ESAT5/TechLaw Controlled document #: 83074-7-21-202-LA-1058

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ESAT REGION 5
DATA SET CUSTODY TRANSFER FORM

DATA SET NUMBER: E191201, E191203, & E191204
CONTRACT # **EP-W-13-025**
SITE NAME: SE Rockford GW Contamination
TASK ORDER NO: R05-0-0021
PARAMETER: 1,4-Dioxane
TDF NUMBER: 5-0021-2-189
MATRIX: Water
JOB #: 03074.7.21.202.1A.05DK.00.0189 & 83074.7.21.202.1A.05DK.00.0189

SAMPLE NUMBERS: E191201-01 through E191201-12, E191203-01 through E191203-08, and E191204-01

NUMBER OF SAMPLES: 21

ESAT APPROVALS:

Digitally signed by CHRISTINA RICE (Affiliate) Date: 2020.01.06 11:13:28 -06'00'

Analyst Date

Steffanie Tobin Digitally signed by Steffanie Tobin DN: cn=Steffanie Tobin, o=TechLaw, ou=ESAT 5, email=stobin@TechLawInc.com, c=US Date: 2020.01.09 13:36:08 -06'00'

Second-Level QA Reviewer Date

Digitally signed by Kobus, Matt Date: 2020.01.10 11:55:18 -06'00'

ESAT Final Reviewer Date

Digitally signed by PAUL LITTLE (Affiliate) Date: 2020.01.15 14:17:27 -06'00'

Team Manager Approval (or designee) Date

COMMENTS: 1,4-Dioxane by manual SPE (MS035) reported to the RL in ug/L units.

The electronic files of the above identified original data set were transferred from ESAT custody to the custody of the U.S. EPA Region 5 Analytical Service Branch in its entirety on the indicated date relinquished.

Paul Little 01/15/2020

Relinquished by Date

EPA APPROVALS:

MICHELLE KERR Digitally signed by MICHELLE KERR Location: US EPA Date: 2020.01.24 13:55:51 -06'00'

EPA TPOC Review Completed Date

Digitally signed by HOWARD PHAM Date: 2020.01.27 09:38:37 -06'00'

EPA TOCOR Acceptance Date

COMMENTS:

[ ] Reviewed [ ] Unreviewed

GAbriel Omotayo

DATA COORDINATOR/RECD/TRANSMTD

A COPY OF THIS CUSTODY TRANSFER FORM WITH A RECEIVED BY EPA SIGNATURE IS TO BE FILED IN THE TDF FILE. THE ORIGINAL CUSTODY TRANSFER ACCOMPANIES THE DATA SET TO BE APPROVED BY THE EPA.

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Date Generated:	1/24/2020	**Author:**	Christina Rice
Job Number:	03074.7.21.202.1A.05DK.00.0189; 83074.7.21.202.1A.05DK.00.0189	**TDF #:**	5-0021-2-0189

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CHECKLIST FOR VOA DATA PACKAGES

ASB Method Number: MS035 v1 **LIMS Work Order Number:** E191201, E191203, & E191204

Site Name: SE Rockford GW Contamination **ESAT TDF Number:** 5-0021-2-189

Analyst/Date **(QC1):** 1/6/2020

Peer Reviewer/Date **(QC2):** Stephanie Tobin 1/9/2020

Other Reviewer/Date **(QC3):** 1/10/2020

NOTE: Please check Y for YES, NA for Not Applicable, and X for NO. If X, please provide your comments in the comments section.

	Approvals		
	QC1	**QC2**	**QC3**
I. SAMPLE QC			
Sample Preservation - Work order			
• Were the samples received at the proper temperature?	Y	Y	Y
Instrument Performance Check - Form 5 or equivalent, raw data			
• Does BFB meet the SOP abundance criteria?	Y	Y	Y
• Is the tune report accurate?	Y	Y	Y
• Are all samples analyzed within a 12 hour clock?	Y	Y	Y
Initial Calibration (ICAL) - Initial calibration report			
• Does the ICAL meet the SOP criteria? If not, is data qualified?	Y	Y	Y
• Calculate an RSD and verify a regression fit. Is it accurate?	Y	Y	Y
• Does the ICV meet the SOP criteria? If not, is data qualified?	Y	Y	Y
Continuing Calibration (CCV) - Form 7 or continuing calibration report			
• Does the CCV meet the SOP criteria? If not, is data qualified?	Y	Y	Y
• Calculate a %D. Is it accurate?	Y	Y	Y
Internal Standards (IS) - Form 8 or equivalent, raw data			
• Did the samples meet IS area requirements? If not, is data qualified?	Y	Y	Y
• Did the samples meet IS time requirements? If not, is data qualified?	Y	Y	Y
Method Blank (MB) - Form 4 or equivalent, raw data			
• Is the MB summary header correct?	Y	Y	Y
• Are the associated samples properly listed?	Y	Y	Y
• Is sample data properly qualified for blank contamination?	Y	Y	Y
Surrogates - LIMS report, raw data			
• Are surrogate recoveries within QC limits? If not, is data qualified?	Y	Y	Y

CHECKLIST FOR VOA DATA PACKAGES

	Approvals QC1	QC2	QC3
• Are reported concentrations and percent recovery data in agreement with the quantitation reports and QC forms?	Y	Y	Y
Method Reporting Limit (MRL) - LIMS report, raw data			
• Are MRL recoveries within QC limits? If not, is data qualified?	Y	Y	Y
• Are MRL recoveries present for all compounds at their respective reporting limits? If not, are reporting limits elevated?	Y	Y	Y
• Are reported concentrations and percent recovery data in agreement with the raw data?	Y	Y	Y
Matrix Spike (MS/MSD) - LIMS report, raw data			
• Did samplers send in sufficient volume for MS/MSD analysis	Y	Y	Y
• Are MS/MSD recoveries within QC limits? If not, is data qualified?	Y1	Y1	Y1
• Are reported concentrations and percent recovery data in agreement with the raw data?	Y	Y	Y

II. QUANTITATION REPORTS and TC & TIC RESULTS of SAMPLES

• Are draft LIMS reports present for all field samples and QC samples, if applicable?	Y	Y	Y
• Are reported results for detects and non-detects accurate?	Y	Y	Y
• Did mass spectral data support all reported TC and TIC data?	Y	Y	Y
• Are the following LIMS data qualifiers used when needed: J, K, L, N, NJ, R, and U?	Y	Y	Y
• Are final LIMS reports present in duplicate for all field samples and lab blanks? (Note: ASB keeps original FINAL copy and client gets the duplicate).	NA	NA	NA

III. MANUAL INTEGRATION AUDIT

(See QMP Appendix 2 for ASB manual integration policy and procedures)

• Did the analyst perform manual integration audits?	Y	Y	Y
• Are graphic printouts submitted for “before” and “after” manual integrations?	Y	Y	Y
• If manual integrations are missing, are they noted in the case narrative?	Y	Y	Y

IV. MISCELLANEOUS

• Are the following documents submitted with the data package, when available: sample analysis request sheets/COC forms, sample tags, sequence files identifying sample data files used for reporting, completed sample prep/clean-up sheets, and data not used?	Y	Y	Y

CHECKLIST FOR VOA DATA PACKAGES

	Approvals QC1	QC2	QC3
• Are the following documents filed in proper binders: GC/MS autotune reports, daily manual tune or mass axis calibration reports, BFB tune reports, calibration reports and sample sequences?	Y	Y	Y
• Is the bench sheet complete? Are the LIMS IDs for all spiking solutions and calibration standards documented in the package? Are all solvent lot numbers and syringe IDs documented in the package?	Y	Y	Y
• Is a printout of the work order(s) included?	Y	Y	Y

V. CASE NARRATIVE

• Is the case narrative accurate? Are QC outliers explained?	Y	Y	Y
• Are the narrative, report, and supporting data files backed up to R5CRL?	Y	Y	Y

Please make sure the following changes to the case narrative have been made:

1. **No longer include sample identifications or instrument designations; these are documented in the raw data and LIMS reports.**
2. **Include the # of samples done, the work order number(s) and the name of the survey. Do not include the name of any other survey in the narrative. If you need to refer to another group of samples, use the work order number.**
3. **Type the path for data storage. Include the path in a note to the file or on the review checklist. Hand printed paths are very difficult to read. Please do not write them.**
4. **Make a positive statement that the holding times were met. State if there were any exceptions.**
5. **Discuss the preparation steps only if there are options. If the preparation is part of the SOP, no discussion is necessary. List any cleanup procedures used if these are optional. If cleanup is a standard part of the method, no discussion is needed.**
6. **Comment on quality excursions by quality control type with headers stating the control type. All headers will not be present every time. If there are no exceptions, remove that header. State the impact of the excursions on the data. If several QC types have problems, state the overall impact on the data at the end after discussing the parts. Include a general statement that all quality control not specifically discussed in the narrative met quality criteria stated in the SOP.**

VI. DATA CUSTODY

• Is the data set custody transfer present and accurate?	Y	Y	Y

VII. COMMENTS

1 - Outliers discussed in case narrative

CHECKLIST FOR VOA DATA PACKAGES

Specify the path for data storage (see GEN002 for requirements)

Example of R5CRL Data Path: 204.46.24.26\R5CRL\VOL1\EPA-GCMS\"analysis"\"work order"\.....

Path: 204.46.201.26\Root Share\R5SRL\Vol2\A_Projects (new)\SE Rockford GW Contamination\4. MS\E191201, E191203, & E191204 14 Dioxane

non-responsive

Invalid signature

TOCOR APPROVAL*: X

Signed by: Environmental Protection Agency

TechLaw Inc ESAT Region 5
536 South Clark Street, Suite 734
Chicago, IL 60605
(312) 353-2964
(312) 353-5814 (Fax)
www.techlawinc.com

Date: January 13, 2020

To: Howard Pham, EPA TOCOR

From: Christina Rice, ESAT Chemist

Thru: Paul Little, ESAT Team Manager

Ref: TDF#: 5-0021-2-189
Job#: 03074.7.21.202.1A.05DK.00.0189; 83074.7.21.202.1A.05DK.00.0189
Contract # EP-W-13-025

SUBJECT: Data Sets E191201, E191203, & E191204: GCMS 1,4-Dioxane water samples using EPA Method 522 (ASB Method MS035 ver 1, effective March 30, 2017)

Attached is the deliverable for data sets E191201, E191203, and E191204 1,4-dioxane analysis for twenty-one (21) water samples. Included in the deliverable are the case narrative, raw data, LIMS reports, and QC reports.

Data are stored in the folder:

R5CRL\VOL2\A_Projects (new)\SE Rockford GW Contamination\4. MS\E191201, E191203, & E191204 14Dioxane

If you have any questions, please feel free to contact me.

Christina Rice
312-353-7358

TechLaw Inc ESAT Region 5
536 South Clark Street, Suite 734
Chicago, IL 60605
(312) 353-8303
(312) 353-5814 (Fax)
www.techlawinc.com

Date: **1/10/2020**

Subject: **Review of Region 5 Data for SOUTHEAST ROCKFORD GROUND WATER CONTAMINATION**

To: **Superfund, US EPA Region 5**
77 West Jackson Boulevard
Chicago, IL 60604

From: **Christina Rice, Chemist**
TechLaw - ESAT Contract

The data transmitted under this cover memo successfully passed ASB's data review procedures as documented in the current Quality Management Plan and applicable Standard Operating Procedures. In accordance with the EPA QA/G-8 *Guidance on Environmental Data Verification and Data Validation* and the U.S. EPA Region 5 RMD QMP, ASB performs data verification on all the data generated internally. ASB does not perform data validation or quality assessment procedures.

This report was reviewed and the information provided herein accurately represents the analysis performed.

Please contact the analyst with any technical report issues, Amanda Wroble at (312)-353-0375 for sample project concerns, and Robert Snyder at (312)-353-9083 with data transmittal questions. Thank you.

Attached are Results for: **SOUTHEAST ROCKFORD GROUND WATER CONTAMINATION**

Analyses included in this report:

1,4-Dioxane by SPE Low Level

Report Name: E191201,E191203,E191204 E_Analysis_v12 FINAL Jan 10 20 0922

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CASE NARRATIVE

ANALYST: Christina Rice, ESAT

GENERAL INFORMATION:

ESAT was tasked with the analysis of twenty-one (21) water samples (E191201-01 through E191201-12, E191203-01 through E191203-08, and E191204-01) for low level 1,4-dioxane using selected ion monitoring (SIM). The samples were collected December 10 through 12, 2019 and received December 11 through 13, 2019 intact and within the ≤ 6°C preservation requirement.

pH of the field pre-acidified samples was determined using indicator strips. All samples were properly preserved (pH ≤ 2) with sodium bisulfate. All sample extractions and analyses were completed within hold time criteria.

Samples E191201-01 through E191201-12 and E191203-01 through E191203-08 were extracted in batch E19L001 by the manual solid phase extraction (SPE) method on December 12, 2019 and analyzed on December 12 and 13, 2019. Sample E191204-01 was extracted in batch E19L002 by the manual solid phase extraction (SPE) method on December 13, 2019 and analyzed on December 13, 2019. All extractions and analyses were performed according to ASB SOP MS035 version 1 (EPA 522/SW-846 8000D), effective March 30, 2017, and Pen & Ink #10181. All samples were reviewed according to ASB SOP MS037 (GEN010) version 5, effective April 30, 2019.

SAMPLE ANALYSIS & RESULTS:

The data reported herein meets the Data Quality Objectives provided by the TOCOR referenced in TDF 5-0021-2-189 requesting analysis by ASB SOP MS035 and reporting to the reporting limit.

Samples that contained compounds exceeding the calibration curve in the original analysis were reported from the dilution. Only the diluted results were reported from the reanalysis. The following compound was reported at dilution:

E191203-05RE1	10x	1,4-dioxane

Field QC samples are identified but are not qualified by the laboratory. Sample qualifications for field QC samples are left to the data user. The following samples were identified as field QC:

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Trip Blanks:
E191201-12 (A7-TB001-191210)
E191203-08 (A7-TB002-101211)

Field Blanks:
E191201-01 (A7-FB001-191210)
E191204-01 (A7-FB003-191212)

Field Duplicates:
E191201-02 (A7-MW103A-191210) and E191201-03 (A7-MW103A-191210-D)
E191203-01 (A7-Effuent-191211) and E191203-02 (A7-Effluent-191211-D)

No qualifications are necessary for annual analyst demonstration of capability (ADoC) samples, approved April 2019.

All analytes with values below the reporting limit are flagged "J" in LIMS.

All samples are reported in µg/L in LIMS.

QUALITY CONTROLS:

Quality control measures not specifically discussed in this narrative met all quality criteria stated in the SOPs.

1. Instrument Performance Check (Tune):

All samples were analyzed within 12 hours of the tune. No qualifications are necessary.

2. Initial Calibration (ICAL):

A 10-point calibration was performed for 1,4-dioxane by SIM analysis on November 20, 2019. All reported compounds used average response and were within the ≤20% RSD limit. All compounds have a calibration range from 5 µg/L to 1000 µg/L on column. No qualifications are necessary.

3. Initial Calibration Verification (ICV):

1,4-Dioxane was within the ±20% limit for the ICV analyzed November 20, 2019. No qualifications are necessary.

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4. Continuing Calibration Verification (CCV):

All reported compounds were within the ±20% limit for all CCVs. No qualifications are necessary.

5. Blank Results:

Method blanks E19L001-BLK1 and E19L002-BLK1 were non-detect for 1,4-dioxane. No qualifications are necessary.

Dilution blank E19L001-BLK2 was non-detect for 1,4-dioxane. No qualifications are necessary.

6. Internal Standard:

Tetrahydrofuran-d8 was within the 50-200% area limit of the mid-level calibration standard in all reported samples. No qualifications are necessary.

7. Surrogate Recovery:

1,4-Dioxane-d8 was within acceptance limits in all samples. No qualifications are necessary.

8. Blank Spike / Blank Spike Duplicate (BS / BSD):

Samples E19L001-BS1 / BSD1 and E19L002-BS1 / BSD1 are the blank spikes. All reported compounds were within acceptance limits. No qualifications are necessary.

9. Method Reporting Limit (MRL):

Samples E19L001-MRL1 and E19L002-MRL1 are the reporting limit spikes. All reported compounds were within acceptance limits. No qualifications are necessary.

10. Matrix Spike / Matrix Spike Duplicate (MS / MSD):

No samples were requested for MS / MSD analysis in work order E191201. Sample E191201-06 was chosen for MS analysis and reported as E19L001-MS1. No MSD analysis was performed due to insufficient sample volume. The following compound was outside acceptance limits:

> 1,4-Dioxane had negative recovery in sample E19L001-MS1. In source sample E191201-06, detected 1,4-dioxane is qualified as estimated bias low “L”.

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Sample E191203-06 was requested for MS / MSD analysis and reported as E19L001-MS2 and E19L001-MSD2. All reported compounds were within acceptance limits in both the MS and MSD. No qualifications are necessary.

No samples were requested for MS / MSD analysis in work order E191204. There was insufficient volume to perform MS / MSD analysis.

11. Duplicate (DUP):

No samples were requested for DUP analysis. Sample E191201-07 was chosen for DUP analysis and reported as E19L001-DUP1. All reported compounds were within acceptance limits. No qualifications are necessary.

MANUAL CALCULATION:

Concentration for 1,4-dioxane in sample E191203-05RE1, analyzed December 13, 2019 @ 12:32:

Cx = [Ax * CIS * Vt * Df] / [AIS * ARF * Vo]

Cx= Concentration of the compound to be measured (µg/L water)
Ax= Area of the primary characteristic ion for the compound to be measured
AIS= Area of the primary characteristic ion for the specific internal standard
CIS= Concentration of the specific internal standard (µg/L)
Vt= Volume of the concentrated extract in milliliters (mL)
Df= Dilution factor
ARF= Average response factor for the compound from the calibration curve
Vo= Volume of sample extracted in milliliters (mL)

µg/L = [324226 * 50 * 10 * 10] / [73582 * 0.7751 * 250]

Calculated concentration = 113.70 µg/L, which rounds to 114 µg/L.
The value reported in LIMS is 114 µg/L.

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WORK ORDER

Printed: 12/13/2019 8:17:41AM

E191201

TechLaw - ESAT Contract

Client: Superfund, US EPA Region 5
Project: SOUTHEAST ROCKFORD GROUND WATER C
Project Manager: Paul Little
Project Number: [none]

Report To:
Howard Pham
Superfund, US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604
Phone: (312) 353-2310
Fax: (312) 886-6171

Date Due: Jan-27-20 15:00 (47 day TAT)
Received By: Leeza Cooper
Date Received: Dec-11-19 11:34
Logged In By: Leeza Cooper
Date Logged In: Dec-11-19 12:01

Samples Received at:	1.7°C
Custody Seals	Yes
Containers Intact	Yes
COC/Labels Agree	Yes
Preservation Confirmed	Yes

Analysis	Due	TAT	Expires	Comments
E191201-01 A7-FB001-191210 [Water] Sampled Dec-10-19 16:30 (GMT-05:00) Eastern Time (US & Canada)				
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-07-20 15:30	
E191201-02 A7-MW103A-191210 [Water] Sampled Dec-10-19 13:20 (GMT-05:00) Eastern Time (US & Canada)				
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-07-20 12:20	
E191201-03 A7-MW103A-191210-D [Water] Sampled Dec-10-19 13:20 (GMT-05:00) Eastern Time (US & Canada)				
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-07-20 12:20	
E191201-04 A7-MW103D-191210 [Water] Sampled Dec-10-19 10:35 (GMT-05:00) Eastern Time (US & Canada)				
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-07-20 09:35	
E191201-05 A7-MW106A-191210 [Water] Sampled Dec-10-19 16:00 (GMT-05:00) Eastern Time (US & Canada)				
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-07-20 15:00	
E191201-06 A7-MW112B-191210 [Water] Sampled Dec-10-19 09:40 (GMT-05:00) Eastern Time (US & Canada)				
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-07-20 08:40	

E191201

TechLaw - ESAT Contract

Client: Superfund, US EPA Region 5
Project: SOUTHEAST ROCKFORD GROUND WATER C
Project Manager: Paul Little
Project Number: [none]

Analysis	Due	TAT	Expires
E191201-07 A7-MW112C-191210 [Water] Sampled Dec-10-19 09:55 (GMT-05:00) Eastern Time (US & Canada)			
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-07-20 08:55
E191201-08 A7-MW134B-191210 [Water] Sampled Dec-10-19 14:30 (GMT-05:00) Eastern Time (US & Canada)			
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-07-20 13:30
E191201-09 A7-MW134C-191210 [Water] Sampled Dec-10-19 11:55 (GMT-05:00) Eastern Time (US & Canada)			
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-07-20 10:55
E191201-10 A7-MW148-191210 [Water] Sampled Dec-10-19 11:35 (GMT-05:00) Eastern Time (US & Canada)			
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-07-20 10:35
E191201-11 A7-MW149-191210 [Water] Sampled Dec-10-19 14:15 (GMT-05:00) Eastern Time (US & Canada)			
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-07-20 13:15
E191201-12 A7-TB001-191210 [Water] Sampled Dec-10-19 10:35 (GMT-05:00) Eastern Time (US & Canada)			
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-07-20 09:35

12/13/2019

Reviewed By

Date

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WORK ORDER

Printed: 12/18/2019 8:22:49AM

E191203

TechLaw - ESAT Contract

Client:	**Superfund, US EPA Region 5**	**Project Manager:**	**Paul Little**
Project:	**SOUTHEAST ROCKFORD GROUND WATER CONTA**	**Project Number:**	**[none]**

Report To:

Howard Pham	77 West Jackson Boulevard	Phone: (312) 353-2310
Superfund, US EPA Region 5	Chicago, IL 60604	Fax: (312) 886-6171

Date Due:	Jan-27-20 15:00 (46 day TAT)		
Received By:	Leeza Cooper	Date Received:	Dec-12-19 11:30
Logged In By:	Leeza Cooper	Date Logged In:	Dec-12-19 13:42

Samples Received at:	**1.1°C**
Custody Seals	**Yes**
Containers Intact	**Yes**
COC/Labels Agree	**Yes**
Preservation Confirmed	**Yes**

Analysis	Due	TAT	Expires	Comments
E191203-01 A7-Effluent-191211 [Water] Sampled Dec-11-19 10:30 (GMT-05:00) Eastern Time (US & Canada)				
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-08-20 09:30	
E191203-02 A7-Effluent-191211-D [Water] Sampled Dec-11-19 10:30 (GMT-05:00) Eastern Time (US & Canada)				
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-08-20 09:30	
E191203-03 A7-MW103B-191211 [Water] Sampled Dec-11-19 14:30 (GMT-05:00) Eastern Time (US & Canada)				
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-08-20 13:30	
E191203-04 A7-MW103C-191211 [Water] Sampled Dec-11-19 12:00 (GMT-05:00) Eastern Time (US & Canada)				
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-08-20 11:00	
E191203-05 A7-MW105A-191211-D [Water] Sampled Dec-11-19 11:45 (GMT-05:00) Eastern Time (US & Canada)				
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-08-20 10:45	
E191203-06 A7-MW143-191211 [Water] Sampled Dec-11-19 10:35 (GMT-05:00) Eastern Time (US & Canada)				
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-08-20 09:35	

E191203

TechLaw - ESAT Contract

Client:	**Superfund, US EPA Region 5**	**Project Manager:**	**Paul Little**
Project:	**SOUTHEAST ROCKFORD GROUND WATER CONTA**	**Project Number:**	**[none]**

Analysis	Due	TAT	Expires
E191203-07 A7-MW144-191211 [Water] Sampled Dec-11-19 09:40 (GMT-05:00) Eastern Time (US & Canada)			
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-08-20 08:40
E191203-08 A7-TB002-191211 [Water] Sampled Dec-11-19 08:35 (GMT-05:00) Eastern Time (US & Canada)			
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-08-20 07:35

12/18/2019

Reviewed By

Date

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WORK ORDER

Printed: 12/18/2019 8:23:43AM

E191204

TechLaw - ESAT Contract

Client: Superfund, US EPA Region 5
Project: SOUTHEAST ROCKFORD GROUND WATER C
Project Manager: Paul Little
Project Number: [none]

Report To:
Howard Pham
Superfund, US EPA Region 5
77 West Jackson Boulevard
Chicago, IL 60604
Phone: (312) 353-2310
Fax: (312) 886-6171

Date Due: Jan-27-20 15:00 (45 day TAT)
Received By: Leeza Cooper
Date Received: Dec-13-19 11:29
Logged In By: Leeza Cooper
Date Logged In: Dec-13-19 12:04

Samples Received at:	0.8°C
Custody Seals	Yes
Containers Intact	Yes
COC/Labels Agree	Yes
Preservation Confirmed	Yes

Analysis	Due	TAT	Expires	Comments
E191204-01 A7-FB003-191212 [Water] Sampled Dec-12-19 12:05 (GMT-05:00) Eastern Time (US & Canada)				
1,4-Dioxane by SPE Low Level	Jan-27-20 12:00	30	Jan-09-20 11:05	

12/18/2019

Reviewed By

Date

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Superfund, US EPA Region 5	Project: SOUTHEAST ROCKFORD GROUND WATER CONTAMINATION	
77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Jan-10-20 09:22

1,4-Dioxane by GC-MS
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A7-FB001-191210 (E191201-01) **Matrix: Water** **Sampled: Dec-10-19 16:30** **Received: Dec-11-19 11:34**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**U**			0.205	ug/L	1	E19L001	Dec-12-19	Dec-12-19

Surrogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	0.885			*86.4%*		*70-130*	"	"	"

A7-MW103A-191210 (E191201-02) **Matrix: Water** **Sampled: Dec-10-19 13:20** **Received: Dec-11-19 11:34**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**4.85**			0.202	ug/L	1	E19L001	Dec-12-19	Dec-12-19

Surrogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	0.870			*86.3%*		*70-130*	"	"	"

A7-MW103A-191210-D (E191201-03) **Matrix: Water** **Sampled: Dec-10-19 13:20** **Received: Dec-11-19 11:34**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**4.75**			0.202	ug/L	1	E19L001	Dec-12-19	Dec-12-19

Surrogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	0.848			*84.1%*		*70-130*	"	"	"

A7-MW103D-191210 (E191201-04) **Matrix: Water** **Sampled: Dec-10-19 10:35** **Received: Dec-11-19 11:34**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**2.47**			0.207	ug/L	1	E19L001	Dec-12-19	Dec-12-19

Surrogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	0.888			*86.0%*		*70-130*	"	"	"

A7-MW106A-191210 (E191201-05) **Matrix: Water** **Sampled: Dec-10-19 16:00** **Received: Dec-11-19 11:34**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**0.281**			0.208	ug/L	1	E19L001	Dec-12-19	Dec-12-19

Surrogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	0.923			*88.6%*		*70-130*	"	"	"

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77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Jan-10-20 09:22

1,4-Dioxane by GC-MS

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A7-MW112B-191210 (E191201-06) **Matrix: Water** **Sampled: Dec-10-19 09:40** **Received: Dec-11-19 11:34**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**17.3**	L		0.200	ug/L	1	E19L001	Dec-12-19	Dec-12-19

Surrogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	0.814	*81.4%*	*70-130*	"	"	"

A7-MW112C-191210 (E191201-07) **Matrix: Water** **Sampled: Dec-10-19 09:55** **Received: Dec-11-19 11:34**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**1.60**			0.203	ug/L	1	E19L001	Dec-12-19	Dec-12-19

Surrogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	0.957	*94.2%*	*70-130*	"	"	"

A7-MW134B-191210 (E191201-08) **Matrix: Water** **Sampled: Dec-10-19 14:30** **Received: Dec-11-19 11:34**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**11.0**			0.202	ug/L	1	E19L001	Dec-12-19	Dec-12-19

Surrogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	0.954	*94.6%*	*70-130*	"	"	"

A7-MW134C-191210 (E191201-09) **Matrix: Water** **Sampled: Dec-10-19 11:55** **Received: Dec-11-19 11:34**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**24.9**			0.202	ug/L	1	E19L001	Dec-12-19	Dec-12-19

Surrogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	0.947	*94.0%*	*70-130*	"	"	"

A7-MW148-191210 (E191201-10) **Matrix: Water** **Sampled: Dec-10-19 11:35** **Received: Dec-11-19 11:34**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**0.202**			0.202	ug/L	1	E19L001	Dec-12-19	Dec-12-19

Surrogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	0.945	*93.7%*	*70-130*	"	"	"

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Superfund, US EPA Region 5	Project: SOUTHEAST ROCKFORD GROUND WATER CONTAMINATION	
77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Jan-10-20 09:22

1,4-Dioxane by GC-MS
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A7-MW149-191210 (E191201-11) **Matrix: Water** **Sampled: Dec-10-19 14:15** **Received: Dec-11-19 11:34**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**U**			0.202	ug/L	1	E19L001	Dec-12-19	Dec-12-19

Surrogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	1.05	*105%*	*70-130*	"	"	"

A7-TB001-191210 (E191201-12) **Matrix: Water** **Sampled: Dec-10-19 10:35** **Received: Dec-11-19 11:34**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**U**			0.200	ug/L	1	E19L001	Dec-12-19	Dec-12-19

Surrogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	0.886	*88.6%*	*70-130*	"	"	"

A7-Effluent-191211 (E191203-01) **Matrix: Water** **Sampled: Dec-11-19 10:30** **Received: Dec-12-19 11:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**6.48**			0.205	ug/L	1	E19L001	Dec-12-19	Dec-12-19

Surrogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	0.945	*92.3%*	*70-130*	"	"	"

A7-Effluent-191211-D (E191203-02) **Matrix: Water** **Sampled: Dec-11-19 10:30** **Received: Dec-12-19 11:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**6.63**			0.216	ug/L	1	E19L001	Dec-12-19	Dec-12-19

Surrogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	0.988	*91.7%*	*70-130*	"	"	"

A7-MW103B-191211 (E191203-03) **Matrix: Water** **Sampled: Dec-11-19 14:30** **Received: Dec-12-19 11:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**6.15**			0.205	ug/L	1	E19L001	Dec-12-19	Dec-12-19

Surrogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	0.970	*94.6%*	*70-130*	"	"	"

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Superfund, US EPA Region 5	Project: SOUTHEAST ROCKFORD GROUND WATER CONTAMINATION	
77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Jan-10-20 09:22

1,4-Dioxane by GC-MS
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A7-MW103C-191211 (E191203-04) **Matrix: Water** **Sampled: Dec-11-19 12:00** **Received: Dec-12-19 11:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**15.0**			0.219	ug/L	1	E19L001	Dec-12-19	Dec-12-19

Surrogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	0.951	*86.8%*	*70-130*	"	"	"

A7-MW105A-191211-D (E191203-05) **Matrix: Water** **Sampled: Dec-11-19 11:45** **Received: Dec-12-19 11:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed

Surrogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	0.842	*84.2%*	*70-130*	*E19L001*	*Dec-12-19*	*Dec-12-19*

A7-MW105A-191211-D (E191203-05RE1) **Matrix: Water** **Sampled: Dec-11-19 11:45** **Received: Dec-12-19 11:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**114**			2.00	ug/L	10	E19L001	Dec-13-19	Dec-13-19

A7-MW143-191211 (E191203-06) **Matrix: Water** **Sampled: Dec-11-19 10:35** **Received: Dec-12-19 11:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**U**			0.202	ug/L	1	E19L001	Dec-12-19	Dec-13-19

Surrogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	0.807	*80.0%*	*70-130*	"	"	"

A7-MW144-191211 (E191203-07) **Matrix: Water** **Sampled: Dec-11-19 09:40** **Received: Dec-12-19 11:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**U**			0.202	ug/L	1	E19L001	Dec-12-19	Dec-13-19

Surrogate	Result	%REC	%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	0.861	*85.4%*	*70-130*	"	"	"

A7-TB002-191211 (E191203-08) **Matrix: Water** **Sampled: Dec-11-19 08:35** **Received: Dec-12-19 11:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**U**			0.200	ug/L	1	E19L001	Dec-12-19	Dec-13-19

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Superfund, US EPA Region 5	Project:	SOUTHEAST ROCKFORD GROUND WATER CONTAMINATION	
77 West Jackson Boulevard	Project Number:	[none]	**Reported:**
Chicago IL, 60604	Project Manager:	Howard Pham	Jan-10-20 09:22

1,4-Dioxane by GC-MS

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A7-TB002-191211 (E191203-08) **Matrix: Water** **Sampled: Dec-11-19 08:35** **Received: Dec-12-19 11:30**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
Surrogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	0.820			*82.0%*		*70-130*	*E19L001*	*Dec-12-19*	*Dec-13-19*

A7-FB003-191212 (E191204-01) **Matrix: Water** **Sampled: Dec-12-19 12:05** **Received: Dec-13-19 11:29**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed
1,4-Dioxane	**U**			0.202	ug/L	1	E19L002	Dec-13-19	Dec-13-19
Surrogate	Result			%REC		%REC Limits	Batch	Prepared	Analyzed
1,4-Dioxane-d8	0.805			*79.9%*		*70-130*	"	"	"

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77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Jan-10-20 09:22

1,4-Dioxane by GC-MS - Quality Control
TechLaw - ESAT Contract

Batch E19L001 - EPA 522

Blank (E19L001-BLK1) — **Prepared & Analyzed: Dec-12-19**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	**U**			0.200	ug/L						
Surrogate: 1,4-Dioxane-d8	*0.913*				"	*1.00*		*91.3%*	*70-130*		

Blank (E19L001-BLK2) — **Prepared & Analyzed: Dec-13-19**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	**U**			0.200	ug/L						

LCS (E19L001-BS1) — **Prepared & Analyzed: Dec-12-19**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	**0.994**			0.200	ug/L	1.00		99.4%	70-130		
Surrogate: 1,4-Dioxane-d8	*0.979*				"	*1.00*		*97.9%*	*70-130*		

LCS Dup (E19L001-BSD1) — **Prepared & Analyzed: Dec-12-19**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	**0.843**			0.200	ug/L	1.00		84.3%	70-130	16.4	30
Surrogate: 1,4-Dioxane-d8	*0.812*				"	*1.00*		*81.2%*	*70-130*		

Duplicate (E19L001-DUP1) — **Source: E191201-07** — **Prepared & Analyzed: Dec-12-19**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	**1.49**			0.202	ug/L		1.60			7.12	30
Surrogate: 1,4-Dioxane-d8	*0.905*				"	*1.01*		*89.8%*	*70-130*		

MRL Check (E19L001-MRL1) — **Prepared & Analyzed: Dec-12-19**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	**0.171**	J		0.200	ug/L	0.200		85.4%	50-150		
Surrogate: 1,4-Dioxane-d8	*0.904*				"	*1.00*		*90.4%*	*70-130*		

Matrix Spike (E19L001-MS1) — **Source: E191201-06** — **Prepared & Analyzed: Dec-12-19**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

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77 West Jackson Boulevard	Project Number: [none]	**Reported:**
Chicago IL, 60604	Project Manager: Howard Pham	Jan-10-20 09:22

1,4-Dioxane by GC-MS - Quality Control
TechLaw - ESAT Contract

Batch E19L001 - EPA 522

Matrix Spike (E19L001-MS1) **Source: E191201-06** **Prepared & Analyzed: Dec-12-19**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	**17.0**	Q		0.200	ug/L	1.00	17.3	NR	70-130		
Surrogate: 1,4-Dioxane-d8	*1.01*				"	*1.00*		*101%*	*70-130*		

Matrix Spike (E19L001-MS2) **Source: E191203-06** **Prepared: Dec-12-19 Analyzed: Dec-13-19**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	**0.927**			0.202	ug/L	1.01	U	92.0%	70-130		
Surrogate: 1,4-Dioxane-d8	*0.820*				"	*1.01*		*81.4%*	*70-130*		

Matrix Spike Dup (E19L001-MSD2) **Source: E191203-06** **Prepared: Dec-12-19 Analyzed: Dec-13-19**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	**0.890**			0.200	ug/L	1.00	U	89.0%	70-130	3.23	30
Surrogate: 1,4-Dioxane-d8	*0.820*				"	*1.00*		*82.0%*	*70-130*		

Batch E19L002 - EPA 522

Blank (E19L002-BLK1) **Prepared & Analyzed: Dec-13-19**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	**U**			0.200	ug/L						
Surrogate: 1,4-Dioxane-d8	*0.820*				"	*1.00*		*82.0%*	*70-130*		

LCS (E19L002-BS1) **Prepared & Analyzed: Dec-13-19**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	**0.848**			0.200	ug/L	1.00		84.8%	70-130		
Surrogate: 1,4-Dioxane-d8	*0.814*				"	*1.00*		*81.4%*	*70-130*		

LCS Dup (E19L002-BSD1) **Prepared & Analyzed: Dec-13-19**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	**0.790**			0.200	ug/L	1.00		79.0%	70-130	7.03	30
Surrogate: 1,4-Dioxane-d8	*0.786*				"	*1.00*		*78.6%*	*70-130*		

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77 West Jackson Boulevard	Project Number:	[none]	**Reported:**
Chicago IL, 60604	Project Manager:	Howard Pham	Jan-10-20 09:22

1,4-Dioxane by GC-MS - Quality Control
TechLaw - ESAT Contract

Batch E19L002 - EPA 522

MRL Check (E19L002-MRL1) **Prepared & Analyzed: Dec-13-19**

Analyte	Result	Flags / Qualifiers	MDL	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
1,4-Dioxane	**0.204**			0.200	ug/L	0.200		102%	50-150		
Surrogate: 1,4-Dioxane-d8	*0.873*				"	*1.00*		*87.3%*	*70-130*		

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77 West Jackson Boulevard	Project Number:	[none]	**Reported:**
Chicago IL, 60604	Project Manager:	Howard Pham	Jan-10-20 09:22

Notes and Definitions

L	The identification of the analyte is acceptable; the reported value may be biased low. The actual value is expected to be greater than the reported value.
J	The identification of the analyte is acceptable; the reported value is an estimate.
U	Not Detected
NR	Not Reported
Q	QC limit Exceeded

Pen & Ink Changes

Deviation Type: ☐ one-time ☑ continuous **Pen&Ink Reference No:** Pen&Ink #_10181_

Due Date: 45 days (for continuous deviations)

A hard copy of the approved Pen&Ink form shall be included in all relevant data packages until the deviation is either no longer applicable or incorporated in the pertinent SOP. Include this pen&ink reference number in case narratives when applicable. Continuous pen&ink changes have a 45 TAT unless an extension has been approved by Deputy Director.

Attachments: ☐ Yes ☑ No

Document Title & Number (SOP or QMP)	MS035 Low-Level 1,4-Dioxane (Version 1)
Deviation Section	Multiple. Primary Sections: Section 6 (Equipment), Section 9.2 (Extraction of aqueous samples)
Deviation Reason (Technical Justification)	A redundancy plan is needed for the automated SPE unit. This plan will also serve as a contingency plan for when the SmartPrep #1 is not functional and in need of maintenance. This P&I adds instructions to do the SPE manually. The same QC limits will be used for the manual SPE procedure as with the automated SPE procedure. Four P&As and a method blank will be extracted using the same cartridges and analyzed ahead of client samples in WO 1704030 to support an ADOC. An ADOC Qualtrax work flow will be completed for manual SPE before client samples are reported. Manual vs. automated SPE is considered the same technology, but uses different equipment.
Deviation Description	See attached.
Qualtrax CC ID # Or Other Comments	

Vacuum Extraction Manifold: Equipped with flow/vacuum control. p/n: Supelco #57250-U

Sample Delivery System: Use of transfer tube system that transfers volume from the 250mL amber sample container continuously and directly into the SPE cartridge. p/n: Supelco #57275.

Disposable liners for SPE manifold: p/n: Supelco 57059

Graduated VOA Vials: 40mL w/ septa graduated every 5mL. p/n: ESS # 0040-0330-PC

Verifying flow rate:

1. Attach a rinse cartridge to the manifold using a disposable liner. Add approximately 10mL of methylene chloride to the cartridge by continuously topping off the cartridge. Turn on the vacu. -20 kpa. Pull the solvent through into a 40 mL graduated vial while timing it. All 10mL should pull through in about 1 minute indicating a flow of 10mL/min. If the flow is too fast or too slow, adjust the vacuum pressure accordingly and repeat this step. NOTE: ensure there is a catch reservoir in place within the SPE manifold. 250mL beakers are recommended.

Extraction Procedure:

1. With catch reservoirs in place, attach the cartridge to the SPE manifold using a disposable liner. Add approximately 3 mL methylene chloride to the cartridge, turn on the vacuum, and pull the solvent through, aspirating completely. Repeat once.

2. Fill the cartridge with approximately 3 mL methanol and elute with vacuum to just above the top frit - not allowing the cartridge to go dry at the end. From this point forward, do not allow the cartridge to go dry. Repeat twice.

3. Fill the cartridge with approximately 3 mL reagent water, turn on the vacuum, and pull the water through. Repeat 5 times, without allowing the cartridge to go dry in between washes or at the end.

4. Attach a transfer tube from each sample bottle to each cartridge and then turn on the vacuum.

5. Pass each sample through SPE cartridge at ~ -20 kPA to achieve a flow rate of approximately 10 milliliters per minute (ml/min).

6. After the entire sample has passed through each SPE cartridge, shut off the vacuum and vent. Empty the reservoir and then turn the vacuum back on and draw air through the cartridge for 10 minutes at approximately -50 kPA. Turn off and release the vacuum. Proceed immediately with cartridge elution.

Cartridge Elution:

1. Lift the extraction manifold top and insert a rack with 40mL graduated VOA vials into the extraction tank to collect the extracts as they are eluted from the cartridges.

2. Fill each cartridge with methylene chloride. Pull enough of the solvent into the cartridge at low vacuum to soak the sorbent.

3. Turn off the vacuum and vent the system by opening port or lifting the top of the manifold.

4. Allow the sorbent to soak in methylene chloride for approximately 1 minute.

5. Apply a low vacuum (approximately -5 kpa) and pull the methylene chloride through the cartridge in a dropwise fashion into the collection vial.

6. Continue to add methylene chloride to the cartridge as it is being drawn through until the volume of extract is about ~9.0 mL determined by the markings on the side of the collection tube. Shut off vacuum and vent.

Cleaning Sample Lines

1. Once the collection VOA vials are removed, place the catch reservoirs back into the manifold. Attach a rinse cartridge to the sample line(s) and use the same disposable liners previously in place. Fill a clean 1L amber bottle container with 500mL of DI water and place the end of each sample line used into the container. Turn on the vacuum pressure at -50 kPA and pull the DI water through the transfer line(s). Once all the DI water has been pulled through, repeat this procedure using 250mL of purge and trap grade methanol. Once complete. Turn off the vacuum and vent. Sample lines are considered clean at this point. It is recommended to rotate the method blank throughout batches to verify cleanliness of sample transfer lines.

Proceed to section 9.3 of MS035 SOP.

Rice, Christine

From: Rice, Christine
Sent: Friday, November 22, 2019 10:59 AM
To: Wroble, Amanda; Kerr, Michelle
Cc: Little, Paul-A; Pham, Howard; Snyder, Robert; Kobus, Matt
Subject: RE: Preservative Question regarding 1,4-Dioxane analysis

Hi Amanda,

Just a quick correction, the pH needs to be below 2, not 4. ASB SOP deviates from the original method on pH requirements (MS035 section 8). pH above 2 drops the hold time from 28 days to 7 days.

Thanks,
Christina

From: Wroble, Amanda <wroble.amanda@epa.gov>
Sent: Friday, November 22, 2019 10:05 AM
To: Kerr, Michelle <kerr.michelle@epa.gov>
Cc: Little, Paul-A <little.paul-a@epa.gov>; Pham, Howard <pham.howard@epa.gov>; Snyder, Robert <snyder.robert@epa.gov>; Rice, Christine <Rice.Christina@epa.gov>; Kobus, Matt <kobus.matt@epa.gov>
Subject: FW: Preservative Question regarding 1,4-Dioxane analysis

Hi Michelle,

The client for SE Rockford is looking to purchase pre-preserved bottles for the upcoming 1,4-dioxane samples. They were unable to find sodium bisulfate anhydrous but instead found sodium bisulfate monohydrate-preserved bottles and wanted to know if this is acceptable. Paul weighed in on its acceptability but wanted you to chime in as the MS group leader. What should I tell the client?

Thanks,
Amanda

From: Little, Paul-A <little.paul-a@epa.gov>
Sent: Friday, November 22, 2019 9:41 AM
To: Wroble, Amanda <wroble.amanda@epa.gov>
Cc: Pham, Howard <pham.howard@epa.gov>; Snyder, Robert <snyder.robert@epa.gov>; Rice, Christine <Rice.Christina@epa.gov>; Kobus, Matt <kobus.matt@epa.gov>
Subject: RE: Preservative Question regarding 1,4-Dioxane analysis

It probably will be acceptable as long as they are adding enough to get the pH below 4.
Michelle probably should make that call as the area lead.

From: Wroble, Amanda
Sent: Friday, November 22, 2019 9:28 AM
To: Little, Paul-A <little.paul-a@epa.gov>
Cc: Pham, Howard <pham.howard@epa.gov>; Snyder, Robert <snyder.robert@epa.gov>
Subject: FW: Preservative Question regarding 1,4-Dioxane analysis

Hi Paul,

See the inquiry below regarding preservative. Is this an acceptable alternative?

Thanks,
Amanda

From: Schamber, Andrew R. <schamberar@cdmsmith.com>
Sent: Friday, November 22, 2019 9:26 AM
To: Wroble, Amanda <wroble.amanda@epa.gov>
Cc: Kirchner, Karen <kirchner.karen@epa.gov>; brian.conrath@illinois.gov; Grabs, John <GrabsJC@cdmsmith.com>; Thompson, Robert A. <Thompson.Robert@epa.gov>
Subject: Preservative Question regarding 1,4-Dioxane analysis

Good Morning Amanda,

I have a quick question for you regarding the preservative used for groundwater analysis for 1,4-Dioxane (EPA Method 522). We are looking to get pre-preserved bottles from a supplier but they only offer Sodium Bisulfate monohydrate instead of Sodium Bisulfate anhydrous. Would it be acceptable to use the monohydrate instead of the anhydrous preservative as long as the lab is informed beforehand?

Please let me know when you get a chance or if you need further details.

Thanks.

Andrew R. Schamber
Environmental Engineer
CDM Smith
125 S. Wacker Drive, STE 700 Chicago, IL 60606
D: 312.780.7748 C: 317.450.2565
Connect with me on LinkedIn
cdmsmith.com

Rice, Christine

From: Kerr, Michelle
Sent: Friday, November 22, 2019 12:29 PM
To: Wroble, Amanda
Cc: Little, Paul-A; Pham, Howard; Snyder, Robert; Rice, Christine; Kobus, Matt
Subject: RE: Preservative Question regarding 1,4-Dioxane analysis

Hi, tell them it's fine and to be sure and send enough containers for a matrix spike & duplicate. Thanks! MK

From: Wroble, Amanda <wroble.amanda@epa.gov>
Sent: Friday, November 22, 2019 10:05 AM
To: Kerr, Michelle <kerr.michelle@epa.gov>
Cc: Little, Paul-A <little.paul-a@epa.gov>; Pham, Howard <pham.howard@epa.gov>; Snyder, Robert <snyder.robert@epa.gov>; Rice, Christine <Rice.Christina@epa.gov>; Kobus, Matt <kobus.matt@epa.gov>
Subject: FW: Preservative Question regarding 1,4-Dioxane analysis

Hi Michelle,

The client for SE Rockford is looking to purchase pre-preserved bottles for the upcoming 1,4-dioxane samples. They were unable to find sodium bisulfate anhydrous but instead found sodium bisulfate monohydrate-preserved bottles and wanted to know if this is acceptable. Paul weighed in on its acceptability but wanted you to chime in as the MS group leader. What should I tell the client?

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Amanda

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To: Wroble, Amanda <wroble.amanda@epa.gov>
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Subject: RE: Preservative Question regarding 1,4-Dioxane analysis

It probably will be acceptable as long as they are adding enough to get the pH below 4.
Michelle probably should make that call as the area lead.

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Subject: FW: Preservative Question regarding 1,4-Dioxane analysis

Hi Paul,

See the inquiry below regarding preservative. Is this an acceptable alternative?

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From: Schamber, Andrew R. <schamberar@cdmsmith.com>
Sent: Friday, November 22, 2019 9:26 AM
To: Wroble, Amanda <wroble.amanda@epa.gov>
Cc: Kirchner, Karen <kirchner.karen@epa.gov>; brian.conrath@illinois.gov; Grabs, John <GrabsJC@cdmsmith.com>; Thompson, Robert A. <Thompson.Robert@epa.gov>
Subject: Preservative Question regarding 1,4-Dioxane analysis

Good Morning Amanda,

I have a quick question for you regarding the preservative used for groundwater analysis for 1,4-Dioxane (EPA Method 522). We are looking to get pre-preserved bottles from a supplier but they only offer Sodium Bisulfate monohydrate instead of Sodium Bisulfate anhydrous. Would it be acceptable to use the monohydrate instead of the anhydrous preservative as long as the lab is informed beforehand?

Please let me know when you get a chance or if you need further details.

Thanks.

Andrew R. Schamber
Environmental Engineer
CDM Smith
125 S. Wacker Drive, STE 700 Chicago, IL 60606
D: 312.780.7748 C: 317.450.2565
Connect with me on LinkedIn
cdmsmith.com

Rice, Christine

From: Little, Paul-A
Sent: Wednesday, December 11, 2019 1:12 PM
To: Rice, Christine; Kobus, Matt
Subject: FW: SE Rockford Area 7, 1,4-Dioxane Status

From: Wroble, Amanda
Sent: Wednesday, December 11, 2019 1:11 PM
To: Little, Paul-A <little.paul-a@epa.gov>
Cc: Pham, Howard <pham.howard@epa.gov>; Snyder, Robert <snyder.robert@epa.gov>
Subject: FW: SE Rockford Area 7, 1,4-Dioxane Status

See information below sent by the sampling crew for SE Rockford regarding samples sent yesterday and today.

From: Grabs, John <GrabsJC@cdmsmith.com>
Sent: Wednesday, December 11, 2019 8:55 AM
To: Schamber, Andrew R. <schamberar@cdmsmith.com>; Wroble, Amanda <wroble.amanda@epa.gov>
Cc: Kirchner, Karen <kirchner.karen@epa.gov>; brian.conrath@illinois.gov
Subject: SE Rockford Area 7, 1,4-Dioxane Status

Hi Amanda,

Following up on our conversations, we ran short of sodium bisulfate preservative for the 1,4-dioxane samples.

- For the 12 samples sent yesterday (12/10) for delivery today (12/11), there are two bottles in each sample set, but only one is preserved to a pH <2. The second bottle that is not preserved has the pH (measured with litmus paper) marked on the label.
- Today there will be eight samples sent for delivery tomorrow, 12/12. These will be single bottles with pH <2.
- Therefore, there will be a total of 20 samples sent for analysis of 1,4-dioxane.

Karen, I will send you a separate email with some additional information.

Please let me know if you have any questions.

John C. Grabs, P.G., PMP | Senior Project Manager | CDM Smith Inc.
125 S. Wacker Drive, Suite 700, Chicago, IL 60606
Ph: 312-780-7737 | Cell: 312-343-1929 | Fax: 312-346-5228
grabsjc@cdmsmith.com

From: Schamber, Andrew R. <schamberar@cdmsmith.com>
Sent: Wednesday, December 11, 2019 8:10 AM
To: Wroble, Amanda <wroble.amanda@epa.gov>
Cc: Grabs, John <GrabsJC@cdmsmith.com>
Subject: Sample shipment

Good Morning Amanda,

Just wanted to give you a heads up that you will begin receiving samples this morning (1 cooler was shipped last night). We will also be shipping coolers today and tomorrow, so our last shipment of samples will be received on Friday morning.

Regards,

Andrew R. Schamber
Environmental Engineer
CDM Smith
125 S. Wacker Drive, STE 700 Chicago, IL 60606
D: 312.780.7748 C: 317.450.2565
Connect with me on LinkedIn
cdmsmith.com

Rice, Christine

From: Wroble, Amanda
Sent: Thursday, December 12, 2019 1:51 PM
To: Cooper, Leeza
Cc: Little, Paul-A; Pham, Howard; Rice, Christine; Kobus, Matt; Roberman, Alida
Subject: RE: Southeast Rockford Ground Water Site

Hi Leeza,

I'll contact the sampler and let you know what I find out.

Thanks,
Amanda

From: Cooper, Leeza <cooper.leeza@epa.gov>
Sent: Thursday, December 12, 2019 1:42 PM
To: Wroble, Amanda <wroble.amanda@epa.gov>
Cc: Wroble, Amanda <wroble.amanda@epa.gov>; Little, Paul-A <little.paul-a@epa.gov>; Pham, Howard <pham.howard@epa.gov>; Rice, Christine <Rice.Christina@epa.gov>; Kobus, Matt <kobus.matt@epa.gov>; Roberman, Alida <Roberman.Alida@epa.gov>
Subject: Southeast Rockford Ground Water Site

Good afternoon Dr. Wroble,

We received the Southeast Rockford Ground Water samples this morning with some discrepancies between the COC and samples. There are 10 1,4-dioxane samples on the COC, however, the site only sent us 8 samples. The samples missing are labeled A7-FB002-191211 and A7MW105A-191211 on the COC. Can you please contact the samplers and find out if they were meaning to only send the 8 samples or if they forgot to include the other 2 samples. Please let me know if there is anything else you would like me to do involving this issue.

Thank you,
Leeza Cooper
ESAT Chemist
3123532998

Rice, Christine

From: Wroble, Amanda
Sent: Thursday, December 12, 2019 3:30 PM
To: Cooper, Leeza
Cc: Little, Paul-A; Pham, Howard; Rice, Christine; Kobus, Matt; Roberman, Alida
Subject: RE: Southeast Rockford Ground Water Site

Hi Leeza,

Only 8 samples were shipped due to them running out of preservative. The sampler will send a revised COC tomorrow.

Thanks,
Amanda

From: Cooper, Leeza <cooper.leeza@epa.gov>
Sent: Thursday, December 12, 2019 1:42 PM
To: Wroble, Amanda <wroble.amanda@epa.gov>
Cc: Wroble, Amanda <wroble.amanda@epa.gov>; Little, Paul-A <little.paul-a@epa.gov>; Pham, Howard <pham.howard@epa.gov>; Rice, Christine <Rice.Christina@epa.gov>; Kobus, Matt <kobus.matt@epa.gov>; Roberman, Alida <Roberman.Alida@epa.gov>
Subject: Southeast Rockford Ground Water Site

Good afternoon Dr. Wroble,

We received the Southeast Rockford Ground Water samples this morning with some discrepancies between the COC and samples. There are 10 1,4-dioxane samples on the COC, however, the site only sent us 8 samples. The samples missing are labeled A7-FB002-191211 and A7MW105A-191211 on the COC. Can you please contact the samplers and find out if they were meaning to only send the 8 samples or if they forgot to include the other 2 samples. Please let me know if there is anything else you would like me to do involving this issue.

Thank you,
Leeza Cooper
ESAT Chemist
3123532998

Rice, Christine

From: Qualtrax <noreply@qualtraxcloud.com>
Sent: Thursday, December 12, 2019 3:52 PM
To: Wroble, Amanda; Snyder, Robert; Cooper, Leeza; Little, Paul-A; Kobus, Matt; Rice, Christine
Subject: Notification of Client Contact "SE Rockford GW Contamination - COC clarification" (ID 20605)

The following is a summary of Client Contact Workflow ID 20605. Adjust your project plan accordingly.

Contact Date	Client Name and Affiliation	Project and/or Work Order	Contact Description	Action Request
12/12/2019 12:00:00 AM	John Grabs (contractor for CDM Smith) & Karen Kirchner (SEMD)	SE Rockford GW Contamination, ESAT WO	The client was contacted for clarification regarding samples listed on the COC but not present in the cooler. John Grabs clarified that only 8 samples were shipped (instead of 10 according to the COC) due to running out of preservative and/or pre-preserved bottles. See attached.	

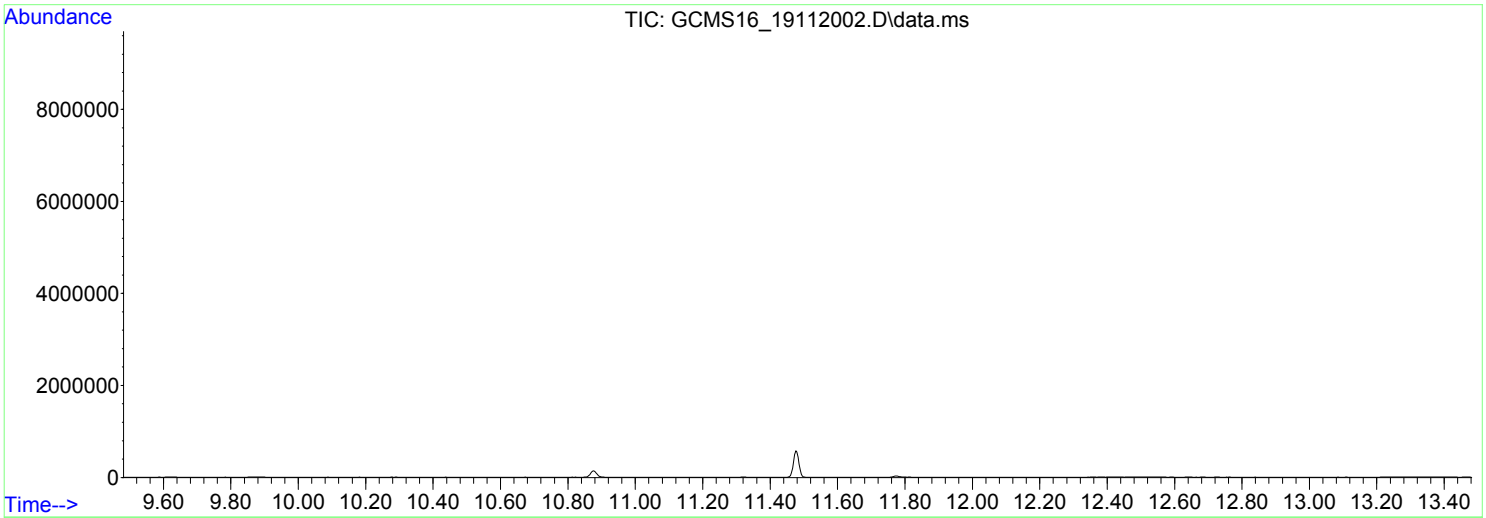
GCMS Tunes, Run Logs, Internal Standards, Bench Sheets, & Sequence Logs

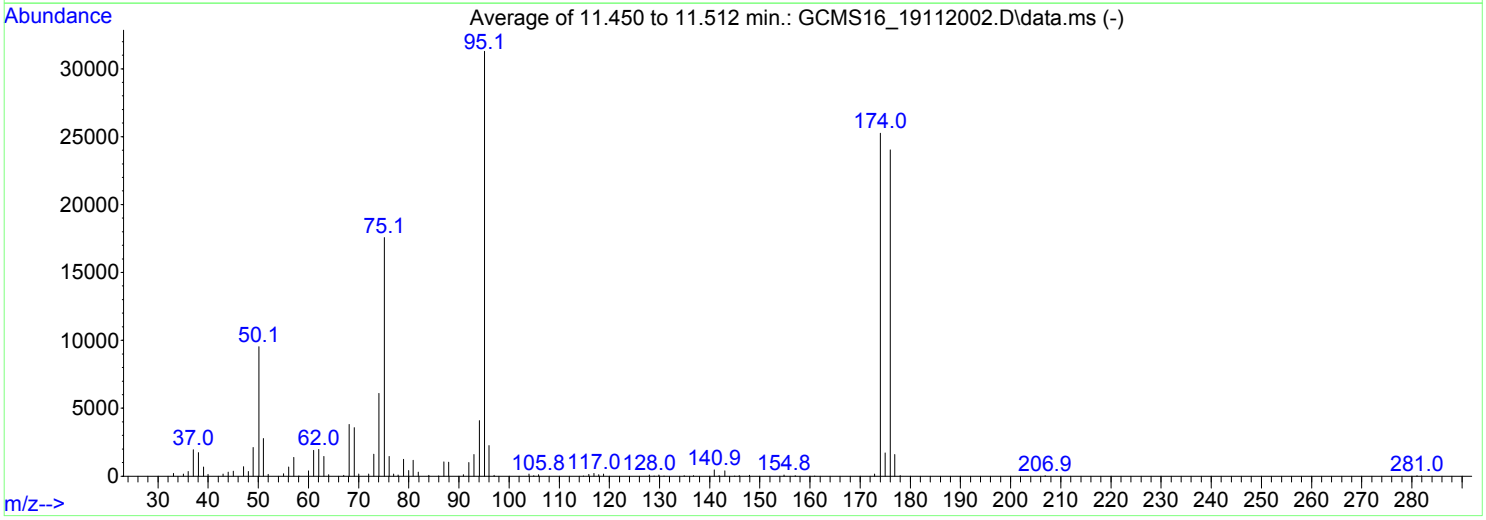
BFB

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112002.D
Acq On : 20 Nov 2019 10:20 am
Operator : CR
Sample : BFB Tune 1 ppm
Misc : E19I028
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e

Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
Title : Initial Calibration of 1,4-Dioxane 021317
Last Update : Wed Nov 20 15:53:00 2019





AutoFind: Averaged scan 1656 to 1675; Bkg corrected with scan 1655

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	30.5	9536	PASS
75	95	30	80	56.1	17560	PASS
95	95	100	100	100.0	31288	PASS
96	95	5	9	7.2	2246	PASS
173	174	0.00	2	0.6	160	PASS
174	95	50	100	80.7	25261	PASS
175	174	5	9	6.8	1712	PASS
176	174	95	101	95.1	24028	PASS
177	176	5	9	6.6	1583	PASS

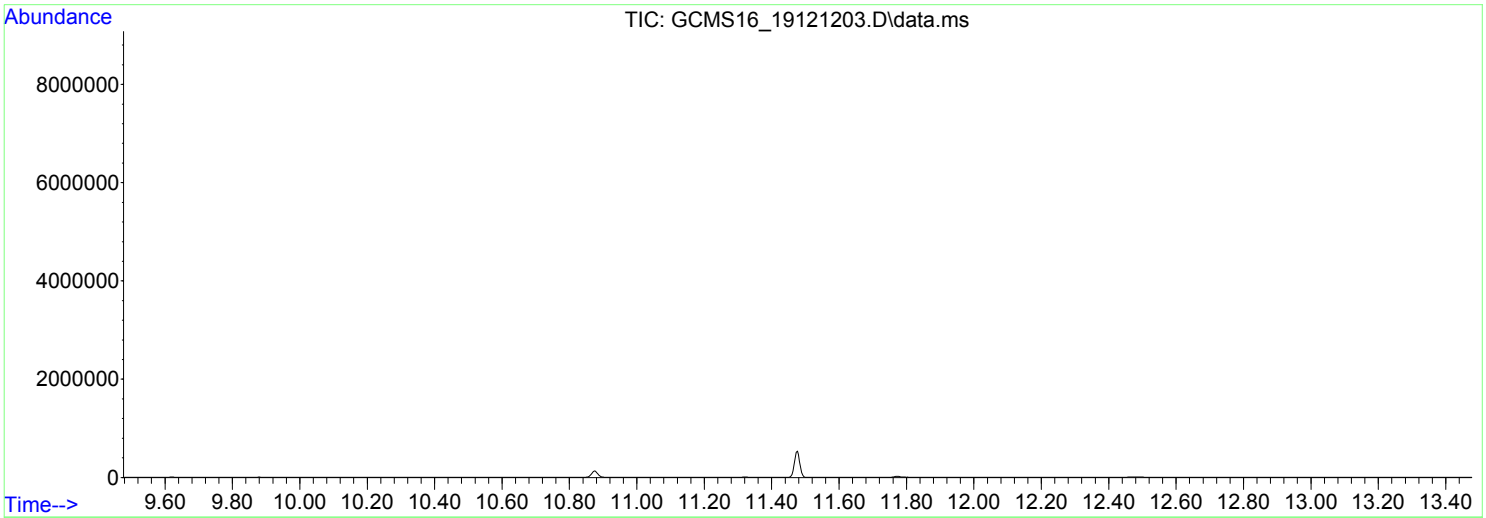
CR 1/2/20

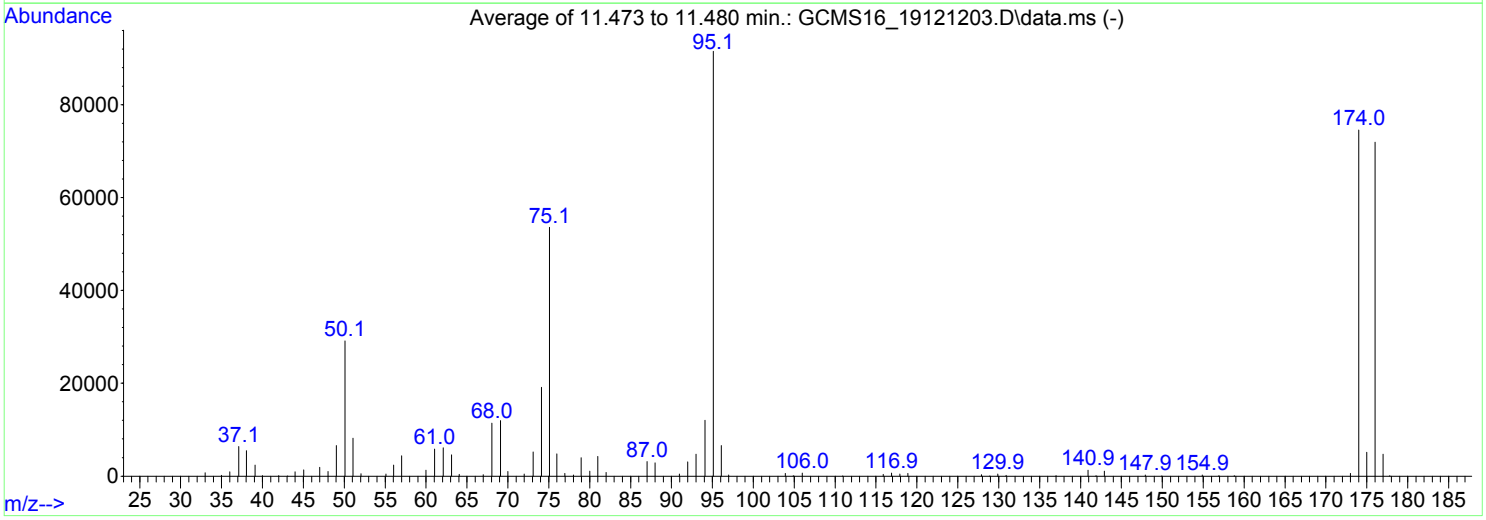
BFB

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121203.D
Acq On : 12 Dec 2019 02:14 pm
Operator : CR
Sample : BFB Tune 1 ppm
Misc : E19I028
ALS Vial : 3 Sample Multiplier: 1

Integration File: events.e

Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
Title : Initial Calibration of 1,4-Dioxane 021317
Last Update : Wed Nov 20 16:03:01 2019





AutoFind: Scans 1663, 1664, 1665; Background Corrected with Scan 1653
AUTOFIND via AUTOINTEGRATE

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	31.9	29157	PASS
75	95	30	80	58.5	53571	PASS
95	95	100	100	100.0	91517	PASS
96	95	5	9	7.2	6582	PASS
173	174	0.00	2	0.8	560	PASS
174	95	50	100	81.5	74541	PASS
175	174	5	9	6.9	5145	PASS
176	174	95	101	96.5	71957	PASS
177	176	5	9	6.6	4730	PASS

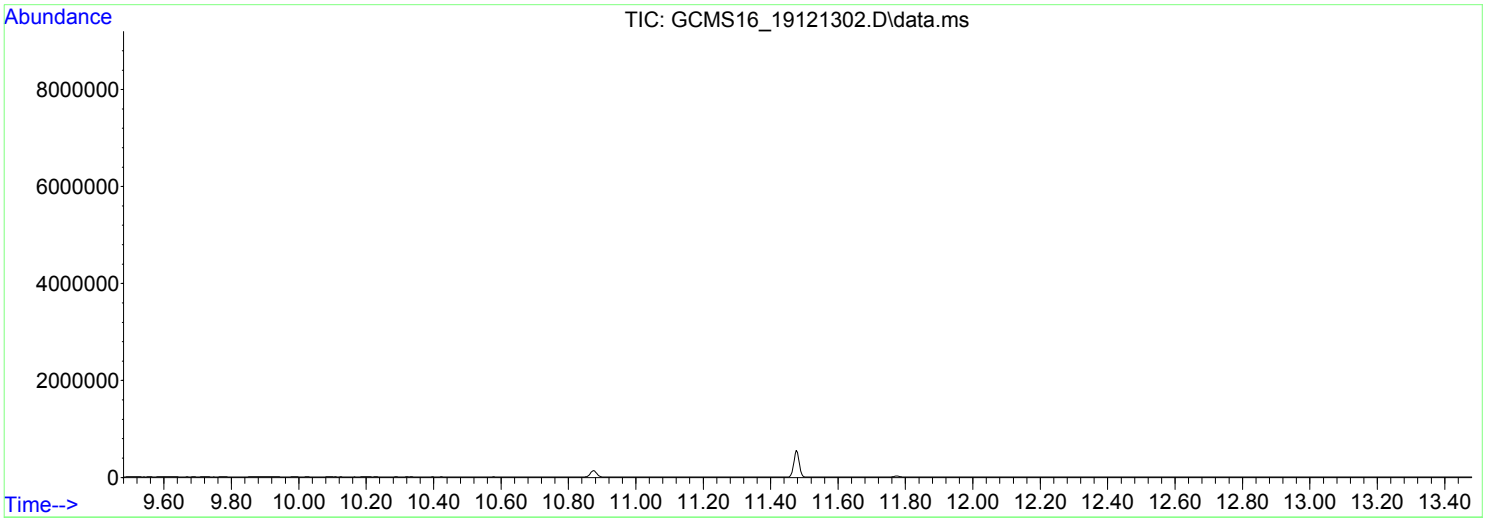
CR 1/2/20

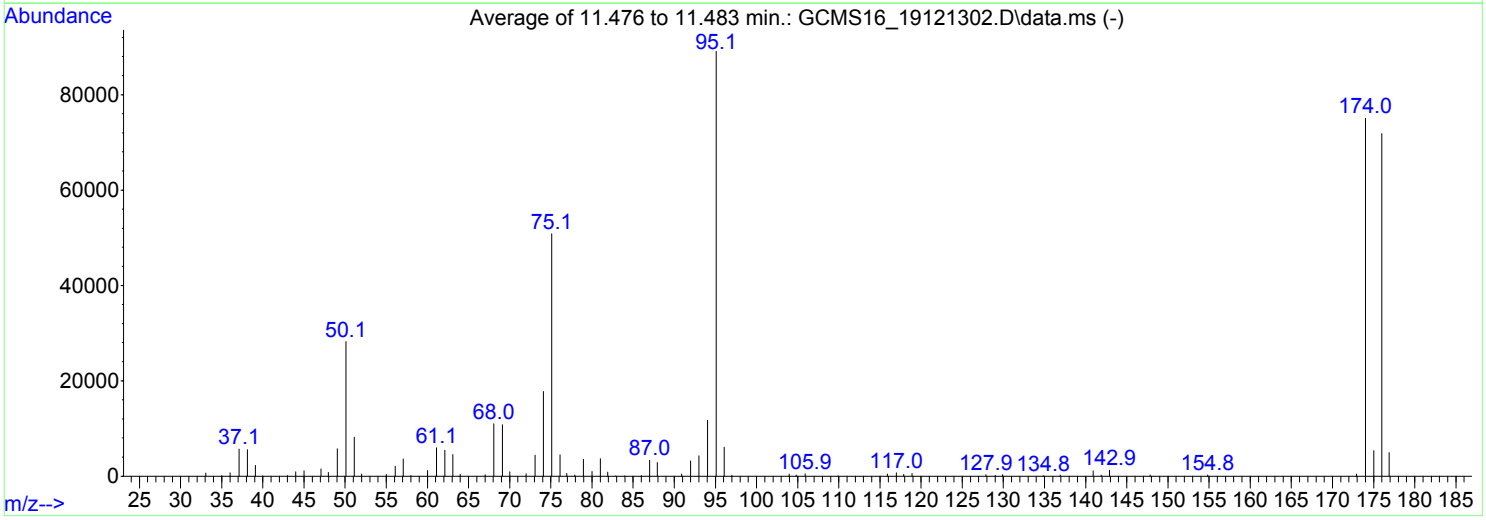
BFB

Data Path : D:\MassHunter\GCMS\1\data\191213_CR\
Data File : GCMS16_19121302.D
Acq On : 13 Dec 2019 11:28 am
Operator : CR
Sample : BFB Tune 1 ppm
Misc : E19I028
ALS Vial : 2 Sample Multiplier: 1

Integration File: events.e

Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
Title : Initial Calibration of 1,4-Dioxane 021317
Last Update : Wed Nov 20 16:03:01 2019





AutoFind: Scans 1664, 1665, 1666; Background Corrected with Scan 1653
AUTOFIND via AUTOINTEGRATE

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	31.7	28251	PASS
75	95	30	80	57.1	50848	PASS
95	95	100	100	100.0	89107	PASS
96	95	5	9	6.8	6060	PASS
173	174	0.00	2	0.6	453	PASS
174	95	50	100	84.2	75043	PASS
175	174	5	9	7.2	5368	PASS
176	174	95	101	95.7	71835	PASS
177	176	5	9	6.9	4929	PASS

CR 1/2/20

Date Acquired	Data File Name	Sample Name	Misc Info	Comment	Tetrahydrofuran-d8 (RT ±0.17)	Tetrahydrofuran-d8 (Area 50-200%)	
11/20/2019 9:59	GCMS16_19112001.D	DCM		ok	0.00	0	
11/20/2019 10:20	GCMS16_19112002.D	BFB Tune 1 ppm	E19I028	pass	0.00	0	
11/20/2019 10:41	GCMS16_19112003.D	SPK		vial screen	5.71	60540	
11/20/2019 11:03	GCMS16_19112004.D	BLK		vial screen	5.71	62150	
11/20/2019 11:24	GCMS16_19112005.D	BLK		vial screen	5.71	65362	
11/20/2019 11:46	GCMS16_19112006.D	BLK		vial screen	5.71	59814	
11/20/2019 12:08	GCMS16_19112007.D	BLK		vial screen	5.71	63607	
11/20/2019 12:30	GCMS16_19112008.D	ICAL L1 5 ppb	E19K047	ok	5.71	65987	
11/20/2019 12:52	GCMS16_19112009.D	ICAL L2 10 ppb	E19K048	ok	5.71	60568	
11/20/2019 13:14	GCMS16_19112010.D	ICAL L3 15 ppb	E19K049	ok	5.71	62093	
11/20/2019 13:36	GCMS16_19112011.D	ICAL L4 20 ppb	E19K050	ok	5.72	64389	
11/20/2019 13:58	GCMS16_19112012.D	ICAL L5 25 ppb	E19K051	ok	5.71	64023	
11/20/2019 14:20	GCMS16_19112013.D	ICAL L6 50 ppb	E19K052	ok	5.72	64873	
11/20/2019 14:42	GCMS16_19112014.D	ICAL L7 100 ppb	E19K053	ok	5.72	63185	
11/20/2019 15:04	GCMS16_19112015.D	ICAL L8 250 ppb	E19K054	ok	5.72	67005	
11/20/2019 15:26	GCMS16_19112016.D	ICAL L9 500 ppb	E19K055	ok	5.71	67690	
11/20/2019 15:47	GCMS16_19112017.D	ICAL L10 1000 ppb	E19K056	pass	5.72	66336	**vs ICAL L5**
11/20/2019 16:09	GCMS16_19112018.D	ICV 25 ppb	E19K057	pass	5.71	61938	96.7%

Date Acquired	Data File Name	Sample Name	Misc Info	Comment	Tetrahydrofuran-d8 (RT ±0.17)	Tetrahydrofuran-d8 (Area 50-200%)	
12/12/2019 13:33	GCMS16_19121201.D	DCM		ok	0.00	0	**vs ICAL L5**
12/12/2019 13:53	GCMS16_19121202.D	IB		ok	5.71	57052	89.1%
12/12/2019 14:14	GCMS16_19121203.D	BFB Tune 1 ppm	E19I028	pass	0.00	0	
12/12/2019 14:35	GCMS16_19121204.D	CCV 25 ppb	E19K051	pass	5.72	62031	96.9%
12/12/2019 14:56	GCMS16_19121205.D	E19L001-BLK1		ok	5.71	72648	113.5%
12/12/2019 15:17	GCMS16_19121206.D	E19L001-MRL1		ok	5.70	72103	112.6%
12/12/2019 15:38	GCMS16_19121207.D	E19L001-BS1		ok	5.70	59051	92.2%
12/12/2019 15:59	GCMS16_19121208.D	E19L001-BSD1		ok	5.71	82416	128.7%
12/12/2019 16:20	GCMS16_19121209.D	E191201-01		ok	5.71	76085	118.8%
12/12/2019 16:41	GCMS16_19121210.D	E191201-02		ok	5.70	66326	103.6%
12/12/2019 17:02	GCMS16_19121211.D	E191201-03		ok	5.71	77138	120.5%
12/12/2019 17:22	GCMS16_19121212.D	E191201-04		ok	5.70	72538	113.3%
12/12/2019 17:43	GCMS16_19121213.D	E191201-05		ok	5.71	74724	116.7%
12/12/2019 18:04	GCMS16_19121214.D	E191201-06		ok	5.71	87177	136.2%
12/12/2019 18:25	GCMS16_19121215.D	E19L001-MS1	E191201-06	negative recovery	5.71	71654	111.9%
12/12/2019 18:46	GCMS16_19121216.D	IB		ok	5.72	62027	96.9%
12/12/2019 19:07	GCMS16_19121217.D	E191201-07		ok	5.71	79195	123.7%
12/12/2019 19:28	GCMS16_19121218.D	E19L001-DUP1	E191201-07	ok	5.71	80747	126.1%
12/12/2019 19:49	GCMS16_19121219.D	E191201-08		ok	5.71	75417	117.8%
12/12/2019 20:10	GCMS16_19121220.D	E191201-09		ok	5.71	76360	119.3%
12/12/2019 20:31	GCMS16_19121221.D	E191201-10		ok	5.71	78074	121.9%
12/12/2019 20:52	GCMS16_19121222.D	IB		ok	5.71	62823	98.1%
12/12/2019 21:13	GCMS16_19121223.D	CCV 25 ppb	E19K051	pass	5.71	67149	104.9%
12/12/2019 21:34	GCMS16_19121224.D	E191201-11		ok	5.71	75574	118.0%
12/12/2019 21:55	GCMS16_19121225.D	E191201-12		ok	5.71	78379	122.4%
12/12/2019 22:16	GCMS16_19121226.D	E191203-01		ok	5.71	82472	128.8%
12/12/2019 22:37	GCMS16_19121227.D	E191203-02		ok	5.71	76228	119.1%
12/12/2019 22:59	GCMS16_19121228.D	E191203-03		ok	5.71	68708	107.3%
12/12/2019 23:19	GCMS16_19121229.D	E191203-04		ok	5.71	77118	120.5%
12/12/2019 23:40	GCMS16_19121230.D	E191203-05		over cal	5.71	73282	114.5%
12/13/2019 0:02	GCMS16_19121231.D	E191203-06		ok	5.71	79059	123.5%
12/13/2019 0:23	GCMS16_19121232.D	E19L001-MS2	E191203-06	ok	5.70	70409	110.0%
12/13/2019 0:44	GCMS16_19121233.D	IB		ok	5.71	61250	95.7%
12/13/2019 1:05	GCMS16_19121234.D	E19L001-MSD2	E191203-06	ok	5.71	76618	119.7%
12/13/2019 1:26	GCMS16_19121235.D	IB		ok	5.71	61086	95.4%
12/13/2019 1:47	GCMS16_19121236.D	E191203-07		ok	5.71	71255	111.3%
12/13/2019 2:08	GCMS16_19121237.D	E191203-08		ok	5.71	76468	119.4%
12/13/2019 2:29	GCMS16_19121238.D	IB		ok	5.71	60498	94.5%
12/13/2019 2:50	GCMS16_19121239.D	CCV 25 ppb	E19K051	pass	5.71	67486	105.4%

Date Acquired	Data File Name	Sample Name	Misc Info	Comment	Tetrahydrofuran-d8 (RT ±0.17)	Tetrahydrofuran-d8 (Area 50-200%)	vs ICAL L5
12/13/2019 11:07	GCMS16_19121301.D	IB		ok	5.71	62730	98.0%
12/13/2019 11:28	GCMS16_19121302.D	BFB Tune 1 ppm	E19I028	pass	0.00	0	
12/13/2019 11:49	GCMS16_19121303.D	CCV 25 ppb	E19K051	pass	5.71	63991	100.0%
12/13/2019 12:11	GCMS16_19121304.D	E19L001-BLK2	Dilution Blank	ok	5.72	71717	112.0%
12/13/2019 12:32	GCMS16_19121305.D	E191203-05RE1	10x	ok	5.71	73582	114.9%
12/13/2019 12:53	GCMS16_19121306.D	CCV 25 ppb	E19K051	pass	5.71	62318	97.3%
12/13/2019 14:08	GCMS16_19121307.D	E19L002-BLK1		ok	5.70	76551	119.6%
12/13/2019 14:29	GCMS16_19121308.D	E19L002-MRL1		ok	5.71	70541	110.2%
12/13/2019 14:50	GCMS16_19121309.D	E19L002-BS1		ok	5.71	78302	122.3%
12/13/2019 15:11	GCMS16_19121310.D	E19L002-BSD1		ok	5.71	79693	124.5%
12/13/2019 15:32	GCMS16_19121311.D	E191204-01		ok	5.71	79736	124.5%
12/13/2019 15:53	GCMS16_19121312.D	CCV 25 ppb	E19K051	pass	5.71	60885	95.1%

CR 1/6/20

TechLaw Inc ESAT Region 5
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Date Printed: 12/13/2019

Volatiles in WATER Preparation Bench Sheet

Analyst(s): CR

Field Samples Acid Preserved?: Yes (X) No ( )

Batch Number: E19L001

Analyses Included On This Benchsheet

1,4-Dioxane by SPE Low Level

Surrogate 1: E19I030 Amount: 12.5uL

Sample Number	Source ID for Duplicate or MS/MSD	LCS/MS Spike #1 LIMS ID	LCS/MS Spike #1 Amount (uL)	LCS/MS Spike #2 LIMS ID	LCS/MS Spike #2 Amount (uL)	Sample Volume (mL)	pH	Dil 1	Dil 2	Dil 3	Comments
E191201-01	NA	NA	NA	NA	NA	244	1	NA	NA	NA	NA
E191201-02						248					
E191201-03						248					
E191201-04						242					
E191201-05						240					
E191201-06						250					
E191201-07						246					
E191201-08						248					
E191201-09						248					
E191201-10						248					
E191201-11						248					
E191201-12						250					
E191203-01						244					
E191203-02						232					
E191203-03						244					
E191203-04						228					

Batch Comments: Syringes I-1087 & I-1093

NOTE: Information not provided on this bench sheet is documented with the original observations (e.g. laboratory notebook).

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Date Printed: 12/13/2019

Volatiles in WATER Preparation Bench Sheet

Analyst(s): CR

Field Samples Acid Preserved?: Yes (X) No ( )

Batch Number: E19L001

Analyses Included On This Benchsheet

1,4-Dioxane by SPE Low Level

Surrogate 1: E19I030 Amount: 12.5uL

Sample Number	Source ID for Duplicate or MS/MSD	LCS/MS Spike #1 LIMS ID	LCS/MS Spike #1 Amount (uL)	LCS/MS Spike #2 LIMS ID	LCS/MS Spike #2 Amount (uL)	Sample Volume (mL)	pH	Dil 1	Dil 2	Dil 3	Comments
E191203-05	NA	NA	NA	NA	NA	250	1	NA	NA	NA	NA
E191203-05RE1						250		10			10x Dilution
E191203-06						248		NA			NA
E191203-07						248					
E191203-08						250					
E19L001-BLK1	-					250					
E19L001-BLK2	-					250					Dilution Blank
E19L001-BS1	-	E19K046	250			250					NA
E19L001-BSD1	-	E19K046	250			250					
E19L001-DUP1	E191201-07	NA	NA			248					
E19L001-MRL1	-	E19K046	50			250					
E19L001-MS1	E191201-06	E19K046	250			250					
E19L001-MS2	E191203-06	E19K046	250			248					
E19L001-MSD2	E191203-06	E19K046	250			250					

Batch Comments: Syringes I-1087 & I-1093

NOTE: Information not provided on this bench sheet is documented with the original observations (e.g. laboratory notebook).

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Date Printed: 12/13/2019

Volatiles in WATER Preparation Bench Sheet

Analyst(s): CR

Field Samples Acid Preserved?: Yes (X) No ( )

Batch Number: E19L001

Analyses Included On This Benchsheet

1,4-Dioxane by SPE Low Level

Surrogate 1: E19I030 Amount: 12.5uL

Sample Number	Source ID for Duplicate or MS/MSD	LCS/MS Spike #1 LIMS ID	LCS/MS Spike #1 Amount (uL)	LCS/MS Spike #2 LIMS ID	LCS/MS Spike #2 Amount (uL)	Sample Volume (mL)	pH	Dil 1	Dil 2	Dil 3	Comments

pH paper LIMS ID: 18D1901

Other reagents LIMS ID(s): NaHSO4 17B2210
DCM 18H3004 exp 2/29/20
P&T MeOH 19J0102 exp 8/22/21
Na2SO4 19J2202 exp 11/29/22

Batch Comments: Syringes I-1087 & I-1093

NOTE: Information not provided on this bench sheet is documented with the original observations (e.g. laboratory notebook).

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Date Printed: 12/13/2019

Volatiles in WATER Preparation Bench Sheet

Analyst(s): CR

Field Samples Acid Preserved?: Yes (X) No ( )

Batch Number: E19L002

Analyses Included On This Benchsheet

1,4-Dioxane by SPE Low Level

Surrogate 1: E19I030 Amount: 12.5uL

Sample Number	Source ID for Duplicate or MS/MSD	LCS/MS Spike #1 LIMS ID	LCS/MS Spike #1 Amount (uL)	LCS/MS Spike #2 LIMS ID	LCS/MS Spike #2 Amount (uL)	Sample Volume (mL)	pH	Dil 1	Dil 2	Dil 3	Comments
E191204-01	NA	NA	NA	NA	NA	248	1	NA	NA	NA	NA
E19L002-BLK1	-	↓	↓	↓	↓	250	↓	↓	↓	↓	↓
E19L002-BS1	-	E19K046	250	↓	↓	250	↓	↓	↓	↓	↓
E19L002-BSD1	-	E19K046	250	↓	↓	250	↓	↓	↓	↓	↓
E19L002-MRL1	-	E19K046	50	↓	↓	250	↓	↓	↓	↓	↓

pH paper LIMS ID: 18D1901

Other reagents LIMS ID(s): NaHSO4 17B2210
DCM 18H3004 exp 2/29/20
P&T MeOH 19J0102 exp 8/22/21
Na2SO4 19J2202 exp 11/29/22

Batch Comments: Syringes I-1087 & I-1093

NOTE: Information not provided on this bench sheet is documented with the original observations (e.g. laboratory notebook).

```
  Starting sequence Wed Nov 20 09:56:20 2019

 Instrument Name: GCMS 16
  Sequence File: D:\MassHunter\GCMS\1\sequence\191120_CR.sequence.xml
        Comment:
       Operator: CR
      Data Path: D:\MassHunter\GCMS\1\data\191120_CR\

  Line  Type          Vials    DataFile               Sample Name
  ---------------------------------------------------------------------
  Acquisition Method Path: D:\MassHunter\GCMS\1\methods\
  Acquisition Method File: 14Dioxane_191120_CR.M
    1) Sample           1      GCMS16_19112001        DCM

  Acquisition Method Path: D:\MassHunter\GCMS\1\methods\
  Acquisition Method File: dioxane_scan_191120_CR.M
    2) Sample           2      GCMS16_19112002        BFB Tune 1 ppm
       Comment: E19I028

  Acquisition Method Path: D:\MassHunter\GCMS\1\methods\
  Acquisition Method File: 14Dioxane_191120_CR.M
    3) Sample          14      GCMS16_19112003        SPK
    4) Sample          15      GCMS16_19112004        BLK
    5) Sample          16      GCMS16_19112005        BLK
    6) Sample          17      GCMS16_19112006        BLK
    7) Sample          18      GCMS16_19112007        BLK
    8) Sample           3      GCMS16_19112008        ICAL L1 5 ppb
       Comment: E19K047
    9) Sample           4      GCMS16_19112009        ICAL L2 10 ppb
       Comment: E19K048
   10) Sample           5      GCMS16_19112010        ICAL L3 15 ppb
       Comment: E19K049
   11) Sample           6      GCMS16_19112011        ICAL L4 20 ppb
       Comment: E19K050
   12) Sample           7      GCMS16_19112012        ICAL L5 25 ppb
       Comment: E19K051
   13) Sample           8      GCMS16_19112013        ICAL L6 50 ppb
       Comment: E19K052
   14) Sample           9      GCMS16_19112014        ICAL L7 100 ppb
       Comment: E19K053
   15) Sample          10      GCMS16_19112015        ICAL L8 250 ppb
       Comment: E19K054
   16) Sample          11      GCMS16_19112016        ICAL L9 500 ppb
       Comment: E19K055
   17) Sample          12      GCMS16_19112017        ICAL L10 1000 ppb
       Comment: E19K056
   18) Sample          13      GCMS16_19112018        ICV 25 ppb
       Comment: E19K057

  Sequence completed Wed Nov 20 16:24:01 2019

    D:\MassHunter\GCMS\1\data\191120_CR\2019 Nov 20 0956 Sequence Log .LOG
```

Starting sequence Thu Dec 12 13:30:31 2019

Instrument Name: GCMS 16
Sequence File: D:\MassHunter\GCMS\1\sequence\191212_CR.sequence.xml
Comment:
Operator: CR
Data Path: D:\MassHunter\GCMS\1\data\191212_CR\

Line	Type	Vials	DataFile	Sample Name
Acquisition Method Path: D:\MassHunter\GCMS\1\methods\				
Acquisition Method File: 14Dioxane_191120_CR.M				
1)	Sample	1	GCMS16_19121201	DCM
2)	Sample	2	GCMS16_19121202	IB
Acquisition Method Path: D:\MassHunter\GCMS\1\methods\				
Acquisition Method File: dioxane_scan_191120_CR.M				
3)	Sample	3	GCMS16_19121203	BFB Tune 1 ppm
	Comment: E19I028			
Acquisition Method Path: D:\MassHunter\GCMS\1\methods\				
Acquisition Method File: 14Dioxane_191120_CR.M				
4)	Sample	4	GCMS16_19121204	CCV 25 ppb
	Comment: E19K051			
5)	Sample	5	GCMS16_19121205	E19L001-BLK1
6)	Sample	6	GCMS16_19121206	E19L001-MRL1
7)	Sample	7	GCMS16_19121207	E19L001-BS1
8)	Sample	8	GCMS16_19121208	E19L001-BSD1
9)	Sample	9	GCMS16_19121209	E191201-01
10)	Sample	10	GCMS16_19121210	E191201-02
11)	Sample	11	GCMS16_19121211	E191201-03
12)	Sample	12	GCMS16_19121212	E191201-04
13)	Sample	13	GCMS16_19121213	E191201-05
14)	Sample	14	GCMS16_19121214	E191201-06
15)	Sample	15	GCMS16_19121215	E19L001-MS1
16)	Sample	2	GCMS16_19121216	IB
17)	Sample	16	GCMS16_19121217	E191201-07
	Comment: E191201-06			
18)	Sample	17	GCMS16_19121218	E19L001-DUP1
	Comment: E191201-07			
19)	Sample	18	GCMS16_19121219	E191201-08
20)	Sample	19	GCMS16_19121220	E191201-09
21)	Sample	20	GCMS16_19121221	E191201-10
22)	Sample	2	GCMS16_19121222	IB
23)	Sample	4	GCMS16_19121223	CCV 25 ppb
	Comment: E19K051			
24)	Sample	21	GCMS16_19121224	E191201-11
25)	Sample	22	GCMS16_19121225	E191201-12
26)	Sample	23	GCMS16_19121226	E191203-01
27)	Sample	24	GCMS16_19121227	E191203-02
28)	Sample	25	GCMS16_19121228	E191203-03
29)	Sample	26	GCMS16_19121229	E191203-04
30)	Sample	27	GCMS16_19121230	E191203-05
31)	Sample	28	GCMS16_19121231	E191203-06
32)	Sample	29	GCMS16_19121232	E19L001-MS2
33)	Sample	2	GCMS16_19121233	IB
34)	Sample	30	GCMS16_19121234	E19L001-MSD2
35)	Sample	2	GCMS16_19121235	IB

```
 36) Sample          31      GCMS16_19121236        E191203-07
 37) Sample          32      GCMS16_19121237        E191203-08
 38) Sample           2      GCMS16_19121238        IB
 39) Sample         100      GCMS16_19121239        CCV 25 ppb
     Comment: E19K051

Sequence completed Fri Dec 13 03:05:31 2019

  D:\MassHunter\GCMS\1\data\191212_CR\2019 Dec 12 1330 Sequence Log .LOG
```

```
                      2019 Dec 13 1105 Sequence Log .LOG
  Starting sequence Fri Dec 13 11:05:42 2019

Instrument Name: GCMS 16
  Sequence File: D:\MassHunter\GCMS\1\sequence\191213_CR.sequence.xml
        Comment:
       Operator: CR
      Data Path: D:\MassHunter\GCMS\1\data\191213_CR\

  Line  Type          Vials    DataFile               Sample Name
  ---------------------------------------------------------------------
  Acquisition Method Path: D:\MassHunter\GCMS\1\methods\
  Acquisition Method File: 14Dioxane_191120_CR.M
    1) Sample           1      GCMS16_19121301        IB

  Acquisition Method Path: D:\MassHunter\GCMS\1\methods\
  Acquisition Method File: dioxane_scan_191120_CR.M
    2) Sample           2      GCMS16_19121302        BFB Tune 1 ppm
       Comment: E19I028

  Acquisition Method Path: D:\MassHunter\GCMS\1\methods\
  Acquisition Method File: 14Dioxane_191120_CR.M
    3) Sample           3      GCMS16_19121303        CCV 25 ppb
       Comment: E19K051
    4) Sample           4      GCMS16_19121304        E19L001-BLK2
       Comment: Dilution Blank
    5) Sample           5      GCMS16_19121305        E191203-05RE1
       Comment: 10x
    6) Sample           3      GCMS16_19121306        CCV 25 ppb
       Comment: E19K051

  Sequence completed Fri Dec 13 13:08:36 2019

    D:\MassHunter\GCMS\1\data\191213_CR\2019 Dec 13 1105 Sequence Log .LOG
```

```
  Starting sequence Fri Dec 13 14:05:29 2019

 Instrument Name: GCMS 16
  Sequence File: D:\MassHunter\GCMS\1\sequence\191213_CR.sequence.xml
        Comment:
       Operator: CR
      Data Path: D:\MassHunter\GCMS\1\data\191213_CR\

  Line  Type          Vials    DataFile               Sample Name
  ---------------------------------------------------------------------
  Acquisition Method Path: D:\MassHunter\GCMS\1\methods\
  Acquisition Method File: 14Dioxane_191120_CR.M
    7) Sample           6      GCMS16_19121307        E19L002-BLK1
    8) Sample           7      GCMS16_19121308        E19L002-MRL1
    9) Sample           8      GCMS16_19121309        E19L002-BS1
   10) Sample           9      GCMS16_19121310        E19L002-BSD1
   11) Sample          10      GCMS16_19121311        E191204-01
   12) Sample           3      GCMS16_19121312        CCV 25 ppb
       Comment: E19K051

  Sequence completed Fri Dec 13 16:08:05 2019

    D:\MassHunter\GCMS\1\data\191213_CR\2019 Dec 13 1405 Sequence Log .LOG
```

Calibration Data

Response Factor Report GCMS 16

Method Path : D:\MassHunter\GCMS\1\methods data processing\
Method File : 14Dioxane_SIM_Process_191120_CR.M
Title : Initial Calibration of 1,4-Dioxane 021317
Last Update : Wed Nov 20 16:03:01 2019
Response Via : Initial Calibration

Calibration Files
5 =GCMS16_19112008.D 10 =GCMS16_19112009.D 15 =GCMS16_19112010.D 20 =GCMS16_19112011.D 25 =GCMS16_19112012.D 50 =GCMS1
6_19112013.D
100 =GCMS16_19112014.D 250 =GCMS16_19112015.D 500 =GCMS16_19112016.D 1000=GCMS16_19112017.D

Compound	5	10	15	20	25	50	100	250	500	1000	Avg	%RSD
1) I TETRAHYDROFURAN-D8	----------ISTD----------											
2) S 1,4-Dioxane-d8	0.676	0.769	0.745	0.712	0.697	0.732	0.751	0.715	0.709	0.741	0.725	3.86
3) M 1,4-Dioxane	0.720	0.812	0.806	0.812	0.754	0.788	0.798	0.747	0.740	0.775	0.775	4.29

(#) = Out of Range

CR 1/2/20

Calibration Report GCMS 16

Method Path : D:\MassHunter\GCMS\1\methods data processing\
Method File : 14Dioxane_SIM_Process_191120_CR.M
Title : Initial Calibration of 1,4-Dioxane 021317
Last Update : Wed Nov 20 16:03:01 2019
Response Via : Initial Calibration

Calibration Files
5 =GCMS16_19112008 10 =GCMS16_19112009 15 =GCMS16_19112010 20 =GCMS16_19112011 25 =GCMS16_19112012
50 =GCMS16_19112013 100 =GCMS16_19112014 250 =GCMS16_19112015 500 =GCMS16_19112016 1000=GCMS16_19112017

	Compound	Fit	Constant	Linear	Quad	RSD/Cf
1) I	TETRAHYDROFURAN-D8	----------ISTD----------				
2) S	1,4-Dioxane-d8	Avg	-----	0.7247	-----	0.0386
3) M	1,4-Dioxane	Avg	-----	0.7751	-----	0.0429

CR 1/2/20

14Dioxane_S..._191120_CR.M Thu Jan 02 12:43:45 2020

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112008.D
Acq On : 20 Nov 2019 12:30 pm
Operator : CR
Sample : ICAL L1 5 ppb
Misc : E19K047
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 20 15:48:52 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:48:42 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.714	46	65987	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.828	96	4463m	4.64 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.903	88	4748m	4.64 ug/L	

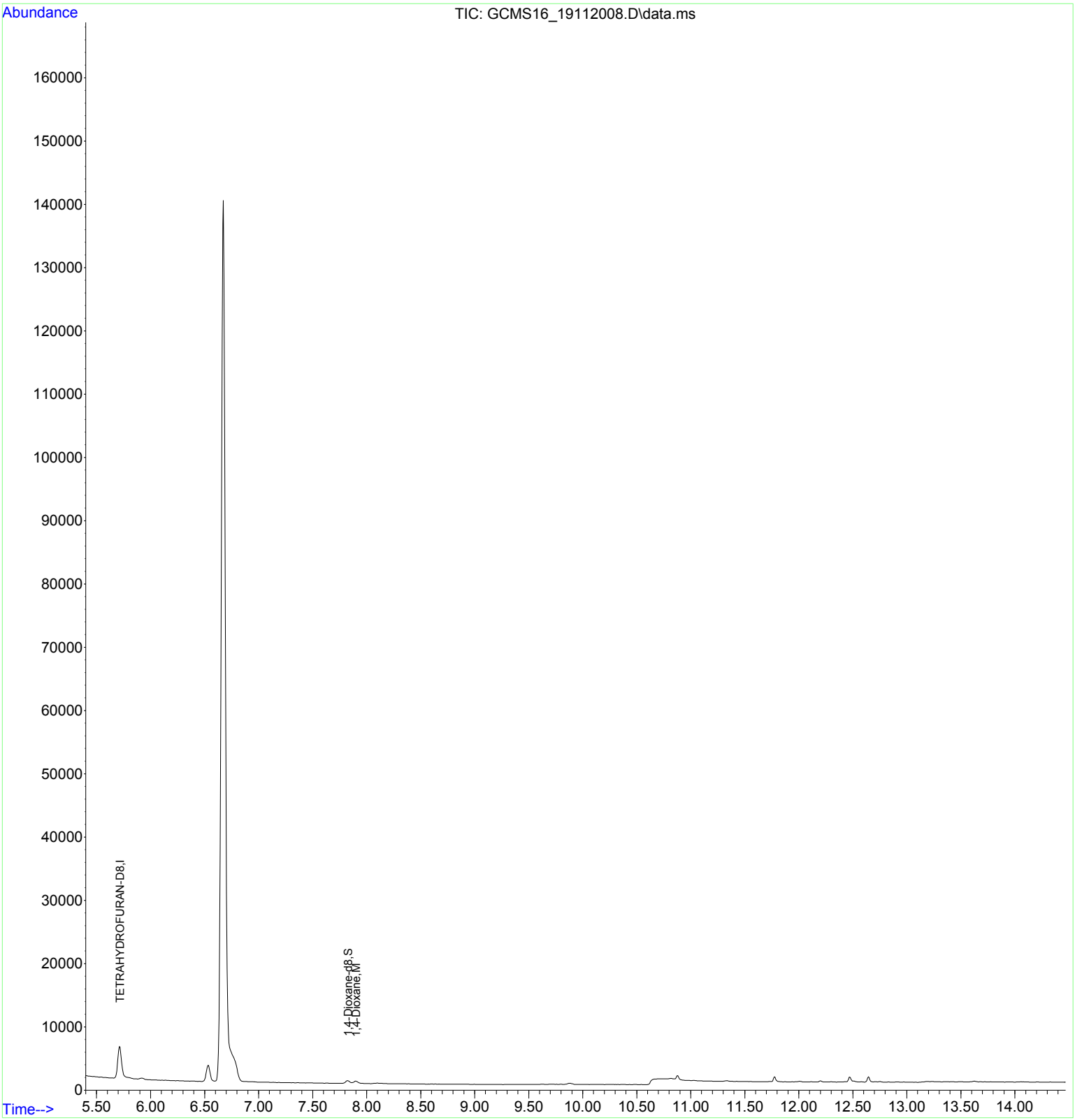
CR 1/2/20

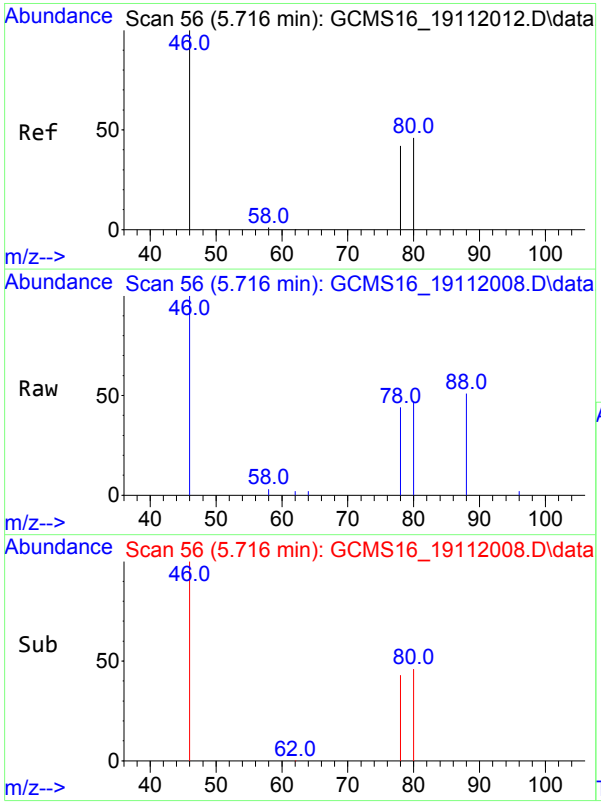
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112008.D
Acq On : 20 Nov 2019 12:30 pm
Operator : CR
Sample : ICAL L1 5 ppb
Misc : E19K047
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 20 15:48:52 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:48:42 2019
Response via : Initial Calibration

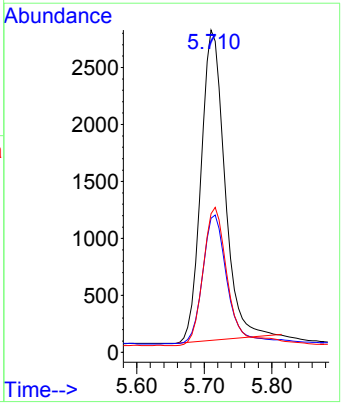


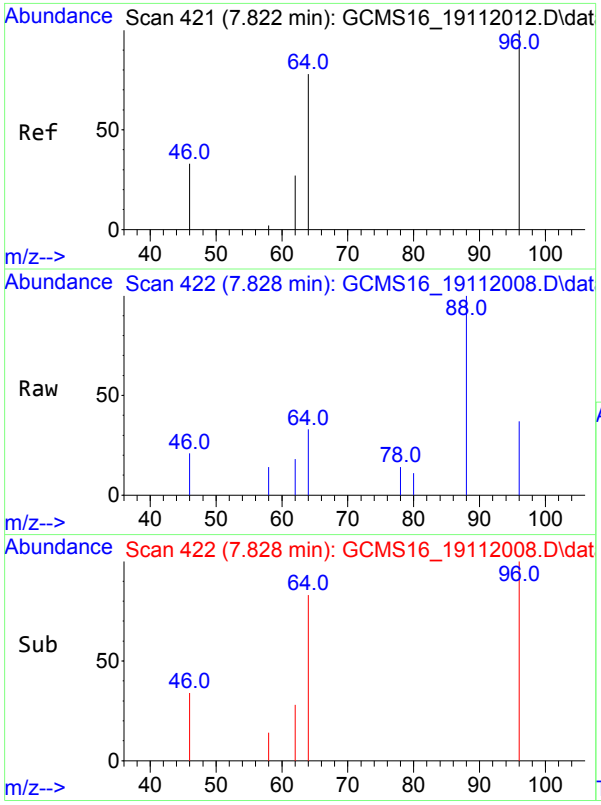


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.714 min Scan# 56
Delta R.T. -0.001 min
Lab File: GCMS16_19112008.D
Acq: 20 Nov 2019 12:30 pm

Tgt Ion: 46 Resp: 65987

Ion	Ratio	Lower	Upper
46	100		
78	40.6	27.5	51.1
80	42.1	29.0	53.9

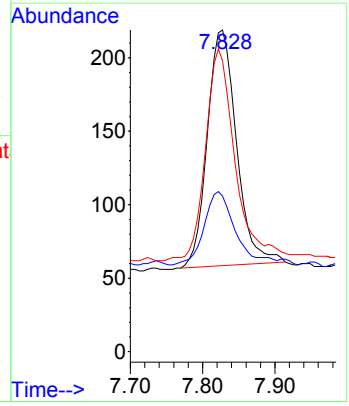


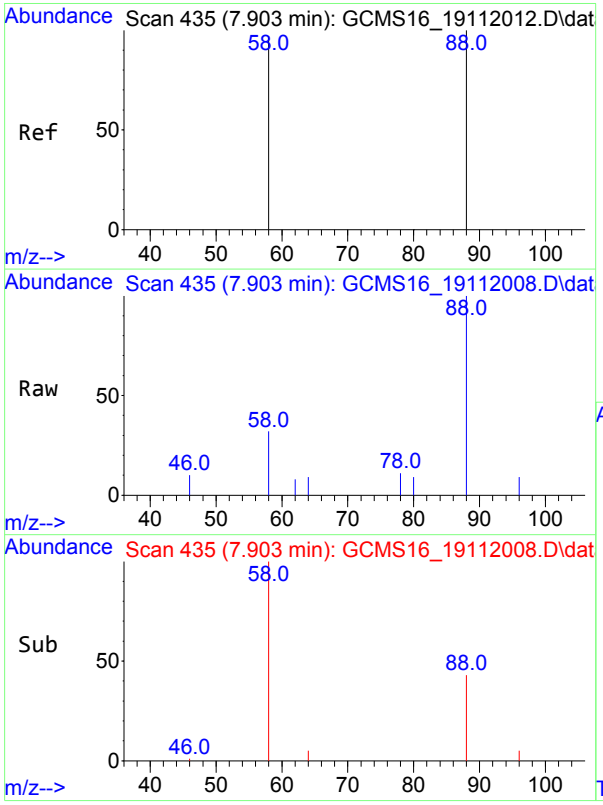


#2
1,4-Dioxane-d8
Concen: 4.64 ug/L m
RT: 7.828 min Scan# 422
Delta R.T. 0.004 min
Lab File: GCMS16_19112008.D
Acq: 20 Nov 2019 12:30 pm

Tgt Ion: 96 Resp: 4463

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	0.0	56.8	105.6#

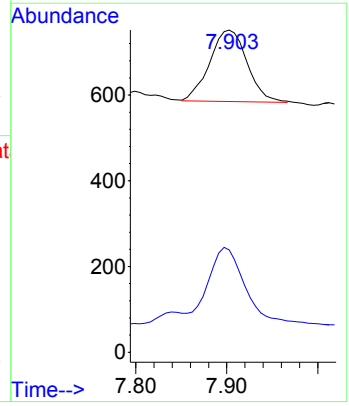




#3
1,4-Dioxane
Concen: 4.64 ug/L m
RT: 7.903 min Scan# 435
Delta R.T. 0.002 min
Lab File: GCMS16_19112008.D
Acq: 20 Nov 2019 12:30 pm

Tgt Ion: 88 Resp: 4748

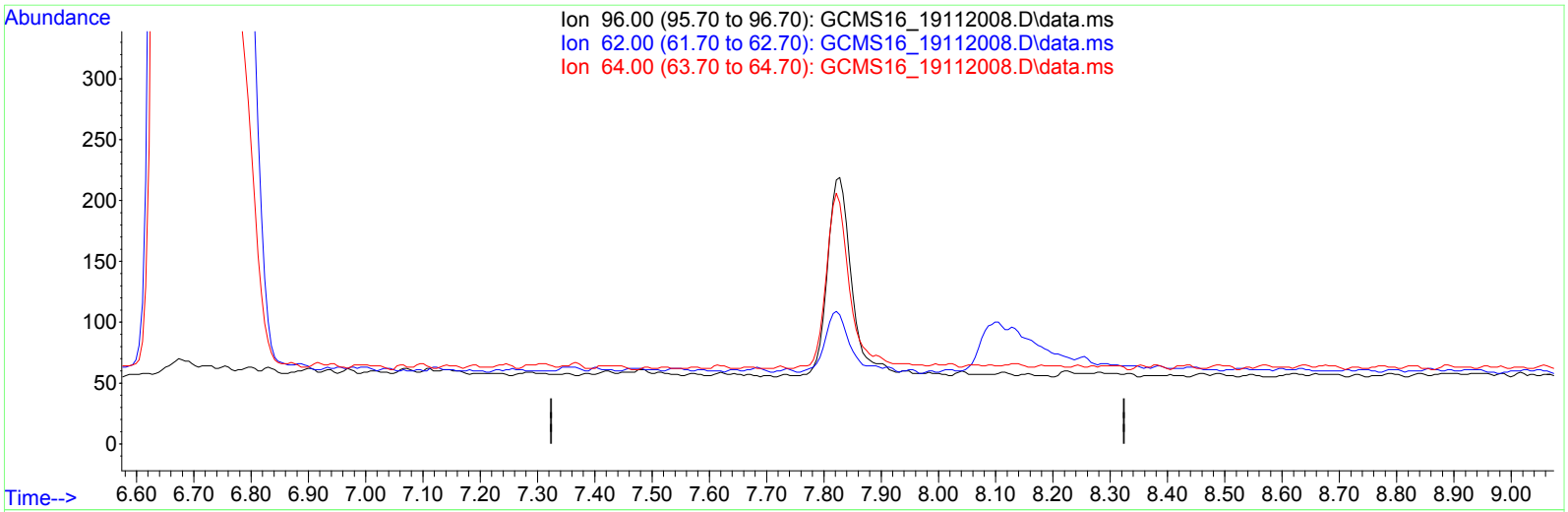
Ion	Ratio	Lower	Upper
88	100		
58	0.0	72.5	134.7#

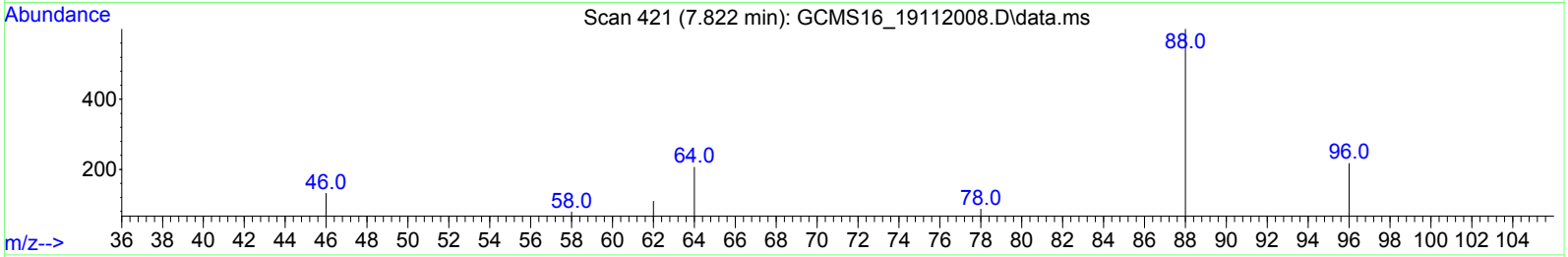


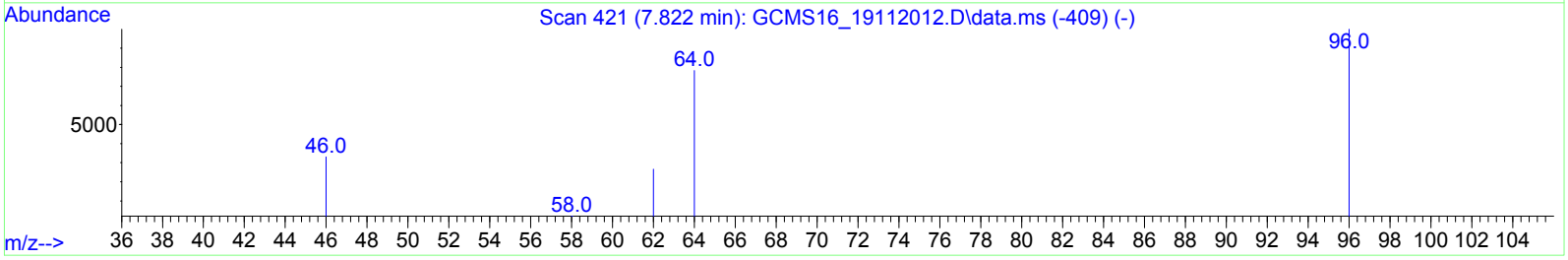
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112008.D
Acq On : 20 Nov 2019 12:30 pm
Operator : CR
Sample : ICAL L1 5 ppb
Misc : E19K047
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 20 15:48:52 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:48:42 2019
Response via : Initial Calibration







TIC: GCMS16_19112008.D\data.ms

(2) 1,4-Dioxane-d8 (S)

7.824min (-7.824) 0.00 ug/L

response 0

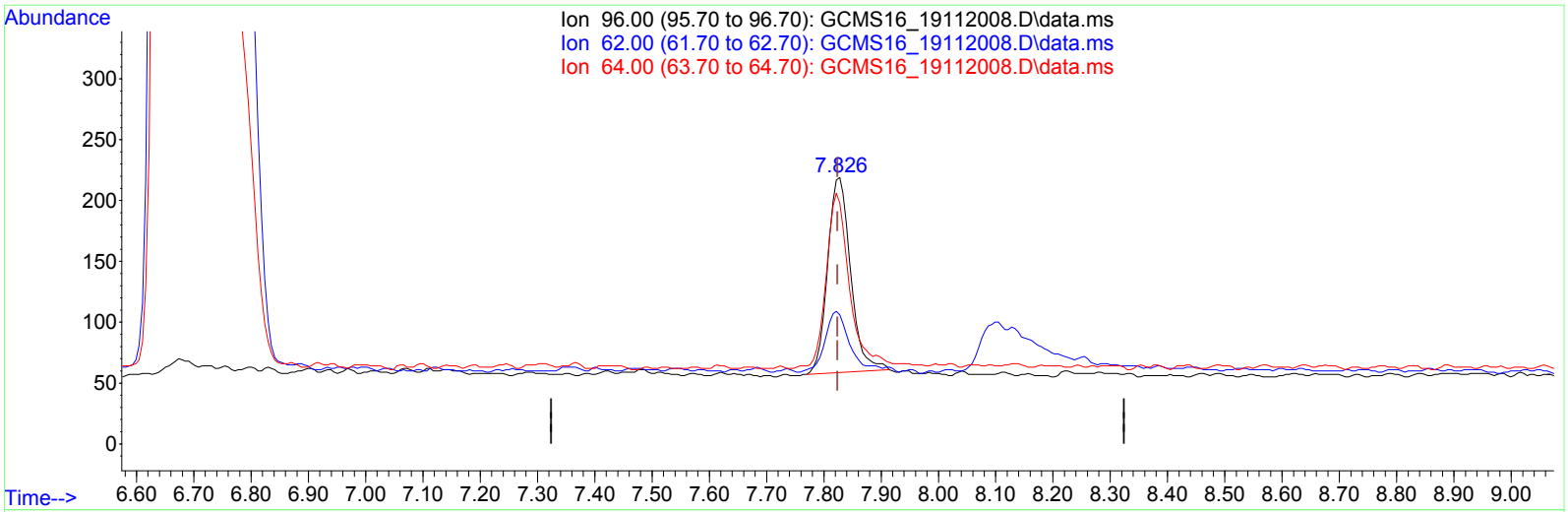
Ion	Exp%	Act%
96.00	100.00	0.00
62.00	0.00	0.00
64.00	81.20	0.00#
0.00	0.00	0.00

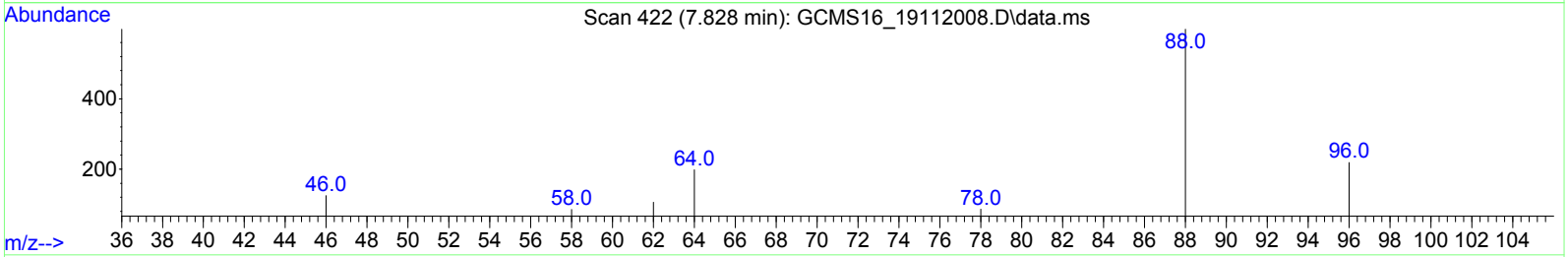
Before
N
CR 1/2/20

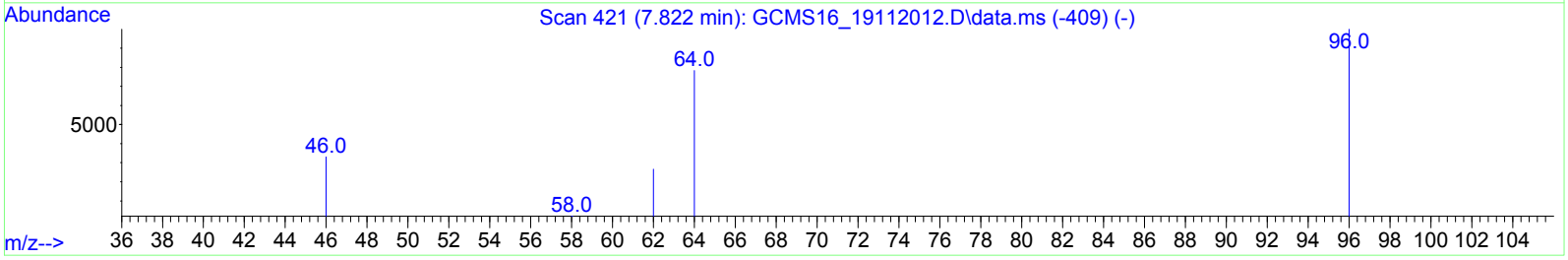
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112008.D
Acq On : 20 Nov 2019 12:30 pm
Operator : CR
Sample : ICAL L1 5 ppb
Misc : E19K047
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 20 15:48:52 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:48:42 2019
Response via : Initial Calibration







TIC: GCMS16_19112008.D\data.ms

(2) 1,4-Dioxane-d8 (S)

7.828min (+ 0.004) 4.64 ug/L m

response 4463

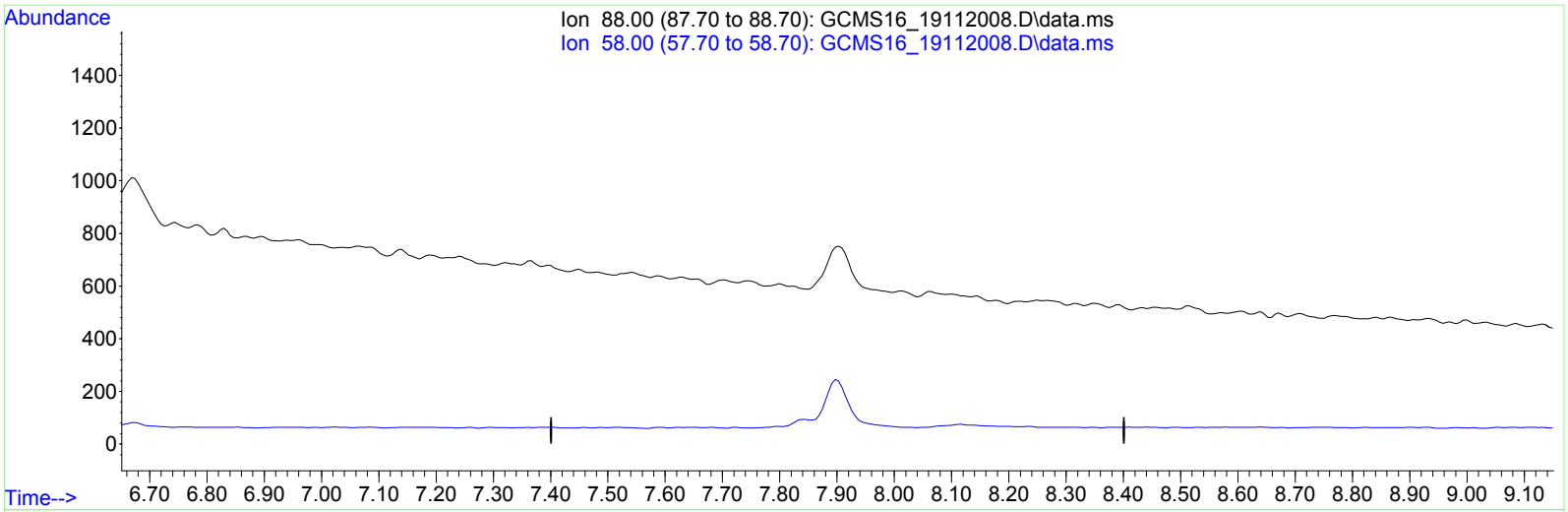
After
CR 1/2/20

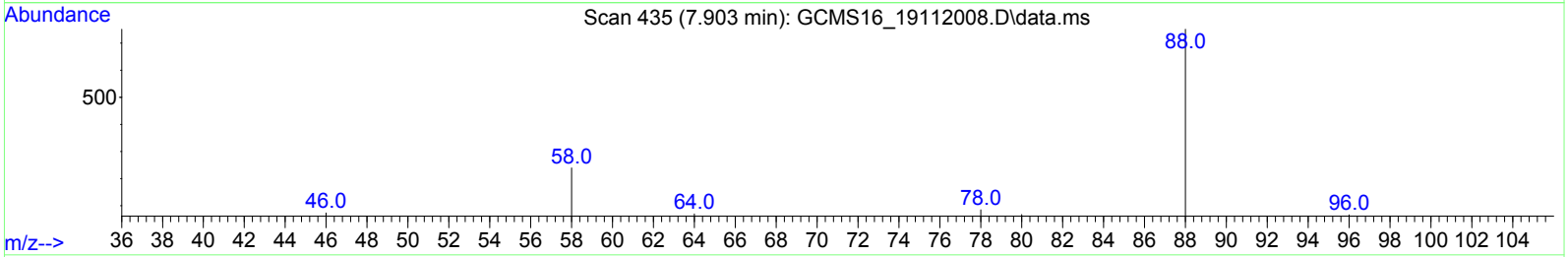
Ion	Exp%	Act%
96.00	100.00	100.00
62.00	0.00	0.00
64.00	81.20	0.00#
0.00	0.00	0.00

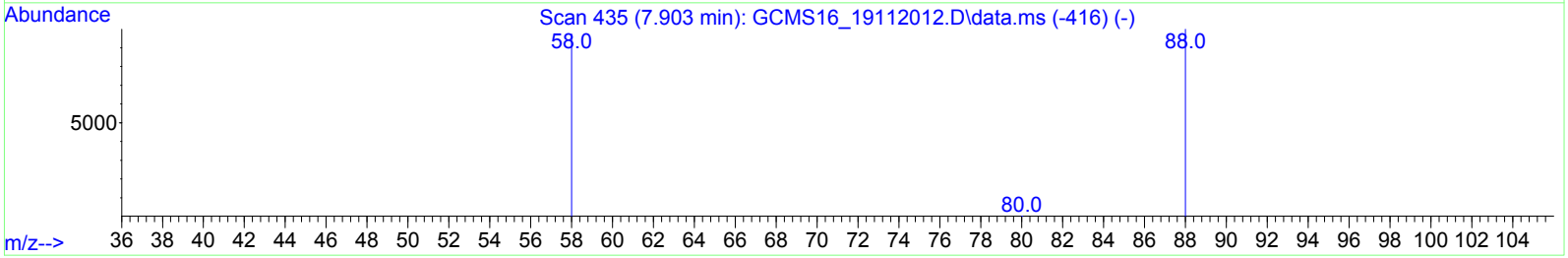
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112008.D
Acq On : 20 Nov 2019 12:30 pm
Operator : CR
Sample : ICAL L1 5 ppb
Misc : E19K047
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 20 15:48:52 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:48:42 2019
Response via : Initial Calibration







TIC: GCMS16_19112008.D\data.ms

(3) 1,4-Dioxane (M)

7.901min (-7.901) 0.00 ug/L

response 0

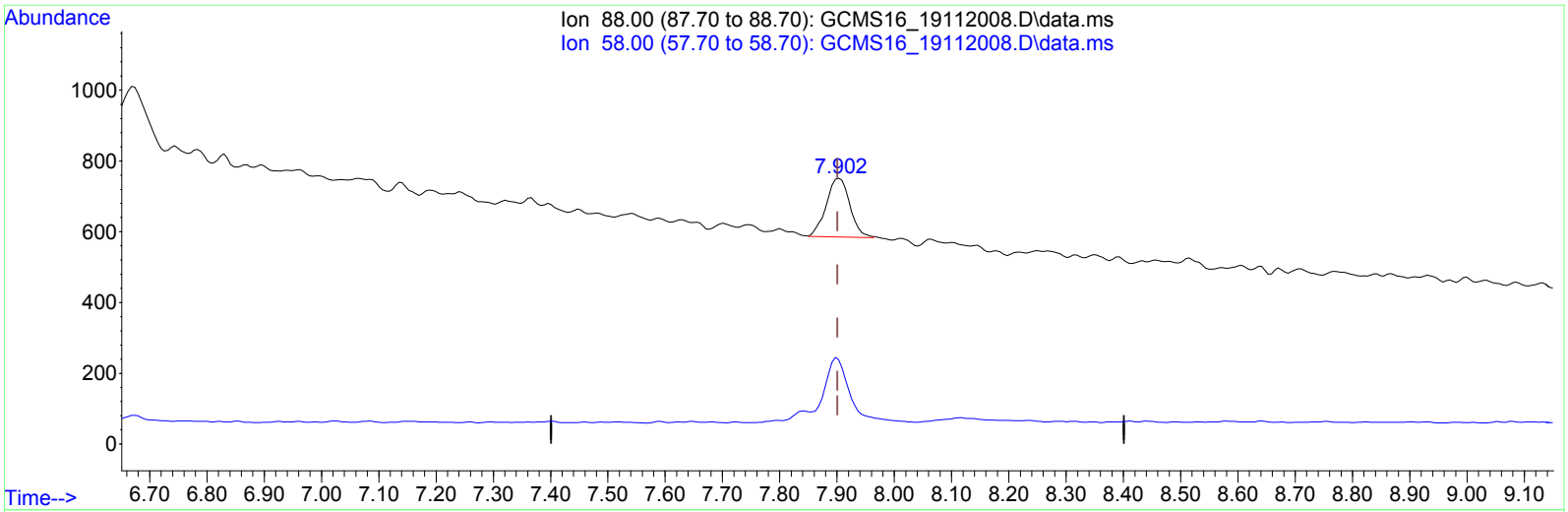
Ion	Exp%	Act%
88.00	100.00	0.00
58.00	103.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

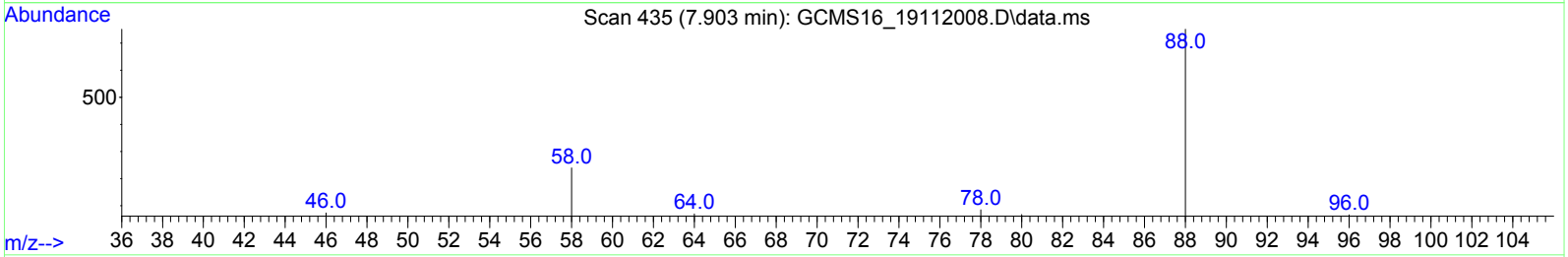
Before
N
CR 1/2/20

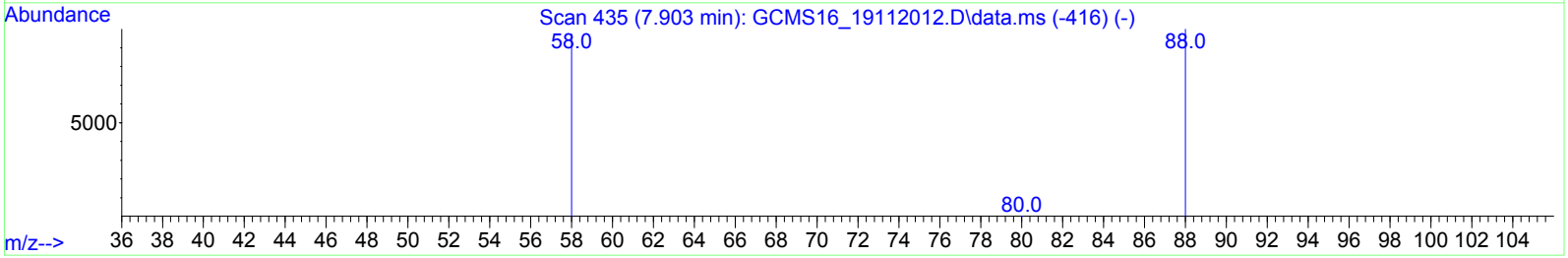
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112008.D
Acq On : 20 Nov 2019 12:30 pm
Operator : CR
Sample : ICAL L1 5 ppb
Misc : E19K047
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Nov 20 15:48:52 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:48:42 2019
Response via : Initial Calibration







TIC: GCMS16_19112008.D\data.ms

(3) 1,4-Dioxane (M)

7.903min (+ 0.002) 4.64 ug/L m

response 4748

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	103.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

After
CR 1/2/20

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112009.D
Acq On : 20 Nov 2019 12:52 pm
Operator : CR
Sample : ICAL L2 10 ppb
Misc : E19K048
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 20 15:45:53 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:45:41 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.714	46	60568	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.826	96	9319	10.57 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.903	88	9831m	10.53 ug/L	

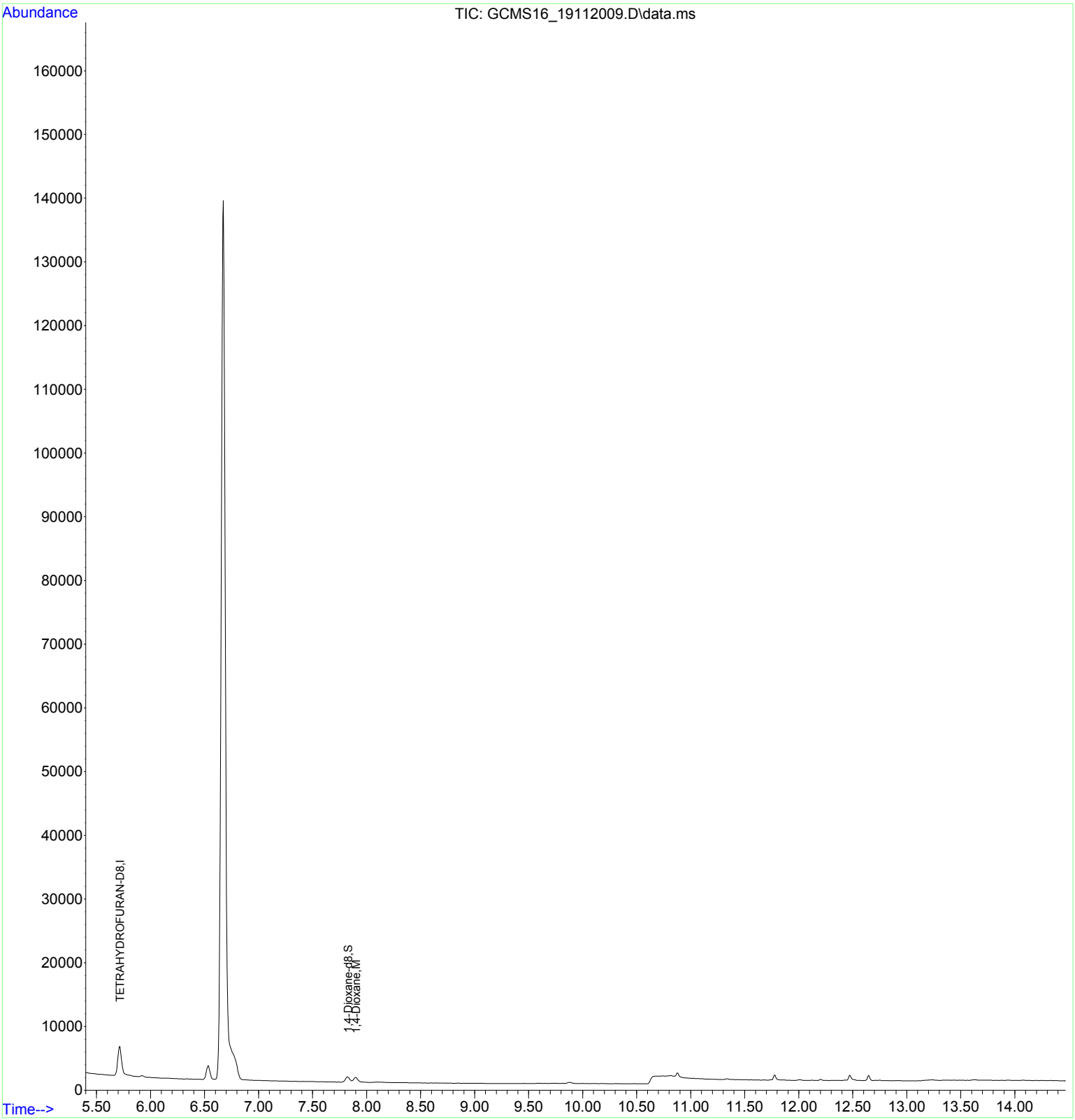
CR 1/2/20

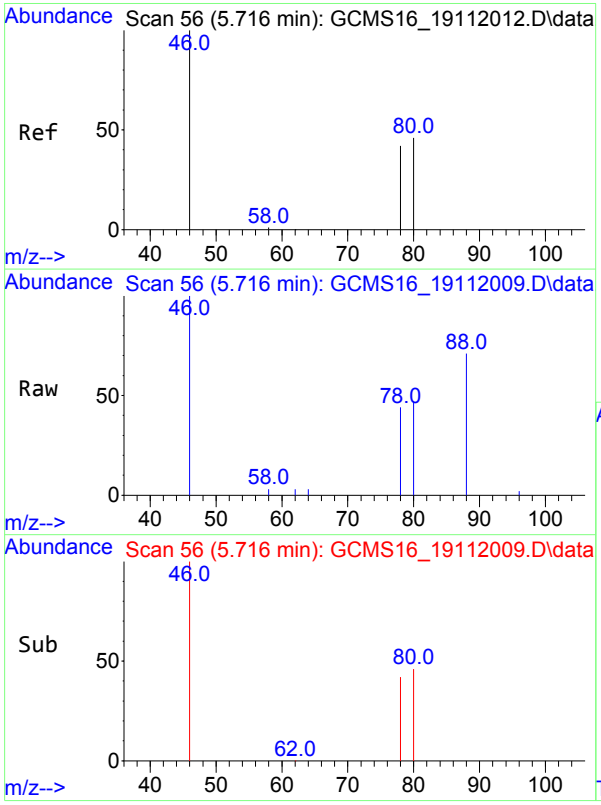
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112009.D
Acq On : 20 Nov 2019 12:52 pm
Operator : CR
Sample : ICAL L2 10 ppb
Misc : E19K048
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 20 15:45:53 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:45:41 2019
Response via : Initial Calibration

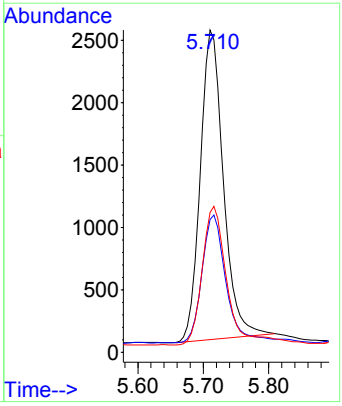


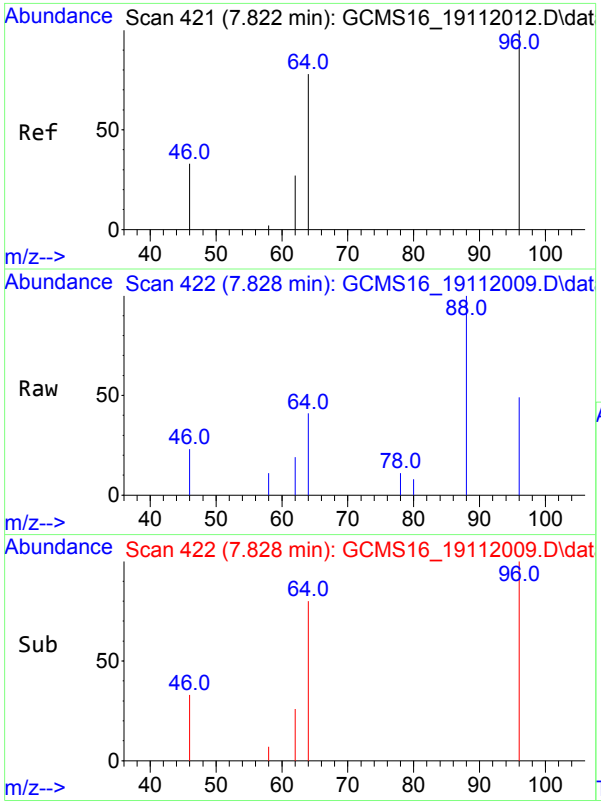


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.714 min Scan# 56
Delta R.T. -0.001 min
Lab File: GCMS16_19112009.D
Acq: 20 Nov 2019 12:52 pm

Tgt Ion: 46 Resp: 60568

Ion	Ratio	Lower	Upper
46	100		
78	40.4	27.5	51.1
80	42.4	29.0	53.9

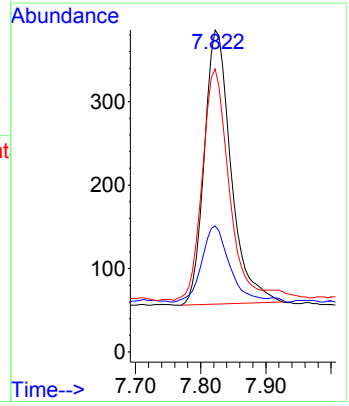


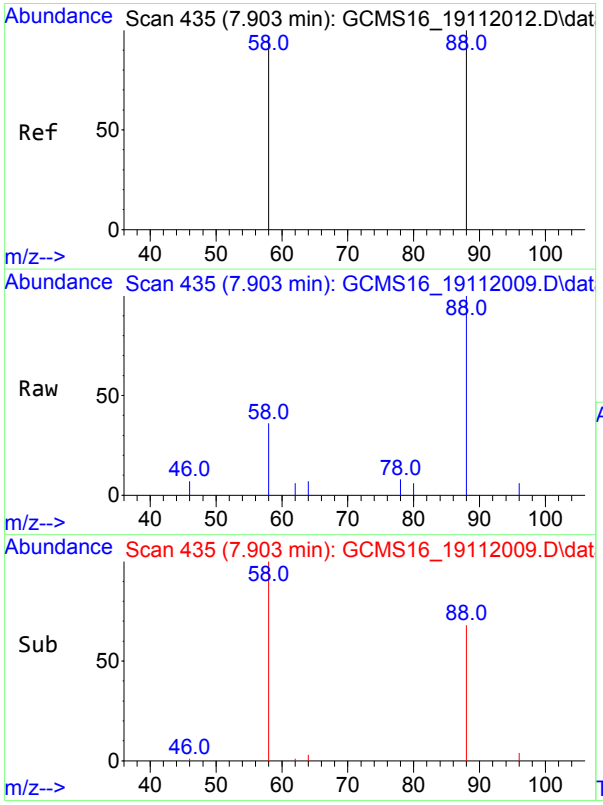


#2
1,4-Dioxane-d8
Concen: 10.57 ug/L
RT: 7.826 min Scan# 422
Delta R.T. 0.003 min
Lab File: GCMS16_19112009.D
Acq: 20 Nov 2019 12:52 pm

Tgt Ion: 96 Resp: 9319

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	0.0	56.8	105.6#

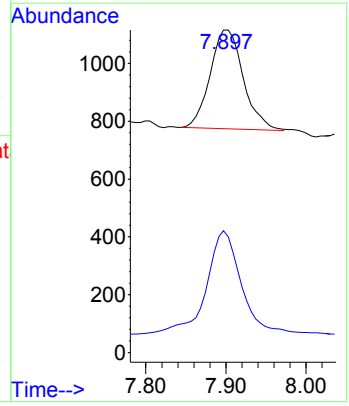




#3
1,4-Dioxane
Concen: 10.53 ug/L m
RT: 7.903 min Scan# 435
Delta R.T. 0.003 min
Lab File: GCMS16_19112009.D
Acq: 20 Nov 2019 12:52 pm

Tgt Ion: 88 Resp: 9831

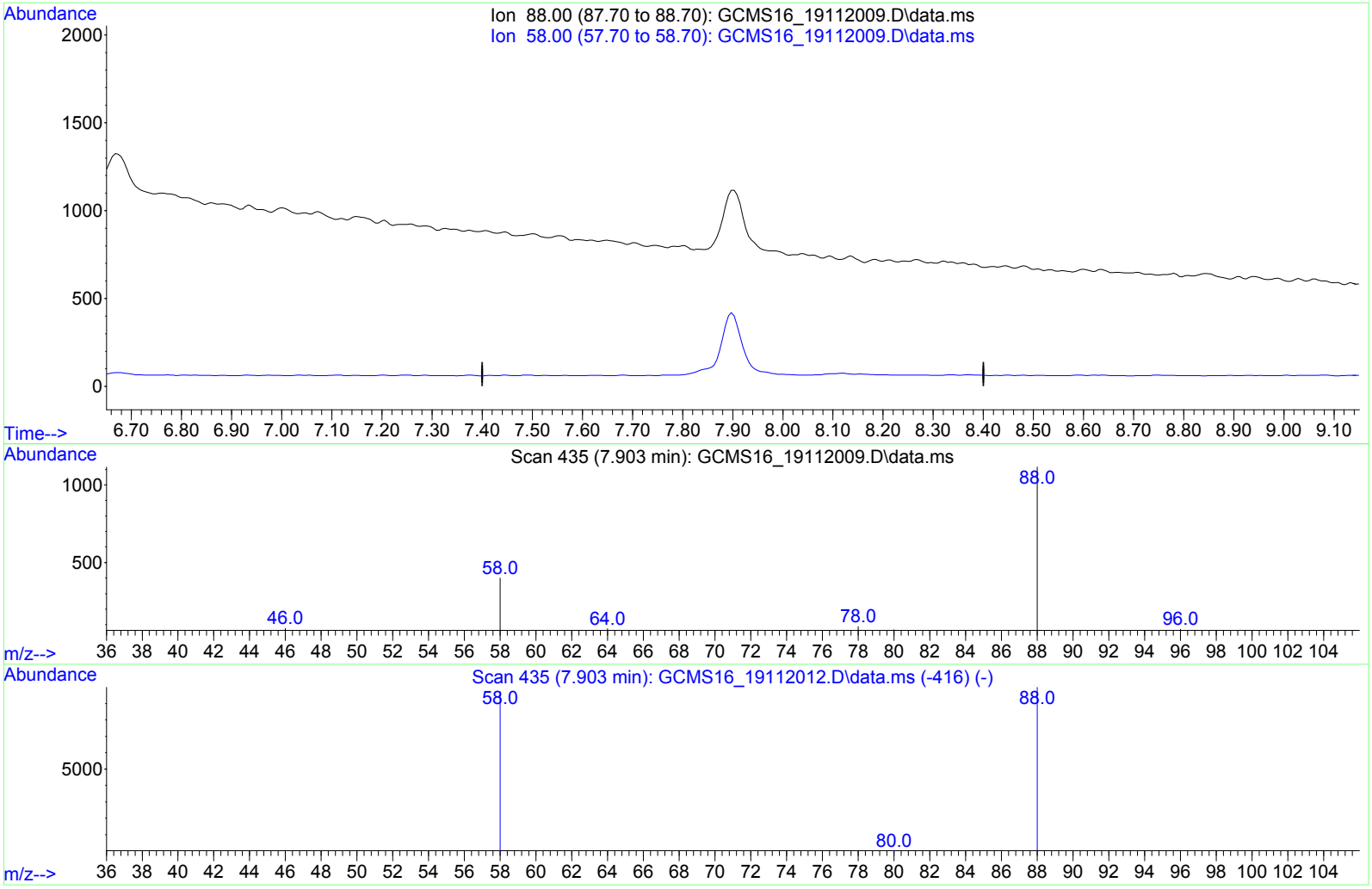
Ion	Ratio	Lower	Upper
88	100		
58	0.0	72.5	134.7#



Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112009.D
Acq On : 20 Nov 2019 12:52 pm
Operator : CR
Sample : ICAL L2 10 ppb
Misc : E19K048
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 20 15:45:53 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:45:41 2019
Response via : Initial Calibration



TIC: GCMS16_19112009.D\data.ms

(3) 1,4-Dioxane (M)

7.900min (-7.900) 0.00 ug/L

response 0

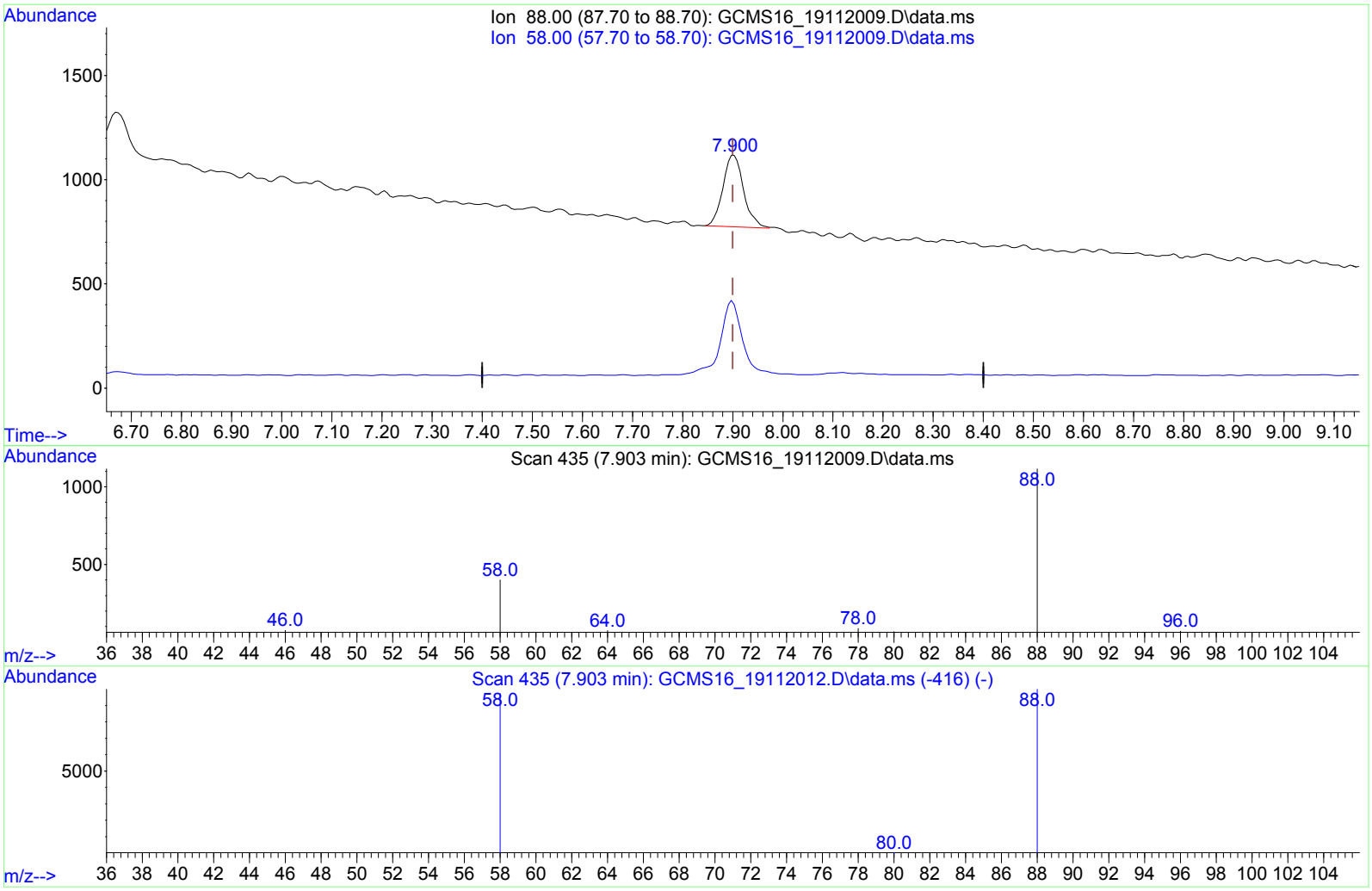
Ion	Exp%	Act%
88.00	100.00	0.00
58.00	103.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Before
N
CR 1/2/20

Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112009.D
Acq On : 20 Nov 2019 12:52 pm
Operator : CR
Sample : ICAL L2 10 ppb
Misc : E19K048
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Nov 20 15:45:53 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:45:41 2019
Response via : Initial Calibration



TIC: GCMS16_19112009.D\data.ms

(3) 1,4-Dioxane (M)

7.903min (+ 0.003) 10.53 ug/L m

response 9831

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	103.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

After
CR 1/2/20

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112010.D
Acq On : 20 Nov 2019 01:14 pm
Operator : CR
Sample : ICAL L3 15 ppb
Misc : E19K049
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 20 15:45:30 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:45:20 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.715	46	62093	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.825	96	13877	15.35 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.902	88	15023	15.74 ug/L	99

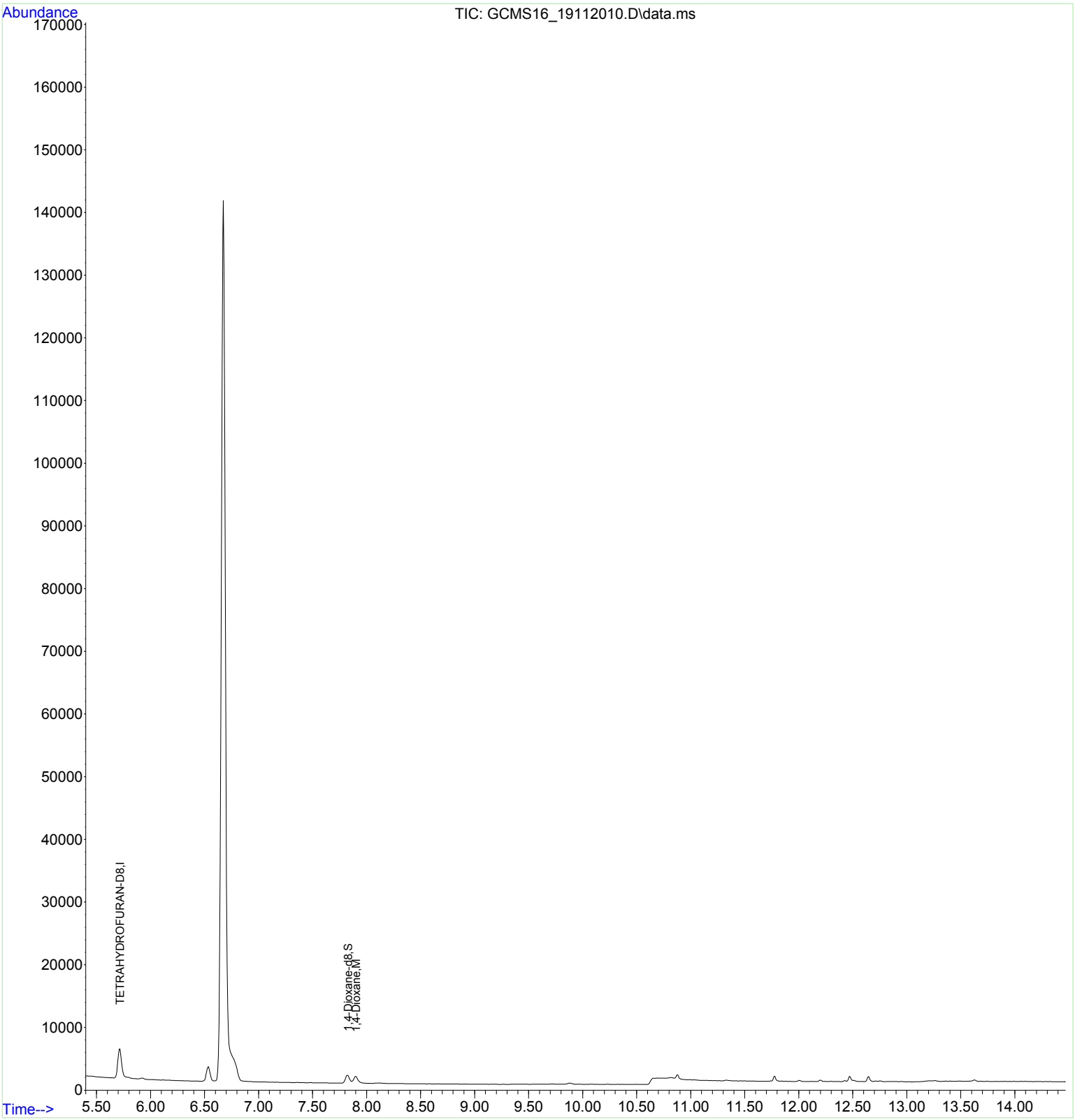
(#) = qualifier out of range (m) = manual integration (+) = signals summed

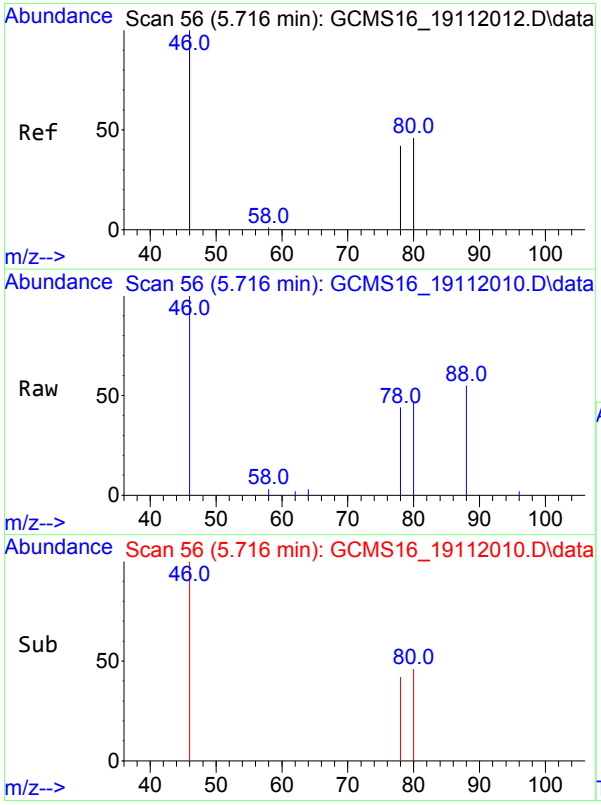
CR 1/2/20

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112010.D
Acq On : 20 Nov 2019 01:14 pm
Operator : CR
Sample : ICAL L3 15 ppb
Misc : E19K049
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Nov 20 15:45:30 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:45:20 2019
Response via : Initial Calibration

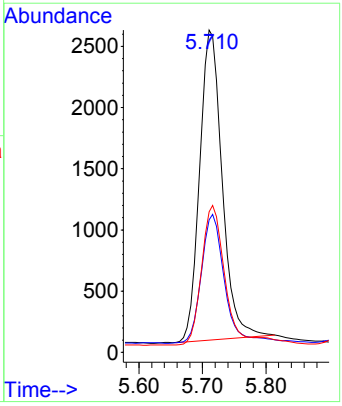


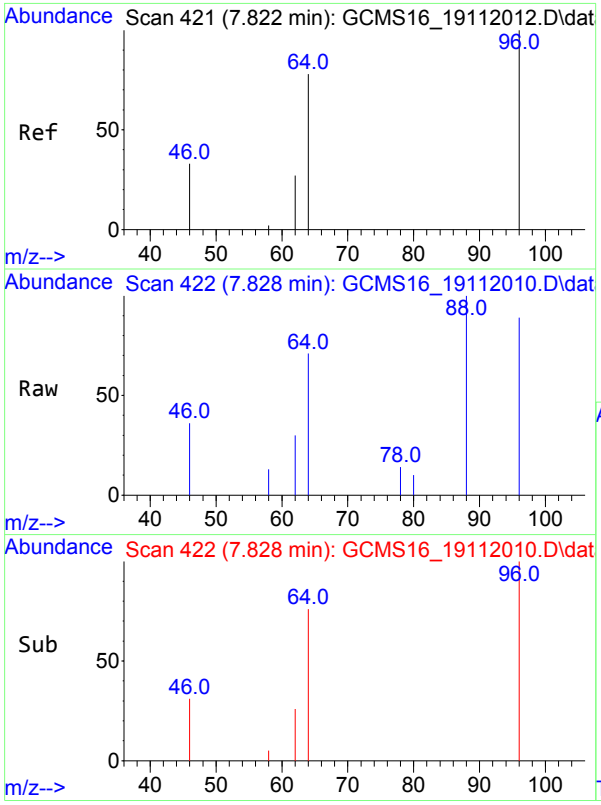


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.715 min Scan# 56
Delta R.T. -0.000 min
Lab File: GCMS16_19112010.D
Acq: 20 Nov 2019 01:14 pm

Tgt Ion: 46 Resp: 62093

Ion	Ratio	Lower	Upper
46	100		
78	39.5	27.5	51.1
80	42.1	29.0	53.9

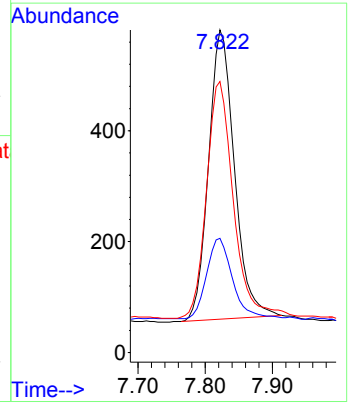


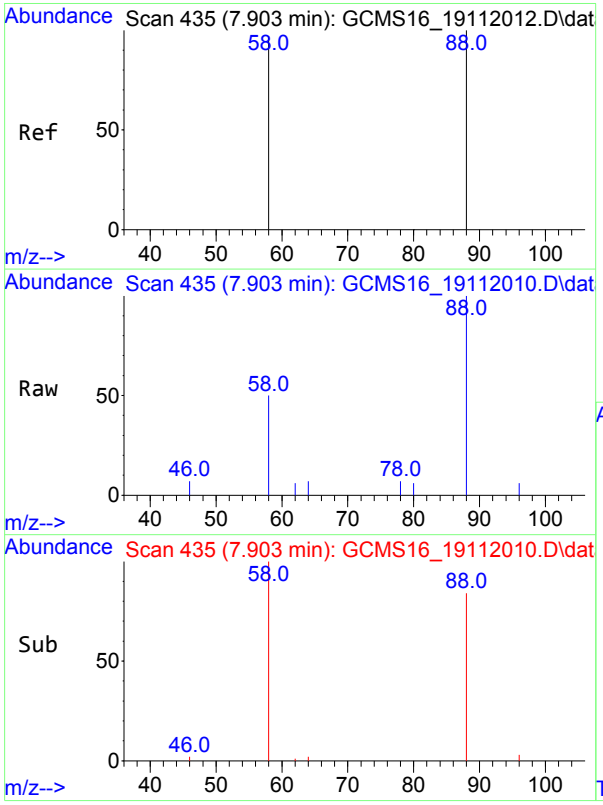


#2
1,4-Dioxane-d8
Concen: 15.35 ug/L
RT: 7.825 min Scan# 422
Delta R.T. 0.003 min
Lab File: GCMS16_19112010.D
Acq: 20 Nov 2019 01:14 pm

Tgt Ion: 96 Resp: 13877

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	80.2	56.8	105.6

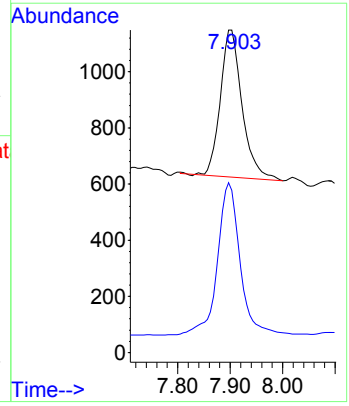




#3
1,4-Dioxane
Concen: 15.74 ug/L
RT: 7.902 min Scan# 435
Delta R.T. 0.003 min
Lab File: GCMS16_19112010.D
Acq: 20 Nov 2019 01:14 pm

Tgt Ion: 88 Resp: 15023

Ion	Ratio	Lower	Upper
88	100		
58	102.9	72.5	134.7



Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112011.D
Acq On : 20 Nov 2019 01:36 pm
Operator : CR
Sample : ICAL L4 20 ppb
Misc : E19K050
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 20 15:45:10 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:45:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.715	46	64389	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.825	96	18329	19.20 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.902	88	20913	21.17 ug/L	93

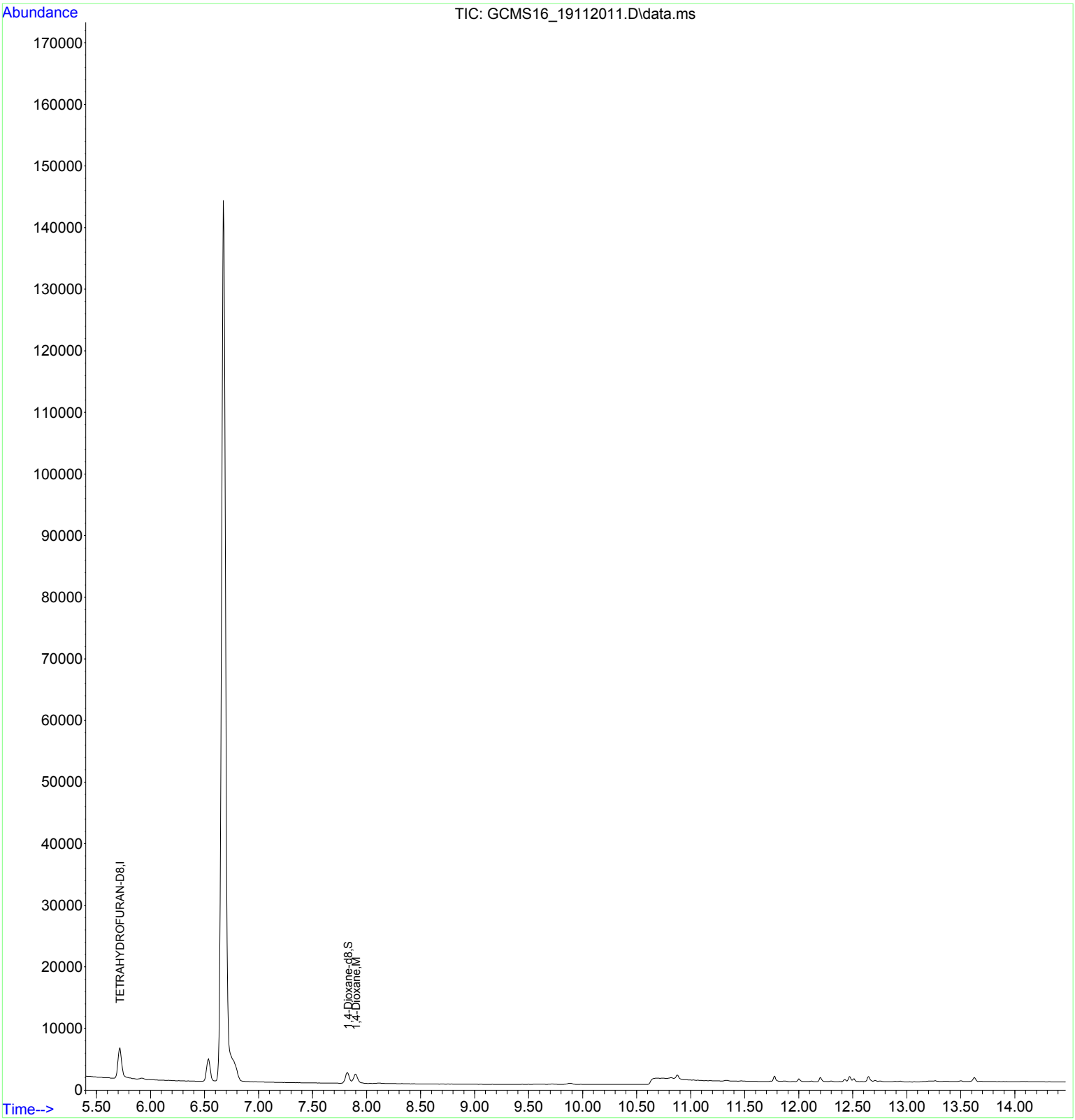
CR 1/2/20

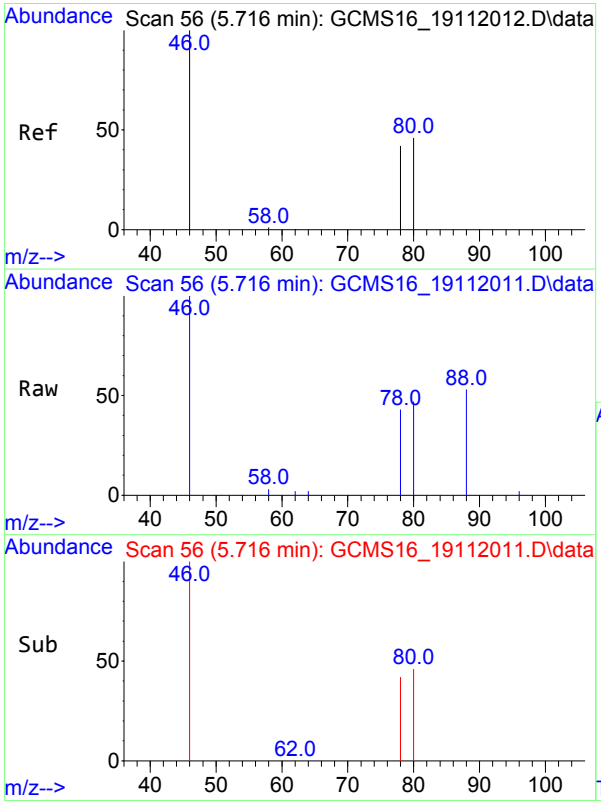
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112011.D
Acq On : 20 Nov 2019 01:36 pm
Operator : CR
Sample : ICAL L4 20 ppb
Misc : E19K050
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Nov 20 15:45:10 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:45:01 2019
Response via : Initial Calibration

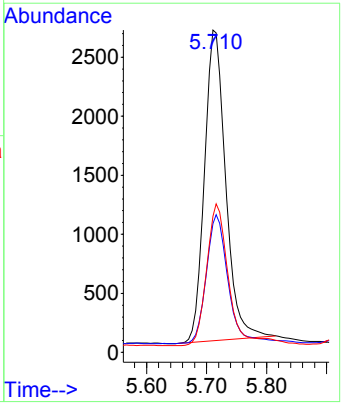


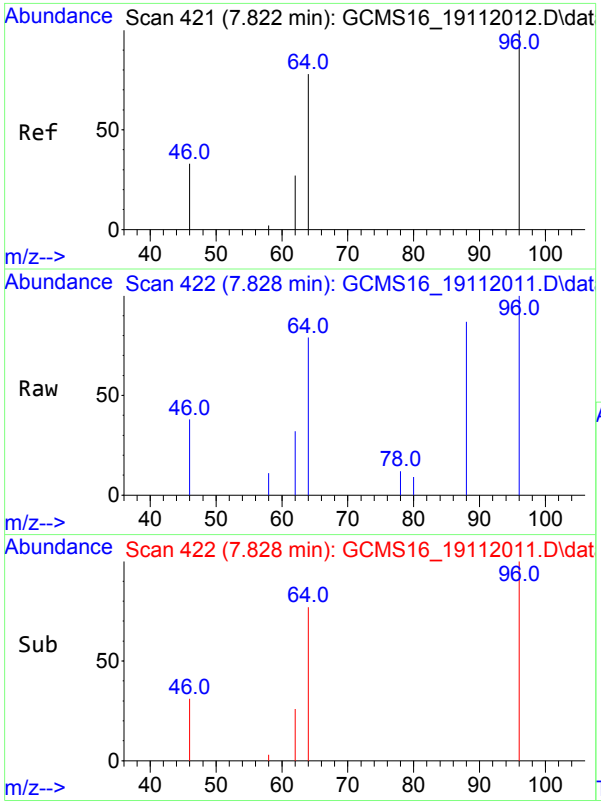


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.715 min Scan# 56
Delta R.T. 0.000 min
Lab File: GCMS16_19112011.D
Acq: 20 Nov 2019 01:36 pm

Tgt Ion: 46 Resp: 64389

Ion	Ratio	Lower	Upper
46	100		
78	39.6	27.5	51.1
80	42.7	29.0	53.9

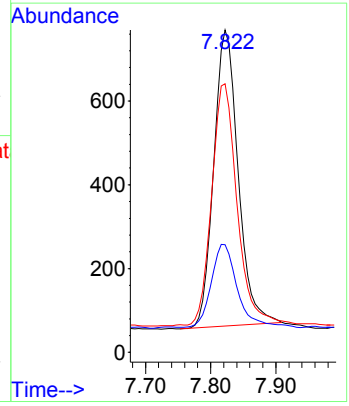


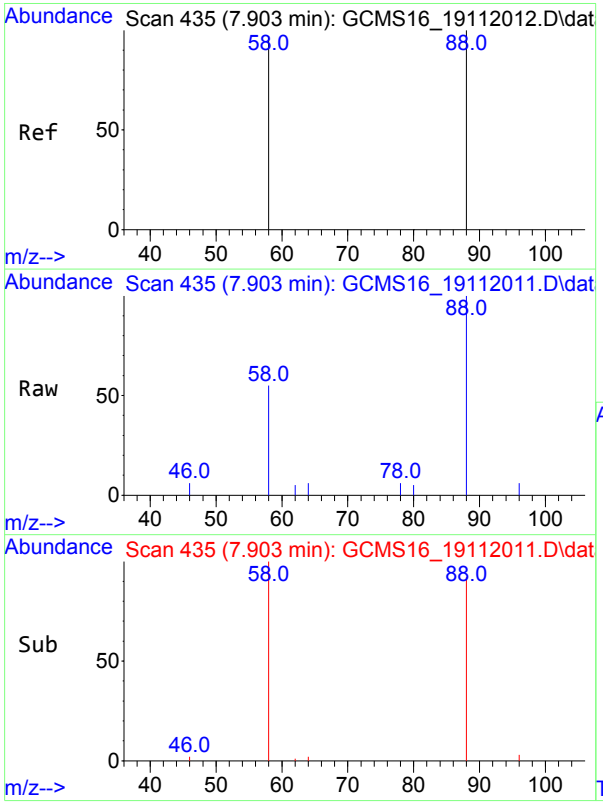


#2
1,4-Dioxane-d8
Concen: 19.20 ug/L
RT: 7.825 min Scan# 422
Delta R.T. 0.004 min
Lab File: GCMS16_19112011.D
Acq: 20 Nov 2019 01:36 pm

Tgt Ion: 96 Resp: 18329

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	82.1	56.8	105.6

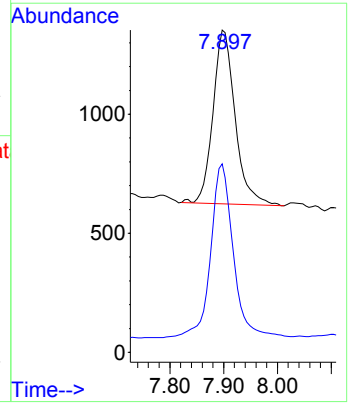




#3
1,4-Dioxane
Concen: 21.17 ug/L
RT: 7.902 min Scan# 435
Delta R.T. 0.003 min
Lab File: GCMS16_19112011.D
Acq: 20 Nov 2019 01:36 pm

Tgt Ion: 88 Resp: 20913

Ion	Ratio	Lower	Upper
88	100		
58	96.4	72.5	134.7



Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112012.D
Acq On : 20 Nov 2019 01:58 pm
Operator : CR
Sample : ICAL L5 25 ppb
Misc : E19K051
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 20 15:42:32 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Fri Sep 20 13:04:33 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.714	46	64023	50.00 ug/L	# 0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.825	96	22303	22.86 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.901	88	24132	24.31 ug/L	82

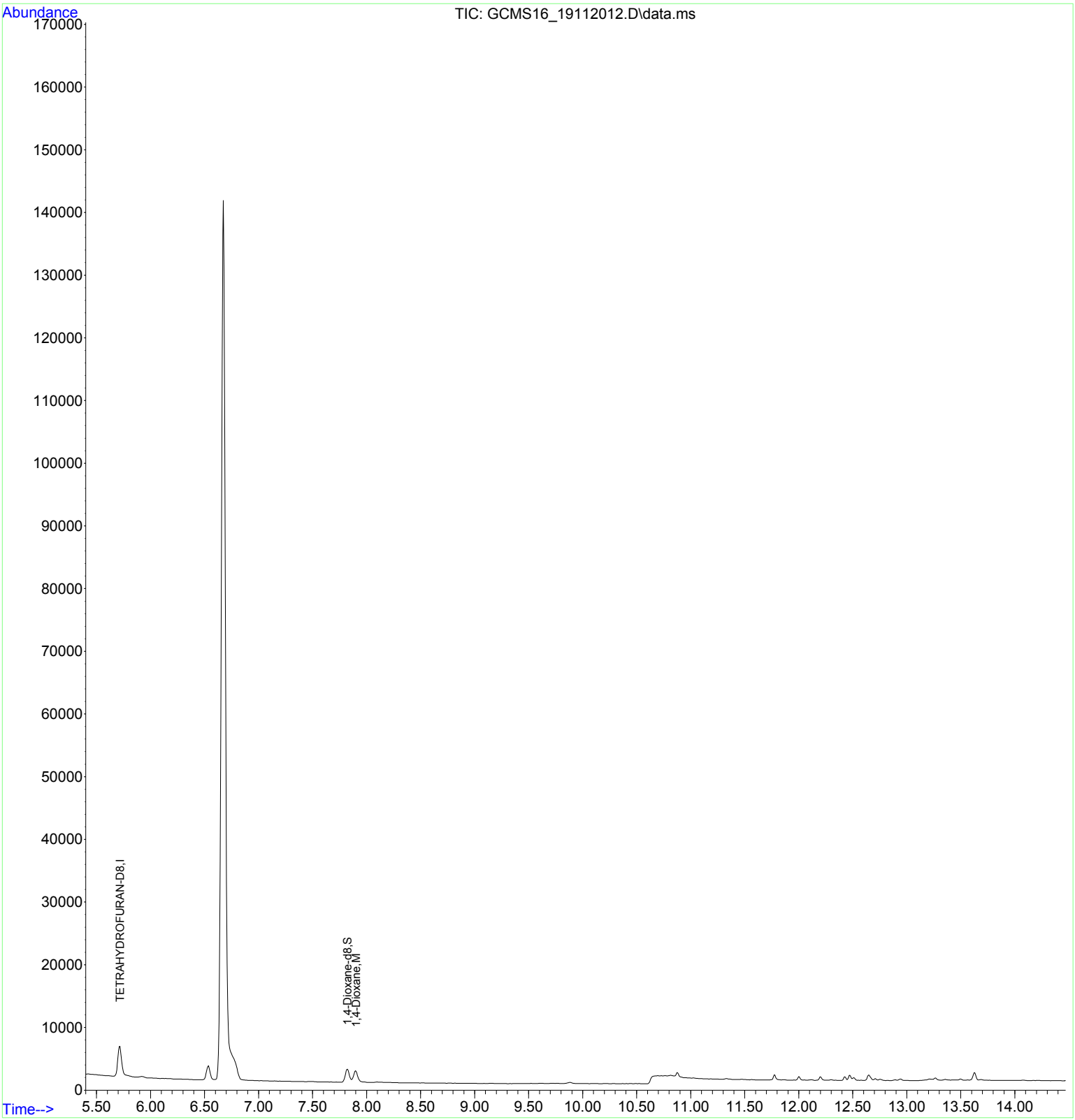
CR 1/2/20

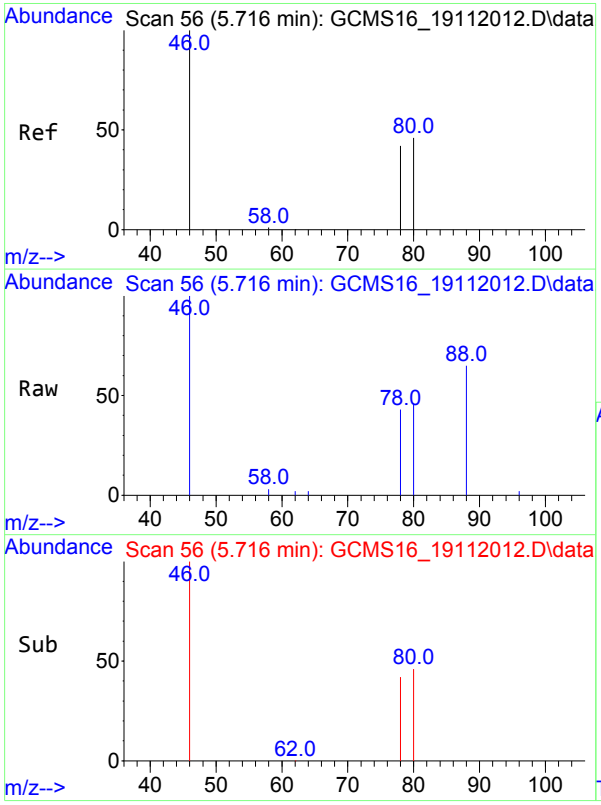
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112012.D
Acq On : 20 Nov 2019 01:58 pm
Operator : CR
Sample : ICAL L5 25 ppb
Misc : E19K051
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Nov 20 15:42:32 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Fri Sep 20 13:04:33 2019
Response via : Initial Calibration

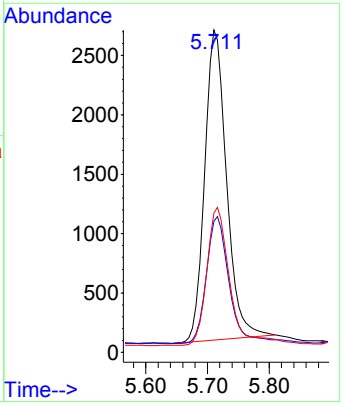


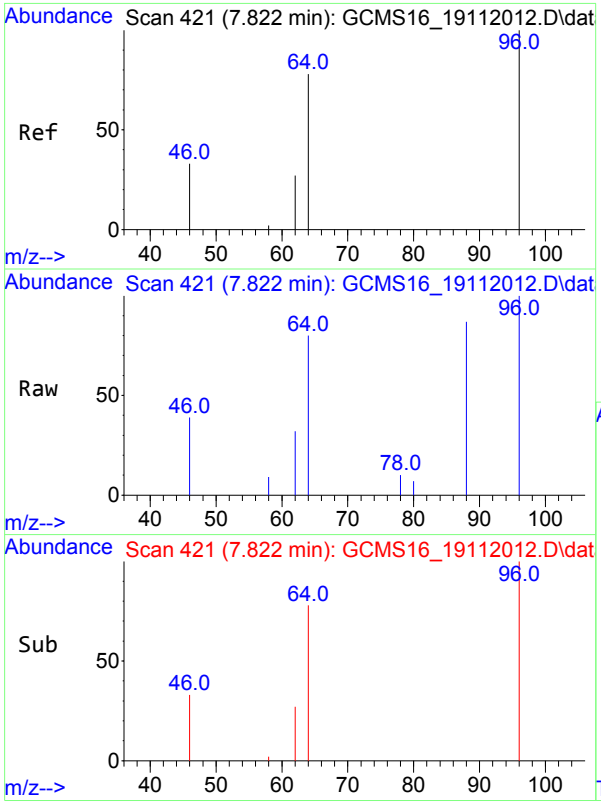


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.714 min Scan# 56
Delta R.T. -0.002 min
Lab File: GCMS16_19112012.D
Acq: 20 Nov 2019 01:58 pm

Tgt Ion: 46 Resp: 64023

Ion	Ratio	Lower	Upper
46	100		
78	39.3	39.6	73.6#
80	41.5	38.7	71.9

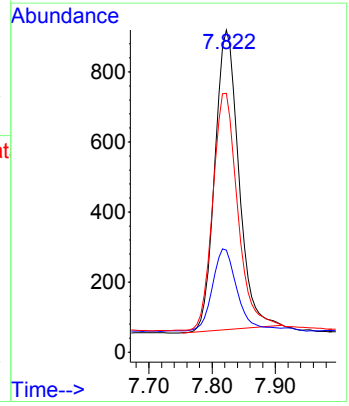


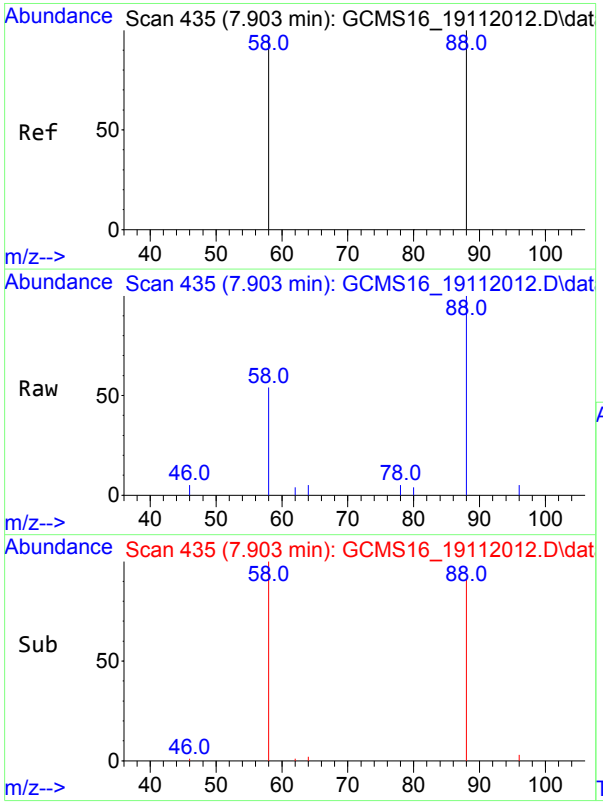


#2
1,4-Dioxane-d8
Concen: 22.86 ug/L
RT: 7.825 min Scan# 421
Delta R.T. -0.000 min
Lab File: GCMS16_19112012.D
Acq: 20 Nov 2019 01:58 pm

Tgt Ion: 96 Resp: 22303

Ion	Ratio	Lower	Upper
96	100		
62	0.0	16.7	30.9#
64	81.2	54.7	101.7

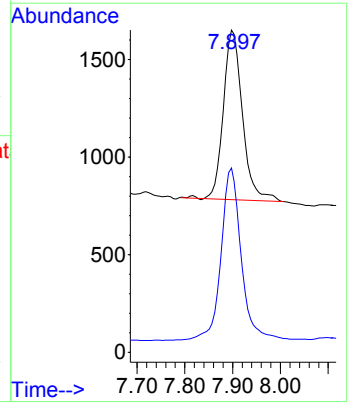




#3
1,4-Dioxane
Concen: 24.31 ug/L
RT: 7.901 min Scan# 435
Delta R.T. -0.002 min
Lab File: GCMS16_19112012.D
Acq: 20 Nov 2019 01:58 pm

Tgt Ion: 88 Resp: 24132

Ion	Ratio	Lower	Upper
88	100		
58	103.6	60.9	113.1



Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112013.D
Acq On : 20 Nov 2019 02:20 pm
Operator : CR
Sample : ICAL L6 50 ppb
Misc : E19K052
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 20 15:43:20 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:42:41 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.717	46	64873	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.823	96	47487	48.11 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.901	88	51140	50.83 ug/L	97

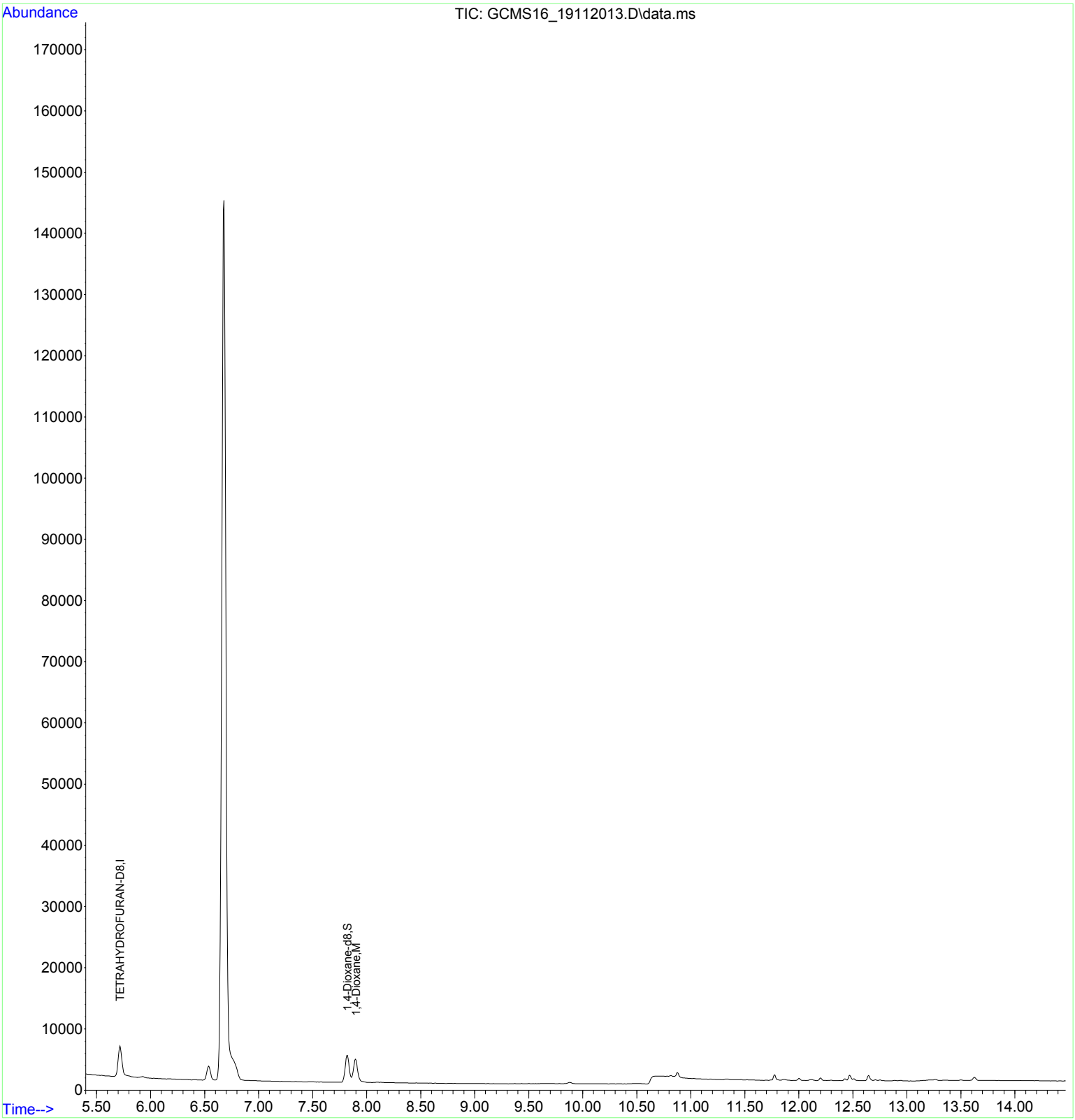
CR 1/2/20

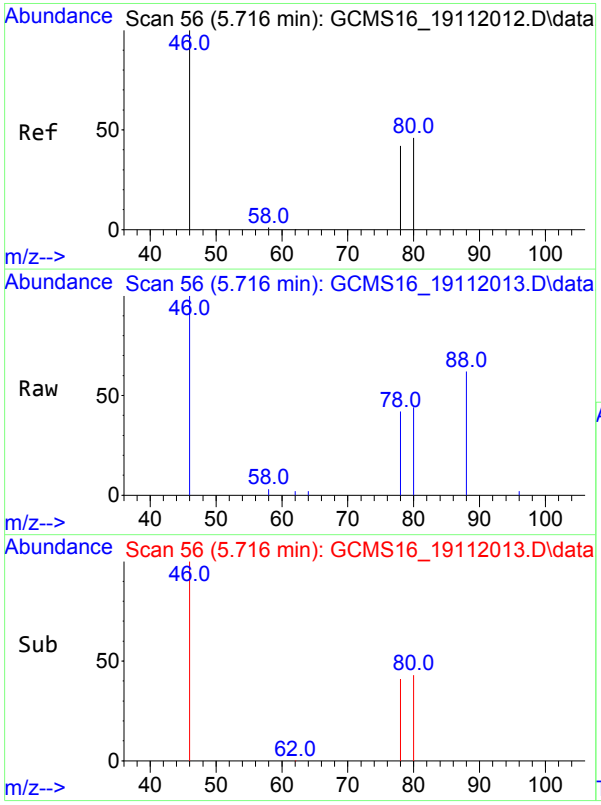
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112013.D
Acq On : 20 Nov 2019 02:20 pm
Operator : CR
Sample : ICAL L6 50 ppb
Misc : E19K052
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Nov 20 15:43:20 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:42:41 2019
Response via : Initial Calibration

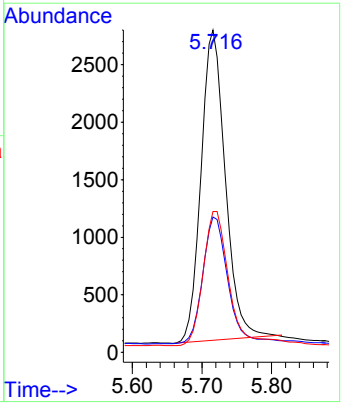


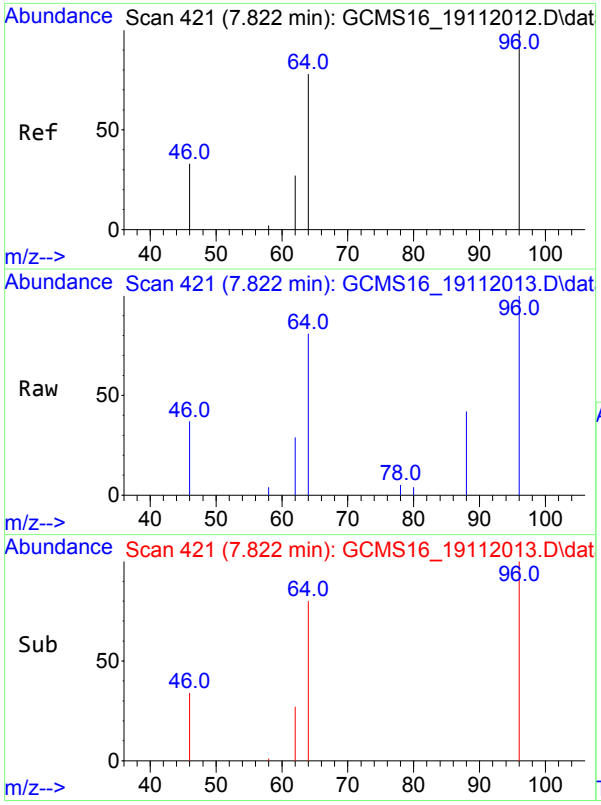


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.717 min Scan# 56
Delta R.T. 0.003 min
Lab File: GCMS16_19112013.D
Acq: 20 Nov 2019 02:20 pm

Tgt Ion: 46 Resp: 64873

Ion	Ratio	Lower	Upper
46	100		
78	40.1	27.5	51.1
80	42.2	29.0	53.9

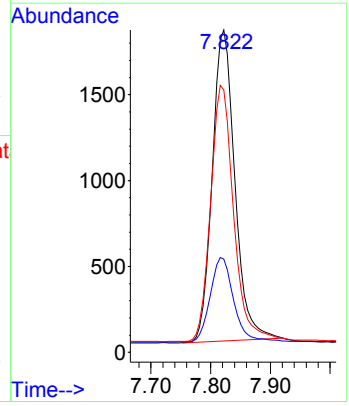


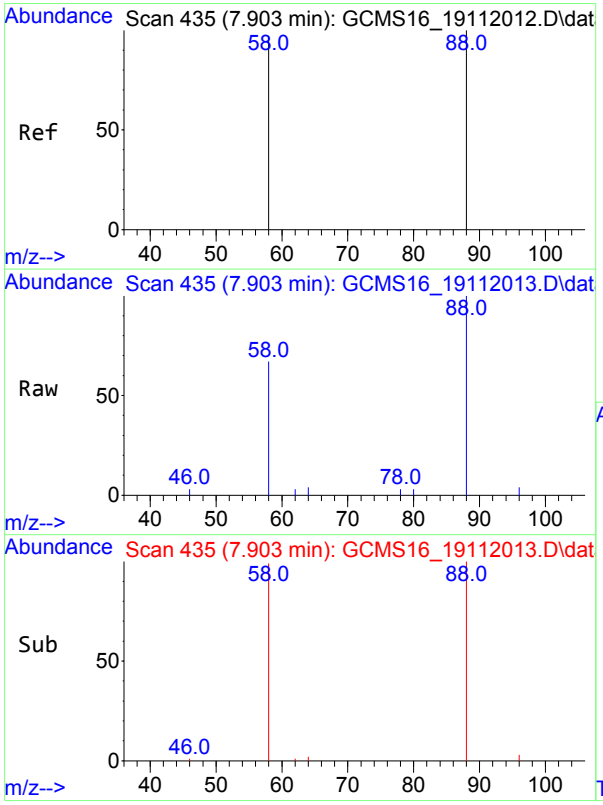


#2
1,4-Dioxane-d8
Concen: 48.11 ug/L
RT: 7.823 min Scan# 421
Delta R.T. -0.002 min
Lab File: GCMS16_19112013.D
Acq: 20 Nov 2019 02:20 pm

Tgt Ion: 96 Resp: 47487

Ion	Ratio	Lower	Upper
96	100		
62	26.7	0.0	0.0#
64	82.0	56.8	105.6

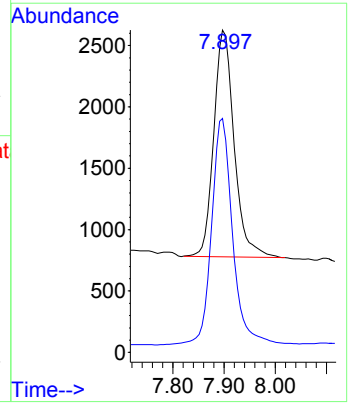




#3
1,4-Dioxane
Concen: 50.83 ug/L
RT: 7.901 min Scan# 435
Delta R.T. -0.000 min
Lab File: GCMS16_19112013.D
Acq: 20 Nov 2019 02:20 pm

Tgt Ion: 88 Resp: 51140

Ion	Ratio	Lower	Upper
88	100		
58	100.3	72.5	134.7



Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112014.D
Acq On : 20 Nov 2019 02:42 pm
Operator : CR
Sample : ICAL L7 100 ppb
Misc : E19K053
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 20 15:44:17 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:44:03 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.716	46	63185	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.821	96	94937	98.26 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.899	88	100845	101.94 ug/L	97

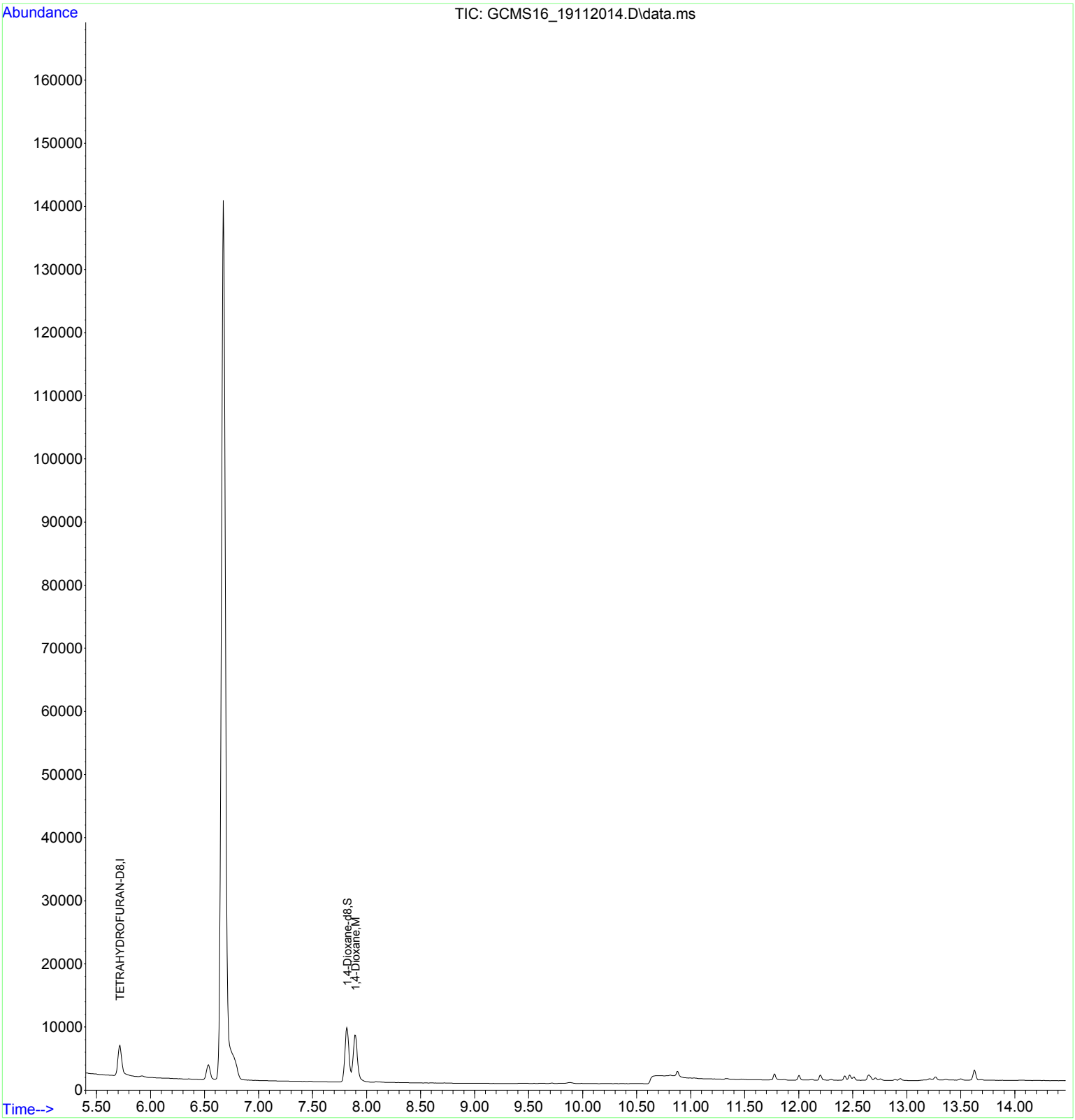
CR 1/2/20

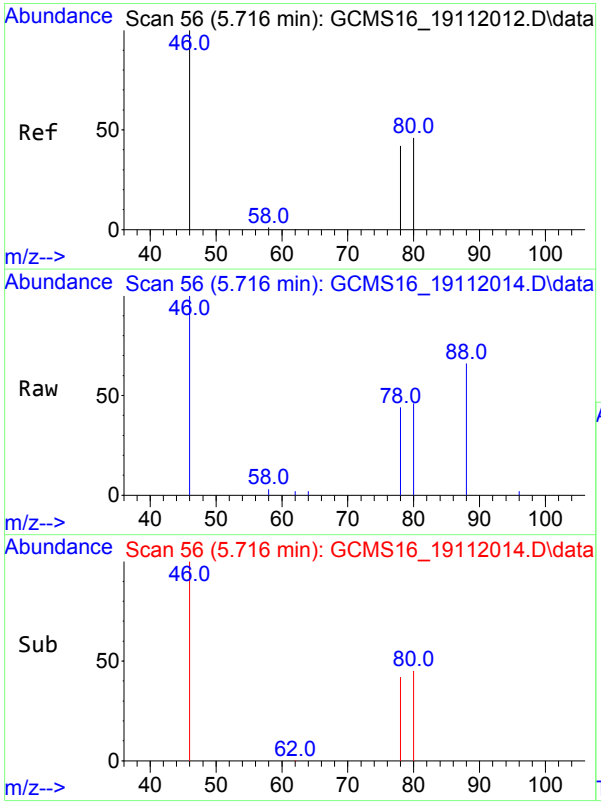
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112014.D
Acq On : 20 Nov 2019 02:42 pm
Operator : CR
Sample : ICAL L7 100 ppb
Misc : E19K053
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Nov 20 15:44:17 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:44:03 2019
Response via : Initial Calibration

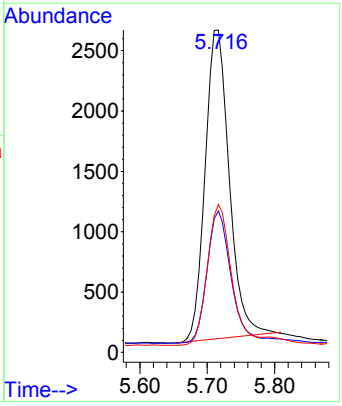


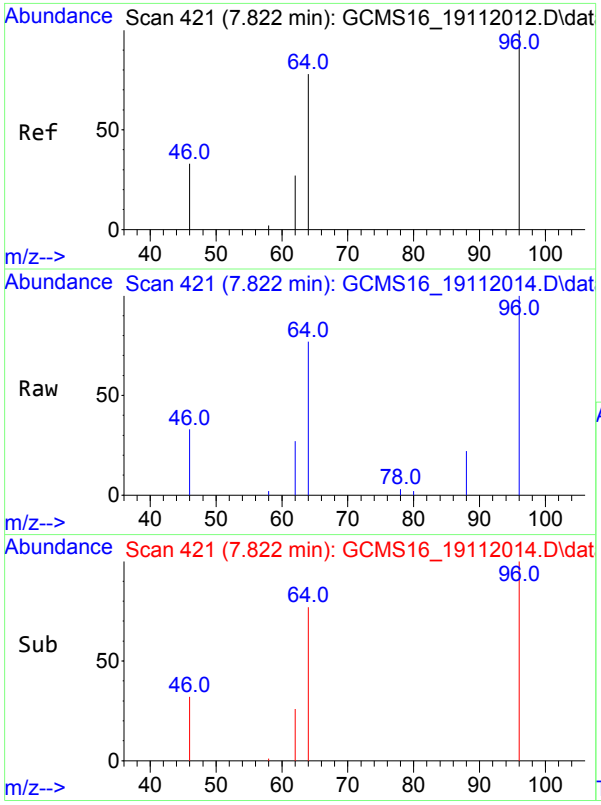


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.716 min Scan# 56
Delta R.T. 0.001 min
Lab File: GCMS16_19112014.D
Acq: 20 Nov 2019 02:42 pm

Tgt Ion: 46 Resp: 63185

Ion	Ratio	Lower	Upper
46	100		
78	40.6	27.5	51.1
80	43.0	29.0	53.9

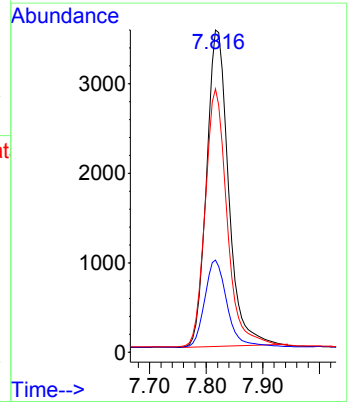


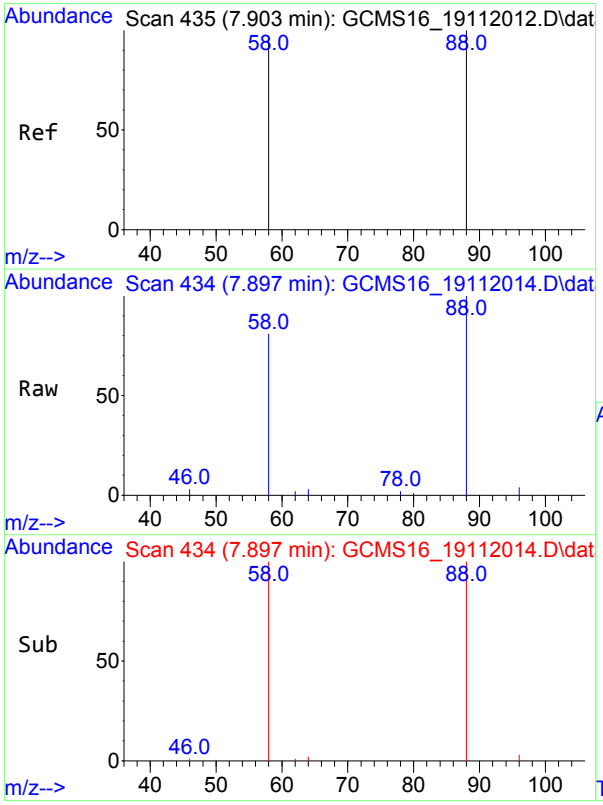


#2
1,4-Dioxane-d8
Concen: 98.26 ug/L
RT: 7.821 min Scan# 421
Delta R.T. -0.003 min
Lab File: GCMS16_19112014.D
Acq: 20 Nov 2019 02:42 pm

Tgt Ion: 96 Resp: 94937

Ion	Ratio	Lower	Upper
96	100		
62	26.8	0.0	0.0#
64	81.2	56.8	105.6

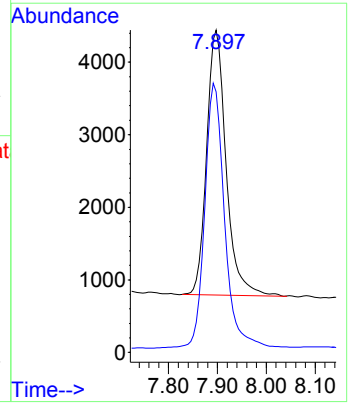




#3
1,4-Dioxane
Concen: 101.94 ug/L
RT: 7.899 min Scan# 434
Delta R.T. -0.002 min
Lab File: GCMS16_19112014.D
Acq: 20 Nov 2019 02:42 pm

Tgt Ion: 88 Resp: 100845

Ion	Ratio	Lower	Upper
88	100		
58	100.2	72.5	134.7



Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112015.D
Acq On : 20 Nov 2019 03:04 pm
Operator : CR
Sample : ICAL L8 250 ppb
Misc : E19K054
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 20 15:44:35 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:44:26 2019
Response via : Initial Calibration

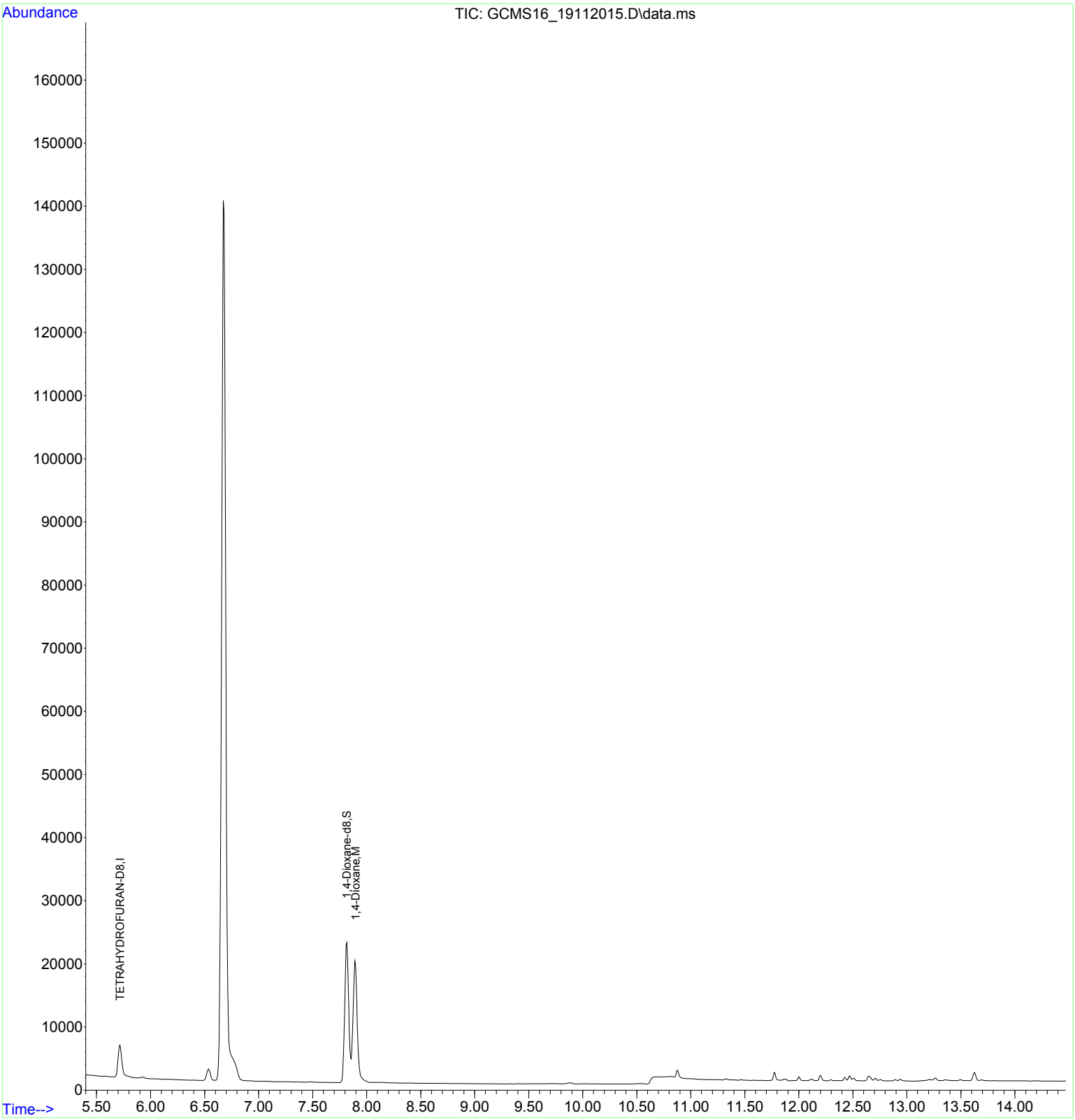
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.716	46	67005	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.819	96	239535	235.36 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.897	88	250260	239.12 ug/L	98

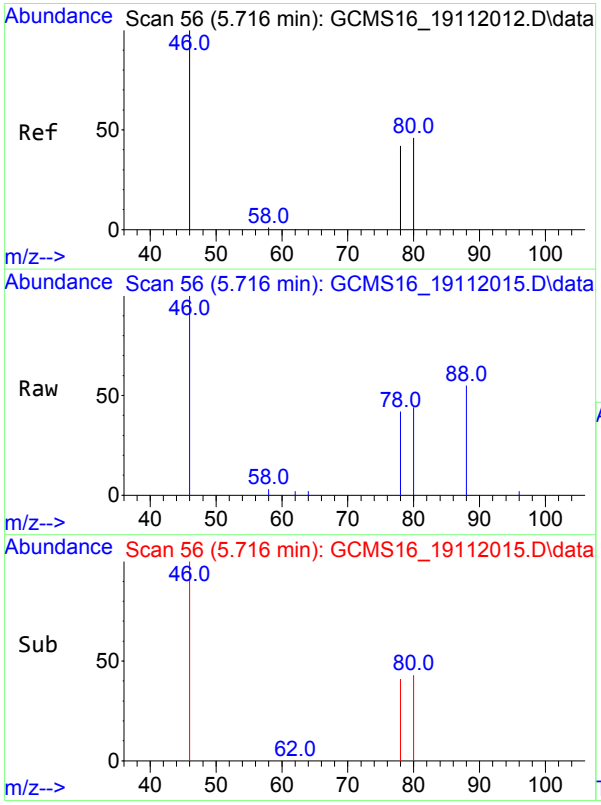
(#) = qualifier out of range (m) = manual integration (+) = signals summed CR 1/2/20

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112015.D
Acq On : 20 Nov 2019 03:04 pm
Operator : CR
Sample : ICAL L8 250 ppb
Misc : E19K054
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Nov 20 15:44:35 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:44:26 2019
Response via : Initial Calibration

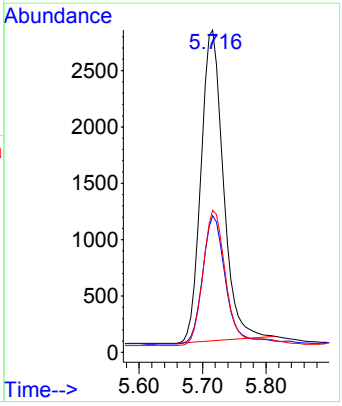


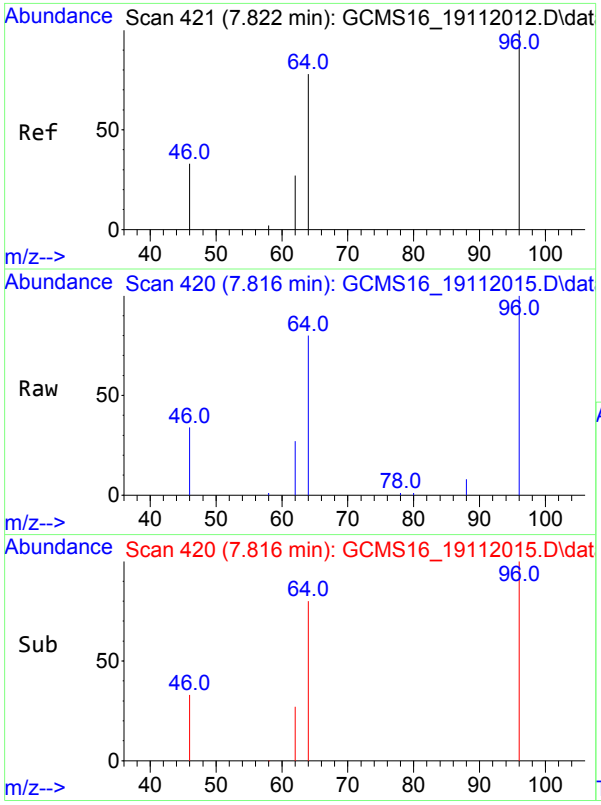


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.716 min Scan# 56
Delta R.T. 0.001 min
Lab File: GCMS16_19112015.D
Acq: 20 Nov 2019 03:04 pm

Tgt Ion: 46 Resp: 67005

Ion	Ratio	Lower	Upper
46	100		
78	40.3	27.5	51.1
80	41.3	29.0	53.9

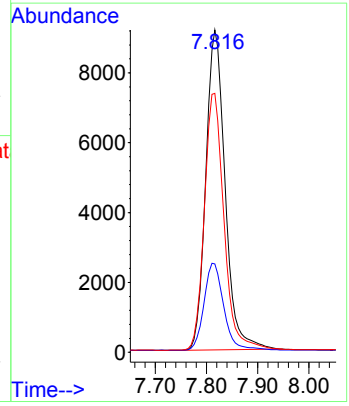


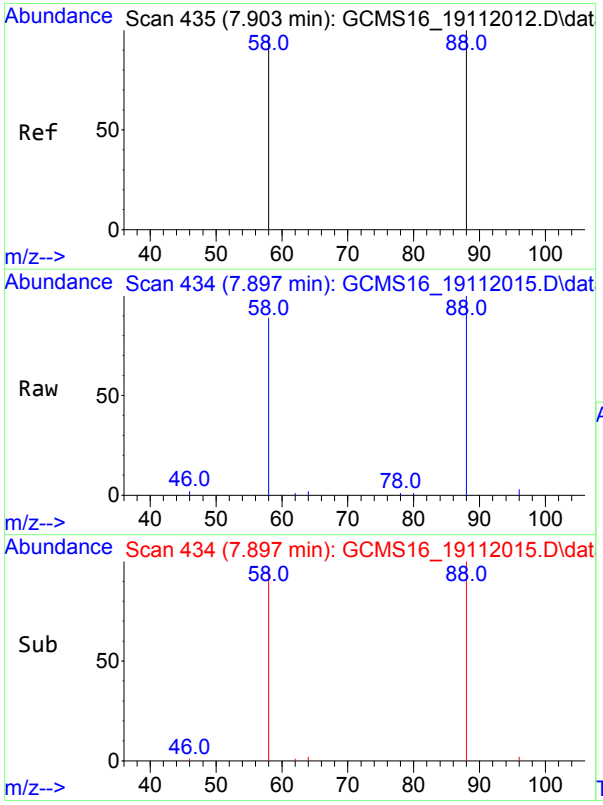


#2
1,4-Dioxane-d8
Concen: 235.36 ug/L
RT: 7.819 min Scan# 420
Delta R.T. -0.005 min
Lab File: GCMS16_19112015.D
Acq: 20 Nov 2019 03:04 pm

Tgt Ion: 96 Resp: 239535

Ion	Ratio	Lower	Upper
96	100		
62	26.7	0.0	0.0#
64	81.3	56.8	105.6

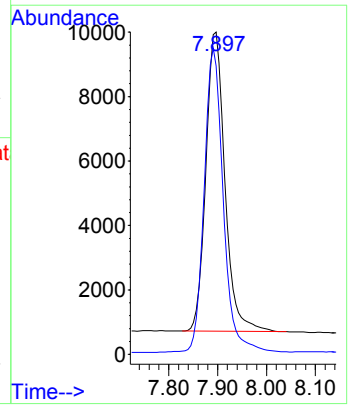




#3
1,4-Dioxane
Concen: 239.12 ug/L
RT: 7.897 min Scan# 434
Delta R.T. -0.004 min
Lab File: GCMS16_19112015.D
Acq: 20 Nov 2019 03:04 pm

Tgt Ion: 88 Resp: 250260

Ion	Ratio	Lower	Upper
88	100		
58	101.2	72.5	134.7



Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112016.D
Acq On : 20 Nov 2019 03:26 pm
Operator : CR
Sample : ICAL L9 500 ppb
Misc : E19K055
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 20 15:44:51 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:44:44 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.715	46	67690	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.818	96	480029	473.11 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.896	88	500650	478.40 ug/L	97

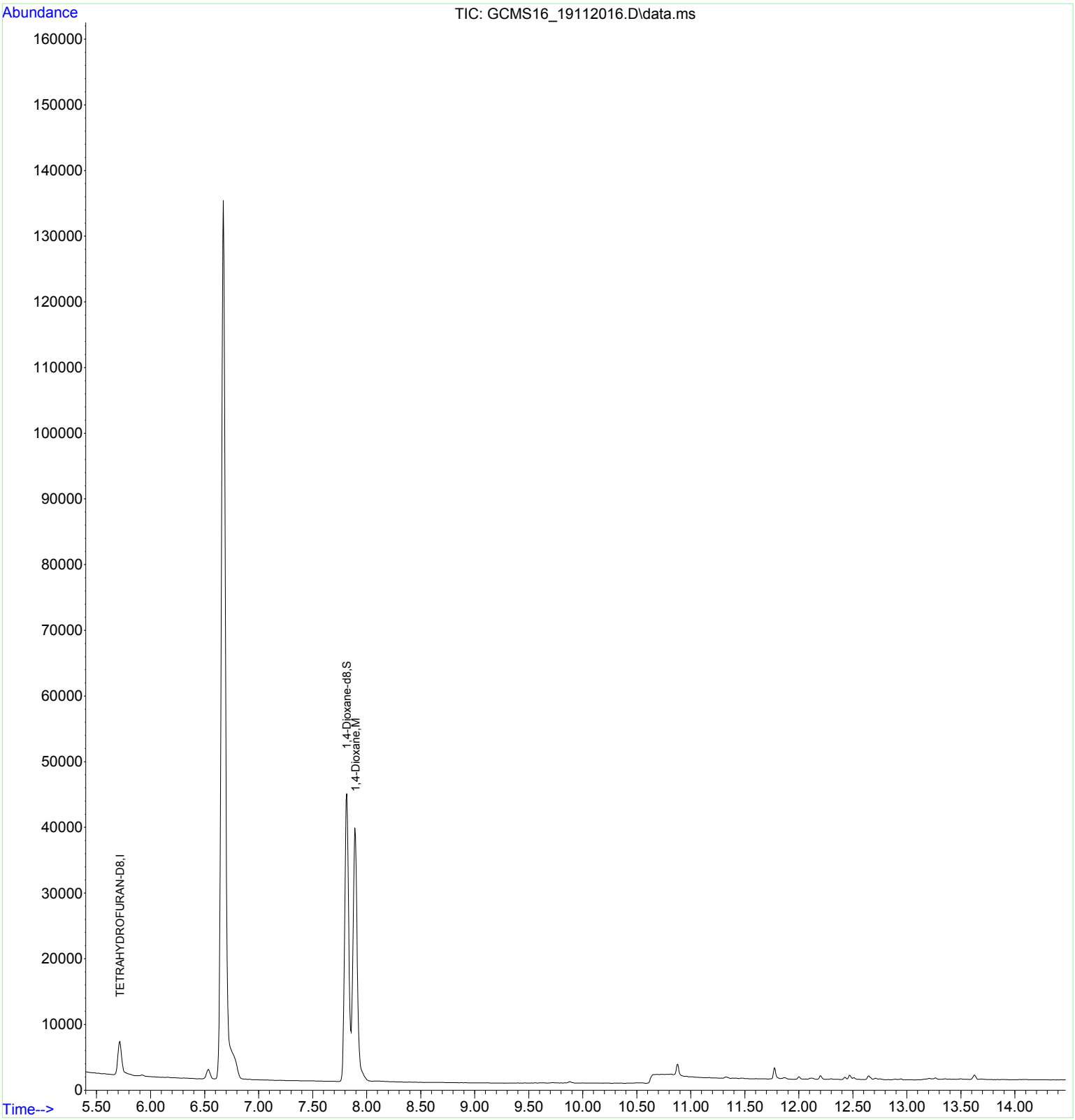
CR 1/2/20

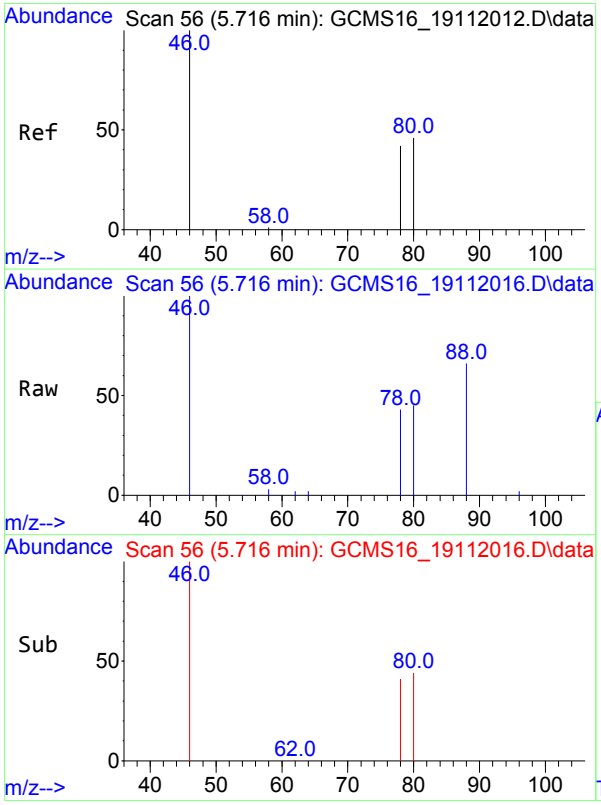
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112016.D
Acq On : 20 Nov 2019 03:26 pm
Operator : CR
Sample : ICAL L9 500 ppb
Misc : E19K055
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Nov 20 15:44:51 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:44:44 2019
Response via : Initial Calibration

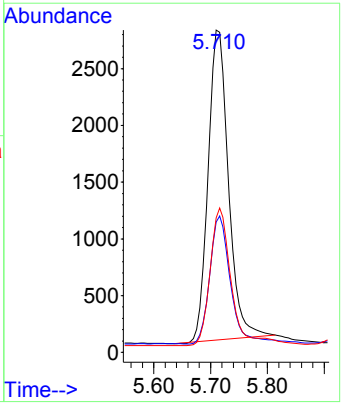


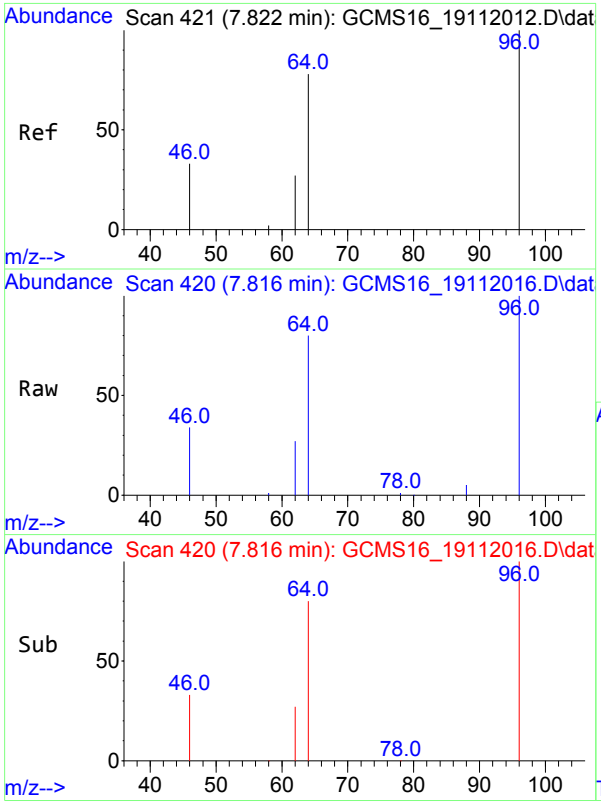


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.715 min Scan# 56
Delta R.T. -0.000 min
Lab File: GCMS16_19112016.D
Acq: 20 Nov 2019 03:26 pm

Tgt Ion: 46 Resp: 67690

Ion	Ratio	Lower	Upper
46	100		
78	39.2	27.5	51.1
80	40.7	29.0	53.9

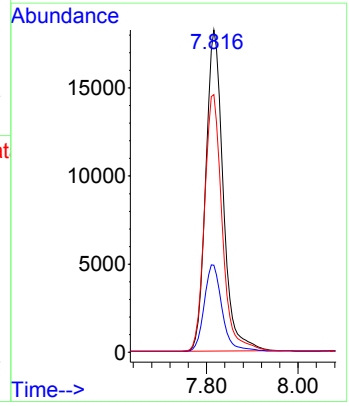


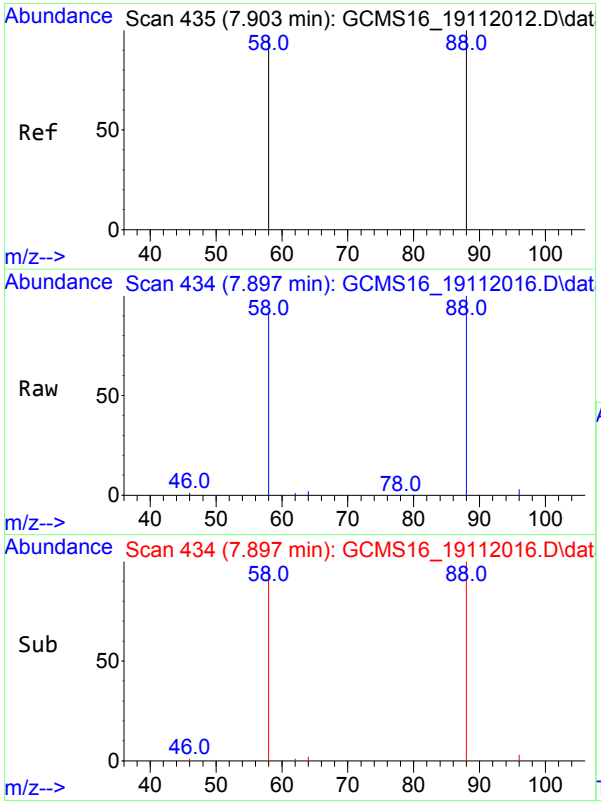


#2
1,4-Dioxane-d8
Concen: 473.11 ug/L
RT: 7.818 min Scan# 420
Delta R.T. -0.004 min
Lab File: GCMS16_19112016.D
Acq: 20 Nov 2019 03:26 pm

Tgt Ion: 96 Resp: 480029

Ion	Ratio	Lower	Upper
96	100		
62	27.4	0.0	0.0#
64	81.0	56.8	105.6

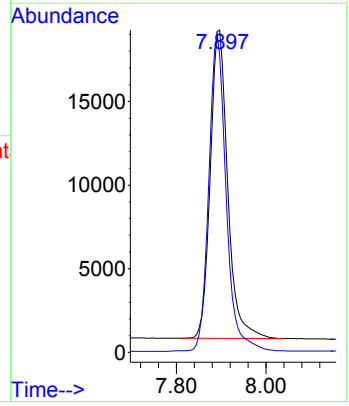




#3
1,4-Dioxane
Concen: 478.40 ug/L
RT: 7.896 min Scan# 434
Delta R.T. -0.003 min
Lab File: GCMS16_19112016.D
Acq: 20 Nov 2019 03:26 pm

Tgt Ion: 88 Resp: 500650

Ion	Ratio	Lower	Upper
88	100		
58	100.9	72.5	134.7



Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112017.D
Acq On : 20 Nov 2019 03:47 pm
Operator : CR
Sample : ICAL L10 1000 ppb
Misc : E19K056
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 20 16:02:45 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:53:00 2019
Response via : Initial Calibration

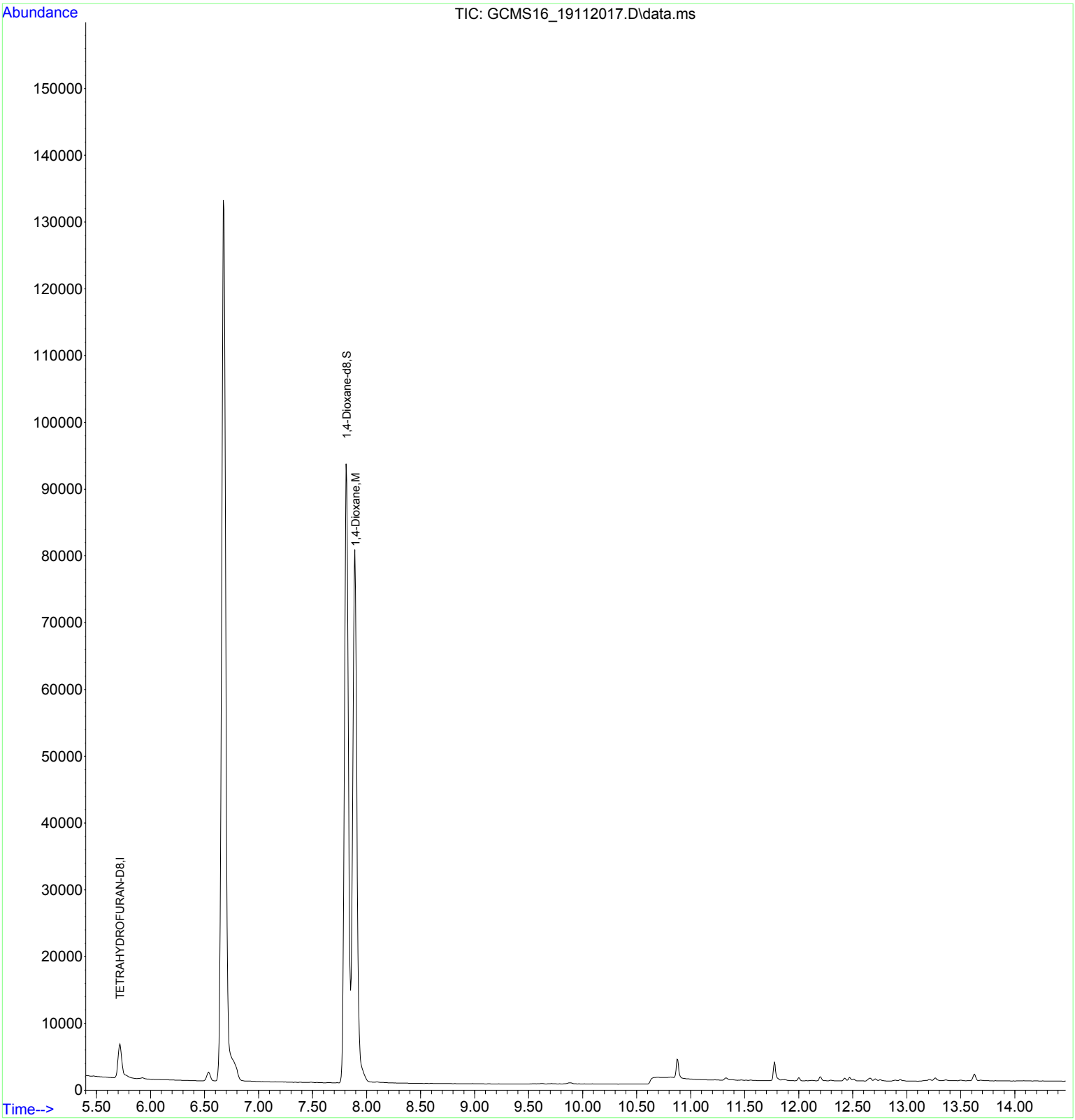
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.717	46	66336	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.816	96	982495	1017.32 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.894	88	1027860	999.05 ug/L	97

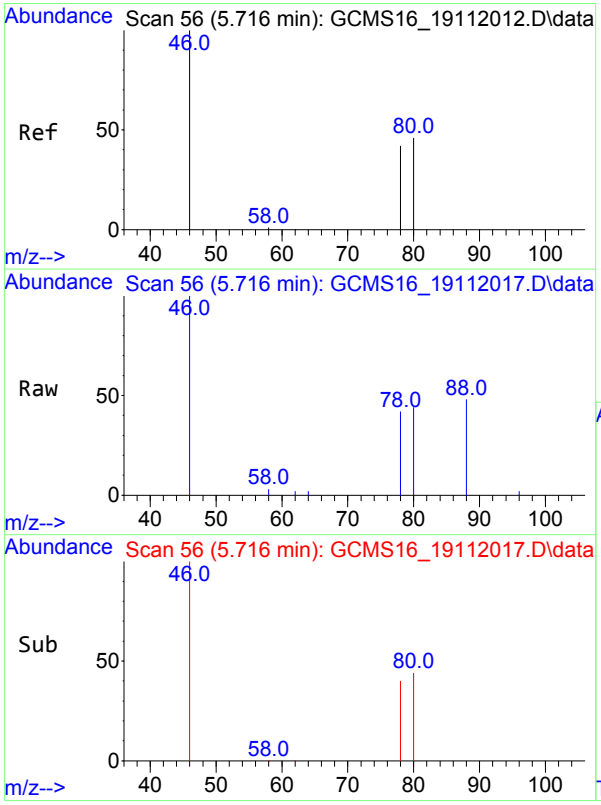
CR 1/2/20

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112017.D
Acq On : 20 Nov 2019 03:47 pm
Operator : CR
Sample : ICAL L10 1000 ppb
Misc : E19K056
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Nov 20 16:02:45 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 15:53:00 2019
Response via : Initial Calibration

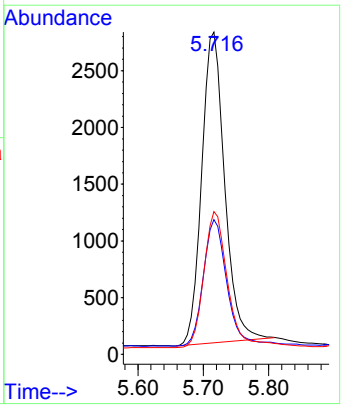


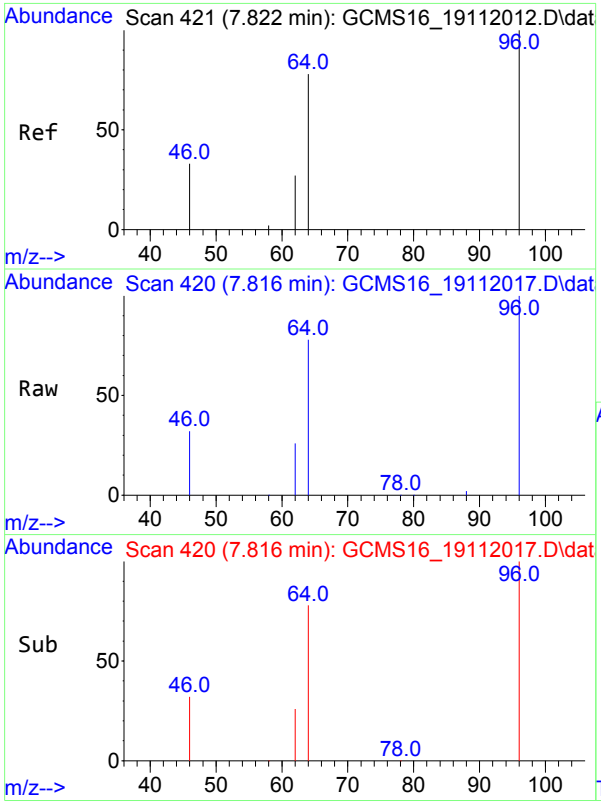


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.717 min Scan# 56
Delta R.T. 0.002 min
Lab File: GCMS16_19112017.D
Acq: 20 Nov 2019 03:47 pm

Tgt Ion: 46 Resp: 66336

Ion	Ratio	Lower	Upper
46	100		
78	40.3	27.5	51.1
80	42.2	29.0	53.9

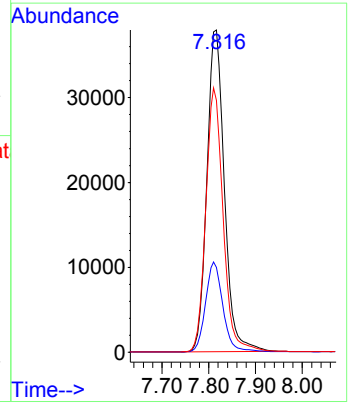


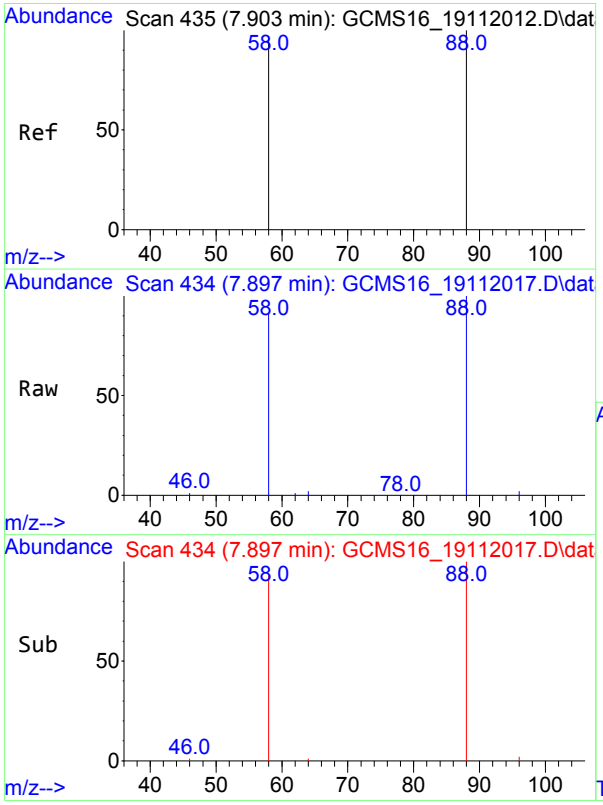


#2
1,4-Dioxane-d8
Concen: 1017.32 ug/L
RT: 7.816 min Scan# 420
Delta R.T. -0.009 min
Lab File: GCMS16_19112017.D
Acq: 20 Nov 2019 03:47 pm

Tgt Ion: 96 Resp: 982495

Ion	Ratio	Lower	Upper
96	100		
62	27.6	0.0	0.0#
64	81.2	56.8	105.6

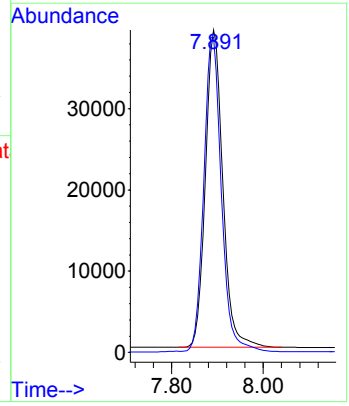




#3
1,4-Dioxane
Concen: 999.05 ug/L
RT: 7.894 min Scan# 434
Delta R.T. -0.007 min
Lab File: GCMS16_19112017.D
Acq: 20 Nov 2019 03:47 pm

Tgt Ion: 88 Resp: 1027860

Ion	Ratio	Lower	Upper
88	100		
58	100.2	72.5	134.7



Evaluate Continuing Calibration Report

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112018.D
Acq On : 20 Nov 2019 04:09 pm
Operator : CR
Sample : ICV 25 ppb
Misc : E19K057
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 20 16:28:38 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	TETRAHYDROFURAN-D8	50.000	50.000	0.0	97	0.00
2	S	1,4-Dioxane-d8	25.000	0.093	99.6#	0	0.19
3	M	1,4-Dioxane	25.000	25.764	-3.1	103	0.00

CR 1/2/20

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112018.D
Acq On : 20 Nov 2019 04:09 pm
Operator : CR
Sample : ICV 25 ppb
Misc : E19K057
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 20 16:28:38 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.714	46	61938	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	8.013	96	83	0.09 ug/L	0.19
Target Compounds					Qvalue
3) 1,4-Dioxane	7.903	88	24738	25.76 ug/L	98

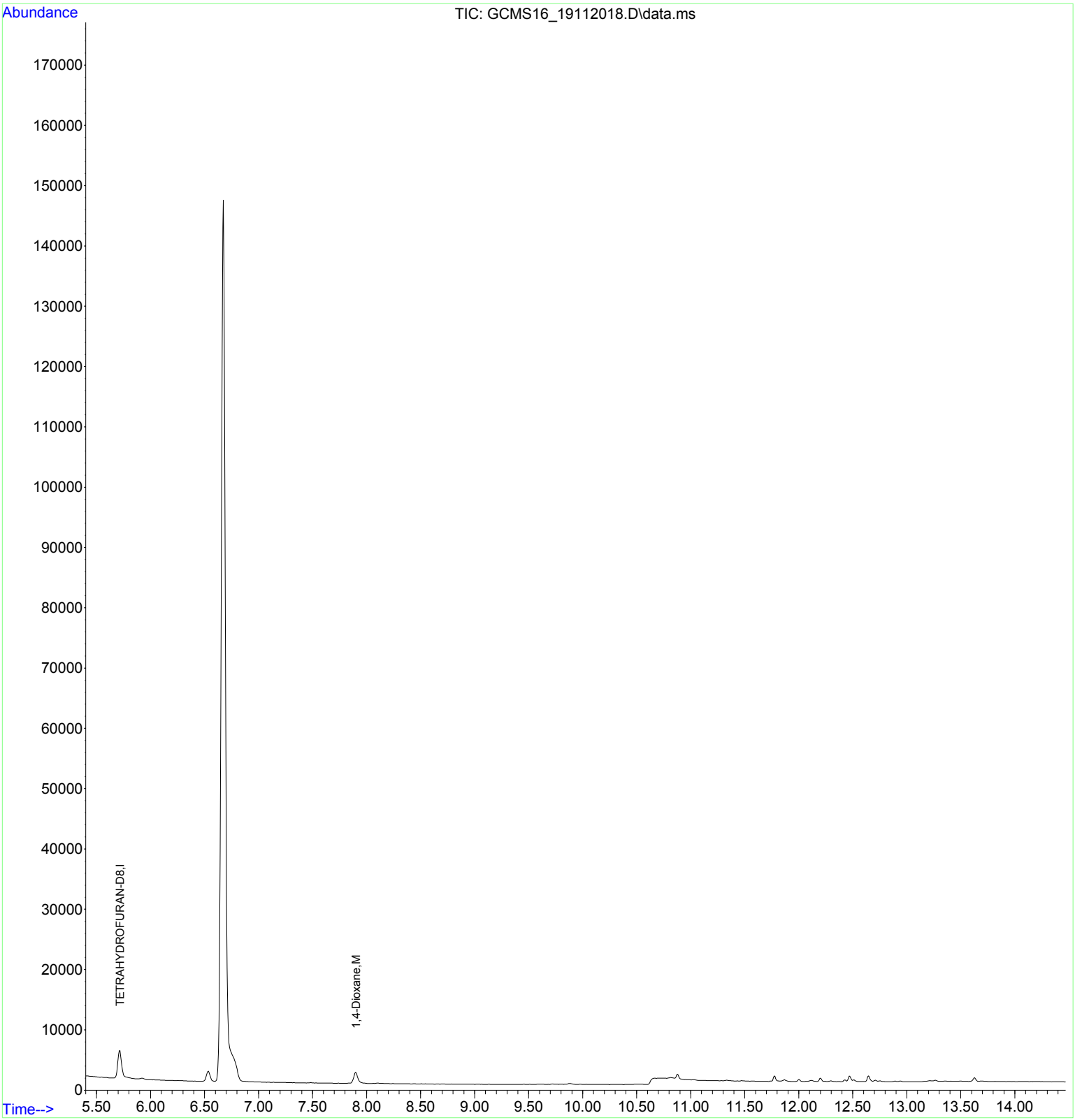
CR 1/2/20

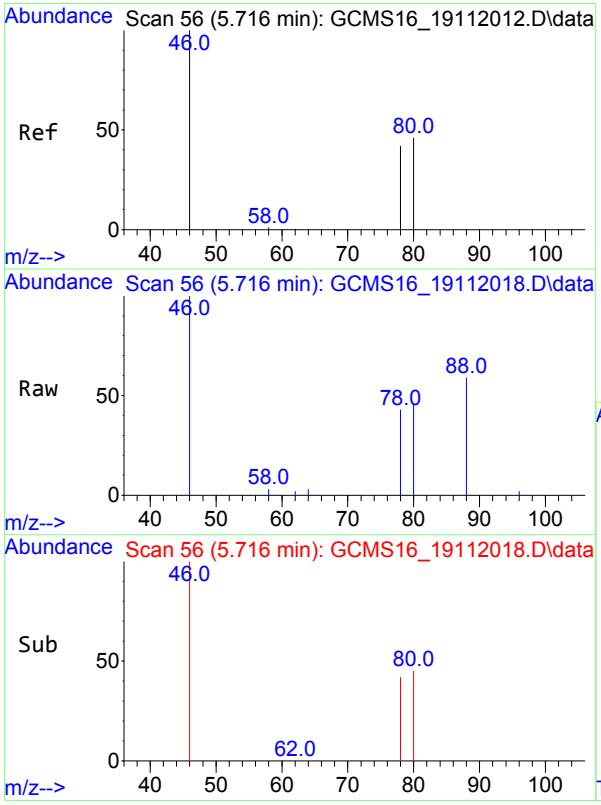
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112018.D
Acq On : 20 Nov 2019 04:09 pm
Operator : CR
Sample : ICV 25 ppb
Misc : E19K057
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Nov 20 16:28:38 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

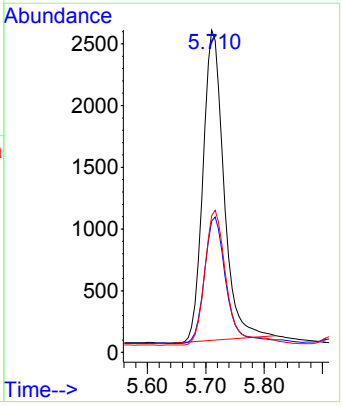


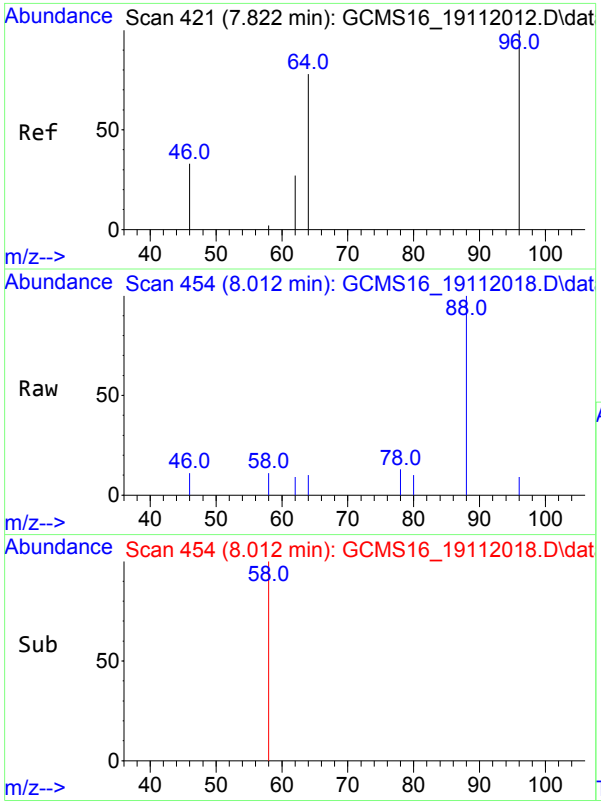


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.714 min Scan# 56
Delta R.T. -0.001 min
Lab File: GCMS16_19112018.D
Acq: 20 Nov 2019 04:09 pm

Tgt Ion: 46 Resp: 61938

Ion	Ratio	Lower	Upper
46	100		
78	39.8	27.5	51.1
80	41.5	29.0	53.9

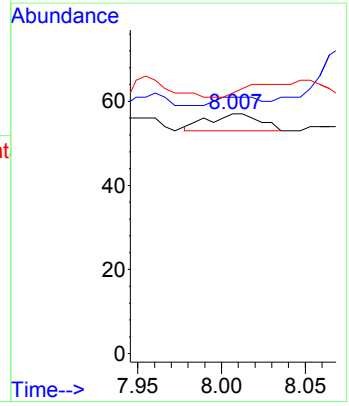


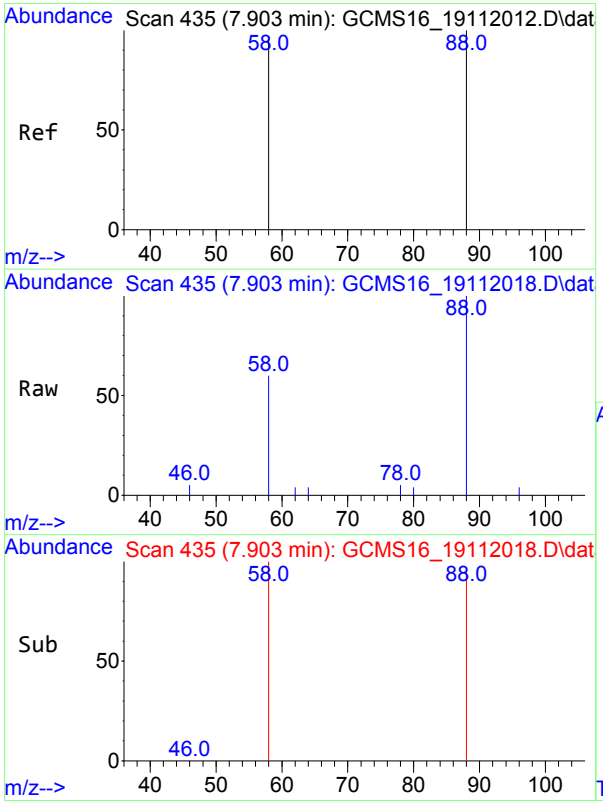


#2
1,4-Dioxane-d8
Concen: 0.09 ug/L
RT: 8.013 min Scan# 454
Delta R.T. 0.190 min
Lab File: GCMS16_19112018.D
Acq: 20 Nov 2019 04:09 pm

Tgt Ion: 96 Resp: 83

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	0.0	56.8	105.6#

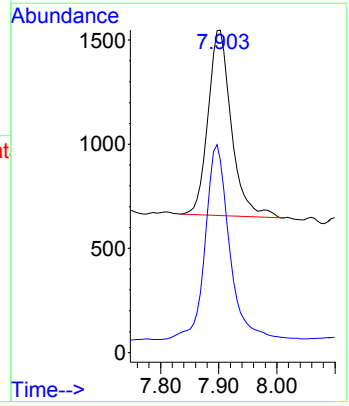




#3
1,4-Dioxane
Concen: 25.76 ug/L
RT: 7.903 min Scan# 435
Delta R.T. 0.003 min
Lab File: GCMS16_19112018.D
Acq: 20 Nov 2019 04:09 pm

Tgt Ion: 88 Resp: 24738

Ion	Ratio	Lower	Upper
88	100		
58	106.0	72.5	134.7



Evaluate Continuing Calibration Report

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121204.D
Acq On : 12 Dec 2019 02:35 pm
Operator : CR
Sample : CCV 25 ppb
Misc : E19K051
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 12 15:03:28 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	TETRAHYDROFURAN-D8	50.000	50.000	0.0	97	0.00
2	S	1,4-Dioxane-d8	25.000	23.203	7.2	94	0.00
3	M	1,4-Dioxane	25.000	23.262	7.0	93	0.00

CR 1/2/20

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121204.D
Acq On : 12 Dec 2019 02:35 pm
Operator : CR
Sample : CCV 25 ppb
Misc : E19K051
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 12 15:03:28 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.716	46	62031	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	7.824	96	20861	23.20	ug/L	0.00
Target Compounds						Qvalue
3) 1,4-Dioxane	7.901	88	22369	23.26	ug/L	100

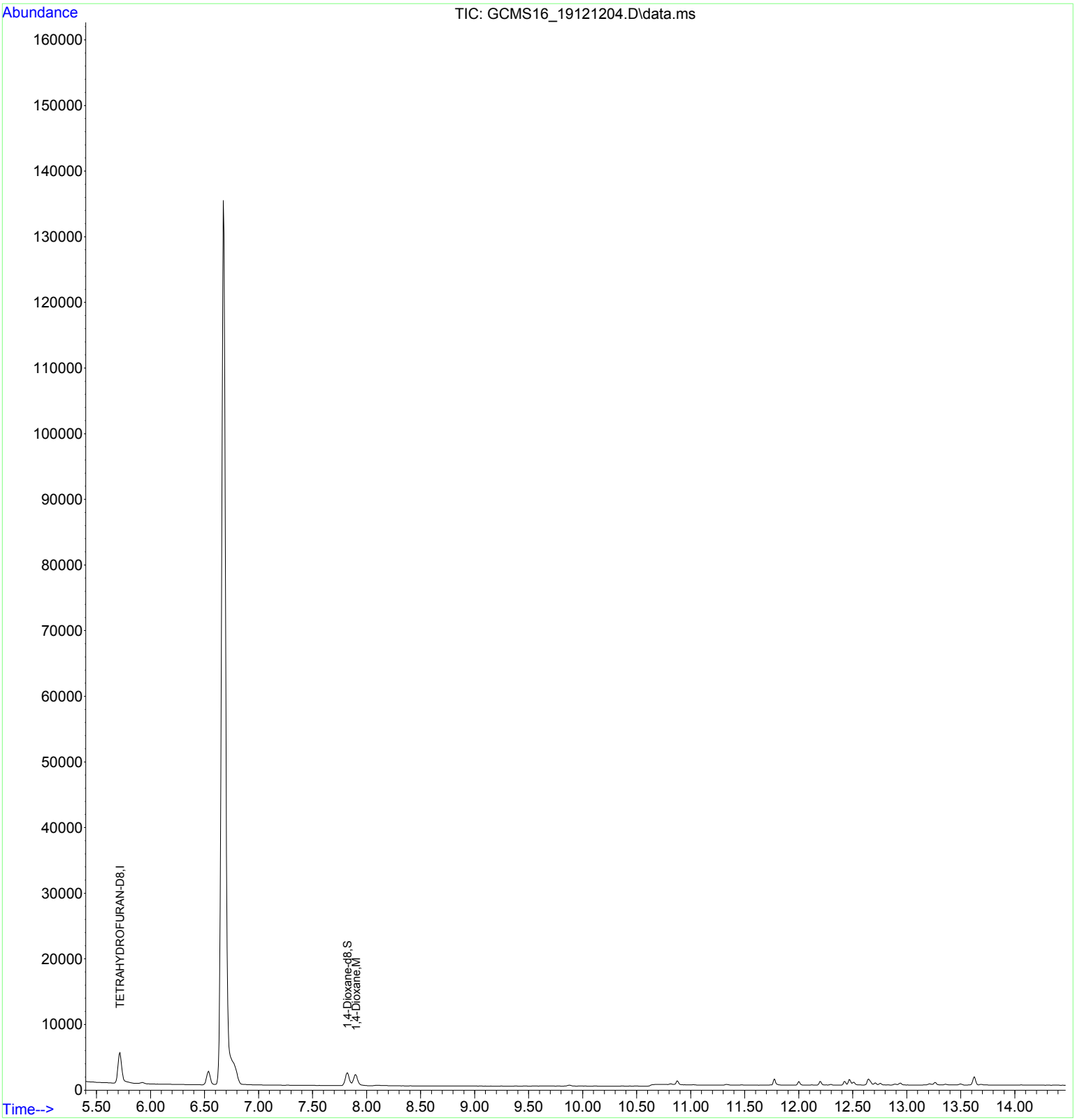
CR 1/2/20

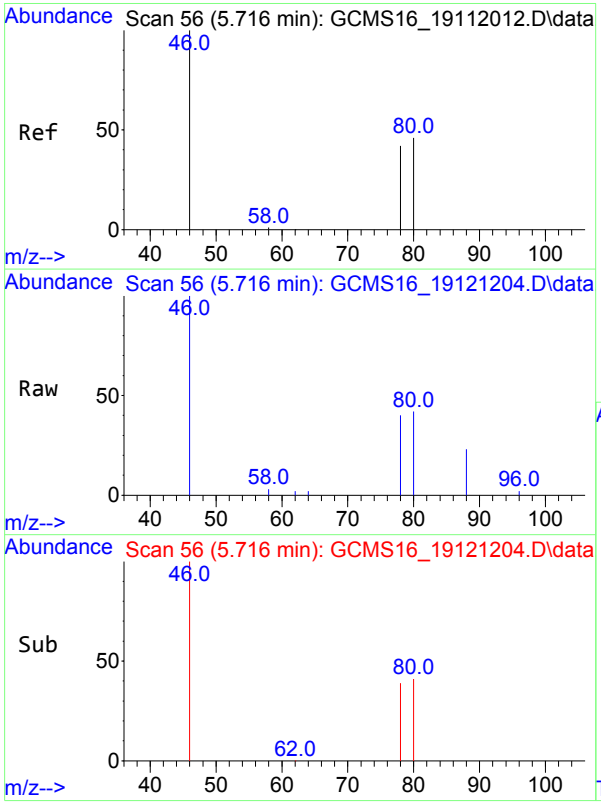
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121204.D
Acq On : 12 Dec 2019 02:35 pm
Operator : CR
Sample : CCV 25 ppb
Misc : E19K051
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 12 15:03:28 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

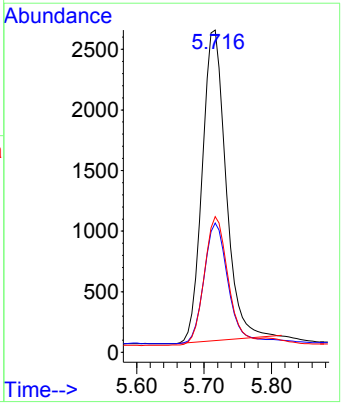


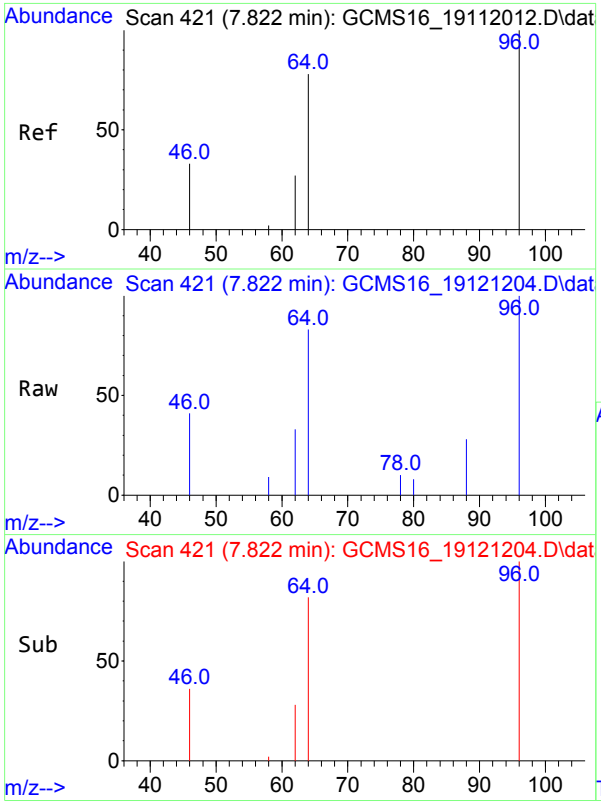


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.716 min Scan# 56
Delta R.T. 0.001 min
Lab File: GCMS16_19121204.D
Acq: 12 Dec 2019 02:35 pm

Tgt Ion: 46 Resp: 62031

Ion	Ratio	Lower	Upper
46	100		
78	37.4	27.5	51.1
80	38.8	29.0	53.9

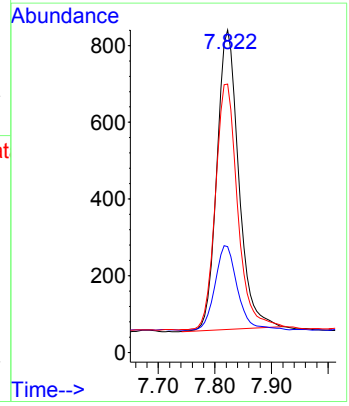


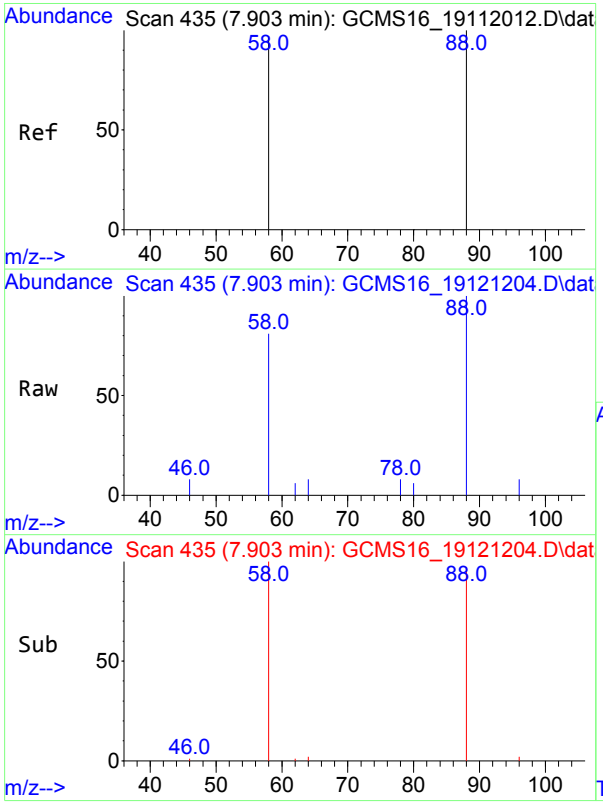


#2
1,4-Dioxane-d8
Concen: 23.20 ug/L
RT: 7.824 min Scan# 421
Delta R.T. 0.001 min
Lab File: GCMS16_19121204.D
Acq: 12 Dec 2019 02:35 pm

Tgt Ion: 96 Resp: 20861

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	80.1	56.8	105.6

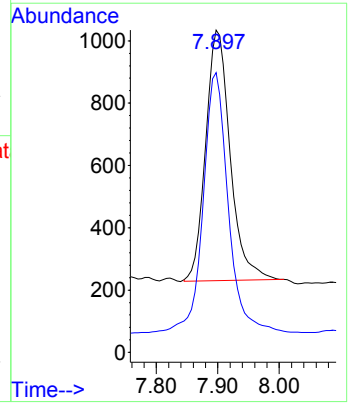




#3
1,4-Dioxane
Concen: 23.26 ug/L
RT: 7.901 min Scan# 435
Delta R.T. 0.002 min
Lab File: GCMS16_19121204.D
Acq: 12 Dec 2019 02:35 pm

Tgt Ion: 88 Resp: 22369

Ion	Ratio	Lower	Upper
88	100		
58	104.0	72.5	134.7



Evaluate Continuing Calibration Report

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121223.D
Acq On : 12 Dec 2019 09:13 pm
Operator : CR
Sample : CCV 25 ppb
Misc : E19K051
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 13 09:42:19 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	TETRAHYDROFURAN-D8	50.000	50.000	0.0	105	0.00
2	S	1,4-Dioxane-d8	25.000	24.085	3.7	105	0.00
3	M	1,4-Dioxane	25.000	23.388	6.4	101	0.00

CR 1/2/20

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121223.D
Acq On : 12 Dec 2019 09:13 pm
Operator : CR
Sample : CCV 25 ppb
Misc : E19K051
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 13 09:42:19 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.711	46	67149	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.823	96	23441	24.09 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.900	88	24346	23.39 ug/L	96

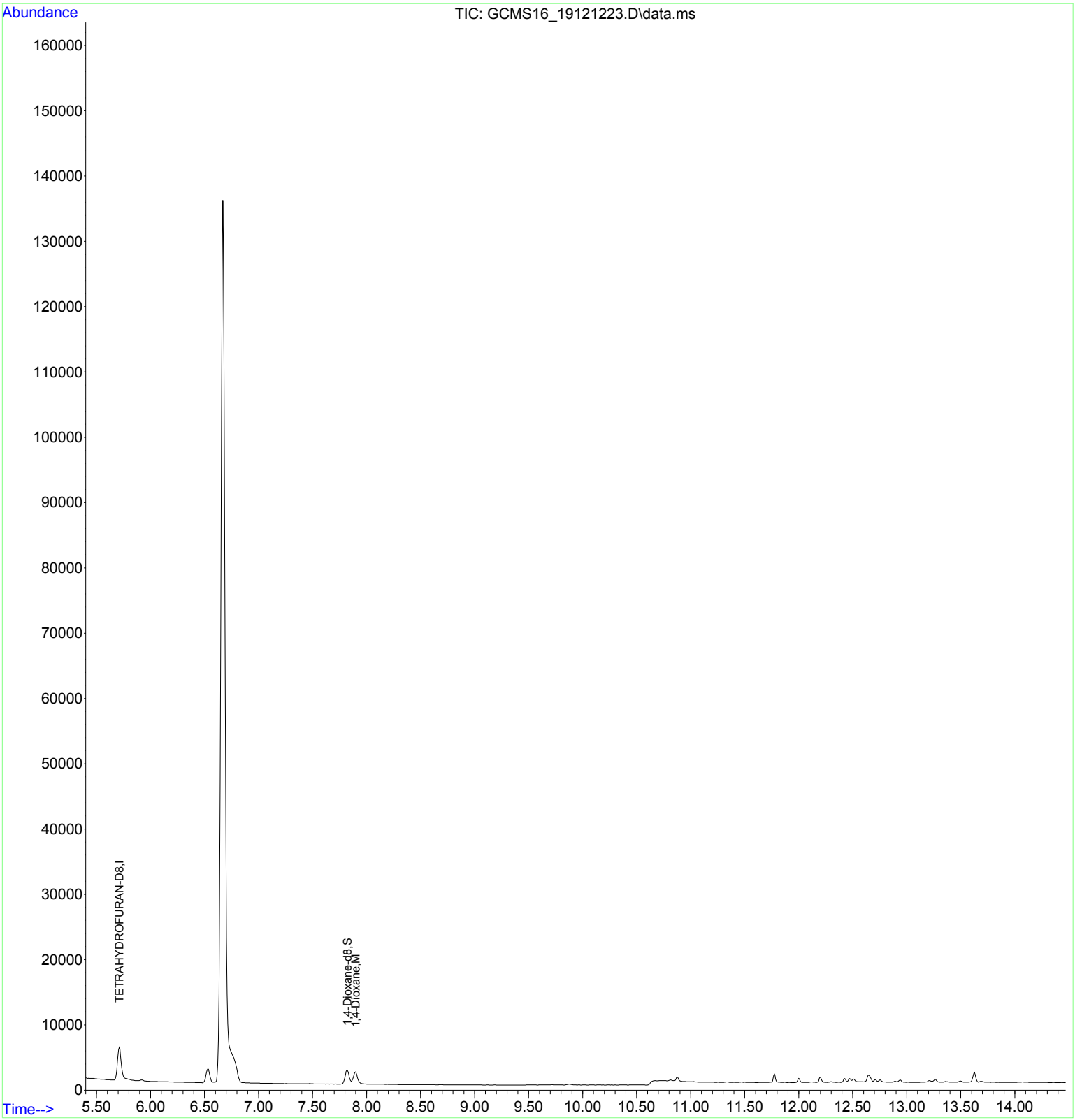
CR 1/2/20

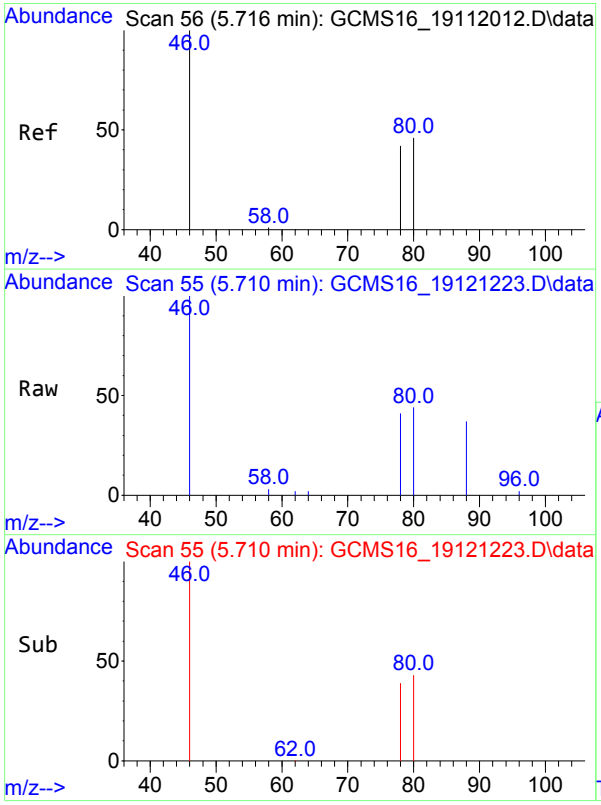
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121223.D
Acq On : 12 Dec 2019 09:13 pm
Operator : CR
Sample : CCV 25 ppb
Misc : E19K051
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 13 09:42:19 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

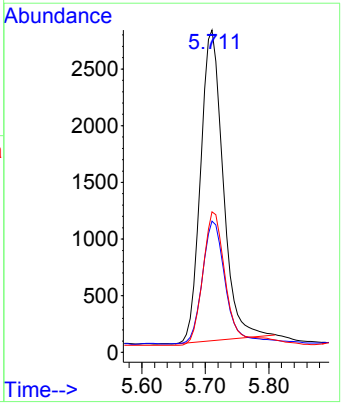


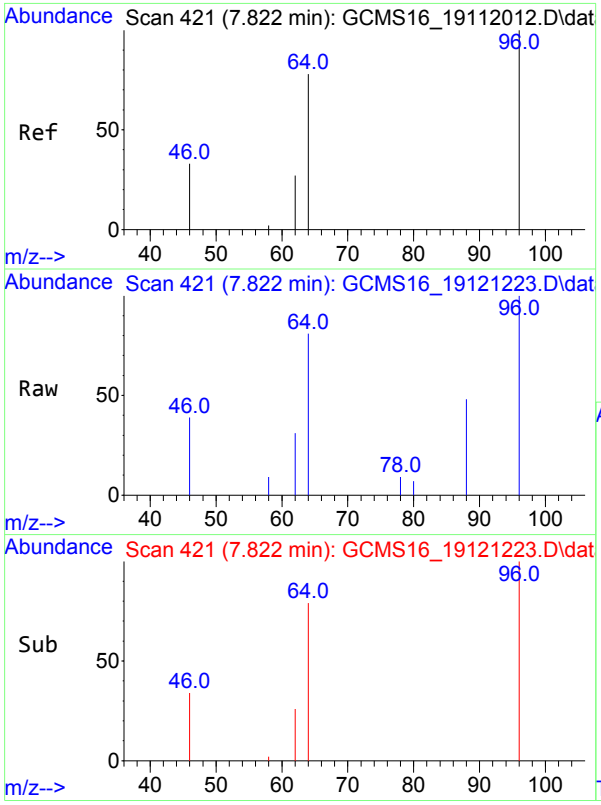


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.711 min Scan# 55
Delta R.T. -0.004 min
Lab File: GCMS16_19121223.D
Acq: 12 Dec 2019 09:13 pm

Tgt Ion: 46 Resp: 67149

Ion	Ratio	Lower	Upper
46	100		
78	38.2	27.5	51.1
80	39.8	29.0	53.9

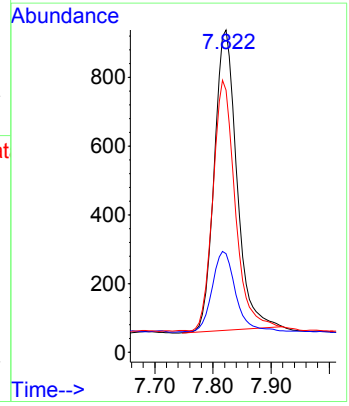


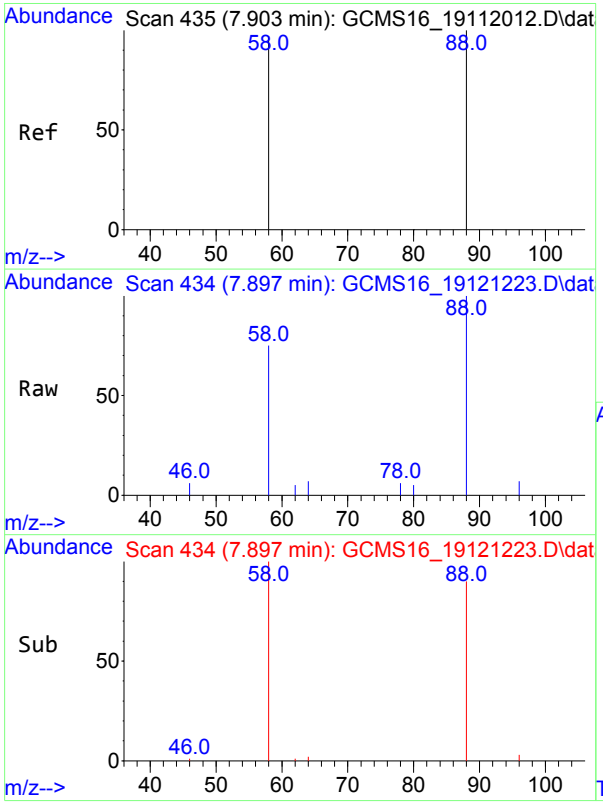


#2
1,4-Dioxane-d8
Concen: 24.09 ug/L
RT: 7.823 min Scan# 421
Delta R.T. 0.000 min
Lab File: GCMS16_19121223.D
Acq: 12 Dec 2019 09:13 pm

Tgt Ion: 96 Resp: 23441

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	79.7	56.8	105.6

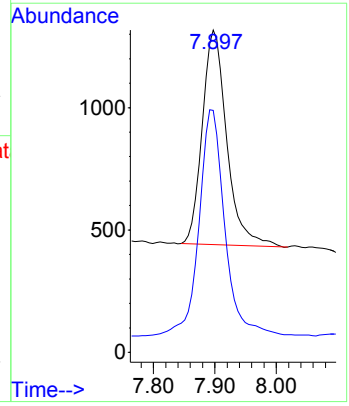




#3
1,4-Dioxane
Concen: 23.39 ug/L
RT: 7.900 min Scan# 434
Delta R.T. 0.001 min
Lab File: GCMS16_19121223.D
Acq: 12 Dec 2019 09:13 pm

Tgt Ion: 88 Resp: 24346

Ion	Ratio	Lower	Upper
88	100		
58	107.8	72.5	134.7



Evaluate Continuing Calibration Report

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191212_CR\
Data File : GCMS16_19121239.D
Acq On : 13 Dec 2019 02:50 am
Operator : CR
Sample : CCV 25 ppb
Misc : E19K051
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Dec 13 11:32:19 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	TETRAHYDROFURAN-D8	50.000	50.000	0.0	105	0.00
2 S	1,4-Dioxane-d8	25.000	22.486	10.1	99	0.00
3 M	1,4-Dioxane	25.000	21.646	13.4	94	0.00

CR 1/2/20

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121239.D
Acq On : 13 Dec 2019 02:50 am
Operator : CR
Sample : CCV 25 ppb
Misc : E19K051
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Dec 13 11:32:19 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.715	46	67486	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.821	96	21994	22.49 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.899	88	22646	21.65 ug/L	97

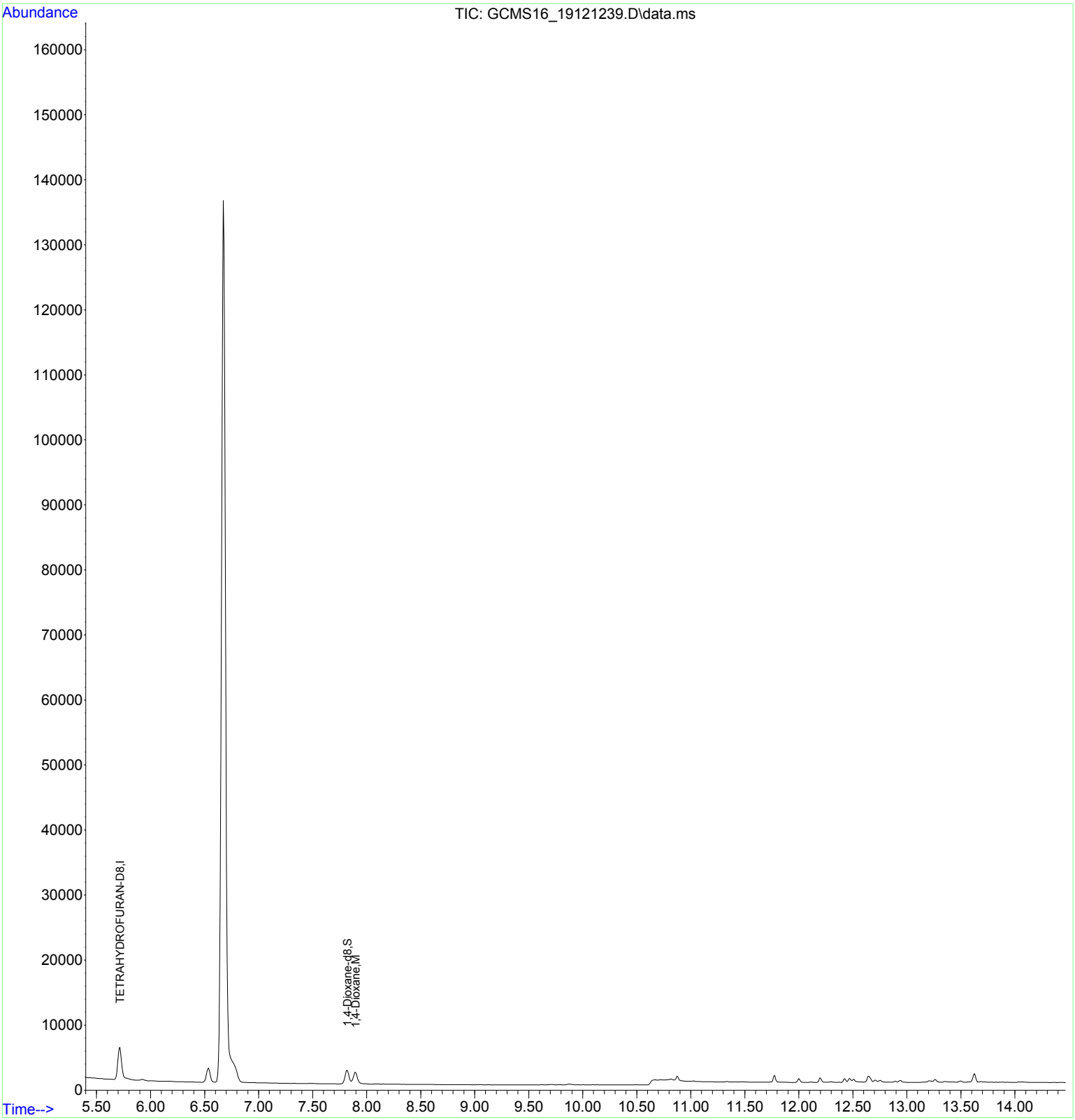
CR 1/2/20

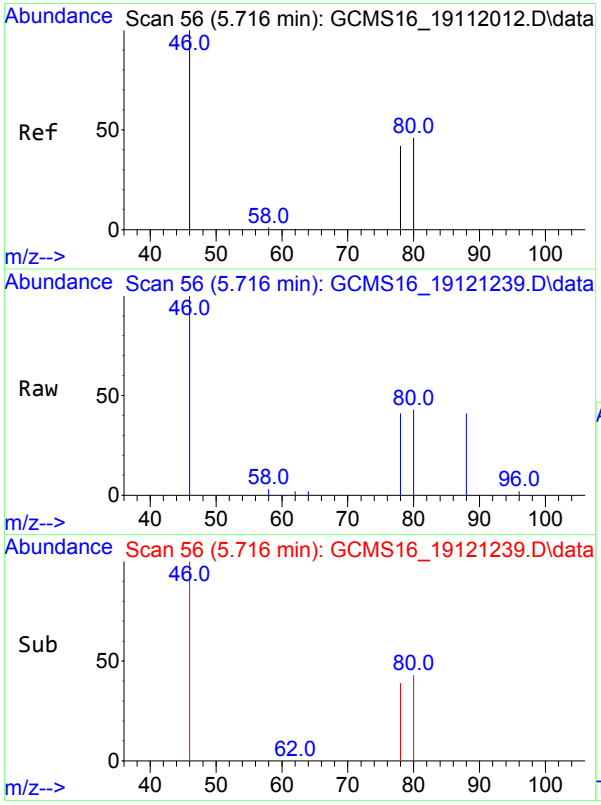
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121239.D
Acq On : 13 Dec 2019 02:50 am
Operator : CR
Sample : CCV 25 ppb
Misc : E19K051
ALS Vial : 100 Sample Multiplier: 1

Quant Time: Dec 13 11:32:19 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

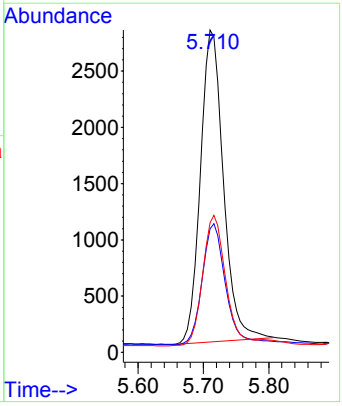


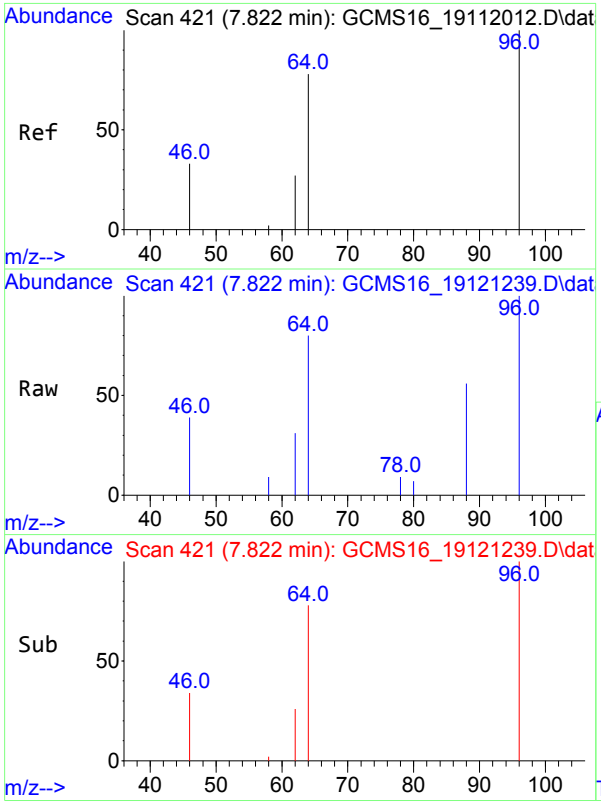


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.715 min Scan# 56
Delta R.T. -0.000 min
Lab File: GCMS16_19121239.D
Acq: 13 Dec 2019 02:50 am

Tgt Ion: 46 Resp: 67486

Ion	Ratio	Lower	Upper
46	100		
78	37.5	27.5	51.1
80	38.7	29.0	53.9

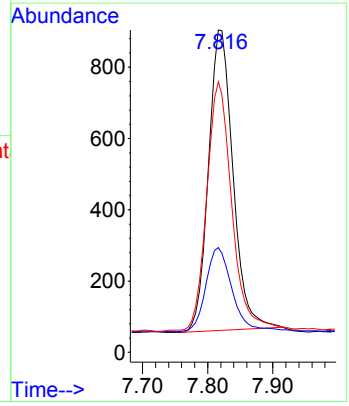


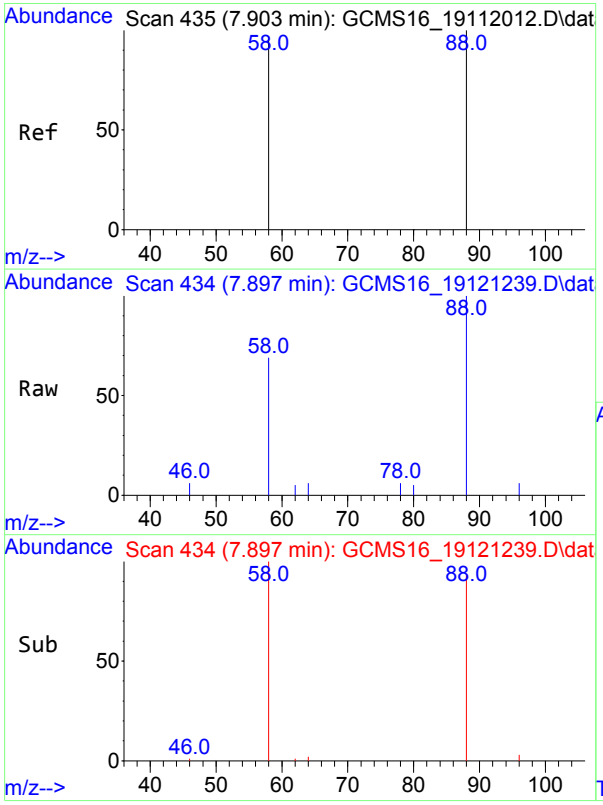


#2
1,4-Dioxane-d8
Concen: 22.49 ug/L
RT: 7.821 min Scan# 421
Delta R.T. -0.001 min
Lab File: GCMS16_19121239.D
Acq: 13 Dec 2019 02:50 am

Tgt Ion: 96 Resp: 21994

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	81.4	56.8	105.6

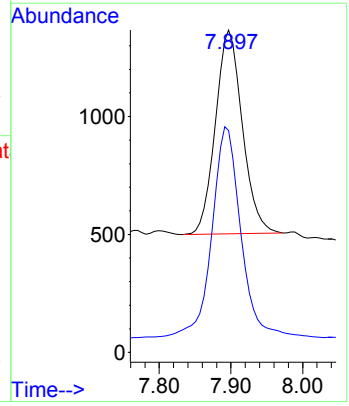




#3
1,4-Dioxane
Concen: 21.65 ug/L
RT: 7.899 min Scan# 434
Delta R.T. -0.001 min
Lab File: GCMS16_19121239.D
Acq: 13 Dec 2019 02:50 am

Tgt Ion: 88 Resp: 22646

Ion	Ratio	Lower	Upper
88	100		
58	106.5	72.5	134.7



Evaluate Continuing Calibration Report

Data Path : D:\MassHunter\GCMS\1\data\191213_CR\
Data File : GCMS16_19121303.D
Acq On : 13 Dec 2019 11:49 am
Operator : CR
Sample : CCV 25 ppb
Misc : E19K051
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 13 12:07:08 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	TETRAHYDROFURAN-D8	50.000	50.000	0.0	100	0.00
2	S	1,4-Dioxane-d8	25.000	22.693	9.2	94	0.00
3	M	1,4-Dioxane	25.000	22.889	8.4	94	0.00

CR 1/2/20

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191213_CR\
Data File : GCMS16_19121303.D
Acq On : 13 Dec 2019 11:49 am
Operator : CR
Sample : CCV 25 ppb
Misc : E19K051
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 13 12:07:08 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.715	46	63991	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	7.822	96	21047	22.69	ug/L	0.00
Target Compounds						Qvalue
3) 1,4-Dioxane	7.899	88	22706	22.89	ug/L	100

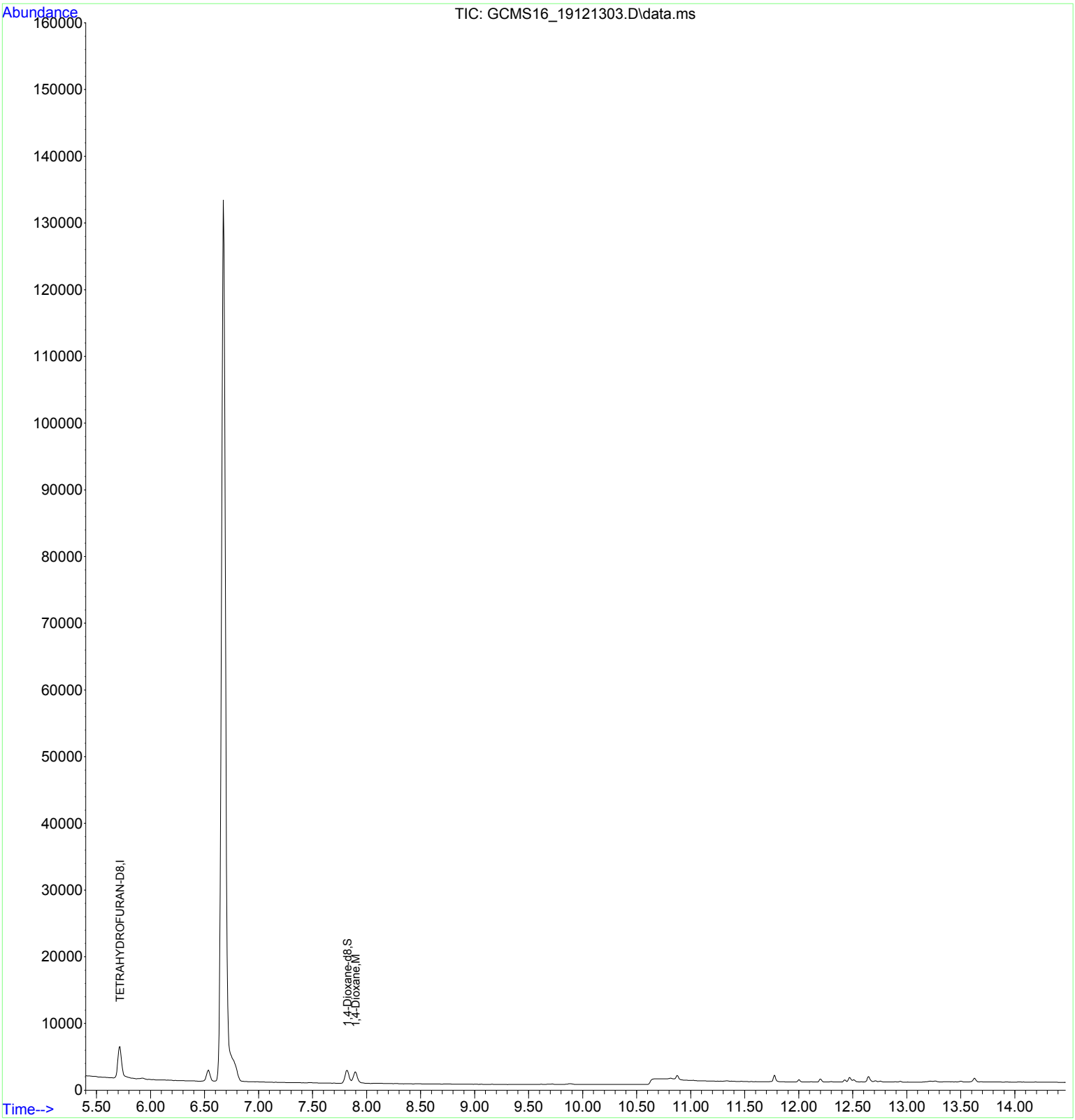
CR 1/2/20

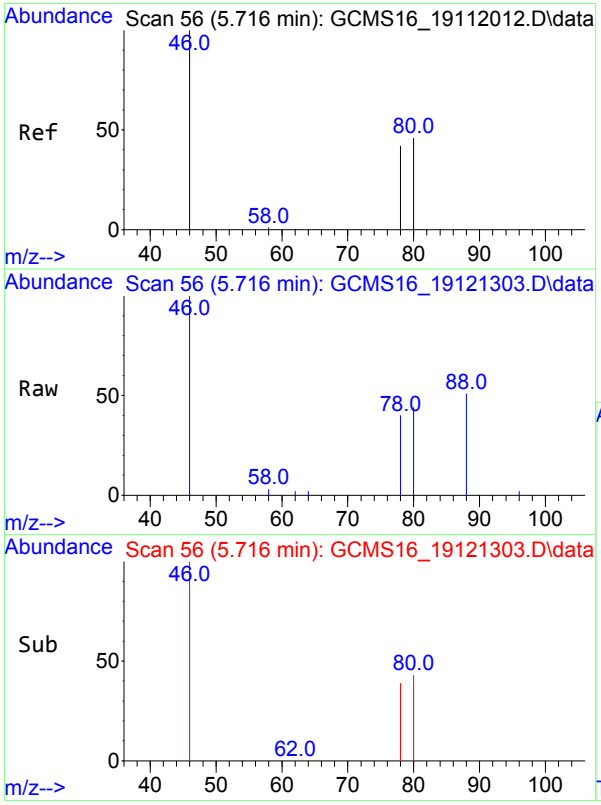
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191213_CR\
Data File : GCMS16_19121303.D
Acq On : 13 Dec 2019 11:49 am
Operator : CR
Sample : CCV 25 ppb
Misc : E19K051
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 13 12:07:08 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

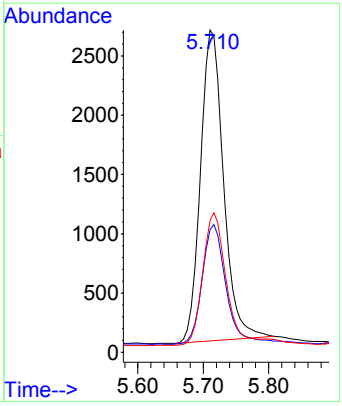


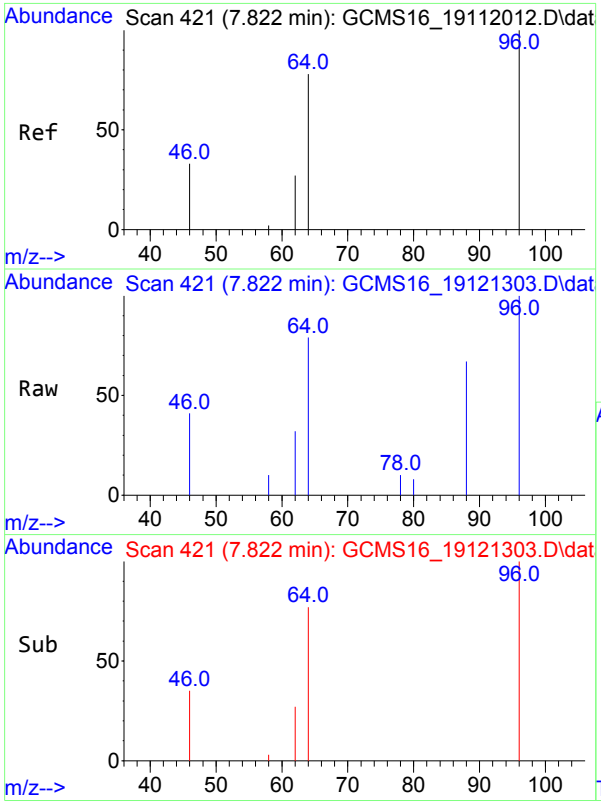


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.715 min Scan# 56
Delta R.T. -0.000 min
Lab File: GCMS16_19121303.D
Acq: 13 Dec 2019 11:49 am

Tgt Ion: 46 Resp: 63991

Ion	Ratio	Lower	Upper
46	100		
78	37.8	27.5	51.1
80	39.7	29.0	53.9

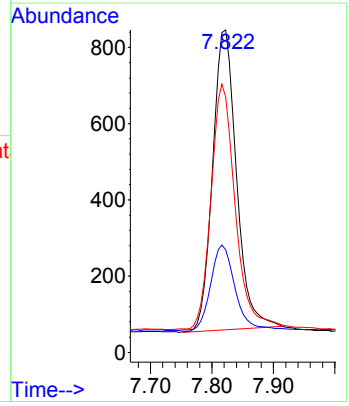


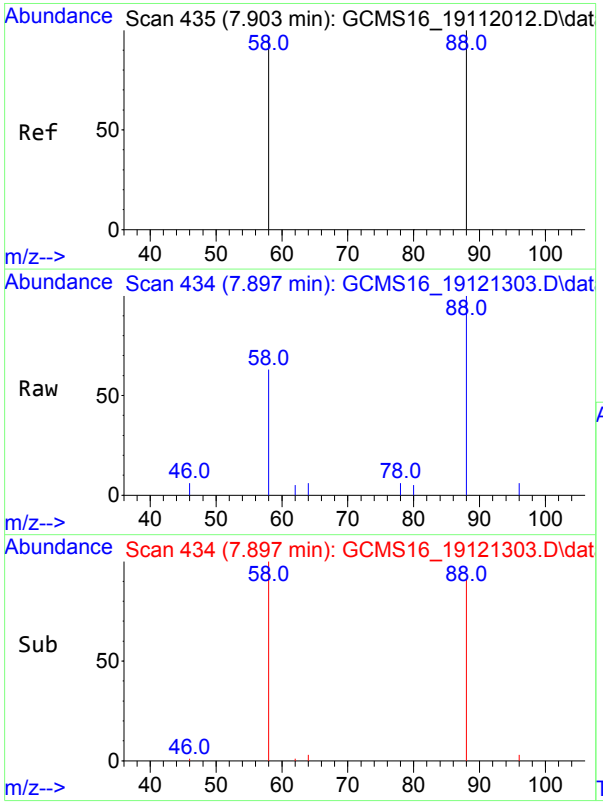


#2
1,4-Dioxane-d8
Concen: 22.69 ug/L
RT: 7.822 min Scan# 421
Delta R.T. -0.001 min
Lab File: GCMS16_19121303.D
Acq: 13 Dec 2019 11:49 am

Tgt Ion: 96 Resp: 21047

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	79.2	56.8	105.6

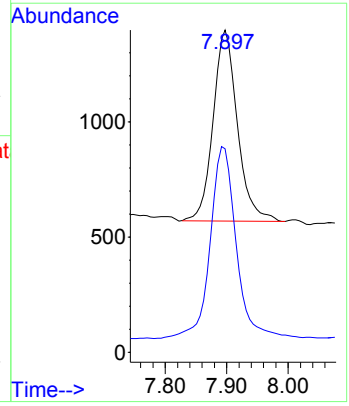




#3
1,4-Dioxane
Concen: 22.89 ug/L
RT: 7.899 min Scan# 434
Delta R.T. -0.000 min
Lab File: GCMS16_19121303.D
Acq: 13 Dec 2019 11:49 am

Tgt Ion: 88 Resp: 22706

Ion	Ratio	Lower	Upper
88	100		
58	103.3	72.5	134.7



Evaluate Continuing Calibration Report

Data Path : D:\MassHunter\GCMS\1\data\191213_CR\
Data File : GCMS16_19121306.D
Acq On : 13 Dec 2019 12:53 pm
Operator : CR
Sample : CCV 25 ppb
Misc : E19K051
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 13 13:21:38 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	TETRAHYDROFURAN-D8	50.000	50.000	0.0	97	0.00
2 S	1,4-Dioxane-d8	25.000	22.623	9.5	92	0.00
3 M	1,4-Dioxane	25.000	22.772	8.9	91	0.00

CR 1/2/20

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191213_CR\
Data File : GCMS16_19121306.D
Acq On : 13 Dec 2019 12:53 pm
Operator : CR
Sample : CCV 25 ppb
Misc : E19K051
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 13 13:21:38 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.713	46	62318	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.822	96	20433	22.62 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.900	88	21999	22.77 ug/L	100

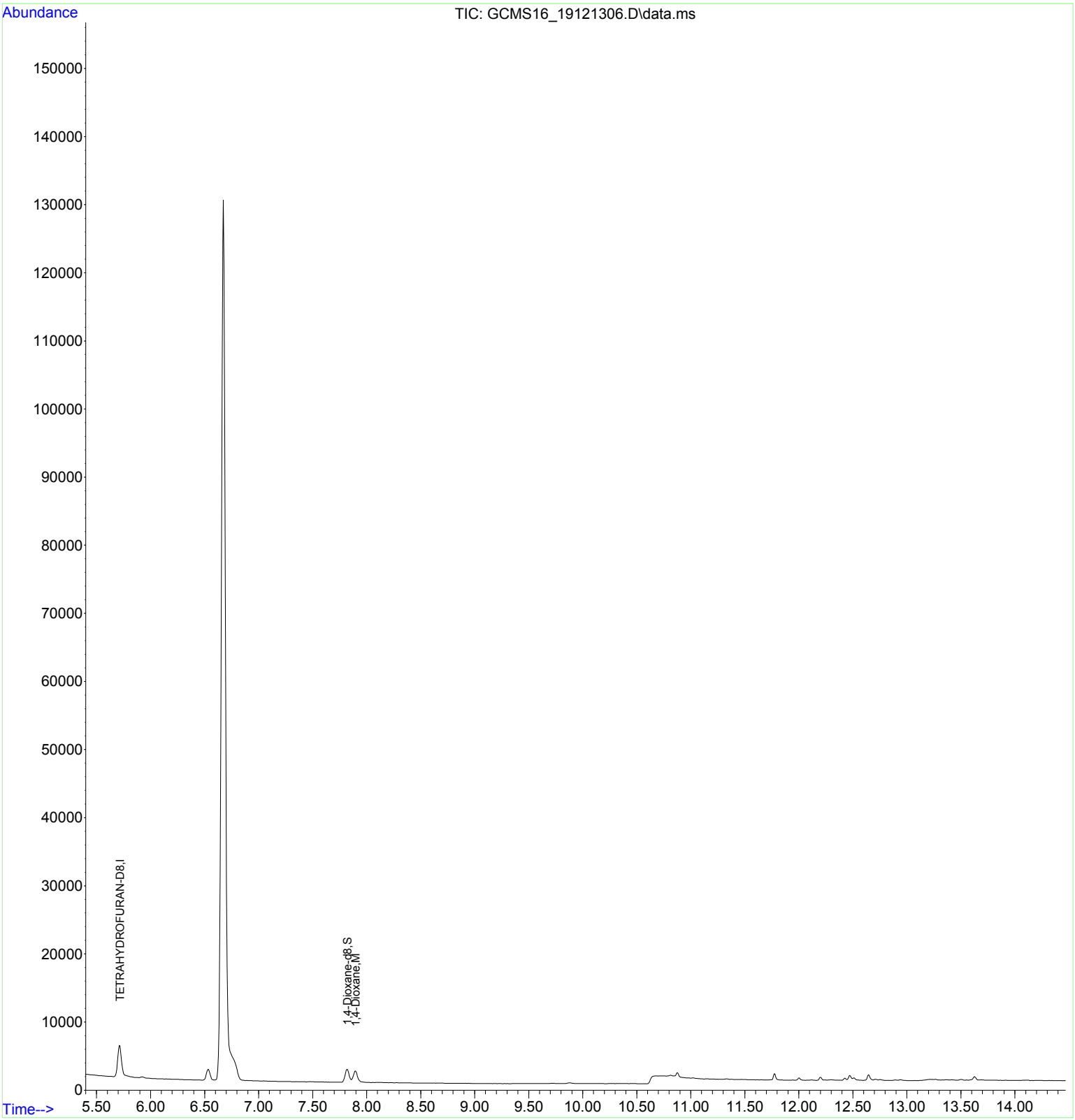
CR 1/2/20

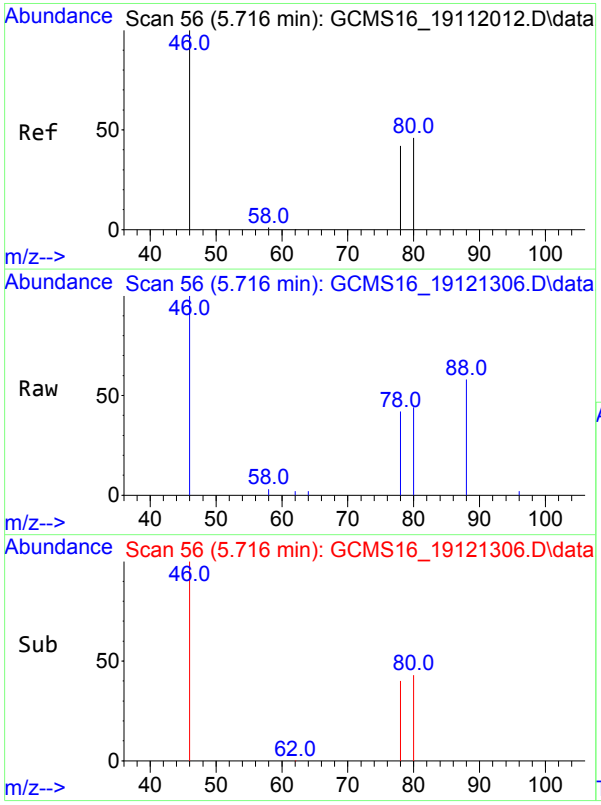
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191213_CR\
Data File : GCMS16_19121306.D
Acq On : 13 Dec 2019 12:53 pm
Operator : CR
Sample : CCV 25 ppb
Misc : E19K051
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 13 13:21:38 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

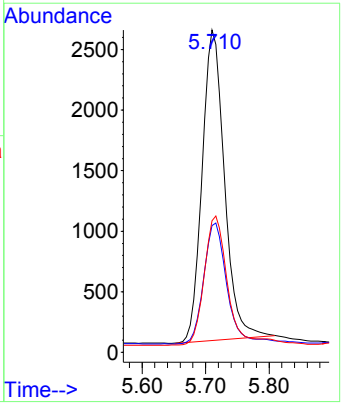


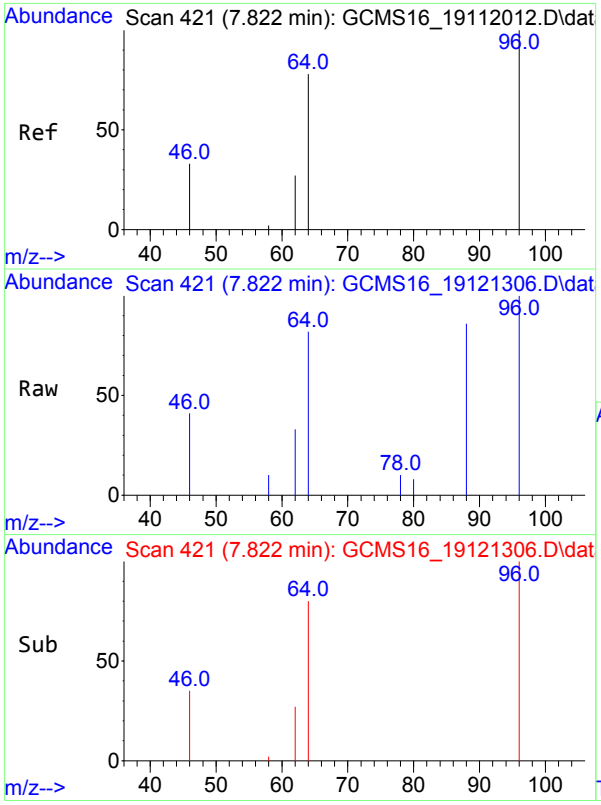


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.713 min Scan# 56
Delta R.T. -0.002 min
Lab File: GCMS16_19121306.D
Acq: 13 Dec 2019 12:53 pm

Tgt Ion: 46 Resp: 62318

Ion	Ratio	Lower	Upper
46	100		
78	38.2	27.5	51.1
80	39.7	29.0	53.9

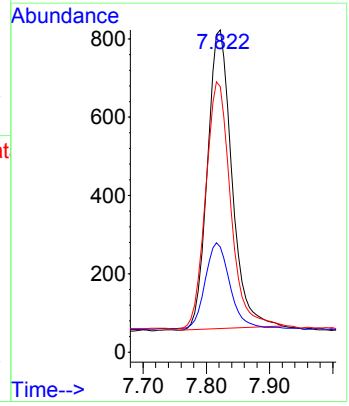


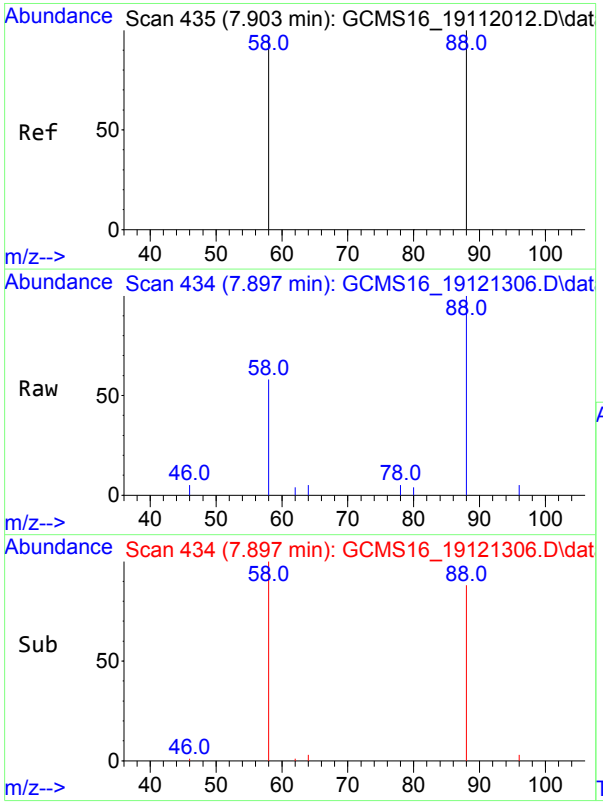


#2
1,4-Dioxane-d8
Concen: 22.62 ug/L
RT: 7.822 min Scan# 421
Delta R.T. -0.001 min
Lab File: GCMS16_19121306.D
Acq: 13 Dec 2019 12:53 pm

Tgt Ion: 96 Resp: 20433

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	80.5	56.8	105.6

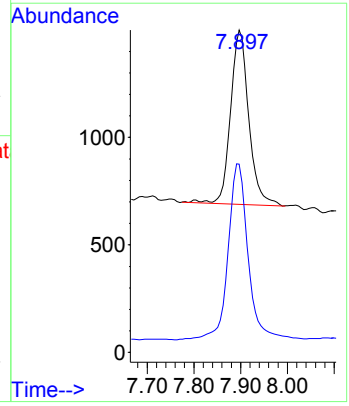




#3
1,4-Dioxane
Concen: 22.77 ug/L
RT: 7.900 min Scan# 434
Delta R.T. 0.000 min
Lab File: GCMS16_19121306.D
Acq: 13 Dec 2019 12:53 pm

Tgt Ion: 88 Resp: 21999

Ion	Ratio	Lower	Upper
88	100		
58	103.6	72.5	134.7



Evaluate Continuing Calibration Report

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121312.D
Acq On : 13 Dec 2019 03:53 pm
Operator : CR
Sample : CCV 25 ppb
Misc : E19K051
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 16 11:49:22 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 150%

	Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1 I	TETRAHYDROFURAN-D8	50.000	50.000	0.0	95	0.00
2 S	1,4-Dioxane-d8	25.000	22.925	8.3	91	0.00
3 M	1,4-Dioxane	25.000	22.482	10.1	88	0.00

CR 1/2/20

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121312.D
Acq On : 13 Dec 2019 03:53 pm
Operator : CR
Sample : CCV 25 ppb
Misc : E19K051
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 16 11:49:22 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.713	46	60885	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	7.822	96	20230	22.93	ug/L	0.00
Target Compounds						Qvalue
3) 1,4-Dioxane	7.899	88	21219	22.48	ug/L	94

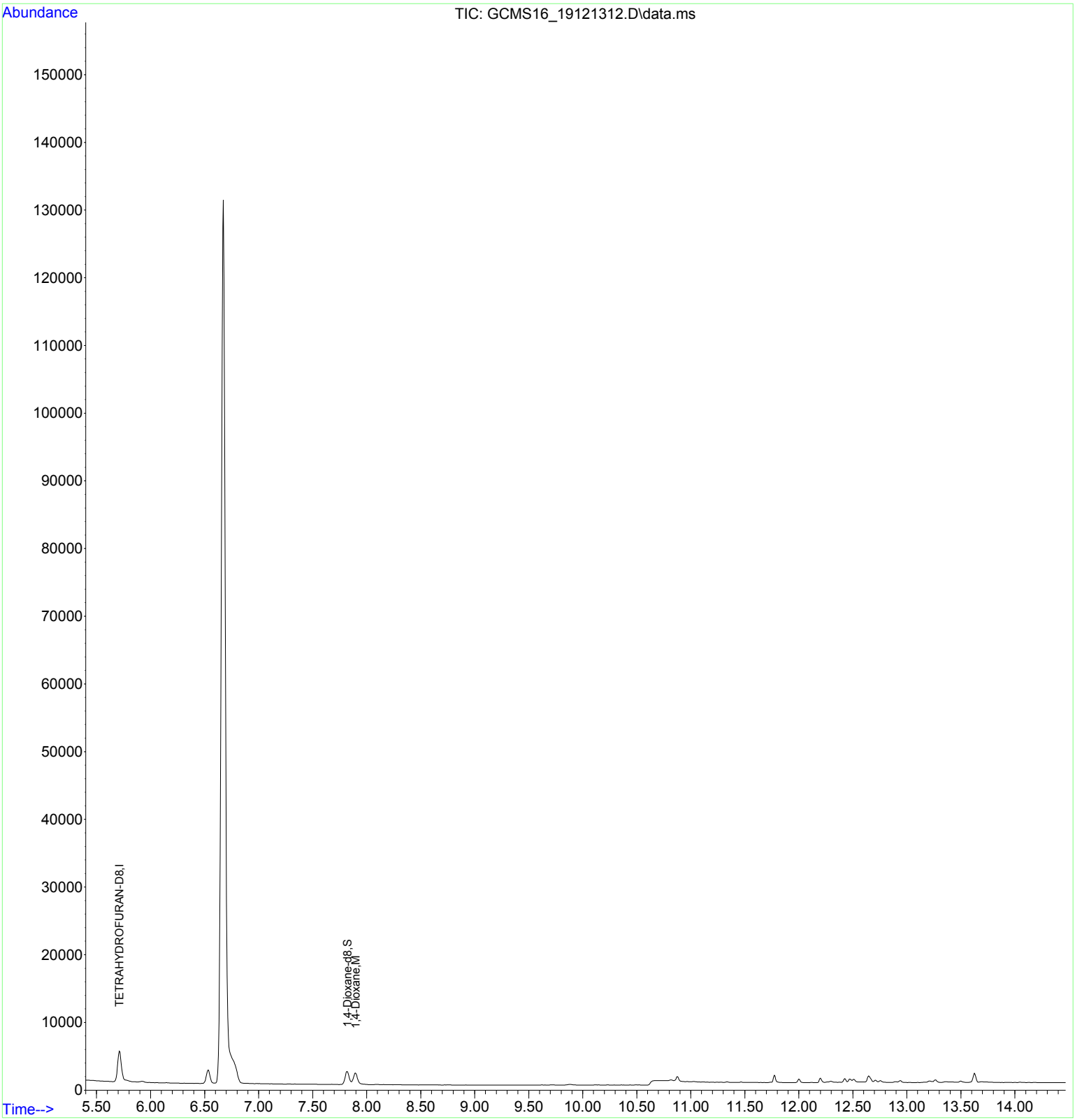
CR 1/2/20

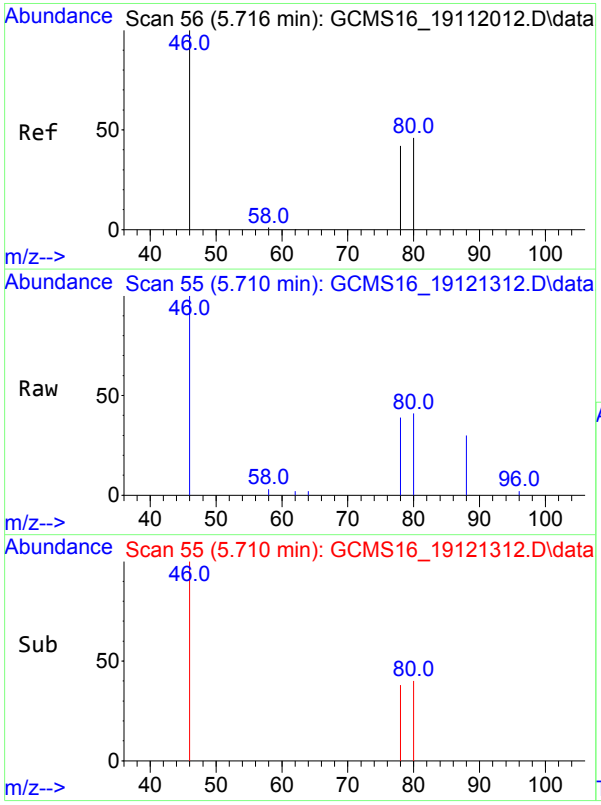
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121312.D
Acq On : 13 Dec 2019 03:53 pm
Operator : CR
Sample : CCV 25 ppb
Misc : E19K051
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 16 11:49:22 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

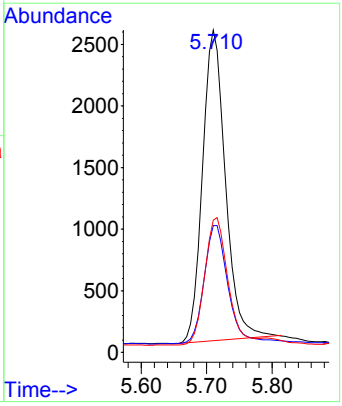


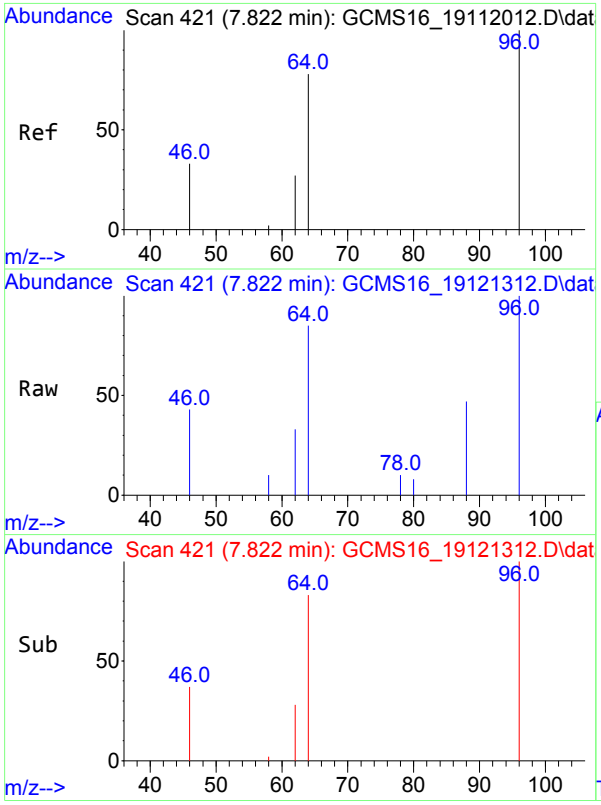


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.713 min Scan# 55
Delta R.T. -0.002 min
Lab File: GCMS16_19121312.D
Acq: 13 Dec 2019 03:53 pm

Tgt Ion: 46 Resp: 60885

Ion	Ratio	Lower	Upper
46	100		
78	37.4	27.5	51.1
80	38.7	29.0	53.9

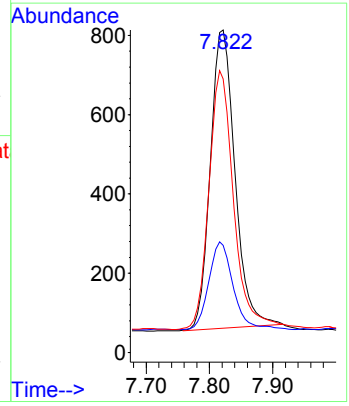


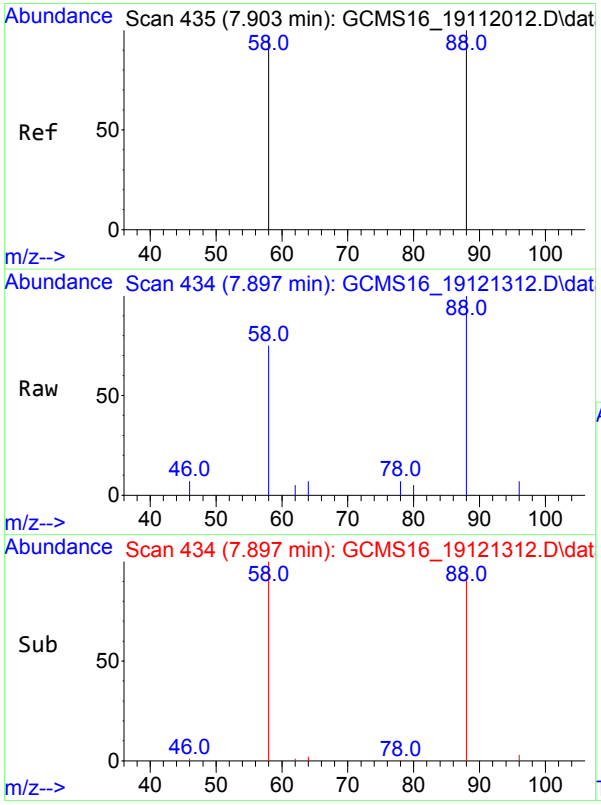


#2
1,4-Dioxane-d8
Concen: 22.93 ug/L
RT: 7.822 min Scan# 421
Delta R.T. -0.001 min
Lab File: GCMS16_19121312.D
Acq: 13 Dec 2019 03:53 pm

Tgt Ion: 96 Resp: 20230

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	83.3	56.8	105.6

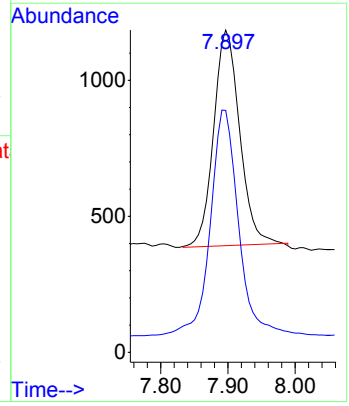




#3
1,4-Dioxane
Concen: 22.48 ug/L
RT: 7.899 min Scan# 434
Delta R.T. -0.000 min
Lab File: GCMS16_19121312.D
Acq: 13 Dec 2019 03:53 pm

Tgt Ion: 88 Resp: 21219

Ion	Ratio	Lower	Upper
88	100		
58	110.2	72.5	134.7



QC Data

Blank Summary

Method Blank: **E19L001-BLK1**

Laboratory ID:		Sample ID:
E19L001-MRL1		Reporting Limit Spike
E19L001-BS1		Blank Spike
E19L001-BSD1		Blank Spike Duplicate
E191201-01		A7-FB001-191210
E191201-02		A7-MW103A-191210
E191201-03		A7-MW103A-191210-D
E191201-04		A7-MW103D-191210
E191201-05		A7-MW106A-191210
E191201-06		A7-MW112B-191210
E19L001-MS1	E191201-06	A7-MW112B-191210
E191201-07		A7-MW112C-191210
E19L001-DUP1	E191201-07	A7-MW112C-191210
E191201-08		A7-MW134B-191210
E191201-09		A7-MW134C-191210
E191201-10		A7-MW148-191210
E191201-11		A7-MW149-191210
E191201-12		A7-TB001-191210
E191203-01		A7-Effluent-191211
E191203-02		A7-Effluent-191211-D
E191203-03		A7-MW103B-191211
E191203-04		A7-MW103C-191211
E191203-05		A7-MW105A-191211-D
E191203-05RE1	10x	A7-MW105A-191211-D
E191203-06		A7-MW143-191211
E19L001-MS2	E191203-06	A7-MW143-191211
E19L001-MSD2	E191203-06	A7-MW143-191211
E191203-07		A7-MW144-191211
E191203-08		A7-TB002-191211

Blank Summary

Method Blank: **E19L002-BLK1**

Laboratory ID:	Sample ID:
E19L002-MRL1	Reporting Limit Spike
E19L002-BS1	Blank Spike
E19L002-BSD1	Blank Spike Duplicate
E191204-01	A7-FB003-191212

Blank Summary

Dilution Blank: **E19L001-BLK2**

Laboratory ID:		**Sample ID:**
E191203-05RE1	10x	A7-MW105A-191211-D

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121205.D
Acq On : 12 Dec 2019 02:56 pm
Operator : CR
Sample : E19L001-BLK1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 12 15:21:35 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.710	46	72648m	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	7.822	96	24042	22.83	ug/L	0.00
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

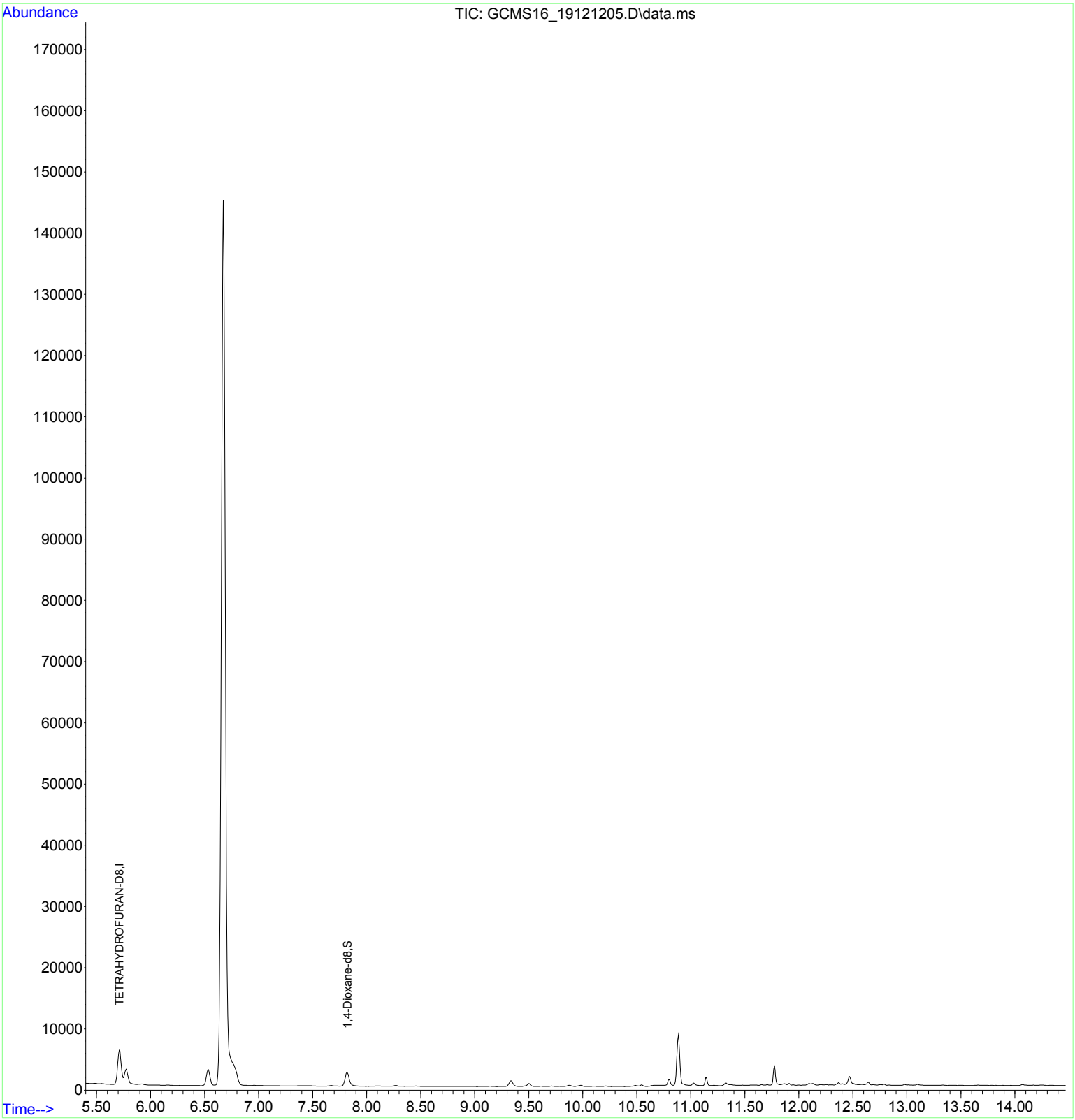
CR 1/2/20

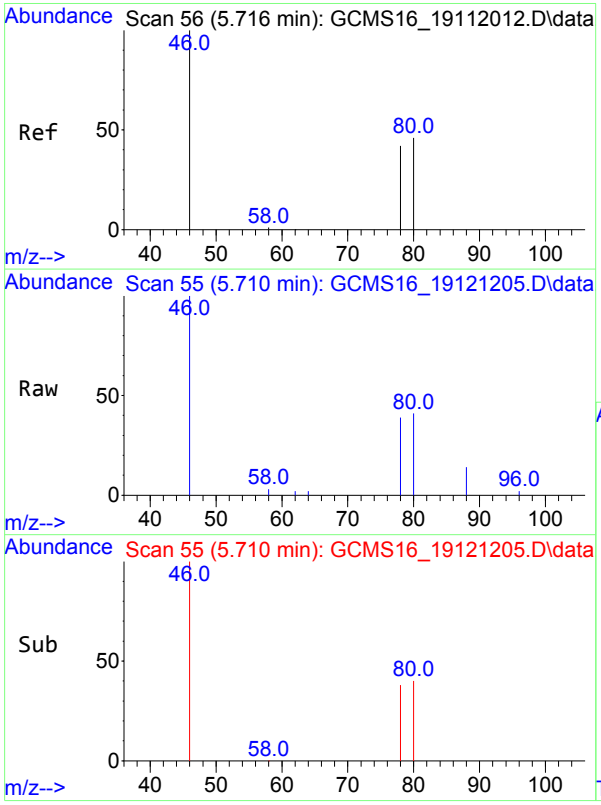
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121205.D
Acq On : 12 Dec 2019 02:56 pm
Operator : CR
Sample : E19L001-BLK1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 12 15:21:35 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

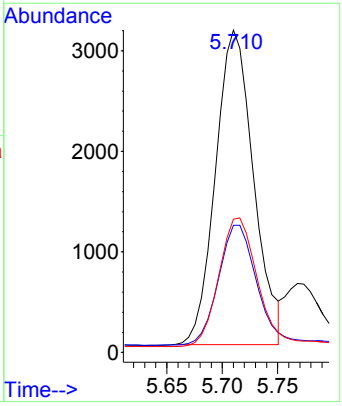


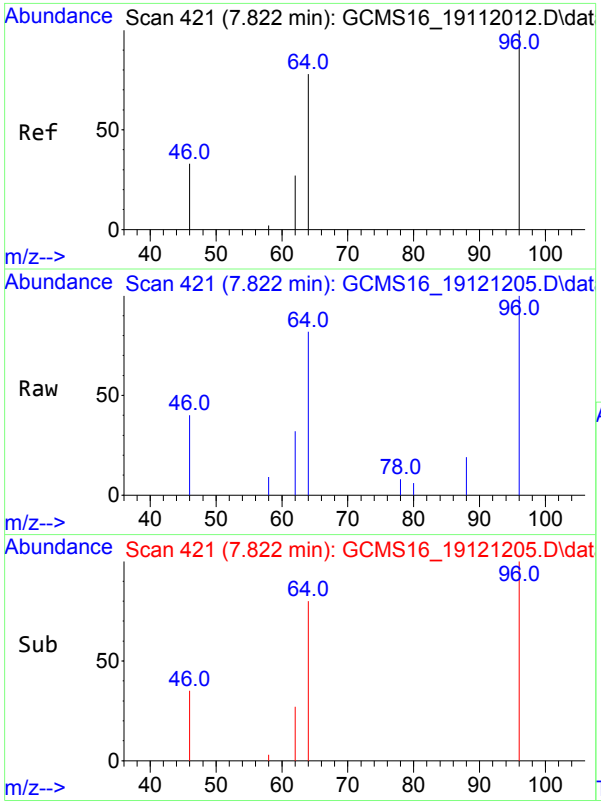


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121205.D
Acq: 12 Dec 2019 02:56 pm

Tgt Ion: 46 Resp: 72648

Ion	Ratio	Lower	Upper
46	100		
78	38.0	27.5	51.1
80	40.7	29.0	53.9

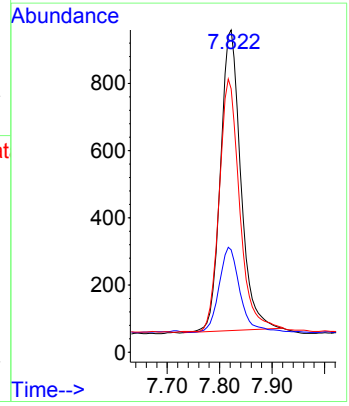


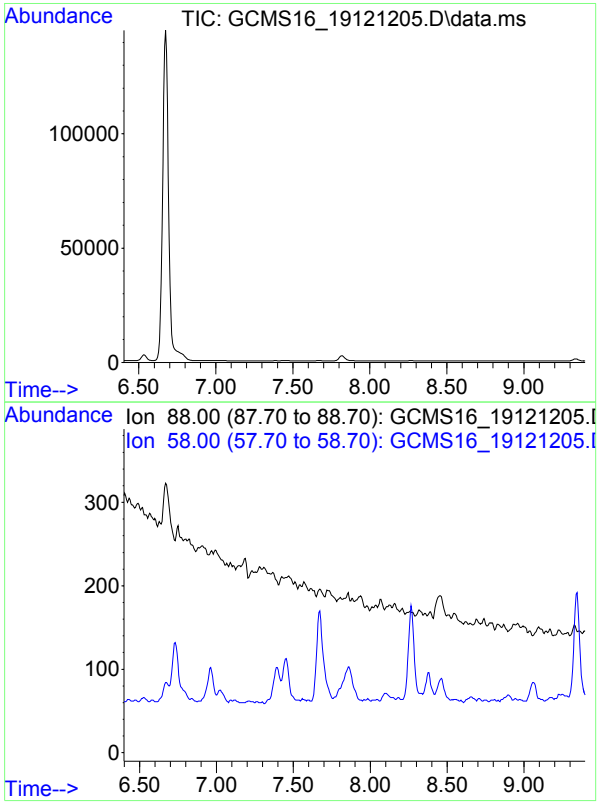


#2
1,4-Dioxane-d8
Concen: 22.83 ug/L
RT: 7.822 min Scan# 421
Delta R.T. -0.001 min
Lab File: GCMS16_19121205.D
Acq: 12 Dec 2019 02:56 pm

Tgt Ion: 96 Resp: 24042

Ion	Ratio	Lower	Upper
96	100		
62	27.6	0.0	0.0#
64	81.4	56.8	105.6





#3
1,4-Dioxane
Concen: N.D.
Expected RT: 7.90 min

Lab File: GCMS16_19121205.D
Acq: 12 Dec 2019 02:56 pm

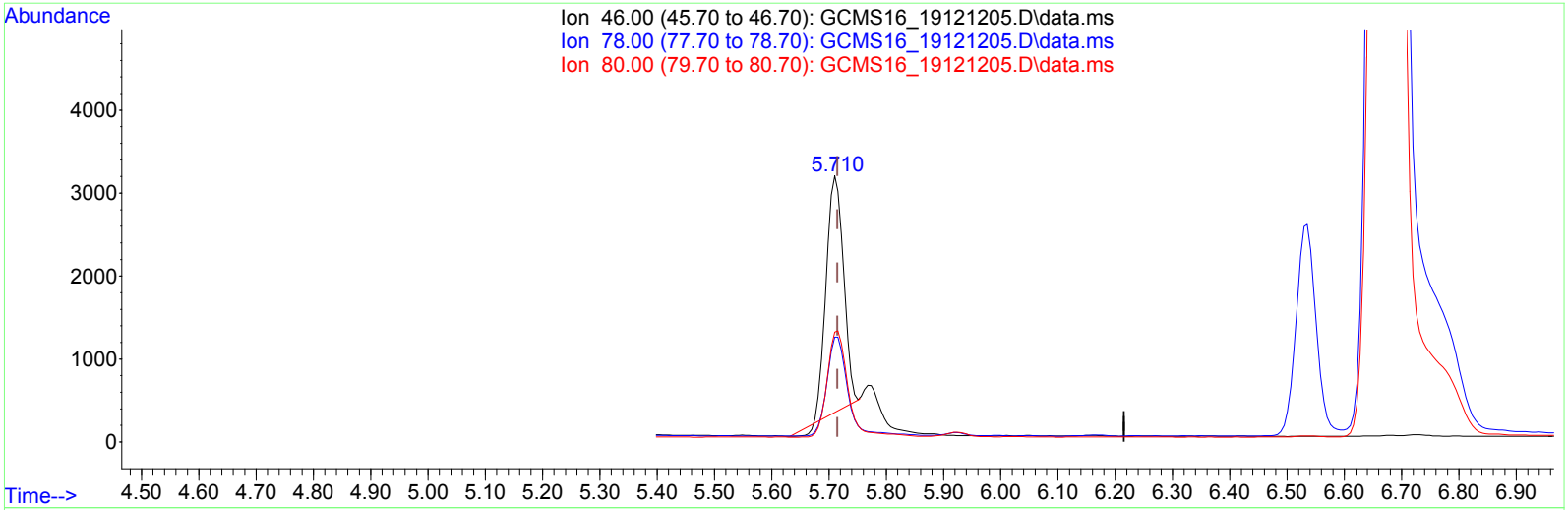
Tgt Ion: 88

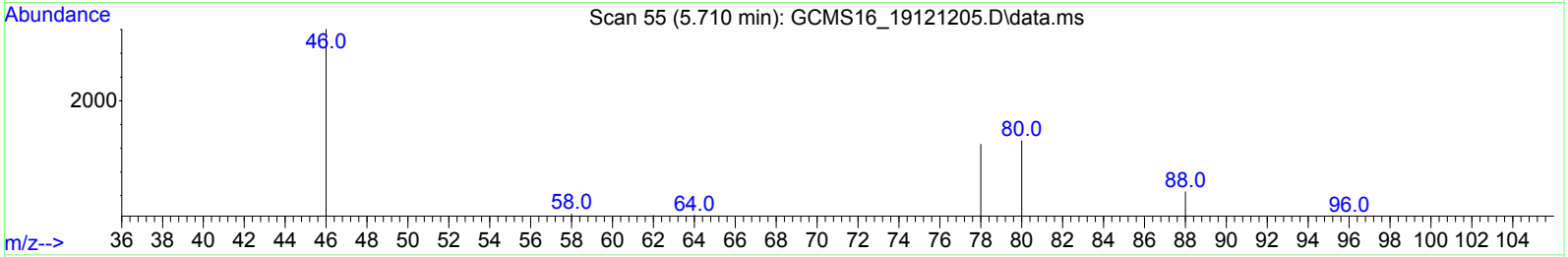
Sig	Exp Ratio
88	100
58	103.6

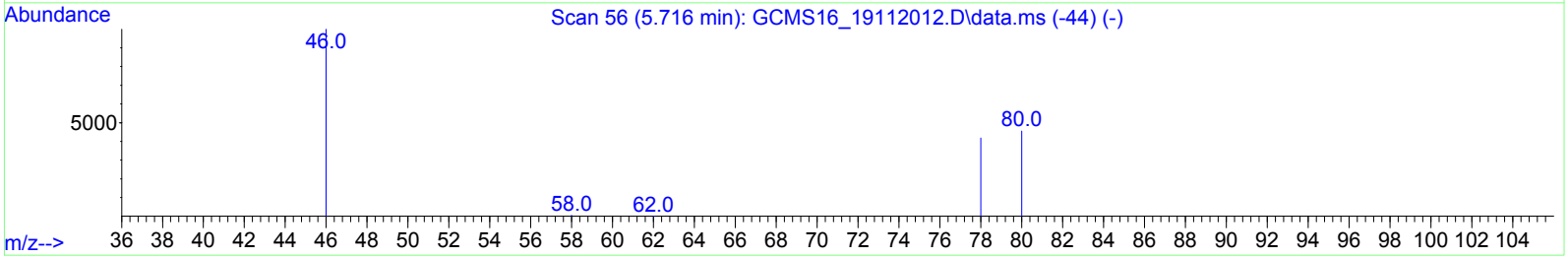
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121205.D
Acq On : 12 Dec 2019 02:56 pm
Operator : CR
Sample : E19L001-BLK1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 12 15:21:35 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121205.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.713min (-0.002) 50.00 ug/L

response 58229

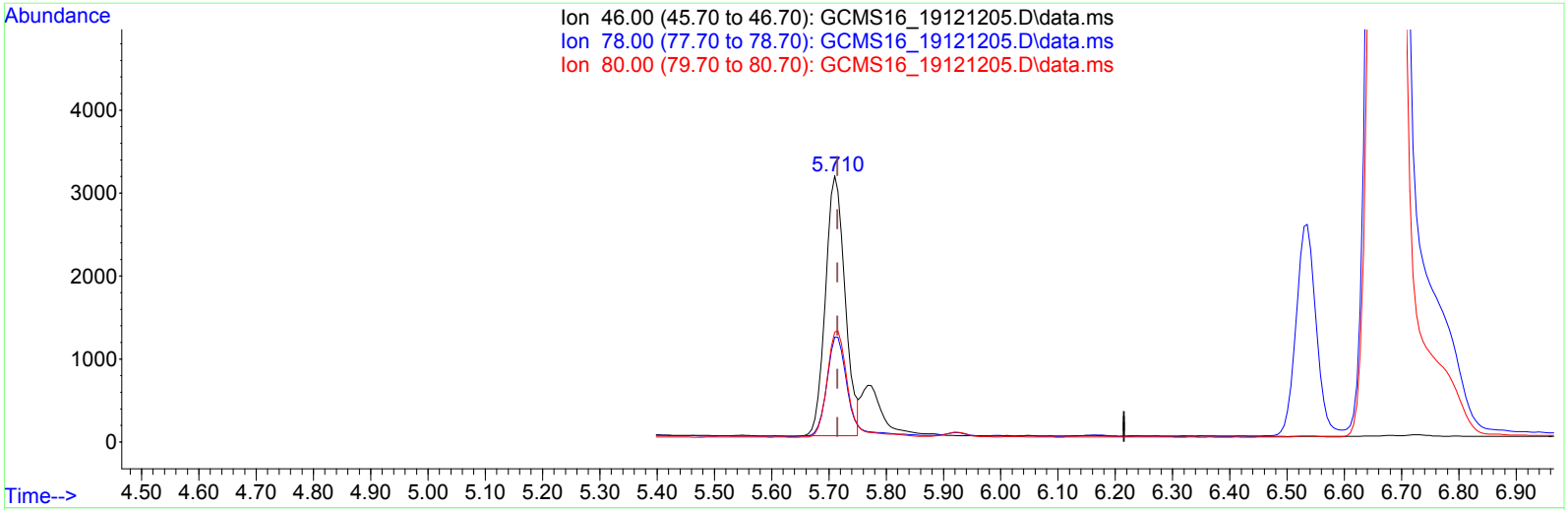
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	47.42
80.00	41.50	50.77
0.00	0.00	0.00

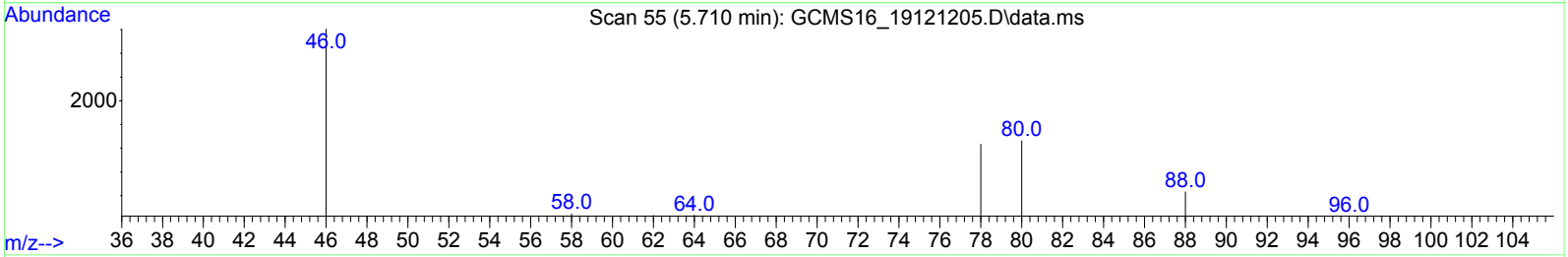
Before
IC
CR 1/2/20

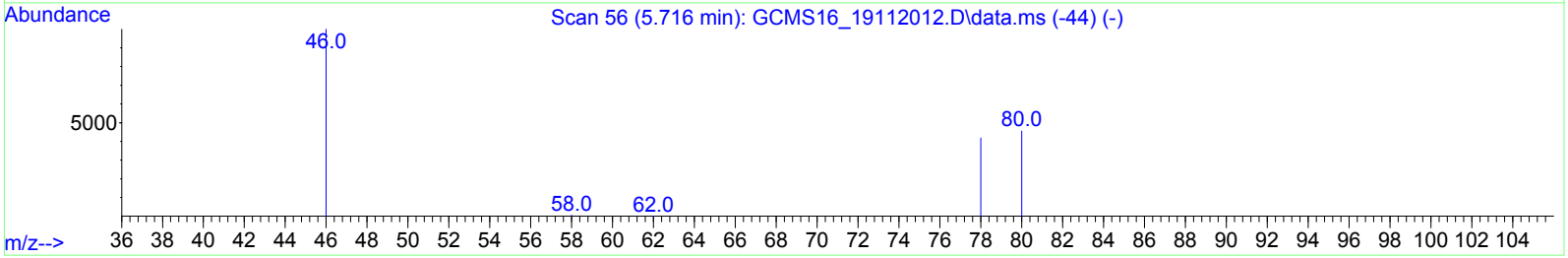
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121205.D
Acq On : 12 Dec 2019 02:56 pm
Operator : CR
Sample : E19L001-BLK1
Misc :
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 12 15:21:35 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121205.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 72648

After
CR 1/2/20

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	38.01
80.00	41.50	40.69
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121307.D
Acq On : 13 Dec 2019 02:08 pm
Operator : CR
Sample : E19L002-BLK1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 13 14:25:27 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.704	46	76551m	50.00	ug/L	-0.01
System Monitoring Compounds						
2) 1,4-Dioxane-d8	7.816	96	22738	20.49	ug/L	0.00
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

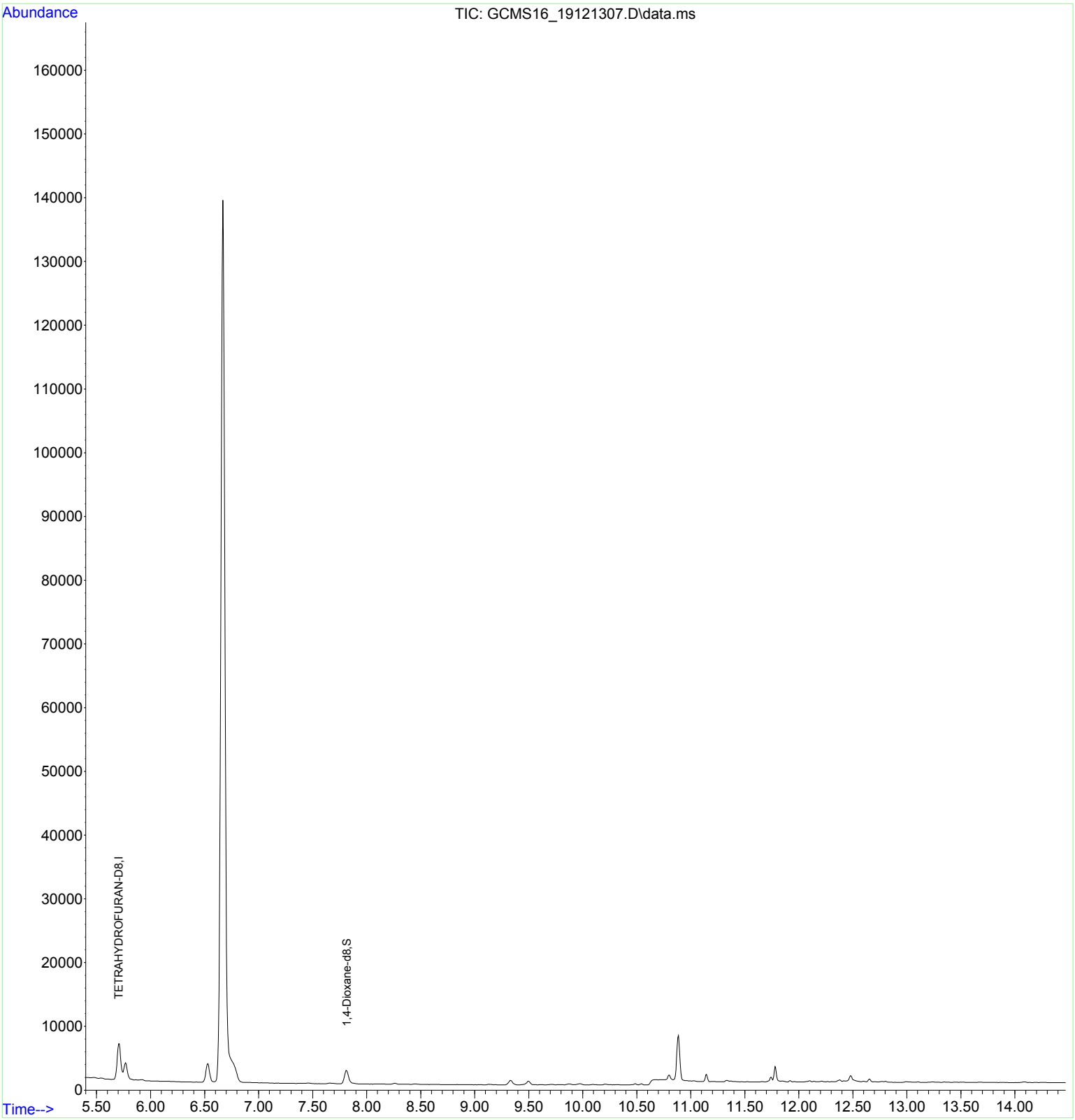
CR 1/2/20

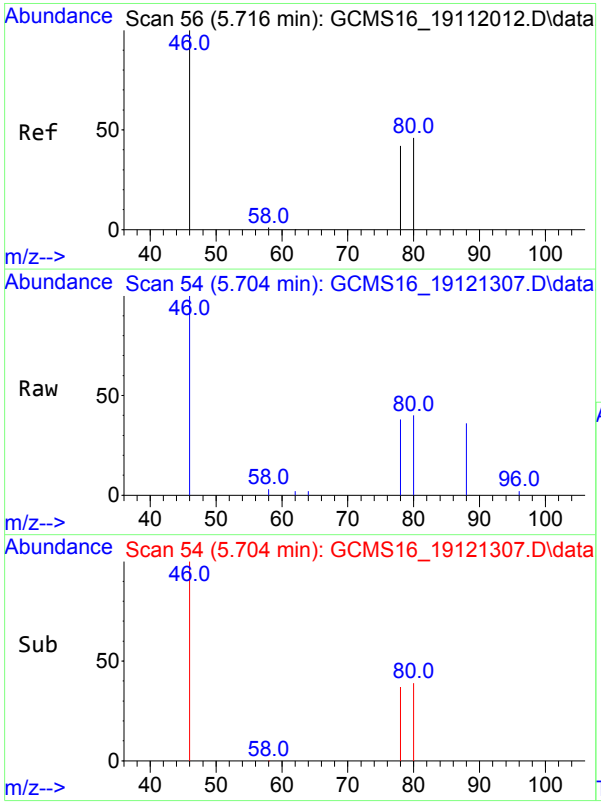
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121307.D
Acq On : 13 Dec 2019 02:08 pm
Operator : CR
Sample : E19L002-BLK1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 13 14:25:27 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

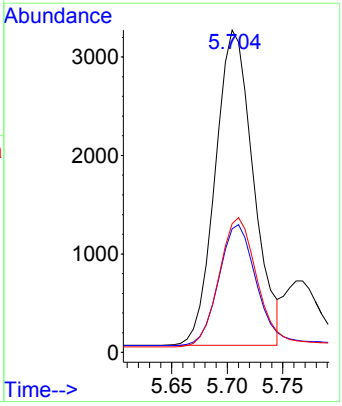


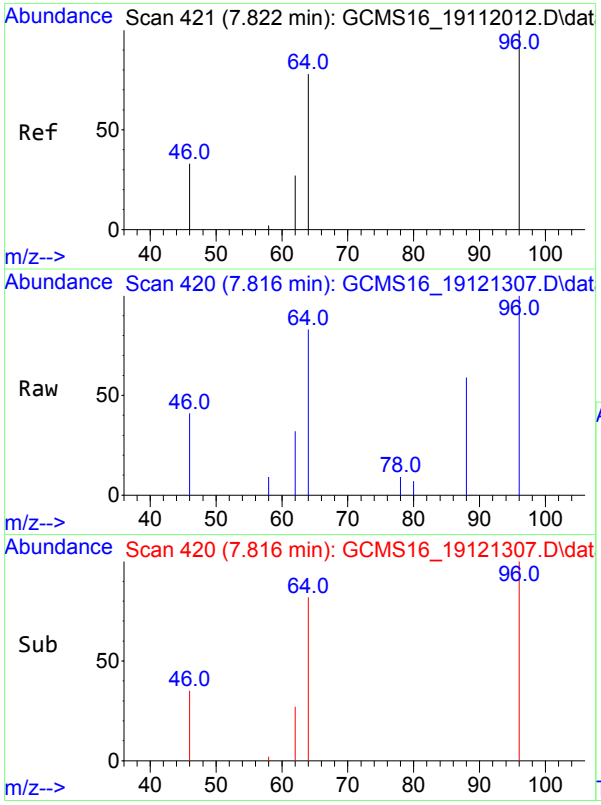


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.704 min Scan# 54
Delta R.T. -0.011 min
Lab File: GCMS16_19121307.D
Acq: 13 Dec 2019 02:08 pm

Tgt Ion: 46 Resp: 76551

Ion	Ratio	Lower	Upper
46	100		
78	36.9	27.5	51.1
80	39.5	29.0	53.9

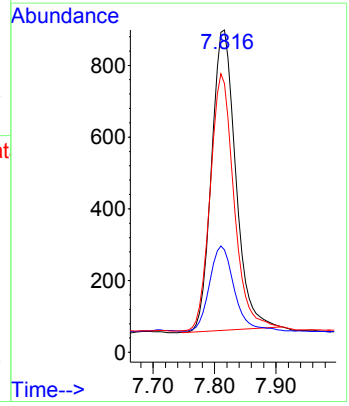


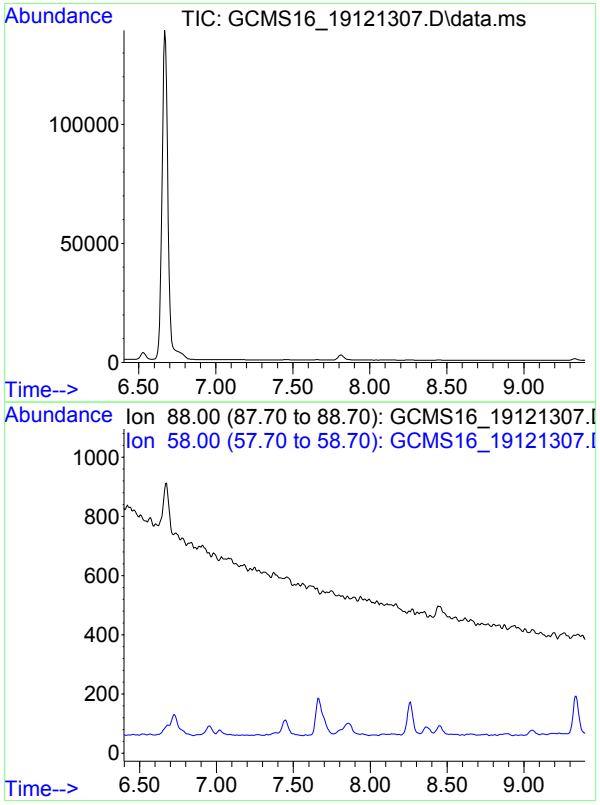


#2
1,4-Dioxane-d8
Concen: 20.49 ug/L
RT: 7.816 min Scan# 420
Delta R.T. -0.007 min
Lab File: GCMS16_19121307.D
Acq: 13 Dec 2019 02:08 pm

Tgt Ion: 96 Resp: 22738

Ion	Ratio	Lower	Upper
96	100		
62	27.5	0.0	0.0#
64	81.9	56.8	105.6





#3
1,4-Dioxane
Concen: N.D.
Expected RT: 7.90 min

Lab File: GCMS16_19121307.D
Acq: 13 Dec 2019 02:08 pm

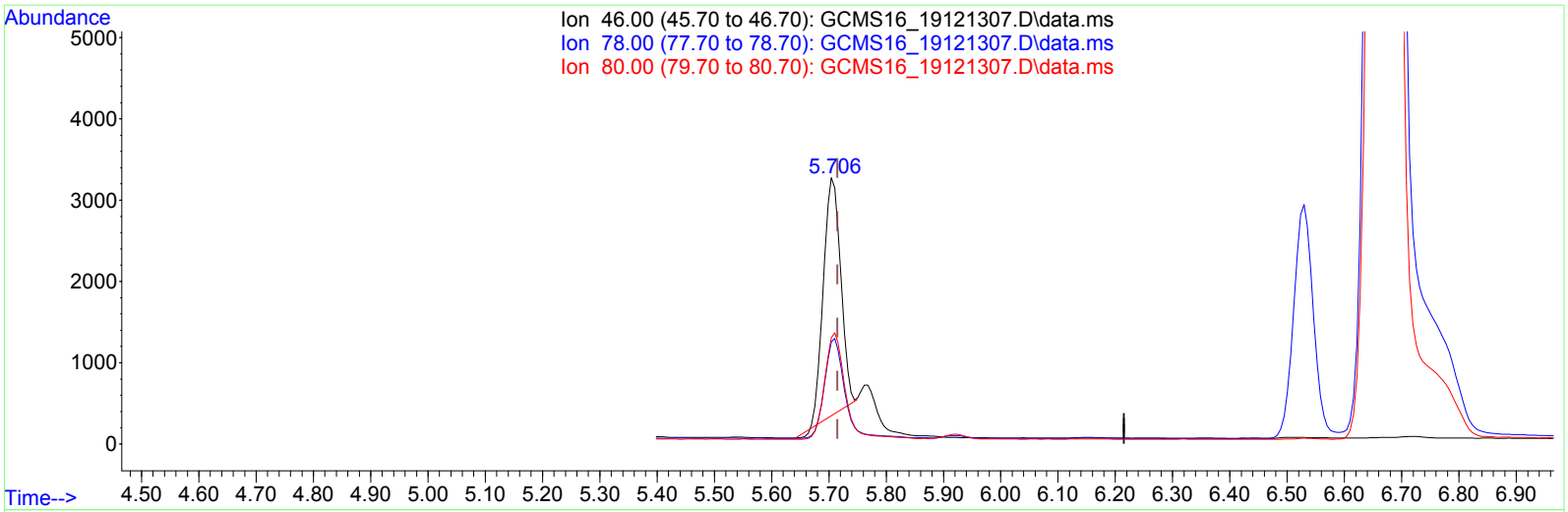
Tgt Ion: 88

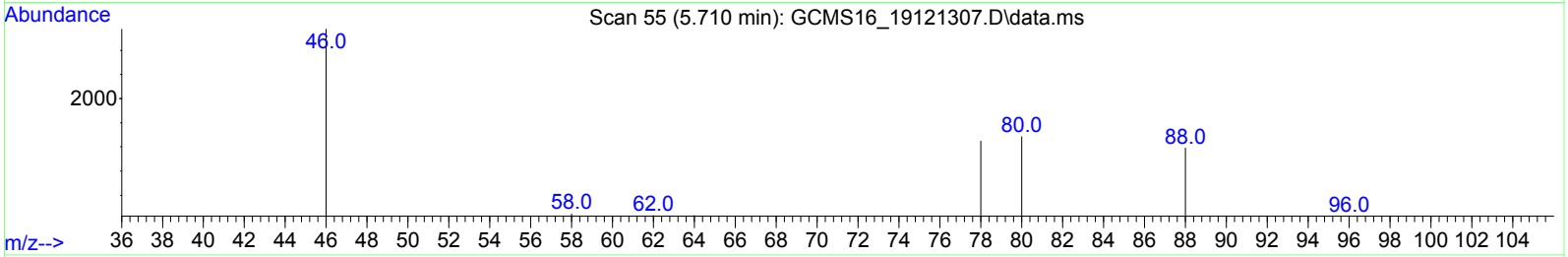
Sig	Exp Ratio
88	100
58	103.6

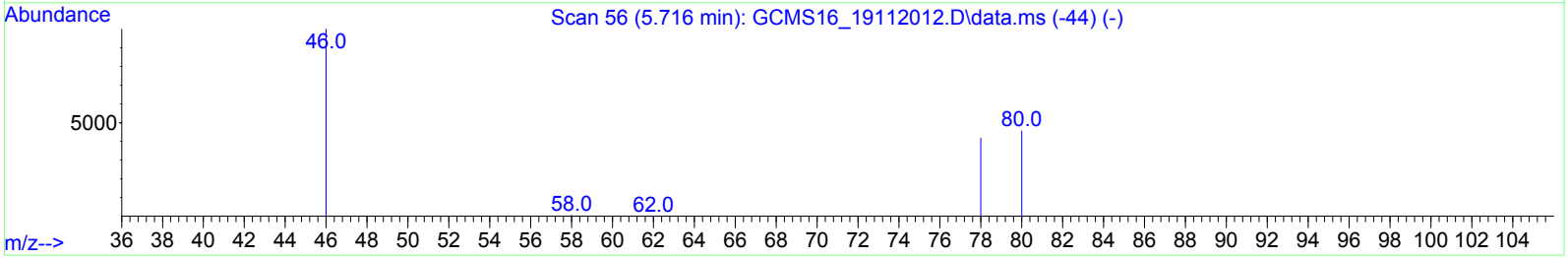
Quantitation Report (Qedit)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121307.D
Acq On : 13 Dec 2019 02:08 pm
Operator : CR
Sample : E19L002-BLK1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 13 14:25:27 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121307.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.708min (-0.007) 50.00 ug/L

response 60351

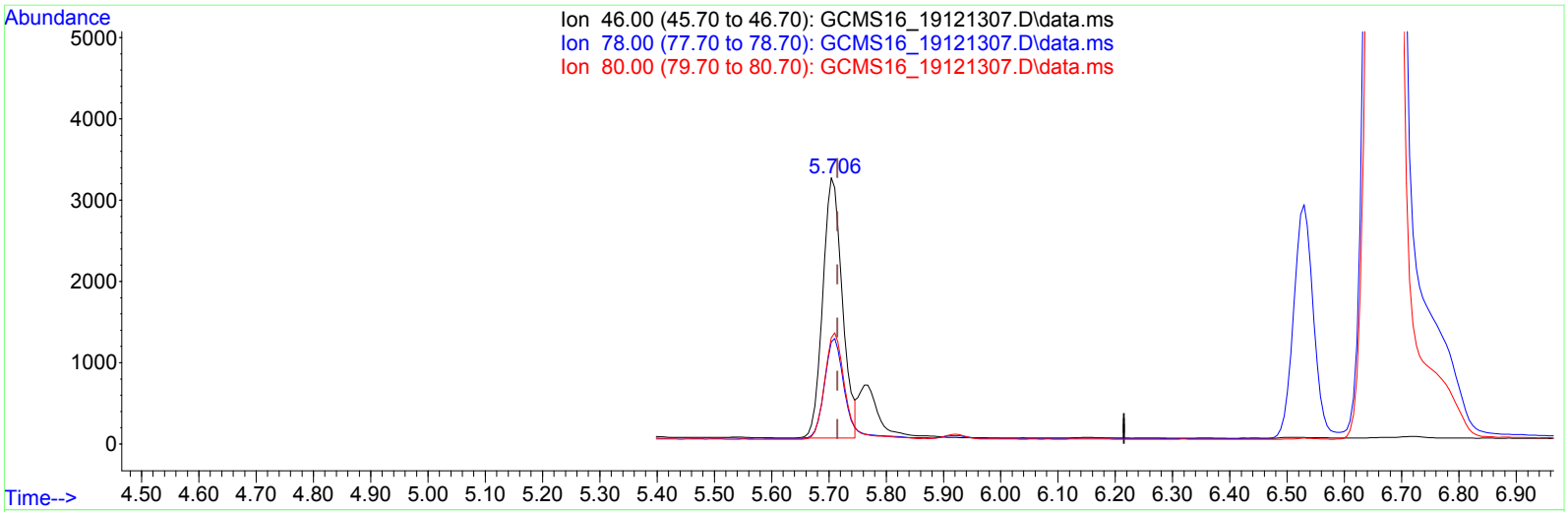
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	46.81
80.00	41.50	50.12
0.00	0.00	0.00

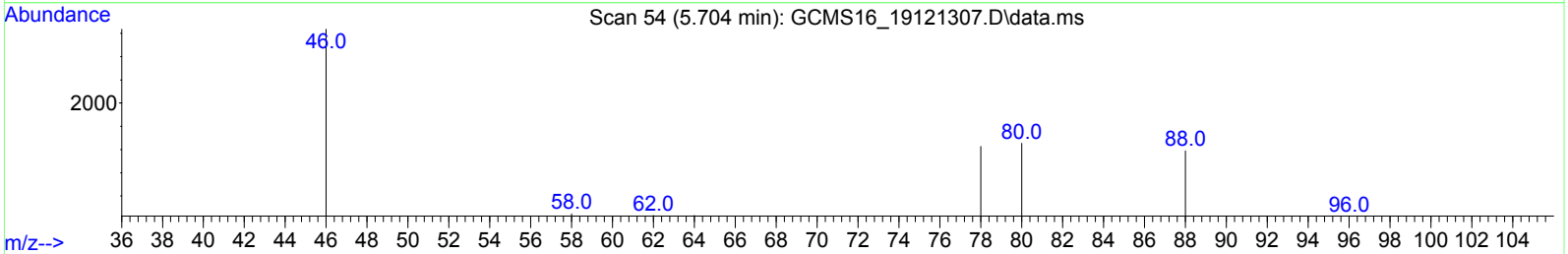
Before
IC
CR 1/2/20

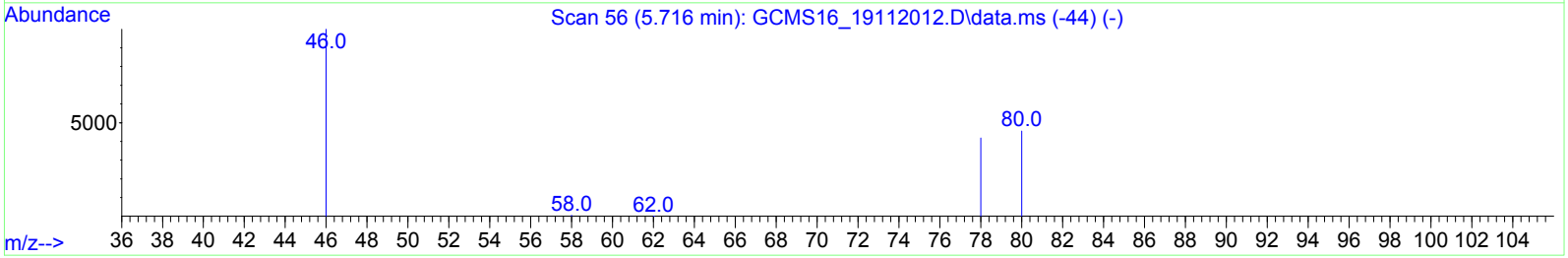
Quantitation Report (Qedit)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121307.D
Acq On : 13 Dec 2019 02:08 pm
Operator : CR
Sample : E19L002-BLK1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 13 14:25:27 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121307.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.704min (-0.011) 50.00 ug/L m

response 76551

After
CR 1/2/20

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	36.90
80.00	41.50	39.51
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191213_CR\
Data File : GCMS16_19121304.D
Acq On : 13 Dec 2019 12:11 pm
Operator : CR
Sample : E19L001-BLK2
Misc : Dilution Blank
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 13 12:41:12 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.716	46	71717	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

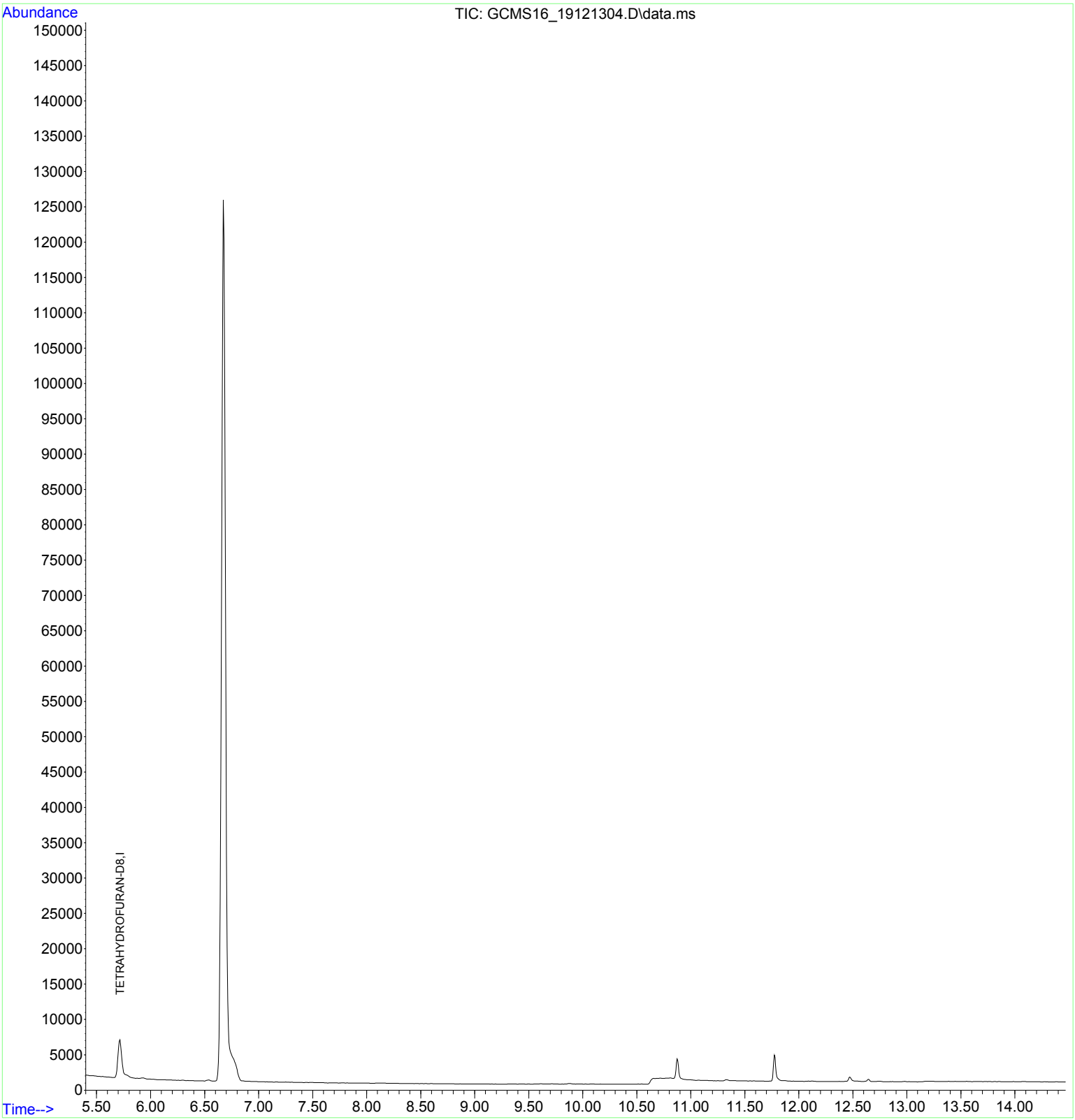
CR 1/2/20

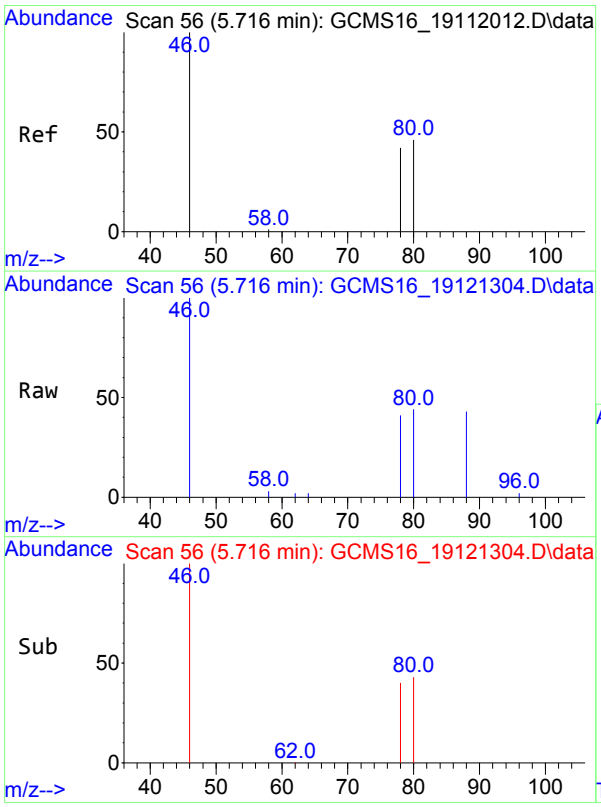
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191213_CR\
Data File : GCMS16_19121304.D
Acq On : 13 Dec 2019 12:11 pm
Operator : CR
Sample : E19L001-BLK2
Misc : Dilution Blank
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Dec 13 12:41:12 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

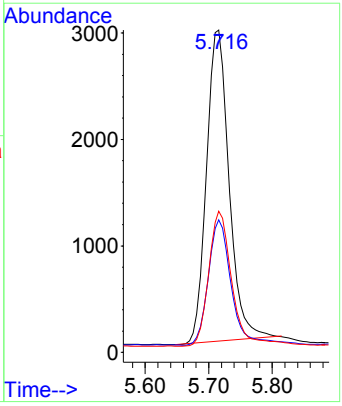


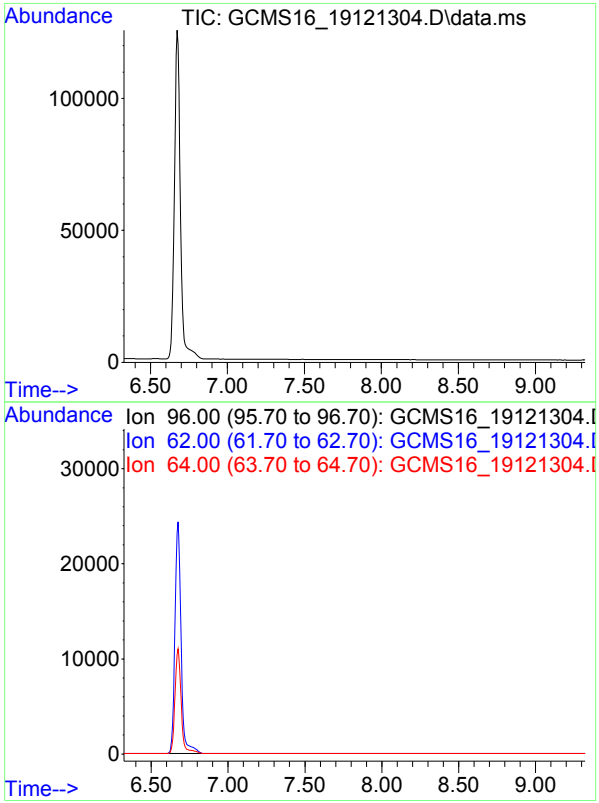


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.716 min Scan# 56
Delta R.T. 0.001 min
Lab File: GCMS16_19121304.D
Acq: 13 Dec 2019 12:11 pm

Tgt Ion: 46 Resp: 71717

Ion	Ratio	Lower	Upper
46	100		
78	38.2	27.5	51.1
80	41.3	29.0	53.9



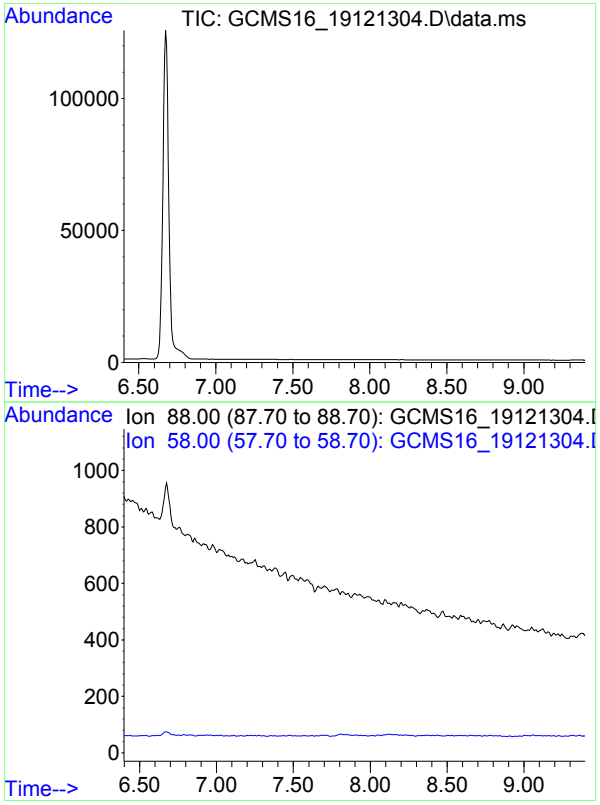


#2
1,4-Dioxane-d8
Concen: 0.00 ug/L
Expected RT: 7.82 min

Lab File: GCMS16_19121304.D
Acq: 13 Dec 2019 12:11 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
62	0.0
64	81.2



#3
1,4-Dioxane
Concen: N.D.
Expected RT: 7.90 min

Lab File: GCMS16_19121304.D
Acq: 13 Dec 2019 12:11 pm

Tgt Ion: 88

Sig	Exp Ratio
88	100
58	103.6

Evaluate Continuing Calibration Report

Data Path : C:\Users\crice02\Desktop\E191201, E191203, & E191204 14Dioxane\GCMS16\Data\191212_CR\
Data File : GCMS16_19121206.D
Acq On : 12 Dec 2019 03:17 pm
Operator : CR
Sample : E19L001-MRL1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 15:47:11 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
Quant Title : Initial Calibration of 1,4-Dioxane 021317
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	TETRAHYDROFURAN-D8	50.000	50.000	0.0	109	-0.01
2	S	1,4-Dioxane-d8	25.000	~~5.000~~ 22.605	10.6 ~~-352.1#~~	529	0.00
3	M	1,4-Dioxane	5.000	4.268	14.6	100	0.00

CR 1/24/20

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121206.D
Acq On : 12 Dec 2019 03:17 pm
Operator : CR
Sample : E19L001-MRL1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 15:47:11 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.705	46	72103m	50.00 ug/L	-0.01
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.822	96	23624	22.61 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.897	88	4771m	4.27 ug/L	

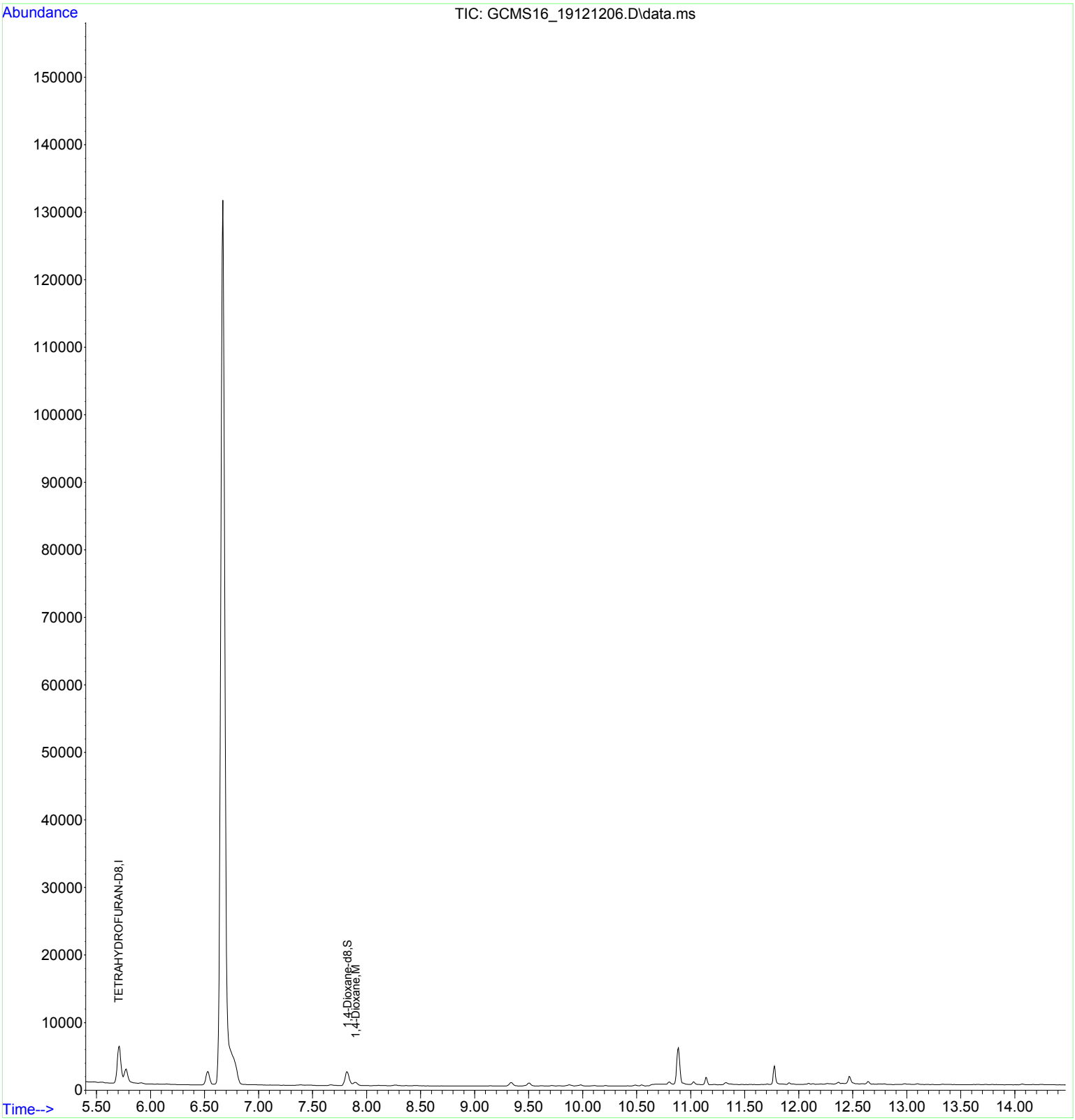
CR 1/2/20

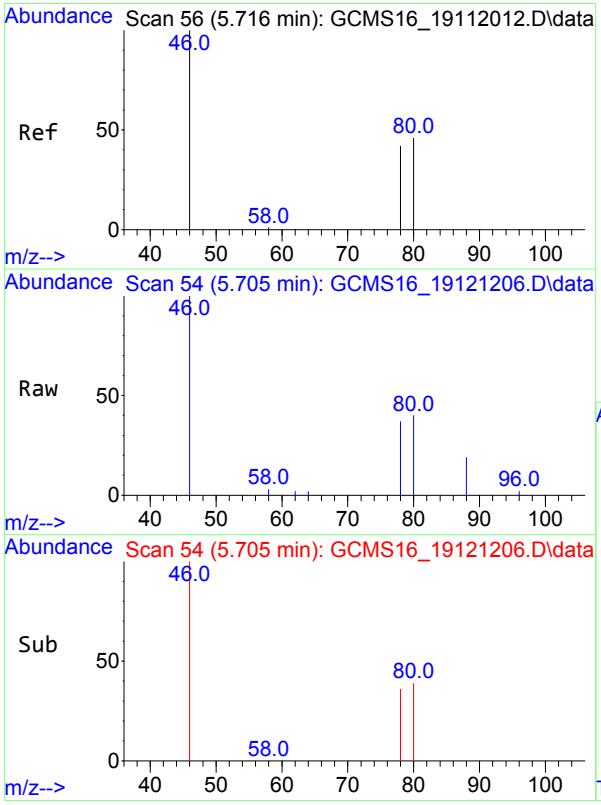
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121206.D
Acq On : 12 Dec 2019 03:17 pm
Operator : CR
Sample : E19L001-MRL1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 15:47:11 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

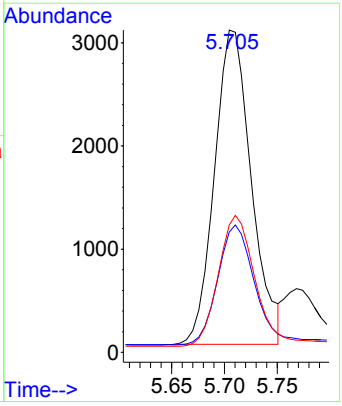


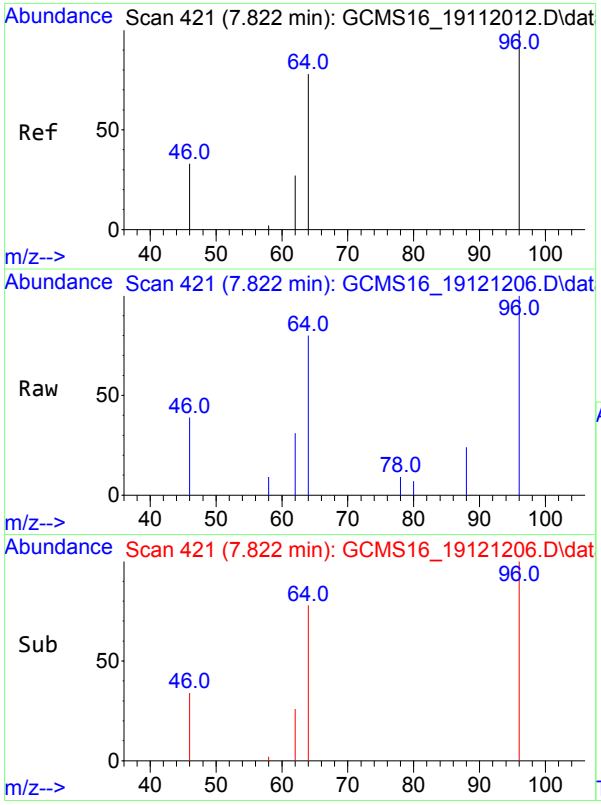


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.705 min Scan# 54
Delta R.T. -0.010 min
Lab File: GCMS16_19121206.D
Acq: 12 Dec 2019 03:17 pm

Tgt Ion: 46 Resp: 72103

Ion	Ratio	Lower	Upper
46	100		
78	37.5	27.5	51.1
80	40.8	29.0	53.9

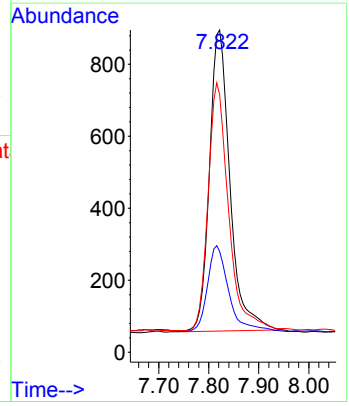


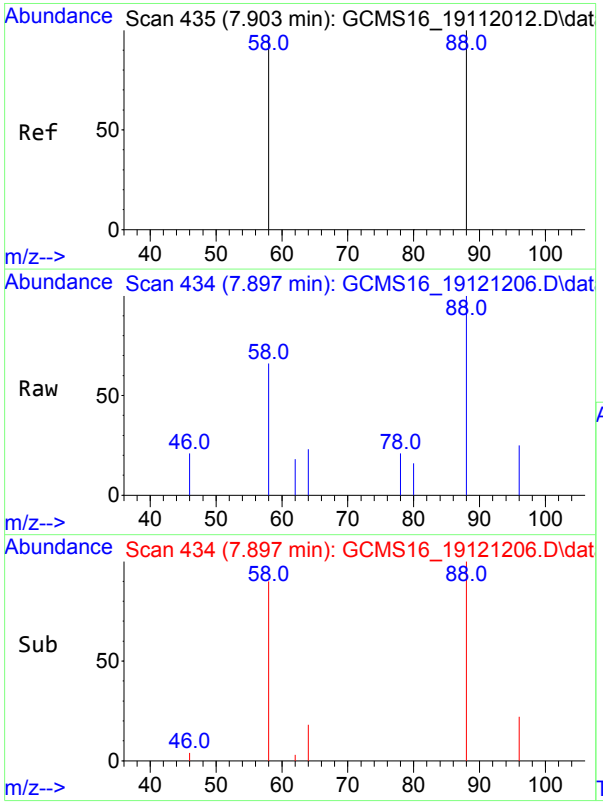


#2
1,4-Dioxane-d8
Concen: 22.61 ug/L
RT: 7.822 min Scan# 421
Delta R.T. -0.000 min
Lab File: GCMS16_19121206.D
Acq: 12 Dec 2019 03:17 pm

Tgt Ion: 96 Resp: 23624

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	77.4	56.8	105.6

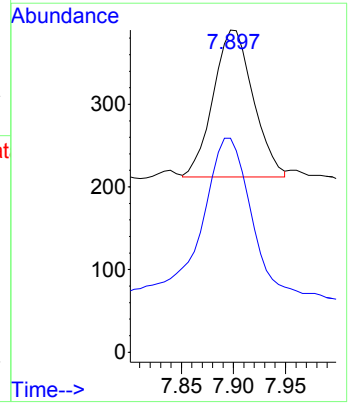




#3
1,4-Dioxane
Concen: 4.27 ug/L m
RT: 7.897 min Scan# 434
Delta R.T. -0.002 min
Lab File: GCMS16_19121206.D
Acq: 12 Dec 2019 03:17 pm

Tgt Ion: 88 Resp: 4771

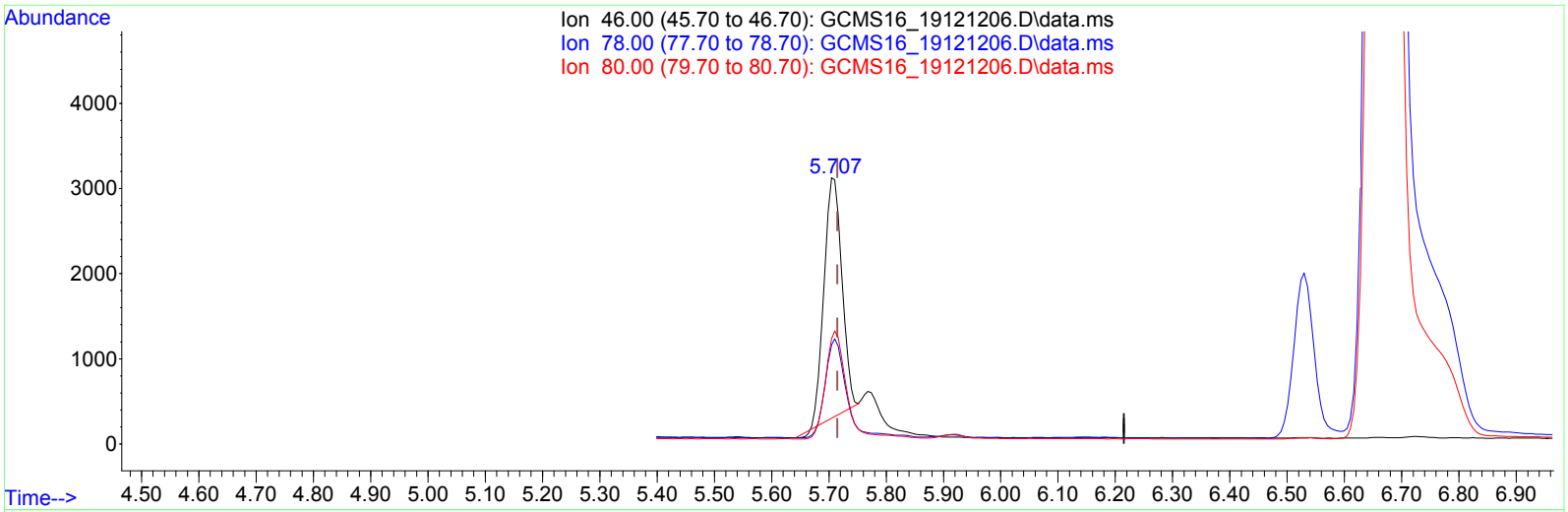
Ion	Ratio	Lower	Upper
88	100		
58	0.0	72.5	134.7#

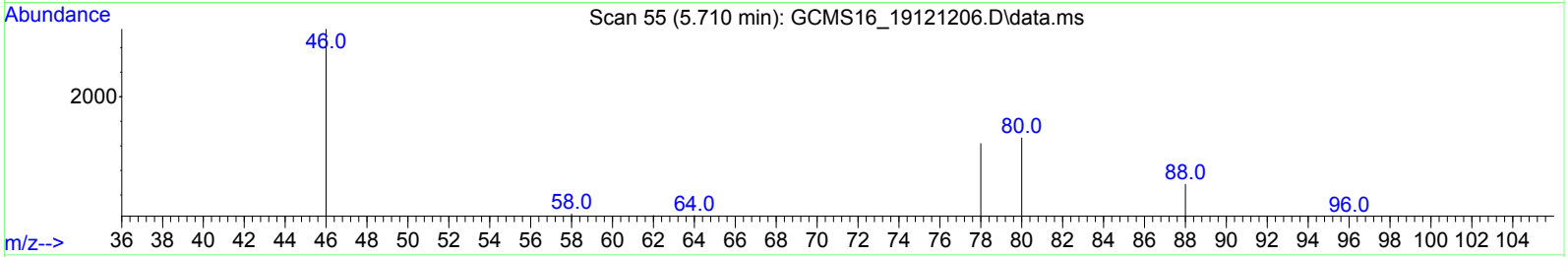


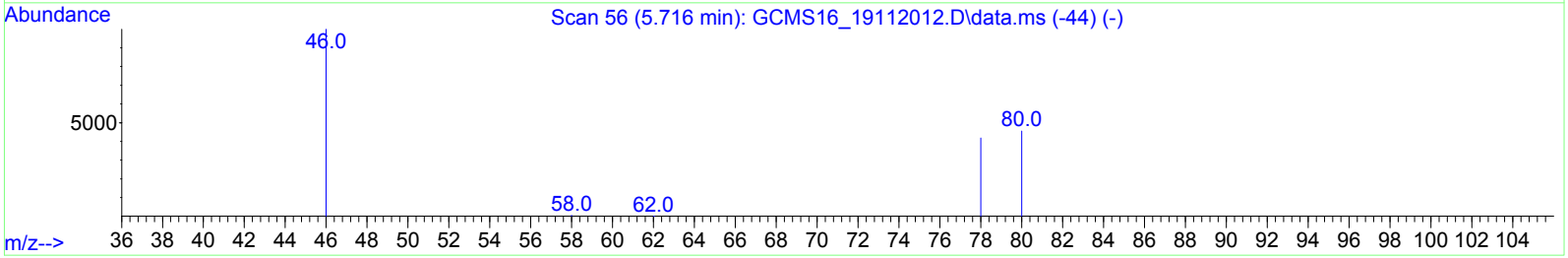
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121206.D
Acq On : 12 Dec 2019 03:17 pm
Operator : CR
Sample : E19L001-MRL1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 15:47:11 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121206.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L

response 60191

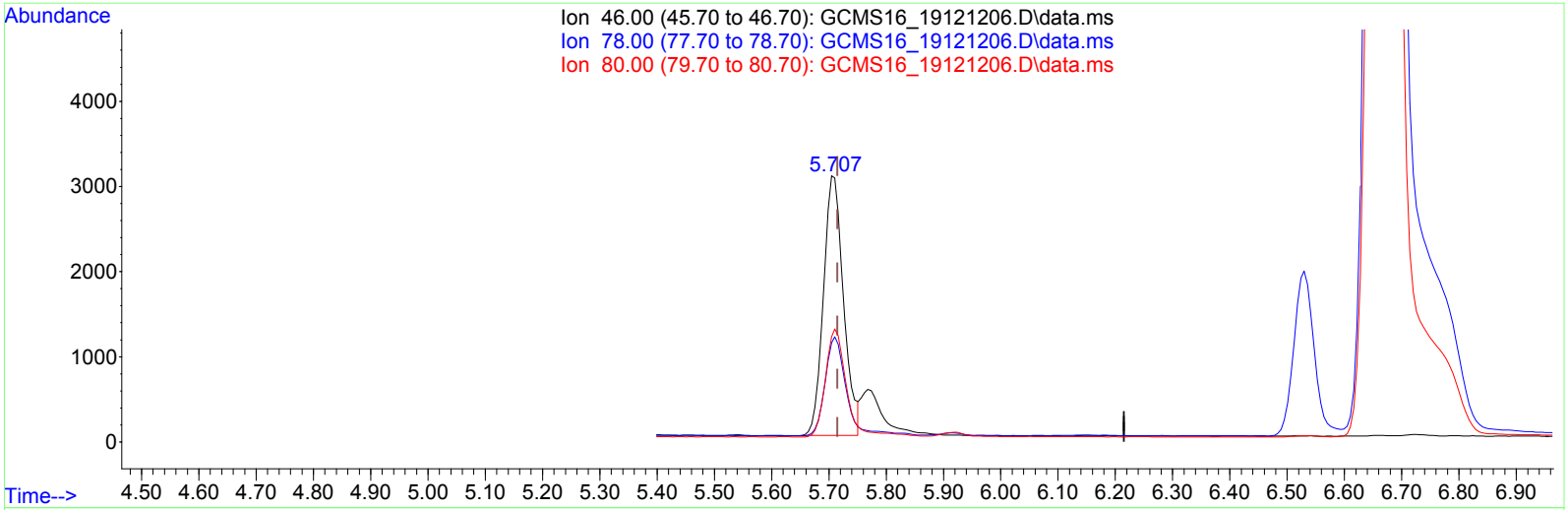
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	44.90
80.00	41.50	48.82
0.00	0.00	0.00

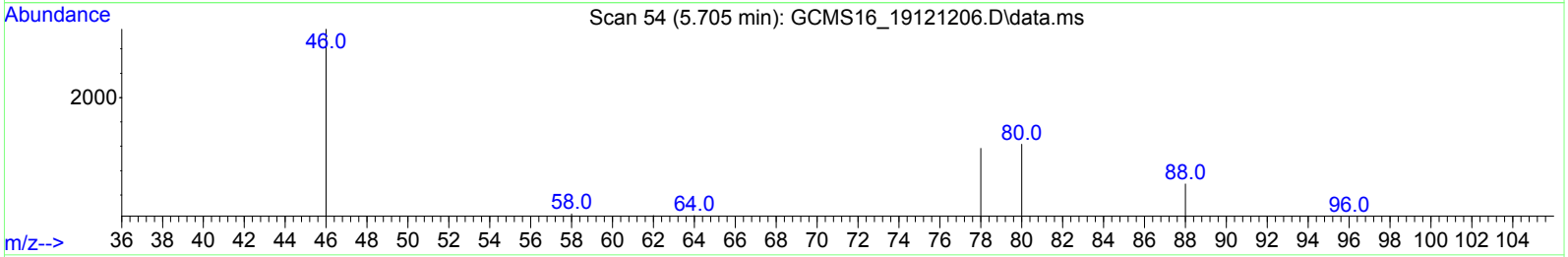
Before
IC
CR 1/2/20

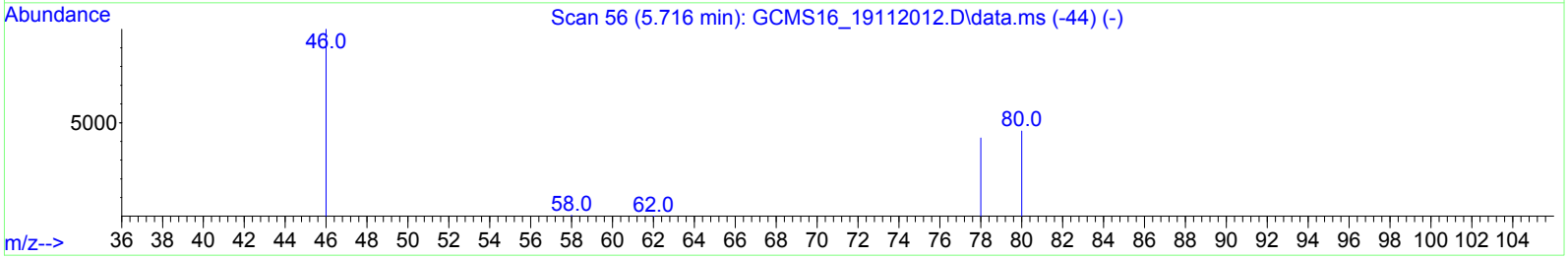
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121206.D
Acq On : 12 Dec 2019 03:17 pm
Operator : CR
Sample : E19L001-MRL1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 15:47:11 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121206.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.705min (-0.010) 50.00 ug/L m

response 72103

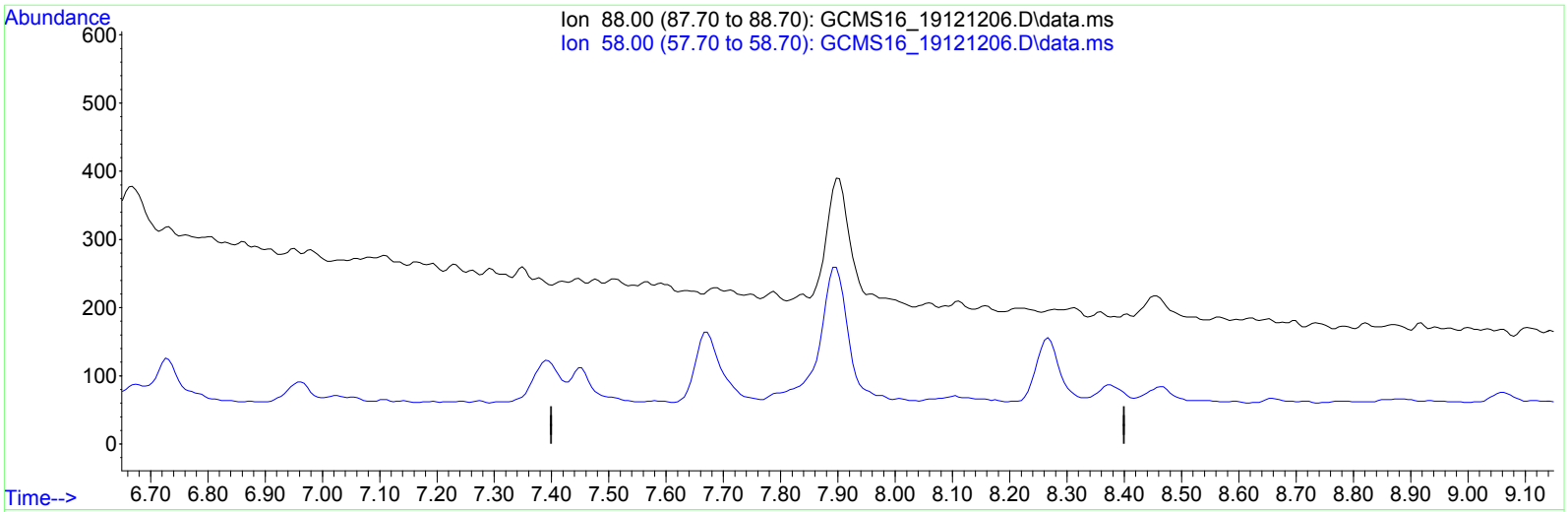
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	37.49
80.00	41.50	40.75
0.00	0.00	0.00

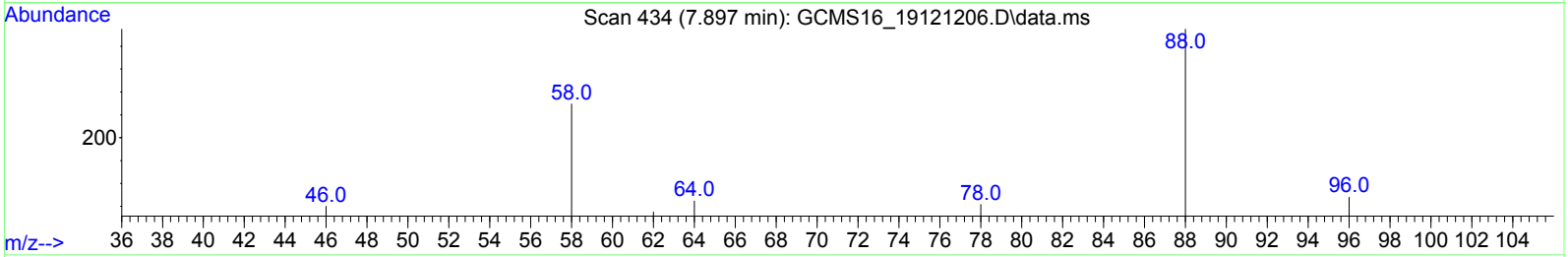
After
CR 1/2/20

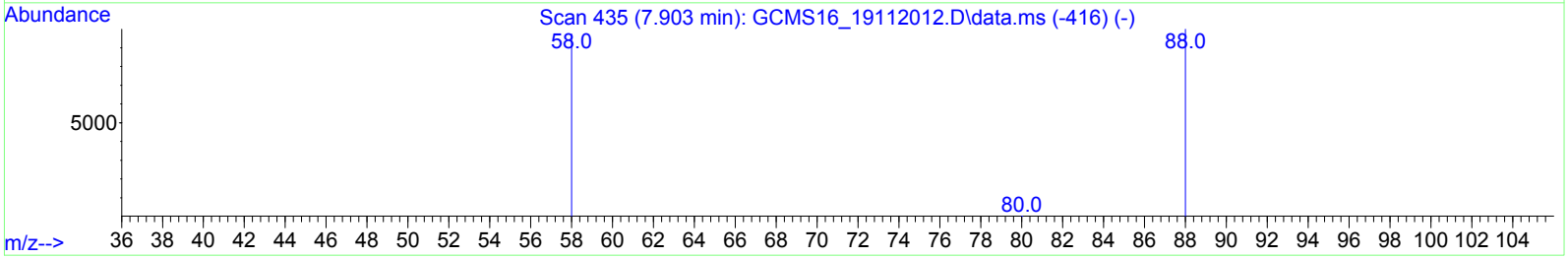
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121206.D
Acq On : 12 Dec 2019 03:17 pm
Operator : CR
Sample : E19L001-MRL1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 15:47:11 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121206.D\data.ms

(3) 1,4-Dioxane (M)

7.899min (-7.899) 0.00 ug/L

response 0

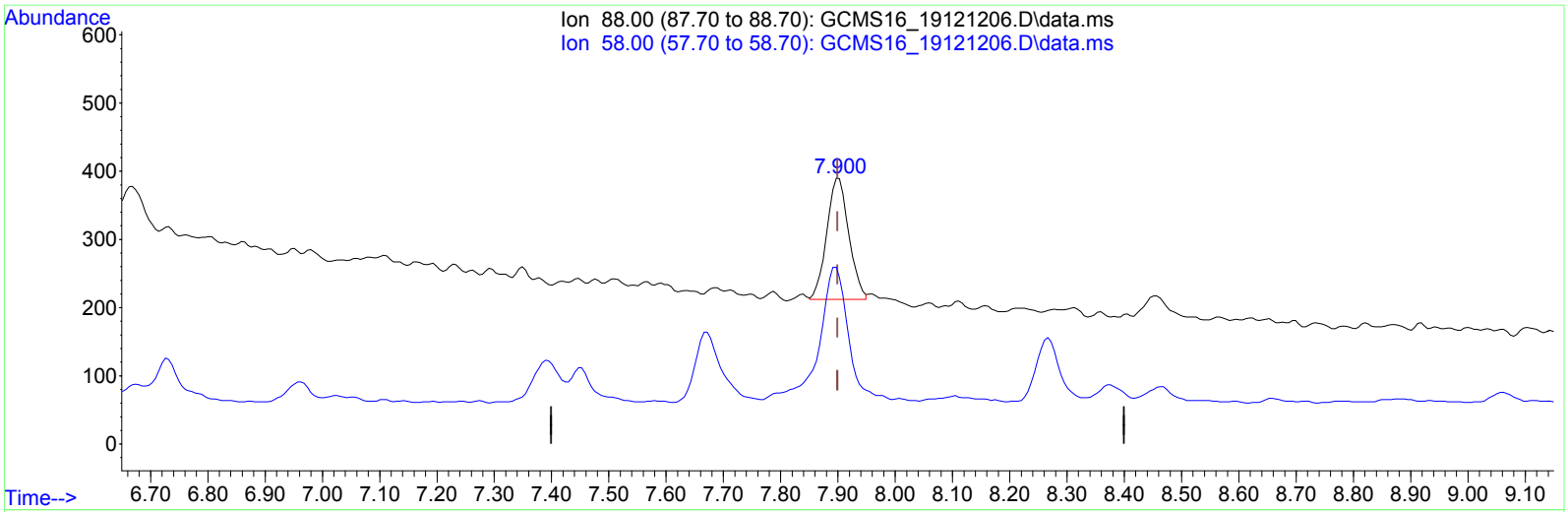
Ion	Exp%	Act%
88.00	100.00	0.00
58.00	103.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

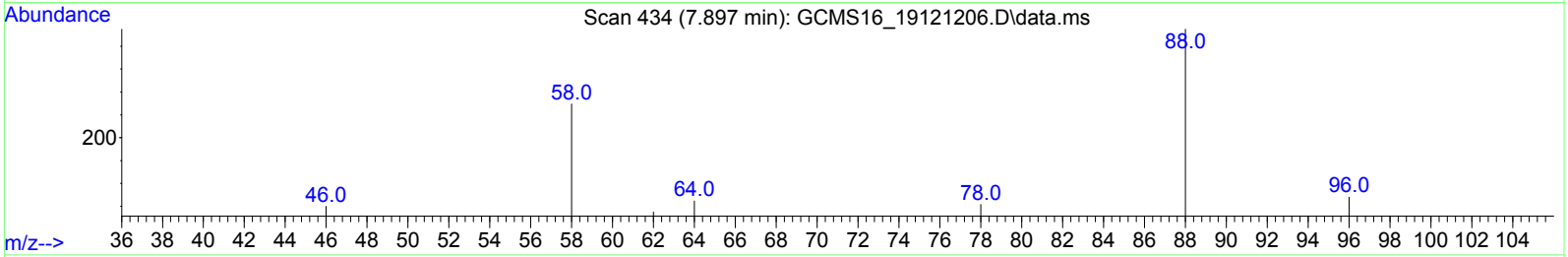
Before
N
CR 1/2/20

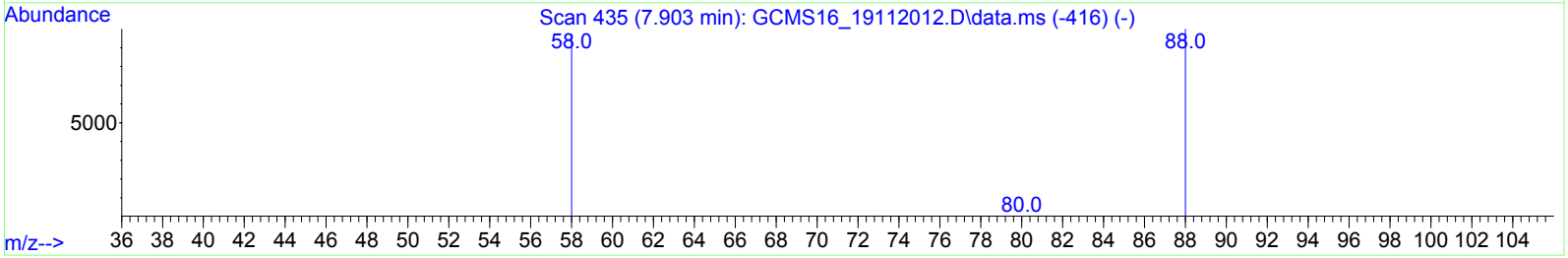
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121206.D
Acq On : 12 Dec 2019 03:17 pm
Operator : CR
Sample : E19L001-MRL1
Misc :
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Dec 12 15:47:11 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121206.D\data.ms

(3) 1,4-Dioxane (M)

7.897min (-0.002) 4.27 ug/L m

response 4771

After
CR 1/2/20

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	103.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Evaluate Continuing Calibration Report

Data Path : C:\Users\crice02\Desktop\E191201, E191203, & E191204 14Dioxane\GCMS16\Data\191213_CR\
Data File : GCMS16_19121308.D
Acq On : 13 Dec 2019 02:29 pm
Operator : CR
Sample : E19L002-MRL1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 16 11:44:19 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
Quant Title : Initial Calibration of 1,4-Dioxane 021317
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	TETRAHYDROFURAN-D8	50.000	50.000	0.0	107	0.00
2	S	1,4-Dioxane-d8	25.000 ~~5.000~~	21.821 14.6 ~~-336.4~~#		500	0.00
3	M	1,4-Dioxane	5.000	5.094	-1.9	117	0.00

CR 1/24/20

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121308.D
Acq On : 13 Dec 2019 02:29 pm
Operator : CR
Sample : E19L002-MRL1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 16 11:44:19 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	70541m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.819	96	22310	21.82 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.897	88	5571m	5.09 ug/L	

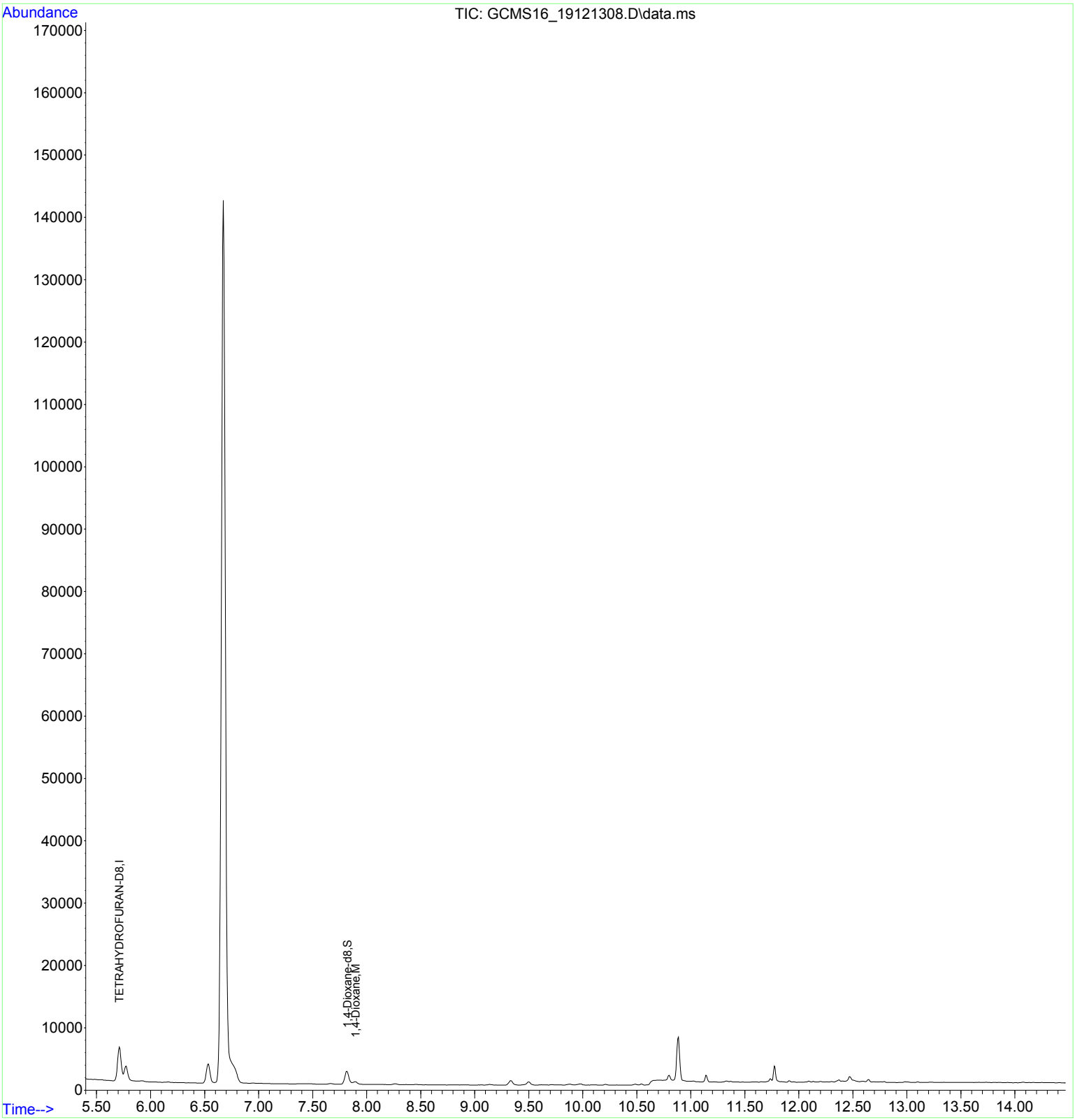
CR 1/2/20

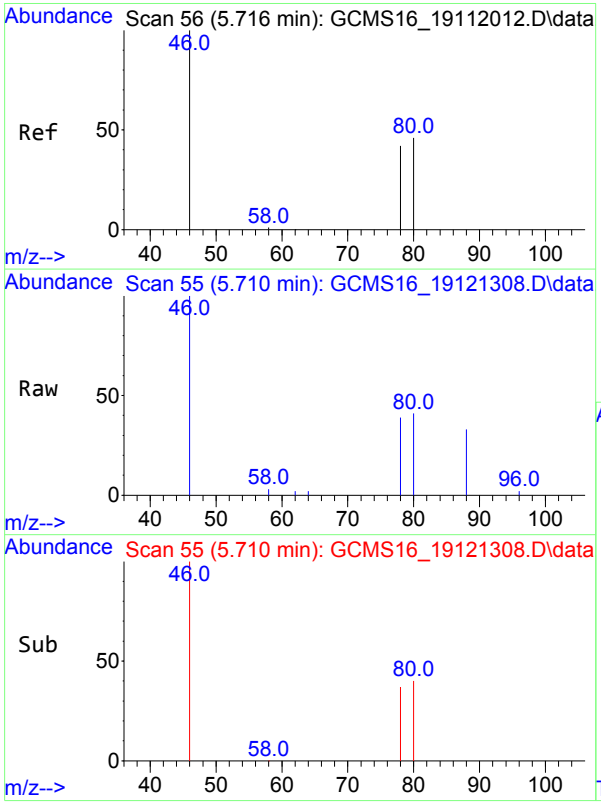
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121308.D
Acq On : 13 Dec 2019 02:29 pm
Operator : CR
Sample : E19L002-MRL1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 16 11:44:19 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

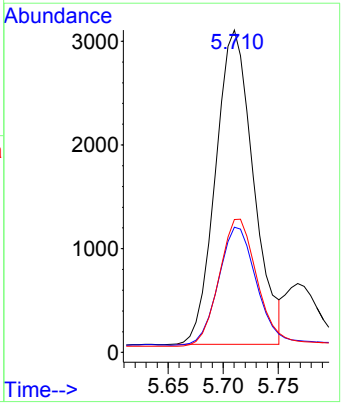


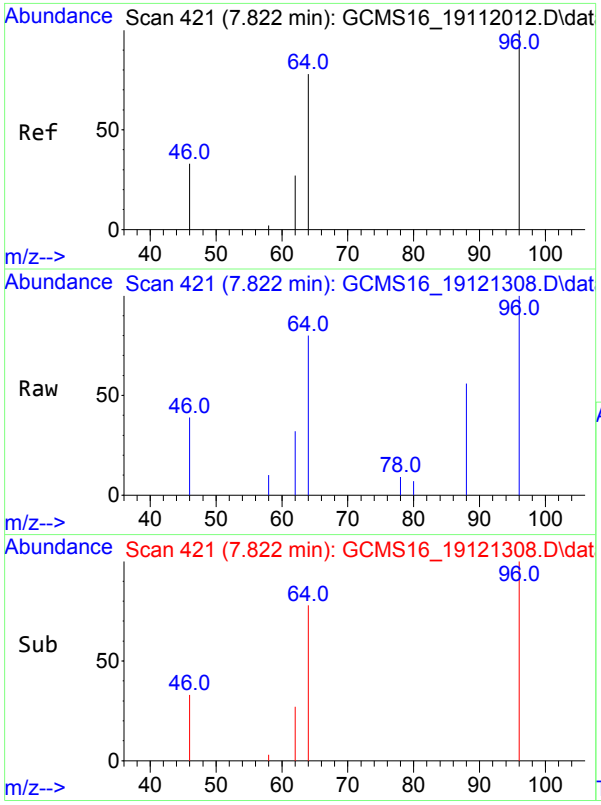


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121308.D
Acq: 13 Dec 2019 02:29 pm

Tgt Ion: 46 Resp: 70541

Ion	Ratio	Lower	Upper
46	100		
78	37.8	27.5	51.1
80	40.7	29.0	53.9

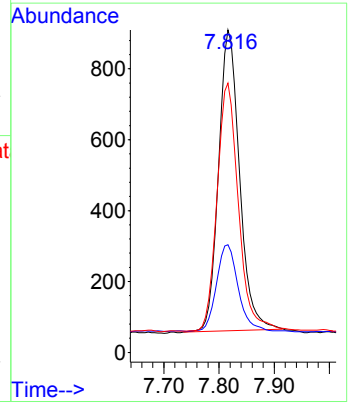


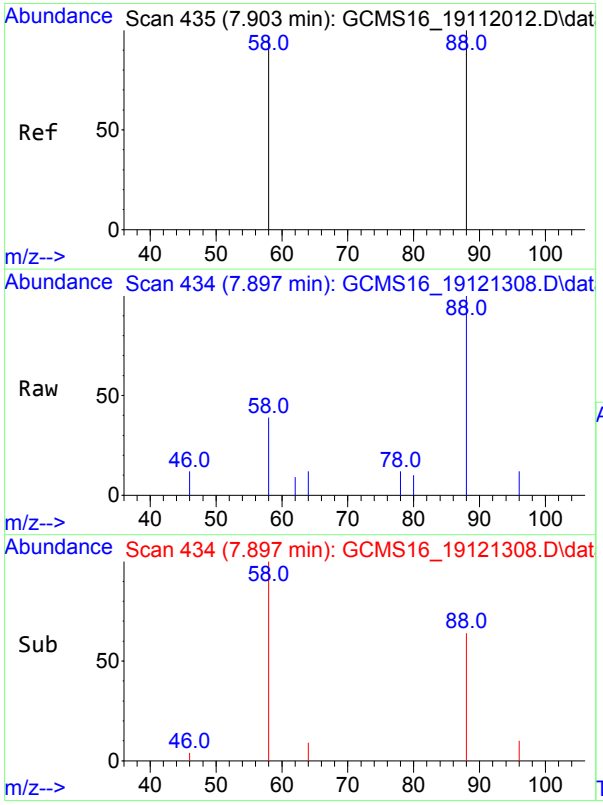


#2
1,4-Dioxane-d8
Concen: 21.82 ug/L
RT: 7.819 min Scan# 421
Delta R.T. -0.004 min
Lab File: GCMS16_19121308.D
Acq: 13 Dec 2019 02:29 pm

Tgt Ion: 96 Resp: 22310

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	81.4	56.8	105.6

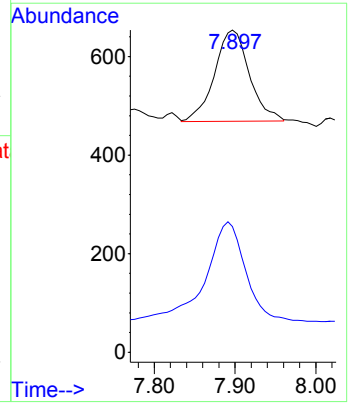




#3
1,4-Dioxane
Concen: 5.09 ug/L m
RT: 7.897 min Scan# 434
Delta R.T. -0.003 min
Lab File: GCMS16_19121308.D
Acq: 13 Dec 2019 02:29 pm

Tgt Ion: 88 Resp: 5571

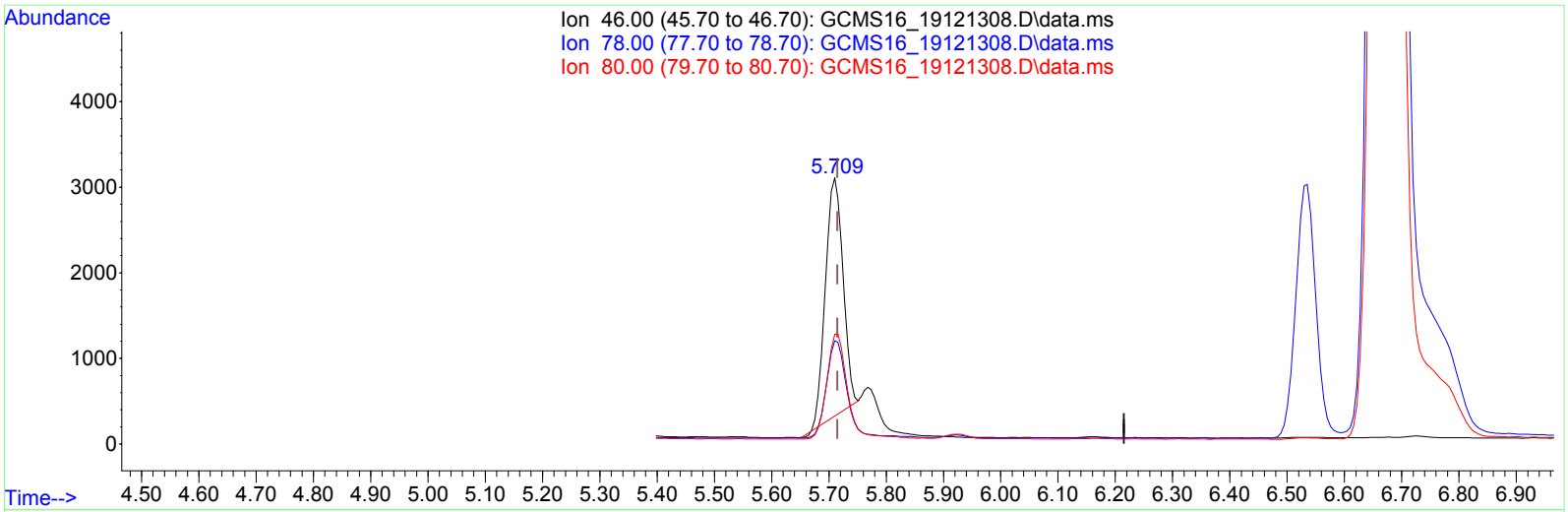
Ion	Ratio	Lower	Upper
88	100		
58	0.0	72.5	134.7#

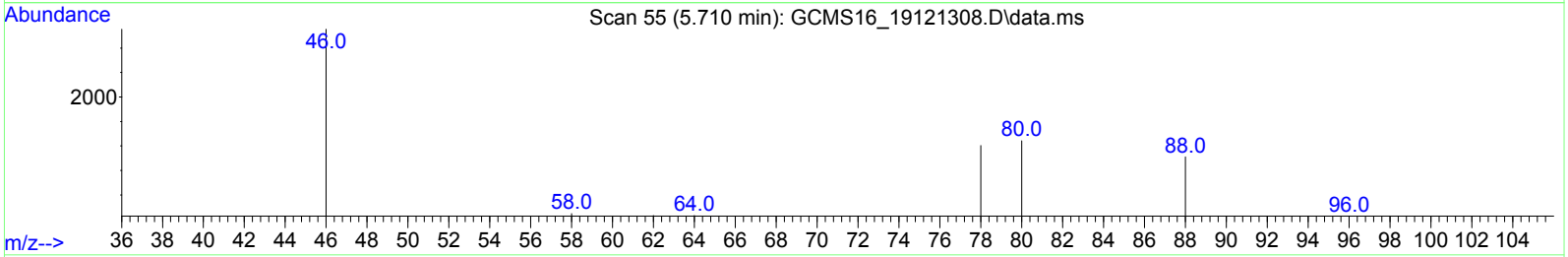


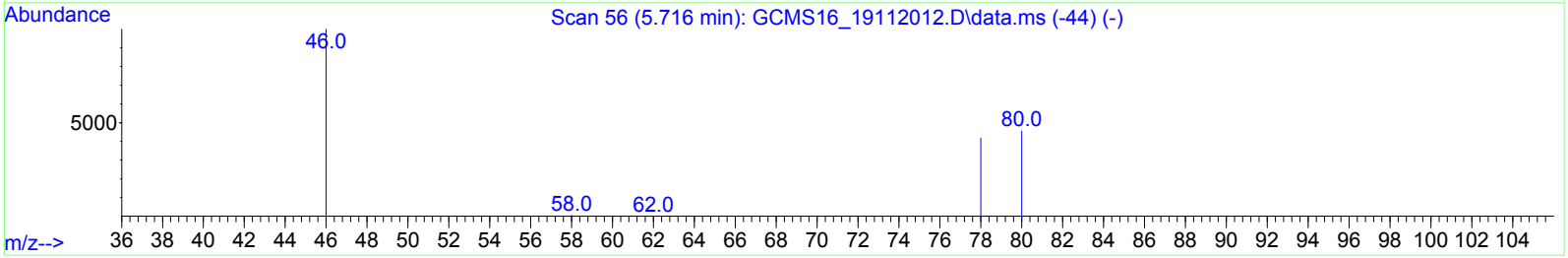
Quantitation Report (Qedit)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121308.D
Acq On : 13 Dec 2019 02:29 pm
Operator : CR
Sample : E19L002-MRL1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 16 11:44:19 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121308.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.712min (-0.003) 50.00 ug/L

response 58553

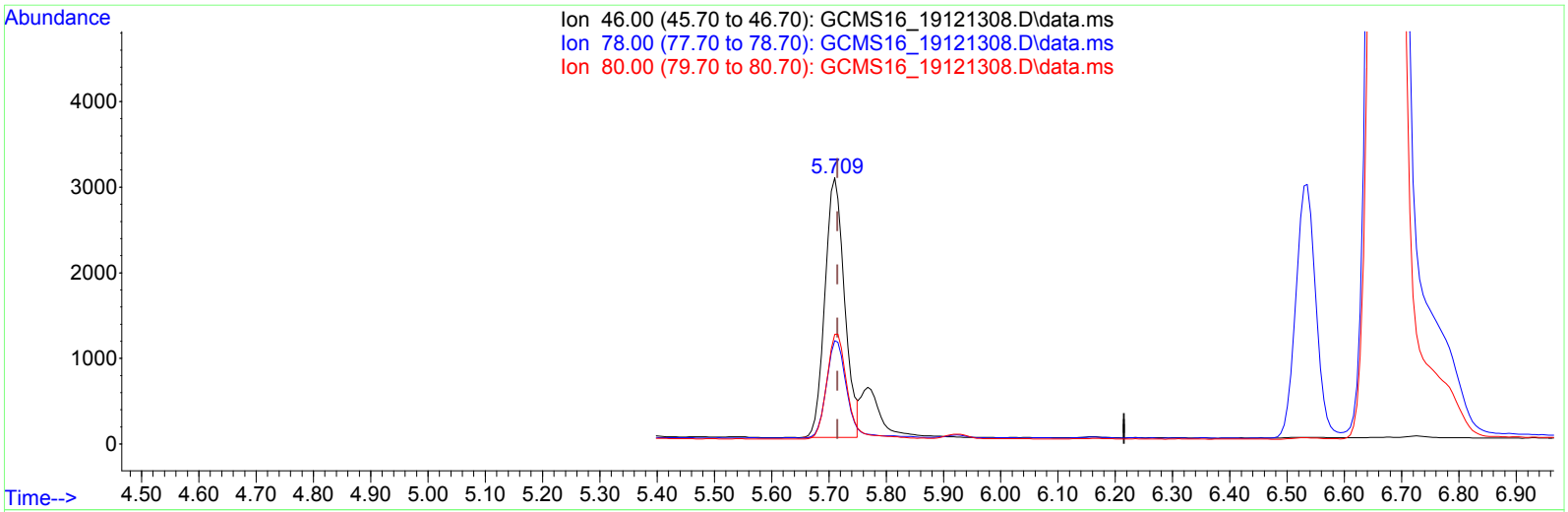
Before
IC
CR 1/2/20

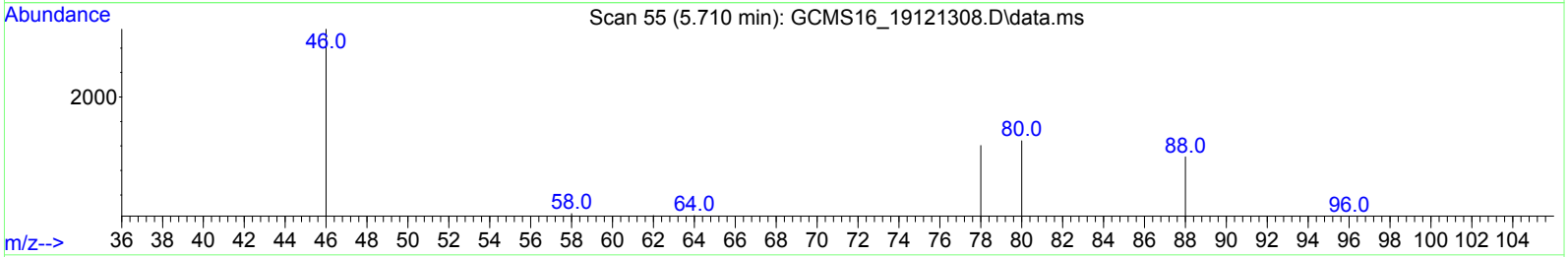
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	45.48
80.00	41.50	49.00
0.00	0.00	0.00

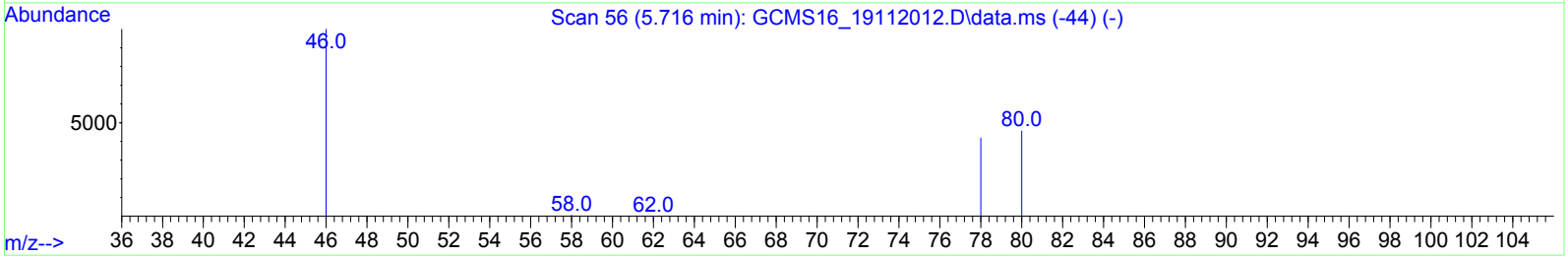
Quantitation Report (Qedit)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121308.D
Acq On : 13 Dec 2019 02:29 pm
Operator : CR
Sample : E19L002-MRL1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 16 11:44:19 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121308.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 70541

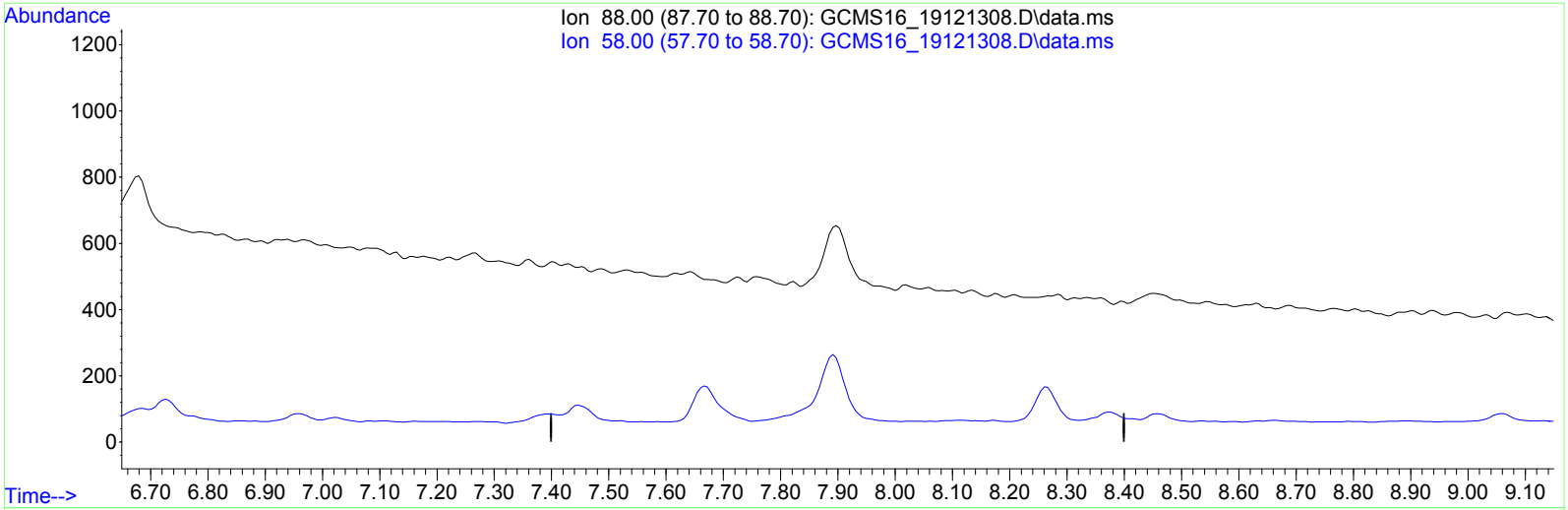
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	37.75
80.00	41.50	40.67
0.00	0.00	0.00

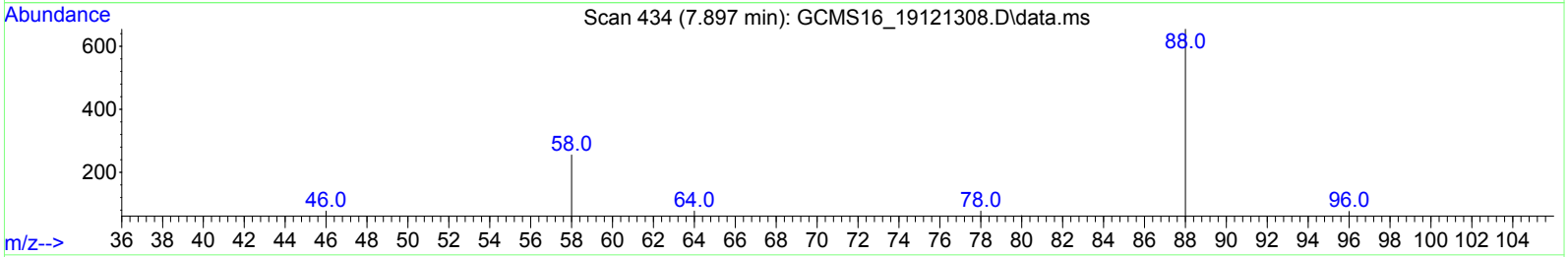
After
CR 1/2/20

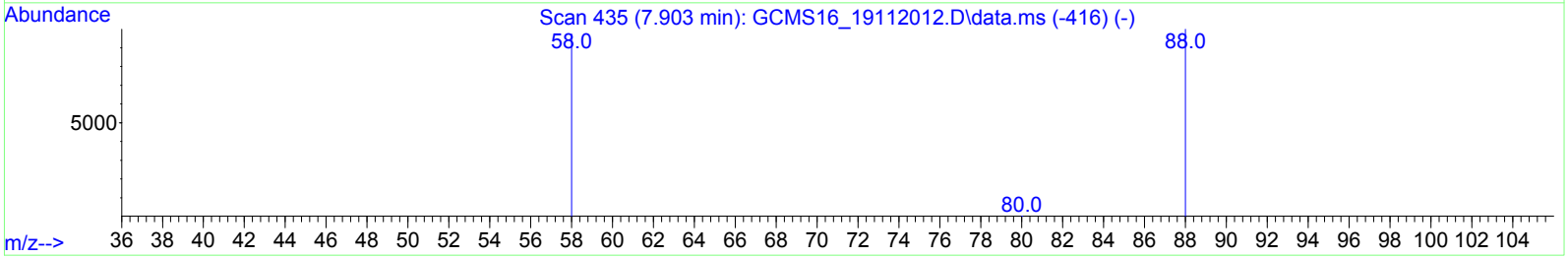
Quantitation Report (Qedit)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121308.D
Acq On : 13 Dec 2019 02:29 pm
Operator : CR
Sample : E19L002-MRL1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 16 11:44:19 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121308.D\data.ms

(3) 1,4-Dioxane (M)

7.899min (-7.899) 0.00 ug/L

response 0

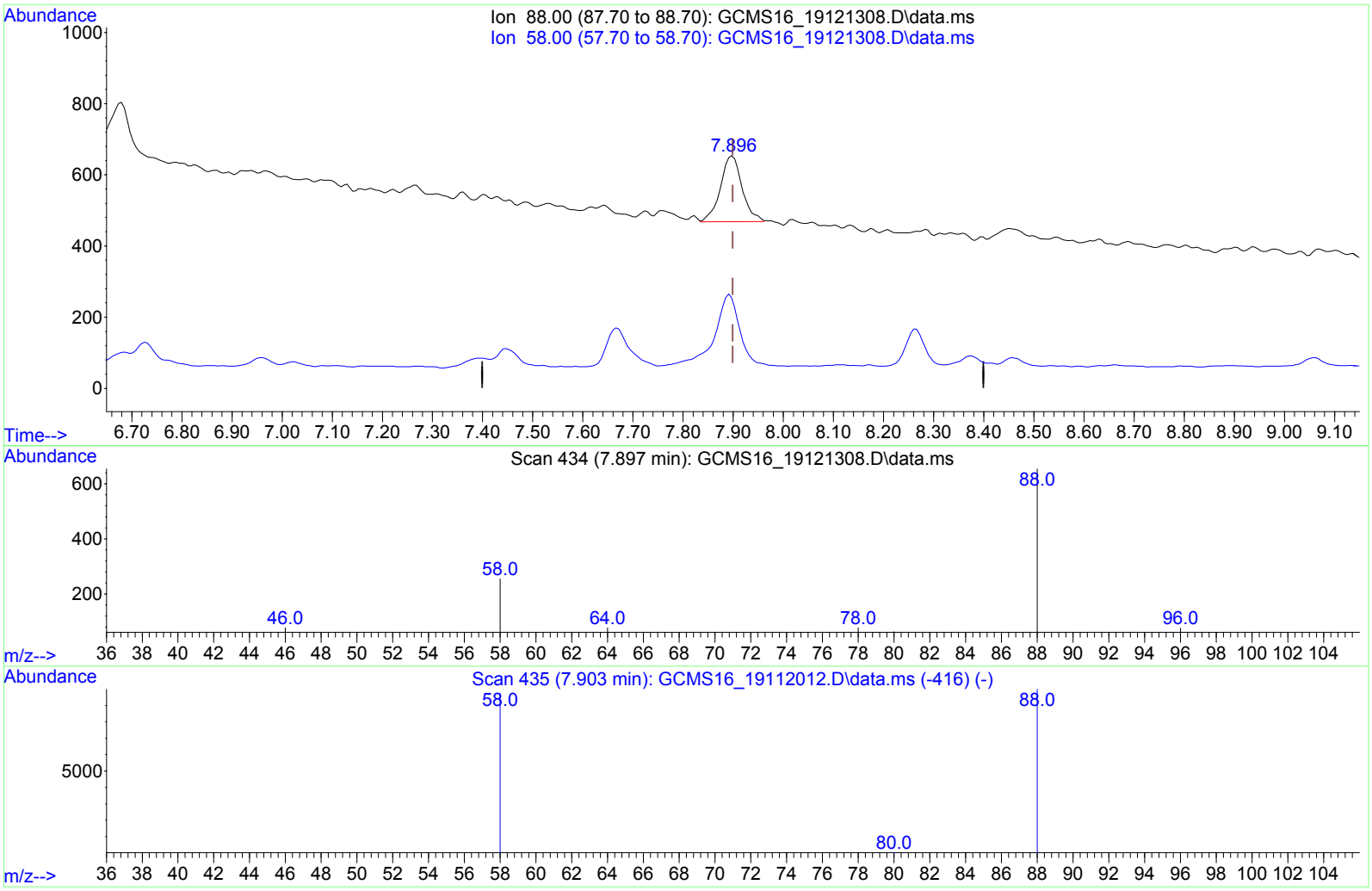
Ion	Exp%	Act%
88.00	100.00	0.00
58.00	103.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Before
N
CR 1/2/20

Quantitation Report (Qedit)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121308.D
Acq On : 13 Dec 2019 02:29 pm
Operator : CR
Sample : E19L002-MRL1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 16 11:44:19 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



TIC: GCMS16_19121308.D\data.ms

(3) 1,4-Dioxane (M)

7.897min (-0.003) 5.09 ug/L m

response 5571

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	103.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

After
CR 1/2/20

Evaluate Continuing Calibration Report

Data Path : C:\Users\crice02\Desktop\E191201, E191203, & E191204 14Dioxane\GCMS16\Data\191212_CR\
Data File : GCMS16_19121207.D
Acq On : 12 Dec 2019 03:38 pm
Operator : CR
Sample : E19L001-BS1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 13 09:50:30 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
Quant Title : Initial Calibration of 1,4-Dioxane 021317
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	TETRAHYDROFURAN-D8	50.000	50.000	0.0	92	-0.02
2	S	1,4-Dioxane-d8	25.000	24.468	2.1	94	0.00
3	M	1,4-Dioxane	25.000	24.835	0.7	94	0.00

CR 1/24/20

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121207.D
Acq On : 12 Dec 2019 03:38 pm
Operator : CR
Sample : E19L001-BS1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 13 09:50:30 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.699	46	59051m	50.00 ug/L	-0.02
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.820	96	20941	24.47 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.898	88	22735	24.84 ug/L	98

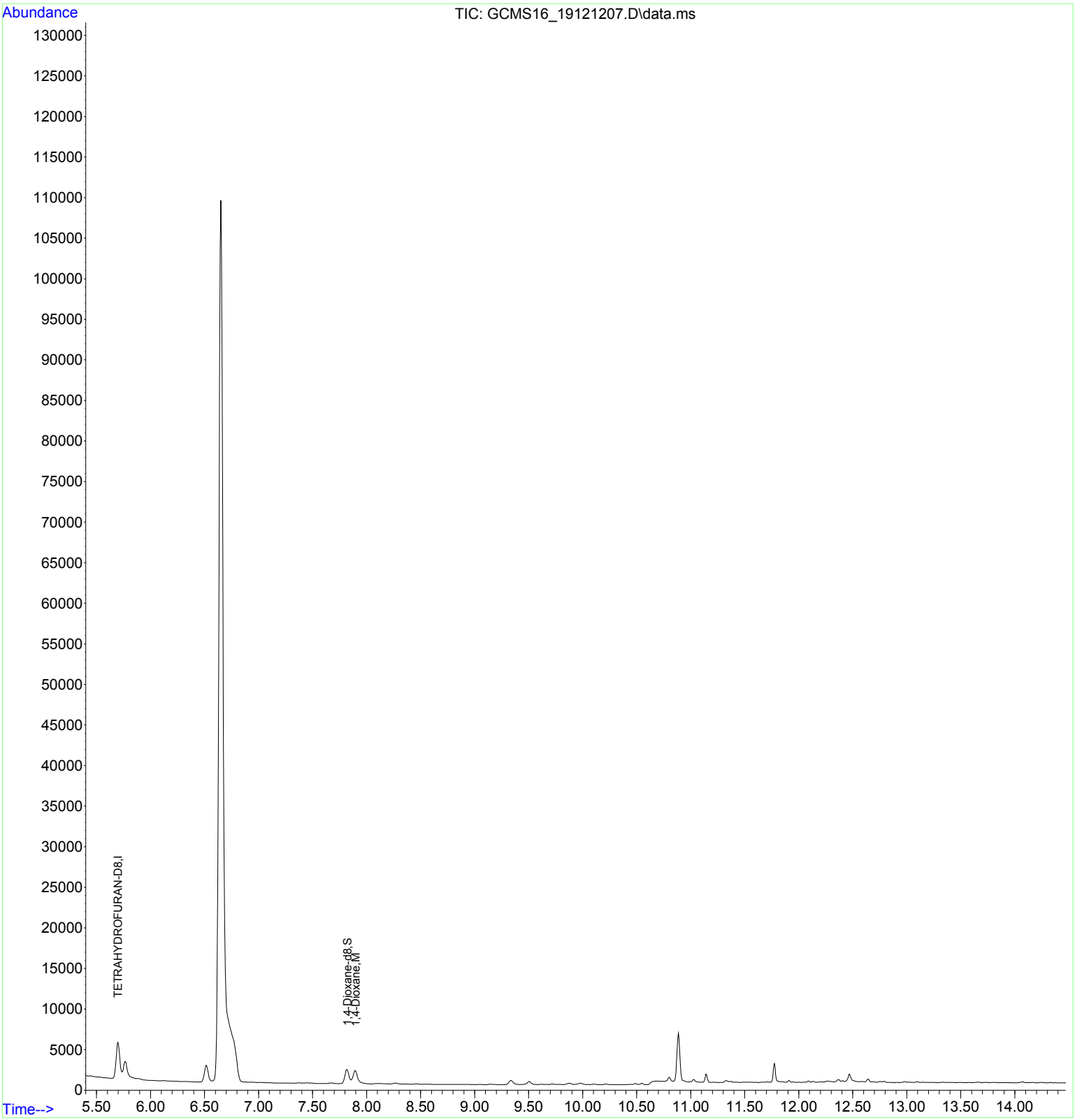
CR 1/2/20

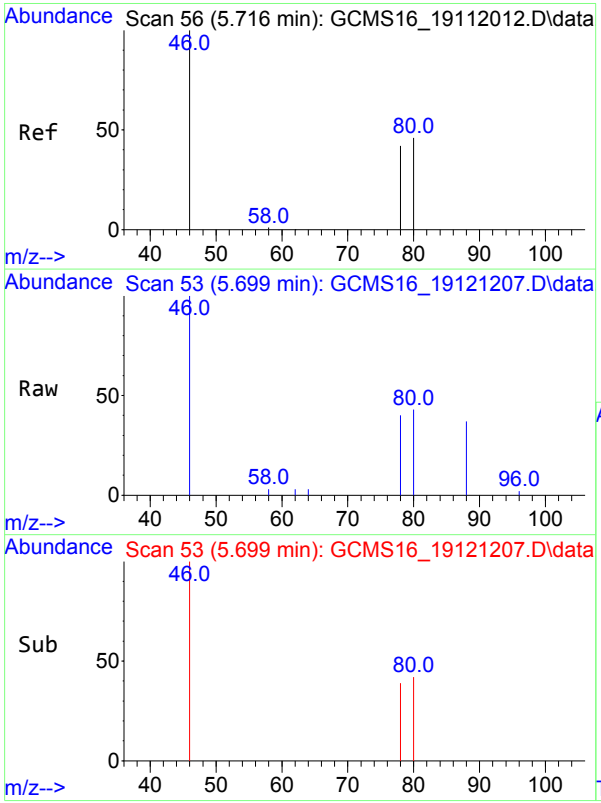
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121207.D
Acq On : 12 Dec 2019 03:38 pm
Operator : CR
Sample : E19L001-BS1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 13 09:50:30 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

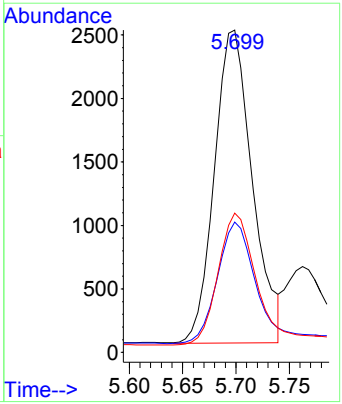


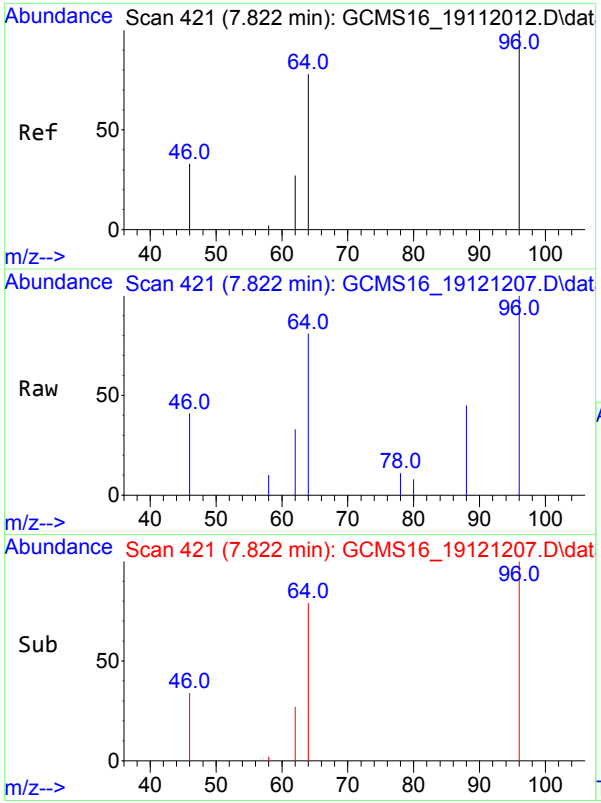


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.699 min Scan# 53
Delta R.T. -0.016 min
Lab File: GCMS16_19121207.D
Acq: 12 Dec 2019 03:38 pm

Tgt Ion: 46 Resp: 59051

Ion	Ratio	Lower	Upper
46	100		
78	37.8	27.5	51.1
80	40.9	29.0	53.9

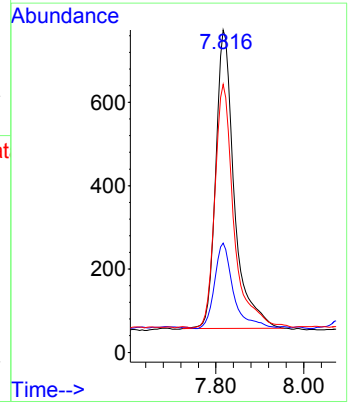


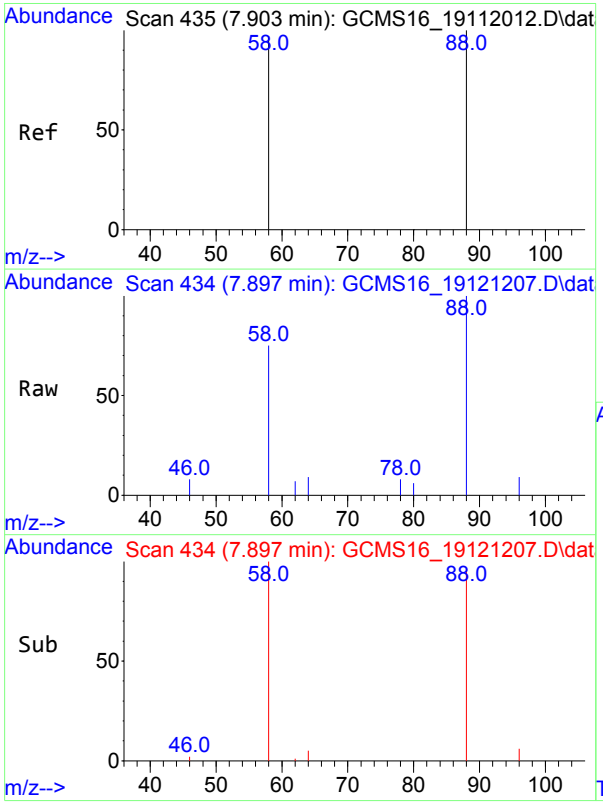


#2
1,4-Dioxane-d8
Concen: 24.47 ug/L
RT: 7.820 min Scan# 421
Delta R.T. -0.003 min
Lab File: GCMS16_19121207.D
Acq: 12 Dec 2019 03:38 pm

Tgt Ion: 96 Resp: 20941

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	81.5	56.8	105.6

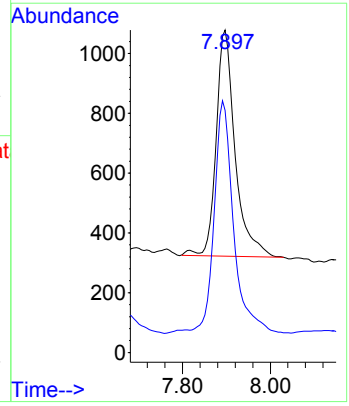




#3
1,4-Dioxane
Concen: 24.84 ug/L
RT: 7.898 min Scan# 434
Delta R.T. -0.001 min
Lab File: GCMS16_19121207.D
Acq: 12 Dec 2019 03:38 pm

Tgt Ion: 88 Resp: 22735

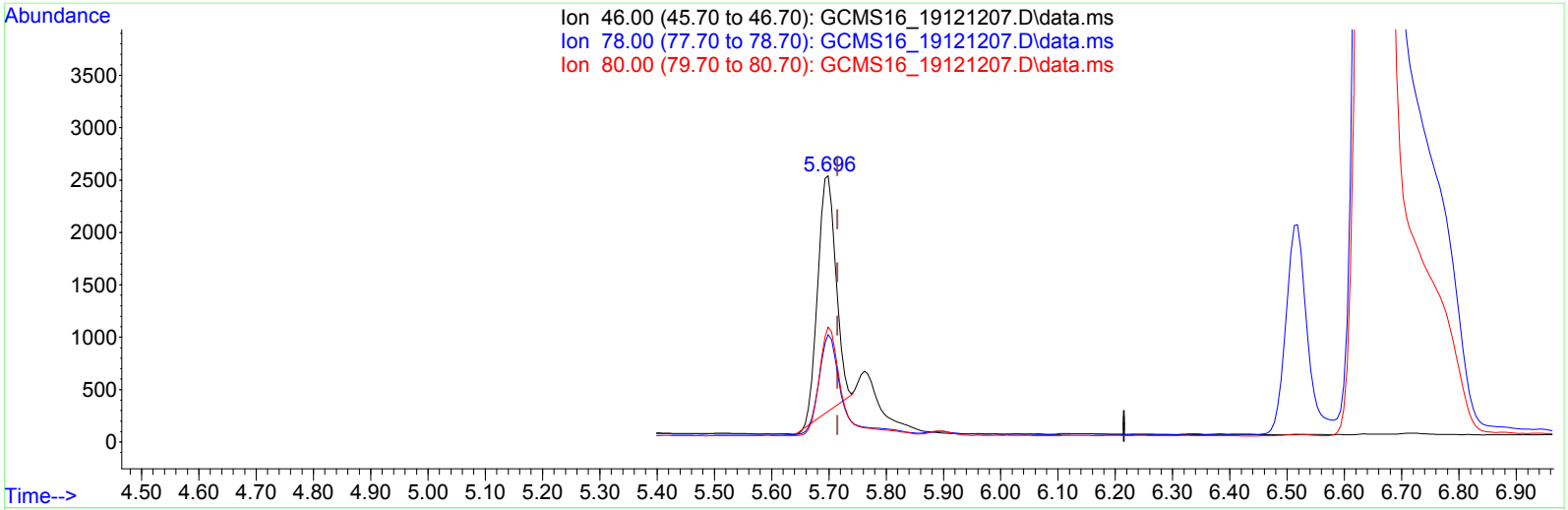
Ion	Ratio	Lower	Upper
88	100		
58	101.8	72.5	134.7

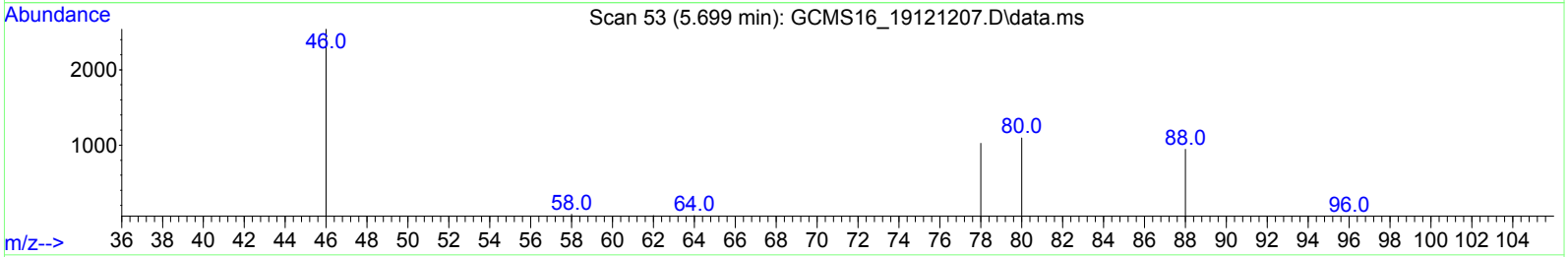


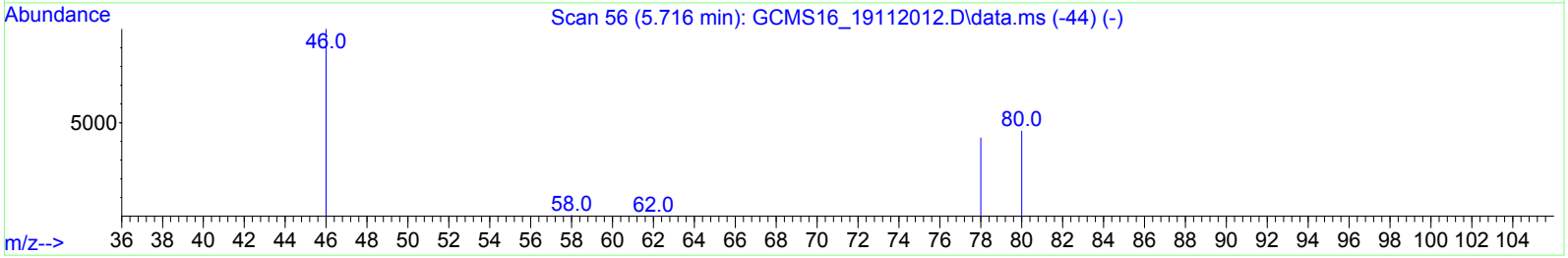
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121207.D
Acq On : 12 Dec 2019 03:38 pm
Operator : CR
Sample : E19L001-BS1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 13 09:50:30 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121207.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.699min (-0.016) 50.00 ug/L

response 48693

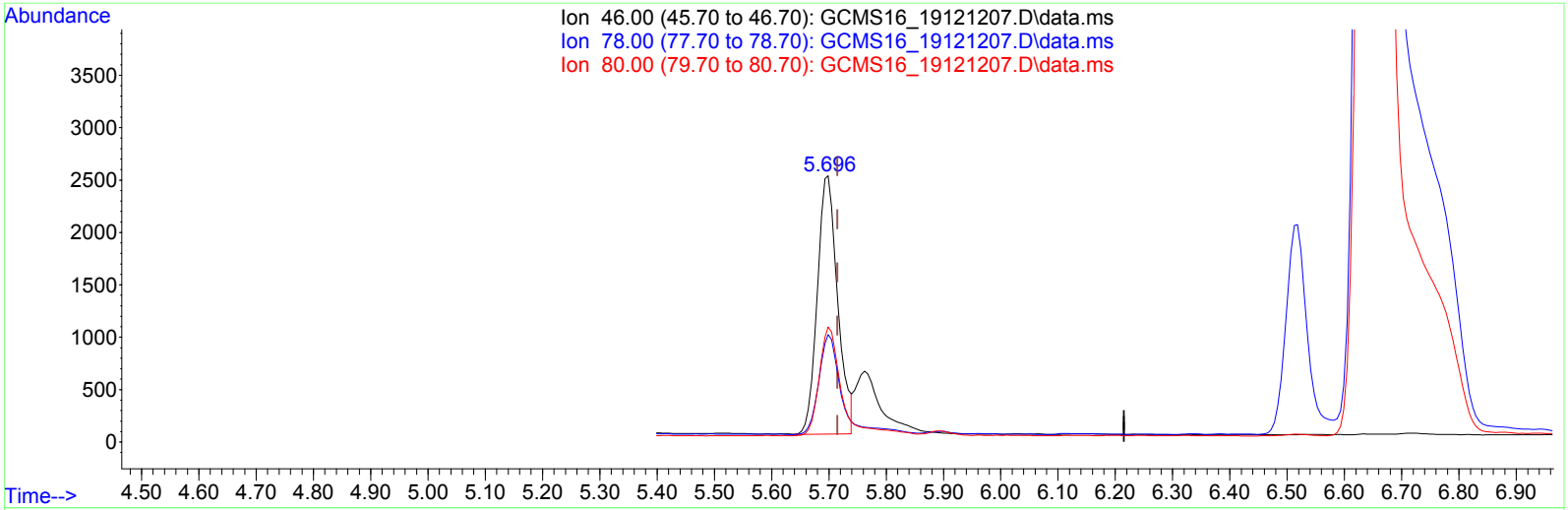
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	45.87
80.00	41.50	49.57
0.00	0.00	0.00

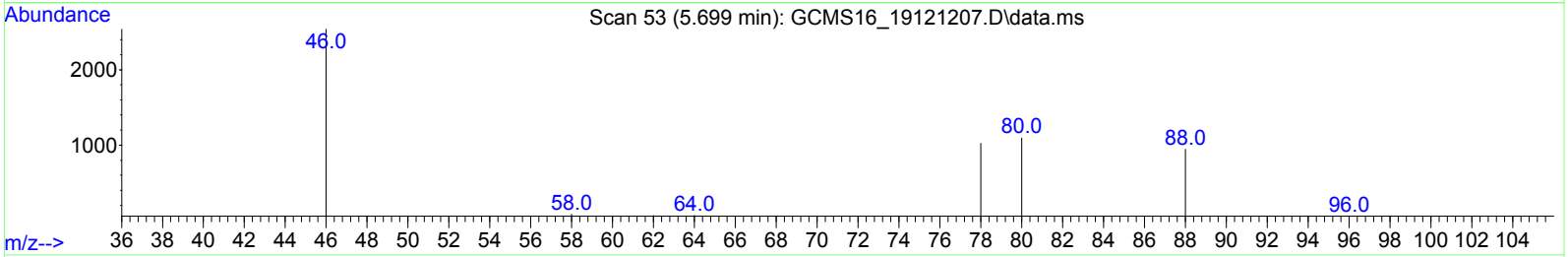
Before
IC
CR 1/2/20

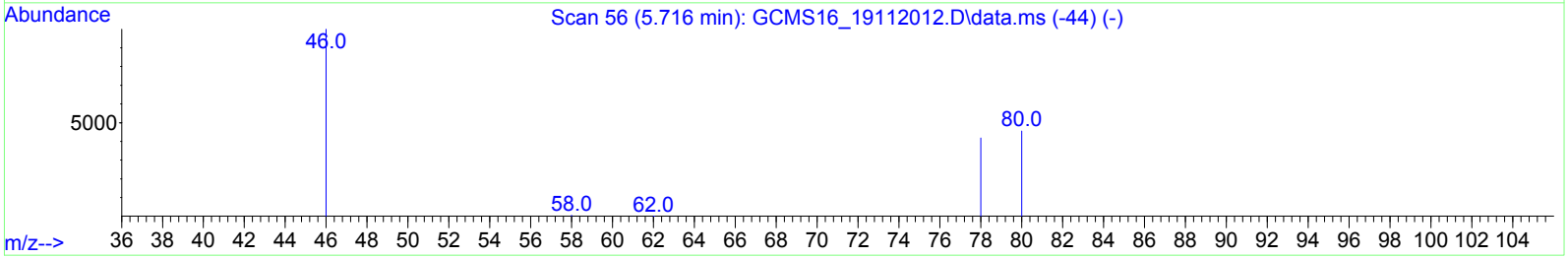
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121207.D
Acq On : 12 Dec 2019 03:38 pm
Operator : CR
Sample : E19L001-BS1
Misc :
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Dec 13 09:50:30 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121207.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.699min (-0.016) 50.00 ug/L m

response 59051

After
CR 1/2/20

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	37.83
80.00	41.50	40.88
0.00	0.00	0.00

Evaluate Continuing Calibration Report

Data Path : C:\Users\crice02\Desktop\E191201, E191203, & E191204 14Dioxane\GCMS16\Data\191212_CR\
Data File : GCMS16_19121208.D
Acq On : 12 Dec 2019 03:59 pm
Operator : CR
Sample : E19L001-BSD1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 13 09:51:46 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
Quant Title : Initial Calibration of 1,4-Dioxane 021317
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	TETRAHYDROFURAN-D8	50.000	50.000	0.0	129	0.00
2	S	1,4-Dioxane-d8	25.000	20.295	18.8	109	0.00
3	M	1,4-Dioxane	25.000	21.067	15.7	112	0.00

CR 1/24/20

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121208.D
Acq On : 12 Dec 2019 03:59 pm
Operator : CR
Sample : E19L001-BSD1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 13 09:51:46 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	82416m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.822	96	24243	20.30 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.898	88	26916	21.07 ug/L	98

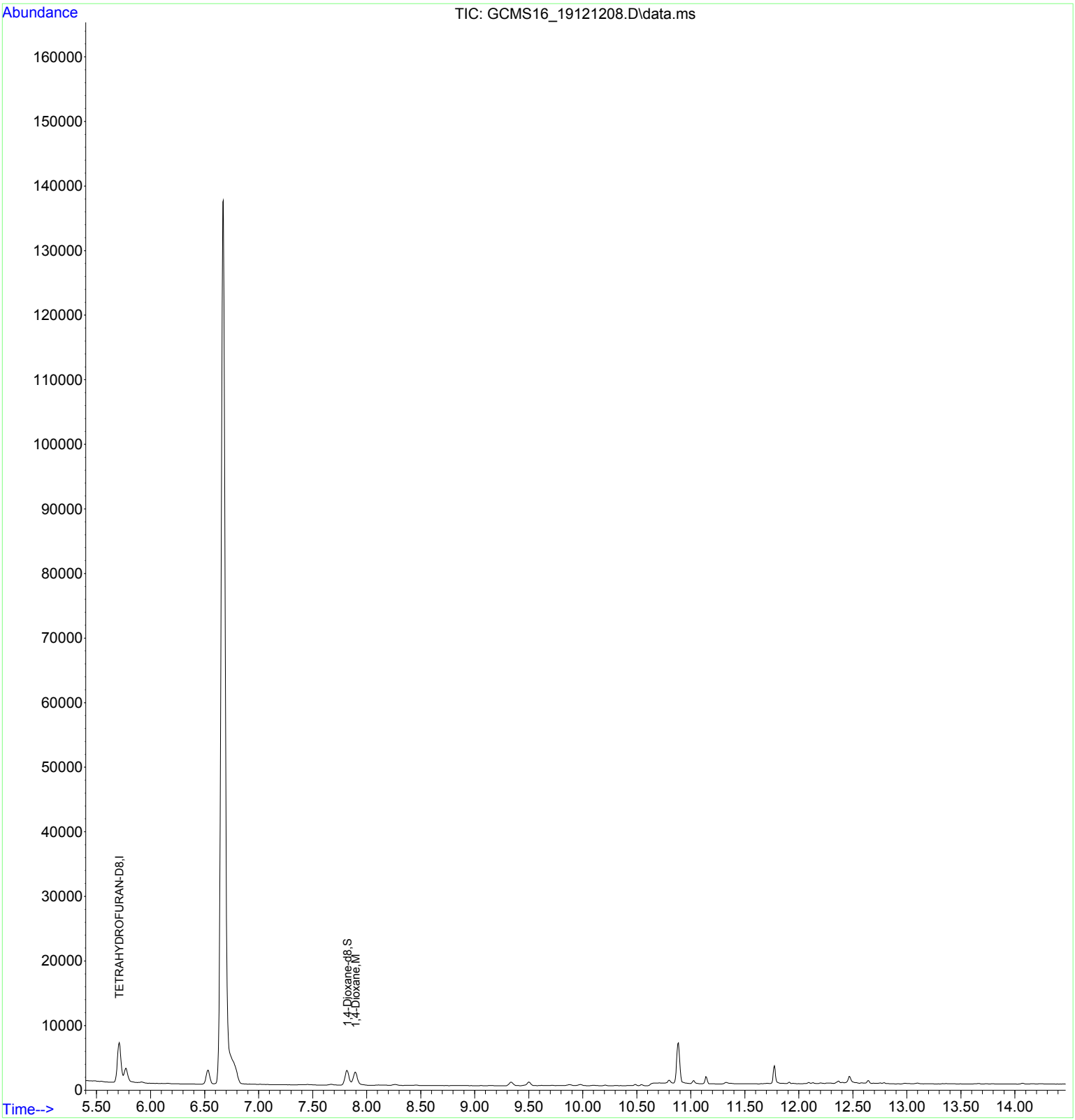
CR 1/2/20

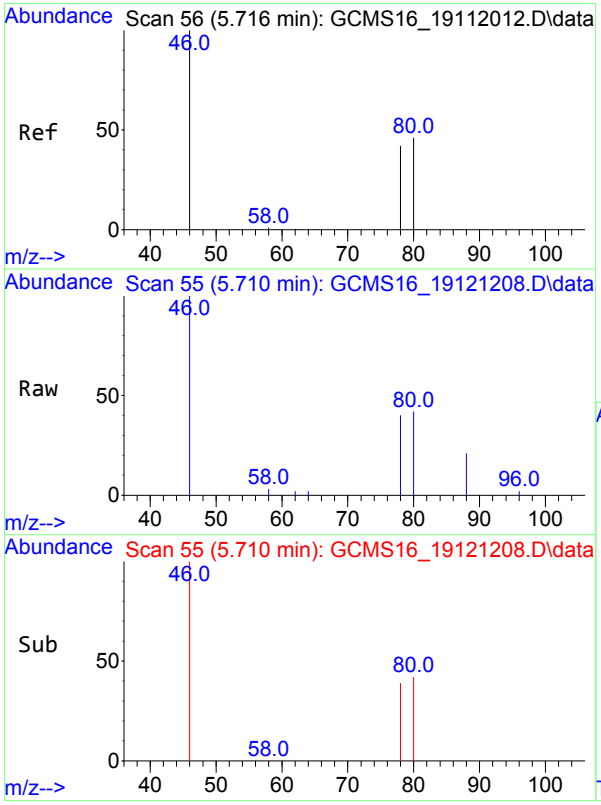
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121208.D
Acq On : 12 Dec 2019 03:59 pm
Operator : CR
Sample : E19L001-BSD1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 13 09:51:46 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

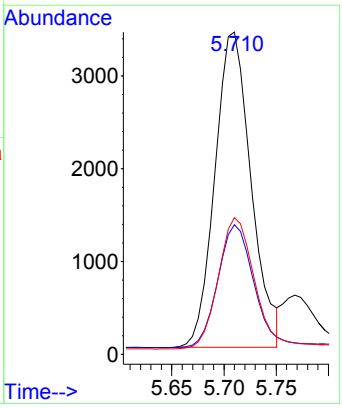


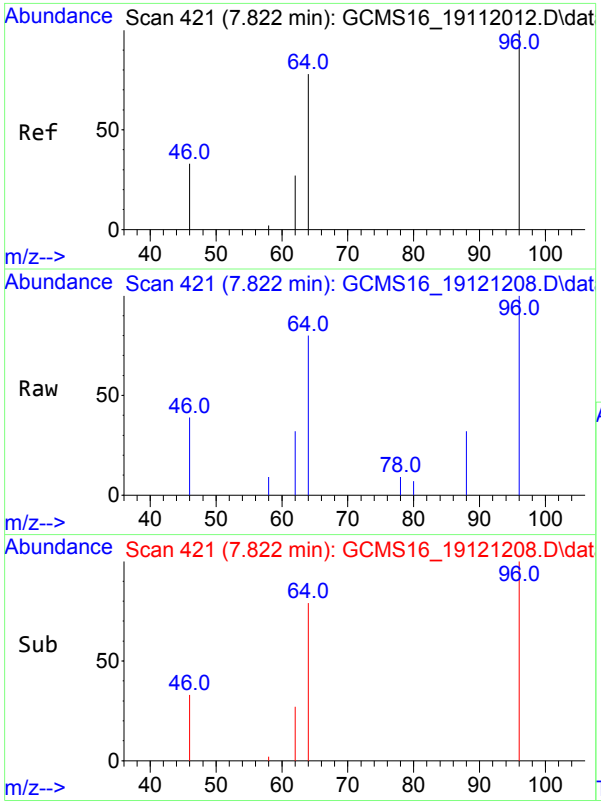


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121208.D
Acq: 12 Dec 2019 03:59 pm

Tgt Ion: 46 Resp: 82416

Ion	Ratio	Lower	Upper
46	100		
78	37.2	27.5	51.1
80	39.6	29.0	53.9

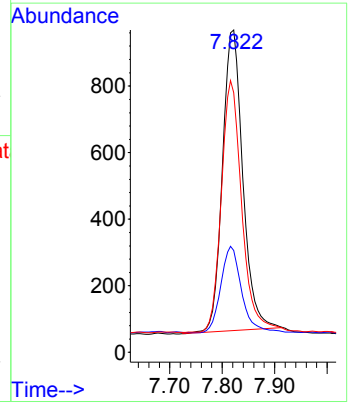


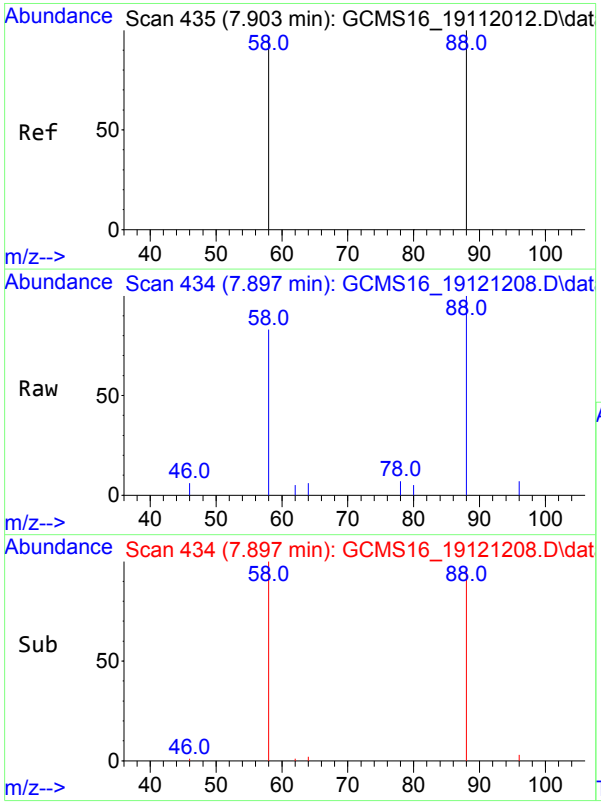


#2
1,4-Dioxane-d8
Concen: 20.30 ug/L
RT: 7.822 min Scan# 421
Delta R.T. -0.001 min
Lab File: GCMS16_19121208.D
Acq: 12 Dec 2019 03:59 pm

Tgt Ion: 96 Resp: 24243

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	81.4	56.8	105.6

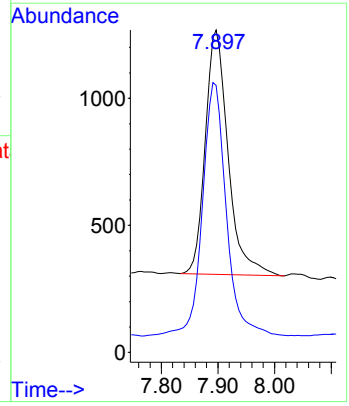




#3
1,4-Dioxane
Concen: 21.07 ug/L
RT: 7.898 min Scan# 434
Delta R.T. -0.001 min
Lab File: GCMS16_19121208.D
Acq: 12 Dec 2019 03:59 pm

Tgt Ion: 88 Resp: 26916

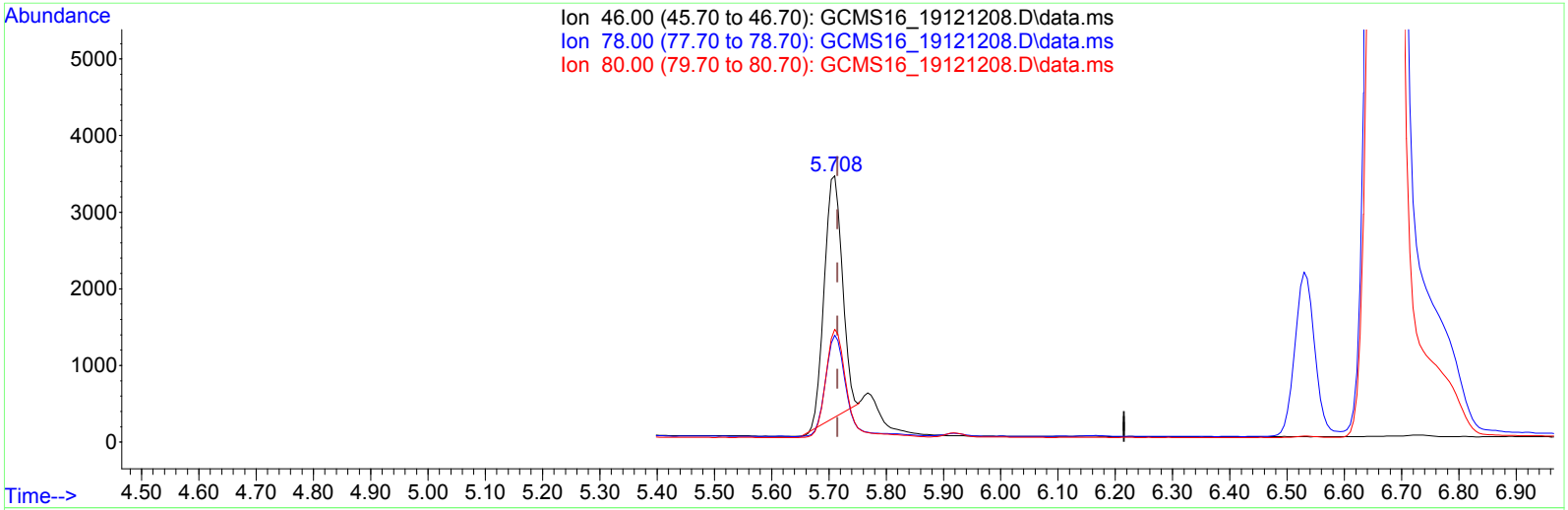
Ion	Ratio	Lower	Upper
88	100		
58	105.4	72.5	134.7

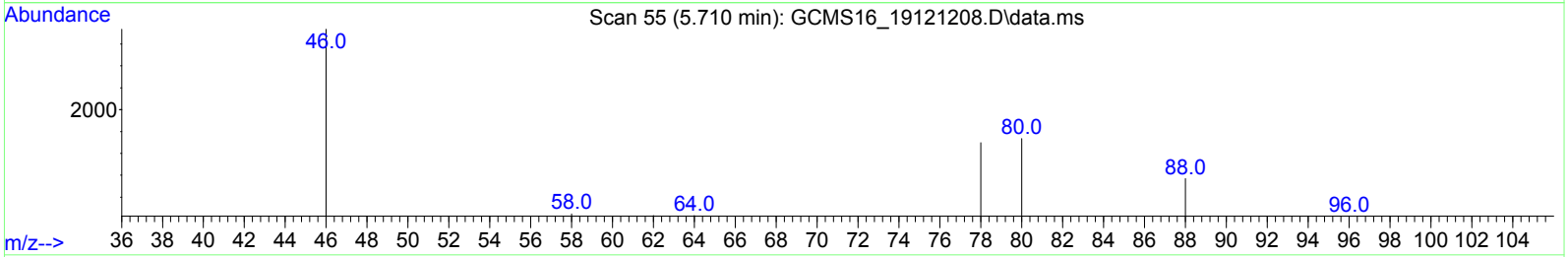


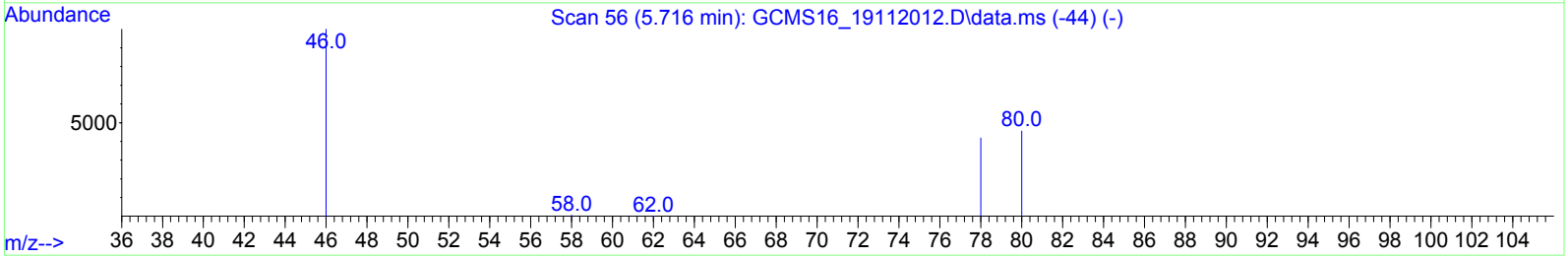
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121208.D
Acq On : 12 Dec 2019 03:59 pm
Operator : CR
Sample : E19L001-BSD1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 13 09:51:46 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121208.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L

response 68036

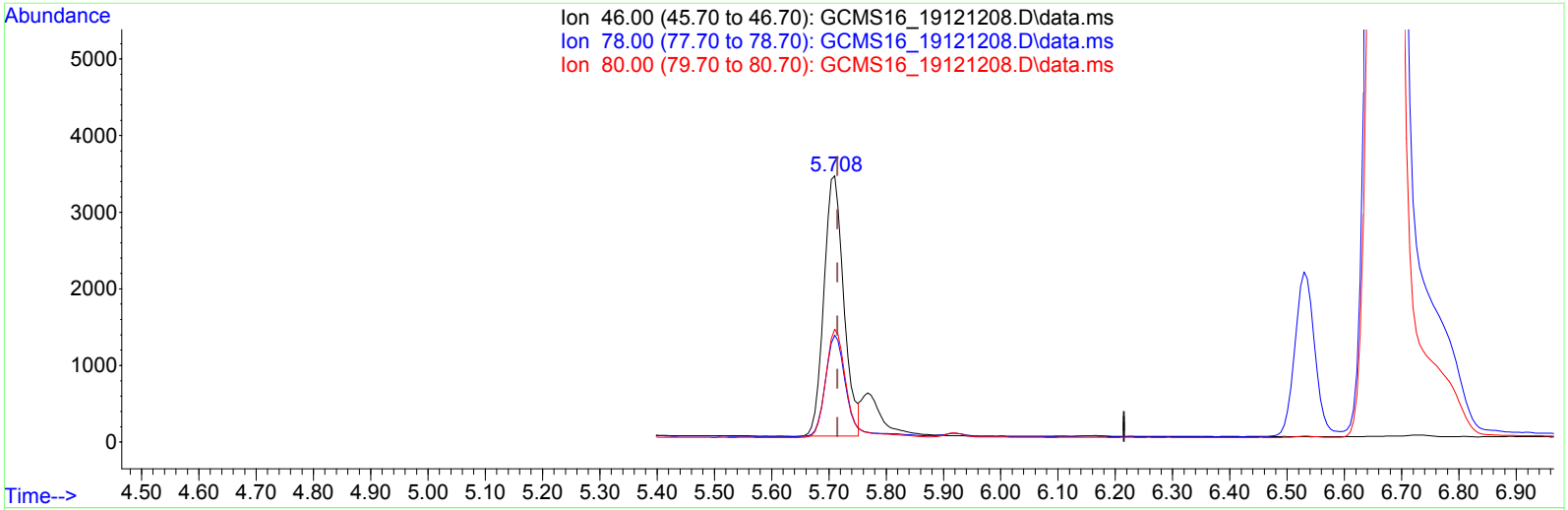
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	45.02
80.00	41.50	47.99
0.00	0.00	0.00

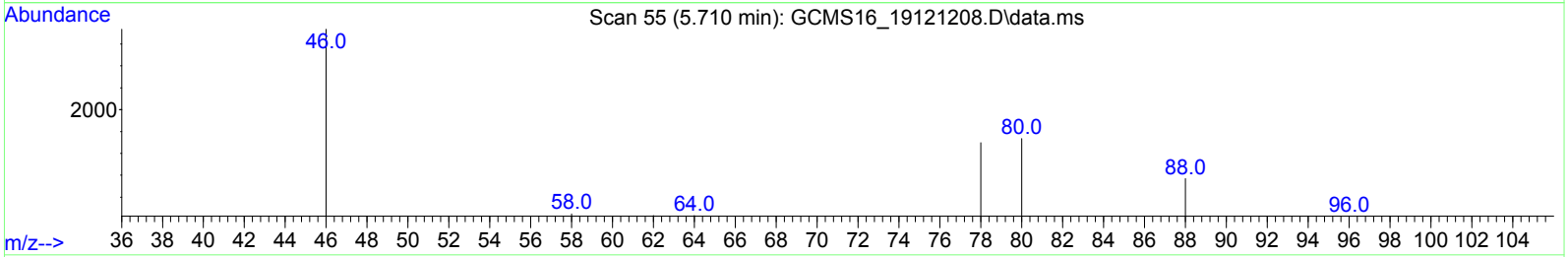
Before
IC
CR 1/2/20

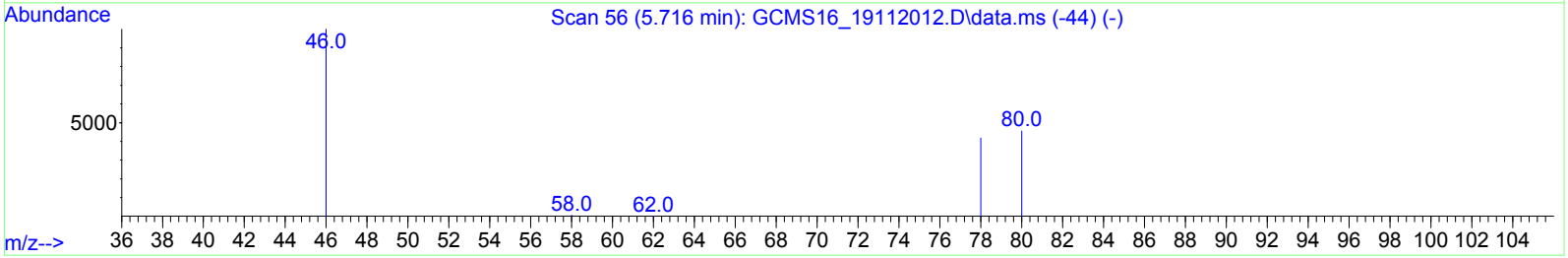
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121208.D
Acq On : 12 Dec 2019 03:59 pm
Operator : CR
Sample : E19L001-BSD1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 13 09:51:46 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121208.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 82416

After
CR 1/2/20

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	37.17
80.00	41.50	39.62
0.00	0.00	0.00

Evaluate Continuing Calibration Report

Data Path : C:\Users\crice02\Desktop\E191201, E191203, & E191204 14Dioxane\GCMS16\Data\191213_CR\
Data File : GCMS16_19121309.D
Acq On : 13 Dec 2019 02:50 pm
Operator : CR
Sample : E19L002-BS1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 16 11:46:41 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
Quant Title : Initial Calibration of 1,4-Dioxane 021317
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	TETRAHYDROFURAN-D8	50.000	50.000	0.0	122	0.00
2	S	1,4-Dioxane-d8	25.000	20.354	18.6	104	0.00
3	M	1,4-Dioxane	25.000	21.192	15.2	107	0.00

CR 1/24/20

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121309.D
Acq On : 13 Dec 2019 02:50 pm
Operator : CR
Sample : E19L002-BS1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 16 11:46:41 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	78302m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.821	96	23099	20.35 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.898	88	25724	21.19 ug/L	97

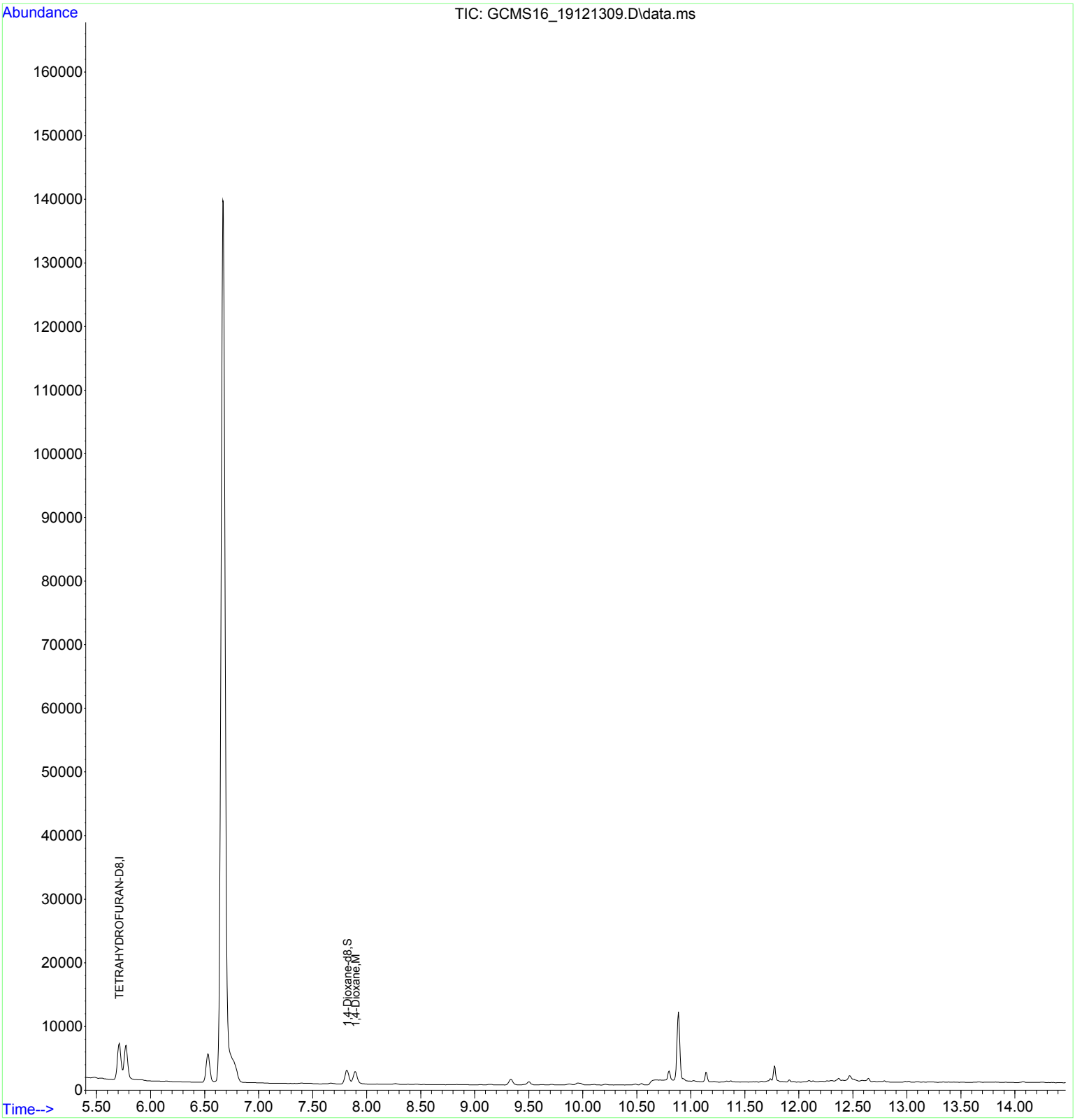
CR 1/2/20

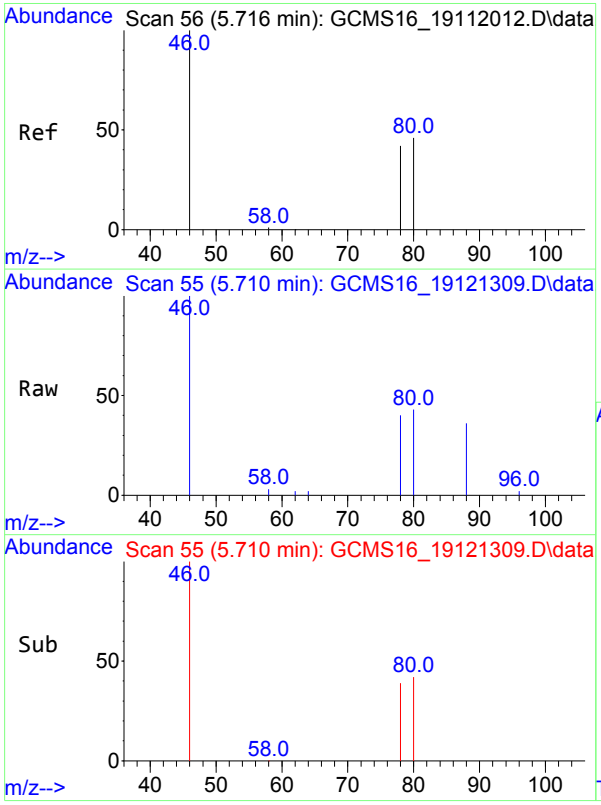
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121309.D
Acq On : 13 Dec 2019 02:50 pm
Operator : CR
Sample : E19L002-BS1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 16 11:46:41 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

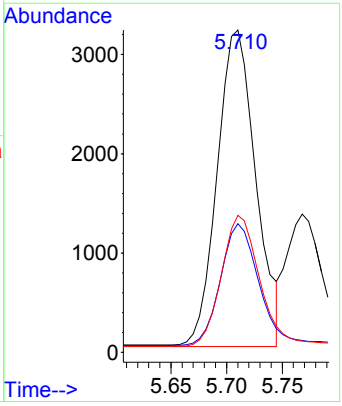


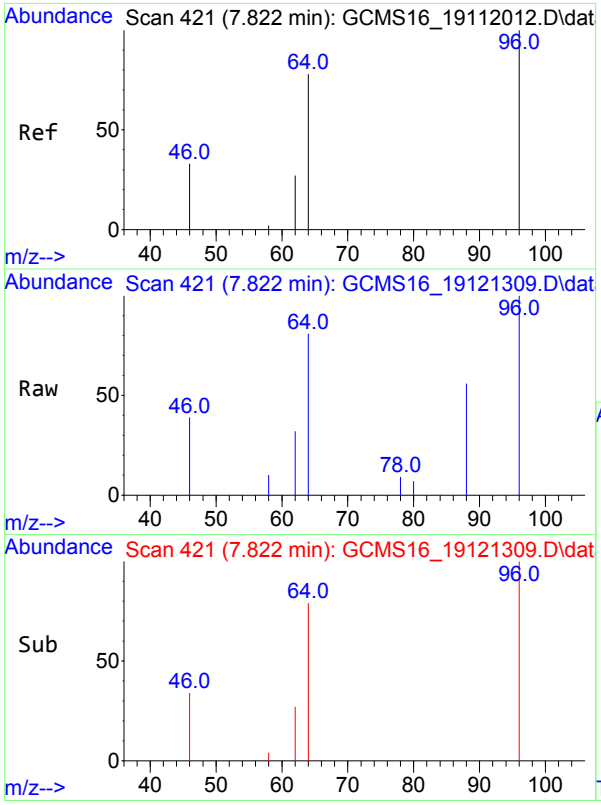


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121309.D
Acq: 13 Dec 2019 02:50 pm

Tgt Ion: 46 Resp: 78302

Ion	Ratio	Lower	Upper
46	100		
78	36.5	27.5	51.1
80	39.0	29.0	53.9

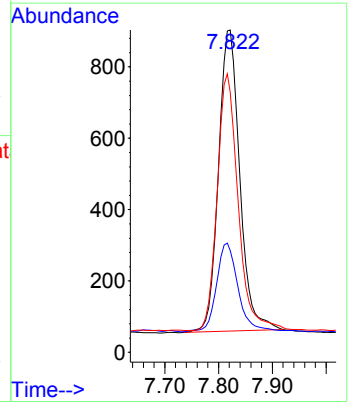


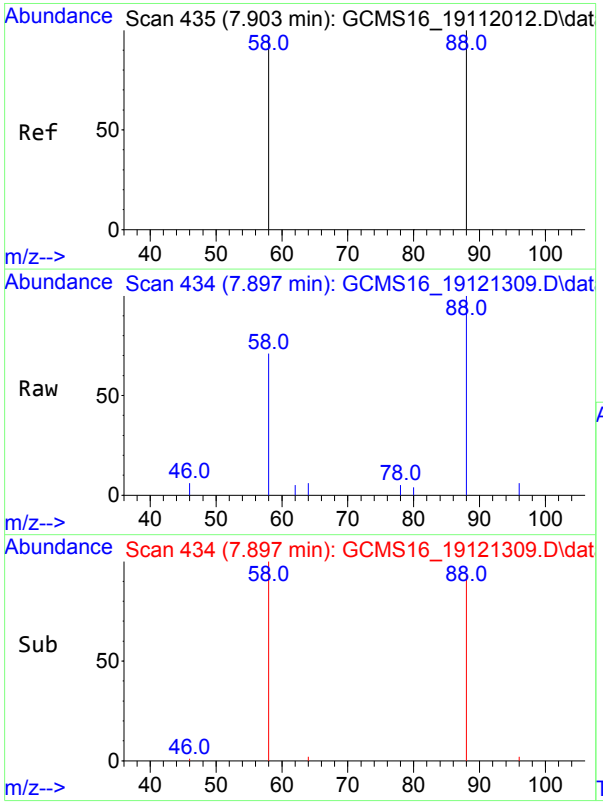


#2
1,4-Dioxane-d8
Concen: 20.35 ug/L
RT: 7.821 min Scan# 421
Delta R.T. -0.001 min
Lab File: GCMS16_19121309.D
Acq: 13 Dec 2019 02:50 pm

Tgt Ion: 96 Resp: 23099

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	80.0	56.8	105.6

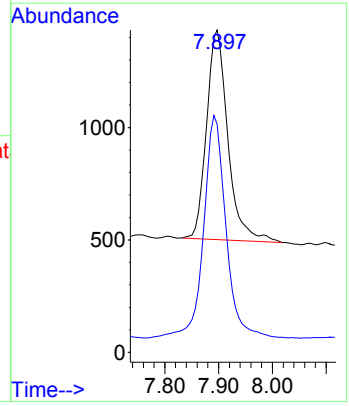




#3
1,4-Dioxane
Concen: 21.19 ug/L
RT: 7.898 min Scan# 434
Delta R.T. -0.001 min
Lab File: GCMS16_19121309.D
Acq: 13 Dec 2019 02:50 pm

Tgt Ion: 88 Resp: 25724

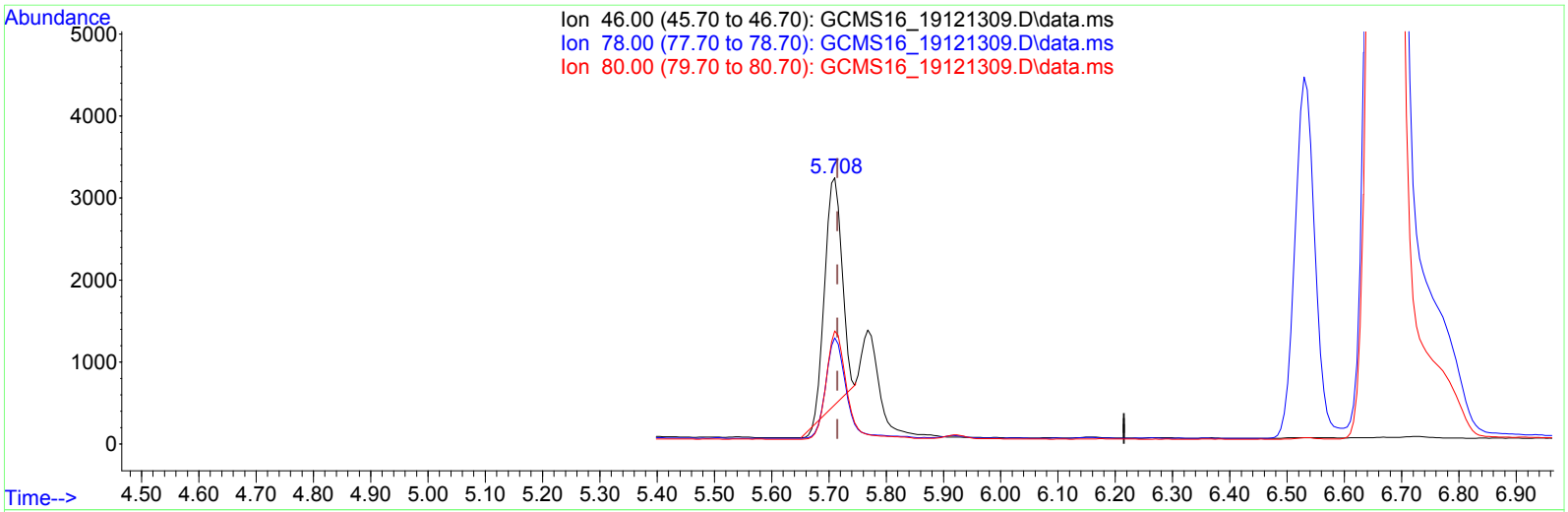
Ion	Ratio	Lower	Upper
88	100		
58	106.3	72.5	134.7

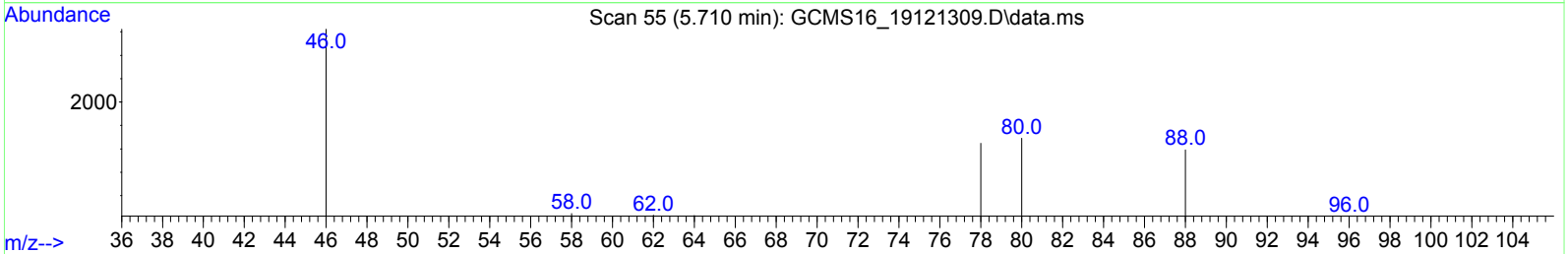


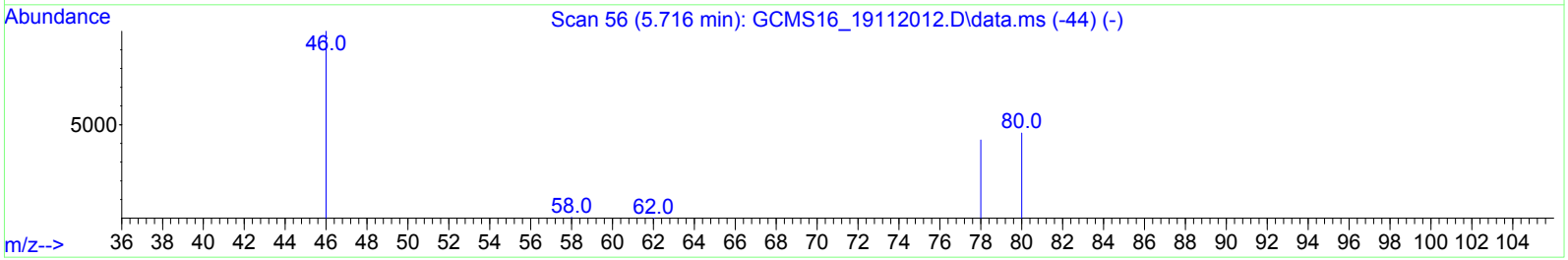
Quantitation Report (Qedit)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121309.D
Acq On : 13 Dec 2019 02:50 pm
Operator : CR
Sample : E19L002-BS1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 16 11:46:41 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121309.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.711min (-0.004) 50.00 ug/L

response 56361

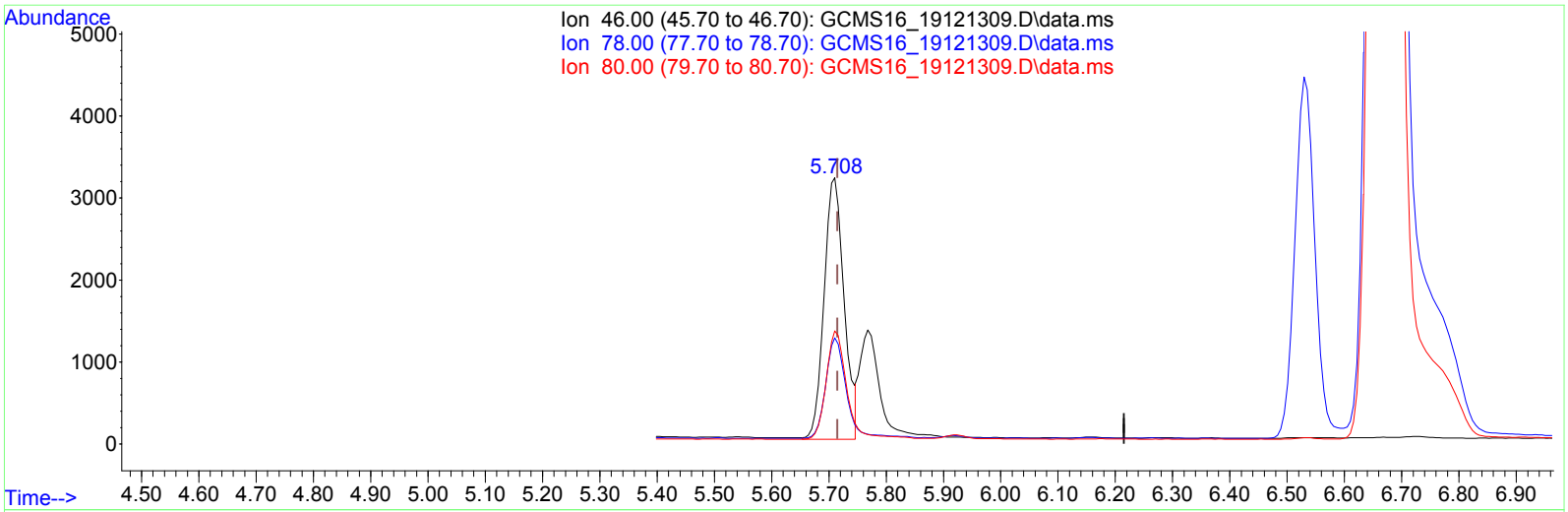
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	50.66
80.00	41.50	54.17#
0.00	0.00	0.00

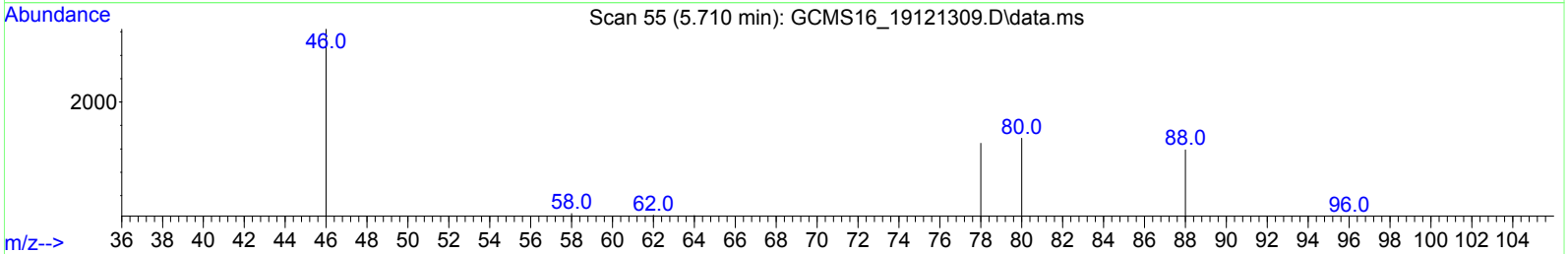
Before
IC
CR 1/2/20

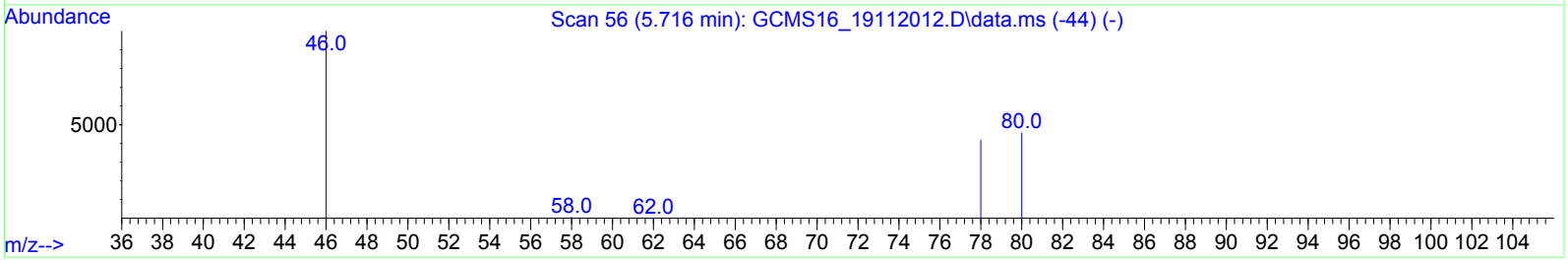
Quantitation Report (Qedit)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121309.D
Acq On : 13 Dec 2019 02:50 pm
Operator : CR
Sample : E19L002-BS1
Misc :
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Dec 16 11:46:41 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121309.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 78302

After
CR 1/2/20

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	36.47
80.00	41.50	38.99
0.00	0.00	0.00

Evaluate Continuing Calibration Report

Data Path : C:\Users\crice02\Desktop\E191201, E191203, & E191204 14Dioxane\GCMS16\Data\191213_CR\
Data File : GCMS16_19121310.D
Acq On : 13 Dec 2019 03:11 pm
Operator : CR
Sample : E19L002-BSD1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 16 11:47:20 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
Quant Title : Initial Calibration of 1,4-Dioxane 021317
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 150%

		Compound	Amount	Calc.	%Dev	Area%	Dev(min)
1	I	TETRAHYDROFURAN-D8	50.000	50.000	0.0	124	0.00
2	S	1,4-Dioxane-d8	25.000	19.653	21.4	102	0.00
3	M	1,4-Dioxane	25.000	19.753	21.0	101	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 0

CR 1/24/20

Quantitation Report (QT Reviewed)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121310.D
Acq On : 13 Dec 2019 03:11 pm
Operator : CR
Sample : E19L002-BSD1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 16 11:47:20 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	79693m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.821	96	22700	19.65 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.898	88	24403	19.75 ug/L	93

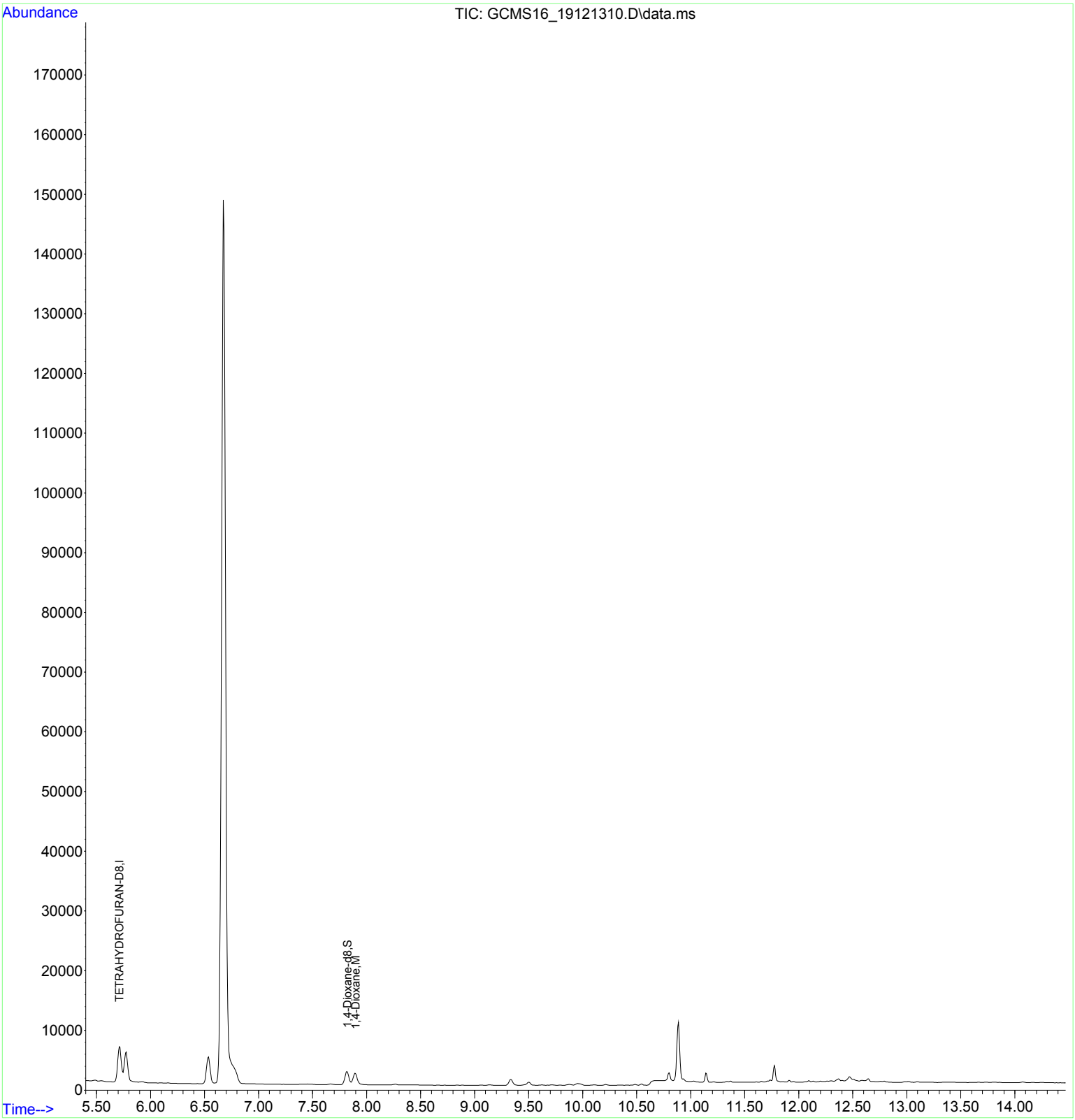
CR 1/2/20

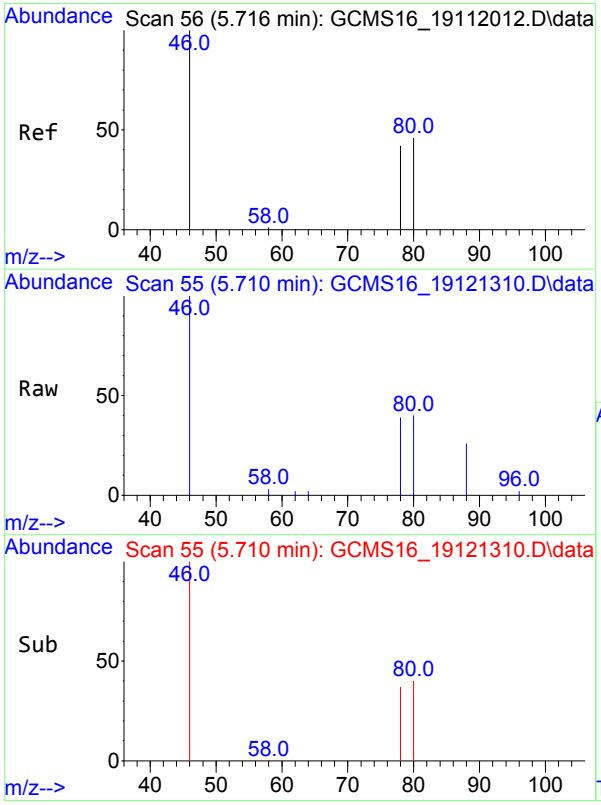
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121310.D
Acq On : 13 Dec 2019 03:11 pm
Operator : CR
Sample : E19L002-BSD1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 16 11:47:20 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

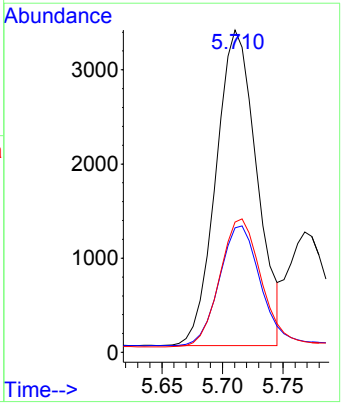


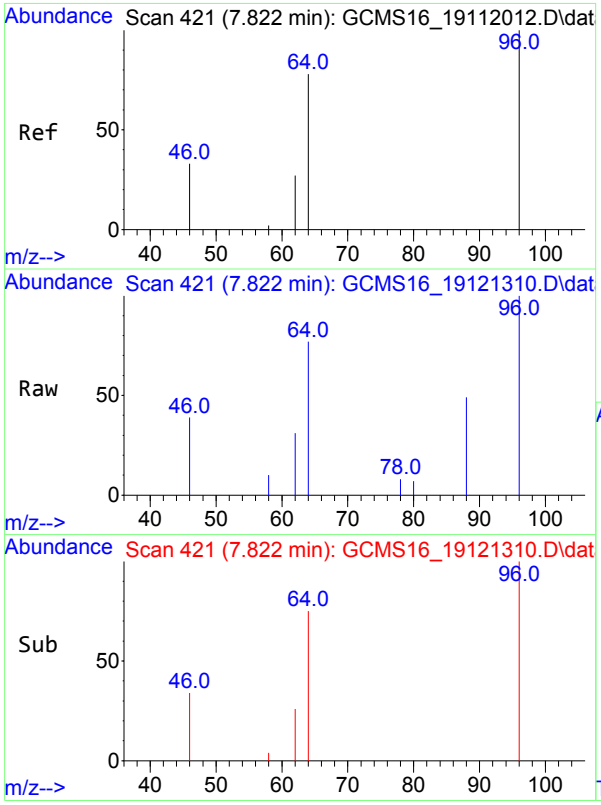


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121310.D
Acq: 13 Dec 2019 03:11 pm

Tgt Ion: 46 Resp: 79693

Ion	Ratio	Lower	Upper
46	100		
78	37.1	27.5	51.1
80	39.8	29.0	53.9

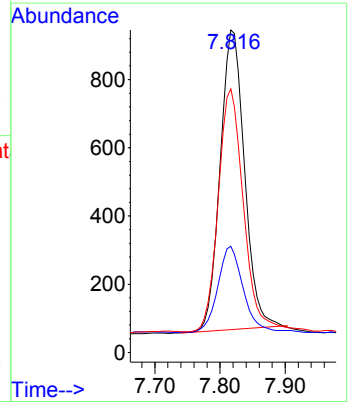


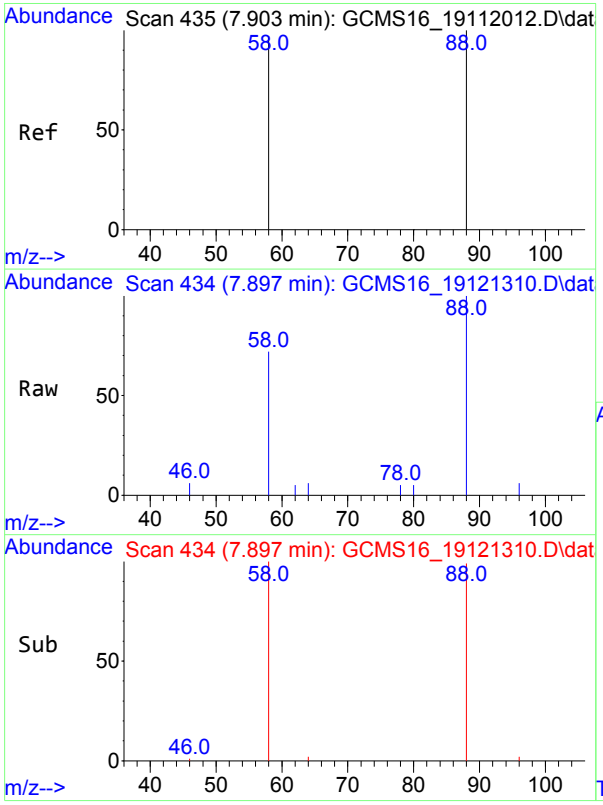


#2
1,4-Dioxane-d8
Concen: 19.65 ug/L
RT: 7.821 min Scan# 421
Delta R.T. -0.002 min
Lab File: GCMS16_19121310.D
Acq: 13 Dec 2019 03:11 pm

Tgt Ion: 96 Resp: 22700

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	81.7	56.8	105.6

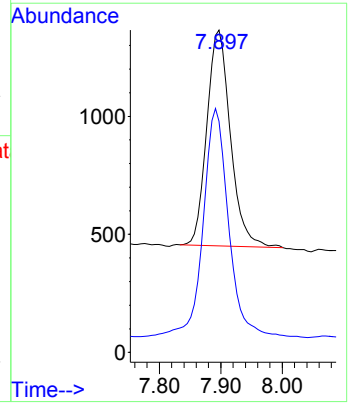




#3
1,4-Dioxane
Concen: 19.75 ug/L
RT: 7.898 min Scan# 434
Delta R.T. -0.001 min
Lab File: GCMS16_19121310.D
Acq: 13 Dec 2019 03:11 pm

Tgt Ion: 88 Resp: 24403

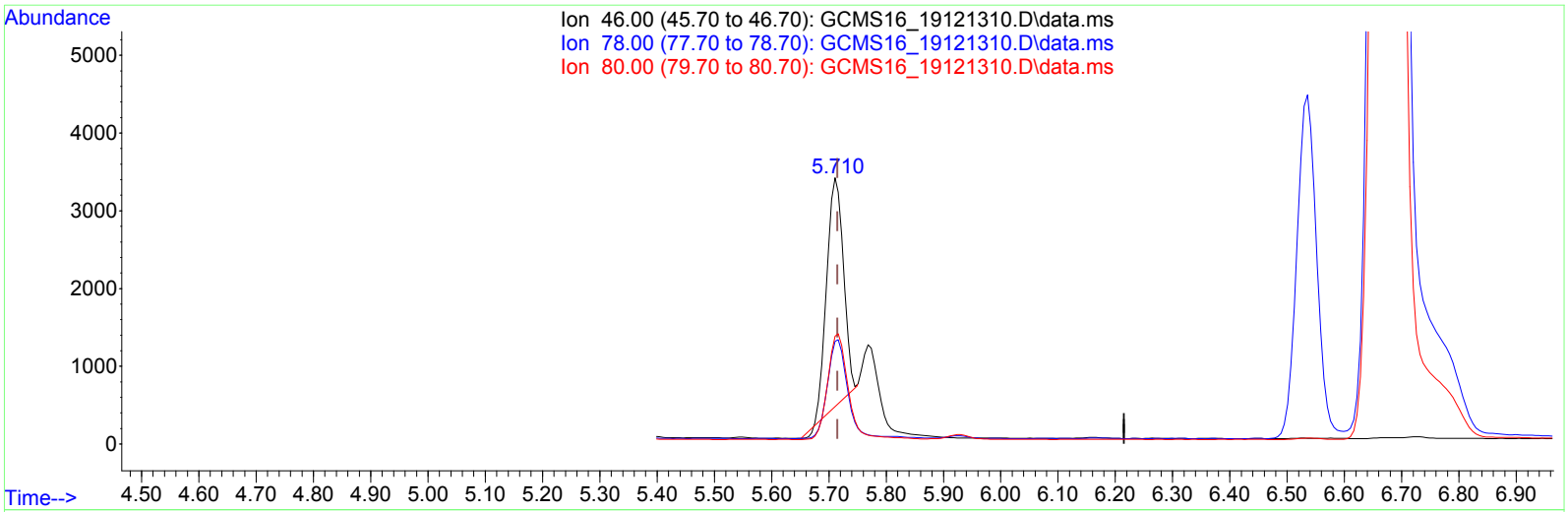
Ion	Ratio	Lower	Upper
88	100		
58	110.7	72.5	134.7

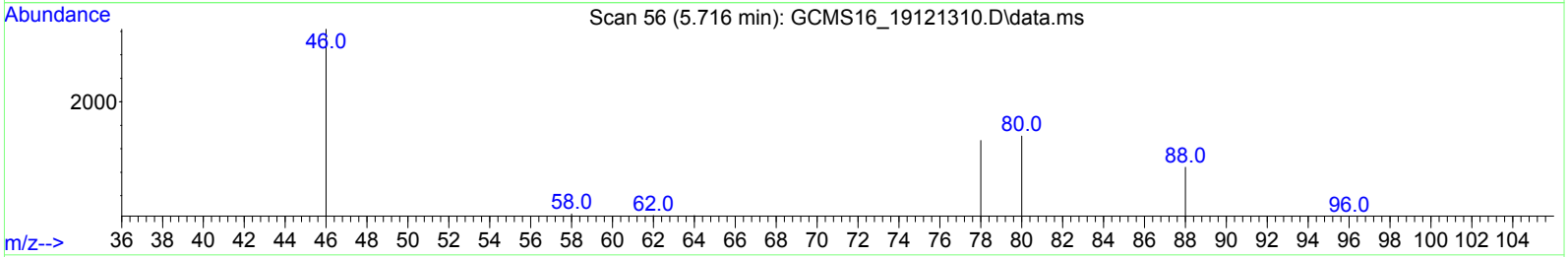


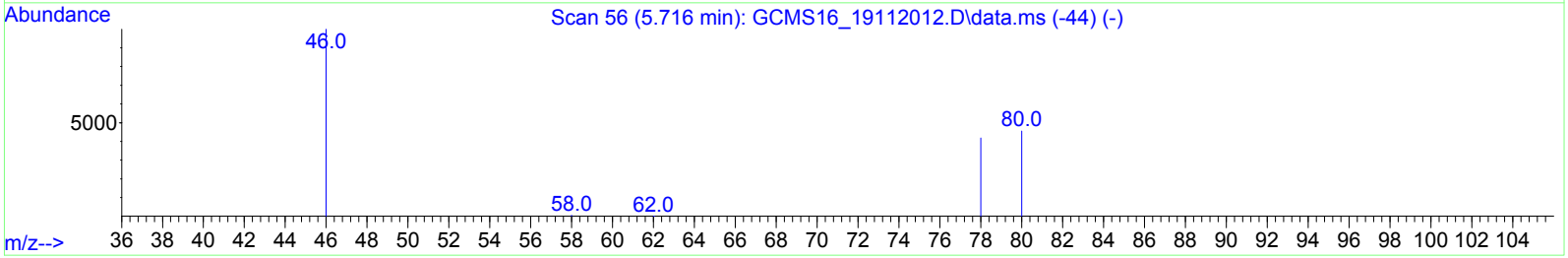
Quantitation Report (Qedit)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121310.D
Acq On : 13 Dec 2019 03:11 pm
Operator : CR
Sample : E19L002-BSD1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 16 11:47:20 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121310.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.713min (-0.002) 50.00 ug/L

response 58364

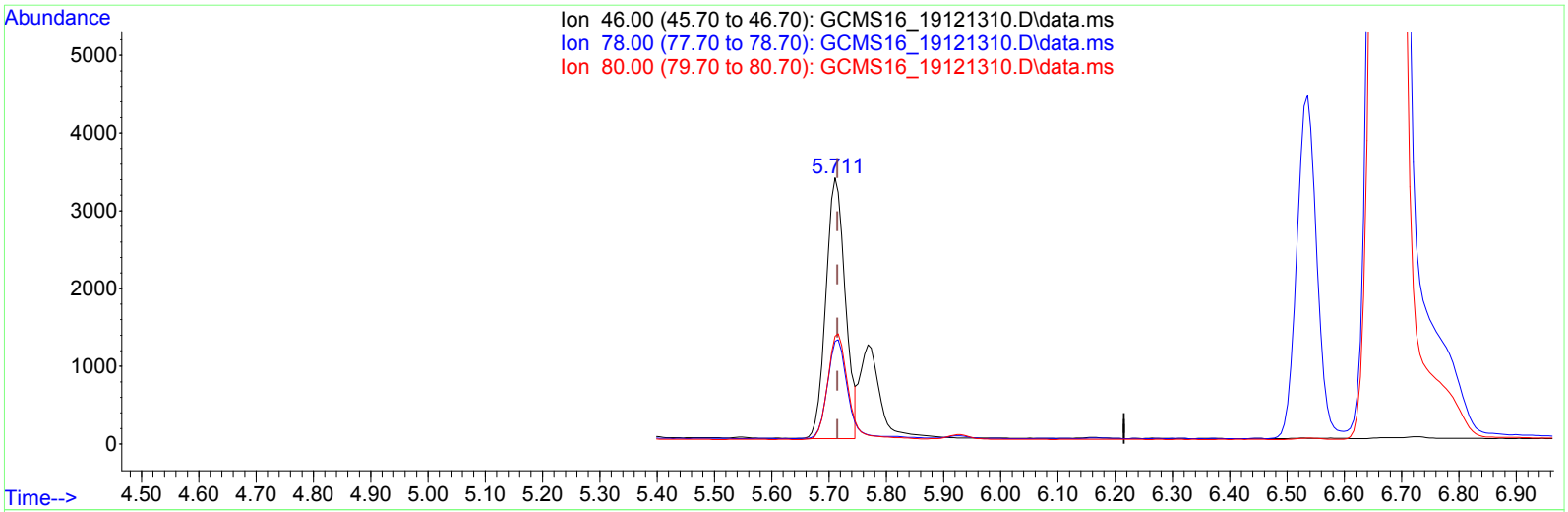
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	50.69
80.00	41.50	54.36#
0.00	0.00	0.00

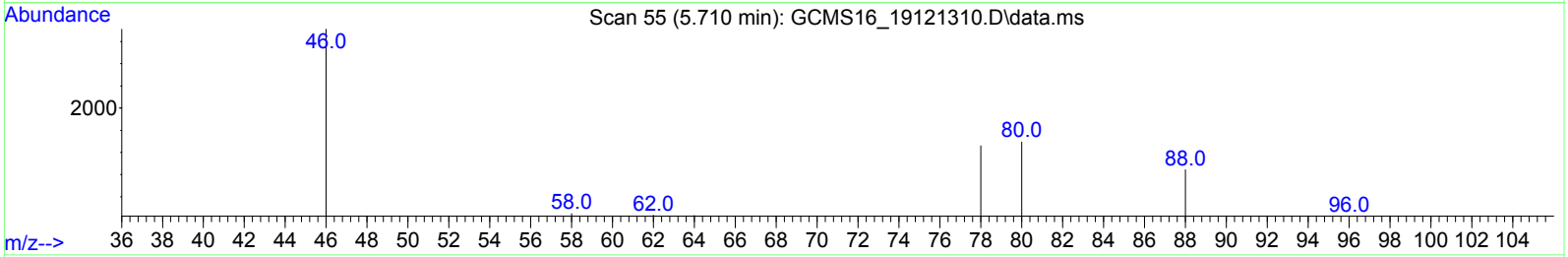
Before
IC
CR 1/2/20

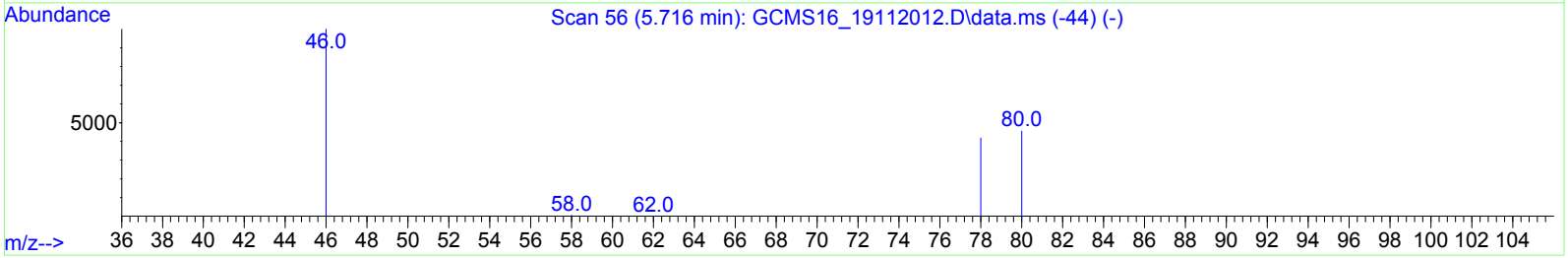
Quantitation Report (Qedit)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121310.D
Acq On : 13 Dec 2019 03:11 pm
Operator : CR
Sample : E19L002-BSD1
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 16 11:47:20 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121310.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 79693

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	37.13
80.00	41.50	39.81
0.00	0.00	0.00

After
CR 1/2/20

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121215.D
Acq On : 12 Dec 2019 06:25 pm
Operator : CR
Sample : E19L001-MS1
Misc : E191201-06
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 13 10:16:39 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	71654m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.819	96	26233	25.26 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.894	88	471452	424.43 ug/L	100

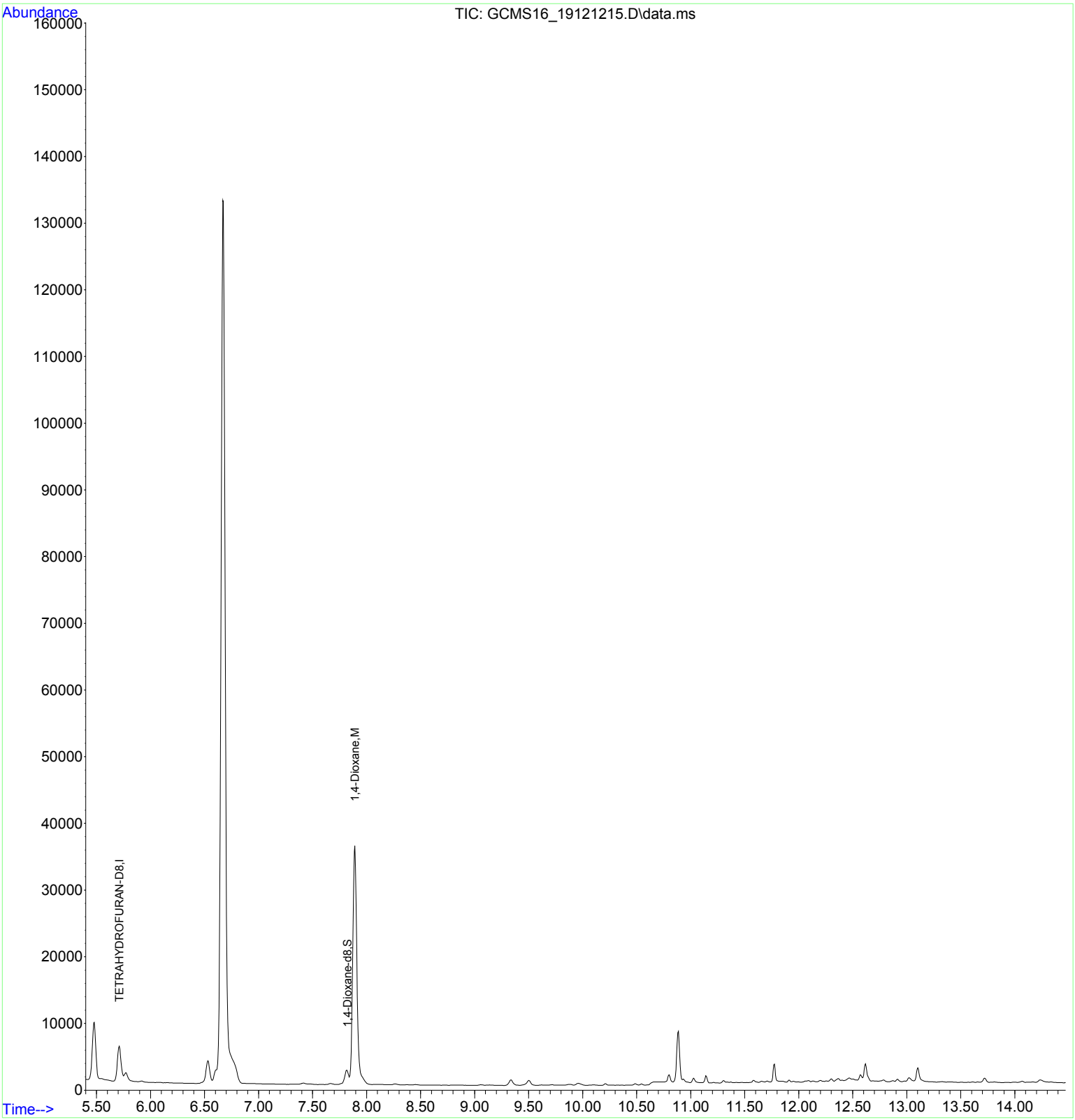
CR 1/2/20

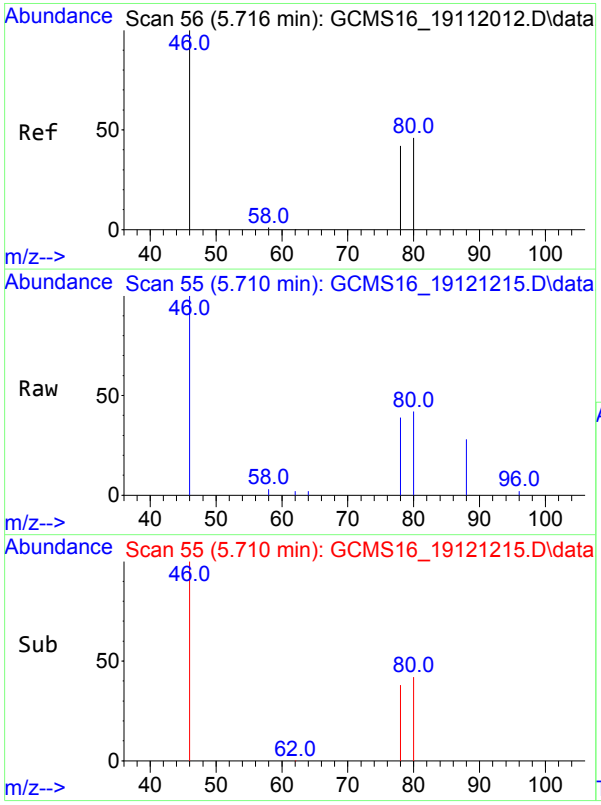
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121215.D
Acq On : 12 Dec 2019 06:25 pm
Operator : CR
Sample : E19L001-MS1
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 13 10:16:39 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

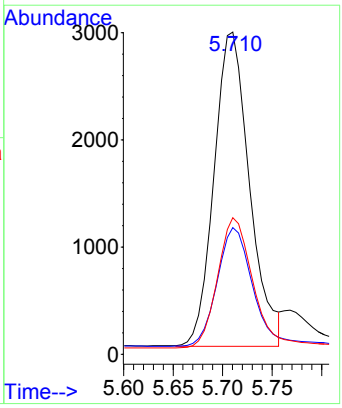


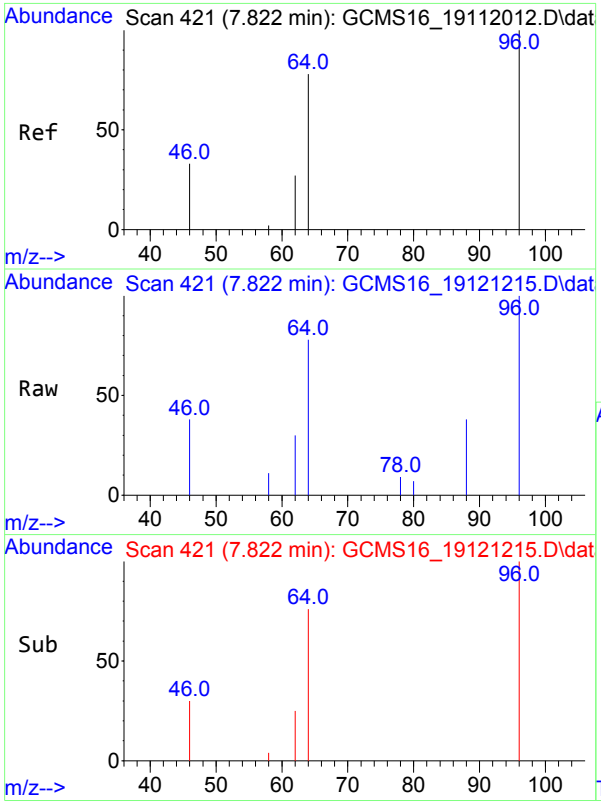


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121215.D
Acq: 12 Dec 2019 06:25 pm

Tgt Ion: 46 Resp: 71654

Ion	Ratio	Lower	Upper
46	100		
78	37.1	27.5	51.1
80	40.6	29.0	53.9

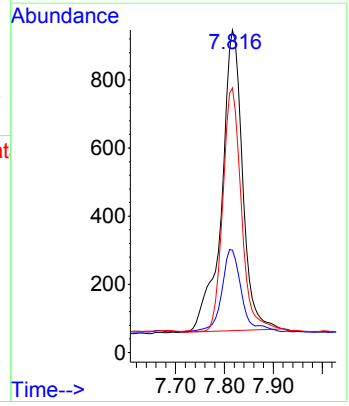


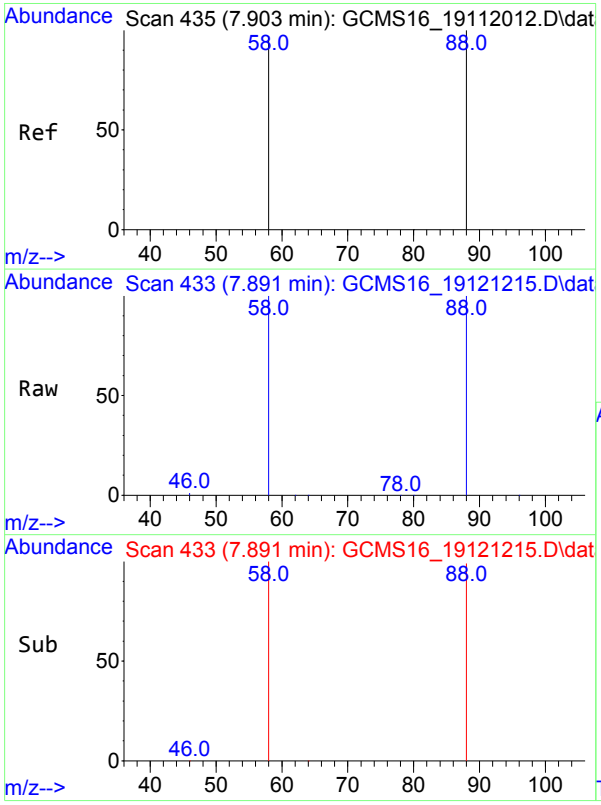


#2
1,4-Dioxane-d8
Concen: 25.26 ug/L
RT: 7.819 min Scan# 421
Delta R.T. -0.003 min
Lab File: GCMS16_19121215.D
Acq: 12 Dec 2019 06:25 pm

Tgt Ion: 96 Resp: 26233

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	69.2	56.8	105.6

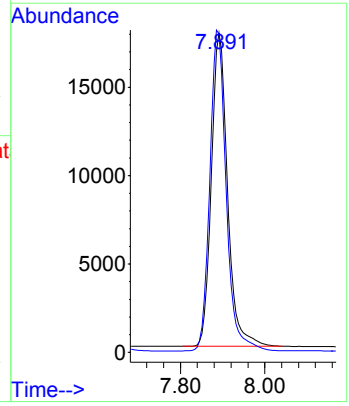




#3
1,4-Dioxane
Concen: 424.43 ug/L
RT: 7.894 min Scan# 433
Delta R.T. -0.006 min
Lab File: GCMS16_19121215.D
Acq: 12 Dec 2019 06:25 pm

Tgt Ion: 88 Resp: 471452

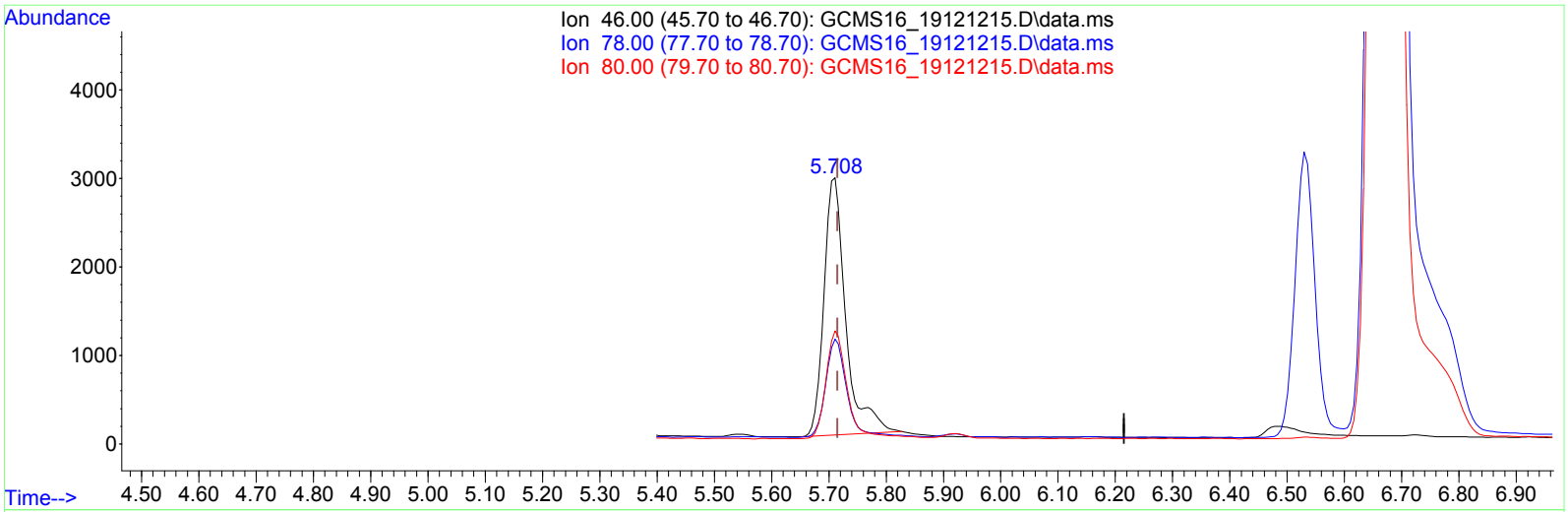
Ion	Ratio	Lower	Upper
88	100		
58	103.6	72.5	134.7

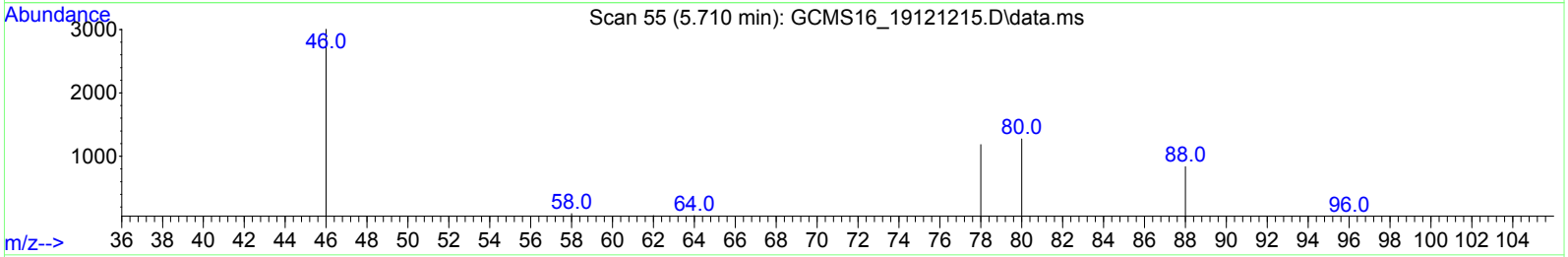


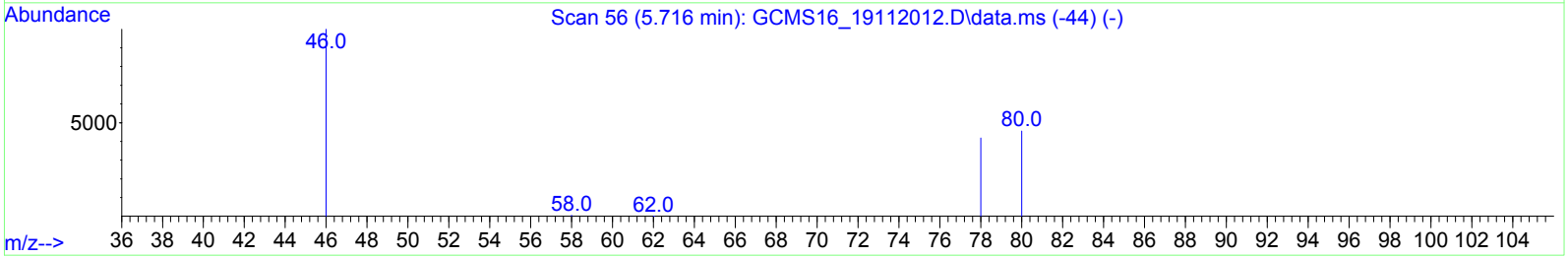
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121215.D
Acq On : 12 Dec 2019 06:25 pm
Operator : CR
Sample : E19L001-MS1
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 13 10:16:39 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121215.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L

response 76711

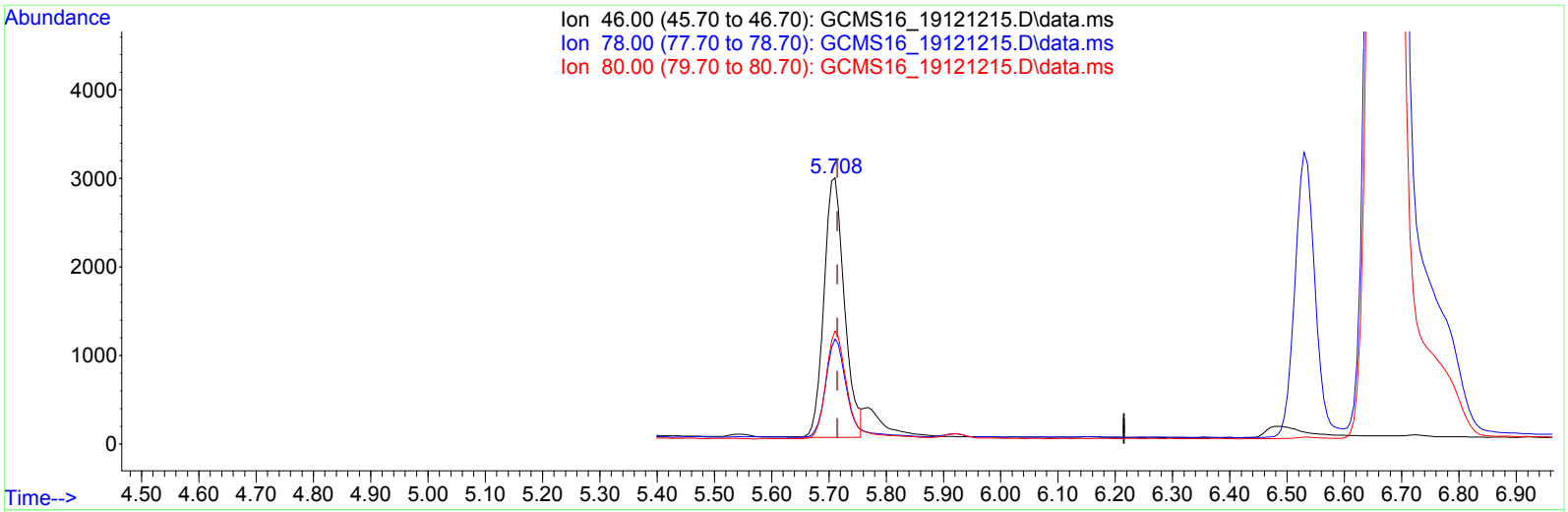
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	34.64
80.00	41.50	37.92
0.00	0.00	0.00

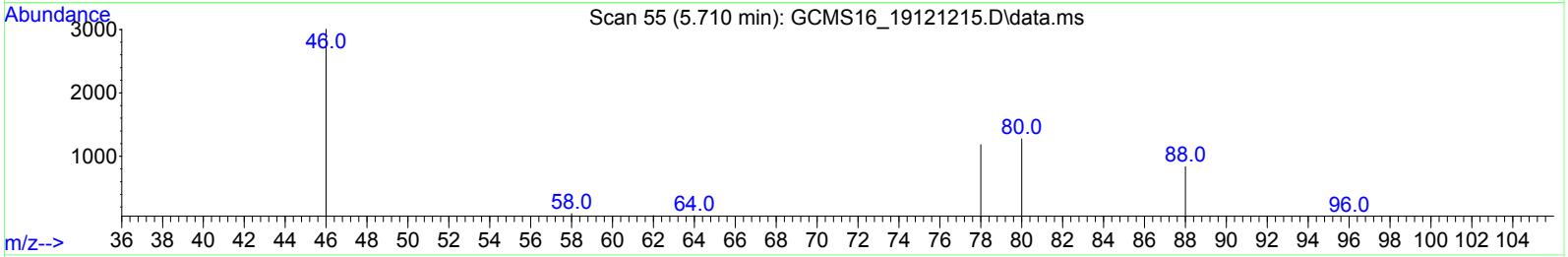
Before
IC
CR 1/2/20

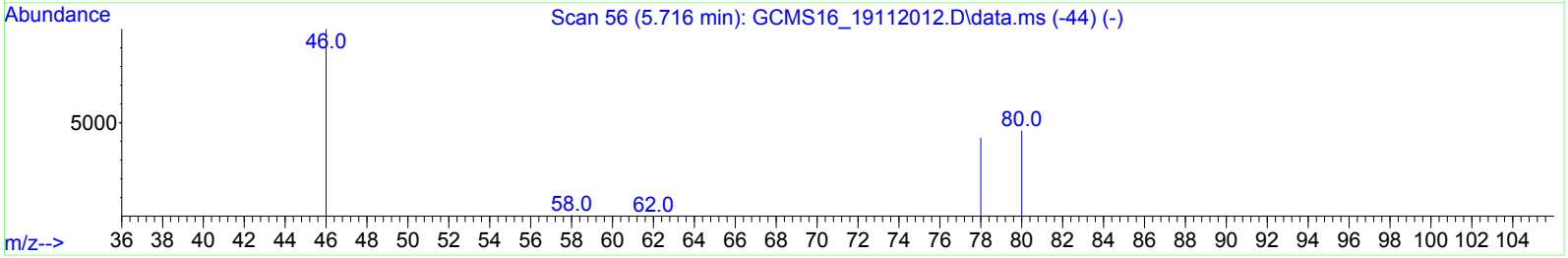
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121215.D
Acq On : 12 Dec 2019 06:25 pm
Operator : CR
Sample : E19L001-MS1
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 13 10:16:39 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121215.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 71654

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	37.09
80.00	41.50	40.60
0.00	0.00	0.00

After
CR 1/2/20

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121232.D
Acq On : 13 Dec 2019 12:23 am
Operator : CR
Sample : E19L001-MS2
Misc : E191203-06
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Dec 13 10:59:50 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.704	46	70409m	50.00 ug/L	-0.01
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.820	96	20759	20.34 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.898	88	25092	22.99 ug/L	99

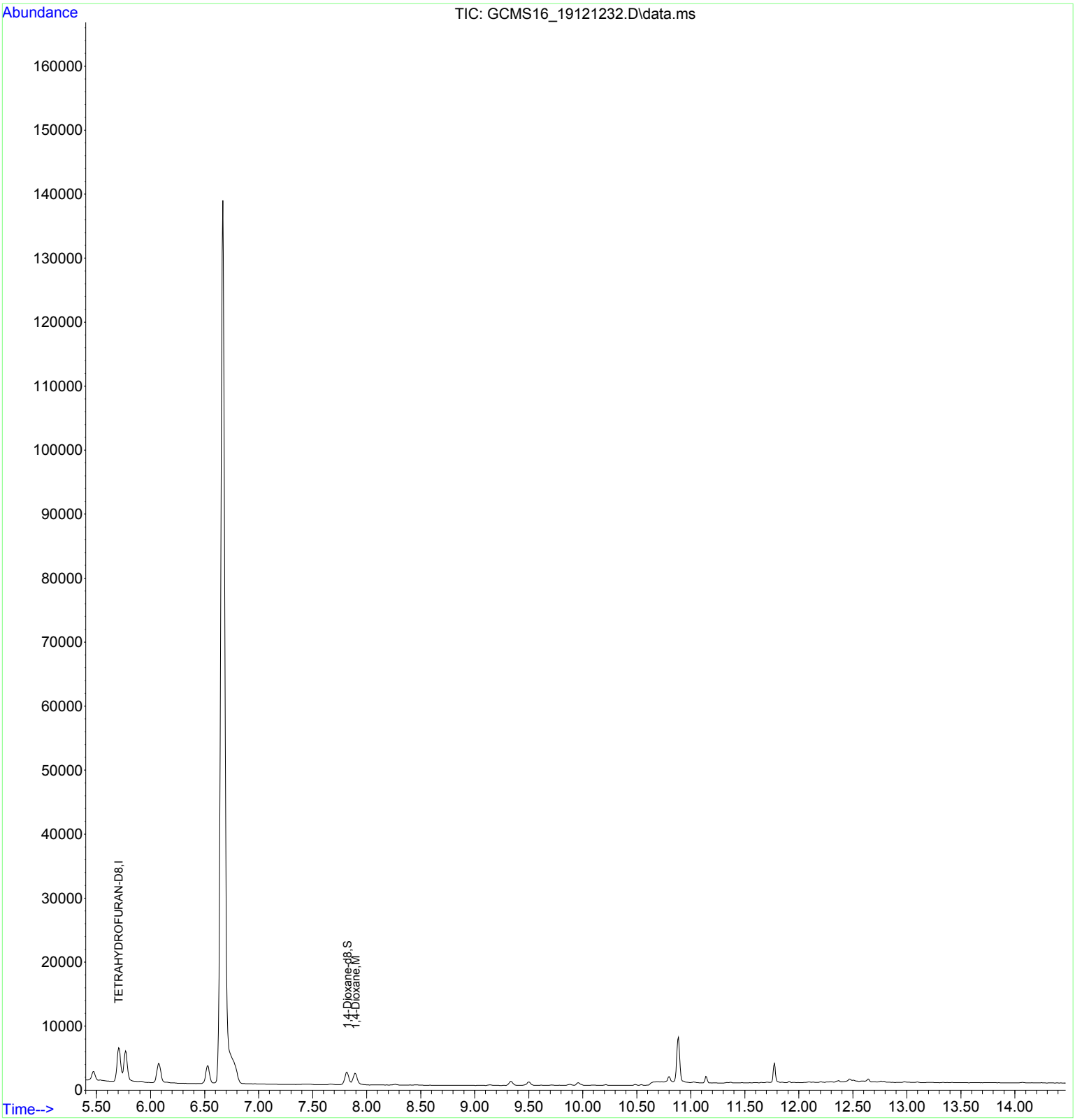
CR 1/2/20

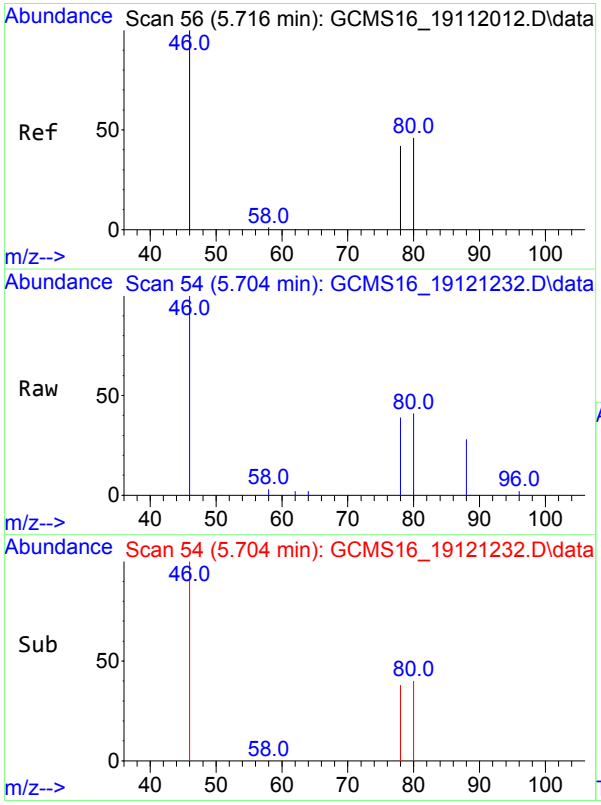
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121232.D
Acq On : 13 Dec 2019 12:23 am
Operator : CR
Sample : E19L001-MS2
Misc :
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Dec 13 10:59:50 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

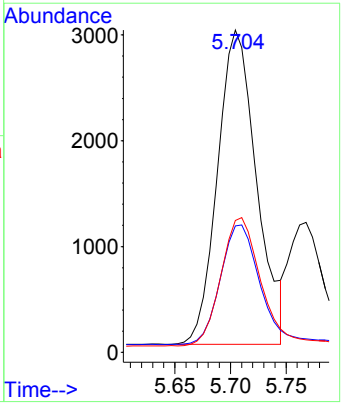


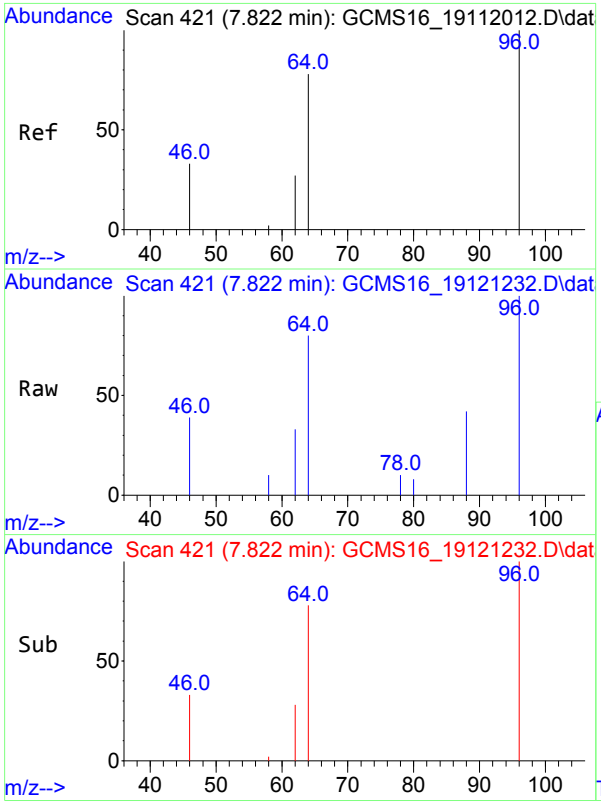


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.704 min Scan# 54
Delta R.T. -0.011 min
Lab File: GCMS16_19121232.D
Acq: 13 Dec 2019 12:23 am

Tgt Ion: 46 Resp: 70409

Ion	Ratio	Lower	Upper
46	100		
78	38.2	27.5	51.1
80	41.2	29.0	53.9

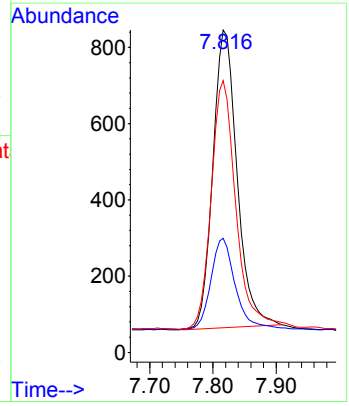


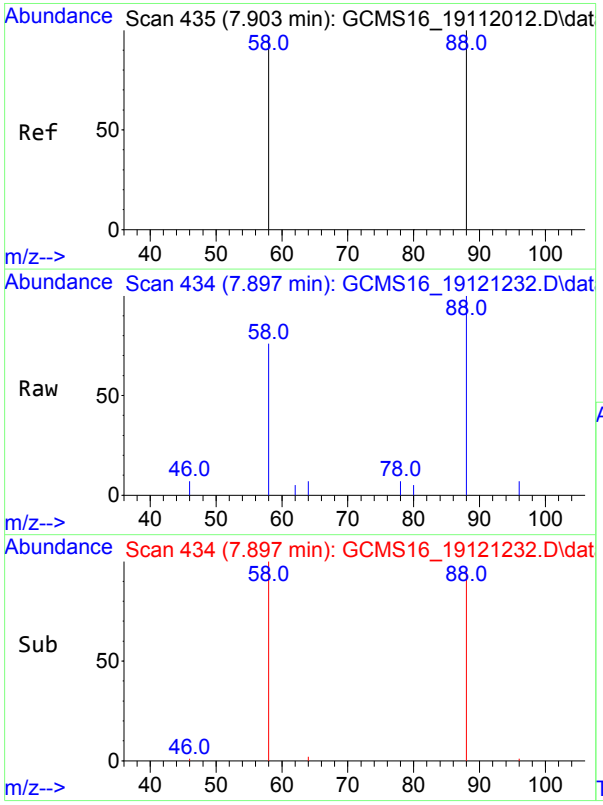


#2
1,4-Dioxane-d8
Concen: 20.34 ug/L
RT: 7.820 min Scan# 421
Delta R.T. -0.002 min
Lab File: GCMS16_19121232.D
Acq: 13 Dec 2019 12:23 am

Tgt Ion: 96 Resp: 20759

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	82.0	56.8	105.6

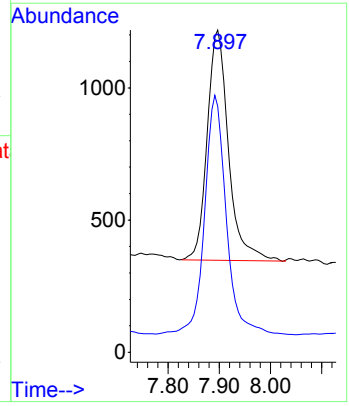




#3
1,4-Dioxane
Concen: 22.99 ug/L
RT: 7.898 min Scan# 434
Delta R.T. -0.001 min
Lab File: GCMS16_19121232.D
Acq: 13 Dec 2019 12:23 am

Tgt Ion: 88 Resp: 25092

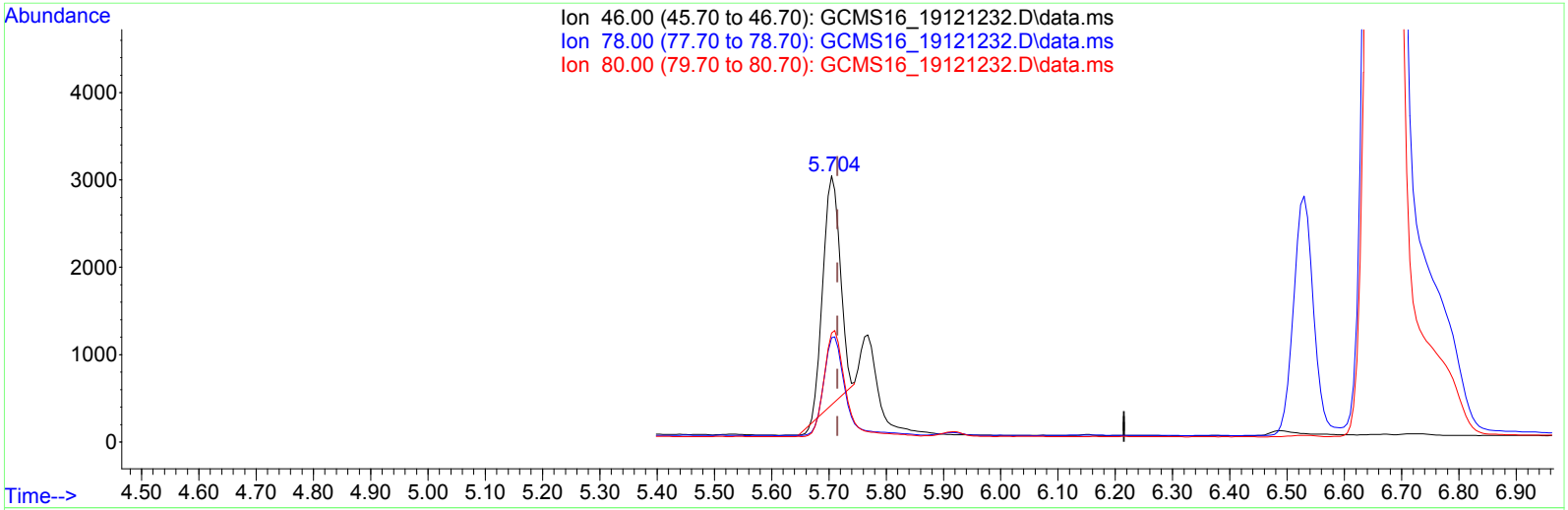
Ion	Ratio	Lower	Upper
88	100		
58	102.3	72.5	134.7

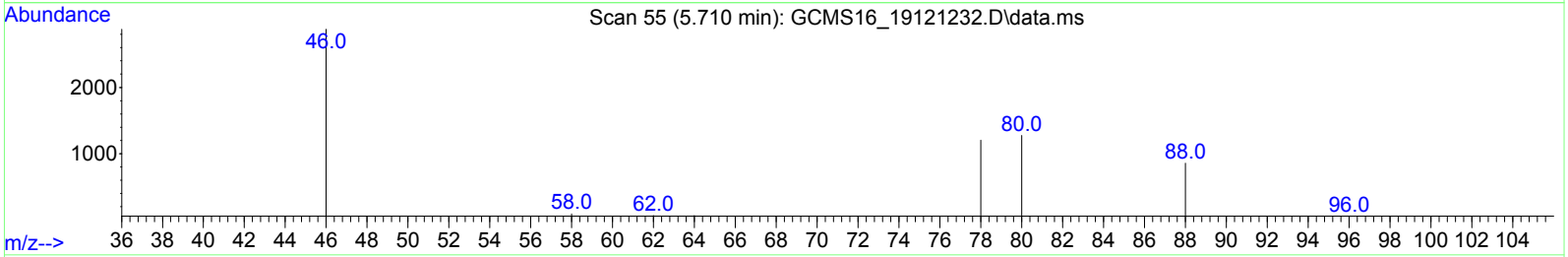


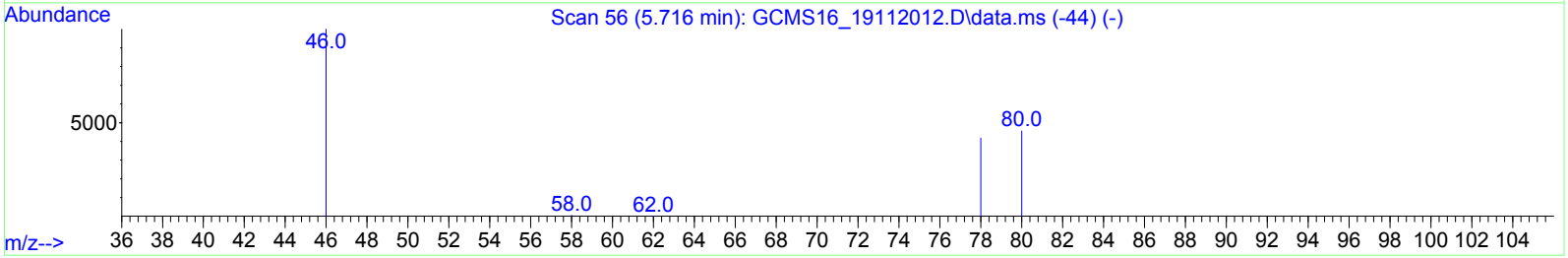
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121232.D
Acq On : 13 Dec 2019 12:23 am
Operator : CR
Sample : E19L001-MS2
Misc :
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Dec 13 10:59:50 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121232.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.707min (-0.008) 50.00 ug/L

response 53261

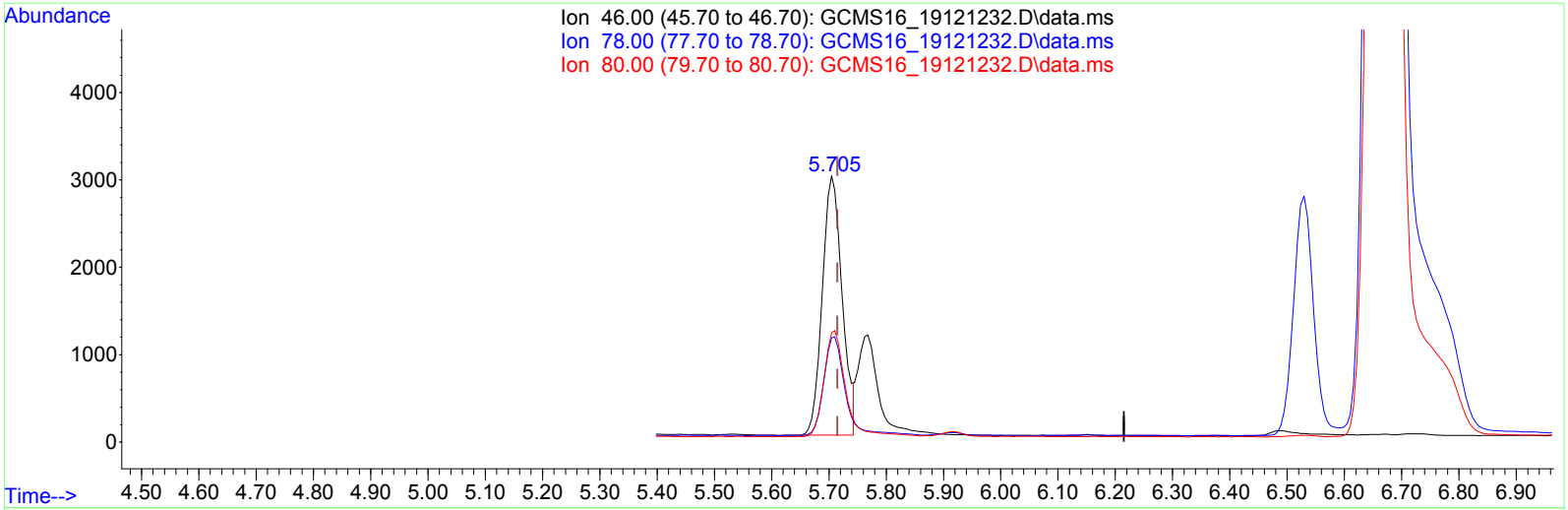
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	50.47
80.00	41.50	54.43#
0.00	0.00	0.00

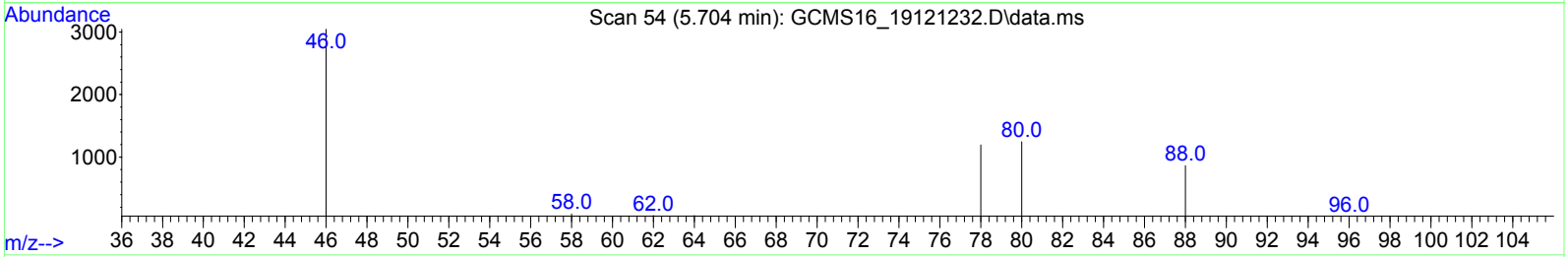
Before
IC
CR 1/2/20

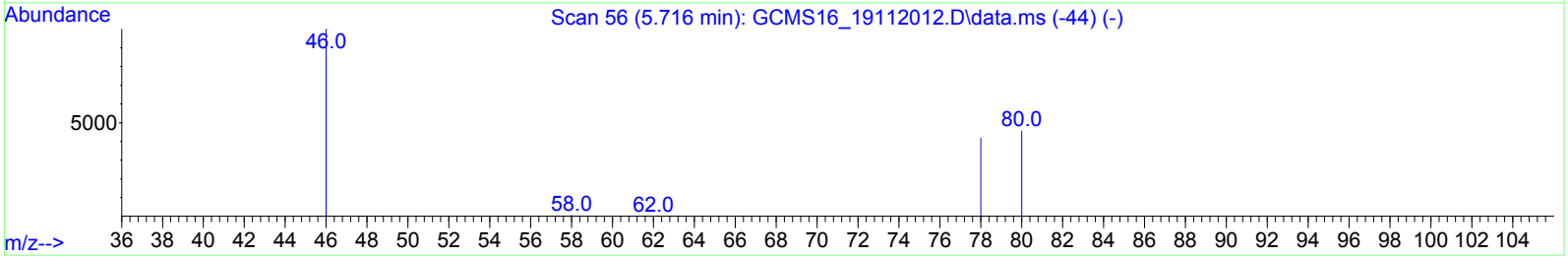
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121232.D
Acq On : 13 Dec 2019 12:23 am
Operator : CR
Sample : E19L001-MS2
Misc :
ALS Vial : 29 Sample Multiplier: 1

Quant Time: Dec 13 10:59:50 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121232.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.704min (-0.011) 50.00 ug/L m

response 70409

After
CR 1/2/20

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	38.18
80.00	41.50	41.17
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121234.D
Acq On : 13 Dec 2019 01:05 am
Operator : CR
Sample : E19L001-MSD2
Misc : E191203-06
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Dec 13 11:00:21 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	76618m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.821	96	22749	20.49 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.898	88	26443	22.26 ug/L	99

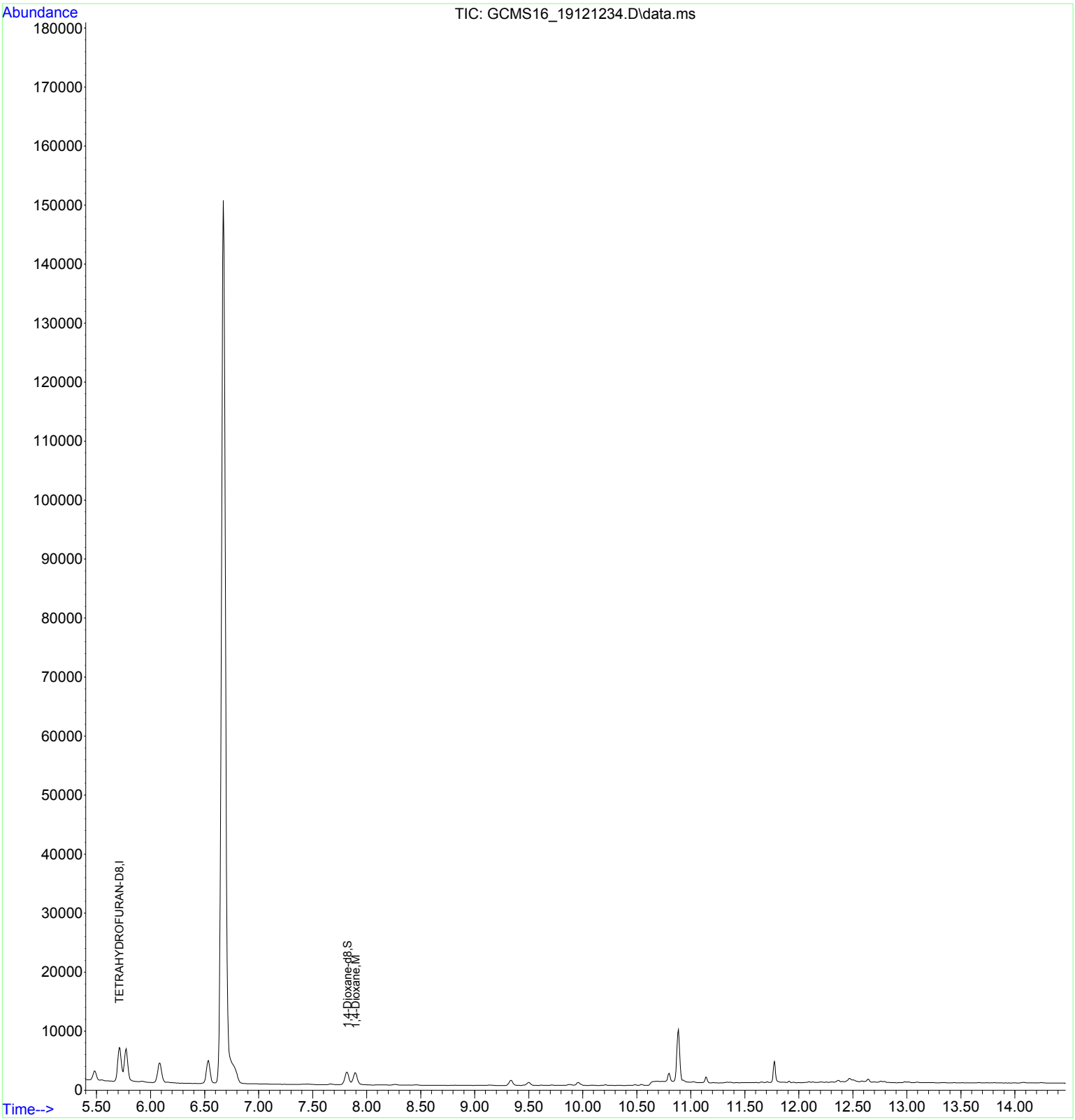
CR 1/2/20

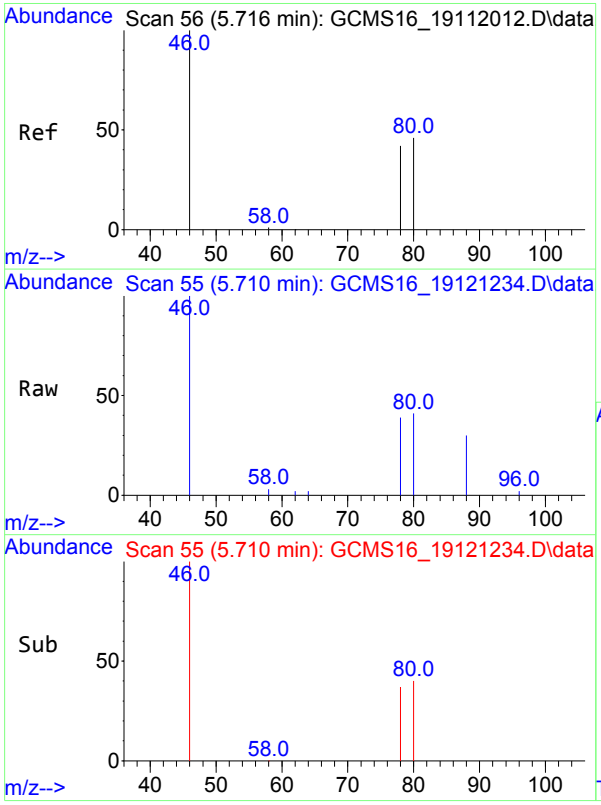
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121234.D
Acq On : 13 Dec 2019 01:05 am
Operator : CR
Sample : E19L001-MSD2
Misc :
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Dec 13 11:00:21 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

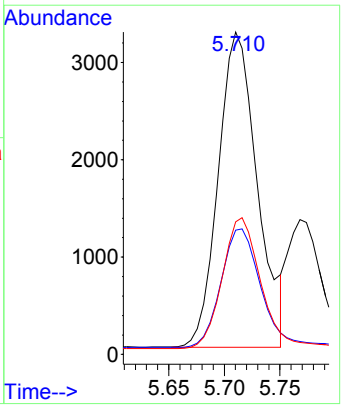


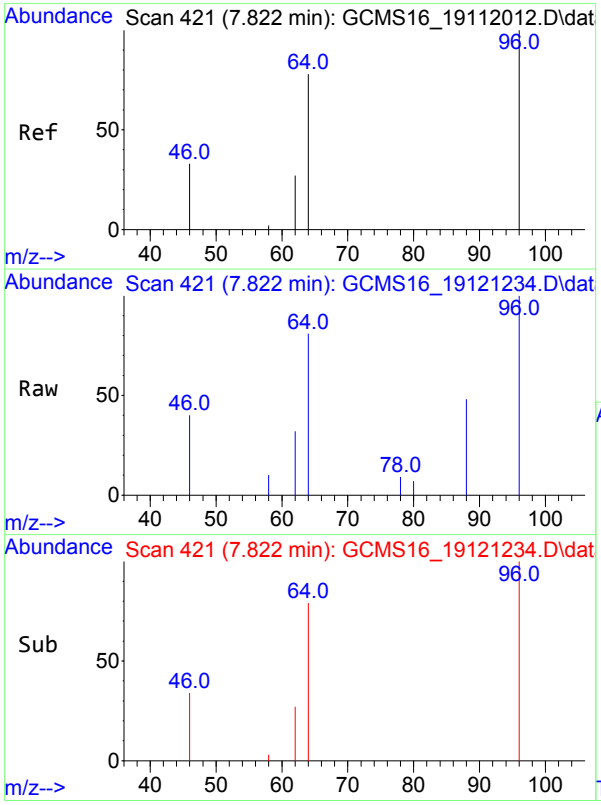


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121234.D
Acq: 13 Dec 2019 01:05 am

Tgt Ion: 46 Resp: 76618

Ion	Ratio	Lower	Upper
46	100		
78	38.6	27.5	51.1
80	41.0	29.0	53.9

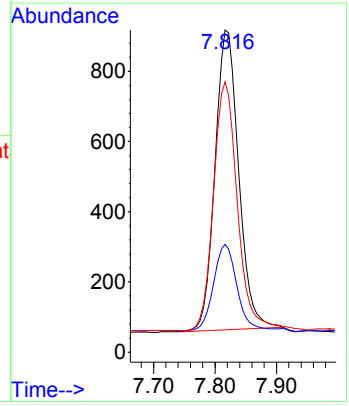


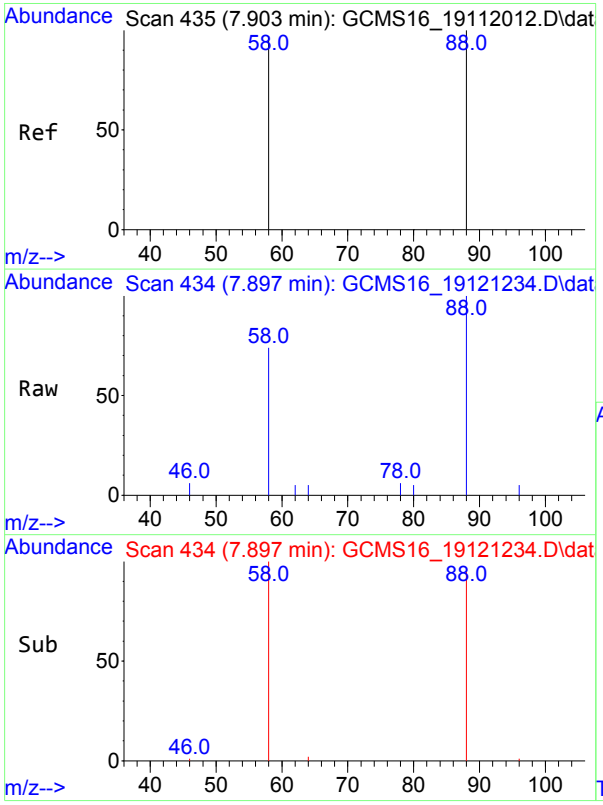


#2
1,4-Dioxane-d8
Concen: 20.49 ug/L
RT: 7.821 min Scan# 421
Delta R.T. -0.002 min
Lab File: GCMS16_19121234.D
Acq: 13 Dec 2019 01:05 am

Tgt Ion: 96 Resp: 22749

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	80.5	56.8	105.6

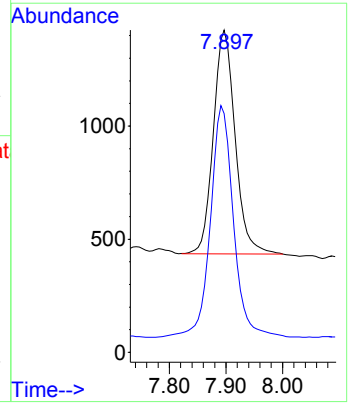




#3
1,4-Dioxane
Concen: 22.26 ug/L
RT: 7.898 min Scan# 434
Delta R.T. -0.001 min
Lab File: GCMS16_19121234.D
Acq: 13 Dec 2019 01:05 am

Tgt Ion: 88 Resp: 26443

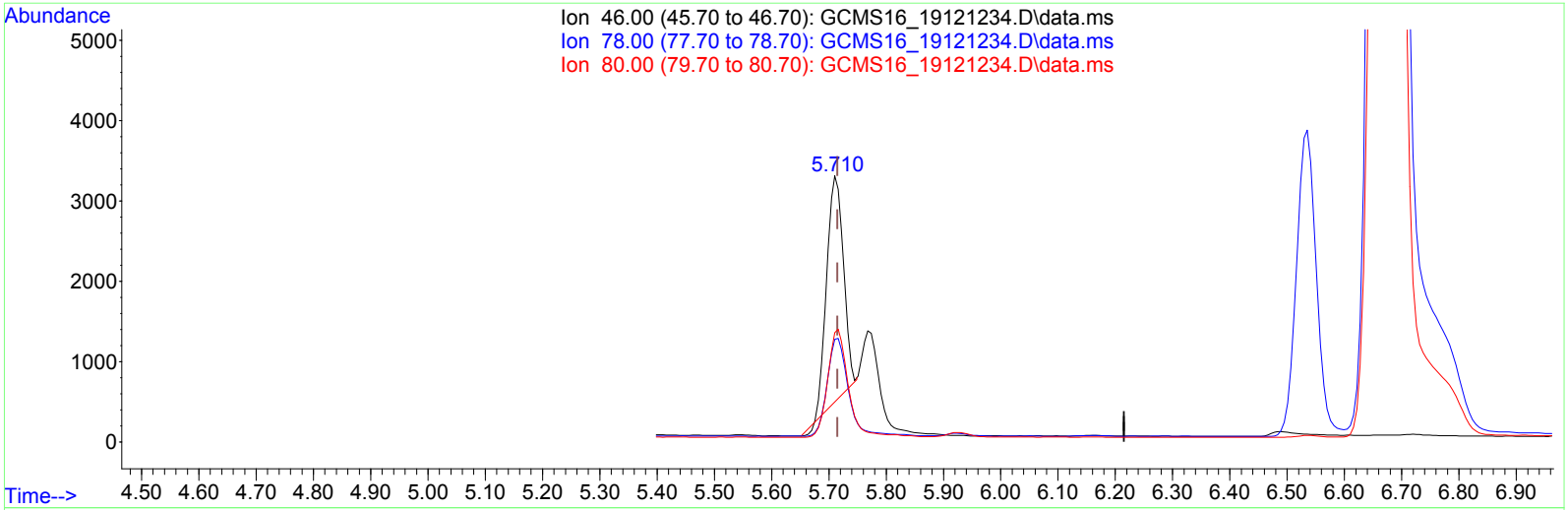
Ion	Ratio	Lower	Upper
88	100		
58	104.3	72.5	134.7

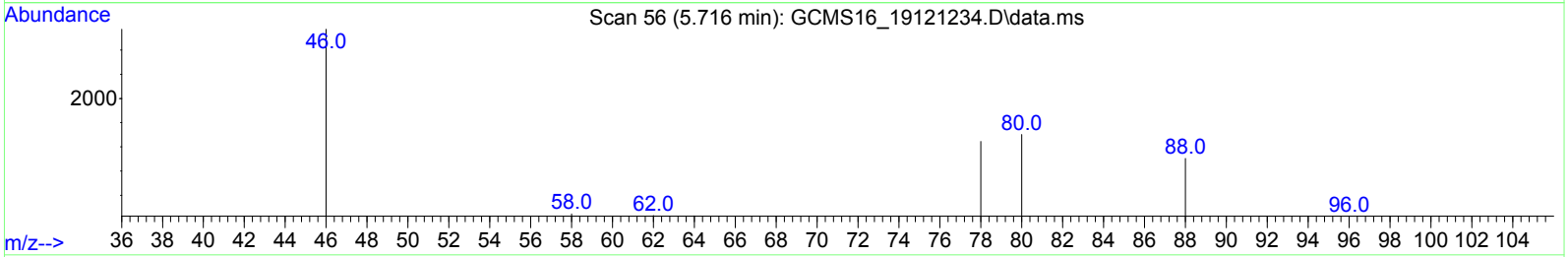


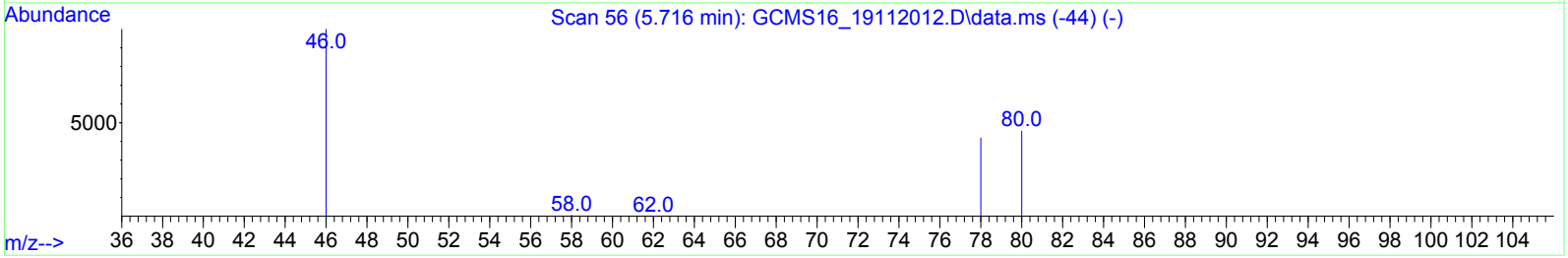
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121234.D
Acq On : 13 Dec 2019 01:05 am
Operator : CR
Sample : E19L001-MSD2
Misc :
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Dec 13 11:00:21 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121234.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.713min (-0.002) 50.00 ug/L

response 55531

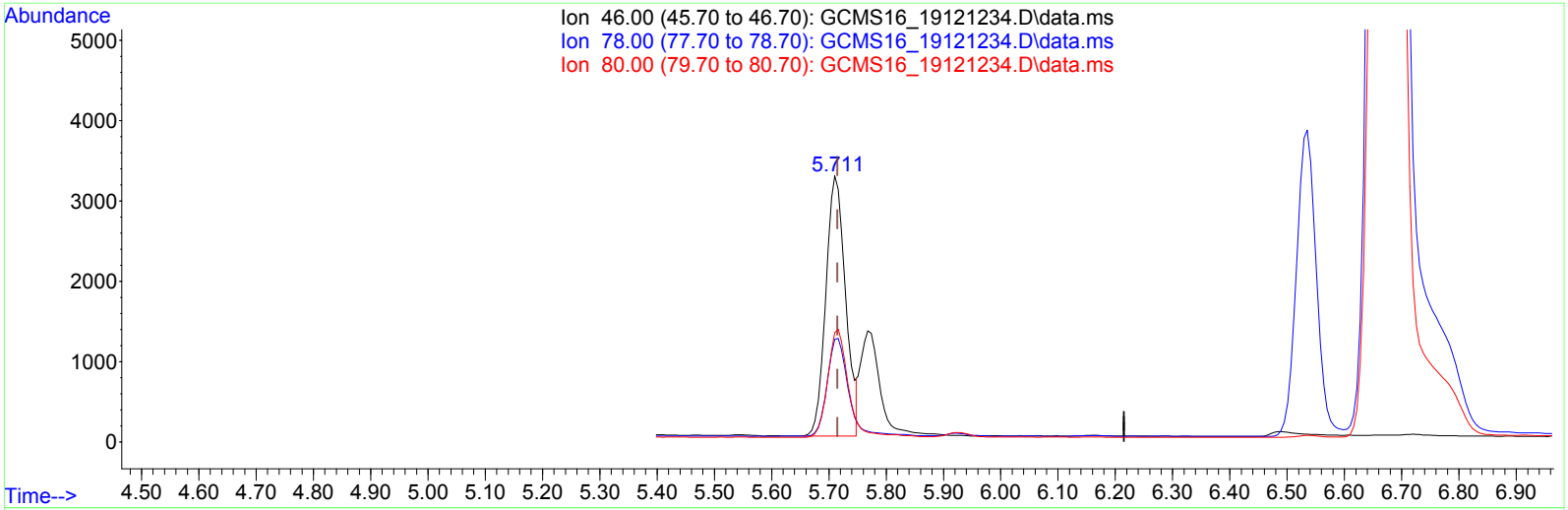
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	53.22#
80.00	41.50	56.57#
0.00	0.00	0.00

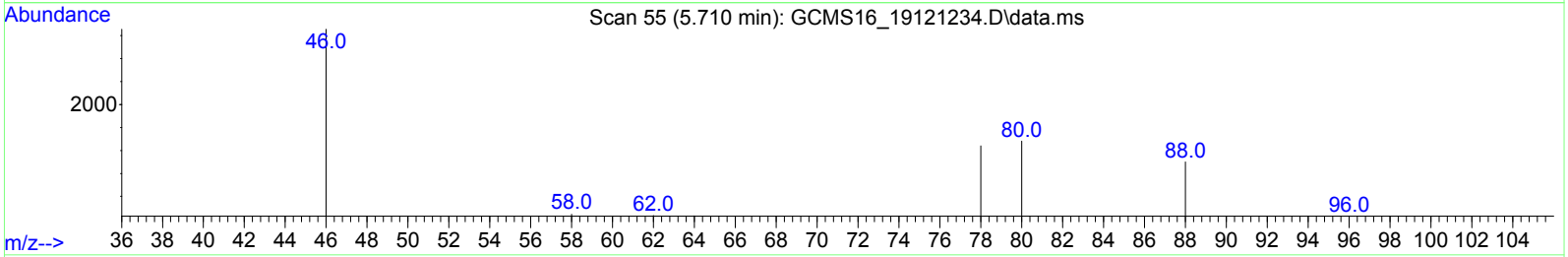
Before
IC
CR 1/2/20

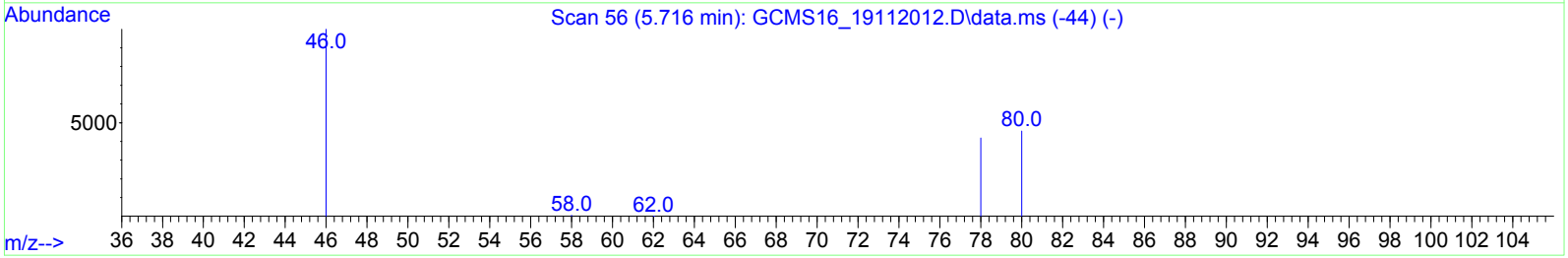
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121234.D
Acq On : 13 Dec 2019 01:05 am
Operator : CR
Sample : E19L001-MSD2
Misc :
ALS Vial : 30 Sample Multiplier: 1

Quant Time: Dec 13 11:00:21 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121234.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 76618

After
CR 1/2/20

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	38.58
80.00	41.50	41.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121218.D
Acq On : 12 Dec 2019 07:28 pm
Operator : CR
Sample : E19L001-DUP1
Misc : E191201-07
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 13 10:22:37 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	80747m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.821	96	26260	22.44 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.898	88	46117	36.84 ug/L	98

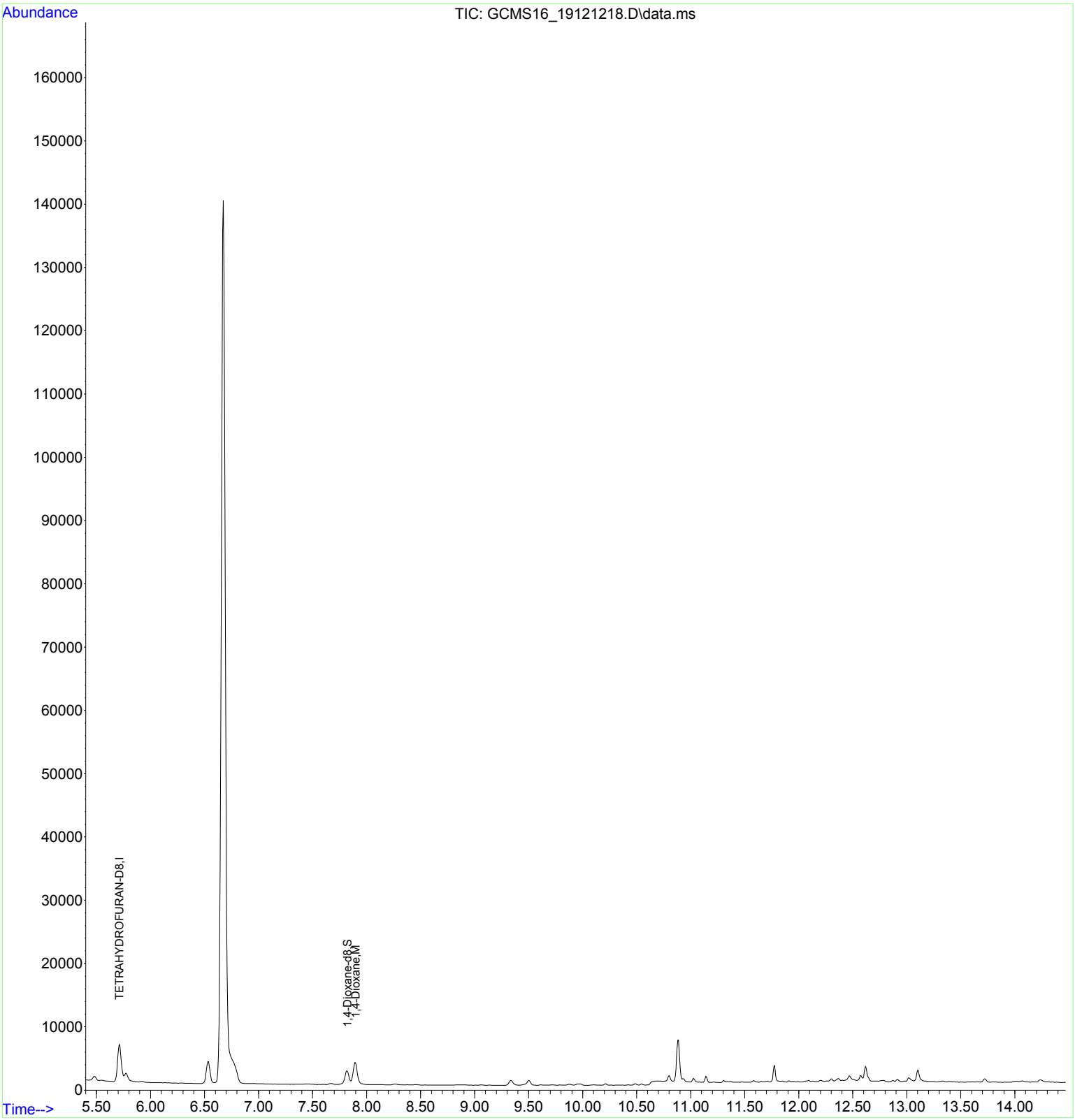
CR 1/2/20

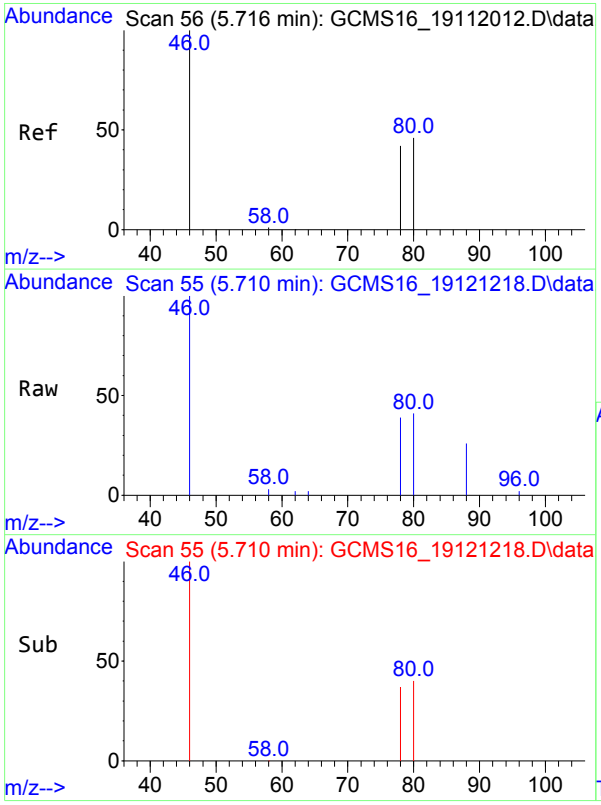
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121218.D
Acq On : 12 Dec 2019 07:28 pm
Operator : CR
Sample : E19L001-DUP1
Misc : E191201-07
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 13 10:22:37 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

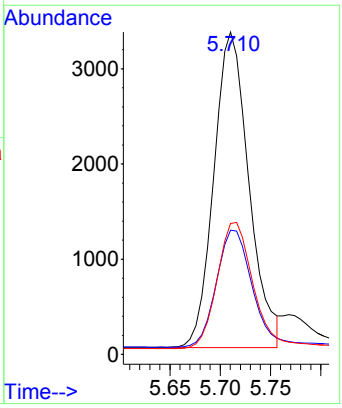


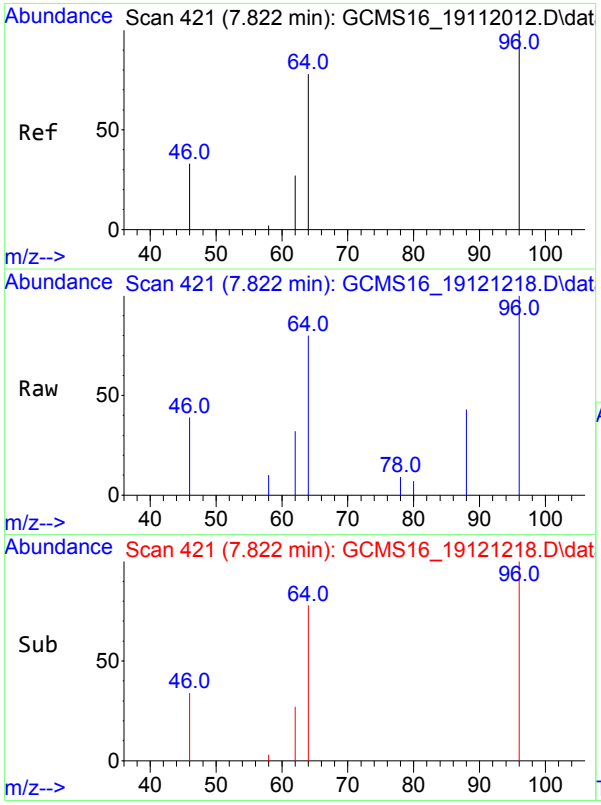


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121218.D
Acq: 12 Dec 2019 07:28 pm

Tgt Ion: 46 Resp: 80747

Ion	Ratio	Lower	Upper
46	100		
78	36.5	27.5	51.1
80	39.3	29.0	53.9

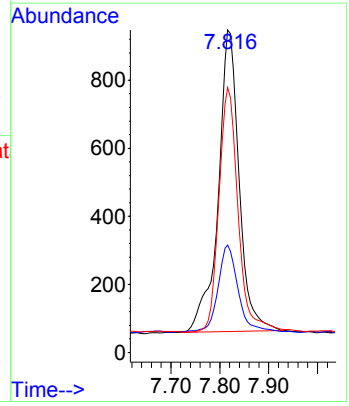


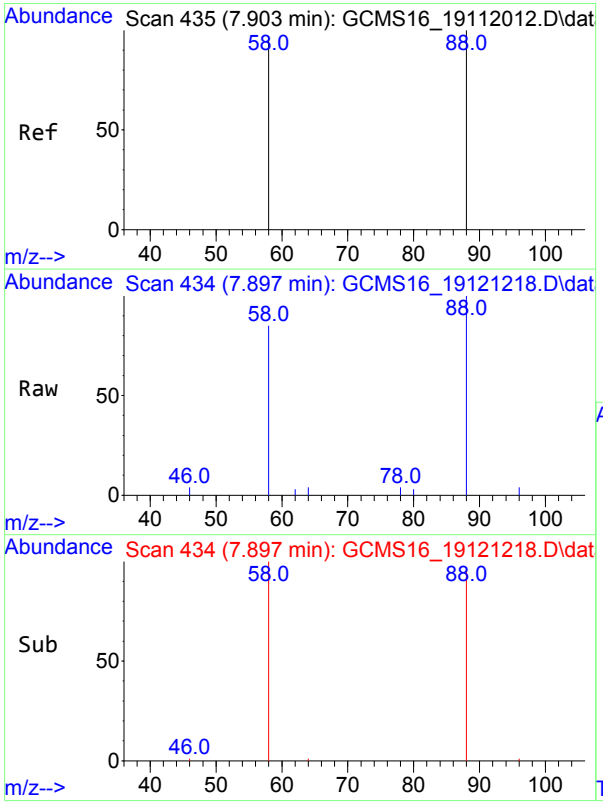


#2
1,4-Dioxane-d8
Concen: 22.44 ug/L
RT: 7.821 min Scan# 421
Delta R.T. -0.002 min
Lab File: GCMS16_19121218.D
Acq: 12 Dec 2019 07:28 pm

Tgt Ion: 96 Resp: 26260

Ion	Ratio	Lower	Upper
96	100		
62	25.8	0.0	0.0#
64	69.9	56.8	105.6

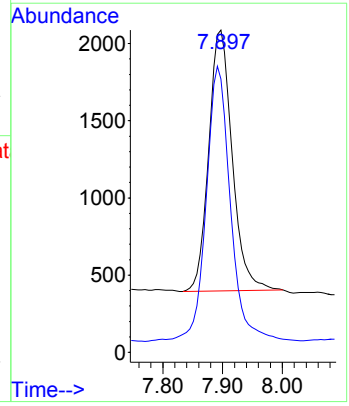




#3
1,4-Dioxane
Concen: 36.84 ug/L
RT: 7.898 min Scan# 434
Delta R.T. -0.002 min
Lab File: GCMS16_19121218.D
Acq: 12 Dec 2019 07:28 pm

Tgt Ion: 88 Resp: 46117

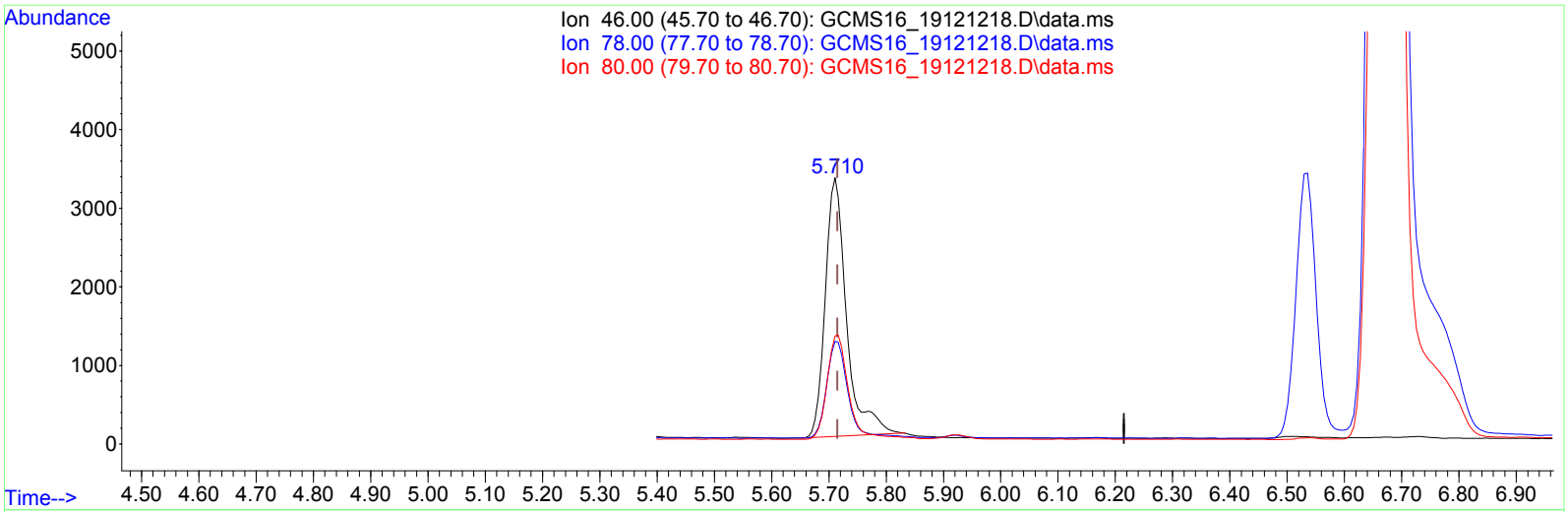
Ion	Ratio	Lower	Upper
88	100		
58	105.6	72.5	134.7

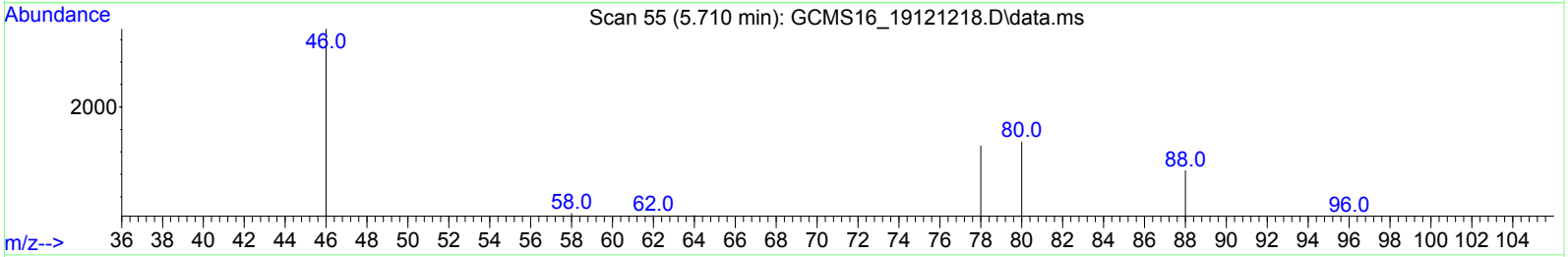


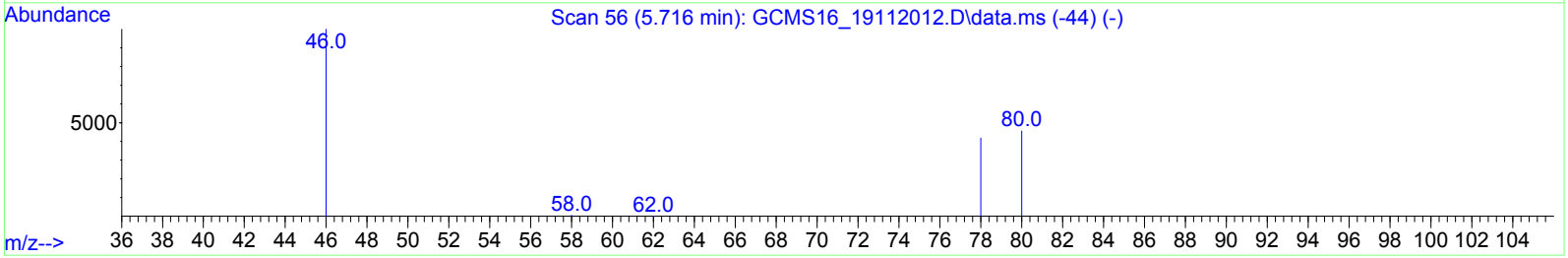
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121218.D
Acq On : 12 Dec 2019 07:28 pm
Operator : CR
Sample : E19L001-DUP1
Misc : E191201-07
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 13 10:22:37 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121218.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.713min (-0.002) 50.00 ug/L

response 84569

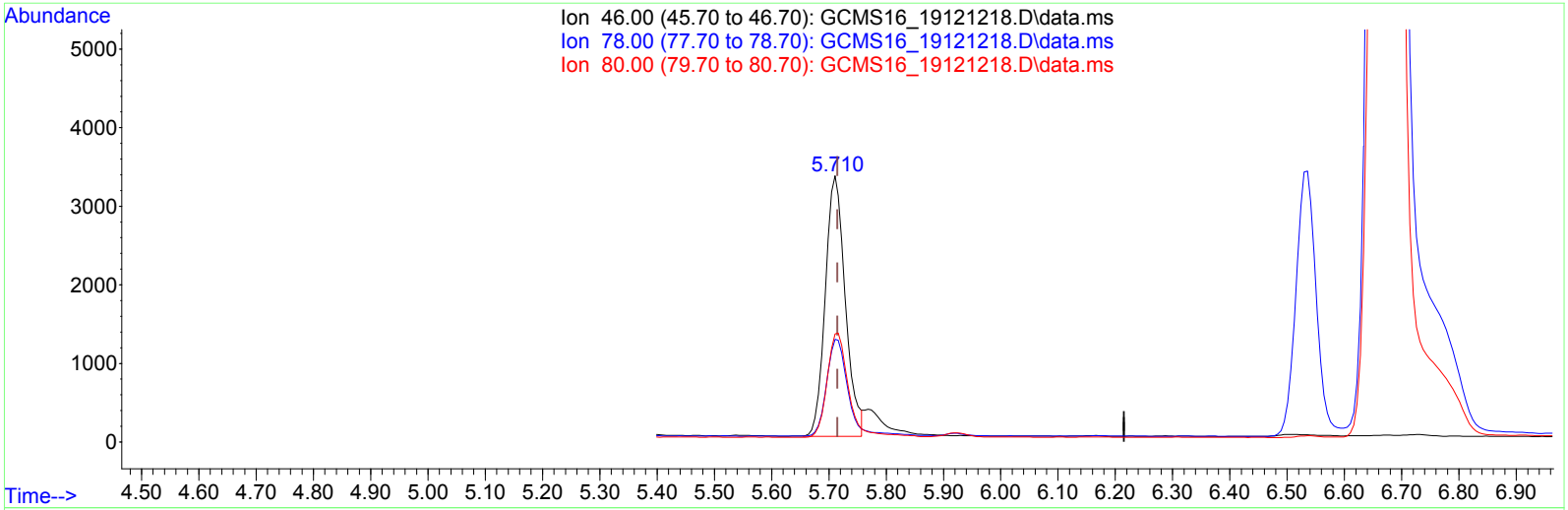
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	34.90
80.00	41.50	37.57
0.00	0.00	0.00

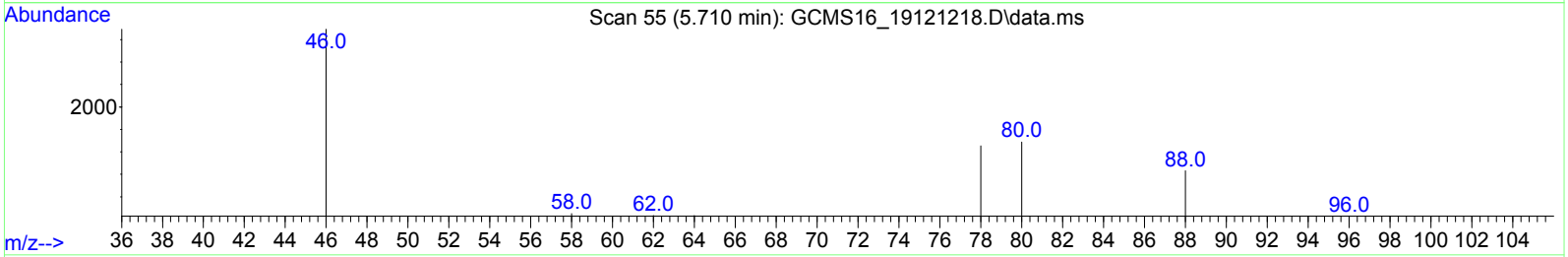
Before
IC
CR 1/2/20

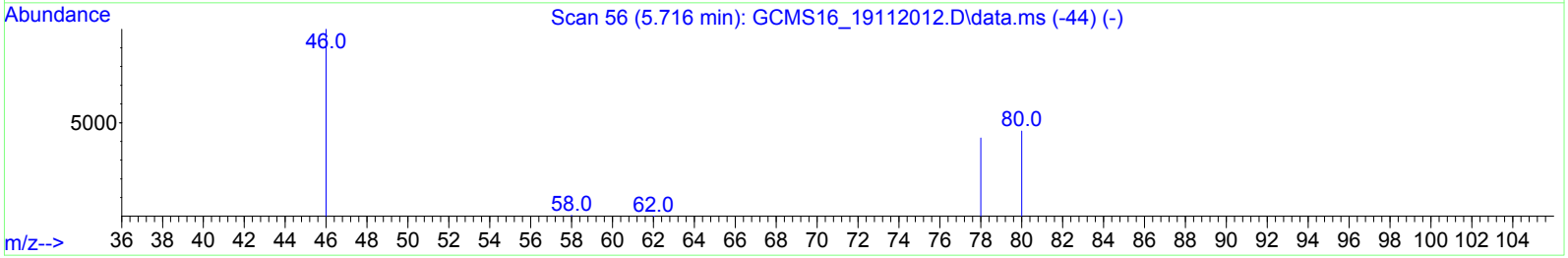
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121218.D
Acq On : 12 Dec 2019 07:28 pm
Operator : CR
Sample : E19L001-DUP1
Misc : E191201-07
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 13 10:22:37 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121218.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 80747

After
CR 1/2/20

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	36.55
80.00	41.50	39.34
0.00	0.00	0.00

Sample Data

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121209.D
Acq On : 12 Dec 2019 04:20 pm
Operator : CR
Sample : E191201-01
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 13 09:56:14 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

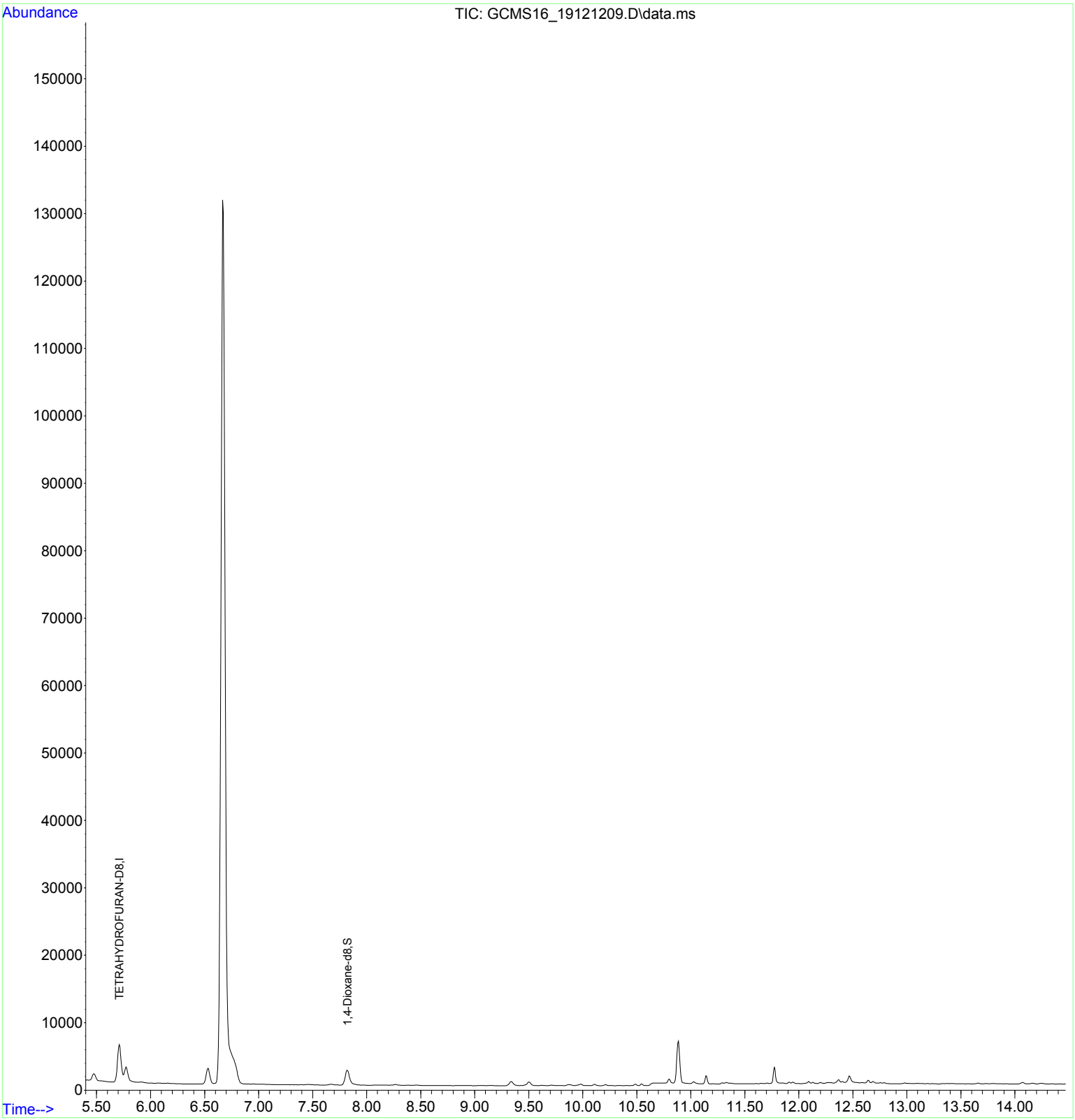
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.710	46	76085m	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	7.823	96	23810	21.59	ug/L	0.00
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

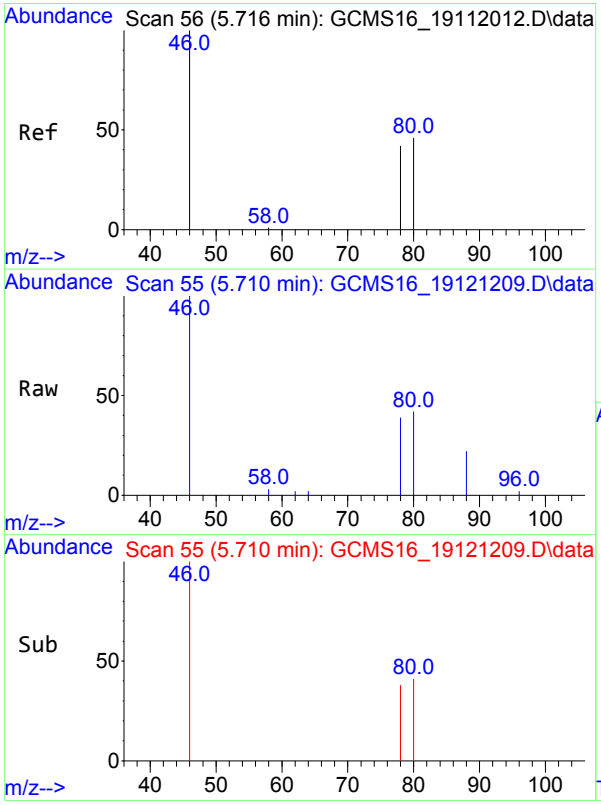
CR 1/2/20

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121209.D
Acq On : 12 Dec 2019 04:20 pm
Operator : CR
Sample : E191201-01
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 13 09:56:14 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

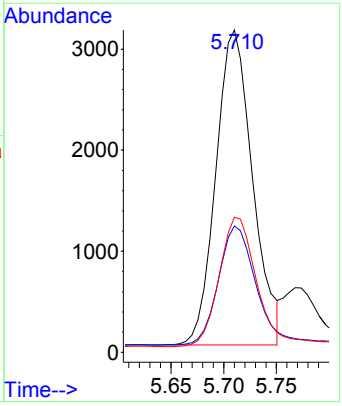


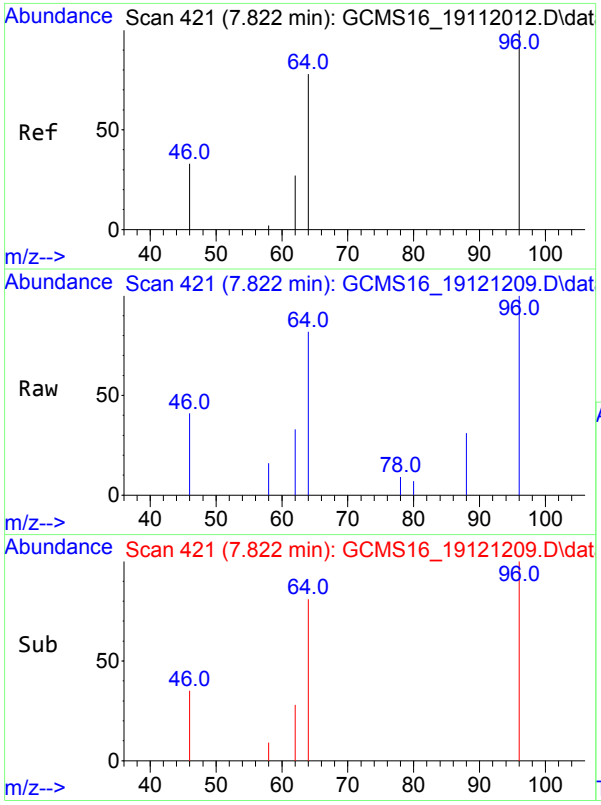


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121209.D
Acq: 12 Dec 2019 04:20 pm

Tgt Ion: 46 Resp: 76085

Ion	Ratio	Lower	Upper
46	100		
78	36.7	27.5	51.1
80	39.3	29.0	53.9

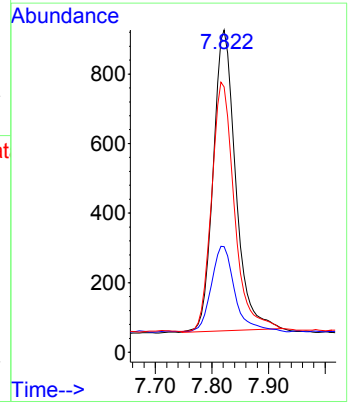


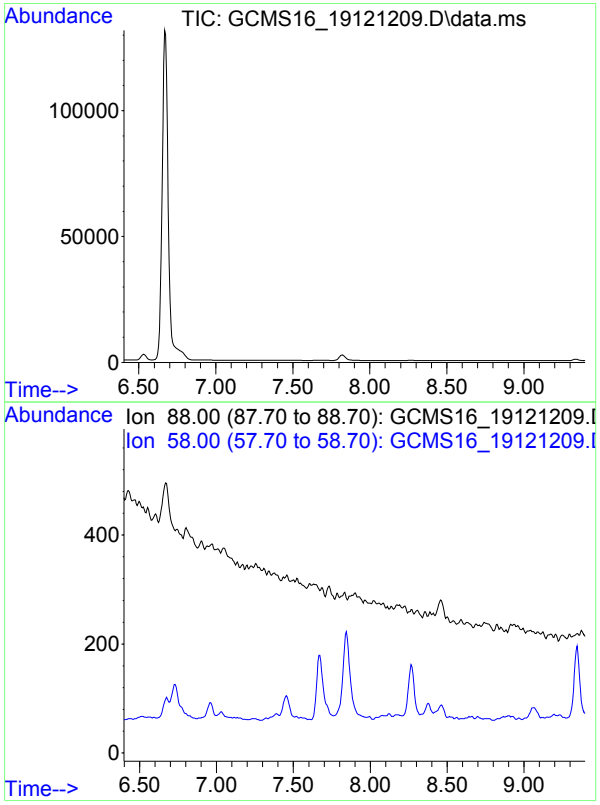


#2
1,4-Dioxane-d8
Concen: 21.59 ug/L
RT: 7.823 min Scan# 421
Delta R.T. 0.000 min
Lab File: GCMS16_19121209.D
Acq: 12 Dec 2019 04:20 pm

Tgt Ion: 96 Resp: 23810

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	78.8	56.8	105.6





#3
1,4-Dioxane
Concen: N.D.
Expected RT: 7.90 min

Lab File: GCMS16_19121209.D
Acq: 12 Dec 2019 04:20 pm

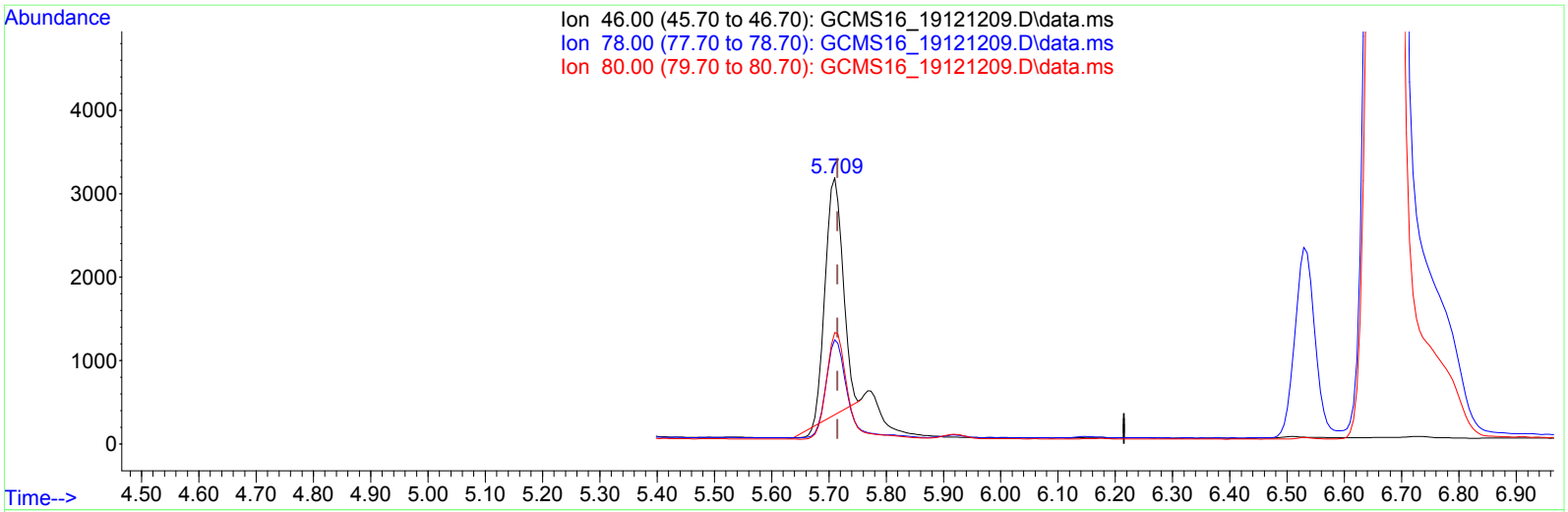
Tgt Ion: 88

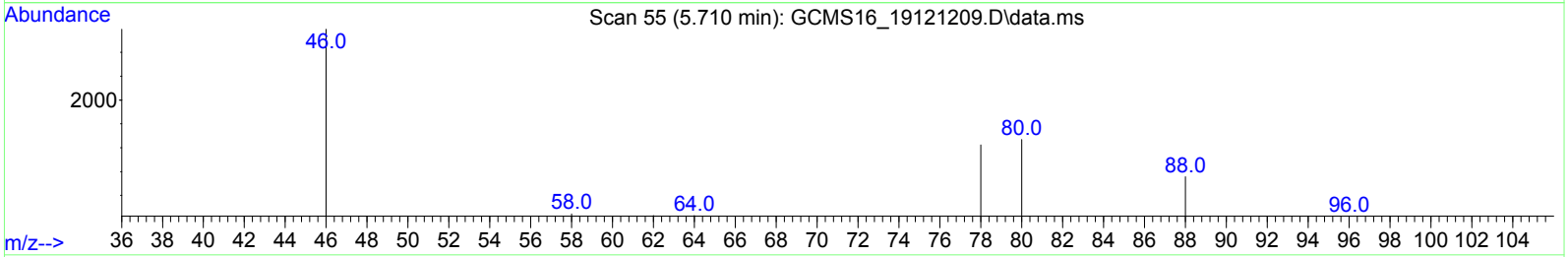
Sig	Exp Ratio
88	100
58	103.6

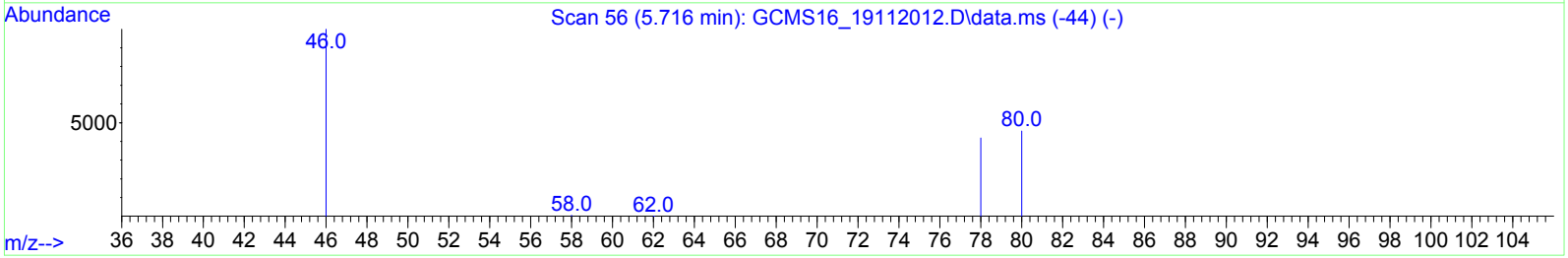
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121209.D
Acq On : 12 Dec 2019 04:20 pm
Operator : CR
Sample : E191201-01
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 13 09:56:14 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121209.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.711min (-0.004) 50.00 ug/L

response 59408

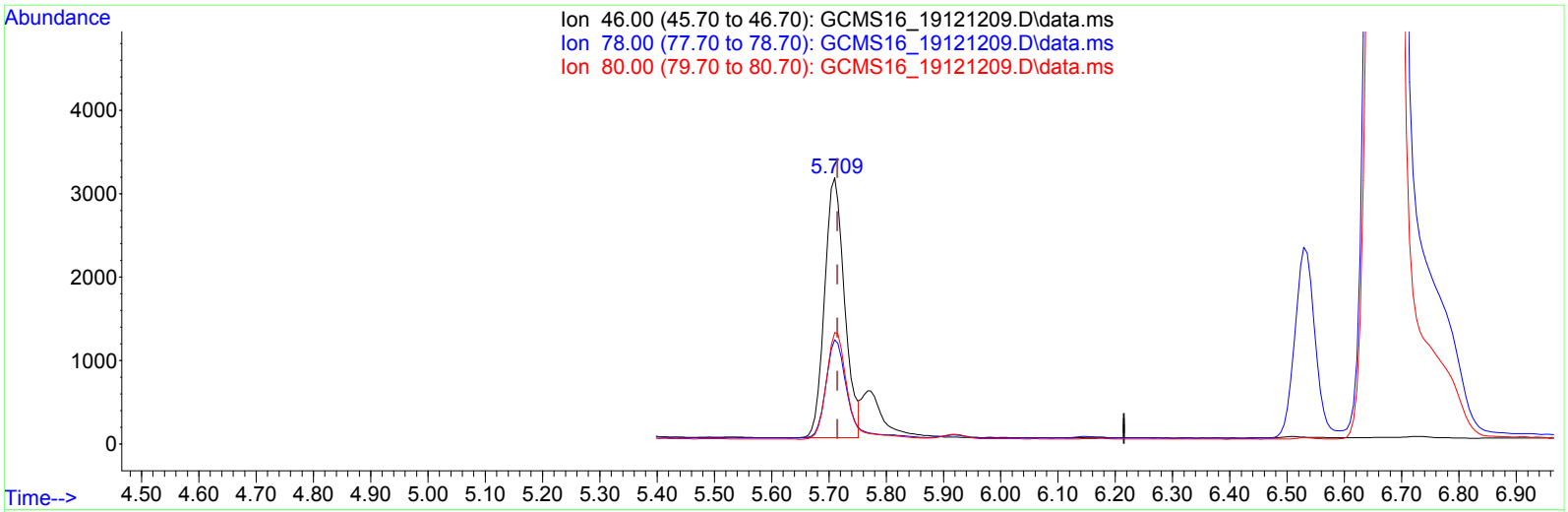
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	47.02
80.00	41.50	50.29
0.00	0.00	0.00

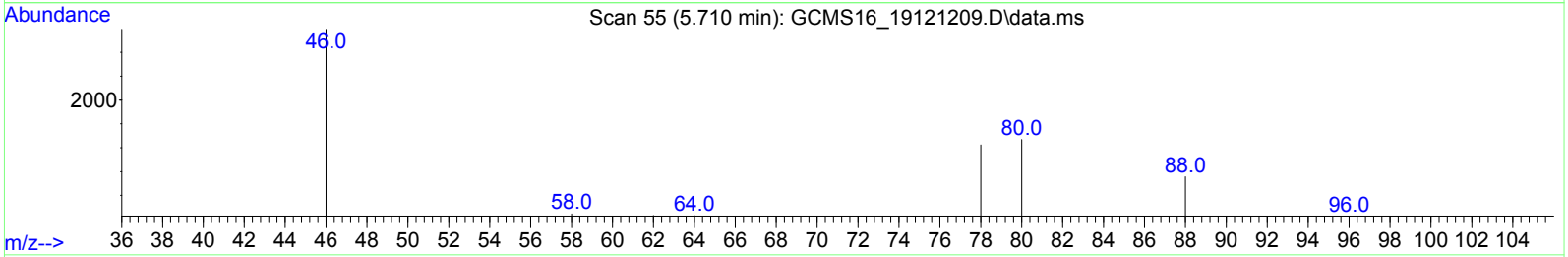
Before
IC
CR 1/2/20

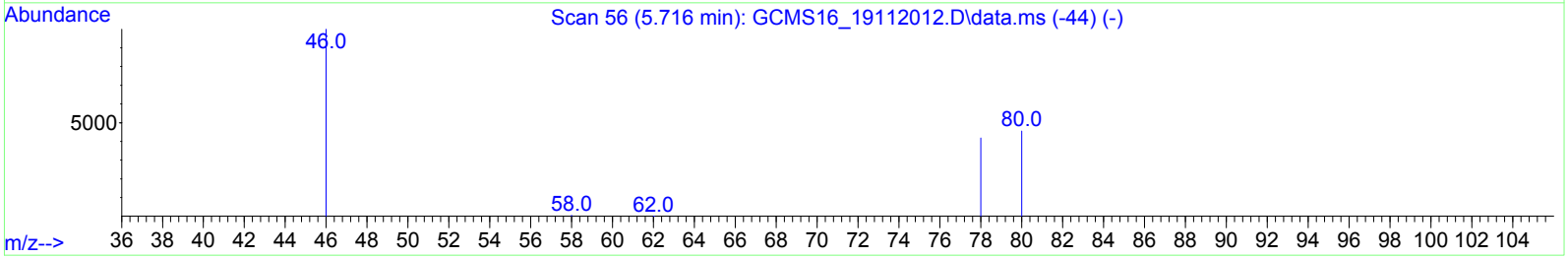
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121209.D
Acq On : 12 Dec 2019 04:20 pm
Operator : CR
Sample : E191201-01
Misc :
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 13 09:56:14 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121209.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 76085

After
CR 1/2/20

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	36.71
80.00	41.50	39.26
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121210.D
Acq On : 12 Dec 2019 04:41 pm
Operator : CR
Sample : E191201-02
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 13 09:57:42 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.704	46	66326m	50.00	ug/L	-0.01
System Monitoring Compounds						
2) 1,4-Dioxane-d8	7.820	96	20745	21.58	ug/L	0.00
Target Compounds						Qvalue
3) 1,4-Dioxane	7.895	88	123640	120.25	ug/L	99

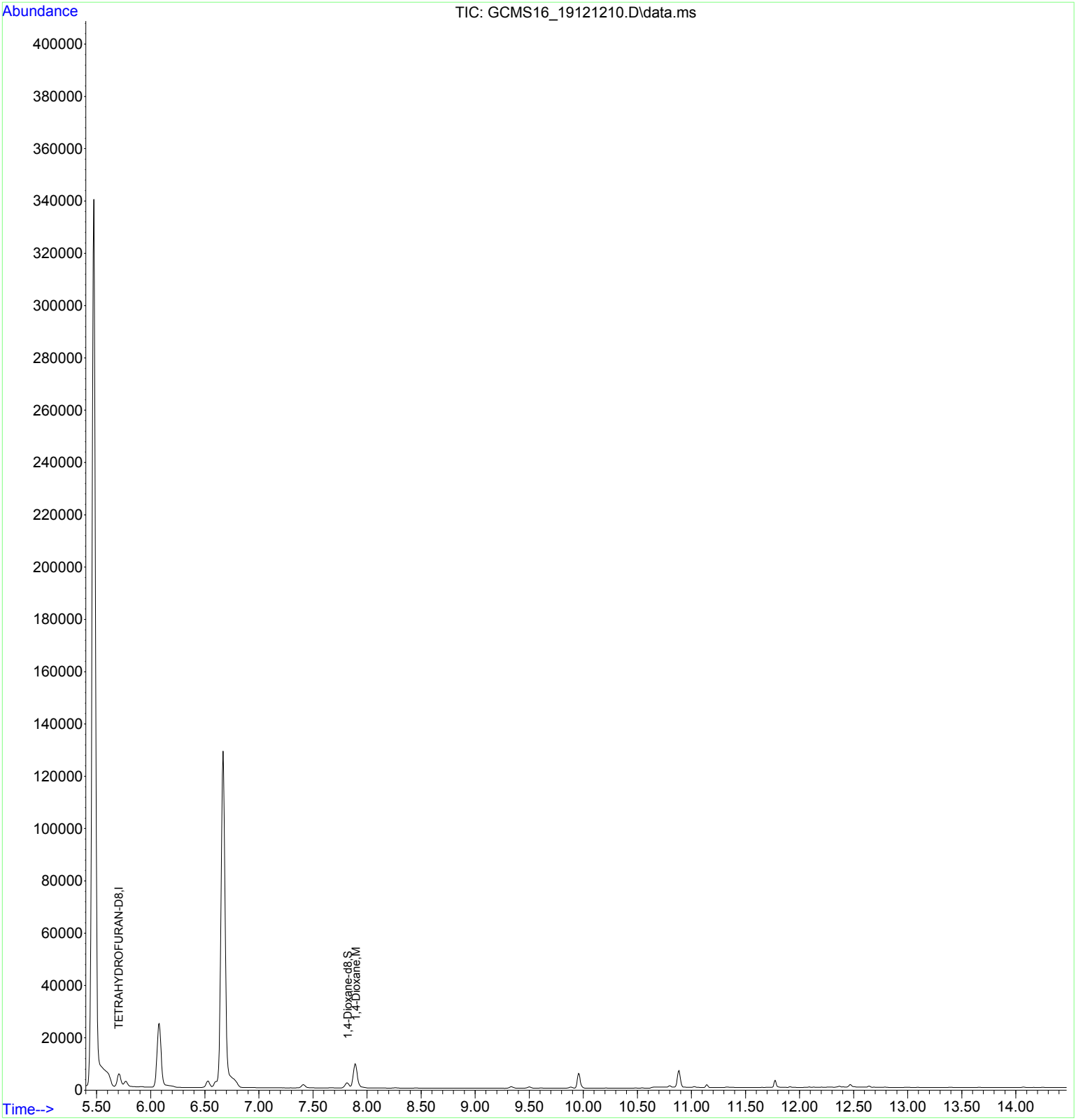
CR 1/2/20

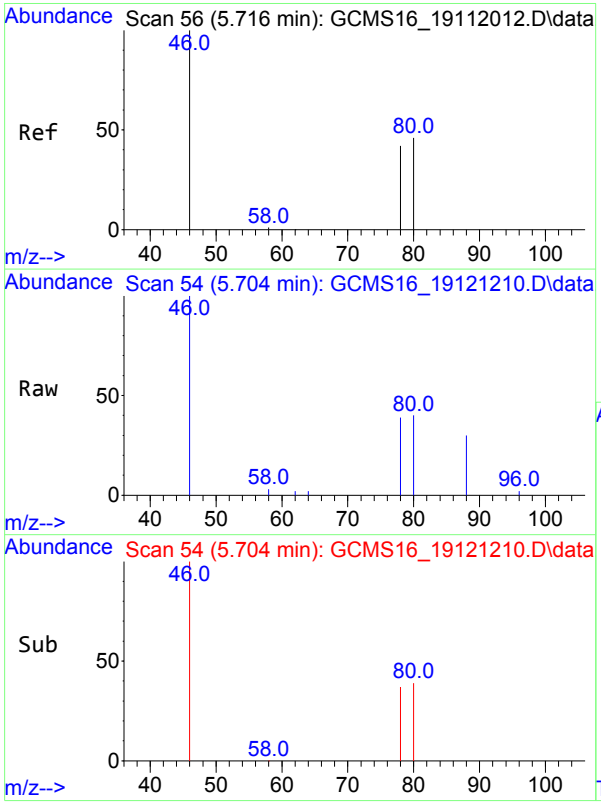
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121210.D
Acq On : 12 Dec 2019 04:41 pm
Operator : CR
Sample : E191201-02
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 13 09:57:42 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

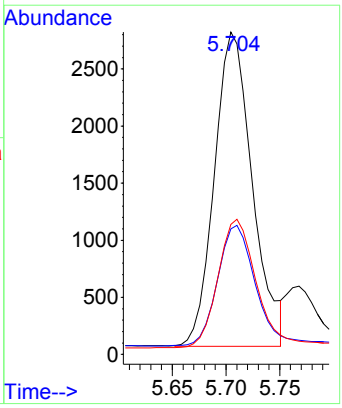


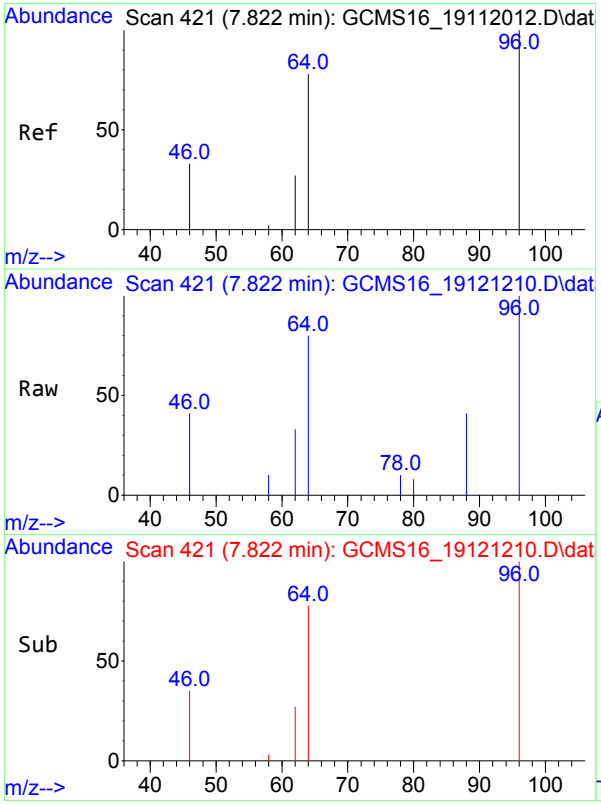


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.704 min Scan# 54
Delta R.T. -0.011 min
Lab File: GCMS16_19121210.D
Acq: 12 Dec 2019 04:41 pm

Tgt Ion: 46 Resp: 66326

Ion	Ratio	Lower	Upper
46	100		
78	37.0	27.5	51.1
80	40.3	29.0	53.9

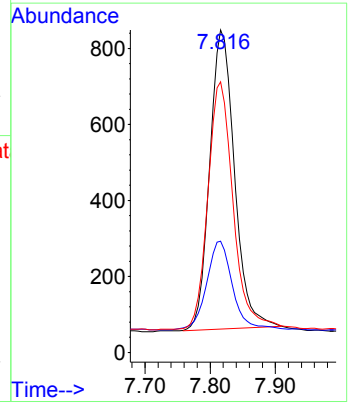


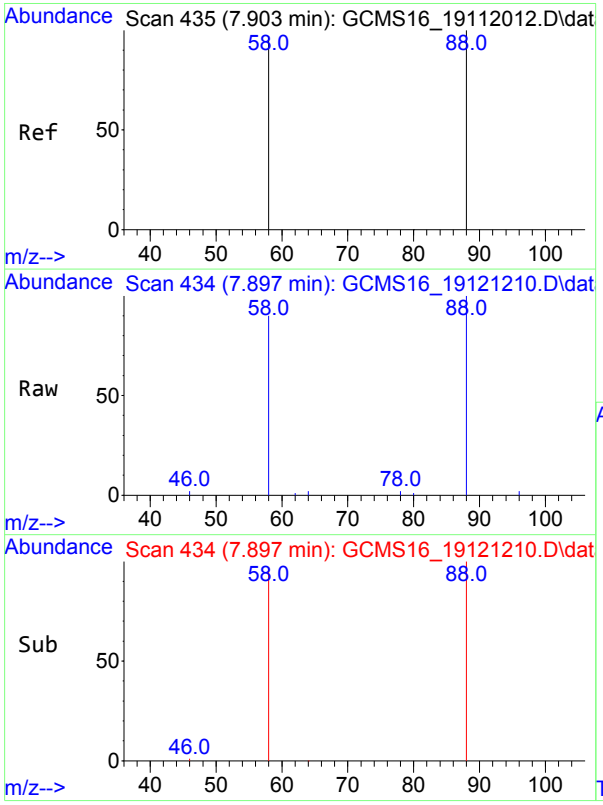


#2
1,4-Dioxane-d8
Concen: 21.58 ug/L
RT: 7.820 min Scan# 421
Delta R.T. -0.003 min
Lab File: GCMS16_19121210.D
Acq: 12 Dec 2019 04:41 pm

Tgt Ion: 96 Resp: 20745

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	82.1	56.8	105.6

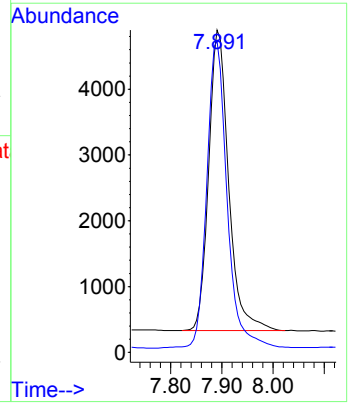




#3
1,4-Dioxane
Concen: 120.25 ug/L
RT: 7.895 min Scan# 434
Delta R.T. -0.005 min
Lab File: GCMS16_19121210.D
Acq: 12 Dec 2019 04:41 pm

Tgt Ion: 88 Resp: 123640

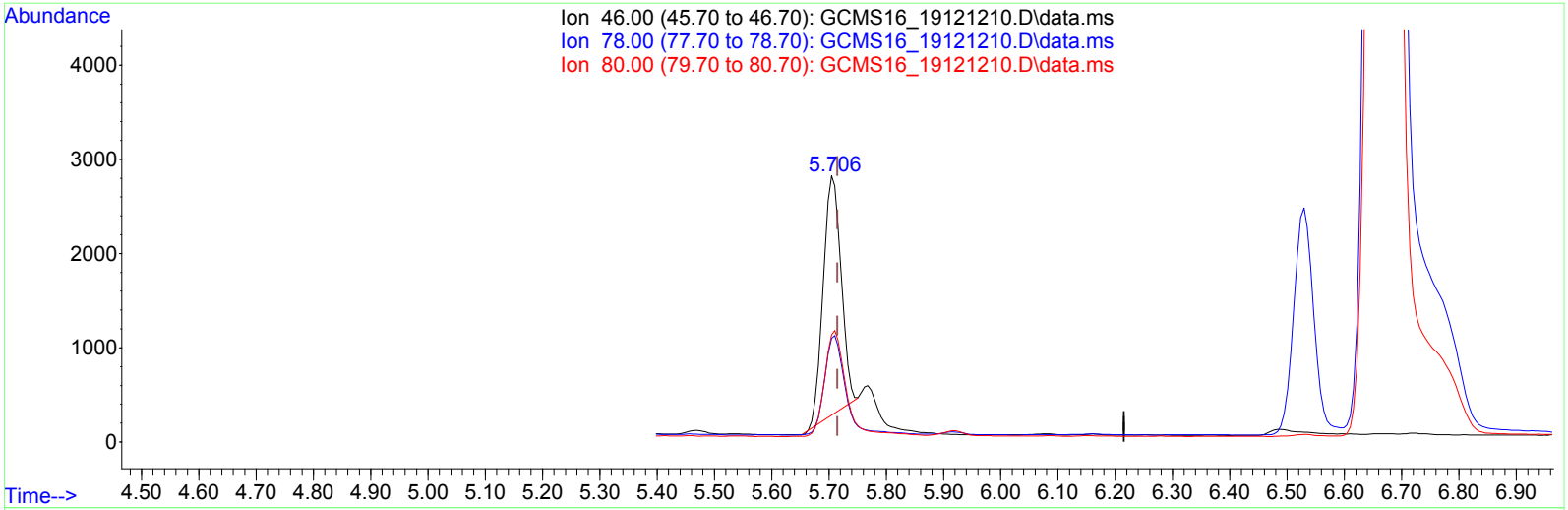
Ion	Ratio	Lower	Upper
88	100		
58	103.0	72.5	134.7

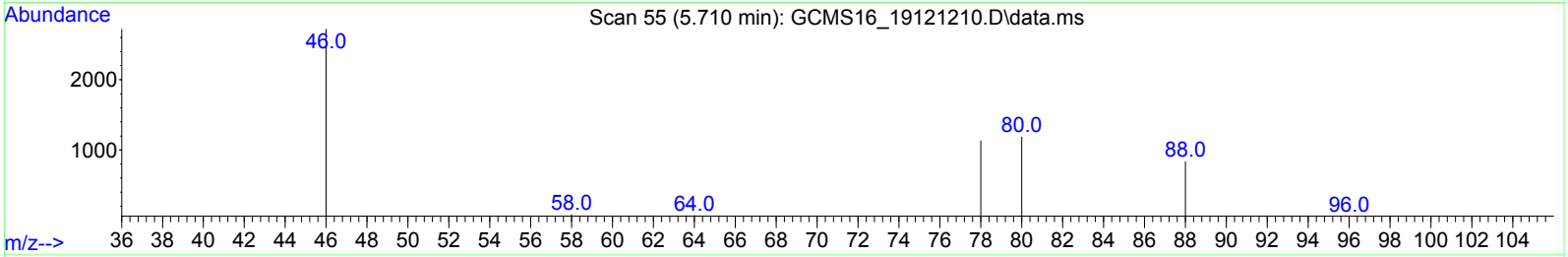


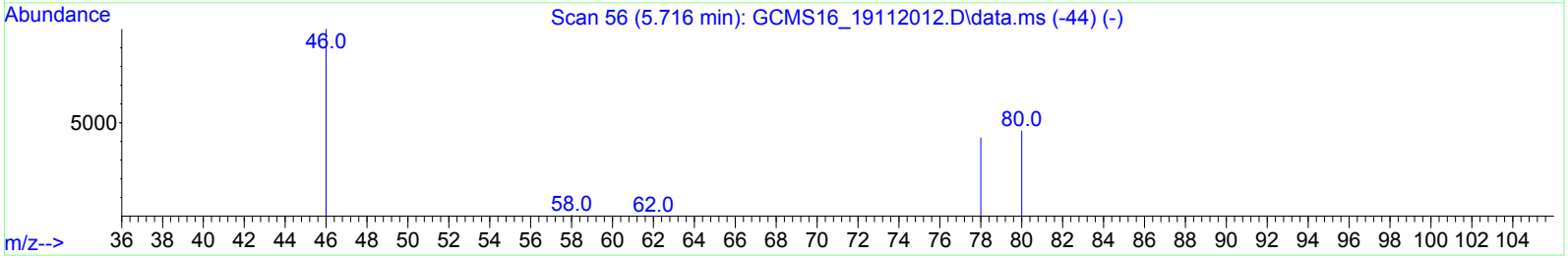
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121210.D
Acq On : 12 Dec 2019 04:41 pm
Operator : CR
Sample : E191201-02
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 13 09:57:42 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121210.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.708min (-0.007) 50.00 ug/L

response 54493

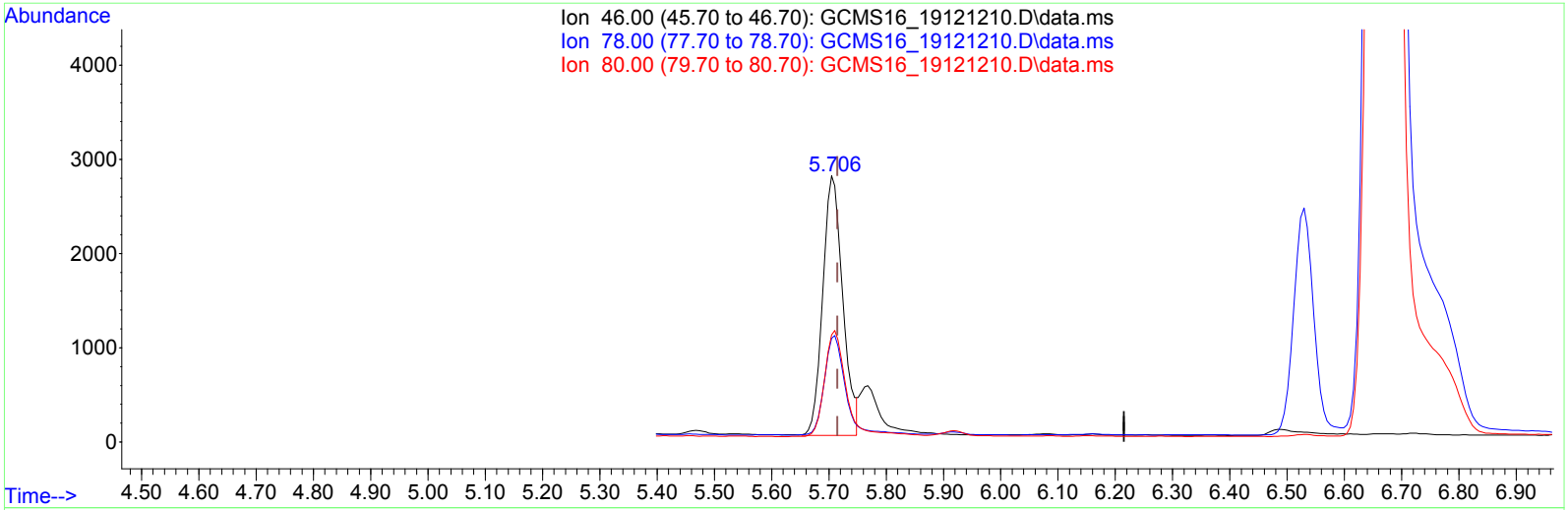
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	44.99
80.00	41.50	49.00
0.00	0.00	0.00

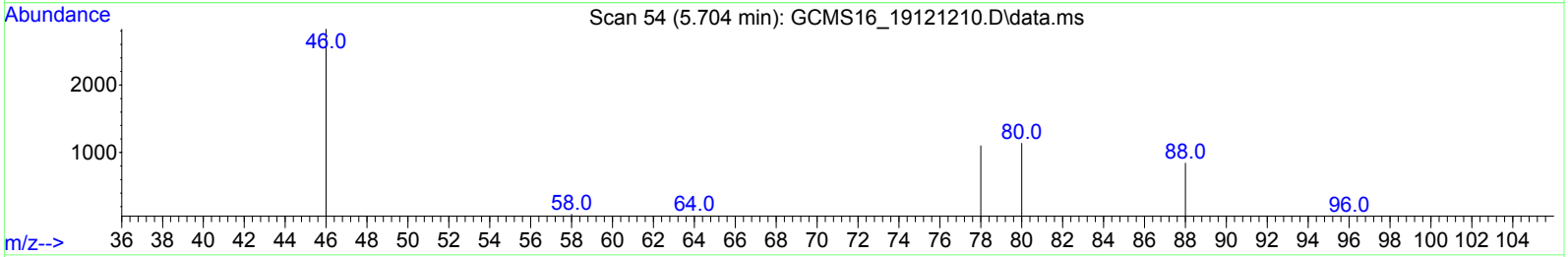
Before
IC
CR 1/2/20

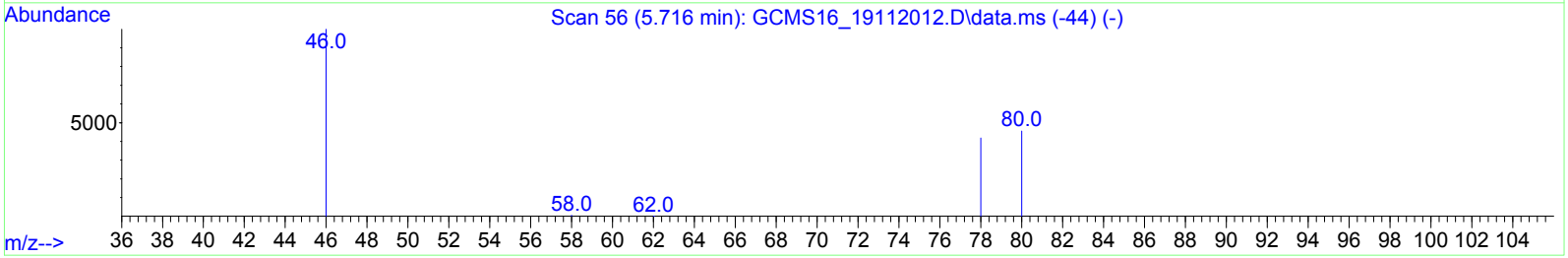
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121210.D
Acq On : 12 Dec 2019 04:41 pm
Operator : CR
Sample : E191201-02
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 13 09:57:42 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121210.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.704min (-0.011) 50.00 ug/L m

response 66326

After
CR 1/2/20

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	36.96
80.00	41.50	40.25
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121211.D
Acq On : 12 Dec 2019 05:02 pm
Operator : CR
Sample : E191201-03
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 13 10:01:11 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	77138m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.821	96	23500	21.02 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.896	88	140762	117.71 ug/L	100

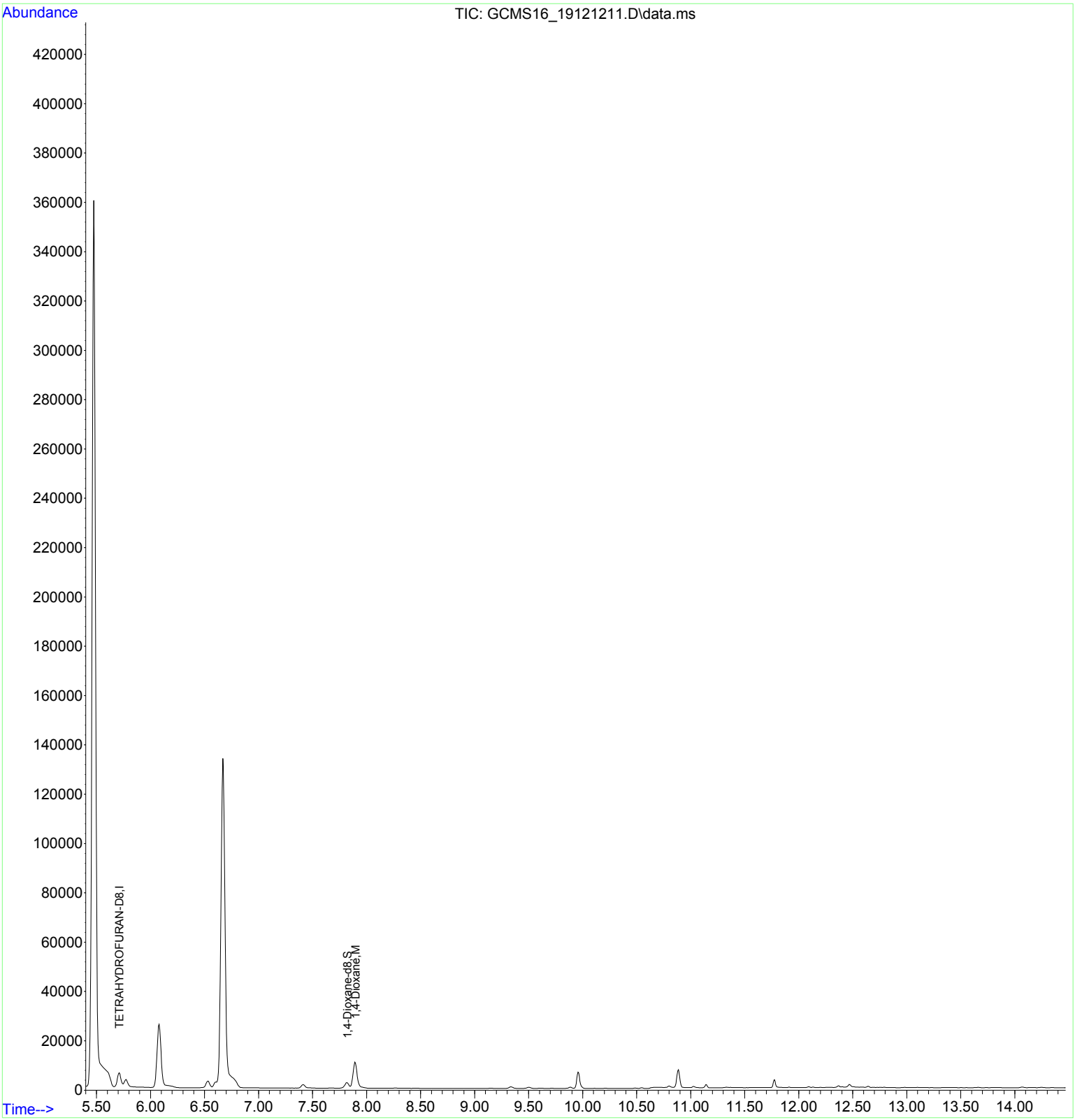
CR 1/2/20

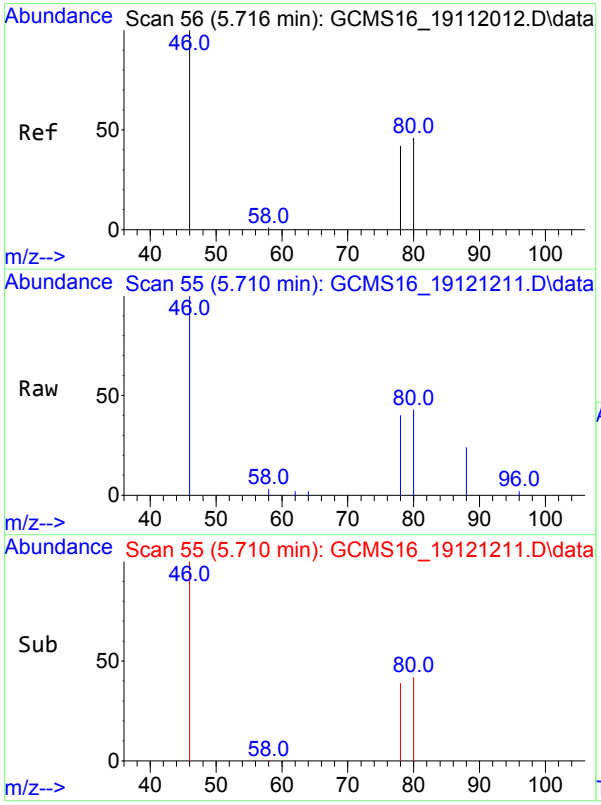
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121211.D
Acq On : 12 Dec 2019 05:02 pm
Operator : CR
Sample : E191201-03
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 13 10:01:11 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

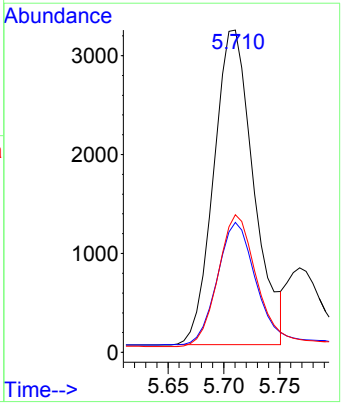


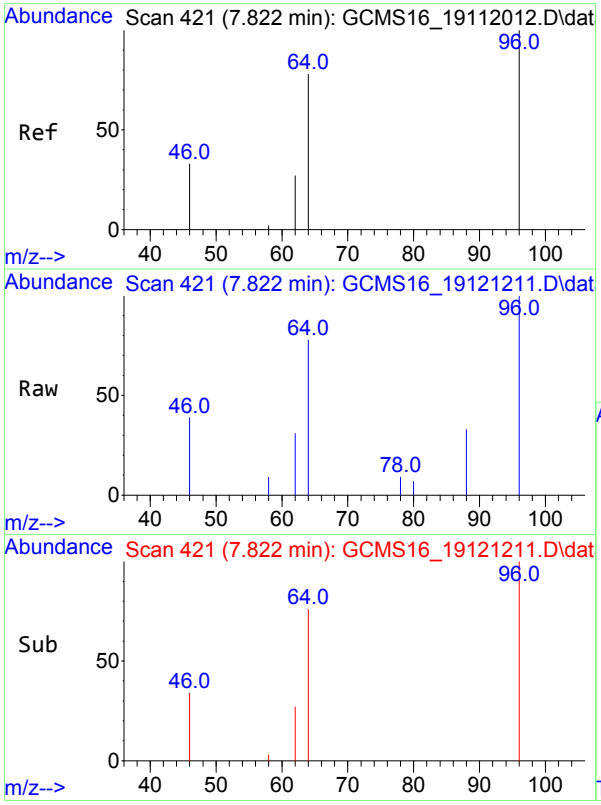


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121211.D
Acq: 12 Dec 2019 05:02 pm

Tgt Ion: 46 Resp: 77138

Ion	Ratio	Lower	Upper
46	100		
78	37.6	27.5	51.1
80	40.5	29.0	53.9

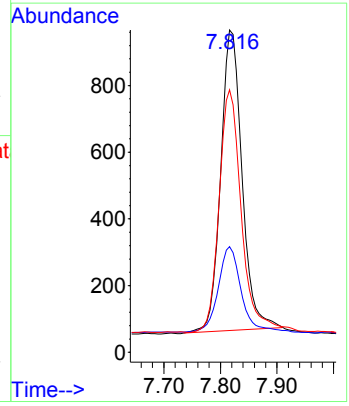


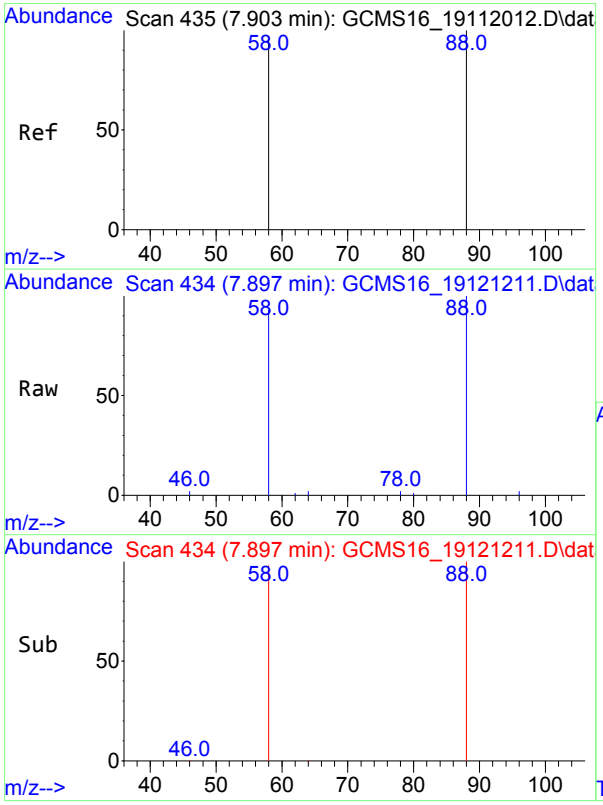


#2
1,4-Dioxane-d8
Concen: 21.02 ug/L
RT: 7.821 min Scan# 421
Delta R.T. -0.002 min
Lab File: GCMS16_19121211.D
Acq: 12 Dec 2019 05:02 pm

Tgt Ion: 96 Resp: 23500

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	81.1	56.8	105.6

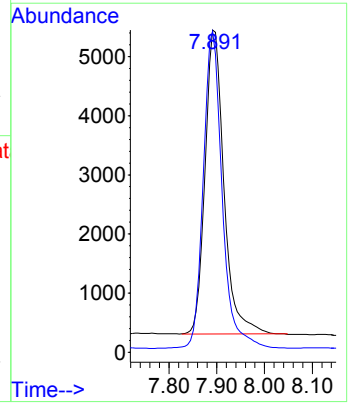




#3
1,4-Dioxane
Concen: 117.71 ug/L
RT: 7.896 min Scan# 434
Delta R.T. -0.003 min
Lab File: GCMS16_19121211.D
Acq: 12 Dec 2019 05:02 pm

Tgt Ion: 88 Resp: 140762

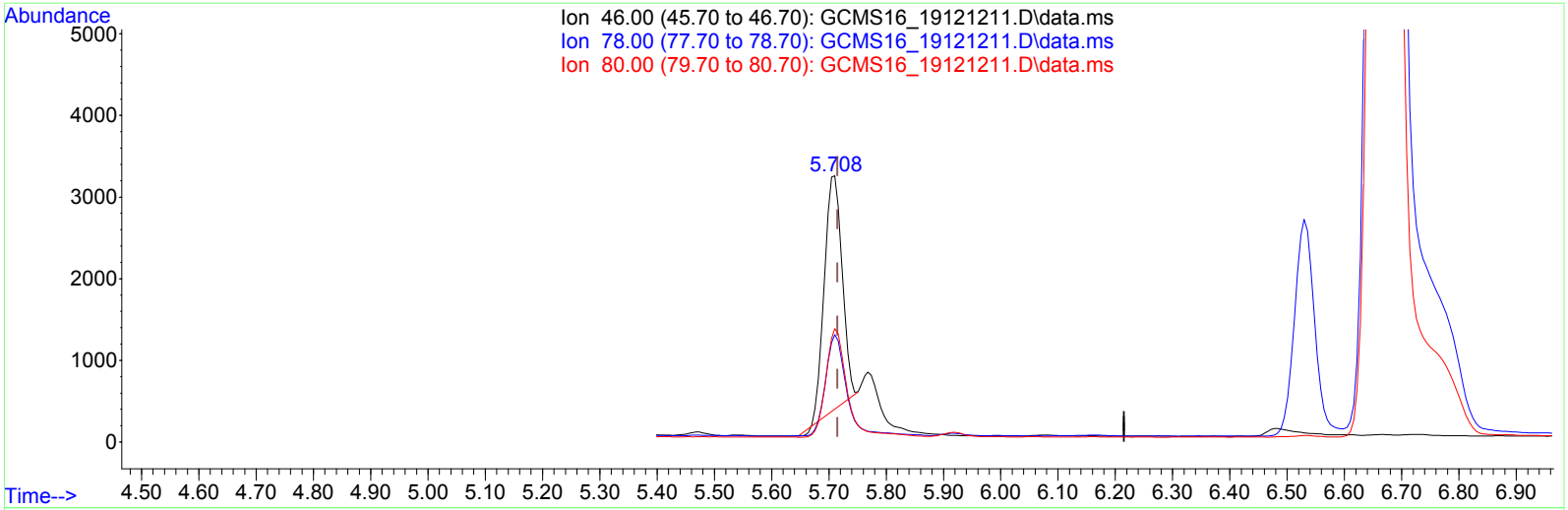
Ion	Ratio	Lower	Upper
88	100		
58	103.7	72.5	134.7

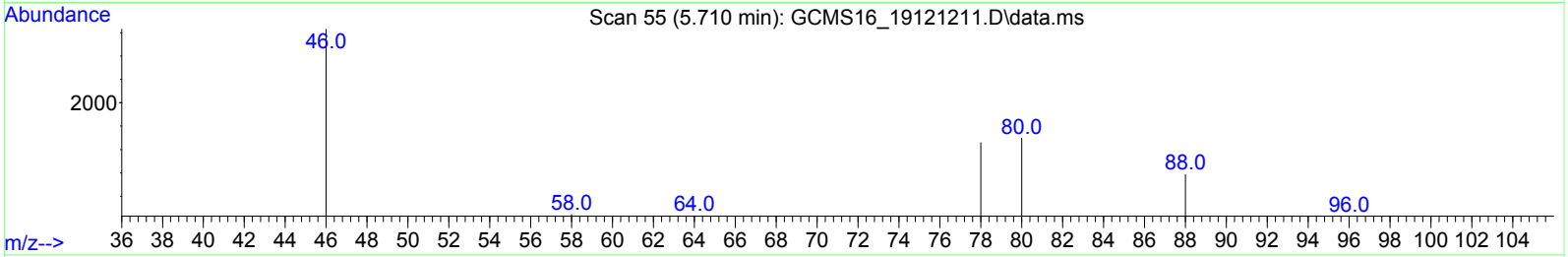


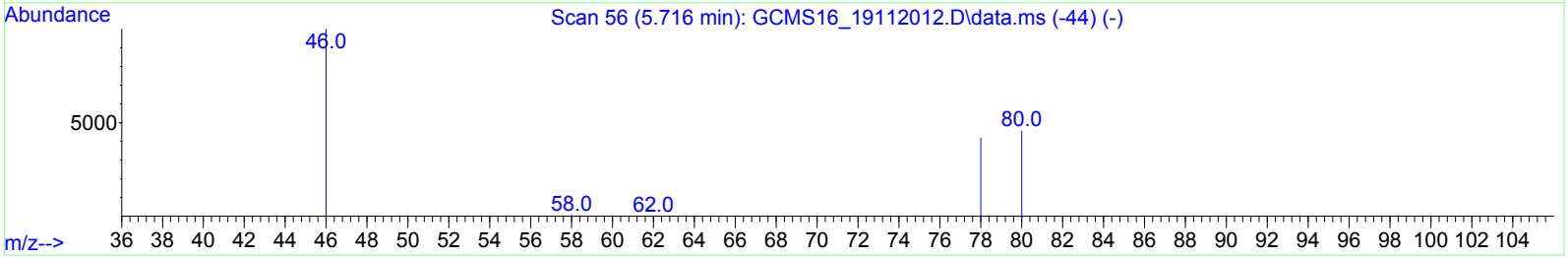
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121211.D
Acq On : 12 Dec 2019 05:02 pm
Operator : CR
Sample : E191201-03
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 13 10:01:11 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121211.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L

response 60880

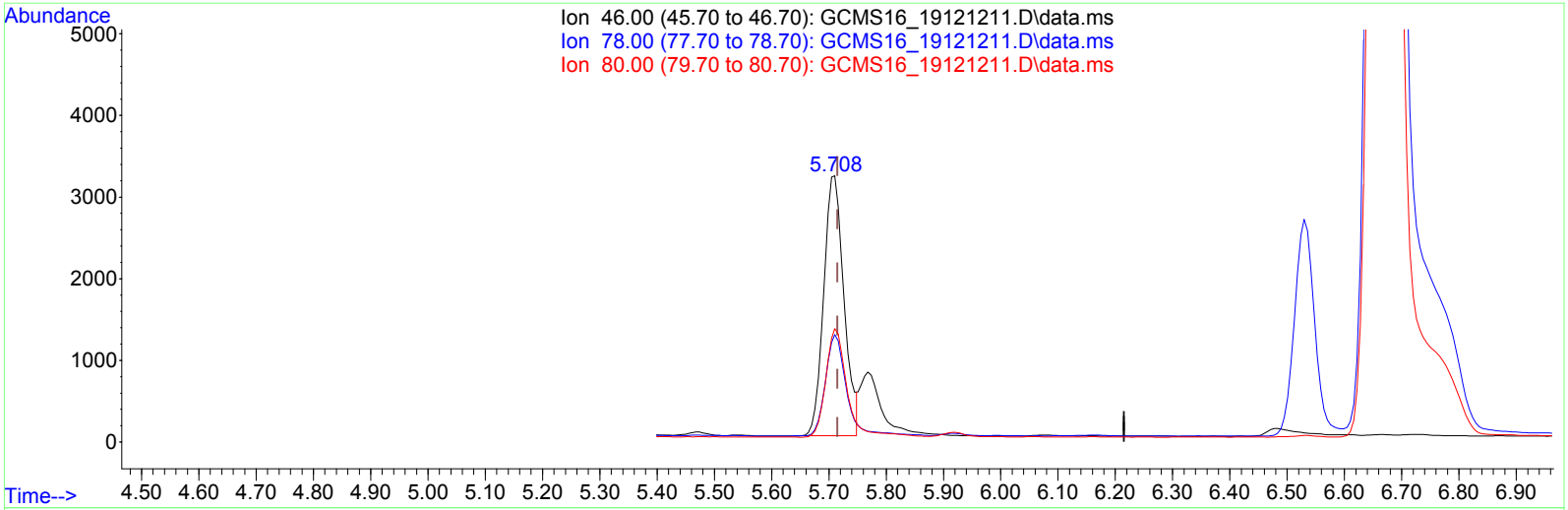
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	47.58
80.00	41.50	51.27
0.00	0.00	0.00

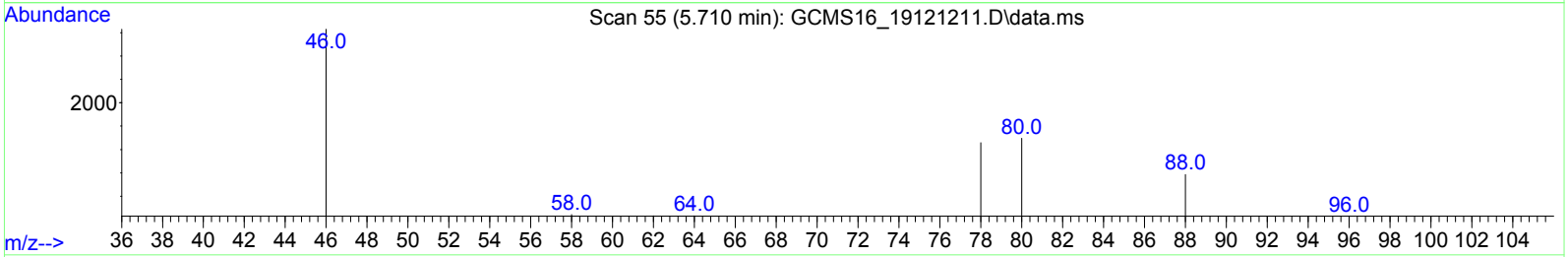
Before
IC
CR 1/2/20

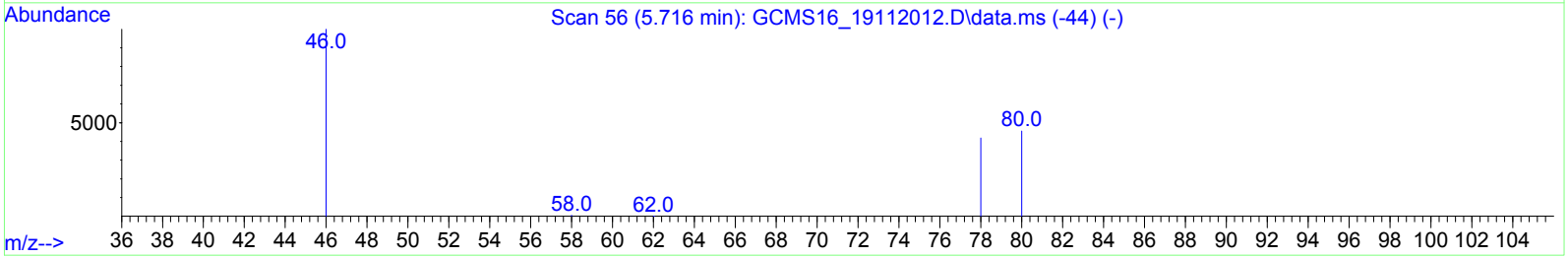
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121211.D
Acq On : 12 Dec 2019 05:02 pm
Operator : CR
Sample : E191201-03
Misc :
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 13 10:01:11 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121211.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 77138

After
CR 1/2/20

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	37.55
80.00	41.50	40.46
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121212.D
Acq On : 12 Dec 2019 05:22 pm
Operator : CR
Sample : E191201-04
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 12 17:44:15 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.704	46	72538m	50.00 ug/L	-0.01
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.820	96	22596	21.49 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.897	88	67306	59.85 ug/L	99

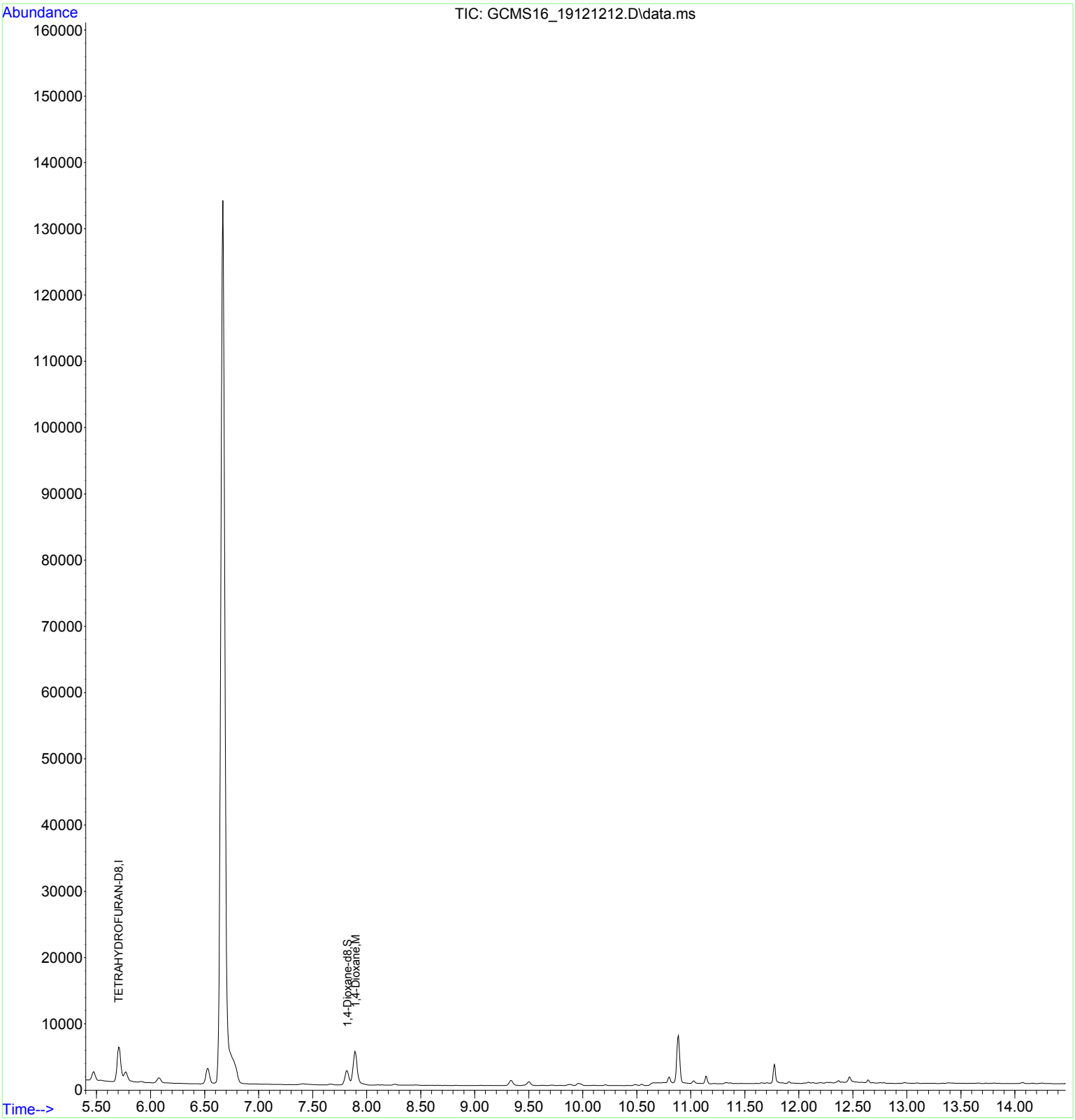
CR 1/2/20

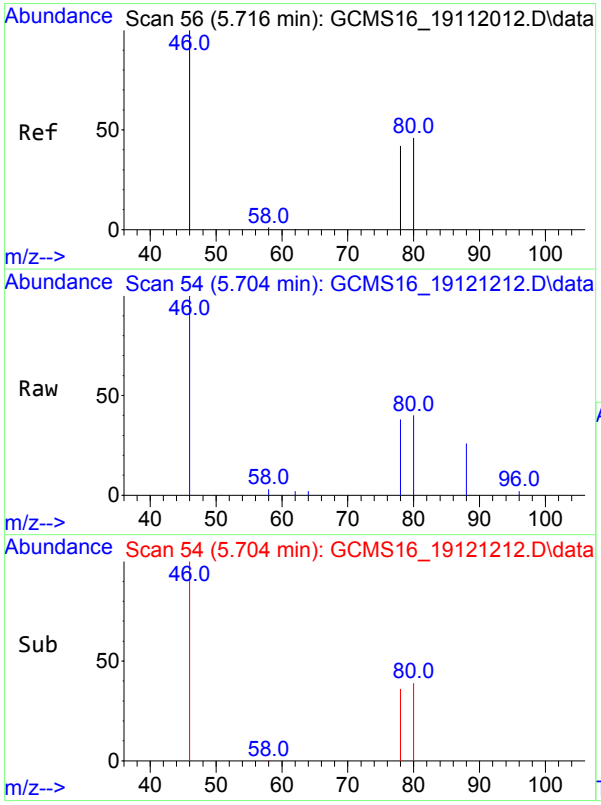
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121212.D
Acq On : 12 Dec 2019 05:22 pm
Operator : CR
Sample : E191201-04
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 12 17:44:15 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

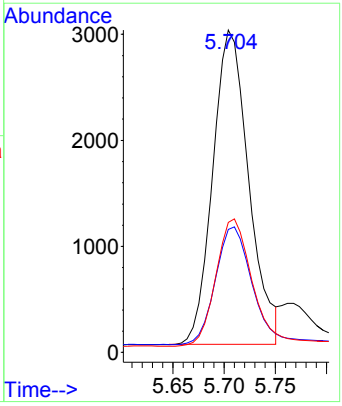


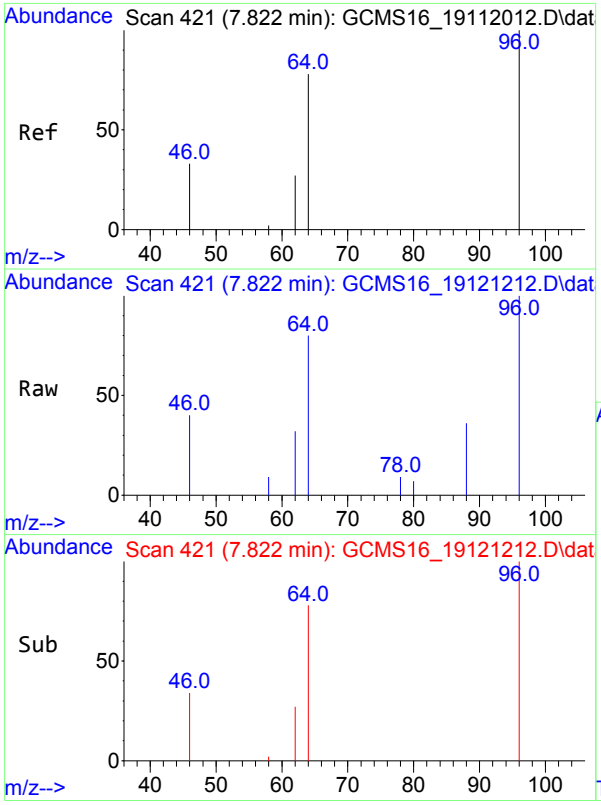


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.704 min Scan# 54
Delta R.T. -0.011 min
Lab File: GCMS16_19121212.D
Acq: 12 Dec 2019 05:22 pm

Tgt Ion: 46 Resp: 72538

Ion	Ratio	Lower	Upper
46	100		
78	36.4	27.5	51.1
80	38.8	29.0	53.9

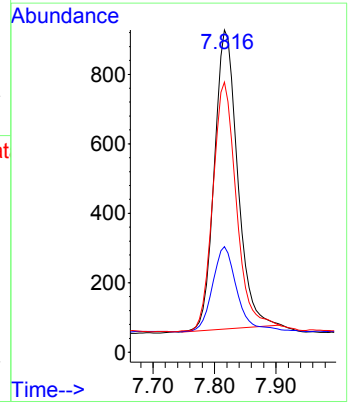


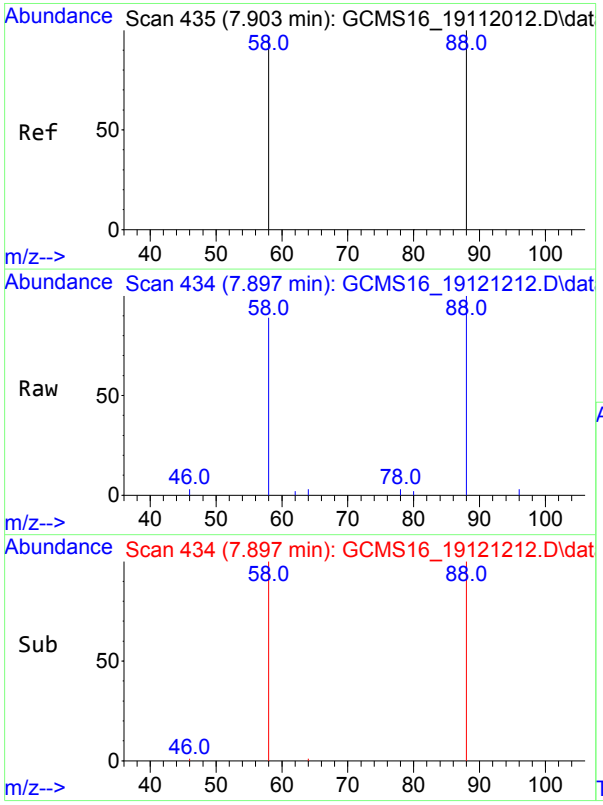


#2
1,4-Dioxane-d8
Concen: 21.49 ug/L
RT: 7.820 min Scan# 421
Delta R.T. -0.003 min
Lab File: GCMS16_19121212.D
Acq: 12 Dec 2019 05:22 pm

Tgt Ion: 96 Resp: 22596

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	81.6	56.8	105.6

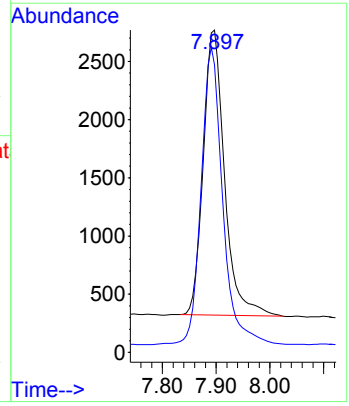




#3
1,4-Dioxane
Concen: 59.85 ug/L
RT: 7.897 min Scan# 434
Delta R.T. -0.003 min
Lab File: GCMS16_19121212.D
Acq: 12 Dec 2019 05:22 pm

Tgt Ion: 88 Resp: 67306

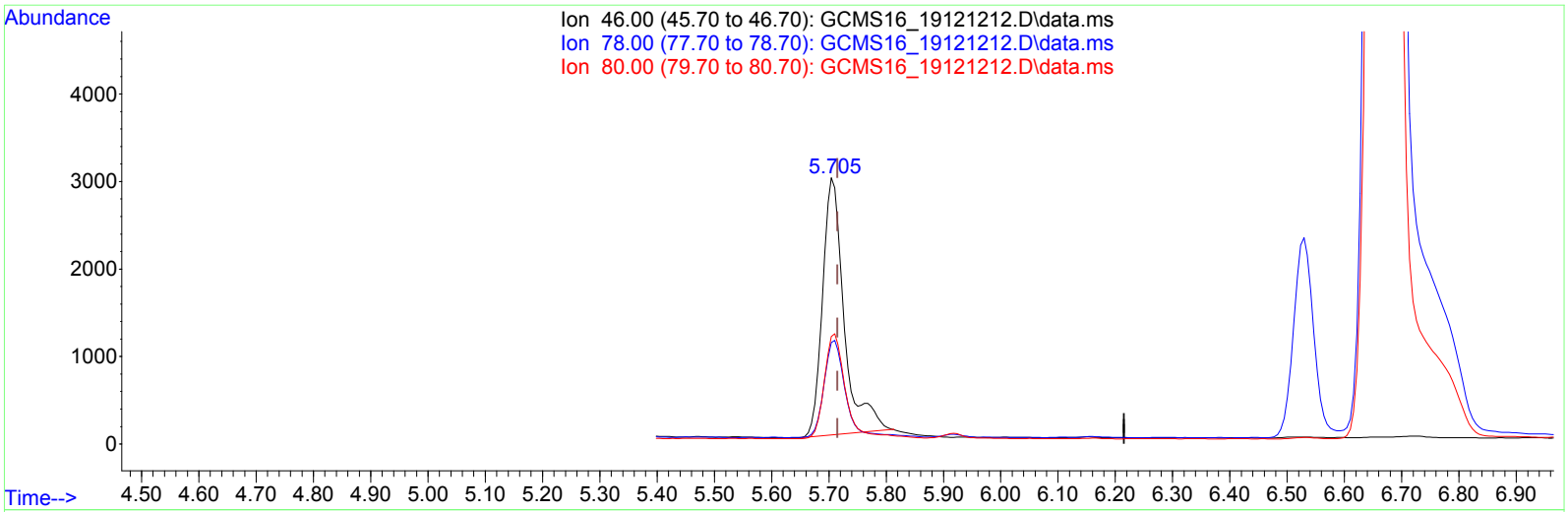
Ion	Ratio	Lower	Upper
88	100		
58	104.6	72.5	134.7

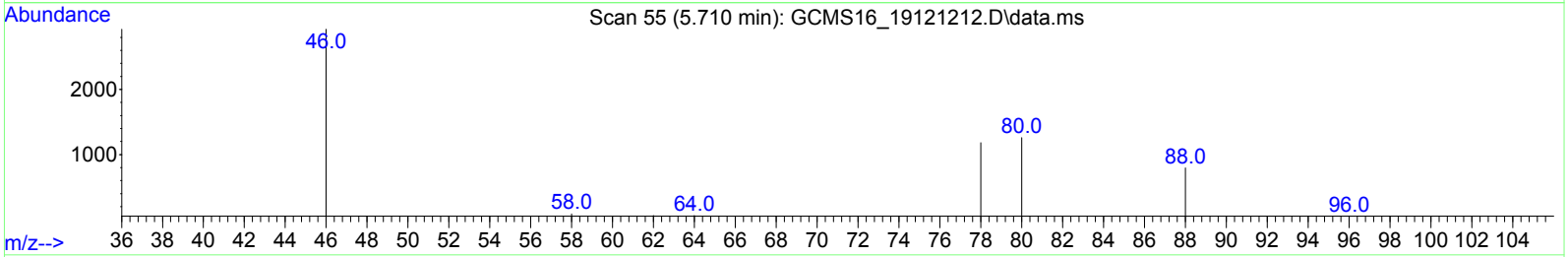


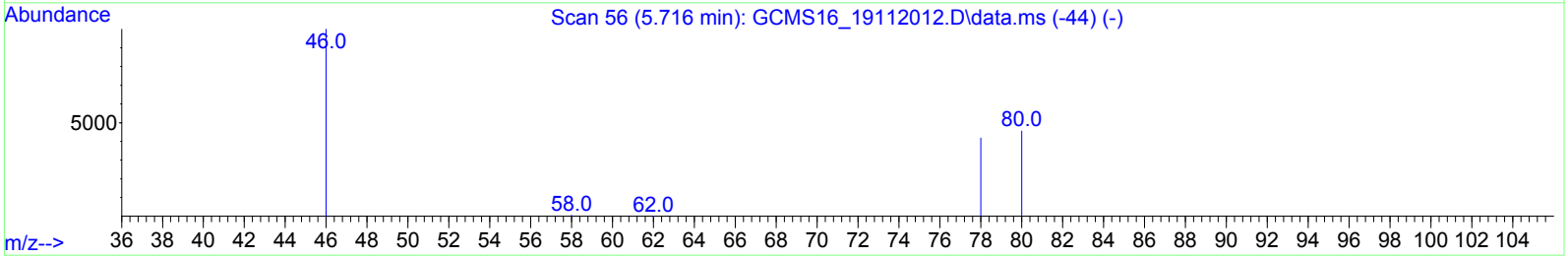
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121212.D
Acq On : 12 Dec 2019 05:22 pm
Operator : CR
Sample : E191201-04
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 12 17:44:15 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121212.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.708min (-0.007) 50.00 ug/L

response 76777

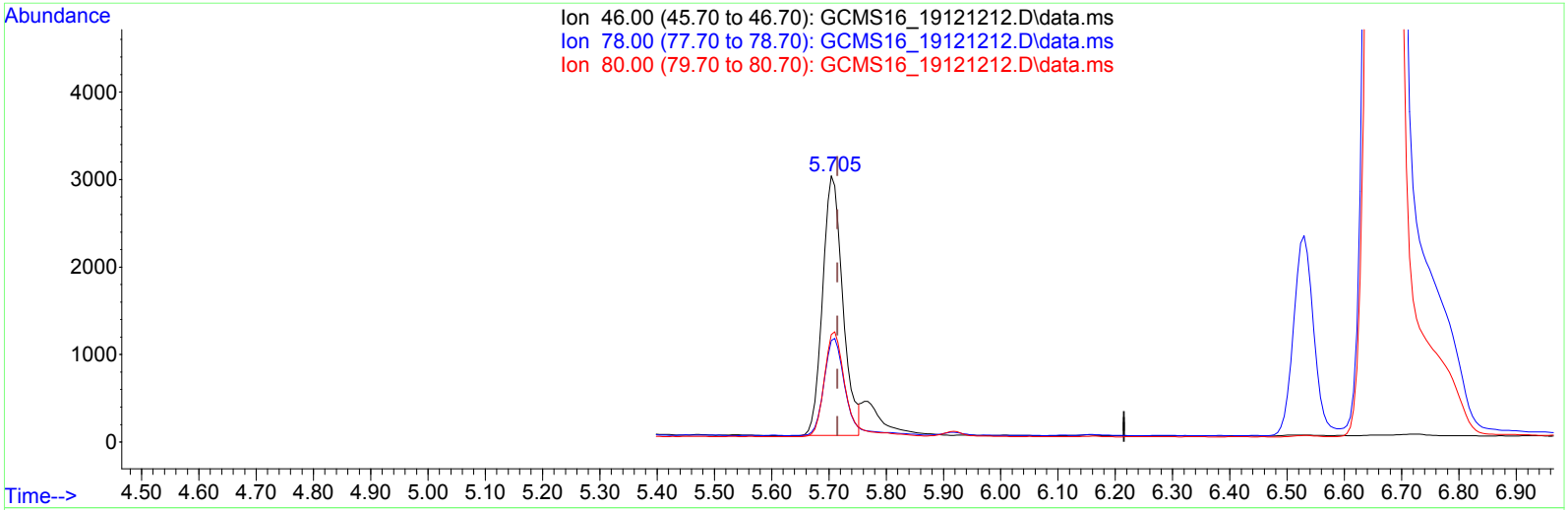
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	34.35
80.00	41.50	36.67
0.00	0.00	0.00

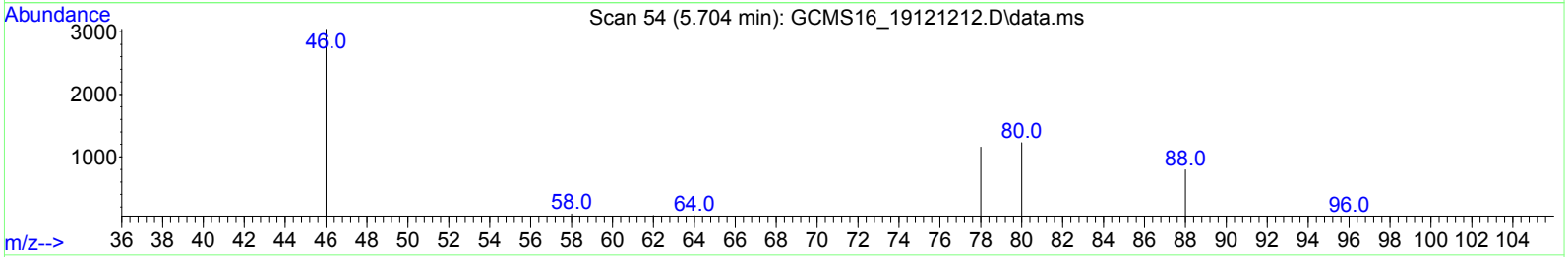
Before
IC
CR 1/2/20

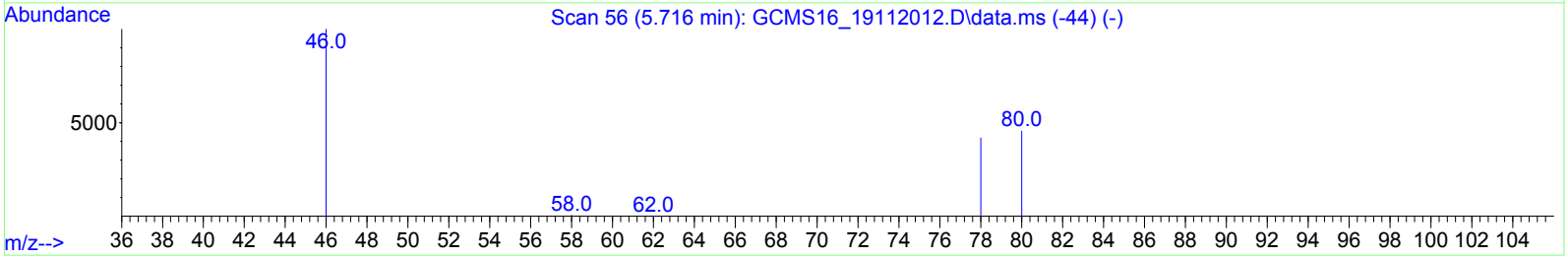
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121212.D
Acq On : 12 Dec 2019 05:22 pm
Operator : CR
Sample : E191201-04
Misc :
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 12 17:44:15 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121212.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.704min (-0.011) 50.00 ug/L m

response 72538

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	36.36
80.00	41.50	38.81
0.00	0.00	0.00

After
CR 1/2/20

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121213.D
Acq On : 12 Dec 2019 05:43 pm
Operator : CR
Sample : E191201-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 13 10:03:22 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	74724m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.822	96	23998	22.16 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.897	88	7806m	6.74 ug/L	

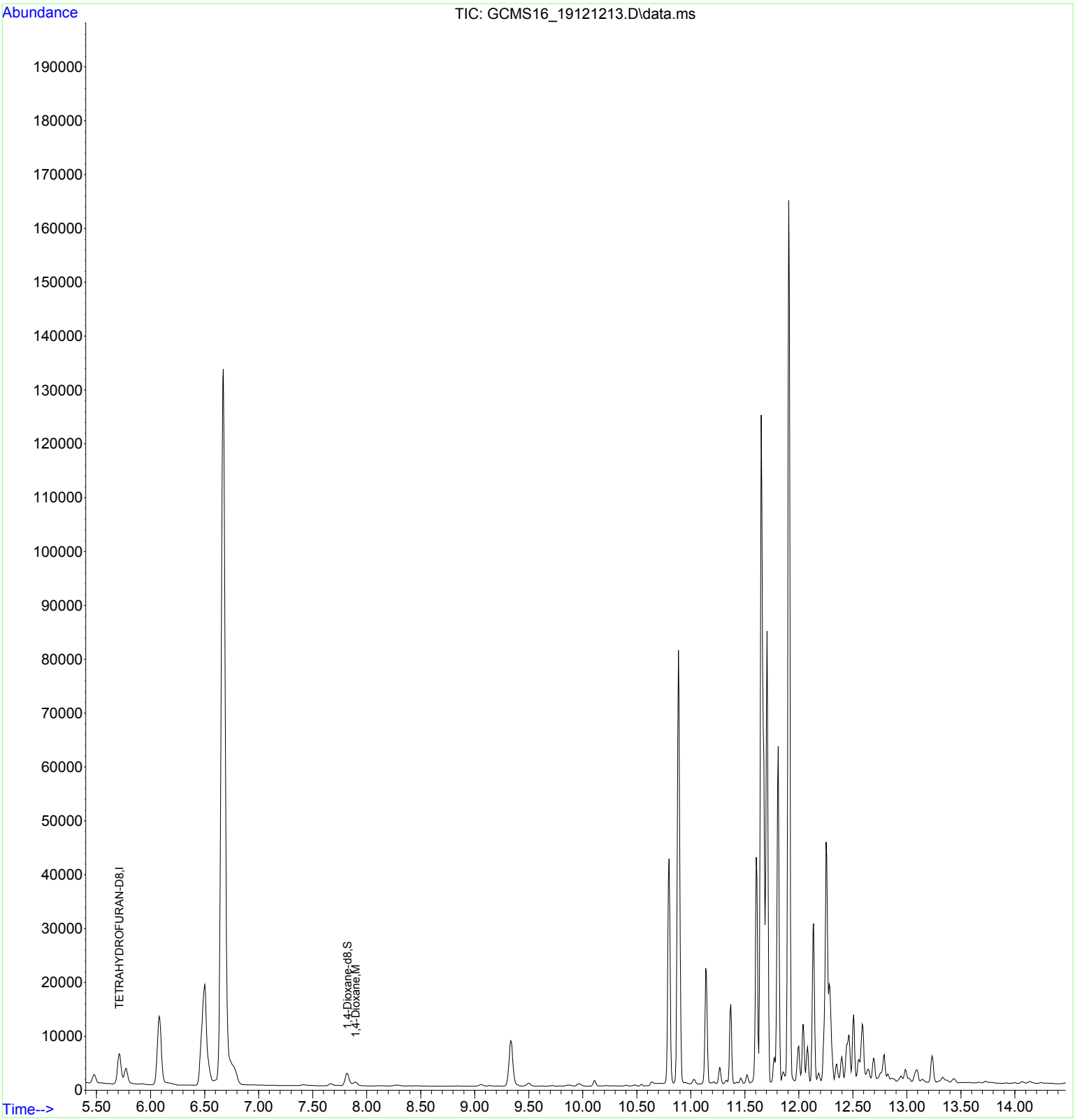
CR 1/2/20

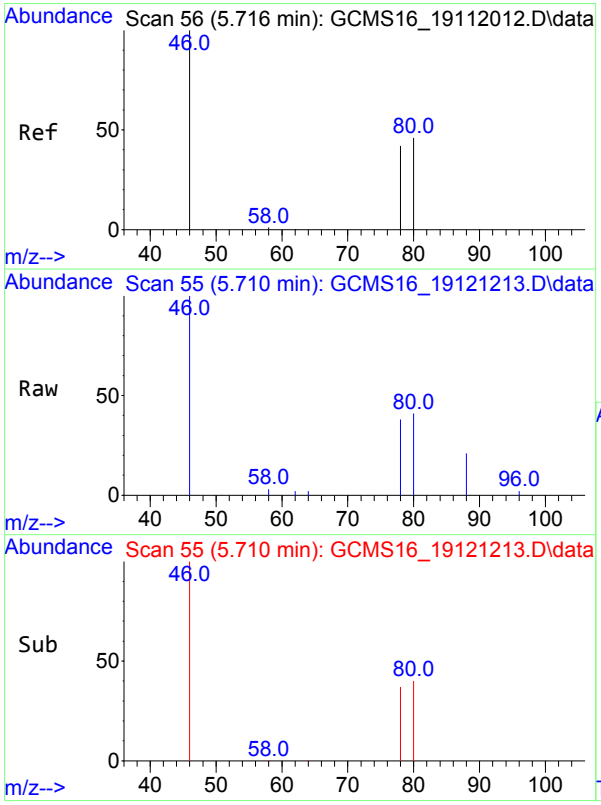
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121213.D
Acq On : 12 Dec 2019 05:43 pm
Operator : CR
Sample : E191201-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 13 10:03:22 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

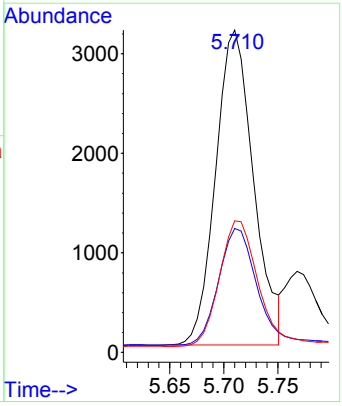


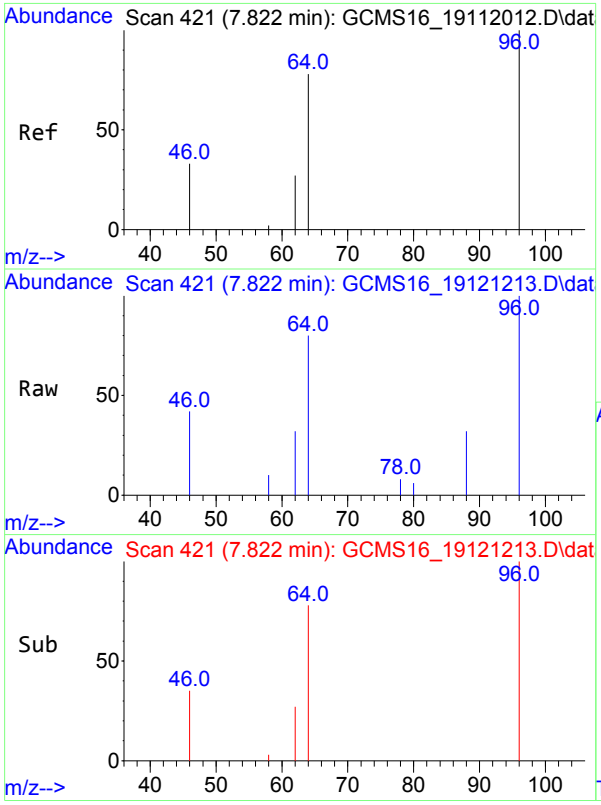


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121213.D
Acq: 12 Dec 2019 05:43 pm

Tgt Ion: 46 Resp: 74724

Ion	Ratio	Lower	Upper
46	100		
78	37.3	27.5	51.1
80	40.8	29.0	53.9

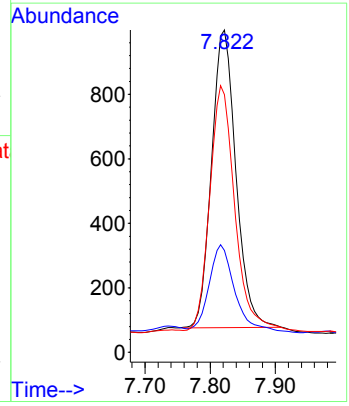


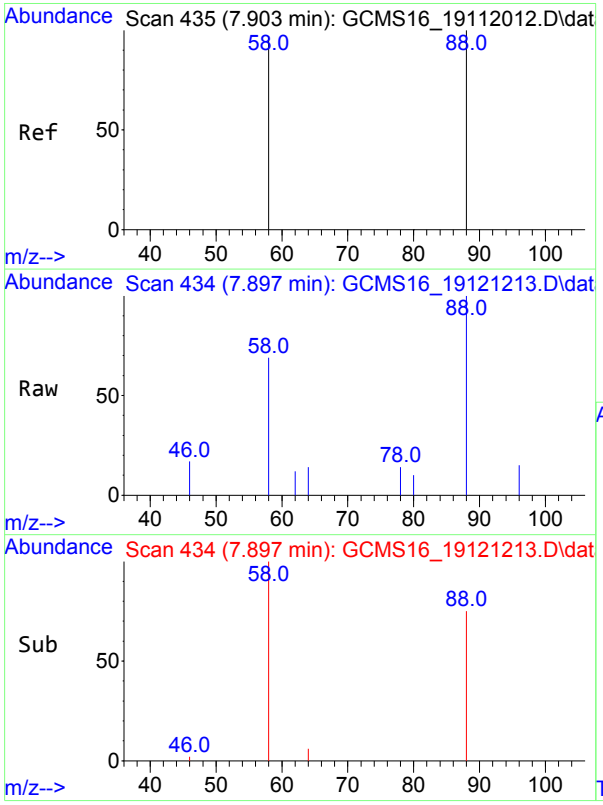


#2
1,4-Dioxane-d8
Concen: 22.16 ug/L
RT: 7.822 min Scan# 421
Delta R.T. -0.000 min
Lab File: GCMS16_19121213.D
Acq: 12 Dec 2019 05:43 pm

Tgt Ion: 96 Resp: 23998

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	83.2	56.8	105.6

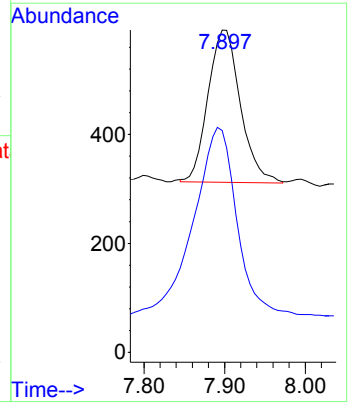




#3
1,4-Dioxane
Concen: 6.74 ug/L m
RT: 7.897 min Scan# 434
Delta R.T. -0.003 min
Lab File: GCMS16_19121213.D
Acq: 12 Dec 2019 05:43 pm

Tgt Ion: 88 Resp: 7806

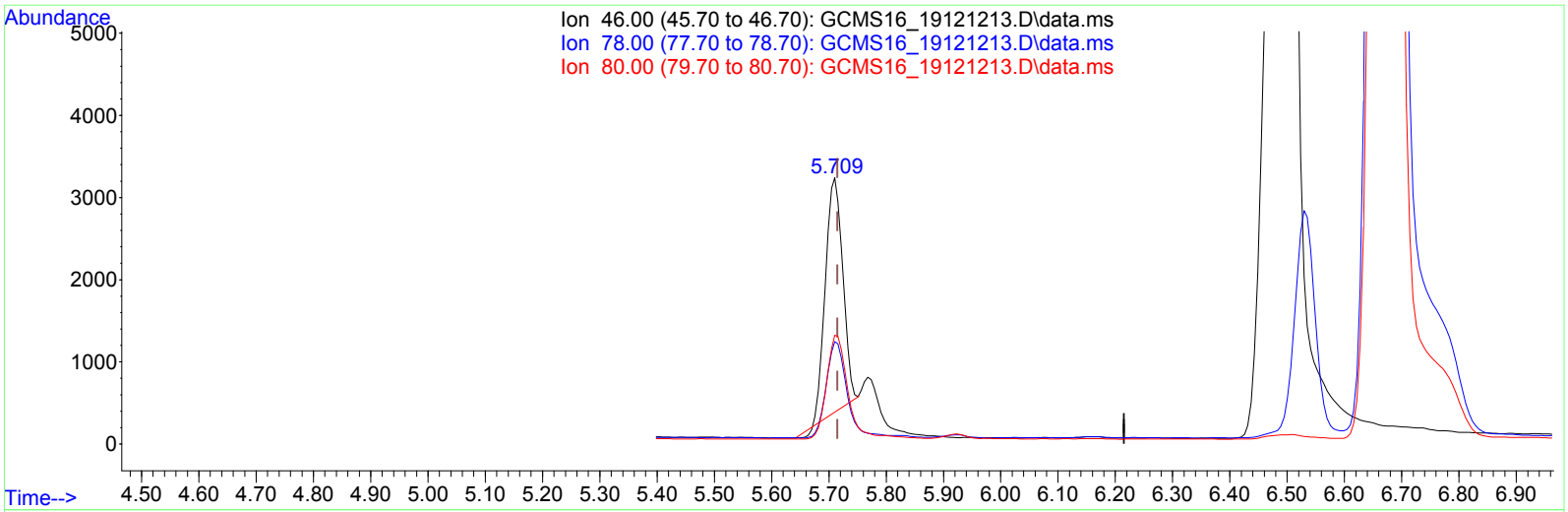
Ion	Ratio	Lower	Upper
88	100		
58	0.0	72.5	134.7#

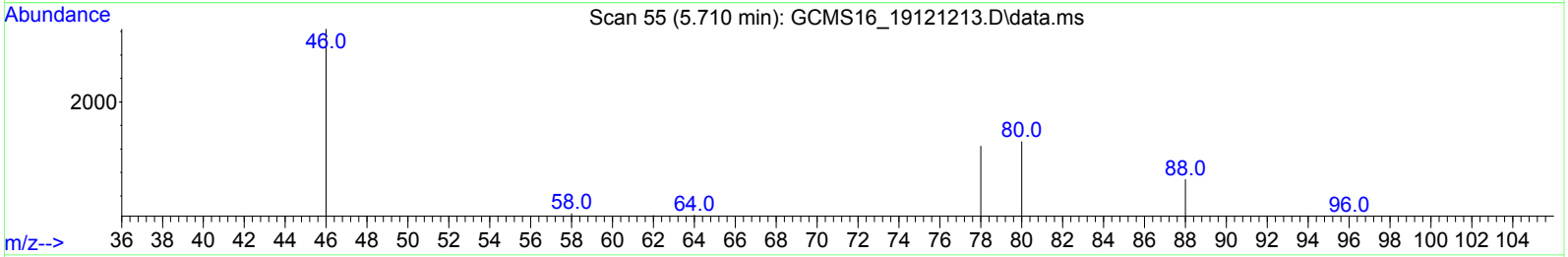


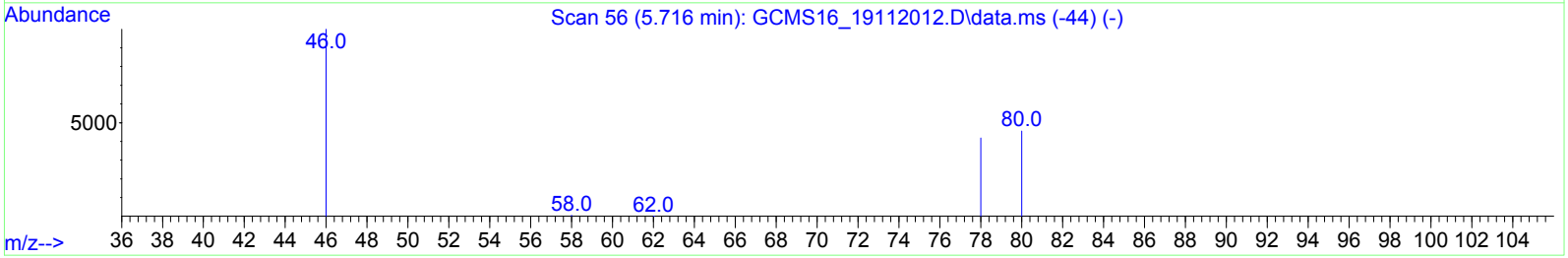
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121213.D
Acq On : 12 Dec 2019 05:43 pm
Operator : CR
Sample : E191201-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 13 10:03:22 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121213.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.711min (-0.004) 50.00 ug/L

response 59267

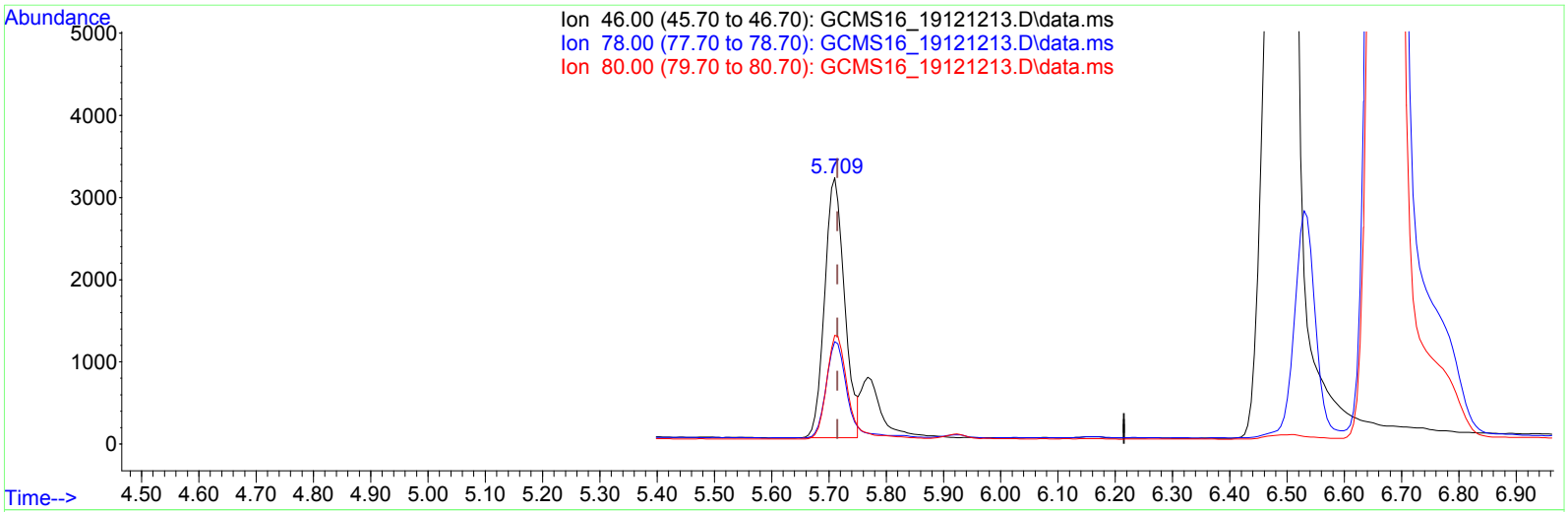
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	47.00
80.00	41.50	51.46
0.00	0.00	0.00

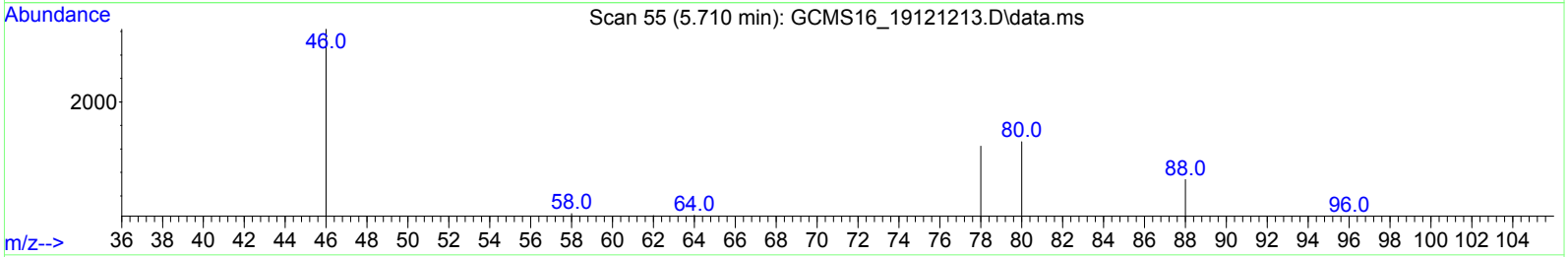
Before
IC
CR 1/2/20

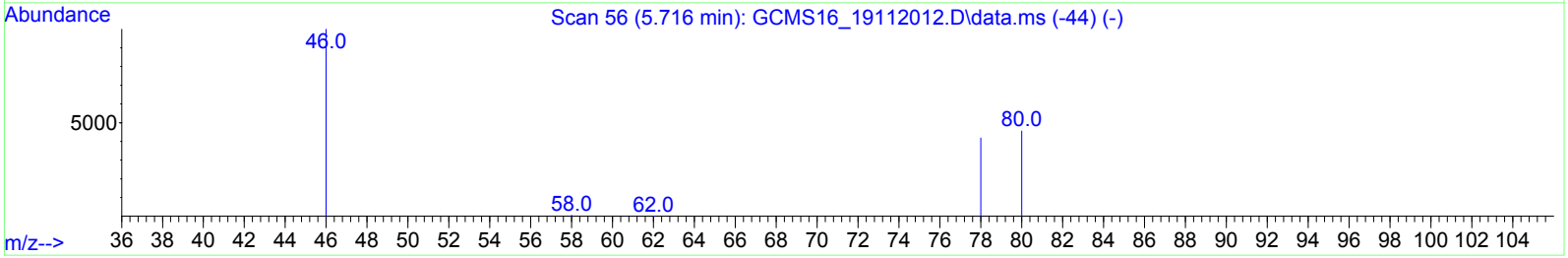
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121213.D
Acq On : 12 Dec 2019 05:43 pm
Operator : CR
Sample : E191201-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 13 10:03:22 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121213.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 74724

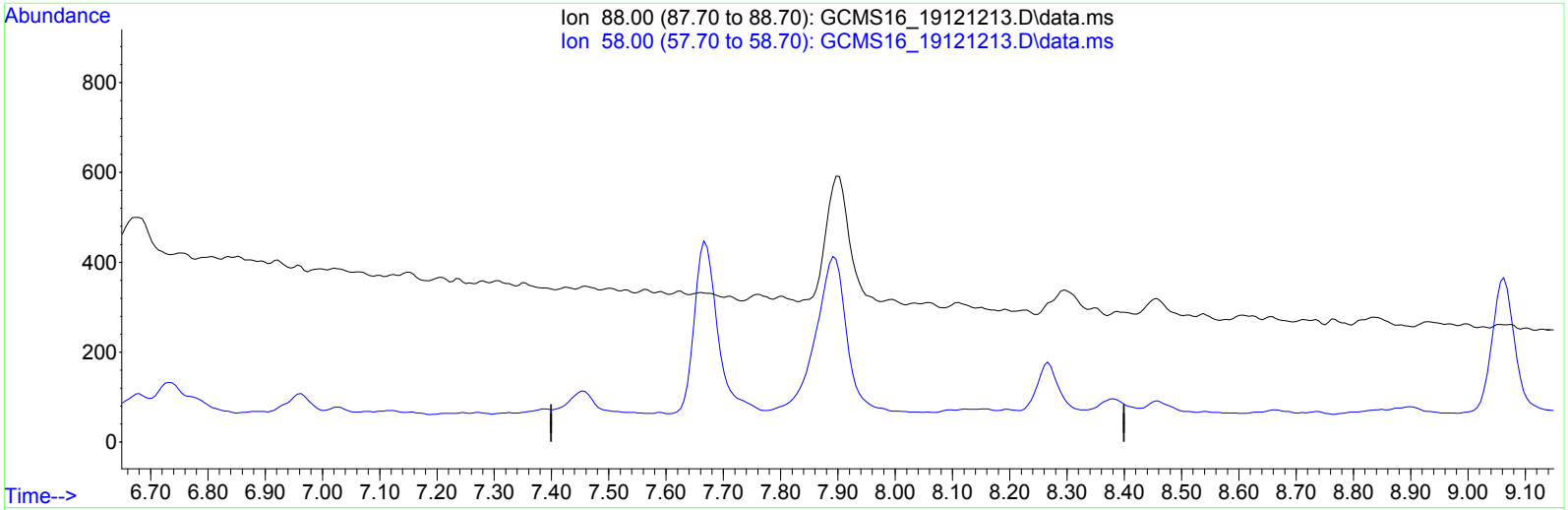
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	37.28
80.00	41.50	40.81
0.00	0.00	0.00

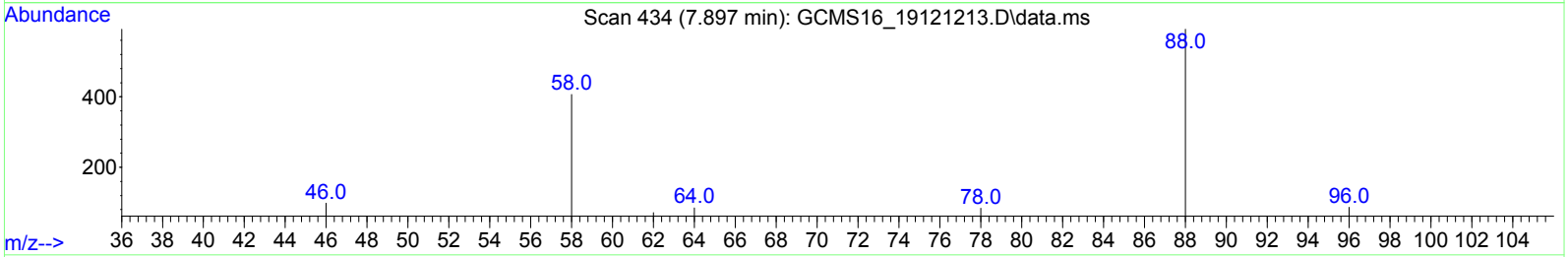
After
CR 1/2/20

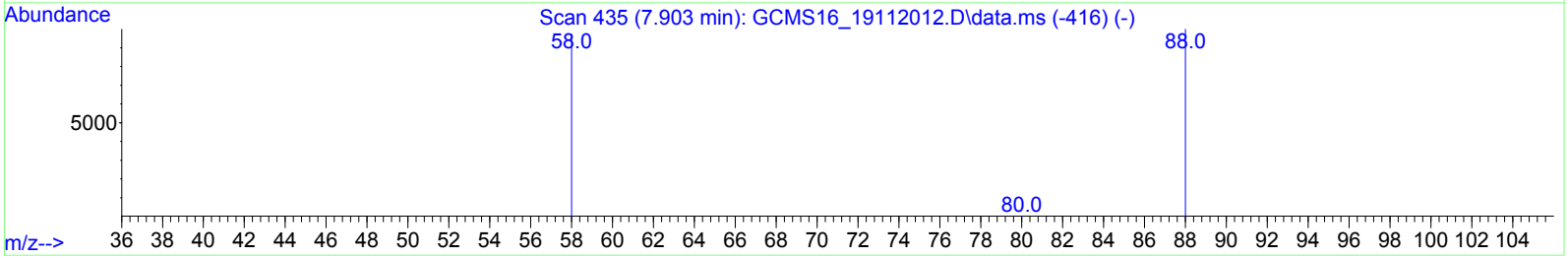
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121213.D
Acq On : 12 Dec 2019 05:43 pm
Operator : CR
Sample : E191201-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 13 10:03:22 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121213.D\data.ms

(3) 1,4-Dioxane (M)

7.899min (-7.899) 0.00 ug/L

response 0

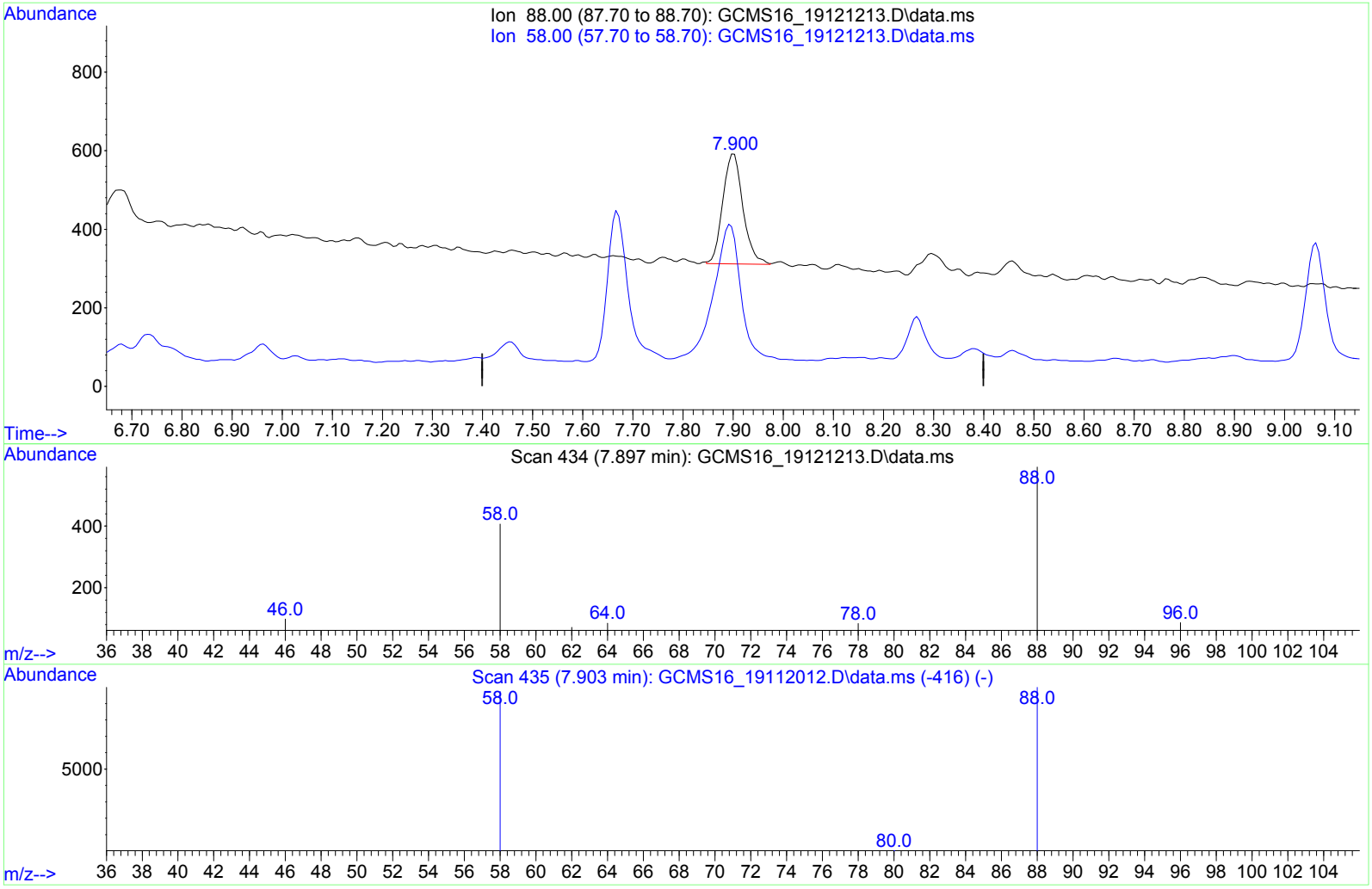
Ion	Exp%	Act%
88.00	100.00	0.00
58.00	103.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Before
N
CR 1/2/20

Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121213.D
Acq On : 12 Dec 2019 05:43 pm
Operator : CR
Sample : E191201-05
Misc :
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 13 10:03:22 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



TIC: GCMS16_19121213.D\data.ms

(3) 1,4-Dioxane (M)

7.897min (-0.003) 6.74 ug/L m

response 7806

After
CR 1/2/20

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	103.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121214.D
Acq On : 12 Dec 2019 06:04 pm
Operator : CR
Sample : E191201-06
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 13 10:13:40 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	87177m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.819	96	25714	20.35 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.894	88	582869	431.30 ug/L	100

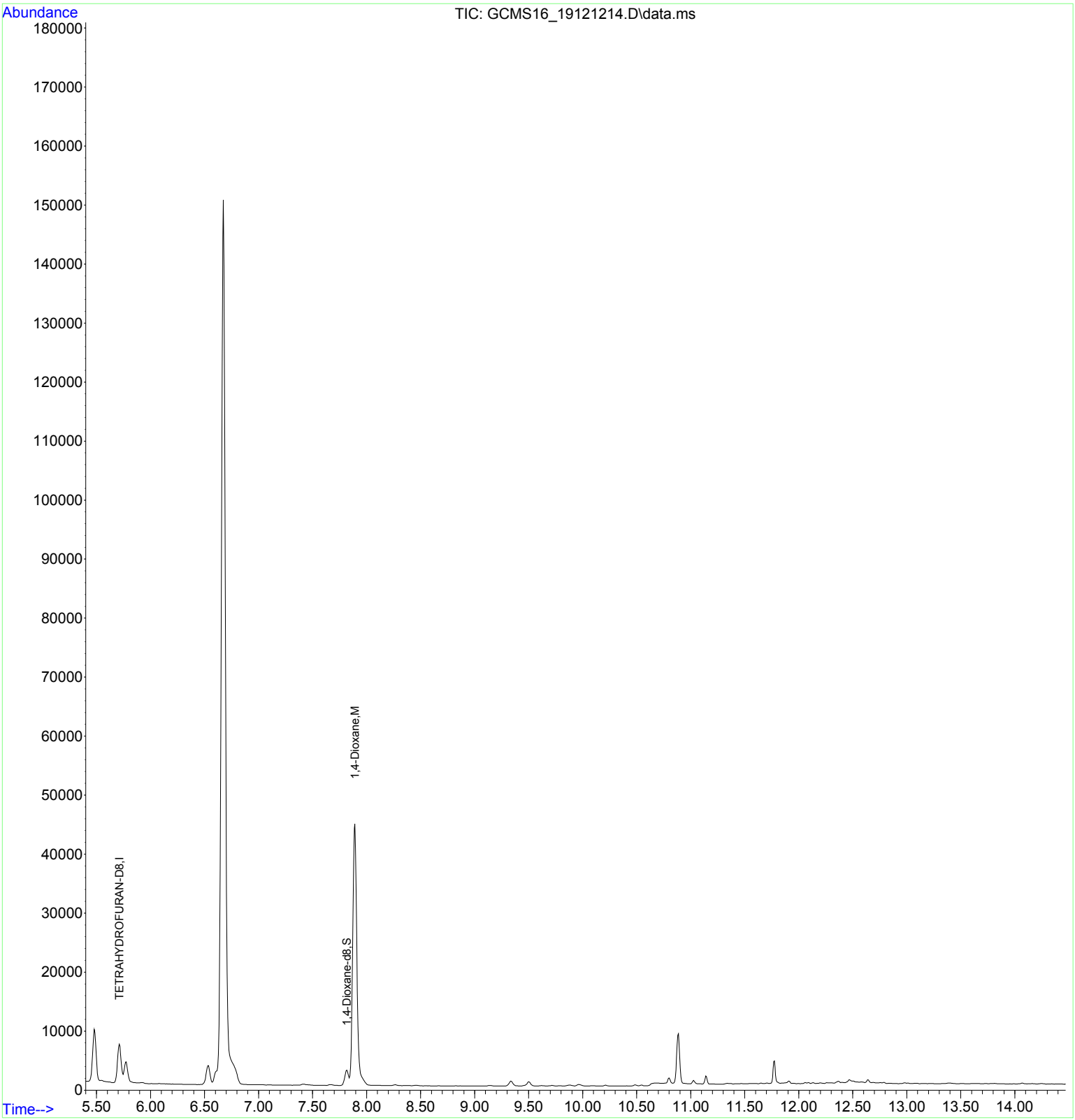
CR 1/2/20

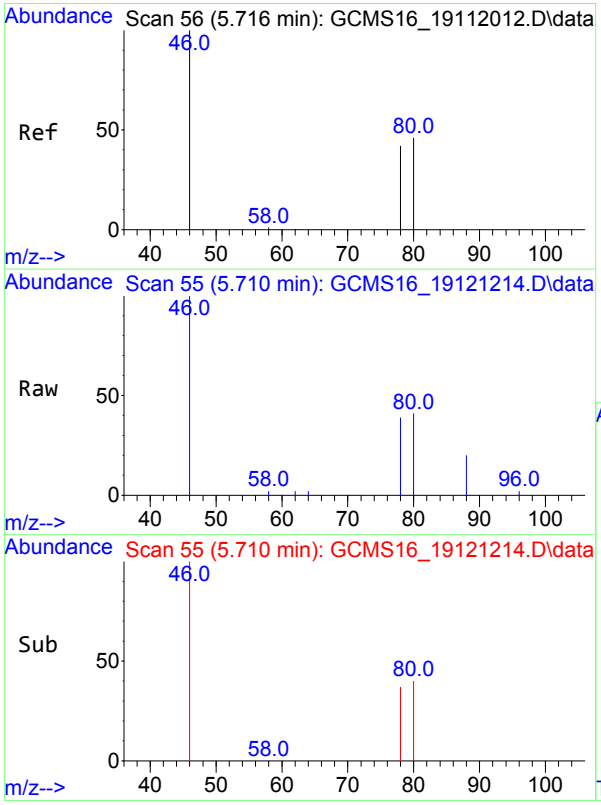
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121214.D
Acq On : 12 Dec 2019 06:04 pm
Operator : CR
Sample : E191201-06
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 13 10:13:40 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

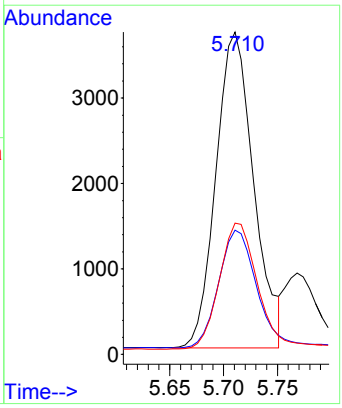


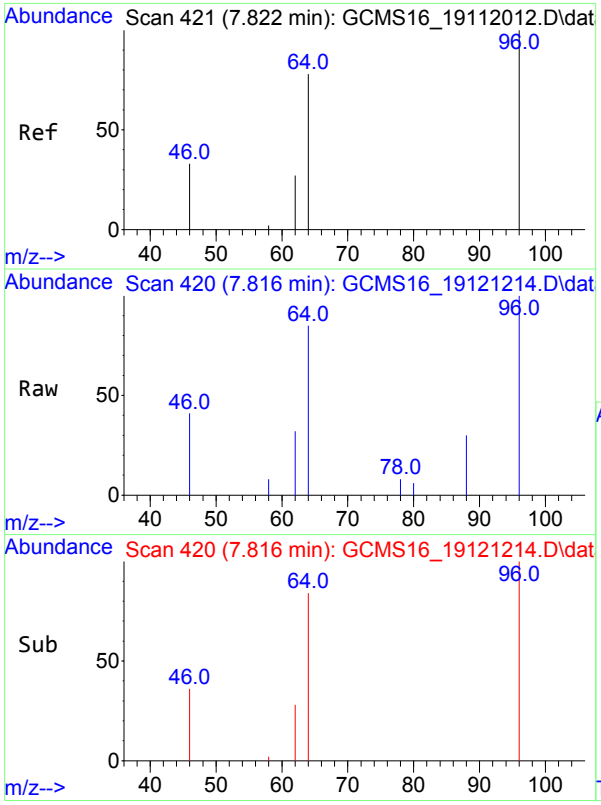


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121214.D
Acq: 12 Dec 2019 06:04 pm

Tgt Ion: 46 Resp: 87177

Ion	Ratio	Lower	Upper
46	100		
78	37.8	27.5	51.1
80	39.8	29.0	53.9

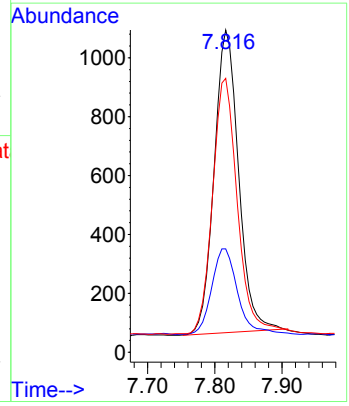


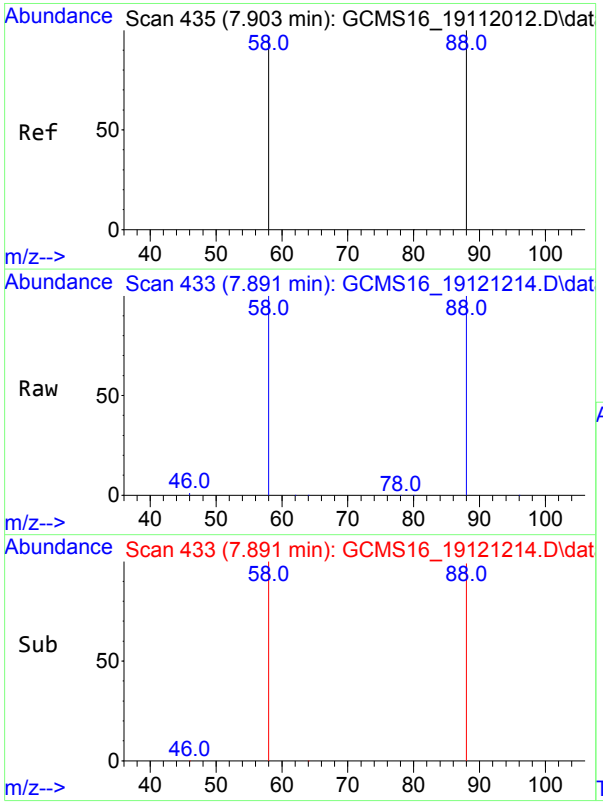


#2
1,4-Dioxane-d8
Concen: 20.35 ug/L
RT: 7.819 min Scan# 420
Delta R.T. -0.004 min
Lab File: GCMS16_19121214.D
Acq: 12 Dec 2019 06:04 pm

Tgt Ion: 96 Resp: 25714

Ion	Ratio	Lower	Upper
96	100		
62	28.7	0.0	0.0#
64	83.8	56.8	105.6

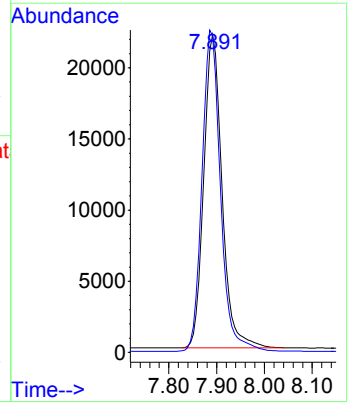




#3
1,4-Dioxane
Concen: 431.30 ug/L
RT: 7.894 min Scan# 433
Delta R.T. -0.006 min
Lab File: GCMS16_19121214.D
Acq: 12 Dec 2019 06:04 pm

Tgt Ion: 88 Resp: 582869

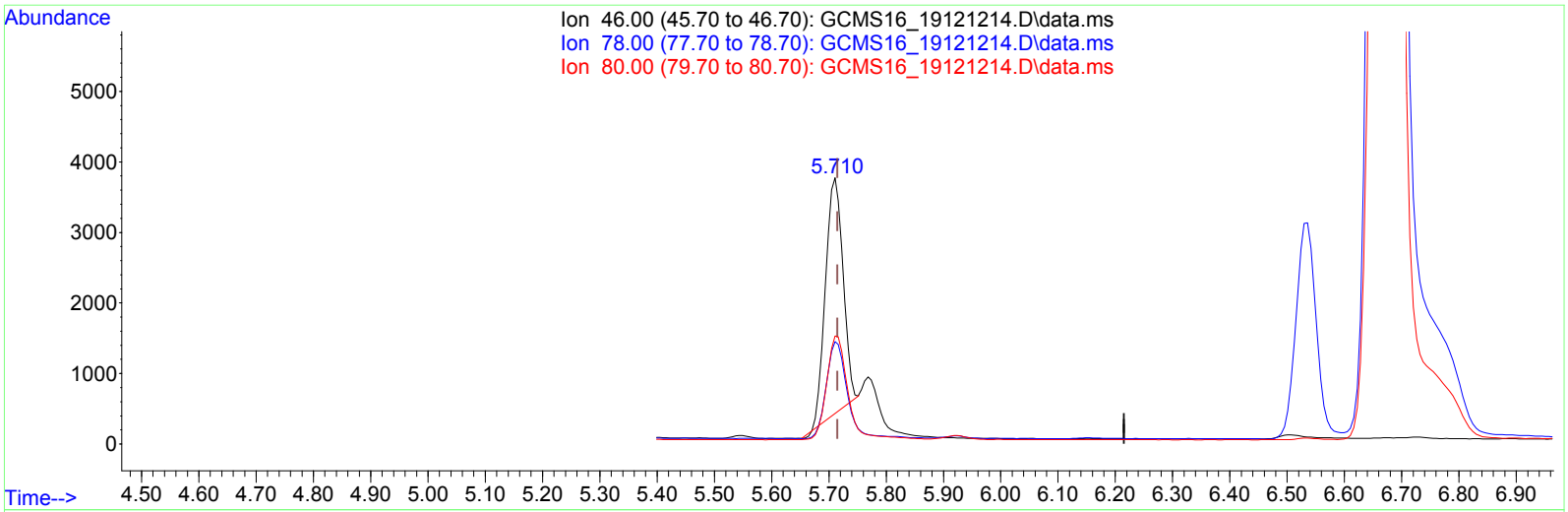
Ion	Ratio	Lower	Upper
88	100		
58	103.3	72.5	134.7

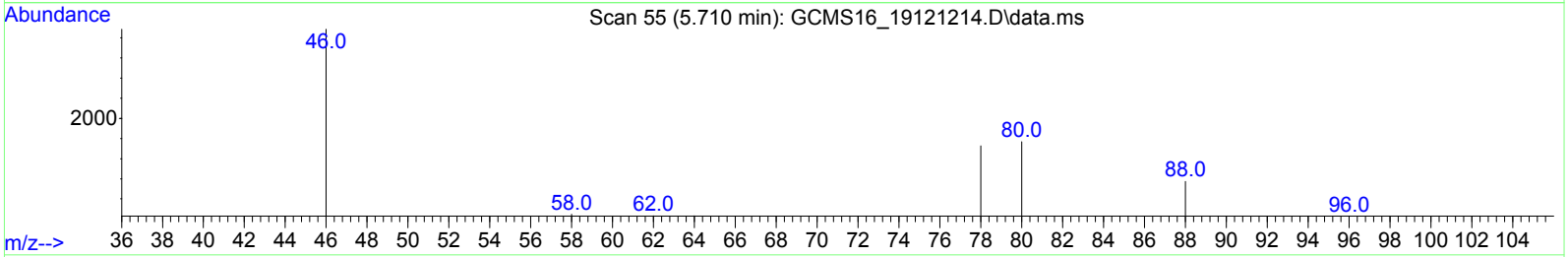


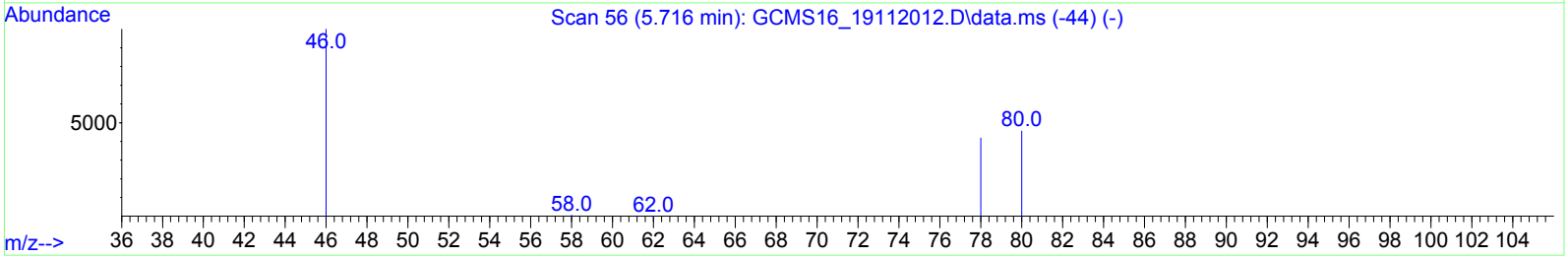
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121214.D
Acq On : 12 Dec 2019 06:04 pm
Operator : CR
Sample : E191201-06
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 13 10:13:40 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121214.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.712min (-0.003) 50.00 ug/L

response 70075

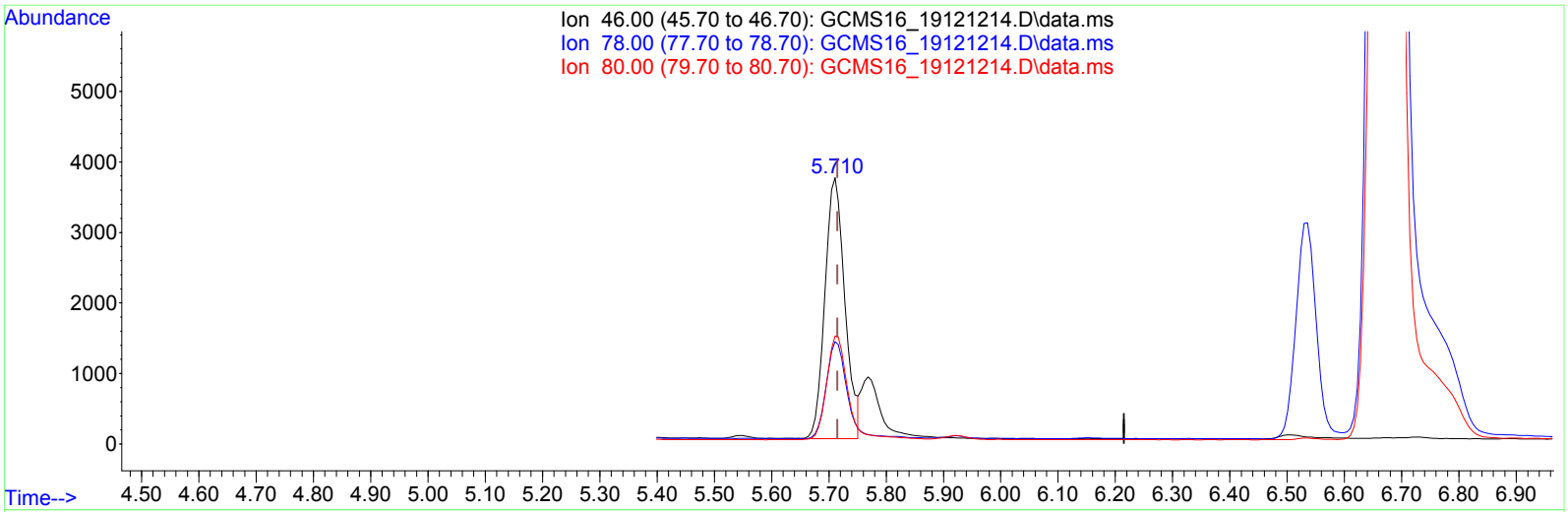
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	46.99
80.00	41.50	49.48
0.00	0.00	0.00

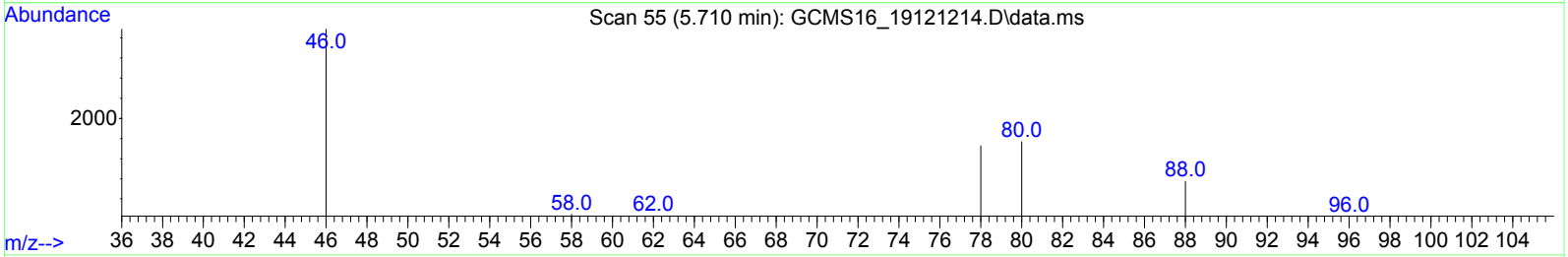
Before
IC
CR 1/2/20

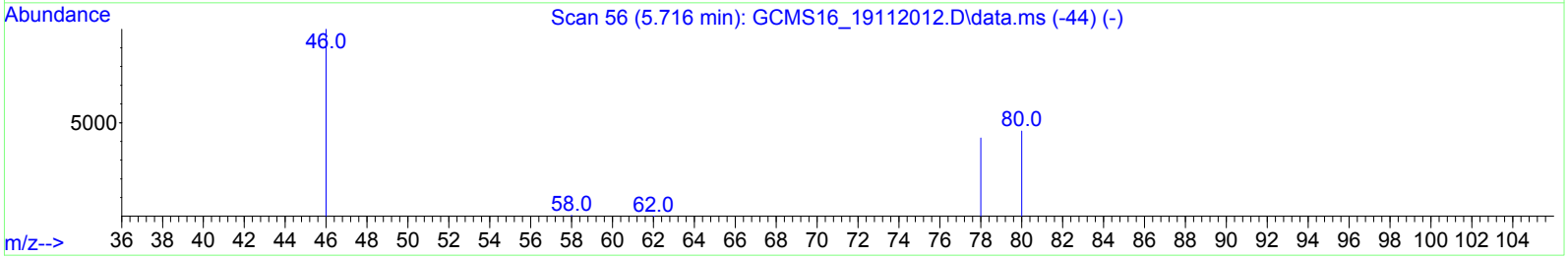
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121214.D
Acq On : 12 Dec 2019 06:04 pm
Operator : CR
Sample : E191201-06
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 13 10:13:40 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121214.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 87177

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	37.77
80.00	41.50	39.78
0.00	0.00	0.00

After
CR 1/2/20

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121217.D
Acq On : 12 Dec 2019 07:07 pm
Operator : CR
Sample : E191201-07
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 13 10:22:16 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	79195m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.820	96	27024	23.54 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.898	88	48172	39.24 ug/L	99

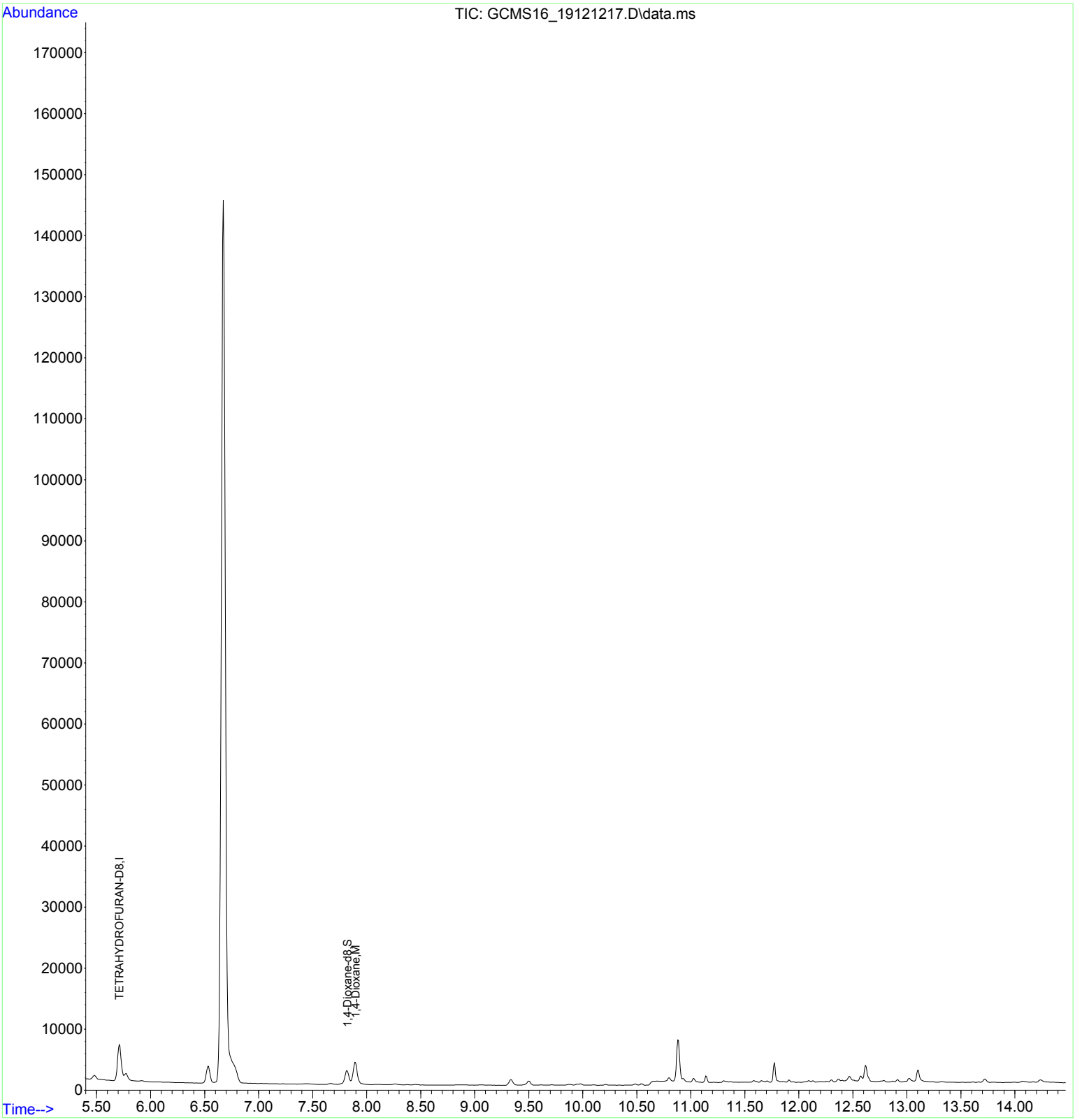
CR 1/2/20

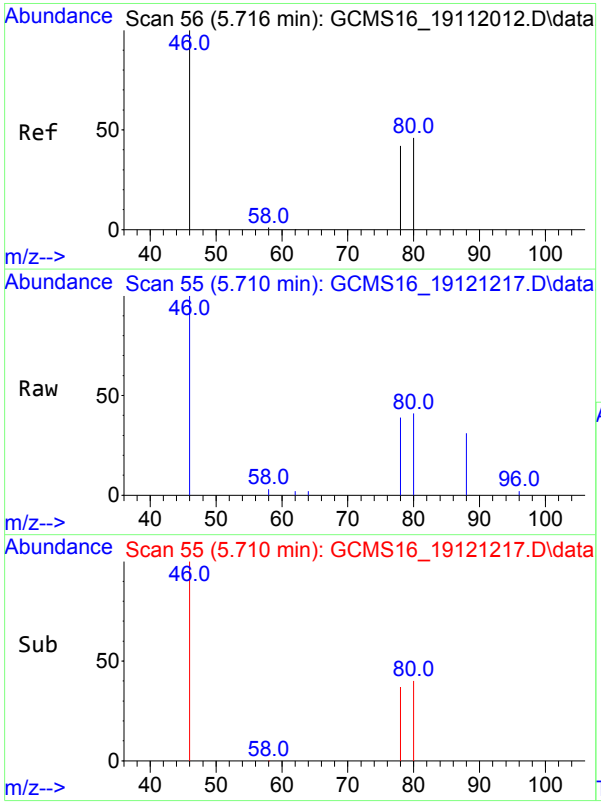
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121217.D
Acq On : 12 Dec 2019 07:07 pm
Operator : CR
Sample : E191201-07
Misc : E191201-06
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 13 10:22:16 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

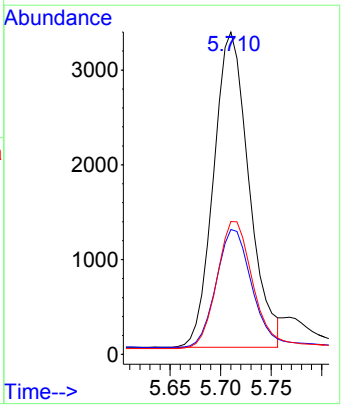


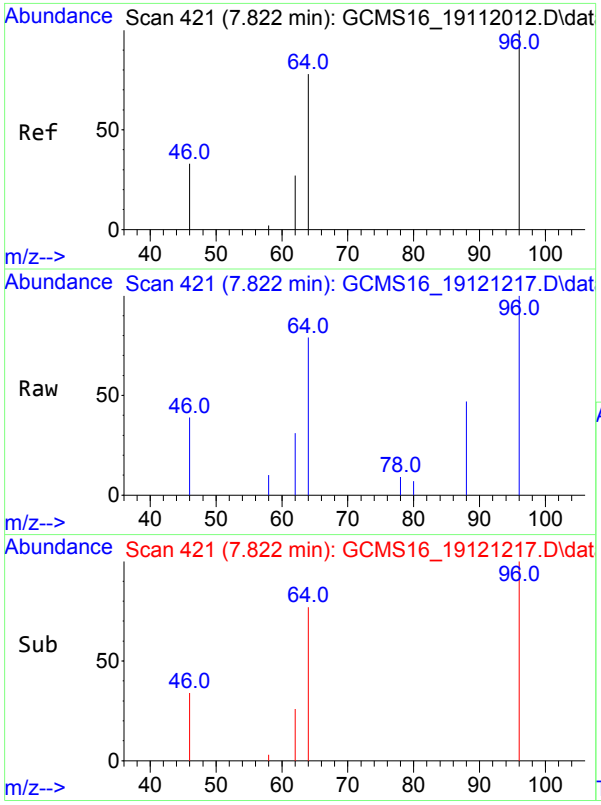


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121217.D
Acq: 12 Dec 2019 07:07 pm

Tgt Ion: 46 Resp: 79195

Ion	Ratio	Lower	Upper
46	100		
78	37.4	27.5	51.1
80	40.6	29.0	53.9

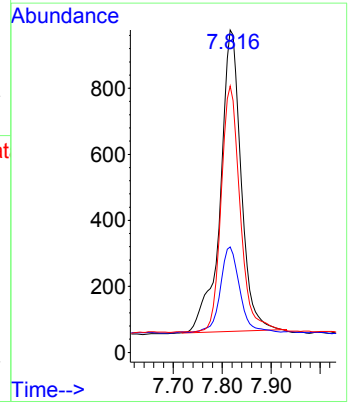


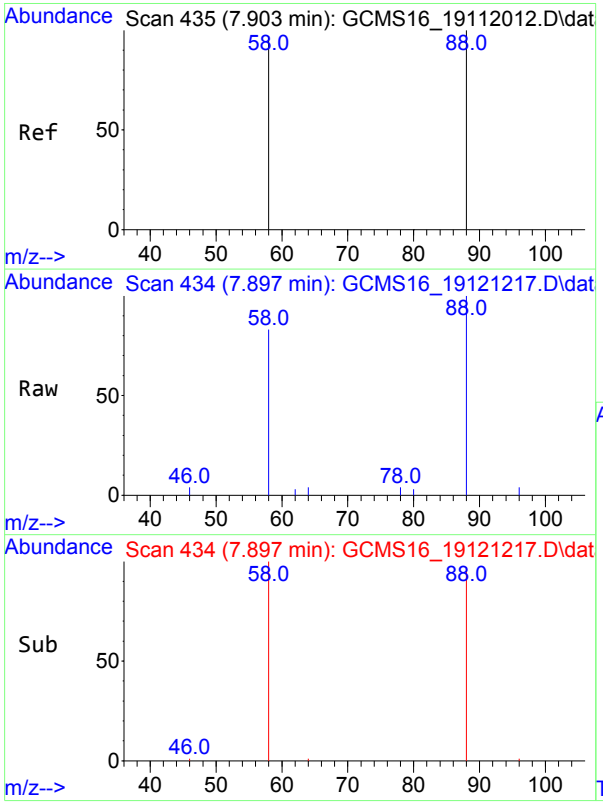


#2
1,4-Dioxane-d8
Concen: 23.54 ug/L
RT: 7.820 min Scan# 421
Delta R.T. -0.002 min
Lab File: GCMS16_19121217.D
Acq: 12 Dec 2019 07:07 pm

Tgt Ion: 96 Resp: 27024

Ion	Ratio	Lower	Upper
96	100		
62	25.0	0.0	0.0#
64	71.5	56.8	105.6

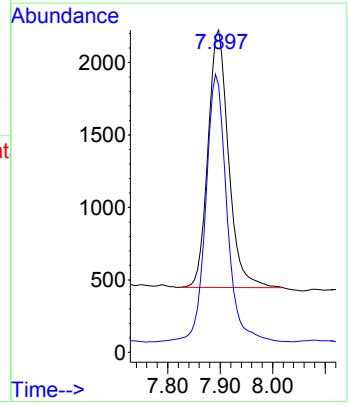




#3
1,4-Dioxane
Concen: 39.24 ug/L
RT: 7.898 min Scan# 434
Delta R.T. -0.002 min
Lab File: GCMS16_19121217.D
Acq: 12 Dec 2019 07:07 pm

Tgt Ion: 88 Resp: 48172

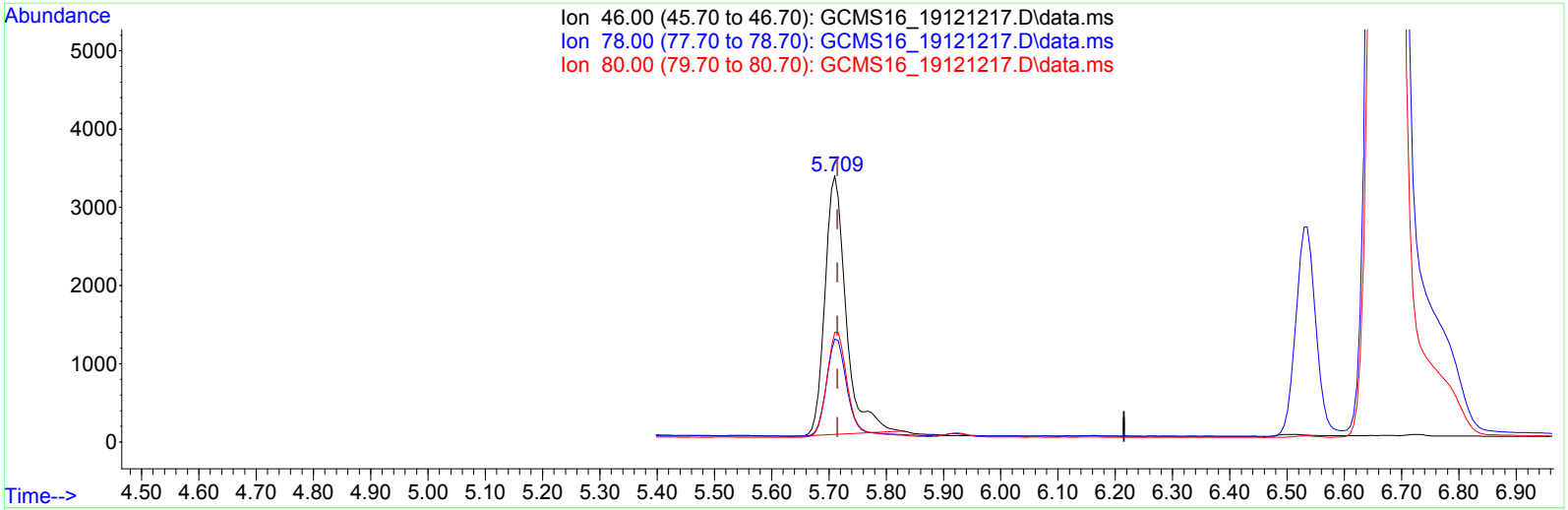
Ion	Ratio	Lower	Upper
88	100		
58	105.1	72.5	134.7

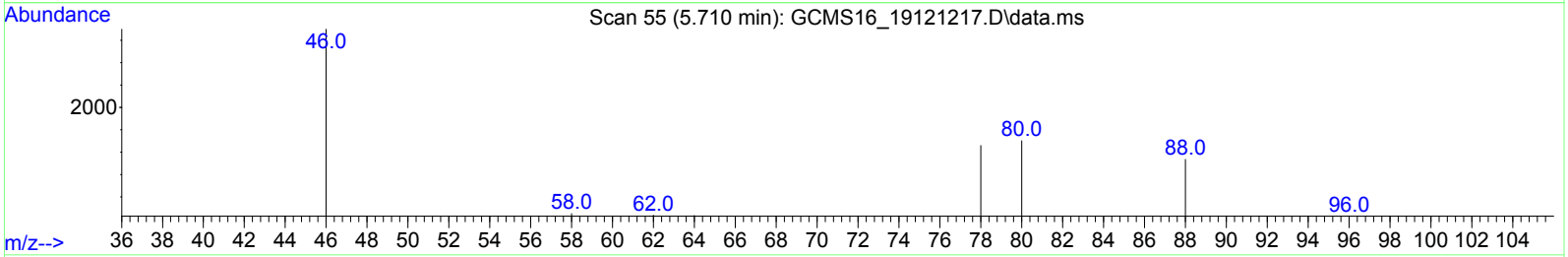


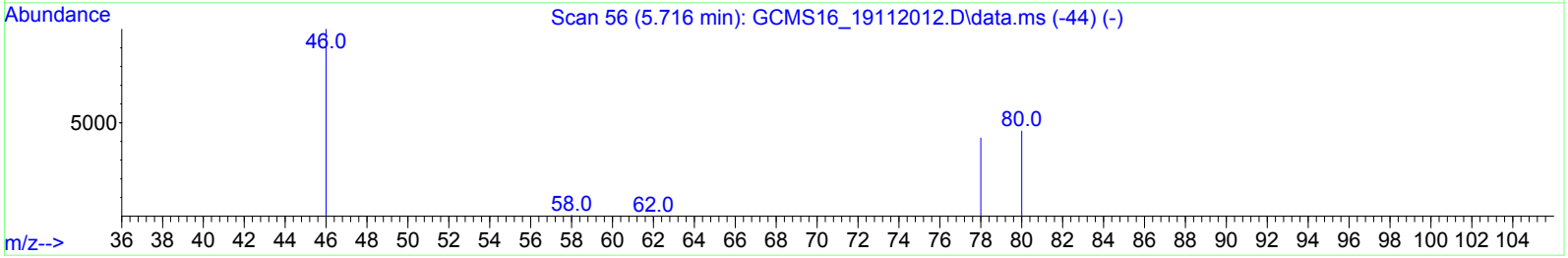
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121217.D
Acq On : 12 Dec 2019 07:07 pm
Operator : CR
Sample : E191201-07
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 13 10:22:16 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121217.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.712min (-0.003) 50.00 ug/L

response 84717

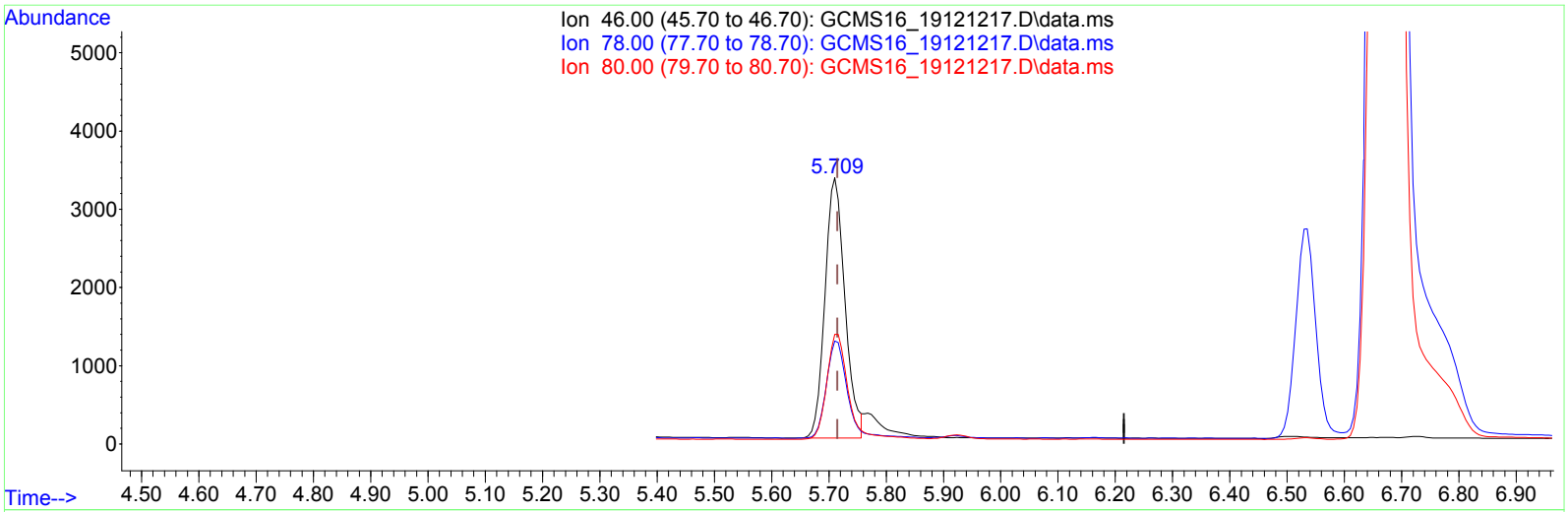
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	34.92
80.00	41.50	37.93
0.00	0.00	0.00

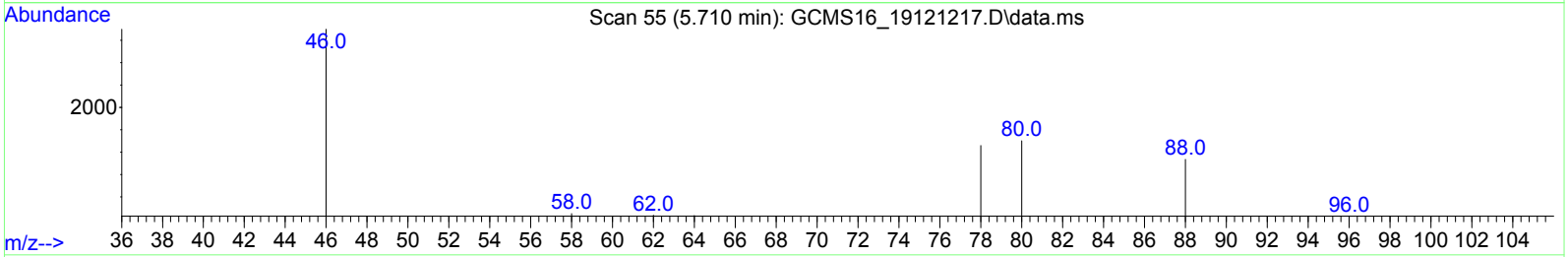
Before
IC
CR 1/2/20

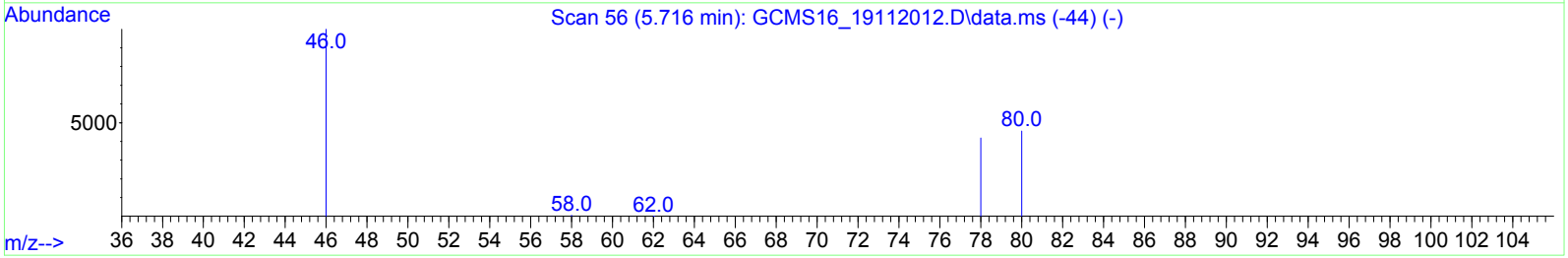
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121217.D
Acq On : 12 Dec 2019 07:07 pm
Operator : CR
Sample : E191201-07
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 13 10:22:16 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121217.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 79195

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	37.35
80.00	41.50	40.57
0.00	0.00	0.00

After
CR 1/2/20

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121219.D
Acq On : 12 Dec 2019 07:49 pm
Operator : CR
Sample : E191201-08
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 13 10:26:27 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	75417m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.819	96	25851	23.65 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.895	88	318427	272.36 ug/L	100

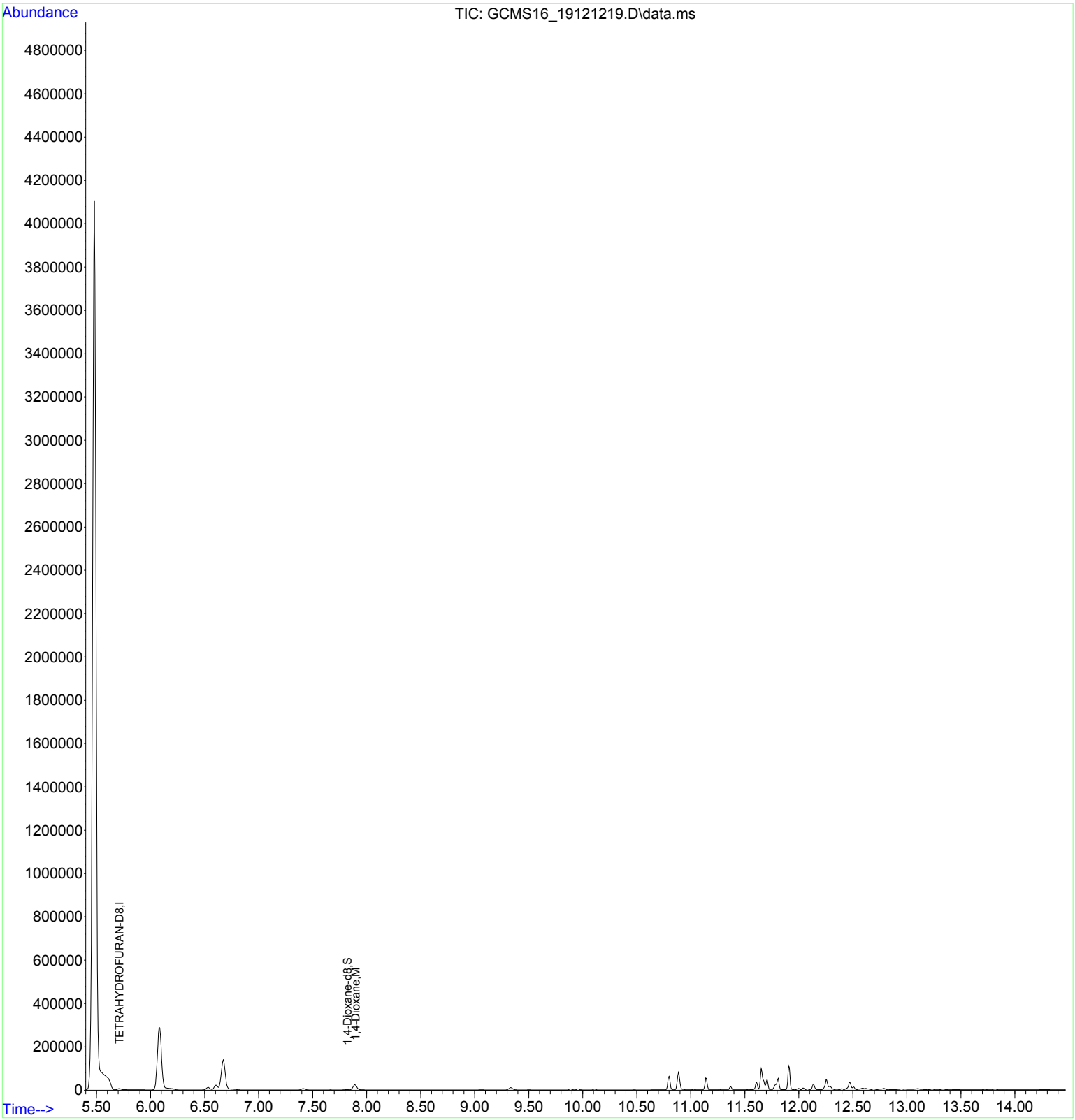
CR 1/2/20

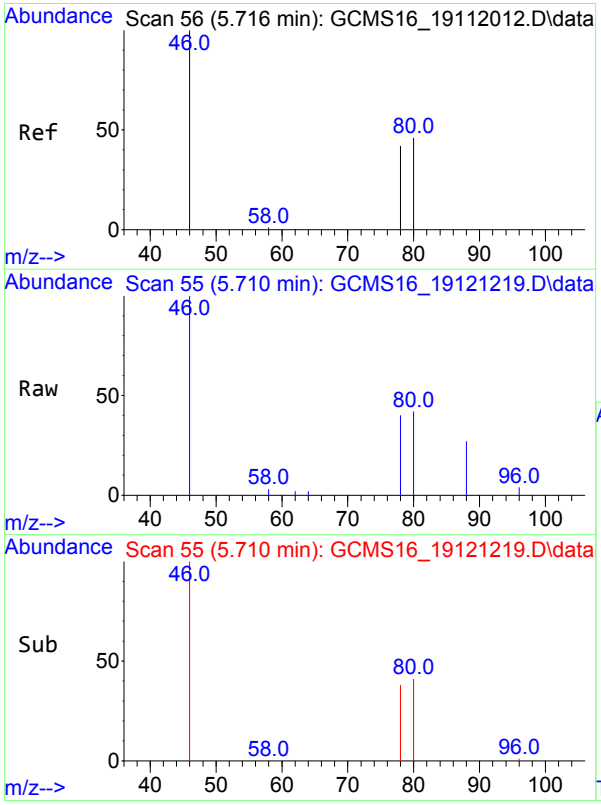
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121219.D
Acq On : 12 Dec 2019 07:49 pm
Operator : CR
Sample : E191201-08
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 13 10:26:27 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

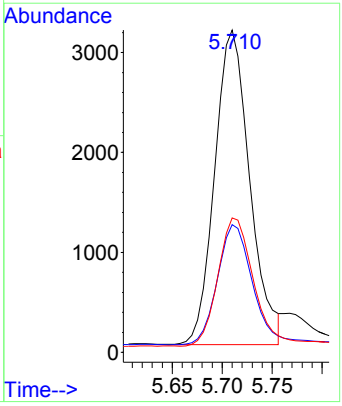


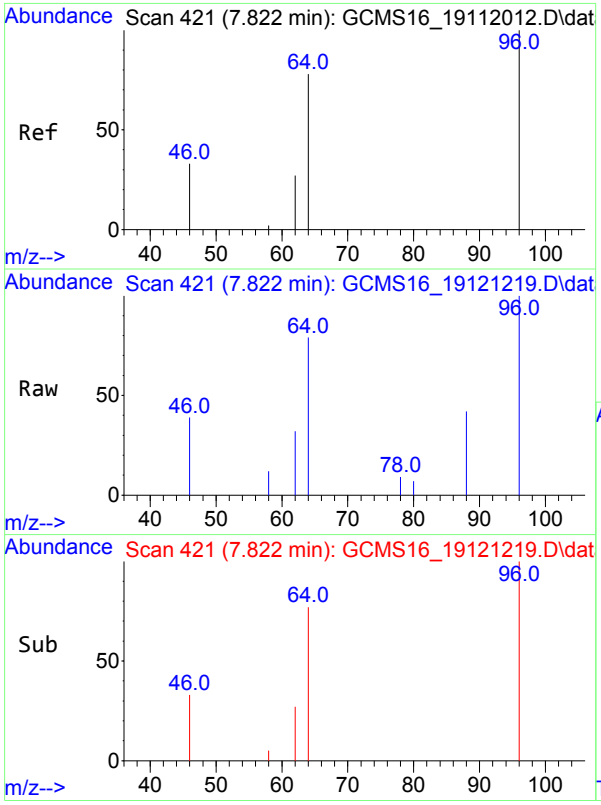


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121219.D
Acq: 12 Dec 2019 07:49 pm

Tgt Ion: 46 Resp: 75417

Ion	Ratio	Lower	Upper
46	100		
78	37.7	27.5	51.1
80	40.5	29.0	53.9

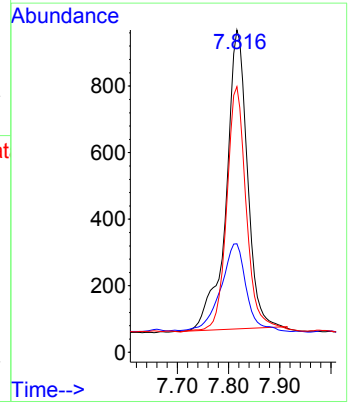


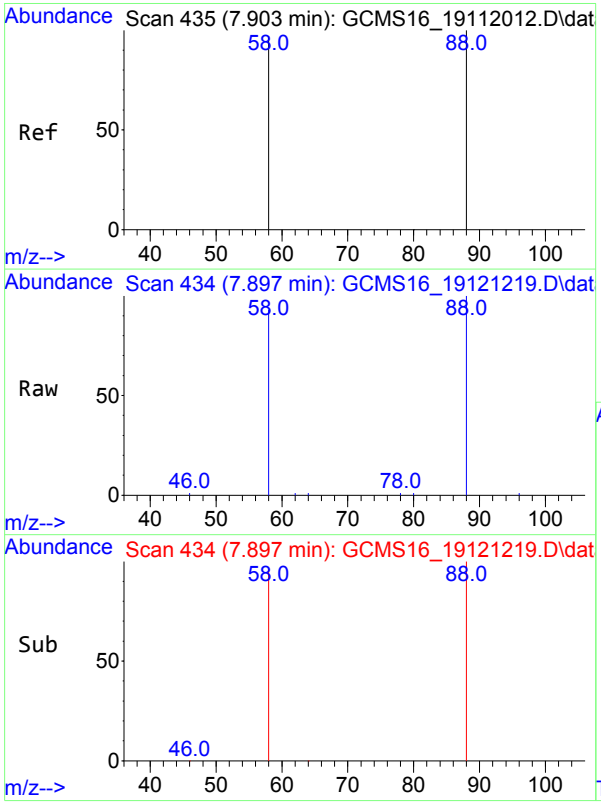


#2
1,4-Dioxane-d8
Concen: 23.65 ug/L
RT: 7.819 min Scan# 421
Delta R.T. -0.003 min
Lab File: GCMS16_19121219.D
Acq: 12 Dec 2019 07:49 pm

Tgt Ion: 96 Resp: 25851

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	72.1	56.8	105.6

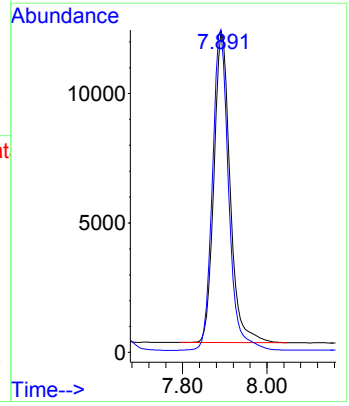




#3
1,4-Dioxane
Concen: 272.36 ug/L
RT: 7.895 min Scan# 434
Delta R.T. -0.005 min
Lab File: GCMS16_19121219.D
Acq: 12 Dec 2019 07:49 pm

Tgt Ion: 88 Resp: 318427

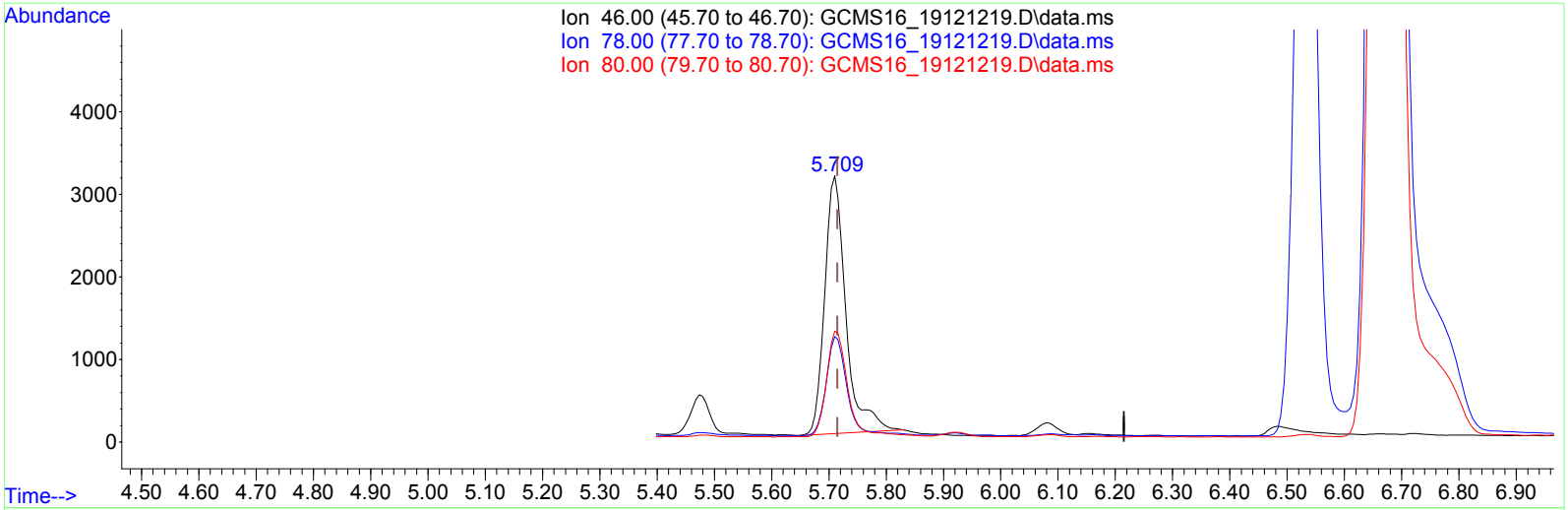
Ion	Ratio	Lower	Upper
88	100		
58	103.8	72.5	134.7

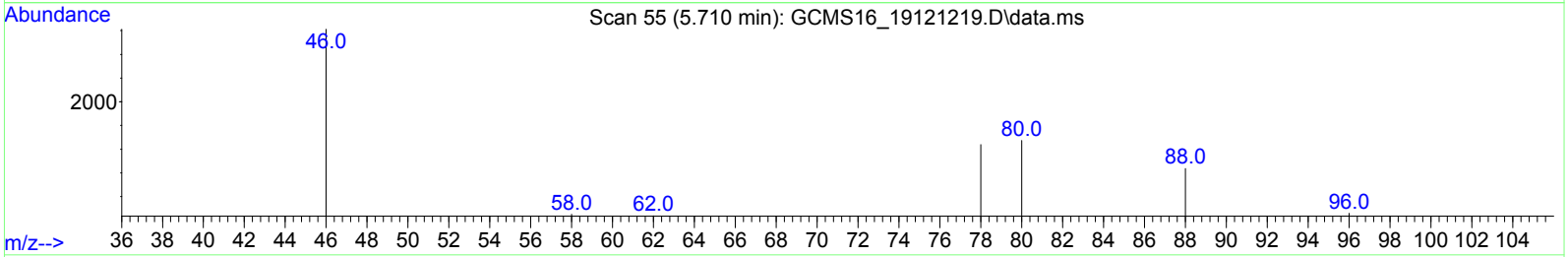


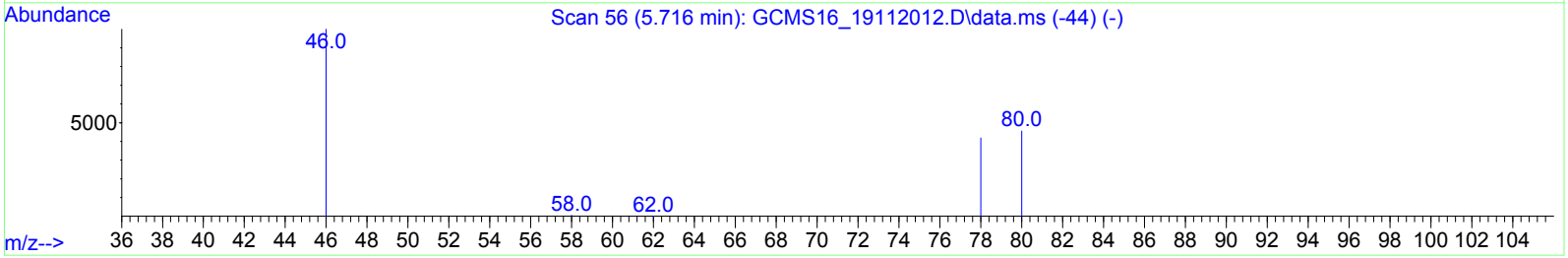
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121219.D
Acq On : 12 Dec 2019 07:49 pm
Operator : CR
Sample : E191201-08
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 13 10:26:27 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121219.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.712min (-0.003) 50.00 ug/L

response 80341

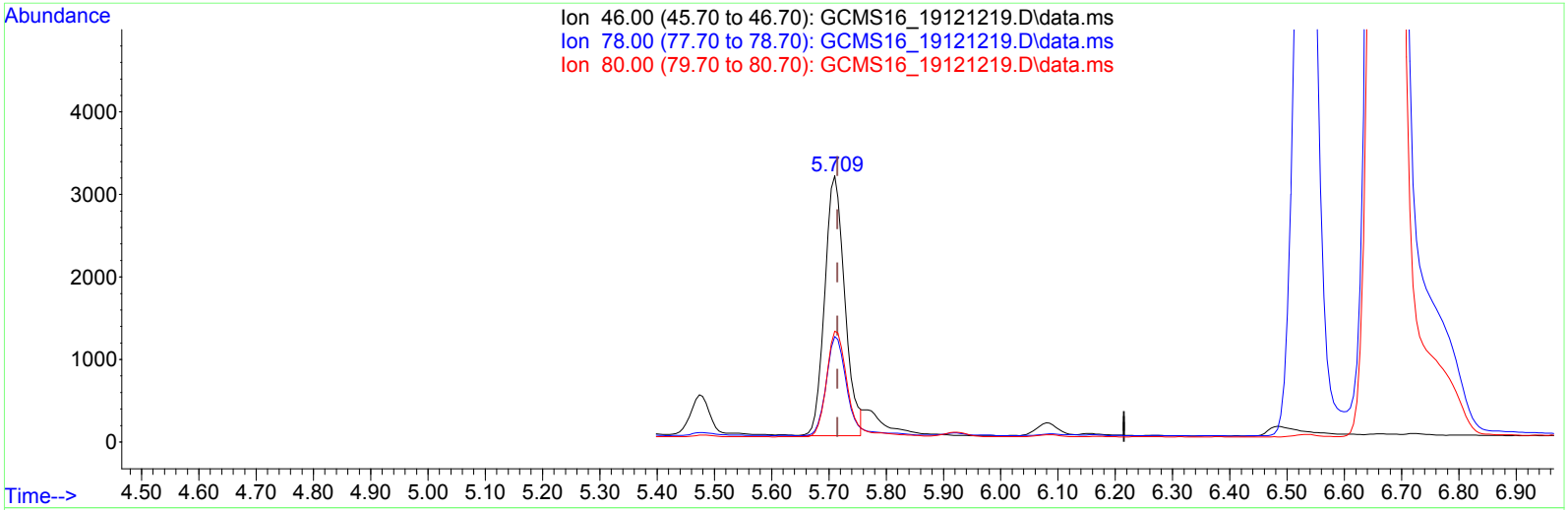
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	35.41
80.00	41.50	38.05
0.00	0.00	0.00

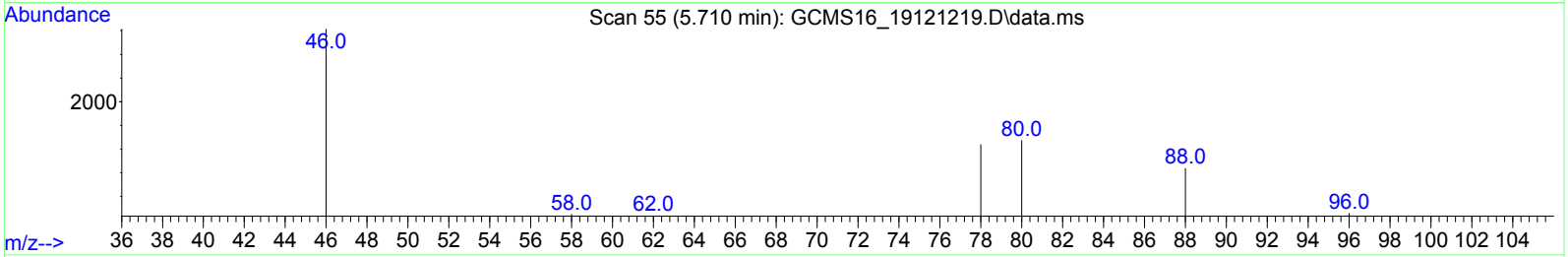
Before
IC
CR 1/2/20

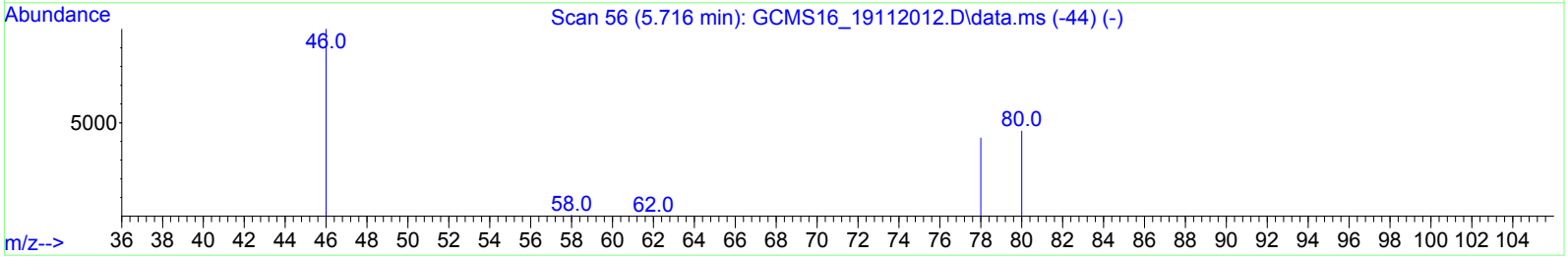
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121219.D
Acq On : 12 Dec 2019 07:49 pm
Operator : CR
Sample : E191201-08
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 13 10:26:27 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121219.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 75417

After
CR 1/2/20

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	37.72
80.00	41.50	40.54
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121220.D
Acq On : 12 Dec 2019 08:10 pm
Operator : CR
Sample : E191201-09
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 13 10:29:05 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	76360m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.820	96	25995	23.49 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.894	88	729581	616.34 ug/L	99

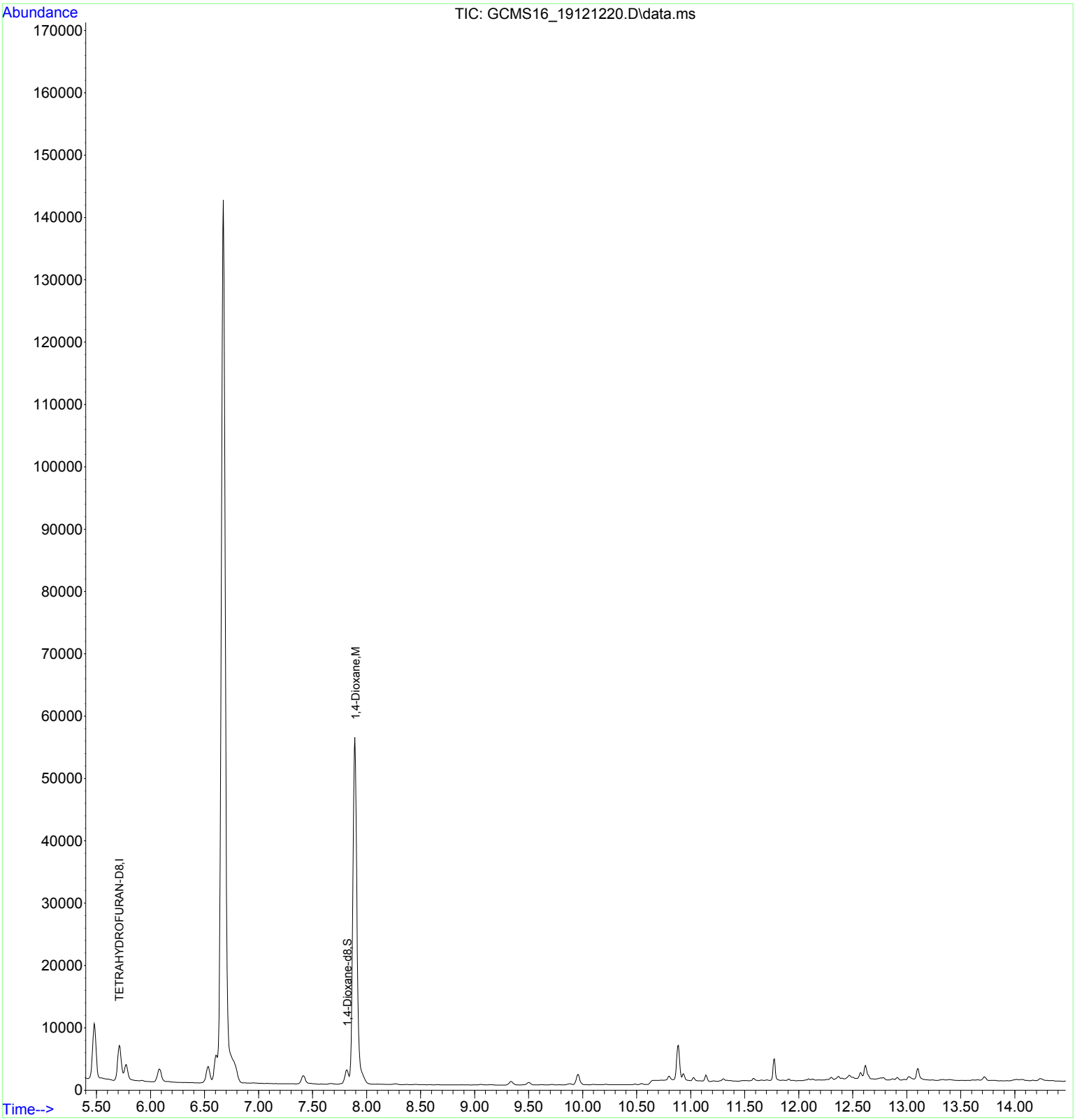
CR 1/2/20

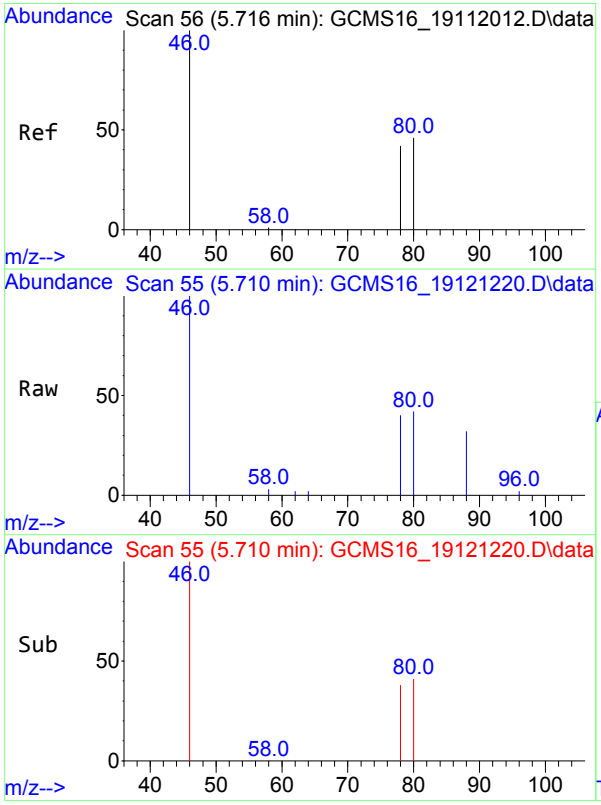
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121220.D
Acq On : 12 Dec 2019 08:10 pm
Operator : CR
Sample : E191201-09
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 13 10:29:05 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

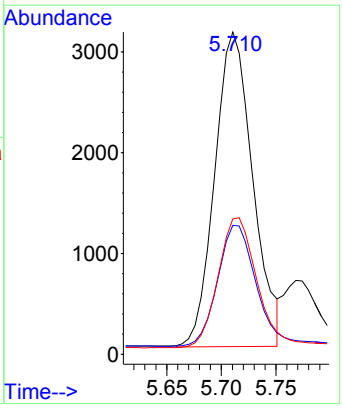


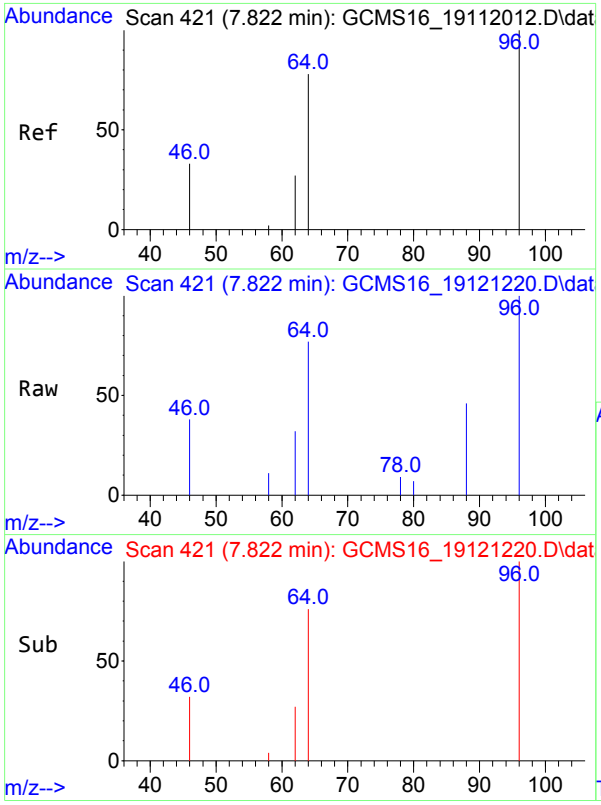


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121220.D
Acq: 12 Dec 2019 08:10 pm

Tgt Ion: 46 Resp: 76360

Ion	Ratio	Lower	Upper
46	100		
78	37.5	27.5	51.1
80	40.5	29.0	53.9

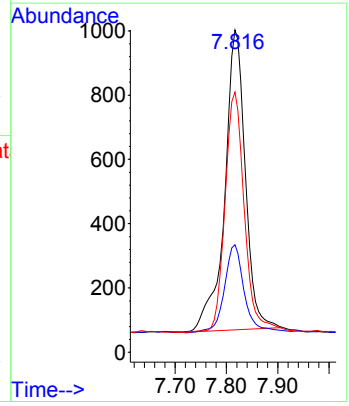


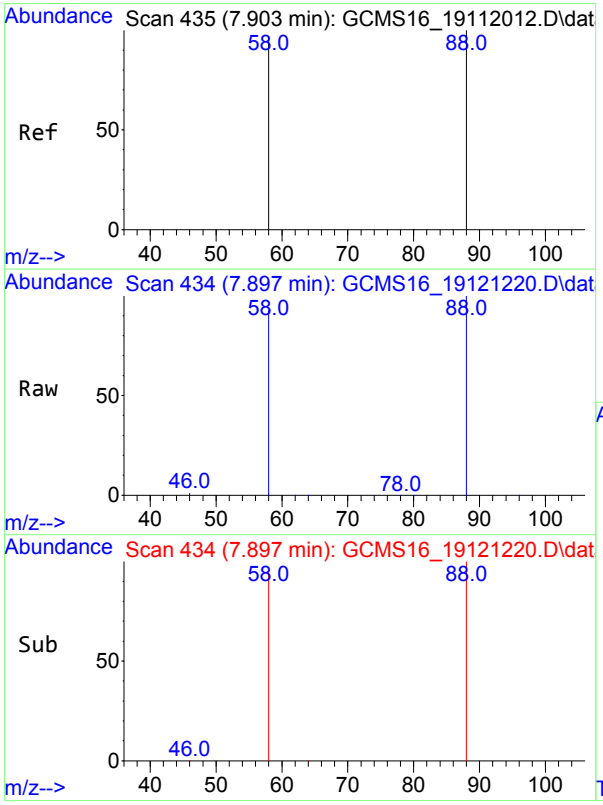


#2
1,4-Dioxane-d8
Concen: 23.49 ug/L
RT: 7.820 min Scan# 421
Delta R.T. -0.003 min
Lab File: GCMS16_19121220.D
Acq: 12 Dec 2019 08:10 pm

Tgt Ion: 96 Resp: 25995

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	71.2	56.8	105.6

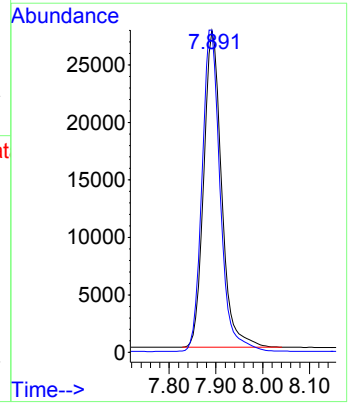




#3
1,4-Dioxane
Concen: 616.34 ug/L
RT: 7.894 min Scan# 434
Delta R.T. -0.005 min
Lab File: GCMS16_19121220.D
Acq: 12 Dec 2019 08:10 pm

Tgt Ion: 88 Resp: 729581

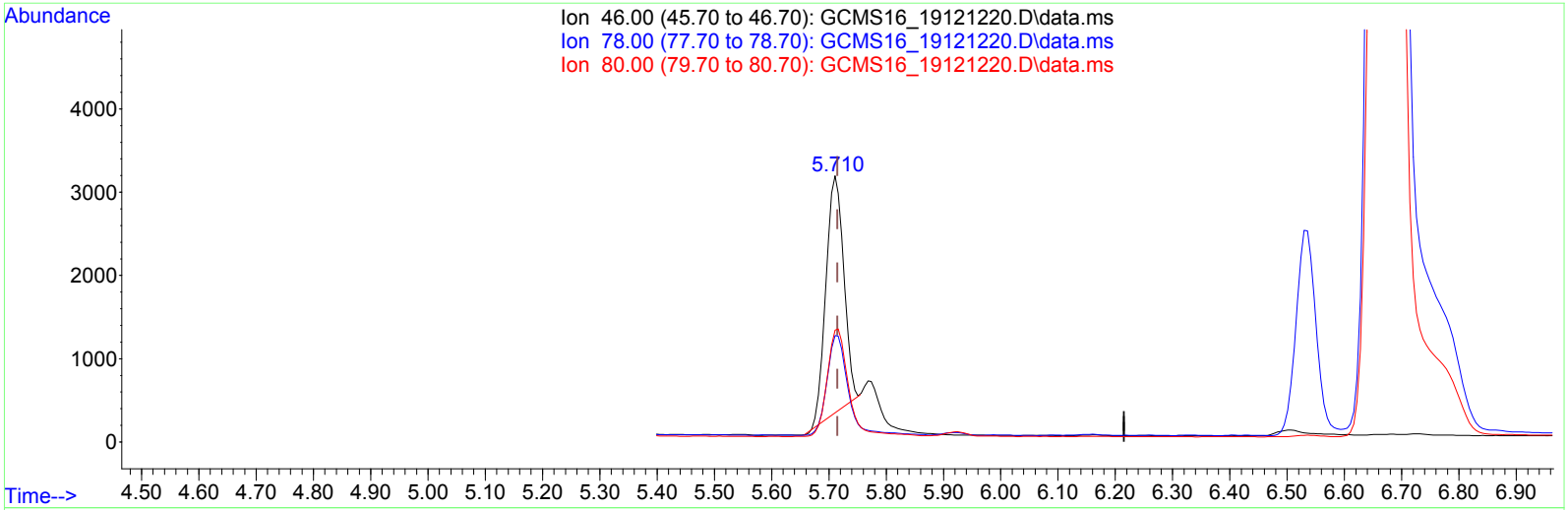
Ion	Ratio	Lower	Upper
88	100		
58	103.0	72.5	134.7

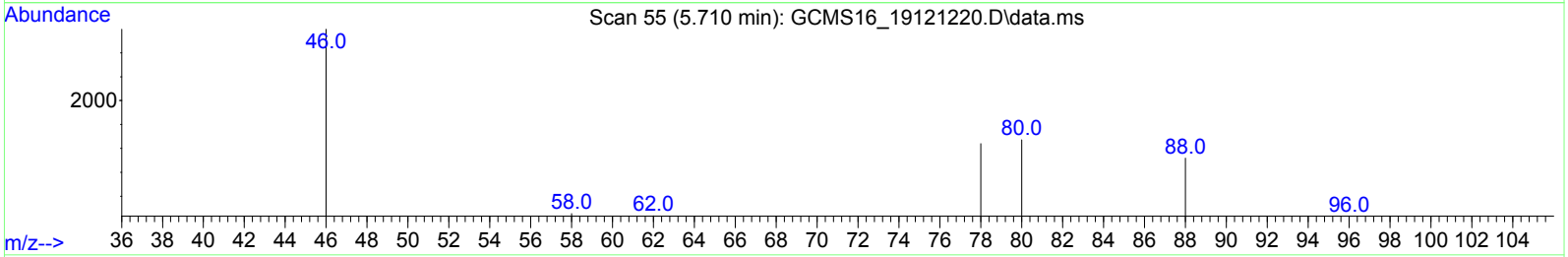


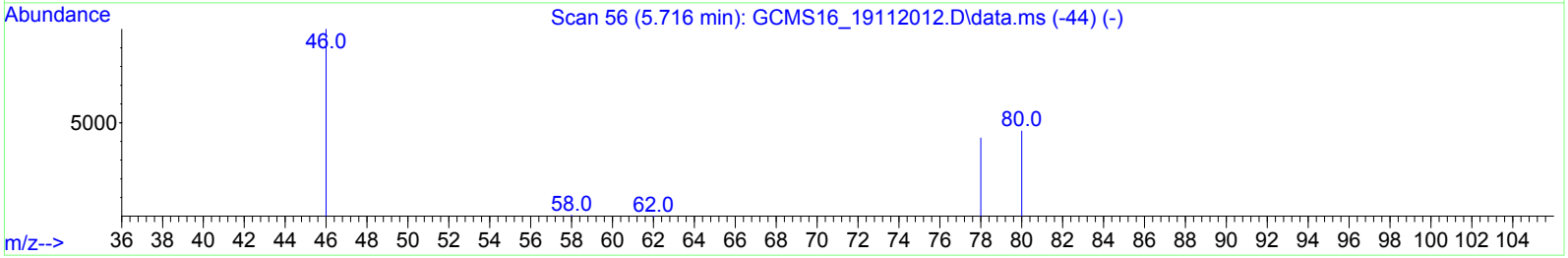
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121220.D
Acq On : 12 Dec 2019 08:10 pm
Operator : CR
Sample : E191201-09
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 13 10:29:05 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121220.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.713min (-0.002) 50.00 ug/L

response 60704

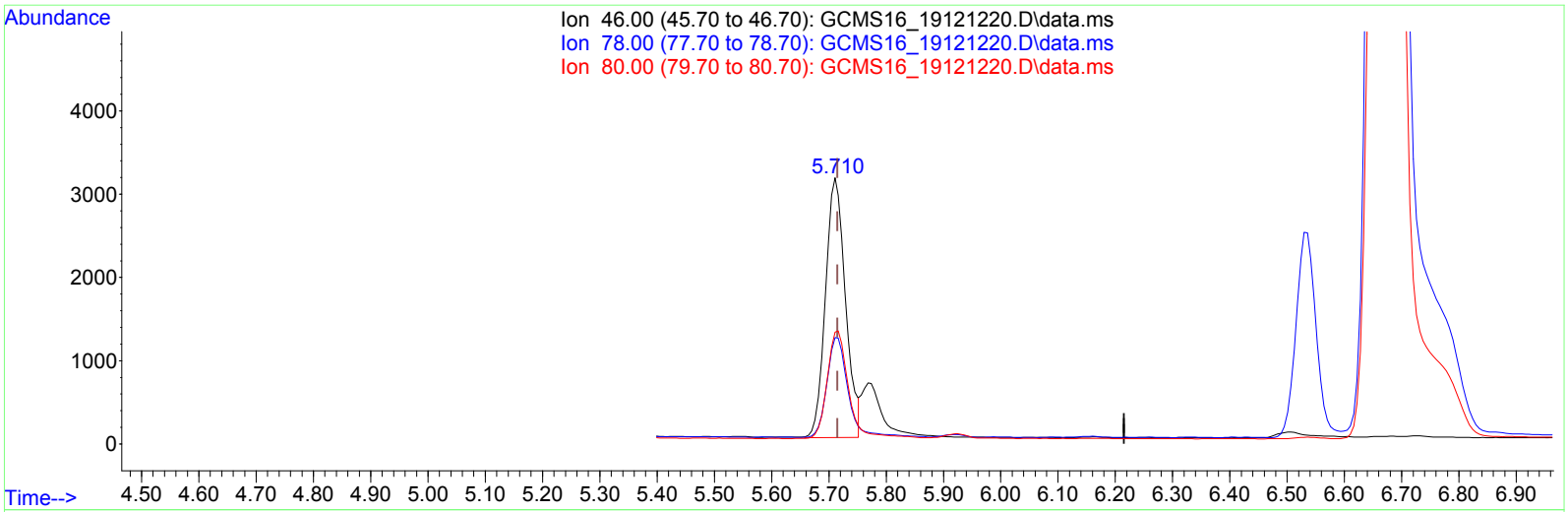
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	47.12
80.00	41.50	50.94
0.00	0.00	0.00

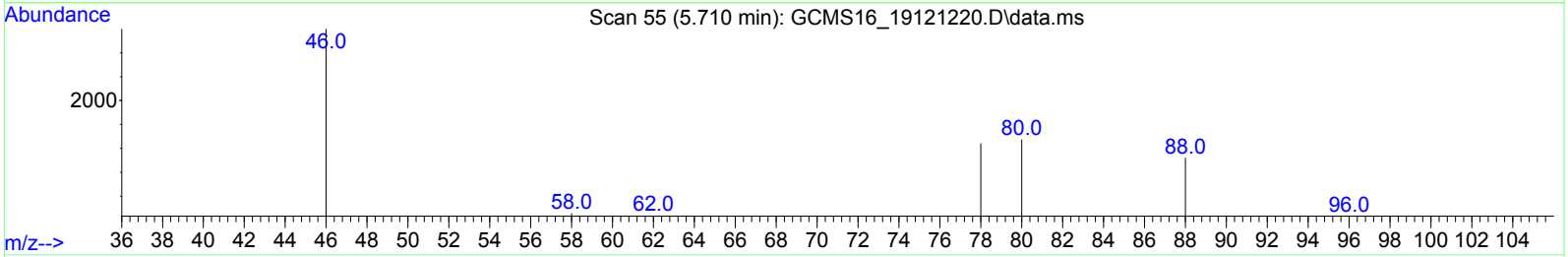
Before
IC
CR 1/2/20

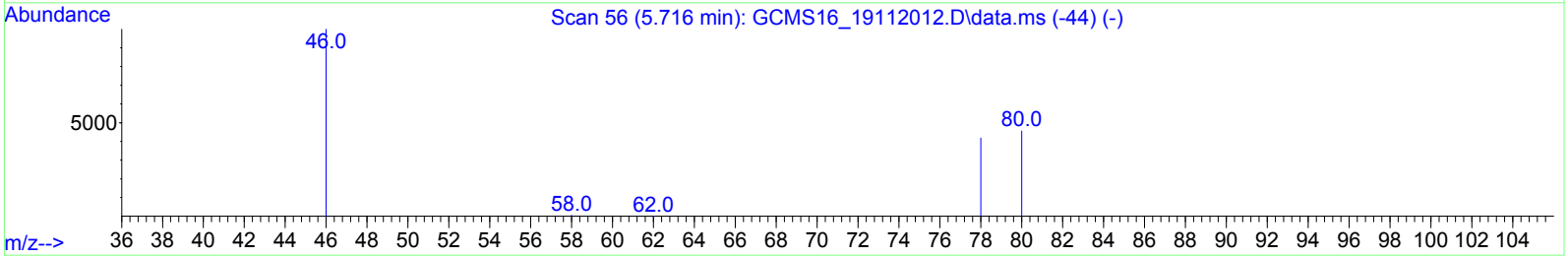
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121220.D
Acq On : 12 Dec 2019 08:10 pm
Operator : CR
Sample : E191201-09
Misc :
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 13 10:29:05 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121220.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 76360

After
CR 1/2/20

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	37.46
80.00	41.50	40.50
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121221.D
Acq On : 12 Dec 2019 08:31 pm
Operator : CR
Sample : E191201-10
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 13 10:30:01 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	78074m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.821	96	26516	23.43 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.897	88	6063m	5.01 ug/L	

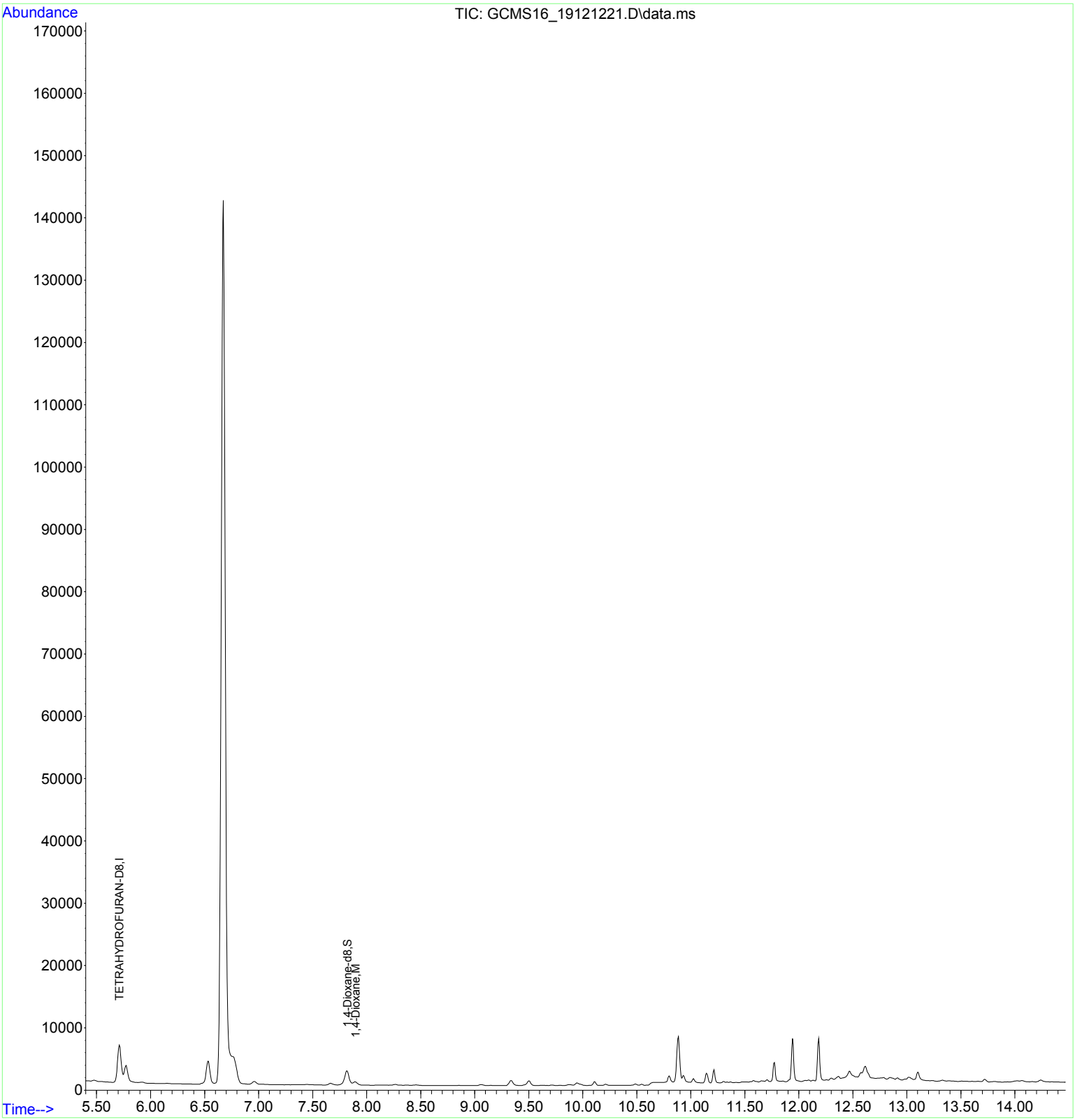
CR 1/2/20

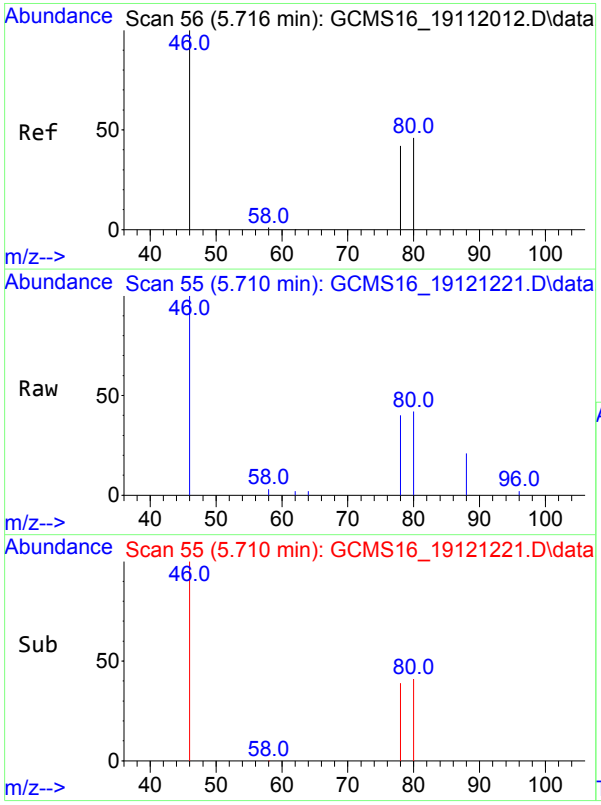
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121221.D
Acq On : 12 Dec 2019 08:31 pm
Operator : CR
Sample : E191201-10
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 13 10:30:01 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

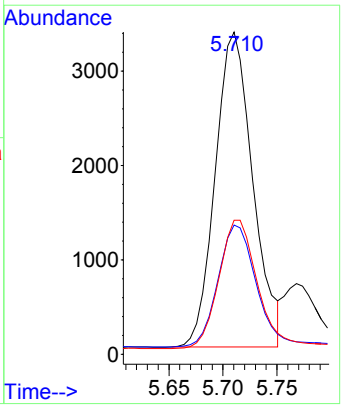


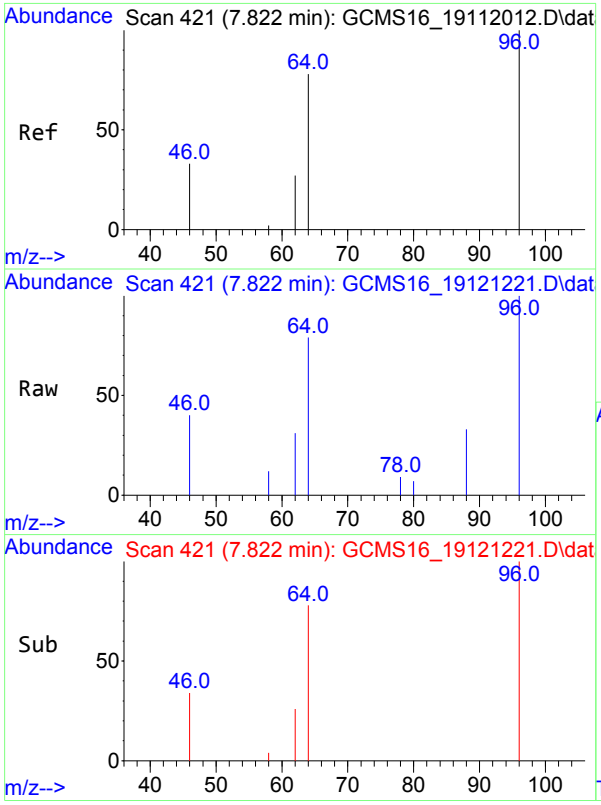


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121221.D
Acq: 12 Dec 2019 08:31 pm

Tgt Ion: 46 Resp: 78074

Ion	Ratio	Lower	Upper
46	100		
78	39.2	27.5	51.1
80	41.5	29.0	53.9

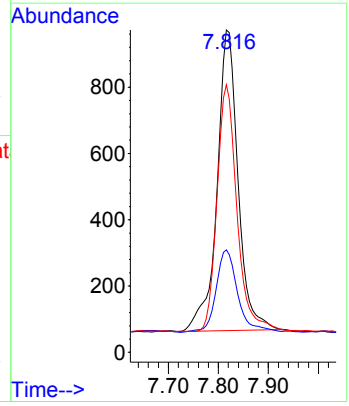


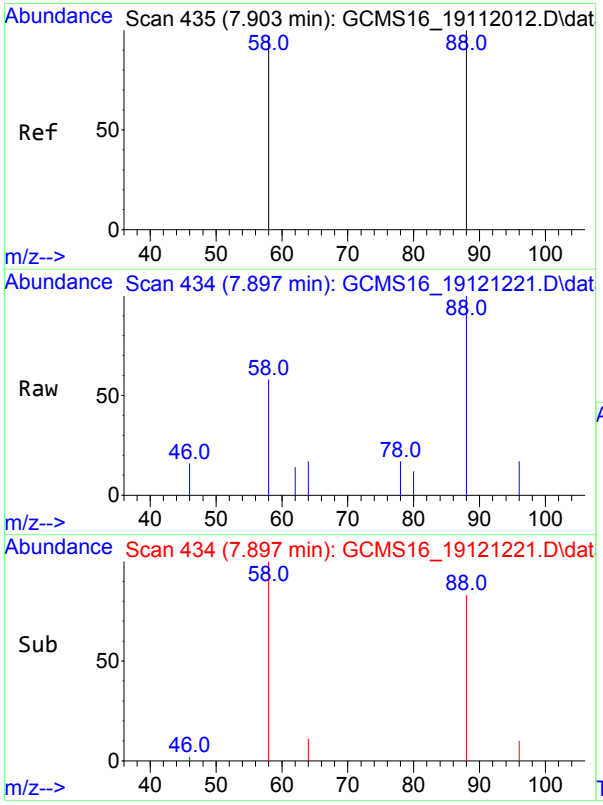


#2
1,4-Dioxane-d8
Concen: 23.43 ug/L
RT: 7.821 min Scan# 421
Delta R.T. -0.002 min
Lab File: GCMS16_19121221.D
Acq: 12 Dec 2019 08:31 pm

Tgt Ion: 96 Resp: 26516

Ion	Ratio	Lower	Upper
96	100		
62	25.2	0.0	0.0#
64	74.2	56.8	105.6

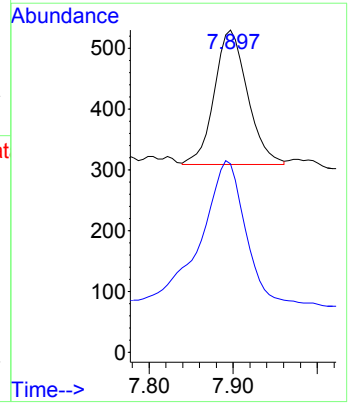




#3
1,4-Dioxane
Concen: 5.01 ug/L m
RT: 7.897 min Scan# 434
Delta R.T. -0.002 min
Lab File: GCMS16_19121221.D
Acq: 12 Dec 2019 08:31 pm

Tgt Ion: 88 Resp: 6063

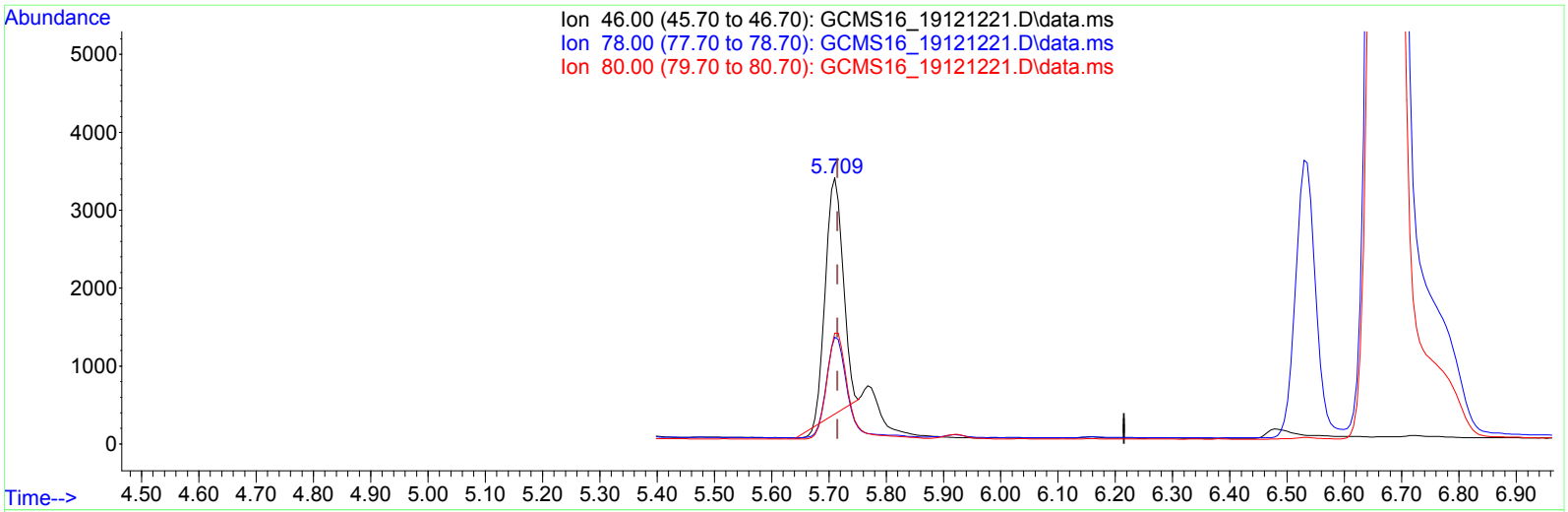
Ion	Ratio	Lower	Upper
88	100		
58	0.0	72.5	134.7#

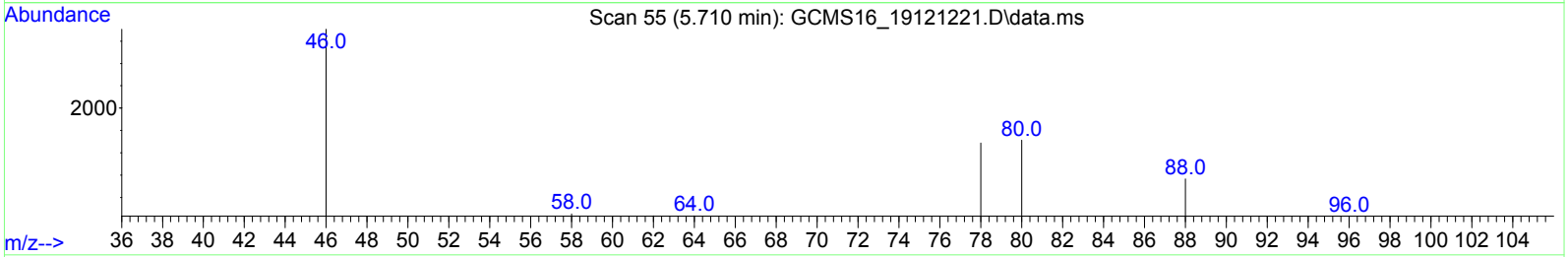


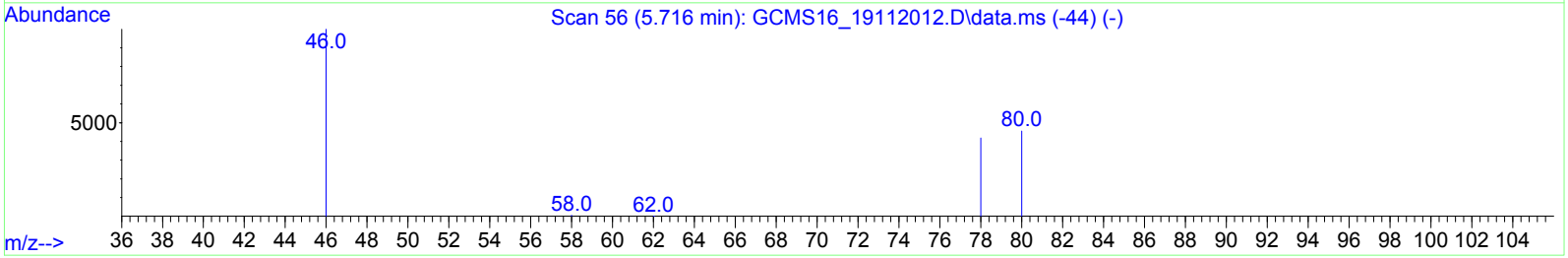
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121221.D
Acq On : 12 Dec 2019 08:31 pm
Operator : CR
Sample : E191201-10
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 13 10:30:01 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121221.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.712min (-0.003) 50.00 ug/L

response 63350

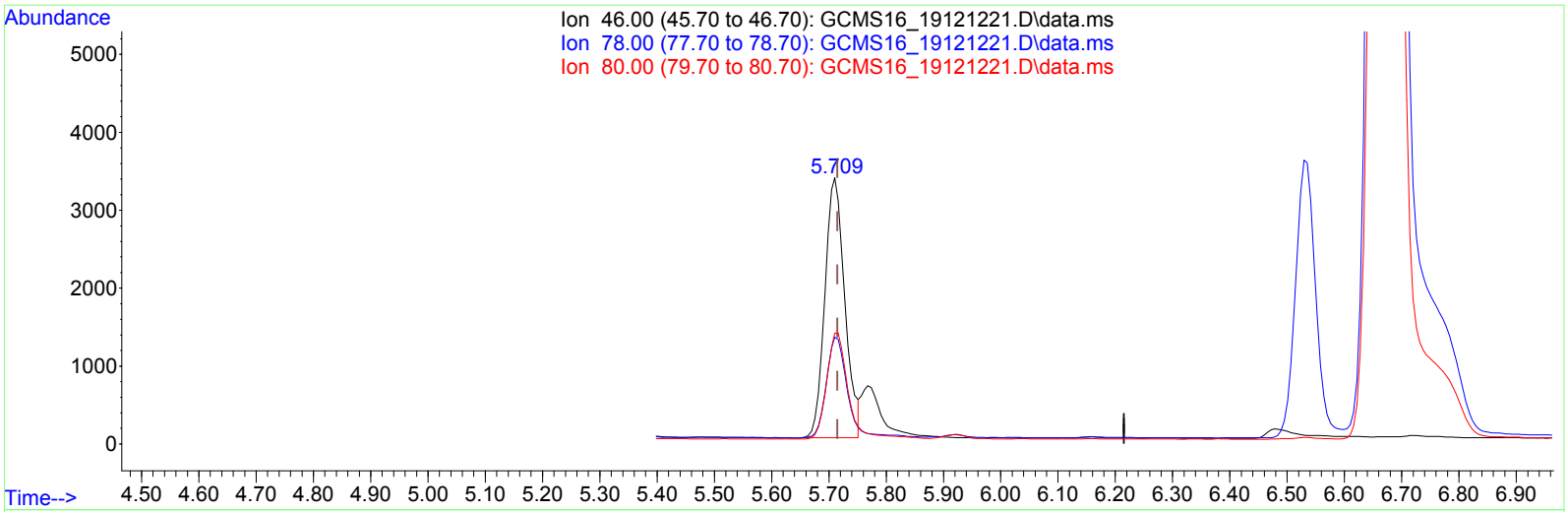
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	48.36
80.00	41.50	51.12
0.00	0.00	0.00

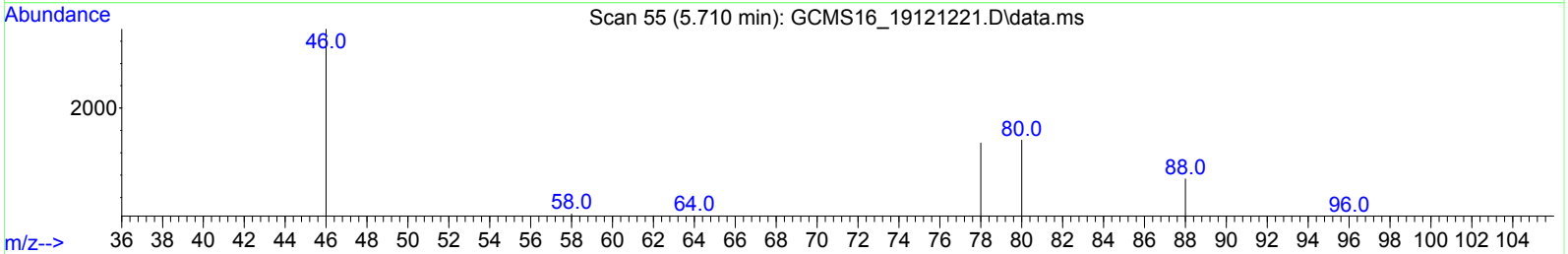
Before
IC
CR 1/2/20

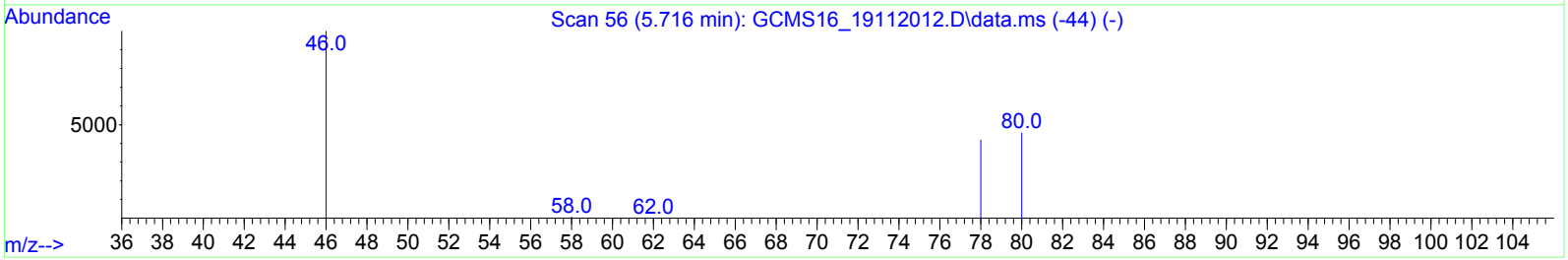
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121221.D
Acq On : 12 Dec 2019 08:31 pm
Operator : CR
Sample : E191201-10
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 13 10:30:01 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121221.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 78074

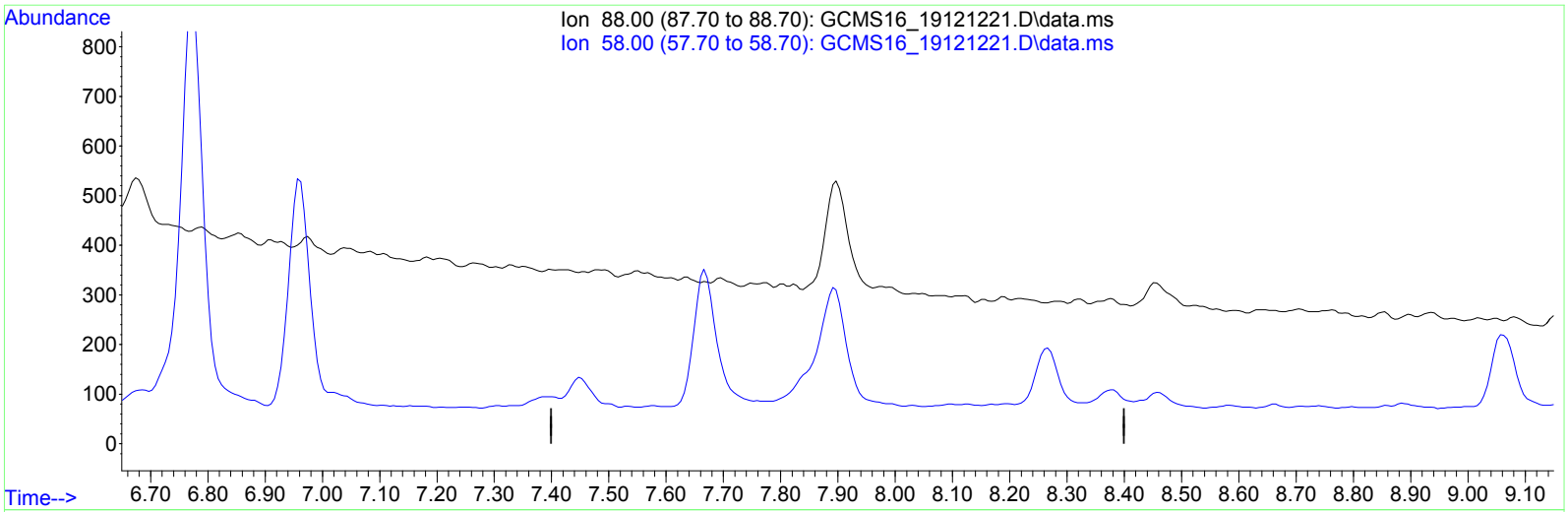
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	39.24
80.00	41.50	41.48
0.00	0.00	0.00

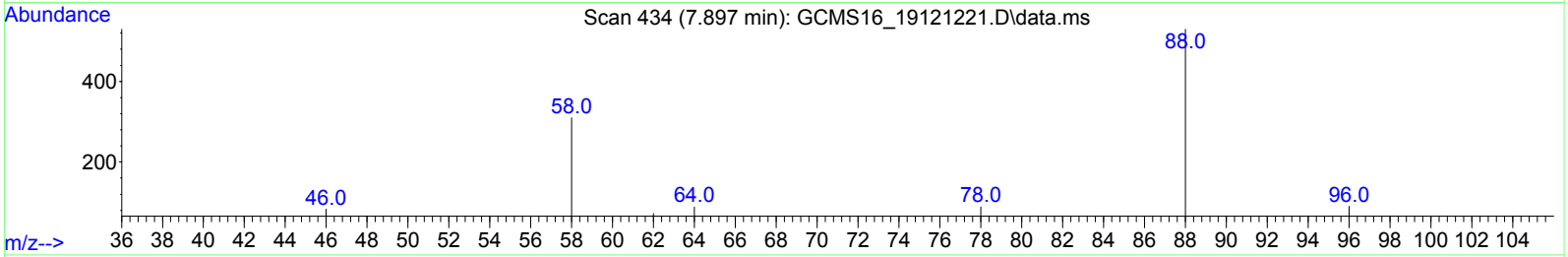
After
CR 1/2/20

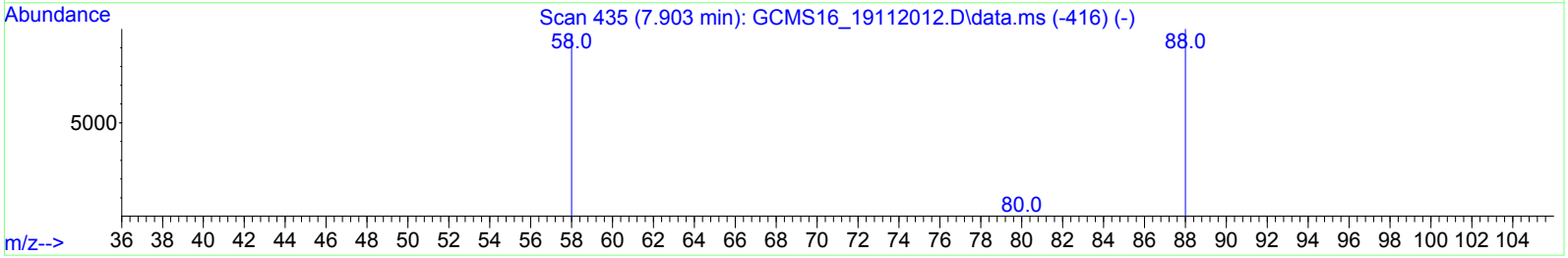
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121221.D
Acq On : 12 Dec 2019 08:31 pm
Operator : CR
Sample : E191201-10
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 13 10:30:01 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121221.D\data.ms

(3) 1,4-Dioxane (M)

7.899min (-7.899) 0.00 ug/L

response 0

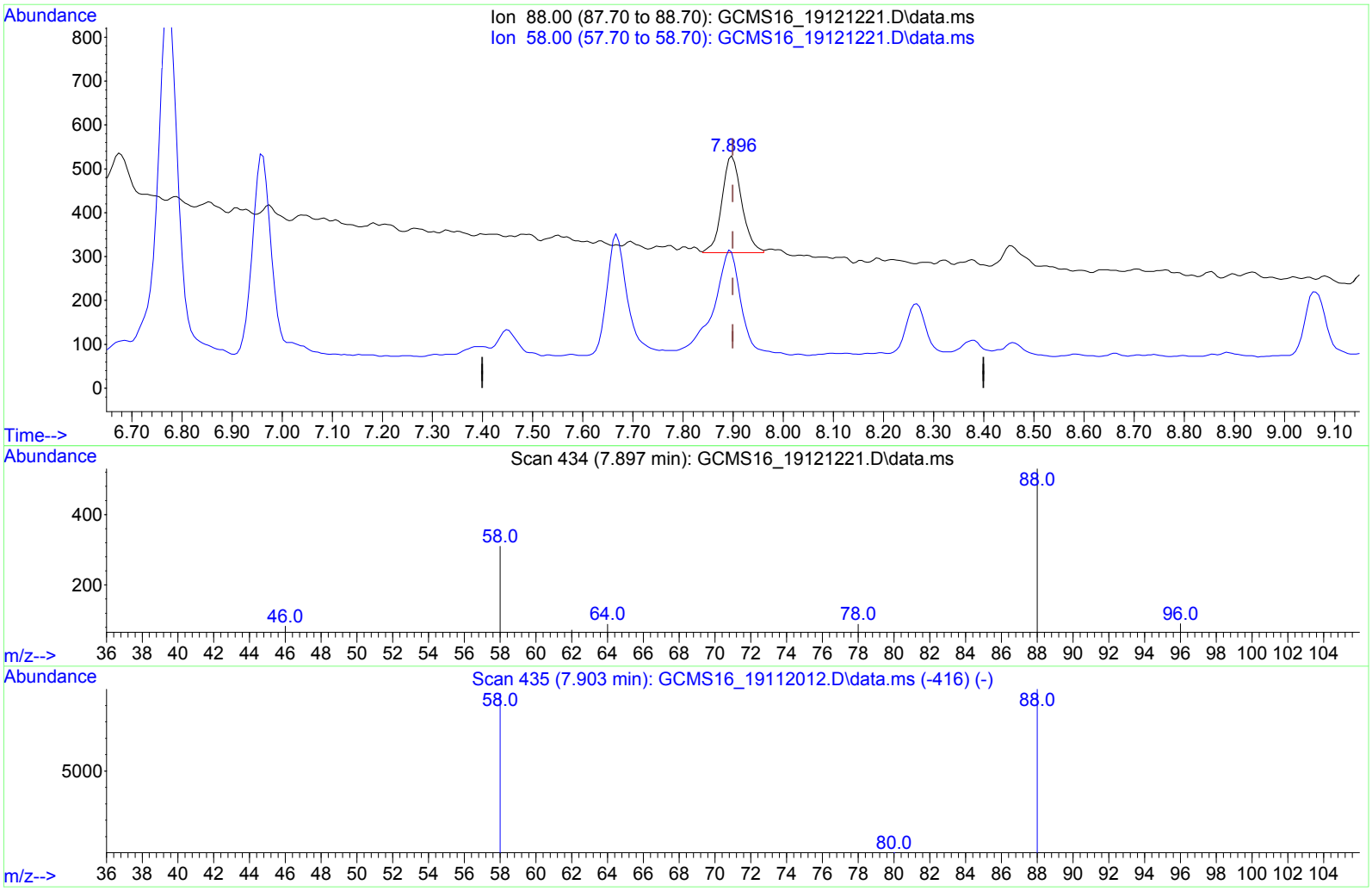
Ion	Exp%	Act%
88.00	100.00	0.00
58.00	103.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Before
N
CR 1/2/20

Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121221.D
Acq On : 12 Dec 2019 08:31 pm
Operator : CR
Sample : E191201-10
Misc :
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 13 10:30:01 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



TIC: GCMS16_19121221.D\data.ms

(3) 1,4-Dioxane (M)

7.897min (-0.002) 5.01 ug/L m

response 6063

After
CR 1/2/20

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	103.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121224.D
Acq On : 12 Dec 2019 09:34 pm
Operator : CR
Sample : E191201-11
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 13 10:38:14 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	75574m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.822	96	28634	26.14 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.897	88	3910m	3.34 ug/L	

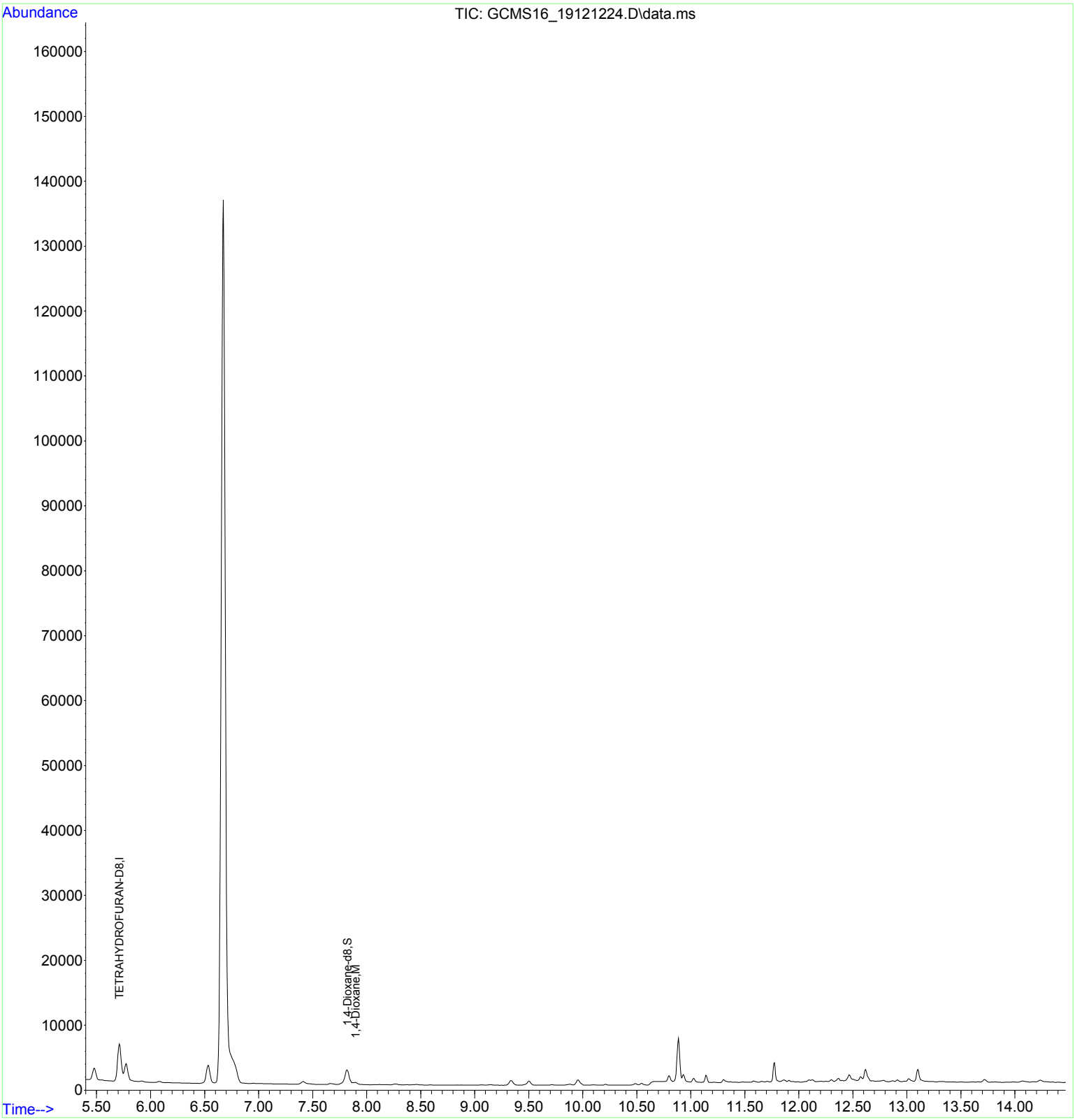
CR 1/2/20

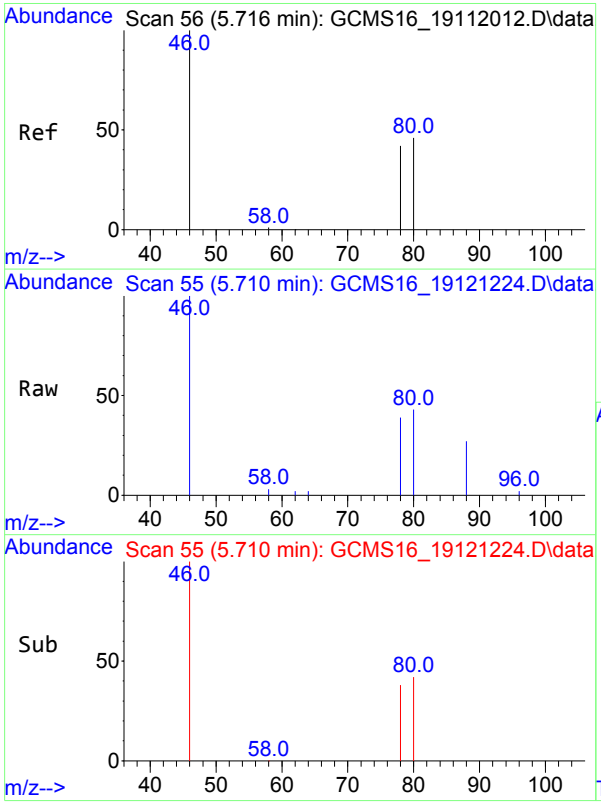
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121224.D
Acq On : 12 Dec 2019 09:34 pm
Operator : CR
Sample : E191201-11
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 13 10:38:14 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

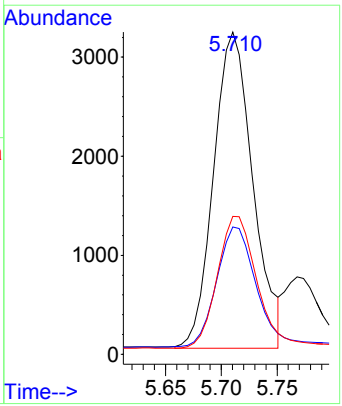


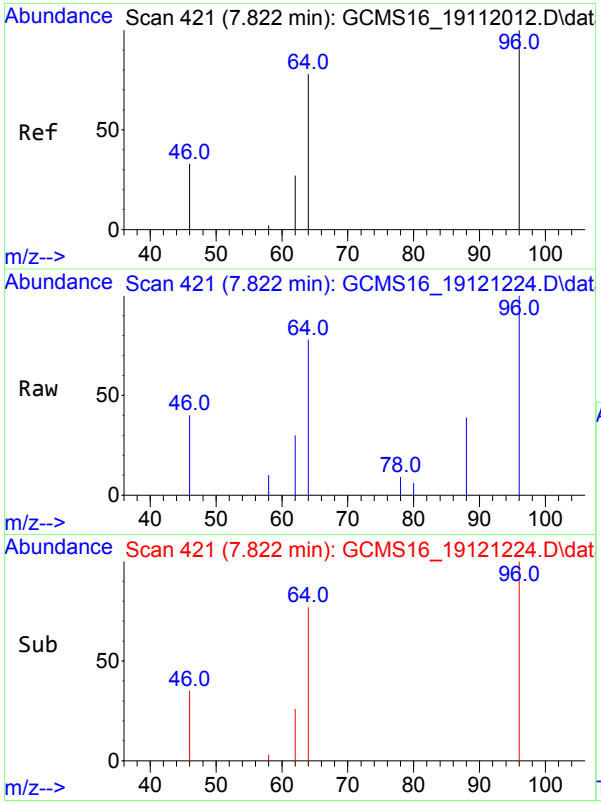


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121224.D
Acq: 12 Dec 2019 09:34 pm

Tgt Ion: 46 Resp: 75574

Ion	Ratio	Lower	Upper
46	100		
78	38.1	27.5	51.1
80	41.8	29.0	53.9

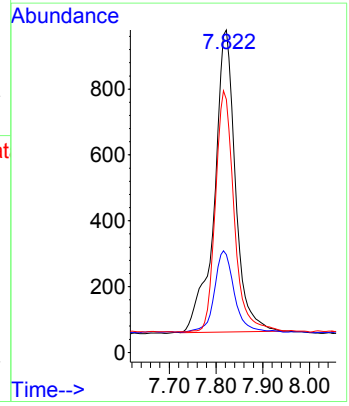


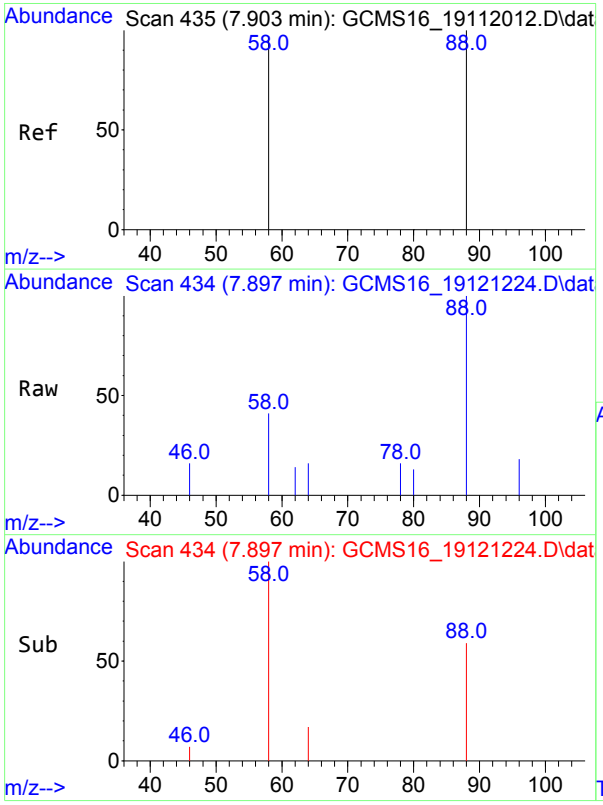


#2
1,4-Dioxane-d8
Concen: 26.14 ug/L
RT: 7.822 min Scan# 421
Delta R.T. -0.001 min
Lab File: GCMS16_19121224.D
Acq: 12 Dec 2019 09:34 pm

Tgt Ion: 96 Resp: 28634

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	67.4	56.8	105.6

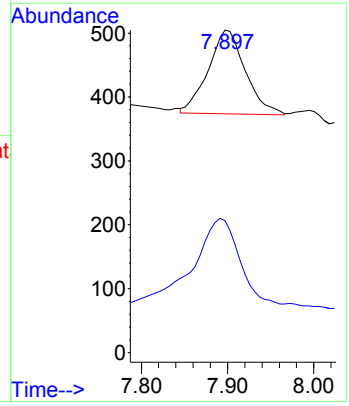




#3
1,4-Dioxane
Concen: 3.34 ug/L m
RT: 7.897 min Scan# 434
Delta R.T. -0.002 min
Lab File: GCMS16_19121224.D
Acq: 12 Dec 2019 09:34 pm

Tgt Ion: 88 Resp: 3910

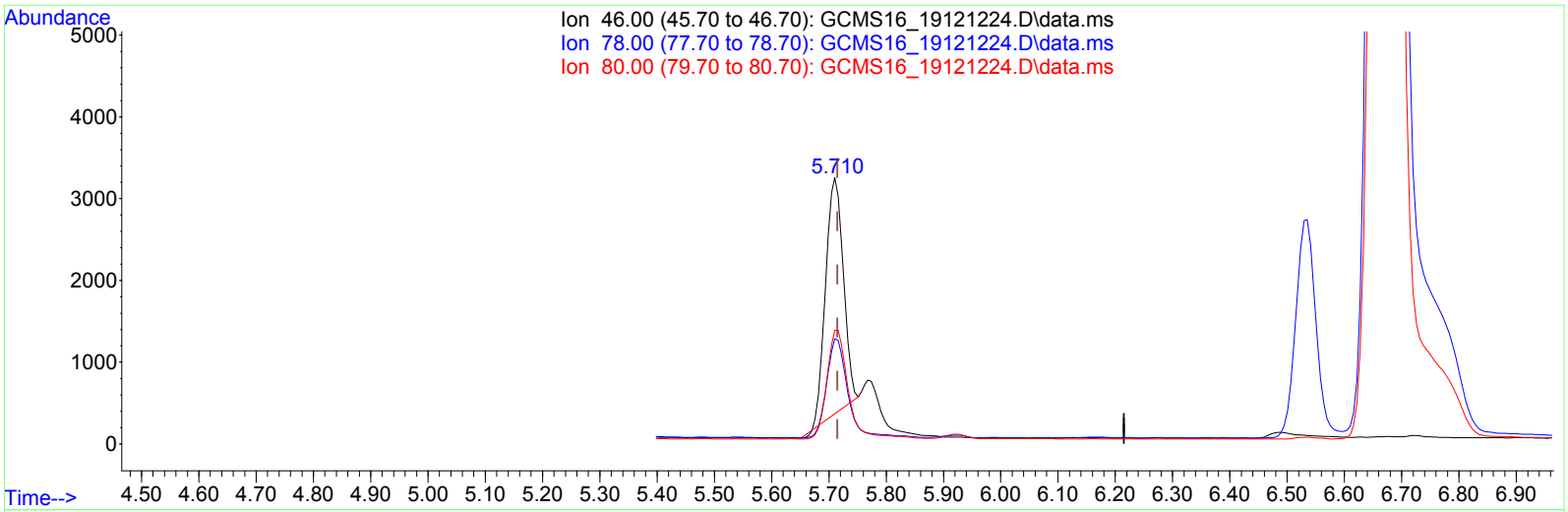
Ion	Ratio	Lower	Upper
88	100		
58	0.0	72.5	134.7#

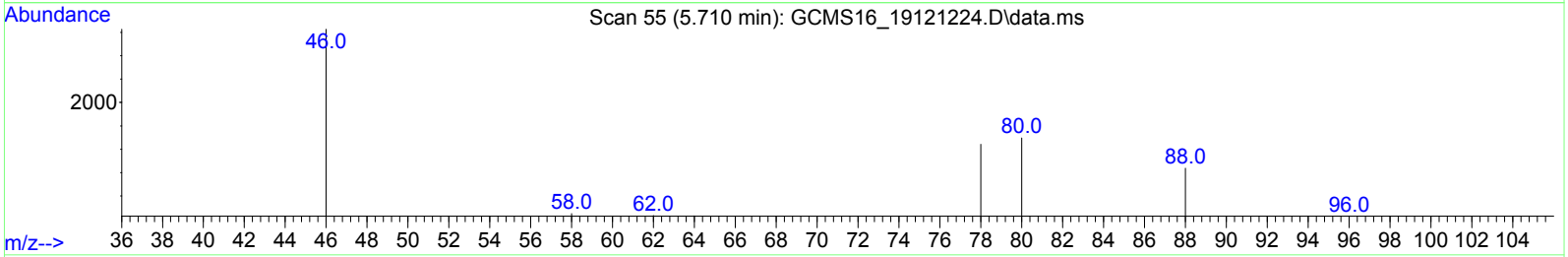


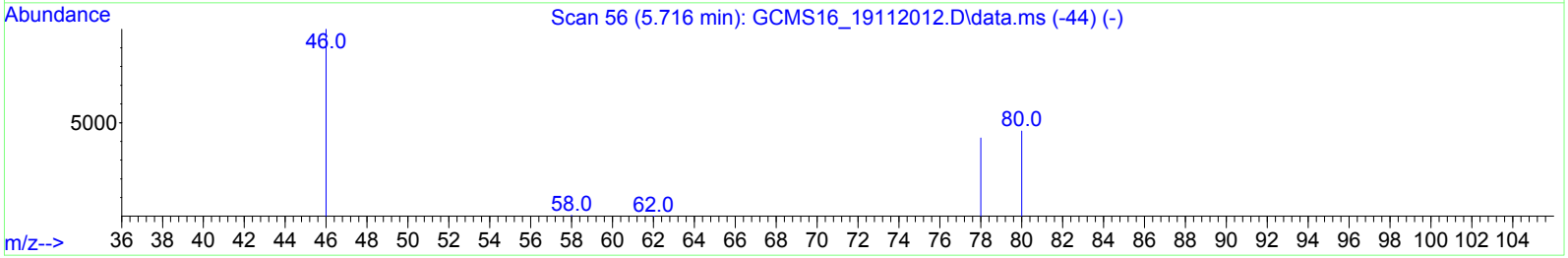
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121224.D
Acq On : 12 Dec 2019 09:34 pm
Operator : CR
Sample : E191201-11
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 13 10:38:14 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121224.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.712min (-0.003) 50.00 ug/L

response 61049

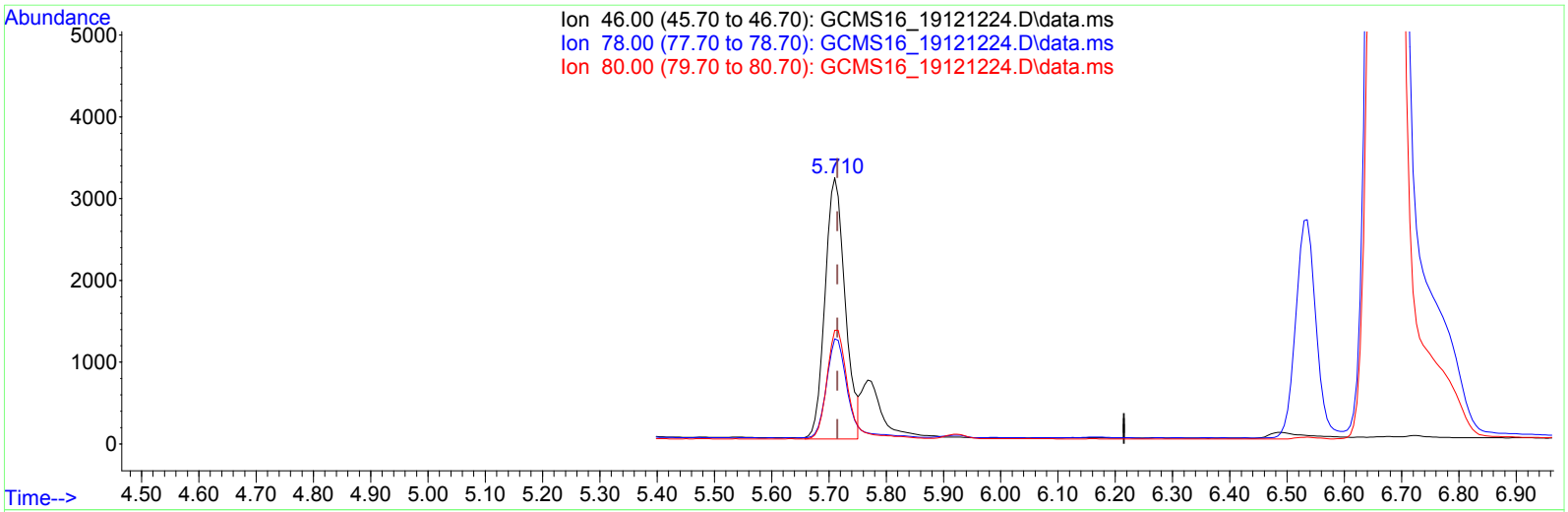
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	47.11
80.00	41.50	51.76
0.00	0.00	0.00

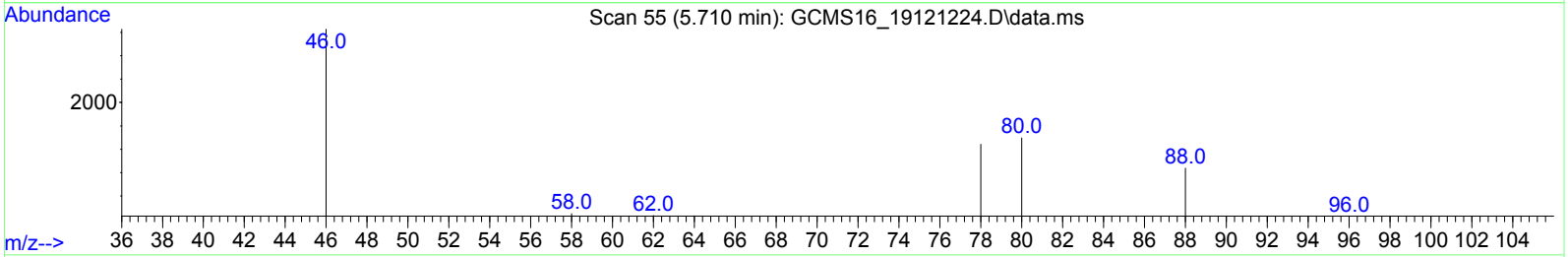
Before
IC
CR 1/2/20

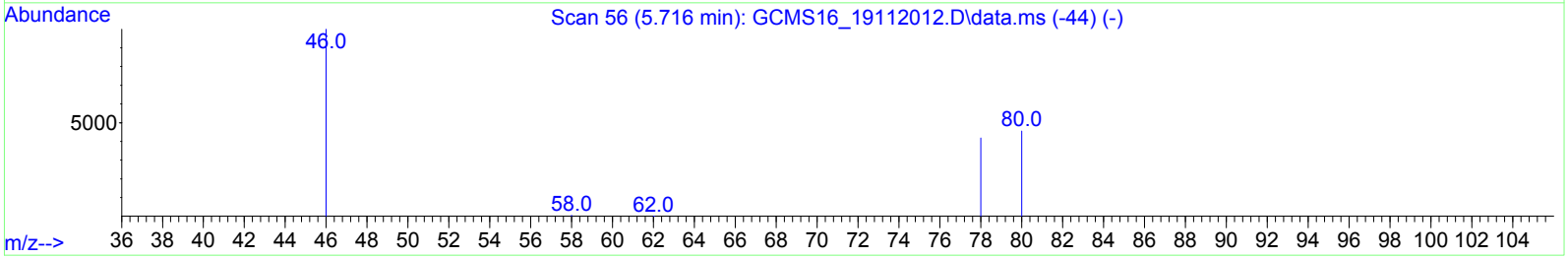
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121224.D
Acq On : 12 Dec 2019 09:34 pm
Operator : CR
Sample : E191201-11
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 13 10:38:14 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121224.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 75574

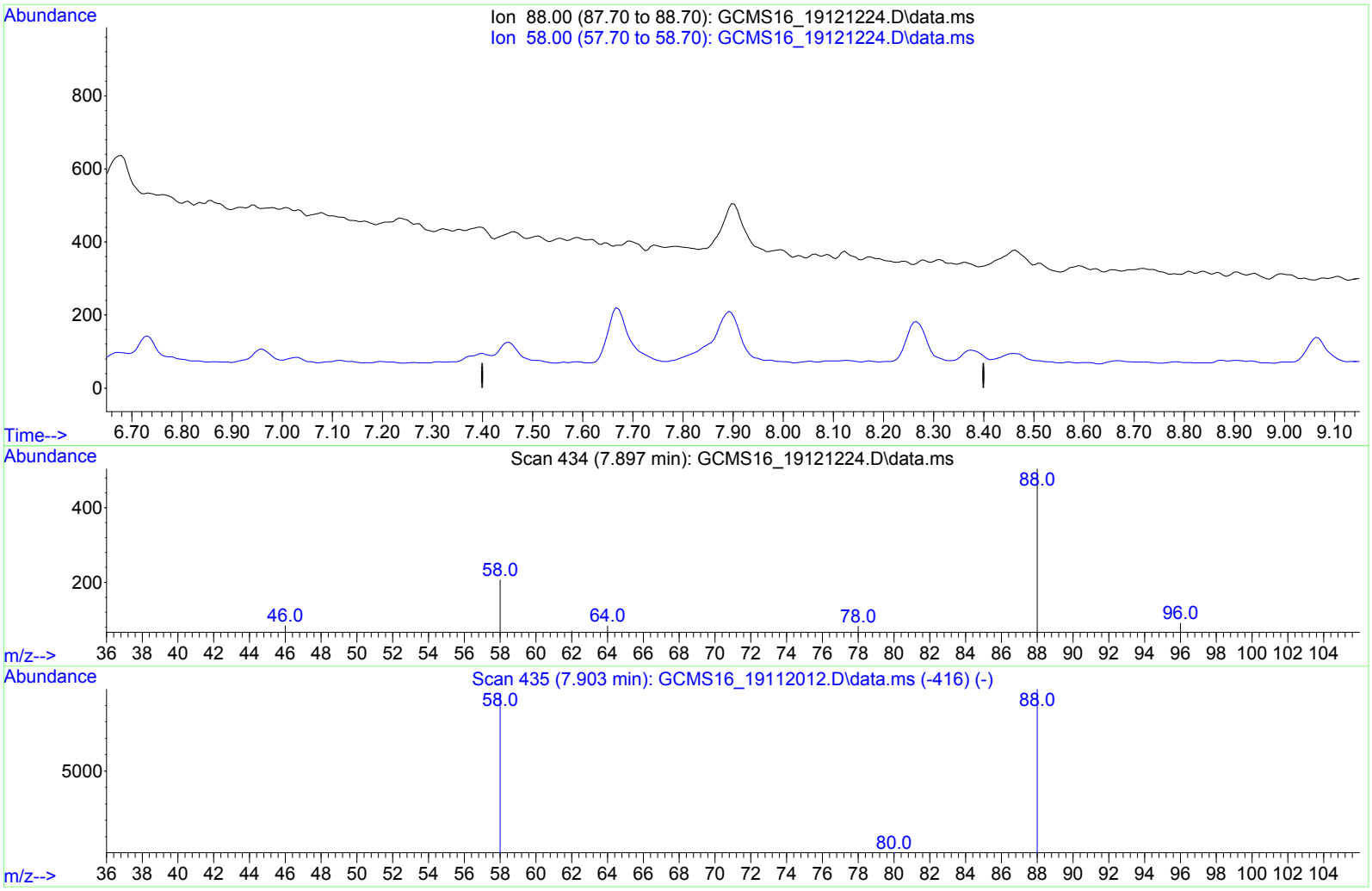
After
CR 1/2/20

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	38.06
80.00	41.50	41.81
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121224.D
Acq On : 12 Dec 2019 09:34 pm
Operator : CR
Sample : E191201-11
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 13 10:38:14 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



TIC: GCMS16_19121224.D\data.ms

(3) 1,4-Dioxane (M)

7.899min (-7.899) 0.00 ug/L

response 0

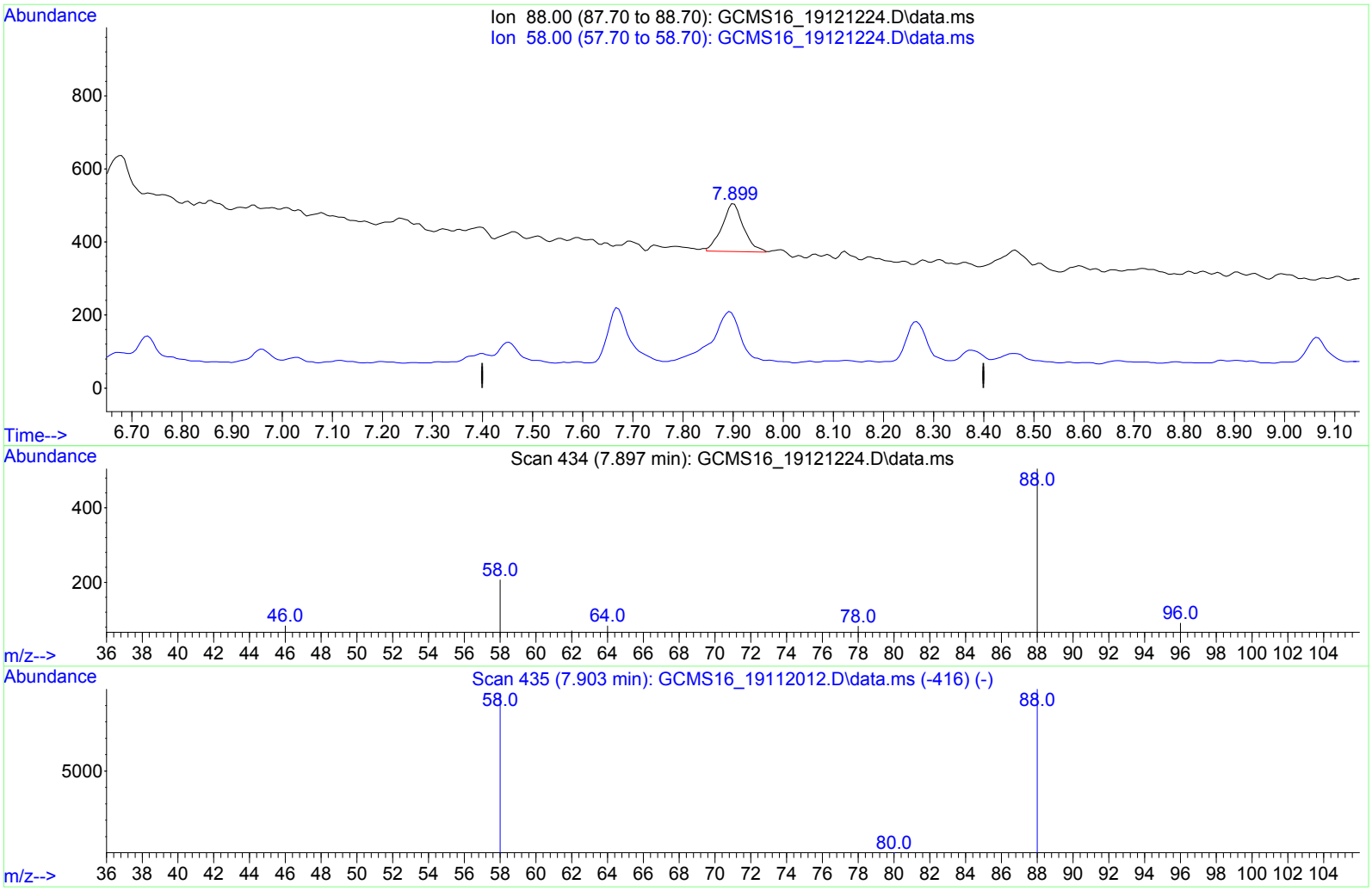
Ion	Exp%	Act%
88.00	100.00	0.00
58.00	103.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

Before
N
CR 1/2/20

Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121224.D
Acq On : 12 Dec 2019 09:34 pm
Operator : CR
Sample : E191201-11
Misc :
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Dec 13 10:38:14 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



TIC: GCMS16_19121224.D\data.ms

(3) 1,4-Dioxane (M)

7.897min (-0.002) 3.34 ug/L m

response 3910

Ion	Exp%	Act%
88.00	100.00	100.00
58.00	103.60	0.00#
0.00	0.00	0.00
0.00	0.00	0.00

After
CR 1/2/20

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121225.D
Acq On : 12 Dec 2019 09:55 pm
Operator : CR
Sample : E191201-12
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 13 10:40:23 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.710	46	78379m	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	7.822	96	25157	22.15	ug/L	0.00
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

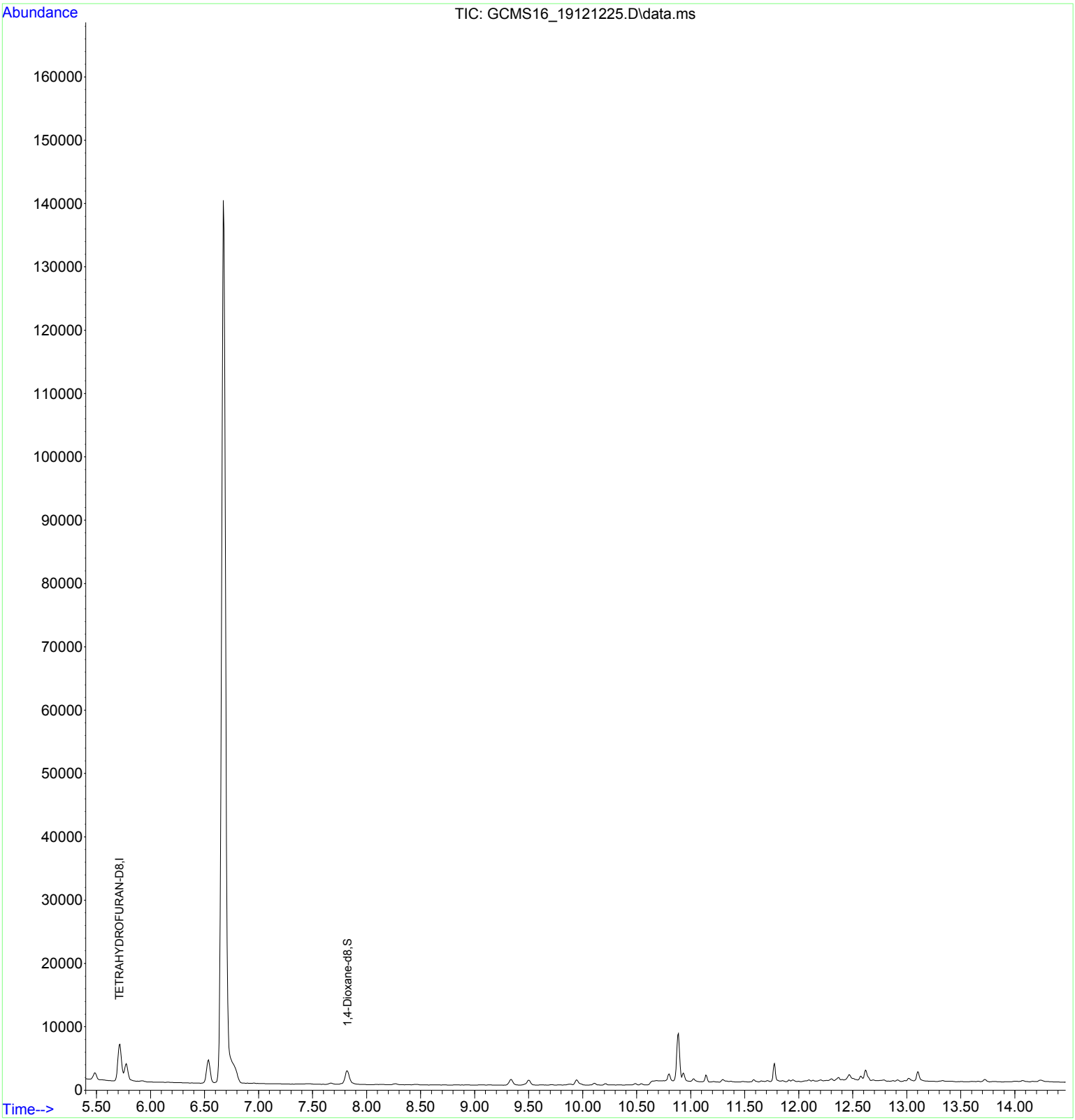
CR 1/2/20

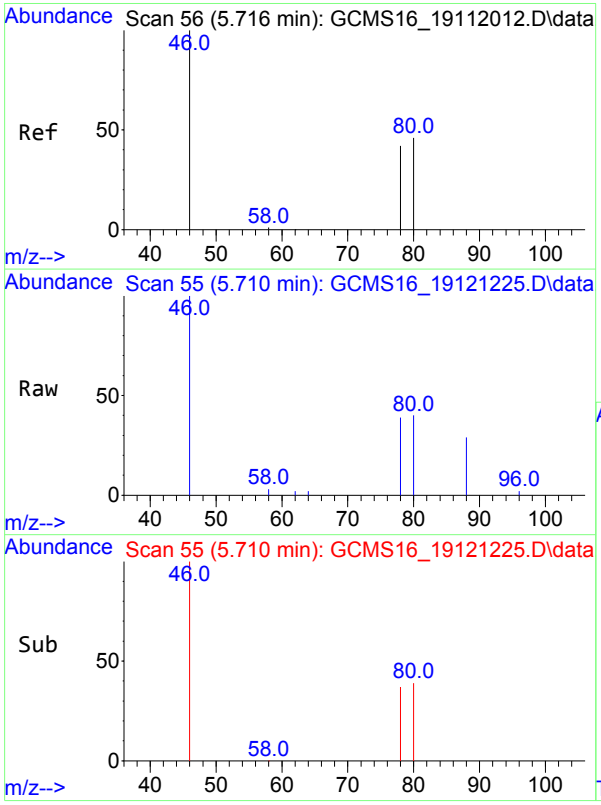
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121225.D
Acq On : 12 Dec 2019 09:55 pm
Operator : CR
Sample : E191201-12
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 13 10:40:23 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

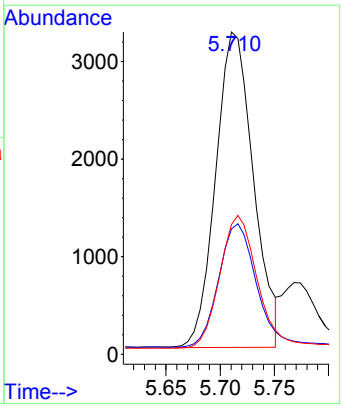


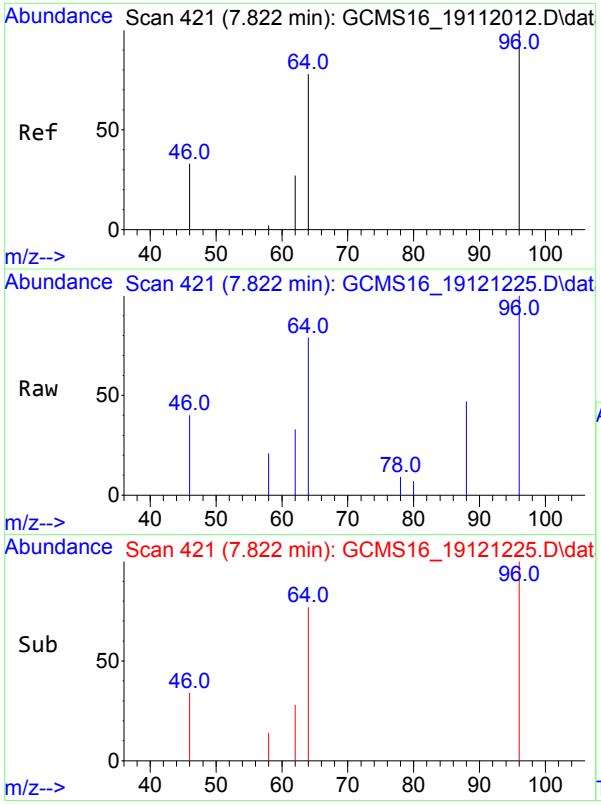


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121225.D
Acq: 12 Dec 2019 09:55 pm

Tgt Ion: 46 Resp: 78379

Ion	Ratio	Lower	Upper
46	100		
78	37.8	27.5	51.1
80	40.4	29.0	53.9

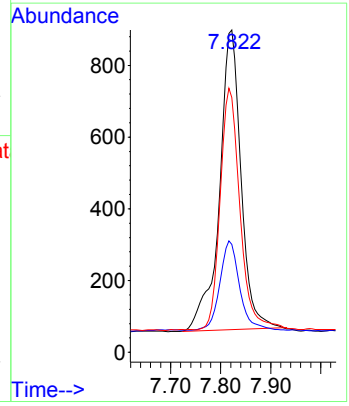


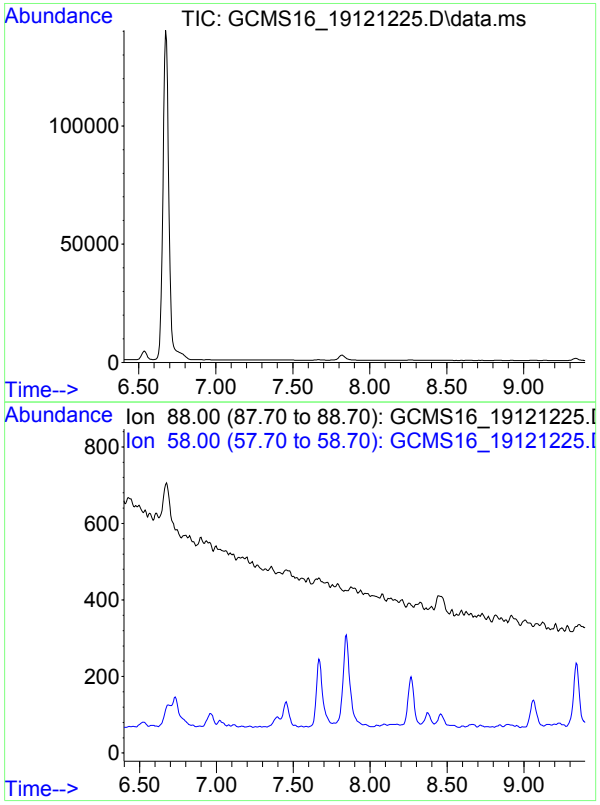


#2
1,4-Dioxane-d8
Concen: 22.15 ug/L
RT: 7.822 min Scan# 421
Delta R.T. -0.001 min
Lab File: GCMS16_19121225.D
Acq: 12 Dec 2019 09:55 pm

Tgt Ion: 96 Resp: 25157

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	70.4	56.8	105.6





#3
1,4-Dioxane
Concen: N.D.
Expected RT: 7.90 min

Lab File: GCMS16_19121225.D
Acq: 12 Dec 2019 09:55 pm

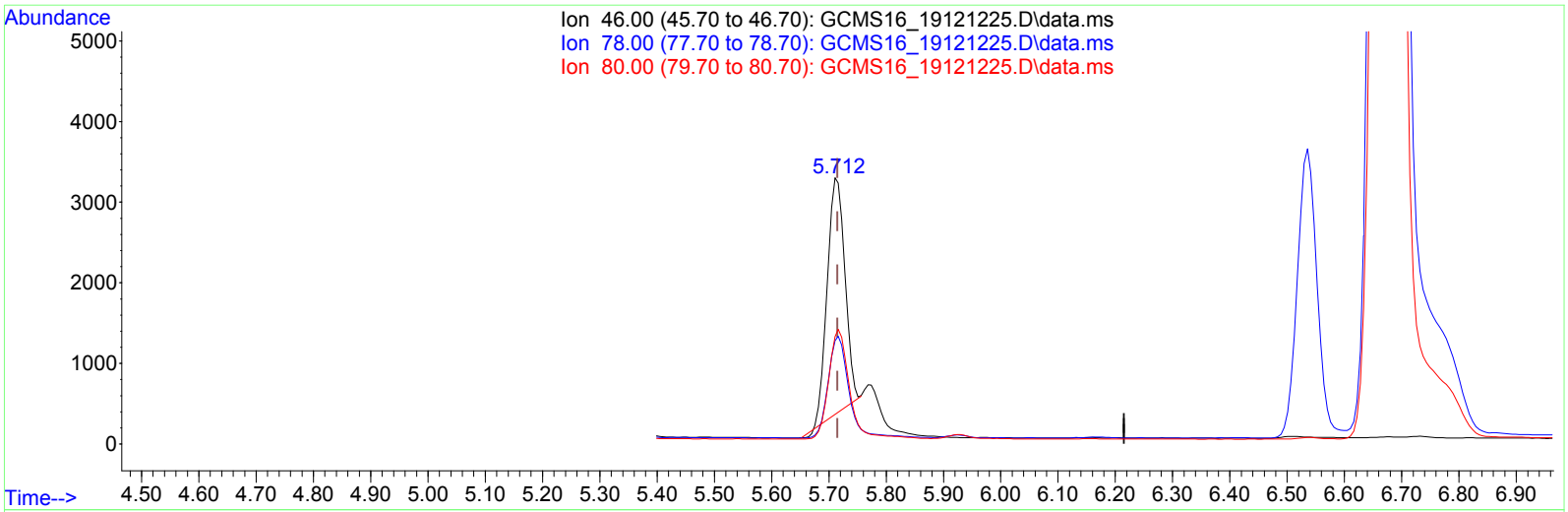
Tgt Ion: 88

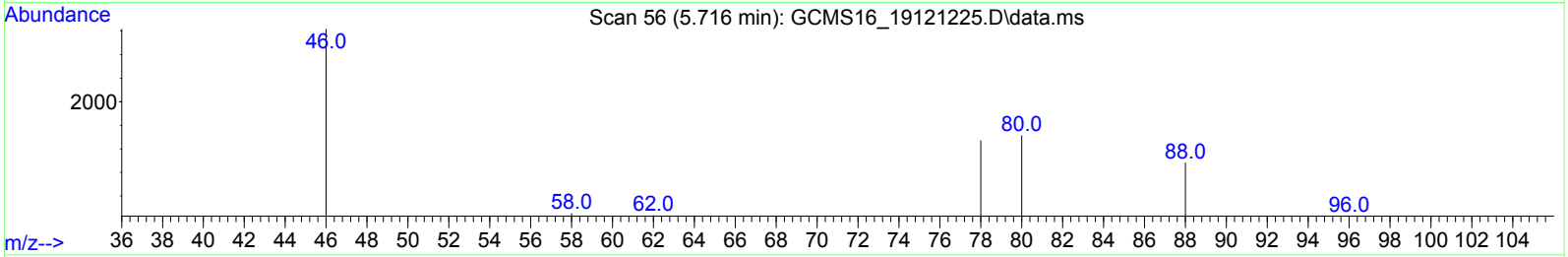
Sig	Exp Ratio
88	100
58	103.6

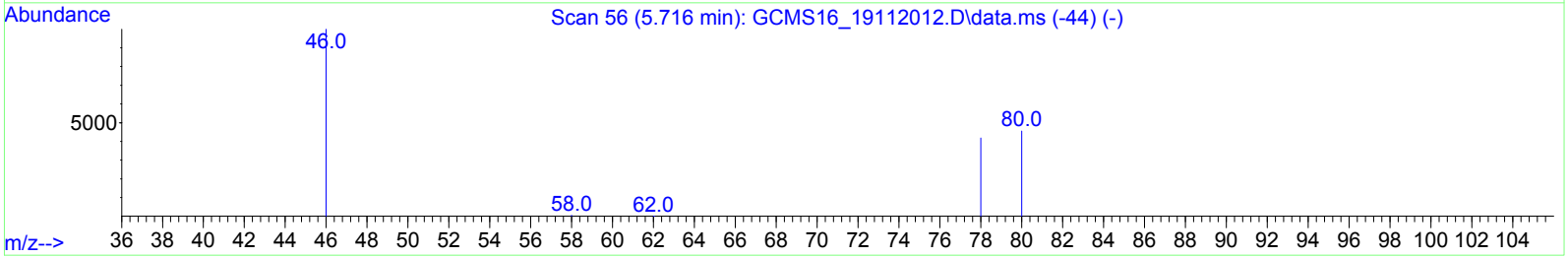
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121225.D
Acq On : 12 Dec 2019 09:55 pm
Operator : CR
Sample : E191201-12
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 13 10:40:23 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121225.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.715min (-0.000) 50.00 ug/L

response 61677

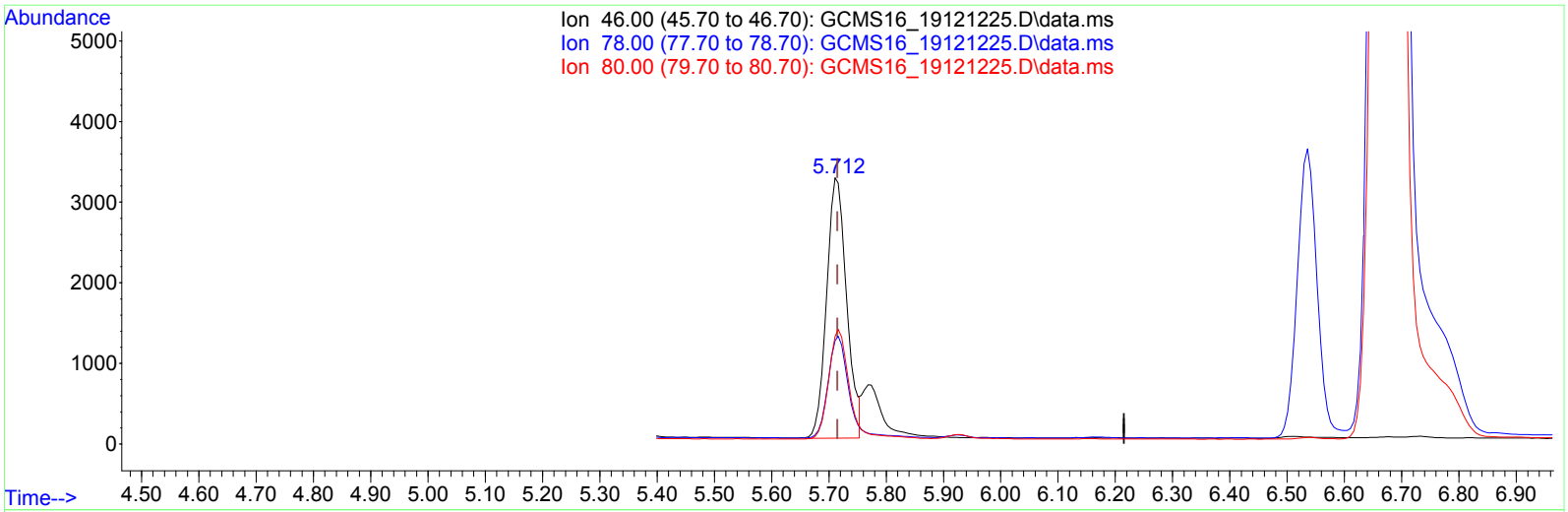
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	48.03
80.00	41.50	51.39
0.00	0.00	0.00

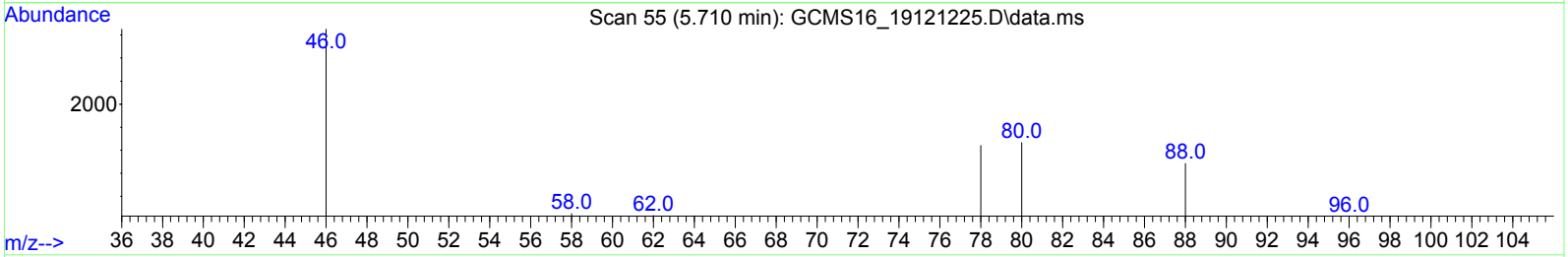
Before
IC
CR 1/2/20

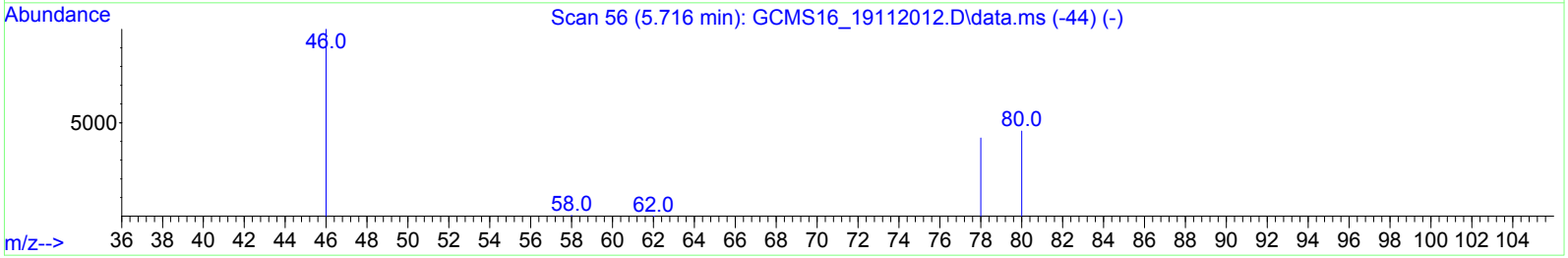
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121225.D
Acq On : 12 Dec 2019 09:55 pm
Operator : CR
Sample : E191201-12
Misc :
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Dec 13 10:40:23 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121225.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 78379

After
CR 1/2/20

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	37.80
80.00	41.50	40.44
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121226.D
Acq On : 12 Dec 2019 10:16 pm
Operator : CR
Sample : E191203-01
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 13 10:41:50 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	82472m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.820	96	27578	23.07 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.896	88	202077	158.06 ug/L	99

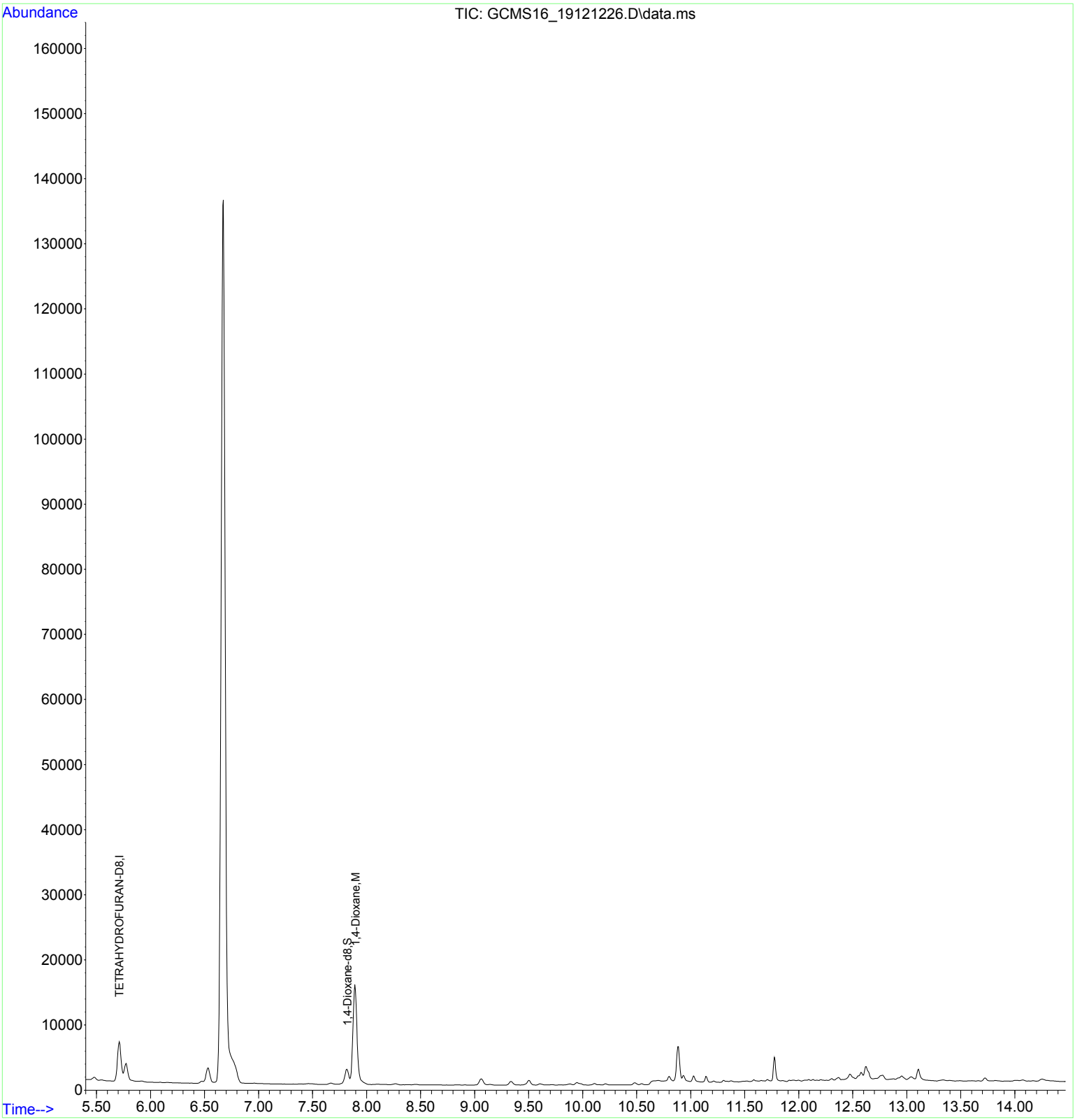
CR 1/2/20

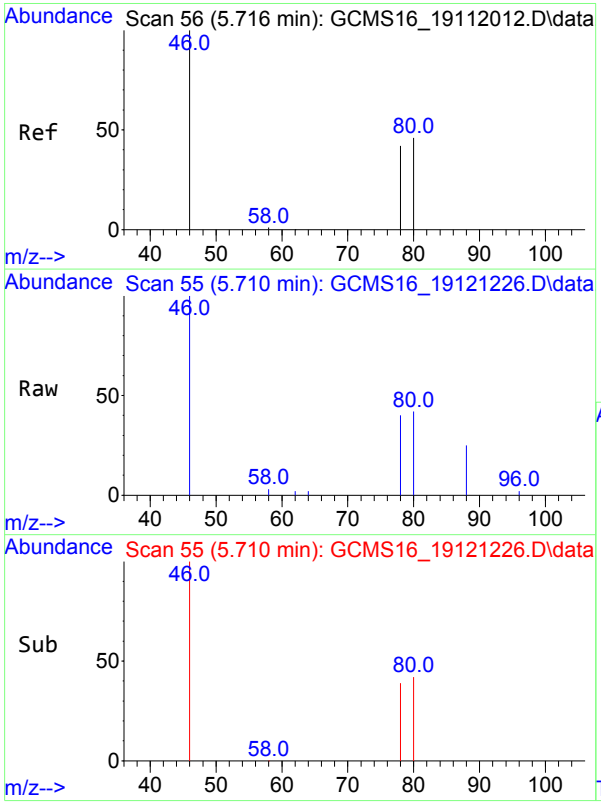
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121226.D
Acq On : 12 Dec 2019 10:16 pm
Operator : CR
Sample : E191203-01
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 13 10:41:50 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

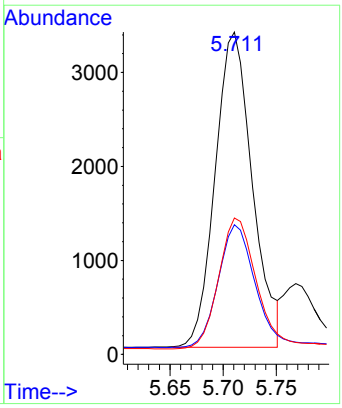


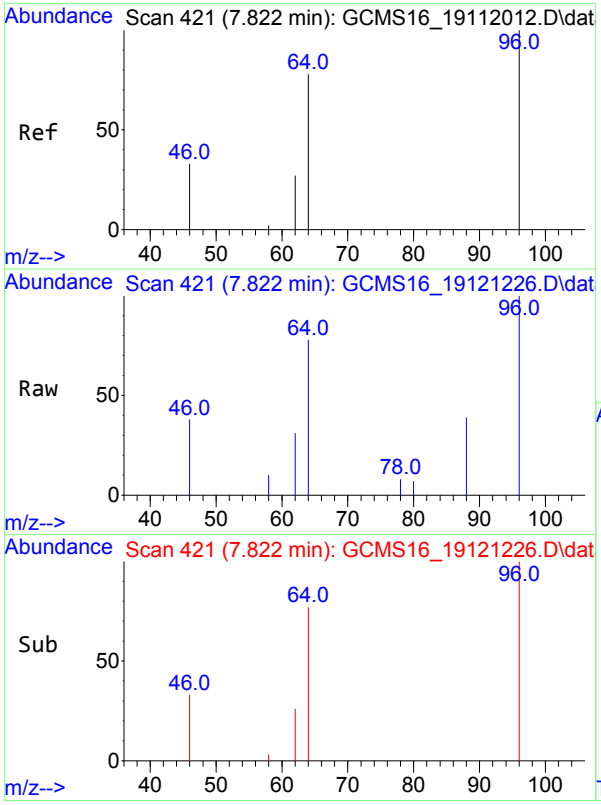


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121226.D
Acq: 12 Dec 2019 10:16 pm

Tgt Ion: 46 Resp: 82472

Ion	Ratio	Lower	Upper
46	100		
78	36.7	27.5	51.1
80	40.4	29.0	53.9

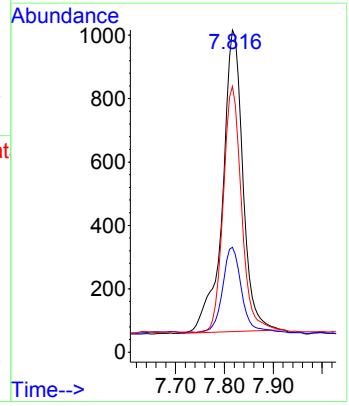


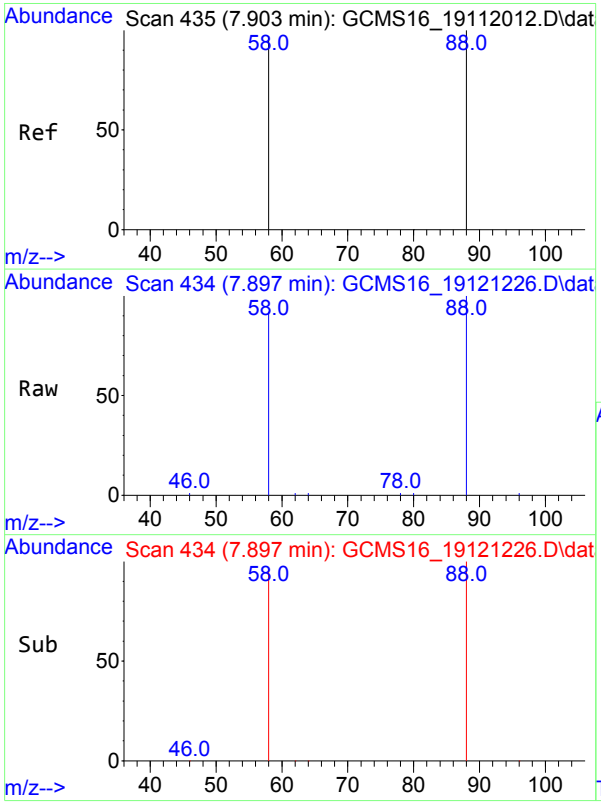


#2
1,4-Dioxane-d8
Concen: 23.07 ug/L
RT: 7.820 min Scan# 421
Delta R.T. -0.002 min
Lab File: GCMS16_19121226.D
Acq: 12 Dec 2019 10:16 pm

Tgt Ion: 96 Resp: 27578

Ion	Ratio	Lower	Upper
96	100		
62	25.3	0.0	0.0#
64	70.1	56.8	105.6

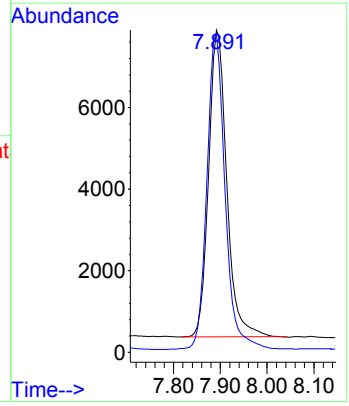




#3
1,4-Dioxane
Concen: 158.06 ug/L
RT: 7.896 min Scan# 434
Delta R.T. -0.004 min
Lab File: GCMS16_19121226.D
Acq: 12 Dec 2019 10:16 pm

Tgt Ion: 88 Resp: 202077

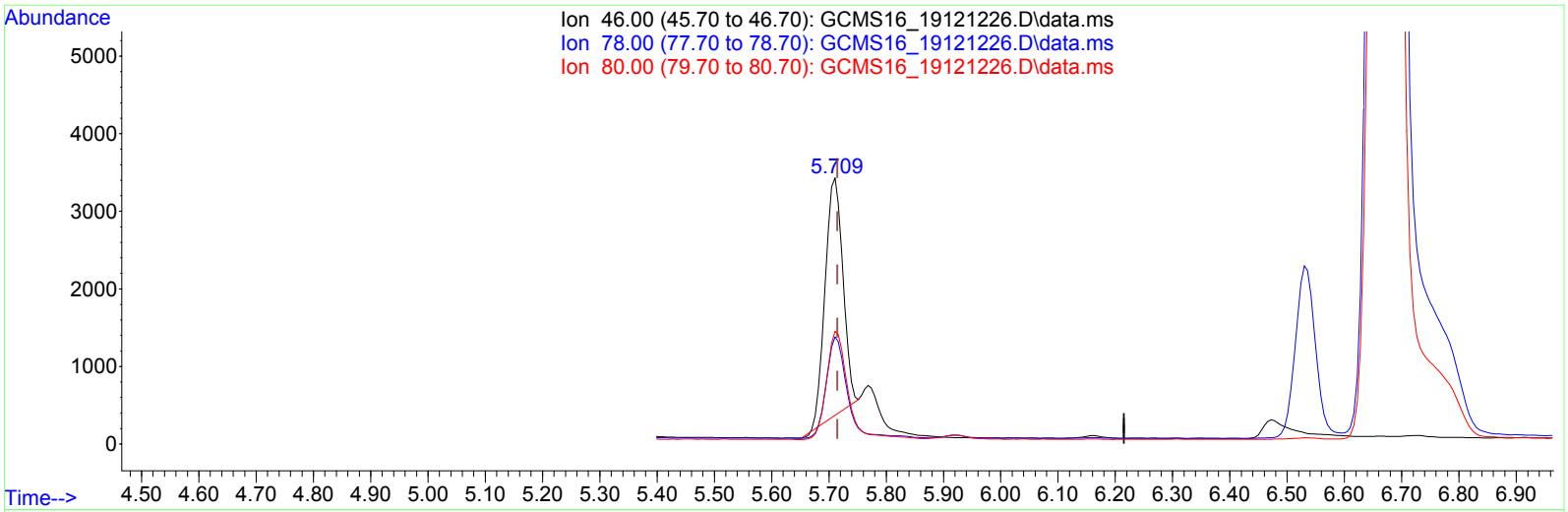
Ion	Ratio	Lower	Upper
88	100		
58	102.9	72.5	134.7

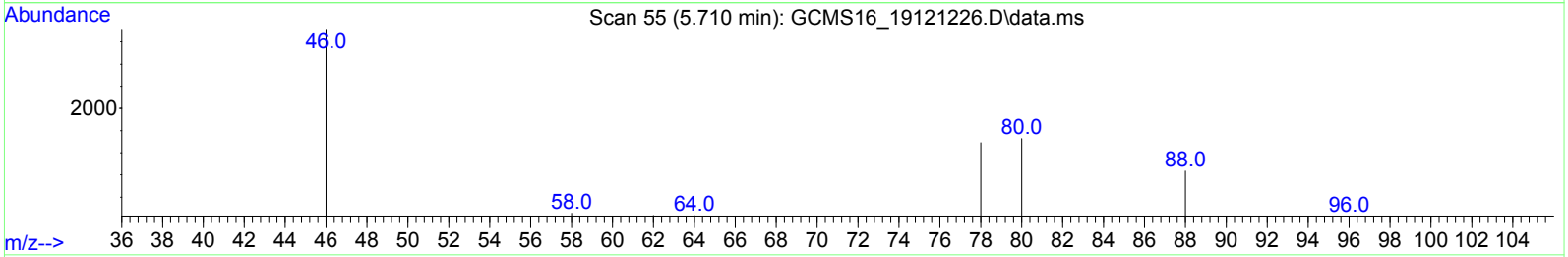


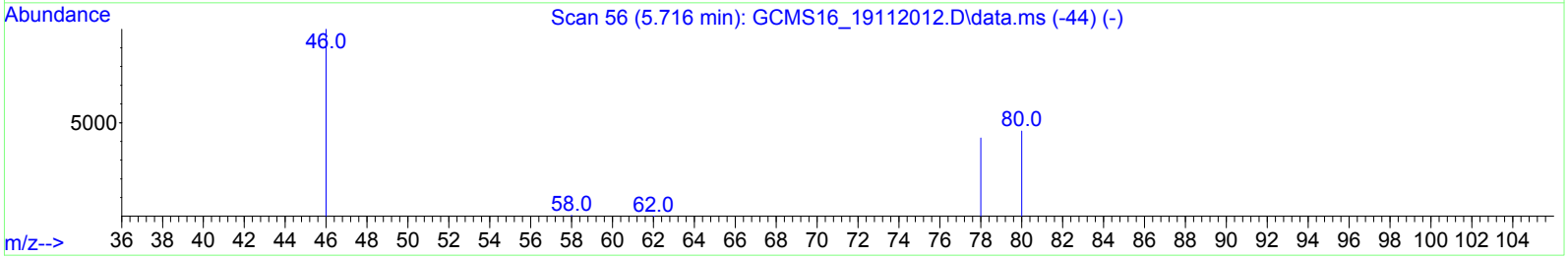
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121226.D
Acq On : 12 Dec 2019 10:16 pm
Operator : CR
Sample : E191203-01
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 13 10:41:50 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121226.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.712min (-0.003) 50.00 ug/L

response 65177

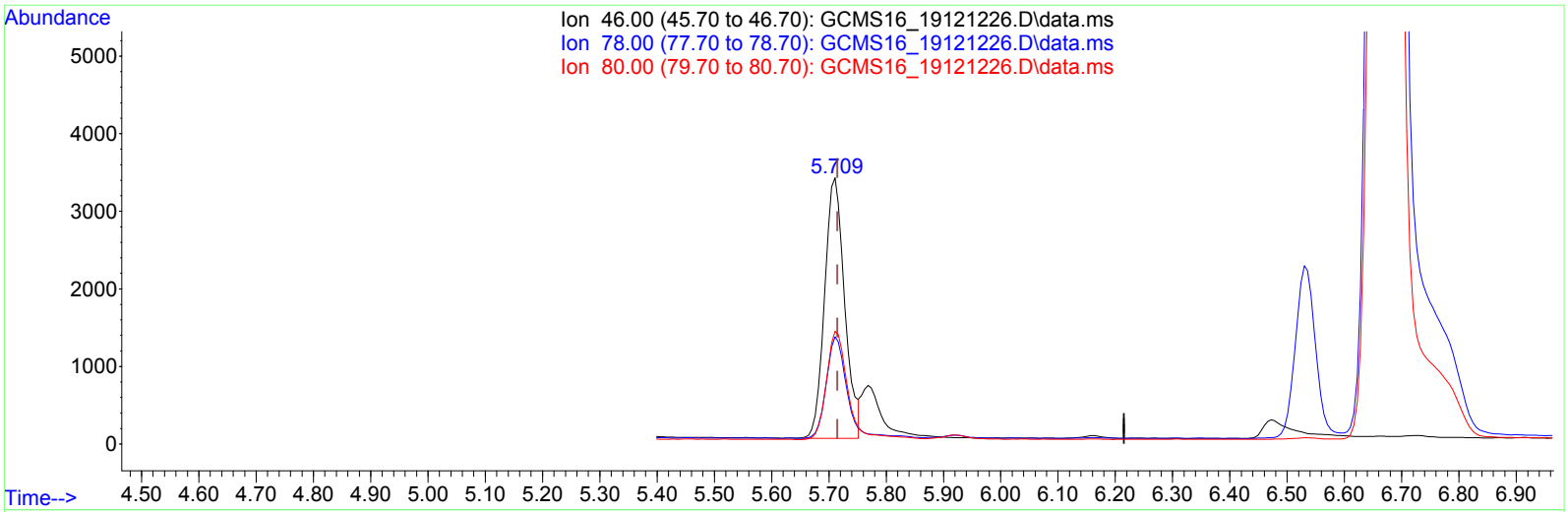
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	46.42
80.00	41.50	51.14
0.00	0.00	0.00

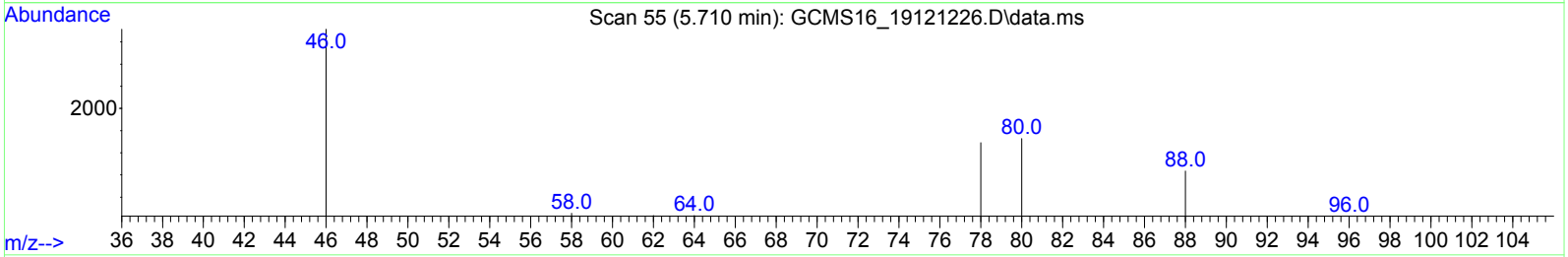
Before
IC
CR 1/2/20

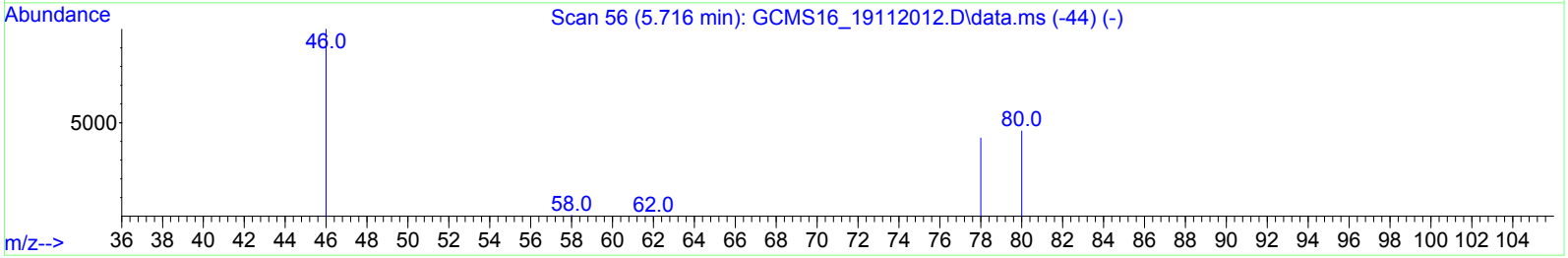
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121226.D
Acq On : 12 Dec 2019 10:16 pm
Operator : CR
Sample : E191203-01
Misc :
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Dec 13 10:41:50 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121226.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 82472

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	36.69
80.00	41.50	40.42
0.00	0.00	0.00

After
CR 1/2/20

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121227.D
Acq On : 12 Dec 2019 10:37 pm
Operator : CR
Sample : E191203-02
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 13 10:44:36 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.710	46	76228m	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	7.821	96	25339	22.93	ug/L	0.00
Target Compounds						Qvalue
3) 1,4-Dioxane	7.896	88	181819	153.86	ug/L	100

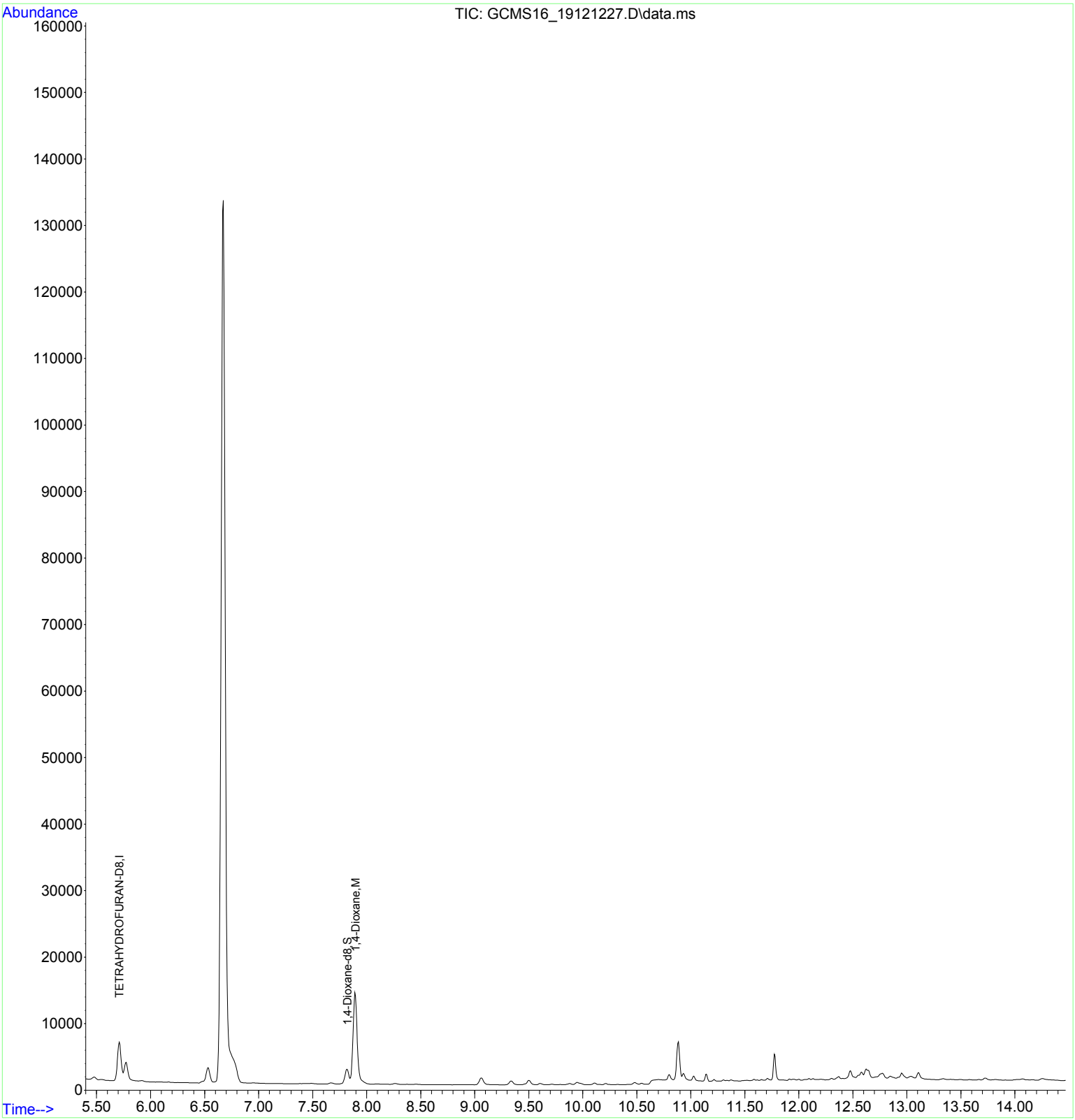
CR 1/2/20

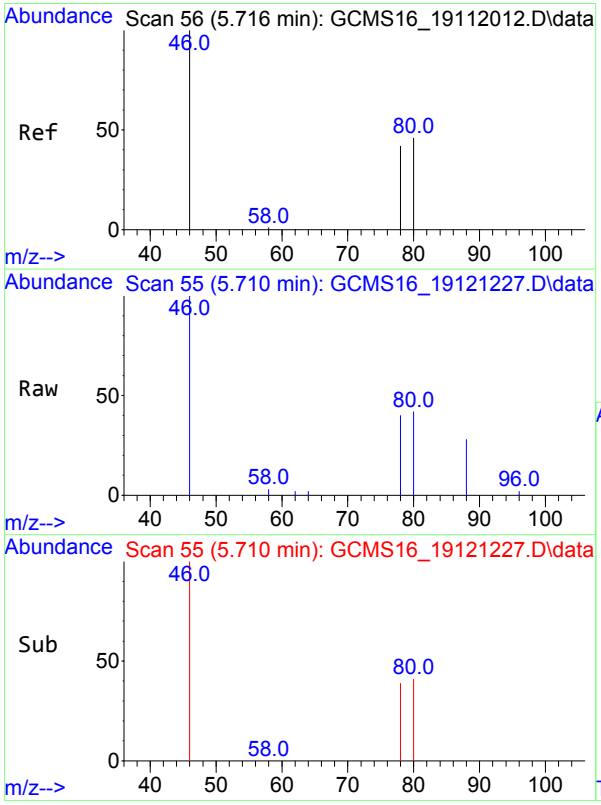
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121227.D
Acq On : 12 Dec 2019 10:37 pm
Operator : CR
Sample : E191203-02
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 13 10:44:36 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

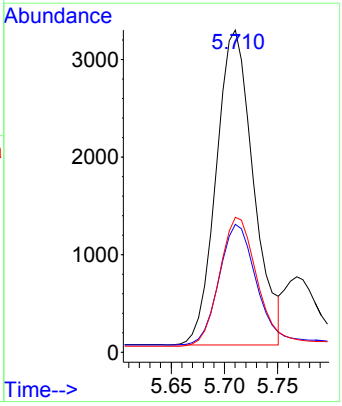


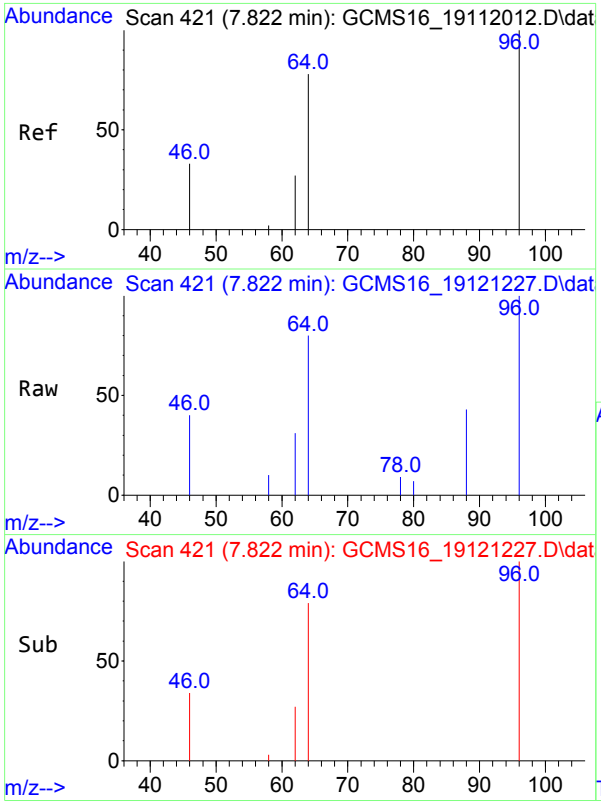


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121227.D
Acq: 12 Dec 2019 10:37 pm

Tgt Ion: 46 Resp: 76228

Ion	Ratio	Lower	Upper
46	100		
78	38.3	27.5	51.1
80	41.5	29.0	53.9

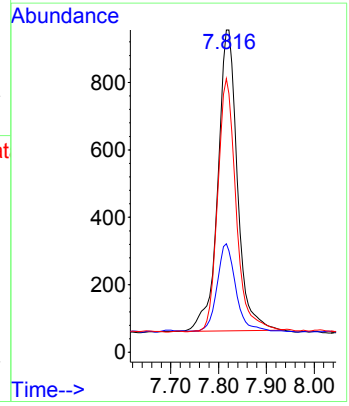


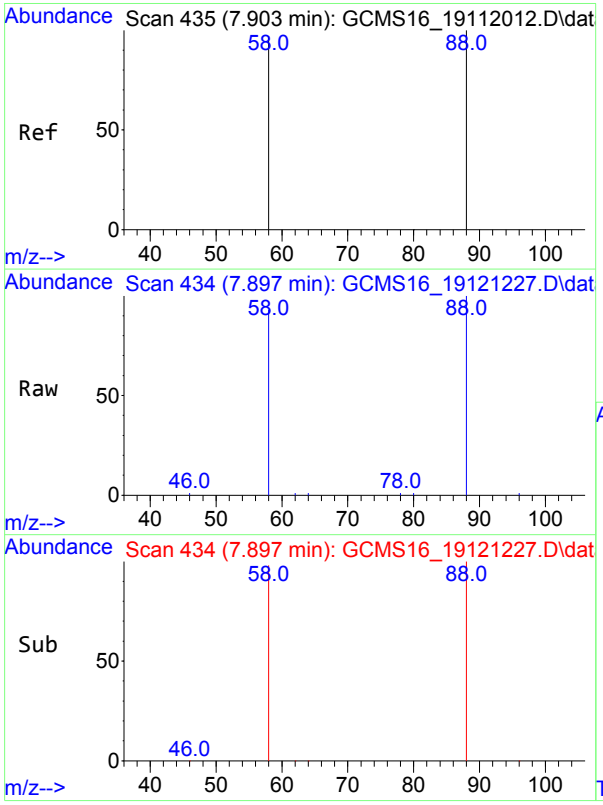


#2
1,4-Dioxane-d8
Concen: 22.93 ug/L
RT: 7.821 min Scan# 421
Delta R.T. -0.001 min
Lab File: GCMS16_19121227.D
Acq: 12 Dec 2019 10:37 pm

Tgt Ion: 96 Resp: 25339

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	76.1	56.8	105.6

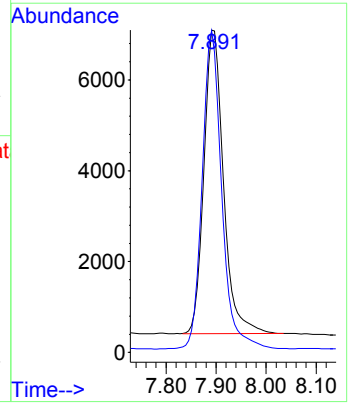




#3
1,4-Dioxane
Concen: 153.86 ug/L
RT: 7.896 min Scan# 434
Delta R.T. -0.003 min
Lab File: GCMS16_19121227.D
Acq: 12 Dec 2019 10:37 pm

Tgt Ion: 88 Resp: 181819

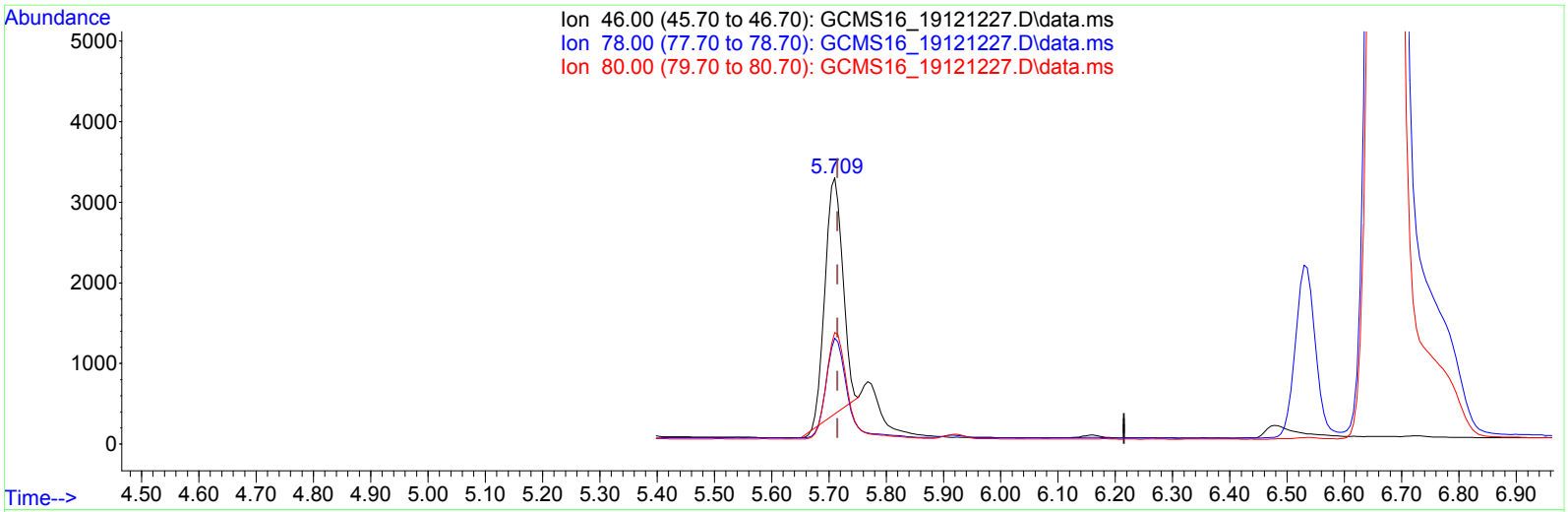
Ion	Ratio	Lower	Upper
88	100		
58	104.1	72.5	134.7

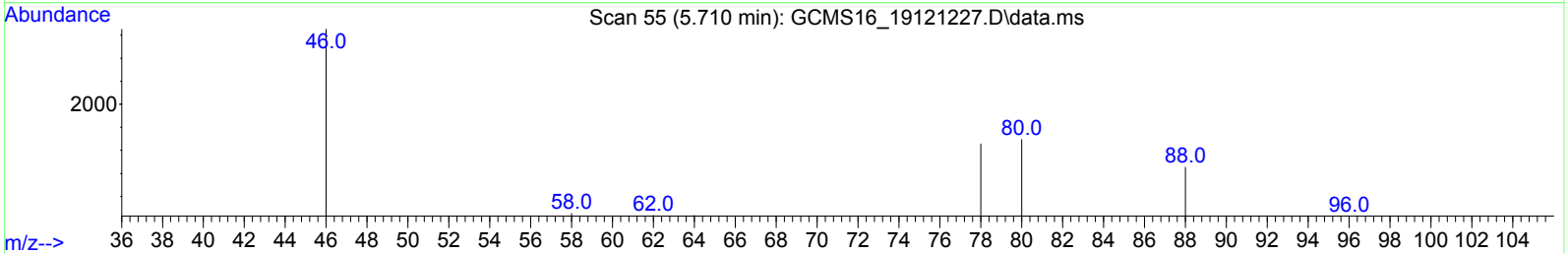


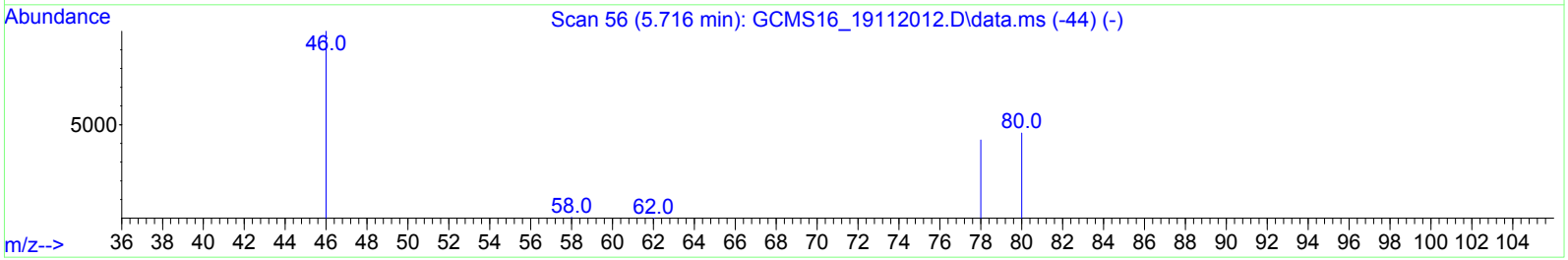
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121227.D
Acq On : 12 Dec 2019 10:37 pm
Operator : CR
Sample : E191203-02
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 13 10:44:36 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121227.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.711min (-0.004) 50.00 ug/L

response 62244

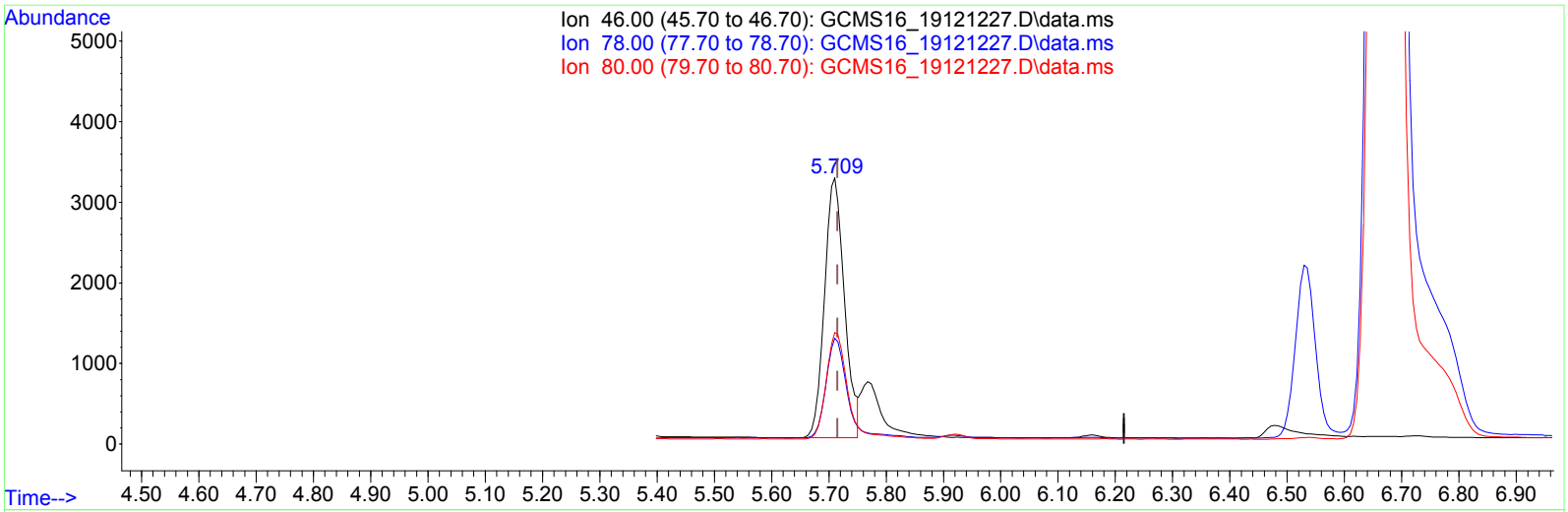
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	46.93
80.00	41.50	50.87
0.00	0.00	0.00

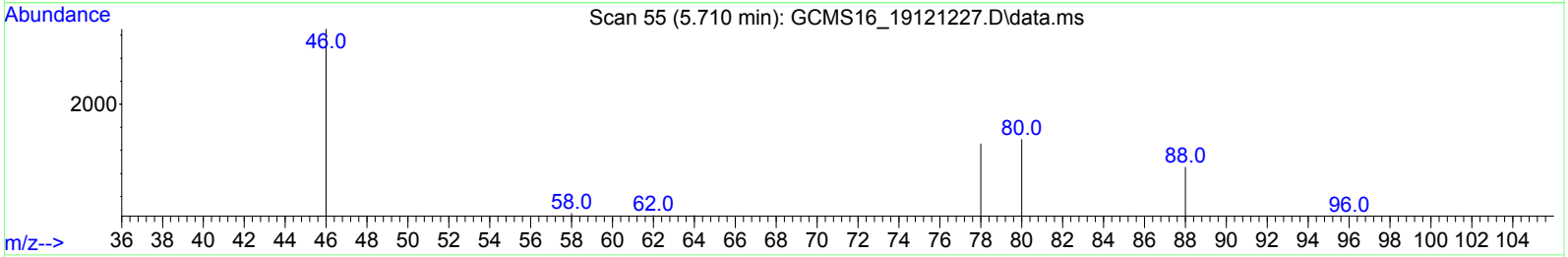
Before
IC
CR 1/2/20

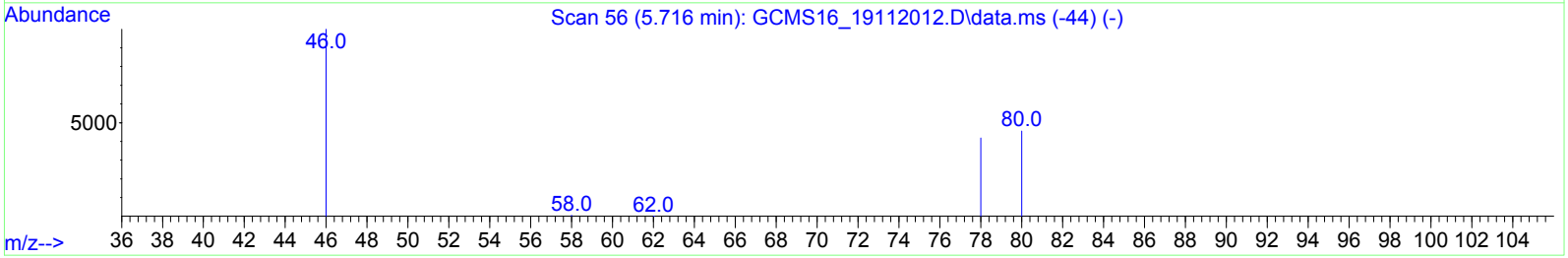
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121227.D
Acq On : 12 Dec 2019 10:37 pm
Operator : CR
Sample : E191203-02
Misc :
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Dec 13 10:44:36 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121227.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 76228

After
CR 1/2/20

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	38.32
80.00	41.50	41.54
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121228.D
Acq On : 12 Dec 2019 10:59 pm
Operator : CR
Sample : E191203-03
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Dec 13 10:50:25 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

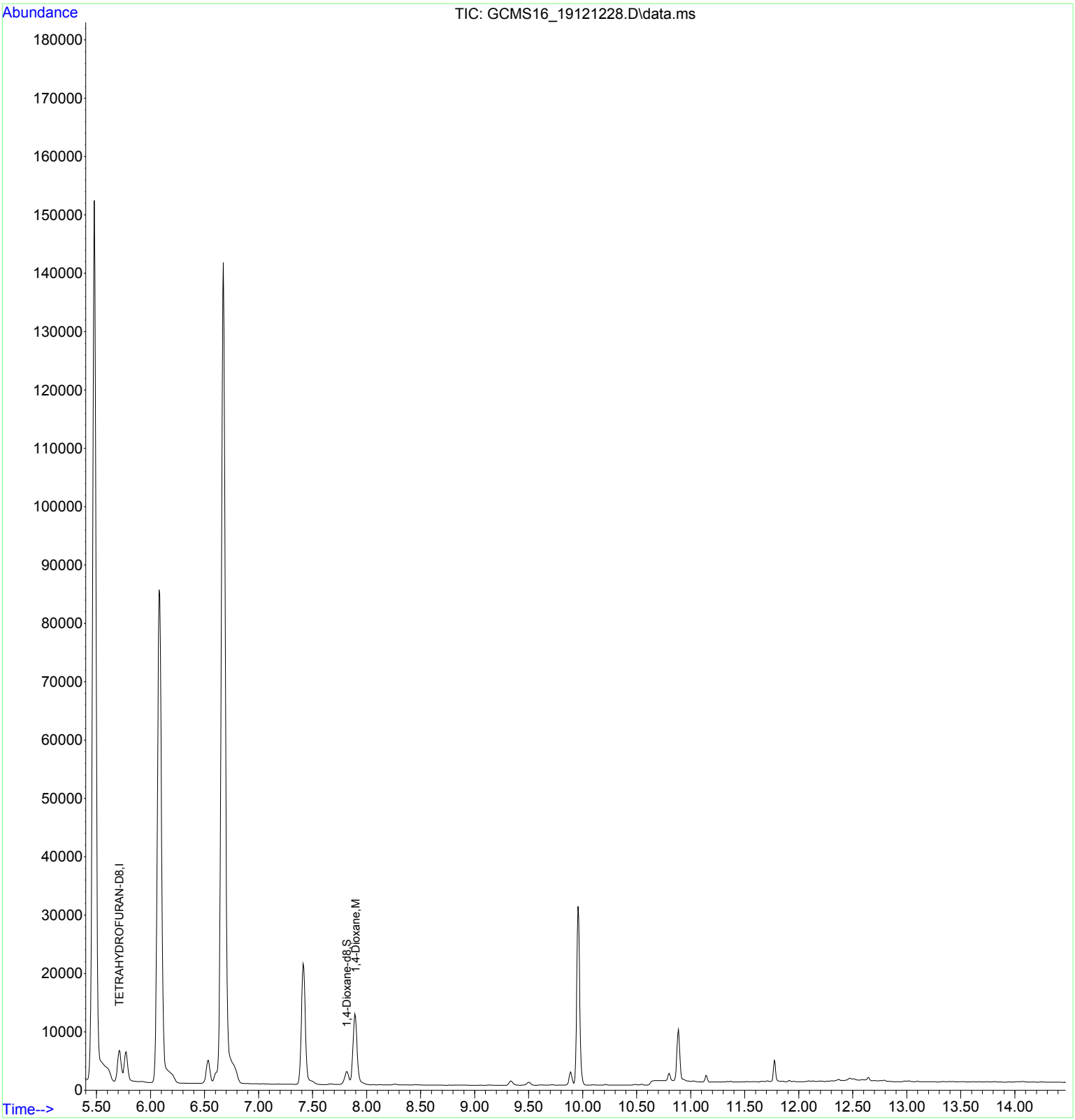
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	68708m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.816	96	23557m	23.66 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.896	88	159909	150.13 ug/L	100

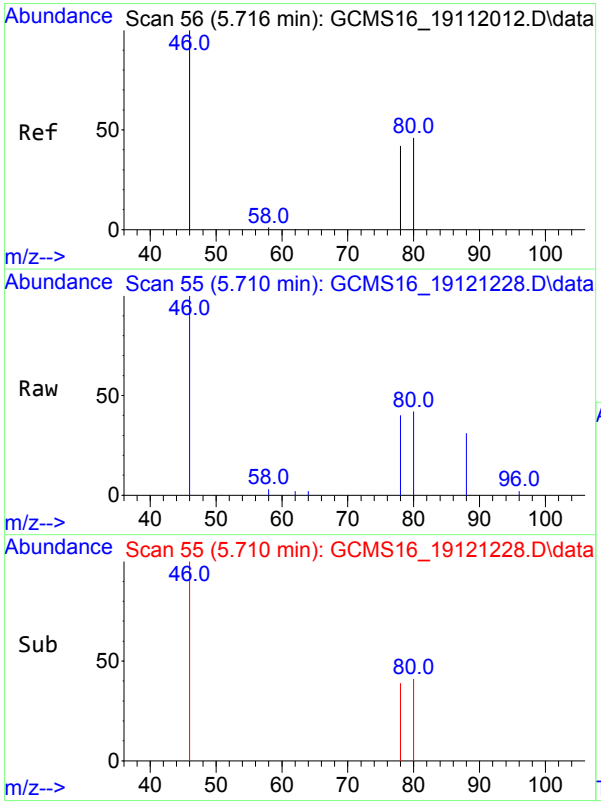
CR 1/2/20

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121228.D
Acq On : 12 Dec 2019 10:59 pm
Operator : CR
Sample : E191203-03
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Dec 13 10:50:25 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

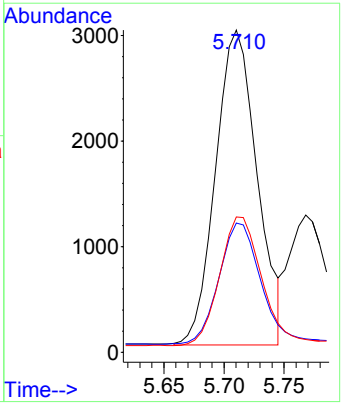


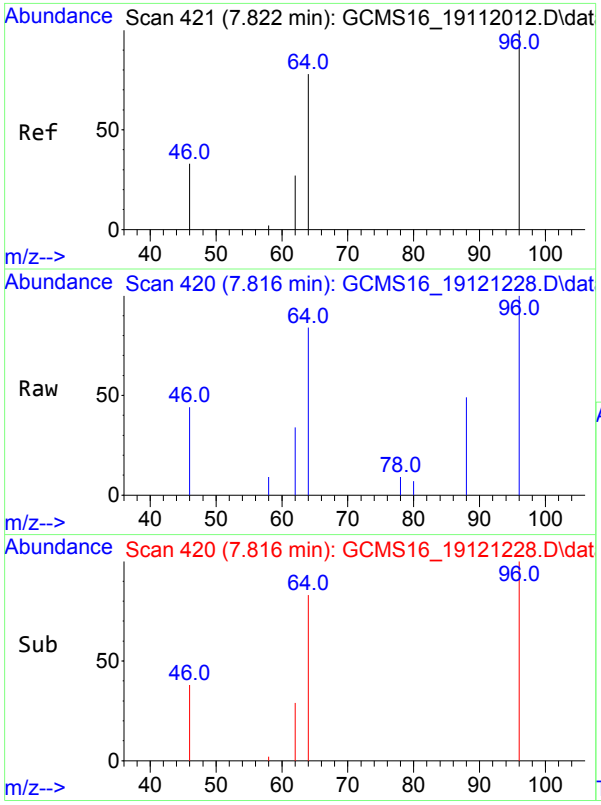


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121228.D
Acq: 12 Dec 2019 10:59 pm

Tgt Ion: 46 Resp: 68708

Ion	Ratio	Lower	Upper
46	100		
78	39.7	27.5	51.1
80	42.2	29.0	53.9

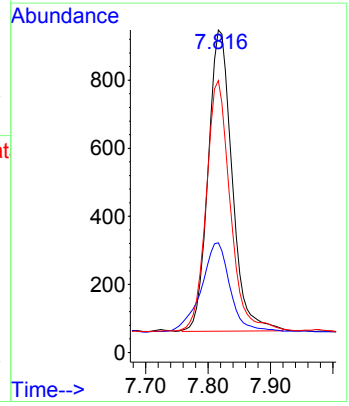


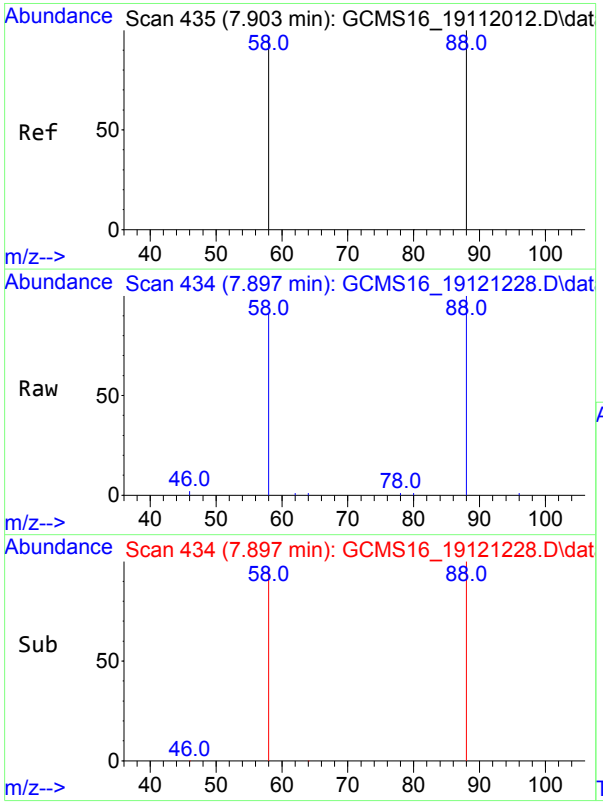


#2
1,4-Dioxane-d8
Concen: 23.66 ug/L m
RT: 7.816 min Scan# 420
Delta R.T. -0.007 min
Lab File: GCMS16_19121228.D
Acq: 12 Dec 2019 10:59 pm

Tgt Ion: 96 Resp: 23557

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	0.0	56.8	105.6#

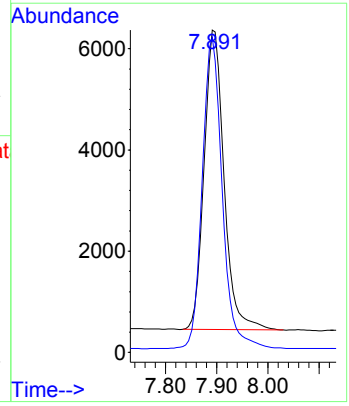




#3
1,4-Dioxane
Concen: 150.13 ug/L
RT: 7.896 min Scan# 434
Delta R.T. -0.003 min
Lab File: GCMS16_19121228.D
Acq: 12 Dec 2019 10:59 pm

Tgt Ion: 88 Resp: 159909

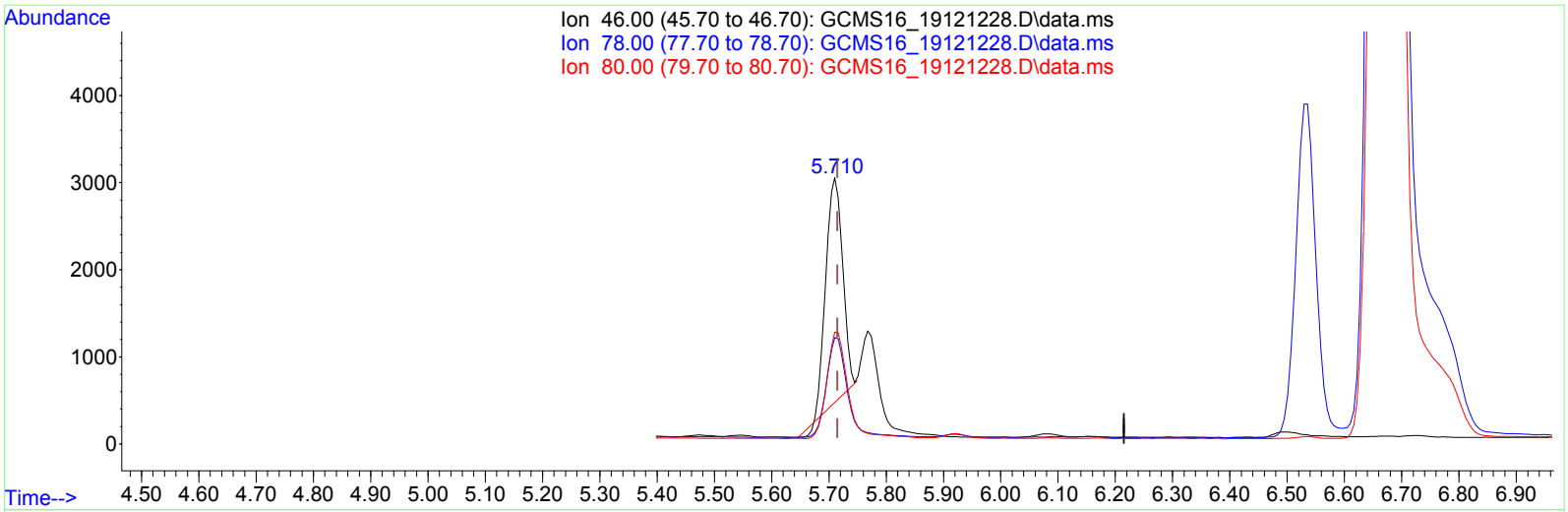
Ion	Ratio	Lower	Upper
88	100		
58	103.4	72.5	134.7

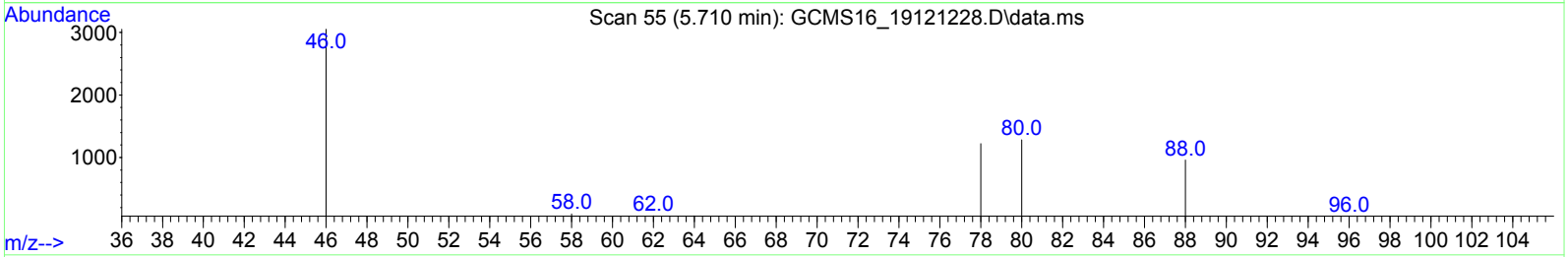


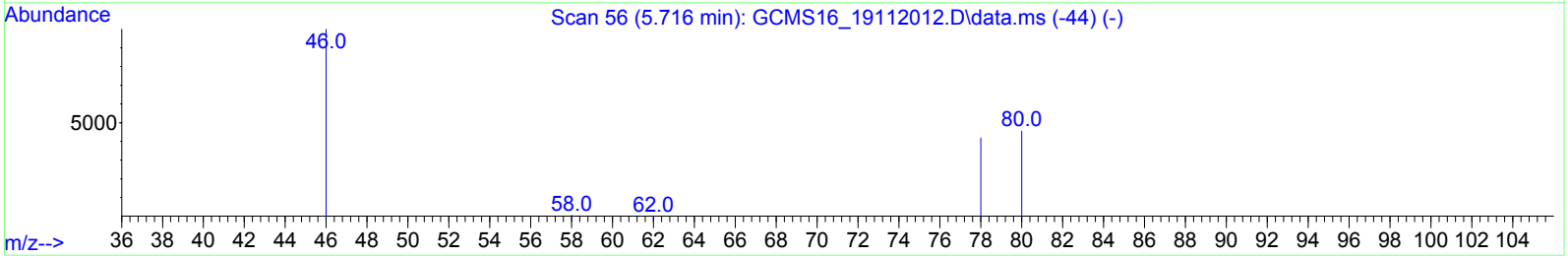
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121228.D
Acq On : 12 Dec 2019 10:59 pm
Operator : CR
Sample : E191203-03
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Dec 13 10:50:25 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121228.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.712min (-0.003) 50.00 ug/L

response 51123

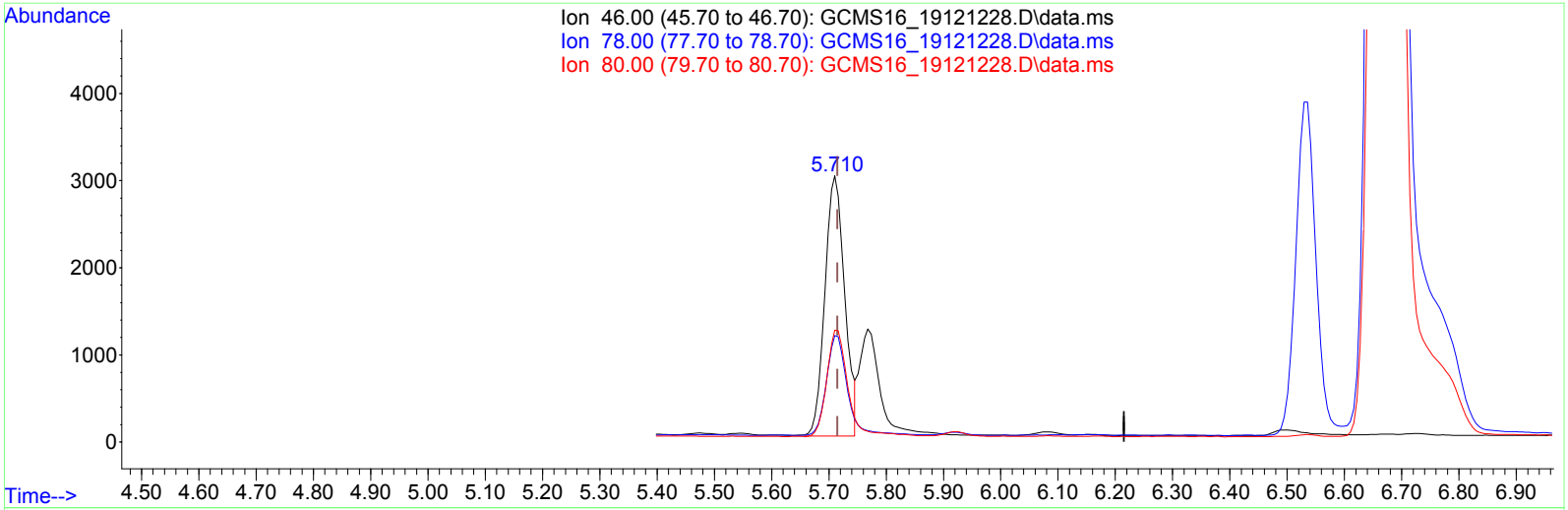
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	53.30#
80.00	41.50	56.78#
0.00	0.00	0.00

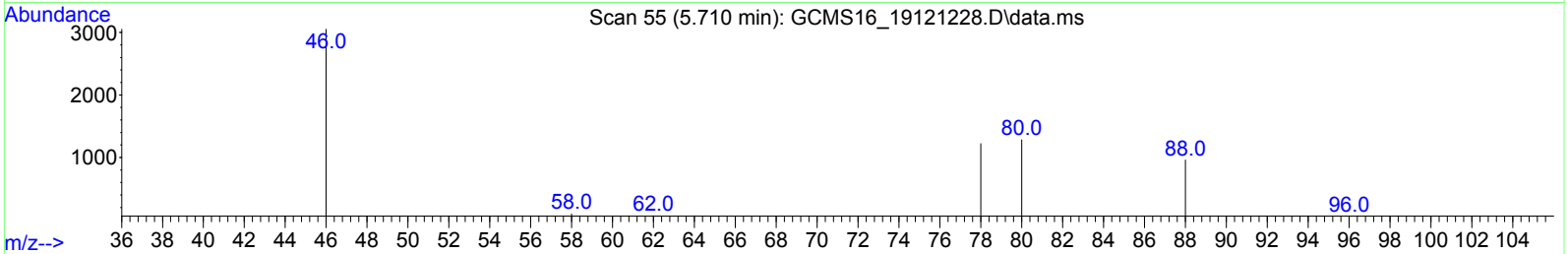
Before
IC
CR 1/2/20

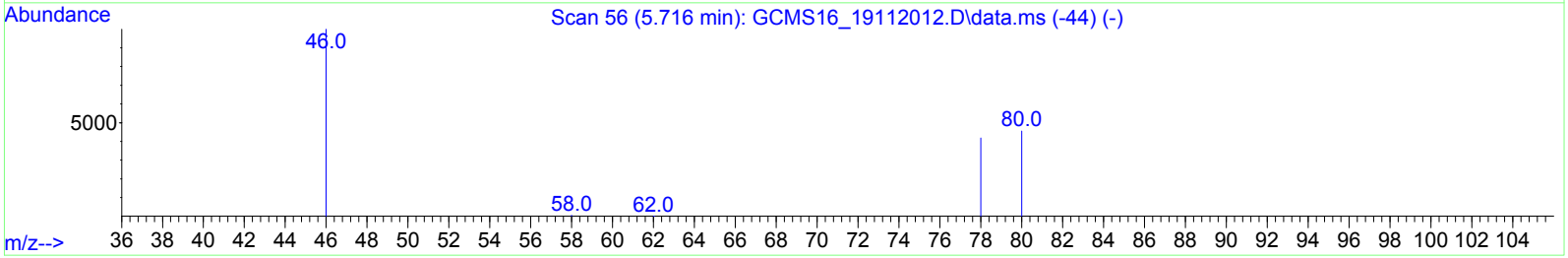
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121228.D
Acq On : 12 Dec 2019 10:59 pm
Operator : CR
Sample : E191203-03
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Dec 13 10:50:25 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121228.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 68708

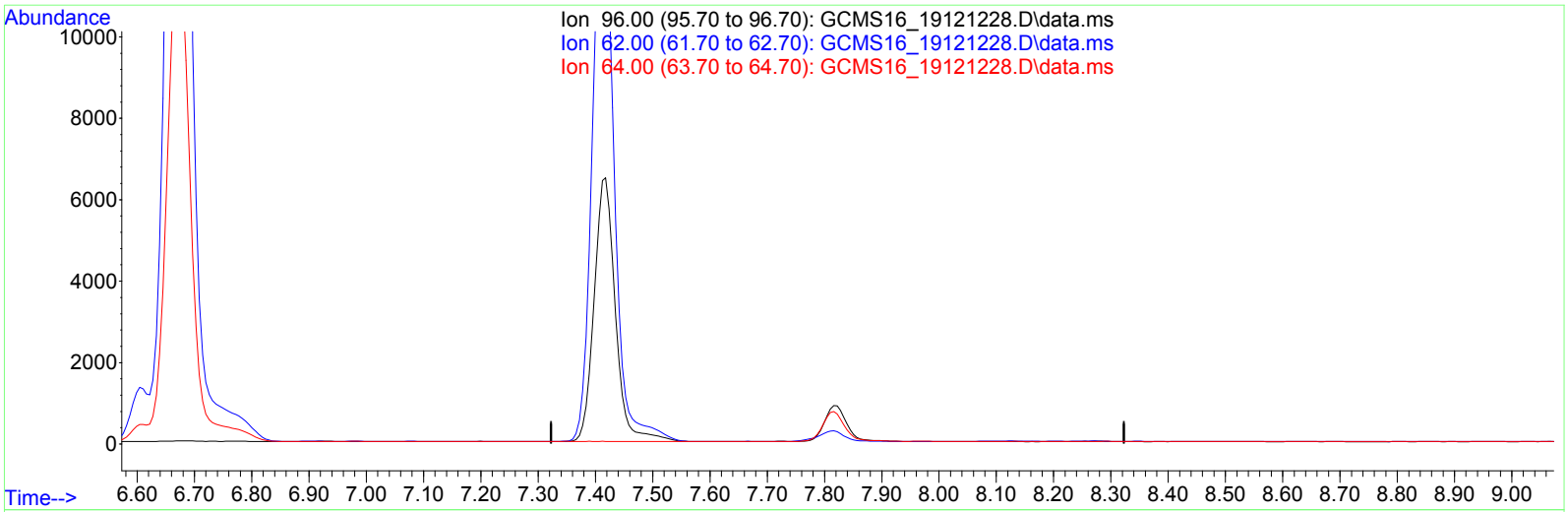
After
CR 1/2/20

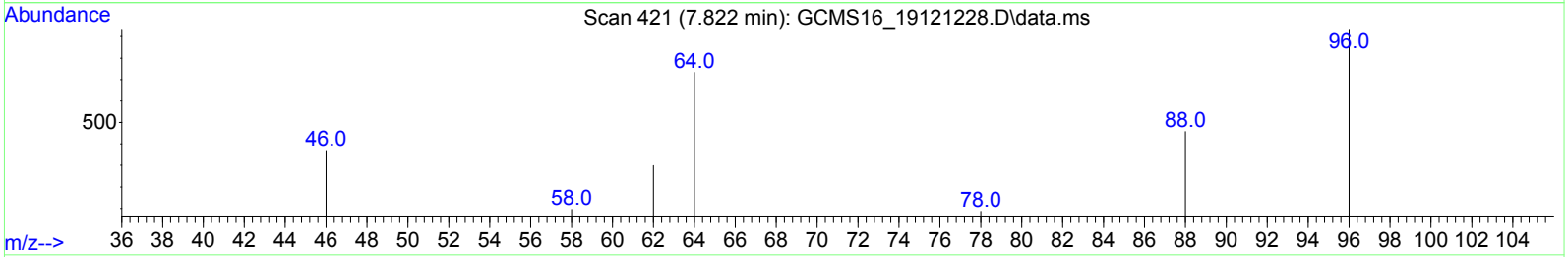
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	39.66
80.00	41.50	42.24
0.00	0.00	0.00

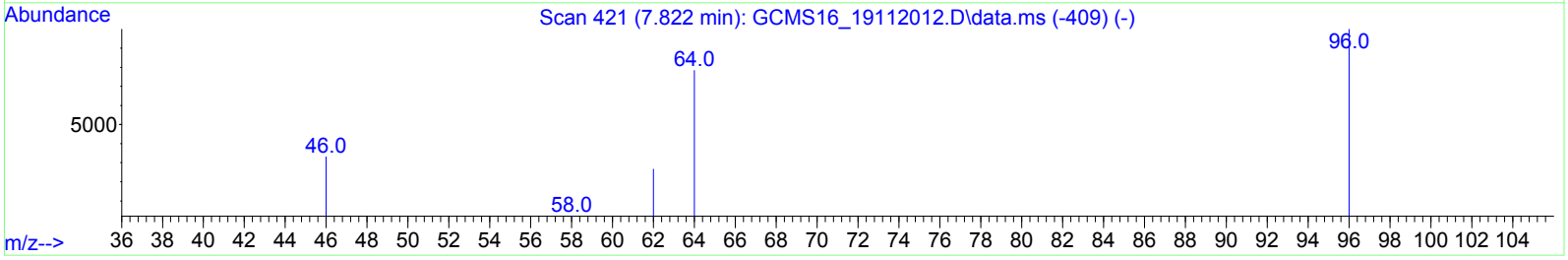
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121228.D
Acq On : 12 Dec 2019 10:59 pm
Operator : CR
Sample : E191203-03
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Dec 13 10:50:25 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121228.D\data.ms

(2) 1,4-Dioxane-d8 (S)

7.823min (-7.823) 0.00 ug/L

response 0

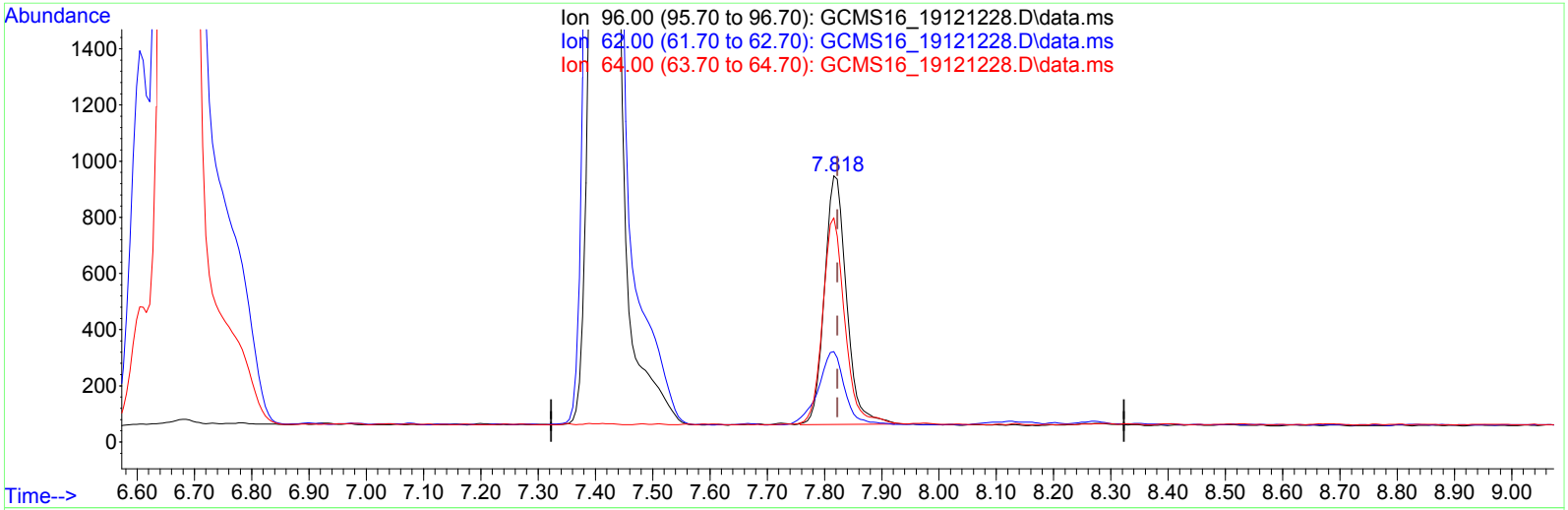
Before
N
CR 1/2/20

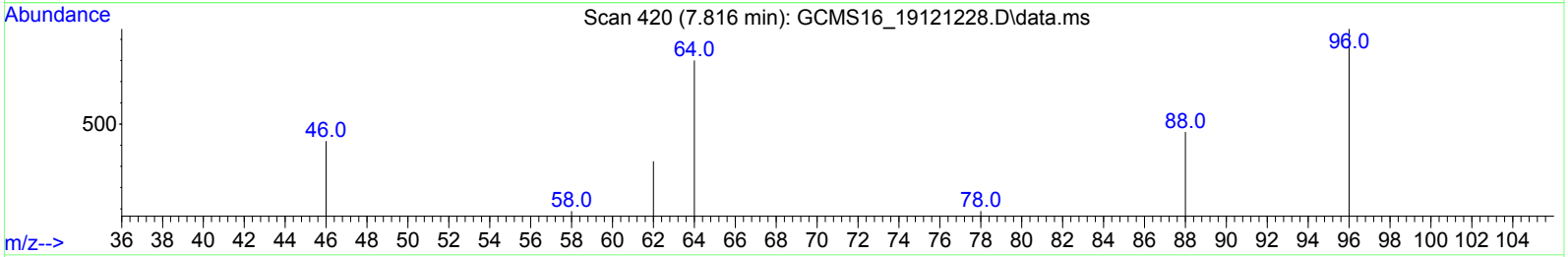
Ion	Exp%	Act%
96.00	100.00	0.00
62.00	0.00	0.00
64.00	81.20	0.00#
0.00	0.00	0.00

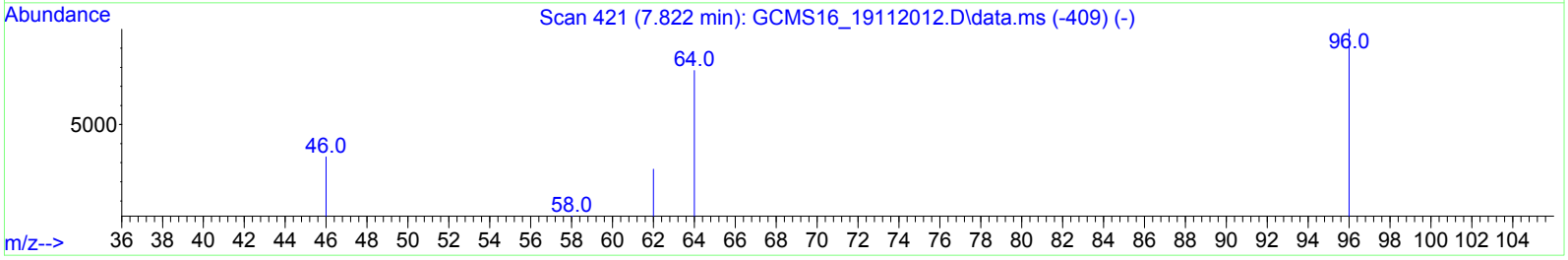
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121228.D
Acq On : 12 Dec 2019 10:59 pm
Operator : CR
Sample : E191203-03
Misc :
ALS Vial : 25 Sample Multiplier: 1

Quant Time: Dec 13 10:50:25 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121228.D\data.ms

(2) 1,4-Dioxane-d8 (S)

7.816min (-0.007) 23.66 ug/L m

response 23557

After
CR 1/2/20

Ion	Exp%	Act%
96.00	100.00	100.00
62.00	0.00	0.00
64.00	81.20	0.00#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121229.D
Acq On : 12 Dec 2019 11:19 pm
Operator : CR
Sample : E191203-04
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 13 10:52:20 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	77118m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.816	96	24241m	21.69 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.894	88	407603	340.95 ug/L	100

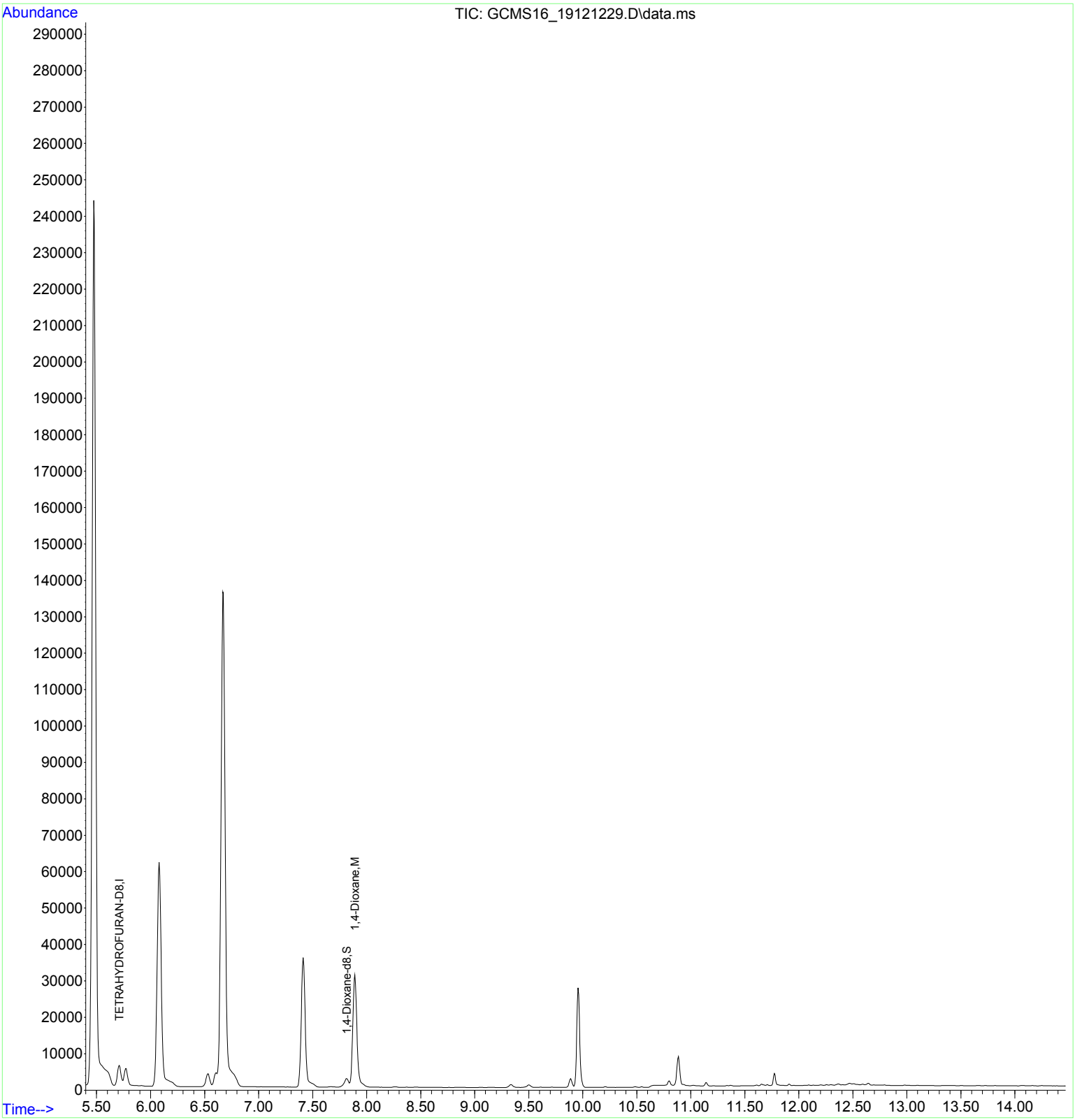
CR 1/2/20

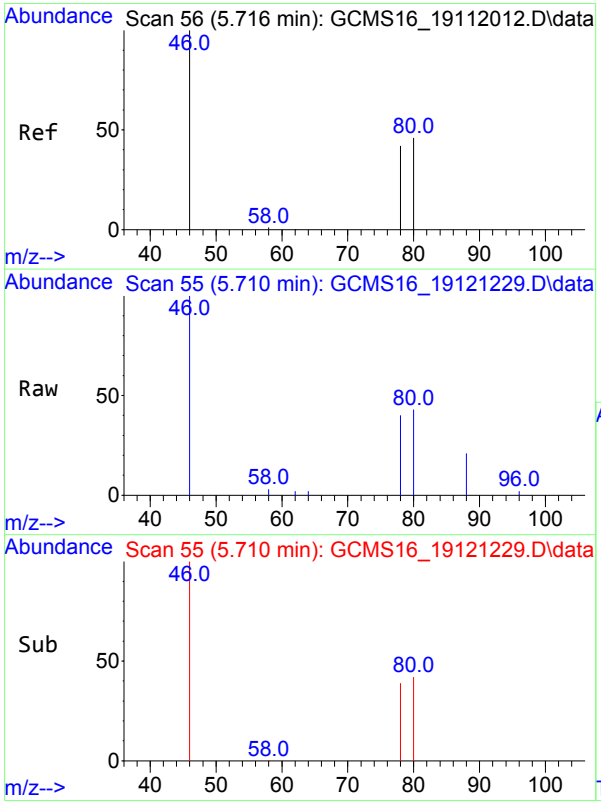
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121229.D
Acq On : 12 Dec 2019 11:19 pm
Operator : CR
Sample : E191203-04
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 13 10:52:20 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

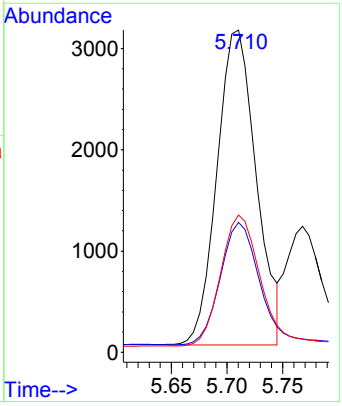


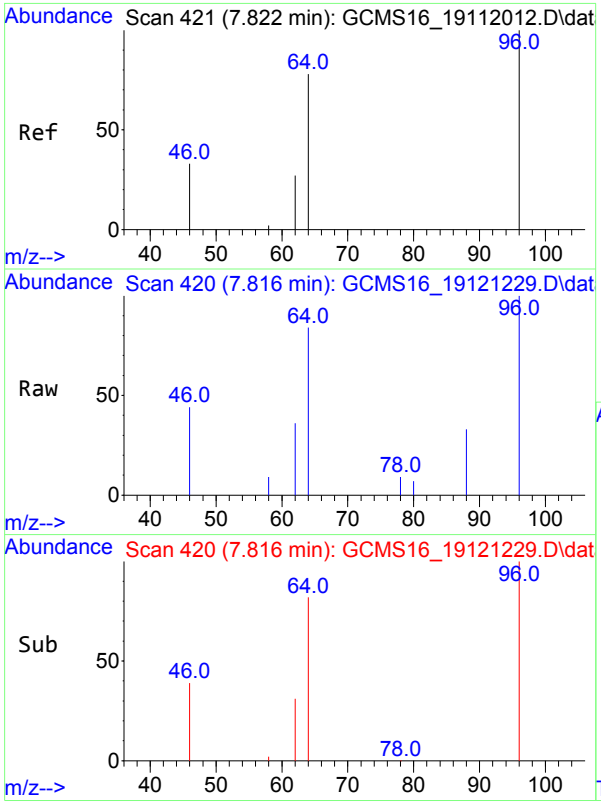


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121229.D
Acq: 12 Dec 2019 11:19 pm

Tgt Ion: 46 Resp: 77118

Ion	Ratio	Lower	Upper
46	100		
78	37.0	27.5	51.1
80	40.4	29.0	53.9

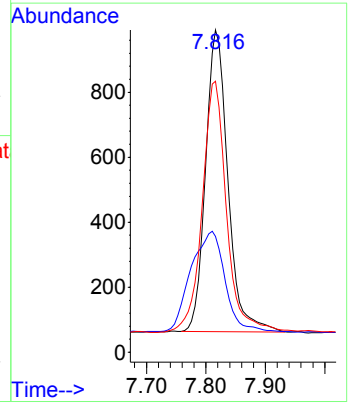


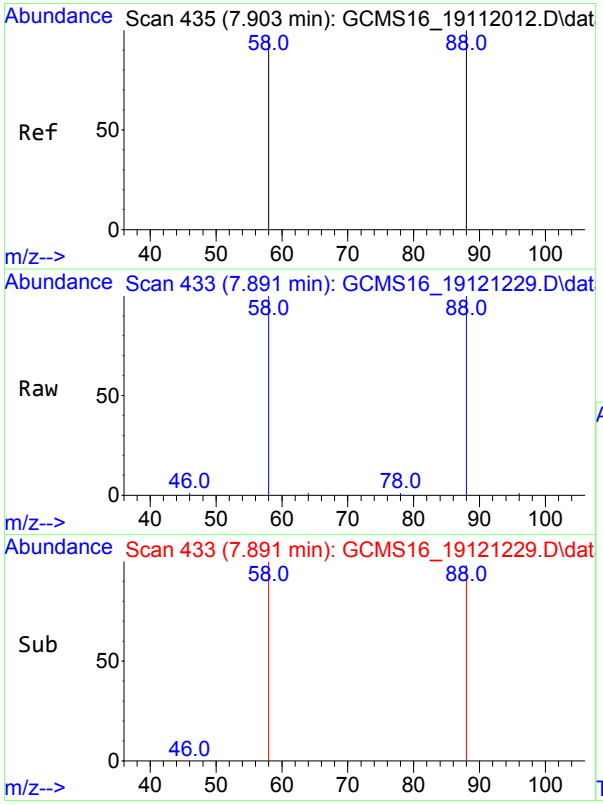


#2
1,4-Dioxane-d8
Concen: 21.69 ug/L m
RT: 7.816 min Scan# 420
Delta R.T. -0.007 min
Lab File: GCMS16_19121229.D
Acq: 12 Dec 2019 11:19 pm

Tgt Ion: 96 Resp: 24241

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	0.0	56.8	105.6#

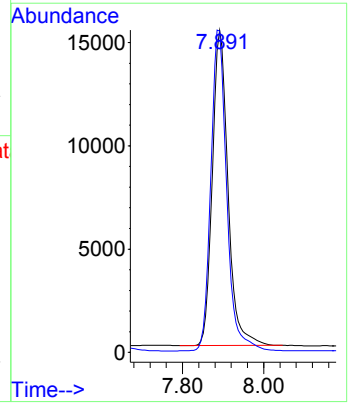




#3
1,4-Dioxane
Concen: 340.95 ug/L
RT: 7.894 min Scan# 433
Delta R.T. -0.005 min
Lab File: GCMS16_19121229.D
Acq: 12 Dec 2019 11:19 pm

Tgt Ion: 88 Resp: 407603

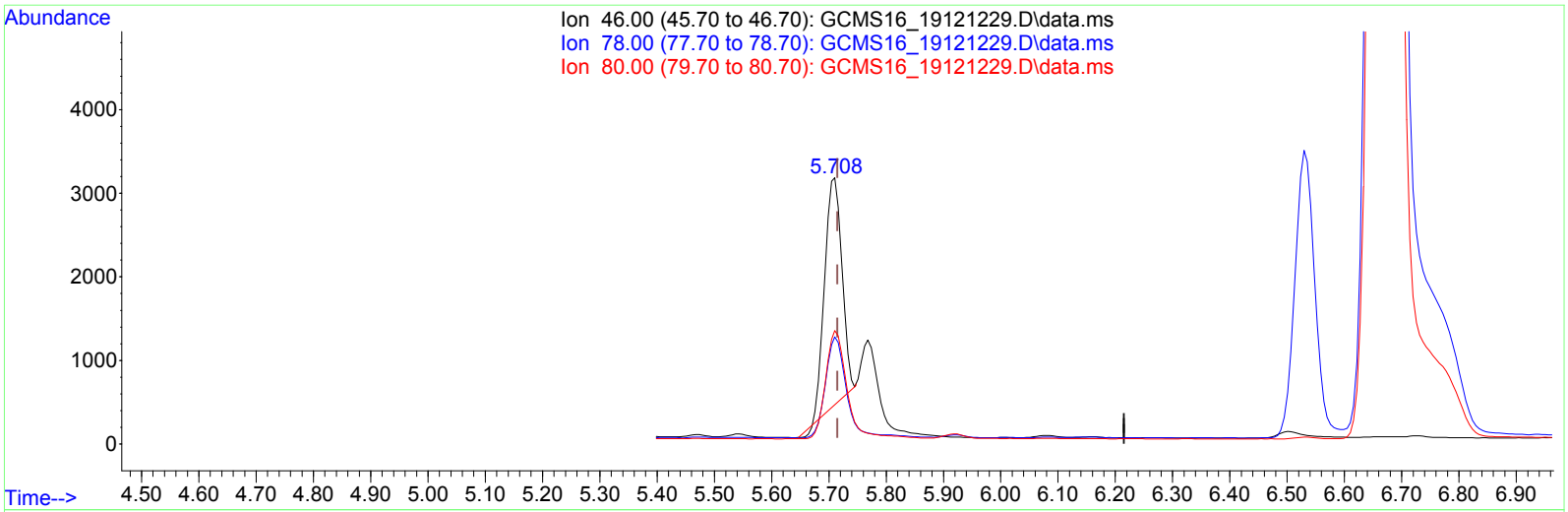
Ion	Ratio	Lower	Upper
88	100		
58	103.1	72.5	134.7

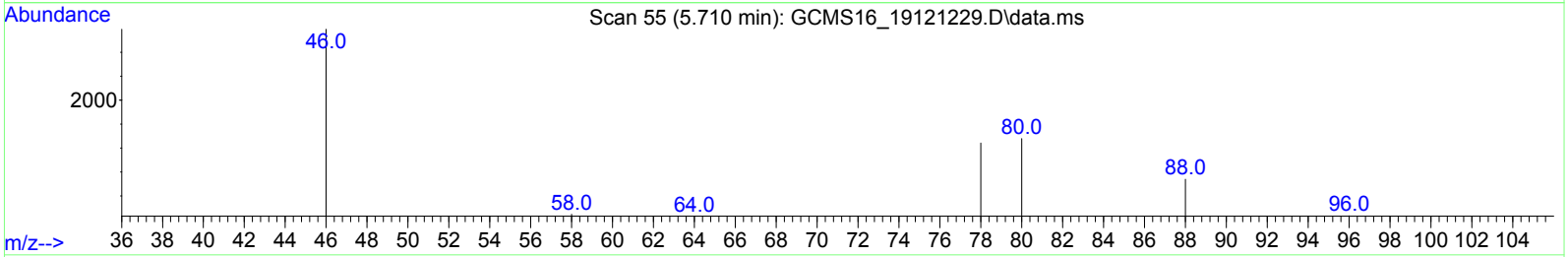


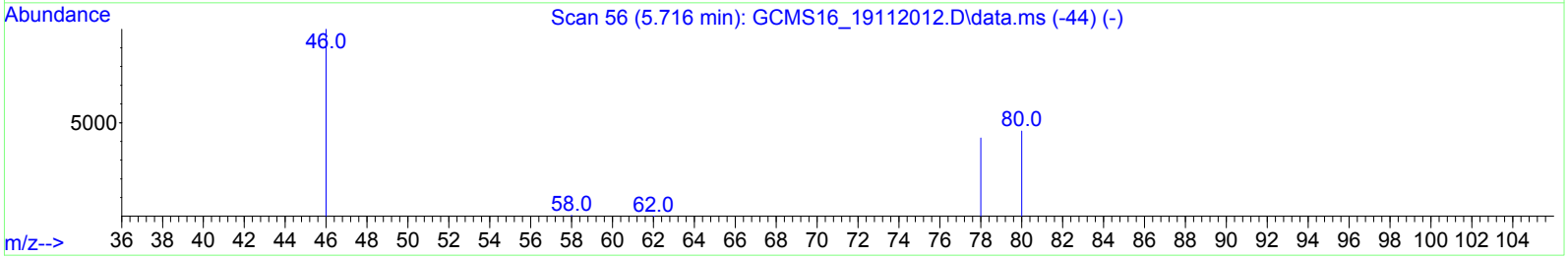
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121229.D
Acq On : 12 Dec 2019 11:19 pm
Operator : CR
Sample : E191203-04
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 13 10:52:20 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121229.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L

response 56063

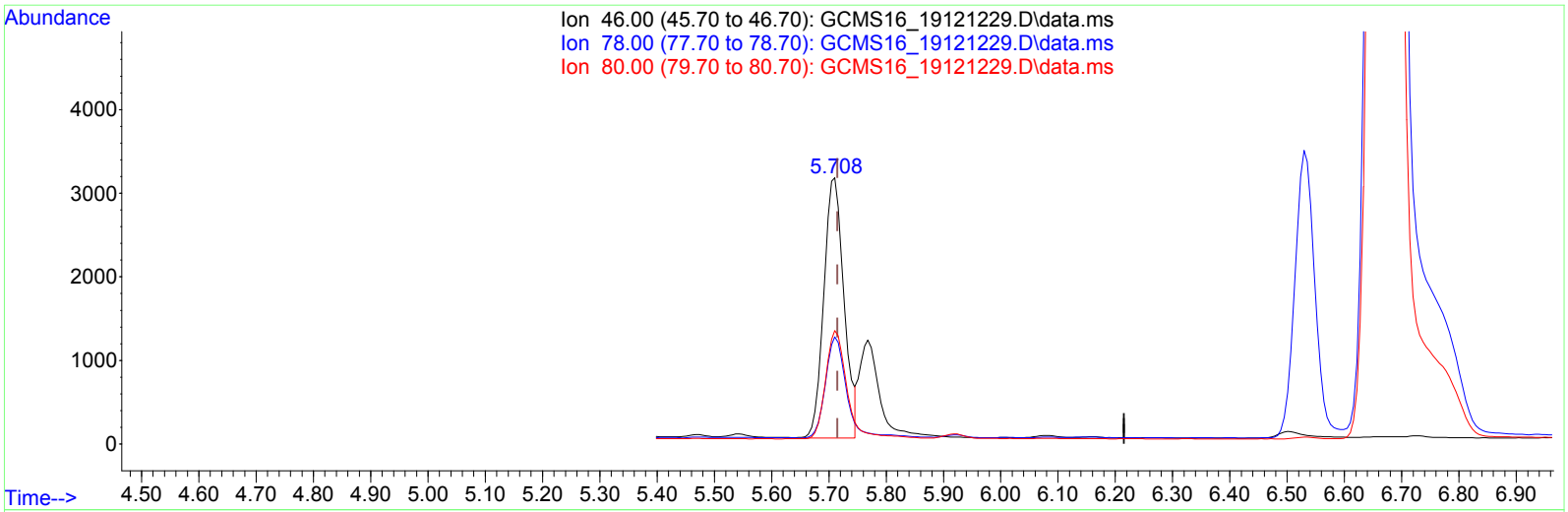
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	50.96
80.00	41.50	55.60#
0.00	0.00	0.00

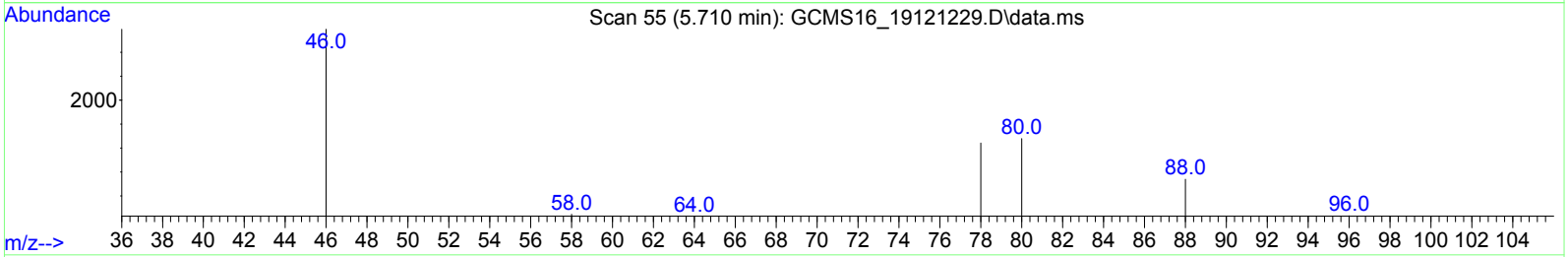
Before
IC
CR 1/2/20

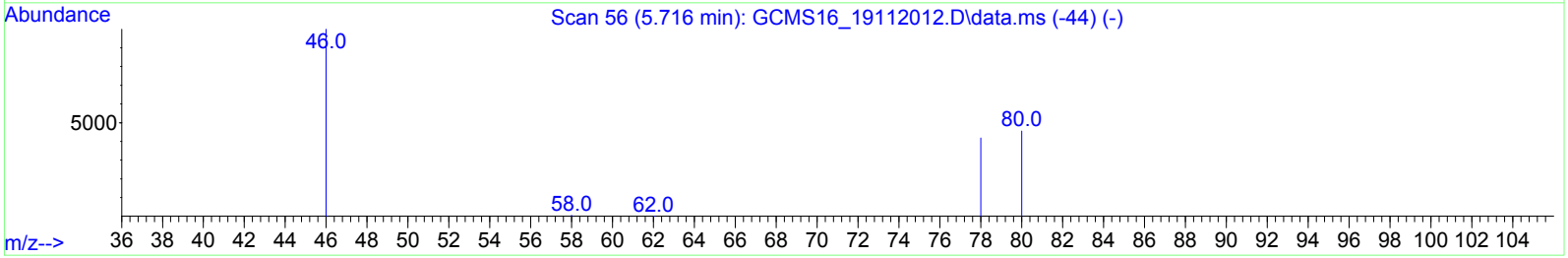
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121229.D
Acq On : 12 Dec 2019 11:19 pm
Operator : CR
Sample : E191203-04
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 13 10:52:20 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121229.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 77118

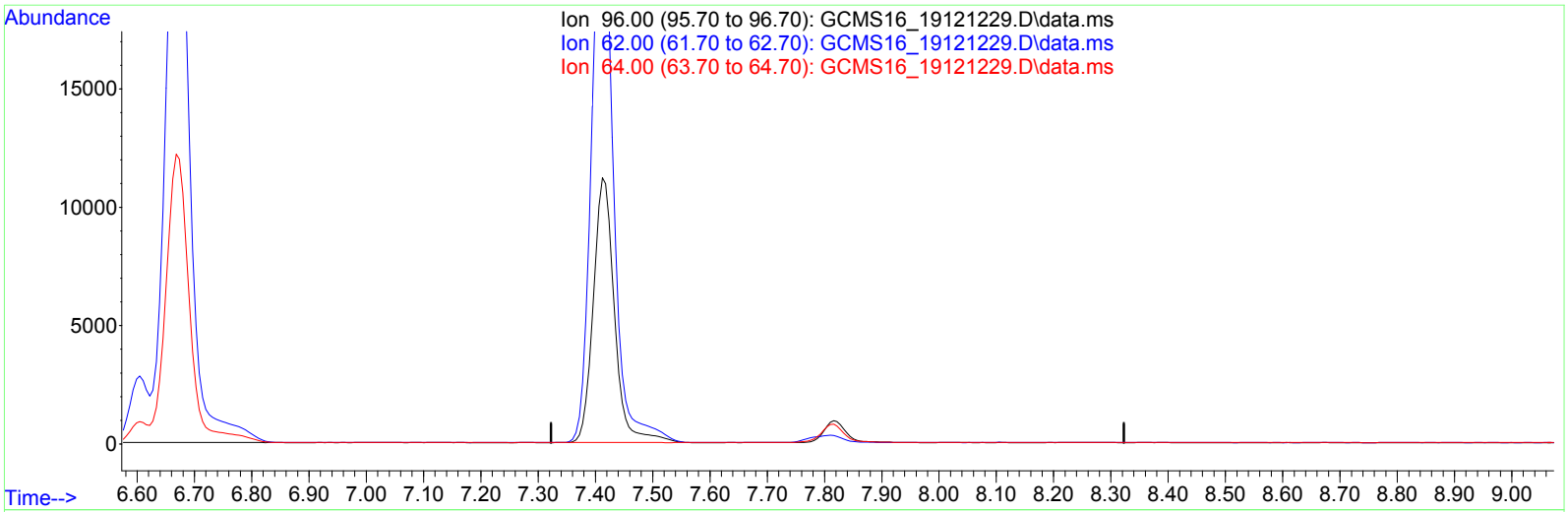
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	37.05
80.00	41.50	40.42
0.00	0.00	0.00

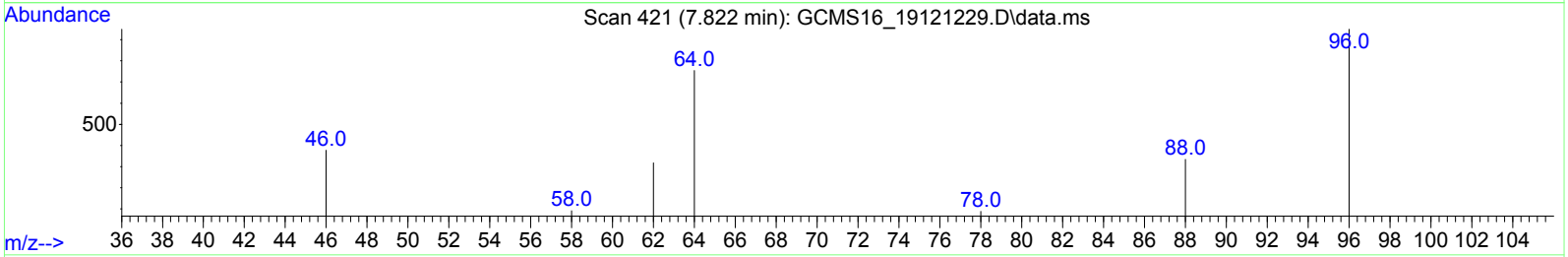
After
CR 1/2/20

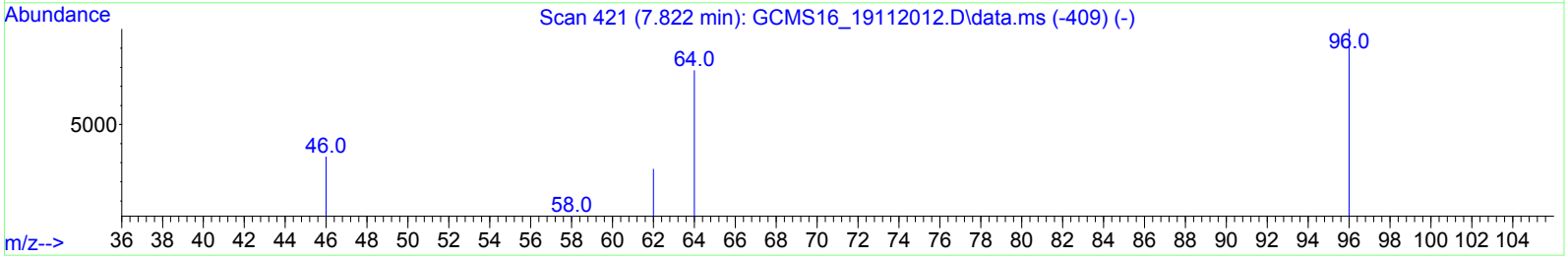
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121229.D
Acq On : 12 Dec 2019 11:19 pm
Operator : CR
Sample : E191203-04
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 13 10:52:20 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121229.D\data.ms

(2) 1,4-Dioxane-d8 (S)

7.823min (-7.823) 0.00 ug/L

response 0

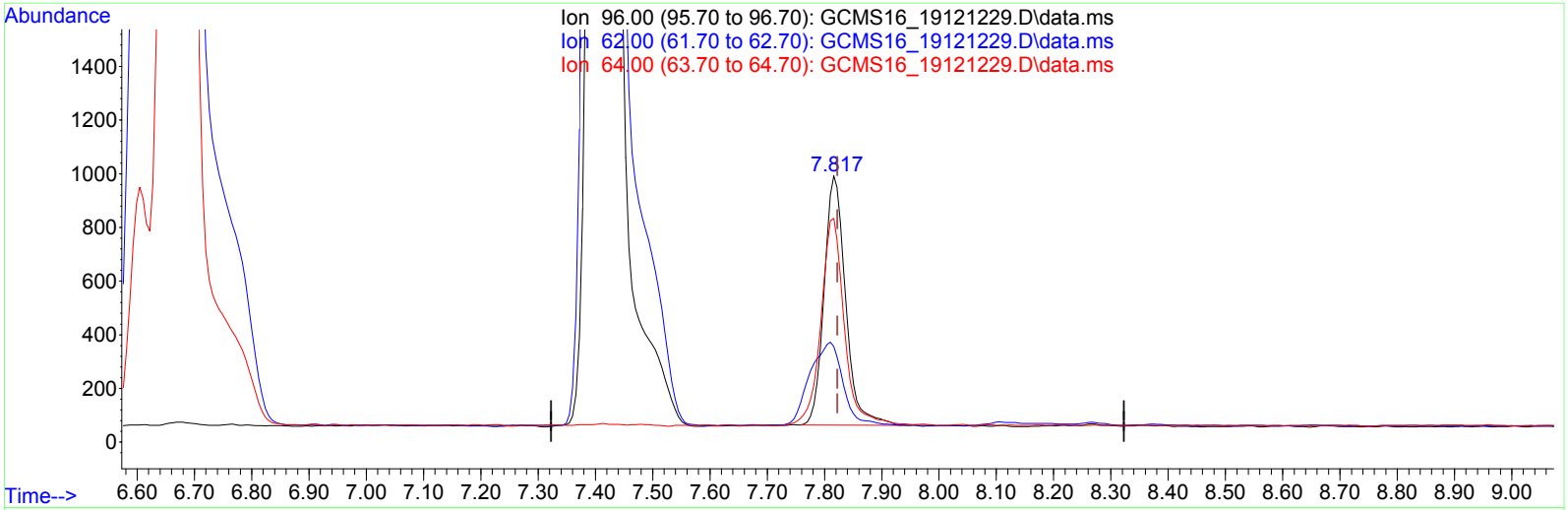
Ion	Exp%	Act%
96.00	100.00	0.00
62.00	0.00	0.00
64.00	81.20	0.00#
0.00	0.00	0.00

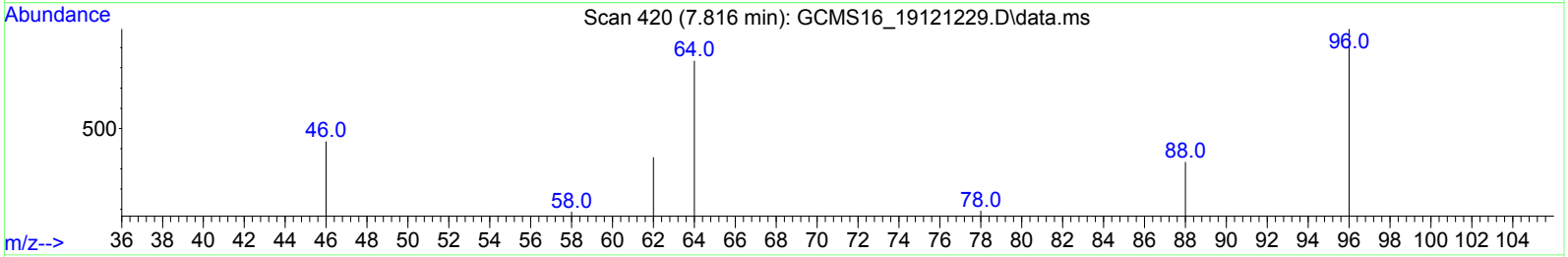
Before
N
CR 1/2/20

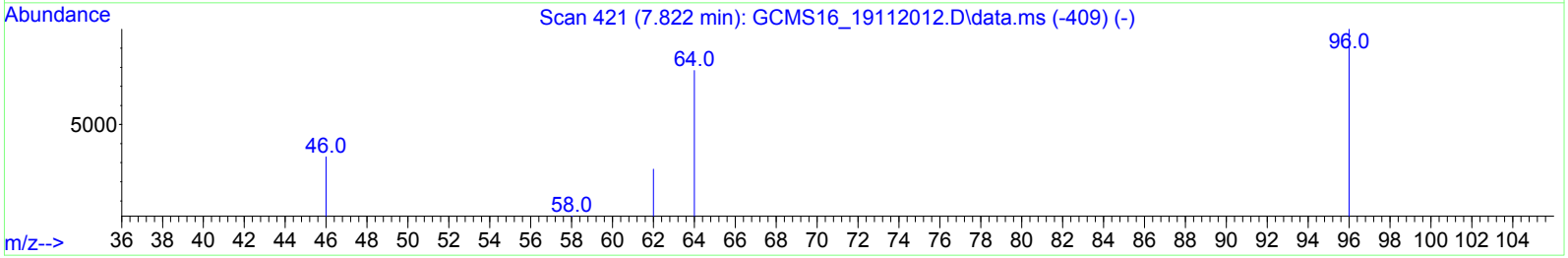
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121229.D
Acq On : 12 Dec 2019 11:19 pm
Operator : CR
Sample : E191203-04
Misc :
ALS Vial : 26 Sample Multiplier: 1

Quant Time: Dec 13 10:52:20 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121229.D\data.ms

(2) 1,4-Dioxane-d8 (S)

7.816min (-0.007) 21.69 ug/L m

response 24241

After
CR 1/2/20

Ion	Exp%	Act%
96.00	100.00	100.00
62.00	0.00	0.00
64.00	81.20	0.00#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121230.D
Acq On : 12 Dec 2019 11:40 pm
Operator : CR
Sample : E191203-05
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Dec 13 11:00:53 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)		
Internal Standards							
1) TETRAHYDROFURAN-D8	5.710	46	73282m	50.00 ug/L	0.00		
System Monitoring Compounds							
2) 1,4-Dioxane-d8	7.819	96	22363	21.05 ug/L	0.00		
Target Compounds						Qvalue	
3) 1,4-Dioxane	7.892	88	2996269	2637.49 ug/L		99	E

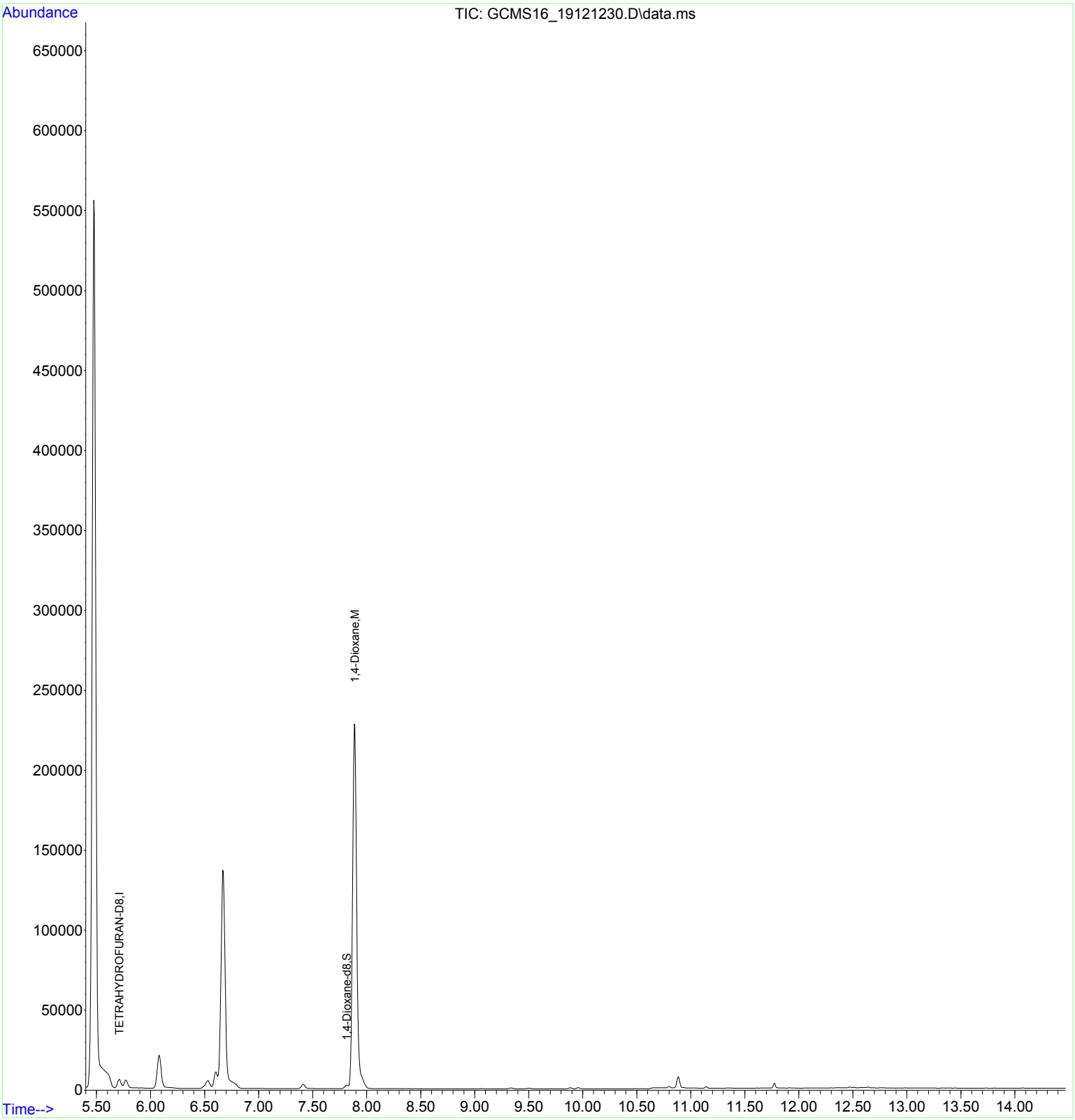
(#) = qualifier out of range (m) = manual integration (+) = signals summed

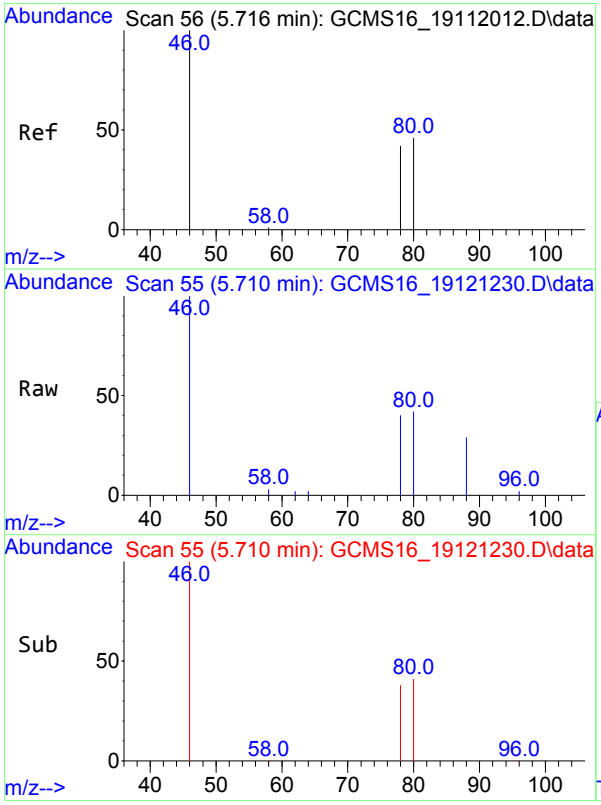
CR 1/2/20

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121230.D
Acq On : 12 Dec 2019 11:40 pm
Operator : CR
Sample : E191203-05
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Dec 13 11:00:53 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

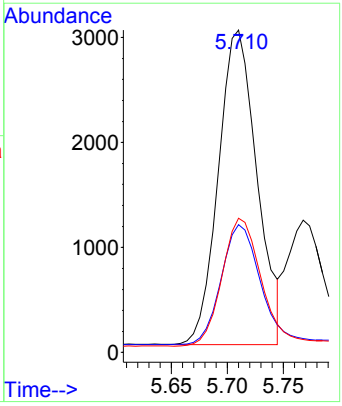


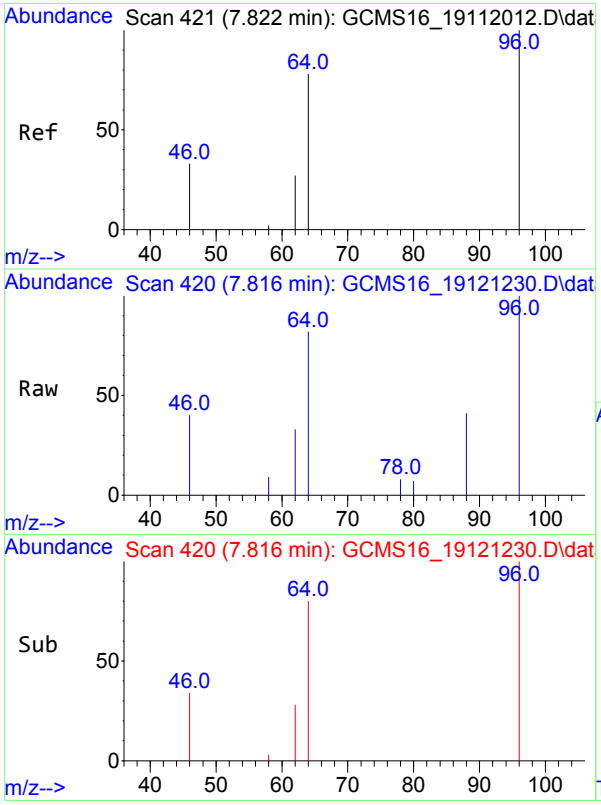


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121230.D
Acq: 12 Dec 2019 11:40 pm

Tgt Ion: 46 Resp: 73282

Ion	Ratio	Lower	Upper
46	100		
78	37.0	27.5	51.1
80	39.3	29.0	53.9

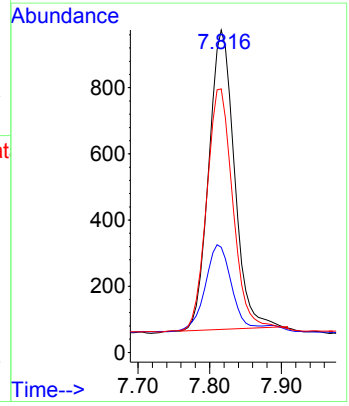


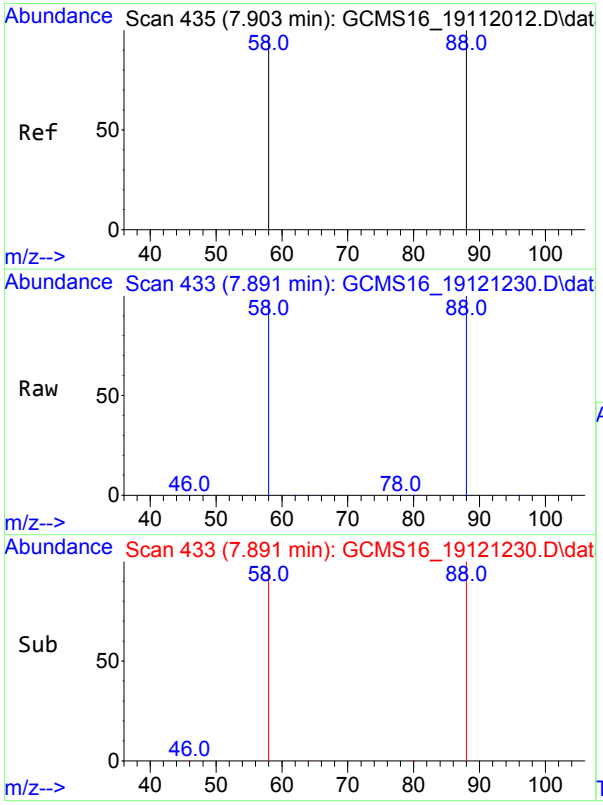


#2
1,4-Dioxane-d8
Concen: 21.05 ug/L
RT: 7.819 min Scan# 420
Delta R.T. -0.004 min
Lab File: GCMS16_19121230.D
Acq: 12 Dec 2019 11:40 pm

Tgt Ion: 96 Resp: 22363

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	80.4	56.8	105.6

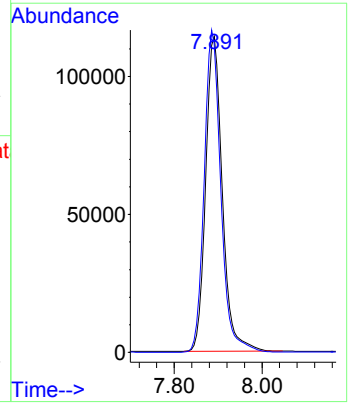




#3
1,4-Dioxane
Concen: 2637.49 ug/L
RT: 7.892 min Scan# 433
Delta R.T. -0.007 min
Lab File: GCMS16_19121230.D
Acq: 12 Dec 2019 11:40 pm

Tgt Ion: 88 Resp: 2996269

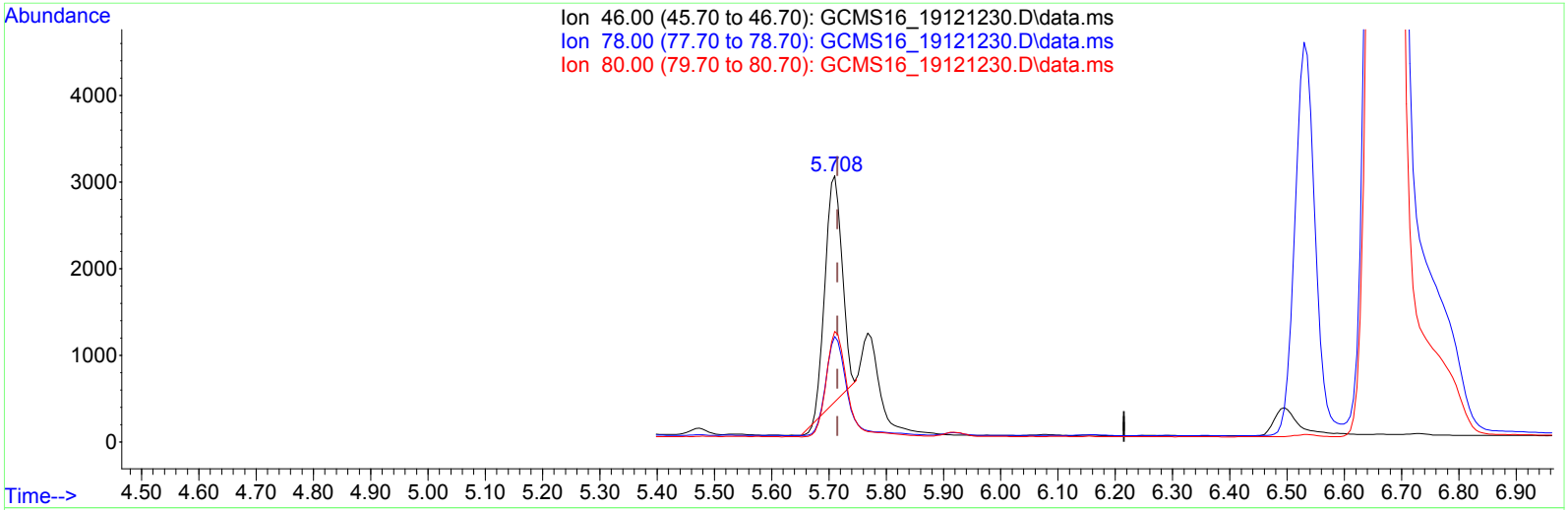
Ion	Ratio	Lower	Upper
88	100		
58	102.3	72.5	134.7

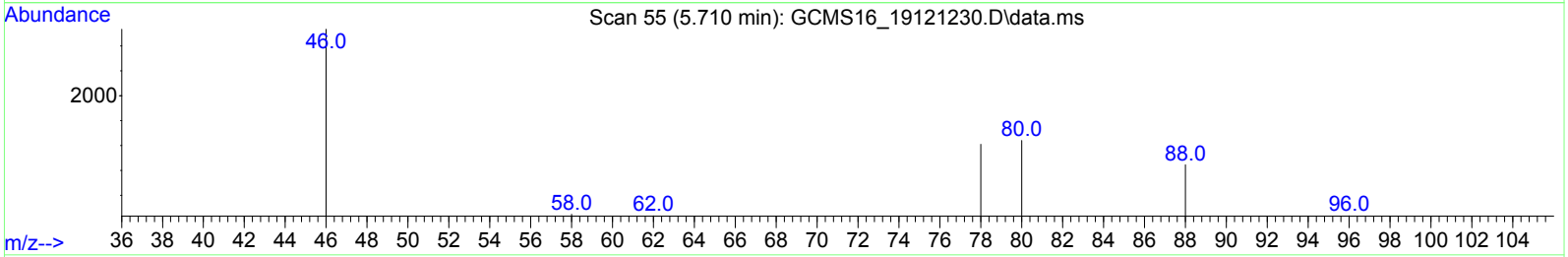


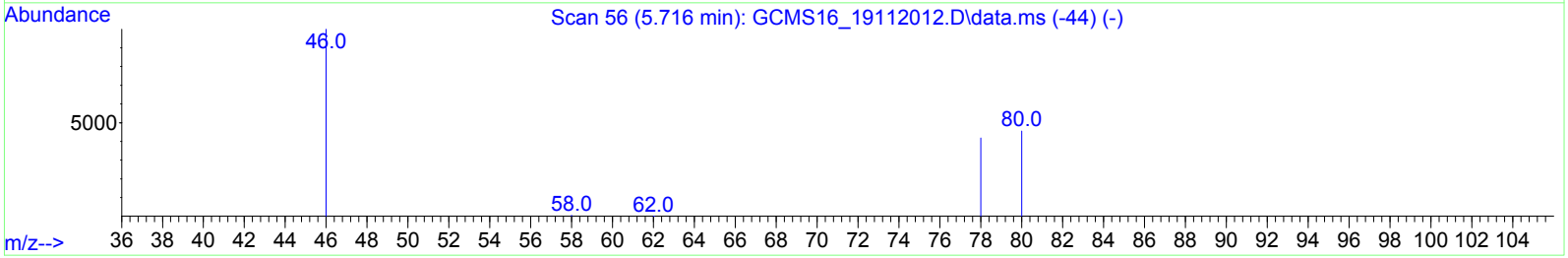
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121230.D
Acq On : 12 Dec 2019 11:40 pm
Operator : CR
Sample : E191203-05
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Dec 13 11:00:53 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121230.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.711min (-0.004) 50.00 ug/L

response 52813

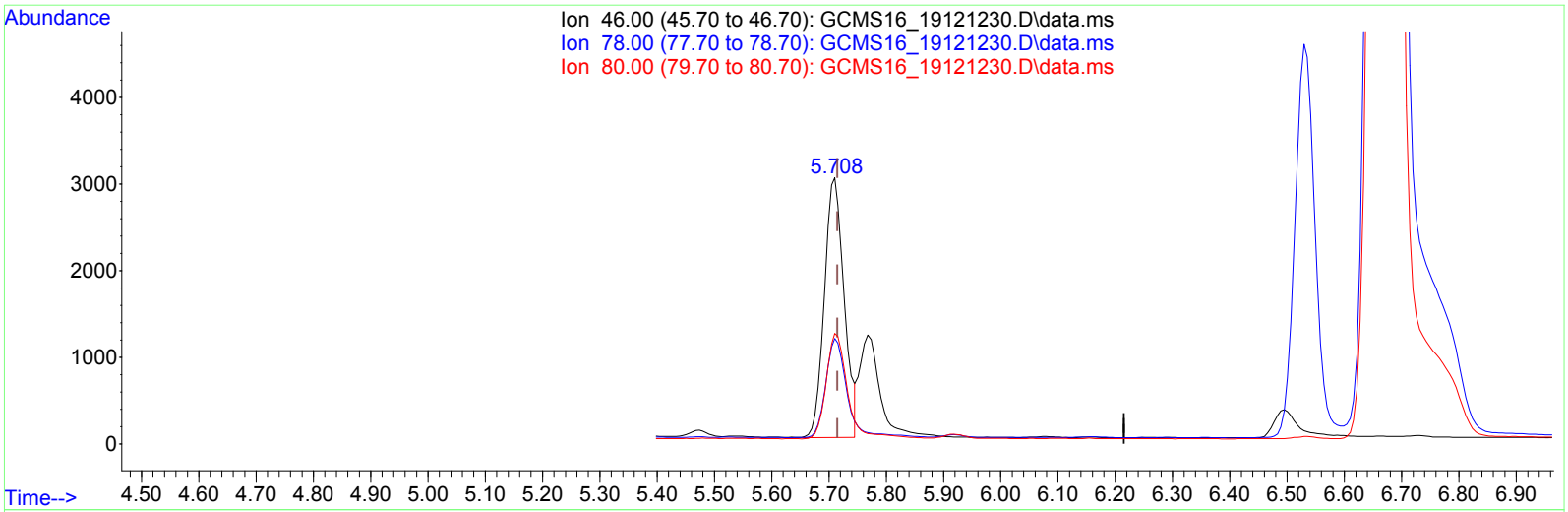
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	51.31#
80.00	41.50	54.59#
0.00	0.00	0.00

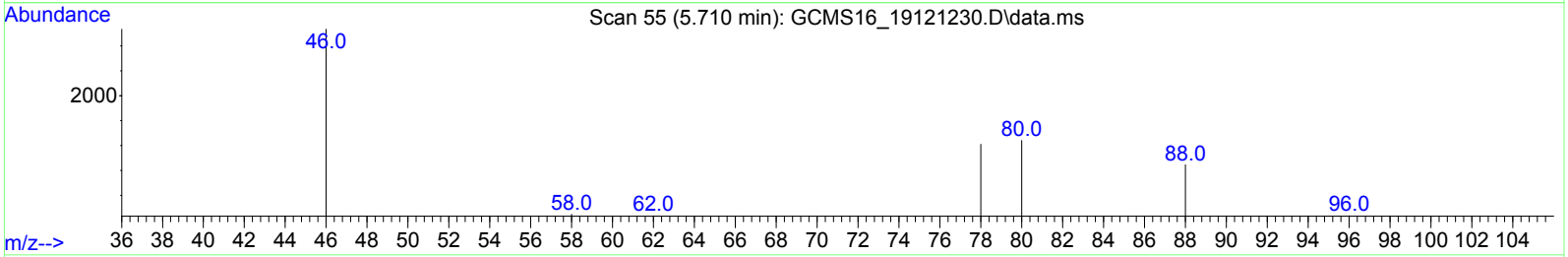
Before
IC
CR 1/2/20

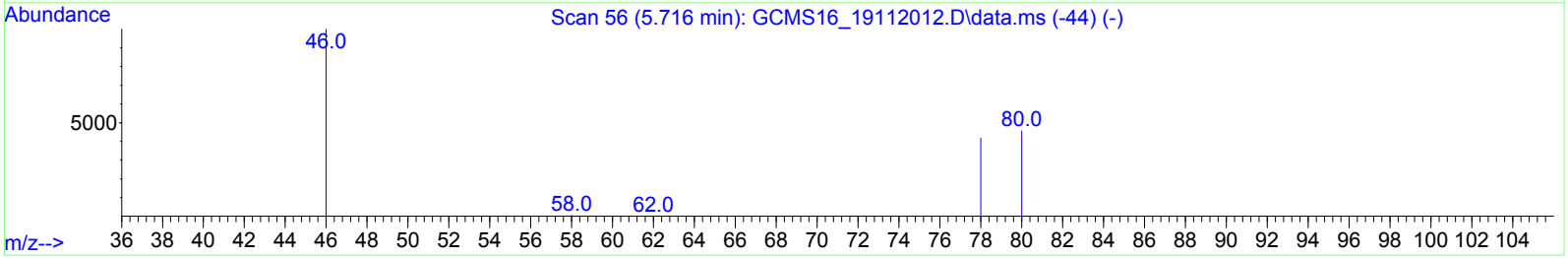
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121230.D
Acq On : 12 Dec 2019 11:40 pm
Operator : CR
Sample : E191203-05
Misc :
ALS Vial : 27 Sample Multiplier: 1

Quant Time: Dec 13 11:00:53 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121230.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 73282

After
CR 1/2/20

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	36.98
80.00	41.50	39.34
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191213_CR\
Data File : GCMS16_19121305.D
Acq On : 13 Dec 2019 12:32 pm
Operator : CR
Sample : E191203-05RE1
Misc : 10x
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 13 13:20:26 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	73582m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.822	96	2496m	2.34 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	7.895	88	324226	284.24 ug/L	99

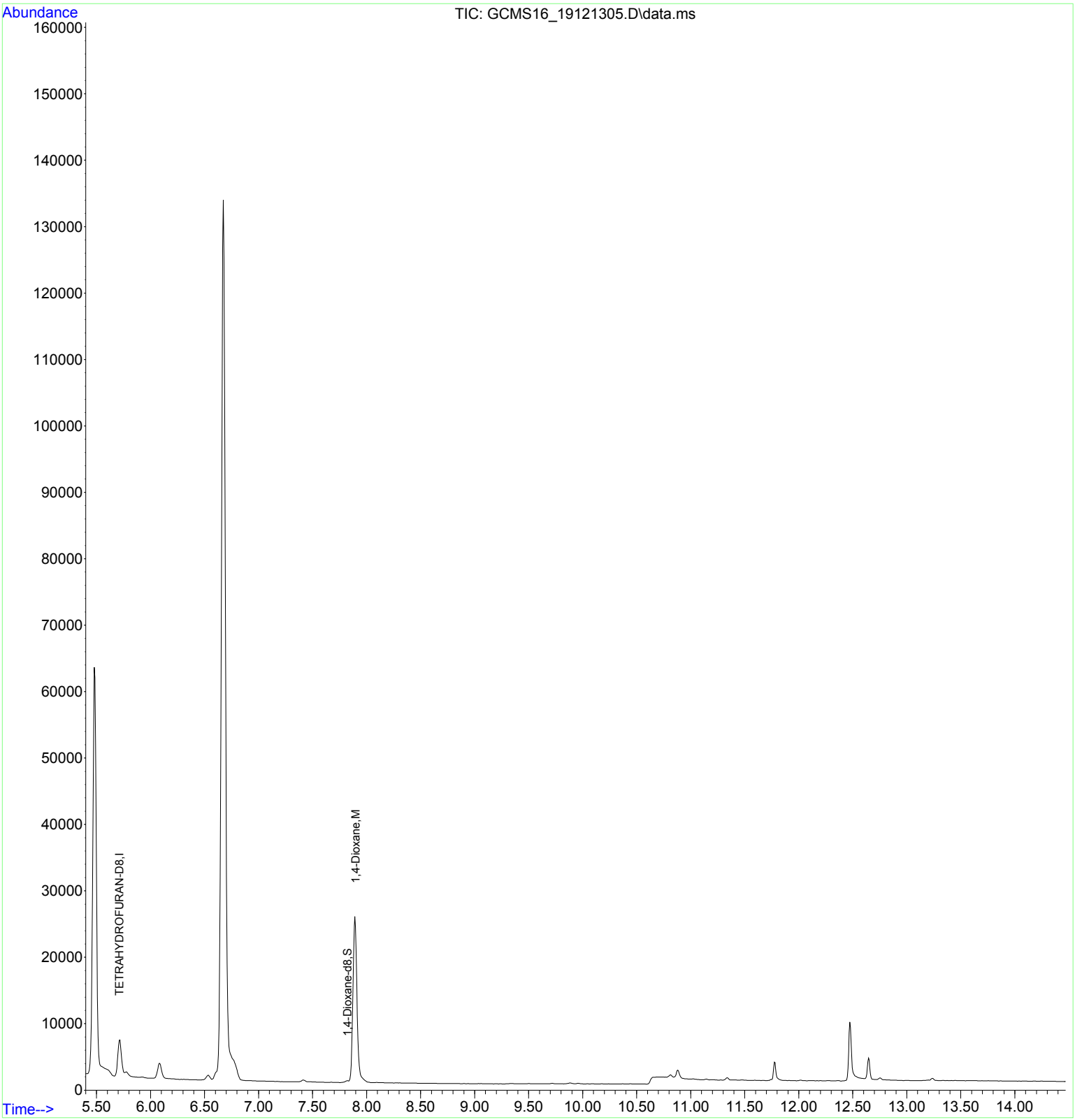
CR 1/2/20

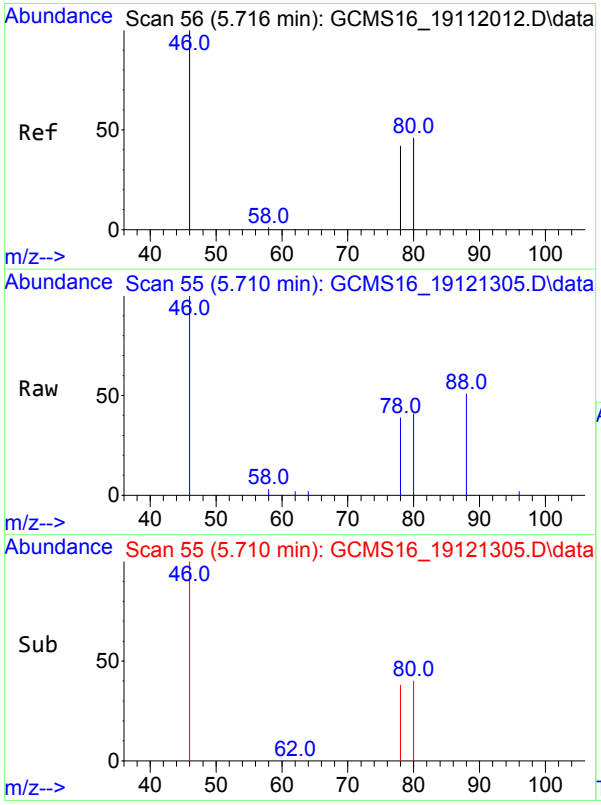
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191213_CR\
Data File : GCMS16_19121305.D
Acq On : 13 Dec 2019 12:32 pm
Operator : CR
Sample : E191203-05RE1
Misc : 10x
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 13 13:20:26 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

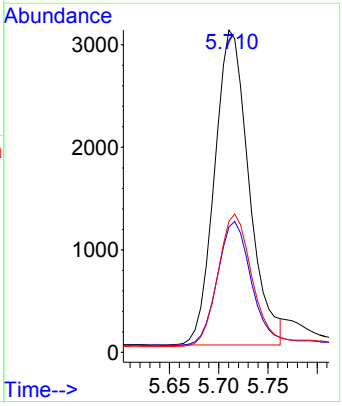


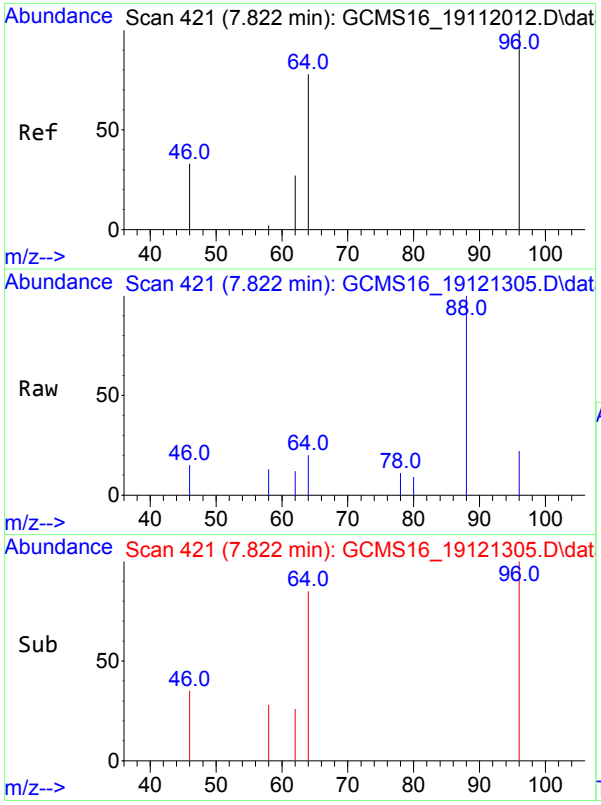


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121305.D
Acq: 13 Dec 2019 12:32 pm

Tgt Ion: 46 Resp: 73582

Ion	Ratio	Lower	Upper
46	100		
78	38.3	27.5	51.1
80	40.6	29.0	53.9

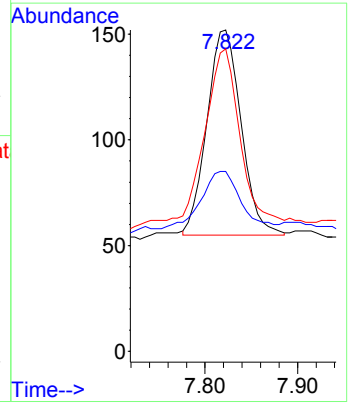


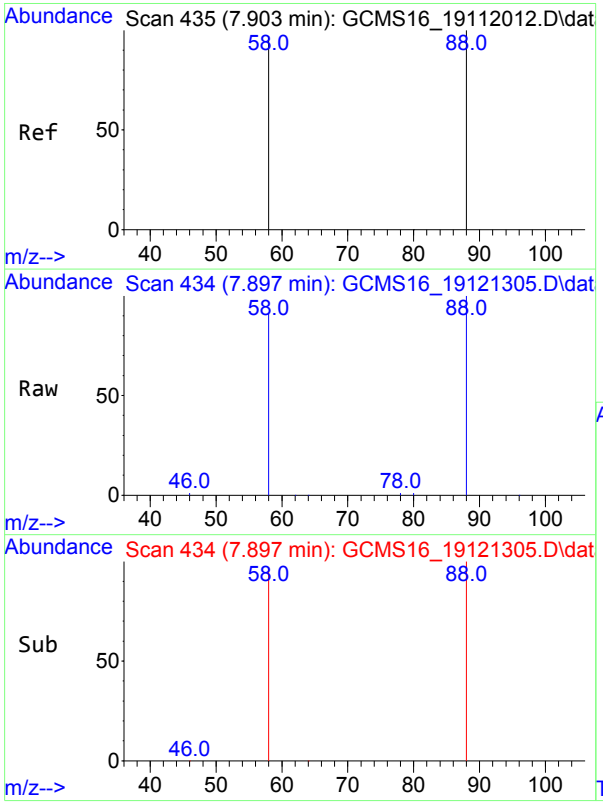


#2
1,4-Dioxane-d8
Concen: 2.34 ug/L m
RT: 7.822 min Scan# 421
Delta R.T. -0.001 min
Lab File: GCMS16_19121305.D
Acq: 13 Dec 2019 12:32 pm

Tgt Ion: 96 Resp: 2496

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	0.0	56.8	105.6#

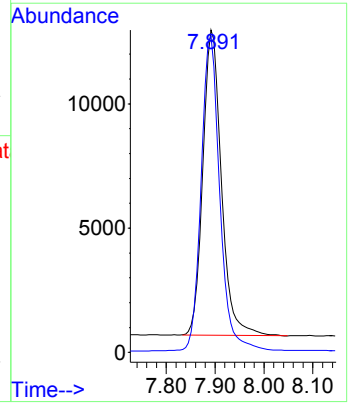




#3
1,4-Dioxane
Concen: 284.24 ug/L
RT: 7.895 min Scan# 434
Delta R.T. -0.004 min
Lab File: GCMS16_19121305.D
Acq: 13 Dec 2019 12:32 pm

Tgt Ion: 88 Resp: 324226

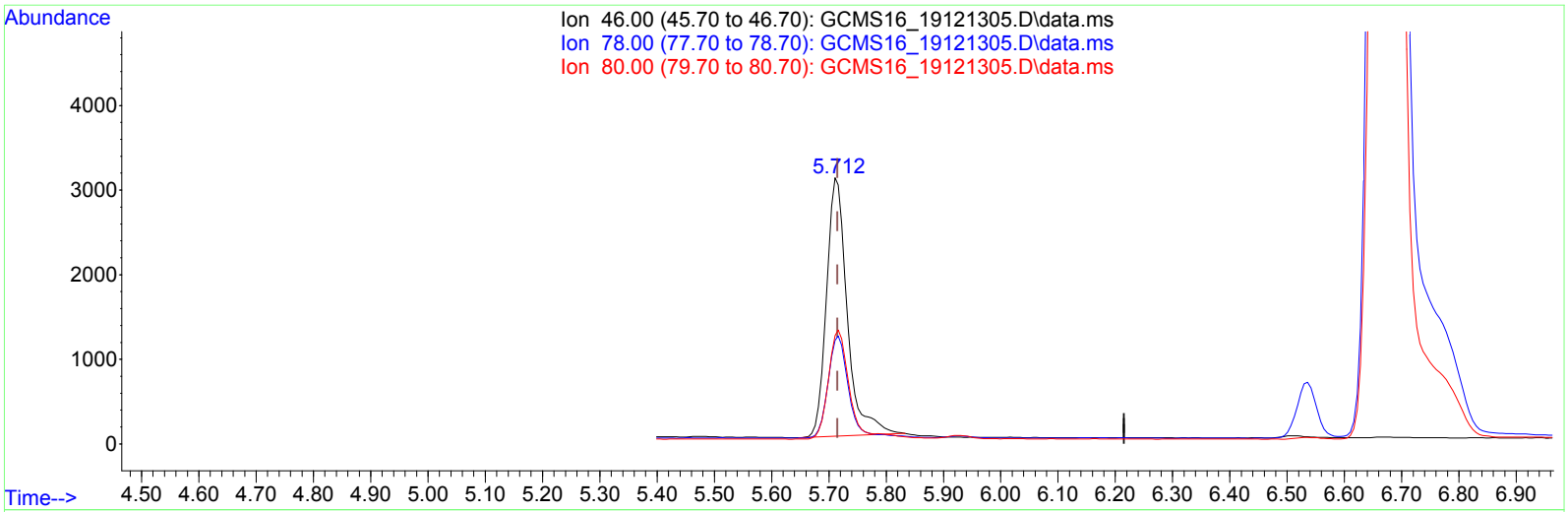
Ion	Ratio	Lower	Upper
88	100		
58	102.9	72.5	134.7

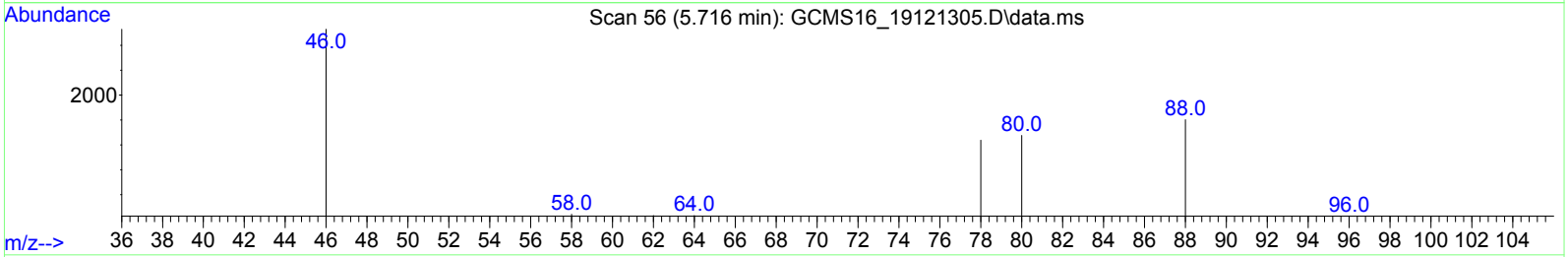


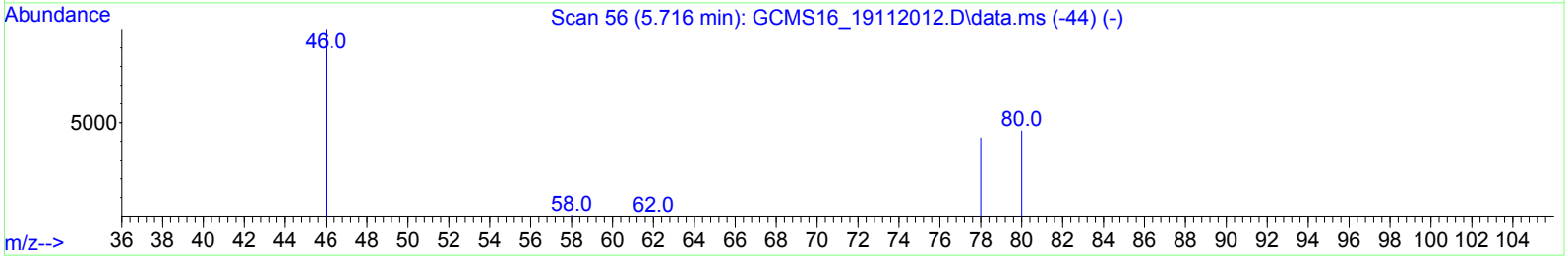
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191213_CR\
Data File : GCMS16_19121305.D
Acq On : 13 Dec 2019 12:32 pm
Operator : CR
Sample : E191203-05RE1
Misc : 10x
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 13 13:20:26 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121305.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.715min (-0.000) 50.00 ug/L

response 76895

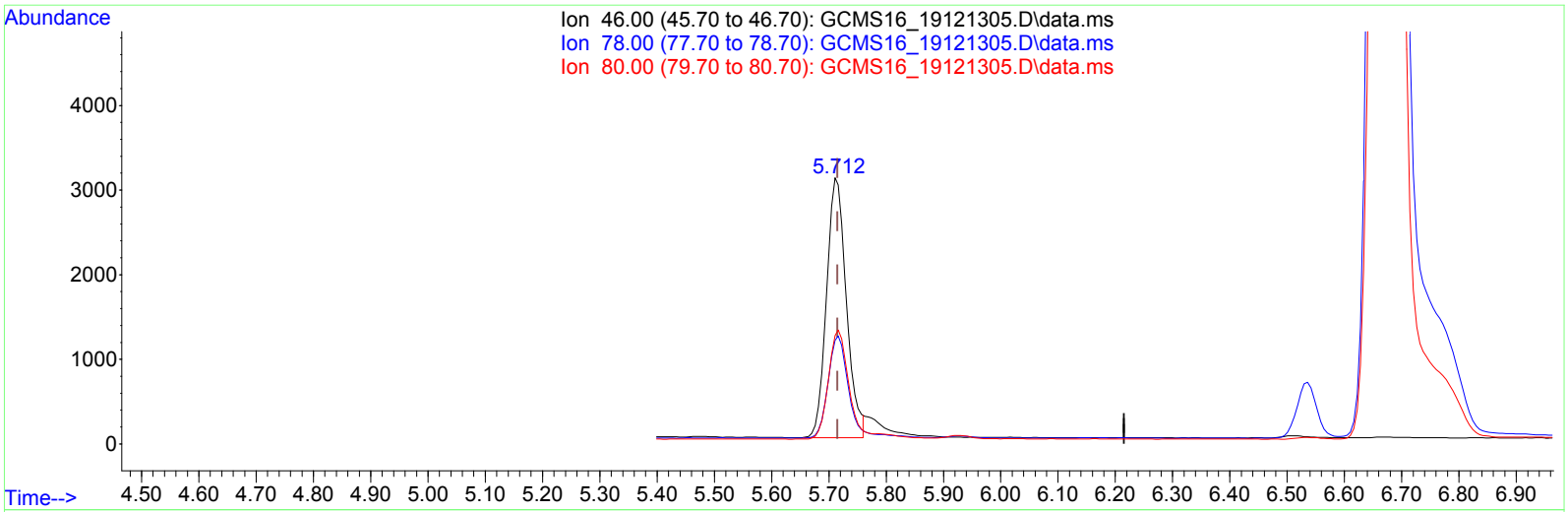
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	36.62
80.00	41.50	38.89
0.00	0.00	0.00

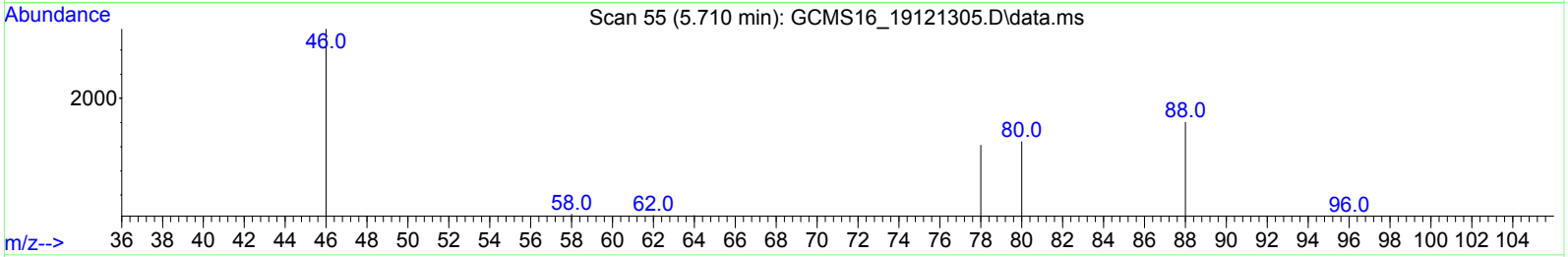
Before
IC
CR 1/2/20

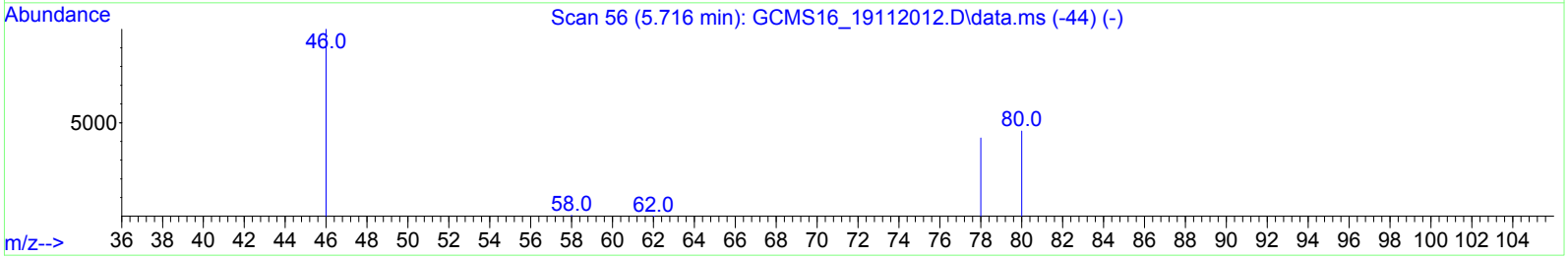
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191213_CR\
Data File : GCMS16_19121305.D
Acq On : 13 Dec 2019 12:32 pm
Operator : CR
Sample : E191203-05RE1
Misc : 10x
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 13 13:20:26 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121305.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 73582

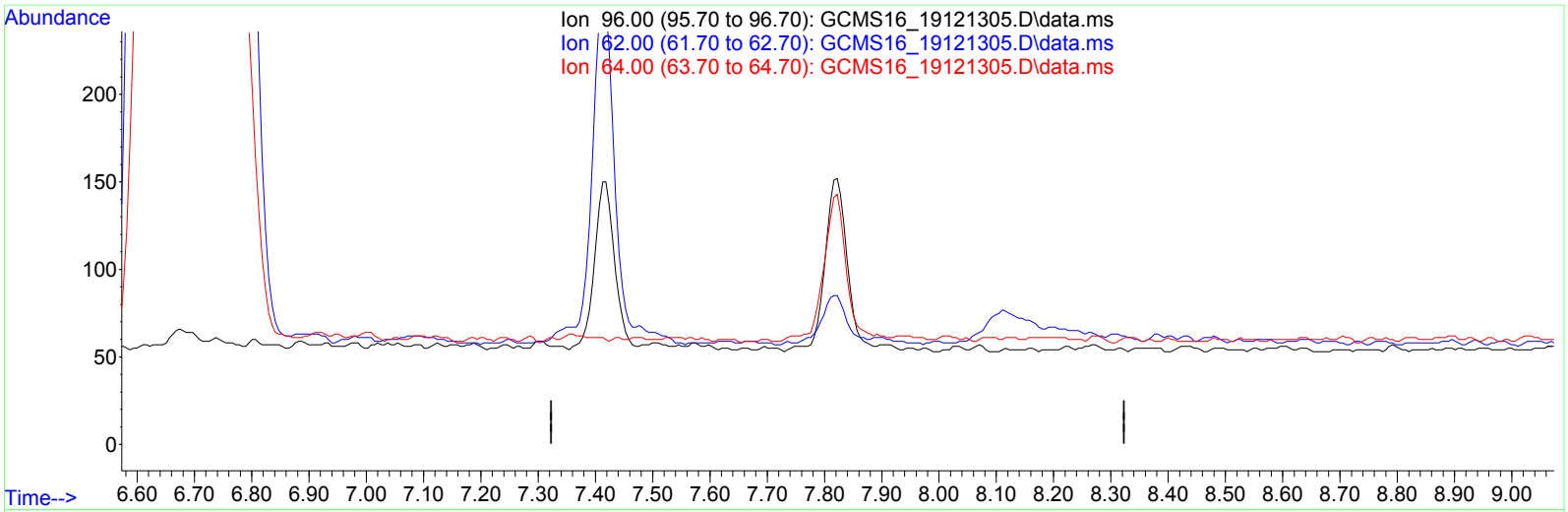
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	38.27
80.00	41.50	40.65
0.00	0.00	0.00

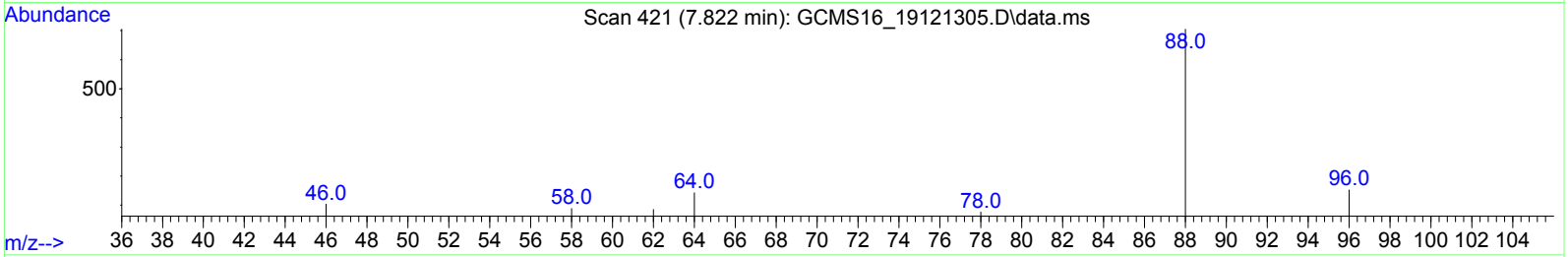
After
CR 1/2/20

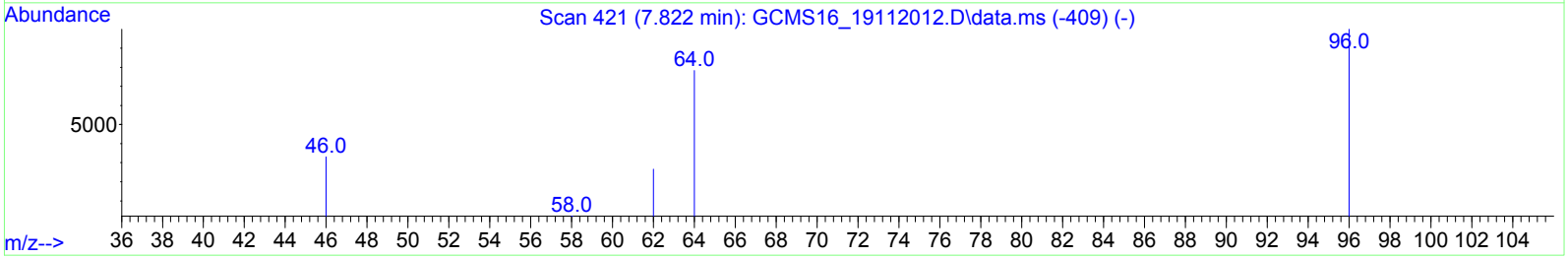
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191213_CR\
Data File : GCMS16_19121305.D
Acq On : 13 Dec 2019 12:32 pm
Operator : CR
Sample : E191203-05RE1
Misc : 10x
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 13 13:20:26 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121305.D\data.ms

(2) 1,4-Dioxane-d8 (S)

7.823min (-7.823) 0.00 ug/L

response 0

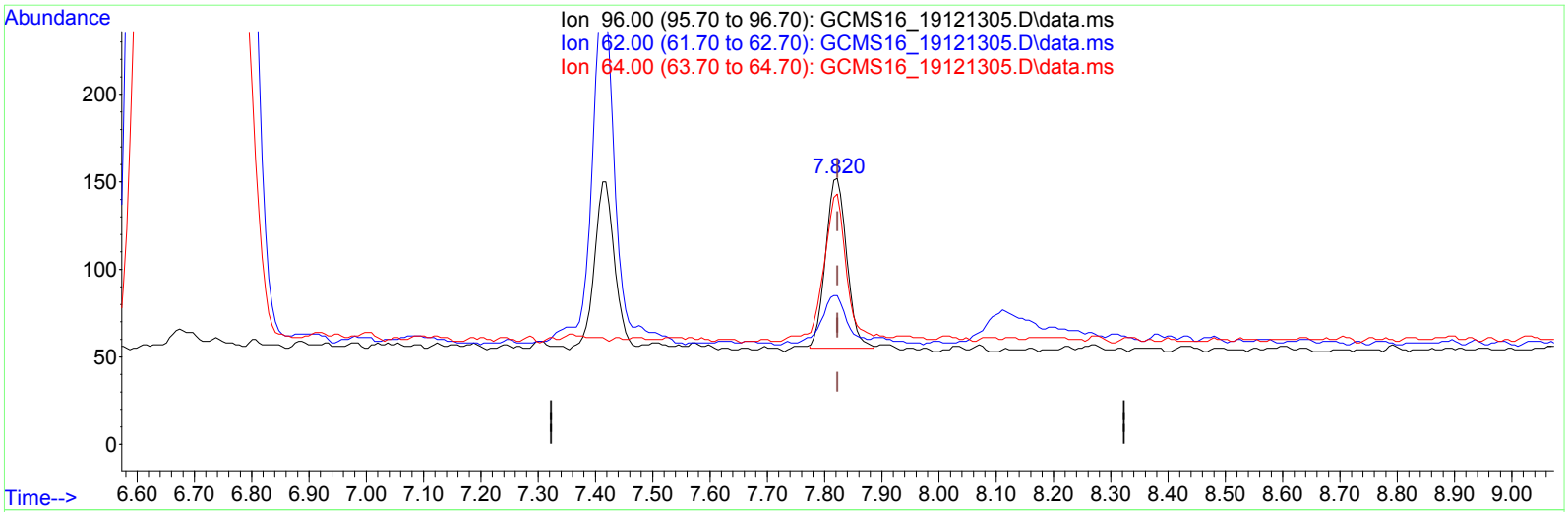
Before
N
CR 1/2/20

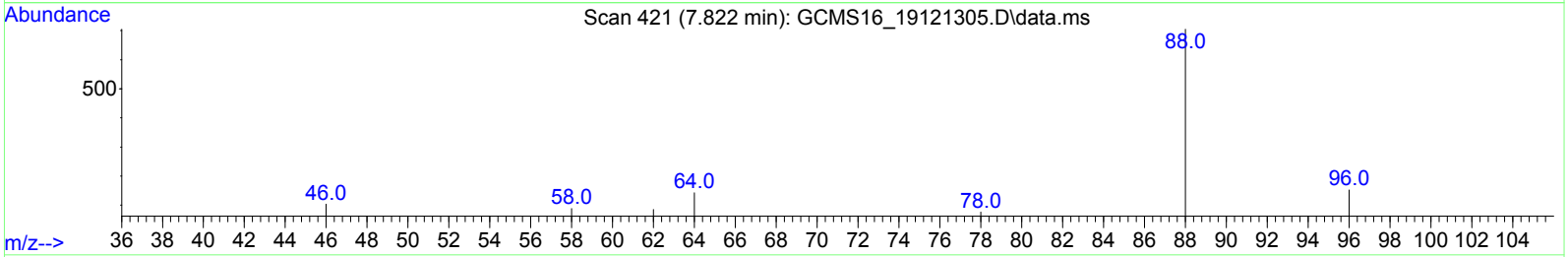
Ion	Exp%	Act%
96.00	100.00	0.00
62.00	0.00	0.00
64.00	81.20	0.00#
0.00	0.00	0.00

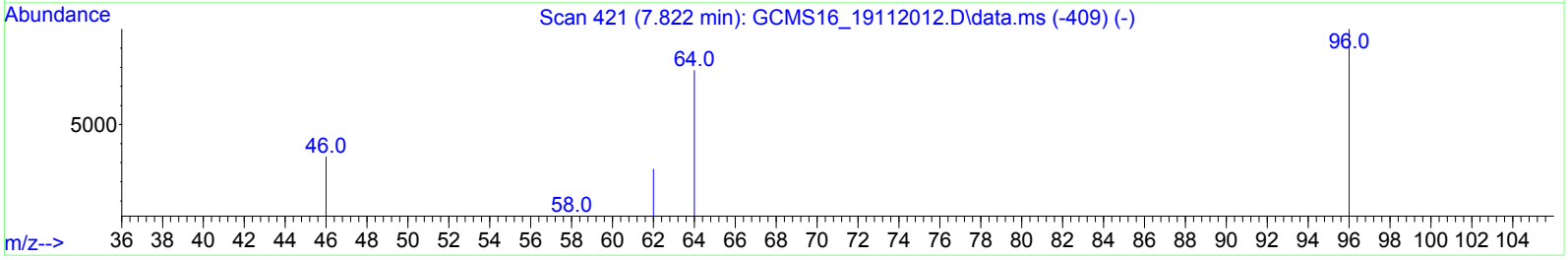
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191213_CR\
Data File : GCMS16_19121305.D
Acq On : 13 Dec 2019 12:32 pm
Operator : CR
Sample : E191203-05RE1
Misc : 10x
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Dec 13 13:20:26 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121305.D\data.ms

(2) 1,4-Dioxane-d8 (S)

7.822min (-0.001) 2.34 ug/L m

response 2496

After
CR 1/2/20

Ion	Exp%	Act%
96.00	100.00	100.00
62.00	0.00	0.00
64.00	81.20	0.00#
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121231.D
Acq On : 13 Dec 2019 12:02 am
Operator : CR
Sample : E191203-06
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Dec 13 10:59:29 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.710	46	79059m	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	7.821	96	22934	20.01	ug/L	0.00
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

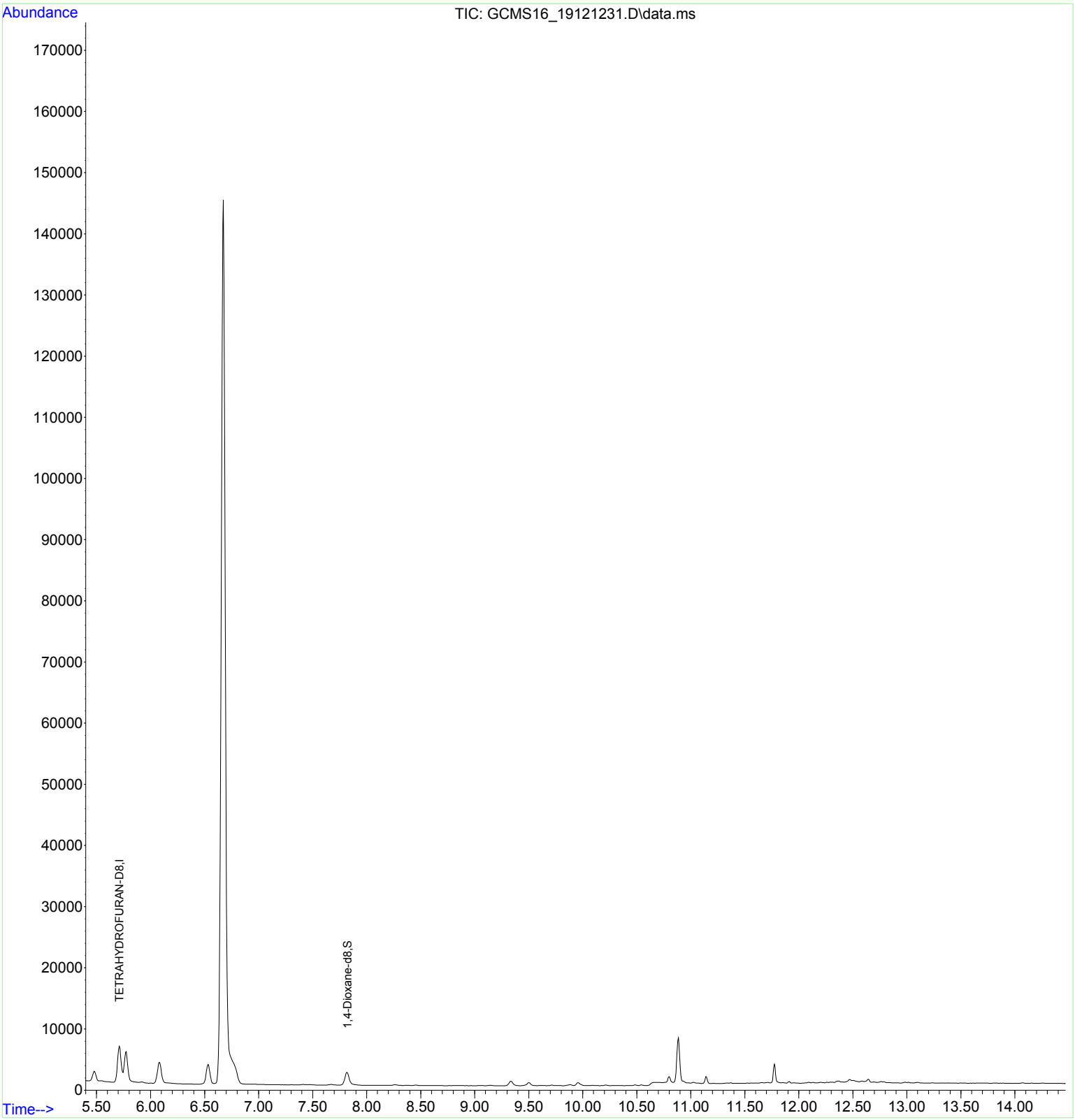
CR 1/2/20

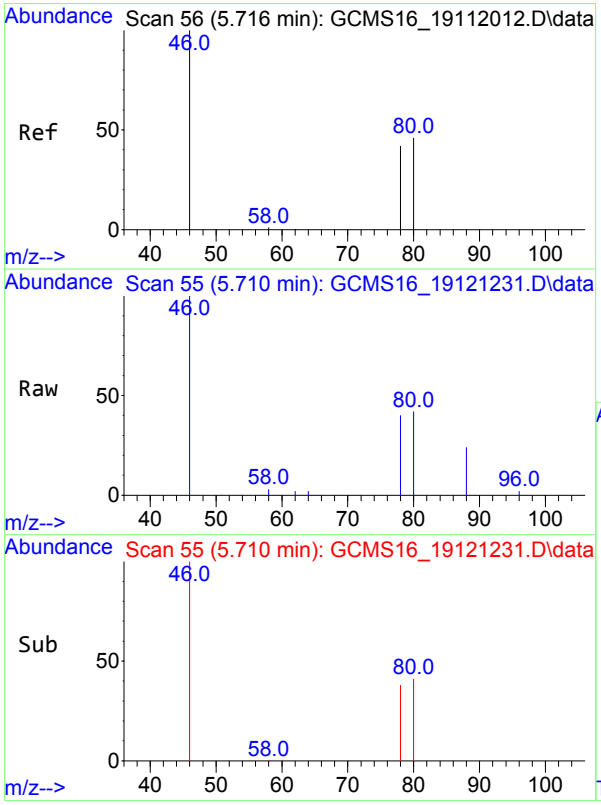
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121231.D
Acq On : 13 Dec 2019 12:02 am
Operator : CR
Sample : E191203-06
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Dec 13 10:59:29 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

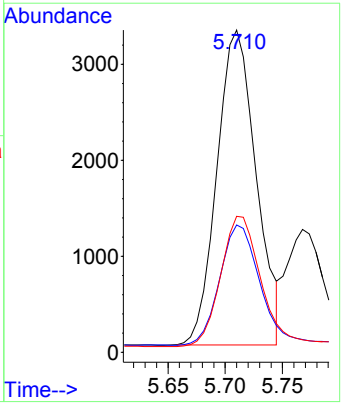


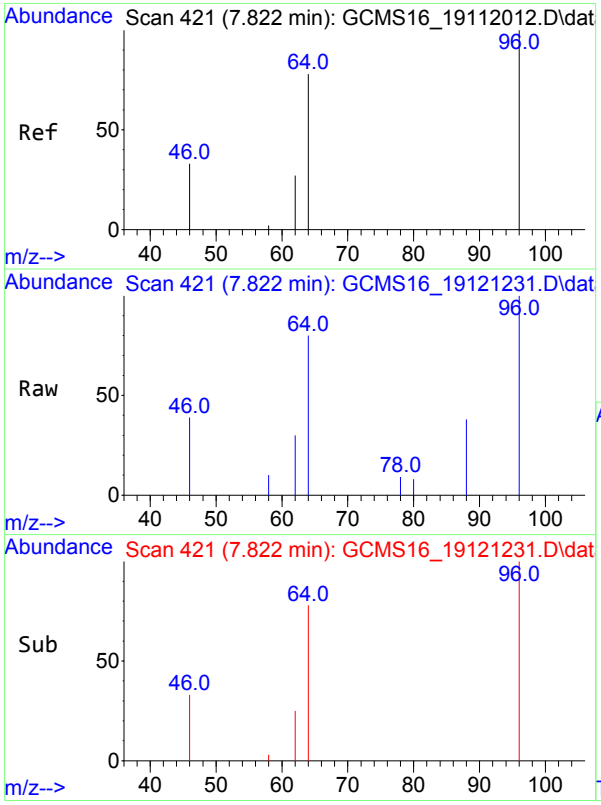


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121231.D
Acq: 13 Dec 2019 12:02 am

Tgt Ion: 46 Resp: 79059

Ion	Ratio	Lower	Upper
46	100		
78	37.9	27.5	51.1
80	40.9	29.0	53.9

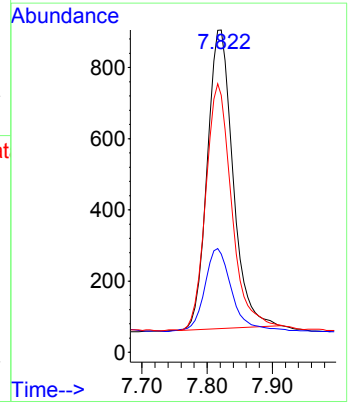


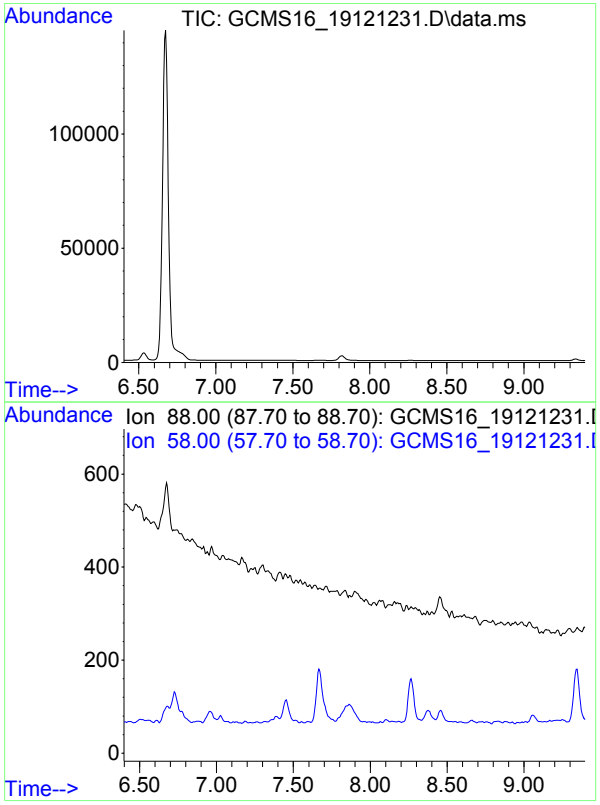


#2
1,4-Dioxane-d8
Concen: 20.01 ug/L
RT: 7.821 min Scan# 421
Delta R.T. -0.002 min
Lab File: GCMS16_19121231.D
Acq: 13 Dec 2019 12:02 am

Tgt Ion: 96 Resp: 22934

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	82.0	56.8	105.6





#3
1,4-Dioxane
Concen: N.D.
Expected RT: 7.90 min

Lab File: GCMS16_19121231.D
Acq: 13 Dec 2019 12:02 am

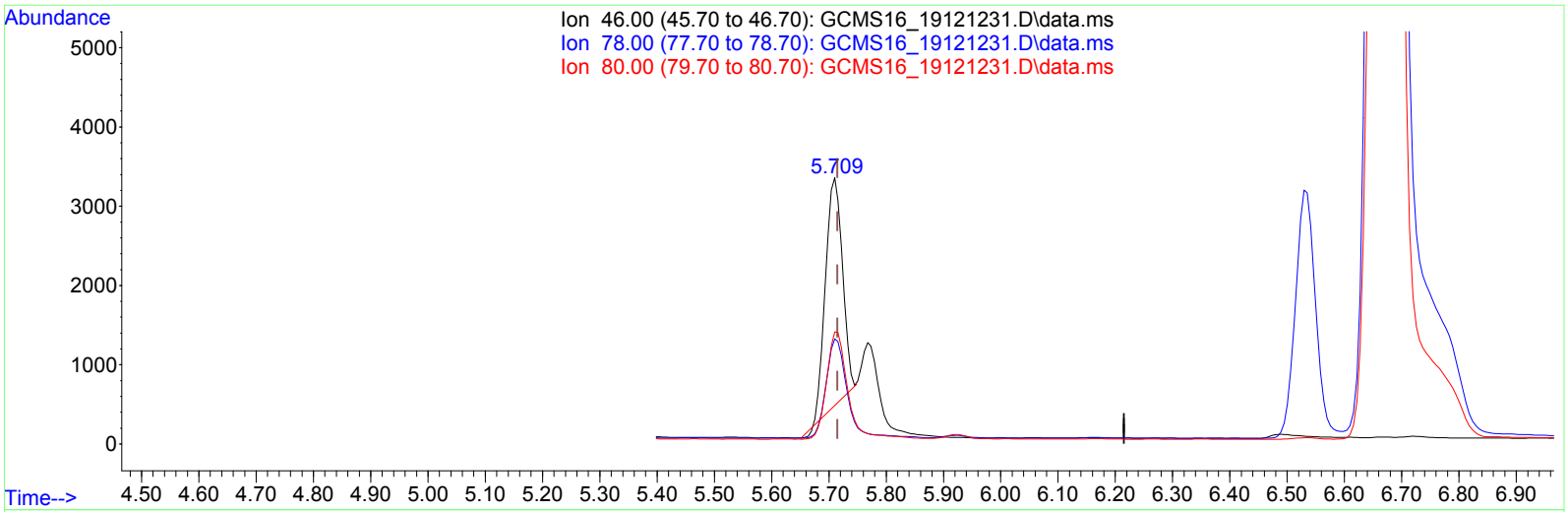
Tgt Ion: 88

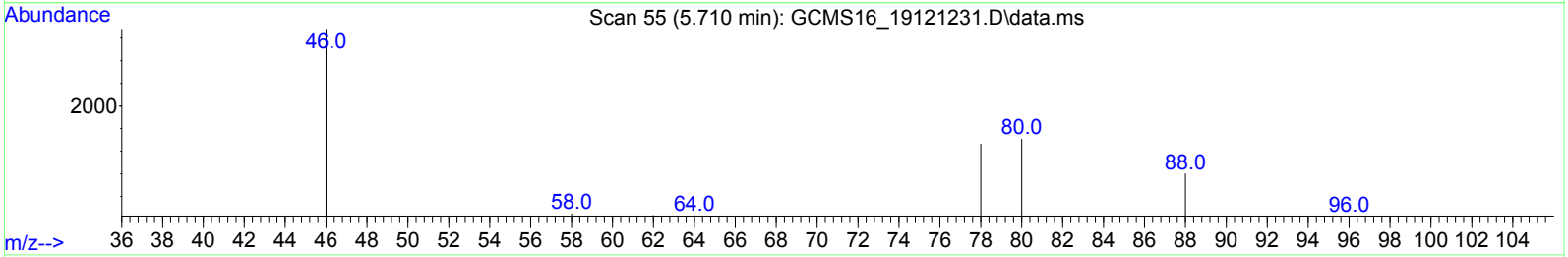
Sig	Exp Ratio
88	100
58	103.6

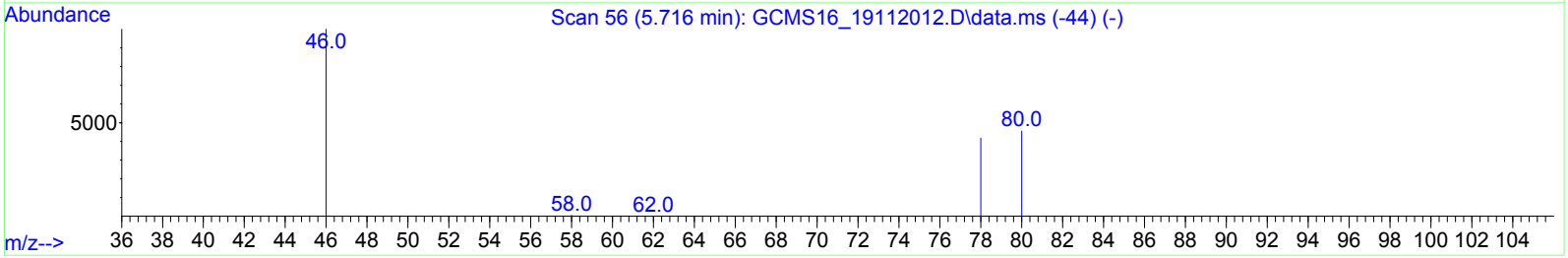
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121231.D
Acq On : 13 Dec 2019 12:02 am
Operator : CR
Sample : E191203-06
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Dec 13 10:59:29 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121231.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.712min (-0.003) 50.00 ug/L

response 58058

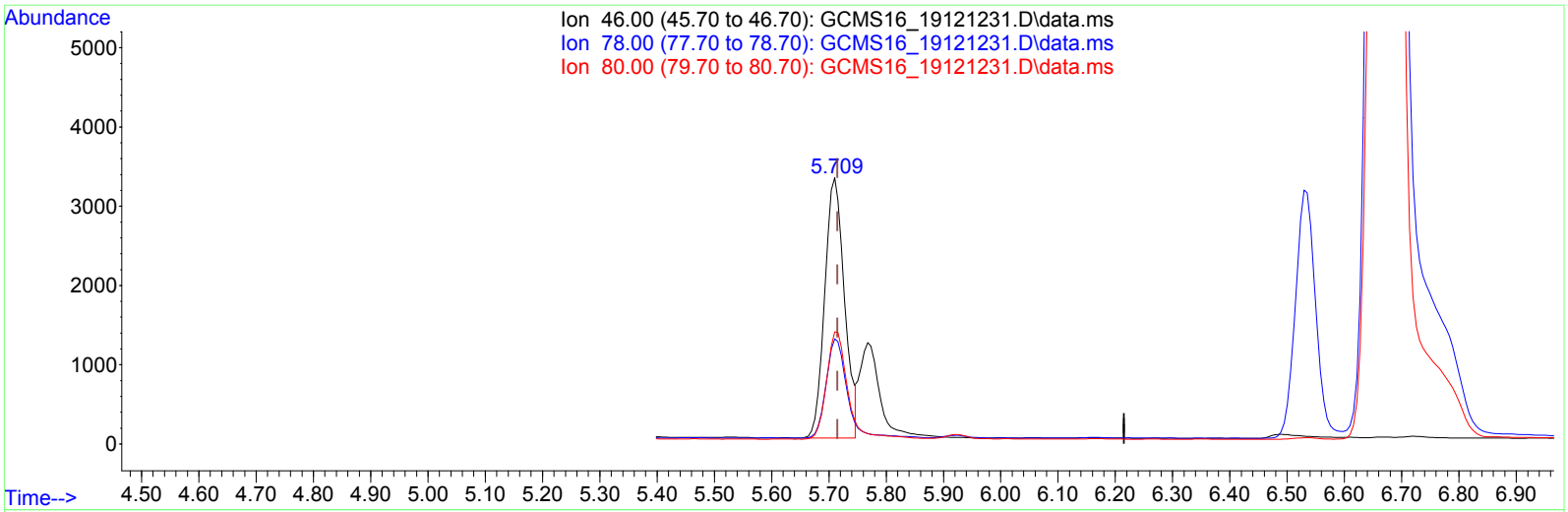
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	51.58#
80.00	41.50	55.68#
0.00	0.00	0.00

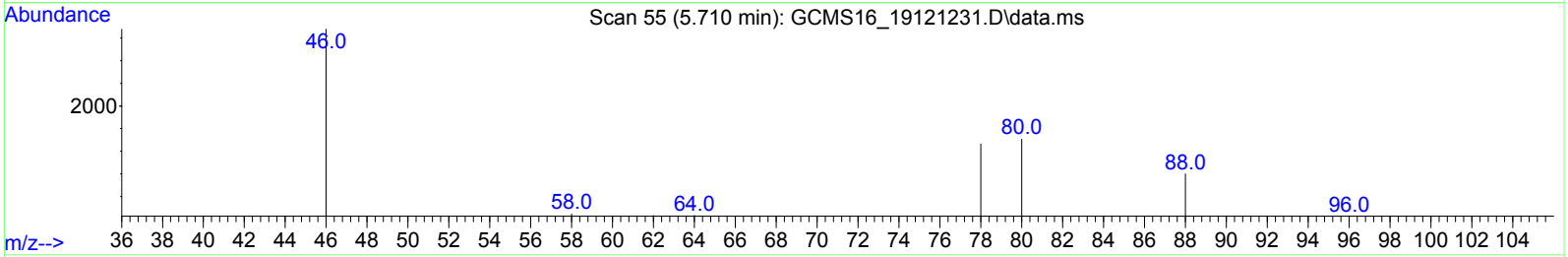
Before
IC
CR 1/2/20

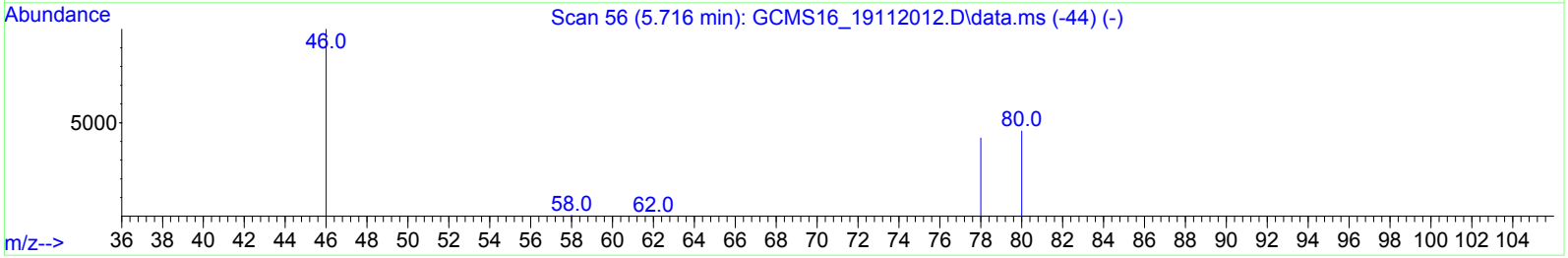
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121231.D
Acq On : 13 Dec 2019 12:02 am
Operator : CR
Sample : E191203-06
Misc :
ALS Vial : 28 Sample Multiplier: 1

Quant Time: Dec 13 10:59:29 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121231.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 79059

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	37.88
80.00	41.50	40.89
0.00	0.00	0.00

After
CR 1/2/20

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121236.D
Acq On : 13 Dec 2019 01:47 am
Operator : CR
Sample : E191203-07
Misc :
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 13 11:28:45 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	71255m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.821	96	22052	21.35 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	0.000		0	N.D.	

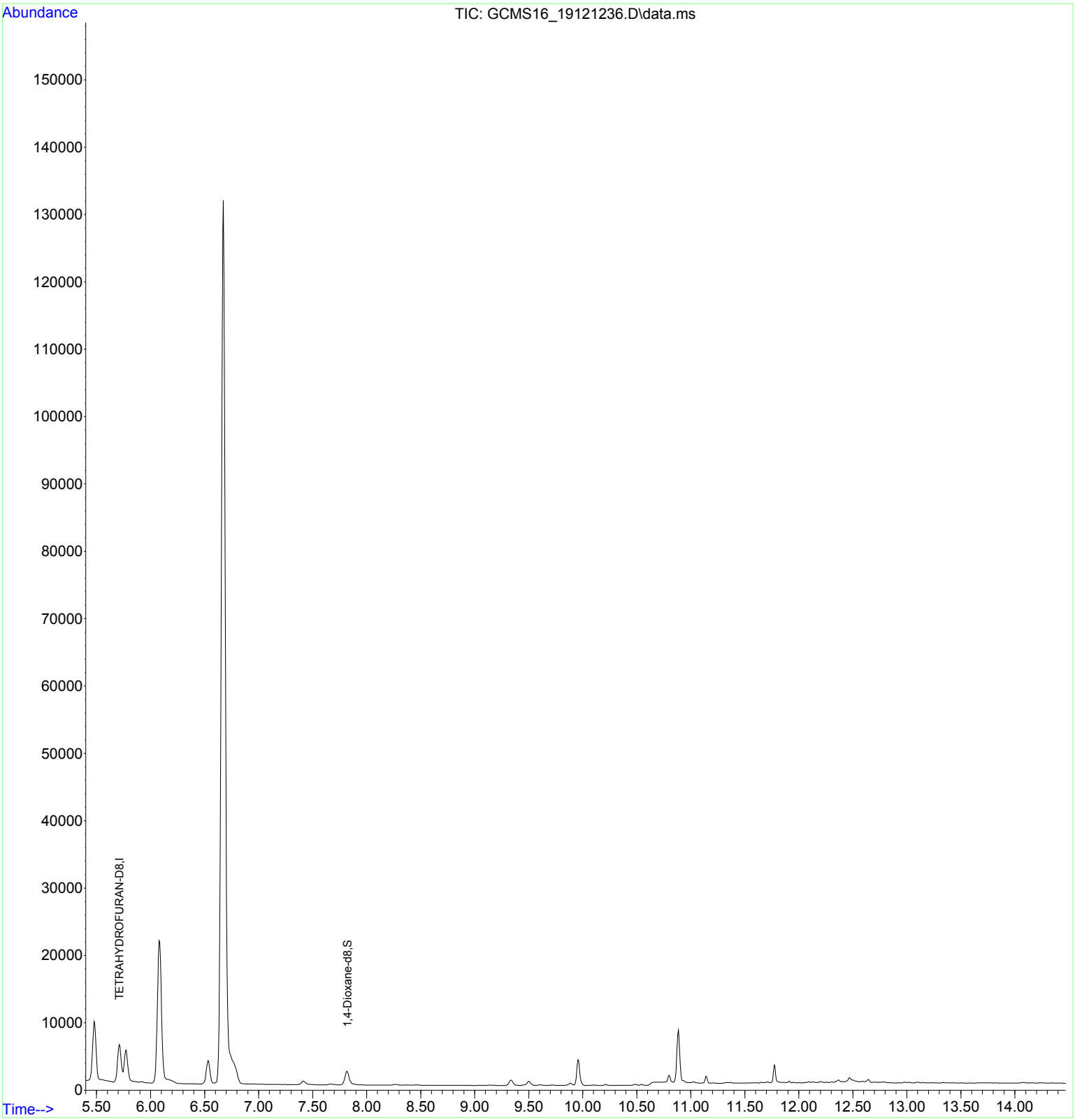
CR 1/2/20

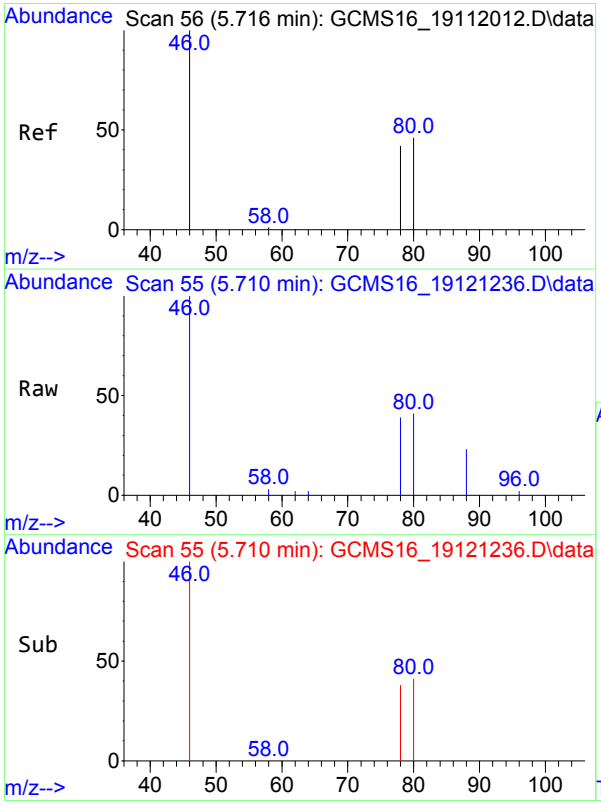
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121236.D
Acq On : 13 Dec 2019 01:47 am
Operator : CR
Sample : E191203-07
Misc :
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 13 11:28:45 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

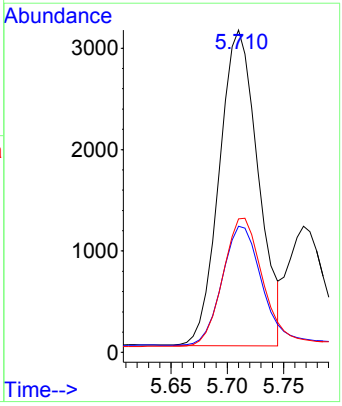


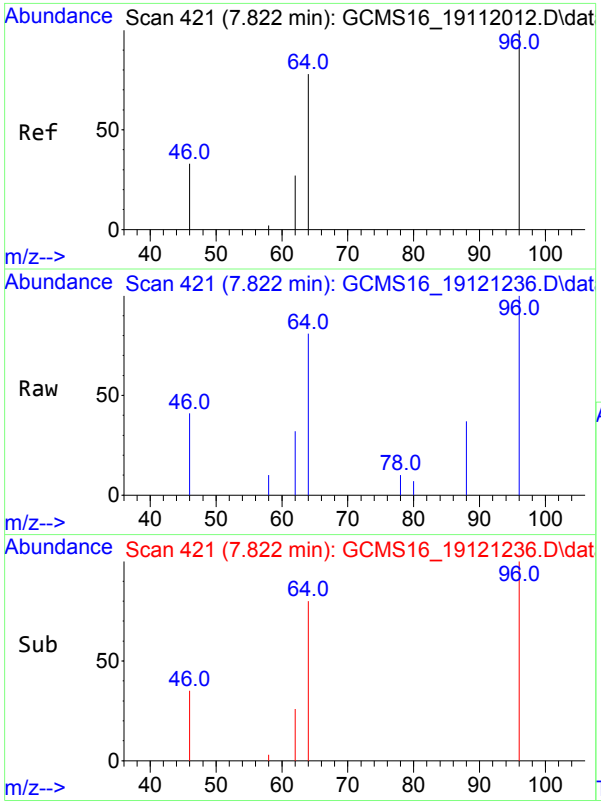


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121236.D
Acq: 13 Dec 2019 01:47 am

Tgt Ion: 46 Resp: 71255

Ion	Ratio	Lower	Upper
46	100		
78	39.6	27.5	51.1
80	42.5	29.0	53.9

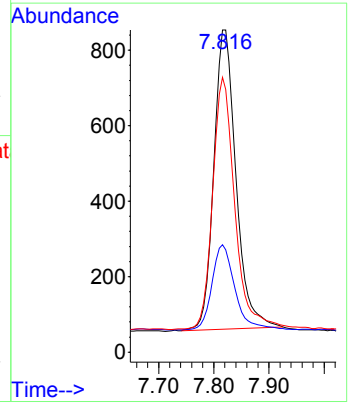


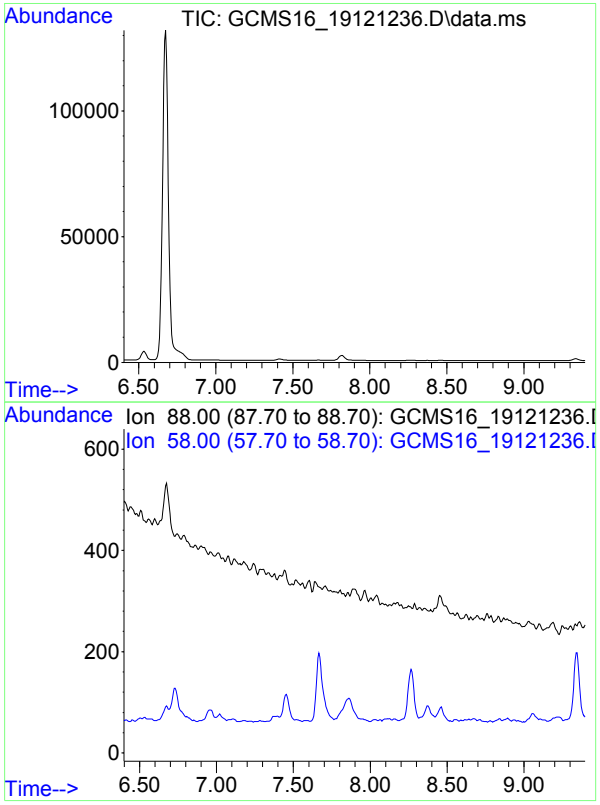


#2
1,4-Dioxane-d8
Concen: 21.35 ug/L
RT: 7.821 min Scan# 421
Delta R.T. -0.002 min
Lab File: GCMS16_19121236.D
Acq: 13 Dec 2019 01:47 am

Tgt Ion: 96 Resp: 22052

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	79.7	56.8	105.6





#3
1,4-Dioxane
Concen: N.D.
Expected RT: 7.90 min

Lab File: GCMS16_19121236.D
Acq: 13 Dec 2019 01:47 am

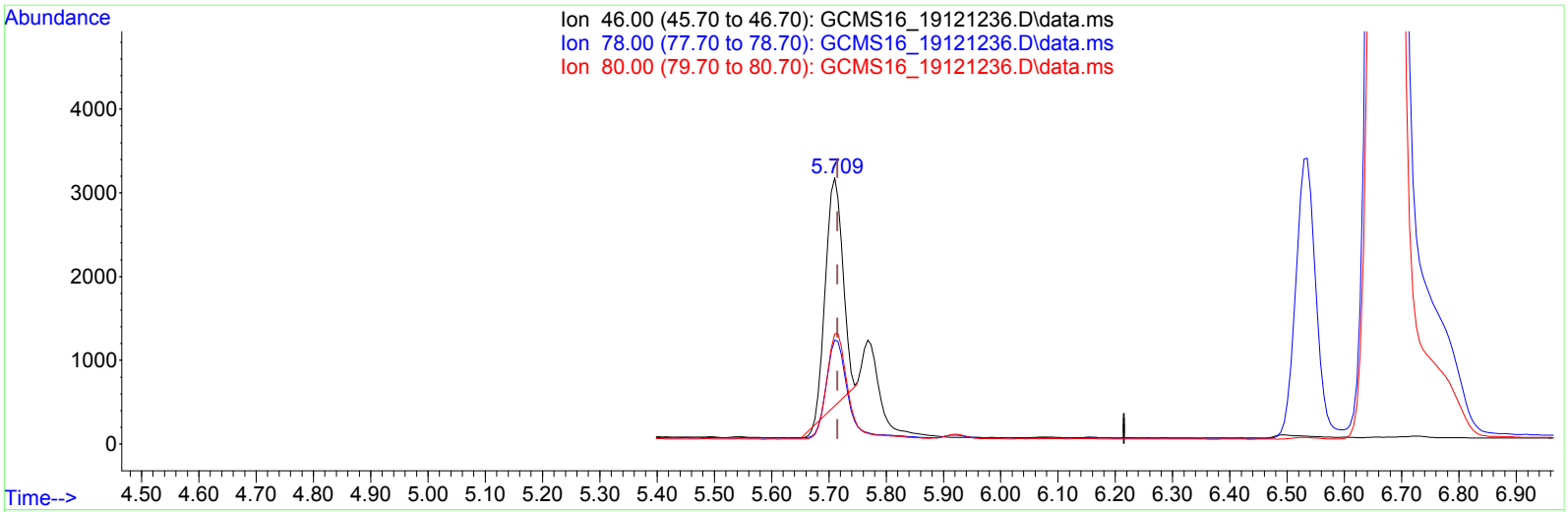
Tgt Ion: 88

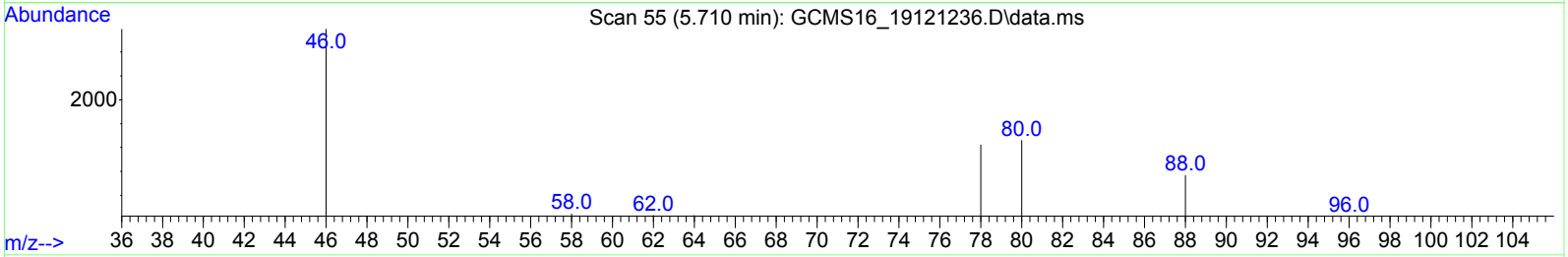
Sig	Exp Ratio
88	100
58	103.6

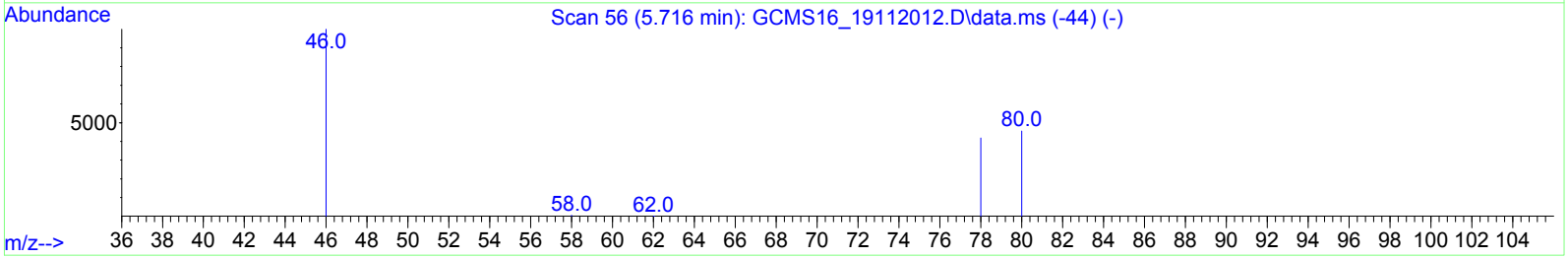
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121236.D
Acq On : 13 Dec 2019 01:47 am
Operator : CR
Sample : E191203-07
Misc :
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 13 11:28:45 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121236.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.712min (-0.003) 50.00 ug/L

response 55400

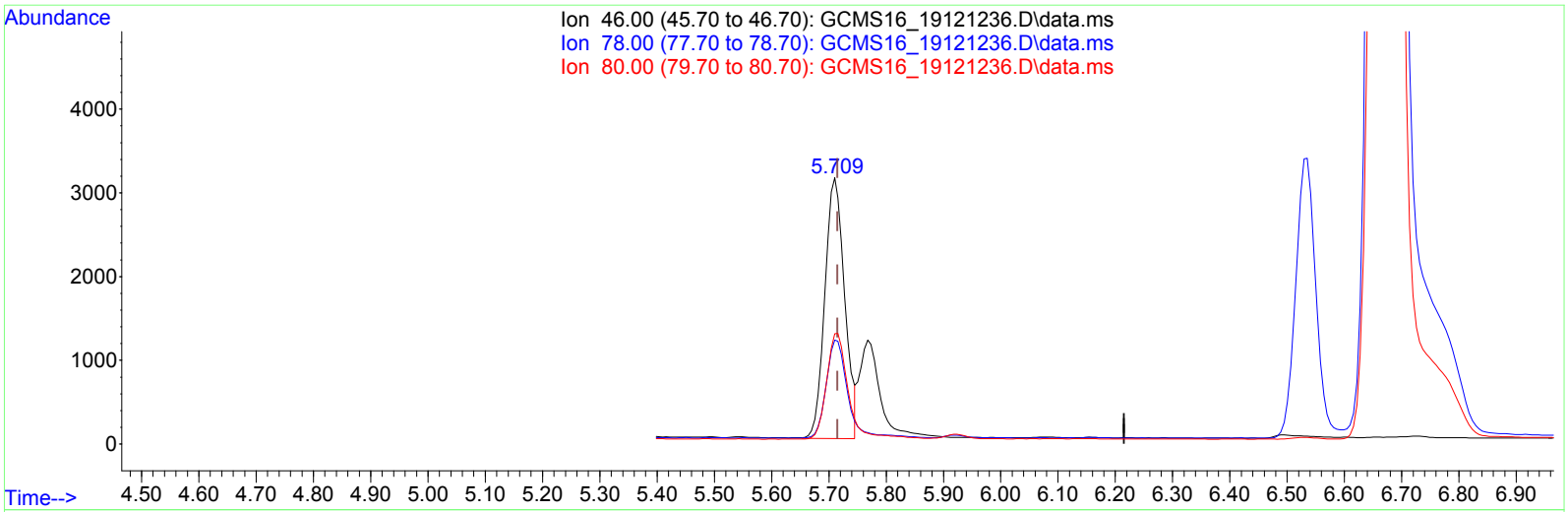
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	50.96
80.00	41.50	54.70#
0.00	0.00	0.00

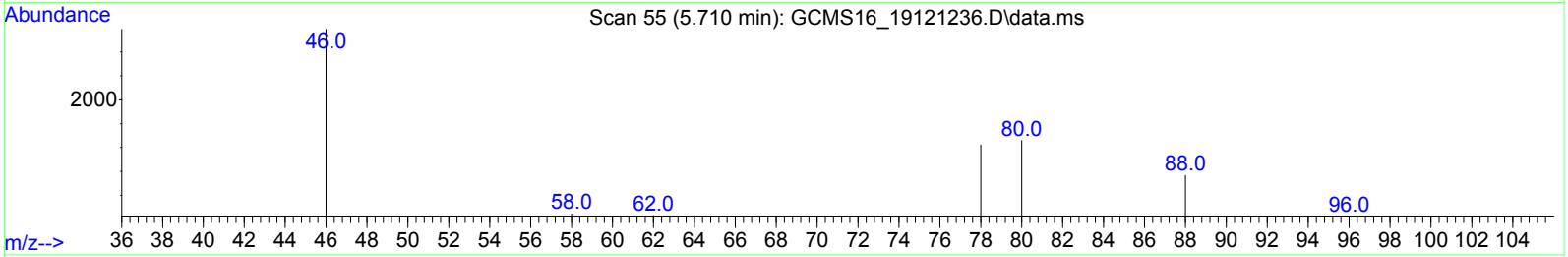
Before
IC
CR 1/2/20

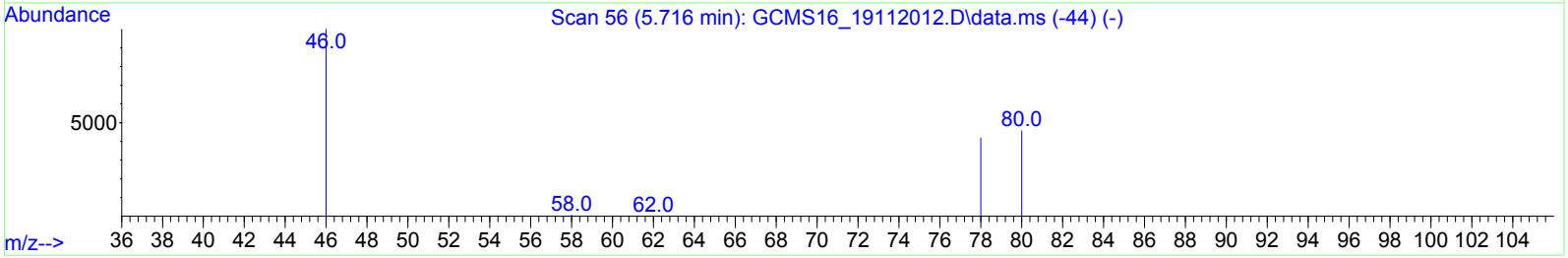
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121236.D
Acq On : 13 Dec 2019 01:47 am
Operator : CR
Sample : E191203-07
Misc :
ALS Vial : 31 Sample Multiplier: 1

Quant Time: Dec 13 11:28:45 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121236.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 71255

After
CR 1/2/20

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	39.62
80.00	41.50	42.53
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121237.D
Acq On : 13 Dec 2019 02:08 am
Operator : CR
Sample : E191203-08
Misc :
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Dec 13 11:29:34 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

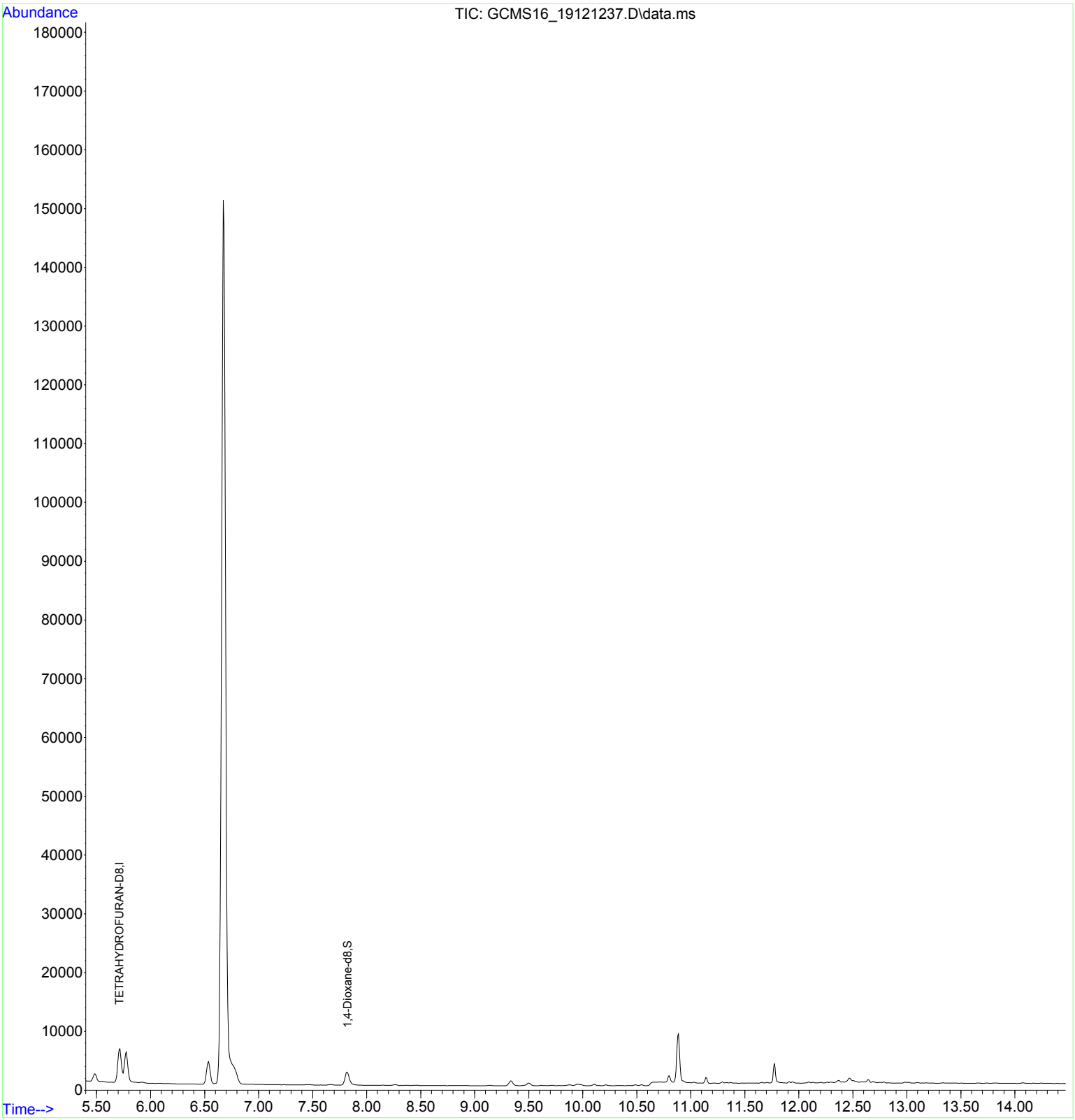
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.710	46	76468m	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	7.821	96	22717	20.50	ug/L	0.00
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

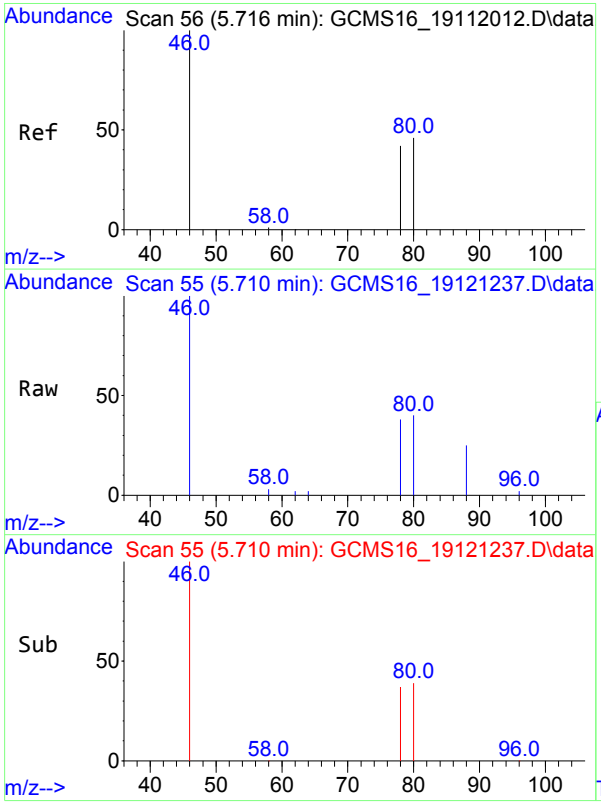
CR 1/2/20

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121237.D
Acq On : 13 Dec 2019 02:08 am
Operator : CR
Sample : E191203-08
Misc :
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Dec 13 11:29:34 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

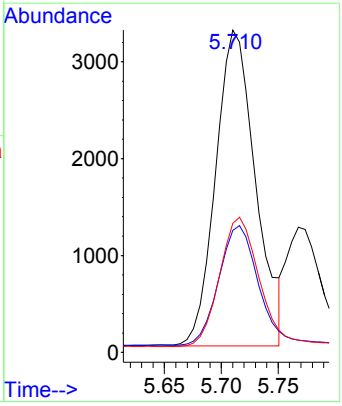


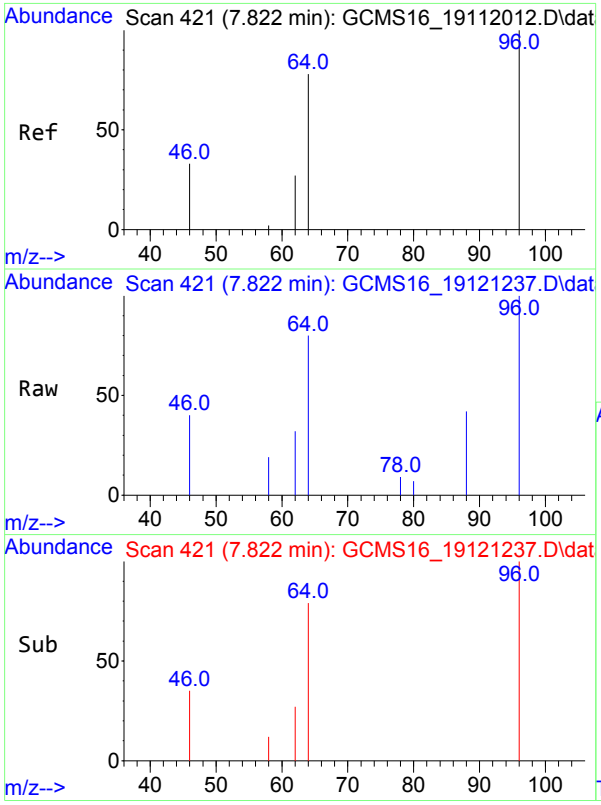


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121237.D
Acq: 13 Dec 2019 02:08 am

Tgt Ion: 46 Resp: 76468

Ion	Ratio	Lower	Upper
46	100		
78	38.0	27.5	51.1
80	40.9	29.0	53.9

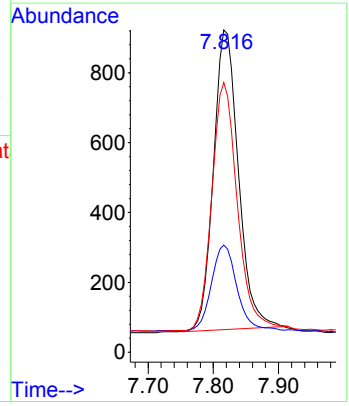


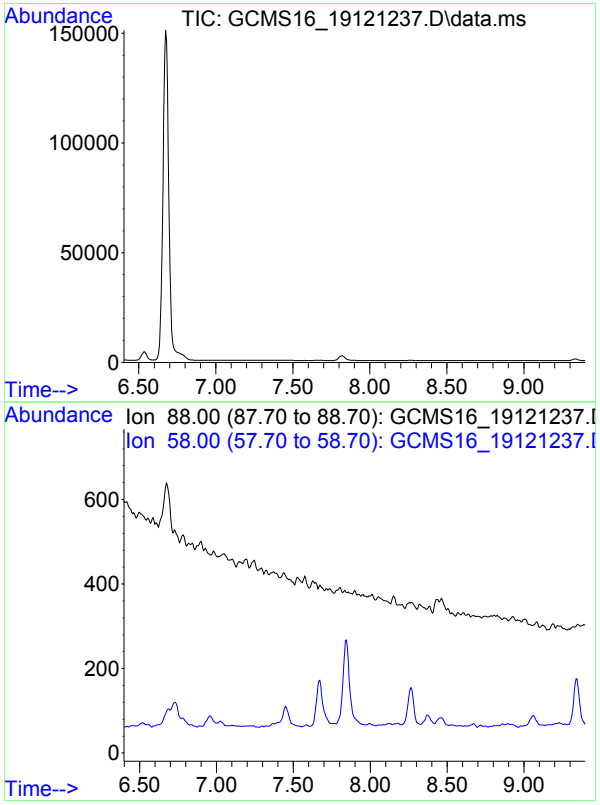


#2
1,4-Dioxane-d8
Concen: 20.50 ug/L
RT: 7.821 min Scan# 421
Delta R.T. -0.002 min
Lab File: GCMS16_19121237.D
Acq: 13 Dec 2019 02:08 am

Tgt Ion: 96 Resp: 22717

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	82.6	56.8	105.6





#3
1,4-Dioxane
Concen: N.D.
Expected RT: 7.90 min

Lab File: GCMS16_19121237.D
Acq: 13 Dec 2019 02:08 am

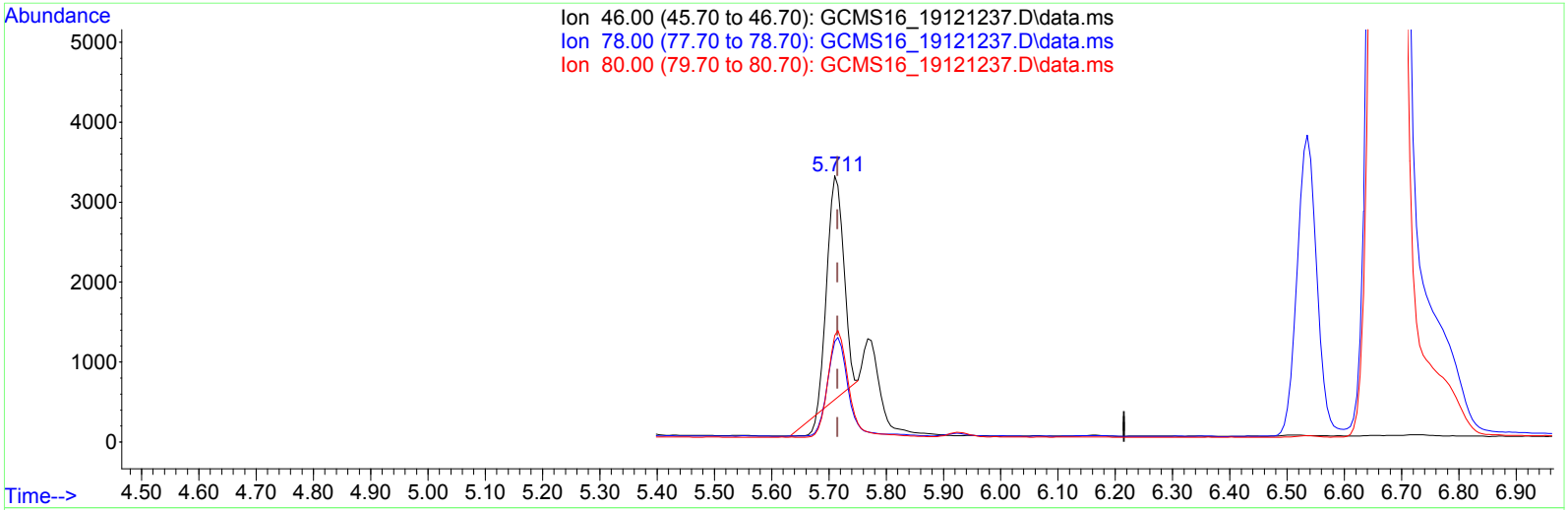
Tgt Ion: 88

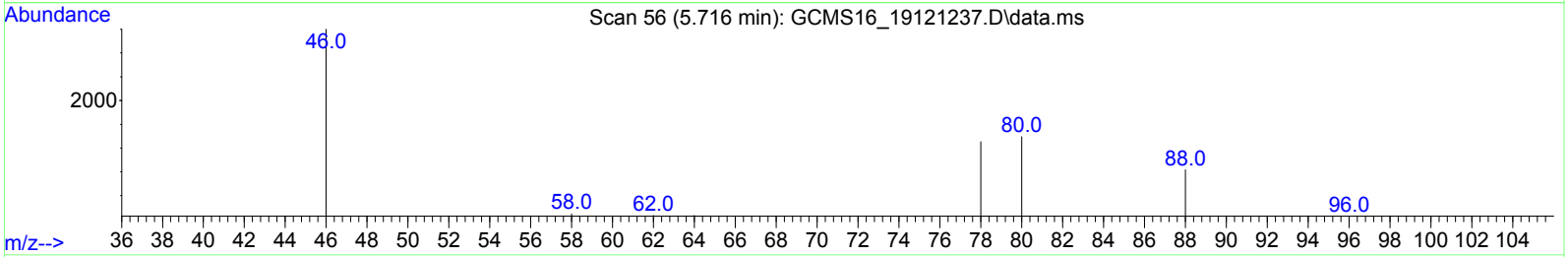
Sig	Exp Ratio
88	100
58	103.6

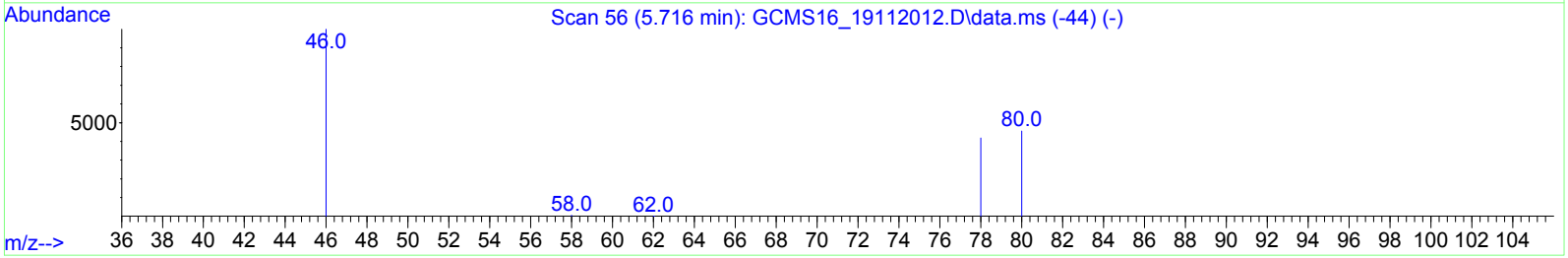
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121237.D
Acq On : 13 Dec 2019 02:08 am
Operator : CR
Sample : E191203-08
Misc :
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Dec 13 11:29:34 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121237.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.714min (-0.001) 50.00 ug/L

response 52446

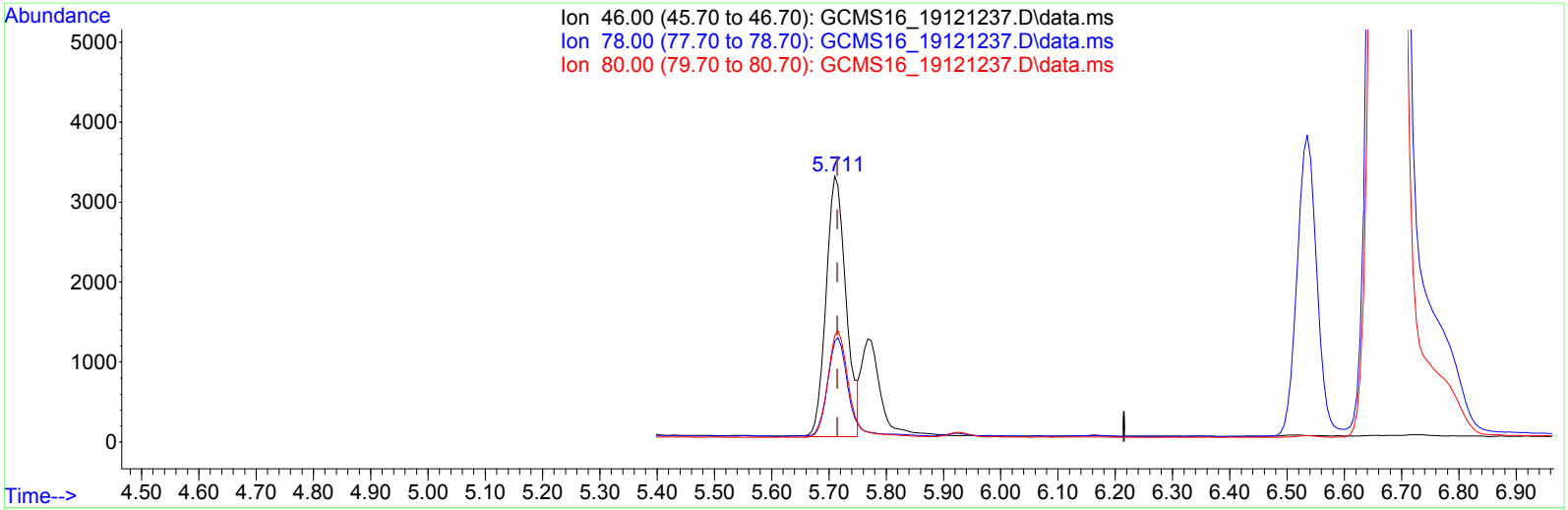
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	55.34#
80.00	41.50	59.62#
0.00	0.00	0.00

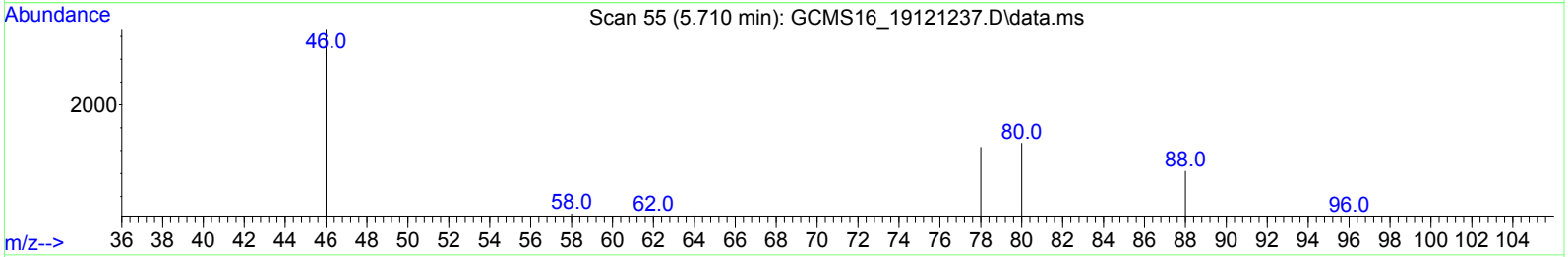
Before
IC
CR 1/2/20

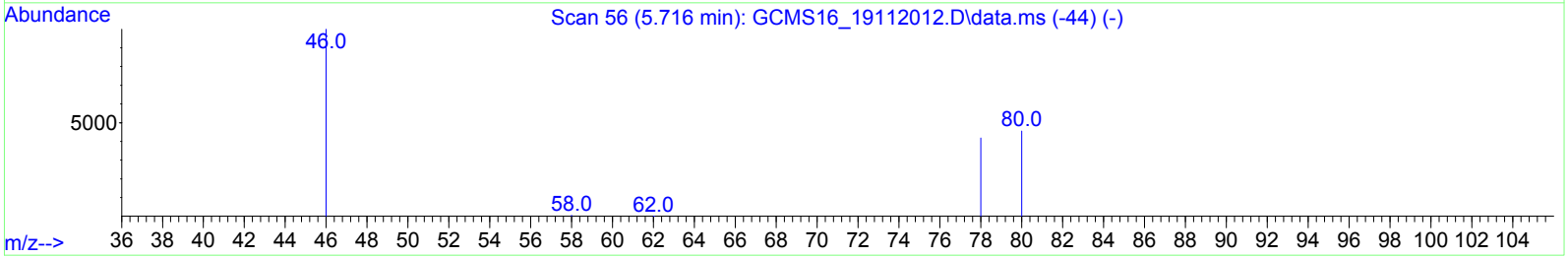
Quantitation Report (Qedit)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121237.D
Acq On : 13 Dec 2019 02:08 am
Operator : CR
Sample : E191203-08
Misc :
ALS Vial : 32 Sample Multiplier: 1

Quant Time: Dec 13 11:29:34 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121237.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 76468

After
CR 1/2/20

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	37.96
80.00	41.50	40.89
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121311.D
Acq On : 13 Dec 2019 03:32 pm
Operator : CR
Sample : E191204-01
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 16 11:48:38 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	5.710	46	79736m	50.00 ug/L	0.00
System Monitoring Compounds					
2) 1,4-Dioxane-d8	7.821	96	23082	19.97 ug/L	0.00
Target Compounds					Qvalue
3) 1,4-Dioxane	0.000		0	N.D.	

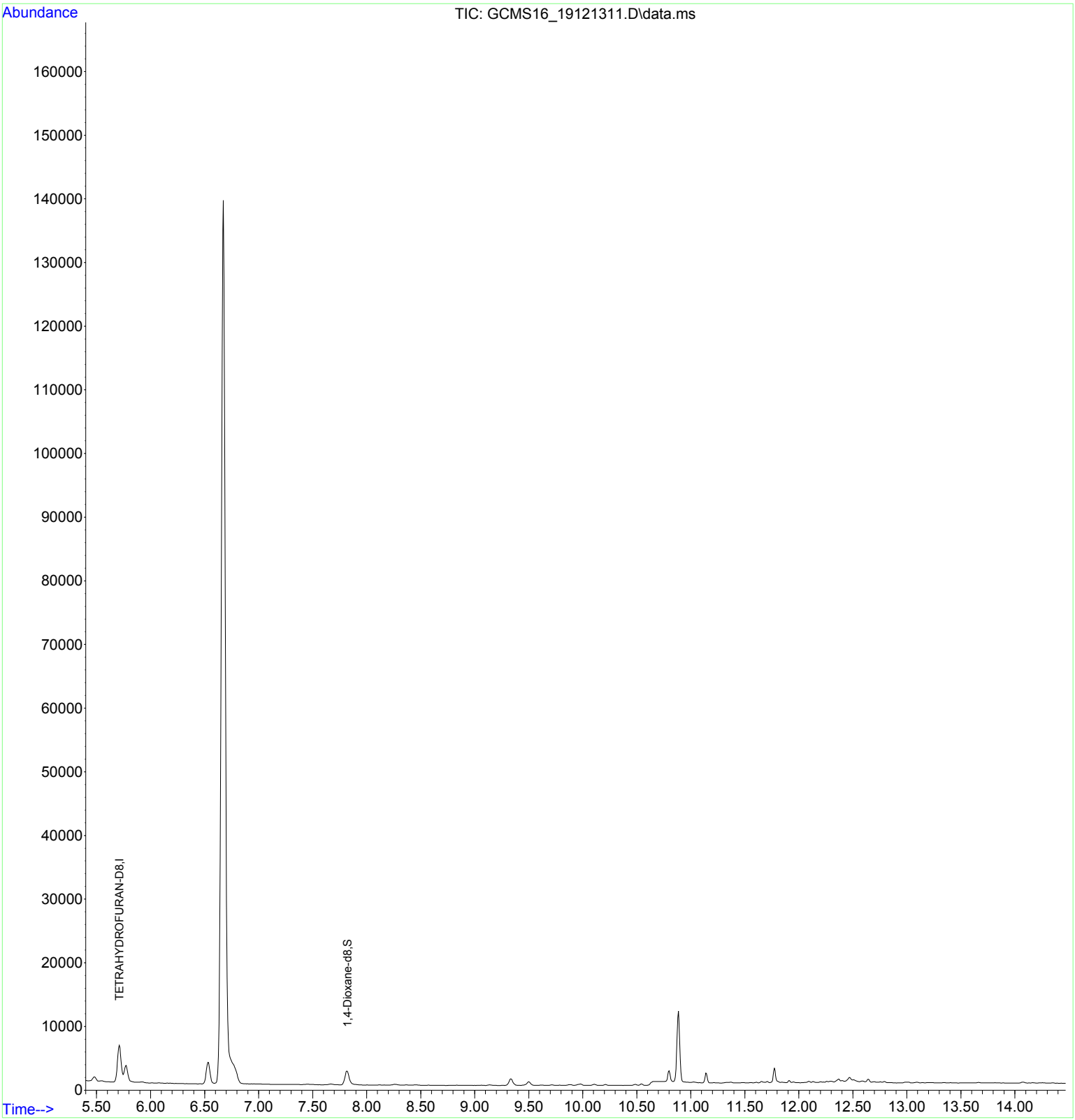
CR 1/2/20

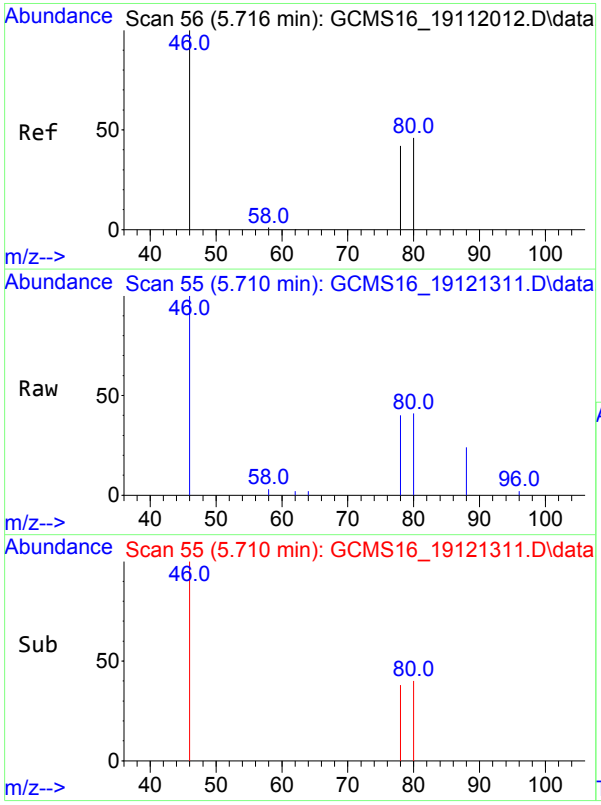
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121311.D
Acq On : 13 Dec 2019 03:32 pm
Operator : CR
Sample : E191204-01
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 16 11:48:38 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

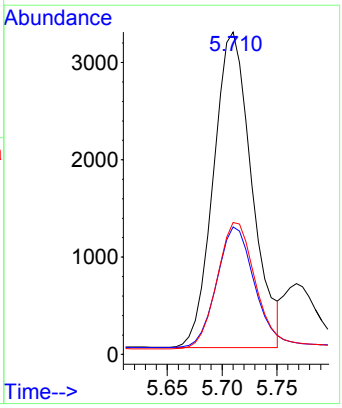


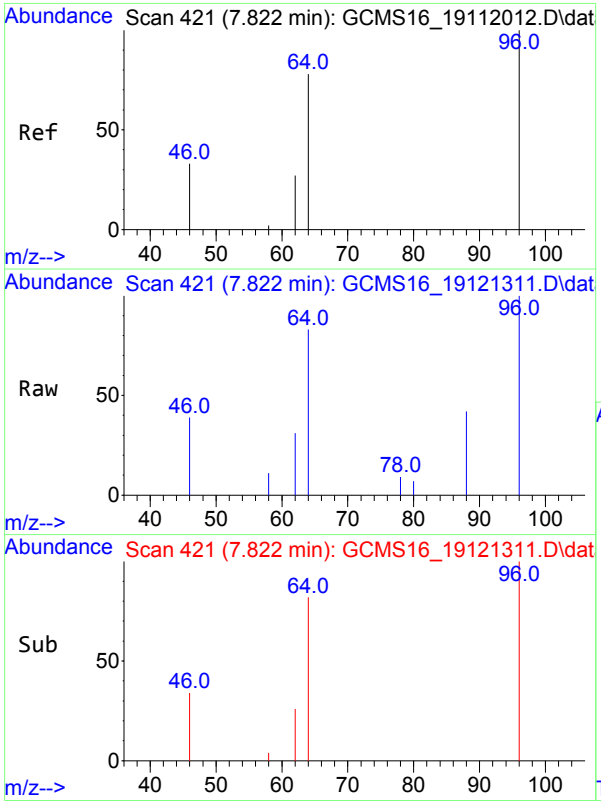


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L m
RT: 5.710 min Scan# 55
Delta R.T. -0.005 min
Lab File: GCMS16_19121311.D
Acq: 13 Dec 2019 03:32 pm

Tgt Ion: 46 Resp: 79736

Ion	Ratio	Lower	Upper
46	100		
78	36.8	27.5	51.1
80	38.6	29.0	53.9

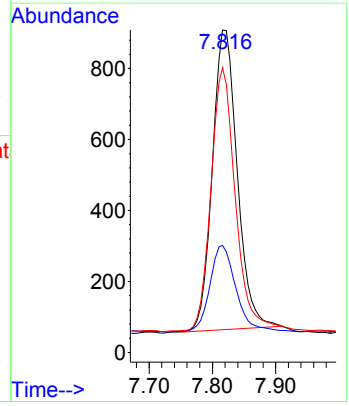


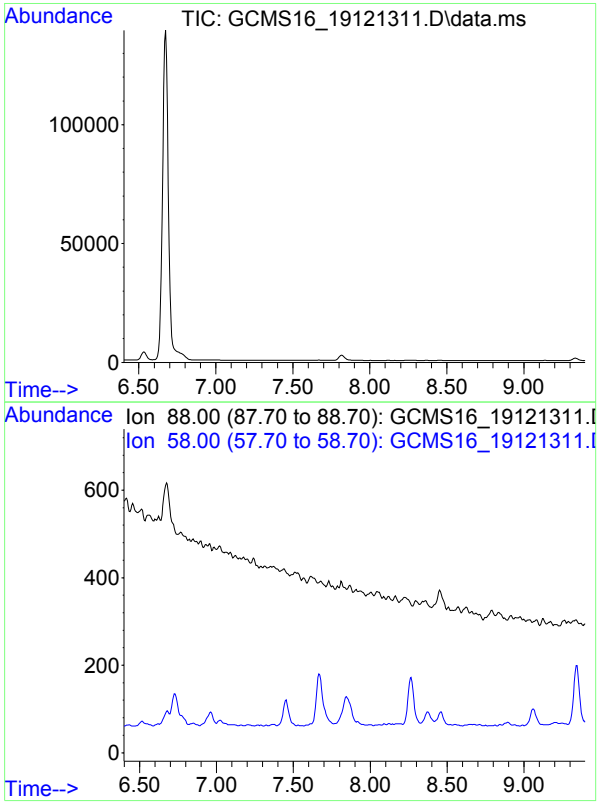


#2
1,4-Dioxane-d8
Concen: 19.97 ug/L
RT: 7.821 min Scan# 421
Delta R.T. -0.002 min
Lab File: GCMS16_19121311.D
Acq: 13 Dec 2019 03:32 pm

Tgt Ion: 96 Resp: 23082

Ion	Ratio	Lower	Upper
96	100		
62	0.0	0.0	0.0
64	82.9	56.8	105.6





#3
1,4-Dioxane
Concen: N.D.
Expected RT: 7.90 min

Lab File: GCMS16_19121311.D
Acq: 13 Dec 2019 03:32 pm

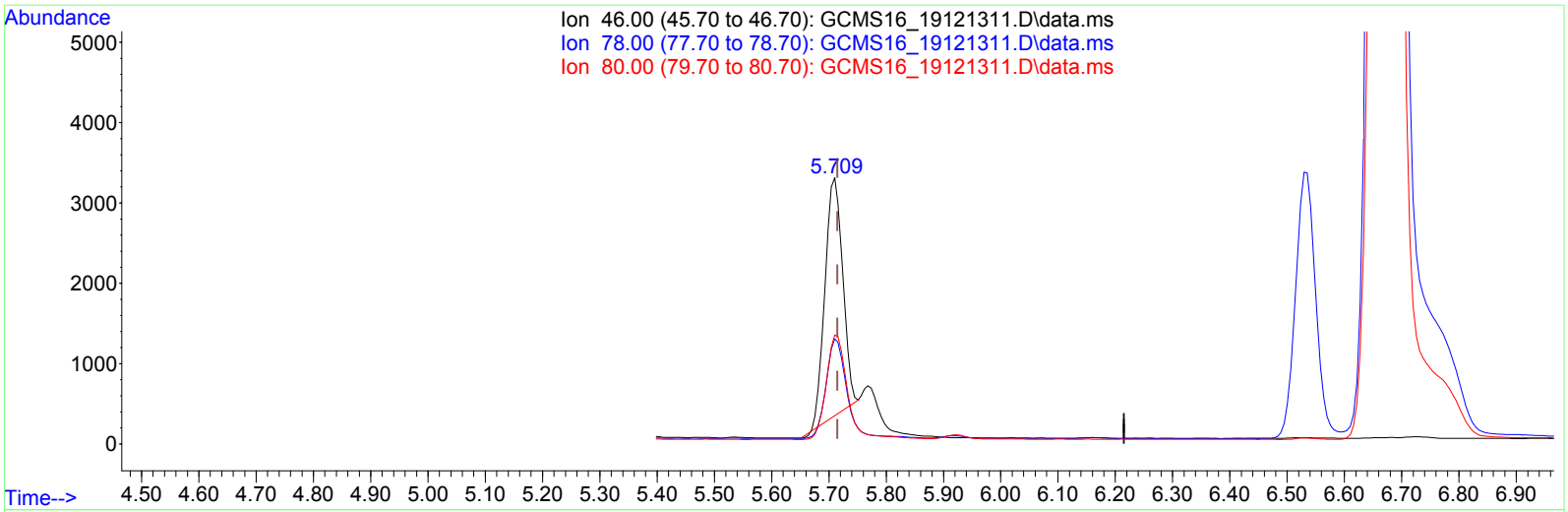
Tgt Ion: 88

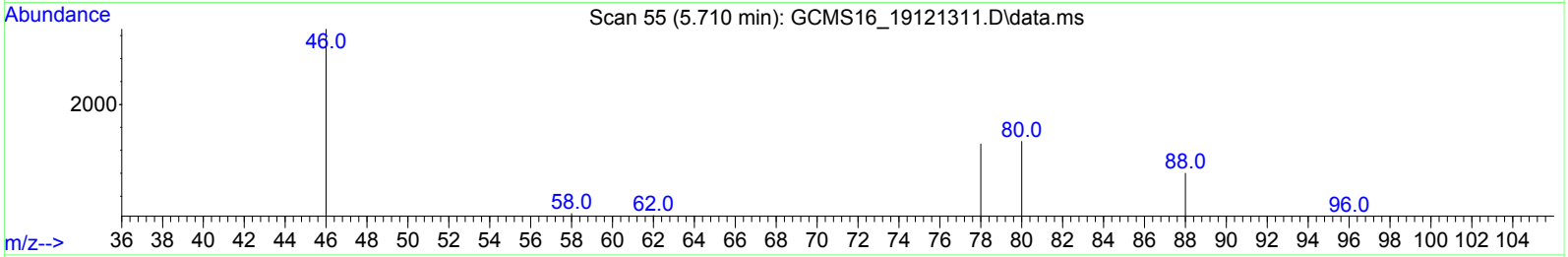
Sig	Exp Ratio
88	100
58	103.6

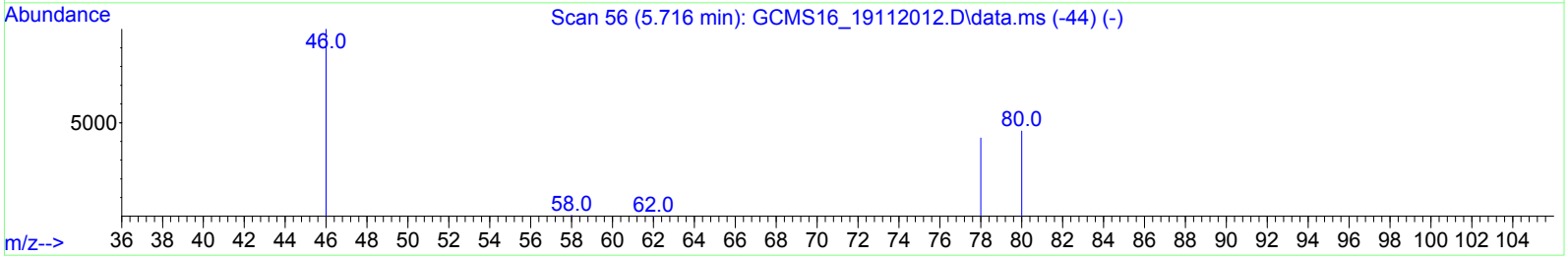
Quantitation Report (Qedit)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121311.D
Acq On : 13 Dec 2019 03:32 pm
Operator : CR
Sample : E191204-01
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 16 11:48:38 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121311.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.711min (-0.004) 50.00 ug/L

response 63113

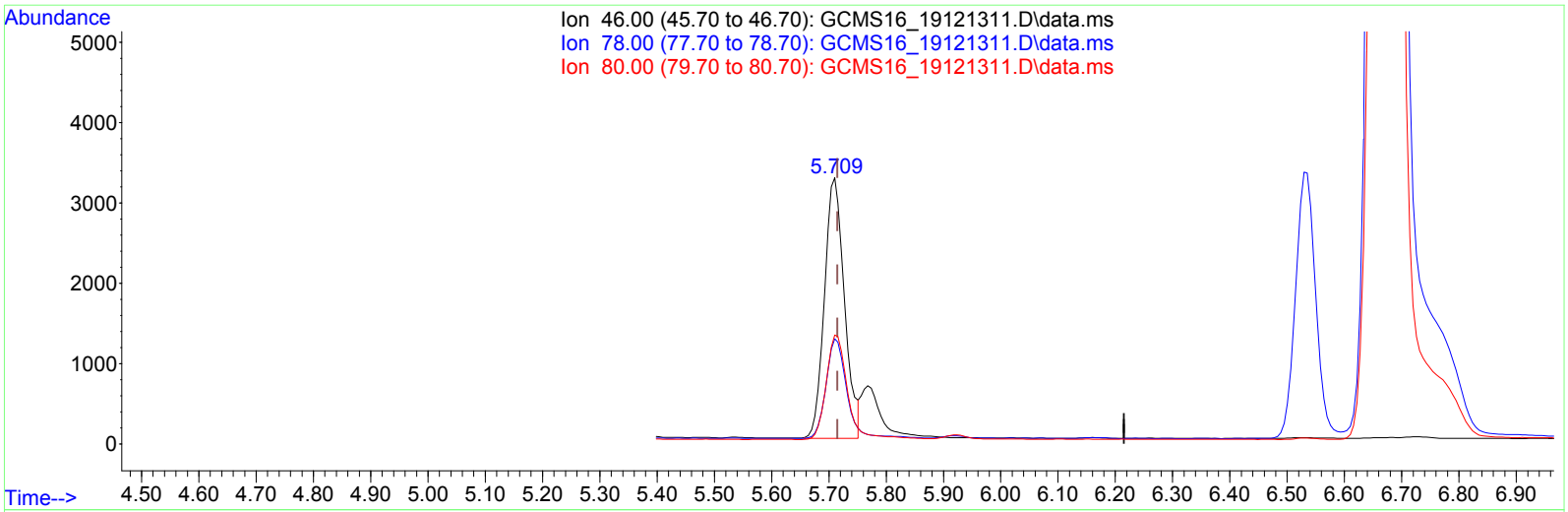
Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	46.44
80.00	41.50	48.80
0.00	0.00	0.00

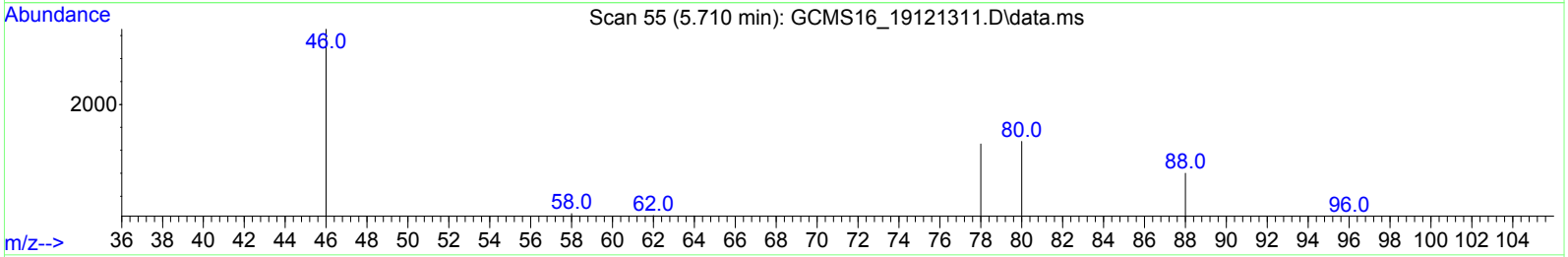
Before
IC
CR 1/2/20

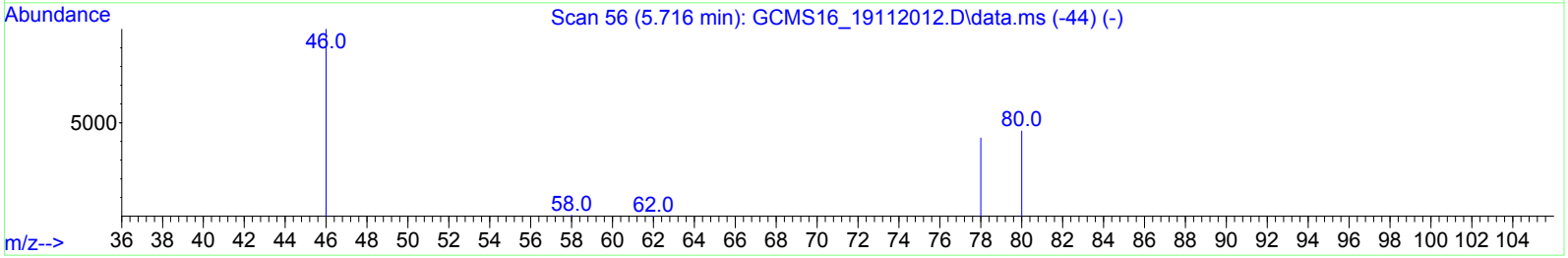
Quantitation Report (Qedit)

Data Path : D:\MASSHUNTER\GCMS\1\DATA\191213_CR\
Data File : GCMS16_19121311.D
Acq On : 13 Dec 2019 03:32 pm
Operator : CR
Sample : E191204-01
Misc :
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 16 11:48:38 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration







TIC: GCMS16_19121311.D\data.ms

(1) TETRAHYDROFURAN-D8 (I)

5.710min (-0.005) 50.00 ug/L m

response 79736

After
CR 1/2/20

Ion	Exp%	Act%
46.00	100.00	100.00
78.00	39.30	36.76
80.00	41.50	38.62
0.00	0.00	0.00

Supporting Data

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112003.D
Acq On : 20 Nov 2019 10:41 am
Operator : CR
Sample : SPK
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 20 16:05:18 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

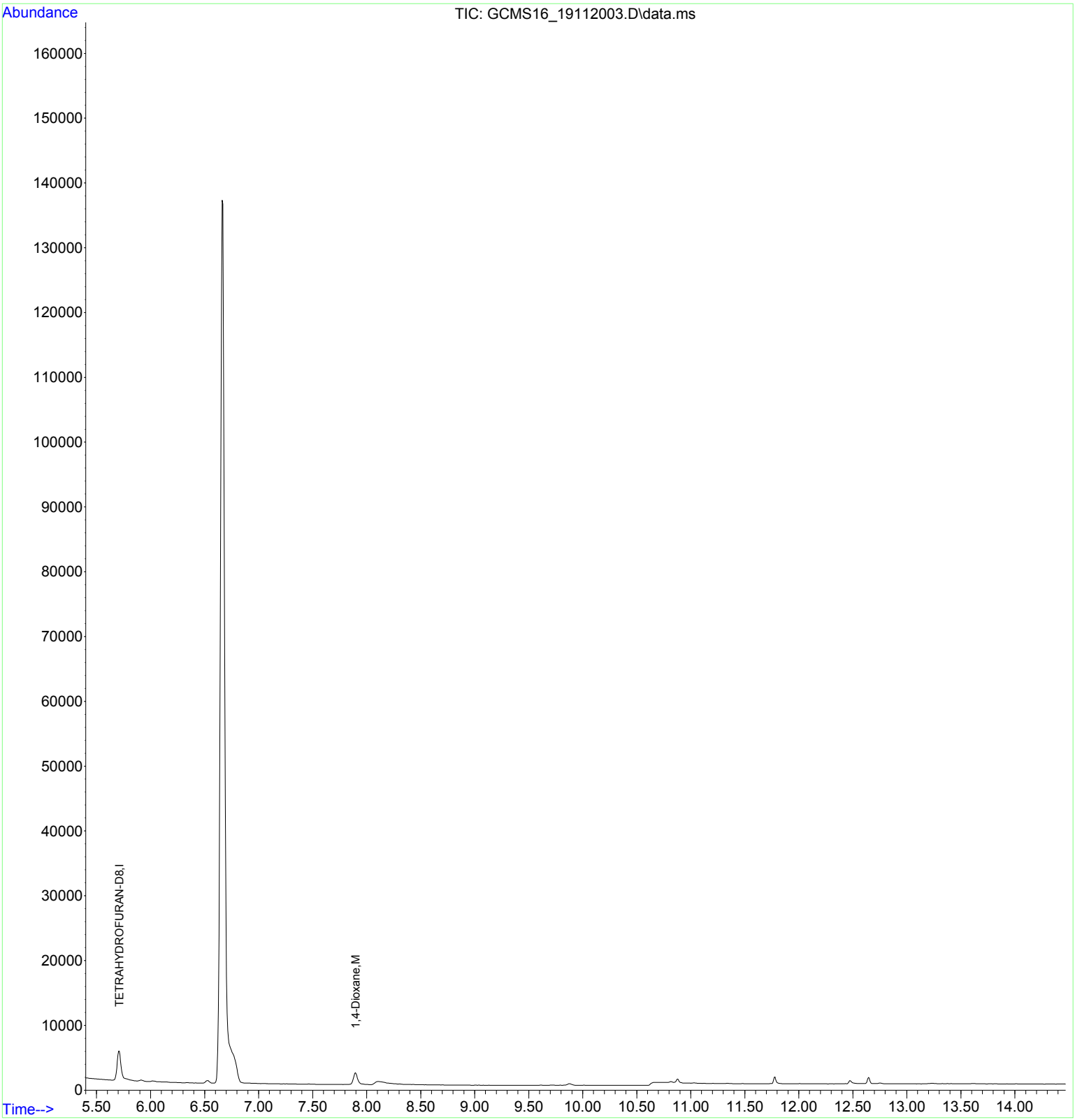
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.708	46	60540	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	7.899	88	24986	26.62	ug/L	98

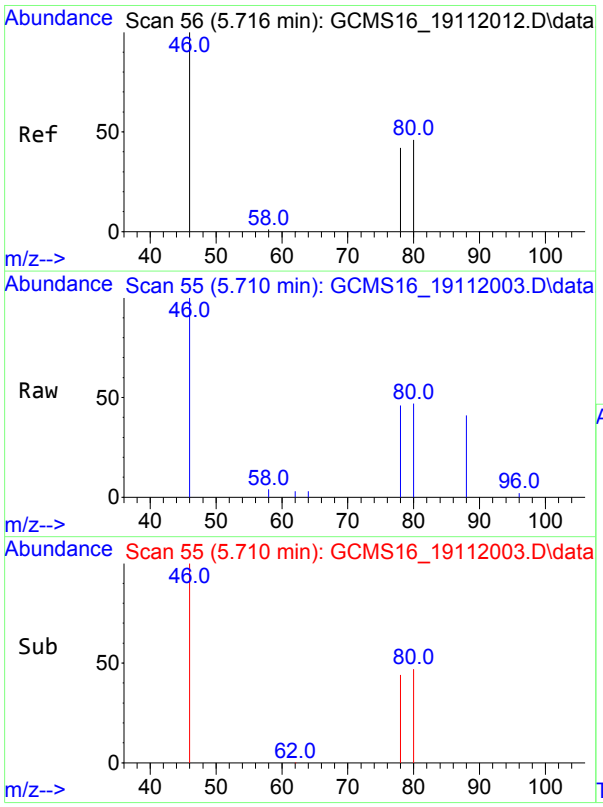
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112003.D
Acq On : 20 Nov 2019 10:41 am
Operator : CR
Sample : SPK
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 20 16:05:18 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

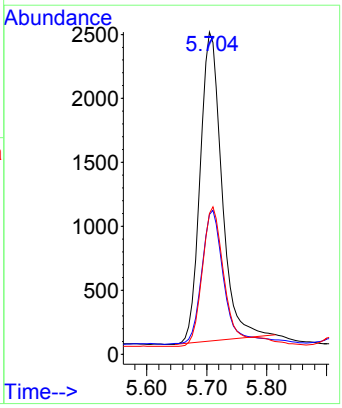


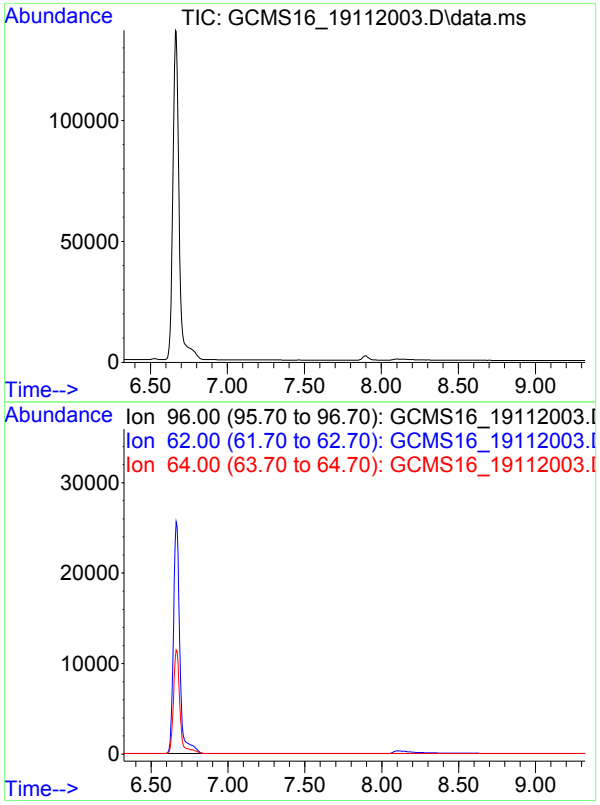


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.708 min Scan# 55
Delta R.T. -0.007 min
Lab File: GCMS16_19112003.D
Acq: 20 Nov 2019 10:41 am

Tgt Ion: 46 Resp: 60540

Ion	Ratio	Lower	Upper
46	100		
78	40.6	27.5	51.1
80	41.8	29.0	53.9



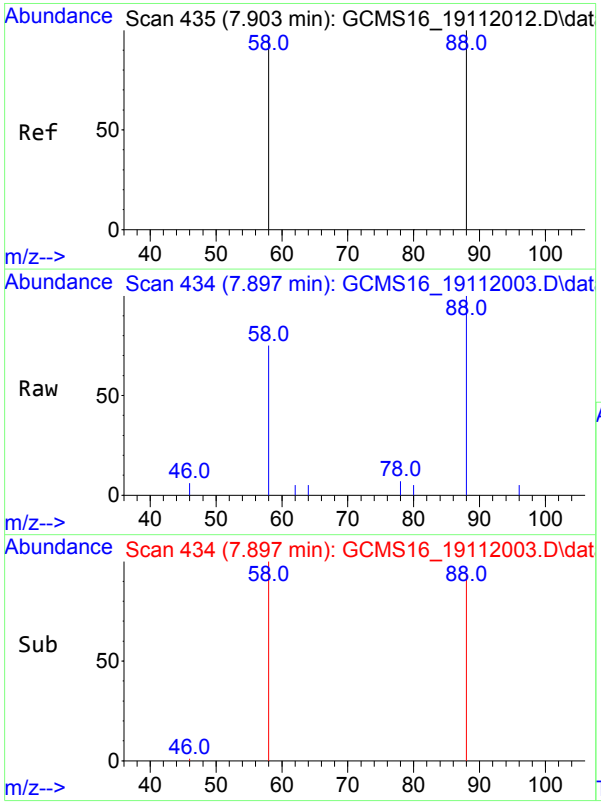


#2
1,4-Dioxane-d8
Concen: 0.00 ug/L
Expected RT: 7.82 min

Lab File: GCMS16_19112003.D
Acq: 20 Nov 2019 10:41 am

Tgt Ion: 96

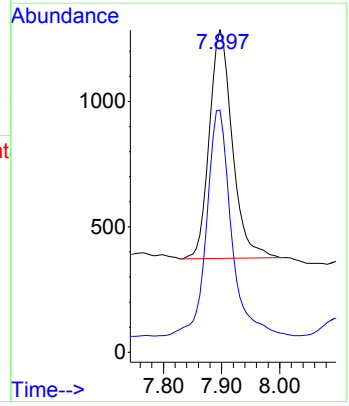
Sig	Exp Ratio
96	100
62	0.0
64	81.2



#3
1,4-Dioxane
Concen: 26.62 ug/L
RT: 7.899 min Scan# 434
Delta R.T. 0.000 min
Lab File: GCMS16_19112003.D
Acq: 20 Nov 2019 10:41 am

Tgt Ion: 88 Resp: 24986

Ion	Ratio	Lower	Upper
88	100		
58	105.7	72.5	134.7



Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112004.D
Acq On : 20 Nov 2019 11:03 am
Operator : CR
Sample : BLK
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 20 16:05:33 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

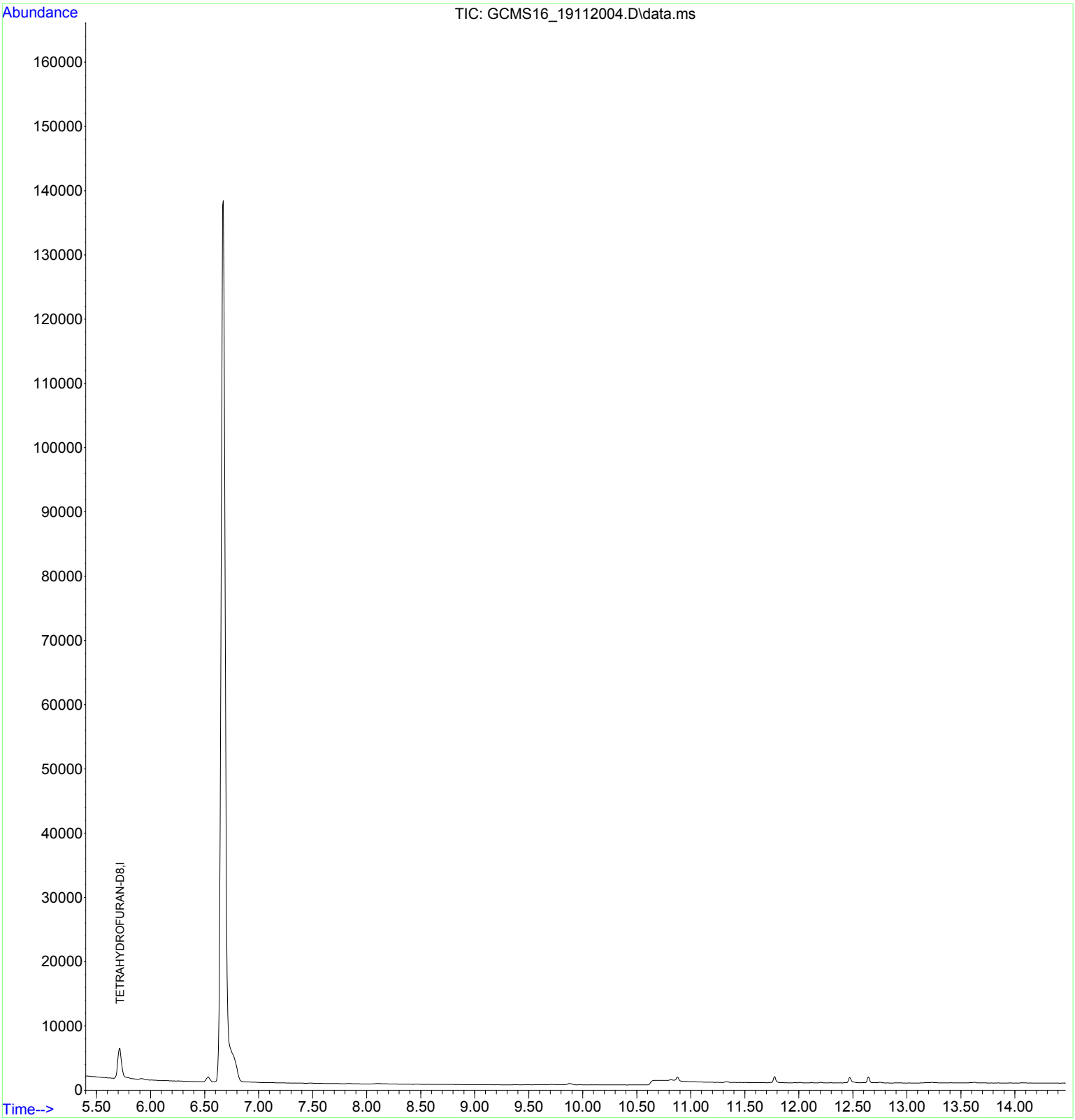
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.714	46	62150	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

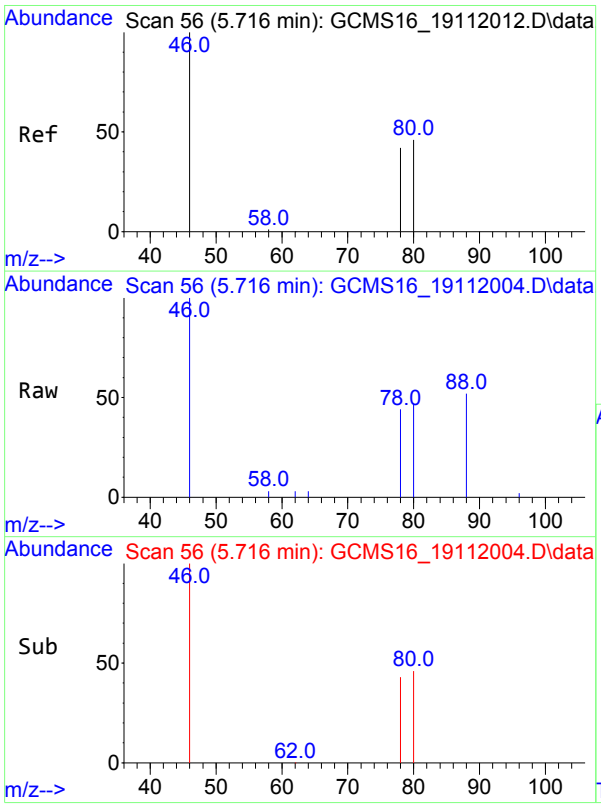
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112004.D
Acq On : 20 Nov 2019 11:03 am
Operator : CR
Sample : BLK
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 20 16:05:33 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

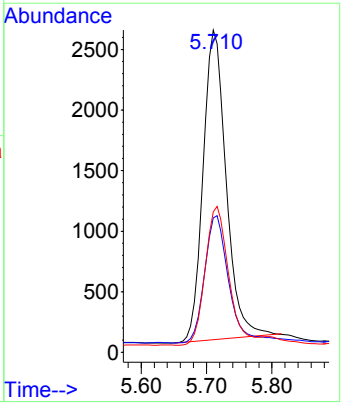


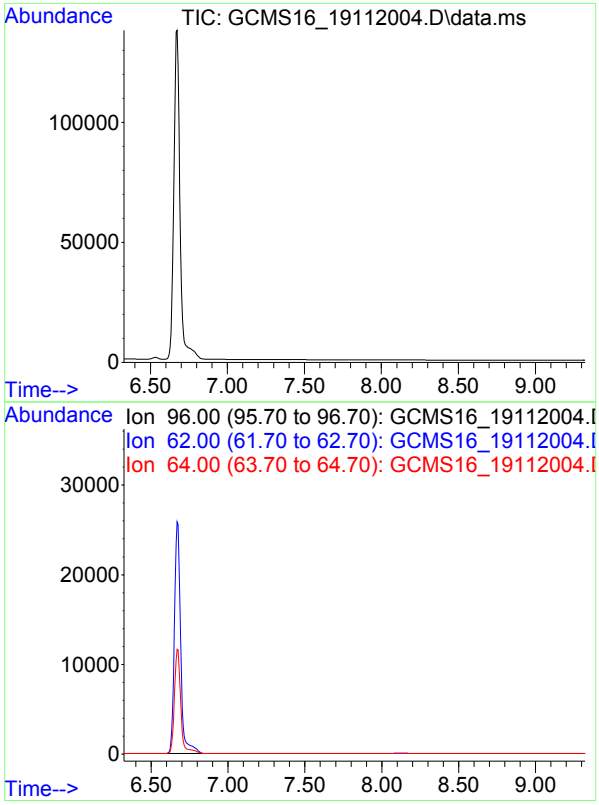


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.714 min Scan# 56
Delta R.T. -0.001 min
Lab File: GCMS16_19112004.D
Acq: 20 Nov 2019 11:03 am

Tgt Ion: 46 Resp: 62150

Ion	Ratio	Lower	Upper
46	100		
78	40.4	27.5	51.1
80	42.1	29.0	53.9



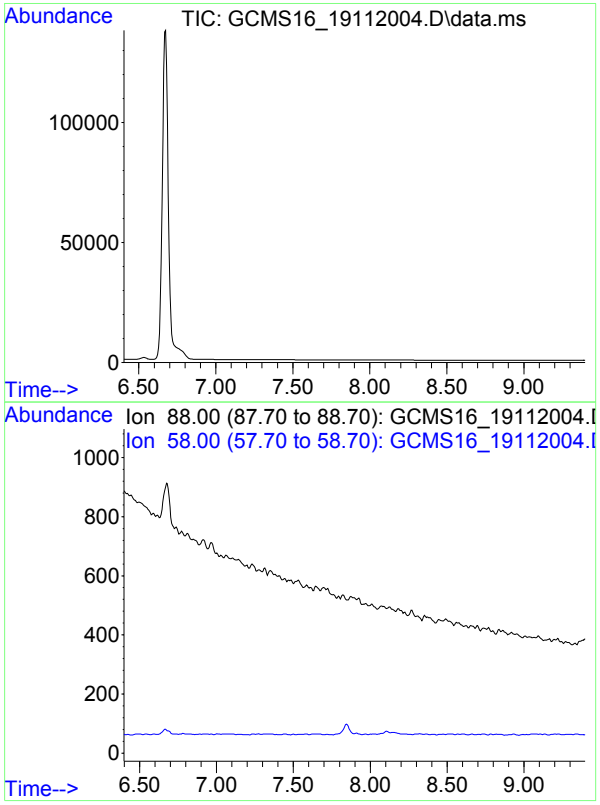


#2
1,4-Dioxane-d8
Concen: 0.00 ug/L
Expected RT: 7.82 min

Lab File: GCMS16_19112004.D
Acq: 20 Nov 2019 11:03 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
62	0.0
64	81.2



#3
1,4-Dioxane
Concen: N.D.
Expected RT: 7.90 min

Lab File: GCMS16_19112004.D
Acq: 20 Nov 2019 11:03 am

Tgt Ion: 88

Sig	Exp Ratio
88	100
58	103.6

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112005.D
Acq On : 20 Nov 2019 11:24 am
Operator : CR
Sample : BLK
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 20 16:06:17 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

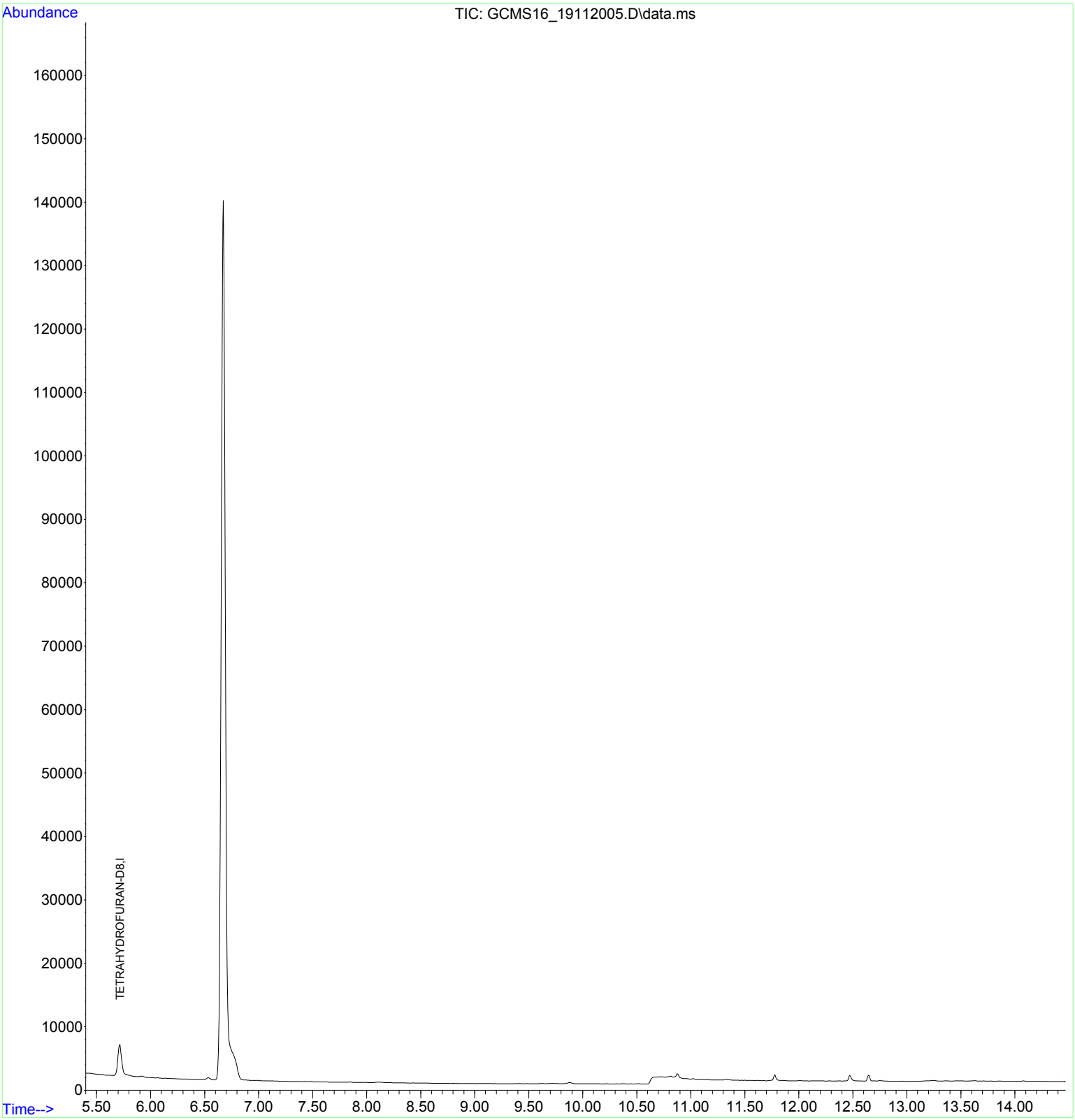
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.715	46	65362	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

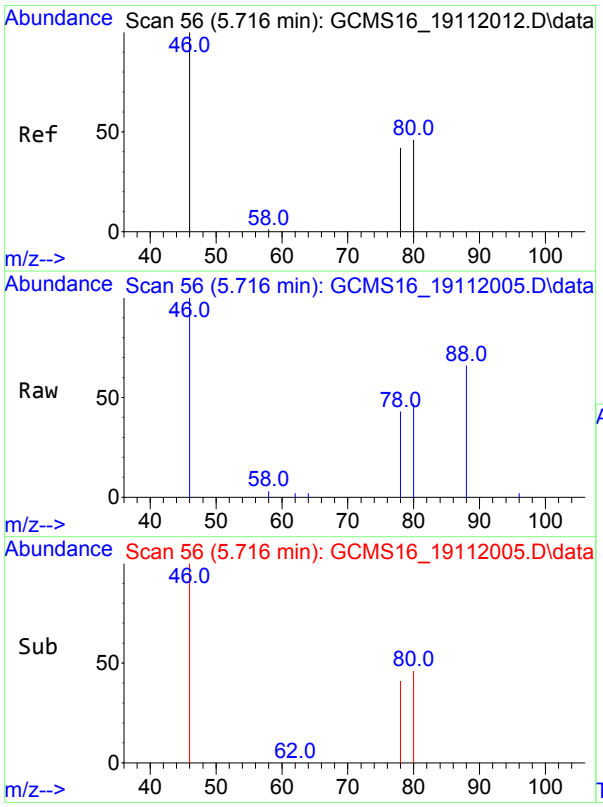
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112005.D
Acq On : 20 Nov 2019 11:24 am
Operator : CR
Sample : BLK
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 20 16:06:17 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

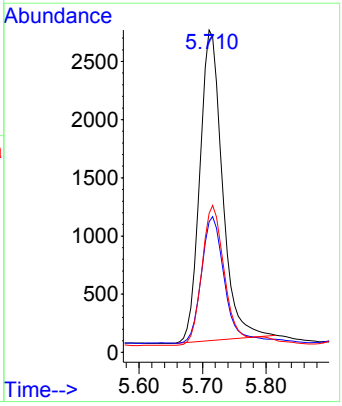


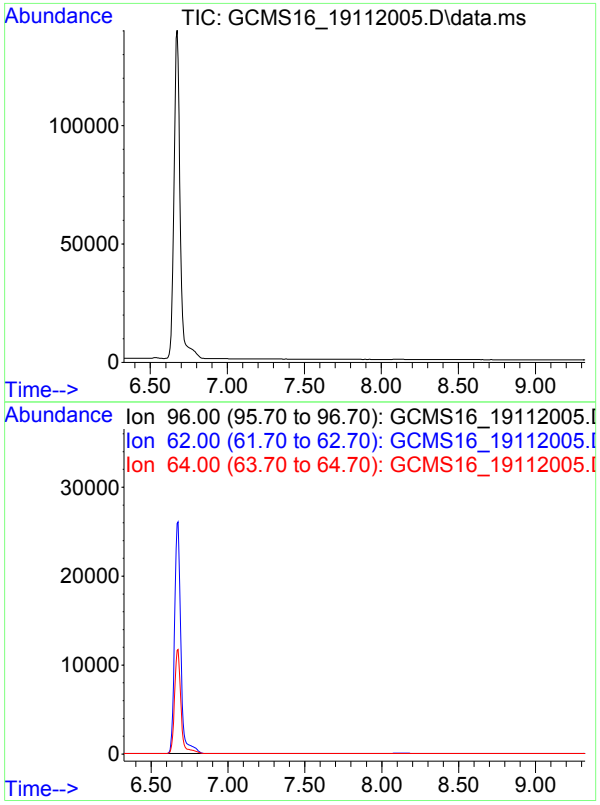


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.715 min Scan# 56
Delta R.T. -0.000 min
Lab File: GCMS16_19112005.D
Acq: 20 Nov 2019 11:24 am

Tgt Ion: 46 Resp: 65362

Ion	Ratio	Lower	Upper
46	100		
78	39.9	27.5	51.1
80	45.2	29.0	53.9



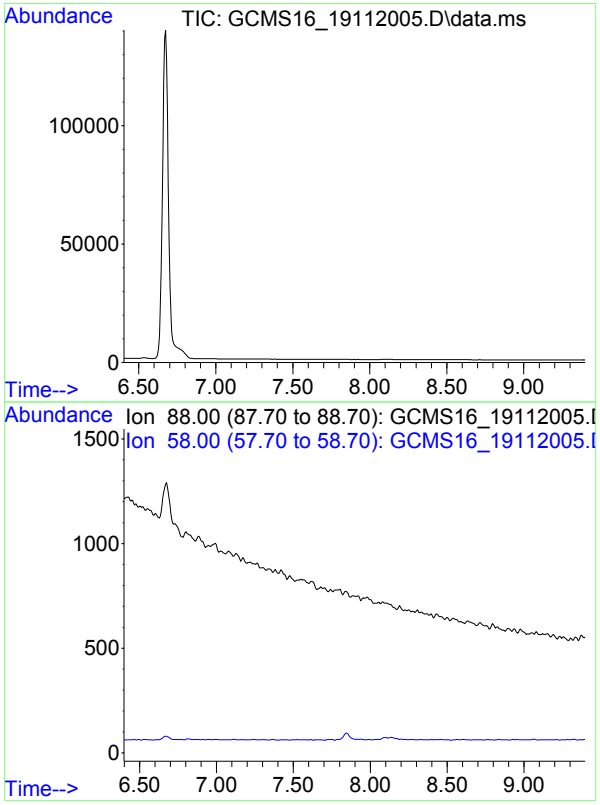


#2
1,4-Dioxane-d8
Concen: 0.00 ug/L
Expected RT: 7.82 min

Lab File: GCMS16_19112005.D
Acq: 20 Nov 2019 11:24 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
62	0.0
64	81.2



#3
1,4-Dioxane
Concen: N.D.
Expected RT: 7.90 min

Lab File: GCMS16_19112005.D
Acq: 20 Nov 2019 11:24 am

Tgt Ion: 88

Sig	Exp Ratio
88	100
58	103.6

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112006.D
Acq On : 20 Nov 2019 11:46 am
Operator : CR
Sample : BLK
Misc :
ALS Vial : 17 Sample Multiplier: 1

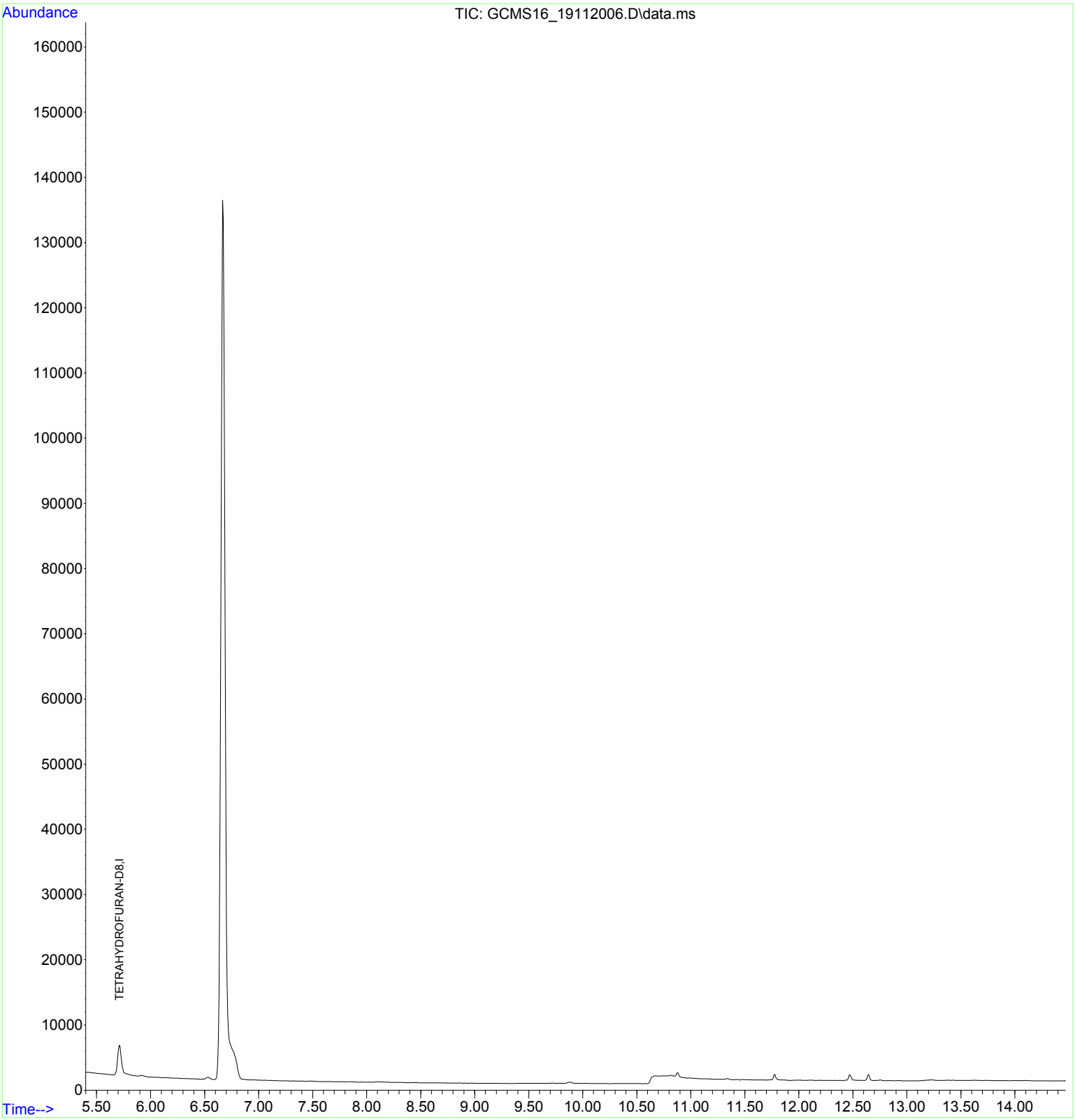
Quant Time: Nov 20 16:07:00 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

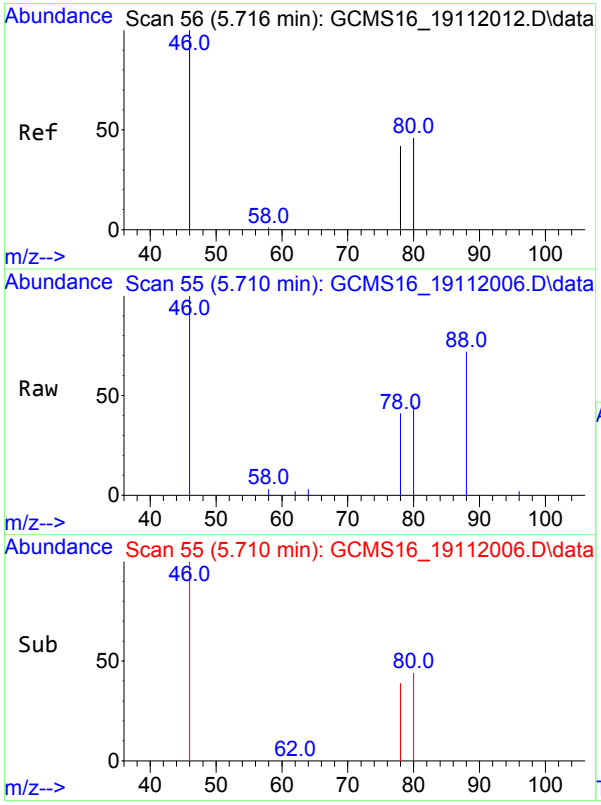
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.713	46	59814	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112006.D
Acq On : 20 Nov 2019 11:46 am
Operator : CR
Sample : BLK
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 20 16:07:00 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

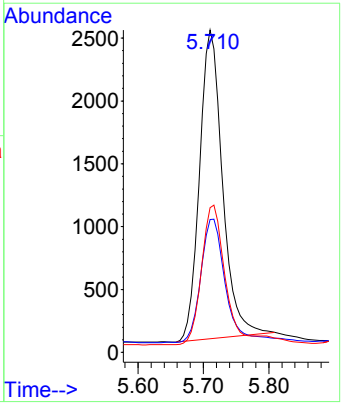


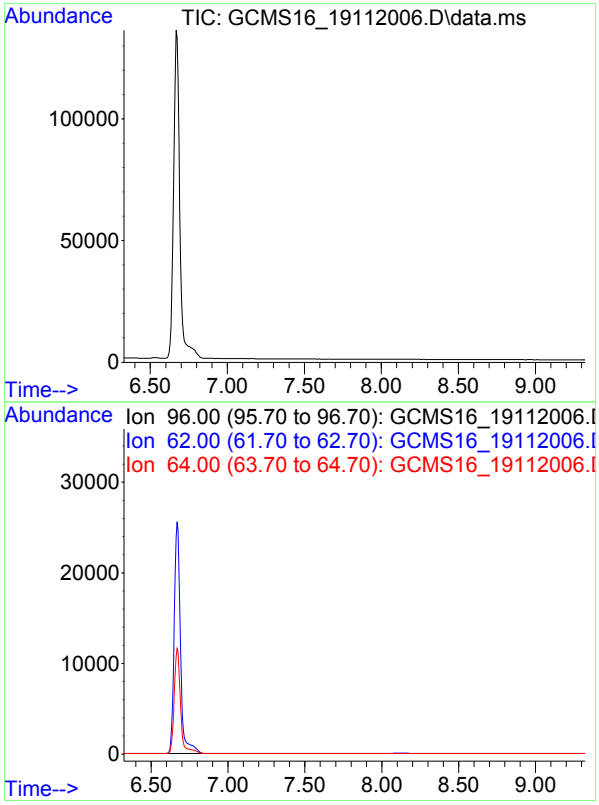


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.713 min Scan# 55
Delta R.T. -0.002 min
Lab File: GCMS16_19112006.D
Acq: 20 Nov 2019 11:46 am

Tgt Ion: 46 Resp: 59814

Ion	Ratio	Lower	Upper
46	100		
78	39.5	27.5	51.1
80	42.5	29.0	53.9



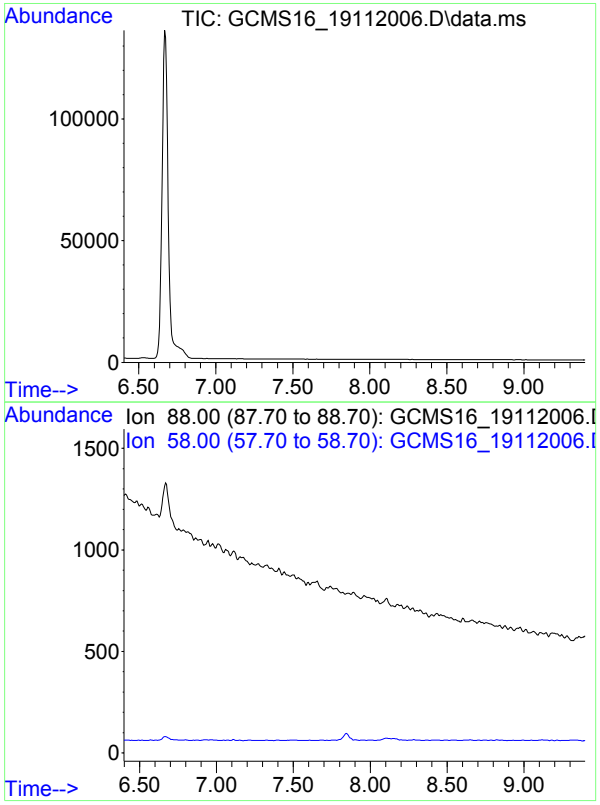


#2
1,4-Dioxane-d8
Concen: 0.00 ug/L
Expected RT: 7.82 min

Lab File: GCMS16_19112006.D
Acq: 20 Nov 2019 11:46 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
62	0.0
64	81.2



#3
1,4-Dioxane
Concen: N.D.
Expected RT: 7.90 min

Lab File: GCMS16_19112006.D
Acq: 20 Nov 2019 11:46 am

Tgt Ion: 88

Sig	Exp Ratio
88	100
58	103.6

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112007.D
Acq On : 20 Nov 2019 12:08 pm
Operator : CR
Sample : BLK
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 20 16:07:16 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

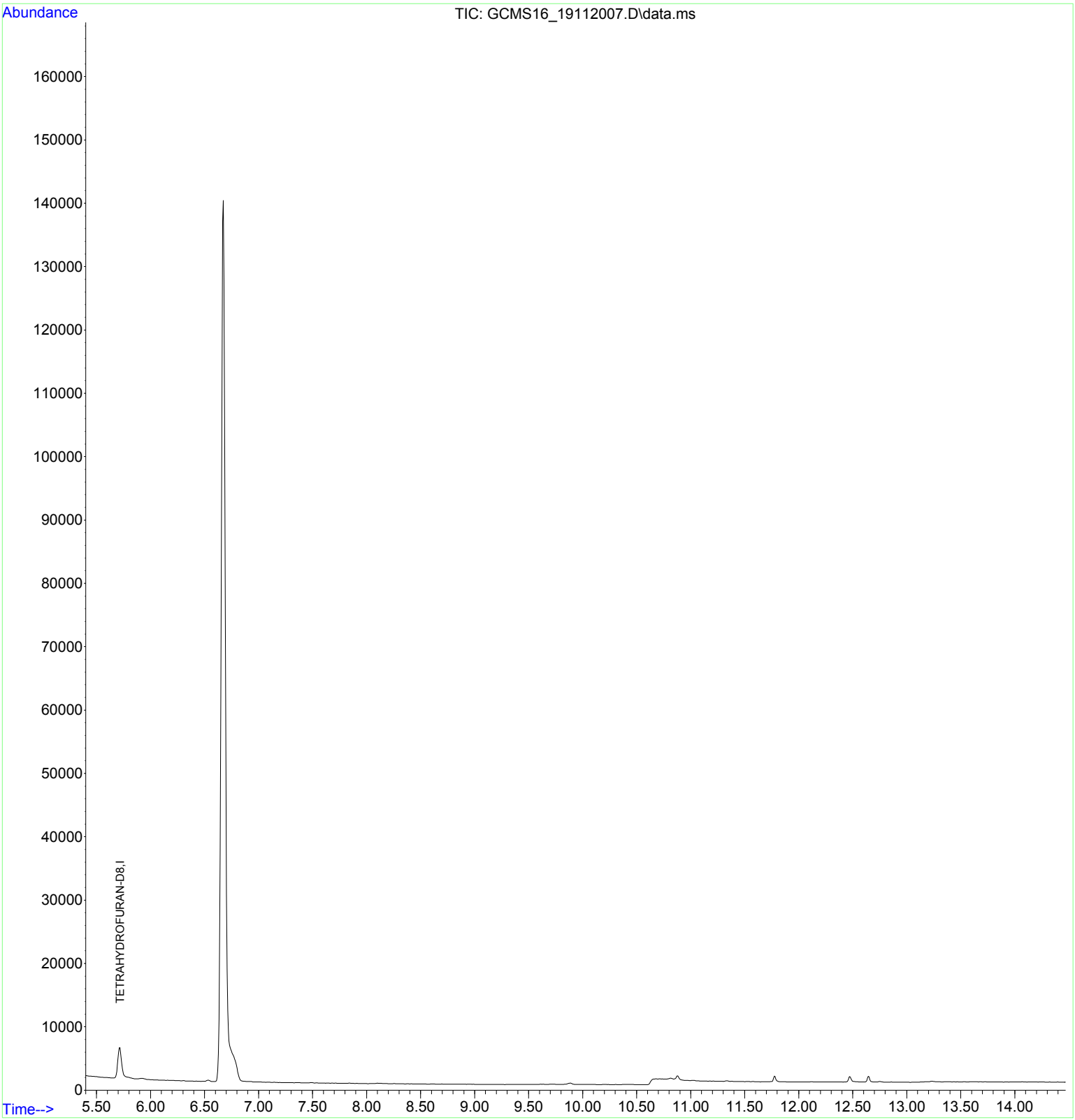
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.714	46	63607	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

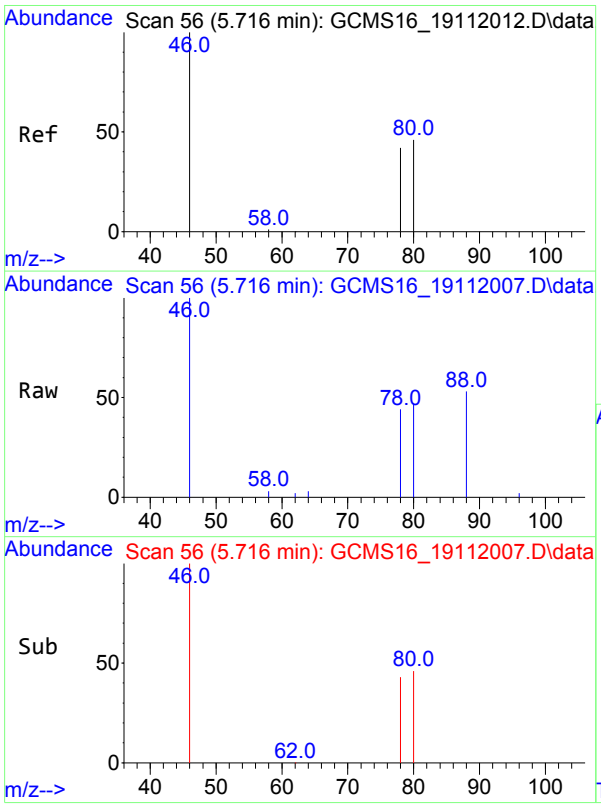
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112007.D
Acq On : 20 Nov 2019 12:08 pm
Operator : CR
Sample : BLK
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 20 16:07:16 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

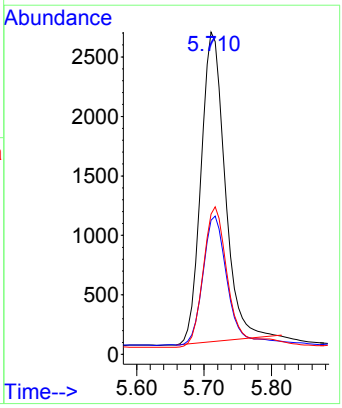


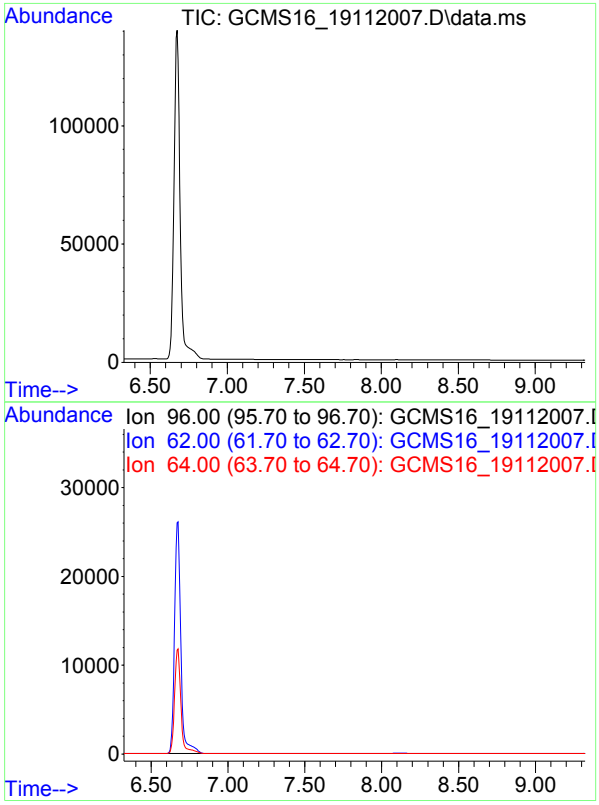


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.714 min Scan# 56
Delta R.T. -0.001 min
Lab File: GCMS16_19112007.D
Acq: 20 Nov 2019 12:08 pm

Tgt Ion: 46 Resp: 63607

Ion	Ratio	Lower	Upper
46	100		
78	39.7	27.5	51.1
80	42.6	29.0	53.9



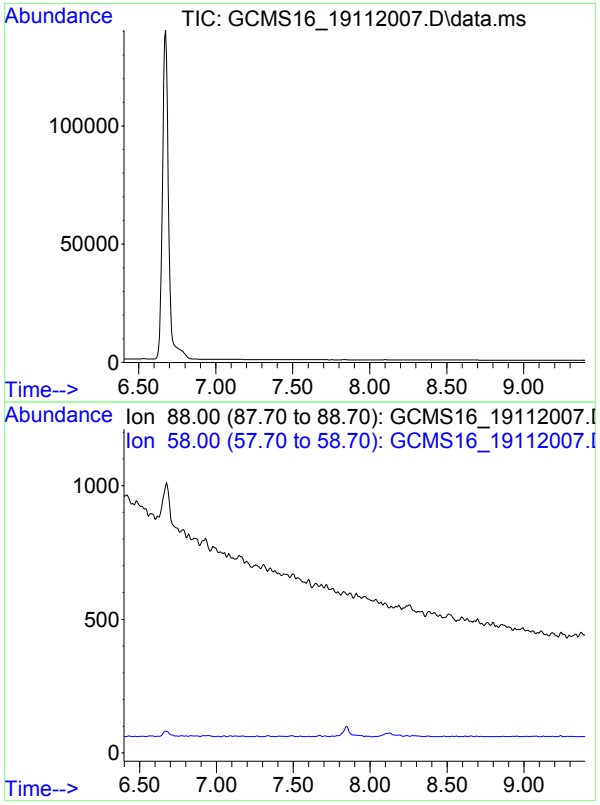


#2
1,4-Dioxane-d8
Concen: 0.00 ug/L
Expected RT: 7.82 min

Lab File: GCMS16_19112007.D
Acq: 20 Nov 2019 12:08 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
62	0.0
64	81.2



#3
1,4-Dioxane
Concen: N.D.
Expected RT: 7.90 min

Lab File: GCMS16_19112007.D
Acq: 20 Nov 2019 12:08 pm

Tgt Ion: 88

Sig	Exp Ratio
88	100
58	103.6

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112001.D
Acq On : 20 Nov 2019 09:59 am
Operator : CR
Sample : DCM
Misc :
ALS Vial : 1 Sample Multiplier: 1

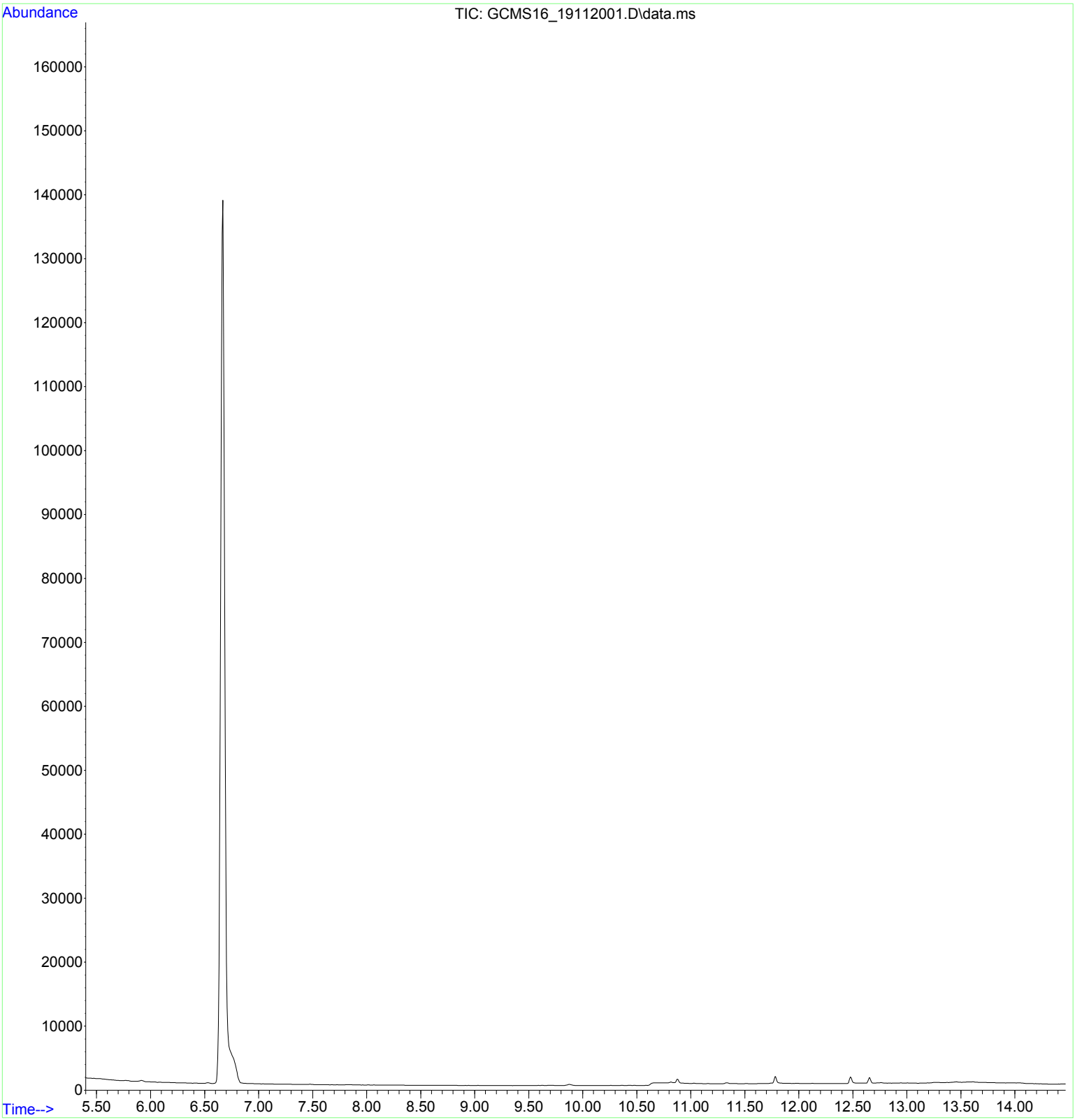
Quant Time: Nov 20 16:04:13 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

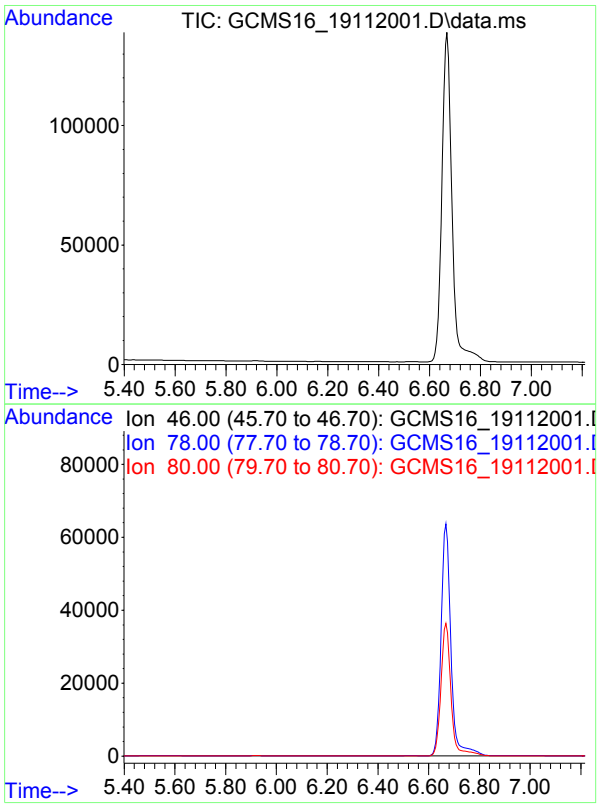
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	0.000	46	0	0.00	ug/L	-5.71
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	8.025	88	273	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112001.D
Acq On : 20 Nov 2019 09:59 am
Operator : CR
Sample : DCM
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 20 16:04:13 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



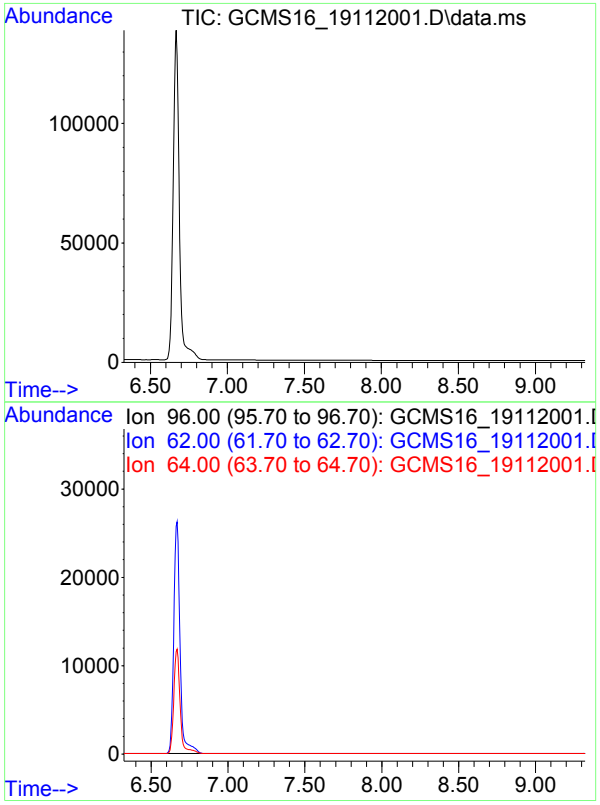


#1
TETRAHYDROFURAN-D8
Concen: 0.00 ug/L
Expected RT: 5.71 min

Lab File: GCMS16_19112001.D
Acq: 20 Nov 2019 09:59 am

Tgt Ion: 46

Sig	Exp Ratio
46	100
78	39.3
80	41.5

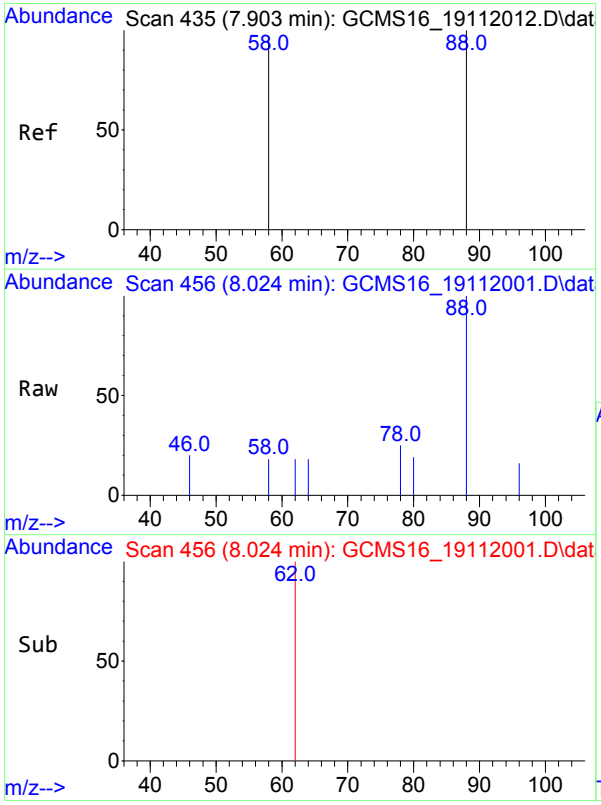


#2
1,4-Dioxane-d8
Concen: 0.00 ug/L
Expected RT: 7.82 min

Lab File: GCMS16_19112001.D
Acq: 20 Nov 2019 09:59 am

Tgt Ion: 96

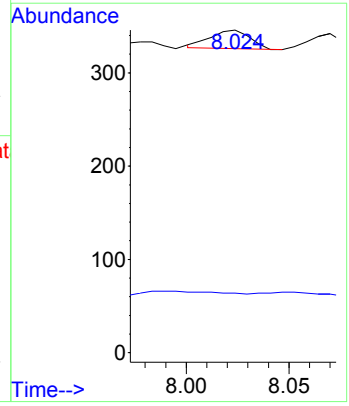
Sig	Exp Ratio
96	100
62	0.0
64	81.2



#3
1,4-Dioxane
Concen: N.D.
RT: 8.025 min Scan# 456
Delta R.T. 0.126 min
Lab File: GCMS16_19112001.D
Acq: 20 Nov 2019 09:59 am

Tgt Ion: 88 Resp: 273

Ion	Ratio	Lower	Upper
88	100		
58	0.0	72.5	134.7#



Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121201.D
Acq On : 12 Dec 2019 01:33 pm
Operator : CR
Sample : DCM
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 12 14:17:54 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

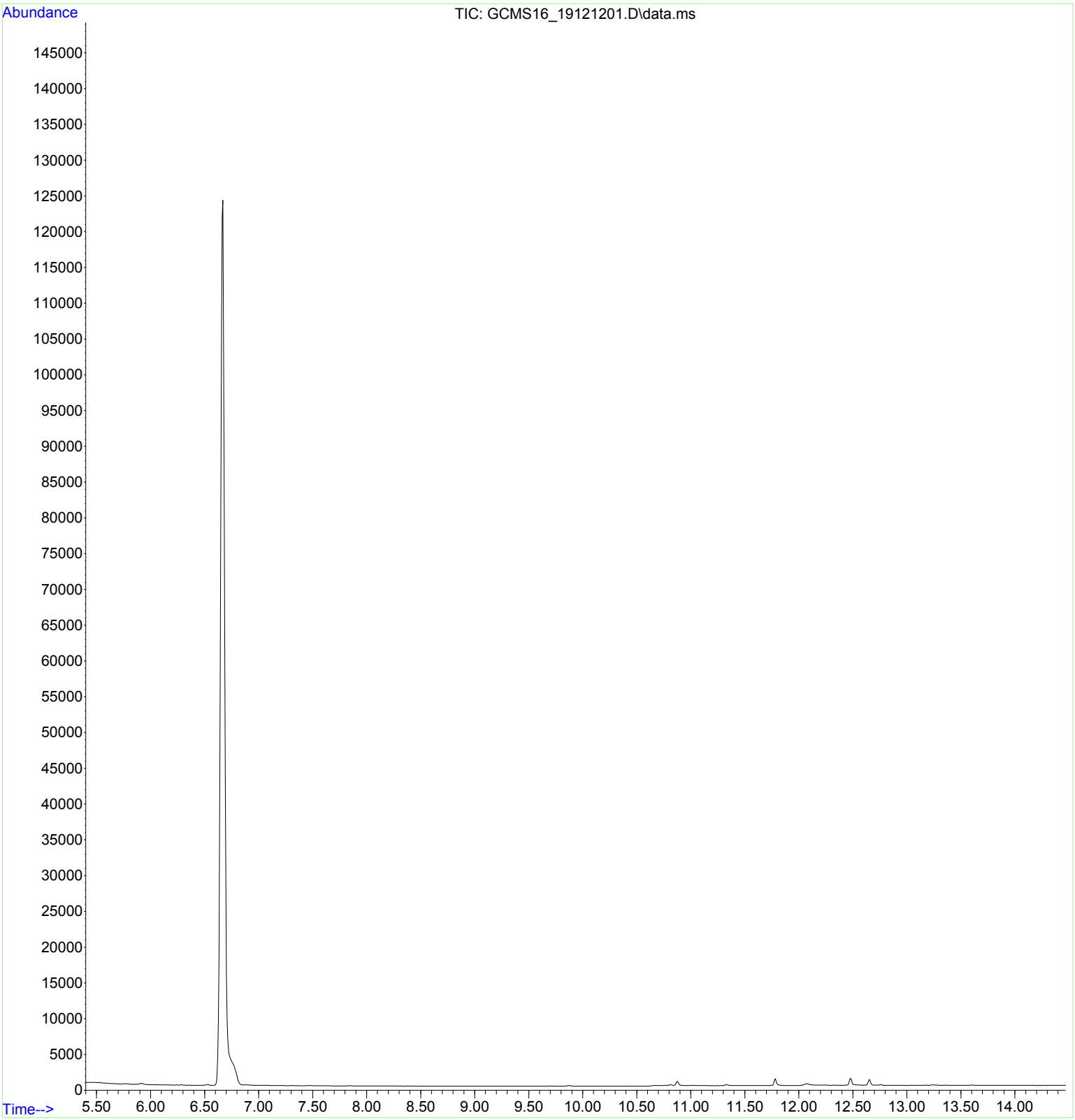
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	0.000	46	0	0.00	ug/L	-5.71
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121201.D
Acq On : 12 Dec 2019 01:33 pm
Operator : CR
Sample : DCM
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 12 14:17:54 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121202.D
Acq On : 12 Dec 2019 01:53 pm
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

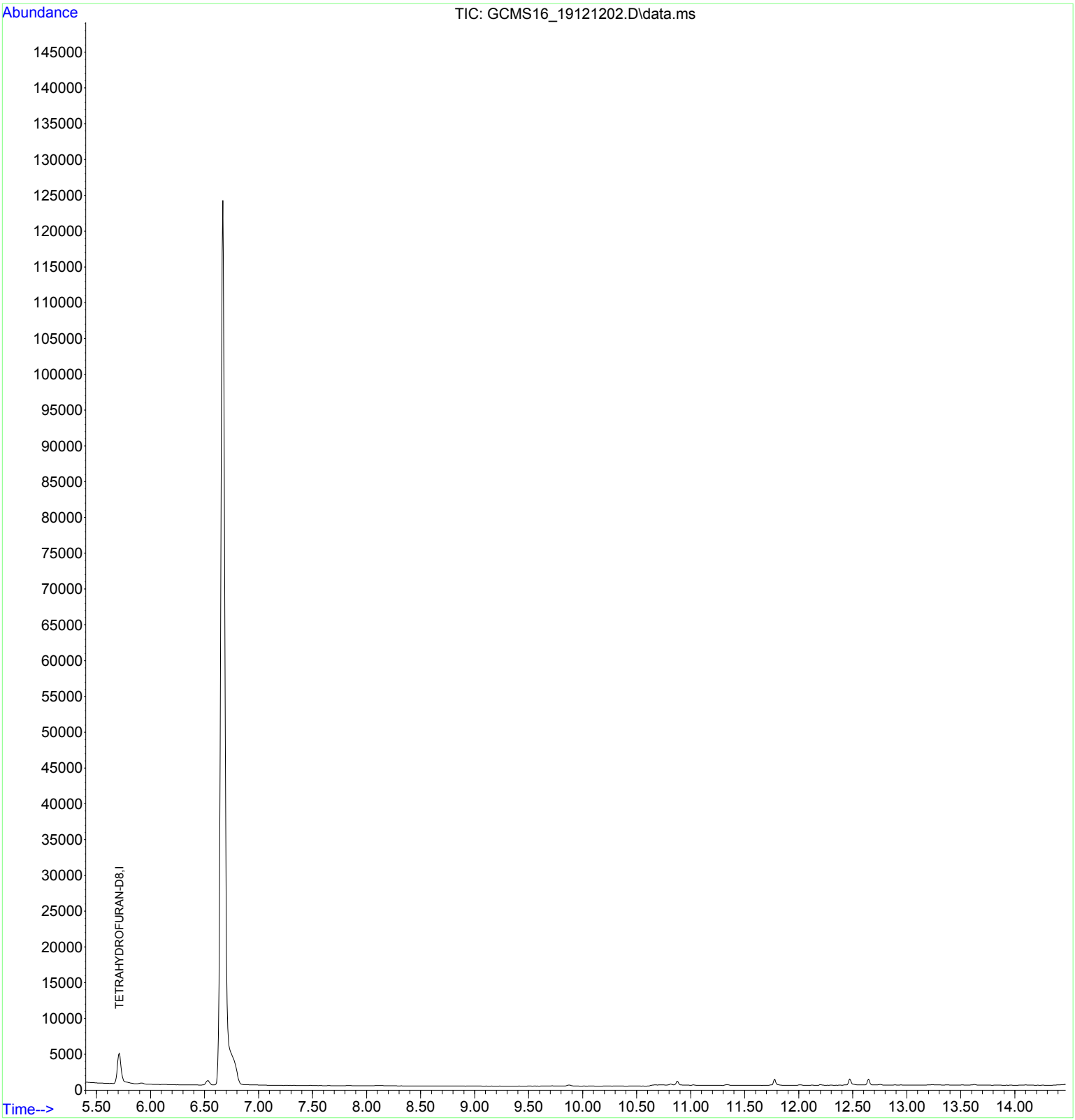
Quant Time: Dec 12 14:18:17 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.710	46	57052	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121202.D
Acq On : 12 Dec 2019 01:53 pm
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 12 14:18:17 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121216.D
Acq On : 12 Dec 2019 06:46 pm
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 10:21:16 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

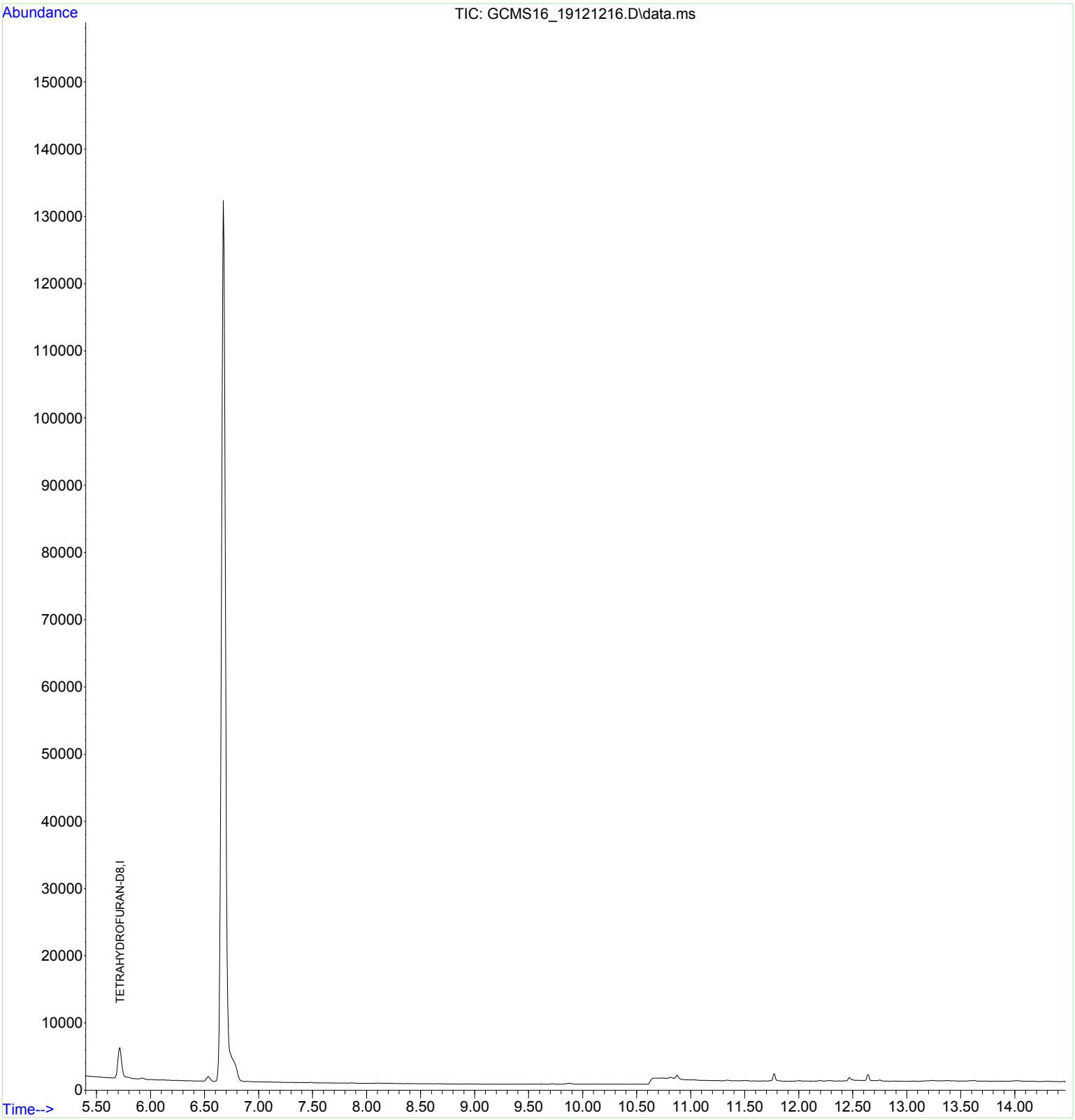
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.715	46	62027	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121216.D
Acq On : 12 Dec 2019 06:46 pm
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 10:21:16 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121222.D
Acq On : 12 Dec 2019 08:52 pm
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 10:32:48 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

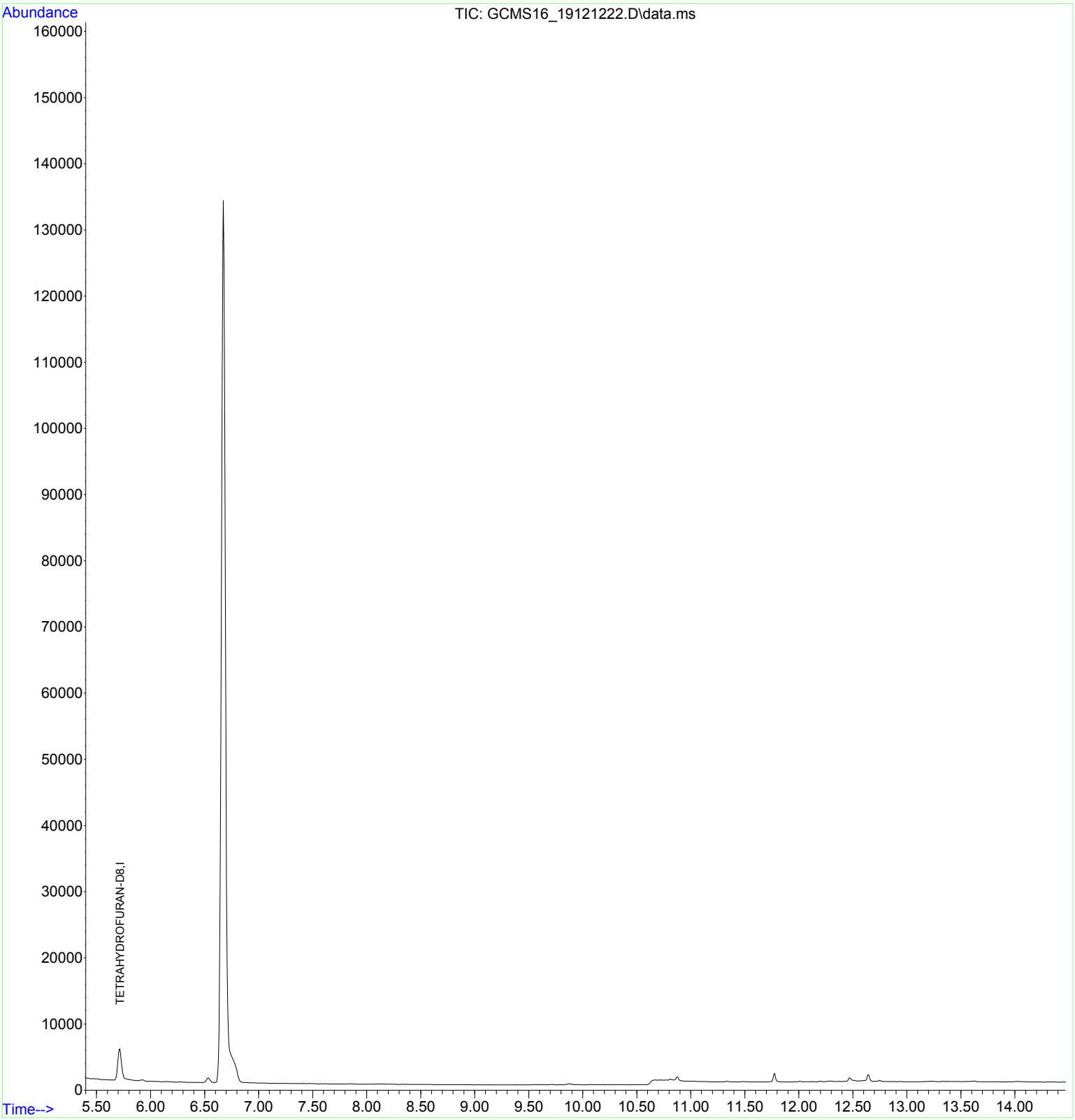
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.714	46	62823	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121222.D
Acq On : 12 Dec 2019 08:52 pm
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 10:32:48 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121233.D
Acq On : 13 Dec 2019 12:44 am
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 11:14:52 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

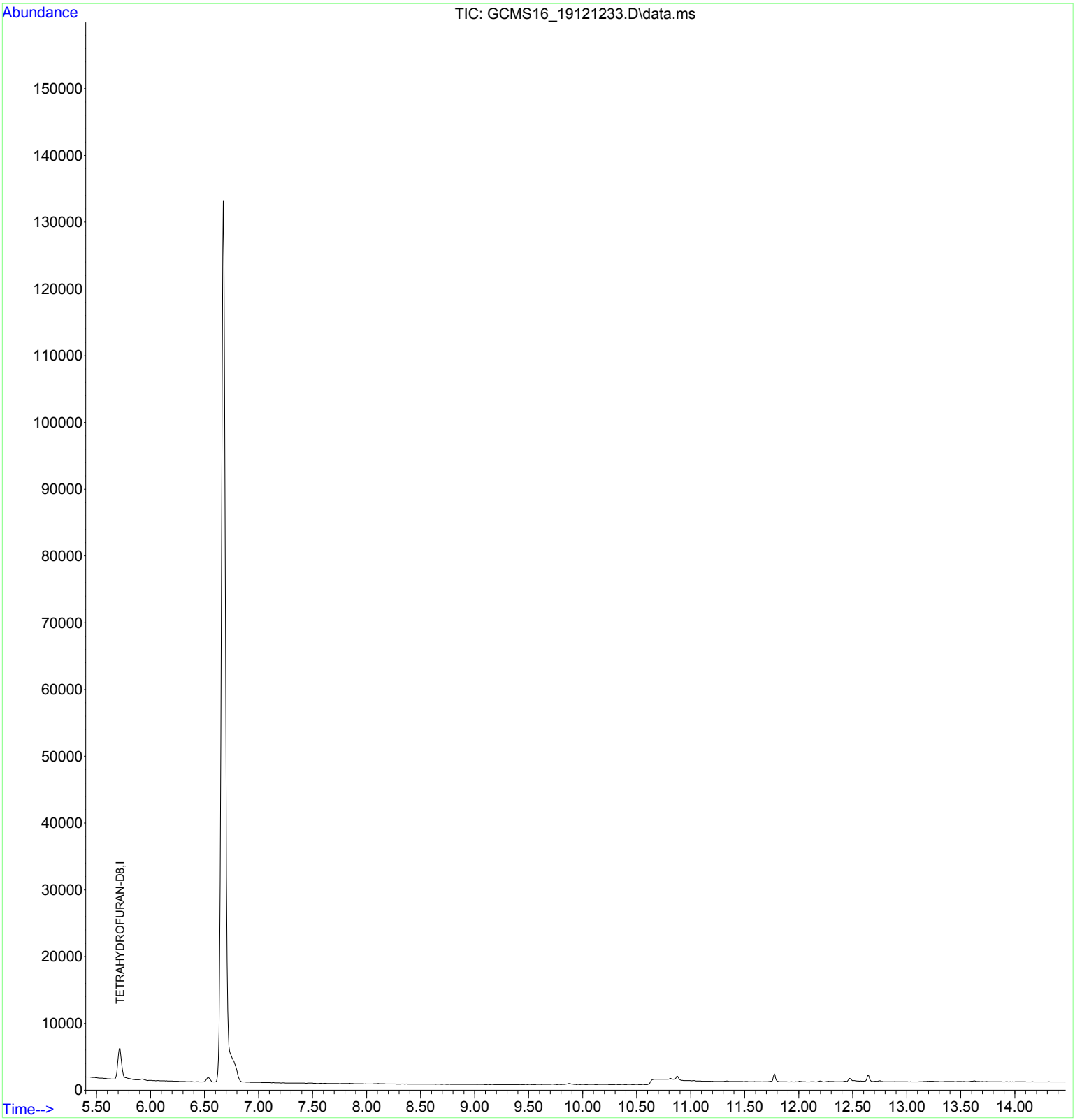
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.715	46	61250	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121233.D
Acq On : 13 Dec 2019 12:44 am
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 11:14:52 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121235.D
Acq On : 13 Dec 2019 01:26 am
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 11:28:38 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

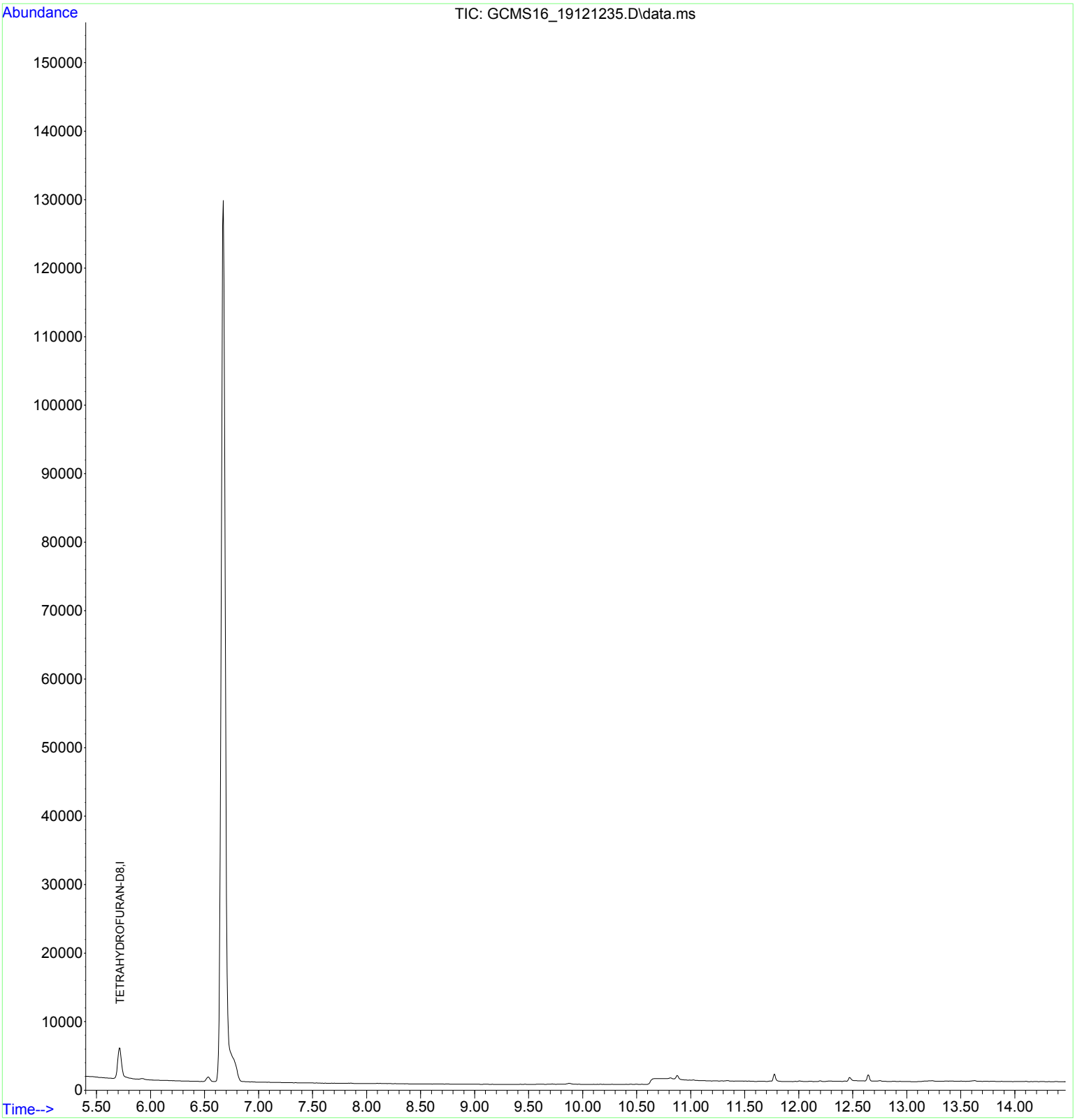
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.714	46	61086	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121235.D
Acq On : 13 Dec 2019 01:26 am
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 11:28:38 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121238.D
Acq On : 13 Dec 2019 02:29 am
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 11:32:13 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

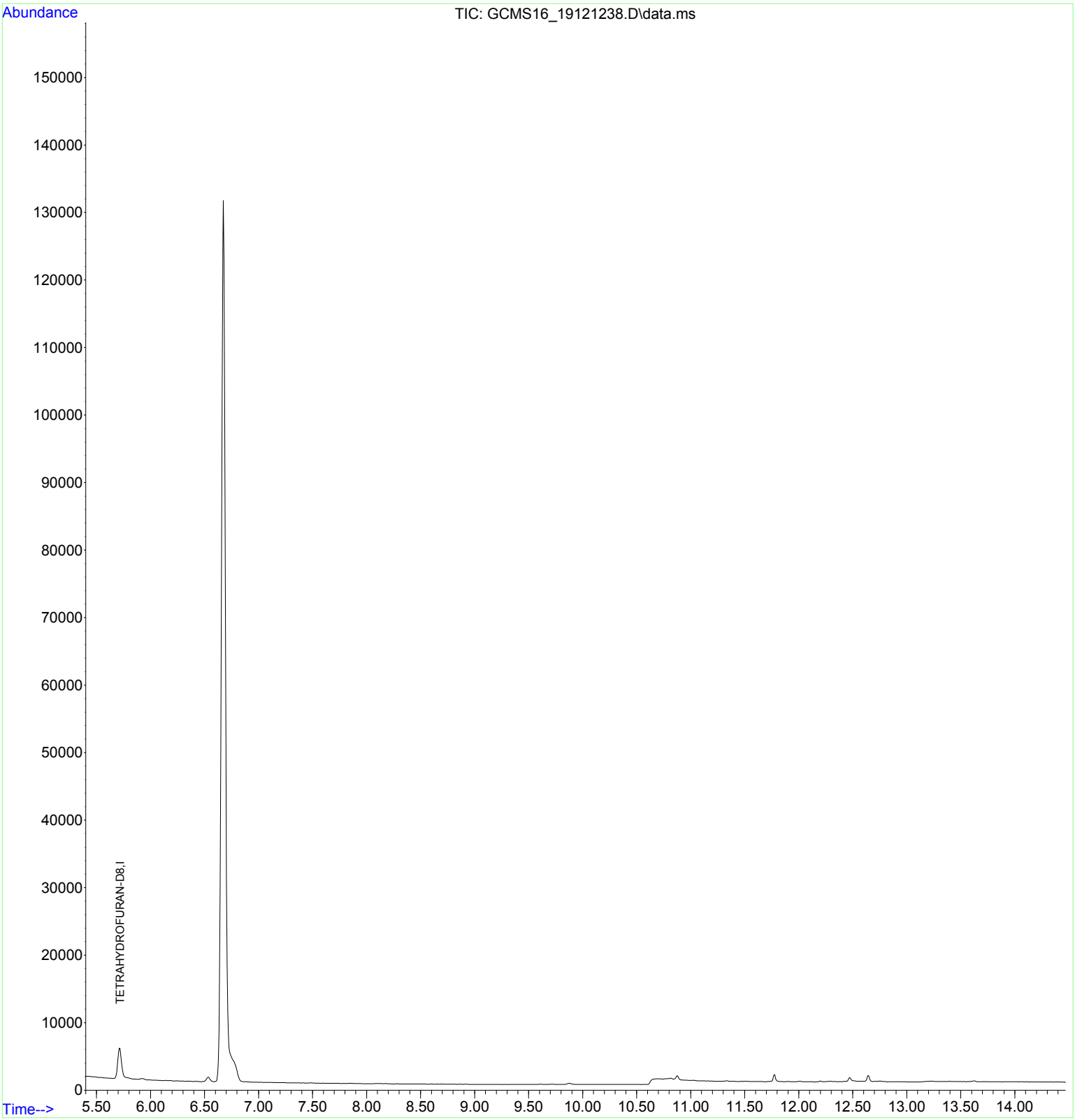
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.714	46	60498	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121238.D
Acq On : 13 Dec 2019 02:29 am
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 11:32:13 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191213_CR\
Data File : GCMS16_19121301.D
Acq On : 13 Dec 2019 11:07 am
Operator : CR
Sample : IB
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 13 12:40:17 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

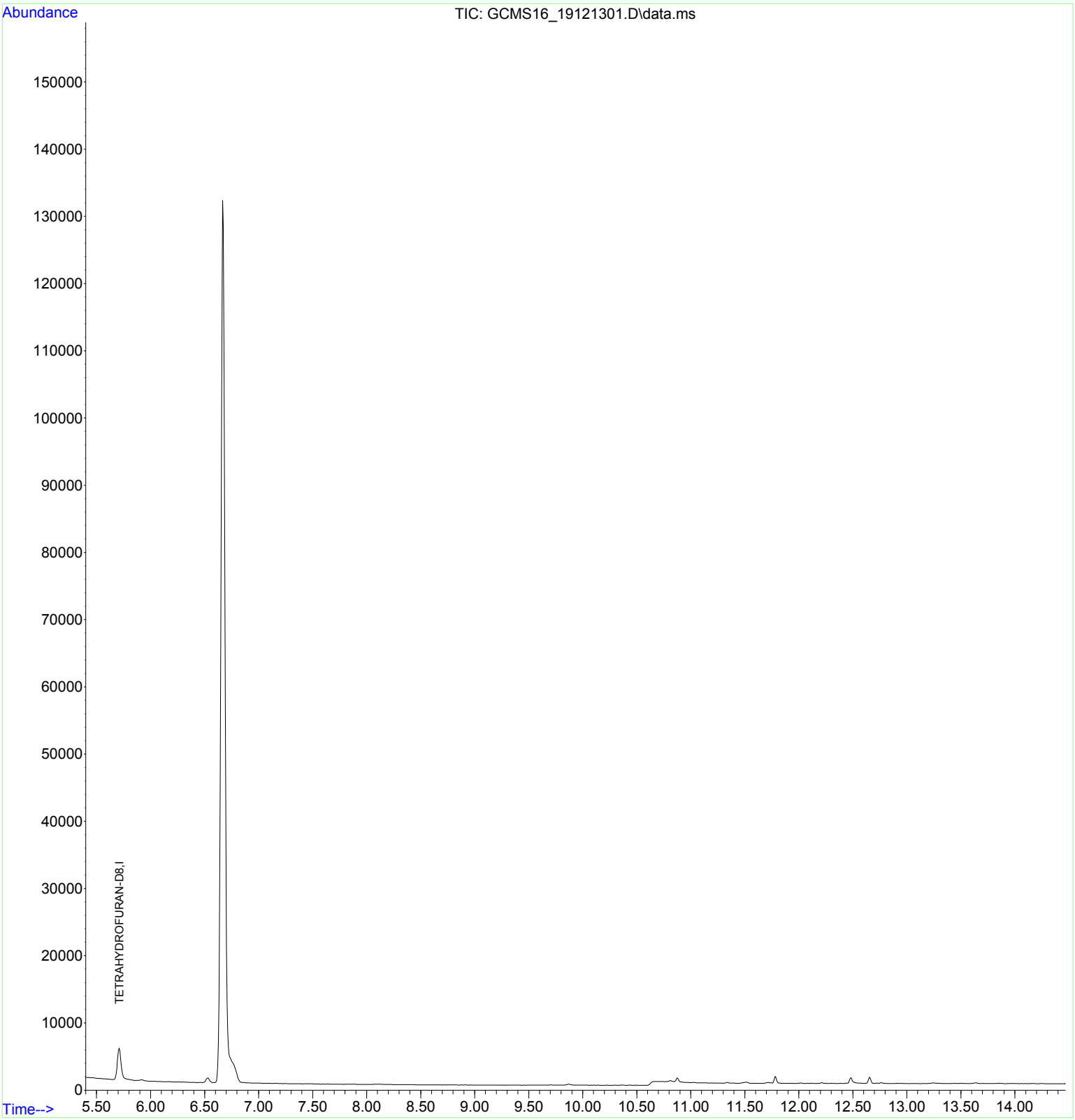
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.710	46	62730	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191213_CR\
Data File : GCMS16_19121301.D
Acq On : 13 Dec 2019 11:07 am
Operator : CR
Sample : IB
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 13 12:40:17 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



1,4-Dioxane

048
3/25/19

LIMS ID: E19C013

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-624-SS-03-10X 1 mL
p-Bromofluorobenzene
2.0 mg/mL in MeOH
Lot: 217061087
Exp: Jun 06, 2027
Rcvd 7/9/11
1 comp(s)
Storage: Ambient (>5 °C)
FOR LABORATORY USE ONLY
H336 H225 H371 H320
H315 H311 H332 H301
P338 P360 P331 P233
P262 P202 P264 P284
Signal Word Danger

CRL LIMS: 18G1106
BFB Stock

LIMS ID: E19C014
BFB Tune @ 1µg/mL
2.5µL E19C013 was added to a 5mL vol flask + filled to mark w/ DCM lot DS1166. Syringe I-1211.
0.0025mL x 2000µg/mL / 5mL = 1µg/mL

LIMS ID: E19C015
Tetrahydrofuran-d8 Stock
(THF-d8)

RESTEK 110 Benner Circle Bellefonte, PA 16823 814-353-1300 Made in USA For Laboratory Use Only
30112 Danger 1 mL
Lot# A0123940
Expire: 01/2022 Store: 0°C or colder
Tetrahydrofuran-d8 Standard
2000 µg/mL each in P&T Methanol
Full label information for the chemical is provided on the outside package.

LIMS ID: E19C016
Tetrahydrofuran-d8 IS Spk @ 20µg/mL
100µL E19C015 was added to a 10mL vol flask + filled to mark w/ P&T MeOH lot DS435. Syringe - H5031.
0.1mL x 2000µg/mL / 10mL = 20µg/mL

LIMS ID: E19C017

RESTEK 110 Benner Circle Bellefonte, PA 16823 814-353-1300 Made in USA For Laboratory Use Only
30614 Danger 1 mL
Lot# A0126851
Expire: 04/2020 Store: 0°C or colder
1,4-dioxane-d8 Standard
2000 µg/mL each in P&T Methanol
Full label information for the chemical is provided on the outside package.

1,4-Dioxane-d8 Stock
CRL LIMS 17K0909
Rcvd 10/18/17

3/25/19 4/5/19

1,4-Dioxane

049
3/25/19

LMS ID: E19C018
1,4-Dioxane-d8 Surrogate Spk @ 20µg/mL
100µL E19C017 was added to a 10mL vol flask + filled to mark w/ P+T MeOH lot DS435. Syringe H-5031.
0.1 mL x 2000µg/mL / 10 mL = 20µg/mL

LMS ID: E19C019

RESTEK 110 Benner Circle Bellefonte, PA 16823 814.353.1300 Made in USA For Laboratory Use Only
30287 Danger 1 mL
Lot# A0126604
Expire: 04/2022 Store: 0°C or colder
1,4-Dioxane Standard
2000 µg/mL each in P&T Methanol
Full label information for the chemical is provided on the outside package

1,4-Dioxane stock
one LMS 17HC0917

LMS ID: E19C020
1,4-Dioxane Spk @ 1 µg/mL
5µL E19C019 was added to a 10mL vol flask + filled to mark w/ P+T MeOH lot DS435. Syringe I-1083.
0.005 mL x 2000 µg/mL / 10 mL = 1µg/mL
on 3/25/19

LMS ID: E19C021
Int Cal Std @ 1µg/mL
5µL E19C017 and 5µL E19C019 were added to a 10mL vol flask + filled to mark w/ DCM lot DS1616. Syringe I-1083.
0.005mL x 2000 µg/mL / 10 mL = 1µg/mL

3/25/19 4-5-19

1,4-Dioxane

050
3/25/19

The following curve was prepared:

E19C021 lot DS166

Calibration Level	Calibration Standard Concentration (ng/mL)	1000 µg/L Stock Calibration Solution Volume (µL)	DCM Volume (µL)	Equivalent Concentration in an Aqueous Sample (µg/L)
1	5	5	995	0.2
2	10	10	990	0.4
3	15	15	985	0.6
4	20	20	980	0.8
5	25	25	975	1.0
6	50	50	950	2.0
7	100	100	900	4.0
8	250	250	750	10
9	500	500	500	20
10	1000	1000	0	40

CR 3/25/19

All levels spiked w/ 25µL IS E19C016 (20µg/mL)

Syringe IDs:

1000µL H-2371
500µL N-1188
250µL I-1064
100µL H-5031
50µL I-1108
10µL I-1083
5µL I-1211

CR 3/25/19

3/25/19

4-5-19

1,4-Dioxane

DS1
3/28/19

LIMS ID: E19C030

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ALR-062S
1,4-Dioxane
100 µg/mL in MeOH
Lot: 218051412
Exp: May 22, 2028

1 mL

Rcvd 3/28/19

1 comp(s)
Storage: Ambient (>5 °C)

FOR LABORATORY USE ONLY
H225 H336 H370 H320
H315 H311 H332 H301
H360 P338 P360 P331
P233 P262 P202 P264

Signal Word Danger

1,4-Dioxane
2nd Source

LIMS ID: E19C031
1,4-Dioxane ICV Int @ 1 µg/mL
10µL E19C030 was combined w/ 990µL DCM lot DS1166.
Syringes H-2371, H-5031, + I-1108
0.01 mL × 100µg/mL / 1 mL = 1µg/mL

LIMS ID: E19C032
1-4, Dioxane ICV @ 25 ng/mL
25µL E19C031 was combined w/ 975µL DCM lot DS1166.
Syringes H-2371, H-5031, + I-1108
0.025 mL × 1µg/mL / 1 mL = 0.025µg/mL
(25 ng/mL)

⊕ 2.5µL E17F027 IS (Syringe I-1211)

CM 3/28/19

3/28/19

4-5-19

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3/25/2019

Analytical Standard Record

TechLaw - ESAT Contract

E19C013

Description:	BFB Stock @ 2000 ug/mL	Expires:	Jun-06-27
Standard Type:	Other Solution	Prepared:	Mar-25-19
Solvent:	MeOH	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Mar-25-19 16:28 by CR

AccuStandard M-624-SS-03-10X. Prep date is date opened.

Analyte	CAS Number	Concentration (ppm)
4-Bromofluorobenzene	460-00-4	2000

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Analytical Standard Record

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E19C015

Description:	THF-d8 Stock @ 2000 ug/mL	Expires:	Jan-31-22
Standard Type:	Other Solution	Prepared:	Mar-25-19
Solvent:	P&T MeOH	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Mar-25-19 16:37 by CR

Restek 30112. Prep date is date opened.

Analyte	CAS Number	Concentration (ppm)
Tetrahydrofuran-d8	1693-74-9	2000

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3/25/2019

Analytical Standard Record

TechLaw - ESAT Contract

E19C017

Description:	1,4-Dioxane-d8 Stock @ 2000 ug/mL	Expires:	Apr-30-20
Standard Type:	Analyte Spike	Prepared:	Mar-25-19
Solvent:	P&T MeOH	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Mar-25-19 16:46 by CR

Restek 30614. Prep date is date opened.

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	2000

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3/25/2019

Analytical Standard Record

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E19C019

Description:	1,4-Dioxane Stock @ 2000 ug/mL	Expires:	Apr-30-22
Standard Type:	Analyte Spike	Prepared:	Mar-25-19
Solvent:	P&T MeOH	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Mar-25-19 16:52 by CR

Restek 30287. Prep date is date opened.

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane	123-91-1	2000

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3/28/2019

Analytical Standard Record

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E19C030

Description:	1,4-Dioxane ICV Stock @ 100 ug/mL	Expires:	May-22-28
Standard Type:	Other Solution	Prepared:	Mar-28-19
Solvent:	MeOH	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Mar-28-19 11:46 by CR

AccuStandard ALR-062S. Prep date is date opened.

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane	123-91-1	100

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11/20/2019

Analytical Standard Record
TechLaw - ESAT Contract
E19I028

Description:	BFB Tune @ 1 ug/mL	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Sep-16-19
Solvent:	DCM/DS166	Prepared By:	Matt Kobus
Final Volume (mls):	5	Department:	MS
Vials:	1	Last Edit:	Sep-19-19 11:05 by MAK

2.5 uL E19C013 was added to a 5 mL vol flask and filled to mark with DCM lot DS166. Syringe N-1184

Analyte	CAS Number	Concentration (ppm)
4-Bromofluorobenzene	460-00-4	1

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19C013	BFB Stock @ 2000 ug/mL	Mar-25-19	Christina Rice	Jun-06-27	Mar-25-19 16:28 by CR	0.0025

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11/20/2019

Analytical Standard Record

TechLaw - ESAT Contract

E19I029

Description:	THF-d8 IS SPK @ 20 ug/mL	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Sep-16-19
Solvent:	P&T MeOH/DS435	Prepared By:	Matt Kobus
Final Volume (mls):	10	Department:	MS
Vials:	1	Last Edit:	Sep-19-19 11:06 by MAK

100 uL E19C015 was added to a 10 mL vol flask and filled to mark with P&T MeOH lot DS435. Syringe I-8791

Analyte	CAS Number	Concentration (ppm)
Tetrahydrofuran-d8	1693-74-9	20

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19C015	THF-d8 Stock @ 2000 ug/mL	Mar-25-19	Christina Rice	Jan-31-22	Mar-25-19 16:37 by CR	0.1

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11/20/2019

Analytical Standard Record
TechLaw - ESAT Contract
E19I030

Description:	1,4-Dioxane-d8 Surr SPK @ 20 ug/mL	Expires:	Mar-14-20
Standard Type:	Surrogate Spike	Prepared:	Sep-16-19
Solvent:	P&T MeOH/DS435	Prepared By:	Matt Kobus
Final Volume (mls):	10	Department:	MS
Vials:	1	Last Edit:	Nov-06-19 10:49 by CR

100 uL E19C017 was added to a 10 mL vol flask and filled to mark with P&T MeOH lot DS435. Syringe I-8791

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	20

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19C017	1,4-Dioxane-d8 Stock @ 2000 ug/r	Mar-25-19	Christina Rice	Apr-30-20	Mar-25-19 16:46 by CR	0.1

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11/20/2019

Analytical Standard Record

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E19I031

Description:	1,4-Dioxane Int Cal @ 1 ug/mL	Expires:	Mar-14-20
Standard Type:	Analyte Spike	Prepared:	Sep-16-19
Solvent:	DCM/DS166	Prepared By:	Matt Kobus
Final Volume (mls):	10	Department:	MS
Vials:	1	Last Edit:	Sep-20-19 15:13 by MAK

5 uL E19C017 and 5 uL E19C019 were added to a 10 mL vol flask and filled to mark with DCM lot DS166. Syringe N-1184

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	1
1,4-Dioxane	123-91-1	1

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19C017	1,4-Dioxane-d8 Stock @ 2000 ug/r	Mar-25-19	Christina Rice	Apr-30-20	Mar-25-19 16:46 by CR	0.005
E19C019	1,4-Dioxane Stock @ 2000 ug/mL	Mar-25-19	Christina Rice	Apr-30-22	Mar-25-19 16:52 by CR	0.005

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11/20/2019

Analytical Standard Record

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E19I033

Description:	1,4-Dioxane Int ICV @ 1 ug/mL	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Sep-16-19
Solvent:	DCM/DS166	Prepared By:	Matt Kobus
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Sep-19-19 11:10 by MAK

10 uL E19C030 was combined with 990 uL DCM lot DS166. Syringes N-1184, 23823.

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane	123-91-1	1

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19C030	1,4-Dioxane ICV Stock @ 100 ug/ı	Mar-28-19	Christina Rice	May-22-28	Mar-28-19 11:46 by CR	0.01

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11/20/2019

Analytical Standard Record

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E19I034

Description:	1,4-Dioxane ICV @ 25 ug/L	Expires:	Mar-14-20
Standard Type:	Analyte Spike	Prepared:	Sep-16-19
Solvent:	DCM/DS166	Prepared By:	Matt Kobus
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Sep-20-19 15:09 by MAK

25 uL E19C031 was combined with 975 uL DCM lot DS166. Syringes I-1087, 23823. +2.5ul Internal

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane	123-91-1	0.025

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I033	1,4-Dioxane Int ICV @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-19-19 11:10 by MAK	0.025

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1/2/2020

Analytical Standard Record

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E19K046

Description:	1,4-Dioxane SPK @ 1 ug/mL	Expires:	May-19-20
Standard Type:	Analyte Spike	Prepared:	Nov-19-19
Solvent:	P&T MeOH/DS435	Prepared By:	Christina Rice
Final Volume (mls):	20	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 11:11 by CR

10 uL E19C019 was added to a 20 mL vol flask and filled to mark with P&T MeOH lot DS435. Syringe I-1108

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane	123-91-1	1

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19C019	1,4-Dioxane Stock @ 2000 ug/mL	Mar-25-19	Christina Rice	Apr-30-22	Mar-25-19 16:52 by CR	0.01

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1/2/2020

Analytical Standard Record

TechLaw - ESAT Contract

E19K047

Description:	1,4-Dioxane ICAL L1 5 ug/L	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 15:13 by CR

5 uL E19I031 was added to 995 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	0.005
1,4-Dioxane	123-91-1	0.005

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I031	1,4-Dioxane Int Cal @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-20-19 15:13 by MAK	0.005

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1/2/2020

Analytical Standard Record

TechLaw - ESAT Contract

E19K048

Description:	1,4-Dioxane ICAL L2 10 ug/L	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 15:13 by CR

10 uL E19I031 was added to 990 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	0.01
1,4-Dioxane	123-91-1	0.01

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I031	1,4-Dioxane Int Cal @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-20-19 15:13 by MAK	0.01

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Analytical Standard Record

TechLaw - ESAT Contract

E19K049

Description:	1,4-Dioxane ICAL L3 15 ug/L	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 15:13 by CR

15 uL E19I031 was added to 985 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	0.015
1,4-Dioxane	123-91-1	0.015

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I031	1,4-Dioxane Int Cal @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-20-19 15:13 by MAK	0.015

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1/2/2020

Analytical Standard Record

TechLaw - ESAT Contract

E19K050

Description:	1,4-Dioxane ICAL L4 20 ug/L	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 15:14 by CR

20 uL E19I031 was added to 980 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	0.02
1,4-Dioxane	123-91-1	0.02

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I031	1,4-Dioxane Int Cal @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-20-19 15:13 by MAK	0.02

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Analytical Standard Record

TechLaw - ESAT Contract

E19K051

Description:	1,4-Dioxane ICAL L5 25 ug/L	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	3	Last Edit:	Nov-19-19 15:14 by CR

25 uL E19I031 was added to 975 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	0.025
1,4-Dioxane	123-91-1	0.025

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I031	1,4-Dioxane Int Cal @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-20-19 15:13 by MAK	0.025

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Analytical Standard Record

TechLaw - ESAT Contract

E19K052

Description:	1,4-Dioxane ICAL L6 50 ug/L	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 15:14 by CR

50 uL E19I031 was added to 950 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	0.05
1,4-Dioxane	123-91-1	0.05

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I031	1,4-Dioxane Int Cal @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-20-19 15:13 by MAK	0.05

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Analytical Standard Record

TechLaw - ESAT Contract

E19K053

Description:	1,4-Dioxane ICAL L7 100 ug/L	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 15:15 by CR

100 uL E19I031 was added to 900 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	0.1
1,4-Dioxane	123-91-1	0.1

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I031	1,4-Dioxane Int Cal @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-20-19 15:13 by MAK	0.1

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Analytical Standard Record

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E19K054

Description:	1,4-Dioxane ICAL L8 250 ug/L	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 15:15 by CR

250 uL E19I031 was added to 750 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	0.25
1,4-Dioxane	123-91-1	0.25

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I031	1,4-Dioxane Int Cal @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-20-19 15:13 by MAK	0.25

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Analytical Standard Record

TechLaw - ESAT Contract

E19K055

Description:	1,4-Dioxane ICAL L9 500 ug/L	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 15:16 by CR

500 uL E19I031 was added to 500 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	0.5
1,4-Dioxane	123-91-1	0.5

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I031	1,4-Dioxane Int Cal @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-20-19 15:13 by MAK	0.5

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Analytical Standard Record

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E19K056

Description:	1,4-Dioxane ICAL L10 1000 ug/L	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 15:16 by CR

1000 uL E19I031 was added to 0 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	1
1,4-Dioxane	123-91-1	1

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I031	1,4-Dioxane Int Cal @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-20-19 15:13 by MAK	1

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Analytical Standard Record

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E19K057

Description:	1,4-Dioxane ICV @ 25 ug/L	Expires:	Mar-14-20
Standard Type:	Analyte Spike	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 15:18 by CR

25 uL E19I033 was added to 975 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane	123-91-1	0.025

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I033	1,4-Dioxane Int ICV @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-19-19 11:10 by MAK	0.025

non-responsive

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TOCOR APPROVAL*: X

Signed by: Environmental Protection Agency

QAPP Worksheet #15a: Groundwater Project Action Limits and Laboratory-Specific Detection/Quantitation Limits

Matrix	Groundwater			
Analytical Group	VOC			
Concentration Level	Trace			
Analyte[3]	CAS Number	Project Action Limit[2] µg/L	CLP Method[1]/ASB Method[4] CRQLs/RL (low/medium) µg/L	CLP Method[1]/ ASB Method[4] MDLs µg/L
Vinyl chloride	75-01-4	2	0.50	NA
1,1-Dichloroethene	75-35-4	7	0.50	NA
1,2-Dichloroethane	107-06-2	5	0.50	NA
Cis-1,2-dichloroethene	156-59-2	70	0.50	NA
Trans-1,2-dichloroethene	10061-01-5	100	0.50	NA
Carbon Tetrachloride	56-23-5	5	0.50	NA
Ethylbenzene	100-41-4	700	0.50	NA
1,1,1-Trichloroethane	71-55-6	200	0.50	NA
1,1,2-Trichloroethane	79-00-5	5	0.50	NA
Trichloroethene	79-01-6	5	0.50	NA
Tetrachloroethene	127-18-4	5	0.50	NA
Toluene	108-88-3	1,000	0.50	NA
o-Xylene	95-47-6	10,000 (total)	0.50	NA

Matrix	Groundwater			
Analytical Group	VOC			
Concentration Level	Trace			
Analyte[3]	CAS Number	Project Action Limit[2] µg/L	CLP Method[1]/ASB Method[4] CRQLs/RL (low/medium) µg/L	CLP Method[1]/ ASB Method[4] MDLs µg/L
m,p-Xylene	179601-23-1	10,000 (total)	0.50	NA
1,4-dioxane[4]	123-91-1	7.7	0.204	0.154

Notes: If samples are sent to the Analytical Services Branch laboratory see Worksheet #15a in Appendix B

[1]CLP Method Analytical CRQLs are those documented in SOW SOM02.4. EPA headquarters and SMO maintain laboratory MDLs which are not available to include above.

[2]The Project Action Limit is set at the Remediation Goal established in the ROD. There are no groundwater Project Action Limits for inorganics therefore they are not included in WS #15a.

[3]All groundwater samples will be analyzed for the full CLP TCL organic list of parameters as per the SOW. This table lists only those organic parameters with a PAL.

[4]1,4-dioxane will be analyzed by Region 5 ASB laboratory using SOP MS035, Version 1. The PAL is the groundwater quality standard for class I potable groundwater listed in Illinois Administrative code (IAC) 35 620.410.

CAS – Chemical Abstract Service
µg/L – microgram per liter
ASB – Analytical Services Branch
MDL – method detection limit
QAPP – Quality assurance project plan
RL – Reporting Limit
CLP – Contract Laboratory Program
CRQL – contract required quantitation limit

QAPP Worksheet #15b: Effluent Project Action Limits and Laboratory-Specific Detection/Quantitation Limits

Matrix	Treated Effluent			
Analytical Group	VOC/1,4-dioxane[5]/Inorganics [3]			
Concentration Level	Trace			
Analyte[4]	CAS Number	Project Action Limit[2] µg/L	CLP Method[1]/ASB Method[5] CRQLs (low/medium)/RL[5] µg/L	CLP Method[1]/ASB Method[5] MDLs µg/L
Vinyl chloride	75-01-4	120	0.50	NA
1,1-Dichloroethene	75-35-4	1	0.50	NA
1,1-Dichloroethane	75-34-3	2,000	0.50	NA
Cis-1,2-dichloroethene	156-59-2	1,100	0.50	NA
Trans-1,2-dichloroethene	10061-01-5	34,000	0.50	NA
Carbon Tetrachloride	56-23-5	280	0.50	NA
1,1,1-Trichloroethane	71-55-6	390	0.50	NA
1,1,2-Trichloroethane	79-00-5	12	0.50	NA
Trichloroethene	79-01-6	25	0.50	NA
Tetrachloroethene	127-18-4	150	0.50	NA
Chloroethane	75-00-3	1,000	0.50	NA
Benzene	71-43-2	310	0.50	NA
Ethylbenzene	100-41-4	14	0.50	NA
Toluene	108-88-3	230	0.50	NA
o-Xylene	95-47-6	360 (total)[4]	0.50	NA
m,p-Xylene	179601-23-1	360 (total)[4]	0.50	NA

Matrix	Treated Effluent			
Analytical Group	VOC/1,4-dioxane[5]/Inorganics [3]			
Concentration Level	Trace			
Analyte[4]	CAS Number	Project Action Limit[2] µg/L	CLP Method[1]/ASB Method[5] CRQLs (low/medium)/RL[5] µg/L	CLP Method[1]/ASB Method[5] MDLs µg/L
1,4-Dioxane[5]	123-91-1	36,000	0.205	0.155
Iron	7439-89-6	1,000	100	NA

Notes: If samples are sent to the Analytical Services Branch laboratory see Worksheet #15b in Appendix B

[1]CLP Method Analytical CRQLs are those documented in CLP SOWs SOM02.4 and ISM02.4. EPA headquarters and SMO maintain laboratory MDLs which are not available to include above.

[2]The Project Action Limit is set at the Discharge Limits provided in the ROD, Illinois EPA-Derived Water Quality Criteria, April 04, 2013 or the standards provided in 35 IAC 302.208. The PAL for system efficiency/mass removal rate is 99% calculated by influent minus effluent divided by influent and discussed on WS # 11, Step 7.

[3]All influent and effluent samples will be analyzed for the full CLP TCL volatile organic list and full TAL inorganic list of parameters as per the SOWs. This table lists only those organic and inorganic parameters with a PAL.

[4]The effluent discharge limit for total xylenes is 360 µg/L.

[5]1,4-dioxane will be analyzed by Region 5 ASB laboratory using SOP MS035, Version 1.

CAS – Chemical Abstract Service
µg/L – microgram per liter
ASB – Analytical Services Branch
MDL – method detection limit
QAPP – Quality assurance project plan
RL – Reporting Limit
CLP – Contract Laboratory Program
CRQL – contract required quantitation limit

Supporting Data

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112003.D
Acq On : 20 Nov 2019 10:41 am
Operator : CR
Sample : SPK
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 20 16:05:18 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

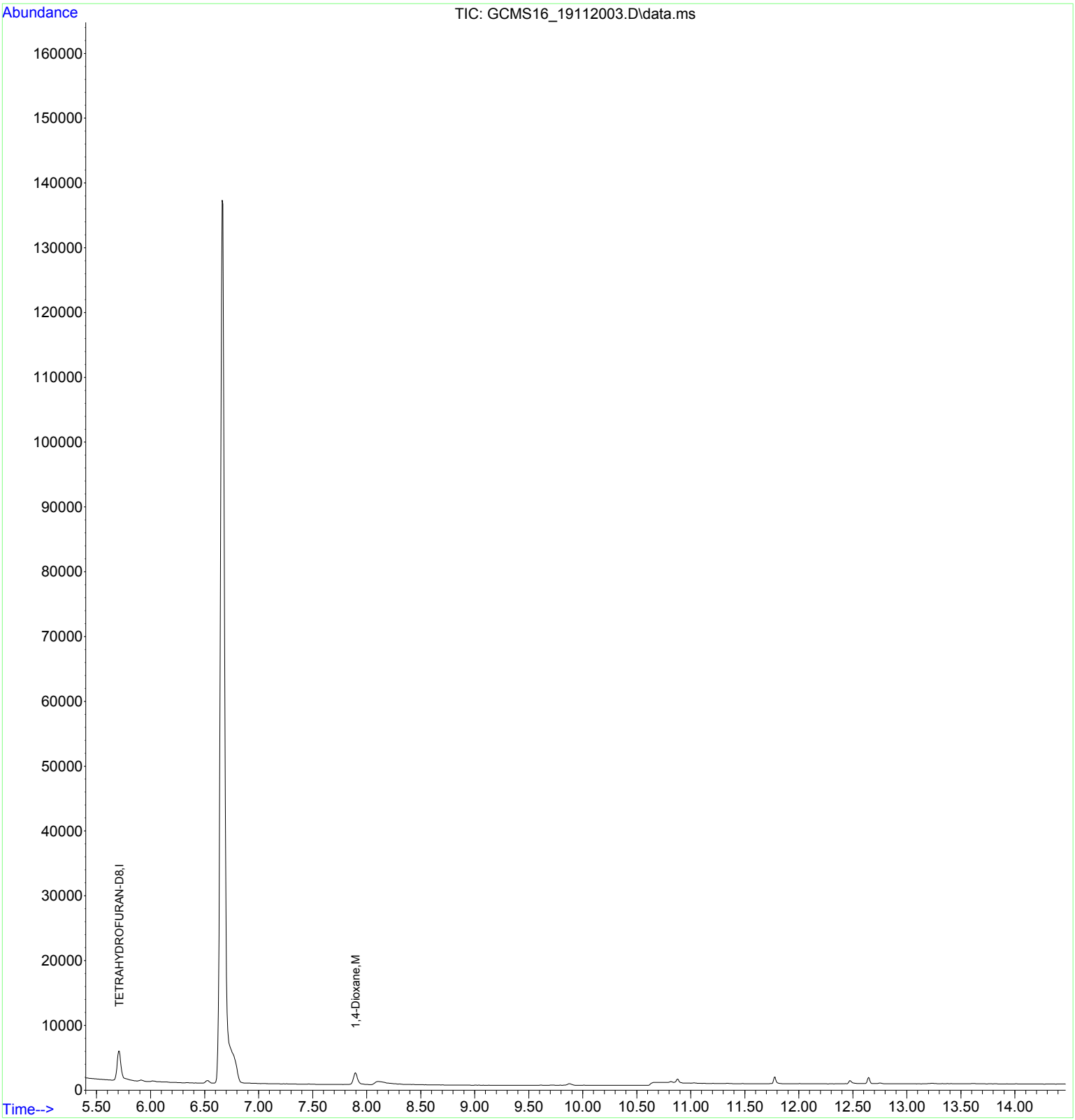
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.708	46	60540	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	7.899	88	24986	26.62	ug/L	98

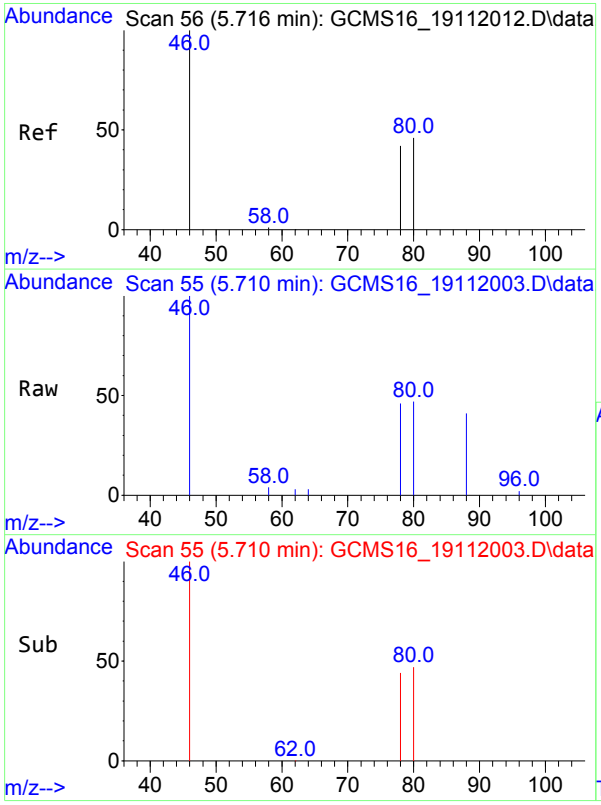
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112003.D
Acq On : 20 Nov 2019 10:41 am
Operator : CR
Sample : SPK
Misc :
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Nov 20 16:05:18 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

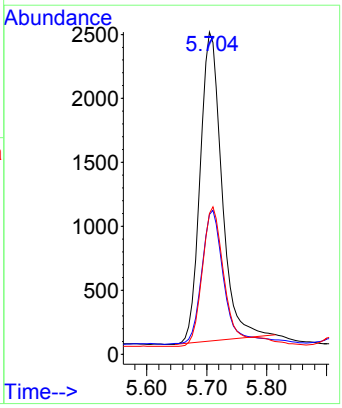


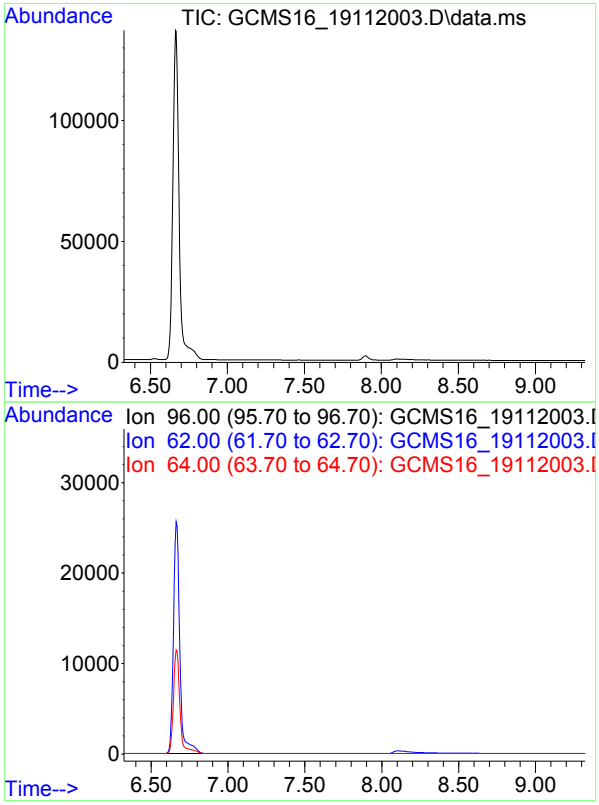


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.708 min Scan# 55
Delta R.T. -0.007 min
Lab File: GCMS16_19112003.D
Acq: 20 Nov 2019 10:41 am

Tgt Ion: 46 Resp: 60540

Ion	Ratio	Lower	Upper
46	100		
78	40.6	27.5	51.1
80	41.8	29.0	53.9



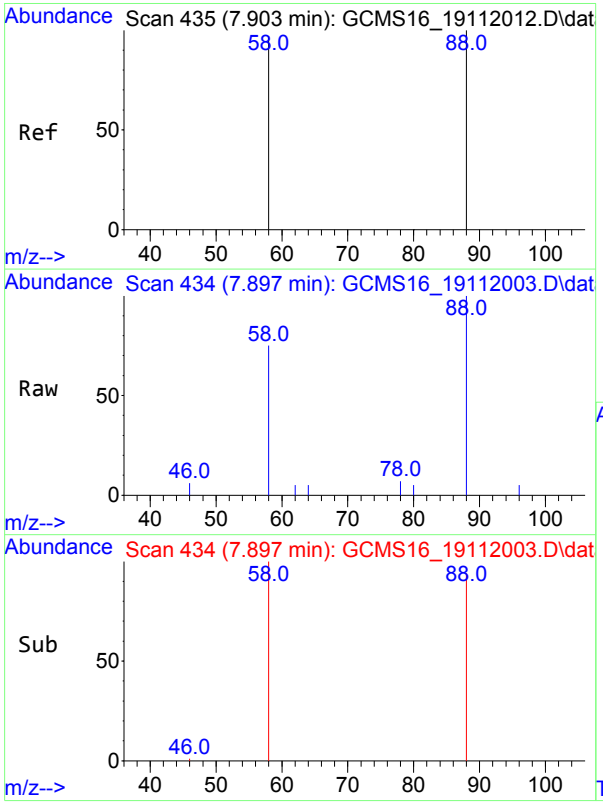


#2
1,4-Dioxane-d8
Concen: 0.00 ug/L
Expected RT: 7.82 min

Lab File: GCMS16_19112003.D
Acq: 20 Nov 2019 10:41 am

Tgt Ion: 96

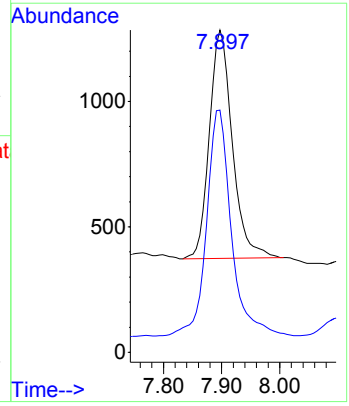
Sig	Exp Ratio
96	100
62	0.0
64	81.2



#3
1,4-Dioxane
Concen: 26.62 ug/L
RT: 7.899 min Scan# 434
Delta R.T. 0.000 min
Lab File: GCMS16_19112003.D
Acq: 20 Nov 2019 10:41 am

Tgt Ion: 88 Resp: 24986

Ion	Ratio	Lower	Upper
88	100		
58	105.7	72.5	134.7



Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112004.D
Acq On : 20 Nov 2019 11:03 am
Operator : CR
Sample : BLK
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 20 16:05:33 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

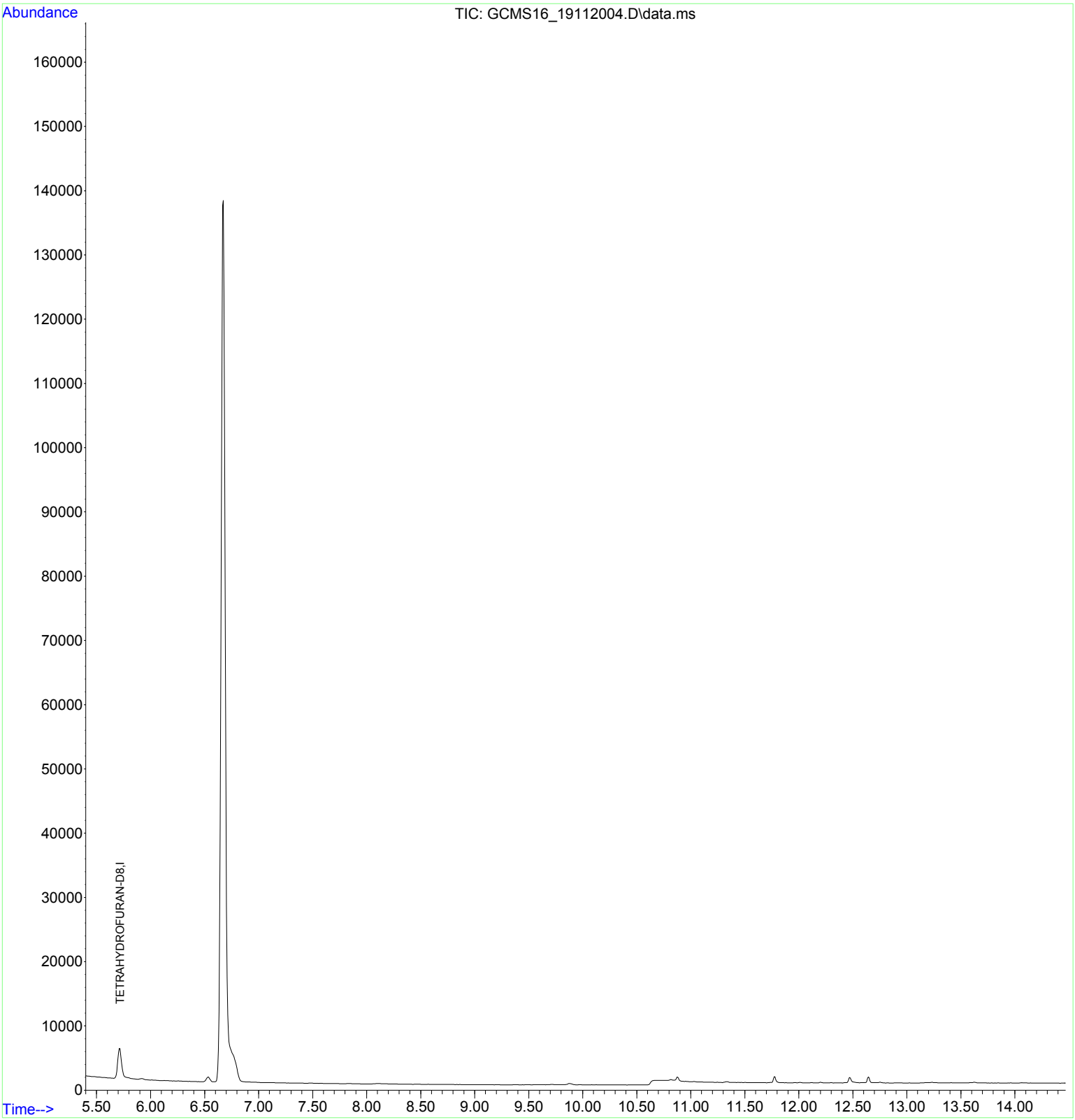
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.714	46	62150	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

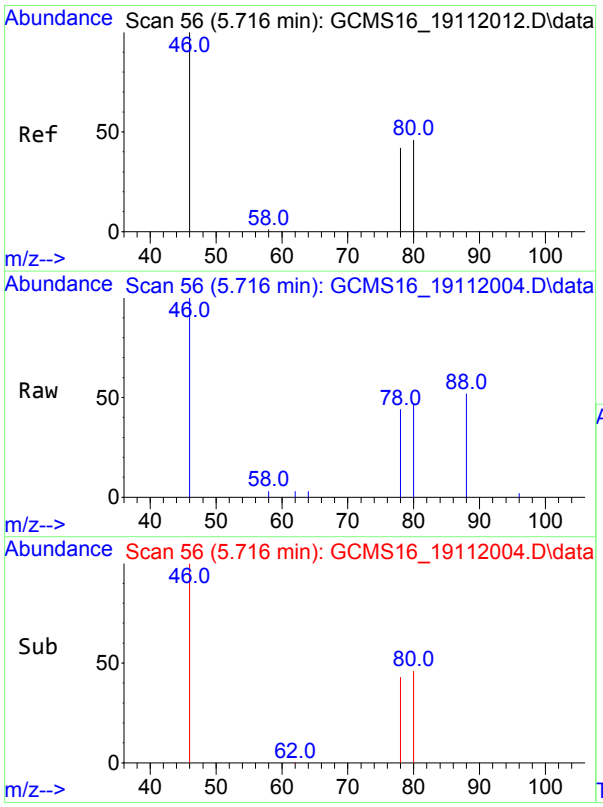
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112004.D
Acq On : 20 Nov 2019 11:03 am
Operator : CR
Sample : BLK
Misc :
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Nov 20 16:05:33 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

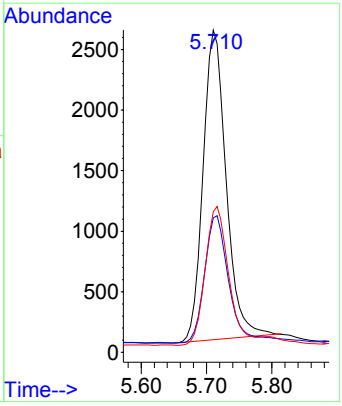


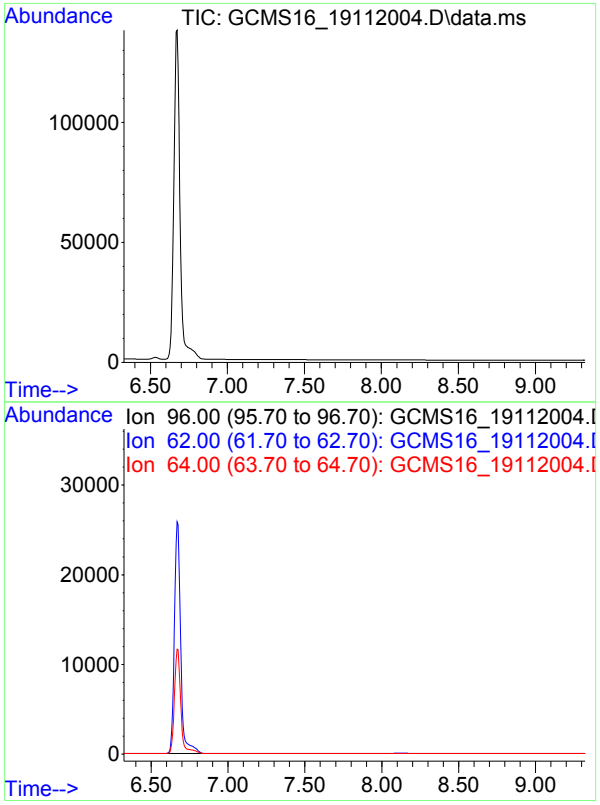


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.714 min Scan# 56
Delta R.T. -0.001 min
Lab File: GCMS16_19112004.D
Acq: 20 Nov 2019 11:03 am

Tgt Ion: 46 Resp: 62150

Ion	Ratio	Lower	Upper
46	100		
78	40.4	27.5	51.1
80	42.1	29.0	53.9



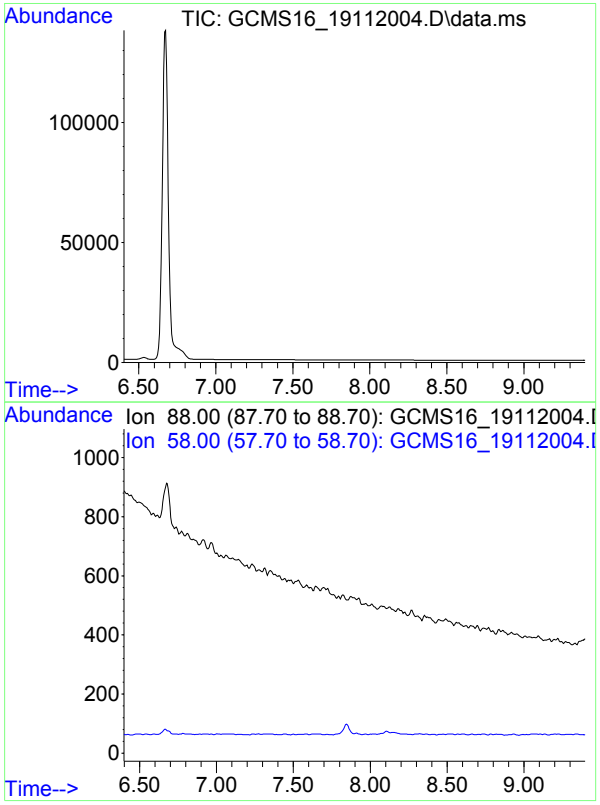


#2
1,4-Dioxane-d8
Concen: 0.00 ug/L
Expected RT: 7.82 min

Lab File: GCMS16_19112004.D
Acq: 20 Nov 2019 11:03 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
62	0.0
64	81.2



#3
1,4-Dioxane
Concen: N.D.
Expected RT: 7.90 min

Lab File: GCMS16_19112004.D
Acq: 20 Nov 2019 11:03 am

Tgt Ion: 88

Sig	Exp Ratio
88	100
58	103.6

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112005.D
Acq On : 20 Nov 2019 11:24 am
Operator : CR
Sample : BLK
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 20 16:06:17 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

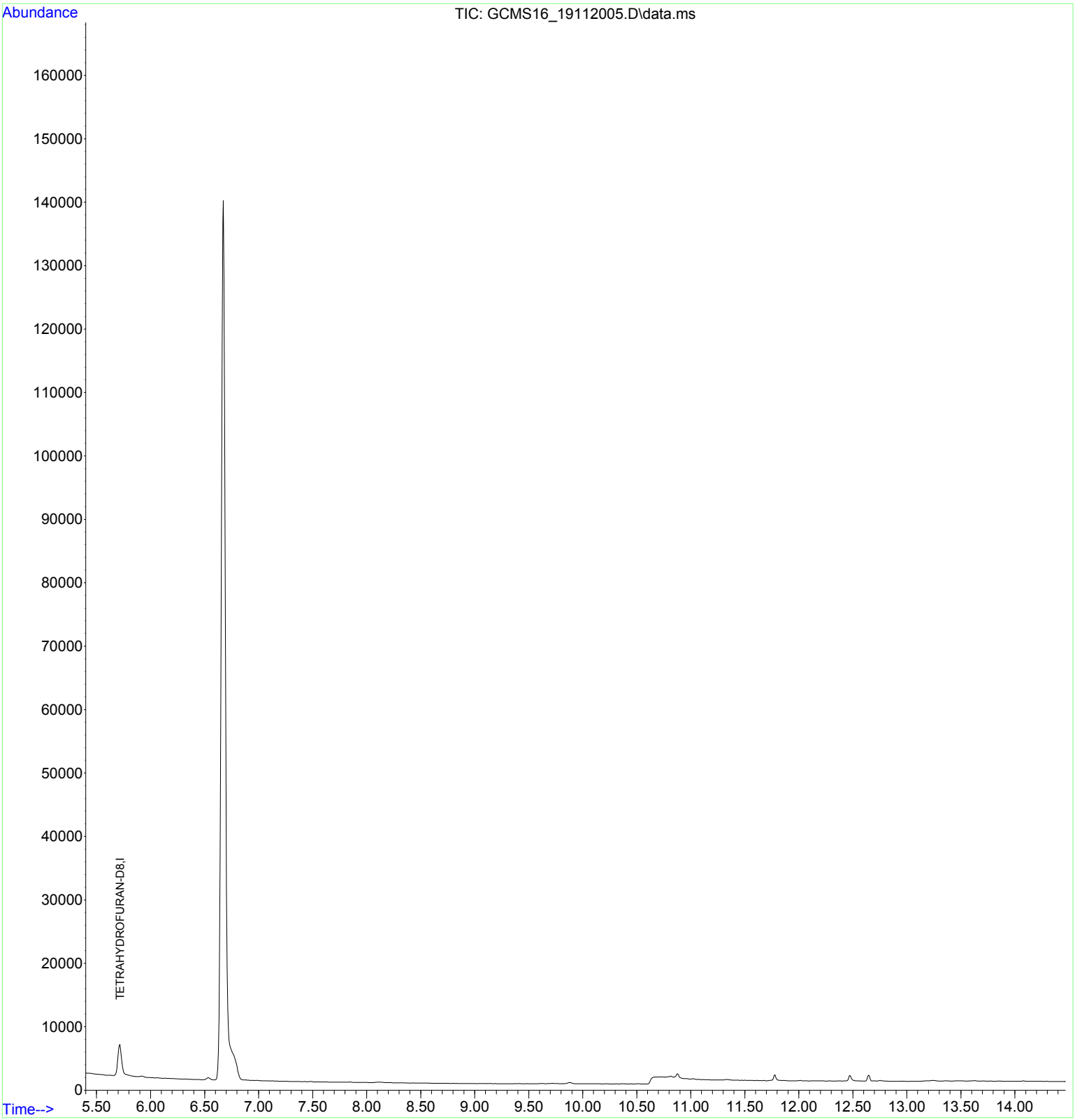
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.715	46	65362	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

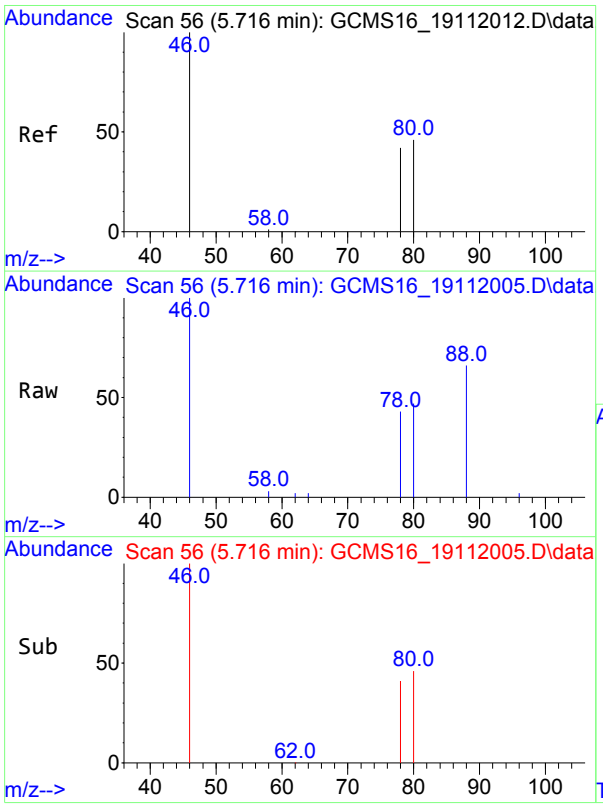
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112005.D
Acq On : 20 Nov 2019 11:24 am
Operator : CR
Sample : BLK
Misc :
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Nov 20 16:06:17 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

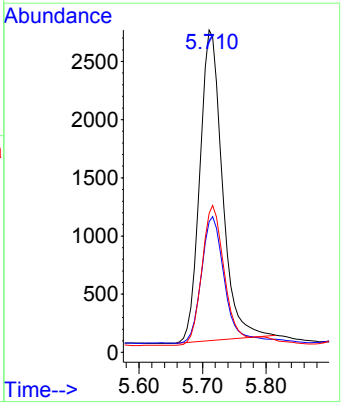


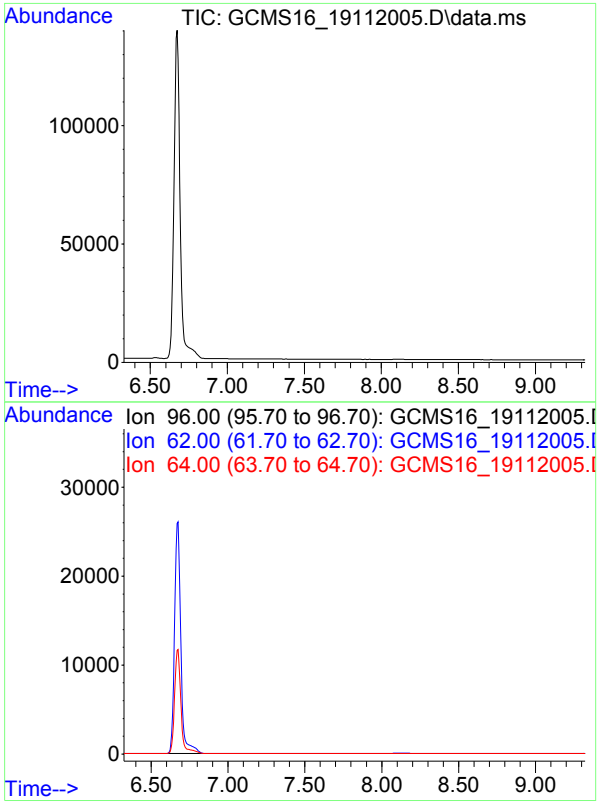


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.715 min Scan# 56
Delta R.T. -0.000 min
Lab File: GCMS16_19112005.D
Acq: 20 Nov 2019 11:24 am

Tgt Ion: 46 Resp: 65362

Ion	Ratio	Lower	Upper
46	100		
78	39.9	27.5	51.1
80	45.2	29.0	53.9



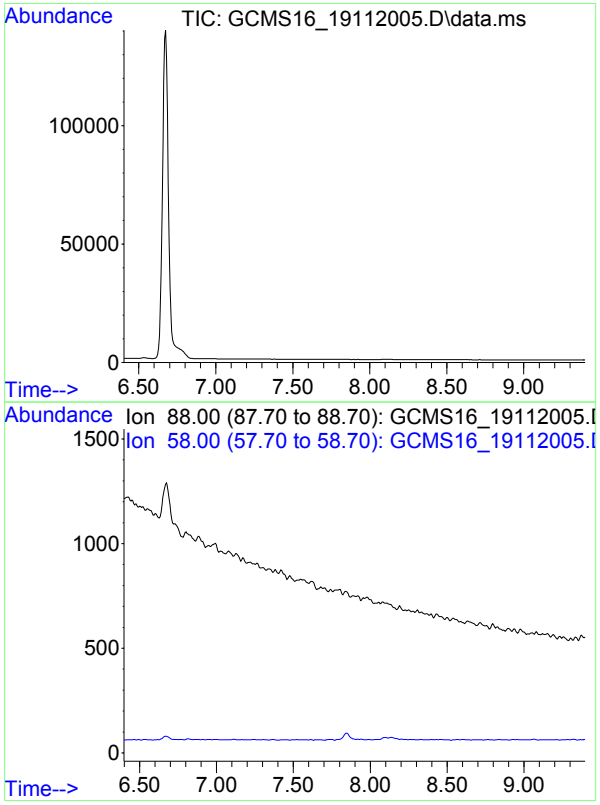


#2
1,4-Dioxane-d8
Concen: 0.00 ug/L
Expected RT: 7.82 min

Lab File: GCMS16_19112005.D
Acq: 20 Nov 2019 11:24 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
62	0.0
64	81.2



#3
1,4-Dioxane
Concen: N.D.
Expected RT: 7.90 min

Lab File: GCMS16_19112005.D
Acq: 20 Nov 2019 11:24 am

Tgt Ion: 88

Sig	Exp Ratio
88	100
58	103.6

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112006.D
Acq On : 20 Nov 2019 11:46 am
Operator : CR
Sample : BLK
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 20 16:07:00 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

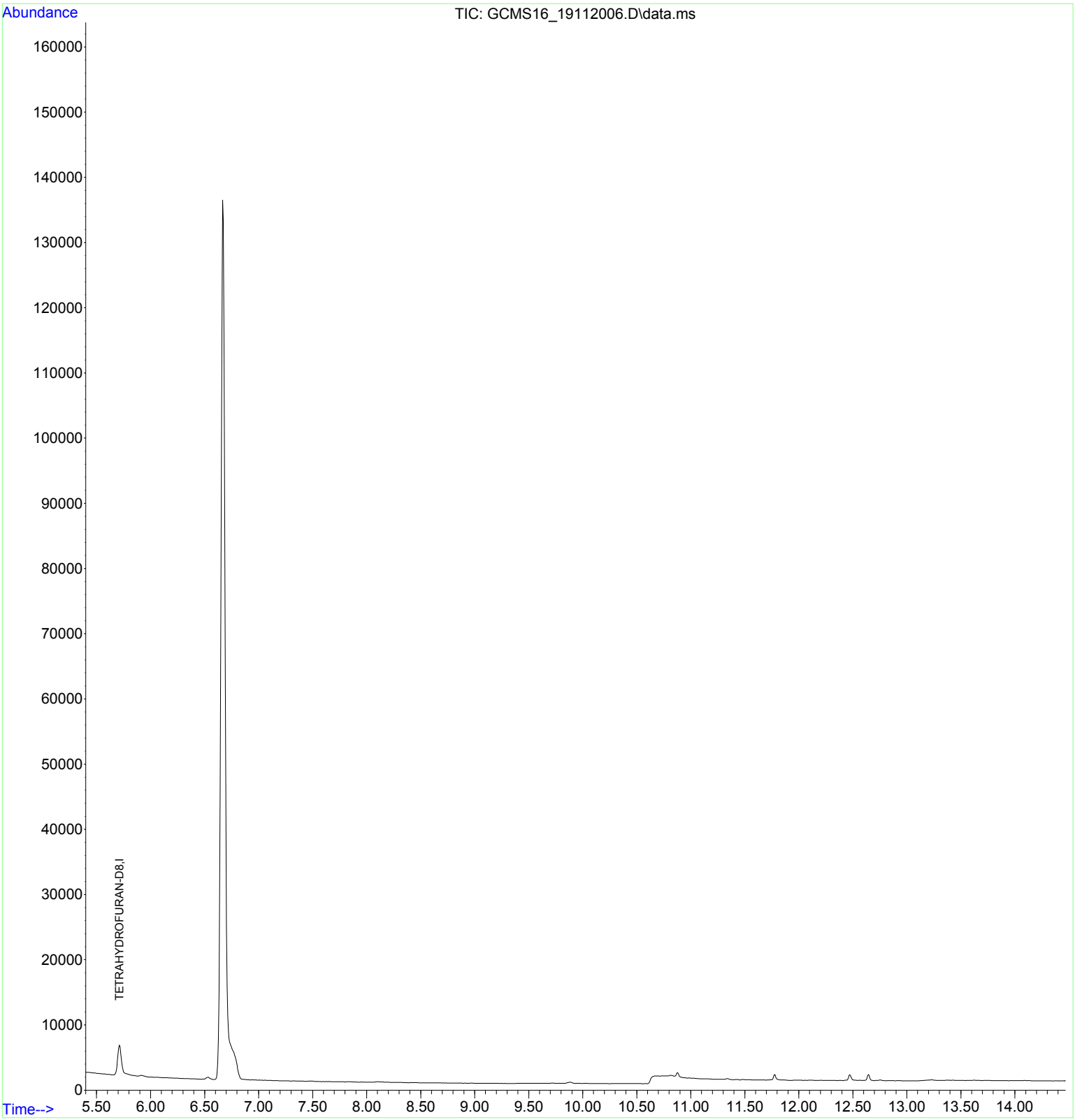
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.713	46	59814	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

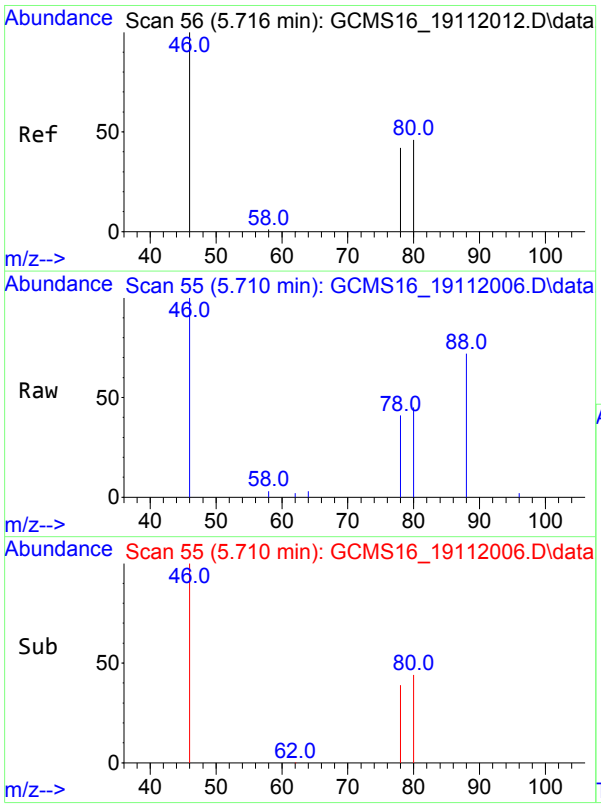
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112006.D
Acq On : 20 Nov 2019 11:46 am
Operator : CR
Sample : BLK
Misc :
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Nov 20 16:07:00 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

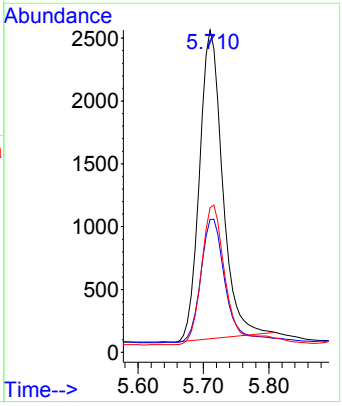


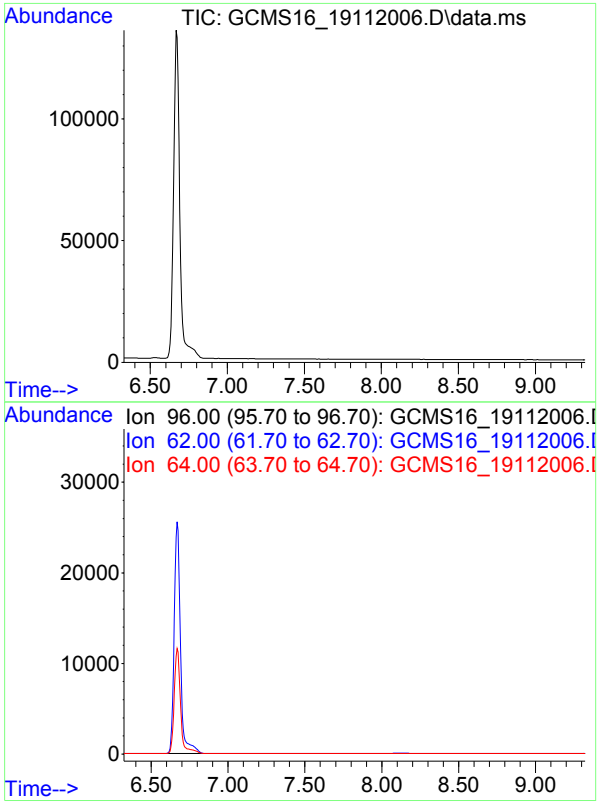


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.713 min Scan# 55
Delta R.T. -0.002 min
Lab File: GCMS16_19112006.D
Acq: 20 Nov 2019 11:46 am

Tgt Ion: 46 Resp: 59814

Ion	Ratio	Lower	Upper
46	100		
78	39.5	27.5	51.1
80	42.5	29.0	53.9



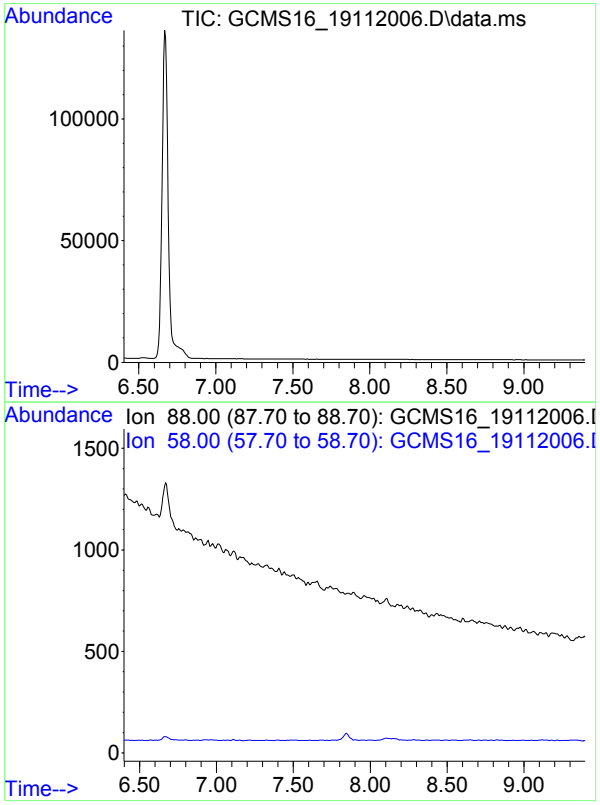


#2
1,4-Dioxane-d8
Concen: 0.00 ug/L
Expected RT: 7.82 min

Lab File: GCMS16_19112006.D
Acq: 20 Nov 2019 11:46 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
62	0.0
64	81.2



#3
1,4-Dioxane
Concen: N.D.
Expected RT: 7.90 min

Lab File: GCMS16_19112006.D
Acq: 20 Nov 2019 11:46 am

Tgt Ion: 88

Sig	Exp Ratio
88	100
58	103.6

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112007.D
Acq On : 20 Nov 2019 12:08 pm
Operator : CR
Sample : BLK
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 20 16:07:16 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

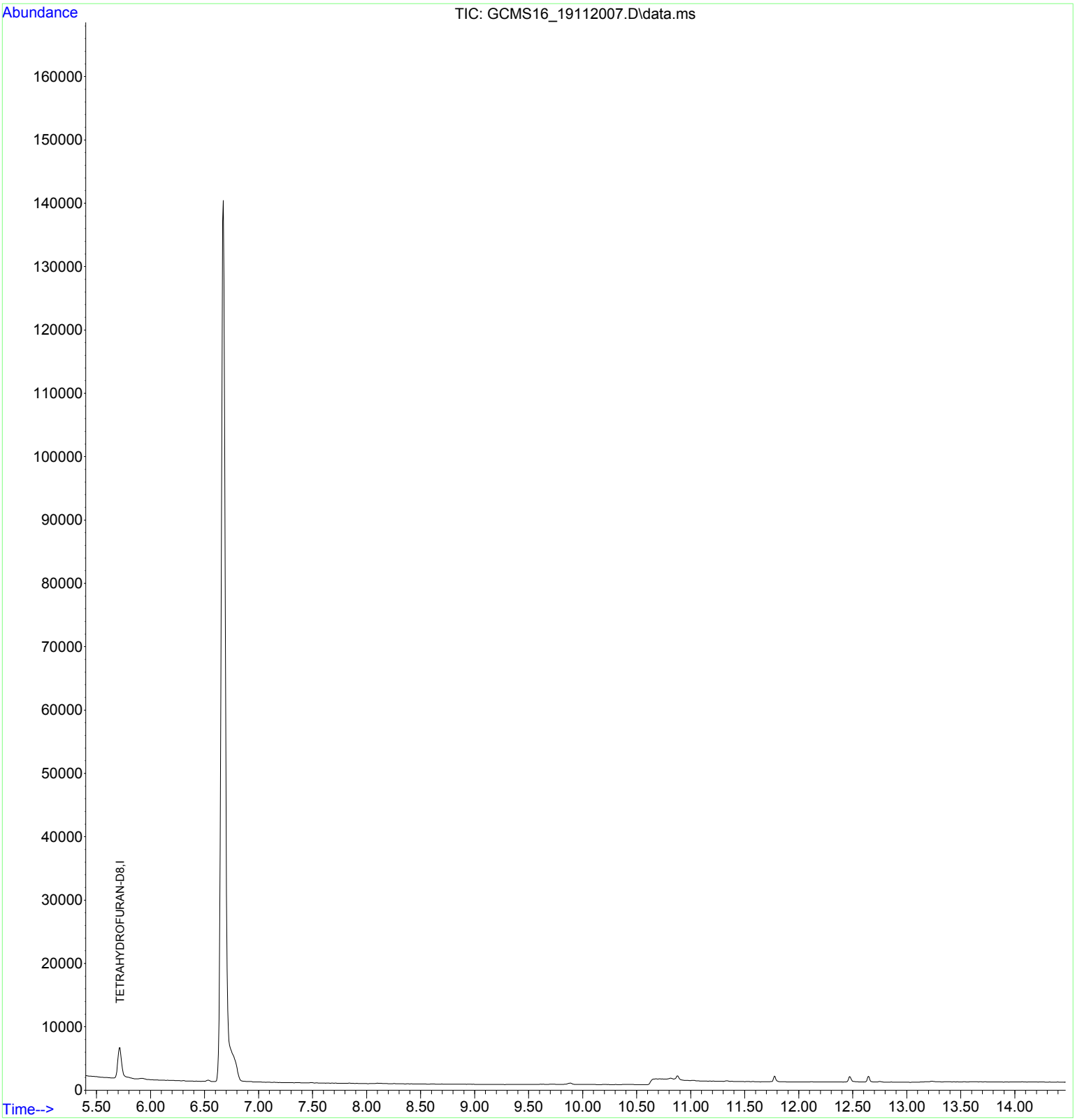
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.714	46	63607	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

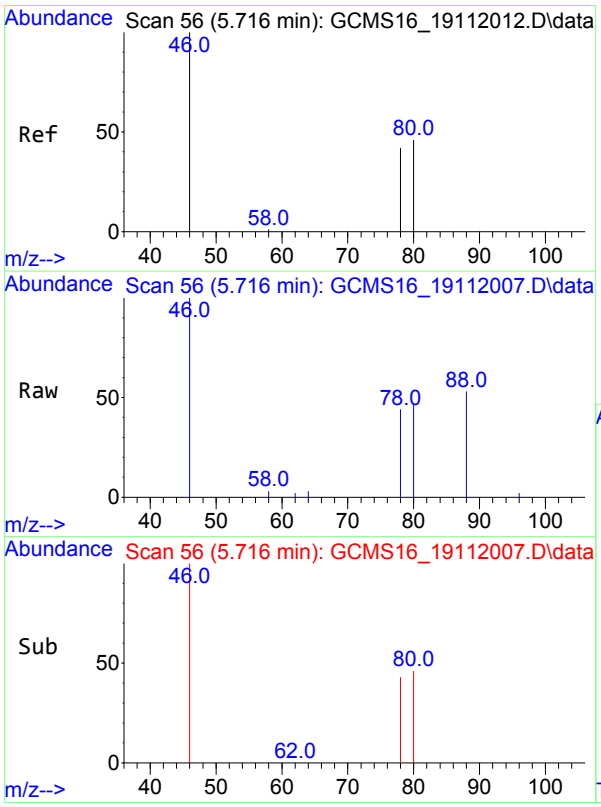
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112007.D
Acq On : 20 Nov 2019 12:08 pm
Operator : CR
Sample : BLK
Misc :
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Nov 20 16:07:16 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

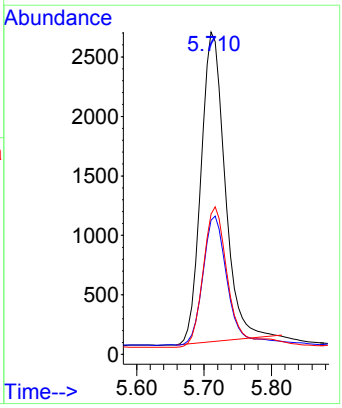


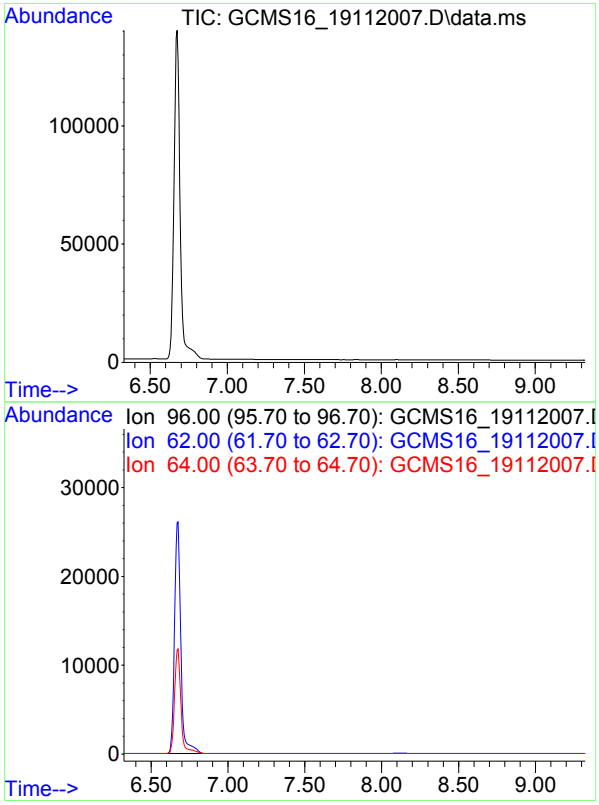


#1
TETRAHYDROFURAN-D8
Concen: 50.00 ug/L
RT: 5.714 min Scan# 56
Delta R.T. -0.001 min
Lab File: GCMS16_19112007.D
Acq: 20 Nov 2019 12:08 pm

Tgt Ion: 46 Resp: 63607

Ion	Ratio	Lower	Upper
46	100		
78	39.7	27.5	51.1
80	42.6	29.0	53.9



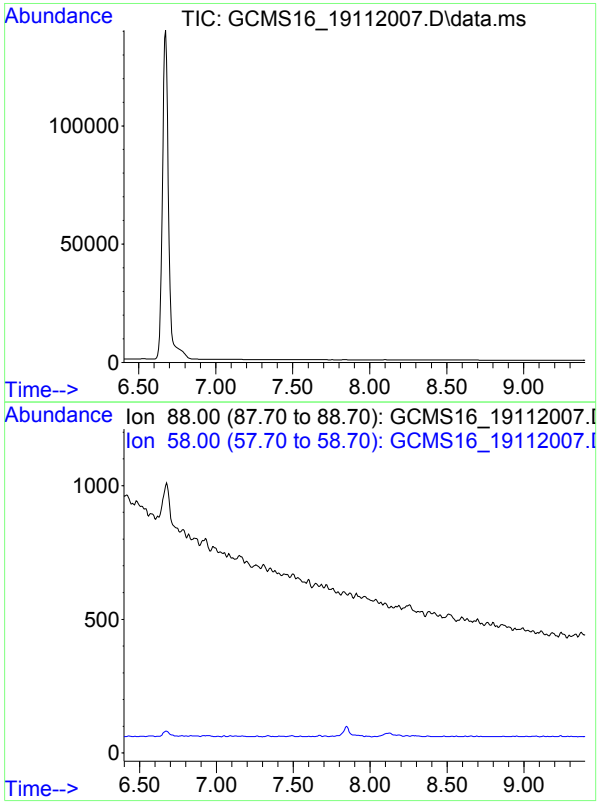


#2
1,4-Dioxane-d8
Concen: 0.00 ug/L
Expected RT: 7.82 min

Lab File: GCMS16_19112007.D
Acq: 20 Nov 2019 12:08 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
62	0.0
64	81.2



#3
1,4-Dioxane
Concen: N.D.
Expected RT: 7.90 min

Lab File: GCMS16_19112007.D
Acq: 20 Nov 2019 12:08 pm

Tgt Ion: 88

Sig	Exp Ratio
88	100
58	103.6

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112001.D
Acq On : 20 Nov 2019 09:59 am
Operator : CR
Sample : DCM
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 20 16:04:13 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

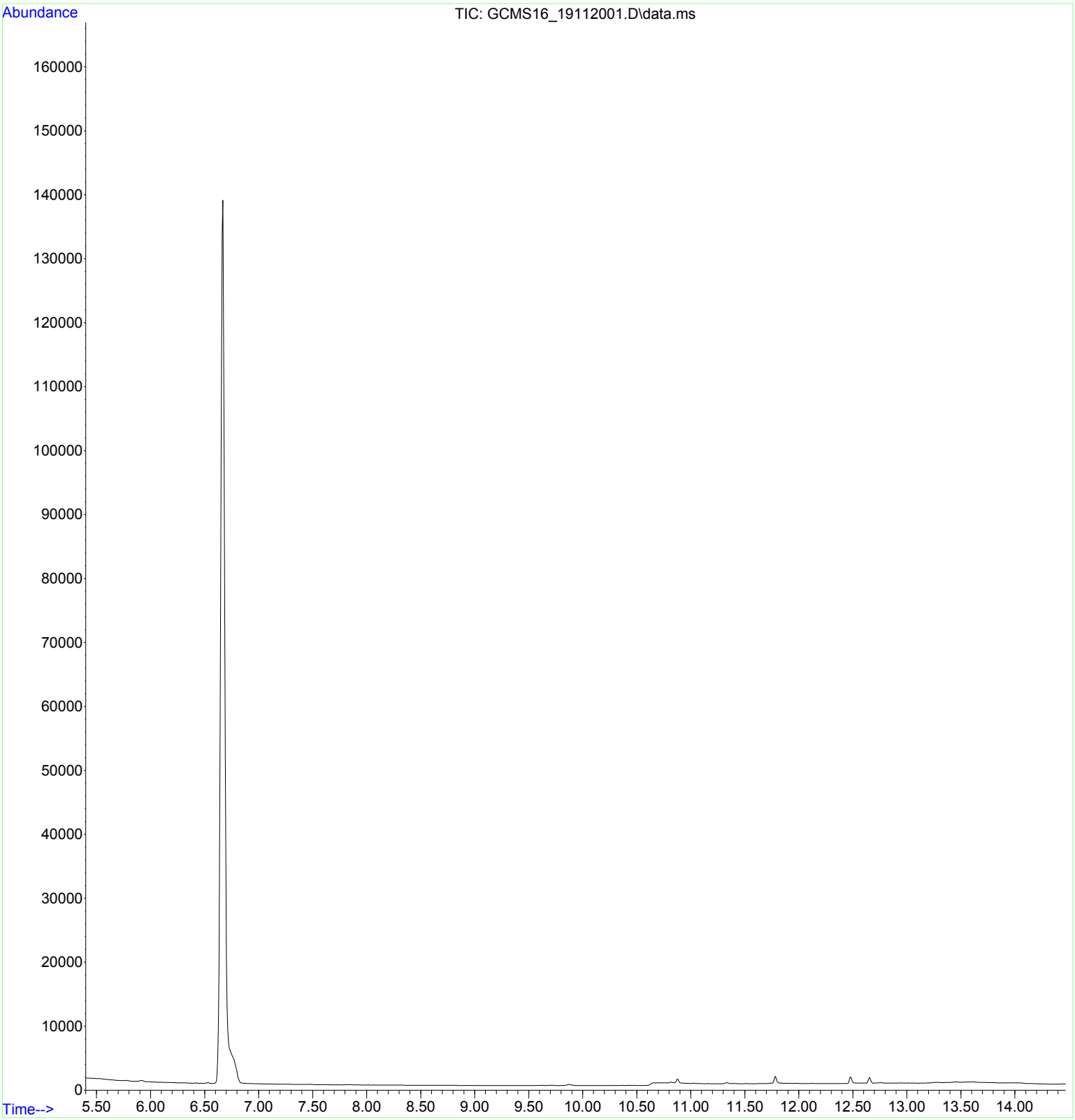
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	0.000	46	0	0.00 ug/L	-5.71
System Monitoring Compounds					
2) 1,4-Dioxane-d8	0.000	96	0	0.00 ug/L	
Target Compounds					Qvalue
3) 1,4-Dioxane	8.025	88	273	N.D.	

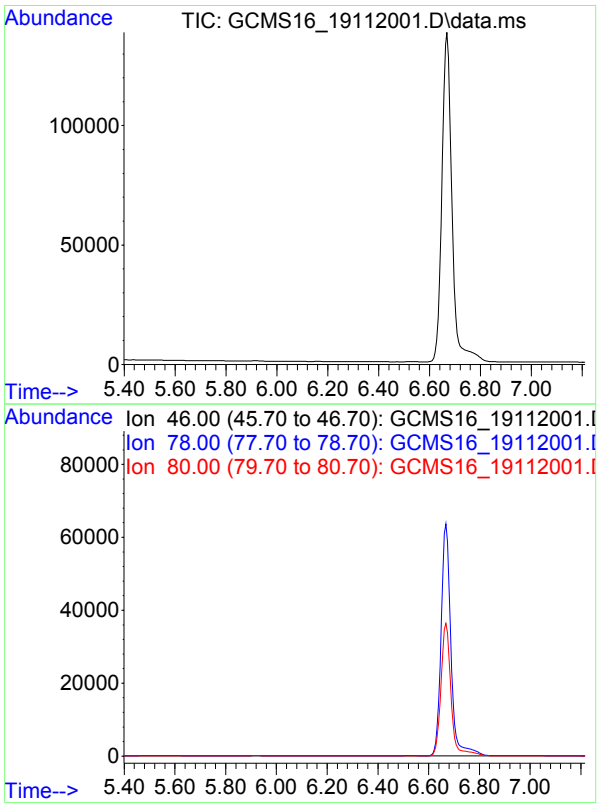
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191120_CR\
Data File : GCMS16_19112001.D
Acq On : 20 Nov 2019 09:59 am
Operator : CR
Sample : DCM
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Nov 20 16:04:13 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



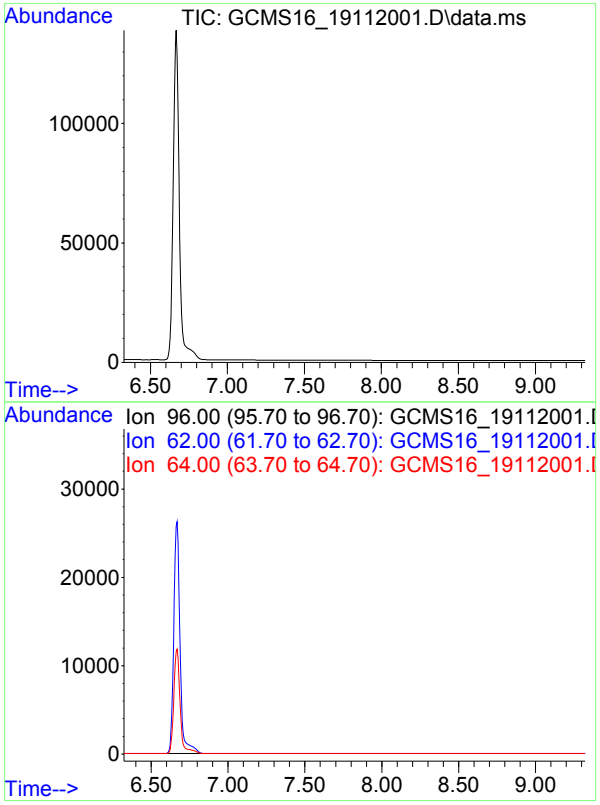


#1
TETRAHYDROFURAN-D8
Concen: 0.00 ug/L
Expected RT: 5.71 min

Lab File: GCMS16_19112001.D
Acq: 20 Nov 2019 09:59 am

Tgt Ion: 46

Sig	Exp Ratio
46	100
78	39.3
80	41.5

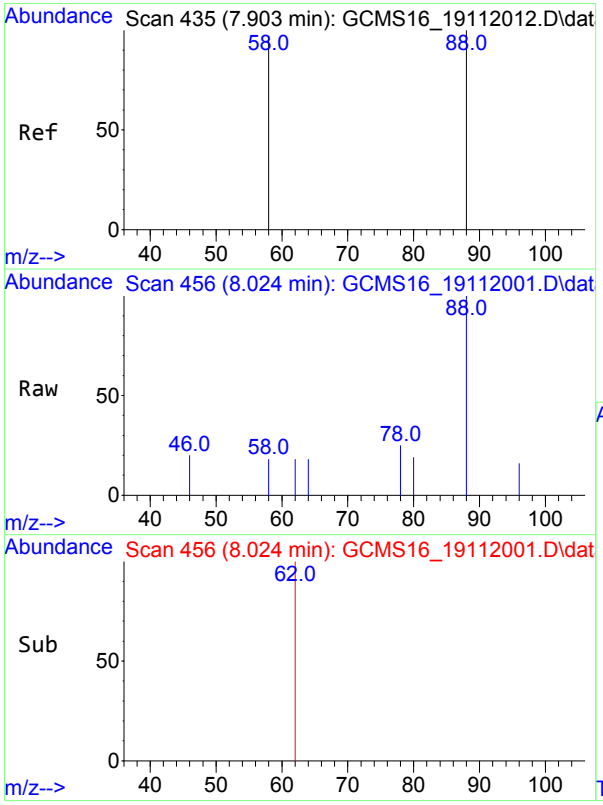


#2
1,4-Dioxane-d8
Concen: 0.00 ug/L
Expected RT: 7.82 min

Lab File: GCMS16_19112001.D
Acq: 20 Nov 2019 09:59 am

Tgt Ion: 96

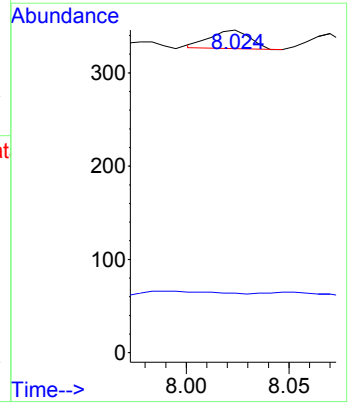
Sig	Exp Ratio
96	100
62	0.0
64	81.2



#3
1,4-Dioxane
Concen: N.D.
RT: 8.025 min Scan# 456
Delta R.T. 0.126 min
Lab File: GCMS16_19112001.D
Acq: 20 Nov 2019 09:59 am

Tgt Ion: 88 Resp: 273

Ion	Ratio	Lower	Upper
88	100		
58	0.0	72.5	134.7#



Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121201.D
Acq On : 12 Dec 2019 01:33 pm
Operator : CR
Sample : DCM
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 12 14:17:54 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

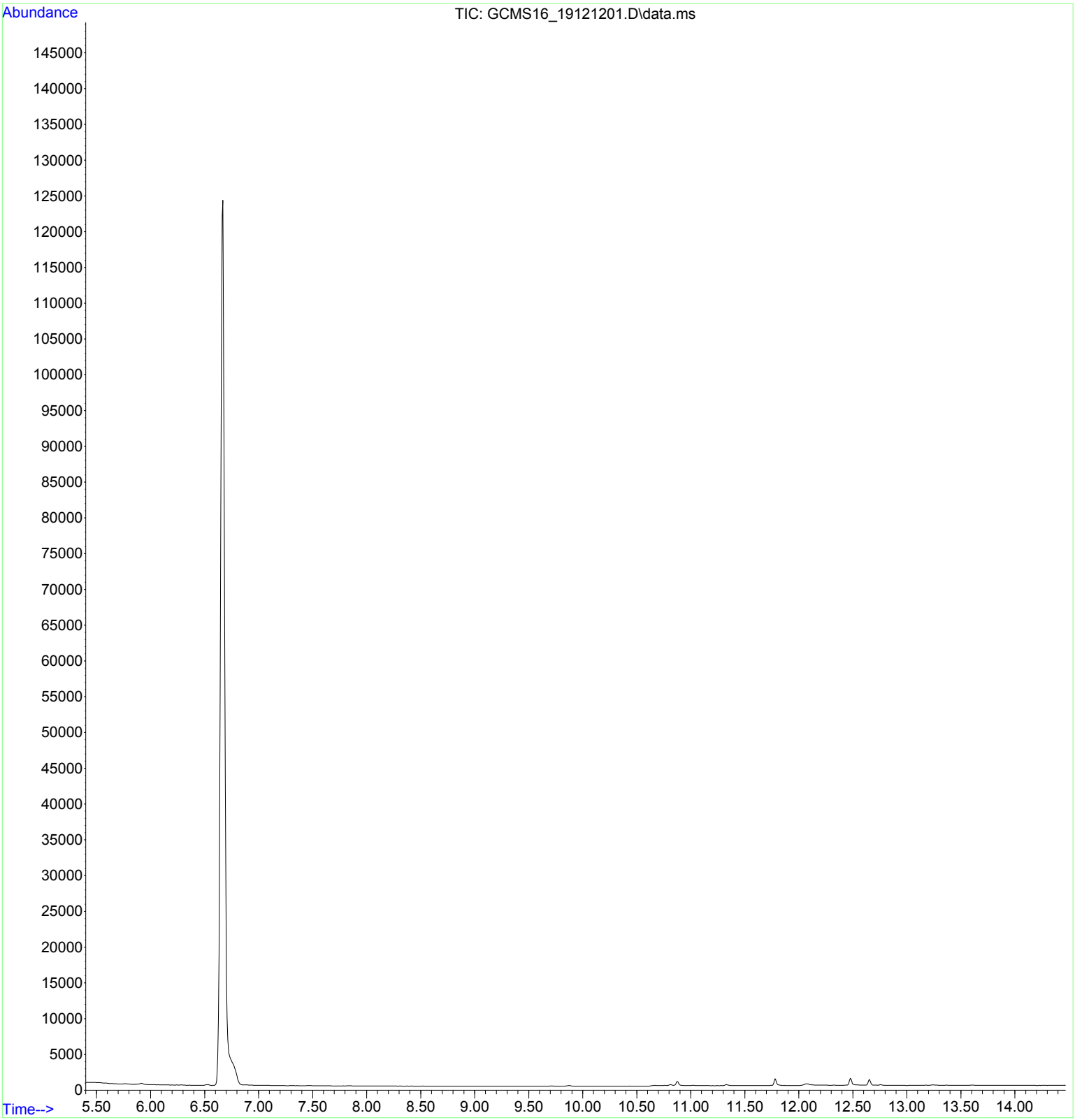
Compound	R.T.	QIon	Response	Conc Units	Dev(Min)
Internal Standards					
1) TETRAHYDROFURAN-D8	0.000	46	0	0.00 ug/L	-5.71
System Monitoring Compounds					
2) 1,4-Dioxane-d8	0.000	96	0	0.00 ug/L	
Target Compounds					Qvalue
3) 1,4-Dioxane	0.000		0	N.D.	

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121201.D
Acq On : 12 Dec 2019 01:33 pm
Operator : CR
Sample : DCM
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 12 14:17:54 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121202.D
Acq On : 12 Dec 2019 01:53 pm
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

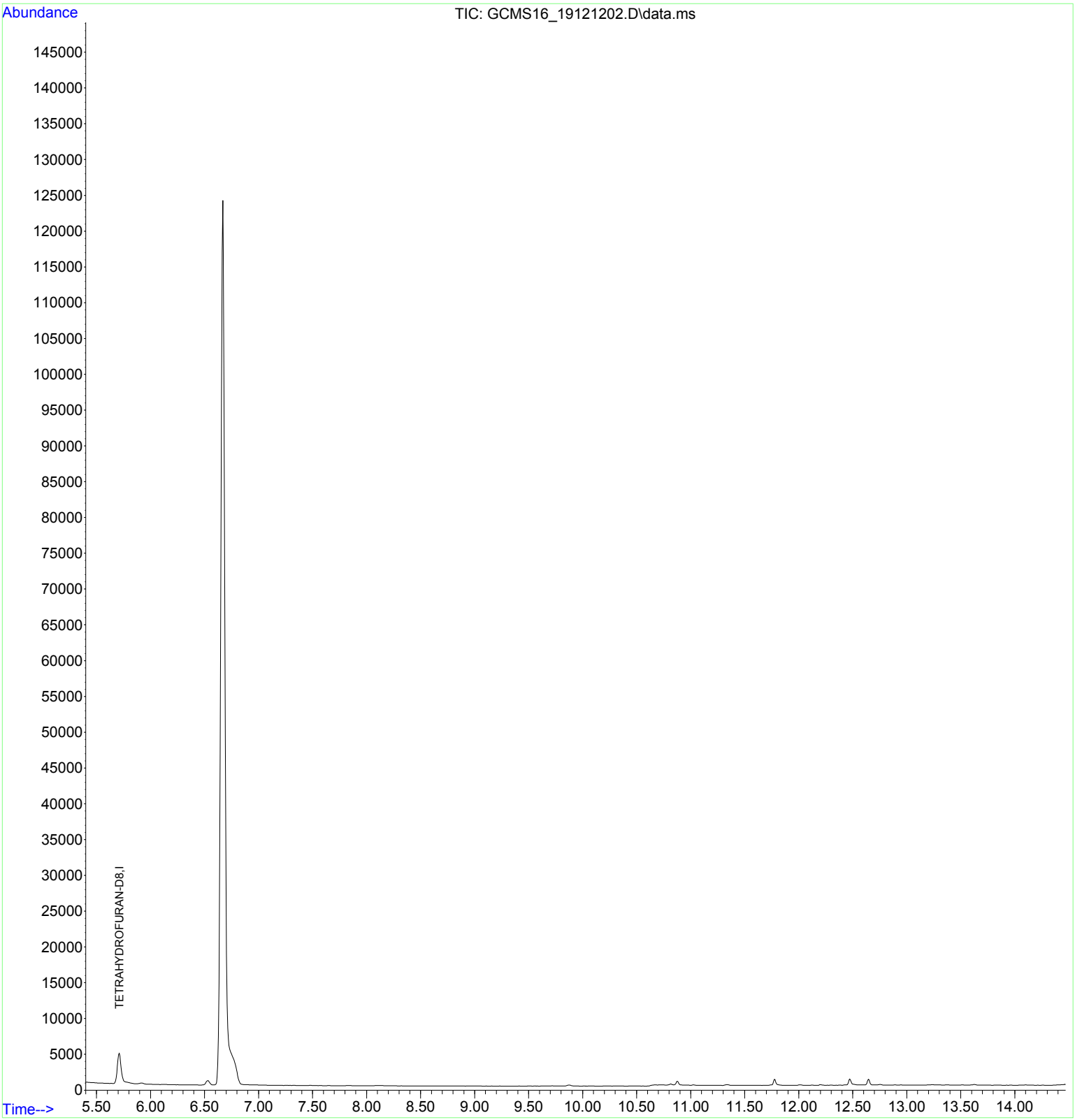
Quant Time: Dec 12 14:18:17 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.710	46	57052	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121202.D
Acq On : 12 Dec 2019 01:53 pm
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 12 14:18:17 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121216.D
Acq On : 12 Dec 2019 06:46 pm
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

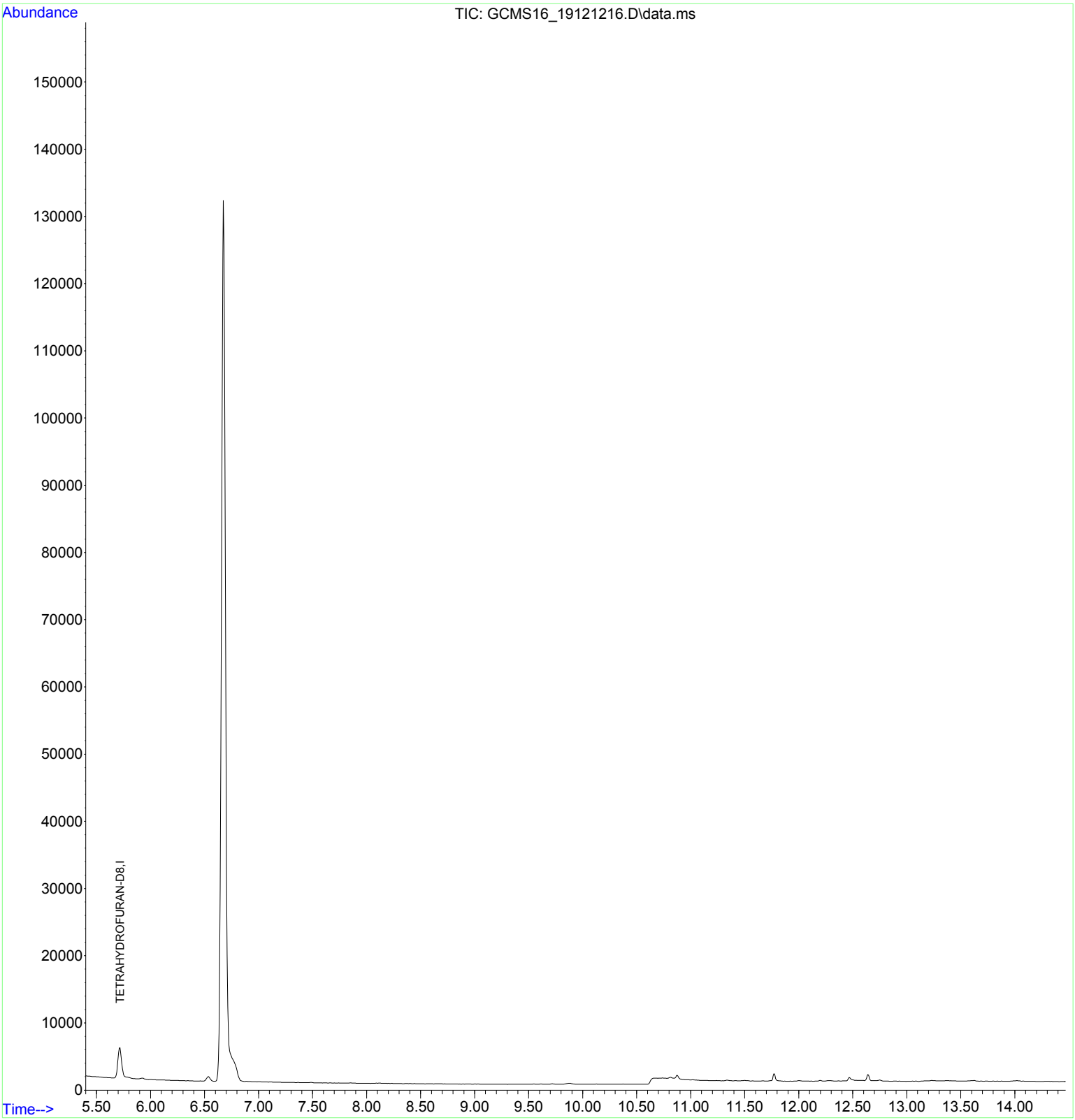
Quant Time: Dec 13 10:21:16 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.715	46	62027	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121216.D
Acq On : 12 Dec 2019 06:46 pm
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 10:21:16 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121222.D
Acq On : 12 Dec 2019 08:52 pm
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 10:32:48 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

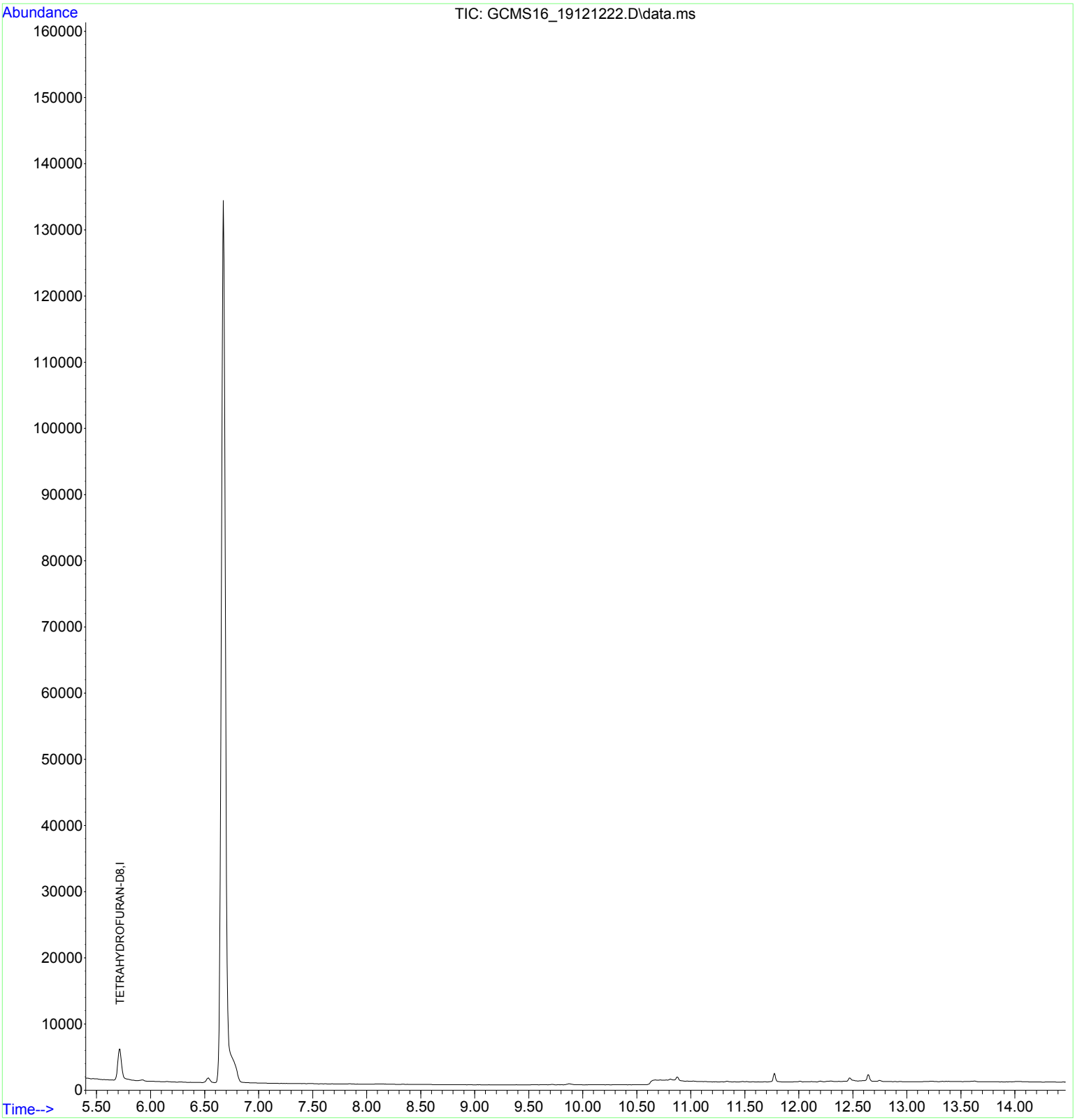
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.714	46	62823	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121222.D
Acq On : 12 Dec 2019 08:52 pm
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 10:32:48 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121233.D
Acq On : 13 Dec 2019 12:44 am
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 11:14:52 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

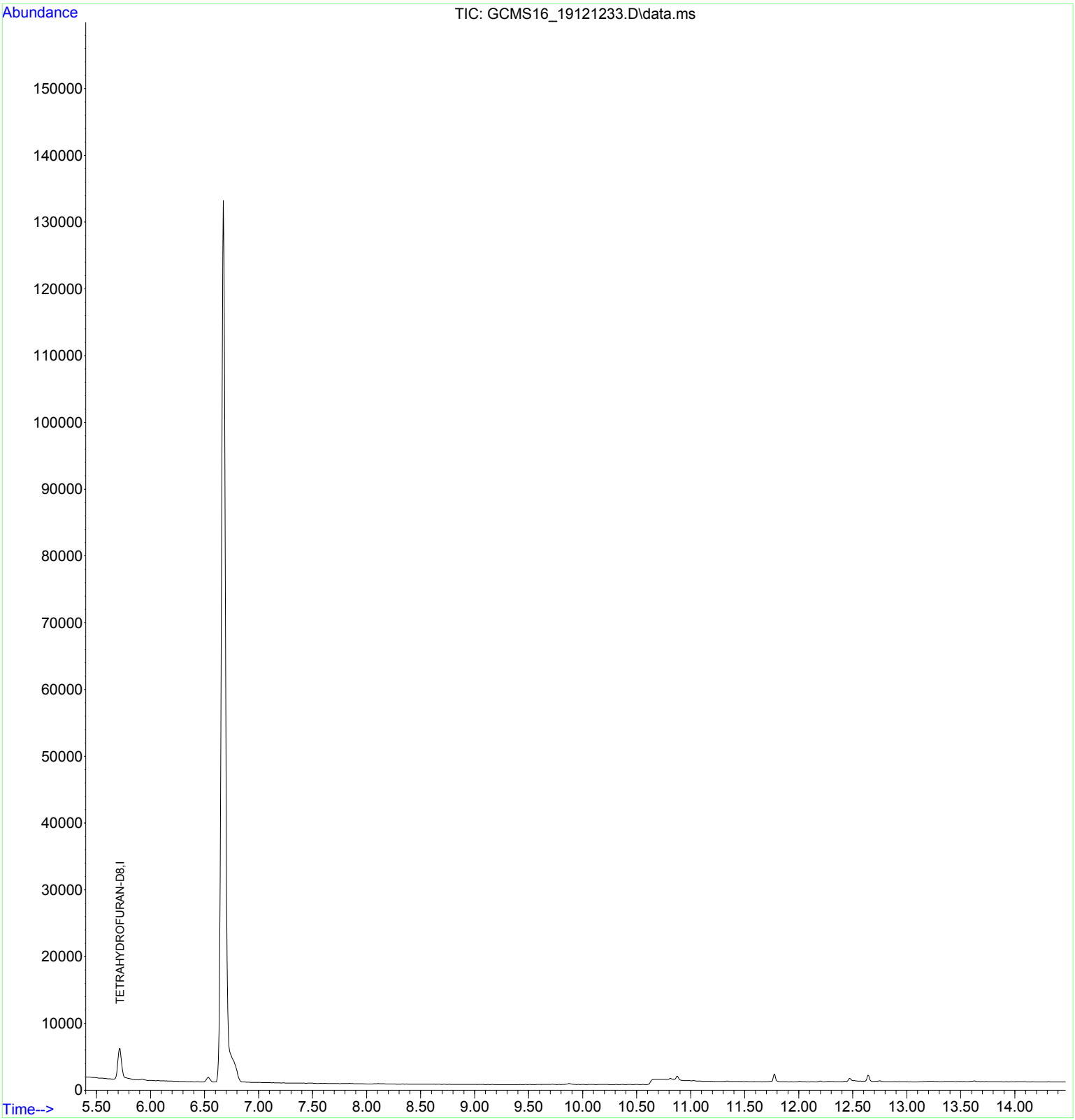
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.715	46	61250	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121233.D
Acq On : 13 Dec 2019 12:44 am
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 11:14:52 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121235.D
Acq On : 13 Dec 2019 01:26 am
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 11:28:38 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

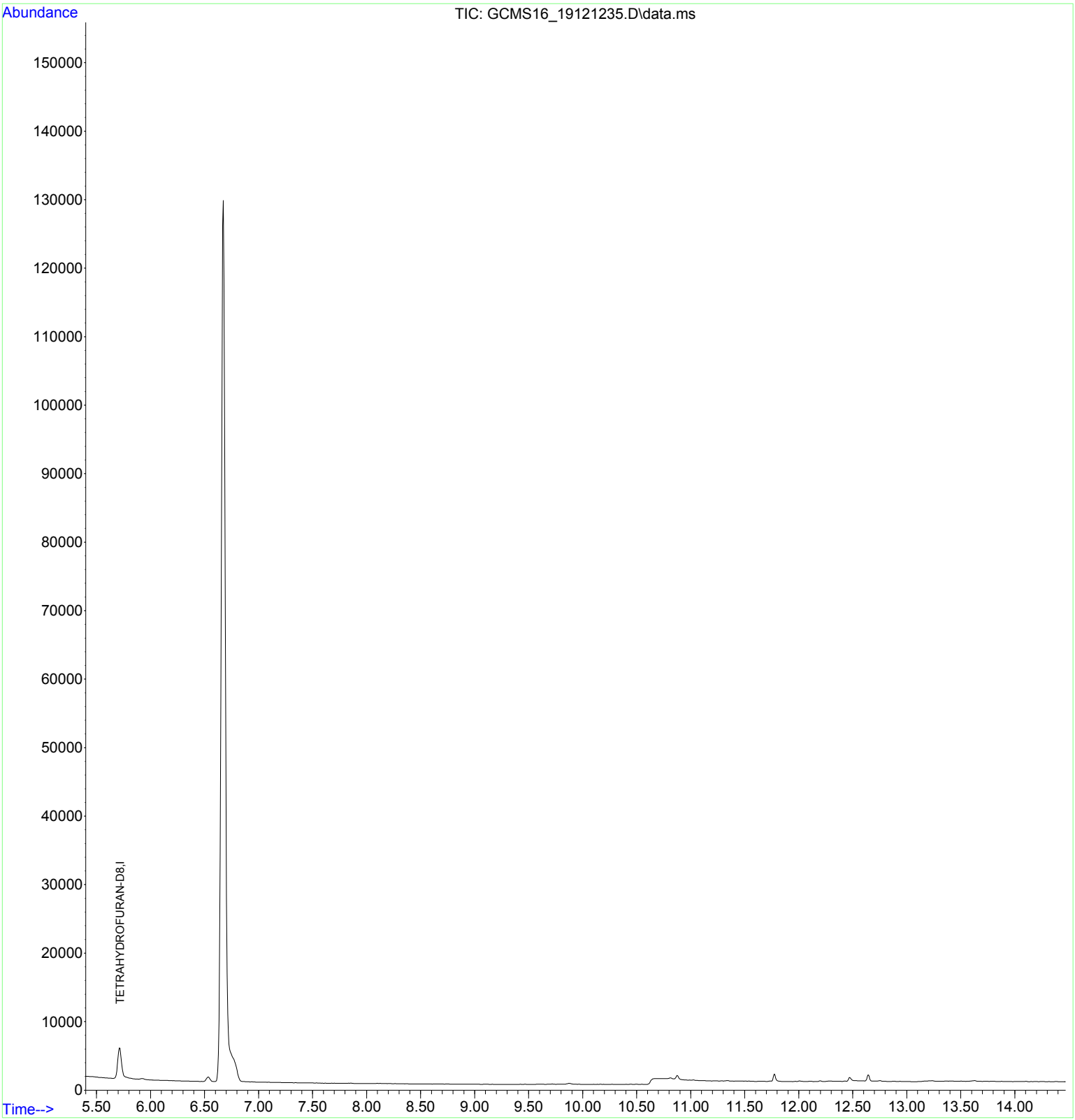
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.714	46	61086	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121235.D
Acq On : 13 Dec 2019 01:26 am
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 11:28:38 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121238.D
Acq On : 13 Dec 2019 02:29 am
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 11:32:13 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

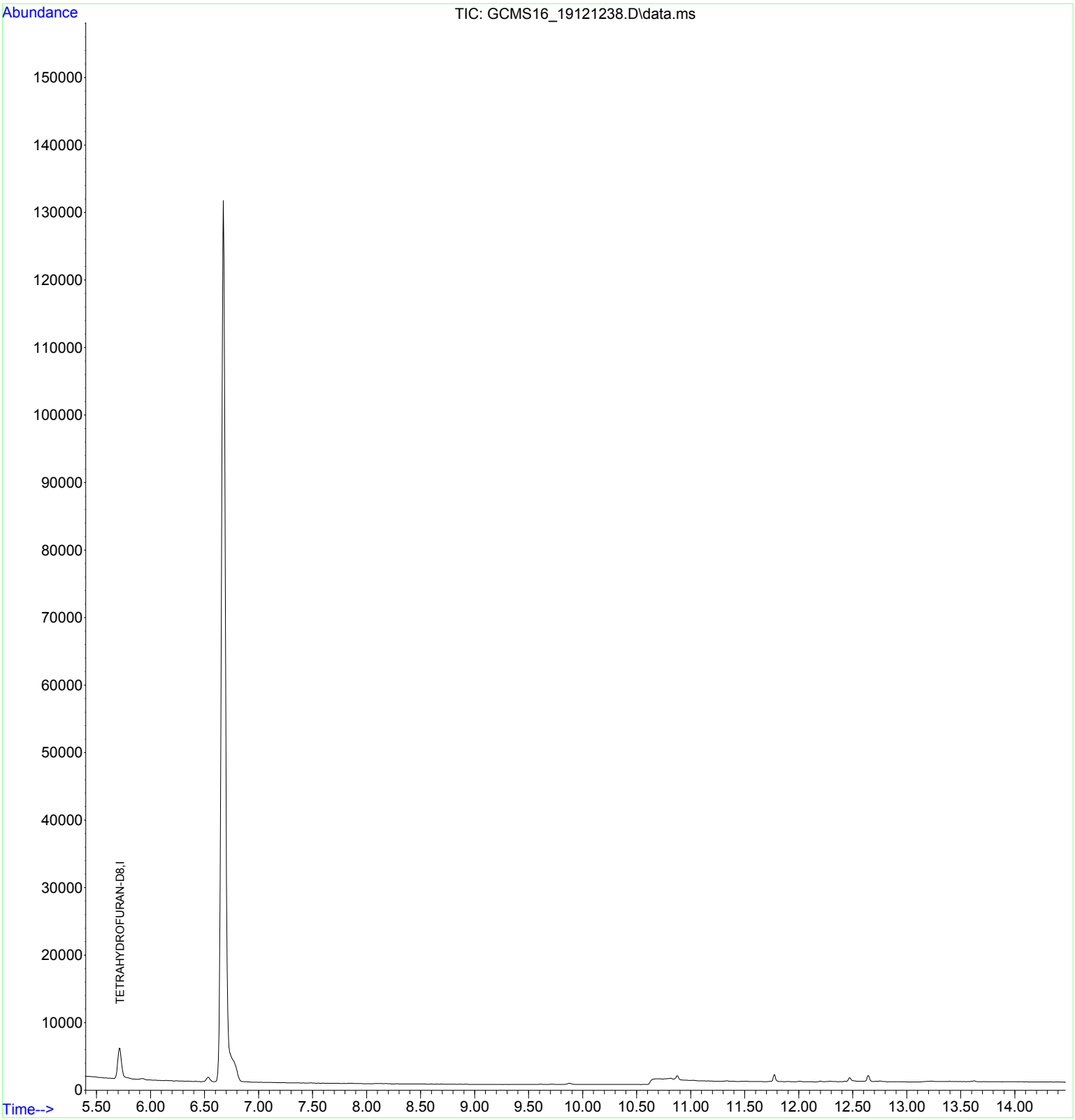
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.714	46	60498	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191212_CR\
Data File : GCMS16_19121238.D
Acq On : 13 Dec 2019 02:29 am
Operator : CR
Sample : IB
Misc :
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 13 11:32:13 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191213_CR\
Data File : GCMS16_19121301.D
Acq On : 13 Dec 2019 11:07 am
Operator : CR
Sample : IB
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 13 12:40:17 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration

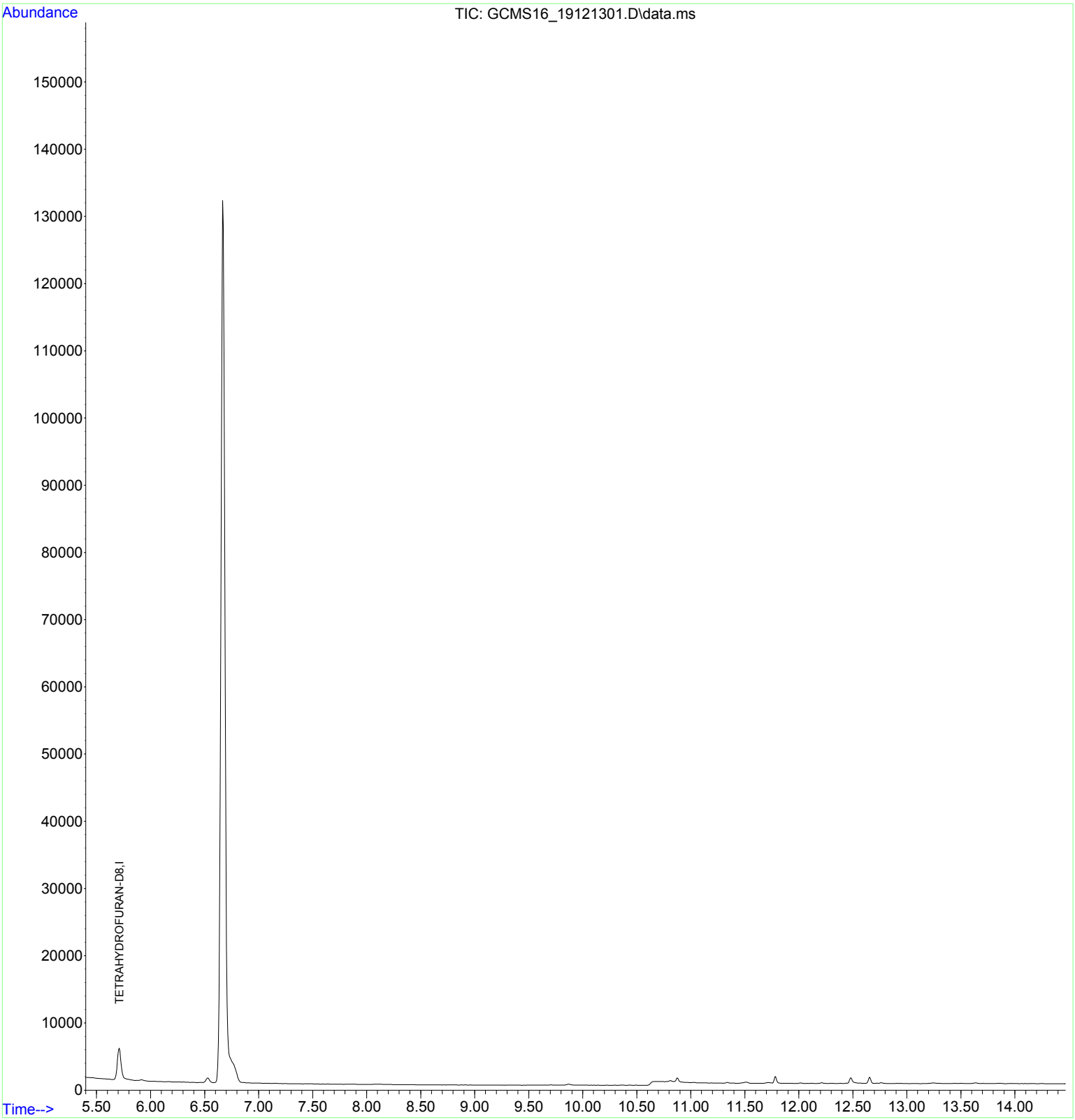
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) TETRAHYDROFURAN-D8	5.710	46	62730	50.00	ug/L	0.00
System Monitoring Compounds						
2) 1,4-Dioxane-d8	0.000	96	0	0.00	ug/L	
Target Compounds						Qvalue
3) 1,4-Dioxane	0.000		0	N.D.		

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (Not Reviewed)

Data Path : D:\MassHunter\GCMS\1\data\191213_CR\
Data File : GCMS16_19121301.D
Acq On : 13 Dec 2019 11:07 am
Operator : CR
Sample : IB
Misc :
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Dec 13 12:40:17 2019
Quant Method : D:\MassHunter\GCMS\1\methods data processing\14Dioxane_SIM_Process_191120_CR.M
QLast Update : Wed Nov 20 16:03:01 2019
Response via : Initial Calibration



1,4-Dioxane

048
3/25/19

LIMS ID: E19C013

AccuStandard® 125 Market Street • New Haven, CT 06513 • USA Tel. 203-786-5290 • www.accustandard.com
M-624-SS-03-10X 1 mL
p-Bromofluorobenzene
2.0 mg/mL in MeOH
Lot: 217061087
Exp: Jun 06, 2027
Rcvd 7/9/11
1 comp(s)
Storage: Ambient (>5 °C)
FOR LABORATORY USE ONLY
H336 H225 H371 H320
H315 H311 H332 H301
P338 P360 P331 P233
P262 P202 P264 P284
Signal Word Danger

CRL LIMS: 18G1106
BFB Stock

LIMS ID: E19C014
BFB Tune @ 1µg/mL
2.5µL E19C013 was added to a 5mL vol flask + filled to mark w/ DCM lot DS1166. Syringe I-1211.
0.0025mL x 2000µg/mL / 5mL = 1µg/mL

LIMS ID: E19C015
Tetrahydrofuran-d8 Stock
(THF-d8)

RESTEK 110 Benner Circle Bellefonte, PA 16823 814-353-1300 Made in USA For Laboratory Use Only
30112 Danger 1 mL
Lot# A0123940
Expire: 01/2022 Store: 0°C or colder
Tetrahydrofuran-d8 Standard
2000 µg/mL each in P&T Methanol
Full label information for the chemical is provided on the outside package.

LIMS ID: E19C016
Tetrahydrofuran-d8 IS Spk @ 20µg/mL
100µL E19C015 was added to a 10mL vol flask + filled to mark w/ P&T MeOH lot DS435. Syringe - H5031.
0.1mL x 2000µg/mL / 10mL = 20µg/mL

LIMS ID: E19C017

RESTEK 110 Benner Circle Bellefonte, PA 16823 814-353-1300 Made in USA For Laboratory Use Only
30614 Danger 1 mL
Lot# A0126851
Expire: 04/2020 Store: 0°C or colder
1,4-dioxane-d8 Standard
2000 µg/mL each in P&T Methanol
Full label information for the chemical is provided on the outside package.

1,4-Dioxane-d8 Stock
CRL LIMS 17K0909
Rcvd 10/18/17

3/25/19 4/5/19

1,4-Dioxane

049
3/25/19

LMS ID: E19C018
1,4-Dioxane-d8 Surrogate Spk @ 20µg/mL
100µL E19C017 was added to a 10mL vol flask + filled to mark w/ P+T MeOH lot DS435. Syringe H-5031.
0.1 mL x 2000µg/mL / 10 mL = 20µg/mL

LMS ID: E19C019

RESTEK 110 Benner Circle Bellefonte, PA 16823 814.353.1300 Made in USA For Laboratory Use Only
30287 Danger 1 mL
Lot# A0126604
Expire: 04/2022 Store: 0°C or colder
1,4-Dioxane Standard

2000 µg/mL each in P&T Methanol
Full label information for the chemical is provided on the outside package

1,4-Dioxane stock
one LMS 17HC0917

LMS ID: E19C020
1,4-Dioxane Spk @ 1 µg/mL
5µL E19C019 was added to a 10mL vol flask + filled to mark w/ P+T MeOH lot DS435. Syringe I-1083.
0.005 mL x 2000 µg/mL / 10 mL = 1µg/mL
on 3/25/19

LMS ID: E19C021
Int Cal Std @ 1µg/mL
5µL E19C017 and 5µL E19C019 were added to a 10mL vol flask + filled to mark w/ DCM lot DS1616. Syringe I-1083.
0.005mL x 2000 µg/mL / 10 mL = 1µg/mL

3/25/19 4-5-19

1,4-Dioxane

050
3/25/19

The following curve was prepared:

E19C021 lot DS166

Calibration Level	Calibration Standard Concentration (ng/mL)	1000 µg/L Stock Calibration Solution Volume (µL)	DCM Volume (µL)	Equivalent Concentration in an Aqueous Sample (µg/L)
1	5	5	995	0.2
2	10	10	990	0.4
3	15	15	985	0.6
4	20	20	980	0.8
5	25	25	975	1.0
6	50	50	950	2.0
7	100	100	900	4.0
8	250	250	750	10
9	500	500	500	20
10	1000	1000	0	40

CR 3/25/19

All levels spiked w/ 25µL IS E19C016 (20µg/mL)

Syringe IDs:

1000µL H-2371
500µL N-1188
250µL I-1064
100µL H-5031
50µL I-1108
10µL I-1083
5µL I-1211

CR 3/25/19

3/25/19

4-5-19

1,4-Dioxane

DS1
3/28/19

LIMS ID: E19C030

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ALR-062S
1,4-Dioxane
100 µg/mL in MeOH
Lot: 218051412
Exp: May 22, 2028

1 mL

Rcvd 3/28/19

1 comp(s)
Storage: Ambient (>5 °C)

FOR LABORATORY USE ONLY
H225 H336 H370 H320
H315 H311 H332 H301
H360 P338 P360 P331
P233 P262 P202 P264

Signal Word Danger

1,4-Dioxane
2nd Source

LIMS ID: E19C031
1,4-Dioxane ICV Int @ 1 µg/mL
10µL E19C030 was combined w/ 990µL DCM lot DS1166.
Syringes H-2371, H-5031, + I-1108
0.01 mL × 100µg/mL / 1 mL = 1µg/mL

LIMS ID: E19C032
1-4, Dioxane ICV @ 25 ng/mL
25µL E19C031 was combined w/ 975µL DCM lot DS1166.
Syringes H-2371, H-5031, + I-1108
0.025 mL × 1µg/mL / 1 mL = 0.025µg/mL
(25 ng/mL)

⊕ 2.5µL E17F027 IS (Syringe I-1211)

CM 3/28/19

3/28/19

4-5-19

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3/25/2019

Analytical Standard Record

TechLaw - ESAT Contract

E19C013

Description:	BFB Stock @ 2000 ug/mL	Expires:	Jun-06-27
Standard Type:	Other Solution	Prepared:	Mar-25-19
Solvent:	MeOH	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Mar-25-19 16:28 by CR

AccuStandard M-624-SS-03-10X. Prep date is date opened.

Analyte	CAS Number	Concentration (ppm)
4-Bromofluorobenzene	460-00-4	2000

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3/25/2019

Analytical Standard Record

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E19C015

Description:	THF-d8 Stock @ 2000 ug/mL	Expires:	Jan-31-22
Standard Type:	Other Solution	Prepared:	Mar-25-19
Solvent:	P&T MeOH	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Mar-25-19 16:37 by CR

Restek 30112. Prep date is date opened.

Analyte	CAS Number	Concentration (ppm)
Tetrahydrofuran-d8	1693-74-9	2000

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3/25/2019

Analytical Standard Record

TechLaw - ESAT Contract

E19C017

Description:	1,4-Dioxane-d8 Stock @ 2000 ug/mL	Expires:	Apr-30-20
Standard Type:	Analyte Spike	Prepared:	Mar-25-19
Solvent:	P&T MeOH	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Mar-25-19 16:46 by CR

Restek 30614. Prep date is date opened.

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	2000

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3/25/2019

Analytical Standard Record

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E19C019

Description:	1,4-Dioxane Stock @ 2000 ug/mL	Expires:	Apr-30-22
Standard Type:	Analyte Spike	Prepared:	Mar-25-19
Solvent:	P&T MeOH	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Mar-25-19 16:52 by CR

Restek 30287. Prep date is date opened.

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane	123-91-1	2000

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3/28/2019

Analytical Standard Record

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E19C030

Description:	1,4-Dioxane ICV Stock @ 100 ug/mL	Expires:	May-22-28
Standard Type:	Other Solution	Prepared:	Mar-28-19
Solvent:	MeOH	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Mar-28-19 11:46 by CR

AccuStandard ALR-062S. Prep date is date opened.

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane	123-91-1	100

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11/20/2019

Analytical Standard Record
TechLaw - ESAT Contract
E19I028

Description:	BFB Tune @ 1 ug/mL	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Sep-16-19
Solvent:	DCM/DS166	Prepared By:	Matt Kobus
Final Volume (mls):	5	Department:	MS
Vials:	1	Last Edit:	Sep-19-19 11:05 by MAK

2.5 uL E19C013 was added to a 5 mL vol flask and filled to mark with DCM lot DS166. Syringe N-1184

Analyte	CAS Number	Concentration (ppm)
4-Bromofluorobenzene	460-00-4	1

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19C013	BFB Stock @ 2000 ug/mL	Mar-25-19	Christina Rice	Jun-06-27	Mar-25-19 16:28 by CR	0.0025

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11/20/2019

Analytical Standard Record

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E19I029

Description:	THF-d8 IS SPK @ 20 ug/mL	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Sep-16-19
Solvent:	P&T MeOH/DS435	Prepared By:	Matt Kobus
Final Volume (mls):	10	Department:	MS
Vials:	1	Last Edit:	Sep-19-19 11:06 by MAK

100 uL E19C015 was added to a 10 mL vol flask and filled to mark with P&T MeOH lot DS435. Syringe I-8791

Analyte	CAS Number	Concentration (ppm)
Tetrahydrofuran-d8	1693-74-9	20

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19C015	THF-d8 Stock @ 2000 ug/mL	Mar-25-19	Christina Rice	Jan-31-22	Mar-25-19 16:37 by CR	0.1

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Analytical Standard Record

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E19I030

Description:	1,4-Dioxane-d8 Surr SPK @ 20 ug/mL	Expires:	Mar-14-20
Standard Type:	Surrogate Spike	Prepared:	Sep-16-19
Solvent:	P&T MeOH/DS435	Prepared By:	Matt Kobus
Final Volume (mls):	10	Department:	MS
Vials:	1	Last Edit:	Nov-06-19 10:49 by CR

100 uL E19C017 was added to a 10 mL vol flask and filled to mark with P&T MeOH lot DS435. Syringe I-8791

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	20

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19C017	1,4-Dioxane-d8 Stock @ 2000 ug/r	Mar-25-19	Christina Rice	Apr-30-20	Mar-25-19 16:46 by CR	0.1

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11/20/2019

Analytical Standard Record

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E19I031

Description:	1,4-Dioxane Int Cal @ 1 ug/mL	Expires:	Mar-14-20
Standard Type:	Analyte Spike	Prepared:	Sep-16-19
Solvent:	DCM/DS166	Prepared By:	Matt Kobus
Final Volume (mls):	10	Department:	MS
Vials:	1	Last Edit:	Sep-20-19 15:13 by MAK

5 uL E19C017 and 5 uL E19C019 were added to a 10 mL vol flask and filled to mark with DCM lot DS166. Syringe N-1184

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	1
1,4-Dioxane	123-91-1	1

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19C017	1,4-Dioxane-d8 Stock @ 2000 ug/r	Mar-25-19	Christina Rice	Apr-30-20	Mar-25-19 16:46 by CR	0.005
E19C019	1,4-Dioxane Stock @ 2000 ug/mL	Mar-25-19	Christina Rice	Apr-30-22	Mar-25-19 16:52 by CR	0.005

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11/20/2019

Analytical Standard Record

TechLaw - ESAT Contract

E19I033

Description:	1,4-Dioxane Int ICV @ 1 ug/mL	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Sep-16-19
Solvent:	DCM/DS166	Prepared By:	Matt Kobus
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Sep-19-19 11:10 by MAK

10 uL E19C030 was combined with 990 uL DCM lot DS166. Syringes N-1184, 23823.

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane	123-91-1	1

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19C030	1,4-Dioxane ICV Stock @ 100 ug/ı	Mar-28-19	Christina Rice	May-22-28	Mar-28-19 11:46 by CR	0.01

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11/20/2019

Analytical Standard Record

TechLaw - ESAT Contract

E19I034

Description:	1,4-Dioxane ICV @ 25 ug/L	Expires:	Mar-14-20
Standard Type:	Analyte Spike	Prepared:	Sep-16-19
Solvent:	DCM/DS166	Prepared By:	Matt Kobus
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Sep-20-19 15:09 by MAK

25 uL E19C031 was combined with 975 uL DCM lot DS166. Syringes I-1087, 23823. +2.5ul Internal

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane	123-91-1	0.025

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I033	1,4-Dioxane Int ICV @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-19-19 11:10 by MAK	0.025

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1/2/2020

Analytical Standard Record

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E19K046

Description:	1,4-Dioxane SPK @ 1 ug/mL	Expires:	May-19-20
Standard Type:	Analyte Spike	Prepared:	Nov-19-19
Solvent:	P&T MeOH/DS435	Prepared By:	Christina Rice
Final Volume (mls):	20	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 11:11 by CR

10 uL E19C019 was added to a 20 mL vol flask and filled to mark with P&T MeOH lot DS435. Syringe I-1108

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane	123-91-1	1

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19C019	1,4-Dioxane Stock @ 2000 ug/mL	Mar-25-19	Christina Rice	Apr-30-22	Mar-25-19 16:52 by CR	0.01

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1/2/2020

Analytical Standard Record

TechLaw - ESAT Contract

E19K047

Description:	1,4-Dioxane ICAL L1 5 ug/L	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 15:13 by CR

5 uL E19I031 was added to 995 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	0.005
1,4-Dioxane	123-91-1	0.005

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I031	1,4-Dioxane Int Cal @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-20-19 15:13 by MAK	0.005

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Analytical Standard Record

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E19K048

Description:	1,4-Dioxane ICAL L2 10 ug/L	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 15:13 by CR

10 uL E19I031 was added to 990 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	0.01
1,4-Dioxane	123-91-1	0.01

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I031	1,4-Dioxane Int Cal @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-20-19 15:13 by MAK	0.01

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Analytical Standard Record

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E19K049

Description:	1,4-Dioxane ICAL L3 15 ug/L	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 15:13 by CR

15 uL E19I031 was added to 985 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	0.015
1,4-Dioxane	123-91-1	0.015

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I031	1,4-Dioxane Int Cal @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-20-19 15:13 by MAK	0.015

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Analytical Standard Record

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E19K050

Description:	1,4-Dioxane ICAL L4 20 ug/L	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 15:14 by CR

20 uL E19I031 was added to 980 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	0.02
1,4-Dioxane	123-91-1	0.02

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I031	1,4-Dioxane Int Cal @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-20-19 15:13 by MAK	0.02

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Analytical Standard Record

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E19K051

Description:	1,4-Dioxane ICAL L5 25 ug/L	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	3	Last Edit:	Nov-19-19 15:14 by CR

25 uL E19I031 was added to 975 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	0.025
1,4-Dioxane	123-91-1	0.025

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I031	1,4-Dioxane Int Cal @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-20-19 15:13 by MAK	0.025

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Analytical Standard Record

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E19K052

Description:	1,4-Dioxane ICAL L6 50 ug/L	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 15:14 by CR

50 uL E19I031 was added to 950 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	0.05
1,4-Dioxane	123-91-1	0.05

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I031	1,4-Dioxane Int Cal @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-20-19 15:13 by MAK	0.05

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Analytical Standard Record

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E19K053

Description:	1,4-Dioxane ICAL L7 100 ug/L	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 15:15 by CR

100 uL E19I031 was added to 900 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	0.1
1,4-Dioxane	123-91-1	0.1

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I031	1,4-Dioxane Int Cal @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-20-19 15:13 by MAK	0.1

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Analytical Standard Record
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E19K054

Description:	1,4-Dioxane ICAL L8 250 ug/L	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 15:15 by CR

250 uL E19I031 was added to 750 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	0.25
1,4-Dioxane	123-91-1	0.25

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I031	1,4-Dioxane Int Cal @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-20-19 15:13 by MAK	0.25

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Analytical Standard Record
TechLaw - ESAT Contract
E19K055

Description:	1,4-Dioxane ICAL L9 500 ug/L	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 15:16 by CR

500 uL E19I031 was added to 500 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	0.5
1,4-Dioxane	123-91-1	0.5

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I031	1,4-Dioxane Int Cal @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-20-19 15:13 by MAK	0.5

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E19K056

Description:	1,4-Dioxane ICAL L10 1000 ug/L	Expires:	Mar-14-20
Standard Type:	Other Solution	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 15:16 by CR

1000 uL E19I031 was added to 0 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane-d8	17647-74-4	1
1,4-Dioxane	123-91-1	1

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I031	1,4-Dioxane Int Cal @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-20-19 15:13 by MAK	1

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Analytical Standard Record
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E19K057

Description:	1,4-Dioxane ICV @ 25 ug/L	Expires:	Mar-14-20
Standard Type:	Analyte Spike	Prepared:	Nov-19-19
Solvent:	DCM/DS166	Prepared By:	Christina Rice
Final Volume (mls):	1	Department:	MS
Vials:	1	Last Edit:	Nov-19-19 15:18 by CR

25 uL E19I033 was added to 975 uL DCM lot DS166. Syringes H-2371, I-1093, I-1108, I-1087, & I-1209. +2.5 uL IS

Analyte	CAS Number	Concentration (ppm)
1,4-Dioxane	123-91-1	0.025

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
E19I033	1,4-Dioxane Int ICV @ 1 ug/mL	Sep-16-19	Matt Kobus	Mar-14-20	Sep-19-19 11:10 by MAK	0.025

QAPP Worksheet #15a: Groundwater Project Action Limits and Laboratory-Specific Detection/Quantitation Limits

Matrix	Groundwater			
Analytical Group	VOC			
Concentration Level	Trace			
Analyte[3]	CAS Number	Project Action Limit[2] µg/L	CLP Method[1]/ASB Method[4] CRQLs/RL (low/medium) µg/L	CLP Method[1]/ ASB Method[4] MDLs µg/L
Vinyl chloride	75-01-4	2	0.50	NA
1,1-Dichloroethene	75-35-4	7	0.50	NA
1,2-Dichloroethane	107-06-2	5	0.50	NA
Cis-1,2-dichloroethene	156-59-2	70	0.50	NA
Trans-1,2-dichloroethene	10061-01-5	100	0.50	NA
Carbon Tetrachloride	56-23-5	5	0.50	NA
Ethylbenzene	100-41-4	700	0.50	NA
1,1,1-Trichloroethane	71-55-6	200	0.50	NA
1,1,2-Trichloroethane	79-00-5	5	0.50	NA
Trichloroethene	79-01-6	5	0.50	NA
Tetrachloroethene	127-18-4	5	0.50	NA
Toluene	108-88-3	1,000	0.50	NA
o-Xylene	95-47-6	10,000 (total)	0.50	NA

Matrix	Groundwater			
Analytical Group	VOC			
Concentration Level	Trace			
Analyte[3]	CAS Number	Project Action Limit[2] µg/L	CLP Method[1]/ASB Method[4] CRQLs/RL (low/medium) µg/L	CLP Method[1]/ ASB Method[4] MDLs µg/L
m,p-Xylene	179601-23-1	10,000 (total)	0.50	NA
1,4-dioxane[4]	123-91-1	7.7	0.204	0.154

Notes: If samples are sent to the Analytical Services Branch laboratory see Worksheet #15a in Appendix B

[1]CLP Method Analytical CRQLs are those documented in SOW SOM02.4. EPA headquarters and SMO maintain laboratory MDLs which are not available to include above.

[2]The Project Action Limit is set at the Remediation Goal established in the ROD. There are no groundwater Project Action Limits for inorganics therefore they are not included in WS #15a.

[3]All groundwater samples will be analyzed for the full CLP TCL organic list of parameters as per the SOW. This table lists only those organic parameters with a PAL.

[4]1,4-dioxane will be analyzed by Region 5 ASB laboratory using SOP MS035, Version 1. The PAL is the groundwater quality standard for class I potable groundwater listed in Illinois Administrative code (IAC) 35 620.410.

CAS – Chemical Abstract Service
µg/L – microgram per liter
ASB – Analytical Services Branch
MDL – method detection limit
QAPP – Quality assurance project plan
RL – Reporting Limit
CLP – Contract Laboratory Program
CRQL – contract required quantitation limit

QAPP Worksheet #15b: Effluent Project Action Limits and Laboratory-Specific Detection/Quantitation Limits

Matrix	Treated Effluent			
Analytical Group	VOC/1,4-dioxane[5]/Inorganics [3]			
Concentration Level	Trace			
Analyte[4]	CAS Number	Project Action Limit[2] µg/L	CLP Method[1]/ASB Method[5] CRQLs (low/medium)/RL[5] µg/L	CLP Method[1]/ASB Method[5] MDLs µg/L
Vinyl chloride	75-01-4	120	0.50	NA
1,1-Dichloroethene	75-35-4	1	0.50	NA
1,1-Dichloroethane	75-34-3	2,000	0.50	NA
Cis-1,2-dichloroethene	156-59-2	1,100	0.50	NA
Trans-1,2-dichloroethene	10061-01-5	34,000	0.50	NA
Carbon Tetrachloride	56-23-5	280	0.50	NA
1,1,1-Trichloroethane	71-55-6	390	0.50	NA
1,1,2-Trichloroethane	79-00-5	12	0.50	NA
Trichloroethene	79-01-6	25	0.50	NA
Tetrachloroethene	127-18-4	150	0.50	NA
Chloroethane	75-00-3	1,000	0.50	NA
Benzene	71-43-2	310	0.50	NA
Ethylbenzene	100-41-4	14	0.50	NA
Toluene	108-88-3	230	0.50	NA
o-Xylene	95-47-6	360 (total)[4]	0.50	NA
m,p-Xylene	179601-23-1	360 (total)[4]	0.50	NA

Matrix	Treated Effluent			
Analytical Group	VOC/1,4-dioxane[5]/Inorganics [3]			
Concentration Level	Trace			
Analyte[4]	CAS Number	Project Action Limit[2] µg/L	CLP Method[1]/ASB Method[5] CRQLs (low/medium)/RL[5] µg/L	CLP Method[1]/ASB Method[5] MDLs µg/L
1,4-Dioxane[5]	123-91-1	36,000	0.205	0.155
Iron	7439-89-6	1,000	100	NA

Notes: If samples are sent to the Analytical Services Branch laboratory see Worksheet #15b in Appendix B

[1]CLP Method Analytical CRQLs are those documented in CLP SOWs SOM02.4 and ISM02.4. EPA headquarters and SMO maintain laboratory MDLs which are not available to include above.

[2]The Project Action Limit is set at the Discharge Limits provided in the ROD, Illinois EPA-Derived Water Quality Criteria, April 04, 2013 or the standards provided in 35 IAC 302.208. The PAL for system efficiency/mass removal rate is 99% calculated by influent minus effluent divided by influent and discussed on WS # 11, Step 7.

[3]All influent and effluent samples will be analyzed for the full CLP TCL volatile organic list and full TAL inorganic list of parameters as per the SOWs. This table lists only those organic and inorganic parameters with a PAL.

[4]The effluent discharge limit for total xylenes is 360 µg/L.

[5]1,4-dioxane will be analyzed by Region 5 ASB laboratory using SOP MS035, Version 1.

CAS – Chemical Abstract Service
µg/L – microgram per liter
ASB – Analytical Services Branch
MDL – method detection limit
QAPP – Quality assurance project plan
RL – Reporting Limit
CLP – Contract Laboratory Program
CRQL – contract required quantitation limit