMER CHEMICAL LEAMAN TANK LINES SITE

Location ID		SSV-2
Sample ID		CL-SSV-2
Matrix		Sub-Slab Air
Depth Interval (ft)		-
Date Sampled		04/10/18
Parameter	Units	
Volatiles		
1,1,1-Trichloroethane	UG/M3	1.3 U
1,1,2,2-Tetrachloroethane	UG/M3	3.3 U
1,1,2-Trichloro-1,2,2-trifluoroethane	UG/M3	1.8 U
1,1,2-Trichloroethane	UG/M3	2.3 U
1,1-Dichloroethane	UG/M3	0.81 U
1,1-Dichloroethene	UG/M3	1.1 U
1,2,4,5-Tetramethylbenzene	UG/M3	3.8 U
1,2,4-Trichlorobenzene	UG/M3	5.8 U
1,2-Dibromoethane (Ethylene dibromide)	UG/M3	2.8 U
1,2-Dichlorobenzene	UG/M3	3.4 U
1,2-Dichloroethene (cis)	UG/M3	1.9 U
1,2-Dichloroethene (trans)	UG/M3	1.6 U
1,2-Dichloropropane	UG/M3	1.9 U
1,2-Dichlorotetrafluoroethane	UG/M3	1.8 U
1,3,5-Trimethylbenzene (Mesitylene)	UG/M3	12
1,3-Butadiene	UG/M3	1.1 U
1,3-Dichlorobenzene	UG/M3	3.1 U
1,3-Dichloropropene (cis)	UG/M3	2.6 U
1,3-Dichloropropene (trans)	UG/M3	1.7 U
1,4-Dichlorobenzene	UG/M3	3.1 U
1,4-Dioxane	UG/M3	7.6 J
1-Methylnaphthalene	UG/M3	43 UJ
2,2,4-Trimethylpentane	UG/M3	1.5 U

Flags assigned during chemistry validation are shown.

MADE BY: AMK 5/4/18

CHECKED BY: PRF 5/4/18

Detection Limits shown are MDL

TABLE 1
VALIDATED INDOOR AIR, SUB-SLAB VAPOR, AND OUTDOOR AIR SAMPLE RESULTS
FORMER CHEMICAL LEAMAN TANK LINES SITE

Location ID		SSV-2
Sample ID		CL-SSV-2
Matrix		Sub-Slab Air
Depth Interval (ft)		-
Date Sampled		04/10/18
Parameter	Units	
Volatiles		
2-Hexanone	UG/M3	1.9 U
2-Methylnaphthalene	UG/M3	41 UJ
4-Ethyltoluene	UG/M3	11 J
4-Methyl-2-pentanone	UG/M3	22
Acetone	UG/M3	330
Allyl chloride	UG/M3	1.2 U
Benzene	UG/M3	9.6
Benzyl chloride	UG/M3	3.2 U
Bromodichloromethane	UG/M3	2.4 U
Bromoform	UG/M3	3.9 U
Bromomethane	UG/M3	1.0 U
Butane	UG/M3	130
Carbon disulfide	UG/M3	2.4 J
Carbon tetrachloride	UG/M3	1.9 U
Chlorobenzene	UG/M3	1.8 U
Chloroethane	UG/M3	0.74 U
Chloroform	UG/M3	64
Chloromethane	UG/M3	2.6 U
Cyclohexane	UG/M3	23
Decane	UG/M3	270
Dibromochloromethane	UG/M3	2.9 U
Dichlorodifluoromethane	UG/M3	3.1 J
Ethanol	UG/M3	210

Flags assigned during chemistry validation are shown.

MADE BY: AMK 5/4/18

CHECKED BY: PRF 5/4/18

Detection Limits shown are MDL

TABLE 1
VALIDATED INDOOR AIR, SUB-SLAB VAPOR, AND OUTDOOR AIR SAMPLE RESULTS
FORMER CHEMICAL LEAMAN TANK LINES SITE

Location ID		SSV-2
Sample ID		CL-SSV-2
Matrix		Sub-Slab Air
Depth Interval (ft)		-
Date Sampled		04/10/18
Parameter	Units	
Volatiles		
Ethyl acetate	UG/M3	5.8 U
Dodecane	UG/M3	27 J
Ethylbenzene	UG/M3	18
Heptane	UG/M3	35
Hexachlorobutadiene	UG/M3	10 U
Hexane	UG/M3	47
Indane	UG/M3	3.2 U
Indene	UG/M3	3.0 U
Isopropyl alcohol	UG/M3	34 J
m&p-Xylene	UG/M3	81
Methyl ethyl ketone (2-Butanone)	UG/M3	7.4 J
Methyl tert-butyl ether	UG/M3	4.9 U
Methylene chloride	UG/M3	9.0 U
Nonane	UG/M3	160
Octane	UG/M3	510
o-Xylene	UG/M3	24
Pentane	UG/M3	76
Styrene	UG/M3	2.0 U
tert-Butyl alcohol	UG/M3	20
Tetrachloroethene	UG/M3	95
Tetrahydrofuran	UG/M3	1.5 U
Thiophene	UG/M3	2.1 U
Toluene	UG/M3	260

Flags assigned during chemistry validation are shown.

MADE BY: AMK 5/4/18
 CHECKED BY: PRF 5/4/18

Detection Limits shown are MDL

TABLE 1
VALIDATED INDOOR AIR, SUB-SLAB VAPOR, AND OUTDOOR AIR SAMPLE RESULTS
FORMER CHEMICAL LEAMAN TANK LINES SITE

Location ID		SSV-2
Sample ID		CL-SSV-2
Matrix		Sub-Slab Air
Depth Interval (ft)		-
Date Sampled		04/10/18
Parameter	Units	
Volatiles		
Trichloroethene	UG/M3	1.6 J
Trichlorofluoromethane	UG/M3	2.1 J
Undecane	UG/M3	150
Vinyl bromide	UG/M3	1.2 U
Vinyl chloride	UG/M3	1.5 U

Flags assigned during chemistry validation are shown.

MADE BY: AMK 5/4/18

CHECKED BY: PRF 5/4/18

Detection Limits shown are MDL

ATTACHMENT A
VALIDATED FORM I'S

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

Lab Name: TestAmerica Knoxville

Job No.: 140-11270-1

SDG No.: _____

Client Sample ID: CL-SSV-1

Lab Sample ID: 140-11270-1

Matrix: Air

Lab File ID: JD16P101.D

Analysis Method: TO 15 LL

Date Collected: 04/10/2018 08:36

Sample wt/vol: 80 (mL)

Date Analyzed: 04/16/2018 15:56

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.: 19508

Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.7	0.41
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		3.4	1.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	0.66	J	3.8	0.57
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.7	0.72
75-34-3	1,1-Dichloroethane	98.96	ND		2.0	0.25
75-35-4	1,1-Dichloroethene	96.94	ND		0.99	0.35
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	2.4	J	2.7	1.2
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.7	1.8
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		3.8	0.86
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		3.5	0.57
95-50-1	1,2-Dichlorobenzene	147.00	ND		3.0	1.1
78-87-5	1,2-Dichloropropane	112.99	ND		2.3	0.61
108-67-8	1,3,5-Trimethylbenzene	120.20	6.1		2.5	0.80
106-99-0	1,3-Butadiene	54.09	ND		2.2	0.35
541-73-1	1,3-Dichlorobenzene	147.00	ND		3.0	0.98
106-46-7	1,4-Dichlorobenzene	147.00	ND		3.0	0.98
123-91-1	1,4-Dioxane	88.11	1.5	J	4.5	0.72
90-12-0	1-Methylnaphthalene	142.20	ND	* JS	36	13
540-84-1	2,2,4-Trimethylpentane	114.23	ND		5.8	0.47
78-93-3	2-Butanone (MEK)	72.11	4.3	J	5.9	1.5
591-78-6	2-Hexanone	100.20	ND		5.1	0.59
91-57-6	2-Methylnaphthalene	142.20	ND	* JS	36	13
107-05-1	3-Chloropropene	76.53	ND		1.6	0.37
622-96-8	4-Ethyltoluene	120.20	8.9		4.9	0.80
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	5.5		5.1	2.0
67-64-1	Acetone	58.08	93		30	8.0
71-43-2	Benzene	78.11	11		1.6	0.46
100-44-7	Benzyl chloride	126.58	ND		5.2	1.0
75-27-4	Bromodichloromethane	163.83	ND		3.4	0.75
75-25-2	Bromoform	252.75	ND		5.2	1.2
74-83-9	Bromomethane	94.94	ND		1.9	0.32
106-97-8	Butane	58.12	37		2.4	1.1
75-15-0	Carbon disulfide	76.14	1.5	J	3.9	0.23

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-SSV-1 Lab Sample ID: 140-11270-1
 Matrix: Air Lab File ID: JD16P101.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:36
 Sample wt/vol: 80 (mL) Date Analyzed: 04/16/2018 15:56
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	ND		1.3	0.59
108-90-7	Chlorobenzene	112.56	ND		2.3	0.58
75-00-3	Chloroethane	64.52	0.73	J	1.3	0.23
67-66-3	Chloroform	119.38	ND		2.4	0.46
74-87-3	Chloromethane	50.49	ND		2.6	0.83
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.99	0.59
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		2.3	0.82
110-82-7	Cyclohexane	84.16	9.7		4.3	0.34
124-18-5	Decane	142.28	24		15	0.80
124-48-1	Dibromochloromethane	208.29	ND		4.3	0.91
75-71-8	Dichlorodifluoromethane	120.91	3.4		2.5	0.83
112-40-3	Dodecane	170.33	14	J	17	1.3
64-17-5	Ethanol	46.07	15	J	24	7.5
141-78-6	Ethyl acetate	88.11	ND		18	1.8
100-41-4	Ethylbenzene	106.17	15		2.2	0.73
142-82-5	Heptane	100.21	32		5.1	0.49
87-68-3	Hexachlorobutadiene	260.76	ND		5.3	3.3
110-54-3	Hexane	86.17	22		4.4	0.29
496-11-7	Indane	118.18	19		2.4	1.0
95-13-6	Indene	116.16	ND		4.8	0.95
67-63-0	Isopropyl alcohol	60.10	3.5	J	12	1.4
1634-04-4	Methyl tert-butyl ether	88.15	ND		3.6	1.5
75-09-2	Methylene Chloride	84.93	ND		4.3	2.8
179601-23-1	m-Xylene & p-Xylene	106.17	17		2.2	1.4
111-84-2	Nonane	128.26	25		6.6	0.56
111-65-9	Octane	114.23	100		4.7	0.41
95-47-6	o-Xylene	106.17	8.8		2.2	0.65
109-66-0	Pentane	72.15	30		7.4	3.0
100-42-5	Styrene	104.15	ND		2.1	0.61
75-65-0	tert-Butyl alcohol	74.12	48		6.1	0.28
127-18-4	Tetrachloroethene	165.83	67		3.4	0.68
109-99-9	Tetrahydrofuran	72.11	ND		7.4	0.46
110-02-1	Thiophene	84.14	ND		1.7	0.65
108-88-3	Toluene	92.14	23		2.8	2.8
156-60-5	trans-1,2-Dichloroethene	96.94	ND		2.0	0.50

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-SSV-1 Lab Sample ID: 140-11270-1
 Matrix: Air Lab File ID: JD16P101.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:36
 Sample wt/vol: 80 (mL) Date Analyzed: 04/16/2018 15:56
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		2.3	0.54
79-01-6	Trichloroethene	131.39	27		1.2	0.47
75-69-4	Trichlorofluoromethane	137.37	3.0		2.8	0.35
1120-21-4	Undecane	156.31	24		16	1.0
593-60-2	Vinyl bromide	106.96	ND		2.2	0.38
75-01-4	Vinyl chloride	62.50	ND		0.64	0.46

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	108		60-140

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-SSV-2 Lab Sample ID: 140-11270-3
 Matrix: Air Lab File ID: JD16P103.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:50
 Sample wt/vol: 25 (mL) Date Analyzed: 04/16/2018 17:27
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	ND		8.7	1.3
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		11	3.3
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	ND		12	1.8
79-00-5	1,1,2-Trichloroethane	133.41	ND		8.7	2.3
75-34-3	1,1-Dichloroethane	98.96	ND		6.5	0.81
75-35-4	1,1-Dichloroethene	96.94	ND		3.2	1.1
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	ND		8.8	3.8
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		12	5.8
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		12	2.8
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		11	1.8
95-50-1	1,2-Dichlorobenzene	147.00	ND		9.6	3.4
78-87-5	1,2-Dichloropropane	112.99	ND		7.4	1.9
108-67-8	1,3,5-Trimethylbenzene	120.20	12		7.9	2.6
106-99-0	1,3-Butadiene	54.09	ND		7.1	1.1
541-73-1	1,3-Dichlorobenzene	147.00	ND		9.6	3.1
106-46-7	1,4-Dichlorobenzene	147.00	ND		9.6	3.1
123-91-1	1,4-Dioxane	88.11	7.6	J	14	2.3
90-12-0	1-Methylnaphthalene	142.20	ND	J	120	43
540-84-1	2,2,4-Trimethylpentane	114.23	ND		19	1.5
78-93-3	2-Butanone (MEK)	72.11	7.4	J	19	4.7
591-78-6	2-Hexanone	100.20	ND		16	1.9
91-57-6	2-Methylnaphthalene	142.20	ND	J	120	41
107-05-1	3-Chloropropene	76.53	ND		5.0	1.2
622-96-8	4-Ethyltoluene	120.20	11	J	16	2.6
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	22		16	6.4
67-64-1	Acetone	58.08	330		95	26
71-43-2	Benzene	78.11	9.6		5.1	1.5
100-44-7	Benzyl chloride	126.58	ND		17	3.2
75-27-4	Bromodichloromethane	163.83	ND		11	2.4
75-25-2	Bromoform	252.75	ND		17	3.9
74-83-9	Bromomethane	94.94	ND		6.2	1.0
106-97-8	Butane	58.12	130		7.6	3.5
75-15-0	Carbon disulfide	76.14	2.4	J	12	0.75

Handwritten signature and date

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-SSV-2 Lab Sample ID: 140-11270-3
 Matrix: Air Lab File ID: JD16P103.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:50
 Sample wt/vol: 25 (mL) Date Analyzed: 04/16/2018 17:27
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	ND		4.0	1.9
108-90-7	Chlorobenzene	112.56	ND		7.4	1.8
75-00-3	Chloroethane	64.52	ND		4.2	0.74
67-66-3	Chloroform	119.38	64		7.8	1.5
74-87-3	Chloromethane	50.49	ND		8.3	2.6
156-59-2	cis-1,2-Dichloroethene	96.94	ND		3.2	1.9
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		7.3	2.6
110-82-7	Cyclohexane	84.16	23		14	1.1
124-18-5	Decane	142.28	270		47	2.6
124-48-1	Dibromochloromethane	208.29	ND		14	2.9
75-71-8	Dichlorodifluoromethane	120.91	3.1	J	7.9	2.7
112-40-3	Dodecane	170.33	27	J	56	4.3
64-17-5	Ethanol	46.07	210		75	24
141-78-6	Ethyl acetate	88.11	ND		58	5.8
100-41-4	Ethylbenzene	106.17	18		6.9	2.3
142-82-5	Heptane	100.21	35		16	1.6
87-68-3	Hexachlorobutadiene	260.76	ND		17	10
110-54-3	Hexane	86.17	47		14	0.92
496-11-7	Indane	118.18	ND		7.7	3.2
95-13-6	Indene	116.16	ND		15	3.0
67-63-0	Isopropyl alcohol	60.10	34	J	39	4.6
1634-04-4	Methyl tert-butyl ether	88.15	ND		12	4.9
75-09-2	Methylene Chloride	84.93	ND		14	9.0
179601-23-1	m-Xylene & p-Xylene	106.17	81		6.9	4.6
111-84-2	Nonane	128.26	160		21	1.8
111-65-9	Octane	114.23	510		15	1.3
95-47-6	o-Xylene	106.17	24		6.9	2.1
109-66-0	Pentane	72.15	76		24	9.4
100-42-5	Styrene	104.15	ND		6.8	2.0
75-65-0	tert-Butyl alcohol	74.12	20		19	0.91
127-18-4	Tetrachloroethene	165.83	95		11	2.2
109-99-9	Tetrahydrofuran	72.11	ND		24	1.5
110-02-1	Thiophene	84.14	ND		5.5	2.1
108-88-3	Toluene	92.14	260		9.0	9.0
156-60-5	trans-1,2-Dichloroethene	96.94	ND		6.3	1.6

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-SSV-2 Lab Sample ID: 140-11270-3
 Matrix: Air Lab File ID: JD16P103.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:50
 Sample wt/vol: 25 (mL) Date Analyzed: 04/16/2018 17:27
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		7.3	1.7
79-01-6	Trichloroethene	131.39	1.6	J	3.9	1.5
75-69-4	Trichlorofluoromethane	137.37	2.1	J	9.0	1.1
1120-21-4	Undecane	156.31	150		51	3.2
593-60-2	Vinyl bromide	106.96	ND		7.0	1.2
75-01-4	Vinyl chloride	62.50	ND		2.0	1.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	111		60-140

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-IA-1 Lab Sample ID: 140-11270-2
 Matrix: Air Lab File ID: JD16P102.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:36
 Sample wt/vol: 50 (mL) Date Analyzed: 04/16/2018 16:42
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	ND		4.4	0.65
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		5.5	1.6
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	ND		6.1	0.92
79-00-5	1,1,2-Trichloroethane	133.41	ND		4.4	1.1
75-34-3	1,1-Dichloroethane	98.96	ND		3.2	0.40
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.56
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	2.4	J	4.4	1.9
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		5.9	2.9
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		6.1	1.4
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		5.6	0.91
95-50-1	1,2-Dichlorobenzene	147.00	ND		4.8	1.7
78-87-5	1,2-Dichloropropane	112.99	ND		3.7	0.97
108-67-8	1,3,5-Trimethylbenzene	120.20	8.4		3.9	1.3
106-99-0	1,3-Butadiene	54.09	ND		3.5	0.55
541-73-1	1,3-Dichlorobenzene	147.00	ND		4.8	1.6
106-46-7	1,4-Dichlorobenzene	147.00	ND		4.8	1.6
123-91-1	1,4-Dioxane	88.11	ND		7.2	1.2
90-12-0	1-Methylnaphthalene	142.20	ND	JS	58	22
540-84-1	2,2,4-Trimethylpentane	114.23	3.0	J	9.3	0.75
78-93-3	2-Butanone (MEK)	72.11	15		9.4	2.4
591-78-6	2-Hexanone	100.20	ND		8.2	0.94
91-57-6	2-Methylnaphthalene	142.20	ND	JS	58	20
107-05-1	3-Chloropropene	76.53	ND		2.5	0.59
622-96-8	4-Ethyltoluene	120.20	3.2	J	7.9	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		8.2	3.2
67-64-1	Acetone	58.08	300		48	13
71-43-2	Benzene	78.11	1.0	J	2.6	0.73
100-44-7	Benzyl chloride	126.58	ND		8.3	1.6
75-27-4	Bromodichloromethane	163.83	ND		5.4	1.2
75-25-2	Bromoform	252.75	ND		8.3	2.0
74-83-9	Bromomethane	94.94	ND		3.1	0.50
106-97-8	Butane	58.12	30		3.8	1.7
75-15-0	Carbon disulfide	76.14	ND		6.2	0.37

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-IA-1 Lab Sample ID: 140-11270-2
 Matrix: Air Lab File ID: JD16P102.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:36
 Sample wt/vol: 50 (mL) Date Analyzed: 04/16/2018 16:42
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	ND		2.0	0.94
108-90-7	Chlorobenzene	112.56	ND		3.7	0.92
75-00-3	Chloroethane	64.52	ND		2.1	0.37
67-66-3	Chloroform	119.38	ND		3.9	0.73
74-87-3	Chloromethane	50.49	1.9	J	4.1	1.3
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.95
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		3.6	1.3
110-82-7	Cyclohexane	84.16	ND		6.9	0.55
124-18-5	Decane	142.28	70		23	1.3
124-48-1	Dibromochloromethane	208.29	ND		6.8	1.4
75-71-8	Dichlorodifluoromethane	120.91	3.1	J	4.0	1.3
112-40-3	Dodecane	170.33	6.0	J	28	2.2
64-17-5	Ethanol	46.07	140		38	12
141-78-6	Ethyl acetate	88.11	ND		29	2.9
100-41-4	Ethylbenzene	106.17	2.7	J	3.5	1.2
142-82-5	Heptane	100.21	150		8.2	0.78
87-68-3	Hexachlorobutadiene	260.76	ND		8.5	5.2
110-54-3	Hexane	86.17	3.4	J	7.0	0.46
496-11-7	Indane	118.18	ND		3.9	1.6
95-13-6	Indene	116.16	ND		7.6	1.5
67-63-0	Isopropyl alcohol	60.10	7.3	J	20	2.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		5.8	2.5
75-09-2	Methylene Chloride	84.93	6.5	J	6.9	4.5
179601-23-1	m-Xylene & p-Xylene	106.17	12		3.5	2.3
111-84-2	Nonane	128.26	49		10	0.89
111-65-9	Octane	114.23	4.5	J	7.5	0.65
95-47-6	o-Xylene	106.17	4.6		3.5	1.0
109-66-0	Pentane	72.15	9.8	J	12	4.7
100-42-5	Styrene	104.15	2.1	J	3.4	0.98
75-65-0	tert-Butyl alcohol	74.12	0.76	J	9.7	0.45
127-18-4	Tetrachloroethene	165.83	30		5.4	1.1
109-99-9	Tetrahydrofuran	72.11	1.1	J	12	0.74
110-02-1	Thiophene	84.14	ND		2.8	1.0
108-88-3	Toluene	92.14	31		4.5	4.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		3.2	0.79

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-IA-1 Lab Sample ID: 140-11270-2
 Matrix: Air Lab File ID: JD16P102.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:36
 Sample wt/vol: 50 (mL) Date Analyzed: 04/16/2018 16:42
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		3.6	0.86
79-01-6	Trichloroethene	131.39	ND		1.9	0.75
75-69-4	Trichlorofluoromethane	137.37	2.3	J	4.5	0.56
1120-21-4	Undecane	156.31	45		26	1.6
593-60-2	Vinyl bromide	106.96	ND		3.5	0.61
75-01-4	Vinyl chloride	62.50	ND		1.0	0.74

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-IA-2 Lab Sample ID: 140-11270-4
 Matrix: Air Lab File ID: JD16P104.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:55
 Sample wt/vol: 100 (mL) Date Analyzed: 04/16/2018 18:13
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	0.33
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		2.7	0.82
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	0.63	J	3.1	0.46
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.57
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		0.79	0.28
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	ND		2.2	0.96
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	1.4
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		3.1	0.69
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		2.8	0.45
95-50-1	1,2-Dichlorobenzene	147.00	ND		2.4	0.84
78-87-5	1,2-Dichloropropane	112.99	ND		1.8	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	4.7		2.0	0.64
106-99-0	1,3-Butadiene	54.09	ND		1.8	0.28
541-73-1	1,3-Dichlorobenzene	147.00	ND		2.4	0.78
106-46-7	1,4-Dichlorobenzene	147.00	ND		2.4	0.78
123-91-1	1,4-Dioxane	88.11	ND		3.6	0.58
90-12-0	1-Methylnaphthalene	142.20	ND	JS	29	11
540-84-1	2,2,4-Trimethylpentane	114.23	2.3	J	4.7	0.37
78-93-3	2-Butanone (MEK)	72.11	8.9		4.7	1.2
591-78-6	2-Hexanone	100.20	ND		4.1	0.47
91-57-6	2-Methylnaphthalene	142.20	ND	JS	29	10
107-05-1	3-Chloropropene	76.53	ND		1.3	0.30
622-96-8	4-Ethyltoluene	120.20	2.2	J	3.9	0.64
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		4.1	1.6
67-64-1	Acetone	58.08	160		24	6.4
71-43-2	Benzene	78.11	1.6		1.3	0.37
100-44-7	Benzyl chloride	126.58	ND		4.1	0.80
75-27-4	Bromodichloromethane	163.83	ND		2.7	0.60
75-25-2	Bromoform	252.75	ND		4.1	0.98
74-83-9	Bromomethane	94.94	ND		1.6	0.25
106-97-8	Butane	58.12	39		1.9	0.87
75-15-0	Carbon disulfide	76.14	0.35	J	3.1	0.19

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-IA-2 Lab Sample ID: 140-11270-4
 Matrix: Air Lab File ID: JD16P104.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:55
 Sample wt/vol: 100 (mL) Date Analyzed: 04/16/2018 18:13
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	0.63	J	1.0	0.47
108-90-7	Chlorobenzene	112.56	ND		1.8	0.46
75-00-3	Chloroethane	64.52	ND		1.1	0.18
67-66-3	Chloroform	119.38	ND		2.0	0.37
74-87-3	Chloromethane	50.49	2.1	J	2.1	0.66
156-59-2	cis-1,2-Dichloroethene	96.94	0.51	J	0.79	0.48
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		1.8	0.66
110-82-7	Cyclohexane	84.16	4.1		3.4	0.28
124-18-5	Decane	142.28	44		12	0.64
124-48-1	Dibromochloromethane	208.29	ND		3.4	0.72
75-71-8	Dichlorodifluoromethane	120.91	3.3		2.0	0.67
112-40-3	Dodecane	170.33	1.4	J	14	1.1
64-17-5	Ethanol	46.07	270		19	6.0
141-78-6	Ethyl acetate	88.11	ND		14	1.4
100-41-4	Ethylbenzene	106.17	2.1		1.7	0.59
142-82-5	Heptane	100.21	96		4.1	0.39
87-68-3	Hexachlorobutadiene	260.76	ND		4.3	2.6
110-54-3	Hexane	86.17	3.8		3.5	0.23
496-11-7	Indane	118.18	ND		1.9	0.80
95-13-6	Indene	116.16	ND		3.8	0.76
67-63-0	Isopropyl alcohol	60.10	5.6	J	9.8	1.2
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.9	1.2
75-09-2	Methylene Chloride	84.93	3.6		3.5	2.3
179601-23-1	m-Xylene & p-Xylene	106.17	8.9		1.7	1.2
111-84-2	Nonane	128.26	38		5.2	0.45
111-65-9	Octane	114.23	3.3	J	3.7	0.33
95-47-6	o-Xylene	106.17	3.4		1.7	0.52
109-66-0	Pentane	72.15	8.8		5.9	2.4
100-42-5	Styrene	104.15	0.88	J	1.7	0.49
75-65-0	tert-Butyl alcohol	74.12	0.54	J	4.9	0.23
127-18-4	Tetrachloroethene	165.83	30		2.7	0.54
109-99-9	Tetrahydrofuran	72.11	4.4	J	5.9	0.37
110-02-1	Thiophene	84.14	ND		1.4	0.52
108-88-3	Toluene	92.14	29		2.3	2.3
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.40

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-IA-2 Lab Sample ID: 140-11270-4
 Matrix: Air Lab File ID: JD16P104.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:55
 Sample wt/vol: 100 (mL) Date Analyzed: 04/16/2018 18:13
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		1.8	0.43
79-01-6	Trichloroethene	131.39	ND		0.97	0.38
75-69-4	Trichlorofluoromethane	137.37	2.5		2.2	0.28
1120-21-4	Undecane	156.31	21		13	0.80
593-60-2	Vinyl bromide	106.96	ND		1.7	0.31
75-01-4	Vinyl chloride	62.50	ND		0.51	0.37

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	105		60-140

CL-IA-2

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1

SDG No.: _____

Client Sample ID: FD-180410 Lab Sample ID: 140-11270-5

Matrix: Air Lab File ID: JD16P105.D

Analysis Method: TO 15 LL Date Collected: 04/10/2018 00:00

Sample wt/vol: 100 (mL) Date Analyzed: 04/16/2018 18:59

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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	0.33
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		2.7	0.82
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	0.59	J	3.1	0.46
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.57
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		0.79	0.28
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	1.6	J	2.2	0.96
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	1.4
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		3.1	0.69
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		2.8	0.45
95-50-1	1,2-Dichlorobenzene	147.00	ND		2.4	0.84
78-87-5	1,2-Dichloropropane	112.99	ND		1.8	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	6.3		2.0	0.64
106-99-0	1,3-Butadiene	54.09	ND		1.8	0.28
541-73-1	1,3-Dichlorobenzene	147.00	ND		2.4	0.78
106-46-7	1,4-Dichlorobenzene	147.00	ND		2.4	0.78
123-91-1	1,4-Dioxane	88.11	ND		3.6	0.58
90-12-0	1-Methylnaphthalene	142.20	ND	✓ JS	29	11
540-84-1	2,2,4-Trimethylpentane	114.23	2.6	J	4.7	0.37
78-93-3	2-Butanone (MEK)	72.11	10		4.7	1.2
591-78-6	2-Hexanone	100.20	ND		4.1	0.47
91-57-6	2-Methylnaphthalene	142.20	ND	✓ JS	29	10
107-05-1	3-Chloropropene	76.53	ND		1.3	0.30
622-96-8	4-Ethyltoluene	120.20	2.5	J	3.9	0.64
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	2.1	J	4.1	1.6
67-64-1	Acetone	58.08	200		24	6.4
71-43-2	Benzene	78.11	2.0		1.3	0.37
100-44-7	Benzyl chloride	126.58	ND		4.1	0.80
75-27-4	Bromodichloromethane	163.83	ND		2.7	0.60
75-25-2	Bromoform	252.75	ND		4.1	0.98
74-83-9	Bromomethane	94.94	ND		1.6	0.25
106-97-8	Butane	58.12	46		1.9	0.87
75-15-0	Carbon disulfide	76.14	0.26	J	3.1	0.19

CL-IA-2

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: FD-180410 Lab Sample ID: 140-11270-5
 Matrix: Air Lab File ID: JD16P105.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 00:00
 Sample wt/vol: 100 (mL) Date Analyzed: 04/16/2018 18:59
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	0.57	J	1.0	0.47
108-90-7	Chlorobenzene	112.56	ND		1.8	0.46
75-00-3	Chloroethane	64.52	ND		1.1	0.18
67-66-3	Chloroform	119.38	ND		2.0	0.37
74-87-3	Chloromethane	50.49	2.1		2.1	0.66
156-59-2	cis-1,2-Dichloroethene	96.94	0.59	J	0.79	0.48
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		1.8	0.66
110-82-7	Cyclohexane	84.16	4.5		3.4	0.28
124-18-5	Decane	142.28	56		12	0.64
124-48-1	Dibromochloromethane	208.29	ND		3.4	0.72
75-71-8	Dichlorodifluoromethane	120.91	3.4		2.0	0.67
112-40-3	Dodecane	170.33	4.4	J	14	1.1
64-17-5	Ethanol	46.07	340		19	6.0
141-78-6	Ethyl acetate	88.11	ND		14	1.4
100-41-4	Ethylbenzene	106.17	2.5		1.7	0.59
142-82-5	Heptane	100.21	110		4.1	0.39
87-68-3	Hexachlorobutadiene	260.76	ND		4.3	2.6
110-54-3	Hexane	86.17	3.7		3.5	0.23
496-11-7	Indane	118.18	ND		1.9	0.80
95-13-6	Indene	116.16	ND		3.8	0.76
67-63-0	Isopropyl alcohol	60.10	7.2	J	9.8	1.2
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.9	1.2
75-09-2	Methylene Chloride	84.93	5.1		3.5	2.3
179601-23-1	m-Xylene & p-Xylene	106.17	11		1.7	1.2
111-84-2	Nonane	128.26	47		5.2	0.45
111-65-9	Octane	114.23	4.2		3.7	0.33
95-47-6	o-Xylene	106.17	4.3		1.7	0.52
109-66-0	Pentane	72.15	11		5.9	2.4
100-42-5	Styrene	104.15	1.2	J	1.7	0.49
75-65-0	tert-Butyl alcohol	74.12	0.68	J	4.9	0.23
127-18-4	Tetrachloroethene	165.83	34		2.7	0.54
109-99-9	Tetrahydrofuran	72.11	1.8	J	5.9	0.37
110-02-1	Thiophene	84.14	ND		1.4	0.52
108-88-3	Toluene	92.14	33		2.3	2.3
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.40

CU-IA-2

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
SDG No.: _____
Client Sample ID: FD-180410 Lab Sample ID: 140-11270-5
Matrix: Air Lab File ID: JD16P105.D
Analysis Method: TO 15 LL Date Collected: 04/10/2018 00:00
Sample wt/vol: 100 (mL) Date Analyzed: 04/16/2018 18:59
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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		1.8	0.43
79-01-6	Trichloroethene	131.39	ND		0.97	0.38
75-69-4	Trichlorofluoromethane	137.37	2.2	J	2.2	0.28
1120-21-4	Undecane	156.31	32		13	0.80
593-60-2	Vinyl bromide	106.96	ND		1.7	0.31
75-01-4	Vinyl chloride	62.50	ND		0.51	0.37

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.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-OA-1 Lab Sample ID: 140-11270-6
 Matrix: Air Lab File ID: JD16P106.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:58
 Sample wt/vol: 500 (mL) Date Analyzed: 04/16/2018 19:46
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.065
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.55	0.16
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	0.60	J	0.61	0.092
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.11
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.16	0.056
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	ND		0.44	0.19
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.29
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		0.61	0.14
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	0.15	J	0.56	0.091
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.48	0.17
78-87-5	1,2-Dichloropropane	112.99	ND		0.37	0.097
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.13
106-99-0	1,3-Butadiene	54.09	ND		0.35	0.055
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.48	0.16
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.48	0.16
123-91-1	1,4-Dioxane	88.11	ND		0.72	0.12
90-12-0	1-Methylnaphthalene	142.20	ND	JS	5.8	2.2
540-84-1	2,2,4-Trimethylpentane	114.23	0.12	J	0.93	0.075
78-93-3	2-Butanone (MEK)	72.11	2.6		0.94	0.24
591-78-6	2-Hexanone	100.20	0.36	J	0.82	0.094
91-57-6	2-Methylnaphthalene	142.20	ND	JS	5.8	2.0
107-05-1	3-Chloropropene	76.53	ND		0.25	0.059
622-96-8	4-Ethyltoluene	120.20	ND		0.79	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	0.87		0.82	0.32
67-64-1	Acetone	58.08	15	CI	4.8	1.3
71-43-2	Benzene	78.11	0.47		0.26	0.073
100-44-7	Benzyl chloride	126.58	ND		0.83	0.16
75-27-4	Bromodichloromethane	163.83	ND		0.54	0.12
75-25-2	Bromoform	252.75	ND		0.83	0.20
74-83-9	Bromomethane	94.94	ND		0.31	0.050
106-97-8	Butane	58.12	2.7		0.38	0.17
75-15-0	Carbon disulfide	76.14	0.13	J	0.62	0.037

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-OA-1 Lab Sample ID: 140-11270-6
 Matrix: Air Lab File ID: JD16P106.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:58
 Sample wt/vol: 500 (mL) Date Analyzed: 04/16/2018 19:46
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	0.56		0.20	0.094
108-90-7	Chlorobenzene	112.56	ND		0.37	0.092
75-00-3	Chloroethane	64.52	ND		0.21	0.037
67-66-3	Chloroform	119.38	0.11	J	0.39	0.073
74-87-3	Chloromethane	50.49	1.4		0.41	0.13
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.16	0.095
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.36	0.13
110-82-7	Cyclohexane	84.16	0.62	J	0.69	0.055
124-18-5	Decane	142.28	0.34	J	2.3	0.13
124-48-1	Dibromochloromethane	208.29	ND		0.68	0.14
75-71-8	Dichlorodifluoromethane	120.91	2.8		0.40	0.13
112-40-3	Dodecane	170.33	ND		2.8	0.22
64-17-5	Ethanol	46.07	14		3.8	1.2
141-78-6	Ethyl acetate	88.11	1.4	J	2.9	0.29
100-41-4	Ethylbenzene	106.17	0.25	J	0.35	0.12
142-82-5	Heptane	100.21	0.77	J	0.82	0.078
87-68-3	Hexachlorobutadiene	260.76	ND		0.85	0.52
110-54-3	Hexane	86.17	0.78		0.70	0.046
496-11-7	Indane	118.18	ND		0.39	0.16
95-13-6	Indene	116.16	ND		0.76	0.15
67-63-0	Isopropyl alcohol	60.10	2.9		2.0	0.23
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.58	0.25
75-09-2	Methylene Chloride	84.93	1.6		0.69	0.45
179601-23-1	m-Xylene & p-Xylene	106.17	0.85		0.35	0.23
111-84-2	Nonane	128.26	0.40	J	1.0	0.089
111-65-9	Octane	114.23	0.30	J	0.75	0.065
95-47-6	o-Xylene	106.17	0.40		0.35	0.10
109-66-0	Pentane	72.15	6.5		1.2	0.47
100-42-5	Styrene	104.15	ND		0.34	0.098
75-65-0	tert-Butyl alcohol	74.12	0.17	J	0.97	0.045
127-18-4	Tetrachloroethene	165.83	0.24	J ND	0.54	0.11
109-99-9	Tetrahydrofuran	72.11	0.12	J	1.2	0.074
110-02-1	Thiophene	84.14	ND		0.28	0.10
108-88-3	Toluene	92.14	4.2		0.45	0.45
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.079

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-OA-1 Lab Sample ID: 140-11270-6
 Matrix: Air Lab File ID: JD16P106.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:58
 Sample wt/vol: 500 (mL) Date Analyzed: 04/16/2018 19:46
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.36	0.086
79-01-6	Trichloroethene	131.39	ND		0.19	0.075
75-69-4	Trichlorofluoromethane	137.37	1.8		0.45	0.056
1120-21-4	Undecane	156.31	ND		2.6	0.16
593-60-2	Vinyl bromide	106.96	ND		0.35	0.061
75-01-4	Vinyl chloride	62.50	ND		0.10	0.074

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

ATTACHMENT B
SUPPORT DOCUMENTATION

AIR SAMPLE CHAIN OF CUSTODY RECORD

URS CORPORATION
77 GOODELL STREET
BUFFALO, NY 14203
PHONE: 716-856-5836

URS CONTACT: Ann Marie Kropovitch

PROJECT NUMBER
60567553

SITE NAME
Chemical Leaman

LAB Test America

SHIPPING CONTAINER 1 of 1

PAGE 1 of 1

Tom Urban/Ten Urban

DELIVERY SERVICE: Drop off AIRBILL NO.: NIA

CANISTER SIZE (LITERS)

LOCATION IDENTIFIER	SAMPLE DATE	SAMPLE TIME	SAMPLE ID	MATRIX CODE	CANISTER SIZE (LITERS)
SSV-1	4/10/18	0836	CL-SSV-1	AS	6
IA-1	4/10/18	0836	CL-IA-1	AI	6
SSV-2	4/10/18	0850	CL-SSV-2	AS	6
IA-2	4/10/18	0855	CL-IA-2	AI	6
FD-1	4/10/18	—	FD-180410	AG	6
OA-1	4/10/18	0858	CL-OA-1	AA	6

Received @ ambient, 2 boxes
No contact w/ real, FedEx'd
for # 4276 0716 6510
" 6542
KL 4/12/18
7 can, 1 flower, 2 gages, 7 ac, 1 T

AA - AMBIENT AIR AI - INDOOR AIR AQ - FIELD QC

NR - NORMAL ENVIRONMENTAL SAMPLE FDR - FIELD DUPLICATE MS# - MATRIX SPIKE

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	DATE	TIME
Tom Urban	4/10/18	1730	Wade J. [Signature]	4/10/18	1730
Chunshou Cukolb	4/11/18	1750	KE LR	4/11/18	1750

Distribution: Original accompanies shipment, copy to project file

SAMPLE INFORMATION

CANISTER ID	FLOW CONTROLLER ID	INITIAL PRESSURE/ VACUUM (in Hg)	FINAL PRESSURE/ VACUUM (in Hg)	PRESSURE/VACUUM UPON LAB RECEIPT (in Hg)	REQUIRED ANALYSIS	REMARKS	SAMPLE TYPE
10210	11054	30-4					N ₁
10765	10872	30-4					N ₁
10512	10448	30-5					N ₁
11173	11479	30-6				CL-IA-2	N ₁
11473	11513	30-5				Field Duplicate	N ₁
10471	11313	30-3					N ₁



140-11270 Chain of Custody

GS - SOIL GAS

AS - SUB-SLAB AIR

AQ - FIELD QC

(# - SEQUENTIAL NUMBER (FROM 1 TO 9) TO ACCOMMODATE MULTIPLE SAMPLES IN A SINGLE DAY)

SPECIAL INSTRUCTIONS
* Contact Ann Marie Kropovitch
for analysis details *

Job Narrative
140-11270-1

Comments

No additional comments.

Receipt

The samples were received on 4/12/2018 9:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

Air - GC/MS VOA

Method(s) TO 15 LL, TO-14A, TO-15: This report includes canister certification data for the batch certified and/or individually certified canisters used to collect samples as well as for any canisters used for dilution of those samples. All of the canisters used for sample collection or sample dilution for this job were certified to be clean to the levels listed on the results page. Please note that results for individually certified canisters that were not used for sample collection or sample dilution may also be included in the report because these canisters were in the same cleaning batch as the canisters used for this project. Since these canisters were not used for this job, the results have no bearing on the sample results.

Batch canister certification 10983 for tetrachloroethene is shown as above the reporting limit for a low-level analysis, however, the results are less than the reporting limit required for this project.

Method(s) 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, TO-15: The initial calibration verification (ICV) associated with batch 140-18185 recovered above the upper control limit for 1-Methylnaphthalene and/or 2-Methylnaphthalene. The samples associated with this ICV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) TO 15 LL: The continuing calibration verification (CCV) associated with batch 140-19508 recovered above the upper control limit for 1-Methylnaphthalene and/or 2-Methylnaphthalene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) TO 15 LL: The laboratory control sample (LCS) for analytical batch 140-19508 recovered outside control limits for the following analytes: 1-Methylnaphthalene and/or 2-Methylnaphthalene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Lab File ID: JBFB16B.D BFB Injection Date: 04/16/2018
 Instrument ID: MJ BFB Injection Time: 12:56
 Analysis Batch No.: 19508

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	19.7	
75	30.0 - 60.0 % of mass 95	53.6	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	50.0 - 120.00 % of mass 95	108.0	
175	5.0 - 9.0 % of mass 174	7.7	(7.2) 1
176	95.0 - 101.0 % of mass 174	106.1	(98.2) 1
177	5.0 - 9.0 % of mass 176	6.9	(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 140-19508/8	JCCVD16B.D	04/16/2018	13:24
	LCS 140-19508/1008	JCCVD16B-LCS.d	04/16/2018	13:24
	MB 140-19508/10	J500BD16.D	04/16/2018	15:10
CL-SSV-1	140-11270-1	JD16P101.D	04/16/2018	15:56
CL-IA-1	140-11270-2	JD16P102.D	04/16/2018	16:42
CL-SSV-2	140-11270-3	JD16P103.D	04/16/2018	17:27
CL-IA-2	140-11270-4	JD16P104.D	04/16/2018	18:13
FD-180410	140-11270-5	JD16P105.D	04/16/2018	18:59
CL-OA-1	140-11270-6	JD16P106.D	04/16/2018	19:46

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville

Job No.: 140-11270-1

SDG No.: _____

Lab Sample ID: CCVIS 140-19508/8

Calibration Date: 04/16/2018 13:24

Instrument ID: MJ

Calib Start Date: 02/15/2018 15:35

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

Calib End Date: 02/15/2018 22:24

Lab File ID: JCCVD16B.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
2-Chlorotoluene	Ave	0.3018	0.2956		1.96	2.00	-2.1	30.0
4-Ethyltoluene	Ave	1.092	1.032		1.89	2.00	-5.5	30.0
1,3,5-Trimethylbenzene	Ave	0.4567	0.5091		2.23	2.00	11.5	30.0
Alpha Methyl Styrene	Ave	0.4759	0.4529		1.90	2.00	-4.8	30.0
Decane	Ave	0.6756	0.6312		1.87	2.00	-6.6	30.0
tert-Butylbenzene	Ave	0.9702	0.9552		1.97	2.00	-1.5	30.0
1,2,4-Trimethylbenzene	Ave	0.9159	0.9056		1.98	2.00	-1.1	30.0
sec-Butylbenzene	Ave	1.336	1.312		1.96	2.00	-1.8	30.0
1,3-Dichlorobenzene	Ave	0.6861	0.6690		1.95	2.00	-2.5	30.0
Benzyl chloride	Ave	0.7395	0.7377		2.00	2.00	-0.2	30.0
1,4-Dichlorobenzene	Ave	0.6827	0.6555		1.92	2.00	-4.0	30.0
4-Isopropyltoluene	Ave	1.091	1.079		1.98	2.00	-1.1	30.0
1,2,3-Trimethylbenzene	Ave	0.8965	0.6489		1.45	2.00	-27.6	30.0
Butylcyclohexane	Ave	0.8276	0.7448		1.80	2.00	-10.0	30.0
Indane	Ave	0.8553	0.8015		1.87	2.00	-6.3	30.0
1,2-Dichlorobenzene	Ave	0.6490	0.6381		1.97	2.00	-1.7	30.0
Butylbenzene	Ave	1.065	1.071		2.01	2.00	0.6	30.0
Indene	Ave	0.7188	0.5935		1.65	2.00	-17.4	30.0
Undecane	Ave	0.7010	0.6510		1.86	2.00	-7.1	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3168	0.2639		1.67	2.00	-16.7	30.0
1,2,4,5-Tetramethylbenzene	Ave	0.9272	0.8873		1.91	2.00	-4.3	30.0
Dodecane	Qua		0.5282		2.25	2.00	12.4	30.0
1,2,4-Trichlorobenzene	Ave	0.4913	0.5431		2.21	2.00	10.5	30.0
Naphthalene	Ave	0.7770	0.7916		2.04	2.00	1.9	30.0
Hexachlorobutadiene	Ave	0.5066	0.4985		1.97	2.00	-1.6	30.0
1,2,3-Trichlorobenzene	Ave	0.3126	0.3590		2.30	2.00	14.8	30.0
2-Methylnaphthalene	Ave	0.0616	0.1470		7.17	3.00	138.9*	50.0
1-Methylnaphthalene	Ave	0.0610	0.1894		9.31	3.00	210.5*	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7231	0.7266		4.02	4.00	0.5	30.0

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

Lab Name: TestAmerica Knoxville Job No.: 140-10983-1
 SDG No.: _____
 Client Sample ID: 09988 Lab Sample ID: 140-10983-12
 Matrix: Air Lab File ID: JC201ot10983.D
 Analysis Method: TO 15 LL Date Collected: 03/17/2018 14:45
 Sample wt/vol: 500 (mL) Date Analyzed: 03/20/2018 13:17
 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.: 18893 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-09-2	Methylene Chloride	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	0.042		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
75-69-4	Trichlorofluoromethane	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	
75-01-4	Vinyl chloride	ND		0.040	

Attachment 4

Analytical Data Report

ANALYTICAL REPORT

Job Number: 140-11270-1

Job Description: Chem Leaman

Contract Number: No Number Assigned

For:

AECOM

257 West Genesee Street

Suite 400

Buffalo, NY 14202-2657

Attention: Colin Wasteneys



Approved for release.
Diana L. Lange
Project Management Assistant II
4/25/2018 2:20 PM

Designee for

Jamie A McKinney, Senior Project Manager

5815 Middlebrook Pike, Knoxville, TN, 37921

(865)291-3000

jamie.mckinney@testamericainc.com

04/25/2018

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	35
Surrogate Summary	38
QC Sample Results	39
QC Association	46
Chronicle	47
Certification Summary	49
Method Summary	50
Sample Summary	51
Organic Sample Data	52
Air - GC/MS VOA	52
Method TO15 Low Level	52
Method TO15 Low Level QC Summary	53
Method TO15 Low Level Sample Data	61
Standards Data	356
Method TO15 Low Level ICAL Data	356
Method TO15 Low Level CCAL Data	449
Raw QC Data	473
Method TO15 Low Level Tune Data	473
Method TO15 Low Level Blank Data	481
Method TO15 Low Level LCS/LCSD Data	492

Table of Contents

Method TO15 Low Level Run Logs	500
Clean Canister Certification	507
Clean Canister Data	507
Shipping and Receiving Documents	613
Client Chain of Custody	614
Sample Receipt Checklist	617

Definitions/Glossary

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Qualifiers

Air - 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.
*	LCS or LCSD is outside acceptance limits.
CI	The peak identified by the data system exhibited chromatographic interference that could not be resolved. There is reason to suspect there may be a high bias.

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	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job Narrative
140-11270-1

Comments

No additional comments.

Receipt

The samples were received on 4/12/2018 9:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

Air - GC/MS VOA

Method(s) TO 15 LL, TO-14A, TO-15: This report includes canister certification data for the batch certified and/or individually certified canisters used to collect samples as well as for any canisters used for dilution of those samples. All of the canisters used for sample collection or sample dilution for this job were certified to be clean to the levels listed on the results page. Please note that results for individually certified canisters that were not used for sample collection or sample dilution may also be included in the report because these canisters were in the same cleaning batch as the canisters used for this project. Since these canisters were not used for this job, the results have no bearing on the sample results.

Batch canister certification 10983 for tetrachloroethene is shown as above the reporting limit for a low-level analysis, however, the results are less than the reporting limit required for this project.

Method(s) 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, TO-15: The initial calibration verification (ICV) associated with batch 140-18185 recovered above the upper control limit for 1-Methylnaphthalene and/or 2-Methylnaphthalene. The samples associated with this ICV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) TO 15 LL: The continuing calibration verification (CCV) associated with batch 140-19508 recovered above the upper control limit for 1-Methylnaphthalene and/or 2-Methylnaphthalene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) TO 15 LL: The laboratory control sample (LCS) for analytical batch 140-19508 recovered outside control limits for the following analytes: 1-Methylnaphthalene and/or 2-Methylnaphthalene. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

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

Detection Summary

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-SSV-1

Lab Sample ID: 140-11270-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.086	J	0.50	0.075	ppb v/v	1		TO 15 LL	Total/NA
1,2,4,5-Tetramethylbenzene	0.44	J	0.50	0.22	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	1.2		0.50	0.16	ppb v/v	1		TO 15 LL	Total/NA
1,4-Dioxane	0.41	J	1.3	0.20	ppb v/v	1		TO 15 LL	Total/NA
2-Butanone (MEK)	1.5	J	2.0	0.50	ppb v/v	1		TO 15 LL	Total/NA
4-Ethyltoluene	1.8		1.0	0.16	ppb v/v	1		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	1.4		1.3	0.49	ppb v/v	1		TO 15 LL	Total/NA
Acetone	39		13	3.4	ppb v/v	1		TO 15 LL	Total/NA
Benzene	3.4		0.50	0.14	ppb v/v	1		TO 15 LL	Total/NA
Butane	15		1.0	0.46	ppb v/v	1		TO 15 LL	Total/NA
Carbon disulfide	0.47	J	1.3	0.075	ppb v/v	1		TO 15 LL	Total/NA
Chloroethane	0.28	J	0.50	0.088	ppb v/v	1		TO 15 LL	Total/NA
Cyclohexane	2.8		1.3	0.10	ppb v/v	1		TO 15 LL	Total/NA
Decane	4.1		2.5	0.14	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.69		0.50	0.17	ppb v/v	1		TO 15 LL	Total/NA
Dodecane	2.0	J	2.5	0.19	ppb v/v	1		TO 15 LL	Total/NA
Ethanol	7.9	J	13	4.0	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	3.4		0.50	0.17	ppb v/v	1		TO 15 LL	Total/NA
Heptane	7.8		1.3	0.12	ppb v/v	1		TO 15 LL	Total/NA
Hexane	6.4		1.3	0.081	ppb v/v	1		TO 15 LL	Total/NA
Indane	4.0		0.50	0.21	ppb v/v	1		TO 15 LL	Total/NA
Isopropyl alcohol	1.4	J	5.0	0.59	ppb v/v	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	3.8		0.50	0.33	ppb v/v	1		TO 15 LL	Total/NA
Nonane	4.8		1.3	0.11	ppb v/v	1		TO 15 LL	Total/NA
Octane	21		1.0	0.088	ppb v/v	1		TO 15 LL	Total/NA
o-Xylene	2.0		0.50	0.15	ppb v/v	1		TO 15 LL	Total/NA
Pentane	10		2.5	1.0	ppb v/v	1		TO 15 LL	Total/NA
tert-Butyl alcohol	16		2.0	0.094	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	9.9		0.50	0.10	ppb v/v	1		TO 15 LL	Total/NA
Toluene	6.0		0.75	0.75	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	5.0		0.23	0.088	ppb v/v	1		TO 15 LL	Total/NA
Trichlorofluoromethane	0.53		0.50	0.063	ppb v/v	1		TO 15 LL	Total/NA
Undecane	3.7		2.5	0.16	ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.66	J	3.8	0.57	ug/m3	1		TO 15 LL	Total/NA
1,2,4,5-Tetramethylbenzene	2.4	J	2.7	1.2	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	6.1		2.5	0.80	ug/m3	1		TO 15 LL	Total/NA
1,4-Dioxane	1.5	J	4.5	0.72	ug/m3	1		TO 15 LL	Total/NA
2-Butanone (MEK)	4.3	J	5.9	1.5	ug/m3	1		TO 15 LL	Total/NA
4-Ethyltoluene	8.9		4.9	0.80	ug/m3	1		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	5.5		5.1	2.0	ug/m3	1		TO 15 LL	Total/NA
Acetone	93		30	8.0	ug/m3	1		TO 15 LL	Total/NA
Benzene	11		1.6	0.46	ug/m3	1		TO 15 LL	Total/NA
Butane	37		2.4	1.1	ug/m3	1		TO 15 LL	Total/NA
Carbon disulfide	1.5	J	3.9	0.23	ug/m3	1		TO 15 LL	Total/NA
Chloroethane	0.73	J	1.3	0.23	ug/m3	1		TO 15 LL	Total/NA
Cyclohexane	9.7		4.3	0.34	ug/m3	1		TO 15 LL	Total/NA
Decane	24		15	0.80	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	3.4		2.5	0.83	ug/m3	1		TO 15 LL	Total/NA
Dodecane	14	J	17	1.3	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-SSV-1 (Continued)

Lab Sample ID: 140-11270-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethanol	15	J	24	7.5	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	15		2.2	0.73	ug/m3	1		TO 15 LL	Total/NA
Heptane	32		5.1	0.49	ug/m3	1		TO 15 LL	Total/NA
Hexane	22		4.4	0.29	ug/m3	1		TO 15 LL	Total/NA
Indane	19		2.4	1.0	ug/m3	1		TO 15 LL	Total/NA
Isopropyl alcohol	3.5	J	12	1.4	ug/m3	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	17		2.2	1.4	ug/m3	1		TO 15 LL	Total/NA
Nonane	25		6.6	0.56	ug/m3	1		TO 15 LL	Total/NA
Octane	100		4.7	0.41	ug/m3	1		TO 15 LL	Total/NA
o-Xylene	8.8		2.2	0.65	ug/m3	1		TO 15 LL	Total/NA
Pentane	30		7.4	3.0	ug/m3	1		TO 15 LL	Total/NA
tert-Butyl alcohol	48		6.1	0.28	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	67		3.4	0.68	ug/m3	1		TO 15 LL	Total/NA
Toluene	23		2.8	2.8	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	27		1.2	0.47	ug/m3	1		TO 15 LL	Total/NA
Trichlorofluoromethane	3.0		2.8	0.35	ug/m3	1		TO 15 LL	Total/NA
Undecane	24		16	1.0	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: CL-IA-1

Lab Sample ID: 140-11270-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4,5-Tetramethylbenzene	0.44	J	0.80	0.35	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	1.7		0.80	0.26	ppb v/v	1		TO 15 LL	Total/NA
2,2,4-Trimethylpentane	0.63	J	2.0	0.16	ppb v/v	1		TO 15 LL	Total/NA
2-Butanone (MEK)	5.2		3.2	0.80	ppb v/v	1		TO 15 LL	Total/NA
4-Ethyltoluene	0.65	J	1.6	0.26	ppb v/v	1		TO 15 LL	Total/NA
Acetone	130		20	5.4	ppb v/v	1		TO 15 LL	Total/NA
Benzene	0.32	J	0.80	0.23	ppb v/v	1		TO 15 LL	Total/NA
Butane	12		1.6	0.73	ppb v/v	1		TO 15 LL	Total/NA
Chloromethane	0.94	J	2.0	0.64	ppb v/v	1		TO 15 LL	Total/NA
Decane	12		4.0	0.22	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.62	J	0.80	0.27	ppb v/v	1		TO 15 LL	Total/NA
Dodecane	0.86	J	4.0	0.31	ppb v/v	1		TO 15 LL	Total/NA
Ethanol	76		20	6.4	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.63	J	0.80	0.27	ppb v/v	1		TO 15 LL	Total/NA
Heptane	36		2.0	0.19	ppb v/v	1		TO 15 LL	Total/NA
Hexane	0.97	J	2.0	0.13	ppb v/v	1		TO 15 LL	Total/NA
Isopropyl alcohol	3.0	J	8.0	0.94	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.9	J	2.0	1.3	ppb v/v	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	2.7		0.80	0.53	ppb v/v	1		TO 15 LL	Total/NA
Nonane	9.4		2.0	0.17	ppb v/v	1		TO 15 LL	Total/NA
Octane	0.96	J	1.6	0.14	ppb v/v	1		TO 15 LL	Total/NA
o-Xylene	1.1		0.80	0.24	ppb v/v	1		TO 15 LL	Total/NA
Pentane	3.3	J	4.0	1.6	ppb v/v	1		TO 15 LL	Total/NA
Styrene	0.50	J	0.80	0.23	ppb v/v	1		TO 15 LL	Total/NA
tert-Butyl alcohol	0.25	J	3.2	0.15	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	4.5		0.80	0.16	ppb v/v	1		TO 15 LL	Total/NA
Tetrahydrofuran	0.38	J	4.0	0.25	ppb v/v	1		TO 15 LL	Total/NA
Toluene	8.3		1.2	1.2	ppb v/v	1		TO 15 LL	Total/NA
Trichlorofluoromethane	0.41	J	0.80	0.10	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-IA-1 (Continued)

Lab Sample ID: 140-11270-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Undecane	7.0		4.0	0.25	ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2,4,5-Tetramethylbenzene	2.4	J	4.4	1.9	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	8.4		3.9	1.3	ug/m3	1		TO 15 LL	Total/NA
2,2,4-Trimethylpentane	3.0	J	9.3	0.75	ug/m3	1		TO 15 LL	Total/NA
2-Butanone (MEK)	15		9.4	2.4	ug/m3	1		TO 15 LL	Total/NA
4-Ethyltoluene	3.2	J	7.9	1.3	ug/m3	1		TO 15 LL	Total/NA
Acetone	300		48	13	ug/m3	1		TO 15 LL	Total/NA
Benzene	1.0	J	2.6	0.73	ug/m3	1		TO 15 LL	Total/NA
Butane	30		3.8	1.7	ug/m3	1		TO 15 LL	Total/NA
Chloromethane	1.9	J	4.1	1.3	ug/m3	1		TO 15 LL	Total/NA
Decane	70		23	1.3	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	3.1	J	4.0	1.3	ug/m3	1		TO 15 LL	Total/NA
Dodecane	6.0	J	28	2.2	ug/m3	1		TO 15 LL	Total/NA
Ethanol	140		38	12	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	2.7	J	3.5	1.2	ug/m3	1		TO 15 LL	Total/NA
Heptane	150		8.2	0.78	ug/m3	1		TO 15 LL	Total/NA
Hexane	3.4	J	7.0	0.46	ug/m3	1		TO 15 LL	Total/NA
Isopropyl alcohol	7.3	J	20	2.3	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	6.5	J	6.9	4.5	ug/m3	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	12		3.5	2.3	ug/m3	1		TO 15 LL	Total/NA
Nonane	49		10	0.89	ug/m3	1		TO 15 LL	Total/NA
Octane	4.5	J	7.5	0.65	ug/m3	1		TO 15 LL	Total/NA
o-Xylene	4.6		3.5	1.0	ug/m3	1		TO 15 LL	Total/NA
Pentane	9.8	J	12	4.7	ug/m3	1		TO 15 LL	Total/NA
Styrene	2.1	J	3.4	0.98	ug/m3	1		TO 15 LL	Total/NA
tert-Butyl alcohol	0.76	J	9.7	0.45	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	30		5.4	1.1	ug/m3	1		TO 15 LL	Total/NA
Tetrahydrofuran	1.1	J	12	0.74	ug/m3	1		TO 15 LL	Total/NA
Toluene	31		4.5	4.5	ug/m3	1		TO 15 LL	Total/NA
Trichlorofluoromethane	2.3	J	4.5	0.56	ug/m3	1		TO 15 LL	Total/NA
Undecane	45		26	1.6	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: CL-SSV-2

Lab Sample ID: 140-11270-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	2.4		1.6	0.52	ppb v/v	1		TO 15 LL	Total/NA
1,4-Dioxane	2.1	J	4.0	0.64	ppb v/v	1		TO 15 LL	Total/NA
2-Butanone (MEK)	2.5	J	6.4	1.6	ppb v/v	1		TO 15 LL	Total/NA
4-Ethyltoluene	2.2	J	3.2	0.52	ppb v/v	1		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	5.5		4.0	1.6	ppb v/v	1		TO 15 LL	Total/NA
Acetone	140		40	11	ppb v/v	1		TO 15 LL	Total/NA
Benzene	3.0		1.6	0.46	ppb v/v	1		TO 15 LL	Total/NA
Butane	53		3.2	1.5	ppb v/v	1		TO 15 LL	Total/NA
Carbon disulfide	0.76	J	4.0	0.24	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	13		1.6	0.30	ppb v/v	1		TO 15 LL	Total/NA
Cyclohexane	6.6		4.0	0.32	ppb v/v	1		TO 15 LL	Total/NA
Decane	46		8.0	0.44	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.63	J	1.6	0.54	ppb v/v	1		TO 15 LL	Total/NA
Dodecane	3.8	J	8.0	0.62	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-SSV-2 (Continued)

Lab Sample ID: 140-11270-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethanol	110		40	13	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	4.1		1.6	0.54	ppb v/v	1		TO 15 LL	Total/NA
Heptane	8.6		4.0	0.38	ppb v/v	1		TO 15 LL	Total/NA
Hexane	13		4.0	0.26	ppb v/v	1		TO 15 LL	Total/NA
Isopropyl alcohol	14	J	16	1.9	ppb v/v	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	19		1.6	1.1	ppb v/v	1		TO 15 LL	Total/NA
Nonane	31		4.0	0.34	ppb v/v	1		TO 15 LL	Total/NA
Octane	110		3.2	0.28	ppb v/v	1		TO 15 LL	Total/NA
o-Xylene	5.5		1.6	0.48	ppb v/v	1		TO 15 LL	Total/NA
Pentane	26		8.0	3.2	ppb v/v	1		TO 15 LL	Total/NA
tert-Butyl alcohol	6.7		6.4	0.30	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	14		1.6	0.32	ppb v/v	1		TO 15 LL	Total/NA
Toluene	70		2.4	2.4	ppb v/v	1		TO 15 LL	Total/NA
Trichloroethene	0.31	J	0.72	0.28	ppb v/v	1		TO 15 LL	Total/NA
Trichlorofluoromethane	0.37	J	1.6	0.20	ppb v/v	1		TO 15 LL	Total/NA
Undecane	24		8.0	0.50	ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,3,5-Trimethylbenzene	12		7.9	2.6	ug/m3	1		TO 15 LL	Total/NA
1,4-Dioxane	7.6	J	14	2.3	ug/m3	1		TO 15 LL	Total/NA
2-Butanone (MEK)	7.4	J	19	4.7	ug/m3	1		TO 15 LL	Total/NA
4-Ethyltoluene	11	J	16	2.6	ug/m3	1		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	22		16	6.4	ug/m3	1		TO 15 LL	Total/NA
Acetone	330		95	26	ug/m3	1		TO 15 LL	Total/NA
Benzene	9.6		5.1	1.5	ug/m3	1		TO 15 LL	Total/NA
Butane	130		7.6	3.5	ug/m3	1		TO 15 LL	Total/NA
Carbon disulfide	2.4	J	12	0.75	ug/m3	1		TO 15 LL	Total/NA
Chloroform	64		7.8	1.5	ug/m3	1		TO 15 LL	Total/NA
Cyclohexane	23		14	1.1	ug/m3	1		TO 15 LL	Total/NA
Decane	270		47	2.6	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	3.1	J	7.9	2.7	ug/m3	1		TO 15 LL	Total/NA
Dodecane	27	J	56	4.3	ug/m3	1		TO 15 LL	Total/NA
Ethanol	210		75	24	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	18		6.9	2.3	ug/m3	1		TO 15 LL	Total/NA
Heptane	35		16	1.6	ug/m3	1		TO 15 LL	Total/NA
Hexane	47		14	0.92	ug/m3	1		TO 15 LL	Total/NA
Isopropyl alcohol	34	J	39	4.6	ug/m3	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	81		6.9	4.6	ug/m3	1		TO 15 LL	Total/NA
Nonane	160		21	1.8	ug/m3	1		TO 15 LL	Total/NA
Octane	510		15	1.3	ug/m3	1		TO 15 LL	Total/NA
o-Xylene	24		6.9	2.1	ug/m3	1		TO 15 LL	Total/NA
Pentane	76		24	9.4	ug/m3	1		TO 15 LL	Total/NA
tert-Butyl alcohol	20		19	0.91	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	95		11	2.2	ug/m3	1		TO 15 LL	Total/NA
Toluene	260		9.0	9.0	ug/m3	1		TO 15 LL	Total/NA
Trichloroethene	1.6	J	3.9	1.5	ug/m3	1		TO 15 LL	Total/NA
Trichlorofluoromethane	2.1	J	9.0	1.1	ug/m3	1		TO 15 LL	Total/NA
Undecane	150		51	3.2	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: CL-IA-2

Lab Sample ID: 140-11270-4

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-IA-2 (Continued)

Lab Sample ID: 140-11270-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.082	J	0.40	0.060	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	0.95		0.40	0.13	ppb v/v	1		TO 15 LL	Total/NA
2,2,4-Trimethylpentane	0.50	J	1.0	0.080	ppb v/v	1		TO 15 LL	Total/NA
2-Butanone (MEK)	3.0		1.6	0.40	ppb v/v	1		TO 15 LL	Total/NA
4-Ethyltoluene	0.44	J	0.80	0.13	ppb v/v	1		TO 15 LL	Total/NA
Acetone	67		10	2.7	ppb v/v	1		TO 15 LL	Total/NA
Benzene	0.50		0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Butane	16		0.80	0.37	ppb v/v	1		TO 15 LL	Total/NA
Carbon disulfide	0.11	J	1.0	0.060	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.10	J	0.16	0.075	ppb v/v	1		TO 15 LL	Total/NA
Chloromethane	0.99	J	1.0	0.32	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.13	J	0.20	0.12	ppb v/v	1		TO 15 LL	Total/NA
Cyclohexane	1.2		1.0	0.080	ppb v/v	1		TO 15 LL	Total/NA
Decane	7.5		2.0	0.11	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.67		0.40	0.14	ppb v/v	1		TO 15 LL	Total/NA
Dodecane	0.20	J	2.0	0.16	ppb v/v	1		TO 15 LL	Total/NA
Ethanol	140		10	3.2	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.48		0.40	0.14	ppb v/v	1		TO 15 LL	Total/NA
Heptane	24		1.0	0.095	ppb v/v	1		TO 15 LL	Total/NA
Hexane	1.1		1.0	0.065	ppb v/v	1		TO 15 LL	Total/NA
Isopropyl alcohol	2.3	J	4.0	0.47	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.0		1.0	0.65	ppb v/v	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	2.0		0.40	0.27	ppb v/v	1		TO 15 LL	Total/NA
Nonane	7.3		1.0	0.085	ppb v/v	1		TO 15 LL	Total/NA
Octane	0.71	J	0.80	0.070	ppb v/v	1		TO 15 LL	Total/NA
o-Xylene	0.79		0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Pentane	3.0		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Styrene	0.21	J	0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
tert-Butyl alcohol	0.18	J	1.6	0.075	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	4.4		0.40	0.080	ppb v/v	1		TO 15 LL	Total/NA
Tetrahydrofuran	1.5	J	2.0	0.13	ppb v/v	1		TO 15 LL	Total/NA
Toluene	7.7		0.60	0.60	ppb v/v	1		TO 15 LL	Total/NA
Trichlorofluoromethane	0.45		0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Undecane	3.2		2.0	0.13	ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.63	J	3.1	0.46	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	4.7		2.0	0.64	ug/m3	1		TO 15 LL	Total/NA
2,2,4-Trimethylpentane	2.3	J	4.7	0.37	ug/m3	1		TO 15 LL	Total/NA
2-Butanone (MEK)	8.9		4.7	1.2	ug/m3	1		TO 15 LL	Total/NA
4-Ethyltoluene	2.2	J	3.9	0.64	ug/m3	1		TO 15 LL	Total/NA
Acetone	160		24	6.4	ug/m3	1		TO 15 LL	Total/NA
Benzene	1.6		1.3	0.37	ug/m3	1		TO 15 LL	Total/NA
Butane	39		1.9	0.87	ug/m3	1		TO 15 LL	Total/NA
Carbon disulfide	0.35	J	3.1	0.19	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.63	J	1.0	0.47	ug/m3	1		TO 15 LL	Total/NA
Chloromethane	2.1	J	2.1	0.66	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.51	J	0.79	0.48	ug/m3	1		TO 15 LL	Total/NA
Cyclohexane	4.1		3.4	0.28	ug/m3	1		TO 15 LL	Total/NA
Decane	44		12	0.64	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	3.3		2.0	0.67	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-IA-2 (Continued)

Lab Sample ID: 140-11270-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Dodecane	1.4	J	14	1.1	ug/m3	1		TO 15 LL	Total/NA
Ethanol	270		19	6.0	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	2.1		1.7	0.59	ug/m3	1		TO 15 LL	Total/NA
Heptane	96		4.1	0.39	ug/m3	1		TO 15 LL	Total/NA
Hexane	3.8		3.5	0.23	ug/m3	1		TO 15 LL	Total/NA
Isopropyl alcohol	5.6	J	9.8	1.2	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	3.6		3.5	2.3	ug/m3	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	8.9		1.7	1.2	ug/m3	1		TO 15 LL	Total/NA
Nonane	38		5.2	0.45	ug/m3	1		TO 15 LL	Total/NA
Octane	3.3	J	3.7	0.33	ug/m3	1		TO 15 LL	Total/NA
o-Xylene	3.4		1.7	0.52	ug/m3	1		TO 15 LL	Total/NA
Pentane	8.8		5.9	2.4	ug/m3	1		TO 15 LL	Total/NA
Styrene	0.88	J	1.7	0.49	ug/m3	1		TO 15 LL	Total/NA
tert-Butyl alcohol	0.54	J	4.9	0.23	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	30		2.7	0.54	ug/m3	1		TO 15 LL	Total/NA
Tetrahydrofuran	4.4	J	5.9	0.37	ug/m3	1		TO 15 LL	Total/NA
Toluene	29		2.3	2.3	ug/m3	1		TO 15 LL	Total/NA
Trichlorofluoromethane	2.5		2.2	0.28	ug/m3	1		TO 15 LL	Total/NA
Undecane	21		13	0.80	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: FD-180410

Lab Sample ID: 140-11270-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.077	J	0.40	0.060	ppb v/v	1		TO 15 LL	Total/NA
1,2,4,5-Tetramethylbenzene	0.28	J	0.40	0.18	ppb v/v	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	1.3		0.40	0.13	ppb v/v	1		TO 15 LL	Total/NA
2,2,4-Trimethylpentane	0.55	J	1.0	0.080	ppb v/v	1		TO 15 LL	Total/NA
2-Butanone (MEK)	3.4		1.6	0.40	ppb v/v	1		TO 15 LL	Total/NA
4-Ethyltoluene	0.51	J	0.80	0.13	ppb v/v	1		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	0.51	J	1.0	0.39	ppb v/v	1		TO 15 LL	Total/NA
Acetone	85		10	2.7	ppb v/v	1		TO 15 LL	Total/NA
Benzene	0.61		0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Butane	19		0.80	0.37	ppb v/v	1		TO 15 LL	Total/NA
Carbon disulfide	0.085	J	1.0	0.060	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.091	J	0.16	0.075	ppb v/v	1		TO 15 LL	Total/NA
Chloromethane	1.0		1.0	0.32	ppb v/v	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.15	J	0.20	0.12	ppb v/v	1		TO 15 LL	Total/NA
Cyclohexane	1.3		1.0	0.080	ppb v/v	1		TO 15 LL	Total/NA
Decane	9.6		2.0	0.11	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.68		0.40	0.14	ppb v/v	1		TO 15 LL	Total/NA
Dodecane	0.64	J	2.0	0.16	ppb v/v	1		TO 15 LL	Total/NA
Ethanol	180		10	3.2	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.57		0.40	0.14	ppb v/v	1		TO 15 LL	Total/NA
Heptane	28		1.0	0.095	ppb v/v	1		TO 15 LL	Total/NA
Hexane	1.1		1.0	0.065	ppb v/v	1		TO 15 LL	Total/NA
Isopropyl alcohol	2.9	J	4.0	0.47	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	1.5		1.0	0.65	ppb v/v	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	2.6		0.40	0.27	ppb v/v	1		TO 15 LL	Total/NA
Nonane	9.0		1.0	0.085	ppb v/v	1		TO 15 LL	Total/NA
Octane	0.89		0.80	0.070	ppb v/v	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: FD-180410 (Continued)

Lab Sample ID: 140-11270-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
o-Xylene	0.99		0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
Pentane	3.6		2.0	0.80	ppb v/v	1		TO 15 LL	Total/NA
Styrene	0.29	J	0.40	0.12	ppb v/v	1		TO 15 LL	Total/NA
tert-Butyl alcohol	0.22	J	1.6	0.075	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	5.0		0.40	0.080	ppb v/v	1		TO 15 LL	Total/NA
Tetrahydrofuran	0.61	J	2.0	0.13	ppb v/v	1		TO 15 LL	Total/NA
Toluene	8.7		0.60	0.60	ppb v/v	1		TO 15 LL	Total/NA
Trichlorofluoromethane	0.39	J	0.40	0.050	ppb v/v	1		TO 15 LL	Total/NA
Undecane	5.0		2.0	0.13	ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.59	J	3.1	0.46	ug/m3	1		TO 15 LL	Total/NA
1,2,4,5-Tetramethylbenzene	1.6	J	2.2	0.96	ug/m3	1		TO 15 LL	Total/NA
1,3,5-Trimethylbenzene	6.3		2.0	0.64	ug/m3	1		TO 15 LL	Total/NA
2,2,4-Trimethylpentane	2.6	J	4.7	0.37	ug/m3	1		TO 15 LL	Total/NA
2-Butanone (MEK)	10		4.7	1.2	ug/m3	1		TO 15 LL	Total/NA
4-Ethyltoluene	2.5	J	3.9	0.64	ug/m3	1		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	2.1	J	4.1	1.6	ug/m3	1		TO 15 LL	Total/NA
Acetone	200		24	6.4	ug/m3	1		TO 15 LL	Total/NA
Benzene	2.0		1.3	0.37	ug/m3	1		TO 15 LL	Total/NA
Butane	46		1.9	0.87	ug/m3	1		TO 15 LL	Total/NA
Carbon disulfide	0.26	J	3.1	0.19	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.57	J	1.0	0.47	ug/m3	1		TO 15 LL	Total/NA
Chloromethane	2.1		2.1	0.66	ug/m3	1		TO 15 LL	Total/NA
cis-1,2-Dichloroethene	0.59	J	0.79	0.48	ug/m3	1		TO 15 LL	Total/NA
Cyclohexane	4.5		3.4	0.28	ug/m3	1		TO 15 LL	Total/NA
Decane	56		12	0.64	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	3.4		2.0	0.67	ug/m3	1		TO 15 LL	Total/NA
Dodecane	4.4	J	14	1.1	ug/m3	1		TO 15 LL	Total/NA
Ethanol	340		19	6.0	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	2.5		1.7	0.59	ug/m3	1		TO 15 LL	Total/NA
Heptane	110		4.1	0.39	ug/m3	1		TO 15 LL	Total/NA
Hexane	3.7		3.5	0.23	ug/m3	1		TO 15 LL	Total/NA
Isopropyl alcohol	7.2	J	9.8	1.2	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	5.1		3.5	2.3	ug/m3	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	11		1.7	1.2	ug/m3	1		TO 15 LL	Total/NA
Nonane	47		5.2	0.45	ug/m3	1		TO 15 LL	Total/NA
Octane	4.2		3.7	0.33	ug/m3	1		TO 15 LL	Total/NA
o-Xylene	4.3		1.7	0.52	ug/m3	1		TO 15 LL	Total/NA
Pentane	11		5.9	2.4	ug/m3	1		TO 15 LL	Total/NA
Styrene	1.2	J	1.7	0.49	ug/m3	1		TO 15 LL	Total/NA
tert-Butyl alcohol	0.68	J	4.9	0.23	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	34		2.7	0.54	ug/m3	1		TO 15 LL	Total/NA
Tetrahydrofuran	1.8	J	5.9	0.37	ug/m3	1		TO 15 LL	Total/NA
Toluene	33		2.3	2.3	ug/m3	1		TO 15 LL	Total/NA
Trichlorofluoromethane	2.2	J	2.2	0.28	ug/m3	1		TO 15 LL	Total/NA
Undecane	32		13	0.80	ug/m3	1		TO 15 LL	Total/NA

Client Sample ID: CL-OA-1

Lab Sample ID: 140-11270-6

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-OA-1 (Continued)

Lab Sample ID: 140-11270-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.078	J	0.080	0.012	ppb v/v	1		TO 15 LL	Total/NA
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.021	J	0.080	0.013	ppb v/v	1		TO 15 LL	Total/NA
2,2,4-Trimethylpentane	0.027	J	0.20	0.016	ppb v/v	1		TO 15 LL	Total/NA
2-Butanone (MEK)	0.87		0.32	0.080	ppb v/v	1		TO 15 LL	Total/NA
2-Hexanone	0.089	J	0.20	0.023	ppb v/v	1		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	0.21		0.20	0.078	ppb v/v	1		TO 15 LL	Total/NA
Acetone	6.3	CI	2.0	0.54	ppb v/v	1		TO 15 LL	Total/NA
Benzene	0.15		0.080	0.023	ppb v/v	1		TO 15 LL	Total/NA
Butane	1.1		0.16	0.073	ppb v/v	1		TO 15 LL	Total/NA
Carbon disulfide	0.042	J	0.20	0.012	ppb v/v	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.090		0.032	0.015	ppb v/v	1		TO 15 LL	Total/NA
Chloroform	0.023	J	0.080	0.015	ppb v/v	1		TO 15 LL	Total/NA
Chloromethane	0.69		0.20	0.064	ppb v/v	1		TO 15 LL	Total/NA
Cyclohexane	0.18	J	0.20	0.016	ppb v/v	1		TO 15 LL	Total/NA
Decane	0.058	J	0.40	0.022	ppb v/v	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	0.57		0.080	0.027	ppb v/v	1		TO 15 LL	Total/NA
Ethanol	7.5		2.0	0.64	ppb v/v	1		TO 15 LL	Total/NA
Ethyl acetate	0.39	J	0.80	0.080	ppb v/v	1		TO 15 LL	Total/NA
Ethylbenzene	0.058	J	0.080	0.027	ppb v/v	1		TO 15 LL	Total/NA
Heptane	0.19	J	0.20	0.019	ppb v/v	1		TO 15 LL	Total/NA
Hexane	0.22		0.20	0.013	ppb v/v	1		TO 15 LL	Total/NA
Isopropyl alcohol	1.2		0.80	0.094	ppb v/v	1		TO 15 LL	Total/NA
Methylene Chloride	0.47		0.20	0.13	ppb v/v	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	0.20		0.080	0.053	ppb v/v	1		TO 15 LL	Total/NA
Nonane	0.076	J	0.20	0.017	ppb v/v	1		TO 15 LL	Total/NA
Octane	0.064	J	0.16	0.014	ppb v/v	1		TO 15 LL	Total/NA
o-Xylene	0.092		0.080	0.024	ppb v/v	1		TO 15 LL	Total/NA
Pentane	2.2		0.40	0.16	ppb v/v	1		TO 15 LL	Total/NA
tert-Butyl alcohol	0.055	J	0.32	0.015	ppb v/v	1		TO 15 LL	Total/NA
Tetrachloroethene	0.035	J	0.080	0.016	ppb v/v	1		TO 15 LL	Total/NA
Tetrahydrofuran	0.040	J	0.40	0.025	ppb v/v	1		TO 15 LL	Total/NA
Toluene	1.1		0.12	0.12	ppb v/v	1		TO 15 LL	Total/NA
Trichlorofluoromethane	0.31		0.080	0.010	ppb v/v	1		TO 15 LL	Total/NA
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,2-Trichloro-1,2,2-trifluoroethane	0.60	J	0.61	0.092	ug/m3	1		TO 15 LL	Total/NA
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.15	J	0.56	0.091	ug/m3	1		TO 15 LL	Total/NA
2,2,4-Trimethylpentane	0.12	J	0.93	0.075	ug/m3	1		TO 15 LL	Total/NA
2-Butanone (MEK)	2.6		0.94	0.24	ug/m3	1		TO 15 LL	Total/NA
2-Hexanone	0.36	J	0.82	0.094	ug/m3	1		TO 15 LL	Total/NA
4-Methyl-2-pentanone (MIBK)	0.87		0.82	0.32	ug/m3	1		TO 15 LL	Total/NA
Acetone	15	CI	4.8	1.3	ug/m3	1		TO 15 LL	Total/NA
Benzene	0.47		0.26	0.073	ug/m3	1		TO 15 LL	Total/NA
Butane	2.7		0.38	0.17	ug/m3	1		TO 15 LL	Total/NA
Carbon disulfide	0.13	J	0.62	0.037	ug/m3	1		TO 15 LL	Total/NA
Carbon tetrachloride	0.56		0.20	0.094	ug/m3	1		TO 15 LL	Total/NA
Chloroform	0.11	J	0.39	0.073	ug/m3	1		TO 15 LL	Total/NA
Chloromethane	1.4		0.41	0.13	ug/m3	1		TO 15 LL	Total/NA
Cyclohexane	0.62	J	0.69	0.055	ug/m3	1		TO 15 LL	Total/NA
Decane	0.34	J	2.3	0.13	ug/m3	1		TO 15 LL	Total/NA
Dichlorodifluoromethane	2.8		0.40	0.13	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Detection Summary

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-OA-1 (Continued)

Lab Sample ID: 140-11270-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Ethanol	14		3.8	1.2	ug/m3	1		TO 15 LL	Total/NA
Ethyl acetate	1.4	J	2.9	0.29	ug/m3	1		TO 15 LL	Total/NA
Ethylbenzene	0.25	J	0.35	0.12	ug/m3	1		TO 15 LL	Total/NA
Heptane	0.77	J	0.82	0.078	ug/m3	1		TO 15 LL	Total/NA
Hexane	0.78		0.70	0.046	ug/m3	1		TO 15 LL	Total/NA
Isopropyl alcohol	2.9		2.0	0.23	ug/m3	1		TO 15 LL	Total/NA
Methylene Chloride	1.6		0.69	0.45	ug/m3	1		TO 15 LL	Total/NA
m-Xylene & p-Xylene	0.85		0.35	0.23	ug/m3	1		TO 15 LL	Total/NA
Nonane	0.40	J	1.0	0.089	ug/m3	1		TO 15 LL	Total/NA
Octane	0.30	J	0.75	0.065	ug/m3	1		TO 15 LL	Total/NA
o-Xylene	0.40		0.35	0.10	ug/m3	1		TO 15 LL	Total/NA
Pentane	6.5		1.2	0.47	ug/m3	1		TO 15 LL	Total/NA
tert-Butyl alcohol	0.17	J	0.97	0.045	ug/m3	1		TO 15 LL	Total/NA
Tetrachloroethene	0.24	J	0.54	0.11	ug/m3	1		TO 15 LL	Total/NA
Tetrahydrofuran	0.12	J	1.2	0.074	ug/m3	1		TO 15 LL	Total/NA
Toluene	4.2		0.45	0.45	ug/m3	1		TO 15 LL	Total/NA
Trichlorofluoromethane	1.8		0.45	0.056	ug/m3	1		TO 15 LL	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Knoxville

Client Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-SSV-1

Lab Sample ID: 140-11270-1

Date Collected: 04/10/18 08:36

Matrix: Air

Date Received: 04/12/18 09:35

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		0.50	0.075	ppb v/v			04/16/18 15:56	1
1,1,2,2-Tetrachloroethane	ND		0.50	0.15	ppb v/v			04/16/18 15:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.086	J	0.50	0.075	ppb v/v			04/16/18 15:56	1
1,1,2-Trichloroethane	ND		0.50	0.13	ppb v/v			04/16/18 15:56	1
1,1-Dichloroethane	ND		0.50	0.063	ppb v/v			04/16/18 15:56	1
1,1-Dichloroethene	ND		0.25	0.088	ppb v/v			04/16/18 15:56	1
1,2,4,5-Tetramethylbenzene	0.44	J	0.50	0.22	ppb v/v			04/16/18 15:56	1
1,2,4-Trichlorobenzene	ND		0.50	0.24	ppb v/v			04/16/18 15:56	1
1,2-Dibromoethane (EDB)	ND		0.50	0.11	ppb v/v			04/16/18 15:56	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.50	0.081	ppb v/v			04/16/18 15:56	1
1,2-Dichlorobenzene	ND		0.50	0.18	ppb v/v			04/16/18 15:56	1
1,2-Dichloropropane	ND		0.50	0.13	ppb v/v			04/16/18 15:56	1
1,3,5-Trimethylbenzene	1.2		0.50	0.16	ppb v/v			04/16/18 15:56	1
1,3-Butadiene	ND		1.0	0.16	ppb v/v			04/16/18 15:56	1
1,3-Dichlorobenzene	ND		0.50	0.16	ppb v/v			04/16/18 15:56	1
1,4-Dichlorobenzene	ND		0.50	0.16	ppb v/v			04/16/18 15:56	1
1,4-Dioxane	0.41	J	1.3	0.20	ppb v/v			04/16/18 15:56	1
1-Methylnaphthalene	ND	*	6.3	2.3	ppb v/v			04/16/18 15:56	1
2,2,4-Trimethylpentane	ND		1.3	0.10	ppb v/v			04/16/18 15:56	1
2-Butanone (MEK)	1.5	J	2.0	0.50	ppb v/v			04/16/18 15:56	1
2-Hexanone	ND		1.3	0.14	ppb v/v			04/16/18 15:56	1
2-Methylnaphthalene	ND	*	6.3	2.2	ppb v/v			04/16/18 15:56	1
3-Chloropropene	ND		0.50	0.12	ppb v/v			04/16/18 15:56	1
4-Ethyltoluene	1.8		1.0	0.16	ppb v/v			04/16/18 15:56	1
4-Methyl-2-pentanone (MIBK)	1.4		1.3	0.49	ppb v/v			04/16/18 15:56	1
Acetone	39		13	3.4	ppb v/v			04/16/18 15:56	1
Benzene	3.4		0.50	0.14	ppb v/v			04/16/18 15:56	1
Benzyl chloride	ND		1.0	0.19	ppb v/v			04/16/18 15:56	1
Bromodichloromethane	ND		0.50	0.11	ppb v/v			04/16/18 15:56	1
Bromoform	ND		0.50	0.12	ppb v/v			04/16/18 15:56	1
Bromomethane	ND		0.50	0.081	ppb v/v			04/16/18 15:56	1
Butane	15		1.0	0.46	ppb v/v			04/16/18 15:56	1
Carbon disulfide	0.47	J	1.3	0.075	ppb v/v			04/16/18 15:56	1
Carbon tetrachloride	ND		0.20	0.094	ppb v/v			04/16/18 15:56	1
Chlorobenzene	ND		0.50	0.13	ppb v/v			04/16/18 15:56	1
Chloroethane	0.28	J	0.50	0.088	ppb v/v			04/16/18 15:56	1
Chloroform	ND		0.50	0.094	ppb v/v			04/16/18 15:56	1
Chloromethane	ND		1.3	0.40	ppb v/v			04/16/18 15:56	1
cis-1,2-Dichloroethene	ND		0.25	0.15	ppb v/v			04/16/18 15:56	1
cis-1,3-Dichloropropene	ND		0.50	0.18	ppb v/v			04/16/18 15:56	1
Cyclohexane	2.8		1.3	0.10	ppb v/v			04/16/18 15:56	1
Decane	4.1		2.5	0.14	ppb v/v			04/16/18 15:56	1
Dibromochloromethane	ND		0.50	0.11	ppb v/v			04/16/18 15:56	1
Dichlorodifluoromethane	0.69		0.50	0.17	ppb v/v			04/16/18 15:56	1
Dodecane	2.0	J	2.5	0.19	ppb v/v			04/16/18 15:56	1
Ethanol	7.9	J	13	4.0	ppb v/v			04/16/18 15:56	1
Ethyl acetate	ND		5.0	0.50	ppb v/v			04/16/18 15:56	1

TestAmerica Knoxville

Client Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-SSV-1

Lab Sample ID: 140-11270-1

Date Collected: 04/10/18 08:36

Matrix: Air

Date Received: 04/12/18 09:35

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
Ethylbenzene	3.4		0.50	0.17	ppb v/v			04/16/18 15:56	1
Heptane	7.8		1.3	0.12	ppb v/v			04/16/18 15:56	1
Hexachlorobutadiene	ND		0.50	0.31	ppb v/v			04/16/18 15:56	1
Hexane	6.4		1.3	0.081	ppb v/v			04/16/18 15:56	1
Indane	4.0		0.50	0.21	ppb v/v			04/16/18 15:56	1
Indene	ND		1.0	0.20	ppb v/v			04/16/18 15:56	1
Isopropyl alcohol	1.4	J	5.0	0.59	ppb v/v			04/16/18 15:56	1
Methyl tert-butyl ether	ND		1.0	0.43	ppb v/v			04/16/18 15:56	1
Methylene Chloride	ND		1.3	0.81	ppb v/v			04/16/18 15:56	1
m-Xylene & p-Xylene	3.8		0.50	0.33	ppb v/v			04/16/18 15:56	1
Nonane	4.8		1.3	0.11	ppb v/v			04/16/18 15:56	1
Octane	21		1.0	0.088	ppb v/v			04/16/18 15:56	1
o-Xylene	2.0		0.50	0.15	ppb v/v			04/16/18 15:56	1
Pentane	10		2.5	1.0	ppb v/v			04/16/18 15:56	1
Styrene	ND		0.50	0.14	ppb v/v			04/16/18 15:56	1
tert-Butyl alcohol	16		2.0	0.094	ppb v/v			04/16/18 15:56	1
Tetrachloroethene	9.9		0.50	0.10	ppb v/v			04/16/18 15:56	1
Tetrahydrofuran	ND		2.5	0.16	ppb v/v			04/16/18 15:56	1
Thiophene	ND		0.50	0.19	ppb v/v			04/16/18 15:56	1
Toluene	6.0		0.75	0.75	ppb v/v			04/16/18 15:56	1
trans-1,2-Dichloroethene	ND		0.50	0.13	ppb v/v			04/16/18 15:56	1
trans-1,3-Dichloropropene	ND		0.50	0.12	ppb v/v			04/16/18 15:56	1
Trichloroethene	5.0		0.23	0.088	ppb v/v			04/16/18 15:56	1
Trichlorofluoromethane	0.53		0.50	0.063	ppb v/v			04/16/18 15:56	1
Undecane	3.7		2.5	0.16	ppb v/v			04/16/18 15:56	1
Vinyl bromide	ND		0.50	0.088	ppb v/v			04/16/18 15:56	1
Vinyl chloride	ND		0.25	0.18	ppb v/v			04/16/18 15:56	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.7	0.41	ug/m3			04/16/18 15:56	1
1,1,2,2-Tetrachloroethane	ND		3.4	1.0	ug/m3			04/16/18 15:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.66	J	3.8	0.57	ug/m3			04/16/18 15:56	1
1,1,2-Trichloroethane	ND		2.7	0.72	ug/m3			04/16/18 15:56	1
1,1-Dichloroethane	ND		2.0	0.25	ug/m3			04/16/18 15:56	1
1,1-Dichloroethene	ND		0.99	0.35	ug/m3			04/16/18 15:56	1
1,2,4,5-Tetramethylbenzene	2.4	J	2.7	1.2	ug/m3			04/16/18 15:56	1
1,2,4-Trichlorobenzene	ND		3.7	1.8	ug/m3			04/16/18 15:56	1
1,2-Dibromoethane (EDB)	ND		3.8	0.86	ug/m3			04/16/18 15:56	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		3.5	0.57	ug/m3			04/16/18 15:56	1
1,2-Dichlorobenzene	ND		3.0	1.1	ug/m3			04/16/18 15:56	1
1,2-Dichloropropane	ND		2.3	0.61	ug/m3			04/16/18 15:56	1
1,3,5-Trimethylbenzene	6.1		2.5	0.80	ug/m3			04/16/18 15:56	1
1,3-Butadiene	ND		2.2	0.35	ug/m3			04/16/18 15:56	1
1,3-Dichlorobenzene	ND		3.0	0.98	ug/m3			04/16/18 15:56	1
1,4-Dichlorobenzene	ND		3.0	0.98	ug/m3			04/16/18 15:56	1
1,4-Dioxane	1.5	J	4.5	0.72	ug/m3			04/16/18 15:56	1
1-Methylnaphthalene	ND	*	36	13	ug/m3			04/16/18 15:56	1
2,2,4-Trimethylpentane	ND		5.8	0.47	ug/m3			04/16/18 15:56	1

TestAmerica Knoxville

Client Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-SSV-1

Lab Sample ID: 140-11270-1

Date Collected: 04/10/18 08:36

Matrix: Air

Date Received: 04/12/18 09:35

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
2-Butanone (MEK)	4.3	J	5.9	1.5	ug/m3			04/16/18 15:56	1
2-Hexanone	ND		5.1	0.59	ug/m3			04/16/18 15:56	1
2-Methylnaphthalene	ND	*	36	13	ug/m3			04/16/18 15:56	1
3-Chloropropene	ND		1.6	0.37	ug/m3			04/16/18 15:56	1
4-Ethyltoluene	8.9		4.9	0.80	ug/m3			04/16/18 15:56	1
4-Methyl-2-pentanone (MIBK)	5.5		5.1	2.0	ug/m3			04/16/18 15:56	1
Acetone	93		30	8.0	ug/m3			04/16/18 15:56	1
Benzene	11		1.6	0.46	ug/m3			04/16/18 15:56	1
Benzyl chloride	ND		5.2	1.0	ug/m3			04/16/18 15:56	1
Bromodichloromethane	ND		3.4	0.75	ug/m3			04/16/18 15:56	1
Bromoform	ND		5.2	1.2	ug/m3			04/16/18 15:56	1
Bromomethane	ND		1.9	0.32	ug/m3			04/16/18 15:56	1
Butane	37		2.4	1.1	ug/m3			04/16/18 15:56	1
Carbon disulfide	1.5	J	3.9	0.23	ug/m3			04/16/18 15:56	1
Carbon tetrachloride	ND		1.3	0.59	ug/m3			04/16/18 15:56	1
Chlorobenzene	ND		2.3	0.58	ug/m3			04/16/18 15:56	1
Chloroethane	0.73	J	1.3	0.23	ug/m3			04/16/18 15:56	1
Chloroform	ND		2.4	0.46	ug/m3			04/16/18 15:56	1
Chloromethane	ND		2.6	0.83	ug/m3			04/16/18 15:56	1
cis-1,2-Dichloroethene	ND		0.99	0.59	ug/m3			04/16/18 15:56	1
cis-1,3-Dichloropropene	ND		2.3	0.82	ug/m3			04/16/18 15:56	1
Cyclohexane	9.7		4.3	0.34	ug/m3			04/16/18 15:56	1
Decane	24		15	0.80	ug/m3			04/16/18 15:56	1
Dibromochloromethane	ND		4.3	0.91	ug/m3			04/16/18 15:56	1
Dichlorodifluoromethane	3.4		2.5	0.83	ug/m3			04/16/18 15:56	1
Dodecane	14	J	17	1.3	ug/m3			04/16/18 15:56	1
Ethanol	15	J	24	7.5	ug/m3			04/16/18 15:56	1
Ethyl acetate	ND		18	1.8	ug/m3			04/16/18 15:56	1
Ethylbenzene	15		2.2	0.73	ug/m3			04/16/18 15:56	1
Heptane	32		5.1	0.49	ug/m3			04/16/18 15:56	1
Hexachlorobutadiene	ND		5.3	3.3	ug/m3			04/16/18 15:56	1
Hexane	22		4.4	0.29	ug/m3			04/16/18 15:56	1
Indane	19		2.4	1.0	ug/m3			04/16/18 15:56	1
Indene	ND		4.8	0.95	ug/m3			04/16/18 15:56	1
Isopropyl alcohol	3.5	J	12	1.4	ug/m3			04/16/18 15:56	1
Methyl tert-butyl ether	ND		3.6	1.5	ug/m3			04/16/18 15:56	1
Methylene Chloride	ND		4.3	2.8	ug/m3			04/16/18 15:56	1
m-Xylene & p-Xylene	17		2.2	1.4	ug/m3			04/16/18 15:56	1
Nonane	25		6.6	0.56	ug/m3			04/16/18 15:56	1
Octane	100		4.7	0.41	ug/m3			04/16/18 15:56	1
o-Xylene	8.8		2.2	0.65	ug/m3			04/16/18 15:56	1
Pentane	30		7.4	3.0	ug/m3			04/16/18 15:56	1
Styrene	ND		2.1	0.61	ug/m3			04/16/18 15:56	1
tert-Butyl alcohol	48		6.1	0.28	ug/m3			04/16/18 15:56	1
Tetrachloroethene	67		3.4	0.68	ug/m3			04/16/18 15:56	1
Tetrahydrofuran	ND		7.4	0.46	ug/m3			04/16/18 15:56	1
Thiophene	ND		1.7	0.65	ug/m3			04/16/18 15:56	1
Toluene	23		2.8	2.8	ug/m3			04/16/18 15:56	1

TestAmerica Knoxville

Client Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-SSV-1

Lab Sample ID: 140-11270-1

Date Collected: 04/10/18 08:36

Matrix: Air

Date Received: 04/12/18 09:35

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-1,2-Dichloroethene	ND		2.0	0.50	ug/m3			04/16/18 15:56	1
trans-1,3-Dichloropropene	ND		2.3	0.54	ug/m3			04/16/18 15:56	1
Trichloroethene	27		1.2	0.47	ug/m3			04/16/18 15:56	1
Trichlorofluoromethane	3.0		2.8	0.35	ug/m3			04/16/18 15:56	1
Undecane	24		16	1.0	ug/m3			04/16/18 15:56	1
Vinyl bromide	ND		2.2	0.38	ug/m3			04/16/18 15:56	1
Vinyl chloride	ND		0.64	0.46	ug/m3			04/16/18 15:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	108		60 - 140		04/16/18 15:56	1

Client Sample ID: CL-IA-1

Lab Sample ID: 140-11270-2

Date Collected: 04/10/18 08:36

Matrix: Air

Date Received: 04/12/18 09:35

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		0.80	0.12	ppb v/v			04/16/18 16:42	1
1,1,2,2-Tetrachloroethane	ND		0.80	0.24	ppb v/v			04/16/18 16:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.80	0.12	ppb v/v			04/16/18 16:42	1
1,1,2-Trichloroethane	ND		0.80	0.21	ppb v/v			04/16/18 16:42	1
1,1-Dichloroethane	ND		0.80	0.10	ppb v/v			04/16/18 16:42	1
1,1-Dichloroethene	ND		0.40	0.14	ppb v/v			04/16/18 16:42	1
1,2,4,5-Tetramethylbenzene	0.44	J	0.80	0.35	ppb v/v			04/16/18 16:42	1
1,2,4-Trichlorobenzene	ND		0.80	0.39	ppb v/v			04/16/18 16:42	1
1,2-Dibromoethane (EDB)	ND		0.80	0.18	ppb v/v			04/16/18 16:42	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.80	0.13	ppb v/v			04/16/18 16:42	1
1,2-Dichlorobenzene	ND		0.80	0.28	ppb v/v			04/16/18 16:42	1
1,2-Dichloropropane	ND		0.80	0.21	ppb v/v			04/16/18 16:42	1
1,3,5-Trimethylbenzene	1.7		0.80	0.26	ppb v/v			04/16/18 16:42	1
1,3-Butadiene	ND		1.6	0.25	ppb v/v			04/16/18 16:42	1
1,3-Dichlorobenzene	ND		0.80	0.26	ppb v/v			04/16/18 16:42	1
1,4-Dichlorobenzene	ND		0.80	0.26	ppb v/v			04/16/18 16:42	1
1,4-Dioxane	ND		2.0	0.32	ppb v/v			04/16/18 16:42	1
1-Methylnaphthalene	ND	*	10	3.7	ppb v/v			04/16/18 16:42	1
2,2,4-Trimethylpentane	0.63	J	2.0	0.16	ppb v/v			04/16/18 16:42	1
2-Butanone (MEK)	5.2		3.2	0.80	ppb v/v			04/16/18 16:42	1
2-Hexanone	ND		2.0	0.23	ppb v/v			04/16/18 16:42	1
2-Methylnaphthalene	ND	*	10	3.5	ppb v/v			04/16/18 16:42	1
3-Chloropropene	ND		0.80	0.19	ppb v/v			04/16/18 16:42	1
4-Ethyltoluene	0.65	J	1.6	0.26	ppb v/v			04/16/18 16:42	1
4-Methyl-2-pentanone (MIBK)	ND		2.0	0.78	ppb v/v			04/16/18 16:42	1
Acetone	130		20	5.4	ppb v/v			04/16/18 16:42	1
Benzene	0.32	J	0.80	0.23	ppb v/v			04/16/18 16:42	1
Benzyl chloride	ND		1.6	0.31	ppb v/v			04/16/18 16:42	1
Bromodichloromethane	ND		0.80	0.18	ppb v/v			04/16/18 16:42	1
Bromoform	ND		0.80	0.19	ppb v/v			04/16/18 16:42	1
Bromomethane	ND		0.80	0.13	ppb v/v			04/16/18 16:42	1

TestAmerica Knoxville

Client Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-IA-1

Lab Sample ID: 140-11270-2

Date Collected: 04/10/18 08:36

Matrix: Air

Date Received: 04/12/18 09:35

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
Butane	12		1.6	0.73	ppb v/v			04/16/18 16:42	1
Carbon disulfide	ND		2.0	0.12	ppb v/v			04/16/18 16:42	1
Carbon tetrachloride	ND		0.32	0.15	ppb v/v			04/16/18 16:42	1
Chlorobenzene	ND		0.80	0.20	ppb v/v			04/16/18 16:42	1
Chloroethane	ND		0.80	0.14	ppb v/v			04/16/18 16:42	1
Chloroform	ND		0.80	0.15	ppb v/v			04/16/18 16:42	1
Chloromethane	0.94 J		2.0	0.64	ppb v/v			04/16/18 16:42	1
cis-1,2-Dichloroethene	ND		0.40	0.24	ppb v/v			04/16/18 16:42	1
cis-1,3-Dichloropropene	ND		0.80	0.29	ppb v/v			04/16/18 16:42	1
Cyclohexane	ND		2.0	0.16	ppb v/v			04/16/18 16:42	1
Decane	12		4.0	0.22	ppb v/v			04/16/18 16:42	1
Dibromochloromethane	ND		0.80	0.17	ppb v/v			04/16/18 16:42	1
Dichlorodifluoromethane	0.62 J		0.80	0.27	ppb v/v			04/16/18 16:42	1
Dodecane	0.86 J		4.0	0.31	ppb v/v			04/16/18 16:42	1
Ethanol	76		20	6.4	ppb v/v			04/16/18 16:42	1
Ethyl acetate	ND		8.0	0.80	ppb v/v			04/16/18 16:42	1
Ethylbenzene	0.63 J		0.80	0.27	ppb v/v			04/16/18 16:42	1
Heptane	36		2.0	0.19	ppb v/v			04/16/18 16:42	1
Hexachlorobutadiene	ND		0.80	0.49	ppb v/v			04/16/18 16:42	1
Hexane	0.97 J		2.0	0.13	ppb v/v			04/16/18 16:42	1
Indane	ND		0.80	0.33	ppb v/v			04/16/18 16:42	1
Indene	ND		1.6	0.32	ppb v/v			04/16/18 16:42	1
Isopropyl alcohol	3.0 J		8.0	0.94	ppb v/v			04/16/18 16:42	1
Methyl tert-butyl ether	ND		1.6	0.68	ppb v/v			04/16/18 16:42	1
Methylene Chloride	1.9 J		2.0	1.3	ppb v/v			04/16/18 16:42	1
m-Xylene & p-Xylene	2.7		0.80	0.53	ppb v/v			04/16/18 16:42	1
Nonane	9.4		2.0	0.17	ppb v/v			04/16/18 16:42	1
Octane	0.96 J		1.6	0.14	ppb v/v			04/16/18 16:42	1
o-Xylene	1.1		0.80	0.24	ppb v/v			04/16/18 16:42	1
Pentane	3.3 J		4.0	1.6	ppb v/v			04/16/18 16:42	1
Styrene	0.50 J		0.80	0.23	ppb v/v			04/16/18 16:42	1
tert-Butyl alcohol	0.25 J		3.2	0.15	ppb v/v			04/16/18 16:42	1
Tetrachloroethene	4.5		0.80	0.16	ppb v/v			04/16/18 16:42	1
Tetrahydrofuran	0.38 J		4.0	0.25	ppb v/v			04/16/18 16:42	1
Thiophene	ND		0.80	0.30	ppb v/v			04/16/18 16:42	1
Toluene	8.3		1.2	1.2	ppb v/v			04/16/18 16:42	1
trans-1,2-Dichloroethene	ND		0.80	0.20	ppb v/v			04/16/18 16:42	1
trans-1,3-Dichloropropene	ND		0.80	0.19	ppb v/v			04/16/18 16:42	1
Trichloroethene	ND		0.36	0.14	ppb v/v			04/16/18 16:42	1
Trichlorofluoromethane	0.41 J		0.80	0.10	ppb v/v			04/16/18 16:42	1
Undecane	7.0		4.0	0.25	ppb v/v			04/16/18 16:42	1
Vinyl bromide	ND		0.80	0.14	ppb v/v			04/16/18 16:42	1
Vinyl chloride	ND		0.40	0.29	ppb v/v			04/16/18 16:42	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		4.4	0.65	ug/m3			04/16/18 16:42	1
1,1,2,2-Tetrachloroethane	ND		5.5	1.6	ug/m3			04/16/18 16:42	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		6.1	0.92	ug/m3			04/16/18 16:42	1
1,1,2-Trichloroethane	ND		4.4	1.1	ug/m3			04/16/18 16:42	1

TestAmerica Knoxville

Client Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-IA-1

Lab Sample ID: 140-11270-2

Date Collected: 04/10/18 08:36

Matrix: Air

Date Received: 04/12/18 09:35

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-Dichloroethane	ND		3.2	0.40	ug/m3			04/16/18 16:42	1
1,1-Dichloroethene	ND		1.6	0.56	ug/m3			04/16/18 16:42	1
1,2,4,5-Tetramethylbenzene	2.4	J	4.4	1.9	ug/m3			04/16/18 16:42	1
1,2,4-Trichlorobenzene	ND		5.9	2.9	ug/m3			04/16/18 16:42	1
1,2-Dibromoethane (EDB)	ND		6.1	1.4	ug/m3			04/16/18 16:42	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		5.6	0.91	ug/m3			04/16/18 16:42	1
1,2-Dichlorobenzene	ND		4.8	1.7	ug/m3			04/16/18 16:42	1
1,2-Dichloropropane	ND		3.7	0.97	ug/m3			04/16/18 16:42	1
1,3,5-Trimethylbenzene	8.4		3.9	1.3	ug/m3			04/16/18 16:42	1
1,3-Butadiene	ND		3.5	0.55	ug/m3			04/16/18 16:42	1
1,3-Dichlorobenzene	ND		4.8	1.6	ug/m3			04/16/18 16:42	1
1,4-Dichlorobenzene	ND		4.8	1.6	ug/m3			04/16/18 16:42	1
1,4-Dioxane	ND		7.2	1.2	ug/m3			04/16/18 16:42	1
1-Methylnaphthalene	ND	*	58	22	ug/m3			04/16/18 16:42	1
2,2,4-Trimethylpentane	3.0	J	9.3	0.75	ug/m3			04/16/18 16:42	1
2-Butanone (MEK)	15		9.4	2.4	ug/m3			04/16/18 16:42	1
2-Hexanone	ND		8.2	0.94	ug/m3			04/16/18 16:42	1
2-Methylnaphthalene	ND	*	58	20	ug/m3			04/16/18 16:42	1
3-Chloropropene	ND		2.5	0.59	ug/m3			04/16/18 16:42	1
4-Ethyltoluene	3.2	J	7.9	1.3	ug/m3			04/16/18 16:42	1
4-Methyl-2-pentanone (MIBK)	ND		8.2	3.2	ug/m3			04/16/18 16:42	1
Acetone	300		48	13	ug/m3			04/16/18 16:42	1
Benzene	1.0	J	2.6	0.73	ug/m3			04/16/18 16:42	1
Benzyl chloride	ND		8.3	1.6	ug/m3			04/16/18 16:42	1
Bromodichloromethane	ND		5.4	1.2	ug/m3			04/16/18 16:42	1
Bromoform	ND		8.3	2.0	ug/m3			04/16/18 16:42	1
Bromomethane	ND		3.1	0.50	ug/m3			04/16/18 16:42	1
Butane	30		3.8	1.7	ug/m3			04/16/18 16:42	1
Carbon disulfide	ND		6.2	0.37	ug/m3			04/16/18 16:42	1
Carbon tetrachloride	ND		2.0	0.94	ug/m3			04/16/18 16:42	1
Chlorobenzene	ND		3.7	0.92	ug/m3			04/16/18 16:42	1
Chloroethane	ND		2.1	0.37	ug/m3			04/16/18 16:42	1
Chloroform	ND		3.9	0.73	ug/m3			04/16/18 16:42	1
Chloromethane	1.9	J	4.1	1.3	ug/m3			04/16/18 16:42	1
cis-1,2-Dichloroethene	ND		1.6	0.95	ug/m3			04/16/18 16:42	1
cis-1,3-Dichloropropene	ND		3.6	1.3	ug/m3			04/16/18 16:42	1
Cyclohexane	ND		6.9	0.55	ug/m3			04/16/18 16:42	1
Decane	70		23	1.3	ug/m3			04/16/18 16:42	1
Dibromochloromethane	ND		6.8	1.4	ug/m3			04/16/18 16:42	1
Dichlorodifluoromethane	3.1	J	4.0	1.3	ug/m3			04/16/18 16:42	1
Dodecane	6.0	J	28	2.2	ug/m3			04/16/18 16:42	1
Ethanol	140		38	12	ug/m3			04/16/18 16:42	1
Ethyl acetate	ND		29	2.9	ug/m3			04/16/18 16:42	1
Ethylbenzene	2.7	J	3.5	1.2	ug/m3			04/16/18 16:42	1
Heptane	150		8.2	0.78	ug/m3			04/16/18 16:42	1
Hexachlorobutadiene	ND		8.5	5.2	ug/m3			04/16/18 16:42	1
Hexane	3.4	J	7.0	0.46	ug/m3			04/16/18 16:42	1
Indane	ND		3.9	1.6	ug/m3			04/16/18 16:42	1

TestAmerica Knoxville

Client Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-IA-1

Lab Sample ID: 140-11270-2

Date Collected: 04/10/18 08:36

Matrix: Air

Date Received: 04/12/18 09:35

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
Indene	ND		7.6	1.5	ug/m3			04/16/18 16:42	1
Isopropyl alcohol	7.3	J	20	2.3	ug/m3			04/16/18 16:42	1
Methyl tert-butyl ether	ND		5.8	2.5	ug/m3			04/16/18 16:42	1
Methylene Chloride	6.5	J	6.9	4.5	ug/m3			04/16/18 16:42	1
m-Xylene & p-Xylene	12		3.5	2.3	ug/m3			04/16/18 16:42	1
Nonane	49		10	0.89	ug/m3			04/16/18 16:42	1
Octane	4.5	J	7.5	0.65	ug/m3			04/16/18 16:42	1
o-Xylene	4.6		3.5	1.0	ug/m3			04/16/18 16:42	1
Pentane	9.8	J	12	4.7	ug/m3			04/16/18 16:42	1
Styrene	2.1	J	3.4	0.98	ug/m3			04/16/18 16:42	1
tert-Butyl alcohol	0.76	J	9.7	0.45	ug/m3			04/16/18 16:42	1
Tetrachloroethene	30		5.4	1.1	ug/m3			04/16/18 16:42	1
Tetrahydrofuran	1.1	J	12	0.74	ug/m3			04/16/18 16:42	1
Thiophene	ND		2.8	1.0	ug/m3			04/16/18 16:42	1
Toluene	31		4.5	4.5	ug/m3			04/16/18 16:42	1
trans-1,2-Dichloroethene	ND		3.2	0.79	ug/m3			04/16/18 16:42	1
trans-1,3-Dichloropropene	ND		3.6	0.86	ug/m3			04/16/18 16:42	1
Trichloroethene	ND		1.9	0.75	ug/m3			04/16/18 16:42	1
Trichlorofluoromethane	2.3	J	4.5	0.56	ug/m3			04/16/18 16:42	1
Undecane	45		26	1.6	ug/m3			04/16/18 16:42	1
Vinyl bromide	ND		3.5	0.61	ug/m3			04/16/18 16:42	1
Vinyl chloride	ND		1.0	0.74	ug/m3			04/16/18 16:42	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	99		60 - 140					04/16/18 16:42	1

Client Sample ID: CL-SSV-2

Lab Sample ID: 140-11270-3

Date Collected: 04/10/18 08:50

Matrix: Air

Date Received: 04/12/18 09:35

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		1.6	0.24	ppb v/v			04/16/18 17:27	1
1,1,2,2-Tetrachloroethane	ND		1.6	0.48	ppb v/v			04/16/18 17:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		1.6	0.24	ppb v/v			04/16/18 17:27	1
1,1,2-Trichloroethane	ND		1.6	0.42	ppb v/v			04/16/18 17:27	1
1,1-Dichloroethane	ND		1.6	0.20	ppb v/v			04/16/18 17:27	1
1,1-Dichloroethene	ND		0.80	0.28	ppb v/v			04/16/18 17:27	1
1,2,4,5-Tetramethylbenzene	ND		1.6	0.70	ppb v/v			04/16/18 17:27	1
1,2,4-Trichlorobenzene	ND		1.6	0.78	ppb v/v			04/16/18 17:27	1
1,2-Dibromoethane (EDB)	ND		1.6	0.36	ppb v/v			04/16/18 17:27	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		1.6	0.26	ppb v/v			04/16/18 17:27	1
1,2-Dichlorobenzene	ND		1.6	0.56	ppb v/v			04/16/18 17:27	1
1,2-Dichloropropane	ND		1.6	0.42	ppb v/v			04/16/18 17:27	1
1,3,5-Trimethylbenzene	2.4		1.6	0.52	ppb v/v			04/16/18 17:27	1
1,3-Butadiene	ND		3.2	0.50	ppb v/v			04/16/18 17:27	1
1,3-Dichlorobenzene	ND		1.6	0.52	ppb v/v			04/16/18 17:27	1
1,4-Dichlorobenzene	ND		1.6	0.52	ppb v/v			04/16/18 17:27	1

TestAmerica Knoxville

Client Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-SSV-2

Lab Sample ID: 140-11270-3

Date Collected: 04/10/18 08:50

Matrix: Air

Date Received: 04/12/18 09:35

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	2.1	J	4.0	0.64	ppb v/v			04/16/18 17:27	1
1-Methylnaphthalene	ND	*	20	7.4	ppb v/v			04/16/18 17:27	1
2,2,4-Trimethylpentane	ND		4.0	0.32	ppb v/v			04/16/18 17:27	1
2-Butanone (MEK)	2.5	J	6.4	1.6	ppb v/v			04/16/18 17:27	1
2-Hexanone	ND		4.0	0.46	ppb v/v			04/16/18 17:27	1
2-Methylnaphthalene	ND	*	20	7.0	ppb v/v			04/16/18 17:27	1
3-Chloropropene	ND		1.6	0.38	ppb v/v			04/16/18 17:27	1
4-Ethyltoluene	2.2	J	3.2	0.52	ppb v/v			04/16/18 17:27	1
4-Methyl-2-pentanone (MIBK)	5.5		4.0	1.6	ppb v/v			04/16/18 17:27	1
Acetone	140		40	11	ppb v/v			04/16/18 17:27	1
Benzene	3.0		1.6	0.46	ppb v/v			04/16/18 17:27	1
Benzyl chloride	ND		3.2	0.62	ppb v/v			04/16/18 17:27	1
Bromodichloromethane	ND		1.6	0.36	ppb v/v			04/16/18 17:27	1
Bromoform	ND		1.6	0.38	ppb v/v			04/16/18 17:27	1
Bromomethane	ND		1.6	0.26	ppb v/v			04/16/18 17:27	1
Butane	53		3.2	1.5	ppb v/v			04/16/18 17:27	1
Carbon disulfide	0.76	J	4.0	0.24	ppb v/v			04/16/18 17:27	1
Carbon tetrachloride	ND		0.64	0.30	ppb v/v			04/16/18 17:27	1
Chlorobenzene	ND		1.6	0.40	ppb v/v			04/16/18 17:27	1
Chloroethane	ND		1.6	0.28	ppb v/v			04/16/18 17:27	1
Chloroform	13		1.6	0.30	ppb v/v			04/16/18 17:27	1
Chloromethane	ND		4.0	1.3	ppb v/v			04/16/18 17:27	1
cis-1,2-Dichloroethene	ND		0.80	0.48	ppb v/v			04/16/18 17:27	1
cis-1,3-Dichloropropene	ND		1.6	0.58	ppb v/v			04/16/18 17:27	1
Cyclohexane	6.6		4.0	0.32	ppb v/v			04/16/18 17:27	1
Decane	46		8.0	0.44	ppb v/v			04/16/18 17:27	1
Dibromochloromethane	ND		1.6	0.34	ppb v/v			04/16/18 17:27	1
Dichlorodifluoromethane	0.63	J	1.6	0.54	ppb v/v			04/16/18 17:27	1
Dodecane	3.8	J	8.0	0.62	ppb v/v			04/16/18 17:27	1
Ethanol	110		40	13	ppb v/v			04/16/18 17:27	1
Ethyl acetate	ND		16	1.6	ppb v/v			04/16/18 17:27	1
Ethylbenzene	4.1		1.6	0.54	ppb v/v			04/16/18 17:27	1
Heptane	8.6		4.0	0.38	ppb v/v			04/16/18 17:27	1
Hexachlorobutadiene	ND		1.6	0.98	ppb v/v			04/16/18 17:27	1
Hexane	13		4.0	0.26	ppb v/v			04/16/18 17:27	1
Indane	ND		1.6	0.66	ppb v/v			04/16/18 17:27	1
Indene	ND		3.2	0.64	ppb v/v			04/16/18 17:27	1
Isopropyl alcohol	14	J	16	1.9	ppb v/v			04/16/18 17:27	1
Methyl tert-butyl ether	ND		3.2	1.4	ppb v/v			04/16/18 17:27	1
Methylene Chloride	ND		4.0	2.6	ppb v/v			04/16/18 17:27	1
m-Xylene & p-Xylene	19		1.6	1.1	ppb v/v			04/16/18 17:27	1
Nonane	31		4.0	0.34	ppb v/v			04/16/18 17:27	1
Octane	110		3.2	0.28	ppb v/v			04/16/18 17:27	1
o-Xylene	5.5		1.6	0.48	ppb v/v			04/16/18 17:27	1
Pentane	26		8.0	3.2	ppb v/v			04/16/18 17:27	1
Styrene	ND		1.6	0.46	ppb v/v			04/16/18 17:27	1
tert-Butyl alcohol	6.7		6.4	0.30	ppb v/v			04/16/18 17:27	1
Tetrachloroethene	14		1.6	0.32	ppb v/v			04/16/18 17:27	1

TestAmerica Knoxville

Client Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-SSV-2

Lab Sample ID: 140-11270-3

Date Collected: 04/10/18 08:50

Matrix: Air

Date Received: 04/12/18 09:35

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
Tetrahydrofuran	ND		8.0	0.50	ppb v/v			04/16/18 17:27	1
Thiophene	ND		1.6	0.60	ppb v/v			04/16/18 17:27	1
Toluene	70		2.4	2.4	ppb v/v			04/16/18 17:27	1
trans-1,2-Dichloroethene	ND		1.6	0.40	ppb v/v			04/16/18 17:27	1
trans-1,3-Dichloropropene	ND		1.6	0.38	ppb v/v			04/16/18 17:27	1
Trichloroethene	0.31	J	0.72	0.28	ppb v/v			04/16/18 17:27	1
Trichlorofluoromethane	0.37	J	1.6	0.20	ppb v/v			04/16/18 17:27	1
Undecane	24		8.0	0.50	ppb v/v			04/16/18 17:27	1
Vinyl bromide	ND		1.6	0.28	ppb v/v			04/16/18 17:27	1
Vinyl chloride	ND		0.80	0.58	ppb v/v			04/16/18 17:27	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		8.7	1.3	ug/m3			04/16/18 17:27	1
1,1,2,2-Tetrachloroethane	ND		11	3.3	ug/m3			04/16/18 17:27	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		12	1.8	ug/m3			04/16/18 17:27	1
1,1,2-Trichloroethane	ND		8.7	2.3	ug/m3			04/16/18 17:27	1
1,1-Dichloroethane	ND		6.5	0.81	ug/m3			04/16/18 17:27	1
1,1-Dichloroethene	ND		3.2	1.1	ug/m3			04/16/18 17:27	1
1,2,4,5-Tetramethylbenzene	ND		8.8	3.8	ug/m3			04/16/18 17:27	1
1,2,4-Trichlorobenzene	ND		12	5.8	ug/m3			04/16/18 17:27	1
1,2-Dibromoethane (EDB)	ND		12	2.8	ug/m3			04/16/18 17:27	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		11	1.8	ug/m3			04/16/18 17:27	1
1,2-Dichlorobenzene	ND		9.6	3.4	ug/m3			04/16/18 17:27	1
1,2-Dichloropropane	ND		7.4	1.9	ug/m3			04/16/18 17:27	1
1,3,5-Trimethylbenzene	12		7.9	2.6	ug/m3			04/16/18 17:27	1
1,3-Butadiene	ND		7.1	1.1	ug/m3			04/16/18 17:27	1
1,3-Dichlorobenzene	ND		9.6	3.1	ug/m3			04/16/18 17:27	1
1,4-Dichlorobenzene	ND		9.6	3.1	ug/m3			04/16/18 17:27	1
1,4-Dioxane	7.6	J	14	2.3	ug/m3			04/16/18 17:27	1
1-Methylnaphthalene	ND	*	120	43	ug/m3			04/16/18 17:27	1
2,2,4-Trimethylpentane	ND		19	1.5	ug/m3			04/16/18 17:27	1
2-Butanone (MEK)	7.4	J	19	4.7	ug/m3			04/16/18 17:27	1
2-Hexanone	ND		16	1.9	ug/m3			04/16/18 17:27	1
2-Methylnaphthalene	ND	*	120	41	ug/m3			04/16/18 17:27	1
3-Chloropropene	ND		5.0	1.2	ug/m3			04/16/18 17:27	1
4-Ethyltoluene	11	J	16	2.6	ug/m3			04/16/18 17:27	1
4-Methyl-2-pentanone (MIBK)	22		16	6.4	ug/m3			04/16/18 17:27	1
Acetone	330		95	26	ug/m3			04/16/18 17:27	1
Benzene	9.6		5.1	1.5	ug/m3			04/16/18 17:27	1
Benzyl chloride	ND		17	3.2	ug/m3			04/16/18 17:27	1
Bromodichloromethane	ND		11	2.4	ug/m3			04/16/18 17:27	1
Bromoform	ND		17	3.9	ug/m3			04/16/18 17:27	1
Bromomethane	ND		6.2	1.0	ug/m3			04/16/18 17:27	1
Butane	130		7.6	3.5	ug/m3			04/16/18 17:27	1
Carbon disulfide	2.4	J	12	0.75	ug/m3			04/16/18 17:27	1
Carbon tetrachloride	ND		4.0	1.9	ug/m3			04/16/18 17:27	1
Chlorobenzene	ND		7.4	1.8	ug/m3			04/16/18 17:27	1
Chloroethane	ND		4.2	0.74	ug/m3			04/16/18 17:27	1
Chloroform	64		7.8	1.5	ug/m3			04/16/18 17:27	1

TestAmerica Knoxville

Client Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-SSV-2

Lab Sample ID: 140-11270-3

Date Collected: 04/10/18 08:50

Matrix: Air

Date Received: 04/12/18 09:35

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		8.3	2.6	ug/m3			04/16/18 17:27	1
cis-1,2-Dichloroethene	ND		3.2	1.9	ug/m3			04/16/18 17:27	1
cis-1,3-Dichloropropene	ND		7.3	2.6	ug/m3			04/16/18 17:27	1
Cyclohexane	23		14	1.1	ug/m3			04/16/18 17:27	1
Decane	270		47	2.6	ug/m3			04/16/18 17:27	1
Dibromochloromethane	ND		14	2.9	ug/m3			04/16/18 17:27	1
Dichlorodifluoromethane	3.1 J		7.9	2.7	ug/m3			04/16/18 17:27	1
Dodecane	27 J		56	4.3	ug/m3			04/16/18 17:27	1
Ethanol	210		75	24	ug/m3			04/16/18 17:27	1
Ethyl acetate	ND		58	5.8	ug/m3			04/16/18 17:27	1
Ethylbenzene	18		6.9	2.3	ug/m3			04/16/18 17:27	1
Heptane	35		16	1.6	ug/m3			04/16/18 17:27	1
Hexachlorobutadiene	ND		17	10	ug/m3			04/16/18 17:27	1
Hexane	47		14	0.92	ug/m3			04/16/18 17:27	1
Indane	ND		7.7	3.2	ug/m3			04/16/18 17:27	1
Indene	ND		15	3.0	ug/m3			04/16/18 17:27	1
Isopropyl alcohol	34 J		39	4.6	ug/m3			04/16/18 17:27	1
Methyl tert-butyl ether	ND		12	4.9	ug/m3			04/16/18 17:27	1
Methylene Chloride	ND		14	9.0	ug/m3			04/16/18 17:27	1
m-Xylene & p-Xylene	81		6.9	4.6	ug/m3			04/16/18 17:27	1
Nonane	160		21	1.8	ug/m3			04/16/18 17:27	1
Octane	510		15	1.3	ug/m3			04/16/18 17:27	1
o-Xylene	24		6.9	2.1	ug/m3			04/16/18 17:27	1
Pentane	76		24	9.4	ug/m3			04/16/18 17:27	1
Styrene	ND		6.8	2.0	ug/m3			04/16/18 17:27	1
tert-Butyl alcohol	20		19	0.91	ug/m3			04/16/18 17:27	1
Tetrachloroethene	95		11	2.2	ug/m3			04/16/18 17:27	1
Tetrahydrofuran	ND		24	1.5	ug/m3			04/16/18 17:27	1
Thiophene	ND		5.5	2.1	ug/m3			04/16/18 17:27	1
Toluene	260		9.0	9.0	ug/m3			04/16/18 17:27	1
trans-1,2-Dichloroethene	ND		6.3	1.6	ug/m3			04/16/18 17:27	1
trans-1,3-Dichloropropene	ND		7.3	1.7	ug/m3			04/16/18 17:27	1
Trichloroethene	1.6 J		3.9	1.5	ug/m3			04/16/18 17:27	1
Trichlorofluoromethane	2.1 J		9.0	1.1	ug/m3			04/16/18 17:27	1
Undecane	150		51	3.2	ug/m3			04/16/18 17:27	1
Vinyl bromide	ND		7.0	1.2	ug/m3			04/16/18 17:27	1
Vinyl chloride	ND		2.0	1.5	ug/m3			04/16/18 17:27	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	111		60 - 140		04/16/18 17:27	1

Client Sample ID: CL-IA-2

Lab Sample ID: 140-11270-4

Date Collected: 04/10/18 08:55

Matrix: Air

Date Received: 04/12/18 09:35

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		0.40	0.060	ppb v/v			04/16/18 18:13	1

TestAmerica Knoxville

Client Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-IA-2

Lab Sample ID: 140-11270-4

Date Collected: 04/10/18 08:55

Matrix: Air

Date Received: 04/12/18 09:35

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		0.40	0.12	ppb v/v			04/16/18 18:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.082	J	0.40	0.060	ppb v/v			04/16/18 18:13	1
1,1,2-Trichloroethane	ND		0.40	0.11	ppb v/v			04/16/18 18:13	1
1,1-Dichloroethane	ND		0.40	0.050	ppb v/v			04/16/18 18:13	1
1,1-Dichloroethene	ND		0.20	0.070	ppb v/v			04/16/18 18:13	1
1,2,4,5-Tetramethylbenzene	ND		0.40	0.18	ppb v/v			04/16/18 18:13	1
1,2,4-Trichlorobenzene	ND		0.40	0.20	ppb v/v			04/16/18 18:13	1
1,2-Dibromoethane (EDB)	ND		0.40	0.090	ppb v/v			04/16/18 18:13	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.40	0.065	ppb v/v			04/16/18 18:13	1
1,2-Dichlorobenzene	ND		0.40	0.14	ppb v/v			04/16/18 18:13	1
1,2-Dichloropropane	ND		0.40	0.11	ppb v/v			04/16/18 18:13	1
1,3,5-Trimethylbenzene	0.95		0.40	0.13	ppb v/v			04/16/18 18:13	1
1,3-Butadiene	ND		0.80	0.13	ppb v/v			04/16/18 18:13	1
1,3-Dichlorobenzene	ND		0.40	0.13	ppb v/v			04/16/18 18:13	1
1,4-Dichlorobenzene	ND		0.40	0.13	ppb v/v			04/16/18 18:13	1
1,4-Dioxane	ND		1.0	0.16	ppb v/v			04/16/18 18:13	1
1-Methylnaphthalene	ND	*	5.0	1.9	ppb v/v			04/16/18 18:13	1
2,2,4-Trimethylpentane	0.50	J	1.0	0.080	ppb v/v			04/16/18 18:13	1
2-Butanone (MEK)	3.0		1.6	0.40	ppb v/v			04/16/18 18:13	1
2-Hexanone	ND		1.0	0.12	ppb v/v			04/16/18 18:13	1
2-Methylnaphthalene	ND	*	5.0	1.8	ppb v/v			04/16/18 18:13	1
3-Chloropropene	ND		0.40	0.095	ppb v/v			04/16/18 18:13	1
4-Ethyltoluene	0.44	J	0.80	0.13	ppb v/v			04/16/18 18:13	1
4-Methyl-2-pentanone (MIBK)	ND		1.0	0.39	ppb v/v			04/16/18 18:13	1
Acetone	67		10	2.7	ppb v/v			04/16/18 18:13	1
Benzene	0.50		0.40	0.12	ppb v/v			04/16/18 18:13	1
Benzyl chloride	ND		0.80	0.16	ppb v/v			04/16/18 18:13	1
Bromodichloromethane	ND		0.40	0.090	ppb v/v			04/16/18 18:13	1
Bromoform	ND		0.40	0.095	ppb v/v			04/16/18 18:13	1
Bromomethane	ND		0.40	0.065	ppb v/v			04/16/18 18:13	1
Butane	16		0.80	0.37	ppb v/v			04/16/18 18:13	1
Carbon disulfide	0.11	J	1.0	0.060	ppb v/v			04/16/18 18:13	1
Carbon tetrachloride	0.10	J	0.16	0.075	ppb v/v			04/16/18 18:13	1
Chlorobenzene	ND		0.40	0.10	ppb v/v			04/16/18 18:13	1
Chloroethane	ND		0.40	0.070	ppb v/v			04/16/18 18:13	1
Chloroform	ND		0.40	0.075	ppb v/v			04/16/18 18:13	1
Chloromethane	0.99	J	1.0	0.32	ppb v/v			04/16/18 18:13	1
cis-1,2-Dichloroethene	0.13	J	0.20	0.12	ppb v/v			04/16/18 18:13	1
cis-1,3-Dichloropropene	ND		0.40	0.15	ppb v/v			04/16/18 18:13	1
Cyclohexane	1.2		1.0	0.080	ppb v/v			04/16/18 18:13	1
Decane	7.5		2.0	0.11	ppb v/v			04/16/18 18:13	1
Dibromochloromethane	ND		0.40	0.085	ppb v/v			04/16/18 18:13	1
Dichlorodifluoromethane	0.67		0.40	0.14	ppb v/v			04/16/18 18:13	1
Dodecane	0.20	J	2.0	0.16	ppb v/v			04/16/18 18:13	1
Ethanol	140		10	3.2	ppb v/v			04/16/18 18:13	1
Ethyl acetate	ND		4.0	0.40	ppb v/v			04/16/18 18:13	1
Ethylbenzene	0.48		0.40	0.14	ppb v/v			04/16/18 18:13	1
Heptane	24		1.0	0.095	ppb v/v			04/16/18 18:13	1

TestAmerica Knoxville

Client Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-IA-2

Lab Sample ID: 140-11270-4

Date Collected: 04/10/18 08:55

Matrix: Air

Date Received: 04/12/18 09:35

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
Hexachlorobutadiene	ND		0.40	0.25	ppb v/v			04/16/18 18:13	1
Hexane	1.1		1.0	0.065	ppb v/v			04/16/18 18:13	1
Indane	ND		0.40	0.17	ppb v/v			04/16/18 18:13	1
Indene	ND		0.80	0.16	ppb v/v			04/16/18 18:13	1
Isopropyl alcohol	2.3	J	4.0	0.47	ppb v/v			04/16/18 18:13	1
Methyl tert-butyl ether	ND		0.80	0.34	ppb v/v			04/16/18 18:13	1
Methylene Chloride	1.0		1.0	0.65	ppb v/v			04/16/18 18:13	1
m-Xylene & p-Xylene	2.0		0.40	0.27	ppb v/v			04/16/18 18:13	1
Nonane	7.3		1.0	0.085	ppb v/v			04/16/18 18:13	1
Octane	0.71	J	0.80	0.070	ppb v/v			04/16/18 18:13	1
o-Xylene	0.79		0.40	0.12	ppb v/v			04/16/18 18:13	1
Pentane	3.0		2.0	0.80	ppb v/v			04/16/18 18:13	1
Styrene	0.21	J	0.40	0.12	ppb v/v			04/16/18 18:13	1
tert-Butyl alcohol	0.18	J	1.6	0.075	ppb v/v			04/16/18 18:13	1
Tetrachloroethene	4.4		0.40	0.080	ppb v/v			04/16/18 18:13	1
Tetrahydrofuran	1.5	J	2.0	0.13	ppb v/v			04/16/18 18:13	1
Thiophene	ND		0.40	0.15	ppb v/v			04/16/18 18:13	1
Toluene	7.7		0.60	0.60	ppb v/v			04/16/18 18:13	1
trans-1,2-Dichloroethene	ND		0.40	0.10	ppb v/v			04/16/18 18:13	1
trans-1,3-Dichloropropene	ND		0.40	0.095	ppb v/v			04/16/18 18:13	1
Trichloroethene	ND		0.18	0.070	ppb v/v			04/16/18 18:13	1
Trichlorofluoromethane	0.45		0.40	0.050	ppb v/v			04/16/18 18:13	1
Undecane	3.2		2.0	0.13	ppb v/v			04/16/18 18:13	1
Vinyl bromide	ND		0.40	0.070	ppb v/v			04/16/18 18:13	1
Vinyl chloride	ND		0.20	0.15	ppb v/v			04/16/18 18:13	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.2	0.33	ug/m3			04/16/18 18:13	1
1,1,2,2-Tetrachloroethane	ND		2.7	0.82	ug/m3			04/16/18 18:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.63	J	3.1	0.46	ug/m3			04/16/18 18:13	1
1,1,2-Trichloroethane	ND		2.2	0.57	ug/m3			04/16/18 18:13	1
1,1-Dichloroethane	ND		1.6	0.20	ug/m3			04/16/18 18:13	1
1,1-Dichloroethene	ND		0.79	0.28	ug/m3			04/16/18 18:13	1
1,2,4,5-Tetramethylbenzene	ND		2.2	0.96	ug/m3			04/16/18 18:13	1
1,2,4-Trichlorobenzene	ND		3.0	1.4	ug/m3			04/16/18 18:13	1
1,2-Dibromoethane (EDB)	ND		3.1	0.69	ug/m3			04/16/18 18:13	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.8	0.45	ug/m3			04/16/18 18:13	1
1,2-Dichlorobenzene	ND		2.4	0.84	ug/m3			04/16/18 18:13	1
1,2-Dichloropropane	ND		1.8	0.49	ug/m3			04/16/18 18:13	1
1,3,5-Trimethylbenzene	4.7		2.0	0.64	ug/m3			04/16/18 18:13	1
1,3-Butadiene	ND		1.8	0.28	ug/m3			04/16/18 18:13	1
1,3-Dichlorobenzene	ND		2.4	0.78	ug/m3			04/16/18 18:13	1
1,4-Dichlorobenzene	ND		2.4	0.78	ug/m3			04/16/18 18:13	1
1,4-Dioxane	ND		3.6	0.58	ug/m3			04/16/18 18:13	1
1-Methylnaphthalene	ND	*	29	11	ug/m3			04/16/18 18:13	1
2,2,4-Trimethylpentane	2.3	J	4.7	0.37	ug/m3			04/16/18 18:13	1
2-Butanone (MEK)	8.9		4.7	1.2	ug/m3			04/16/18 18:13	1
2-Hexanone	ND		4.1	0.47	ug/m3			04/16/18 18:13	1

TestAmerica Knoxville

Client Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-IA-2

Lab Sample ID: 140-11270-4

Date Collected: 04/10/18 08:55

Matrix: Air

Date Received: 04/12/18 09:35

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
2-Methylnaphthalene	ND	*	29	10	ug/m3			04/16/18 18:13	1
3-Chloropropene	ND		1.3	0.30	ug/m3			04/16/18 18:13	1
4-Ethyltoluene	2.2	J	3.9	0.64	ug/m3			04/16/18 18:13	1
4-Methyl-2-pentanone (MIBK)	ND		4.1	1.6	ug/m3			04/16/18 18:13	1
Acetone	160		24	6.4	ug/m3			04/16/18 18:13	1
Benzene	1.6		1.3	0.37	ug/m3			04/16/18 18:13	1
Benzyl chloride	ND		4.1	0.80	ug/m3			04/16/18 18:13	1
Bromodichloromethane	ND		2.7	0.60	ug/m3			04/16/18 18:13	1
Bromoform	ND		4.1	0.98	ug/m3			04/16/18 18:13	1
Bromomethane	ND		1.6	0.25	ug/m3			04/16/18 18:13	1
Butane	39		1.9	0.87	ug/m3			04/16/18 18:13	1
Carbon disulfide	0.35	J	3.1	0.19	ug/m3			04/16/18 18:13	1
Carbon tetrachloride	0.63	J	1.0	0.47	ug/m3			04/16/18 18:13	1
Chlorobenzene	ND		1.8	0.46	ug/m3			04/16/18 18:13	1
Chloroethane	ND		1.1	0.18	ug/m3			04/16/18 18:13	1
Chloroform	ND		2.0	0.37	ug/m3			04/16/18 18:13	1
Chloromethane	2.1	J	2.1	0.66	ug/m3			04/16/18 18:13	1
cis-1,2-Dichloroethene	0.51	J	0.79	0.48	ug/m3			04/16/18 18:13	1
cis-1,3-Dichloropropene	ND		1.8	0.66	ug/m3			04/16/18 18:13	1
Cyclohexane	4.1		3.4	0.28	ug/m3			04/16/18 18:13	1
Decane	44		12	0.64	ug/m3			04/16/18 18:13	1
Dibromochloromethane	ND		3.4	0.72	ug/m3			04/16/18 18:13	1
Dichlorodifluoromethane	3.3		2.0	0.67	ug/m3			04/16/18 18:13	1
Dodecane	1.4	J	14	1.1	ug/m3			04/16/18 18:13	1
Ethanol	270		19	6.0	ug/m3			04/16/18 18:13	1
Ethyl acetate	ND		14	1.4	ug/m3			04/16/18 18:13	1
Ethylbenzene	2.1		1.7	0.59	ug/m3			04/16/18 18:13	1
Heptane	96		4.1	0.39	ug/m3			04/16/18 18:13	1
Hexachlorobutadiene	ND		4.3	2.6	ug/m3			04/16/18 18:13	1
Hexane	3.8		3.5	0.23	ug/m3			04/16/18 18:13	1
Indane	ND		1.9	0.80	ug/m3			04/16/18 18:13	1
Indene	ND		3.8	0.76	ug/m3			04/16/18 18:13	1
Isopropyl alcohol	5.6	J	9.8	1.2	ug/m3			04/16/18 18:13	1
Methyl tert-butyl ether	ND		2.9	1.2	ug/m3			04/16/18 18:13	1
Methylene Chloride	3.6		3.5	2.3	ug/m3			04/16/18 18:13	1
m-Xylene & p-Xylene	8.9		1.7	1.2	ug/m3			04/16/18 18:13	1
Nonane	38		5.2	0.45	ug/m3			04/16/18 18:13	1
Octane	3.3	J	3.7	0.33	ug/m3			04/16/18 18:13	1
o-Xylene	3.4		1.7	0.52	ug/m3			04/16/18 18:13	1
Pentane	8.8		5.9	2.4	ug/m3			04/16/18 18:13	1
Styrene	0.88	J	1.7	0.49	ug/m3			04/16/18 18:13	1
tert-Butyl alcohol	0.54	J	4.9	0.23	ug/m3			04/16/18 18:13	1
Tetrachloroethene	30		2.7	0.54	ug/m3			04/16/18 18:13	1
Tetrahydrofuran	4.4	J	5.9	0.37	ug/m3			04/16/18 18:13	1
Thiophene	ND		1.4	0.52	ug/m3			04/16/18 18:13	1
Toluene	29		2.3	2.3	ug/m3			04/16/18 18:13	1
trans-1,2-Dichloroethene	ND		1.6	0.40	ug/m3			04/16/18 18:13	1
trans-1,3-Dichloropropene	ND		1.8	0.43	ug/m3			04/16/18 18:13	1

TestAmerica Knoxville

Client Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-IA-2

Date Collected: 04/10/18 08:55

Date Received: 04/12/18 09:35

Sample Container: Summa Canister 6L

Lab Sample ID: 140-11270-4

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
Trichloroethene	ND		0.97	0.38	ug/m3			04/16/18 18:13	1
Trichlorofluoromethane	2.5		2.2	0.28	ug/m3			04/16/18 18:13	1
Undecane	21		13	0.80	ug/m3			04/16/18 18:13	1
Vinyl bromide	ND		1.7	0.31	ug/m3			04/16/18 18:13	1
Vinyl chloride	ND		0.51	0.37	ug/m3			04/16/18 18:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	105		60 - 140		04/16/18 18:13	1

Client Sample ID: FD-180410

Date Collected: 04/10/18 00:00

Date Received: 04/12/18 09:35

Sample Container: Summa Canister 6L

Lab Sample ID: 140-11270-5

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	ND		0.40	0.060	ppb v/v			04/16/18 18:59	1
1,1,2,2-Tetrachloroethane	ND		0.40	0.12	ppb v/v			04/16/18 18:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.077	J	0.40	0.060	ppb v/v			04/16/18 18:59	1
1,1,2-Trichloroethane	ND		0.40	0.11	ppb v/v			04/16/18 18:59	1
1,1-Dichloroethane	ND		0.40	0.050	ppb v/v			04/16/18 18:59	1
1,1-Dichloroethene	ND		0.20	0.070	ppb v/v			04/16/18 18:59	1
1,2,4,5-Tetramethylbenzene	0.28	J	0.40	0.18	ppb v/v			04/16/18 18:59	1
1,2,4-Trichlorobenzene	ND		0.40	0.20	ppb v/v			04/16/18 18:59	1
1,2-Dibromoethane (EDB)	ND		0.40	0.090	ppb v/v			04/16/18 18:59	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.40	0.065	ppb v/v			04/16/18 18:59	1
1,2-Dichlorobenzene	ND		0.40	0.14	ppb v/v			04/16/18 18:59	1
1,2-Dichloropropane	ND		0.40	0.11	ppb v/v			04/16/18 18:59	1
1,3,5-Trimethylbenzene	1.3		0.40	0.13	ppb v/v			04/16/18 18:59	1
1,3-Butadiene	ND		0.80	0.13	ppb v/v			04/16/18 18:59	1
1,3-Dichlorobenzene	ND		0.40	0.13	ppb v/v			04/16/18 18:59	1
1,4-Dichlorobenzene	ND		0.40	0.13	ppb v/v			04/16/18 18:59	1
1,4-Dioxane	ND		1.0	0.16	ppb v/v			04/16/18 18:59	1
1-Methylnaphthalene	ND	*	5.0	1.9	ppb v/v			04/16/18 18:59	1
2,2,4-Trimethylpentane	0.55	J	1.0	0.080	ppb v/v			04/16/18 18:59	1
2-Butanone (MEK)	3.4		1.6	0.40	ppb v/v			04/16/18 18:59	1
2-Hexanone	ND		1.0	0.12	ppb v/v			04/16/18 18:59	1
2-Methylnaphthalene	ND	*	5.0	1.8	ppb v/v			04/16/18 18:59	1
3-Chloropropene	ND		0.40	0.095	ppb v/v			04/16/18 18:59	1
4-Ethyltoluene	0.51	J	0.80	0.13	ppb v/v			04/16/18 18:59	1
4-Methyl-2-pentanone (MIBK)	0.51	J	1.0	0.39	ppb v/v			04/16/18 18:59	1
Acetone	85		10	2.7	ppb v/v			04/16/18 18:59	1
Benzene	0.61		0.40	0.12	ppb v/v			04/16/18 18:59	1
Benzyl chloride	ND		0.80	0.16	ppb v/v			04/16/18 18:59	1
Bromodichloromethane	ND		0.40	0.090	ppb v/v			04/16/18 18:59	1
Bromoform	ND		0.40	0.095	ppb v/v			04/16/18 18:59	1
Bromomethane	ND		0.40	0.065	ppb v/v			04/16/18 18:59	1
Butane	19		0.80	0.37	ppb v/v			04/16/18 18:59	1

TestAmerica Knoxville

Client Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: FD-180410

Lab Sample ID: 140-11270-5

Date Collected: 04/10/18 00:00

Matrix: Air

Date Received: 04/12/18 09:35

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 disulfide	0.085	J	1.0	0.060	ppb v/v			04/16/18 18:59	1
Carbon tetrachloride	0.091	J	0.16	0.075	ppb v/v			04/16/18 18:59	1
Chlorobenzene	ND		0.40	0.10	ppb v/v			04/16/18 18:59	1
Chloroethane	ND		0.40	0.070	ppb v/v			04/16/18 18:59	1
Chloroform	ND		0.40	0.075	ppb v/v			04/16/18 18:59	1
Chloromethane	1.0		1.0	0.32	ppb v/v			04/16/18 18:59	1
cis-1,2-Dichloroethene	0.15	J	0.20	0.12	ppb v/v			04/16/18 18:59	1
cis-1,3-Dichloropropene	ND		0.40	0.15	ppb v/v			04/16/18 18:59	1
Cyclohexane	1.3		1.0	0.080	ppb v/v			04/16/18 18:59	1
Decane	9.6		2.0	0.11	ppb v/v			04/16/18 18:59	1
Dibromochloromethane	ND		0.40	0.085	ppb v/v			04/16/18 18:59	1
Dichlorodifluoromethane	0.68		0.40	0.14	ppb v/v			04/16/18 18:59	1
Dodecane	0.64	J	2.0	0.16	ppb v/v			04/16/18 18:59	1
Ethanol	180		10	3.2	ppb v/v			04/16/18 18:59	1
Ethyl acetate	ND		4.0	0.40	ppb v/v			04/16/18 18:59	1
Ethylbenzene	0.57		0.40	0.14	ppb v/v			04/16/18 18:59	1
Heptane	28		1.0	0.095	ppb v/v			04/16/18 18:59	1
Hexachlorobutadiene	ND		0.40	0.25	ppb v/v			04/16/18 18:59	1
Hexane	1.1		1.0	0.065	ppb v/v			04/16/18 18:59	1
Indane	ND		0.40	0.17	ppb v/v			04/16/18 18:59	1
Indene	ND		0.80	0.16	ppb v/v			04/16/18 18:59	1
Isopropyl alcohol	2.9	J	4.0	0.47	ppb v/v			04/16/18 18:59	1
Methyl tert-butyl ether	ND		0.80	0.34	ppb v/v			04/16/18 18:59	1
Methylene Chloride	1.5		1.0	0.65	ppb v/v			04/16/18 18:59	1
m-Xylene & p-Xylene	2.6		0.40	0.27	ppb v/v			04/16/18 18:59	1
Nonane	9.0		1.0	0.085	ppb v/v			04/16/18 18:59	1
Octane	0.89		0.80	0.070	ppb v/v			04/16/18 18:59	1
o-Xylene	0.99		0.40	0.12	ppb v/v			04/16/18 18:59	1
Pentane	3.6		2.0	0.80	ppb v/v			04/16/18 18:59	1
Styrene	0.29	J	0.40	0.12	ppb v/v			04/16/18 18:59	1
tert-Butyl alcohol	0.22	J	1.6	0.075	ppb v/v			04/16/18 18:59	1
Tetrachloroethene	5.0		0.40	0.080	ppb v/v			04/16/18 18:59	1
Tetrahydrofuran	0.61	J	2.0	0.13	ppb v/v			04/16/18 18:59	1
Thiophene	ND		0.40	0.15	ppb v/v			04/16/18 18:59	1
Toluene	8.7		0.60	0.60	ppb v/v			04/16/18 18:59	1
trans-1,2-Dichloroethene	ND		0.40	0.10	ppb v/v			04/16/18 18:59	1
trans-1,3-Dichloropropene	ND		0.40	0.095	ppb v/v			04/16/18 18:59	1
Trichloroethene	ND		0.18	0.070	ppb v/v			04/16/18 18:59	1
Trichlorofluoromethane	0.39	J	0.40	0.050	ppb v/v			04/16/18 18:59	1
Undecane	5.0		2.0	0.13	ppb v/v			04/16/18 18:59	1
Vinyl bromide	ND		0.40	0.070	ppb v/v			04/16/18 18:59	1
Vinyl chloride	ND		0.20	0.15	ppb v/v			04/16/18 18:59	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		2.2	0.33	ug/m3			04/16/18 18:59	1
1,1,2,2-Tetrachloroethane	ND		2.7	0.82	ug/m3			04/16/18 18:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.59	J	3.1	0.46	ug/m3			04/16/18 18:59	1
1,1,2-Trichloroethane	ND		2.2	0.57	ug/m3			04/16/18 18:59	1

TestAmerica Knoxville

Client Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: FD-180410

Lab Sample ID: 140-11270-5

Date Collected: 04/10/18 00:00

Matrix: Air

Date Received: 04/12/18 09:35

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-Dichloroethane	ND		1.6	0.20	ug/m3			04/16/18 18:59	1
1,1-Dichloroethene	ND		0.79	0.28	ug/m3			04/16/18 18:59	1
1,2,4,5-Tetramethylbenzene	1.6	J	2.2	0.96	ug/m3			04/16/18 18:59	1
1,2,4-Trichlorobenzene	ND		3.0	1.4	ug/m3			04/16/18 18:59	1
1,2-Dibromoethane (EDB)	ND		3.1	0.69	ug/m3			04/16/18 18:59	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		2.8	0.45	ug/m3			04/16/18 18:59	1
1,2-Dichlorobenzene	ND		2.4	0.84	ug/m3			04/16/18 18:59	1
1,2-Dichloropropane	ND		1.8	0.49	ug/m3			04/16/18 18:59	1
1,3,5-Trimethylbenzene	6.3		2.0	0.64	ug/m3			04/16/18 18:59	1
1,3-Butadiene	ND		1.8	0.28	ug/m3			04/16/18 18:59	1
1,3-Dichlorobenzene	ND		2.4	0.78	ug/m3			04/16/18 18:59	1
1,4-Dichlorobenzene	ND		2.4	0.78	ug/m3			04/16/18 18:59	1
1,4-Dioxane	ND		3.6	0.58	ug/m3			04/16/18 18:59	1
1-Methylnaphthalene	ND	*	29	11	ug/m3			04/16/18 18:59	1
2,2,4-Trimethylpentane	2.6	J	4.7	0.37	ug/m3			04/16/18 18:59	1
2-Butanone (MEK)	10		4.7	1.2	ug/m3			04/16/18 18:59	1
2-Hexanone	ND		4.1	0.47	ug/m3			04/16/18 18:59	1
2-Methylnaphthalene	ND	*	29	10	ug/m3			04/16/18 18:59	1
3-Chloropropene	ND		1.3	0.30	ug/m3			04/16/18 18:59	1
4-Ethyltoluene	2.5	J	3.9	0.64	ug/m3			04/16/18 18:59	1
4-Methyl-2-pentanone (MIBK)	2.1	J	4.1	1.6	ug/m3			04/16/18 18:59	1
Acetone	200		24	6.4	ug/m3			04/16/18 18:59	1
Benzene	2.0		1.3	0.37	ug/m3			04/16/18 18:59	1
Benzyl chloride	ND		4.1	0.80	ug/m3			04/16/18 18:59	1
Bromodichloromethane	ND		2.7	0.60	ug/m3			04/16/18 18:59	1
Bromoform	ND		4.1	0.98	ug/m3			04/16/18 18:59	1
Bromomethane	ND		1.6	0.25	ug/m3			04/16/18 18:59	1
Butane	46		1.9	0.87	ug/m3			04/16/18 18:59	1
Carbon disulfide	0.26	J	3.1	0.19	ug/m3			04/16/18 18:59	1
Carbon tetrachloride	0.57	J	1.0	0.47	ug/m3			04/16/18 18:59	1
Chlorobenzene	ND		1.8	0.46	ug/m3			04/16/18 18:59	1
Chloroethane	ND		1.1	0.18	ug/m3			04/16/18 18:59	1
Chloroform	ND		2.0	0.37	ug/m3			04/16/18 18:59	1
Chloromethane	2.1		2.1	0.66	ug/m3			04/16/18 18:59	1
cis-1,2-Dichloroethene	0.59	J	0.79	0.48	ug/m3			04/16/18 18:59	1
cis-1,3-Dichloropropene	ND		1.8	0.66	ug/m3			04/16/18 18:59	1
Cyclohexane	4.5		3.4	0.28	ug/m3			04/16/18 18:59	1
Decane	56		12	0.64	ug/m3			04/16/18 18:59	1
Dibromochloromethane	ND		3.4	0.72	ug/m3			04/16/18 18:59	1
Dichlorodifluoromethane	3.4		2.0	0.67	ug/m3			04/16/18 18:59	1
Dodecane	4.4	J	14	1.1	ug/m3			04/16/18 18:59	1
Ethanol	340		19	6.0	ug/m3			04/16/18 18:59	1
Ethyl acetate	ND		14	1.4	ug/m3			04/16/18 18:59	1
Ethylbenzene	2.5		1.7	0.59	ug/m3			04/16/18 18:59	1
Heptane	110		4.1	0.39	ug/m3			04/16/18 18:59	1
Hexachlorobutadiene	ND		4.3	2.6	ug/m3			04/16/18 18:59	1
Hexane	3.7		3.5	0.23	ug/m3			04/16/18 18:59	1
Indane	ND		1.9	0.80	ug/m3			04/16/18 18:59	1

TestAmerica Knoxville

Client Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: FD-180410

Lab Sample ID: 140-11270-5

Date Collected: 04/10/18 00:00

Matrix: Air

Date Received: 04/12/18 09:35

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
Indene	ND		3.8	0.76	ug/m3			04/16/18 18:59	1
Isopropyl alcohol	7.2	J	9.8	1.2	ug/m3			04/16/18 18:59	1
Methyl tert-butyl ether	ND		2.9	1.2	ug/m3			04/16/18 18:59	1
Methylene Chloride	5.1		3.5	2.3	ug/m3			04/16/18 18:59	1
m-Xylene & p-Xylene	11		1.7	1.2	ug/m3			04/16/18 18:59	1
Nonane	47		5.2	0.45	ug/m3			04/16/18 18:59	1
Octane	4.2		3.7	0.33	ug/m3			04/16/18 18:59	1
o-Xylene	4.3		1.7	0.52	ug/m3			04/16/18 18:59	1
Pentane	11		5.9	2.4	ug/m3			04/16/18 18:59	1
Styrene	1.2	J	1.7	0.49	ug/m3			04/16/18 18:59	1
tert-Butyl alcohol	0.68	J	4.9	0.23	ug/m3			04/16/18 18:59	1
Tetrachloroethene	34		2.7	0.54	ug/m3			04/16/18 18:59	1
Tetrahydrofuran	1.8	J	5.9	0.37	ug/m3			04/16/18 18:59	1
Thiophene	ND		1.4	0.52	ug/m3			04/16/18 18:59	1
Toluene	33		2.3	2.3	ug/m3			04/16/18 18:59	1
trans-1,2-Dichloroethene	ND		1.6	0.40	ug/m3			04/16/18 18:59	1
trans-1,3-Dichloropropene	ND		1.8	0.43	ug/m3			04/16/18 18:59	1
Trichloroethene	ND		0.97	0.38	ug/m3			04/16/18 18:59	1
Trichlorofluoromethane	2.2	J	2.2	0.28	ug/m3			04/16/18 18:59	1
Undecane	32		13	0.80	ug/m3			04/16/18 18:59	1
Vinyl bromide	ND		1.7	0.31	ug/m3			04/16/18 18:59	1
Vinyl chloride	ND		0.51	0.37	ug/m3			04/16/18 18:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	104		60 - 140					04/16/18 18:59	1

Client Sample ID: CL-OA-1

Lab Sample ID: 140-11270-6

Date Collected: 04/10/18 08:58

Matrix: Air

Date Received: 04/12/18 09:35

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	0.012	ppb v/v			04/16/18 19:46	1
1,1,2,2-Tetrachloroethane	ND		0.080	0.024	ppb v/v			04/16/18 19:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.078	J	0.080	0.012	ppb v/v			04/16/18 19:46	1
1,1,2-Trichloroethane	ND		0.080	0.021	ppb v/v			04/16/18 19:46	1
1,1-Dichloroethane	ND		0.080	0.010	ppb v/v			04/16/18 19:46	1
1,1-Dichloroethene	ND		0.040	0.014	ppb v/v			04/16/18 19:46	1
1,2,4,5-Tetramethylbenzene	ND		0.080	0.035	ppb v/v			04/16/18 19:46	1
1,2,4-Trichlorobenzene	ND		0.080	0.039	ppb v/v			04/16/18 19:46	1
1,2-Dibromoethane (EDB)	ND		0.080	0.018	ppb v/v			04/16/18 19:46	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.021	J	0.080	0.013	ppb v/v			04/16/18 19:46	1
1,2-Dichlorobenzene	ND		0.080	0.028	ppb v/v			04/16/18 19:46	1
1,2-Dichloropropane	ND		0.080	0.021	ppb v/v			04/16/18 19:46	1
1,3,5-Trimethylbenzene	ND		0.080	0.026	ppb v/v			04/16/18 19:46	1
1,3-Butadiene	ND		0.16	0.025	ppb v/v			04/16/18 19:46	1

TestAmerica Knoxville

Client Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-OA-1

Lab Sample ID: 140-11270-6

Date Collected: 04/10/18 08:58

Matrix: Air

Date Received: 04/12/18 09:35

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
1,3-Dichlorobenzene	ND		0.080	0.026	ppb v/v			04/16/18 19:46	1
1,4-Dichlorobenzene	ND		0.080	0.026	ppb v/v			04/16/18 19:46	1
1,4-Dioxane	ND		0.20	0.032	ppb v/v			04/16/18 19:46	1
1-Methylnaphthalene	ND	*	1.0	0.37	ppb v/v			04/16/18 19:46	1
2,2,4-Trimethylpentane	0.027	J	0.20	0.016	ppb v/v			04/16/18 19:46	1
2-Butanone (MEK)	0.87		0.32	0.080	ppb v/v			04/16/18 19:46	1
2-Hexanone	0.089	J	0.20	0.023	ppb v/v			04/16/18 19:46	1
2-Methylnaphthalene	ND	*	1.0	0.35	ppb v/v			04/16/18 19:46	1
3-Chloropropene	ND		0.080	0.019	ppb v/v			04/16/18 19:46	1
4-Ethyltoluene	ND		0.16	0.026	ppb v/v			04/16/18 19:46	1
4-Methyl-2-pentanone (MIBK)	0.21		0.20	0.078	ppb v/v			04/16/18 19:46	1
Acetone	6.3	CI	2.0	0.54	ppb v/v			04/16/18 19:46	1
Benzene	0.15		0.080	0.023	ppb v/v			04/16/18 19:46	1
Benzyl chloride	ND		0.16	0.031	ppb v/v			04/16/18 19:46	1
Bromodichloromethane	ND		0.080	0.018	ppb v/v			04/16/18 19:46	1
Bromoform	ND		0.080	0.019	ppb v/v			04/16/18 19:46	1
Bromomethane	ND		0.080	0.013	ppb v/v			04/16/18 19:46	1
Butane	1.1		0.16	0.073	ppb v/v			04/16/18 19:46	1
Carbon disulfide	0.042	J	0.20	0.012	ppb v/v			04/16/18 19:46	1
Carbon tetrachloride	0.090		0.032	0.015	ppb v/v			04/16/18 19:46	1
Chlorobenzene	ND		0.080	0.020	ppb v/v			04/16/18 19:46	1
Chloroethane	ND		0.080	0.014	ppb v/v			04/16/18 19:46	1
Chloroform	0.023	J	0.080	0.015	ppb v/v			04/16/18 19:46	1
Chloromethane	0.69		0.20	0.064	ppb v/v			04/16/18 19:46	1
cis-1,2-Dichloroethene	ND		0.040	0.024	ppb v/v			04/16/18 19:46	1
cis-1,3-Dichloropropene	ND		0.080	0.029	ppb v/v			04/16/18 19:46	1
Cyclohexane	0.18	J	0.20	0.016	ppb v/v			04/16/18 19:46	1
Decane	0.058	J	0.40	0.022	ppb v/v			04/16/18 19:46	1
Dibromochloromethane	ND		0.080	0.017	ppb v/v			04/16/18 19:46	1
Dichlorodifluoromethane	0.57		0.080	0.027	ppb v/v			04/16/18 19:46	1
Dodecane	ND		0.40	0.031	ppb v/v			04/16/18 19:46	1
Ethanol	7.5		2.0	0.64	ppb v/v			04/16/18 19:46	1
Ethyl acetate	0.39	J	0.80	0.080	ppb v/v			04/16/18 19:46	1
Ethylbenzene	0.058	J	0.080	0.027	ppb v/v			04/16/18 19:46	1
Heptane	0.19	J	0.20	0.019	ppb v/v			04/16/18 19:46	1
Hexachlorobutadiene	ND		0.080	0.049	ppb v/v			04/16/18 19:46	1
Hexane	0.22		0.20	0.013	ppb v/v			04/16/18 19:46	1
Indane	ND		0.080	0.033	ppb v/v			04/16/18 19:46	1
Indene	ND		0.16	0.032	ppb v/v			04/16/18 19:46	1
Isopropyl alcohol	1.2		0.80	0.094	ppb v/v			04/16/18 19:46	1
Methyl tert-butyl ether	ND		0.16	0.068	ppb v/v			04/16/18 19:46	1
Methylene Chloride	0.47		0.20	0.13	ppb v/v			04/16/18 19:46	1
m-Xylene & p-Xylene	0.20		0.080	0.053	ppb v/v			04/16/18 19:46	1
Nonane	0.076	J	0.20	0.017	ppb v/v			04/16/18 19:46	1
Octane	0.064	J	0.16	0.014	ppb v/v			04/16/18 19:46	1
o-Xylene	0.092		0.080	0.024	ppb v/v			04/16/18 19:46	1
Pentane	2.2		0.40	0.16	ppb v/v			04/16/18 19:46	1
Styrene	ND		0.080	0.023	ppb v/v			04/16/18 19:46	1

TestAmerica Knoxville

Client Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-OA-1

Lab Sample ID: 140-11270-6

Date Collected: 04/10/18 08:58

Matrix: Air

Date Received: 04/12/18 09:35

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
tert-Butyl alcohol	0.055	J	0.32	0.015	ppb v/v			04/16/18 19:46	1
Tetrachloroethene	0.035	J	0.080	0.016	ppb v/v			04/16/18 19:46	1
Tetrahydrofuran	0.040	J	0.40	0.025	ppb v/v			04/16/18 19:46	1
Thiophene	ND		0.080	0.030	ppb v/v			04/16/18 19:46	1
Toluene	1.1		0.12	0.12	ppb v/v			04/16/18 19:46	1
trans-1,2-Dichloroethene	ND		0.080	0.020	ppb v/v			04/16/18 19:46	1
trans-1,3-Dichloropropene	ND		0.080	0.019	ppb v/v			04/16/18 19:46	1
Trichloroethene	ND		0.036	0.014	ppb v/v			04/16/18 19:46	1
Trichlorofluoromethane	0.31		0.080	0.010	ppb v/v			04/16/18 19:46	1
Undecane	ND		0.40	0.025	ppb v/v			04/16/18 19:46	1
Vinyl bromide	ND		0.080	0.014	ppb v/v			04/16/18 19:46	1
Vinyl chloride	ND		0.040	0.029	ppb v/v			04/16/18 19:46	1
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.44	0.065	ug/m3			04/16/18 19:46	1
1,1,2,2-Tetrachloroethane	ND		0.55	0.16	ug/m3			04/16/18 19:46	1
1,1,2-Trichloro-1,2,2-trifluoroethane	0.60	J	0.61	0.092	ug/m3			04/16/18 19:46	1
1,1,2-Trichloroethane	ND		0.44	0.11	ug/m3			04/16/18 19:46	1
1,1-Dichloroethane	ND		0.32	0.040	ug/m3			04/16/18 19:46	1
1,1-Dichloroethene	ND		0.16	0.056	ug/m3			04/16/18 19:46	1
1,2,4,5-Tetramethylbenzene	ND		0.44	0.19	ug/m3			04/16/18 19:46	1
1,2,4-Trichlorobenzene	ND		0.59	0.29	ug/m3			04/16/18 19:46	1
1,2-Dibromoethane (EDB)	ND		0.61	0.14	ug/m3			04/16/18 19:46	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.15	J	0.56	0.091	ug/m3			04/16/18 19:46	1
1,2-Dichlorobenzene	ND		0.48	0.17	ug/m3			04/16/18 19:46	1
1,2-Dichloropropane	ND		0.37	0.097	ug/m3			04/16/18 19:46	1
1,3,5-Trimethylbenzene	ND		0.39	0.13	ug/m3			04/16/18 19:46	1
1,3-Butadiene	ND		0.35	0.055	ug/m3			04/16/18 19:46	1
1,3-Dichlorobenzene	ND		0.48	0.16	ug/m3			04/16/18 19:46	1
1,4-Dichlorobenzene	ND		0.48	0.16	ug/m3			04/16/18 19:46	1
1,4-Dioxane	ND		0.72	0.12	ug/m3			04/16/18 19:46	1
1-Methylnaphthalene	ND	*	5.8	2.2	ug/m3			04/16/18 19:46	1
2,2,4-Trimethylpentane	0.12	J	0.93	0.075	ug/m3			04/16/18 19:46	1
2-Butanone (MEK)	2.6		0.94	0.24	ug/m3			04/16/18 19:46	1
2-Hexanone	0.36	J	0.82	0.094	ug/m3			04/16/18 19:46	1
2-Methylnaphthalene	ND	*	5.8	2.0	ug/m3			04/16/18 19:46	1
3-Chloropropene	ND		0.25	0.059	ug/m3			04/16/18 19:46	1
4-Ethyltoluene	ND		0.79	0.13	ug/m3			04/16/18 19:46	1
4-Methyl-2-pentanone (MIBK)	0.87		0.82	0.32	ug/m3			04/16/18 19:46	1
Acetone	15	CI	4.8	1.3	ug/m3			04/16/18 19:46	1
Benzene	0.47		0.26	0.073	ug/m3			04/16/18 19:46	1
Benzyl chloride	ND		0.83	0.16	ug/m3			04/16/18 19:46	1
Bromodichloromethane	ND		0.54	0.12	ug/m3			04/16/18 19:46	1
Bromoform	ND		0.83	0.20	ug/m3			04/16/18 19:46	1
Bromomethane	ND		0.31	0.050	ug/m3			04/16/18 19:46	1
Butane	2.7		0.38	0.17	ug/m3			04/16/18 19:46	1
Carbon disulfide	0.13	J	0.62	0.037	ug/m3			04/16/18 19:46	1
Carbon tetrachloride	0.56		0.20	0.094	ug/m3			04/16/18 19:46	1

TestAmerica Knoxville

Client Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-OA-1

Lab Sample ID: 140-11270-6

Date Collected: 04/10/18 08:58

Matrix: Air

Date Received: 04/12/18 09:35

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		0.37	0.092	ug/m3			04/16/18 19:46	1
Chloroethane	ND		0.21	0.037	ug/m3			04/16/18 19:46	1
Chloroform	0.11	J	0.39	0.073	ug/m3			04/16/18 19:46	1
Chloromethane	1.4		0.41	0.13	ug/m3			04/16/18 19:46	1
cis-1,2-Dichloroethene	ND		0.16	0.095	ug/m3			04/16/18 19:46	1
cis-1,3-Dichloropropene	ND		0.36	0.13	ug/m3			04/16/18 19:46	1
Cyclohexane	0.62	J	0.69	0.055	ug/m3			04/16/18 19:46	1
Decane	0.34	J	2.3	0.13	ug/m3			04/16/18 19:46	1
Dibromochloromethane	ND		0.68	0.14	ug/m3			04/16/18 19:46	1
Dichlorodifluoromethane	2.8		0.40	0.13	ug/m3			04/16/18 19:46	1
Dodecane	ND		2.8	0.22	ug/m3			04/16/18 19:46	1
Ethanol	14		3.8	1.2	ug/m3			04/16/18 19:46	1
Ethyl acetate	1.4	J	2.9	0.29	ug/m3			04/16/18 19:46	1
Ethylbenzene	0.25	J	0.35	0.12	ug/m3			04/16/18 19:46	1
Heptane	0.77	J	0.82	0.078	ug/m3			04/16/18 19:46	1
Hexachlorobutadiene	ND		0.85	0.52	ug/m3			04/16/18 19:46	1
Hexane	0.78		0.70	0.046	ug/m3			04/16/18 19:46	1
Indane	ND		0.39	0.16	ug/m3			04/16/18 19:46	1
Indene	ND		0.76	0.15	ug/m3			04/16/18 19:46	1
Isopropyl alcohol	2.9		2.0	0.23	ug/m3			04/16/18 19:46	1
Methyl tert-butyl ether	ND		0.58	0.25	ug/m3			04/16/18 19:46	1
Methylene Chloride	1.6		0.69	0.45	ug/m3			04/16/18 19:46	1
m-Xylene & p-Xylene	0.85		0.35	0.23	ug/m3			04/16/18 19:46	1
Nonane	0.40	J	1.0	0.089	ug/m3			04/16/18 19:46	1
Octane	0.30	J	0.75	0.065	ug/m3			04/16/18 19:46	1
o-Xylene	0.40		0.35	0.10	ug/m3			04/16/18 19:46	1
Pentane	6.5		1.2	0.47	ug/m3			04/16/18 19:46	1
Styrene	ND		0.34	0.098	ug/m3			04/16/18 19:46	1
tert-Butyl alcohol	0.17	J	0.97	0.045	ug/m3			04/16/18 19:46	1
Tetrachloroethene	0.24	J	0.54	0.11	ug/m3			04/16/18 19:46	1
Tetrahydrofuran	0.12	J	1.2	0.074	ug/m3			04/16/18 19:46	1
Thiophene	ND		0.28	0.10	ug/m3			04/16/18 19:46	1
Toluene	4.2		0.45	0.45	ug/m3			04/16/18 19:46	1
trans-1,2-Dichloroethene	ND		0.32	0.079	ug/m3			04/16/18 19:46	1
trans-1,3-Dichloropropene	ND		0.36	0.086	ug/m3			04/16/18 19:46	1
Trichloroethene	ND		0.19	0.075	ug/m3			04/16/18 19:46	1
Trichlorofluoromethane	1.8		0.45	0.056	ug/m3			04/16/18 19:46	1
Undecane	ND		2.6	0.16	ug/m3			04/16/18 19:46	1
Vinyl bromide	ND		0.35	0.061	ug/m3			04/16/18 19:46	1
Vinyl chloride	ND		0.10	0.074	ug/m3			04/16/18 19:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	101		60 - 140		04/16/18 19:46	1

Default Detection Limits

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

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-Trichloro-1,2,2-trifluoroethane	0.080	0.012	ppb v/v	TO 15 LL
1,1,2-Trichloro-1,2,2-trifluoroethane	0.61	0.092	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-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	0.040	0.014	ppb v/v	TO 15 LL
1,1-Dichloroethene	0.16	0.056	ug/m3	TO 15 LL
1,2,4,5-Tetramethylbenzene	0.080	0.035	ppb v/v	TO 15 LL
1,2,4,5-Tetramethylbenzene	0.44	0.19	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-Dibromoethane (EDB)	0.080	0.018	ppb v/v	TO 15 LL
1,2-Dibromoethane (EDB)	0.61	0.14	ug/m3	TO 15 LL
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.080	0.013	ppb v/v	TO 15 LL
1,2-Dichloro-1,1,2,2-tetrafluoroethane	0.56	0.091	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-Dichloropropane	0.080	0.021	ppb v/v	TO 15 LL
1,2-Dichloropropane	0.37	0.097	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-Butadiene	0.16	0.025	ppb v/v	TO 15 LL
1,3-Butadiene	0.35	0.055	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
1-Methylnaphthalene	1.0	0.37	ppb v/v	TO 15 LL
1-Methylnaphthalene	5.8	2.2	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 (MEK)	0.32	0.080	ppb v/v	TO 15 LL
2-Butanone (MEK)	0.94	0.24	ug/m3	TO 15 LL
2-Hexanone	0.20	0.023	ppb v/v	TO 15 LL
2-Hexanone	0.82	0.094	ug/m3	TO 15 LL
2-Methylnaphthalene	1.0	0.35	ppb v/v	TO 15 LL
2-Methylnaphthalene	5.8	2.0	ug/m3	TO 15 LL
3-Chloropropene	0.080	0.019	ppb v/v	TO 15 LL
3-Chloropropene	0.25	0.059	ug/m3	TO 15 LL
4-Ethyltoluene	0.16	0.026	ppb v/v	TO 15 LL
4-Ethyltoluene	0.79	0.13	ug/m3	TO 15 LL
4-Methyl-2-pentanone (MIBK)	0.20	0.078	ppb v/v	TO 15 LL
4-Methyl-2-pentanone (MIBK)	0.82	0.32	ug/m3	TO 15 LL
Acetone	2.0	0.54	ppb v/v	TO 15 LL
Acetone	4.8	1.3	ug/m3	TO 15 LL

TestAmerica Knoxville

Default Detection Limits

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

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

Analyte	RL	MDL	Units	Method
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
Butane	0.16	0.073	ppb v/v	TO 15 LL
Butane	0.38	0.17	ug/m3	TO 15 LL
Carbon disulfide	0.20	0.012	ppb v/v	TO 15 LL
Carbon disulfide	0.62	0.037	ug/m3	TO 15 LL
Carbon tetrachloride	0.032	0.015	ppb v/v	TO 15 LL
Carbon tetrachloride	0.20	0.094	ug/m3	TO 15 LL
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	0.040	0.024	ppb v/v	TO 15 LL
cis-1,2-Dichloroethene	0.16	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
Decane	0.40	0.022	ppb v/v	TO 15 LL
Decane	2.3	0.13	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
Dodecane	0.40	0.031	ppb v/v	TO 15 LL
Dodecane	2.8	0.22	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
Ethyl acetate	0.80	0.080	ppb v/v	TO 15 LL
Ethyl acetate	2.9	0.29	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
Heptane	0.20	0.019	ppb v/v	TO 15 LL
Heptane	0.82	0.078	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
Indane	0.080	0.033	ppb v/v	TO 15 LL
Indane	0.39	0.16	ug/m3	TO 15 LL

TestAmerica Knoxville

Default Detection Limits

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

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

Analyte	RL	MDL	Units	Method
Indene	0.16	0.032	ppb v/v	TO 15 LL
Indene	0.76	0.15	ug/m3	TO 15 LL
Isopropyl alcohol	0.80	0.094	ppb v/v	TO 15 LL
Isopropyl alcohol	2.0	0.23	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
Nonane	0.20	0.017	ppb v/v	TO 15 LL
Nonane	1.0	0.089	ug/m3	TO 15 LL
Octane	0.16	0.014	ppb v/v	TO 15 LL
Octane	0.75	0.065	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
Pentane	0.40	0.16	ppb v/v	TO 15 LL
Pentane	1.2	0.47	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
tert-Butyl alcohol	0.32	0.015	ppb v/v	TO 15 LL
tert-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
Tetrahydrofuran	0.40	0.025	ppb v/v	TO 15 LL
Tetrahydrofuran	1.2	0.074	ug/m3	TO 15 LL
Thiophene	0.080	0.030	ppb v/v	TO 15 LL
Thiophene	0.28	0.10	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	0.036	0.014	ppb v/v	TO 15 LL
Trichloroethene	0.19	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
Undecane	0.40	0.025	ppb v/v	TO 15 LL
Undecane	2.6	0.16	ug/m3	TO 15 LL
Vinyl bromide	0.080	0.014	ppb v/v	TO 15 LL
Vinyl bromide	0.35	0.061	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: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

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)
140-11270-1	CL-SSV-1	108
140-11270-2	CL-IA-1	99
140-11270-3	CL-SSV-2	111
140-11270-4	CL-IA-2	105
140-11270-5	FD-180410	104
140-11270-6	CL-OA-1	101
LCS 140-19508/1008	Lab Control Sample	100
MB 140-19508/10	Method Blank	96

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

QC Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

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

Lab Sample ID: MB 140-19508/10

Matrix: Air

Analysis Batch: 19508

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	0.012	ppb v/v			04/16/18 15:10	1
1,1,2,2-Tetrachloroethane	ND		0.080	0.024	ppb v/v			04/16/18 15:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.080	0.012	ppb v/v			04/16/18 15:10	1
1,1,2-Trichloroethane	ND		0.080	0.021	ppb v/v			04/16/18 15:10	1
1,1-Dichloroethane	ND		0.080	0.010	ppb v/v			04/16/18 15:10	1
1,1-Dichloroethene	ND		0.040	0.014	ppb v/v			04/16/18 15:10	1
1,2,4,5-Tetramethylbenzene	ND		0.080	0.035	ppb v/v			04/16/18 15:10	1
1,2,4-Trichlorobenzene	ND		0.080	0.039	ppb v/v			04/16/18 15:10	1
1,2-Dibromoethane (EDB)	ND		0.080	0.018	ppb v/v			04/16/18 15:10	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.080	0.013	ppb v/v			04/16/18 15:10	1
1,2-Dichlorobenzene	ND		0.080	0.028	ppb v/v			04/16/18 15:10	1
1,2-Dichloropropane	ND		0.080	0.021	ppb v/v			04/16/18 15:10	1
1,3,5-Trimethylbenzene	ND		0.080	0.026	ppb v/v			04/16/18 15:10	1
1,3-Butadiene	ND		0.16	0.025	ppb v/v			04/16/18 15:10	1
1,3-Dichlorobenzene	ND		0.080	0.026	ppb v/v			04/16/18 15:10	1
1,4-Dichlorobenzene	ND		0.080	0.026	ppb v/v			04/16/18 15:10	1
1,4-Dioxane	ND		0.20	0.032	ppb v/v			04/16/18 15:10	1
1-Methylnaphthalene	ND		1.0	0.37	ppb v/v			04/16/18 15:10	1
2,2,4-Trimethylpentane	ND		0.20	0.016	ppb v/v			04/16/18 15:10	1
2-Butanone (MEK)	ND		0.32	0.080	ppb v/v			04/16/18 15:10	1
2-Hexanone	ND		0.20	0.023	ppb v/v			04/16/18 15:10	1
2-Methylnaphthalene	ND		1.0	0.35	ppb v/v			04/16/18 15:10	1
3-Chloropropene	ND		0.080	0.019	ppb v/v			04/16/18 15:10	1
4-Ethyltoluene	ND		0.16	0.026	ppb v/v			04/16/18 15:10	1
4-Methyl-2-pentanone (MIBK)	ND		0.20	0.078	ppb v/v			04/16/18 15:10	1
Acetone	ND		2.0	0.54	ppb v/v			04/16/18 15:10	1
Benzene	ND		0.080	0.023	ppb v/v			04/16/18 15:10	1
Benzyl chloride	ND		0.16	0.031	ppb v/v			04/16/18 15:10	1
Bromodichloromethane	ND		0.080	0.018	ppb v/v			04/16/18 15:10	1
Bromoform	ND		0.080	0.019	ppb v/v			04/16/18 15:10	1
Bromomethane	ND		0.080	0.013	ppb v/v			04/16/18 15:10	1
Butane	ND		0.16	0.073	ppb v/v			04/16/18 15:10	1
Carbon disulfide	ND		0.20	0.012	ppb v/v			04/16/18 15:10	1
Carbon tetrachloride	ND		0.032	0.015	ppb v/v			04/16/18 15:10	1
Chlorobenzene	ND		0.080	0.020	ppb v/v			04/16/18 15:10	1
Chloroethane	ND		0.080	0.014	ppb v/v			04/16/18 15:10	1
Chloroform	ND		0.080	0.015	ppb v/v			04/16/18 15:10	1
Chloromethane	ND		0.20	0.064	ppb v/v			04/16/18 15:10	1
cis-1,2-Dichloroethene	ND		0.040	0.024	ppb v/v			04/16/18 15:10	1
cis-1,3-Dichloropropene	ND		0.080	0.029	ppb v/v			04/16/18 15:10	1
Cyclohexane	ND		0.20	0.016	ppb v/v			04/16/18 15:10	1
Decane	ND		0.40	0.022	ppb v/v			04/16/18 15:10	1
Dibromochloromethane	ND		0.080	0.017	ppb v/v			04/16/18 15:10	1
Dichlorodifluoromethane	ND		0.080	0.027	ppb v/v			04/16/18 15:10	1
Dodecane	ND		0.40	0.031	ppb v/v			04/16/18 15:10	1
Ethanol	ND		2.0	0.64	ppb v/v			04/16/18 15:10	1
Ethyl acetate	ND		0.80	0.080	ppb v/v			04/16/18 15:10	1
Ethylbenzene	ND		0.080	0.027	ppb v/v			04/16/18 15:10	1

TestAmerica Knoxville

QC Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

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

Lab Sample ID: MB 140-19508/10
Matrix: Air
Analysis Batch: 19508

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Heptane	ND		0.20	0.019	ppb v/v			04/16/18 15:10	1
Hexachlorobutadiene	ND		0.080	0.049	ppb v/v			04/16/18 15:10	1
Hexane	ND		0.20	0.013	ppb v/v			04/16/18 15:10	1
Indane	ND		0.080	0.033	ppb v/v			04/16/18 15:10	1
Indene	ND		0.16	0.032	ppb v/v			04/16/18 15:10	1
Isopropyl alcohol	ND		0.80	0.094	ppb v/v			04/16/18 15:10	1
Methyl tert-butyl ether	ND		0.16	0.068	ppb v/v			04/16/18 15:10	1
Methylene Chloride	ND		0.20	0.13	ppb v/v			04/16/18 15:10	1
m-Xylene & p-Xylene	ND		0.080	0.053	ppb v/v			04/16/18 15:10	1
Nonane	ND		0.20	0.017	ppb v/v			04/16/18 15:10	1
Octane	ND		0.16	0.014	ppb v/v			04/16/18 15:10	1
o-Xylene	ND		0.080	0.024	ppb v/v			04/16/18 15:10	1
Pentane	ND		0.40	0.16	ppb v/v			04/16/18 15:10	1
Styrene	ND		0.080	0.023	ppb v/v			04/16/18 15:10	1
tert-Butyl alcohol	ND		0.32	0.015	ppb v/v			04/16/18 15:10	1
Tetrachloroethene	ND		0.080	0.016	ppb v/v			04/16/18 15:10	1
Tetrahydrofuran	ND		0.40	0.025	ppb v/v			04/16/18 15:10	1
Thiophene	ND		0.080	0.030	ppb v/v			04/16/18 15:10	1
Toluene	ND		0.12	0.12	ppb v/v			04/16/18 15:10	1
trans-1,2-Dichloroethene	ND		0.080	0.020	ppb v/v			04/16/18 15:10	1
trans-1,3-Dichloropropene	ND		0.080	0.019	ppb v/v			04/16/18 15:10	1
Trichloroethene	ND		0.036	0.014	ppb v/v			04/16/18 15:10	1
Trichlorofluoromethane	ND		0.080	0.010	ppb v/v			04/16/18 15:10	1
Undecane	ND		0.40	0.025	ppb v/v			04/16/18 15:10	1
Vinyl bromide	ND		0.080	0.014	ppb v/v			04/16/18 15:10	1
Vinyl chloride	ND		0.040	0.029	ppb v/v			04/16/18 15:10	1

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.44	0.065	ug/m3			04/16/18 15:10	1
1,1,2,2-Tetrachloroethane	ND		0.55	0.16	ug/m3			04/16/18 15:10	1
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.61	0.092	ug/m3			04/16/18 15:10	1
1,1,2-Trichloroethane	ND		0.44	0.11	ug/m3			04/16/18 15:10	1
1,1-Dichloroethane	ND		0.32	0.040	ug/m3			04/16/18 15:10	1
1,1-Dichloroethene	ND		0.16	0.056	ug/m3			04/16/18 15:10	1
1,2,4,5-Tetramethylbenzene	ND		0.44	0.19	ug/m3			04/16/18 15:10	1
1,2,4-Trichlorobenzene	ND		0.59	0.29	ug/m3			04/16/18 15:10	1
1,2-Dibromoethane (EDB)	ND		0.61	0.14	ug/m3			04/16/18 15:10	1
1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND		0.56	0.091	ug/m3			04/16/18 15:10	1
1,2-Dichlorobenzene	ND		0.48	0.17	ug/m3			04/16/18 15:10	1
1,2-Dichloropropane	ND		0.37	0.097	ug/m3			04/16/18 15:10	1
1,3,5-Trimethylbenzene	ND		0.39	0.13	ug/m3			04/16/18 15:10	1
1,3-Butadiene	ND		0.35	0.055	ug/m3			04/16/18 15:10	1
1,3-Dichlorobenzene	ND		0.48	0.16	ug/m3			04/16/18 15:10	1
1,4-Dichlorobenzene	ND		0.48	0.16	ug/m3			04/16/18 15:10	1
1,4-Dioxane	ND		0.72	0.12	ug/m3			04/16/18 15:10	1
1-Methylnaphthalene	ND		5.8	2.2	ug/m3			04/16/18 15:10	1
2,2,4-Trimethylpentane	ND		0.93	0.075	ug/m3			04/16/18 15:10	1

TestAmerica Knoxville

QC Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

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

Lab Sample ID: MB 140-19508/10
Matrix: Air
Analysis Batch: 19508

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	ND		0.94	0.24	ug/m3			04/16/18 15:10	1
2-Hexanone	ND		0.82	0.094	ug/m3			04/16/18 15:10	1
2-Methylnaphthalene	ND		5.8	2.0	ug/m3			04/16/18 15:10	1
3-Chloropropene	ND		0.25	0.059	ug/m3			04/16/18 15:10	1
4-Ethyltoluene	ND		0.79	0.13	ug/m3			04/16/18 15:10	1
4-Methyl-2-pentanone (MIBK)	ND		0.82	0.32	ug/m3			04/16/18 15:10	1
Acetone	ND		4.8	1.3	ug/m3			04/16/18 15:10	1
Benzene	ND		0.26	0.073	ug/m3			04/16/18 15:10	1
Benzyl chloride	ND		0.83	0.16	ug/m3			04/16/18 15:10	1
Bromodichloromethane	ND		0.54	0.12	ug/m3			04/16/18 15:10	1
Bromoform	ND		0.83	0.20	ug/m3			04/16/18 15:10	1
Bromomethane	ND		0.31	0.050	ug/m3			04/16/18 15:10	1
Butane	ND		0.38	0.17	ug/m3			04/16/18 15:10	1
Carbon disulfide	ND		0.62	0.037	ug/m3			04/16/18 15:10	1
Carbon tetrachloride	ND		0.20	0.094	ug/m3			04/16/18 15:10	1
Chlorobenzene	ND		0.37	0.092	ug/m3			04/16/18 15:10	1
Chloroethane	ND		0.21	0.037	ug/m3			04/16/18 15:10	1
Chloroform	ND		0.39	0.073	ug/m3			04/16/18 15:10	1
Chloromethane	ND		0.41	0.13	ug/m3			04/16/18 15:10	1
cis-1,2-Dichloroethene	ND		0.16	0.095	ug/m3			04/16/18 15:10	1
cis-1,3-Dichloropropene	ND		0.36	0.13	ug/m3			04/16/18 15:10	1
Cyclohexane	ND		0.69	0.055	ug/m3			04/16/18 15:10	1
Decane	ND		2.3	0.13	ug/m3			04/16/18 15:10	1
Dibromochloromethane	ND		0.68	0.14	ug/m3			04/16/18 15:10	1
Dichlorodifluoromethane	ND		0.40	0.13	ug/m3			04/16/18 15:10	1
Dodecane	ND		2.8	0.22	ug/m3			04/16/18 15:10	1
Ethanol	ND		3.8	1.2	ug/m3			04/16/18 15:10	1
Ethyl acetate	ND		2.9	0.29	ug/m3			04/16/18 15:10	1
Ethylbenzene	ND		0.35	0.12	ug/m3			04/16/18 15:10	1
Heptane	ND		0.82	0.078	ug/m3			04/16/18 15:10	1
Hexachlorobutadiene	ND		0.85	0.52	ug/m3			04/16/18 15:10	1
Hexane	ND		0.70	0.046	ug/m3			04/16/18 15:10	1
Indane	ND		0.39	0.16	ug/m3			04/16/18 15:10	1
Indene	ND		0.76	0.15	ug/m3			04/16/18 15:10	1
Isopropyl alcohol	ND		2.0	0.23	ug/m3			04/16/18 15:10	1
Methyl tert-butyl ether	ND		0.58	0.25	ug/m3			04/16/18 15:10	1
Methylene Chloride	ND		0.69	0.45	ug/m3			04/16/18 15:10	1
m-Xylene & p-Xylene	ND		0.35	0.23	ug/m3			04/16/18 15:10	1
Nonane	ND		1.0	0.089	ug/m3			04/16/18 15:10	1
Octane	ND		0.75	0.065	ug/m3			04/16/18 15:10	1
o-Xylene	ND		0.35	0.10	ug/m3			04/16/18 15:10	1
Pentane	ND		1.2	0.47	ug/m3			04/16/18 15:10	1
Styrene	ND		0.34	0.098	ug/m3			04/16/18 15:10	1
tert-Butyl alcohol	ND		0.97	0.045	ug/m3			04/16/18 15:10	1
Tetrachloroethene	ND		0.54	0.11	ug/m3			04/16/18 15:10	1
Tetrahydrofuran	ND		1.2	0.074	ug/m3			04/16/18 15:10	1
Thiophene	ND		0.28	0.10	ug/m3			04/16/18 15:10	1

TestAmerica Knoxville

QC Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

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

Lab Sample ID: MB 140-19508/10
Matrix: Air
Analysis Batch: 19508

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	ND		0.45	0.45	ug/m3			04/16/18 15:10	1
trans-1,2-Dichloroethene	ND		0.32	0.079	ug/m3			04/16/18 15:10	1
trans-1,3-Dichloropropene	ND		0.36	0.086	ug/m3			04/16/18 15:10	1
Trichloroethene	ND		0.19	0.075	ug/m3			04/16/18 15:10	1
Trichlorofluoromethane	ND		0.45	0.056	ug/m3			04/16/18 15:10	1
Undecane	ND		2.6	0.16	ug/m3			04/16/18 15:10	1
Vinyl bromide	ND		0.35	0.061	ug/m3			04/16/18 15:10	1
Vinyl chloride	ND		0.10	0.074	ug/m3			04/16/18 15:10	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	96		60 - 140					04/16/18 15:10	1

Lab Sample ID: LCS 140-19508/1008
Matrix: Air
Analysis Batch: 19508

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	2.00	2.02		ppb v/v		101	70 - 130
1,1,2,2-Tetrachloroethane	2.00	1.89		ppb v/v		94	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	2.00	2.10		ppb v/v		105	70 - 130
1,1,2-Trichloroethane	2.00	1.85		ppb v/v		93	70 - 130
1,1-Dichloroethane	2.00	1.98		ppb v/v		99	70 - 130
1,1-Dichloroethene	2.00	2.07		ppb v/v		104	70 - 130
1,2,4,5-Tetramethylbenzene	2.00	1.91		ppb v/v		96	60 - 140
1,2,4-Trichlorobenzene	2.00	2.21		ppb v/v		111	60 - 140
1,2-Dibromoethane (EDB)	2.00	1.92		ppb v/v		96	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.00	2.32		ppb v/v		116	60 - 140
1,2-Dichlorobenzene	2.00	1.97		ppb v/v		98	70 - 130
1,2-Dichloropropane	2.00	1.88		ppb v/v		94	70 - 130
1,3,5-Trimethylbenzene	2.00	2.23		ppb v/v		111	70 - 130
1,3-Butadiene	2.00	2.07		ppb v/v		104	60 - 140
1,3-Dichlorobenzene	2.00	1.95		ppb v/v		97	70 - 130
1,4-Dichlorobenzene	2.00	1.92		ppb v/v		96	70 - 130
1,4-Dioxane	2.00	1.79		ppb v/v		90	60 - 140
1-Methylnaphthalene	3.00	9.31	*	ppb v/v		310	20 - 180
2,2,4-Trimethylpentane	2.00	1.93		ppb v/v		96	70 - 130
2-Butanone (MEK)	2.00	1.90		ppb v/v		95	60 - 140
2-Hexanone	2.00	1.79		ppb v/v		89	60 - 140
2-Methylnaphthalene	3.00	7.17	*	ppb v/v		239	20 - 180
3-Chloropropene	2.00	1.96		ppb v/v		98	60 - 140
4-Ethyltoluene	2.00	1.89		ppb v/v		94	70 - 130
4-Methyl-2-pentanone (MIBK)	2.00	1.71		ppb v/v		86	60 - 140
Acetone	2.00	1.97	J	ppb v/v		99	60 - 140
Benzene	2.00	1.94		ppb v/v		97	70 - 130
Benzyl chloride	2.00	2.00		ppb v/v		100	70 - 130

TestAmerica Knoxville

QC Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

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

Lab Sample ID: LCS 140-19508/1008

Matrix: Air

Analysis Batch: 19508

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	2.00	1.99		ppb v/v		99	70 - 130
Bromoform	2.00	2.02		ppb v/v		101	60 - 140
Bromomethane	2.00	2.20		ppb v/v		110	70 - 130
Butane	2.00	2.08		ppb v/v		104	60 - 140
Carbon disulfide	2.00	2.08		ppb v/v		104	70 - 130
Carbon tetrachloride	2.00	2.19		ppb v/v		109	70 - 130
Chlorobenzene	2.00	1.97		ppb v/v		99	70 - 130
Chloroethane	2.00	2.06		ppb v/v		103	70 - 130
Chloroform	2.00	1.99		ppb v/v		100	70 - 130
Chloromethane	2.00	2.14		ppb v/v		107	60 - 140
cis-1,2-Dichloroethene	2.00	1.99		ppb v/v		100	70 - 130
cis-1,3-Dichloropropene	2.00	1.97		ppb v/v		99	70 - 130
Cyclohexane	2.00	1.86		ppb v/v		93	70 - 130
Decane	2.00	1.87		ppb v/v		93	60 - 140
Dibromochloromethane	2.00	2.07		ppb v/v		104	70 - 130
Dichlorodifluoromethane	2.00	2.31		ppb v/v		116	60 - 140
Dodecane	2.00	2.25		ppb v/v		112	60 - 140
Ethanol	10.0	7.25		ppb v/v		72	60 - 140
Ethyl acetate	2.00	1.77		ppb v/v		89	60 - 140
Ethylbenzene	2.00	1.90		ppb v/v		95	70 - 130
Heptane	2.00	1.89		ppb v/v		95	70 - 130
Hexachlorobutadiene	2.00	1.97		ppb v/v		98	60 - 140
Hexane	2.00	1.84		ppb v/v		92	70 - 130
Indane	2.00	1.87		ppb v/v		94	70 - 130
Indene	2.00	1.65		ppb v/v		83	60 - 140
Isopropyl alcohol	2.00	2.33		ppb v/v		116	60 - 140
Methyl tert-butyl ether	2.00	2.06		ppb v/v		103	60 - 140
Methylene Chloride	2.00	1.76		ppb v/v		88	70 - 130
m-Xylene & p-Xylene	4.00	3.91		ppb v/v		98	70 - 130
Nonane	2.00	1.90		ppb v/v		95	60 - 140
Octane	2.00	1.92		ppb v/v		96	70 - 130
o-Xylene	2.00	1.90		ppb v/v		95	70 - 130
Pentane	2.00	2.12		ppb v/v		106	70 - 130
Styrene	2.00	1.96		ppb v/v		98	70 - 130
tert-Butyl alcohol	2.00	2.34		ppb v/v		117	60 - 140
Tetrachloroethene	2.00	1.96		ppb v/v		98	70 - 130
Tetrahydrofuran	2.00	1.81		ppb v/v		90	60 - 140
Thiophene	2.00	1.91		ppb v/v		95	70 - 130
Toluene	2.00	1.87		ppb v/v		93	70 - 130
trans-1,2-Dichloroethene	2.00	2.01		ppb v/v		100	70 - 130
trans-1,3-Dichloropropene	2.00	1.96		ppb v/v		98	70 - 130
Trichloroethene	2.00	2.03		ppb v/v		101	70 - 130
Trichlorofluoromethane	2.00	2.28		ppb v/v		114	60 - 140
Undecane	2.00	1.86		ppb v/v		93	60 - 140
Vinyl bromide	2.00	2.33		ppb v/v		117	60 - 140
Vinyl chloride	2.00	2.38		ppb v/v		119	70 - 130

TestAmerica Knoxville

QC Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	11	11.0		ug/m3		101	70 - 130
1,1,2,2-Tetrachloroethane	14	13.0		ug/m3		94	70 - 130
1,1,2-Trichloro-1,2,2-trifluoroethane	15	16.1		ug/m3		105	70 - 130
1,1,2-Trichloroethane	11	10.1		ug/m3		93	70 - 130
1,1-Dichloroethane	8.1	8.00		ug/m3		99	70 - 130
1,1-Dichloroethene	7.9	8.23		ug/m3		104	70 - 130
1,2,4,5-Tetramethylbenzene	11	10.5		ug/m3		96	60 - 140
1,2,4-Trichlorobenzene	15	16.4		ug/m3		111	60 - 140
1,2-Dibromoethane (EDB)	15	14.8		ug/m3		96	70 - 130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	14	16.2		ug/m3		116	60 - 140
1,2-Dichlorobenzene	12	11.8		ug/m3		98	70 - 130
1,2-Dichloropropane	9.2	8.67		ug/m3		94	70 - 130
1,3,5-Trimethylbenzene	9.8	11.0		ug/m3		111	70 - 130
1,3-Butadiene	4.4	4.59		ug/m3		104	60 - 140
1,3-Dichlorobenzene	12	11.7		ug/m3		97	70 - 130
1,4-Dichlorobenzene	12	11.5		ug/m3		96	70 - 130
1,4-Dioxane	7.2	6.45		ug/m3		90	60 - 140
1-Methylnaphthalene	17	54.2	*	ug/m3		310	20 - 180
2,2,4-Trimethylpentane	9.3	9.01		ug/m3		96	70 - 130
2-Butanone (MEK)	5.9	5.60		ug/m3		95	60 - 140
2-Hexanone	8.2	7.33		ug/m3		89	60 - 140
2-Methylnaphthalene	17	41.7	*	ug/m3		239	20 - 180
3-Chloropropene	6.3	6.14		ug/m3		98	60 - 140
4-Ethyltoluene	9.8	9.29		ug/m3		94	70 - 130
4-Methyl-2-pentanone (MIBK)	8.2	7.02		ug/m3		86	60 - 140
Acetone	4.8	4.69	J	ug/m3		99	60 - 140
Benzene	6.4	6.20		ug/m3		97	70 - 130
Benzyl chloride	10	10.3		ug/m3		100	70 - 130
Bromodichloromethane	13	13.3		ug/m3		99	70 - 130
Bromoform	21	20.9		ug/m3		101	60 - 140
Bromomethane	7.8	8.54		ug/m3		110	70 - 130
Butane	4.8	4.94		ug/m3		104	60 - 140
Carbon disulfide	6.2	6.49		ug/m3		104	70 - 130
Carbon tetrachloride	13	13.7		ug/m3		109	70 - 130
Chlorobenzene	9.2	9.09		ug/m3		99	70 - 130
Chloroethane	5.3	5.43		ug/m3		103	70 - 130
Chloroform	9.8	9.73		ug/m3		100	70 - 130
Chloromethane	4.1	4.42		ug/m3		107	60 - 140
cis-1,2-Dichloroethene	7.9	7.90		ug/m3		100	70 - 130
cis-1,3-Dichloropropene	9.1	8.95		ug/m3		99	70 - 130
Cyclohexane	6.9	6.41		ug/m3		93	70 - 130
Decane	12	10.9		ug/m3		93	60 - 140
Dibromochloromethane	17	17.6		ug/m3		104	70 - 130
Dichlorodifluoromethane	9.9	11.4		ug/m3		116	60 - 140
Dodecane	14	15.7		ug/m3		112	60 - 140
Ethanol	19	13.7		ug/m3		72	60 - 140
Ethyl acetate	7.2	6.38		ug/m3		89	60 - 140
Ethylbenzene	8.7	8.27		ug/m3		95	70 - 130
Heptane	8.2	7.75		ug/m3		95	70 - 130
Hexachlorobutadiene	21	21.0		ug/m3		98	60 - 140
Hexane	7.0	6.49		ug/m3		92	70 - 130
Indane	9.7	9.06		ug/m3		94	70 - 130

TestAmerica Knoxville

QC Sample Results

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

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

Lab Sample ID: LCS 140-19508/1008

Matrix: Air

Analysis Batch: 19508

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Indene	9.5	7.85		ug/m3		83	60 - 140
Isopropyl alcohol	4.9	5.72		ug/m3		116	60 - 140
Methyl tert-butyl ether	7.2	7.42		ug/m3		103	60 - 140
Methylene Chloride	6.9	6.12		ug/m3		88	70 - 130
m-Xylene & p-Xylene	17	17.0		ug/m3		98	70 - 130
Nonane	10	9.95		ug/m3		95	60 - 140
Octane	9.3	8.98		ug/m3		96	70 - 130
o-Xylene	8.7	8.23		ug/m3		95	70 - 130
Pentane	5.9	6.26		ug/m3		106	70 - 130
Styrene	8.5	8.34		ug/m3		98	70 - 130
tert-Butyl alcohol	6.1	7.10		ug/m3		117	60 - 140
Tetrachloroethene	14	13.3		ug/m3		98	70 - 130
Tetrahydrofuran	5.9	5.33		ug/m3		90	60 - 140
Thiophene	6.9	6.57		ug/m3		95	70 - 130
Toluene	7.5	7.03		ug/m3		93	70 - 130
trans-1,2-Dichloroethene	7.9	7.97		ug/m3		100	70 - 130
trans-1,3-Dichloropropene	9.1	8.91		ug/m3		98	70 - 130
Trichloroethene	11	10.9		ug/m3		101	70 - 130
Trichlorofluoromethane	11	12.8		ug/m3		114	60 - 140
Undecane	13	11.9		ug/m3		93	60 - 140
Vinyl bromide	8.7	10.2		ug/m3		117	60 - 140
Vinyl chloride	5.1	6.08		ug/m3		119	70 - 130
Surrogate	LCS	LCS					
	%Recovery	Qualifier	Limits				
4-Bromofluorobenzene (Surr)	100		60 - 140				

QC Association Summary

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Air - GC/MS VOA

Analysis Batch: 19508

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
140-11270-1	CL-SSV-1	Total/NA	Air	TO 15 LL	
140-11270-2	CL-IA-1	Total/NA	Air	TO 15 LL	
140-11270-3	CL-SSV-2	Total/NA	Air	TO 15 LL	
140-11270-4	CL-IA-2	Total/NA	Air	TO 15 LL	
140-11270-5	FD-180410	Total/NA	Air	TO 15 LL	
140-11270-6	CL-OA-1	Total/NA	Air	TO 15 LL	
MB 140-19508/10	Method Blank	Total/NA	Air	TO 15 LL	
LCS 140-19508/1008	Lab Control Sample	Total/NA	Air	TO 15 LL	

Lab Chronicle

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: CL-SSV-1

Date Collected: 04/10/18 08:36

Date Received: 04/12/18 09:35

Lab Sample ID: 140-11270-1

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	80 mL	500 mL	19508	04/16/18 15:56	HMT	TAL KNX
Instrument ID: MJ										

Client Sample ID: CL-IA-1

Date Collected: 04/10/18 08:36

Date Received: 04/12/18 09:35

Lab Sample ID: 140-11270-2

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	50 mL	500 mL	19508	04/16/18 16:42	HMT	TAL KNX
Instrument ID: MJ										

Client Sample ID: CL-SSV-2

Date Collected: 04/10/18 08:50

Date Received: 04/12/18 09:35

Lab Sample ID: 140-11270-3

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	25 mL	500 mL	19508	04/16/18 17:27	HMT	TAL KNX
Instrument ID: MJ										

Client Sample ID: CL-IA-2

Date Collected: 04/10/18 08:55

Date Received: 04/12/18 09:35

Lab Sample ID: 140-11270-4

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	100 mL	500 mL	19508	04/16/18 18:13	HMT	TAL KNX
Instrument ID: MJ										

Client Sample ID: FD-180410

Date Collected: 04/10/18 00:00

Date Received: 04/12/18 09:35

Lab Sample ID: 140-11270-5

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	100 mL	500 mL	19508	04/16/18 18:59	HMT	TAL KNX
Instrument ID: MJ										

Client Sample ID: CL-OA-1

Date Collected: 04/10/18 08:58

Date Received: 04/12/18 09:35

Lab Sample ID: 140-11270-6

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	500 mL	500 mL	19508	04/16/18 19:46	HMT	TAL KNX
Instrument ID: MJ										

TestAmerica Knoxville

Lab Chronicle

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Client Sample ID: Method Blank

Lab Sample ID: MB 140-19508/10

Date Collected: N/A

Matrix: Air

Date Received: N/A

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	19508	04/16/18 15:10	HMT	TAL KNX
Instrument ID: MJ										

Client Sample ID: Lab Control Sample

Lab Sample ID: LCS 140-19508/1008

Date Collected: N/A

Matrix: Air

Date Received: N/A

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	19508	04/16/18 13:24	HMT	TAL KNX
Instrument ID: MJ										

Laboratory References:

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

Accreditation/Certification Summary

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Laboratory: TestAmerica Knoxville

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

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	10781	03-31-19

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

Analysis Method	Prep Method	Matrix	Analyte
TO 15 LL		Air	1,1,2-Trichloro-1,2,2-trifluoroethane
TO 15 LL		Air	1,2-Dichloro-1,1,2,2-tetrafluoroethane
TO 15 LL		Air	1,3,5-Trimethylbenzene
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 accreditation/certification is not offered by the governing authority:

Analysis Method	Prep Method	Matrix	Analyte
TO 15 LL		Air	1,2,4,5-Tetramethylbenzene
TO 15 LL		Air	1-Methylnaphthalene
TO 15 LL		Air	2-Hexanone
TO 15 LL		Air	2-Methylnaphthalene
TO 15 LL		Air	4-Ethyltoluene
TO 15 LL		Air	Butane
TO 15 LL		Air	Decane
TO 15 LL		Air	Dodecane
TO 15 LL		Air	Ethanol
TO 15 LL		Air	Ethyl acetate
TO 15 LL		Air	Indane
TO 15 LL		Air	Indene
TO 15 LL		Air	Nonane
TO 15 LL		Air	Octane
TO 15 LL		Air	Pentane
TO 15 LL		Air	Tetrahydrofuran
TO 15 LL		Air	Thiophene
TO 15 LL		Air	Undecane

Method Summary

Client: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

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: AECOM
Project/Site: Chem Leaman

TestAmerica Job ID: 140-11270-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
140-11270-1	CL-SSV-1	Air	04/10/18 08:36	04/12/18 09:35
140-11270-2	CL-IA-1	Air	04/10/18 08:36	04/12/18 09:35
140-11270-3	CL-SSV-2	Air	04/10/18 08:50	04/12/18 09:35
140-11270-4	CL-IA-2	Air	04/10/18 08:55	04/12/18 09:35
140-11270-5	FD-180410	Air	04/10/18 00:00	04/12/18 09:35
140-11270-6	CL-OA-1	Air	04/10/18 08:58	04/12/18 09:35

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.: 140-11270-1
SDG No.: _____
Matrix: Air Level: Low
GC Column (1): RTX-5 ID: 0.32 (mm)

Client Sample ID	Lab Sample ID	BFB #
CL-SSV-1	140-11270-1	108
CL-IA-1	140-11270-2	99
CL-SSV-2	140-11270-3	111
CL-IA-2	140-11270-4	105
FD-180410	140-11270-5	104
CL-OA-1	140-11270-6	101
	MB 140-19508/10	96
	LCS 140-19508/1008	100

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.: 140-11270-1
 SDG No.: _____
 Matrix: Air Level: Low Lab File ID: JCCVD16B-LCS.d
 Lab ID: LCS 140-19508/1008 Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	2.00	2.02	101	70-130	
1,1,2,2-Tetrachloroethane	2.00	1.89	94	70-130	
1,1,2-Trichloro-1,2,2-trifluoroethane	2.00	2.10	105	70-130	
1,1,2-Trichloroethane	2.00	1.85	93	70-130	
1,1-Dichloroethane	2.00	1.98	99	70-130	
1,1-Dichloroethene	2.00	2.07	104	70-130	
1,2,4,5-Tetramethylbenzene	2.00	1.91	96	60-140	
1,2,4-Trichlorobenzene	2.00	2.21	111	60-140	
1,2-Dibromoethane (EDB)	2.00	1.92	96	70-130	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.00	2.32	116	60-140	
1,2-Dichlorobenzene	2.00	1.97	98	70-130	
1,2-Dichloropropane	2.00	1.88	94	70-130	
1,3,5-Trimethylbenzene	2.00	2.23	111	70-130	
1,3-Butadiene	2.00	2.07	104	60-140	
1,3-Dichlorobenzene	2.00	1.95	97	70-130	
1,4-Dichlorobenzene	2.00	1.92	96	70-130	
1,4-Dioxane	2.00	1.79	90	60-140	
1-Methylnaphthalene	3.00	9.31	310	20-180	*
2,2,4-Trimethylpentane	2.00	1.93	96	70-130	
2-Butanone (MEK)	2.00	1.90	95	60-140	
2-Hexanone	2.00	1.79	89	60-140	
2-Methylnaphthalene	3.00	7.17	239	20-180	*
3-Chloropropene	2.00	1.96	98	60-140	
4-Ethyltoluene	2.00	1.89	94	70-130	
4-Methyl-2-pentanone (MIBK)	2.00	1.71	86	60-140	
Acetone	2.00	1.97 J	99	60-140	
Benzene	2.00	1.94	97	70-130	
Benzyl chloride	2.00	2.00	100	70-130	
Bromodichloromethane	2.00	1.99	99	70-130	
Bromoform	2.00	2.02	101	60-140	
Bromomethane	2.00	2.20	110	70-130	
Butane	2.00	2.08	104	60-140	
Carbon disulfide	2.00	2.08	104	70-130	
Carbon tetrachloride	2.00	2.19	109	70-130	
Chlorobenzene	2.00	1.97	99	70-130	
Chloroethane	2.00	2.06	103	70-130	
Chloroform	2.00	1.99	100	70-130	
Chloromethane	2.00	2.14	107	60-140	
cis-1,2-Dichloroethene	2.00	1.99	100	70-130	
cis-1,3-Dichloropropene	2.00	1.97	99	70-130	

Column to be used to flag recovery and RPD values

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Matrix: Air Level: Low Lab File ID: JCCVD16B-LCS.d
 Lab ID: LCS 140-19508/1008 Client ID: _____

COMPOUND	SPIKE ADDED (ppb v/v)	LCS CONCENTRATION (ppb v/v)	LCS % REC	QC LIMITS REC	#
Cyclohexane	2.00	1.86	93	70-130	
Decane	2.00	1.87	93	60-140	
Dibromochloromethane	2.00	2.07	104	70-130	
Dichlorodifluoromethane	2.00	2.31	116	60-140	
Dodecane	2.00	2.25	112	60-140	
Ethanol	10.0	7.25	72	60-140	
Ethyl acetate	2.00	1.77	89	60-140	
Ethylbenzene	2.00	1.90	95	70-130	
Heptane	2.00	1.89	95	70-130	
Hexachlorobutadiene	2.00	1.97	98	60-140	
Hexane	2.00	1.84	92	70-130	
Indane	2.00	1.87	94	70-130	
Indene	2.00	1.65	83	60-140	
Isopropyl alcohol	2.00	2.33	116	60-140	
Methyl tert-butyl ether	2.00	2.06	103	60-140	
Methylene Chloride	2.00	1.76	88	70-130	
m-Xylene & p-Xylene	4.00	3.91	98	70-130	
Nonane	2.00	1.90	95	60-140	
Octane	2.00	1.92	96	70-130	
o-Xylene	2.00	1.90	95	70-130	
Pentane	2.00	2.12	106	70-130	
Styrene	2.00	1.96	98	70-130	
tert-Butyl alcohol	2.00	2.34	117	60-140	
Tetrachloroethene	2.00	1.96	98	70-130	
Tetrahydrofuran	2.00	1.81	90	60-140	
Thiophene	2.00	1.91	95	70-130	
Toluene	2.00	1.87	93	70-130	
trans-1,2-Dichloroethene	2.00	2.01	100	70-130	
trans-1,3-Dichloropropene	2.00	1.96	98	70-130	
Trichloroethene	2.00	2.03	101	70-130	
Trichlorofluoromethane	2.00	2.28	114	60-140	
Undecane	2.00	1.86	93	60-140	
Vinyl bromide	2.00	2.33	117	60-140	
Vinyl chloride	2.00	2.38	119	70-130	

Column to be used to flag recovery and RPD values

FORM IV
AIR - GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
SDG No.: _____
Lab File ID: J500BD16.D Lab Sample ID: MB 140-19508/10
Matrix: Air Heated Purge: (Y/N) N
Instrument ID: MJ Date Analyzed: 04/16/2018 15:10
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 140-19508/1008	JCCVD16B-LC S.d	04/16/2018 13:24
CL-SSV-1	140-11270-1	JD16P101.D	04/16/2018 15:56
CL-IA-1	140-11270-2	JD16P102.D	04/16/2018 16:42
CL-SSV-2	140-11270-3	JD16P103.D	04/16/2018 17:27
CL-IA-2	140-11270-4	JD16P104.D	04/16/2018 18:13
FD-180410	140-11270-5	JD16P105.D	04/16/2018 18:59
CL-OA-1	140-11270-6	JD16P106.D	04/16/2018 19:46

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Lab File ID: JBFB15.D BFB Injection Date: 02/15/2018
 Instrument ID: MJ BFB Injection Time: 14:16
 Analysis Batch No.: 18185

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	19.2
75	30.0 - 60.0 % of mass 95	52.5
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.7
173	Less than 2.0 % of mass 174	0.0 (0.0) 1
174	50.0 - 120.00 % of mass 95	104.0
175	5.0 - 9.0 % of mass 174	7.7 (7.4) 1
176	95.0 - 101.0 % of mass 174	102.5 (98.5) 1
177	5.0 - 9.0 % of mass 176	6.9 (6.8) 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 140-18185/3	JB15ICL01.D	02/15/2018	15:35
	IC 140-18185/4	JB15ICL02.D	02/15/2018	16:21
	IC 140-18185/5	JB15ICL03.D	02/15/2018	17:07
	IC 140-18185/6	JB15ICL04.D	02/15/2018	17:52
	IC 140-18185/7	JB15ICL05.D	02/15/2018	18:37
	IC 140-18185/8	JB15ICL06.D	02/15/2018	19:22
	ICIS 140-18185/9	JB15ICISL07.D	02/15/2018	20:08
	IC 140-18185/10	JB15ICL08.D	02/15/2018	20:53
	IC 140-18185/11	JB15ICL09.D	02/15/2018	21:39
	IC 140-18185/12	JB15ICL10.D	02/15/2018	22:24
	ICV 140-18185/15	JLCSB16.D	02/16/2018	00:43

FORM V
AIR - GC/MS VOA INSTRUMENT PERFORMANCE CHECK

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Lab File ID: JBFB16B.D BFB Injection Date: 04/16/2018
 Instrument ID: MJ BFB Injection Time: 12:56
 Analysis Batch No.: 19508

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0 % of mass 95	19.7
75	30.0 - 60.0 % of mass 95	53.6
95	Base Peak, 100% relative abundance	100.0
96	5.0 - 9.0 % of mass 95	6.5
173	Less than 2.0 % of mass 174	0.0 (0.0) 1
174	50.0 - 120.00 % of mass 95	108.0
175	5.0 - 9.0 % of mass 174	7.7 (7.2) 1
176	95.0 - 101.0 % of mass 174	106.1 (98.2) 1
177	5.0 - 9.0 % of mass 176	6.9 (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 140-19508/8	JCCVD16B.D	04/16/2018	13:24
	LCS 140-19508/1008	JCCVD16B-LCS.d	04/16/2018	13:24
	MB 140-19508/10	J500BD16.D	04/16/2018	15:10
CL-SSV-1	140-11270-1	JD16P101.D	04/16/2018	15:56
CL-IA-1	140-11270-2	JD16P102.D	04/16/2018	16:42
CL-SSV-2	140-11270-3	JD16P103.D	04/16/2018	17:27
CL-IA-2	140-11270-4	JD16P104.D	04/16/2018	18:13
FD-180410	140-11270-5	JD16P105.D	04/16/2018	18:59
CL-OA-1	140-11270-6	JD16P106.D	04/16/2018	19:46

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Sample No.: ICIS 140-18185/9 Date Analyzed: 02/15/2018 20:08
 Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm)
 Lab File ID (Standard): JB15ICISL07.D Heated Purge: (Y/N) N
 Calibration ID: 1394

	CBM		DFBZ		CBZd5	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT	286873	9.69	1605094	11.79	1448317	16.39
UPPER LIMIT	401622	10.02	2247132	12.12	2027644	16.72
LOWER LIMIT	172124	9.36	963056	11.46	868990	16.06
LAB SAMPLE ID	CLIENT SAMPLE ID					
ICV 140-18185/15		287782	9.69	1626462	11.79	1472970
						16.39

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.: 140-11270-1
 SDG No.: _____
 Sample No.: CCVIS 140-19508/8 Date Analyzed: 04/16/2018 13:24
 Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm)
 Lab File ID (Standard): JCCVD16B.D Heated Purge: (Y/N) N
 Calibration ID: 1394

	CBM		DFBZ		CBZd5	
	AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD	267822	9.66	1492723	11.77	1358028	16.36
UPPER LIMIT	374951	9.99	2089812	12.10	1901239	16.69
LOWER LIMIT	160693	9.33	895634	11.44	814817	16.03
LAB SAMPLE ID	CLIENT SAMPLE ID					
LCS 140-19508/1008		267822	9.66	1492723	11.77	1358028
MB 140-19508/10		295610	9.66	1650156	11.77	1430684
140-11270-1	CL-SSV-1	236854	9.67	1256503	11.77	1206683
140-11270-2	CL-IA-1	275944	9.67	1520558	11.77	1365876
140-11270-3	CL-SSV-2	247737	9.67	1327268	11.77	1206039
140-11270-4	CL-IA-2	256785	9.67	1423583	11.77	1301439
140-11270-5	FD-180410	250709	9.67	1389228	11.77	1270458
140-11270-6	CL-OA-1	267376	9.67	1525194	11.77	1392747

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.: 140-11270-1
SDG No.: _____
Client Sample ID: CL-SSV-1 Lab Sample ID: 140-11270-1
Matrix: Air Lab File ID: JD16P101.D
Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:36
Sample wt/vol: 80 (mL) Date Analyzed: 04/16/2018 15:56
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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.50	0.075
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.50	0.15
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	0.086	J	0.50	0.075
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.50	0.13
75-34-3	1,1-Dichloroethane	98.96	ND		0.50	0.063
75-35-4	1,1-Dichloroethene	96.94	ND		0.25	0.088
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	0.44	J	0.50	0.22
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.50	0.24
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		0.50	0.11
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		0.50	0.081
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.50	0.18
78-87-5	1,2-Dichloropropane	112.99	ND		0.50	0.13
108-67-8	1,3,5-Trimethylbenzene	120.20	1.2		0.50	0.16
106-99-0	1,3-Butadiene	54.09	ND		1.0	0.16
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.50	0.16
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.50	0.16
123-91-1	1,4-Dioxane	88.11	0.41	J	1.3	0.20
90-12-0	1-Methylnaphthalene	142.20	ND	*	6.3	2.3
540-84-1	2,2,4-Trimethylpentane	114.23	ND		1.3	0.10
78-93-3	2-Butanone (MEK)	72.11	1.5	J	2.0	0.50
591-78-6	2-Hexanone	100.20	ND		1.3	0.14
91-57-6	2-Methylnaphthalene	142.20	ND	*	6.3	2.2
107-05-1	3-Chloropropene	76.53	ND		0.50	0.12
622-96-8	4-Ethyltoluene	120.20	1.8		1.0	0.16
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	1.4		1.3	0.49
67-64-1	Acetone	58.08	39		13	3.4
71-43-2	Benzene	78.11	3.4		0.50	0.14
100-44-7	Benzyl chloride	126.58	ND		1.0	0.19
75-27-4	Bromodichloromethane	163.83	ND		0.50	0.11
75-25-2	Bromoform	252.75	ND		0.50	0.12
74-83-9	Bromomethane	94.94	ND		0.50	0.081
106-97-8	Butane	58.12	15		1.0	0.46
75-15-0	Carbon disulfide	76.14	0.47	J	1.3	0.075

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-SSV-1 Lab Sample ID: 140-11270-1
 Matrix: Air Lab File ID: JD16P101.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:36
 Sample wt/vol: 80 (mL) Date Analyzed: 04/16/2018 15:56
 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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	ND		0.20	0.094
108-90-7	Chlorobenzene	112.56	ND		0.50	0.13
75-00-3	Chloroethane	64.52	0.28	J	0.50	0.088
67-66-3	Chloroform	119.38	ND		0.50	0.094
74-87-3	Chloromethane	50.49	ND		1.3	0.40
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.25	0.15
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.50	0.18
110-82-7	Cyclohexane	84.16	2.8		1.3	0.10
124-18-5	Decane	142.28	4.1		2.5	0.14
124-48-1	Dibromochloromethane	208.29	ND		0.50	0.11
75-71-8	Dichlorodifluoromethane	120.91	0.69		0.50	0.17
112-40-3	Dodecane	170.33	2.0	J	2.5	0.19
64-17-5	Ethanol	46.07	7.9	J	13	4.0
141-78-6	Ethyl acetate	88.11	ND		5.0	0.50
100-41-4	Ethylbenzene	106.17	3.4		0.50	0.17
142-82-5	Heptane	100.21	7.8		1.3	0.12
87-68-3	Hexachlorobutadiene	260.76	ND		0.50	0.31
110-54-3	Hexane	86.17	6.4		1.3	0.081
496-11-7	Indane	118.18	4.0		0.50	0.21
95-13-6	Indene	116.16	ND		1.0	0.20
67-63-0	Isopropyl alcohol	60.10	1.4	J	5.0	0.59
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.0	0.43
75-09-2	Methylene Chloride	84.93	ND		1.3	0.81
179601-23-1	m-Xylene & p-Xylene	106.17	3.8		0.50	0.33
111-84-2	Nonane	128.26	4.8		1.3	0.11
111-65-9	Octane	114.23	21		1.0	0.088
95-47-6	o-Xylene	106.17	2.0		0.50	0.15
109-66-0	Pentane	72.15	10		2.5	1.0
100-42-5	Styrene	104.15	ND		0.50	0.14
75-65-0	tert-Butyl alcohol	74.12	16		2.0	0.094
127-18-4	Tetrachloroethene	165.83	9.9		0.50	0.10
109-99-9	Tetrahydrofuran	72.11	ND		2.5	0.16
110-02-1	Thiophene	84.14	ND		0.50	0.19
108-88-3	Toluene	92.14	6.0		0.75	0.75
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.50	0.13

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-SSV-1 Lab Sample ID: 140-11270-1
 Matrix: Air Lab File ID: JD16P101.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:36
 Sample wt/vol: 80 (mL) Date Analyzed: 04/16/2018 15:56
 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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.50	0.12
79-01-6	Trichloroethene	131.39	5.0		0.23	0.088
75-69-4	Trichlorofluoromethane	137.37	0.53		0.50	0.063
1120-21-4	Undecane	156.31	3.7		2.5	0.16
593-60-2	Vinyl bromide	106.96	ND		0.50	0.088
75-01-4	Vinyl chloride	62.50	ND		0.25	0.18

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	108		60-140

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-SSV-1 Lab Sample ID: 140-11270-1
 Matrix: Air Lab File ID: JD16P101.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:36
 Sample wt/vol: 80 (mL) Date Analyzed: 04/16/2018 15:56
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.7	0.41
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		3.4	1.0
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	0.66	J	3.8	0.57
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.7	0.72
75-34-3	1,1-Dichloroethane	98.96	ND		2.0	0.25
75-35-4	1,1-Dichloroethene	96.94	ND		0.99	0.35
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	2.4	J	2.7	1.2
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.7	1.8
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		3.8	0.86
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		3.5	0.57
95-50-1	1,2-Dichlorobenzene	147.00	ND		3.0	1.1
78-87-5	1,2-Dichloropropane	112.99	ND		2.3	0.61
108-67-8	1,3,5-Trimethylbenzene	120.20	6.1		2.5	0.80
106-99-0	1,3-Butadiene	54.09	ND		2.2	0.35
541-73-1	1,3-Dichlorobenzene	147.00	ND		3.0	0.98
106-46-7	1,4-Dichlorobenzene	147.00	ND		3.0	0.98
123-91-1	1,4-Dioxane	88.11	1.5	J	4.5	0.72
90-12-0	1-Methylnaphthalene	142.20	ND	*	36	13
540-84-1	2,2,4-Trimethylpentane	114.23	ND		5.8	0.47
78-93-3	2-Butanone (MEK)	72.11	4.3	J	5.9	1.5
591-78-6	2-Hexanone	100.20	ND		5.1	0.59
91-57-6	2-Methylnaphthalene	142.20	ND	*	36	13
107-05-1	3-Chloropropene	76.53	ND		1.6	0.37
622-96-8	4-Ethyltoluene	120.20	8.9		4.9	0.80
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	5.5		5.1	2.0
67-64-1	Acetone	58.08	93		30	8.0
71-43-2	Benzene	78.11	11		1.6	0.46
100-44-7	Benzyl chloride	126.58	ND		5.2	1.0
75-27-4	Bromodichloromethane	163.83	ND		3.4	0.75
75-25-2	Bromoform	252.75	ND		5.2	1.2
74-83-9	Bromomethane	94.94	ND		1.9	0.32
106-97-8	Butane	58.12	37		2.4	1.1
75-15-0	Carbon disulfide	76.14	1.5	J	3.9	0.23

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-SSV-1 Lab Sample ID: 140-11270-1
 Matrix: Air Lab File ID: JD16P101.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:36
 Sample wt/vol: 80 (mL) Date Analyzed: 04/16/2018 15:56
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	ND		1.3	0.59
108-90-7	Chlorobenzene	112.56	ND		2.3	0.58
75-00-3	Chloroethane	64.52	0.73	J	1.3	0.23
67-66-3	Chloroform	119.38	ND		2.4	0.46
74-87-3	Chloromethane	50.49	ND		2.6	0.83
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.99	0.59
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		2.3	0.82
110-82-7	Cyclohexane	84.16	9.7		4.3	0.34
124-18-5	Decane	142.28	24		15	0.80
124-48-1	Dibromochloromethane	208.29	ND		4.3	0.91
75-71-8	Dichlorodifluoromethane	120.91	3.4		2.5	0.83
112-40-3	Dodecane	170.33	14	J	17	1.3
64-17-5	Ethanol	46.07	15	J	24	7.5
141-78-6	Ethyl acetate	88.11	ND		18	1.8
100-41-4	Ethylbenzene	106.17	15		2.2	0.73
142-82-5	Heptane	100.21	32		5.1	0.49
87-68-3	Hexachlorobutadiene	260.76	ND		5.3	3.3
110-54-3	Hexane	86.17	22		4.4	0.29
496-11-7	Indane	118.18	19		2.4	1.0
95-13-6	Indene	116.16	ND		4.8	0.95
67-63-0	Isopropyl alcohol	60.10	3.5	J	12	1.4
1634-04-4	Methyl tert-butyl ether	88.15	ND		3.6	1.5
75-09-2	Methylene Chloride	84.93	ND		4.3	2.8
179601-23-1	m-Xylene & p-Xylene	106.17	17		2.2	1.4
111-84-2	Nonane	128.26	25		6.6	0.56
111-65-9	Octane	114.23	100		4.7	0.41
95-47-6	o-Xylene	106.17	8.8		2.2	0.65
109-66-0	Pentane	72.15	30		7.4	3.0
100-42-5	Styrene	104.15	ND		2.1	0.61
75-65-0	tert-Butyl alcohol	74.12	48		6.1	0.28
127-18-4	Tetrachloroethene	165.83	67		3.4	0.68
109-99-9	Tetrahydrofuran	72.11	ND		7.4	0.46
110-02-1	Thiophene	84.14	ND		1.7	0.65
108-88-3	Toluene	92.14	23		2.8	2.8
156-60-5	trans-1,2-Dichloroethene	96.94	ND		2.0	0.50

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-SSV-1 Lab Sample ID: 140-11270-1
 Matrix: Air Lab File ID: JD16P101.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:36
 Sample wt/vol: 80 (mL) Date Analyzed: 04/16/2018 15:56
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		2.3	0.54
79-01-6	Trichloroethene	131.39	27		1.2	0.47
75-69-4	Trichlorofluoromethane	137.37	3.0		2.8	0.35
1120-21-4	Undecane	156.31	24		16	1.0
593-60-2	Vinyl bromide	106.96	ND		2.2	0.38
75-01-4	Vinyl chloride	62.50	ND		0.64	0.46

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	108		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D
 Lims ID: 140-11270-A-1
 Client ID: CL-SSV-1
 Sample Type: Client
 Inject. Date: 16-Apr-2018 15:56:30 ALS Bottle#: 1 Worklist Smp#: 11
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007901-011
 Misc. Info.: 140-11270-a-1
 Operator ID: 007126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 17-Apr-2018 09:47:35 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK001

First Level Reviewer: tajh

Date: 17-Apr-2018 08:58:09

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.667	9.662	0.005	90	236854	4.00	
* 2 1,4-Difluorobenzene	114	11.765	11.765	0.000	95	1256503	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.370	16.364	0.006	87	1206683	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.973	17.973	0.000	96	939761	4.31	
8 Dichlorodifluoromethane	85	4.277	4.266	0.011	100	23500	0.1106	
14 Butane	43	4.782	4.766	0.016	94	292955	2.47	
16 Chloroethane	64	5.299	5.293	0.006	76	1779	0.0443	
17 Ethanol	31	5.460	5.412	0.048	93	36294	1.26	
20 Trichlorofluoromethane	101	5.928	5.917	0.011	98	17318	0.0843	
22 Acetone	58	6.073	6.057	0.016	98	168559	6.25	
24 Pentane	72	6.170	6.154	0.016	98	20551	1.64	
25 Isopropyl alcohol	45	6.229	6.170	0.059	90	17700	0.2290	
30 2-Methyl-2-propanol	59	6.859	6.810	0.049	94	222053	2.51	
29 1,1,2-Trichloro-1,2,2-trif	101	6.870	6.854	0.016	30	2231	0.0137	
33 Carbon disulfide	76	7.235	7.219	0.016	98	17063	0.0750	
40 2-Butanone (MEK)	72	8.925	8.887	0.038	98	7089	0.2341	
39 Hexane	56	8.908	8.898	0.010	93	64937	1.02	
49 Cyclohexane	69	11.270	11.265	0.005	74	16615	0.4515	
50 Benzene	78	11.270	11.265	0.005	95	120474	0.5402	
57 n-Heptane	71	12.319	12.319	0.000	90	98442	1.25	
59 Trichloroethene	130	12.459	12.454	0.005	97	78124	0.7948	
62 1,4-Dioxane	88	12.744	12.701	0.043	33	1444	0.0660	
65 4-Methyl-2-pentanone (MIBK	43	13.594	13.583	0.011	83	24929	0.2164	
68 Toluene	91	14.439	14.433	0.006	90	243345	0.9557	
73 n-Octane	85	15.084	15.079	0.005	93	301770	3.41	
76 Tetrachloroethene	129	15.557	15.552	0.005	96	160744	1.59	
79 Ethylbenzene	91	16.693	16.687	0.006	98	172811	0.5476	
81 m-Xylene & p-Xylene	91	16.849	16.849	0.000	100	145453	0.6156	
82 n-Nonane	57	17.236	17.231	0.006	92	131625	0.7643	
85 o-Xylene	91	17.370	17.370	0.000	99	80826	0.3224	
91 4-Ethyltoluene	105	18.586	18.586	0.000	98	95266	0.2892	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
92 1,3,5-Trimethylbenzene	120	18.656	18.651	0.005	92	27325	0.1983	
94 n-Decane	57	18.909	18.909	0.000	92	133657	0.6558	
104 2,3-Dihydroindene	117	19.775	19.775	0.000	95	165492	0.6414	
108 Undecane	57	20.173	20.173	0.000	96	125358	0.5928	
111 1,2,4,5-Tetramethylbenzene	119	20.641	20.641	0.000	95	19844	0.0709	
114 Dodecane	57	21.254	21.254	0.000	97	53484	0.3216	

Reagents:

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Operator ID: 007126

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Worklist Smp#: 11

Client ID: CL-SSV-1

Purge Vol: 500.000 mL

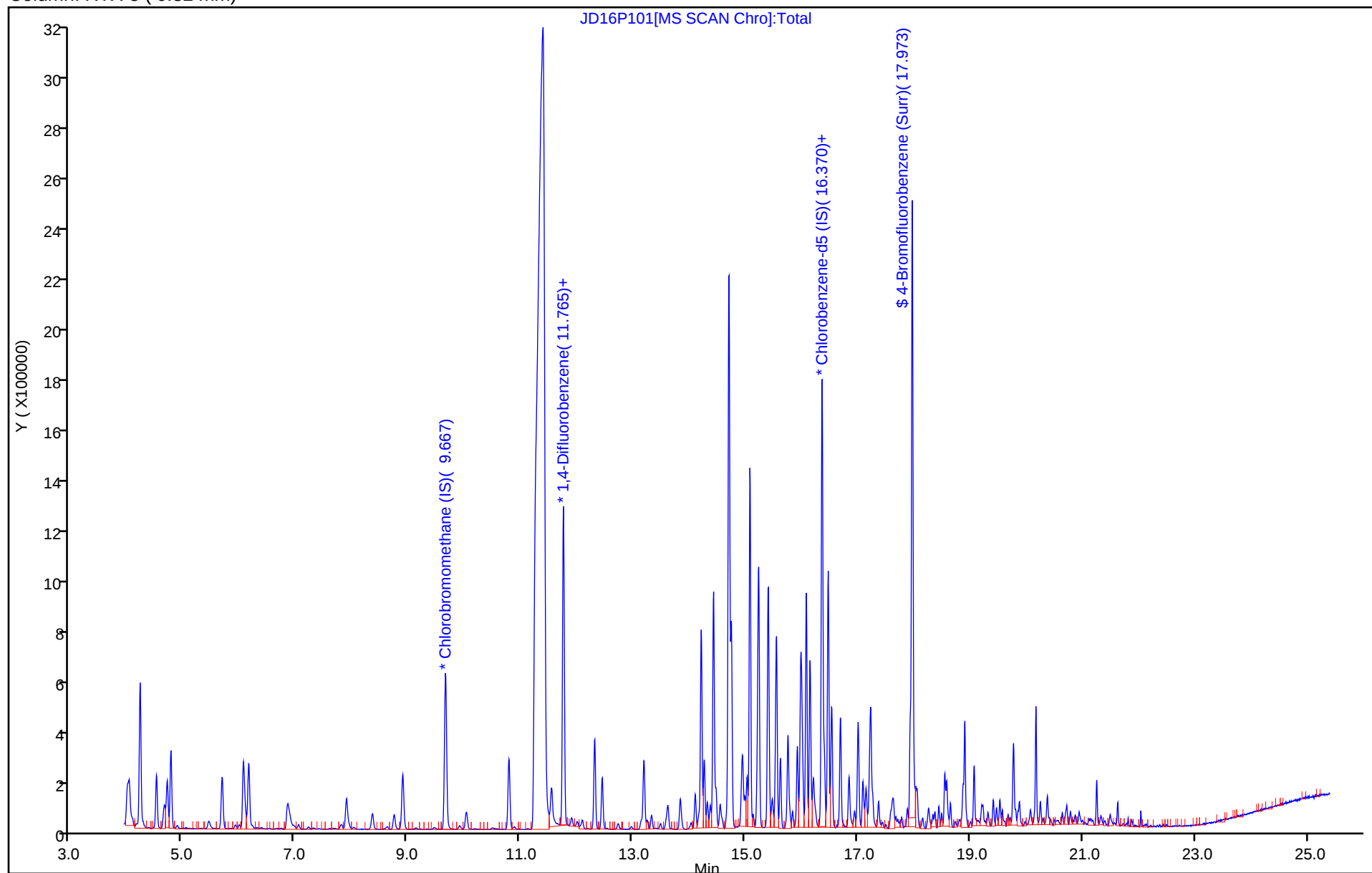
Dil. Factor: 1.0000

ALS Bottle#: 1

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D
Lims ID: 140-11270-A-1
Client ID: CL-SSV-1
Sample Type: Client
Inject. Date: 16-Apr-2018 15:56:30 ALS Bottle#: 1 Worklist Smp#: 11
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0007901-011
Misc. Info.: 140-11270-a-1
Operator ID: 007126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 17-Apr-2018 09:47:35 Calib Date: 15-Feb-2018 22:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: tajh

Date: 17-Apr-2018 08:58:09

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.31	107.70

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

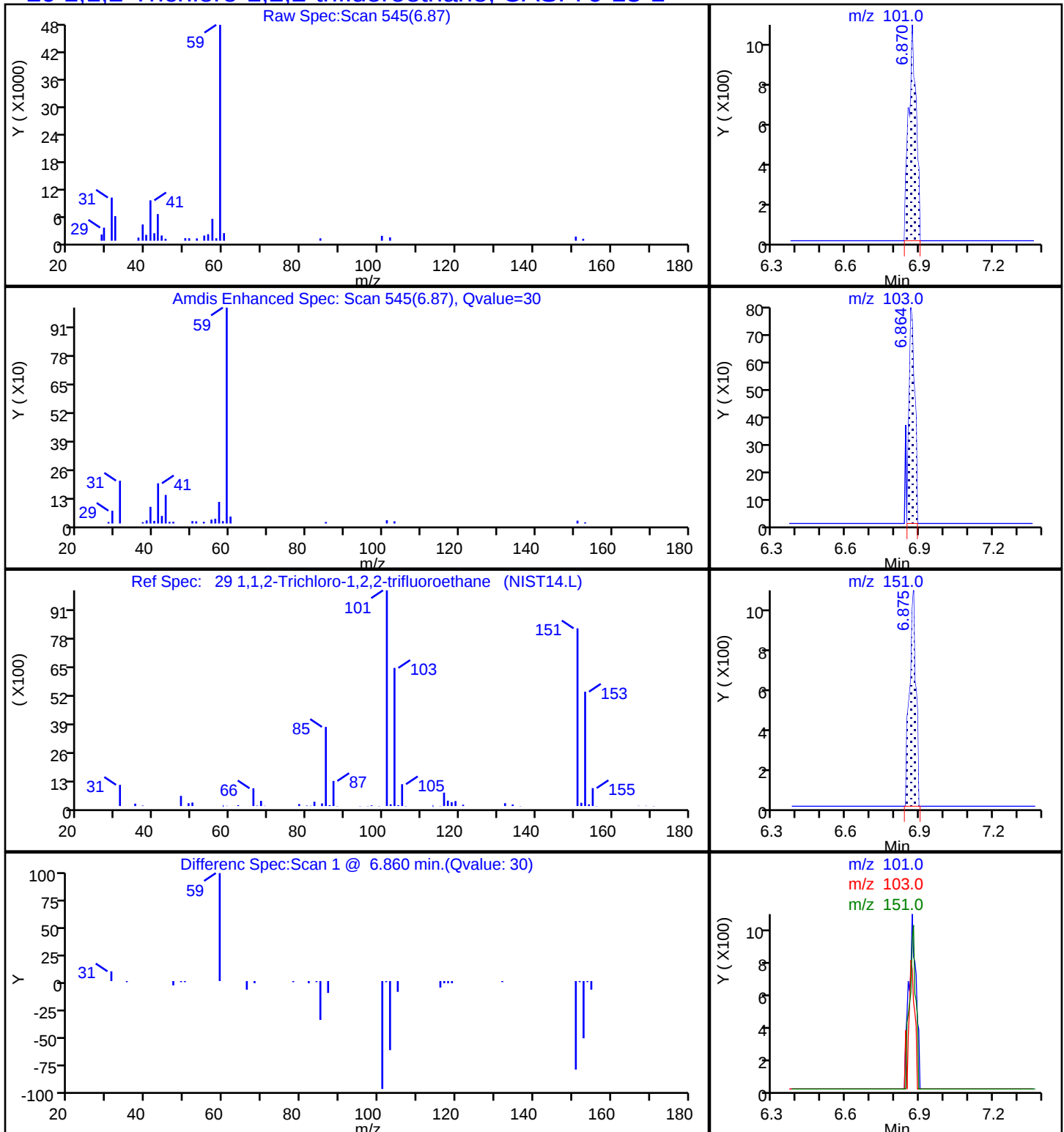
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

29 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

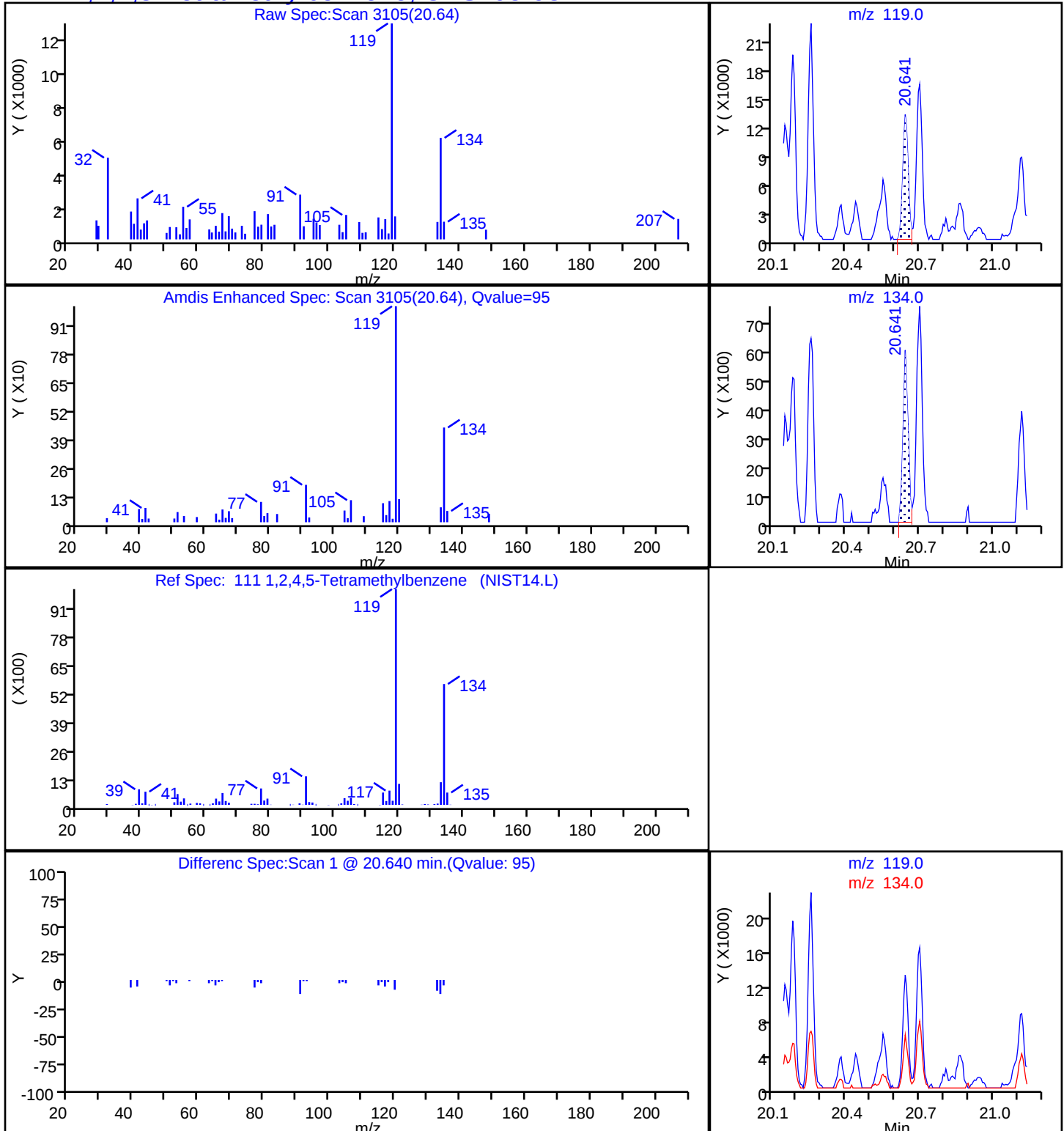
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

111 1,2,4,5-Tetramethylbenzene, CAS: 95-93-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

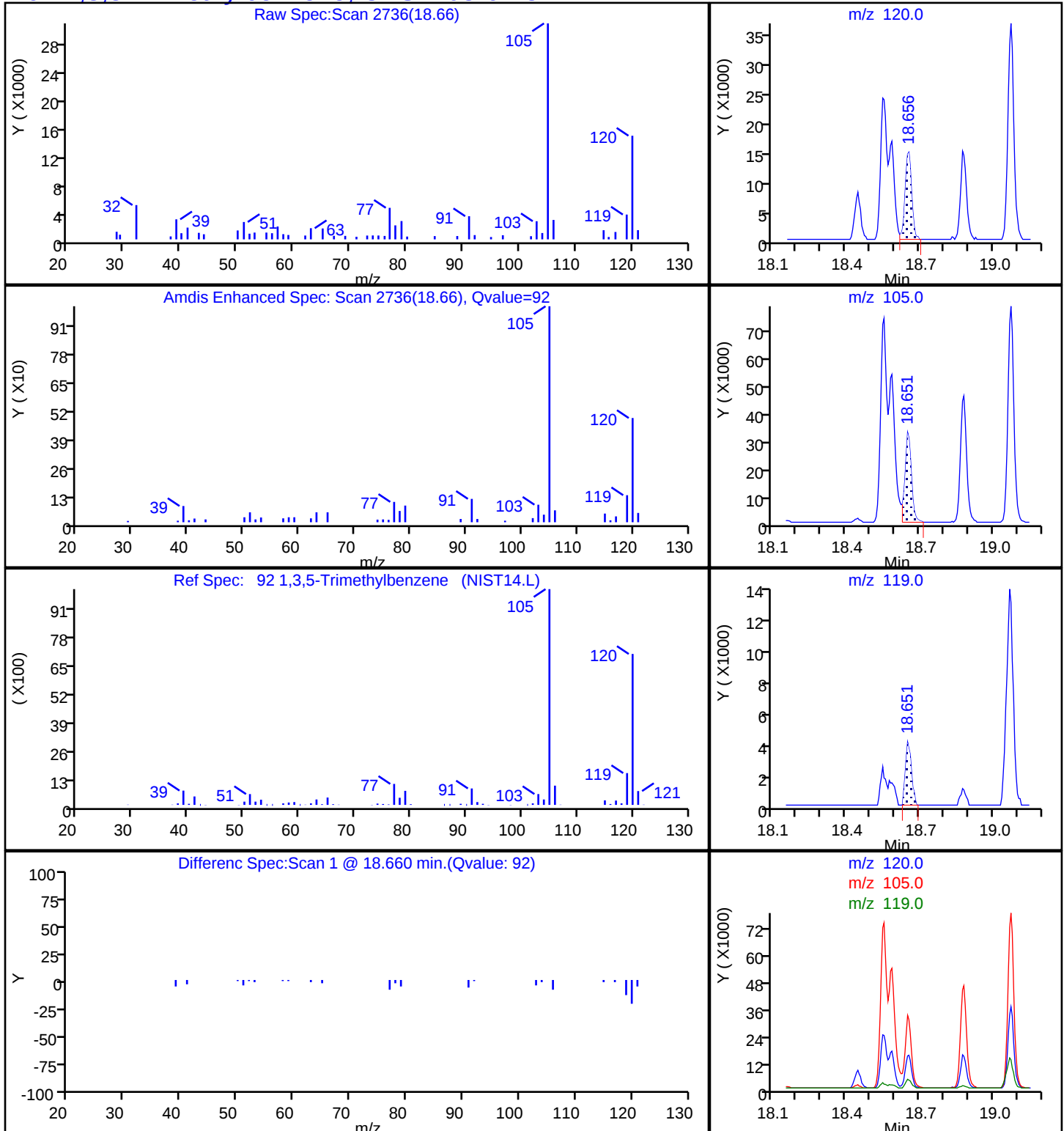
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

92 1,3,5-Trimethylbenzene, CAS: 108-67-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

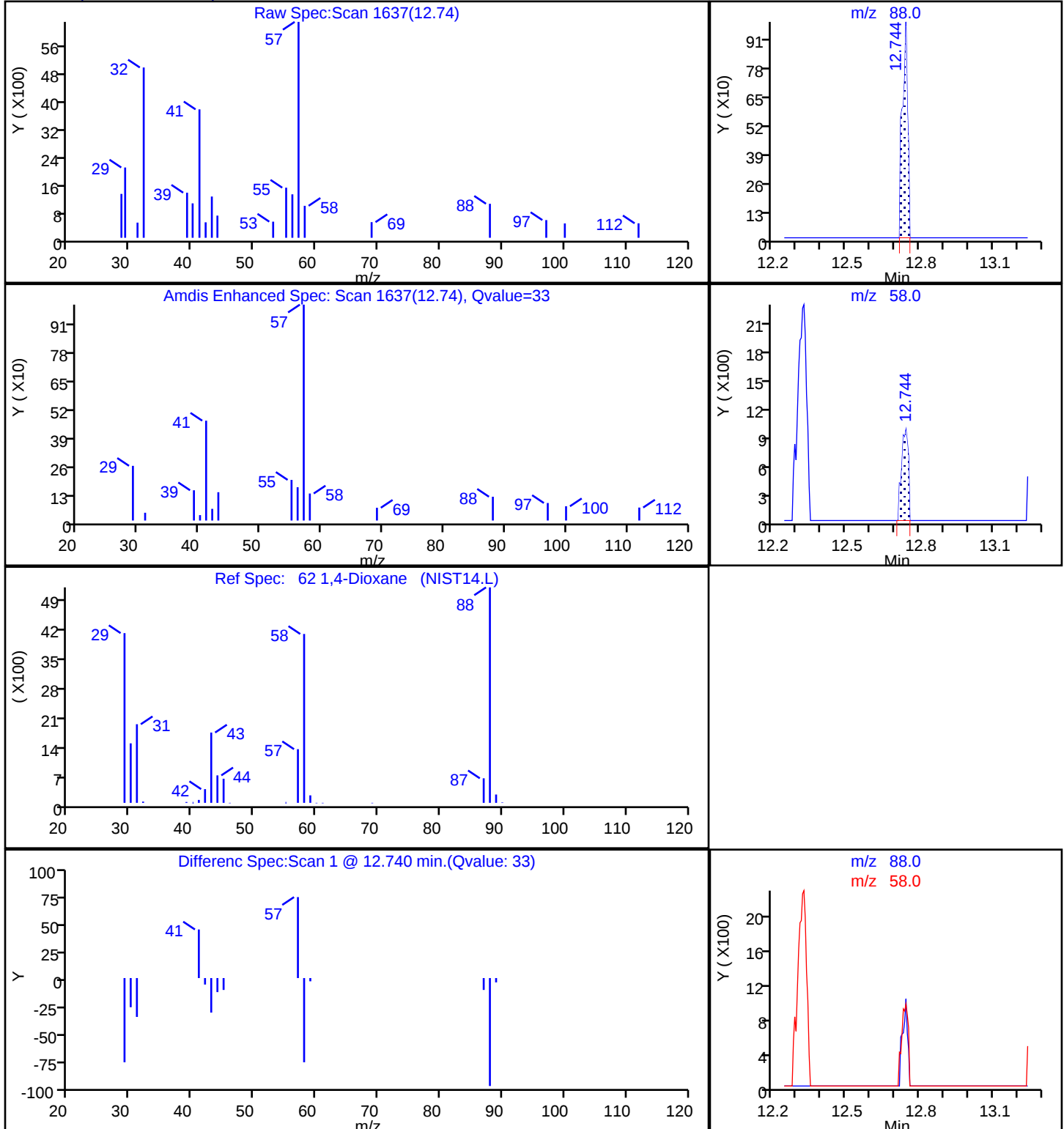
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

62 1,4-Dioxane, CAS: 123-91-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

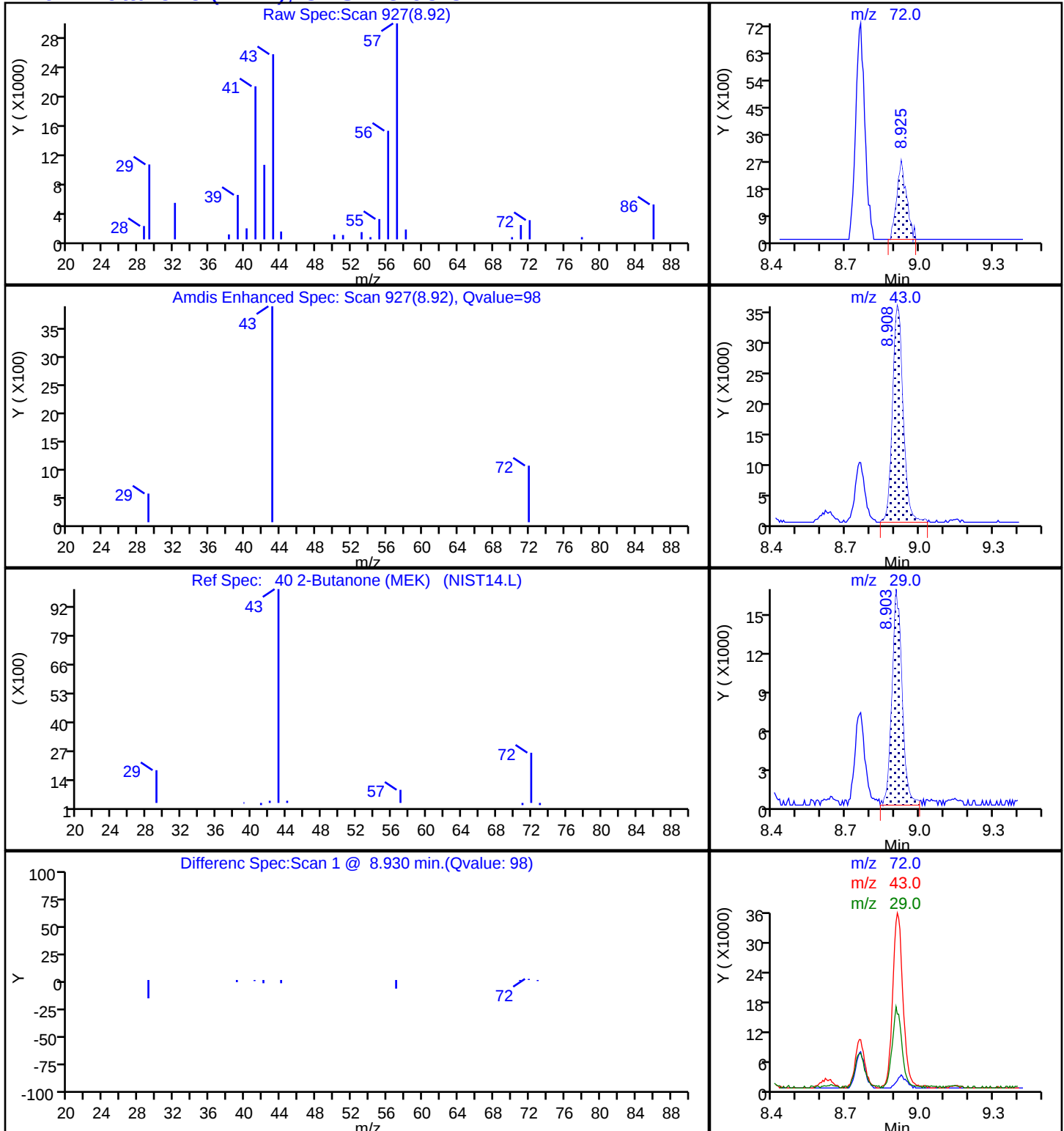
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 2-Butanone (MEK), CAS: 78-93-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

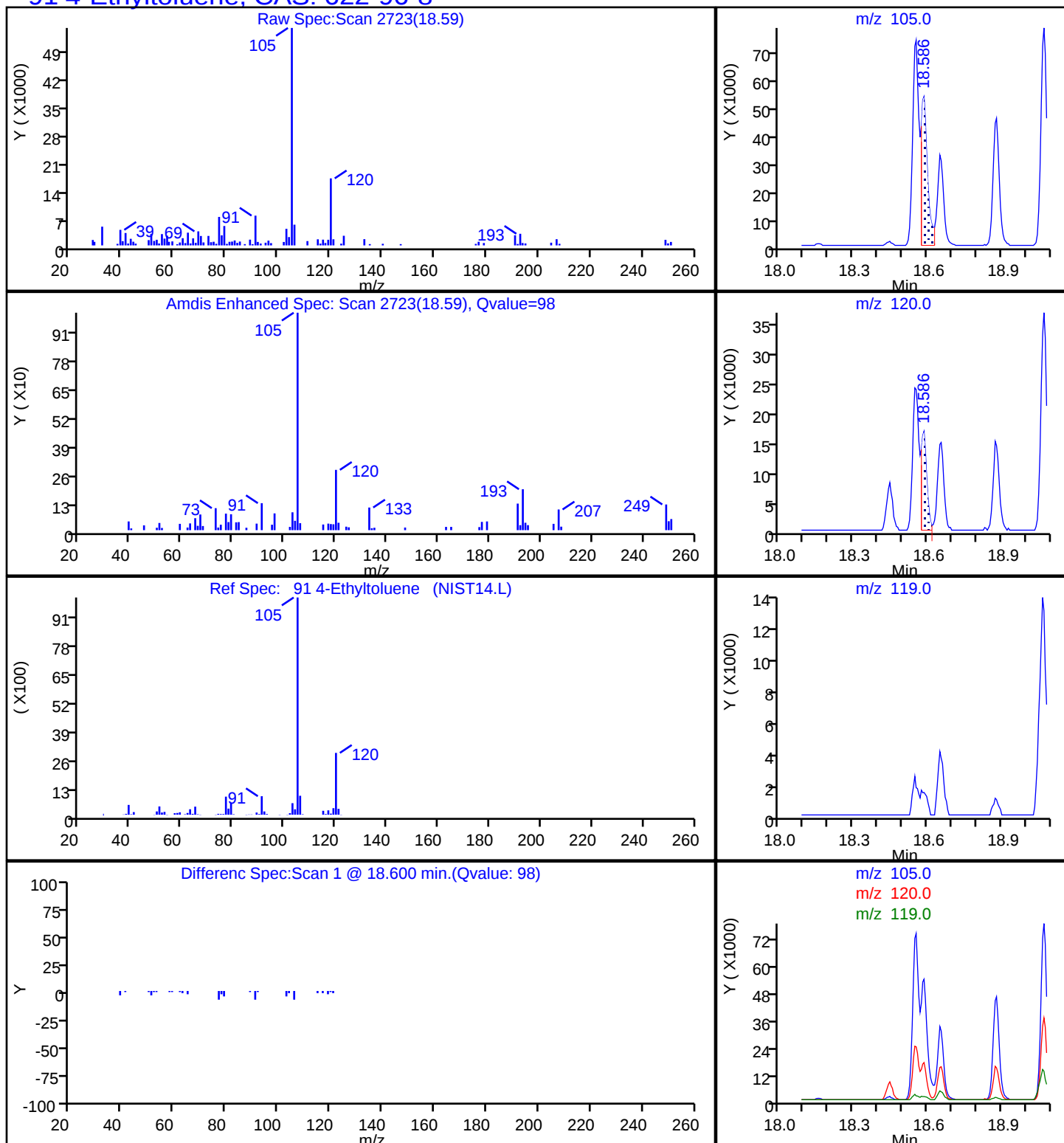
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

91 4-Ethyltoluene, CAS: 622-96-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

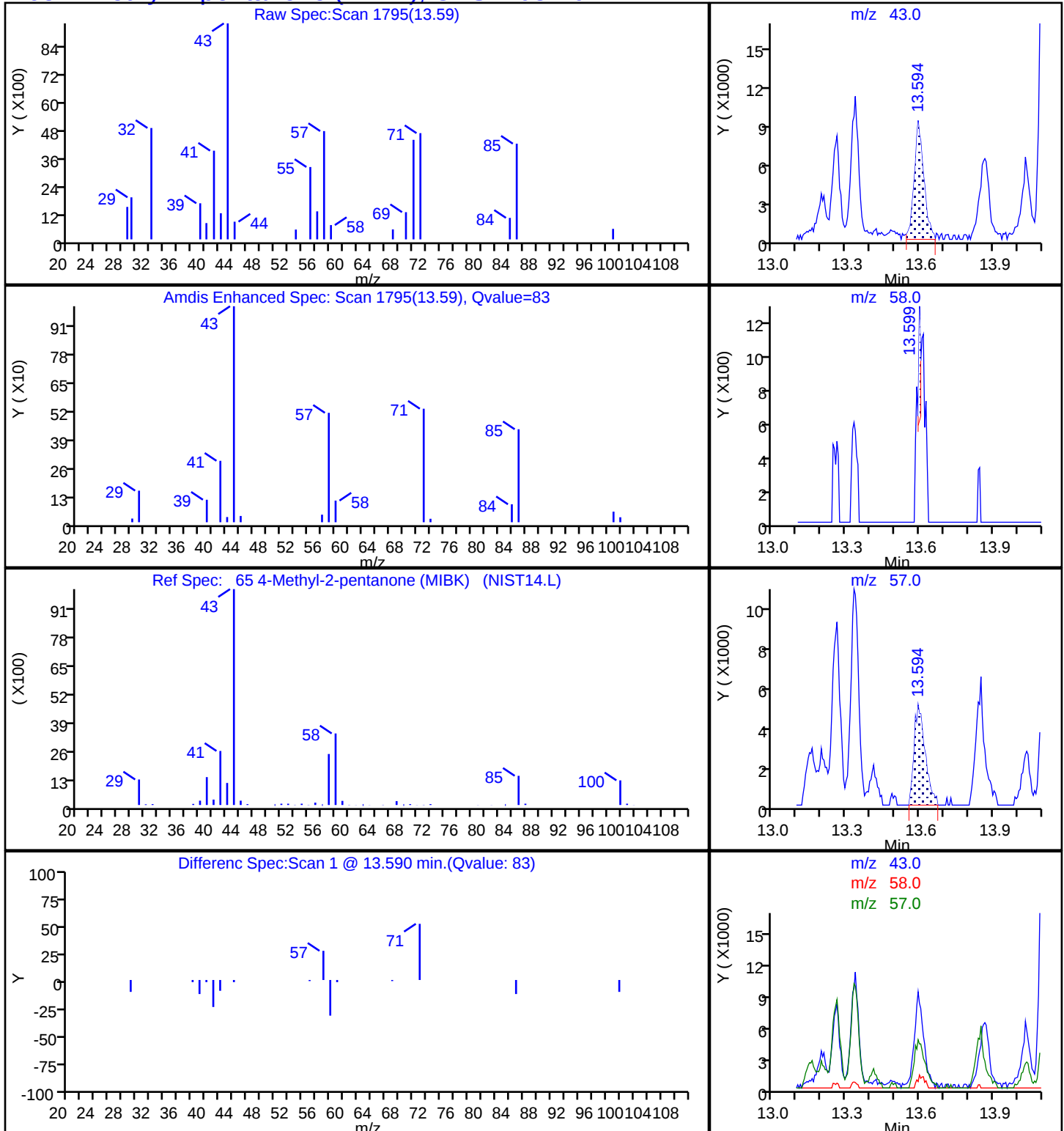
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

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

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

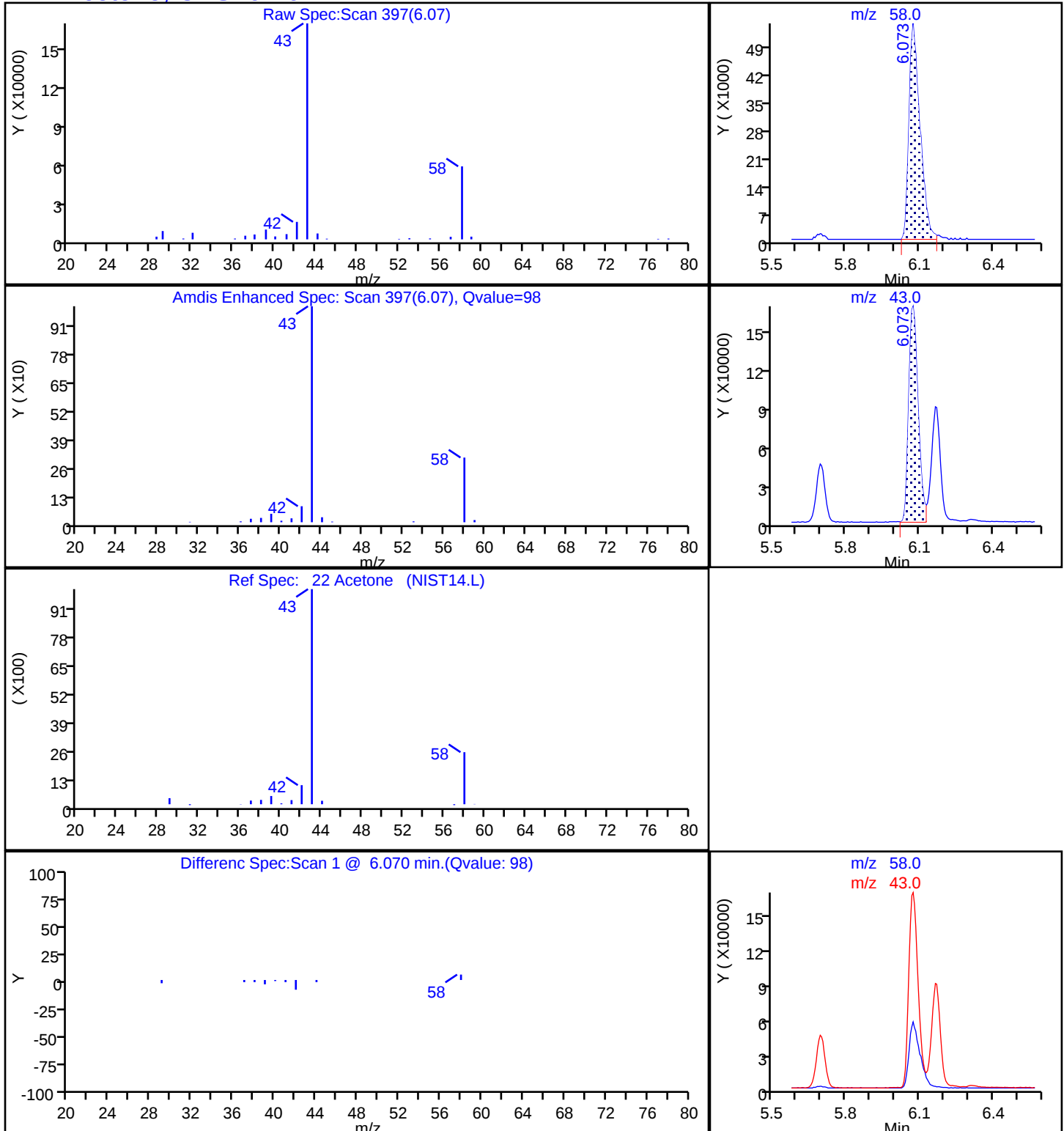
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

22 Acetone, CAS: 67-64-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

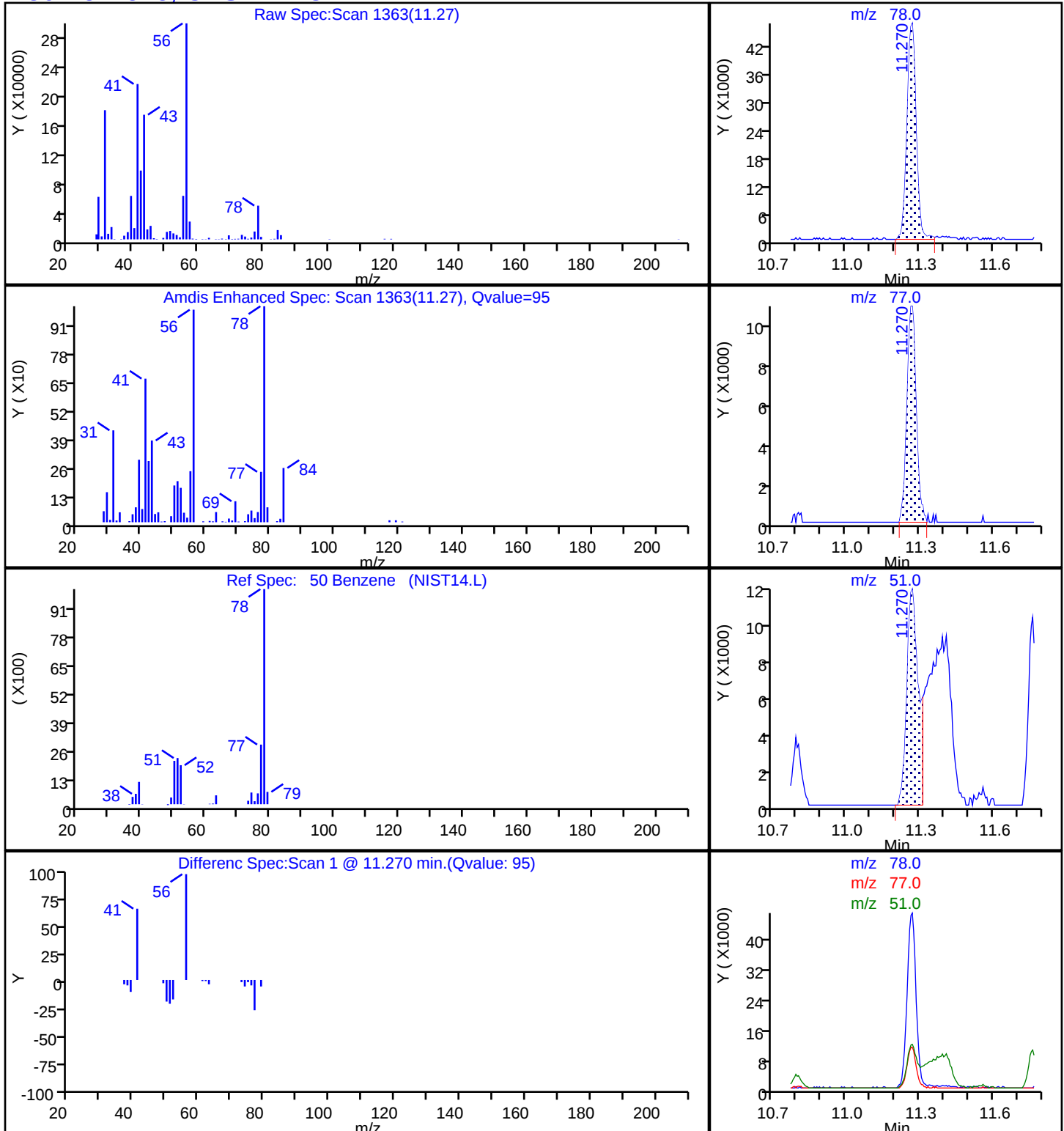
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

50 Benzene, CAS: 71-43-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

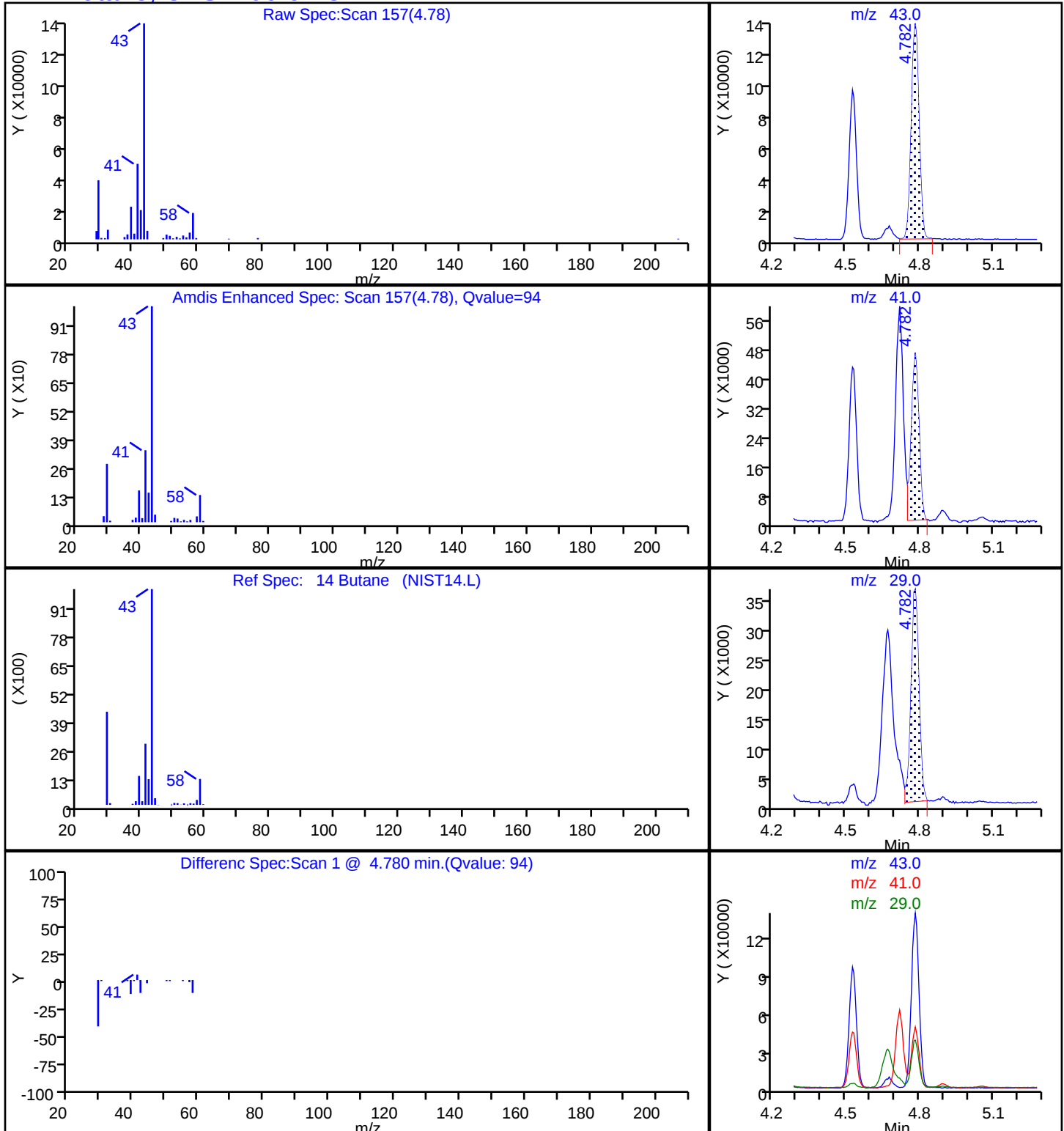
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

14 Butane, CAS: 106-97-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

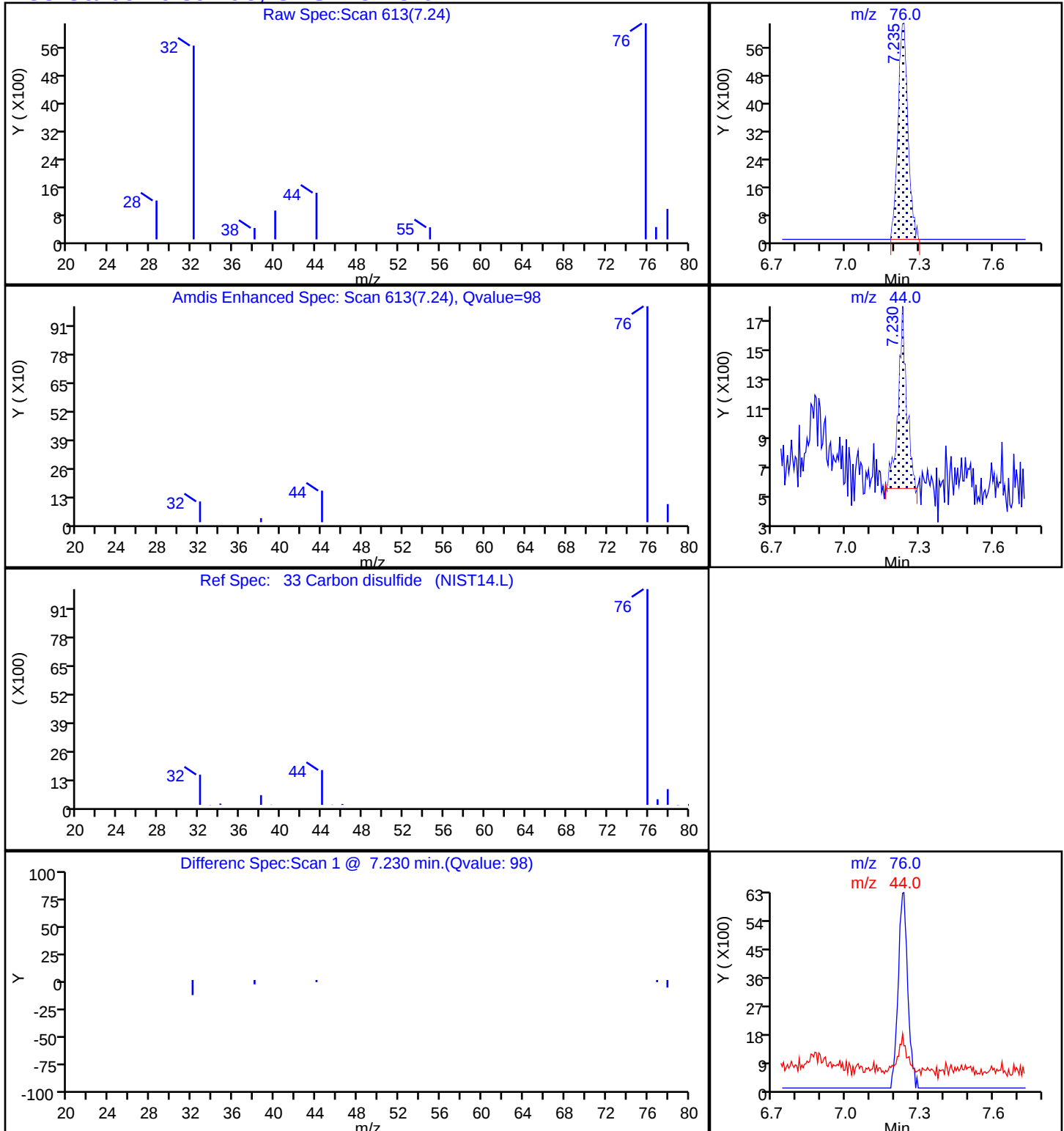
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

33 Carbon disulfide, CAS: 75-15-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

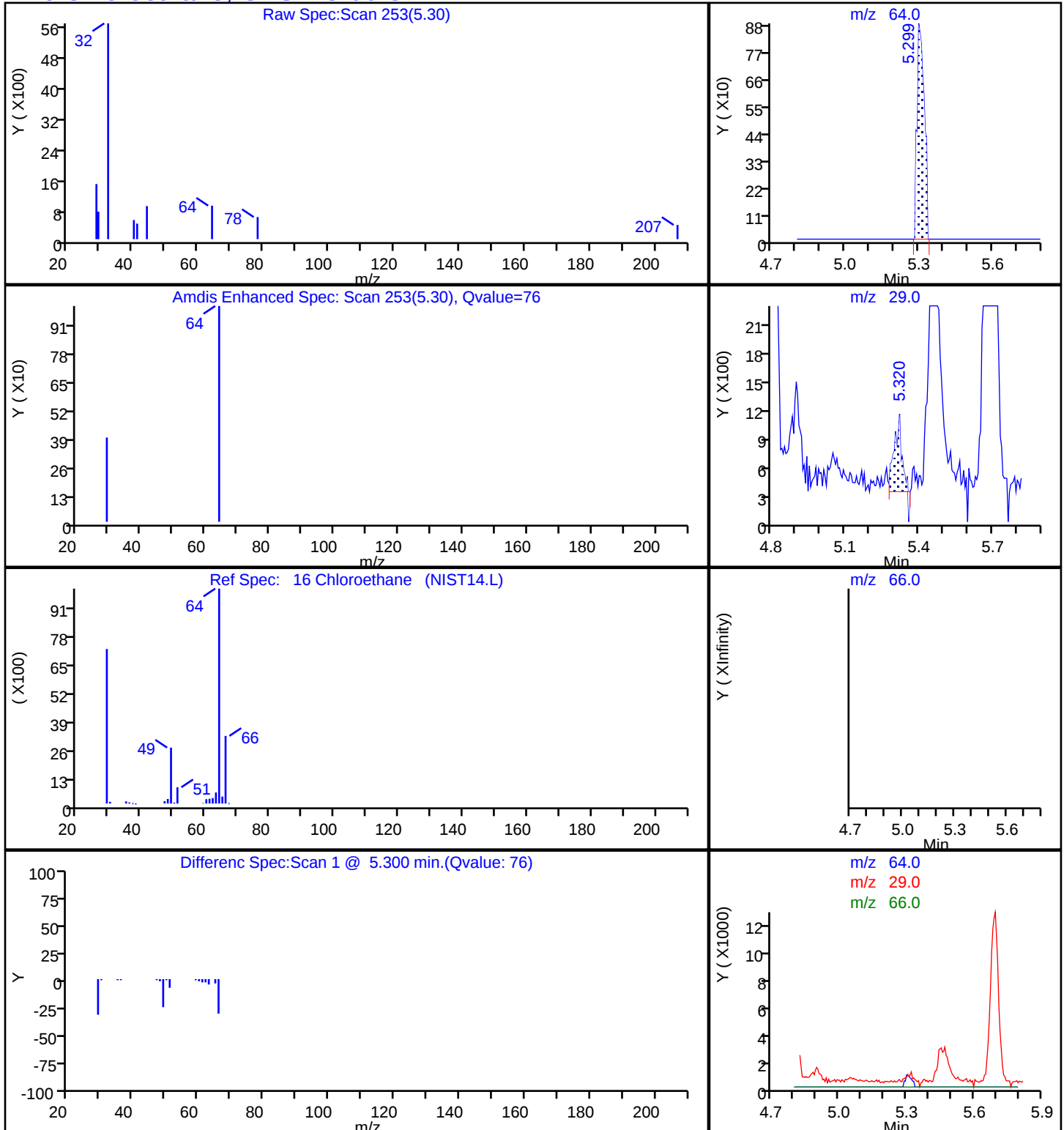
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

16 Chloroethane, CAS: 75-00-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

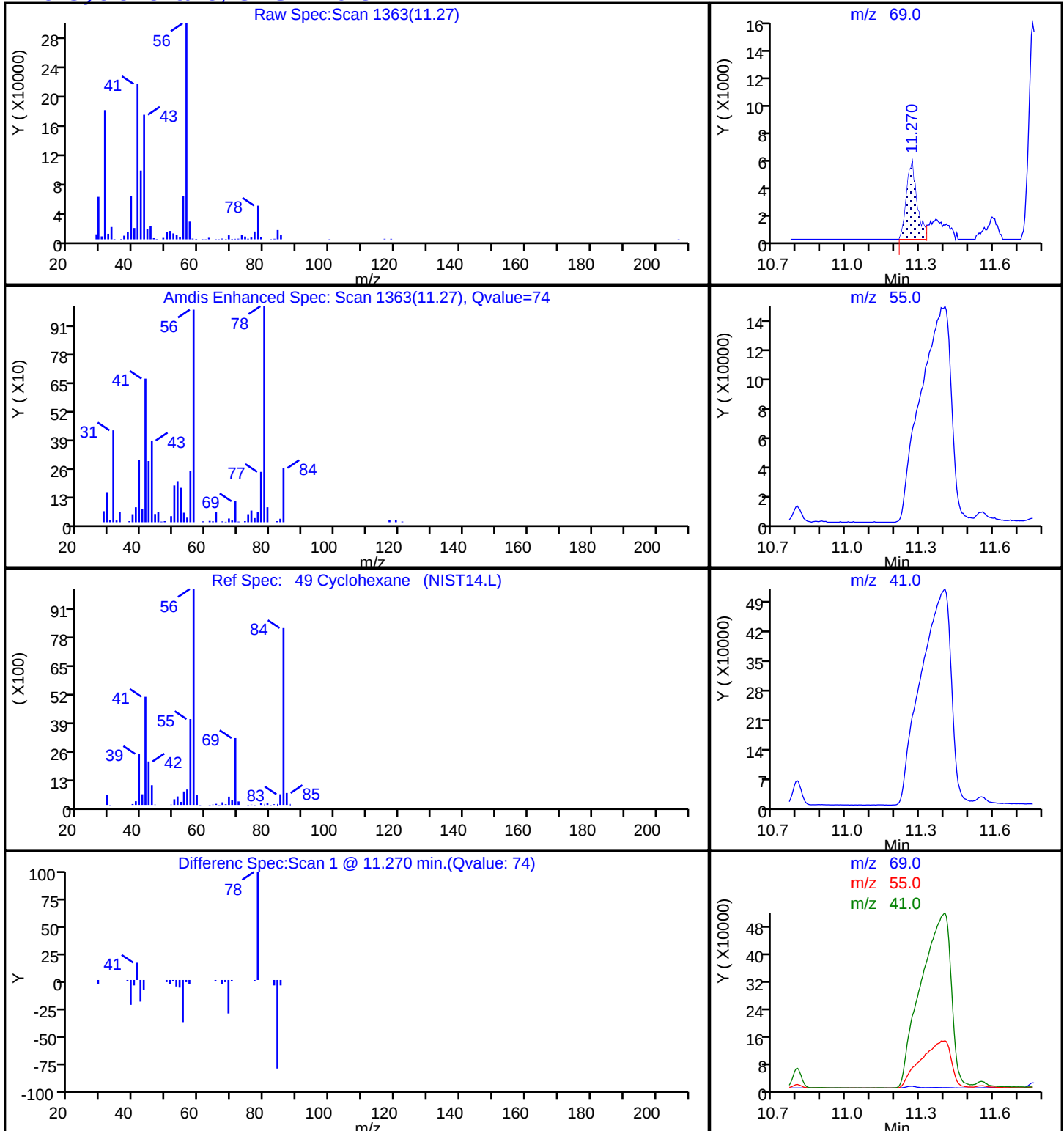
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

49 Cyclohexane, CAS: 110-82-7

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

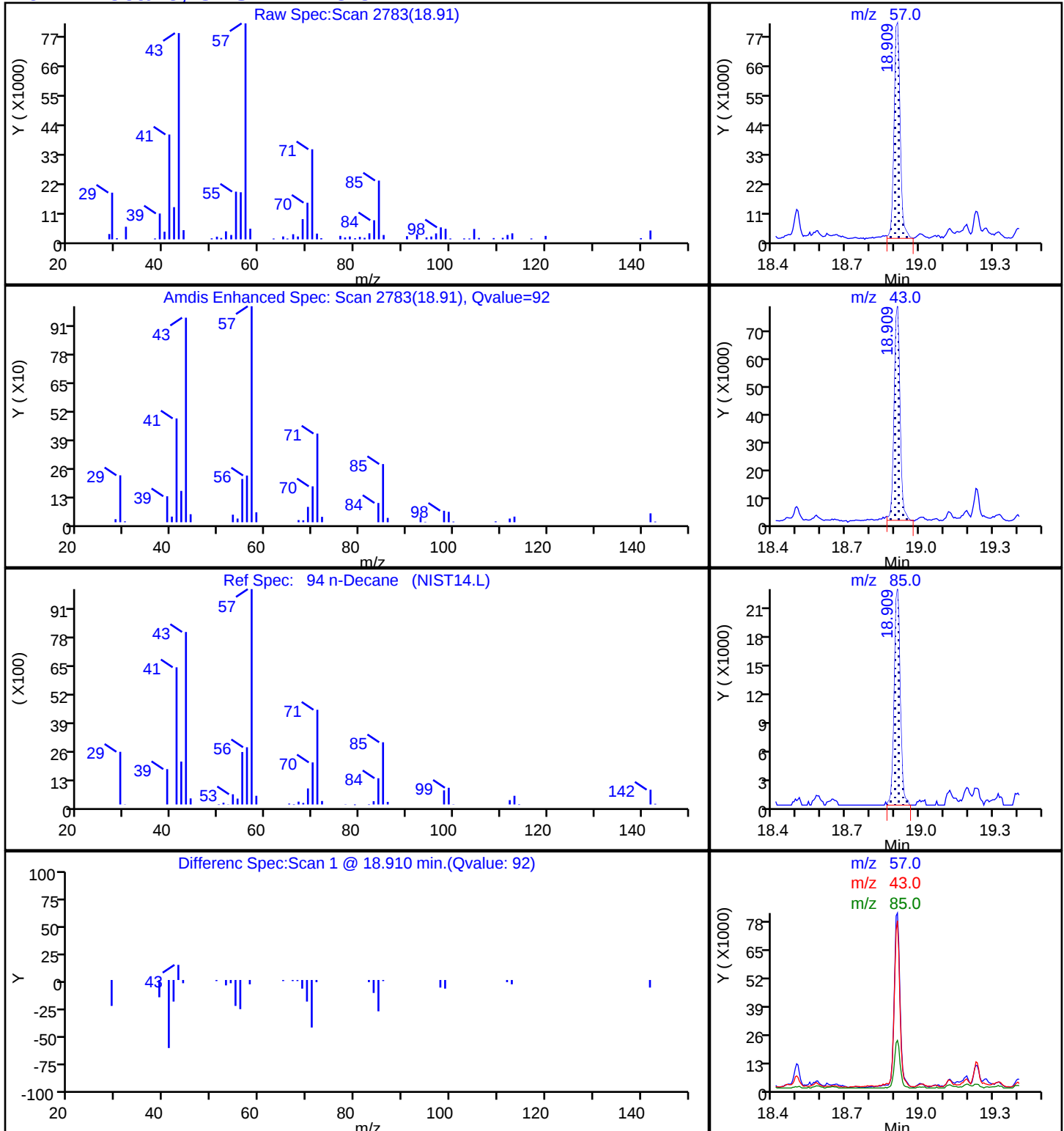
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

94 n-Decane, CAS: 124-18-5

TestAmerica Knoxville

Data File: \\ChromNA\\Knoxville\\ChromData\\MJ\\20180412-7901.b\\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

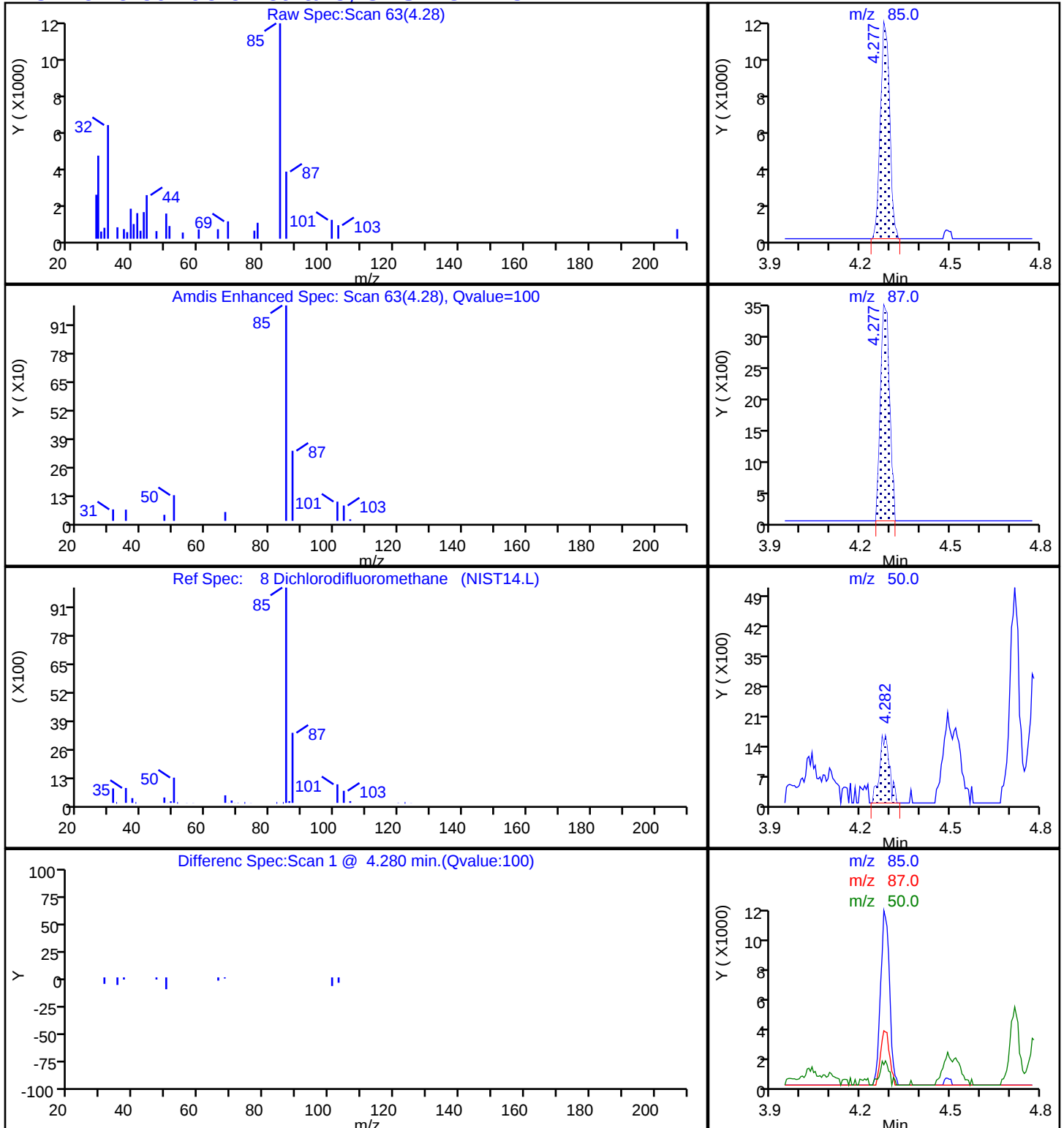
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

8 Dichlorodifluoromethane, CAS: 75-71-8



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

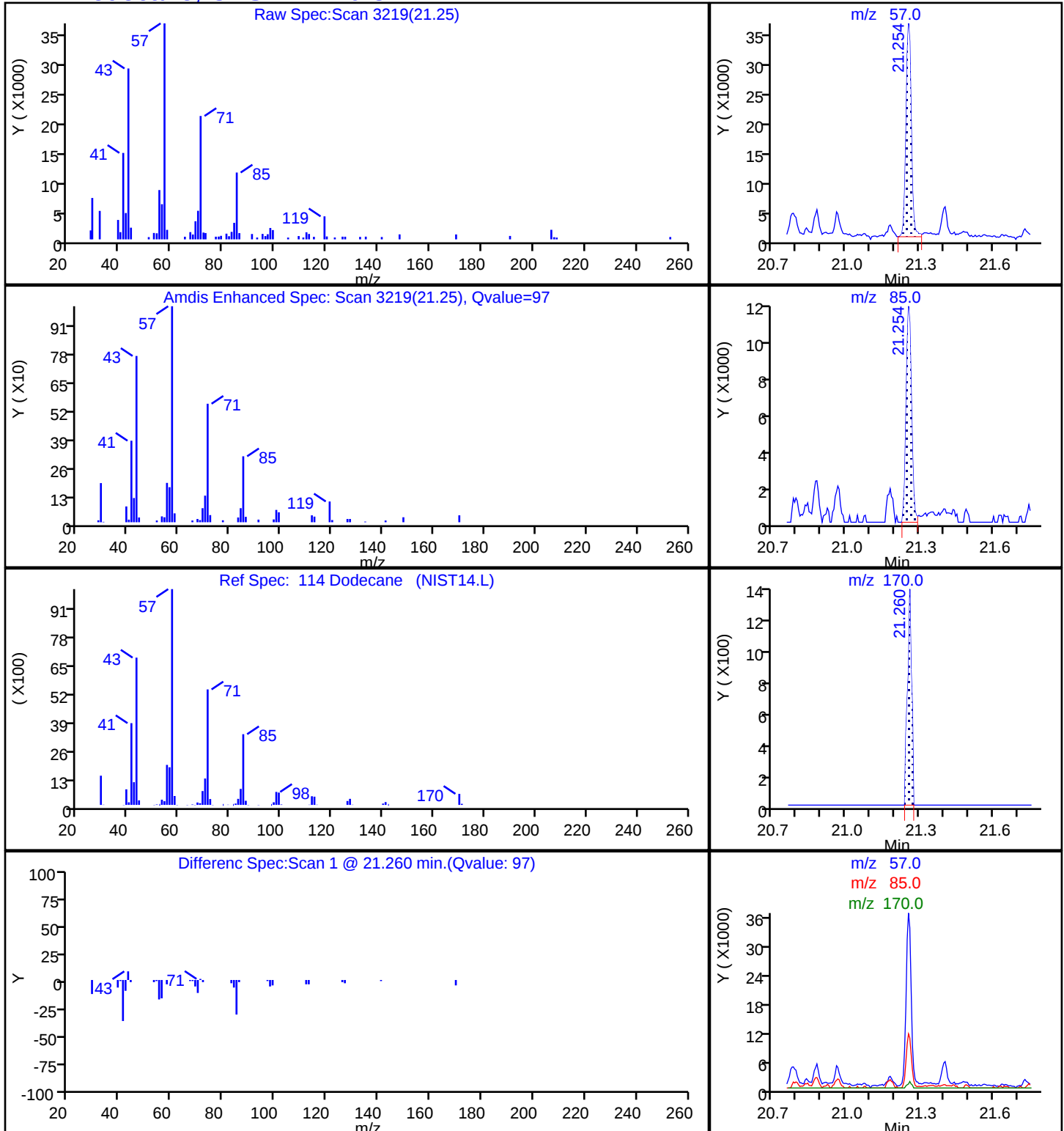
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

114 Dodecane, CAS: 112-40-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

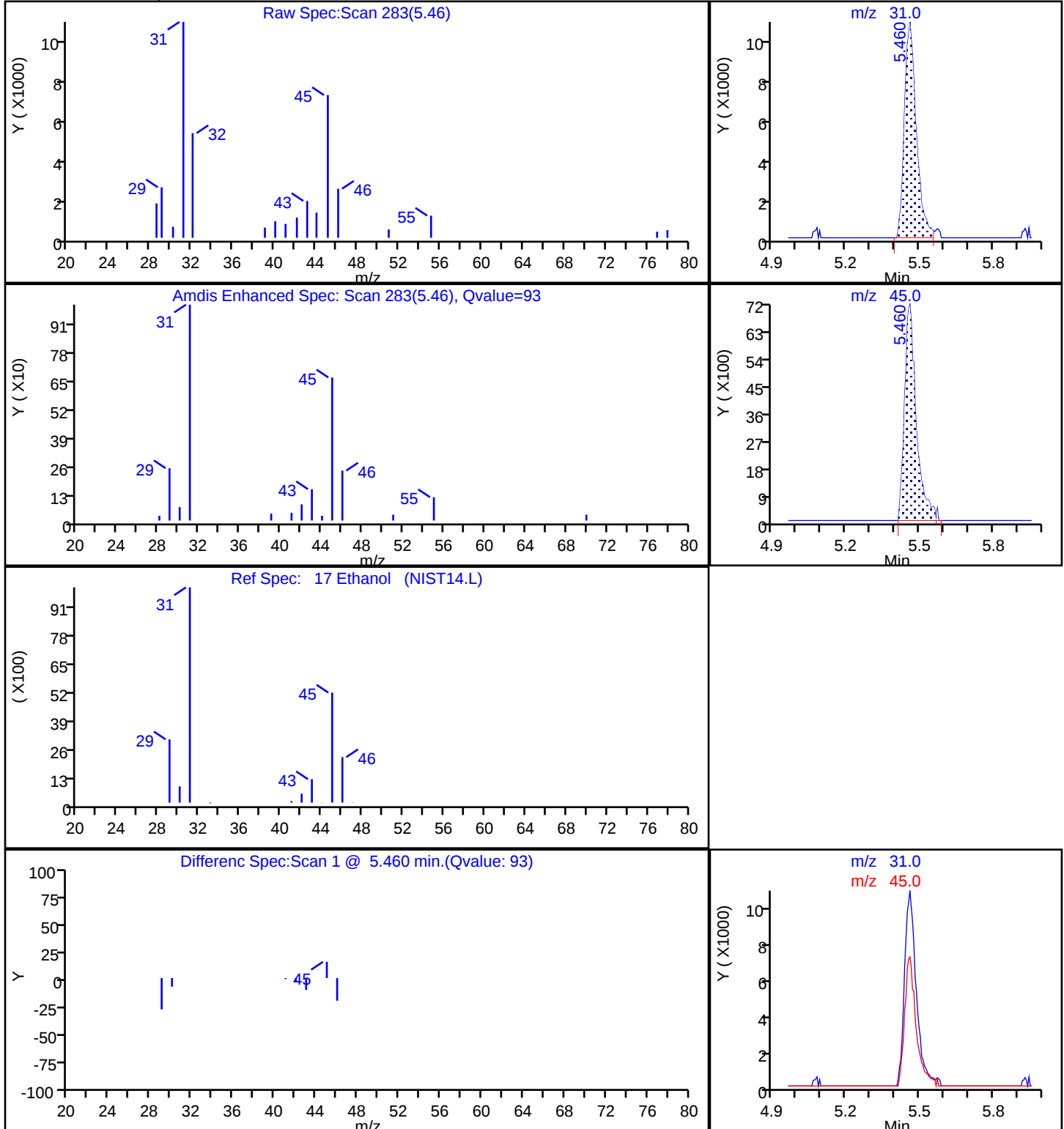
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

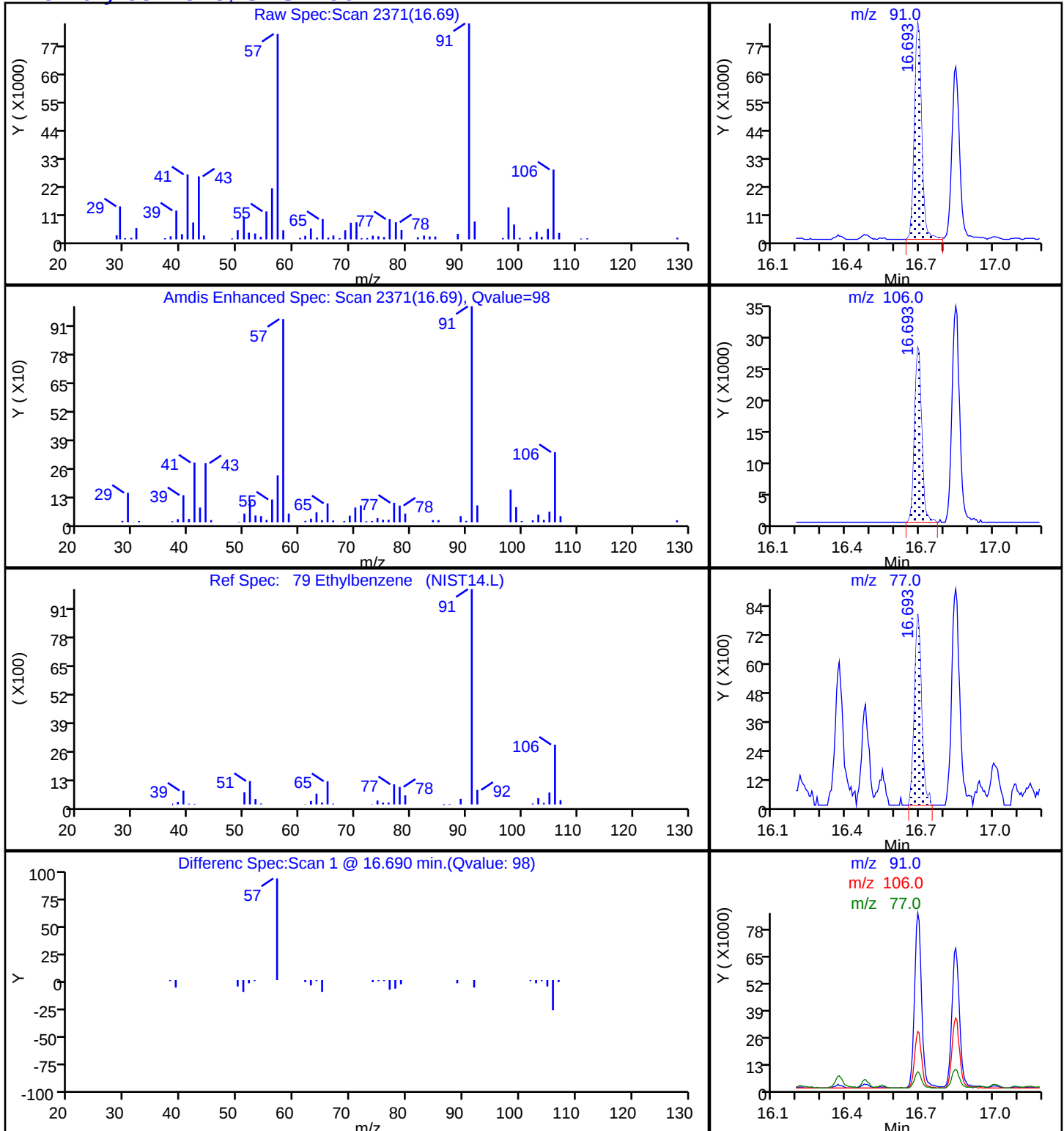
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

79 Ethylbenzene, CAS: 100-41-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

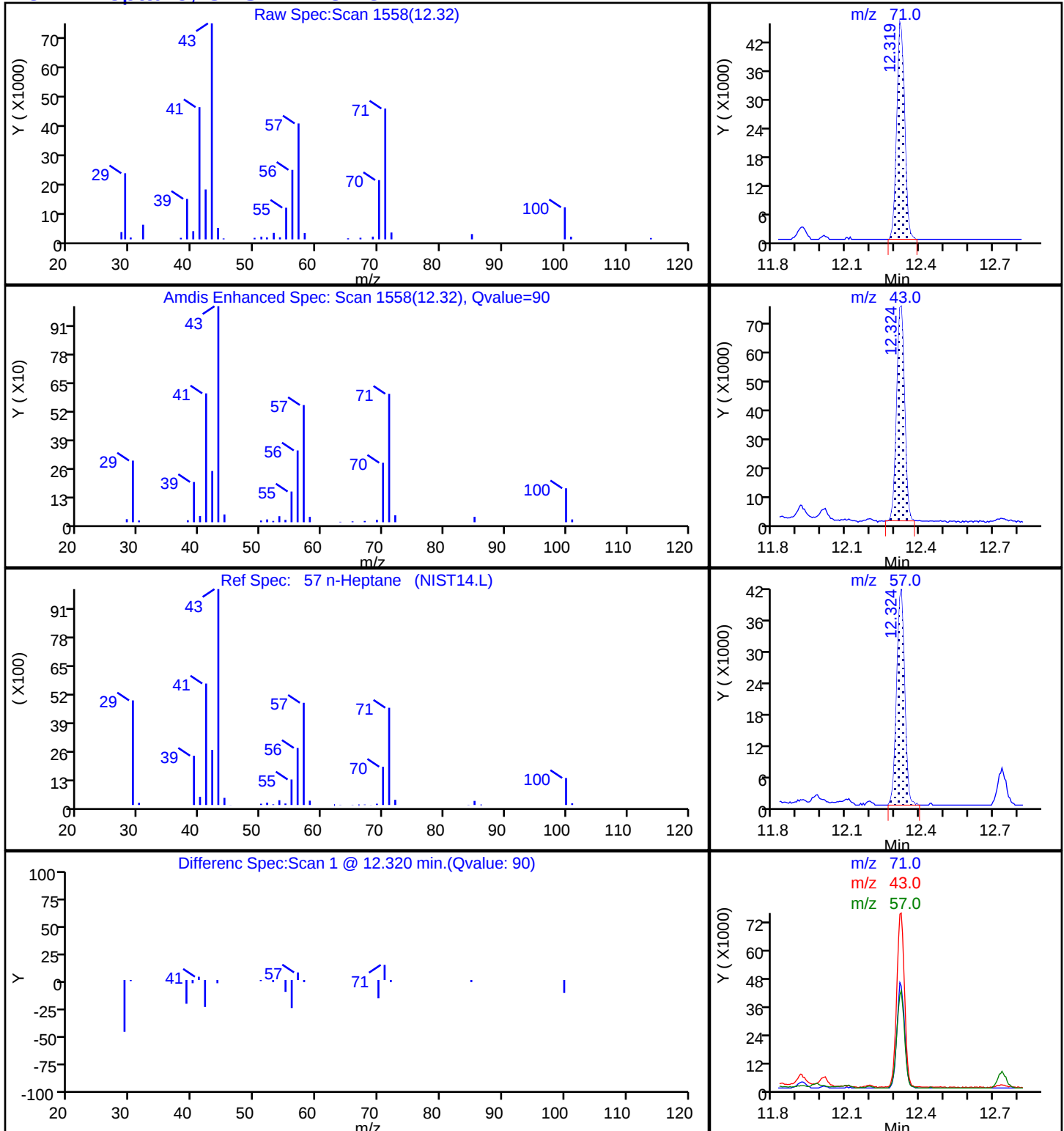
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

57 n-Heptane, CAS: 142-82-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

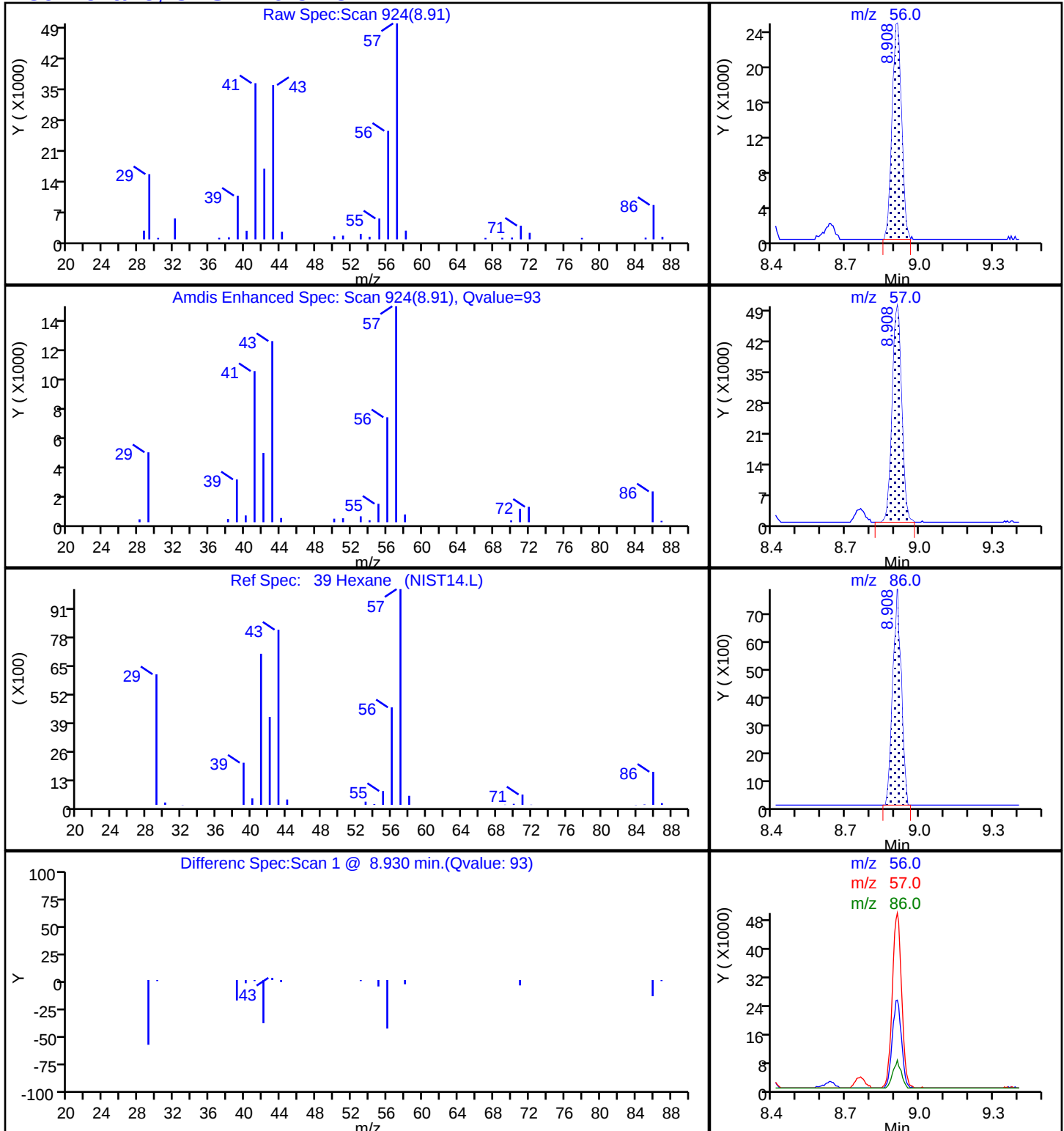
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

39 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

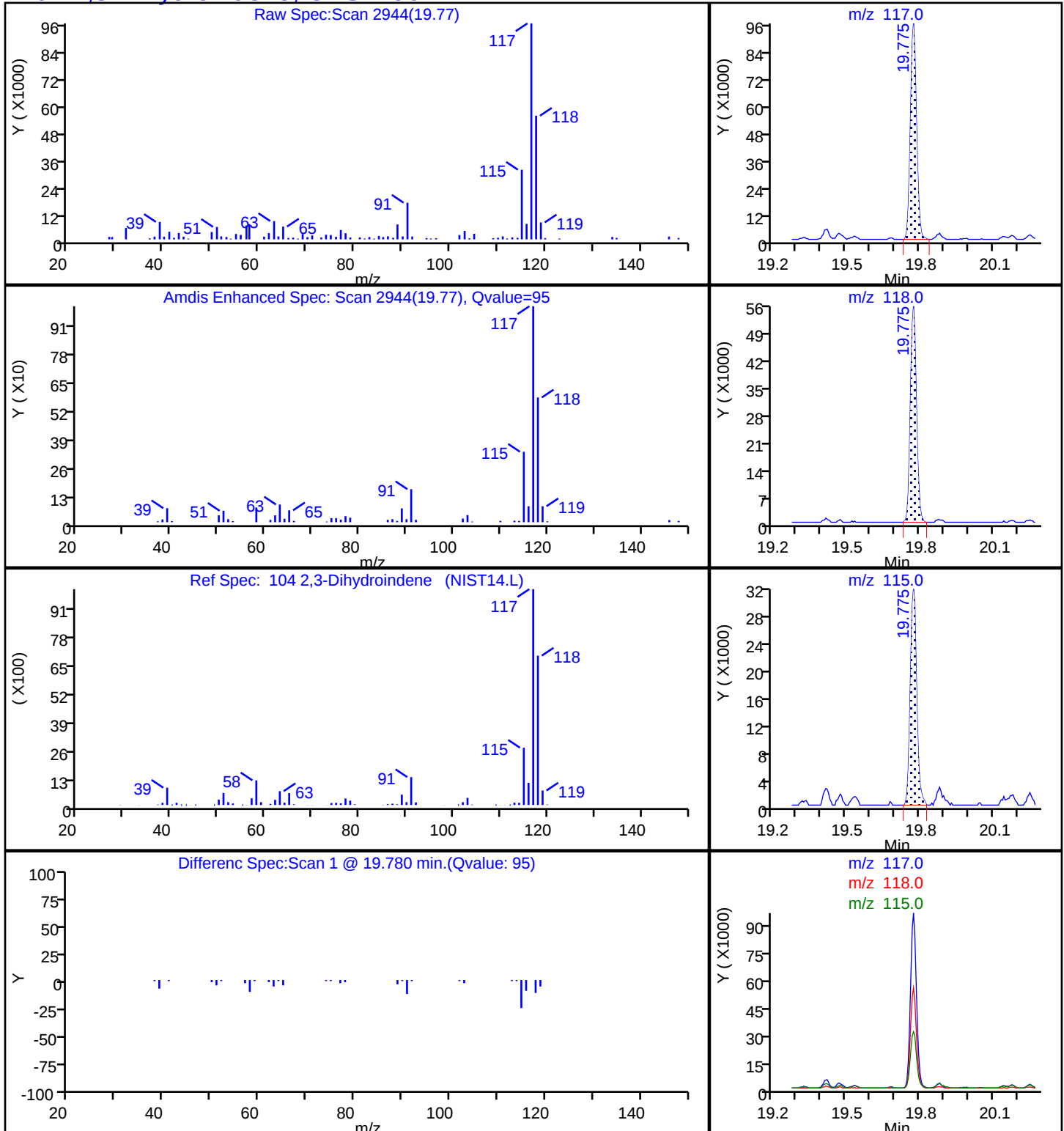
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

104 2,3-Dihydroindene, CAS: 496-11-7

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

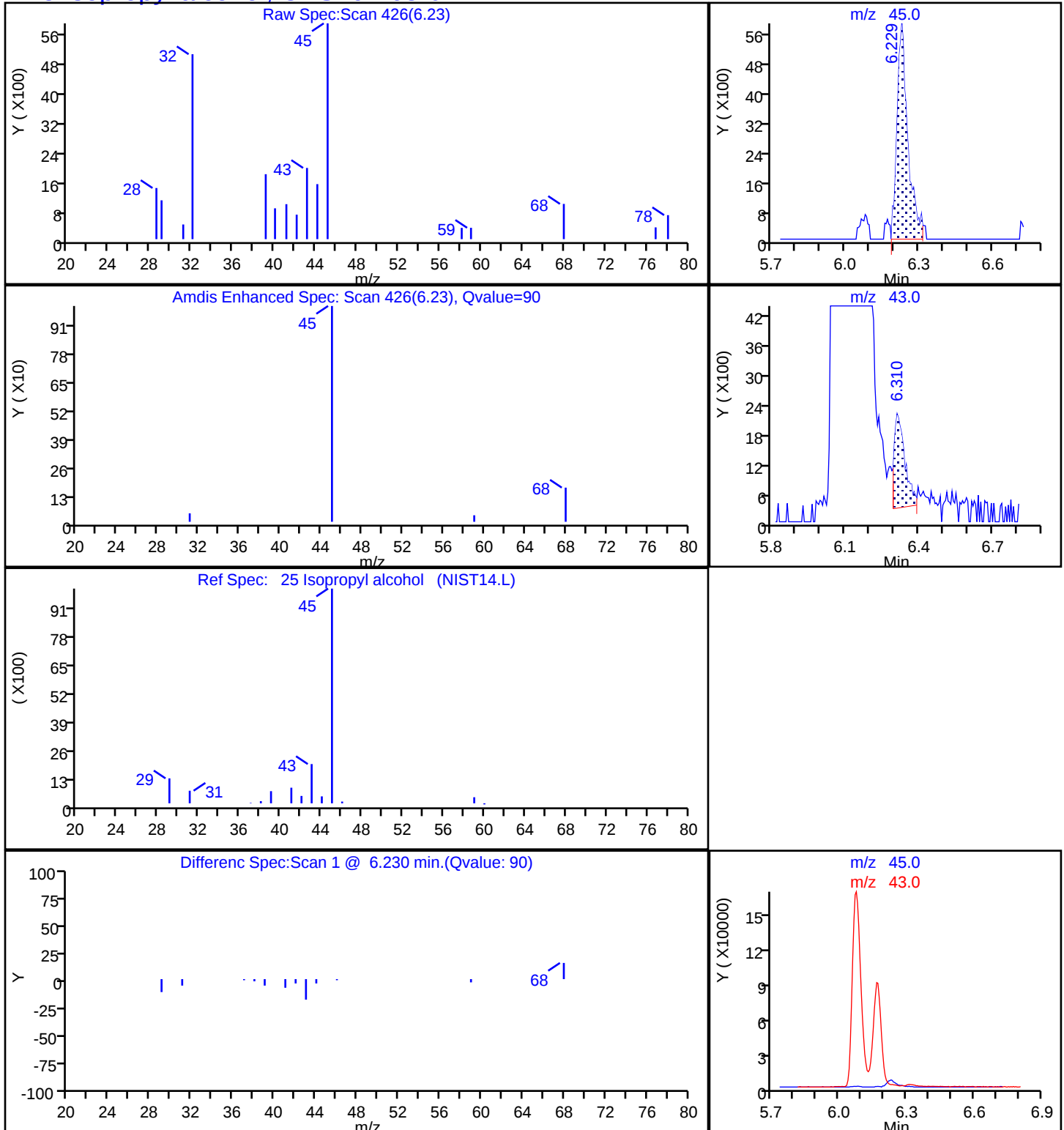
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

25 Isopropyl alcohol, CAS: 67-63-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

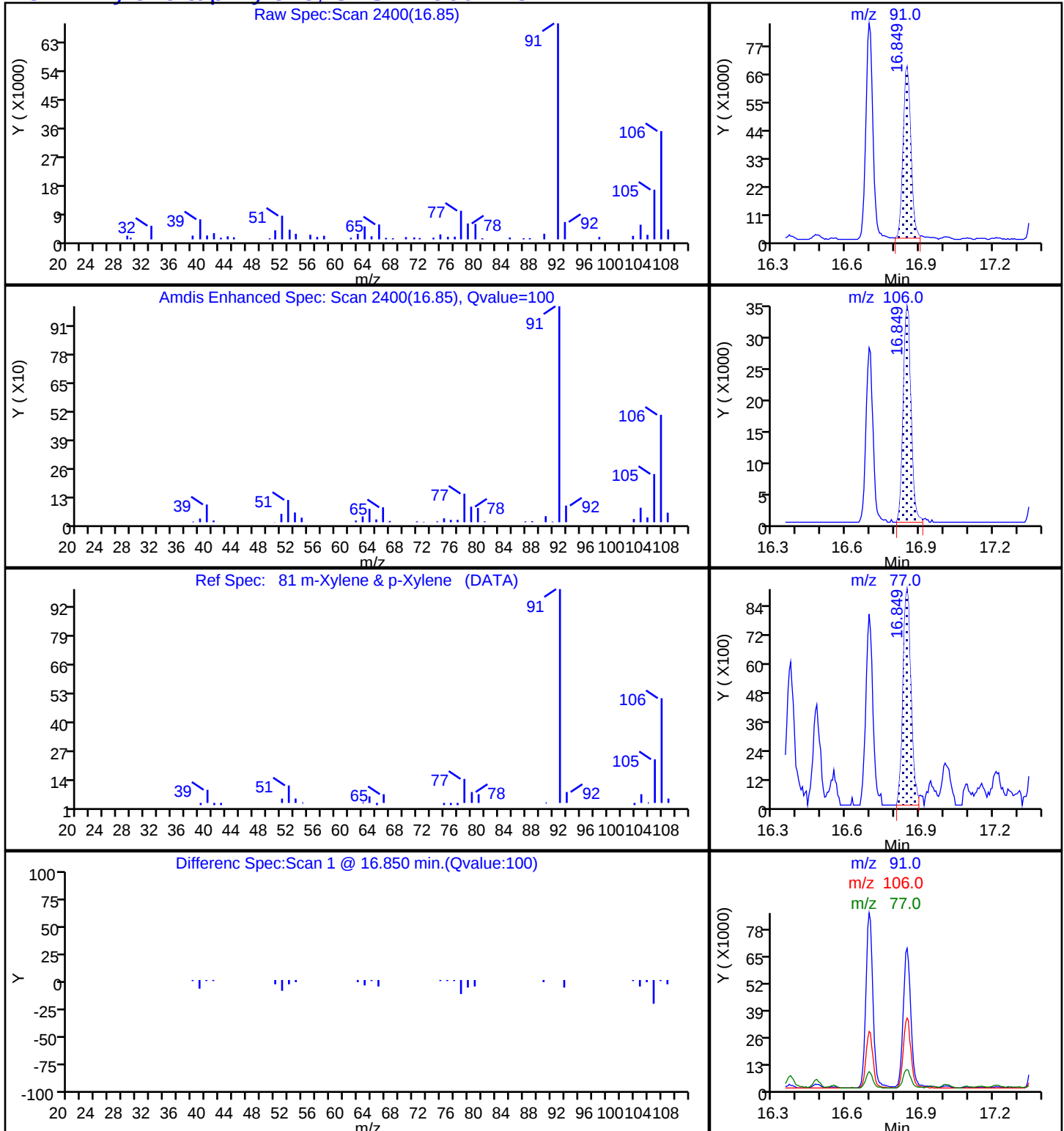
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

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

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

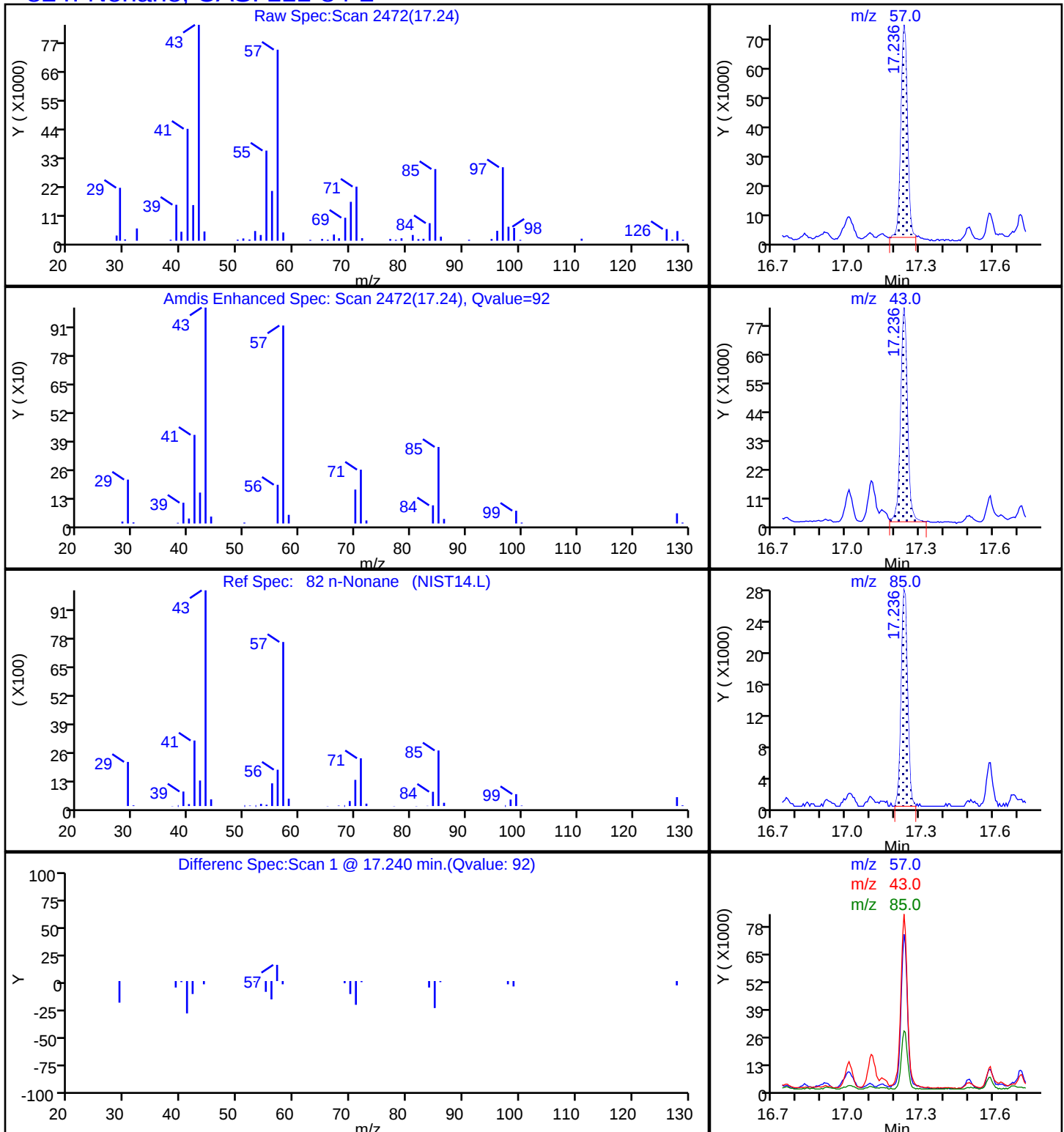
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

82 n-Nonane, CAS: 111-84-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

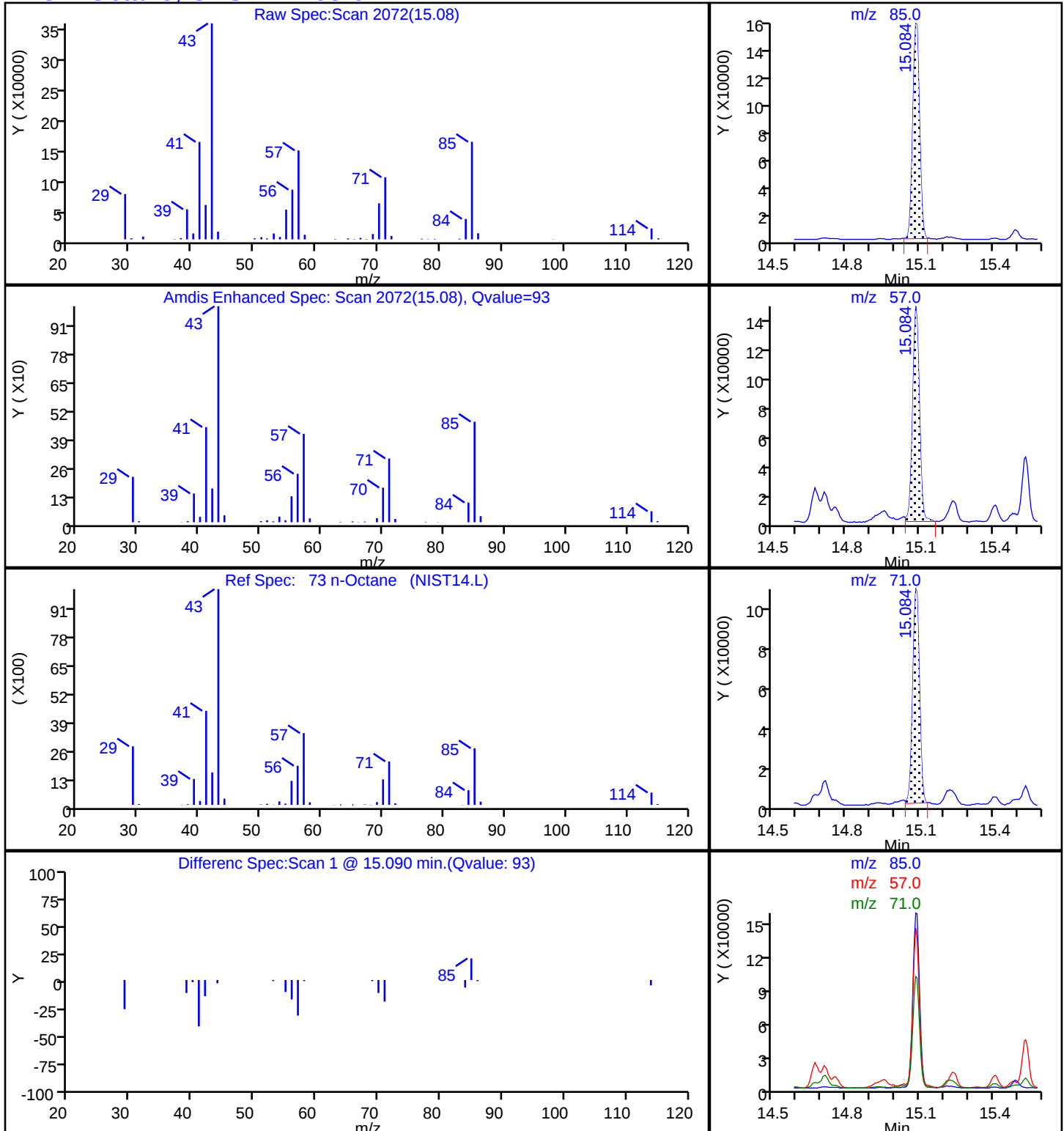
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

73 n-Octane, CAS: 111-65-9

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

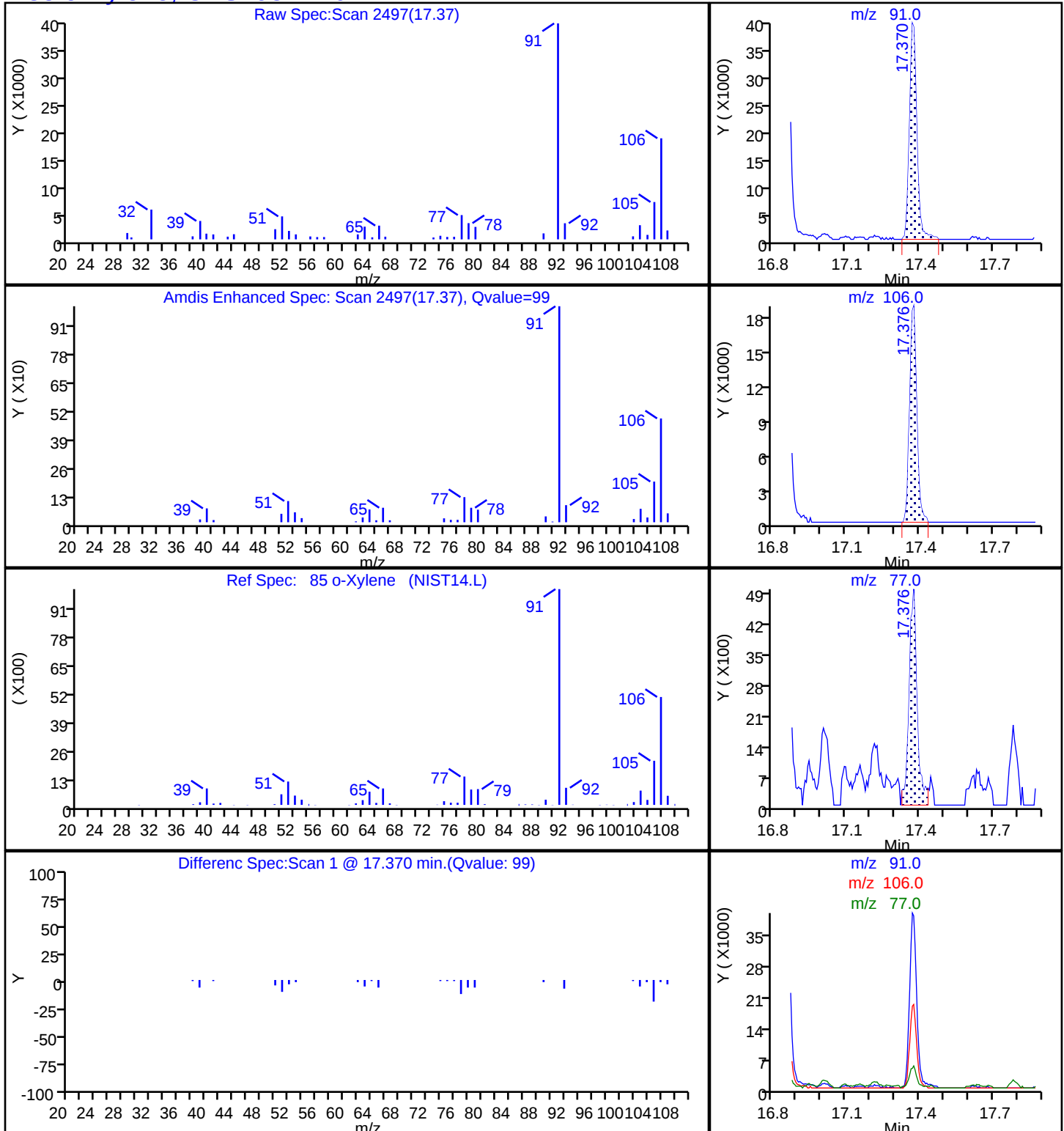
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

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



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

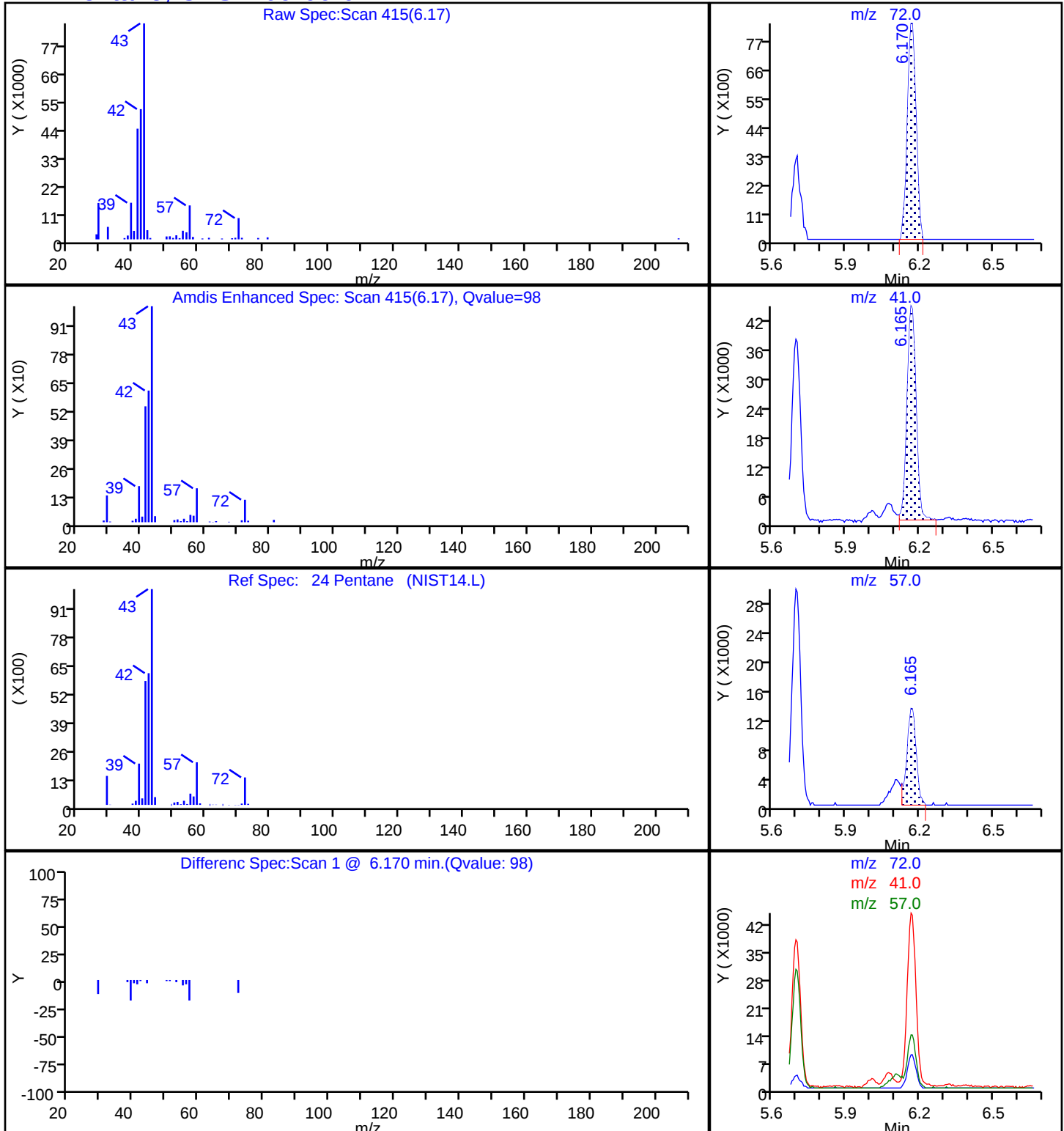
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

24 Pentane, CAS: 109-66-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

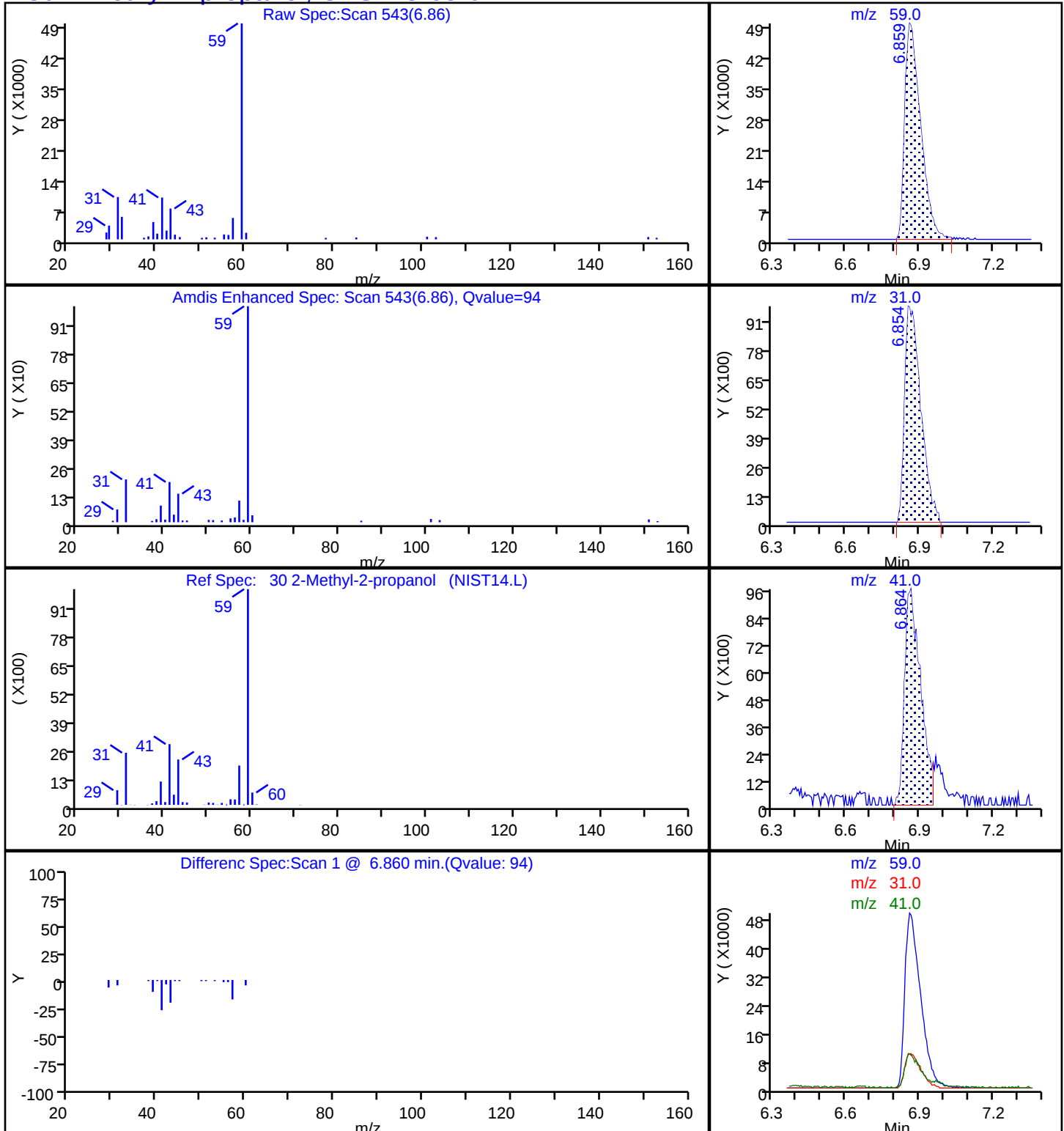
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

30 2-Methyl-2-propanol, CAS: 75-65-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

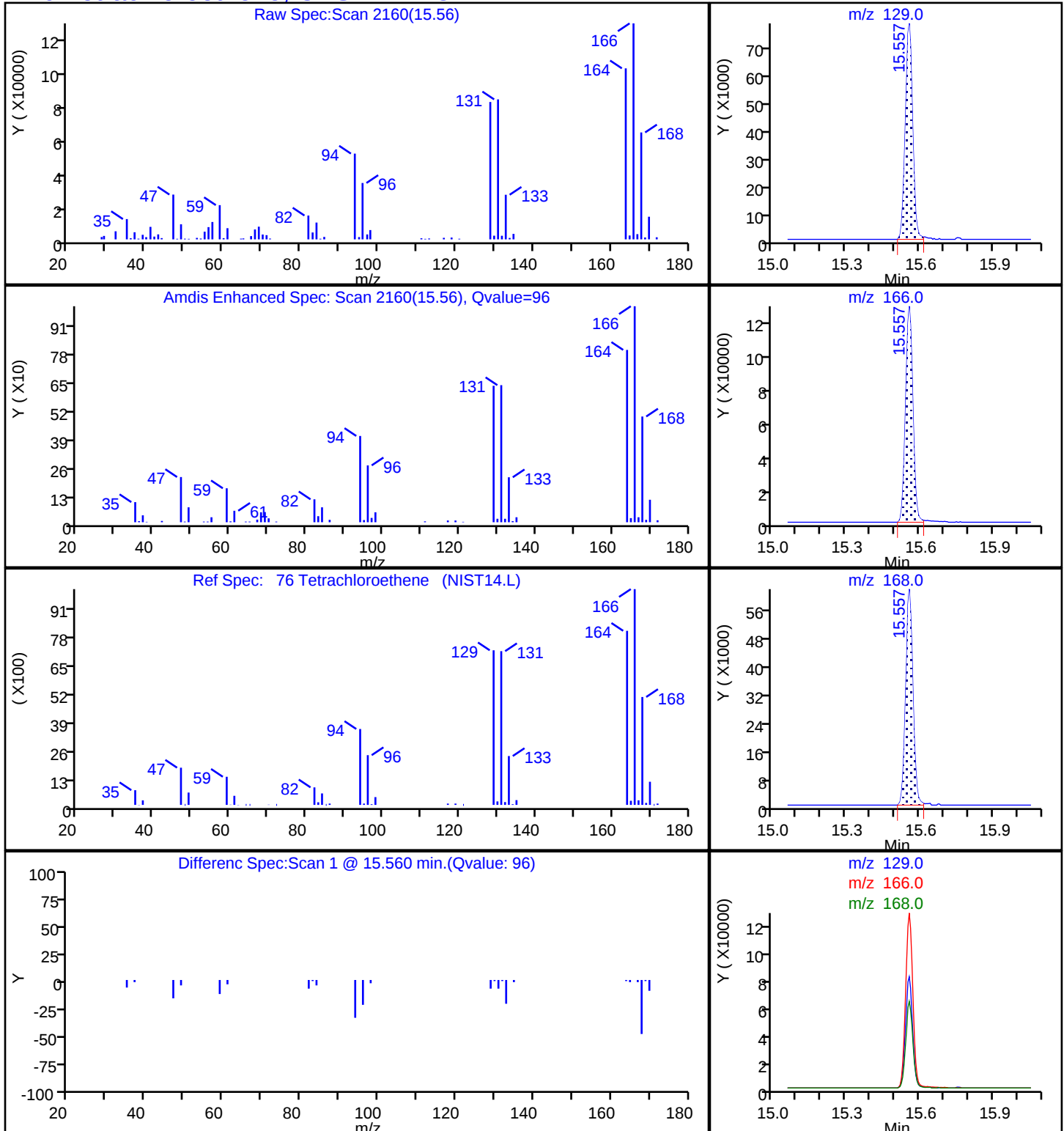
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

76 Tetrachloroethene, CAS: 127-18-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

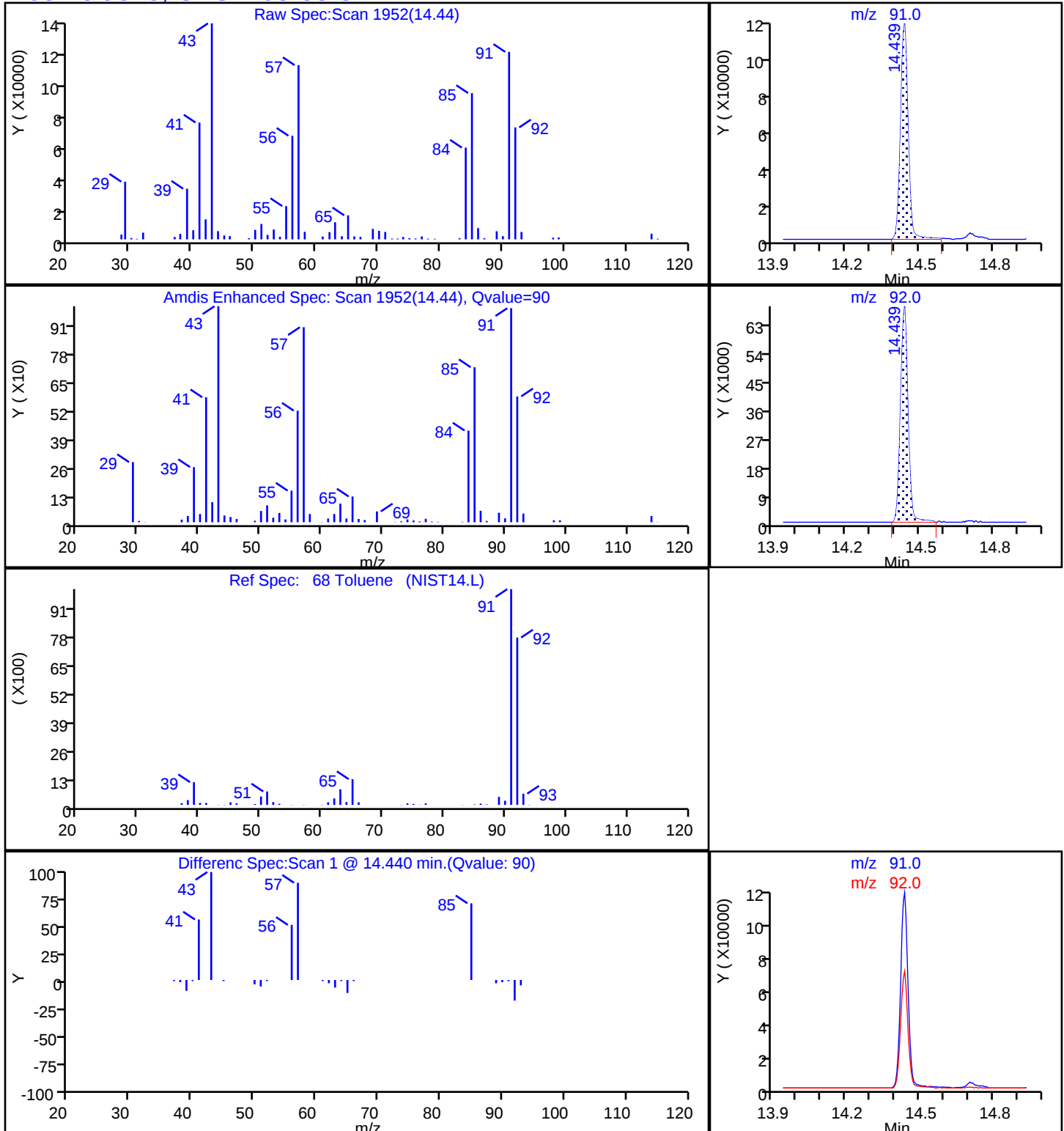
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

68 Toluene, CAS: 108-88-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

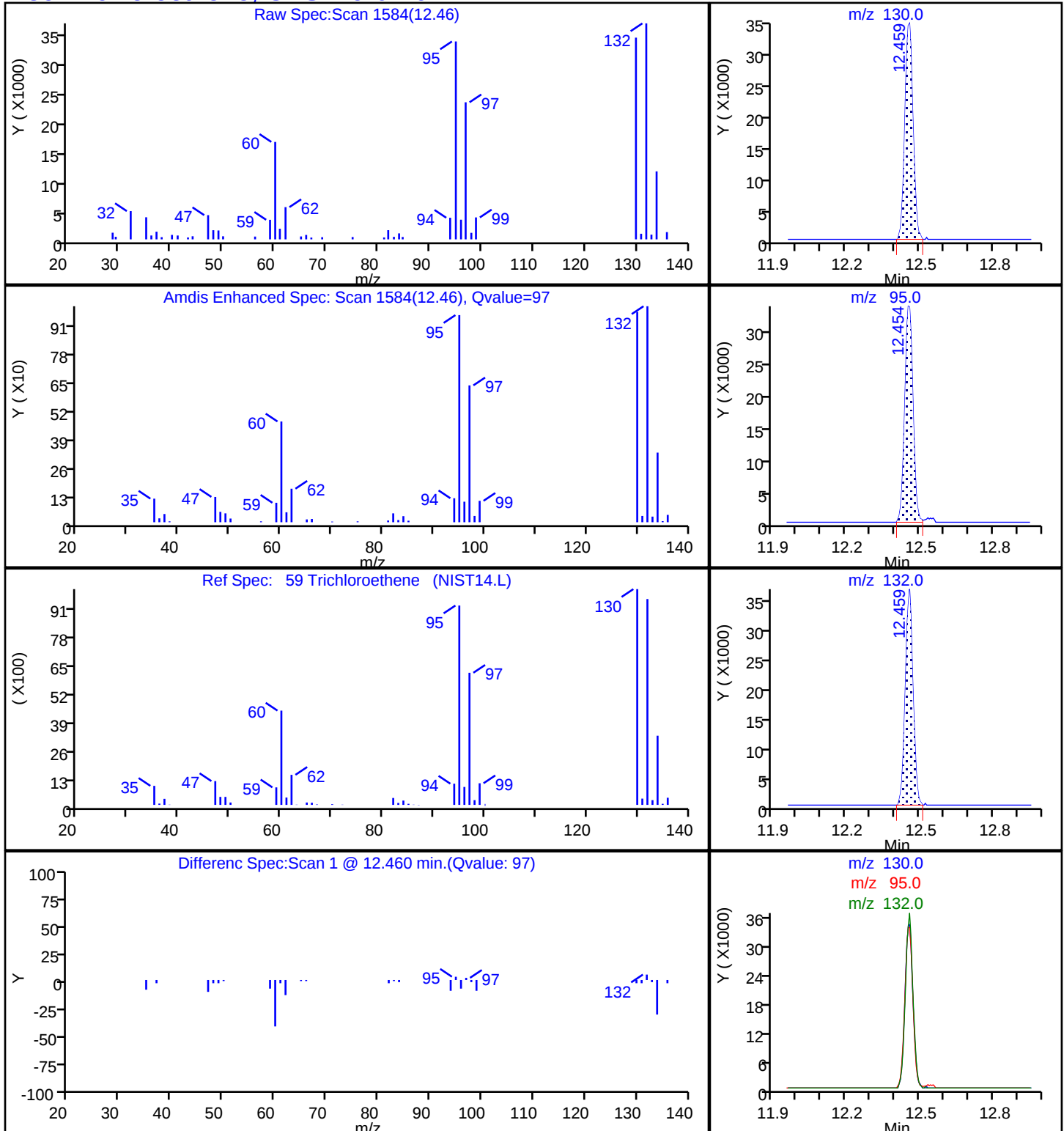
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

59 Trichloroethene, CAS: 79-01-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

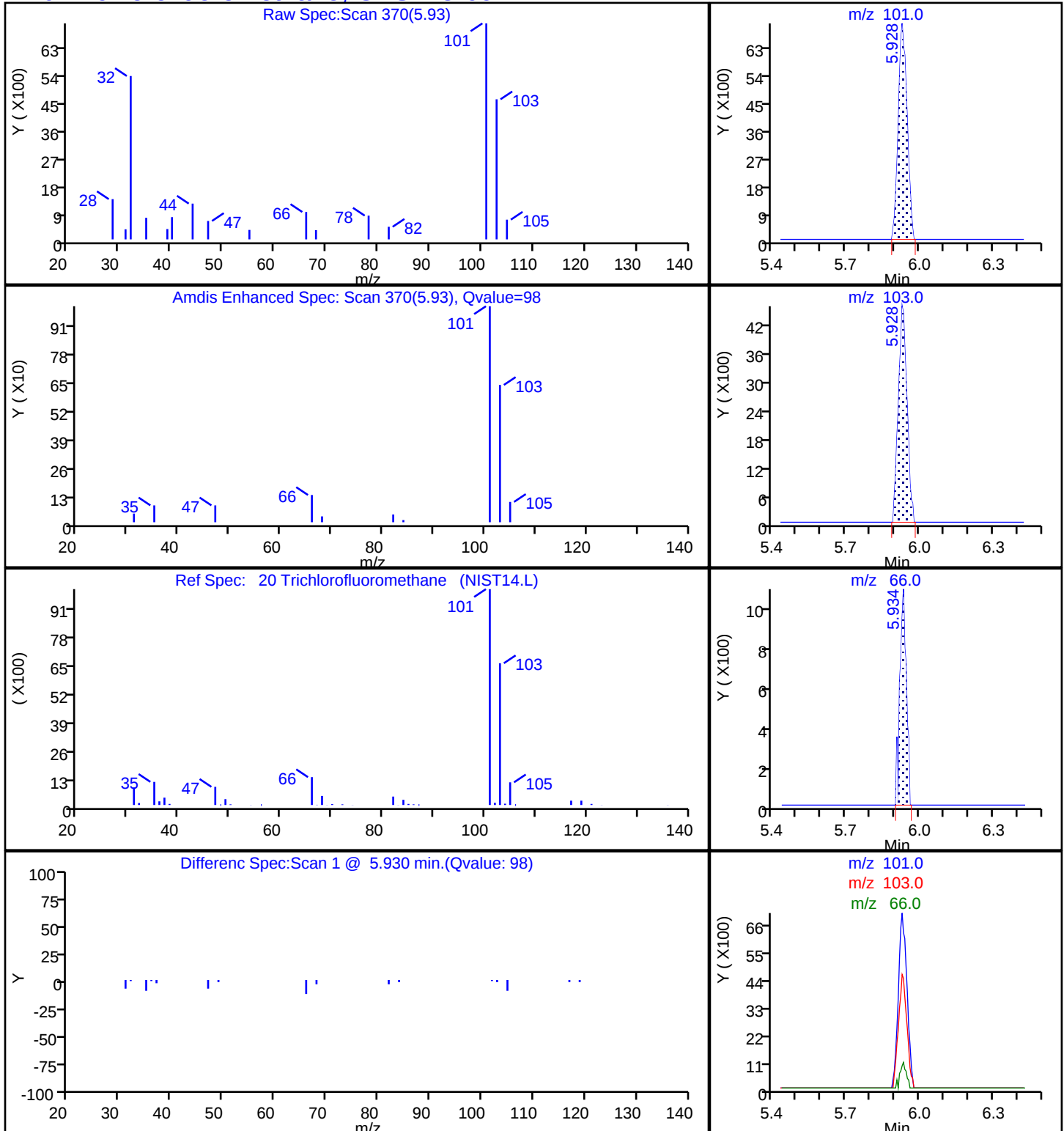
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

20 Trichlorofluoromethane, CAS: 75-69-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1

Worklist Smp#: 11

Purge Vol: 500.000 mL

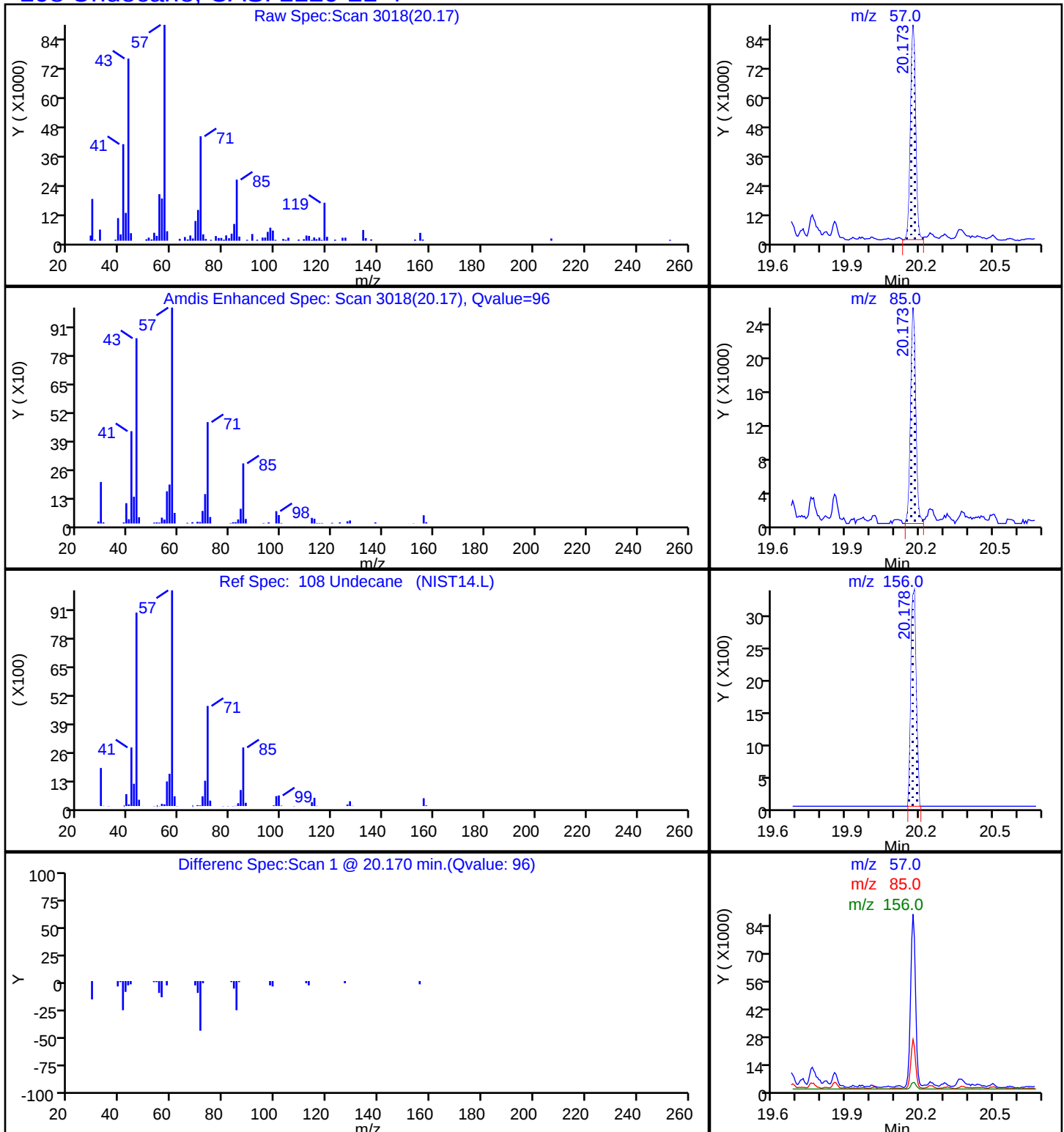
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

108 Undecane, CAS: 1120-21-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1 Worklist Smp#: 11

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

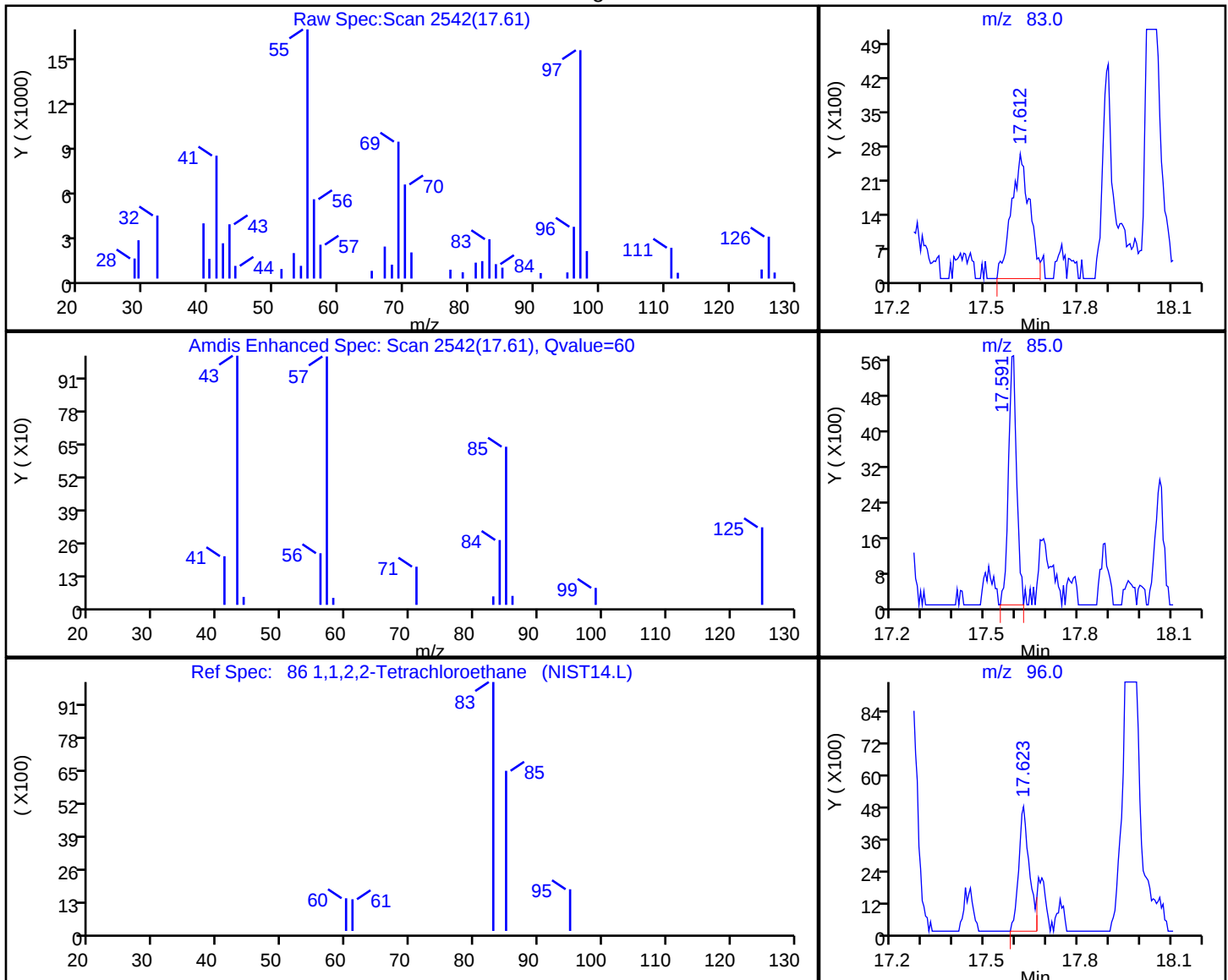
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

86 1,1,2,2-Tetrachloroethane, CAS: 79-34-5

Processing Results



RT	Mass	Response	Amount
17.61	83.00	10649	0.058777
17.59	85.00	10289	
17.62	96.00	11366	

Reviewer: tajh, 17-Apr-2018 09:09:12

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1 Worklist Smp#: 11

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

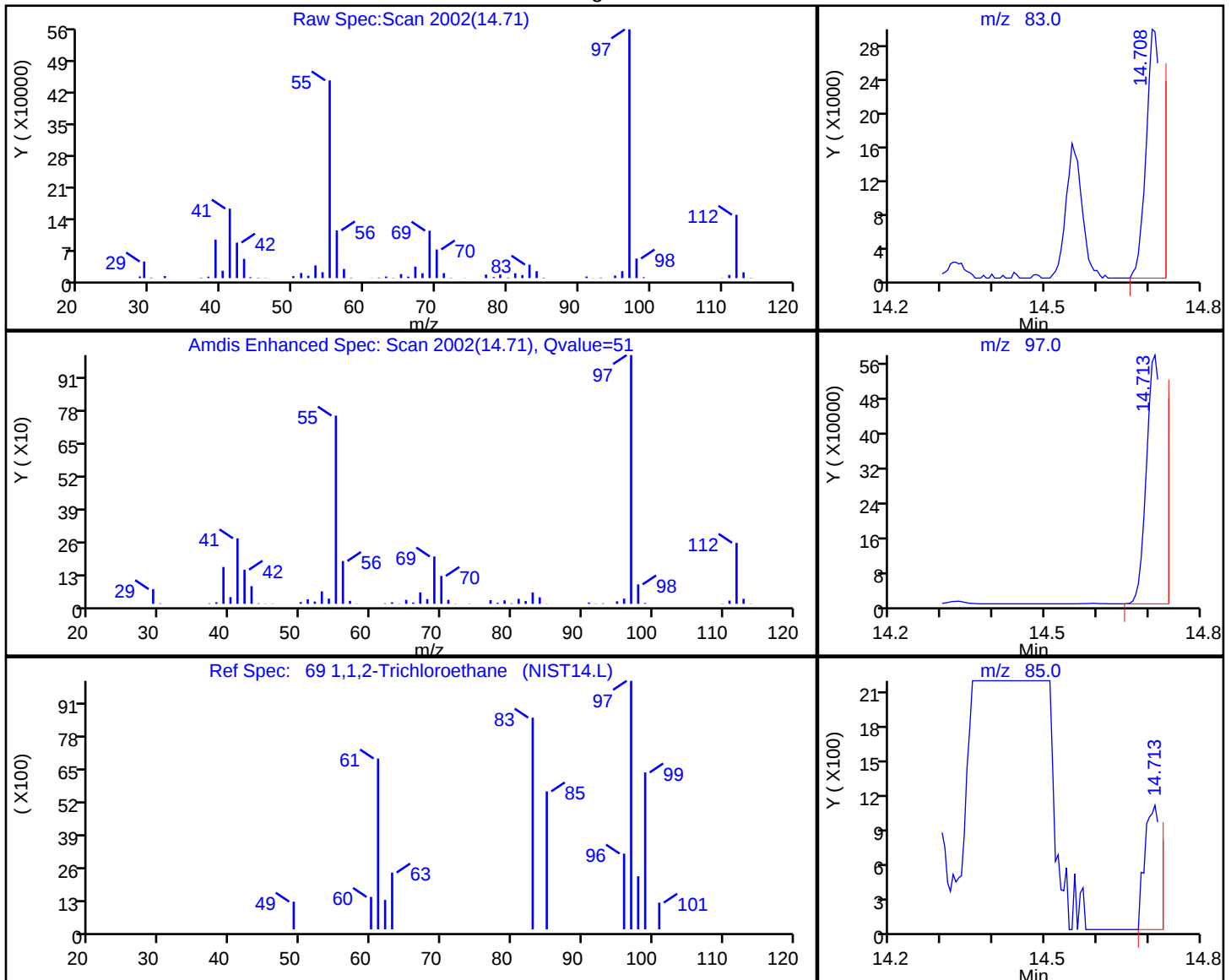
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

69 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
14.71	83.00	64368	0.827527
14.71	97.00	1260708	
14.71	85.00	2326	

Reviewer: tajh, 17-Apr-2018 09:09:12

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1 Worklist Smp#: 11

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

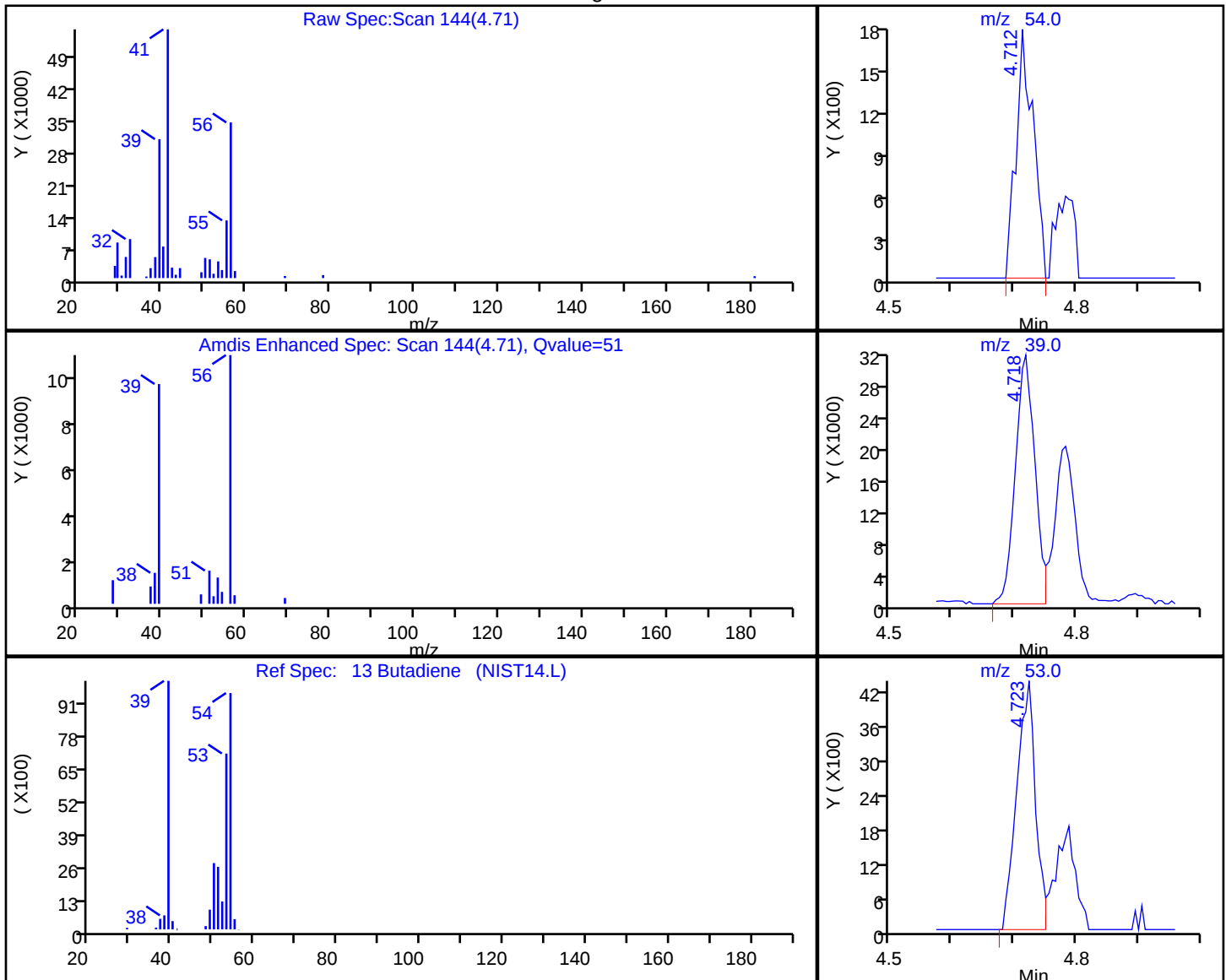
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

13 Butadiene, CAS: 106-99-0

Processing Results



RT	Mass	Response	Amount
4.71	54.00	3380	0.054026
4.72	39.00	70388	
4.72	53.00	9096	

Reviewer: tajh, 17-Apr-2018 09:09:12

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1 Worklist Smp#: 11

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

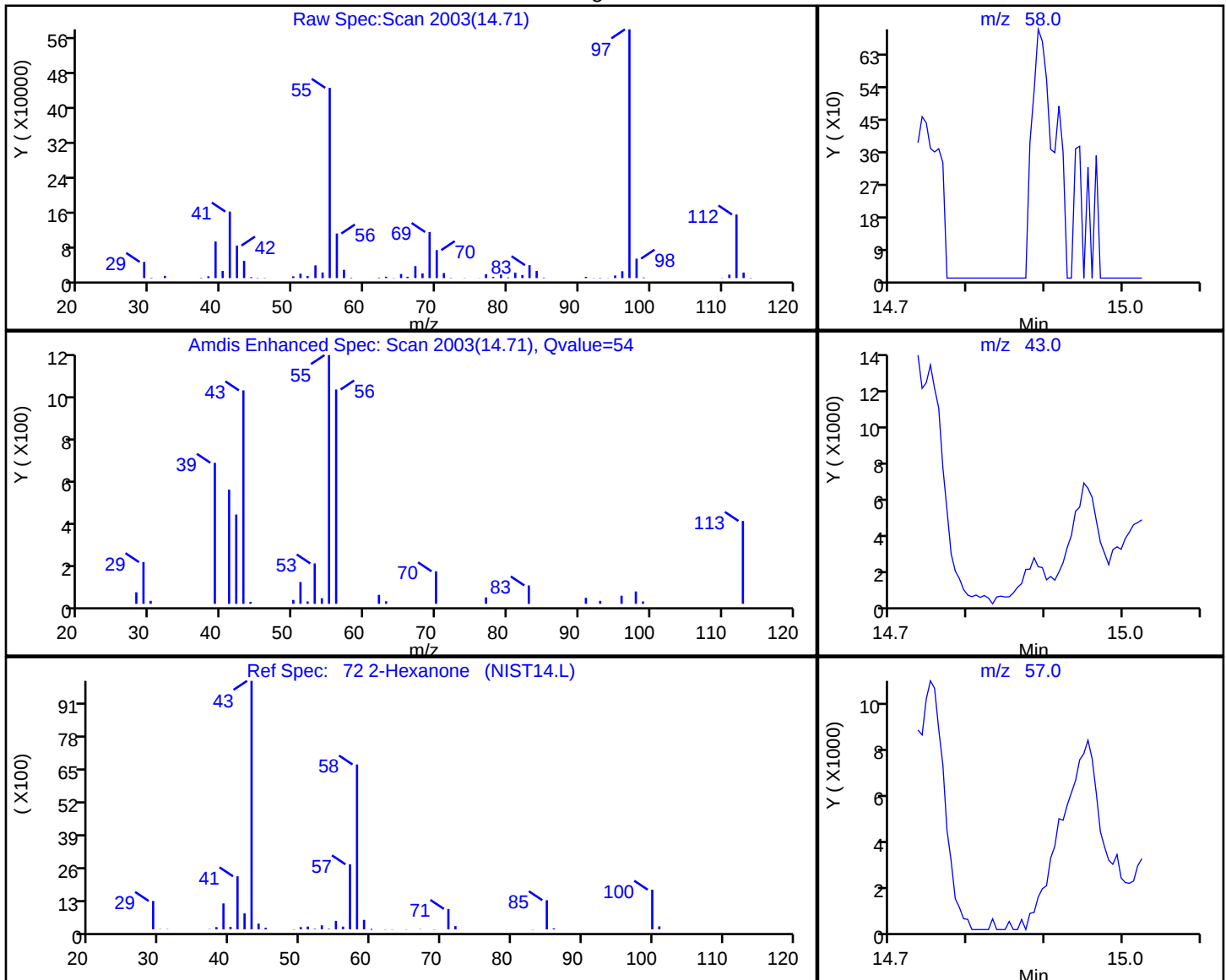
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

72 2-Hexanone, CAS: 591-78-6

Processing Results



RT	Mass	Response	Amount
14.71	58.00	2305	0.038422
14.71	43.00	98238	
14.71	57.00	45916	

Reviewer: tajh, 17-Apr-2018 09:09:12

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1 Worklist Smp#: 11

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

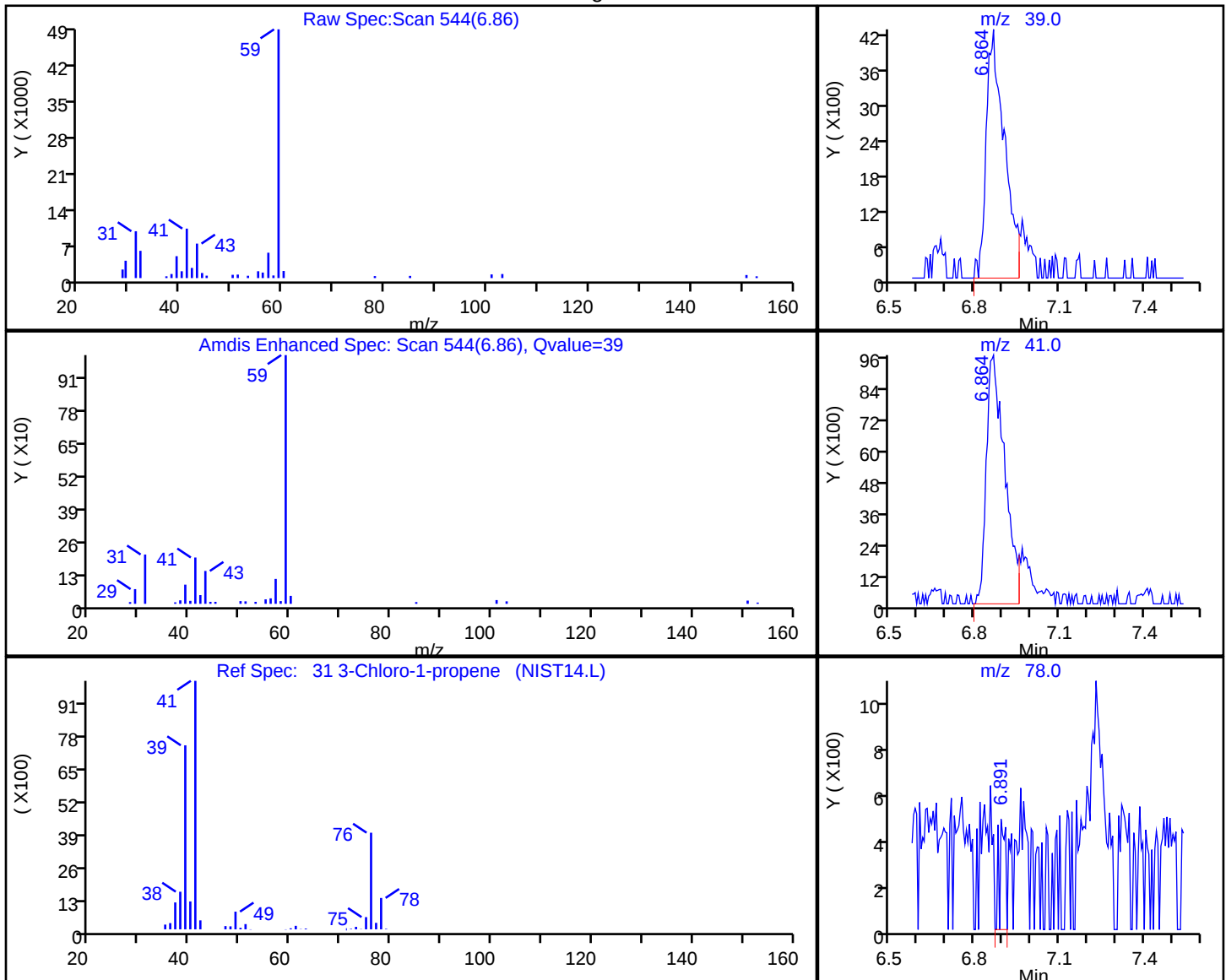
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

31 3-Chloro-1-propene, CAS: 107-05-1

Processing Results



RT	Mass	Response	Amount
6.86	39.00	19307	0.257398
6.86	41.00	44199	
6.89	78.00	655	

Reviewer: tajh, 17-Apr-2018 09:09:12

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1 Worklist Smp#: 11

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

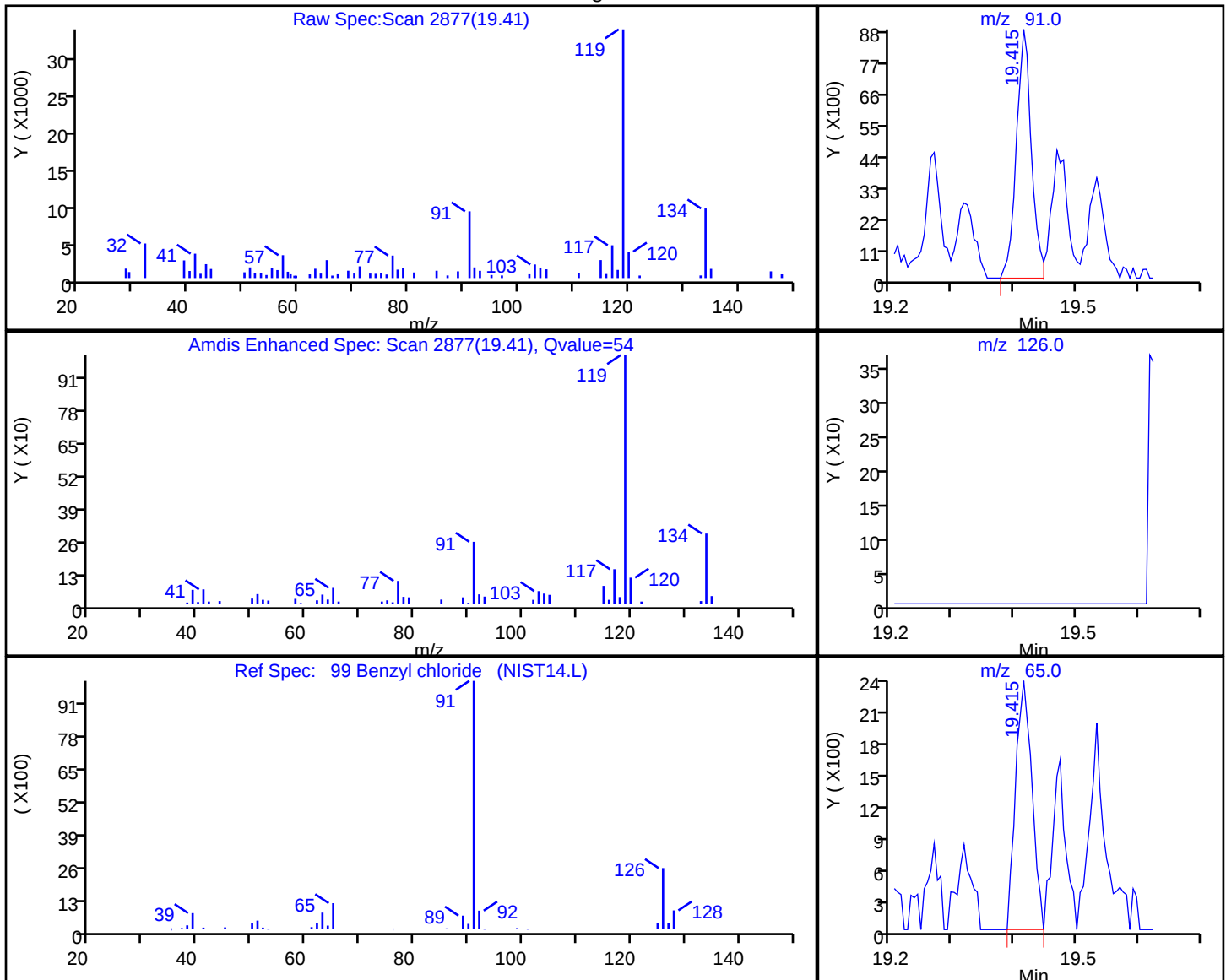
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

99 Benzyl chloride, CAS: 100-44-7

Processing Results



RT	Mass	Response	Amount
19.41	91.00	14970	0.067103
19.41	65.00	4367	
19.41	126.00	0	

Reviewer: tajh, 17-Apr-2018 09:09:12

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1 Worklist Smp#: 11

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

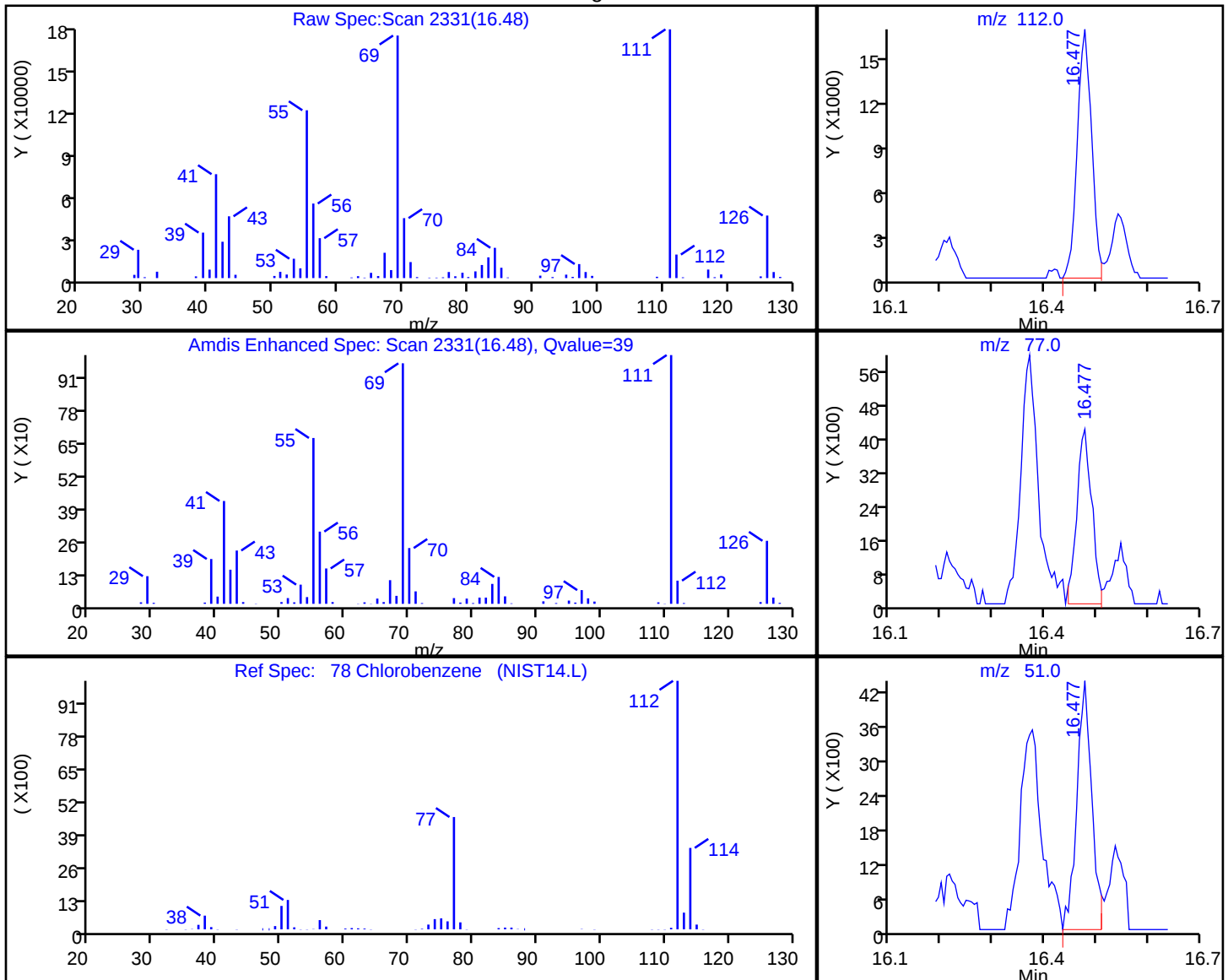
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

78 Chlorobenzene, CAS: 108-90-7

Processing Results



RT	Mass	Response	Amount
16.48	112.00	31453	0.153279
16.48	77.00	8517	
16.48	51.00	8670	

Reviewer: tajh, 17-Apr-2018 09:09:12

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1 Worklist Smp#: 11

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

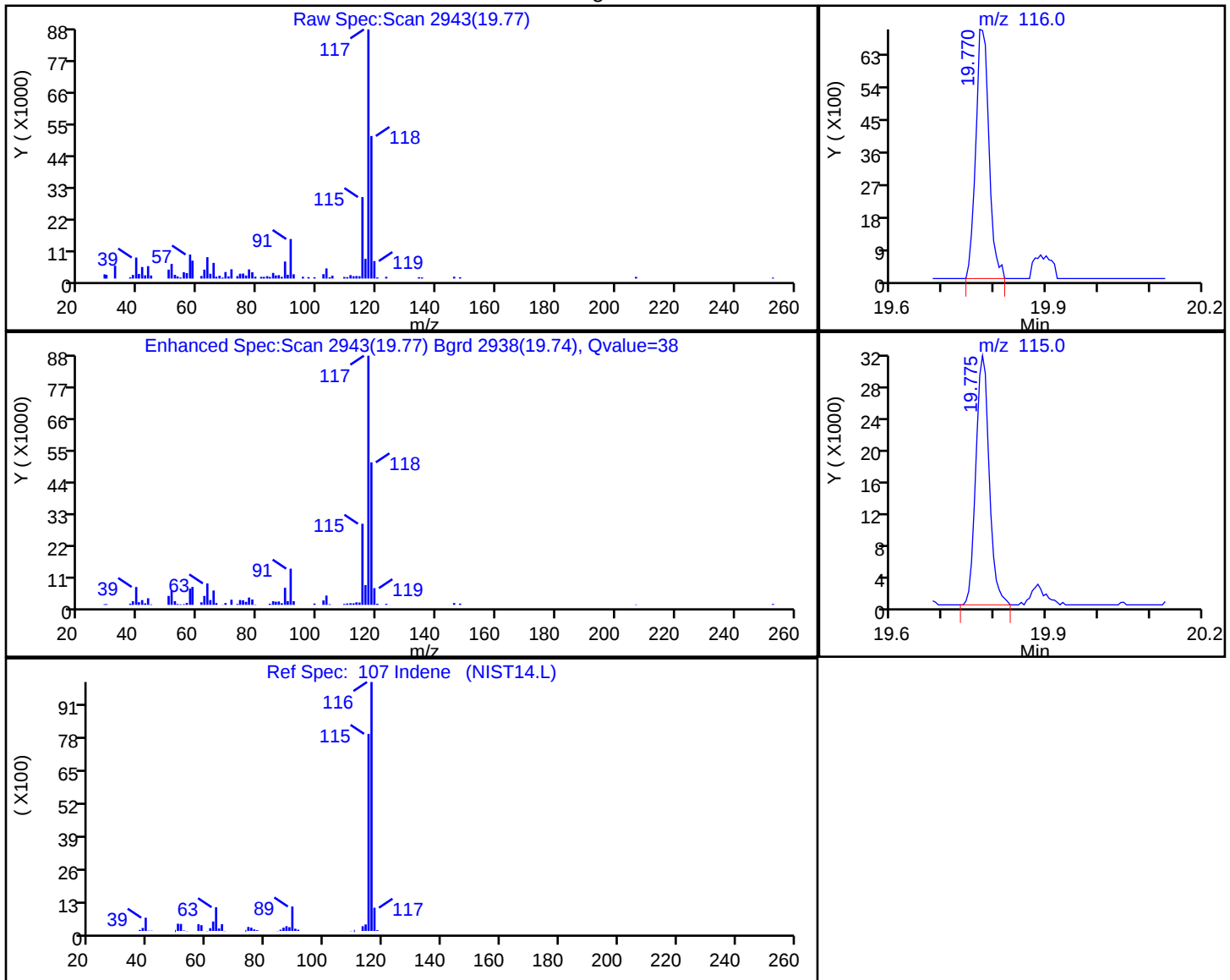
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

107 Indene, CAS: 95-13-6

Processing Results



RT	Mass	Response	Amount
19.77	116.00	12416	0.057257
19.77	115.00	56300	

Reviewer: tajh, 17-Apr-2018 09:09:12

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P101.D

Injection Date: 16-Apr-2018 15:56:30

Instrument ID: MJ

Lims ID: 140-11270-A-1

Lab Sample ID: 140-11270-1

Client ID: CL-SSV-1

Operator ID: 007126

ALS Bottle#: 1 Worklist Smp#: 11

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

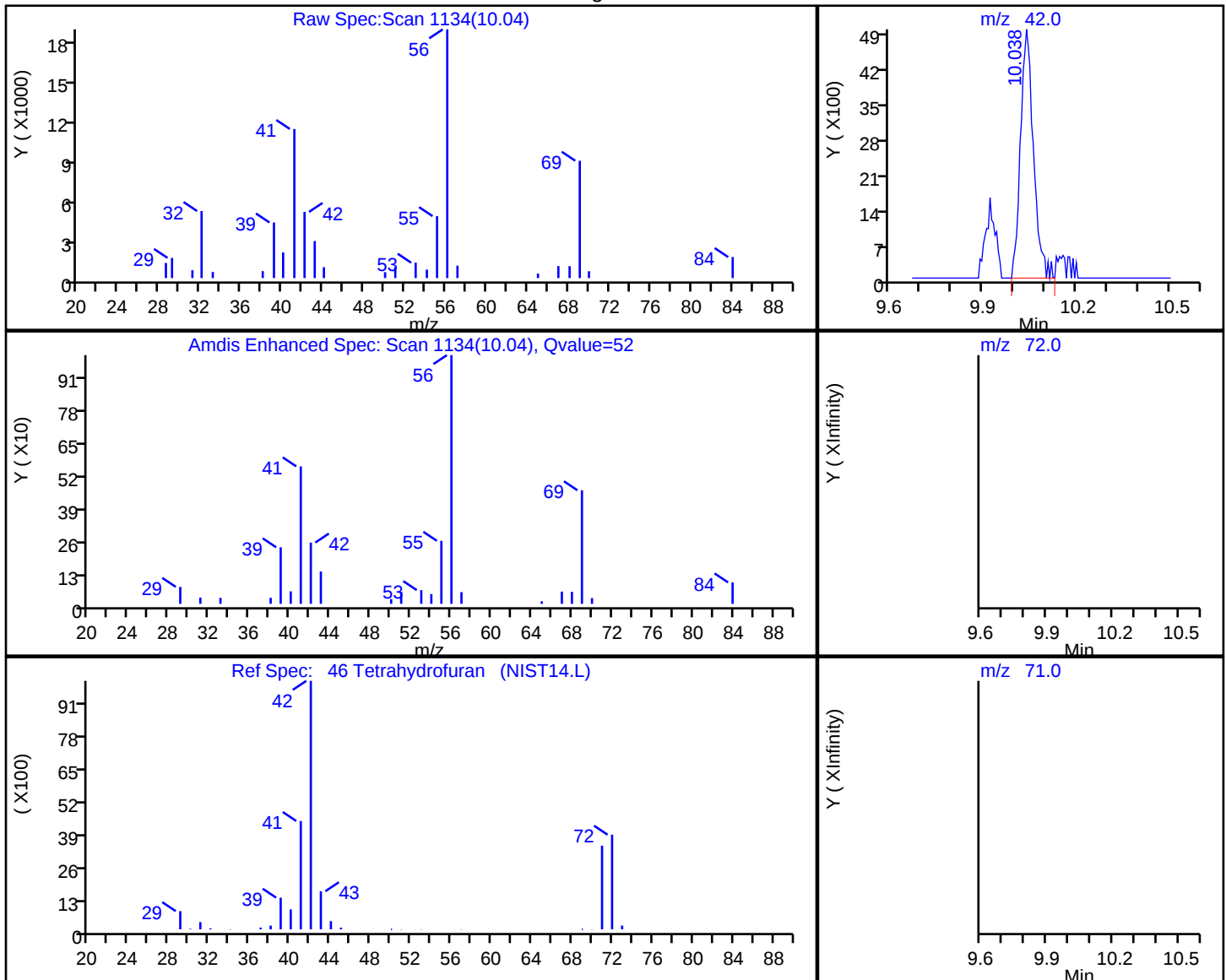
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

46 Tetrahydrofuran, CAS: 109-99-9

Processing Results



RT	Mass	Response	Amount
10.04	42.00	14340	0.199712
10.09	72.00	0	
10.09	71.00	0	

Reviewer: tajh, 17-Apr-2018 09:09:12

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1

SDG No.: _____

Client Sample ID: CL-IA-1 Lab Sample ID: 140-11270-2

Matrix: Air Lab File ID: JD16P102.D

Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:36

Sample wt/vol: 50 (mL) Date Analyzed: 04/16/2018 16:42

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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.80	0.12
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.80	0.24
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	ND		0.80	0.12
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.80	0.21
75-34-3	1,1-Dichloroethane	98.96	ND		0.80	0.10
75-35-4	1,1-Dichloroethene	96.94	ND		0.40	0.14
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	0.44	J	0.80	0.35
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.80	0.39
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		0.80	0.18
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		0.80	0.13
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.80	0.28
78-87-5	1,2-Dichloropropane	112.99	ND		0.80	0.21
108-67-8	1,3,5-Trimethylbenzene	120.20	1.7		0.80	0.26
106-99-0	1,3-Butadiene	54.09	ND		1.6	0.25
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.80	0.26
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.80	0.26
123-91-1	1,4-Dioxane	88.11	ND		2.0	0.32
90-12-0	1-Methylnaphthalene	142.20	ND	*	10	3.7
540-84-1	2,2,4-Trimethylpentane	114.23	0.63	J	2.0	0.16
78-93-3	2-Butanone (MEK)	72.11	5.2		3.2	0.80
591-78-6	2-Hexanone	100.20	ND		2.0	0.23
91-57-6	2-Methylnaphthalene	142.20	ND	*	10	3.5
107-05-1	3-Chloropropene	76.53	ND		0.80	0.19
622-96-8	4-Ethyltoluene	120.20	0.65	J	1.6	0.26
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		2.0	0.78
67-64-1	Acetone	58.08	130		20	5.4
71-43-2	Benzene	78.11	0.32	J	0.80	0.23
100-44-7	Benzyl chloride	126.58	ND		1.6	0.31
75-27-4	Bromodichloromethane	163.83	ND		0.80	0.18
75-25-2	Bromoform	252.75	ND		0.80	0.19
74-83-9	Bromomethane	94.94	ND		0.80	0.13
106-97-8	Butane	58.12	12		1.6	0.73
75-15-0	Carbon disulfide	76.14	ND		2.0	0.12

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-IA-1 Lab Sample ID: 140-11270-2
 Matrix: Air Lab File ID: JD16P102.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:36
 Sample wt/vol: 50 (mL) Date Analyzed: 04/16/2018 16:42
 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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	ND		0.32	0.15
108-90-7	Chlorobenzene	112.56	ND		0.80	0.20
75-00-3	Chloroethane	64.52	ND		0.80	0.14
67-66-3	Chloroform	119.38	ND		0.80	0.15
74-87-3	Chloromethane	50.49	0.94	J	2.0	0.64
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.40	0.24
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.80	0.29
110-82-7	Cyclohexane	84.16	ND		2.0	0.16
124-18-5	Decane	142.28	12		4.0	0.22
124-48-1	Dibromochloromethane	208.29	ND		0.80	0.17
75-71-8	Dichlorodifluoromethane	120.91	0.62	J	0.80	0.27
112-40-3	Dodecane	170.33	0.86	J	4.0	0.31
64-17-5	Ethanol	46.07	76		20	6.4
141-78-6	Ethyl acetate	88.11	ND		8.0	0.80
100-41-4	Ethylbenzene	106.17	0.63	J	0.80	0.27
142-82-5	Heptane	100.21	36		2.0	0.19
87-68-3	Hexachlorobutadiene	260.76	ND		0.80	0.49
110-54-3	Hexane	86.17	0.97	J	2.0	0.13
496-11-7	Indane	118.18	ND		0.80	0.33
95-13-6	Indene	116.16	ND		1.6	0.32
67-63-0	Isopropyl alcohol	60.10	3.0	J	8.0	0.94
1634-04-4	Methyl tert-butyl ether	88.15	ND		1.6	0.68
75-09-2	Methylene Chloride	84.93	1.9	J	2.0	1.3
179601-23-1	m-Xylene & p-Xylene	106.17	2.7		0.80	0.53
111-84-2	Nonane	128.26	9.4		2.0	0.17
111-65-9	Octane	114.23	0.96	J	1.6	0.14
95-47-6	o-Xylene	106.17	1.1		0.80	0.24
109-66-0	Pentane	72.15	3.3	J	4.0	1.6
100-42-5	Styrene	104.15	0.50	J	0.80	0.23
75-65-0	tert-Butyl alcohol	74.12	0.25	J	3.2	0.15
127-18-4	Tetrachloroethene	165.83	4.5		0.80	0.16
109-99-9	Tetrahydrofuran	72.11	0.38	J	4.0	0.25
110-02-1	Thiophene	84.14	ND		0.80	0.30
108-88-3	Toluene	92.14	8.3		1.2	1.2
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.80	0.20

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-IA-1 Lab Sample ID: 140-11270-2
 Matrix: Air Lab File ID: JD16P102.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:36
 Sample wt/vol: 50 (mL) Date Analyzed: 04/16/2018 16:42
 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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.80	0.19
79-01-6	Trichloroethene	131.39	ND		0.36	0.14
75-69-4	Trichlorofluoromethane	137.37	0.41	J	0.80	0.10
1120-21-4	Undecane	156.31	7.0		4.0	0.25
593-60-2	Vinyl bromide	106.96	ND		0.80	0.14
75-01-4	Vinyl chloride	62.50	ND		0.40	0.29

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1

SDG No.: _____

Client Sample ID: CL-IA-1 Lab Sample ID: 140-11270-2

Matrix: Air Lab File ID: JD16P102.D

Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:36

Sample wt/vol: 50 (mL) Date Analyzed: 04/16/2018 16:42

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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	ND		4.4	0.65
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		5.5	1.6
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	ND		6.1	0.92
79-00-5	1,1,2-Trichloroethane	133.41	ND		4.4	1.1
75-34-3	1,1-Dichloroethane	98.96	ND		3.2	0.40
75-35-4	1,1-Dichloroethene	96.94	ND		1.6	0.56
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	2.4	J	4.4	1.9
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		5.9	2.9
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		6.1	1.4
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		5.6	0.91
95-50-1	1,2-Dichlorobenzene	147.00	ND		4.8	1.7
78-87-5	1,2-Dichloropropane	112.99	ND		3.7	0.97
108-67-8	1,3,5-Trimethylbenzene	120.20	8.4		3.9	1.3
106-99-0	1,3-Butadiene	54.09	ND		3.5	0.55
541-73-1	1,3-Dichlorobenzene	147.00	ND		4.8	1.6
106-46-7	1,4-Dichlorobenzene	147.00	ND		4.8	1.6
123-91-1	1,4-Dioxane	88.11	ND		7.2	1.2
90-12-0	1-Methylnaphthalene	142.20	ND	*	58	22
540-84-1	2,2,4-Trimethylpentane	114.23	3.0	J	9.3	0.75
78-93-3	2-Butanone (MEK)	72.11	15		9.4	2.4
591-78-6	2-Hexanone	100.20	ND		8.2	0.94
91-57-6	2-Methylnaphthalene	142.20	ND	*	58	20
107-05-1	3-Chloropropene	76.53	ND		2.5	0.59
622-96-8	4-Ethyltoluene	120.20	3.2	J	7.9	1.3
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		8.2	3.2
67-64-1	Acetone	58.08	300		48	13
71-43-2	Benzene	78.11	1.0	J	2.6	0.73
100-44-7	Benzyl chloride	126.58	ND		8.3	1.6
75-27-4	Bromodichloromethane	163.83	ND		5.4	1.2
75-25-2	Bromoform	252.75	ND		8.3	2.0
74-83-9	Bromomethane	94.94	ND		3.1	0.50
106-97-8	Butane	58.12	30		3.8	1.7
75-15-0	Carbon disulfide	76.14	ND		6.2	0.37

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-IA-1 Lab Sample ID: 140-11270-2
 Matrix: Air Lab File ID: JD16P102.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:36
 Sample wt/vol: 50 (mL) Date Analyzed: 04/16/2018 16:42
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	ND		2.0	0.94
108-90-7	Chlorobenzene	112.56	ND		3.7	0.92
75-00-3	Chloroethane	64.52	ND		2.1	0.37
67-66-3	Chloroform	119.38	ND		3.9	0.73
74-87-3	Chloromethane	50.49	1.9	J	4.1	1.3
156-59-2	cis-1,2-Dichloroethene	96.94	ND		1.6	0.95
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		3.6	1.3
110-82-7	Cyclohexane	84.16	ND		6.9	0.55
124-18-5	Decane	142.28	70		23	1.3
124-48-1	Dibromochloromethane	208.29	ND		6.8	1.4
75-71-8	Dichlorodifluoromethane	120.91	3.1	J	4.0	1.3
112-40-3	Dodecane	170.33	6.0	J	28	2.2
64-17-5	Ethanol	46.07	140		38	12
141-78-6	Ethyl acetate	88.11	ND		29	2.9
100-41-4	Ethylbenzene	106.17	2.7	J	3.5	1.2
142-82-5	Heptane	100.21	150		8.2	0.78
87-68-3	Hexachlorobutadiene	260.76	ND		8.5	5.2
110-54-3	Hexane	86.17	3.4	J	7.0	0.46
496-11-7	Indane	118.18	ND		3.9	1.6
95-13-6	Indene	116.16	ND		7.6	1.5
67-63-0	Isopropyl alcohol	60.10	7.3	J	20	2.3
1634-04-4	Methyl tert-butyl ether	88.15	ND		5.8	2.5
75-09-2	Methylene Chloride	84.93	6.5	J	6.9	4.5
179601-23-1	m-Xylene & p-Xylene	106.17	12		3.5	2.3
111-84-2	Nonane	128.26	49		10	0.89
111-65-9	Octane	114.23	4.5	J	7.5	0.65
95-47-6	o-Xylene	106.17	4.6		3.5	1.0
109-66-0	Pentane	72.15	9.8	J	12	4.7
100-42-5	Styrene	104.15	2.1	J	3.4	0.98
75-65-0	tert-Butyl alcohol	74.12	0.76	J	9.7	0.45
127-18-4	Tetrachloroethene	165.83	30		5.4	1.1
109-99-9	Tetrahydrofuran	72.11	1.1	J	12	0.74
110-02-1	Thiophene	84.14	ND		2.8	1.0
108-88-3	Toluene	92.14	31		4.5	4.5
156-60-5	trans-1,2-Dichloroethene	96.94	ND		3.2	0.79

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-IA-1 Lab Sample ID: 140-11270-2
 Matrix: Air Lab File ID: JD16P102.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:36
 Sample wt/vol: 50 (mL) Date Analyzed: 04/16/2018 16:42
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		3.6	0.86
79-01-6	Trichloroethene	131.39	ND		1.9	0.75
75-69-4	Trichlorofluoromethane	137.37	2.3	J	4.5	0.56
1120-21-4	Undecane	156.31	45		26	1.6
593-60-2	Vinyl bromide	106.96	ND		3.5	0.61
75-01-4	Vinyl chloride	62.50	ND		1.0	0.74

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	99		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D
 Lims ID: 140-11270-A-2
 Client ID: CL-IA-1
 Sample Type: Client
 Inject. Date: 16-Apr-2018 16:42:30 ALS Bottle#: 2 Worklist Smp#: 12
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007901-012
 Misc. Info.: 140-11270-a-2
 Operator ID: 007126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 17-Apr-2018 09:47:35 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK001

First Level Reviewer: tajh

Date: 17-Apr-2018 08:58:23

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.669	9.662	0.007	89	275944	4.00	
* 2 1,4-Difluorobenzene	114	11.767	11.765	0.002	95	1520558	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.367	16.364	0.003	87	1365876	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.970	17.973	-0.003	97	982335	3.98	
8 Dichlorodifluoromethane	85	4.279	4.266	0.013	99	15343	0.0620	
9 Chloromethane	52	4.500	4.476	0.024	96	2716	0.0938	
14 Butane	43	4.785	4.766	0.019	94	172492	1.25	
17 Ethanol	31	5.436	5.412	0.024	95	252779	7.56	
20 Trichlorofluoromethane	101	5.936	5.917	0.019	97	9723	0.0406	
22 Acetone	58	6.065	6.057	0.008	98	394881	12.6	
24 Pentane	72	6.173	6.154	0.019	97	4854	0.3324	
25 Isopropyl alcohol	45	6.286	6.170	0.116	98	26765	0.2972	
30 2-Methyl-2-propanol	59	6.985	6.810	0.175	68	6450	0.0251	
32 Methylene Chloride	84	7.055	7.042	0.013	94	18581	0.1880	
40 2-Butanone (MEK)	72	8.905	8.887	0.018	96	18375	0.5209	
39 Hexane	56	8.900	8.898	0.002	51	7205	0.0971	
46 Tetrahydrofuran	42	10.143	10.087	0.056	89	3200	0.0383	
50 Benzene	78	11.272	11.265	0.007	95	8568	0.0317	
56 Isooctane	57	11.977	11.969	0.008	94	27384	0.0633	
57 n-Heptane	71	12.321	12.319	0.002	90	341604	3.60	
68 Toluene	91	14.435	14.433	0.002	94	239184	0.8299	
73 n-Octane	85	15.076	15.079	-0.003	92	9562	0.0955	
76 Tetrachloroethene	129	15.554	15.552	0.002	96	51191	0.4478	
79 Ethylbenzene	91	16.689	16.687	0.002	95	22528	0.0631	
81 m-Xylene & p-Xylene	91	16.845	16.849	-0.004	100	72788	0.2721	
82 n-Nonane	57	17.233	17.231	0.003	91	183651	0.9421	
83 Styrene	104	17.313	17.311	0.002	97	10262	0.0495	
85 o-Xylene	91	17.373	17.370	0.003	99	29971	0.1056	
91 4-Ethyltoluene	105	18.583	18.586	-0.003	97	24260	0.0651	M
92 1,3,5-Trimethylbenzene	120	18.653	18.651	0.002	93	26657	0.1709	
94 n-Decane	57	18.906	18.909	-0.003	91	276854	1.20	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
108 Undecane	57	20.170	20.173	-0.003	95	168211	0.7027	
111 1,2,4,5-Tetramethylbenzene	119	20.643	20.641	0.002	94	13828	0.0437	
114 Dodecane	57	21.257	21.254	0.003	96	22144	0.0860	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Operator ID: 007126

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Worklist Smp#: 12

Client ID: CL-IA-1

Purge Vol: 500.000 mL

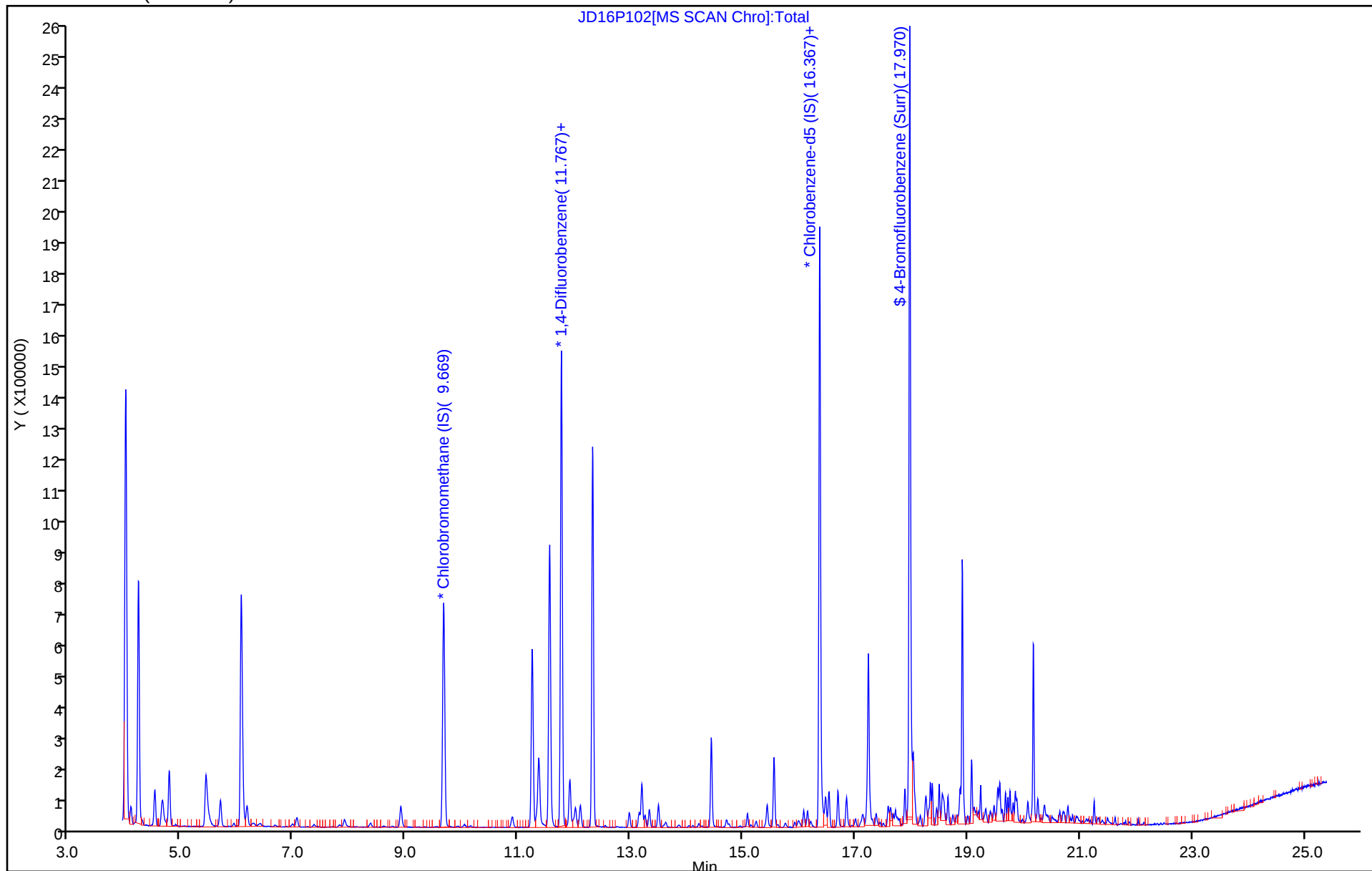
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P102.D
Lims ID: 140-11270-A-2
Client ID: CL-IA-1
Sample Type: Client
Inject. Date: 16-Apr-2018 16:42:30 ALS Bottle#: 2 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0007901-012
Misc. Info.: 140-11270-a-2
Operator ID: 007126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 17-Apr-2018 09:47:35 Calib Date: 15-Feb-2018 22:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: tajh

Date: 17-Apr-2018 08:58:23

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	3.98	99.45

TestAmerica Knoxville

Data File: \\ChromNA\\Knoxville\\ChromData\\MJ\\20180412-7901.b\\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

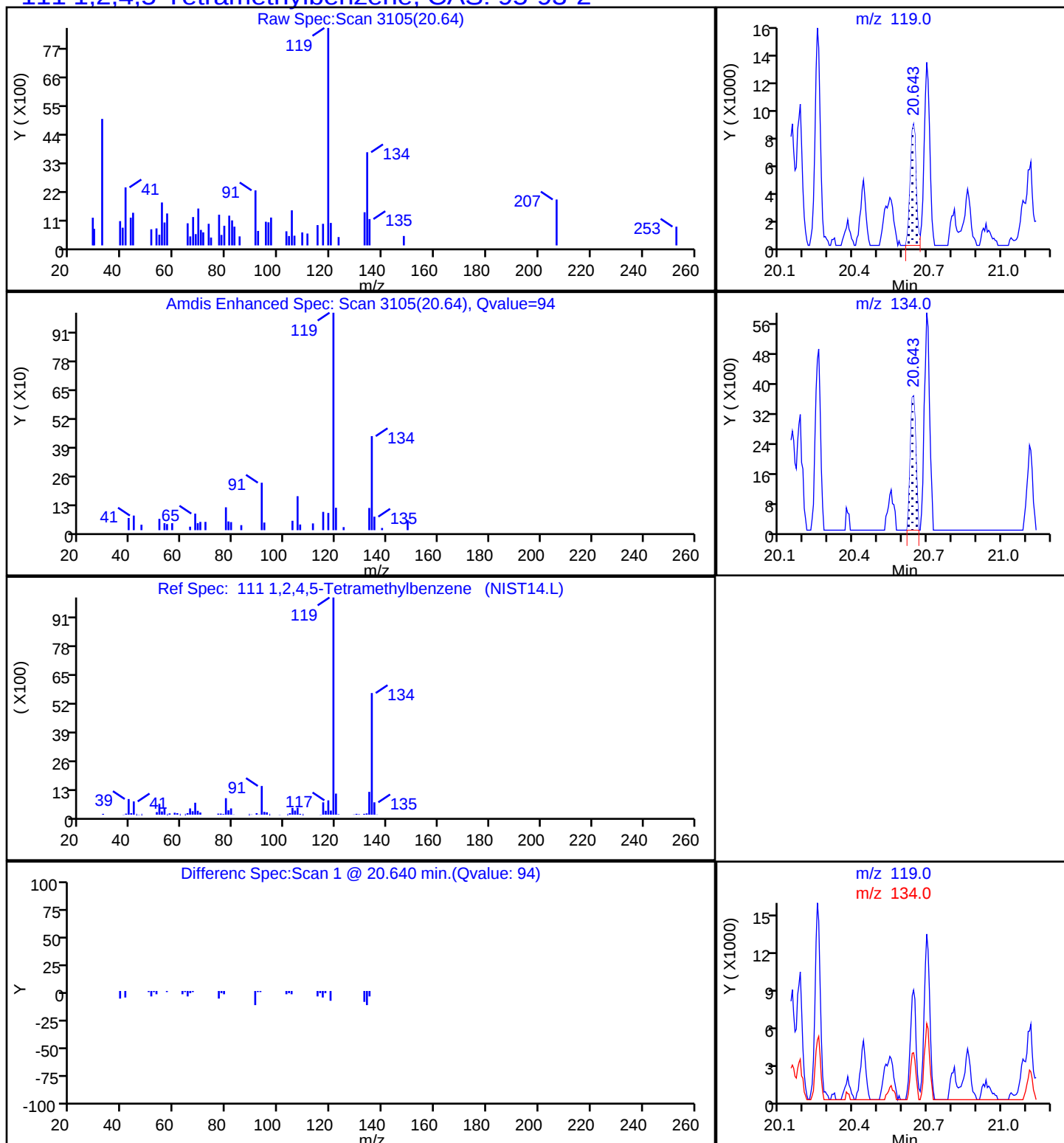
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

111 1,2,4,5-Tetramethylbenzene, CAS: 95-93-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

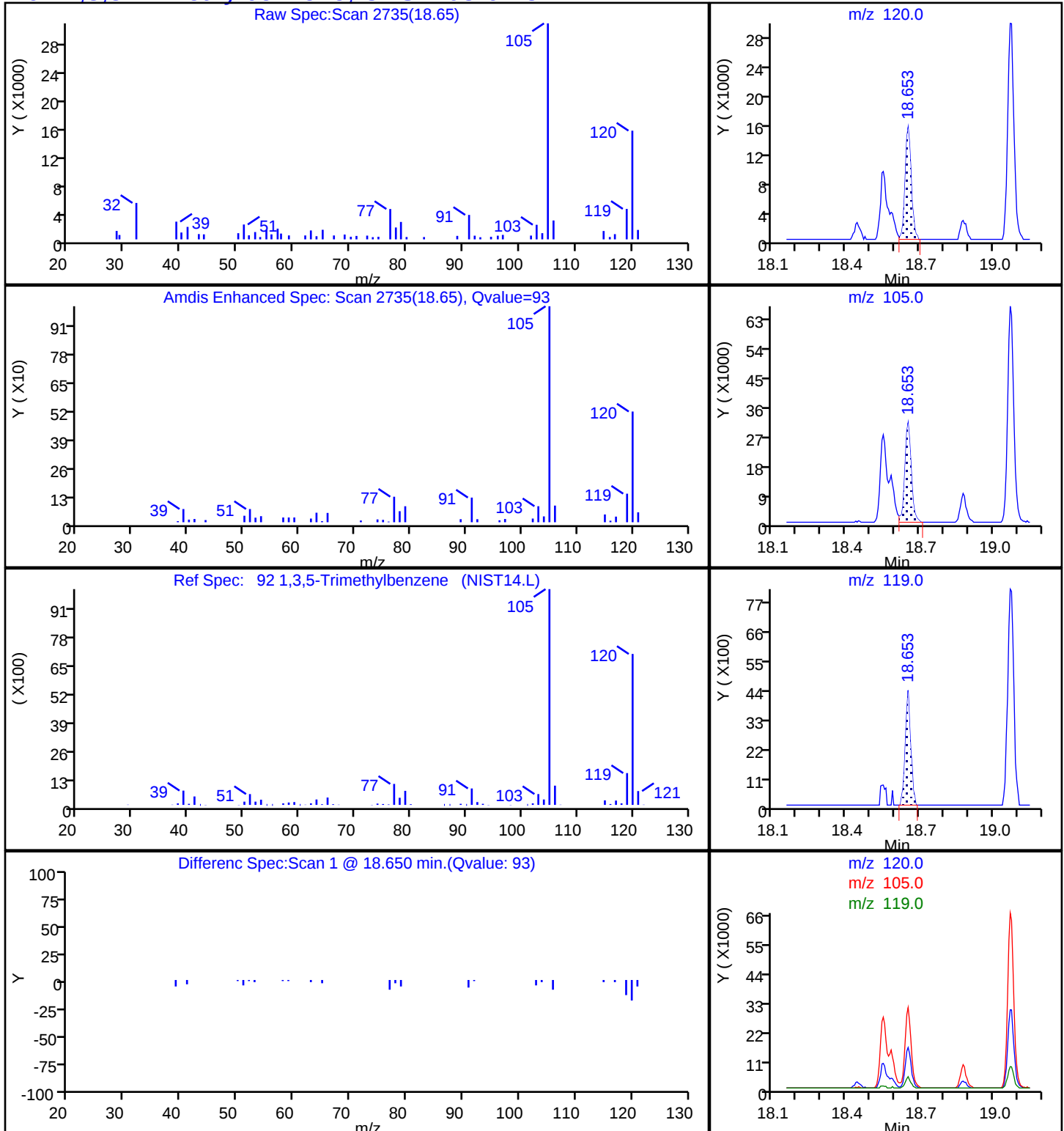
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

92 1,3,5-Trimethylbenzene, CAS: 108-67-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

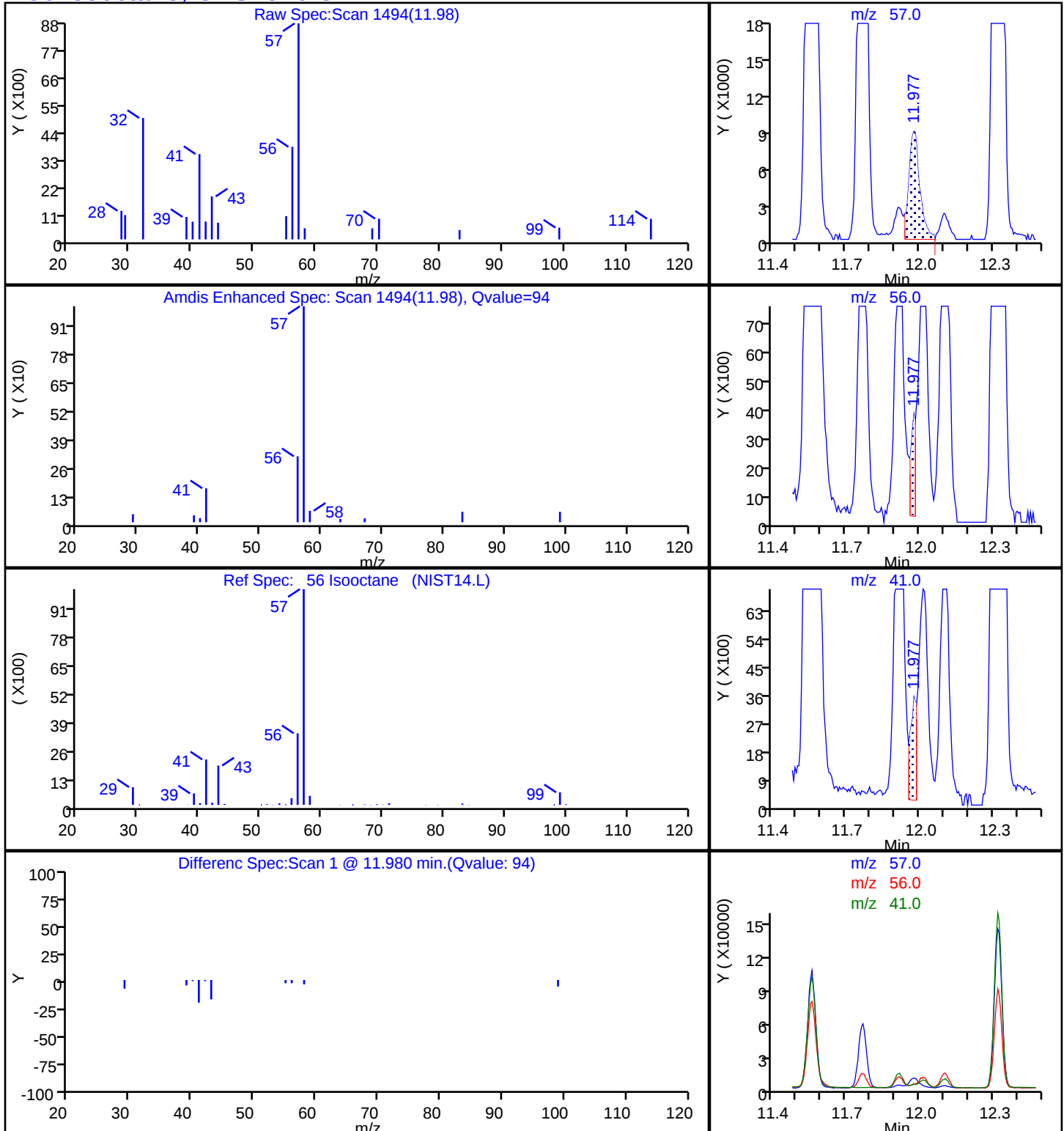
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

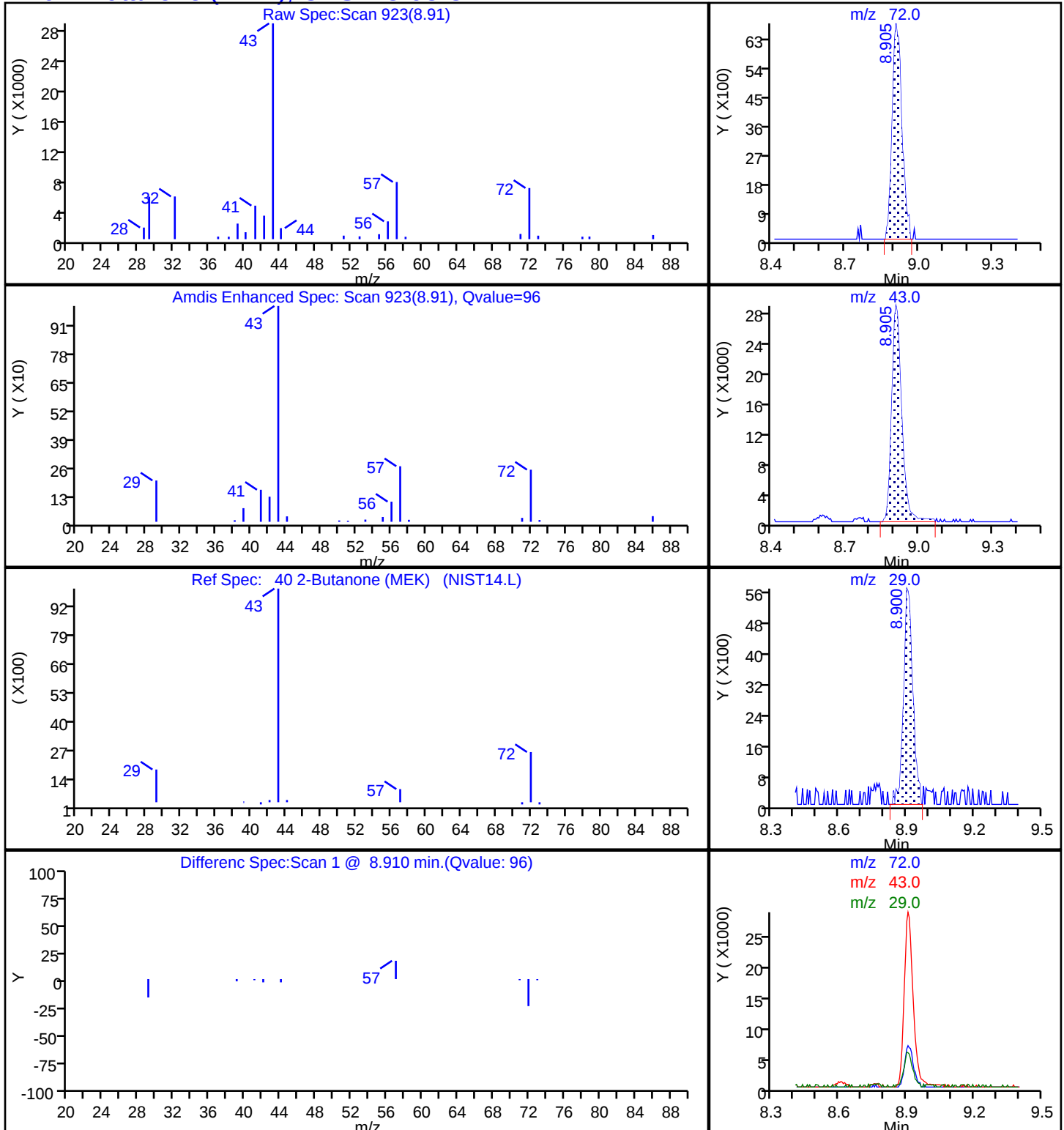
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 2-Butanone (MEK), CAS: 78-93-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

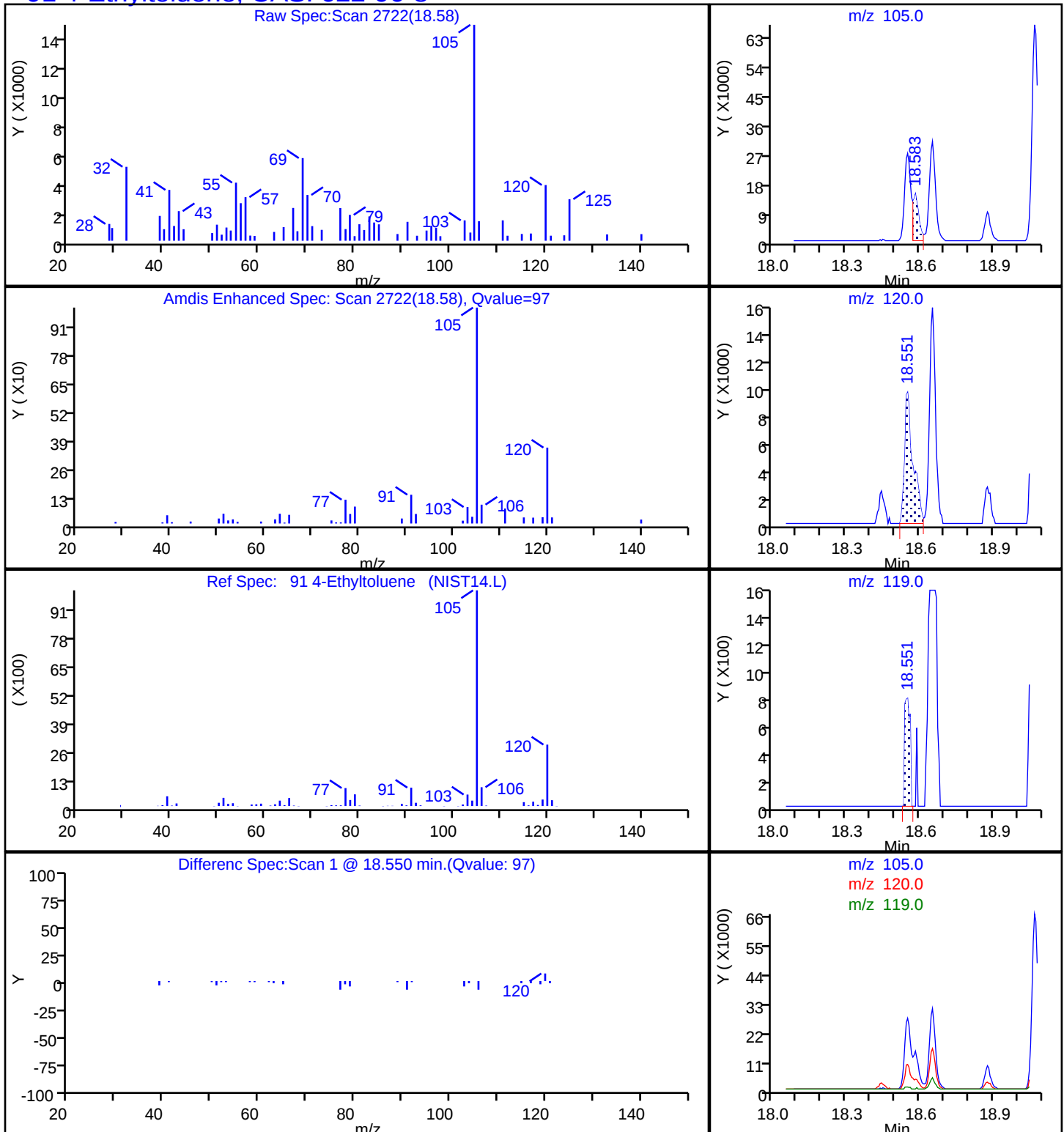
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

91 4-Ethyltoluene, CAS: 622-96-8

TestAmerica Knoxville

Data File: \\ChromNA\\Knoxville\\ChromData\\MJ\\20180412-7901.b\\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

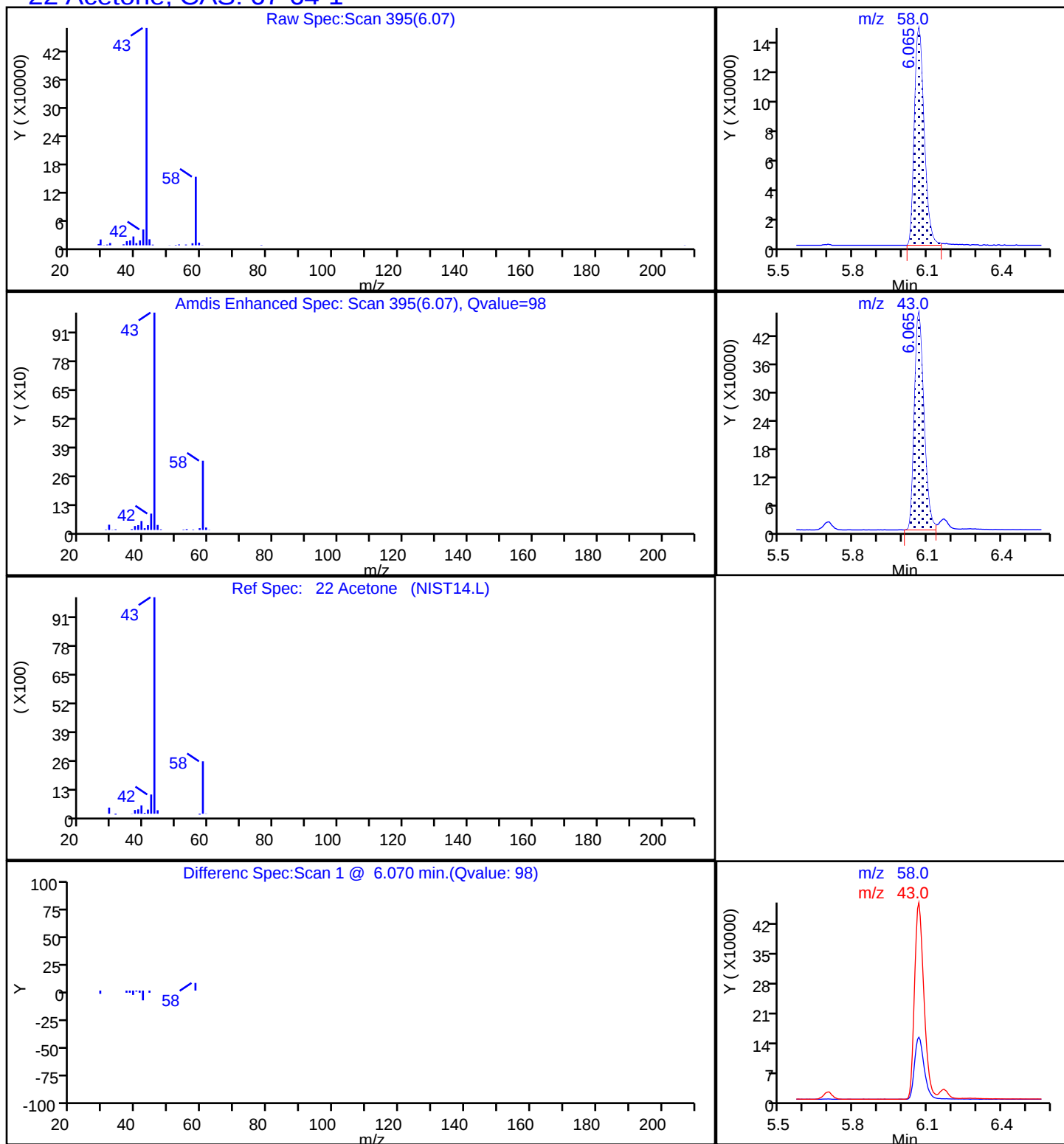
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

22 Acetone, CAS: 67-64-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

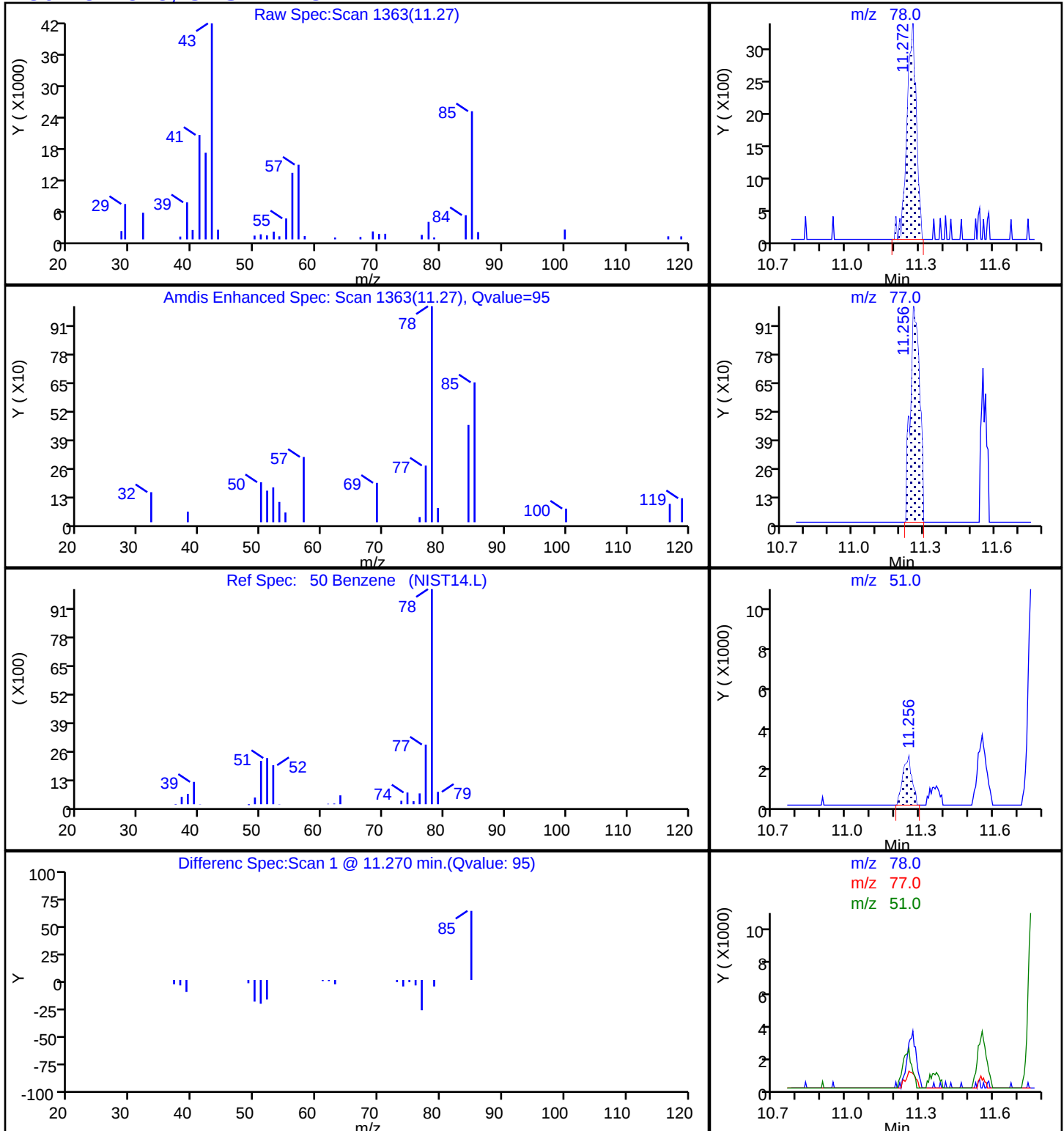
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

50 Benzene, CAS: 71-43-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

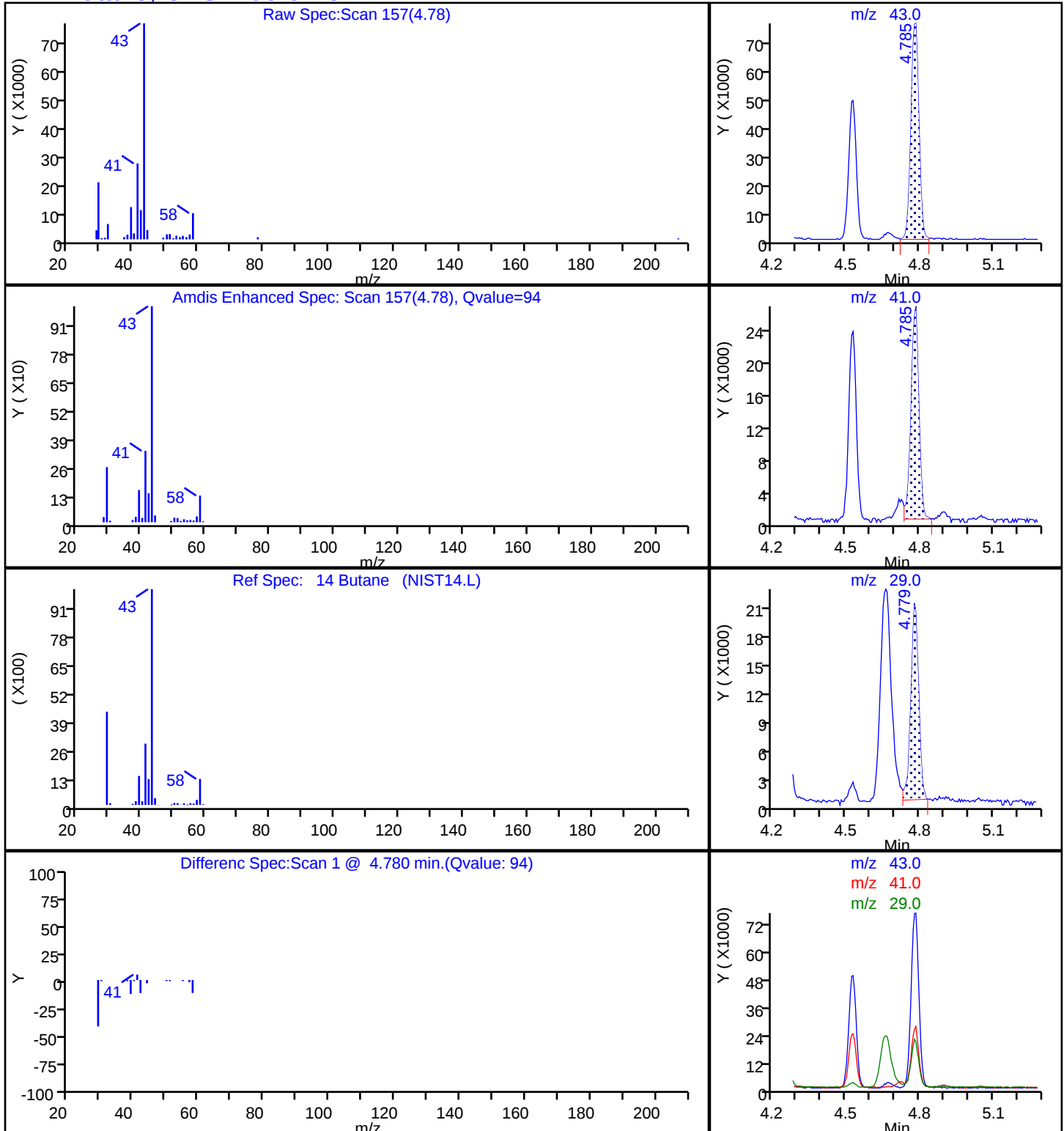
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

14 Butane, CAS: 106-97-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

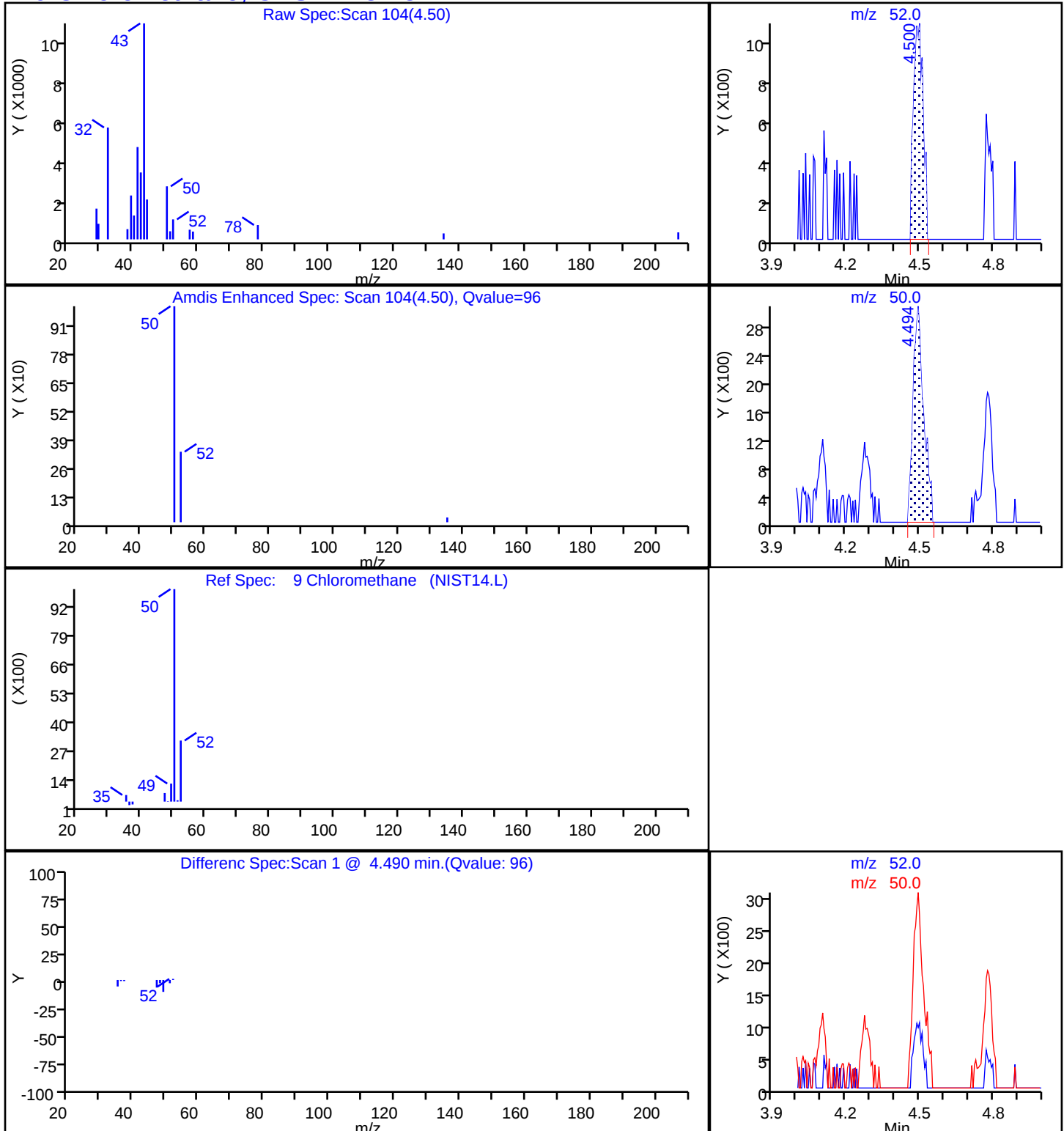
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

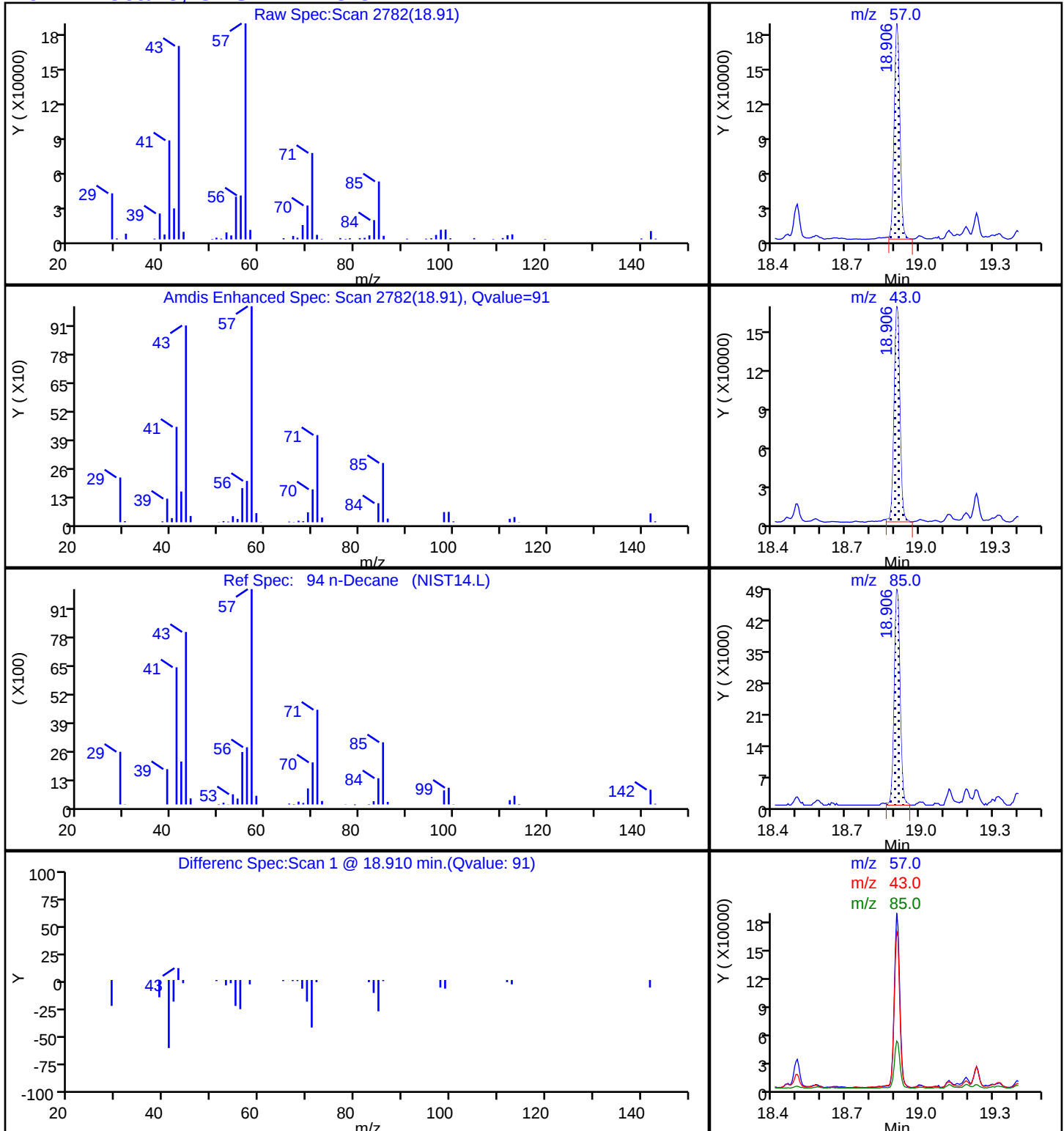
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

94 n-Decane, CAS: 124-18-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

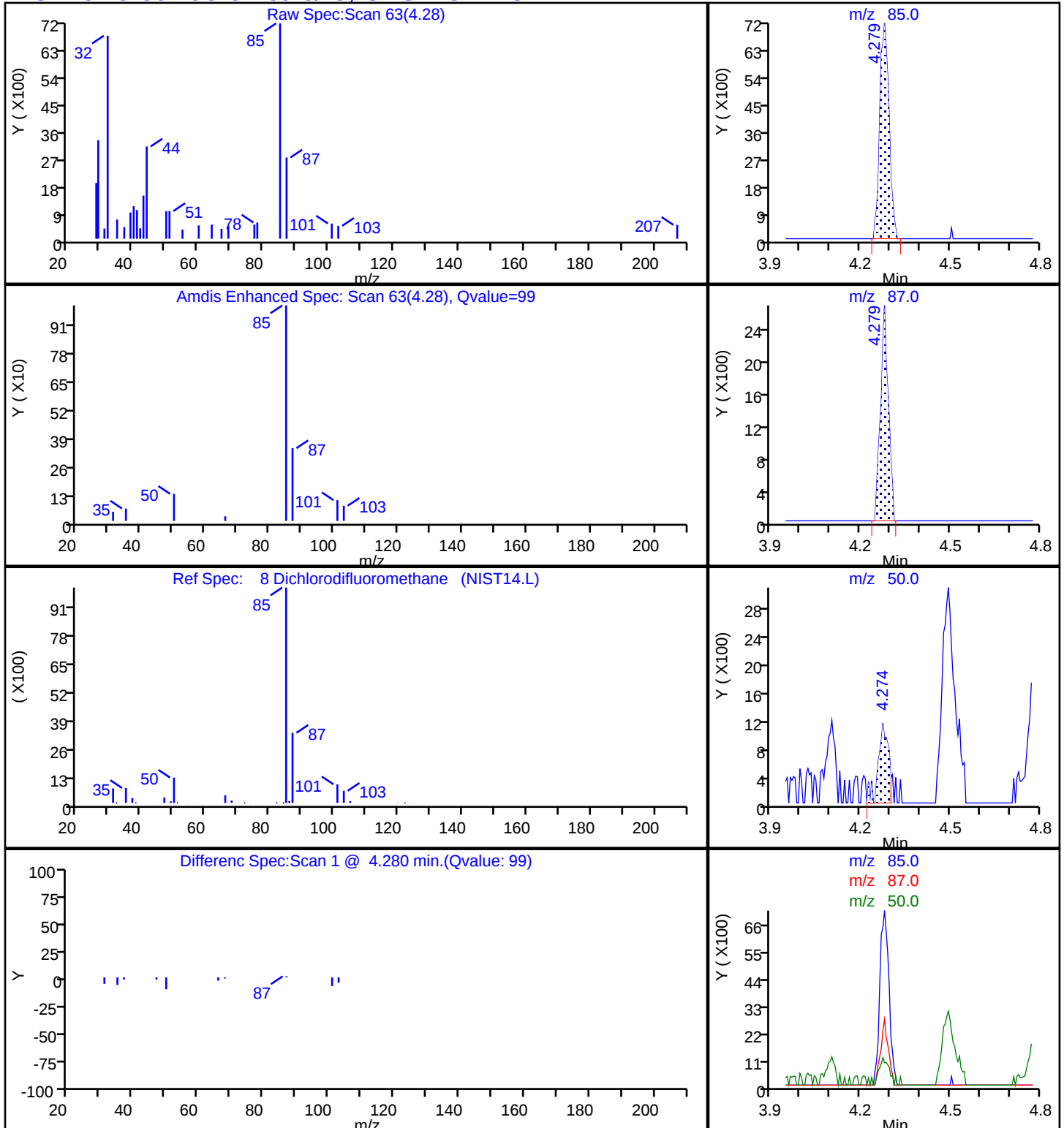
Method: MJ_TO15

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\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

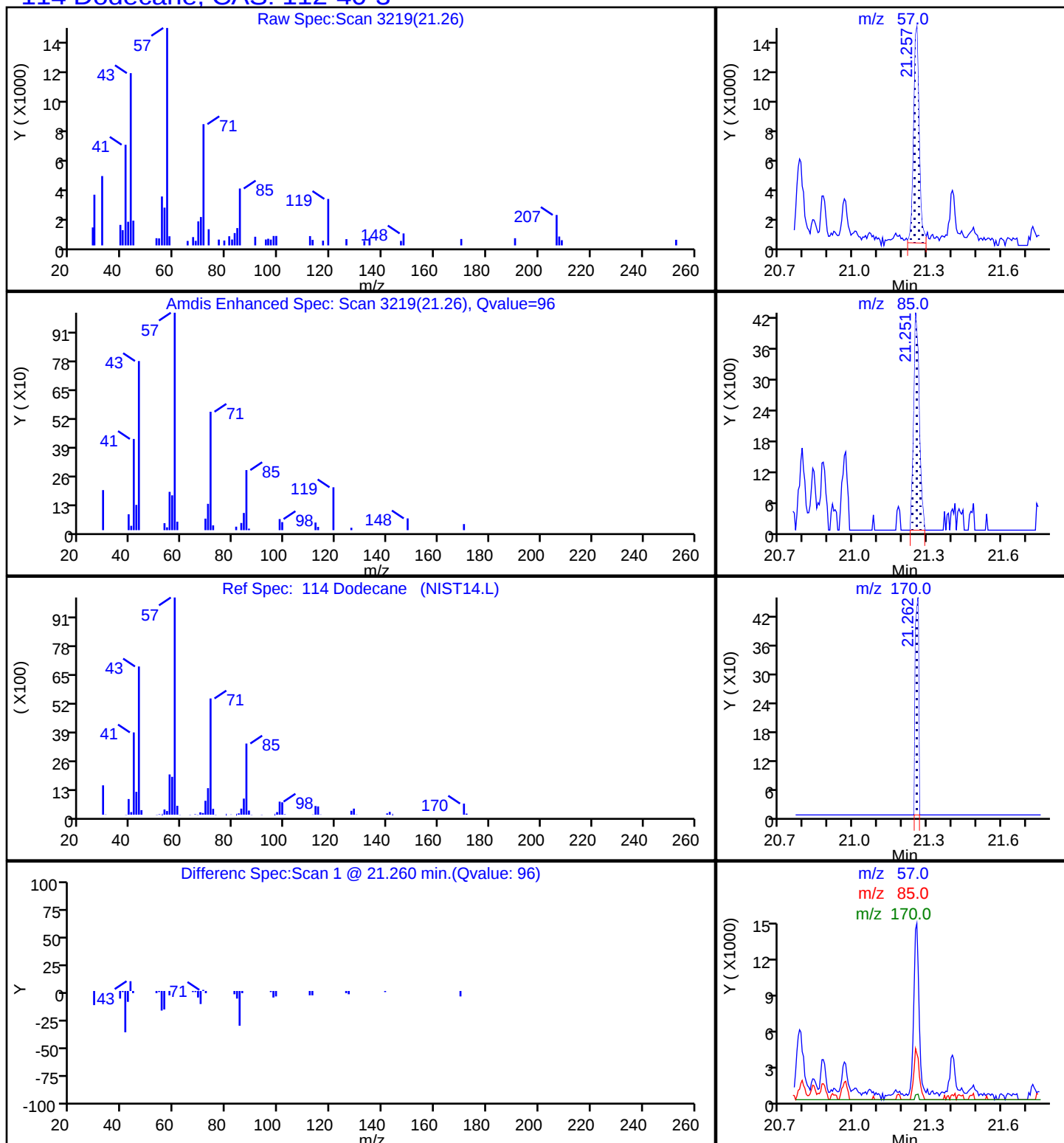
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

114 Dodecane, CAS: 112-40-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

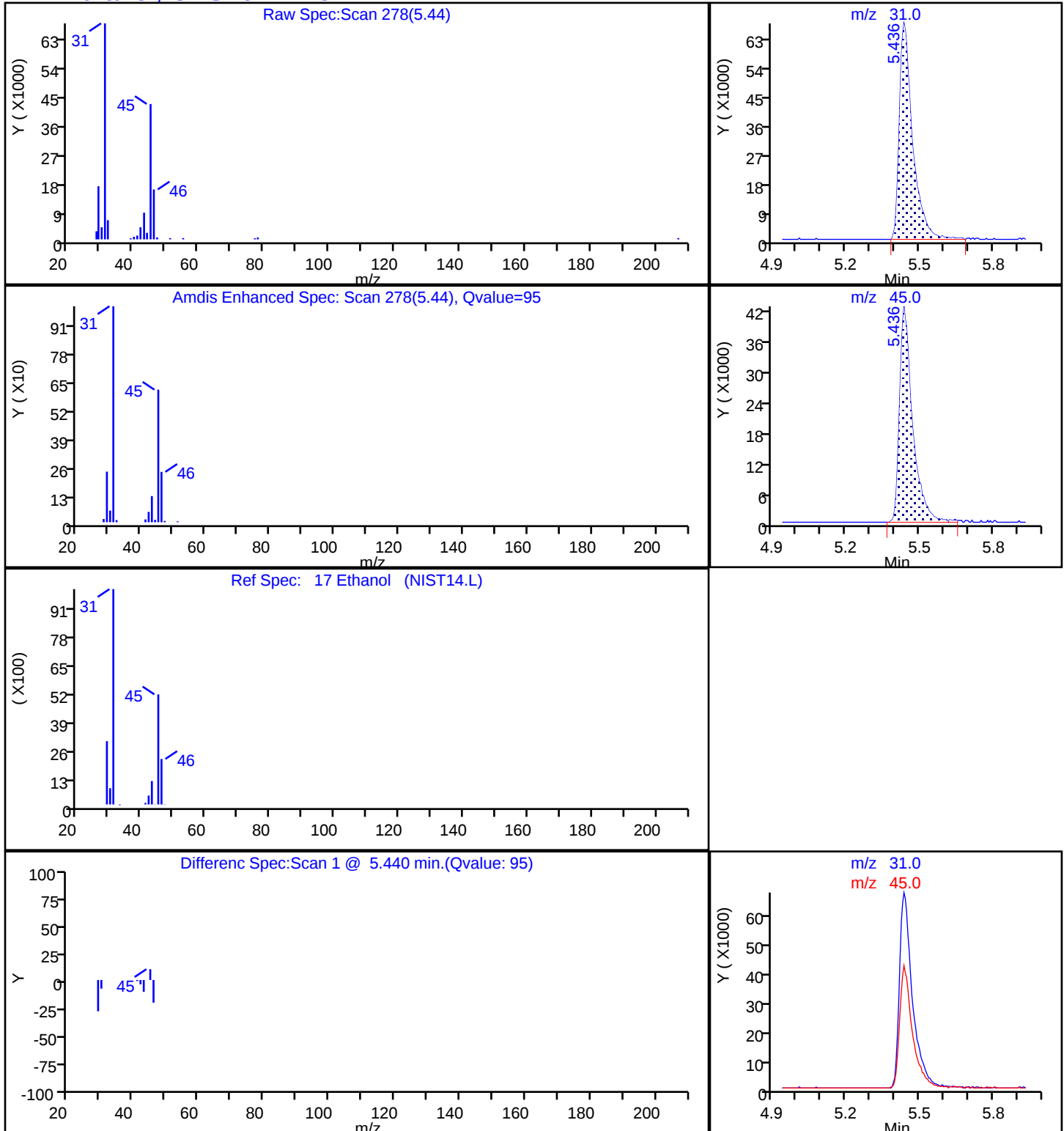
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

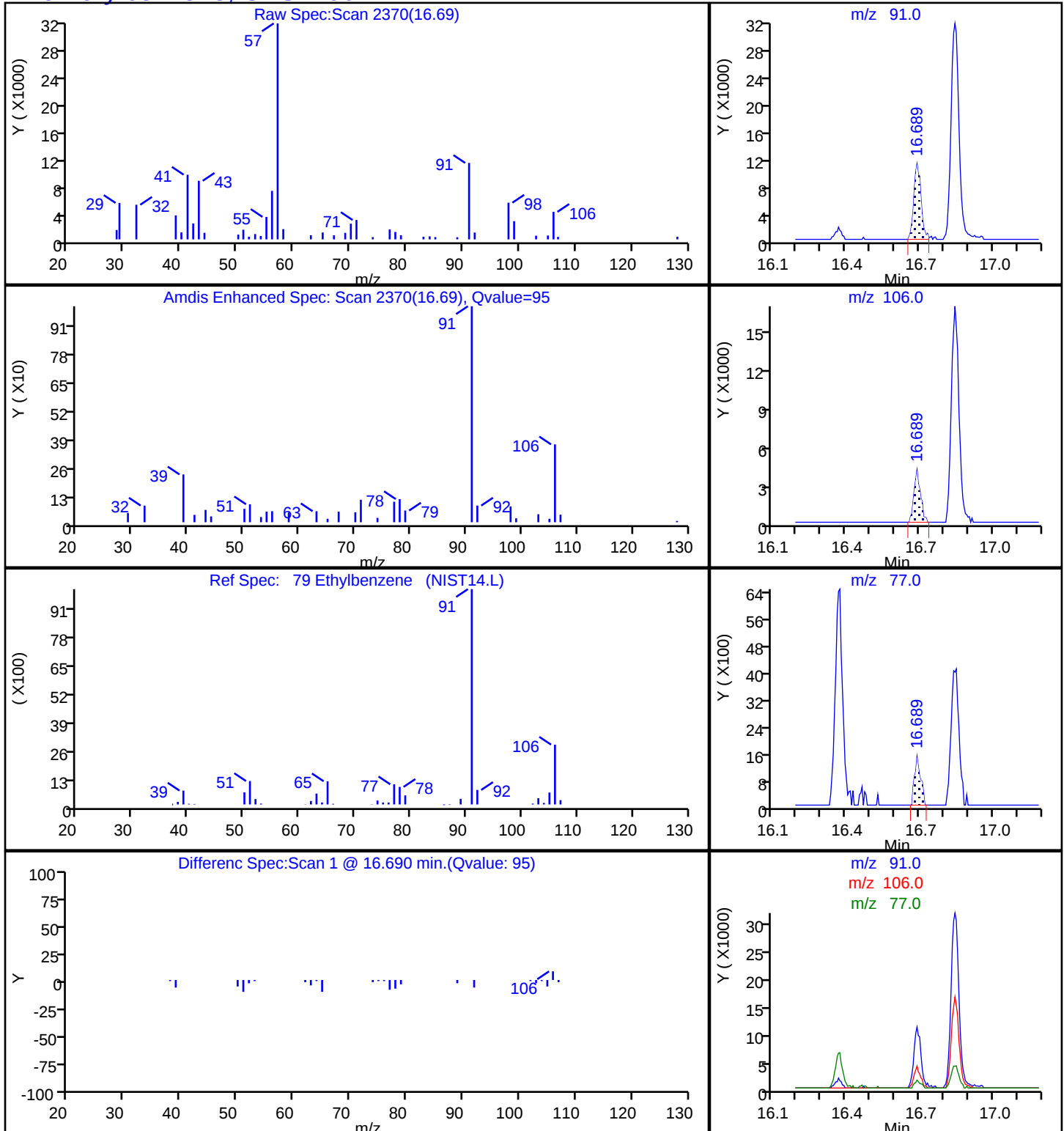
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

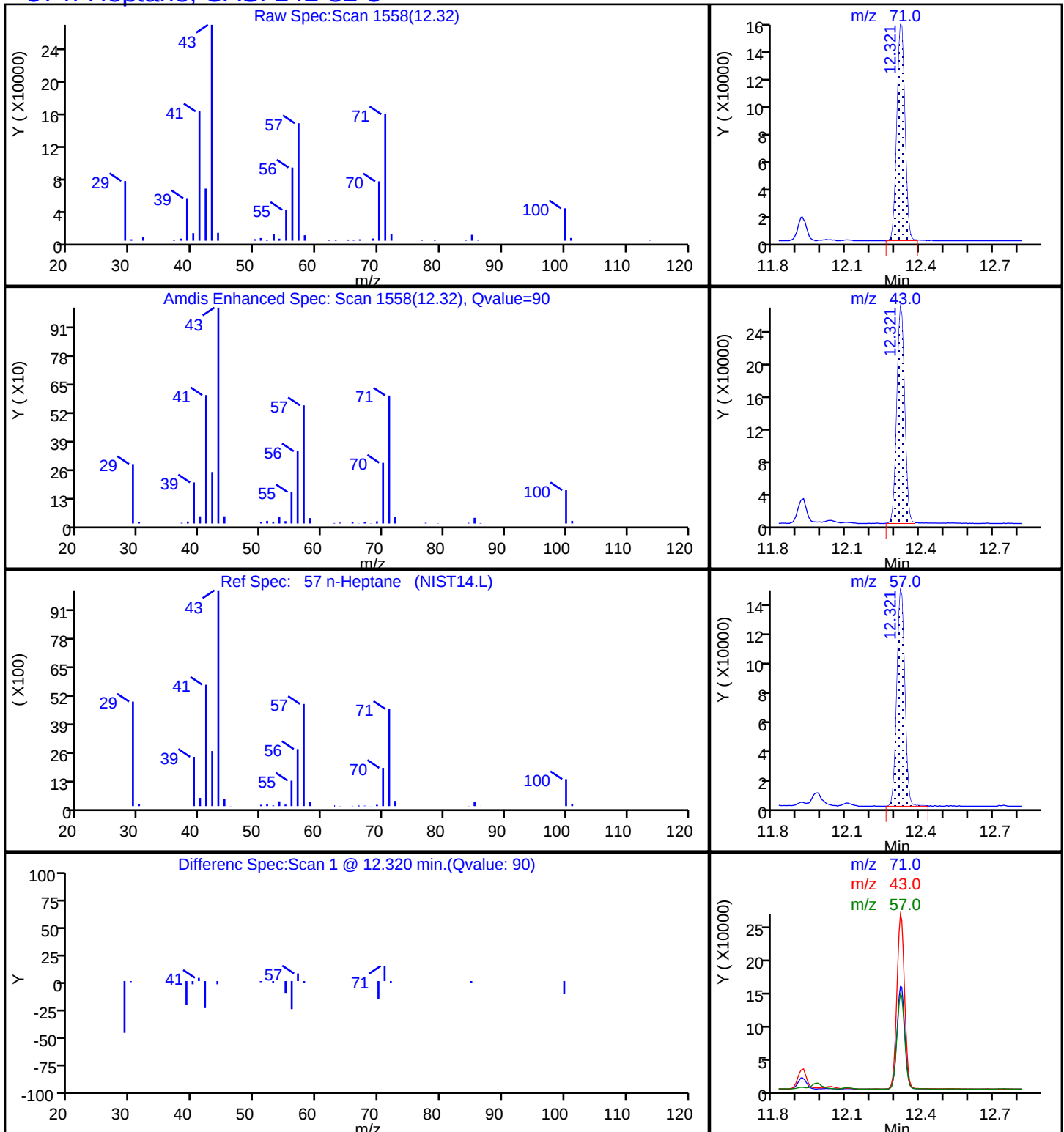
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

57 n-Heptane, CAS: 142-82-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

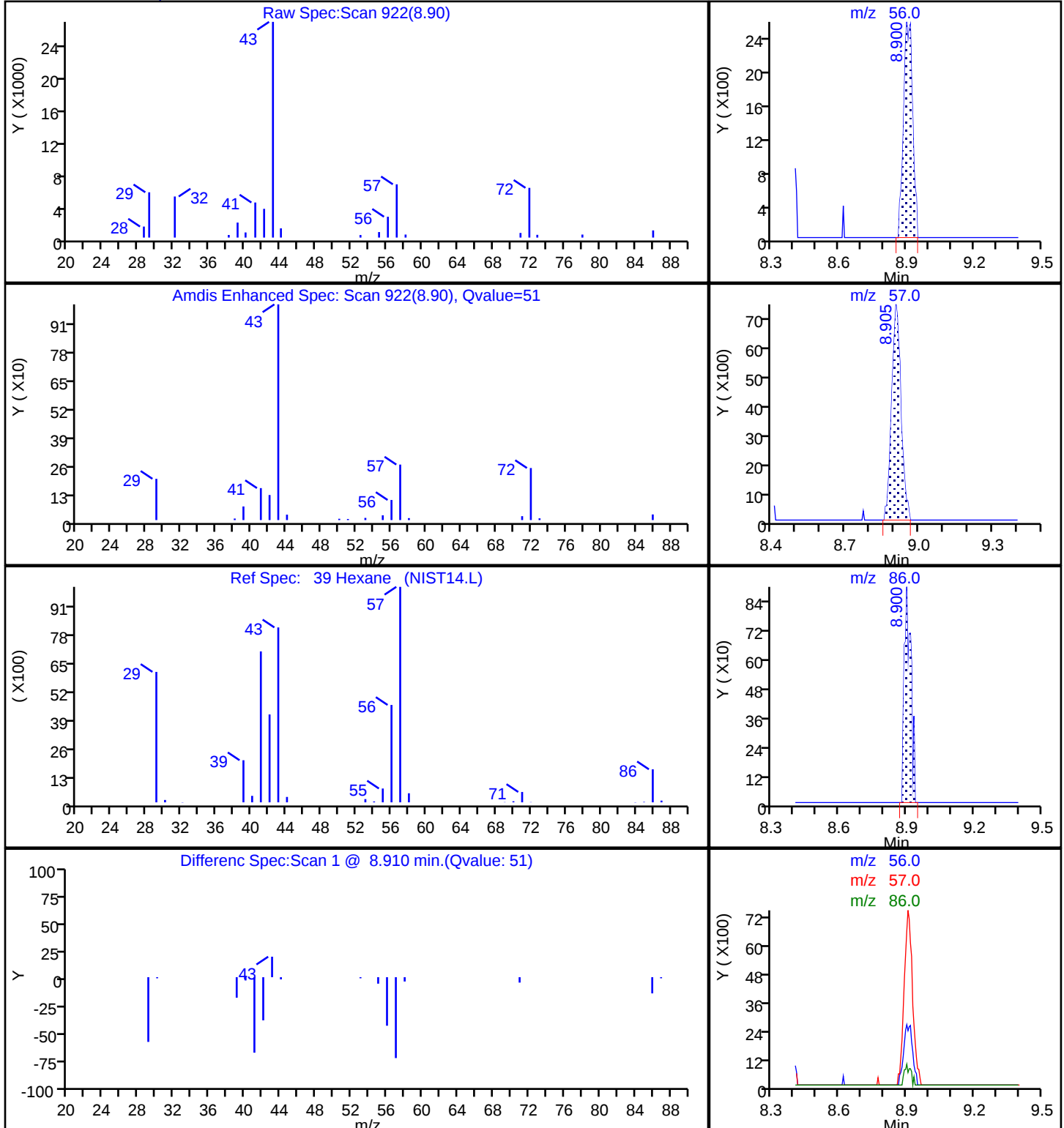
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

39 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

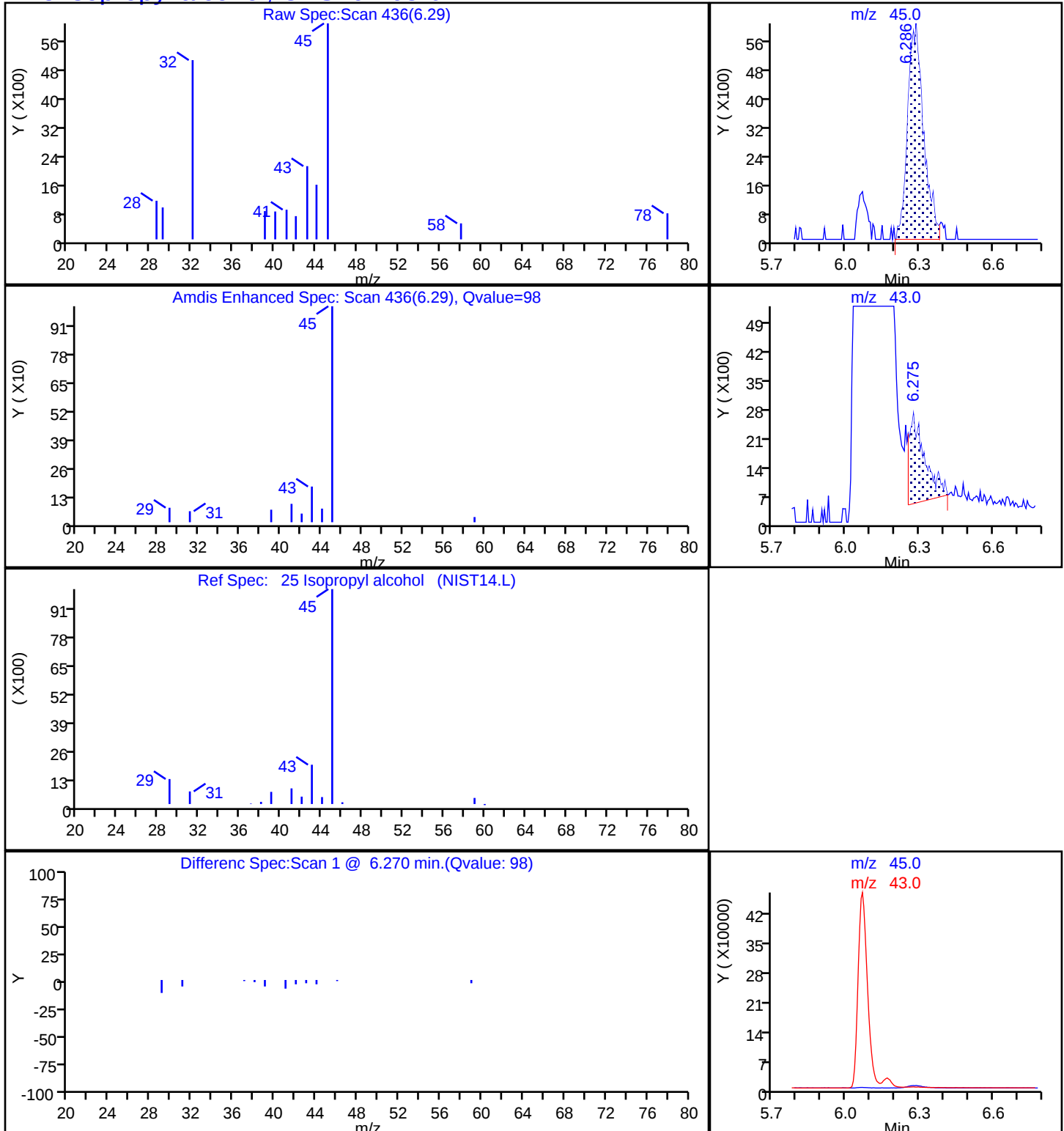
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

25 Isopropyl alcohol, CAS: 67-63-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

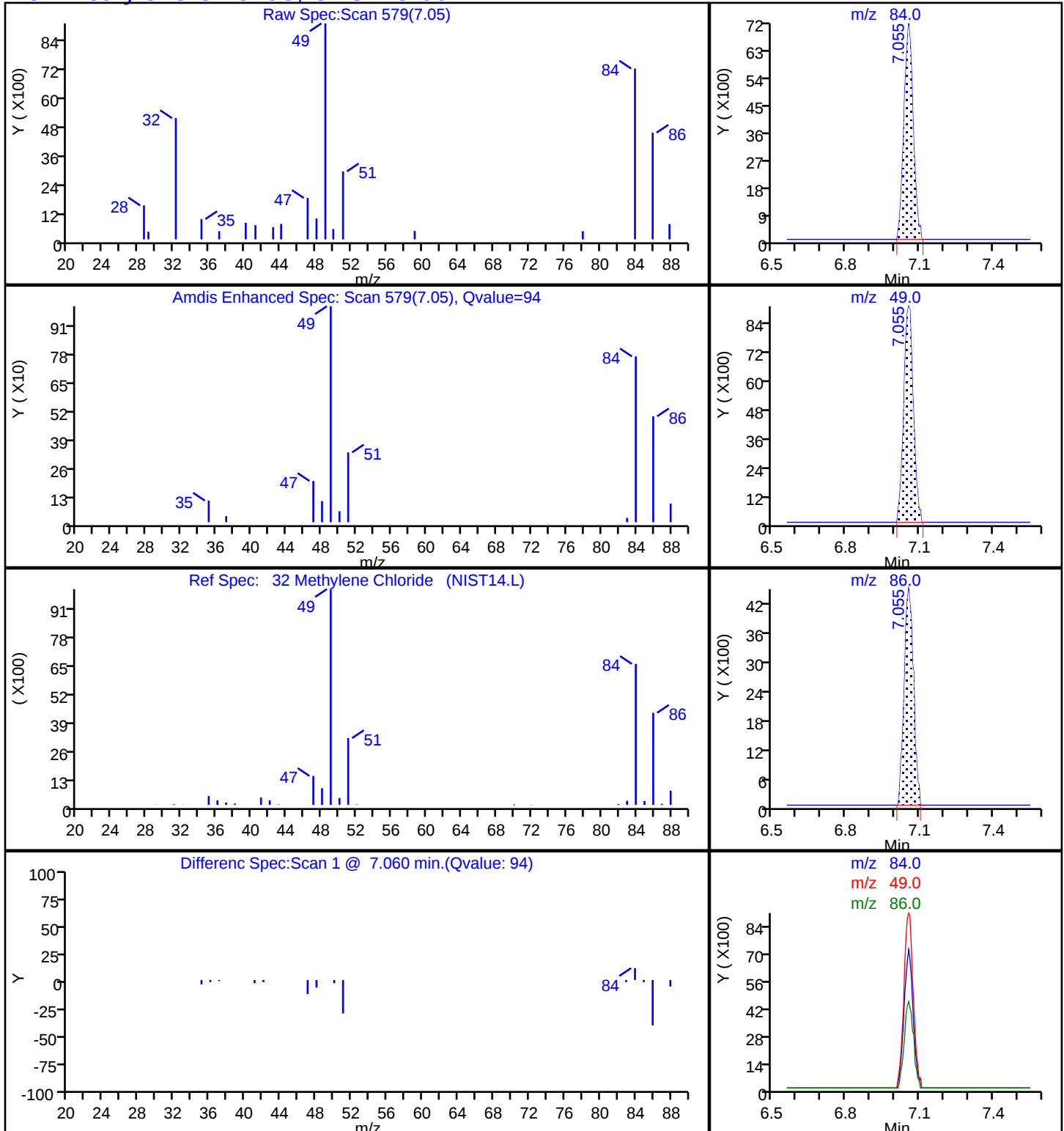
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

32 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

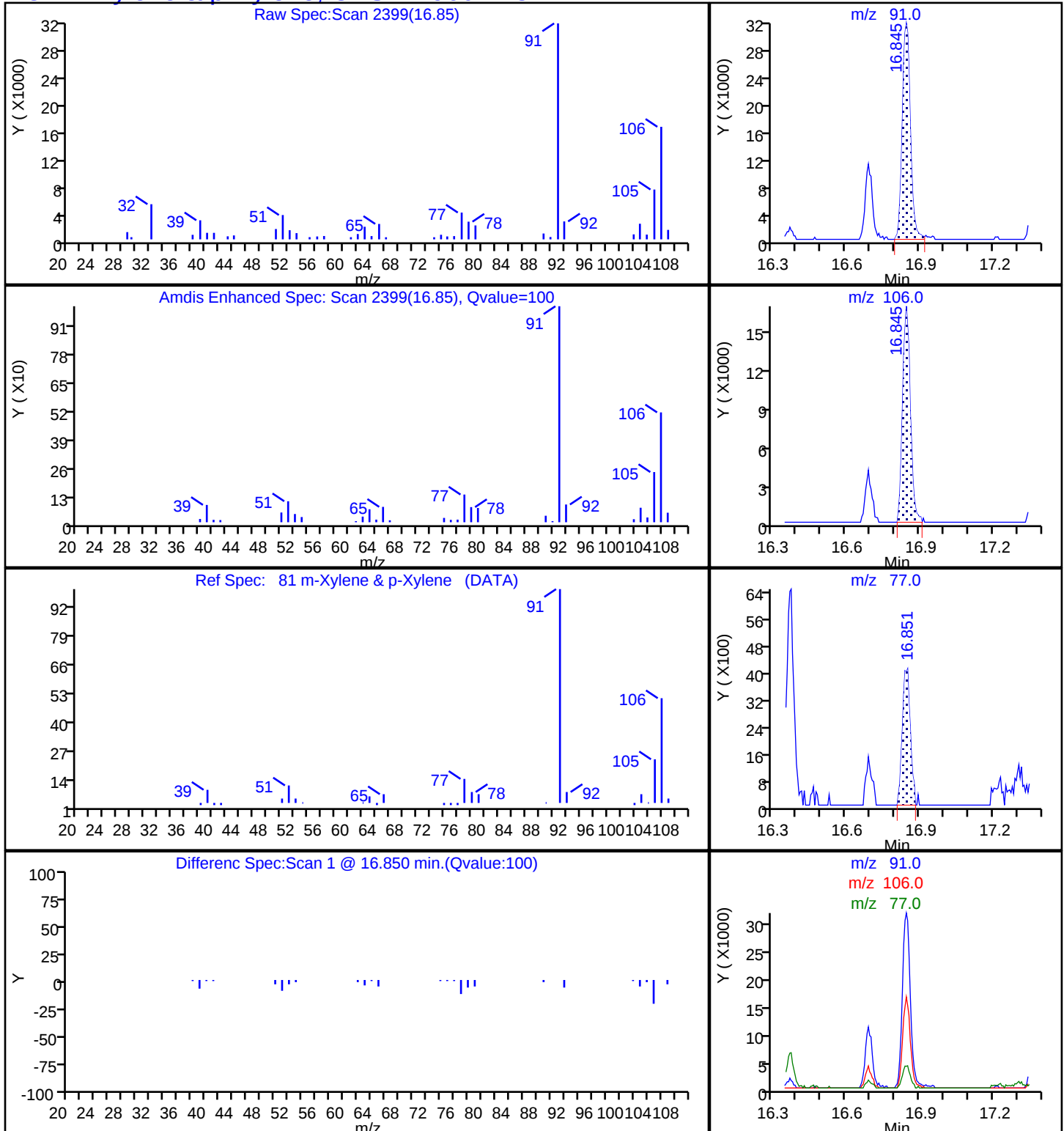
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

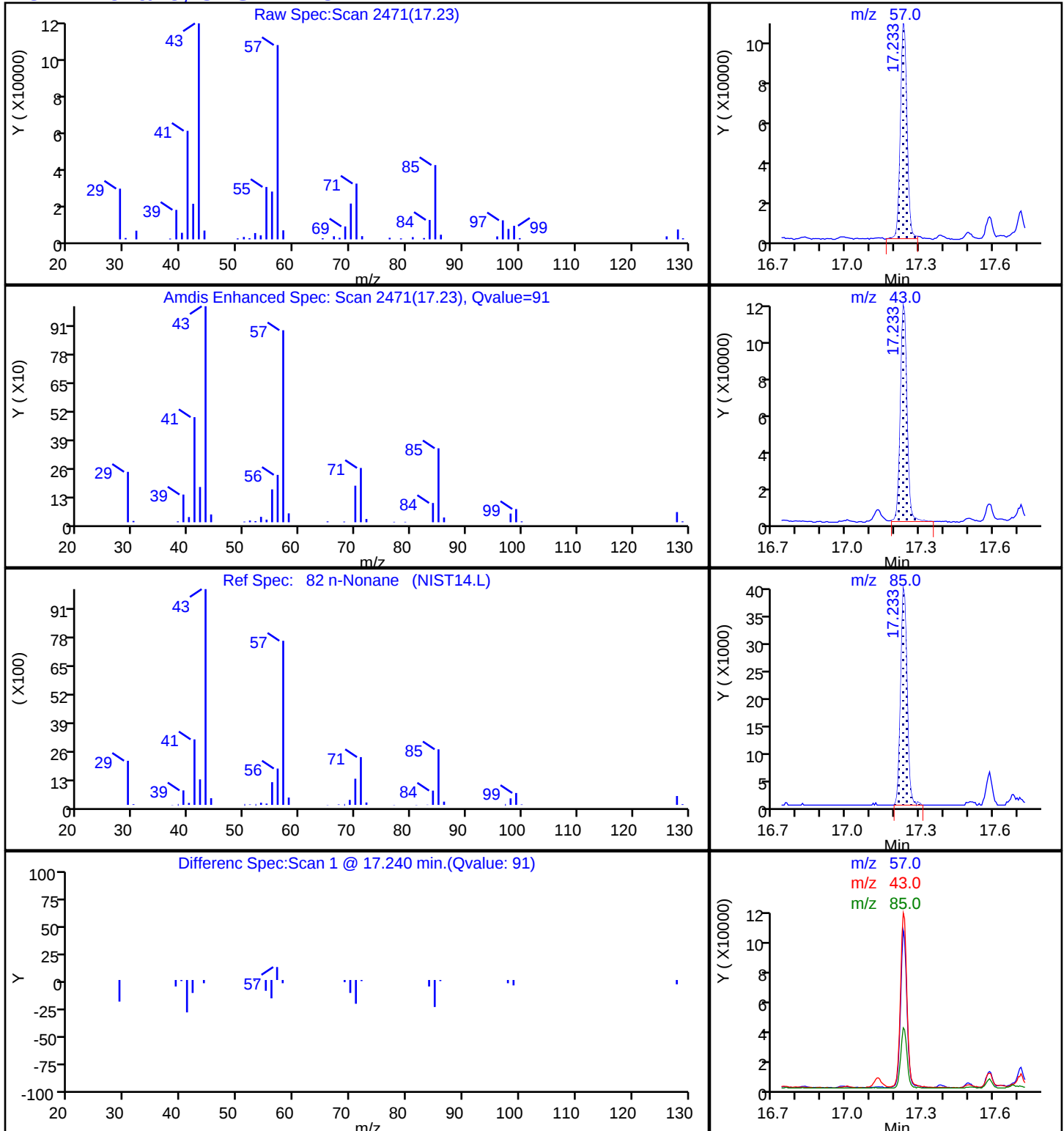
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

82 n-Nonane, CAS: 111-84-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

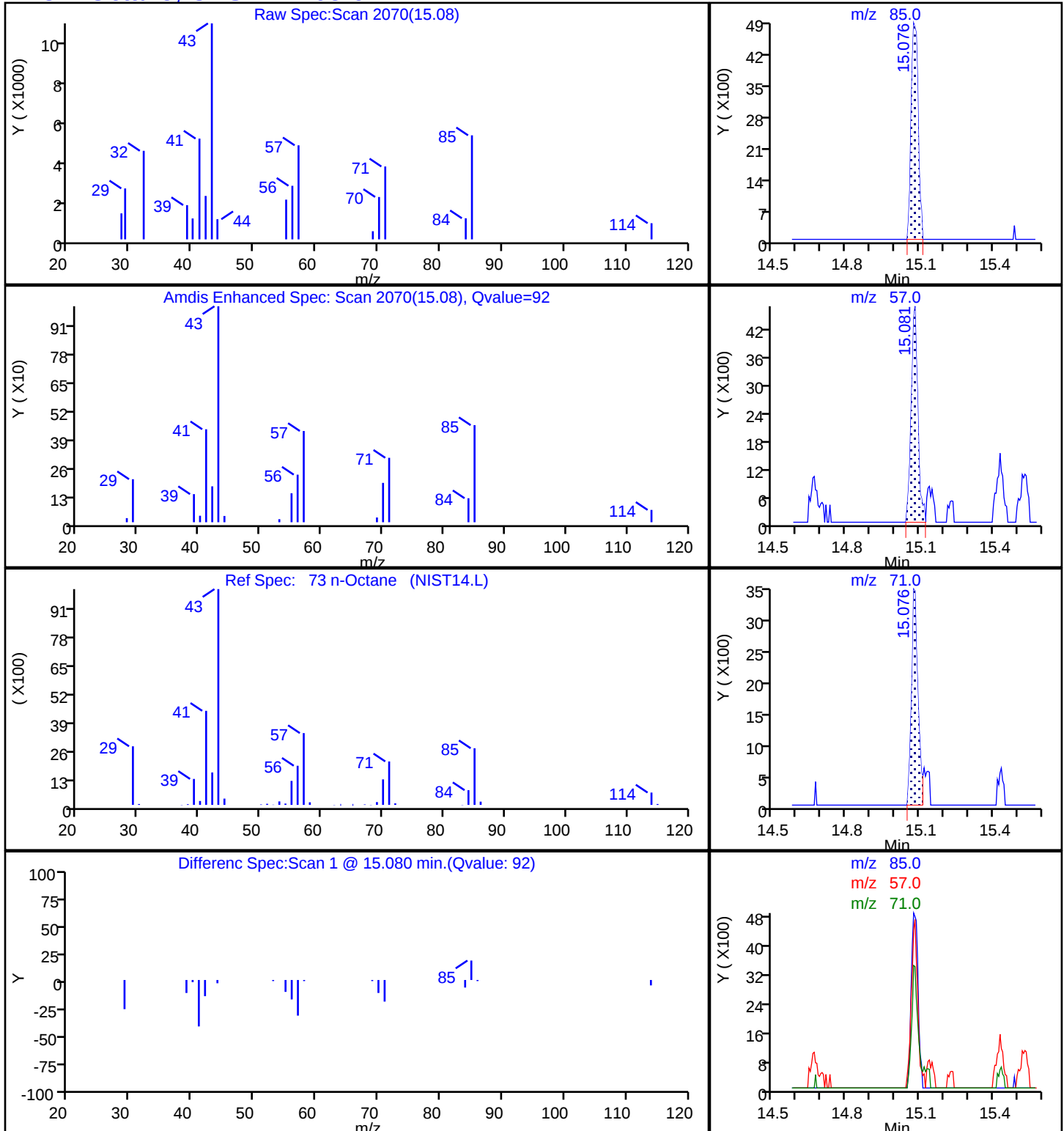
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

73 n-Octane, CAS: 111-65-9

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

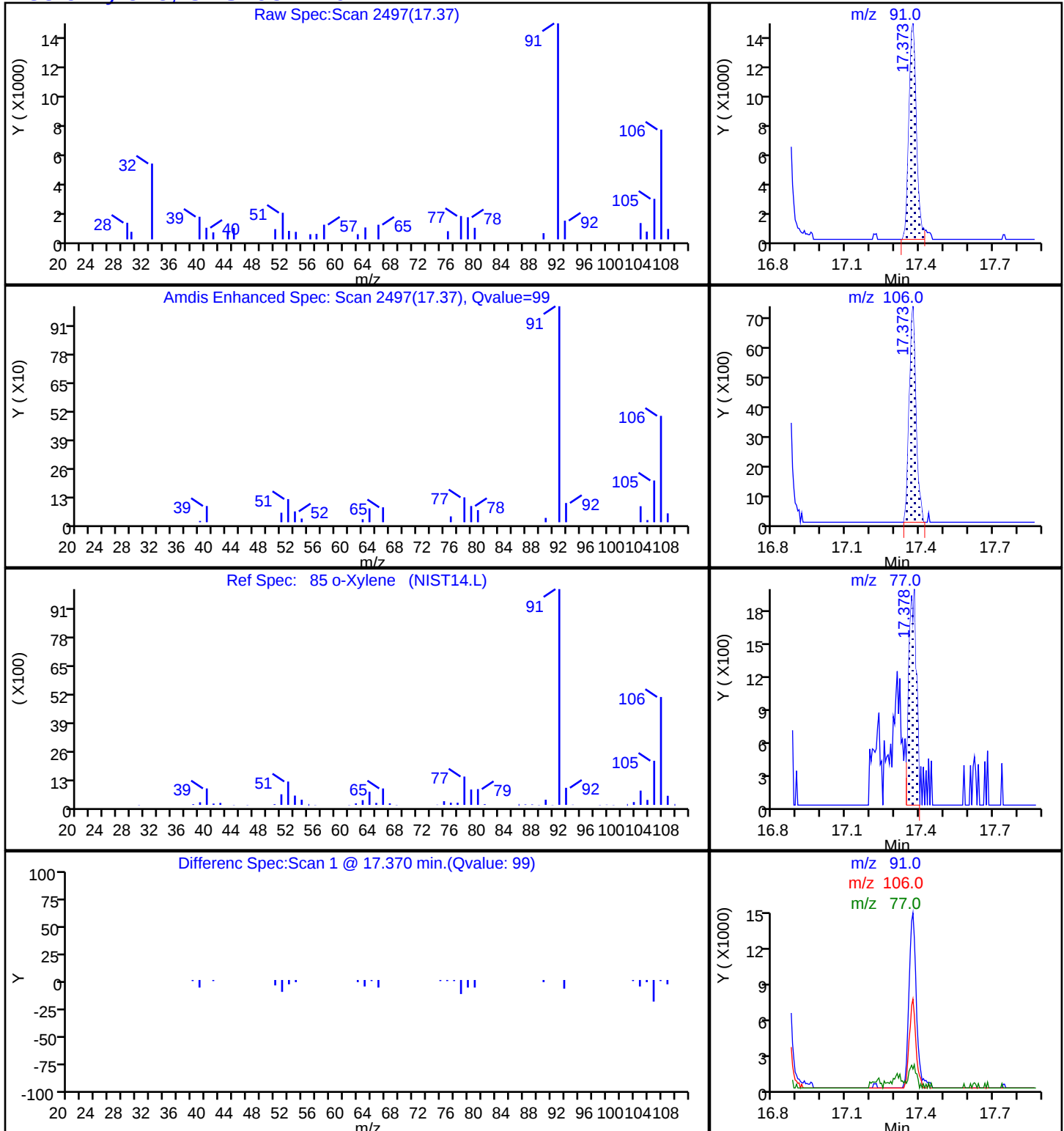
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

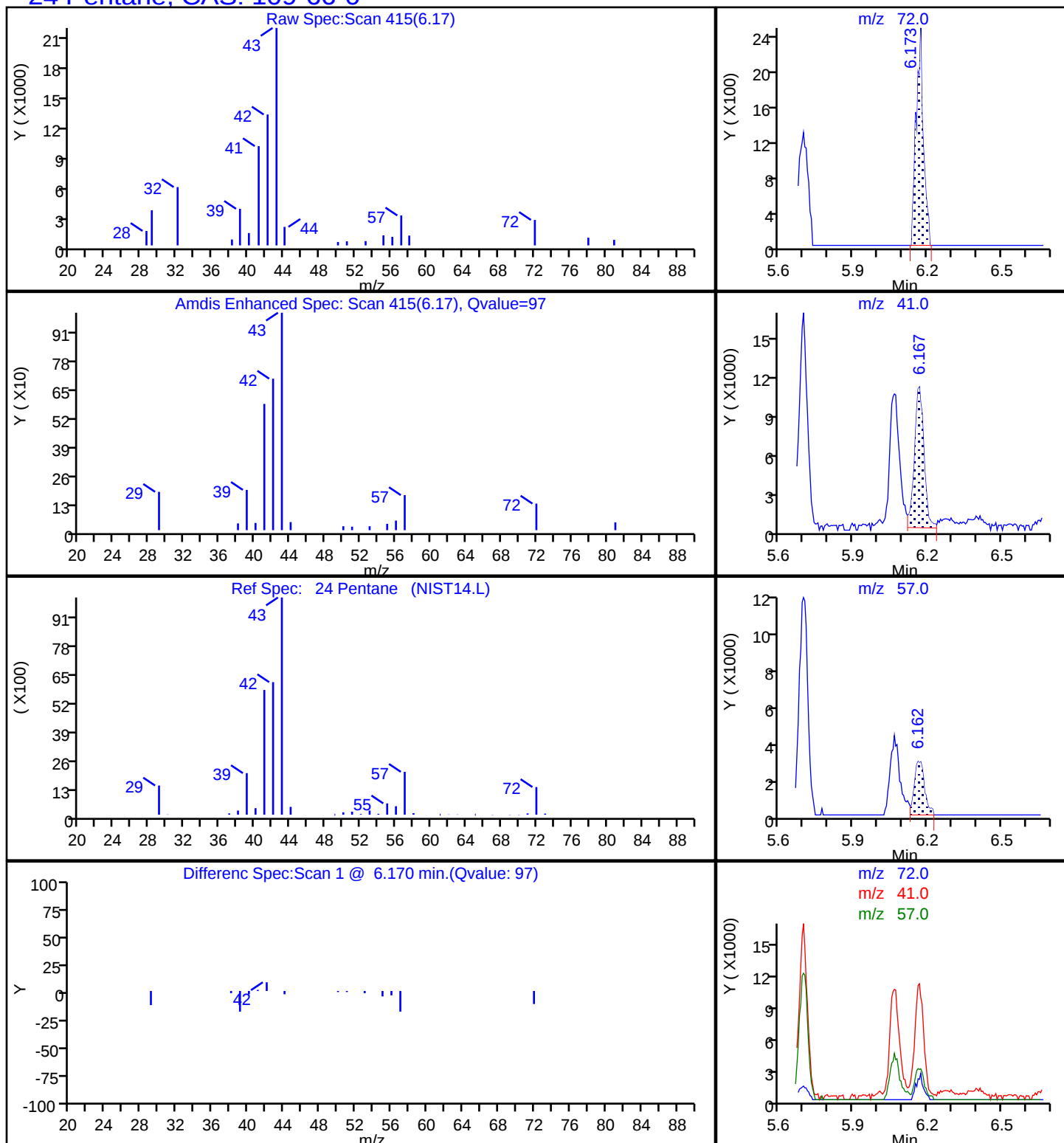
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

24 Pentane, CAS: 109-66-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

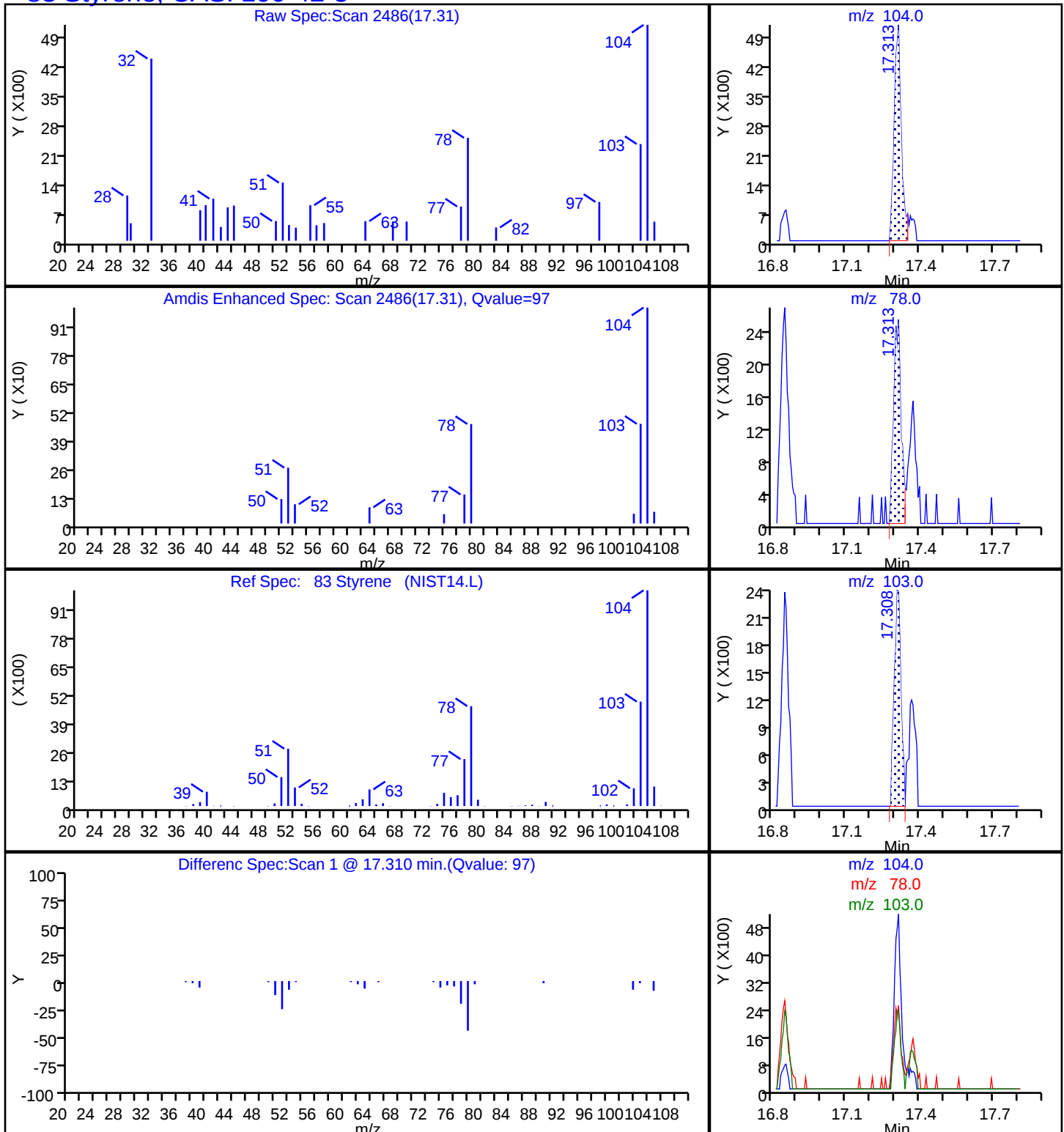
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

83 Styrene, CAS: 100-42-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

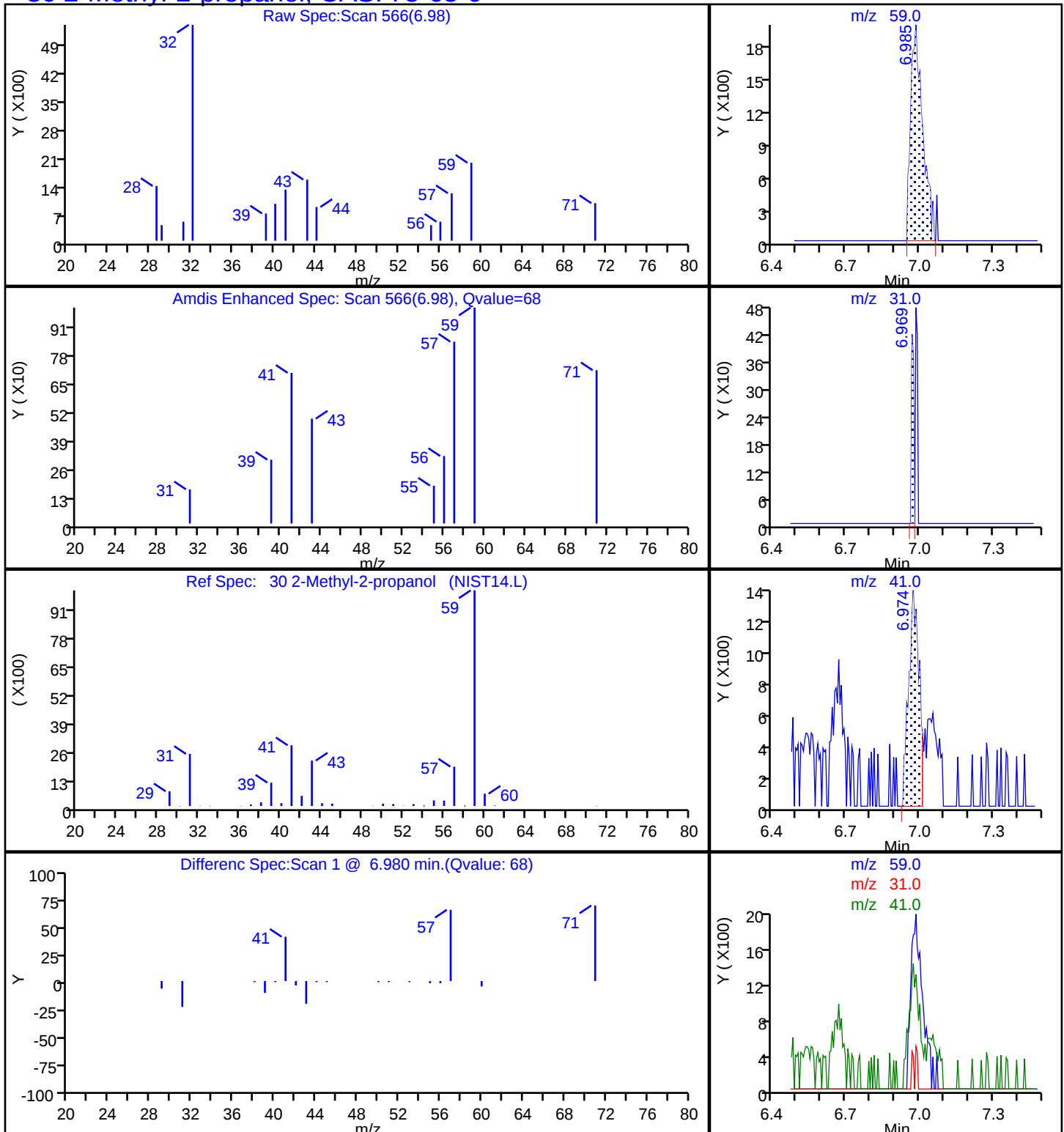
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

30 2-Methyl-2-propanol, CAS: 75-65-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

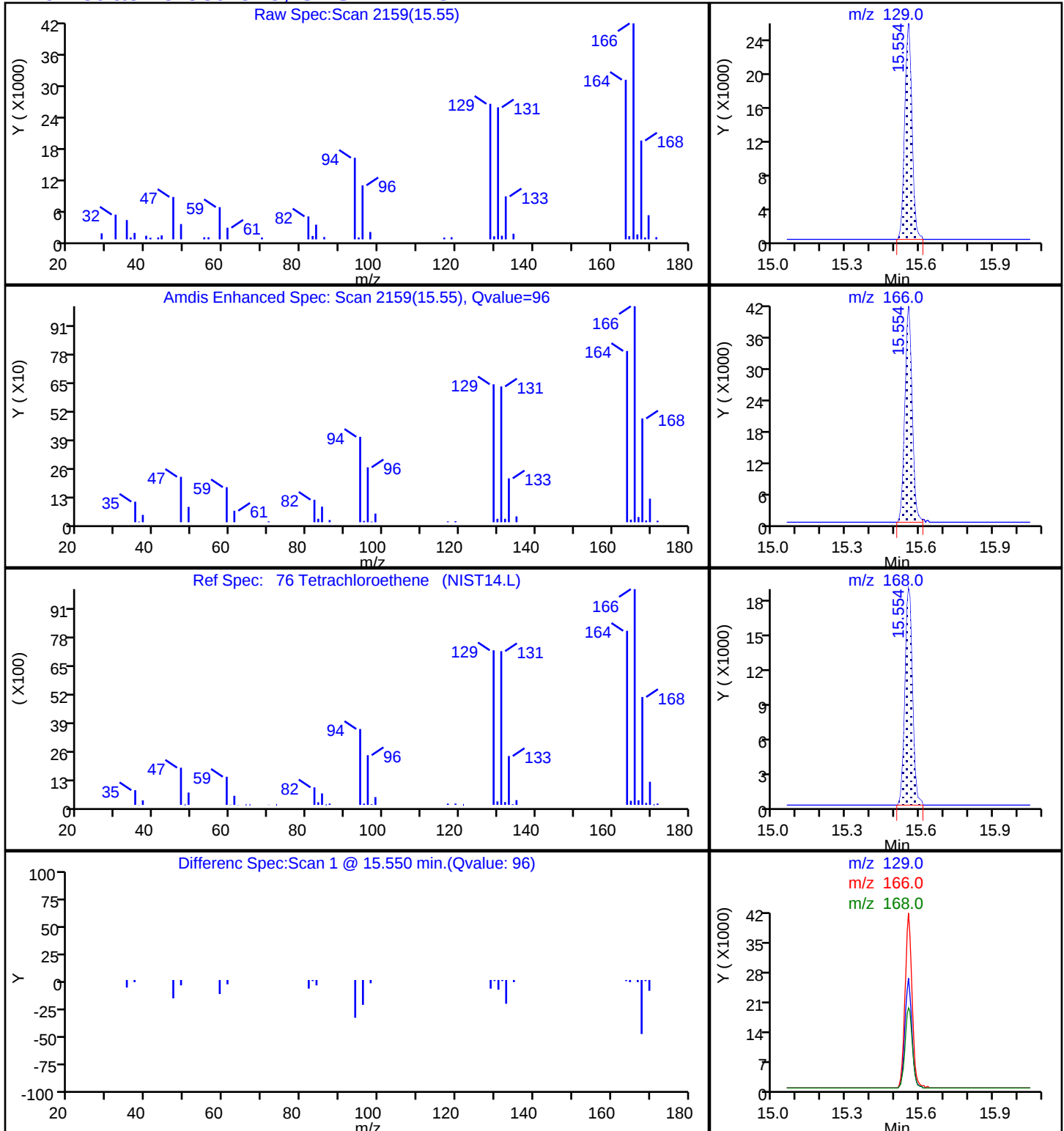
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

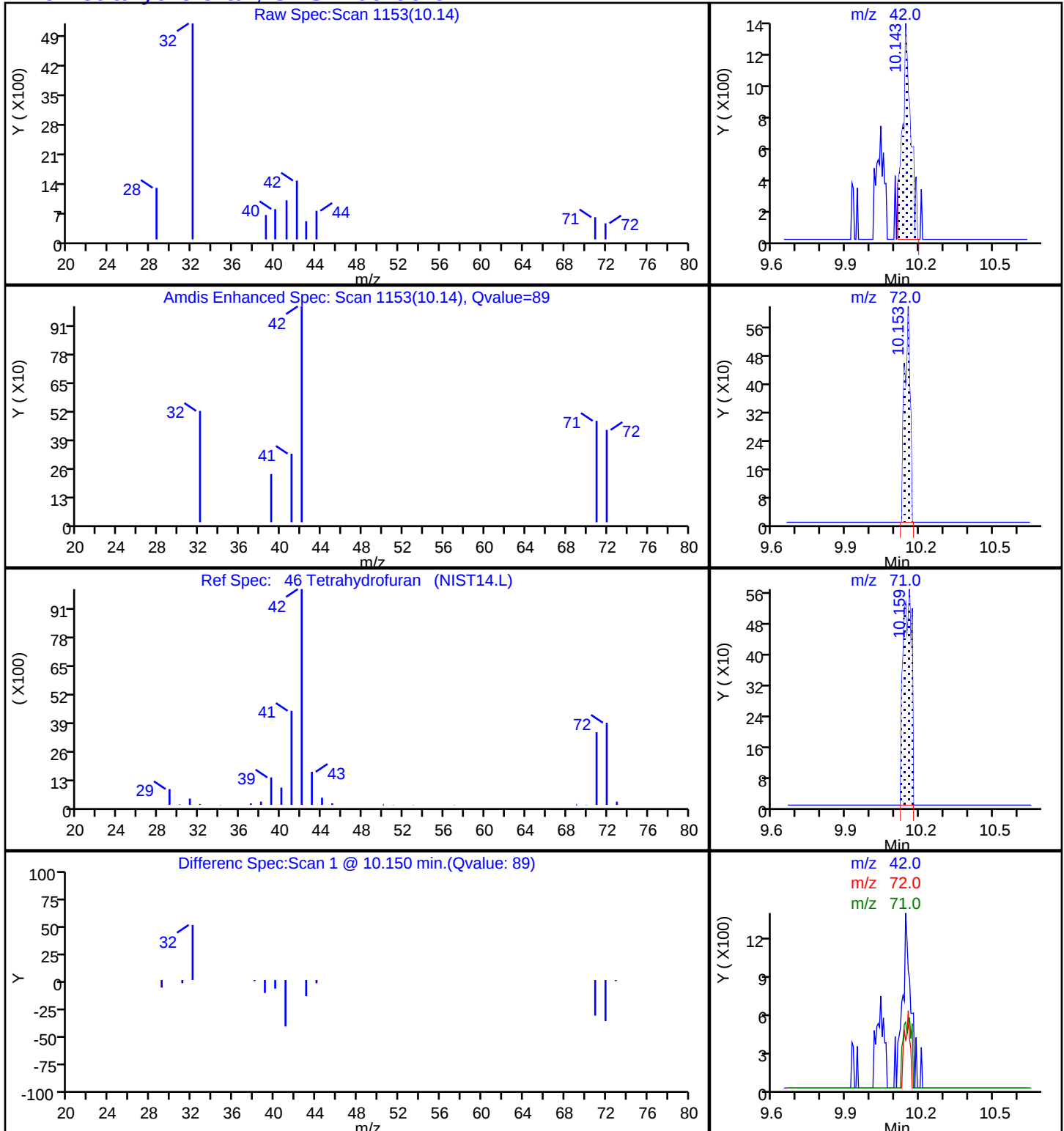
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

46 Tetrahydrofuran, CAS: 109-99-9

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

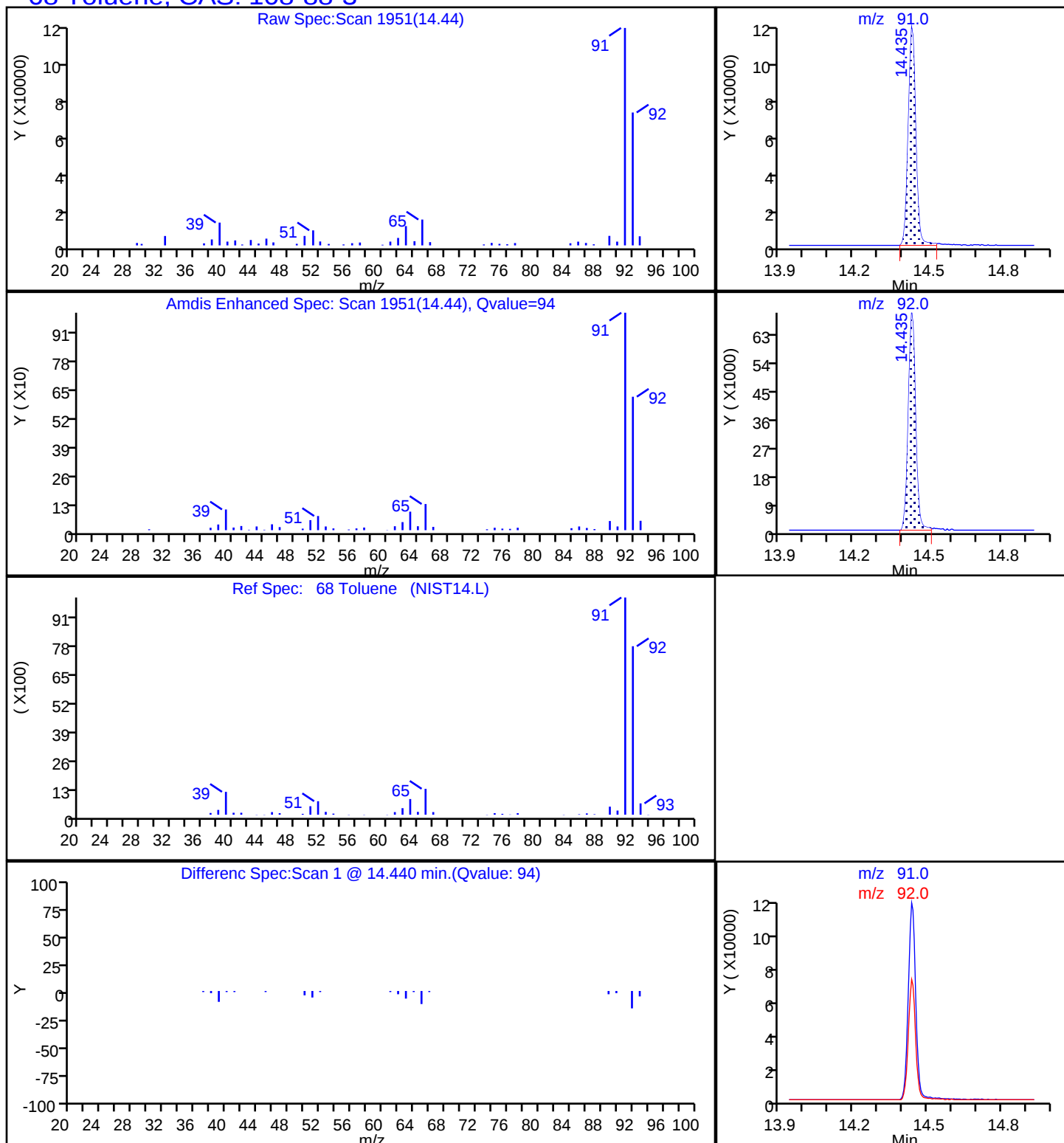
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

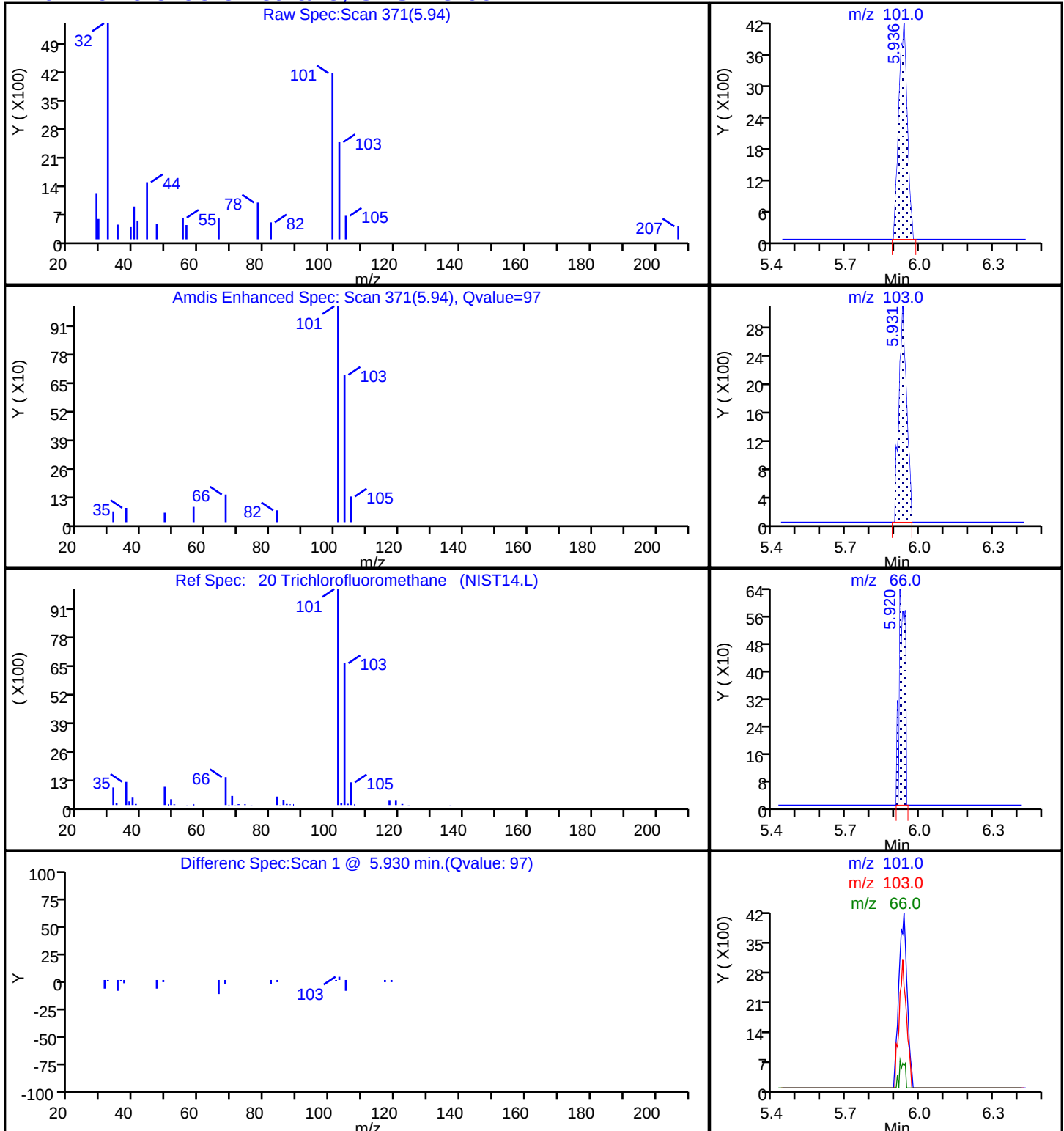
Dil. Factor: 1.0000

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

TestAmerica Knoxville

Data File: \\ChromNA\\Knoxville\\ChromData\\MJ\\20180412-7901.b\\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

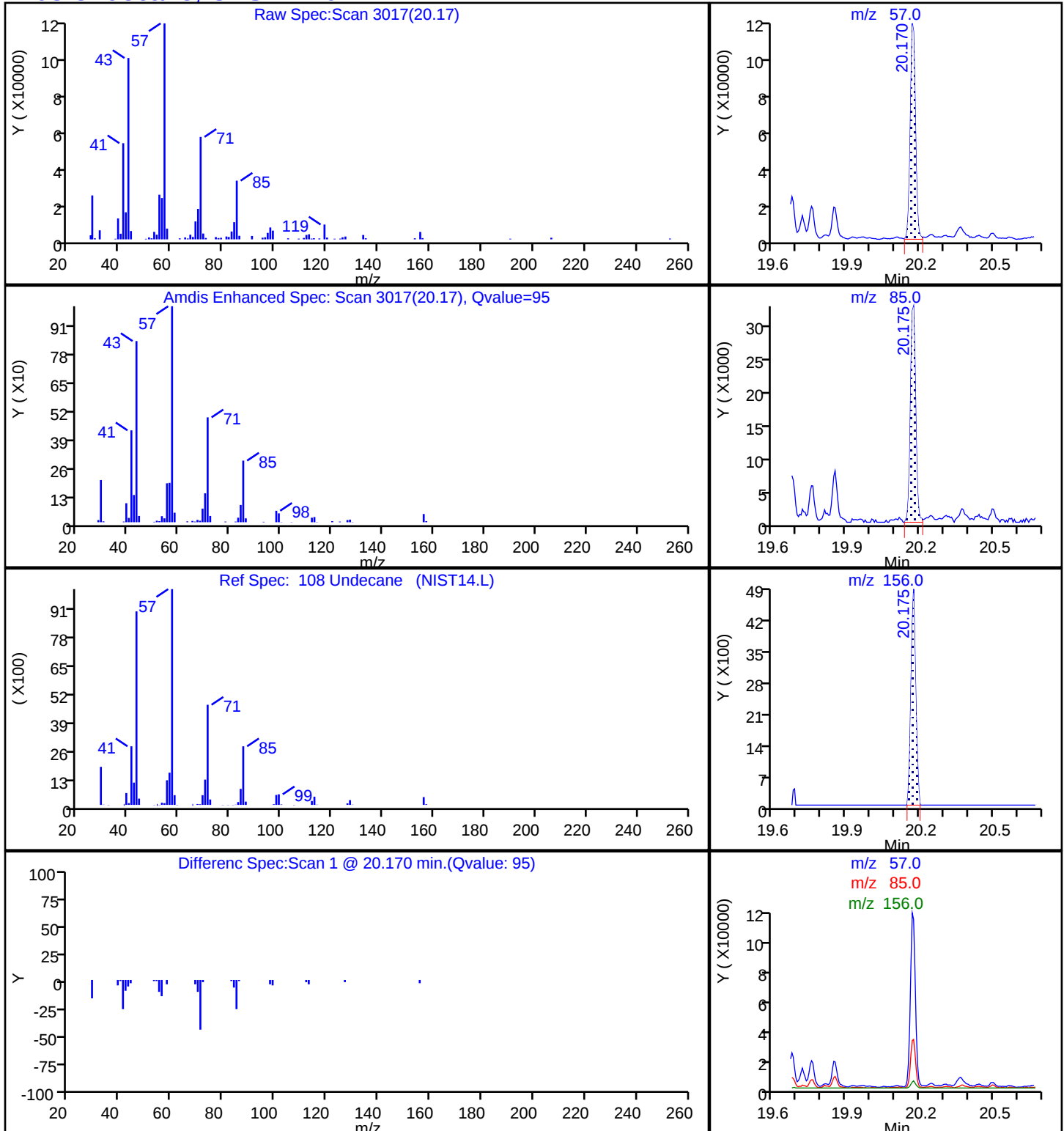
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

108 Undecane, CAS: 1120-21-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#:

2

Worklist Smp#: 12

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

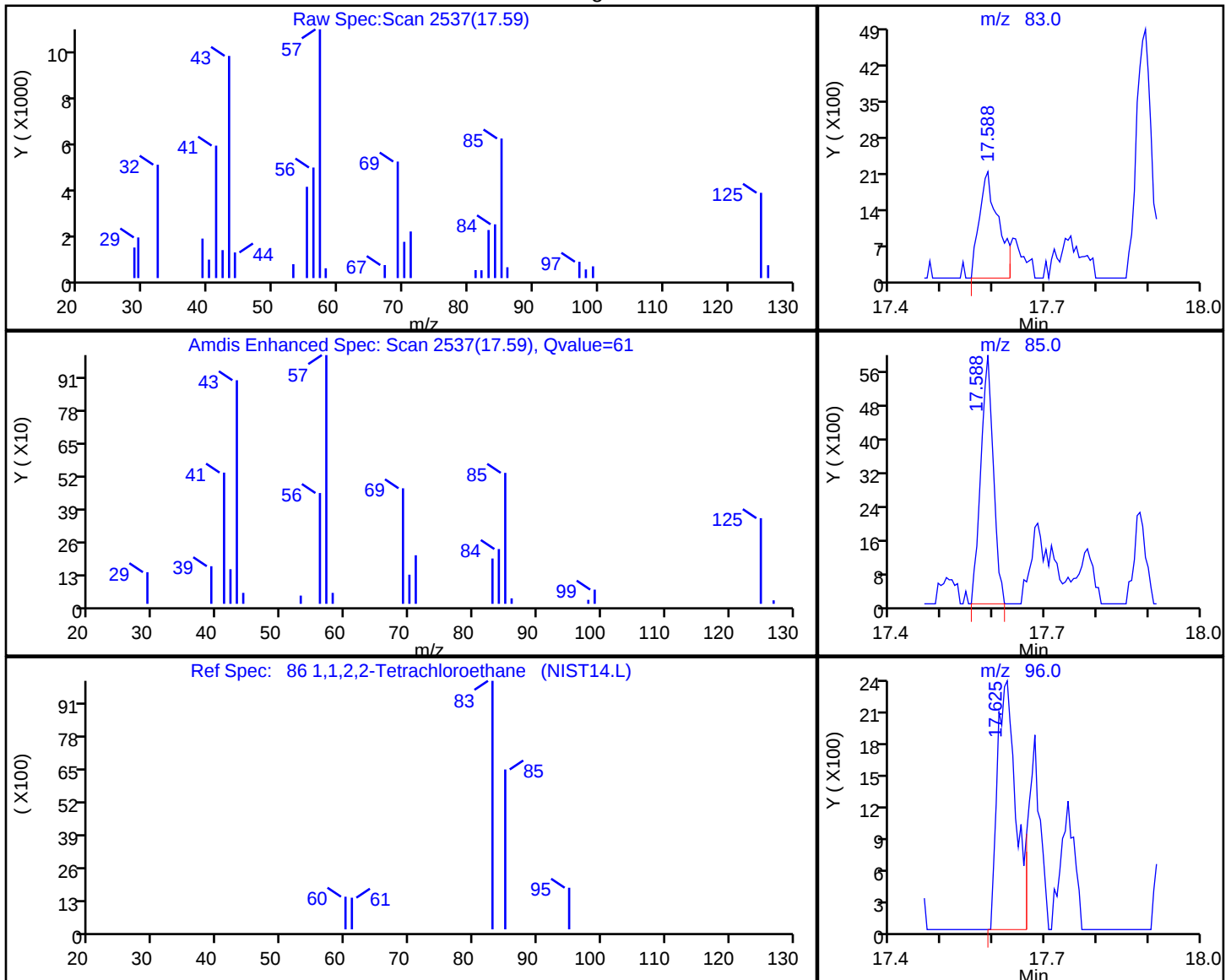
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

86 1,1,2,2-Tetrachloroethane, CAS: 79-34-5

Processing Results



RT	Mass	Response	Amount
17.59	83.00	5277	0.025731
17.59	85.00	10099	
17.63	96.00	5990	

Reviewer: tajh, 17-Apr-2018 09:26:50

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2 Worklist Smp#: 12

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

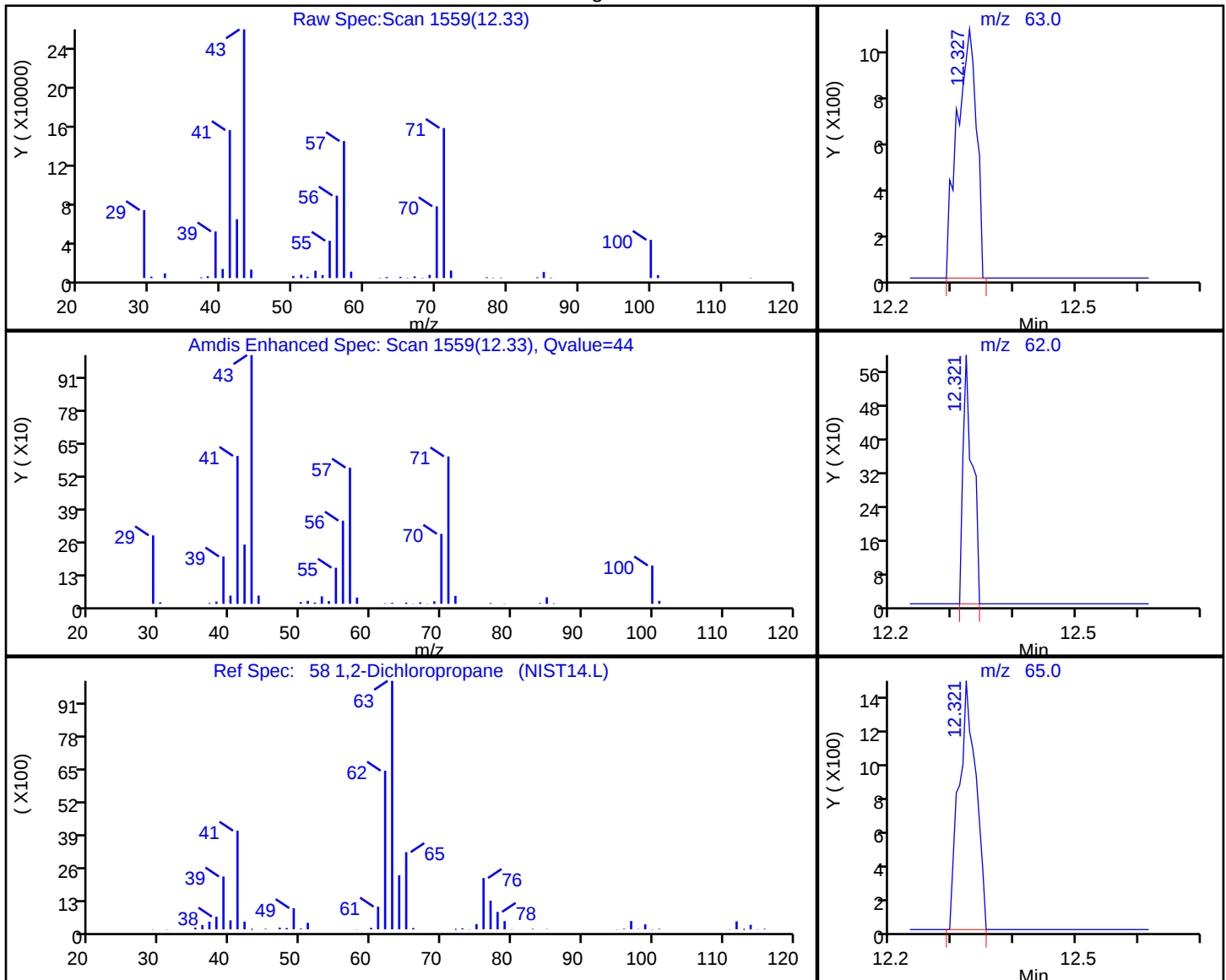
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

58 1,2-Dichloropropane, CAS: 78-87-5

Processing Results



RT	Mass	Response	Amount
12.33	63.00	2199	0.021663
12.32	62.00	628	
12.32	65.00	2708	

Reviewer: tajh, 17-Apr-2018 09:26:50

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

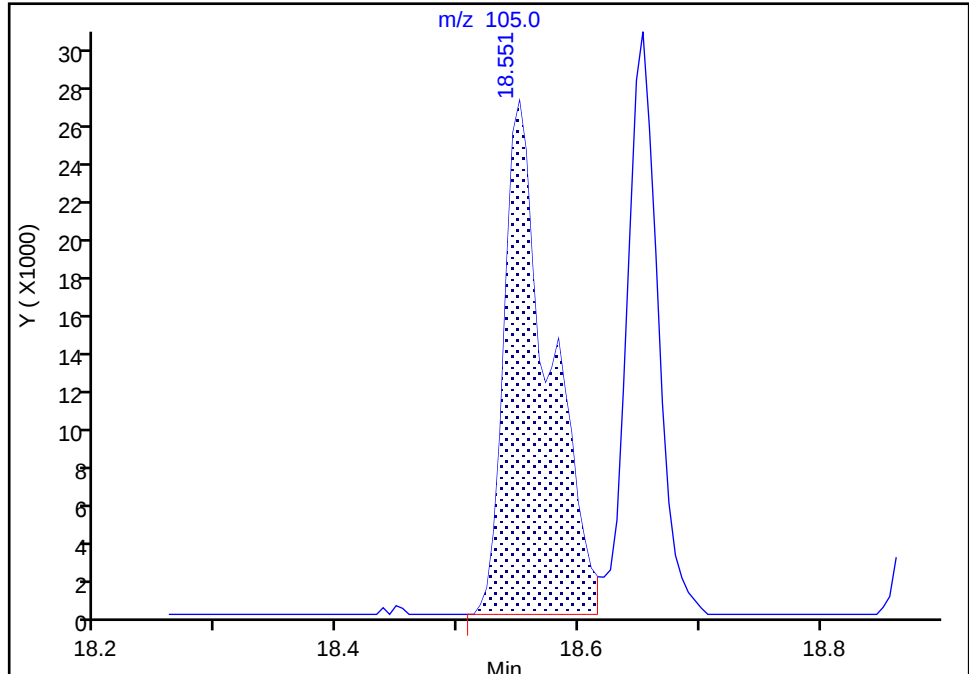
Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D
Injection Date: 16-Apr-2018 16:42:30 Instrument ID: MJ
Lims ID: 140-11270-A-2 Lab Sample ID: 140-11270-2
Client ID: CL-IA-1
Operator ID: 007126 ALS Bottle#: 2 Worklist Smp#: 12
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector: MS SCAN

91 4-Ethyltoluene, CAS: 622-96-8

Signal: 1

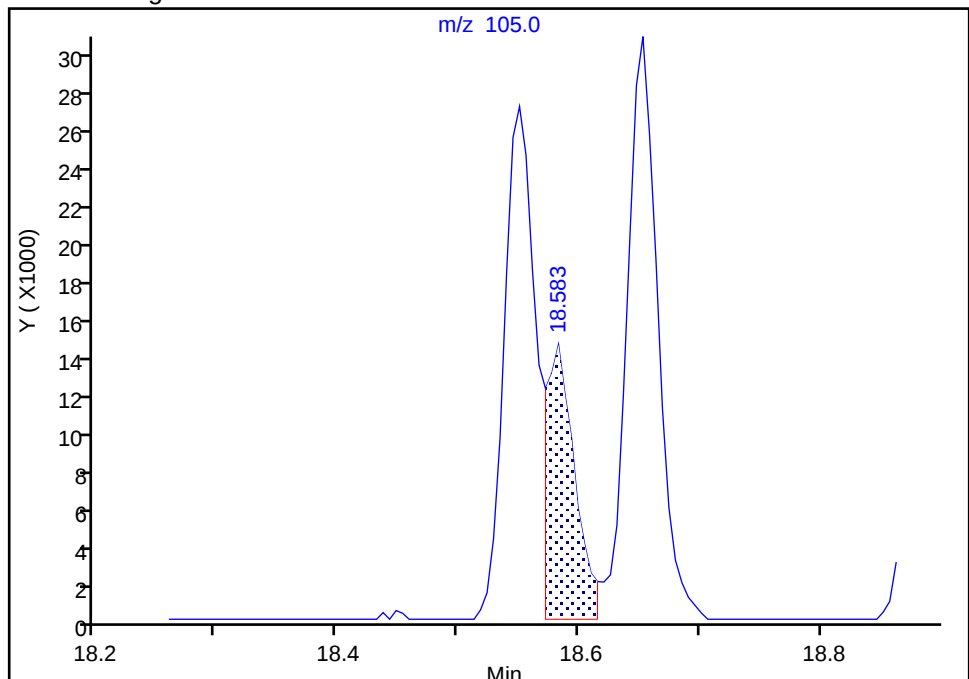
RT: 18.55
Area: 70097
Amount: 0.188022
Amount Units: ppb v/v

Processing Integration Results



RT: 18.58
Area: 24260
Amount: 0.065073
Amount Units: ppb v/v

Manual Integration Results



Reviewer: tajh, 17-Apr-2018 09:26:28
Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#: 2

Worklist Smp#: 12

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

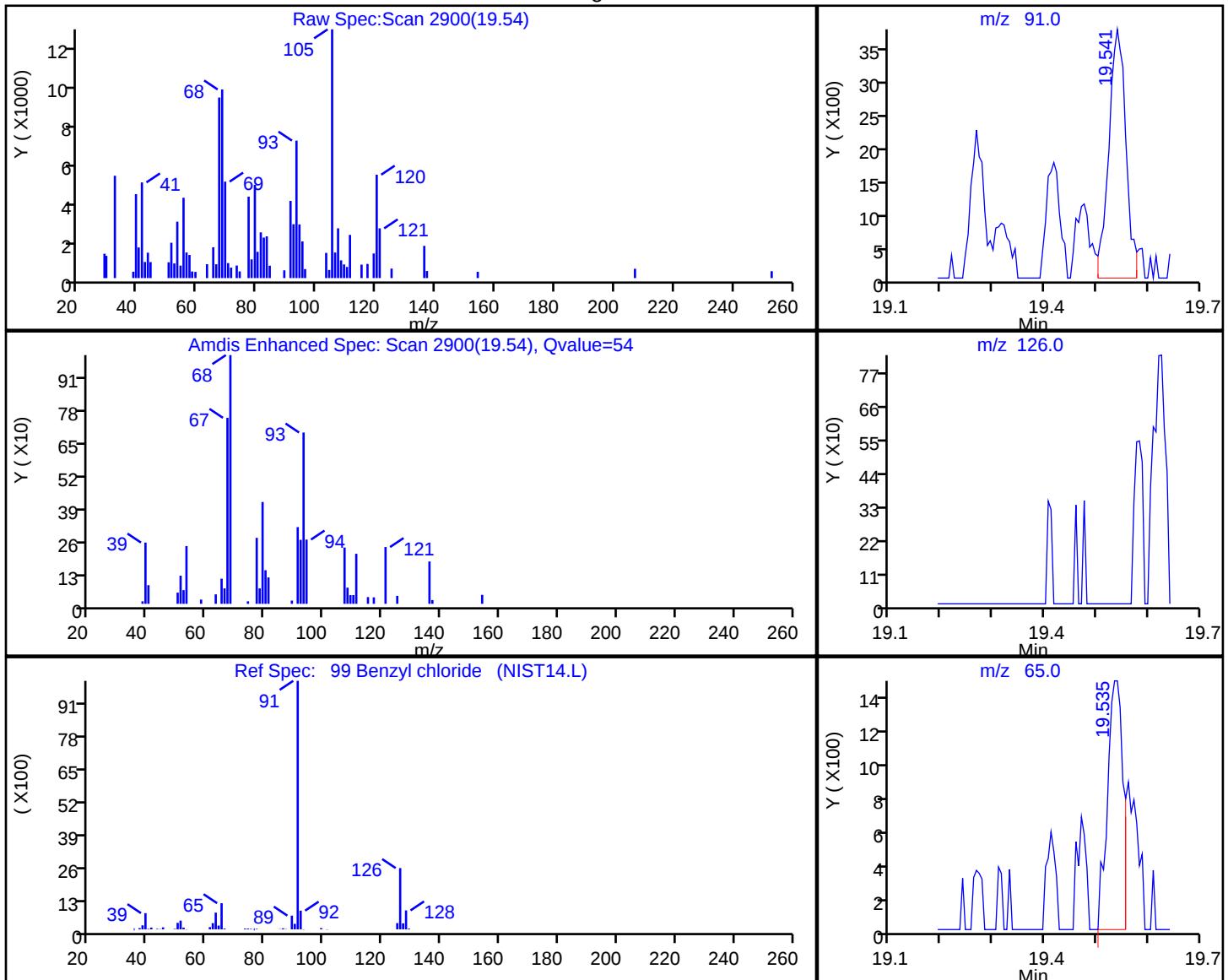
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

99 Benzyl chloride, CAS: 100-44-7

Processing Results



RT	Mass	Response	Amount
19.54	91.00	8655	0.034274
19.54	65.00	3150	
19.41	126.00	0	

Reviewer: tajh, 17-Apr-2018 09:26:50

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#:

2

Worklist Smp#: 12

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

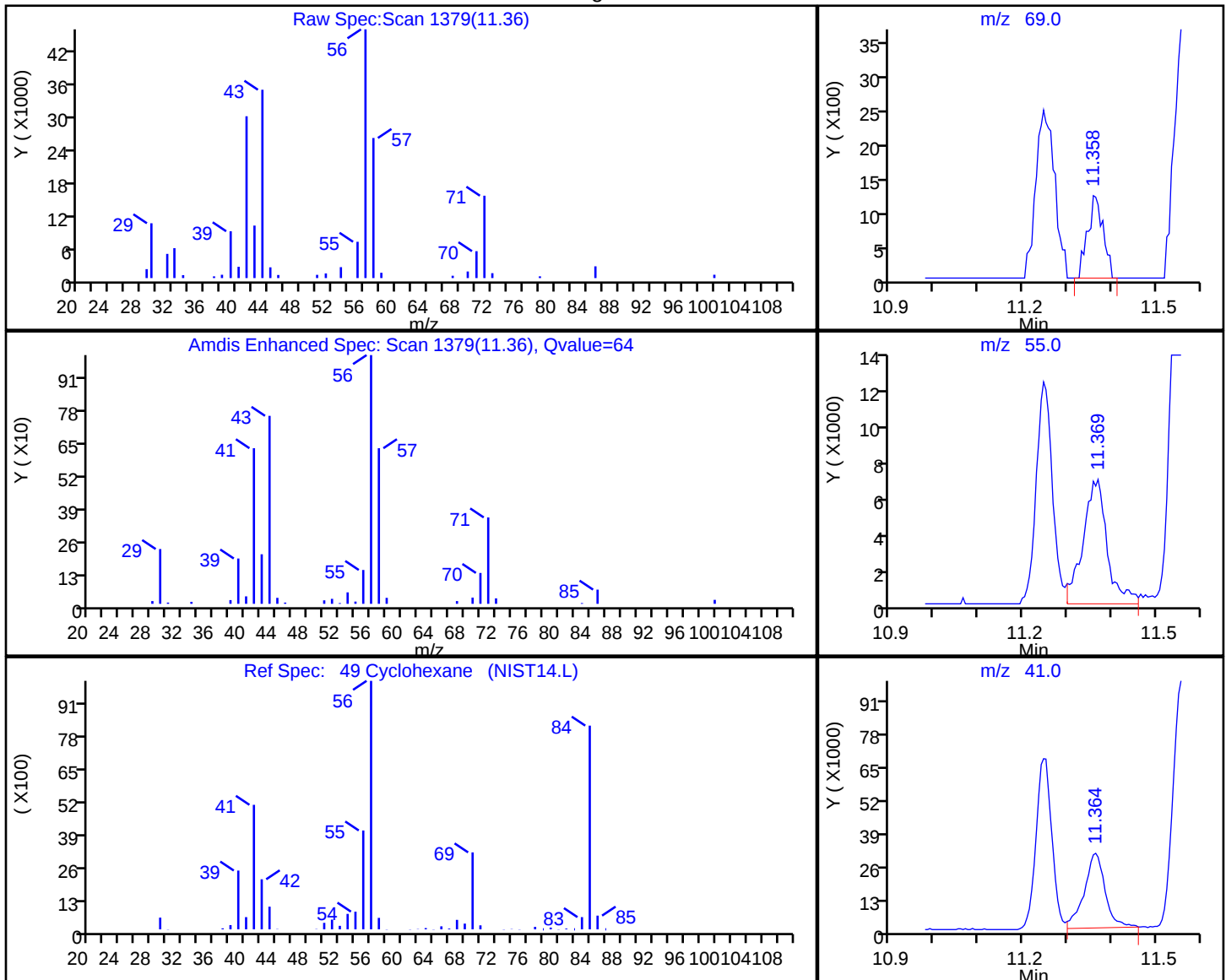
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

49 Cyclohexane, CAS: 110-82-7

Processing Results



RT	Mass	Response	Amount
11.36	69.00	2919	0.065552
11.37	55.00	25835	
11.36	41.00	98089	

Reviewer: tajh, 17-Apr-2018 09:26:50

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P102.D

Injection Date: 16-Apr-2018 16:42:30

Instrument ID: MJ

Lims ID: 140-11270-A-2

Lab Sample ID: 140-11270-2

Client ID: CL-IA-1

Operator ID: 007126

ALS Bottle#:

2

Worklist Smp#: 12

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

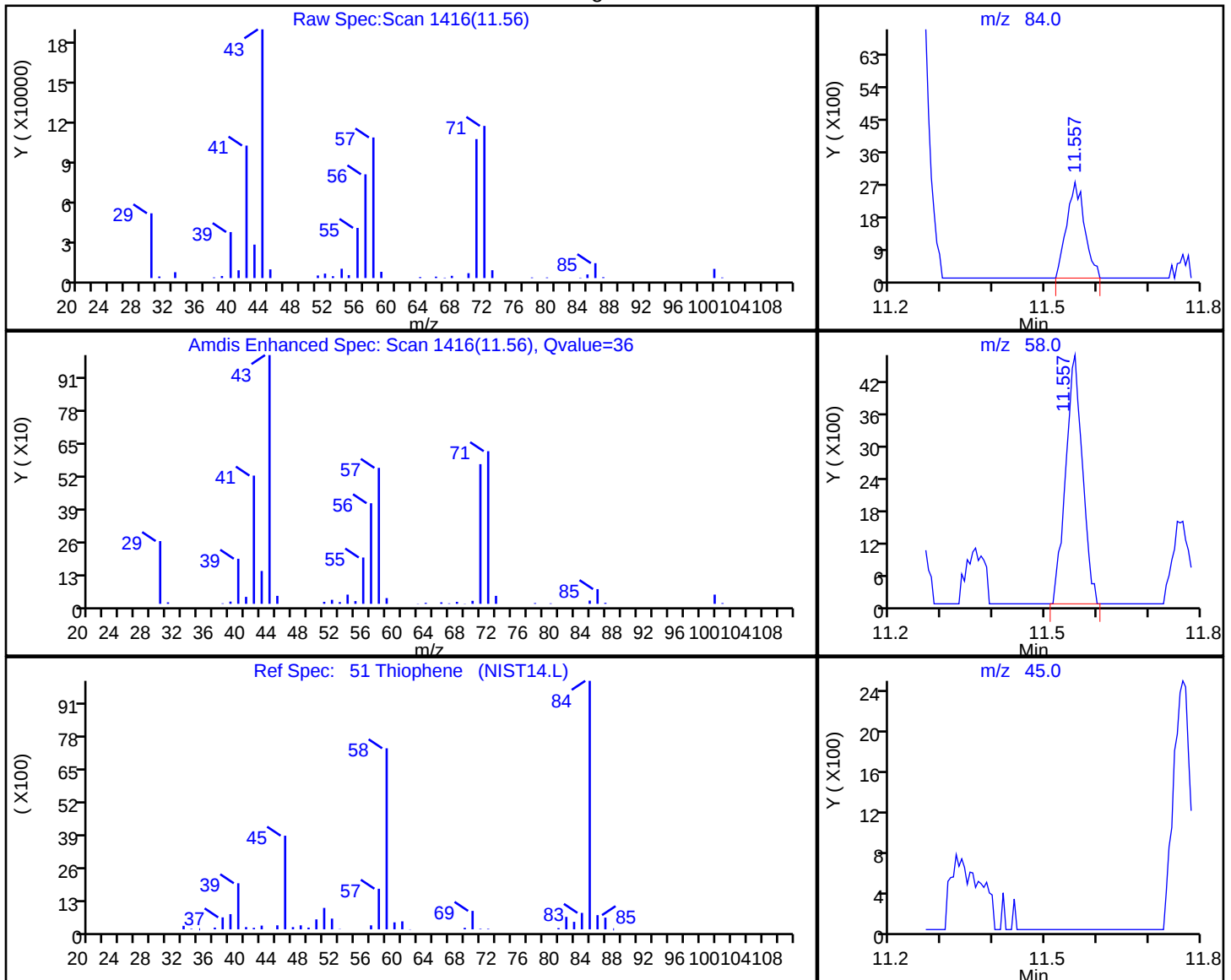
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

51 Thiophene, CAS: 110-02-1

Processing Results



RT	Mass	Response	Amount
11.56	84.00	6511	0.042492
11.56	58.00	10519	
11.52	45.00	0	

Reviewer: tajh, 17-Apr-2018 09:26:50

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1

SDG No.: _____

Client Sample ID: CL-SSV-2 Lab Sample ID: 140-11270-3

Matrix: Air Lab File ID: JD16P103.D

Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:50

Sample wt/vol: 25 (mL) Date Analyzed: 04/16/2018 17:27

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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	ND		1.6	0.24
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		1.6	0.48
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	ND		1.6	0.24
79-00-5	1,1,2-Trichloroethane	133.41	ND		1.6	0.42
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		0.80	0.28
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	ND		1.6	0.70
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		1.6	0.78
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		1.6	0.36
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		1.6	0.26
95-50-1	1,2-Dichlorobenzene	147.00	ND		1.6	0.56
78-87-5	1,2-Dichloropropane	112.99	ND		1.6	0.42
108-67-8	1,3,5-Trimethylbenzene	120.20	2.4		1.6	0.52
106-99-0	1,3-Butadiene	54.09	ND		3.2	0.50
541-73-1	1,3-Dichlorobenzene	147.00	ND		1.6	0.52
106-46-7	1,4-Dichlorobenzene	147.00	ND		1.6	0.52
123-91-1	1,4-Dioxane	88.11	2.1	J	4.0	0.64
90-12-0	1-Methylnaphthalene	142.20	ND	*	20	7.4
540-84-1	2,2,4-Trimethylpentane	114.23	ND		4.0	0.32
78-93-3	2-Butanone (MEK)	72.11	2.5	J	6.4	1.6
591-78-6	2-Hexanone	100.20	ND		4.0	0.46
91-57-6	2-Methylnaphthalene	142.20	ND	*	20	7.0
107-05-1	3-Chloropropene	76.53	ND		1.6	0.38
622-96-8	4-Ethyltoluene	120.20	2.2	J	3.2	0.52
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	5.5		4.0	1.6
67-64-1	Acetone	58.08	140		40	11
71-43-2	Benzene	78.11	3.0		1.6	0.46
100-44-7	Benzyl chloride	126.58	ND		3.2	0.62
75-27-4	Bromodichloromethane	163.83	ND		1.6	0.36
75-25-2	Bromoform	252.75	ND		1.6	0.38
74-83-9	Bromomethane	94.94	ND		1.6	0.26
106-97-8	Butane	58.12	53		3.2	1.5
75-15-0	Carbon disulfide	76.14	0.76	J	4.0	0.24

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-SSV-2 Lab Sample ID: 140-11270-3
 Matrix: Air Lab File ID: JD16P103.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:50
 Sample wt/vol: 25 (mL) Date Analyzed: 04/16/2018 17:27
 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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	ND		0.64	0.30
108-90-7	Chlorobenzene	112.56	ND		1.6	0.40
75-00-3	Chloroethane	64.52	ND		1.6	0.28
67-66-3	Chloroform	119.38	13		1.6	0.30
74-87-3	Chloromethane	50.49	ND		4.0	1.3
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.80	0.48
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		1.6	0.58
110-82-7	Cyclohexane	84.16	6.6		4.0	0.32
124-18-5	Decane	142.28	46		8.0	0.44
124-48-1	Dibromochloromethane	208.29	ND		1.6	0.34
75-71-8	Dichlorodifluoromethane	120.91	0.63	J	1.6	0.54
112-40-3	Dodecane	170.33	3.8	J	8.0	0.62
64-17-5	Ethanol	46.07	110		40	13
141-78-6	Ethyl acetate	88.11	ND		16	1.6
100-41-4	Ethylbenzene	106.17	4.1		1.6	0.54
142-82-5	Heptane	100.21	8.6		4.0	0.38
87-68-3	Hexachlorobutadiene	260.76	ND		1.6	0.98
110-54-3	Hexane	86.17	13		4.0	0.26
496-11-7	Indane	118.18	ND		1.6	0.66
95-13-6	Indene	116.16	ND		3.2	0.64
67-63-0	Isopropyl alcohol	60.10	14	J	16	1.9
1634-04-4	Methyl tert-butyl ether	88.15	ND		3.2	1.4
75-09-2	Methylene Chloride	84.93	ND		4.0	2.6
179601-23-1	m-Xylene & p-Xylene	106.17	19		1.6	1.1
111-84-2	Nonane	128.26	31		4.0	0.34
111-65-9	Octane	114.23	110		3.2	0.28
95-47-6	o-Xylene	106.17	5.5		1.6	0.48
109-66-0	Pentane	72.15	26		8.0	3.2
100-42-5	Styrene	104.15	ND		1.6	0.46
75-65-0	tert-Butyl alcohol	74.12	6.7		6.4	0.30
127-18-4	Tetrachloroethene	165.83	14		1.6	0.32
109-99-9	Tetrahydrofuran	72.11	ND		8.0	0.50
110-02-1	Thiophene	84.14	ND		1.6	0.60
108-88-3	Toluene	92.14	70		2.4	2.4
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.40

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-SSV-2 Lab Sample ID: 140-11270-3
 Matrix: Air Lab File ID: JD16P103.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:50
 Sample wt/vol: 25 (mL) Date Analyzed: 04/16/2018 17:27
 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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		1.6	0.38
79-01-6	Trichloroethene	131.39	0.31	J	0.72	0.28
75-69-4	Trichlorofluoromethane	137.37	0.37	J	1.6	0.20
1120-21-4	Undecane	156.31	24		8.0	0.50
593-60-2	Vinyl bromide	106.96	ND		1.6	0.28
75-01-4	Vinyl chloride	62.50	ND		0.80	0.58

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	111		60-140

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1

SDG No.: _____

Client Sample ID: CL-SSV-2 Lab Sample ID: 140-11270-3

Matrix: Air Lab File ID: JD16P103.D

Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:50

Sample wt/vol: 25 (mL) Date Analyzed: 04/16/2018 17:27

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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	ND		8.7	1.3
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		11	3.3
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	ND		12	1.8
79-00-5	1,1,2-Trichloroethane	133.41	ND		8.7	2.3
75-34-3	1,1-Dichloroethane	98.96	ND		6.5	0.81
75-35-4	1,1-Dichloroethene	96.94	ND		3.2	1.1
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	ND		8.8	3.8
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		12	5.8
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		12	2.8
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		11	1.8
95-50-1	1,2-Dichlorobenzene	147.00	ND		9.6	3.4
78-87-5	1,2-Dichloropropane	112.99	ND		7.4	1.9
108-67-8	1,3,5-Trimethylbenzene	120.20	12		7.9	2.6
106-99-0	1,3-Butadiene	54.09	ND		7.1	1.1
541-73-1	1,3-Dichlorobenzene	147.00	ND		9.6	3.1
106-46-7	1,4-Dichlorobenzene	147.00	ND		9.6	3.1
123-91-1	1,4-Dioxane	88.11	7.6	J	14	2.3
90-12-0	1-Methylnaphthalene	142.20	ND	*	120	43
540-84-1	2,2,4-Trimethylpentane	114.23	ND		19	1.5
78-93-3	2-Butanone (MEK)	72.11	7.4	J	19	4.7
591-78-6	2-Hexanone	100.20	ND		16	1.9
91-57-6	2-Methylnaphthalene	142.20	ND	*	120	41
107-05-1	3-Chloropropene	76.53	ND		5.0	1.2
622-96-8	4-Ethyltoluene	120.20	11	J	16	2.6
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	22		16	6.4
67-64-1	Acetone	58.08	330		95	26
71-43-2	Benzene	78.11	9.6		5.1	1.5
100-44-7	Benzyl chloride	126.58	ND		17	3.2
75-27-4	Bromodichloromethane	163.83	ND		11	2.4
75-25-2	Bromoform	252.75	ND		17	3.9
74-83-9	Bromomethane	94.94	ND		6.2	1.0
106-97-8	Butane	58.12	130		7.6	3.5
75-15-0	Carbon disulfide	76.14	2.4	J	12	0.75

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-SSV-2 Lab Sample ID: 140-11270-3
 Matrix: Air Lab File ID: JD16P103.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:50
 Sample wt/vol: 25 (mL) Date Analyzed: 04/16/2018 17:27
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	ND		4.0	1.9
108-90-7	Chlorobenzene	112.56	ND		7.4	1.8
75-00-3	Chloroethane	64.52	ND		4.2	0.74
67-66-3	Chloroform	119.38	64		7.8	1.5
74-87-3	Chloromethane	50.49	ND		8.3	2.6
156-59-2	cis-1,2-Dichloroethene	96.94	ND		3.2	1.9
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		7.3	2.6
110-82-7	Cyclohexane	84.16	23		14	1.1
124-18-5	Decane	142.28	270		47	2.6
124-48-1	Dibromochloromethane	208.29	ND		14	2.9
75-71-8	Dichlorodifluoromethane	120.91	3.1	J	7.9	2.7
112-40-3	Dodecane	170.33	27	J	56	4.3
64-17-5	Ethanol	46.07	210		75	24
141-78-6	Ethyl acetate	88.11	ND		58	5.8
100-41-4	Ethylbenzene	106.17	18		6.9	2.3
142-82-5	Heptane	100.21	35		16	1.6
87-68-3	Hexachlorobutadiene	260.76	ND		17	10
110-54-3	Hexane	86.17	47		14	0.92
496-11-7	Indane	118.18	ND		7.7	3.2
95-13-6	Indene	116.16	ND		15	3.0
67-63-0	Isopropyl alcohol	60.10	34	J	39	4.6
1634-04-4	Methyl tert-butyl ether	88.15	ND		12	4.9
75-09-2	Methylene Chloride	84.93	ND		14	9.0
179601-23-1	m-Xylene & p-Xylene	106.17	81		6.9	4.6
111-84-2	Nonane	128.26	160		21	1.8
111-65-9	Octane	114.23	510		15	1.3
95-47-6	o-Xylene	106.17	24		6.9	2.1
109-66-0	Pentane	72.15	76		24	9.4
100-42-5	Styrene	104.15	ND		6.8	2.0
75-65-0	tert-Butyl alcohol	74.12	20		19	0.91
127-18-4	Tetrachloroethene	165.83	95		11	2.2
109-99-9	Tetrahydrofuran	72.11	ND		24	1.5
110-02-1	Thiophene	84.14	ND		5.5	2.1
108-88-3	Toluene	92.14	260		9.0	9.0
156-60-5	trans-1,2-Dichloroethene	96.94	ND		6.3	1.6

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-SSV-2 Lab Sample ID: 140-11270-3
 Matrix: Air Lab File ID: JD16P103.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:50
 Sample wt/vol: 25 (mL) Date Analyzed: 04/16/2018 17:27
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		7.3	1.7
79-01-6	Trichloroethene	131.39	1.6	J	3.9	1.5
75-69-4	Trichlorofluoromethane	137.37	2.1	J	9.0	1.1
1120-21-4	Undecane	156.31	150		51	3.2
593-60-2	Vinyl bromide	106.96	ND		7.0	1.2
75-01-4	Vinyl chloride	62.50	ND		2.0	1.5

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	111		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D
 Lims ID: 140-11270-A-3
 Client ID: CL-SSV-2
 Sample Type: Client
 Inject. Date: 16-Apr-2018 17:27:30 ALS Bottle#: 3 Worklist Smp#: 13
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007901-013
 Misc. Info.: 140-11270-a-3
 Operator ID: 007126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 18-Apr-2018 13:02:49 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK011

First Level Reviewer: liul

Date: 18-Apr-2018 13:02:49

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.668	9.662	0.006	91	247737	4.00	
* 2 1,4-Difluorobenzene	114	11.766	11.765	0.001	95	1327268	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.370	16.364	0.006	87	1206039	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.974	17.973	0.001	96	966142	4.43	
8 Dichlorodifluoromethane	85	4.283	4.266	0.017	96	7051	0.0317	
14 Butane	43	4.783	4.767	0.017	94	328980	2.65	
17 Ethanol	31	5.439	5.412	0.027	95	167011	5.56	
20 Trichlorofluoromethane	101	5.934	5.918	0.017	93	3968	0.0185	
22 Acetone	58	6.069	6.058	0.012	98	194483	6.90	
24 Pentane	72	6.160	6.155	0.006	99	16913	1.29	
25 Isopropyl alcohol	45	6.236	6.171	0.066	95	56300	0.6963	
30 2-Methyl-2-propanol	59	6.919	6.811	0.109	92	33920	0.3335	
33 Carbon disulfide	76	7.225	7.220	0.006	99	9018	0.0379	
40 2-Butanone (MEK)	72	8.915	8.887	0.027	62	3970	0.1254	
39 Hexane	56	8.909	8.898	0.011	90	44094	0.6616	
44 Chloroform	83	9.678	9.673	0.006	93	116614	0.6572	
49 Cyclohexane	69	11.265	11.260	0.000	72	12890	0.3316	
50 Benzene	78	11.265	11.260	0.000	79	35394	0.1503	
57 n-Heptane	71	12.320	12.314	0.001	91	35615	0.4297	
59 Trichloroethene	130	12.454	12.448	0.000	92	1584	0.0153	
62 1,4-Dioxane	88	12.734	12.696	0.033	28	2423	0.1049	
65 4-Methyl-2-pentanone (MIBK	43	13.595	13.578	0.012	82	33246	0.2732	
68 Toluene	91	14.434	14.434	0.001	93	885703	3.48	
73 n-Octane	85	15.085	15.079	0.006	93	483594	5.47	
76 Tetrachloroethene	129	15.558	15.553	0.006	96	70452	0.6980	
79 Ethylbenzene	91	16.693	16.688	0.006	98	64329	0.2040	
81 m-Xylene & p-Xylene	91	16.849	16.849	0.000	100	219515	0.9295	
82 n-Nonane	57	17.237	17.231	0.007	91	267332	1.55	
85 o-Xylene	91	17.371	17.371	0.001	98	68422	0.2731	
91 4-Ethyltoluene	105	18.581	18.587	-0.005	99	35643	0.1083	M
92 1,3,5-Trimethylbenzene	120	18.657	18.651	0.006	92	16635	0.1208	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
94 n-Decane	57	18.910	18.910	0.001	90	471372	2.31	
108 Undecane	57	20.174	20.174	0.001	95	253889	1.20	
111 1,2,4,5-Tetramethylbenzene	119	20.642	20.642	0.001	61	7831	0.0280	7a
114 Dodecane	57	21.255	21.255	0.001	95	34779	0.1915	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Operator ID: 007126

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Worklist Smp#: 13

Client ID: CL-SSV-2

Purge Vol: 500.000 mL

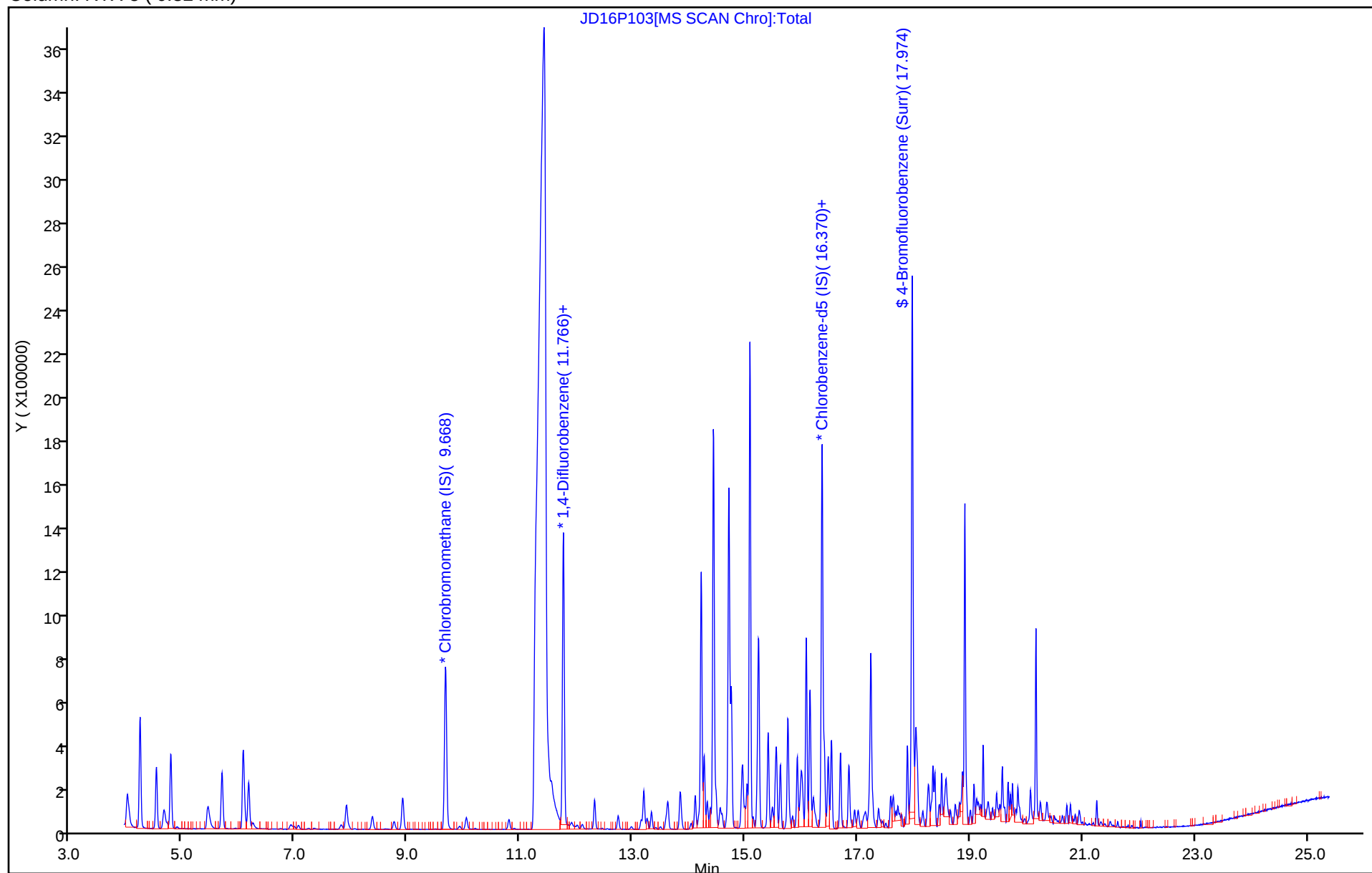
Dil. Factor: 1.0000

ALS Bottle#: 3

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D
Lims ID: 140-11270-A-3
Client ID: CL-SSV-2
Sample Type: Client
Inject. Date: 16-Apr-2018 17:27:30 ALS Bottle#: 3 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0007901-013
Misc. Info.: 140-11270-a-3
Operator ID: 007126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 18-Apr-2018 13:02:49 Calib Date: 15-Feb-2018 22:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: liul

Date: 18-Apr-2018 13:02:49

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.43	110.78

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

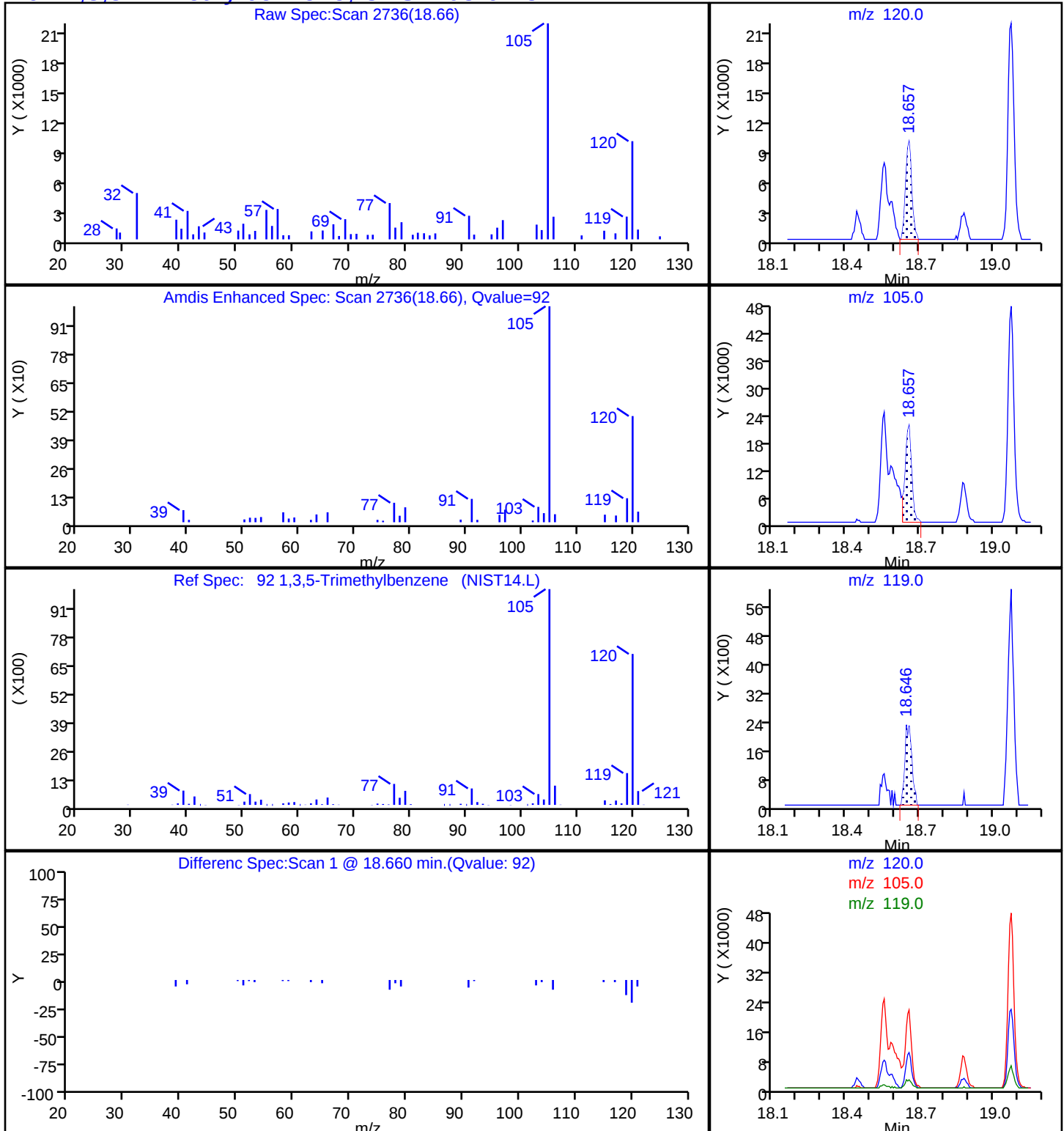
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

92 1,3,5-Trimethylbenzene, CAS: 108-67-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

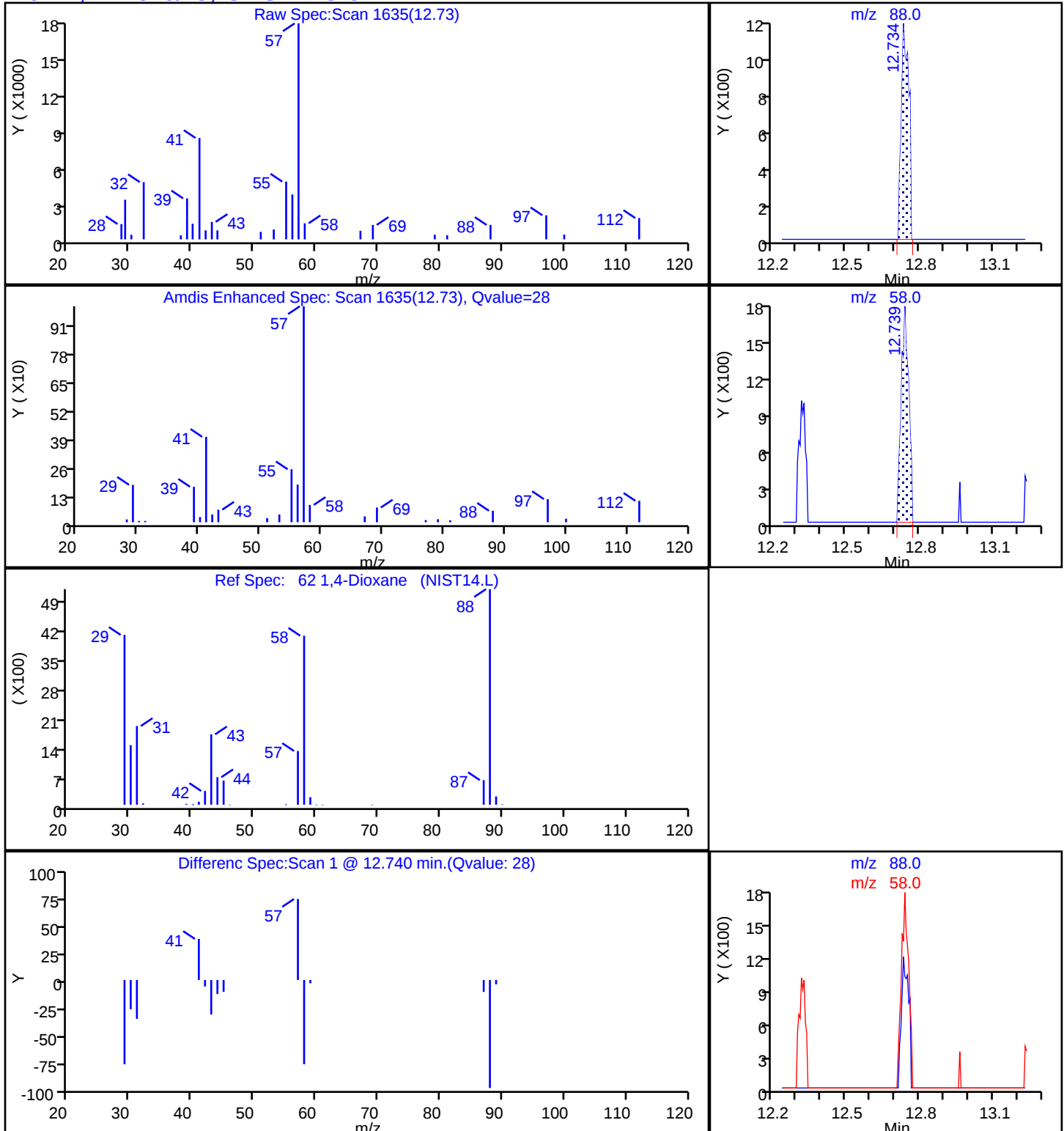
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

62 1,4-Dioxane, CAS: 123-91-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

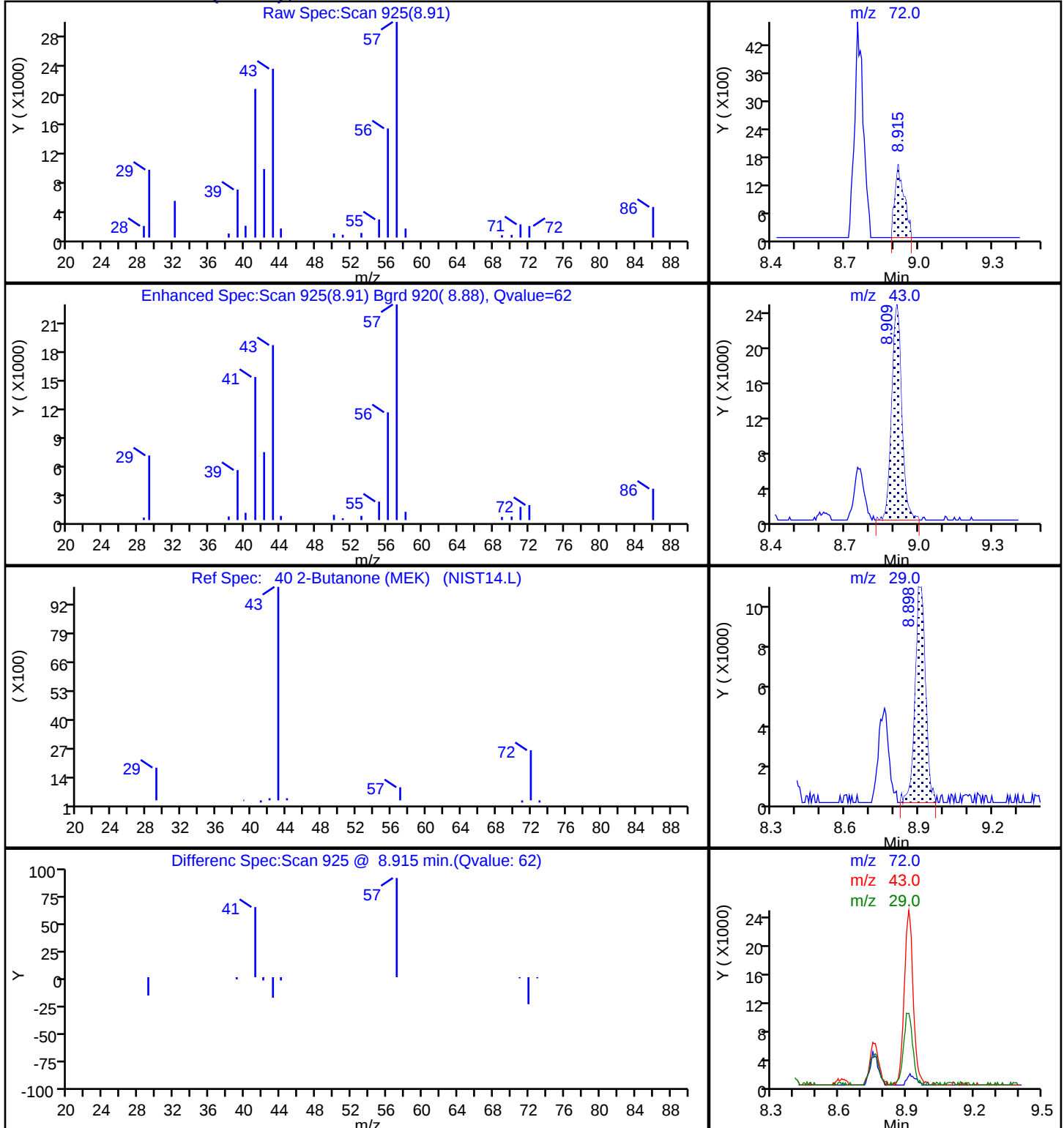
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 2-Butanone (MEK), CAS: 78-93-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

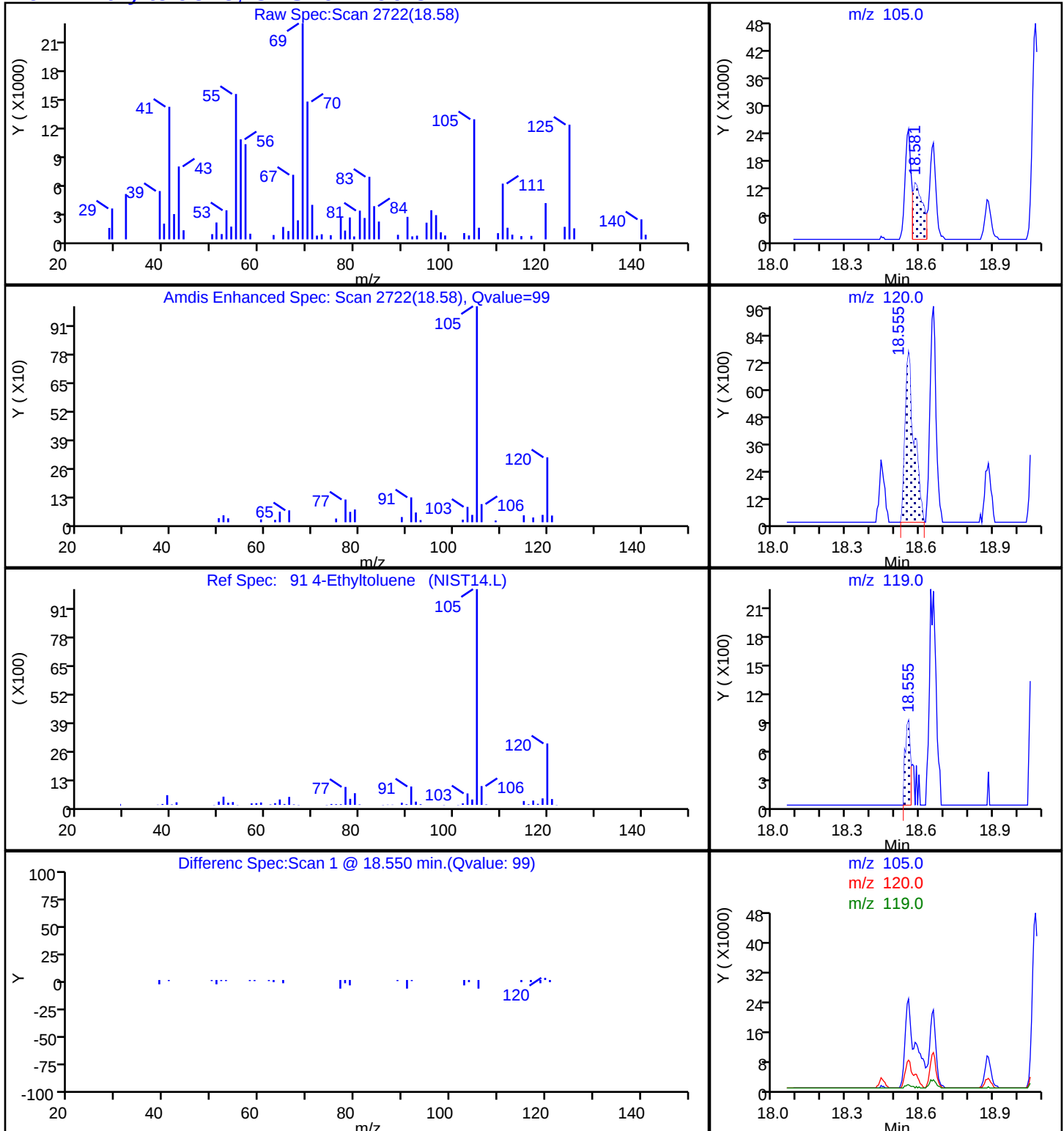
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

91 4-Ethyltoluene, CAS: 622-96-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

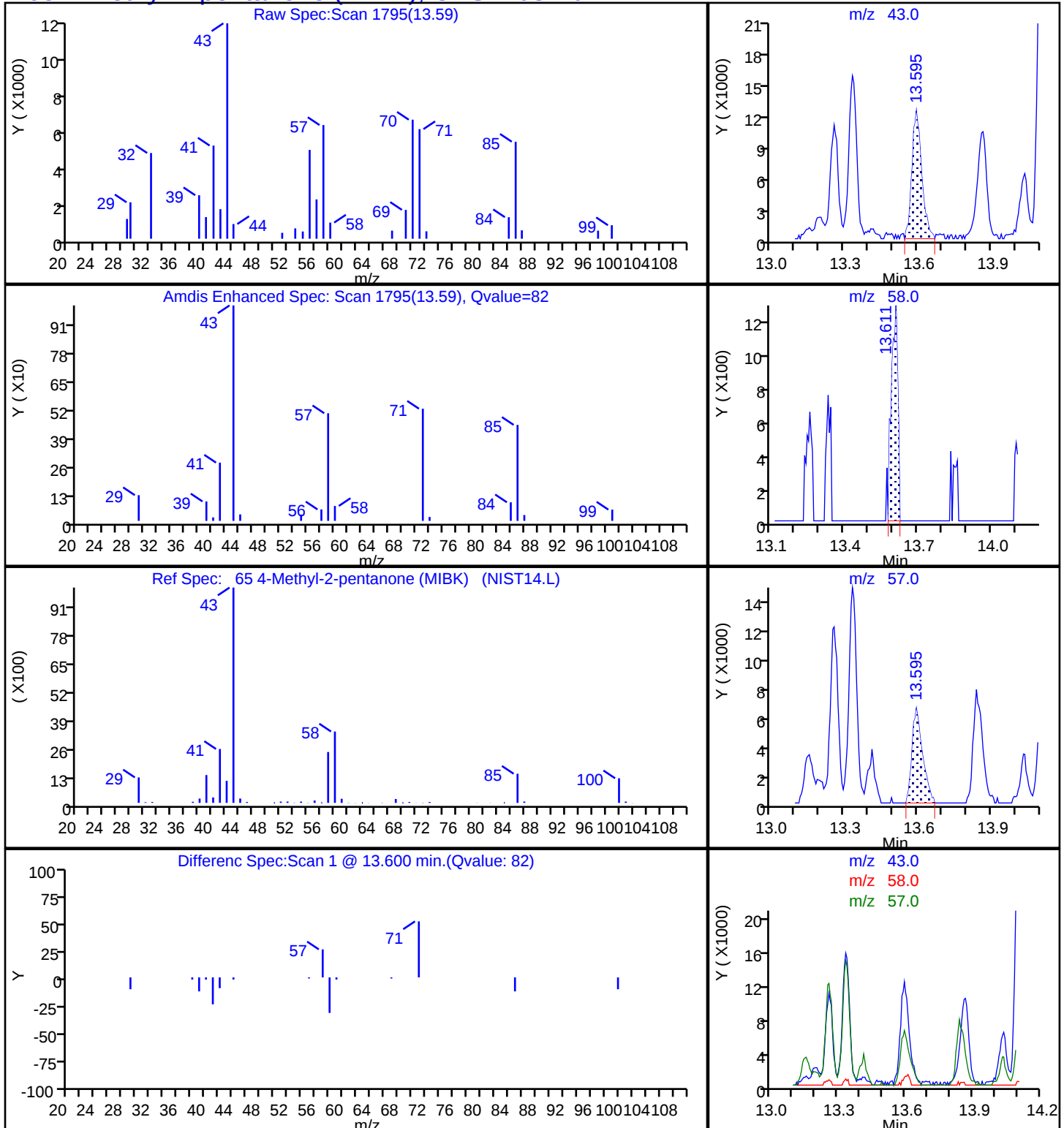
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

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



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

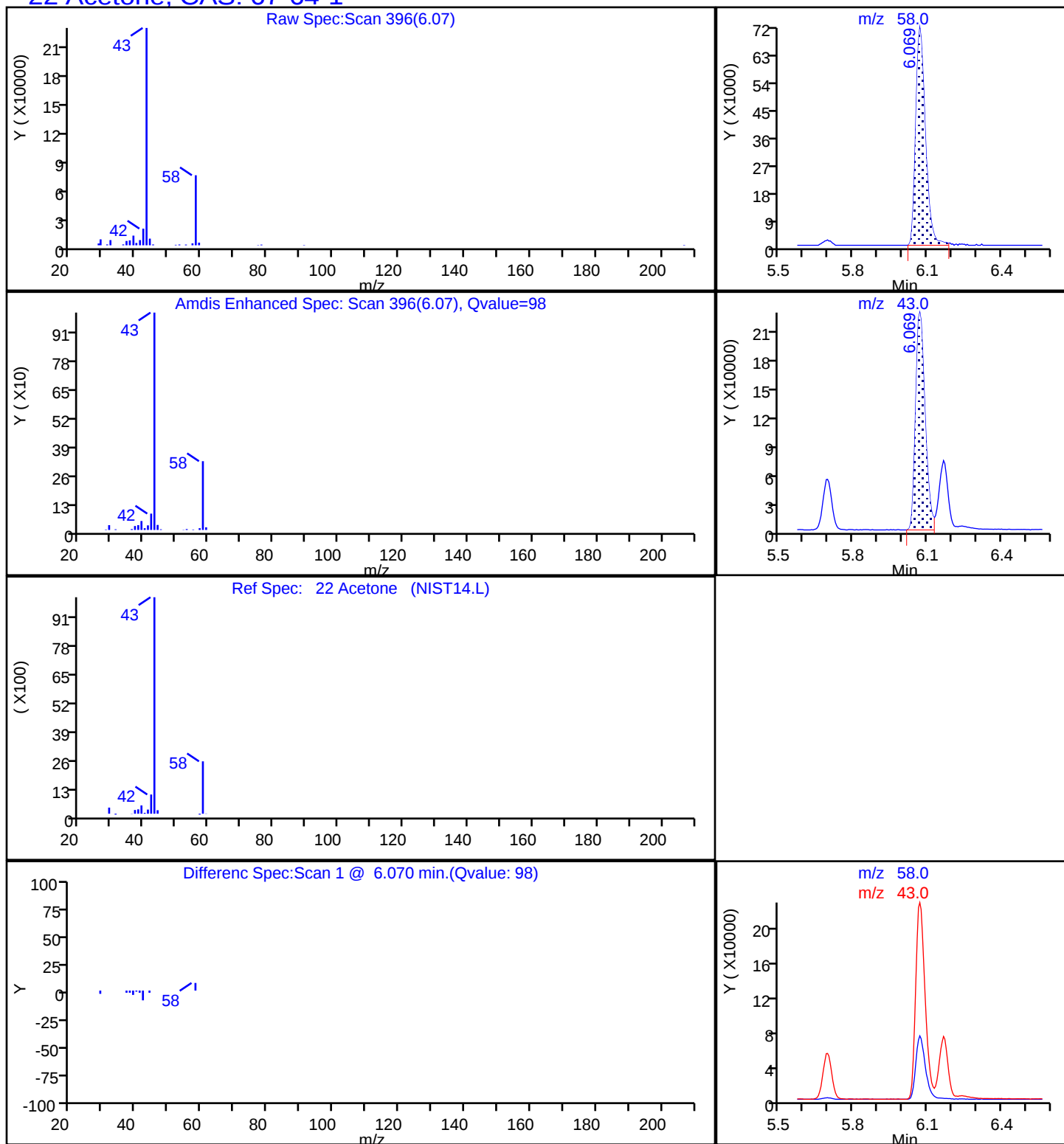
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

22 Acetone, CAS: 67-64-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

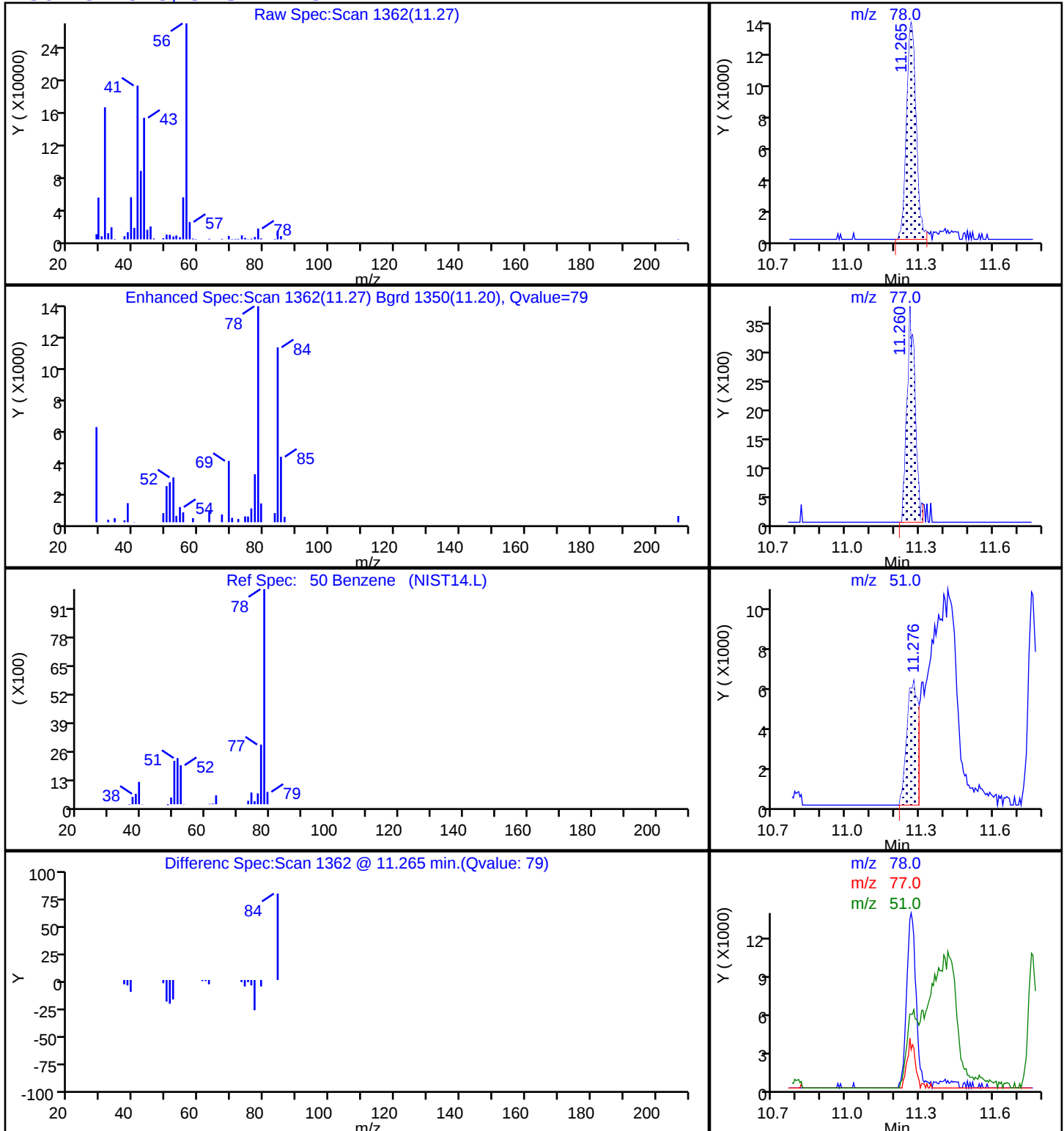
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

50 Benzene, CAS: 71-43-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

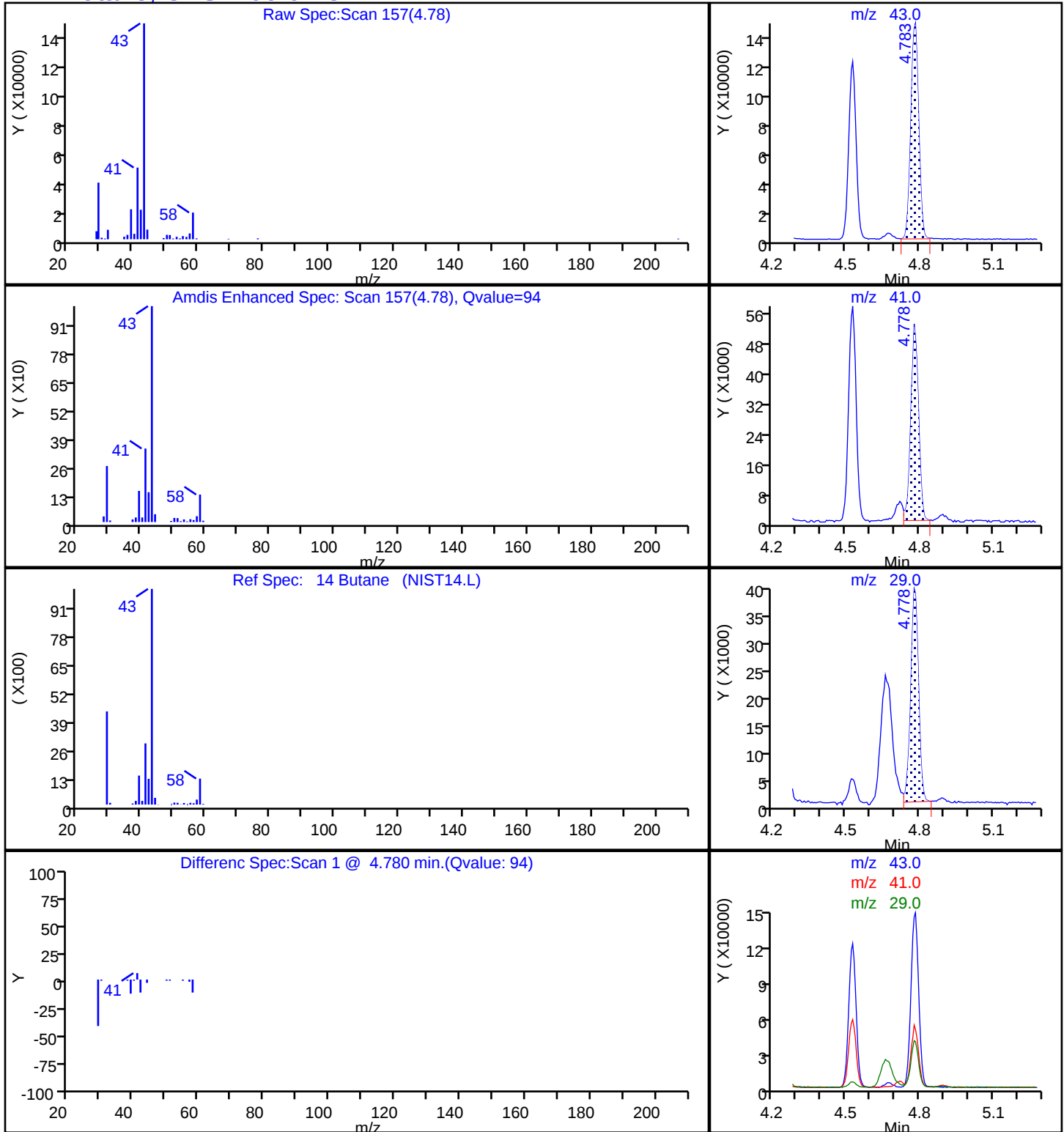
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

14 Butane, CAS: 106-97-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

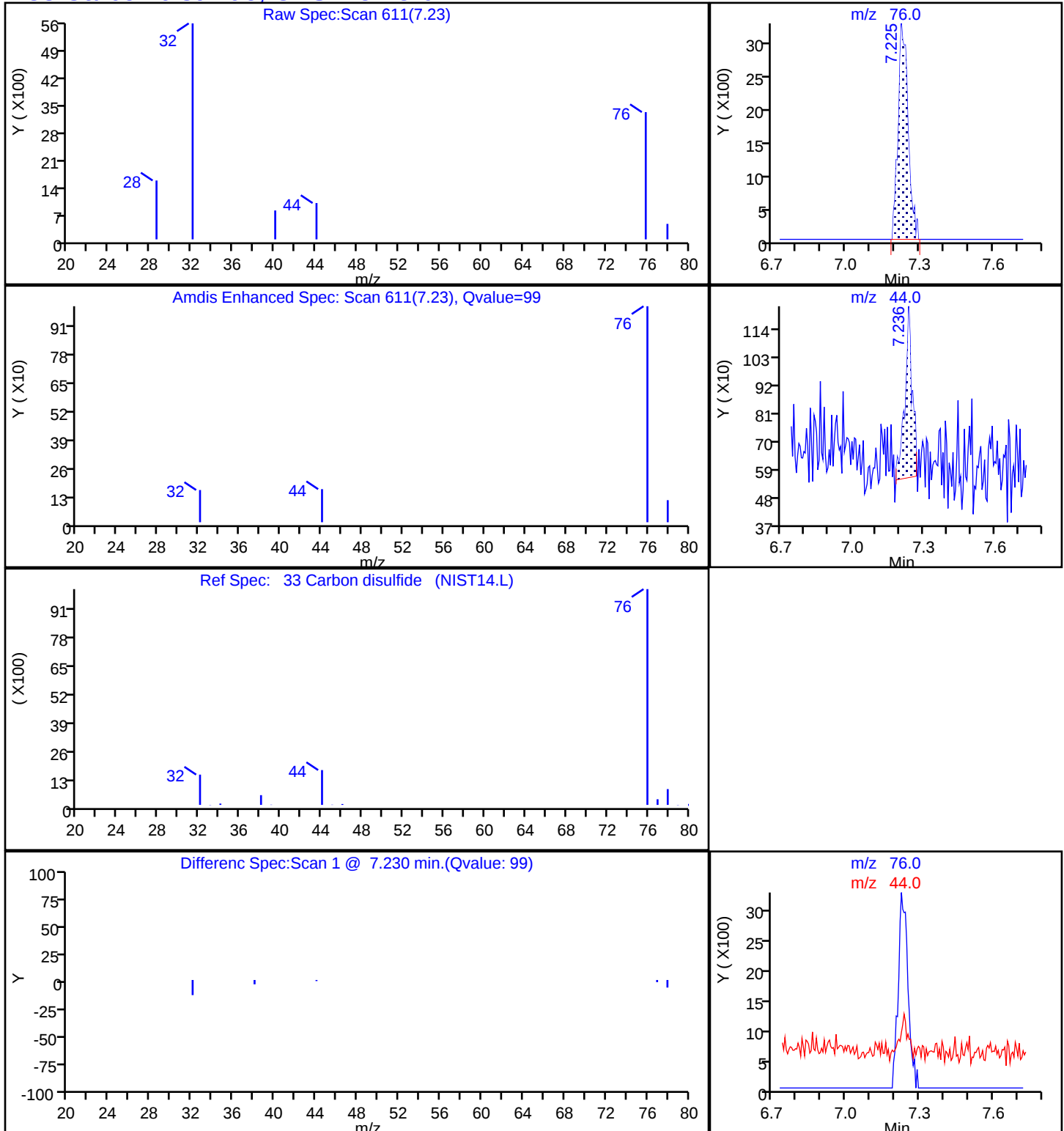
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

33 Carbon disulfide, CAS: 75-15-0

TestAmerica Knoxville

Data File: \\ChromNA\\Knoxville\\ChromData\\MJ\\20180412-7901.b\\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

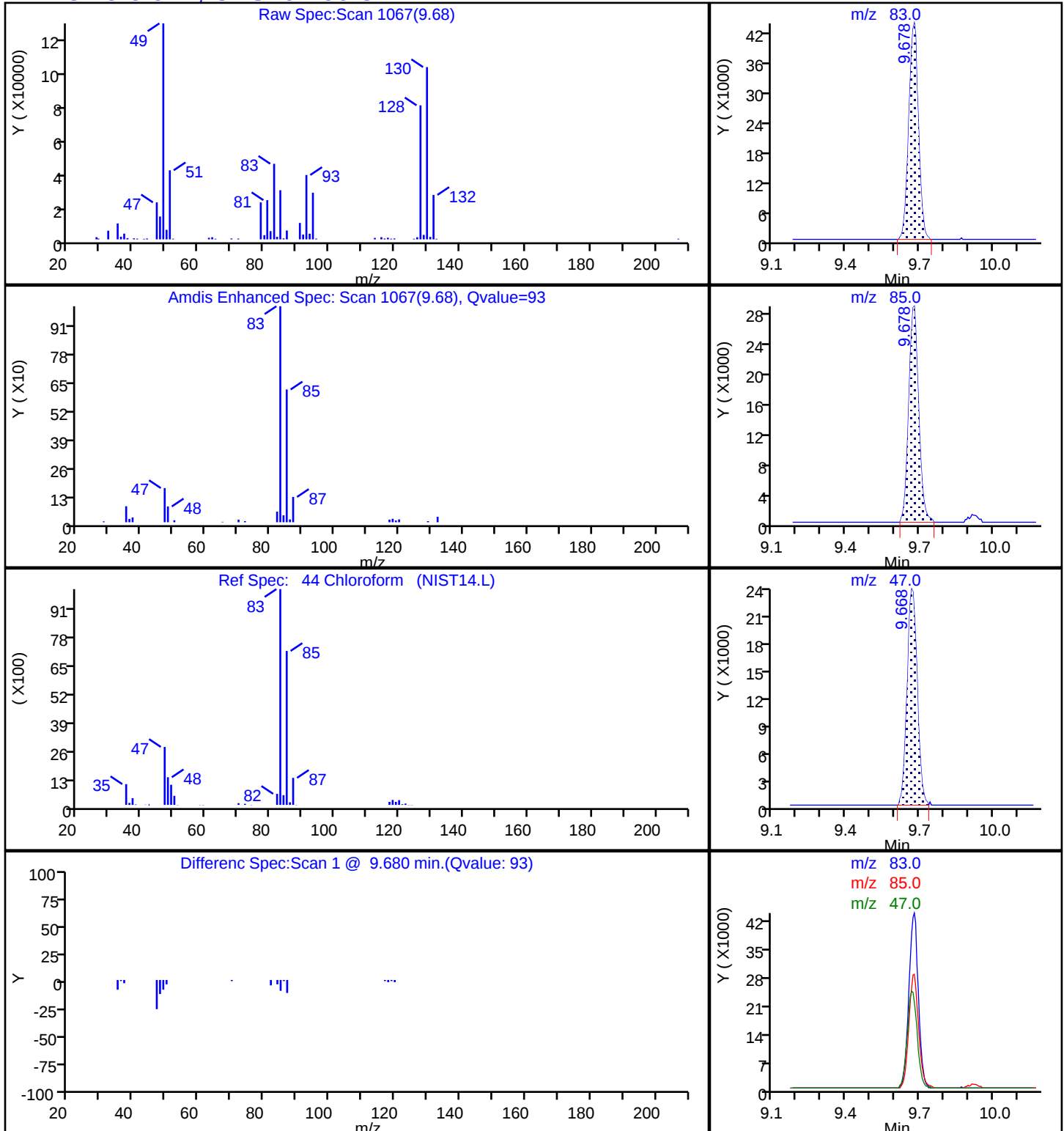
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

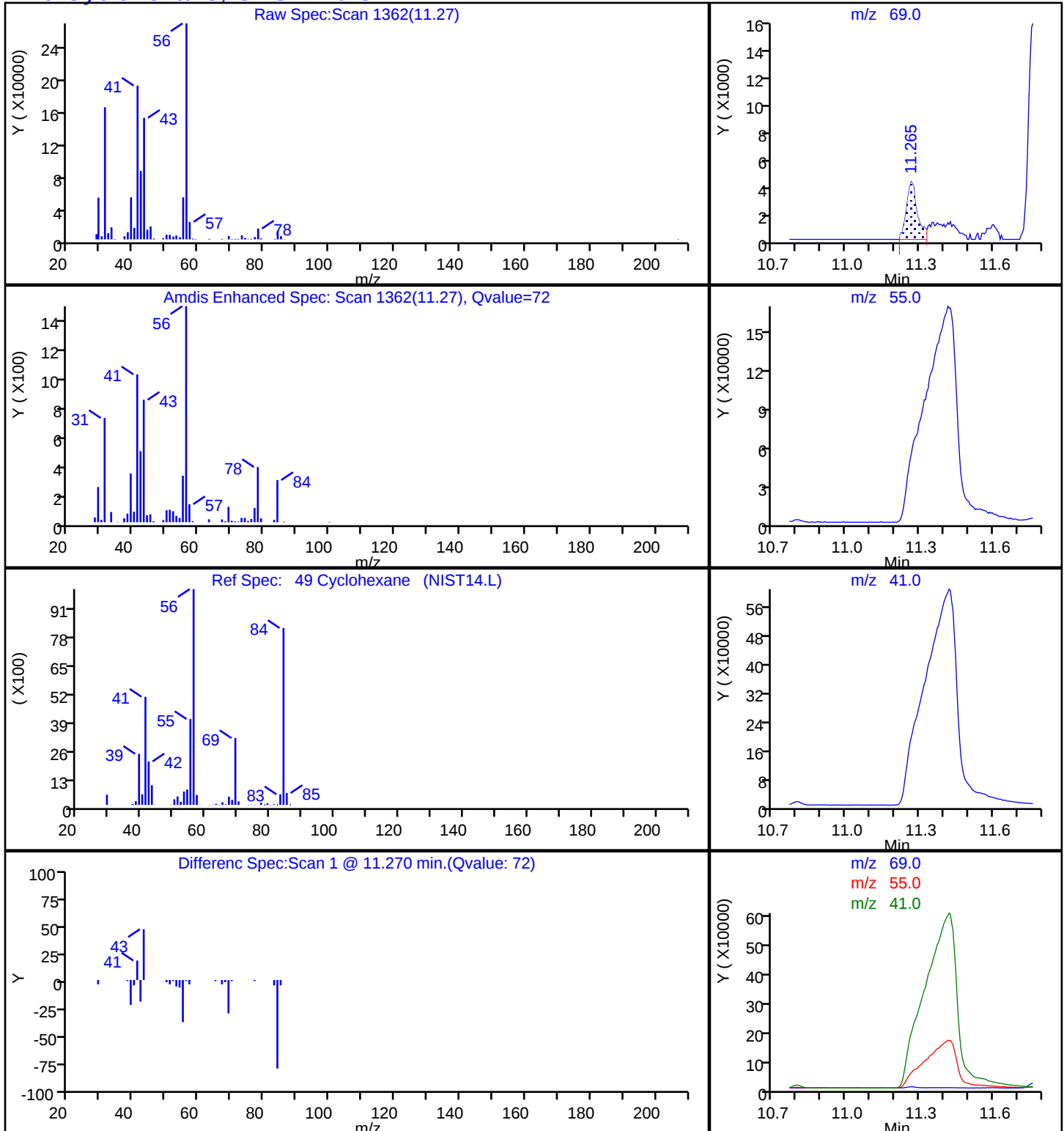
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

49 Cyclohexane, CAS: 110-82-7

TestAmerica Knoxville

Data File: \\ChromNA\\Knoxville\\ChromData\\MJ\\20180412-7901.b\\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

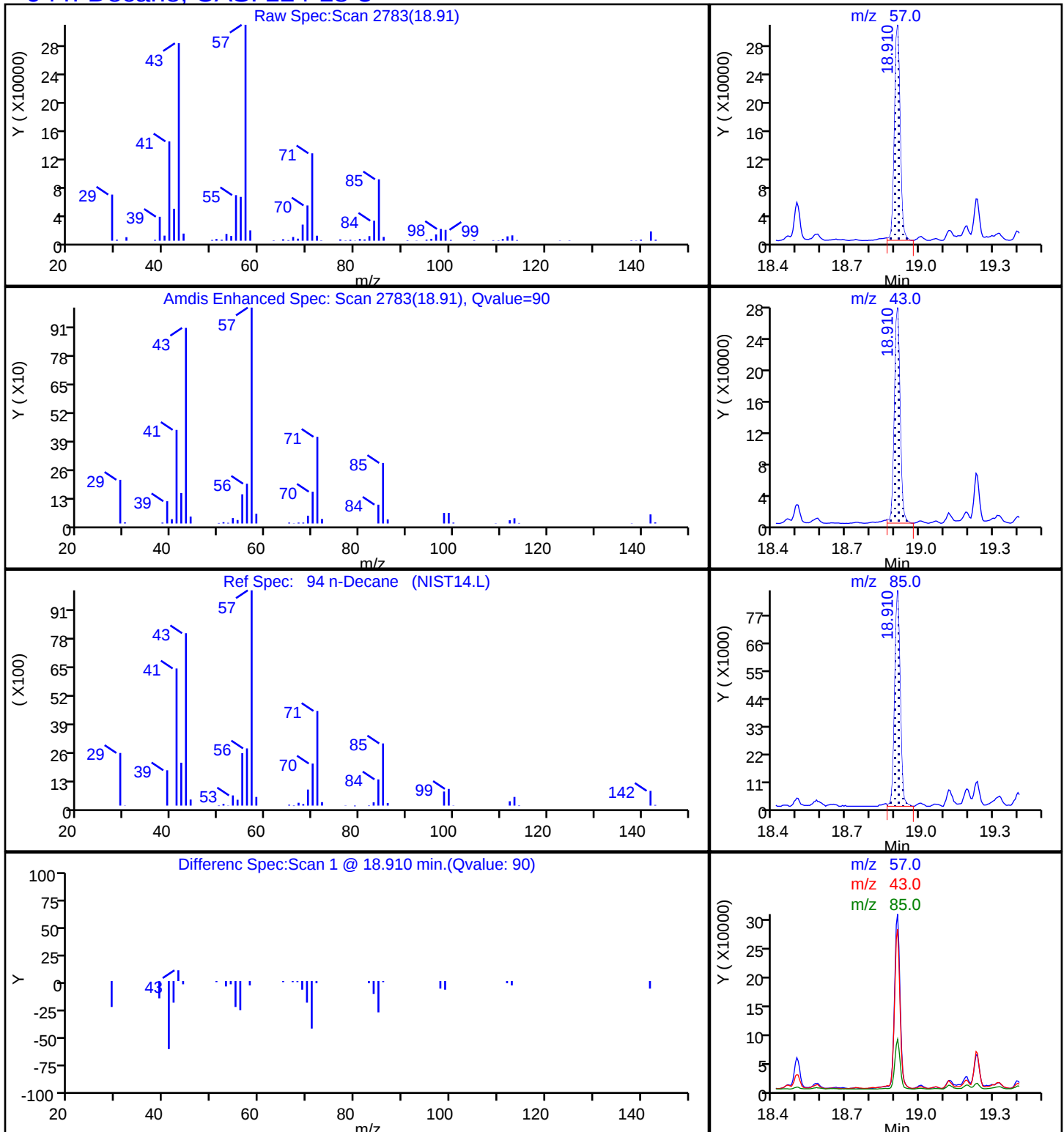
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

94 n-Decane, CAS: 124-18-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

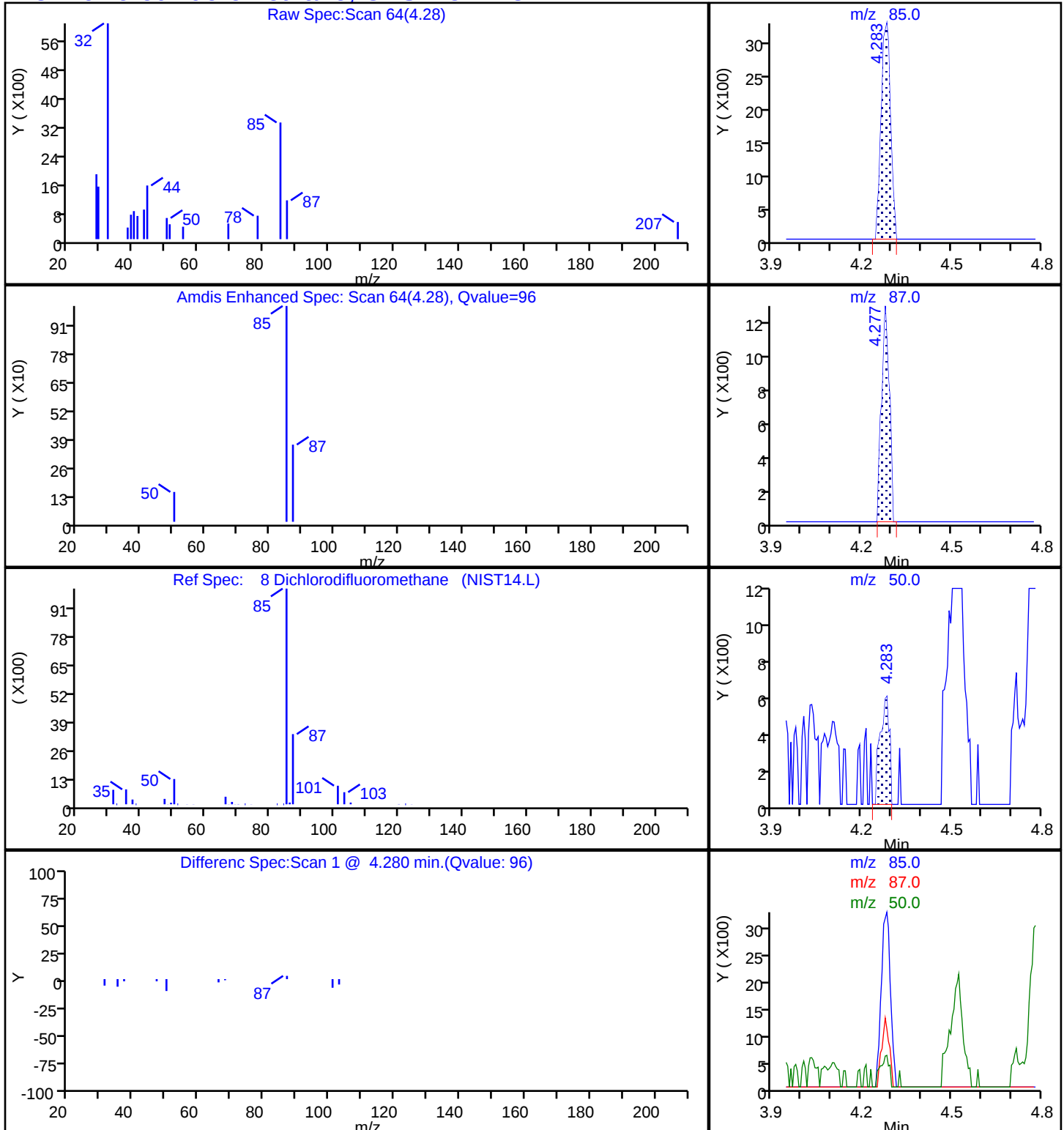
Method: MJ_TO15

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\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

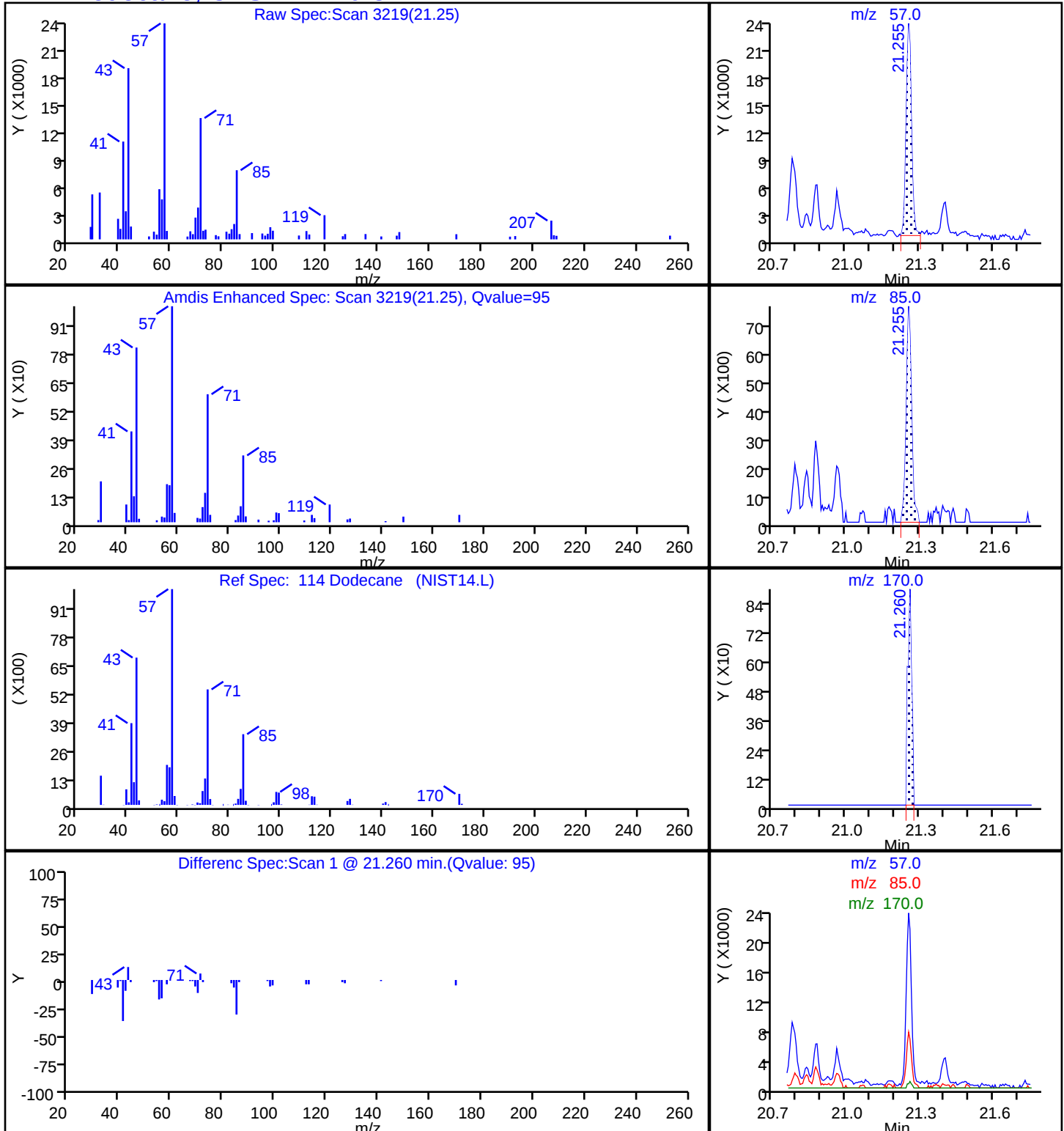
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

114 Dodecane, CAS: 112-40-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

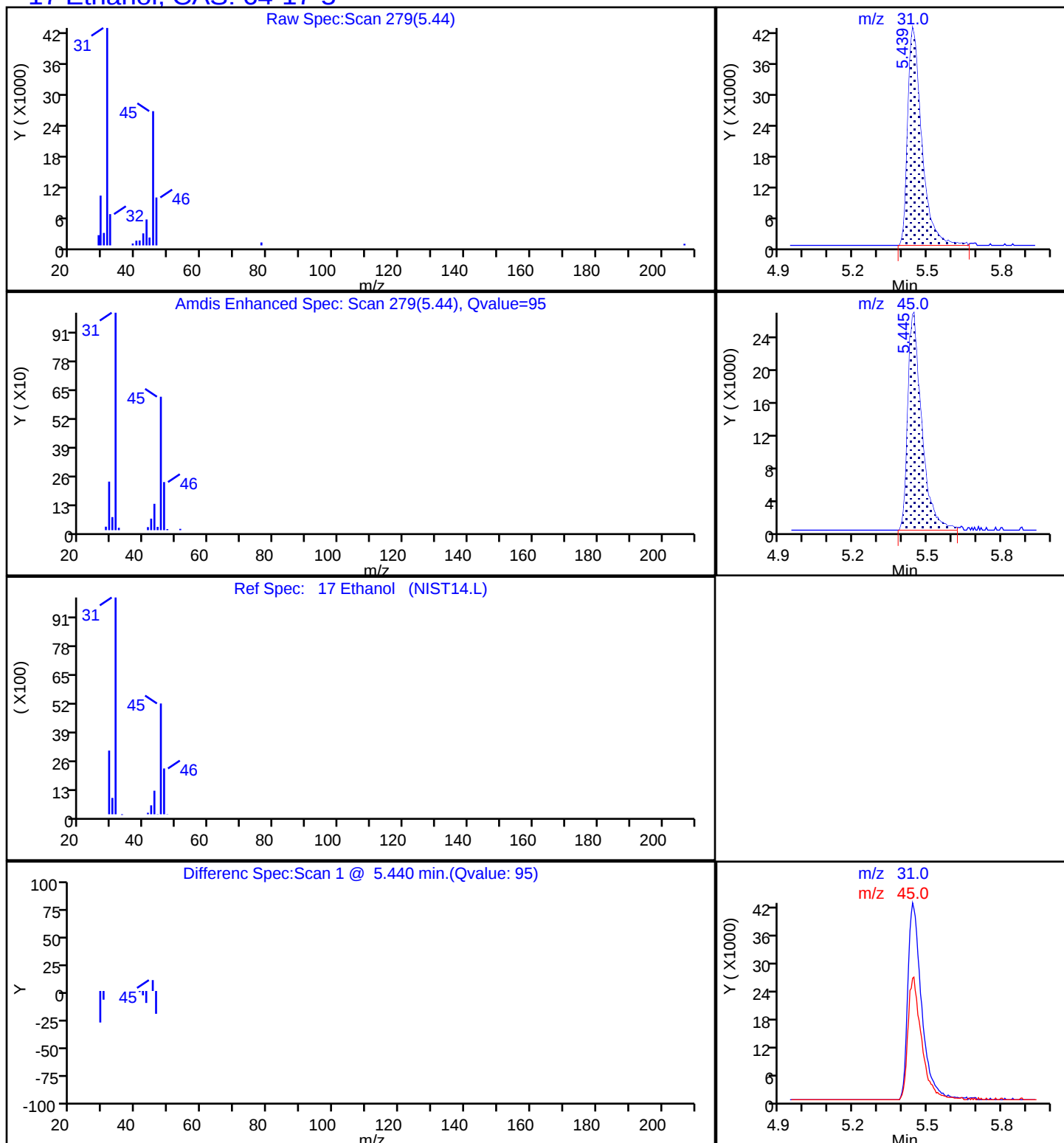
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

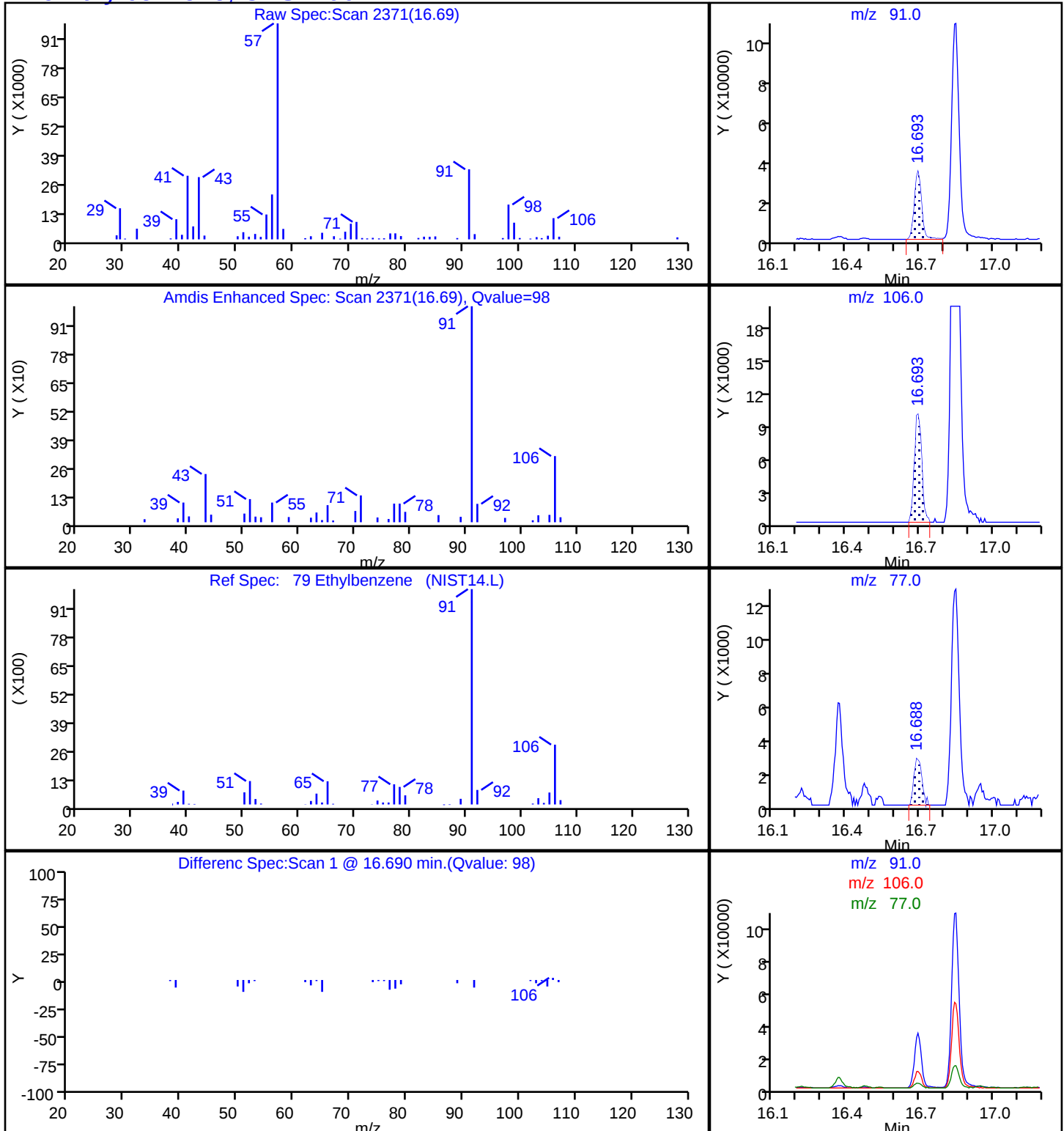
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

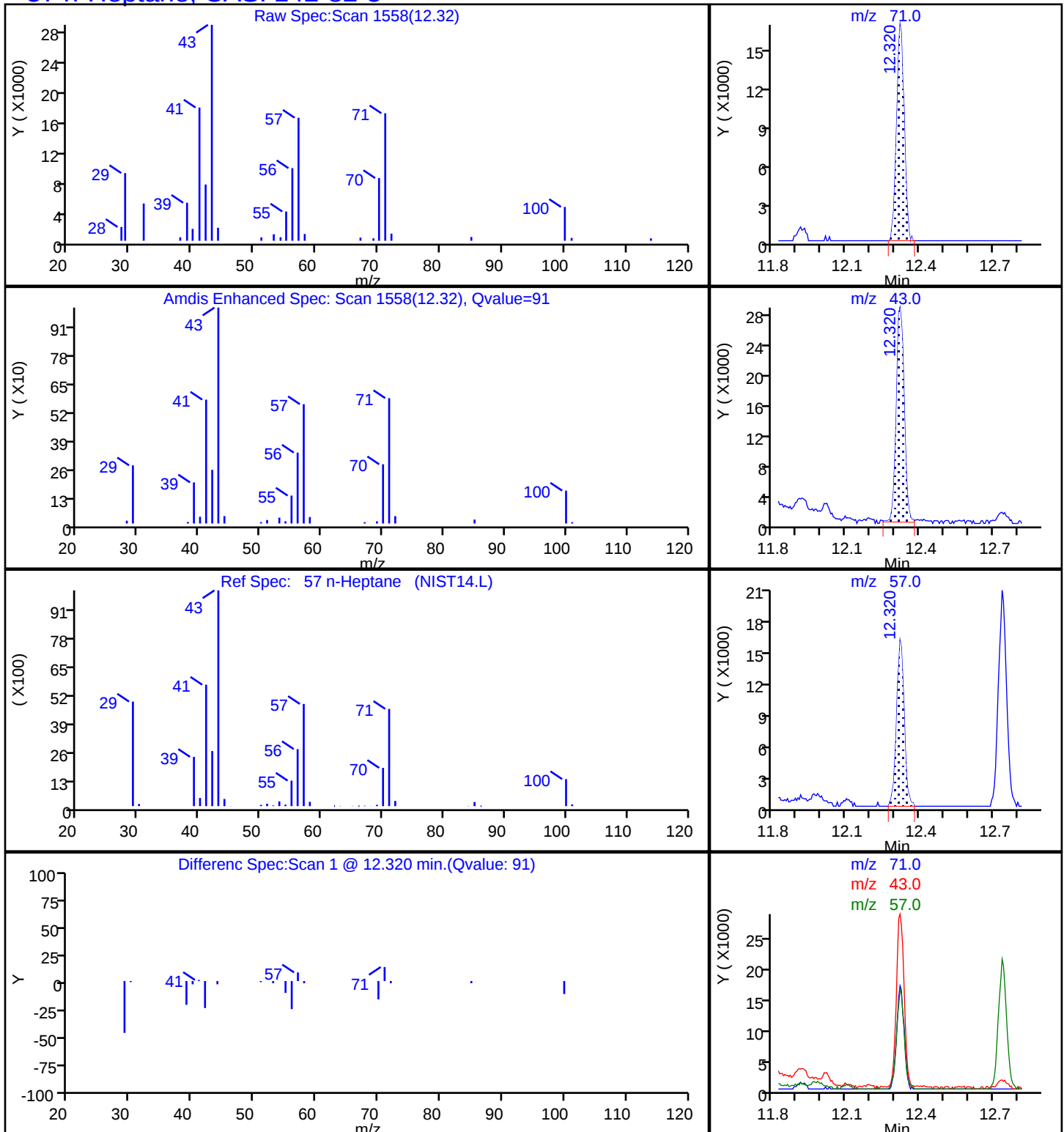
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

57 n-Heptane, CAS: 142-82-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

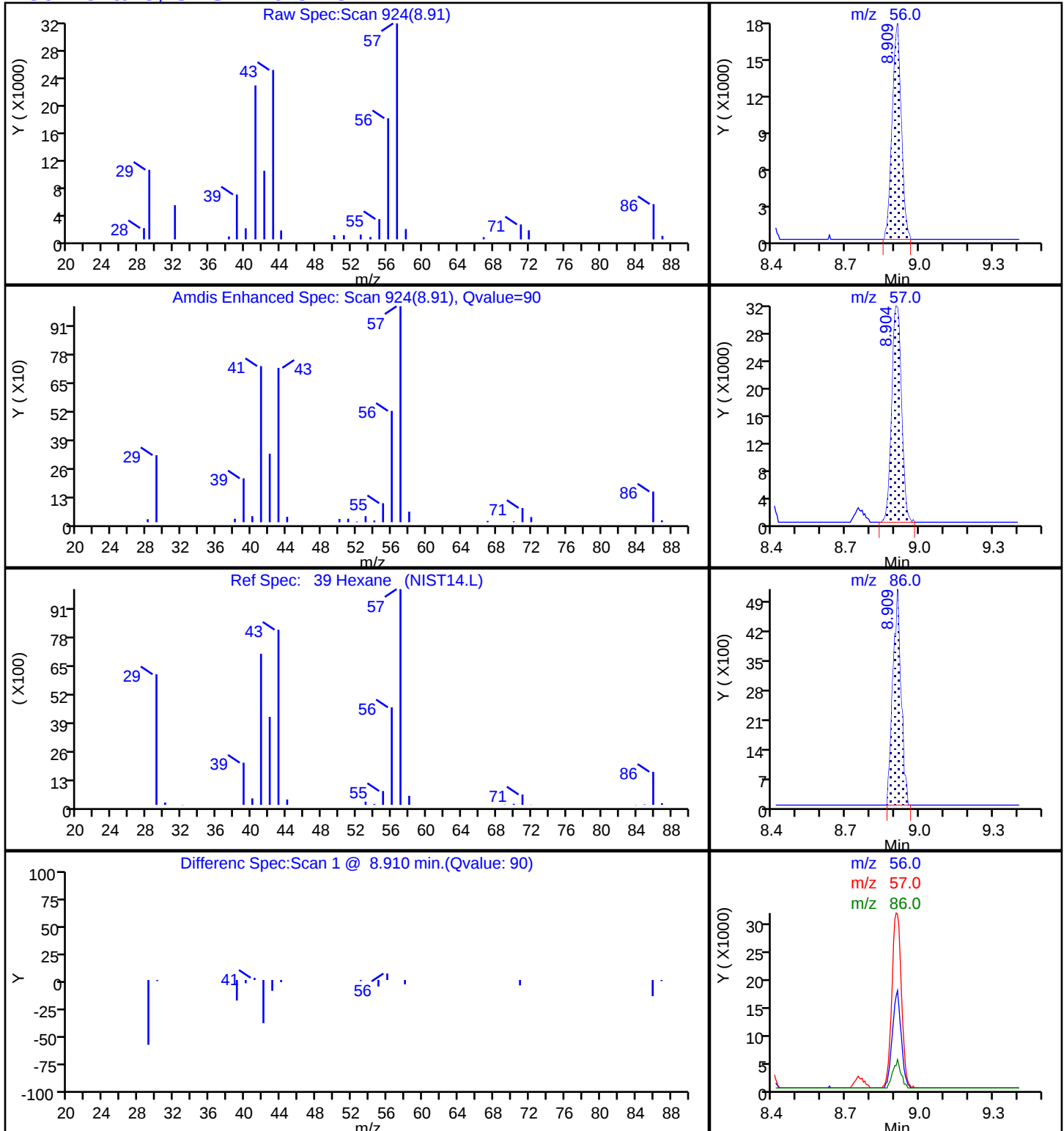
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

39 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

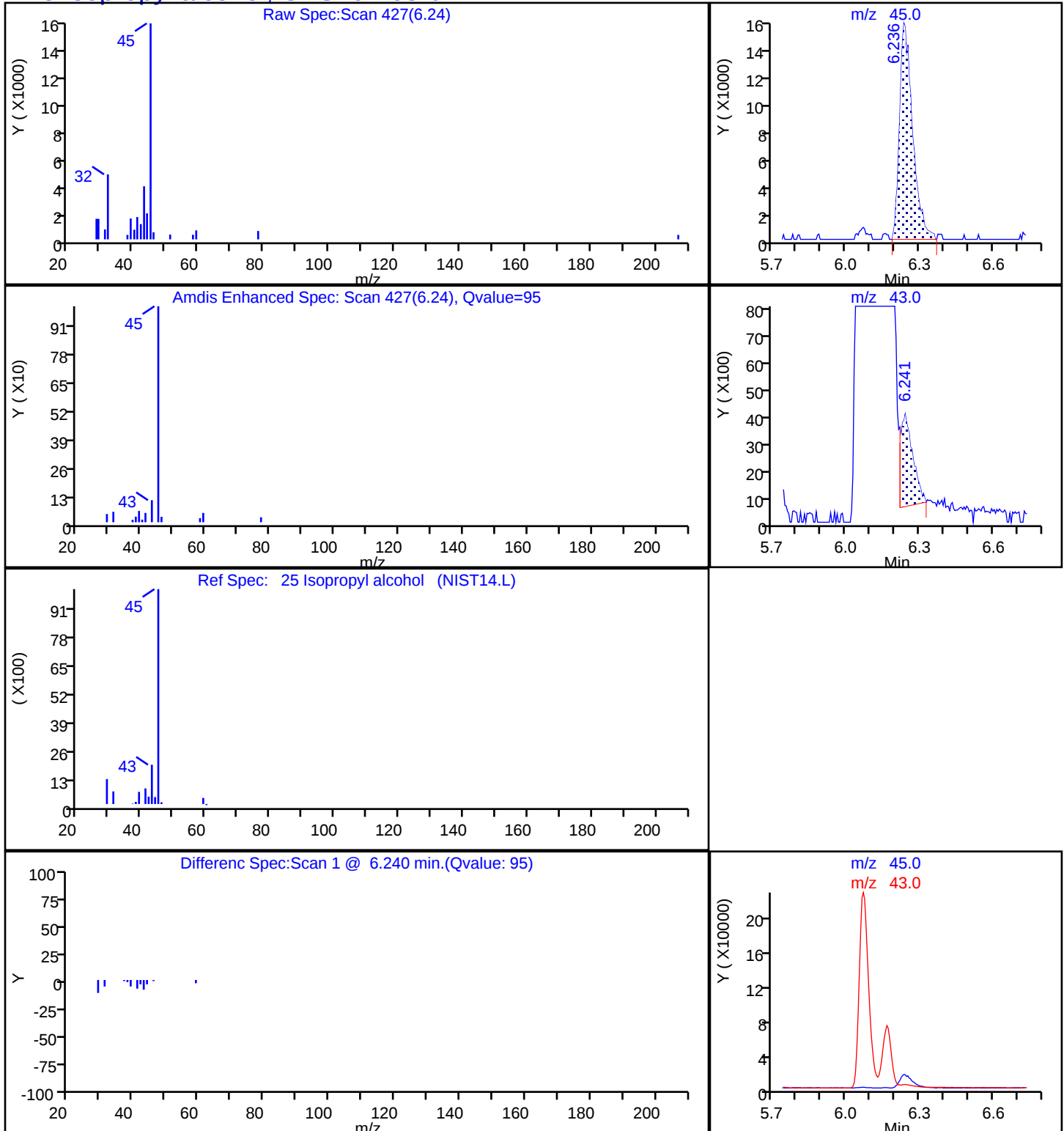
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

25 Isopropyl alcohol, CAS: 67-63-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

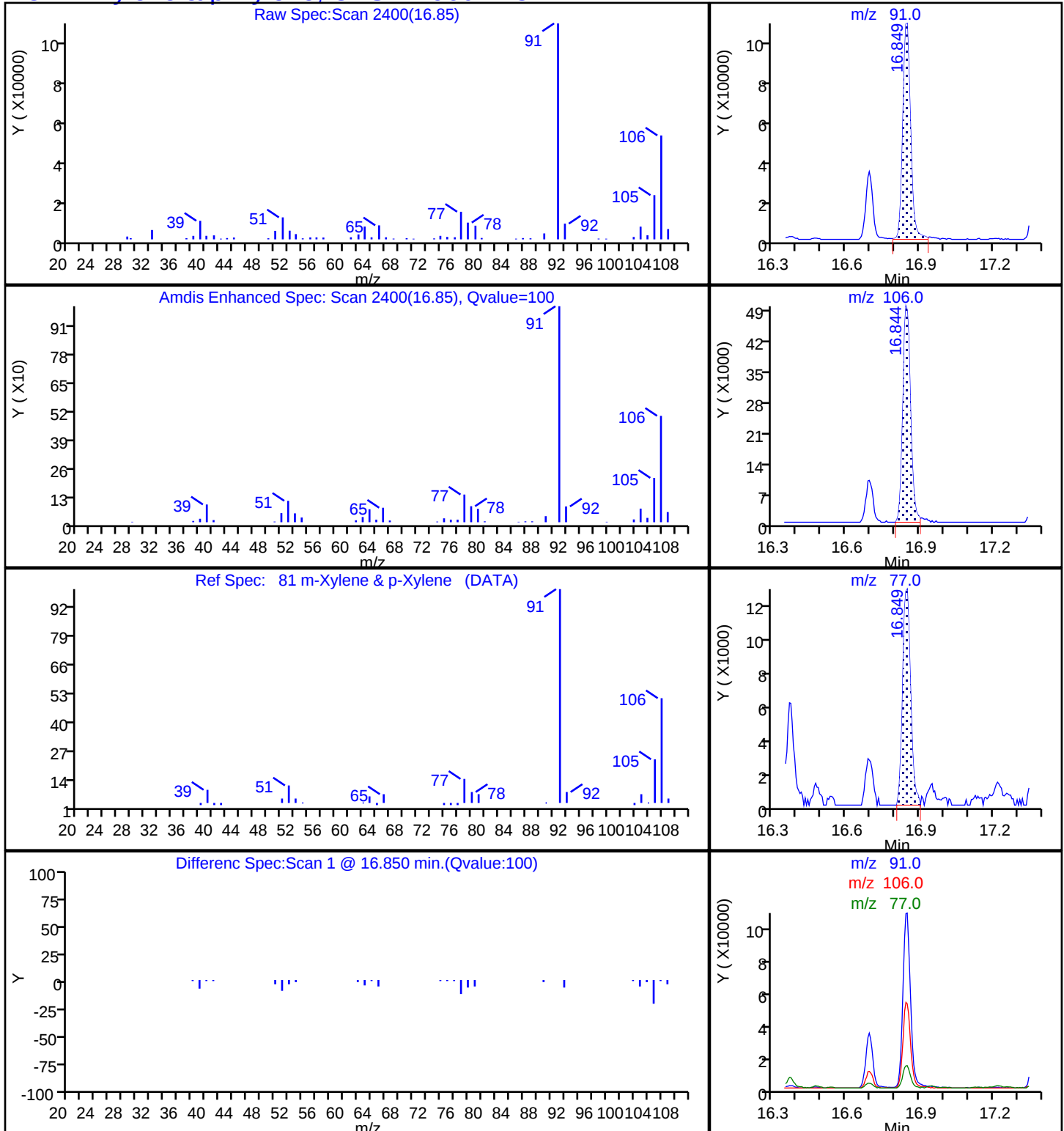
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

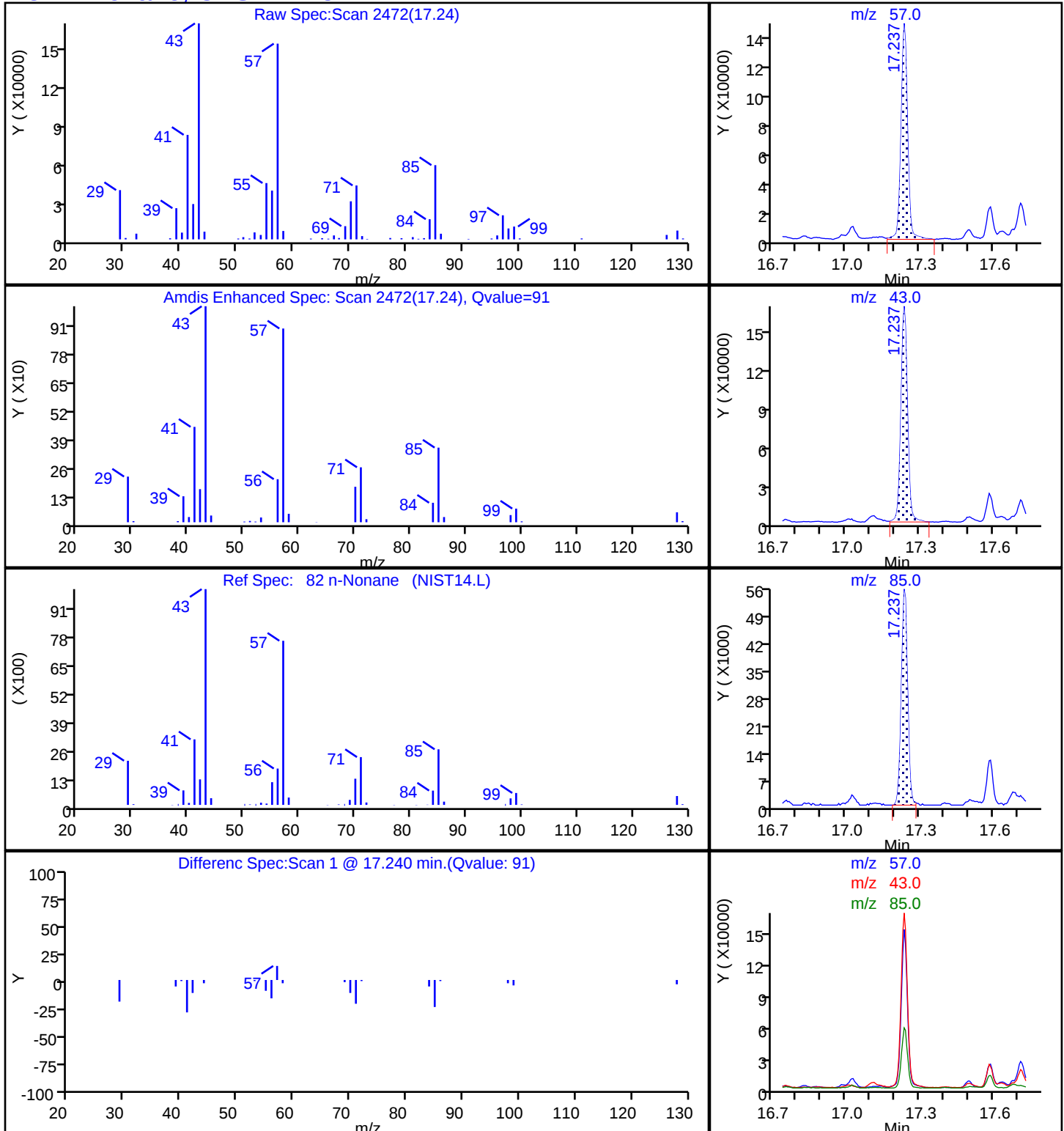
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

82 n-Nonane, CAS: 111-84-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

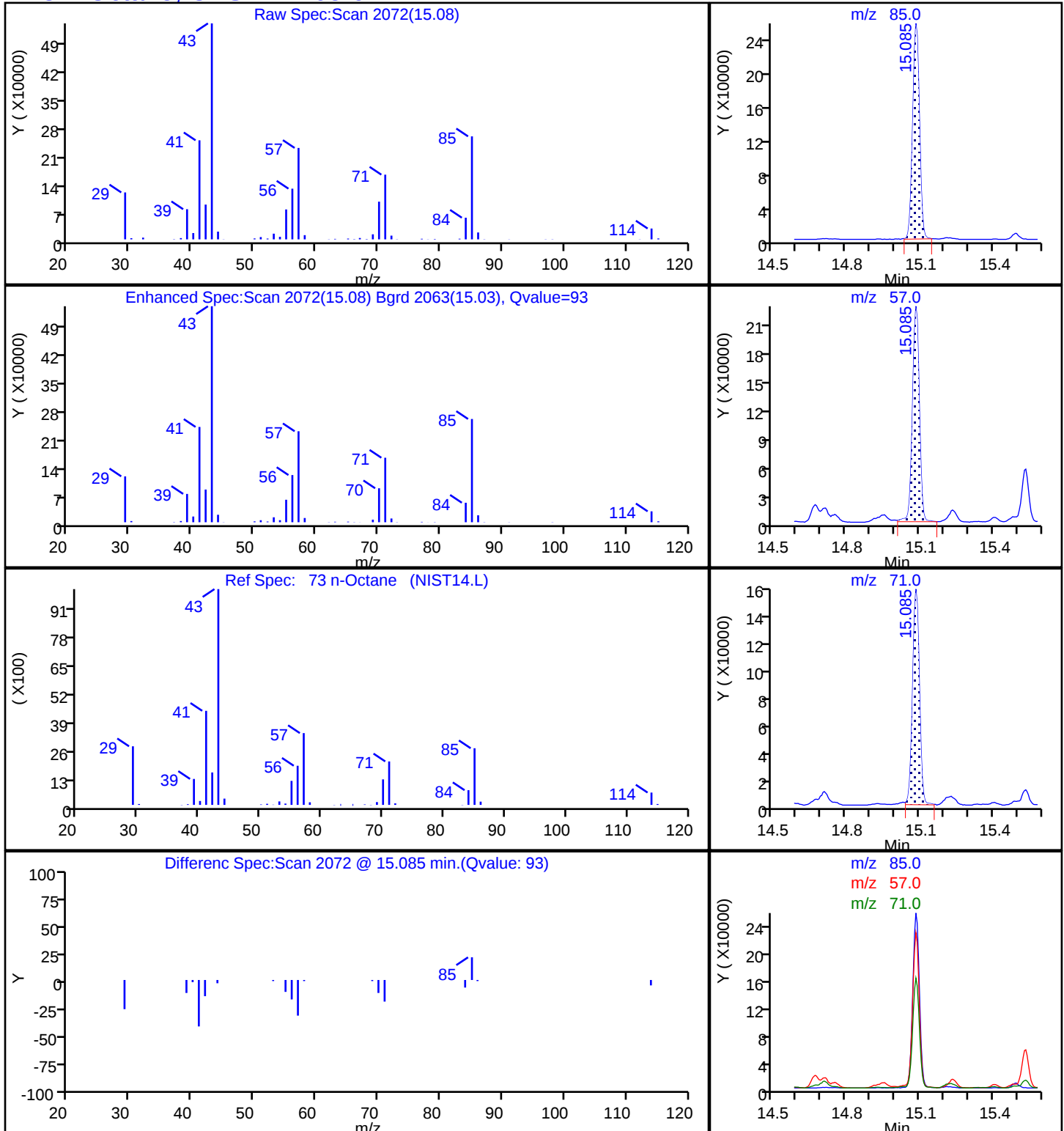
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

73 n-Octane, CAS: 111-65-9

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

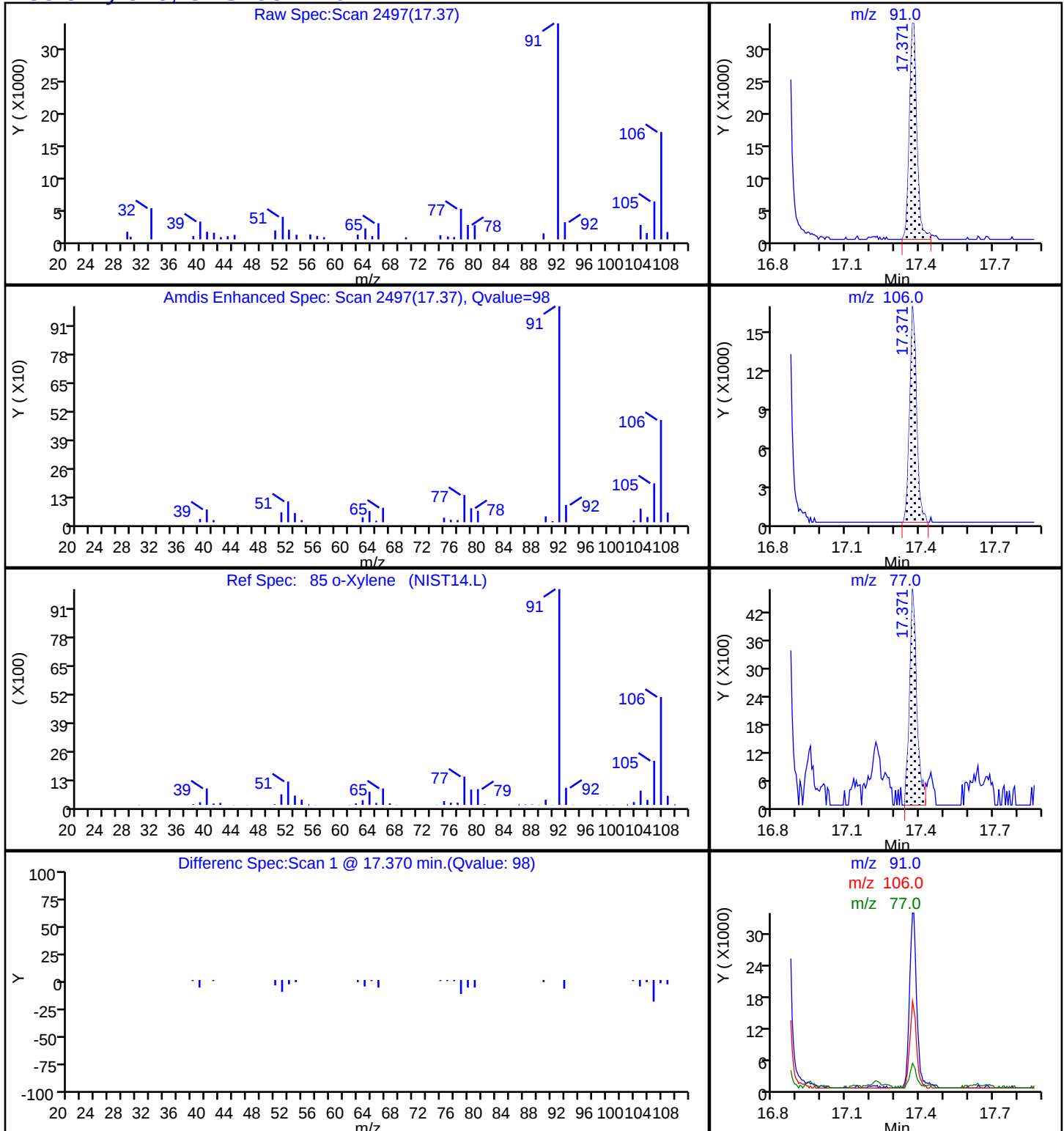
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

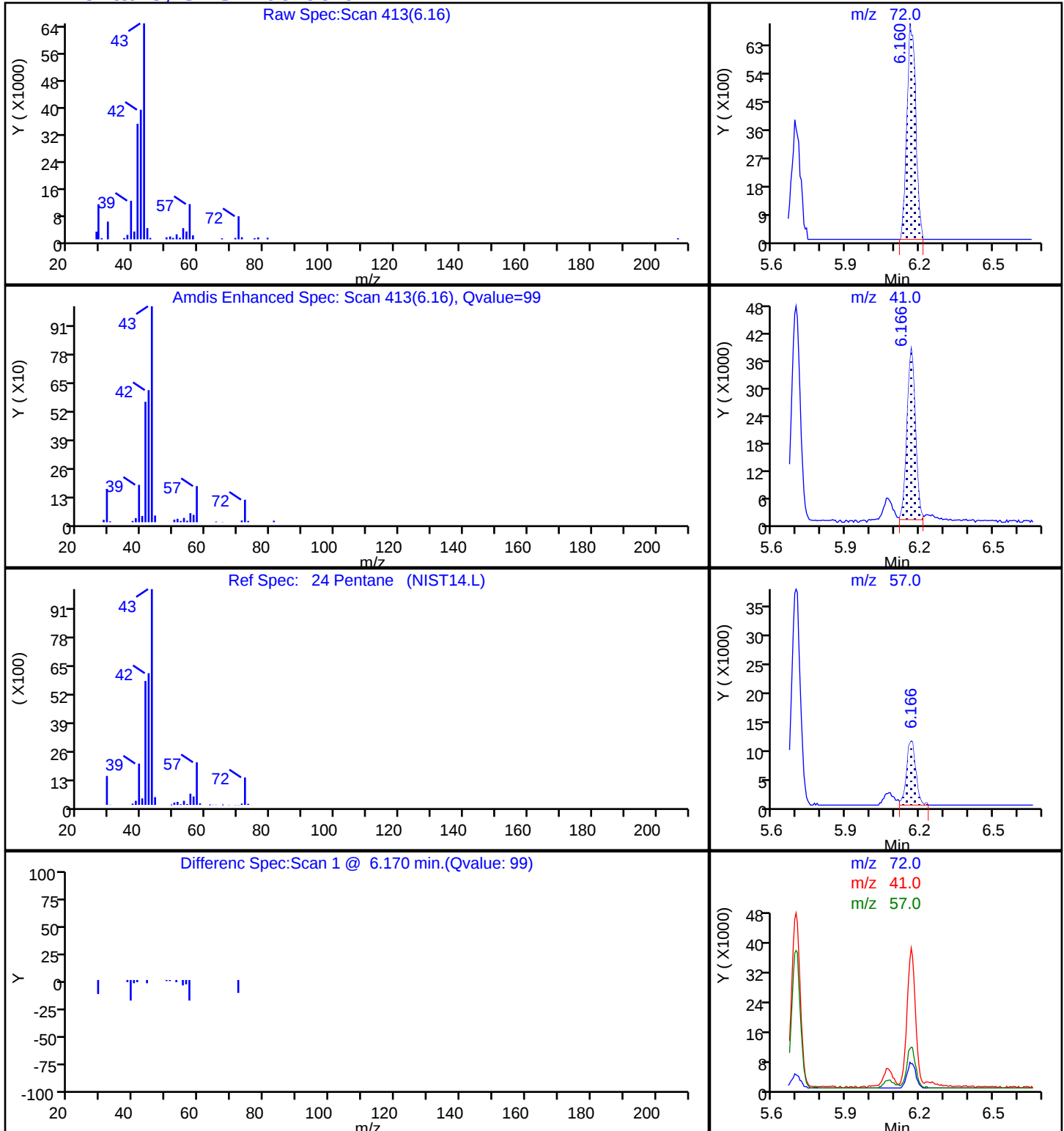
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

24 Pentane, CAS: 109-66-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

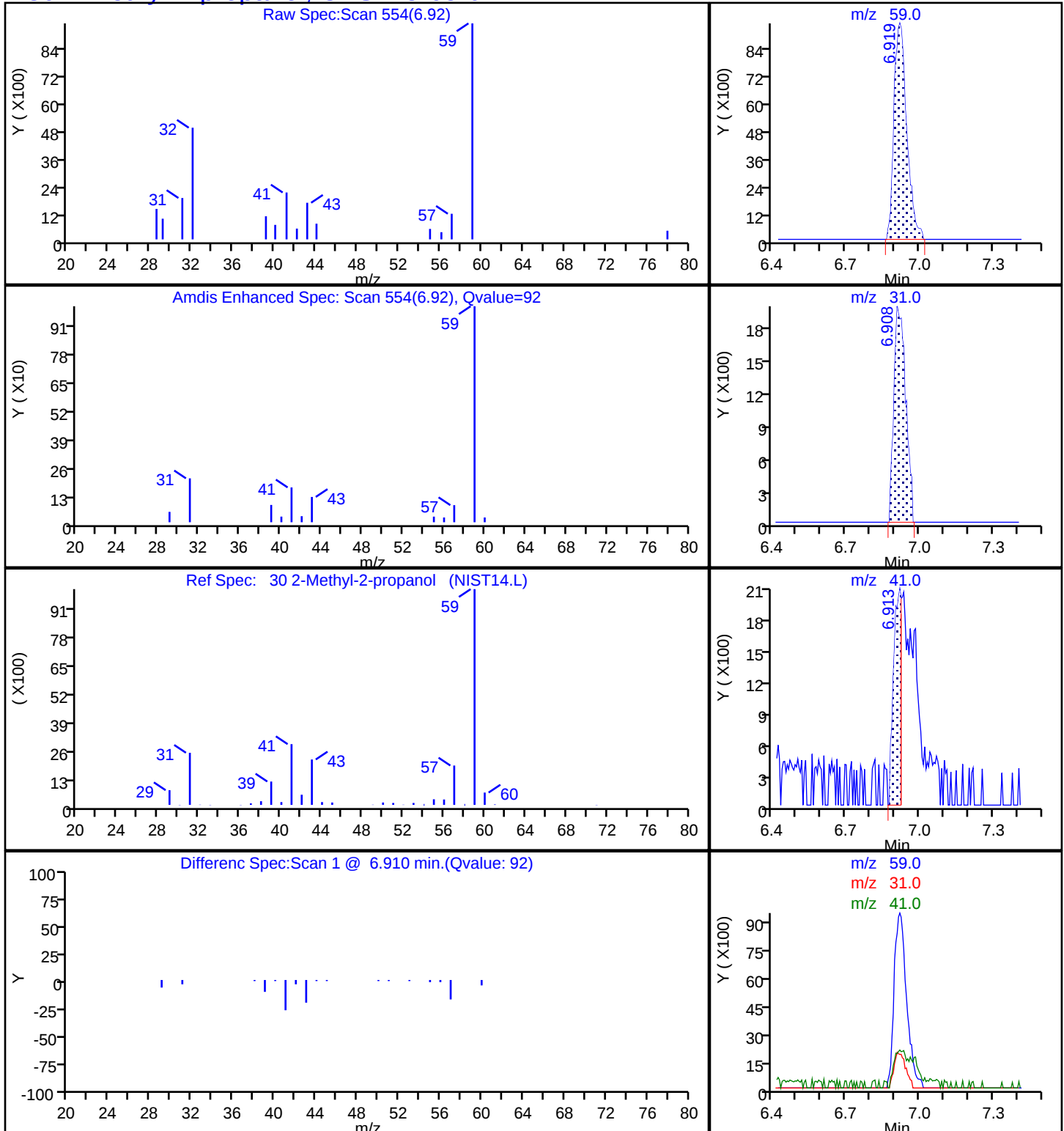
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

30 2-Methyl-2-propanol, CAS: 75-65-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

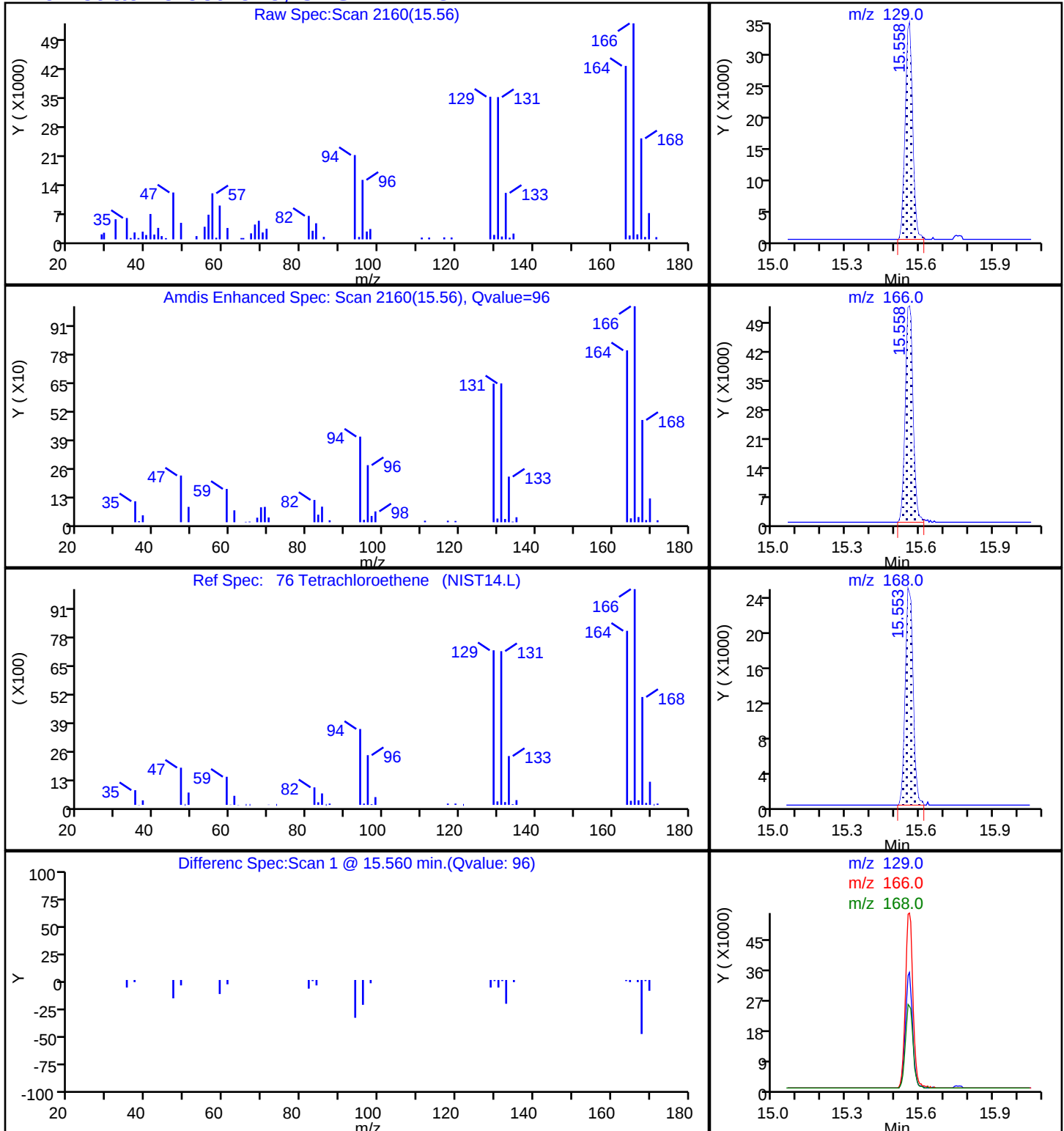
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

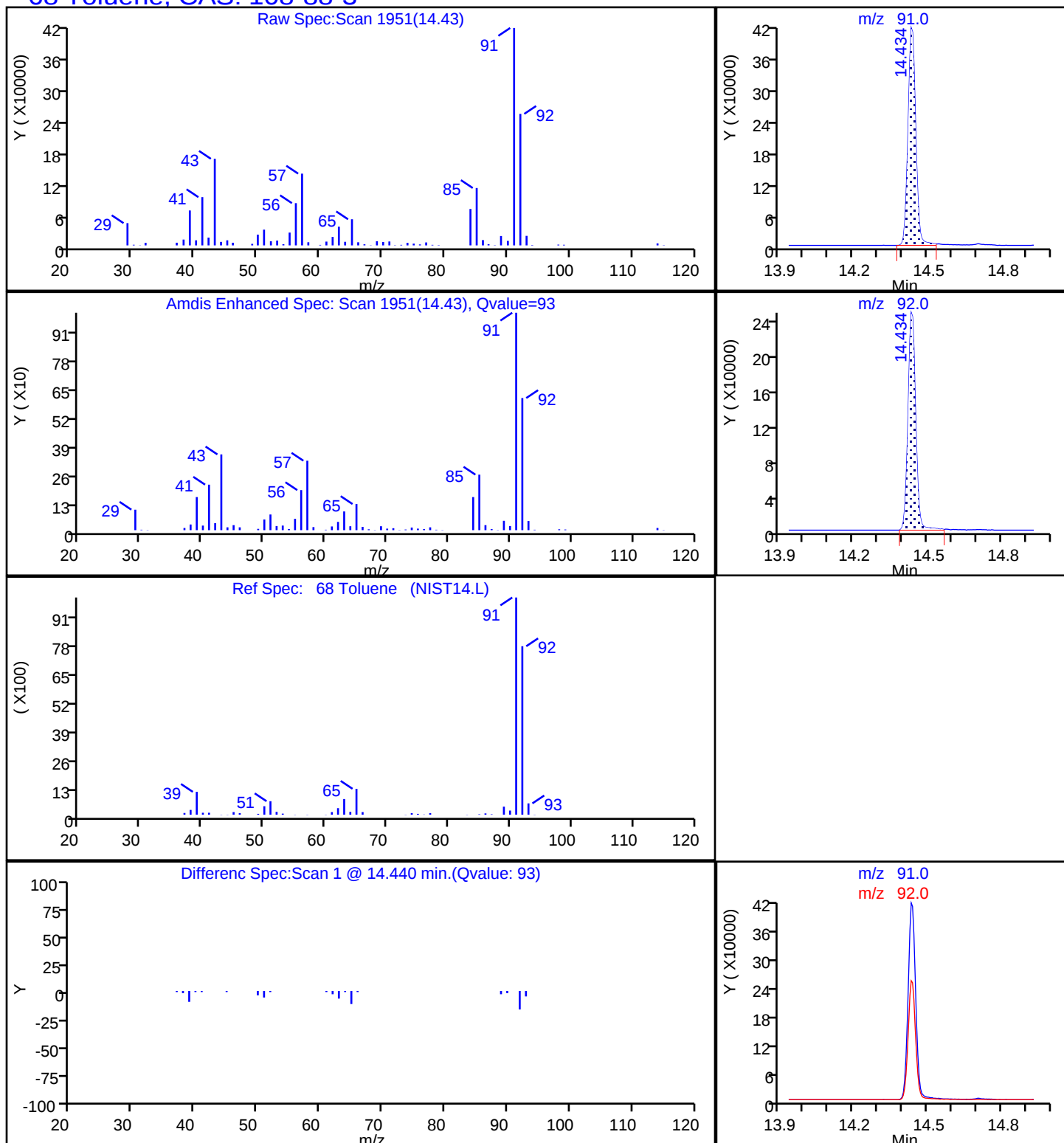
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

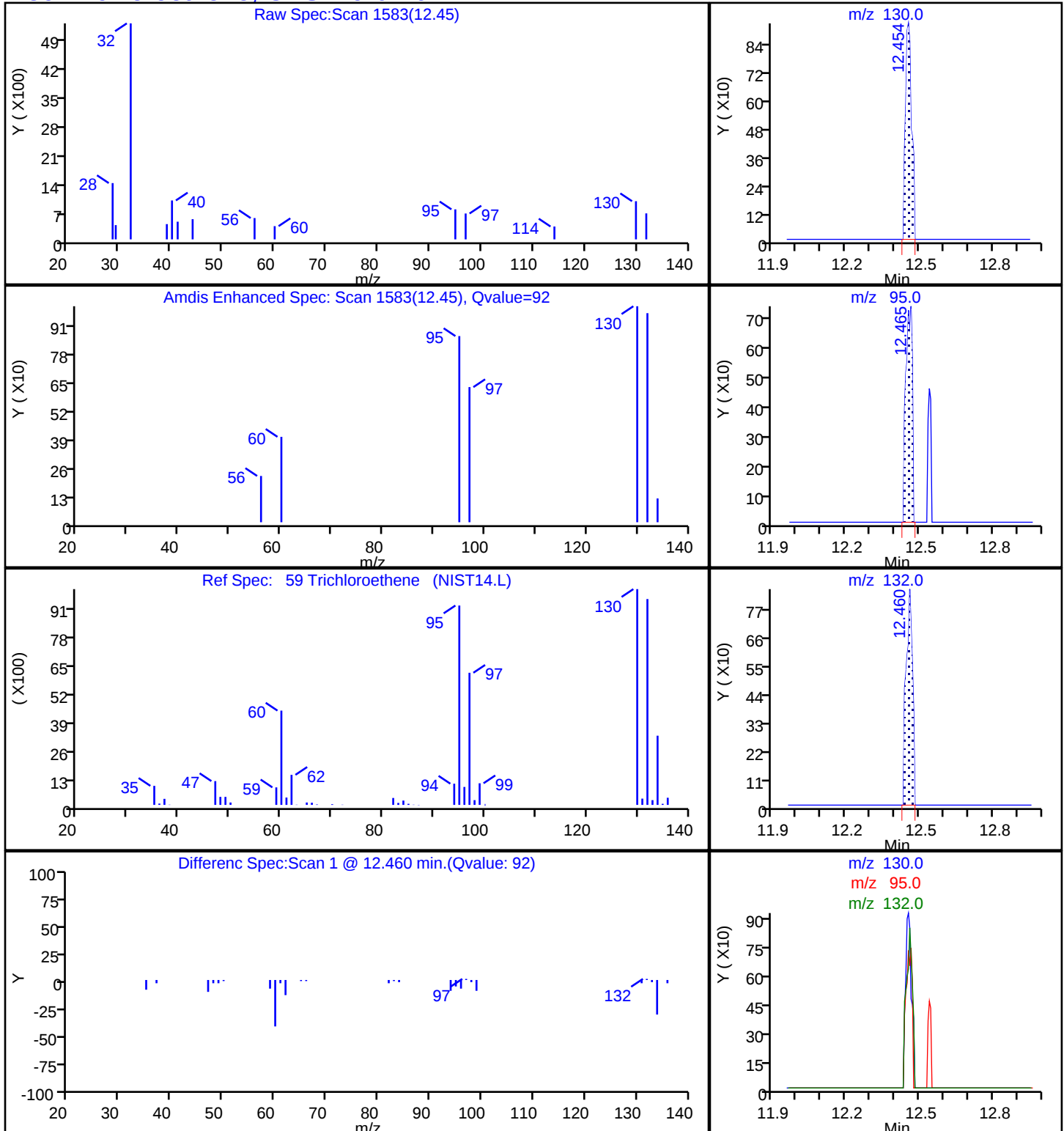
Dil. Factor: 1.0000

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\\20180412-7901.b\\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

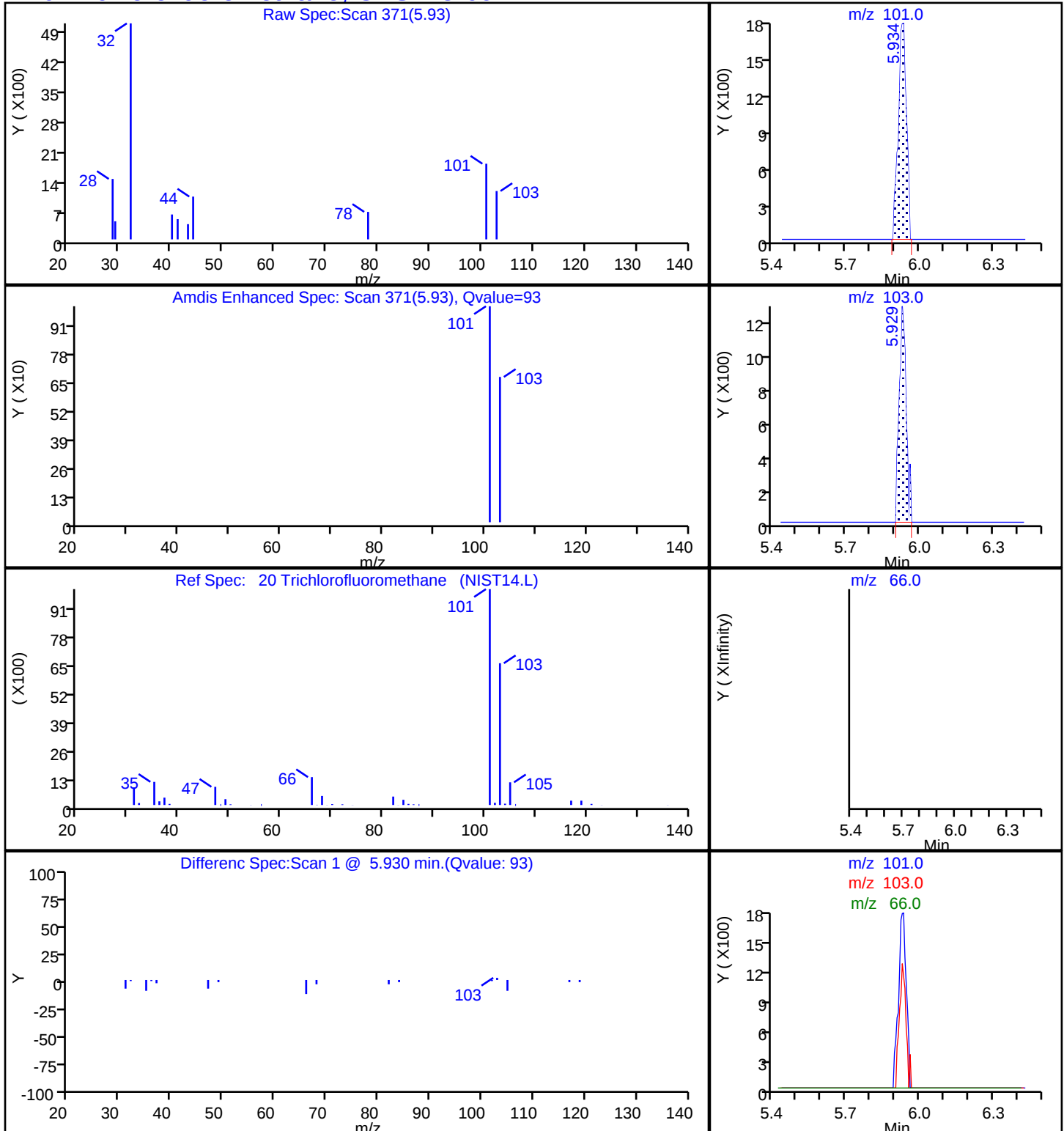
Dil. Factor: 1.0000

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

TestAmerica Knoxville

Data File: \\ChromNA\\Knoxville\\ChromData\\MJ\\20180412-7901.b\\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3

Worklist Smp#: 13

Purge Vol: 500.000 mL

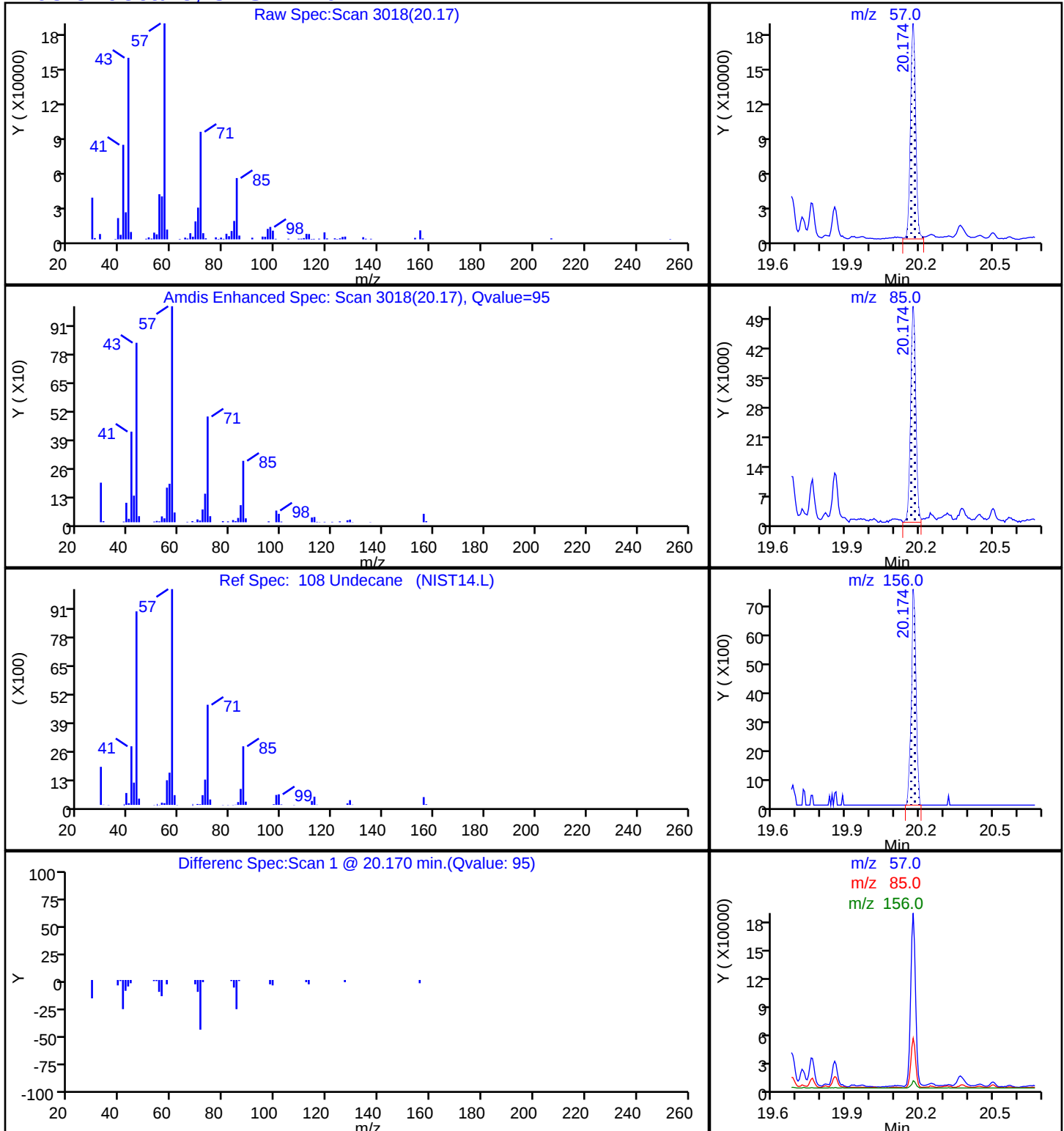
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

108 Undecane, CAS: 1120-21-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#:

3

Worklist Smp#: 13

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

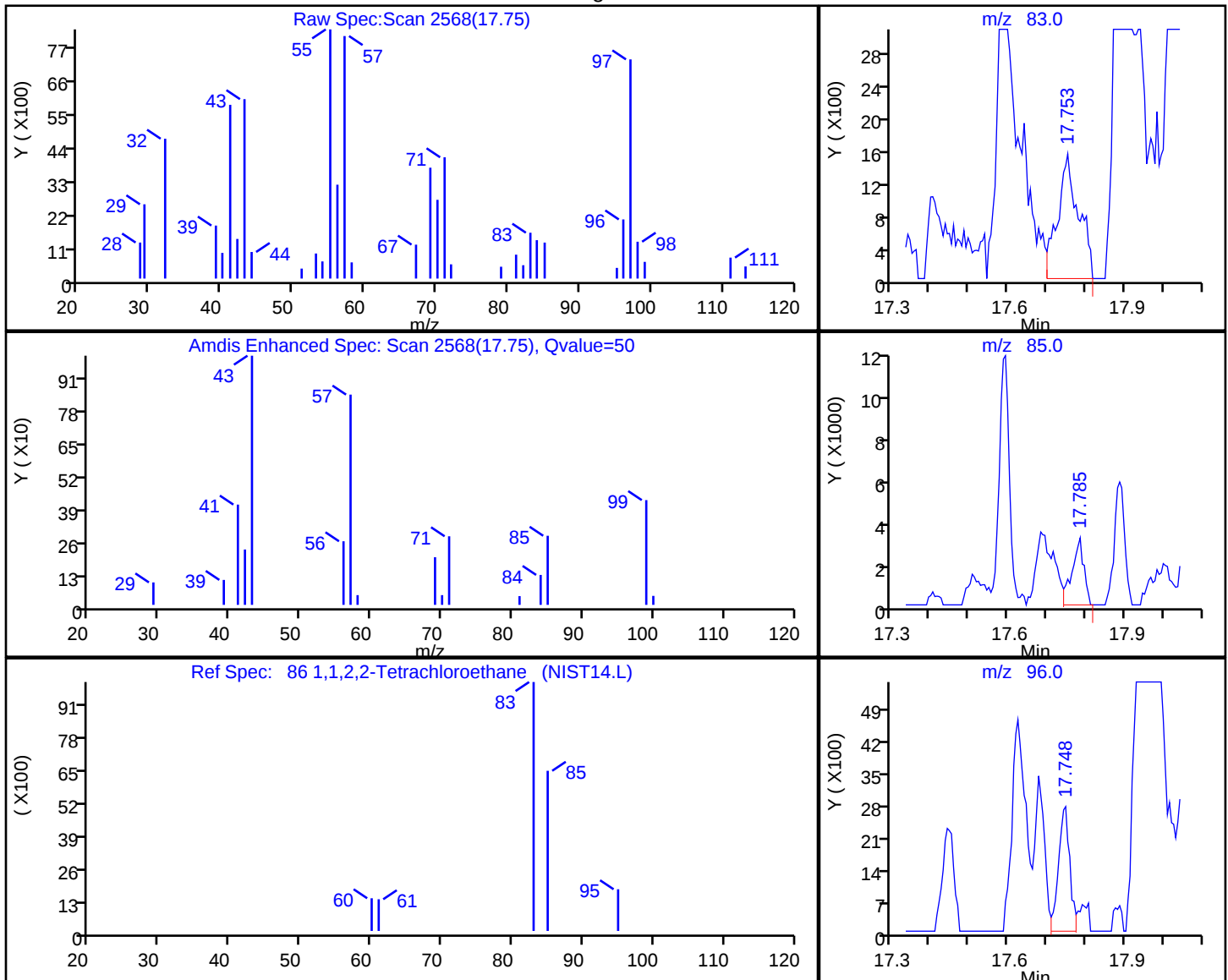
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

86 1,1,2,2-Tetrachloroethane, CAS: 79-34-5

Processing Results



RT	Mass	Response	Amount
17.75	83.00	5711	0.031538
17.79	85.00	6623	
17.75	96.00	5551	

Reviewer: tajh, 17-Apr-2018 09:28:40

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#:

3

Worklist Smp#: 13

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

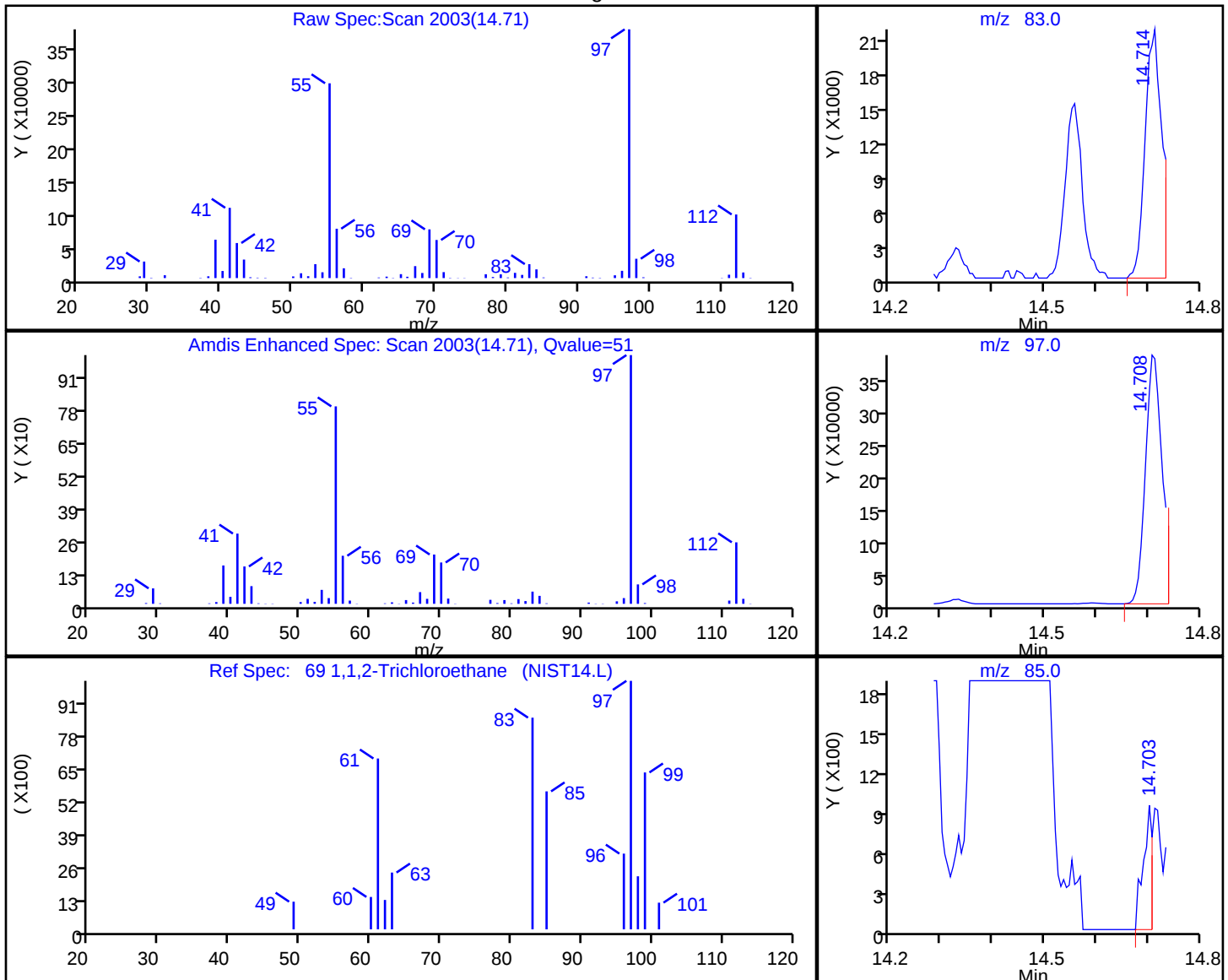
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

69 1,1,2-Trichloroethane, CAS: 79-00-5

Processing Results



RT	Mass	Response	Amount
14.71	83.00	47002	0.604589
14.71	97.00	868480	
14.70	85.00	1124	

Reviewer: tajh, 17-Apr-2018 09:28:40

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

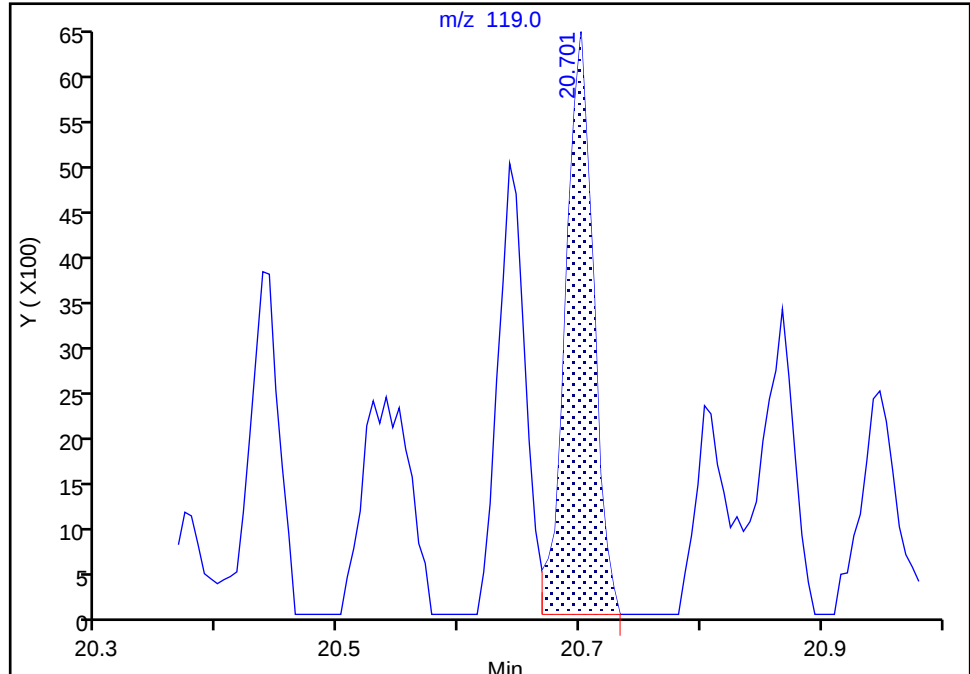
Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D
Injection Date: 16-Apr-2018 17:27:30 Instrument ID: MJ
Lims ID: 140-11270-A-3 Lab Sample ID: 140-11270-3
Client ID: CL-SSV-2
Operator ID: 007126 ALS Bottle#: 3 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector: MS SCAN

111 1,2,4,5-Tetramethylbenzene, CAS: 95-93-2

Signal: 1

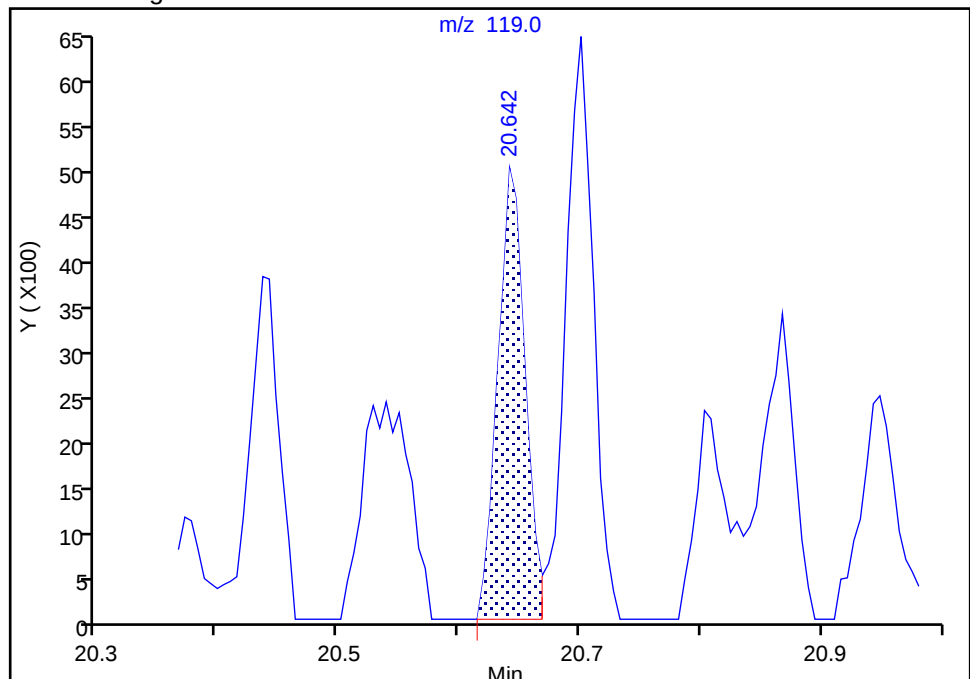
RT: 20.70
Area: 10341
Amount: 0.036992
Amount Units: ppb v/v

Processing Integration Results



RT: 20.64
Area: 7831
Amount: 0.028013
Amount Units: ppb v/v

Manual Integration Results



Reviewer: tajh, 17-Apr-2018 09:28:26
Audit Action: Assigned Compound ID

Audit Reason: Split Peak

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#:

3

Worklist Smp#: 13

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

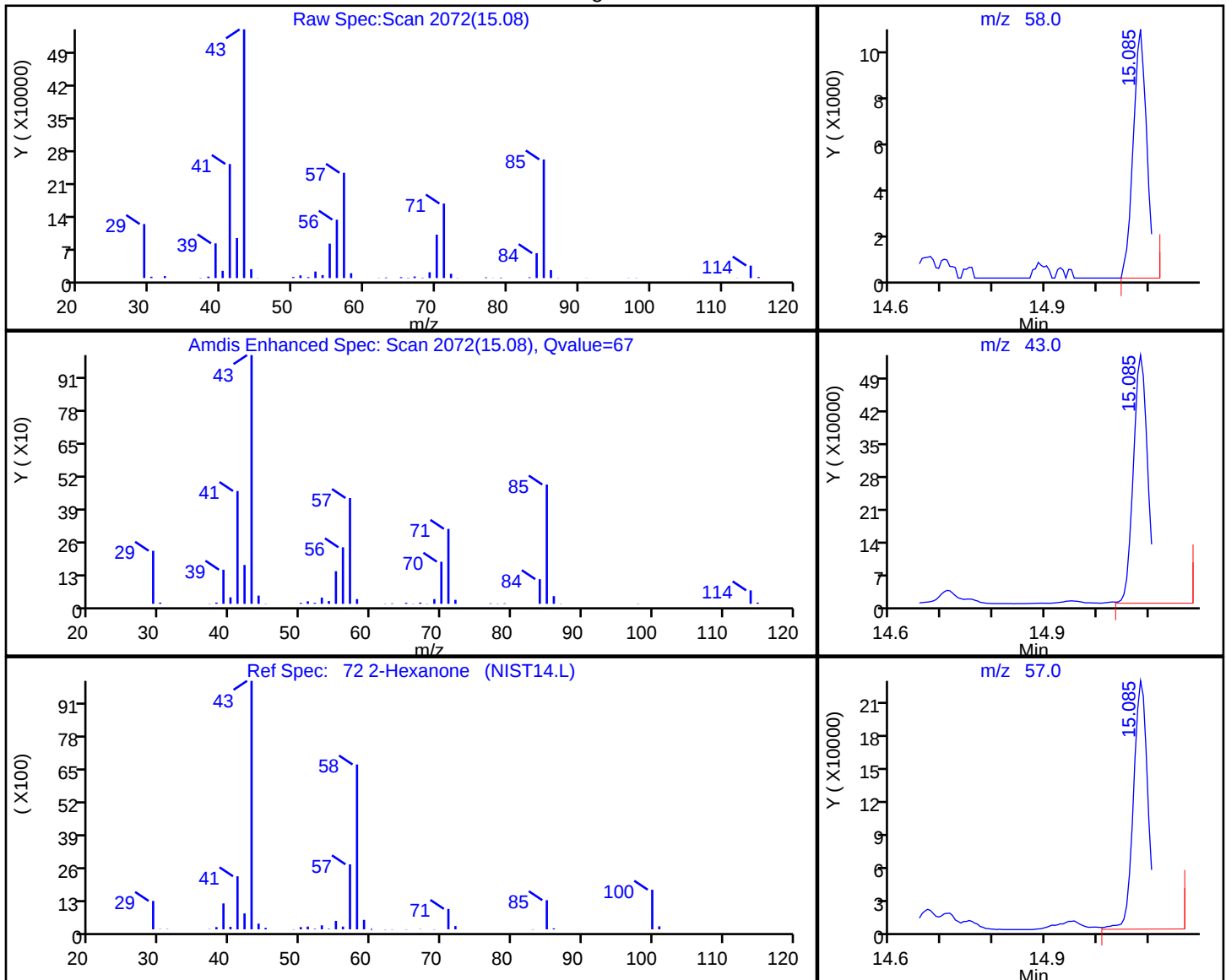
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

72 2-Hexanone, CAS: 591-78-6

Processing Results



RT	Mass	Response	Amount
15.08	58.00	18812	0.313745
15.08	43.00	1024444	
15.08	57.00	435758	

Reviewer: tajh, 17-Apr-2018 09:28:40

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#:

3

Worklist Smp#: 13

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

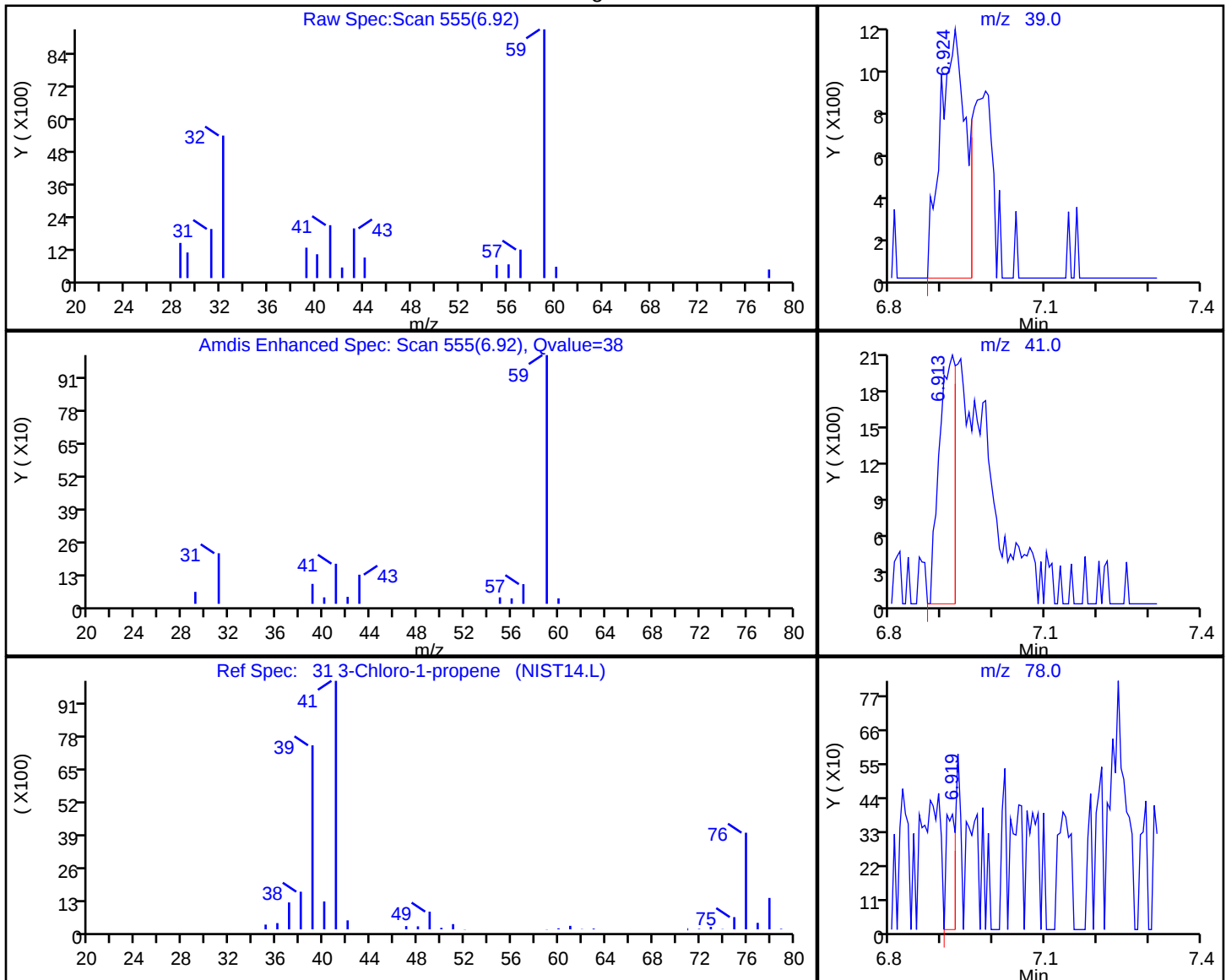
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

31 3-Chloro-1-propene, CAS: 107-05-1

Processing Results



RT	Mass	Response	Amount
6.92	39.00	3813	0.024001
6.91	41.00	4467	
6.92	78.00	462	

Reviewer: tajh, 17-Apr-2018 09:28:40

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

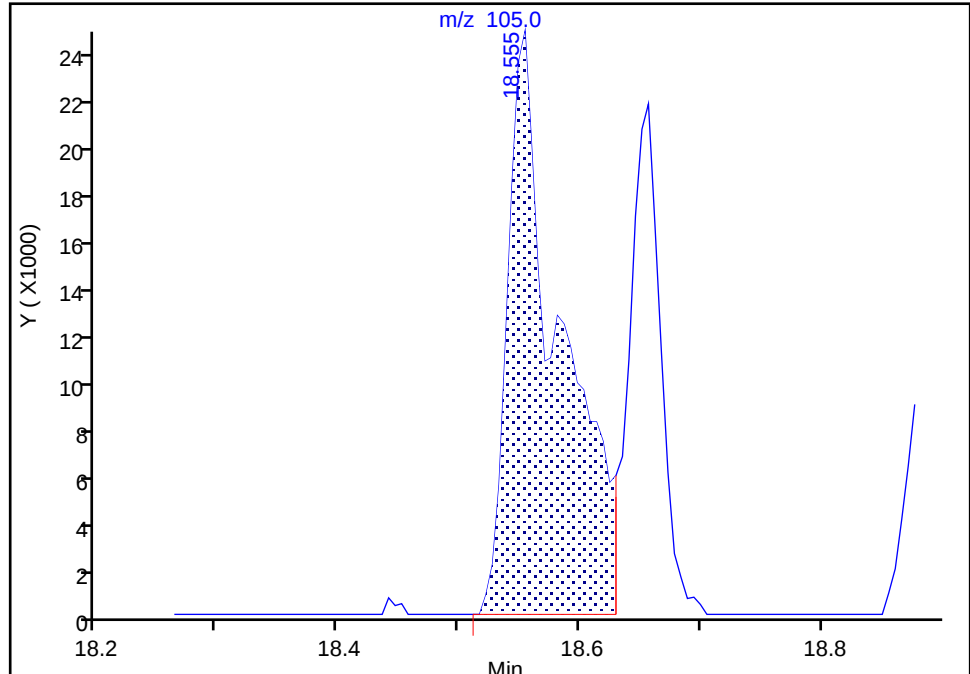
Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D
Injection Date: 16-Apr-2018 17:27:30 Instrument ID: MJ
Lims ID: 140-11270-A-3 Lab Sample ID: 140-11270-3
Client ID: CL-SSV-2
Operator ID: 007126 ALS Bottle#: 3 Worklist Smp#: 13
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector: MS SCAN

91 4-Ethyltoluene, CAS: 622-96-8

Signal: 1

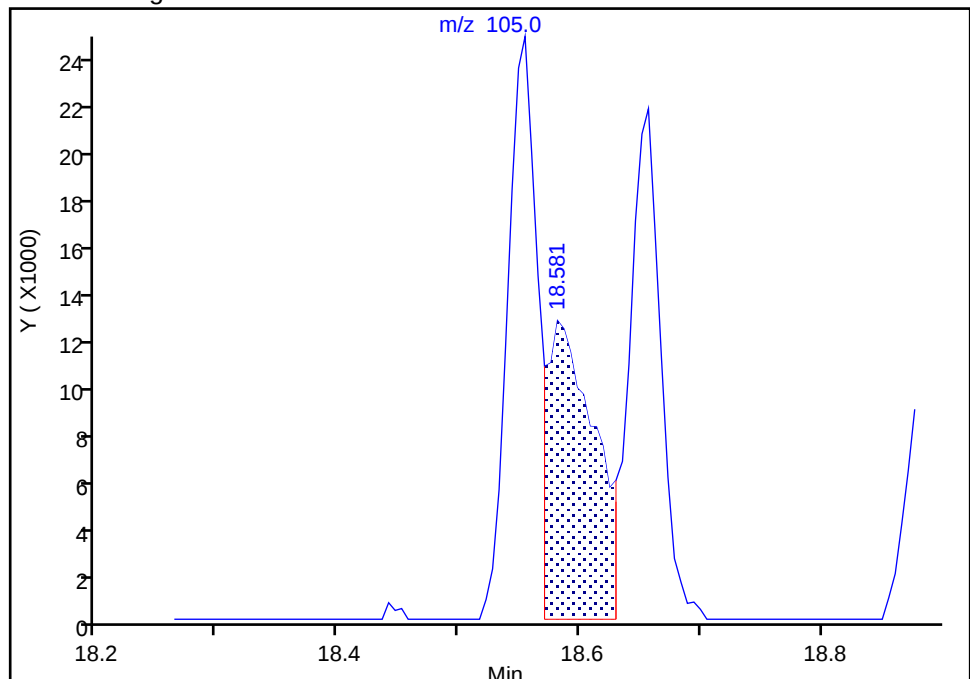
RT: 18.55
Area: 73955
Amount: 0.224661
Amount Units: ppb v/v

Processing Integration Results



RT: 18.58
Area: 35643
Amount: 0.108277
Amount Units: ppb v/v

Manual Integration Results



Reviewer: tajh, 17-Apr-2018 09:28:13

Audit Action: Split an Integrated Peak

Audit Reason: Split Peak

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#:

3

Worklist Smp#: 13

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

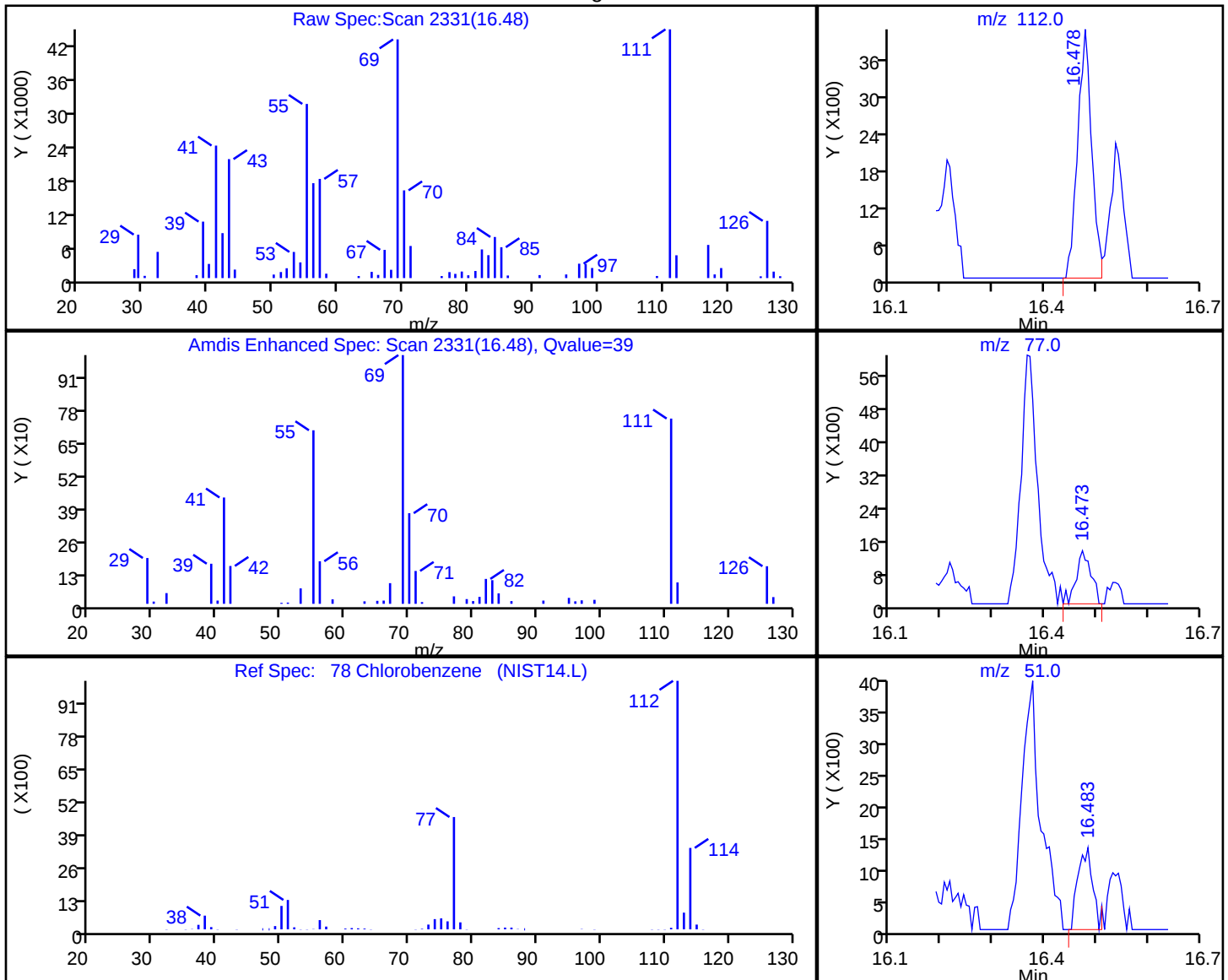
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

78 Chlorobenzene, CAS: 108-90-7

Processing Results



RT	Mass	Response	Amount
16.48	112.00	7696	0.037525
16.47	77.00	2584	
16.48	51.00	2622	

Reviewer: tajh, 17-Apr-2018 09:28:40

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#: 3 Worklist Smp#: 13

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

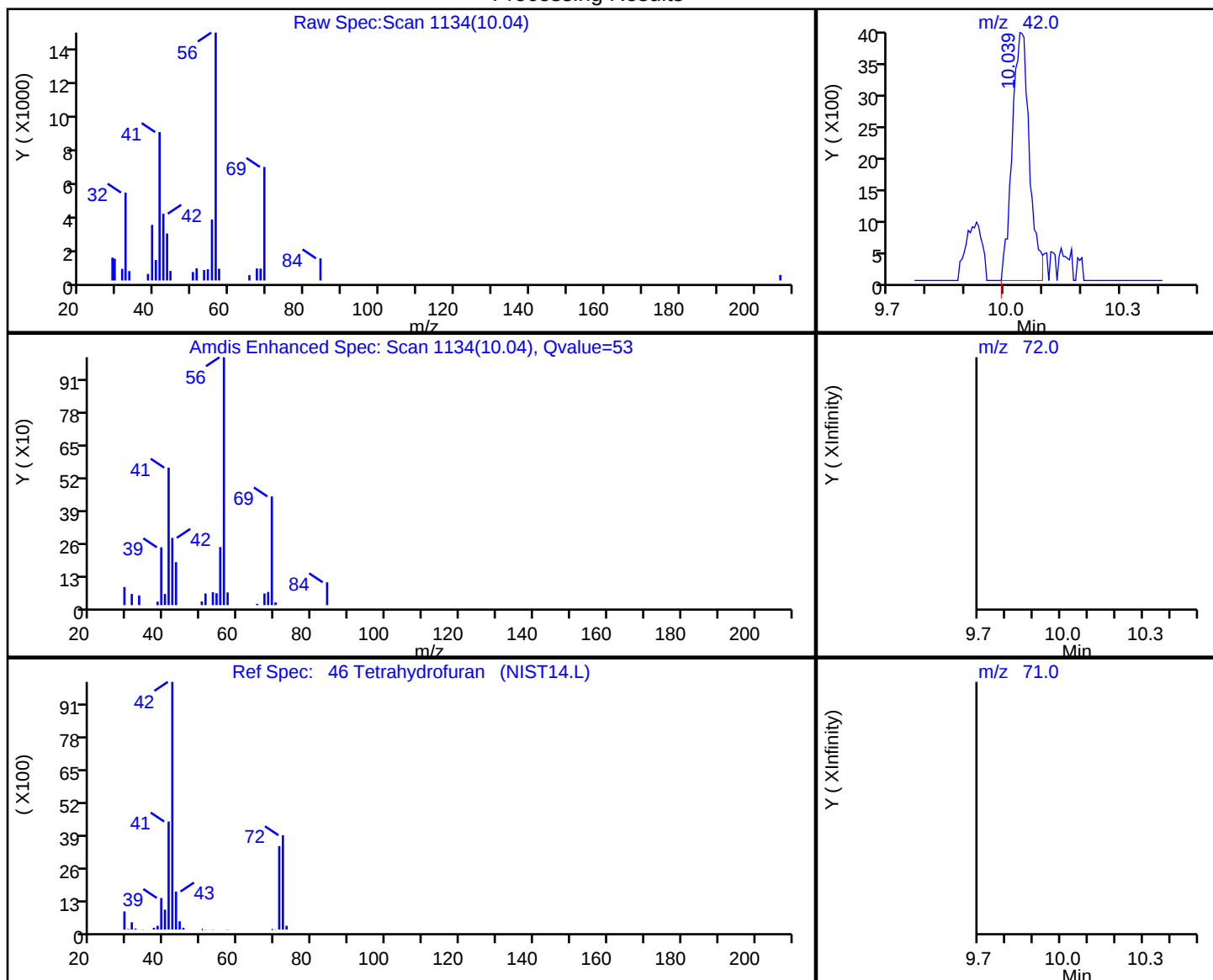
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

46 Tetrahydrofuran, CAS: 109-99-9

Processing Results



RT	Mass	Response	Amount
10.04	42.00	12184	0.162232
10.09	72.00	0	
10.09	71.00	0	

Reviewer: tajh, 17-Apr-2018 09:28:40

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P103.D

Injection Date: 16-Apr-2018 17:27:30

Instrument ID: MJ

Lims ID: 140-11270-A-3

Lab Sample ID: 140-11270-3

Client ID: CL-SSV-2

Operator ID: 007126

ALS Bottle#:

3

Worklist Smp#: 13

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

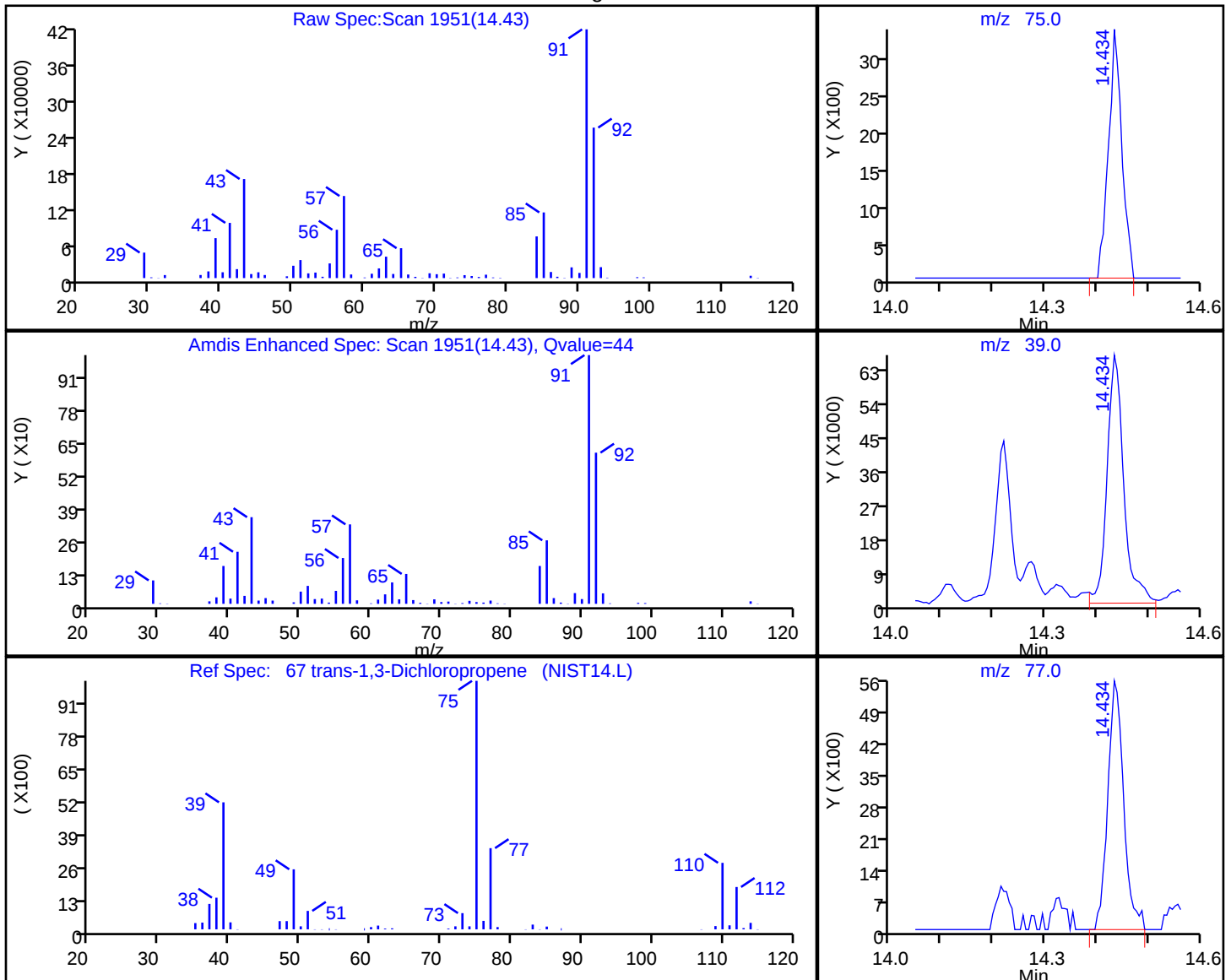
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

67 trans-1,3-Dichloropropene, CAS: 10061-02-6

Processing Results



RT	Mass	Response	Amount
14.43	75.00	6033	0.051652
14.43	39.00	149170	
14.43	77.00	11931	

Reviewer: tajh, 17-Apr-2018 09:28:40

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-IA-2 Lab Sample ID: 140-11270-4
 Matrix: Air Lab File ID: JD16P104.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:55
 Sample wt/vol: 100 (mL) Date Analyzed: 04/16/2018 18:13
 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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.060
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.40	0.12
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	0.082	J	0.40	0.060
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.11
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.20	0.070
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	ND		0.40	0.18
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.20
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		0.40	0.090
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		0.40	0.065
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.40	0.14
78-87-5	1,2-Dichloropropane	112.99	ND		0.40	0.11
108-67-8	1,3,5-Trimethylbenzene	120.20	0.95		0.40	0.13
106-99-0	1,3-Butadiene	54.09	ND		0.80	0.13
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.40	0.13
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.40	0.13
123-91-1	1,4-Dioxane	88.11	ND		1.0	0.16
90-12-0	1-Methylnaphthalene	142.20	ND	*	5.0	1.9
540-84-1	2,2,4-Trimethylpentane	114.23	0.50	J	1.0	0.080
78-93-3	2-Butanone (MEK)	72.11	3.0		1.6	0.40
591-78-6	2-Hexanone	100.20	ND		1.0	0.12
91-57-6	2-Methylnaphthalene	142.20	ND	*	5.0	1.8
107-05-1	3-Chloropropene	76.53	ND		0.40	0.095
622-96-8	4-Ethyltoluene	120.20	0.44	J	0.80	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		1.0	0.39
67-64-1	Acetone	58.08	67		10	2.7
71-43-2	Benzene	78.11	0.50		0.40	0.12
100-44-7	Benzyl chloride	126.58	ND		0.80	0.16
75-27-4	Bromodichloromethane	163.83	ND		0.40	0.090
75-25-2	Bromoform	252.75	ND		0.40	0.095
74-83-9	Bromomethane	94.94	ND		0.40	0.065
106-97-8	Butane	58.12	16		0.80	0.37
75-15-0	Carbon disulfide	76.14	0.11	J	1.0	0.060

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1

SDG No.: _____

Client Sample ID: CL-IA-2 Lab Sample ID: 140-11270-4

Matrix: Air Lab File ID: JD16P104.D

Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:55

Sample wt/vol: 100 (mL) Date Analyzed: 04/16/2018 18:13

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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	0.10	J	0.16	0.075
108-90-7	Chlorobenzene	112.56	ND		0.40	0.10
75-00-3	Chloroethane	64.52	ND		0.40	0.070
67-66-3	Chloroform	119.38	ND		0.40	0.075
74-87-3	Chloromethane	50.49	0.99	J	1.0	0.32
156-59-2	cis-1,2-Dichloroethene	96.94	0.13	J	0.20	0.12
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.40	0.15
110-82-7	Cyclohexane	84.16	1.2		1.0	0.080
124-18-5	Decane	142.28	7.5		2.0	0.11
124-48-1	Dibromochloromethane	208.29	ND		0.40	0.085
75-71-8	Dichlorodifluoromethane	120.91	0.67		0.40	0.14
112-40-3	Dodecane	170.33	0.20	J	2.0	0.16
64-17-5	Ethanol	46.07	140		10	3.2
141-78-6	Ethyl acetate	88.11	ND		4.0	0.40
100-41-4	Ethylbenzene	106.17	0.48		0.40	0.14
142-82-5	Heptane	100.21	24		1.0	0.095
87-68-3	Hexachlorobutadiene	260.76	ND		0.40	0.25
110-54-3	Hexane	86.17	1.1		1.0	0.065
496-11-7	Indane	118.18	ND		0.40	0.17
95-13-6	Indene	116.16	ND		0.80	0.16
67-63-0	Isopropyl alcohol	60.10	2.3	J	4.0	0.47
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.80	0.34
75-09-2	Methylene Chloride	84.93	1.0		1.0	0.65
179601-23-1	m-Xylene & p-Xylene	106.17	2.0		0.40	0.27
111-84-2	Nonane	128.26	7.3		1.0	0.085
111-65-9	Octane	114.23	0.71	J	0.80	0.070
95-47-6	o-Xylene	106.17	0.79		0.40	0.12
109-66-0	Pentane	72.15	3.0		2.0	0.80
100-42-5	Styrene	104.15	0.21	J	0.40	0.12
75-65-0	tert-Butyl alcohol	74.12	0.18	J	1.6	0.075
127-18-4	Tetrachloroethene	165.83	4.4		0.40	0.080
109-99-9	Tetrahydrofuran	72.11	1.5	J	2.0	0.13
110-02-1	Thiophene	84.14	ND		0.40	0.15
108-88-3	Toluene	92.14	7.7		0.60	0.60
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.10

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-IA-2 Lab Sample ID: 140-11270-4
 Matrix: Air Lab File ID: JD16P104.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:55
 Sample wt/vol: 100 (mL) Date Analyzed: 04/16/2018 18:13
 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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.40	0.095
79-01-6	Trichloroethene	131.39	ND		0.18	0.070
75-69-4	Trichlorofluoromethane	137.37	0.45		0.40	0.050
1120-21-4	Undecane	156.31	3.2		2.0	0.13
593-60-2	Vinyl bromide	106.96	ND		0.40	0.070
75-01-4	Vinyl chloride	62.50	ND		0.20	0.15

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.: 140-11270-1

SDG No.: _____

Client Sample ID: CL-IA-2 Lab Sample ID: 140-11270-4

Matrix: Air Lab File ID: JD16P104.D

Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:55

Sample wt/vol: 100 (mL) Date Analyzed: 04/16/2018 18:13

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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	0.33
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		2.7	0.82
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	0.63	J	3.1	0.46
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.57
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		0.79	0.28
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	ND		2.2	0.96
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	1.4
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		3.1	0.69
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		2.8	0.45
95-50-1	1,2-Dichlorobenzene	147.00	ND		2.4	0.84
78-87-5	1,2-Dichloropropane	112.99	ND		1.8	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	4.7		2.0	0.64
106-99-0	1,3-Butadiene	54.09	ND		1.8	0.28
541-73-1	1,3-Dichlorobenzene	147.00	ND		2.4	0.78
106-46-7	1,4-Dichlorobenzene	147.00	ND		2.4	0.78
123-91-1	1,4-Dioxane	88.11	ND		3.6	0.58
90-12-0	1-Methylnaphthalene	142.20	ND	*	29	11
540-84-1	2,2,4-Trimethylpentane	114.23	2.3	J	4.7	0.37
78-93-3	2-Butanone (MEK)	72.11	8.9		4.7	1.2
591-78-6	2-Hexanone	100.20	ND		4.1	0.47
91-57-6	2-Methylnaphthalene	142.20	ND	*	29	10
107-05-1	3-Chloropropene	76.53	ND		1.3	0.30
622-96-8	4-Ethyltoluene	120.20	2.2	J	3.9	0.64
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		4.1	1.6
67-64-1	Acetone	58.08	160		24	6.4
71-43-2	Benzene	78.11	1.6		1.3	0.37
100-44-7	Benzyl chloride	126.58	ND		4.1	0.80
75-27-4	Bromodichloromethane	163.83	ND		2.7	0.60
75-25-2	Bromoform	252.75	ND		4.1	0.98
74-83-9	Bromomethane	94.94	ND		1.6	0.25
106-97-8	Butane	58.12	39		1.9	0.87
75-15-0	Carbon disulfide	76.14	0.35	J	3.1	0.19

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-IA-2 Lab Sample ID: 140-11270-4
 Matrix: Air Lab File ID: JD16P104.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:55
 Sample wt/vol: 100 (mL) Date Analyzed: 04/16/2018 18:13
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	0.63	J	1.0	0.47
108-90-7	Chlorobenzene	112.56	ND		1.8	0.46
75-00-3	Chloroethane	64.52	ND		1.1	0.18
67-66-3	Chloroform	119.38	ND		2.0	0.37
74-87-3	Chloromethane	50.49	2.1	J	2.1	0.66
156-59-2	cis-1,2-Dichloroethene	96.94	0.51	J	0.79	0.48
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		1.8	0.66
110-82-7	Cyclohexane	84.16	4.1		3.4	0.28
124-18-5	Decane	142.28	44		12	0.64
124-48-1	Dibromochloromethane	208.29	ND		3.4	0.72
75-71-8	Dichlorodifluoromethane	120.91	3.3		2.0	0.67
112-40-3	Dodecane	170.33	1.4	J	14	1.1
64-17-5	Ethanol	46.07	270		19	6.0
141-78-6	Ethyl acetate	88.11	ND		14	1.4
100-41-4	Ethylbenzene	106.17	2.1		1.7	0.59
142-82-5	Heptane	100.21	96		4.1	0.39
87-68-3	Hexachlorobutadiene	260.76	ND		4.3	2.6
110-54-3	Hexane	86.17	3.8		3.5	0.23
496-11-7	Indane	118.18	ND		1.9	0.80
95-13-6	Indene	116.16	ND		3.8	0.76
67-63-0	Isopropyl alcohol	60.10	5.6	J	9.8	1.2
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.9	1.2
75-09-2	Methylene Chloride	84.93	3.6		3.5	2.3
179601-23-1	m-Xylene & p-Xylene	106.17	8.9		1.7	1.2
111-84-2	Nonane	128.26	38		5.2	0.45
111-65-9	Octane	114.23	3.3	J	3.7	0.33
95-47-6	o-Xylene	106.17	3.4		1.7	0.52
109-66-0	Pentane	72.15	8.8		5.9	2.4
100-42-5	Styrene	104.15	0.88	J	1.7	0.49
75-65-0	tert-Butyl alcohol	74.12	0.54	J	4.9	0.23
127-18-4	Tetrachloroethene	165.83	30		2.7	0.54
109-99-9	Tetrahydrofuran	72.11	4.4	J	5.9	0.37
110-02-1	Thiophene	84.14	ND		1.4	0.52
108-88-3	Toluene	92.14	29		2.3	2.3
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.40

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-IA-2 Lab Sample ID: 140-11270-4
 Matrix: Air Lab File ID: JD16P104.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:55
 Sample wt/vol: 100 (mL) Date Analyzed: 04/16/2018 18:13
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		1.8	0.43
79-01-6	Trichloroethene	131.39	ND		0.97	0.38
75-69-4	Trichlorofluoromethane	137.37	2.5		2.2	0.28
1120-21-4	Undecane	156.31	21		13	0.80
593-60-2	Vinyl bromide	106.96	ND		1.7	0.31
75-01-4	Vinyl chloride	62.50	ND		0.51	0.37

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\20180412-7901.b\JD16P104.D
 Lims ID: 140-11270-A-4
 Client ID: CL-IA-2
 Sample Type: Client
 Inject. Date: 16-Apr-2018 18:13:30 ALS Bottle#: 4 Worklist Smp#: 14
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007901-014
 Misc. Info.: 140-11270-a-4
 Operator ID: 007126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 17-Apr-2018 09:47:35 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK001

First Level Reviewer: tajh

Date: 17-Apr-2018 09:30:22

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.667	9.662	0.005	88	256785	4.00	
* 2 1,4-Difluorobenzene	114	11.765	11.765	0.000	94	1423583	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.365	16.364	0.001	87	1301439	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.968	17.973	-0.005	97	985201	4.19	
8 Dichlorodifluoromethane	85	4.282	4.266	0.016	99	30929	0.1343	
9 Chloromethane	52	4.481	4.476	0.005	98	5356	0.1987	
14 Butane	43	4.783	4.766	0.017	94	423216	3.29	
17 Ethanol	31	5.439	5.412	0.027	95	879517	28.3	
20 Trichlorofluoromethane	101	5.923	5.917	0.006	98	19836	0.0890	
22 Acetone	58	6.063	6.057	0.006	98	392354	13.4	
24 Pentane	72	6.165	6.154	0.011	98	8095	0.5958	
25 Isopropyl alcohol	45	6.241	6.170	0.070	97	38103	0.4546	
30 2-Methyl-2-propanol	59	6.918	6.810	0.108	83	7000	0.0357	
29 1,1,2-Trichloro-1,2,2-trif	101	6.870	6.854	0.016	40	2885	0.0164	
32 Methylene Chloride	84	7.053	7.042	0.011	93	19300	0.2098	
33 Carbon disulfide	76	7.225	7.219	0.006	95	5519	0.0224	
40 2-Butanone (MEK)	72	8.903	8.887	0.016	93	19914	0.6067	
39 Hexane	56	8.903	8.898	0.005	58	14954	0.2165	
42 cis-1,2-Dichloroethene	96	9.323	9.323	0.000	87	2228	0.0257	
46 Tetrahydrofuran	42	10.119	10.087	0.032	93	23223	0.2983	
49 Cyclohexane	69	11.243	11.265	-0.022	63	9858	0.2365	
50 Benzene	78	11.270	11.265	0.005	97	25510	0.1010	
52 Carbon tetrachloride	117	11.292	11.281	0.011	94	3831	0.0201	
56 Isooctane	57	11.975	11.969	0.006	93	40154	0.0991	
57 n-Heptane	71	12.325	12.319	0.006	90	417863	4.70	
68 Toluene	91	14.439	14.433	0.006	94	420881	1.53	
73 n-Octane	85	15.079	15.079	0.000	91	13528	0.1419	
76 Tetrachloroethene	129	15.552	15.552	0.000	96	94801	0.8704	
79 Ethylbenzene	91	16.687	16.687	0.000	60	32706	0.0961	
81 m-Xylene & p-Xylene	91	16.843	16.849	-0.006	100	104180	0.4088	
82 n-Nonane	57	17.236	17.231	0.006	91	270455	1.46	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
83 Styrene	104	17.306	17.311	-0.005	96	8134	0.0412	
85 o-Xylene	91	17.371	17.370	0.001	99	42751	0.1581	
91 4-Ethyltoluene	105	18.581	18.586	-0.005	98	31373	0.0883	Ma
92 1,3,5-Trimethylbenzene	120	18.651	18.651	0.000	93	28302	0.1905	
94 n-Decane	57	18.909	18.909	0.000	90	329219	1.50	
108 Undecane	57	20.173	20.173	0.000	95	147949	0.6487	
111 1,2,4,5-Tetramethylbenzene	119	20.641	20.641	0.000	73	10049	0.0333	7a
114 Dodecane	57	21.255	21.254	0.001	96	13838	0.0395	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Operator ID: 007126

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Worklist Smp#: 14

Client ID: CL-IA-2

Purge Vol: 500.000 mL

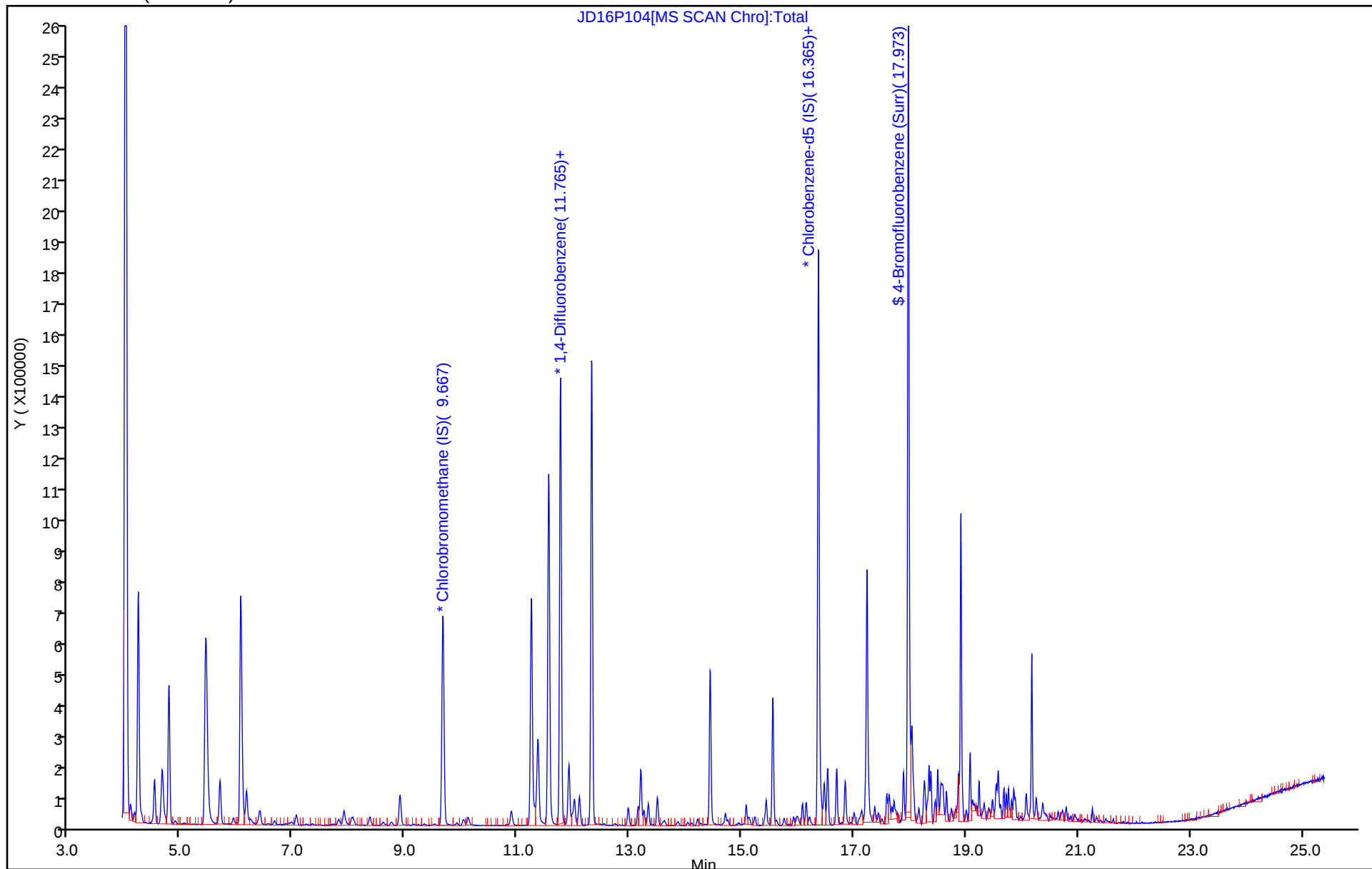
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D
Lims ID: 140-11270-A-4
Client ID: CL-IA-2
Sample Type: Client
Inject. Date: 16-Apr-2018 18:13:30 ALS Bottle#: 4 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0007901-014
Misc. Info.: 140-11270-a-4
Operator ID: 007126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 17-Apr-2018 09:47:35 Calib Date: 15-Feb-2018 22:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: tajh

Date: 17-Apr-2018 09:30:22

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.19	104.68

TestAmerica Knoxville

Data File: \\ChromNA\\Knoxville\\ChromData\\MJ\\20180412-7901.b\\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

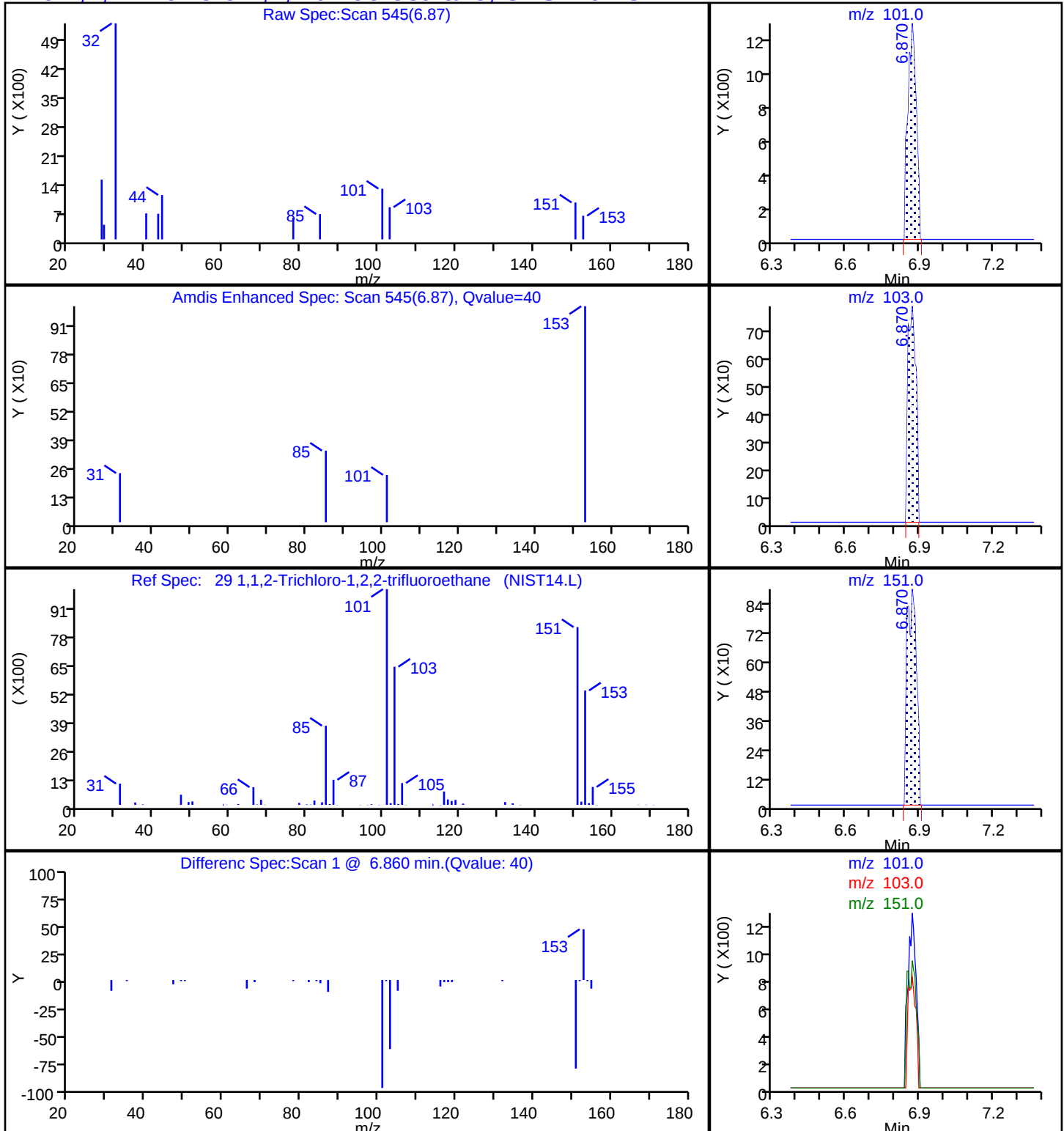
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

29 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

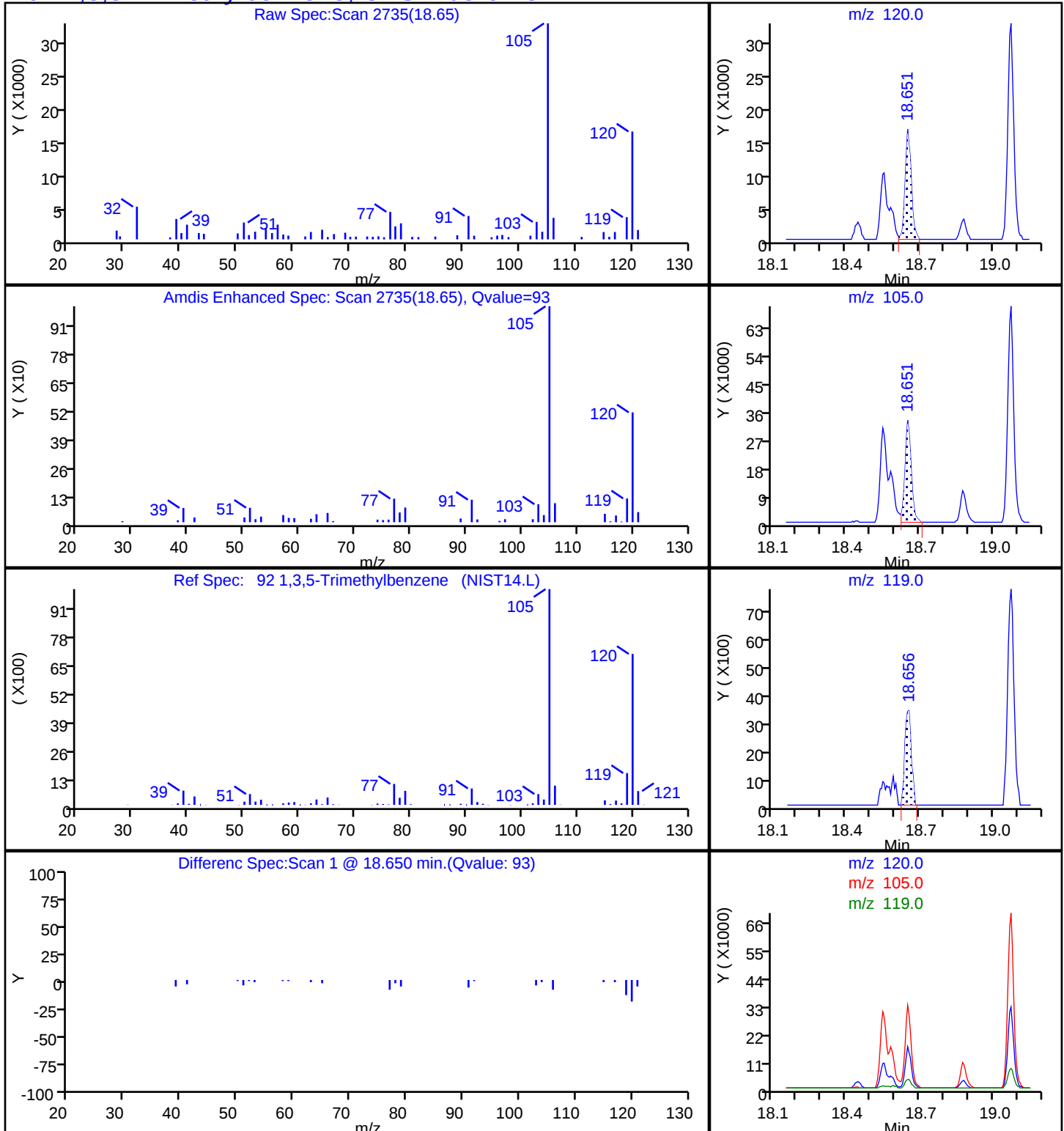
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

92 1,3,5-Trimethylbenzene, CAS: 108-67-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

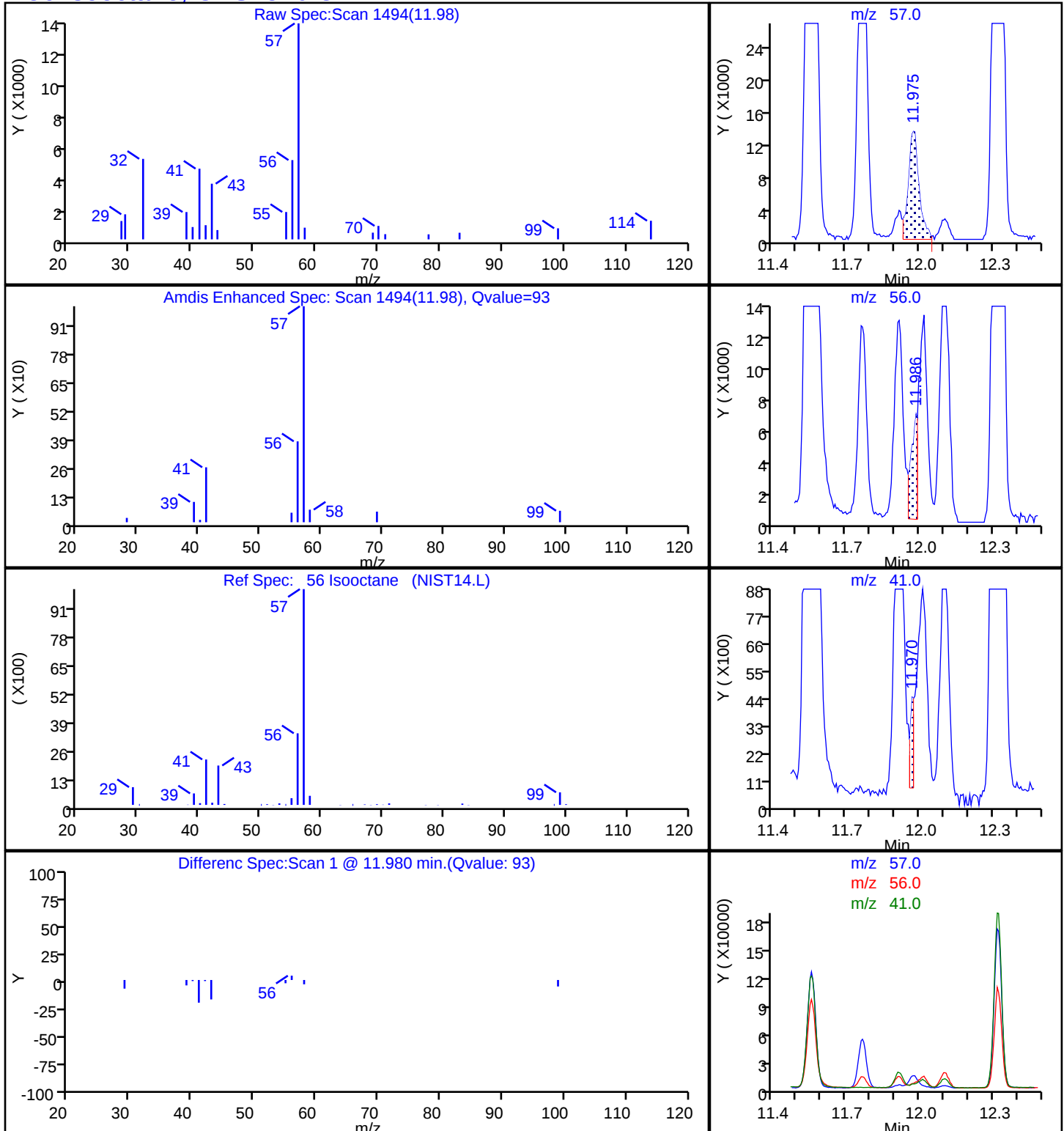
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

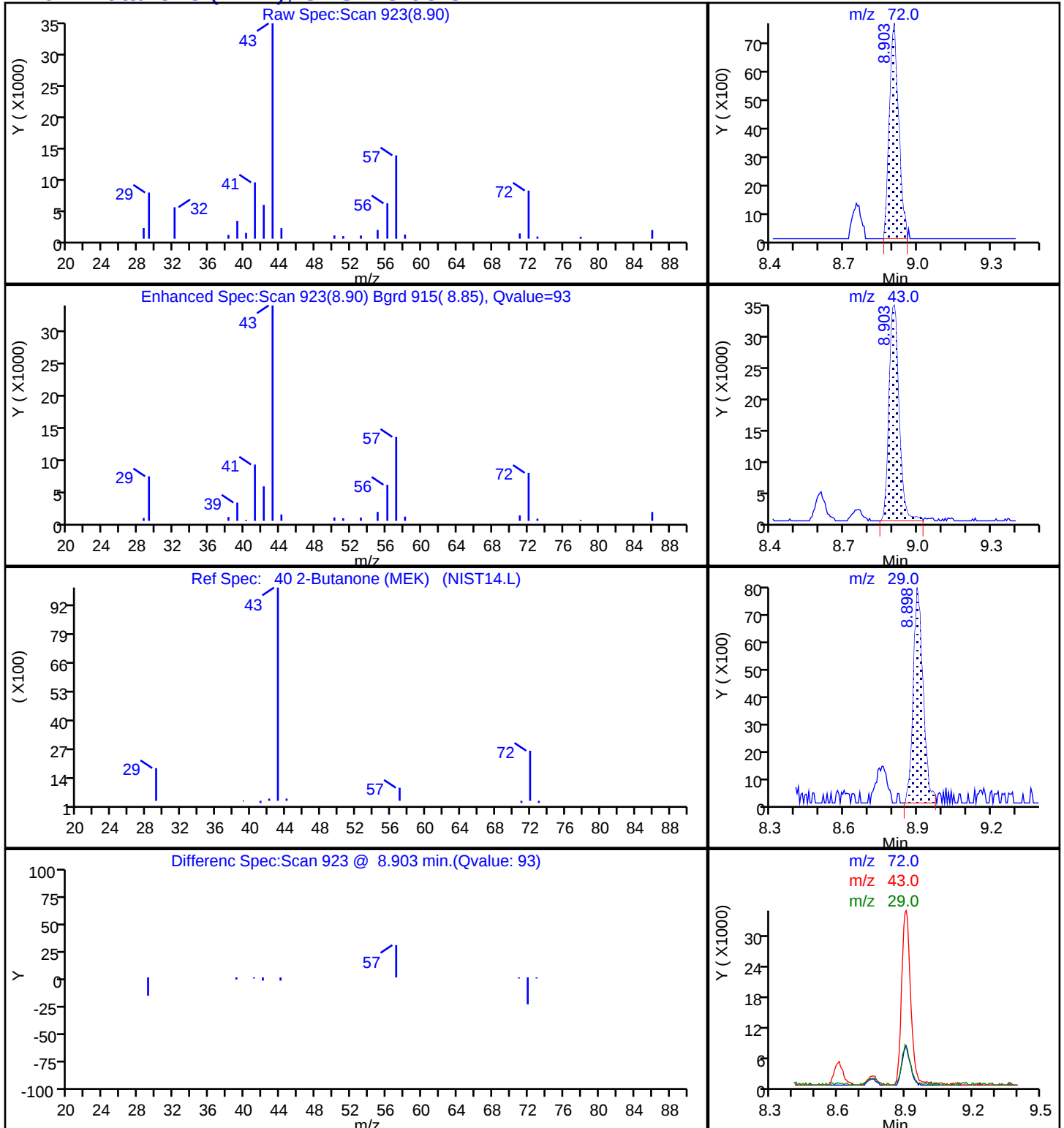
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 2-Butanone (MEK), CAS: 78-93-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

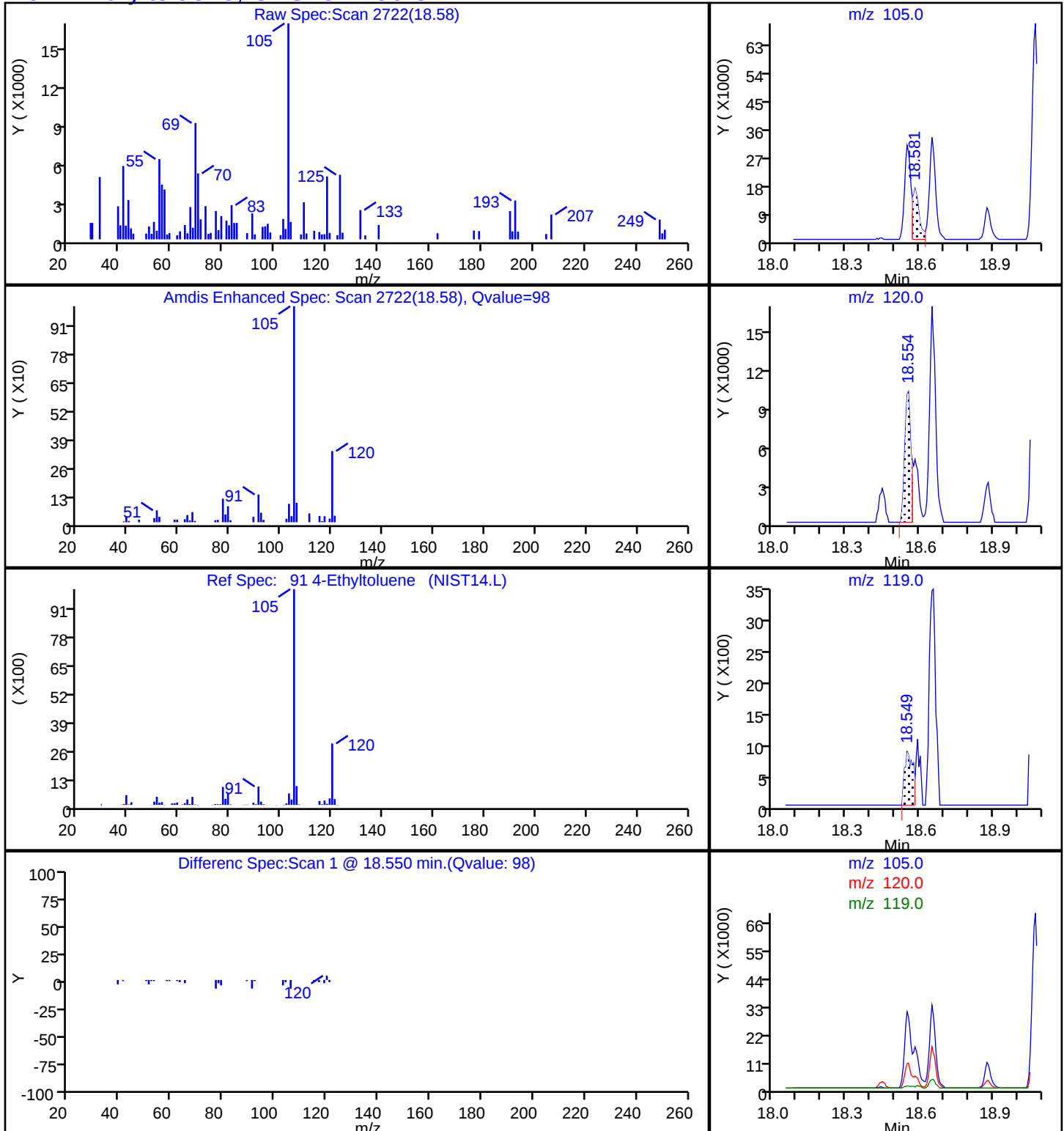
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

91 4-Ethyltoluene, CAS: 622-96-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

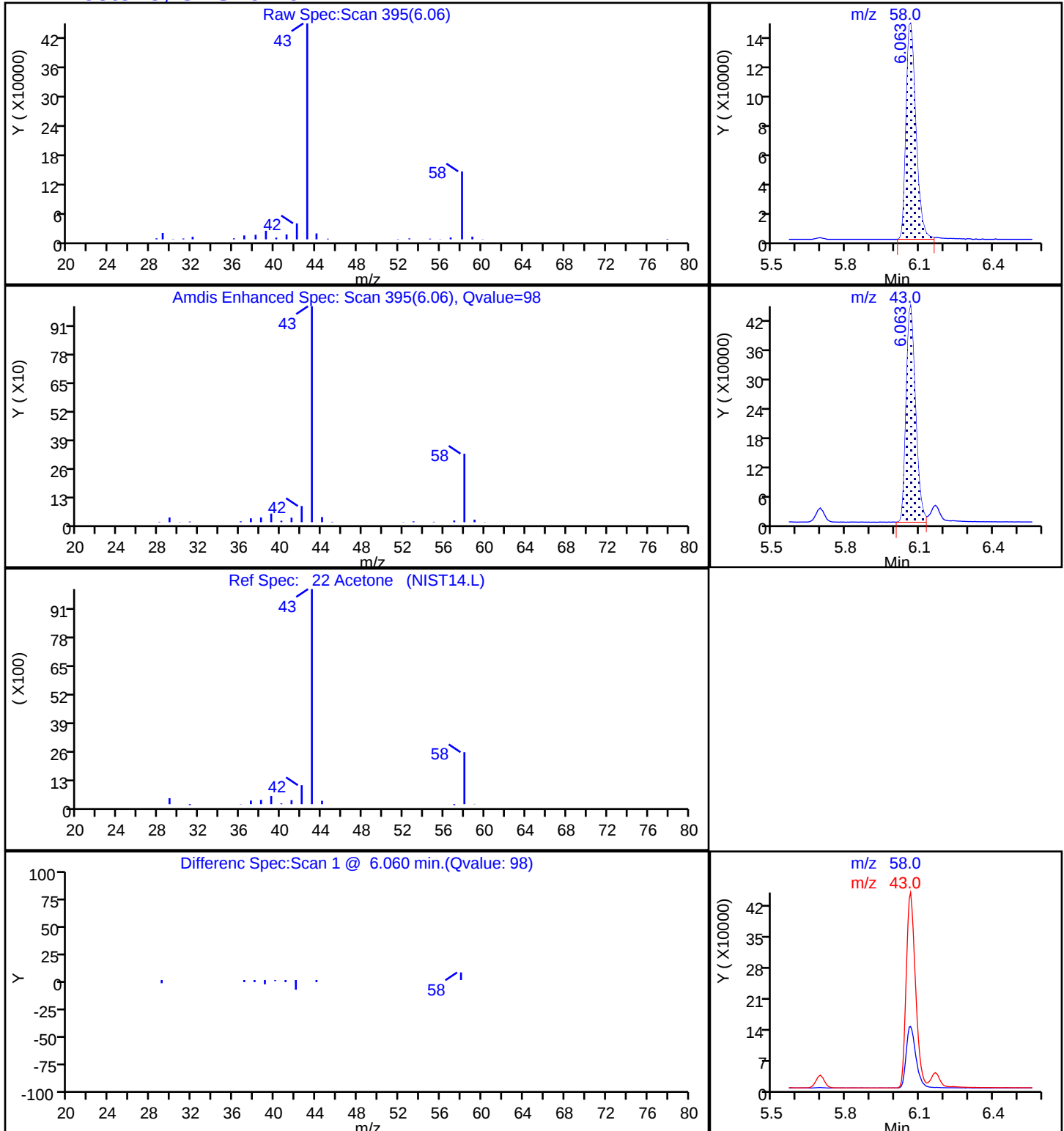
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

22 Acetone, CAS: 67-64-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

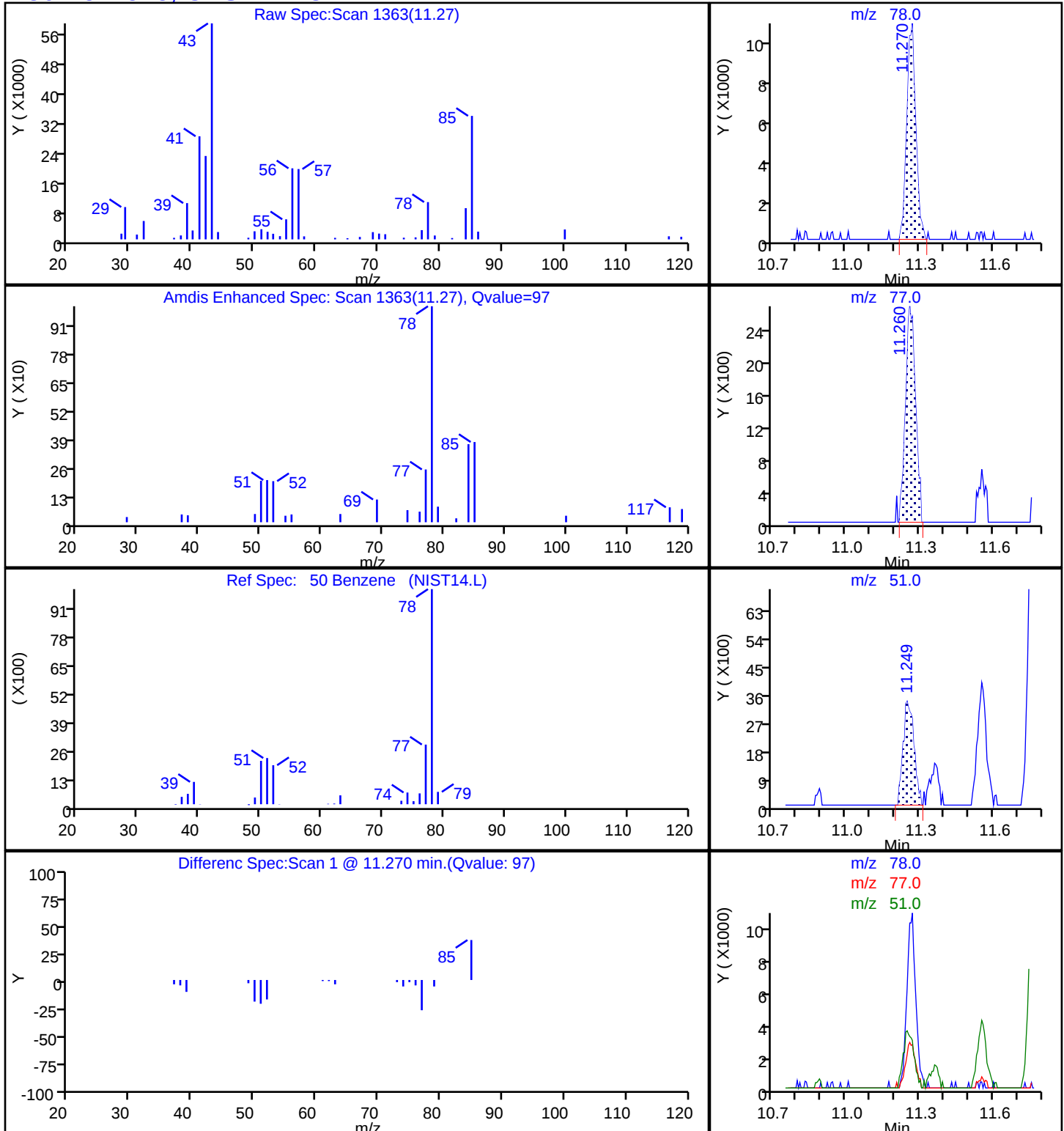
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

50 Benzene, CAS: 71-43-2



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

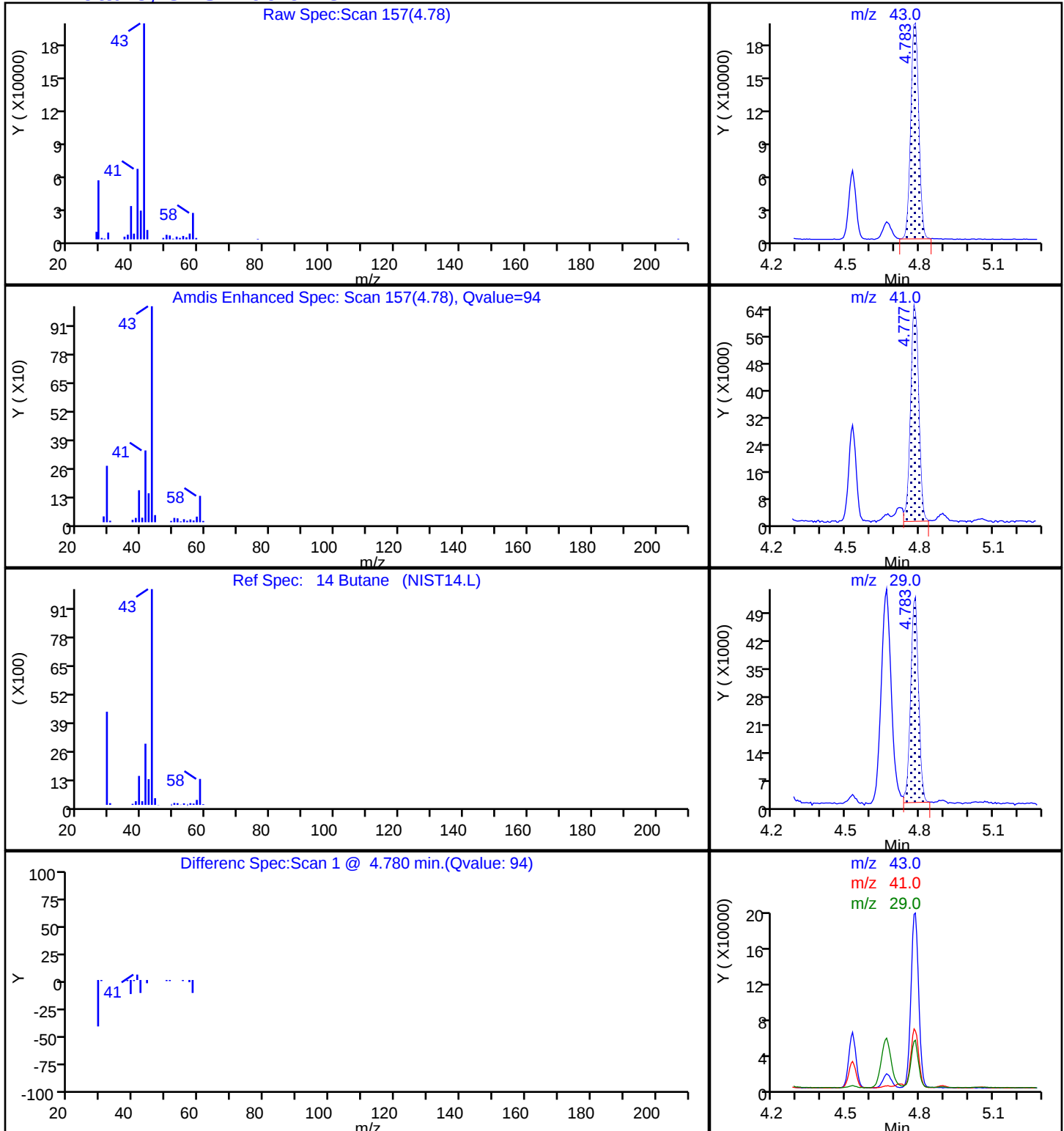
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

14 Butane, CAS: 106-97-8

TestAmerica Knoxville

Data File: \\ChromNA\\Knoxville\\ChromData\\MJ\\20180412-7901.b\\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

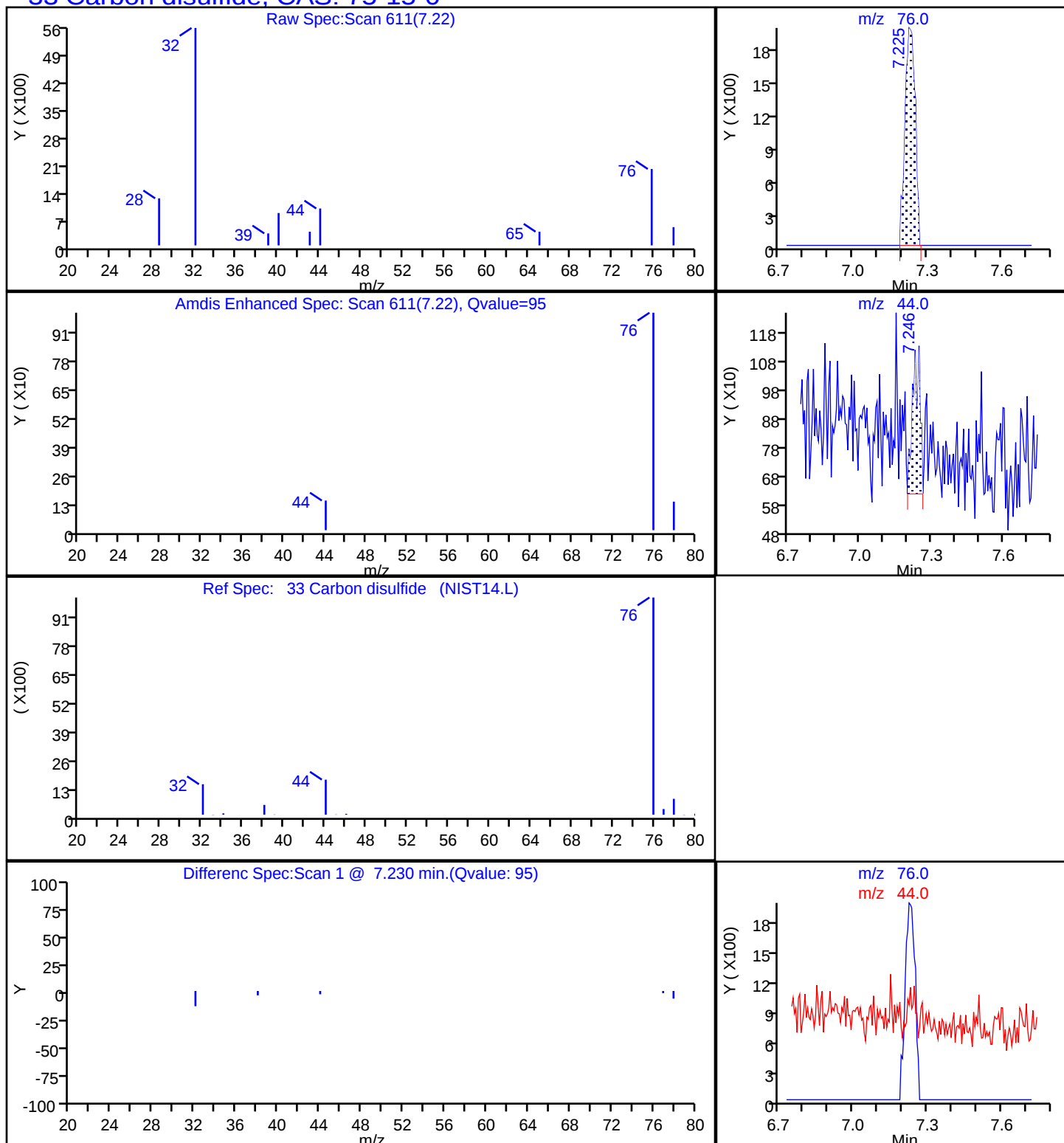
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

33 Carbon disulfide, CAS: 75-15-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

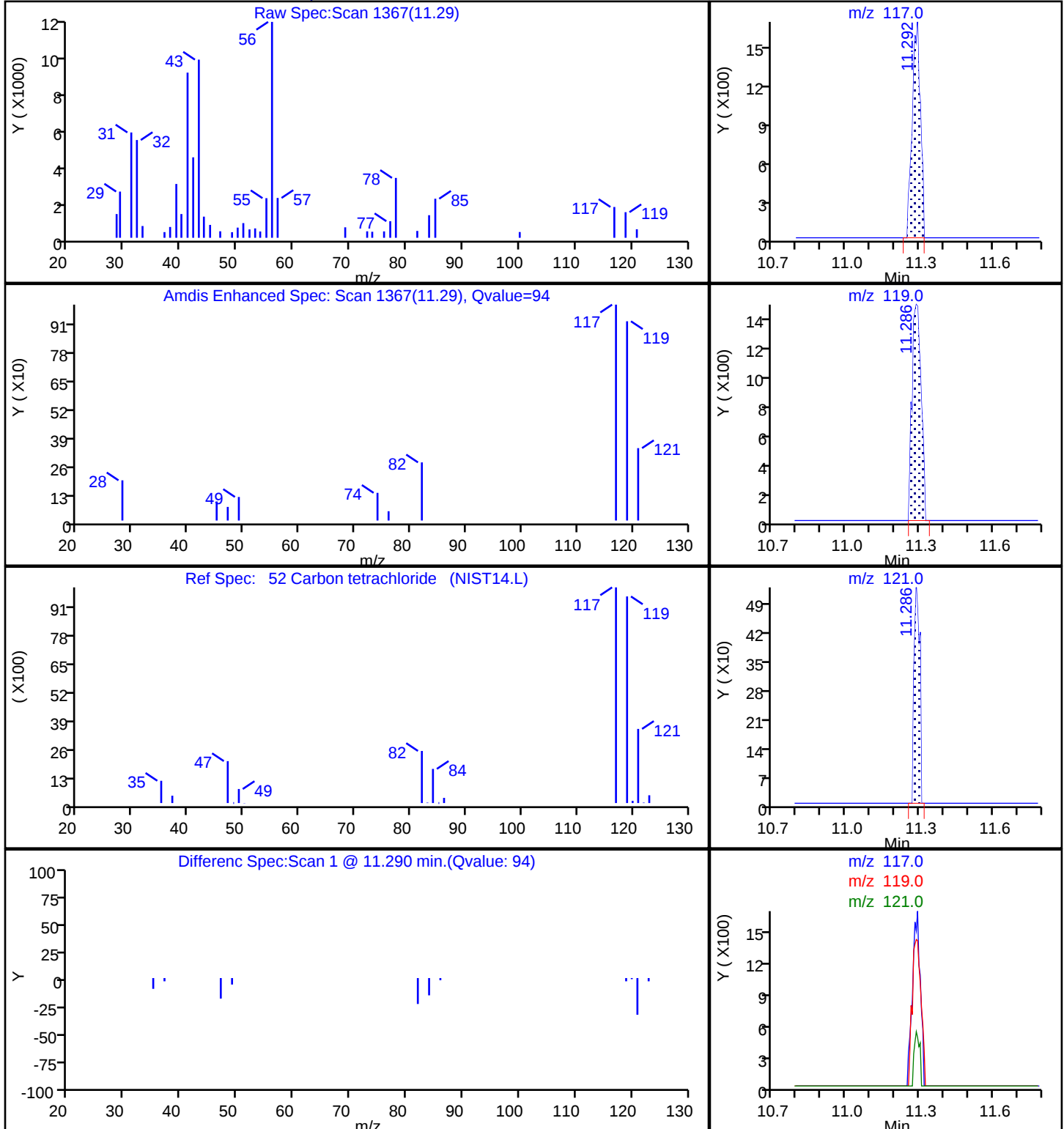
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

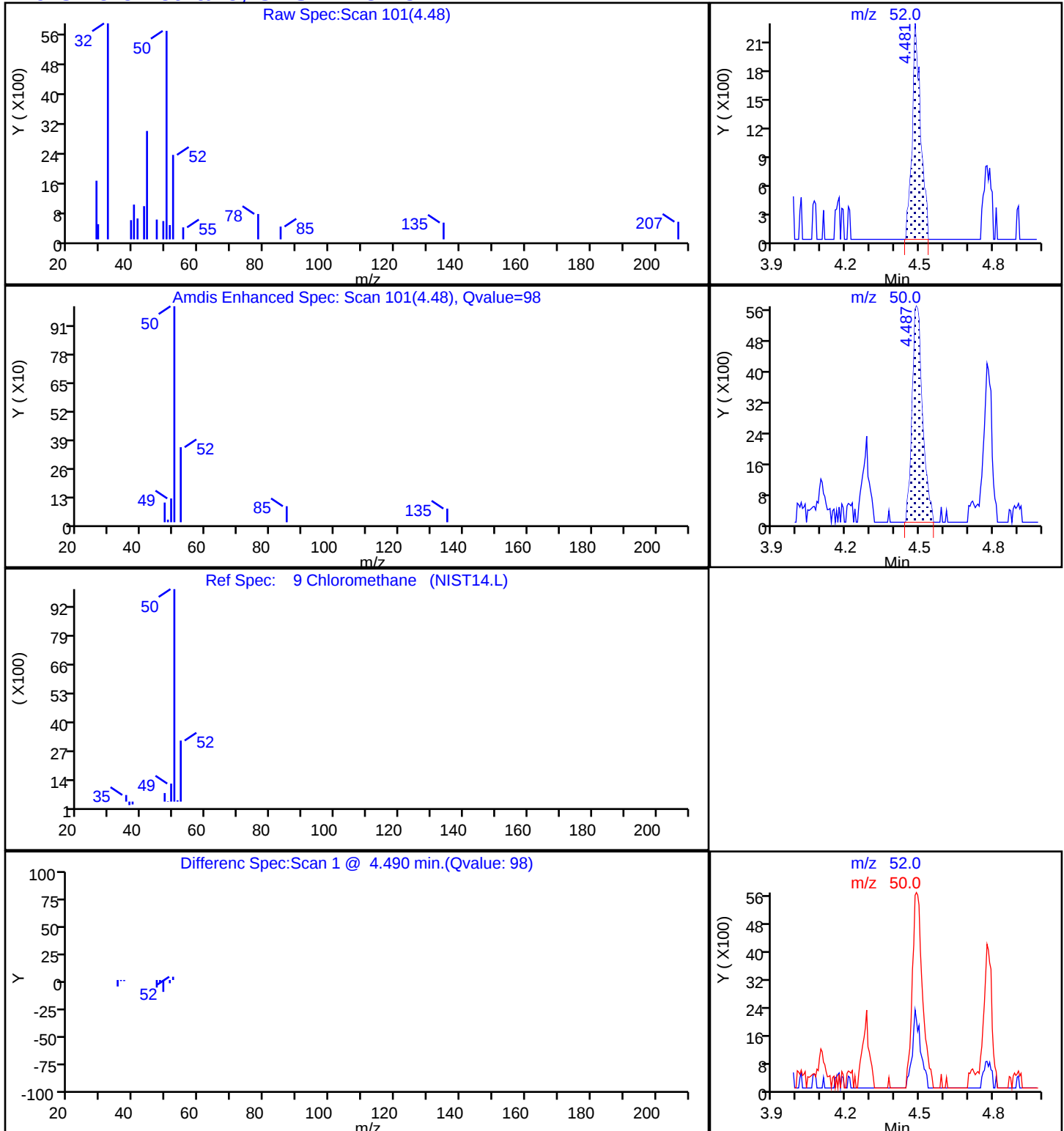
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

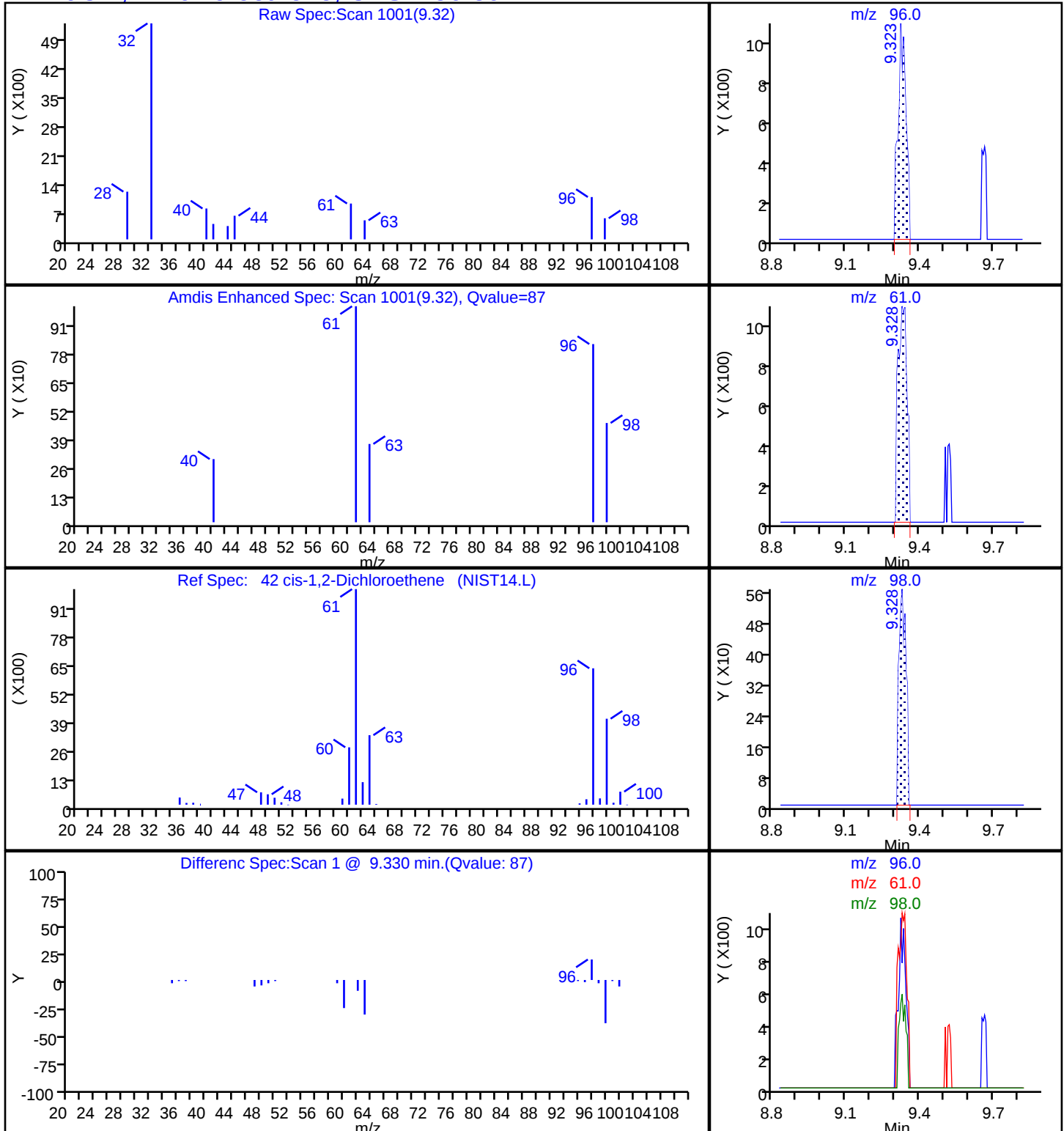
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

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

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

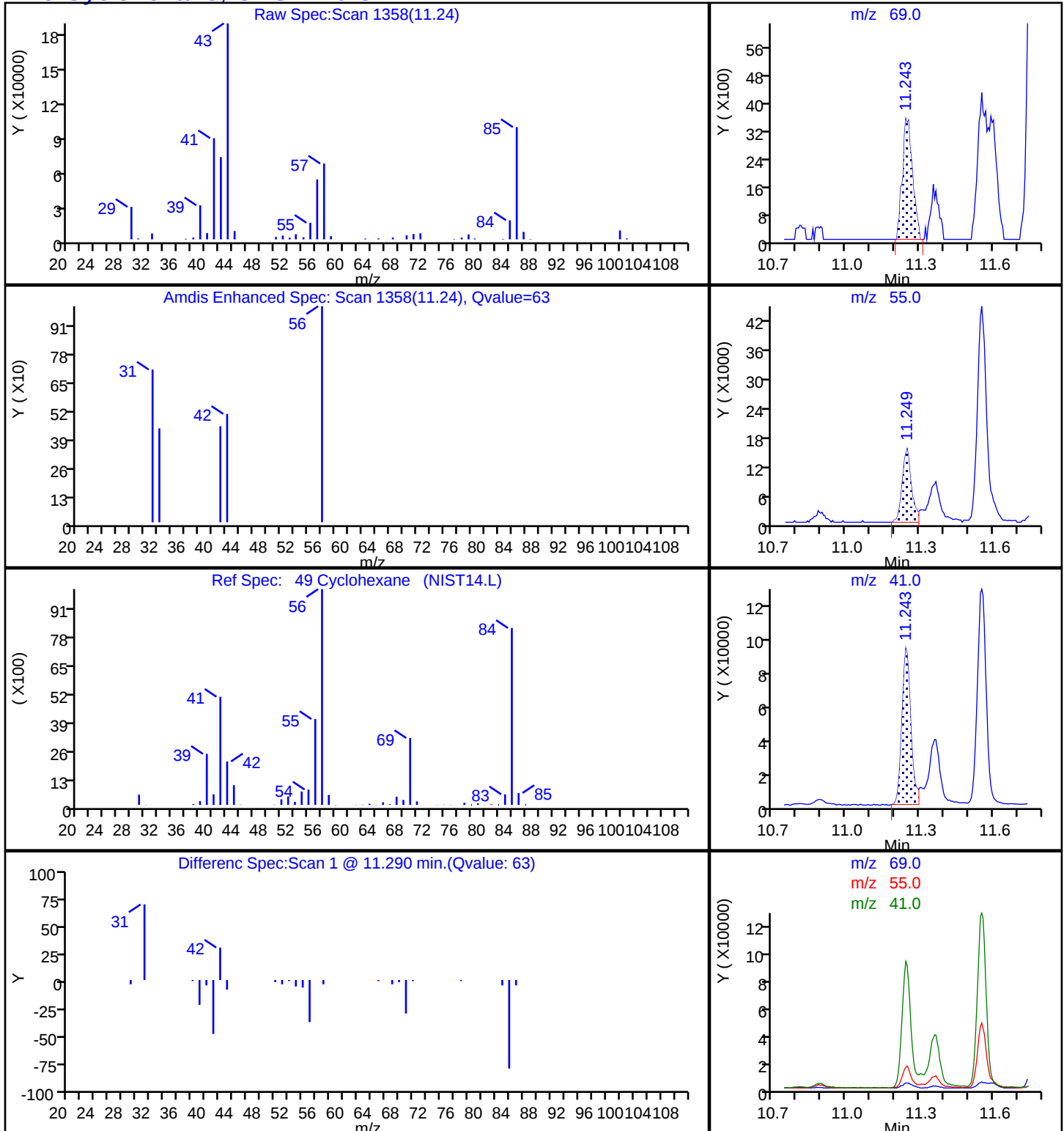
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

49 Cyclohexane, CAS: 110-82-7

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

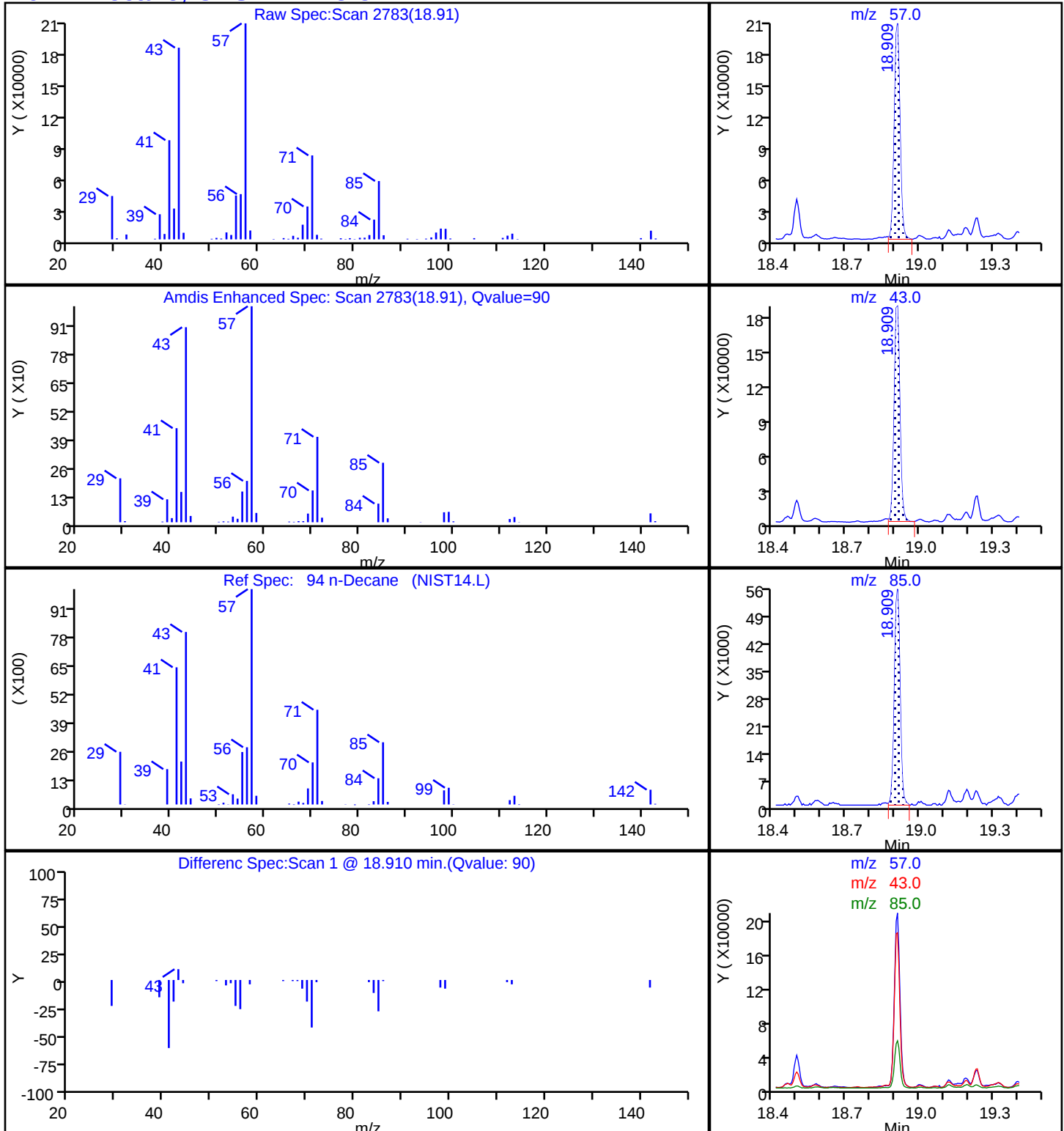
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

94 n-Decane, CAS: 124-18-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

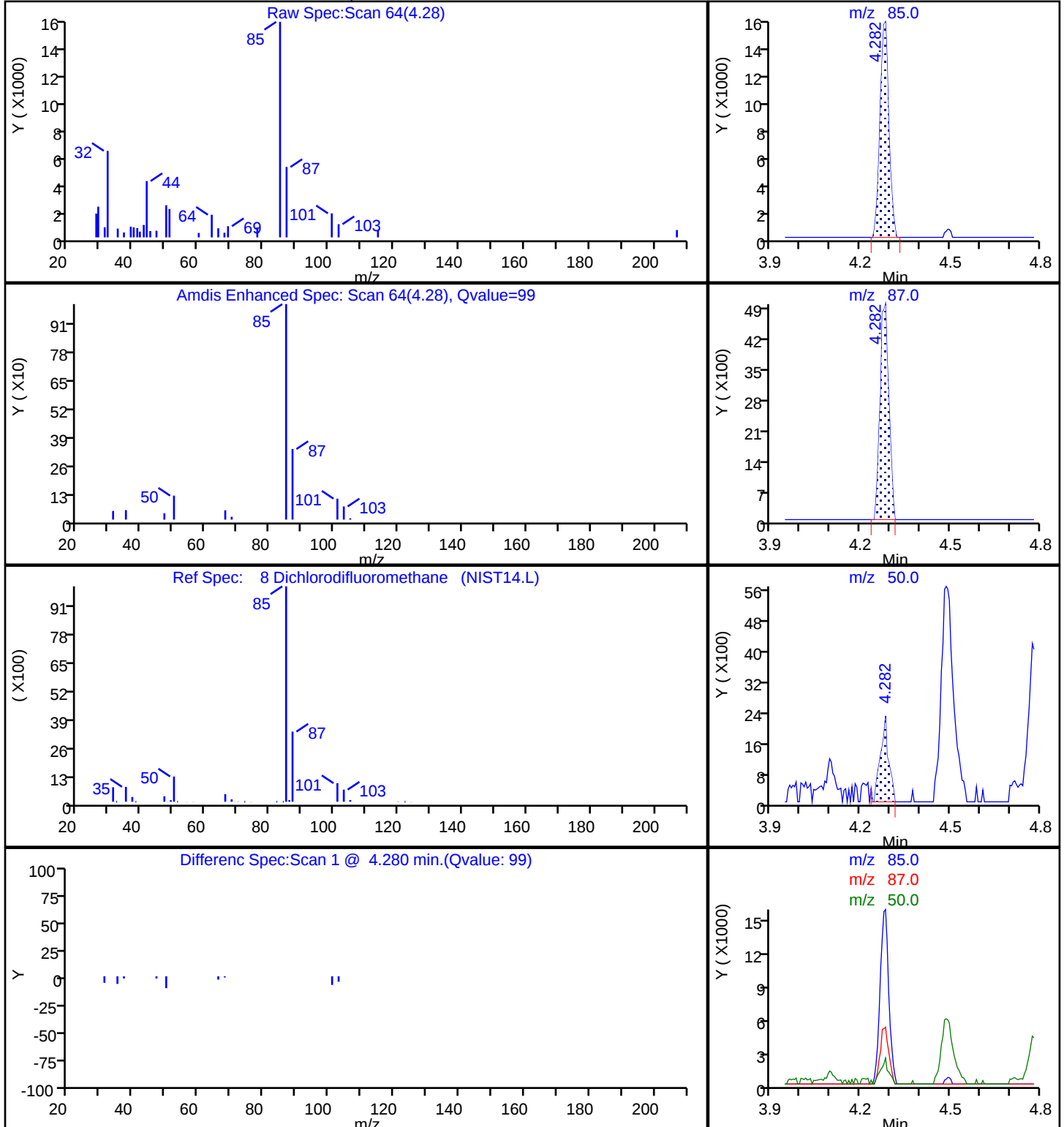
Method: MJ_TO15

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\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

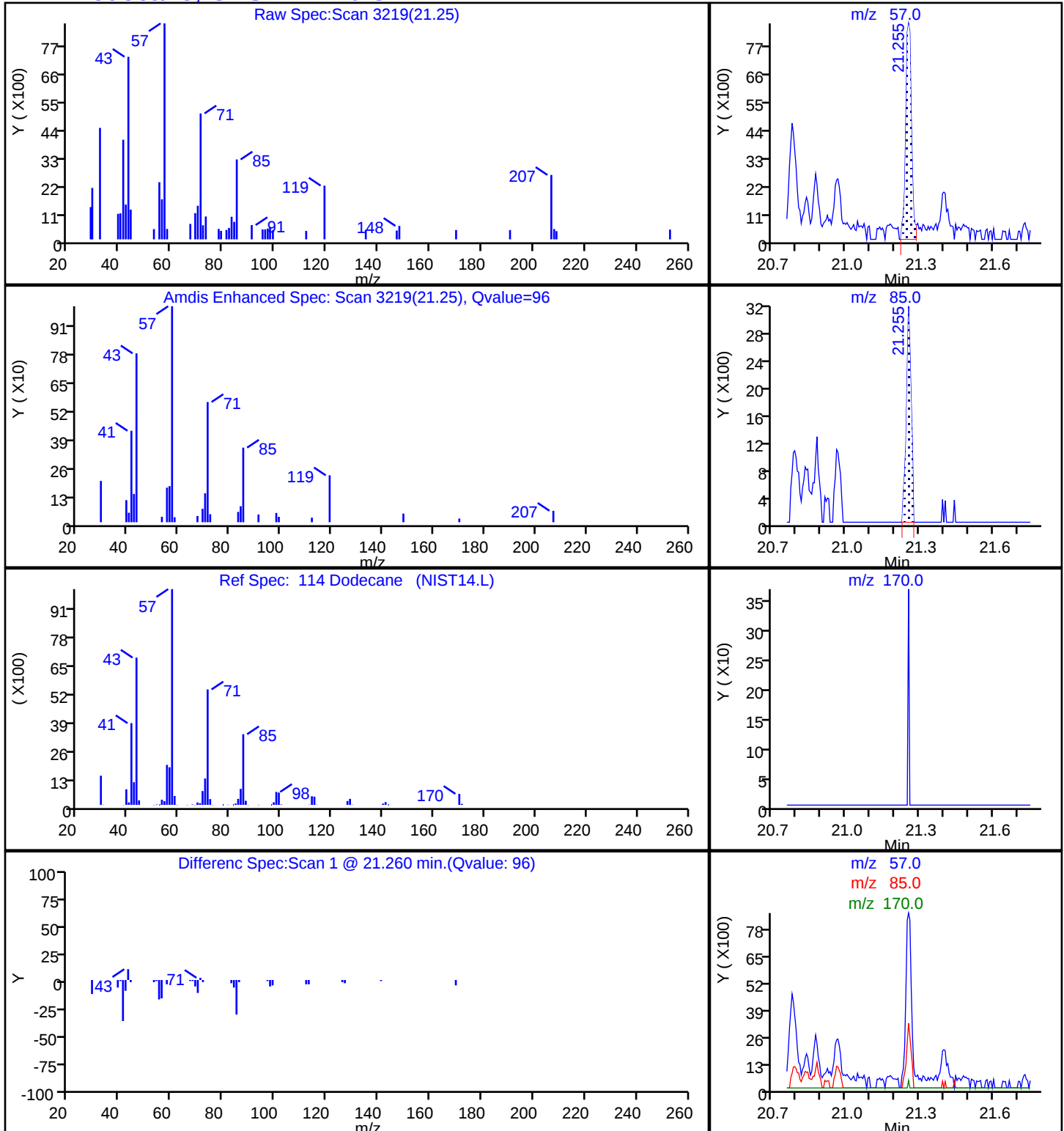
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

114 Dodecane, CAS: 112-40-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

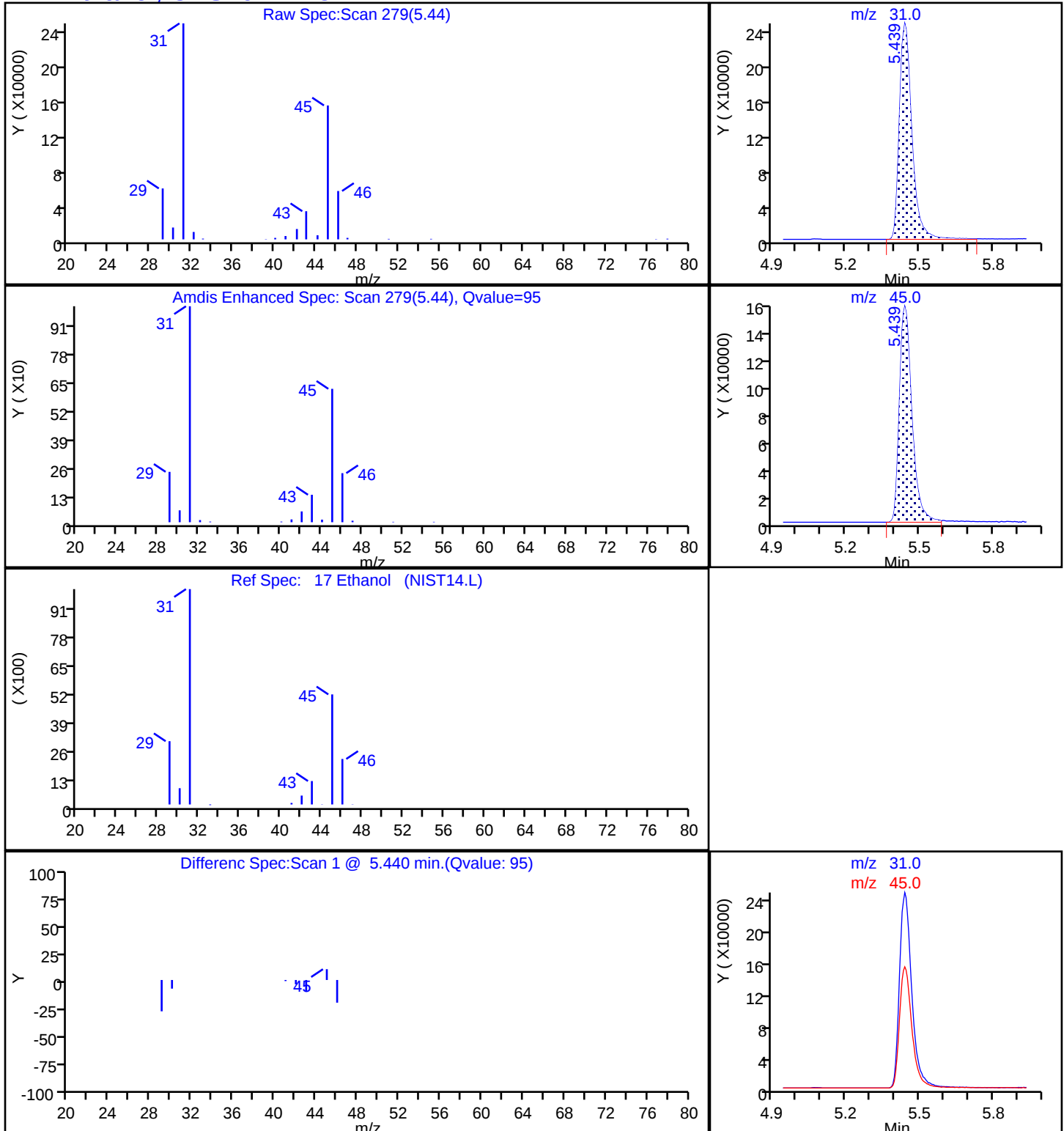
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

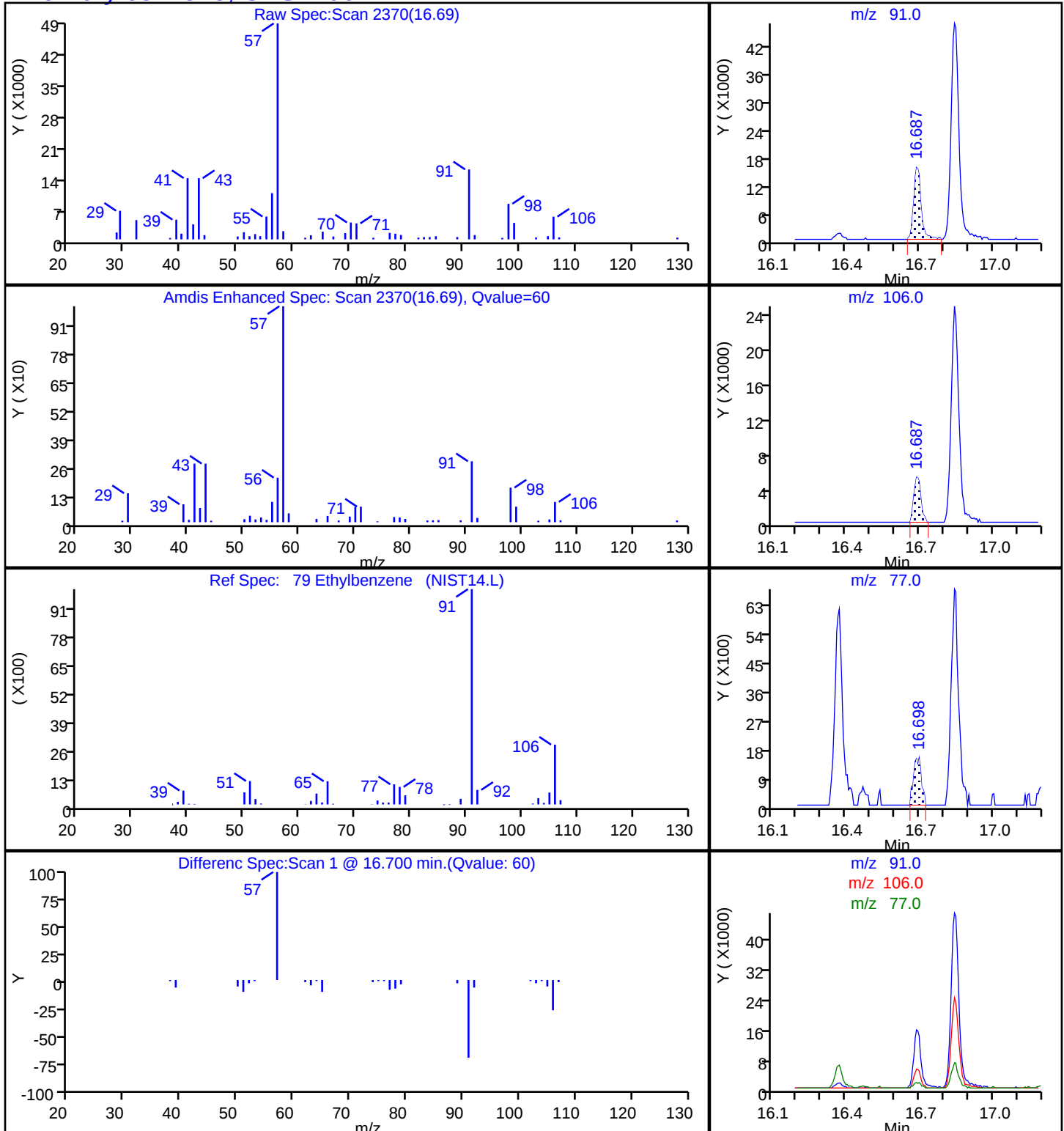
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

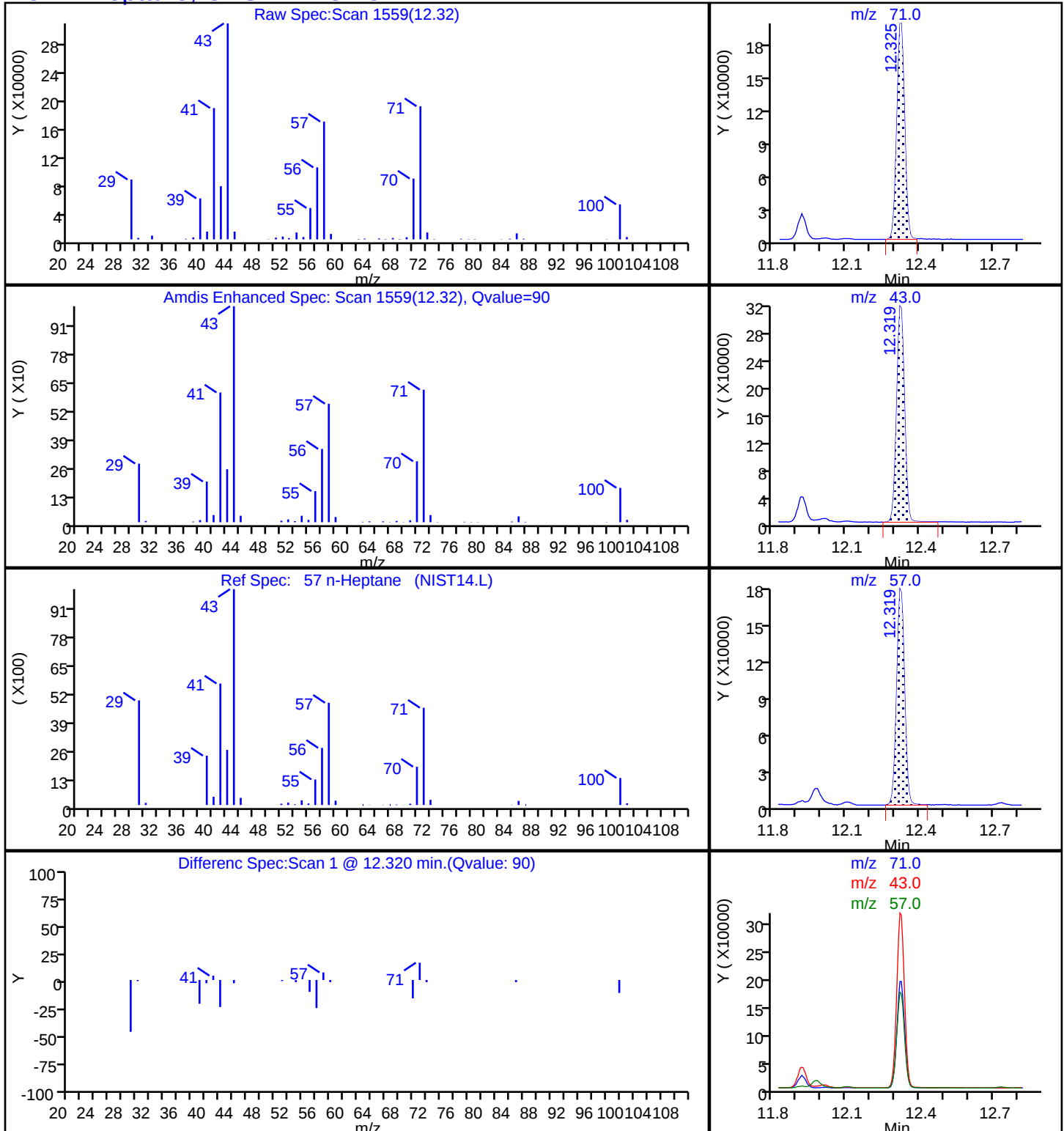
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

57 n-Heptane, CAS: 142-82-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

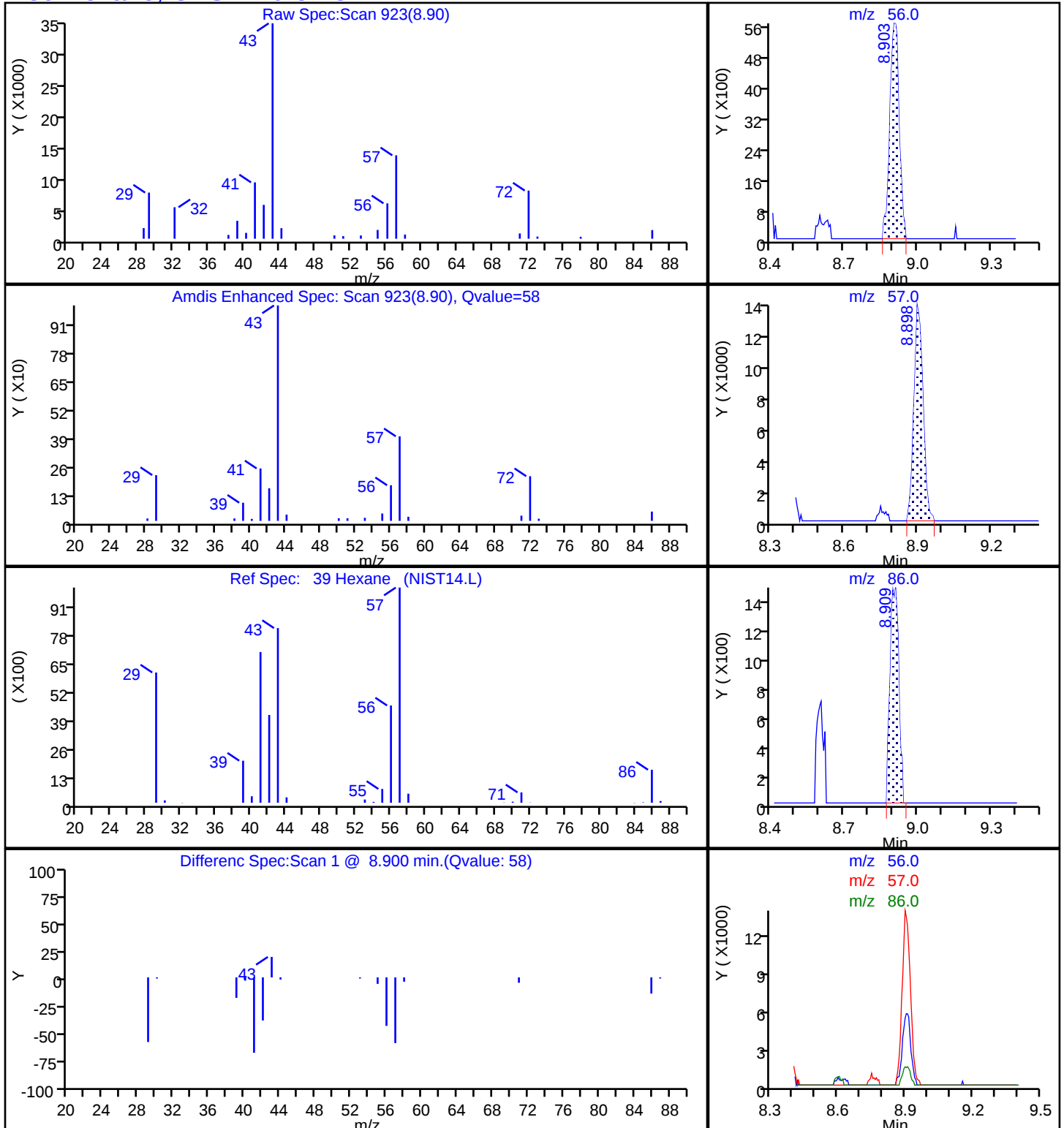
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

39 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

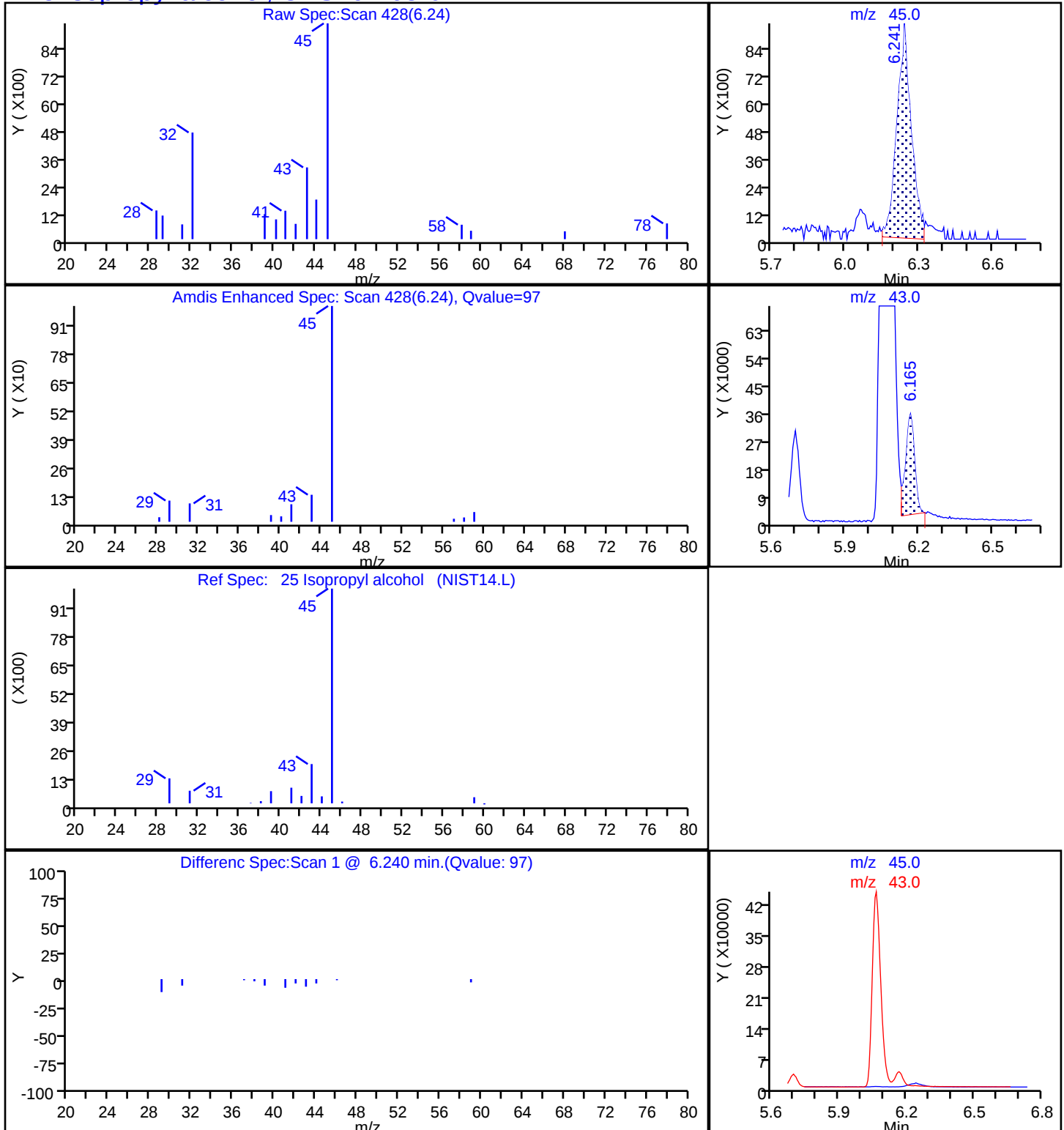
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

25 Isopropyl alcohol, CAS: 67-63-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

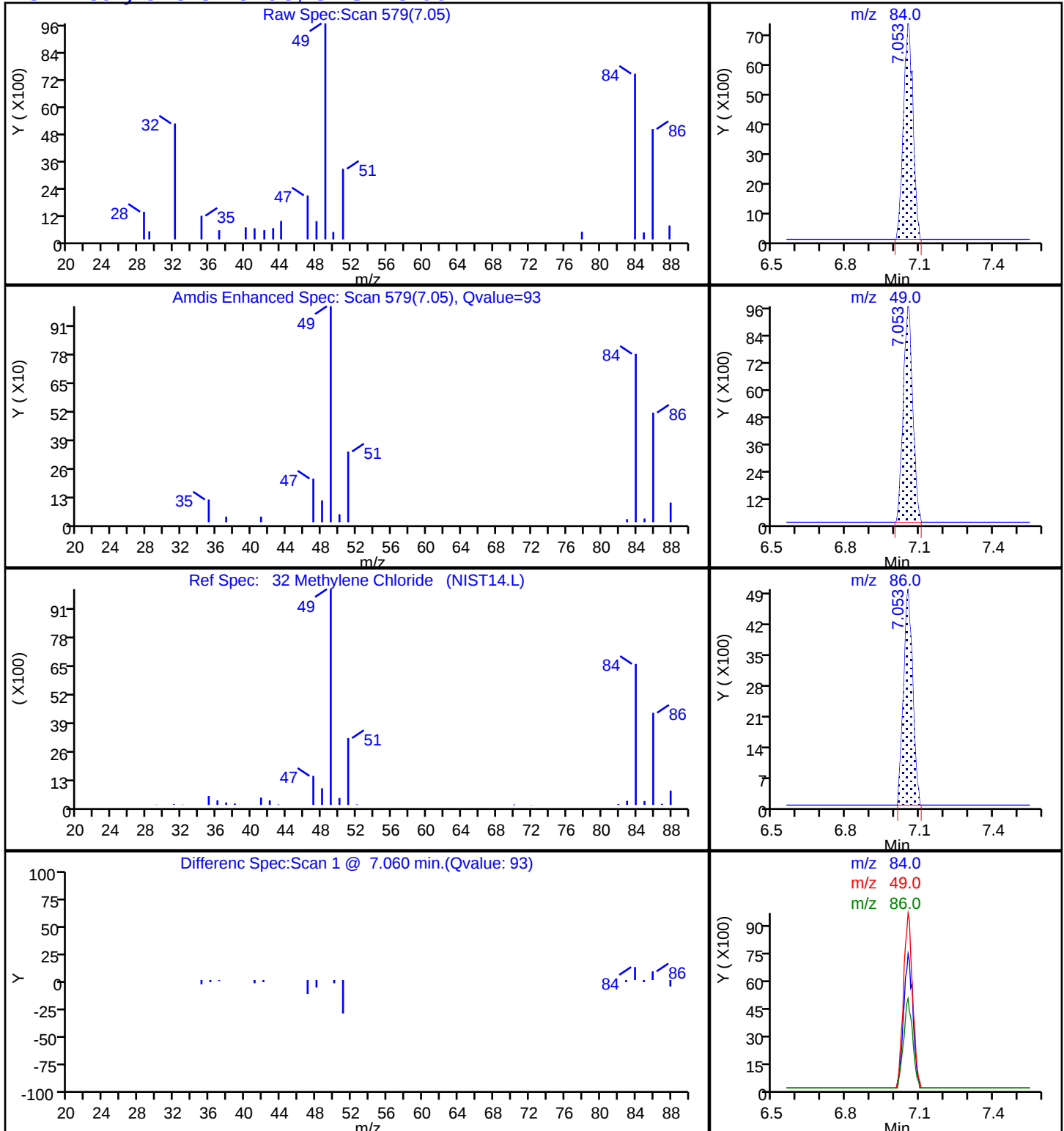
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

32 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

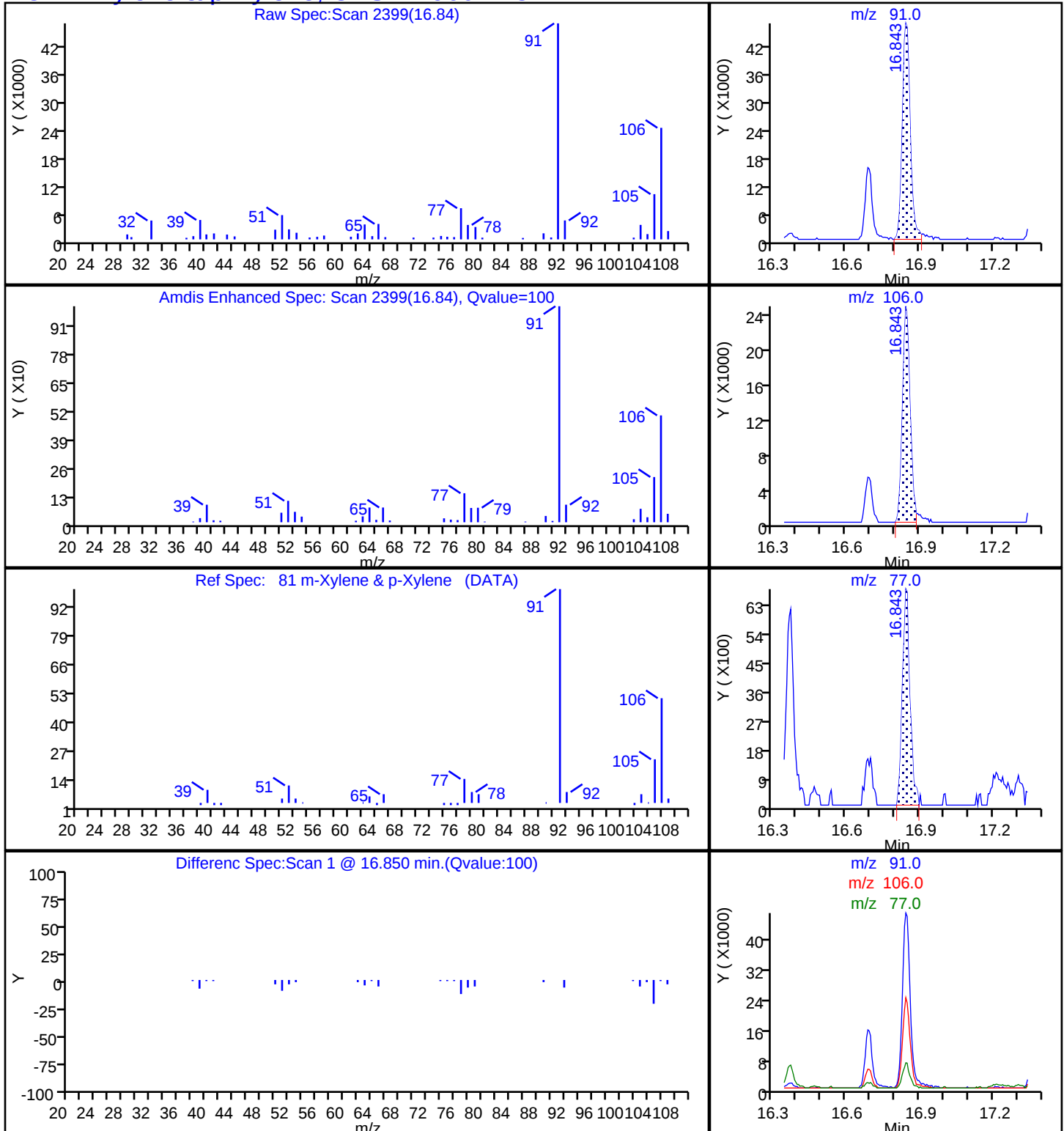
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

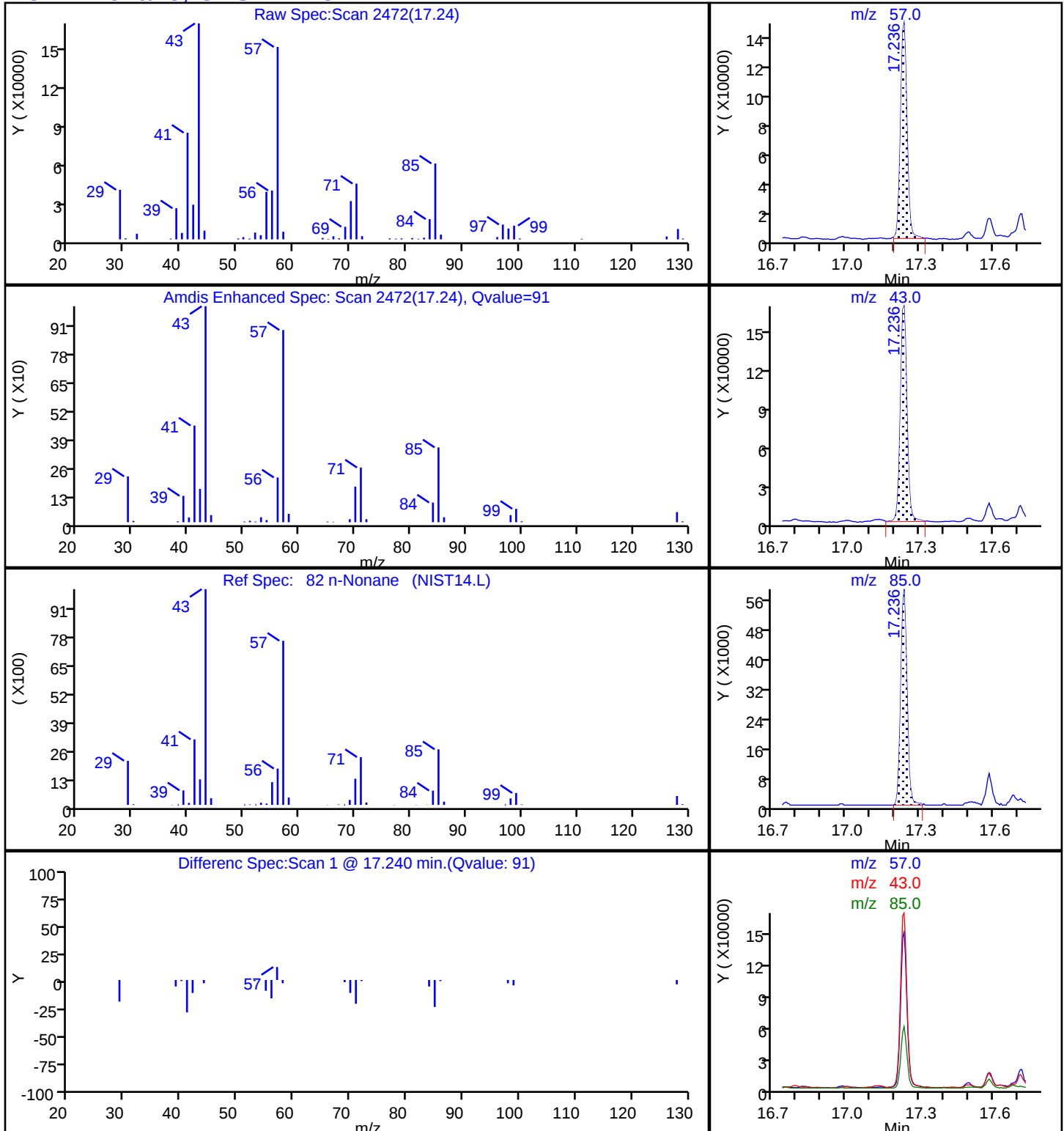
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

82 n-Nonane, CAS: 111-84-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

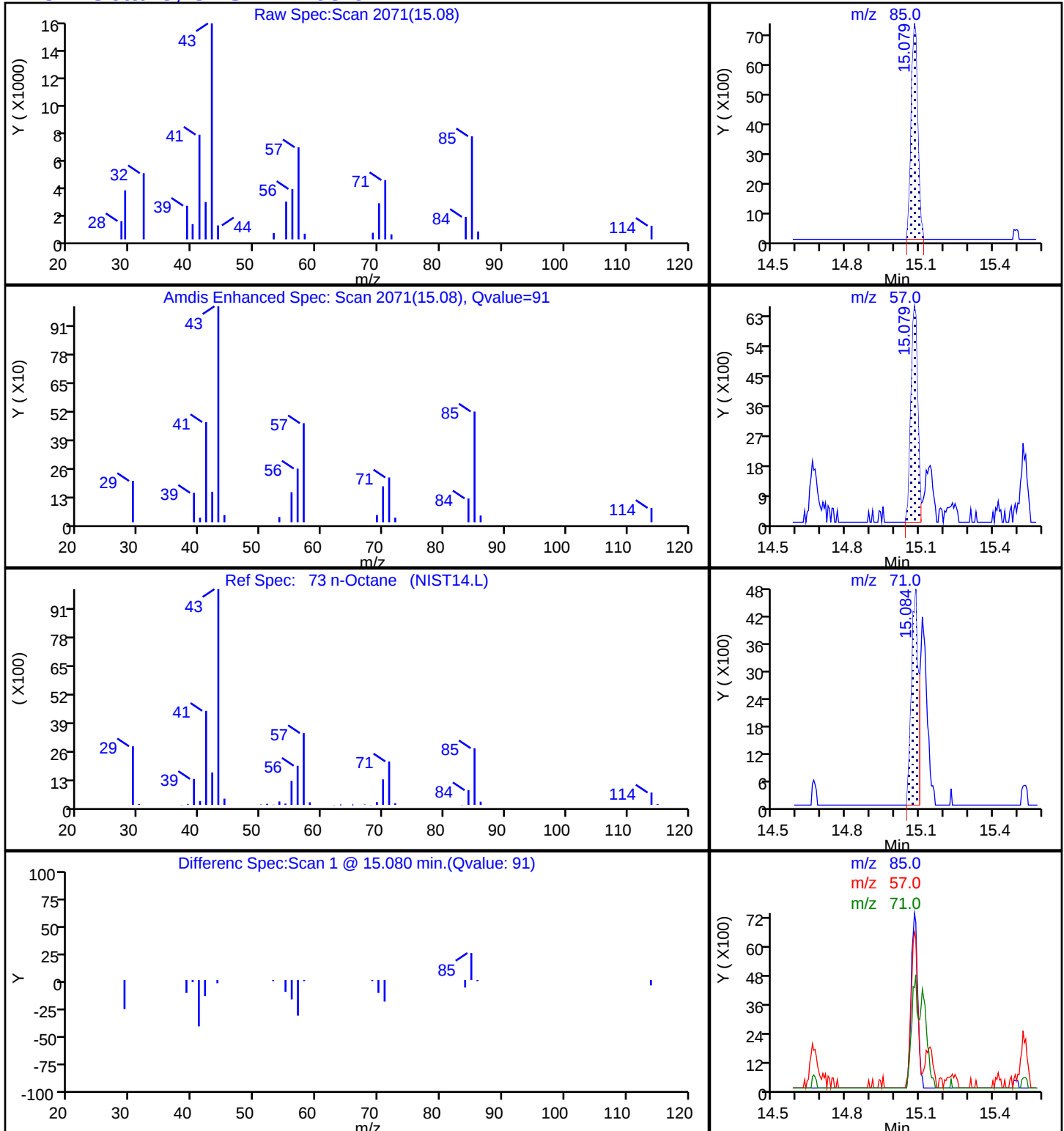
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

73 n-Octane, CAS: 111-65-9

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

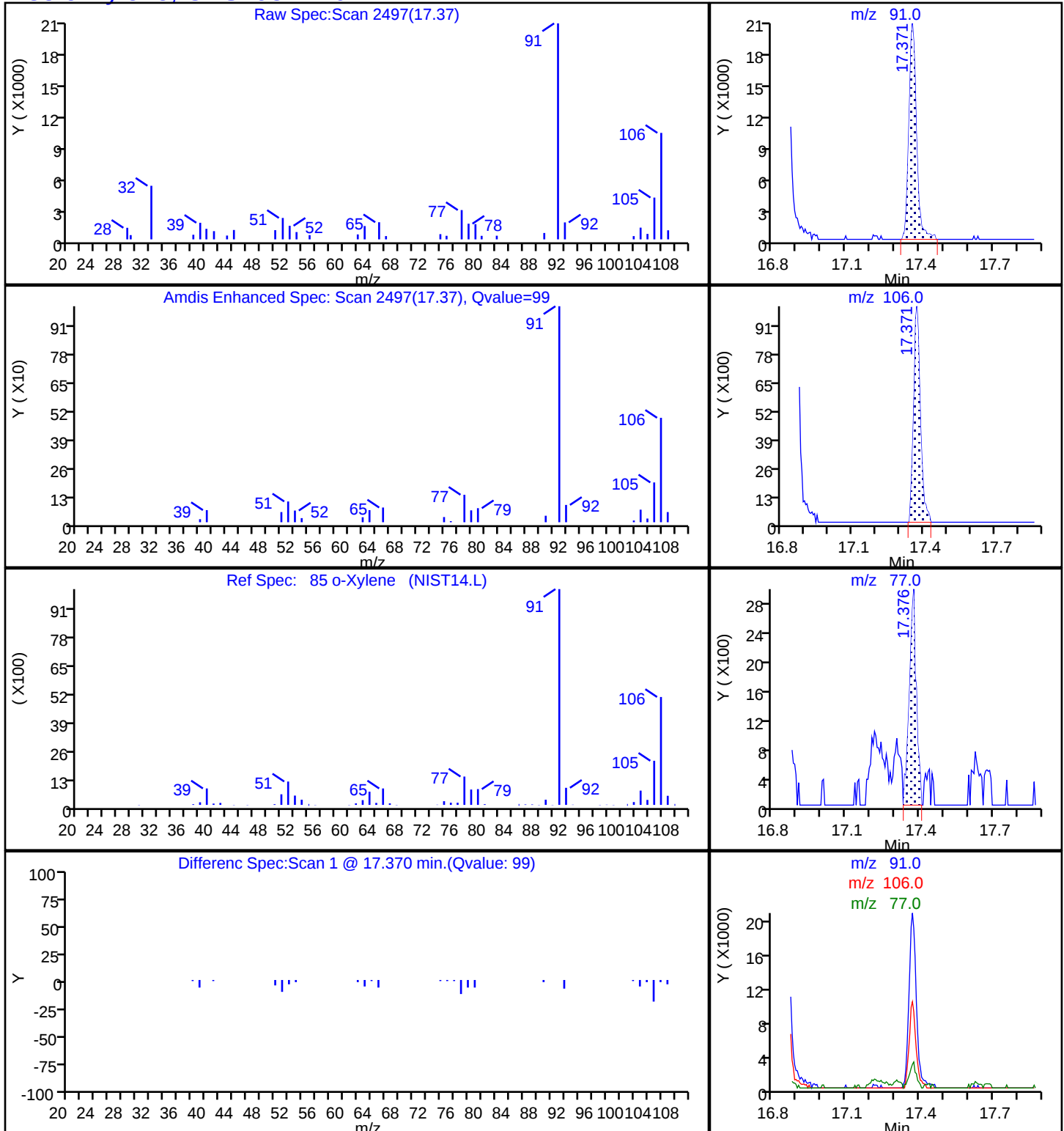
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

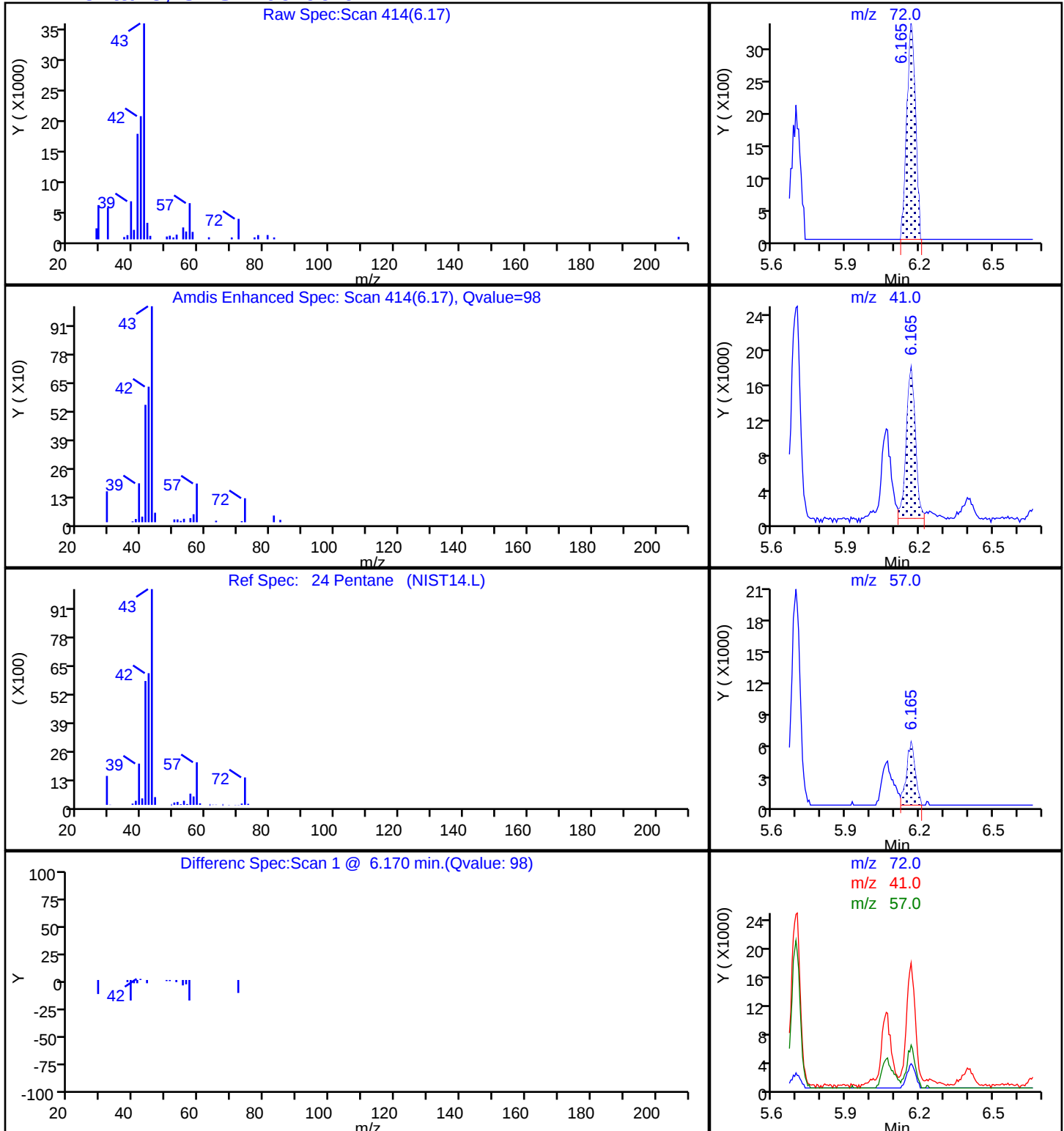
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

24 Pentane, CAS: 109-66-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

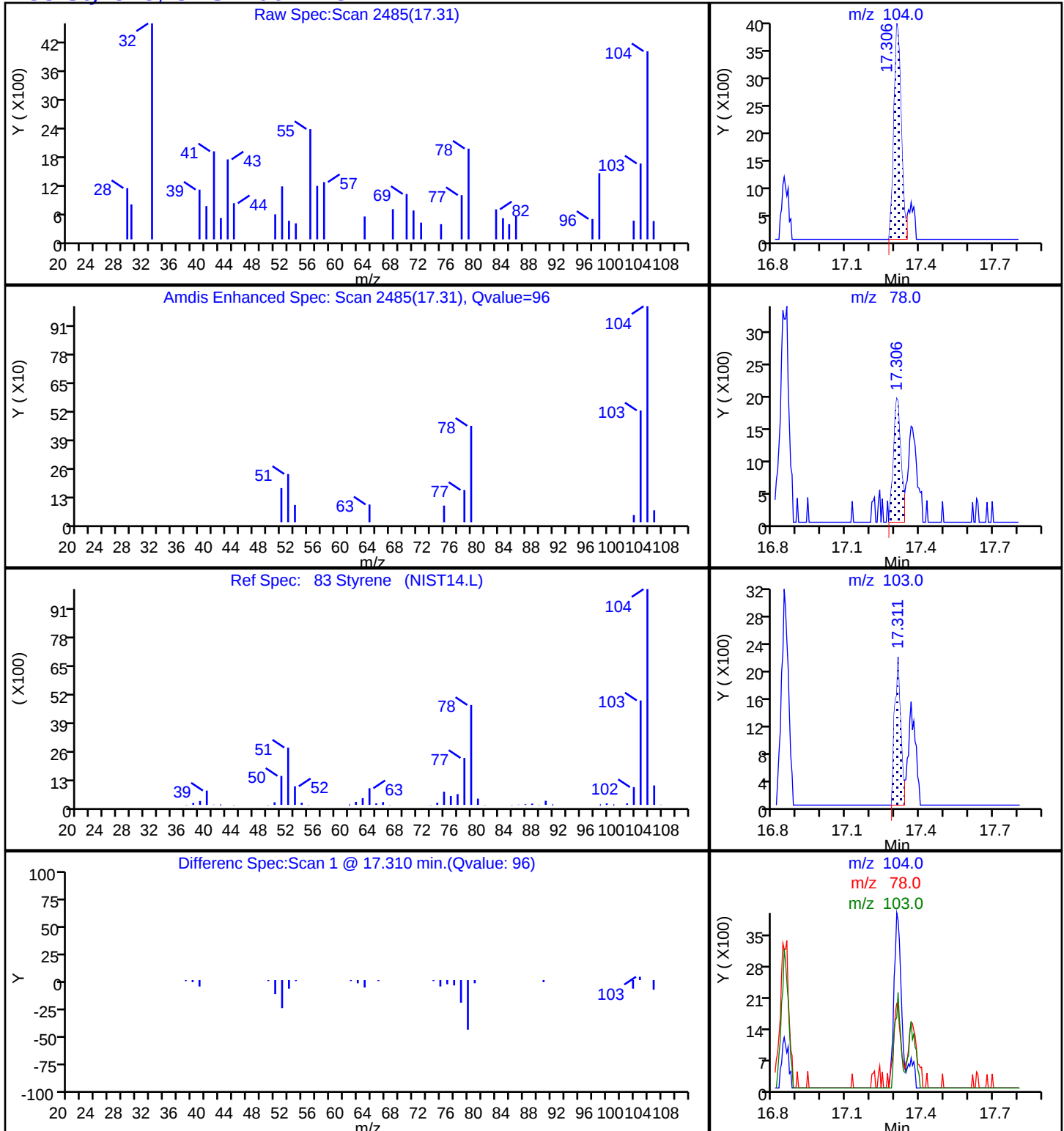
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

83 Styrene, CAS: 100-42-5



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

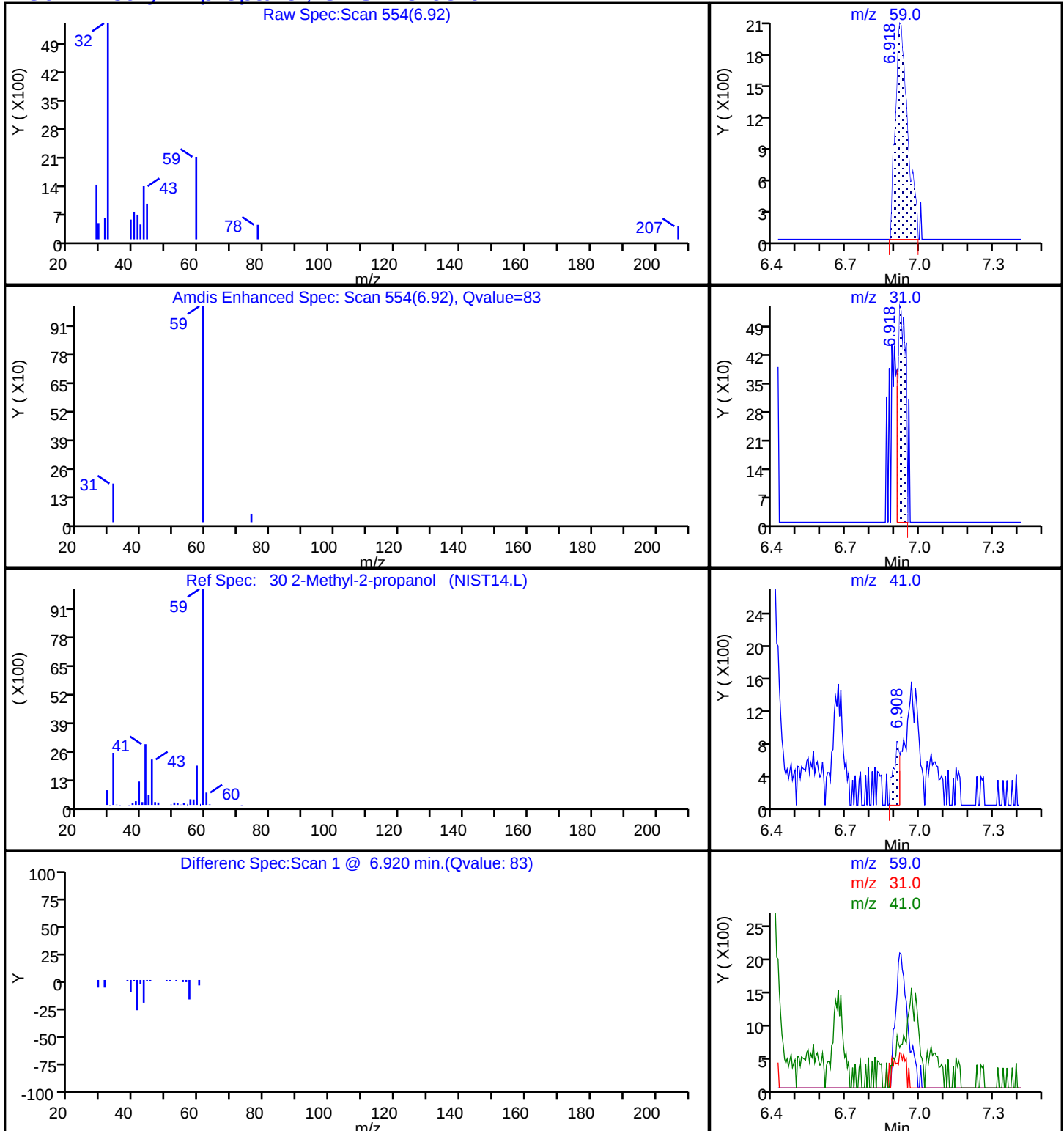
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

30 2-Methyl-2-propanol, CAS: 75-65-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

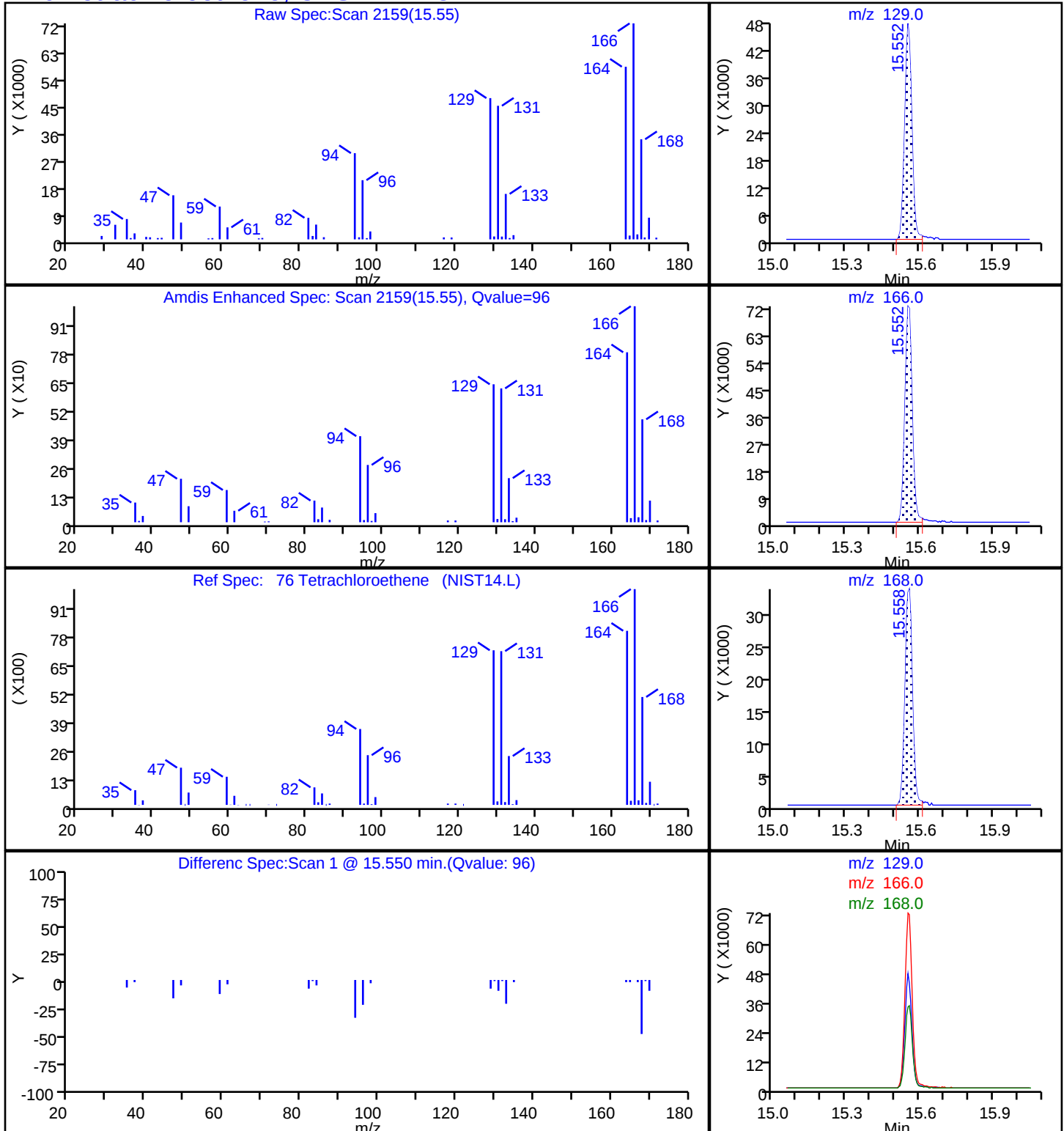
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

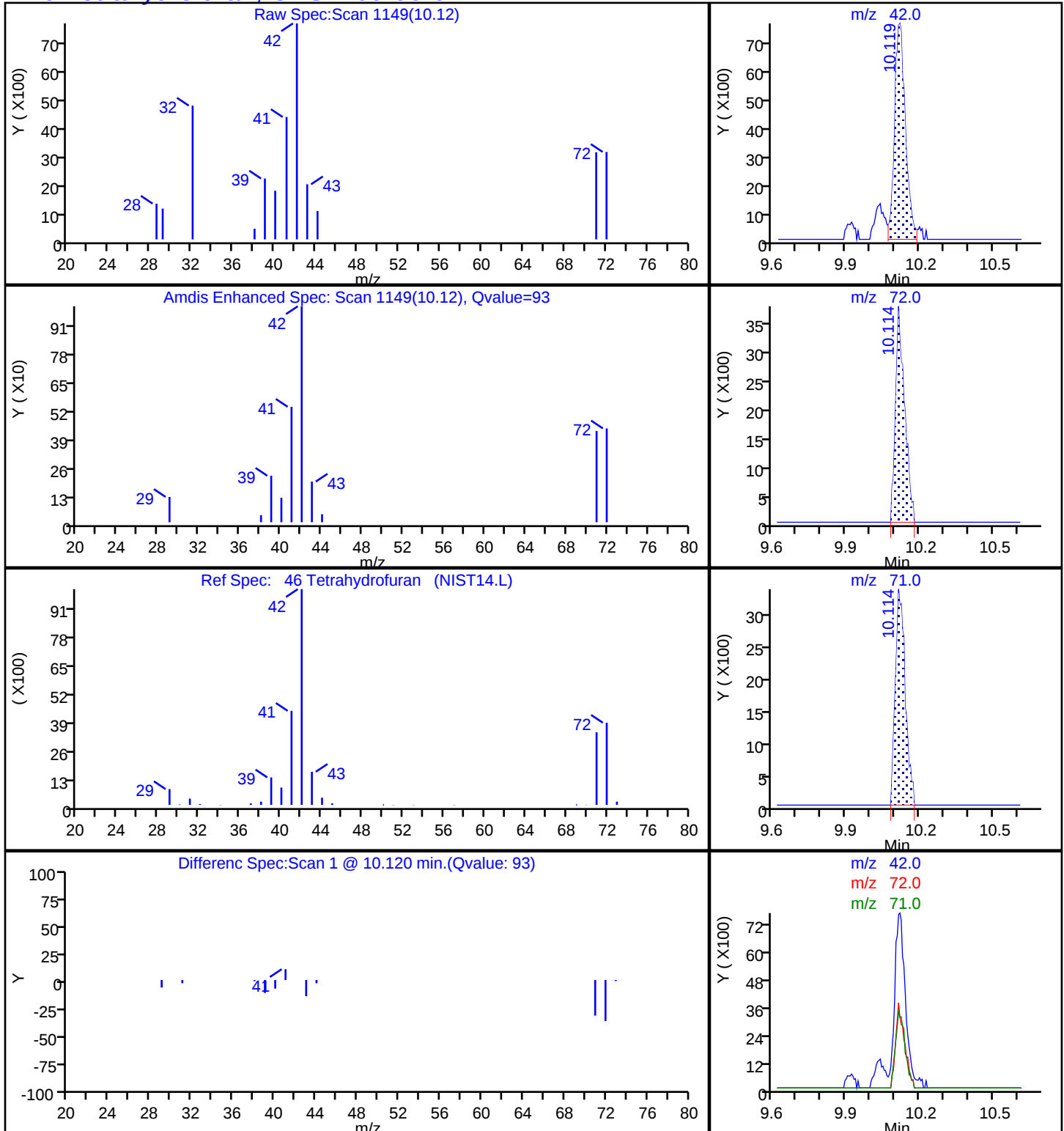
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

46 Tetrahydrofuran, CAS: 109-99-9

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

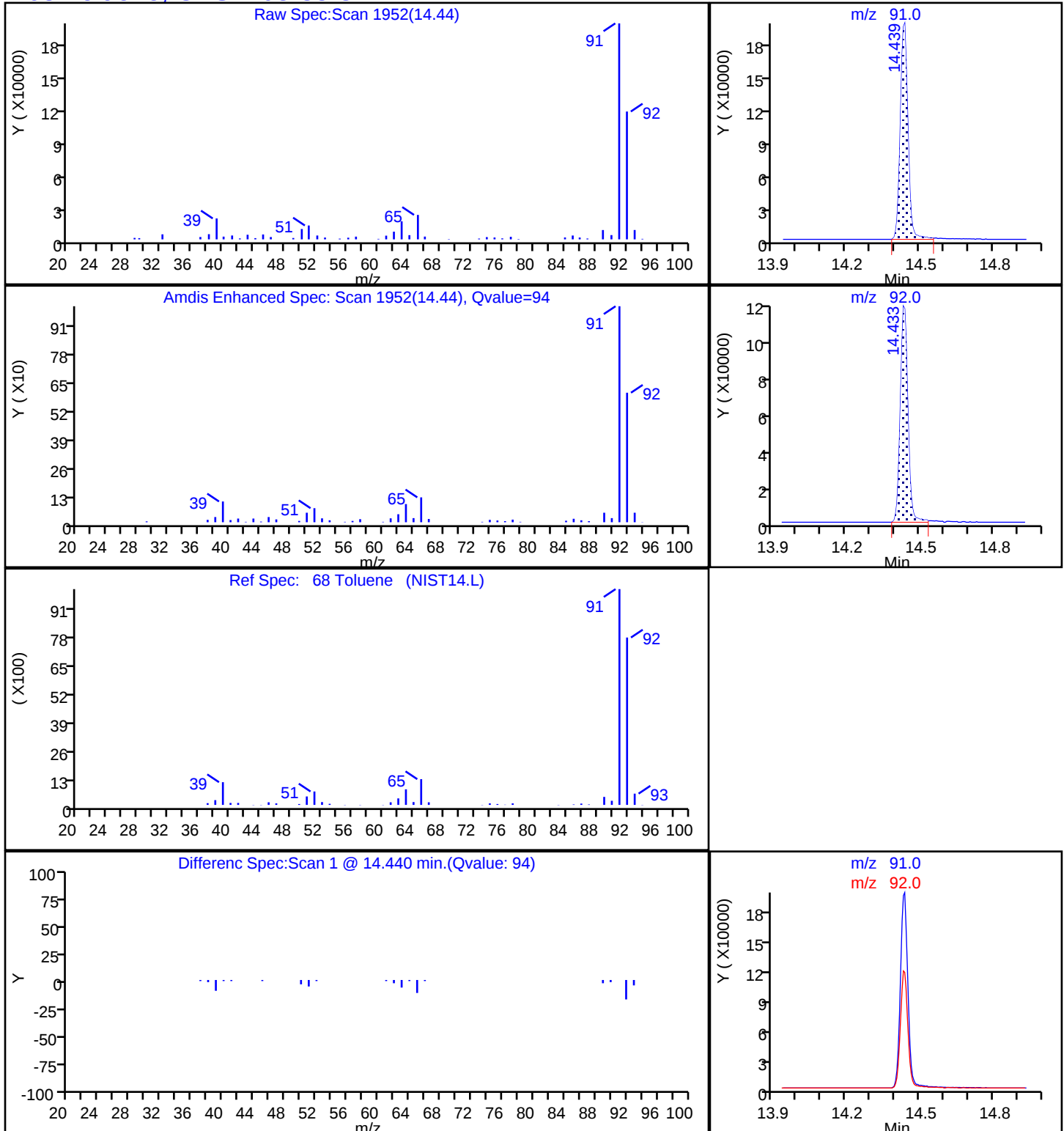
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

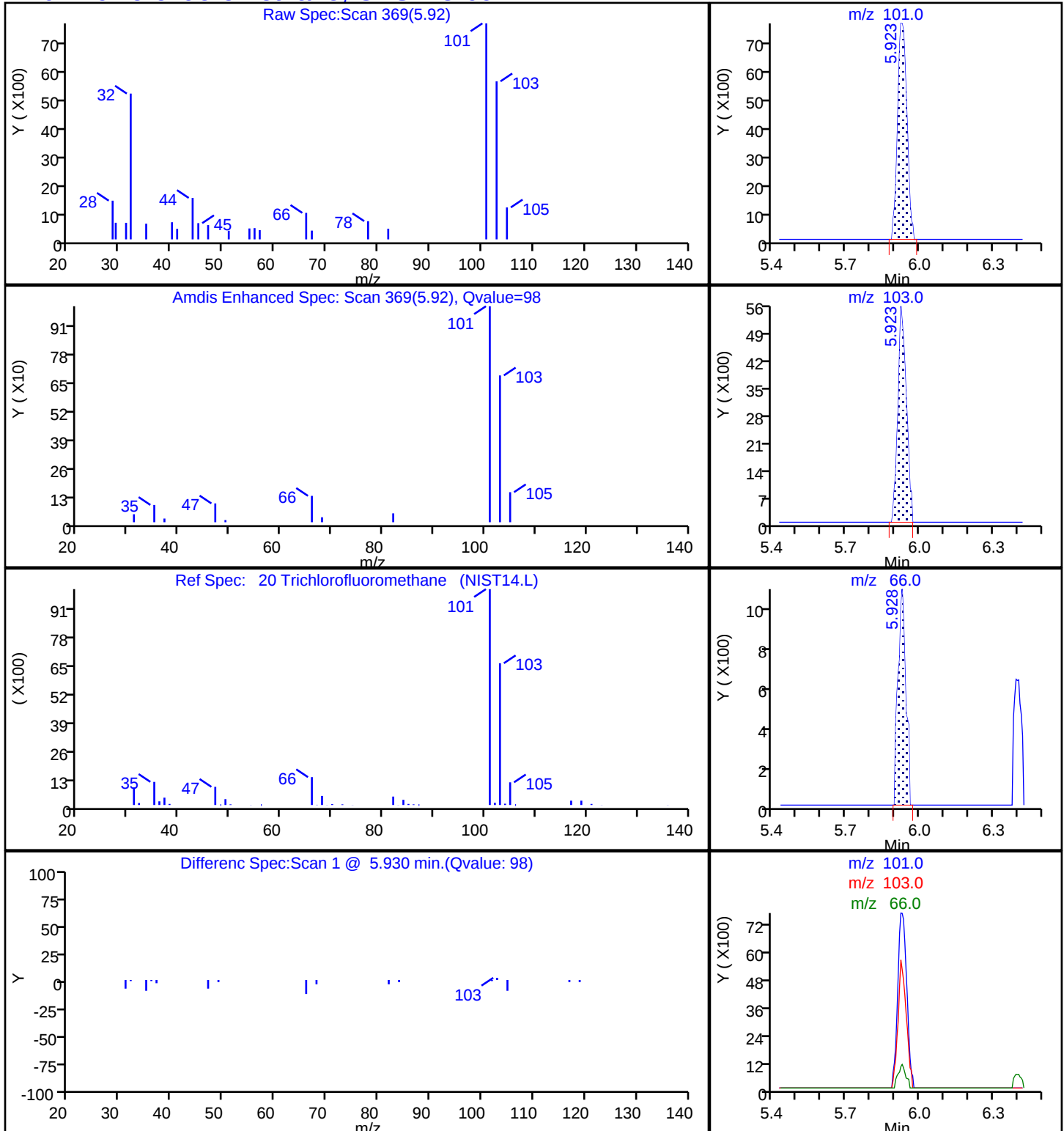
Dil. Factor: 1.0000

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

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4

Worklist Smp#: 14

Purge Vol: 500.000 mL

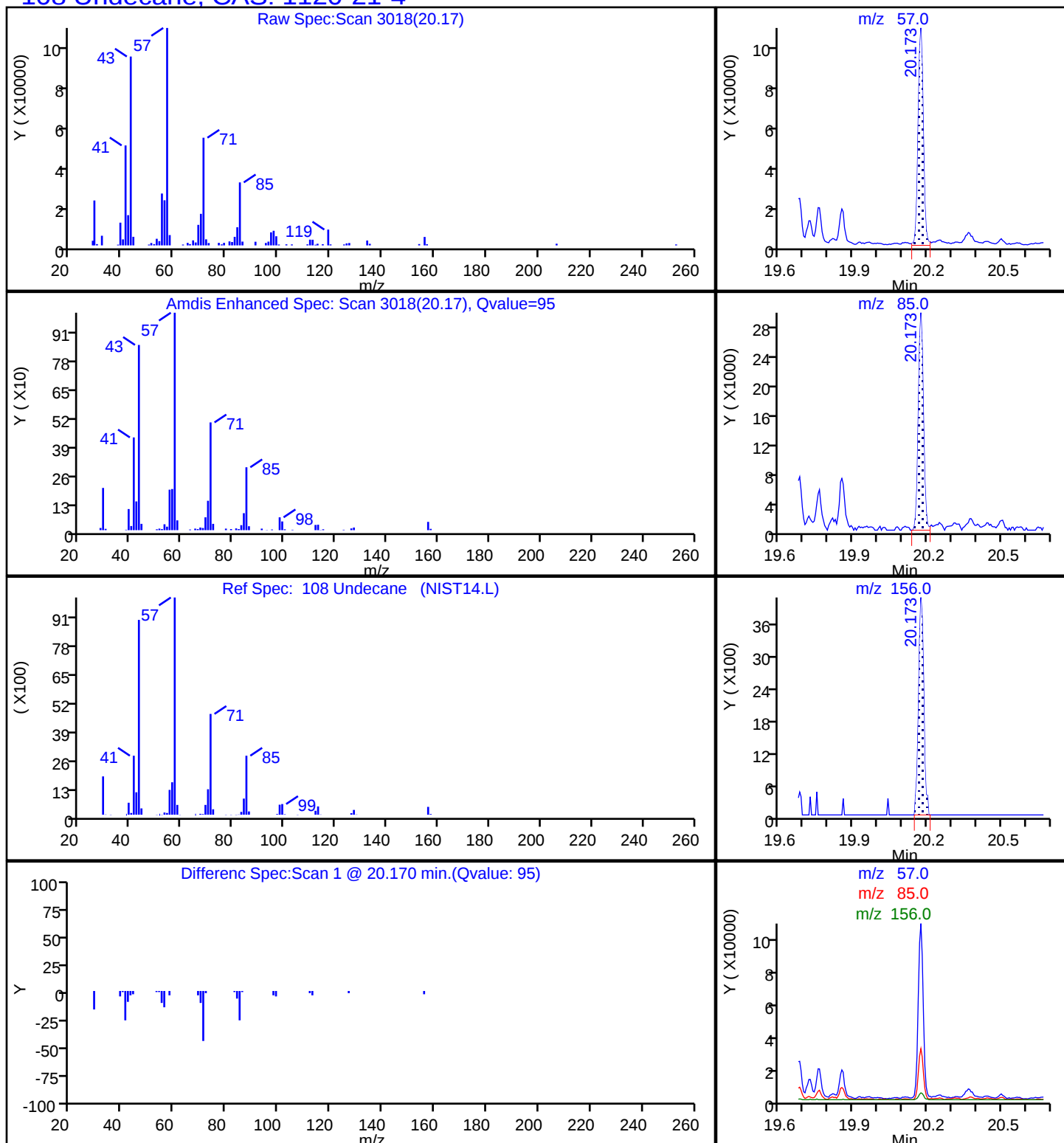
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

108 Undecane, CAS: 1120-21-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#:

4

Worklist Smp#: 14

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

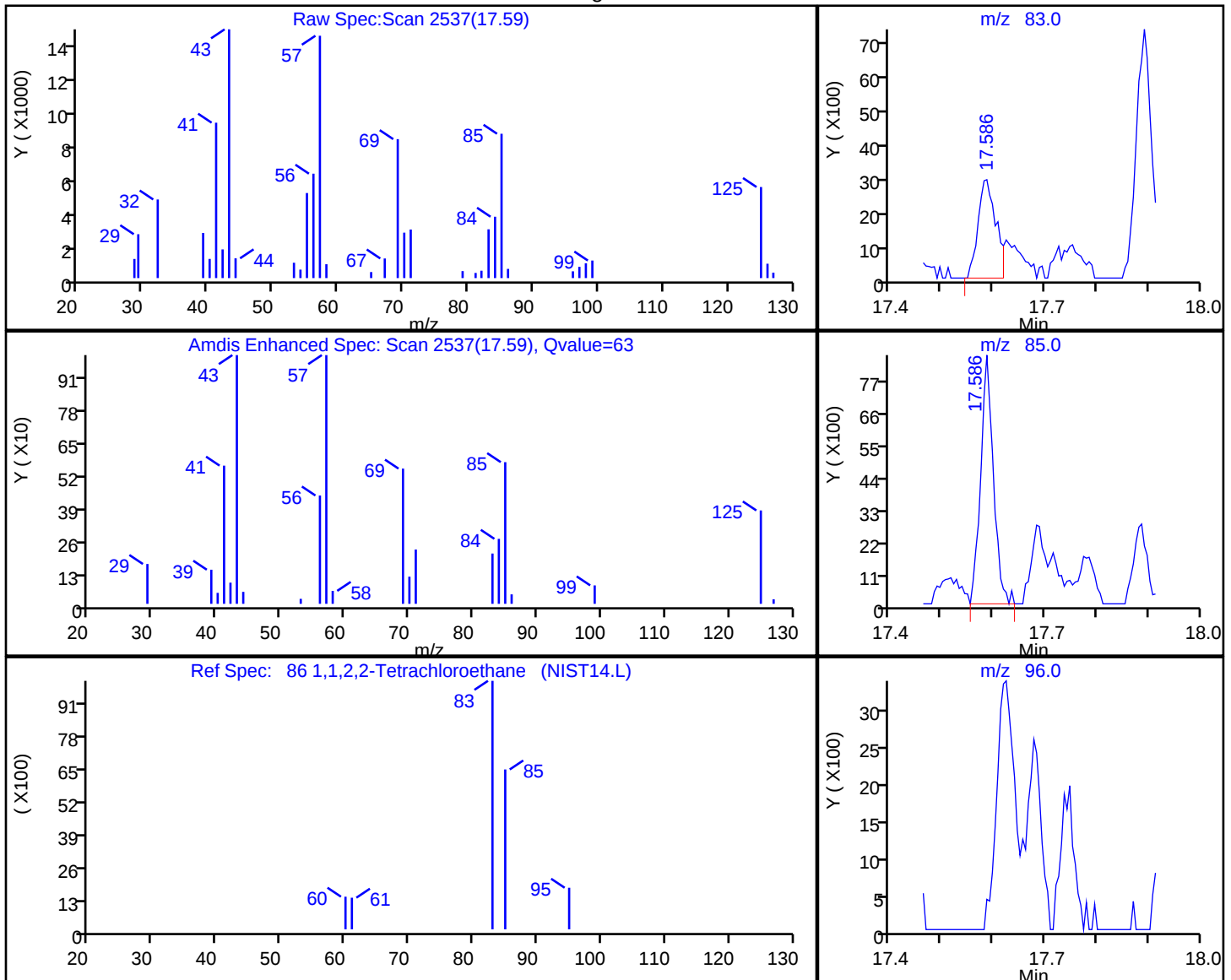
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

86 1,1,2,2-Tetrachloroethane, CAS: 79-34-5

Processing Results



RT	Mass	Response	Amount
17.59	83.00	6991	0.035777
17.59	85.00	14722	
17.69	96.00	0	

Reviewer: tajh, 17-Apr-2018 09:30:22

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

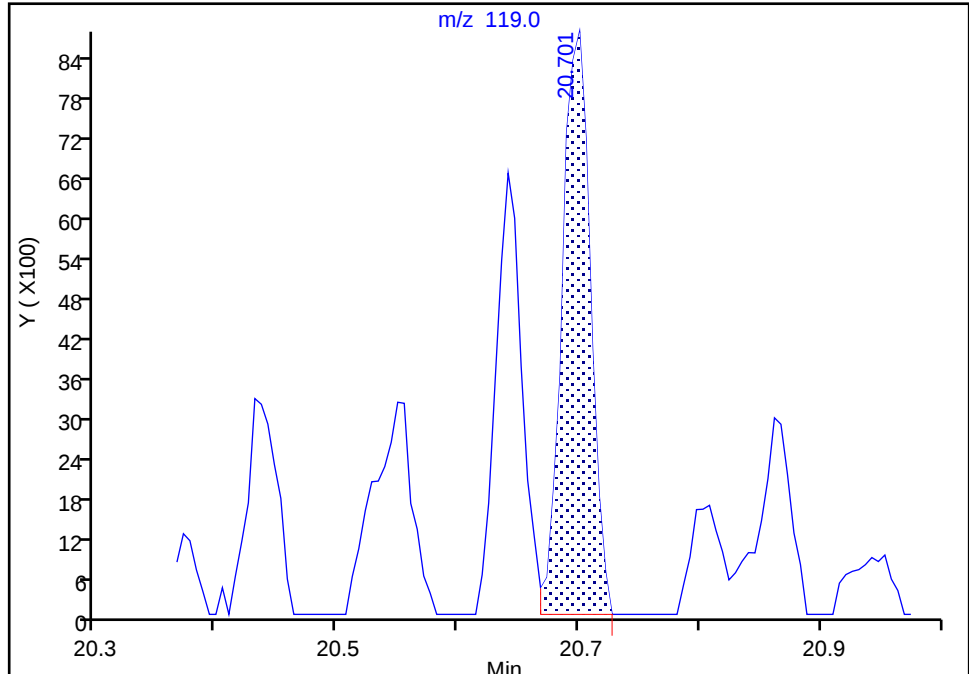
Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D
Injection Date: 16-Apr-2018 18:13:30 Instrument ID: MJ
Lims ID: 140-11270-A-4 Lab Sample ID: 140-11270-4
Client ID: CL-IA-2
Operator ID: 007126 ALS Bottle#: 4 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector: MS SCAN

111 1,2,4,5-Tetramethylbenzene, CAS: 95-93-2

Signal: 1

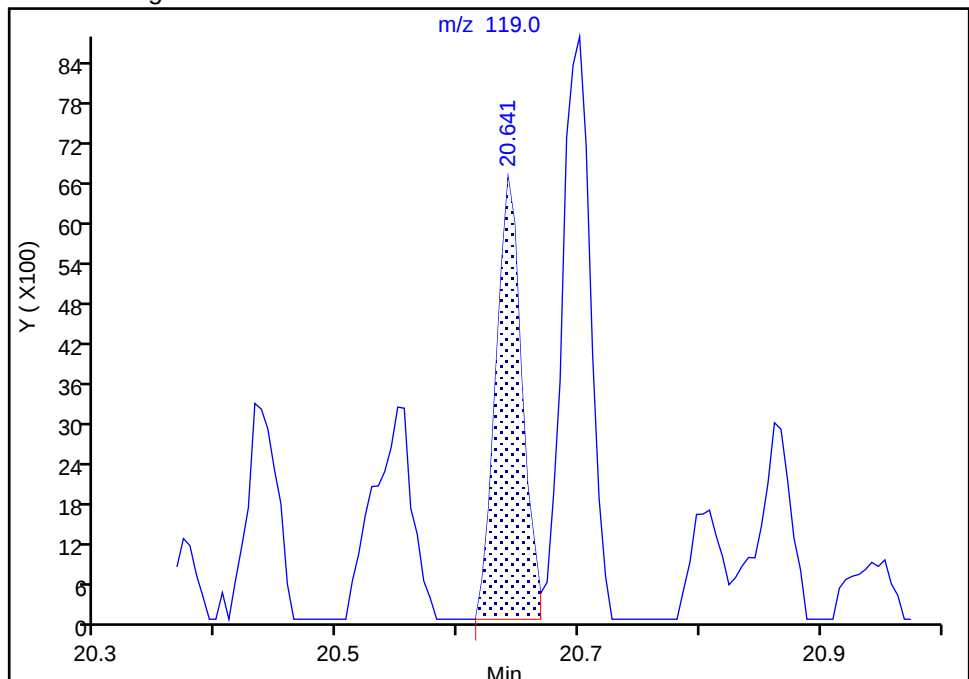
RT: 20.70
Area: 14357
Amount: 0.047594
Amount Units: ppb v/v

Processing Integration Results



RT: 20.64
Area: 10049
Amount: 0.033313
Amount Units: ppb v/v

Manual Integration Results



Reviewer: tajh, 17-Apr-2018 09:30:08
Audit Action: Assigned Compound ID

Audit Reason: Baseline

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#:

4

Worklist Smp#: 14

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

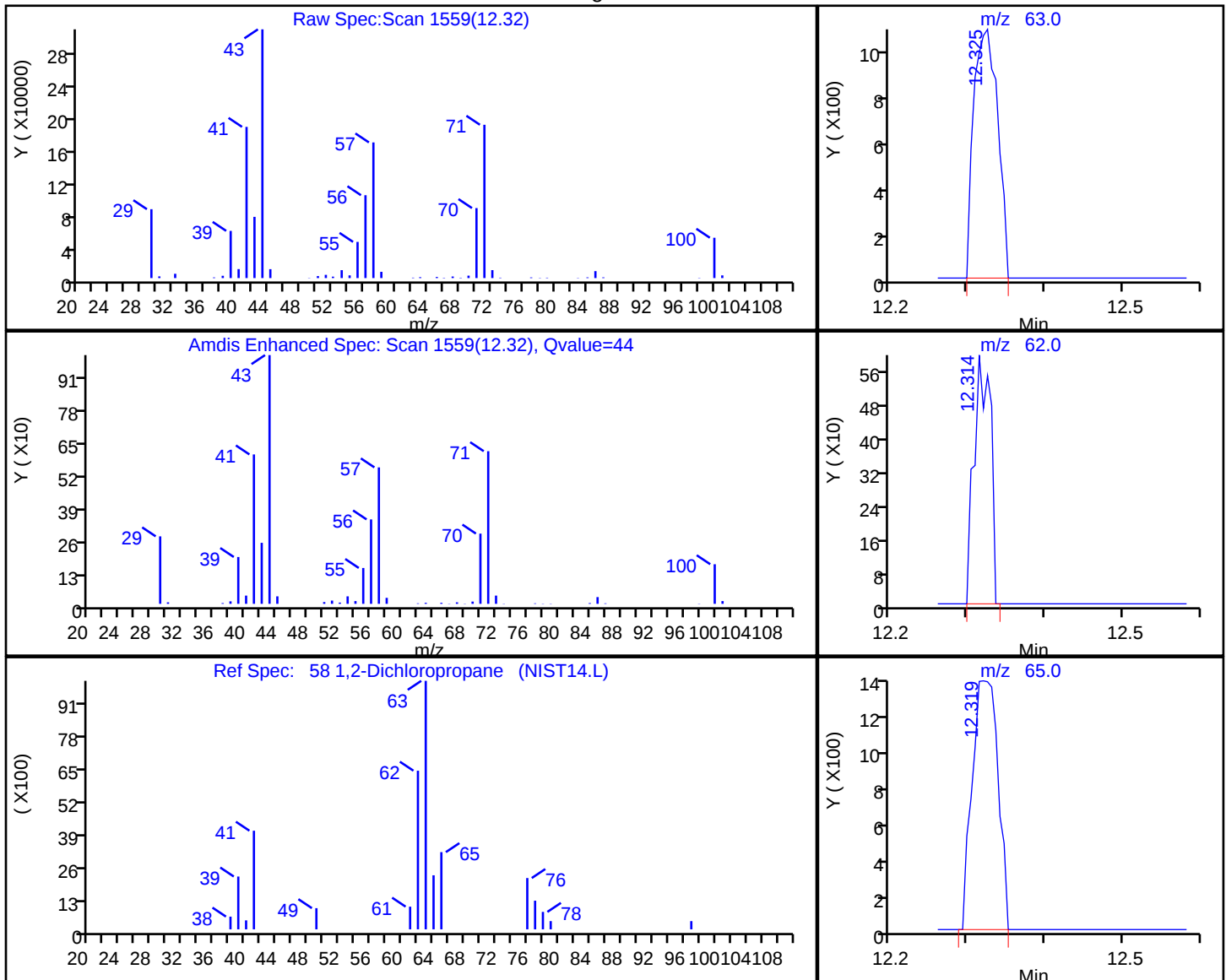
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

58 1,2-Dichloropropane, CAS: 78-87-5

Processing Results



RT	Mass	Response	Amount
12.32	63.00	2282	0.024012
12.31	62.00	877	
12.32	65.00	3085	

Reviewer: tajh, 17-Apr-2018 09:30:22

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4 Worklist Smp#: 14

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

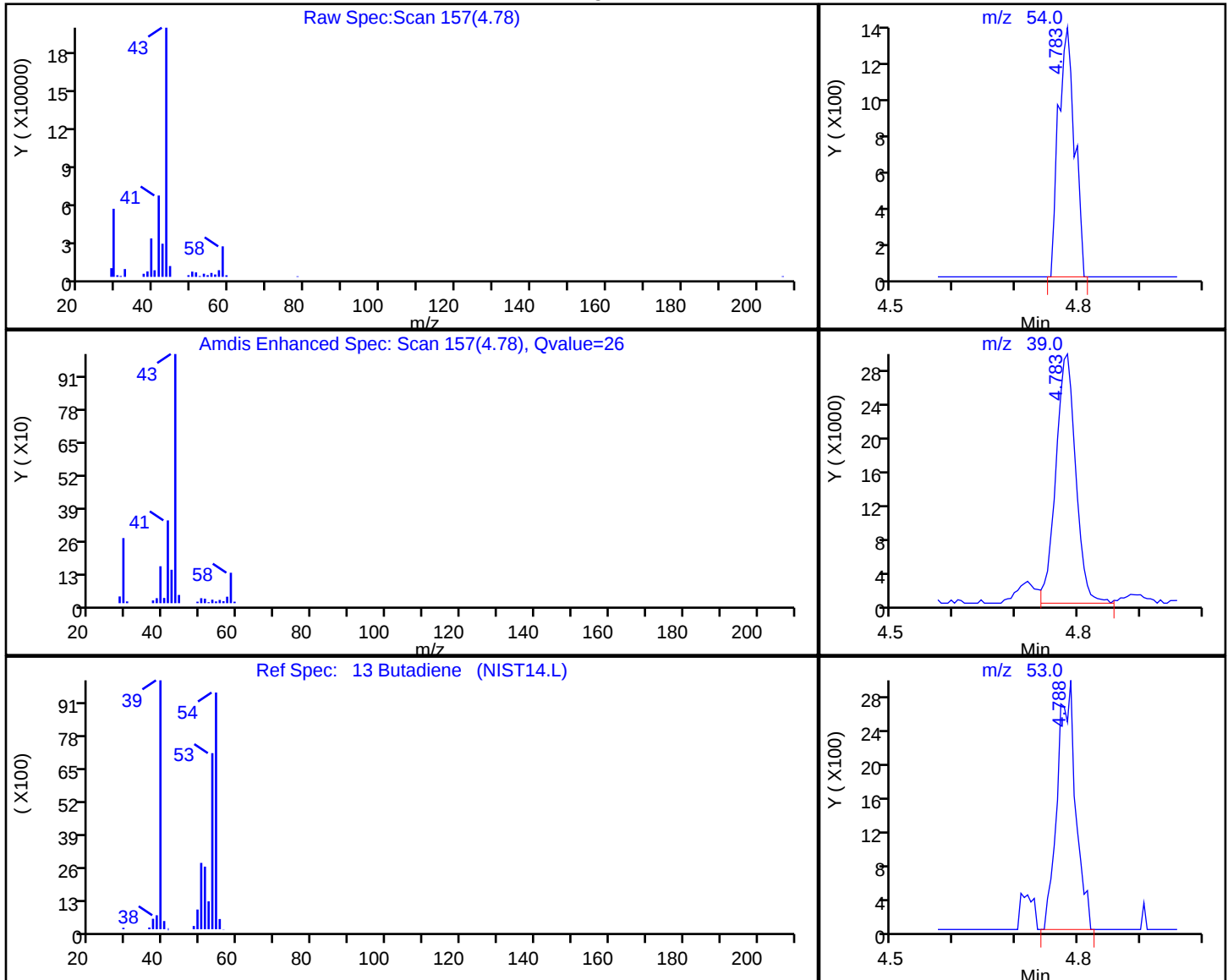
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

13 Butadiene, CAS: 106-99-0

Processing Results



RT	Mass	Response	Amount
4.78	54.00	2382	0.035119
4.78	39.00	66398	
4.79	53.00	5952	

Reviewer: tajh, 17-Apr-2018 09:30:22

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

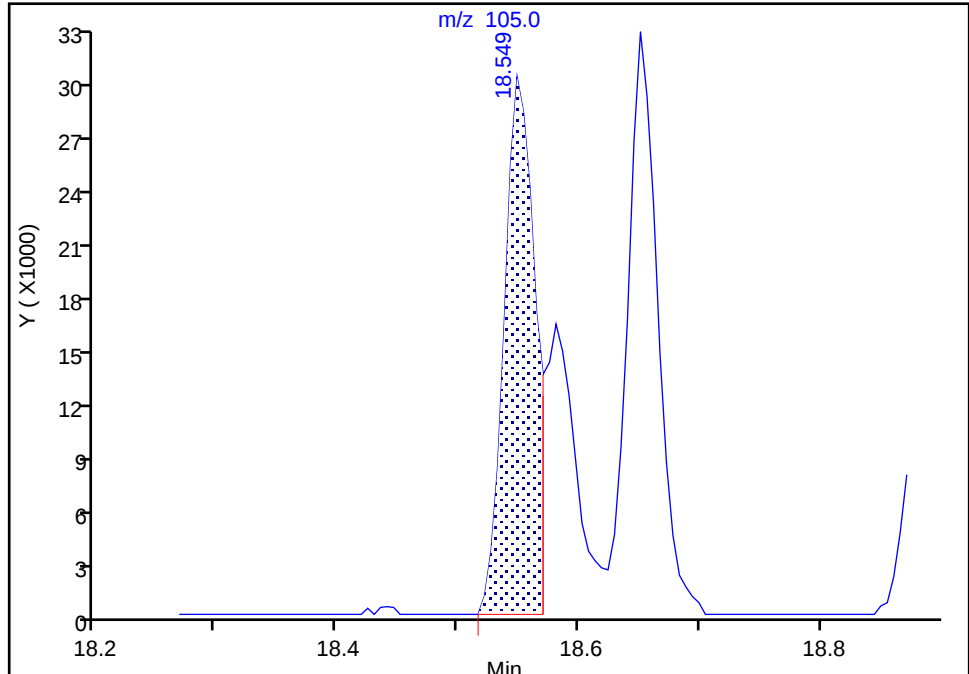
Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D
Injection Date: 16-Apr-2018 18:13:30 Instrument ID: MJ
Lims ID: 140-11270-A-4 Lab Sample ID: 140-11270-4
Client ID: CL-IA-2
Operator ID: 007126 ALS Bottle#: 4 Worklist Smp#: 14
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector: MS SCAN

91 4-Ethyltoluene, CAS: 622-96-8

Signal: 1

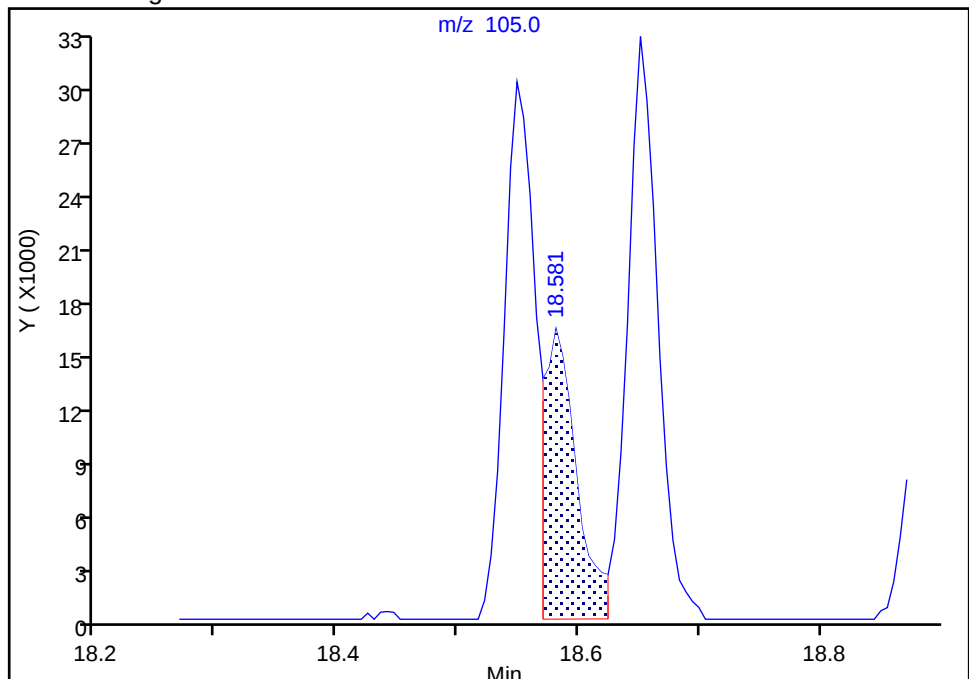
RT: 18.55
Area: 54383
Amount: 0.153095
Amount Units: ppb v/v

Processing Integration Results



RT: 18.58
Area: 31373
Amount: 0.088319
Amount Units: ppb v/v

Manual Integration Results



Reviewer: tajh, 17-Apr-2018 09:29:57
Audit Action: Manually Integrated

Audit Reason: Baseline
Page 256 of 617

04/25/2018

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#:

4

Worklist Smp#: 14

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

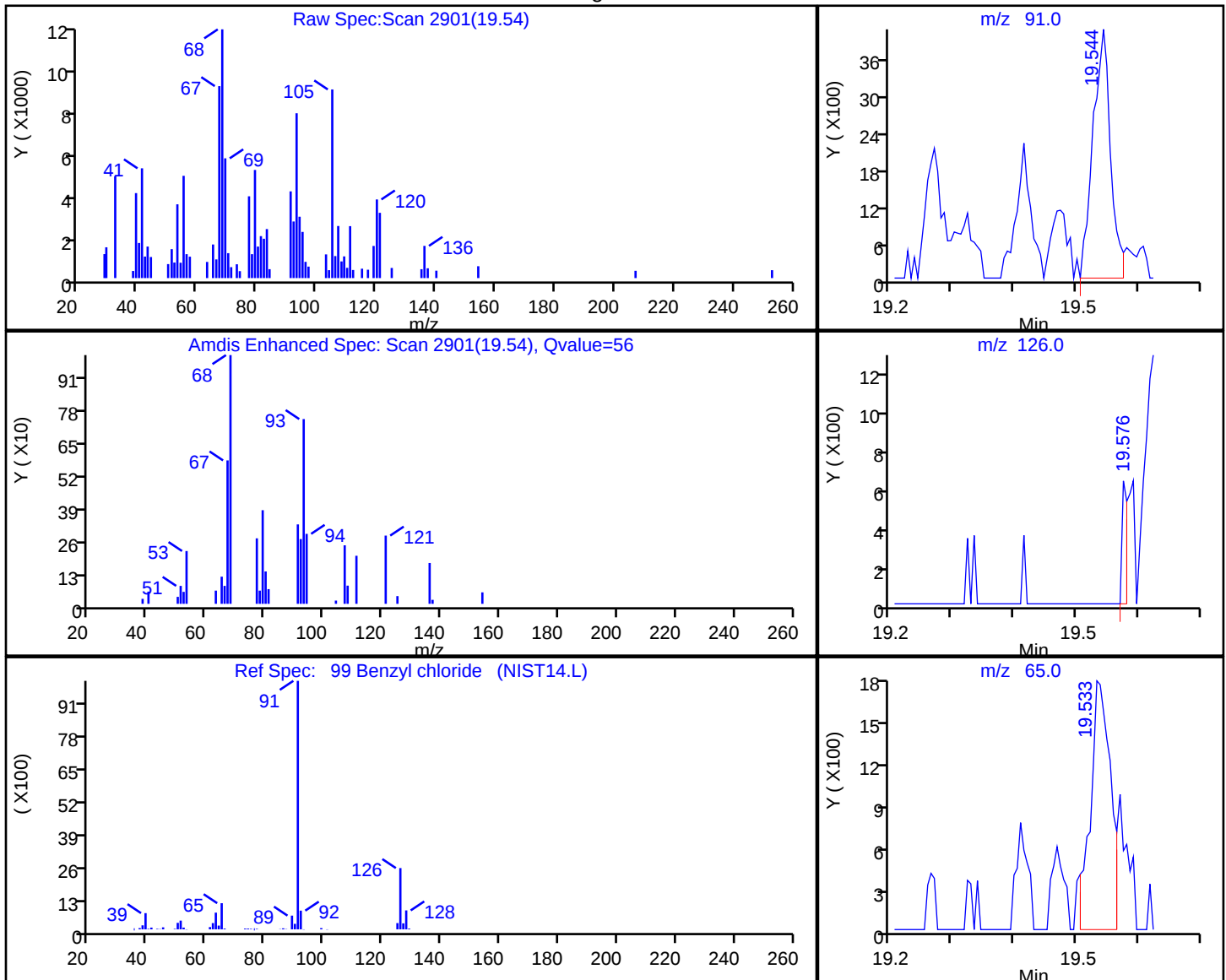
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

99 Benzyl chloride, CAS: 100-44-7

Processing Results



RT	Mass	Response	Amount
19.54	91.00	7971	0.033129
19.58	126.00	363	
19.53	65.00	4069	

Reviewer: tajh, 17-Apr-2018 09:30:22

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#: 4 Worklist Smp#: 14

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

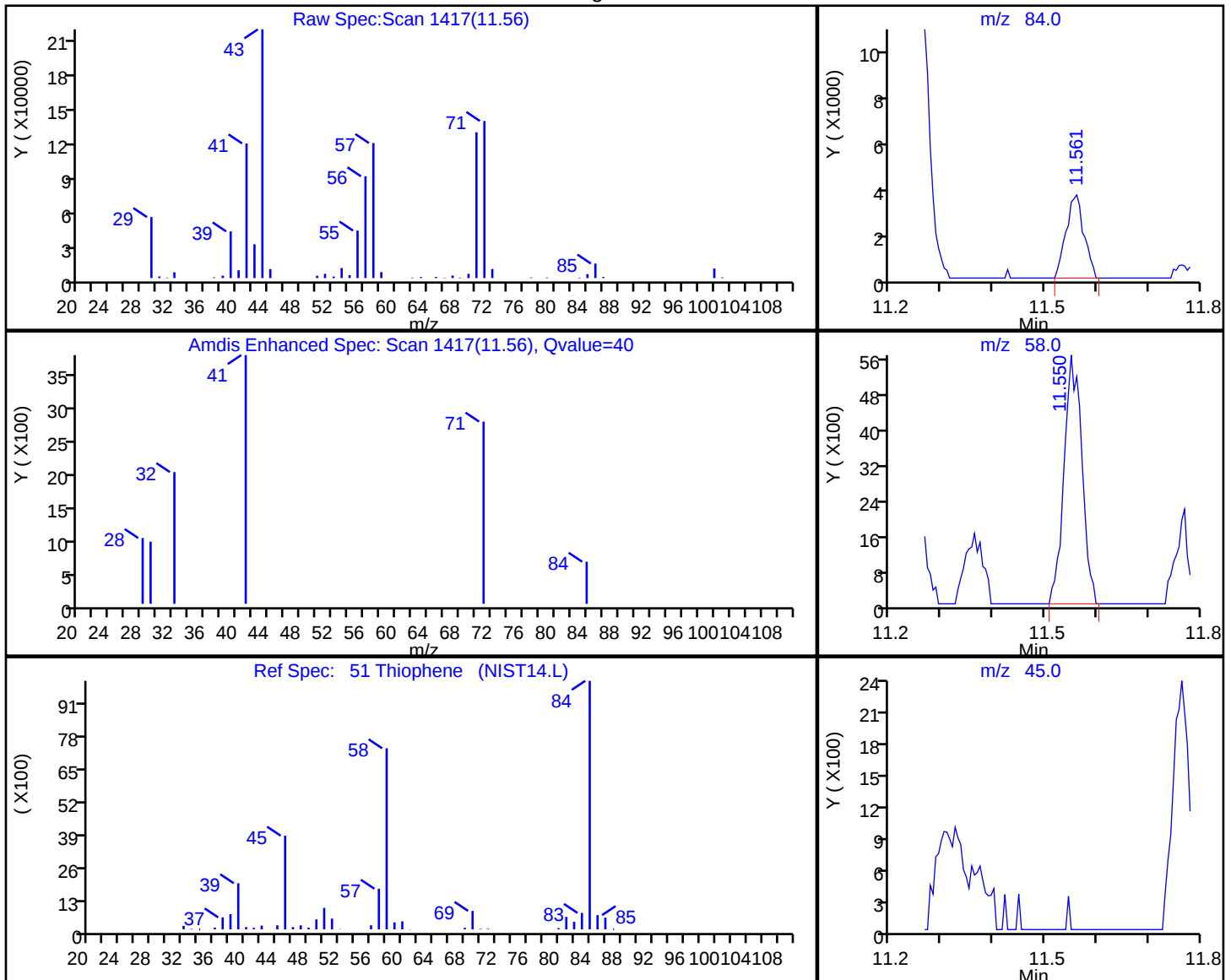
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

51 Thiophene, CAS: 110-02-1

Processing Results



RT	Mass	Response	Amount
11.56	84.00	8316	0.057969
11.55	58.00	13584	
11.52	45.00	0	

Reviewer: tajh, 17-Apr-2018 09:30:22

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P104.D

Injection Date: 16-Apr-2018 18:13:30

Instrument ID: MJ

Lims ID: 140-11270-A-4

Lab Sample ID: 140-11270-4

Client ID: CL-IA-2

Operator ID: 007126

ALS Bottle#:

4

Worklist Smp#: 14

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

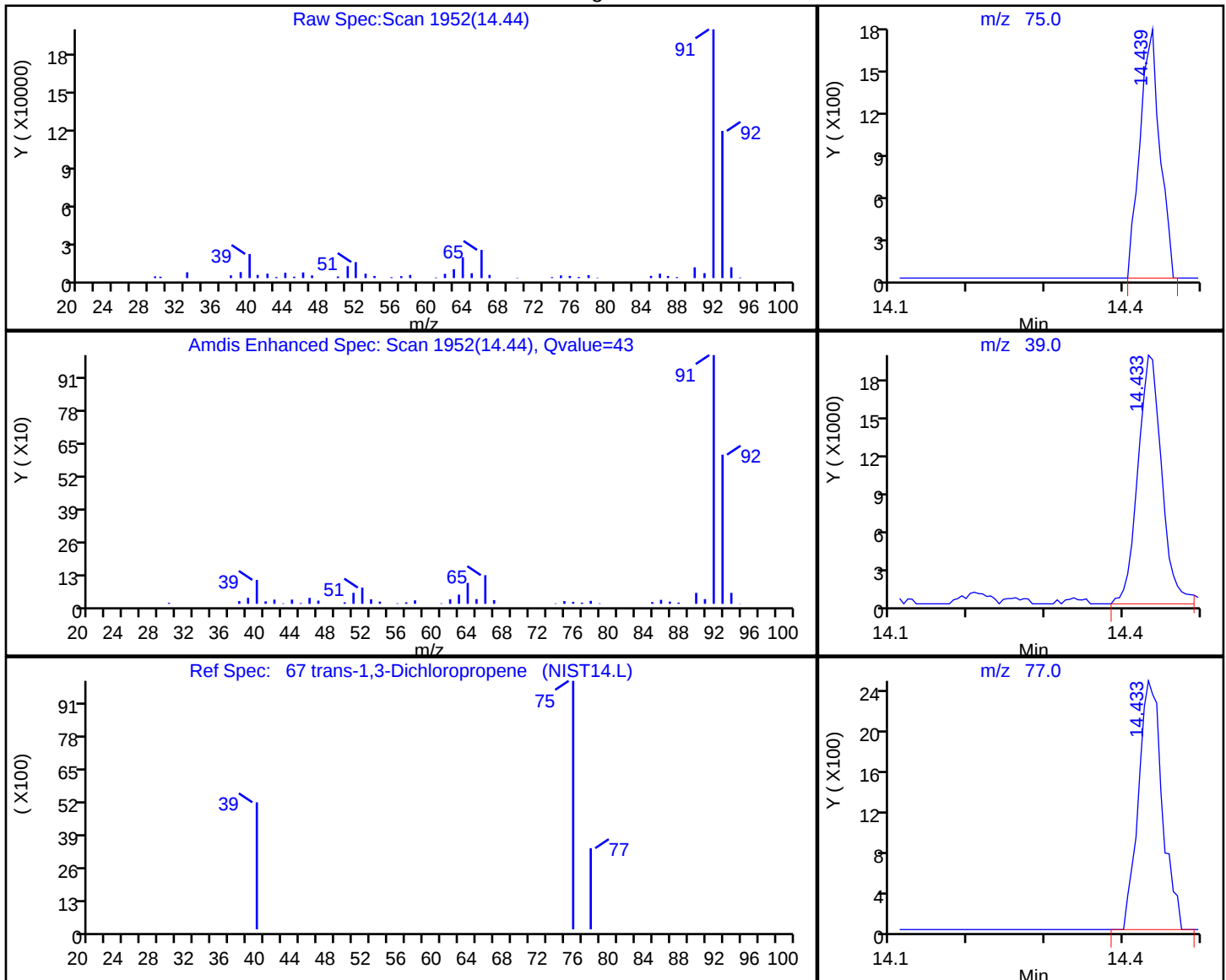
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

67 trans-1,3-Dichloropropene, CAS: 10061-02-6

Processing Results



RT	Mass	Response	Amount
14.44	75.00	3042	0.024135
14.43	39.00	41694	
14.43	77.00	5240	

Reviewer: tajh, 17-Apr-2018 09:30:22

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1

SDG No.: _____

Client Sample ID: FD-180410 Lab Sample ID: 140-11270-5

Matrix: Air Lab File ID: JD16P105.D

Analysis Method: TO 15 LL Date Collected: 04/10/2018 00:00

Sample wt/vol: 100 (mL) Date Analyzed: 04/16/2018 18:59

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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.40	0.060
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.40	0.12
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	0.077	J	0.40	0.060
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.40	0.11
75-34-3	1,1-Dichloroethane	98.96	ND		0.40	0.050
75-35-4	1,1-Dichloroethene	96.94	ND		0.20	0.070
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	0.28	J	0.40	0.18
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.40	0.20
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		0.40	0.090
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		0.40	0.065
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.40	0.14
78-87-5	1,2-Dichloropropane	112.99	ND		0.40	0.11
108-67-8	1,3,5-Trimethylbenzene	120.20	1.3		0.40	0.13
106-99-0	1,3-Butadiene	54.09	ND		0.80	0.13
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.40	0.13
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.40	0.13
123-91-1	1,4-Dioxane	88.11	ND		1.0	0.16
90-12-0	1-Methylnaphthalene	142.20	ND	*	5.0	1.9
540-84-1	2,2,4-Trimethylpentane	114.23	0.55	J	1.0	0.080
78-93-3	2-Butanone (MEK)	72.11	3.4		1.6	0.40
591-78-6	2-Hexanone	100.20	ND		1.0	0.12
91-57-6	2-Methylnaphthalene	142.20	ND	*	5.0	1.8
107-05-1	3-Chloropropene	76.53	ND		0.40	0.095
622-96-8	4-Ethyltoluene	120.20	0.51	J	0.80	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	0.51	J	1.0	0.39
67-64-1	Acetone	58.08	85		10	2.7
71-43-2	Benzene	78.11	0.61		0.40	0.12
100-44-7	Benzyl chloride	126.58	ND		0.80	0.16
75-27-4	Bromodichloromethane	163.83	ND		0.40	0.090
75-25-2	Bromoform	252.75	ND		0.40	0.095
74-83-9	Bromomethane	94.94	ND		0.40	0.065
106-97-8	Butane	58.12	19		0.80	0.37
75-15-0	Carbon disulfide	76.14	0.085	J	1.0	0.060

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: FD-180410 Lab Sample ID: 140-11270-5
 Matrix: Air Lab File ID: JD16P105.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 00:00
 Sample wt/vol: 100 (mL) Date Analyzed: 04/16/2018 18:59
 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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	0.091	J	0.16	0.075
108-90-7	Chlorobenzene	112.56	ND		0.40	0.10
75-00-3	Chloroethane	64.52	ND		0.40	0.070
67-66-3	Chloroform	119.38	ND		0.40	0.075
74-87-3	Chloromethane	50.49	1.0		1.0	0.32
156-59-2	cis-1,2-Dichloroethene	96.94	0.15	J	0.20	0.12
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.40	0.15
110-82-7	Cyclohexane	84.16	1.3		1.0	0.080
124-18-5	Decane	142.28	9.6		2.0	0.11
124-48-1	Dibromochloromethane	208.29	ND		0.40	0.085
75-71-8	Dichlorodifluoromethane	120.91	0.68		0.40	0.14
112-40-3	Dodecane	170.33	0.64	J	2.0	0.16
64-17-5	Ethanol	46.07	180		10	3.2
141-78-6	Ethyl acetate	88.11	ND		4.0	0.40
100-41-4	Ethylbenzene	106.17	0.57		0.40	0.14
142-82-5	Heptane	100.21	28		1.0	0.095
87-68-3	Hexachlorobutadiene	260.76	ND		0.40	0.25
110-54-3	Hexane	86.17	1.1		1.0	0.065
496-11-7	Indane	118.18	ND		0.40	0.17
95-13-6	Indene	116.16	ND		0.80	0.16
67-63-0	Isopropyl alcohol	60.10	2.9	J	4.0	0.47
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.80	0.34
75-09-2	Methylene Chloride	84.93	1.5		1.0	0.65
179601-23-1	m-Xylene & p-Xylene	106.17	2.6		0.40	0.27
111-84-2	Nonane	128.26	9.0		1.0	0.085
111-65-9	Octane	114.23	0.89		0.80	0.070
95-47-6	o-Xylene	106.17	0.99		0.40	0.12
109-66-0	Pentane	72.15	3.6		2.0	0.80
100-42-5	Styrene	104.15	0.29	J	0.40	0.12
75-65-0	tert-Butyl alcohol	74.12	0.22	J	1.6	0.075
127-18-4	Tetrachloroethene	165.83	5.0		0.40	0.080
109-99-9	Tetrahydrofuran	72.11	0.61	J	2.0	0.13
110-02-1	Thiophene	84.14	ND		0.40	0.15
108-88-3	Toluene	92.14	8.7		0.60	0.60
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.40	0.10

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: FD-180410 Lab Sample ID: 140-11270-5
 Matrix: Air Lab File ID: JD16P105.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 00:00
 Sample wt/vol: 100 (mL) Date Analyzed: 04/16/2018 18:59
 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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.40	0.095
79-01-6	Trichloroethene	131.39	ND		0.18	0.070
75-69-4	Trichlorofluoromethane	137.37	0.39	J	0.40	0.050
1120-21-4	Undecane	156.31	5.0		2.0	0.13
593-60-2	Vinyl bromide	106.96	ND		0.40	0.070
75-01-4	Vinyl chloride	62.50	ND		0.20	0.15

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.: 140-11270-1

SDG No.: _____

Client Sample ID: FD-180410 Lab Sample ID: 140-11270-5

Matrix: Air Lab File ID: JD16P105.D

Analysis Method: TO 15 LL Date Collected: 04/10/2018 00:00

Sample wt/vol: 100 (mL) Date Analyzed: 04/16/2018 18:59

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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	ND		2.2	0.33
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		2.7	0.82
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	0.59	J	3.1	0.46
79-00-5	1,1,2-Trichloroethane	133.41	ND		2.2	0.57
75-34-3	1,1-Dichloroethane	98.96	ND		1.6	0.20
75-35-4	1,1-Dichloroethene	96.94	ND		0.79	0.28
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	1.6	J	2.2	0.96
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		3.0	1.4
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		3.1	0.69
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		2.8	0.45
95-50-1	1,2-Dichlorobenzene	147.00	ND		2.4	0.84
78-87-5	1,2-Dichloropropane	112.99	ND		1.8	0.49
108-67-8	1,3,5-Trimethylbenzene	120.20	6.3		2.0	0.64
106-99-0	1,3-Butadiene	54.09	ND		1.8	0.28
541-73-1	1,3-Dichlorobenzene	147.00	ND		2.4	0.78
106-46-7	1,4-Dichlorobenzene	147.00	ND		2.4	0.78
123-91-1	1,4-Dioxane	88.11	ND		3.6	0.58
90-12-0	1-Methylnaphthalene	142.20	ND	*	29	11
540-84-1	2,2,4-Trimethylpentane	114.23	2.6	J	4.7	0.37
78-93-3	2-Butanone (MEK)	72.11	10		4.7	1.2
591-78-6	2-Hexanone	100.20	ND		4.1	0.47
91-57-6	2-Methylnaphthalene	142.20	ND	*	29	10
107-05-1	3-Chloropropene	76.53	ND		1.3	0.30
622-96-8	4-Ethyltoluene	120.20	2.5	J	3.9	0.64
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	2.1	J	4.1	1.6
67-64-1	Acetone	58.08	200		24	6.4
71-43-2	Benzene	78.11	2.0		1.3	0.37
100-44-7	Benzyl chloride	126.58	ND		4.1	0.80
75-27-4	Bromodichloromethane	163.83	ND		2.7	0.60
75-25-2	Bromoform	252.75	ND		4.1	0.98
74-83-9	Bromomethane	94.94	ND		1.6	0.25
106-97-8	Butane	58.12	46		1.9	0.87
75-15-0	Carbon disulfide	76.14	0.26	J	3.1	0.19

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: FD-180410 Lab Sample ID: 140-11270-5
 Matrix: Air Lab File ID: JD16P105.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 00:00
 Sample wt/vol: 100 (mL) Date Analyzed: 04/16/2018 18:59
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	0.57	J	1.0	0.47
108-90-7	Chlorobenzene	112.56	ND		1.8	0.46
75-00-3	Chloroethane	64.52	ND		1.1	0.18
67-66-3	Chloroform	119.38	ND		2.0	0.37
74-87-3	Chloromethane	50.49	2.1		2.1	0.66
156-59-2	cis-1,2-Dichloroethene	96.94	0.59	J	0.79	0.48
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		1.8	0.66
110-82-7	Cyclohexane	84.16	4.5		3.4	0.28
124-18-5	Decane	142.28	56		12	0.64
124-48-1	Dibromochloromethane	208.29	ND		3.4	0.72
75-71-8	Dichlorodifluoromethane	120.91	3.4		2.0	0.67
112-40-3	Dodecane	170.33	4.4	J	14	1.1
64-17-5	Ethanol	46.07	340		19	6.0
141-78-6	Ethyl acetate	88.11	ND		14	1.4
100-41-4	Ethylbenzene	106.17	2.5		1.7	0.59
142-82-5	Heptane	100.21	110		4.1	0.39
87-68-3	Hexachlorobutadiene	260.76	ND		4.3	2.6
110-54-3	Hexane	86.17	3.7		3.5	0.23
496-11-7	Indane	118.18	ND		1.9	0.80
95-13-6	Indene	116.16	ND		3.8	0.76
67-63-0	Isopropyl alcohol	60.10	7.2	J	9.8	1.2
1634-04-4	Methyl tert-butyl ether	88.15	ND		2.9	1.2
75-09-2	Methylene Chloride	84.93	5.1		3.5	2.3
179601-23-1	m-Xylene & p-Xylene	106.17	11		1.7	1.2
111-84-2	Nonane	128.26	47		5.2	0.45
111-65-9	Octane	114.23	4.2		3.7	0.33
95-47-6	o-Xylene	106.17	4.3		1.7	0.52
109-66-0	Pentane	72.15	11		5.9	2.4
100-42-5	Styrene	104.15	1.2	J	1.7	0.49
75-65-0	tert-Butyl alcohol	74.12	0.68	J	4.9	0.23
127-18-4	Tetrachloroethene	165.83	34		2.7	0.54
109-99-9	Tetrahydrofuran	72.11	1.8	J	5.9	0.37
110-02-1	Thiophene	84.14	ND		1.4	0.52
108-88-3	Toluene	92.14	33		2.3	2.3
156-60-5	trans-1,2-Dichloroethene	96.94	ND		1.6	0.40

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: FD-180410 Lab Sample ID: 140-11270-5
 Matrix: Air Lab File ID: JD16P105.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 00:00
 Sample wt/vol: 100 (mL) Date Analyzed: 04/16/2018 18:59
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		1.8	0.43
79-01-6	Trichloroethene	131.39	ND		0.97	0.38
75-69-4	Trichlorofluoromethane	137.37	2.2	J	2.2	0.28
1120-21-4	Undecane	156.31	32		13	0.80
593-60-2	Vinyl bromide	106.96	ND		1.7	0.31
75-01-4	Vinyl chloride	62.50	ND		0.51	0.37

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\20180412-7901.b\JD16P105.D
 Lims ID: 140-11270-A-5
 Client ID: FD-180410
 Sample Type: Client
 Inject. Date: 16-Apr-2018 18:59:30 ALS Bottle#: 5 Worklist Smp#: 15
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007901-015
 Misc. Info.: 140-11270-a-5
 Operator ID: 007126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 18-Apr-2018 15:46:56 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK011

First Level Reviewer: liul

Date: 18-Apr-2018 15:46:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.667	9.662	0.005	89	250709	4.00	
* 2 1,4-Difluorobenzene	114	11.765	11.765	0.000	95	1389228	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.370	16.364	0.006	87	1270458	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.973	17.973	0.000	96	959378	4.18	
8 Dichlorodifluoromethane	85	4.282	4.266	0.016	99	30591	0.1360	
9 Chloromethane	52	4.492	4.476	0.016	97	5296	0.2012	
14 Butane	43	4.782	4.767	0.016	94	485423	3.86	
17 Ethanol	31	5.449	5.412	0.037	95	1091926	36.0	
20 Trichlorofluoromethane	101	5.933	5.918	0.016	98	16805	0.0773	
22 Acetone	58	6.063	6.058	0.006	98	483592	16.9	
24 Pentane	72	6.165	6.155	0.011	99	9512	0.7170	
25 Isopropyl alcohol	45	6.240	6.171	0.070	97	48008	0.5867	
30 2-Methyl-2-propanol	59	6.939	6.811	0.129	69	7674	0.0448	
29 1,1,2-Trichloro-1,2,2-trif	101	6.870	6.854	0.016	83	2641	0.0154	
32 Methylene Chloride	84	7.058	7.042	0.016	94	26259	0.2924	
33 Carbon disulfide	76	7.230	7.220	0.011	90	4085	0.0170	
40 2-Butanone (MEK)	72	8.898	8.887	0.011	93	21880	0.6827	
39 Hexane	56	8.908	8.898	0.010	56	14211	0.2107	
42 cis-1,2-Dichloroethene	96	9.333	9.323	0.010	90	2539	0.0300	
46 Tetrahydrofuran	42	10.124	10.087	0.037	87	9235	0.1215	
49 Cyclohexane	69	11.248	11.260	-0.017	47	10745	0.2641	a
50 Benzene	78	11.265	11.260	0.000	96	30132	0.1222	
52 Carbon tetrachloride	117	11.286	11.276	0.005	80	3403	0.0183	
56 Isooctane	57	11.980	11.964	0.011	90	43639	0.1104	
57 n-Heptane	71	12.324	12.314	0.005	90	477676	5.51	
65 4-Methyl-2-pentanone (MIBK	43	13.610	13.578	0.027	94	13042	0.1024	
68 Toluene	91	14.433	14.434	0.000	93	468453	1.75	
73 n-Octane	85	15.079	15.079	0.000	90	16601	0.1783	
76 Tetrachloroethene	129	15.552	15.553	0.000	95	106728	1.00	
79 Ethylbenzene	91	16.692	16.688	0.005	96	37875	0.1140	
81 m-Xylene & p-Xylene	91	16.843	16.849	-0.006	100	129463	0.5204	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
82 n-Nonane	57	17.236	17.231	0.006	91	325919	1.80	
83 Styrene	104	17.311	17.312	0.000	96	11278	0.0585	
85 o-Xylene	91	17.370	17.371	0.000	98	52266	0.1980	
91 4-Ethyltoluene	105	18.586	18.587	0.000	98	35383	0.1020	Ma
92 1,3,5-Trimethylbenzene	120	18.651	18.651	0.000	92	37137	0.2560	
94 n-Decane	57	18.909	18.910	0.000	90	413672	1.93	
108 Undecane	57	20.173	20.174	0.000	96	220439	0.99	
111 1,2,4,5-Tetramethylbenzene	119	20.641	20.642	0.000	96	16688	0.0567	
114 Dodecane	57	21.254	21.255	0.000	96	26882	0.1273	

QC Flag Legend

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Operator ID: 007126

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Worklist Smp#: 15

Client ID: FD-180410

Purge Vol: 500.000 mL

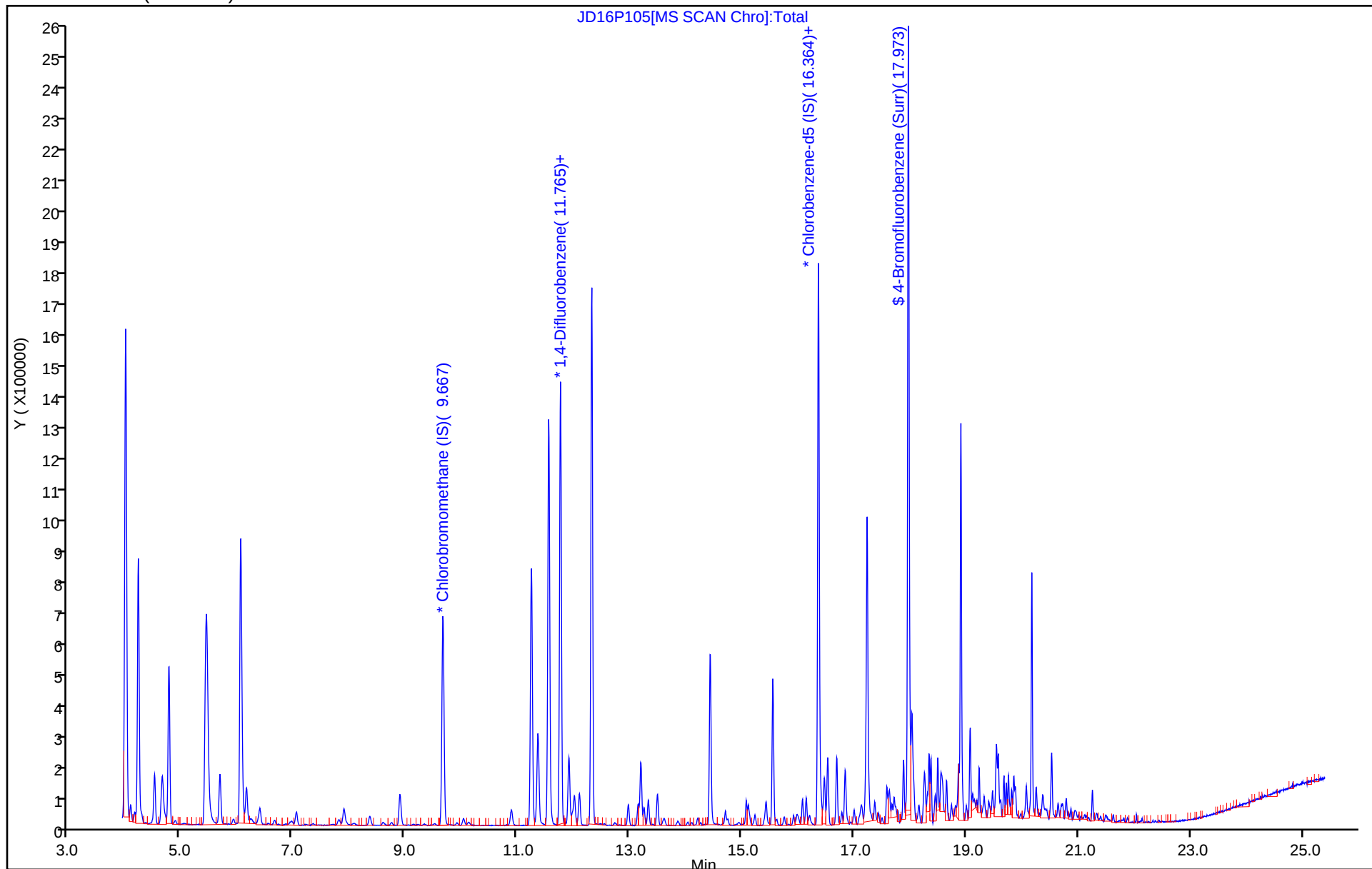
Dil. Factor: 1.0000

ALS Bottle#: 5

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D
Lims ID: 140-11270-A-5
Client ID: FD-180410
Sample Type: Client
Inject. Date: 16-Apr-2018 18:59:30 ALS Bottle#: 5 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0007901-015
Misc. Info.: 140-11270-a-5
Operator ID: 007126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 18-Apr-2018 15:46:56 Calib Date: 15-Feb-2018 22:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK011

First Level Reviewer: liul

Date: 18-Apr-2018 15:46:56

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.18	104.42

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

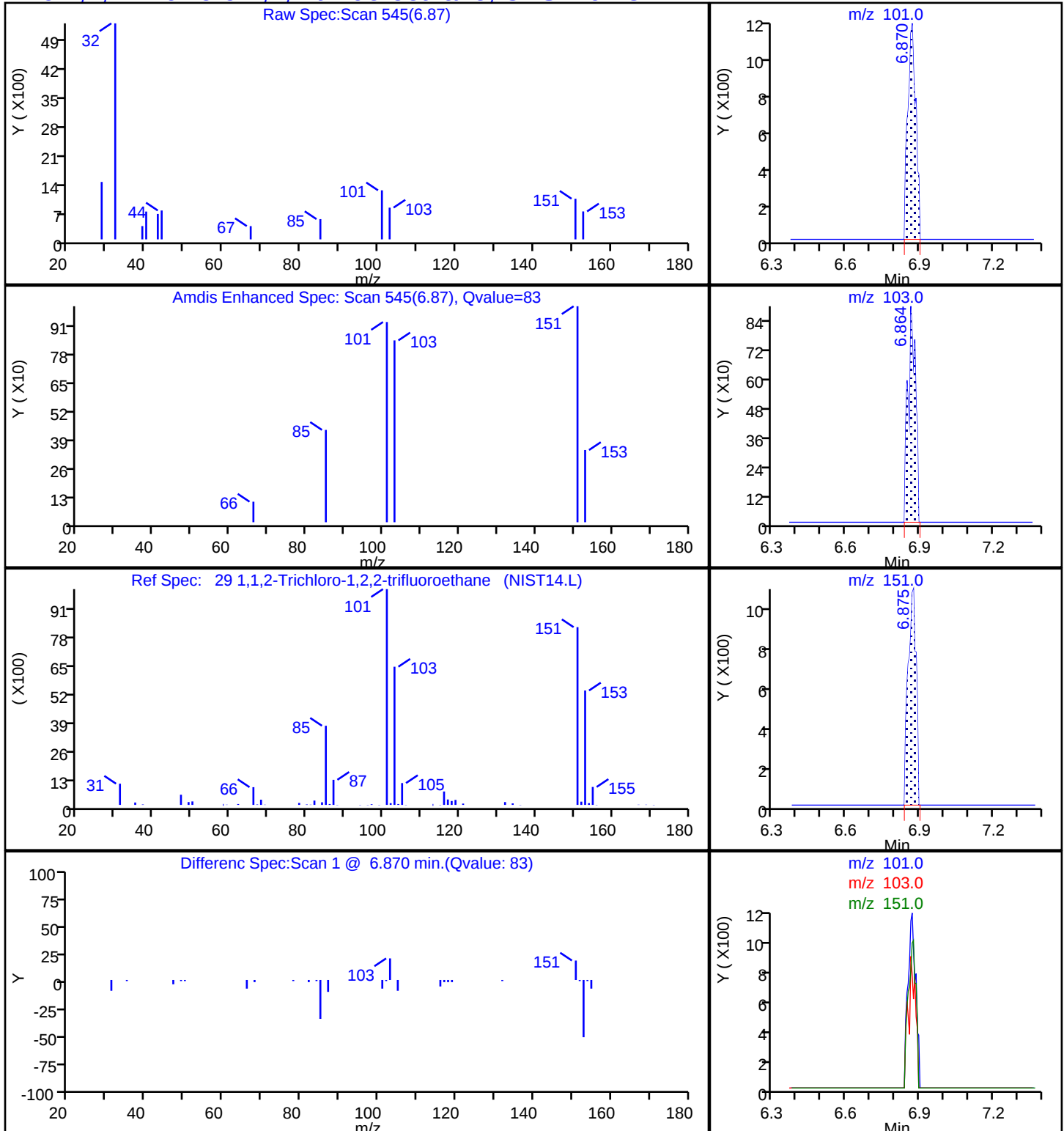
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

29 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1

TestAmerica Knoxville

Data File: \\ChromNA\\Knoxville\\ChromData\\MJ\\20180412-7901.b\\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

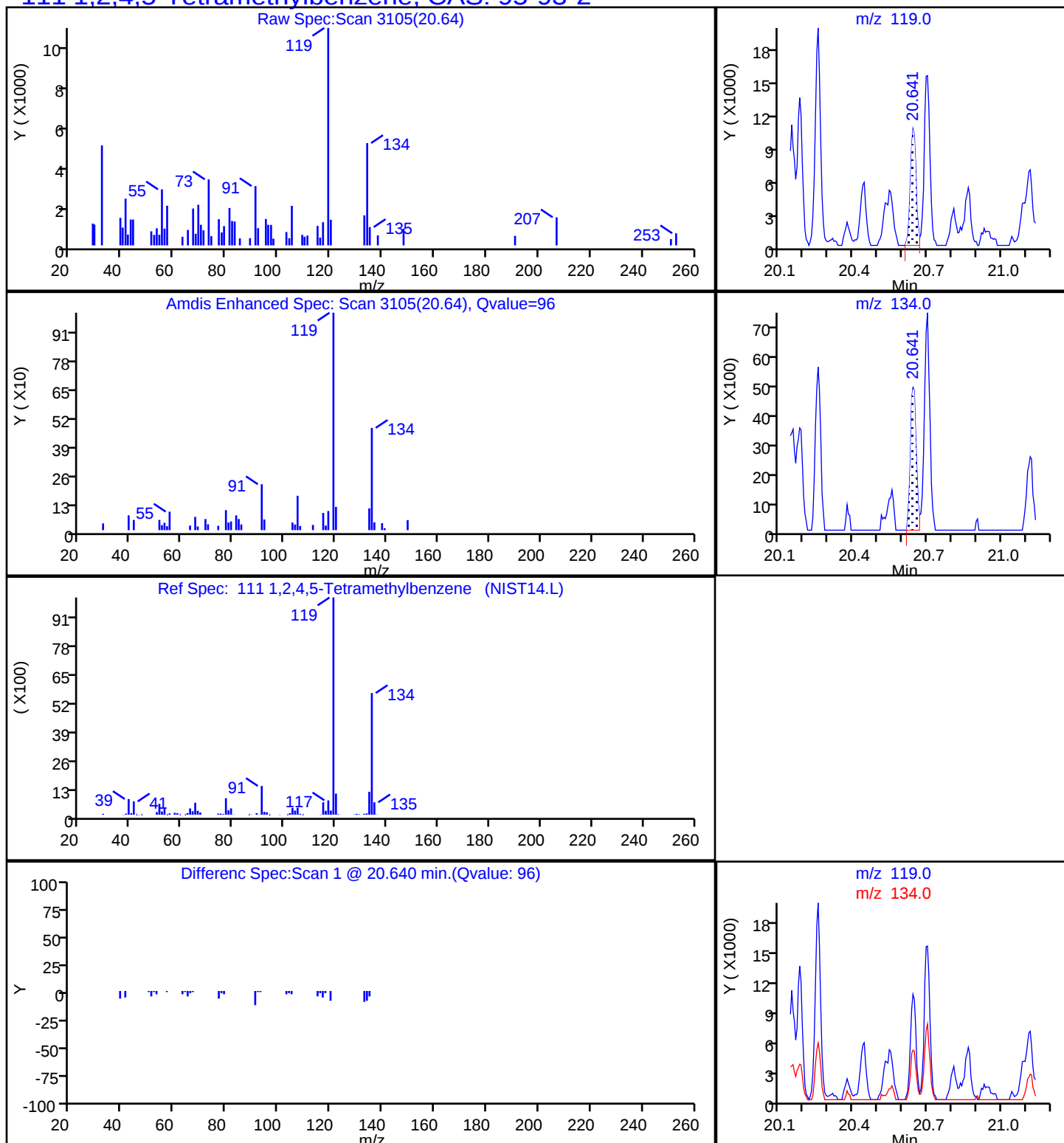
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

111 1,2,4,5-Tetramethylbenzene, CAS: 95-93-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

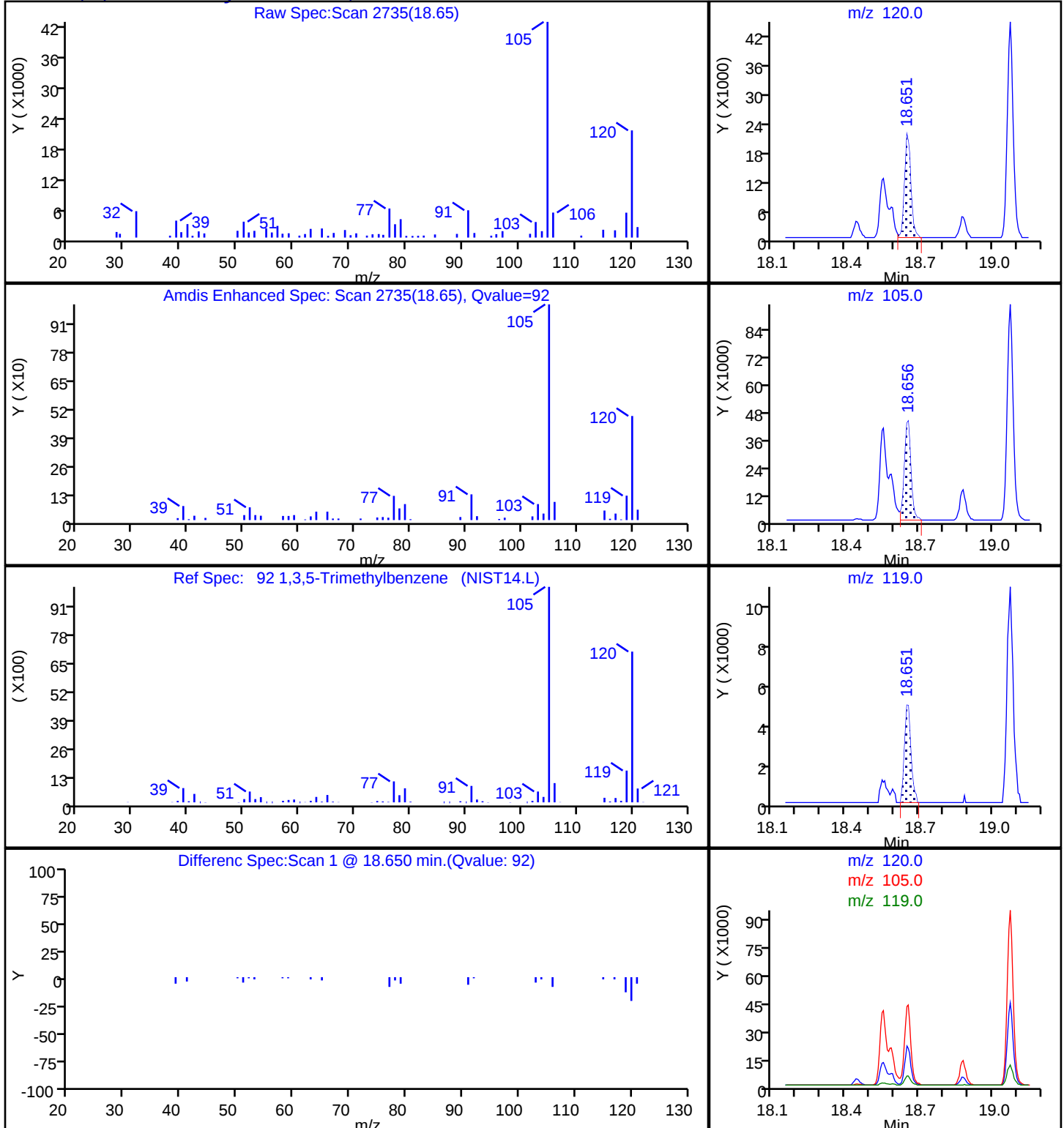
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector

MS SCAN

92 1,3,5-Trimethylbenzene, CAS: 108-67-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

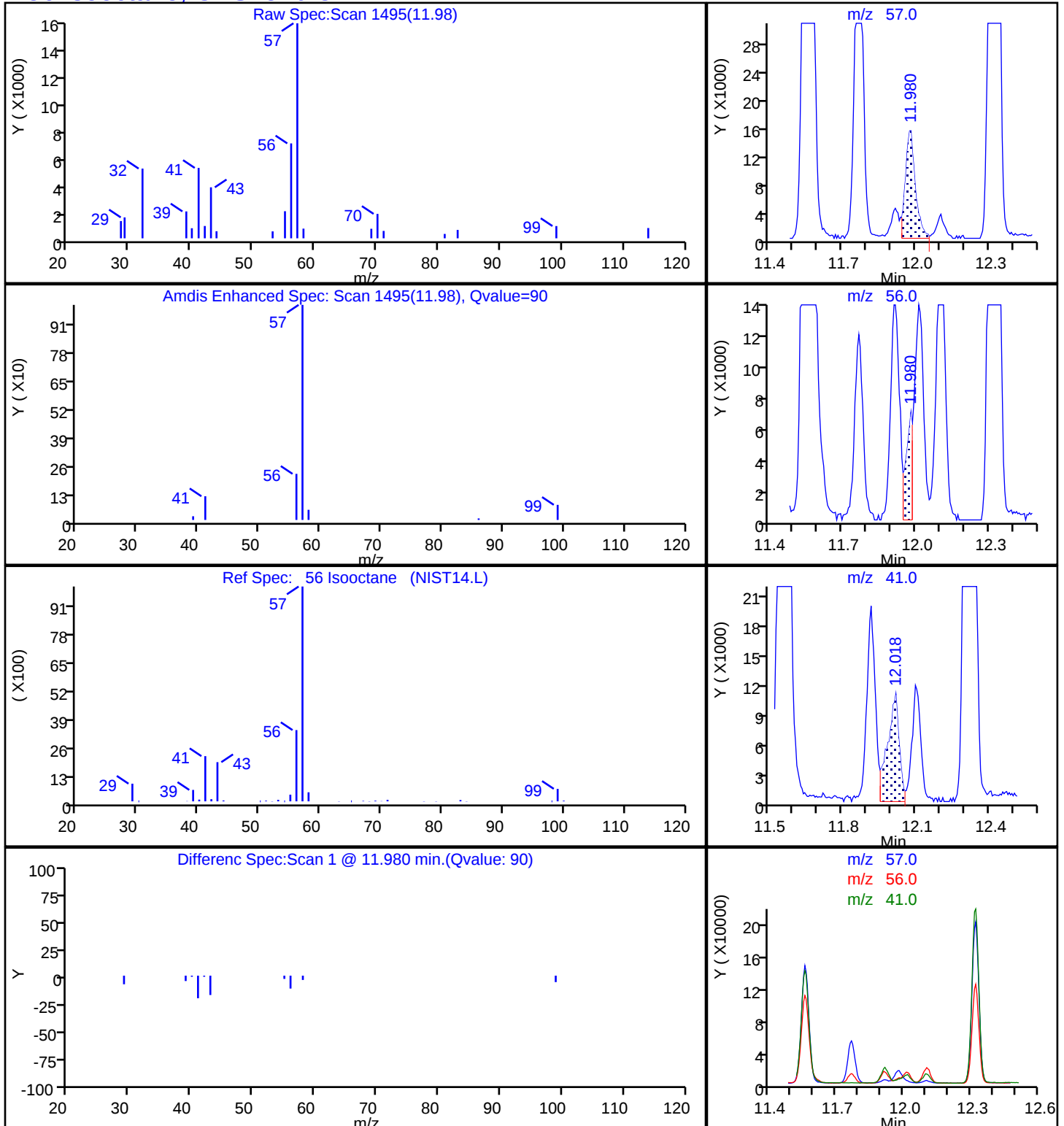
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

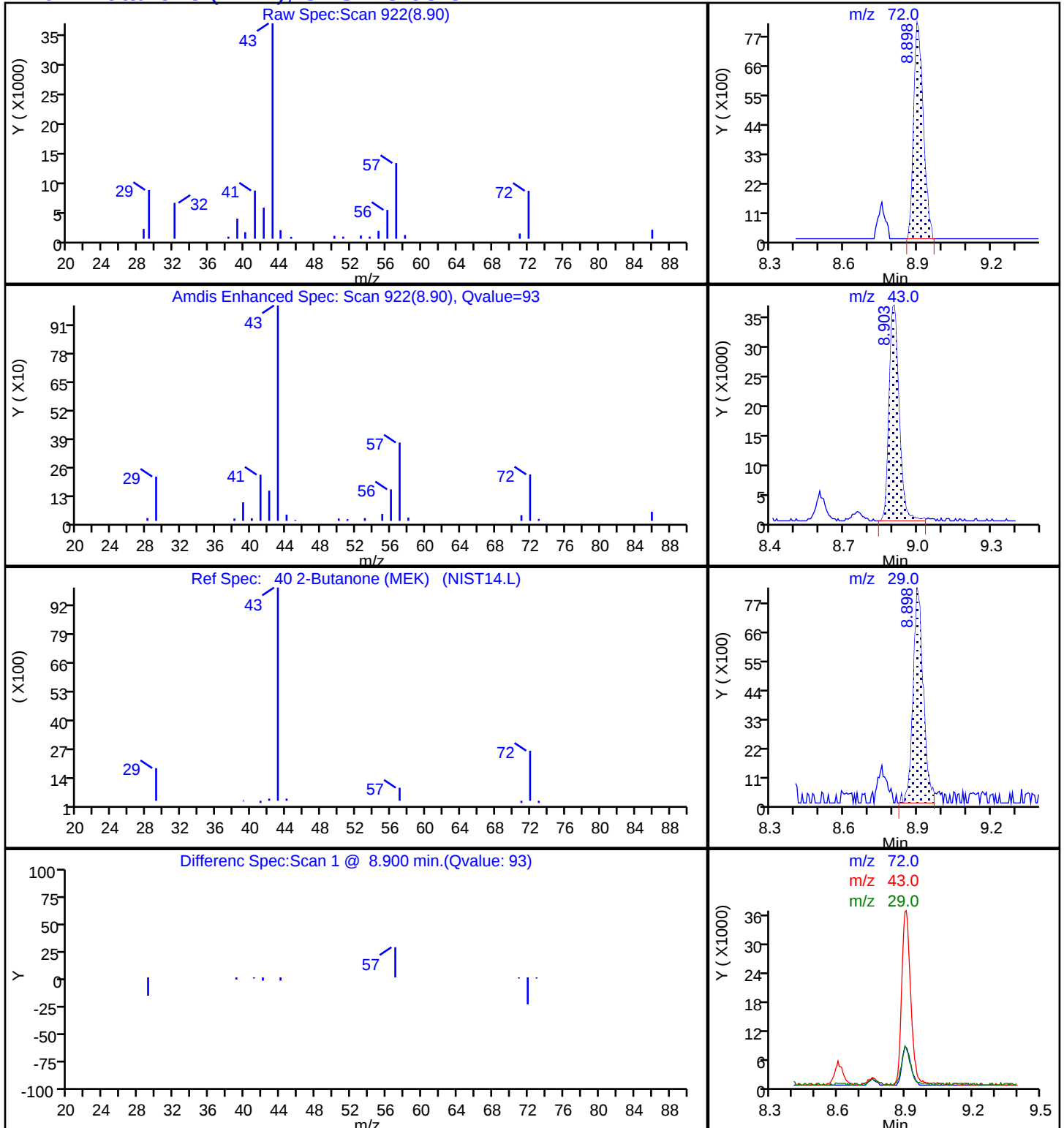
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 2-Butanone (MEK), CAS: 78-93-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

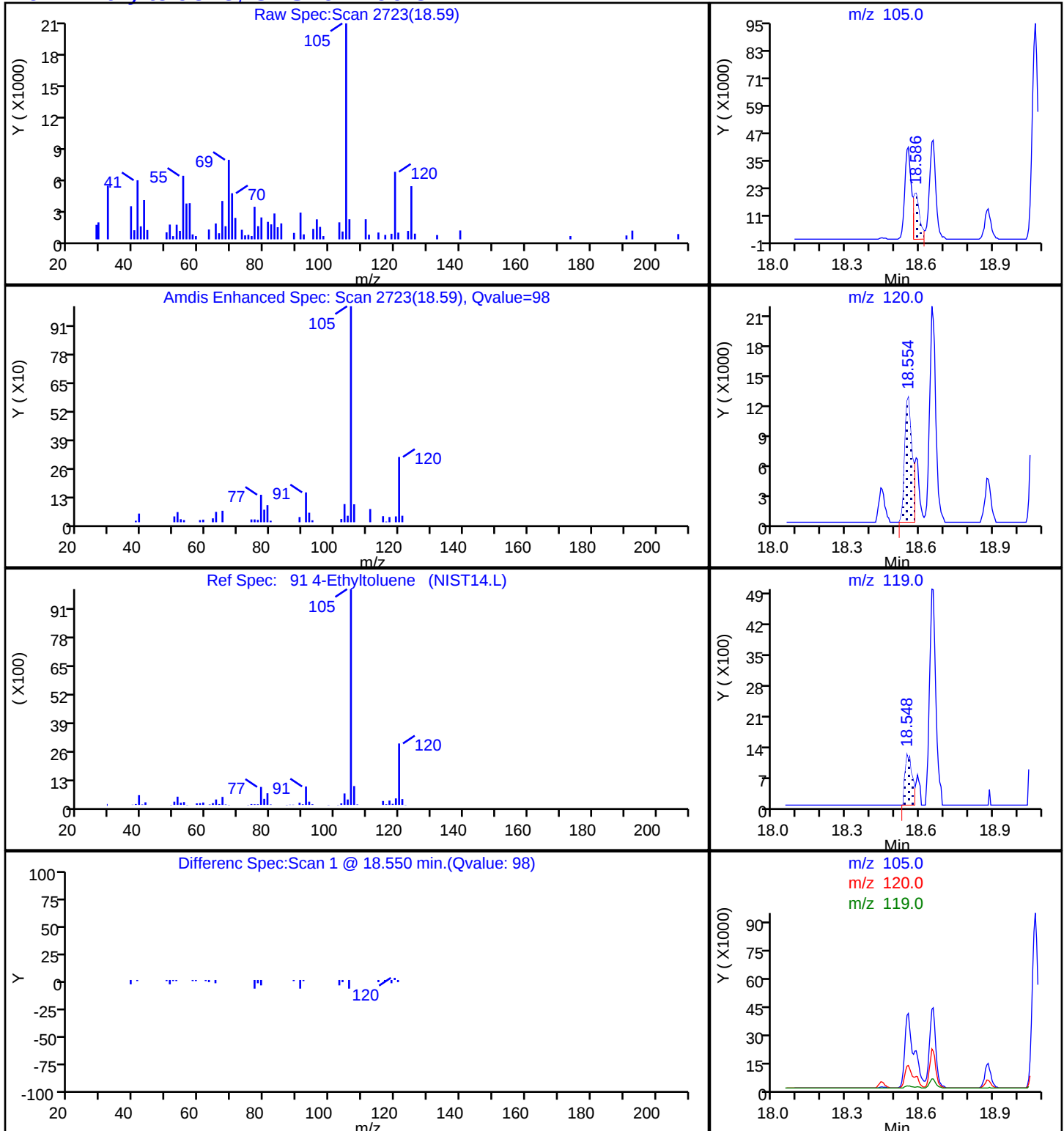
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

91 4-Ethyltoluene, CAS: 622-96-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

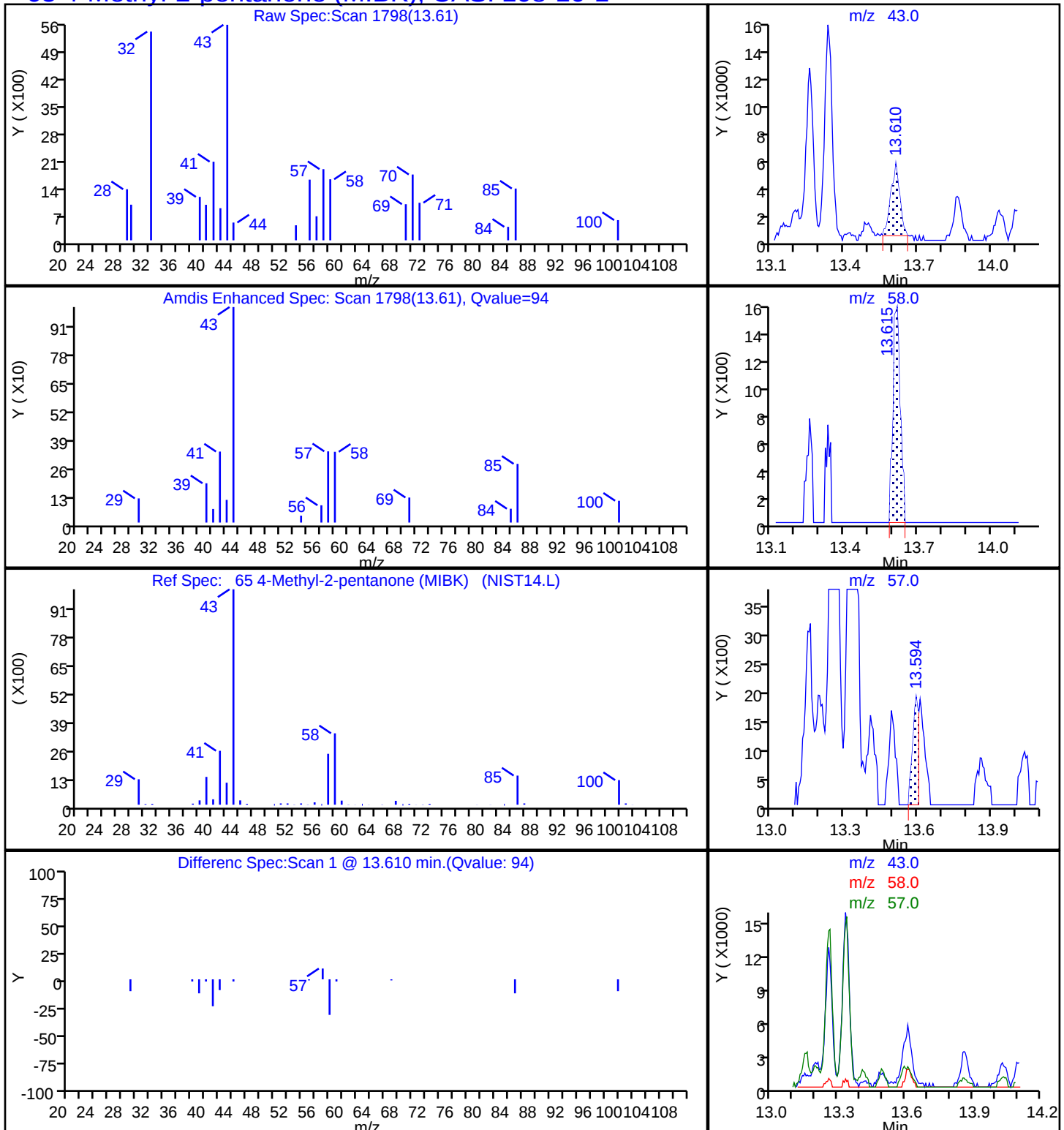
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

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



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

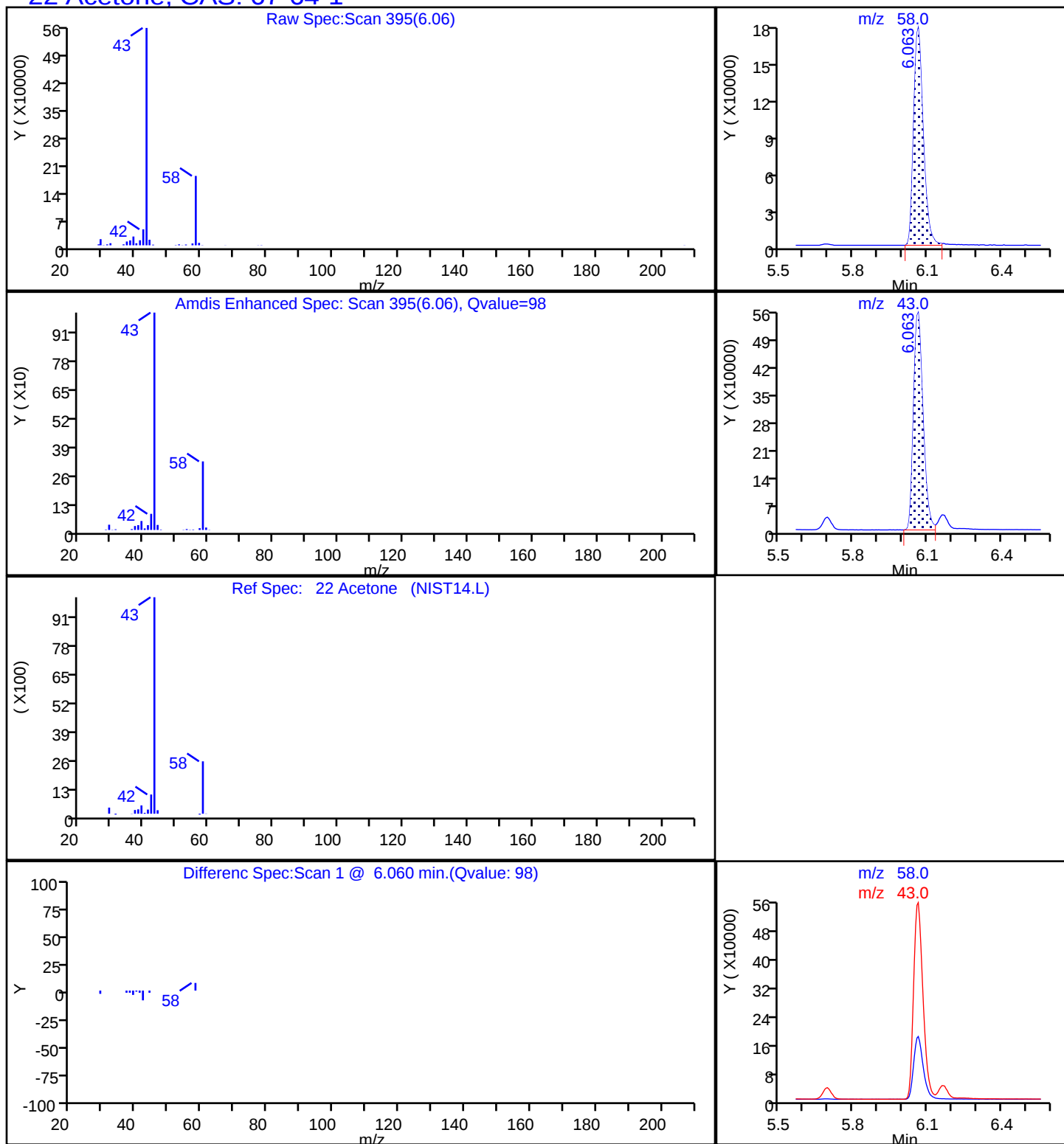
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

22 Acetone, CAS: 67-64-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

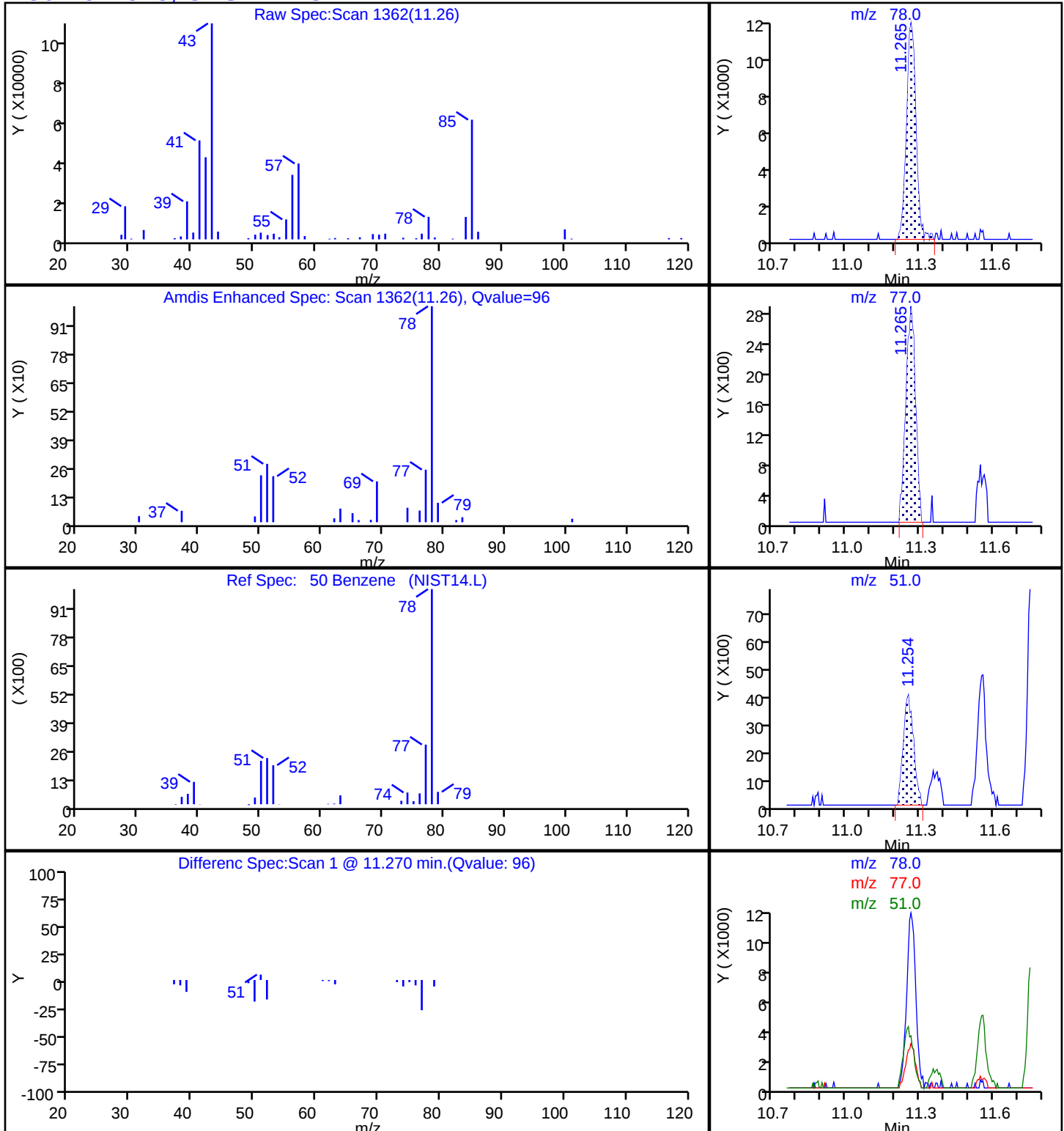
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

50 Benzene, CAS: 71-43-2



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

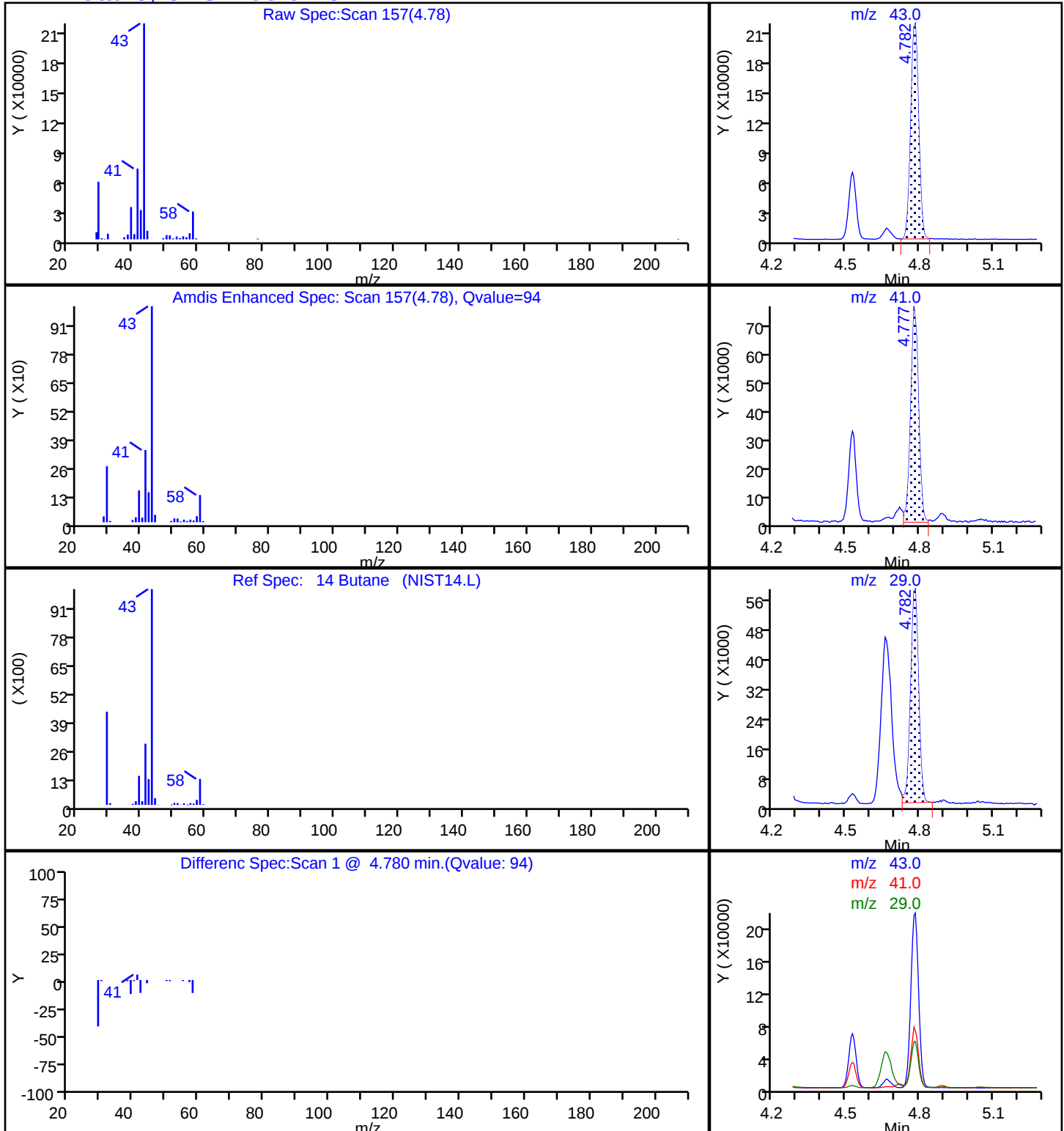
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

14 Butane, CAS: 106-97-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

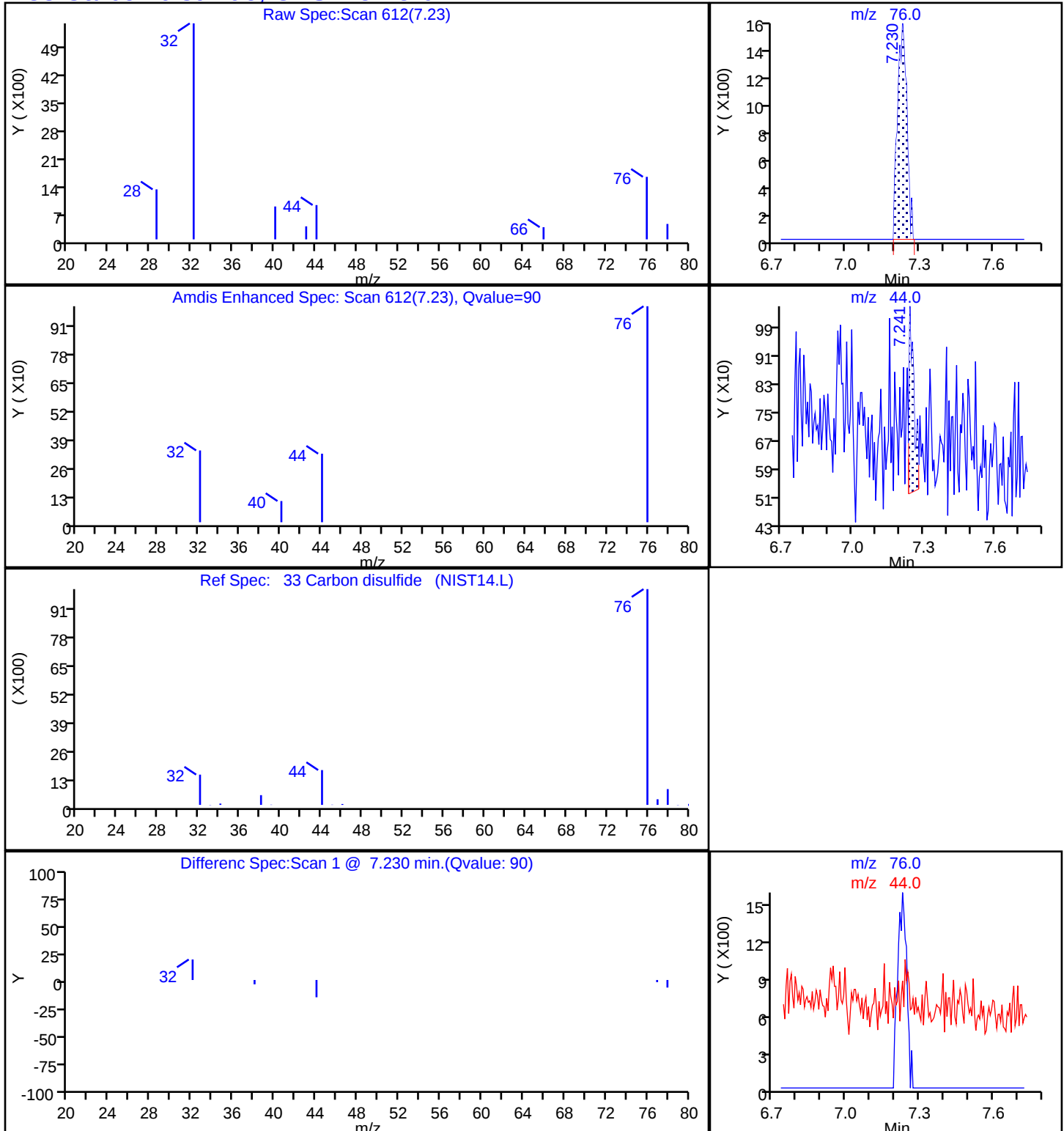
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

33 Carbon disulfide, CAS: 75-15-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

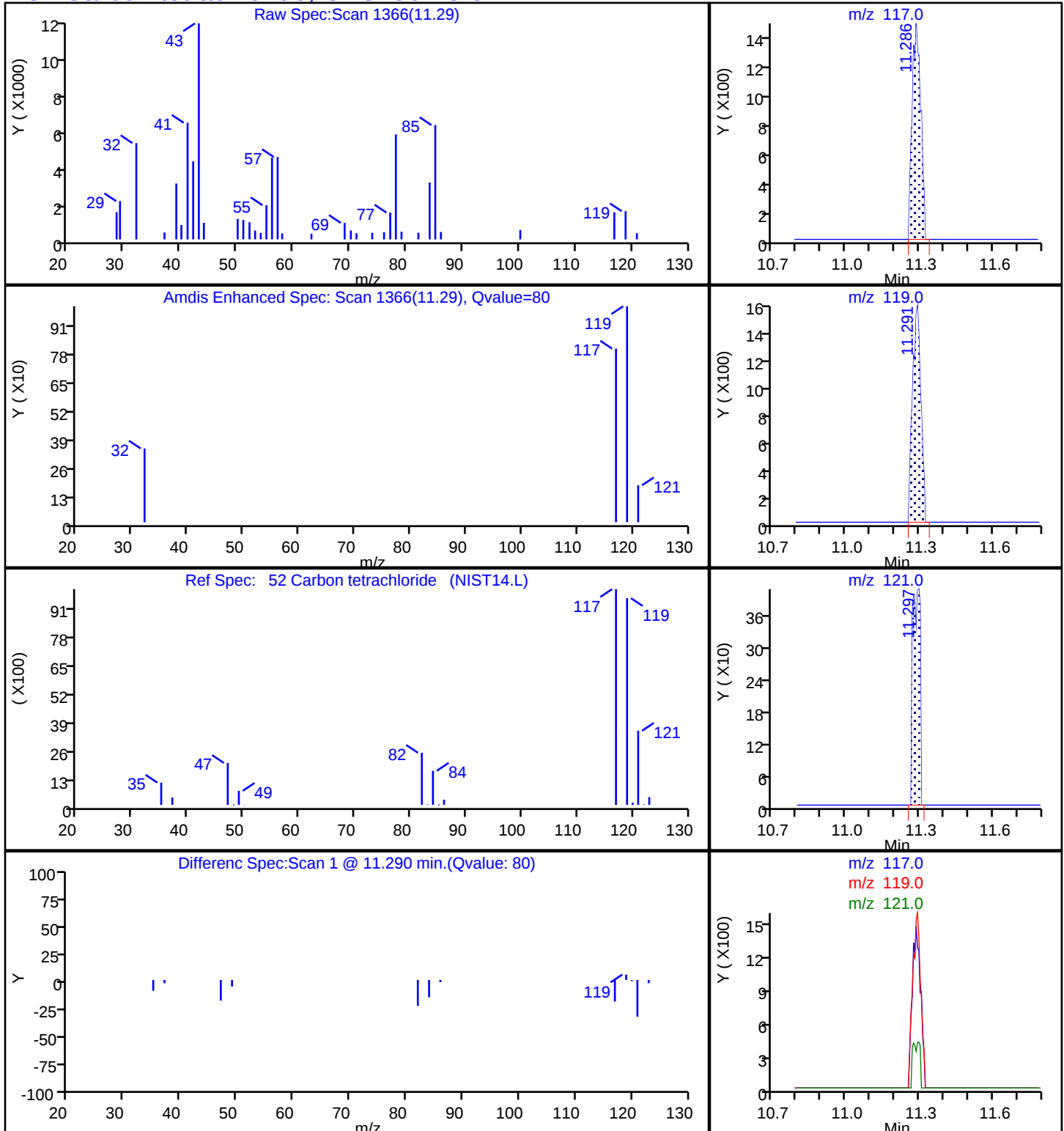
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

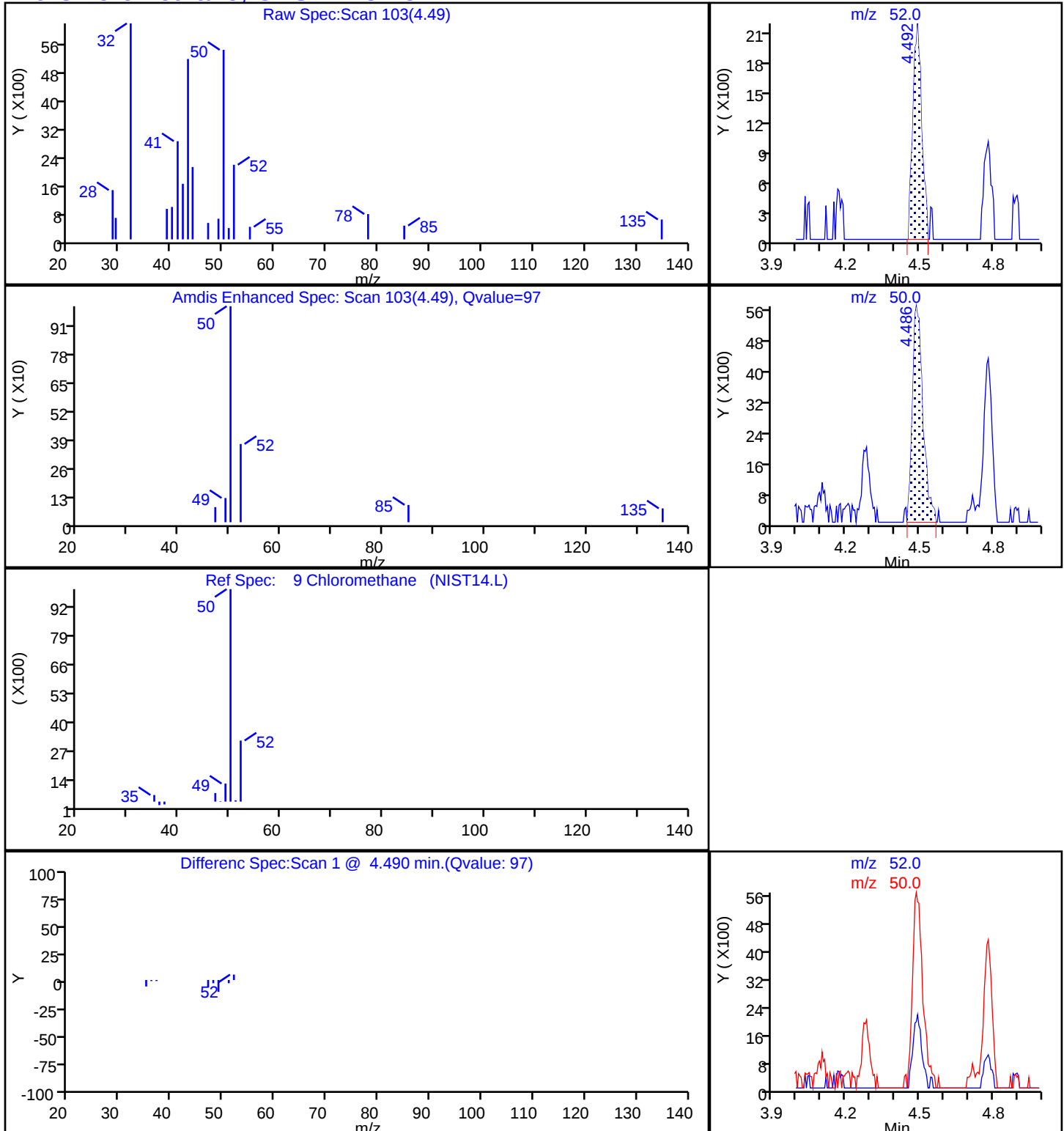
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

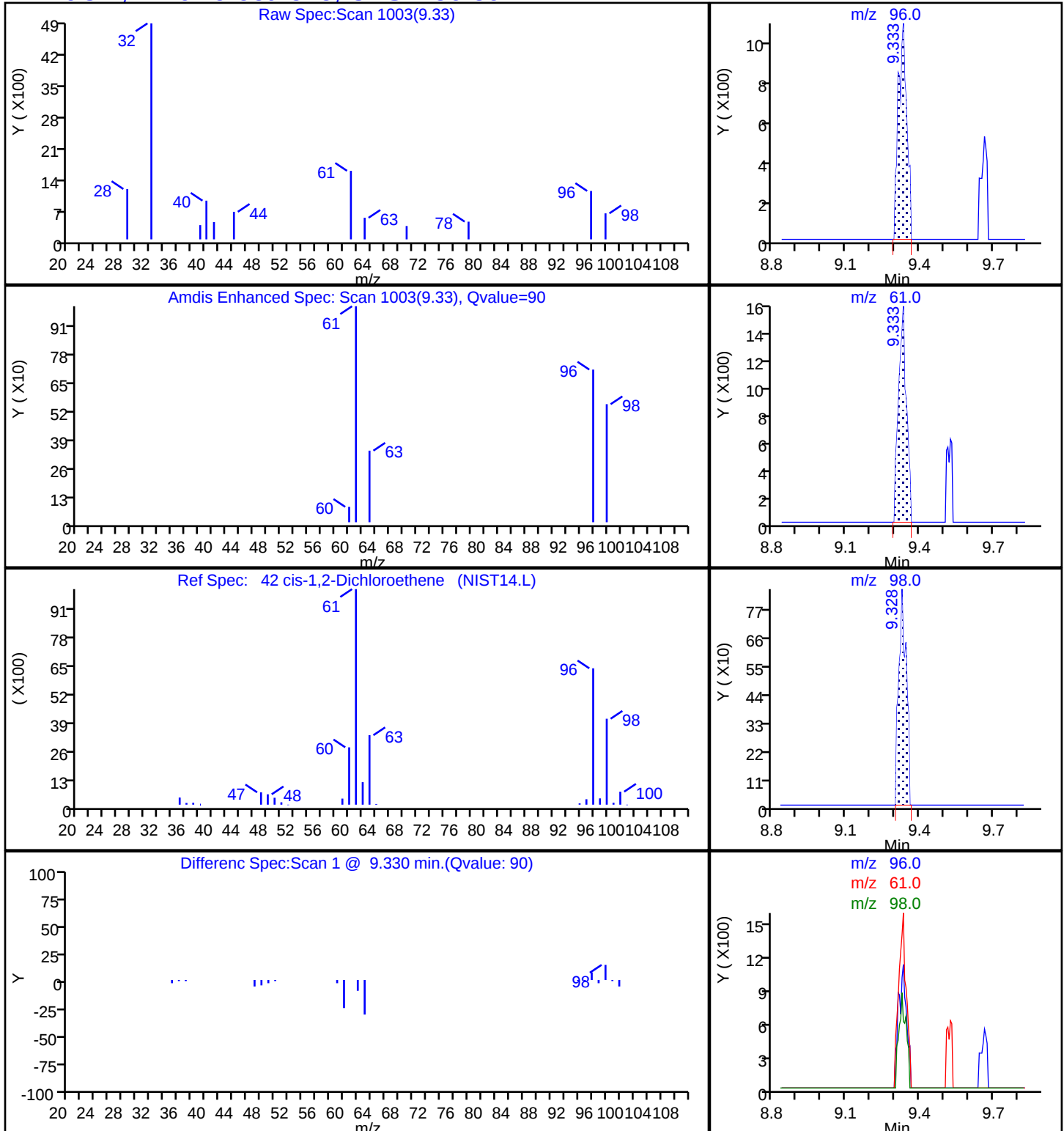
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

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

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

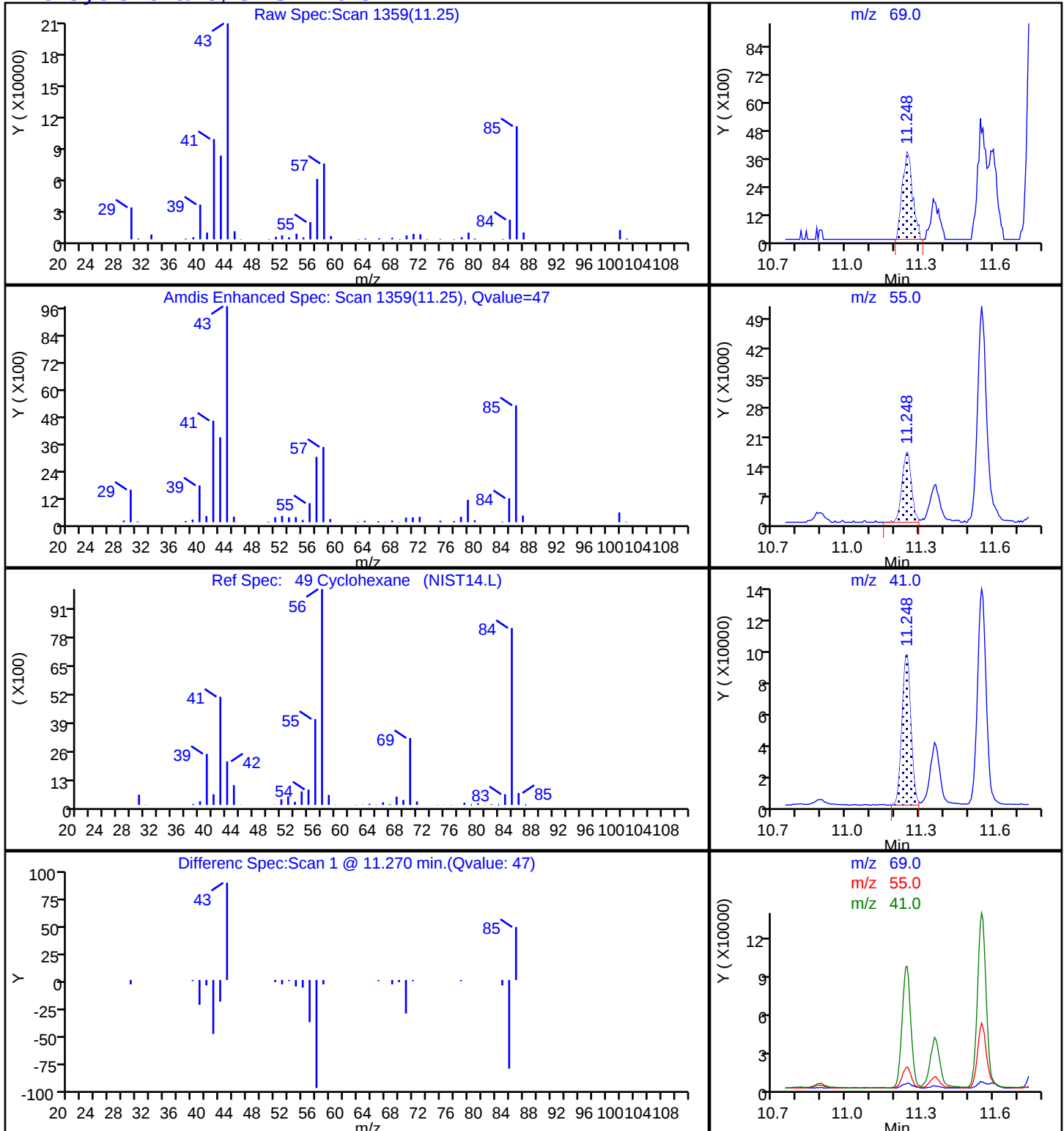
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

49 Cyclohexane, CAS: 110-82-7

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

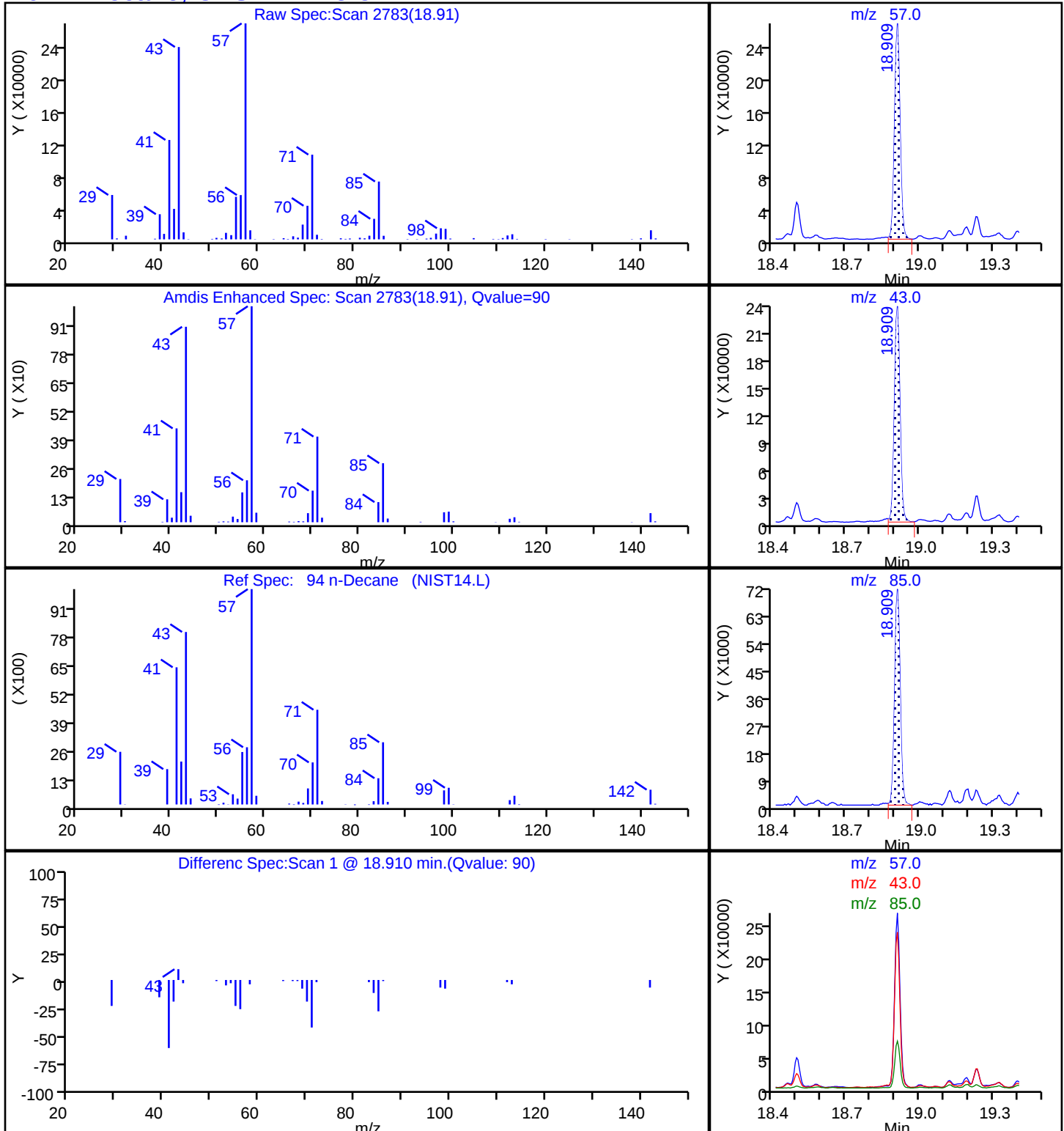
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

94 n-Decane, CAS: 124-18-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

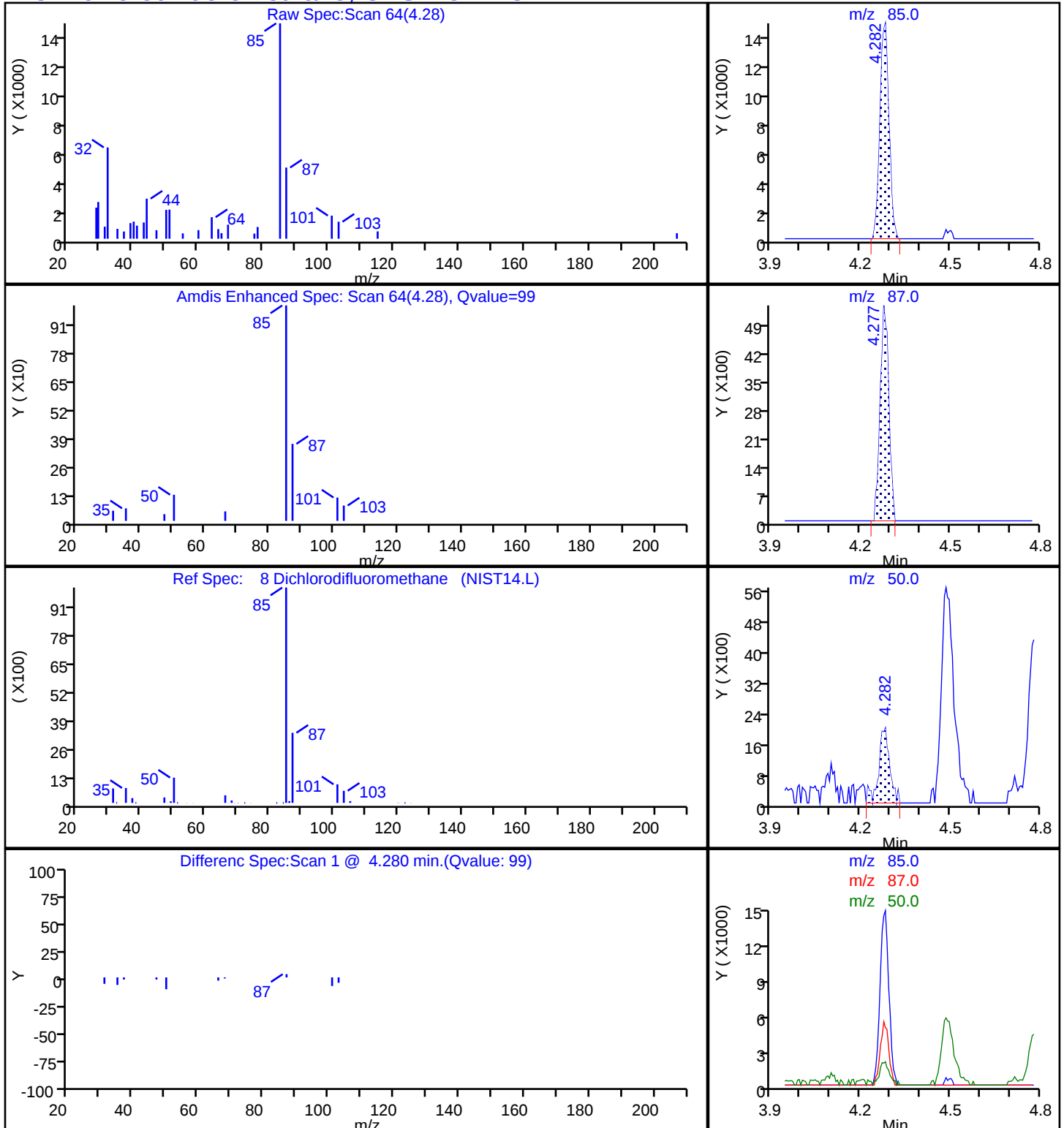
Method: MJ_TO15

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\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

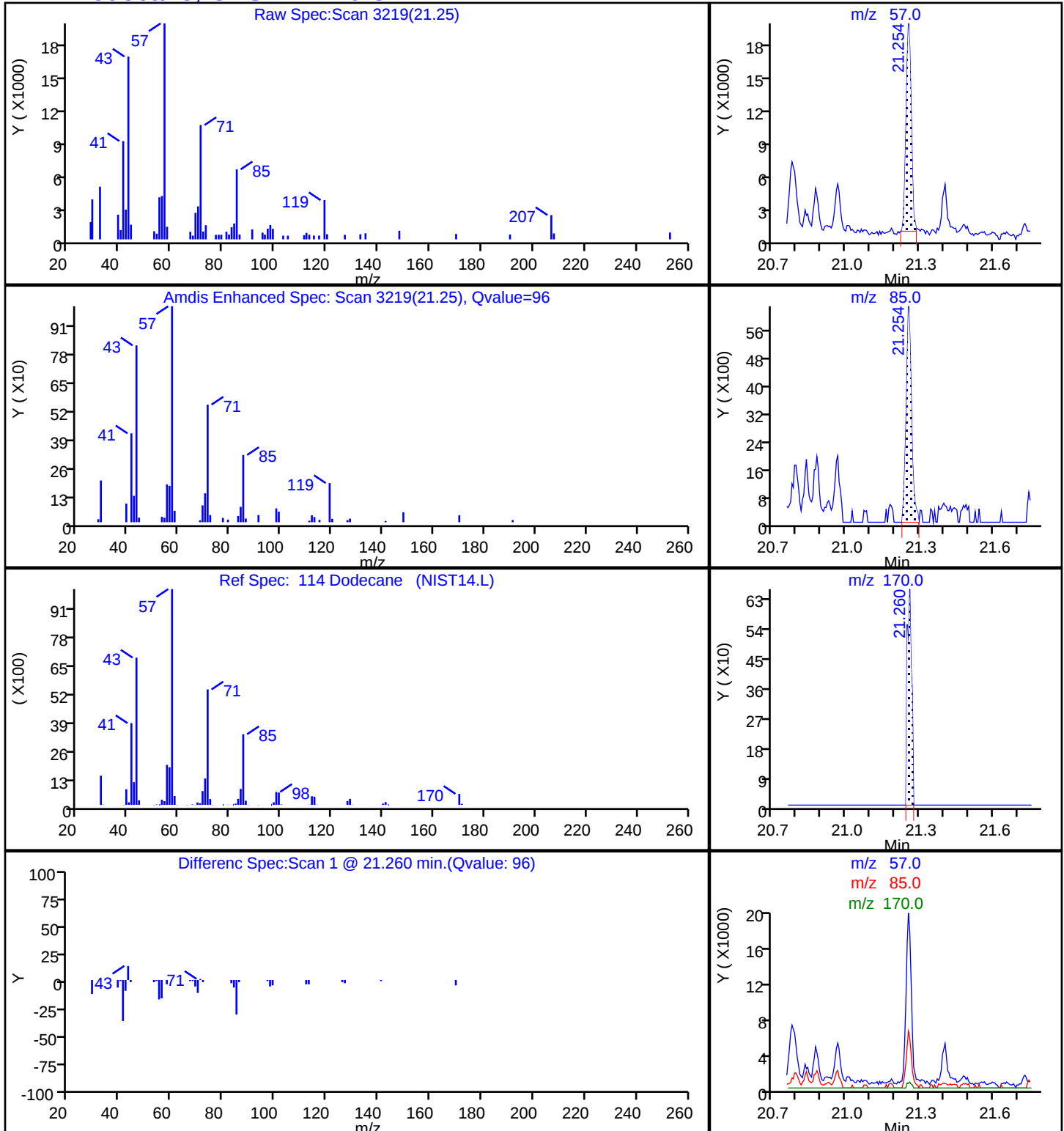
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

114 Dodecane, CAS: 112-40-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

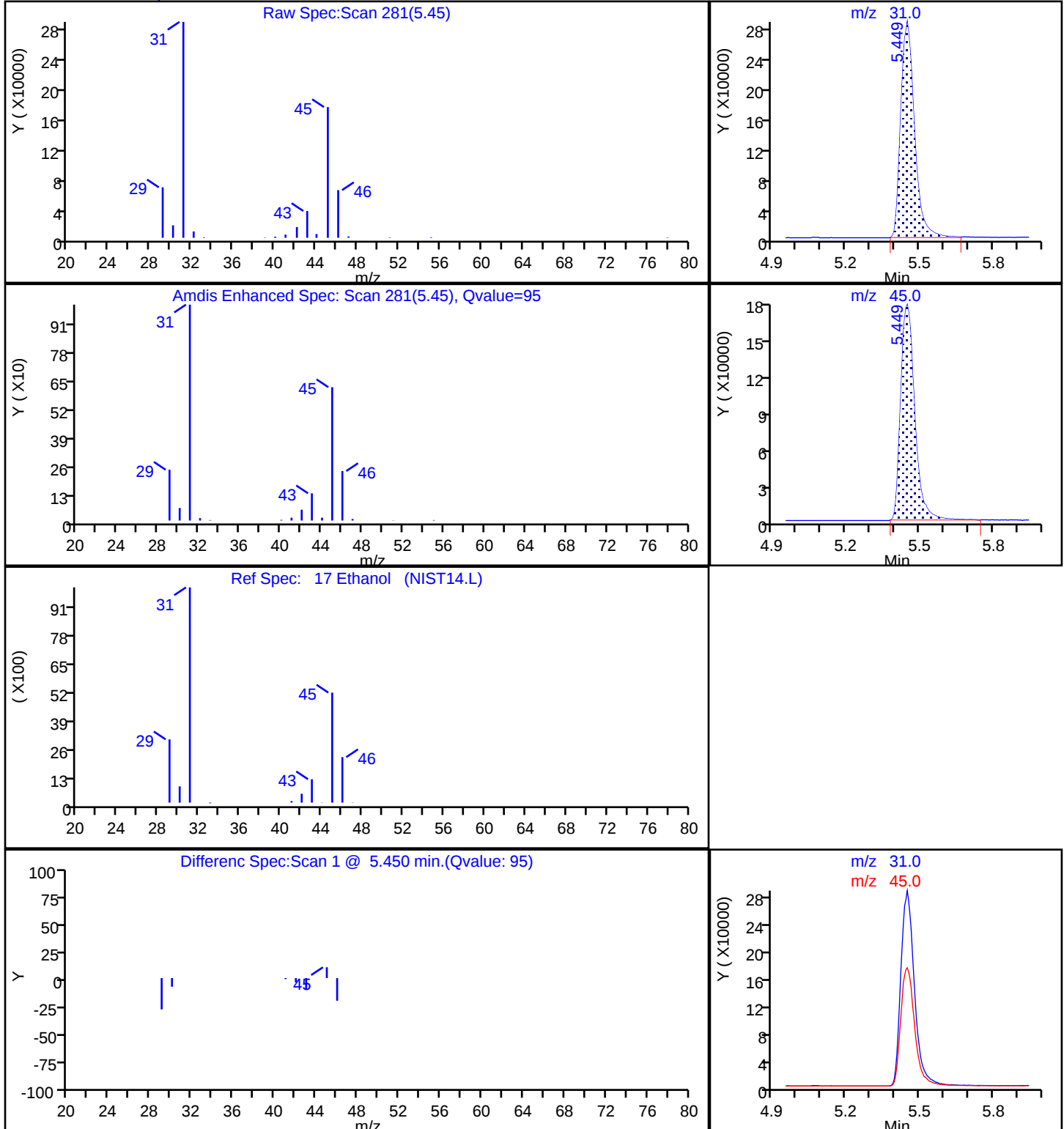
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

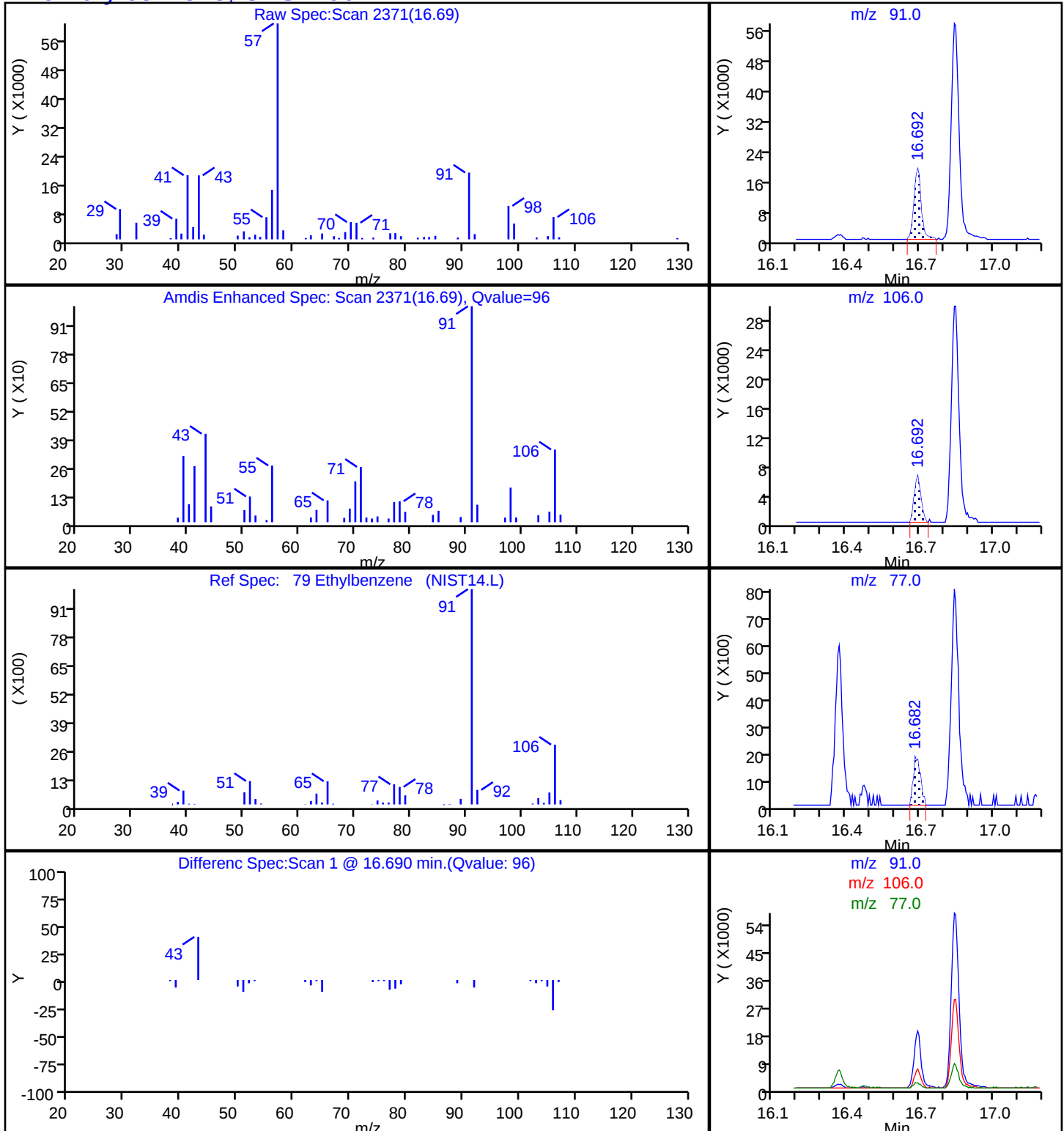
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

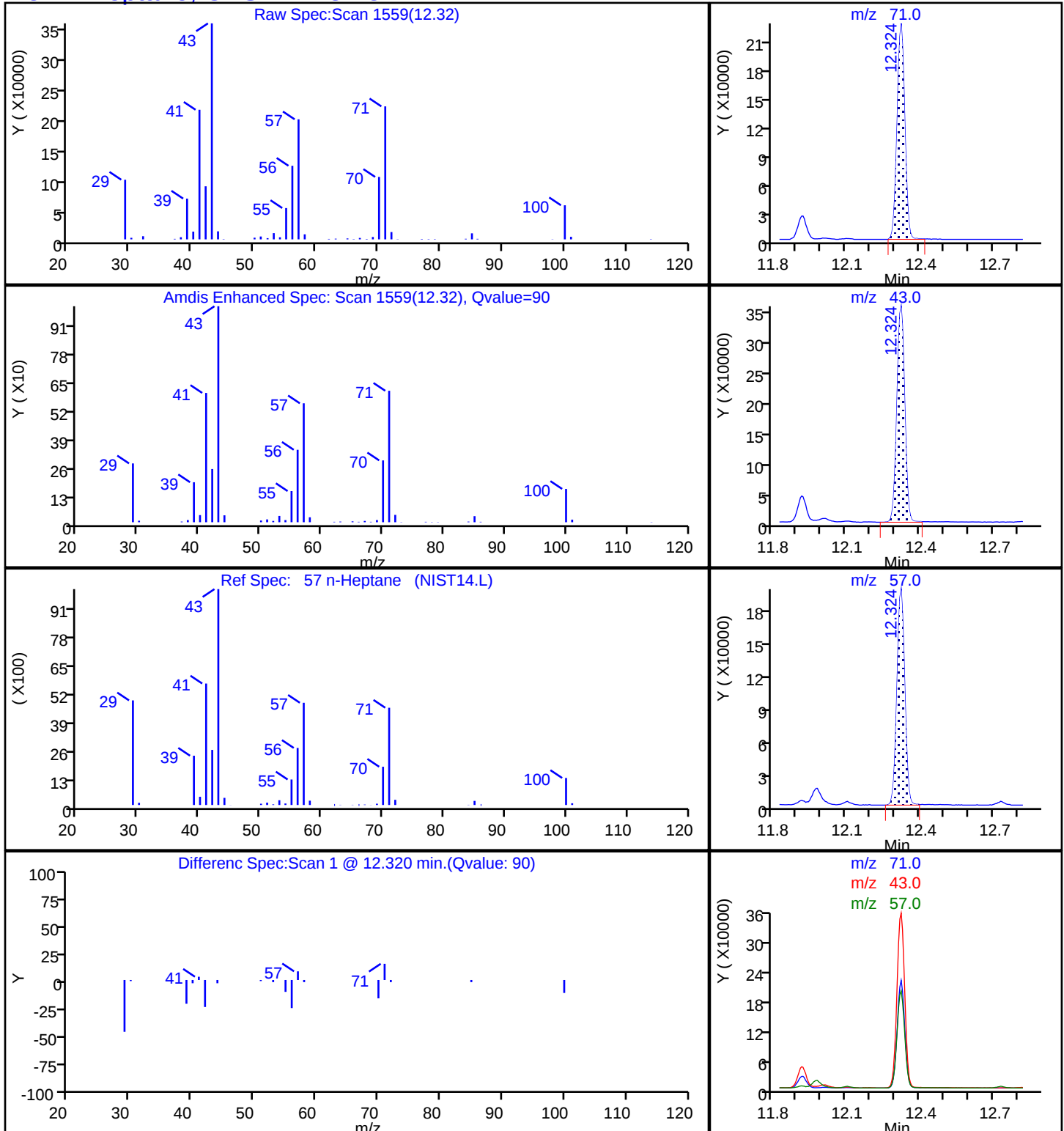
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

57 n-Heptane, CAS: 142-82-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

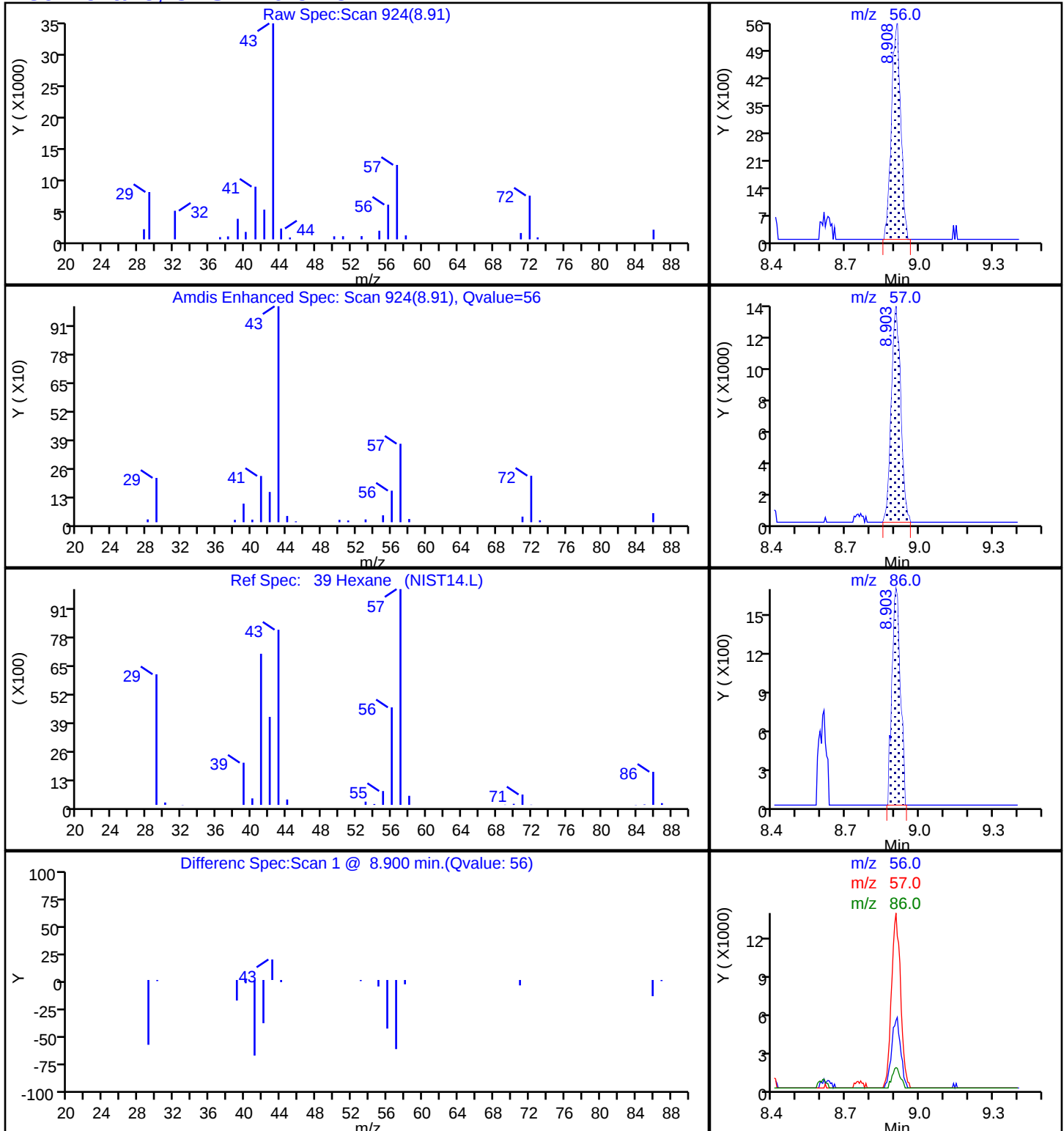
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

39 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

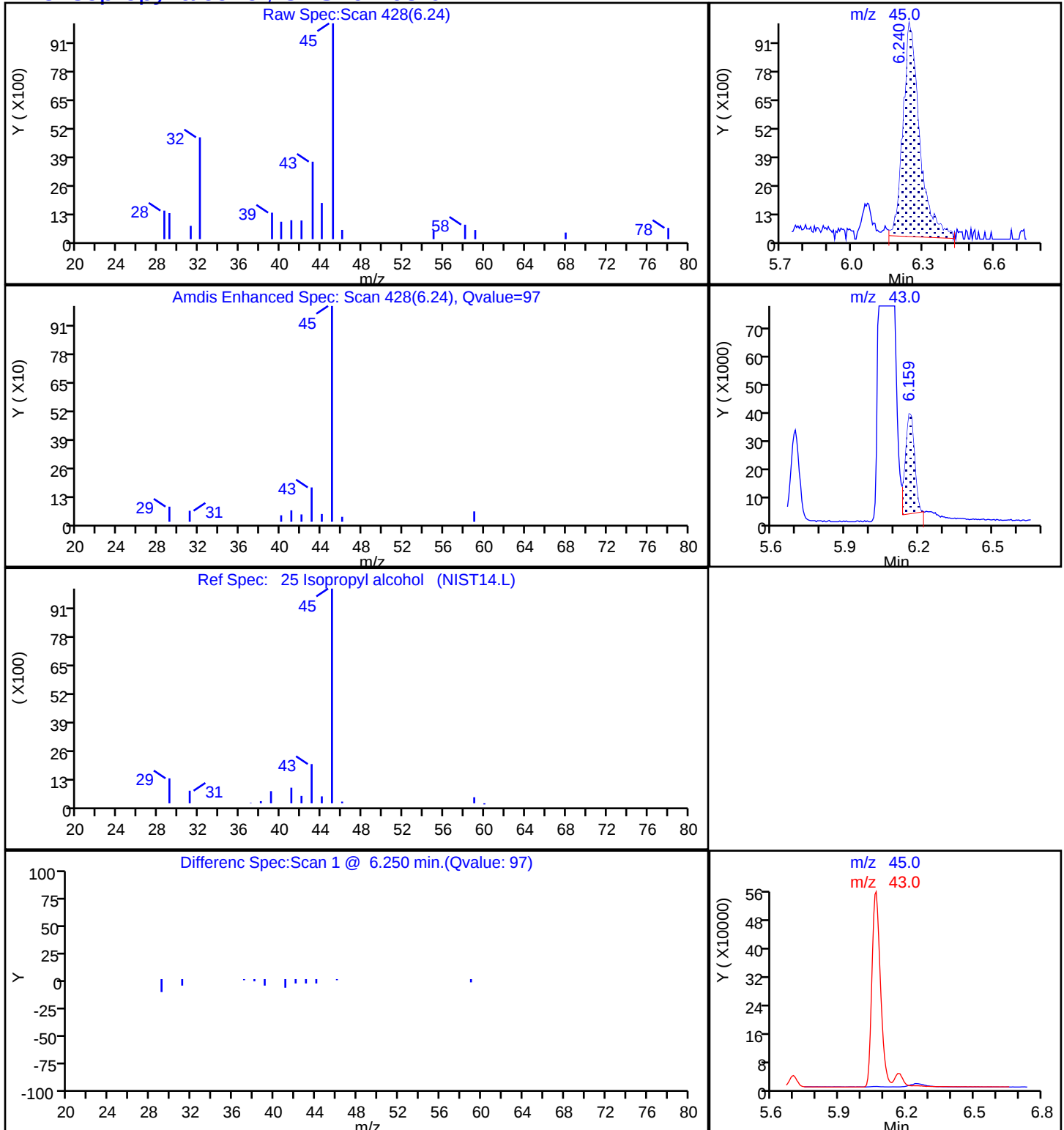
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

25 Isopropyl alcohol, CAS: 67-63-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

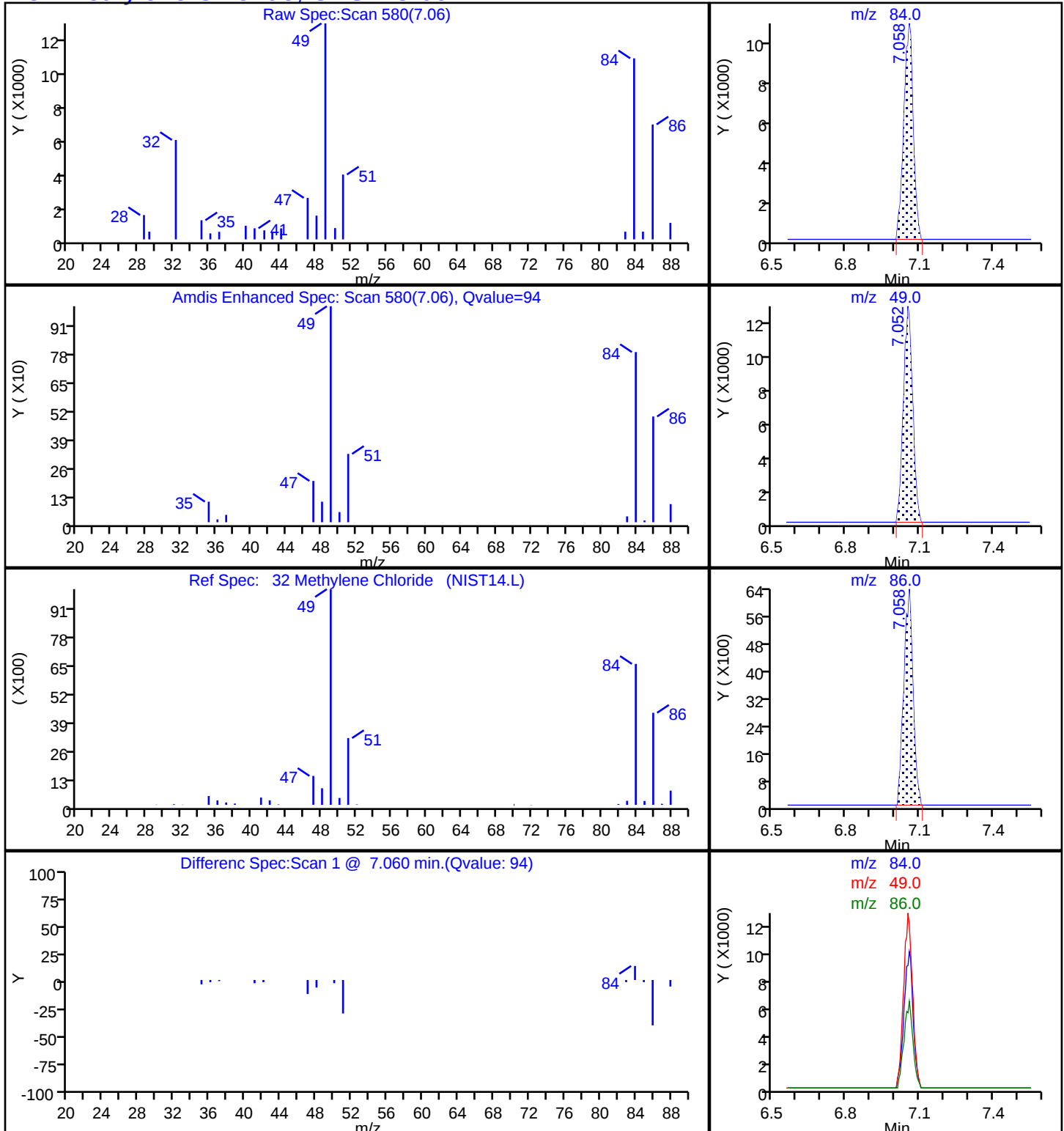
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

32 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

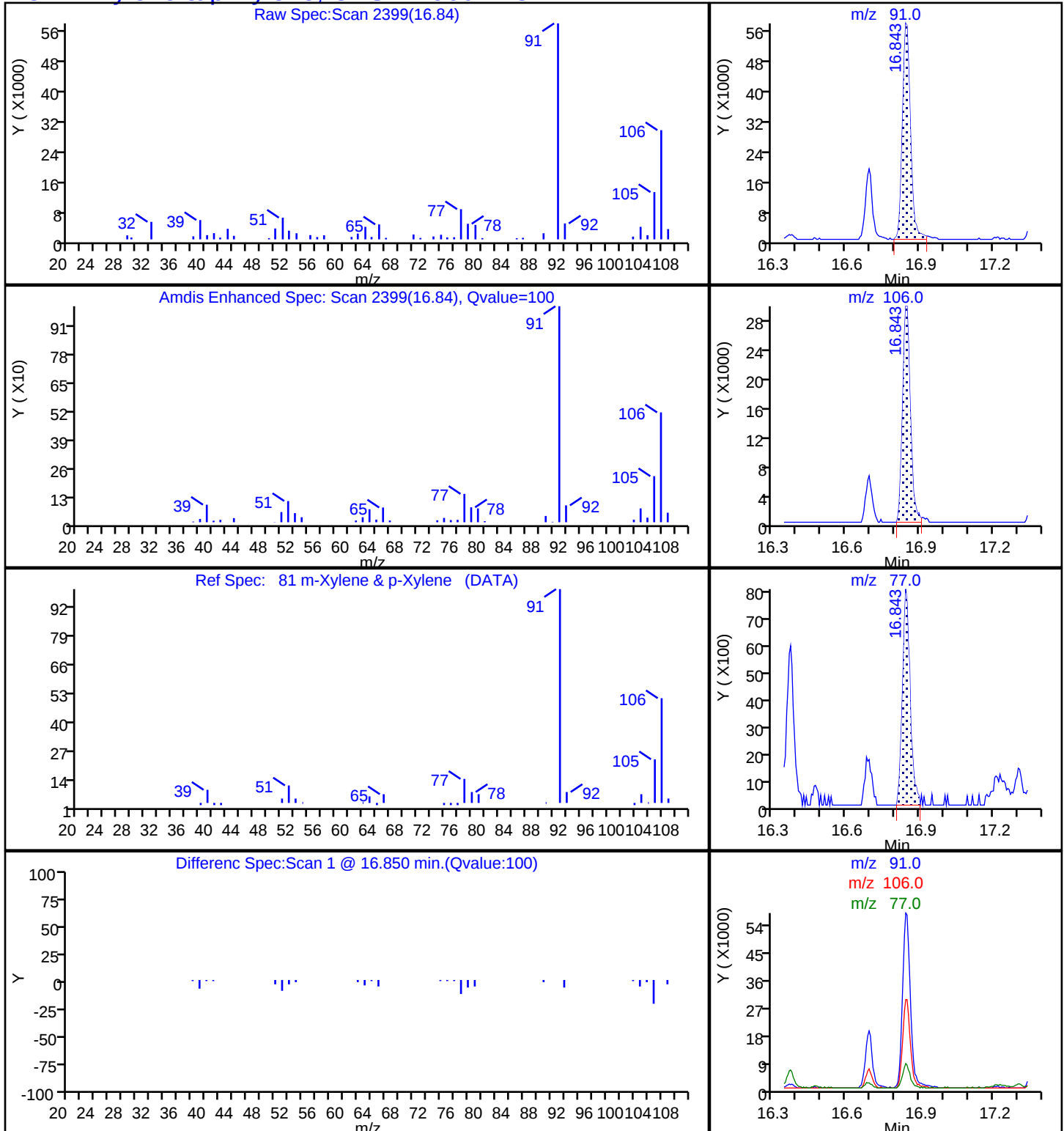
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

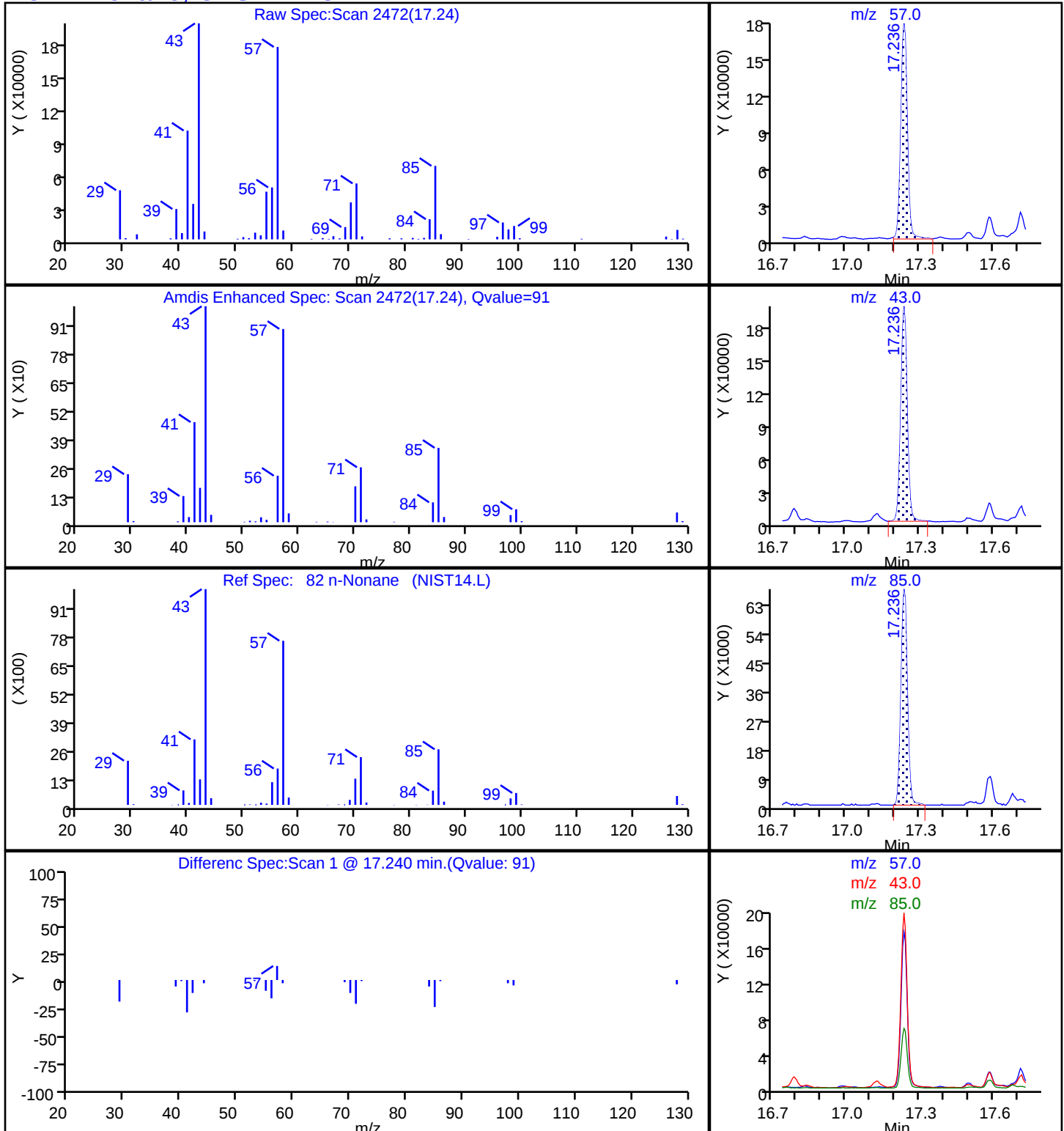
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

82 n-Nonane, CAS: 111-84-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

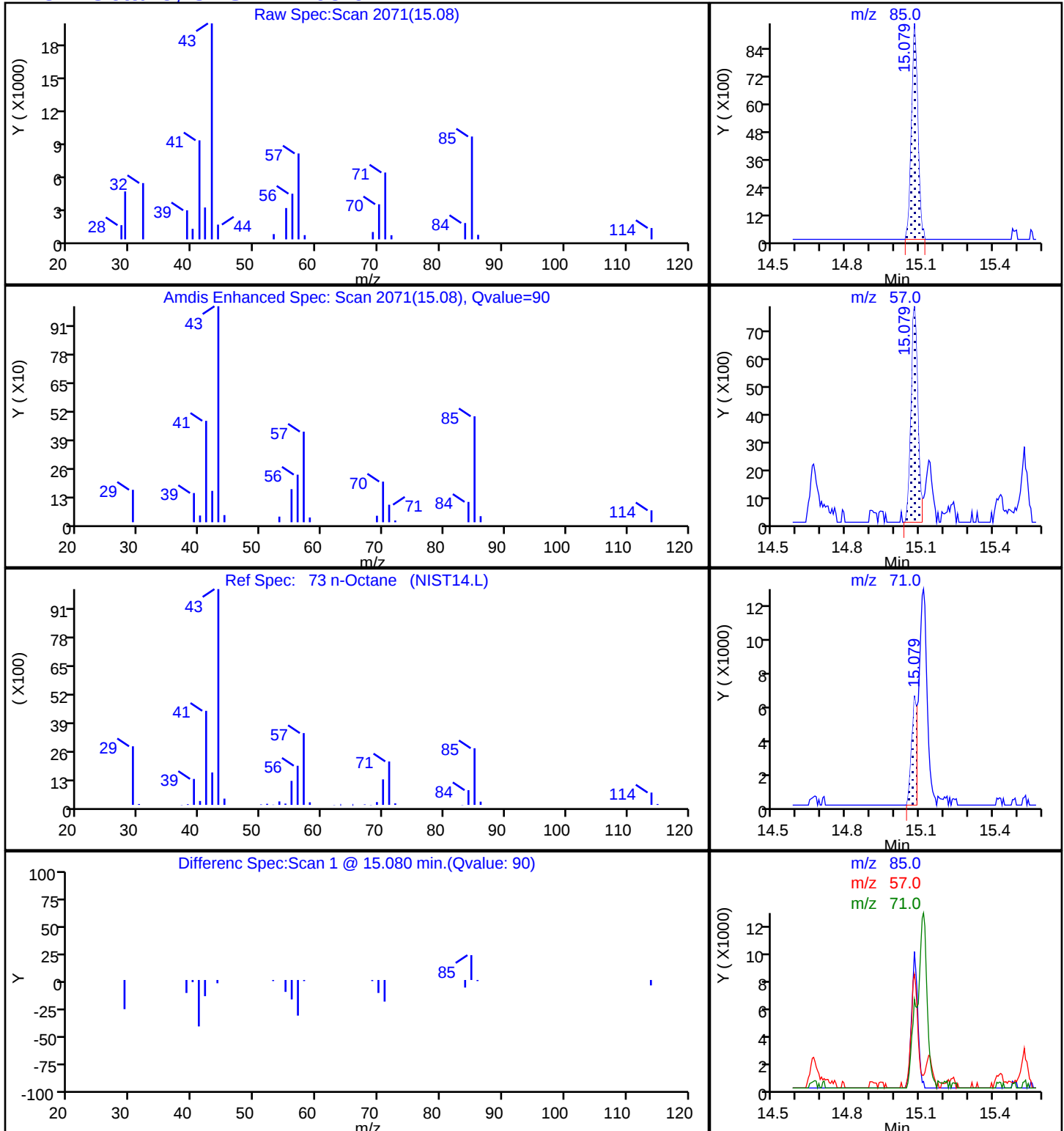
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

73 n-Octane, CAS: 111-65-9

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

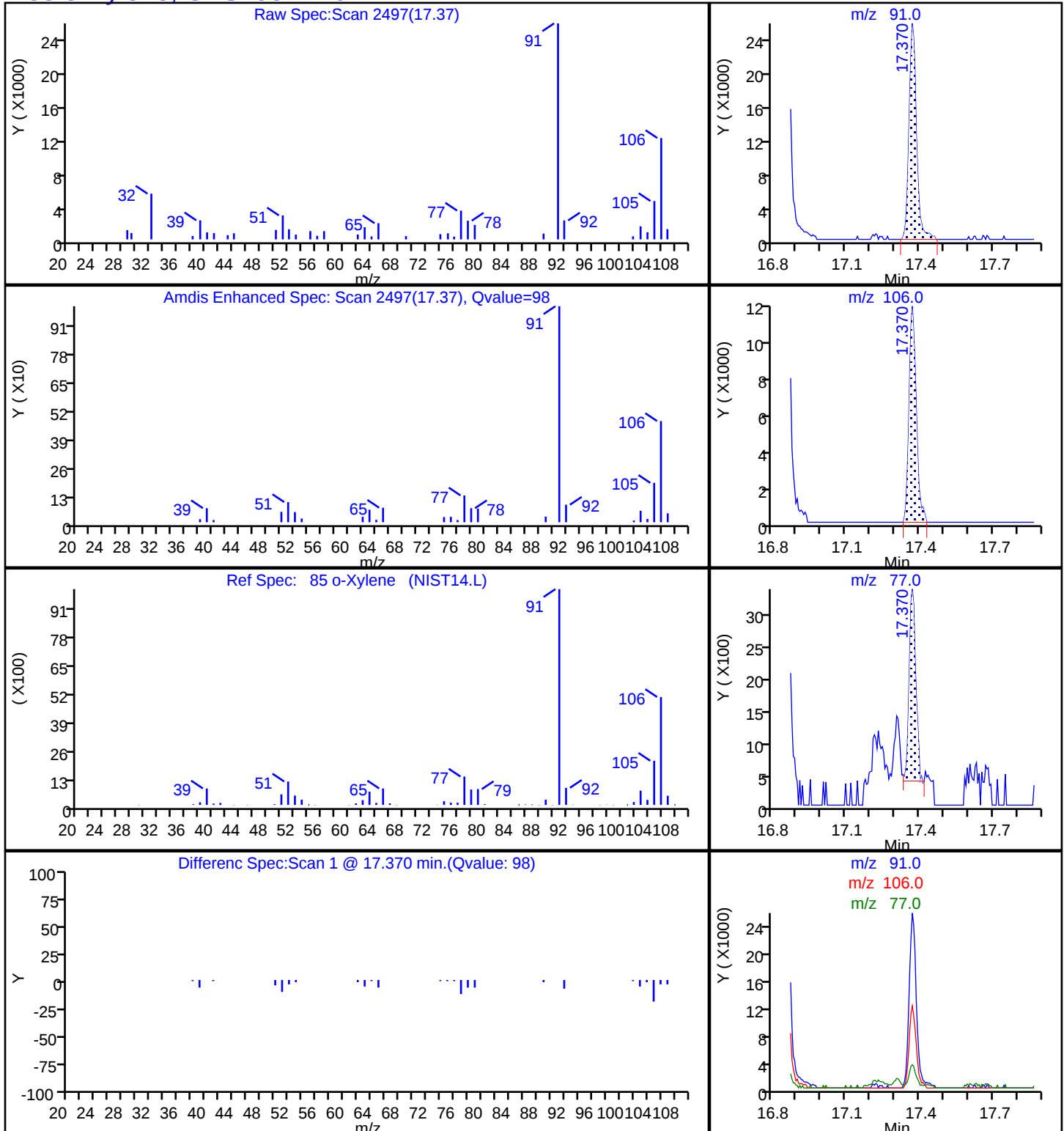
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

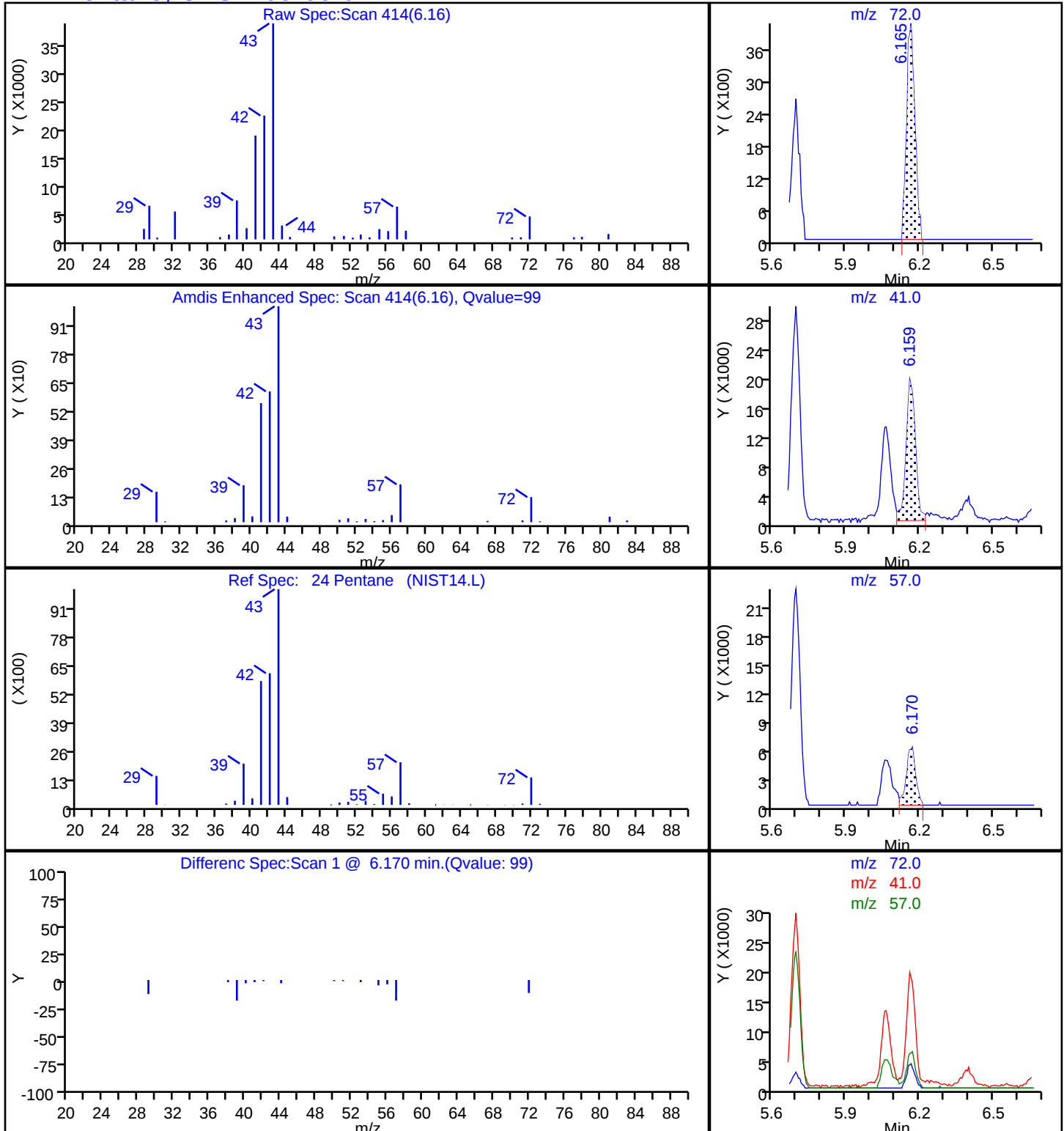
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

24 Pentane, CAS: 109-66-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

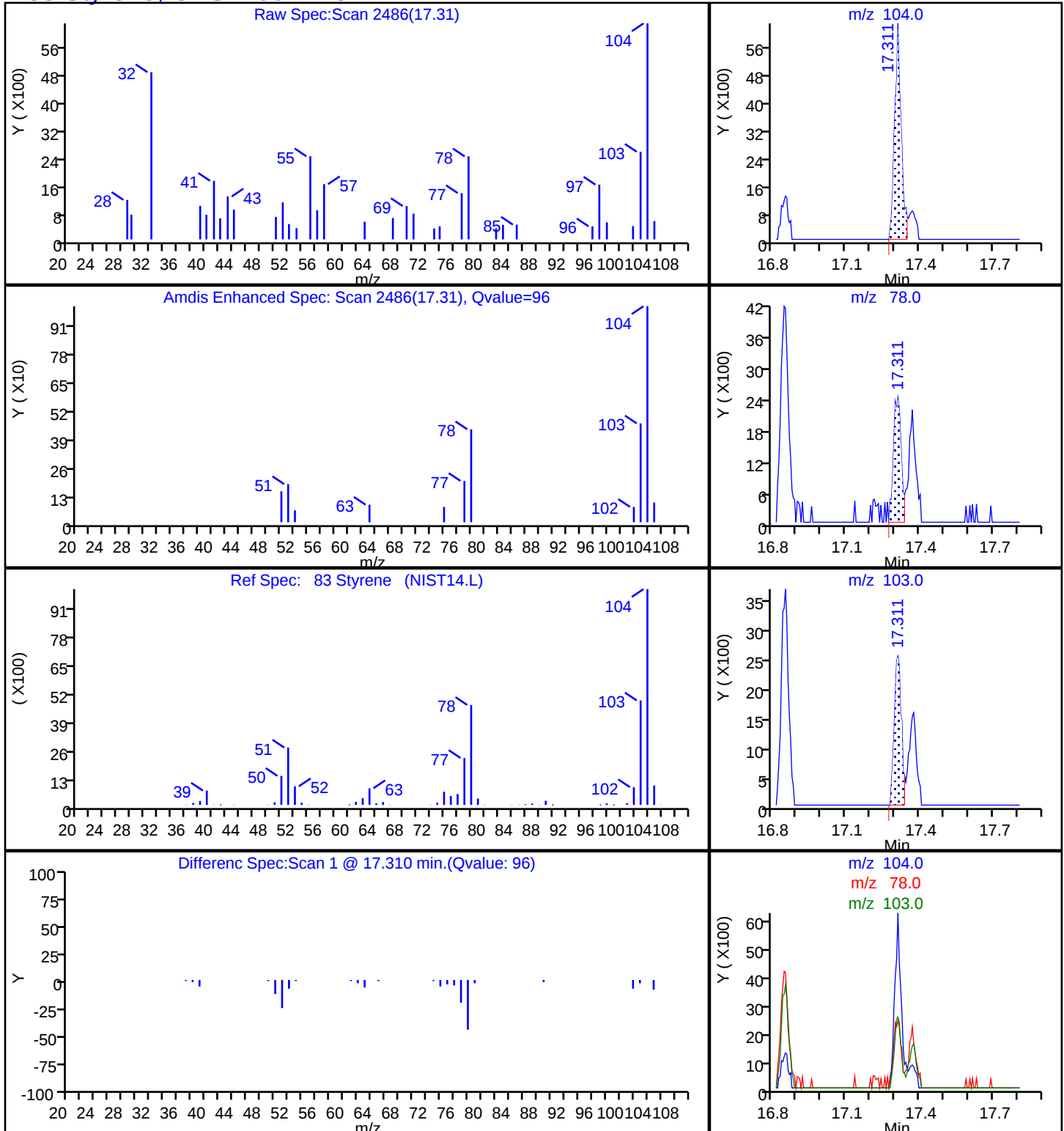
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

83 Styrene, CAS: 100-42-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

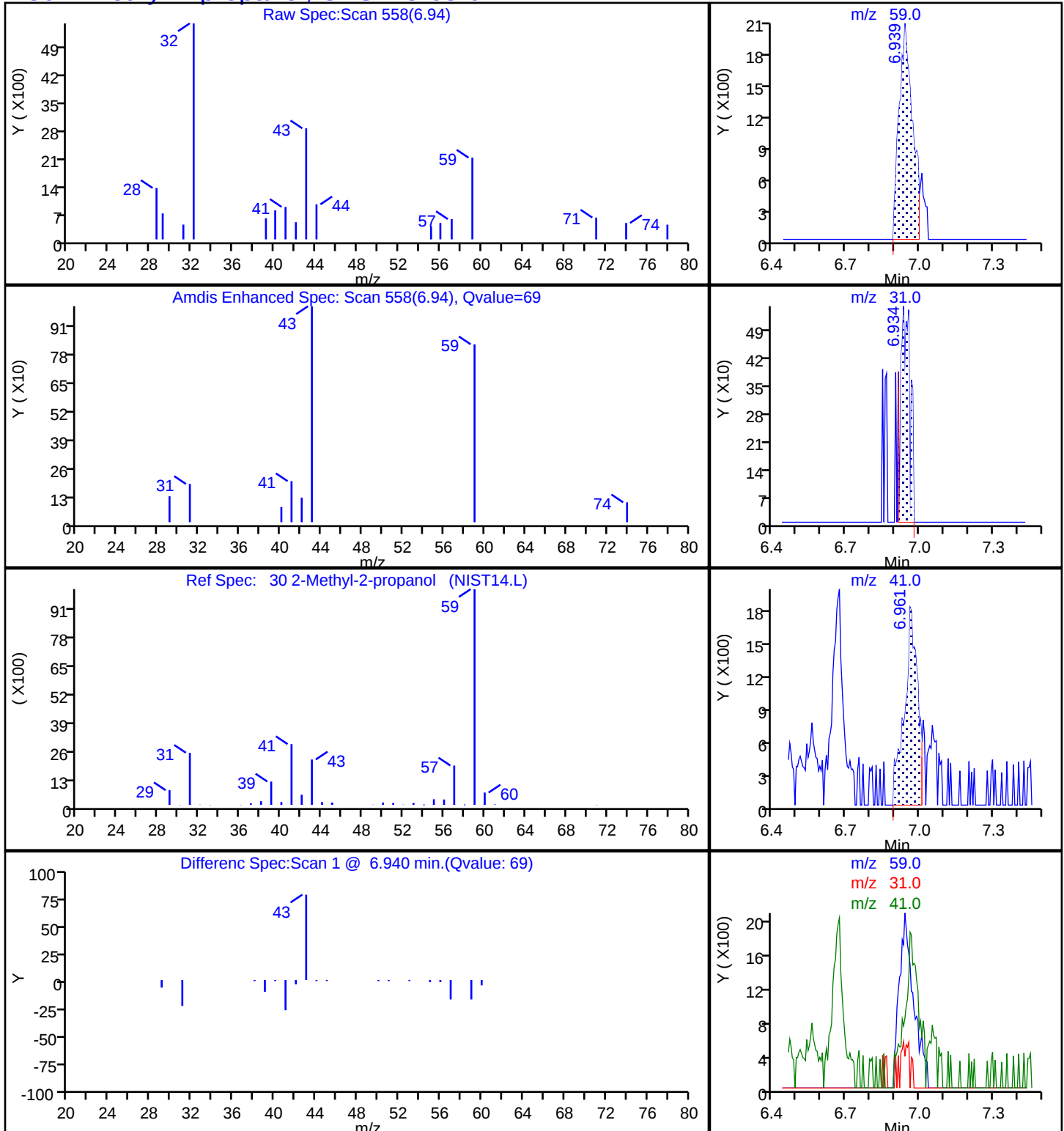
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

30 2-Methyl-2-propanol, CAS: 75-65-0

TestAmerica Knoxville

Data File: \\ChromNA\\Knoxville\\ChromData\\MJ\\20180412-7901.b\\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

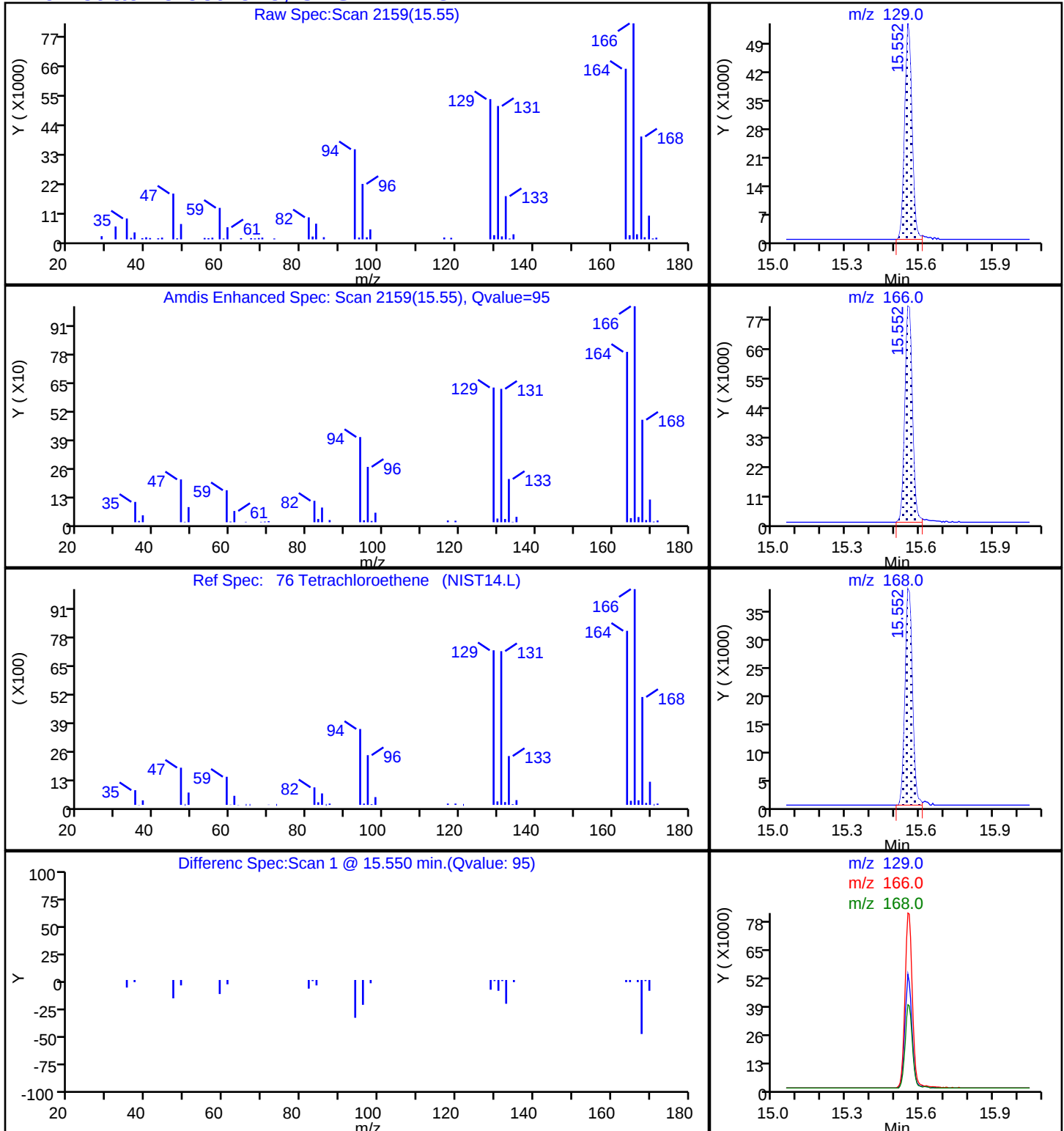
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

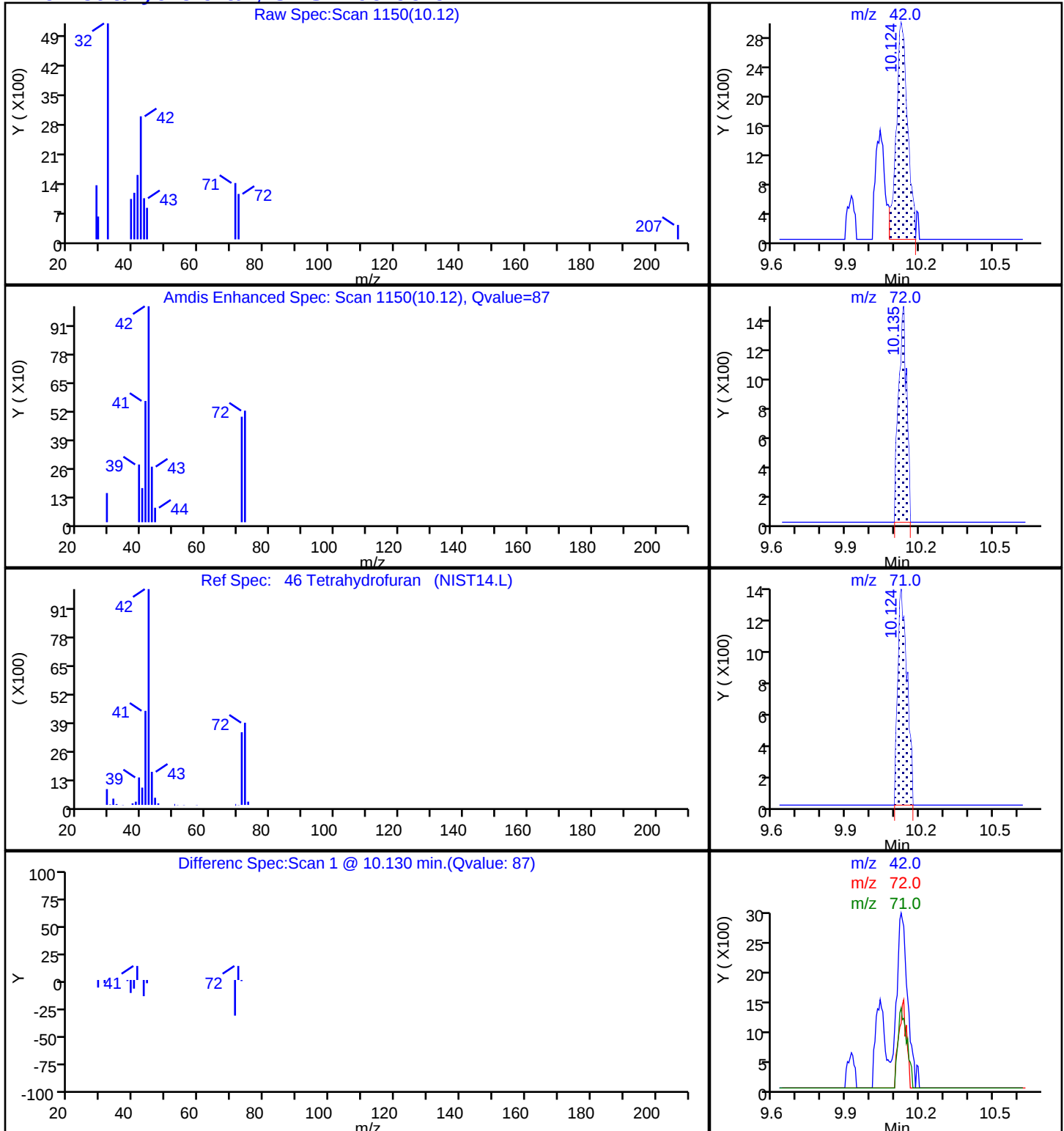
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

46 Tetrahydrofuran, CAS: 109-99-9

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

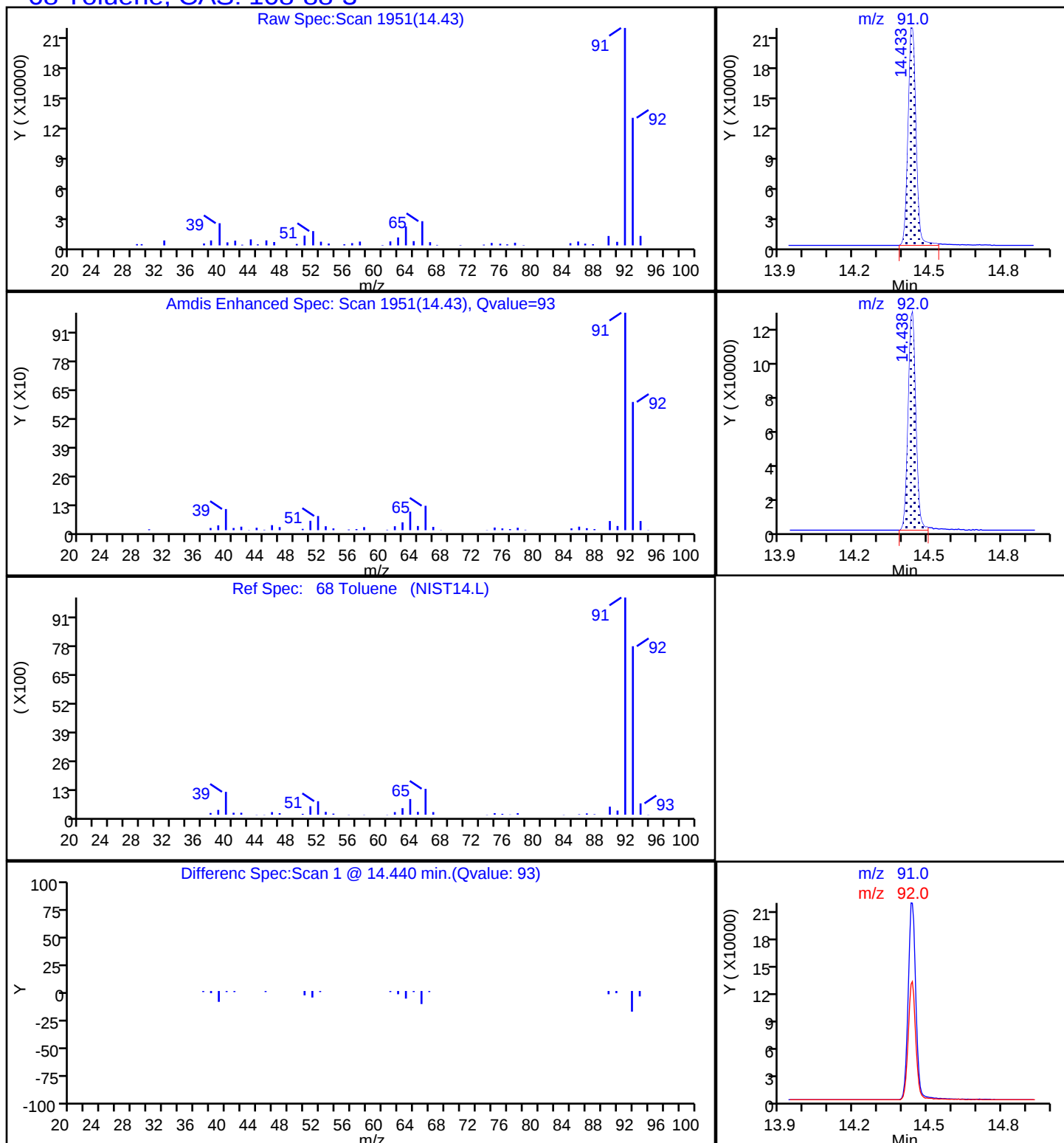
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

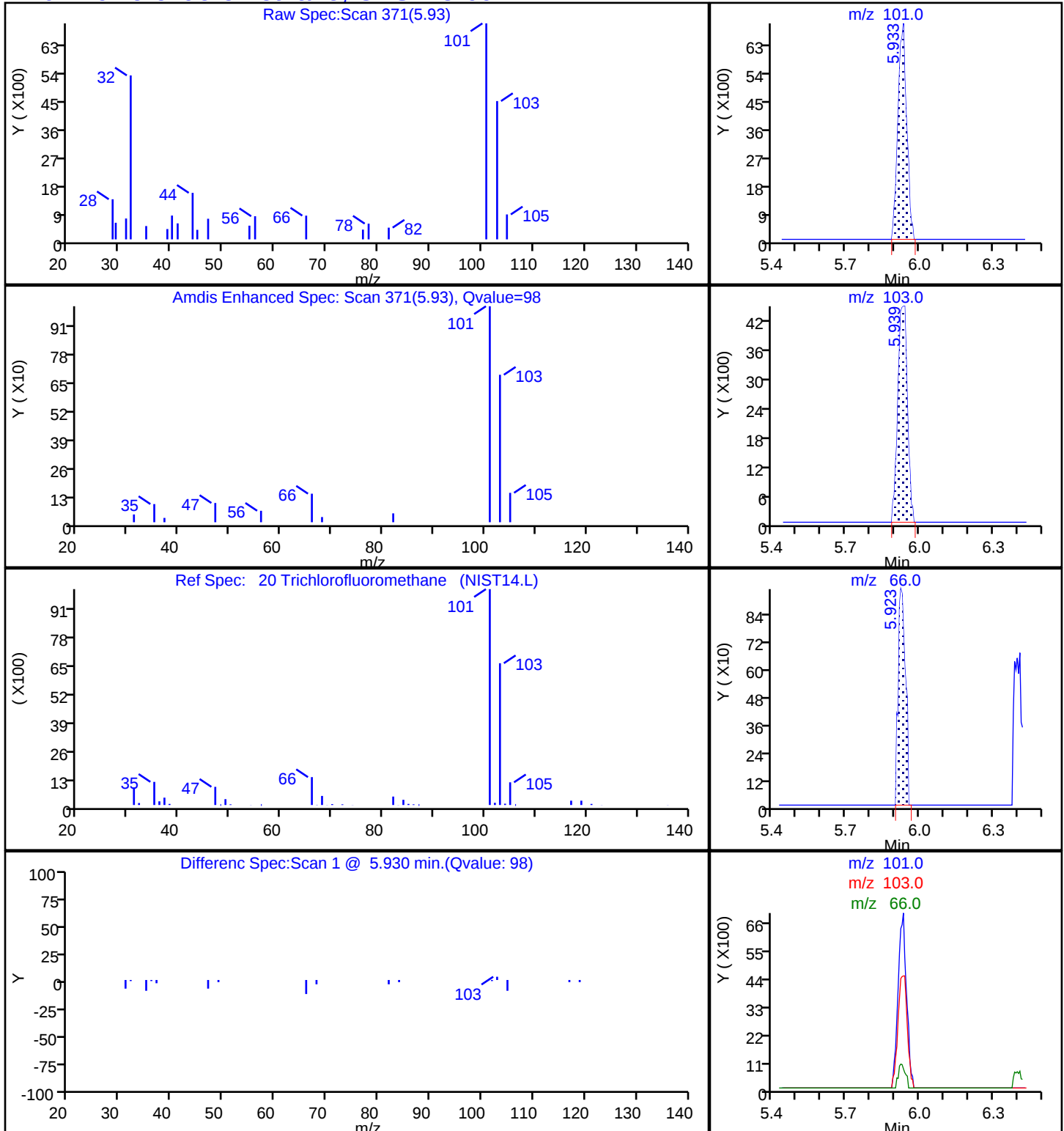
Dil. Factor: 1.0000

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

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#: 5

Worklist Smp#: 15

Purge Vol: 500.000 mL

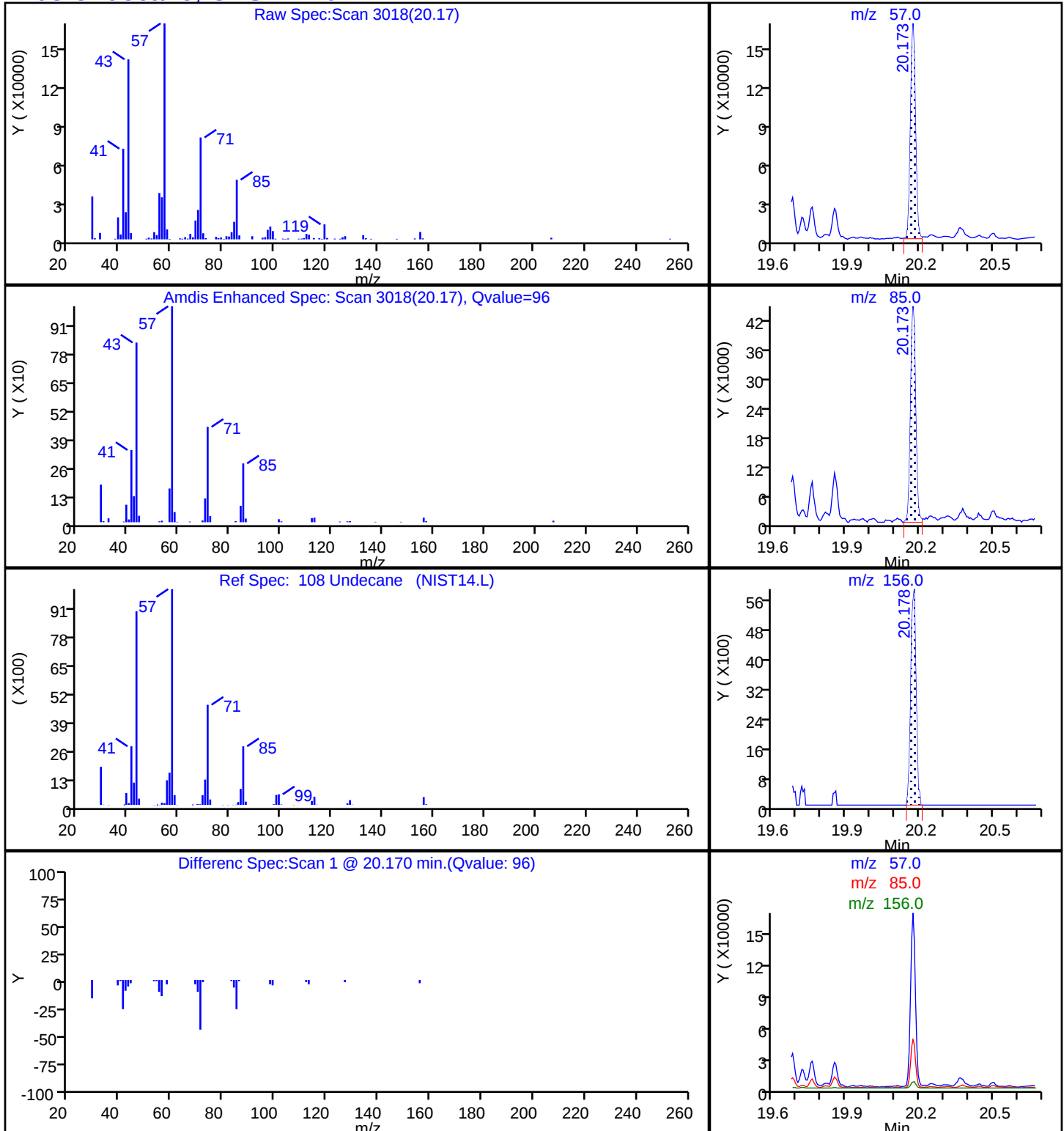
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

108 Undecane, CAS: 1120-21-4

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#:

5

Worklist Smp#: 15

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

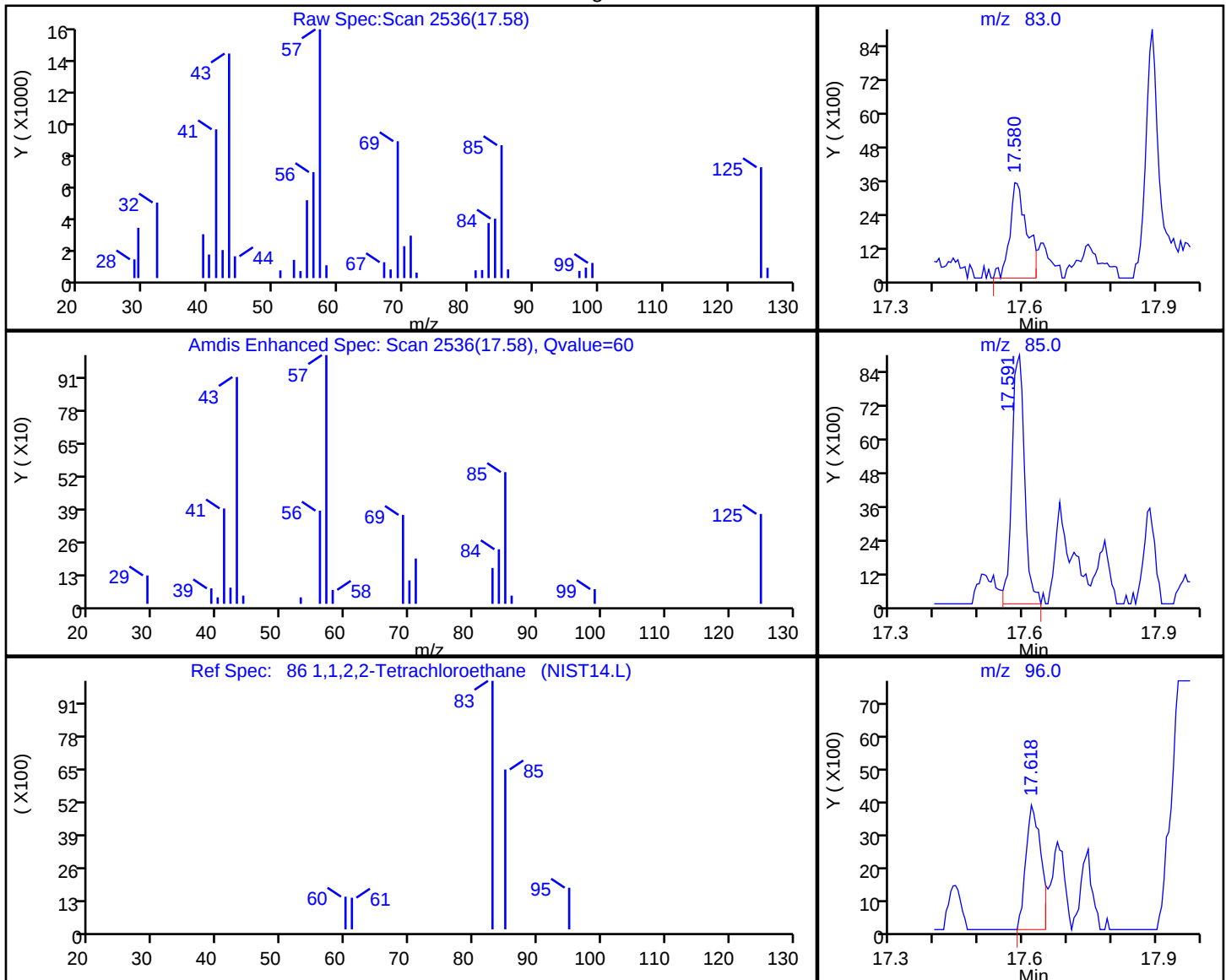
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

86 1,1,2,2-Tetrachloroethane, CAS: 79-34-5

Processing Results



RT	Mass	Response	Amount
17.58	83.00	9230	0.048387
17.59	85.00	17853	
17.62	96.00	8955	

Reviewer: tajh, 17-Apr-2018 09:31:57

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#:

5

Worklist Smp#: 15

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

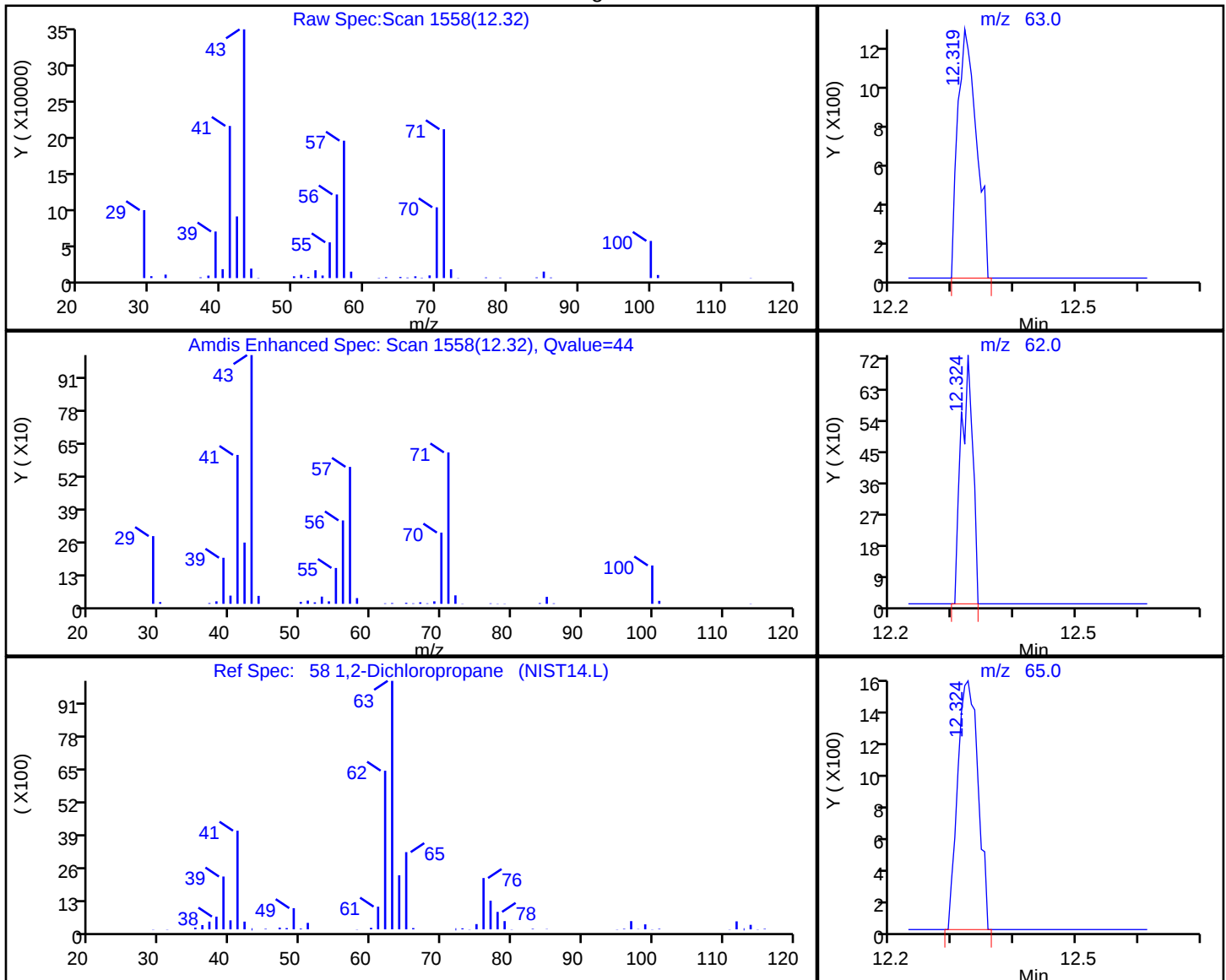
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

58 1,2-Dichloropropane, CAS: 78-87-5

Processing Results



RT	Mass	Response	Amount
12.32	63.00	2598	0.028013
12.32	62.00	947	
12.32	65.00	3523	

Reviewer: tajh, 17-Apr-2018 09:31:57

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#:

5

Worklist Smp#: 15

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

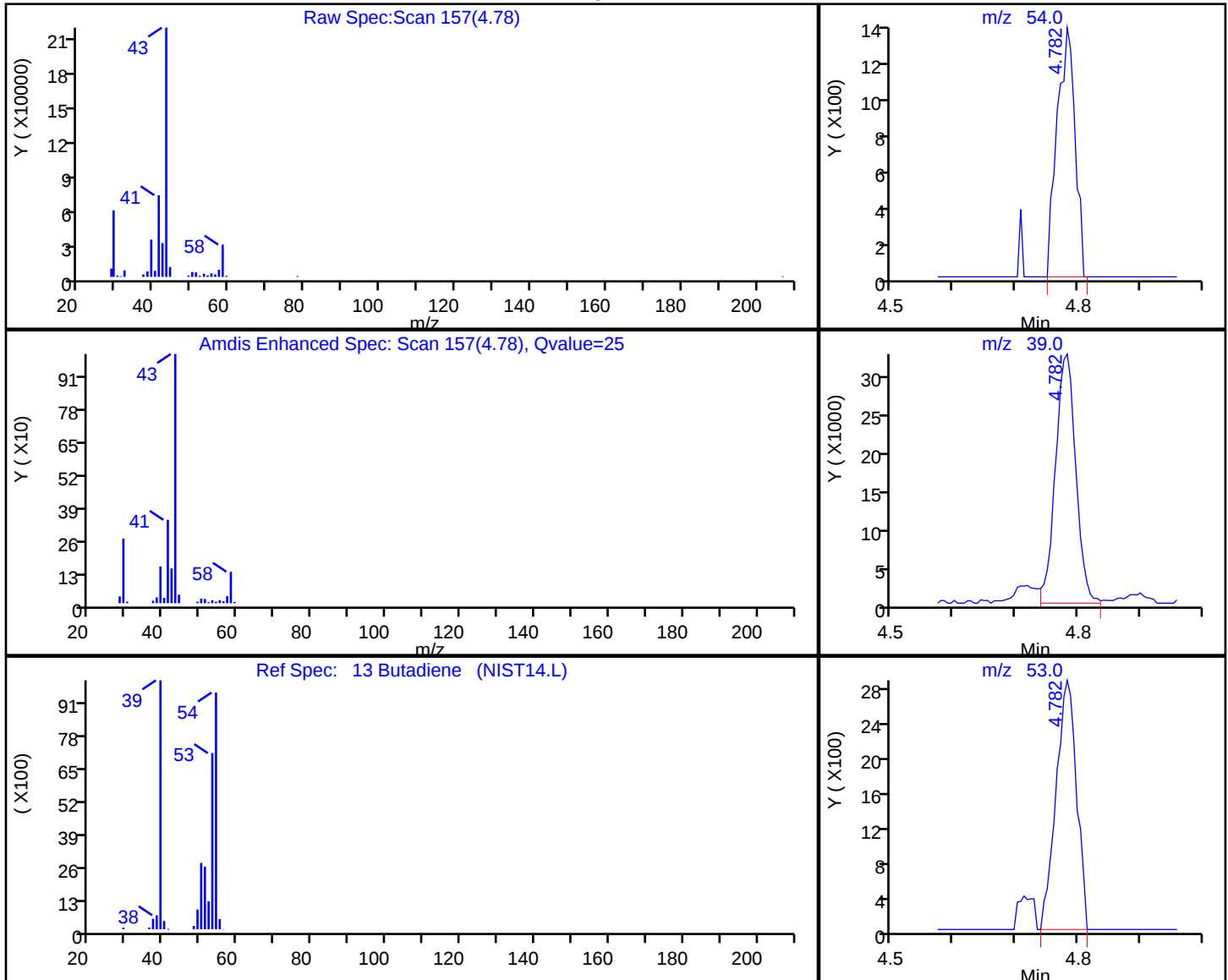
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

13 Butadiene, CAS: 106-99-0

Processing Results



RT	Mass	Response	Amount
4.78	54.00	2649	0.040001
4.78	39.00	75007	
4.78	53.00	6558	

Reviewer: tajh, 17-Apr-2018 09:31:57

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

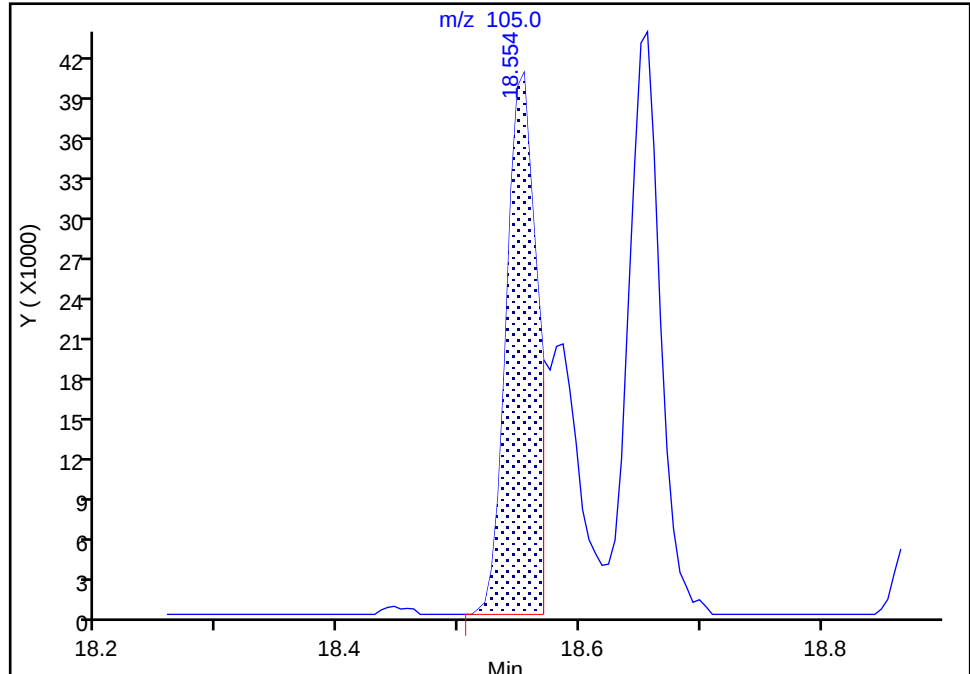
Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D
Injection Date: 16-Apr-2018 18:59:30 Instrument ID: MJ
Lims ID: 140-11270-A-5 Lab Sample ID: 140-11270-5
Client ID: FD-180410
Operator ID: 007126 ALS Bottle#: 5 Worklist Smp#: 15
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Method: MJ_TO15 Limit Group: MSA TO14A_15 Routine ICAL
Column: RTX-5 (0.32 mm) Detector: MS SCAN

91 4-Ethyltoluene, CAS: 622-96-8

Signal: 1

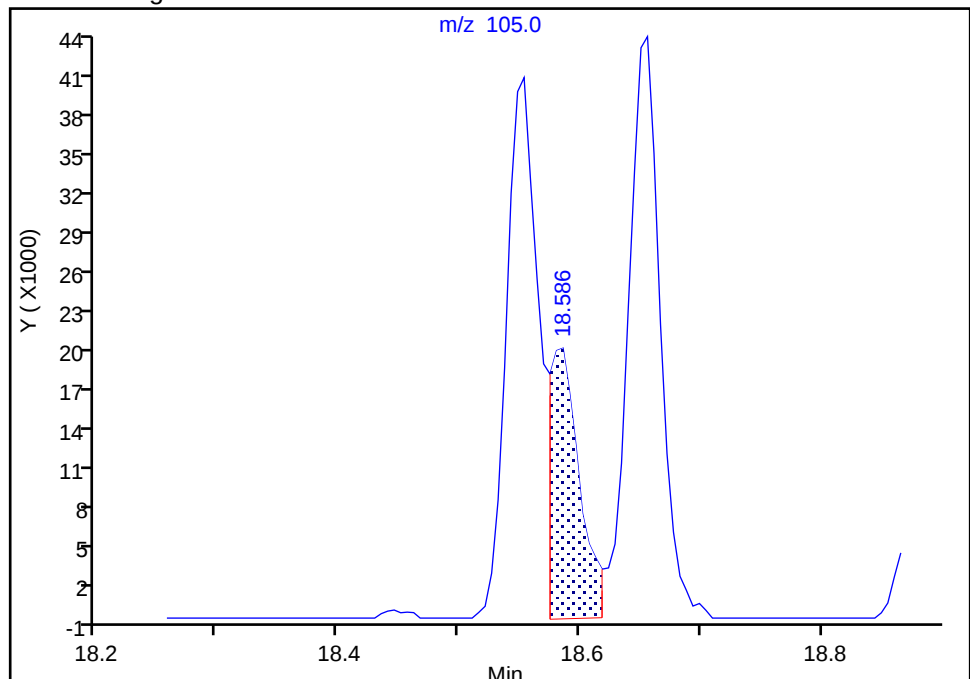
RT: 18.55
Area: 70981
Amount: 0.204693
Amount Units: ppb v/v

Processing Integration Results



RT: 18.59
Area: 35383
Amount: 0.102037
Amount Units: ppb v/v

Manual Integration Results



Reviewer: tajh, 17-Apr-2018 09:31:33
Audit Action: Manually Integrated

Audit Reason: Baseline
Page 309 of 617

04/25/2018

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#:

5

Worklist Smp#: 15

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

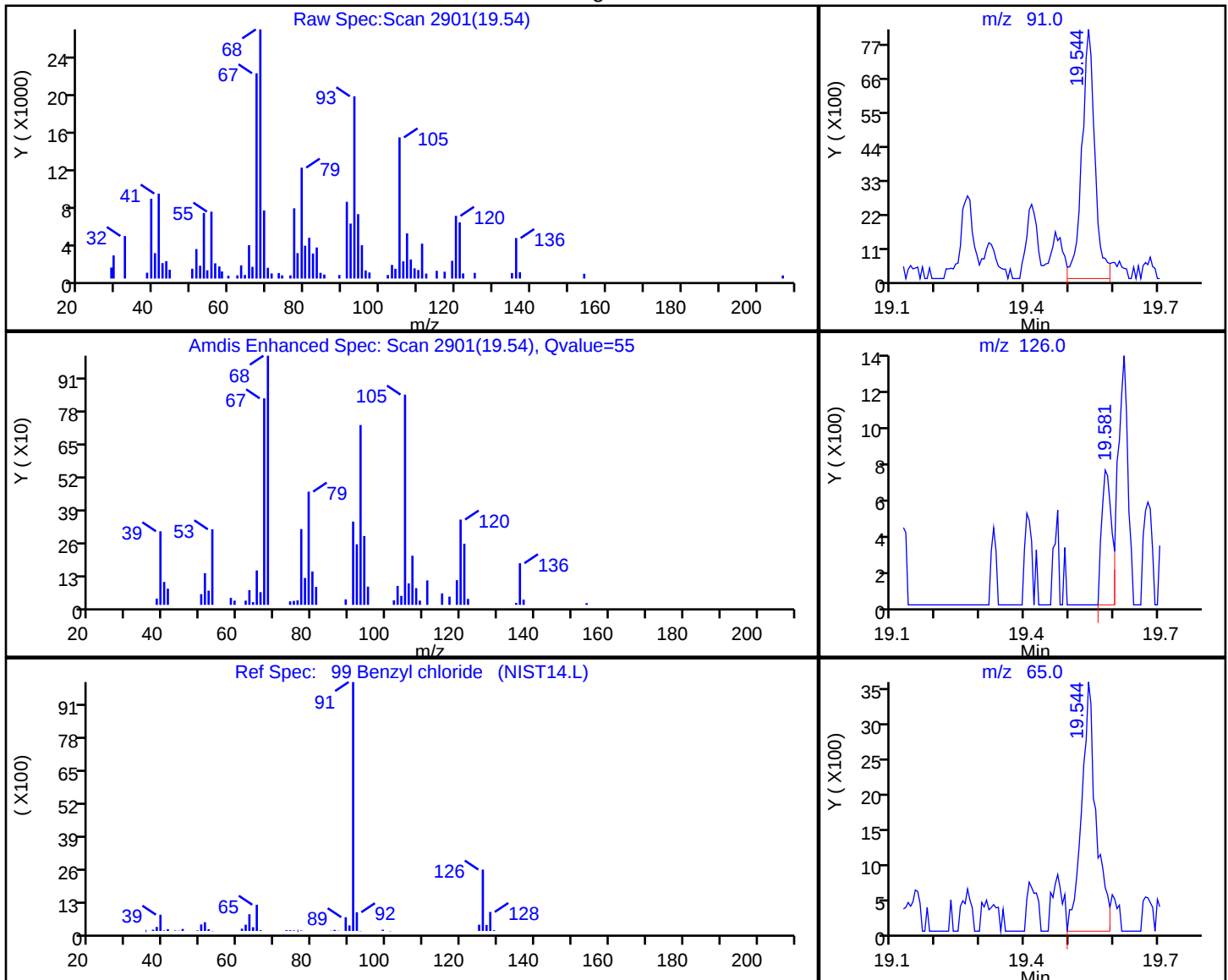
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

99 Benzyl chloride, CAS: 100-44-7

Processing Results



RT	Mass	Response	Amount
19.54	91.00	16664	0.070947
19.58	126.00	1190	
19.54	65.00	8001	

Reviewer: tajh, 17-Apr-2018 09:31:57

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#:

5

Worklist Smp#: 15

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

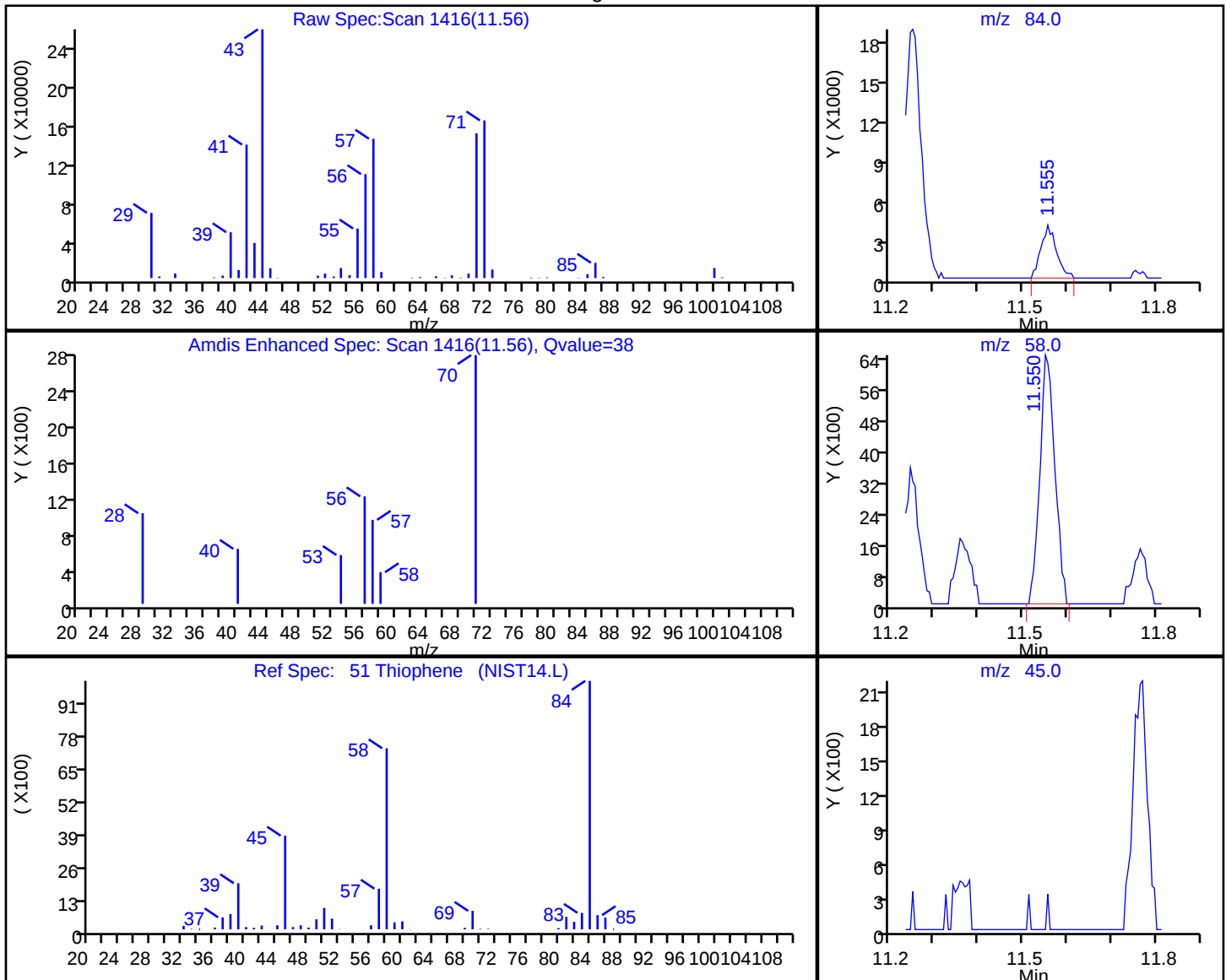
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

51 Thiophene, CAS: 110-02-1

Processing Results



RT	Mass	Response	Amount
11.56	84.00	9714	0.069389
11.55	58.00	15319	
11.52	45.00	0	

Reviewer: tajh, 17-Apr-2018 09:31:57

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P105.D

Injection Date: 16-Apr-2018 18:59:30

Instrument ID: MJ

Lims ID: 140-11270-A-5

Lab Sample ID: 140-11270-5

Client ID: FD-180410

Operator ID: 007126

ALS Bottle#:

5

Worklist Smp#: 15

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

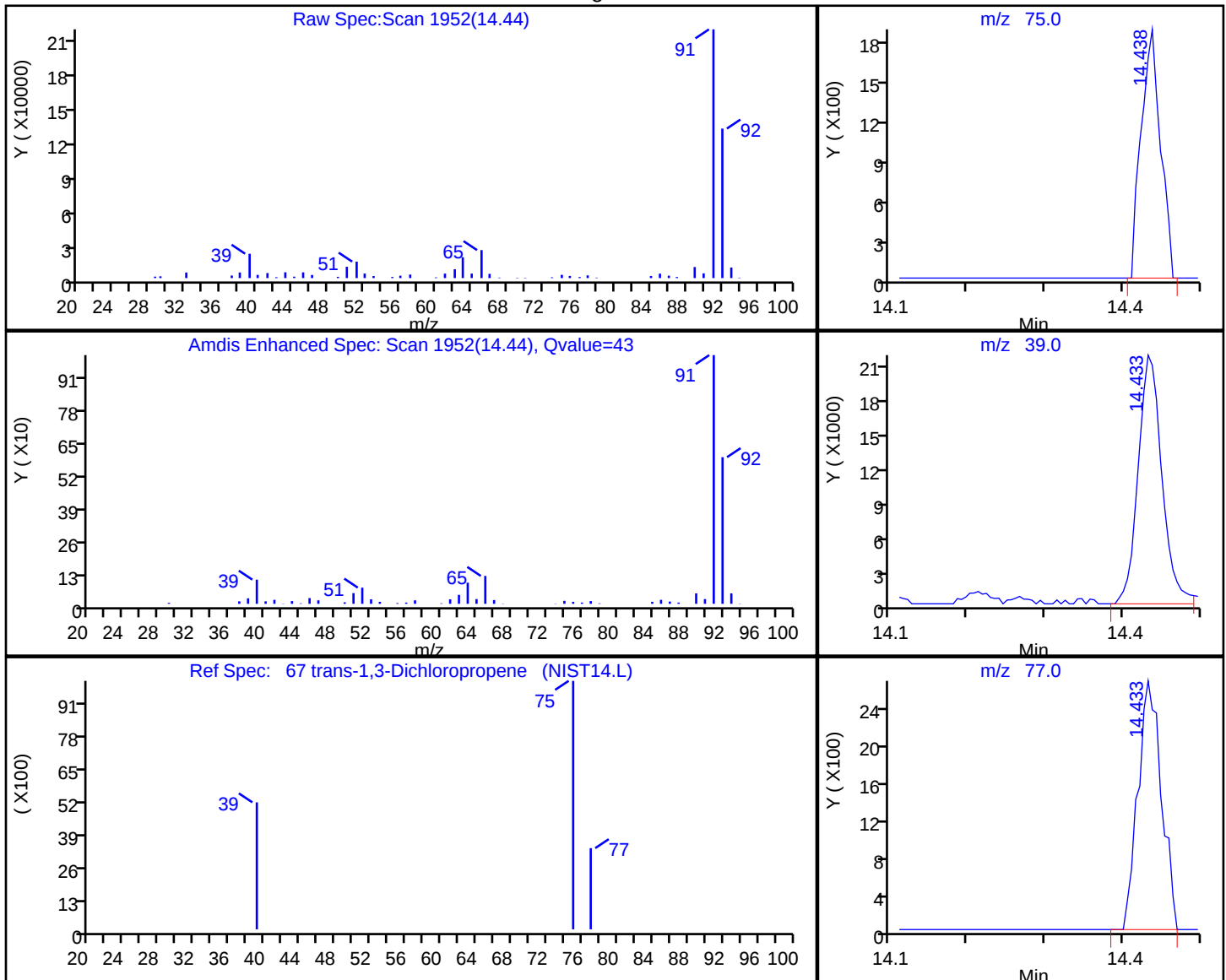
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

67 trans-1,3-Dichloropropene, CAS: 10061-02-6

Processing Results



RT	Mass	Response	Amount
14.44	75.00	3200	0.026008
14.43	39.00	47078	
14.43	77.00	5507	

Reviewer: tajh, 17-Apr-2018 09:31:57

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1

SDG No.: _____

Client Sample ID: CL-OA-1 Lab Sample ID: 140-11270-6

Matrix: Air Lab File ID: JD16P106.D

Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:58

Sample wt/vol: 500 (mL) Date Analyzed: 04/16/2018 19:46

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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.012
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.080	0.024
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	0.078	J	0.080	0.012
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.021
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.040	0.014
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	ND		0.080	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.039
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		0.080	0.018
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	0.021	J	0.080	0.013
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.080	0.028
78-87-5	1,2-Dichloropropane	112.99	ND		0.080	0.021
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.026
106-99-0	1,3-Butadiene	54.09	ND		0.16	0.025
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.080	0.026
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.080	0.026
123-91-1	1,4-Dioxane	88.11	ND		0.20	0.032
90-12-0	1-Methylnaphthalene	142.20	ND	*	1.0	0.37
540-84-1	2,2,4-Trimethylpentane	114.23	0.027	J	0.20	0.016
78-93-3	2-Butanone (MEK)	72.11	0.87		0.32	0.080
591-78-6	2-Hexanone	100.20	0.089	J	0.20	0.023
91-57-6	2-Methylnaphthalene	142.20	ND	*	1.0	0.35
107-05-1	3-Chloropropene	76.53	ND		0.080	0.019
622-96-8	4-Ethyltoluene	120.20	ND		0.16	0.026
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	0.21		0.20	0.078
67-64-1	Acetone	58.08	6.3	CI	2.0	0.54
71-43-2	Benzene	78.11	0.15		0.080	0.023
100-44-7	Benzyl chloride	126.58	ND		0.16	0.031
75-27-4	Bromodichloromethane	163.83	ND		0.080	0.018
75-25-2	Bromoform	252.75	ND		0.080	0.019
74-83-9	Bromomethane	94.94	ND		0.080	0.013
106-97-8	Butane	58.12	1.1		0.16	0.073
75-15-0	Carbon disulfide	76.14	0.042	J	0.20	0.012

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-OA-1 Lab Sample ID: 140-11270-6
 Matrix: Air Lab File ID: JD16P106.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:58
 Sample wt/vol: 500 (mL) Date Analyzed: 04/16/2018 19:46
 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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	0.090		0.032	0.015
108-90-7	Chlorobenzene	112.56	ND		0.080	0.020
75-00-3	Chloroethane	64.52	ND		0.080	0.014
67-66-3	Chloroform	119.38	0.023	J	0.080	0.015
74-87-3	Chloromethane	50.49	0.69		0.20	0.064
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.040	0.024
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.080	0.029
110-82-7	Cyclohexane	84.16	0.18	J	0.20	0.016
124-18-5	Decane	142.28	0.058	J	0.40	0.022
124-48-1	Dibromochloromethane	208.29	ND		0.080	0.017
75-71-8	Dichlorodifluoromethane	120.91	0.57		0.080	0.027
112-40-3	Dodecane	170.33	ND		0.40	0.031
64-17-5	Ethanol	46.07	7.5		2.0	0.64
141-78-6	Ethyl acetate	88.11	0.39	J	0.80	0.080
100-41-4	Ethylbenzene	106.17	0.058	J	0.080	0.027
142-82-5	Heptane	100.21	0.19	J	0.20	0.019
87-68-3	Hexachlorobutadiene	260.76	ND		0.080	0.049
110-54-3	Hexane	86.17	0.22		0.20	0.013
496-11-7	Indane	118.18	ND		0.080	0.033
95-13-6	Indene	116.16	ND		0.16	0.032
67-63-0	Isopropyl alcohol	60.10	1.2		0.80	0.094
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.16	0.068
75-09-2	Methylene Chloride	84.93	0.47		0.20	0.13
179601-23-1	m-Xylene & p-Xylene	106.17	0.20		0.080	0.053
111-84-2	Nonane	128.26	0.076	J	0.20	0.017
111-65-9	Octane	114.23	0.064	J	0.16	0.014
95-47-6	o-Xylene	106.17	0.092		0.080	0.024
109-66-0	Pentane	72.15	2.2		0.40	0.16
100-42-5	Styrene	104.15	ND		0.080	0.023
75-65-0	tert-Butyl alcohol	74.12	0.055	J	0.32	0.015
127-18-4	Tetrachloroethene	165.83	0.035	J	0.080	0.016
109-99-9	Tetrahydrofuran	72.11	0.040	J	0.40	0.025
110-02-1	Thiophene	84.14	ND		0.080	0.030
108-88-3	Toluene	92.14	1.1		0.12	0.12
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.020

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-OA-1 Lab Sample ID: 140-11270-6
 Matrix: Air Lab File ID: JD16P106.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:58
 Sample wt/vol: 500 (mL) Date Analyzed: 04/16/2018 19:46
 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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.080	0.019
79-01-6	Trichloroethene	131.39	ND		0.036	0.014
75-69-4	Trichlorofluoromethane	137.37	0.31		0.080	0.010
1120-21-4	Undecane	156.31	ND		0.40	0.025
593-60-2	Vinyl bromide	106.96	ND		0.080	0.014
75-01-4	Vinyl chloride	62.50	ND		0.040	0.029

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.: 140-11270-1

SDG No.: _____

Client Sample ID: CL-OA-1 Lab Sample ID: 140-11270-6

Matrix: Air Lab File ID: JD16P106.D

Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:58

Sample wt/vol: 500 (mL) Date Analyzed: 04/16/2018 19:46

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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.065
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.55	0.16
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	0.60	J	0.61	0.092
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.11
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.16	0.056
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	ND		0.44	0.19
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.29
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		0.61	0.14
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	0.15	J	0.56	0.091
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.48	0.17
78-87-5	1,2-Dichloropropane	112.99	ND		0.37	0.097
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.13
106-99-0	1,3-Butadiene	54.09	ND		0.35	0.055
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.48	0.16
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.48	0.16
123-91-1	1,4-Dioxane	88.11	ND		0.72	0.12
90-12-0	1-Methylnaphthalene	142.20	ND	*	5.8	2.2
540-84-1	2,2,4-Trimethylpentane	114.23	0.12	J	0.93	0.075
78-93-3	2-Butanone (MEK)	72.11	2.6		0.94	0.24
591-78-6	2-Hexanone	100.20	0.36	J	0.82	0.094
91-57-6	2-Methylnaphthalene	142.20	ND	*	5.8	2.0
107-05-1	3-Chloropropene	76.53	ND		0.25	0.059
622-96-8	4-Ethyltoluene	120.20	ND		0.79	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	0.87		0.82	0.32
67-64-1	Acetone	58.08	15	CI	4.8	1.3
71-43-2	Benzene	78.11	0.47		0.26	0.073
100-44-7	Benzyl chloride	126.58	ND		0.83	0.16
75-27-4	Bromodichloromethane	163.83	ND		0.54	0.12
75-25-2	Bromoform	252.75	ND		0.83	0.20
74-83-9	Bromomethane	94.94	ND		0.31	0.050
106-97-8	Butane	58.12	2.7		0.38	0.17
75-15-0	Carbon disulfide	76.14	0.13	J	0.62	0.037

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1

SDG No.: _____

Client Sample ID: CL-OA-1 Lab Sample ID: 140-11270-6

Matrix: Air Lab File ID: JD16P106.D

Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:58

Sample wt/vol: 500 (mL) Date Analyzed: 04/16/2018 19:46

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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	0.56		0.20	0.094
108-90-7	Chlorobenzene	112.56	ND		0.37	0.092
75-00-3	Chloroethane	64.52	ND		0.21	0.037
67-66-3	Chloroform	119.38	0.11	J	0.39	0.073
74-87-3	Chloromethane	50.49	1.4		0.41	0.13
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.16	0.095
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.36	0.13
110-82-7	Cyclohexane	84.16	0.62	J	0.69	0.055
124-18-5	Decane	142.28	0.34	J	2.3	0.13
124-48-1	Dibromochloromethane	208.29	ND		0.68	0.14
75-71-8	Dichlorodifluoromethane	120.91	2.8		0.40	0.13
112-40-3	Dodecane	170.33	ND		2.8	0.22
64-17-5	Ethanol	46.07	14		3.8	1.2
141-78-6	Ethyl acetate	88.11	1.4	J	2.9	0.29
100-41-4	Ethylbenzene	106.17	0.25	J	0.35	0.12
142-82-5	Heptane	100.21	0.77	J	0.82	0.078
87-68-3	Hexachlorobutadiene	260.76	ND		0.85	0.52
110-54-3	Hexane	86.17	0.78		0.70	0.046
496-11-7	Indane	118.18	ND		0.39	0.16
95-13-6	Indene	116.16	ND		0.76	0.15
67-63-0	Isopropyl alcohol	60.10	2.9		2.0	0.23
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.58	0.25
75-09-2	Methylene Chloride	84.93	1.6		0.69	0.45
179601-23-1	m-Xylene & p-Xylene	106.17	0.85		0.35	0.23
111-84-2	Nonane	128.26	0.40	J	1.0	0.089
111-65-9	Octane	114.23	0.30	J	0.75	0.065
95-47-6	o-Xylene	106.17	0.40		0.35	0.10
109-66-0	Pentane	72.15	6.5		1.2	0.47
100-42-5	Styrene	104.15	ND		0.34	0.098
75-65-0	tert-Butyl alcohol	74.12	0.17	J	0.97	0.045
127-18-4	Tetrachloroethene	165.83	0.24	J	0.54	0.11
109-99-9	Tetrahydrofuran	72.11	0.12	J	1.2	0.074
110-02-1	Thiophene	84.14	ND		0.28	0.10
108-88-3	Toluene	92.14	4.2		0.45	0.45
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.079

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: CL-OA-1 Lab Sample ID: 140-11270-6
 Matrix: Air Lab File ID: JD16P106.D
 Analysis Method: TO 15 LL Date Collected: 04/10/2018 08:58
 Sample wt/vol: 500 (mL) Date Analyzed: 04/16/2018 19:46
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.36	0.086
79-01-6	Trichloroethene	131.39	ND		0.19	0.075
75-69-4	Trichlorofluoromethane	137.37	1.8		0.45	0.056
1120-21-4	Undecane	156.31	ND		2.6	0.16
593-60-2	Vinyl bromide	106.96	ND		0.35	0.061
75-01-4	Vinyl chloride	62.50	ND		0.10	0.074

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\20180412-7901.b\JD16P106.D
 Lims ID: 140-11270-A-6
 Client ID: CL-OA-1
 Sample Type: Client
 Inject. Date: 16-Apr-2018 19:46:30 ALS Bottle#: 6 Worklist Smp#: 16
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007901-016
 Misc. Info.: 140-11270-a-6
 Operator ID: 007126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 17-Apr-2018 09:47:35 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK001

First Level Reviewer: tajh

Date: 17-Apr-2018 09:32:59

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.667	9.662	0.005	89	267376	4.00	
* 2 1,4-Difluorobenzene	114	11.765	11.765	0.000	95	1525194	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.365	16.364	0.001	87	1392747	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.968	17.973	-0.005	97	1013313	4.02	
8 Dichlorodifluoromethane	85	4.277	4.266	0.011	100	137481	0.5732	
9 Chloromethane	52	4.492	4.476	0.016	99	19235	0.6852	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.487	4.481	0.006	37	3307	0.0210	
14 Butane	43	4.777	4.766	0.011	94	152066	1.14	
17 Ethanol	31	5.434	5.412	0.022	94	243789	7.53	
20 Trichlorofluoromethane	101	5.923	5.917	0.006	99	72280	0.3116	
22 Acetone	58	6.068	6.057	0.011	98	193072	6.34	
24 Pentane	72	6.160	6.154	0.006	98	31042	2.19	
25 Isopropyl alcohol	45	6.214	6.170	0.044	94	101437	1.16	
30 2-Methyl-2-propanol	59	6.908	6.810	0.098	90	9192	0.0550	
29 1,1,2-Trichloro-1,2,2-trif	101	6.870	6.854	0.016	96	14324	0.0781	
32 Methylene Chloride	84	7.048	7.042	0.006	93	45319	0.4732	
33 Carbon disulfide	76	7.230	7.219	0.011	98	10857	0.0423	
40 2-Butanone (MEK)	72	8.898	8.887	0.011	93	29718	0.8695	
39 Hexane	56	8.903	8.898	0.005	56	15879	0.2207	
43 Ethyl acetate	43	9.511	9.500	0.011	99	59242	0.3920	
44 Chloroform	83	9.673	9.672	0.001	27	4379	0.0229	
46 Tetrahydrofuran	42	10.125	10.087	0.038	89	3272	0.0404	
49 Cyclohexane	69	11.270	11.265	0.005	80	8019	0.1795	
50 Benzene	78	11.260	11.265	-0.005	97	39504	0.1459	
52 Carbon tetrachloride	117	11.287	11.281	0.006	98	18353	0.0898	
56 Isooctane	57	11.975	11.969	0.006	93	11541	0.0266	
57 n-Heptane	71	12.319	12.319	0.000	90	17840	0.1873	
65 4-Methyl-2-pentanone (MIBK	43	13.600	13.583	0.017	98	29618	0.2118	
68 Toluene	91	14.434	14.433	0.001	94	330502	1.12	
72 2-Hexanone	58	14.891	14.880	0.011	93	6149	0.0888	
73 n-Octane	85	15.079	15.079	0.000	93	6497	0.0637	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
76 Tetrachloroethene	129	15.547	15.552	-0.005	92	4106	0.0352	
79 Ethylbenzene	91	16.693	16.687	0.006	98	20946	0.0575	
81 m-Xylene & p-Xylene	91	16.844	16.849	-0.005	99	53234	0.1952	
82 n-Nonane	57	17.236	17.231	0.006	88	15180	0.0764	
85 o-Xylene	91	17.371	17.370	0.001	99	26761	0.0925	
94 n-Decane	57	18.909	18.909	0.000	93	13711	0.0583	

Reagents:

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Operator ID: 007126

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Worklist Smp#: 16

Client ID: CL-OA-1

Purge Vol: 500.000 mL

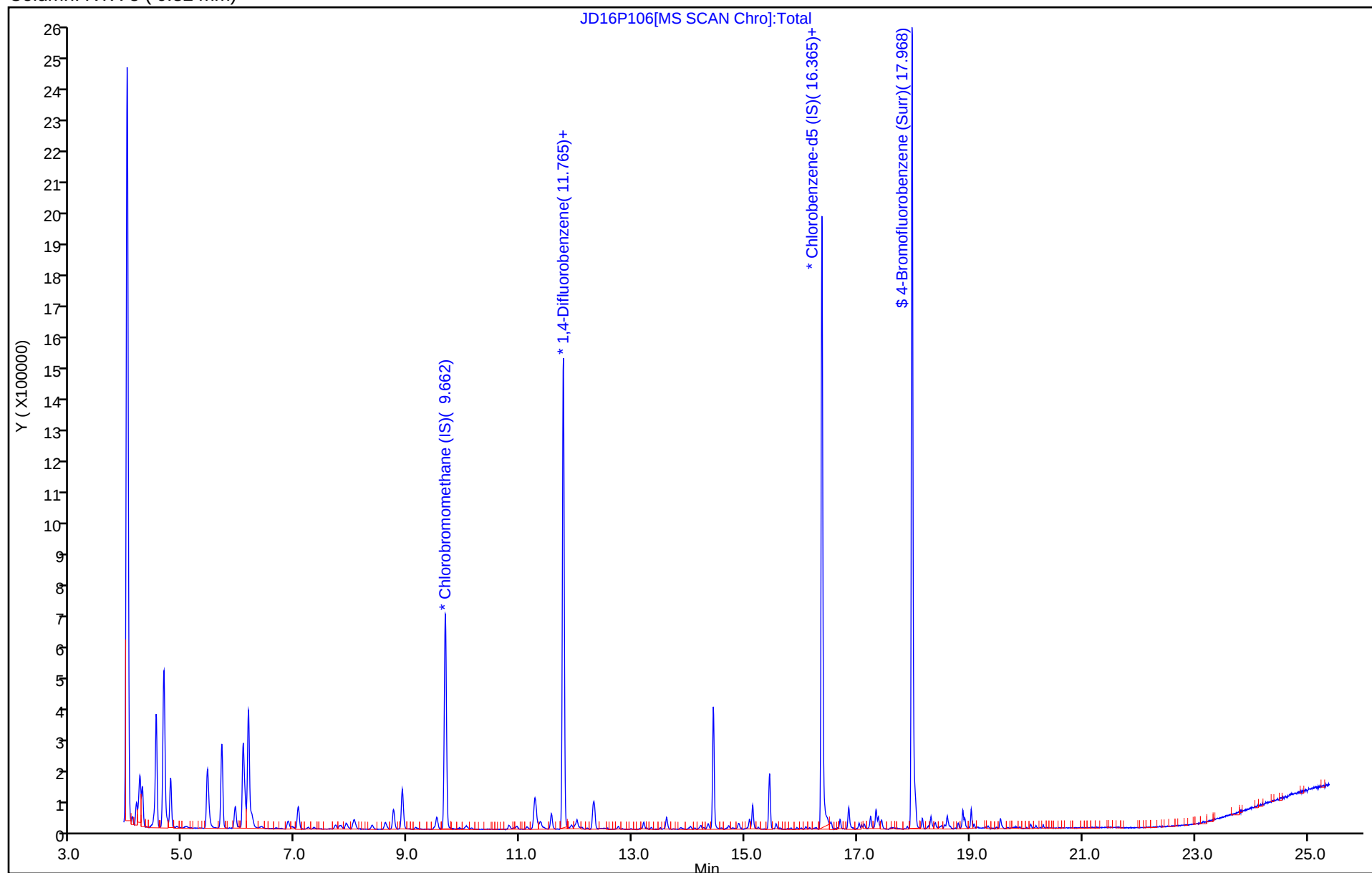
Dil. Factor: 1.0000

ALS Bottle#: 6

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville
Recovery Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D
Lims ID: 140-11270-A-6
Client ID: CL-OA-1
Sample Type: Client
Inject. Date: 16-Apr-2018 19:46:30 ALS Bottle#: 6 Worklist Smp#: 16
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0007901-016
Misc. Info.: 140-11270-a-6
Operator ID: 007126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 17-Apr-2018 09:47:35 Calib Date: 15-Feb-2018 22:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: tajh

Date: 17-Apr-2018 09:32:59

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.02	100.61

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

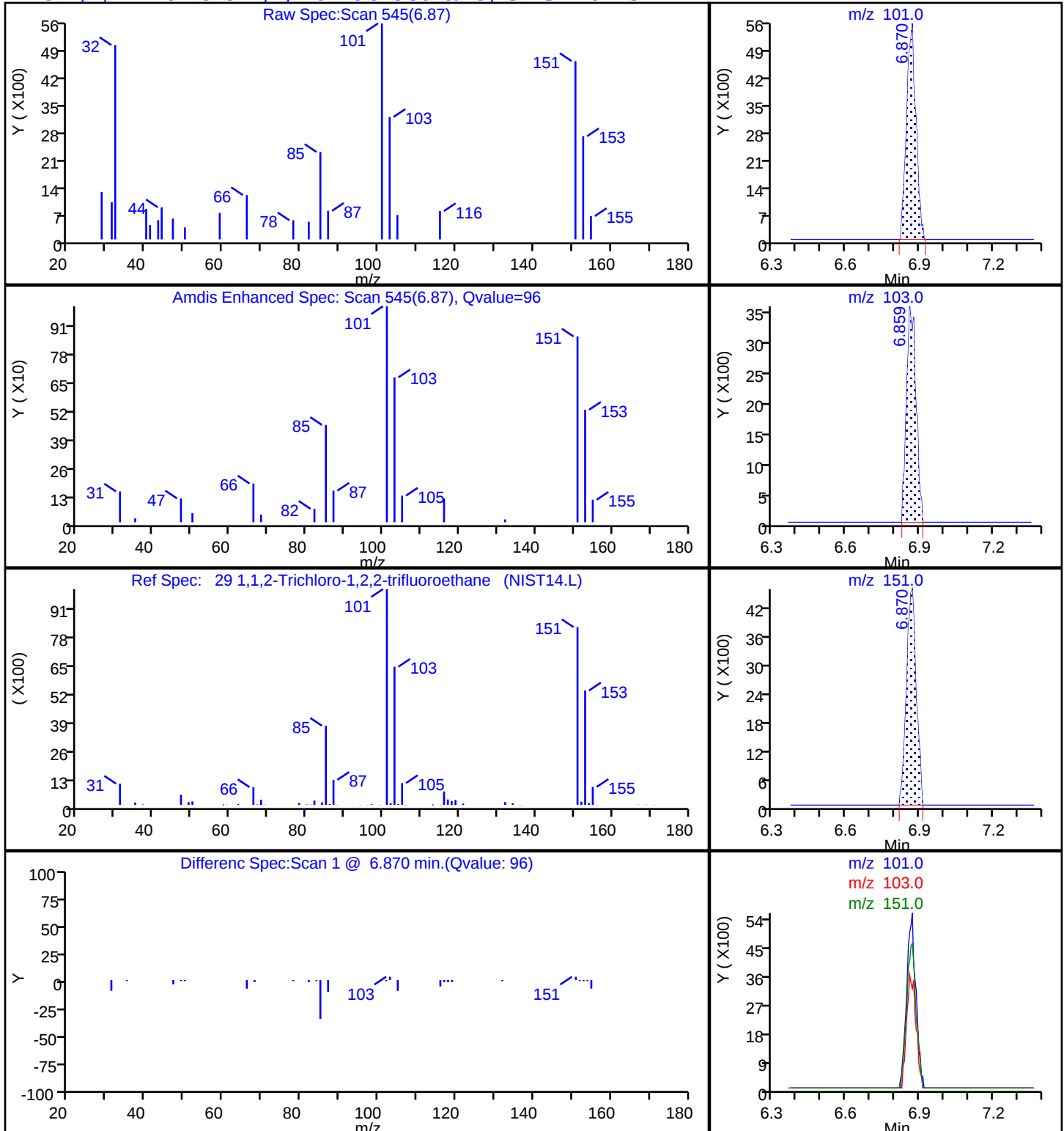
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

29 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

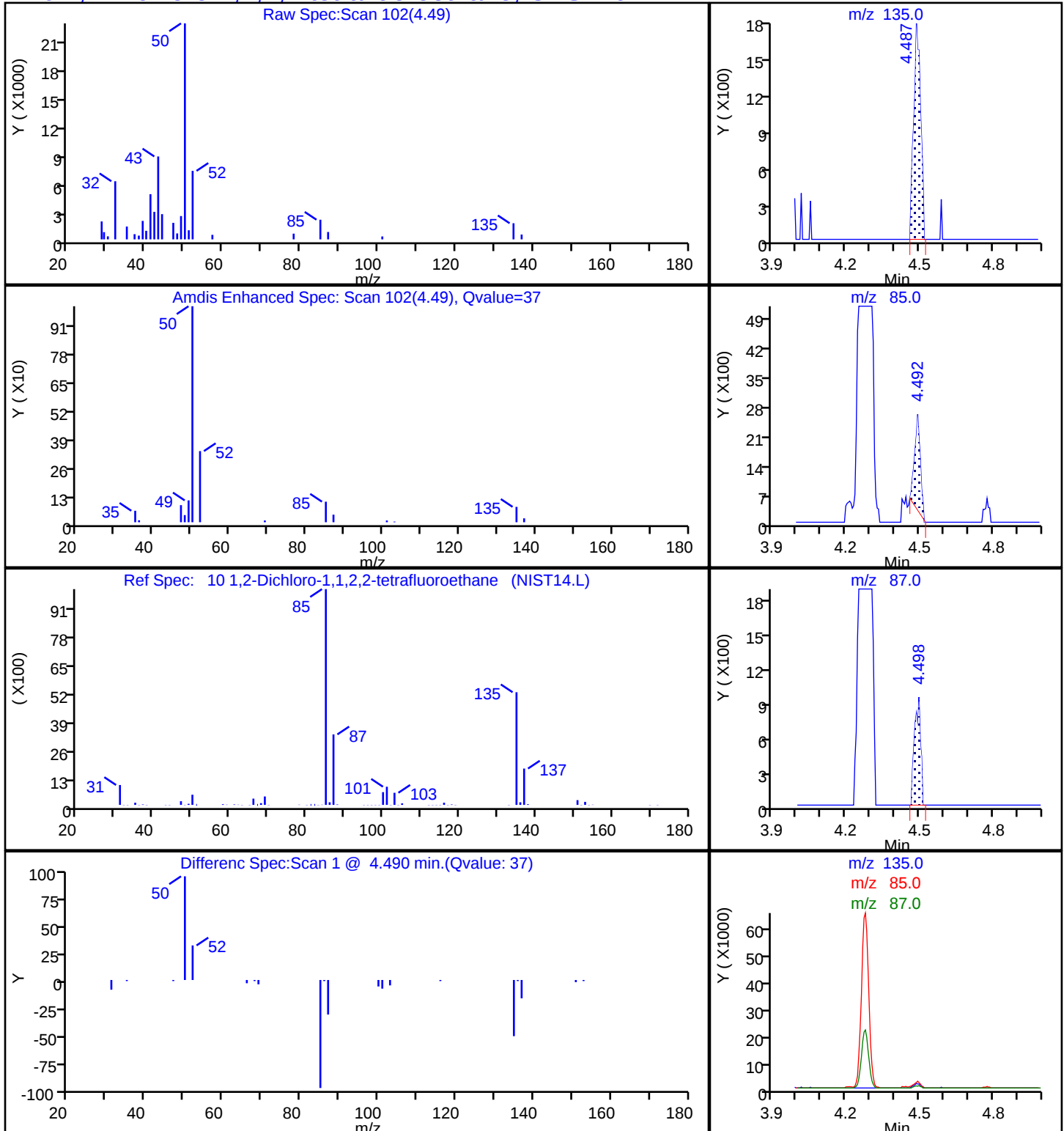
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

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

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

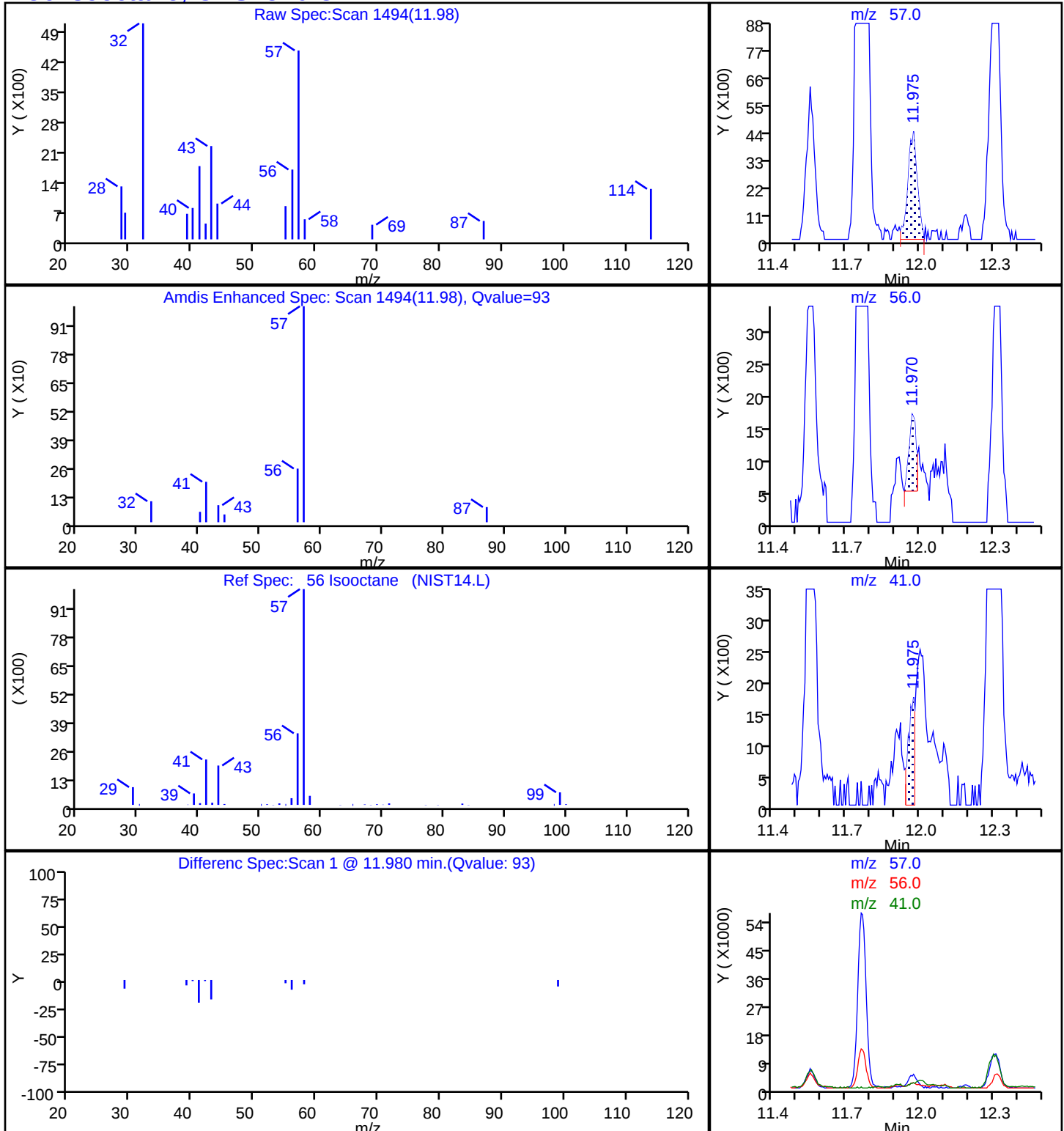
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

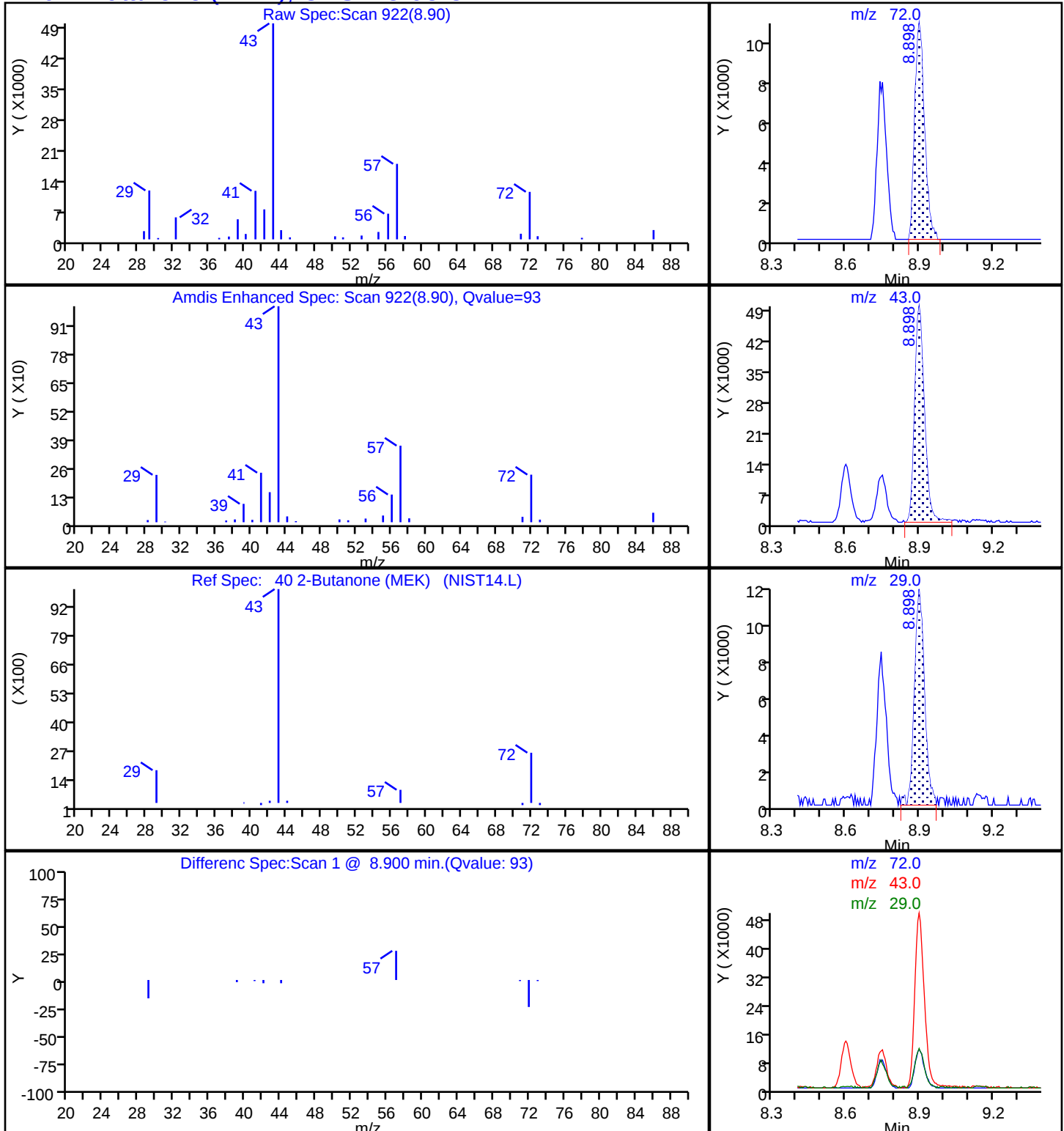
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

40 2-Butanone (MEK), CAS: 78-93-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

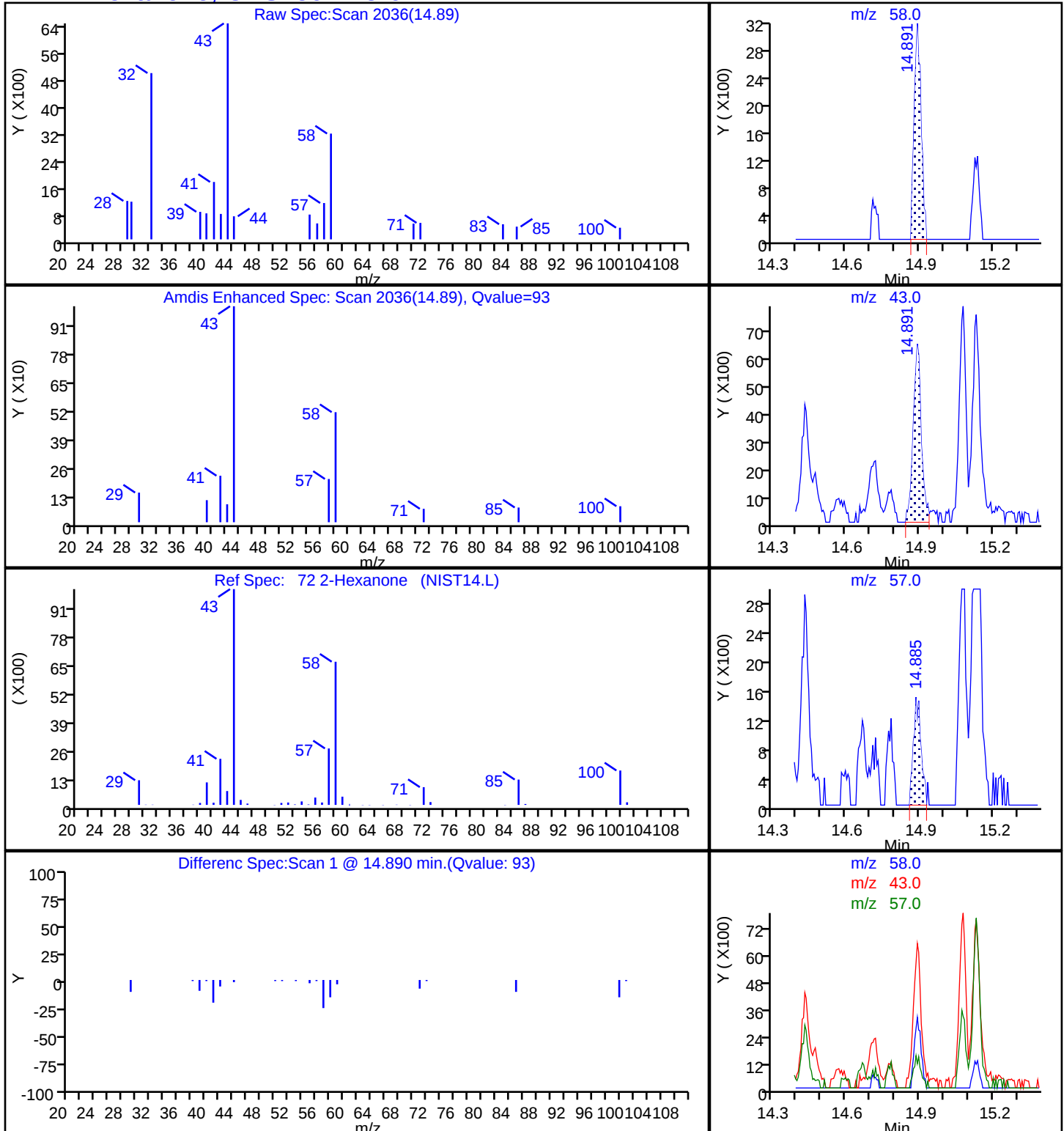
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

72 2-Hexanone, CAS: 591-78-6



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

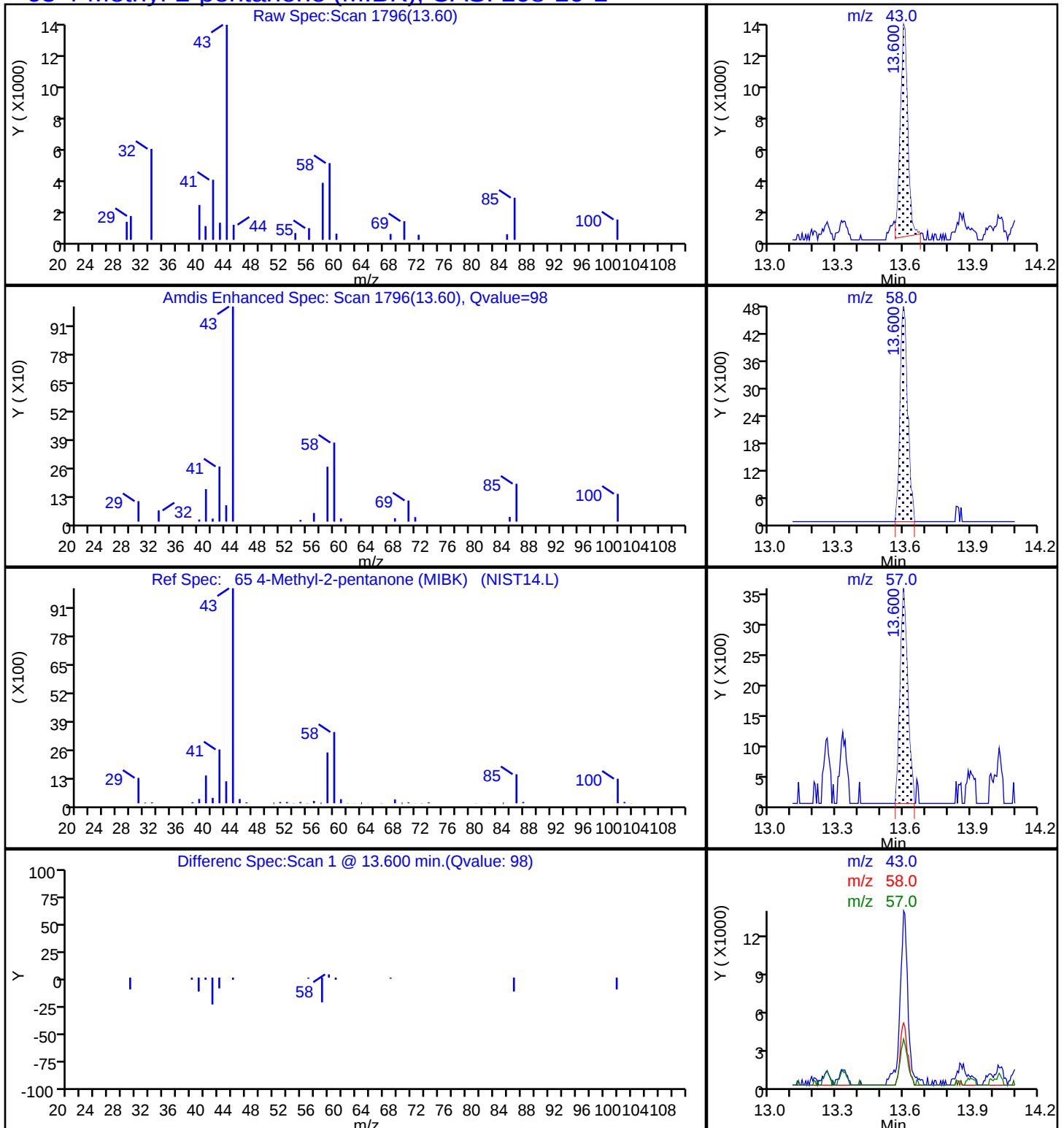
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

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



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

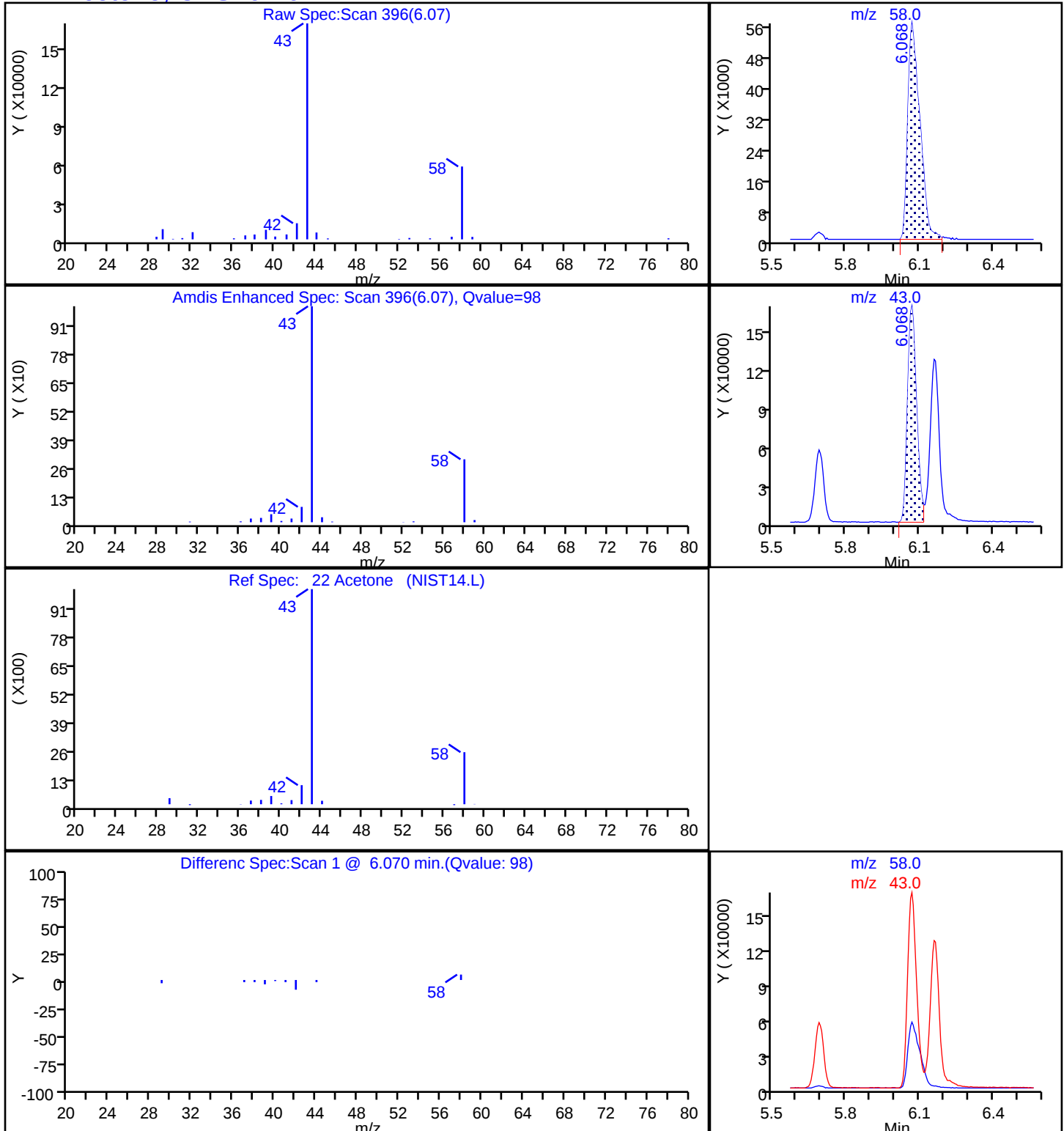
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

22 Acetone, CAS: 67-64-1

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

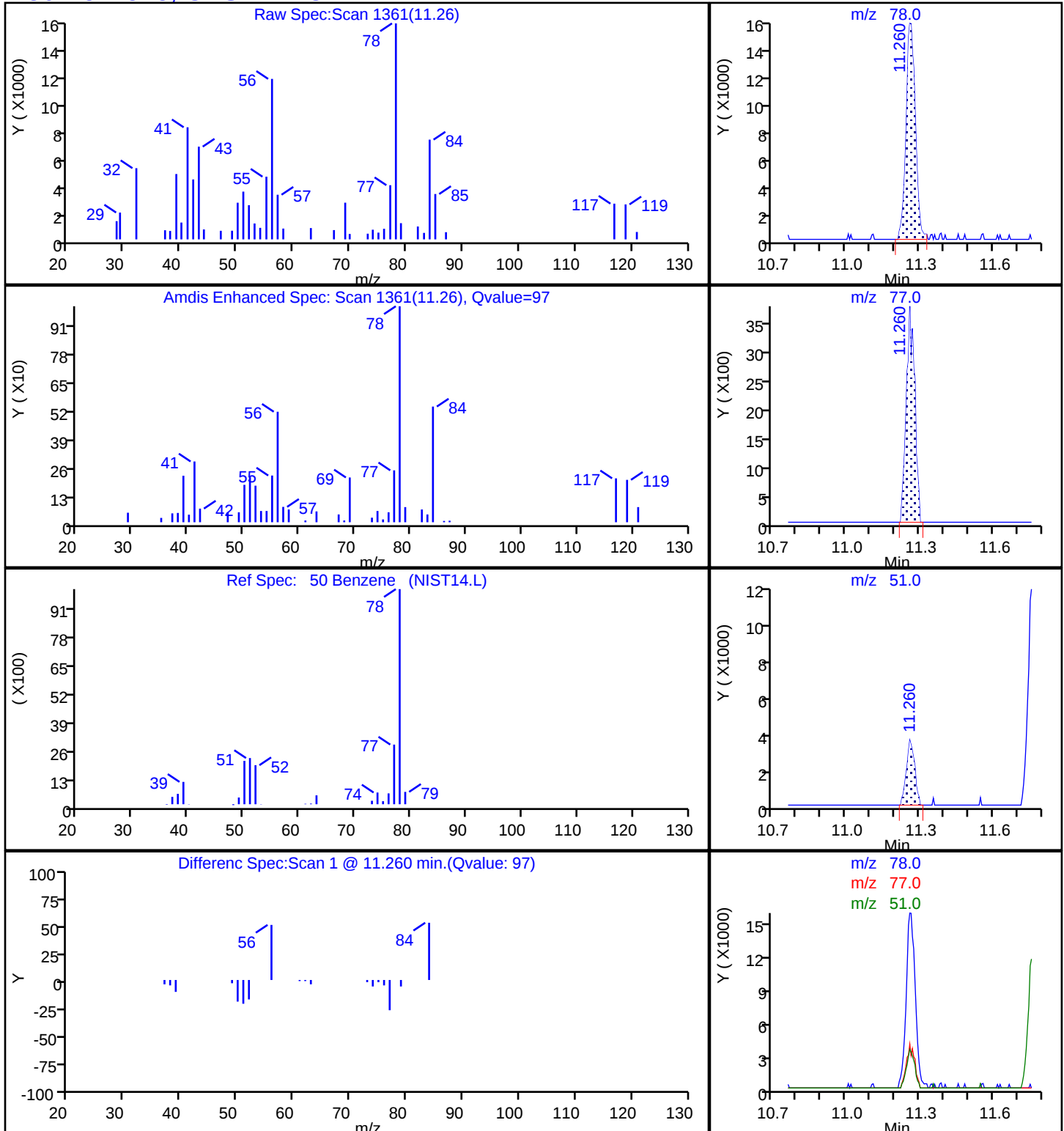
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

50 Benzene, CAS: 71-43-2



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

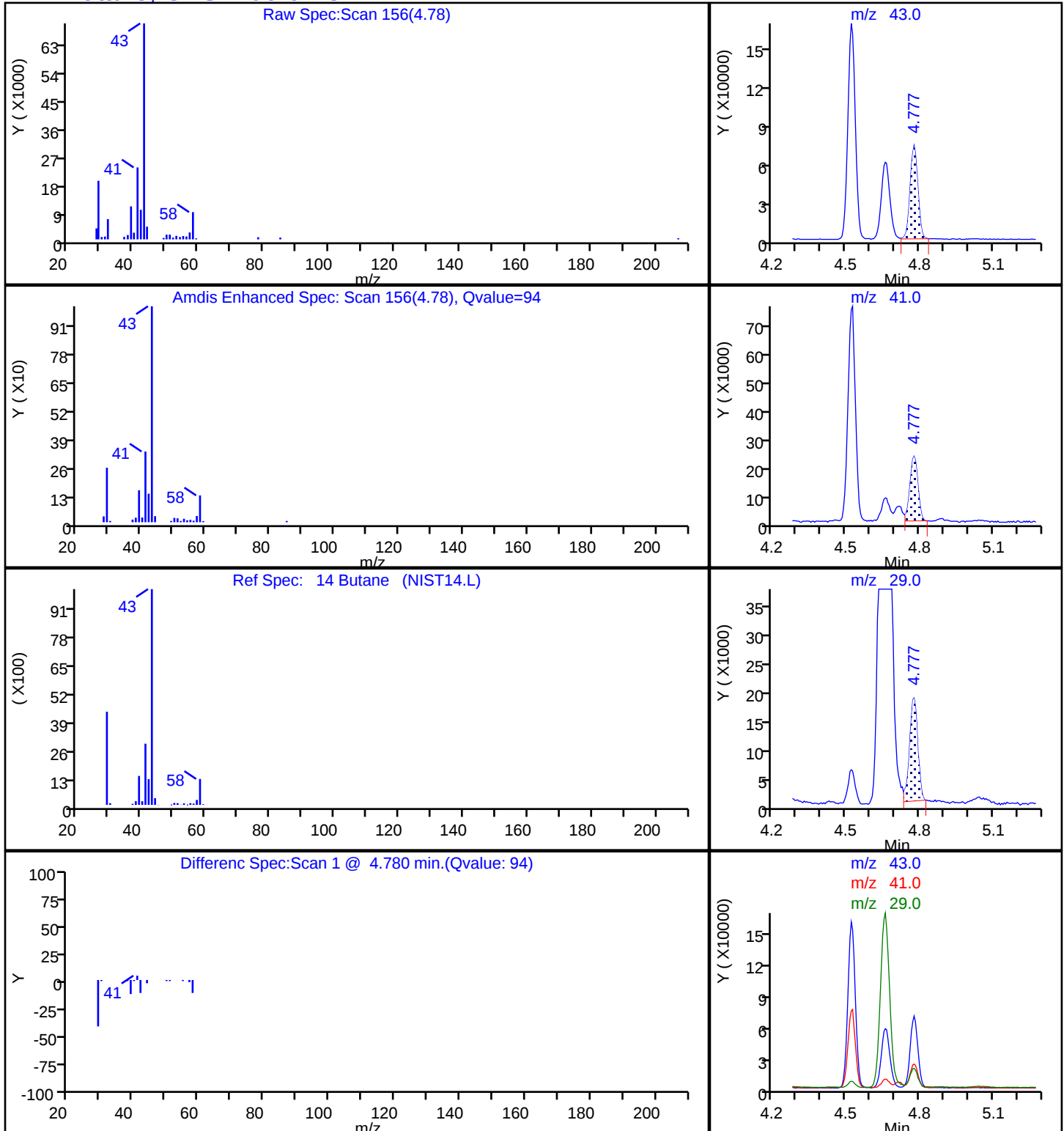
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

14 Butane, CAS: 106-97-8

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

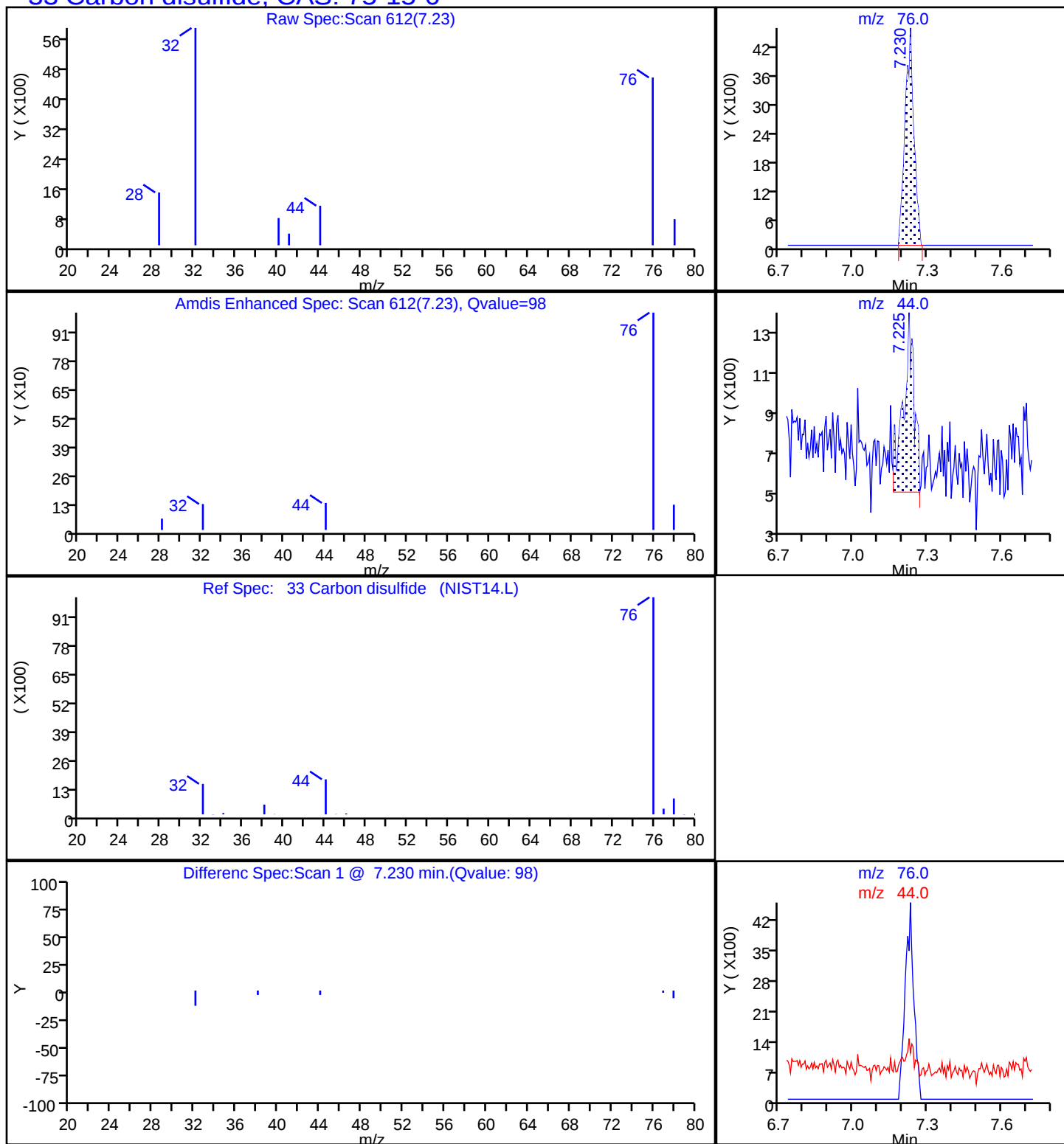
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

33 Carbon disulfide, CAS: 75-15-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

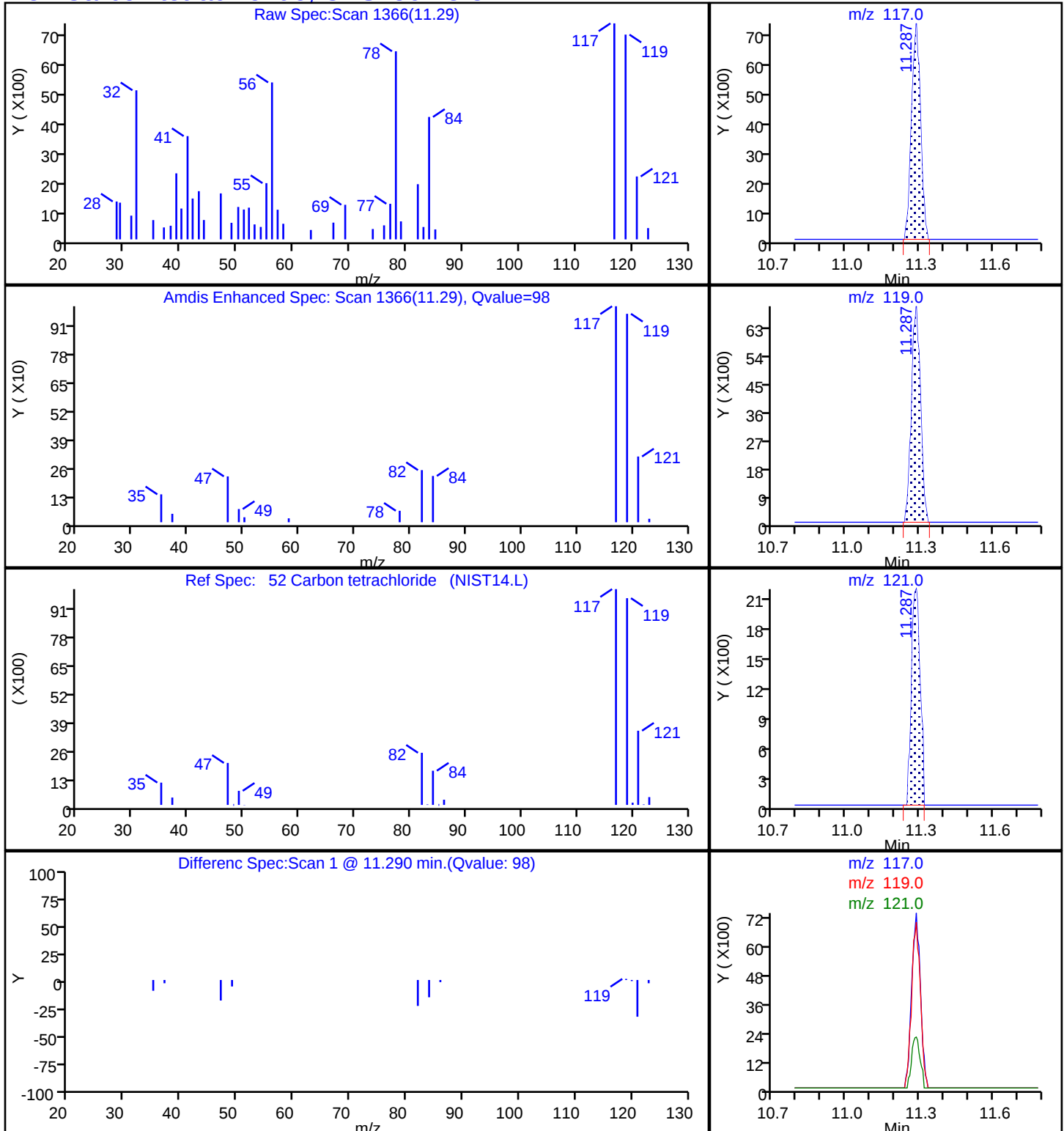
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

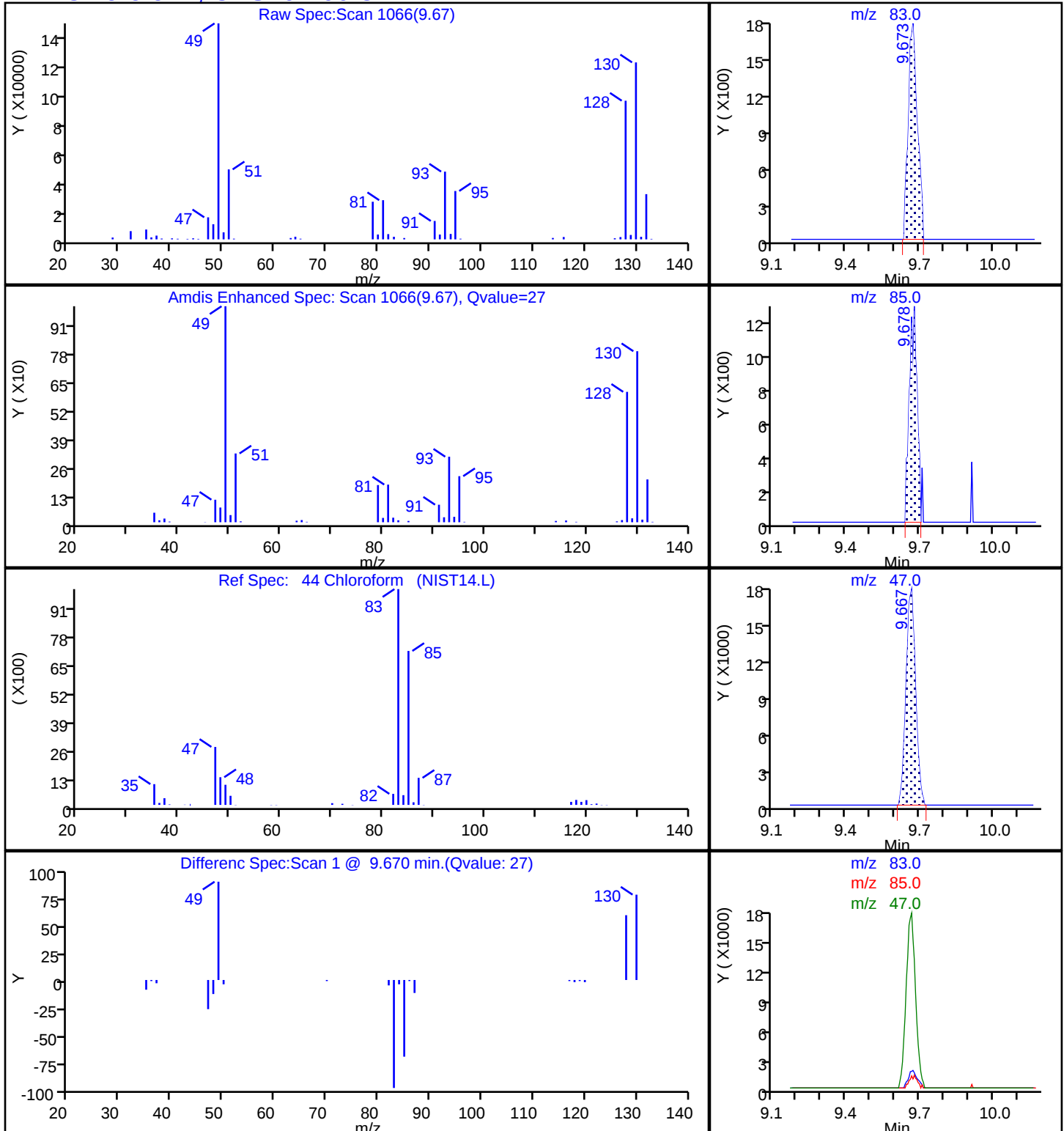
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

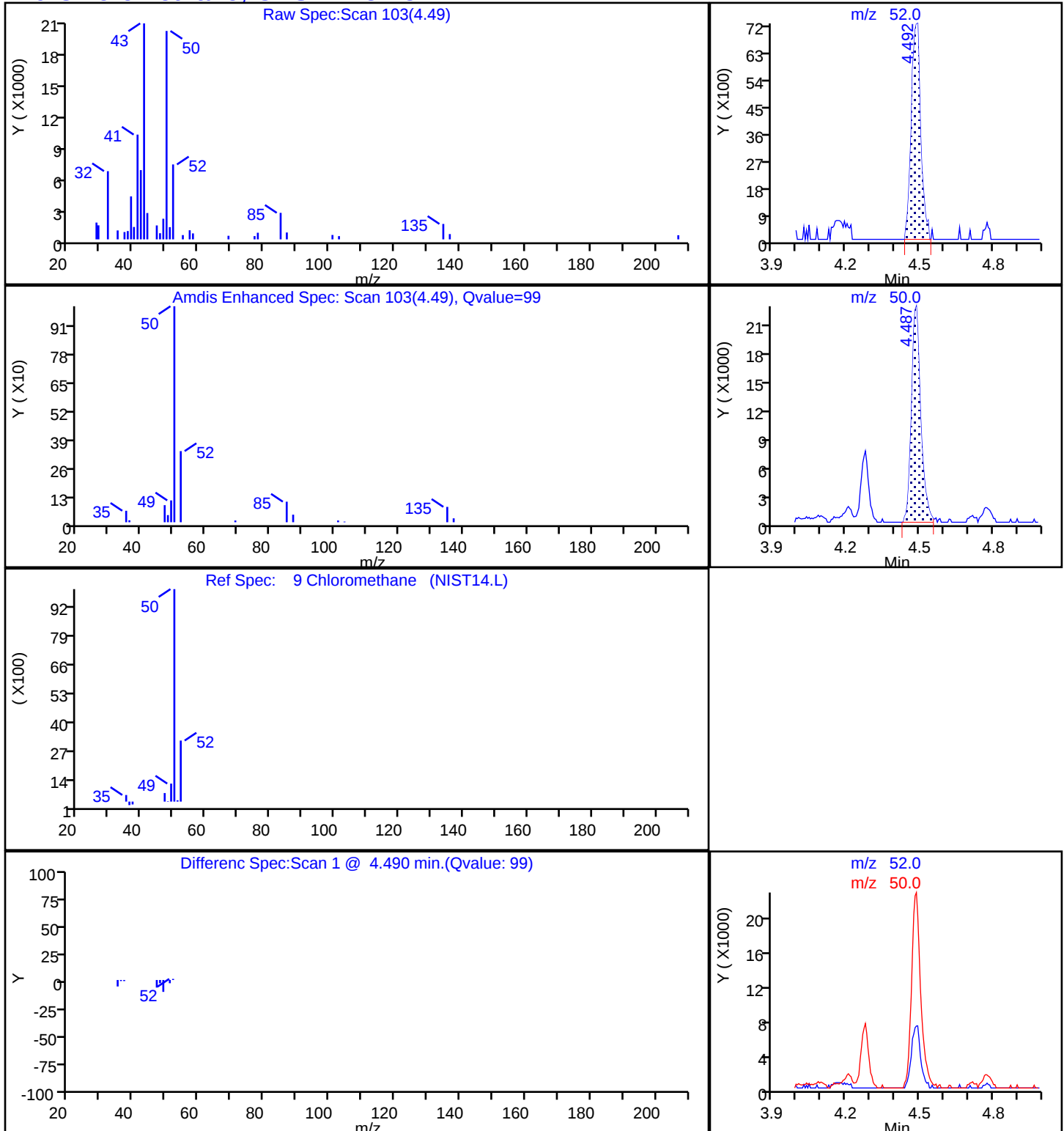
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

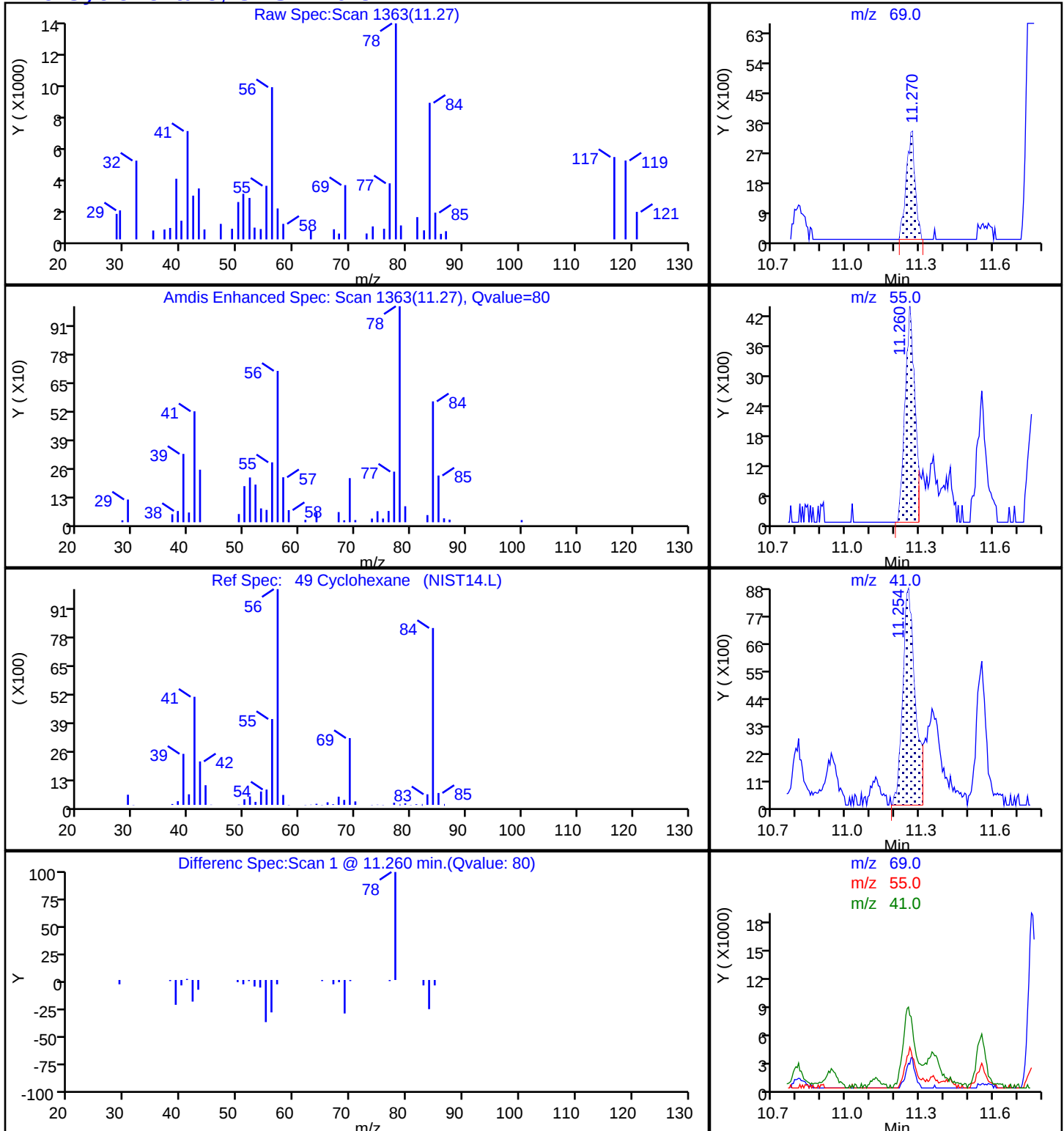
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

49 Cyclohexane, CAS: 110-82-7

TestAmerica Knoxville

Data File: \\ChromNA\\Knoxville\\ChromData\\MJ\\20180412-7901.b\\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

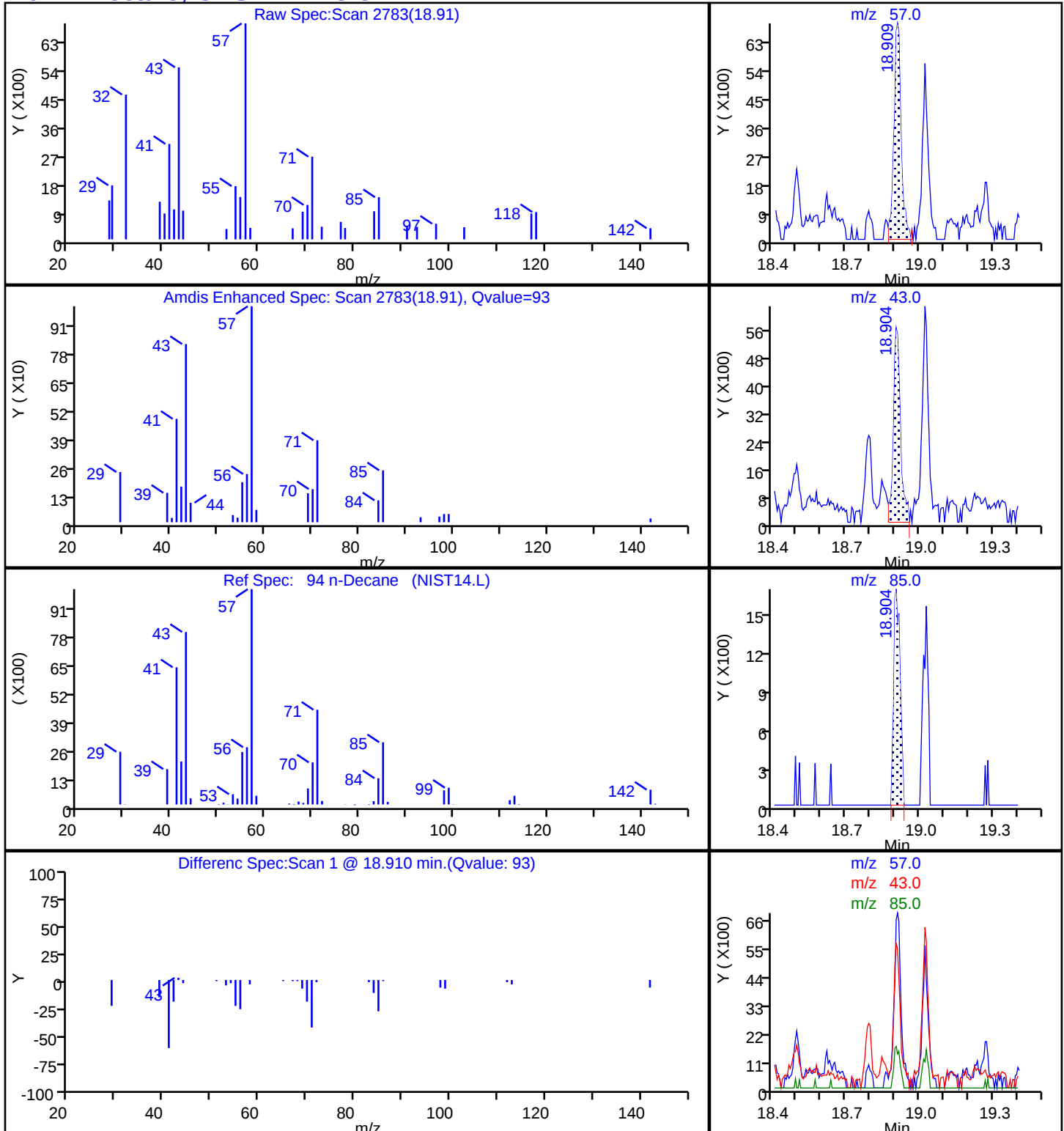
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

94 n-Decane, CAS: 124-18-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

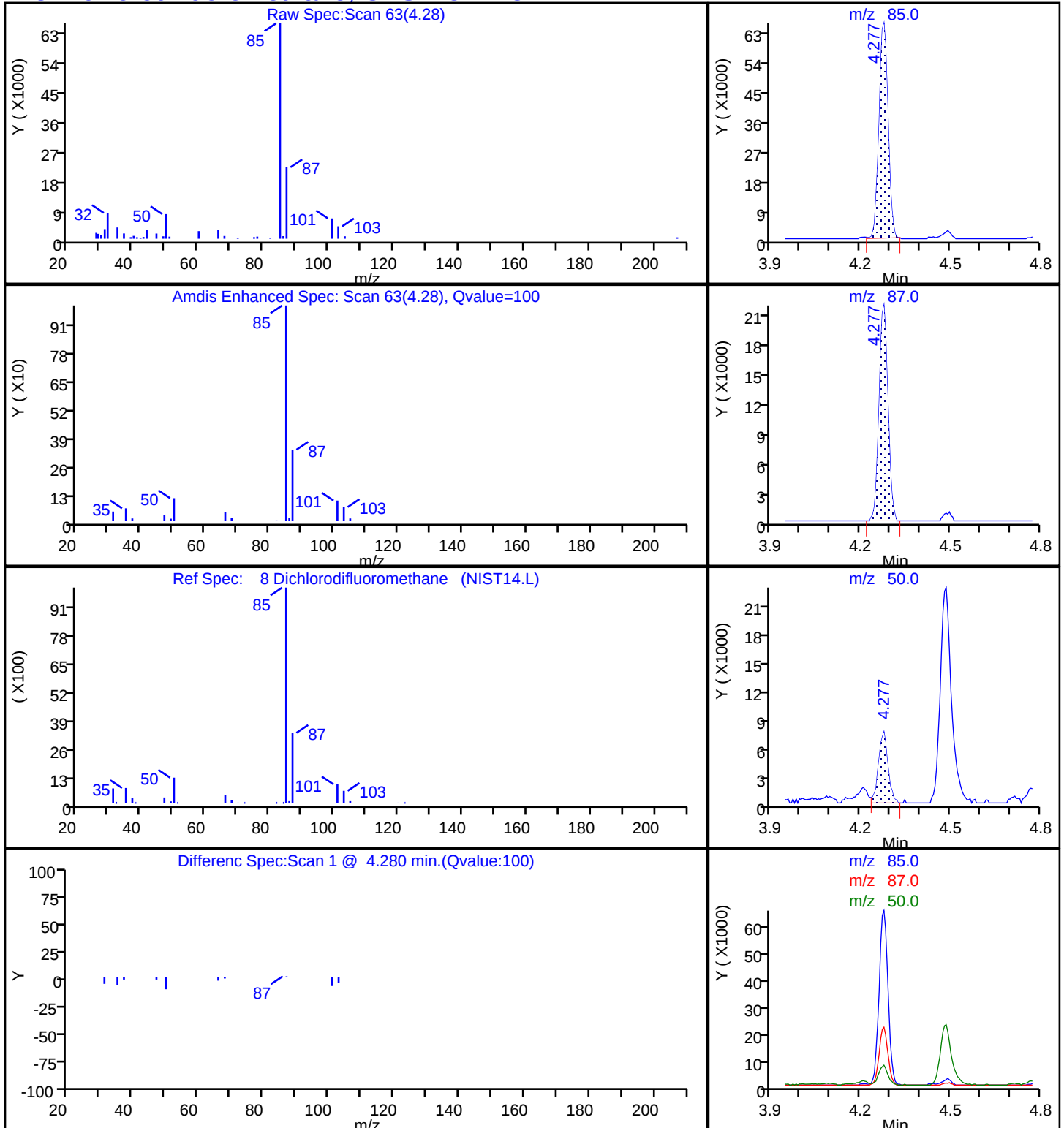
Method: MJ_TO15

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\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

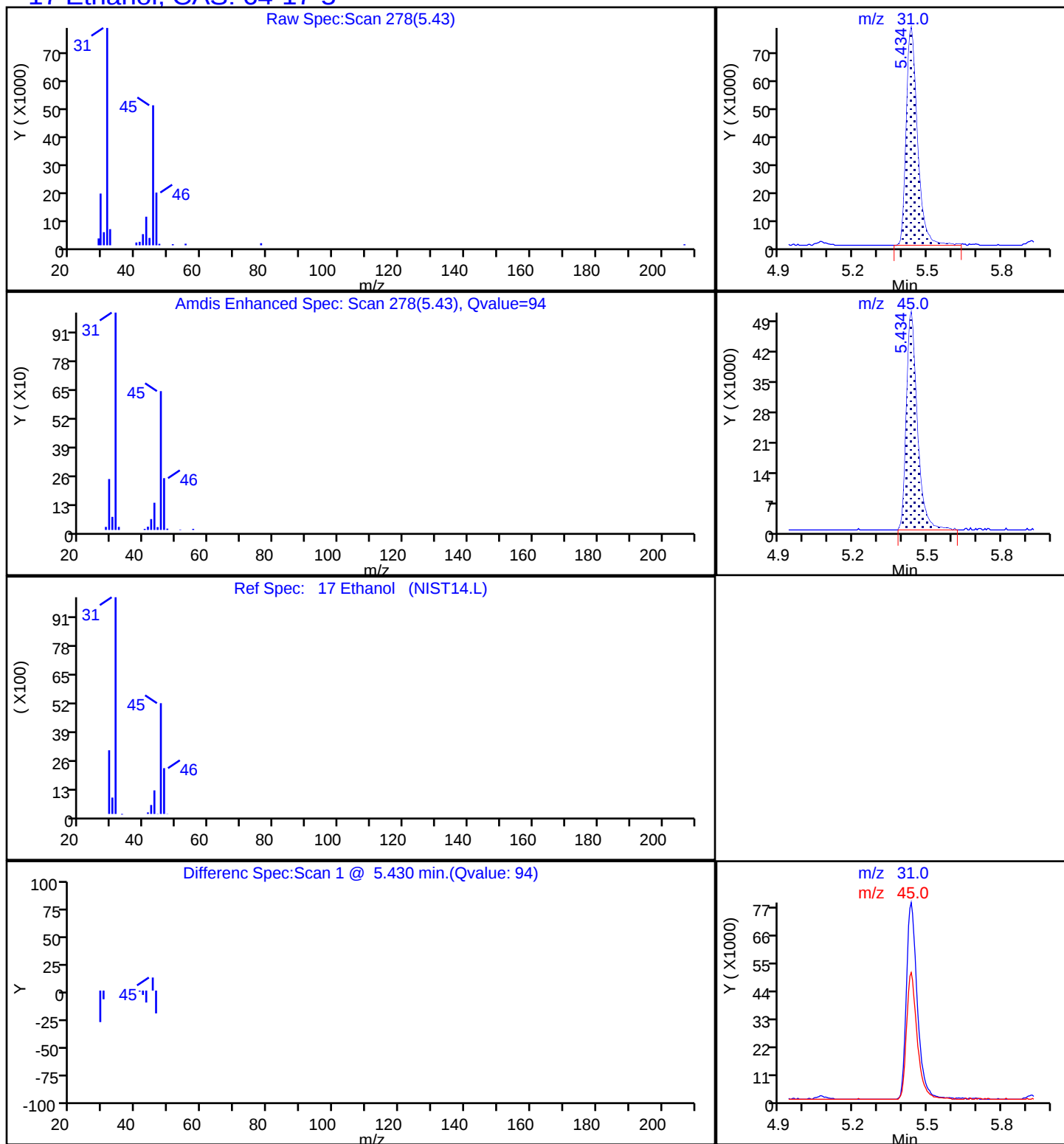
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

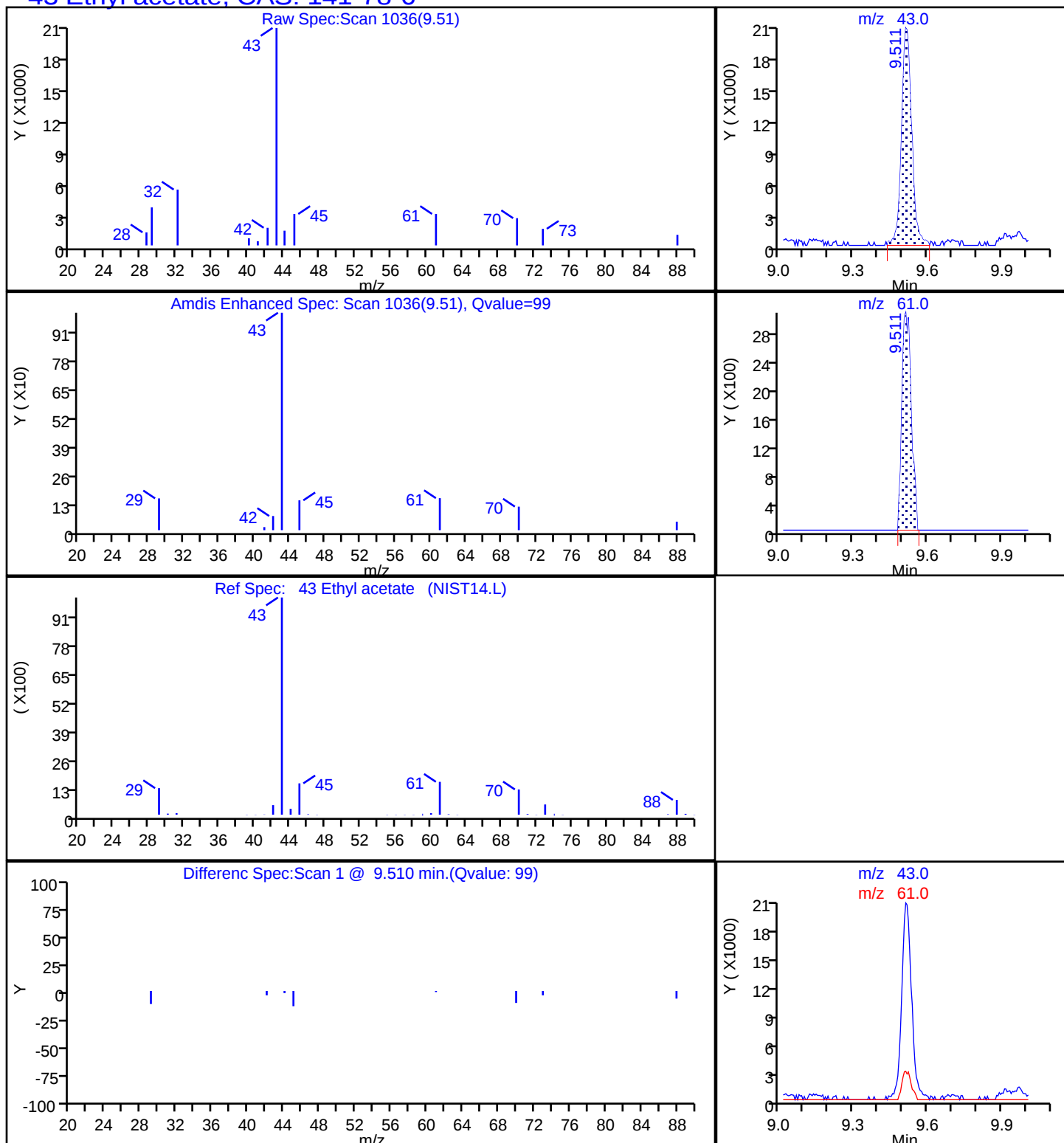
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

43 Ethyl acetate, CAS: 141-78-6

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

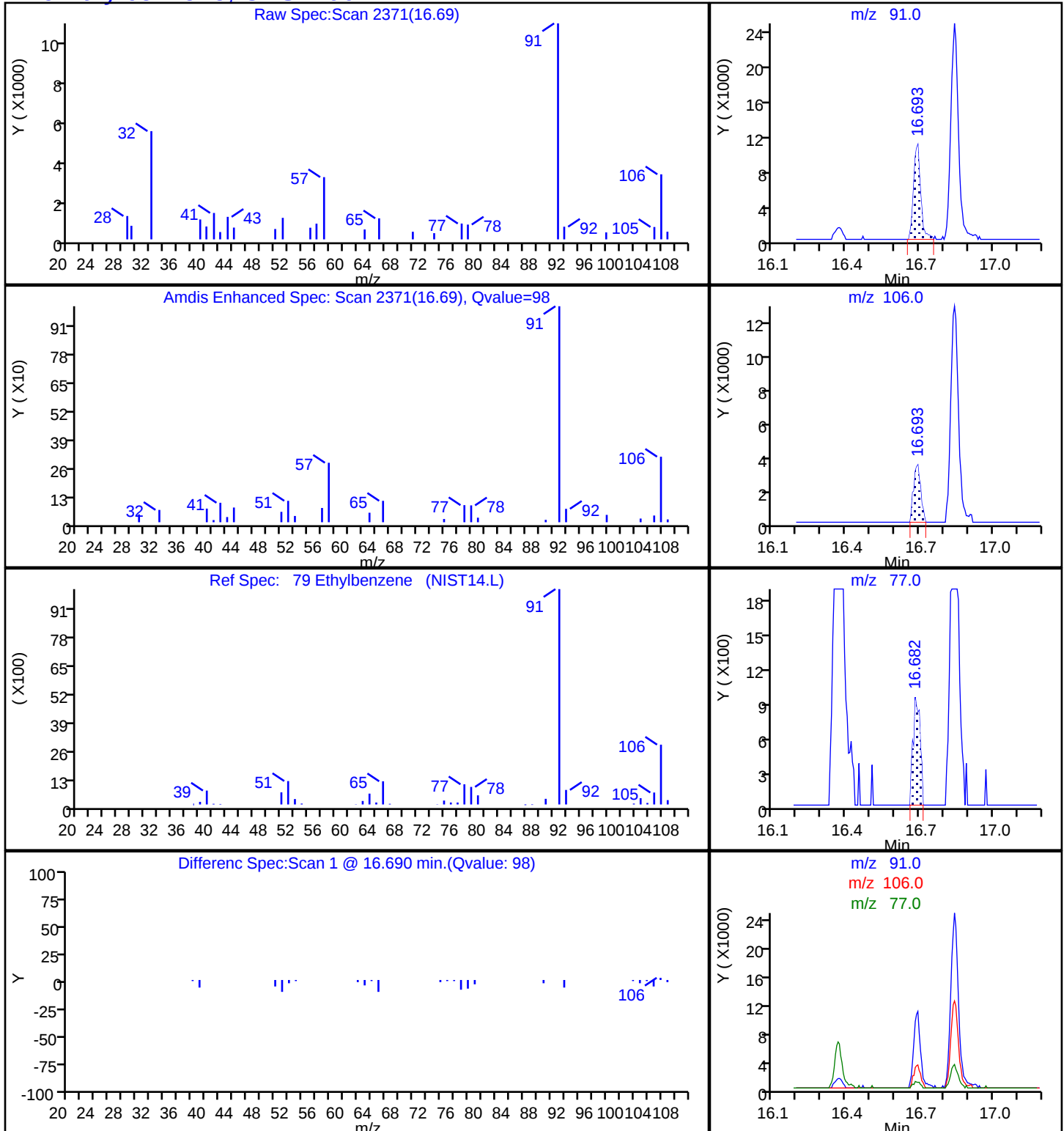
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

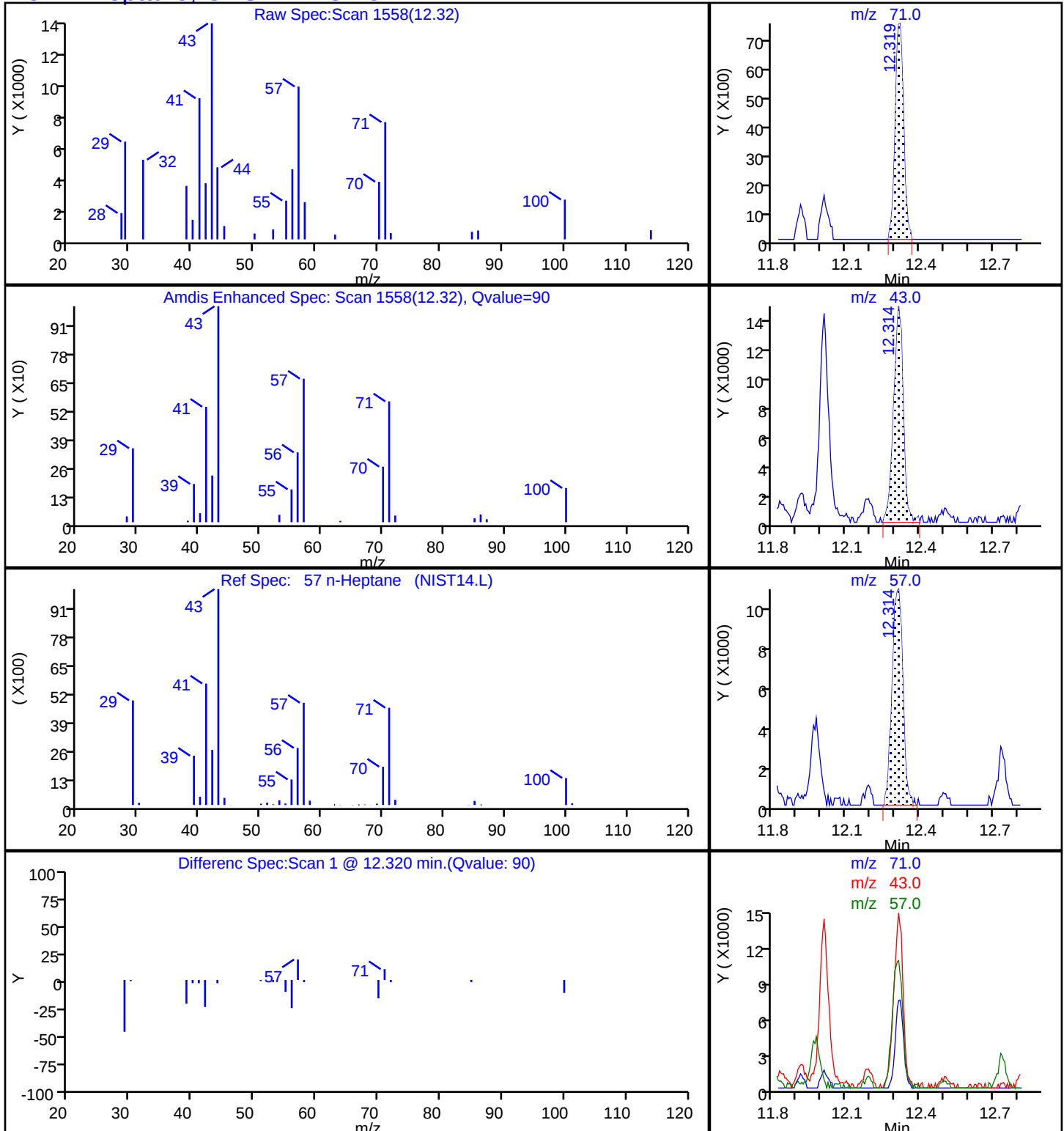
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

57 n-Heptane, CAS: 142-82-5

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

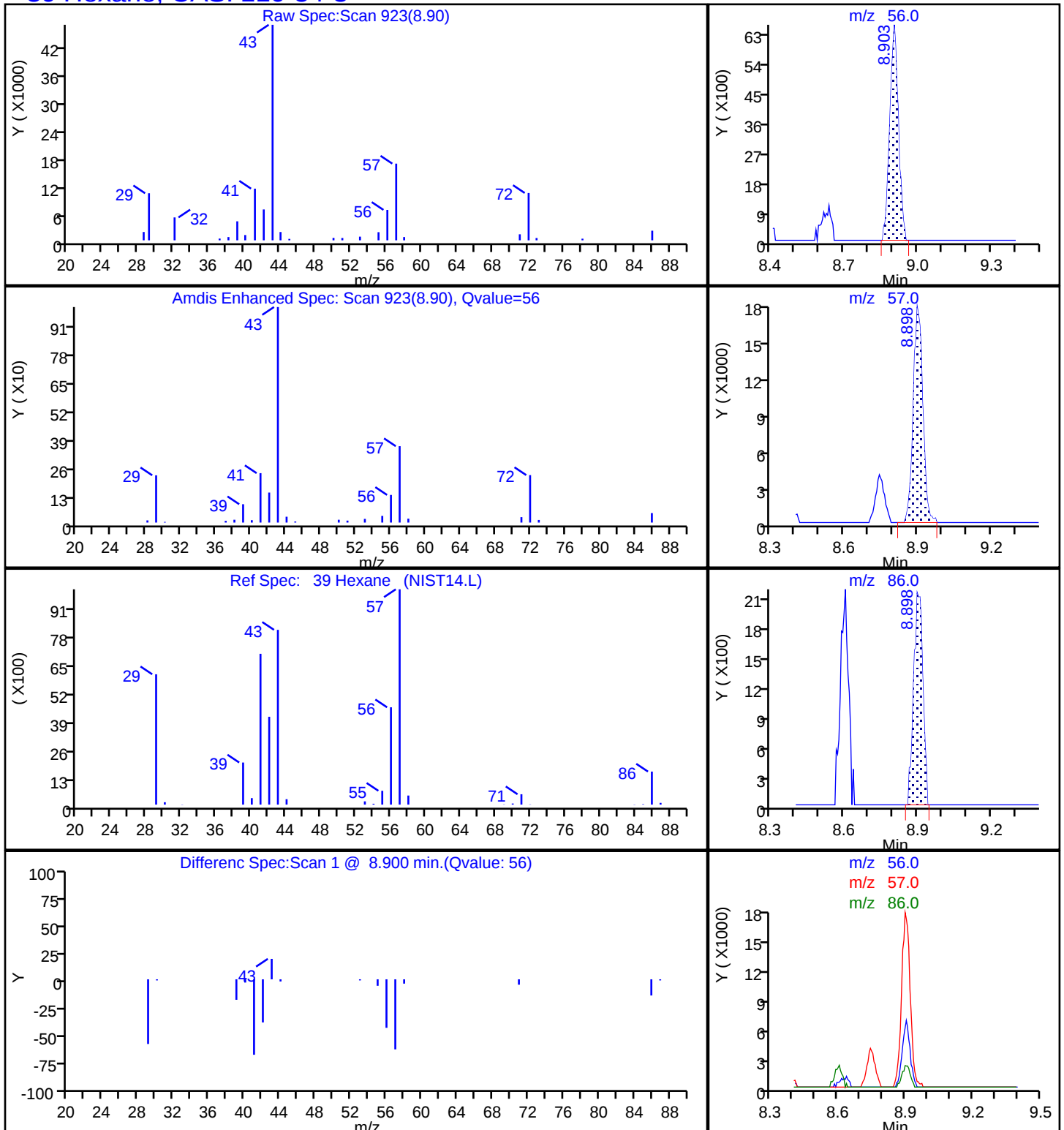
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

39 Hexane, CAS: 110-54-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

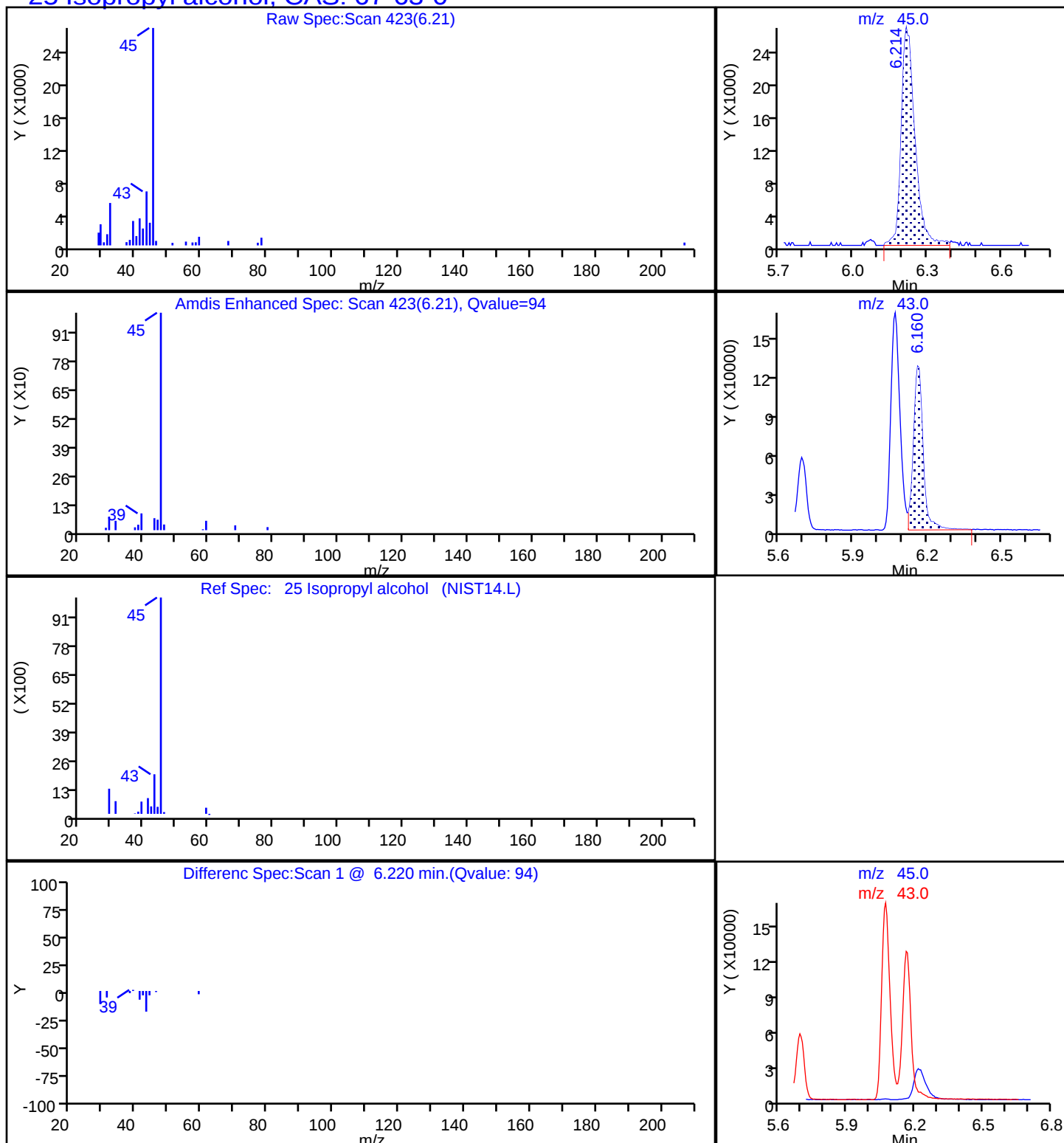
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

25 Isopropyl alcohol, CAS: 67-63-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

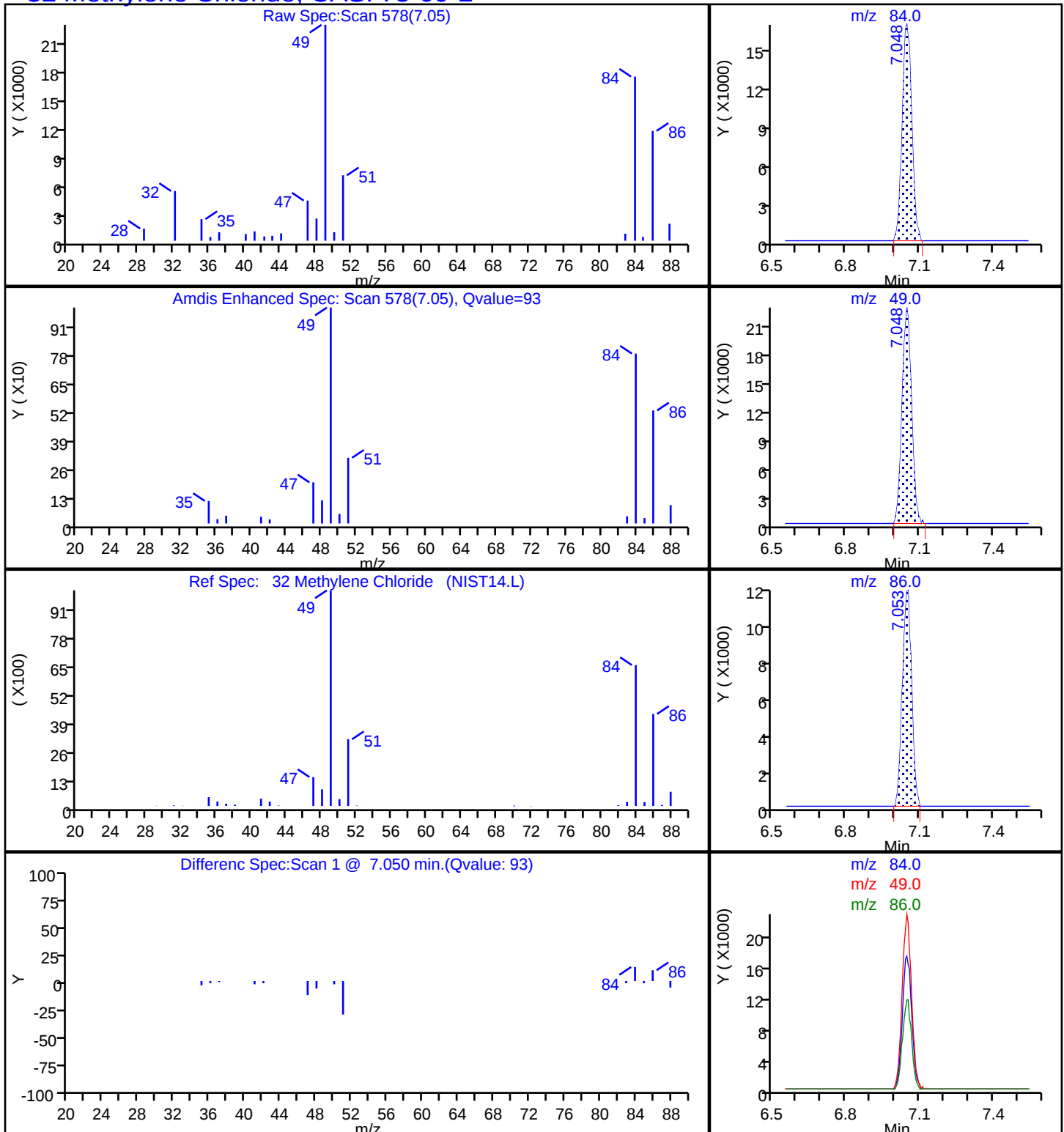
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

32 Methylene Chloride, CAS: 75-09-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

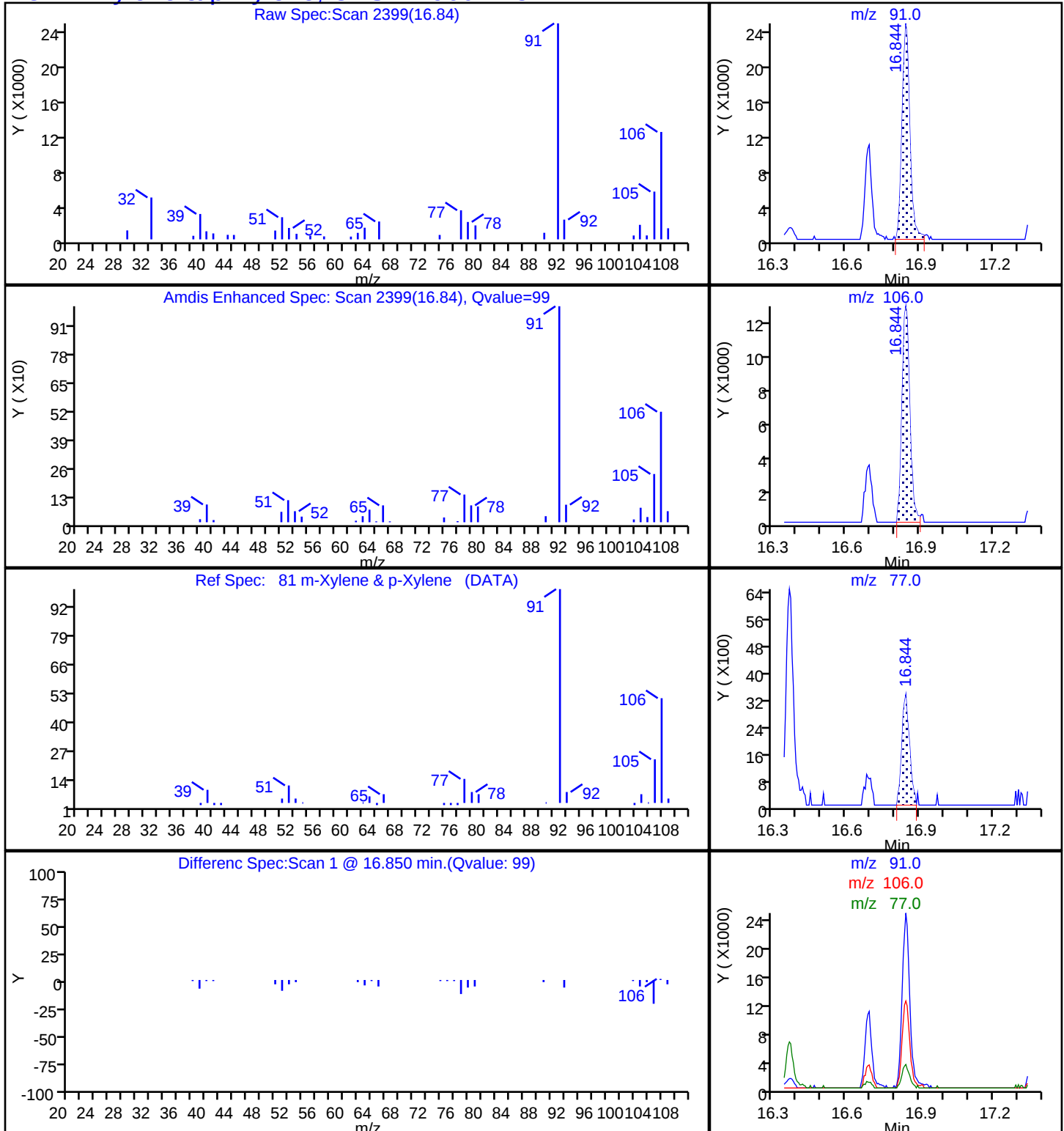
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

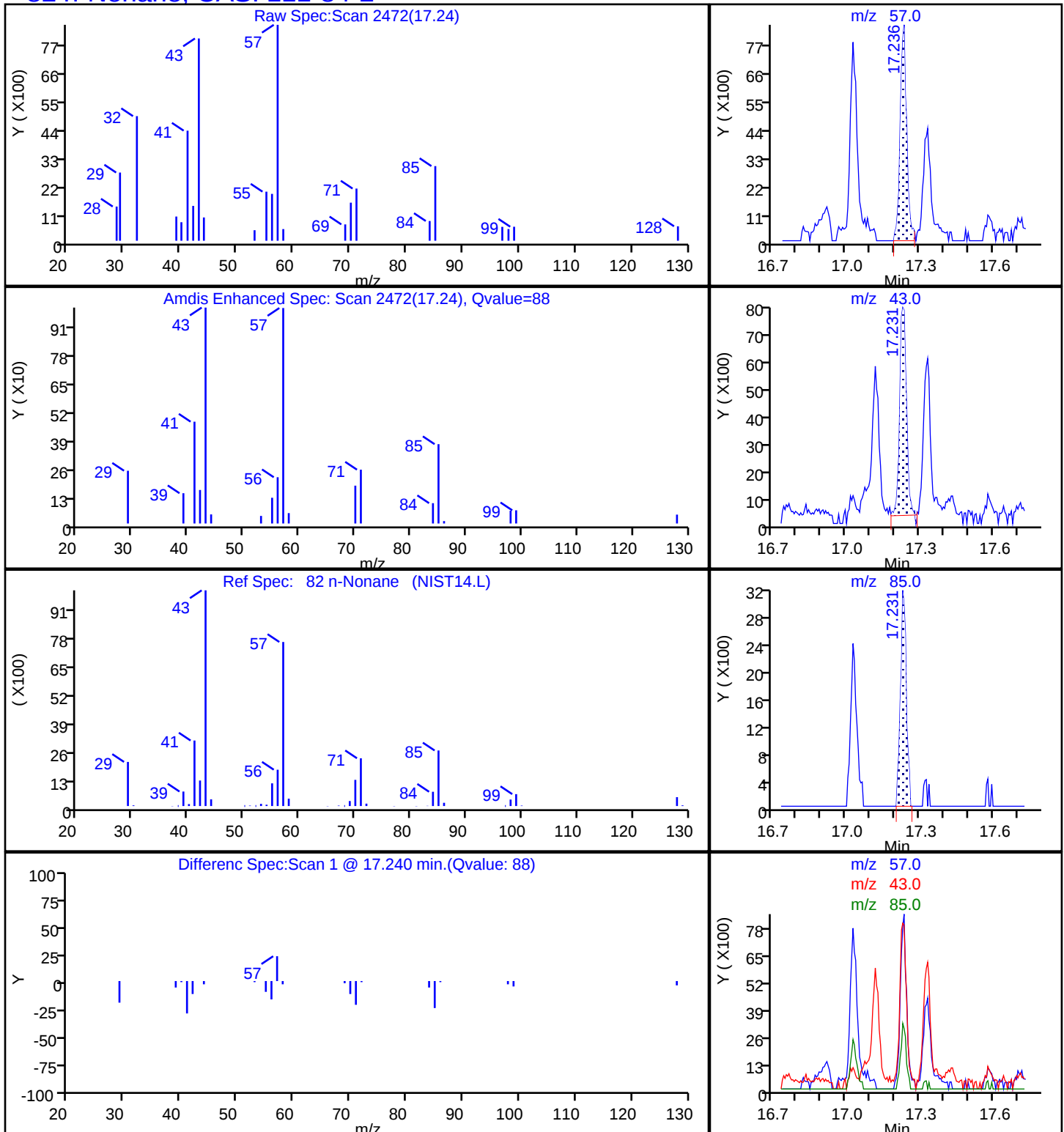
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

82 n-Nonane, CAS: 111-84-2

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

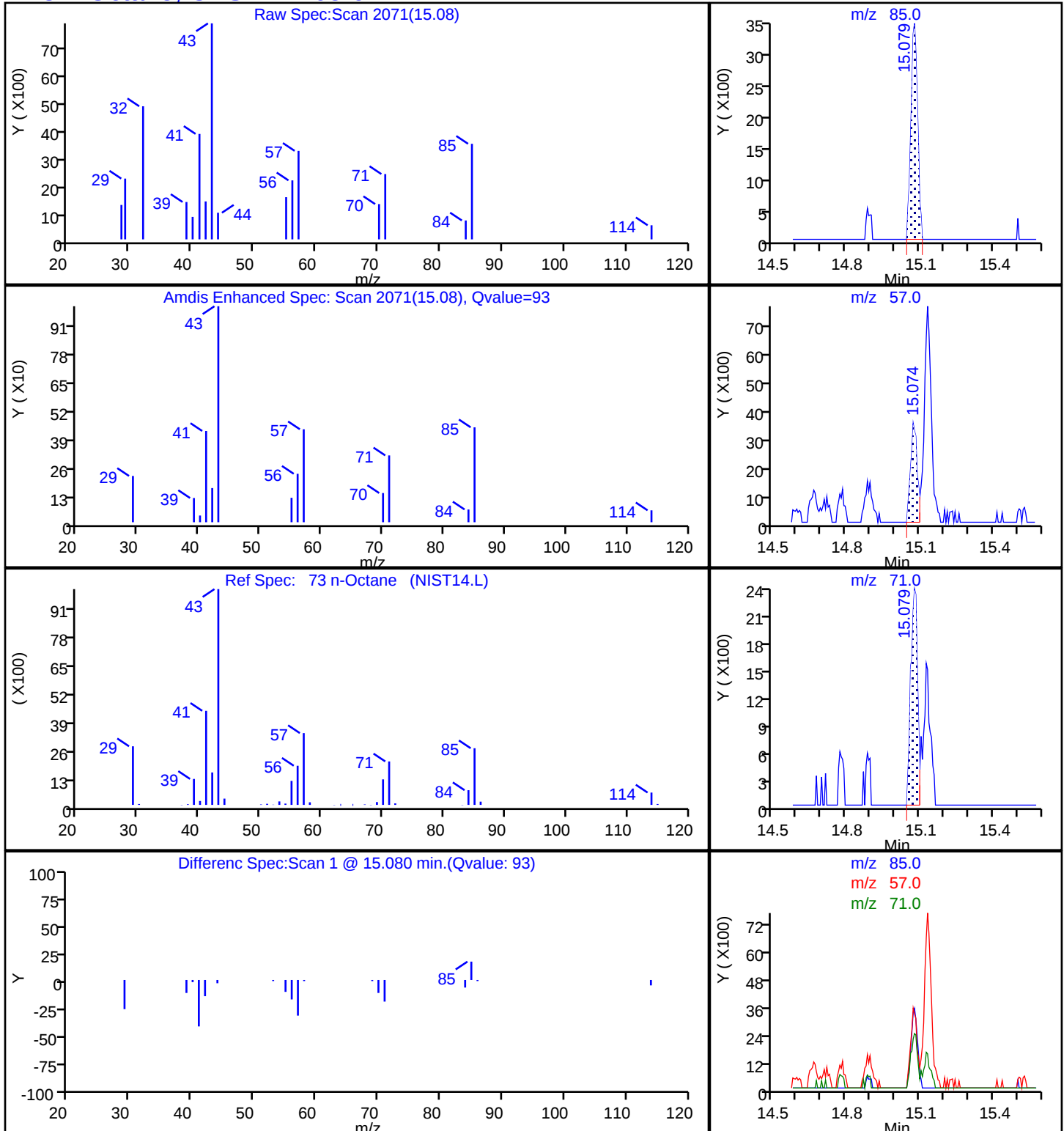
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

73 n-Octane, CAS: 111-65-9

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

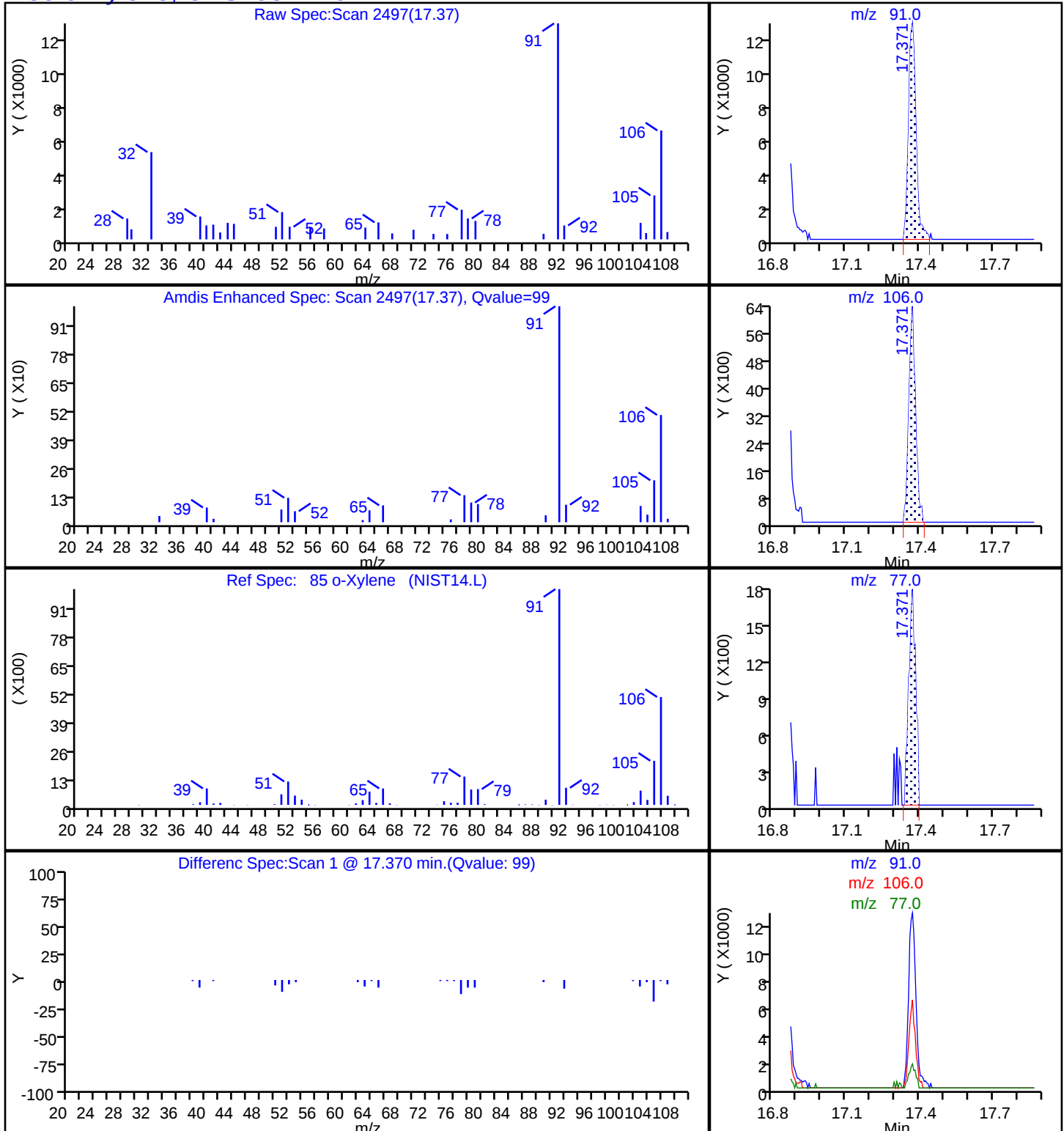
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

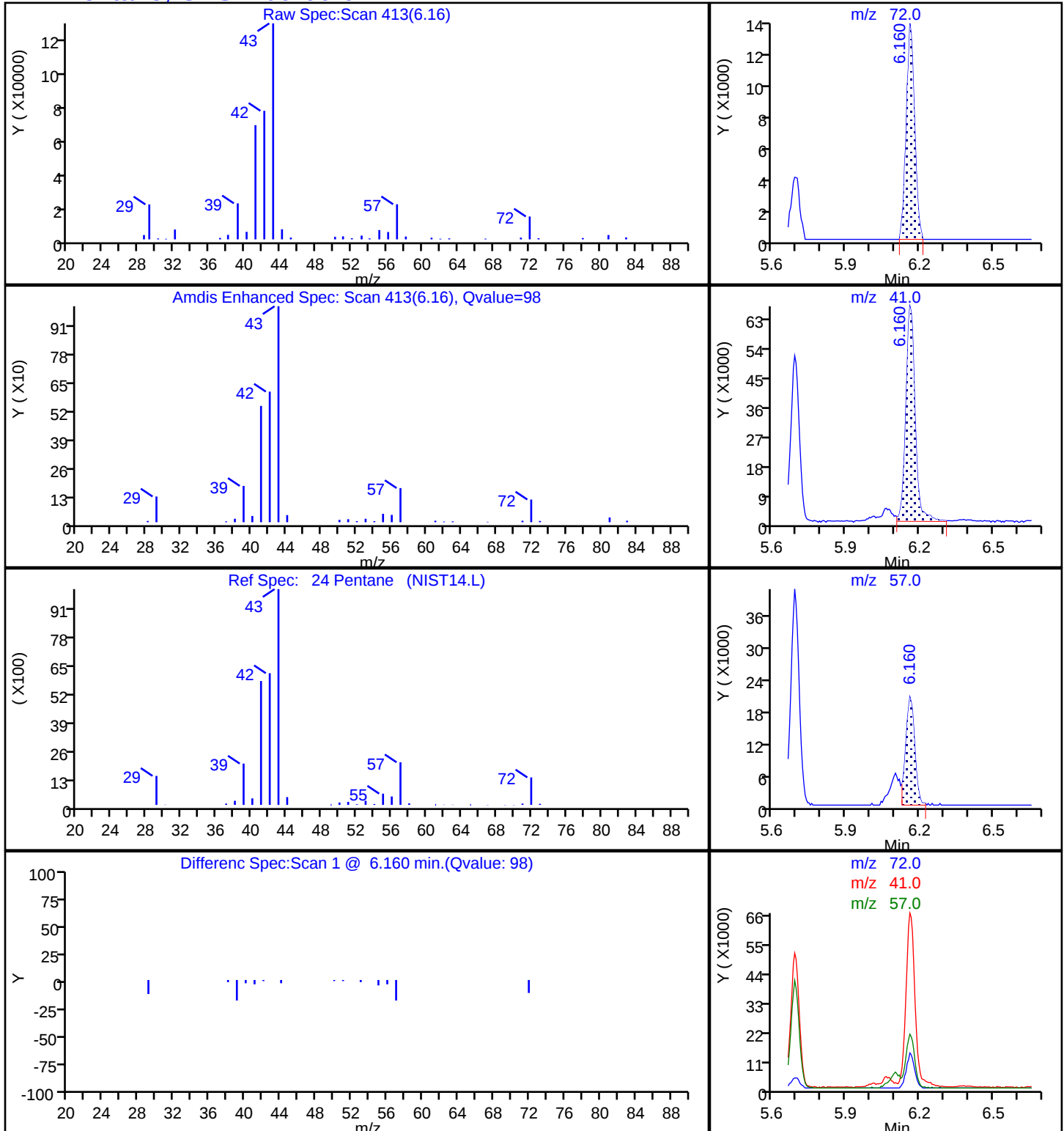
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

24 Pentane, CAS: 109-66-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

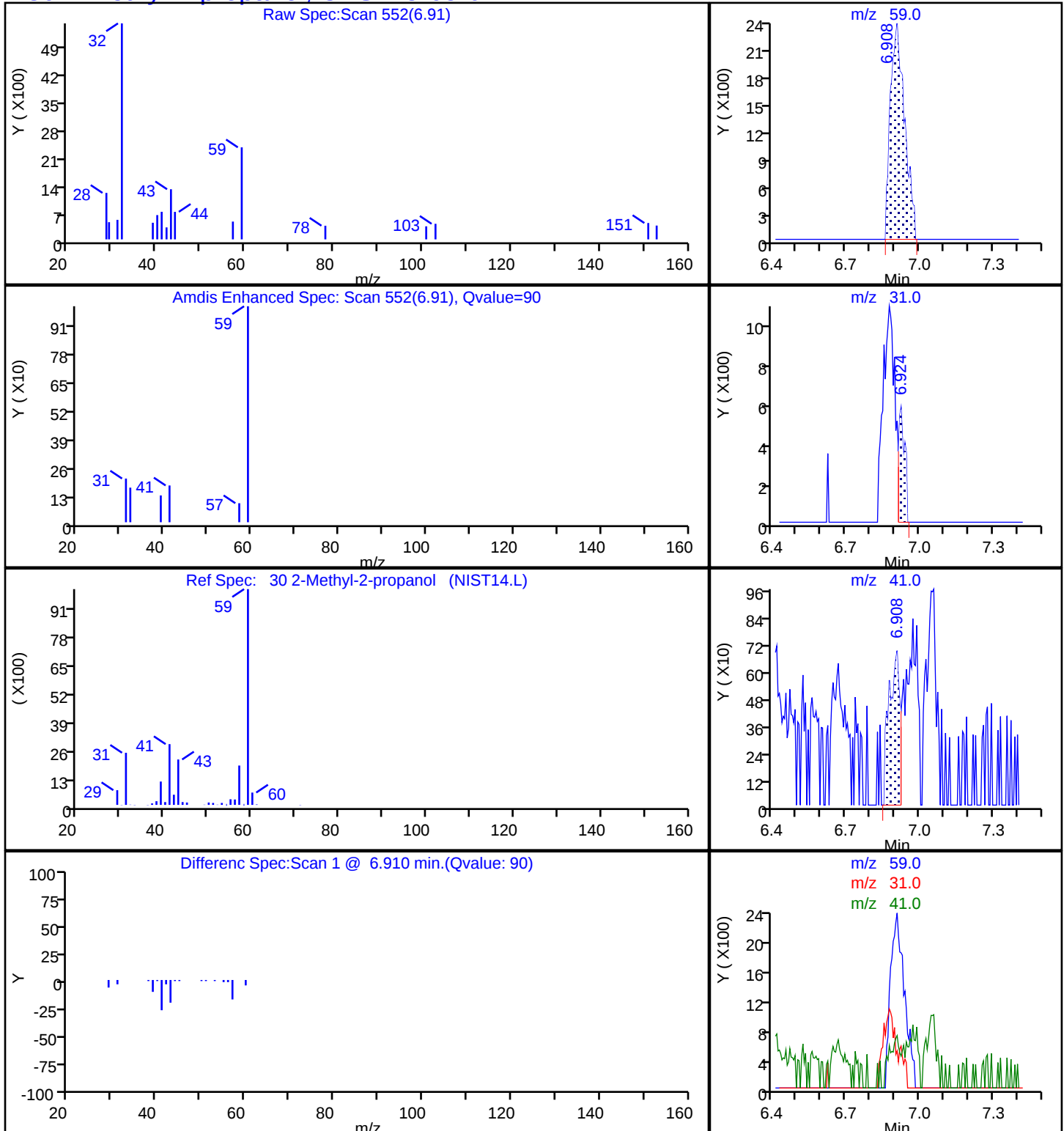
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

30 2-Methyl-2-propanol, CAS: 75-65-0

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

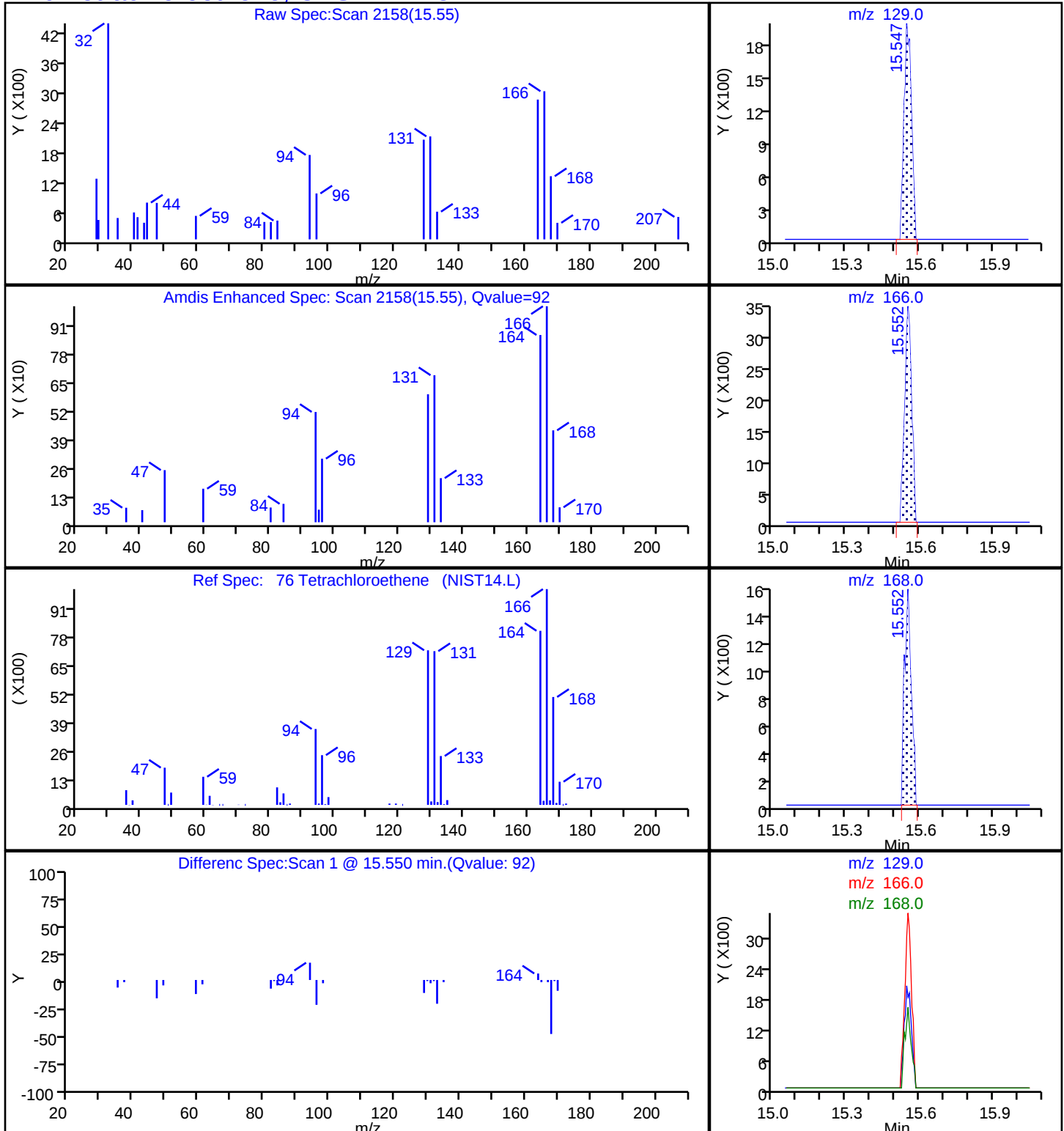
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

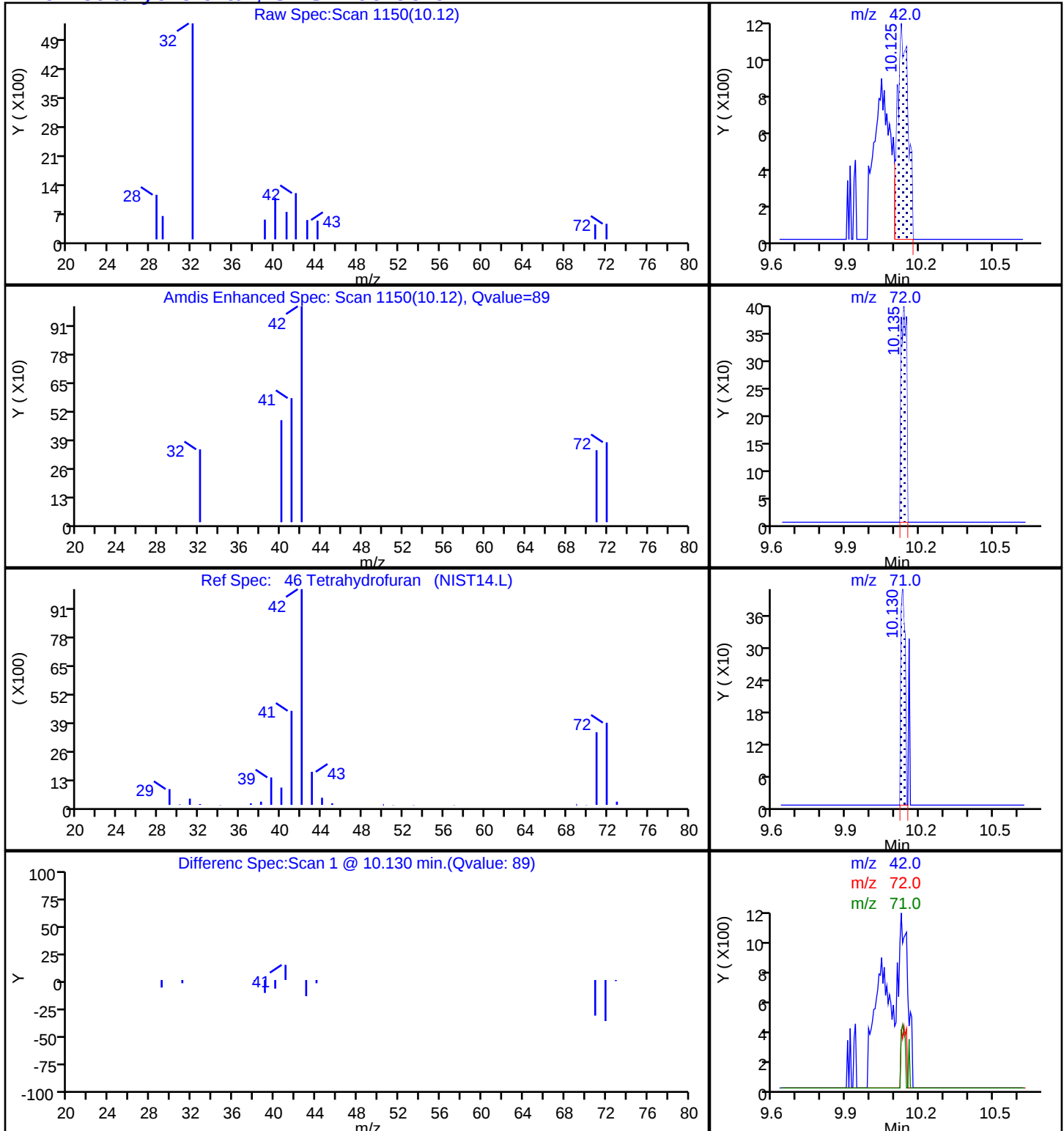
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

46 Tetrahydrofuran, CAS: 109-99-9

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

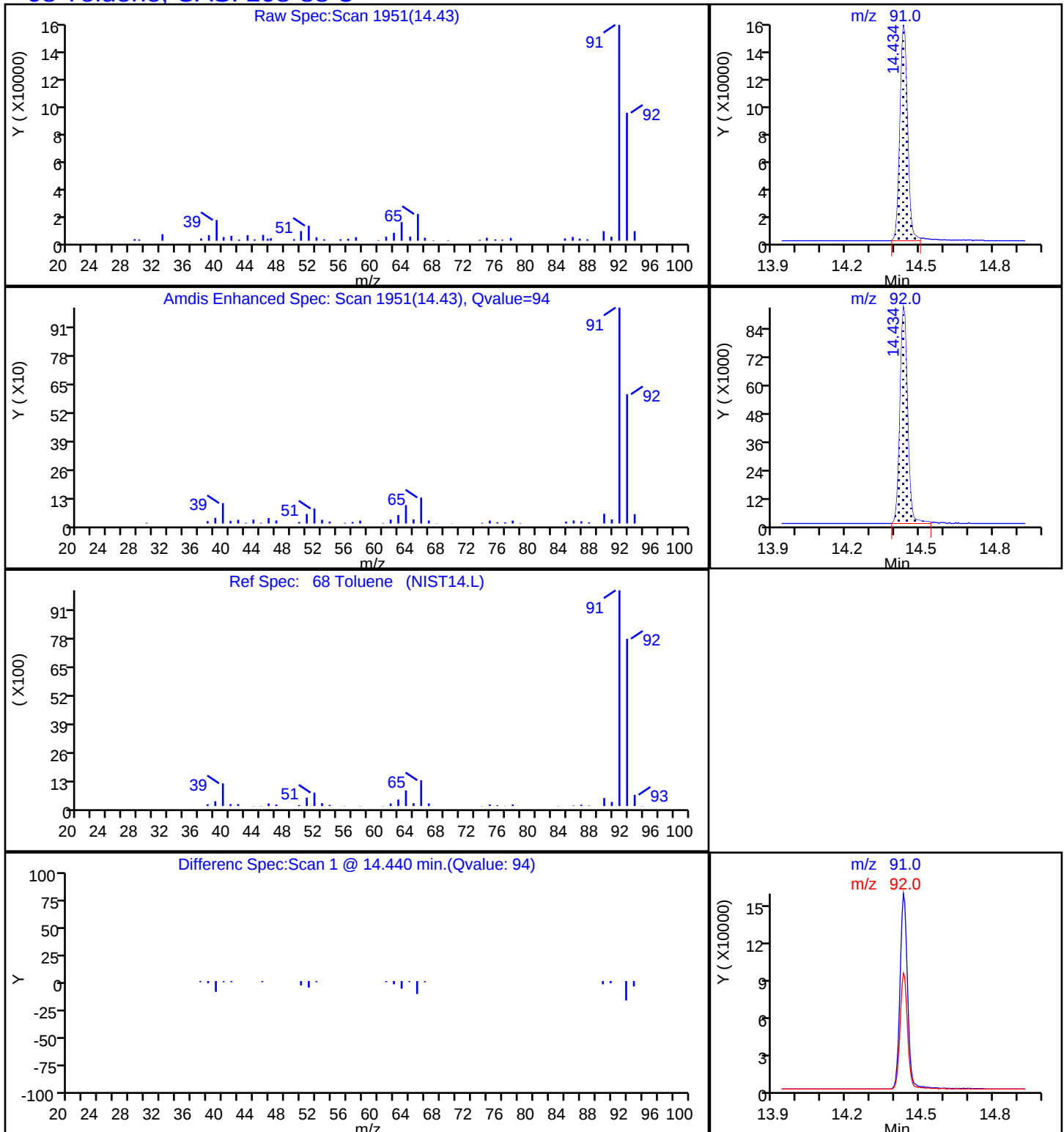
Dil. Factor: 1.0000

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\20180412-7901.b\JD16P106.D

Injection Date: 16-Apr-2018 19:46:30

Instrument ID: MJ

Lims ID: 140-11270-A-6

Lab Sample ID: 140-11270-6

Client ID: CL-OA-1

Operator ID: 007126

ALS Bottle#: 6

Worklist Smp#: 16

Purge Vol: 500.000 mL

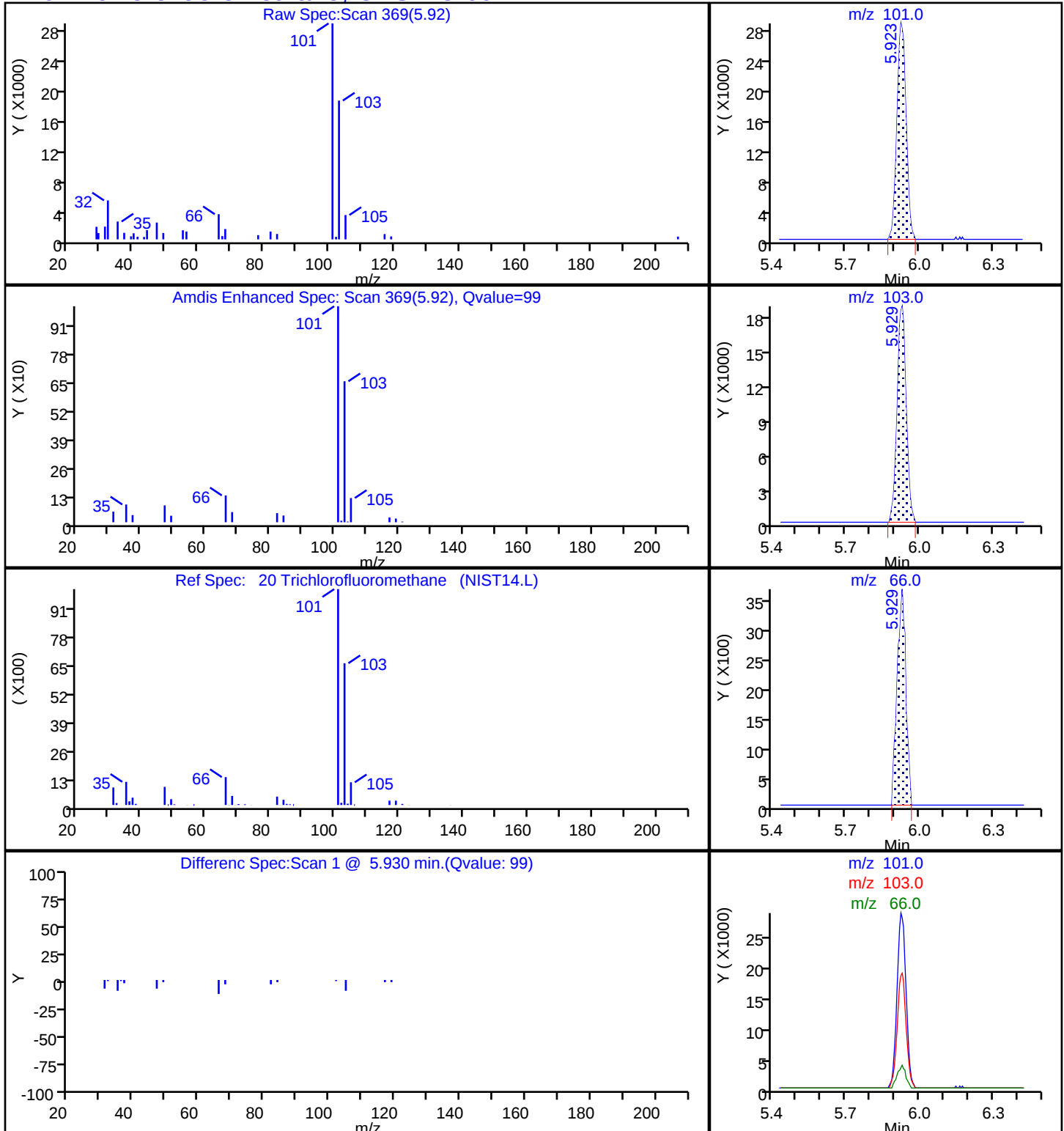
Dil. Factor: 1.0000

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 VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1 Analy Batch No.: 18185

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/15/2018 15:35 Calibration End Date: 02/15/2018 22:24 Calibration ID: 1394

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-18185/3	JB15ICL01.D
Level 2	IC 140-18185/4	JB15ICL02.D
Level 3	IC 140-18185/5	JB15ICL03.D
Level 4	IC 140-18185/6	JB15ICL04.D
Level 5	IC 140-18185/7	JB15ICL05.D
Level 6	IC 140-18185/8	JB15ICL06.D
Level 7	ICIS 140-18185/9	JB15ICISL07.D
Level 8	IC 140-18185/10	JB15ICL08.D
Level 9	IC 140-18185/11	JB15ICL09.D
Level 10	IC 140-18185/12	JB15ICL10.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 LVL 10		B	M1	M2								
Chlorodifluoromethane	+++++ 0.3914	+++++ 0.3824	0.6302 0.3743	0.4722 0.3630	0.4279 0.3774	Ave		0.4274				20.9		30.0			
Propene	+++++ 1.1645	+++++ 1.1300	1.3108 1.1715	1.1837 1.0943	1.1738 1.0836	Ave		1.1640				6.0		30.0			
Dichlorodifluoromethane	3.3176 3.5951	3.3925 3.7021	3.7269 3.7985	3.5660 3.4882	3.7705 3.5233	Ave		3.5881				4.5		30.0			
Chloromethane	+++++ 0.4205	+++++ 0.4168	+++++ 0.4071	0.4724 0.3864	0.4596 0.3768	Ave		0.4199				8.4		30.0			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.1309 2.3962	2.1623 2.4267	2.4453 2.3778	2.3770 2.3294	2.5632 2.3092	Ave		2.3518				5.5		30.0			
Vinyl chloride	0.9082 1.3858	1.0603 1.4136	1.4400 1.3859	1.3679 1.3144	1.4774 1.3153	Ave		1.3069				13.8		30.0			
1,3-Butadiene	+++++ 1.0489	+++++ 1.0425	1.1500 1.0266	1.1067 0.9909	1.1086 0.9783	Ave		1.0566				5.7		30.0			
Butane	+++++ 1.9486	+++++ 2.0128	2.2836 1.9906	1.9974 1.8616	2.0933 1.8465	Ave		2.0043				6.9		30.0			
Bromomethane	1.1032 1.3116	1.2081 1.3214	1.4474 1.3073	1.3410 1.2837	1.3831 1.3116	Ave		1.3018				7.2		30.0			
Chloroethane	+++++ 0.6702	0.6755 0.6774	0.6991 0.6771	0.6748 0.6561	0.7002 0.6756	Ave		0.6785				2.0		30.0			
Ethanol	+++++ 0.4776	+++++ 0.4727	+++++ 0.5295	0.5377 0.4327	0.5682 0.3737	Ave		0.4846				13.8		30.0			
Vinyl bromide	+++++ 1.2267	1.1089 1.2671	1.2671 1.2513	1.2154 1.2222	1.3143 1.2605	Ave		1.2371				4.6		30.0			
2-Methylbutane	+++++ 1.4324	+++++ 1.5281	+++++ 1.4517	1.4899 1.3965	1.6262 1.4156	Ave		1.4772				5.4		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.: 140-11270-1 Analy Batch No.: 18185
SDG No.: _____
Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 02/15/2018 15:35 Calibration End Date: 02/15/2018 22:24 Calibration ID: 1394

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 LVL 10		B	M1	M2								
Trichlorofluoromethane	2.9333 3.5426	3.1213 3.6245	3.6584 3.4955	3.5125 3.4973	3.7881 3.5333	Ave		3.4707				7.3		30.0			
Acrolein	++++ 0.2927	++++ 0.3494	++++ 0.3794	++++ 0.3089	++++ 0.3486	Ave		0.3467				11.8		30.0			
Acetonitrile	++++ 0.3732	++++ 0.4191	++++ 0.4863	++++ 0.3852	0.5550 0.4137	Ave		0.4388				15.8		30.0			
Acetone	++++ 0.4105	++++ 0.4203	++++ 0.5020	++++ 0.3863	0.6154 0.3976	Ave		0.4553				19.4		30.0			
Pentane	++++ 0.2094	++++ 0.2152	++++ 0.2054	++++ 0.1988	0.2313 0.2099	Ave		0.2117				5.2		30.0			
Isopropyl alcohol	++++ 1.2520	1.4496 1.1363	1.4621 1.3026	1.3887 1.0811	1.6818 0.9956	Ave		1.3055				16.5		30.0			
Ethyl ether	++++ 0.9270	1.1907 1.0369	1.3172 1.1920	1.2567 0.9354	1.2816 1.0045	Ave		1.1269				13.5		30.0			
1,1-Dichloroethene	1.1918 1.2779	1.3811 1.3189	1.4766 1.2749	1.3150 1.2757	1.4083 1.3170	Ave		1.3237				6.1		30.0			
Acrylonitrile	++++ 0.6984	++++ 0.7526	++++ 0.8545	0.8339 0.7379	0.8884 0.7744	Ave		0.7914				8.7		30.0			
tert-Butyl alcohol	++++ 1.7947	++++ 1.5369	1.6759 1.5367	1.5338 1.5546	2.0606 1.3999	Lin1	0.0565	1.4729							0.9950		0.9900
1,1,2-Trichloro-1,2,2-trifluoroethane	2.4821 2.7500	2.5577 2.7957	2.8742 2.7881	2.8047 2.6832	3.0112 2.6922	Ave		2.7439				5.5		30.0			
Methylene Chloride	++++ 1.3146	++++ 1.2387	++++ 1.2211	2.2172 1.1503	1.7294 1.1578	Ave		1.4327				27.8		30.0			
3-Chloropropene	++++ 1.1751	++++ 1.1217	1.5866 1.2165	1.1607 1.1097	1.3605 1.1320	Lin1	0.0344	1.1332							0.9990		0.9900
Carbon disulfide	3.6911 3.7376	3.6386 3.8828	4.3506 3.7568	3.8971 3.6868	4.0058 3.7550	Ave		3.8402				5.5		30.0			
trans-1,2-Dichloroethene	++++ 1.3019	1.3022 1.3179	1.3875 1.3207	1.3062 1.2755	1.4288 1.2825	Ave		1.3248				3.8		30.0			
2-Methylpentane	++++ 2.9504	++++ 3.0134	3.6180 2.9503	3.0369 2.7948	3.3234 2.7231	Ave		3.0513				9.5		30.0			
Methyl tert-butyl ether	++++ 2.6811	2.6492 2.7626	3.0177 3.3524	3.1101 2.6889	3.4113 2.7957	Ave		2.9410				10.0		30.0			
1,1-Dichloroethane	2.4253 2.3381	2.5251 2.4388	2.6340 2.5420	2.5025 2.3639	2.7085 2.4053	Ave		2.4883				4.7		30.0			
Vinyl acetate	++++ 2.5034	2.3777 2.7208	2.8222 3.2054	3.1139 2.6767	3.2974 2.8203	Ave		2.8375				11.0		30.0			
2-Butanone (MEK)	++++ 0.4527	++++ 0.4569	++++ 0.5711	0.6323 0.4484	0.5874 0.4303	Ave		0.5113				16.1		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.: 140-11270-1 Analy Batch No.: 18185

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/15/2018 15:35 Calibration End Date: 02/15/2018 22:24 Calibration ID: 1394

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	LVL 10												
Hexane	+++++	+++++	+++++	1.1864	1.2001	Ave		1.0762				7.7		30.0			
	1.0408	1.0483	1.0588	0.9999	0.9988												
cis-1,2-Dichloroethene	1.2882	1.3496	1.4225	1.3669	1.4552	Ave		1.3515				4.2		30.0			
	1.2837	1.3287	1.3828	1.3054	1.3322												
Ethyl acetate	+++++	+++++	+++++	2.6021	2.7194	Ave		2.2612				15.0		30.0			
	1.9979	2.0327	2.5317	1.9919	1.9525												
Chloroform	+++++	+++++	+++++	2.9415	3.0730	Ave		2.8650				6.1		30.0			
	2.6905	2.7674	2.8838	2.6905	2.7342												
Tetrahydrofuran	+++++	+++++	+++++	1.4360	1.4535	Ave		1.2126				14.3		30.0			
	1.0858	1.1302	1.2587	1.0849	1.0393												
1,1,1-Trichloroethane	3.0053	3.1296	3.1969	2.9529	3.1866	Ave		2.9824				5.0		30.0			
	2.7843	2.9030	2.9798	2.8232	2.8621												
1,2-Dichloroethane	+++++	0.3093	0.3327	0.3151	0.3609	Ave		0.3245				4.9		30.0			
	0.3099	0.3230	0.3283	0.3169	0.3240												
1-Butanol	+++++	+++++	+++++	0.0891	0.0891	Ave		0.0692				17.6		30.0			
	0.0748	0.0634	0.0717	0.0609	0.0550												
Cyclohexane	+++++	+++++	0.1400	0.1166	0.1296	Ave		0.1171				10.2		30.0			
	0.1134	0.1152	0.1105	0.1078	0.1039												
Benzene	0.7960	0.7900	0.7649	0.7115	0.7640	Ave		0.7099				9.3		30.0			
	0.6620	0.6816	0.6859	0.6328	0.6104												
Carbon tetrachloride	0.4528	0.5183	0.5701	0.5301	0.5993	Ave		0.5362				7.0		30.0			
	0.5284	0.5468	0.5481	0.5316	0.5366												
2,3-Dimethylpentane	+++++	+++++	0.1839	0.1751	0.1840	Ave		0.1667				7.5		30.0			
	0.1594	0.1627	0.1605	0.1535	0.1543												
Thiophene	+++++	+++++	0.4215	0.4017	0.4462	Ave		0.4031				5.5		30.0			
	0.3782	0.4012	0.4038	0.3833	0.3888												
2,2,4-Trimethylpentane	+++++	+++++	1.2776	1.1667	1.2608	Ave		1.1384				8.2		30.0			
	1.1058	1.1220	1.1099	1.0517	1.0127												
Heptane	+++++	0.2555	0.2659	0.2523	0.2773	Ave		0.2498				5.9		30.0			
	0.2385	0.2445	0.2457	0.2345	0.2337												
1,2-Dichloropropane	+++++	0.2684	0.2900	0.2611	0.2873	Ave		0.2670				5.1		30.0			
	0.2524	0.2619	0.2714	0.2555	0.2552												
Trichloroethene	0.2965	0.3106	0.3255	0.3165	0.3477	Ave		0.3129				4.9		30.0			
	0.3009	0.3121	0.3179	0.3027	0.2985												
Dibromomethane	+++++	+++++	0.3340	0.3052	0.3252	Ave		0.2981				7.2		30.0			
	0.2764	0.2876	0.2946	0.2795	0.2826												
Bromodichloromethane	0.5065	0.5615	0.5252	0.5048	0.5661	Ave		0.5220				4.7		30.0			
	0.4927	0.5146	0.5303	0.5057	0.5130												
1,4-Dioxane	+++++	+++++	0.0700	0.0698	0.0813	Ave		0.0696				12.8		30.0			
	0.0706	0.0671	0.0796	0.0663	0.0522												

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.: 140-11270-1 Analy Batch No.: 18185
SDG No.: _____
Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N
Calibration Start Date: 02/15/2018 15:35 Calibration End Date: 02/15/2018 22:24 Calibration ID: 1394

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 LVL 10		B	M1	M2								
Methyl methacrylate	+++++ 0.2164	+++++ 0.2235	+++++ 0.2774	0.2561 0.2218	0.2876 0.2182	Ave		0.2430				12.5		30.0			
Methylcyclohexane	+++++ 0.4224	0.4795 0.4325	0.4877 0.4304	0.4477 0.4128	0.4868 0.4109	Ave		0.4456				7.0		30.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.3445	+++++ 0.3355	+++++ 0.4250	0.3988 0.3275	0.4126 0.3227	Ave		0.3667				11.9		30.0			
cis-1,3-Dichloropropene	+++++ 0.3914	0.4061 0.4130	0.4178 0.4318	0.4391 0.4090	0.4126	Ave		0.4116				4.2		30.0			
trans-1,3-Dichloropropene	+++++ 0.3607	+++++ 0.3847	0.3761 0.4050	0.3899 0.3791	0.4095 0.3942	Ave		0.3874				4.1		30.0			
Toluene	+++++ 0.7961	0.8419 0.8288	0.8832 0.8490	0.9170 0.7827	0.7967	Ave		0.8440				5.7		30.0			
1,1,2-Trichloroethane	0.2354 0.2448	0.2644 0.2549	0.2761 0.2638	0.2683 0.2436	0.2817 0.2452	Ave		0.2578				6.0		30.0			
2-Hexanone	+++++ 0.1960	0.1869 0.1890	0.2038 0.2229	0.1923 0.1857	0.2288 0.1842	Ave		0.1989				8.3		30.0			
Octane	0.3110 0.2841	0.3203 0.2857	0.3034 0.2821	0.2981 0.2678	0.3183 0.2602	Ave		0.2931				7.0		30.0			
C8 Range	+++++ 2.5336	+++++ 2.5549	+++++ 2.5396	+++++ 2.3690	+++++ 2.2706	Ave		2.4535				5.2		30.0			
Dibromochloromethane	0.4903 0.5637	0.5332 0.5979	0.5661 0.6011	0.5582 0.5775	0.6214 0.5781	Ave		0.5688				6.5		30.0			
1,2-Dibromoethane (EDB)	+++++ 0.4644	0.4366 0.4899	0.4944 0.4990	0.4837 0.4698	0.4883 0.4781	Ave		0.4783				4.0		30.0			
Tetrachloroethene	0.3238 0.3222	0.3463 0.3309	0.3757 0.3268	0.3374 0.3095	0.3691 0.3060	Ave		0.3348				6.9		30.0			
Chlorobenzene	+++++ 0.6718	0.6252 0.6856	0.7219 0.6939	0.7097 0.6453	0.7381 0.6303	Ave		0.6802				5.9		30.0			
Ethylbenzene	+++++ 0.9620	1.0030 1.0075	1.1261 1.0732	1.1581 0.9538	1.1728 0.9583	Ave		1.0461				8.4		30.0			
m-Xylene & p-Xylene	+++++ 0.7262	0.7641 0.7684	0.8422 0.8196	0.8471 0.7096	0.8800 0.6923	Ave		0.7833				8.5		30.0			
Nonane	0.5521 0.5484	0.6164 0.5569	0.6378 0.5700	0.6019 0.5066	0.6319 0.4868	Ave		0.5709				8.9		30.0			
Styrene	+++++ 0.5765	0.5431 0.5820	0.6122 0.6668	0.6311 0.5801	0.6964 0.5728	Ave		0.6068				8.2		30.0			
Bromoform	+++++ 0.5867	+++++ 0.6248	0.5936 0.6399	0.5635 0.6306	0.6263 0.6151	Ave		0.6101				4.3		30.0			
o-Xylene	+++++ 0.7733	0.7991 0.8031	0.8592 0.8583	0.9152 0.7508	0.9597 0.7600	Ave		0.8310				8.7		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.: 140-11270-1 Analy Batch No.: 18185

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/15/2018 15:35 Calibration End Date: 02/15/2018 22:24 Calibration ID: 1394

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 LVL 10		B	M1	M2								
1,1,2,2-Tetrachloroethane	++++ 0.5489	0.5954 0.5728	0.6464 0.6308	0.6617 0.5281	0.6902 0.5309	Ave		0.6006				9.9		30.0			
1,2,3-Trichloropropane	++++ 0.1450	0.1401 0.1517	0.1675 0.1689	0.1690 0.1428	0.1847 0.1469	Ave		0.1574				9.9		30.0			
Isopropylbenzene	++++ 1.0062	1.1721 1.0564	1.2564 1.1558	1.2627 0.9849	1.3064 0.9795	Ave		1.1311				11.3		30.0			
Propylbenzene	++++ 0.2785	++++ 0.2940	0.3217 0.3306	0.3339 0.2824	0.3604 0.2873	Ave		0.3111				9.5		30.0			
2-Chlorotoluene	++++ 0.2845	0.3004 0.2935	0.3184 0.3113	0.3206 0.2768	0.3335 0.2770	Ave		0.3018				6.8		30.0			
4-Ethyltoluene	++++ 0.9690	1.0770 1.0296	1.1733 1.1652	1.2170 0.9653	1.2646 0.9651	Ave		1.0918				10.7		30.0			
1,3,5-Trimethylbenzene	++++ 0.4147	0.4164 0.4287	0.4881 0.4881	0.5237 0.4080	0.5328 0.4098	Ave		0.4567				11.2		30.0			
Alpha Methyl Styrene	++++ 0.4206	++++ 0.4612	0.4949 0.5158	0.4932 0.4428	0.5352 0.4435	Ave		0.4759				8.4		30.0			
Decane	++++ 0.6329	++++ 0.6476	0.7986 0.6804	0.7665 0.5676	0.7901 0.5208	Ave		0.6756				15.3		30.0			
tert-Butylbenzene	++++ 0.8685	0.9703 0.9110	1.0503 1.0233	1.1080 0.8376	1.1558 0.8071	Ave		0.9702				12.7		30.0			
1,2,4-Trimethylbenzene	++++ 0.8204	0.9073 0.8641	1.0002 0.9699	1.0394 0.7937	1.0800 0.7679	Ave		0.9159				12.3		30.0			
sec-Butylbenzene	++++ 1.2143	1.3303 1.2626	1.4419 1.4036	1.5356 1.1414	1.6225 1.0753	Ave		1.3364				13.6		30.0			
1,3-Dichlorobenzene	++++ 0.6323	0.6920 0.6595	0.7624 0.7096	0.7188 0.6252	0.7664 0.6091	Ave		0.6861				8.5		30.0			
Benzyl chloride	++++ 0.6434	0.7051 0.7157	0.7654 0.8307	0.7703 0.7084	0.8426 0.6740	Ave		0.7395				9.2		30.0			
1,4-Dichlorobenzene	++++ 0.6196	0.6863 0.6495	0.7654 0.7094	0.7149 0.6292	0.7611 0.6085	Ave		0.6827				8.7		30.0			
4-Isopropyltoluene	++++ 0.9923	1.0268 1.0264	1.2201 1.1604	1.2751 0.9383	1.3083 0.8709	Ave		1.0910				14.2		30.0			
1,2,3-Trimethylbenzene	++++ 0.8106	0.8636 0.8448	0.9649 0.9493	1.0285 0.7815	1.0696 0.7557	Ave		0.8965				12.4		30.0			
Indane	++++ 0.7777	0.8372 0.8138	0.9270 0.8958	0.9702 0.7435	1.0235 0.7090	Ave		0.8553				12.4		30.0			
1,2-Dichlorobenzene	++++ 0.5951	0.6675 0.6122	0.7291 0.6684	0.7064 0.5743	0.7450 0.5433	Ave		0.6490				11.0		30.0			
Butylbenzene	++++ 0.9588	1.0780 1.0007	1.1993 1.1225	1.2326 0.8919	1.2865 0.8121	Ave		1.0647				15.1		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.: 140-11270-1 Analy Batch No.: 18185

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/15/2018 15:35 Calibration End Date: 02/15/2018 22:24 Calibration ID: 1394

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	LVL 10												
Indene	++++ 0.6491	0.7026 0.6953	0.7542 0.7760	0.7840 0.6436	0.8528 0.6117	Ave		0.7188				10.9		30.0			
Undecane	++++ 0.6507	0.7536 0.6296	0.8097 0.7102	0.7686 0.6023	0.8572 0.5272	Ave		0.7010				15.2		30.0			
1,2-Dibromo-3-Chloropropane	++++ 0.2942	0.2917 0.3108	0.3325 0.3521	0.2976 0.3058	0.3780 0.2886	Ave		0.3168				9.8		30.0			
1,2,4,5-Tetramethylbenzene	++++ 0.8460	0.8453 0.8624	1.0089 1.0435	1.0149 0.8292	1.1345 0.7595	Ave		0.9272				13.5		30.0			
Dodecane	++++ 0.5144	++++ 0.4231	++++ 0.4312	++++ 0.4177	0.7424 0.3282	Qua	0.0236	0.4810	-0.009585						0.9980		0.9900
1,2,4-Trichlorobenzene	++++ 0.4369	0.4982 0.4649	0.5689 0.5411	0.3978 0.4735	0.6084 0.4323	Ave		0.4913				14.1		30.0			
Naphthalene	0.6835 0.7107	0.8474 0.7161	0.9734 0.8343	0.6430 0.6899	1.0586 0.6128	Ave		0.7770				19.0		30.0			
Hexachlorobutadiene	++++ 0.4556	0.5215 0.4700	0.5915 0.5048	0.5287 0.4315	0.6440 0.4119	Ave		0.5066				14.9		30.0			
1,2,3-Trichlorobenzene	++++ 0.3082	++++ 0.2848	0.4147 0.3143	0.2102 0.2816	0.4443 0.2430	Ave		0.3126				25.6		30.0			
2-Methylnaphthalene	++++ 0.0604	++++ 0.0525	++++ 0.0514	0.0394 0.0638	0.1016 ++++	Ave		0.0616				34.7		50.0			
1-Methylnaphthalene	++++ 0.0567	++++ 0.0469	0.0813 0.0453	0.0381 0.0555	0.1033 ++++	Ave		0.0610				38.0		50.0			
4-Bromofluorobenzene (Surr)	0.7353 0.7158	0.7351 0.7064	0.7390 0.7313	0.7145 0.7223	0.7395 0.6923	Ave		0.7231				2.2		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.: 140-11270-1 Analy Batch No.: 18185

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/15/2018 15:35 Calibration End Date: 02/15/2018 22:24 Calibration ID: 1394

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-18185/3	JB15ICL01.D
Level 2	IC 140-18185/4	JB15ICL02.D
Level 3	IC 140-18185/5	JB15ICL03.D
Level 4	IC 140-18185/6	JB15ICL04.D
Level 5	IC 140-18185/7	JB15ICL05.D
Level 6	IC 140-18185/8	JB15ICL06.D
Level 7	ICIS 140-18185/9	JB15ICISL07.D
Level 8	IC 140-18185/10	JB15ICL08.D
Level 9	IC 140-18185/11	JB15ICL09.D
Level 10	IC 140-18185/12	JB15ICL10.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 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Chlorodifluoromethane	CBM	Ave	++++ 27753	++++ 54851	3577 101106	5657 214696	12058 440085	++++ 1.00	++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propene	CBM	Ave	++++ 82581	++++ 162079	7440 316474	14182 647152	33073 1263500	++++ 1.00	++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dichlorodifluoromethane	CBM	Ave	4610 254947	9371 531010	21153 1026119	42724 2062839	106241 4108290	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloromethane	CBM	Ave	++++ 29822	++++ 59780	++++ 109960	5660 228533	12950 439355	++++ 1.00	++++ 2.00	++++ 4.00	0.160 8.00	0.400 16.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	CBM	Ave	2961 169926	5973 348077	13879 642320	28478 1377554	72222 2692563	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl chloride	CBM	Ave	1262 98274	2929 202765	8173 374370	16389 777336	41629 1533687	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Butadiene	CBM	Ave	++++ 74384	++++ 149529	6527 277320	13259 586005	31237 1140773	++++ 1.00	++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butane	CBM	Ave	++++ 138185	++++ 288707	12961 537741	23931 1100932	58983 2153025	++++ 1.00	++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromomethane	CBM	Ave	1533 93013	3337 189535	8215 353158	16066 759169	38970 1529331	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chloroethane	CBM	Ave	++++ 47525	1866 97167	3968 182916	8085 387996	19730 787780	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethanol	CBM	Ave	++++ 169364	++++ 339004	++++ 715122	32209 1279493	80056 2178805	++++ 5.00	++++ 10.0	++++ 20.0	0.800 40.0	2.00 80.0
Vinyl bromide	CBM	Ave	++++ 86990	3063 181747	7192 338017	14562 722769	37034 1469727	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylbutane	CBM	Ave	++++ 101583	++++ 219189	++++ 392146	17850 825846	45820 1650561	++++ 1.00	++++ 2.00	++++ 4.00	0.160 8.00	0.400 16.0
Trichlorofluoromethane	CBM	Ave	4076 251225	8622 519886	20764 944269	42082 2068202	106737 4119857	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1 Analy Batch No.: 18185

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/15/2018 15:35 Calibration End Date: 02/15/2018 22:24 Calibration ID: 1394

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 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Acrolein	CBM	Ave	++++ 20755	++++ 50113	++++ 102480	++++ 182696	11307 406528	++++ 1.00	++++ 2.00	++++ 4.00	++++ 8.00	0.400 16.0
Acetonitrile	CBM	Ave	++++ 26469	++++ 60118	++++ 131375	++++ 227816	15639 482336	++++ 1.00	++++ 2.00	++++ 4.00	++++ 8.00	0.400 16.0
Acetone	CBM	Ave	++++ 87339	++++ 180855	++++ 406789	++++ 685323	52018 1390929	++++ 3.00	++++ 6.00	++++ 12.0	++++ 24.0	1.20 48.0
Pentane	CBM	Ave	++++ 14849	++++ 30864	++++ 55484	++++ 117550	6517 244732	++++ 1.00	++++ 2.00	++++ 4.00	++++ 8.00	0.400 16.0
Isopropyl alcohol	CBM	Ave	++++ 266351	12013 488972	24895 1055630	49915 1918054	142160 3482589	++++ 3.00	0.120 6.00	0.240 12.0	0.480 24.0	1.20 48.0
Ethyl ether	CBM	Ave	++++ 65736	3289 148732	7476 321989	15056 553177	36110 1171220	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethene	CBM	Ave	1656 90621	3815 189184	8381 344392	15755 754423	39680 1535615	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Acrylonitrile	CBM	Ave	++++ 49529	++++ 107948	++++ 230835	++++ 436353	9991 902964	++++ 1.00	++++ 2.00	++++ 4.00	0.160 8.00	0.400 16.0
tert-Butyl alcohol	CBM	Lin1	++++ 127270	++++ 220441	9512 415127	18376 919383	58060 1632262	++++ 1.00	++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloro-1,2,2-trifluoroethane	CBM	Ave	3449 195021	7065 401001	16313 753175	33602 1586774	84847 3139209	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methylene Chloride	CBM	Ave	++++ 93225	++++ 177679	++++ 329860	26564 680277	48728 1349970	++++ 1.00	++++ 2.00	++++ 4.00	0.160 8.00	0.400 16.0
3-Chloropropene	CBM	Lin1	++++ 83333	++++ 160899	9005 328625	13906 656238	38333 1319889	++++ 1.00	++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon disulfide	CBM	Ave	5129 265055	10051 556931	24693 1014855	46690 2180282	112870 4378353	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,2-Dichloroethene	CBM	Ave	++++ 92328	3597 189036	7875 356777	15649 754307	40259 1495456	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylpentane	CBM	Ave	++++ 209227	++++ 432234	20535 796987	36385 1652759	93643 3175157	++++ 1.00	++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl tert-butyl ether	CBM	Ave	++++ 190134	7318 396264	17128 905606	37261 1590174	96118 3259814	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1-Dichloroethane	CBM	Ave	3370 165806	6975 349810	14950 686686	29982 1397954	76318 2804661	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Vinyl acetate	CBM	Ave	++++ 177532	6568 390265	16018 865889	37307 1582936	92910 3288528	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Butanone (MEK)	CBM	Ave	++++ 32107	++++ 65541	++++ 154279	7576 265192	16551 501778	++++ 1.00	++++ 2.00	++++ 4.00	0.160 8.00	0.400 16.0
Hexane	CBM	Ave	++++ 73808	++++ 150365	++++ 286027	14214 591318	33815 1164610	++++ 1.00	++++ 2.00	++++ 4.00	0.160 8.00	0.400 16.0
cis-1,2-Dichloroethene	CBM	Ave	1790 91036	3728 190591	8074 373543	16376 771979	41004 1553316	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1 Analy Batch No.: 18185

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/15/2018 15:35 Calibration End Date: 02/15/2018 22:24 Calibration ID: 1394

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 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
Ethyl acetate	CBM	Ave	+++++ 141681	+++++ 291559	+++++ 683903	31175 1177995	76623 2276697	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Chloroform	CBM	Ave	+++++ 190800	+++++ 396942	+++++ 779025	35241 1591098	86586 3188140	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrahydrofuran	CBM	Ave	+++++ 76999	+++++ 162110	+++++ 340009	17204 641564	40956 1211876	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
1,1,1-Trichloroethane	CBM	Ave	4176 197454	8645 416395	18145 804959	35378 1669563	89788 3337256	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloroethane	DFBZ	Ave	+++++ 123151	4723 259212	10626 509786	21442 1050690	56229 2135949	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1-Butanol	DFBZ	Ave	+++++ 29744	+++++ 50901	+++++ 111381	+++++ 202000	13885 362827	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	0.400 16.0
Cyclohexane	DFBZ	Ave	+++++ 45080	+++++ 92419	4472 171655	7932 357423	20197 685290	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzene	DFBZ	Ave	6241 263091	12063 547051	24429 1065062	48414 2097890	119041 4024394	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Carbon tetrachloride	DFBZ	Ave	3550 209982	7915 438828	18207 851003	36066 1762311	93367 3537791	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,3-Dimethylpentane	DFBZ	Ave	+++++ 63347	+++++ 130603	5875 249155	11913 508864	28672 1017496	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Thiophene	DFBZ	Ave	+++++ 150312	+++++ 321955	13462 626957	27334 1270708	69518 2563344	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2,2,4-Trimethylpentane	DFBZ	Ave	+++++ 439459	+++++ 900463	40803 1723360	79383 3486427	196445 6676767	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Heptane	DFBZ	Ave	+++++ 94765	3902 196222	8492 381559	17167 777358	43205 1540847	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichloropropane	DFBZ	Ave	+++++ 100302	4098 210169	9261 421493	17767 847107	44766 1682910	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Trichloroethene	DFBZ	Ave	2325 119589	4743 250475	10397 493629	21535 1003544	54179 1968061	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dibromomethane	DFBZ	Ave	+++++ 109851	+++++ 230836	10667 457388	20766 926694	50669 1863214	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromodichloromethane	DFBZ	Ave	3971 195803	8574 413015	16774 823450	34347 1676336	88194 3382471	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dioxane	DFBZ	Ave	+++++ 28069	+++++ 53844	2237 123538	4748 219872	12668 344425	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Methyl methacrylate	DFBZ	Ave	+++++ 85989	+++++ 179409	+++++ 430723	17426 735125	44804 1438539	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0
Methylcyclohexane	DFBZ	Ave	+++++ 167878	7322 347070	15575 668329	30462 1368540	75845 2709025	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Methyl-2-pentanone (MIBK)	DFBZ	Ave	+++++ 136923	+++++ 269233	+++++ 659992	27138 1085608	64288 2127971	+++++ 1.00	+++++ 2.00	+++++ 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1 Analy Batch No.: 18185

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/15/2018 15:35 Calibration End Date: 02/15/2018 22:24 Calibration ID: 1394

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 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
cis-1,3-Dichloropropene	DFBZ	Ave	+++++ 155553	6201 331437	13343 670433	26097 1355923	68409 2720193	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
trans-1,3-Dichloropropene	CBZd 5	Ave	+++++ 128407	+++++ 278618	10875 591191	23711 1173124	58578 2433426	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Toluene	CBZd 5	Ave	+++++ 283412	11936 600208	25542 1239377	54782 2422147	131181 4918045	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2-Trichloroethane	CBZd 5	Ave	1695 87152	3749 184581	7985 385134	16317 753906	40303 1513985	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Hexanone	CBZd 5	Ave	+++++ 69784	2650 136876	5895 325452	11694 574790	32729 1137183	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Octane	CBZd 5	Ave	2239 101126	4541 206925	8774 411769	18132 828864	45527 1606217	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
C8 Range	CBZd 5	Ave	+++++ 901978	+++++ 1850127	+++++ 3707341	+++++ 7331415	+++++ 14016806	+++++ 1.00	+++++ 2.00	+++++ 4.00	+++++ 8.00	+++++ 16.0
Dibromochloromethane	CBZd 5	Ave	3530 200692	7559 432967	16372 877444	33946 1787283	88886 3568712	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromoethane (EDB)	CBZd 5	Ave	+++++ 165343	6189 354754	14297 728486	29416 1453979	69856 2951686	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Tetrachloroethene	CBZd 5	Ave	2331 114687	4909 239650	10866 477136	20519 957712	52795 1889134	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Chlorobenzene	CBZd 5	Ave	+++++ 239164	8864 496514	20875 1012976	43161 1997116	105585 3891277	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Ethylbenzene	CBZd 5	Ave	+++++ 342484	14220 729559	32565 1566611	70429 2951613	167768 5915991	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
m-Xylene & p-Xylene	CBZd 5	Ave	+++++ 517067	21664 1112844	48711 2392826	103040 4391902	251768 8546976	+++++ 2.00	0.0800 4.00	0.160 8.00	0.320 16.0	0.800 32.0
Nonane	CBZd 5	Ave	3975 195236	8738 403252	18443 832138	36604 1567651	90392 3005085	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Styrene	CBZd 5	Ave	+++++ 205243	7700 421470	17705 973459	38384 1795211	99622 3536130	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Bromoform	CBZd 5	Ave	+++++ 208872	+++++ 452443	17167 934107	34267 1951424	89592 3797430	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
o-Xylene	CBZd 5	Ave	+++++ 275312	11329 581607	24847 1252990	55661 2323383	137277 4691784	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,1,2,2-Tetrachloroethane	CBZd 5	Ave	+++++ 195397	8441 414828	18692 920868	40240 1634322	98733 3277617	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichloropropane	CBZd 5	Ave	+++++ 51609	1986 109836	4845 246555	10278 441919	26427 906990	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Isopropylbenzene	CBZd 5	Ave	+++++ 358205	16616 764991	36334 1687204	76795 3047982	186877 6046514	+++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Propylbenzene	CBZd 5	Ave	+++++ 99164	+++++ 212901	9302 482571	20306 873966	51549 1773765	+++++ 1.00	+++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1 Analy Batch No.: 18185

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/15/2018 15:35 Calibration End Date: 02/15/2018 22:24 Calibration ID: 1394

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 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
2-Chlorotoluene	CBZd 5	Ave	++++ 101293	4258 212574	9208 454373	19495 856661	47705 1710230	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Ethyltoluene	CBZd 5	Ave	++++ 344967	15269 745587	33930 1700936	74014 2987293	180899 5957624	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3,5-Trimethylbenzene	CBZd 5	Ave	++++ 147646	5903 310461	14114 712579	31849 1262527	76220 2530049	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Alpha Methyl Styrene	CBZd 5	Ave	++++ 149742	++++ 334017	14312 752971	29994 1370381	76565 2737983	++++ 1.00	++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Decane	CBZd 5	Ave	++++ 225316	++++ 468958	23094 993210	46614 1756545	113027 3214750	++++ 1.00	++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
tert-Butylbenzene	CBZd 5	Ave	++++ 309204	13756 659713	30373 1493882	67386 2592000	165330 4982279	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4-Trimethylbenzene	CBZd 5	Ave	++++ 292070	12863 625778	28923 1415936	63212 2456158	154495 4740203	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
sec-Butylbenzene	CBZd 5	Ave	++++ 432308	18860 914293	41696 2048964	93389 3532437	232101 6638117	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,3-Dichlorobenzene	CBZd 5	Ave	++++ 225116	9811 477551	22046 1035883	43715 1934769	109636 3759992	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Benzyl chloride	CBZd 5	Ave	++++ 229036	9996 518315	22135 1212674	46845 2192216	120536 4160862	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,4-Dichlorobenzene	CBZd 5	Ave	++++ 220578	9729 470366	22135 1035664	43480 1947184	108874 3756592	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
4-Isopropyltoluene	CBZd 5	Ave	++++ 353244	14557 743248	35283 1693897	77548 2903808	187151 5376440	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trimethylbenzene	CBZd 5	Ave	++++ 288587	12243 611735	27902 1385849	62548 2418553	153010 4664935	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indane	CBZd 5	Ave	++++ 276849	11869 589287	26808 1307644	59006 2301054	146404 4376817	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dichlorobenzene	CBZd 5	Ave	++++ 211868	9463 443319	21084 975697	42959 1777289	106565 3354013	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Butylbenzene	CBZd 5	Ave	++++ 341321	15282 724644	34682 1638649	74962 2760230	184036 5013238	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Indene	CBZd 5	Ave	++++ 231067	9960 503526	21811 1132821	47682 1991794	121997 3775959	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Undecane	CBZd 5	Ave	++++ 231645	10683 455946	23414 1036819	46744 1863928	122622 3254285	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2-Dibromo-3-Chloropropane	CBZd 5	Ave	++++ 104745	4136 225034	9615 514013	18099 946492	54065 1781427	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,4,5-Tetramethylbenzene	CBZd 5	Ave	++++ 301194	11984 624537	29177 1523328	61721 2566257	162287 4688609	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Dodecane	CBZd 5	Qua	++++ 183122	++++ 306380	++++ 629519	++++ 1292753	106198 2025925	++++ 1.00	++++ 2.00	++++ 4.00	++++ 8.00	0.400 16.0

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1 Analy Batch No.: 18185

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/15/2018 15:35 Calibration End Date: 02/15/2018 22:24 Calibration ID: 1394

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 10	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5 LVL 10
1,2,4-Trichlorobenzene	CBZd 5	Ave	++++ 155531	7063 336684	16452 789833	24193 1465426	87032 2668565	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Naphthalene	CBZd 5	Ave	4921 253015	12014 518551	28149 1217927	39105 2135019	151426 3783262	0.0200 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
Hexachlorobutadiene	CBZd 5	Ave	++++ 162206	7393 340335	17105 736883	32154 1335307	92129 2542924	++++ 1.00	0.0400 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
1,2,3-Trichlorobenzene	CBZd 5	Ave	++++ 109718	++++ 206227	11991 458814	12782 871367	63553 1500391	++++ 1.00	++++ 2.00	0.0800 4.00	0.160 8.00	0.400 16.0
2-Methylnaphthalene	CBZd 5	Ave	++++ 67237	++++ 118911	++++ 234598	7493 617406	45438 ++++	++++ 3.13	++++ 6.25	++++ 12.5	0.500 25.0	1.25 ++++
1-Methylnaphthalene	CBZd 5	Ave	++++ 63122	++++ 106135	7343 206757	7235 536661	46180 ++++	++++ 3.13	++++ 6.25	0.250 12.5	0.500 25.0	1.25 ++++
4-Bromofluorobenzene (Surr)	CBZd 5	Ave	1058714 1019252	1042081 1023083	1068525 1067616	1086367 1117665	1057828 1068475	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00	4.00 4.00

Curve Type Legend:

Ave = Average ISTD
Lin1 = Linear 1/conc ISTD
Qua = Quadratic ISTD

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1 Analy Batch No.: 18185

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/15/2018 15:35 Calibration End Date: 02/15/2018 22:24 Calibration ID: 1394

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 140-18185/3	JB15ICL01.D
Level 2	IC 140-18185/4	JB15ICL02.D
Level 3	IC 140-18185/5	JB15ICL03.D
Level 4	IC 140-18185/6	JB15ICL04.D
Level 5	IC 140-18185/7	JB15ICL05.D
Level 6	IC 140-18185/8	JB15ICL06.D
Level 7	ICIS 140-18185/9	JB15ICISL07.D
Level 8	IC 140-18185/10	JB15ICL08.D
Level 9	IC 140-18185/11	JB15ICL09.D
Level 10	IC 140-18185/12	JB15ICL10.D

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 # LVL 7 #	LVL 2 # LVL 8 #	LVL 3 # LVL 9 #	LVL 4 # LVL 10 #	LVL 5 #	LVL 6 #	LVL 1 LVL 7	LVL 2 LVL 8	LVL 3 LVL 9	LVL 4 LVL 10	LVL 5	LVL 6
Chlorodifluoromethane	+++++	+++++	47.5						50			
Propene	+++++	+++++	12.6						50			
Dichlorodifluoromethane	-7.5						50					
Chloromethane	+++++	+++++	+++++	12.5						50		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	-9.4						50					
Vinyl chloride	-30.5						50					
1,3-Butadiene	+++++	+++++	8.8						50			
Butane	+++++	+++++	13.9						50			
Bromomethane	-15.3						50					
Chloroethane	+++++	-0.4						50				
Ethanol	+++++	+++++	+++++	11.0						50		
Vinyl bromide	+++++	-10.4						50				
2-Methylbutane	+++++	+++++	+++++	0.9						50		
Trichlorofluoromethane	-15.5						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1 Analy Batch No.: 18185

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/15/2018 15:35 Calibration End Date: 02/15/2018 22:24 Calibration ID: 1394

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #	LVL 9 #	LVL 10 #			LVL 7	LVL 8	LVL 9	LVL 10		
Acrolein	+++++	+++++	+++++	+++++	15.7						50	
Acetonitrile	+++++	+++++	+++++	+++++	26.5						50	
Acetone	+++++	+++++	+++++	+++++	35.1						80	
Pentane	+++++	+++++	+++++	+++++	9.3						50	
Isopropyl alcohol	+++++	11.0						50				
Ethyl ether	+++++	5.7						50				
1,1-Dichloroethene	-10.0						50					
Acrylonitrile	+++++	+++++	+++++	5.4						50		
tert-Butyl alcohol	+++++	+++++	-34.2						50			
1,1,2-Trichloro-1,2,2-trifluoroethane	-9.5						50					
Methylene Chloride	+++++	+++++	+++++	54.8						80		
3-Chloropropene	+++++	+++++	2.1						50			
Carbon disulfide	-3.9						50					
trans-1,2-Dichloroethene	+++++	-1.7						50				
2-Methylpentane	+++++	+++++	18.6						50			
Methyl tert-butyl ether	+++++	-9.9						50				
1,1-Dichloroethane	-2.5						50					
Vinyl acetate	+++++	-16.2						50				
2-Butanone (MEK)	+++++	+++++	+++++	23.7						50		
Hexane	+++++	+++++	+++++	10.2						50		
cis-1,2-Dichloroethene	-4.7						50					

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1 Analy Batch No.: 18185

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/15/2018 15:35 Calibration End Date: 02/15/2018 22:24 Calibration ID: 1394

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #	LVL 9 #	LVL 10 #			LVL 7	LVL 8	LVL 9	LVL 10		
Ethyl acetate	+++++	+++++	+++++	15.1						50		
Chloroform	+++++	+++++	9.6						50			
Tetrahydrofuran	+++++	+++++	+++++	18.4						50		
1,1,1-Trichloroethane	0.8						50					
1,2-Dichloroethane	+++++	-4.7						50				
1-Butanol	+++++	+++++	+++++	+++++	28.8						50	
Cyclohexane	+++++	+++++	19.5						50			
Benzene	12.1						50					
Carbon tetrachloride	-15.6						50					
2,3-Dimethylpentane	+++++	+++++	10.4						50			
Thiophene	+++++	+++++	4.6						50			
2,2,4-Trimethylpentane	+++++	+++++	12.2						50			
Heptane	+++++	2.3						50				
1,2-Dichloropropane	+++++	0.5						50				
Trichloroethene	-5.2						50					
Dibromomethane	+++++	+++++	12.0						50			
Bromodichloromethane	-3.0						50					
1,4-Dioxane	+++++	+++++	0.6						50			
Methyl methacrylate	+++++	+++++	+++++	5.4						50		
Methylcyclohexane	+++++	7.6						50				
4-Methyl-2-pentanone (MIBK)	+++++	+++++	+++++	8.8						50		

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1 Analy Batch No.: 18185

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/15/2018 15:35 Calibration End Date: 02/15/2018 22:24 Calibration ID: 1394

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #	LVL 9 #	LVL 10 #			LVL 7	LVL 8	LVL 9	LVL 10		
cis-1,3-Dichloropropene	+++++	-1.3						50				
trans-1,3-Dichloropropene	+++++	+++++	-2.9						50			
Toluene	+++++	-0.2						50				
1,1,2-Trichloroethane	-8.7						50					
2-Hexanone	+++++	-6.0						50				
Octane	6.1						50					
Dibromochloromethane	-13.8						50					
1,2-Dibromoethane (EDB)	+++++	-8.7						50				
Tetrachloroethene	-3.3						50					
Chlorobenzene	+++++	-8.1						50				
Ethylbenzene	+++++	-4.1						50				
m-Xylene & p-Xylene	+++++	-2.5						50				
Nonane	-3.3						50					
Styrene	+++++	-10.5						50				
Bromoform	+++++	+++++	-2.7						50			
o-Xylene	+++++	-3.8						50				
1,1,2,2-Tetrachloroethane	+++++	-0.9						50				
1,2,3-Trichloropropane	+++++	-11.0						50				
Isopropylbenzene	+++++	3.6						50				
Propylbenzene	+++++	+++++	3.4						50			
2-Chlorotoluene	+++++	-0.5						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1 Analy Batch No.: 18185

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/15/2018 15:35 Calibration End Date: 02/15/2018 22:24 Calibration ID: 1394

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #	LVL 9 #	LVL 10 #			LVL 7	LVL 8	LVL 9	LVL 10		
4-Ethyltoluene	+++++	-1.4						50				
1,3,5-Trimethylbenzene	+++++	-8.8						50				
Alpha Methyl Styrene	+++++	+++++	4.0						50			
Decane	+++++	+++++	18.2						50			
tert-Butylbenzene	+++++	0.0						50				
1,2,4-Trimethylbenzene	+++++	-0.9						50				
sec-Butylbenzene	+++++	-0.5						50				
1,3-Dichlorobenzene	+++++	0.9						50				
Benzyl chloride	+++++	-4.7						50				
1,4-Dichlorobenzene	+++++	0.5						50				
4-Isopropyltoluene	+++++	-5.9						50				
1,2,3-Trimethylbenzene	+++++	-3.7						50				
Indane	+++++	-2.1						50				
1,2-Dichlorobenzene	+++++	2.8						50				
Butylbenzene	+++++	1.2						50				
Indene	+++++	-2.3						50				
Undecane	+++++	7.5						50				
1,2-Dibromo-3-Chloropropane	+++++	-7.9						50				
1,2,4,5-Tetramethylbenzene	+++++	-8.8						50				
Dodecane	+++++	+++++	+++++	+++++	43.7						50	
1,2,4-Trichlorobenzene	+++++	1.4						50				

FORM VI
AIR - GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
READBACK PERCENT ERROR

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1 Analy Batch No.: 18185

SDG No.: _____

Instrument ID: MJ GC Column: RTX-5 ID: 0.32 (mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/15/2018 15:35 Calibration End Date: 02/15/2018 22:24 Calibration ID: 1394

ANALYTE	PERCENT ERROR						PERCENT ERROR LIMIT					
	LVL 1 #	LVL 2 #	LVL 3 #	LVL 4 #	LVL 5 #	LVL 6 #	LVL 1	LVL 2	LVL 3	LVL 4	LVL 5	LVL 6
	LVL 7 #	LVL 8 #	LVL 9 #	LVL 10 #			LVL 7	LVL 8	LVL 9	LVL 10		
Naphthalene	-12.0						80					
Hexachlorobutadiene	+++++	2.9						50				
1,2,3-Trichlorobenzene	+++++	+++++	32.6						50			
2-Methylnaphthalene	+++++	+++++	+++++	-35.9 +++++						80		
1-Methylnaphthalene	+++++	+++++	33.2	+++++					80			

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D
 Lims ID: IC L1
 Client ID:
 Sample Type: IC Calib Level: 1
 Inject. Date: 15-Feb-2018 15:35:30 ALS Bottle#: 8 Worklist Smp#: 3
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007391-003
 Misc. Info.: 140829
 Operator ID: 403648 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub14
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 19-Feb-2018 10:02:34 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK031

First Level Reviewer: tajh

Date: 15-Feb-2018 16:23:01

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	9.683	9.689	-0.006	92	277908	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.786	11.790	-0.004	95	1568041	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.386	16.389	-0.003	88	1439930	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.989	17.992	-0.003	94	1058714	4.00	4.07	
7 Propene	41	4.223	4.216	0.007	84	2145	0.0200	0.0265	
8 Dichlorodifluoromethane	85	4.277	4.274	0.003	95	4610	0.0200	0.0185	
9 Chloromethane	52	4.492	4.482	0.010	86	1267	0.0200	0.0434	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.497	4.489	0.008	89	2961	0.0200	0.0181	
11 Acetaldehyde	44	4.669	4.662	0.007	96	7382	0.1000	0.2280	
12 Vinyl chloride	62	4.680	4.679	0.001	90	1262	0.0200	0.0139	
13 Butadiene	54	4.772	4.777	-0.005	74	1578	0.0200	0.0215	
14 Butane	43	4.782	4.777	0.005	84	2812	0.0200	0.0202	
15 Bromomethane	94	5.148	5.146	0.002	79	1533	0.0200	0.0169	
17 Ethanol	31	5.460	5.435	0.025	90	3931	0.1000	0.1168	
18 Vinyl bromide	106	5.638	5.641	-0.003	93	1273	0.0200	0.0148	
19 2-Methylbutane	43	5.702	5.693	0.009	88	2249	0.0200	0.0219	
20 Trichlorofluoromethane	101	5.934	5.933	0.001	93	4076	0.0200	0.0169	
22 Acetone	58	6.106	6.081	0.025	92	3088	0.0600	0.0976	
25 Isopropyl alcohol	45	6.246	6.201	0.045	97	5659	0.0600	0.0624	
27 1,1-Dichloroethene	96	6.692	6.692	0.000	87	1656	0.0200	0.0180	
29 1,1,2-Trichloro-1,2,2-trif	101	6.880	6.875	0.005	92	3449	0.0200	0.0181	
32 Methylene Chloride	84	7.058	7.061	-0.003	96	13198	0.0200	0.1326	
31 3-Chloro-1-propene	39	7.079	7.077	0.002	30	2455	0.0200	0.000854	
33 Carbon disulfide	76	7.241	7.239	0.002	94	5129	0.0200	0.0192	
34 trans-1,2-Dichloroethene	96	7.897	7.903	-0.006	74	1569	0.0200	0.0170	
35 2-Methylpentane	43	7.924	7.917	0.007	91	5859	0.0200	0.0276	
37 1,1-Dichloroethane	63	8.344	8.343	0.001	93	3370	0.0200	0.0195	
42 cis-1,2-Dichloroethene	96	9.339	9.347	-0.008	88	1790	0.0200	0.0191	
47 1,1,1-Trichloroethane	97	10.727	10.721	0.006	90	4176	0.0200	0.0202	
50 Benzene	78	11.286	11.291	-0.005	95	6241	0.0200	0.0224	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
52 Carbon tetrachloride	117	11.313	11.310	0.003	69	3550	0.0200	0.0169	
55 2,3-Dimethylpentane	71	11.383	11.384	-0.001	86	1368	0.0200	0.0209	
56 Isooctane	57	11.991	11.995	-0.004	96	10818	0.0200	0.0242	
57 n-Heptane	71	12.335	12.342	-0.007	89	2340	0.0200	0.0239	
58 1,2-Dichloropropane	63	12.453	12.451	0.002	60	1669	0.0200	0.0159	
59 Trichloroethene	130	12.475	12.480	-0.005	92	2325	0.0200	0.0190	
60 Dibromomethane	93	12.566	12.569	-0.003	93	3446	0.0200	0.0295	
61 Dichlorobromomethane	83	12.701	12.704	-0.003	90	3971	0.0200	0.0194	
64 Methylcyclohexane	83	13.223	13.222	0.001	92	4080	0.0200	0.0234	
65 4-Methyl-2-pentanone (MIBK)	43	13.653	13.618	0.035	71	3273	0.0200	0.0228	
66 cis-1,3-Dichloropropene	75	13.658	13.659	-0.001	87	2659	0.0200	0.0165	
67 trans-1,3-Dichloropropene	75	14.325	14.329	-0.004	87	1950	0.0200	0.0140	
68 Toluene	91	14.449	14.458	-0.009	91	5238	0.0200	0.0172	
69 1,1,2-Trichloroethane	83	14.530	14.532	-0.002	85	1695	0.0200	0.0183	
73 n-Octane	85	15.095	15.100	-0.005	92	2239	0.0200	0.0212	
74 Chlorodibromomethane	129	15.224	15.227	-0.003	91	3530	0.0200	0.0172	
75 Ethylene Dibromide	107	15.514	15.514	0.000	95	2826	0.0200	0.0164	
76 Tetrachloroethene	129	15.579	15.575	0.004	93	2331	0.0200	0.0193	
79 Ethylbenzene	91	16.709	16.711	-0.002	94	5029	0.0200	0.0134	
81 m-Xylene & p-Xylene	91	16.865	16.869	-0.004	0	7004	0.0400	0.0248	
82 n-Nonane	57	17.252	17.252	0.000	92	3975	0.0200	0.0193	
83 Styrene	104	17.322	17.331	-0.009	92	2608	0.0200	0.0119	
84 Bromoform	173	17.327	17.333	-0.006	88	2789	0.0200	0.0127	
85 o-Xylene	91	17.386	17.391	-0.005	92	4017	0.0200	0.0134	
86 1,1,2,2-Tetrachloroethane	83	17.709	17.708	0.001	88	3090	0.0200	0.0143	
88 Isopropylbenzene	105	17.957	17.956	0.001	91	4974	0.0200	0.0122	
89 N-Propylbenzene	120	18.462	18.462	0.000	97	928	0.0200	0.008287	
90 2-Chlorotoluene	126	18.516	18.516	0.000	89	1194	0.0200	0.0110	
91 4-Ethyltoluene	105	18.602	18.602	0.000	94	4683	0.0200	0.0119	
92 1,3,5-Trimethylbenzene	120	18.672	18.672	0.000	89	1711	0.0200	0.0104	
93 Alpha Methyl Styrene	118	18.887	18.891	-0.004	80	1396	0.0200	0.008148	
94 n-Decane	57	18.920	18.923	-0.003	90	4548	0.0200	0.0187	
95 tert-Butylbenzene	119	19.081	19.079	0.002	74	4130	0.0200	0.0118	
96 1,2,4-Trimethylbenzene	105	19.092	19.091	0.001	89	3740	0.0200	0.0113	
97 sec-Butylbenzene	105	19.334	19.337	-0.003	96	5793	0.0200	0.0120	
98 1,3-Dichlorobenzene	146	19.361	19.363	-0.002	96	3672	0.0200	0.0149	
99 Benzyl chloride	91	19.431	19.431	0.000	94	3421	0.0200	0.0129	
100 1,4-Dichlorobenzene	146	19.441	19.445	-0.004	90	3423	0.0200	0.0139	
101 4-Isopropyltoluene	119	19.490	19.489	0.001	95	4393	0.0200	0.0112	
102 1,2,3-Trimethylbenzene	105	19.549	19.549	0.000	93	3903	0.0200	0.0121	
103 Butylcyclohexane	83	19.592	19.591	0.001	93	5501	0.0200	0.0185	
104 2,3-Dihydroindene	117	19.791	19.792	-0.001	88	3782	0.0200	0.0123	
105 1,2-Dichlorobenzene	146	19.796	19.795	0.001	90	3132	0.0200	0.0134	
106 n-Butylbenzene	91	19.904	19.907	-0.003	94	4751	0.0200	0.0124	
107 Indene	116	19.915	19.918	-0.003	67	2949	0.0200	0.0114	
108 Undecane	57	20.189	20.186	0.003	93	3741	0.0200	0.0148	
110 1,2-Dibromo-3-Chloropropan	157	20.377	20.381	-0.004	86	1272	0.0200	0.0112	
111 1,2,4,5-Tetramethylbenzene	119	20.657	20.658	-0.001	93	4311	0.0200	0.0129	
115 1,2,4-Trichlorobenzene	180	21.507	21.509	-0.002	90	2738	0.0200	0.0155	
116 Naphthalene	128	21.642	21.642	0.000	97	4921	0.0200	0.0176	
118 Hexachlorobutadiene	225	21.798	21.798	0.000	91	2537	0.0200	0.0139	
119 1,2,3-Trichlorobenzene	180	21.857	21.858	-0.001	91	2006	0.0200	0.0178	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
120 2-Methylnaphthalene	142	22.384	22.385	-0.001	93	1417	0.0625	0.0639	
121 1-Methylnaphthalene	142	22.513	22.509	0.004	94	1821	0.0625	0.0829	
A 123 C8 Range	1	15.110	(15.083-15.137)		0	25246	0.0200	0.0286	
S 124 Xylenes, Total	100				0		0.0600	0.0383	
S 125 1,2-Dichloroethene, Total	1				0		0.0400	0.0361	

Reagents:

40L1-3DQP_00001

Amount Added: 50.00

Units: mL

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D

Injection Date: 15-Feb-2018 15:35:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: IC L1

Worklist Smp#: 3

Client ID:

Purge Vol: 500.000 mL

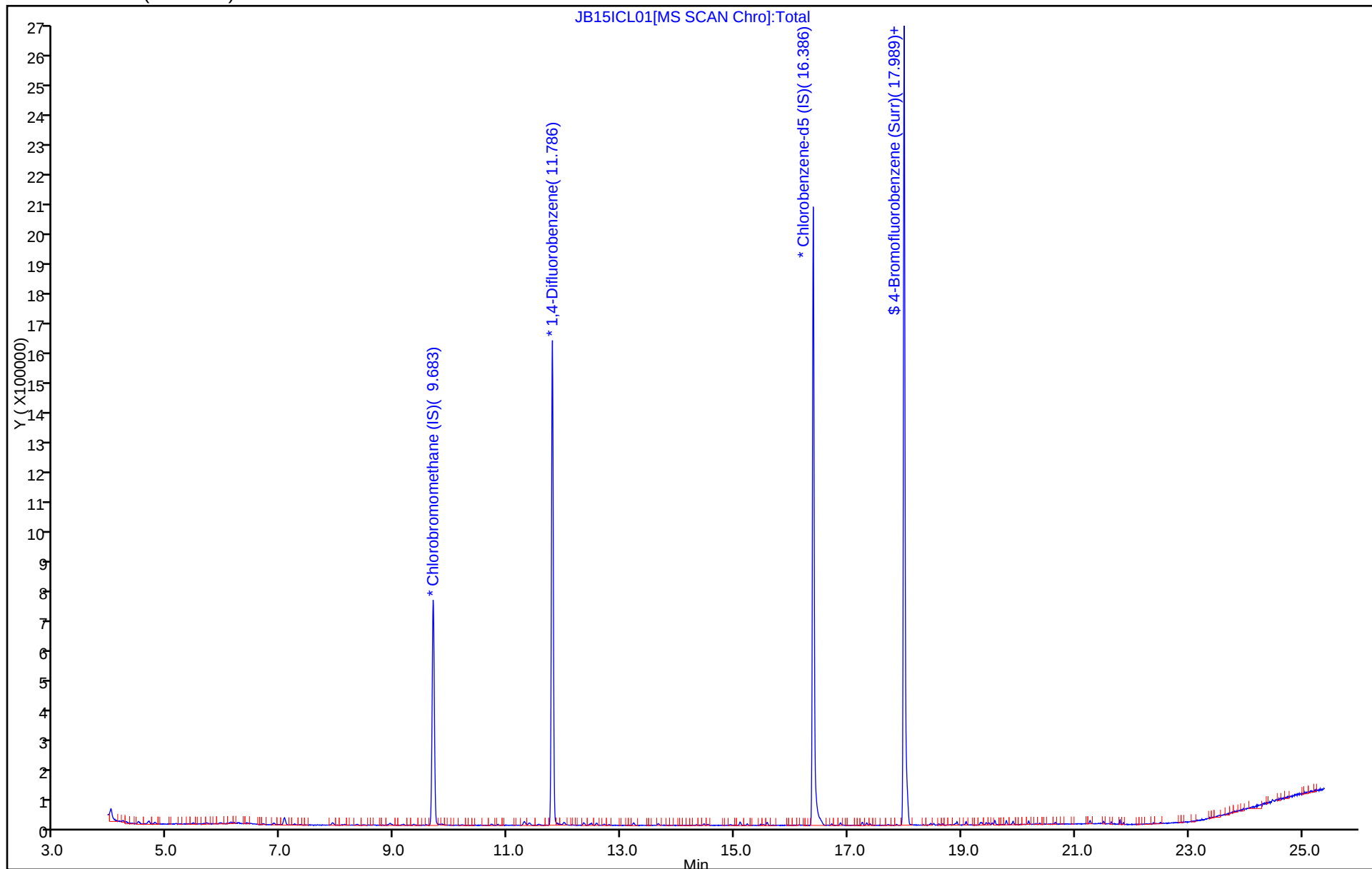
Dil. Factor: 1.0000

ALS Bottle#: 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\20180215-7391.b\JB15ICL01.D

Injection Date: 15-Feb-2018 15:35:30

Instrument ID: MJ

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#: 8

Worklist Smp#: 3

Purge Vol: 500.000 mL

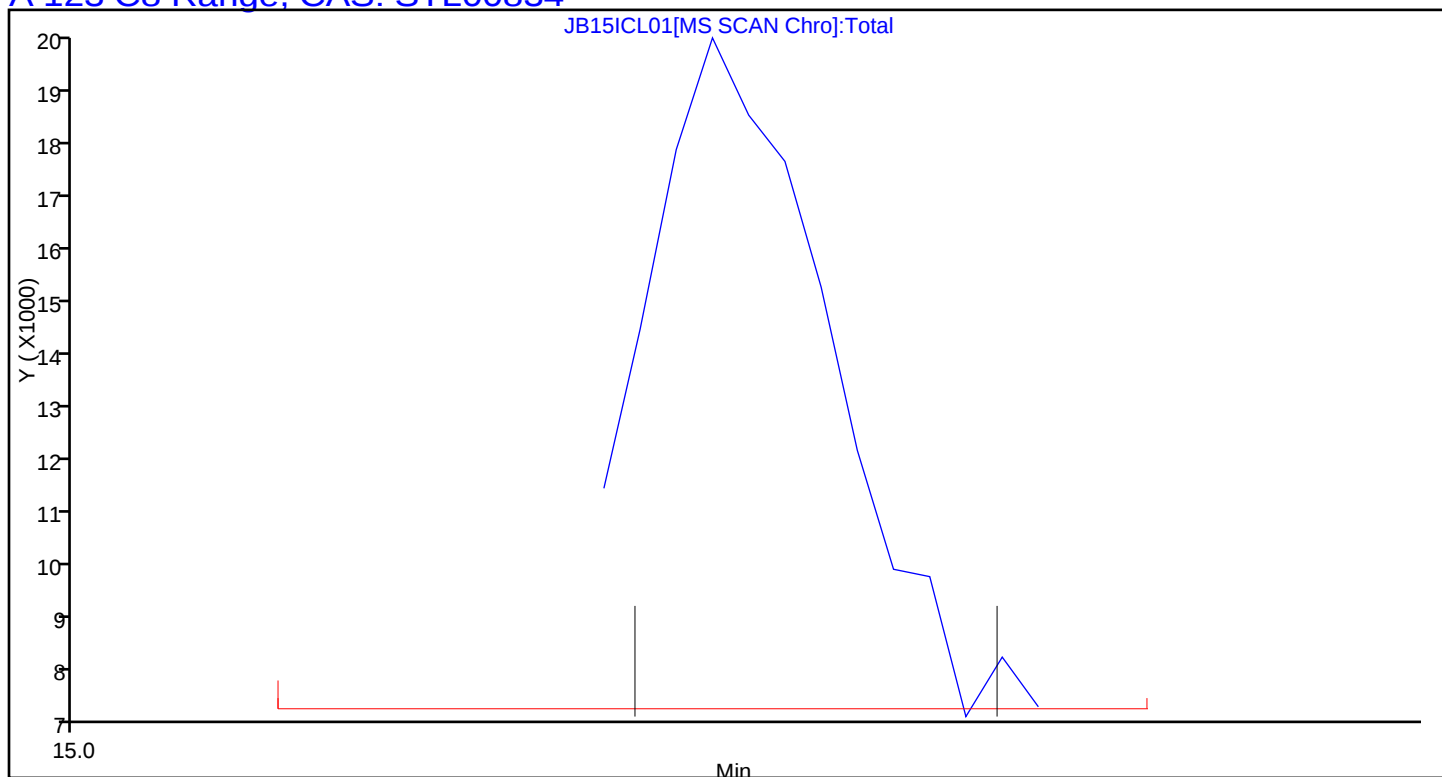
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 123 C8 Range, CAS: STL00834

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D

Injection Date: 15-Feb-2018 15:35:30

Instrument ID: MJ

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#:

8

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor:

1.0000

Method: MJ_TO15

Limit Group:

MSA TO14A_15 Routine ICAL

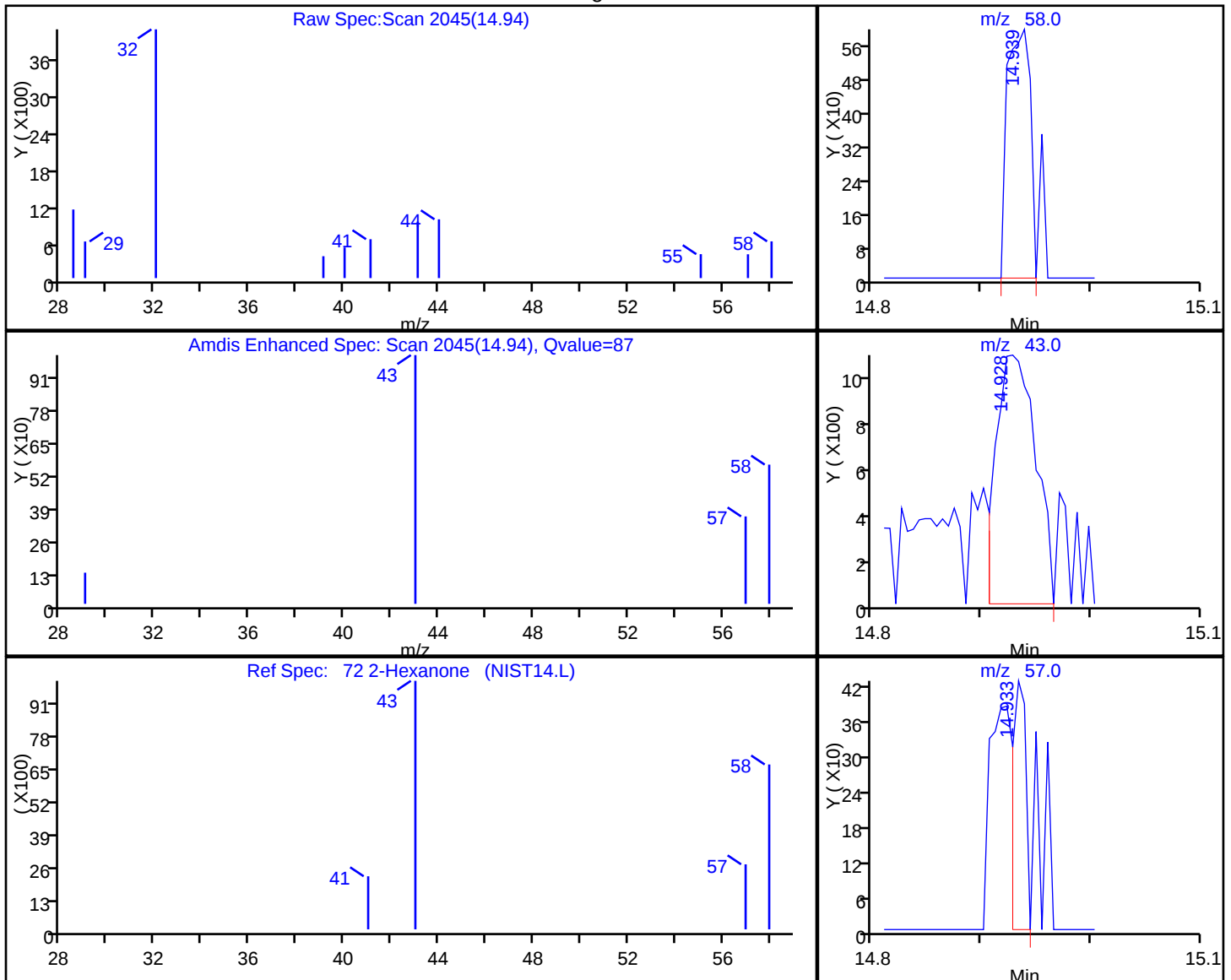
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

72 2-Hexanone, CAS: 591-78-6

Processing Results



RT	Mass	Response	Amount
14.94	58.00	863	0.012055
14.93	43.00	2634	
14.93	57.00	360	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:40:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D

Injection Date: 15-Feb-2018 15:35:30

Instrument ID: MJ

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#:

8

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor:

1.0000

Method: MJ_TO15

Limit Group:

MSA TO14A_15 Routine ICAL

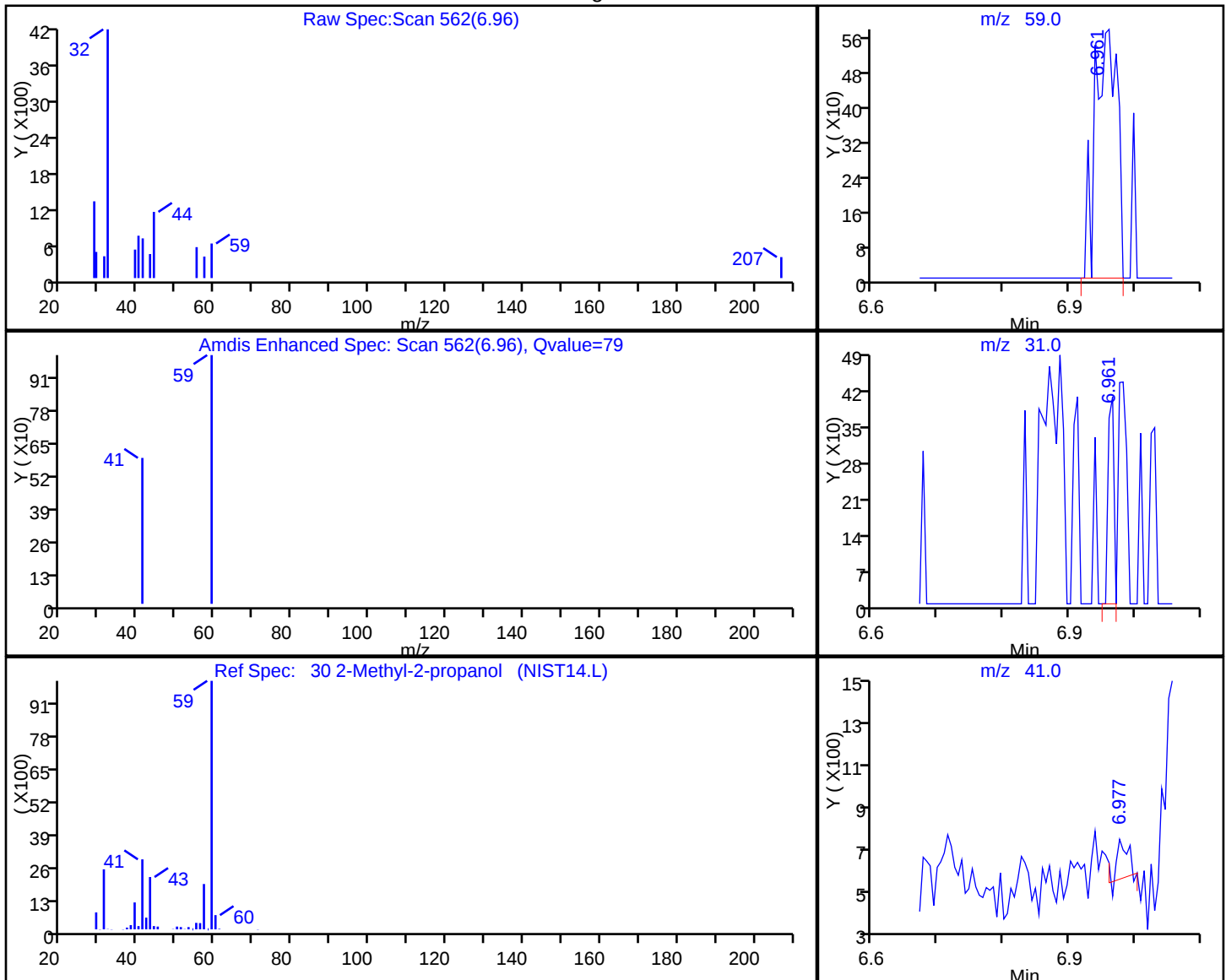
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

30 2-Methyl-2-propanol, CAS: 75-65-0

Processing Results



RT	Mass	Response	Amount
6.96	59.00	1356	-0.025105
6.96	31.00	250	
6.98	41.00	178	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:40:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D

Injection Date: 15-Feb-2018 15:35:30

Instrument ID: MJ

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#:

8

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

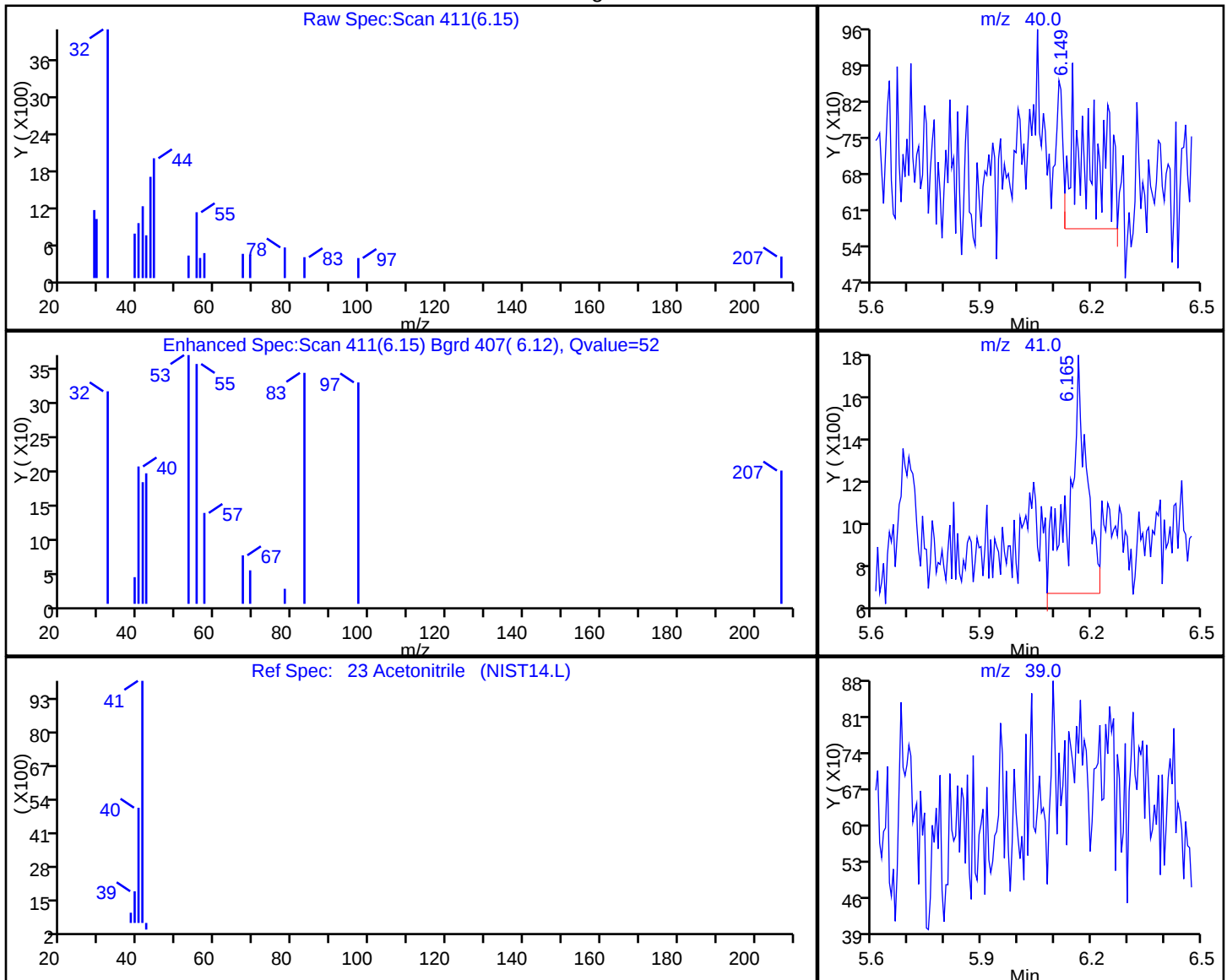
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

23 Acetonitrile, CAS: 75-05-8

Processing Results



RT	Mass	Response	Amount
6.15	40.00	1166	0.039285
6.16	41.00	3703	
6.02	39.00	0	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:40:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D

Injection Date: 15-Feb-2018 15:35:30

Instrument ID: MJ

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#:

8

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor:

1.0000

Method: MJ_TO15

Limit Group:

MSA TO14A_15 Routine ICAL

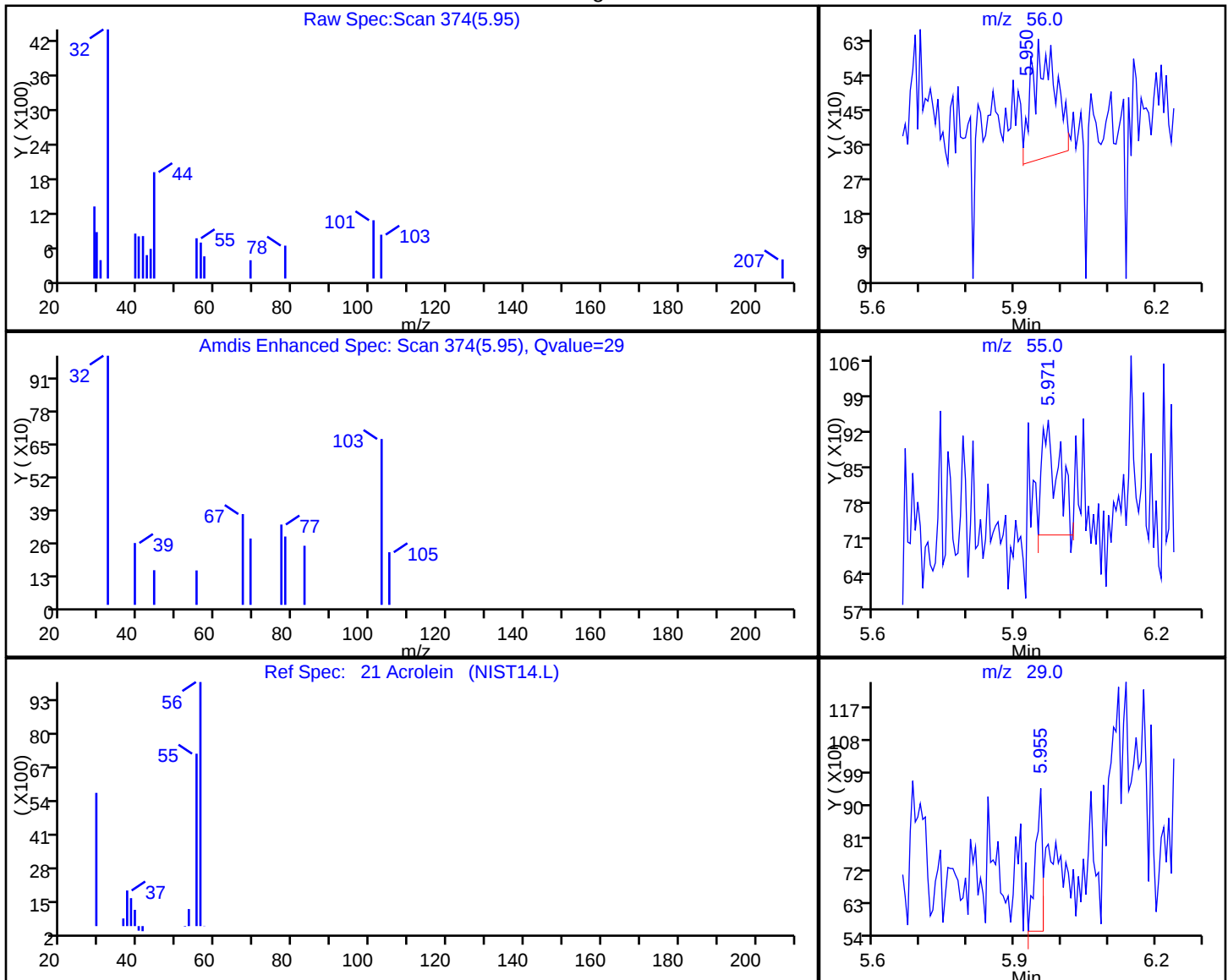
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

21 Acrolein, CAS: 107-02-8

Processing Results



RT	Mass	Response	Amount
5.95	56.00	1076	0.044463
5.97	55.00	541	
5.96	29.00	408	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:40:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D

Injection Date: 15-Feb-2018 15:35:30

Instrument ID: MJ

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#: 8

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

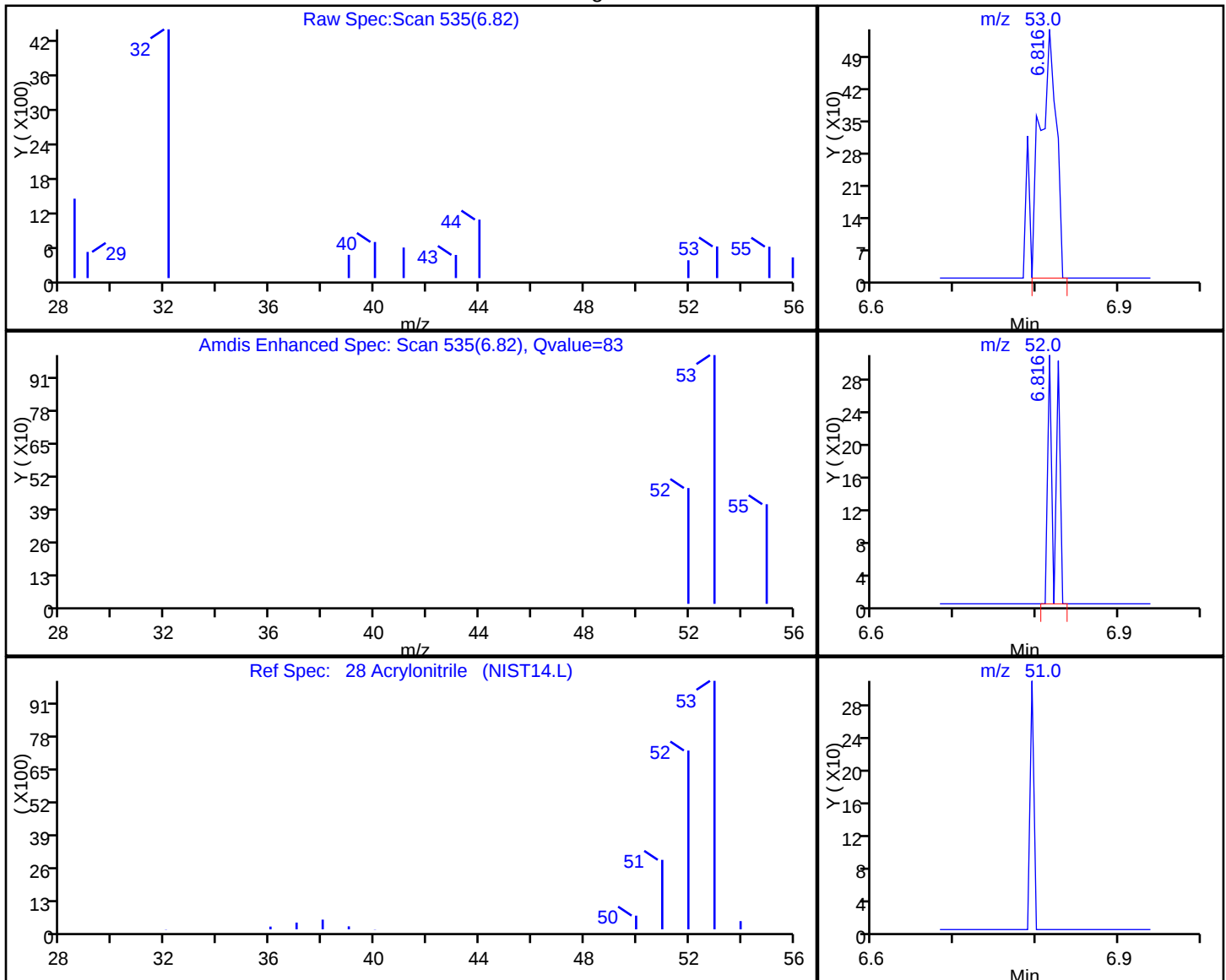
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

28 Acrylonitrile, CAS: 107-13-1

Processing Results



RT	Mass	Response	Amount
6.82	53.00	727	0.013221
6.82	52.00	197	
6.81	51.00	0	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:40:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D

Injection Date: 15-Feb-2018 15:35:30

Instrument ID: MJ

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#: 8

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

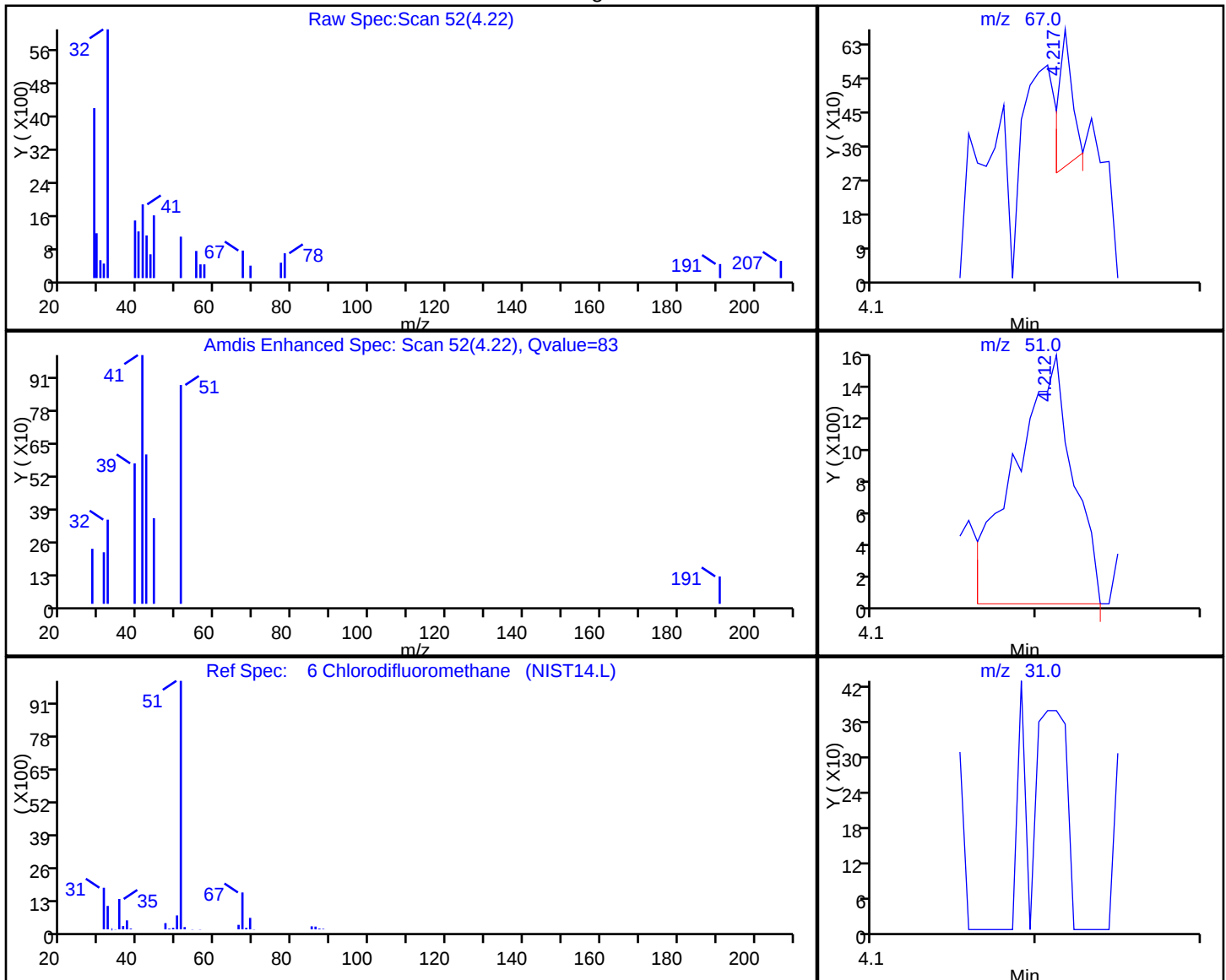
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6

Processing Results



RT	Mass	Response	Amount
4.22	67.00	216	0.007275
4.21	51.00	3872	
4.20	31.00	0	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:40:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D

Injection Date: 15-Feb-2018 15:35:30

Instrument ID: MJ

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#:

8

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor:

1.0000

Method: MJ_TO15

Limit Group:

MSA TO14A_15 Routine ICAL

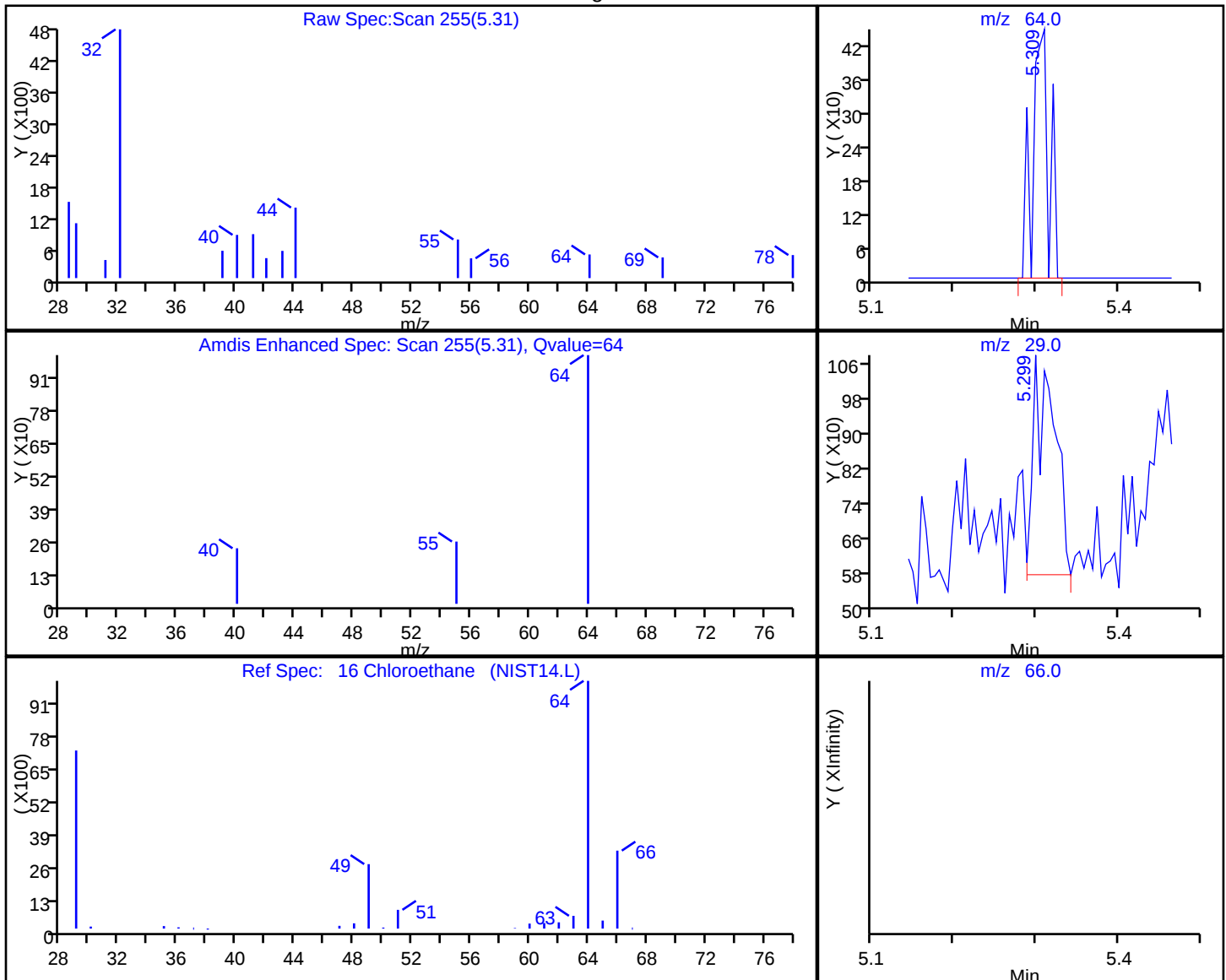
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

16 Chloroethane, CAS: 75-00-3

Processing Results



RT	Mass	Response	Amount
5.31	64.00	615	0.013047
5.30	29.00	904	
5.30	66.00	0	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:40:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D

Injection Date: 15-Feb-2018 15:35:30

Instrument ID: MJ

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#:

8

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

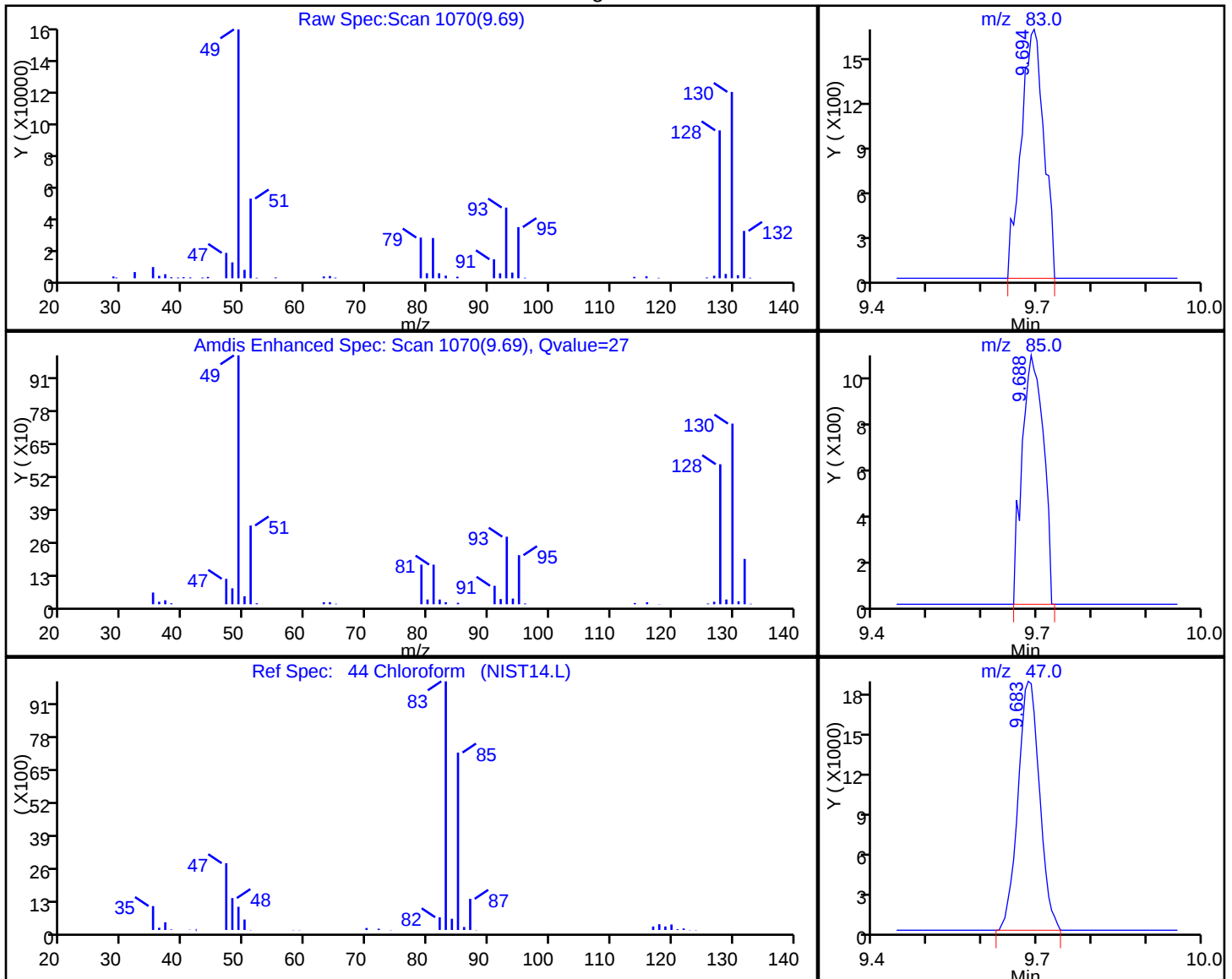
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

44 Chloroform, CAS: 67-66-3

Processing Results



RT	Mass	Response	Amount
9.69	83.00	4732	0.023391
9.69	85.00	2896	
9.68	47.00	49939	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:40:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D

Injection Date: 15-Feb-2018 15:35:30

Instrument ID: MJ

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#: 8

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

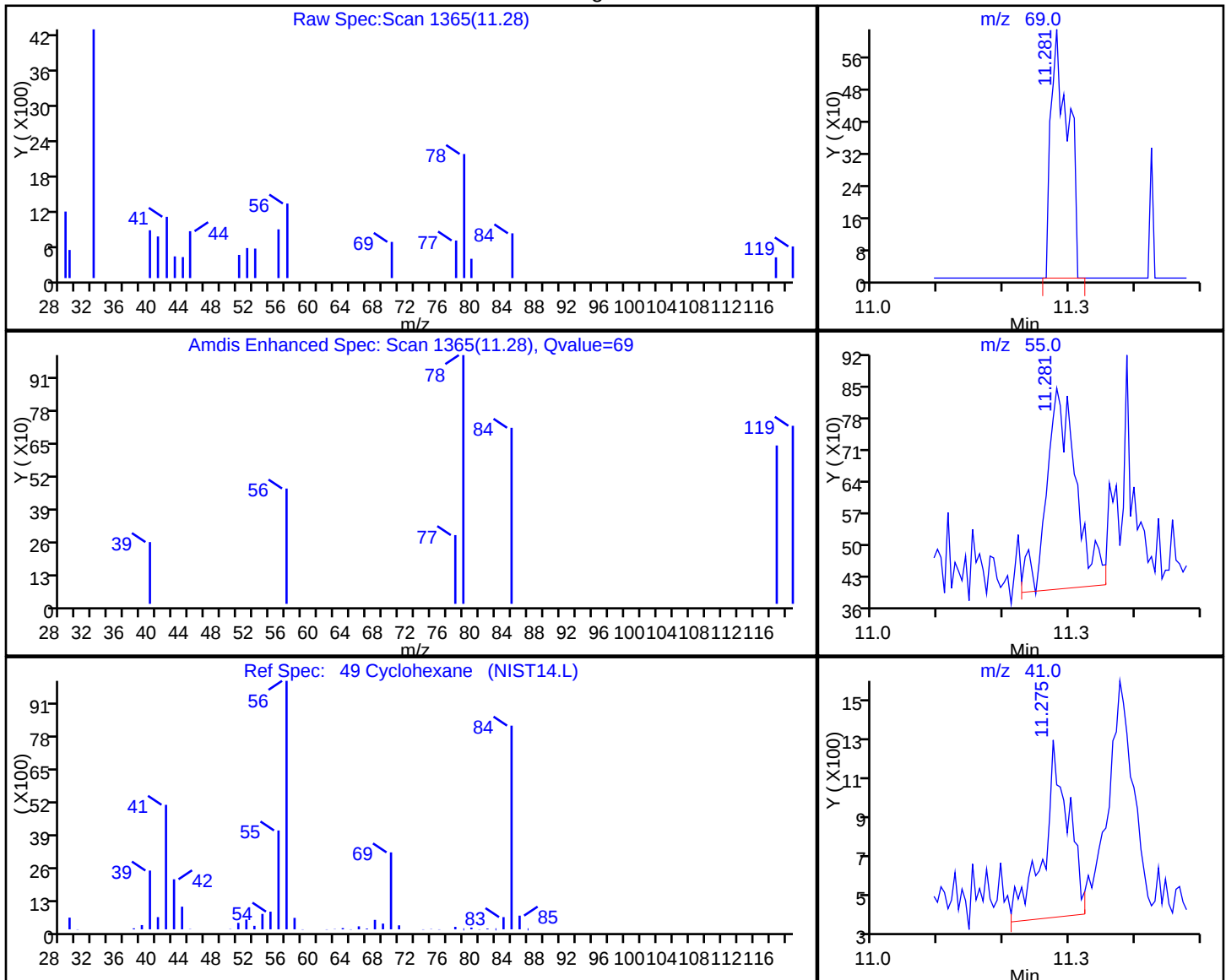
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

49 Cyclohexane, CAS: 110-82-7

Processing Results



RT	Mass	Response	Amount
11.28	69.00	1144	0.024913
11.28	55.00	1390	
11.28	41.00	2388	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:40:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D

Injection Date: 15-Feb-2018 15:35:30

Instrument ID: MJ

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#:

8

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor:

1.0000

Method: MJ_TO15

Limit Group:

MSA TO14A_15 Routine ICAL

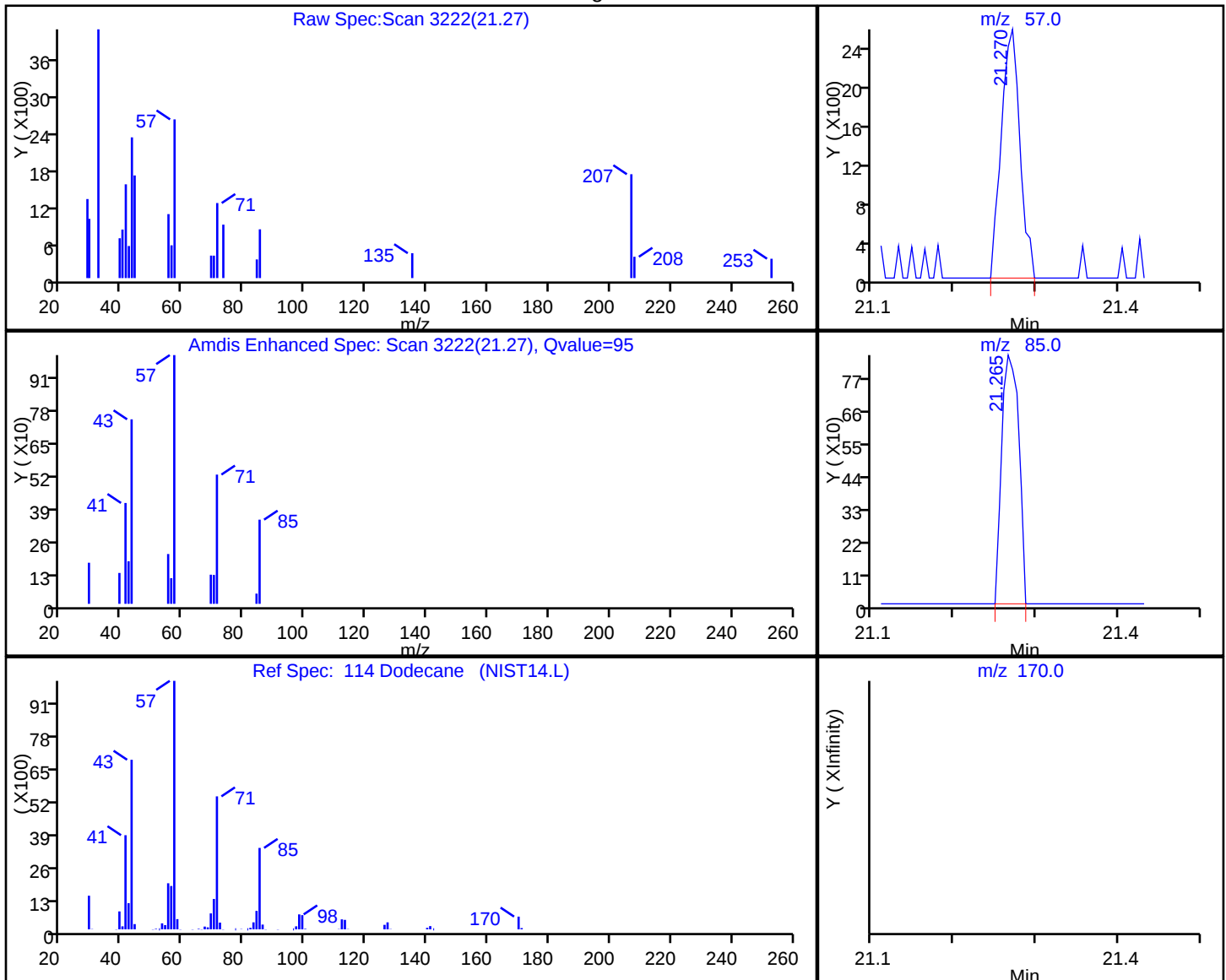
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

114 Dodecane, CAS: 112-40-3

Processing Results



RT	Mass	Response	Amount
21.27	57.00	4095	-0.025336
21.26	85.00	1221	
21.27	170.00	0	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:40:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D

Injection Date: 15-Feb-2018 15:35:30

Instrument ID: MJ

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#: 8

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

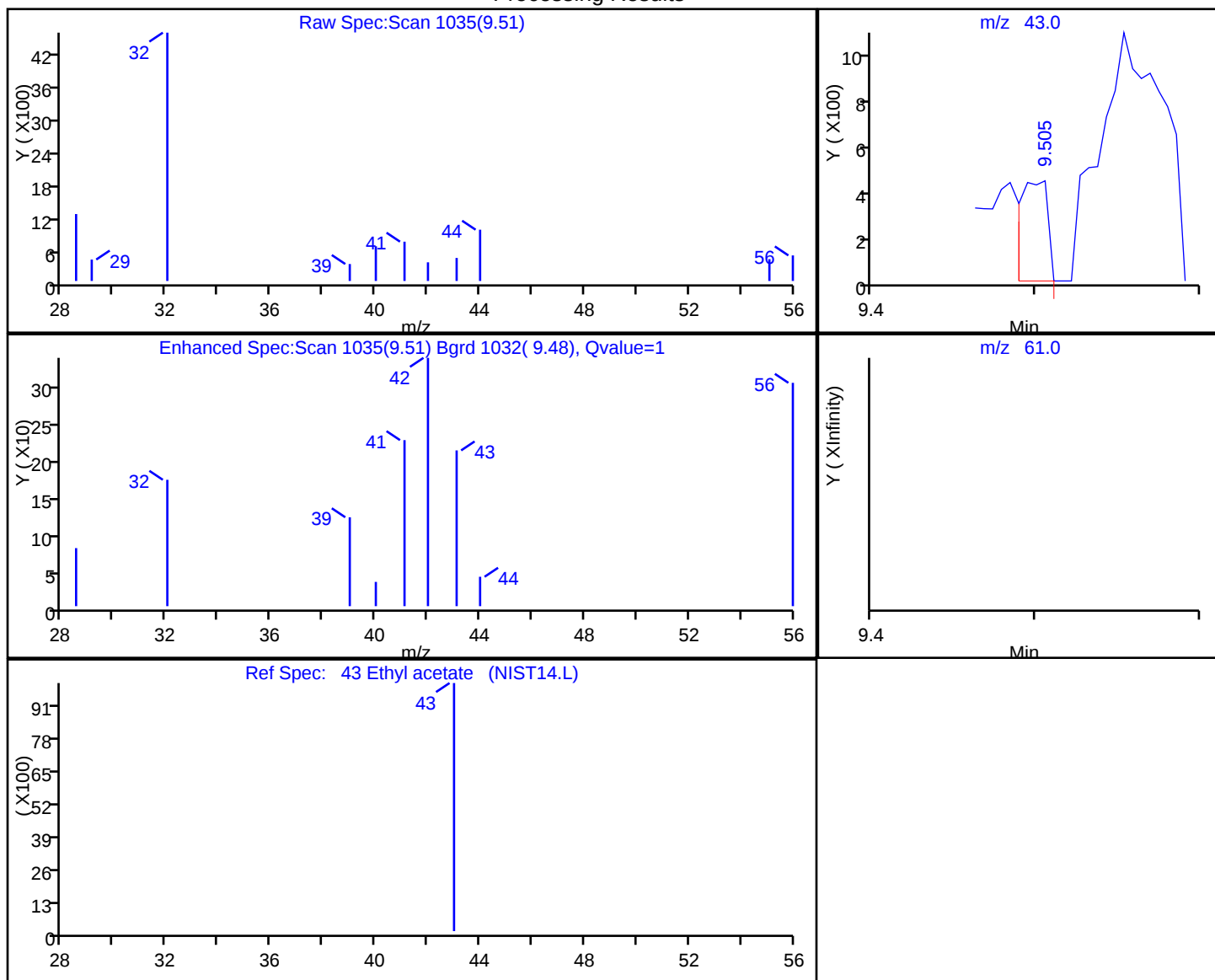
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

43 Ethyl acetate, CAS: 141-78-6

Processing Results



RT	Mass	Response	Amount
9.51	43.00	500	0.003182
9.53	61.00	0	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:40:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D

Injection Date: 15-Feb-2018 15:35:30

Instrument ID: MJ

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#: 8

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

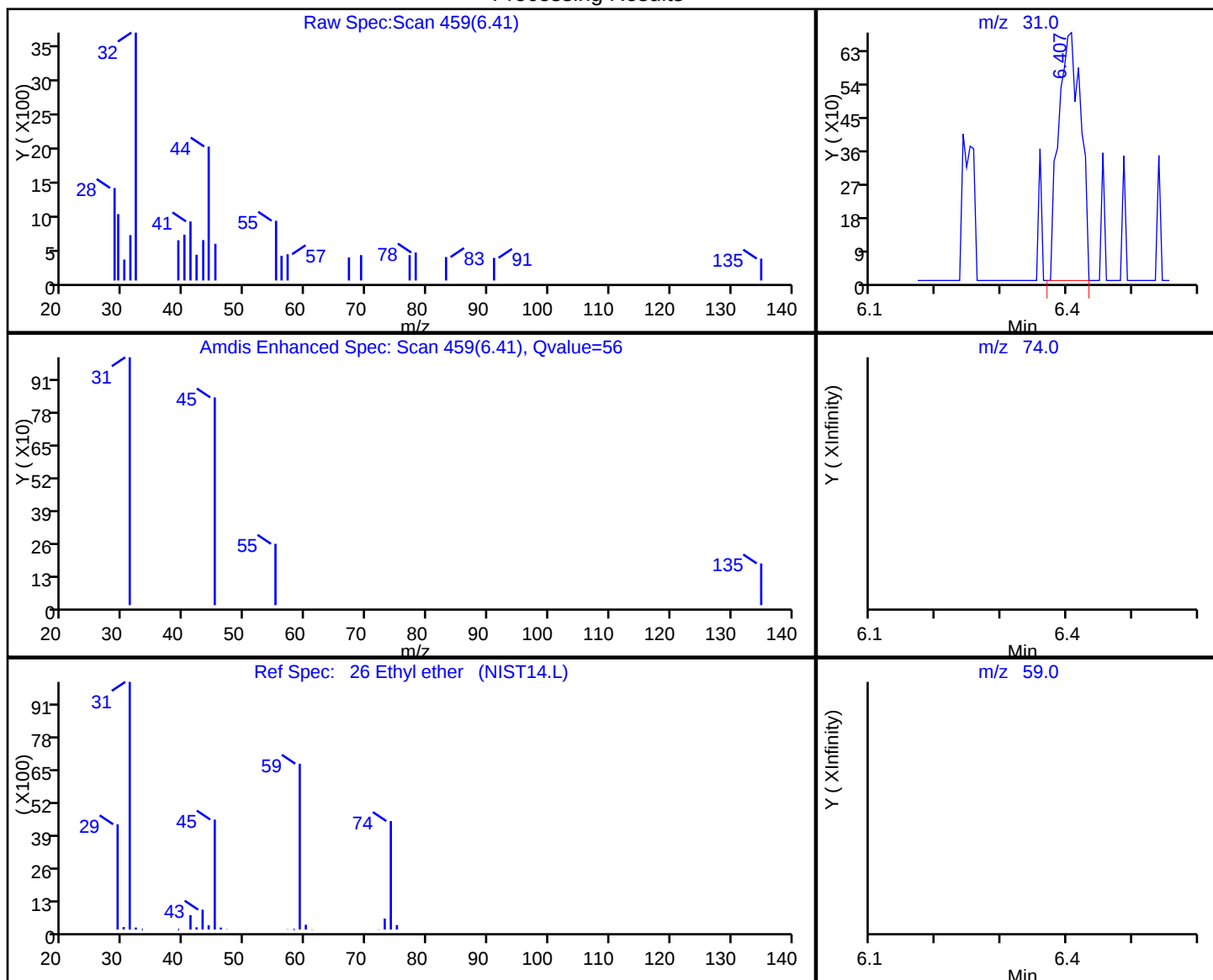
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

26 Ethyl ether, CAS: 60-29-7

Processing Results



RT	Mass	Response	Amount
6.41	31.00	1588	0.020283
6.34	74.00	0	
6.34	59.00	0	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:40:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D

Injection Date: 15-Feb-2018 15:35:30

Instrument ID: MJ

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#:

8

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor:

1.0000

Method: MJ_TO15

Limit Group:

MSA TO14A_15 Routine ICAL

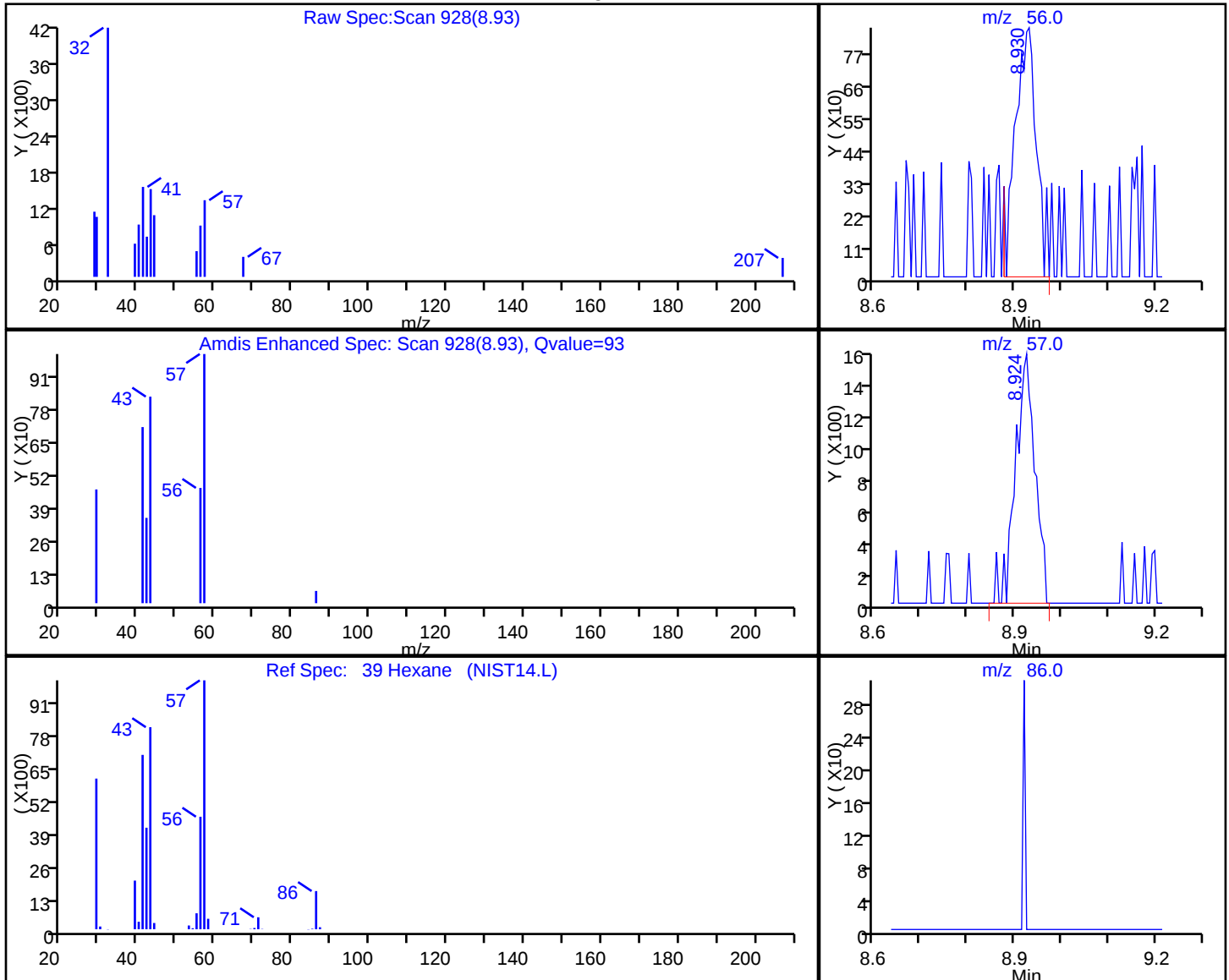
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

39 Hexane, CAS: 110-54-3

Processing Results



RT	Mass	Response	Amount
8.93	56.00	2740	0.036647
8.92	57.00	4474	
8.92	86.00	0	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:40:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D

Injection Date: 15-Feb-2018 15:35:30

Instrument ID: MJ

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#:

8

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor:

1.0000

Method: MJ_TO15

Limit Group:

MSA TO14A_15 Routine ICAL

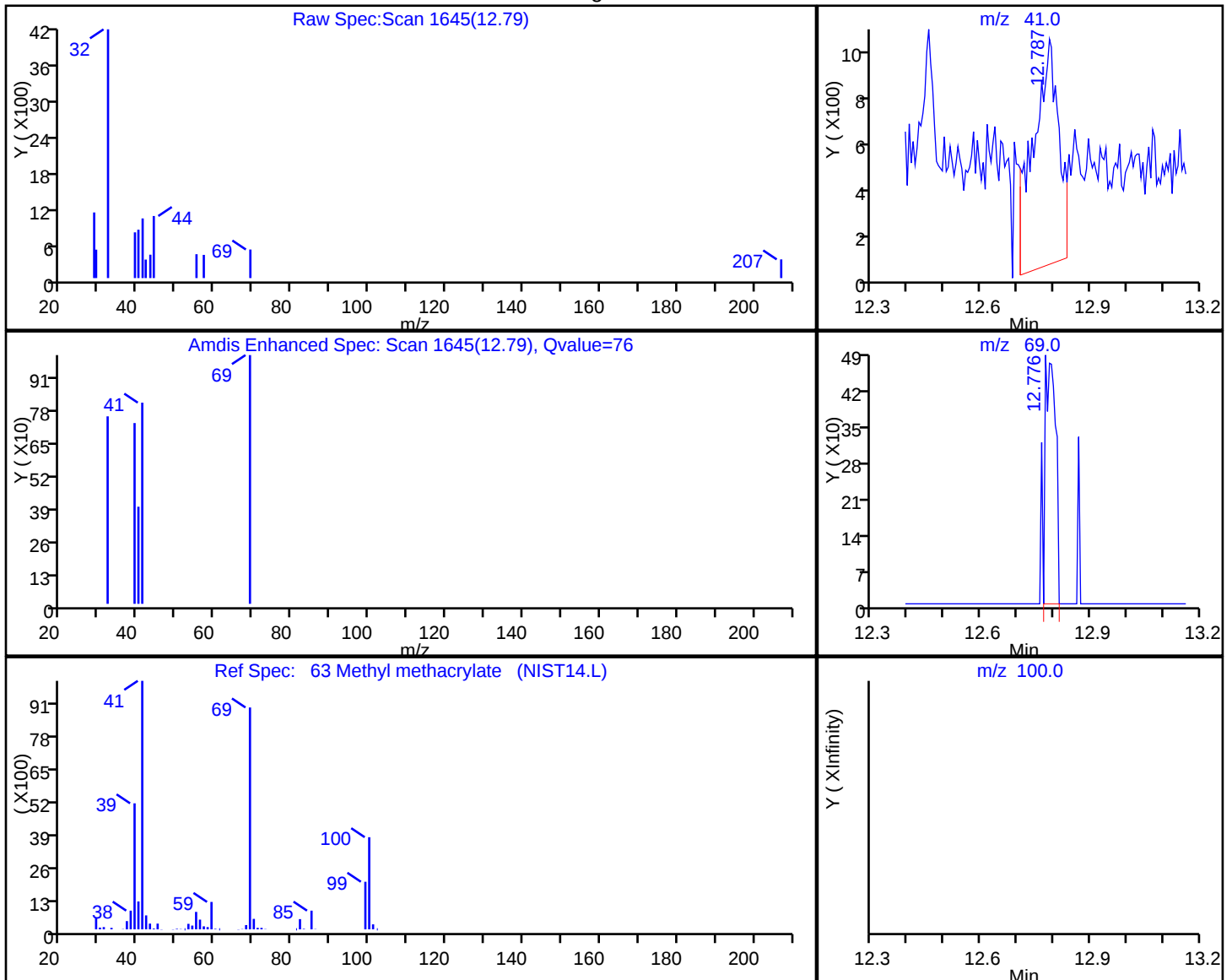
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

63 Methyl methacrylate, CAS: 80-62-6

Processing Results



RT	Mass	Response	Amount
12.79	41.00	4591	0.048197
12.78	69.00	944	
12.78	100.00	0	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:40:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D

Injection Date: 15-Feb-2018 15:35:30

Instrument ID: MJ

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#:

8

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor:

1.0000

Method: MJ_TO15

Limit Group:

MSA TO14A_15 Routine ICAL

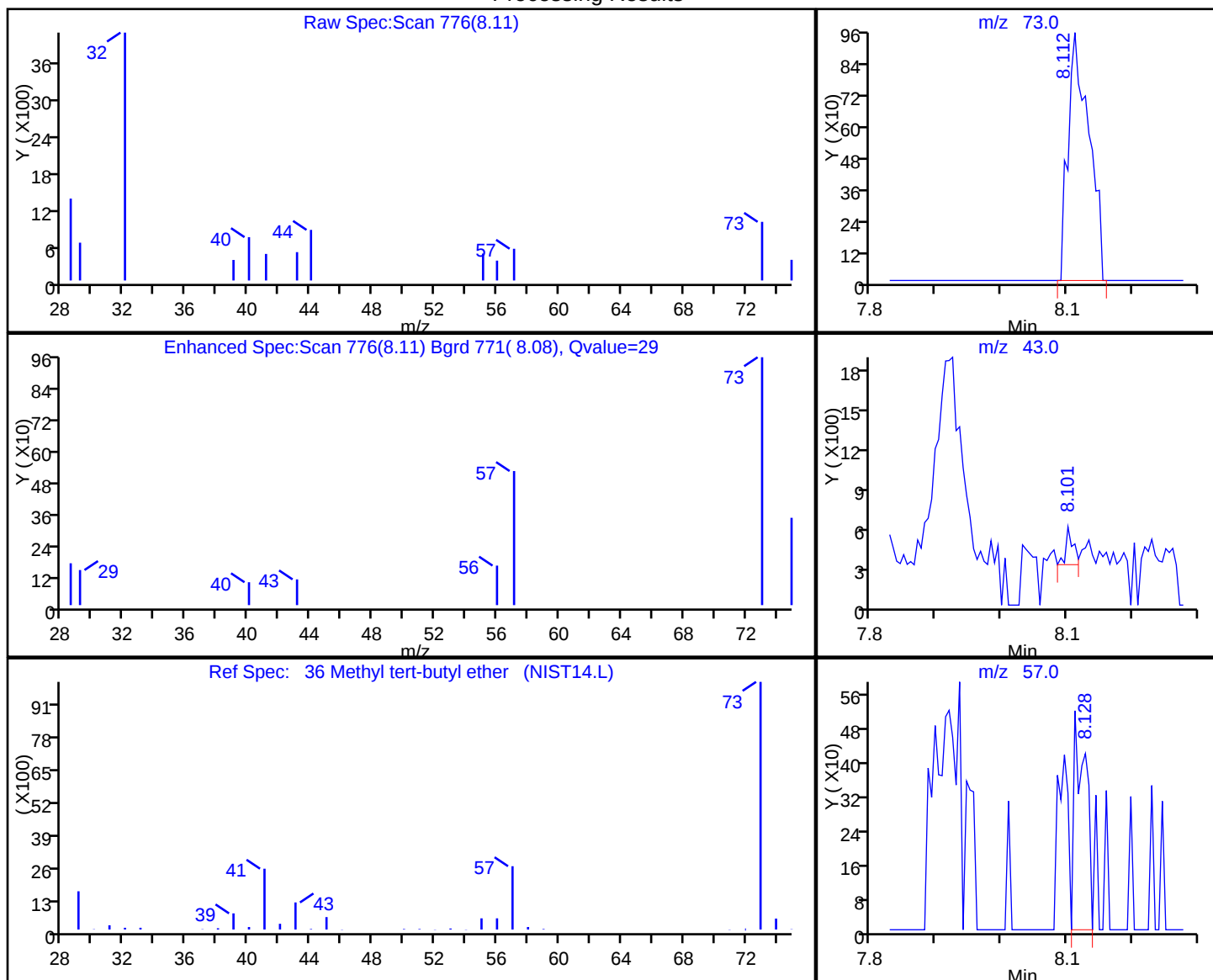
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

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

Processing Results



RT	Mass	Response	Amount
8.11	73.00	2117	0.010360
8.10	43.00	221	
8.13	57.00	639	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:40:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D

Injection Date: 15-Feb-2018 15:35:30

Instrument ID: MJ

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#:

8

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

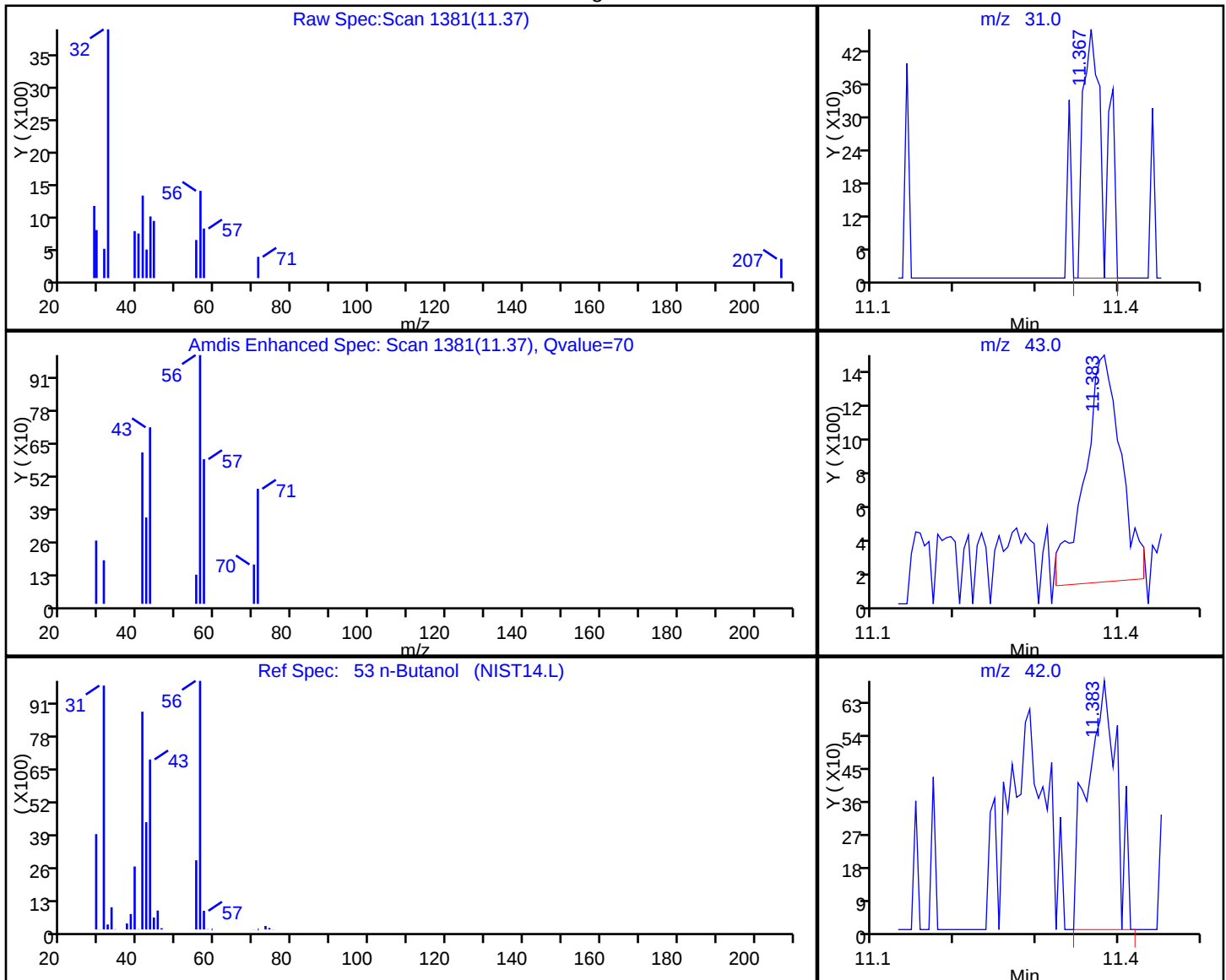
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

53 n-Butanol, CAS: 71-36-3

Processing Results



RT	Mass	Response	Amount
11.37	31.00	820	0.030153
11.38	43.00	4206	
11.38	42.00	1731	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:40:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D

Injection Date: 15-Feb-2018 15:35:30

Instrument ID: MJ

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#:

8

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor:

1.0000

Method: MJ_TO15

Limit Group:

MSA TO14A_15 Routine ICAL

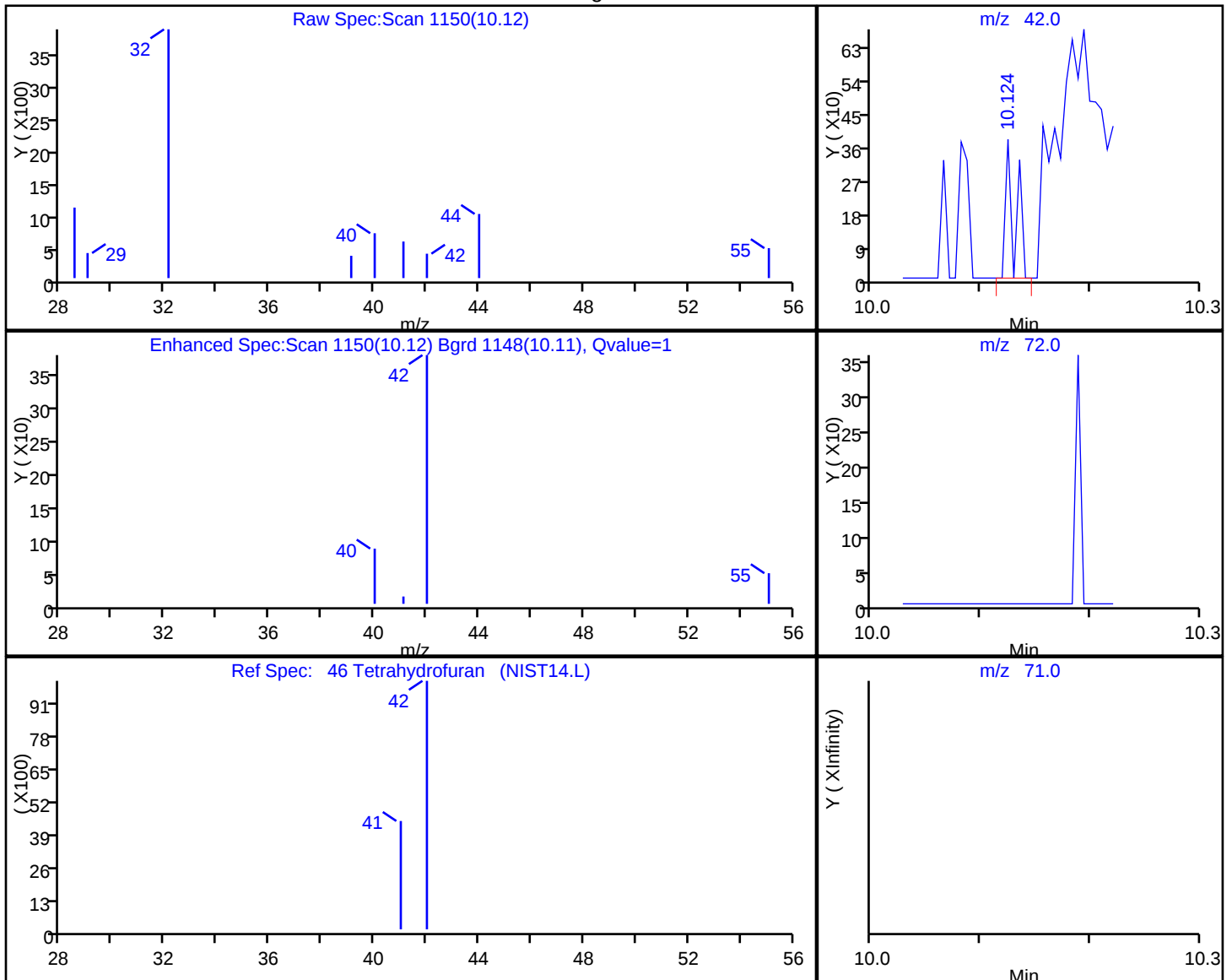
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

46 Tetrahydrofuran, CAS: 109-99-9

Processing Results



RT	Mass	Response	Amount
10.12	42.00	224	0.002659
10.11	72.00	0	
10.11	71.00	0	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:40:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D

Injection Date: 15-Feb-2018 15:35:30

Instrument ID: MJ

Lims ID: IC L1

Client ID:

Operator ID: 403648

ALS Bottle#:

8

Worklist Smp#: 3

Purge Vol: 500.000 mL

Dil. Factor:

1.0000

Method: MJ_TO15

Limit Group:

MSA TO14A_15 Routine ICAL

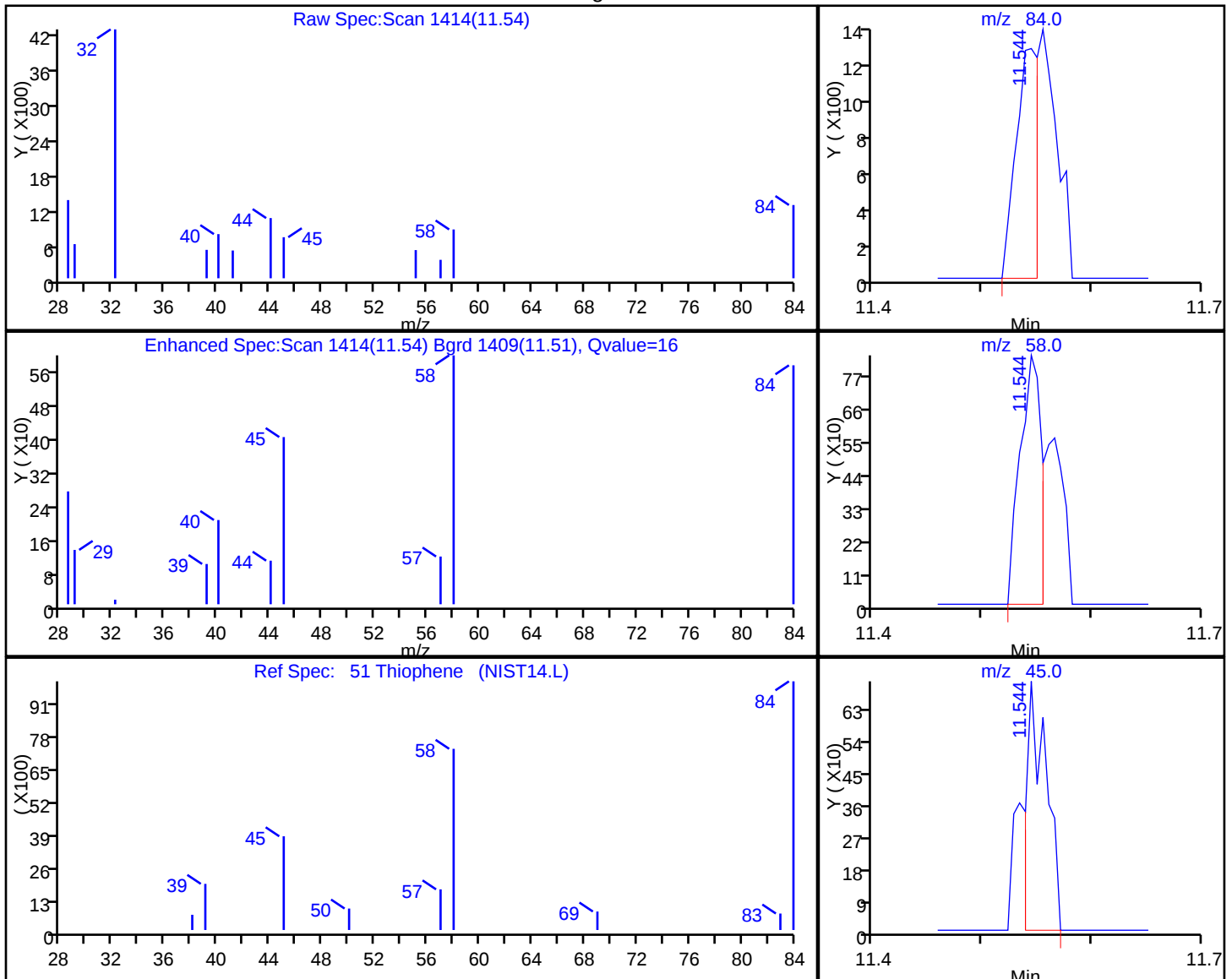
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

51 Thiophene, CAS: 110-02-1

Processing Results



RT	Mass	Response	Amount
11.54	84.00	1787	0.011332
11.54	58.00	1135	
11.54	45.00	880	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:40:25

Audit Action: Marked Compound Undetected

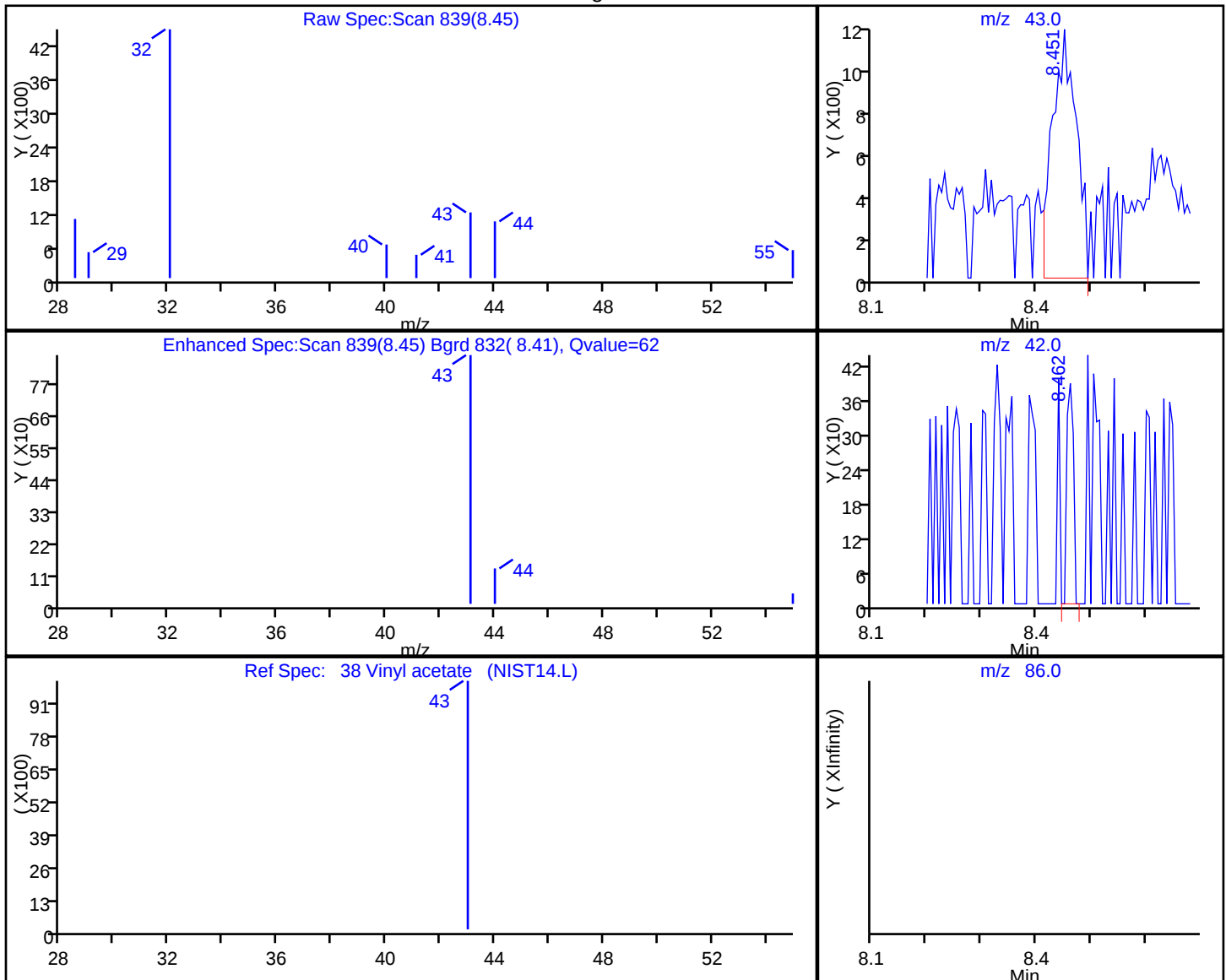
Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL01.D
Injection Date: 15-Feb-2018 15:35:30 Instrument ID: MJ
Lims ID: IC L1
Client ID:
Operator ID: 403648 ALS Bottle#: 8 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

38 Vinyl acetate, CAS: 108-05-4

Processing Results



RT	Mass	Response	Amount
8.45	43.00	3560	0.018058
8.46	42.00	331	
8.44	86.00	0	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:40:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL02.D
 Lims ID: IC L2
 Client ID:
 Sample Type: IC Calib Level: 2
 Inject. Date: 15-Feb-2018 16:21:30 ALS Bottle#: 8 Worklist Smp#: 4
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007391-004
 Misc. Info.: 140829
 Operator ID: 403648 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub14
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 19-Feb-2018 10:02:52 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK031

First Level Reviewer: barlozhetskayaa

Date: 15-Feb-2018 17:45:40

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	9.684	9.689	-0.005	92	276230	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.782	11.790	-0.008	95	1526968	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.387	16.389	-0.002	88	1417679	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.990	17.992	-0.002	95	1042081	4.00	4.07	
7 Propene	41	4.219	4.216	0.003	97	4882	0.0400	0.0607	
8 Dichlorodifluoromethane	85	4.278	4.274	0.004	98	9371	0.0400	0.0378	
9 Chloromethane	52	4.477	4.482	-0.005	63	1819	0.0400	0.0627	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.488	4.489	-0.001	91	5973	0.0400	0.0368	
11 Acetaldehyde	44	4.670	4.662	0.008	97	11943	0.2000	0.3712	
12 Vinyl chloride	62	4.676	4.679	-0.003	93	2929	0.0400	0.0325	
13 Butadiene	54	4.783	4.777	0.006	70	3002	0.0400	0.0411	
14 Butane	43	4.778	4.777	0.001	87	4911	0.0400	0.0355	
15 Bromomethane	94	5.144	5.146	-0.002	96	3337	0.0400	0.0371	
16 Chloroethane	64	5.300	5.304	-0.004	84	1866	0.0400	0.0398	
17 Ethanol	31	5.429	5.435	-0.006	96	8318	0.2000	0.2486	
18 Vinyl bromide	106	5.639	5.641	-0.002	88	3063	0.0400	0.0359	
19 2-Methylbutane	43	5.693	5.693	0.000	89	4581	0.0400	0.0449	
20 Trichlorofluoromethane	101	5.935	5.933	0.002	98	8622	0.0400	0.0360	
22 Acetone	58	6.101	6.081	0.020	96	6634	0.1200	0.2110	
24 Pentane	72	6.177	6.171	0.006	58	496	0.0400	0.0339	
25 Isopropyl alcohol	45	6.209	6.201	0.008	91	12013	0.1200	0.1332	
26 Ethyl ether	31	6.376	6.362	0.014	91	3289	0.0400	0.0423	
27 1,1-Dichloroethene	96	6.693	6.692	0.001	95	3815	0.0400	0.0417	
28 Acrylonitrile	53	6.811	6.809	0.002	68	2262	0.0400	0.0414	
30 2-Methyl-2-propanol	59	6.908	6.865	0.043	57	4857	0.0400	0.009395	
29 1,1,2-Trichloro-1,2,2-trif	101	6.876	6.875	0.001	95	7065	0.0400	0.0373	
32 Methylene Chloride	84	7.059	7.061	-0.002	95	14418	0.0400	0.1457	
31 3-Chloro-1-propene	39	7.070	7.077	-0.007	40	6552	0.0400	0.0534	
33 Carbon disulfide	76	7.236	7.239	-0.003	96	10051	0.0400	0.0379	
34 trans-1,2-Dichloroethene	96	7.903	7.903	0.000	94	3597	0.0400	0.0393	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
35 2-Methylpentane	43	7.914	7.917	-0.003	89	10342	0.0400	0.0491	
36 Methyl tert-butyl ether	73	8.086	8.053	0.033	94	7318	0.0400	0.0360	
37 1,1-Dichloroethane	63	8.334	8.343	-0.009	96	6975	0.0400	0.0406	
38 Vinyl acetate	43	8.436	8.442	-0.006	99	6568	0.0400	0.0335	
40 2-Butanone (MEK)	72	8.936	8.919	0.017	87	1491	0.0400	0.0422	
39 Hexane	56	8.926	8.922	0.004	82	4165	0.0400	0.0560	
41 Isopropyl ether	45	9.114	9.091	0.023	95	9423	0.0400	0.0387	
42 cis-1,2-Dichloroethene	96	9.345	9.347	-0.002	92	3728	0.0400	0.0399	
43 Ethyl acetate	43	9.539	9.529	0.010	95	7488	0.0400	0.0480	
44 Chloroform	83	9.689	9.697	-0.008	28	9078	0.0400	0.0459	
45 Tert-butyl ethyl ether	59	9.808	9.782	0.026	94	8001	0.0400	0.0353	
46 Tetrahydrofuran	42	10.157	10.126	0.031	84	4447	0.0400	0.0531	
47 1,1,1-Trichloroethane	97	10.712	10.721	-0.009	95	8645	0.0400	0.0420	
48 1,2-Dichloroethane	62	10.814	10.825	-0.011	91	4723	0.0400	0.0381	
49 Cyclohexane	69	11.287	11.287	0.000	68	2389	0.0400	0.0534	
50 Benzene	78	11.287	11.291	-0.004	97	12063	0.0400	0.0445	
52 Carbon tetrachloride	117	11.303	11.310	-0.007	95	7915	0.0400	0.0387	
55 2,3-Dimethylpentane	71	11.373	11.384	-0.011	92	2868	0.0400	0.0451	
51 Thiophene	84	11.551	11.554	-0.003	93	6808	0.0400	0.0442	
56 Isooctane	57	11.992	11.995	-0.003	98	20341	0.0400	0.0468	
57 n-Heptane	71	12.347	12.342	0.005	92	3902	0.0400	0.0409	
58 1,2-Dichloropropane	63	12.444	12.451	-0.007	86	4098	0.0400	0.0402	
59 Trichloroethene	130	12.476	12.480	-0.004	93	4743	0.0400	0.0397	
60 Dibromomethane	93	12.562	12.569	-0.007	94	5534	0.0400	0.0486	
61 Dichlorobromomethane	83	12.697	12.704	-0.007	97	8574	0.0400	0.0430	
63 Methyl methacrylate	41	12.777	12.776	0.001	89	3659	0.0400	0.0394	
64 Methylcyclohexane	83	13.213	13.222	-0.009	92	7322	0.0400	0.0430	
65 4-Methyl-2-pentanone (MIBK)	43	13.633	13.618	0.015	94	7724	0.0400	0.0552	
66 cis-1,3-Dichloropropene	75	13.654	13.659	-0.005	91	6201	0.0400	0.0395	
67 trans-1,3-Dichloropropene	75	14.321	14.329	-0.008	95	4713	0.0400	0.0343	
68 Toluene	91	14.456	14.458	-0.002	92	11936	0.0400	0.0399	
69 1,1,2-Trichloroethane	83	14.526	14.532	-0.006	93	3749	0.0400	0.0410	
72 2-Hexanone	58	14.913	14.908	0.005	89	2650	0.0400	0.0376	
73 n-Octane	85	15.096	15.100	-0.004	92	4541	0.0400	0.0437	
74 Chlorodibromomethane	129	15.220	15.227	-0.007	96	7559	0.0400	0.0375	
75 Ethylene Dibromide	107	15.515	15.514	0.001	98	6189	0.0400	0.0365	
76 Tetrachloroethene	129	15.569	15.575	-0.006	96	4909	0.0400	0.0414	
77 2,3-Dimethylheptane	43	16.419	16.423	-0.004	89	16951	0.0400	0.0556	
78 Chlorobenzene	112	16.430	16.437	-0.007	40	8864	0.0400	0.0368	
79 Ethylbenzene	91	16.704	16.711	-0.007	97	14220	0.0400	0.0384	
81 m-Xylene & p-Xylene	91	16.866	16.869	-0.003	0	21664	0.0800	0.0780	
82 n-Nonane	57	17.248	17.252	-0.004	92	8738	0.0400	0.0432	
83 Styrene	104	17.328	17.331	-0.003	96	7700	0.0400	0.0358	
84 Bromoform	173	17.328	17.333	-0.005	90	7178	0.0400	0.0332	
85 o-Xylene	91	17.387	17.391	-0.004	98	11329	0.0400	0.0385	
86 1,1,2,2-Tetrachloroethane	83	17.705	17.708	-0.003	96	8441	0.0400	0.0397	
87 1,2,3-Trichloropropane	110	17.861	17.864	-0.003	94	1986	0.0400	0.0356	
88 Isopropylbenzene	105	17.952	17.956	-0.004	88	16616	0.0400	0.0414	
89 N-Propylbenzene	120	18.458	18.462	-0.004	98	3912	0.0400	0.0355	
90 2-Chlorotoluene	126	18.512	18.516	-0.004	96	4258	0.0400	0.0398	
91 4-Ethyltoluene	105	18.598	18.602	-0.004	97	15269	0.0400	0.0395	
92 1,3,5-Trimethylbenzene	120	18.668	18.672	-0.004	92	5903	0.0400	0.0365	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
93 Alpha Methyl Styrene	118	18.888	18.891	-0.003	86	5794	0.0400	0.0344	
94 n-Decane	57	18.921	18.923	-0.002	90	11309	0.0400	0.0472	
95 tert-Butylbenzene	119	19.077	19.079	-0.002	93	13756	0.0400	0.0400	
96 1,2,4-Trimethylbenzene	105	19.087	19.091	-0.004	94	12863	0.0400	0.0396	
97 sec-Butylbenzene	105	19.335	19.337	-0.002	98	18860	0.0400	0.0398	
98 1,3-Dichlorobenzene	146	19.362	19.363	-0.001	95	9811	0.0400	0.0403	
99 Benzyl chloride	91	19.426	19.431	-0.005	98	9996	0.0400	0.0381	
100 1,4-Dichlorobenzene	146	19.442	19.445	-0.003	93	9729	0.0400	0.0402	
101 4-Isopropyltoluene	119	19.485	19.489	-0.004	97	14557	0.0400	0.0376	
102 1,2,3-Trimethylbenzene	105	19.545	19.549	-0.004	97	12243	0.0400	0.0385	
103 Butylcyclohexane	83	19.588	19.591	-0.003	95	13053	0.0400	0.0445	
104 2,3-Dihydroindene	117	19.787	19.792	-0.005	93	11869	0.0400	0.0392	
105 1,2-Dichlorobenzene	146	19.792	19.795	-0.003	91	9463	0.0400	0.0411	
106 n-Butylbenzene	91	19.905	19.907	-0.002	97	15282	0.0400	0.0405	
107 Indene	116	19.916	19.918	-0.002	90	9960	0.0400	0.0391	
108 Undecane	57	20.185	20.186	-0.001	95	10683	0.0400	0.0430	
110 1,2-Dibromo-3-Chloropropan	157	20.378	20.381	-0.003	93	4136	0.0400	0.0368	
111 1,2,4,5-Tetramethylbenzene	119	20.658	20.658	0.000	97	11984	0.0400	0.0365	
114 Dodecane	57	21.266	21.268	-0.002	93	8969	0.0400	0.003612	
115 1,2,4-Trichlorobenzene	180	21.508	21.509	-0.001	91	7063	0.0400	0.0406	
116 Naphthalene	128	21.643	21.642	0.001	98	12014	0.0400	0.0436	
118 Hexachlorobutadiene	225	21.799	21.798	0.001	95	7393	0.0400	0.0412	
119 1,2,3-Trichlorobenzene	180	21.858	21.858	0.000	93	5346	0.0400	0.0482	
120 2-Methylnaphthalene	142	22.385	22.385	0.000	96	3662	0.1250	0.1679	
121 1-Methylnaphthalene	142	22.509	22.509	0.000	97	4177	0.1250	0.1932	
A 123 C8 Range	1	15.099	(15.079-15.138)		0	44750	0.0400	0.0515	
S 124 Xylenes, Total	100				0		0.1200	0.1165	
S 125 1,2-Dichloroethene, Total	1				0		0.0800	0.0793	

Reagents:

40L1-3DQP_00001

Amount Added: 100.00

Units: mL

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL02.D

Injection Date: 15-Feb-2018 16:21:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: IC L2

Worklist Smp#: 4

Client ID:

Purge Vol: 500.000 mL

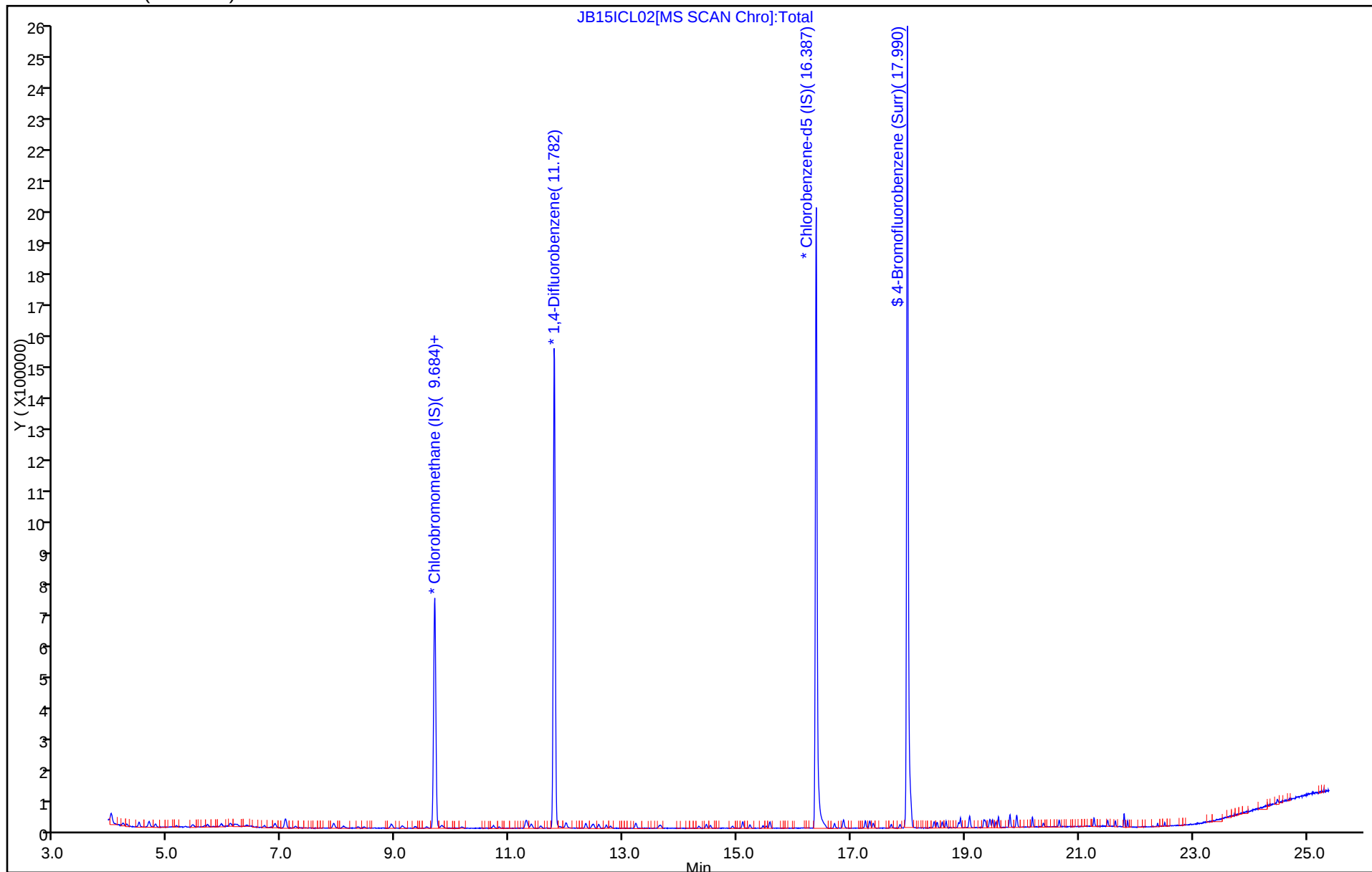
Dil. Factor: 1.0000

ALS Bottle#: 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\20180215-7391.b\JB15ICL02.D

Injection Date: 15-Feb-2018 16:21:30

Instrument ID: MJ

Lims ID: IC L2

Client ID:

Operator ID: 403648

ALS Bottle#: 8

Worklist Smp#: 4

Purge Vol: 500.000 mL

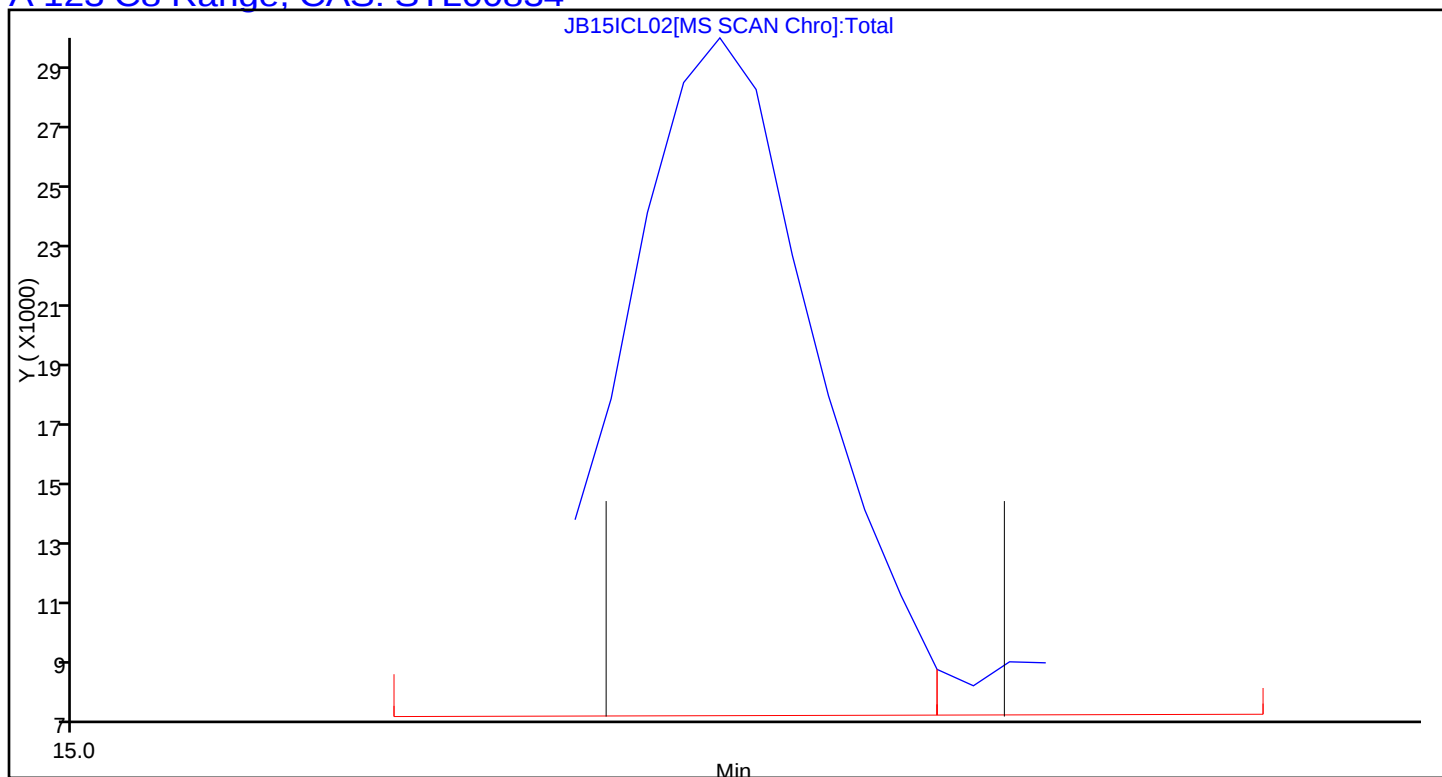
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 123 C8 Range, CAS: STL00834

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL02.D

Injection Date: 15-Feb-2018 16:21:30

Instrument ID: MJ

Lims ID: IC L2

Client ID:

Operator ID: 403648

ALS Bottle#: 8

Worklist Smp#: 4

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

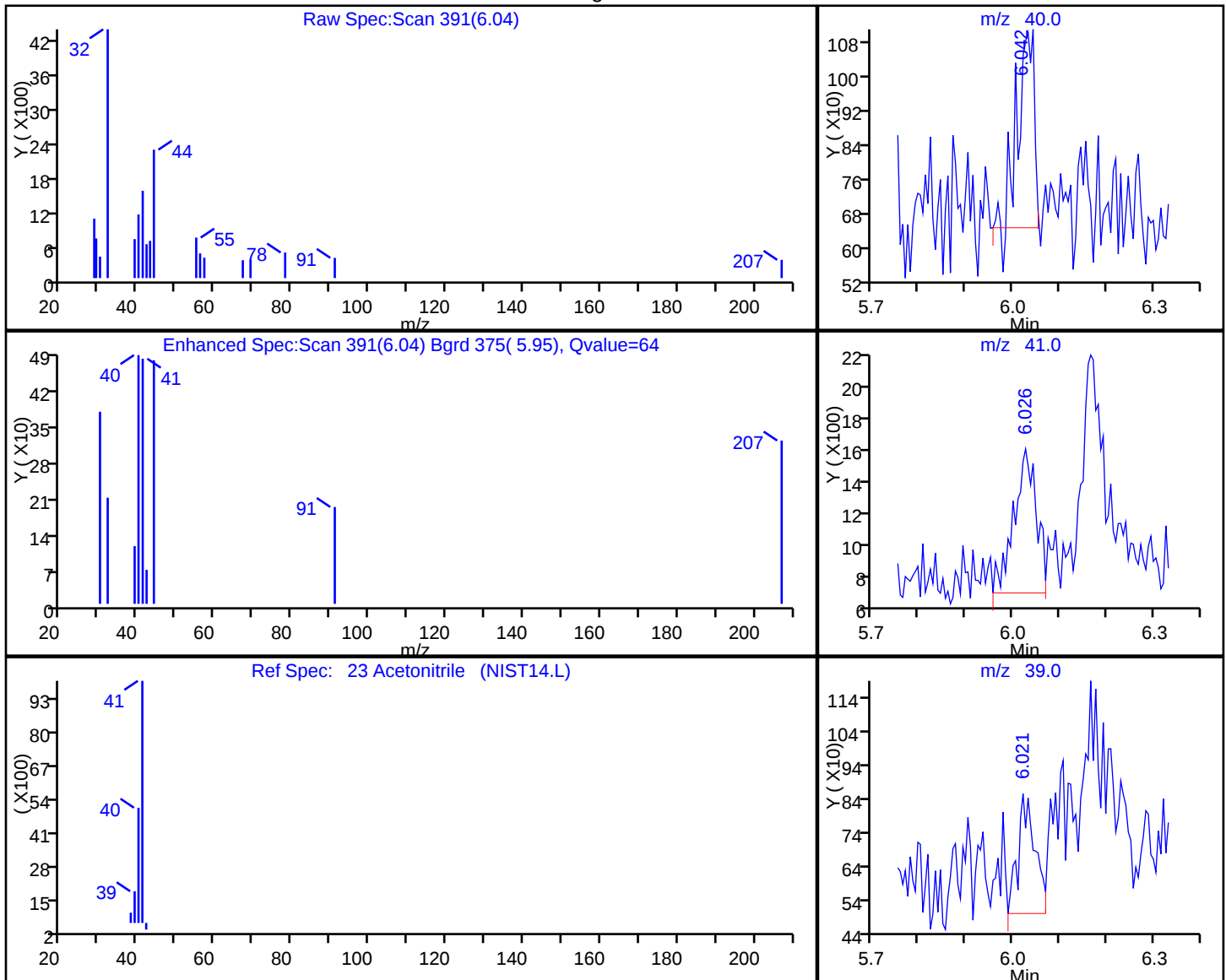
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

23 Acetonitrile, CAS: 75-05-8

Processing Results



RT	Mass	Response	Amount
6.04	40.00	1113	0.037727
6.03	41.00	3003	
6.02	39.00	902	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:45:14

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL02.D

Injection Date: 15-Feb-2018 16:21:30

Instrument ID: MJ

Lims ID: IC L2

Client ID:

Operator ID: 403648

ALS Bottle#:

8

Worklist Smp#: 4

Purge Vol: 500.000 mL

Dil. Factor:

1.0000

Method: MJ_TO15

Limit Group:

MSA TO14A_15 Routine ICAL

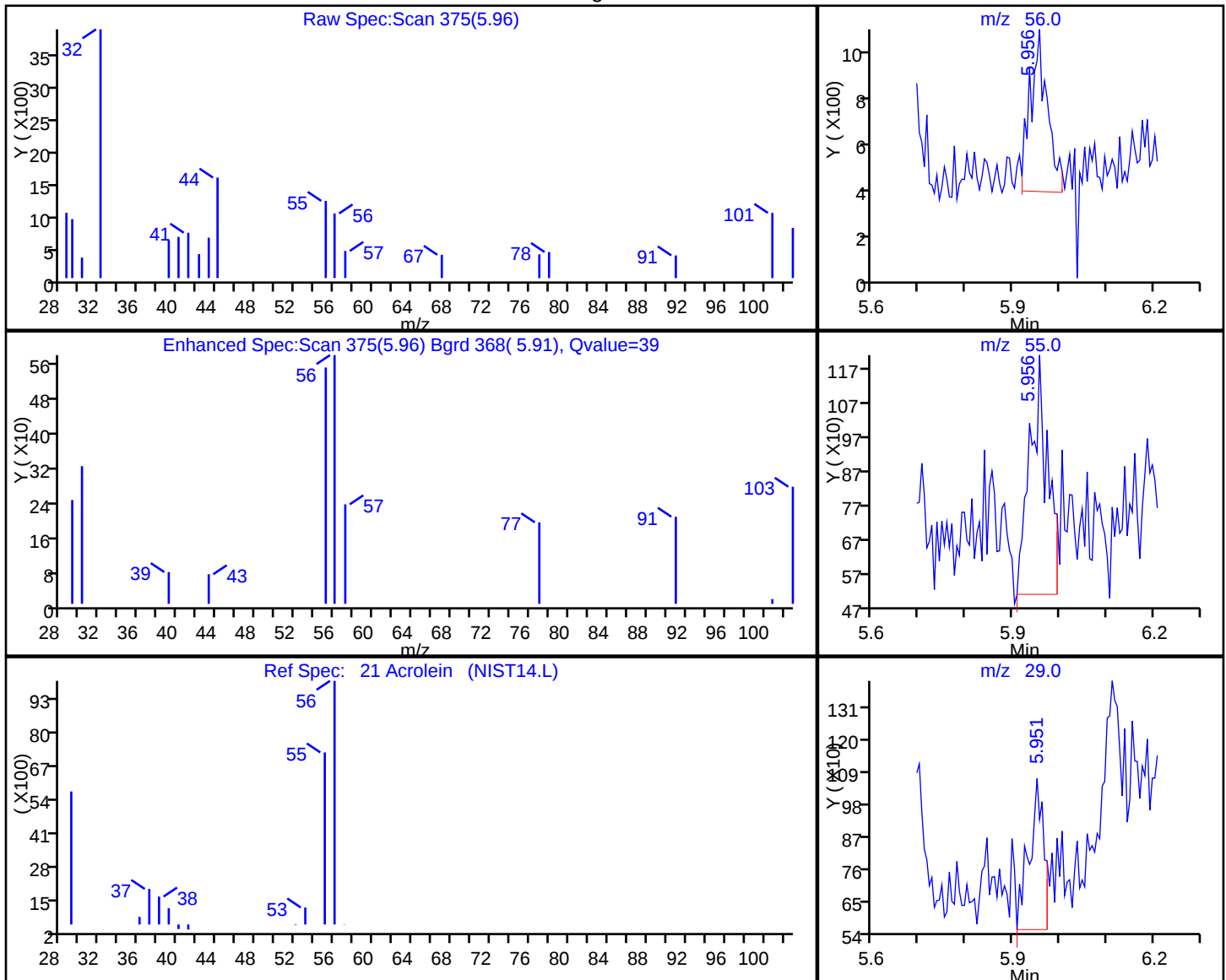
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

21 Acrolein, CAS: 107-02-8

Processing Results



RT	Mass	Response	Amount
5.96	56.00	1671	0.069469
5.96	55.00	1852	
5.95	29.00	1112	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:45:14

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL02.D

Injection Date: 15-Feb-2018 16:21:30

Instrument ID: MJ

Lims ID: IC L2

Client ID:

Operator ID: 403648

ALS Bottle#:

8

Worklist Smp#: 4

Purge Vol: 500.000 mL

Dil. Factor:

1.0000

Method: MJ_TO15

Limit Group:

MSA TO14A_15 Routine ICAL

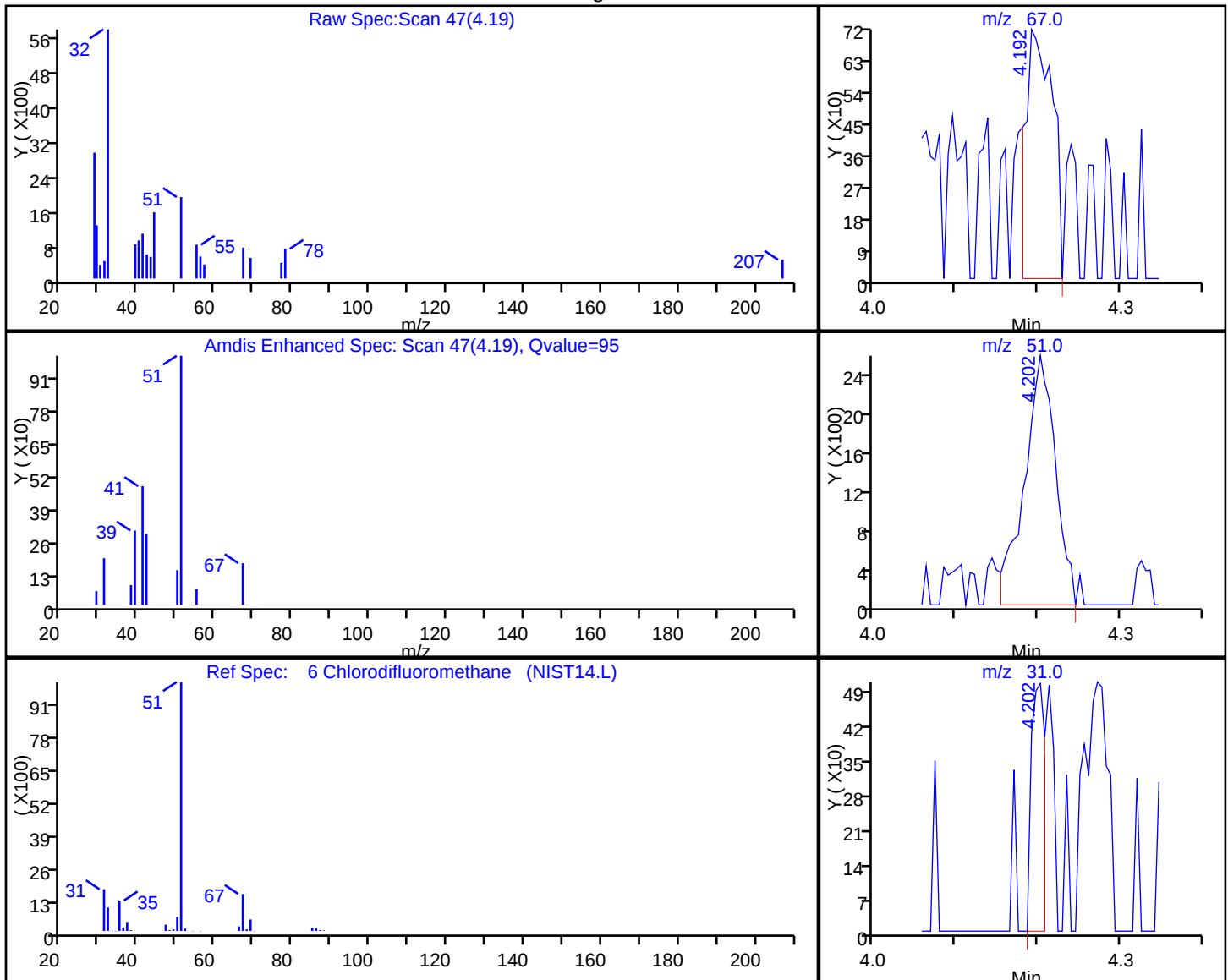
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

6 Chlorodifluoromethane, CAS: 75-45-6

Processing Results



RT	Mass	Response	Amount
4.19	67.00	1632	0.055299
4.20	51.00	6789	
4.20	31.00	578	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:45:14

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL02.D

Injection Date: 15-Feb-2018 16:21:30

Instrument ID: MJ

Lims ID: IC L2

Client ID:

Operator ID: 403648

ALS Bottle#:

8

Worklist Smp#: 4

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

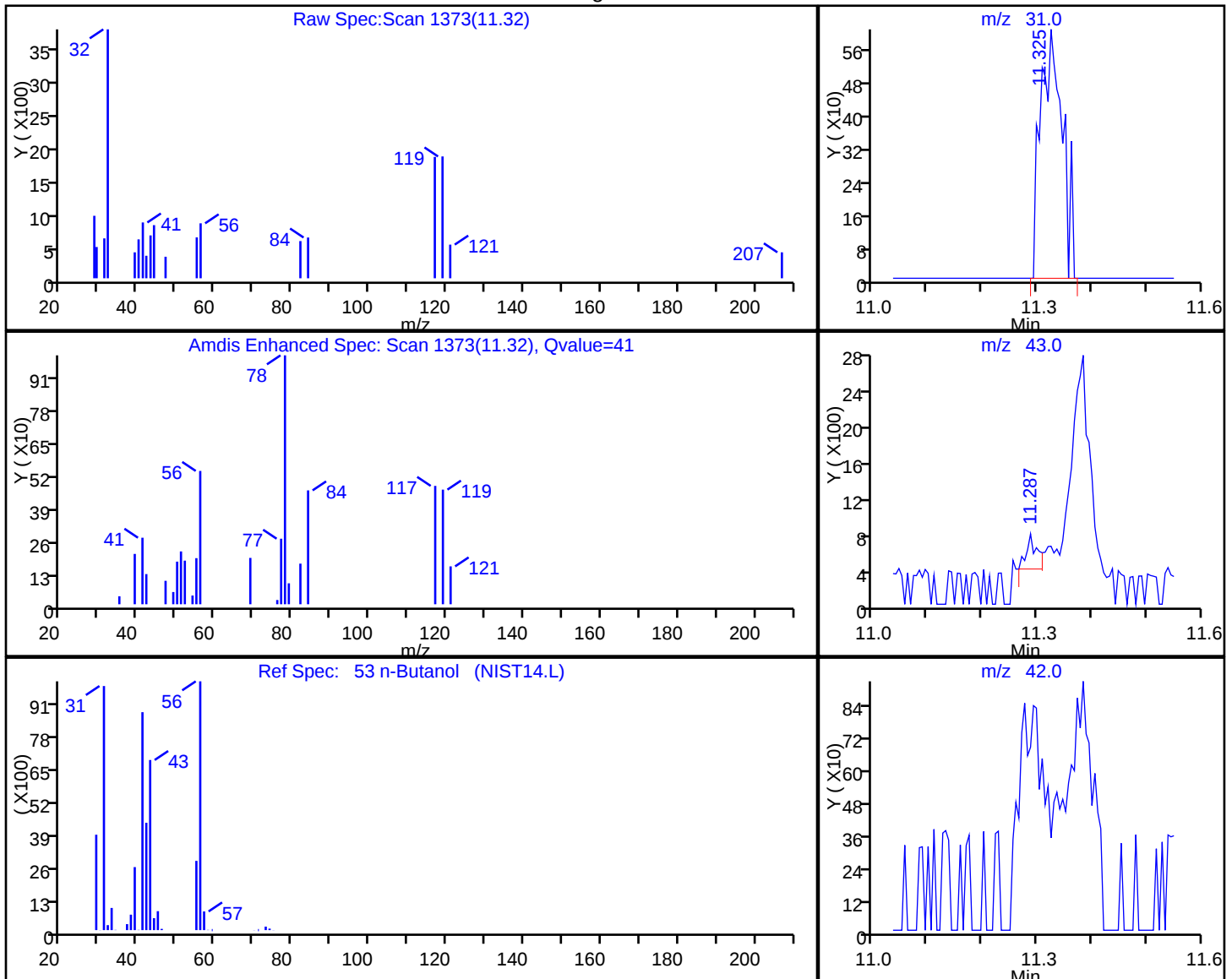
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

53 n-Butanol, CAS: 71-36-3

Processing Results



RT	Mass	Response	Amount
11.32	31.00	1688	0.063741
11.29	43.00	529	
11.29	42.00	0	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:45:14

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL03.D
 Lims ID: IC L3
 Client ID:
 Sample Type: IC Calib Level: 3
 Inject. Date: 15-Feb-2018 17:07:30 ALS Bottle#: 8 Worklist Smp#: 5
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007391-005
 Misc. Info.: 140829
 Operator ID: 403648 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub14
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 19-Feb-2018 10:03:06 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK031

First Level Reviewer: barlozhetskayaa

Date: 15-Feb-2018 17:45:23

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	9.684	9.689	-0.005	92	283788	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.787	11.790	-0.003	95	1596917	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.387	16.389	-0.002	88	1445918	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.990	17.992	-0.002	94	1068525	4.00	4.09	
6 Chlorodifluoromethane	67	4.202	4.203	-0.001	94	3577	0.0800	0.1180	
7 Propene	41	4.213	4.216	-0.003	72	7440	0.0800	0.0901	
8 Dichlorodifluoromethane	85	4.277	4.274	0.003	99	21153	0.0800	0.0831	
9 Chloromethane	52	4.482	4.482	0.000	60	3270	0.0800	0.1098	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.487	4.489	-0.002	91	13879	0.0800	0.0832	
11 Acetaldehyde	44	4.665	4.662	0.003	97	23331	0.4000	0.7058	
12 Vinyl chloride	62	4.681	4.679	0.002	97	8173	0.0800	0.0881	
13 Butadiene	54	4.783	4.777	0.006	64	6527	0.0800	0.0871	
14 Butane	43	4.778	4.777	0.001	87	12961	0.0800	0.0911	
15 Bromomethane	94	5.149	5.146	0.003	97	8215	0.0800	0.0889	
16 Chloroethane	64	5.305	5.304	0.001	95	3968	0.0800	0.0824	
17 Ethanol	31	5.434	5.435	-0.001	97	16323	0.4000	0.4748	
18 Vinyl bromide	106	5.644	5.641	0.003	92	7192	0.0800	0.0819	
19 2-Methylbutane	43	5.692	5.693	-0.001	91	9927	0.0800	0.0947	
20 Trichlorofluoromethane	101	5.929	5.933	-0.004	99	20764	0.0800	0.0843	
21 Acrolein	56	5.956	5.950	0.006	26	3610	0.0800	0.1468	
22 Acetone	58	6.096	6.081	0.015	97	12587	0.2400	0.3896	
24 Pentane	72	6.171	6.171	0.000	97	1626	0.0800	0.1083	
25 Isopropyl alcohol	45	6.209	6.201	0.008	92	24895	0.2400	0.2688	
26 Ethyl ether	31	6.381	6.362	0.019	95	7476	0.0800	0.0935	
27 1,1-Dichloroethene	96	6.693	6.692	0.001	96	8381	0.0800	0.0892	
28 Acrylonitrile	53	6.806	6.809	-0.003	96	5617	0.0800	0.1000	
30 2-Methyl-2-propanol	59	6.897	6.865	0.032	75	9512	0.0800	0.0527	
29 1,1,2-Trichloro-1,2,2-trif	101	6.876	6.875	0.001	96	16313	0.0800	0.0838	
32 Methylene Chloride	84	7.059	7.061	-0.002	96	18593	0.0800	0.1829	
31 3-Chloro-1-propene	39	7.080	7.077	0.003	97	9005	0.0800	0.0817	

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	7.242	7.239	0.003	98	24693	0.0800	0.0906	
34 trans-1,2-Dichloroethene	96	7.898	7.903	-0.005	74	7875	0.0800	0.0838	
35 2-Methylpentane	43	7.919	7.917	0.002	93	20535	0.0800	0.0949	
36 Methyl tert-butyl ether	73	8.070	8.053	0.017	95	17128	0.0800	0.0821	
37 1,1-Dichloroethane	63	8.344	8.343	0.001	98	14950	0.0800	0.0847	
38 Vinyl acetate	43	8.441	8.442	-0.001	100	16018	0.0800	0.0796	
40 2-Butanone (MEK)	72	8.941	8.919	0.022	81	3466	0.0800	0.0955	
39 Hexane	56	8.925	8.922	0.003	80	8192	0.0800	0.1073	
41 Isopropyl ether	45	9.108	9.091	0.017	97	20843	0.0800	0.0834	
42 cis-1,2-Dichloroethene	96	9.340	9.347	-0.007	95	8074	0.0800	0.0842	
43 Ethyl acetate	43	9.539	9.529	0.010	97	15186	0.0800	0.0947	
44 Chloroform	83	9.689	9.697	-0.008	29	17816	0.0800	0.0877	
45 Tert-butyl ethyl ether	59	9.808	9.782	0.026	94	18484	0.0800	0.0794	
46 Tetrahydrofuran	42	10.146	10.126	0.020	95	8227	0.0800	0.0956	
47 1,1,1-Trichloroethane	97	10.722	10.721	0.001	96	18145	0.0800	0.0858	
48 1,2-Dichloroethane	62	10.819	10.825	-0.006	95	10626	0.0800	0.0820	
49 Cyclohexane	69	11.287	11.287	0.000	69	4472	0.0800	0.0956	
50 Benzene	78	11.292	11.291	0.001	97	24429	0.0800	0.0862	
52 Carbon tetrachloride	117	11.314	11.310	0.004	97	18207	0.0800	0.0851	
55 2,3-Dimethylpentane	71	11.389	11.384	0.005	91	5875	0.0800	0.0883	
51 Thiophene	84	11.551	11.554	-0.004	95	13462	0.0800	0.0837	
56 Isooctane	57	11.997	11.995	0.002	98	40803	0.0800	0.0898	
57 n-Heptane	71	12.347	12.342	0.005	90	8492	0.0800	0.0852	
58 1,2-Dichloropropane	63	12.454	12.451	0.003	88	9261	0.0800	0.0869	
59 Trichloroethene	130	12.476	12.480	-0.004	95	10397	0.0800	0.0832	
60 Dibromomethane	93	12.567	12.569	-0.002	94	10667	0.0800	0.0896	
61 Dichlorobromomethane	83	12.702	12.704	-0.002	98	16774	0.0800	0.0805	
62 1,4-Dioxane	88	12.761	12.735	0.026	80	2237	0.0800	0.0805	
63 Methyl methacrylate	41	12.782	12.776	0.006	94	8382	0.0800	0.0864	
64 Methylcyclohexane	83	13.224	13.222	0.002	96	15575	0.0800	0.0875	
65 4-Methyl-2-pentanone (MIBK)	43	13.632	13.618	0.014	94	14225	0.0800	0.0972	
66 cis-1,3-Dichloropropene	75	13.659	13.659	0.000	96	13343	0.0800	0.0812	
67 trans-1,3-Dichloropropene	75	14.326	14.329	-0.003	97	10875	0.0800	0.0777	
68 Toluene	91	14.461	14.458	0.003	95	25542	0.0800	0.0837	
69 1,1,2-Trichloroethane	83	14.531	14.532	-0.001	96	7985	0.0800	0.0857	
72 2-Hexanone	58	14.918	14.908	0.010	94	5895	0.0800	0.0820	
73 n-Octane	85	15.101	15.100	0.001	94	8774	0.0800	0.0828	
74 Chlorodibromomethane	129	15.225	15.227	-0.002	97	16372	0.0800	0.0796	
75 Ethylene Dibromide	107	15.515	15.514	0.001	94	14297	0.0800	0.0827	
76 Tetrachloroethene	129	15.574	15.575	-0.001	96	10866	0.0800	0.0898	
77 2,3-Dimethylheptane	43	16.424	16.423	0.001	93	29861	0.0800	0.0960	
78 Chlorobenzene	112	16.435	16.437	-0.002	94	20875	0.0800	0.0849	
79 Ethylbenzene	91	16.709	16.711	-0.002	98	32565	0.0800	0.0861	
81 m-Xylene & p-Xylene	91	16.865	16.869	-0.004	0	48711	0.1600	0.1720	
82 n-Nonane	57	17.253	17.252	0.001	93	18443	0.0800	0.0894	
83 Styrene	104	17.328	17.331	-0.003	98	17705	0.0800	0.0807	
84 Bromoform	173	17.333	17.333	0.000	90	17167	0.0800	0.0778	
85 o-Xylene	91	17.393	17.391	0.002	99	24847	0.0800	0.0827	
86 1,1,2,2-Tetrachloroethane	83	17.705	17.708	-0.003	98	18692	0.0800	0.0861	
87 1,2,3-Trichloropropane	110	17.861	17.864	-0.003	98	4845	0.0800	0.0852	
88 Isopropylbenzene	105	17.952	17.956	-0.004	89	36334	0.0800	0.0889	
89 N-Propylbenzene	120	18.458	18.462	-0.004	99	9302	0.0800	0.0827	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
90 2-Chlorotoluene	126	18.517	18.516	0.001	97	9208	0.0800	0.0844	
91 4-Ethyltoluene	105	18.603	18.602	0.001	98	33930	0.0800	0.0860	
92 1,3,5-Trimethylbenzene	120	18.673	18.672	0.001	93	14114	0.0800	0.0855	
93 Alpha Methyl Styrene	118	18.888	18.891	-0.003	90	14312	0.0800	0.0832	
94 n-Decane	57	18.920	18.923	-0.003	91	23094	0.0800	0.0946	
95 tert-Butylbenzene	119	19.076	19.079	-0.003	92	30373	0.0800	0.0866	
96 1,2,4-Trimethylbenzene	105	19.087	19.091	-0.004	96	28923	0.0800	0.0874	
97 sec-Butylbenzene	105	19.335	19.337	-0.002	98	41696	0.0800	0.0863	
98 1,3-Dichlorobenzene	146	19.361	19.363	-0.002	97	22046	0.0800	0.0889	
99 Benzyl chloride	91	19.431	19.431	0.000	98	22135	0.0800	0.0828	
100 1,4-Dichlorobenzene	146	19.442	19.445	-0.003	95	22135	0.0800	0.0897	
101 4-Isopropyltoluene	119	19.485	19.489	-0.004	97	35283	0.0800	0.0895	
102 1,2,3-Trimethylbenzene	105	19.544	19.549	-0.005	97	27902	0.0800	0.0861	
103 Butylcyclohexane	83	19.587	19.591	-0.004	94	26670	0.0800	0.0891	
104 2,3-Dihydroindene	117	19.792	19.792	0.000	94	26808	0.0800	0.0867	
105 1,2-Dichlorobenzene	146	19.792	19.795	-0.003	94	21084	0.0800	0.0899	
106 n-Butylbenzene	91	19.905	19.907	-0.002	98	34682	0.0800	0.0901	
107 Indene	116	19.916	19.918	-0.002	89	21811	0.0800	0.0839	
108 Undecane	57	20.185	20.186	-0.001	96	23414	0.0800	0.0924	
110 1,2-Dibromo-3-Chloropropan	157	20.378	20.381	-0.003	97	9615	0.0800	0.0840	
111 1,2,4,5-Tetramethylbenzene	119	20.658	20.658	0.000	97	29177	0.0800	0.0871	
114 Dodecane	57	21.266	21.268	-0.002	96	20521	0.0800	0.0691	
115 1,2,4-Trichlorobenzene	180	21.508	21.509	-0.001	92	16452	0.0800	0.0926	
116 Naphthalene	128	21.642	21.642	0.000	99	28149	0.0800	0.1002	
118 Hexachlorobutadiene	225	21.798	21.798	0.000	95	17105	0.0800	0.0934	
119 1,2,3-Trichlorobenzene	180	21.858	21.858	0.000	95	11991	0.0800	0.1061	
120 2-Methylnaphthalene	142	22.385	22.385	0.000	97	6317	0.2500	0.2839	
121 1-Methylnaphthalene	142	22.508	22.509	-0.001	98	7343	0.2500	0.3329	
A 123 C8 Range	1	15.108	(15.073-15.143)		0	80373	0.0800	0.0906	
S 124 Xylenes, Total	100				0		0.2400	0.2548	
S 125 1,2-Dichloroethene, Total	1				0		0.1600	0.1680	

Reagents:

40L1-3DQP_00001

Amount Added: 200.00

Units: mL

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 19-Feb-2018 10:03:08

Chrom Revision: 2.2 08-Feb-2018 13:38:42

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL03.D

Injection Date: 15-Feb-2018 17:07:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: IC L3

Worklist Smp#: 5

Client ID:

Purge Vol: 500.000 mL

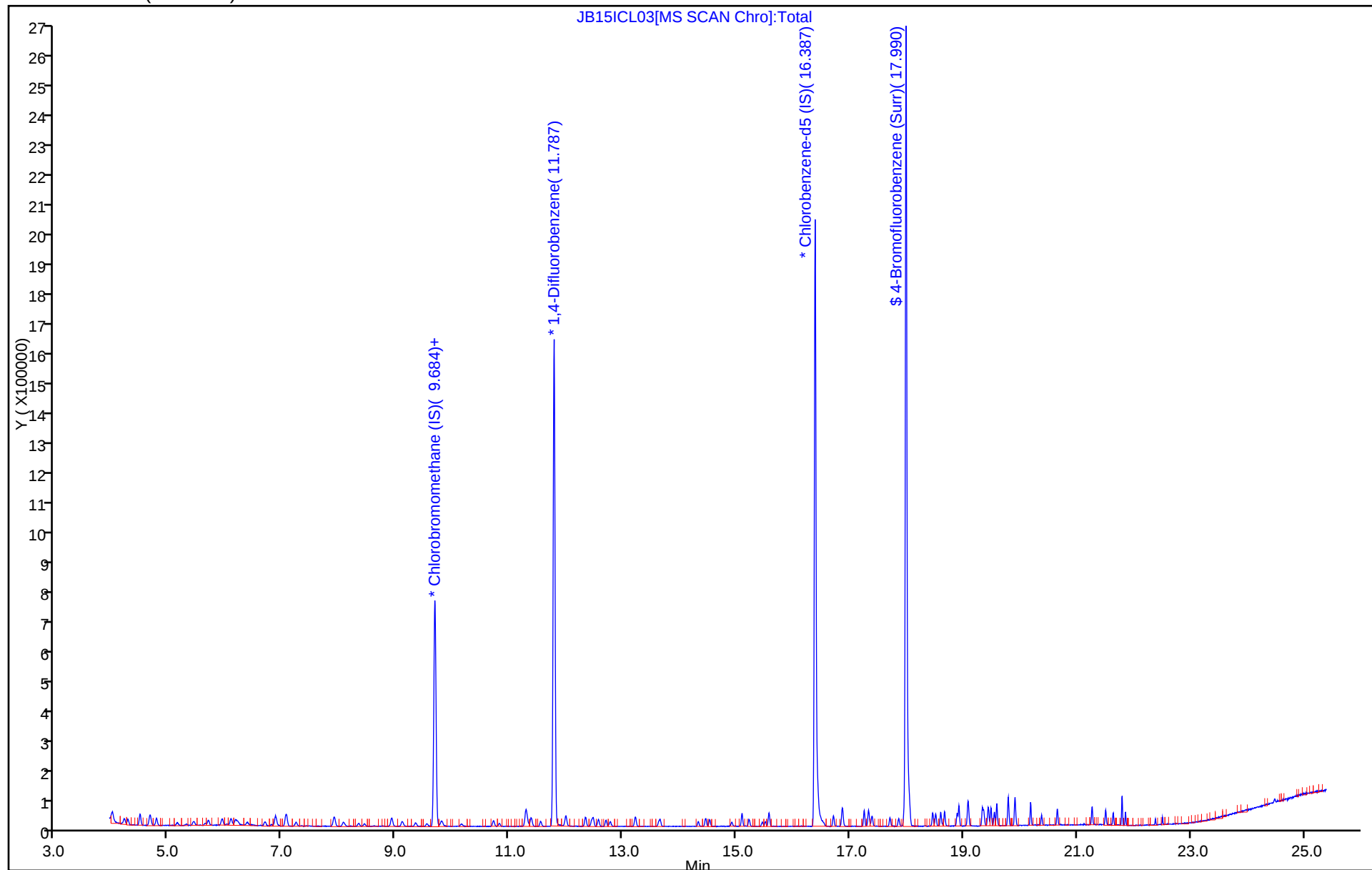
Dil. Factor: 1.0000

ALS Bottle#: 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\20180215-7391.b\JB15ICL03.D

Injection Date: 15-Feb-2018 17:07:30

Instrument ID: MJ

Lims ID: IC L3

Client ID:

Operator ID: 403648

ALS Bottle#: 8

Worklist Smp#: 5

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

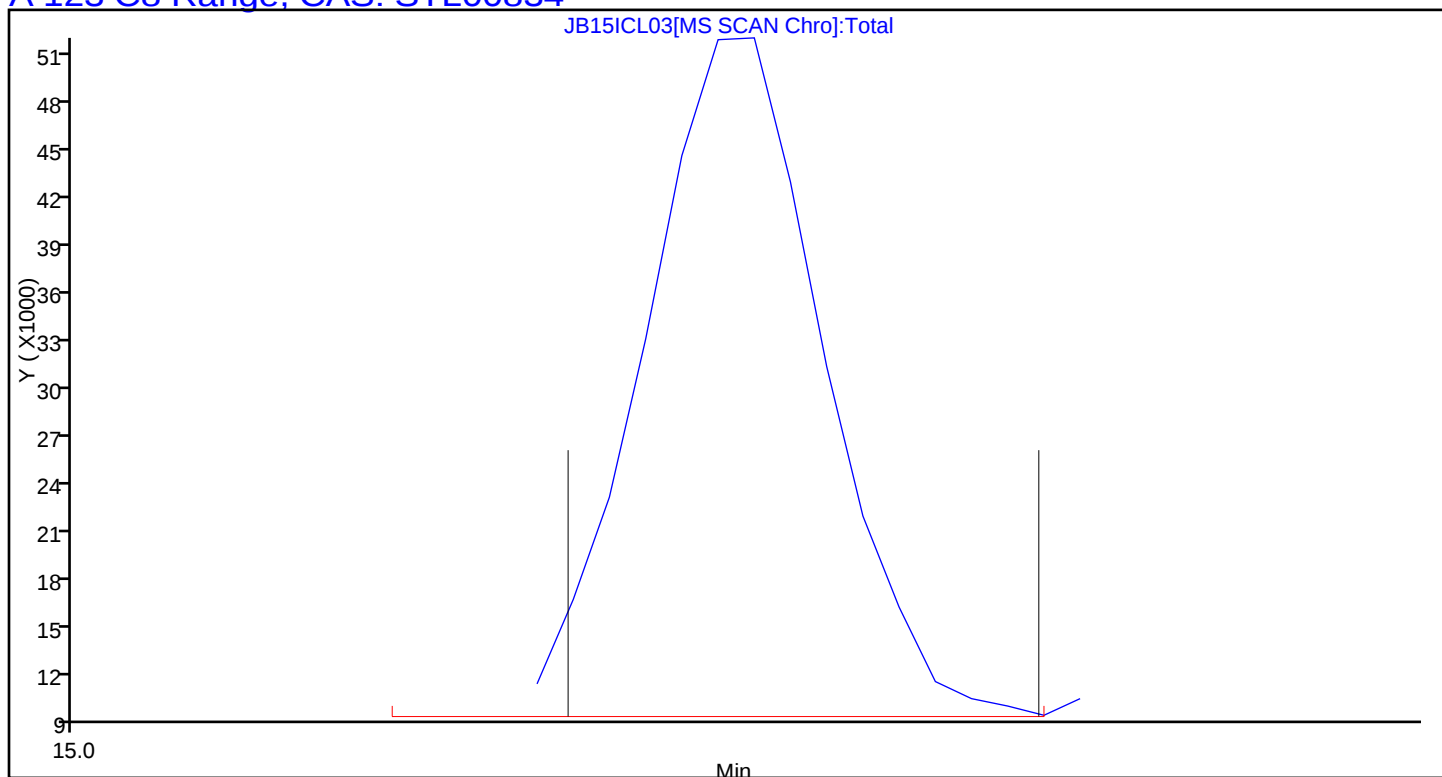
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 123 C8 Range, CAS: STL00834



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL03.D

Injection Date: 15-Feb-2018 17:07:30

Instrument ID: MJ

Lims ID: IC L3

Client ID:

Operator ID: 403648

ALS Bottle#:

8

Worklist Smp#: 5

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

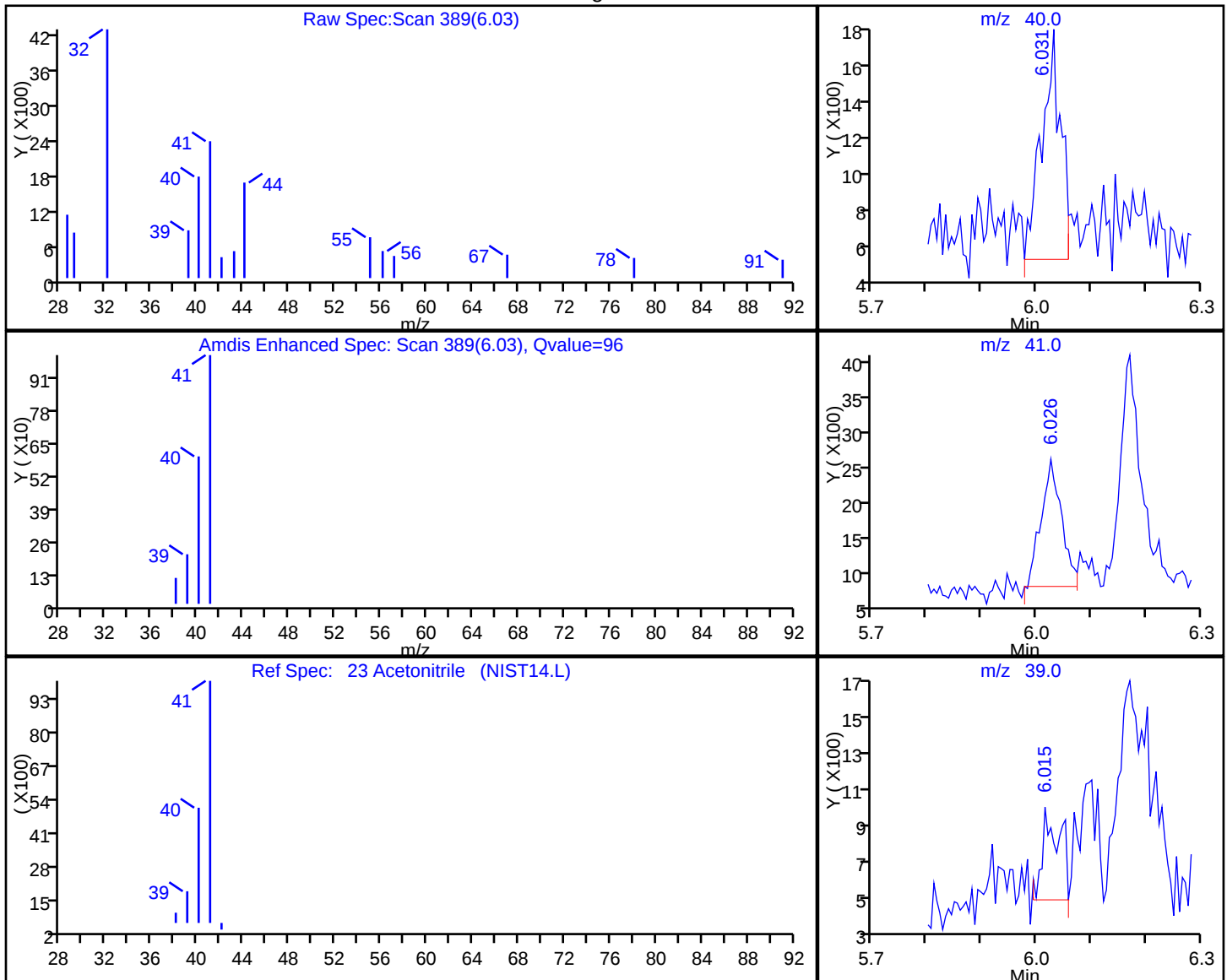
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

23 Acetonitrile, CAS: 75-05-8

Processing Results



RT	Mass	Response	Amount
6.03	40.00	2814	0.092845
6.03	41.00	4676	
6.02	39.00	993	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:50:20

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL03.D

Injection Date: 15-Feb-2018 17:07:30

Instrument ID: MJ

Lims ID: IC L3

Client ID:

Operator ID: 403648

ALS Bottle#: 8

Worklist Smp#: 5

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

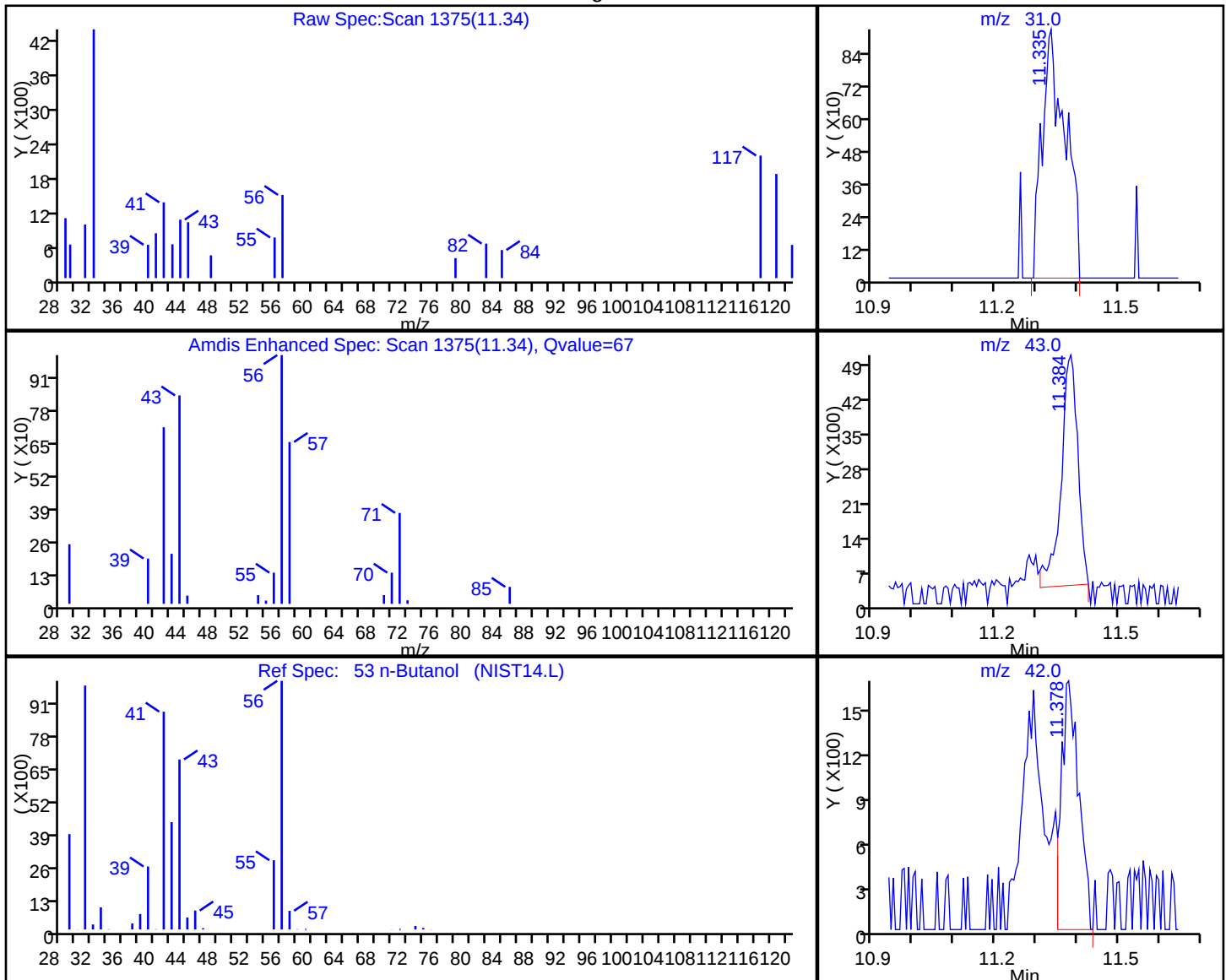
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

53 n-Butanol, CAS: 71-36-3

Processing Results



RT	Mass	Response	Amount
11.34	31.00	3645	0.131611
11.38	43.00	13240	
11.38	42.00	4699	

Reviewer: barlozhetskayaa, 16-Feb-2018 11:50:20

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL04.D
 Lims ID: IC L4
 Client ID:
 Sample Type: IC Calib Level: 4
 Inject. Date: 15-Feb-2018 17:52:30 ALS Bottle#: 9 Worklist Smp#: 6
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007391-006
 Misc. Info.: 140828
 Operator ID: 403648 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub14
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 19-Feb-2018 10:03:26 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK031

First Level Reviewer: barlozhetskayaa

Date: 16-Feb-2018 09:34:58

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	9.689	9.689	-0.001	92	299520	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.787	11.790	-0.004	95	1701031	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.386	16.389	-0.003	88	1520404	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.989	17.992	-0.003	94	1086367	4.00	3.95	
6 Chlorodifluoromethane	67	4.218	4.203	0.015	97	5657	0.1600	0.1768	
7 Propene	41	4.228	4.216	0.012	95	14182	0.1600	0.1627	
8 Dichlorodifluoromethane	85	4.282	4.274	0.008	100	42724	0.1600	0.1590	
9 Chloromethane	52	4.497	4.482	0.015	55	5660	0.1600	0.1800	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.497	4.489	0.008	92	28478	0.1600	0.1617	
11 Acetaldehyde	44	4.675	4.662	0.013	97	40347	0.8000	1.16	
12 Vinyl chloride	62	4.691	4.679	0.012	97	16389	0.1600	0.1675	
13 Butadiene	54	4.788	4.777	0.011	67	13259	0.1600	0.1676	
14 Butane	43	4.788	4.777	0.011	85	23931	0.1600	0.1595	
15 Bromomethane	94	5.154	5.146	0.008	96	16066	0.1600	0.1648	
16 Chloroethane	64	5.310	5.304	0.006	98	8085	0.1600	0.1591	
17 Ethanol	31	5.439	5.435	0.004	96	32209	0.8000	0.8876	
18 Vinyl bromide	106	5.649	5.641	0.008	96	14562	0.1600	0.1572	
19 2-Methylbutane	43	5.702	5.693	0.009	91	17850	0.1600	0.1614	
20 Trichlorofluoromethane	101	5.939	5.933	0.006	99	42082	0.1600	0.1619	
21 Acrolein	56	5.966	5.950	0.016	89	4690	0.1600	0.1806	
23 Acetonitrile	40	6.041	6.040	0.001	97	6532	0.1600	0.1988	
22 Acetone	58	6.095	6.081	0.014	98	26867	0.4800	0.7880	
24 Pentane	72	6.176	6.171	0.005	97	3215	0.1600	0.2029	
25 Isopropyl alcohol	45	6.208	6.201	0.007	96	49915	0.4800	0.5106	
26 Ethyl ether	31	6.380	6.362	0.018	95	15056	0.1600	0.1784	
27 1,1-Dichloroethene	96	6.698	6.692	0.006	98	15755	0.1600	0.1589	
28 Acrylonitrile	53	6.816	6.809	0.007	95	9991	0.1600	0.1686	
30 2-Methyl-2-propanol	59	6.897	6.865	0.032	55	18376	0.1600	0.1283	
29 1,1,2-Trichloro-1,2,2-trif	101	6.880	6.875	0.005	97	33602	0.1600	0.1635	
32 Methylene Chloride	84	7.063	7.061	0.002	96	26564	0.1600	0.2476	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 3-Chloro-1-propene	39	7.085	7.077	0.008	95	13906	0.1600	0.1336	
33 Carbon disulfide	76	7.246	7.239	0.007	99	46690	0.1600	0.1624	
34 trans-1,2-Dichloroethene	96	7.908	7.903	0.005	98	15649	0.1600	0.1577	
35 2-Methylpentane	43	7.924	7.917	0.007	94	36385	0.1600	0.1592	
36 Methyl tert-butyl ether	73	8.064	8.053	0.011	97	37261	0.1600	0.1692	
37 1,1-Dichloroethane	63	8.344	8.343	0.001	99	29982	0.1600	0.1609	
38 Vinyl acetate	43	8.446	8.442	0.004	100	37307	0.1600	0.1756	
40 2-Butanone (MEK)	72	8.925	8.919	0.006	85	7576	0.1600	0.1979	
39 Hexane	56	8.925	8.922	0.003	73	14214	0.1600	0.1764	
41 Isopropyl ether	45	9.108	9.091	0.017	97	45526	0.1600	0.1726	
42 cis-1,2-Dichloroethene	96	9.344	9.347	-0.003	95	16376	0.1600	0.1618	
43 Ethyl acetate	43	9.538	9.529	0.009	99	31175	0.1600	0.1841	
44 Chloroform	83	9.694	9.697	-0.003	31	35241	0.1600	0.1643	
45 Tert-butyl ethyl ether	59	9.796	9.782	0.014	94	43119	0.1600	0.1756	
46 Tetrahydrofuran	42	10.146	10.126	0.020	91	17204	0.1600	0.1895	
47 1,1,1-Trichloroethane	97	10.727	10.721	0.006	97	35378	0.1600	0.1584	
48 1,2-Dichloroethane	62	10.824	10.825	-0.001	96	21442	0.1600	0.1554	
49 Cyclohexane	69	11.286	11.287	-0.001	70	7932	0.1600	0.1592	
50 Benzene	78	11.292	11.291	0.001	97	48414	0.1600	0.1604	
53 n-Butanol	31	11.335	11.293	0.042	66	4922	0.1600	0.1673	
52 Carbon tetrachloride	117	11.308	11.310	-0.002	97	36066	0.1600	0.1582	
55 2,3-Dimethylpentane	71	11.388	11.384	0.004	91	11913	0.1600	0.1681	
51 Thiophene	84	11.550	11.554	-0.004	96	27334	0.1600	0.1595	
56 Isooctane	57	11.996	11.995	0.001	99	79383	0.1600	0.1640	
57 n-Heptane	71	12.341	12.342	-0.001	92	17167	0.1600	0.1616	
58 1,2-Dichloropropane	63	12.448	12.451	-0.003	90	17767	0.1600	0.1565	
59 Trichloroethene	130	12.480	12.480	0.000	96	21535	0.1600	0.1618	
60 Dibromomethane	93	12.567	12.569	-0.002	95	20766	0.1600	0.1638	
61 Dichlorobromomethane	83	12.706	12.704	0.002	99	34347	0.1600	0.1547	
62 1,4-Dioxane	88	12.760	12.735	0.025	86	4748	0.1600	0.1604	
63 Methyl methacrylate	41	12.776	12.776	0.000	94	17426	0.1600	0.1686	
64 Methylcyclohexane	83	13.223	13.222	0.001	96	30462	0.1600	0.1607	
65 4-Methyl-2-pentanone (MIBK)	43	13.632	13.618	0.014	95	27138	0.1600	0.1740	
66 cis-1,3-Dichloropropene	75	13.659	13.659	0.000	96	26097	0.1600	0.1491	
67 trans-1,3-Dichloropropene	75	14.331	14.329	0.002	97	23711	0.1600	0.1610	
68 Toluene	91	14.455	14.458	-0.003	94	54782	0.1600	0.1708	
69 1,1,2-Trichloroethane	83	14.530	14.532	-0.002	97	16317	0.1600	0.1665	
72 2-Hexanone	58	14.923	14.908	0.015	94	11694	0.1600	0.1547	
73 n-Octane	85	15.100	15.100	0.000	93	18132	0.1600	0.1628	
74 Chlorodibromomethane	129	15.219	15.227	-0.008	98	33946	0.1600	0.1570	
75 Ethylene Dibromide	107	15.509	15.514	-0.005	99	29416	0.1600	0.1618	
76 Tetrachloroethene	129	15.574	15.575	-0.001	96	20519	0.1600	0.1613	
77 2,3-Dimethylheptane	43	16.424	16.423	0.001	96	57387	0.1600	0.1755	
78 Chlorobenzene	112	16.434	16.437	-0.003	97	43161	0.1600	0.1669	
79 Ethylbenzene	91	16.709	16.711	-0.002	98	70429	0.1600	0.1771	
81 m-Xylene & p-Xylene	91	16.870	16.869	0.001	0	103040	0.3200	0.3461	
82 n-Nonane	57	17.252	17.252	0.000	93	36604	0.1600	0.1687	
83 Styrene	104	17.333	17.331	0.002	98	38384	0.1600	0.1664	
84 Bromoform	173	17.333	17.333	0.000	85	34267	0.1600	0.1478	
85 o-Xylene	91	17.392	17.391	0.001	98	55661	0.1600	0.1762	
86 1,1,2,2-Tetrachloroethane	83	17.704	17.708	-0.004	99	40240	0.1600	0.1763	
87 1,2,3-Trichloropropane	110	17.860	17.864	-0.004	98	10278	0.1600	0.1718	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
88 Isopropylbenzene	105	17.957	17.956	0.001	96	76795	0.1600	0.1786	
89 N-Propylbenzene	120	18.462	18.462	0.000	99	20306	0.1600	0.1717	
90 2-Chlorotoluene	126	18.511	18.516	-0.005	98	19495	0.1600	0.1700	
91 4-Ethyltoluene	105	18.602	18.602	0.000	99	74014	0.1600	0.1784	
92 1,3,5-Trimethylbenzene	120	18.667	18.672	-0.005	94	31849	0.1600	0.1835	
93 Alpha Methyl Styrene	118	18.887	18.891	-0.004	87	29994	0.1600	0.1658	
94 n-Decane	57	18.920	18.923	-0.003	90	46614	0.1600	0.1815	
95 tert-Butylbenzene	119	19.076	19.079	-0.003	93	67386	0.1600	0.1827	
96 1,2,4-Trimethylbenzene	105	19.092	19.091	0.001	96	63212	0.1600	0.1816	
97 sec-Butylbenzene	105	19.334	19.337	-0.003	99	93389	0.1600	0.1838	
98 1,3-Dichlorobenzene	146	19.361	19.363	-0.002	97	43715	0.1600	0.1676	
99 Benzyl chloride	91	19.431	19.431	0.000	99	46845	0.1600	0.1667	
100 1,4-Dichlorobenzene	146	19.441	19.445	-0.004	94	43480	0.1600	0.1676	
101 4-Isopropyltoluene	119	19.485	19.489	-0.004	98	77548	0.1600	0.1870	
102 1,2,3-Trimethylbenzene	105	19.549	19.549	0.000	98	62548	0.1600	0.1836	
103 Butylcyclohexane	83	19.592	19.591	0.001	96	55433	0.1600	0.1762	
104 2,3-Dihydroindene	117	19.791	19.792	-0.001	94	59006	0.1600	0.1815	
105 1,2-Dichlorobenzene	146	19.791	19.795	-0.004	96	42959	0.1600	0.1741	
106 n-Butylbenzene	91	19.904	19.907	-0.003	98	74962	0.1600	0.1852	
107 Indene	116	19.915	19.918	-0.003	90	47682	0.1600	0.1745	
108 Undecane	57	20.184	20.186	-0.002	96	46744	0.1600	0.1754	
110 1,2-Dibromo-3-Chloropropan	157	20.378	20.381	-0.003	98	18099	0.1600	0.1503	
111 1,2,4,5-Tetramethylbenzene	119	20.657	20.658	-0.001	97	61721	0.1600	0.1751	
114 Dodecane	57	21.271	21.268	0.002	96	22403	0.1600	0.0736	
115 1,2,4-Trichlorobenzene	180	21.507	21.509	-0.002	94	24193	0.1600	0.1295	
116 Naphthalene	128	21.642	21.642	0.000	99	39105	0.1600	0.1324	
118 Hexachlorobutadiene	225	21.798	21.798	0.000	96	32154	0.1600	0.1670	
119 1,2,3-Trichlorobenzene	180	21.857	21.858	-0.001	95	12782	0.1600	0.1076	
120 2-Methylnaphthalene	142	22.384	22.385	-0.001	98	7493	0.5000	0.3203	
121 1-Methylnaphthalene	142	22.508	22.509	-0.001	98	7235	0.5000	0.3120	
A 123 C8 Range	1	15.103	(15.073-15.153)		0	166916	0.1600	0.1790	
S 124 Xylenes, Total	100				0		0.4800	0.5223	
S 125 1,2-Dichloroethene, Total	1				0		0.3200	0.3196	

Reagents:

40L4DQP_00001

Amount Added: 200.00

Units: mL

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 19-Feb-2018 10:03:29

Chrom Revision: 2.2 08-Feb-2018 13:38:42

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL04.D

Injection Date: 15-Feb-2018 17:52:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: IC L4

Worklist Smp#: 6

Client ID:

Purge Vol: 500.000 mL

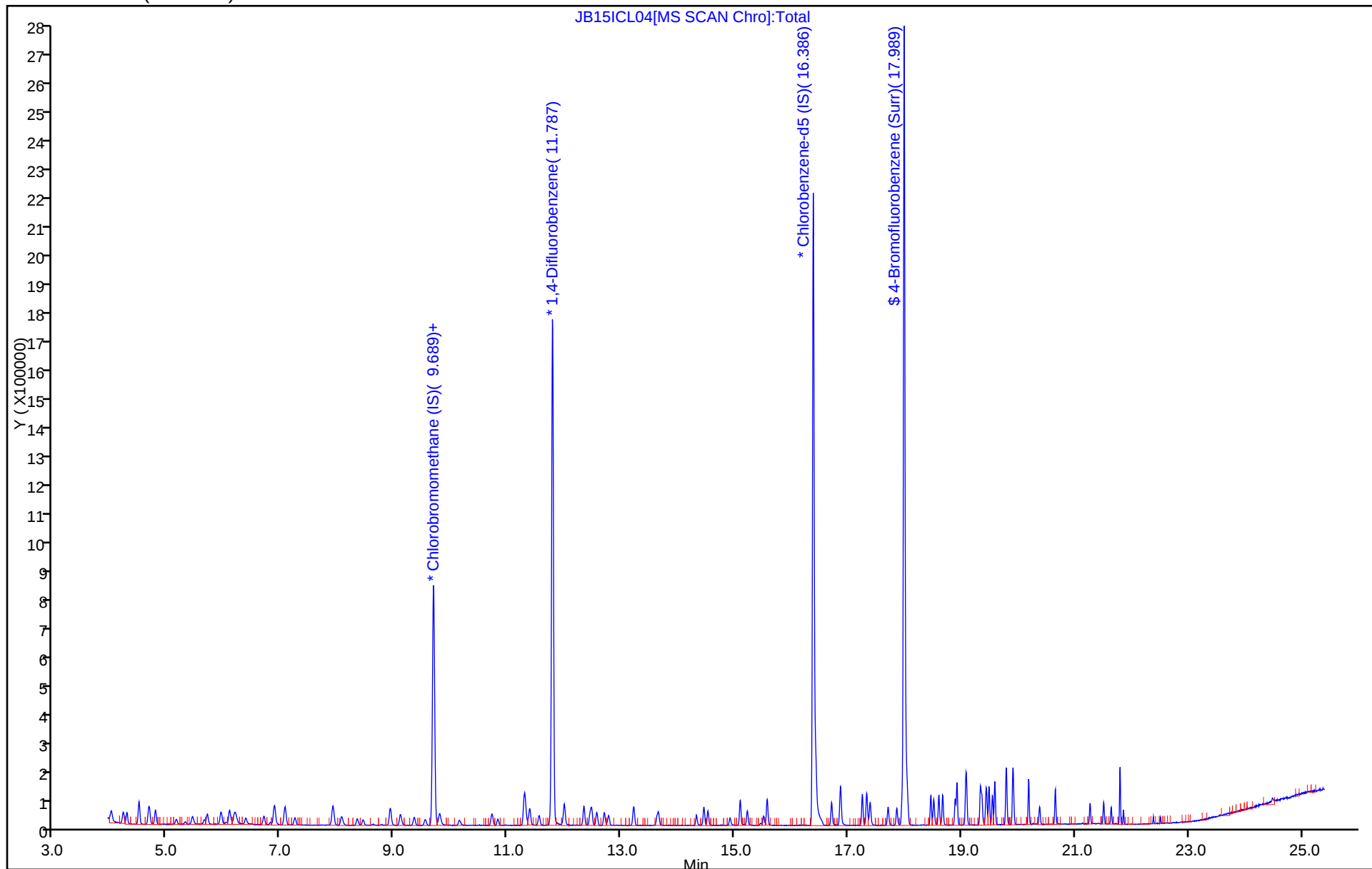
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL04.D

Injection Date: 15-Feb-2018 17:52:30

Instrument ID: MJ

Lims ID: IC L4

Client ID:

Operator ID: 403648

ALS Bottle#: 9

Worklist Smp#: 6

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

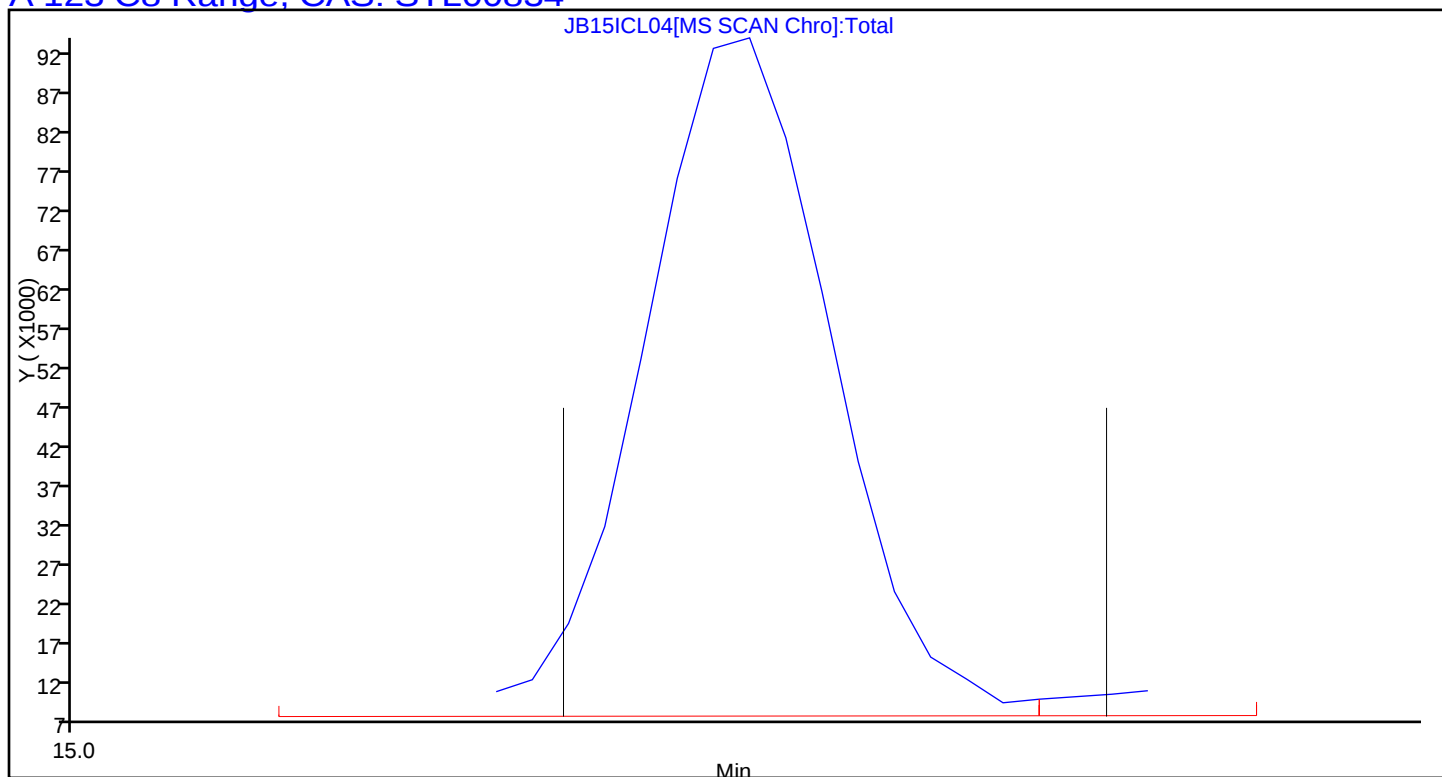
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 123 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL05.D
 Lims ID: IC L5
 Client ID:
 Sample Type: IC Calib Level: 5
 Inject. Date: 15-Feb-2018 18:37:30 ALS Bottle#: 10 Worklist Smp#: 7
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007391-007
 Misc. Info.: 140827
 Operator ID: 403648 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub14
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 19-Feb-2018 10:03:44 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK031

First Level Reviewer: barlozhetskayaa

Date: 16-Feb-2018 09:33:32

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	9.684	9.689	-0.005	92	281767	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.787	11.790	-0.003	95	1558059	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.386	16.389	-0.003	88	1430478	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.990	17.992	-0.002	97	1057828	4.00	4.09	
6 Chlorodifluoromethane	67	4.207	4.203	0.004	97	12058	0.4000	0.4005	
7 Propene	41	4.218	4.216	0.002	99	33073	0.4000	0.4033	
8 Dichlorodifluoromethane	85	4.277	4.274	0.003	99	106241	0.4000	0.4203	
9 Chloromethane	52	4.487	4.482	0.005	56	12950	0.4000	0.4378	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.492	4.489	0.003	92	72222	0.4000	0.4360	
11 Acetaldehyde	44	4.659	4.662	-0.003	100	83576	2.00	2.55	
12 Vinyl chloride	62	4.681	4.679	0.002	98	41629	0.4000	0.4522	
13 Butadiene	54	4.778	4.777	0.001	68	31237	0.4000	0.4197	
14 Butane	43	4.783	4.777	0.006	86	58983	0.4000	0.4178	
15 Bromomethane	94	5.143	5.146	-0.003	98	38970	0.4000	0.4250	
16 Chloroethane	64	5.305	5.304	0.001	97	19730	0.4000	0.4128	
17 Ethanol	31	5.418	5.435	-0.017	96	80056	2.00	2.35	
18 Vinyl bromide	106	5.644	5.641	0.003	98	37034	0.4000	0.4250	
19 2-Methylbutane	43	5.692	5.693	-0.001	91	45820	0.4000	0.4403	
20 Trichlorofluoromethane	101	5.934	5.933	0.001	99	106737	0.4000	0.4366	
21 Acrolein	56	5.950	5.950	0.000	26	11307	0.4000	0.4630	
23 Acetonitrile	40	6.026	6.040	-0.014	100	15639	0.4000	0.5060	
22 Acetone	58	6.074	6.081	-0.007	98	52018	1.20	1.62	
24 Pentane	72	6.171	6.171	0.000	76	6517	0.4000	0.4371	
25 Isopropyl alcohol	45	6.171	6.201	-0.030	81	142160	1.20	1.55	
26 Ethyl ether	31	6.359	6.362	-0.003	95	36110	0.4000	0.4549	
27 1,1-Dichloroethene	96	6.687	6.692	-0.005	96	39680	0.4000	0.4255	
28 Acrylonitrile	53	6.806	6.809	-0.003	95	25032	0.4000	0.4490	
30 2-Methyl-2-propanol	59	6.827	6.865	-0.038	92	58060	0.4000	0.5212	
29 1,1,2-Trichloro-1,2,2-trif	101	6.876	6.875	0.001	97	84847	0.4000	0.4390	
32 Methylene Chloride	84	7.058	7.061	-0.003	96	48728	0.4000	0.4828	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 3-Chloro-1-propene	39	7.075	7.077	-0.002	97	38333	0.4000	0.4499	
33 Carbon disulfide	76	7.236	7.239	-0.003	99	112870	0.4000	0.4172	
34 trans-1,2-Dichloroethene	96	7.898	7.903	-0.005	98	40259	0.4000	0.4314	
35 2-Methylpentane	43	7.914	7.917	-0.003	95	93643	0.4000	0.4357	
36 Methyl tert-butyl ether	73	8.043	8.053	-0.010	96	96118	0.4000	0.4640	
37 1,1-Dichloroethane	63	8.339	8.343	-0.004	100	76318	0.4000	0.4354	
38 Vinyl acetate	43	8.436	8.442	-0.006	100	92910	0.4000	0.4648	
40 2-Butanone (MEK)	72	8.914	8.919	-0.005	96	16551	0.4000	0.4595	
39 Hexane	56	8.914	8.922	-0.008	78	33815	0.4000	0.4461	
41 Isopropyl ether	45	9.081	9.091	-0.010	97	115208	0.4000	0.4642	
42 cis-1,2-Dichloroethene	96	9.345	9.347	-0.002	95	41004	0.4000	0.4307	
43 Ethyl acetate	43	9.522	9.529	-0.007	99	76623	0.4000	0.4811	
44 Chloroform	83	9.689	9.697	-0.008	57	86586	0.4000	0.4290	
45 Tert-butyl ethyl ether	59	9.775	9.782	-0.007	95	108840	0.4000	0.4711	
46 Tetrahydrofuran	42	10.119	10.126	-0.007	93	40956	0.4000	0.4795	
47 1,1,1-Trichloroethane	97	10.717	10.721	-0.004	96	89788	0.4000	0.4274	
48 1,2-Dichloroethane	62	10.819	10.825	-0.006	98	56229	0.4000	0.4449	
49 Cyclohexane	69	11.287	11.287	0.000	79	20197	0.4000	0.4426	
50 Benzene	78	11.287	11.291	-0.004	97	119041	0.4000	0.4305	
53 n-Butanol	31	11.265	11.293	-0.028	88	13885	0.4000	0.5153	
52 Carbon tetrachloride	117	11.303	11.310	-0.007	99	93367	0.4000	0.4470	
55 2,3-Dimethylpentane	71	11.378	11.384	-0.006	90	28672	0.4000	0.4416	
51 Thiophene	84	11.550	11.554	-0.004	96	69518	0.4000	0.4428	
54 Tert-amyl methyl ether	73	11.728	11.726	0.002	98	106673	0.4000	0.5005	
56 Isooctane	57	11.991	11.995	-0.004	99	196445	0.4000	0.4430	
57 n-Heptane	71	12.336	12.342	-0.006	92	43205	0.4000	0.4441	
58 1,2-Dichloropropane	63	12.443	12.451	-0.008	90	44766	0.4000	0.4304	
59 Trichloroethene	130	12.476	12.480	-0.004	96	54179	0.4000	0.4445	
60 Dibromomethane	93	12.562	12.569	-0.007	95	50669	0.4000	0.4363	
61 Dichlorobromomethane	83	12.696	12.704	-0.008	98	88194	0.4000	0.4337	
62 1,4-Dioxane	88	12.728	12.735	-0.007	87	12668	0.4000	0.4671	
63 Methyl methacrylate	41	12.766	12.776	-0.010	94	44804	0.4000	0.4734	
64 Methylcyclohexane	83	13.218	13.222	-0.004	96	75845	0.4000	0.4369	
65 4-Methyl-2-pentanone (MIBK)	43	13.605	13.618	-0.013	97	64288	0.4000	0.4501	
66 cis-1,3-Dichloropropene	75	13.654	13.659	-0.005	92	68409	0.4000	0.4267	
67 trans-1,3-Dichloropropene	75	14.326	14.329	-0.003	98	58578	0.4000	0.4228	
68 Toluene	91	14.455	14.458	-0.003	93	131181	0.4000	0.4346	
69 1,1,2-Trichloroethane	83	14.525	14.532	-0.007	97	40303	0.4000	0.4371	
72 2-Hexanone	58	14.902	14.908	-0.006	93	32729	0.4000	0.4602	
73 n-Octane	85	15.095	15.100	-0.005	94	45527	0.4000	0.4343	
74 Chlorodibromomethane	129	15.225	15.227	-0.003	98	88886	0.4000	0.4370	
75 Ethylene Dibromide	107	15.510	15.514	-0.004	99	69856	0.4000	0.4084	
76 Tetrachloroethene	129	15.574	15.575	-0.001	96	52795	0.4000	0.4410	
77 2,3-Dimethylheptane	43	16.419	16.423	-0.004	96	139123	0.4000	0.4523	
78 Chlorobenzene	112	16.435	16.437	-0.002	96	105585	0.4000	0.4340	
79 Ethylbenzene	91	16.709	16.711	-0.002	98	167768	0.4000	0.4485	
81 m-Xylene & p-Xylene	91	16.865	16.869	-0.004	0	251768	0.8000	0.8988	
82 n-Nonane	57	17.247	17.252	-0.005	92	90392	0.4000	0.4428	
83 Styrene	104	17.328	17.331	-0.003	98	99622	0.4000	0.4591	
84 Bromoform	173	17.328	17.333	-0.005	89	89592	0.4000	0.4107	
85 o-Xylene	91	17.387	17.391	-0.004	99	137277	0.4000	0.4619	
86 1,1,2,2-Tetrachloroethane	83	17.704	17.708	-0.004	99	98733	0.4000	0.4597	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 1,2,3-Trichloropropane	110	17.860	17.864	-0.004	98	26427	0.4000	0.4695	
88 Isopropylbenzene	105	17.952	17.956	-0.004	93	186877	0.4000	0.4620	
89 N-Propylbenzene	120	18.458	18.462	-0.004	99	51549	0.4000	0.4633	
90 2-Chlorotoluene	126	18.511	18.516	-0.005	97	47705	0.4000	0.4420	
91 4-Ethyltoluene	105	18.597	18.602	-0.005	99	180899	0.4000	0.4633	
92 1,3,5-Trimethylbenzene	120	18.667	18.672	-0.005	93	76220	0.4000	0.4667	
93 Alpha Methyl Styrene	118	18.888	18.891	-0.003	89	76565	0.4000	0.4499	
94 n-Decane	57	18.920	18.923	-0.003	90	113027	0.4000	0.4678	
95 tert-Butylbenzene	119	19.076	19.079	-0.003	95	165330	0.4000	0.4765	
96 1,2,4-Trimethylbenzene	105	19.087	19.091	-0.004	96	154495	0.4000	0.4717	
97 sec-Butylbenzene	105	19.334	19.337	-0.003	99	232101	0.4000	0.4856	
98 1,3-Dichlorobenzene	146	19.361	19.363	-0.002	97	109636	0.4000	0.4468	
99 Benzyl chloride	91	19.426	19.431	-0.005	98	120536	0.4000	0.4558	
100 1,4-Dichlorobenzene	146	19.442	19.445	-0.003	95	108874	0.4000	0.4460	
101 4-Isopropyltoluene	119	19.485	19.489	-0.004	97	187151	0.4000	0.4797	
102 1,2,3-Trimethylbenzene	105	19.544	19.549	-0.005	97	153010	0.4000	0.4773	
103 Butylcyclohexane	83	19.587	19.591	-0.004	96	138319	0.4000	0.4673	
104 2,3-Dihydroindene	117	19.792	19.792	0.000	94	146404	0.4000	0.4786	
105 1,2-Dichlorobenzene	146	19.792	19.795	-0.003	96	106565	0.4000	0.4591	
106 n-Butylbenzene	91	19.905	19.907	-0.002	98	184036	0.4000	0.4833	
107 Indene	116	19.915	19.918	-0.003	92	121997	0.4000	0.4746	
108 Undecane	57	20.184	20.186	-0.002	96	122622	0.4000	0.4891	
110 1,2-Dibromo-3-Chloropropan	157	20.378	20.381	-0.003	98	54065	0.4000	0.4772	
111 1,2,4,5-Tetramethylbenzene	119	20.658	20.658	0.000	97	162287	0.4000	0.4895	
114 Dodecane	57	21.266	21.268	-0.002	96	106198	0.4000	0.5749	
115 1,2,4-Trichlorobenzene	180	21.508	21.509	-0.001	94	87032	0.4000	0.4953	
116 Naphthalene	128	21.642	21.642	0.000	99	151426	0.4000	0.5450	
118 Hexachlorobutadiene	225	21.798	21.798	0.000	95	92129	0.4000	0.5085	
119 1,2,3-Trichlorobenzene	180	21.857	21.858	-0.001	95	63553	0.4000	0.5685	
120 2-Methylnaphthalene	142	22.385	22.385	0.000	100	45438	1.25	2.06	
121 1-Methylnaphthalene	142	22.508	22.509	-0.001	100	46180	1.25	2.12	
A 123 C8 Range	1	15.111	(15.062-15.159)		0	415352	0.4000	0.4734	
S 124 Xylenes, Total	100				0		1.20	1.36	
S 125 1,2-Dichloroethene, Total	1				0		0.8000	0.8621	

Reagents:

40L5DQP_00001

Amount Added: 200.00

Units: mL

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL05.D

Injection Date: 15-Feb-2018 18:37:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: IC L5

Worklist Smp#: 7

Client ID:

Purge Vol: 500.000 mL

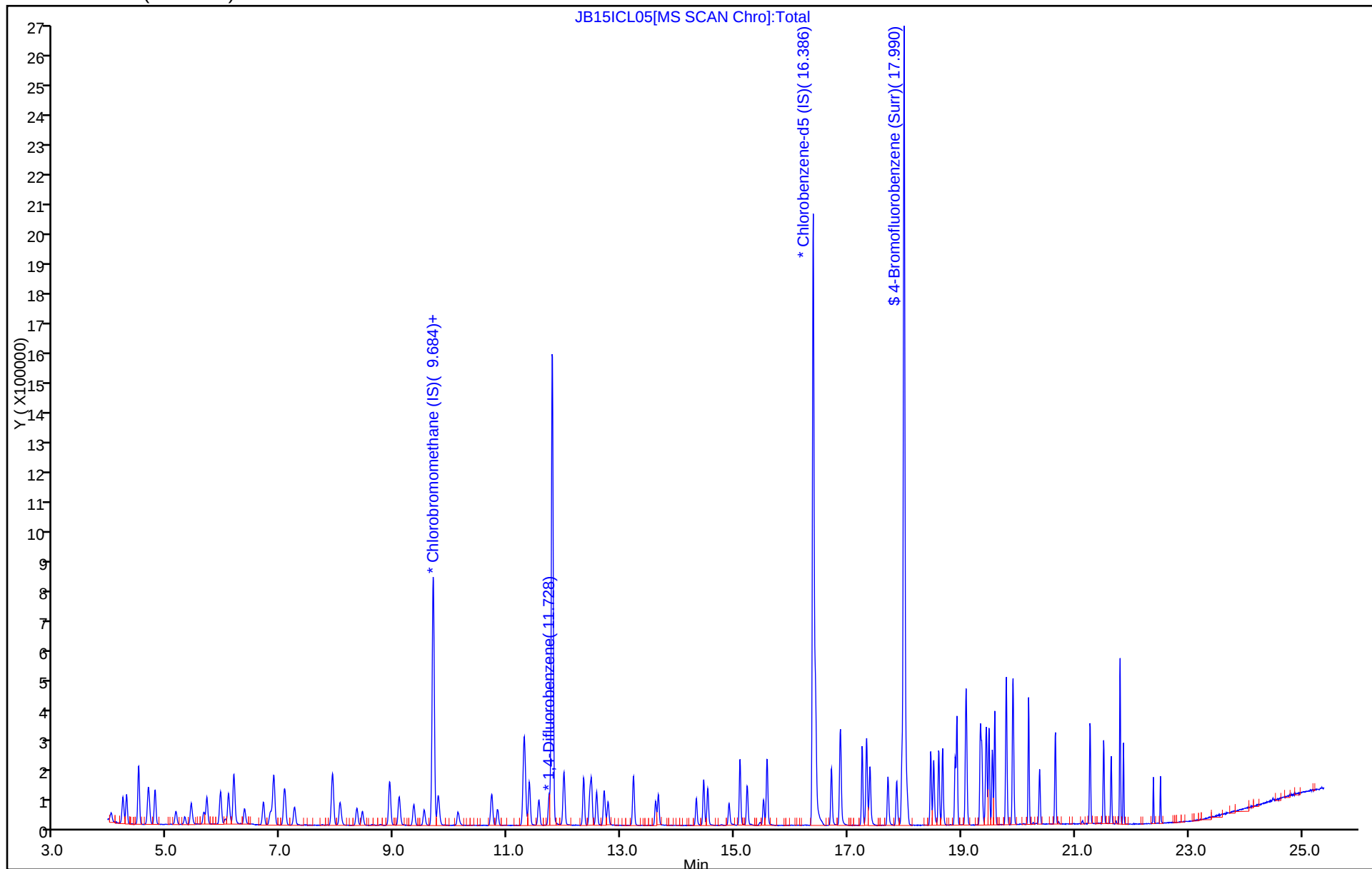
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL05.D

Injection Date: 15-Feb-2018 18:37:30

Instrument ID: MJ

Lims ID: IC L5

Client ID:

Operator ID: 403648

ALS Bottle#: 10

Worklist Smp#: 7

Purge Vol: 500.000 mL

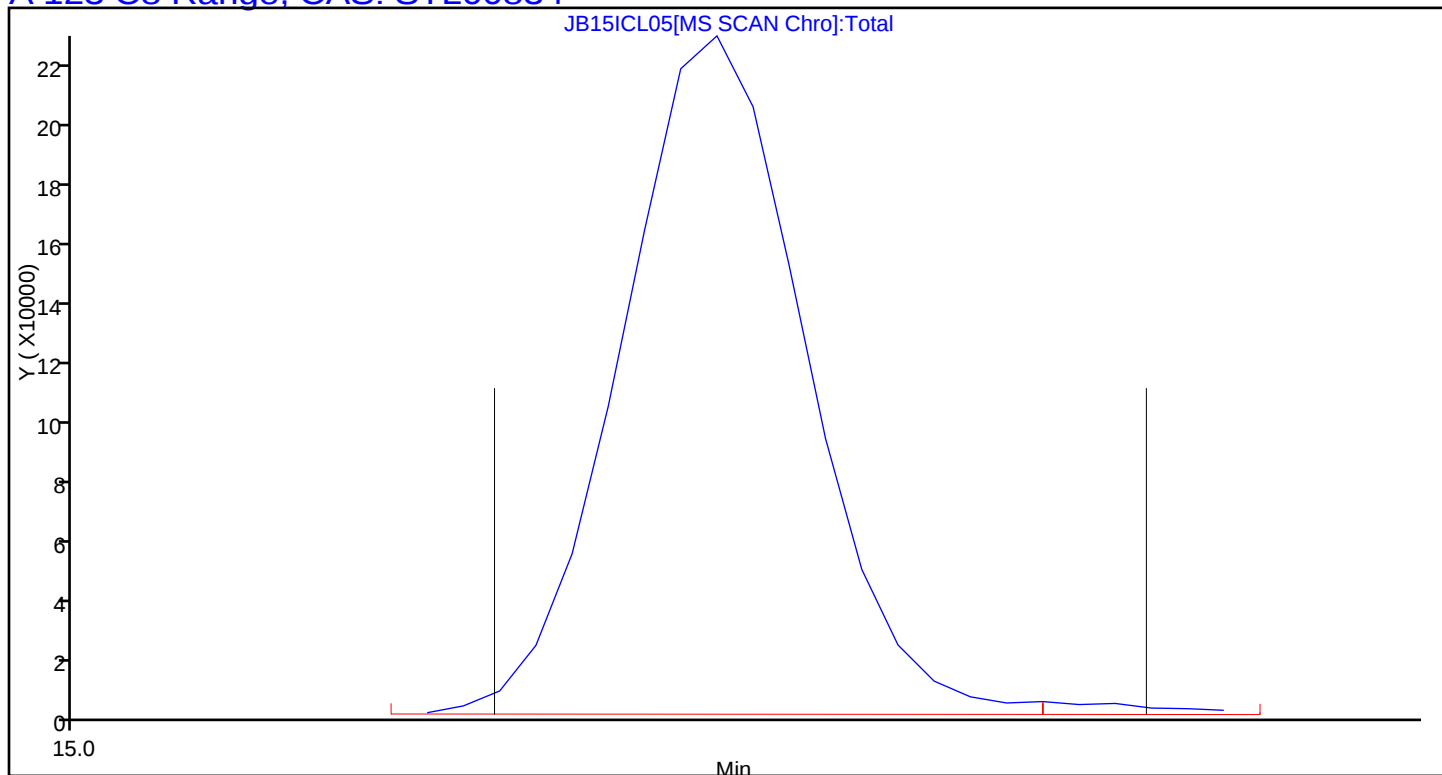
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 123 C8 Range, CAS: STL00834

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL06.D
 Lims ID: IC L6
 Client ID:
 Sample Type: IC Calib Level: 6
 Inject. Date: 15-Feb-2018 19:22:30 ALS Bottle#: 11 Worklist Smp#: 8
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007391-008
 Misc. Info.: 140776
 Operator ID: 403648 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub14
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 19-Feb-2018 10:04:00 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK031

First Level Reviewer: barlozhetskayaa

Date: 16-Feb-2018 09:35:22

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	9.686	9.689	-0.003	95	283663	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.784	11.790	-0.006	95	1589614	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.383	16.389	-0.006	88	1424004	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.986	17.992	-0.006	95	1019252	4.00	3.96	
6 Chlorodifluoromethane	67	4.199	4.203	-0.004	97	27753	1.00	0.9158	
7 Propene	41	4.209	4.216	-0.007	98	82581	1.00	1.00	
8 Dichlorodifluoromethane	85	4.269	4.274	-0.005	100	254947	1.00	1.00	
9 Chloromethane	52	4.473	4.482	-0.009	98	29822	1.00	1.00	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.484	4.489	-0.005	94	169926	1.00	1.02	
11 Acetaldehyde	44	4.651	4.662	-0.011	98	159683	5.00	4.83	
12 Vinyl chloride	62	4.672	4.679	-0.007	99	98274	1.00	1.06	
13 Butadiene	54	4.769	4.777	-0.008	68	74384	1.00	0.99	
14 Butane	43	4.769	4.777	-0.008	86	138185	1.00	0.9722	
15 Bromomethane	94	5.140	5.146	-0.006	98	93013	1.00	1.01	
16 Chloroethane	64	5.296	5.304	-0.008	99	47525	1.00	0.9878	
17 Ethanol	31	5.414	5.435	-0.021	97	169364	5.00	4.93	
18 Vinyl bromide	106	5.635	5.641	-0.006	98	86990	1.00	0.99	
19 2-Methylbutane	43	5.689	5.693	-0.004	91	101583	1.00	0.9697	
20 Trichlorofluoromethane	101	5.926	5.933	-0.007	100	251225	1.00	1.02	
21 Acrolein	56	5.936	5.950	-0.014	94	20755	1.00	0.8441	
23 Acetonitrile	40	6.012	6.040	-0.028	99	26469	1.00	0.8507	
22 Acetone	58	6.065	6.081	-0.016	98	87339	3.00	2.70	
24 Pentane	72	6.168	6.171	-0.003	97	14849	1.00	0.9893	
25 Isopropyl alcohol	45	6.157	6.201	-0.044	96	266351	3.00	2.88	
26 Ethyl ether	31	6.345	6.362	-0.017	95	65736	1.00	0.8226	
27 1,1-Dichloroethene	96	6.689	6.692	-0.003	98	90621	1.00	0.9654	
28 Acrylonitrile	53	6.797	6.809	-0.012	93	49529	1.00	0.8825	
30 2-Methyl-2-propanol	59	6.808	6.865	-0.057	94	127270	1.00	1.18	
29 1,1,2-Trichloro-1,2,2-trif	101	6.867	6.875	-0.008	98	195021	1.00	1.00	
32 Methylene Chloride	84	7.055	7.061	-0.006	97	93225	1.00	0.9175	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 3-Chloro-1-propene	39	7.071	7.077	-0.006	96	83333	1.00	1.01	
33 Carbon disulfide	76	7.233	7.239	-0.006	99	265055	1.00	0.9733	
34 trans-1,2-Dichloroethene	96	7.894	7.903	-0.009	98	92328	1.00	0.9827	
35 2-Methylpentane	43	7.911	7.917	-0.006	94	209227	1.00	0.9669	
36 Methyl tert-butyl ether	73	8.034	8.053	-0.019	97	190134	1.00	0.9116	
37 1,1-Dichloroethane	63	8.336	8.343	-0.007	100	165806	1.00	0.9396	
38 Vinyl acetate	43	8.432	8.442	-0.010	100	177532	1.00	0.8823	
40 2-Butanone (MEK)	72	8.906	8.919	-0.013	96	32107	1.00	0.8854	
39 Hexane	56	8.917	8.922	-0.006	84	73808	1.00	0.9671	
41 Isopropyl ether	45	9.078	9.091	-0.013	97	229240	1.00	0.9176	
42 cis-1,2-Dichloroethene	96	9.341	9.347	-0.006	95	91036	1.00	0.9498	
43 Ethyl acetate	43	9.519	9.529	-0.010	99	141681	1.00	0.8836	
44 Chloroform	83	9.686	9.697	-0.011	95	190800	1.00	0.9391	
45 Tert-butyl ethyl ether	59	9.766	9.782	-0.016	95	214864	1.00	0.9238	
46 Tetrahydrofuran	42	10.116	10.126	-0.010	94	76999	1.00	0.8954	
47 1,1,1-Trichloroethane	97	10.719	10.721	-0.002	97	197454	1.00	0.9336	
48 1,2-Dichloroethane	62	10.821	10.825	-0.004	98	123151	1.00	0.9551	
49 Cyclohexane	69	11.283	11.287	-0.004	75	45080	1.00	0.9684	
50 Benzene	78	11.283	11.291	-0.008	97	263091	1.00	0.9325	
53 n-Butanol	31	11.246	11.293	-0.047	90	29744	1.00	1.08	
52 Carbon tetrachloride	117	11.305	11.310	-0.005	99	209982	1.00	0.9854	
55 2,3-Dimethylpentane	71	11.380	11.384	-0.004	92	63347	1.00	0.9563	
51 Thiophene	84	11.547	11.554	-0.007	95	150312	1.00	0.9384	
54 Tert-amyl methyl ether	73	11.719	11.726	-0.007	98	195521	1.00	0.9215	
56 Isooctane	57	11.988	11.995	-0.007	99	439459	1.00	0.9714	
57 n-Heptane	71	12.338	12.342	-0.004	92	94765	1.00	0.9547	
58 1,2-Dichloropropane	63	12.445	12.451	-0.006	91	100302	1.00	0.9452	
59 Trichloroethene	130	12.478	12.480	-0.002	96	119589	1.00	0.9617	
60 Dibromomethane	93	12.564	12.569	-0.005	95	109851	1.00	0.9271	
61 Dichlorobromomethane	83	12.698	12.704	-0.006	99	195803	1.00	0.9438	
62 1,4-Dioxane	88	12.720	12.735	-0.015	86	28069	1.00	1.01	
63 Methyl methacrylate	41	12.768	12.776	-0.008	94	85989	1.00	0.8905	
64 Methylcyclohexane	83	13.215	13.222	-0.007	96	167878	1.00	0.9480	
65 4-Methyl-2-pentanone (MIBK)	43	13.597	13.618	-0.021	97	136923	1.00	0.9396	
66 cis-1,3-Dichloropropene	75	13.656	13.659	-0.003	93	155553	1.00	0.9510	
67 trans-1,3-Dichloropropene	75	14.323	14.329	-0.006	97	128407	1.00	0.9311	
68 Toluene	91	14.452	14.458	-0.006	94	283412	1.00	0.9432	
69 1,1,2-Trichloroethane	83	14.527	14.532	-0.005	98	87152	1.00	0.9494	
72 2-Hexanone	58	14.893	14.908	-0.015	93	69784	1.00	0.9857	
73 n-Octane	85	15.098	15.100	-0.002	94	101126	1.00	0.9692	
74 Chlorodibromomethane	129	15.221	15.227	-0.006	98	200692	1.00	0.99	
75 Ethylene Dibromide	107	15.506	15.514	-0.008	98	165343	1.00	0.9711	
76 Tetrachloroethene	129	15.571	15.575	-0.004	96	114687	1.00	0.9623	
77 2,3-Dimethylheptane	43	16.421	16.423	-0.002	96	306057	1.00	1.00	
78 Chlorobenzene	112	16.432	16.437	-0.005	95	239164	1.00	0.9876	
79 Ethylbenzene	91	16.706	16.711	-0.005	98	342484	1.00	0.9196	
81 m-Xylene & p-Xylene	91	16.867	16.869	-0.002	0	517067	2.00	1.85	
82 n-Nonane	57	17.249	17.252	-0.003	92	195236	1.00	0.9607	
83 Styrene	104	17.325	17.331	-0.006	99	205243	1.00	0.9501	
84 Bromoform	173	17.330	17.333	-0.003	96	208872	1.00	0.9617	
85 o-Xylene	91	17.389	17.391	-0.002	99	275312	1.00	0.9306	
86 1,1,2,2-Tetrachloroethane	83	17.701	17.708	-0.007	99	195397	1.00	0.9139	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 1,2,3-Trichloropropane	110	17.863	17.864	-0.001	99	51609	1.00	0.9210	
88 Isopropylbenzene	105	17.949	17.956	-0.007	94	358205	1.00	0.8895	
89 N-Propylbenzene	120	18.460	18.462	-0.002	99	99164	1.00	0.8954	
90 2-Chlorotoluene	126	18.513	18.516	-0.003	97	101293	1.00	0.9428	
91 4-Ethyltoluene	105	18.600	18.602	-0.002	99	344967	1.00	0.8875	
92 1,3,5-Trimethylbenzene	120	18.669	18.672	-0.003	94	147646	1.00	0.9081	
93 Alpha Methyl Styrene	118	18.890	18.891	-0.001	88	149742	1.00	0.8838	
94 n-Decane	57	18.922	18.923	-0.001	90	225316	1.00	0.9369	
95 tert-Butylbenzene	119	19.078	19.079	-0.001	92	309204	1.00	0.8952	
96 1,2,4-Trimethylbenzene	105	19.089	19.091	-0.002	96	292070	1.00	0.8958	
97 sec-Butylbenzene	105	19.331	19.337	-0.006	99	432308	1.00	0.9087	
98 1,3-Dichlorobenzene	146	19.358	19.363	-0.005	97	225116	1.00	0.9216	
99 Benzyl chloride	91	19.428	19.431	-0.003	98	229036	1.00	0.8700	
100 1,4-Dichlorobenzene	146	19.444	19.445	-0.001	94	220578	1.00	0.9076	
101 4-Isopropyltoluene	119	19.487	19.489	-0.002	97	353244	1.00	0.9095	
102 1,2,3-Trimethylbenzene	105	19.546	19.549	-0.003	97	288587	1.00	0.9042	
103 Butylcyclohexane	83	19.589	19.591	-0.002	95	277731	1.00	0.9426	
104 2,3-Dihydroindene	117	19.788	19.792	-0.004	94	276849	1.00	0.9092	
105 1,2-Dichlorobenzene	146	19.794	19.795	-0.001	96	211868	1.00	0.9170	
106 n-Butylbenzene	91	19.907	19.907	0.000	98	341321	1.00	0.9005	
107 Indene	116	19.918	19.918	0.000	89	231067	1.00	0.9030	
108 Undecane	57	20.186	20.186	0.000	96	231645	1.00	0.9282	
110 1,2-Dibromo-3-Chloropropan	157	20.380	20.381	-0.001	98	104745	1.00	0.9287	
111 1,2,4,5-Tetramethylbenzene	119	20.655	20.658	-0.004	98	301194	1.00	0.9125	
114 Dodecane	57	21.268	21.268	0.000	96	183122	1.00	1.04	
115 1,2,4-Trichlorobenzene	180	21.510	21.509	0.001	93	155531	1.00	0.8892	
116 Naphthalene	128	21.639	21.642	-0.003	99	253015	1.00	0.9147	
118 Hexachlorobutadiene	225	21.795	21.798	-0.003	96	162206	1.00	0.8994	
119 1,2,3-Trichlorobenzene	180	21.860	21.858	0.002	95	109718	1.00	0.9858	
120 2-Methylnaphthalene	142	22.387	22.385	0.002	100	67237	3.13	3.07	
121 1-Methylnaphthalene	142	22.510	22.509	0.001	100	63122	3.13	2.91	
A 123 C8 Range	1	15.108	(15.059-15.156)		0	901978	1.00	1.03	
S 124 Xylenes, Total	100				0		3.00	2.78	
S 125 1,2-Dichloroethene, Total	1				0		2.00	1.93	

Reagents:

40L6DQP_00001

Amount Added: 200.00

Units: mL

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL06.D

Injection Date: 15-Feb-2018 19:22:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: IC L6

Worklist Smp#: 8

Client ID:

Purge Vol: 500.000 mL

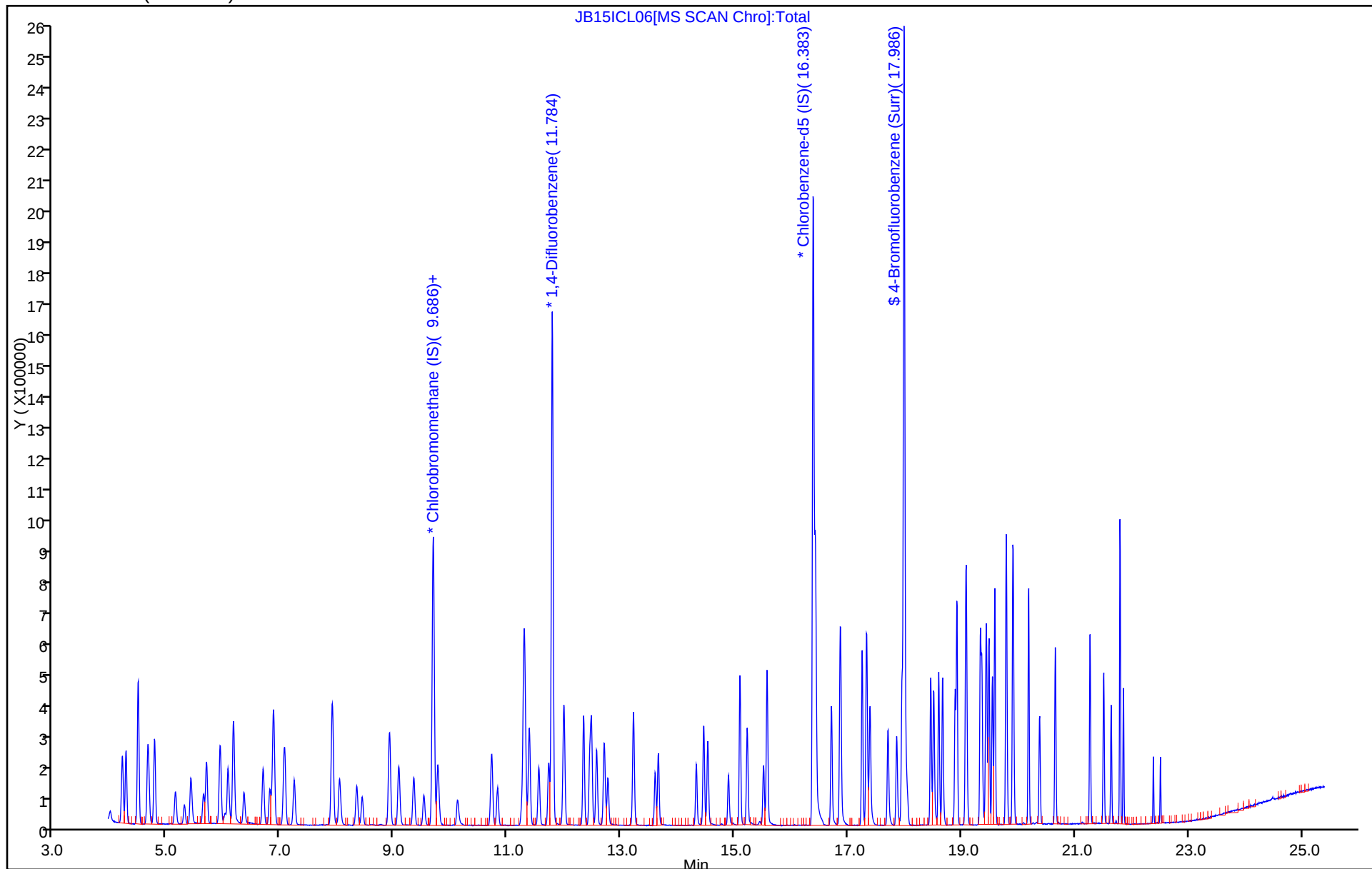
Dil. Factor: 1.0000

ALS Bottle#: 11

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL06.D

Injection Date: 15-Feb-2018 19:22:30

Instrument ID: MJ

Lims ID: IC L6

Client ID:

Operator ID: 403648

ALS Bottle#: 11

Worklist Smp#: 8

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

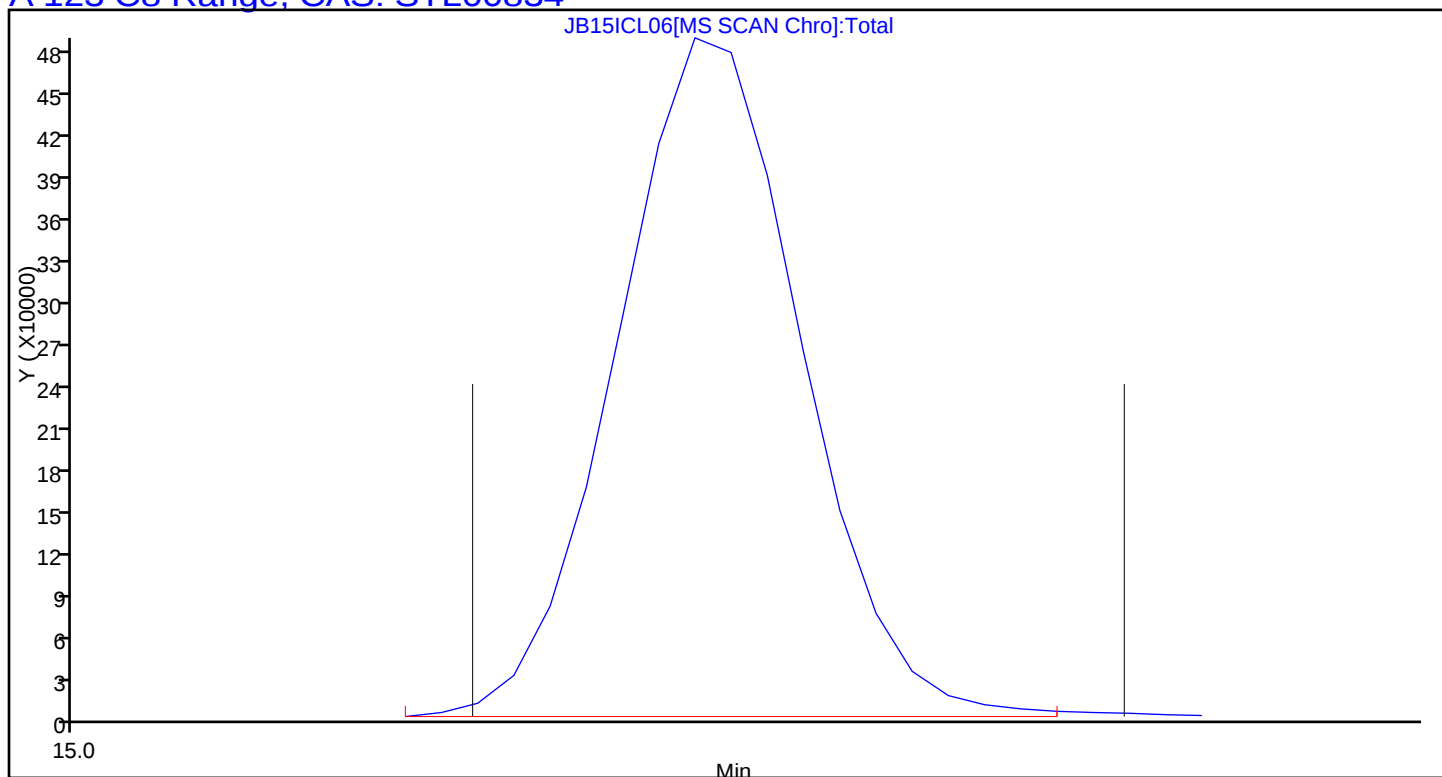
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 123 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICISL07.D
 Lims ID: ICIS L7
 Client ID:
 Sample Type: ICIS Calib Level: 7
 Inject. Date: 15-Feb-2018 20:08:30 ALS Bottle#: 12 Worklist Smp#: 9
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007391-009
 Misc. Info.: 140775
 Operator ID: 403648 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub14
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 19-Feb-2018 10:04:20 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK031

First Level Reviewer: barlozhetskayaa

Date: 16-Feb-2018 09:27:01

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	9.687	9.689	-0.002	95	286873	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.790	11.790	0.000	95	1605094	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.390	16.389	0.001	88	1448317	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.993	17.992	0.001	95	1023083	4.00	3.91	
6 Chlorodifluoromethane	67	4.205	4.203	0.002	96	54851	2.00	1.79	
7 Propene	41	4.216	4.216	0.000	99	162079	2.00	1.94	
8 Dichlorodifluoromethane	85	4.275	4.274	0.001	100	531010	2.00	2.06	
9 Chloromethane	52	4.485	4.482	0.003	65	59780	2.00	1.98	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.490	4.489	0.001	92	348077	2.00	2.06	
11 Acetaldehyde	44	4.657	4.662	-0.005	98	321920	10.0	9.63	
12 Vinyl chloride	62	4.678	4.679	-0.001	99	202765	2.00	2.16	
13 Butadiene	54	4.775	4.777	-0.002	67	149529	2.00	1.97	
14 Butane	43	4.775	4.777	-0.002	86	288707	2.00	2.01	
15 Bromomethane	94	5.146	5.146	0.000	99	189535	2.00	2.03	
16 Chloroethane	64	5.308	5.304	0.004	100	97167	2.00	2.00	
17 Ethanol	31	5.421	5.435	-0.014	97	339004	10.0	9.75	
18 Vinyl bromide	106	5.641	5.641	0.000	99	181747	2.00	2.05	
19 2-Methylbutane	43	5.690	5.693	-0.003	92	219189	2.00	2.07	
20 Trichlorofluoromethane	101	5.932	5.933	-0.001	100	519886	2.00	2.09	
21 Acrolein	56	5.943	5.950	-0.007	94	50113	2.00	2.02	
23 Acetonitrile	40	6.018	6.040	-0.022	99	60118	2.00	1.91	
22 Acetone	58	6.066	6.081	-0.015	98	180855	6.00	5.54	
24 Pentane	72	6.169	6.171	-0.002	98	30864	2.00	2.03	
25 Isopropyl alcohol	45	6.179	6.201	-0.022	95	488972	6.00	5.22	
26 Ethyl ether	31	6.346	6.362	-0.016	96	148732	2.00	1.84	
27 1,1-Dichloroethene	96	6.690	6.692	-0.002	97	189184	2.00	1.99	
28 Acrylonitrile	53	6.803	6.809	-0.006	95	107948	2.00	1.90	
30 2-Methyl-2-propanol	59	6.820	6.865	-0.045	95	220441	2.00	2.05	
29 1,1,2-Trichloro-1,2,2-trif	101	6.873	6.875	-0.002	98	401001	2.00	2.04	
32 Methylene Chloride	84	7.062	7.061	0.001	97	177679	2.00	1.73	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 3-Chloro-1-propene	39	7.072	7.077	-0.005	96	160899	2.00	1.95	
33 Carbon disulfide	76	7.239	7.239	0.000	98	556931	2.00	2.02	
34 trans-1,2-Dichloroethene	96	7.906	7.903	0.003	98	189036	2.00	1.99	
35 2-Methylpentane	43	7.917	7.917	0.000	95	432234	2.00	1.98	
36 Methyl tert-butyl ether	73	8.035	8.053	-0.018	96	396264	2.00	1.88	
37 1,1-Dichloroethane	63	8.342	8.343	-0.001	100	349810	2.00	1.96	
38 Vinyl acetate	43	8.439	8.442	-0.003	100	390265	2.00	1.92	
40 2-Butanone (MEK)	72	8.907	8.919	-0.012	95	65541	2.00	1.79	
39 Hexane	56	8.923	8.922	0.001	85	150365	2.00	1.95	
41 Isopropyl ether	45	9.079	9.091	-0.012	97	466015	2.00	1.84	
42 cis-1,2-Dichloroethene	96	9.348	9.347	0.001	95	190591	2.00	1.97	
43 Ethyl acetate	43	9.525	9.529	-0.004	99	291559	2.00	1.80	
44 Chloroform	83	9.698	9.697	0.001	96	396942	2.00	1.93	
45 Tert-butyl ethyl ether	59	9.767	9.782	-0.015	95	440792	2.00	1.87	
46 Tetrahydrofuran	42	10.112	10.126	-0.014	92	162110	2.00	1.86	
47 1,1,1-Trichloroethane	97	10.720	10.721	-0.001	96	416395	2.00	1.95	
48 1,2-Dichloroethane	62	10.827	10.825	0.002	98	259212	2.00	1.99	
49 Cyclohexane	69	11.284	11.287	-0.003	79	92419	2.00	1.97	
50 Benzene	78	11.290	11.291	-0.001	96	547051	2.00	1.92	
53 n-Butanol	31	11.263	11.293	-0.030	66	50901	2.00	1.83	
52 Carbon tetrachloride	117	11.311	11.310	0.001	99	438828	2.00	2.04	
55 2,3-Dimethylpentane	71	11.381	11.384	-0.003	92	130603	2.00	1.95	
51 Thiophene	84	11.553	11.554	-0.001	95	321955	2.00	1.99	
54 Tert-amyl methyl ether	73	11.726	11.726	0.000	98	411878	2.00	1.91	
56 Isooctane	57	11.995	11.995	0.000	99	900463	2.00	1.97	
57 n-Heptane	71	12.339	12.342	-0.003	92	196222	2.00	1.96	
58 1,2-Dichloropropane	63	12.446	12.451	-0.005	91	210169	2.00	1.96	
59 Trichloroethene	130	12.479	12.480	-0.001	96	250475	2.00	1.99	
60 Dibromomethane	93	12.570	12.569	0.001	95	230836	2.00	1.93	
61 Dichlorobromomethane	83	12.705	12.704	0.001	99	413015	2.00	1.97	
62 1,4-Dioxane	88	12.726	12.735	-0.009	86	53844	2.00	1.93	
63 Methyl methacrylate	41	12.769	12.776	-0.007	94	179409	2.00	1.84	
64 Methylcyclohexane	83	13.221	13.222	-0.001	96	347070	2.00	1.94	
65 4-Methyl-2-pentanone (MIBK)	43	13.603	13.618	-0.015	97	269233	2.00	1.83	
66 cis-1,3-Dichloropropene	75	13.657	13.659	-0.002	93	331437	2.00	2.01	
67 trans-1,3-Dichloropropene	75	14.329	14.329	0.000	98	278618	2.00	1.99	
68 Toluene	91	14.458	14.458	0.000	93	600208	2.00	1.96	
69 1,1,2-Trichloroethane	83	14.528	14.532	-0.004	98	184581	2.00	1.98	
72 2-Hexanone	58	14.894	14.908	-0.014	93	136876	2.00	1.90	
73 n-Octane	85	15.099	15.100	-0.002	94	206925	2.00	1.95	
74 Chlorodibromomethane	129	15.228	15.227	0.001	98	432967	2.00	2.10	
75 Ethylene Dibromide	107	15.513	15.514	-0.001	98	354754	2.00	2.05	
76 Tetrachloroethene	129	15.577	15.575	0.002	96	239650	2.00	1.98	
77 2,3-Dimethylheptane	43	16.422	16.423	-0.001	96	619887	2.00	1.99	
78 Chlorobenzene	112	16.438	16.437	0.001	94	496514	2.00	2.02	
79 Ethylbenzene	91	16.712	16.711	0.001	98	729559	2.00	1.93	
81 m-Xylene & p-Xylene	91	16.868	16.869	-0.001	100	1112844	4.00	3.92	
82 n-Nonane	57	17.250	17.252	-0.002	92	403252	2.00	1.95	
83 Styrene	104	17.331	17.331	0.000	99	421470	2.00	1.92	
84 Bromoform	173	17.331	17.333	-0.002	94	452443	2.00	2.05	
85 o-Xylene	91	17.390	17.391	-0.001	99	581607	2.00	1.93	
86 1,1,2,2-Tetrachloroethane	83	17.708	17.708	0.000	99	414828	2.00	1.91	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 1,2,3-Trichloropropane	110	17.864	17.864	0.000	99	109836	2.00	1.93	
88 Isopropylbenzene	105	17.955	17.956	-0.001	96	764991	2.00	1.87	
89 N-Propylbenzene	120	18.461	18.462	-0.001	99	212901	2.00	1.89	
90 2-Chlorotoluene	126	18.514	18.516	-0.002	97	212574	2.00	1.95	
91 4-Ethyltoluene	105	18.601	18.602	-0.001	99	745587	2.00	1.89	
92 1,3,5-Trimethylbenzene	120	18.670	18.672	-0.002	93	310461	2.00	1.88	
93 Alpha Methyl Styrene	118	18.891	18.891	0.000	88	334017	2.00	1.94	
94 n-Decane	57	18.923	18.923	0.000	90	468958	2.00	1.92	
95 tert-Butylbenzene	119	19.079	19.079	0.000	92	659713	2.00	1.88	
96 1,2,4-Trimethylbenzene	105	19.090	19.091	-0.001	96	625778	2.00	1.89	
97 sec-Butylbenzene	105	19.338	19.337	0.001	98	914293	2.00	1.89	
98 1,3-Dichlorobenzene	146	19.364	19.363	0.001	98	477551	2.00	1.92	
99 Benzyl chloride	91	19.429	19.431	-0.002	98	518315	2.00	1.94	
100 1,4-Dichlorobenzene	146	19.445	19.445	0.000	94	470366	2.00	1.90	
101 4-Isopropyltoluene	119	19.488	19.489	-0.001	97	743248	2.00	1.88	
102 1,2,3-Trimethylbenzene	105	19.547	19.549	-0.002	98	611735	2.00	1.88	
103 Butylcyclohexane	83	19.590	19.591	-0.001	95	578459	2.00	1.93	
104 2,3-Dihydroindene	117	19.789	19.792	-0.003	95	589287	2.00	1.90	
105 1,2-Dichlorobenzene	146	19.795	19.795	0.000	97	443319	2.00	1.89	
106 n-Butylbenzene	91	19.908	19.907	0.001	98	724644	2.00	1.88	
107 Indene	116	19.919	19.918	0.000	90	503526	2.00	1.93	
108 Undecane	57	20.187	20.186	0.001	96	455946	2.00	1.80	
110 1,2-Dibromo-3-Chloropropan	157	20.381	20.381	0.000	97	225034	2.00	1.96	
111 1,2,4,5-Tetramethylbenzene	119	20.655	20.658	-0.003	97	624537	2.00	1.86	
114 Dodecane	57	21.269	21.268	0.001	96	306380	2.00	1.77	
115 1,2,4-Trichlorobenzene	180	21.511	21.509	0.002	94	336684	2.00	1.89	
116 Naphthalene	128	21.640	21.642	-0.002	99	518551	2.00	1.84	
118 Hexachlorobutadiene	225	21.796	21.798	-0.002	95	340335	2.00	1.86	
119 1,2,3-Trichlorobenzene	180	21.860	21.858	0.002	95	206227	2.00	1.82	
120 2-Methylnaphthalene	142	22.382	22.385	-0.003	99	118911	6.25	5.34	
121 1-Methylnaphthalene	142	22.511	22.509	0.002	100	106135	6.25	4.80	
A 123 C8 Range	1	15.115	(15.060-15.189)		0	1850127	2.00	2.08	
S 124 Xylenes, Total	100				0		6.00	5.86	
S 125 1,2-Dichloroethene, Total	1				0		4.00	3.96	

Reagents:

40L7DQP_00001

Amount Added: 200.00

Units: mL

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 19-Feb-2018 10:04:22

Chrom Revision: 2.2 08-Feb-2018 13:38:42

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICISL07.D

Injection Date: 15-Feb-2018 20:08:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: ICIS L7

Worklist Smp#: 9

Client ID:

Purge Vol: 500.000 mL

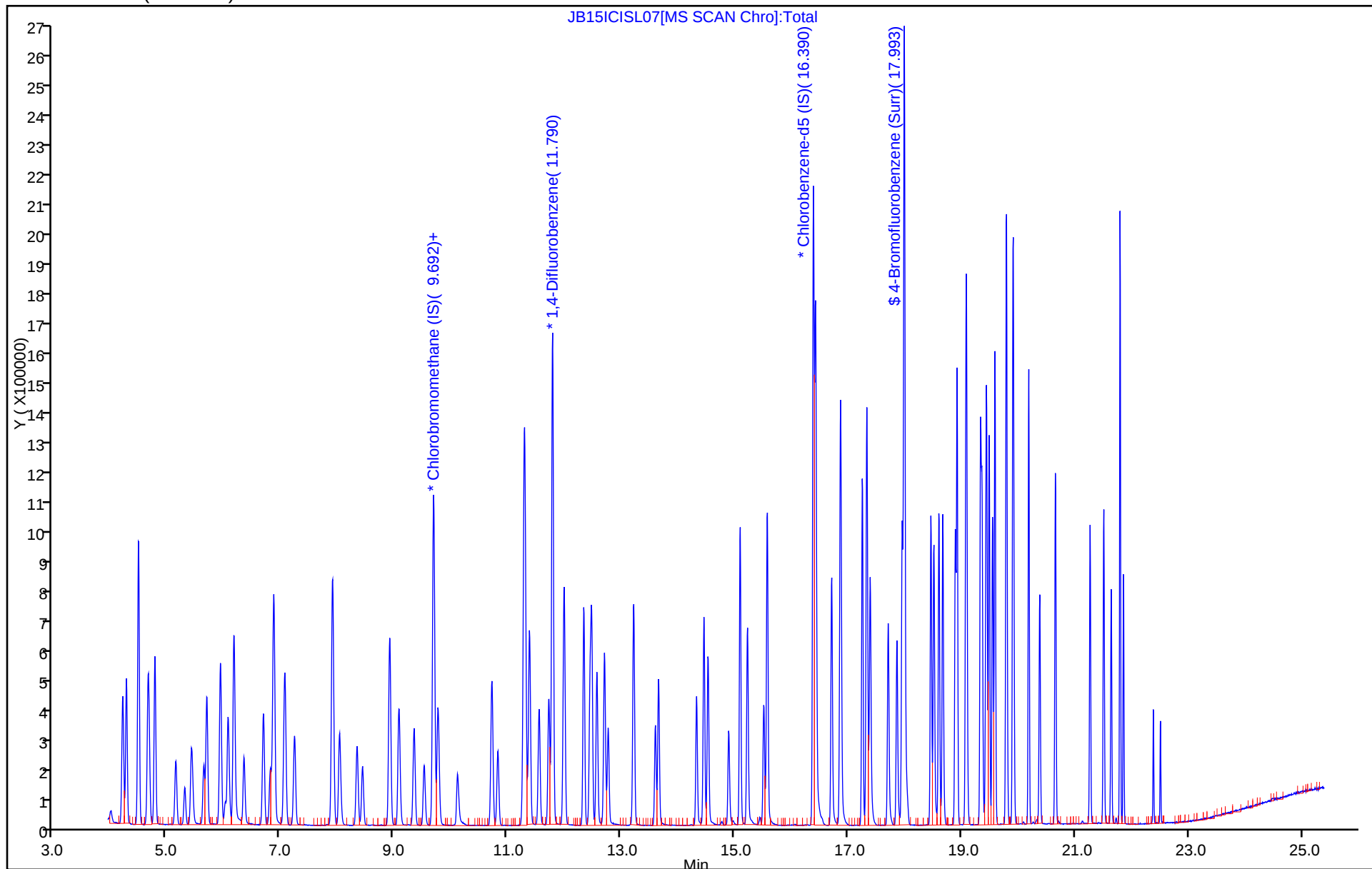
Dil. Factor: 1.0000

ALS Bottle#: 12

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICISL07.D

Injection Date: 15-Feb-2018 20:08:30

Instrument ID: MJ

Lims ID: ICIS L7

Client ID:

Operator ID: 403648

ALS Bottle#: 12

Worklist Smp#: 9

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

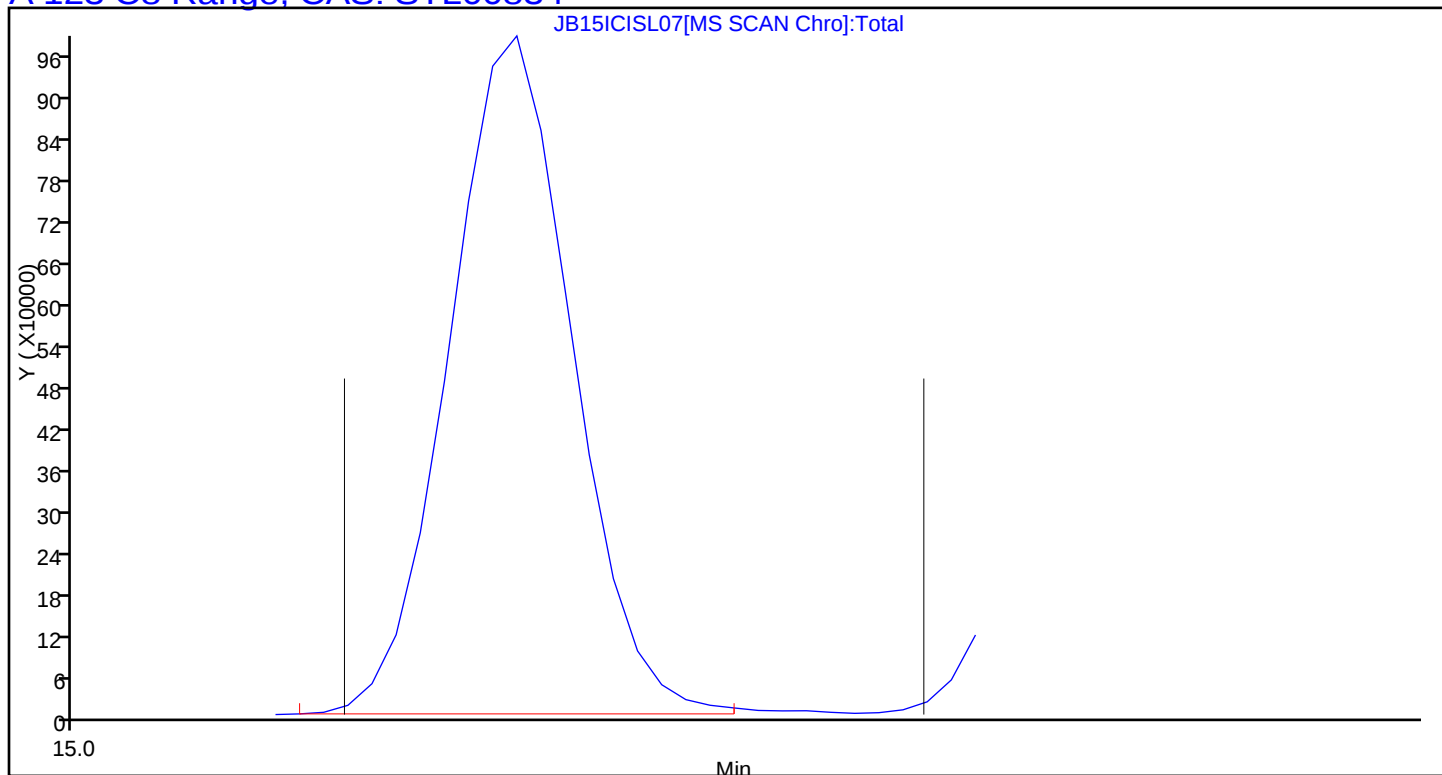
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 123 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL08.D
 Lims ID: IC L8
 Client ID:
 Sample Type: IC Calib Level: 8
 Inject. Date: 15-Feb-2018 20:53:30 ALS Bottle#: 13 Worklist Smp#: 10
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007391-010
 Misc. Info.: 140774
 Operator ID: 403648 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub14
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 19-Feb-2018 10:04:33 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK031

First Level Reviewer: barlozhetskayaa

Date: 16-Feb-2018 09:35:55

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	9.695	9.689	0.006	94	270136	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.793	11.790	0.003	95	1552764	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.392	16.389	0.003	88	1459814	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.995	17.992	0.003	96	1067616	4.00	4.05	
6 Chlorodifluoromethane	67	4.202	4.203	-0.001	96	101106	4.00	3.50	
7 Propene	41	4.218	4.216	0.002	99	316474	4.00	4.03	
8 Dichlorodifluoromethane	85	4.278	4.274	0.004	100	1026119	4.00	4.23	
9 Chloromethane	52	4.482	4.482	0.000	98	109960	4.00	3.88	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.487	4.489	-0.002	92	642320	4.00	4.04	
11 Acetaldehyde	44	4.660	4.662	-0.002	99	652801	20.0	20.7	
12 Vinyl chloride	62	4.681	4.679	0.002	99	374370	4.00	4.24	
13 Butadiene	54	4.778	4.777	0.001	66	277320	4.00	3.89	
14 Butane	43	4.778	4.777	0.001	86	537741	4.00	3.97	
15 Bromomethane	94	5.149	5.146	0.003	99	353158	4.00	4.02	
16 Chloroethane	64	5.305	5.304	0.001	99	182916	4.00	3.99	
17 Ethanol	31	5.434	5.435	-0.001	96	715122	20.0	21.9	
18 Vinyl bromide	106	5.639	5.641	-0.002	98	338017	4.00	4.05	
19 2-Methylbutane	43	5.692	5.693	-0.001	92	392146	4.00	3.93	
20 Trichlorofluoromethane	101	5.935	5.933	0.002	100	944269	4.00	4.03	
21 Acrolein	56	5.945	5.950	-0.005	94	102480	4.00	4.38	
23 Acetonitrile	40	6.026	6.040	-0.014	99	131375	4.00	4.43	
22 Acetone	58	6.069	6.081	-0.012	98	406789	12.0	13.2	
24 Pentane	72	6.171	6.171	0.000	96	55484	4.00	3.88	
25 Isopropyl alcohol	45	6.193	6.201	-0.008	96	1055630	12.0	12.0	
26 Ethyl ether	31	6.343	6.362	-0.019	96	321989	4.00	4.23	
27 1,1-Dichloroethene	96	6.693	6.692	0.001	96	344392	4.00	3.85	
28 Acrylonitrile	53	6.806	6.809	-0.003	95	230835	4.00	4.32	
30 2-Methyl-2-propanol	59	6.828	6.865	-0.037	94	415127	4.00	4.14	
29 1,1,2-Trichloro-1,2,2-trif	101	6.876	6.875	0.001	97	753175	4.00	4.06	
32 Methylene Chloride	84	7.064	7.061	0.003	97	329860	4.00	3.41	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 3-Chloro-1-propene	39	7.080	7.077	0.003	96	328625	4.00	4.26	
33 Carbon disulfide	76	7.242	7.239	0.003	98	1014855	4.00	3.91	
34 trans-1,2-Dichloroethene	96	7.903	7.903	0.000	98	356777	4.00	3.99	
35 2-Methylpentane	43	7.914	7.917	-0.003	94	796987	4.00	3.87	
36 Methyl tert-butyl ether	73	8.027	8.053	-0.026	96	905606	4.00	4.56	
37 1,1-Dichloroethane	63	8.345	8.343	0.002	100	686686	4.00	4.09	
38 Vinyl acetate	43	8.441	8.442	-0.001	100	865889	4.00	4.52	
40 2-Butanone (MEK)	72	8.909	8.919	-0.010	97	154279	4.00	4.47	
39 Hexane	56	8.920	8.922	-0.002	78	286027	4.00	3.94	
41 Isopropyl ether	45	9.082	9.091	-0.009	97	1063058	4.00	4.47	
42 cis-1,2-Dichloroethene	96	9.350	9.347	0.003	95	373543	4.00	4.09	
43 Ethyl acetate	43	9.528	9.529	-0.001	99	683903	4.00	4.48	
44 Chloroform	83	9.706	9.697	0.009	97	779025	4.00	4.03	
45 Tert-butyl ethyl ether	59	9.770	9.782	-0.012	95	1019842	4.00	4.60	
46 Tetrahydrofuran	42	10.109	10.126	-0.017	94	340009	4.00	4.15	
47 1,1,1-Trichloroethane	97	10.722	10.721	0.001	96	804959	4.00	4.00	
48 1,2-Dichloroethane	62	10.830	10.825	0.005	98	509786	4.00	4.05	
49 Cyclohexane	69	11.287	11.287	0.000	93	171655	4.00	3.77	
50 Benzene	78	11.292	11.291	0.001	97	1065062	4.00	3.86	
53 n-Butanol	31	11.266	11.293	-0.027	74	111381	4.00	4.15	
52 Carbon tetrachloride	117	11.314	11.310	0.004	99	851003	4.00	4.09	
55 2,3-Dimethylpentane	71	11.384	11.384	0.000	91	249155	4.00	3.85	
51 Thiophene	84	11.556	11.554	0.002	95	626957	4.00	4.01	
54 Tert-amyl methyl ether	73	11.723	11.726	-0.003	98	951508	4.00	4.37	
56 Isooctane	57	11.997	11.995	0.002	99	1723360	4.00	3.90	
57 n-Heptane	71	12.341	12.342	-0.001	91	381559	4.00	3.94	
58 1,2-Dichloropropane	63	12.454	12.451	0.003	91	421493	4.00	4.07	
59 Trichloroethene	130	12.481	12.480	0.001	96	493629	4.00	4.06	
60 Dibromomethane	93	12.573	12.569	0.004	95	457388	4.00	3.95	
61 Dichlorobromomethane	83	12.707	12.704	0.003	99	823450	4.00	4.06	
62 1,4-Dioxane	88	12.723	12.735	-0.012	84	123538	4.00	4.57	
63 Methyl methacrylate	41	12.772	12.776	-0.004	94	430723	4.00	4.57	
64 Methylcyclohexane	83	13.224	13.222	0.002	96	668329	4.00	3.86	
65 4-Methyl-2-pentanone (MIBK)	43	13.606	13.618	-0.012	97	659992	4.00	4.64	
66 cis-1,3-Dichloropropene	75	13.659	13.659	0.000	93	670433	4.00	4.20	
67 trans-1,3-Dichloropropene	75	14.332	14.329	0.003	98	591191	4.00	4.18	
68 Toluene	91	14.461	14.458	0.003	94	1239377	4.00	4.02	
69 1,1,2-Trichloroethane	83	14.536	14.532	0.004	98	385134	4.00	4.09	
72 2-Hexanone	58	14.897	14.908	-0.011	94	325452	4.00	4.48	
73 n-Octane	85	15.101	15.100	0.001	93	411769	4.00	3.85	
74 Chlorodibromomethane	129	15.230	15.227	0.003	98	877444	4.00	4.23	
75 Ethylene Dibromide	107	15.515	15.514	0.001	98	728486	4.00	4.17	
76 Tetrachloroethene	129	15.575	15.575	0.000	96	477136	4.00	3.91	
77 2,3-Dimethylheptane	43	16.424	16.423	0.001	96	1209837	4.00	3.85	
78 Chlorobenzene	112	16.441	16.437	0.004	94	1012976	4.00	4.08	
79 Ethylbenzene	91	16.715	16.711	0.004	98	1566611	4.00	4.10	
81 m-Xylene & p-Xylene	91	16.871	16.869	0.002	99	2392826	8.00	8.37	
82 n-Nonane	57	17.253	17.252	0.001	91	832138	4.00	3.99	
83 Styrene	104	17.334	17.331	0.003	98	973459	4.00	4.40	
84 Bromoform	173	17.334	17.333	0.001	96	934107	4.00	4.20	
85 o-Xylene	91	17.393	17.391	0.002	99	1252990	4.00	4.13	
86 1,1,2,2-Tetrachloroethane	83	17.710	17.708	0.002	99	920868	4.00	4.20	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 1,2,3-Trichloropropane	110	17.866	17.864	0.002	99	246555	4.00	4.29	
88 Isopropylbenzene	105	17.958	17.956	0.002	96	1687204	4.00	4.09	
89 N-Propylbenzene	120	18.463	18.462	0.001	99	482571	4.00	4.25	
90 2-Chlorotoluene	126	18.517	18.516	0.001	97	454373	4.00	4.13	
91 4-Ethyltoluene	105	18.603	18.602	0.001	98	1700936	4.00	4.27	
92 1,3,5-Trimethylbenzene	120	18.673	18.672	0.001	93	712579	4.00	4.28	
93 Alpha Methyl Styrene	118	18.894	18.891	0.003	88	752971	4.00	4.34	
94 n-Decane	57	18.926	18.923	0.003	91	993210	4.00	4.03	
95 tert-Butylbenzene	119	19.082	19.079	0.003	93	1493882	4.00	4.22	
96 1,2,4-Trimethylbenzene	105	19.093	19.091	0.002	96	1415936	4.00	4.24	
97 sec-Butylbenzene	105	19.340	19.337	0.003	98	2048964	4.00	4.20	
98 1,3-Dichlorobenzene	146	19.367	19.363	0.004	97	1035883	4.00	4.14	
99 Benzyl chloride	91	19.432	19.431	0.001	98	1212674	4.00	4.49	
100 1,4-Dichlorobenzene	146	19.448	19.445	0.003	94	1035664	4.00	4.16	
101 4-Isopropyltoluene	119	19.491	19.489	0.002	97	1693897	4.00	4.25	
102 1,2,3-Trimethylbenzene	105	19.550	19.549	0.001	98	1385849	4.00	4.24	
103 Butylcyclohexane	83	19.593	19.591	0.002	95	1214365	4.00	4.02	
104 2,3-Dihydroindene	117	19.792	19.792	0.000	95	1307644	4.00	4.19	
105 1,2-Dichlorobenzene	146	19.797	19.795	0.002	96	975697	4.00	4.12	
106 n-Butylbenzene	91	19.910	19.907	0.003	98	1638649	4.00	4.22	
107 Indene	116	19.921	19.918	0.003	91	1132821	4.00	4.32	
108 Undecane	57	20.185	20.186	-0.001	96	1036819	4.00	4.05	
110 1,2-Dibromo-3-Chloropropan	157	20.384	20.381	0.003	98	514013	4.00	4.45	
111 1,2,4,5-Tetramethylbenzene	119	20.658	20.658	0.000	97	1523328	4.00	4.50	
114 Dodecane	57	21.266	21.268	-0.002	96	629519	4.00	3.83	
115 1,2,4-Trichlorobenzene	180	21.508	21.509	-0.001	93	789833	4.00	4.40	
116 Naphthalene	128	21.643	21.642	0.001	99	1217927	4.00	4.30	
118 Hexachlorobutadiene	225	21.799	21.798	0.001	95	736883	4.00	3.99	
119 1,2,3-Trichlorobenzene	180	21.858	21.858	0.000	95	458814	4.00	4.02	
120 2-Methylnaphthalene	142	22.385	22.385	0.000	100	234598	12.5	10.4	
121 1-Methylnaphthalene	142	22.509	22.509	0.000	100	206757	12.5	9.29	
A 123 C8 Range	1	15.119	(15.063-15.176)		0	3707341	4.00	4.14	
S 124 Xylenes, Total	100				0		12.0	12.5	
S 125 1,2-Dichloroethene, Total	1				0		8.00	8.08	

Reagents:

40L8DQP_00001

Amount Added: 200.00

Units: mL

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 19-Feb-2018 10:04:35

Chrom Revision: 2.2 08-Feb-2018 13:38:42

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL08.D

Injection Date: 15-Feb-2018 20:53:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: IC L8

Worklist Smp#: 10

Client ID:

Purge Vol: 500.000 mL

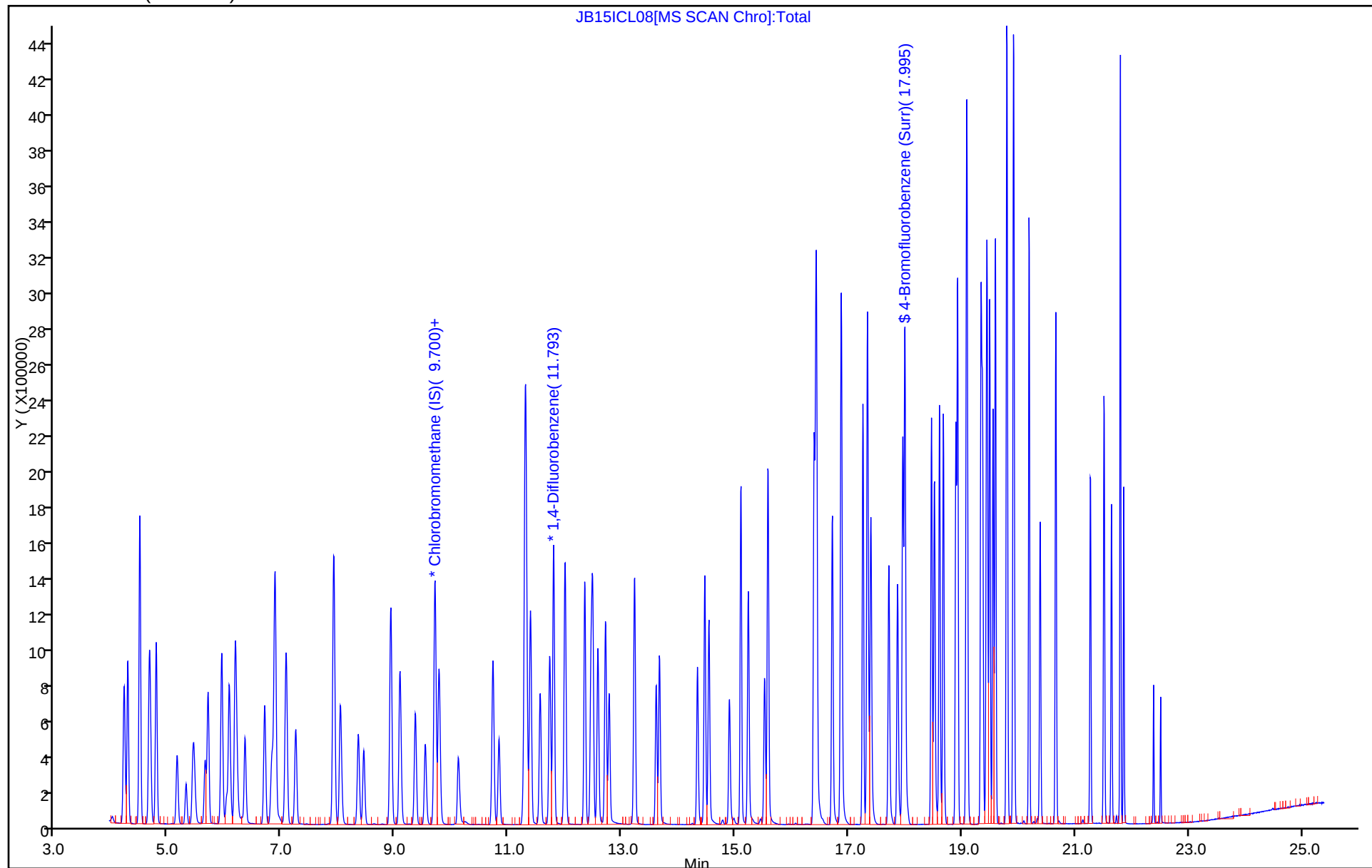
Dil. Factor: 1.0000

ALS Bottle#: 13

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL08.D

Injection Date: 15-Feb-2018 20:53:30

Instrument ID: MJ

Lims ID: IC L8

Client ID:

Operator ID: 403648

ALS Bottle#:

13

Worklist Smp#:

10

Purge Vol: 500.000 mL

Dil. Factor:

1.0000

Method: MJ_TO15

Limit Group:

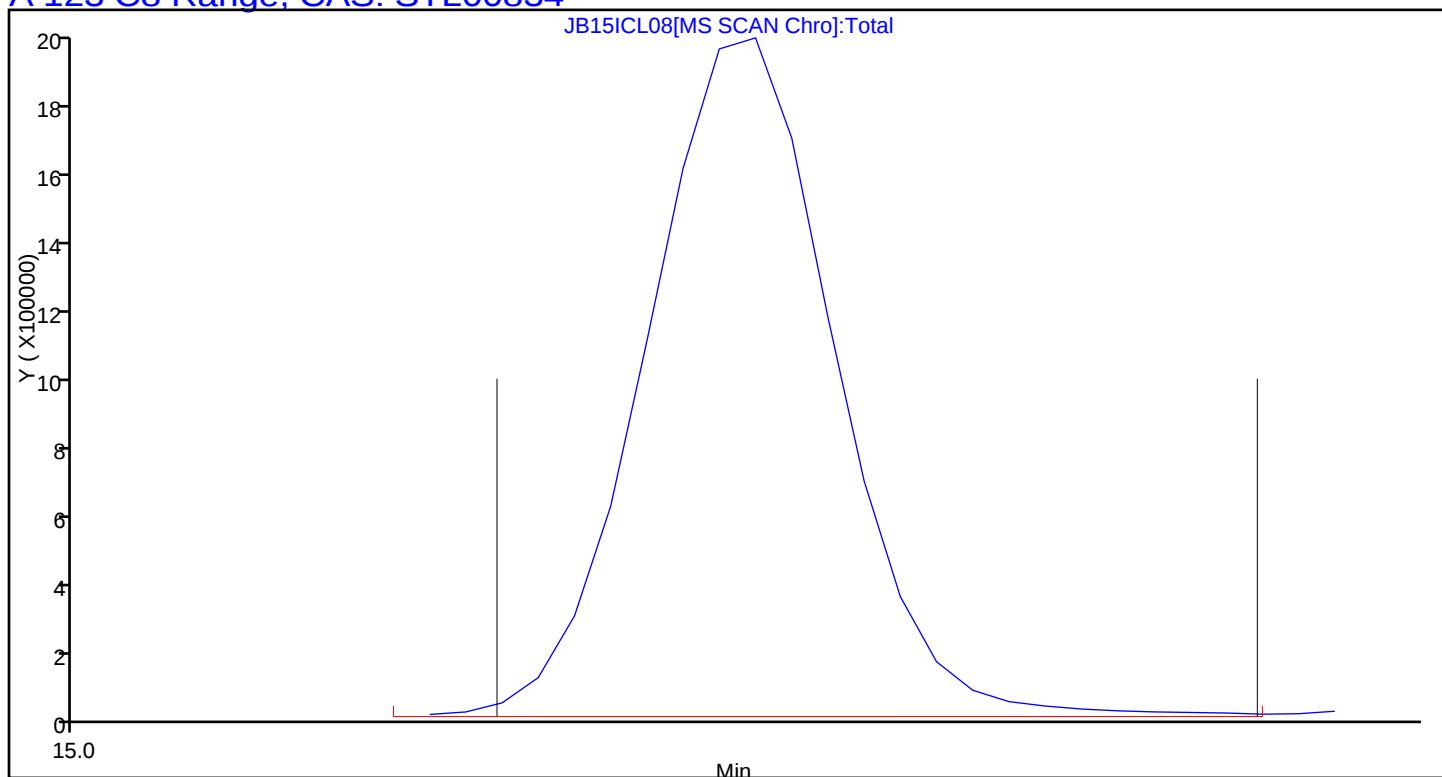
MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector

MS SCAN

A 123 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL09.D
 Lims ID: IC L9
 Client ID:
 Sample Type: IC Calib Level: 9
 Inject. Date: 15-Feb-2018 21:39:30 ALS Bottle#: 14 Worklist Smp#: 11
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007391-011
 Misc. Info.: 140773
 Operator ID: 403648 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub14
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 19-Feb-2018 10:04:51 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK031

First Level Reviewer: barlozhetskayaa

Date: 16-Feb-2018 09:36:13

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	9.690	9.689	0.001	93	295689	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.794	11.790	0.004	95	1657510	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.393	16.389	0.004	87	1547348	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.996	17.992	0.004	96	1117665	4.00	4.00	
6 Chlorodifluoromethane	67	4.187	4.203	-0.016	96	214696	8.00	6.80	
7 Propene	41	4.198	4.216	-0.018	99	647152	8.00	7.52	
8 Dichlorodifluoromethane	85	4.257	4.274	-0.017	100	2062839	8.00	7.78	
9 Chloromethane	52	4.467	4.482	-0.015	98	228533	8.00	7.36	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.478	4.489	-0.011	92	1377554	8.00	7.92	
11 Acetaldehyde	44	4.650	4.662	-0.012	99	1220010	40.0	35.4	
12 Vinyl chloride	62	4.666	4.679	-0.013	99	777336	8.00	8.05	
13 Butadiene	54	4.763	4.777	-0.014	69	586005	8.00	7.50	
14 Butane	43	4.763	4.777	-0.014	85	1100932	8.00	7.43	
15 Bromomethane	94	5.134	5.146	-0.012	98	759169	8.00	7.89	
16 Chloroethane	64	5.295	5.304	-0.009	99	387996	8.00	7.74	
17 Ethanol	31	5.430	5.435	-0.005	96	1279493	40.0	35.7	
18 Vinyl bromide	106	5.634	5.641	-0.007	98	722769	8.00	7.90	
19 2-Methylbutane	43	5.683	5.693	-0.010	91	825846	8.00	7.56	
20 Trichlorofluoromethane	101	5.925	5.933	-0.008	100	2068202	8.00	8.06	
21 Acrolein	56	5.941	5.950	-0.009	94	182696	8.00	7.13	
23 Acetonitrile	40	6.016	6.040	-0.024	98	227816	8.00	7.02	
22 Acetone	58	6.059	6.081	-0.022	98	685323	24.0	20.4	
24 Pentane	72	6.161	6.171	-0.010	98	117550	8.00	7.51	
25 Isopropyl alcohol	45	6.188	6.201	-0.013	95	1918054	24.0	19.9	
26 Ethyl ether	31	6.339	6.362	-0.023	96	553177	8.00	6.64	
27 1,1-Dichloroethene	96	6.683	6.692	-0.009	97	754423	8.00	7.71	
28 Acrylonitrile	53	6.807	6.809	-0.002	94	436353	8.00	7.46	
30 2-Methyl-2-propanol	59	6.823	6.865	-0.042	94	919383	8.00	8.41	
29 1,1,2-Trichloro-1,2,2-trif	101	6.866	6.875	-0.009	97	1586774	8.00	7.82	
32 Methylene Chloride	84	7.060	7.061	-0.001	97	680277	8.00	6.42	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 3-Chloro-1-propene	39	7.071	7.077	-0.007	96	656238	8.00	7.80	
33 Carbon disulfide	76	7.232	7.239	-0.007	99	2180282	8.00	7.68	
34 trans-1,2-Dichloroethene	96	7.904	7.903	0.001	97	754307	8.00	7.70	
35 2-Methylpentane	43	7.910	7.917	-0.007	94	1652759	8.00	7.33	
36 Methyl tert-butyl ether	73	8.023	8.053	-0.030	96	1590174	8.00	7.31	
37 1,1-Dichloroethane	63	8.340	8.343	-0.003	100	1397954	8.00	7.60	
38 Vinyl acetate	43	8.437	8.442	-0.005	100	1582936	8.00	7.55	
40 2-Butanone (MEK)	72	8.905	8.919	-0.014	96	265192	8.00	7.02	
39 Hexane	56	8.916	8.922	-0.006	83	591318	8.00	7.43	
41 Isopropyl ether	45	9.077	9.091	-0.014	97	1860936	8.00	7.15	
42 cis-1,2-Dichloroethene	96	9.351	9.347	0.004	95	771979	8.00	7.73	
43 Ethyl acetate	43	9.524	9.529	-0.005	99	1177995	8.00	7.05	
44 Chloroform	83	9.701	9.697	0.004	96	1591098	8.00	7.51	
45 Tert-butyl ethyl ether	59	9.766	9.782	-0.016	95	1767069	8.00	7.29	
46 Tetrahydrofuran	42	10.105	10.126	-0.021	94	641564	8.00	7.16	
47 1,1,1-Trichloroethane	97	10.718	10.721	-0.003	96	1669563	8.00	7.57	
48 1,2-Dichloroethane	62	10.825	10.825	0.000	98	1050690	8.00	7.81	
49 Cyclohexane	69	11.288	11.287	0.001	95	357423	8.00	7.36	
50 Benzene	78	11.293	11.291	0.002	97	2097890	8.00	7.13	
53 n-Butanol	31	11.245	11.293	-0.048	81	202000	8.00	7.05	
52 Carbon tetrachloride	117	11.310	11.310	0.000	97	1762311	8.00	7.93	
55 2,3-Dimethylpentane	71	11.385	11.384	0.001	92	508864	8.00	7.37	
51 Thiophene	84	11.557	11.554	0.003	95	1270708	8.00	7.61	
54 Tert-amyl methyl ether	73	11.724	11.726	-0.002	98	1659453	8.00	7.20	
56 Isooctane	57	11.993	11.995	-0.002	99	3486427	8.00	7.39	
57 n-Heptane	71	12.342	12.342	0.000	91	777358	8.00	7.51	
58 1,2-Dichloropropane	63	12.455	12.451	0.004	91	847107	8.00	7.66	
59 Trichloroethene	130	12.482	12.480	0.002	96	1003544	8.00	7.74	
60 Dibromomethane	93	12.574	12.569	0.005	94	926694	8.00	7.50	
61 Dichlorobromomethane	83	12.708	12.704	0.004	99	1676336	8.00	7.75	
62 1,4-Dioxane	88	12.719	12.735	-0.016	84	219872	8.00	7.62	
63 Methyl methacrylate	41	12.773	12.776	-0.003	94	735125	8.00	7.30	
64 Methylcyclohexane	83	13.225	13.222	0.003	97	1368540	8.00	7.41	
65 4-Methyl-2-pentanone (MIBK)	43	13.601	13.618	-0.017	97	1085608	8.00	7.14	
66 cis-1,3-Dichloropropene	75	13.660	13.659	0.001	93	1355923	8.00	7.95	
67 trans-1,3-Dichloropropene	75	14.333	14.329	0.004	97	1173124	8.00	7.83	
68 Toluene	91	14.462	14.458	0.004	94	2422147	8.00	7.42	
69 1,1,2-Trichloroethane	83	14.537	14.532	0.005	98	753906	8.00	7.56	
72 2-Hexanone	58	14.892	14.908	-0.016	94	574790	8.00	7.47	
73 n-Octane	85	15.102	15.100	0.002	92	828864	8.00	7.31	
74 Chlorodibromomethane	129	15.231	15.227	0.004	97	1787283	8.00	8.12	
75 Ethylene Dibromide	107	15.516	15.514	0.002	98	1453979	8.00	7.86	
76 Tetrachloroethene	129	15.575	15.575	0.000	96	957712	8.00	7.40	
77 2,3-Dimethylheptane	43	16.425	16.423	0.002	95	2270585	8.00	6.82	
78 Chlorobenzene	112	16.442	16.437	0.005	94	1997116	8.00	7.59	
79 Ethylbenzene	91	16.716	16.711	0.005	98	2951613	8.00	7.29	
81 m-Xylene & p-Xylene	91	16.872	16.869	0.003	99	4391902	16.0	14.5	
82 n-Nonane	57	17.254	17.252	0.002	90	1567651	8.00	7.10	
83 Styrene	104	17.335	17.331	0.004	98	1795211	8.00	7.65	
84 Bromoform	173	17.335	17.333	0.002	97	1951424	8.00	8.27	
85 o-Xylene	91	17.394	17.391	0.003	99	2323383	8.00	7.23	
86 1,1,2,2-Tetrachloroethane	83	17.711	17.708	0.003	99	1634322	8.00	7.03	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 1,2,3-Trichloropropane	110	17.867	17.864	0.003	99	441919	8.00	7.26	
88 Isopropylbenzene	105	17.959	17.956	0.003	96	3047982	8.00	6.97	
89 N-Propylbenzene	120	18.464	18.462	0.002	99	873966	8.00	7.26	
90 2-Chlorotoluene	126	18.518	18.516	0.002	97	856661	8.00	7.34	
91 4-Ethyltoluene	105	18.604	18.602	0.002	98	2987293	8.00	7.07	
92 1,3,5-Trimethylbenzene	120	18.674	18.672	0.002	93	1262527	8.00	7.15	
93 Alpha Methyl Styrene	118	18.895	18.891	0.004	88	1370381	8.00	7.44	
94 n-Decane	57	18.927	18.923	0.004	91	1756545	8.00	6.72	
95 tert-Butylbenzene	119	19.083	19.079	0.004	92	2592000	8.00	6.91	
96 1,2,4-Trimethylbenzene	105	19.094	19.091	0.003	95	2456158	8.00	6.93	
97 sec-Butylbenzene	105	19.341	19.337	0.004	98	3532437	8.00	6.83	
98 1,3-Dichlorobenzene	146	19.363	19.363	0.000	98	1934769	8.00	7.29	
99 Benzyl chloride	91	19.433	19.431	0.002	98	2192216	8.00	7.66	
100 1,4-Dichlorobenzene	146	19.449	19.445	0.004	94	1947184	8.00	7.37	
101 4-Isopropyltoluene	119	19.492	19.489	0.003	97	2903808	8.00	6.88	
102 1,2,3-Trimethylbenzene	105	19.551	19.549	0.002	98	2418553	8.00	6.97	
103 Butylcyclohexane	83	19.594	19.591	0.003	95	2202912	8.00	6.88	
104 2,3-Dihydroindene	117	19.793	19.792	0.001	94	2301054	8.00	6.95	
105 1,2-Dichlorobenzene	146	19.798	19.795	0.003	96	1777289	8.00	7.08	
106 n-Butylbenzene	91	19.911	19.907	0.004	98	2760230	8.00	6.70	
107 Indene	116	19.922	19.918	0.004	90	1991794	8.00	7.16	
108 Undecane	57	20.186	20.186	0.000	95	1863928	8.00	6.87	
110 1,2-Dibromo-3-Chloropropan	157	20.385	20.381	0.004	97	946492	8.00	7.72	
111 1,2,4,5-Tetramethylbenzene	119	20.659	20.658	0.001	97	2566257	8.00	7.16	
114 Dodecane	57	21.267	21.268	-0.001	97	1292753	8.00	8.26	
115 1,2,4-Trichlorobenzene	180	21.509	21.509	0.000	93	1465426	8.00	7.71	
116 Naphthalene	128	21.643	21.642	0.001	99	2135019	8.00	7.10	
118 Hexachlorobutadiene	225	21.799	21.798	0.001	95	1335307	8.00	6.81	
119 1,2,3-Trichlorobenzene	180	21.859	21.858	0.001	95	871367	8.00	7.21	
120 2-Methylnaphthalene	142	22.386	22.385	0.001	100	617406	25.0	25.9	
121 1-Methylnaphthalene	142	22.510	22.509	0.001	100	536661	25.0	22.7	
A 123 C8 Range	1	15.110	(15.053-15.209)		0	7331415	8.00	7.72	
S 124 Xylenes, Total	100				0		24.0	21.7	
S 125 1,2-Dichloroethene, Total	1				0		16.0	15.4	

Reagents:

40L9DQP_00001

Amount Added: 200.00

Units: mL

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 19-Feb-2018 10:04:54

Chrom Revision: 2.2 08-Feb-2018 13:38:42

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL09.D

Injection Date: 15-Feb-2018 21:39:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: IC L9

Worklist Smp#: 11

Client ID:

Purge Vol: 500.000 mL

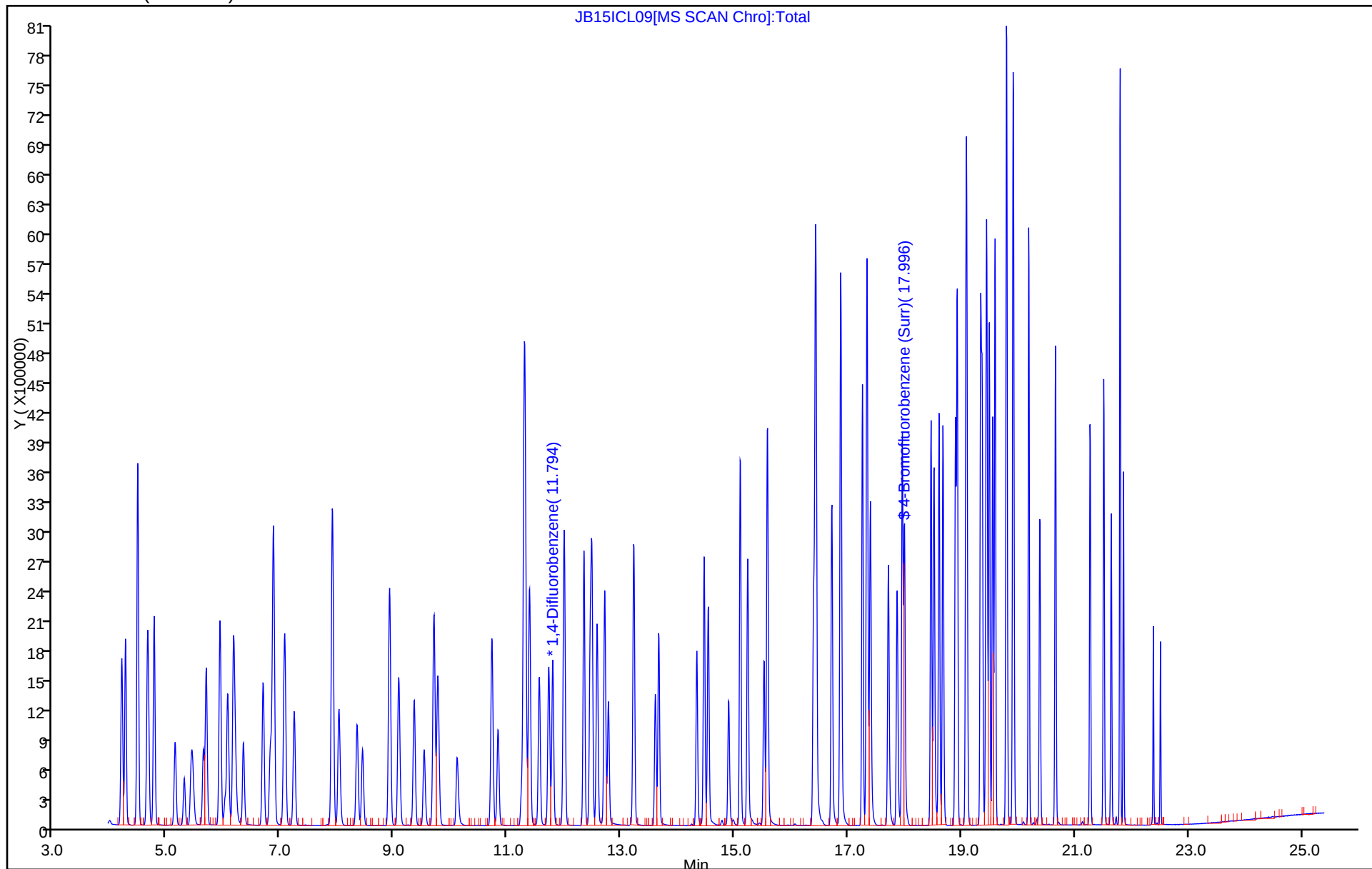
Dil. Factor: 1.0000

ALS Bottle#: 14

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL09.D

Injection Date: 15-Feb-2018 21:39:30

Instrument ID: MJ

Lims ID: IC L9

Client ID:

Operator ID: 403648

ALS Bottle#: 14

Worklist Smp#: 11

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

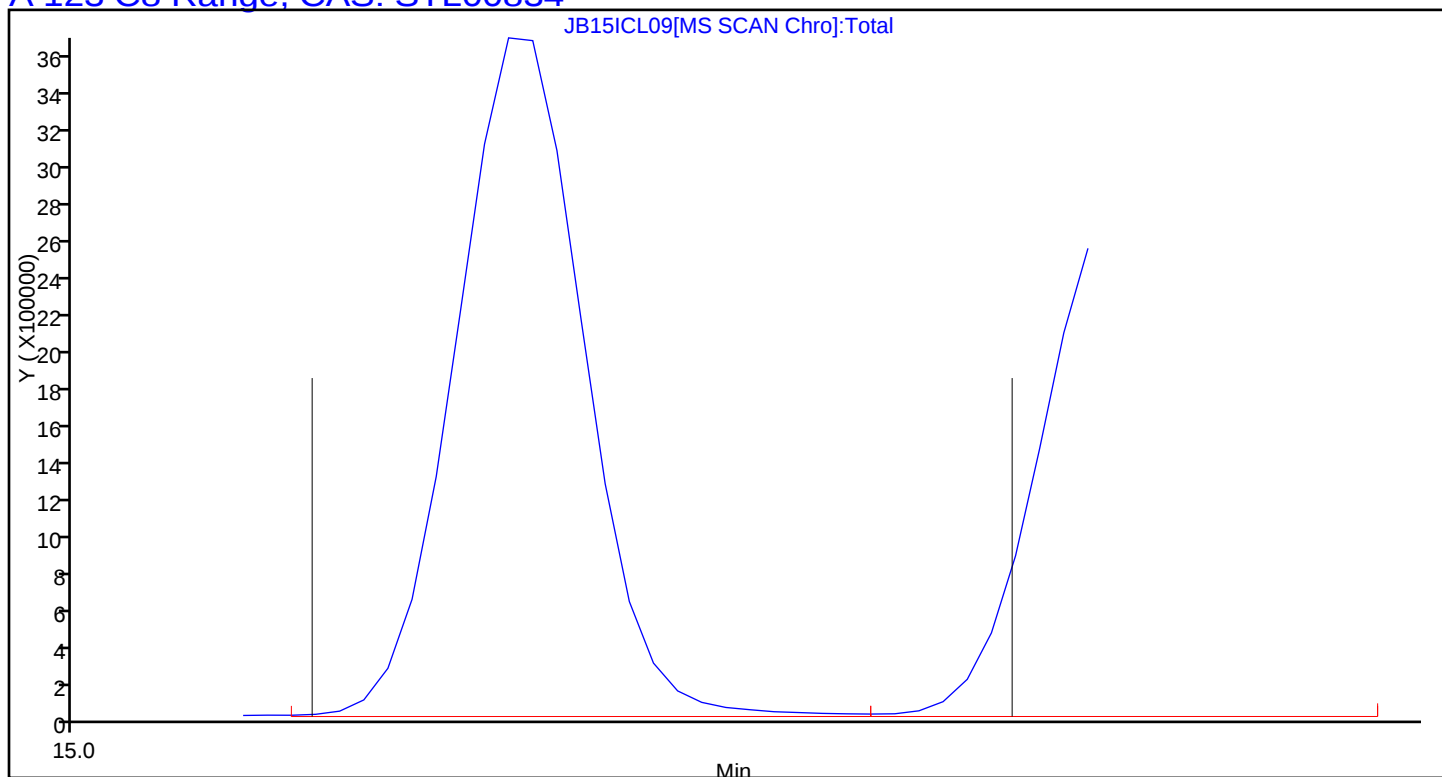
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

A 123 C8 Range, CAS: STL00834



TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Lims ID: IC L10
 Client ID:
 Sample Type: IC Calib Level: 10
 Inject. Date: 15-Feb-2018 22:24:30 ALS Bottle#: 15 Worklist Smp#: 12
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007391-012
 Misc. Info.: 140768
 Operator ID: 403648 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub14
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 19-Feb-2018 10:05:10 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK031

First Level Reviewer: barlozhetskayaa

Date: 16-Feb-2018 09:36:32

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	9.710	9.689	0.021	93	291505	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.808	11.790	0.018	95	1648330	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.402	16.389	0.013	88	1543316	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	18.005	17.992	0.013	96	1068475	4.00	3.83	
6 Chlorodifluoromethane	67	4.201	4.203	-0.002	96	440085	16.0	14.1	
7 Propene	41	4.217	4.216	0.001	99	1263500	16.0	14.9	
8 Dichlorodifluoromethane	85	4.271	4.274	-0.003	100	4108290	16.0	15.7	
9 Chloromethane	52	4.481	4.482	-0.001	98	439355	16.0	14.4	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.486	4.489	-0.003	91	2692563	16.0	15.7	
11 Acetaldehyde	44	4.664	4.662	0.002	99	2375156	80.0	69.9	
12 Vinyl chloride	62	4.680	4.679	0.001	99	1533687	16.0	16.1	
13 Butadiene	54	4.777	4.777	0.000	68	1140773	16.0	14.8	
14 Butane	43	4.777	4.777	0.000	85	2153025	16.0	14.7	
15 Bromomethane	94	5.148	5.146	0.002	99	1529331	16.0	16.1	
16 Chloroethane	64	5.309	5.304	0.005	99	787780	16.0	15.9	
17 Ethanol	31	5.471	5.435	0.036	96	2178805	80.0	61.7	
18 Vinyl bromide	106	5.648	5.641	0.007	98	1469727	16.0	16.3	
19 2-Methylbutane	43	5.697	5.693	0.004	91	1650561	16.0	15.3	
20 Trichlorofluoromethane	101	5.939	5.933	0.006	100	4119857	16.0	16.3	
21 Acrolein	56	5.955	5.950	0.005	95	406528	16.0	16.1	
23 Acetonitrile	40	6.035	6.040	-0.005	99	482336	16.0	15.1	
22 Acetone	58	6.079	6.081	-0.003	97	1390929	48.0	41.9	
24 Pentane	72	6.175	6.171	0.004	99	244732	16.0	15.9	
25 Isopropyl alcohol	45	6.251	6.201	0.050	98	3482589	48.0	36.6	
26 Ethyl ether	31	6.347	6.362	-0.015	96	1171220	16.0	14.3	
27 1,1-Dichloroethene	96	6.697	6.692	0.005	97	1535615	16.0	15.9	
28 Acrylonitrile	53	6.826	6.809	0.017	94	902964	16.0	15.7	
30 2-Methyl-2-propanol	59	6.885	6.865	0.020	93	1632262	16.0	15.2	
29 1,1,2-Trichloro-1,2,2-trif	101	6.880	6.875	0.005	96	3139209	16.0	15.7	
32 Methylene Chloride	84	7.074	7.061	0.013	97	1349970	16.0	12.9	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 3-Chloro-1-propene	39	7.090	7.077	0.013	97	1319889	16.0	16.0	
33 Carbon disulfide	76	7.246	7.239	0.007	99	4378353	16.0	15.6	
34 trans-1,2-Dichloroethene	96	7.913	7.903	0.010	97	1495456	16.0	15.5	
35 2-Methylpentane	43	7.924	7.917	0.007	93	3175157	16.0	14.3	
36 Methyl tert-butyl ether	73	8.037	8.053	-0.016	96	3259814	16.0	15.2	
37 1,1-Dichloroethane	63	8.359	8.343	0.016	100	2804661	16.0	15.5	
38 Vinyl acetate	43	8.456	8.442	0.014	100	3288528	16.0	15.9	
40 2-Butanone (MEK)	72	8.930	8.919	0.011	97	501778	16.0	13.5	
39 Hexane	56	8.930	8.922	0.008	87	1164610	16.0	14.8	
41 Isopropyl ether	45	9.096	9.091	0.005	96	3697020	16.0	14.4	
42 cis-1,2-Dichloroethene	96	9.365	9.347	0.018	95	1553316	16.0	15.8	
43 Ethyl acetate	43	9.554	9.529	0.025	99	2276697	16.0	13.8	
44 Chloroform	83	9.720	9.697	0.023	97	3188140	16.0	15.3	
45 Tert-butyl ethyl ether	59	9.785	9.782	0.003	95	3540153	16.0	14.8	
46 Tetrahydrofuran	42	10.124	10.126	-0.002	93	1211876	16.0	13.7	
47 1,1,1-Trichloroethane	97	10.732	10.721	0.011	96	3337256	16.0	15.4	
48 1,2-Dichloroethane	62	10.845	10.825	0.020	98	2135949	16.0	16.0	
49 Cyclohexane	69	11.297	11.287	0.010	95	685290	16.0	14.2	
50 Benzene	78	11.307	11.291	0.016	97	4024394	16.0	13.8	
53 n-Butanol	31	11.280	11.293	-0.013	66	362827	16.0	12.7	
52 Carbon tetrachloride	117	11.323	11.310	0.013	99	3537791	16.0	16.0	
55 2,3-Dimethylpentane	71	11.393	11.384	0.009	91	1017496	16.0	14.8	
51 Thiophene	84	11.571	11.554	0.017	96	2563344	16.0	15.4	
54 Tert-amyl methyl ether	73	11.738	11.726	0.012	98	3235728	16.0	14.1	
56 Isooctane	57	12.007	11.995	0.012	98	6676767	16.0	14.2	
57 n-Heptane	71	12.356	12.342	0.014	90	1540847	16.0	15.0	
58 1,2-Dichloropropane	63	12.469	12.451	0.018	90	1682910	16.0	15.3	
59 Trichloroethene	130	12.496	12.480	0.016	96	1968061	16.0	15.3	
60 Dibromomethane	93	12.588	12.569	0.019	94	1863214	16.0	15.2	
61 Dichlorobromomethane	83	12.722	12.704	0.018	99	3382471	16.0	15.7	
62 1,4-Dioxane	88	12.744	12.735	0.009	83	344425	16.0	12.0	
63 Methyl methacrylate	41	12.792	12.776	0.016	94	1438539	16.0	14.4	
64 Methylcyclohexane	83	13.233	13.222	0.011	96	2709025	16.0	14.8	
65 4-Methyl-2-pentanone (MIBK)	43	13.621	13.618	0.003	97	2127971	16.0	14.1	
66 cis-1,3-Dichloropropene	75	13.674	13.659	0.015	93	2720193	16.0	16.0	
67 trans-1,3-Dichloropropene	75	14.347	14.329	0.018	98	2433426	16.0	16.3	
68 Toluene	91	14.476	14.458	0.018	94	4918045	16.0	15.1	
69 1,1,2-Trichloroethane	83	14.546	14.532	0.014	98	1513985	16.0	15.2	
72 2-Hexanone	58	14.912	14.908	0.004	94	1137183	16.0	14.8	
73 n-Octane	85	15.111	15.100	0.011	90	1606217	16.0	14.2	
74 Chlorodibromomethane	129	15.245	15.227	0.018	97	3568712	16.0	16.3	
75 Ethylene Dibromide	107	15.530	15.514	0.016	98	2951686	16.0	16.0	
76 Tetrachloroethene	129	15.584	15.575	0.009	96	1889134	16.0	14.6	
77 2,3-Dimethylheptane	43	16.429	16.423	0.006	93	4040042	16.0	12.2	
78 Chlorobenzene	112	16.450	16.437	0.013	93	3891277	16.0	14.8	
79 Ethylbenzene	91	16.724	16.711	0.013	98	5915991	16.0	14.7	
81 m-Xylene & p-Xylene	91	16.880	16.869	0.011	98	8546976	32.0	28.3	
82 n-Nonane	57	17.262	17.252	0.010	88	3005085	16.0	13.6	
83 Styrene	104	17.343	17.331	0.012	98	3536130	16.0	15.1	
84 Bromoform	173	17.348	17.333	0.015	97	3797430	16.0	16.1	
85 o-Xylene	91	17.402	17.391	0.011	99	4691784	16.0	14.6	
86 1,1,2,2-Tetrachloroethane	83	17.720	17.708	0.012	100	3277617	16.0	14.1	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
87 1,2,3-Trichloropropane	110	17.876	17.864	0.012	98	906990	16.0	14.9	
88 Isopropylbenzene	105	17.967	17.956	0.011	97	6046514	16.0	13.9	
89 N-Propylbenzene	120	18.473	18.462	0.011	99	1773765	16.0	14.8	
90 2-Chlorotoluene	126	18.527	18.516	0.011	97	1710230	16.0	14.7	
91 4-Ethyltoluene	105	18.613	18.602	0.011	97	5957624	16.0	14.1	
92 1,3,5-Trimethylbenzene	120	18.683	18.672	0.011	93	2530049	16.0	14.4	
93 Alpha Methyl Styrene	118	18.903	18.891	0.012	88	2737983	16.0	14.9	
94 n-Decane	57	18.930	18.923	0.007	93	3214750	16.0	12.3	
95 tert-Butylbenzene	119	19.086	19.079	0.007	92	4982279	16.0	13.3	
96 1,2,4-Trimethylbenzene	105	19.102	19.091	0.011	95	4740203	16.0	13.4	
97 sec-Butylbenzene	105	19.344	19.337	0.007	97	6638117	16.0	12.9	
98 1,3-Dichlorobenzene	146	19.371	19.363	0.008	98	3759992	16.0	14.2	
99 Benzyl chloride	91	19.441	19.431	0.010	98	4160862	16.0	14.6	
100 1,4-Dichlorobenzene	146	19.457	19.445	0.012	92	3756592	16.0	14.3	
101 4-Isopropyltoluene	119	19.500	19.489	0.011	96	5376440	16.0	12.8	
102 1,2,3-Trimethylbenzene	105	19.559	19.549	0.010	97	4664935	16.0	13.5	
103 Butylcyclohexane	83	19.597	19.591	0.006	94	4125394	16.0	12.9	
104 2,3-Dihydroindene	117	19.802	19.792	0.010	95	4376817	16.0	13.3	
105 1,2-Dichlorobenzene	146	19.807	19.795	0.012	95	3354013	16.0	13.4	
106 n-Butylbenzene	91	19.915	19.907	0.007	99	5013238	16.0	12.2	
107 Indene	116	19.925	19.918	0.007	90	3775959	16.0	13.6	
108 Undecane	57	20.189	20.186	0.003	93	3254285	16.0	12.0	
110 1,2-Dibromo-3-Chloropropan	157	20.388	20.381	0.007	97	1781427	16.0	14.6	
111 1,2,4,5-Tetramethylbenzene	119	20.662	20.658	0.004	97	4688609	16.0	13.1	
114 Dodecane	57	21.270	21.268	0.002	96	2025925	16.0	15.9	
115 1,2,4-Trichlorobenzene	180	21.512	21.509	0.003	94	2668565	16.0	14.1	
116 Naphthalene	128	21.647	21.642	0.005	98	3783262	16.0	12.6	
118 Hexachlorobutadiene	225	21.803	21.798	0.005	94	2542924	16.0	13.0	
119 1,2,3-Trichlorobenzene	180	21.862	21.858	0.004	95	1500391	16.0	12.4	
120 2-Methylnaphthalene	142	22.384	22.385	-0.001	100	166663	50.0	7.02	
121 1-Methylnaphthalene	142	22.507	22.509	-0.002	99	88097	50.0	3.74	
A 123 C8 Range	1	15.121	(15.061-15.239)		0	14016806	16.0	14.8	
S 124 Xylenes, Total	100				0		48.0	42.9	
S 125 1,2-Dichloroethene, Total	1				0		32.0	31.3	

Reagents:

40L10DQP_00001

Amount Added: 200.00

Units: mL

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 19-Feb-2018 10:05:12

Chrom Revision: 2.2 08-Feb-2018 13:38:42

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D

Injection Date: 15-Feb-2018 22:24:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: IC L10

Worklist Smp#: 12

Client ID:

Purge Vol: 500.000 mL

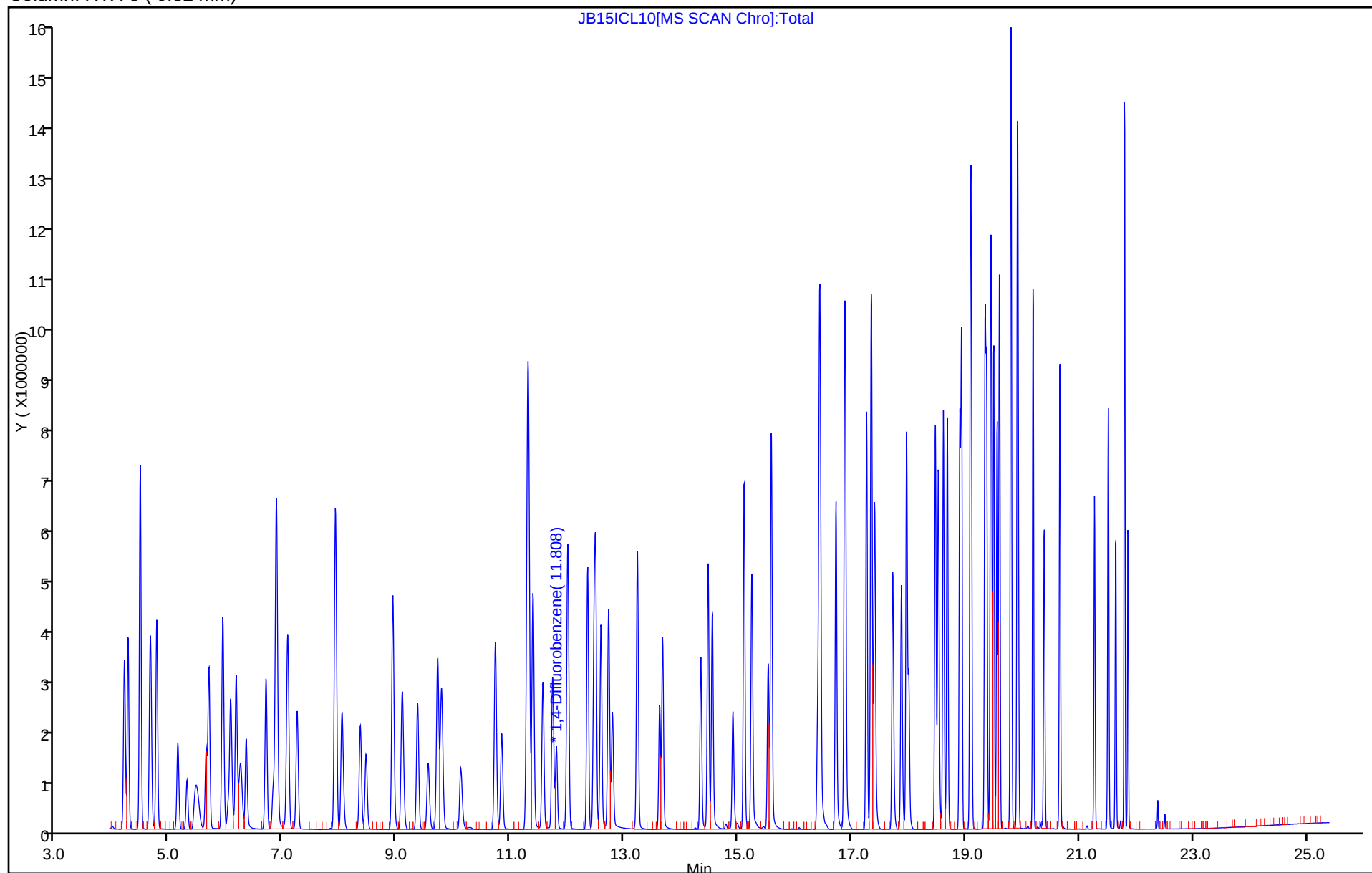
Dil. Factor: 1.0000

ALS Bottle#: 15

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D

Injection Date: 15-Feb-2018 22:24:30

Instrument ID: MJ

Lims ID: IC L10

Client ID:

Operator ID: 403648

ALS Bottle#:

15

Worklist Smp#:

12

Purge Vol: 500.000 mL

Dil. Factor:

1.0000

Method: MJ_TO15

Limit Group:

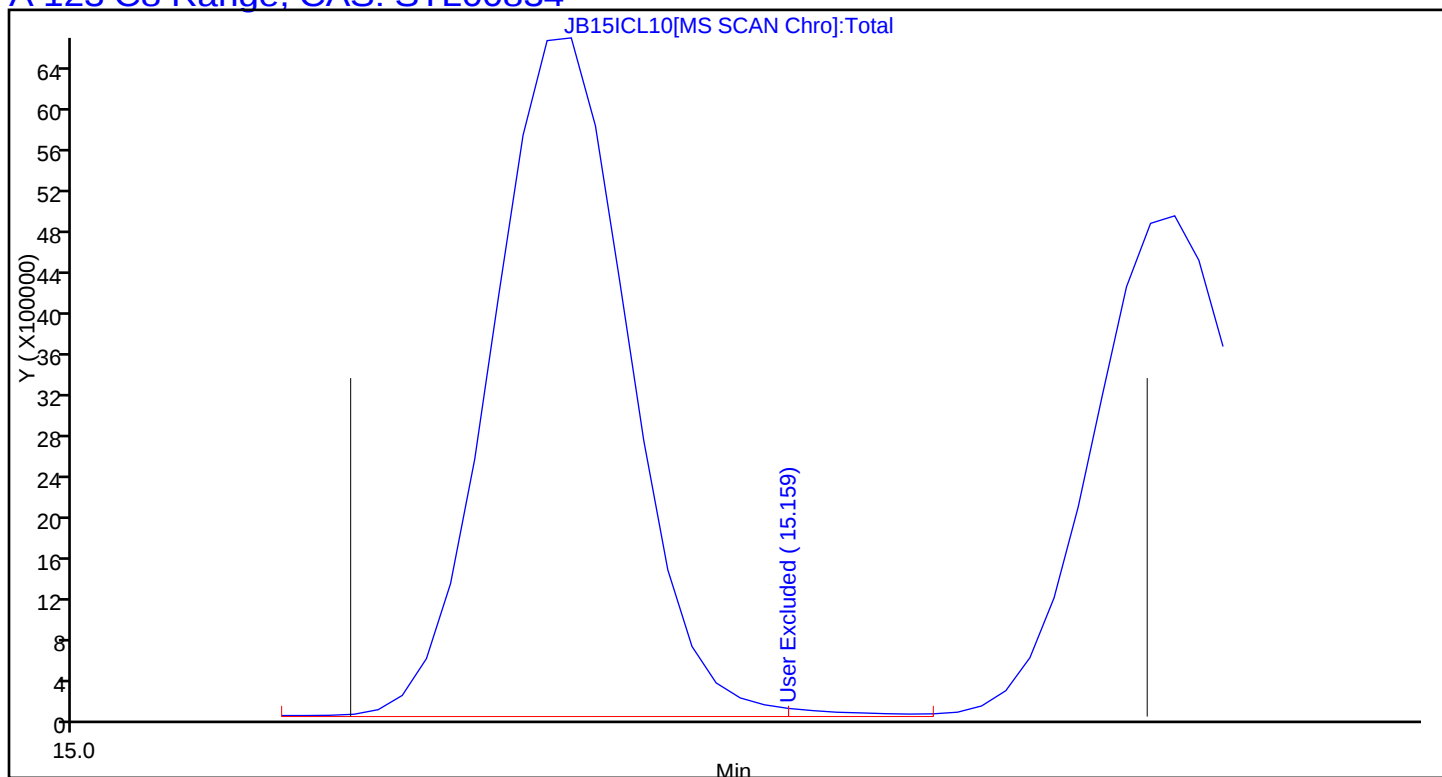
MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector

MS SCAN

A 123 C8 Range, CAS: STL00834



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Lab Sample ID: ICV 140-18185/15 Calibration Date: 02/16/2018 00:43
 Instrument ID: MJ Calib Start Date: 05/28/2017 18:27
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 05/29/2017 00:31
 Lab File ID: JLCSB16.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
2-Methylthiophene	Ave	0.6836	0.7003			2.00	2.5	35.0
3-Methylthiophene	Ave	0.6771	0.6848			2.00	1.1	35.0
2-Ethylthiophene	Ave	0.8046	0.7673			2.00	-4.6	35.0
1,2-Dimethyl-4-Ethylbenzene	Ave	0.7737	0.0050			2.00	-99.4*	35.0
1,2,3,5-Tetramethylbenzene	Ave	0.5914	0.4575			2.00	-22.6	35.0
1,2,3,4-Tetramethylbenzene	Ave	0.7242	0.5864			2.00	-19.0	35.0
Benzo (b) thiophene	Ave	0.3024	0.3654			2.00	20.8	35.0

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JLCSB16.D
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 16-Feb-2018 00:43:30
 Purge Vol: 500.000 mL
 Sample Info: 140-0007391-015
 Misc. Info.: 140830s56
 Operator ID: 403648
 Sublist:

ALS Bottle#: 2
 Dil. Factor: 1.0000
 Worklist Smp#: 15
 Instrument ID: MJ

Method: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 19-Feb-2018 10:35:48
 Integrator: RTE
 Quant Method: Internal Standard
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D

Calib Date: 15-Feb-2018 22:24:30
 ID Type: Deconvolution ID
 Quant By: Initial Calibration

Column 1 : RTX-5 (0.32 mm)
 Process Host: XAWRK031
 Det: MS SCAN

First Level Reviewer: barlozhetskayaa

Date: 19-Feb-2018 10:35:48

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	9.686	9.689	-0.003	95	287782	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.790	11.790	0.000	95	1626462	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.389	16.389	0.000	88	1472970	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.992	17.992	0.000	98	1054483	4.00	3.96	
6 Chlorodifluoromethane	67	4.199	4.202	-0.004	96	52856	2.00	1.72	
7 Propene	41	4.210	4.215	-0.006	98	150725	2.00	1.80	
8 Dichlorodifluoromethane	85	4.269	4.273	-0.005	100	486185	2.00	1.88	
9 Chloromethane	52	4.479	4.481	-0.003	98	56098	2.00	1.86	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.484	4.487	-0.005	93	334132	2.00	1.97	
11 Acetaldehyde	44	4.657	4.661	-0.005	99	280575	10.0	8.37	
12 Vinyl chloride	62	4.673	4.677	-0.006	99	196327	2.00	2.09	
13 Butadiene	54	4.775	4.775	-0.002	68	145441	2.00	1.91	
14 Butane	43	4.775	4.776	-0.002	86	271560	2.00	1.88	
15 Bromomethane	94	5.141	5.144	-0.005	99	179320	2.00	1.91	
16 Chloroethane	64	5.302	5.303	-0.002	99	99336	2.00	2.04	
17 Ethanol	31	5.420	5.433	-0.015	96	232501	10.0	6.67	
18 Vinyl bromide	106	5.636	5.639	-0.005	98	187478	2.00	2.11	
19 2-Methylbutane	43	5.689	5.692	-0.004	91	209621	2.00	1.97	
20 Trichlorofluoromethane	101	5.932	5.931	-0.001	99	497825	2.00	1.99	
21 Acrolein	56	5.942	5.948	-0.008	93	48581	2.00	1.95	
23 Acetonitrile	40	6.018	6.038	-0.022	99	53765	2.00	1.70	
22 Acetone	58	6.071	6.079	-0.010	97	59848	2.00	1.83	
24 Pentane	72	6.168	6.169	-0.003	98	31523	2.00	2.07	
25 Isopropyl alcohol	45	6.174	6.199	-0.027	92	156171	2.00	1.66	
26 Ethyl ether	31	6.346	6.361	-0.016	95	149269	2.00	1.84	
27 1,1-Dichloroethene	96	6.690	6.690	-0.002	97	187983	2.00	1.97	
28 Acrylonitrile	53	6.803	6.808	-0.006	95	105910	2.00	1.86	
30 2-Methyl-2-propanol	59	6.819	6.863	-0.046	91	155024	2.00	1.42	
29 1,1,2-Trichloro-1,2,2-trif	101	6.873	6.873	-0.002	98	405137	2.00	2.05	
32 Methylene Chloride	84	7.056	7.059	-0.005	96	180290	2.00	1.75	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 3-Chloro-1-propene	39	7.072	7.075	-0.005	96	161069	2.00	1.95	
33 Carbon disulfide	76	7.239	7.237	0.000	98	517232	2.00	1.87	
34 trans-1,2-Dichloroethene	96	7.900	7.900	-0.003	98	189391	2.00	1.99	
35 2-Methylpentane	43	7.917	7.915	0.000	94	397547	2.00	1.81	
36 Methyl tert-butyl ether	73	8.030	8.051	-0.023	96	388420	2.00	1.84	
37 1,1-Dichloroethane	63	8.342	8.340	-0.001	100	353986	2.00	1.98	
38 Vinyl acetate	43	8.438	8.439	-0.004	100	375167	2.00	1.84	
40 2-Butanone (MEK)	72	8.912	8.917	-0.007	96	63000	2.00	1.71	
39 Hexane	56	8.917	8.920	-0.005	83	147749	2.00	1.91	
41 Isopropyl ether	45	9.079	9.089	-0.013	97	466228	2.00	1.84	
42 cis-1,2-Dichloroethene	96	9.347	9.344	0.000	95	193567	2.00	1.99	
43 Ethyl acetate	43	9.525	9.527	-0.004	99	266871	2.00	1.64	
44 Chloroform	83	9.697	9.694	0.000	96	392560	2.00	1.90	
45 Tert-butyl ethyl ether	59	9.767	9.780	-0.015	95	408157	2.00	1.73	
46 Tetrahydrofuran	42	10.117	10.123	-0.009	93	143930	2.00	1.65	
47 1,1,1-Trichloroethane	97	10.719	10.718	-0.002	96	408866	2.00	1.91	
48 1,2-Dichloroethane	62	10.821	10.825	-0.004	98	258215	2.00	1.96	
49 Cyclohexane	69	11.284	11.287	-0.003	85	90920	2.00	1.91	
50 Benzene	78	11.289	11.291	-0.002	97	545632	2.00	1.89	
53 n-Butanol	31	11.284	11.293	-0.009	66	48337	2.00	1.72	
52 Carbon tetrachloride	117	11.306	11.310	-0.004	99	443891	2.00	2.04	
55 2,3-Dimethylpentane	71	11.381	11.384	-0.003	92	125572	2.00	1.85	
51 Thiophene	84	11.553	11.554	-0.001	95	311687	2.00	1.90	
54 Tert-amyl methyl ether	73	11.725	11.726	-0.001	98	393826	2.00	1.79	
56 Isooctane	57	11.994	11.995	-0.001	99	899009	2.00	1.94	
57 n-Heptane	71	12.338	12.342	-0.004	92	192306	2.00	1.89	
58 1,2-Dichloropropane	63	12.446	12.451	-0.005	92	210473	2.00	1.94	
59 Trichloroethene	130	12.478	12.480	-0.002	96	256708	2.00	2.02	
60 Dibromomethane	93	12.570	12.569	0.001	95	232246	2.00	1.92	
61 Dichlorobromomethane	83	12.704	12.704	0.000	99	409065	2.00	1.93	
62 1,4-Dioxane	88	12.737	12.735	0.002	89	46513	2.00	1.64	
63 Methyl methacrylate	41	12.774	12.776	-0.002	96	170709	2.00	1.73	
64 Methylcyclohexane	83	13.221	13.222	-0.001	97	418370	2.00	2.31	
65 4-Methyl-2-pentanone (MIBK)	43	13.603	13.618	-0.015	96	234460	2.00	1.57	
66 cis-1,3-Dichloropropene	75	13.656	13.659	-0.003	93	333420	2.00	1.99	
67 trans-1,3-Dichloropropene	75	14.329	14.329	0.000	97	283336	2.00	1.99	
68 Toluene	91	14.458	14.458	0.000	94	593295	2.00	1.91	
69 1,1,2-Trichloroethane	83	14.528	14.528	-0.004	98	182039	2.00	1.92	
70 2-Methylthiophene	97	14.609	14.610	-0.001	97	515793	NC	NC	
71 3-Methylthiophene	97	14.808	14.804	0.004	99	504373	NC	NC	
72 2-Hexanone	58	14.899	14.908	-0.009	93	117208	2.00	1.60	
73 n-Octane	85	15.098	15.100	-0.002	93	208214	2.00	1.93	
74 Chlorodibromomethane	129	15.227	15.227	0.000	98	435311	2.00	2.08	
75 Ethylene Dibromide	107	15.512	15.514	-0.002	98	356668	2.00	2.03	
76 Tetrachloroethene	129	15.572	15.575	-0.003	96	243703	2.00	1.98	
77 2,3-Dimethylheptane	43	16.421	16.423	-0.002	96	559200	2.00	1.77	
78 Chlorobenzene	112	16.438	16.437	0.001	94	510314	2.00	2.04	
79 Ethylbenzene	91	16.712	16.711	0.001	98	721739	2.00	1.87	
80 2-Ethylthiophene	97	16.814	16.816	-0.002	98	565099	NC	NC	
81 m-Xylene & p-Xylene	91	16.868	16.869	-0.001	100	1100192	4.00	3.81	
82 n-Nonane	57	17.250	17.252	-0.002	92	409945	2.00	1.95	
83 Styrene	104	17.331	17.331	0.000	98	446593	2.00	2.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Bromoform	173	17.331	17.333	-0.002	95	458593	2.00	2.04	
85 o-Xylene	91	17.390	17.391	-0.001	99	562026	2.00	1.84	
86 1,1,2,2-Tetrachloroethane	83	17.707	17.708	-0.001	99	399521	2.00	1.81	
87 1,2,3-Trichloropropane	110	17.863	17.864	-0.001	99	106172	2.00	1.83	
88 Isopropylbenzene	105	17.955	17.956	-0.001	96	767830	2.00	1.84	
89 N-Propylbenzene	120	18.460	18.462	-0.002	99	214319	2.00	1.87	
90 2-Chlorotoluene	126	18.514	18.516	-0.002	97	218133	2.00	1.96	
91 4-Ethyltoluene	105	18.600	18.602	-0.002	99	703932	2.00	1.75	
92 1,3,5-Trimethylbenzene	120	18.670	18.672	-0.002	93	349942	2.00	2.08	
93 Alpha Methyl Styrene	118	18.891	18.891	0.000	89	327456	2.00	1.87	
94 n-Decane	57	18.923	18.923	0.000	90	473704	2.00	1.90	
95 tert-Butylbenzene	119	19.079	19.079	0.000	94	651582	2.00	1.82	
96 1,2,4-Trimethylbenzene	105	19.090	19.091	-0.001	96	617444	2.00	1.83	
97 sec-Butylbenzene	105	19.337	19.337	0.000	99	902739	2.00	1.83	
98 1,3-Dichlorobenzene	146	19.359	19.363	-0.004	97	487169	2.00	1.93	
99 Benzyl chloride	91	19.429	19.431	-0.002	98	498494	2.00	1.83	
100 1,4-Dichlorobenzene	146	19.445	19.445	0.000	94	486231	2.00	1.93	
101 4-Isopropyltoluene	119	19.488	19.489	-0.001	97	724728	2.00	1.80	
102 1,2,3-Trimethylbenzene	105	19.547	19.549	-0.002	97	444708	2.00	1.35	
103 Butylcyclohexane	83	19.590	19.591	-0.001	95	552102	2.00	1.81	
104 2,3-Dihydroindene	117	19.789	19.792	-0.003	95	568264	2.00	1.80	
105 1,2-Dichlorobenzene	146	19.794	19.795	-0.001	97	453295	2.00	1.90	
106 n-Butylbenzene	91	19.907	19.907	0.000	98	710810	2.00	1.81	
107 Indene	116	19.918	19.918	0.000	89	421630	2.00	1.59	
108 Undecane	57	20.187	20.186	0.001	96	464323	2.00	1.80	
109 1,2-Dimethyl-4-Ethylbenzen	119	20.332	20.334	-0.002	67	3679	NC	NC	
110 1,2-Dibromo-3-Chloropropan	157	20.381	20.381	0.000	97	179440	2.00	1.54	
111 1,2,4,5-Tetramethylbenzene	119	20.655	20.658	-0.003	97	563871	2.00	1.65	
112 1,2,3,5-Tetramethylbenzene	119	20.714	20.716	-0.002	96	336974	NC	NC	
113 1,2,3,4-Tetramethylbenzene	119	21.134	21.135	-0.001	98	431895	NC	NC	
114 Dodecane	57	21.268	21.268	0.000	96	354820	2.00	2.04	
115 1,2,4-Trichlorobenzene	180	21.510	21.509	0.001	93	364712	2.00	2.02	
116 Naphthalene	128	21.640	21.642	-0.002	99	539447	2.00	1.89	
117 Benzo(b)thiophene	134	21.726	21.727	-0.001	99	269084	NC	NC	
118 Hexachlorobutadiene	225	21.796	21.798	-0.002	95	334244	2.00	1.79	
119 1,2,3-Trichlorobenzene	180	21.855	21.858	-0.003	95	243492	2.00	2.12	
120 2-Methylnaphthalene	142	22.382	22.385	-0.003	100	285485	6.40	12.6	
121 1-Methylnaphthalene	142	22.511	22.509	0.002	100	317085	6.05	14.1	
A 123 C8 Range	1	15.150	(15.061-15.239)		0	3291613	2.00	3.64	
S 124 Xylenes, Total	100				0		6.00	5.65	
S 125 1,2-Dichloroethene, Total	1				0		4.00	3.98	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

40CV101S_00056

Amount Added: 100.00

Units: mL

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 19-Feb-2018 10:35:50

Chrom Revision: 2.2 08-Feb-2018 13:38:42

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JLCSB16.D

Injection Date: 16-Feb-2018 00:43:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: ICV

Worklist Smp#: 15

Client ID:

Purge Vol: 500.000 mL

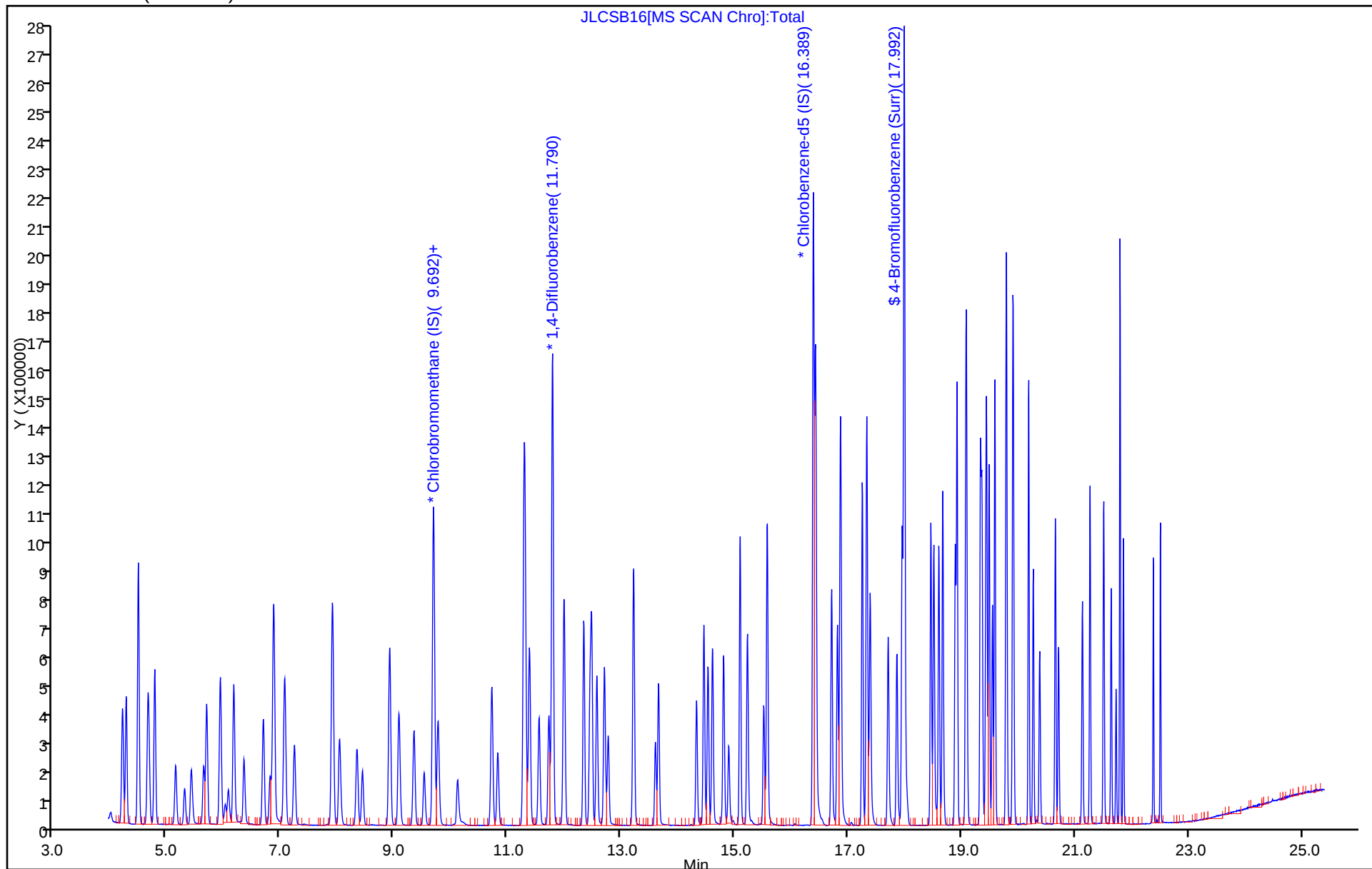
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Lab Sample ID: ICV 140-18185/15 Calibration Date: 02/16/2018 00:43
 Instrument ID: MJ Calib Start Date: 02/15/2018 15:35
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 02/15/2018 22:24
 Lab File ID: JLCSB16.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	0.4274	0.3673		1.72	2.00	-14.0	35.0
Propene	Ave	1.164	1.047		1.80	2.00	-10.0	35.0
Dichlorodifluoromethane	Ave	3.588	3.379		1.88	2.00	-5.8	35.0
Chloromethane	Ave	0.4199	0.3899		1.86	2.00	-7.2	35.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.352	2.322		1.97	2.00	-1.3	35.0
Acetaldehyde	Ave	0.4660	0.3900		8.37	10.0	-16.3	35.0
Vinyl chloride	Ave	1.307	1.364		2.09	2.00	4.4	35.0
1,3-Butadiene	Ave	1.057	1.011		1.91	2.00	-4.3	35.0
Butane	Ave	2.004	1.887		1.88	2.00	-5.8	35.0
Bromomethane	Ave	1.302	1.246		1.91	2.00	-4.3	35.0
Chloroethane	Ave	0.6785	0.6904		2.04	2.00	1.8	35.0
Ethanol	Ave	0.4846	0.3232		6.67	10.0	-33.3	35.0
Vinyl bromide	Ave	1.237	1.303		2.11	2.00	5.3	35.0
2-Methylbutane	Ave	1.477	1.457		1.97	2.00	-1.4	35.0
Trichlorofluoromethane	Ave	3.471	3.460		1.99	2.00	-0.3	35.0
Acrolein	Ave	0.3467	0.3376		1.95	2.00	-2.6	35.0
Acetonitrile	Ave	0.4388	0.3737		1.70	2.00	-14.8	35.0
Acetone	Ave	0.4553	0.4159		1.83	2.00	-8.7	35.0
Pentane	Ave	0.2117	0.2191		2.07	2.00	3.5	35.0
Isopropyl alcohol	Ave	1.306	1.085		1.66	2.00	-16.9	35.0
Ethyl ether	Ave	1.127	1.037		1.84	2.00	-7.9	35.0
1,1-Dichloroethene	Ave	1.324	1.306		1.97	2.00	-1.3	35.0
Acrylonitrile	Ave	0.7914	0.7360		1.86	2.00	-7.0	35.0
tert-Butyl alcohol	Lin1		1.077		1.42	2.00	-28.8	35.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.744	2.816		2.05	2.00	2.6	35.0
Methylene Chloride	Ave	1.433	1.253		1.75	2.00	-12.5	35.0
3-Chloropropene	Lin1		1.119		1.95	2.00	-2.7	35.0
Carbon disulfide	Ave	3.840	3.595		1.87	2.00	-6.4	35.0
trans-1,2-Dichloroethene	Ave	1.325	1.316		1.99	2.00	-0.6	35.0
2-Methylpentane	Ave	3.051	2.763		1.81	2.00	-9.5	35.0
Methyl tert-butyl ether	Ave	2.941	2.699		1.84	2.00	-8.2	35.0
1,1-Dichloroethane	Ave	2.488	2.460		1.98	2.00	-1.1	35.0
Vinyl acetate	Ave	2.838	2.607		1.84	2.00	-8.1	35.0
2-Butanone (MEK)	Ave	0.5113	0.4378		1.71	2.00	-14.4	35.0
Hexane	Ave	1.076	1.027		1.91	2.00	-4.6	35.0
Isopropyl ether	Ave	3.523	3.240		1.84	2.00	-8.0	35.0
cis-1,2-Dichloroethene	Ave	1.352	1.345		1.99	2.00	-0.5	35.0
Ethyl acetate	Ave	2.261	1.855		1.64	2.00	-18.0	35.0
Chloroform	Ave	2.865	2.728		1.90	2.00	-4.8	35.0
Tert-butyl ethyl ether	Ave	3.280	2.837		1.73	2.00	-13.5	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Lab Sample ID: ICV 140-18185/15 Calibration Date: 02/16/2018 00:43
 Instrument ID: MJ Calib Start Date: 02/15/2018 15:35
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 02/15/2018 22:24
 Lab File ID: JLCSB16.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	1.213	1.000		1.65	2.00	-17.5	35.0
1,1,1-Trichloroethane	Ave	2.982	2.842		1.91	2.00	-4.7	35.0
1,2-Dichloroethane	Ave	0.3245	0.3175		1.96	2.00	-2.1	35.0
1-Butanol	Ave	0.0692	0.0594		1.72	2.00	-14.1	35.0
Cyclohexane	Ave	0.1171	0.1118		1.91	2.00	-4.6	35.0
Benzene	Ave	0.7099	0.6709		1.89	2.00	-5.5	35.0
Carbon tetrachloride	Ave	0.5362	0.5458		2.04	2.00	1.8	35.0
2,3-Dimethylpentane	Ave	0.1667	0.1544		1.85	2.00	-7.4	35.0
Thiophene	Ave	0.4031	0.3833		1.90	2.00	-4.9	35.0
Tert-amyl methyl ether	Ave	0.5960	0.5347		1.79	2.00	-10.3	35.0
2,2,4-Trimethylpentane	Ave	1.138	1.105		1.94	2.00	-2.9	35.0
Heptane	Ave	0.2498	0.2365		1.89	2.00	-5.3	35.0
1,2-Dichloropropane	Ave	0.2670	0.2588		1.94	2.00	-3.1	35.0
Trichloroethene	Ave	0.3129	0.3157		2.02	2.00	0.9	35.0
Dibromomethane	Ave	0.2981	0.2856		1.92	2.00	-4.2	35.0
Bromodichloromethane	Ave	0.5220	0.5030		1.93	2.00	-3.6	35.0
1,4-Dioxane	Ave	0.0696	0.0572		1.64	2.00	-17.8	35.0
Methyl methacrylate	Ave	0.2430	0.2099		1.73	2.00	-13.6	35.0
Methylcyclohexane	Ave	0.4456	0.5145		2.31	2.00	15.4	35.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3667	0.2883		1.57	2.00	-21.4	35.0
cis-1,3-Dichloropropene	Ave	0.4116	0.4100		1.99	2.00	-0.4	35.0
trans-1,3-Dichloropropene	Ave	0.3874	0.3847		1.99	2.00	-0.7	35.0
Toluene	Ave	0.8440	0.8056		1.91	2.00	-4.6	35.0
1,1,2-Trichloroethane	Ave	0.2578	0.2472		1.92	2.00	-4.1	35.0
2-Hexanone	Ave	0.1989	0.1592		1.60	2.00	-20.0	35.0
Octane	Ave	0.2931	0.2827		1.93	2.00	-3.5	35.0
Dibromochloromethane	Ave	0.5688	0.5911		2.08	2.00	3.9	35.0
1,2-Dibromoethane (EDB)	Ave	0.4783	0.4843		2.03	2.00	1.3	35.0
Tetrachloroethene	Ave	0.3348	0.3309		1.98	2.00	-1.2	35.0
2,3-Dimethylheptane	Ave	0.8602	0.7593		1.77	2.00	-11.7	35.0
Chlorobenzene	Ave	0.6802	0.6929		2.04	2.00	1.9	35.0
Ethylbenzene	Ave	1.046	0.9800		1.87	2.00	-6.3	35.0
m-Xylene & p-Xylene	Ave	0.7833	0.7469		3.81	4.00	-4.6	35.0
Nonane	Ave	0.5709	0.5566		1.95	2.00	-2.5	35.0
Bromoform	Ave	0.6101	0.6227		2.04	2.00	2.1	35.0
Styrene	Ave	0.6068	0.6064		2.00	2.00	-0.0	35.0
o-Xylene	Ave	0.8310	0.7631		1.84	2.00	-8.2	35.0
1,1,2,2-Tetrachloroethane	Ave	0.6006	0.5425		1.81	2.00	-9.7	35.0
1,2,3-Trichloropropane	Ave	0.1574	0.1442		1.83	2.00	-8.4	35.0
Isopropylbenzene	Ave	1.131	1.043		1.84	2.00	-7.8	35.0
Propylbenzene	Ave	0.3111	0.2910		1.87	2.00	-6.5	35.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Lab Sample ID: ICV 140-18185/15 Calibration Date: 02/16/2018 00:43
 Instrument ID: MJ Calib Start Date: 02/15/2018 15:35
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 02/15/2018 22:24
 Lab File ID: JLCSB16.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
2-Chlorotoluene	Ave	0.3018	0.2962		1.96	2.00	-1.9	35.0
4-Ethyltoluene	Ave	1.092	0.9558		1.75	2.00	-12.5	35.0
1,3,5-Trimethylbenzene	Ave	0.4567	0.4752		2.08	2.00	4.0	35.0
Alpha Methyl Styrene	Ave	0.4759	0.4446		1.87	2.00	-6.6	35.0
Decane	Ave	0.6756	0.6432		1.90	2.00	-4.8	35.0
tert-Butylbenzene	Ave	0.9702	0.8847		1.82	2.00	-8.8	35.0
1,2,4-Trimethylbenzene	Ave	0.9159	0.8384		1.83	2.00	-8.5	35.0
sec-Butylbenzene	Ave	1.336	1.226		1.83	2.00	-8.3	35.0
1,3-Dichlorobenzene	Ave	0.6861	0.6615		1.93	2.00	-3.6	35.0
Benzyl chloride	Ave	0.7395	0.6769		1.83	2.00	-8.5	35.0
1,4-Dichlorobenzene	Ave	0.6827	0.6602		1.93	2.00	-3.3	35.0
4-Isopropyltoluene	Ave	1.091	0.9840		1.80	2.00	-9.8	35.0
1,2,3-Trimethylbenzene	Ave	0.8965	0.6038		1.35	2.00	-32.6	35.0
Butylcyclohexane	Ave	0.8276	0.7496		1.81	2.00	-9.4	35.0
Indane	Ave	0.8553	0.7716		1.80	2.00	-9.8	35.0
1,2-Dichlorobenzene	Ave	0.6490	0.6155		1.90	2.00	-5.2	35.0
Butylbenzene	Ave	1.065	0.9651		1.81	2.00	-9.4	35.0
Indene	Ave	0.7188	0.5725		1.59	2.00	-20.4	35.0
Undecane	Ave	0.7010	0.6305		1.80	2.00	-10.1	35.0
1,2-Dibromo-3-Chloropropane	Ave	0.3168	0.2436		1.54	2.00	-23.1	35.0
1,2,4,5-Tetramethylbenzene	Ave	0.9272	0.7656		1.65	2.00	-17.4	35.0
Dodecane	Qua		0.4818		2.04	2.00	1.8	35.0
1,2,4-Trichlorobenzene	Ave	0.4913	0.4952		2.02	2.00	0.8	35.0
Naphthalene	Ave	0.7770	0.7325		1.89	2.00	-5.7	35.0
Hexachlorobutadiene	Ave	0.5066	0.4538		1.79	2.00	-10.4	35.0
1,2,3-Trichlorobenzene	Ave	0.3126	0.3306		2.12	2.00	5.8	35.0
2-Methylnaphthalene	Ave	0.0616	0.1211		12.6	6.40	96.8*	50.0
1-Methylnaphthalene	Ave	0.0610	0.1423		14.1	6.05	133.3*	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7231	0.7159		3.96	4.00	-1.0	35.0

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JLCSB16.D
 Lims ID: ICV
 Client ID:
 Sample Type: ICV
 Inject. Date: 16-Feb-2018 00:43:30
 Purge Vol: 500.000 mL
 Sample Info: 140-0007391-015
 Misc. Info.: 140830s56
 Operator ID: 403648
 Sublist:

ALS Bottle#: 2
 Dil. Factor: 1.0000
 Worklist Smp#: 15
 Instrument ID: MJ

Method: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 19-Feb-2018 10:35:48
 Integrator: RTE
 Quant Method: Internal Standard
 Last Ical File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D

Calib Date: 15-Feb-2018 22:24:30
 ID Type: Deconvolution ID
 Quant By: Initial Calibration

Column 1 : RTX-5 (0.32 mm)
 Process Host: XAWRK031
 Det: MS SCAN

First Level Reviewer: barlozhetskayaa

Date: 19-Feb-2018 10:35:48

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	9.686	9.689	-0.003	95	287782	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.790	11.790	0.000	95	1626462	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.389	16.389	0.000	88	1472970	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.992	17.992	0.000	98	1054483	4.00	3.96	
6 Chlorodifluoromethane	67	4.199	4.202	-0.004	96	52856	2.00	1.72	
7 Propene	41	4.210	4.215	-0.006	98	150725	2.00	1.80	
8 Dichlorodifluoromethane	85	4.269	4.273	-0.005	100	486185	2.00	1.88	
9 Chloromethane	52	4.479	4.481	-0.003	98	56098	2.00	1.86	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.484	4.487	-0.005	93	334132	2.00	1.97	
11 Acetaldehyde	44	4.657	4.661	-0.005	99	280575	10.0	8.37	
12 Vinyl chloride	62	4.673	4.677	-0.006	99	196327	2.00	2.09	
13 Butadiene	54	4.775	4.775	-0.002	68	145441	2.00	1.91	
14 Butane	43	4.775	4.776	-0.002	86	271560	2.00	1.88	
15 Bromomethane	94	5.141	5.144	-0.005	99	179320	2.00	1.91	
16 Chloroethane	64	5.302	5.303	-0.002	99	99336	2.00	2.04	
17 Ethanol	31	5.420	5.433	-0.015	96	232501	10.0	6.67	
18 Vinyl bromide	106	5.636	5.639	-0.005	98	187478	2.00	2.11	
19 2-Methylbutane	43	5.689	5.692	-0.004	91	209621	2.00	1.97	
20 Trichlorofluoromethane	101	5.932	5.931	-0.001	99	497825	2.00	1.99	
21 Acrolein	56	5.942	5.948	-0.008	93	48581	2.00	1.95	
23 Acetonitrile	40	6.018	6.038	-0.022	99	53765	2.00	1.70	
22 Acetone	58	6.071	6.079	-0.010	97	59848	2.00	1.83	
24 Pentane	72	6.168	6.169	-0.003	98	31523	2.00	2.07	
25 Isopropyl alcohol	45	6.174	6.199	-0.027	92	156171	2.00	1.66	
26 Ethyl ether	31	6.346	6.361	-0.016	95	149269	2.00	1.84	
27 1,1-Dichloroethene	96	6.690	6.690	-0.002	97	187983	2.00	1.97	
28 Acrylonitrile	53	6.803	6.808	-0.006	95	105910	2.00	1.86	
30 2-Methyl-2-propanol	59	6.819	6.863	-0.046	91	155024	2.00	1.42	
29 1,1,2-Trichloro-1,2,2-trif	101	6.873	6.873	-0.002	98	405137	2.00	2.05	
32 Methylene Chloride	84	7.056	7.059	-0.005	96	180290	2.00	1.75	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 3-Chloro-1-propene	39	7.072	7.075	-0.005	96	161069	2.00	1.95	
33 Carbon disulfide	76	7.239	7.237	0.000	98	517232	2.00	1.87	
34 trans-1,2-Dichloroethene	96	7.900	7.900	-0.003	98	189391	2.00	1.99	
35 2-Methylpentane	43	7.917	7.915	0.000	94	397547	2.00	1.81	
36 Methyl tert-butyl ether	73	8.030	8.051	-0.023	96	388420	2.00	1.84	
37 1,1-Dichloroethane	63	8.342	8.340	-0.001	100	353986	2.00	1.98	
38 Vinyl acetate	43	8.438	8.439	-0.004	100	375167	2.00	1.84	
40 2-Butanone (MEK)	72	8.912	8.917	-0.007	96	63000	2.00	1.71	
39 Hexane	56	8.917	8.920	-0.005	83	147749	2.00	1.91	
41 Isopropyl ether	45	9.079	9.089	-0.013	97	466228	2.00	1.84	
42 cis-1,2-Dichloroethene	96	9.347	9.344	0.000	95	193567	2.00	1.99	
43 Ethyl acetate	43	9.525	9.527	-0.004	99	266871	2.00	1.64	
44 Chloroform	83	9.697	9.694	0.000	96	392560	2.00	1.90	
45 Tert-butyl ethyl ether	59	9.767	9.780	-0.015	95	408157	2.00	1.73	
46 Tetrahydrofuran	42	10.117	10.123	-0.009	93	143930	2.00	1.65	
47 1,1,1-Trichloroethane	97	10.719	10.718	-0.002	96	408866	2.00	1.91	
48 1,2-Dichloroethane	62	10.821	10.825	-0.004	98	258215	2.00	1.96	
49 Cyclohexane	69	11.284	11.287	-0.003	85	90920	2.00	1.91	
50 Benzene	78	11.289	11.291	-0.002	97	545632	2.00	1.89	
53 n-Butanol	31	11.284	11.293	-0.009	66	48337	2.00	1.72	
52 Carbon tetrachloride	117	11.306	11.310	-0.004	99	443891	2.00	2.04	
55 2,3-Dimethylpentane	71	11.381	11.384	-0.003	92	125572	2.00	1.85	
51 Thiophene	84	11.553	11.554	-0.001	95	311687	2.00	1.90	
54 Tert-amyl methyl ether	73	11.725	11.726	-0.001	98	393826	2.00	1.79	
56 Isooctane	57	11.994	11.995	-0.001	99	899009	2.00	1.94	
57 n-Heptane	71	12.338	12.342	-0.004	92	192306	2.00	1.89	
58 1,2-Dichloropropane	63	12.446	12.451	-0.005	92	210473	2.00	1.94	
59 Trichloroethene	130	12.478	12.480	-0.002	96	256708	2.00	2.02	
60 Dibromomethane	93	12.570	12.569	0.001	95	232246	2.00	1.92	
61 Dichlorobromomethane	83	12.704	12.704	0.000	99	409065	2.00	1.93	
62 1,4-Dioxane	88	12.737	12.735	0.002	89	46513	2.00	1.64	
63 Methyl methacrylate	41	12.774	12.776	-0.002	96	170709	2.00	1.73	
64 Methylcyclohexane	83	13.221	13.222	-0.001	97	418370	2.00	2.31	
65 4-Methyl-2-pentanone (MIBK)	43	13.603	13.618	-0.015	96	234460	2.00	1.57	
66 cis-1,3-Dichloropropene	75	13.656	13.659	-0.003	93	333420	2.00	1.99	
67 trans-1,3-Dichloropropene	75	14.329	14.329	0.000	97	283336	2.00	1.99	
68 Toluene	91	14.458	14.458	0.000	94	593295	2.00	1.91	
69 1,1,2-Trichloroethane	83	14.528	14.528	-0.004	98	182039	2.00	1.92	
70 2-Methylthiophene	97	14.609	14.610	-0.001	97	515793	NC	NC	
71 3-Methylthiophene	97	14.808	14.804	0.004	99	504373	NC	NC	
72 2-Hexanone	58	14.899	14.908	-0.009	93	117208	2.00	1.60	
73 n-Octane	85	15.098	15.100	-0.002	93	208214	2.00	1.93	
74 Chlorodibromomethane	129	15.227	15.227	0.000	98	435311	2.00	2.08	
75 Ethylene Dibromide	107	15.512	15.514	-0.002	98	356668	2.00	2.03	
76 Tetrachloroethene	129	15.572	15.575	-0.003	96	243703	2.00	1.98	
77 2,3-Dimethylheptane	43	16.421	16.423	-0.002	96	559200	2.00	1.77	
78 Chlorobenzene	112	16.438	16.437	0.001	94	510314	2.00	2.04	
79 Ethylbenzene	91	16.712	16.711	0.001	98	721739	2.00	1.87	
80 2-Ethylthiophene	97	16.814	16.816	-0.002	98	565099	NC	NC	
81 m-Xylene & p-Xylene	91	16.868	16.869	-0.001	100	1100192	4.00	3.81	
82 n-Nonane	57	17.250	17.252	-0.002	92	409945	2.00	1.95	
83 Styrene	104	17.331	17.331	0.000	98	446593	2.00	2.00	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Bromoform	173	17.331	17.333	-0.002	95	458593	2.00	2.04	
85 o-Xylene	91	17.390	17.391	-0.001	99	562026	2.00	1.84	
86 1,1,2,2-Tetrachloroethane	83	17.707	17.708	-0.001	99	399521	2.00	1.81	
87 1,2,3-Trichloropropane	110	17.863	17.864	-0.001	99	106172	2.00	1.83	
88 Isopropylbenzene	105	17.955	17.956	-0.001	96	767830	2.00	1.84	
89 N-Propylbenzene	120	18.460	18.462	-0.002	99	214319	2.00	1.87	
90 2-Chlorotoluene	126	18.514	18.516	-0.002	97	218133	2.00	1.96	
91 4-Ethyltoluene	105	18.600	18.602	-0.002	99	703932	2.00	1.75	
92 1,3,5-Trimethylbenzene	120	18.670	18.672	-0.002	93	349942	2.00	2.08	
93 Alpha Methyl Styrene	118	18.891	18.891	0.000	89	327456	2.00	1.87	
94 n-Decane	57	18.923	18.923	0.000	90	473704	2.00	1.90	
95 tert-Butylbenzene	119	19.079	19.079	0.000	94	651582	2.00	1.82	
96 1,2,4-Trimethylbenzene	105	19.090	19.091	-0.001	96	617444	2.00	1.83	
97 sec-Butylbenzene	105	19.337	19.337	0.000	99	902739	2.00	1.83	
98 1,3-Dichlorobenzene	146	19.359	19.363	-0.004	97	487169	2.00	1.93	
99 Benzyl chloride	91	19.429	19.431	-0.002	98	498494	2.00	1.83	
100 1,4-Dichlorobenzene	146	19.445	19.445	0.000	94	486231	2.00	1.93	
101 4-Isopropyltoluene	119	19.488	19.489	-0.001	97	724728	2.00	1.80	
102 1,2,3-Trimethylbenzene	105	19.547	19.549	-0.002	97	444708	2.00	1.35	
103 Butylcyclohexane	83	19.590	19.591	-0.001	95	552102	2.00	1.81	
104 2,3-Dihydroindene	117	19.789	19.792	-0.003	95	568264	2.00	1.80	
105 1,2-Dichlorobenzene	146	19.794	19.795	-0.001	97	453295	2.00	1.90	
106 n-Butylbenzene	91	19.907	19.907	0.000	98	710810	2.00	1.81	
107 Indene	116	19.918	19.918	0.000	89	421630	2.00	1.59	
108 Undecane	57	20.187	20.186	0.001	96	464323	2.00	1.80	
109 1,2-Dimethyl-4-Ethylbenzen	119	20.332	20.334	-0.002	67	3679	NC	NC	
110 1,2-Dibromo-3-Chloropropan	157	20.381	20.381	0.000	97	179440	2.00	1.54	
111 1,2,4,5-Tetramethylbenzene	119	20.655	20.658	-0.003	97	563871	2.00	1.65	
112 1,2,3,5-Tetramethylbenzene	119	20.714	20.716	-0.002	96	336974	NC	NC	
113 1,2,3,4-Tetramethylbenzene	119	21.134	21.135	-0.001	98	431895	NC	NC	
114 Dodecane	57	21.268	21.268	0.000	96	354820	2.00	2.04	
115 1,2,4-Trichlorobenzene	180	21.510	21.509	0.001	93	364712	2.00	2.02	
116 Naphthalene	128	21.640	21.642	-0.002	99	539447	2.00	1.89	
117 Benzo(b)thiophene	134	21.726	21.727	-0.001	99	269084	NC	NC	
118 Hexachlorobutadiene	225	21.796	21.798	-0.002	95	334244	2.00	1.79	
119 1,2,3-Trichlorobenzene	180	21.855	21.858	-0.003	95	243492	2.00	2.12	
120 2-Methylnaphthalene	142	22.382	22.385	-0.003	100	285485	6.40	12.6	
121 1-Methylnaphthalene	142	22.511	22.509	0.002	100	317085	6.05	14.1	
A 123 C8 Range	1	15.150	(15.061-15.239)		0	3291613	2.00	3.64	
S 124 Xylenes, Total	100				0		6.00	5.65	
S 125 1,2-Dichloroethene, Total	1				0		4.00	3.98	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

40CV101S_00056

Amount Added: 100.00

Units: mL

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 19-Feb-2018 10:35:50

Chrom Revision: 2.2 08-Feb-2018 13:38:42

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JLCSB16.D

Injection Date: 16-Feb-2018 00:43:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: ICV

Worklist Smp#: 15

Client ID:

Purge Vol: 500.000 mL

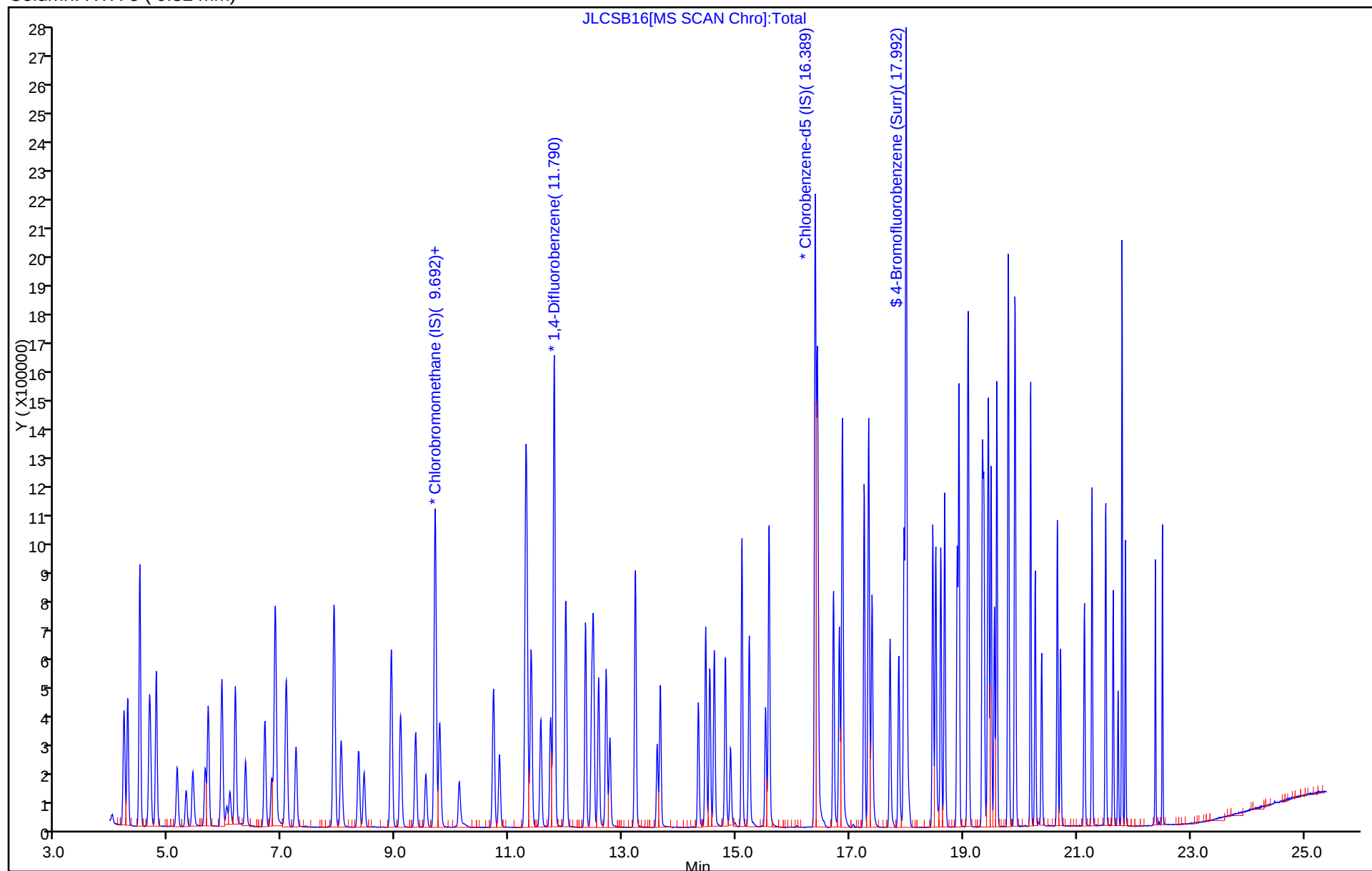
Dil. Factor: 1.0000

ALS Bottle#: 2

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Lab Sample ID: CCVIS 140-19508/8 Calibration Date: 04/16/2018 13:24
 Instrument ID: MJ Calib Start Date: 05/28/2017 18:27
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 05/29/2017 00:31
 Lab File ID: JCCVD16B.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
3-Methylthiophene	Ave	0.6771	0.6671			2.00	-1.5	30.0
2-Methylthiophene	Ave	0.6836	0.6607			2.00	-3.3	30.0
2-Ethylthiophene	Ave	0.8046	0.7749			2.00	-3.7	30.0
1,2-Dimethyl-4-Ethylbenzene	Ave	0.7737	0.7461			2.00	-3.6	30.0
1,2,3,5-Tetramethylbenzene	Ave	0.5914	0.5335			2.00	-9.8	30.0
1,2,3,4-Tetramethylbenzene	Ave	0.7242	0.6951			2.00	-4.0	30.0
Benzo (b) thiophene	Ave	0.3024	0.3729			2.00	23.3	30.0

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JCCVD16B.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 16-Apr-2018 13:24:30 ALS Bottle#: 15 Worklist Smp#: 8
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007901-002
 Misc. Info.: S60
 Operator ID: 007126 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub16
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 17-Apr-2018 09:47:35 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK001

First Level Reviewer: tajh

Date: 16-Apr-2018 13:53:24

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	9.662	9.662	0.000	93	267822	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.765	11.765	0.000	95	1492723	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.364	16.364	0.000	88	1358028	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.973	17.973	0.000	97	986690	4.00	4.02	
6 Chlorodifluoromethane	67	4.196	4.196	0.000	96	57667	2.00	2.02	
7 Propene	41	4.207	4.207	0.000	99	160381	2.00	2.06	
8 Dichlorodifluoromethane	85	4.266	4.266	0.000	100	555238	2.00	2.31	
9 Chloromethane	52	4.476	4.476	0.000	54	60183	2.00	2.14	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.481	4.481	0.000	92	365471	2.00	2.32	
11 Acetaldehyde	44	4.653	4.653	0.000	100	257877	10.0	8.27	
12 Vinyl chloride	62	4.669	4.669	0.000	98	208149	2.00	2.38	
14 Butane	43	4.766	4.766	0.000	86	279043	2.00	2.08	
13 Butadiene	54	4.766	4.766	0.000	66	146746	2.00	2.07	
15 Bromomethane	94	5.132	5.132	0.000	98	191719	2.00	2.20	
16 Chloroethane	64	5.293	5.293	0.000	99	93415	2.00	2.06	
17 Ethanol	31	5.412	5.412	0.000	95	235083	10.0	7.25	
18 Vinyl bromide	106	5.627	5.627	0.000	99	193031	2.00	2.33	
19 2-Methylbutane	43	5.681	5.681	0.000	91	201694	2.00	2.04	
20 Trichlorofluoromethane	101	5.917	5.917	0.000	99	528976	2.00	2.28	
21 Acrolein	56	5.934	5.934	0.000	93	50245	2.00	2.16	
23 Acetonitrile	40	6.004	6.004	0.000	99	48773	2.00	1.66	
22 Acetone	58	6.057	6.057	0.000	98	60163	2.00	1.97	
24 Pentane	72	6.154	6.154	0.000	98	30047	2.00	2.12	
25 Isopropyl alcohol	45	6.170	6.170	0.000	93	203397	2.00	2.33	
26 Ethyl ether	31	6.337	6.337	0.000	95	140014	2.00	1.86	
27 1,1-Dichloroethene	96	6.676	6.676	0.000	98	183872	2.00	2.07	
28 Acrylonitrile	53	6.789	6.789	0.000	94	98257	2.00	1.85	
30 2-Methyl-2-propanol	59	6.810	6.810	0.000	94	234721	2.00	2.34	
29 1,1,2-Trichloro-1,2,2-trif	101	6.854	6.854	0.000	97	385932	2.00	2.10	
32 Methylene Chloride	84	7.042	7.042	0.000	95	169040	2.00	1.76	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 3-Chloro-1-propene	39	7.058	7.058	0.000	96	151068	2.00	1.96	
33 Carbon disulfide	76	7.219	7.219	0.000	98	535508	2.00	2.08	
34 trans-1,2-Dichloroethene	96	7.881	7.881	0.000	98	178211	2.00	2.01	
35 2-Methylpentane	43	7.897	7.897	0.000	94	342054	2.00	1.67	
36 Methyl tert-butyl ether	73	8.015	8.015	0.000	96	405253	2.00	2.06	
37 1,1-Dichloroethane	63	8.322	8.322	0.000	100	329266	2.00	1.98	
38 Vinyl acetate	43	8.414	8.414	0.000	100	359759	2.00	1.89	
40 2-Butanone (MEK)	72	8.887	8.887	0.000	96	65030	2.00	1.90	
39 Hexane	56	8.898	8.898	0.000	81	132761	2.00	1.84	
41 Isopropyl ether	45	9.059	9.059	0.000	96	463214	2.00	1.96	
42 cis-1,2-Dichloroethene	96	9.323	9.323	0.000	95	180259	2.00	1.99	
43 Ethyl acetate	43	9.500	9.500	0.000	99	268002	2.00	1.77	
44 Chloroform	83	9.672	9.672	0.000	97	382167	2.00	1.99	
45 Tert-butyl ethyl ether	59	9.748	9.748	0.000	94	420816	2.00	1.92	
46 Tetrahydrofuran	42	10.087	10.087	0.000	93	146791	2.00	1.81	
47 1,1,1-Trichloroethane	97	10.694	10.694	0.000	96	403892	2.00	2.02	
48 1,2-Dichloroethane	62	10.802	10.802	0.000	98	246203	2.00	2.03	
53 n-Butanol	31	11.254	11.254	0.000	66	43497	2.00	1.68	
49 Cyclohexane	69	11.265	11.265	0.000	89	81358	2.00	1.86	
50 Benzene	78	11.265	11.265	0.000	97	514187	2.00	1.94	
52 Carbon tetrachloride	117	11.281	11.281	0.000	99	437313	2.00	2.19	
55 2,3-Dimethylpentane	71	11.356	11.356	0.000	91	113550	2.00	1.83	
51 Thiophene	84	11.523	11.523	0.000	95	287014	2.00	1.91	
54 Tert-amyl methyl ether	73	11.700	11.700	0.000	99	418973	2.00	2.07	
56 Isooctane	57	11.969	11.969	0.000	99	818893	2.00	1.93	
57 n-Heptane	71	12.319	12.319	0.000	90	176312	2.00	1.89	
58 1,2-Dichloropropane	63	12.421	12.421	0.000	92	186966	2.00	1.88	
59 Trichloroethene	130	12.454	12.454	0.000	96	236909	2.00	2.03	
60 Dibromomethane	93	12.545	12.545	0.000	94	219058	2.00	1.97	
61 Dichlorobromomethane	83	12.679	12.679	0.000	99	386871	2.00	1.99	
62 1,4-Dioxane	88	12.701	12.701	0.000	88	46513	2.00	1.79	
63 Methyl methacrylate	41	12.749	12.749	0.000	95	163695	2.00	1.81	
64 Methylcyclohexane	83	13.196	13.196	0.000	97	378565	2.00	2.28	
65 4-Methyl-2-pentanone (MIBK)	43	13.583	13.583	0.000	97	234439	2.00	1.71	
66 cis-1,3-Dichloropropene	75	13.637	13.637	0.000	92	302811	2.00	1.97	
67 trans-1,3-Dichloropropene	75	14.304	14.304	0.000	96	258251	2.00	1.96	
68 Toluene	91	14.433	14.433	0.000	93	534451	2.00	1.87	
69 1,1,2-Trichloroethane	83	14.509	14.509	0.000	98	162247	2.00	1.85	
71 3-Methylthiophene	97	14.589	14.589	0.000	98	452972	NC	NC	
70 2-Methylthiophene	97	14.783	14.783	0.000	97	448605	NC	NC	
72 2-Hexanone	58	14.880	14.880	0.000	94	120829	2.00	1.79	
73 n-Octane	85	15.079	15.079	0.000	92	191205	2.00	1.92	
74 Chlorodibromomethane	129	15.202	15.202	0.000	97	399930	2.00	2.07	
75 Ethylene Dibromide	107	15.493	15.493	0.000	99	312556	2.00	1.92	
76 Tetrachloroethene	129	15.552	15.552	0.000	96	222779	2.00	1.96	
77 2,3-Dimethylheptane	43	16.402	16.402	0.000	94	494117	2.00	1.69	
78 Chlorobenzene	112	16.413	16.413	0.000	95	455844	2.00	1.97	
79 Ethylbenzene	91	16.687	16.687	0.000	98	676399	2.00	1.90	
80 2-Ethylthiophene	97	16.789	16.789	0.000	98	526143	NC	NC	
81 m-Xylene & p-Xylene	91	16.849	16.849	0.000	100	1040551	4.00	3.91	
82 n-Nonane	57	17.231	17.231	0.000	91	367549	2.00	1.90	
83 Styrene	104	17.311	17.311	0.000	98	403464	2.00	1.96	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Bromoform	173	17.311	17.311	0.000	96	418645	2.00	2.02	
85 o-Xylene	91	17.370	17.370	0.000	98	534882	2.00	1.90	
86 1,1,2,2-Tetrachloroethane	83	17.688	17.688	0.000	100	385276	2.00	1.89	
87 1,2,3-Trichloropropane	110	17.844	17.844	0.000	99	107190	2.00	2.01	
88 Isopropylbenzene	105	17.935	17.935	0.000	95	752995	2.00	1.96	
89 N-Propylbenzene	120	18.441	18.441	0.000	99	208347	2.00	1.97	
90 2-Chlorotoluene	126	18.495	18.495	0.000	97	200698	2.00	1.96	
91 4-Ethyltoluene	105	18.586	18.586	0.000	99	700451	2.00	1.89	
92 1,3,5-Trimethylbenzene	120	18.651	18.651	0.000	93	345688	2.00	2.23	
93 Alpha Methyl Styrene	118	18.877	18.877	0.000	88	307553	2.00	1.90	
94 n-Decane	57	18.909	18.909	0.000	91	428604	2.00	1.87	
95 tert-Butylbenzene	119	19.060	19.060	0.000	95	648585	2.00	1.97	
96 1,2,4-Trimethylbenzene	105	19.076	19.076	0.000	96	614901	2.00	1.98	
97 sec-Butylbenzene	105	19.318	19.318	0.000	98	891102	2.00	1.96	
98 1,3-Dichlorobenzene	146	19.345	19.345	0.000	97	454225	2.00	1.95	
99 Benzyl chloride	91	19.415	19.415	0.000	98	500922	2.00	2.00	
100 1,4-Dichlorobenzene	146	19.425	19.425	0.000	94	445111	2.00	1.92	
101 4-Isopropyltoluene	119	19.474	19.474	0.000	97	732758	2.00	1.98	
102 1,2,3-Trimethylbenzene	105	19.533	19.533	0.000	98	440636	2.00	1.45	
103 Butylcyclohexane	83	19.576	19.576	0.000	96	505695	2.00	1.80	
104 2,3-Dihydroindene	117	19.775	19.775	0.000	95	544234	2.00	1.87	
105 1,2-Dichlorobenzene	146	19.780	19.780	0.000	98	433291	2.00	1.97	
106 n-Butylbenzene	91	19.893	19.893	0.000	98	727073	2.00	2.01	
107 Indene	116	19.904	19.904	0.000	89	402990	2.00	1.65	
108 Undecane	57	20.173	20.173	0.000	96	442033	2.00	1.86	
109 1,2-Dimethyl-4-Ethylbenzen	119	20.254	20.254	0.000	98	506576	NC	NC	
110 1,2-Dibromo-3-Chloropropan	157	20.367	20.367	0.000	97	179163	2.00	1.67	
111 1,2,4,5-Tetramethylbenzene	119	20.641	20.641	0.000	97	602519	2.00	1.91	
112 1,2,3,5-Tetramethylbenzene	119	20.700	20.700	0.000	97	362259	NC	NC	
113 1,2,3,4-Tetramethylbenzene	119	21.120	21.120	0.000	97	471998	NC	NC	
114 Dodecane	57	21.254	21.254	0.000	96	358637	2.00	2.25	
115 1,2,4-Trichlorobenzene	180	21.496	21.496	0.000	93	368766	2.00	2.21	
116 Naphthalene	128	21.626	21.626	0.000	99	537488	2.00	2.04	
117 Benzo(b)thiophene	134	21.717	21.717	0.000	99	253191	NC	NC	
118 Hexachlorobutadiene	225	21.787	21.787	0.000	95	338474	2.00	1.97	
119 1,2,3-Trichlorobenzene	180	21.846	21.846	0.000	94	243789	2.00	2.30	
120 2-Methylnaphthalene	142	22.373	22.373	0.000	99	149766	3.00	7.17	
121 1-Methylnaphthalene	142	22.502	22.502	0.000	100	192950	3.00	9.31	
A 123 C8 Range	1	15.095	(15.040-15.186)		0	1670963	2.00	2.01	
S 124 Xylenes, Total	100				0		6.00	5.81	
S 125 1,2-Dichloroethene, Total	1				0		4.00	4.00	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

40CV101S_00059

Amount Added: 100.00

Units: mL

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 17-Apr-2018 09:47:37

Chrom Revision: 2.2 16-Apr-2018 07:57:50

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JCCVD16B.D

Injection Date: 16-Apr-2018 13:24:30

Instrument ID: MJ

Operator ID: 007126

Lims ID: CCVIS

Worklist Smp#: 8

Client ID:

Purge Vol: 500.000 mL

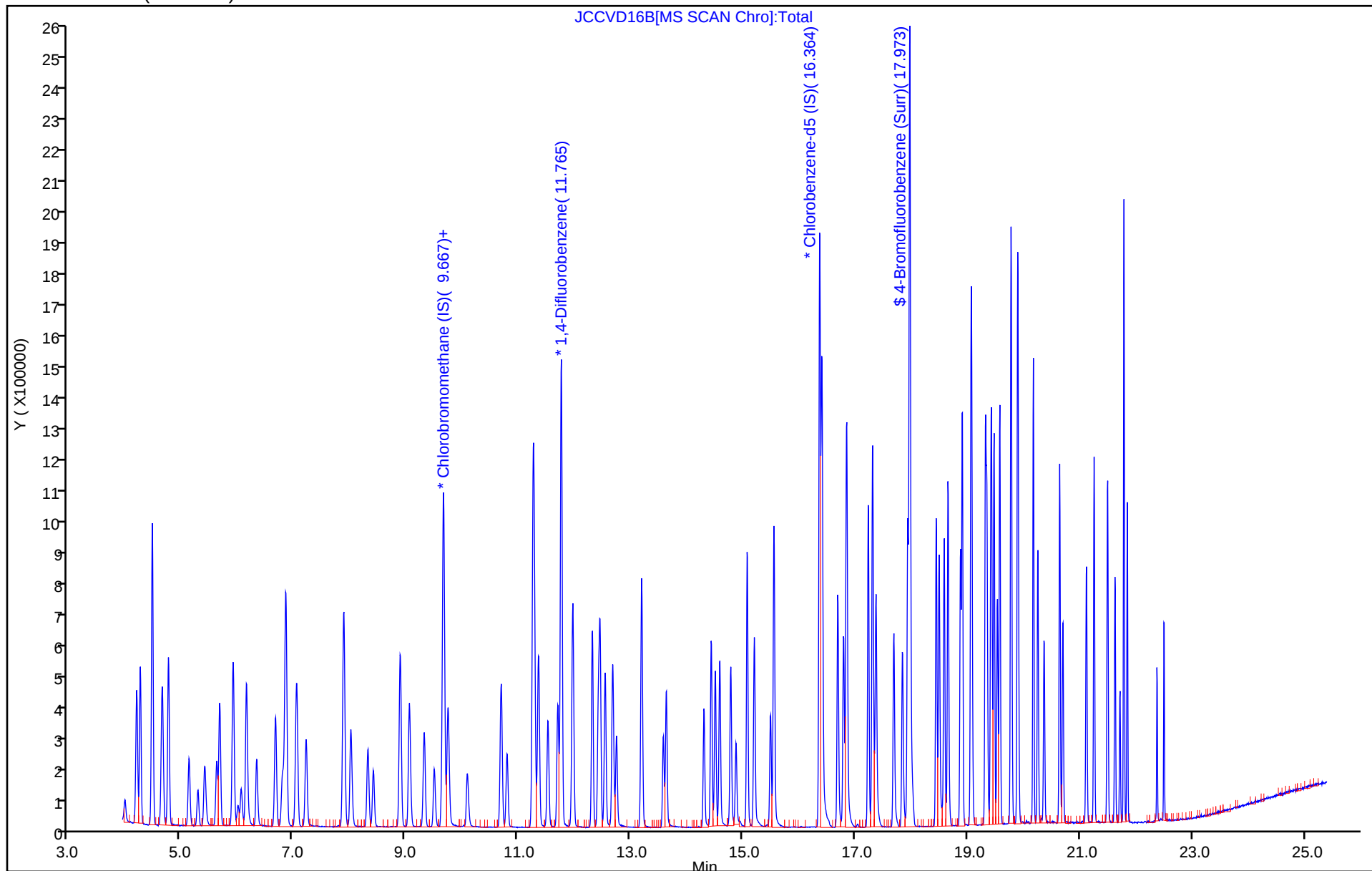
Dil. Factor: 1.0000

ALS Bottle#: 15

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1

SDG No.: _____

Lab Sample ID: CCVIS 140-19508/8 Calibration Date: 04/16/2018 13:24

Instrument ID: MJ Calib Start Date: 02/15/2018 15:35

GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 02/15/2018 22:24

Lab File ID: JCCVD16B.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	0.4274	0.4306		2.02	2.00	0.8	30.0
Propene	Ave	1.164	1.198		2.06	2.00	2.9	30.0
Dichlorodifluoromethane	Ave	3.588	4.146		2.31	2.00	15.6	30.0
Chloromethane	Ave	0.4199	0.4494		2.14	2.00	7.0	30.0
1,2-Dichloro-1,1,2,2-tetrafluoroethane	Ave	2.352	2.729		2.32	2.00	16.0	30.0
Acetaldehyde	Ave	0.4660	0.3852		8.27	10.0	-17.3	30.0
Vinyl chloride	Ave	1.307	1.554		2.38	2.00	18.9	30.0
1,3-Butadiene	Ave	1.057	1.096		2.07	2.00	3.7	30.0
Butane	Ave	2.004	2.084		2.08	2.00	4.0	30.0
Bromomethane	Ave	1.302	1.432		2.20	2.00	10.0	30.0
Chloroethane	Ave	0.6785	0.6976		2.06	2.00	2.8	30.0
Ethanol	Ave	0.4846	0.3511		7.25	10.0	-27.5	30.0
Vinyl bromide	Ave	1.237	1.441		2.33	2.00	16.5	30.0
2-Methylbutane	Ave	1.477	1.506		2.04	2.00	2.0	30.0
Trichlorofluoromethane	Ave	3.471	3.950		2.28	2.00	13.8	30.0
Acrolein	Ave	0.3467	0.3752		2.16	2.00	8.2	30.0
Acetonitrile	Ave	0.4388	0.3642		1.66	2.00	-17.0	30.0
Acetone	Ave	0.4553	0.4493		1.97	2.00	-1.3	30.0
Pentane	Ave	0.2117	0.2244		2.12	2.00	6.0	30.0
Isopropyl alcohol	Ave	1.306	1.519		2.33	2.00	16.3	30.0
Ethyl ether	Ave	1.127	1.046		1.86	2.00	-7.2	30.0
1,1-Dichloroethene	Ave	1.324	1.373		2.07	2.00	3.7	30.0
Acrylonitrile	Ave	0.7914	0.7338		1.85	2.00	-7.3	30.0
tert-Butyl alcohol	Lin1		1.753		2.34	2.00	17.1	30.0
1,1,2-Trichloro-1,2,2-trifluoroethane	Ave	2.744	2.882		2.10	2.00	5.0	30.0
Methylene Chloride	Ave	1.433	1.262		1.76	2.00	-11.9	30.0
3-Chloropropene	Lin1		1.128		1.96	2.00	-2.0	30.0
Carbon disulfide	Ave	3.840	3.999		2.08	2.00	4.1	30.0
trans-1,2-Dichloroethene	Ave	1.325	1.331		2.01	2.00	0.5	30.0
2-Methylpentane	Ave	3.051	2.554		1.67	2.00	-16.3	30.0
Methyl tert-butyl ether	Ave	2.941	3.026		2.06	2.00	2.9	30.0
1,1-Dichloroethane	Ave	2.488	2.459		1.98	2.00	-1.2	30.0
Vinyl acetate	Ave	2.838	2.687		1.89	2.00	-5.3	30.0
2-Butanone (MEK)	Ave	0.5113	0.4856		1.90	2.00	-5.0	30.0
Hexane	Ave	1.076	0.9914		1.84	2.00	-7.9	30.0
Isopropyl ether	Ave	3.523	3.459		1.96	2.00	-1.8	30.0
cis-1,2-Dichloroethene	Ave	1.352	1.346		1.99	2.00	-0.4	30.0
Ethyl acetate	Ave	2.261	2.001		1.77	2.00	-11.5	30.0
Chloroform	Ave	2.865	2.854		1.99	2.00	-0.4	30.0
Tert-butyl ethyl ether	Ave	3.280	3.143		1.92	2.00	-4.2	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Lab Sample ID: CCVIS 140-19508/8 Calibration Date: 04/16/2018 13:24
 Instrument ID: MJ Calib Start Date: 02/15/2018 15:35
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 02/15/2018 22:24
 Lab File ID: JCCVD16B.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	1.213	1.096		1.81	2.00	-9.6	30.0
1,1,1-Trichloroethane	Ave	2.982	3.016		2.02	2.00	1.1	30.0
1,2-Dichloroethane	Ave	0.3245	0.3299		2.03	2.00	1.7	30.0
1-Butanol	Ave	0.0692	0.0583		1.68	2.00	-15.8	30.0
Benzene	Ave	0.7099	0.6889		1.94	2.00	-3.0	30.0
Cyclohexane	Ave	0.1171	0.1090		1.86	2.00	-6.9	30.0
Carbon tetrachloride	Ave	0.5362	0.5859		2.19	2.00	9.3	30.0
2,3-Dimethylpentane	Ave	0.1667	0.1521		1.83	2.00	-8.7	30.0
Thiophene	Ave	0.4031	0.3846		1.91	2.00	-4.6	30.0
Tert-amyl methyl ether	Ave	0.5960	0.6170		2.07	2.00	3.5	30.0
2,2,4-Trimethylpentane	Ave	1.138	1.097		1.93	2.00	-3.6	30.0
Heptane	Ave	0.2498	0.2362		1.89	2.00	-5.4	30.0
1,2-Dichloropropane	Ave	0.2670	0.2505		1.88	2.00	-6.2	30.0
Trichloroethene	Ave	0.3129	0.3174		2.03	2.00	1.4	30.0
Dibromomethane	Ave	0.2981	0.2935		1.97	2.00	-1.6	30.0
Bromodichloromethane	Ave	0.5220	0.5183		1.99	2.00	-0.7	30.0
1,4-Dioxane	Ave	0.0696	0.0623		1.79	2.00	-10.5	30.0
Methyl methacrylate	Ave	0.2430	0.2193		1.81	2.00	-9.7	30.0
Methylcyclohexane	Ave	0.4456	0.5072		2.28	2.00	13.8	30.0
4-Methyl-2-pentanone (MIBK)	Ave	0.3667	0.3141		1.71	2.00	-14.3	30.0
cis-1,3-Dichloropropene	Ave	0.4116	0.4057		1.97	2.00	-1.4	30.0
trans-1,3-Dichloropropene	Ave	0.3874	0.3803		1.96	2.00	-1.8	30.0
Toluene	Ave	0.8440	0.7871		1.87	2.00	-6.7	30.0
1,1,2-Trichloroethane	Ave	0.2578	0.2389		1.85	2.00	-7.3	30.0
2-Hexanone	Ave	0.1989	0.1780		1.79	2.00	-10.5	30.0
Octane	Ave	0.2931	0.2816		1.92	2.00	-3.9	30.0
Dibromochloromethane	Ave	0.5688	0.5890		2.07	2.00	3.6	30.0
1,2-Dibromoethane (EDB)	Ave	0.4783	0.4603		1.92	2.00	-3.8	30.0
Tetrachloroethene	Ave	0.3348	0.3281		1.96	2.00	-2.0	30.0
2,3-Dimethylheptane	Ave	0.8602	0.7277		1.69	2.00	-15.4	30.0
Chlorobenzene	Ave	0.6802	0.6713		1.97	2.00	-1.3	30.0
Ethylbenzene	Ave	1.046	0.996		1.90	2.00	-4.8	30.0
m-Xylene & p-Xylene	Ave	0.7833	0.7662		3.91	4.00	-2.2	30.0
Nonane	Ave	0.5709	0.5413		1.90	2.00	-5.2	30.0
Bromoform	Ave	0.6101	0.6166		2.02	2.00	1.1	30.0
Styrene	Ave	0.6068	0.5942		1.96	2.00	-2.1	30.0
o-Xylene	Ave	0.8310	0.7877		1.90	2.00	-5.2	30.0
1,1,2,2-Tetrachloroethane	Ave	0.6006	0.5674		1.89	2.00	-5.5	30.0
1,2,3-Trichloropropane	Ave	0.1574	0.1579		2.01	2.00	0.3	30.0
Isopropylbenzene	Ave	1.131	1.109		1.96	2.00	-2.0	30.0
Propylbenzene	Ave	0.3111	0.3068		1.97	2.00	-1.4	30.0

FORM VII
AIR - GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Lab Sample ID: CCVIS 140-19508/8 Calibration Date: 04/16/2018 13:24
 Instrument ID: MJ Calib Start Date: 02/15/2018 15:35
 GC Column: RTX-5 ID: 0.32 (mm) Calib End Date: 02/15/2018 22:24
 Lab File ID: JCCVD16B.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
2-Chlorotoluene	Ave	0.3018	0.2956		1.96	2.00	-2.1	30.0
4-Ethyltoluene	Ave	1.092	1.032		1.89	2.00	-5.5	30.0
1,3,5-Trimethylbenzene	Ave	0.4567	0.5091		2.23	2.00	11.5	30.0
Alpha Methyl Styrene	Ave	0.4759	0.4529		1.90	2.00	-4.8	30.0
Decane	Ave	0.6756	0.6312		1.87	2.00	-6.6	30.0
tert-Butylbenzene	Ave	0.9702	0.9552		1.97	2.00	-1.5	30.0
1,2,4-Trimethylbenzene	Ave	0.9159	0.9056		1.98	2.00	-1.1	30.0
sec-Butylbenzene	Ave	1.336	1.312		1.96	2.00	-1.8	30.0
1,3-Dichlorobenzene	Ave	0.6861	0.6690		1.95	2.00	-2.5	30.0
Benzyl chloride	Ave	0.7395	0.7377		2.00	2.00	-0.2	30.0
1,4-Dichlorobenzene	Ave	0.6827	0.6555		1.92	2.00	-4.0	30.0
4-Isopropyltoluene	Ave	1.091	1.079		1.98	2.00	-1.1	30.0
1,2,3-Trimethylbenzene	Ave	0.8965	0.6489		1.45	2.00	-27.6	30.0
Butylcyclohexane	Ave	0.8276	0.7448		1.80	2.00	-10.0	30.0
Indane	Ave	0.8553	0.8015		1.87	2.00	-6.3	30.0
1,2-Dichlorobenzene	Ave	0.6490	0.6381		1.97	2.00	-1.7	30.0
Butylbenzene	Ave	1.065	1.071		2.01	2.00	0.6	30.0
Indene	Ave	0.7188	0.5935		1.65	2.00	-17.4	30.0
Undecane	Ave	0.7010	0.6510		1.86	2.00	-7.1	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3168	0.2639		1.67	2.00	-16.7	30.0
1,2,4,5-Tetramethylbenzene	Ave	0.9272	0.8873		1.91	2.00	-4.3	30.0
Dodecane	Qua		0.5282		2.25	2.00	12.4	30.0
1,2,4-Trichlorobenzene	Ave	0.4913	0.5431		2.21	2.00	10.5	30.0
Naphthalene	Ave	0.7770	0.7916		2.04	2.00	1.9	30.0
Hexachlorobutadiene	Ave	0.5066	0.4985		1.97	2.00	-1.6	30.0
1,2,3-Trichlorobenzene	Ave	0.3126	0.3590		2.30	2.00	14.8	30.0
2-Methylnaphthalene	Ave	0.0616	0.1470		7.17	3.00	138.9*	50.0
1-Methylnaphthalene	Ave	0.0610	0.1894		9.31	3.00	210.5*	50.0
4-Bromofluorobenzene (Surr)	Ave	0.7231	0.7266		4.02	4.00	0.5	30.0

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JCCVD16B.D
 Lims ID: CCVIS
 Client ID:
 Sample Type: CCVIS
 Inject. Date: 16-Apr-2018 13:24:30 ALS Bottle#: 15 Worklist Smp#: 8
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007901-002
 Misc. Info.: S60
 Operator ID: 007126 Instrument ID: MJ
 Sublist: chrom-MJ_TO15*sub16
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 17-Apr-2018 09:47:35 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last Ical File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK001

First Level Reviewer: tajh

Date: 16-Apr-2018 13:53:24

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	9.662	9.662	0.000	93	267822	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.765	11.765	0.000	95	1492723	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.364	16.364	0.000	88	1358028	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.973	17.973	0.000	97	986690	4.00	4.02	
6 Chlorodifluoromethane	67	4.196	4.196	0.000	96	57667	2.00	2.02	
7 Propene	41	4.207	4.207	0.000	99	160381	2.00	2.06	
8 Dichlorodifluoromethane	85	4.266	4.266	0.000	100	555238	2.00	2.31	
9 Chloromethane	52	4.476	4.476	0.000	54	60183	2.00	2.14	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.481	4.481	0.000	92	365471	2.00	2.32	
11 Acetaldehyde	44	4.653	4.653	0.000	100	257877	10.0	8.27	
12 Vinyl chloride	62	4.669	4.669	0.000	98	208149	2.00	2.38	
14 Butane	43	4.766	4.766	0.000	86	279043	2.00	2.08	
13 Butadiene	54	4.766	4.766	0.000	66	146746	2.00	2.07	
15 Bromomethane	94	5.132	5.132	0.000	98	191719	2.00	2.20	
16 Chloroethane	64	5.293	5.293	0.000	99	93415	2.00	2.06	
17 Ethanol	31	5.412	5.412	0.000	95	235083	10.0	7.25	
18 Vinyl bromide	106	5.627	5.627	0.000	99	193031	2.00	2.33	
19 2-Methylbutane	43	5.681	5.681	0.000	91	201694	2.00	2.04	
20 Trichlorofluoromethane	101	5.917	5.917	0.000	99	528976	2.00	2.28	
21 Acrolein	56	5.934	5.934	0.000	93	50245	2.00	2.16	
23 Acetonitrile	40	6.004	6.004	0.000	99	48773	2.00	1.66	
22 Acetone	58	6.057	6.057	0.000	98	60163	2.00	1.97	
24 Pentane	72	6.154	6.154	0.000	98	30047	2.00	2.12	
25 Isopropyl alcohol	45	6.170	6.170	0.000	93	203397	2.00	2.33	
26 Ethyl ether	31	6.337	6.337	0.000	95	140014	2.00	1.86	
27 1,1-Dichloroethene	96	6.676	6.676	0.000	98	183872	2.00	2.07	
28 Acrylonitrile	53	6.789	6.789	0.000	94	98257	2.00	1.85	
30 2-Methyl-2-propanol	59	6.810	6.810	0.000	94	234721	2.00	2.34	
29 1,1,2-Trichloro-1,2,2-trif	101	6.854	6.854	0.000	97	385932	2.00	2.10	
32 Methylene Chloride	84	7.042	7.042	0.000	95	169040	2.00	1.76	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
31 3-Chloro-1-propene	39	7.058	7.058	0.000	96	151068	2.00	1.96	
33 Carbon disulfide	76	7.219	7.219	0.000	98	535508	2.00	2.08	
34 trans-1,2-Dichloroethene	96	7.881	7.881	0.000	98	178211	2.00	2.01	
35 2-Methylpentane	43	7.897	7.897	0.000	94	342054	2.00	1.67	
36 Methyl tert-butyl ether	73	8.015	8.015	0.000	96	405253	2.00	2.06	
37 1,1-Dichloroethane	63	8.322	8.322	0.000	100	329266	2.00	1.98	
38 Vinyl acetate	43	8.414	8.414	0.000	100	359759	2.00	1.89	
40 2-Butanone (MEK)	72	8.887	8.887	0.000	96	65030	2.00	1.90	
39 Hexane	56	8.898	8.898	0.000	81	132761	2.00	1.84	
41 Isopropyl ether	45	9.059	9.059	0.000	96	463214	2.00	1.96	
42 cis-1,2-Dichloroethene	96	9.323	9.323	0.000	95	180259	2.00	1.99	
43 Ethyl acetate	43	9.500	9.500	0.000	99	268002	2.00	1.77	
44 Chloroform	83	9.672	9.672	0.000	97	382167	2.00	1.99	
45 Tert-butyl ethyl ether	59	9.748	9.748	0.000	94	420816	2.00	1.92	
46 Tetrahydrofuran	42	10.087	10.087	0.000	93	146791	2.00	1.81	
47 1,1,1-Trichloroethane	97	10.694	10.694	0.000	96	403892	2.00	2.02	
48 1,2-Dichloroethane	62	10.802	10.802	0.000	98	246203	2.00	2.03	
53 n-Butanol	31	11.254	11.254	0.000	66	43497	2.00	1.68	
49 Cyclohexane	69	11.265	11.265	0.000	89	81358	2.00	1.86	
50 Benzene	78	11.265	11.265	0.000	97	514187	2.00	1.94	
52 Carbon tetrachloride	117	11.281	11.281	0.000	99	437313	2.00	2.19	
55 2,3-Dimethylpentane	71	11.356	11.356	0.000	91	113550	2.00	1.83	
51 Thiophene	84	11.523	11.523	0.000	95	287014	2.00	1.91	
54 Tert-amyl methyl ether	73	11.700	11.700	0.000	99	418973	2.00	2.07	
56 Isooctane	57	11.969	11.969	0.000	99	818893	2.00	1.93	
57 n-Heptane	71	12.319	12.319	0.000	90	176312	2.00	1.89	
58 1,2-Dichloropropane	63	12.421	12.421	0.000	92	186966	2.00	1.88	
59 Trichloroethene	130	12.454	12.454	0.000	96	236909	2.00	2.03	
60 Dibromomethane	93	12.545	12.545	0.000	94	219058	2.00	1.97	
61 Dichlorobromomethane	83	12.679	12.679	0.000	99	386871	2.00	1.99	
62 1,4-Dioxane	88	12.701	12.701	0.000	88	46513	2.00	1.79	
63 Methyl methacrylate	41	12.749	12.749	0.000	95	163695	2.00	1.81	
64 Methylcyclohexane	83	13.196	13.196	0.000	97	378565	2.00	2.28	
65 4-Methyl-2-pentanone (MIBK)	43	13.583	13.583	0.000	97	234439	2.00	1.71	
66 cis-1,3-Dichloropropene	75	13.637	13.637	0.000	92	302811	2.00	1.97	
67 trans-1,3-Dichloropropene	75	14.304	14.304	0.000	96	258251	2.00	1.96	
68 Toluene	91	14.433	14.433	0.000	93	534451	2.00	1.87	
69 1,1,2-Trichloroethane	83	14.509	14.509	0.000	98	162247	2.00	1.85	
71 3-Methylthiophene	97	14.589	14.589	0.000	98	452972	NC	NC	
70 2-Methylthiophene	97	14.783	14.783	0.000	97	448605	NC	NC	
72 2-Hexanone	58	14.880	14.880	0.000	94	120829	2.00	1.79	
73 n-Octane	85	15.079	15.079	0.000	92	191205	2.00	1.92	
74 Chlorodibromomethane	129	15.202	15.202	0.000	97	399930	2.00	2.07	
75 Ethylene Dibromide	107	15.493	15.493	0.000	99	312556	2.00	1.92	
76 Tetrachloroethene	129	15.552	15.552	0.000	96	222779	2.00	1.96	
77 2,3-Dimethylheptane	43	16.402	16.402	0.000	94	494117	2.00	1.69	
78 Chlorobenzene	112	16.413	16.413	0.000	95	455844	2.00	1.97	
79 Ethylbenzene	91	16.687	16.687	0.000	98	676399	2.00	1.90	
80 2-Ethylthiophene	97	16.789	16.789	0.000	98	526143	NC	NC	
81 m-Xylene & p-Xylene	91	16.849	16.849	0.000	100	1040551	4.00	3.91	
82 n-Nonane	57	17.231	17.231	0.000	91	367549	2.00	1.90	
83 Styrene	104	17.311	17.311	0.000	98	403464	2.00	1.96	

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
84 Bromoform	173	17.311	17.311	0.000	96	418645	2.00	2.02	
85 o-Xylene	91	17.370	17.370	0.000	98	534882	2.00	1.90	
86 1,1,2,2-Tetrachloroethane	83	17.688	17.688	0.000	100	385276	2.00	1.89	
87 1,2,3-Trichloropropane	110	17.844	17.844	0.000	99	107190	2.00	2.01	
88 Isopropylbenzene	105	17.935	17.935	0.000	95	752995	2.00	1.96	
89 N-Propylbenzene	120	18.441	18.441	0.000	99	208347	2.00	1.97	
90 2-Chlorotoluene	126	18.495	18.495	0.000	97	200698	2.00	1.96	
91 4-Ethyltoluene	105	18.586	18.586	0.000	99	700451	2.00	1.89	
92 1,3,5-Trimethylbenzene	120	18.651	18.651	0.000	93	345688	2.00	2.23	
93 Alpha Methyl Styrene	118	18.877	18.877	0.000	88	307553	2.00	1.90	
94 n-Decane	57	18.909	18.909	0.000	91	428604	2.00	1.87	
95 tert-Butylbenzene	119	19.060	19.060	0.000	95	648585	2.00	1.97	
96 1,2,4-Trimethylbenzene	105	19.076	19.076	0.000	96	614901	2.00	1.98	
97 sec-Butylbenzene	105	19.318	19.318	0.000	98	891102	2.00	1.96	
98 1,3-Dichlorobenzene	146	19.345	19.345	0.000	97	454225	2.00	1.95	
99 Benzyl chloride	91	19.415	19.415	0.000	98	500922	2.00	2.00	
100 1,4-Dichlorobenzene	146	19.425	19.425	0.000	94	445111	2.00	1.92	
101 4-Isopropyltoluene	119	19.474	19.474	0.000	97	732758	2.00	1.98	
102 1,2,3-Trimethylbenzene	105	19.533	19.533	0.000	98	440636	2.00	1.45	
103 Butylcyclohexane	83	19.576	19.576	0.000	96	505695	2.00	1.80	
104 2,3-Dihydroindene	117	19.775	19.775	0.000	95	544234	2.00	1.87	
105 1,2-Dichlorobenzene	146	19.780	19.780	0.000	98	433291	2.00	1.97	
106 n-Butylbenzene	91	19.893	19.893	0.000	98	727073	2.00	2.01	
107 Indene	116	19.904	19.904	0.000	89	402990	2.00	1.65	
108 Undecane	57	20.173	20.173	0.000	96	442033	2.00	1.86	
109 1,2-Dimethyl-4-Ethylbenzen	119	20.254	20.254	0.000	98	506576	NC	NC	
110 1,2-Dibromo-3-Chloropropan	157	20.367	20.367	0.000	97	179163	2.00	1.67	
111 1,2,4,5-Tetramethylbenzene	119	20.641	20.641	0.000	97	602519	2.00	1.91	
112 1,2,3,5-Tetramethylbenzene	119	20.700	20.700	0.000	97	362259	NC	NC	
113 1,2,3,4-Tetramethylbenzene	119	21.120	21.120	0.000	97	471998	NC	NC	
114 Dodecane	57	21.254	21.254	0.000	96	358637	2.00	2.25	
115 1,2,4-Trichlorobenzene	180	21.496	21.496	0.000	93	368766	2.00	2.21	
116 Naphthalene	128	21.626	21.626	0.000	99	537488	2.00	2.04	
117 Benzo(b)thiophene	134	21.717	21.717	0.000	99	253191	NC	NC	
118 Hexachlorobutadiene	225	21.787	21.787	0.000	95	338474	2.00	1.97	
119 1,2,3-Trichlorobenzene	180	21.846	21.846	0.000	94	243789	2.00	2.30	
120 2-Methylnaphthalene	142	22.373	22.373	0.000	99	149766	3.00	7.17	
121 1-Methylnaphthalene	142	22.502	22.502	0.000	100	192950	3.00	9.31	
A 123 C8 Range	1	15.095	(15.040-15.186)		0	1670963	2.00	2.01	
S 124 Xylenes, Total	100				0		6.00	5.81	
S 125 1,2-Dichloroethene, Total	1				0		4.00	4.00	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

40CV101S_00059

Amount Added: 100.00

Units: mL

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 17-Apr-2018 09:47:37

Chrom Revision: 2.2 16-Apr-2018 07:57:50

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JCCVD16B.D

Injection Date: 16-Apr-2018 13:24:30

Instrument ID: MJ

Operator ID: 007126

Lims ID: CCVIS

Worklist Smp#: 8

Client ID:

Purge Vol: 500.000 mL

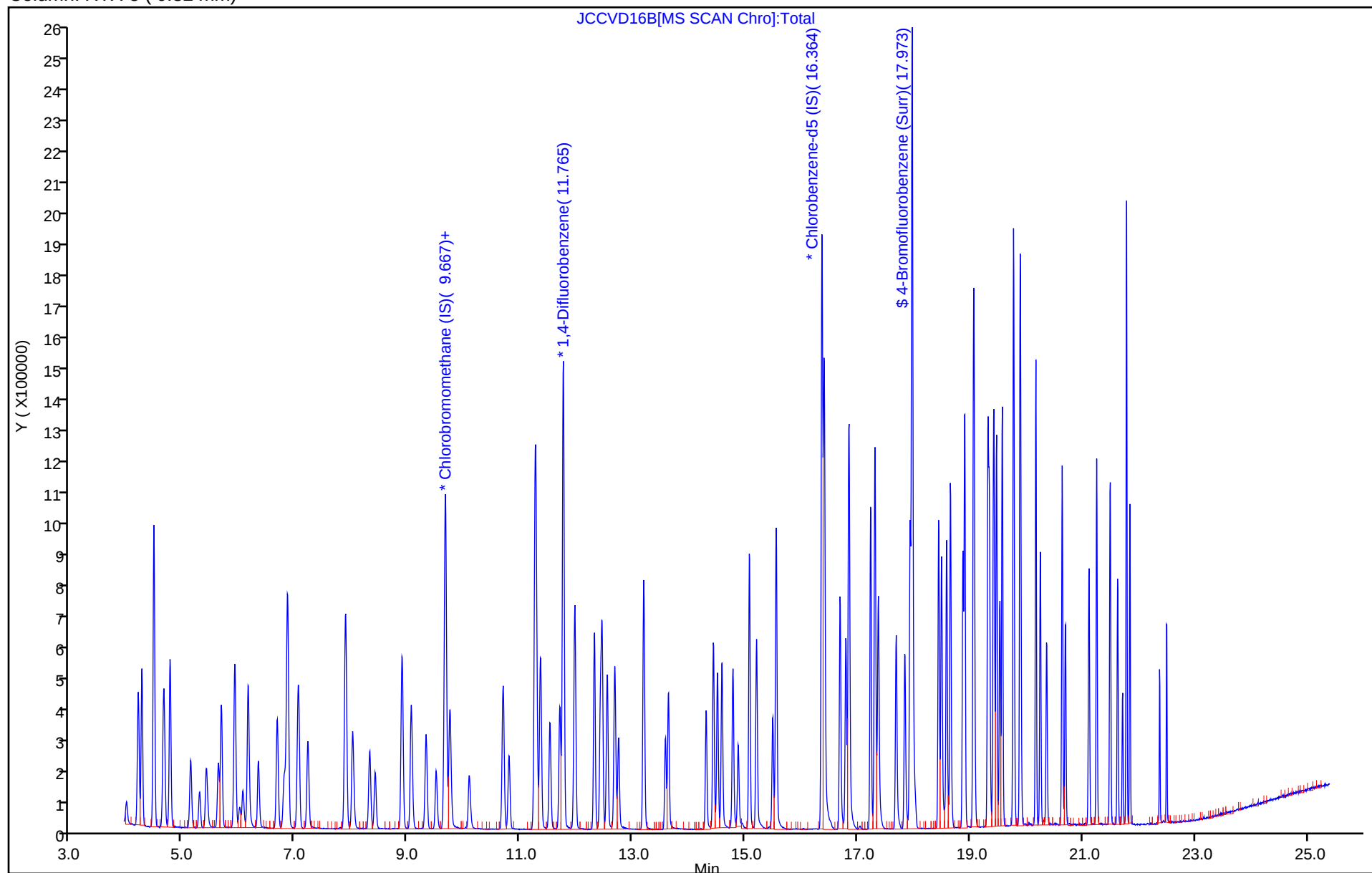
Dil. Factor: 1.0000

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\20180215-7391.b\JBFB15.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 15-Feb-2018 14:16:30 ALS Bottle#: 16 Worklist Smp#: 1
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0007391-001
Misc. Info.: BFB
Operator ID: 403648 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 19-Feb-2018 10:05:22 Calib Date: 15-Feb-2018 22:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK031

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
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\$ 5 BFB	95	4.423	4.423	0.000	0	571491	NR	NR	
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QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

40MXSUR_00002

Amount Added: 40.00

Units: mL

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JBFB15.D

Injection Date: 15-Feb-2018 14:16:30

Instrument ID: MJ

Lims ID: BFB

Client ID:

Operator ID: 403648

ALS Bottle#: 16

Worklist Smp#: 1

Injection Vol: 500.0 mL

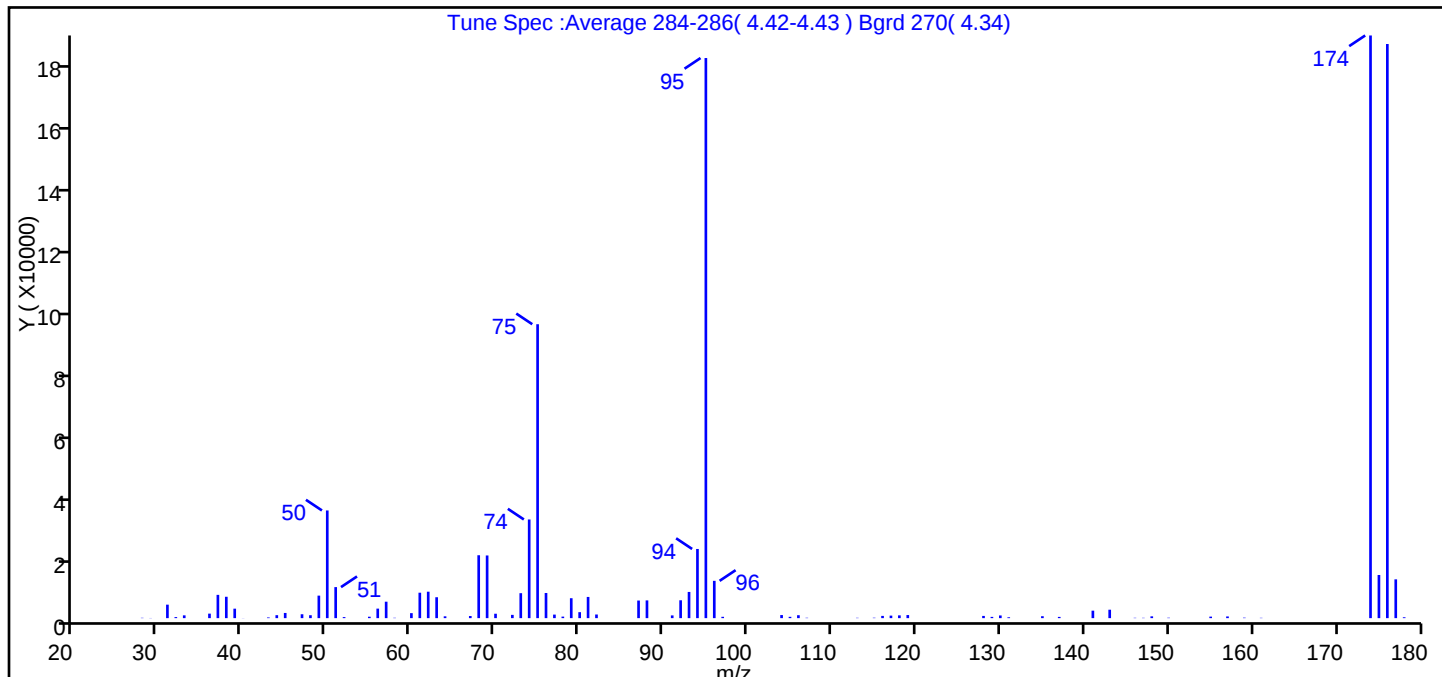
Dil. Factor: 1.0000

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	19.2
75	30 to 60% of m/z 95	52.5
96	5 to 9% of m/z 95	6.7
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	104.0
175	5 to 9% of m/z 174	7.7 (7.4)
176	Greater than 95% but less than 101% of m/z 174	102.5 (98.5)
177	5 to 9% of m/z 176	6.9 (6.8)

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JBFB15.D\MJ_TO15.rslt\spectra.d
Injection Date: 15-Feb-2018 14:16:30
Spectrum: Tune Spec :Average 284-286(4.42-4.43) Bgrd 270(4.34)
Base Peak: 174.00
Minimum % Base Peak: 0
Number of Points: 83

m/z	Y	m/z	Y	m/z	Y	m/z	Y
28.00	106	57.00	5180	82.00	1147	129.00	397
29.00	51	58.00	110	87.00	5542	130.00	847
31.00	4246	60.00	1574	88.00	5589	131.00	273
32.00	334	61.00	8010	91.00	862	135.00	608
33.00	880	62.00	8327	92.00	5626	137.00	391
36.00	1420	63.00	6584	93.00	8251	141.00	2355
37.00	7330	64.00	574	94.00	21784	143.00	2654
38.00	6730	67.00	668	95.00	176384	146.00	108
39.00	2983	68.00	19808	96.00	11748	147.00	101
40.00	30	69.00	19736	97.00	422	148.00	569
43.00	218	70.00	1389	104.00	973	150.00	133
44.00	936	72.00	1031	105.00	416	155.00	479
45.00	1633	73.00	7862	106.00	922	157.00	534
47.00	1227	74.00	31072	107.00	119	159.00	150
48.00	921	75.00	92560	113.00	106	161.00	102
49.00	7091	76.00	7920	115.00	132	174.00	183488
50.00	33912	77.00	1118	116.00	707	175.00	13588
51.00	9776	78.00	483	117.00	798	176.00	180800
52.00	330	79.00	6276	118.00	876	177.00	12220
55.00	447	80.00	1882	119.00	973	178.00	273
56.00	2998	81.00	6677	128.00	700		

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JBFBB15.D

Injection Date: 15-Feb-2018 14:16:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: BFB

Worklist Smp#: 1

Client ID:

Injection Vol: 500.0 mL

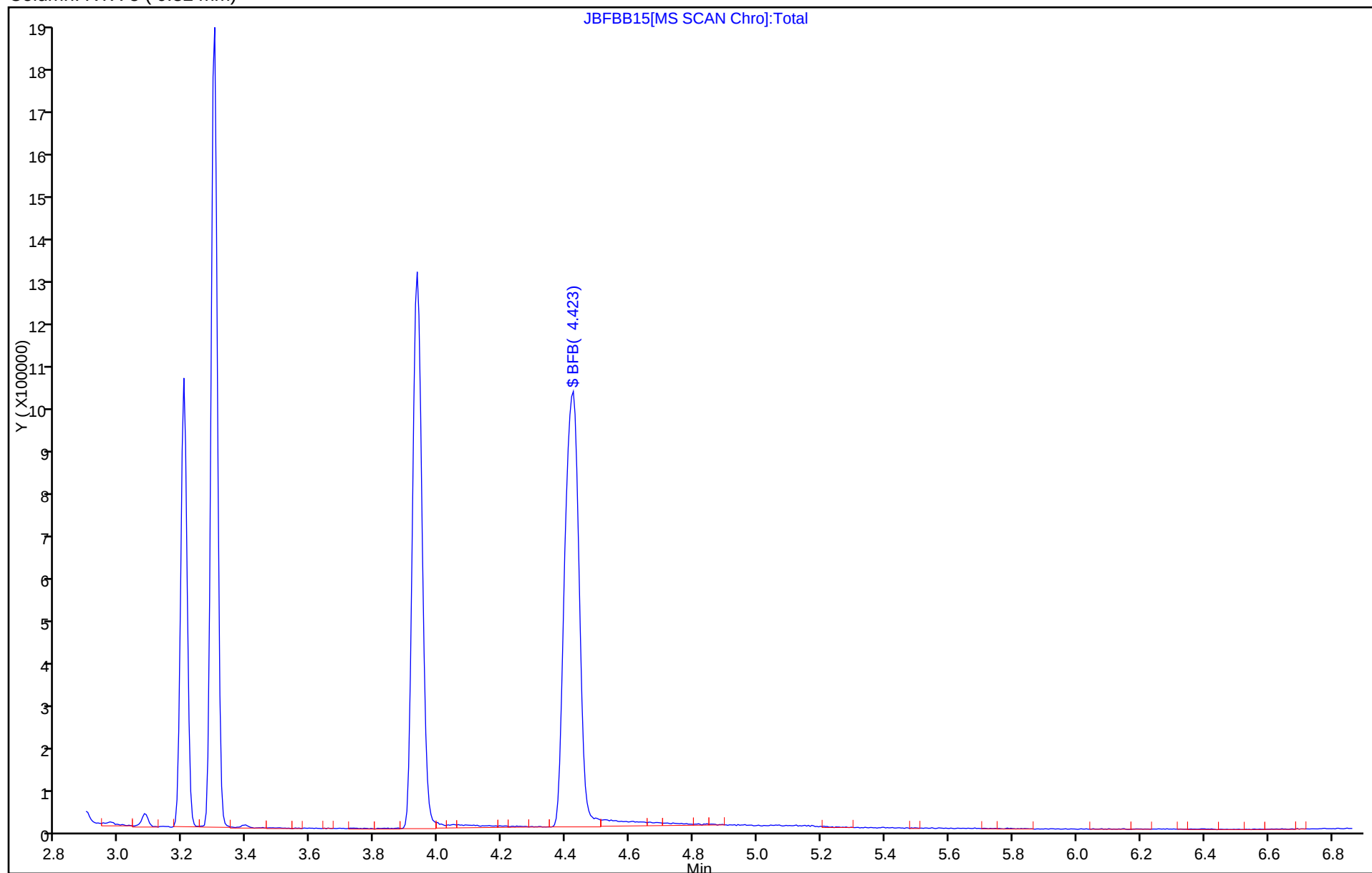
Dil. Factor: 1.0000

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\20180412-7901.b\JBFBFD16B.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 16-Apr-2018 12:56:30 ALS Bottle#: 16 Worklist Smp#: 7
Injection Vol: 500.0 mL Dil. Factor: 1.0000
Sample Info: 140-0007901-001
Misc. Info.: TUNE
Operator ID: 007126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 17-Apr-2018 09:47:33 Calib Date: 15-Feb-2018 22:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK001

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ppb v/v	OnCol Amt ppb v/v	Flags
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\$ 5 BFB	95	4.401	4.401	0.000	0	559704	NR	NR	
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QC Flag Legend

Processing Flags

NR - Missing Quant Standard

Reagents:

40MXSUR_00002

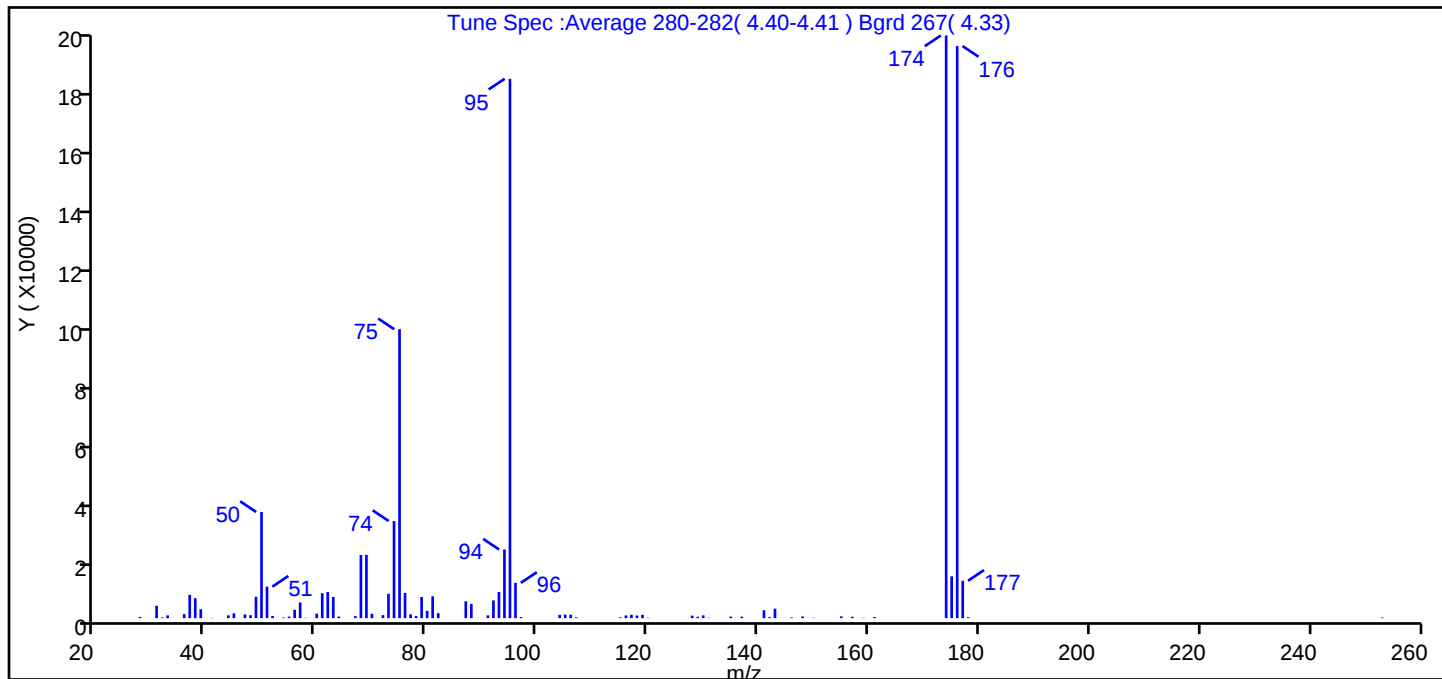
Amount Added: 40.00

Units: mL

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JBFBFD16B.D
Injection Date: 16-Apr-2018 12:56:30 Instrument ID: MJ
Lims ID: BFB
Client ID:
Operator ID: 007126 ALS Bottle#: 16 Worklist Smp#: 7
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	19.7
75	30 to 60% of m/z 95	53.6
96	5 to 9% of m/z 95	6.5
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	108.0
175	5 to 9% of m/z 174	7.7 (7.2)
176	Greater than 95% but less than 101% of m/z 174	106.1 (98.2)
177	5 to 9% of m/z 176	6.9 (6.5)

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JBFB16B.D\MJ_TO15.rslt\spectra.d
Injection Date: 16-Apr-2018 12:56:30
Spectrum: Tune Spec :Average 280-282(4.40-4.41) Bgrd 267(4.33)
Base Peak: 174.00
Minimum % Base Peak: 0
Number of Points: 83

m/z	Y	m/z	Y	m/z	Y	m/z	Y
28.00	402	58.00	111	87.00	5606	130.00	912
31.00	4109	60.00	1489	88.00	4708	131.00	107
32.00	244	61.00	8292	91.00	931	135.00	527
33.00	930	62.00	8709	92.00	5881	137.00	513
36.00	1329	63.00	7046	93.00	8667	141.00	2624
37.00	7734	64.00	534	94.00	22808	142.00	330
38.00	6639	67.00	679	95.00	179264	143.00	3158
39.00	2949	68.00	20984	96.00	11725	146.00	237
41.00	100	69.00	21032	97.00	359	148.00	567
44.00	927	70.00	1452	104.00	1121	150.00	109
45.00	1613	72.00	1006	105.00	1181	155.00	596
47.00	1249	73.00	8077	106.00	1147	157.00	442
48.00	972	74.00	32288	107.00	267	159.00	115
49.00	7107	75.00	96032	115.00	258	161.00	376
50.00	35288	76.00	8372	116.00	895	174.00	193664
51.00	10469	77.00	1256	117.00	1105	175.00	13886
52.00	728	78.00	698	118.00	868	176.00	190144
54.00	220	79.00	7032	119.00	1092	177.00	12432
55.00	520	80.00	2433	120.00	116	178.00	300
56.00	2776	81.00	7244	128.00	836	253.00	213
57.00	5221	82.00	1667	129.00	467		

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JBFBFD16B.D

Injection Date: 16-Apr-2018 12:56:30

Instrument ID: MJ

Operator ID: 007126

Lims ID: BFB

Worklist Smp#: 7

Client ID:

Injection Vol: 500.0 mL

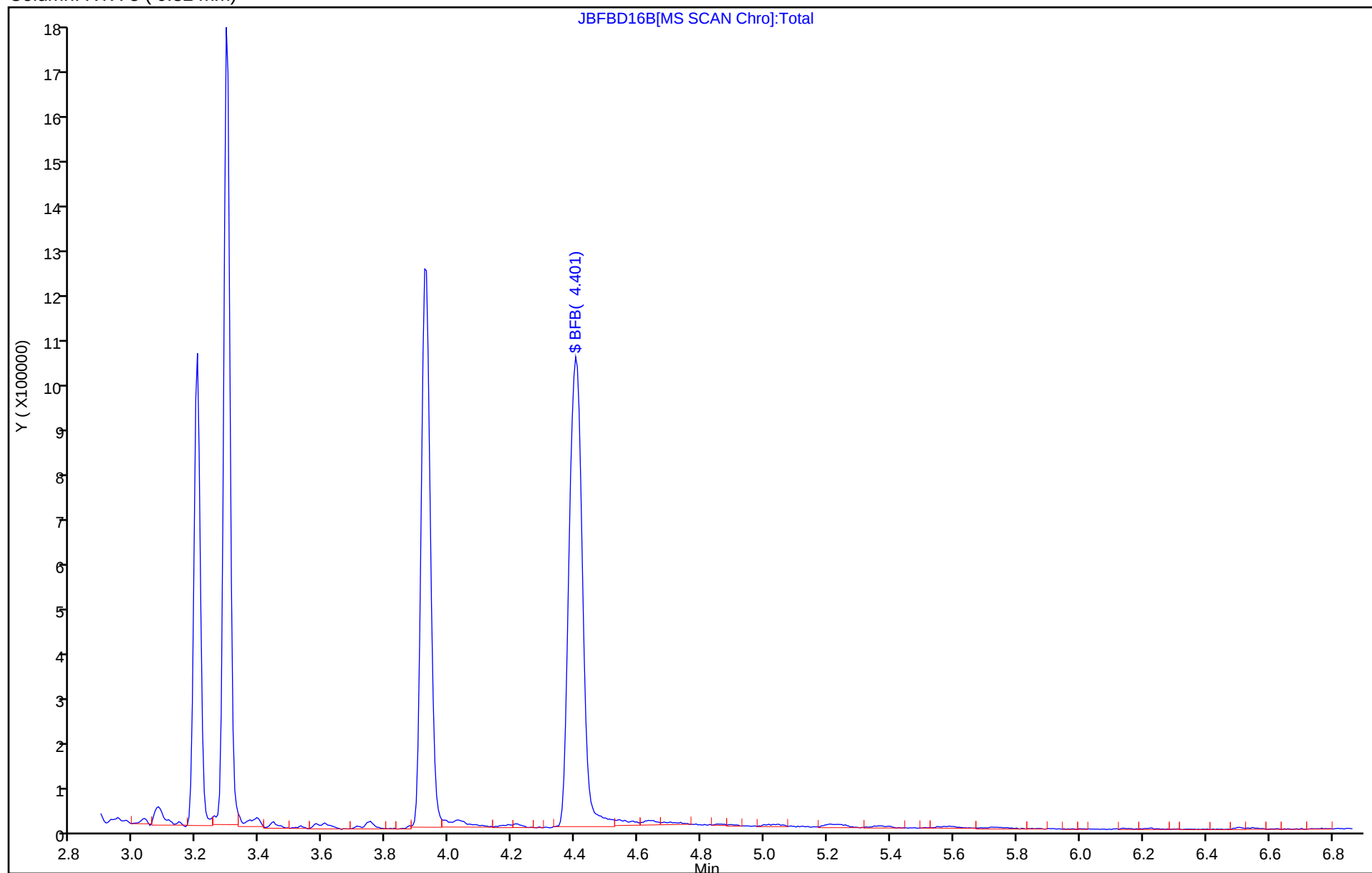
Dil. Factor: 1.0000

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.: 140-11270-1

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: MB 140-19508/10

Matrix: Air Lab File ID: J500BD16.D

Analysis Method: TO 15 LL Date Collected: _____

Sample wt/vol: 500 (mL) Date Analyzed: 04/16/2018 15:10

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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.080	0.012
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.080	0.024
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	ND		0.080	0.012
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.080	0.021
75-34-3	1,1-Dichloroethane	98.96	ND		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	ND		0.040	0.014
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	ND		0.080	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.080	0.039
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		0.080	0.018
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		0.080	0.013
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.080	0.028
78-87-5	1,2-Dichloropropane	112.99	ND		0.080	0.021
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.080	0.026
106-99-0	1,3-Butadiene	54.09	ND		0.16	0.025
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.080	0.026
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.080	0.026
123-91-1	1,4-Dioxane	88.11	ND		0.20	0.032
90-12-0	1-Methylnaphthalene	142.20	ND		1.0	0.37
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.20	0.016
78-93-3	2-Butanone (MEK)	72.11	ND		0.32	0.080
591-78-6	2-Hexanone	100.20	ND		0.20	0.023
91-57-6	2-Methylnaphthalene	142.20	ND		1.0	0.35
107-05-1	3-Chloropropene	76.53	ND		0.080	0.019
622-96-8	4-Ethyltoluene	120.20	ND		0.16	0.026
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.20	0.078
67-64-1	Acetone	58.08	ND		2.0	0.54
71-43-2	Benzene	78.11	ND		0.080	0.023
100-44-7	Benzyl chloride	126.58	ND		0.16	0.031
75-27-4	Bromodichloromethane	163.83	ND		0.080	0.018
75-25-2	Bromoform	252.75	ND		0.080	0.019
74-83-9	Bromomethane	94.94	ND		0.080	0.013
106-97-8	Butane	58.12	ND		0.16	0.073
75-15-0	Carbon disulfide	76.14	ND		0.20	0.012

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 140-19508/10
 Matrix: Air Lab File ID: J500BD16.D
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 04/16/2018 15:10
 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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	ND		0.032	0.015
108-90-7	Chlorobenzene	112.56	ND		0.080	0.020
75-00-3	Chloroethane	64.52	ND		0.080	0.014
67-66-3	Chloroform	119.38	ND		0.080	0.015
74-87-3	Chloromethane	50.49	ND		0.20	0.064
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.040	0.024
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.080	0.029
110-82-7	Cyclohexane	84.16	ND		0.20	0.016
124-18-5	Decane	142.28	ND		0.40	0.022
124-48-1	Dibromochloromethane	208.29	ND		0.080	0.017
75-71-8	Dichlorodifluoromethane	120.91	ND		0.080	0.027
112-40-3	Dodecane	170.33	ND		0.40	0.031
64-17-5	Ethanol	46.07	ND		2.0	0.64
141-78-6	Ethyl acetate	88.11	ND		0.80	0.080
100-41-4	Ethylbenzene	106.17	ND		0.080	0.027
142-82-5	Heptane	100.21	ND		0.20	0.019
87-68-3	Hexachlorobutadiene	260.76	ND		0.080	0.049
110-54-3	Hexane	86.17	ND		0.20	0.013
496-11-7	Indane	118.18	ND		0.080	0.033
95-13-6	Indene	116.16	ND		0.16	0.032
67-63-0	Isopropyl alcohol	60.10	ND		0.80	0.094
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.16	0.068
75-09-2	Methylene Chloride	84.93	ND		0.20	0.13
179601-23-1	m-Xylene & p-Xylene	106.17	ND		0.080	0.053
111-84-2	Nonane	128.26	ND		0.20	0.017
111-65-9	Octane	114.23	ND		0.16	0.014
95-47-6	o-Xylene	106.17	ND		0.080	0.024
109-66-0	Pentane	72.15	ND		0.40	0.16
100-42-5	Styrene	104.15	ND		0.080	0.023
75-65-0	tert-Butyl alcohol	74.12	ND		0.32	0.015
127-18-4	Tetrachloroethene	165.83	ND		0.080	0.016
109-99-9	Tetrahydrofuran	72.11	ND		0.40	0.025
110-02-1	Thiophene	84.14	ND		0.080	0.030
108-88-3	Toluene	92.14	ND		0.12	0.12
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.080	0.020

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 140-19508/10
 Matrix: Air Lab File ID: J500BD16.D
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 04/16/2018 15:10
 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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.080	0.019
79-01-6	Trichloroethene	131.39	ND		0.036	0.014
75-69-4	Trichlorofluoromethane	137.37	ND		0.080	0.010
1120-21-4	Undecane	156.31	ND		0.40	0.025
593-60-2	Vinyl bromide	106.96	ND		0.080	0.014
75-01-4	Vinyl chloride	62.50	ND		0.040	0.029

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: MB 140-19508/10

Matrix: Air Lab File ID: J500BD16.D

Analysis Method: TO 15 LL Date Collected: _____

Sample wt/vol: 500 (mL) Date Analyzed: 04/16/2018 15:10

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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	ND		0.44	0.065
79-34-5	1,1,2,2-Tetrachloroethane	167.85	ND		0.55	0.16
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	ND		0.61	0.092
79-00-5	1,1,2-Trichloroethane	133.41	ND		0.44	0.11
75-34-3	1,1-Dichloroethane	98.96	ND		0.32	0.040
75-35-4	1,1-Dichloroethene	96.94	ND		0.16	0.056
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	ND		0.44	0.19
120-82-1	1,2,4-Trichlorobenzene	181.45	ND		0.59	0.29
106-93-4	1,2-Dibromoethane (EDB)	187.87	ND		0.61	0.14
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	ND		0.56	0.091
95-50-1	1,2-Dichlorobenzene	147.00	ND		0.48	0.17
78-87-5	1,2-Dichloropropane	112.99	ND		0.37	0.097
108-67-8	1,3,5-Trimethylbenzene	120.20	ND		0.39	0.13
106-99-0	1,3-Butadiene	54.09	ND		0.35	0.055
541-73-1	1,3-Dichlorobenzene	147.00	ND		0.48	0.16
106-46-7	1,4-Dichlorobenzene	147.00	ND		0.48	0.16
123-91-1	1,4-Dioxane	88.11	ND		0.72	0.12
90-12-0	1-Methylnaphthalene	142.20	ND		5.8	2.2
540-84-1	2,2,4-Trimethylpentane	114.23	ND		0.93	0.075
78-93-3	2-Butanone (MEK)	72.11	ND		0.94	0.24
591-78-6	2-Hexanone	100.20	ND		0.82	0.094
91-57-6	2-Methylnaphthalene	142.20	ND		5.8	2.0
107-05-1	3-Chloropropene	76.53	ND		0.25	0.059
622-96-8	4-Ethyltoluene	120.20	ND		0.79	0.13
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	ND		0.82	0.32
67-64-1	Acetone	58.08	ND		4.8	1.3
71-43-2	Benzene	78.11	ND		0.26	0.073
100-44-7	Benzyl chloride	126.58	ND		0.83	0.16
75-27-4	Bromodichloromethane	163.83	ND		0.54	0.12
75-25-2	Bromoform	252.75	ND		0.83	0.20
74-83-9	Bromomethane	94.94	ND		0.31	0.050
106-97-8	Butane	58.12	ND		0.38	0.17
75-15-0	Carbon disulfide	76.14	ND		0.62	0.037

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 140-19508/10
 Matrix: Air Lab File ID: J500BD16.D
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 04/16/2018 15:10
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	ND		0.20	0.094
108-90-7	Chlorobenzene	112.56	ND		0.37	0.092
75-00-3	Chloroethane	64.52	ND		0.21	0.037
67-66-3	Chloroform	119.38	ND		0.39	0.073
74-87-3	Chloromethane	50.49	ND		0.41	0.13
156-59-2	cis-1,2-Dichloroethene	96.94	ND		0.16	0.095
10061-01-5	cis-1,3-Dichloropropene	110.97	ND		0.36	0.13
110-82-7	Cyclohexane	84.16	ND		0.69	0.055
124-18-5	Decane	142.28	ND		2.3	0.13
124-48-1	Dibromochloromethane	208.29	ND		0.68	0.14
75-71-8	Dichlorodifluoromethane	120.91	ND		0.40	0.13
112-40-3	Dodecane	170.33	ND		2.8	0.22
64-17-5	Ethanol	46.07	ND		3.8	1.2
141-78-6	Ethyl acetate	88.11	ND		2.9	0.29
100-41-4	Ethylbenzene	106.17	ND		0.35	0.12
142-82-5	Heptane	100.21	ND		0.82	0.078
87-68-3	Hexachlorobutadiene	260.76	ND		0.85	0.52
110-54-3	Hexane	86.17	ND		0.70	0.046
496-11-7	Indane	118.18	ND		0.39	0.16
95-13-6	Indene	116.16	ND		0.76	0.15
67-63-0	Isopropyl alcohol	60.10	ND		2.0	0.23
1634-04-4	Methyl tert-butyl ether	88.15	ND		0.58	0.25
75-09-2	Methylene Chloride	84.93	ND		0.69	0.45
179601-23-1	m-Xylene & p-Xylene	106.17	ND		0.35	0.23
111-84-2	Nonane	128.26	ND		1.0	0.089
111-65-9	Octane	114.23	ND		0.75	0.065
95-47-6	o-Xylene	106.17	ND		0.35	0.10
109-66-0	Pentane	72.15	ND		1.2	0.47
100-42-5	Styrene	104.15	ND		0.34	0.098
75-65-0	tert-Butyl alcohol	74.12	ND		0.97	0.045
127-18-4	Tetrachloroethene	165.83	ND		0.54	0.11
109-99-9	Tetrahydrofuran	72.11	ND		1.2	0.074
110-02-1	Thiophene	84.14	ND		0.28	0.10
108-88-3	Toluene	92.14	ND		0.45	0.45
156-60-5	trans-1,2-Dichloroethene	96.94	ND		0.32	0.079

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: MB 140-19508/10
 Matrix: Air Lab File ID: J500BD16.D
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 04/16/2018 15:10
 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.: 19508 Units: ug/m3

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	ND		0.36	0.086
79-01-6	Trichloroethene	131.39	ND		0.19	0.075
75-69-4	Trichlorofluoromethane	137.37	ND		0.45	0.056
1120-21-4	Undecane	156.31	ND		2.6	0.16
593-60-2	Vinyl bromide	106.96	ND		0.35	0.061
75-01-4	Vinyl chloride	62.50	ND		0.10	0.074

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	96		60-140

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\J500BD16.D
 Lims ID: mb
 Client ID:
 Sample Type: MB
 Inject. Date: 16-Apr-2018 15:10:30 ALS Bottle#: 16 Worklist Smp#: 10
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007901-010
 Misc. Info.: 500ML BLK
 Operator ID: 007126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 17-Apr-2018 09:47:35 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK001

First Level Reviewer: tajh

Date: 16-Apr-2018 15:53:40

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	9.662	9.662	0.000	89	295610	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.765	11.765	0.000	95	1650156	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.364	16.364	0.000	87	1430684	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.967	17.973	-0.006	97	997659	4.00	3.86	
109 1,2-Dimethyl-4-Ethylbenzen	119	20.254	20.254	0.000	1	514		NC	
112 1,2,3,5-Tetramethylbenzene	119	20.700	20.700	0.000	1	244		NC	
113 1,2,3,4-Tetramethylbenzene	119	21.120	21.120	0.000	1	735		NC	
117 Benzo(b)thiophene	134	21.712	21.717	-0.005	95	2505		NC	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 17-Apr-2018 09:47:48

Chrom Revision: 2.2 16-Apr-2018 07:57:50

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\J500BD16.D

Injection Date: 16-Apr-2018 15:10:30

Instrument ID: MJ

Operator ID: 007126

Lims ID: mb

Worklist Smp#: 10

Client ID:

Purge Vol: 500.000 mL

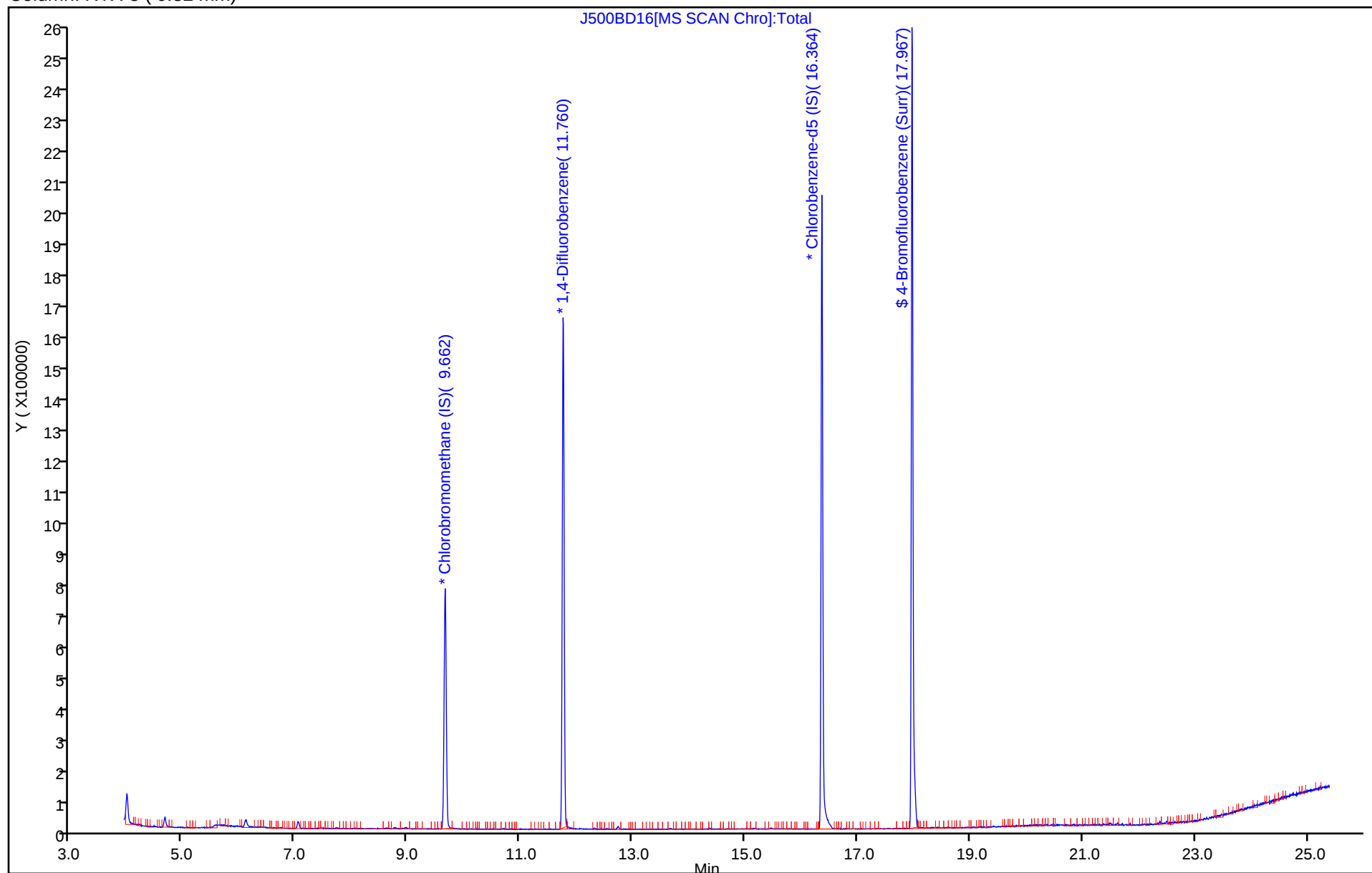
Dil. Factor: 1.0000

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\20180412-7901.b\J500BD16.D
Lims ID: mb
Client ID:
Sample Type: MB
Inject. Date: 16-Apr-2018 15:10:30 ALS Bottle#: 16 Worklist Smp#: 10
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0007901-010
Misc. Info.: 500ML BLK
Operator ID: 007126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 17-Apr-2018 09:47:35 Calib Date: 15-Feb-2018 22:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: tajh

Date: 16-Apr-2018 15:53:40

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	3.86	96.43

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\J500BD16.D

Injection Date: 16-Apr-2018 15:10:30

Instrument ID: MJ

Lims ID: mb

Client ID:

Operator ID: 007126

ALS Bottle#:

16

Worklist Smp#: 10

Purge Vol: 500.000 mL

Dil. Factor:

1.0000

Method: MJ_TO15

Limit Group:

MSA TO14A_15 Routine ICAL

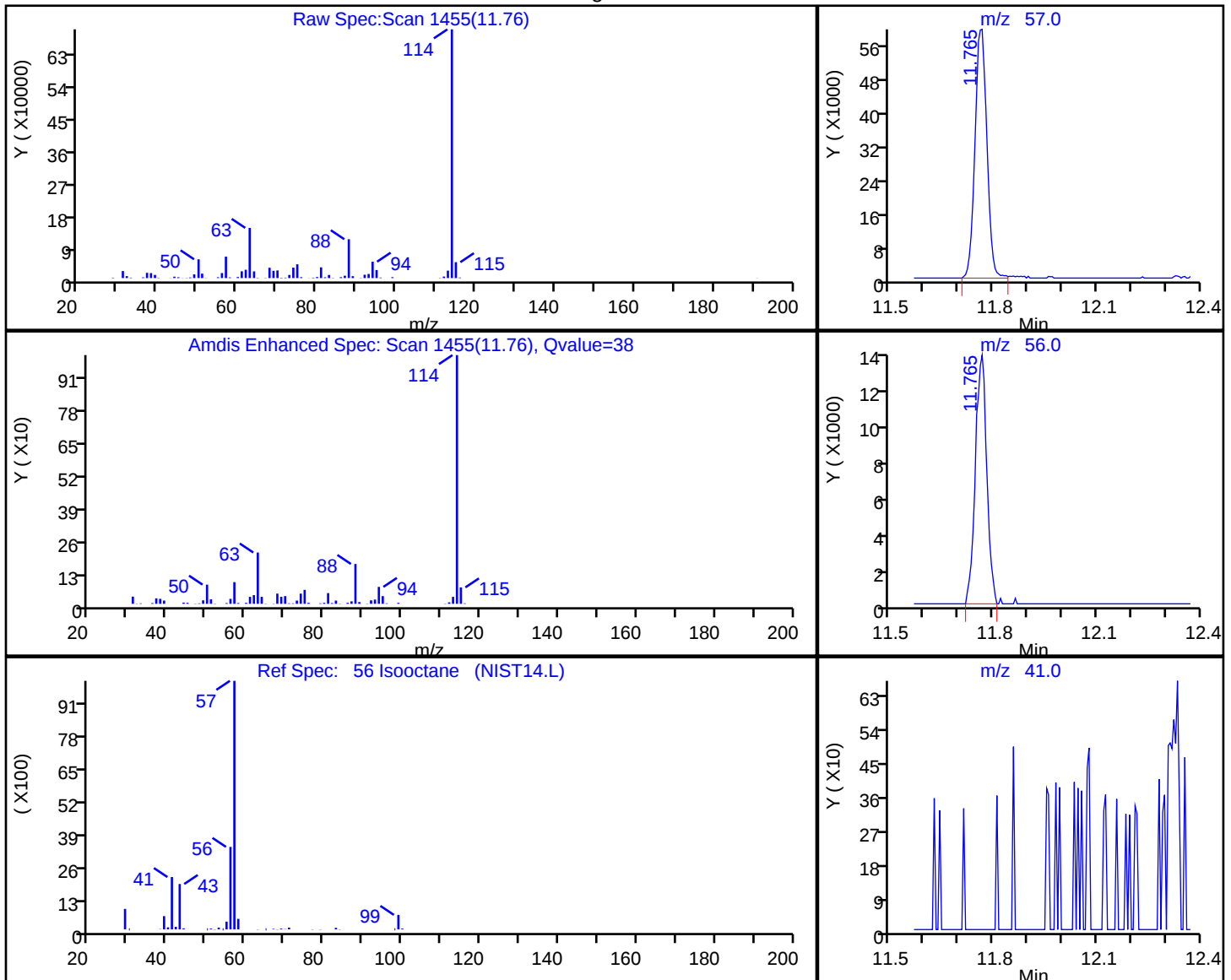
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

56 Isooctane, CAS: 540-84-1

Processing Results



RT	Mass	Response	Amount
11.76	57.00	144275	0.307209
11.76	56.00	32158	
11.97	41.00	0	

Reviewer: tajh, 16-Apr-2018 15:53:40

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\J500BD16.D

Injection Date: 16-Apr-2018 15:10:30

Instrument ID: MJ

Lims ID: mb

Client ID:

Operator ID: 007126

ALS Bottle#: 16

Worklist Smp#: 10

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

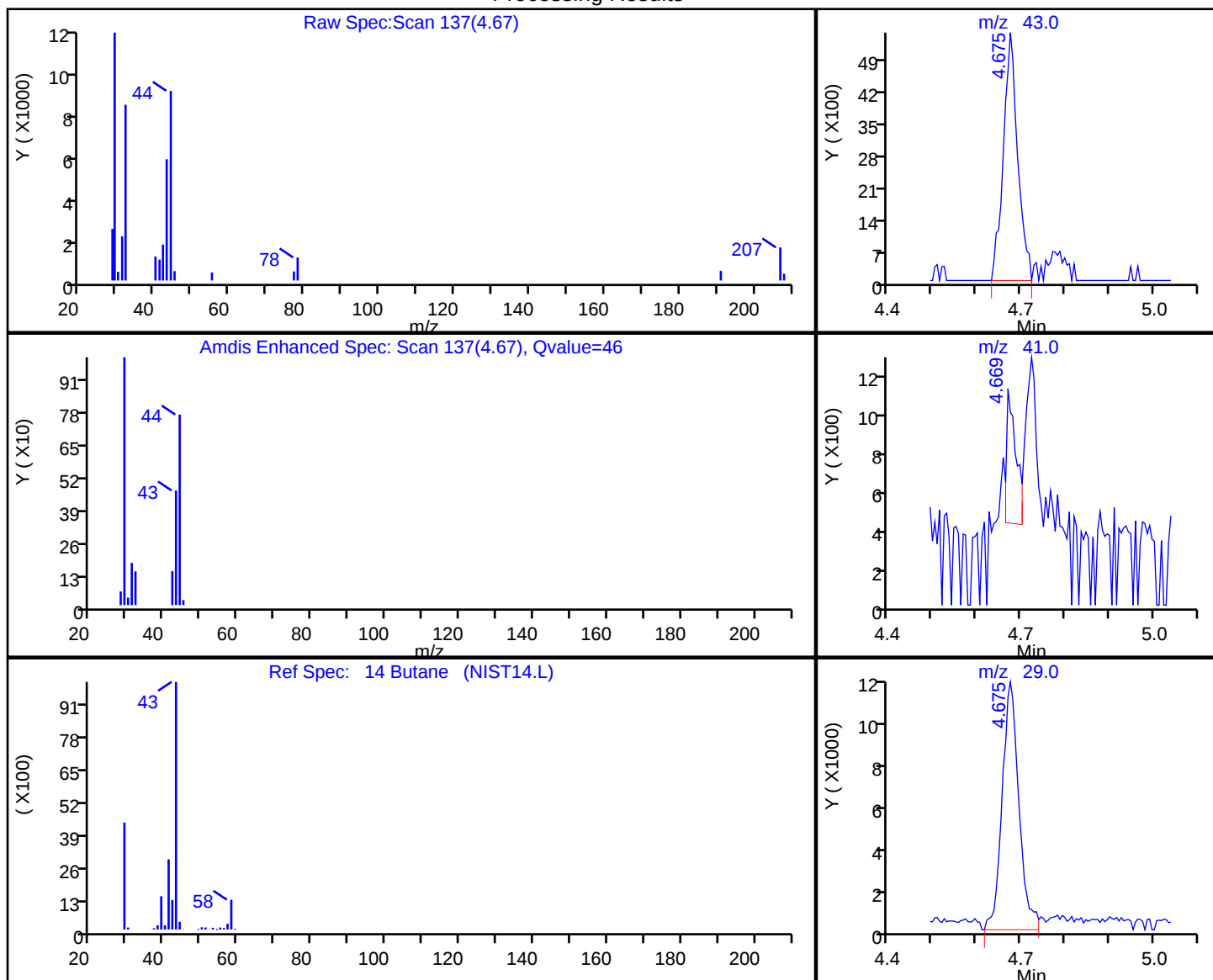
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

14 Butane, CAS: 106-97-8

Processing Results



RT	Mass	Response	Amount
4.67	43.00	12422	0.083863
4.67	41.00	986	
4.67	29.00	29840	

Reviewer: tajh, 16-Apr-2018 15:53:40

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1

SDG No.: _____

Client Sample ID: _____ Lab Sample ID: LCS 140-19508/1008

Matrix: Air Lab File ID: JCCVD16B-LCS.d

Analysis Method: TO 15 LL Date Collected: _____

Sample wt/vol: 500 (mL) Date Analyzed: 04/16/2018 13:24

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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	133.41	2.02		0.080	0.012
79-34-5	1,1,2,2-Tetrachloroethane	167.85	1.89		0.080	0.024
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	187.38	2.10		0.080	0.012
79-00-5	1,1,2-Trichloroethane	133.41	1.85		0.080	0.021
75-34-3	1,1-Dichloroethane	98.96	1.98		0.080	0.010
75-35-4	1,1-Dichloroethene	96.94	2.07		0.040	0.014
95-93-2	1,2,4,5-Tetramethylbenzene	134.22	1.91		0.080	0.035
120-82-1	1,2,4-Trichlorobenzene	181.45	2.21		0.080	0.039
106-93-4	1,2-Dibromoethane (EDB)	187.87	1.92		0.080	0.018
76-14-2	1,2-Dichloro-1,1,2,2-tetrafluoroethane	170.92	2.32		0.080	0.013
95-50-1	1,2-Dichlorobenzene	147.00	1.97		0.080	0.028
78-87-5	1,2-Dichloropropane	112.99	1.88		0.080	0.021
108-67-8	1,3,5-Trimethylbenzene	120.20	2.23		0.080	0.026
106-99-0	1,3-Butadiene	54.09	2.07		0.16	0.025
541-73-1	1,3-Dichlorobenzene	147.00	1.95		0.080	0.026
106-46-7	1,4-Dichlorobenzene	147.00	1.92		0.080	0.026
123-91-1	1,4-Dioxane	88.11	1.79		0.20	0.032
90-12-0	1-Methylnaphthalene	142.20	9.31		1.0	0.37
540-84-1	2,2,4-Trimethylpentane	114.23	1.93		0.20	0.016
78-93-3	2-Butanone (MEK)	72.11	1.90		0.32	0.080
591-78-6	2-Hexanone	100.20	1.79		0.20	0.023
91-57-6	2-Methylnaphthalene	142.20	7.17		1.0	0.35
107-05-1	3-Chloropropene	76.53	1.96		0.080	0.019
622-96-8	4-Ethyltoluene	120.20	1.89		0.16	0.026
108-10-1	4-Methyl-2-pentanone (MIBK)	100.16	1.71		0.20	0.078
67-64-1	Acetone	58.08	1.97	J	2.0	0.54
71-43-2	Benzene	78.11	1.94		0.080	0.023
100-44-7	Benzyl chloride	126.58	2.00		0.16	0.031
75-27-4	Bromodichloromethane	163.83	1.99		0.080	0.018
75-25-2	Bromoform	252.75	2.02		0.080	0.019
74-83-9	Bromomethane	94.94	2.20		0.080	0.013
106-97-8	Butane	58.12	2.08		0.16	0.073
75-15-0	Carbon disulfide	76.14	2.08		0.20	0.012

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 140-19508/1008
 Matrix: Air Lab File ID: JCCVD16B-LCS.d
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 04/16/2018 13:24
 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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
56-23-5	Carbon tetrachloride	153.81	2.19		0.032	0.015
108-90-7	Chlorobenzene	112.56	1.97		0.080	0.020
75-00-3	Chloroethane	64.52	2.06		0.080	0.014
67-66-3	Chloroform	119.38	1.99		0.080	0.015
74-87-3	Chloromethane	50.49	2.14		0.20	0.064
156-59-2	cis-1,2-Dichloroethene	96.94	1.99		0.040	0.024
10061-01-5	cis-1,3-Dichloropropene	110.97	1.97		0.080	0.029
110-82-7	Cyclohexane	84.16	1.86		0.20	0.016
124-18-5	Decane	142.28	1.87		0.40	0.022
124-48-1	Dibromochloromethane	208.29	2.07		0.080	0.017
75-71-8	Dichlorodifluoromethane	120.91	2.31		0.080	0.027
112-40-3	Dodecane	170.33	2.25		0.40	0.031
64-17-5	Ethanol	46.07	7.25		2.0	0.64
141-78-6	Ethyl acetate	88.11	1.77		0.80	0.080
100-41-4	Ethylbenzene	106.17	1.90		0.080	0.027
142-82-5	Heptane	100.21	1.89		0.20	0.019
87-68-3	Hexachlorobutadiene	260.76	1.97		0.080	0.049
110-54-3	Hexane	86.17	1.84		0.20	0.013
496-11-7	Indane	118.18	1.87		0.080	0.033
95-13-6	Indene	116.16	1.65		0.16	0.032
67-63-0	Isopropyl alcohol	60.10	2.33		0.80	0.094
1634-04-4	Methyl tert-butyl ether	88.15	2.06		0.16	0.068
75-09-2	Methylene Chloride	84.93	1.76		0.20	0.13
179601-23-1	m-Xylene & p-Xylene	106.17	3.91		0.080	0.053
111-84-2	Nonane	128.26	1.90		0.20	0.017
111-65-9	Octane	114.23	1.92		0.16	0.014
95-47-6	o-Xylene	106.17	1.90		0.080	0.024
109-66-0	Pentane	72.15	2.12		0.40	0.16
100-42-5	Styrene	104.15	1.96		0.080	0.023
75-65-0	tert-Butyl alcohol	74.12	2.34		0.32	0.015
127-18-4	Tetrachloroethene	165.83	1.96		0.080	0.016
109-99-9	Tetrahydrofuran	72.11	1.81		0.40	0.025
110-02-1	Thiophene	84.14	1.91		0.080	0.030
108-88-3	Toluene	92.14	1.87		0.12	0.12
156-60-5	trans-1,2-Dichloroethene	96.94	2.01		0.080	0.020

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

Lab Name: TestAmerica Knoxville Job No.: 140-11270-1
 SDG No.: _____
 Client Sample ID: _____ Lab Sample ID: LCS 140-19508/1008
 Matrix: Air Lab File ID: JCCVD16B-LCS.d
 Analysis Method: TO 15 LL Date Collected: _____
 Sample wt/vol: 500 (mL) Date Analyzed: 04/16/2018 13:24
 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.: 19508 Units: ppb v/v

CAS NO.	COMPOUND NAME	MOLECULAR WEIGHT	RESULT	Q	RL	MDL
10061-02-6	trans-1,3-Dichloropropene	110.97	1.96		0.080	0.019
79-01-6	Trichloroethene	131.39	2.03		0.036	0.014
75-69-4	Trichlorofluoromethane	137.37	2.28		0.080	0.010
1120-21-4	Undecane	156.31	1.86		0.40	0.025
593-60-2	Vinyl bromide	106.96	2.33		0.080	0.014
75-01-4	Vinyl chloride	62.50	2.38		0.040	0.029

CAS NO.	SURROGATE	%REC	Q	LIMITS
460-00-4	4-Bromofluorobenzene (Surr)	100		60-140

TestAmerica Laboratories
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JCCVD16B-LCS.d
 Lims ID: LCS
 Client ID:
 Sample Type: LCS
 Inject. Date: 16-Apr-2018 13:24:30 ALS Bottle#: 15 Worklist Smp#: 1008
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007901-002
 Misc. Info.: S60
 Operator ID: 007126 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 17-Apr-2018 09:47:35 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK001

First Level Reviewer: tajh

Date: 16-Apr-2018 13:53:24

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	9.662	9.662	0.000	93	267822	4.00	4.00	
* 2 1,4-Difluorobenzene	114	11.765	11.765	0.000	95	1492723	4.00	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.364	16.364	0.000	88	1358028	4.00	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.973	17.973	0.000	97	986690	4.00	4.02	
6 Chlorodifluoromethane	67	4.196	4.196	0.000	96	57667	2.00	2.02	
7 Propene	41	4.207	4.207	0.000	99	160381	2.00	2.06	
8 Dichlorodifluoromethane	85	4.266	4.266	0.000	100	555238	2.00	2.31	
9 Chloromethane	52	4.476	4.476	0.000	54	60183	2.00	2.14	
10 1,2-Dichloro-1,1,2,2-tetra	135	4.481	4.481	0.000	92	365471	2.00	2.32	
11 Acetaldehyde	44	4.653	4.653	0.000	100	257877	10.0	8.27	
12 Vinyl chloride	62	4.669	4.669	0.000	98	208149	2.00	2.38	
14 Butane	43	4.766	4.766	0.000	86	279043	2.00	2.08	
13 Butadiene	54	4.766	4.766	0.000	66	146746	2.00	2.07	
15 Bromomethane	94	5.132	5.132	0.000	98	191719	2.00	2.20	
16 Chloroethane	64	5.293	5.293	0.000	99	93415	2.00	2.06	
17 Ethanol	31	5.412	5.412	0.000	95	235083	10.0	7.25	
18 Vinyl bromide	106	5.627	5.627	0.000	99	193031	2.00	2.33	
19 2-Methylbutane	43	5.681	5.681	0.000	91	201694	2.00	2.04	
20 Trichlorofluoromethane	101	5.917	5.917	0.000	99	528976	2.00	2.28	
21 Acrolein	56	5.934	5.934	0.000	93	50245	2.00	2.16	
23 Acetonitrile	40	6.004	6.004	0.000	99	48773	2.00	1.66	
22 Acetone	58	6.057	6.057	0.000	98	60163	2.00	1.97	
24 Pentane	72	6.154	6.154	0.000	98	30047	2.00	2.12	
25 Isopropyl alcohol	45	6.170	6.170	0.000	93	203397	2.00	2.33	
26 Ethyl ether	31	6.337	6.337	0.000	95	140014	2.00	1.86	
27 1,1-Dichloroethene	96	6.676	6.676	0.000	98	183872	2.00	2.07	
28 Acrylonitrile	53	6.789	6.789	0.000	94	98257	2.00	1.85	
30 2-Methyl-2-propanol	59	6.810	6.810	0.000	94	234721	2.00	2.34	
29 1,1,2-Trichloro-1,2,2-trif	101	6.854	6.854	0.000	97	385932	2.00	2.10	
32 Methylene Chloride	84	7.042	7.042	0.000	95	169040	2.00	1.76	
31 3-Chloro-1-propene	39	7.058	7.058	0.000	96	151068	2.00	1.96	

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	7.219	7.219	0.000	98	535508	2.00	2.08	
34 trans-1,2-Dichloroethene	96	7.881	7.881	0.000	98	178211	2.00	2.01	
35 2-Methylpentane	43	7.897	7.897	0.000	94	342054	2.00	1.67	
36 Methyl tert-butyl ether	73	8.015	8.015	0.000	96	405253	2.00	2.06	
37 1,1-Dichloroethane	63	8.322	8.322	0.000	100	329266	2.00	1.98	
38 Vinyl acetate	43	8.414	8.414	0.000	100	359759	2.00	1.89	
40 2-Butanone (MEK)	72	8.887	8.887	0.000	96	65030	2.00	1.90	
39 Hexane	56	8.898	8.898	0.000	81	132761	2.00	1.84	
41 Isopropyl ether	45	9.059	9.059	0.000	96	463214	2.00	1.96	
42 cis-1,2-Dichloroethene	96	9.323	9.323	0.000	95	180259	2.00	1.99	
43 Ethyl acetate	43	9.500	9.500	0.000	99	268002	2.00	1.77	
44 Chloroform	83	9.672	9.672	0.000	97	382167	2.00	1.99	
45 Tert-butyl ethyl ether	59	9.748	9.748	0.000	94	420816	2.00	1.92	
46 Tetrahydrofuran	42	10.087	10.087	0.000	93	146791	2.00	1.81	
47 1,1,1-Trichloroethane	97	10.694	10.694	0.000	96	403892	2.00	2.02	
48 1,2-Dichloroethane	62	10.802	10.802	0.000	98	246203	2.00	2.03	
53 n-Butanol	31	11.254	11.254	0.000	66	43497	2.00	1.68	
49 Cyclohexane	69	11.265	11.265	0.000	89	81358	2.00	1.86	
50 Benzene	78	11.265	11.265	0.000	97	514187	2.00	1.94	
52 Carbon tetrachloride	117	11.281	11.281	0.000	99	437313	2.00	2.19	
55 2,3-Dimethylpentane	71	11.356	11.356	0.000	91	113550	2.00	1.83	
51 Thiophene	84	11.523	11.523	0.000	95	287014	2.00	1.91	
54 Tert-amyl methyl ether	73	11.700	11.700	0.000	99	418973	2.00	2.07	
56 Isooctane	57	11.969	11.969	0.000	99	818893	2.00	1.93	
57 n-Heptane	71	12.319	12.319	0.000	90	176312	2.00	1.89	
58 1,2-Dichloropropane	63	12.421	12.421	0.000	92	186966	2.00	1.88	
59 Trichloroethene	130	12.454	12.454	0.000	96	236909	2.00	2.03	
60 Dibromomethane	93	12.545	12.545	0.000	94	219058	2.00	1.97	
61 Dichlorobromomethane	83	12.679	12.679	0.000	99	386871	2.00	1.99	
62 1,4-Dioxane	88	12.701	12.701	0.000	88	46513	2.00	1.79	
63 Methyl methacrylate	41	12.749	12.749	0.000	95	163695	2.00	1.81	
64 Methylcyclohexane	83	13.196	13.196	0.000	97	378565	2.00	2.28	
65 4-Methyl-2-pentanone (MIBK)	43	13.583	13.583	0.000	97	234439	2.00	1.71	
66 cis-1,3-Dichloropropene	75	13.637	13.637	0.000	92	302811	2.00	1.97	
67 trans-1,3-Dichloropropene	75	14.304	14.304	0.000	96	258251	2.00	1.96	
68 Toluene	91	14.433	14.433	0.000	93	534451	2.00	1.87	
69 1,1,2-Trichloroethane	83	14.509	14.509	0.000	98	162247	2.00	1.85	
71 3-Methylthiophene	97	14.589	14.589	0.000	98	452972	NC	NC	
70 2-Methylthiophene	97	14.783	14.783	0.000	97	448605	NC	NC	
72 2-Hexanone	58	14.880	14.880	0.000	94	120829	2.00	1.79	
73 n-Octane	85	15.079	15.079	0.000	92	191205	2.00	1.92	
74 Chlorodibromomethane	129	15.202	15.202	0.000	97	399930	2.00	2.07	
75 Ethylene Dibromide	107	15.493	15.493	0.000	99	312556	2.00	1.92	
76 Tetrachloroethene	129	15.552	15.552	0.000	96	222779	2.00	1.96	
77 2,3-Dimethylheptane	43	16.402	16.402	0.000	94	494117	2.00	1.69	
78 Chlorobenzene	112	16.413	16.413	0.000	95	455844	2.00	1.97	
79 Ethylbenzene	91	16.687	16.687	0.000	98	676399	2.00	1.90	
80 2-Ethylthiophene	97	16.789	16.789	0.000	98	526143	NC	NC	
81 m-Xylene & p-Xylene	91	16.849	16.849	0.000	100	1040551	4.00	3.91	
82 n-Nonane	57	17.231	17.231	0.000	91	367549	2.00	1.90	
83 Styrene	104	17.311	17.311	0.000	98	403464	2.00	1.96	
84 Bromoform	173	17.311	17.311	0.000	96	418645	2.00	2.02	

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	17.370	17.370	0.000	98	534882	2.00	1.90	
86 1,1,2,2-Tetrachloroethane	83	17.688	17.688	0.000	100	385276	2.00	1.89	
87 1,2,3-Trichloropropane	110	17.844	17.844	0.000	99	107190	2.00	2.01	
88 Isopropylbenzene	105	17.935	17.935	0.000	95	752995	2.00	1.96	
89 N-Propylbenzene	120	18.441	18.441	0.000	99	208347	2.00	1.97	
90 2-Chlorotoluene	126	18.495	18.495	0.000	97	200698	2.00	1.96	
91 4-Ethyltoluene	105	18.586	18.586	0.000	99	700451	2.00	1.89	
92 1,3,5-Trimethylbenzene	120	18.651	18.651	0.000	93	345688	2.00	2.23	
93 Alpha Methyl Styrene	118	18.877	18.877	0.000	88	307553	2.00	1.90	
94 n-Decane	57	18.909	18.909	0.000	91	428604	2.00	1.87	
95 tert-Butylbenzene	119	19.060	19.060	0.000	95	648585	2.00	1.97	
96 1,2,4-Trimethylbenzene	105	19.076	19.076	0.000	96	614901	2.00	1.98	
97 sec-Butylbenzene	105	19.318	19.318	0.000	98	891102	2.00	1.96	
98 1,3-Dichlorobenzene	146	19.345	19.345	0.000	97	454225	2.00	1.95	
99 Benzyl chloride	91	19.415	19.415	0.000	98	500922	2.00	2.00	
100 1,4-Dichlorobenzene	146	19.425	19.425	0.000	94	445111	2.00	1.92	
101 4-Isopropyltoluene	119	19.474	19.474	0.000	97	732758	2.00	1.98	
102 1,2,3-Trimethylbenzene	105	19.533	19.533	0.000	98	440636	2.00	1.45	
103 Butylcyclohexane	83	19.576	19.576	0.000	96	505695	2.00	1.80	
104 2,3-Dihydroindene	117	19.775	19.775	0.000	95	544234	2.00	1.87	
105 1,2-Dichlorobenzene	146	19.780	19.780	0.000	98	433291	2.00	1.97	
106 n-Butylbenzene	91	19.893	19.893	0.000	98	727073	2.00	2.01	
107 Indene	116	19.904	19.904	0.000	89	402990	2.00	1.65	
108 Undecane	57	20.173	20.173	0.000	96	442033	2.00	1.86	
109 1,2-Dimethyl-4-Ethylbenzen	119	20.254	20.254	0.000	98	506576	NC	NC	
110 1,2-Dibromo-3-Chloropropan	157	20.367	20.367	0.000	97	179163	2.00	1.67	
111 1,2,4,5-Tetramethylbenzene	119	20.641	20.641	0.000	97	602519	2.00	1.91	
112 1,2,3,5-Tetramethylbenzene	119	20.700	20.700	0.000	97	362259	NC	NC	
113 1,2,3,4-Tetramethylbenzene	119	21.120	21.120	0.000	97	471998	NC	NC	
114 Dodecane	57	21.254	21.254	0.000	96	358637	2.00	2.25	
115 1,2,4-Trichlorobenzene	180	21.496	21.496	0.000	93	368766	2.00	2.21	
116 Naphthalene	128	21.626	21.626	0.000	99	537488	2.00	2.04	
117 Benzo(b)thiophene	134	21.717	21.717	0.000	99	253191	NC	NC	
118 Hexachlorobutadiene	225	21.787	21.787	0.000	95	338474	2.00	1.97	
119 1,2,3-Trichlorobenzene	180	21.846	21.846	0.000	94	243789	2.00	2.30	
120 2-Methylnaphthalene	142	22.373	22.373	0.000	99	149766	3.00	7.17	
121 1-Methylnaphthalene	142	22.502	22.502	0.000	100	192950	3.00	9.31	
A 123 C8 Range	1	15.095	(15.040-15.186)		0	1670963	2.00	2.01	
S 124 Xylenes, Total	100				0		6.00	5.81	
S 125 1,2-Dichloroethene, Total	1				0		4.00	4.00	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Reagents:

40CV101S_00059

Amount Added: 100.00

Units: mL

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

Report Date: 17-Apr-2018 09:47:43

Chrom Revision: 2.2 16-Apr-2018 07:57:50

TestAmerica Laboratories

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\JCCVD16B-LCS.d

Injection Date: 16-Apr-2018 13:24:30

Instrument ID: MJ

Operator ID: 007126

Lims ID: LCS

Worklist Smp#: 1008

Client ID:

Purge Vol: 500.000 mL

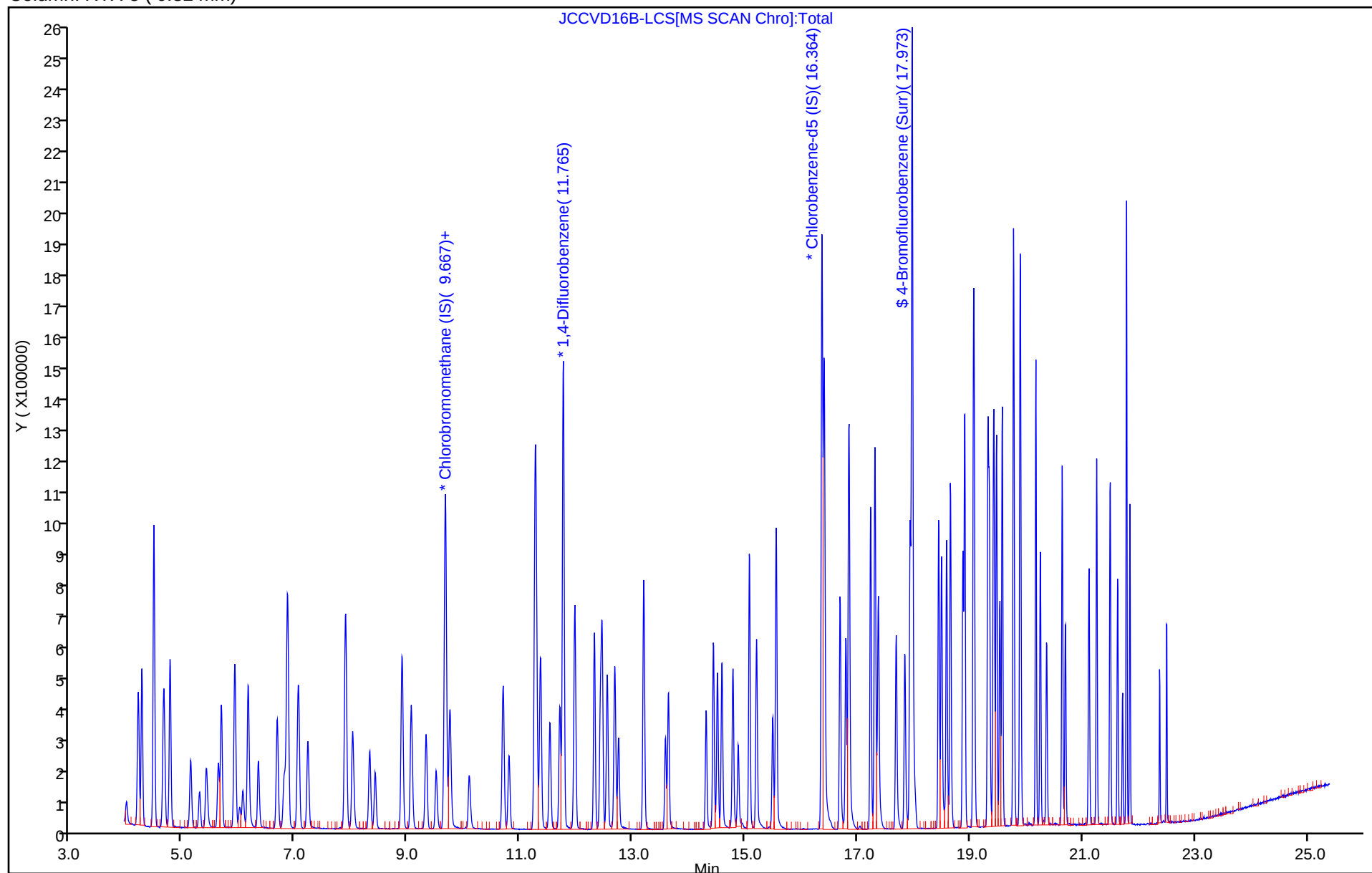
Dil. Factor: 1.0000

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\20180412-7901.b\JCCVD16B-LCS.d
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 16-Apr-2018 13:24:30 ALS Bottle#: 15 Worklist Smp#: 1008
Purge Vol: 500.000 mL Dil. Factor: 1.0000
Sample Info: 140-0007901-002
Misc. Info.: S60
Operator ID: 007126 Instrument ID: MJ
Method: \\ChromNA\Knoxville\ChromData\MJ\20180412-7901.b\MJ_TO15.m
Limit Group: MSA TO14A_15 Routine ICAL
Last Update: 17-Apr-2018 09:47:35 Calib Date: 15-Feb-2018 22:24:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
Process Host: XAWRK001

First Level Reviewer: tajh

Date: 16-Apr-2018 13:53:24

Compound	Amount Added	Amount Recovered	% Rec.
\$ 4 4-Bromofluorobenzene (Surr)	4.00	4.02	100.47

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica KnoxvilleJob No.: 140-11270-1

SDG No.: _____

Instrument ID: MJStart Date: 02/15/2018 14:16Analysis Batch Number: 18185End Date: 02/16/2018 03:02

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-18185/1		02/15/2018 14:16	1	JBFB15.D	RTX-5 0.32 (mm)
IC 140-18185/3		02/15/2018 15:35	1	JB15ICL01.D	RTX-5 0.32 (mm)
IC 140-18185/4		02/15/2018 16:21	1	JB15ICL02.D	RTX-5 0.32 (mm)
140-10626-A-5 MDLV		02/15/2018 16:21	1		RTX-5 0.32 (mm)
ZZZZZ		02/15/2018 16:21	1		RTX-5 0.32 (mm)
IC 140-18185/5		02/15/2018 17:07	1	JB15ICL03.D	RTX-5 0.32 (mm)
140-10626-A-6 MDLV		02/15/2018 17:07	1		RTX-5 0.32 (mm)
ZZZZZ		02/15/2018 17:07	1		RTX-5 0.32 (mm)
IC 140-18185/6		02/15/2018 17:52	1	JB15ICL04.D	RTX-5 0.32 (mm)
140-10626-A-7 MDLV		02/15/2018 17:52	1		RTX-5 0.32 (mm)
ZZZZZ		02/15/2018 17:52	1		RTX-5 0.32 (mm)
IC 140-18185/7		02/15/2018 18:37	1	JB15ICL05.D	RTX-5 0.32 (mm)
140-10626-A-8 MDLV		02/15/2018 18:37	1		RTX-5 0.32 (mm)
ZZZZZ		02/15/2018 18:37	1		RTX-5 0.32 (mm)
IC 140-18185/8		02/15/2018 19:22	1	JB15ICL06.D	RTX-5 0.32 (mm)
ICIS 140-18185/9		02/15/2018 20:08	1	JB15ICISL07.D	RTX-5 0.32 (mm)
IC 140-18185/10		02/15/2018 20:53	1	JB15ICL08.D	RTX-5 0.32 (mm)
IC 140-18185/11		02/15/2018 21:39	1	JB15ICL09.D	RTX-5 0.32 (mm)
IC 140-18185/12		02/15/2018 22:24	1	JB15ICL10.D	RTX-5 0.32 (mm)
ICV 140-18185/15		02/16/2018 00:43	1	JLCSB16.D	RTX-5 0.32 (mm)
ZZZZZ		02/16/2018 03:02	1		RTX-5 0.32 (mm)

180215

TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	28.2	2/15/2018	2:16:46 PM
BLK	16 - 501 mL	26.9	2/15/2018	2:49:37 PM
ICL01	8 - 51 mL	39.2	2/15/2018	3:35:27 PM
ICL02	8 - 101 mL	38.4	2/15/2018	4:20:59 PM
ICL03	8 - 200 mL	37.5	2/15/2018	5:07:09 PM
ICL04	9 - 200 mL	35.2	2/15/2018	5:52:00 PM
ICL05	10 - 201 mL	34.3	2/15/2018	6:37:21 PM
ICL06	11 - 201 mL	30.5	2/15/2018	7:22:43 PM
ICL07	12 - 200 mL	35	2/15/2018	8:08:01 PM
ICL08	13 - 201 mL	33.4	2/15/2018	8:53:05 PM
ICL09	14 - 201 mL	31.6	2/15/2018	9:39:08 PM
ICL10	15 - 201 mL	33.1	2/15/2018	10:24:43 PM
BLK	16 - 500 mL	26.8	2/15/2018	11:13:05 PM
ICV	1 - 101 mL	35.6	2/15/2018	11:57:37 PM
LCS	2 - 101 mL	34.8	2/16/2018	12:43:32 AM
PEcan	3 - 100 mL	32.6	2/16/2018	1:28:17 AM
BLK	16 - 500 mL	25.9	2/16/2018	2:15:19 AM
BLK	16 - 500 mL	25.5	2/16/2018	3:02:40 AM

MJ ICAL WL 73941


2/21/18

TestAmerica Knoxville GC/MS Air - Initial Calibration Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 18 & KNOX-MS-0023, Rev 3

Analysis Date: 2/15/18	Instrument: MJ	Chrom WL #: 7391	TALS Batch & Event #	TO14/15: 18185/1394	DOD: 18187/1396	OHIO: 18186/1395
Chrom/Worklist Review				1 st	Comments	2 nd
1. Re-read each Limit Group [method editor-limit groups]				✓		NA
2. Verify LODV in Chrom [method editor -> edit -> MDL]				✓		NA
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/1,2,3-trimethylbenzene				✓		✓
• tert-butylbenzene/4-isopropyltoluene				✓		✓
• 1,3-, 1,4-, and 1,2-dichlorobenzene				✓		✓
• 1,2-dimethyl-4-ethylbenzene/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?				✓		✓
MLG Review				TO	DOD	OH
14. Is %RSD for all target analytes ≤ 30%? (with up to 2 compounds with RSD ≤ 40%) 1 & 2 methylnaphthalene ≤ 50% [F6 Σ]				✓	✓	✓
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]				✓	✓	✓
18. If curves were used, is correlation coefficient ≥ 0.990? [F6]				✓	✓	✓
19. Is the intercept less than the RL for each curve? [F6]				✓	✓	✓
20. For quadratic: is a tangent's slope to the curve entirely positive or negative and continuous. [Cntrl-C, details]				NA	NA	NA
21. Is low point RSE ≤ 50 %? MCL, 1 & 2-m-naphth.				✓	✓	✓
22. Is the second source analysis within limits? ↑ 1 & 2-m-naphth. OK ↑, NO [F8 - icv]				✓	✓	✓
Analyst/Date: AS 2/16/18				2nd Level Reviewer/Date: 02/16/18		
TALS Review				TO	DOD	OH
23. Upload ICAL				✓	✓	✓
24. Graphics uploaded? [paperclip]				✓	✓	✓
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. Run Checklist and acknowledge findings [F8]				✓	✓	✓
28. If criteria not met, was a NCM generated?				NA	NA	NA
29. After review in TALS, approve the method in TALS.				NA	NA	NA
30. After verifying TALS is correct, lock method in Chrom <resolve any error issues>				✓	✓	✓
31. Checklist & Entech report scanned, attached & assigned properly?				✓	✓	✓
Analyst/date: AS 2/19/18				2nd Level Reviewer/date: 02/19/18		
Comments: DNU Tert-amyl methyl ether (TAME)				Comments:		

AIR - GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica KnoxvilleJob No.: 140-11270-1

SDG No.: _____

Instrument ID: MJStart Date: 04/16/2018 12:56Analysis Batch Number: 19508End Date: 04/17/2018 09:17

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 140-19508/7		04/16/2018 12:56	1	JBFBBD16B.D	RTX-5 0.32 (mm)
CCVIS 140-19508/8		04/16/2018 13:24	1	JCCVD16B.D	RTX-5 0.32 (mm)
LCS 140-19508/1008		04/16/2018 13:24	1	JCCVD16B-LCS.d	RTX-5 0.32 (mm)
MB 140-19508/10		04/16/2018 15:10	1	J500BD16.D	RTX-5 0.32 (mm)
140-11270-1		04/16/2018 15:56	1	JD16P101.D	RTX-5 0.32 (mm)
140-11270-2		04/16/2018 16:42	1	JD16P102.D	RTX-5 0.32 (mm)
140-11270-3		04/16/2018 17:27	1	JD16P103.D	RTX-5 0.32 (mm)
140-11270-4		04/16/2018 18:13	1	JD16P104.D	RTX-5 0.32 (mm)
140-11270-5		04/16/2018 18:59	1	JD16P105.D	RTX-5 0.32 (mm)
140-11270-6		04/16/2018 19:46	1	JD16P106.D	RTX-5 0.32 (mm)
ZZZZZ		04/16/2018 20:32	1		RTX-5 0.32 (mm)
ZZZZZ		04/16/2018 21:17	1		RTX-5 0.32 (mm)
ZZZZZ		04/16/2018 22:03	1		RTX-5 0.32 (mm)
ZZZZZ		04/16/2018 22:49	1		RTX-5 0.32 (mm)
ZZZZZ		04/17/2018 00:20	12.37		RTX-5 0.32 (mm)
ZZZZZ		04/17/2018 01:05	1		RTX-5 0.32 (mm)
ZZZZZ		04/17/2018 01:51	13.04		RTX-5 0.32 (mm)
ZZZZZ		04/17/2018 02:37	1		RTX-5 0.32 (mm)
ZZZZZ		04/17/2018 03:24	1		RTX-5 0.32 (mm)
ZZZZZ		04/17/2018 09:17	3.55		RTX-5 0.32 (mm)

180416

TA-Knoxville
TO-14 Autosampler Log

Sample	Position/Volume	psia	Date	Time
BFB	16 - 101 mL	23.4	4/16/2018	12:56:56 PM
CCV	15 - 100 mL	33.3	4/16/2018	1:24:31 PM
dnuf flush	16 - 21 mL	23.3	4/16/2018	2:39:00 PM
mb500	16 - 501 mL	21.9	4/16/2018	3:10:09 PM
11270-01	1 - 81 mL	6.2	4/16/2018	3:56:06 PM
11270-02	2 - 51 mL	7.5	4/16/2018	4:42:07 PM
11270-03	3 - 26 mL	7.2	4/16/2018	5:27:54 PM
11270-04	4 - 101 mL	9.6	4/16/2018	6:13:47 PM
11270-05	5 - 101 mL	6.8	4/16/2018	6:59:43 PM
11270-06	6 - 501 mL	7.5	4/16/2018	7:46:20 PM
11284-01	7 - 51 mL	9.4	4/16/2018	8:32:02 PM
11284-01	7 - 50 mL	6.9	4/16/2018	9:17:40 PM
11284-02	8 - 51 mL	9.1	4/16/2018	10:03:13 PM
11284-03	9 - 51 mL	8.4	4/16/2018	10:49:02 PM
11285-01	10 - 21 mL	12.8	4/16/2018	11:34:39 PM
11285-02	11 - 11 mL	13.3	4/17/2018	12:20:10 AM
11285-03	12 - 201 mL	8.5	4/17/2018	1:05:36 AM
11285-04	13 - 11 mL	13.2	4/17/2018	1:51:10 AM
11285-05	14 - 501 mL	7.1	4/17/2018	2:37:39 AM
11285-06	15 - 501 mL	6.8	4/17/2018	3:24:26 AM
CAN09840	16 - 501 mL	24.8	4/17/2018	4:12:20 AM
11285-01	10 - 61 mL	12.3	4/17/2018	9:17:45 AM

MJ WL 7901

TestAmerica Knoxville GC/MS Air - Batch Data Review Checklist
Methods: TO-14 and TO-15 - KNOX-MS-0001, Rev 18 & KNOX-MS-0023, Rev 3

Page 1 of 2

Instrument/Date	MJ 4/16/18	Routine	DOD	OHIO
CCAL Chrom WL #	7901	CCAL Batch #	19508	
ICAL Chrom WL #	7391	ICAL Batch # / Event #	18185 / 1394	/

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]	/	☐ [Failed TO-14A, but passes TO-15] (NCM#)	/
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? [≤ 50% for 1&2 methylnaphthalene] [Chrom-F8] [TALS-Sample Results Tab]	/	☐ CCV - %D - LCS criteria met (NCM#) ☐ CCV - %D high - outside criteria, samples ND, Sample IDs Included (NCM# 11678)	/
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/1,2,3-trimethylbenzene	/		/
• tert-butylbenzene/4-isopropyltoluene	/		/
• 1,3-, 1,4-, and 1,2-dichlorobenzene	/		/
• 1,2-dimethyl-4-ethylbenzene/1,2,4,5-, 1,2,3,5-, and 1,2,3,4-tetramethylbenzenes	NE		NA
• 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?	NE		NA
7. Has the RT been updated to the method?	/		/
Analyst/date	JH 4/16/18	2nd Level Reviewer/date	04/17/18
8. Has the vol injected been verified vs Intech & 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 concurs, Report both (NCM#) ☐ (5) ISTD - Matrix, DL required (NCM#)	/
Sample Reason Sample Reason			
15. Samples outside calibration range scheduled for dilution?	/	☐ ICAL - Range Exceeded; Minimum Dilution	/

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?	NE		NA
18. Obvious non-TPH peaks excluded?	/		/
19. Individual TPH peak area < octane high point area?	/		/

Page 2 of 2

04/25/2018

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-10983-1</u>
SDG No.: _____	
Client Sample ID: <u>09988</u>	Lab Sample ID: <u>140-10983-12</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC201ot10983.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/17/2018 14:45</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/20/2018 13:17</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>18893</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadiene	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND		1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
67-64-1	Acetone	ND		2.0	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-10983-1</u>
SDG No.: _____	
Client Sample ID: <u>09988</u>	Lab Sample ID: <u>140-10983-12</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC20lot10983.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/17/2018 14:45</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/20/2018 13:17</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>18893</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	0.19		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	
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	
108-87-2	Methylcyclohexane	ND		0.080	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-10983-1</u>
SDG No.: _____	
Client Sample ID: <u>09988</u>	Lab Sample ID: <u>140-10983-12</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC20lot10983.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/17/2018 14:45</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/20/2018 13:17</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>18893</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-09-2	Methylene Chloride	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	0.042		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
75-69-4	Trichlorofluoromethane	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	
75-01-4	Vinyl chloride	ND		0.040	

FORM I
AIR - GC/MS VOA ORGANICS ANALYSIS DATA SHEET
TARGETED TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: TestAmerica Knoxville Job No.: 140-10983-1
 SDG No.: _____
 Client Sample ID: 09988 Lab Sample ID: 140-10983-12
 Matrix: Air Lab File ID: JC201ot10983.D
 Analysis Method: TO 15 LL Date Collected: 03/17/2018 14:45
 Sample wt/vol: 500 (mL) Date Analyzed: 03/20/2018 13:17
 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.: 18893 Units: ppb v/v

CAS NO.	COMPOUND NAME	RT	RESULT	Q	MATCH QUALITY
107-83-5	2-Methylpentane TIC		ND		
565-59-3	2,3-Dimethylpentane TIC		ND		
496-11-7	Indane TIC		ND		
95-13-6	Indene TIC		ND		
110-02-1	Thiophene TIC		ND		

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180319-7671.b\JC20lot10983.D
 Lims ID: 140-10983-A-12
 Client ID: 09988
 Sample Type: Client
 Inject. Date: 20-Mar-2018 13:17:30 ALS Bottle#: 16 Worklist Smp#: 20
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007671-020
 Misc. Info.: 09988
 Operator ID: 403648 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180319-7671.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 20-Mar-2018 14:30:49 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK025

First Level Reviewer: barlozhetskayaa

Date: 20-Mar-2018 14:34:55

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.679	9.680	-0.001	89	171125	4.00	
* 2 1,4-Difluorobenzene	114	11.777	11.778	-0.001	95	889161	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.376	16.378	-0.002	88	861504	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.979	17.981	-0.002	95	607537	3.90	
40 2-Butanone (MEK)	72	8.942	8.900	0.042	99	3821	0.1747	
46 Tetrahydrofuran	42	10.174	10.105	0.069	89	10359	0.1997	
65 4-Methyl-2-pentanone (MIBK	43	13.627	13.591	0.036	95	11699	0.1435	
76 Tetrachloroethene	129	15.564	15.565	-0.001	92	2994	0.0415	
93 Alpha Methyl Styrene	118	18.883	18.885	-0.002	89	19221	0.1875	

Reagents:

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180319-7671.b\JC20lot10983.D

Injection Date: 20-Mar-2018 13:17:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: 140-10983-A-12

Lab Sample ID: 140-10983-12

Worklist Smp#: 20

Client ID: 09988

Purge Vol: 500.000 mL

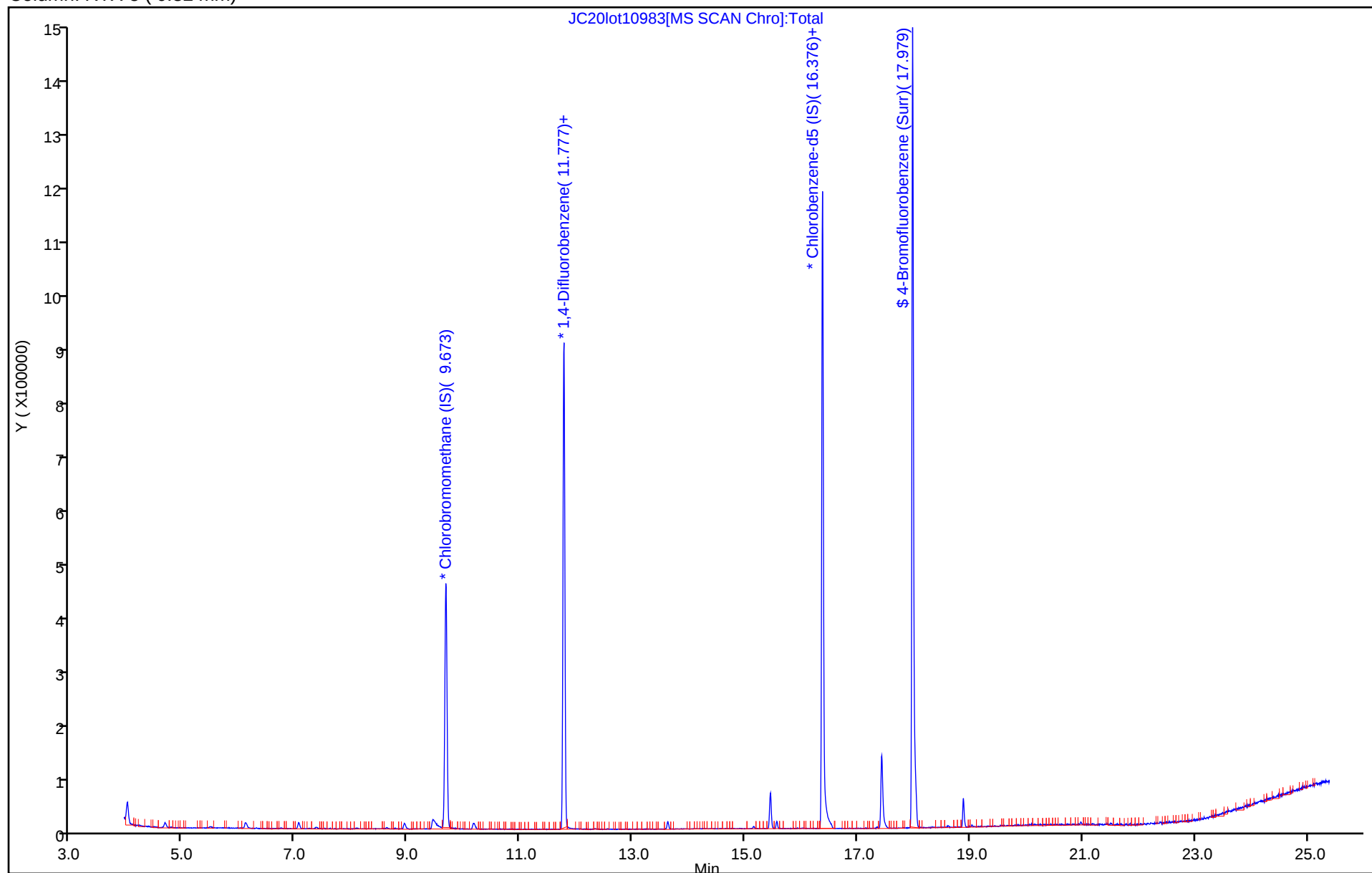
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180319-7671.b\JC20lot10983.D

Injection Date: 20-Mar-2018 13:17:30

Instrument ID: MJ

Lims ID: 140-10983-A-12

Lab Sample ID: 140-10983-12

Client ID: 09988

Operator ID: 403648

ALS Bottle#: 16

Worklist Smp#: 20

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

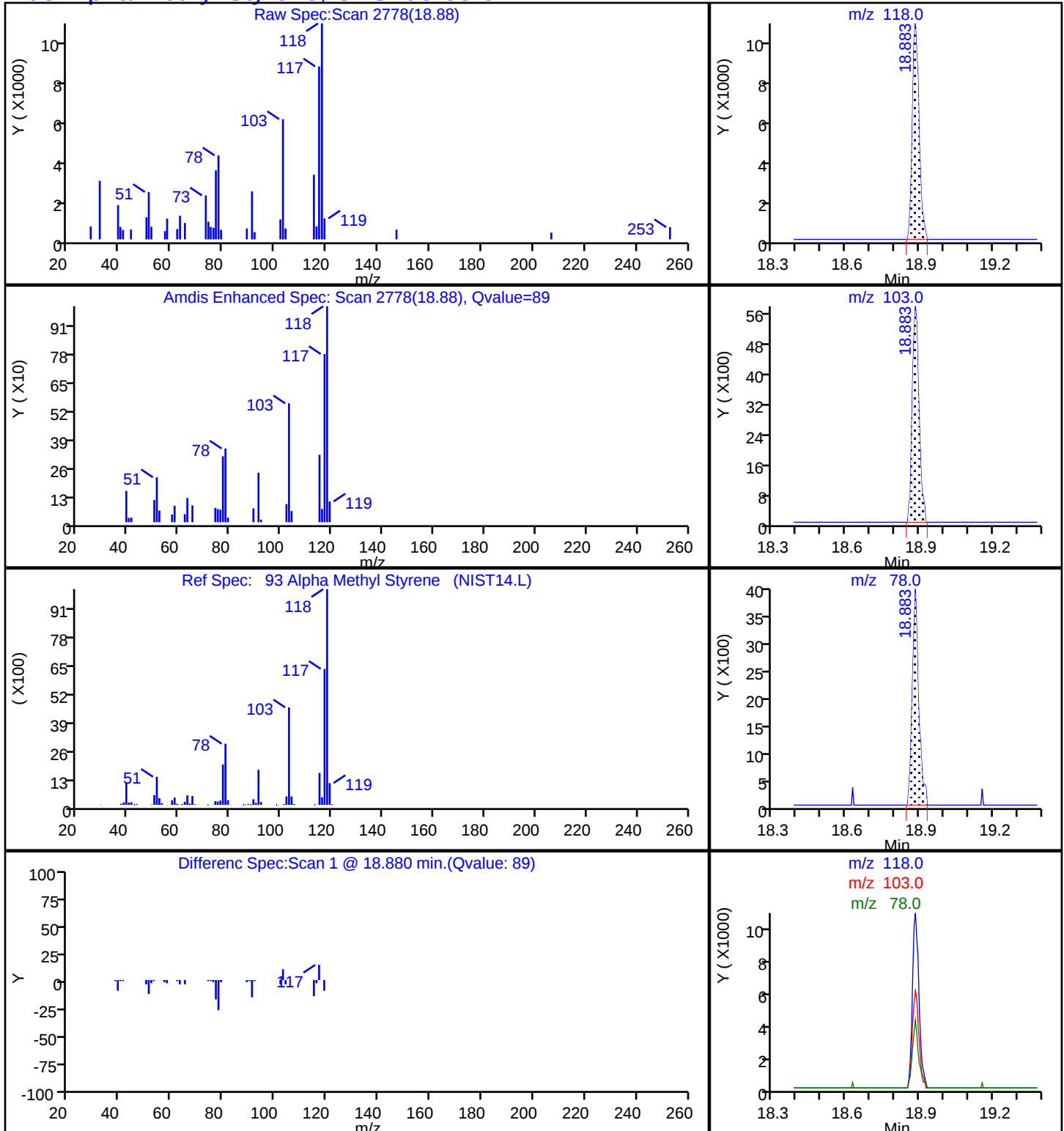
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

93 Alpha Methyl Styrene, CAS: 98-83-9



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180319-7671.b\JC20lot10983.D

Injection Date: 20-Mar-2018 13:17:30

Instrument ID: MJ

Lims ID: 140-10983-A-12

Lab Sample ID: 140-10983-12

Client ID: 09988

Operator ID: 403648

ALS Bottle#: 16

Worklist Smp#: 20

Purge Vol: 500.000 mL

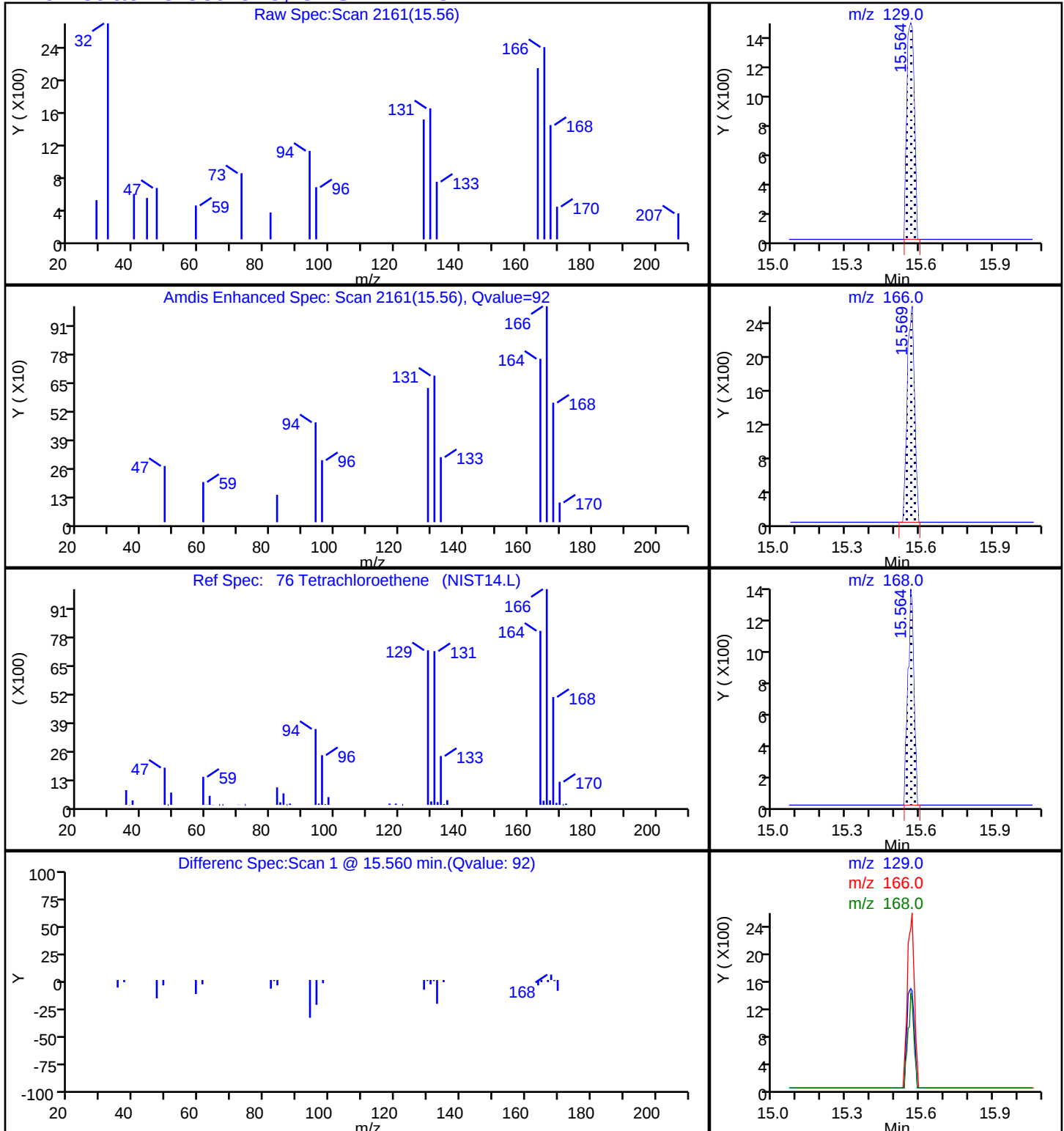
Dil. Factor: 1.0000

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\20180319-7671.b\JC20lot10983.D

Injection Date: 20-Mar-2018 13:17:30

Instrument ID: MJ

Lims ID: 140-10983-A-12

Lab Sample ID: 140-10983-12

Client ID: 09988

Operator ID: 403648

ALS Bottle#: 16

Worklist Smp#: 20

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

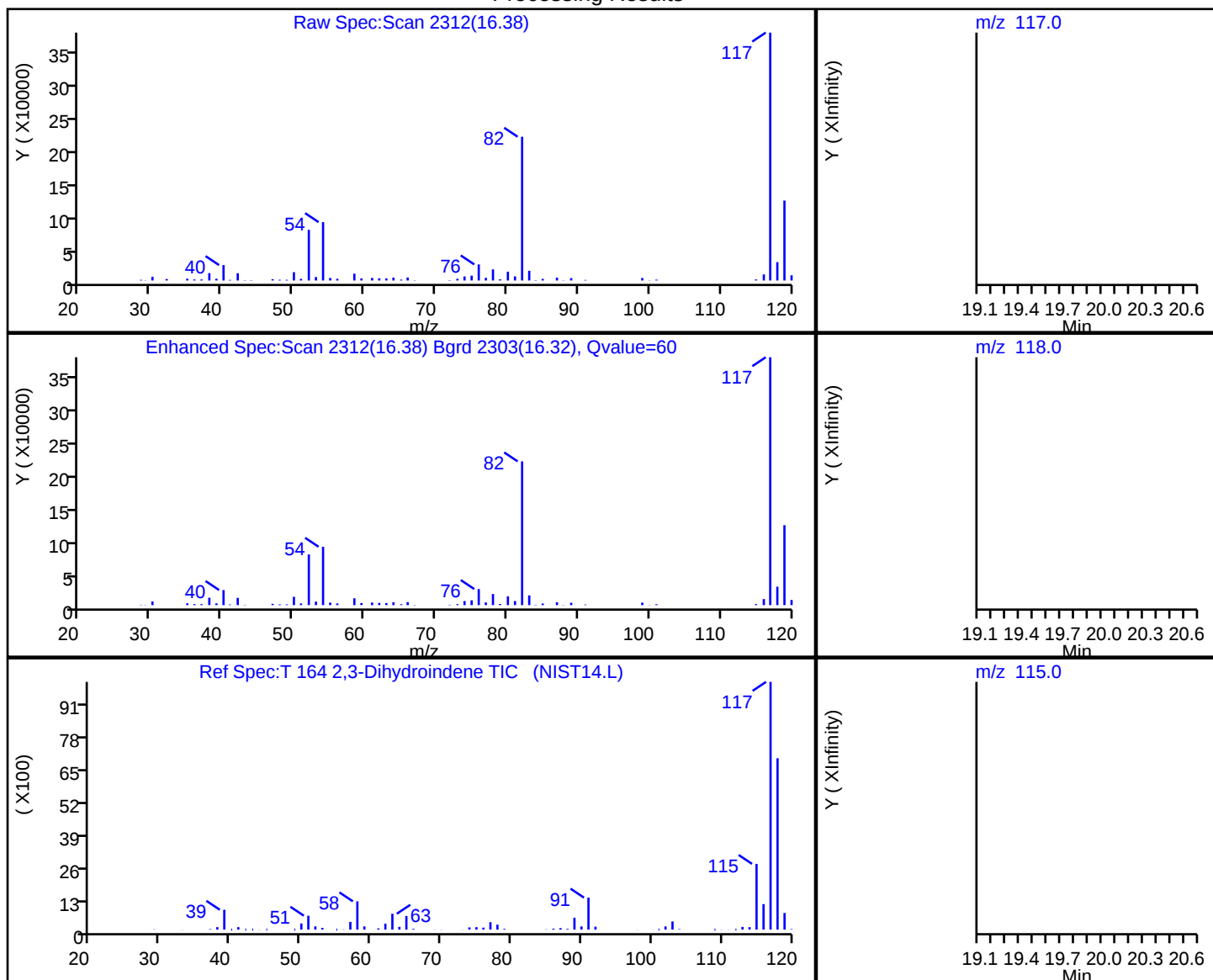
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

T 164 2,3-Dihydroindene TIC, CAS: 496-11-7

Processing Results



RT	Mass	Response	Amount
16.38	117.00	861504	4.000000
16.38	118.00	62326	
16.38	115.00	3030	

Reviewer: barlozhetskayaa, 20-Mar-2018 13:58:55

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10210</u>	Lab Sample ID: <u>140-11030-1</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-01.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 13:00</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadiene	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND		1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
67-64-1	Acetone	ND		2.0	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10210</u>	Lab Sample ID: <u>140-11030-1</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-01.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 13:00</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	
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	
108-87-2	Methylcyclohexane	ND		0.080	

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

Lab Name: TestAmerica Knoxville Job No.: 140-11030-1
 SDG No.: _____
 Client Sample ID: 10210 Lab Sample ID: 140-11030-1
 Matrix: Air Lab File ID: JC26BK11030-01.D
 Analysis Method: TO 15 LL Date Collected: 03/22/2018 17:00
 Sample wt/vol: 500 (mL) Date Analyzed: 03/26/2018 13:00
 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.: 19000 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-09-2	Methylene Chloride	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
75-69-4	Trichlorofluoromethane	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	
75-01-4	Vinyl chloride	ND		0.040	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-01.D
 Lims ID: 140-11030-A-1
 Client ID: 10210
 Sample Type: Client
 Inject. Date: 26-Mar-2018 13:00:30 ALS Bottle#: 1 Worklist Smp#: 4
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007705-004
 Misc. Info.: 10210
 Operator ID: 403648 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 26-Mar-2018 16:18:24 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK003

First Level Reviewer: tajh

Date: 26-Mar-2018 15:33:25

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.659	9.678	-0.019	89	216754	4.00	
* 2 1,4-Difluorobenzene	114	11.762	11.776	-0.014	95	1209862	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.367	16.375	-0.008	89	1060397	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.970	17.978	-0.008	95	784219	4.09	
17 Ethanol	31	5.425	5.433	-0.008	98	17248	0.6568	
22 Acetone	58	6.066	6.068	-0.002	99	36155	1.47	
63 Methyl methacrylate	41	12.763	12.755	0.008	83	2531	0.0344	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-01.D

Injection Date: 26-Mar-2018 13:00:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: 140-11030-A-1

Lab Sample ID: 140-11030-1

Worklist Smp#: 4

Client ID: 10210

Purge Vol: 500.000 mL

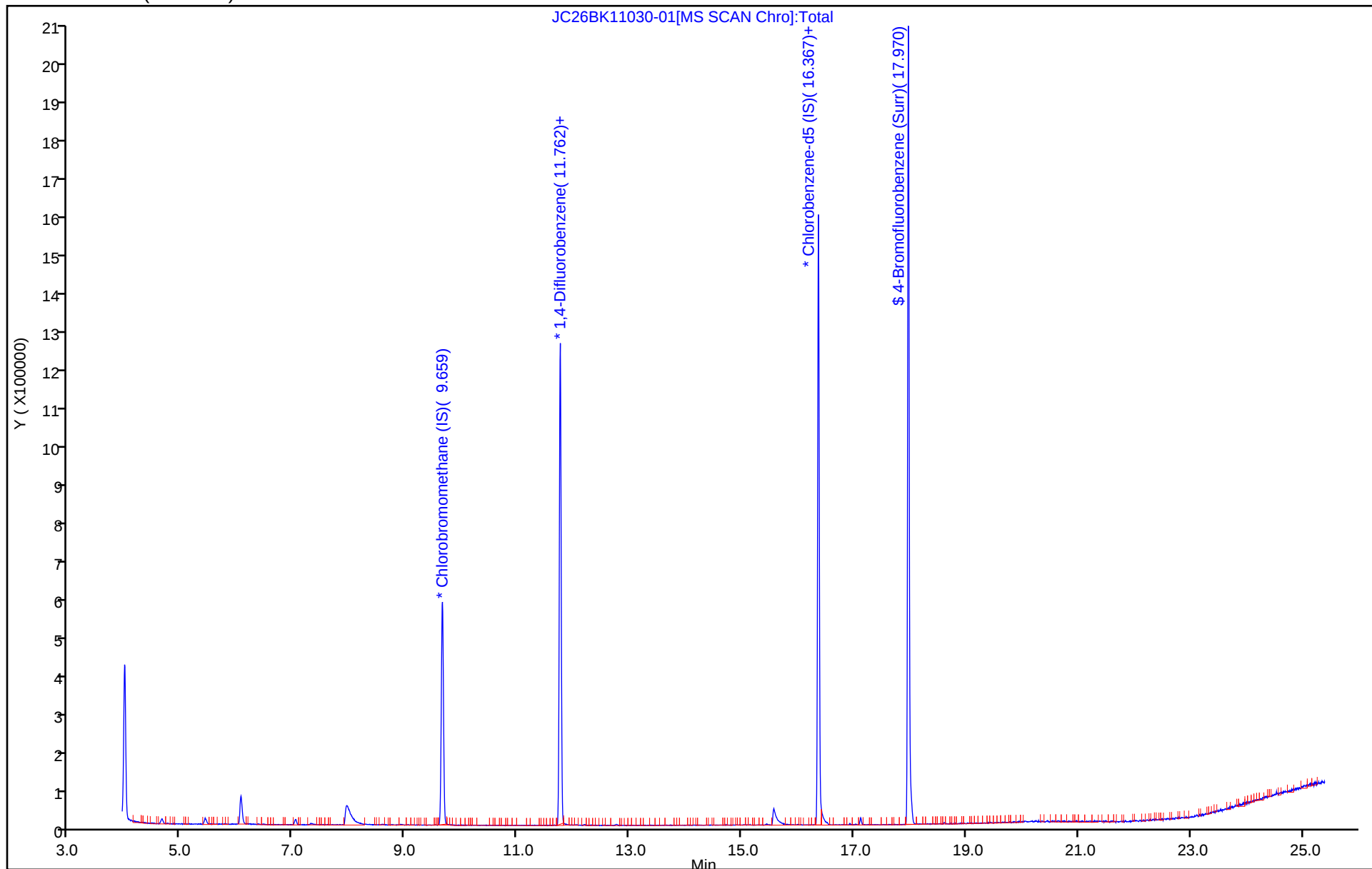
Dil. Factor: 1.0000

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\20180322-7705.b\JC26BK11030-01.D

Injection Date: 26-Mar-2018 13:00:30

Instrument ID: MJ

Lims ID: 140-11030-A-1

Lab Sample ID: 140-11030-1

Client ID: 10210

Operator ID: 403648

ALS Bottle#: 1 Worklist Smp#: 4

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

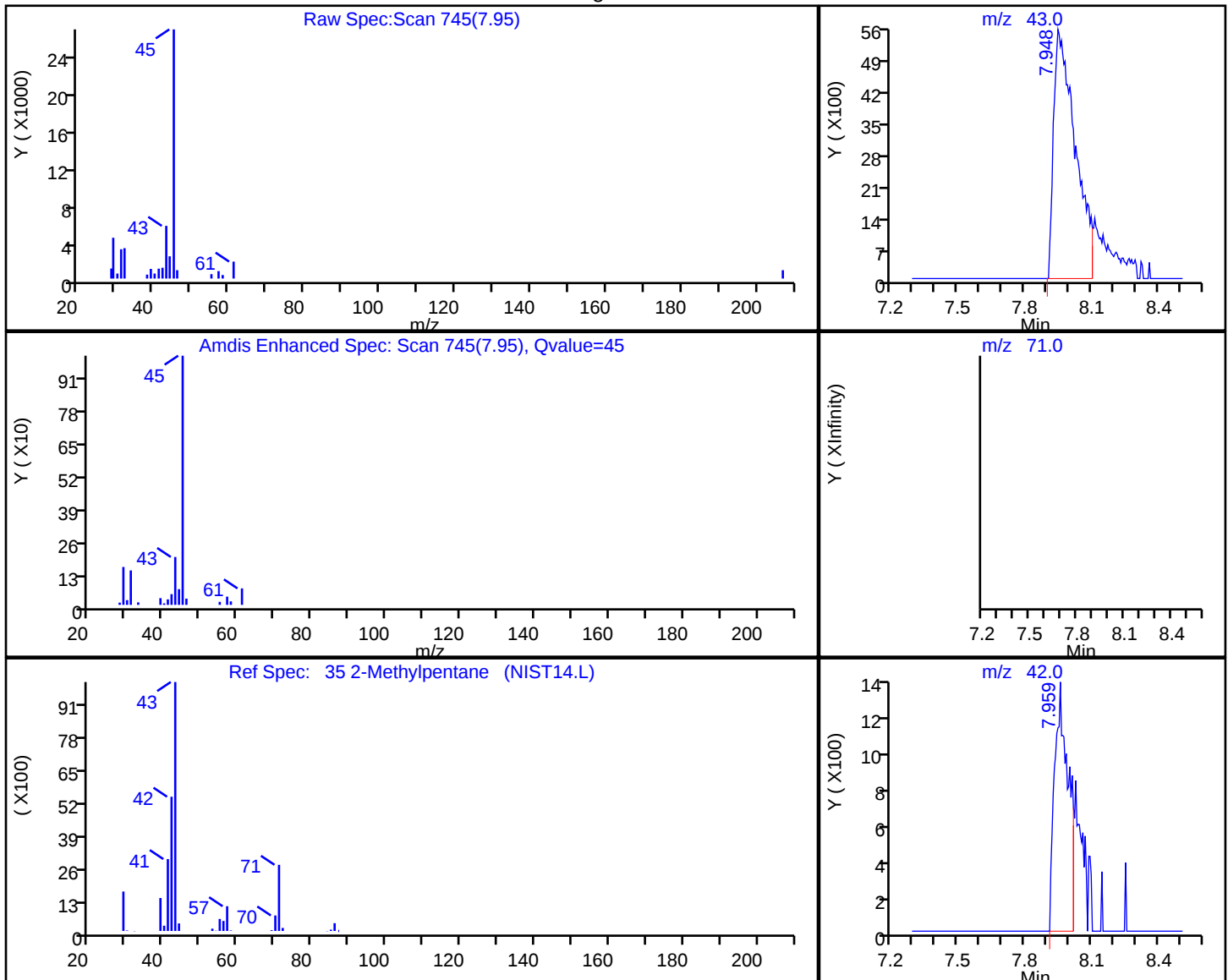
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

35 2-Methylpentane, CAS: 107-83-5

Processing Results



RT	Mass	Response	Amount
7.95	43.00	37384	0.226097
7.96	42.00	5902	
7.90	71.00	0	

Reviewer: tajh, 26-Mar-2018 15:33:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-01.D

Injection Date: 26-Mar-2018 13:00:30

Instrument ID: MJ

Lims ID: 140-11030-A-1

Lab Sample ID: 140-11030-1

Client ID: 10210

Operator ID: 403648

ALS Bottle#: 1 Worklist Smp#: 4

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

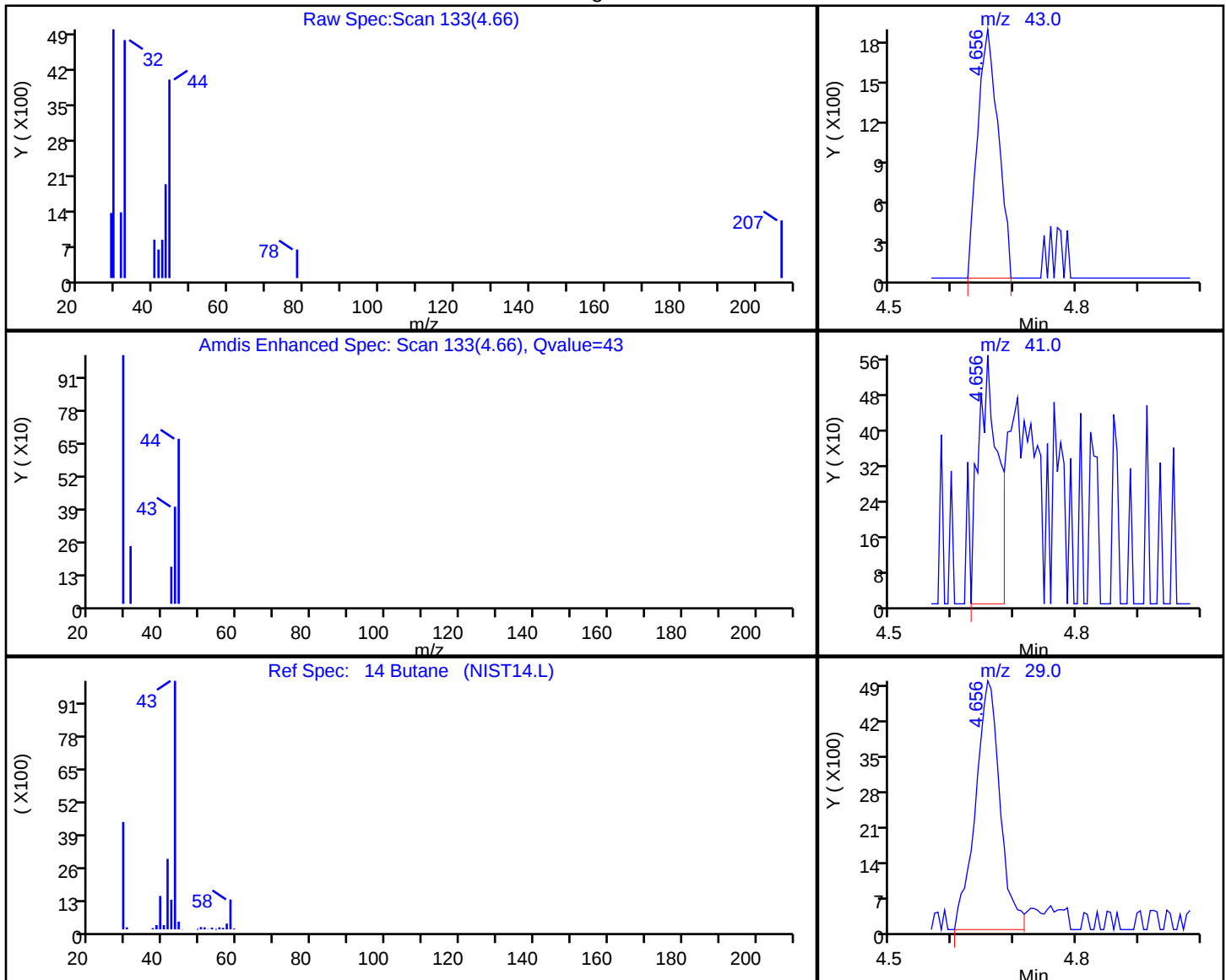
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

14 Butane, CAS: 106-97-8

Processing Results



RT	Mass	Response	Amount
4.66	43.00	4307	0.039656
4.66	41.00	1231	
4.66	29.00	13707	

Reviewer: tajh, 26-Mar-2018 15:33:25

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10512</u>	Lab Sample ID: <u>140-11030-2</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-02.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 13:48</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadiene	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND		1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
67-64-1	Acetone	ND		2.0	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10512</u>	Lab Sample ID: <u>140-11030-2</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-02.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 13:48</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	
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	
108-87-2	Methylcyclohexane	ND		0.080	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10512</u>	Lab Sample ID: <u>140-11030-2</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-02.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 13:48</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-09-2	Methylene Chloride	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
75-69-4	Trichlorofluoromethane	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	
75-01-4	Vinyl chloride	ND		0.040	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-02.D
 Lims ID: 140-11030-A-2
 Client ID: 10512
 Sample Type: Client
 Inject. Date: 26-Mar-2018 13:48:30 ALS Bottle#: 2 Worklist Smp#: 5
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007705-005
 Misc. Info.: 10512
 Operator ID: 403648 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 26-Mar-2018 16:18:24 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK003

First Level Reviewer: tajh

Date: 26-Mar-2018 15:33:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.668	9.678	-0.010	89	227271	4.00	
* 2 1,4-Difluorobenzene	114	11.766	11.776	-0.010	95	1219947	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.370	16.375	-0.005	89	1083094	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.973	17.978	-0.005	96	777805	3.97	
22 Acetone	58	6.074	6.068	0.006	99	45602	1.76	
32 Methylene Chloride	84	7.048	7.052	-0.004	93	13577	0.1668	
53 n-Butanol	31	11.341	11.275	0.066	83	934	0.0443	
63 Methyl methacrylate	41	12.766	12.755	0.011	91	5564	0.0751	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-02.D

Injection Date: 26-Mar-2018 13:48:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: 140-11030-A-2

Lab Sample ID: 140-11030-2

Worklist Smp#: 5

Client ID: 10512

Purge Vol: 500.000 mL

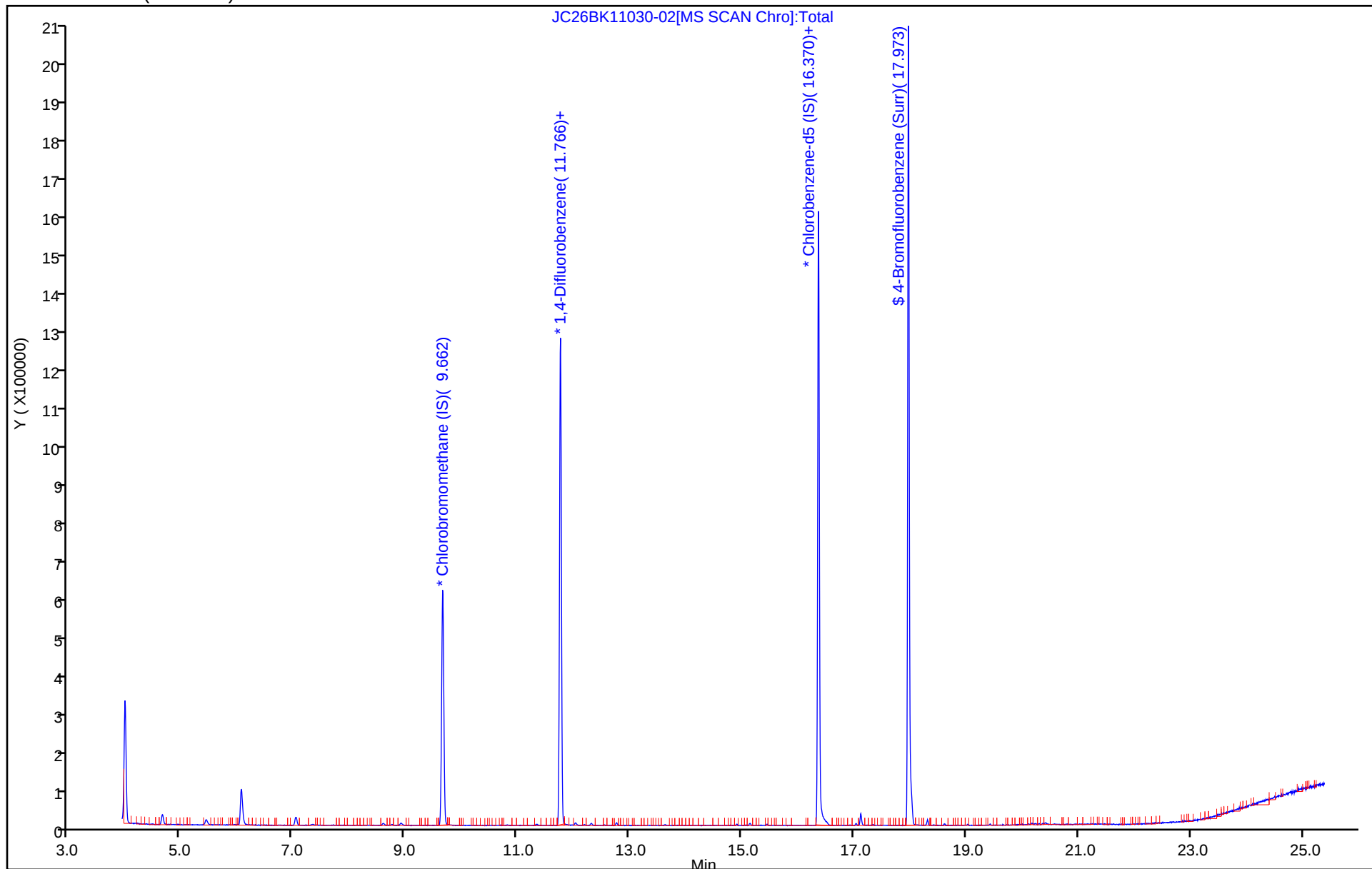
Dil. Factor: 1.0000

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\20180322-7705.b\JC26BK11030-02.D

Injection Date: 26-Mar-2018 13:48:30

Instrument ID: MJ

Lims ID: 140-11030-A-2

Lab Sample ID: 140-11030-2

Client ID: 10512

Operator ID: 403648

ALS Bottle#:

2

Worklist Smp#: 5

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

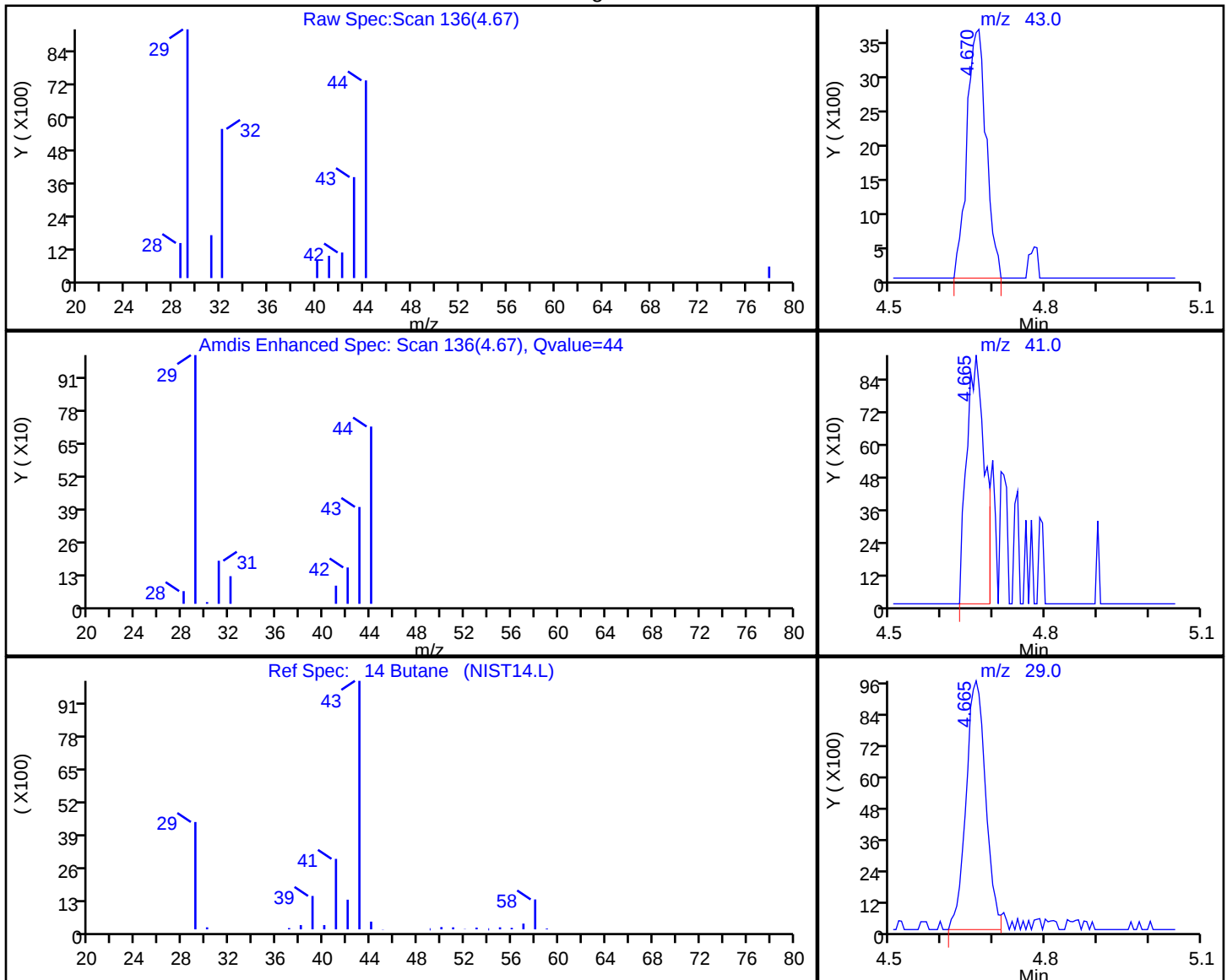
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

14 Butane, CAS: 106-97-8

Processing Results



RT	Mass	Response	Amount
4.67	43.00	9579	0.084115
4.66	41.00	2235	
4.66	29.00	25510	

Reviewer: tajh, 26-Mar-2018 15:33:56

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-02.D

Injection Date: 26-Mar-2018 13:48:30

Instrument ID: MJ

Lims ID: 140-11030-A-2

Lab Sample ID: 140-11030-2

Client ID: 10512

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

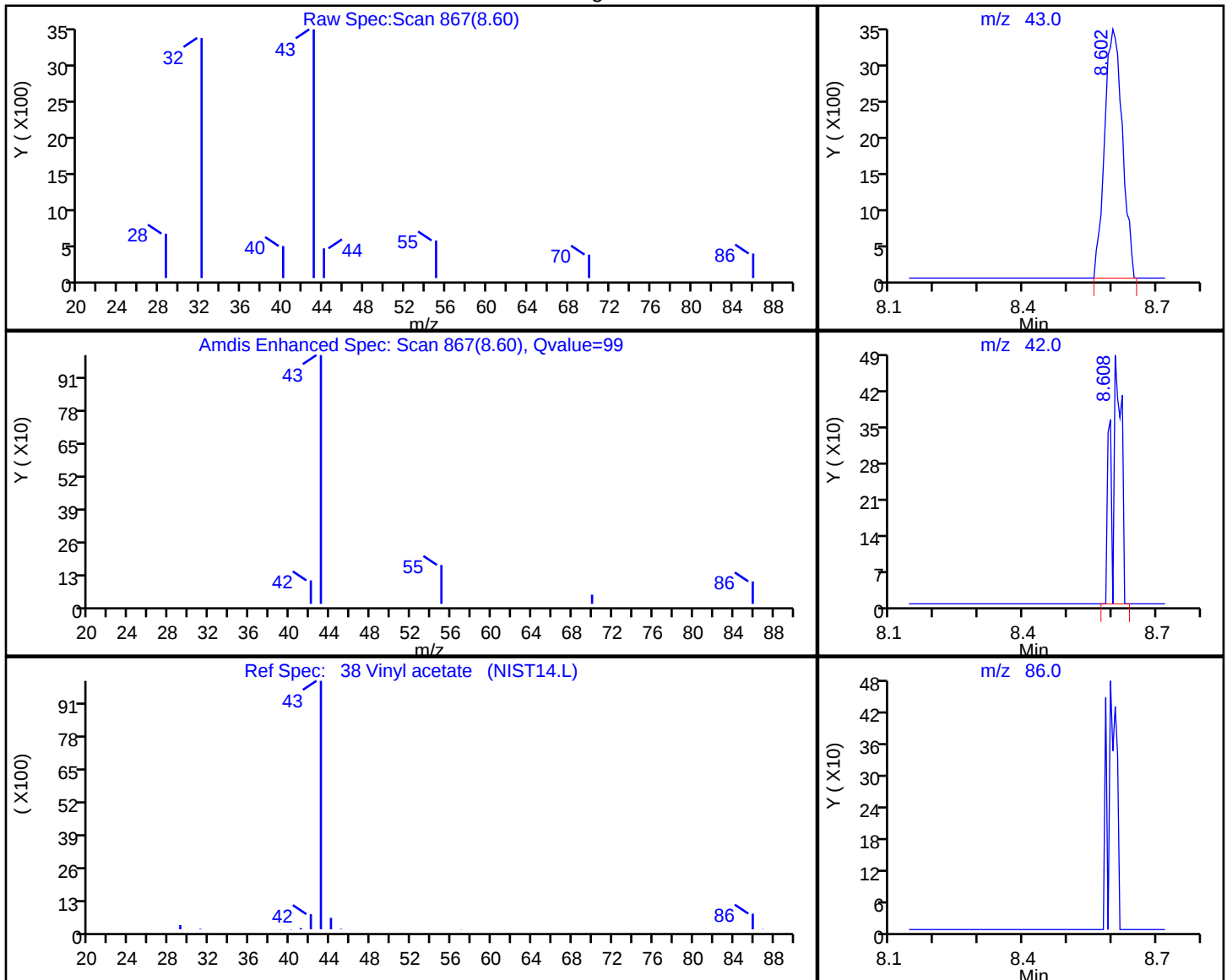
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

38 Vinyl acetate, CAS: 108-05-4

Processing Results



RT	Mass	Response	Amount
8.60	43.00	9698	0.060153
8.61	42.00	753	
8.43	86.00	0	

Reviewer: tajh, 26-Mar-2018 15:33:56

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>09936</u>	Lab Sample ID: <u>140-11030-3</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-03.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 14:36</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	0.093		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadiene	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND		1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
67-64-1	Acetone	ND		2.0	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>09936</u>	Lab Sample ID: <u>140-11030-3</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-03.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 14:36</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	
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	
108-87-2	Methylcyclohexane	ND		0.080	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>09936</u>	Lab Sample ID: <u>140-11030-3</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-03.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 14:36</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-09-2	Methylene Chloride	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
75-69-4	Trichlorofluoromethane	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	
75-01-4	Vinyl chloride	ND		0.040	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-03.D
 Lims ID: 140-11030-A-3
 Client ID: 09936
 Sample Type: Client
 Inject. Date: 26-Mar-2018 14:36:30 ALS Bottle#: 3 Worklist Smp#: 6
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007705-006
 Misc. Info.: 09936
 Operator ID: 403648 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 26-Mar-2018 16:18:24 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK003

First Level Reviewer: tajh

Date: 26-Mar-2018 15:34:19

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.668	9.678	-0.010	91	207345	4.00	
* 2 1,4-Difluorobenzene	114	11.766	11.776	-0.010	95	1154346	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.370	16.375	-0.005	89	1005274	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.973	17.978	-0.005	94	785846	4.32	
47 1,1,1-Trichloroethane	97	10.700	10.705	-0.005	95	14339	0.0928	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-03.D

Injection Date: 26-Mar-2018 14:36:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: 140-11030-A-3

Lab Sample ID: 140-11030-3

Worklist Smp#: 6

Client ID: 09936

Purge Vol: 500.000 mL

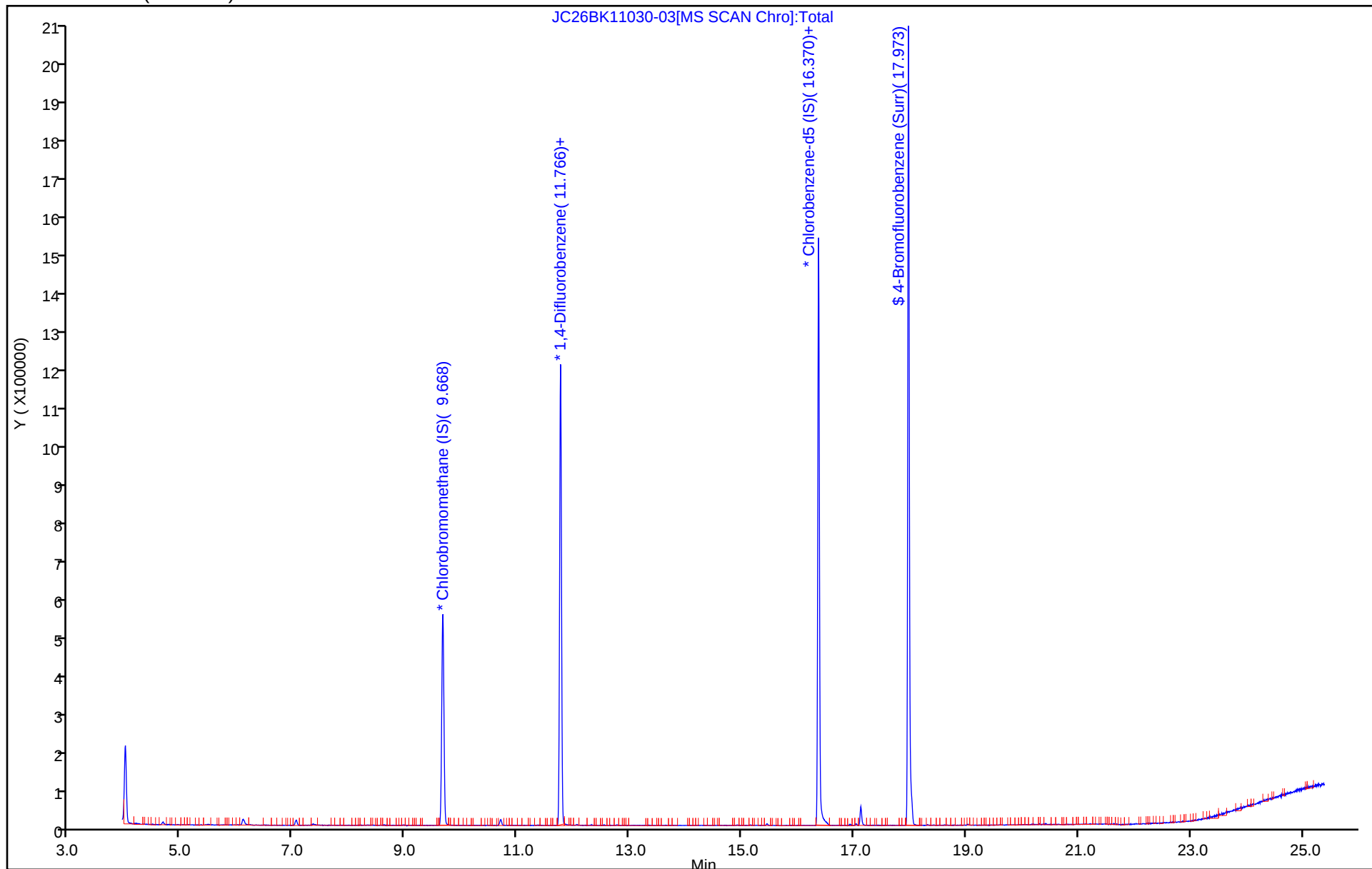
Dil. Factor: 1.0000

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\20180322-7705.b\JC26BK11030-03.D

Injection Date: 26-Mar-2018 14:36:30

Instrument ID: MJ

Lims ID: 140-11030-A-3

Lab Sample ID: 140-11030-3

Client ID: 09936

Operator ID: 403648

ALS Bottle#: 3

Worklist Smp#: 6

Purge Vol: 500.000 mL

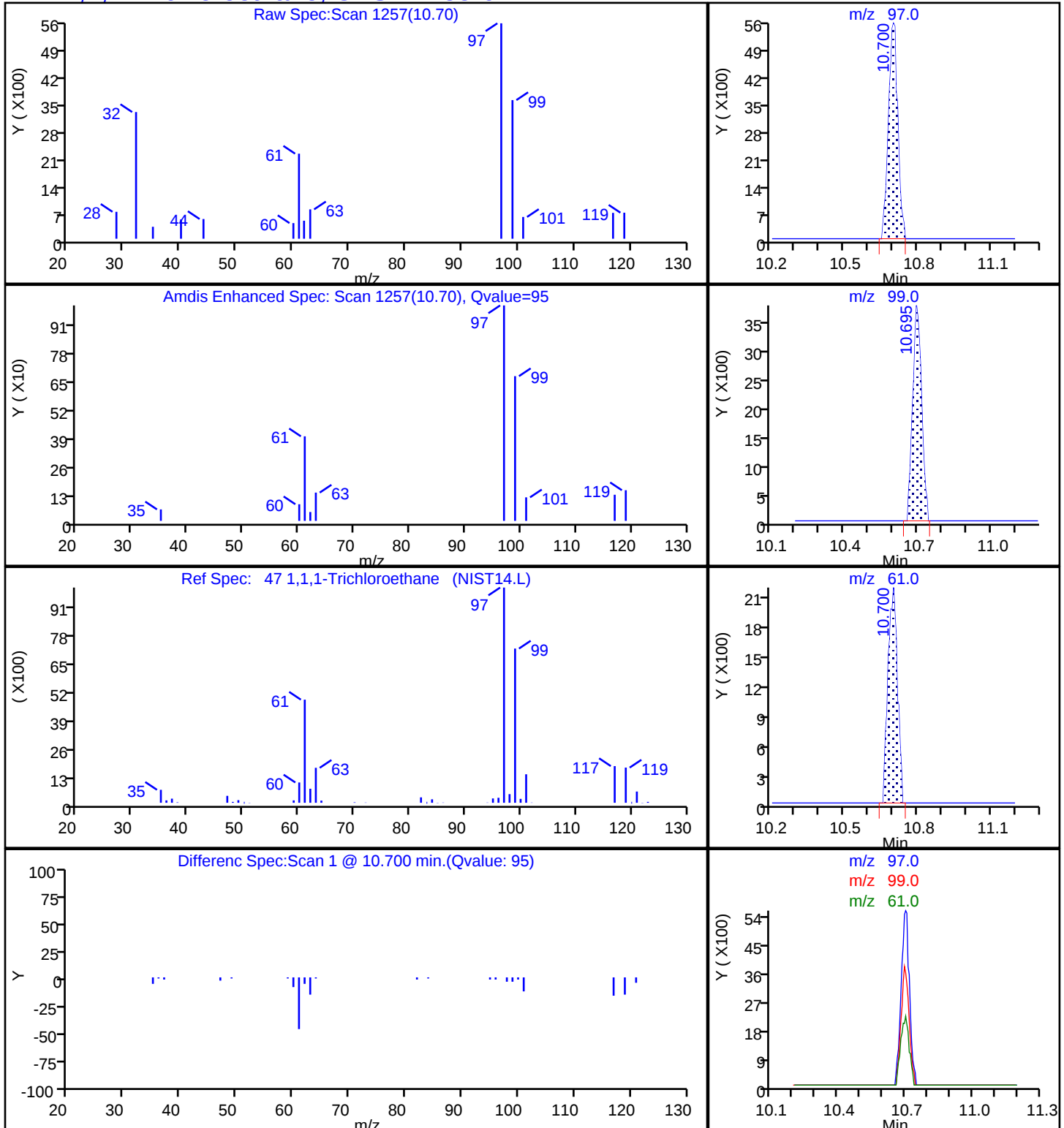
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

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

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10765</u>	Lab Sample ID: <u>140-11030-4</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-04.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 15:23</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadiene	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND		1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
67-64-1	Acetone	ND		2.0	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10765</u>	Lab Sample ID: <u>140-11030-4</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-04.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 15:23</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	
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	
108-87-2	Methylcyclohexane	ND		0.080	

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

Lab Name: TestAmerica Knoxville Job No.: 140-11030-1
 SDG No.: _____
 Client Sample ID: 10765 Lab Sample ID: 140-11030-4
 Matrix: Air Lab File ID: JC26BK11030-04.D
 Analysis Method: TO 15 LL Date Collected: 03/22/2018 17:00
 Sample wt/vol: 500 (mL) Date Analyzed: 03/26/2018 15:23
 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.: 19000 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-09-2	Methylene Chloride	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
75-69-4	Trichlorofluoromethane	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	
75-01-4	Vinyl chloride	ND		0.040	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-04.D
 Lims ID: 140-11030-A-4
 Client ID: 10765
 Sample Type: Client
 Inject. Date: 26-Mar-2018 15:23:30 ALS Bottle#: 4 Worklist Smp#: 7
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007705-007
 Misc. Info.: 10765
 Operator ID: 403648 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 26-Mar-2018 16:18:24 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK003

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.659	9.678	-0.019	90	206325	4.00	
* 2 1,4-Difluorobenzene	114	11.762	11.776	-0.014	95	1153604	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.367	16.375	-0.008	89	1050723	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.970	17.978	-0.008	94	789329	4.16	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-04.D

Injection Date: 26-Mar-2018 15:23:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: 140-11030-A-4

Lab Sample ID: 140-11030-4

Worklist Smp#: 7

Client ID: 10765

Purge Vol: 500.000 mL

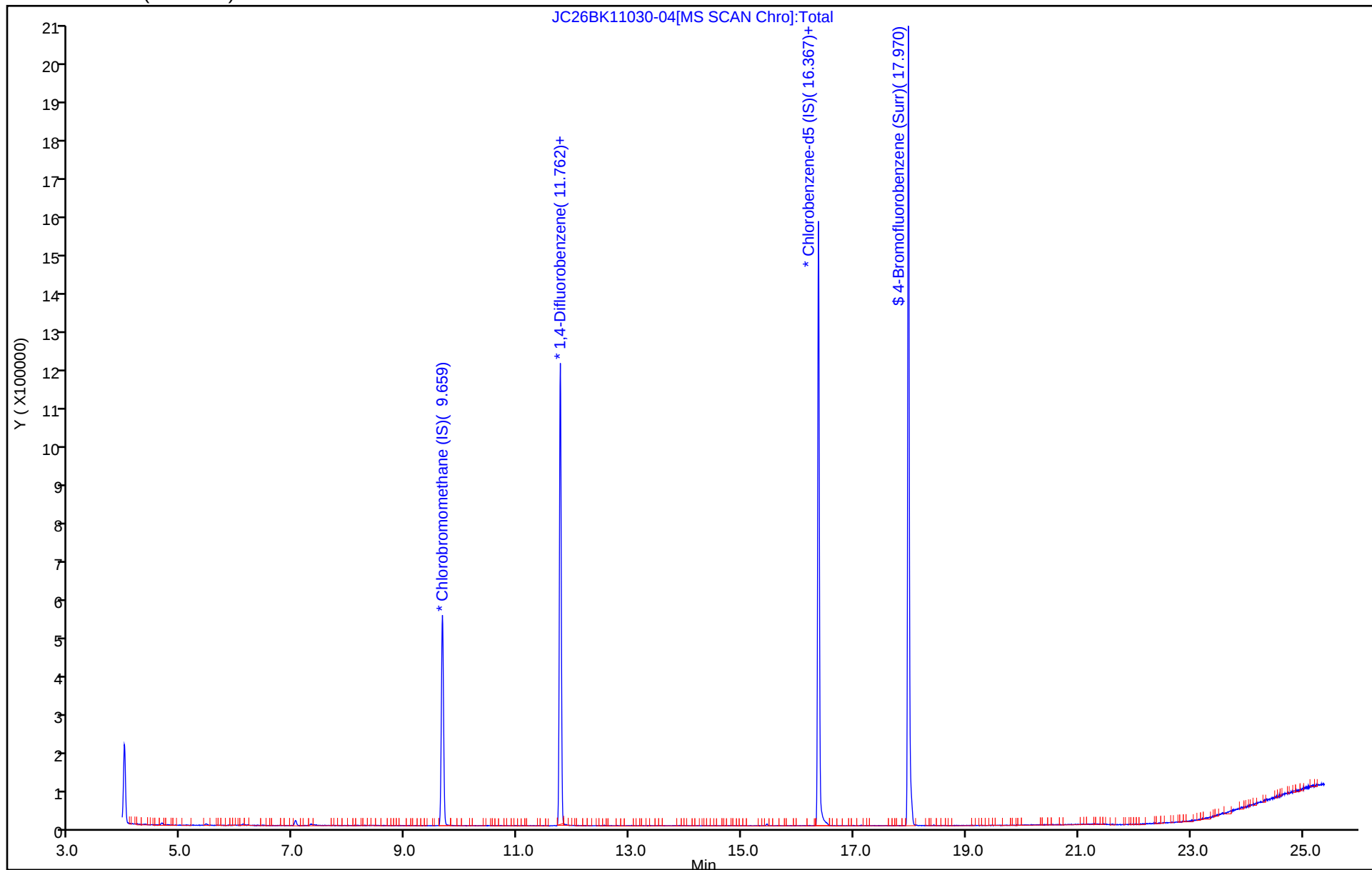
Dil. Factor: 1.0000

ALS Bottle#: 4

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10826</u>	Lab Sample ID: <u>140-11030-5</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-05.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 16:11</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadiene	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND		1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	0.31		0.20	
67-64-1	Acetone	ND		2.0	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10826</u>	Lab Sample ID: <u>140-11030-5</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-05.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 16:11</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	5.5		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	
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	
108-87-2	Methylcyclohexane	ND		0.080	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10826</u>	Lab Sample ID: <u>140-11030-5</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-05.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 16:11</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-09-2	Methylene Chloride	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
75-69-4	Trichlorofluoromethane	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	
75-01-4	Vinyl chloride	ND		0.040	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-05.D
 Lims ID: 140-11030-A-5
 Client ID: 10826
 Sample Type: Client
 Inject. Date: 26-Mar-2018 16:11:30 ALS Bottle#: 5 Worklist Smp#: 8
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007705-008
 Misc. Info.: 10826
 Operator ID: 403648 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 26-Mar-2018 17:07:13 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK013

First Level Reviewer: barlozhetskayaa

Date: 26-Mar-2018 17:07:13

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.667	9.678	-0.011	90	208080	4.00	
* 2 1,4-Difluorobenzene	114	11.770	11.776	-0.006	95	1165330	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.370	16.375	-0.006	89	1045032	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.973	17.972	-0.005	94	780373	4.13	
17 Ethanol	31	5.422	5.427	-0.011	98	137859	5.47	
25 Isopropyl alcohol	45	6.229	6.174	0.048	95	6121	0.0901	
53 n-Butanol	31	11.291	11.265	0.016	87	14674	0.7281	
62 1,4-Dioxane	88	12.744	12.700	0.032	74	1012	0.0499	
63 Methyl methacrylate	41	12.765	12.743	0.010	84	3844	0.0543	
65 4-Methyl-2-pentanone (MIBK	43	13.604	13.576	0.015	97	33363	0.3123	

Reagents:

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-05.D

Injection Date: 26-Mar-2018 16:11:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: 140-11030-A-5

Lab Sample ID: 140-11030-5

Worklist Smp#: 8

Client ID: 10826

Purge Vol: 500.000 mL

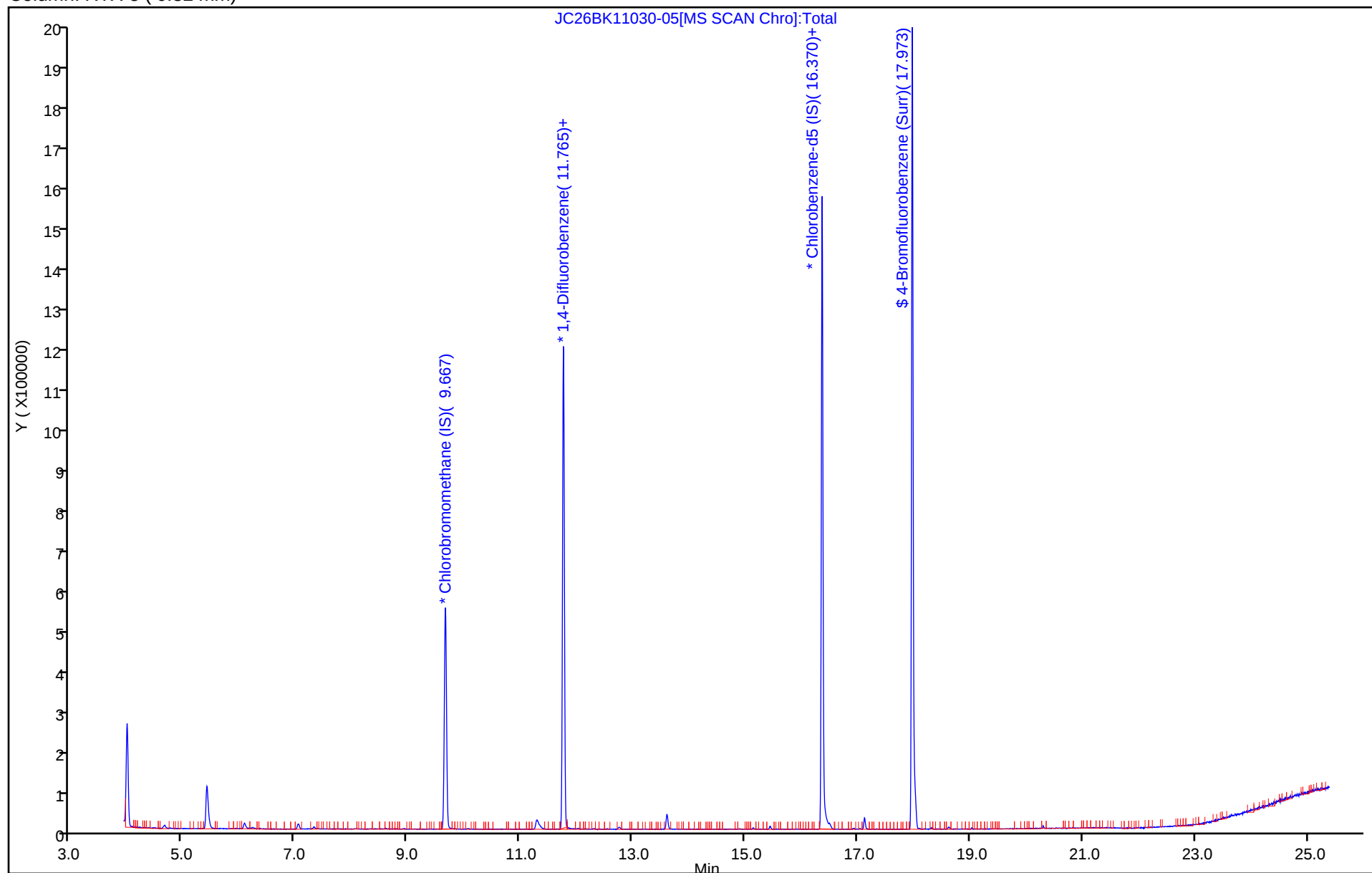
Dil. Factor: 1.0000

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\\20180322-7705.b\\JC26BK11030-05.D

Injection Date: 26-Mar-2018 16:11:30

Instrument ID: MJ

Lims ID: 140-11030-A-5

Lab Sample ID: 140-11030-5

Client ID: 10826

Operator ID: 403648

ALS Bottle#: 5

Worklist Smp#: 8

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

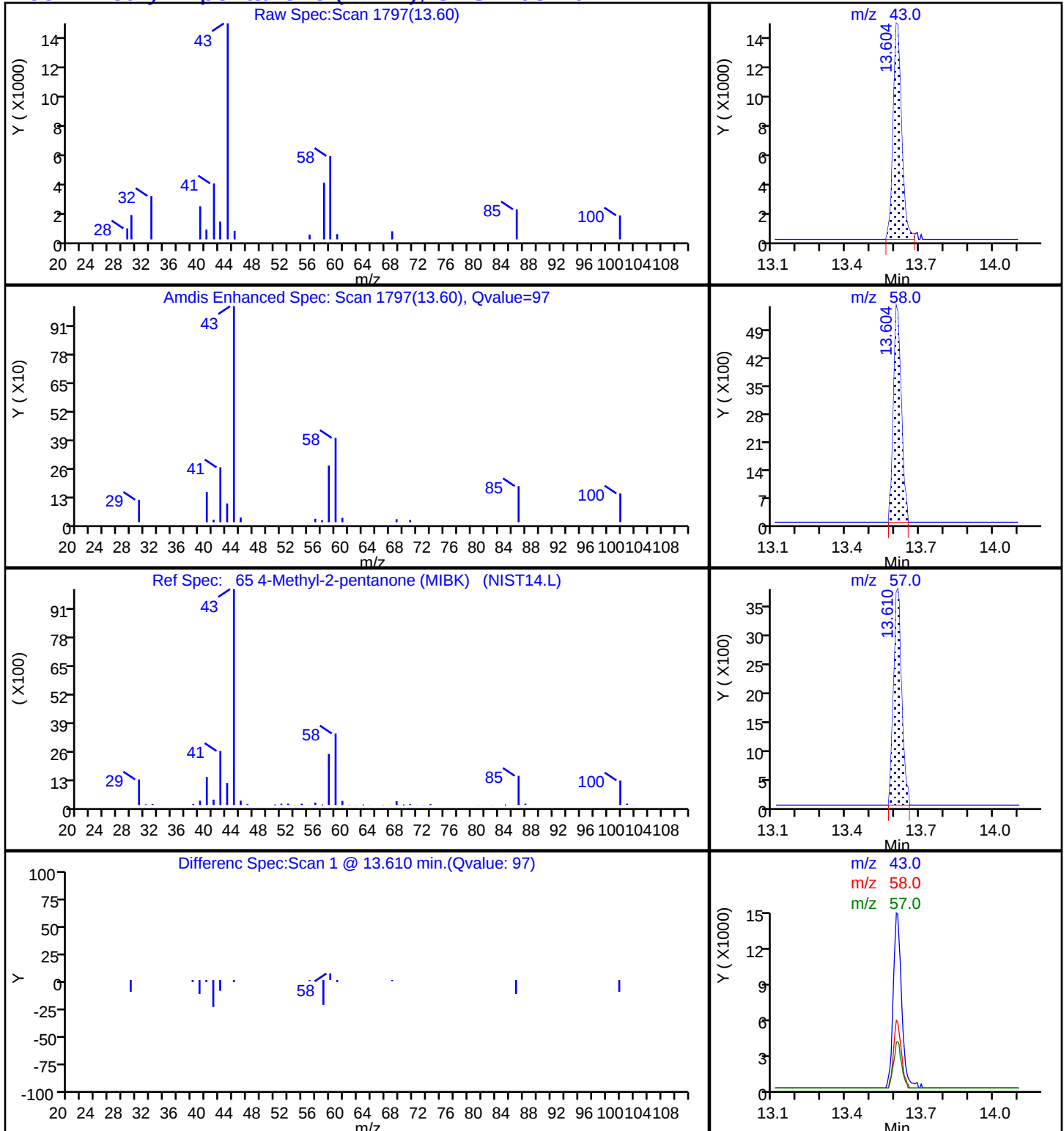
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

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



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-05.D

Injection Date: 26-Mar-2018 16:11:30

Instrument ID: MJ

Lims ID: 140-11030-A-5

Lab Sample ID: 140-11030-5

Client ID: 10826

Operator ID: 403648

ALS Bottle#: 5

Worklist Smp#: 8

Purge Vol: 500.000 mL

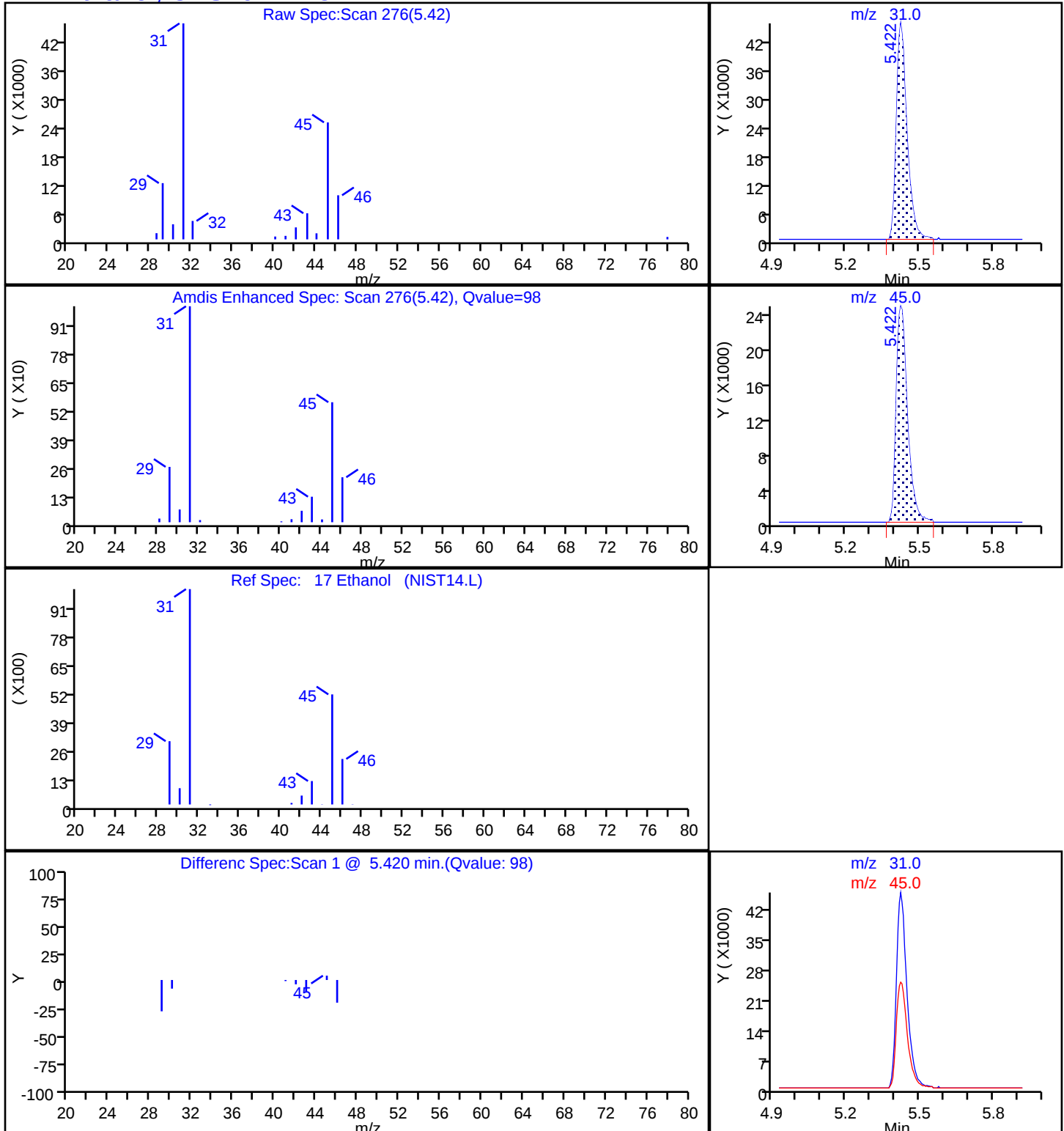
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

17 Ethanol, CAS: 64-17-5

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>11634</u>	Lab Sample ID: <u>140-11030-6</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-06.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 16:58</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadiene	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND		1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
67-64-1	Acetone	ND		2.0	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>11634</u>	Lab Sample ID: <u>140-11030-6</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-06.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 16:58</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	
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	
108-87-2	Methylcyclohexane	ND		0.080	

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

Lab Name: TestAmerica Knoxville Job No.: 140-11030-1
 SDG No.: _____
 Client Sample ID: 11634 Lab Sample ID: 140-11030-6
 Matrix: Air Lab File ID: JC26BK11030-06.D
 Analysis Method: TO 15 LL Date Collected: 03/22/2018 17:00
 Sample wt/vol: 500 (mL) Date Analyzed: 03/26/2018 16:58
 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.: 19000 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-09-2	Methylene Chloride	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
75-69-4	Trichlorofluoromethane	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	
75-01-4	Vinyl chloride	ND		0.040	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-06.D
 Lims ID: 140-11030-A-6
 Client ID: 11634
 Sample Type: Client
 Inject. Date: 26-Mar-2018 16:58:30 ALS Bottle#: 6 Worklist Smp#: 9
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007705-009
 Misc. Info.: 11634
 Operator ID: 403648 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 26-Mar-2018 17:57:56 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK013

First Level Reviewer: barlozhetskayaa

Date: 26-Mar-2018 17:57:56

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.667	9.678	-0.011	90	200153	4.00	
* 2 1,4-Difluorobenzene	114	11.765	11.776	-0.011	95	1128836	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.370	16.375	-0.005	89	1030424	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.973	17.973	-0.005	94	763765	4.10	
47 1,1,1-Trichloroethane	97	10.700	10.694	-0.005	89	3146	0.0211	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-06.D

Injection Date: 26-Mar-2018 16:58:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: 140-11030-A-6

Lab Sample ID: 140-11030-6

Worklist Smp#: 9

Client ID: 11634

Purge Vol: 500.000 mL

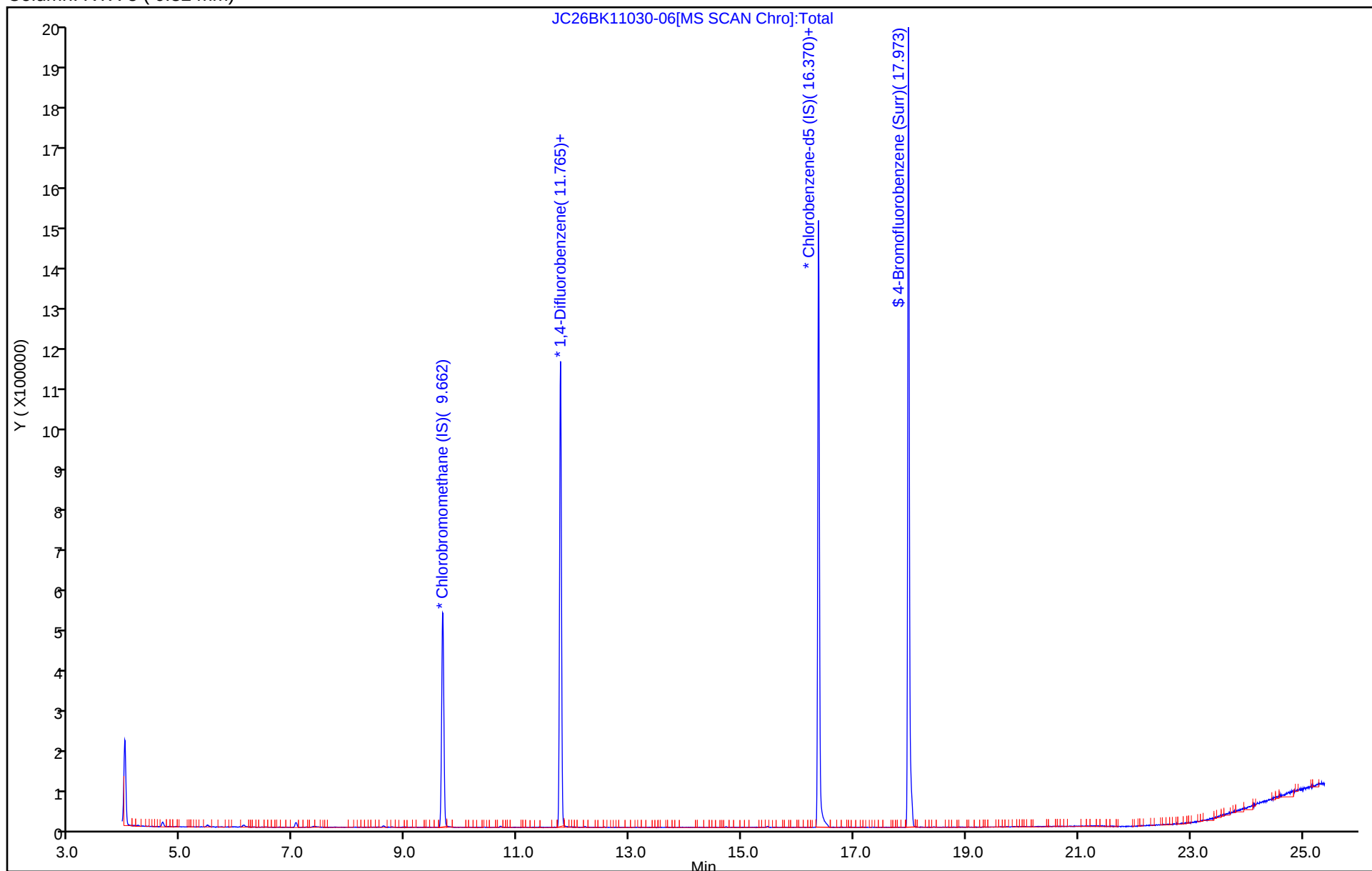
Dil. Factor: 1.0000

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\20180322-7705.b\JC26BK11030-06.D

Injection Date: 26-Mar-2018 16:58:30

Instrument ID: MJ

Lims ID: 140-11030-A-6

Lab Sample ID: 140-11030-6

Client ID: 11634

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

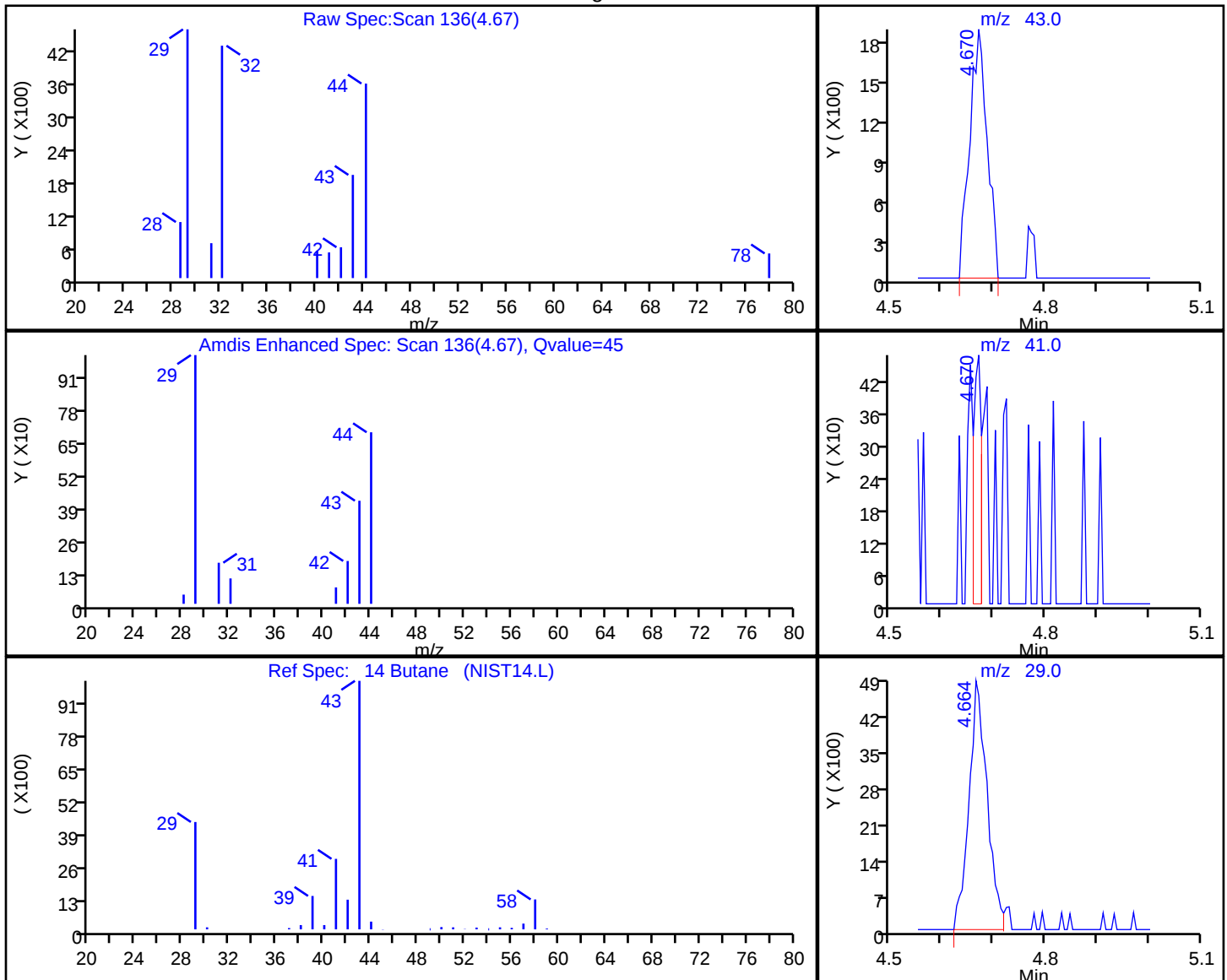
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

14 Butane, CAS: 106-97-8

Processing Results



RT	Mass	Response	Amount
4.67	43.00	4442	0.044291
4.67	41.00	491	
4.66	29.00	11825	

Reviewer: barlozhetskayaa, 26-Mar-2018 17:57:56

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>09935</u>	Lab Sample ID: <u>140-11030-7</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-07.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 17:45</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadiene	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND		1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
67-64-1	Acetone	ND		2.0	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>09935</u>	Lab Sample ID: <u>140-11030-7</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-07.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 17:45</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	0.43		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	
108-87-2	Methylcyclohexane	ND		0.080	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>09935</u>	Lab Sample ID: <u>140-11030-7</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-07.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 17:45</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-09-2	Methylene Chloride	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
75-69-4	Trichlorofluoromethane	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	
75-01-4	Vinyl chloride	ND		0.040	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-07.D
 Lims ID: 140-11030-A-7
 Client ID: 09935
 Sample Type: Client
 Inject. Date: 26-Mar-2018 17:45:30 ALS Bottle#: 7 Worklist Smp#: 10
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007705-010
 Misc. Info.: 09935
 Operator ID: 403648 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 26-Mar-2018 18:35:24 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK013

First Level Reviewer: barlozhetskayaa

Date: 26-Mar-2018 18:35:24

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.668	9.678	-0.010	93	202040	4.00	
* 2 1,4-Difluorobenzene	114	11.766	11.776	-0.010	95	1119635	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.370	16.375	-0.005	89	1002739	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.973	17.973	-0.005	94	764422	4.22	
22 Acetone	58	6.074	6.062	0.006	99	43388	1.89	
33 Carbon disulfide	76	7.225	7.222	-0.005	95	5915	0.0305	
40 2-Butanone (MEK)	72	8.920	8.888	0.022	99	2402	0.0930	
63 Methyl methacrylate	41	12.761	12.744	0.006	92	28921	0.4252	
72 2-Hexanone	58	14.896	14.881	0.011	92	3881	0.0779	

Reagents:

40MXISSURP_00003

Amount Added: 40.00

Units: mL

Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-07.D

Injection Date: 26-Mar-2018 17:45:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: 140-11030-A-7

Lab Sample ID: 140-11030-7

Worklist Smp#: 10

Client ID: 09935

Purge Vol: 500.000 mL

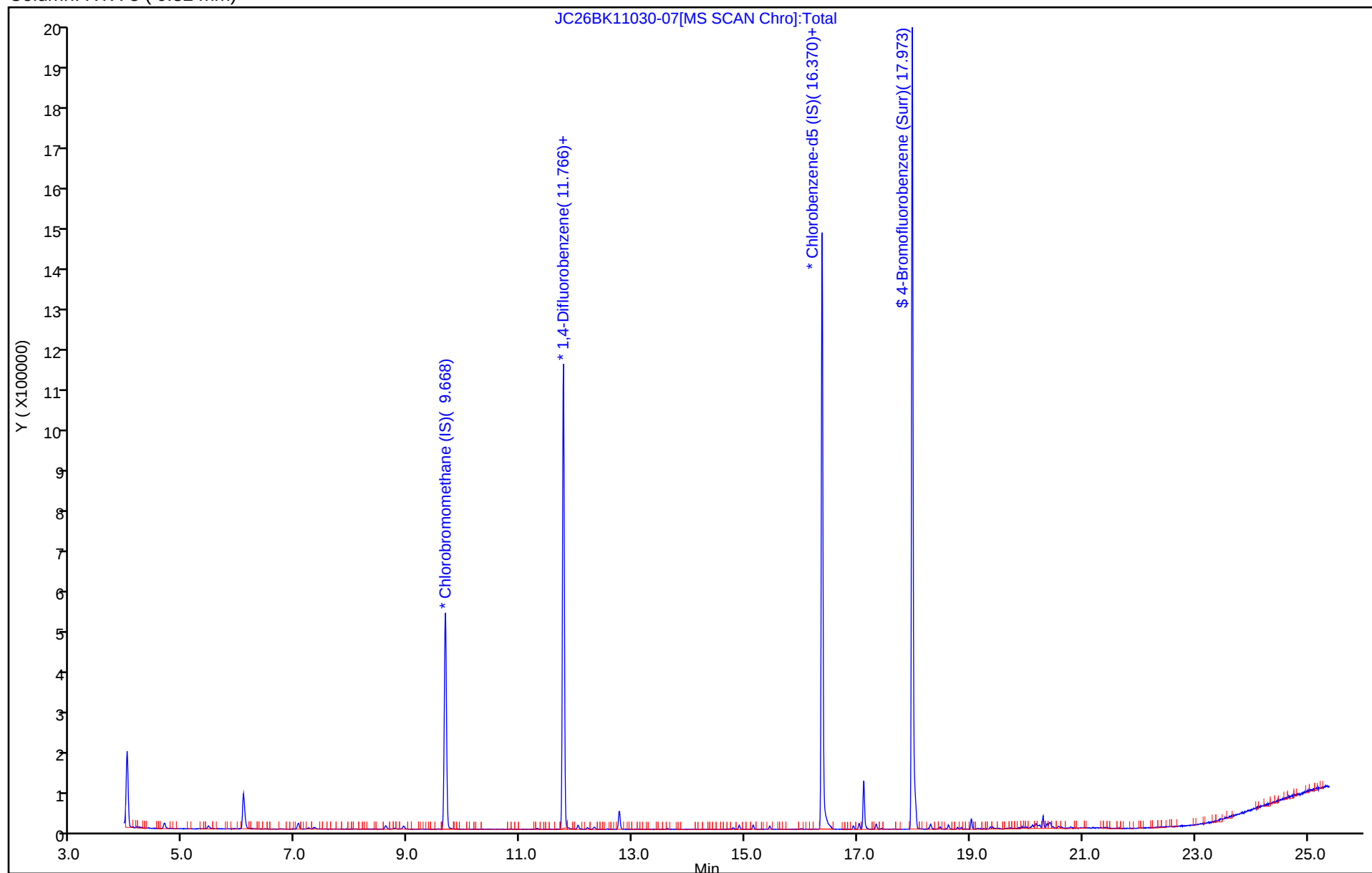
Dil. Factor: 1.0000

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\20180322-7705.b\JC26BK11030-07.D

Injection Date: 26-Mar-2018 17:45:30

Instrument ID: MJ

Lims ID: 140-11030-A-7

Lab Sample ID: 140-11030-7

Client ID: 09935

Operator ID: 403648

ALS Bottle#: 7

Worklist Smp#: 10

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

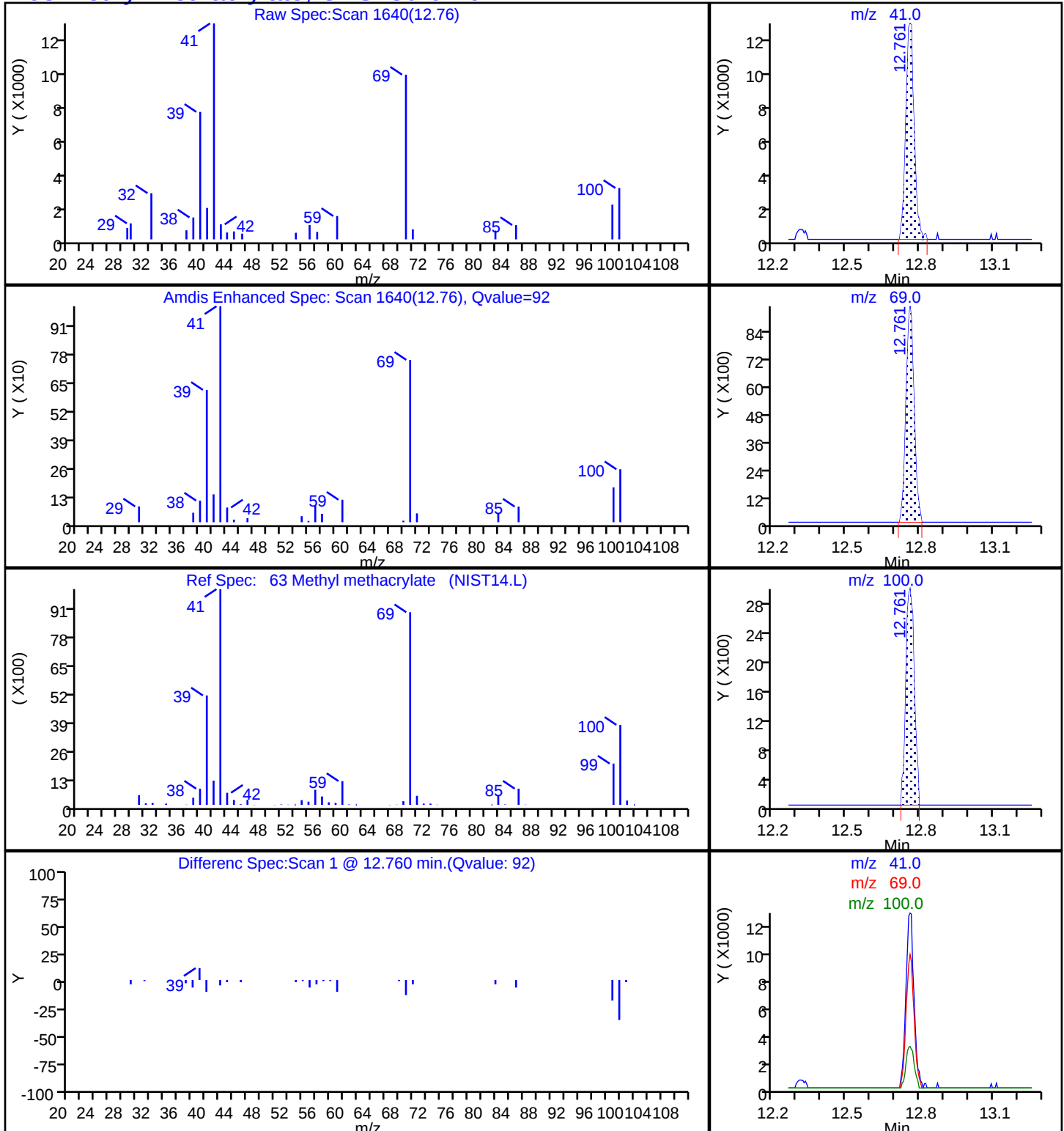
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

63 Methyl methacrylate, CAS: 80-62-6



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-07.D

Injection Date: 26-Mar-2018 17:45:30

Instrument ID: MJ

Lims ID: 140-11030-A-7

Lab Sample ID: 140-11030-7

Client ID: 09935

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

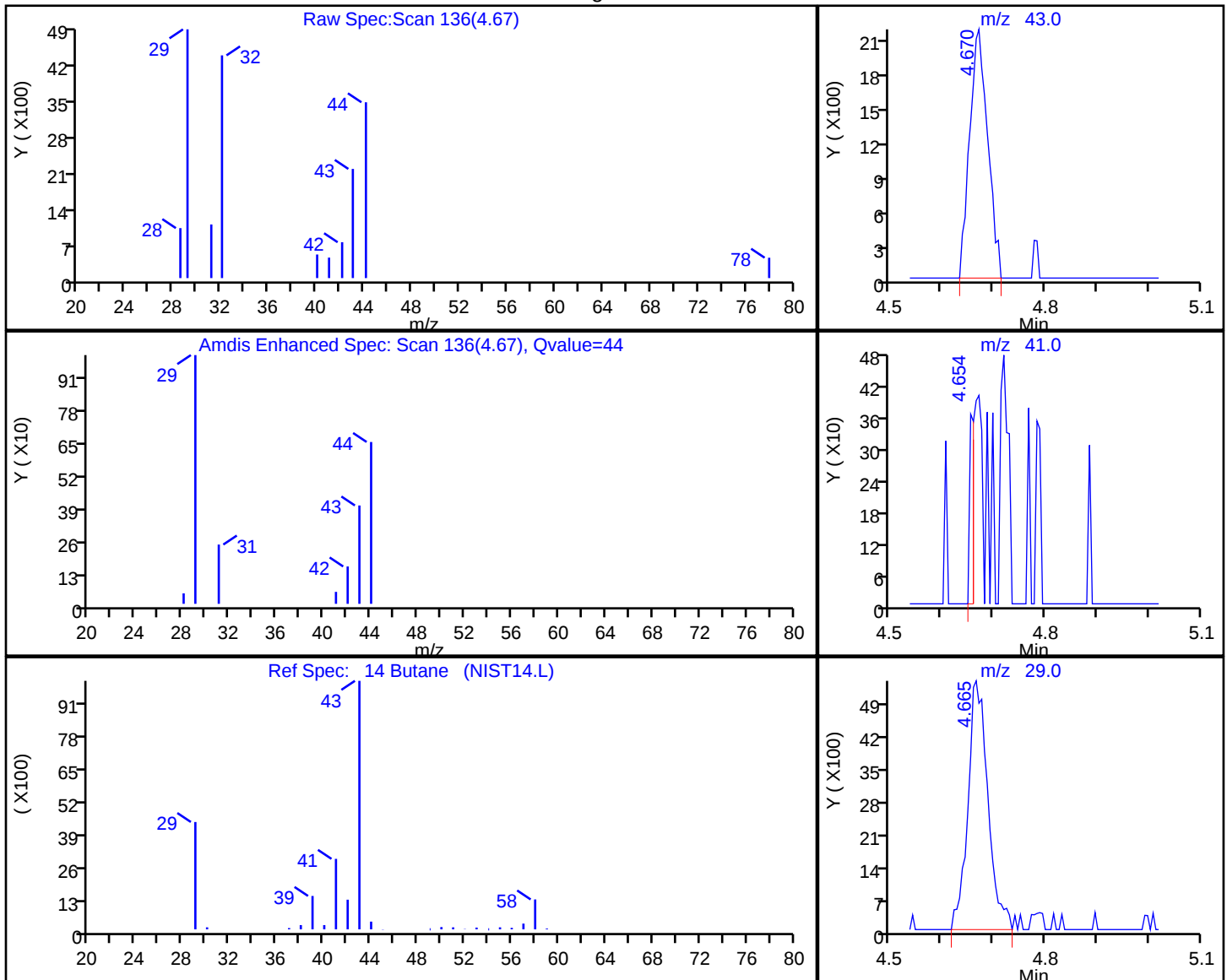
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

14 Butane, CAS: 106-97-8

Processing Results



RT	Mass	Response	Amount
4.67	43.00	5174	0.051108
4.65	41.00	229	
4.66	29.00	14437	

Reviewer: barlozhetskayaa, 26-Mar-2018 18:35:24

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-07.D

Injection Date: 26-Mar-2018 17:45:30

Instrument ID: MJ

Lims ID: 140-11030-A-7

Lab Sample ID: 140-11030-7

Client ID: 09935

Operator ID: 403648

ALS Bottle#: 7

Worklist Smp#: 10

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

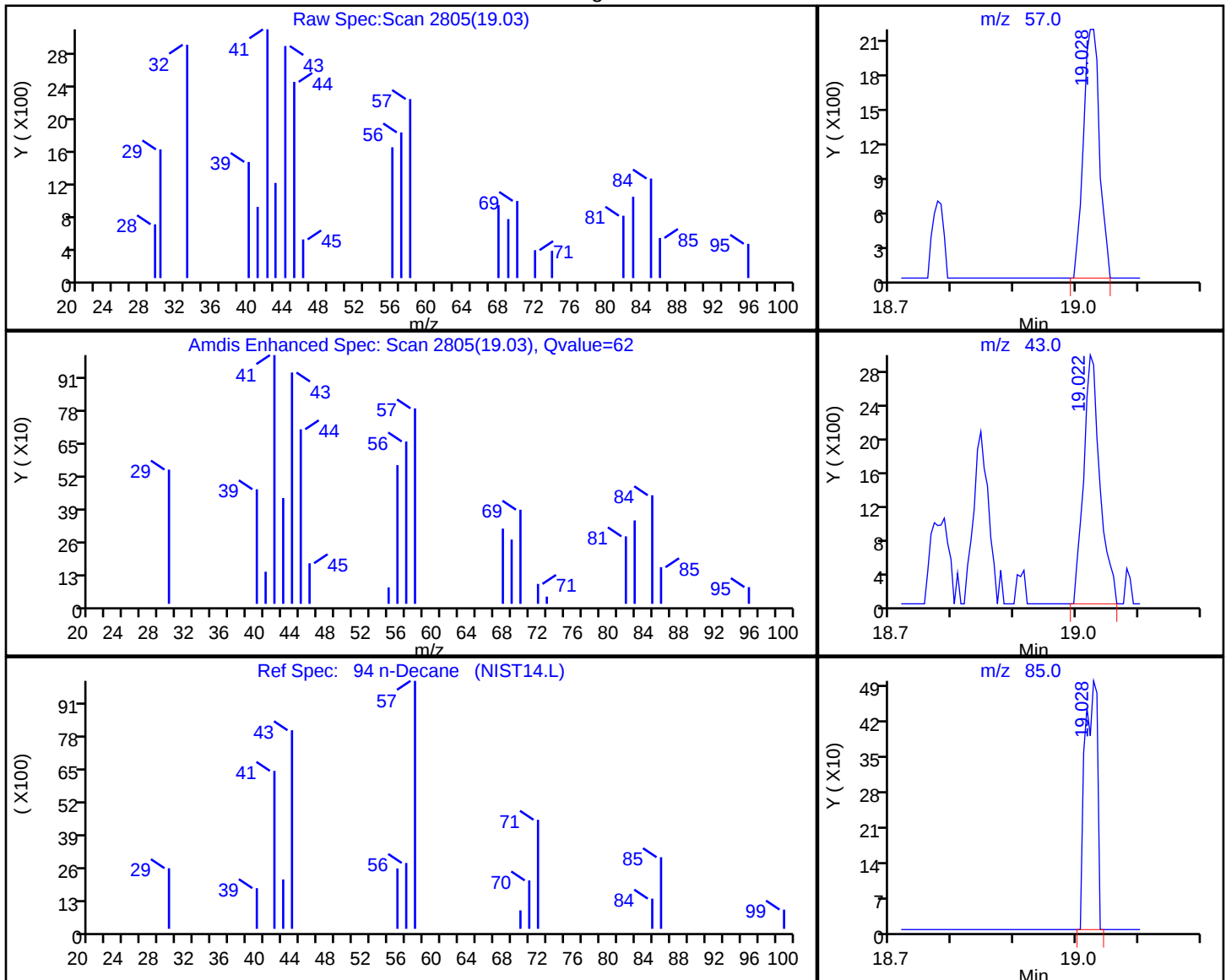
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

94 n-Decane, CAS: 124-18-5

Processing Results



RT	Mass	Response	Amount
19.03	57.00	3982	0.023513
19.02	43.00	5444	
19.03	85.00	689	

Reviewer: barlozhetskayaa, 26-Mar-2018 18:35:24

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-07.D

Injection Date: 26-Mar-2018 17:45:30

Instrument ID: MJ

Lims ID: 140-11030-A-7

Lab Sample ID: 140-11030-7

Client ID: 09935

Operator ID: 403648

ALS Bottle#:

7

Worklist Smp#: 10

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

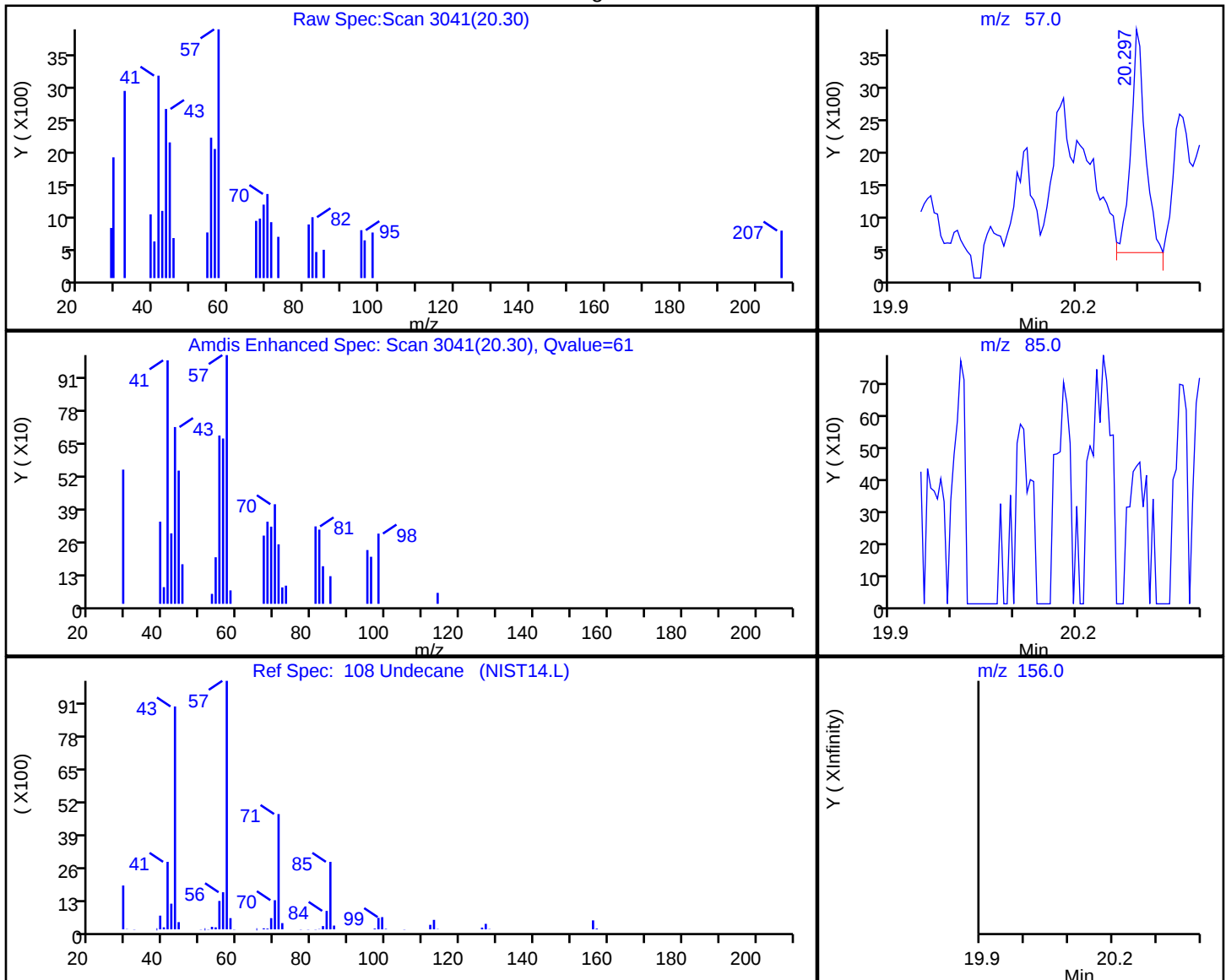
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

108 Undecane, CAS: 1120-21-4

Processing Results



RT	Mass	Response	Amount
20.30	57.00	5500	0.031298
20.17	85.00	0	
20.17	156.00	0	

Reviewer: barlozhetskayaa, 26-Mar-2018 18:35:24

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-07.D

Injection Date: 26-Mar-2018 17:45:30

Instrument ID: MJ

Lims ID: 140-11030-A-7

Lab Sample ID: 140-11030-7

Client ID: 09935

Operator ID: 403648

ALS Bottle#:

7

Worklist Smp#: 10

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

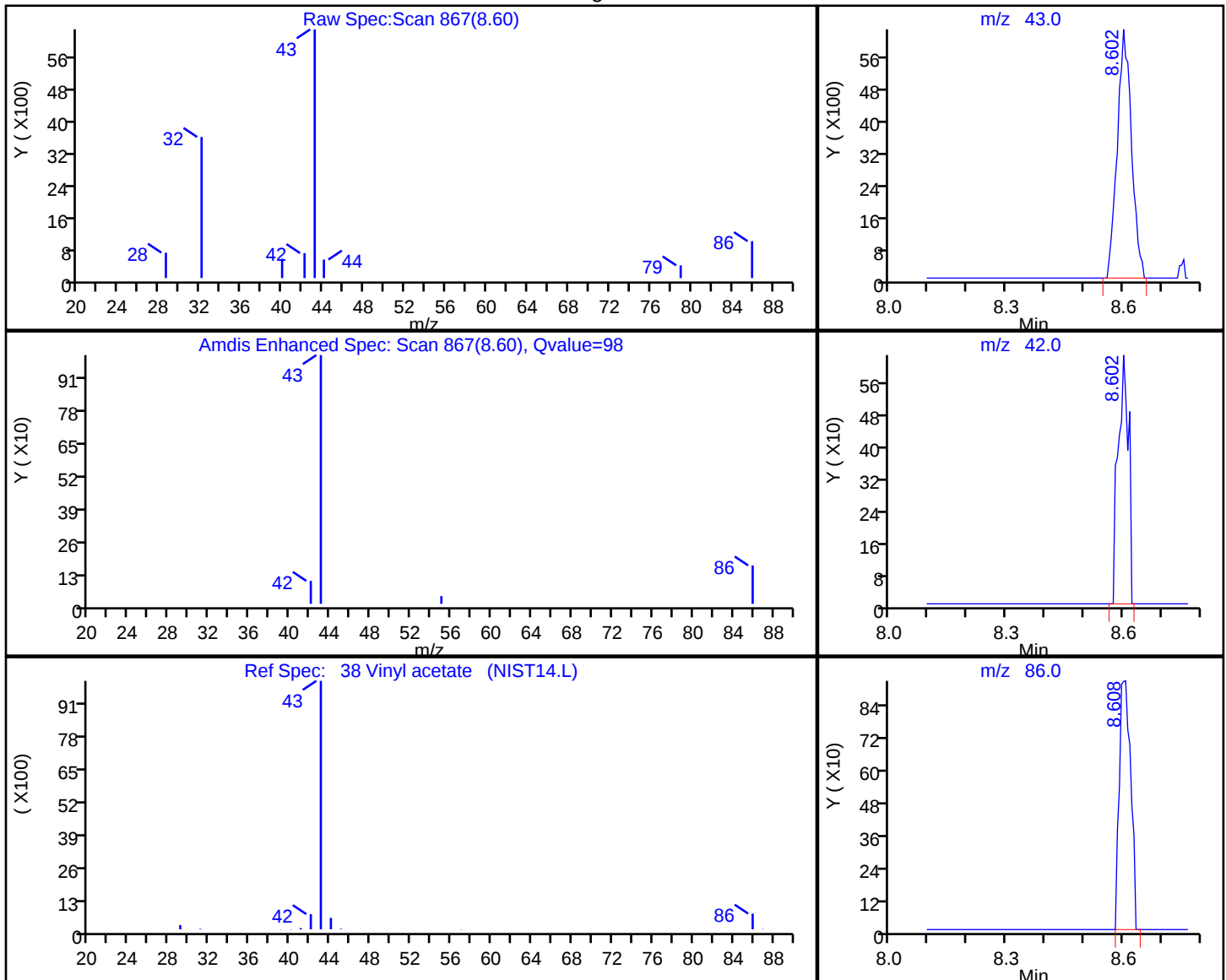
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

38 Vinyl acetate, CAS: 108-05-4

Processing Results



RT	Mass	Response	Amount
8.60	43.00	15923	0.111098
8.60	42.00	1169	
8.61	86.00	1911	

Reviewer: barlozhetskayaa, 26-Mar-2018 18:35:24

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>11156</u>	Lab Sample ID: <u>140-11030-8</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-08.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 18:32</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadiene	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	1.3		0.80	
90-12-0	1-Methylnaphthalene	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND		1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
67-64-1	Acetone	ND		2.0	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>11156</u>	Lab Sample ID: <u>140-11030-8</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-08.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 18:32</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	
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	
108-87-2	Methylcyclohexane	ND		0.080	

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

Lab Name: TestAmerica Knoxville Job No.: 140-11030-1

SDG No.: _____

Client Sample ID: 11156 Lab Sample ID: 140-11030-8

Matrix: Air Lab File ID: JC26BK11030-08.D

Analysis Method: TO 15 LL Date Collected: 03/22/2018 17:00

Sample wt/vol: 500 (mL) Date Analyzed: 03/26/2018 18:32

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.: 19000 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-09-2	Methylene Chloride	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
75-69-4	Trichlorofluoromethane	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	
75-01-4	Vinyl chloride	ND		0.040	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-08.D
 Lims ID: 140-11030-A-8
 Client ID: 11156
 Sample Type: Client
 Inject. Date: 26-Mar-2018 18:32:30 ALS Bottle#: 8 Worklist Smp#: 11
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007705-011
 Misc. Info.: 11156
 Operator ID: 403648 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 27-Mar-2018 10:13:34 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK011

First Level Reviewer: tajh

Date: 27-Mar-2018 10:07:41

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.664	9.678	-0.014	91	195863	4.00	
* 2 1,4-Difluorobenzene	114	11.767	11.776	-0.009	95	1112471	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.372	16.375	-0.003	89	1022313	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.975	17.975	-0.003	94	762084	4.12	
33 Carbon disulfide	76	7.221	7.224	-0.009	98	5925	0.0315	
53 n-Butanol	31	11.277	11.267	0.002	87	24153	1.26	
63 Methyl methacrylate	41	12.768	12.746	0.013	86	2764	0.0409	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-08.D

Injection Date: 26-Mar-2018 18:32:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: 140-11030-A-8

Lab Sample ID: 140-11030-8

Worklist Smp#: 11

Client ID: 11156

Purge Vol: 500.000 mL

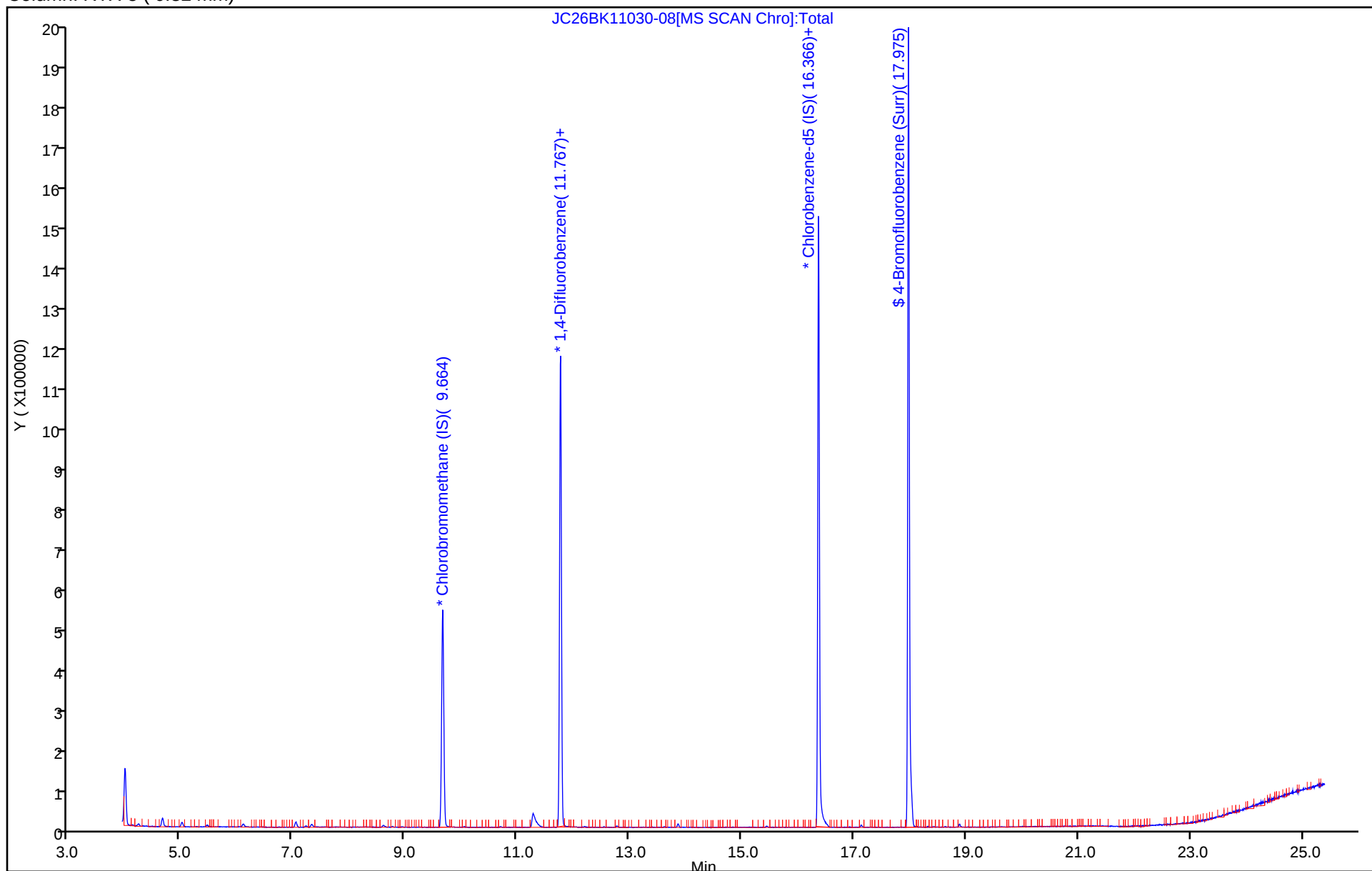
Dil. Factor: 1.0000

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\20180322-7705.b\JC26BK11030-08.D

Injection Date: 26-Mar-2018 18:32:30

Instrument ID: MJ

Lims ID: 140-11030-A-8

Lab Sample ID: 140-11030-8

Client ID: 11156

Operator ID: 403648

ALS Bottle#: 8

Worklist Smp#: 11

Purge Vol: 500.000 mL

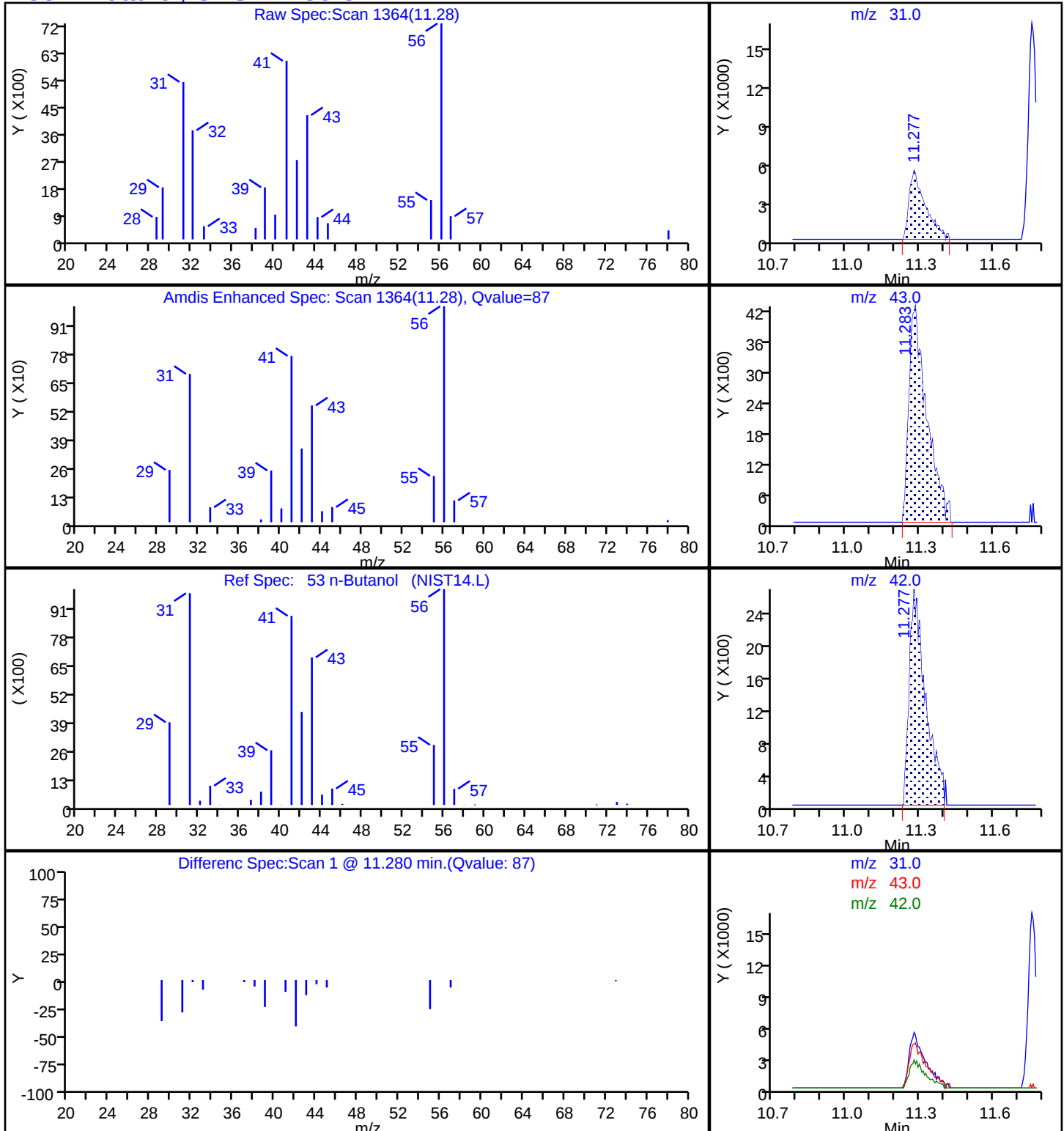
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

53 n-Butanol, CAS: 71-36-3

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-08.D

Injection Date: 26-Mar-2018 18:32:30

Instrument ID: MJ

Lims ID: 140-11030-A-8

Lab Sample ID: 140-11030-8

Client ID: 11156

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

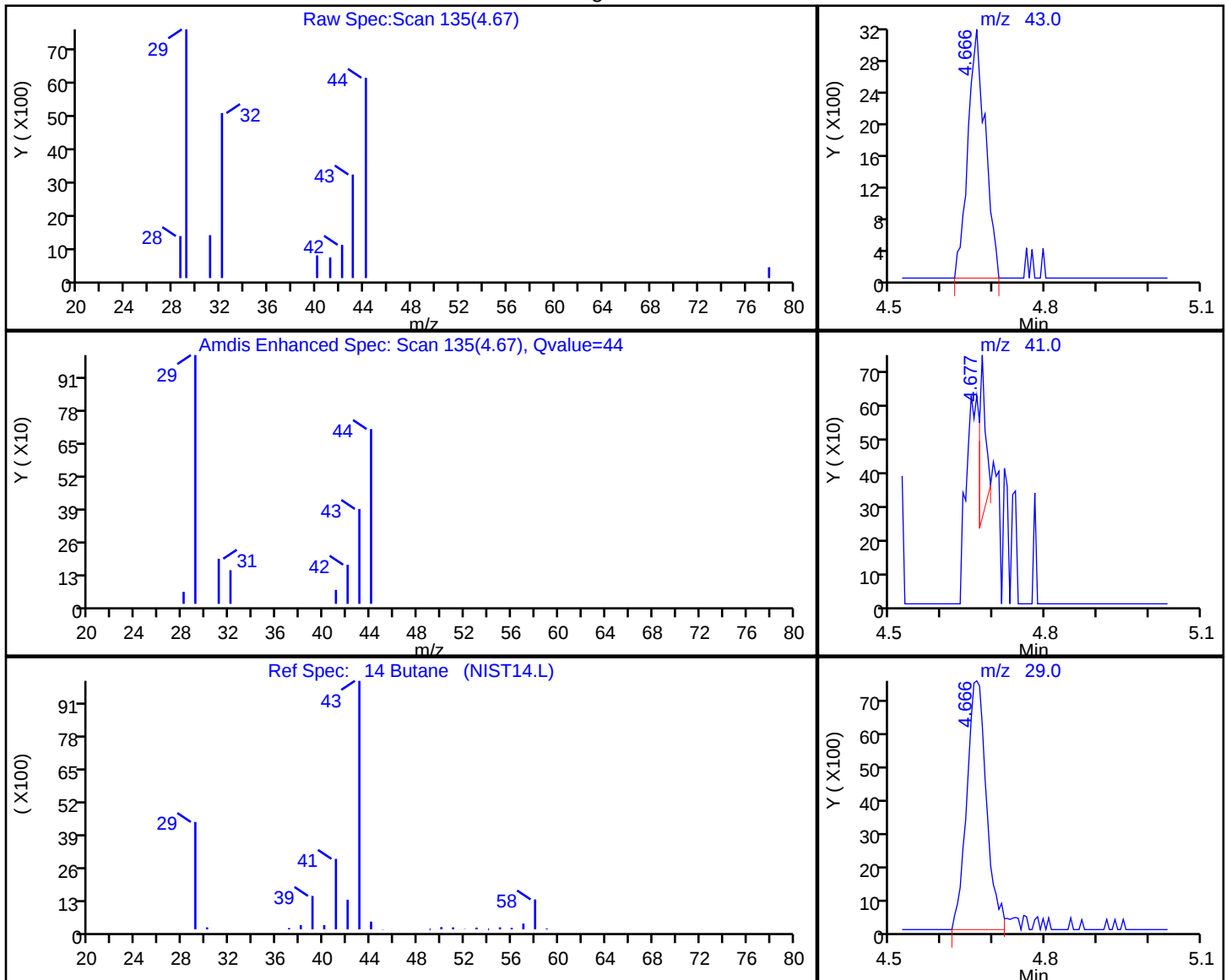
Column: RTX-5 (0.32 mm)

Detector

MS SCAN

14 Butane, CAS: 106-97-8

Processing Results



RT	Mass	Response	Amount
4.67	43.00	7373	0.075126
4.68	41.00	374	
4.67	29.00	20173	

Reviewer: tajh, 27-Mar-2018 10:07:41

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-08.D

Injection Date: 26-Mar-2018 18:32:30

Instrument ID: MJ

Lims ID: 140-11030-A-8

Lab Sample ID: 140-11030-8

Client ID: 11156

Operator ID: 403648

ALS Bottle#:

8

Worklist Smp#: 11

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

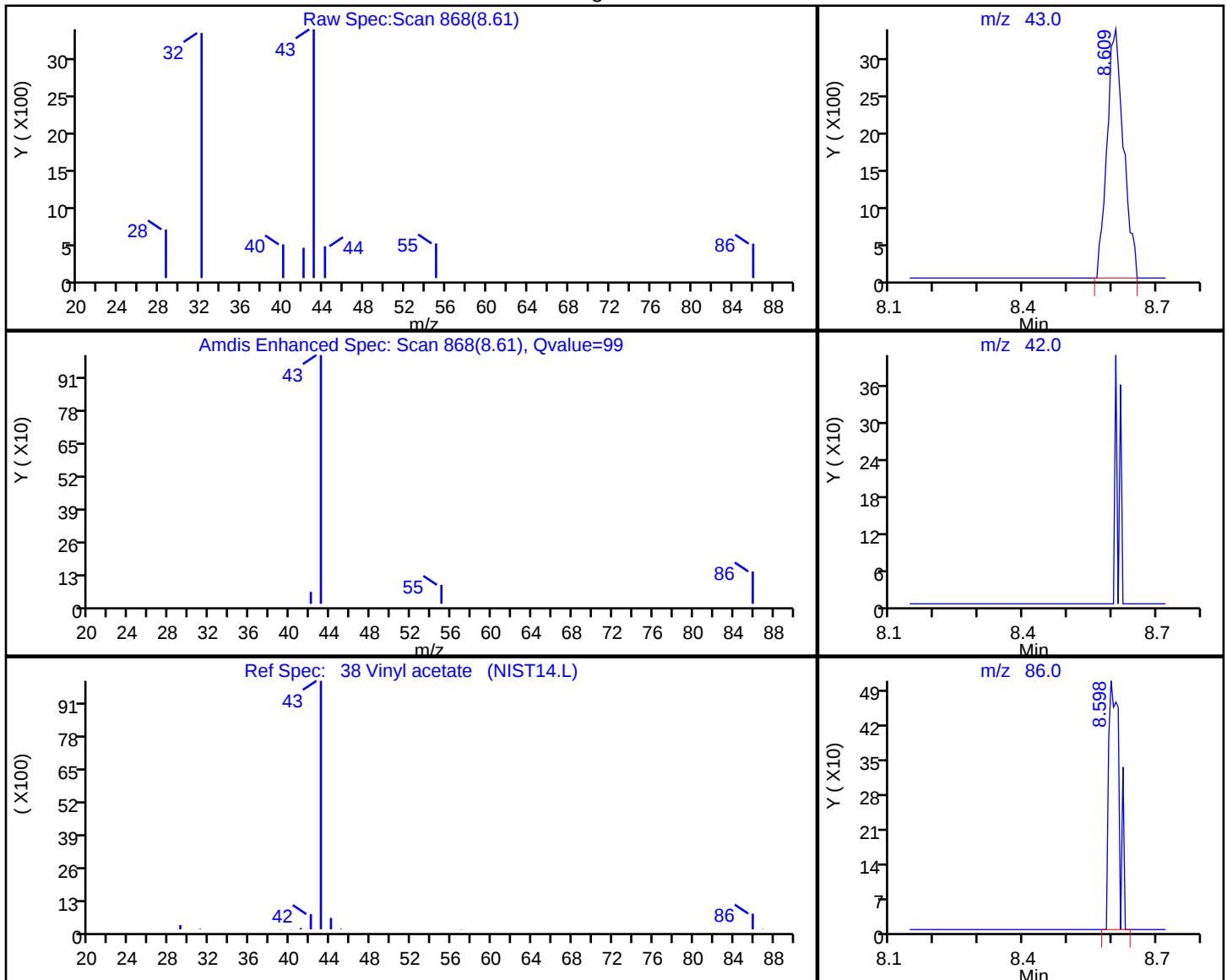
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

38 Vinyl acetate, CAS: 108-05-4

Processing Results



RT	Mass	Response	Amount
8.61	43.00	8619	0.062033
8.60	86.00	831	
8.43	42.00	0	

Reviewer: tajh, 27-Mar-2018 10:07:41

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10473</u>	Lab Sample ID: <u>140-11030-9</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-09.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 19:21</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadiene	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND		1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
67-64-1	Acetone	ND		2.0	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10473</u>	Lab Sample ID: <u>140-11030-9</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-09.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 19:21</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	0.30		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	
108-87-2	Methylcyclohexane	ND		0.080	

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

Lab Name: TestAmerica Knoxville Job No.: 140-11030-1
 SDG No.: _____
 Client Sample ID: 10473 Lab Sample ID: 140-11030-9
 Matrix: Air Lab File ID: JC26BK11030-09.D
 Analysis Method: TO 15 LL Date Collected: 03/22/2018 17:00
 Sample wt/vol: 500 (mL) Date Analyzed: 03/26/2018 19:21
 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.: 19000 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-09-2	Methylene Chloride	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
75-69-4	Trichlorofluoromethane	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	
75-01-4	Vinyl chloride	ND		0.040	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-09.D
 Lims ID: 140-11030-A-9
 Client ID: 10473
 Sample Type: Client
 Inject. Date: 26-Mar-2018 19:21:30 ALS Bottle#: 9 Worklist Smp#: 12
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007705-012
 Misc. Info.: 10473
 Operator ID: 403648 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 27-Mar-2018 10:13:34 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK011

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.663	9.678	-0.016	90	197397	4.00	
* 2 1,4-Difluorobenzene	114	11.766	11.776	-0.010	95	1112516	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.371	16.375	-0.004	89	1012423	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.974	17.975	-0.004	94	760889	4.16	
63 Methyl methacrylate	41	12.766	12.746	0.011	93	20335	0.3009	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-09.D

Injection Date: 26-Mar-2018 19:21:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: 140-11030-A-9

Lab Sample ID: 140-11030-9

Worklist Smp#: 12

Client ID: 10473

Purge Vol: 500.000 mL

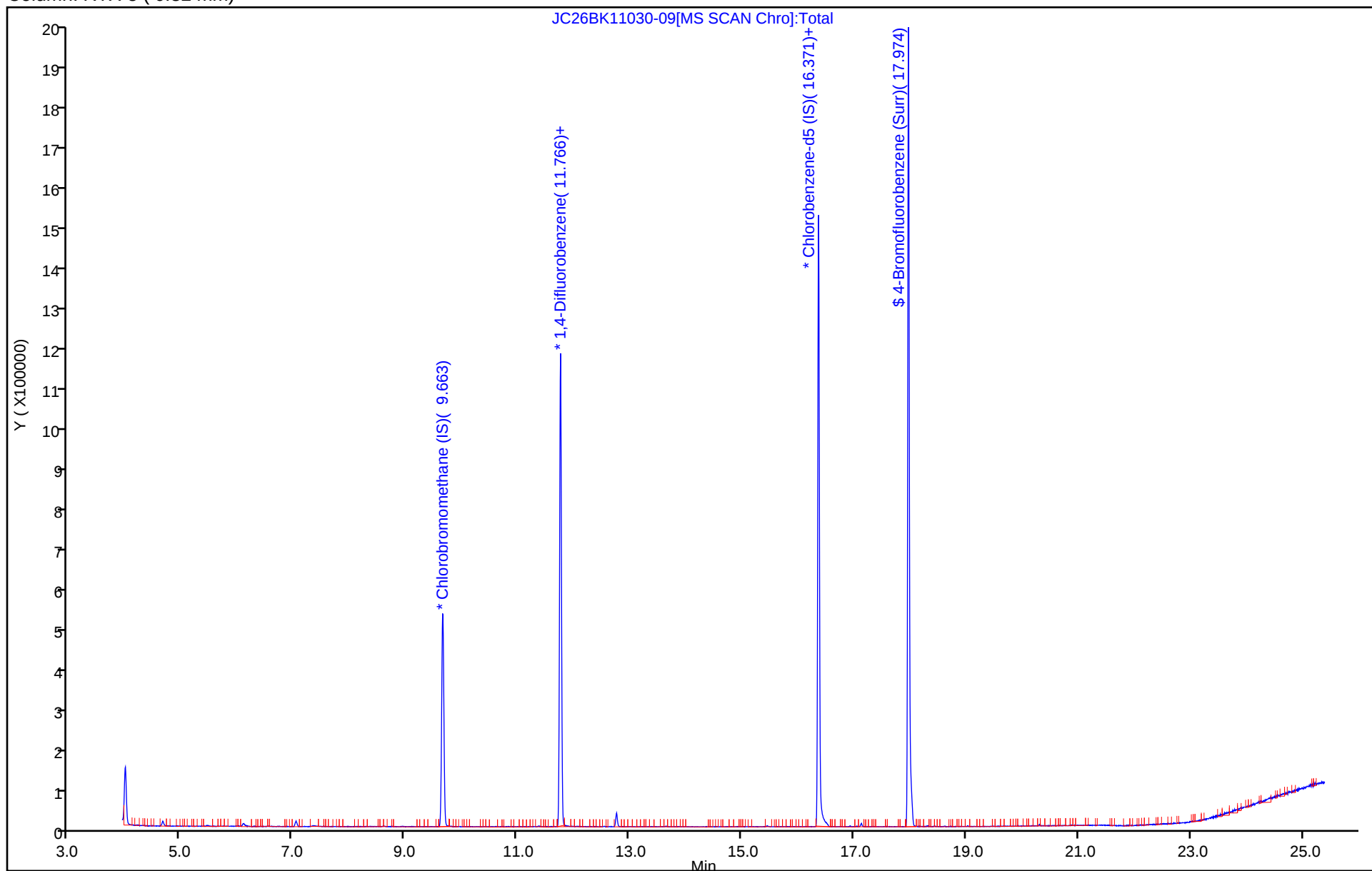
Dil. Factor: 1.0000

ALS Bottle#: 9

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-09.D

Injection Date: 26-Mar-2018 19:21:30

Instrument ID: MJ

Lims ID: 140-11030-A-9

Lab Sample ID: 140-11030-9

Client ID: 10473

Operator ID: 403648

ALS Bottle#: 9

Worklist Smp#: 12

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

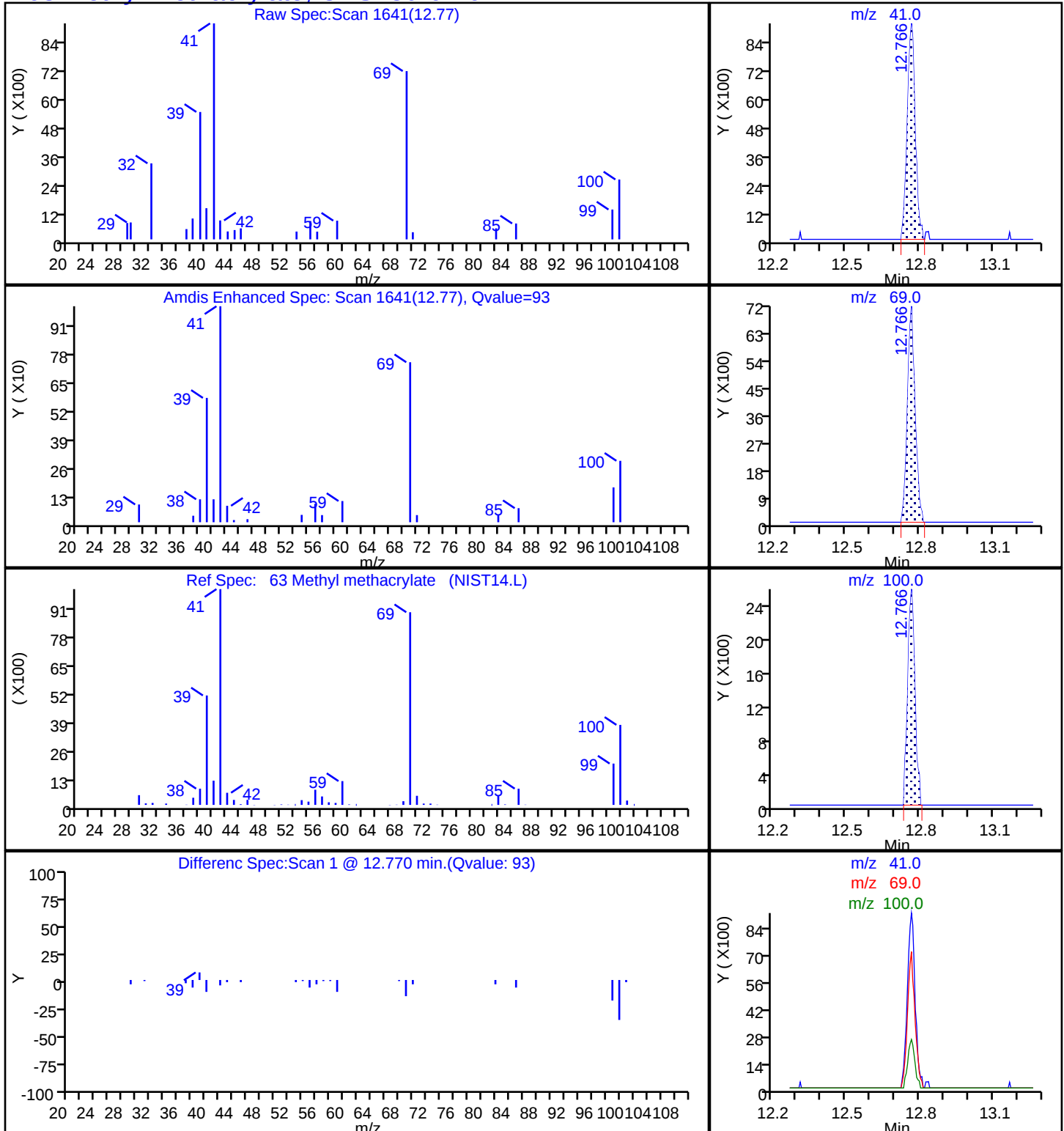
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

63 Methyl methacrylate, CAS: 80-62-6



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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10627</u>	Lab Sample ID: <u>140-11030-10</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-10.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 20:08</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadiene	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND		1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
67-64-1	Acetone	ND		2.0	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10627</u>	Lab Sample ID: <u>140-11030-10</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-10.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 20:08</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	
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	
108-87-2	Methylcyclohexane	ND		0.080	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10627</u>	Lab Sample ID: <u>140-11030-10</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-10.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 20:08</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-09-2	Methylene Chloride	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
75-69-4	Trichlorofluoromethane	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	
75-01-4	Vinyl chloride	ND		0.040	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-10.D
 Lims ID: 140-11030-A-10
 Client ID: 10627
 Sample Type: Client
 Inject. Date: 26-Mar-2018 20:08:30 ALS Bottle#: 10 Worklist Smp#: 13
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007705-013
 Misc. Info.: 10627
 Operator ID: 403648 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 27-Mar-2018 10:13:34 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK011

First Level Reviewer: tajh

Date: 27-Mar-2018 10:08:20

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.657	9.678	-0.021	91	213318	4.00	
* 2 1,4-Difluorobenzene	114	11.760	11.776	-0.016	95	1165103	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.365	16.375	-0.010	89	1025057	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.974	17.975	-0.004	95	758476	4.09	
65 4-Methyl-2-pentanone (MIBK	43	13.606	13.579	0.017	96	11794	0.1104	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-10.D

Injection Date: 26-Mar-2018 20:08:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: 140-11030-A-10

Lab Sample ID: 140-11030-10

Worklist Smp#: 13

Client ID: 10627

Purge Vol: 500.000 mL

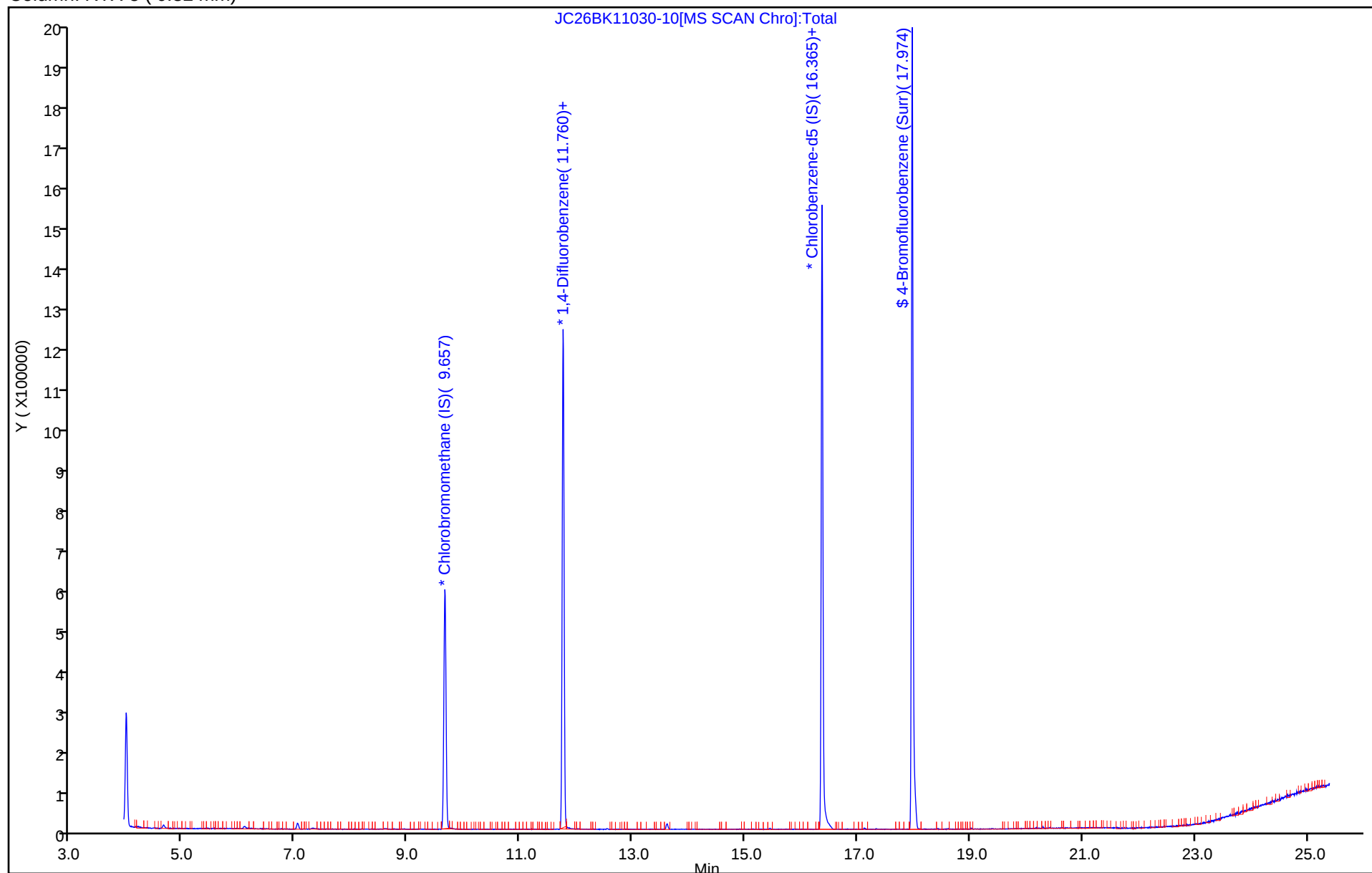
Dil. Factor: 1.0000

ALS Bottle#: 10

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10092</u>	Lab Sample ID: <u>140-11030-11</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-11.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 20:55</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadiene	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND		1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
67-64-1	Acetone	ND		2.0	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10092</u>	Lab Sample ID: <u>140-11030-11</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-11.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 20:55</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	
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	
108-87-2	Methylcyclohexane	ND		0.080	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10092</u>	Lab Sample ID: <u>140-11030-11</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-11.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 20:55</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-09-2	Methylene Chloride	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
75-69-4	Trichlorofluoromethane	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	
75-01-4	Vinyl chloride	ND		0.040	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-11.D
 Lims ID: 140-11030-A-11
 Client ID: 10092
 Sample Type: Client
 Inject. Date: 26-Mar-2018 20:55:30 ALS Bottle#: 11 Worklist Smp#: 14
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007705-014
 Misc. Info.: 10092
 Operator ID: 403648 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 27-Mar-2018 10:13:34 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK011

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.668	9.678	-0.010	91	213631	4.00	
* 2 1,4-Difluorobenzene	114	11.766	11.776	-0.010	95	1172877	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.371	16.375	-0.004	89	1032614	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.974	17.975	-0.004	94	761360	4.08	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-11.D

Injection Date: 26-Mar-2018 20:55:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: 140-11030-A-11

Lab Sample ID: 140-11030-11

Worklist Smp#: 14

Client ID: 10092

Purge Vol: 500.000 mL

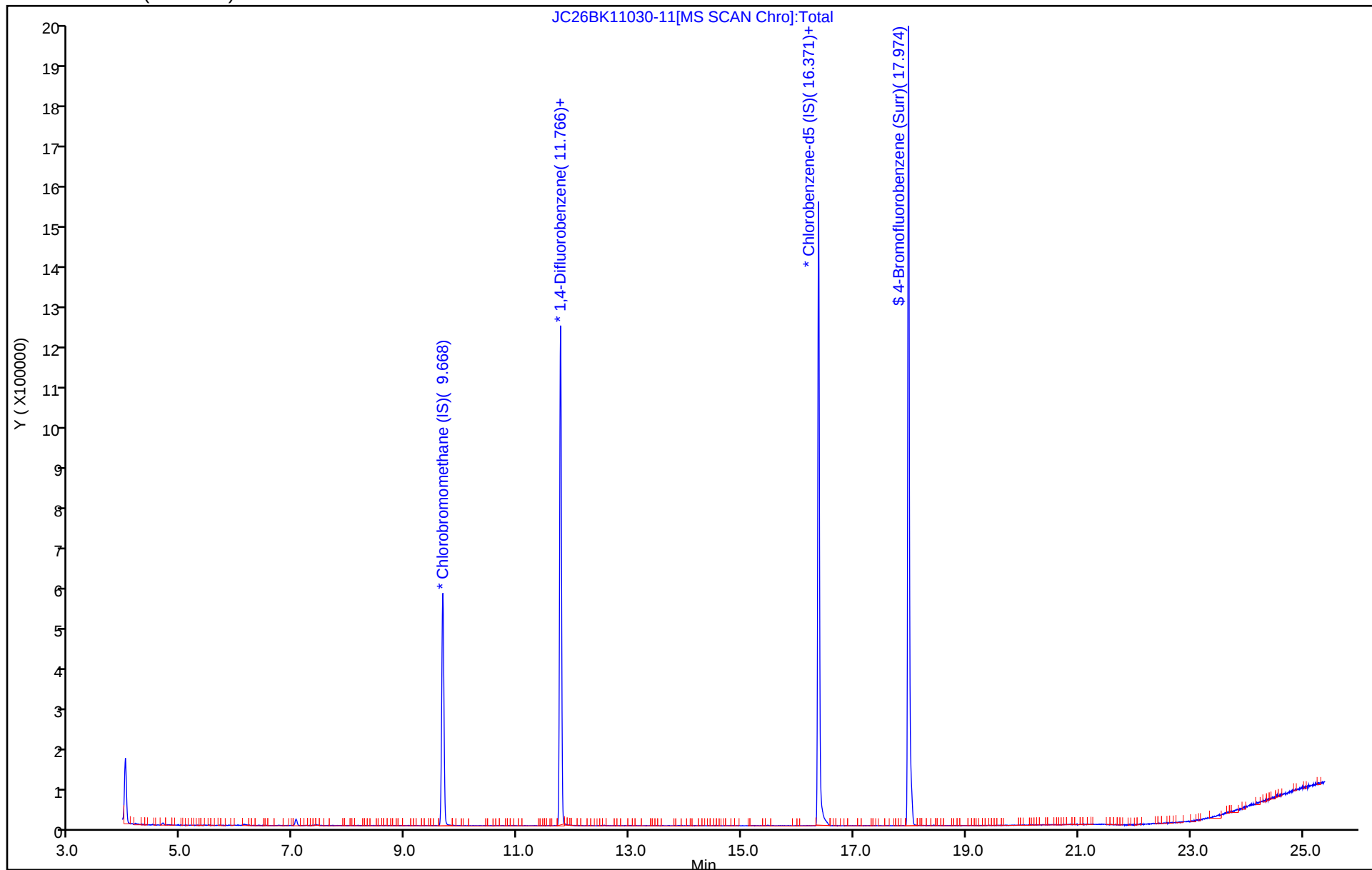
Dil. Factor: 1.0000

ALS Bottle#: 11

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>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>09770</u>	Lab Sample ID: <u>140-11030-12</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-12.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 21:44</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	0.11		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadiene	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND		1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
67-64-1	Acetone	ND		2.0	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>09770</u>	Lab Sample ID: <u>140-11030-12</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-12.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 21:44</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	
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	
108-87-2	Methylcyclohexane	ND		0.080	

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

Lab Name: TestAmerica Knoxville Job No.: 140-11030-1
 SDG No.: _____
 Client Sample ID: 09770 Lab Sample ID: 140-11030-12
 Matrix: Air Lab File ID: JC26BK11030-12.D
 Analysis Method: TO 15 LL Date Collected: 03/22/2018 17:00
 Sample wt/vol: 500 (mL) Date Analyzed: 03/26/2018 21:44
 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.: 19000 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-09-2	Methylene Chloride	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
75-69-4	Trichlorofluoromethane	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	
75-01-4	Vinyl chloride	ND		0.040	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-12.D
 Lims ID: 140-11030-A-12
 Client ID: 09770
 Sample Type: Client
 Inject. Date: 26-Mar-2018 21:44:30 ALS Bottle#: 12 Worklist Smp#: 15
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007705-015
 Misc. Info.: 09770
 Operator ID: 403648 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 27-Mar-2018 10:13:34 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK011

First Level Reviewer: tajh

Date: 27-Mar-2018 10:08:49

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.663	9.678	-0.015	91	184479	4.00	
* 2 1,4-Difluorobenzene	114	11.766	11.776	-0.010	95	1095731	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.371	16.375	-0.004	89	987084	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.974	17.975	-0.004	97	752925	4.22	
17 Ethanol	31	5.429	5.429	-0.004	98	39395	1.76	
47 1,1,1-Trichloroethane	97	10.696	10.696	-0.009	96	15508	0.1127	
53 n-Butanol	31	11.315	11.267	0.040	89	4210	0.2222	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-12.D

Injection Date: 26-Mar-2018 21:44:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: 140-11030-A-12

Lab Sample ID: 140-11030-12

Worklist Smp#: 15

Client ID: 09770

Purge Vol: 500.000 mL

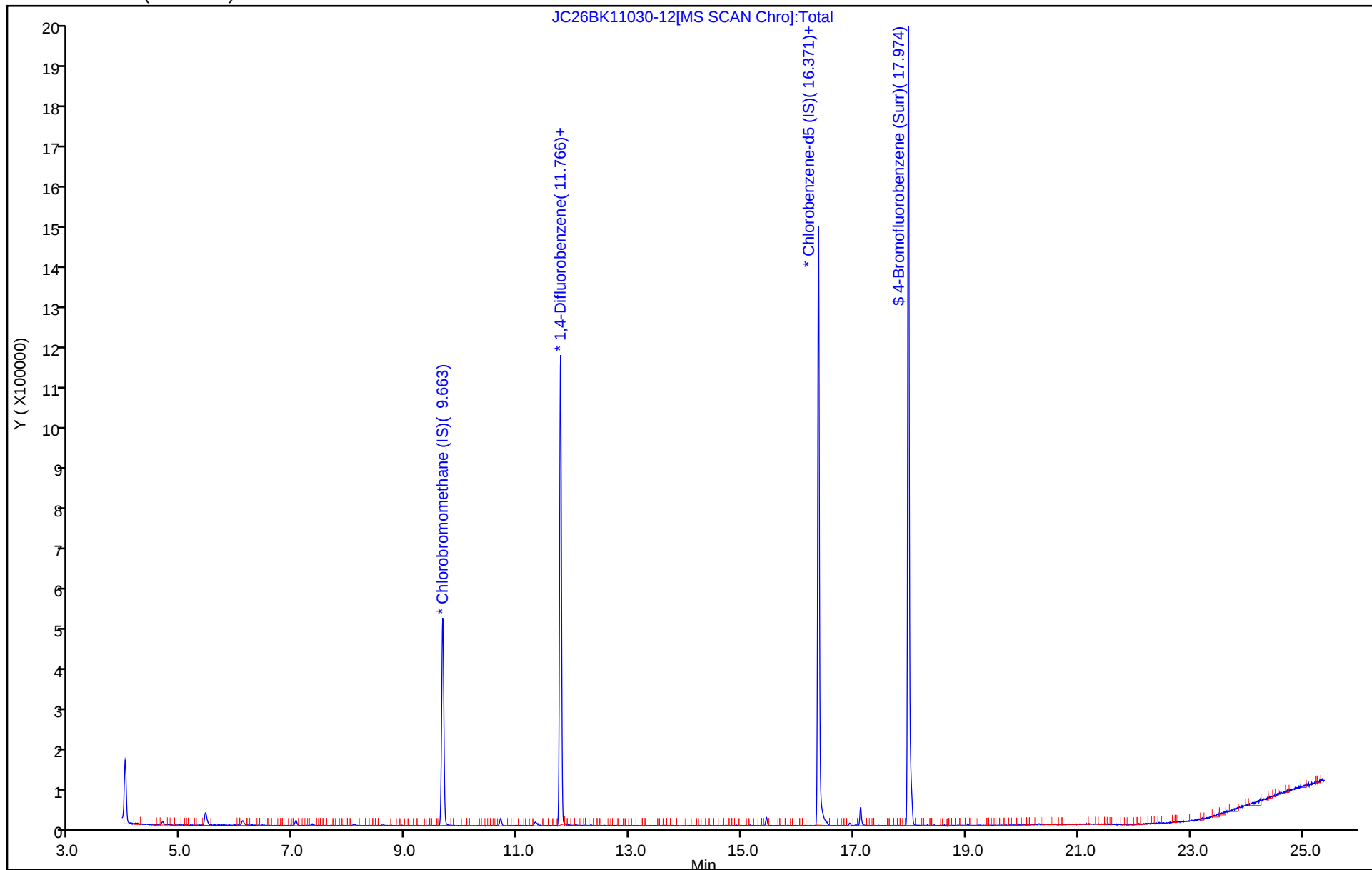
Dil. Factor: 1.0000

ALS Bottle#: 12

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-12.D

Injection Date: 26-Mar-2018 21:44:30

Instrument ID: MJ

Lims ID: 140-11030-A-12

Lab Sample ID: 140-11030-12

Client ID: 09770

Operator ID: 403648

ALS Bottle#: 12

Worklist Smp#: 15

Purge Vol: 500.000 mL

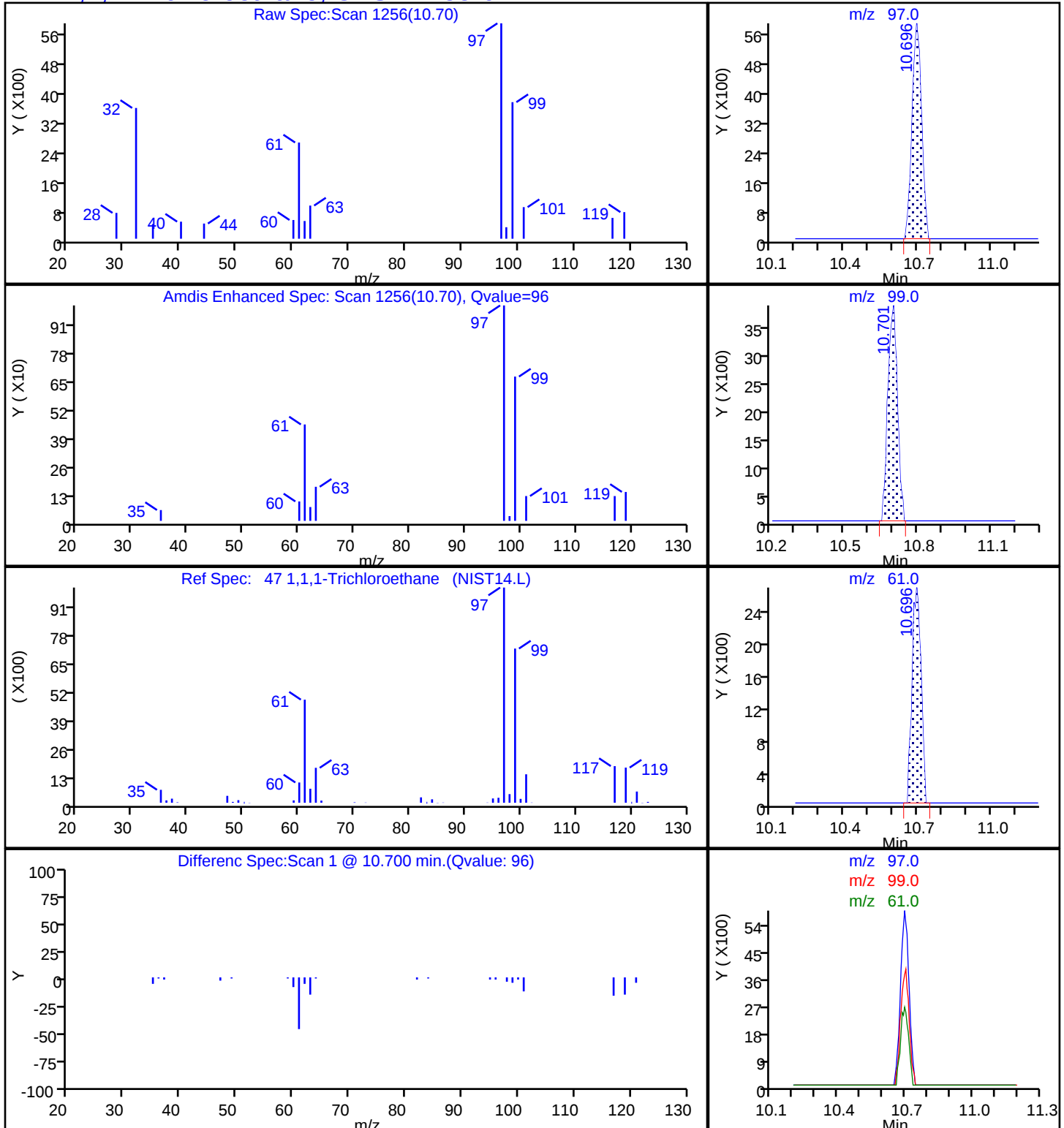
Dil. Factor: 1.0000

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

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

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-12.D

Injection Date: 26-Mar-2018 21:44:30

Instrument ID: MJ

Lims ID: 140-11030-A-12

Lab Sample ID: 140-11030-12

Client ID: 09770

Operator ID: 403648

ALS Bottle#: 12 Worklist Smp#: 15

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

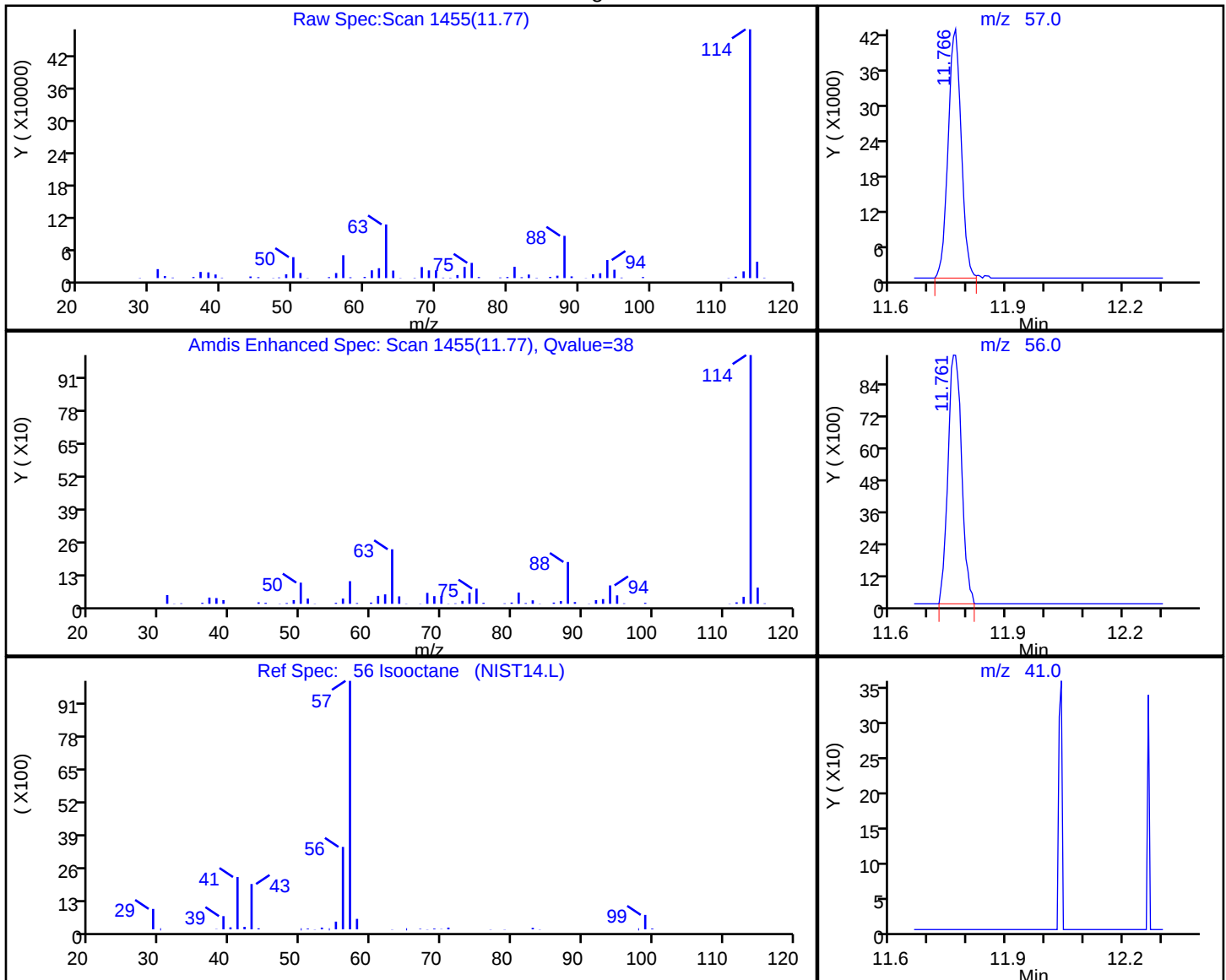
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

56 Isooctane, CAS: 540-84-1

Processing Results



RT	Mass	Response	Amount
11.77	57.00	101019	0.323942
11.76	56.00	23295	
11.98	41.00	0	

Reviewer: tajh, 27-Mar-2018 10:08:49

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10166</u>	Lab Sample ID: <u>140-11030-14</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-14.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 23:18</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadiene	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND		1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
67-64-1	Acetone	ND		2.0	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10166</u>	Lab Sample ID: <u>140-11030-14</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-14.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/26/2018 23:18</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	
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	
108-87-2	Methylcyclohexane	ND		0.080	

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

Lab Name: TestAmerica Knoxville Job No.: 140-11030-1

SDG No.: _____

Client Sample ID: 10166 Lab Sample ID: 140-11030-14

Matrix: Air Lab File ID: JC26BK11030-14.D

Analysis Method: TO 15 LL Date Collected: 03/22/2018 17:00

Sample wt/vol: 500 (mL) Date Analyzed: 03/26/2018 23:18

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.: 19000 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-09-2	Methylene Chloride	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
75-69-4	Trichlorofluoromethane	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	
75-01-4	Vinyl chloride	ND		0.040	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-14.D
 Lims ID: 140-11030-A-14
 Client ID: 10166
 Sample Type: Client
 Inject. Date: 26-Mar-2018 23:18:30 ALS Bottle#: 14 Worklist Smp#: 17
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007705-017
 Misc. Info.: 10166
 Operator ID: 403648 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 27-Mar-2018 10:13:34 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK011

First Level Reviewer: tajh

Date: 27-Mar-2018 10:09:40

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.670	9.678	-0.008	91	194714	4.00	
* 2 1,4-Difluorobenzene	114	11.768	11.776	-0.008	95	1081686	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.372	16.375	-0.003	89	1026709	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.976	17.975	-0.002	94	773080	4.16	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-14.D

Injection Date: 26-Mar-2018 23:18:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: 140-11030-A-14

Lab Sample ID: 140-11030-14

Worklist Smp#: 17

Client ID: 10166

Purge Vol: 500.000 mL

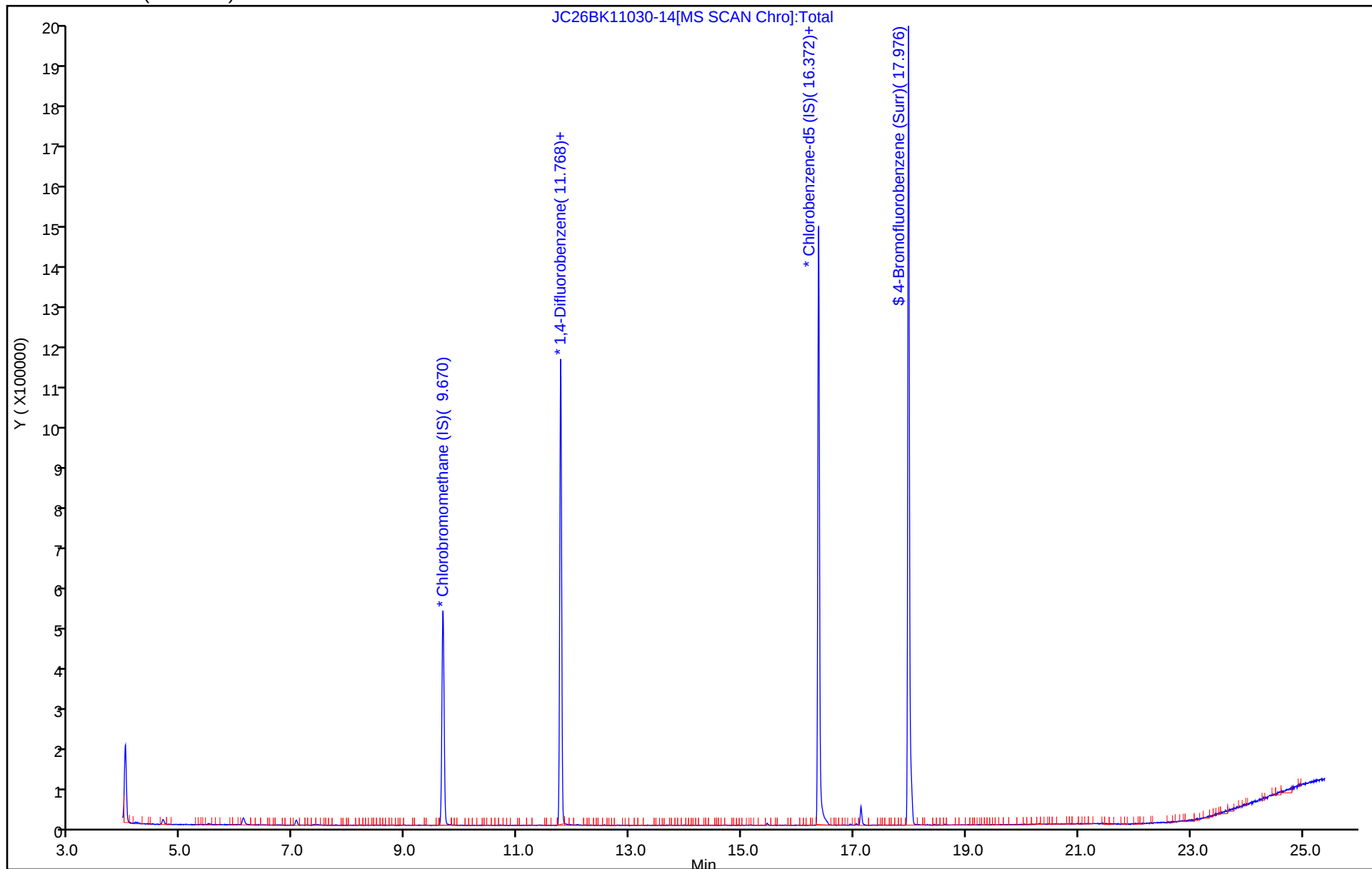
Dil. Factor: 1.0000

ALS Bottle#: 14

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-14.D

Injection Date: 26-Mar-2018 23:18:30

Instrument ID: MJ

Lims ID: 140-11030-A-14

Lab Sample ID: 140-11030-14

Client ID: 10166

Operator ID: 403648

ALS Bottle#: 14 Worklist Smp#: 17

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

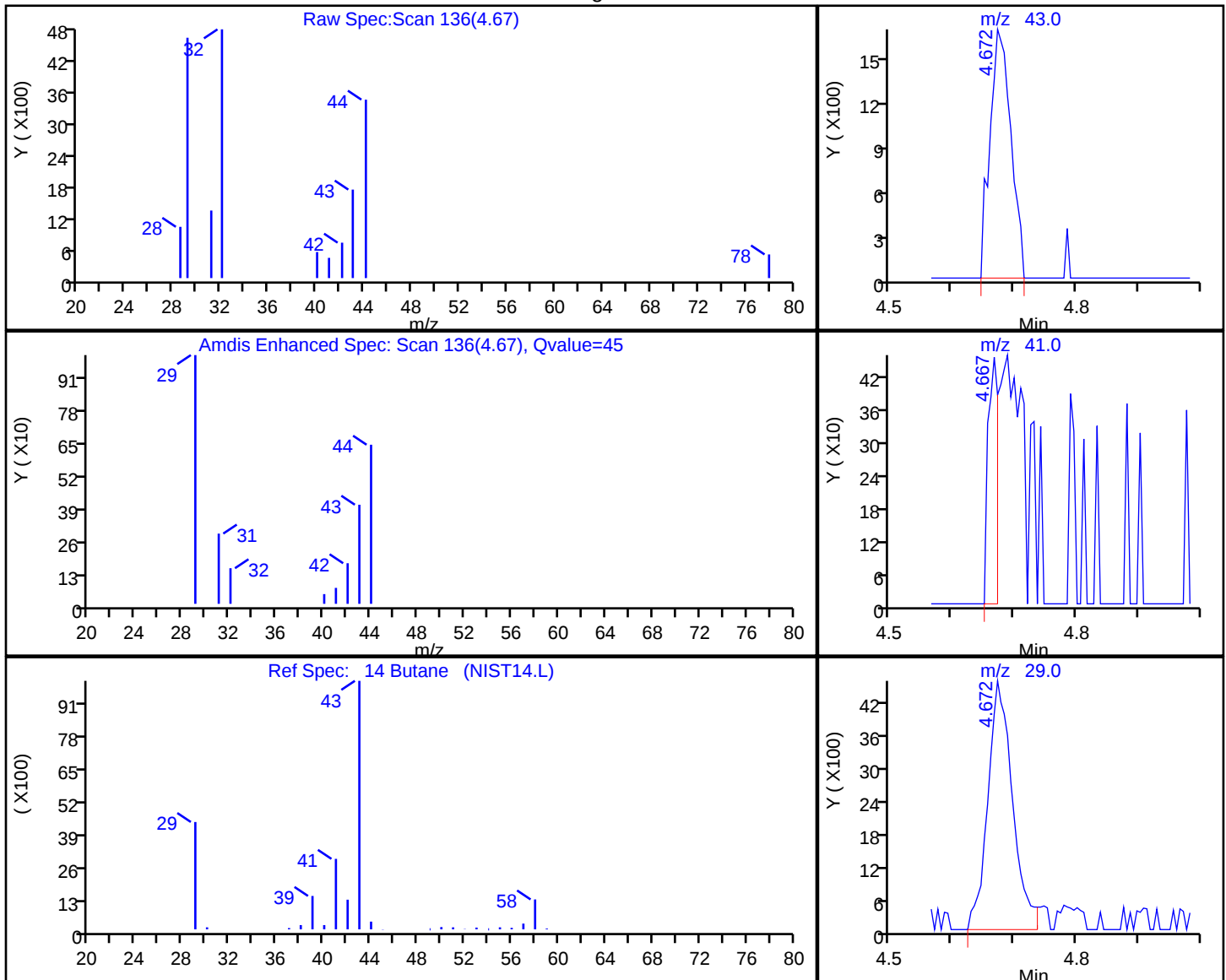
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

14 Butane, CAS: 106-97-8

Processing Results



RT	Mass	Response	Amount
4.67	43.00	3954	0.040526
4.67	41.00	500	
4.67	29.00	12736	

Reviewer: tajh, 27-Mar-2018 10:09:40

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>09673</u>	Lab Sample ID: <u>140-11030-15</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-15.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/27/2018 00:06</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadiene	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND		1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
67-64-1	Acetone	ND		2.0	

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

Lab Name: TestAmerica Knoxville Job No.: 140-11030-1
 SDG No.: _____
 Client Sample ID: 09673 Lab Sample ID: 140-11030-15
 Matrix: Air Lab File ID: JC26BK11030-15.D
 Analysis Method: TO 15 LL Date Collected: 03/22/2018 17:00
 Sample wt/vol: 500 (mL) Date Analyzed: 03/27/2018 00:06
 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.: 19000 Units: ppb v/v

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	
67-63-0	Isopropyl alcohol	ND		0.80	
80-62-6	Methyl methacrylate	0.43		0.20	
1634-04-4	Methyl tert-butyl ether	ND		0.16	
108-87-2	Methylcyclohexane	ND		0.080	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>09673</u>	Lab Sample ID: <u>140-11030-15</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-15.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/27/2018 00:06</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-09-2	Methylene Chloride	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
75-69-4	Trichlorofluoromethane	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	
75-01-4	Vinyl chloride	ND		0.040	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-15.D
 Lims ID: 140-11030-A-15
 Client ID: 09673
 Sample Type: Client
 Inject. Date: 27-Mar-2018 00:06:30 ALS Bottle#: 15 Worklist Smp#: 18
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007705-018
 Misc. Info.: 09673
 Operator ID: 403648 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 27-Mar-2018 10:13:34 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK011

First Level Reviewer: tajh

Date: 27-Mar-2018 10:09:54

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.667	9.678	-0.011	92	218120	4.00	
* 2 1,4-Difluorobenzene	114	11.765	11.776	-0.011	95	1205742	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.370	16.375	-0.005	89	1068014	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.973	17.975	-0.005	94	786236	4.07	
63 Methyl methacrylate	41	12.761	12.746	0.006	94	31161	0.4254	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-15.D

Injection Date: 27-Mar-2018 00:06:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: 140-11030-A-15

Lab Sample ID: 140-11030-15

Worklist Smp#: 18

Client ID: 09673

Purge Vol: 500.000 mL

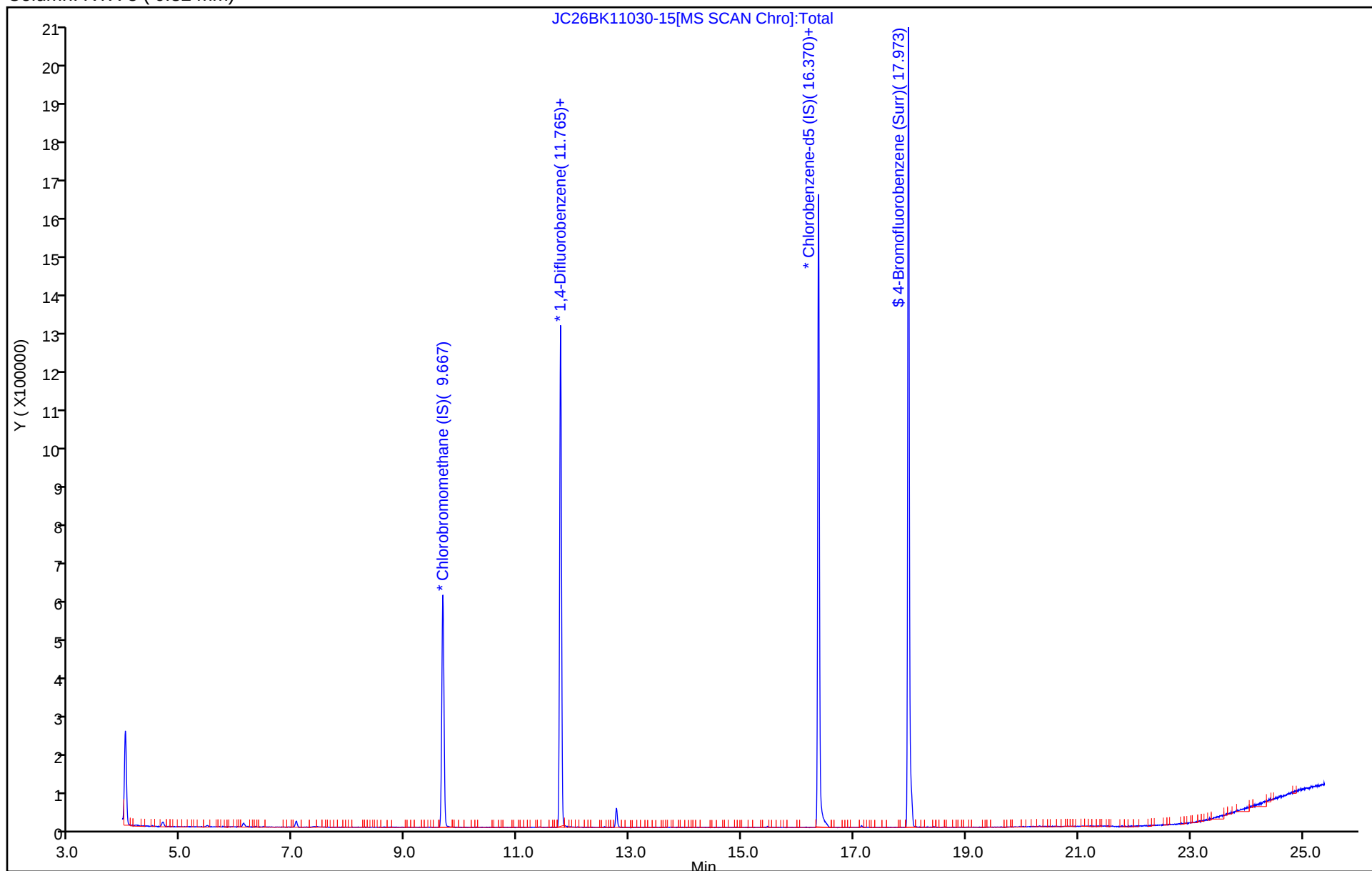
Dil. Factor: 1.0000

ALS Bottle#: 15

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-15.D

Injection Date: 27-Mar-2018 00:06:30

Instrument ID: MJ

Lims ID: 140-11030-A-15

Lab Sample ID: 140-11030-15

Client ID: 09673

Operator ID: 403648

ALS Bottle#: 15

Worklist Smp#: 18

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

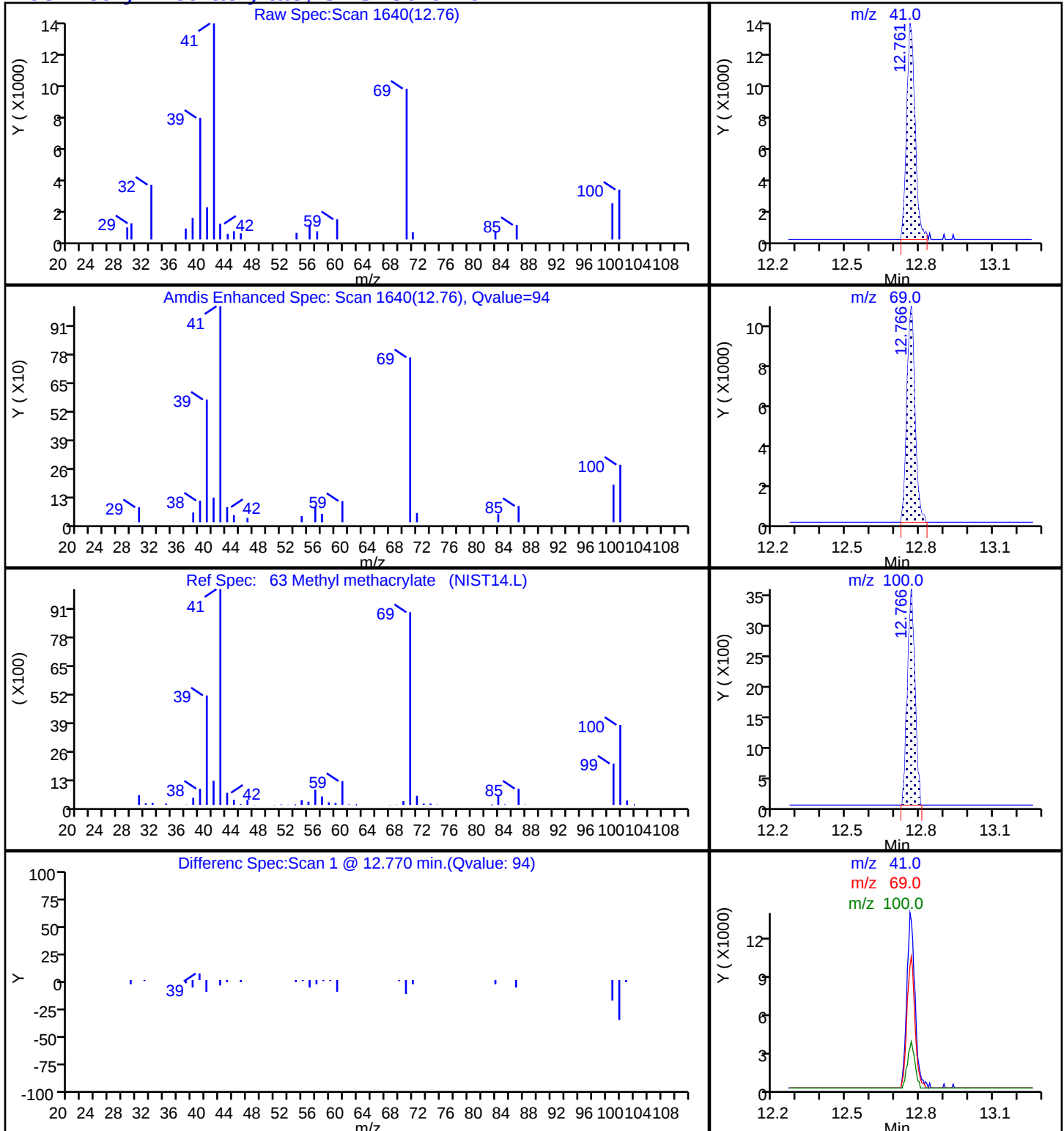
Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

63 Methyl methacrylate, CAS: 80-62-6



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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10898</u>	Lab Sample ID: <u>140-11030-16</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-16.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/27/2018 00:54</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
71-55-6	1,1,1-Trichloroethane	ND		0.080	
79-34-5	1,1,2,2-Tetrachloroethane	ND		0.080	
79-00-5	1,1,2-Trichloroethane	ND		0.080	
76-13-1	1,1,2-Trichlorotrifluoroethane	ND		0.080	
75-34-3	1,1-Dichloroethane	ND		0.080	
75-35-4	1,1-Dichloroethene	ND		0.080	
87-61-6	1,2,3-Trichlorobenzene	ND		0.40	
96-18-4	1,2,3-Trichloropropane	ND		0.20	
526-73-8	1,2,3-Trimethylbenzene	ND		0.080	
95-93-2	1,2,4,5-Tetramethylbenzene	ND		0.080	
120-82-1	1,2,4-Trichlorobenzene	ND		0.080	
95-63-6	1,2,4-Trimethylbenzene	ND		0.080	
106-93-4	1,2-Dibromoethane	ND		0.080	
95-50-1	1,2-Dichlorobenzene	ND		0.080	
107-06-2	1,2-Dichloroethane	ND		0.080	
78-87-5	1,2-Dichloropropane	ND		0.080	
76-14-2	1,2-Dichlorotetrafluoroethane	ND		0.080	
108-67-8	1,3,5-Trimethylbenzene	ND		0.080	
106-99-0	1,3-Butadiene	ND		0.16	
541-73-1	1,3-Dichlorobenzene	ND		0.080	
106-46-7	1,4-Dichlorobenzene	ND		0.080	
123-91-1	1,4-Dioxane	ND		0.20	
71-36-3	1-Butanol	ND		0.80	
90-12-0	1-Methylnaphthalene	ND		1.0	
540-84-1	2,2,4-Trimethylpentane	ND		0.20	
565-59-3	2,3-Dimethylpentane	ND		0.080	
78-93-3	2-Butanone	ND		0.32	
95-49-8	2-Chlorotoluene	ND		0.16	
591-78-6	2-Hexanone	ND		0.20	
78-78-4	2-Methylbutane	ND		0.20	
91-57-6	2-Methylnaphthalene	ND		1.0	
107-83-5	2-Methylpentane	ND		0.080	
107-05-1	3-Chloroprene	ND		0.080	
622-96-8	4-Ethyltoluene	ND		0.16	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND		0.20	
67-64-1	Acetone	ND		2.0	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10898</u>	Lab Sample ID: <u>140-11030-16</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-16.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/27/2018 00:54</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-05-8	Acetonitrile	ND		0.40	
107-02-8	Acrolein	ND		0.40	
107-13-1	Acrylonitrile	ND		0.80	
98-83-9	Alpha Methyl Styrene	ND		0.16	
71-43-2	Benzene	ND		0.080	
100-44-7	Benzyl chloride	ND		0.16	
75-27-4	Bromodichloromethane	ND		0.080	
75-25-2	Bromoform	ND		0.080	
74-83-9	Bromomethane	ND		0.080	
106-97-8	Butane	ND		0.16	
75-15-0	Carbon disulfide	ND		0.20	
56-23-5	Carbon tetrachloride	ND		0.040	
108-90-7	Chlorobenzene	ND		0.080	
75-45-6	Chlorodifluoromethane	ND		0.080	
75-00-3	Chloroethane	ND		0.080	
67-66-3	Chloroform	ND		0.080	
74-87-3	Chloromethane	ND		0.20	
156-59-2	cis-1,2-Dichloroethene	ND		0.080	
10061-01-5	cis-1,3-Dichloropropene	ND		0.080	
98-82-8	Cumene	ND		0.16	
110-82-7	Cyclohexane	ND		0.20	
124-48-1	Dibromochloromethane	ND		0.080	
74-95-3	Dibromomethane	ND		0.16	
75-71-8	Dichlorodifluoromethane	ND		0.080	
64-17-5	Ethanol	ND		2.0	
141-78-6	Ethyl acetate	ND		0.80	
60-29-7	Ethyl ether	ND		0.80	
100-41-4	Ethylbenzene	ND		0.080	
87-68-3	Hexachlorobutadiene	ND		0.080	
110-54-3	Hexane	ND		0.20	
496-11-7	Indane	ND		0.080	
95-13-6	Indene	ND		0.16	
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	
108-87-2	Methylcyclohexane	ND		0.080	

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

Lab Name: <u>TestAmerica Knoxville</u>	Job No.: <u>140-11030-1</u>
SDG No.: _____	
Client Sample ID: <u>10898</u>	Lab Sample ID: <u>140-11030-16</u>
Matrix: <u>Air</u>	Lab File ID: <u>JC26BK11030-16.D</u>
Analysis Method: <u>TO 15 LL</u>	Date Collected: <u>03/22/2018 17:00</u>
Sample wt/vol: <u>500 (mL)</u>	Date Analyzed: <u>03/27/2018 00:54</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>19000</u>	Units: <u>ppb v/v</u>

CAS NO.	COMPOUND NAME	RESULT	Q	RL	
75-09-2	Methylene Chloride	ND		0.20	
179601-23-1	m-Xylene & p-Xylene	ND		0.080	
91-20-3	Naphthalene	ND		0.20	
104-51-8	n-Butylbenzene	ND		0.16	
124-18-5	n-Decane	ND		0.40	
112-40-3	n-Dodecane	ND		0.40	
142-82-5	n-Heptane	ND		0.20	
111-84-2	n-Nonane	ND		0.20	
111-65-9	n-Octane	ND		0.16	
103-65-1	N-Propylbenzene	ND		0.16	
95-47-6	o-Xylene	ND		0.080	
99-87-6	p-Cymene	ND		0.080	
109-66-0	Pentane	ND		0.40	
115-07-1	Propene	ND		0.20	
135-98-8	sec-Butylbenzene	ND		0.16	
100-42-5	Styrene	ND		0.080	
75-65-0	tert-Butanol	ND		0.32	
98-06-6	tert-Butylbenzene	ND		0.20	
127-18-4	Tetrachloroethene	ND		0.040	
109-99-9	Tetrahydrofuran	ND		0.40	
110-02-1	Thiophene	ND		0.080	
108-88-3	Toluene	ND		0.12	
156-60-5	trans-1,2-Dichloroethene	ND		0.080	
10061-02-6	trans-1,3-Dichloropropene	ND		0.080	
79-01-6	Trichloroethene	ND		0.040	
75-69-4	Trichlorofluoromethane	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	
75-01-4	Vinyl chloride	ND		0.040	

TestAmerica Knoxville
Target Compound Quantitation Report

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-16.D
 Lims ID: 140-11030-A-16
 Client ID: 10898
 Sample Type: Client
 Inject. Date: 27-Mar-2018 00:54:30 ALS Bottle#: 16 Worklist Smp#: 19
 Purge Vol: 500.000 mL Dil. Factor: 1.0000
 Sample Info: 140-0007705-019
 Misc. Info.: 10898
 Operator ID: 403648 Instrument ID: MJ
 Method: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\MJ_TO15.m
 Limit Group: MSA TO14A_15 Routine ICAL
 Last Update: 27-Mar-2018 10:13:34 Calib Date: 15-Feb-2018 22:24:30
 Integrator: RTE ID Type: Deconvolution ID
 Quant Method: Internal Standard Quant By: Initial Calibration
 Last ICal File: \\ChromNA\Knoxville\ChromData\MJ\20180215-7391.b\JB15ICL10.D
 Column 1 : RTX-5 (0.32 mm) Det: MS SCAN
 Process Host: XAWRK011

First Level Reviewer: tajh

Date: 27-Mar-2018 10:10:17

Compound	Sig	RT (min.)	Adj RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ppb v/v	Flags
* 1 Chlorobromomethane (IS)	128	9.667	9.678	-0.011	90	199527	4.00	
* 2 1,4-Difluorobenzene	114	11.765	11.776	-0.011	95	1154067	4.00	
* 3 Chlorobenzene-d5 (IS)	117	16.370	16.375	-0.006	89	1034975	4.00	
\$ 4 4-Bromofluorobenzene (Surr	95	17.973	17.975	-0.005	94	781910	4.18	
33 Carbon disulfide	76	7.230	7.224	0.000	87	3829	0.0200	
108 Undecane	57	20.173	20.169	0.000	86	7567	0.0417	

Reagents:

40MXISSURP_00003 Amount Added: 40.00 Units: mL Run Reagent

Report Date: 27-Mar-2018 10:13:56

Chrom Revision: 2.2 13-Mar-2018 08:45:20

TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-16.D

Injection Date: 27-Mar-2018 00:54:30

Instrument ID: MJ

Operator ID: 403648

Lims ID: 140-11030-A-16

Lab Sample ID: 140-11030-16

Worklist Smp#: 19

Client ID: 10898

Purge Vol: 500.000 mL

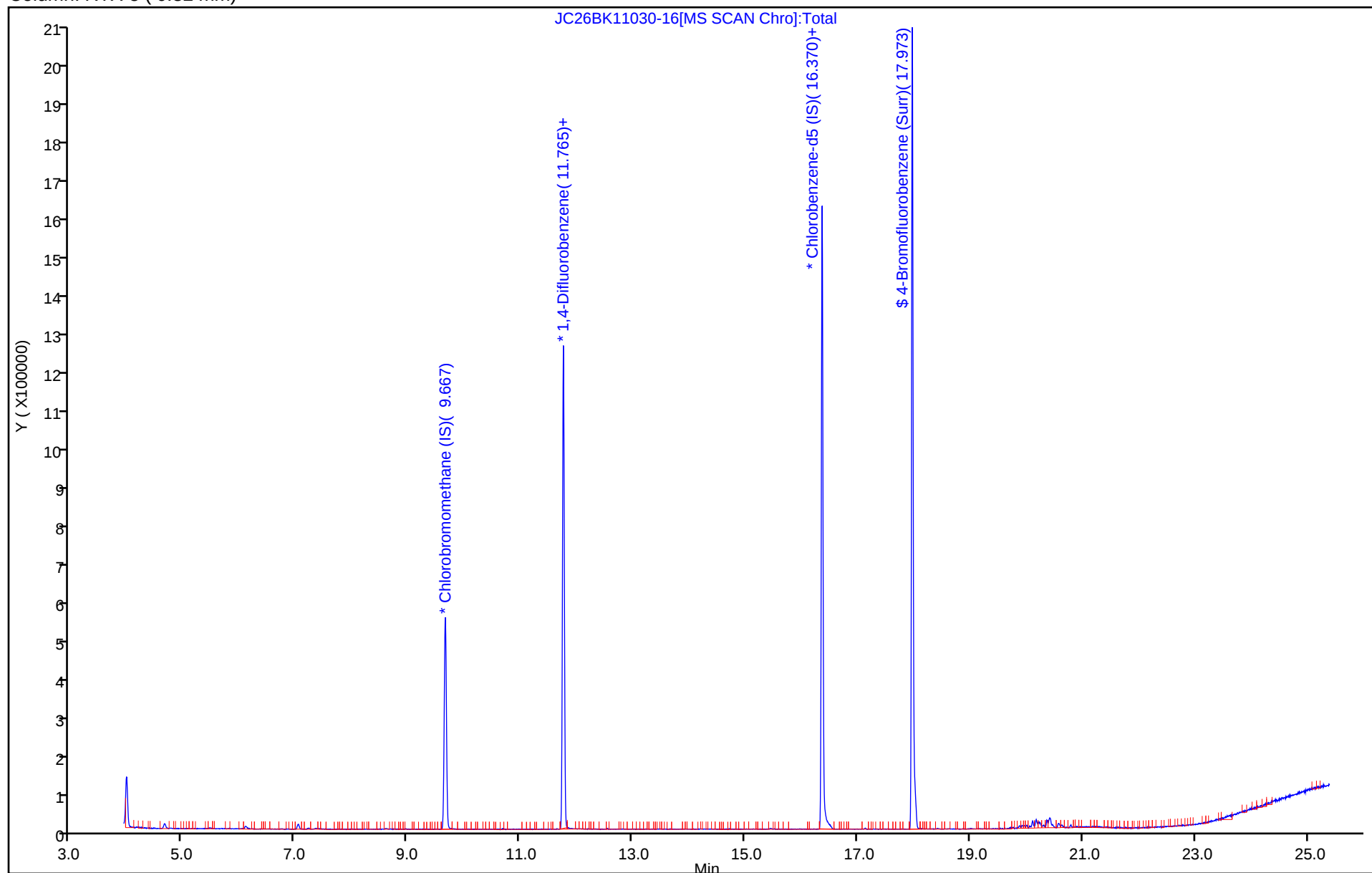
Dil. Factor: 1.0000

ALS Bottle#: 16

Method: MJ_TO15

Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)



TestAmerica Knoxville

Data File: \\ChromNA\Knoxville\ChromData\MJ\20180322-7705.b\JC26BK11030-16.D

Injection Date: 27-Mar-2018 00:54:30

Instrument ID: MJ

Lims ID: 140-11030-A-16

Lab Sample ID: 140-11030-16

Client ID: 10898

Operator ID: 403648

ALS Bottle#: 16 Worklist Smp#: 19

Purge Vol: 500.000 mL

Dil. Factor: 1.0000

Method: MJ_TO15

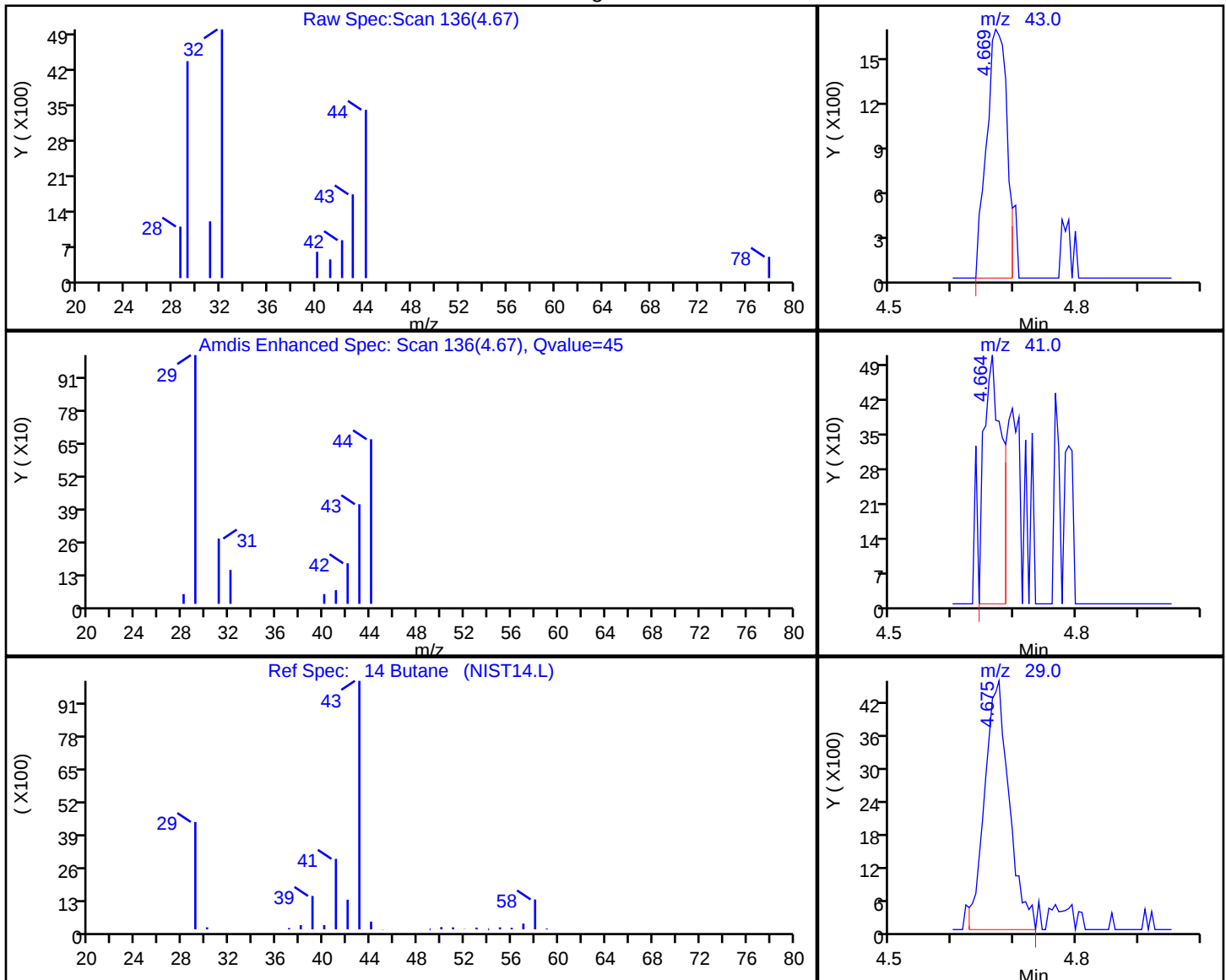
Limit Group: MSA TO14A_15 Routine ICAL

Column: RTX-5 (0.32 mm)

Detector: MS SCAN

14 Butane, CAS: 106-97-8

Processing Results



RT	Mass	Response	Amount
4.67	43.00	3829	0.038298
4.66	41.00	991	
4.67	29.00	12530	

Reviewer: tajh, 27-Mar-2018 10:10:17

Audit Action: Marked Compound Undetected

Audit Reason: Invalid Compound ID

Shipping and Receiving Documents

AIR SAMPLE CHAIN OF CUSTODY RECORD

URS CORPORATION
77 GOODSELL STREET
BUFFALO, NY 14203
PHONE: 716-856-5636

URS CONTACT: Ann Marie Kropovitch

PROJECT NUMBER
60567553

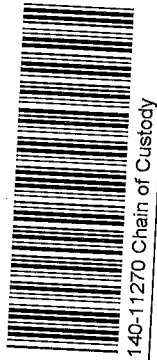
SAMPLERS (PRINT/SIGNATURE)
Tom Urban/Tom Urban

SITE NAME
Chemical Leeman

LAB Test America
SHIPPING CONTAINER 1 of 1
PAGE 1 of 1

DELIVERY SERVICE: Drop off AIRBILL NO.: N/A

LOCATION IDENTIFIER	SAMPLE DATE	SAMPLE TIME	SAMPLE ID	MATRIX CODE	CANISTER SIZE (LITERS)	CANISTER ID	FLOW CONTROLLER ID	INITIAL PRESSURE/VACUUM ("Hg)	FINAL PRESSURE/VACUUM ("Hg)	PRESSURE/VACUUM UPON LAB RECEIPT ("Hg)	REQUIRED ANALYSIS	REMARKS	SAMPLE TYPE CODE
SSV-1	4/10/18	0836	CL-SSV-1	AS	6	10210	11054	30-4					N ₁
IA-1	4/10/18	0836	CL-IA-1	AI	6	10765	10872	30-4					N ₁
SSV-2	4/10/18	0850	CL-SSV-2	AS	6	10512	10448	30-5					N ₁
IA-2	4/10/18	0855	CL-IA-2	AI	6	11173	11479	30-6					N ₁
FD-1	4/10/18	—	FD-180410	AA	6	11473	11513	30-5				Field Duplicate	N ₁
OA-1	4/10/18	0858	CL-OA-1	AA	6	10471	11313	30-3					N ₁
Received on ambient, 2 boxes No custody seal, FedExed trk# 4276 0716 6531 " 6542 KL 4/12/18 7 cans, 1 Flow, 2 gages, 7 ac, 1 IT													



MATRIX CODES
AA - AMBIENT AIR AI - INDOOR AIR AQ - FIELD QC AS - SUB-SLAB AIR GS - SOIL GAS

SAMPLE TYPE CODES
- NORMAL ENVIRONMENTAL SAMPLE FD# - FIELD DUPLICATE MS# - MATRIX SPIKE (# - SEQUENTIAL NUMBER (FROM 1 TO 9) TO ACCOMMODATE MULTIPLE SAMPLES IN A SINGLE DAY)

RELINQUISHED BY (SIGNATURE) Tom Urban DATE 4/10/18 TIME 1730 RECEIVED BY (SIGNATURE) Walter J. [Signature] DATE 4/10/18 TIME 1730

RELINQUISHED BY (SIGNATURE) Matthew Cukolo DATE 4/11/18 TIME 1750 RECEIVED FOR LAB BY (SIGNATURE) [Signature] DATE 4/12/18 TIME 0930

SPECIAL INSTRUCTIONS
* contact Ann Marie Kropovitch for analysis details *

Distribution: Original accompanies shipment, copy to project file

AIR SAMPLE CHAIN OF CUSTODY RECORD

URS CORPORATION
77 GODELL STREET
BUFFALO, NY 14203
PHONE: 716-856-5636

URS CONTACT: Ann Marie Krapovich

PROJECT NUMBER
60567553

SITE NAME

Chemical Leaman

SAMPLERS (PRINT/SIGNATURE)

Tom Urban / Tom Urban

DELIVERY SERVICE: Drop off AIRBILL NO.: N/A

LOCATION IDENTIFIER

SAMPLE DATE

SAMPLE TIME

SAMPLE ID

MATRIX CODE

CANISTER SIZE (LITERS)

6

SAMPLE INFORMATION

CANISTER ID
11011

11239

INITIAL PRESSURE/
VACUUM (Hg)

FINAL PRESSURE/
VACUUM (Hg)

PRESSURE/VACUUM UPON
LAB RECEIPT (Hg)

REQUIRED ANALYSIS

LAB Test America

SHIPPING CONTAINER (of)

PAGE 1 of 1

REMARKS

NOT USED

SAMPLE TYPE CODE

MATRIX CODES

AA - AMBIENT AIR

AI - INDOOR AIR

AO - FIELD QC

AS - SUB-SLAB AIR

GS - SOIL GAS

SAMPLE TYPE CODES

(# - SEQUENTIAL NUMBER (FROM 1 TO 9) TO ACCOMMODATE MULTIPLE SAMPLES IN A SINGLE DAY)

RELINQUISHED BY (SIGNATURE)

Tom Urban

DATE

4/10/18

TIME

1730

RECEIVED BY (SIGNATURE)

Tom Urban

DATE

4/10/18

TIME

1730

RELINQUISHED BY (SIGNATURE)

Wankowik

DATE

4/11/18

TIME

1730

RECEIVED FOR LAB BY (SIGNATURE)

Wankowik

DATE

4/12/18

TIME

0935

Distribution: Original accompanies shipment, copy to project file

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	Labeling Verified by: _____ Date: _____
10. Was the sampler identified on the COC?	/			☐ Sampler Not Listed on COC	pH test strip lot number: _____
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	Box 16A: pH Preservation Box 18A: Residual Chlorine
15. Were samples received within holding time?	/			☐ Holding Time - Receipt	Preservative: _____
16. Were samples received with correct chemical preservative (excluding Encore)?			/	☐ pH Adjusted, pH Included (See box 16A) ☐ Incorrect Preservative	Lot Number: _____ Exp Date: _____ Analyst: _____
17. Were VOA samples received without headspace?			/	☐ Headspace (VOA only) ☐ Residual Chlorine	Date: _____ Time: _____
18. Did you check for residual chlorine, if necessary? (e.g. 1613B, 1668) Chlorine test strip lot number: _____			/		
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 #: 1404564 PM Instructions: _____					

Sample Receiving Associate: *[Signature]* Date: 4/12/18

TestAmerica Knoxville - Air Canister Initial Pressure Check

Gauge ID: G5

Date: 4/12/2018

[illegible]

Attachment 5

May 2017 NYSDOH Soil Vapor/Indoor Air
Decision Matrices

Accessed at:

https://www.health.ny.gov/environmental/indoors/vapor_intrusion/docs/svi_decision_matrices_abc.pdf

Soil Vapor/Indoor Air Matrix A

May 2017

Analytes Assigned:

Trichloroethene (TCE), *cis*-1,2-Dichloroethene (c12-DCE), 1,1-Dichloroethene (11-DCE), Carbon Tetrachloride

SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m ³)	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m ³)		
	< 0.2	0.2 to < 1	1 and above
< 6	1. No further action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
6 to < 60	4. No further action	5. MONITOR	6. MITIGATE
60 and above	7. MITIGATE	8. MITIGATE	9. MITIGATE

No further action: No additional actions are recommended to address human exposures.

Identify Source(s) and Resample or Mitigate: We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

Monitor: We recommend monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined based on site-, building- and analyte-specific information, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

Mitigate: We recommend mitigation to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

These general recommendations are made with consideration being given to the additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX A

This matrix summarizes actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

- [1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).
- [2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of soil vapor contamination, nor does it preclude remediating contaminated soil vapor or the source of soil vapor contamination.
- [3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 0.20 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples and dirt floor soil vapor samples, a minimum reporting limit of 1 microgram per cubic meter is recommended.
- [4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions might be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.
- [5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.
- [6] The party responsible for implementing the recommended actions will differ depending upon several factors, including but not limited to the following: the identified source of the volatile chemicals, the environmental remediation program, and analyte-specific, site-specific and building-specific factors.

Soil Vapor/Indoor Air Matrix B

May 2017

Analytes Assigned:

Tetrachloroethene (PCE), 1,1,1-Trichloroethane (111-TCA), Methylene Chloride

SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m ³)	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m ³)		
	< 3	3 to < 10	10 and above
< 100	1. No further action	2. No Further Action	3. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
100 to < 1,000	4. No further action	5. MONITOR	6. MITIGATE
1,000 and above	7. MITIGATE	8. MITIGATE	9. MITIGATE

No further action: No additional actions are recommended to address human exposures.

Identify Source(s) and Resample or Mitigate: We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

Monitor: We recommend monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined based on site-, building- and analyte-specific information, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

Mitigate: We recommend mitigation to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

These general recommendations are made with consideration being given to the additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX B

This matrix summarizes actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

- [1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).
- [2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of soil vapor contamination, nor does it preclude remediating contaminated soil vapor or the source of soil vapor contamination.
- [3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 1 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples and dirt floor soil vapor samples, a minimum reporting limit of 1 microgram per cubic meter is recommended.
- [4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions might be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.
- [5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.
- [6] The party responsible for implementing the recommended actions will differ depending upon several factors, including but not limited to the following: the identified source of the volatile chemicals, the environmental remediation program, and analyte-specific, site-specific and building-specific factors.

Soil Vapor/Indoor Air Matrix C

May 2017

Analytes Assigned:

Vinyl Chloride

SUB-SLAB VAPOR CONCENTRATION of COMPOUND (mcg/m ³)	INDOOR AIR CONCENTRATION of COMPOUND (mcg/m ³)	
	< 0.2	0.2 and above
< 6	1. No further action	2. IDENTIFY SOURCE(S) and RESAMPLE or MITIGATE
6 to < 60	3. MONITOR	4. MITIGATE
60 and above	5. MITIGATE	6. MITIGATE

No further action: No additional actions are recommended to address human exposures.

Identify Source(s) and Resample or Mitigate: We recommend that reasonable and practical actions be taken to identify the source(s) affecting the indoor air quality and that actions be implemented to reduce indoor air concentrations to within background ranges. For example, if an indoor or outdoor air source is identified, we recommend the appropriate party implement actions to reduce the levels. In the event that indoor or outdoor sources are not readily identified or confirmed, resampling (which might include additional sub-slab vapor and indoor air sampling locations) is recommended to demonstrate that SVI mitigation actions are not needed. Based on the information available, mitigation might also be recommended when soil vapor intrusion cannot be ruled out.

Monitor: We recommend monitoring (sampling on a recurring basis), including but not necessarily limited to sub-slab vapor, basement air and outdoor air sampling, to determine whether concentrations in the indoor air or sub-slab vapor have changed and/or to evaluate temporal influences. Monitoring might also be recommended to determine whether existing building conditions (e.g., positive pressure heating, ventilation and air-conditioning systems) are maintaining the desired mitigation endpoint and to determine whether changes are needed. The type and frequency of monitoring is determined based on site-, building- and analyte-specific information, taking into account applicable environmental data and building operating conditions. Monitoring is an interim measure required to evaluate exposures related to soil vapor intrusion until contaminated environmental media are remediated.

Mitigate: We recommend mitigation to minimize current or potential exposures associated with soil vapor intrusion. The most common mitigation methods are sealing preferential pathways in conjunction with installing a sub-slab depressurization system and changing the pressurization of the building in conjunction with monitoring. The type, or combination of types, of mitigation is determined on a building-specific basis, taking into account building construction and operating conditions. Mitigation is considered a temporary measure implemented to address exposures related to soil vapor intrusion until contaminated environmental media are remediated.

These general recommendations are made with consideration being given to the additional notes on page 2.

ADDITIONAL NOTES FOR MATRIX C

This matrix summarizes actions recommended to address current and potential exposures related to soil vapor intrusion. To use the matrix appropriately as a tool in the decision-making process, the following should be noted:

- [1] The matrix is generic. As such, it may be appropriate to modify a recommended action to accommodate analyte-specific, building-specific conditions (e.g., dirt floor in basement, crawl spaces, thick slabs, current occupancy, etc.), and/or factors provided in Section 3.2 of the guidance (e.g., current land use, environmental conditions, etc.). For example, collection of additional samples may be recommended when the matrix indicates "no further action" for a particular building, but the results of adjacent buildings (especially sub-slab vapor results) indicate a need to take actions to address exposures related to soil vapor intrusion. Mitigation might be recommended when the results of multiple contaminants indicate monitoring is recommended. Proactive actions may be proposed at any time. For example, the party implementing the actions may decide to install sub-slab depressurization systems on buildings where the matrix indicates "no further action" or "monitoring." Such an action might be undertaken for reasons other than public health (e.g., seeking community acceptance, reducing costs, etc.). However, actions implemented *in lieu* of sampling will typically be expected to be captured in the final engineering report and site management plan, and might not rule out the need for post-implementation sampling (e.g., to document effectiveness or to support terminating the action).
- [2] Actions provided in the matrix are specific to addressing human exposures. Implementation of these actions does not preclude investigating possible sources of soil vapor contamination, nor does it preclude remediating contaminated soil vapor or the source of soil vapor contamination.
- [3] Appropriate care should be taken during all aspects of sample collection to ensure that high quality data are obtained. Since the data are being used in the decision-making process, the laboratory analyzing the environmental samples must have current Environmental Laboratory Approval Program (ELAP) certification for the appropriate analyte and environmental matrix combinations. Furthermore, samples should be analyzed by methods that can achieve a minimum reporting limit of 0.20 microgram per cubic meter for indoor and outdoor air samples. For sub-slab vapor samples and dirt floor soil vapor samples, a minimum reporting limit of 1 microgram per cubic meter is recommended.
- [4] Sub-slab vapor and indoor air samples are typically collected when the likelihood of soil vapor intrusion is considered to be the greatest (i.e., worst-case conditions). If samples are collected at other times (typically, samples collected outside of the heating season), then resampling during worst-case conditions might be appropriate to verify that actions taken to address exposures related to soil vapor intrusion are protective of human health.
- [5] When current exposures are attributed to sources other than soil vapor intrusion, the agencies should be given documentation (e.g., applicable environmental data, completed indoor air sampling questionnaire, digital photographs, etc.) to support a proposed action other than that provided in the matrix box and to support agency assessment and follow-up.
- [6] The party responsible for implementing the recommended actions will differ depending upon several factors, including but not limited to the following: the identified source of the volatile chemicals, the environmental remediation program, and analyte-specific, site-specific and building-specific factors.