**Compounds other than ethylene oxide were not quantitated.**

# SOP ERG-MOR-005
## Air Toxics TO-15 Quality Control Review Checklist 2018-1

| | | | | | |
|---|---|---|---|---|---|
| **Sequence ID:** | UBLU 1812046 | **Instrument:** | MS1 | **Batch:** | BL2103 |
| **Cal Curve (Method):** | 8120004 | **Analyst:** | MH | **Date Analyzed:** | 12-21-18 |
| **10% Review Sample IDs:** | 8121220-01 | **Reviewer:** | DST | **Date:** | 1/2/19 |
| **Optional Additional Review Sample IDs:** | | **Reviewer:** | | **Date:** | |

| Parameter | Acceptance Criteria | Analyst Check (Initials and Date) | Task Lead/Data (Initials and Date) | 10% QA Review (Initials and Date) | Optional Additional QA Review (Initials and Date) | Comments |
|---|---|---|---|---|---|---|
| BFB Instrument Tune Performance Check – one per analysis sequence | Evaluation criteria presented in Section 16.1.1 | 12-26-18 | RMB 12/31/18 | DST 1/2/19 | | |
| Initial calibration with a minimum of 5 points - quarterly | 1)RSD of response factors < ±30% with two exceptions of up to ±40% (non-Tier I compounds)<br>2) IS response < ±40% of mean<br>3) RRTs for target peaks ±0.06 units from mean RRT<br>4) IS RTs within 20sec of mean<br>5) Each calibration standard within ±30% of nominal conc (for Tier I compounds) | 12-26-18 | RMB 12/31/18 | DST 1/2/19 | | |
| ICV(LCS) Second source calibration verification check - immediately following ICAL | The response factor ≤ ±30% DEV from calibration curve average response factor | 12-26-18 | RMB 12/31/18 | DST 1/2/19 | | |
| Continuing calibration verification (CCV), approximately mid-point of the calibration curve – one per analysis sequence | The response factor ≤ ±30% DEV from calibration curve average response factor | 12-26-18 | RMB 12/31/18 | DST 1/2/19 | | |
| Method Blank Analysis – one per analysis sequence | 1) < 3xMDL or 0.2ppbv, whichever is lower<br>2) Internal Standard (IS) area response within < ±40% and IS Retention Time (RT) within ±0.33 min. of most recent initial calibration | 12-26-18 | RMB 12/31/18 | DST 1/2/19 | | |

1/2/19 Checked 8121220-01 spectra for t-2-butene. None found. DST 1/2/19

**Compounds other than ethylene oxide were not quantitated.**

## SOP ERG-MOR-005
## Air Toxics TO-15 Quality Control Review Checklist 2018-1 (Continued)

| Parameter | Acceptance Criteria | Analyst Check (Initials and Date) | Task Lead/Data (Initials and Date) | 10% QA Review (Initials and Date) | Optional Additional QA Review (Initials and Date) | Comments |
|---|---|---|---|---|---|---|
| Replicate Analysis – one per analysis sequence /Duplicate Sample | < 25% RPD for compounds greater than 5 times the MDL | 12-26-18 | RMB 12/31/18 | DST 1/2/19 | | |
| Canister Cleaning Certification | <3xMDL or 0.2ppbv per VOC targeted compound, whichever is lower | 12-26-18 | RMB 12/31/18 | NA | - | - |
| Preconcentrator Leak Check | ≤ ± 0.2 psi/min | 12-26-18 | RMB 12/31/18 | DST 1/2/19 | | |
| Samples/Internal Standard Check | IS area within ±40% and IS RT within ±0.33 min. of most recent initial calibration | 12-26-18 | RMB 12/31/18 | DST 1/2/19 | | |
| COC Included and filled out | Lab receipt acknowledged, LIMS number added to COC | 12-26-18 | RMB 12/31/18 | DST 1/2/19 | | |
| Manual Integration and peak deletion | Conforms with ERG-SOP-097 "Procedure for Manual Integration of Chromatographic Peaks" | 12-26-18 | RMB 12/31/18 | DST 1/2/19 | | |
| Manual Calculation Check | One compound manual check must agree with software generated result | | RMB 12/31/18 | DST 1/2/19 | | CCV CCRF 7251 (4.77 ppbv) / 57838 (2.50 ppbv) = 0.239 ✓ |
| Qualifiers Check | Check to make sure LIMS data flags are correct | 12-26-18 | RMB 12/31/18 | DST 1/2/19 | | |

This review check sheet must be completed by primary data reviewer/TL/QA.

L18LV002 ethylene oxide

$$\frac{7251 \times 4.77}{57838 \times 0.2851} = 2.10 \text{ ppbv}$$

**Compounds other than ethylene oxide were not quantitated.**

# ANALYSIS SEQUENCE

**1812046**

Instrument: ERGMS#1

Calibnration ID: 8120004

**Printed: 12/21/2018 11:15:02AM**

| Lab Number | Analysis | Container | Order | Position | STD ID | ISTD ID | Client | Comments |
|---|---|---|---|---|---|---|---|---|
| 1812046-CCV1 | QC | | 1 | | 8L14004 | 8L13002 | | |
| B8L2103-BLK1 | QC | | 2 | | | 8L13002 | | |
| 8120528-01 | TO-15 2018 | A | 3 | | | 8L13002 | U.S. Environmental Protection Agency, Regic | Ethylene Oxide only |
| 8120528-02 | TO-15 2018 | A | 4 | | | 8L13002 | U.S. Environmental Protection Agency, Regic | Ethylene Oxide only |
| B8L2103-DUP1 | QC | | 5 | | | 8L13002 | | |
| B8L2103-DUP2 | QC | | 6 | | | 8L13002 | | |
| 8120528-05 | TO-15 2018 | A | 7 | | | 8L13002 | U.S. Environmental Protection Agency, Regic | Ethylene Oxide only |
| 8120701-01 | TO-15 2018 | A | 8 | | | 8L13002 | U.S. Environmental Protection Agency - OAC | Ethylene Oxide only |
| 8120701-02 | TO-15 2018 | A | 9 | | | 8L13002 | U.S. Environmental Protection Agency - OAC | Ethylene Oxide only |
| 8120701-03 | TO-15 2018 | A | 10 | | | 8L13002 | U.S. Environmental Protection Agency - OAC | Ethylene Oxide only |
| 8120701-04 | TO-15 2018 | A | 11 | | | 8L13002 | U.S. Environmental Protection Agency - OAC | Ethylene Oxide only |
| 8120701-05 | TO-15 2018 | A | 12 | | | 8L13002 | U.S. Environmental Protection Agency - OAC | Ethylene Oxide only |
| 8120701-06 | TO-15 2018 | A | 13 | | | 8L13002 | U.S. Environmental Protection Agency - OAC | Ethylene Oxide only |
| 8120701-07 | TO-15 2018 | A | 14 | | | 8L13002 | U.S. Environmental Protection Agency - OAC | Ethylene Oxide only |
| 8120701-08 | TO-15 2018 | A | 15 | | | 8L13002 | U.S. Environmental Protection Agency - OAC | Ethylene Oxide only |
| 8120701-09 | TO-15 2018 | A | 16 | | | 8L13002 | U.S. Environmental Protection Agency - OAC | Ethylene Oxide only |
| B8L2103-DUP3 | QC | | 17 | | | 8L13002 | | |
| B8L2103-DUP4 | QC | | 18 | | | 8L13002 | | |
| 8120701-10 | TO-15 2018 | A | 19 | | | 8L13002 | U.S. Environmental Protection Agency - OAC | Ethylene Oxide only |
| 8121220-01 | TO-15 2018 | A | 20 | | | 8L13002 | U.S. Environmental Protection Agency - OAC | Ethylene Oxide only |
| 8121220-02 | TO-15 2018 | A | 21 | | | 8L13002 | U.S. Environmental Protection Agency - OAC | Ethylene Oxide only |
| 8121220-03 | TO-15 2018 | A | 22 | | | 8L13002 | U.S. Environmental Protection Agency - OAC | Ethylene Oxide only |

Samples Loaded By 12-21-18 Date

Data Processed By 12-26-18 Date



Page 1 of 2

**Compounds other than ethylene oxide were not quantitated.**

# ANALYSIS SEQUENCE

ANALYSIS SEQUENCE

**1812046**

Instrument: ERGMS#1

Calibnration ID: 8120004

**Printed: 12/21/2018 11:15:02AM**

| Lab Number | Analysis | Container | Order | Position | STD ID | ISTD ID | Client | Comments |
|---|---|---|---|---|---|---|---|---|

Samples Loaded By Date

Data Processed By Date

**Compounds other than ethylene oxide were not quantitated.**

Sequence Name: C:\msdchem\1\sequence\L18LU.s
Comment: ANALYZE 12/21/18,8120004 exp 3/19/19, L18LU
Operator: MAH
Data Path: C:\MSDCHEM\1\DATA\L18LU\
Instrument Control Pre-Seq Cmd:
Data Analysis Pre-Seq Cmd:

Instrument Control Post-Seq Cmd:
Data Analysis Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

---

| Line | | | Sample Name/Misc Info | | |
|---|---|---|---|---|---|
| 1) | Sample | 1 | L18LU001 | BFB | BFB |
| 2) | Sample | 2 | L18LU002 | 8120004 | 1812046-CCV1 |
| 3) | Sample | 3 | L18LU003 | 8120004 | B8L2103-BLK1 |
| 4) | Sample | 4 | L18LU004 | 8120004 | 8120528-01 |
| 5) | Sample | 5 | L18LU005 | 8120004 | 8120528-02 |
| 6) | Sample | 6 | L18LU006 | 8120004 | B8L2103-DUP1 |
| 7) | Sample | 7 | L18LU007 | 8120004 | B8L2103-DUP2 |
| 8) | Sample | 8 | L18LU008 | 8120004 | 8120528-05 |
| 9) | Sample | 9 | L18LU009 | 8120004 | 8120701-01 |
| 10) | Sample | 10 | L18LU010 | 8120004 | 8120701-02 |
| 11) | Sample | 11 | L18LU011 | 8120004 | 8120701-03 |
| 12) | Sample | 12 | L18LU012 | 8120004 | 8120701-04 |
| 13) | Sample | 13 | L18LU013 | 8120004 | 8120701-05 |
| 14) | Sample | 14 | L18LU014 | 8120004 | 8120701-06 |
| 15) | Sample | 15 | L18LU015 | 8120004 | 8120701-07 |
| 16) | Sample | 16 | L18LU016 | 8120004 | 8120701-08 |
| 17) | Sample | 17 | L18LU017 | 8120004 | 8120701-09 |
| 18) | Sample | 18 | L18LU018 | 8120004 | B8L2103-DUP3 |
| 19) | Sample | 19 | L18LU019 | 8120004 | B8L2103-DUP4 |
| 20) | Sample | 20 | L18LU020 | 8120004 | 8120701-10 |
| 21) | Sample | 21 | L18LU021 | 8120004 | 8121220-01 |
| 22) | Sample | 22 | L18LU022 | 8120004 | 8121220-02 |
| 23) | Sample | 23 | L18LU023 | 8120004 | 8121220-03 |
| 24) | Sample | 100 | OFF | FIDOFF | OFF |

1/2-26-19

**Compounds other than ethylene oxide were not quantitated.**

| | | | | | | |
|---|---|---|---|---|---|---|
| Sample | 1 | BFB | BFB | L18LU001 | 80 ML 8L13001 | 1 |
| Sample | 2 | 1812046-CCV1 | 8120004 | L18LU002 | 80 ML 8L13001,8L14004 | 1 |
| Sample | 3 | B8L2103-BLK1 | 8120004 | L18LU003 | 80 ML 8L13001 | 1 |
| Sample | 4 | 8120528-01 | 8120004 | L18LU004 | VIANT SITE #1 C1 11/29/18 | 1 |
| Sample | 5 | 8120528-02 | 8120004 | L18LU005 | VIANT SITE #1 C2 11/29/18 | 1 |
| Sample | 6 | B8L2103-DUP1 | 8120004 | L18LU006 | VIANT SITE #1 R1 11/29/18 | 1 |
| Sample | 7 | B8L2103-DUP2 | 8120004 | L18LU007 | VIANT SITE #1 R2 11/29/18 | 1 |
| Sample | 8 | 8120528-05 | 8120004 | L18LU008 | VIANT 11/29/18 | 1 |
| Sample | 9 | 8120701-01 | 8120004 | L18LU009 | GOWER MS 12/1/18 | 1 |
| Sample | 10 | 8120701-02 | 8120004 | L18LU010 | WB WAREHOUSE 12/1/18 | 1 |
| Sample | 11 | 8120701-03 | 8120004 | L18LU011 | HINSDALE S. HS 12/1/18 | 1 |
| Sample | 12 | 8120701-04 | 8120004 | L18LU012 | WILLOW POND PARK 12/1/18 | 1 |
| Sample | 13 | 8120701-05 | 8120004 | L18LU013 | WEST NEIGHBORHOOD 12/1/18 | 1 |
| Sample | 14 | 8120701-06 | 8120004 | L18LU014 | WATER TOWER 12/1/18 | 1 |
| Sample | 15 | 8120701-07 | 8120004 | L18LU015 | GOWER 12/1/18 | 1 |
| Sample | 16 | 8120701-08 | 8120004 | L18LU016 | WB VILLAGE HALL C1 12/1/18 | 1 |
| Sample | 17 | 8120701-09 | 8120004 | L18LU017 | WB VILLAGE HALL C2 12/1/18 | 1 |
| Sample | 18 | B8L2103-DUP3 | 8120004 | L18LU018 | WB VILLAGE HALL R1 12/1/18 | 1 |
| Sample | 19 | B8L2103-DUP4 | 8120004 | L18LU019 | WB VILLAGE HALL R2 12/1/18 | 1 |
| Sample | 20 | 8120701-10 | 8120004 | L18LU020 | WEAT NEIGHBOROHOOD 11/25/18 | 1 |
| Sample | 21 | 8121220-01 | 8120004 | L18LU021 | GOWER 12/10/18 | 1 |
| Sample | 22 | 8121220-02 | 8120004 | L18LU022 | WILLOWBROOK VILLAGE HALL 10/10/18 | 1 |
| Sample | 23 | 8121220-03 | 8120004 | L18LU023 | WEST NEIGHBORHOOD 12/10/18 | 1 |
| Sample | 100 | OFF | FIDOFF | OFF | OFF | 1 |

**Compounds other than ethylene oxide were not quantitated.**

----------SEQUENCE TABLE ----------

Sequence Name: C:\Smart\L18LU.SEQ
Date: 12-26-2018
Time: 09:45:48
Int. Std Volume: 80 cc

| Sample Name | Inlet # | Auto | Samp Pos | Cal Vol. | Std Vol. | Method | Time |
|---|---|---|---|---|---|---|---|
| BFB | 1 | 1 | 0 | 0 | | C:\Smart\BFB.MPT | 12:00 |
| 1812046-CCV1 | 2 | 1 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| B8L2103-BLK1 | 1 | 1 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| 8120528-01 | 1 | 1 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| 8120528-02 | 1 | 2 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| B8L2103-DUP1 | 1 | 1 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| B8L2103-DUP2 | 1 | 2 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| 8120528-05 | 1 | 3 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| 8120701-01 | 1 | 4 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| 8120701-02 | 1 | 5 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| 8120701-03 | 1 | 6 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| 8120701-04 | 1 | 7 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| 8120701-05 | 1 | 8 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| 8120701-06 | 1 | 9 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| 8120701-07 | 1 | 10 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| 8120701-08 | 1 | 11 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| 8120701-09 | 1 | 12 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| B8L2103-DUP3 | 1 | 11 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| B8L2103-DUP4 | 1 | 12 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| 8120701-10 | 1 | 13 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| 8121220-01 | 1 | 14 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| 8121220-02 | 1 | 15 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |
| 8121220-03 | 1 | 16 | 250 | | 0 | C:\Smart\TO-15A_MS1.MPT | 12:00 |

TL-2610

**Compounds other than ethylene oxide were not quantitated.**

---------- Leak Check Report ----------

12/22/2018 1:34:34 PM
Leak Check for C:\Smart\L18LU.SEQ
Report File: C:\Smart\L18LU.LCR
Leak Check Method: Evacuation
Pressurize/Evacuate time(sec) 20
Equilibration time(sec) 20
Maintanance time(sec) 60

| Sample Inlet | Auto1 | Auto2 | Auto3 | Start | End | Rate(psi/min) |
|---|---|---|---|---|---|---|
| 1 | 1 | --- | --- | 1.2 | 1.3 | 0.10 |
| 1 | 2 | --- | --- | 1.2 | 1.2 | 0.00 |
| 1 | 3 | --- | --- | 1.2 | 1.2 | 0.00 |
| 1 | 4 | --- | --- | 1.2 | 1.2 | 0.00 |
| 1 | 5 | --- | --- | 1.1 | 1.2 | 0.10 |
| 1 | 6 | --- | --- | 1.1 | 1.2 | 0.10 |
| 1 | 7 | --- | --- | 1.1 | 1.2 | 0.10 |
| 1 | 8 | --- | --- | 1.1 | 1.2 | 0.10 |
| 1 | 9 | --- | --- | 1.2 | 1.3 | 0.10 |
| 1 | 10 | --- | --- | 1.1 | 1.2 | 0.10 |
| 1 | 11 | --- | --- | 1.1 | 1.2 | 0.10 |
| 1 | 12 | --- | --- | 1.1 | 1.2 | 0.10 |
| 1 | 13 | --- | --- | 1.2 | 1.3 | 0.10 |
| 1 | 14 | --- | --- | 1.2 | 1.3 | 0.10 |
| 1 | 15 | --- | --- | 1.2 | 1.3 | 0.10 |
| 1 | 16 | --- | --- | 1.2 | 1.3 | 0.10 |

7L-26P

**Compounds other than ethylene oxide were not quantitated.**

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\L18LU\L18LU001.D
Tune Time : 21 Dec 2018 6:49 am

| | | | | |
|---|---|---|---|---|
| 880004 | IS Avg Area | 61164 | 145160 | 104175 |
| | +40% | 85629 | 203224 | 145845 |
| | -40% | 36698 | 87096 | 62505 |

| File | Sample | Surrogate Recovery % | Internal Standard Responses | |
|---|---|---|---|---|
| L18LU002.D | 1812046-CCV1 | 57838 | 136781 | 98704 |
| L18LU003.D | B8L2103-BLLK1 | 56325 | 137862 | 95608 |
| L18LU004.D | 8120528-01 | 52298 | 126105 | 87669 |
| L18LU005.D | 8120528-02 | 49348 | 119461 | 81477 |
| L18LU006.D | B8L2103-DUP1 | 51105 | 122511 | 81604 |
| L18LU007.D | B8L2103-DUP2 | 50576 | 121692 | 84881 |
| L18LU008.D | 8120528-05 | 54190 | 135019 | 91833 |
| L18LU009.D | 8120701-01 | 54299 | 130578 | 93081 |
| L18LU010.D | 8120701-02 | 52754 | 124895 | 85664 |
| L18LU011.D | 8120701-03 | 54828 | 132609 | 90922 |
| L18LU012.D | 8120701-04 | 55561 | 136691 | 94270 |
| L18LU013.D | 8120701-05 | 53686 | 126420 | 88262 |
| L18LU014.D | 8120701-06 | 55681 | 136365 | 95115 |
| L18LU015.D | 8120701-07 | 55379 | 135810 | 97633 |
| L18LU016.D | 8120701-08 | 52604 | 125132 | 86666 |
| L18LU017.D | 8120701-09 | 51939 | 127600 | 88908 |
| L18LU018.D | B8L2103-DUP3 | 53399 | 130083 | 88891 |
| L18LU019.D | B8L2103-DUP4 | 52565 | 127745 | 88109 |
| L18LU020.D | 8120701-10 | 54183 | 136263 | 96333 |
| L18LU021.D | 8121220-01 | 52823 | 127400 | 90123 |
| L18LU022.D | 8121220-02 | 57216 | 141806 | 99341 |
| L18LU023.D | 8121220-03 | 54801 | 132480 | 93996 |

(Fails) - fails 24hr time check * - fails criteria

7/1-6/19

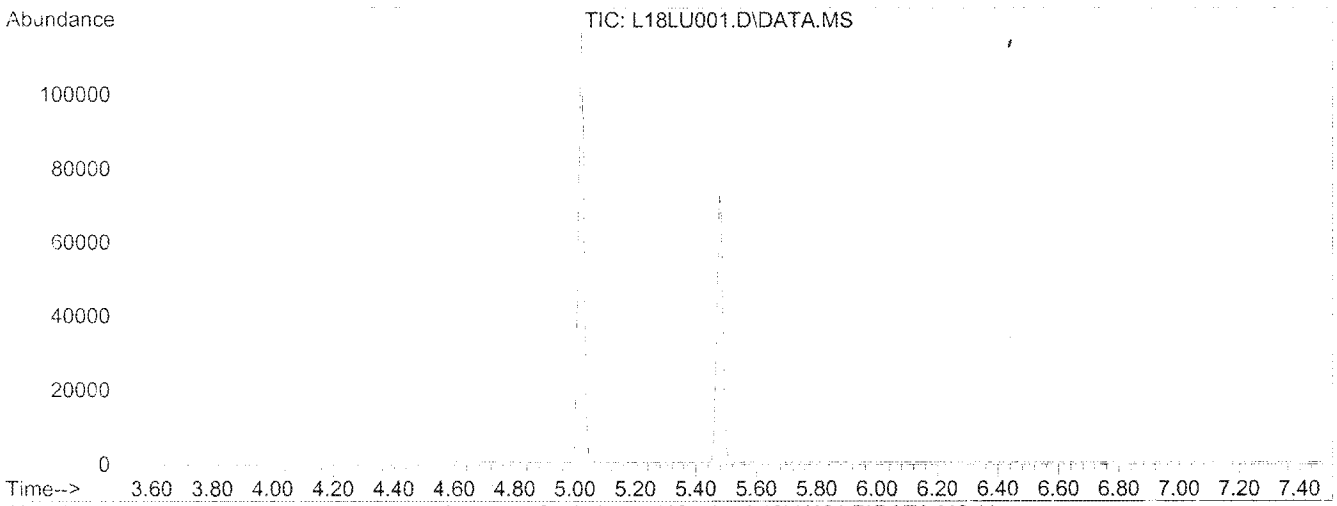
**Compounds other than ethylene oxide were not quantitated.**

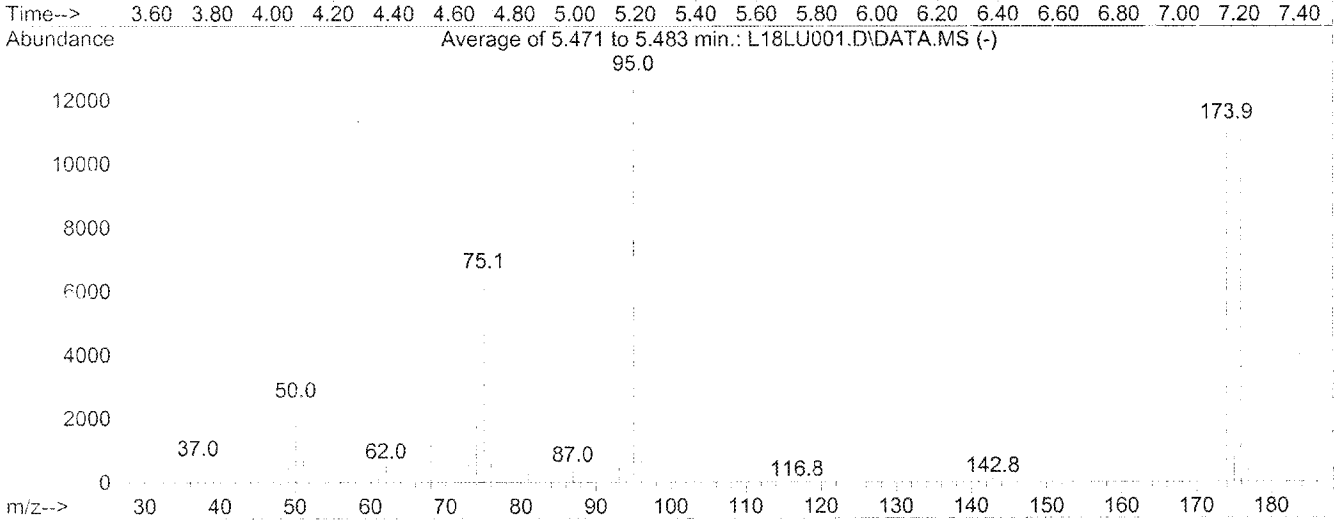
BFB

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU001.D
Acq On : 21 Dec 2018 6:49 am
Operator : MAH
Sample : BFB
Misc : 80 ML 8L13001
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

Method : C:\msdchem\1\METHODS\8120004.M
Title : TO-15 by Selective Ion Analysis
Last Update : Thu Dec 20 06:20:47 2018




AutoFind: Scans 145, 146, 147; Background Corrected with Scan 139

| Target Mass | Rel. to Mass | Lower Limit% | Upper Limit% | Rel. Abn% | Raw Abn | Result Pass/Fail |
|---|---|---|---|---|---|---|
| 50 | 95 | 8 | 40 | 19.5 | 2514 | PASS |
| 75 | 95 | 30 | 66 | 51.0 | 6588 | PASS |
| 95 | 95 | 100 | 100 | 100.0 | 12915 | PASS |
| 96 | 95 | 5 | 9 | 7.1 | 912 | PASS |
| 173 | 174 | 0.00 | 2 | 0.3 | 39 | PASS |
| 174 | 95 | 50 | 120 | 87.2 | 11262 | PASS |
| 175 | 174 | 4 | 9 | 7.0 | 789 | PASS |
| 176 | 174 | 93 | 101 | 95.5 | 10760 | PASS |
| 177 | 176 | 5 | 9 | 7.2 | 770 | PASS |

**Compounds other than ethylene oxide were not quantitated.**

# Analytical Standard Record
## Eastern Research Group
## 8L14004

| | | | |
|---|---|---|---|
| Description: | 2.50 ppbv ICV/CCV | Expires: | 01/13/19 |
| Standard Type: | Calibration Stan | Prepared: | 12/14/18 |
| Solvent: | Scientific Air | Prepared By: | Mitch Howell |
| Final Volume (mls): | 6000 | Department: | Air Toxics |
| Vials: | 1 | Last Edit: | 12/14/18 11:07 by MH |

canister# 3222

| Analyte | CAS Number | Concentration | Units |
|---|---|---|---|
| 1,1,1-Trichloroethane | 71-55-6 | 0.00247 | ppmv |
| 1,1,2,2-Tetrachloroethane | 79-34-5 | 0.00253 | ppmv |
| 1,1,2-Trichloroethane | 79-00-5 | 0.00248 | ppmv |
| 1,1-Dichloroethane | 75-34-3 | 0.00243 | ppmv |
| 1,1-Dichloroethene | 75-35-4 | 0.00244 | ppmv |
| 1,2,4-Trichlorobenzene | 120-82-1 | 0.00248 | ppmv |
| 1,2,4-Trimethylbenzene | 95-63-6 | 0.00238 | ppmv |
| 1,2-Dibromoethane | 106-93-4 | 0.0025 | ppmv |
| 1,2-Dichloroethane | 107-06-2 | 0.00249 | ppmv |
| 1,2-Dichloropropane | 78-87-5 | 0.00253 | ppmv |
| 1,3,5-Trimethylbenzene | 108-67-8 | 0.00252 | ppmv |
| 1,3-Butadiene | 106-99-0 | 0.00247 | ppmv |
| Acetonitrile | 75-05-8 | 0.00253 | ppmv |
| Acetylene | 74-86-2 | 0.0024 | ppmv |
| Acrolein | 107-02-8 | 0.00242 | ppmv |
| Acrylonitrile | 107-13-1 | 0.0025 | ppmv |
| Benzene | 71-43-2 | 0.00251 | ppmv |
| Bromochloromethane | 74-97-5 | 0.00247 | ppmv |
| Bromodichloromethane | 75-27-4 | 0.00256 | ppmv |
| Bromoform | 75-25-2 | 0.00254 | ppmv |
| Bromomethane | 74-83-9 | 0.0025 | ppmv |
| Carbon Disulfide | 75-15-0 | 0.00248 | ppmv |
| Carbon Tetrachloride | 56-23-5 | 0.00252 | ppmv |
| Chlorobenzene | 108-90-7 | 0.00246 | ppmv |
| Chloroethane | 75-00-3 | 0.0025 | ppmv |
| Chloroform | 67-66-3 | 0.0025 | ppmv |
| Chloromethane | 74-87-3 | 0.00248 | ppmv |
| Chloroprene | 126-99-8 | 0.00248 | ppmv |
| cis-1,2-Dichloroethylene | 156-59-2 | 0.0025 | ppmv |
| cis-1,3-Dichloropropene | 10061-01-5 | 0.00254 | ppmv |

Reviewed By 12-20-18 Date

**Compounds other than ethylene oxide were not quantitated.**

## Analytical Standard Record
## Eastern Research Group
## 8L14004

| | | | |
|---|---|---|---|
| Dibromochloromethane | 124-48-1 | 0.00254 | ppmv |
| Dichlorodifluoromethane | 75-71-8 | 0.00238 | ppmv |
| Dichloromethane | 75-09-2 | 0.00248 | ppmv |
| Dichlorotetrafluoroethane | 76-14-2 | 0.00244 | ppmv |
| Ethyl Acrylate | 140-88-5 | 0.00254 | ppmv |
| Ethyl tert-Butyl Ether | 637-92-3 | 0.00257 | ppmv |
| Ethylbenzene | 100-41-4 | 0.0025 | ppmv |
| Ethylene oxide | 75-21-8 | 0.0025 | ppmv |
| Hexachloro-1,3-butadiene | 87-68-3 | 0.0025 | ppmv |
| m,p-Xylene | 108-38-3, 106-42-3 | 0.00498 | ppmv |
| m-Dichlorobenzene | 541-73-1 | 0.0024 | ppmv |
| Methyl Isobutyl Ketone | 108-10-1 | 0.00253 | ppmv |
| Methyl Methacrylate | 80-62-6 | 0.00254 | ppmv |
| Methyl tert-Butyl Ether | 1634-04-4 | 0.00254 | ppmv |
| Naphthalene | 91-20-3 | 0.00246 | ppmv |
| n-Hexane | 110-54-3 | 0.0025 | ppmv |
| n-Octane | 111-65-9 | 0.00252 | ppmv |
| o-Dichlorobenzene | 95-50-1 | 0.0025 | ppmv |
| o-Xylene | 95-47-6 | 0.00244 | ppmv |
| p-Dichlorobenzene | 106-46-7 | 0.00261 | ppmv |
| Propylene | 115-07-1 | 0.00245 | ppmv |
| Styrene | 100-42-5 | 0.0025 | ppmv |
| tert-Amyl Methyl Ether | 994-05-8 | 0.0026 | ppmv |
| Tetrachloroethylene | 127-18-4 | 0.00249 | ppmv |
| Toluene | 108-88-3 | 0.00244 | ppmv |
| trans-1,2-Dichloroethylene | 156-60-5 | 0.00246 | ppmv |
| trans-1,3-Dichloropropene | 10061-02-6 | 0.00246 | ppmv |
| Trichloroethylene | 79-01-6 | 0.00252 | ppmv |
| Trichlorofluoromethane | 75-69-4 | 0.0025 | ppmv |
| Trichlorotrifluoroethane | 76-13-1 | 0.00244 | ppmv |
| Vinyl chloride | 75-01-4 | 0.0025 | ppmv |

**Parent Standards used in this standard:**

| Standard | Description | Prepared | Prepared By | Expires | Last Edit | (mls) |
|---|---|---|---|---|---|---|
| 8J25001 | TO-15 Secondary Stock Standard | 10/25/18 | ** Vendor ** | 10/04/19 | 11/20/18 11:30 by RMB | 30 |
| 8K20015 | Ethylene Oxide Secondary Stock St | 11/12/18 | ** Vendor ** | 11/12/19 | 11/20/18 12:14 by MH | 15 |

Reviewed By _____ Date 1/(-20-18

**Compounds other than ethylene oxide were not quantitated.**

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU002.D
Acq On : 21 Dec 2018 7:40 am
Operator : MAH
Sample : 1812046-CCV1
Misc : 80 ML 8L13001,8L14004
ALS Vial : 2 Sample Multiplier: 1

7L-26-18

Quant Time: Dec 26 09:49:27 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.30min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 1 | ISS | IS-Hexane-d14 | 1.000 | 1.000 | 0.0 | 100 | 0.00 |
| 2 | CT | Acetylene | 0.402 | 0.408 | -1.5 | 100 | 0.00 |
| 3 | CT | Propylene | 0.478 | 0.511 | -6.9 | 100 | 0.00 |
| 4 | CT | Dichlorodifluoromethane | 2.036 | 2.101 | -3.2 | 100 | 0.00 |
| 5 | CT | Chloromethane | 0.595 | 0.594 | 0.2 | 100 | 0.00 |
| 6 | CT | Dichlorotetrafluoroethane | 1.881 | 2.128 | -13.1 | 100 | 0.00 |
| 7 | CT | Vinyl Chloride | 0.638 | 0.645 | -1.1 | 100 | 0.00 |
| 8 | CT | 1,3-Butadiene | 0.422 | 0.432 | -2.4 | 100 | 0.00 |
| 9 | CT | Ethylene oxide | 0.285 | 0.239 | 16.1 | 100 | 0.00 |
| 10 | CT | Bromomethane | 0.628 | 0.633 | -0.8 | 100 | 0.00 |
| 11 | CT | Chloroethane | 0.277 | 0.282 | -1.8 | 100 | 0.00 |
| 12 | CT | Acetonitrile | 0.489 | 0.456 | 6.7 | 100 | 0.00 |
| 13 | CT | Acrolein | 0.274 | 0.215 | 21.5 | 100 | 0.00 |
| 14 | CT | Trichlorofluoromethane | 1.866 | 1.695 | 9.2 | 100 | 0.00 |
| 15 | CT | Acrylonitrile | 0.384 | 0.355 | 7.6 | 100 | 0.00 |
| 16 | CT | 1,1-Dichloroethene | 0.862 | 0.931 | -8.0 | 100 | 0.00 |
| 17 | CT | Methylene Chloride | 0.618 | 0.645 | -4.4 | 100 | 0.00 |
| 18 | CT | Carbon Disulfide | 1.810 | 1.801 | 0.5 | 100 | 0.00 |
| 19 | CT | Trichlorotrifluoroethane | 1.338 | 1.417 | -5.9 | 100 | 0.00 |
| 20 | CT | trans-1,2-Dichloroethylene | 0.485 | 0.484 | 0.2 | 100 | 0.00 |
| 21 | CT | 1,1-Dichloroethane | 0.881 | 0.897 | -1.8 | 100 | 0.00 |
| 22 | CT | Methyl tert-Butyl Ether | 1.284 | 1.300 | -1.2 | 100 | 0.00 |
| 23 | CT | Chloroprene | 0.631 | 0.645 | -2.2 | 100 | 0.00 |
| 24 | CT | cis-1,2-Dichloroethylene | 0.682 | 0.673 | 1.3 | 100 | 0.00 |
| 25 | CT | Bromochloromethane | 0.367 | 0.351 | 4.4 | 100 | 0.00 |
| 26 | CT | Chloroform | 1.010 | 1.052 | -4.2 | 100 | 0.00 |
| 27 | CT | Ethyl tert-Butyl Ether | 1.351 | 1.392 | -3.0 | 100 | 0.00 |
| 28 | CT | 1,2-Dichloroethane | 0.612 | 0.639 | -4.4 | 100 | 0.00 |
| 29 | ISS | IS-1,4-Difluorobenzene | 1.000 | 1.000 | 0.0 | 100 | 0.00 |
| 30 | CT | 1,1,1-Trichloroethane | 0.426 | 0.428 | -0.5 | 100 | 0.00 |
| 31 | CT | Benzene | 0.583 | 0.628 | -7.7 | 100 | 0.00 |
| 32 | CT | Carbon Tetrachloride | 0.464 | 0.518 | -11.6 | 100 | 0.00 |
| 33 | CT | tert-Amyl Methyl Ether | 0.493 | 0.502 | -1.8 | 100 | 0.00 |
| 34 | CT | 1,2-Dichloropropane | 0.243 | 0.248 | -2.1 | 100 | 0.00 |
| 35 | CT | Ethyl Acrylate | 0.325 | 0.336 | -3.4 | 100 | 0.00 |
| 36 | CT | Bromodichloromethane | 0.449 | 0.406 | 9.6 | 100 | 0.00 |
| 37 | CT | Trichloroethylene | 0.275 | 0.298 | -8.4 | 100 | 0.00 |
| 38 | CT | Methyl Methacrylate | 0.903 | 0.906 | -0.3 | 100 | 0.00 |
| 39 | CT | cis-1,3-Dichloropropene | 0.216 | 0.239 | -10.6 | 100 | 0.00 |
| 40 | CT | Methyl Isobutyl Ketone | 0.482 | 0.470 | 2.5 | 100 | 0.00 |
| 41 | CT | trans-1,3-Dichloropropene | 0.160 | 0.168 | -5.0 | 100 | 0.00 |
| 42 | CT | 1,1,2-Trichloroethane | 0.209 | 0.216 | -3.3 | 100 | 0.00 |
| 43 | ISS | IS-Chlorobenzene-d5 | 1.000 | 1.000 | 0.0 | 100 | 0.00 |
| 44 | CT | Toluene | 0.844 | 0.902 | -6.9 | 100 | 0.00 |
| 45 | CT | Dibromochloromethane | 2.000 | 1.928 | 3.6 | 100 | 0.00 |
| 46 | CT | 1,2-Dibromoethane | 0.335 | 0.348 | -3.9 | 100 | 0.00 |
| 47 | CT | n-Octane | 0.542 | 0.568 | -4.8 | 100 | 0.00 |
| 48 | CT | Tetrachloroethylene | 0.421 | 0.445 | -5.7 | 100 | 0.00 |



ED_002475_00000256-00013

**Compounds other than ethylene oxide were not quantitated.**

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU002.D
Acq On : 21 Dec 2018 7:40 am
Operator : MAH
Sample : 1812046-CCV1
Misc : 80 ML 8L13001,8L14004
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 26 09:49:27 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

Min. RRF : 0.000 Min. Rel. Area : 60% Max. R.T. Dev 0.30min
Max. RRF Dev : 30% Max. Rel. Area : 140%

| | | Compound | AvgRF | CCRF | %Dev | Area% | Dev(min) |
|---|---|---|---|---|---|---|---|
| 49 | CT | Chlorobenzene | 0.543 | 0.558 | -2.8 | 100 | 0.00 |
| 50 | CT | Ethylbenzene | 0.873 | 0.919 | -5.3 | 100 | 0.00 |
| 51 | CT | m,p-Xylene | 0.750 | 0.777 | -3.6 | 100 | 0.00 |
| 52 | CT | Bromoform | 0.379 | 0.368 | 2.9 | 100 | 0.00 |
| 53 | CT | Styrene | 0.381 | 0.388 | -1.8 | 100 | 0.00 |
| 54 | CT | 1,1,2,2-Tetrachloroethane | 0.531 | 0.460 | 13.4 | 100 | 0.00 |
| 55 | CT | o-Xylene | 0.737 | 0.809 | -9.8 | 100 | 0.00 |
| 56 | CT | 1,3,5-Trimethylbenzene | 0.720 | 0.730 | -1.4 | 100 | 0.00 |
| 57 | CT | 1,2,4-Trimethylbenzene | 0.607 | 0.615 | -1.3 | 100 | 0.00 |
| 58 | CT | m-Dichlorobenzene | 0.320 | 0.282 | 11.9 | 100 | 0.00 |
| 59 | CT | p-Dichlorobenzene | 0.244 | 0.230 | 5.7 | 100 | 0.00 |
| 60 | CT | o-Dichlorobenzene | 0.299 | 0.290 | 3.0 | 100 | 0.00 |
| 61 | CT | 1,2,4-Trichlorobenzene | 0.117 | 0.128 | -9.4 | 100 | 0.00 |
| 62 | CT | Hexachloro-1,3-butadiene | 0.425 | 0.436 | -2.6 | 100 | 0.00 |

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

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU002.D
Acq On : 21 Dec 2018 7:40 am
Operator : MAH
Sample : 1812046-CCV1
Misc : 80 ML 8L13001,8L14004
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 26 09:49:27 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc | Units | Dev(Min) |
|---|---|---|---|---|---|---|
| 1) IS-Hexane-d14 | 19.992 | 66 | 57838 | 4.7700 | ppbv | 0.00 |
| 29) IS-1,4-Difluorobenzene | 23.171 | 114 | 136781 | 4.9900 | ppbv | 0.02 |
| 43) IS-Chlorobenzene-d5 | 30.135 | 117 | 98704 | 4.7400 | ppbv | 0.04 |

System Monitoring Compounds

| Target Compounds | | | | | | Qvalue |
|---|---|---|---|---|---|---|
| 2) Acetylene | 5.422 | 26 | 11868 | 2.4328 | ppbv | 100 |
| 3) Propylene | 7.838 | 41 | 15195 | 2.6216 | ppbv | 100 |
| 4) Dichlorodifluoromethane | 8.702 | 85 | 60629 | 2.4561 | ppbv | 99 |
| 5) Chloromethane | 9.757 | 50 | 17852 | 2.4762 | ppbv | 99 |
| 6) Dichlorotetrafluoroethane | 10.864 | 85 | 62948 | 2.7597 | ppbv | 99 |
| 7) Vinyl Chloride | 11.119 | 62 | 19558 | 2.5290 | ppbv | 100 |
| 8) 1,3-Butadiene | 11.783 | 54 | 12946 | 2.5299 | ppbv | 100 |
| 9) Ethylene oxide | 12.395 | 29 | 7251 | 2.0974 | ppbv | 97 |
| 10) Bromomethane | 12.590 | 94 | 19179 | 2.5176 | ppbv | 100 |
| 11) Chloroethane | 13.282 | 64 | 8562 | 2.5509 | ppbv | 100 |
| 12) Acetonitrile | 14.358 | 41 | 13984 | 2.3594 | ppbv | 96 |
| 13) Acrolein | 14.636 | 56 | 6316 | 1.8978 | ppbv | 99 |
| 14) Trichlorofluoromethane | 15.193 | 101 | 51381 | 2.2706 | ppbv | 100 |
| 15) Acrylonitrile | 15.935 | 53 | 10760 | 2.3136 | ppbv | 98 |
| 16) 1,1-Dichloroethene | 16.445 | 61 | 27553 | 2.6376 | ppbv | 100 |
| 17) Methylene Chloride | 16.747 | 49 | 19399 | 2.5890 | ppbv | 99 |
| 18) Carbon Disulfide | 16.932 | 76 | 54149 | 2.4669 | ppbv | 100 |
| 19) Trichlorotrifluoroethane | 17.303 | 101 | 41920 | 2.5848 | ppbv | 99 |
| 20) trans-1,2-Dichloroethy... | 18.337 | 96 | 14434 | 2.4560 | ppbv | 100 |
| 21) 1,1-Dichloroethane | 18.632 | 63 | 26431 | 2.4745 | ppbv | 100 |
| 22) Methyl tert-Butyl Ether | 18.791 | 73 | 40039 | 2.5720 | ppbv | 100 |
| 23) Chloroprene | 19.539 | 53 | 19383 | 2.5316 | ppbv | 99 |
| 24) cis-1,2-Dichloroethylene | 19.970 | 61 | 20402 | 2.4664 | ppbv | 100 |
| 25) Bromochloromethane | 20.197 | 128 | 10503 | 2.3607 | ppbv | 99 |
| 26) Chloroform | 20.423 | 83 | 31897 | 2.6043 | ppbv | 99 |
| 27) Ethyl tert-Butyl Ether | 21.184 | 59 | 43393 | 2.6485 | ppbv | 100 |
| 28) 1,2-Dichloroethane | 21.497 | 62 | 19301 | 2.6009 | ppbv | 100 |
| 30) 1,1,1-Trichloroethane | 21.889 | 97 | 29000 | 2.4846 | ppbv | 99 |
| 31) Benzene | 22.555 | 78 | 43187 | 2.7044 | ppbv | 100 |
| 32) Carbon Tetrachloride | 22.790 | 117 | 35801 | 2.8163 | ppbv | 100 |
| 33) tert-Amyl Methyl Ether | 23.522 | 73 | 35801 | 2.6489 | ppbv | 100 |
| 34) 1,2-Dichloropropane | 23.810 | 63 | 17180 | 2.5839 | ppbv | 100 |
| 35) Ethyl Acrylate | 23.893 | 55 | 23425 | 2.6269 | ppbv | 100 |
| 36) Bromodichloromethane | 24.099 | 83 | 28471 | 2.3155 | ppbv | 100 |
| 37) Trichloroethylene | 24.181 | 130 | 20601 | 2.7356 | ppbv | 100 |
| 38) Methyl Methacrylate | 24.552 | 41 | 63060 | 2.5483 | ppbv | 100 |
| 39) cis-1,3-Dichloropropene | 25.549 | 75 | 16667 | 2.8124 | ppbv | 99 |
| 40) Methyl Isobutyl Ketone | 25.626 | 43 | 32627 | 2.4702 | ppbv | 100 |
| 41) trans-1,3-Dichloropropene | 26.388 | 75 | 11312 | 2.5762 | ppbv | 100 |
| 42) 1,1,2-Trichloroethane | 26.636 | 97 | 14690 | 2.5625 | ppbv | 100 |
| 44) Toluene | 27.113 | 91 | 45844 | 2.6082 | ppbv | 100 |
| 45) Dibromochloromethane | 27.752 | 129 | 101978 | 2.4487 | ppbv | 100 |
| 46) 1,2-Dibromoethane | 28.173 | 107 | 18092 | 2.5917 | ppbv | 100 |
| 47) n-Octane | 28.892 | 43 | 29789 | 2.6380 | ppbv | 100 |
| 48) Tetrachloroethylene | 29.015 | 166 | 23085 | 2.6318 | ppbv | 100 |
| 49) Chlorobenzene | 30.211 | 112 | 28582 | 2.5292 | ppbv | 99 |
| 50) Ethylbenzene | 30.936 | 91 | 47826 | 2.6323 | ppbv | 100 |

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU002.D
Acq On : 21 Dec 2018 7:40 am
Operator : MAH
Sample : 1812046-CCV1
Misc : 80 ML 8L13001,8L14004
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 26 09:49:27 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

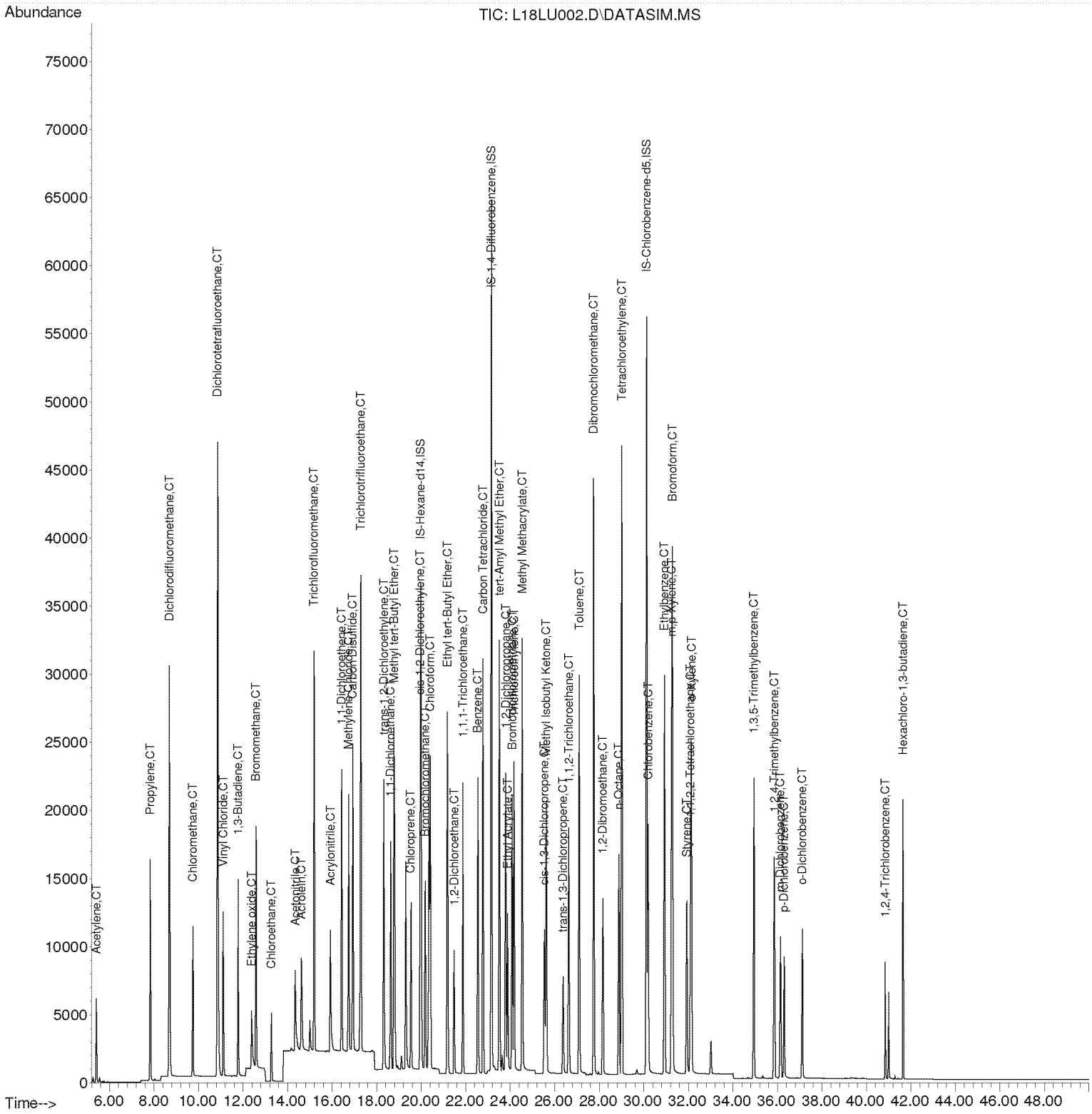
| Internal Standards | R.T. | QIon | Response | Conc | Units | | Dev(Min) |
|---|---|---|---|---|---|---|---|
| 51) m,p-Xylene | 31.261 | 91 | 80561 | 5.1602 | ppbv | | 100 |
| 52) Bromoform | 31.299 | 173 | 19463 | 2.4656 | ppbv | | 100 |
| 53) Styrene | 31.948 | 104 | 20205 | 2.5447 | ppbv | # | 100 |
| 54) 1,1,2,2-Tetrachloroethane | 32.101 | 83 | 24230 | 2.1934 | ppbv | | 99 |
| 55) o-Xylene | 32.158 | 91 | 41080 | 2.6785 | ppbv | | 100 |
| 56) 1,3,5-Trimethylbenzene | 34.955 | 105 | 38325 | 2.5575 | ppbv | | 99 |
| 57) 1,2,4-Trimethylbenzene | 35.864 | 105 | 30458 | 2.4085 | ppbv | | 100 |
| 58) m-Dichlorobenzene | 36.149 | 146 | 14075 | 2.1136 | ppbv | | 99 |
| 59) p-Dichlorobenzene | 36.309 | 146 | 12484 | 2.4584 | ppbv | | 100 |
| 60) o-Dichlorobenzene | 37.128 | 146 | 15093 | 2.4202 | ppbv | | 100 |
| 61) 1,2,4-Trichlorobenzene | 40.856 | 180 | 6589 | 2.7147 | ppbv | | 100 |
| 62) Hexachloro-1,3-butadiene | 41.651 | 225 | 22707 | 2.5650 | ppbv | | 99 |

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

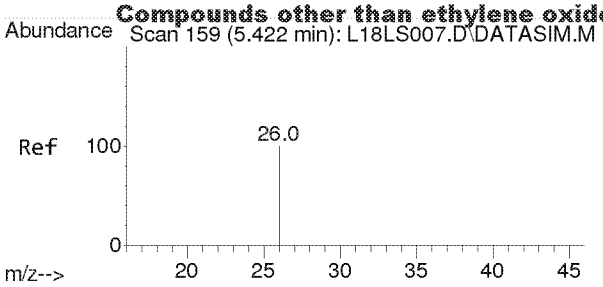
**Compounds other than ethylene oxide were not quantitated.**

Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU002.D
Acq On : 21 Dec 2018 7:40 am
Operator : MAH
Sample : 1812046-CCV1
Misc : 80 ML 8L13001,8L14004
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Dec 26 09:49:27 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

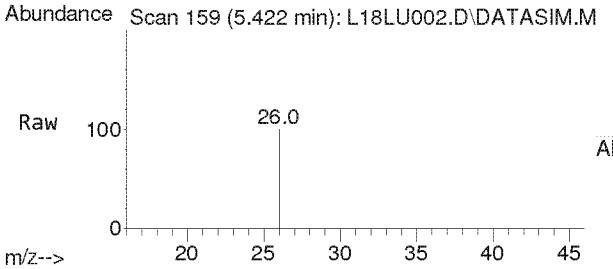


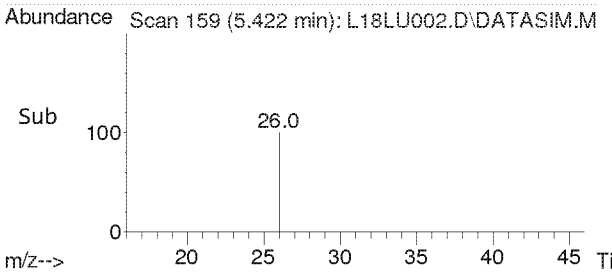
**Compounds other than ethylene oxide were not quantitated.**

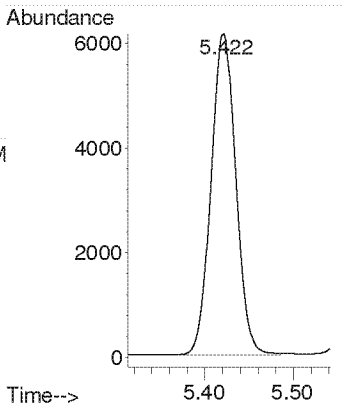


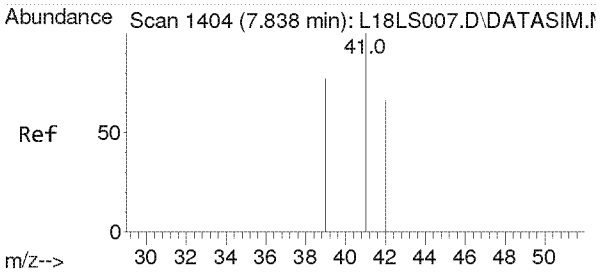

#2
Acetylene
Concen: 2.433 ppbv
RT: 5.422 min Scan# 159
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 26 Resp: 11868



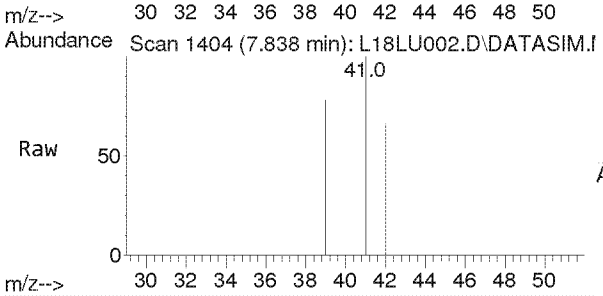



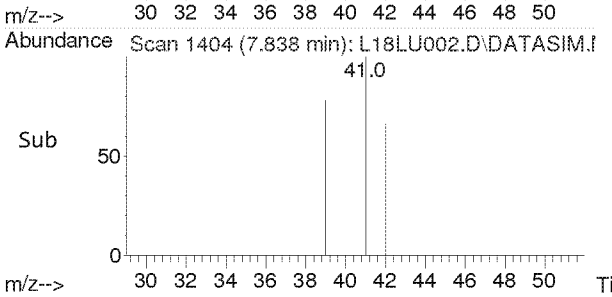



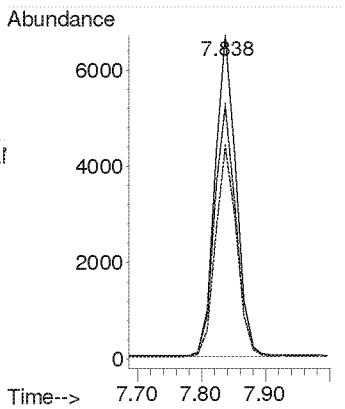

#3
Propylene
Concen: 2.622 ppbv
RT: 7.838 min Scan# 1404
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 41 Resp: 15195

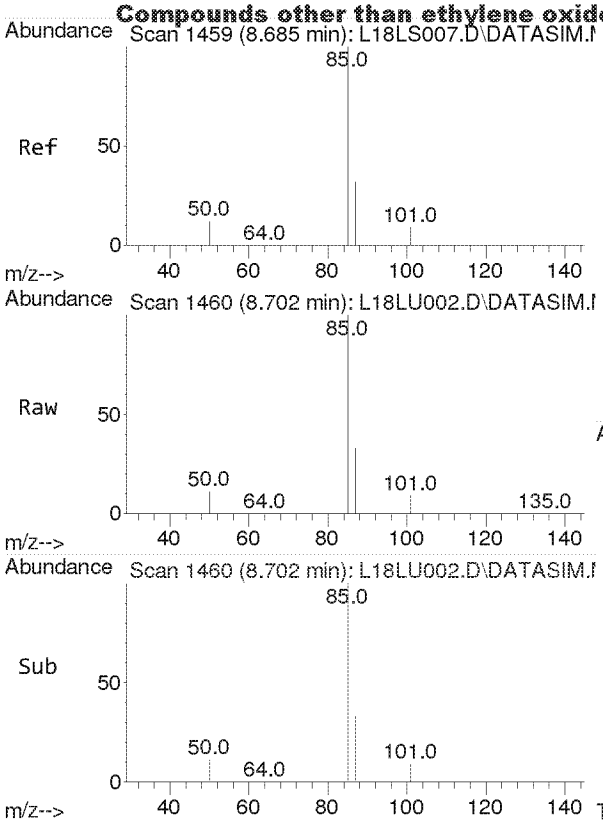
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 78.6 | 62.6 | 93.8 |
| 42 | 65.8 | 52.6 | 79.0 |



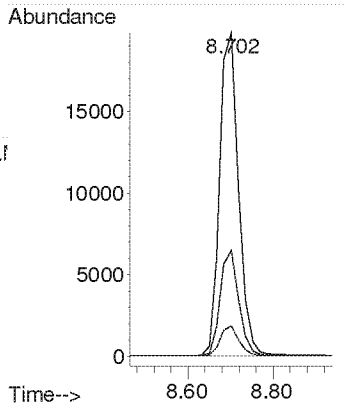
**Compounds other than ethylene oxide were not quantitated.**

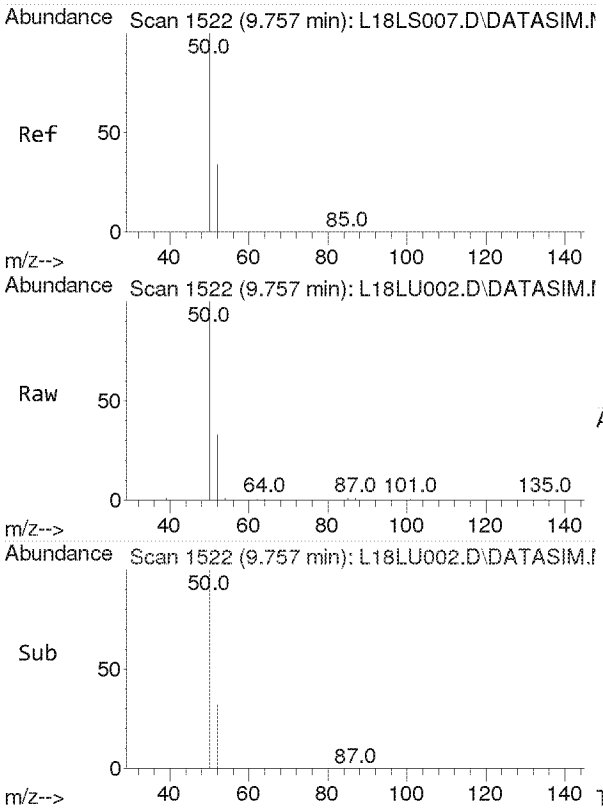



#4
Dichlorodifluoromethane
Concen: 2.456 ppbv
RT: 8.702 min Scan# 1460
Delta R.T. 0.017 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 85 Resp: 60629

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 87 | 32.1 | 26.0 | 39.0 |
| 101 | 8.9 | 7.1 | 10.7 |

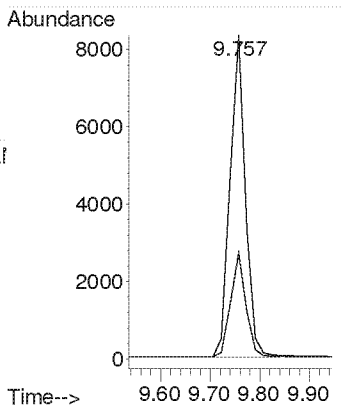


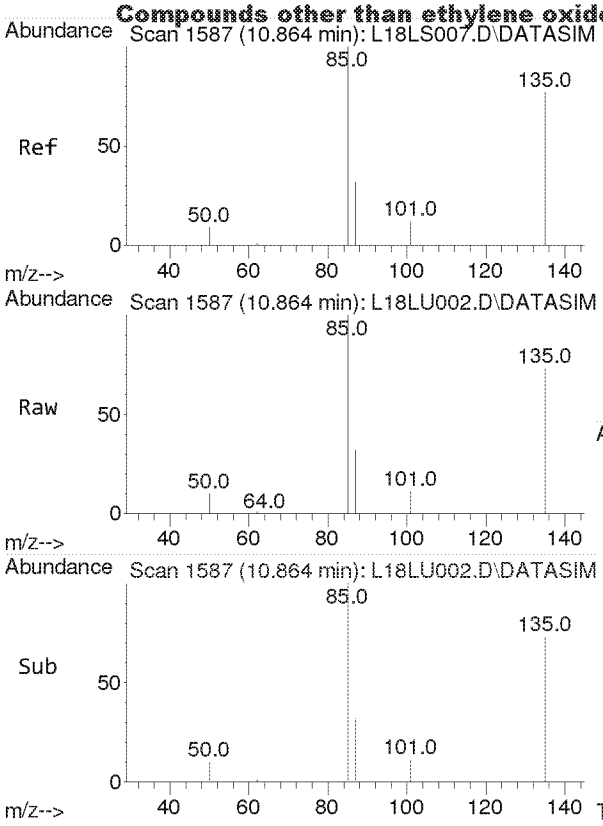

#5
Chloromethane
Concen: 2.476 ppbv
RT: 9.757 min Scan# 1522
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 50 Resp: 17852

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 32.1 | 26.1 | 39.1 |



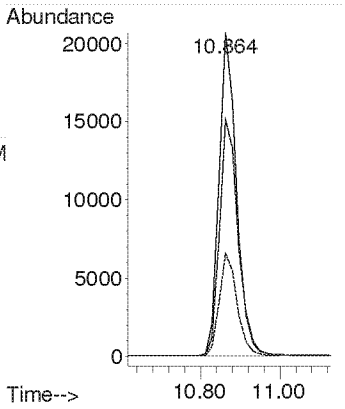
**Compounds other than ethylene oxide were not quantitated.**

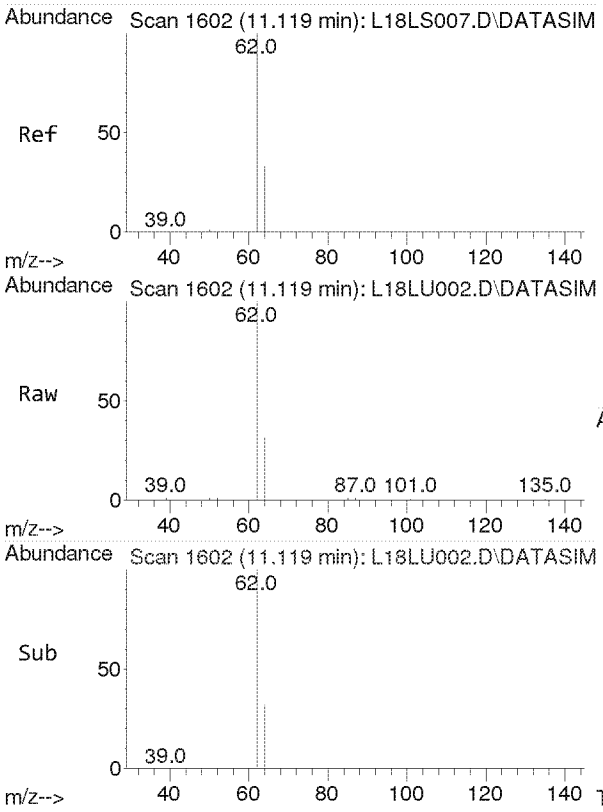



#6
Dichlorotetrafluoroethane
Concen: 2.760 ppbv
RT: 10.864 min Scan# 1587
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 85 Resp: 62948

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 85 | 100 | | |
| 135 | 78.0 | 63.3 | 94.9 |
| 87 | 32.3 | 25.7 | 38.5 |

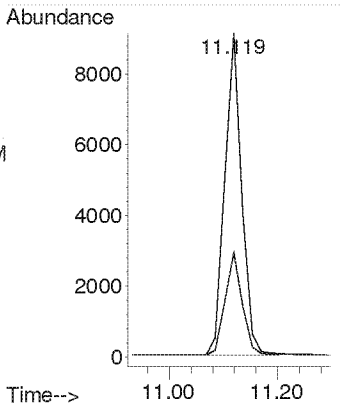


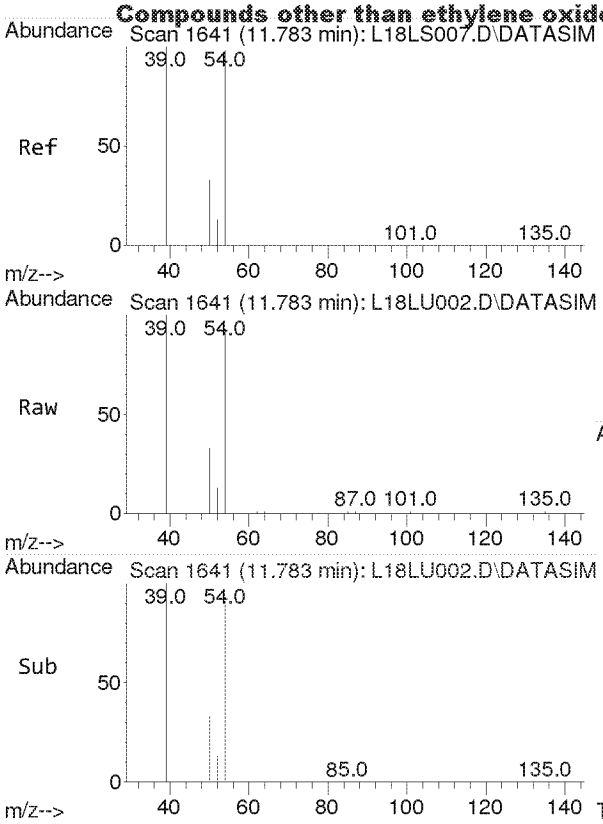

#7
Vinyl Chloride
Concen: 2.529 ppbv
RT: 11.119 min Scan# 1602
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 62 Resp: 19558

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 64 | 31.9 | 25.4 | 38.2 |



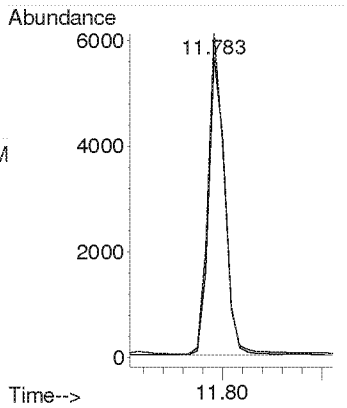
**Compounds other than ethylene oxide were not quantitated.**

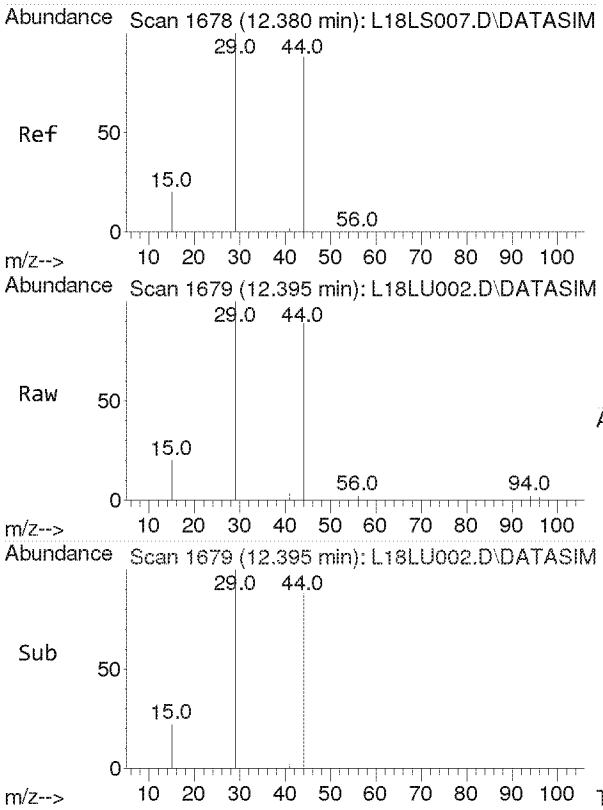



#8
1,3-Butadiene
Concen: 2.530 ppbv
RT: 11.783 min Scan# 1641
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 54 Resp: 12946

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 54 | 100 | | |
| 39 | 105.6 | 84.3 | 126.5 |

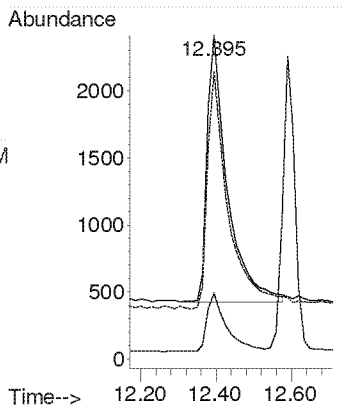


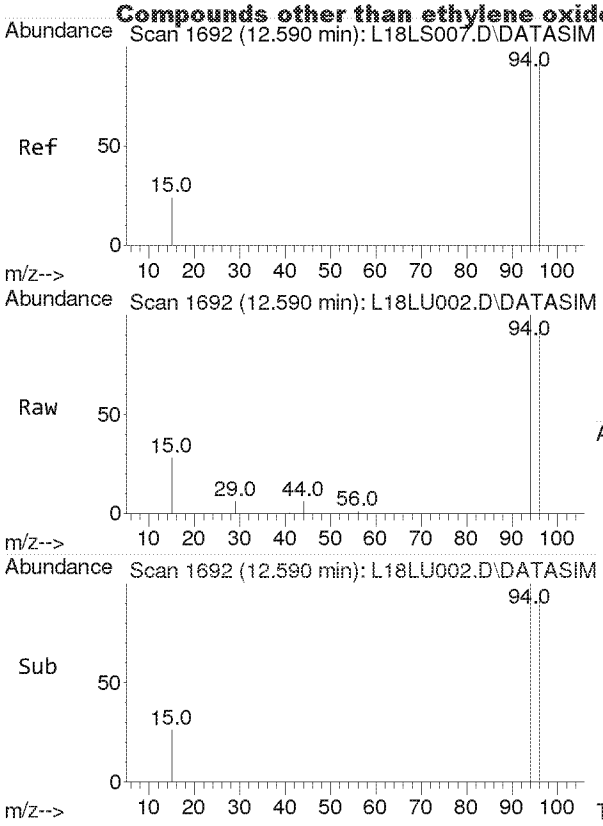

#9
Ethylene oxide
Concen: 2.097 ppbv
RT: 12.395 min Scan# 1679
Delta R.T. 0.015 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 29 Resp: 7251

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 29 | 100 | | |
| 15 | 20.8 | 16.2 | 24.4 |
| 44 | 93.7 | 72.0 | 108.0 |



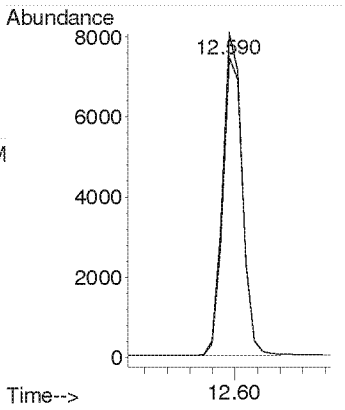
**Compounds other than ethylene oxide were not quantitated.**

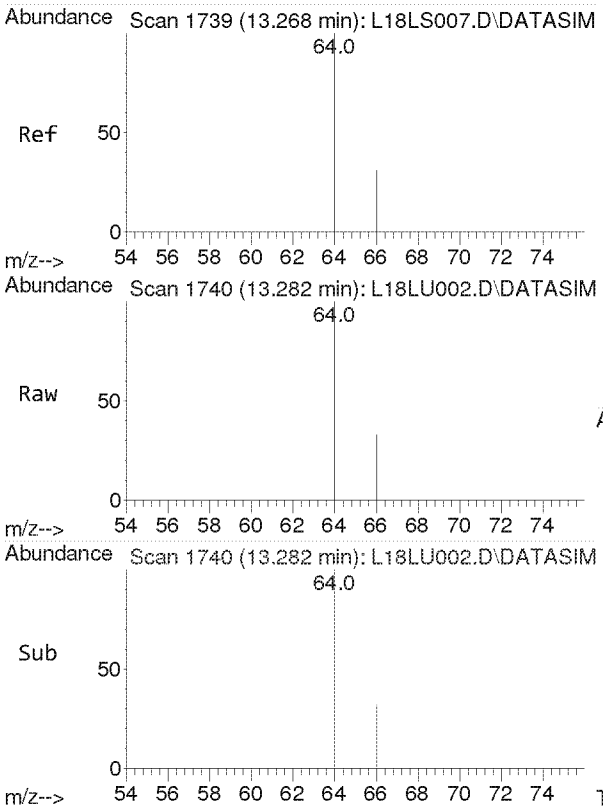



#10
Bromomethane
Concen: 2.518 ppbv
RT: 12.590 min Scan# 1692
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 94 Resp: 19179

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 94 | 100 | | |
| 96 | 94.4 | 75.1 | 112.7 |

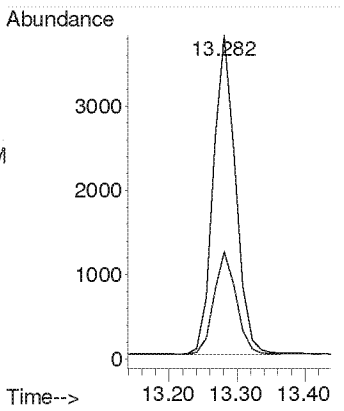


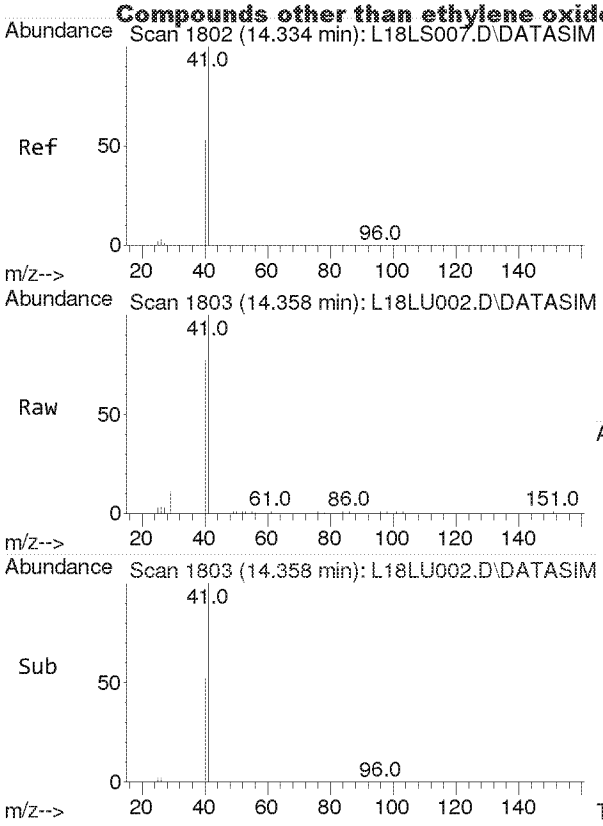

#11
Chloroethane
Concen: 2.551 ppbv
RT: 13.282 min Scan# 1740
Delta R.T. 0.014 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 64 Resp: 8562

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 64 | 100 | | |
| 66 | 32.1 | 25.6 | 38.4 |



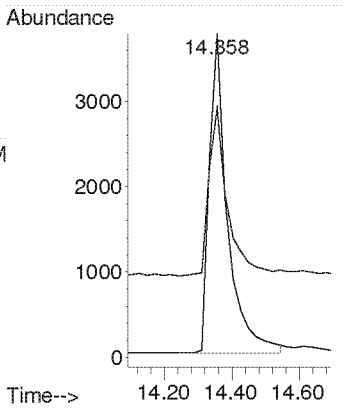
**Compounds other than ethylene oxide were not quantitated.**

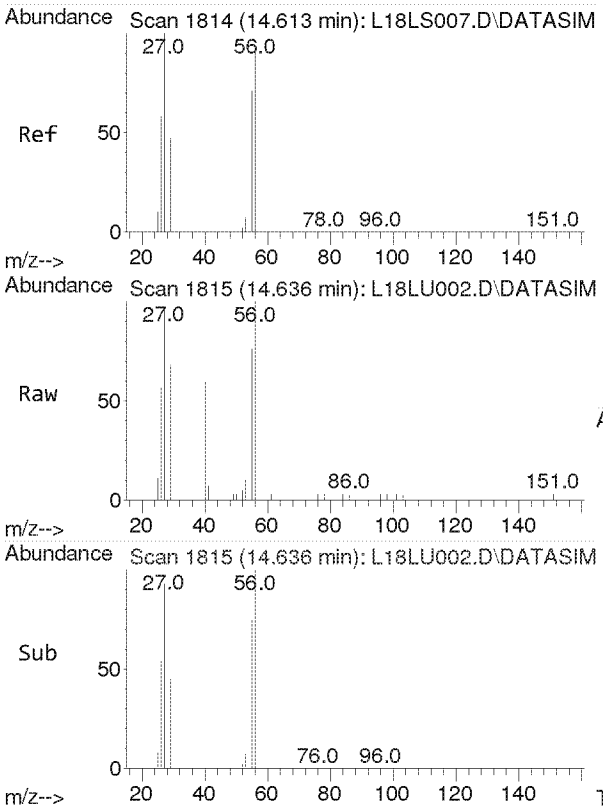



#12
Acetonitrile
Concen: 2.359 ppbv
RT: 14.358 min Scan# 1803
Delta R.T. 0.023 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 41 Resp: 13984

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 40 | 53.5 | 40.7 | 61.1 |

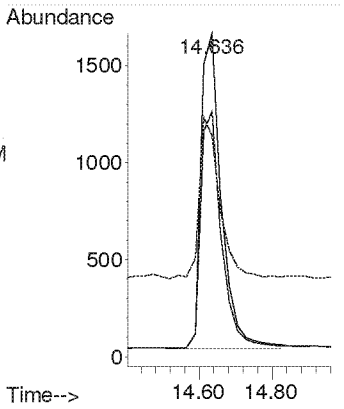


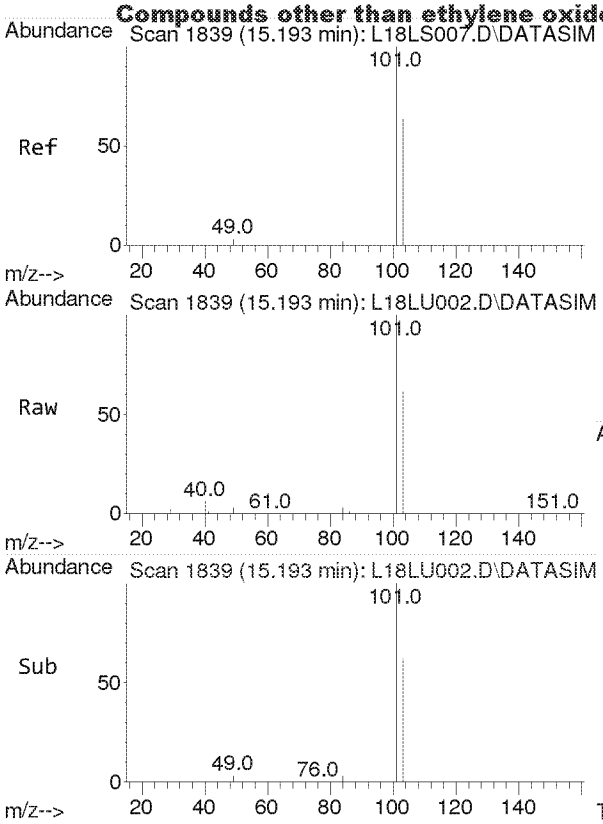

#13
Acrolein
Concen: 1.898 ppbv
RT: 14.636 min Scan# 1815
Delta R.T. 0.023 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 56 Resp: 6316

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 55 | 75.8 | 60.3 | 90.5 |
| 29 | 51.6 | 42.3 | 63.5 |



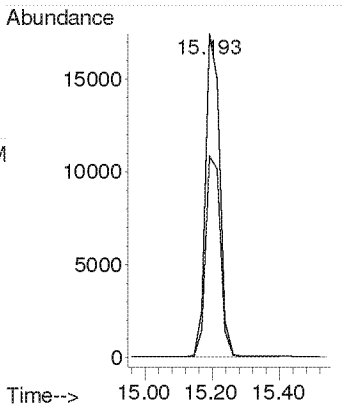
**Compounds other than ethylene oxide were not quantitated.**

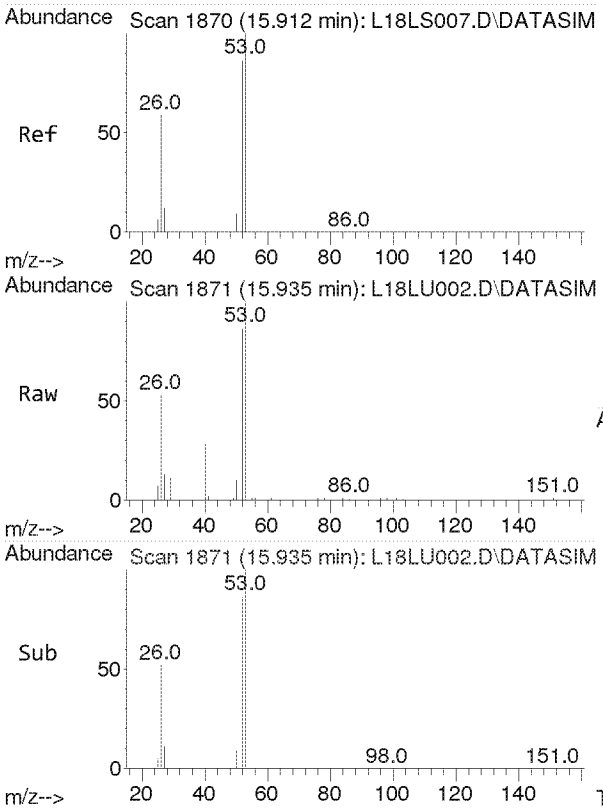



#14
Trichlorofluoromethane
Concen: 2.271 ppbv
RT: 15.193 min Scan# 1839
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:101 Resp: 51381

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 103 | 64.6 | 51.7 | 77.5 |

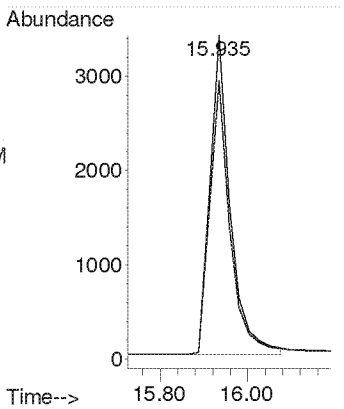


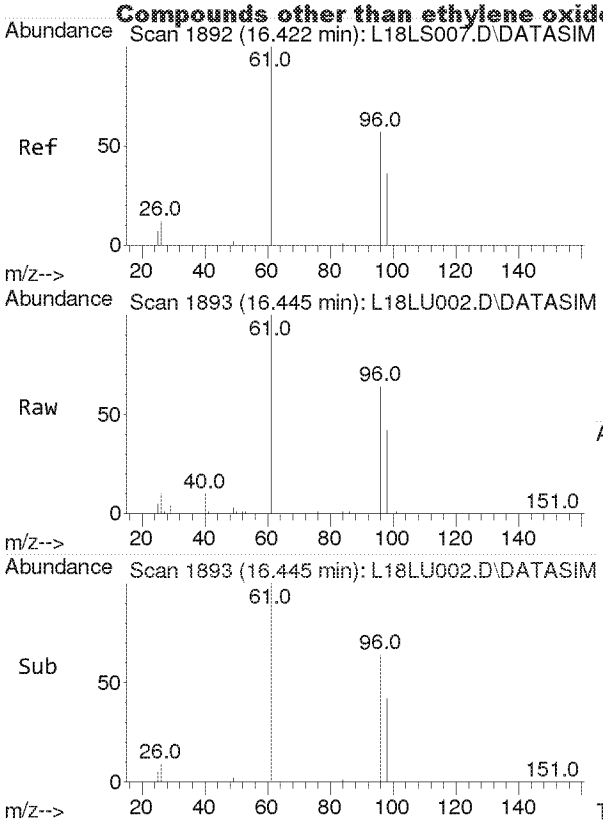

#15
Acrylonitrile
Concen: 2.314 ppbv
RT: 15.935 min Scan# 1871
Delta R.T. 0.023 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 53 Resp: 10760

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 53 | 100 | | |
| 52 | 87.0 | 68.3 | 102.5 |



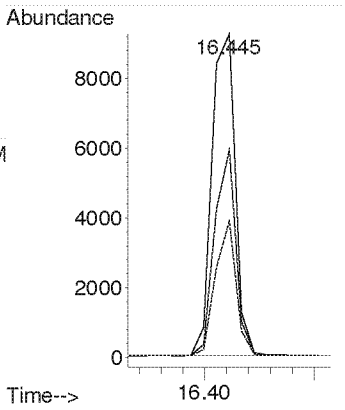
**Compounds other than ethylene oxide were not quantitated.**

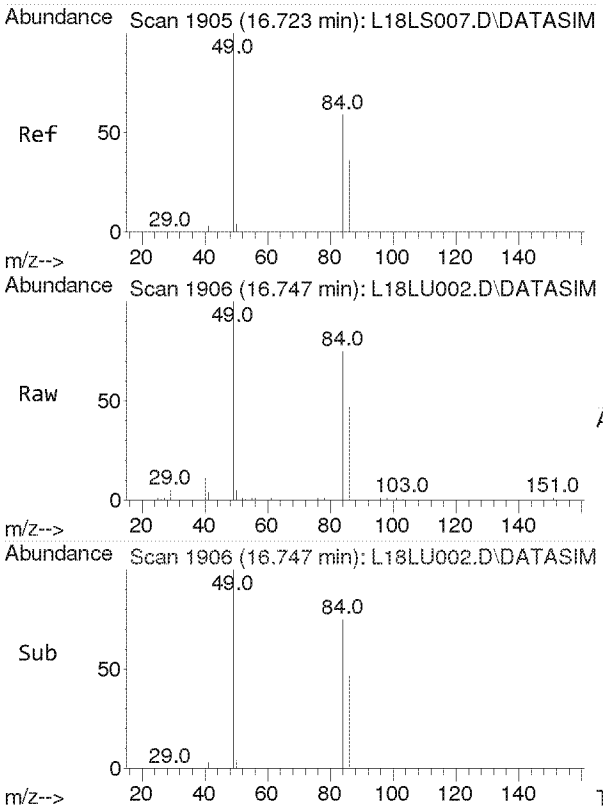



#16
1,1-Dichloroethene
Concen: 2.638 ppbv
RT: 16.445 min Scan# 1893
Delta R.T. 0.023 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 61 Resp: 27553

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 58.2 | 46.6 | 70.0 |
| 98 | 37.1 | 29.9 | 44.9 |

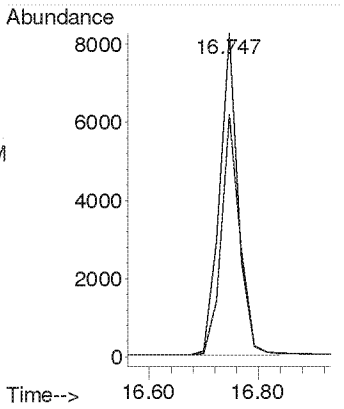


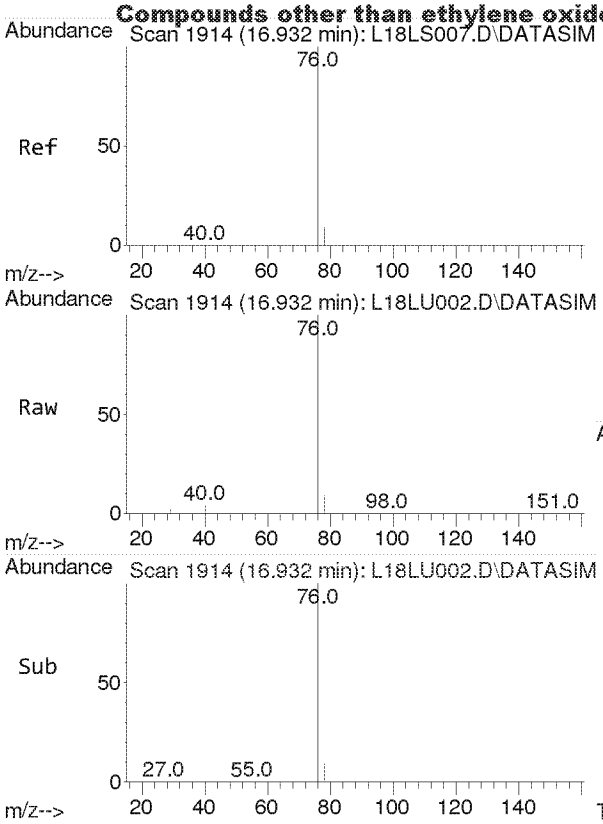

#17
Methylene Chloride
Concen: 2.589 ppbv
RT: 16.747 min Scan# 1906
Delta R.T. 0.023 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 49 Resp: 19399

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 49 | 100 | | |
| 84 | 75.7 | 53.5 | 99.3 |



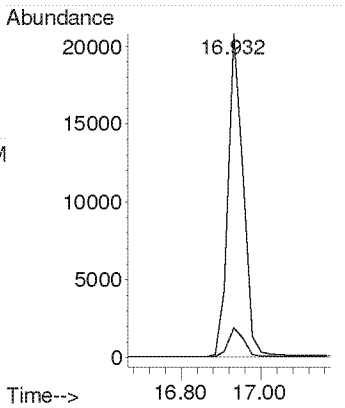
**Compounds other than ethylene oxide were not quantitated.**

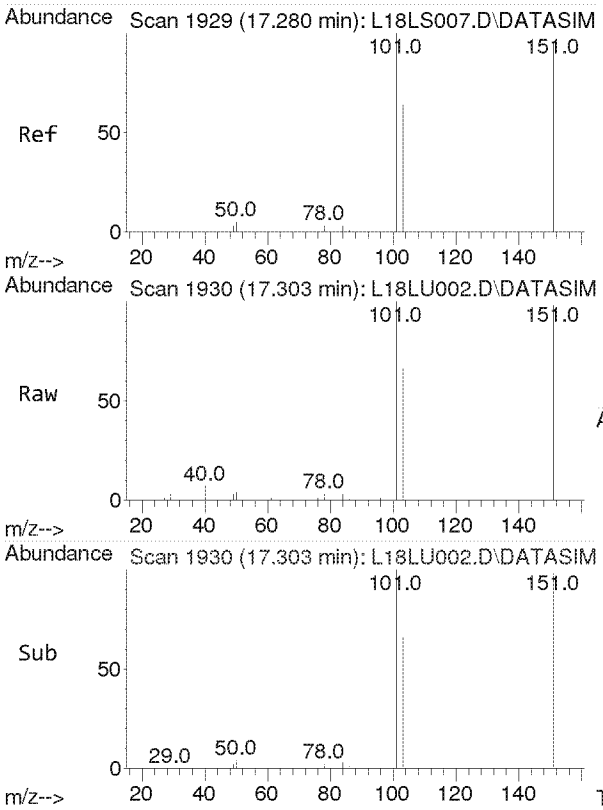



#18
Carbon Disulfide
Concen: 2.467 ppbv
RT: 16.932 min Scan# 1914
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 76 Resp: 54149

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 9.0 | 7.3 | 10.9 |

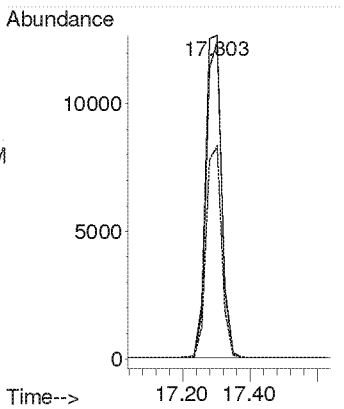


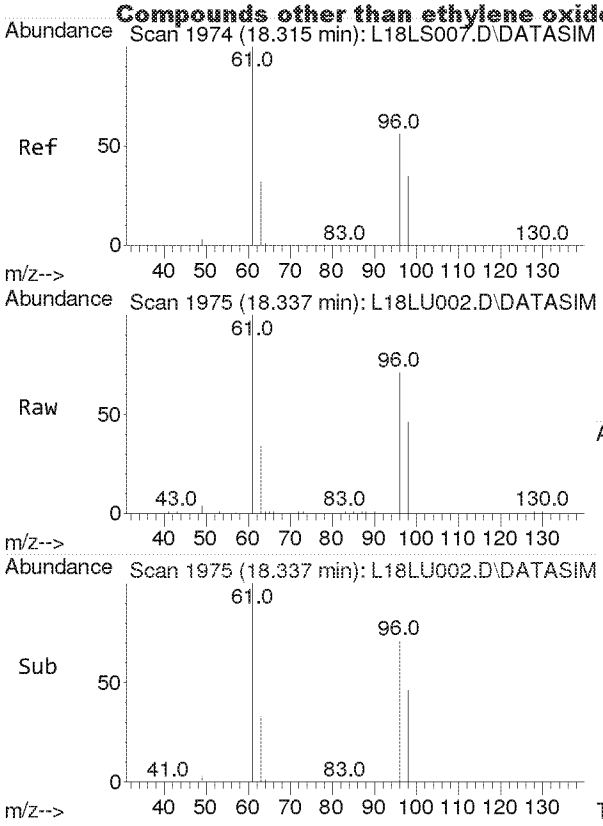

#19
Trichlorotrifluoroethane
Concen: 2.585 ppbv
RT: 17.303 min Scan# 1930
Delta R.T. 0.023 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:101 Resp: 41920

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 151 | 94.6 | 76.2 | 114.4 |
| 103 | 64.0 | 51.3 | 76.9 |



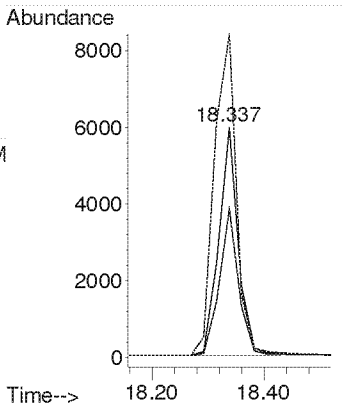
**Compounds other than ethylene oxide were not quantitated.**

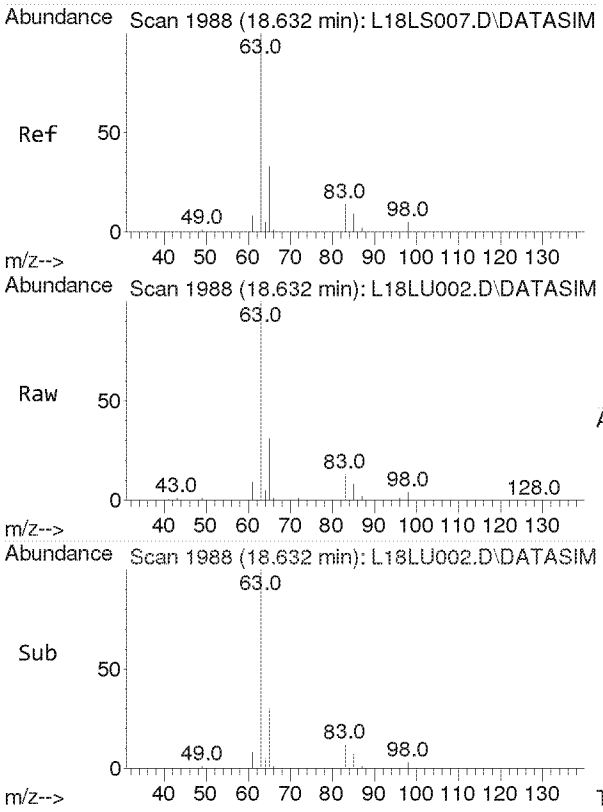



#20
trans-1,2-Dichloroethylene
Concen: 2.456 ppbv
RT: 18.337 min Scan# 1975
Delta R.T. 0.023 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 96 Resp: 14434

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 96 | 100 | | |
| 98 | 63.8 | 51.0 | 76.4 |
| 61 | 159.5 | 127.4 | 191.0 |

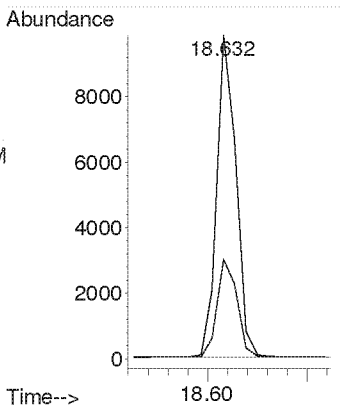


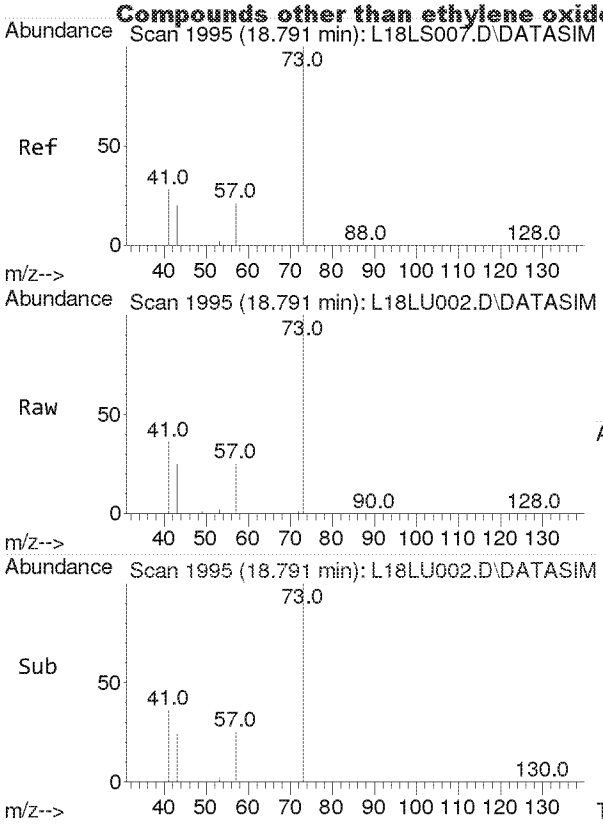

#21
1,1-Dichloroethane
Concen: 2.475 ppbv
RT: 18.632 min Scan# 1988
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 63 Resp: 26431

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 65 | 31.5 | 25.4 | 38.0 |



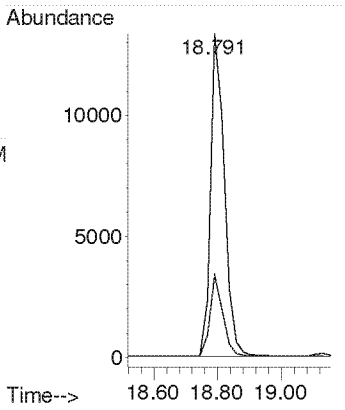
**Compounds other than ethylene oxide were not quantitated.**

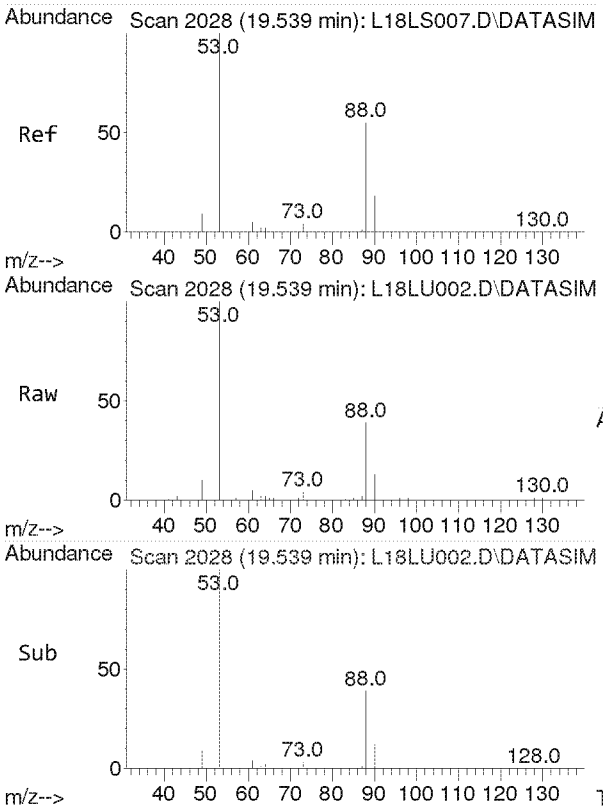



#22
Methyl tert-Butyl Ether
Concen: 2.572 ppbv
RT: 18.791 min Scan# 1995
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 73 Resp: 40039

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 73 | 100 | | |
| 57 | 23.4 | 18.7 | 28.1 |

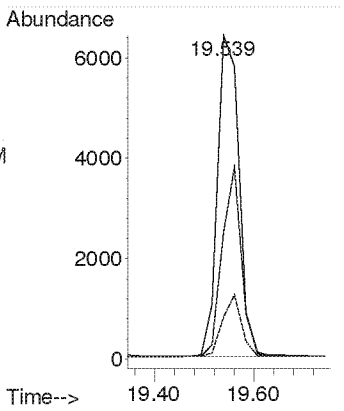


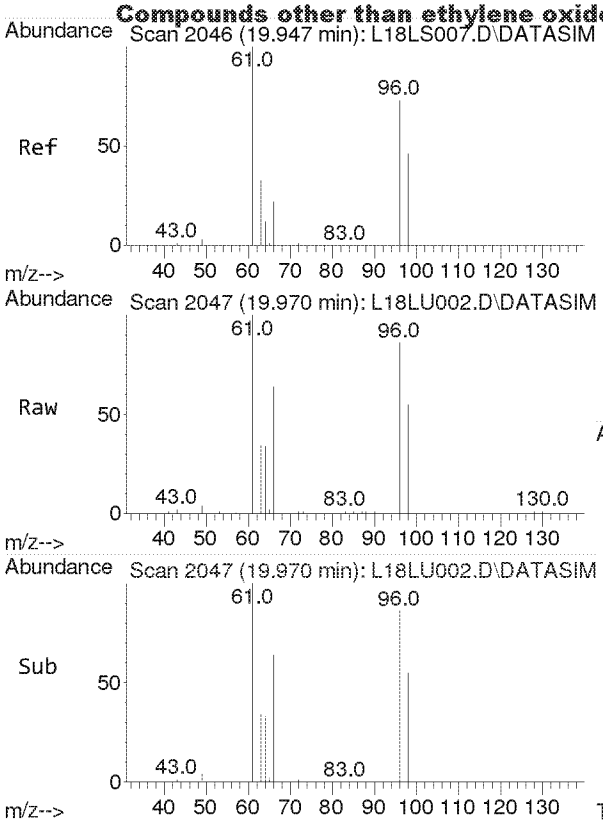

#23
Chloroprene
Concen: 2.532 ppbv
RT: 19.539 min Scan# 2028
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 53 Resp: 19383

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 53 | 100 | | |
| 88 | 52.2 | 41.4 | 62.2 |
| 90 | 17.0 | 13.4 | 20.2 |



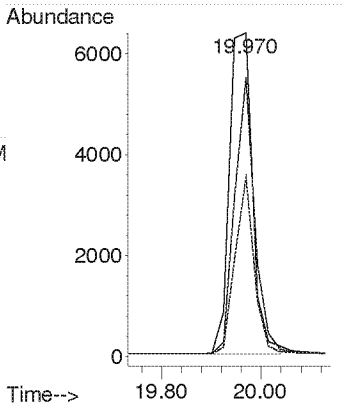
**Compounds other than ethylene oxide were not quantitated.**

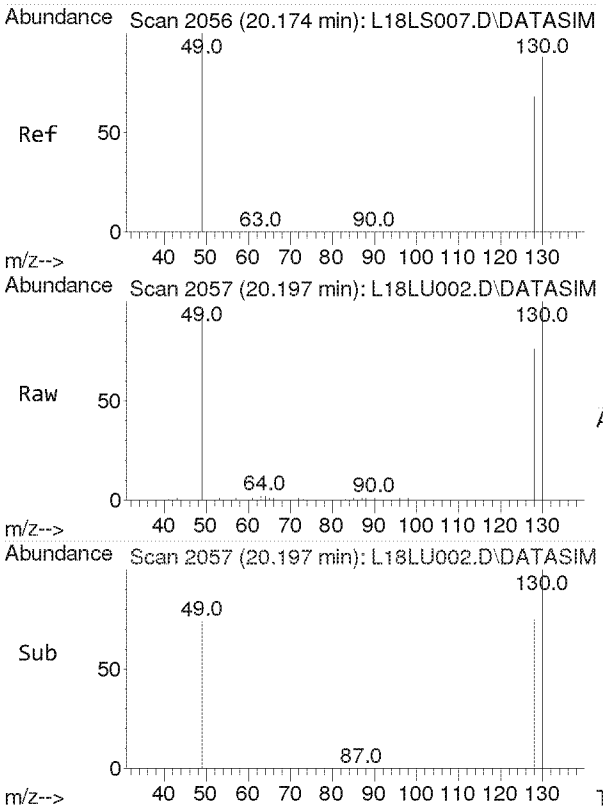



#24
cis-1,2-Dichloroethylene
Concen: 2.466 ppbv
RT: 19.970 min Scan# 2047
Delta R.T. 0.023 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 61 Resp: 20402

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 61 | 100 | | |
| 96 | 73.9 | 59.0 | 88.4 |
| 98 | 45.1 | 36.2 | 54.2 |

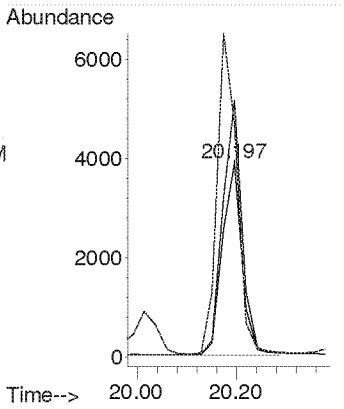


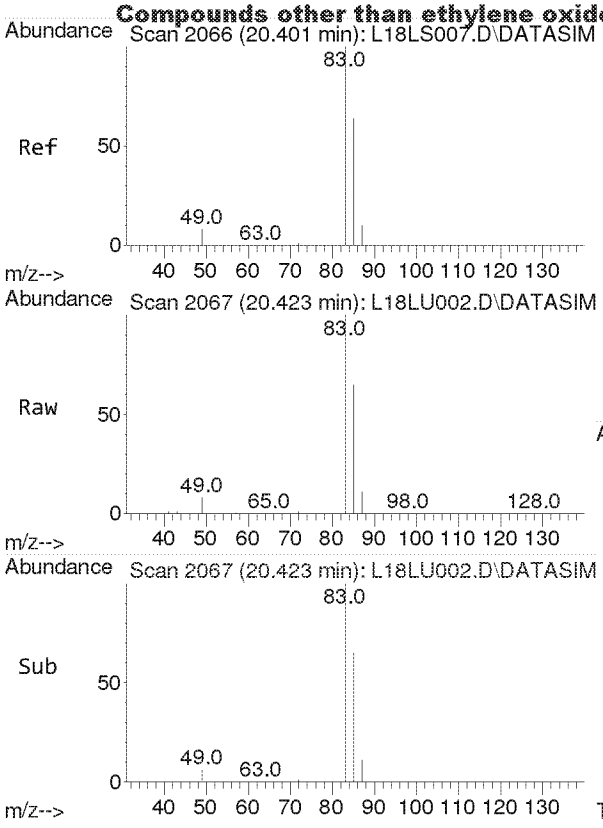

#25
Bromochloromethane
Concen: 2.361 ppbv
RT: 20.197 min Scan# 2057
Delta R.T. 0.023 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:128 Resp: 10503

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 128 | 100 | | |
| 130 | 130.6 | 103.3 | 154.9 |
| 49 | 171.6 | 137.0 | 205.4 |



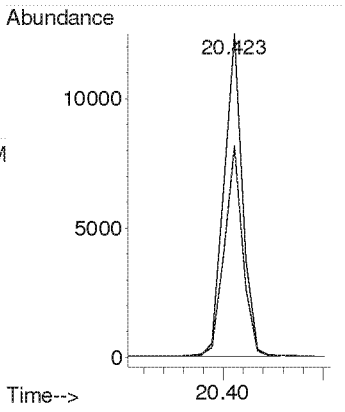
**Compounds other than ethylene oxide were not quantitated.**

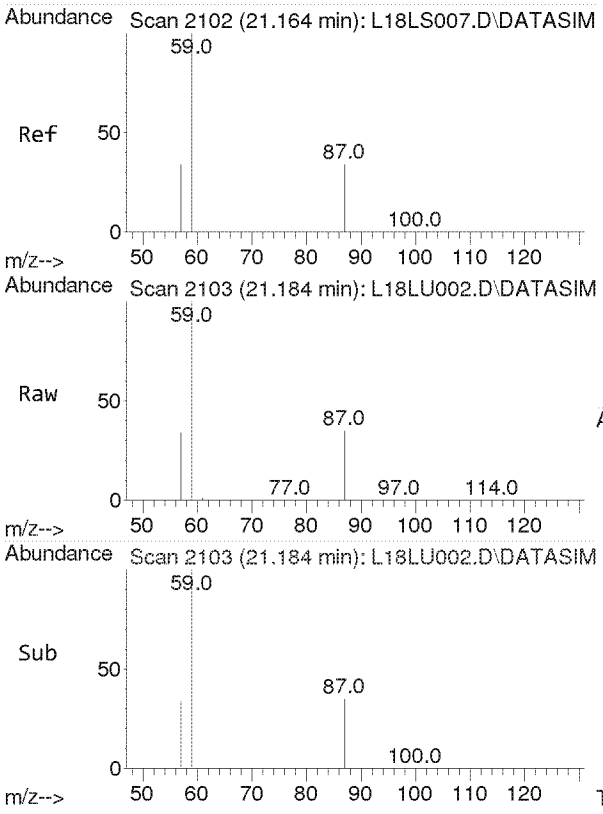



#26
Chloroform
Concen: 2.604 ppbv
RT: 20.423 min Scan# 2067
Delta R.T. 0.023 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 83 Resp: 31897

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 65.0 | 51.5 | 77.3 |

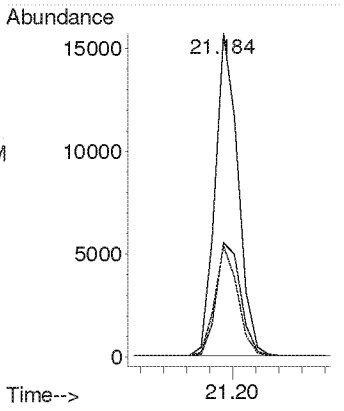


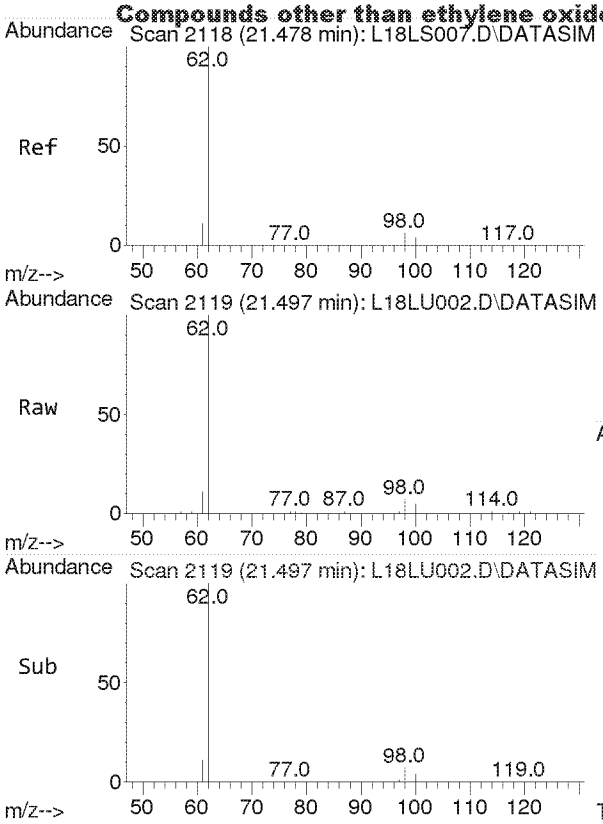

#27
Ethyl tert-Butyl Ether
Concen: 2.649 ppbv
RT: 21.184 min Scan# 2103
Delta R.T. 0.020 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 59 Resp: 43393

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 59 | 100 | | |
| 87 | 37.3 | 30.0 | 45.0 |
| 57 | 33.9 | 27.0 | 40.6 |



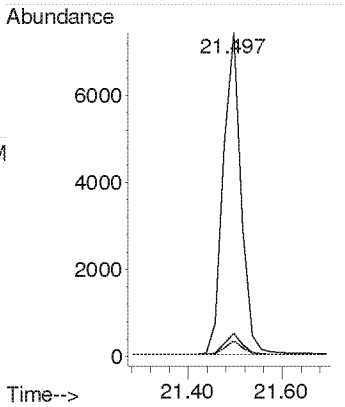
**Compounds other than ethylene oxide were not quantitated.**

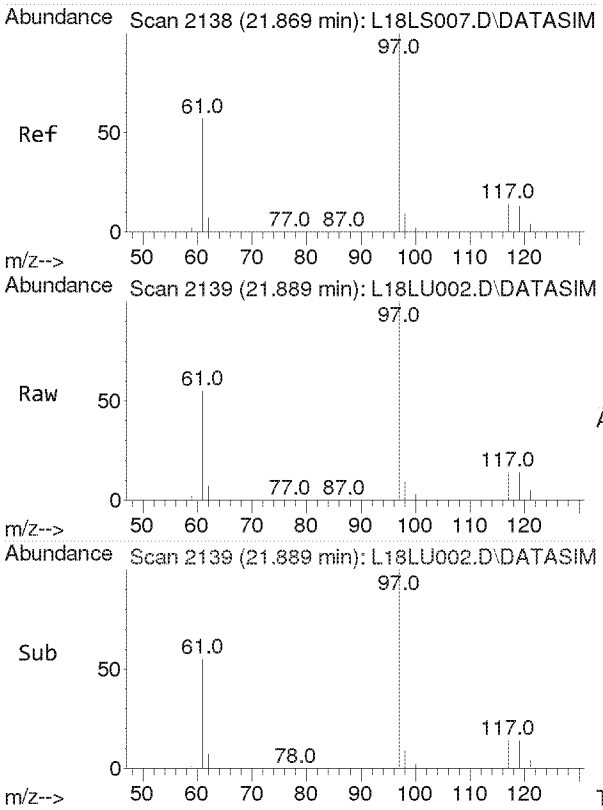



#28
1,2-Dichloroethane
Concen: 2.601 ppbv
RT: 21.497 min Scan# 2119
Delta R.T. 0.020 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 62 Resp: 19301

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 62 | 100 | | |
| 98 | 6.3 | 5.1 | 7.7 |
| 100 | 4.0 | 3.2 | 4.8 |

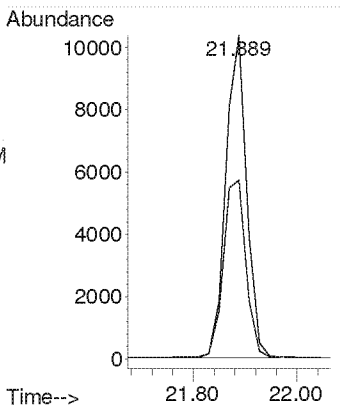


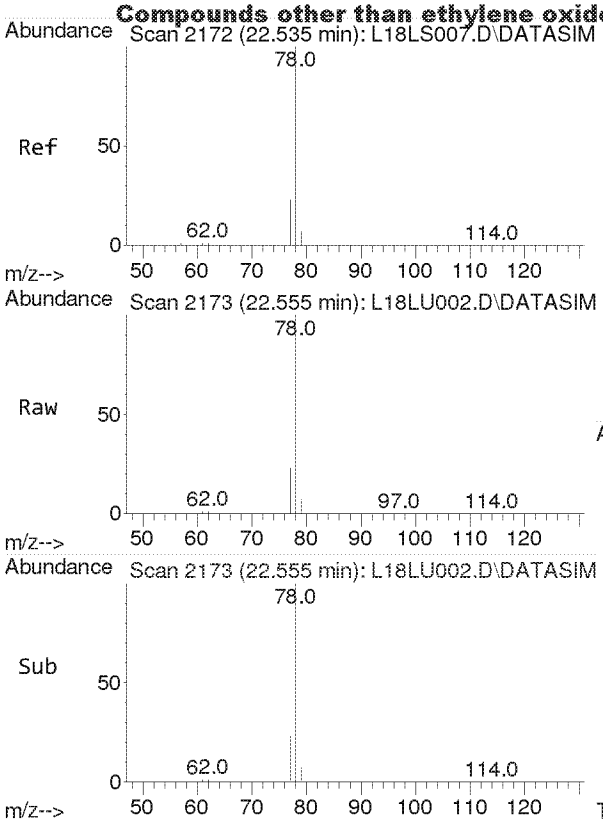

#30
1,1,1-Trichloroethane
Concen: 2.485 ppbv
RT: 21.889 min Scan# 2139
Delta R.T. 0.020 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 97 Resp: 29000

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 61 | 59.5 | 48.4 | 72.6 |



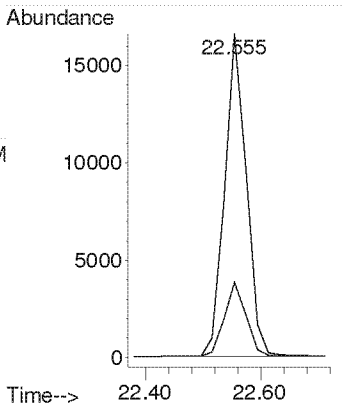
**Compounds other than ethylene oxide were not quantitated.**

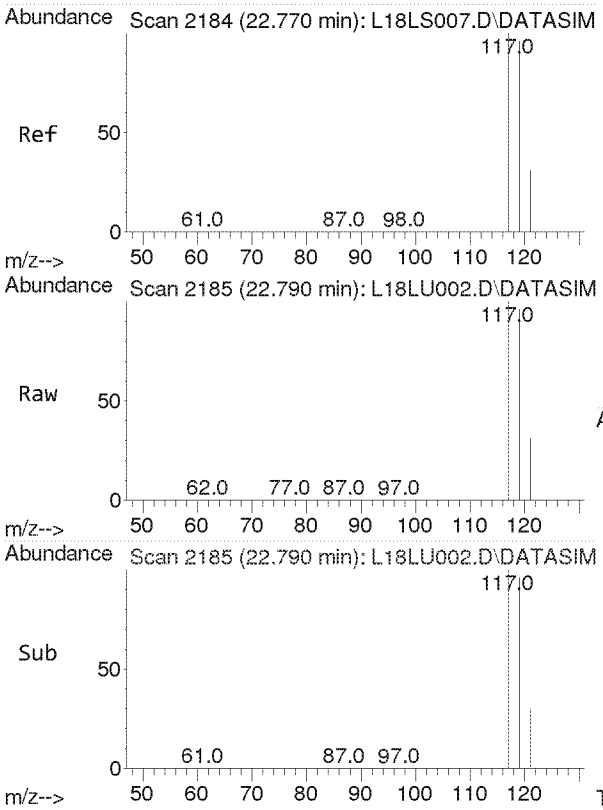



#31
Benzene
Concen: 2.704 ppbv
RT: 22.555 min Scan# 2173
Delta R.T. 0.020 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 78 Resp: 43187

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 22.9 | 18.2 | 27.2 |

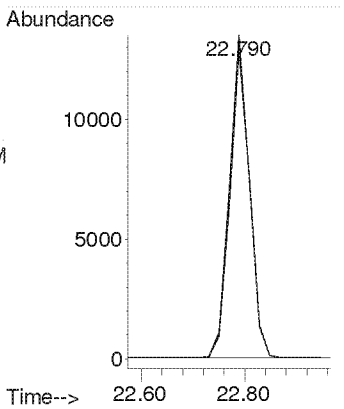


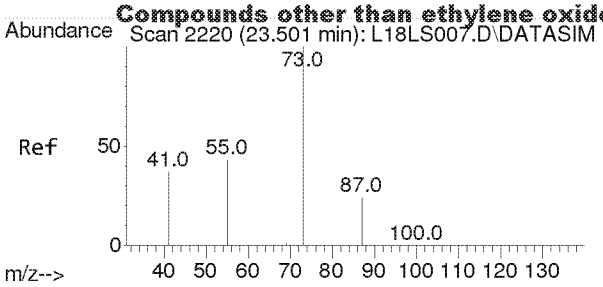

#32
Carbon Tetrachloride
Concen: 2.816 ppbv
RT: 22.790 min Scan# 2185
Delta R.T. 0.020 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:117 Resp: 35801

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 117 | 100 | | |
| 119 | 96.2 | 77.2 | 115.8 |



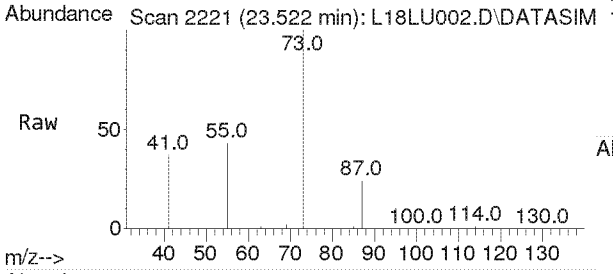
**Compounds other than ethylene oxide were not quantitated.**

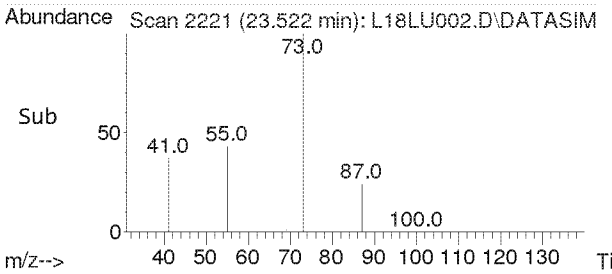


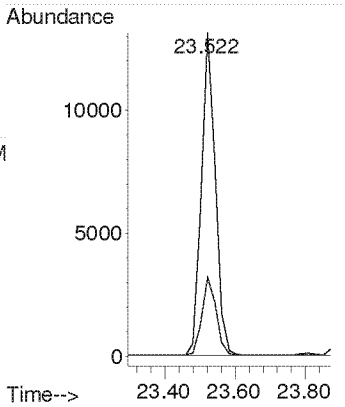

#33
tert-Amyl Methyl Ether
Concen: 2.649 ppbv
RT: 23.522 min Scan# 2221
Delta R.T. 0.021 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

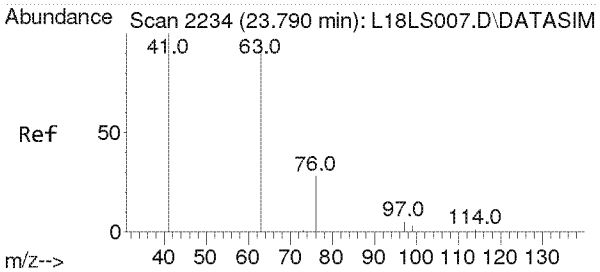
Tgt Ion: 73 Resp: 35801

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 73 | 100 | | |
| 87 | 24.7 | 19.9 | 29.9 |



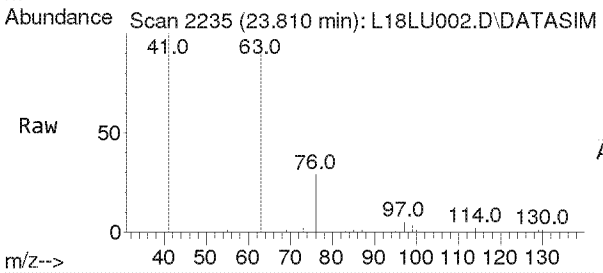



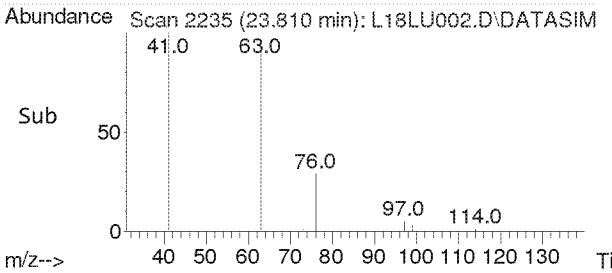



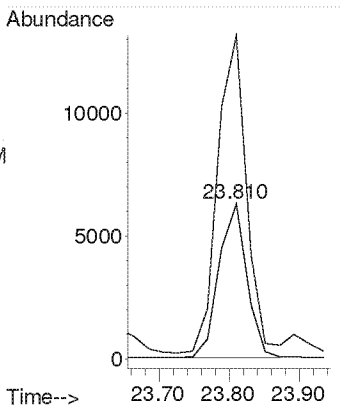

#34
1,2-Dichloropropane
Concen: 2.584 ppbv
RT: 23.810 min Scan# 2235
Delta R.T. 0.021 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 63 Resp: 17180

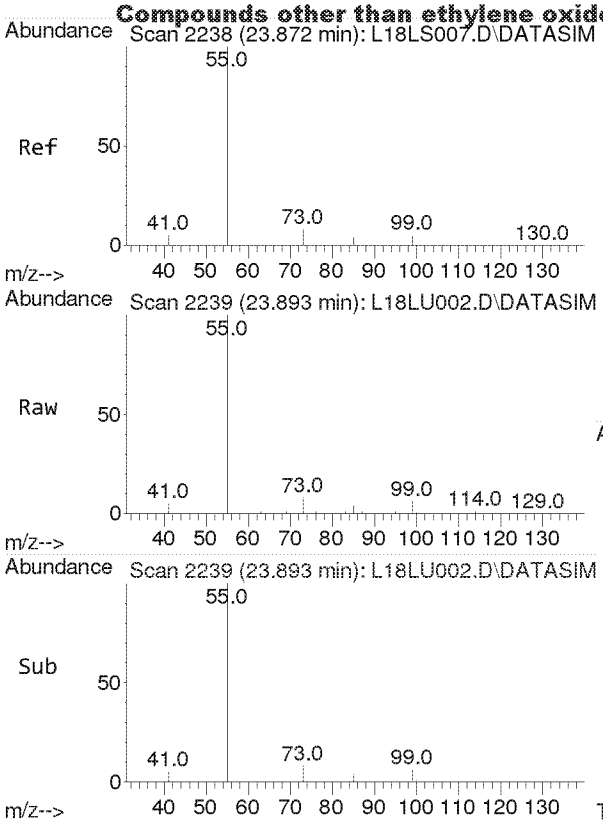
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 63 | 100 | | |
| 41 | 212.6 | 170.2 | 255.4 |



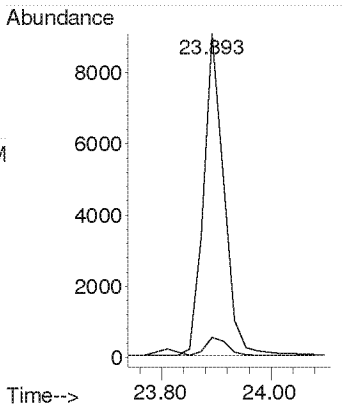
**Compounds other than ethylene oxide were not quantitated.**

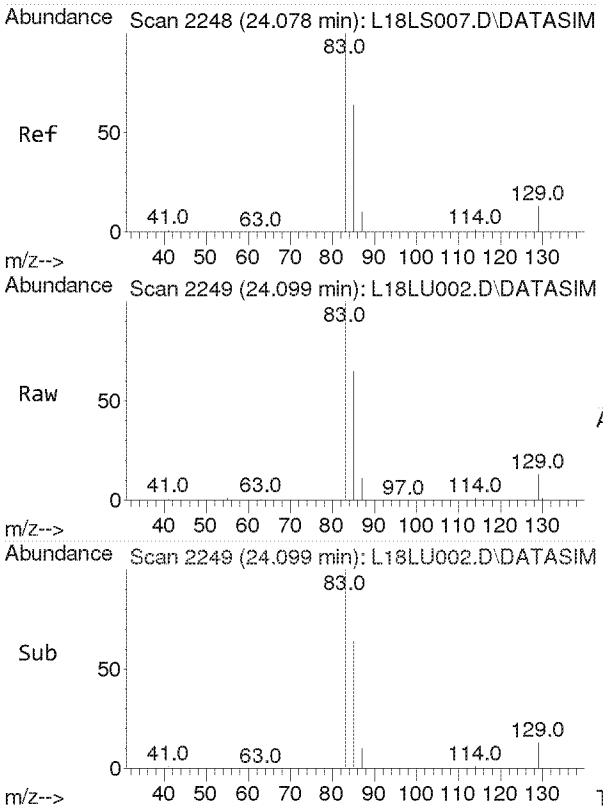



#35
Ethyl Acrylate
Concen: 2.627 ppbv
RT: 23.893 min Scan# 2239
Delta R.T. 0.021 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 55 Resp: 23425

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 55 | 100 | | |
| 99 | 6.0 | 4.9 | 7.3 |

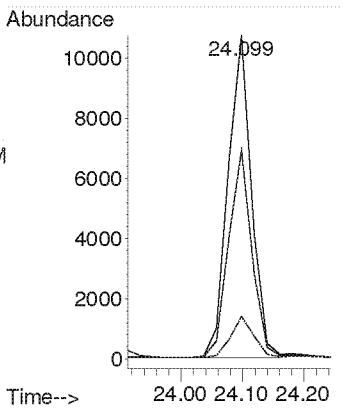


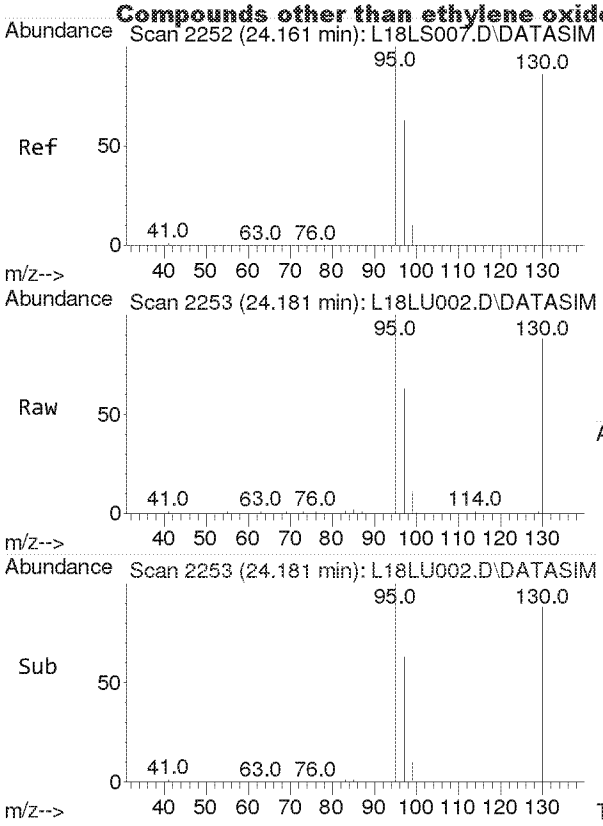

#36
Bromodichloromethane
Concen: 2.316 ppbv
RT: 24.099 min Scan# 2249
Delta R.T. 0.021 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 83 Resp: 28471

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 63.9 | 51.2 | 76.8 |
| 129 | 12.4 | 9.9 | 14.9 |



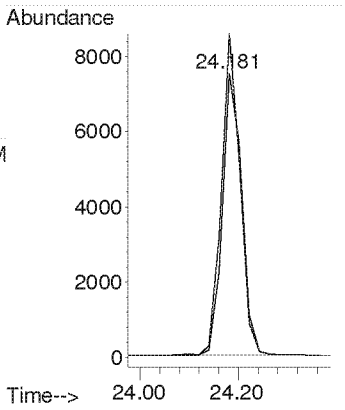
**Compounds other than ethylene oxide were not quantitated.**

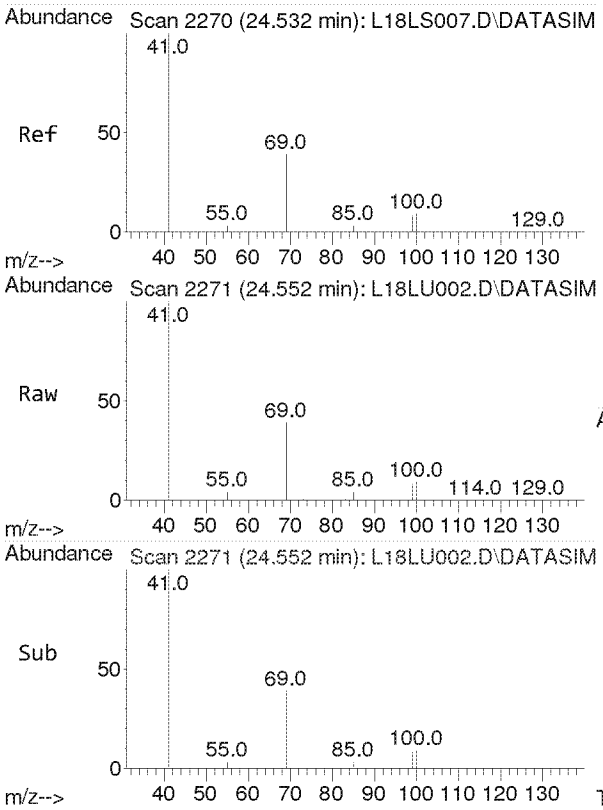



#37
Trichloroethylene
Concen: 2.736 ppbv
RT: 24.181 min Scan# 2253
Delta R.T. 0.021 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:130 Resp: 20601

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 130 | 100 | | |
| 95 | 109.8 | 88.2 | 132.4 |

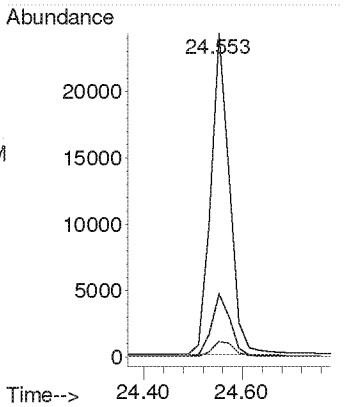


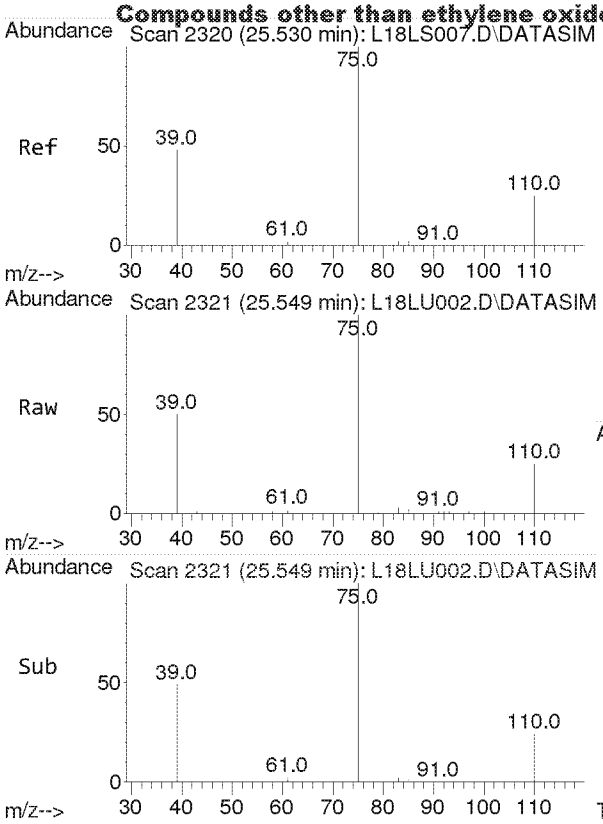

#38
Methyl Methacrylate
Concen: 2.548 ppbv
RT: 24.552 min Scan# 2271
Delta R.T. 0.021 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 41 Resp: 63060

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 69 | 19.7 | 15.9 | 23.9 |
| 100 | 5.1 | 4.2 | 6.2 |



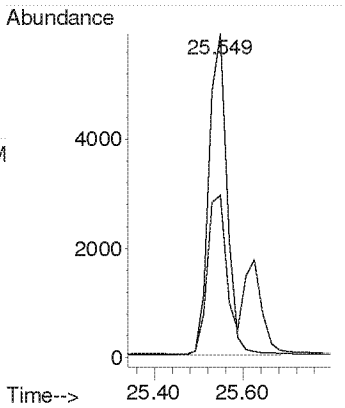
**Compounds other than ethylene oxide were not quantitated.**

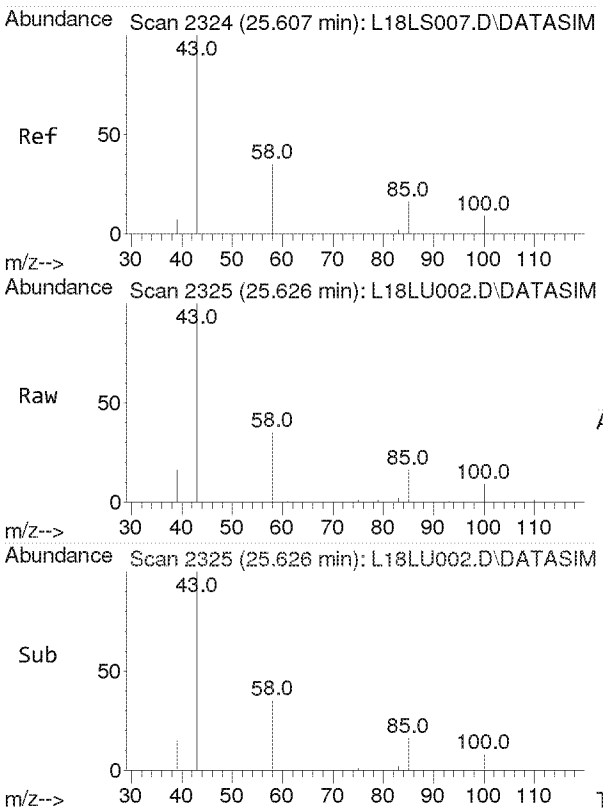



#39
cis-1,3-Dichloropropene
Concen: 2.812 ppbv
RT: 25.549 min Scan# 2321
Delta R.T. 0.019 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 75 Resp: 16667

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 39 | 53.9 | 43.5 | 65.3 |

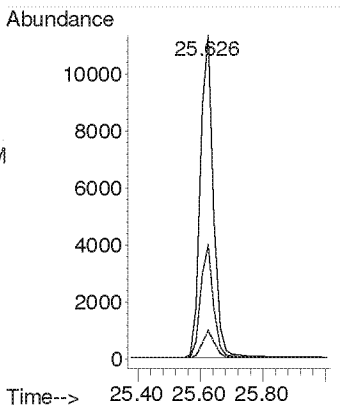


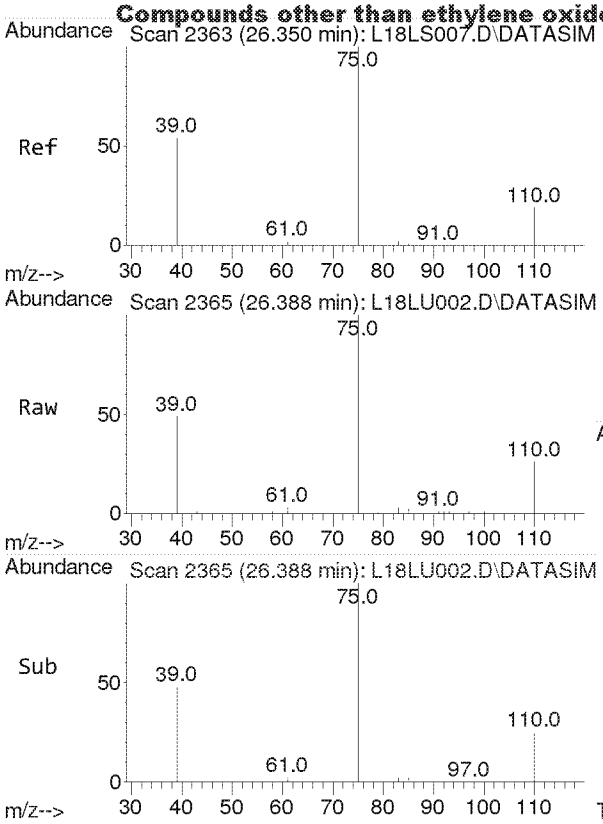

#40
Methyl Isobutyl Ketone
Concen: 2.470 ppbv
RT: 25.626 min Scan# 2325
Delta R.T. 0.019 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 43 Resp: 32627

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 34.2 | 27.4 | 41.0 |
| 100 | 8.0 | 6.3 | 9.5 |



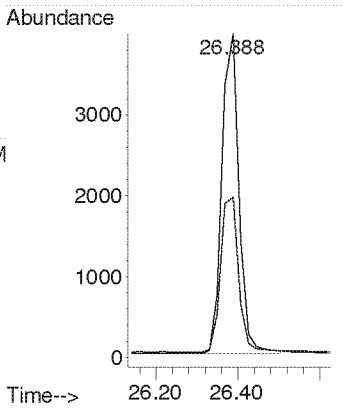
**Compounds other than ethylene oxide were not quantitated.**

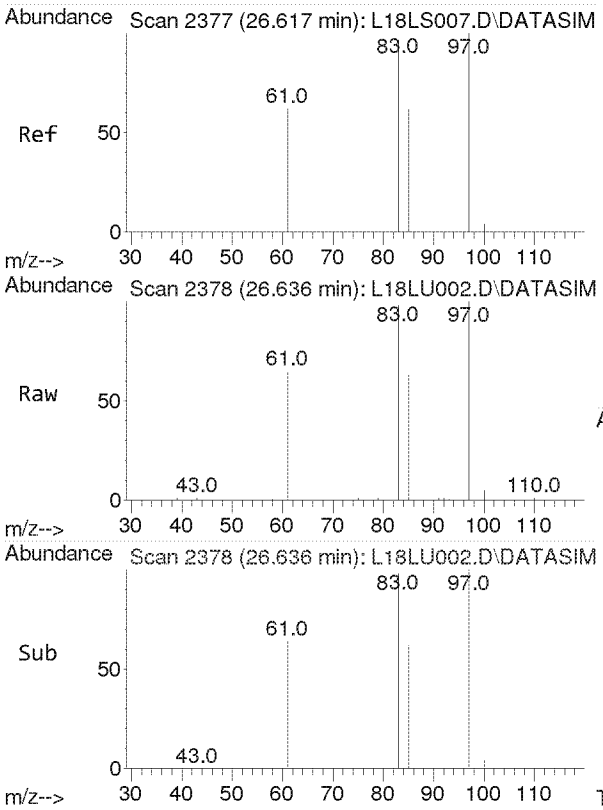



#41
trans-1,3-Dichloropropene
Concen: 2.576 ppbv
RT: 26.388 min Scan# 2365
Delta R.T. 0.038 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 75 Resp: 11312

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 75 | 100 | | |
| 39 | 51.0 | 40.7 | 61.1 |

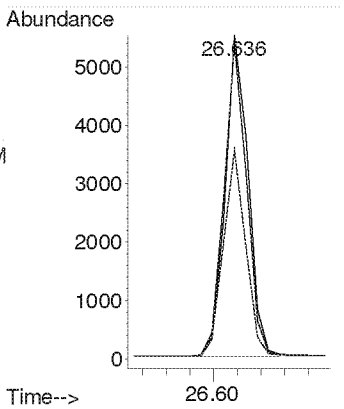


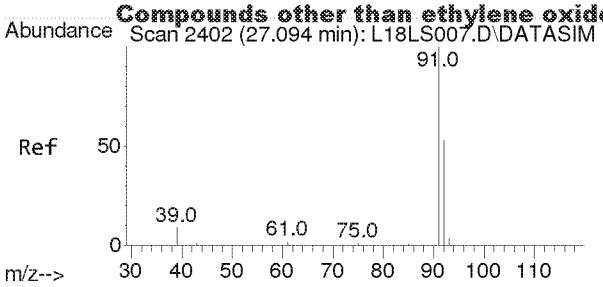

#42
1,1,2-Trichloroethane
Concen: 2.562 ppbv
RT: 26.636 min Scan# 2378
Delta R.T. 0.019 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 97 Resp: 14690

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 97 | 100 | | |
| 83 | 96.1 | 76.9 | 115.3 |
| 61 | 63.0 | 50.8 | 76.2 |



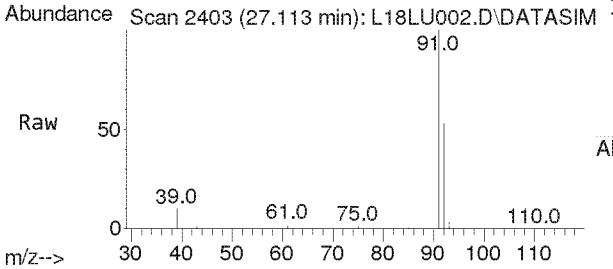
**Compounds other than ethylene oxide were not quantitated.**

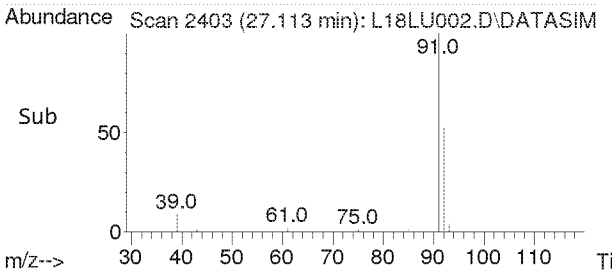


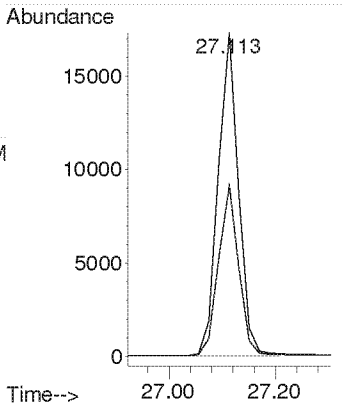

#44
Toluene
Concen: 2.608 ppbv
RT: 27.113 min Scan# 2403
Delta R.T. 0.019 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

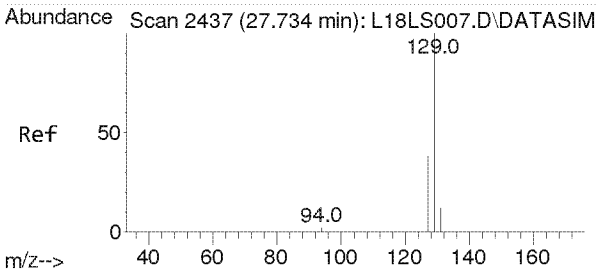
Tgt Ion: 91 Resp: 45844

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 52.5 | 42.1 | 63.1 |



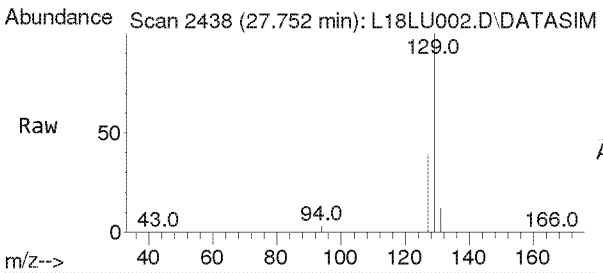



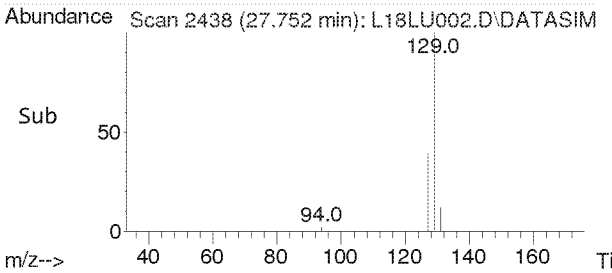



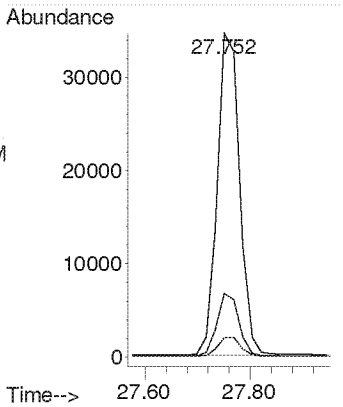

#45
Dibromochloromethane
Concen: 2.449 ppbv
RT: 27.752 min Scan# 2438
Delta R.T. 0.018 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:129 Resp: 101978

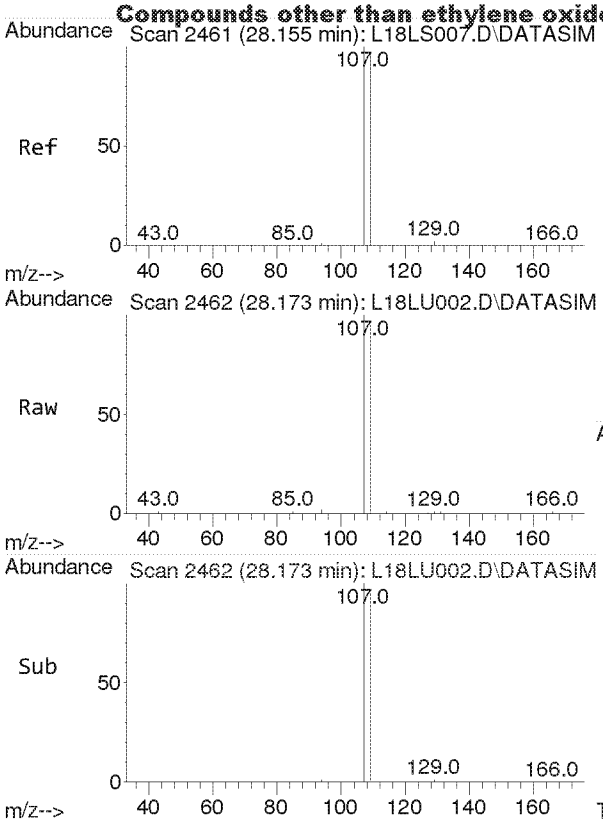
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 129 | 100 | | |
| 127 | 19.3 | 15.4 | 23.0 |
| 131 | 6.0 | 4.8 | 7.2 |



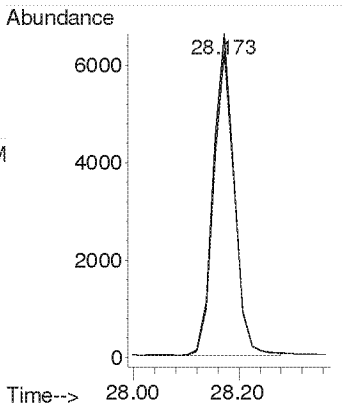
**Compounds other than ethylene oxide were not quantitated.**

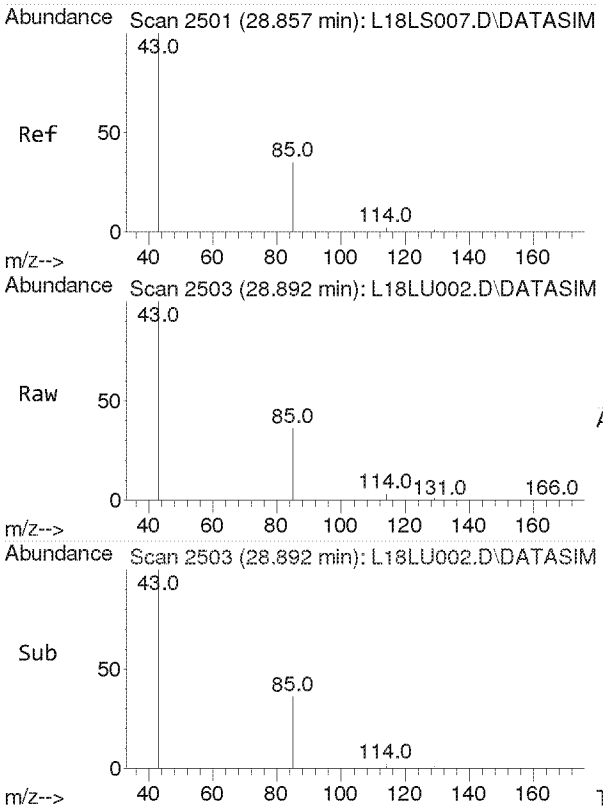



#46
1,2-Dibromoethane
Concen: 2.592 ppbv
RT: 28.173 min Scan# 2462
Delta R.T. 0.018 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:107 Resp: 18092

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 107 | 100 | | |
| 109 | 94.5 | 75.6 | 113.4 |

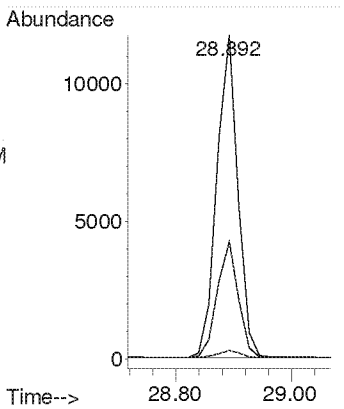


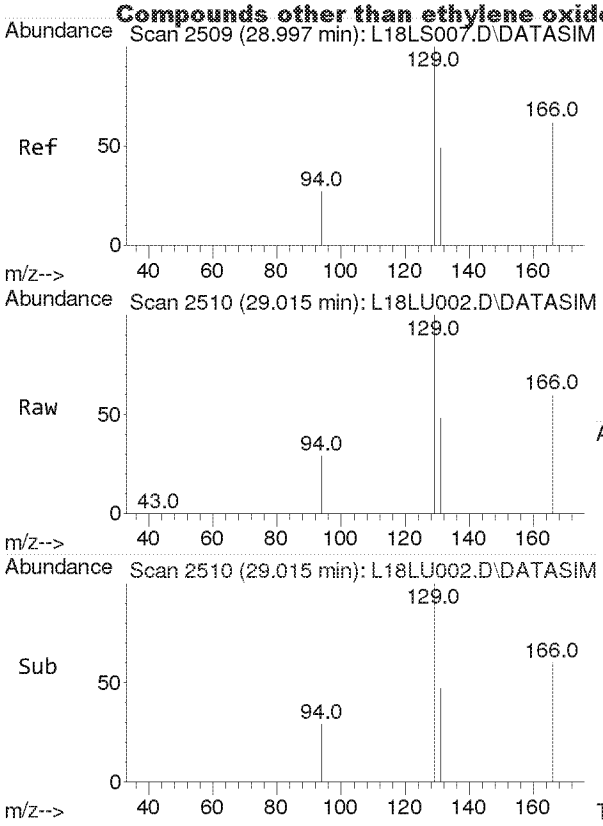

#47
n-Octane
Concen: 2.638 ppbv
RT: 28.892 min Scan# 2503
Delta R.T. 0.035 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 43 Resp: 29789

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 85 | 35.9 | 28.8 | 43.2 |
| 114 | 2.3 | 1.8 | 2.6 |



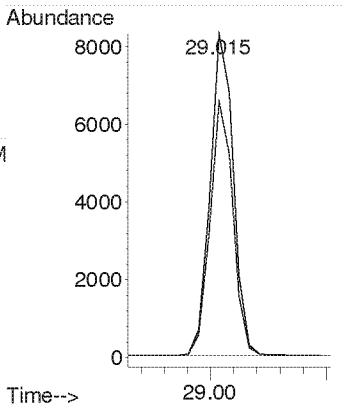
**Compounds other than ethylene oxide were not quantitated.**

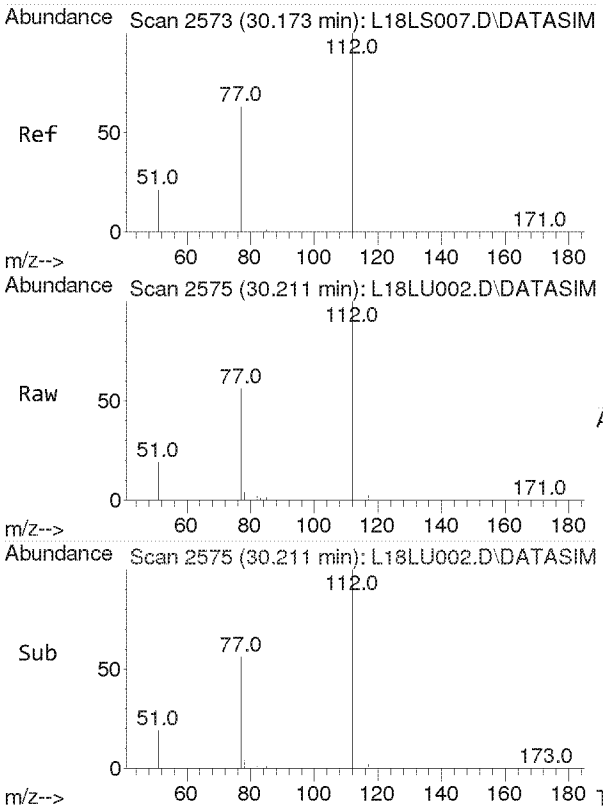



#48
Tetrachloroethylene
Concen: 2.632 ppbv
RT: 29.015 min Scan# 2510
Delta R.T. 0.018 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:166 Resp: 23085

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 166 | 100 | | |
| 131 | 78.2 | 62.6 | 93.8 |

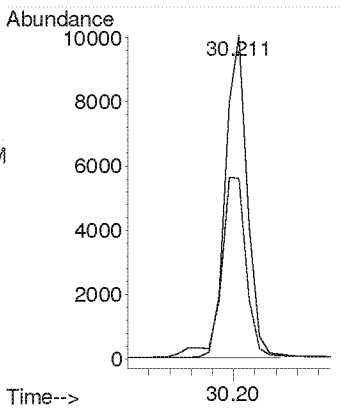


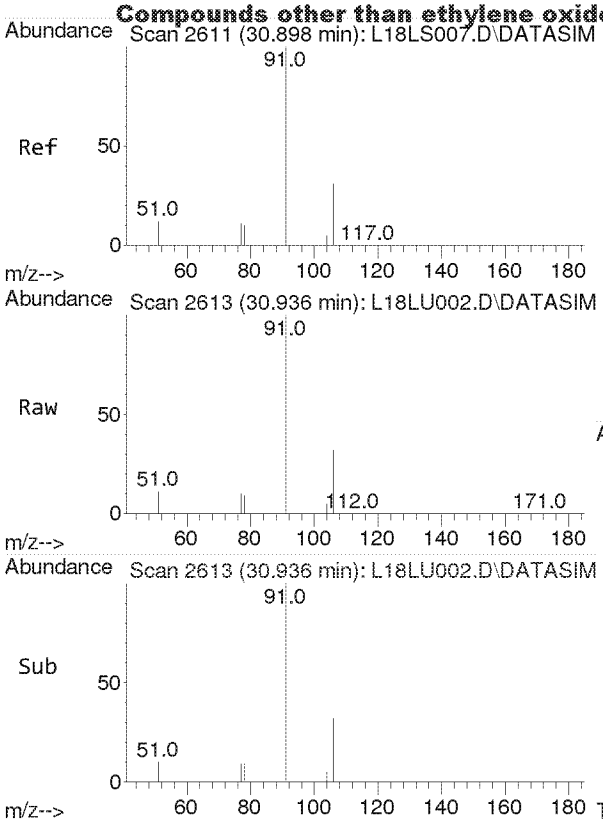

#49
Chlorobenzene
Concen: 2.529 ppbv
RT: 30.211 min Scan# 2575
Delta R.T. 0.038 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:112 Resp: 28582

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 112 | 100 | | |
| 77 | 62.0 | 50.4 | 75.6 |



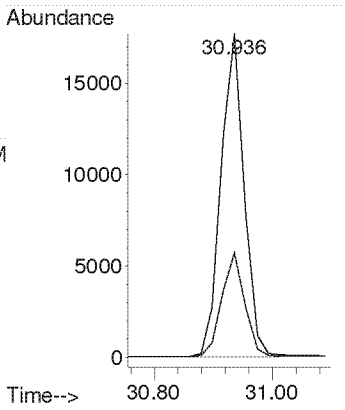
**Compounds other than ethylene oxide were not quantitated.**

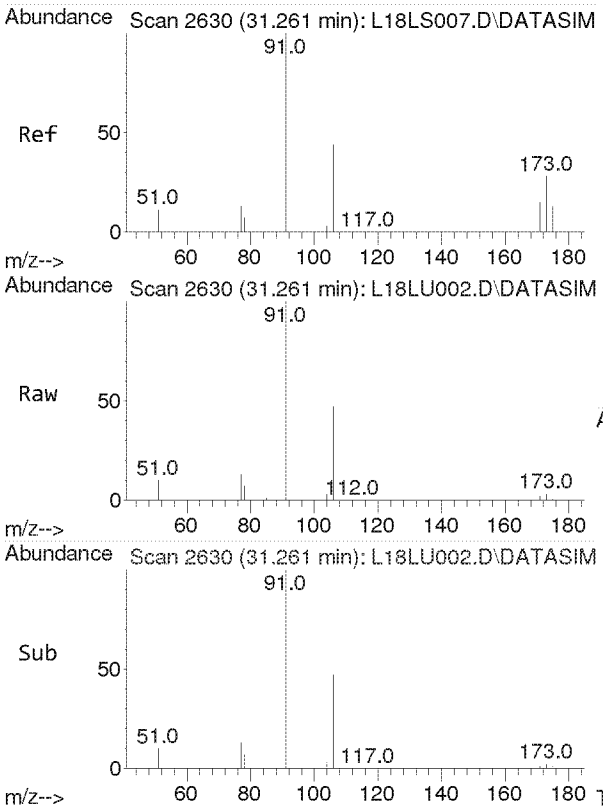



#50
Ethylbenzene
Concen: 2.632 ppbv
RT: 30.936 min Scan# 2613
Delta R.T. 0.038 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 91 Resp: 47826

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 31.6 | 25.4 | 38.2 |

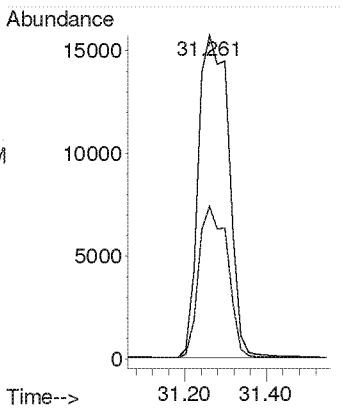


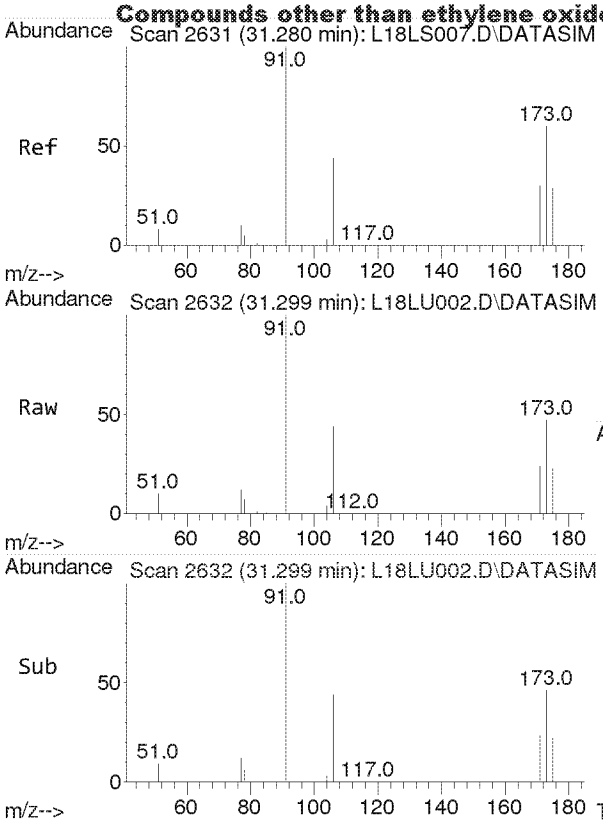

#51
m,p-Xylene
Concen: 5.160 ppbv
RT: 31.261 min Scan# 2630
Delta R.T. 0.000 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 91 Resp: 80561

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 44.6 | 35.5 | 53.3 |



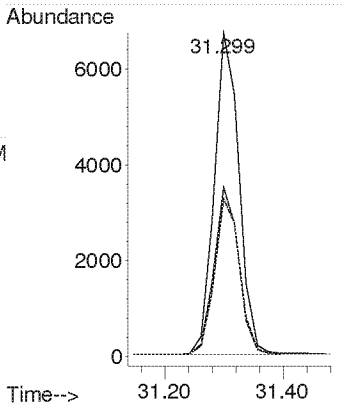
**Compounds other than ethylene oxide were not quantitated.**

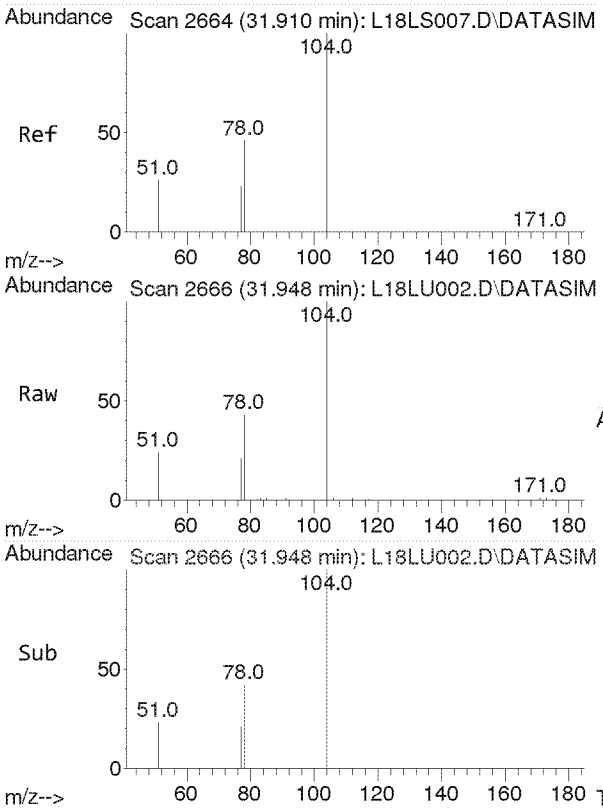



#52
Bromoform
Concen: 2.466 ppbv
RT: 31.299 min Scan# 2632
Delta R.T. 0.019 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:173 Resp: 19463

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 173 | 100 | | |
| 171 | 51.4 | 41.0 | 61.6 |
| 175 | 49.2 | 39.2 | 58.8 |

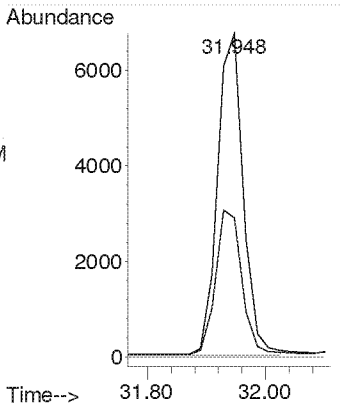


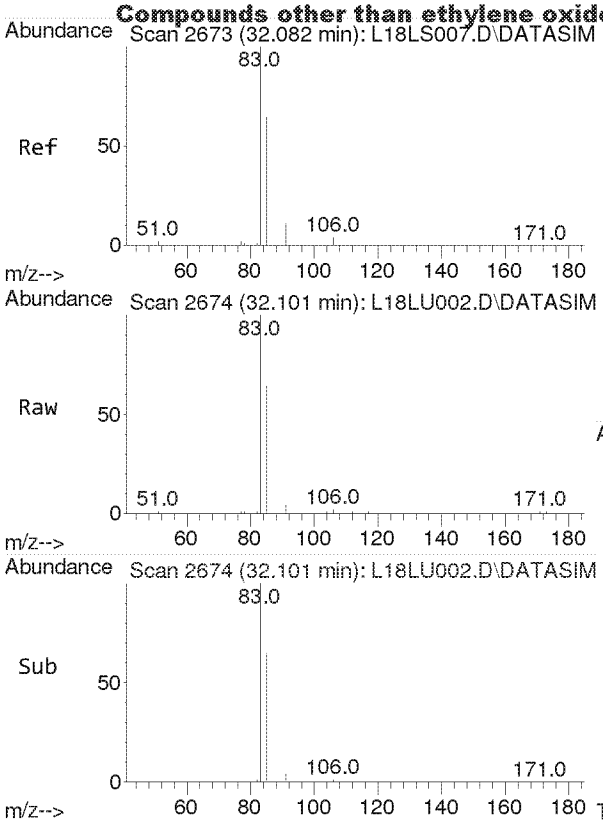

#53
Styrene
Concen: 2.545 ppbv
RT: 31.948 min Scan# 2666
Delta R.T. 0.038 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:104 Resp: 20205

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 104 | 100 | | |
| 78 | 45.9 | 36.5 | 54.7 |
| 103 | 0.0 | 0.0 | 0.0 |



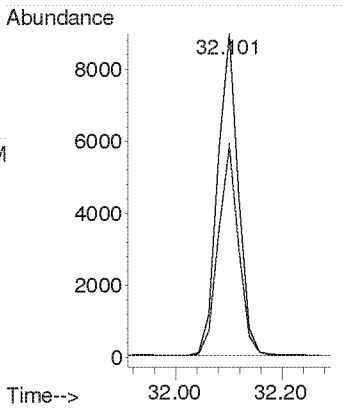
**Compounds other than ethylene oxide were not quantitated.**

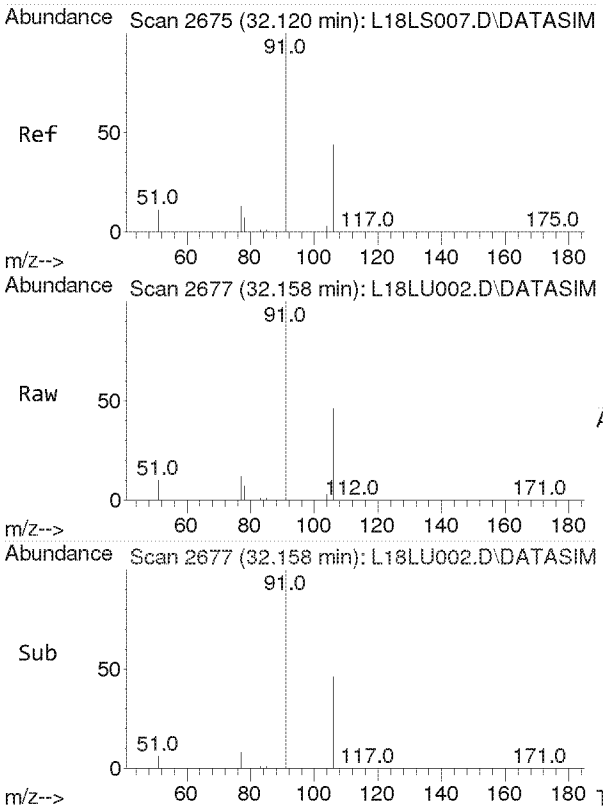



#54
1,1,2,2-Tetrachloroethane
Concen: 2.193 ppbv
RT: 32.101 min Scan# 2674
Delta R.T. 0.019 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 83 Resp: 24230

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 83 | 100 | | |
| 85 | 64.6 | 51.1 | 76.7 |

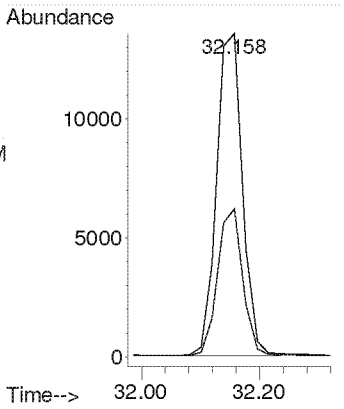


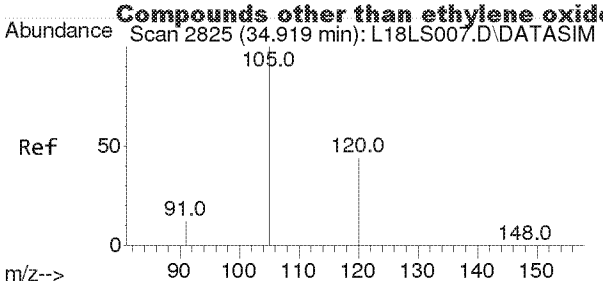

#55
o-Xylene
Concen: 2.679 ppbv
RT: 32.158 min Scan# 2677
Delta R.T. 0.038 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion: 91 Resp: 41080

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 44.4 | 35.4 | 53.0 |



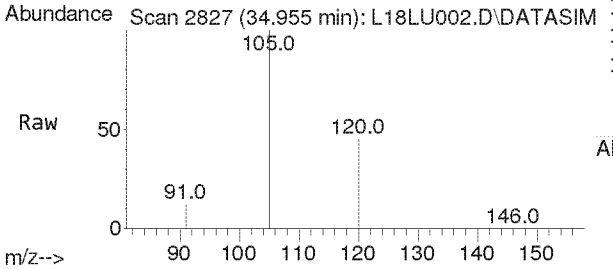
**Compounds other than ethylene oxide were not quantitated.**

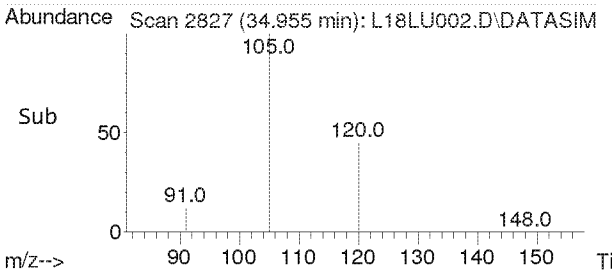


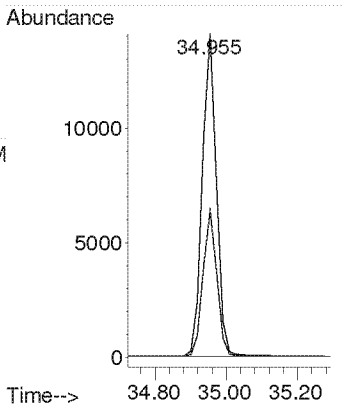

#56
1,3,5-Trimethylbenzene
Concen: 2.558 ppbv
RT: 34.955 min Scan# 2827
Delta R.T. 0.036 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

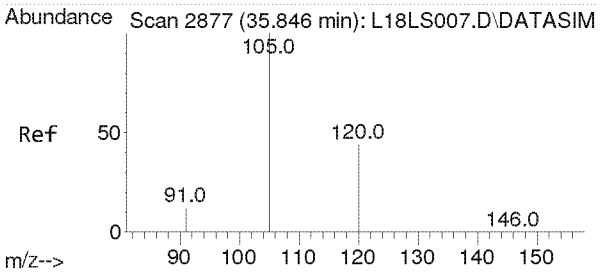
Tgt Ion:105 Resp: 38325

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 44.6 | 36.0 | 54.0 |



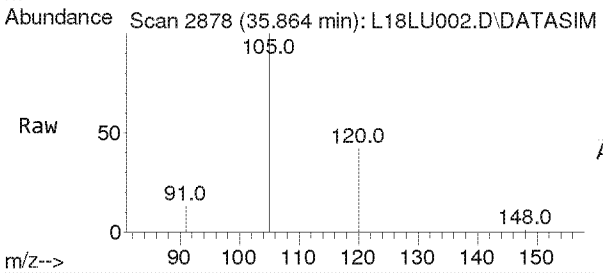



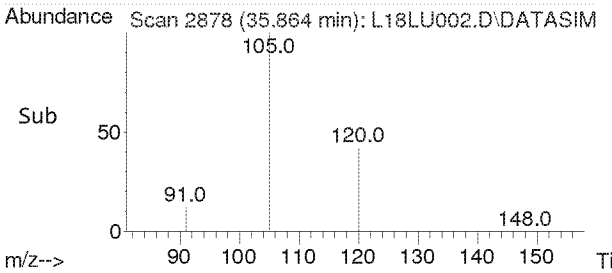



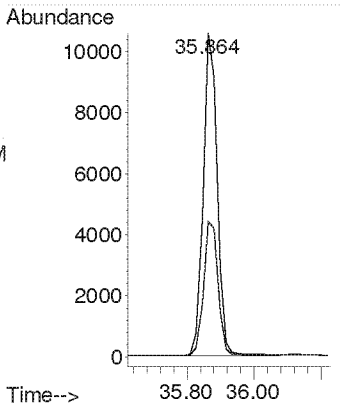

#57
1,2,4-Trimethylbenzene
Concen: 2.408 ppbv
RT: 35.864 min Scan# 2878
Delta R.T. 0.018 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:105 Resp: 30458

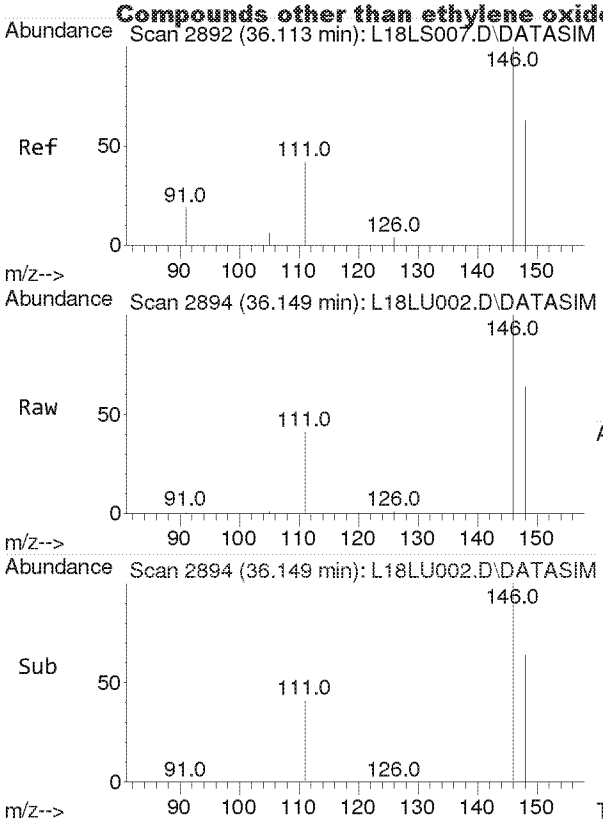
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 43.0 | 34.2 | 51.4 |



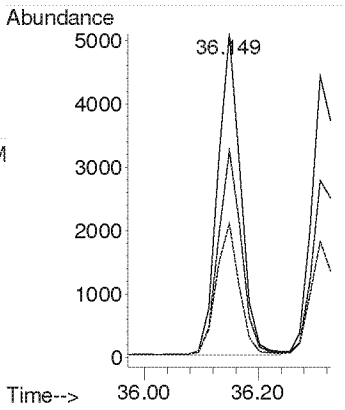
**Compounds other than ethylene oxide were not quantitated.**

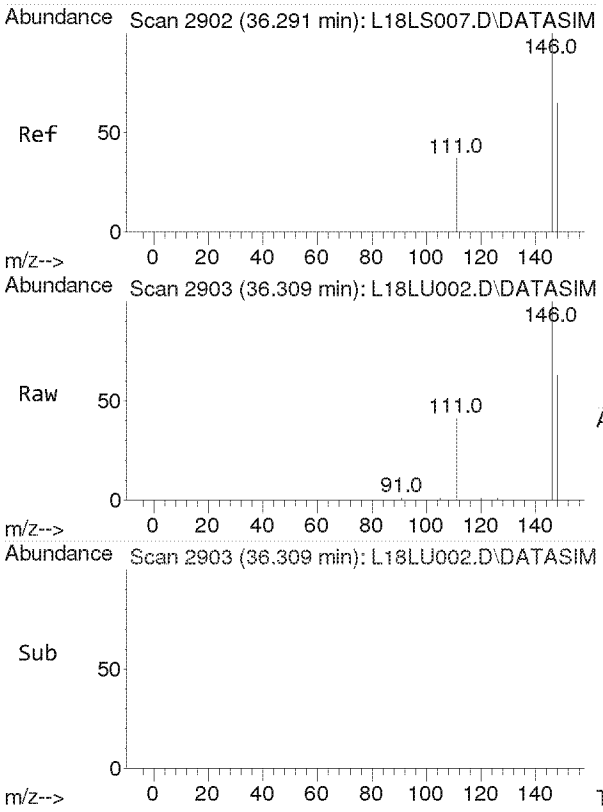



#58
m-Dichlorobenzene
Concen: 2.114 ppbv
RT: 36.149 min Scan# 2894
Delta R.T. 0.036 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:146 Resp: 14075

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 148 | 64.3 | 51.2 | 76.8 |
| 111 | 41.1 | 32.4 | 48.6 |

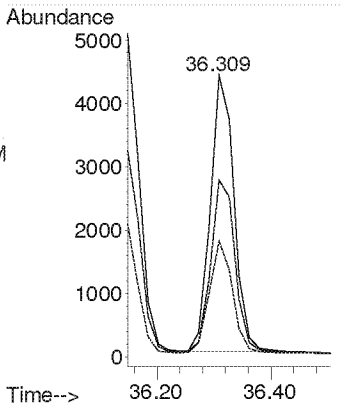


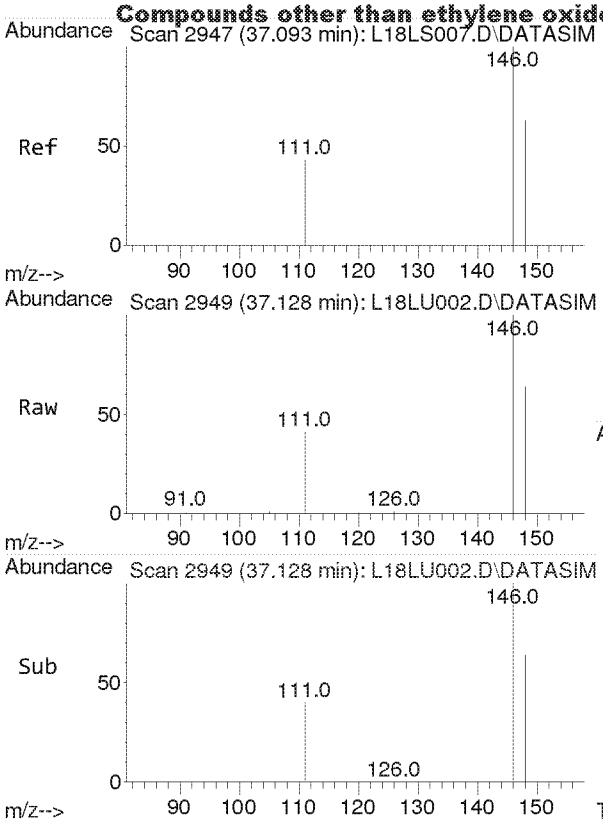

#59
p-Dichlorobenzene
Concen: 2.458 ppbv
RT: 36.309 min Scan# 2903
Delta R.T. 0.018 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:146 Resp: 12484

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 148 | 64.1 | 51.2 | 76.8 |
| 111 | 39.8 | 31.6 | 47.4 |



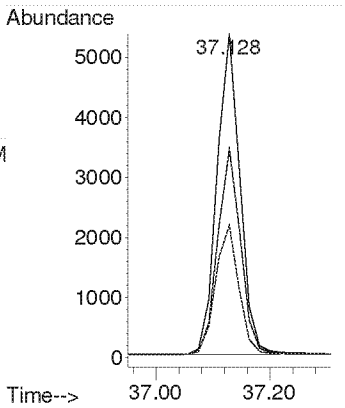
**Compounds other than ethylene oxide were not quantitated.**

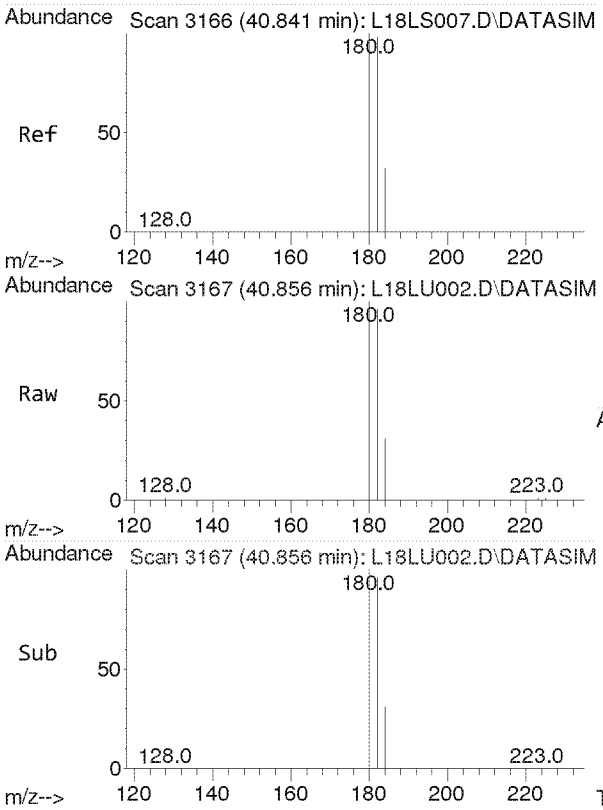



#60
o-Dichlorobenzene
Concen: 2.420 ppbv
RT: 37.128 min Scan# 2949
Delta R.T. 0.036 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:146 Resp: 15093

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 146 | 100 | | |
| 148 | 64.0 | 51.3 | 76.9 |
| 111 | 40.9 | 33.1 | 49.7 |

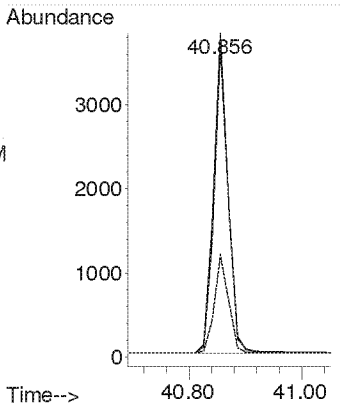


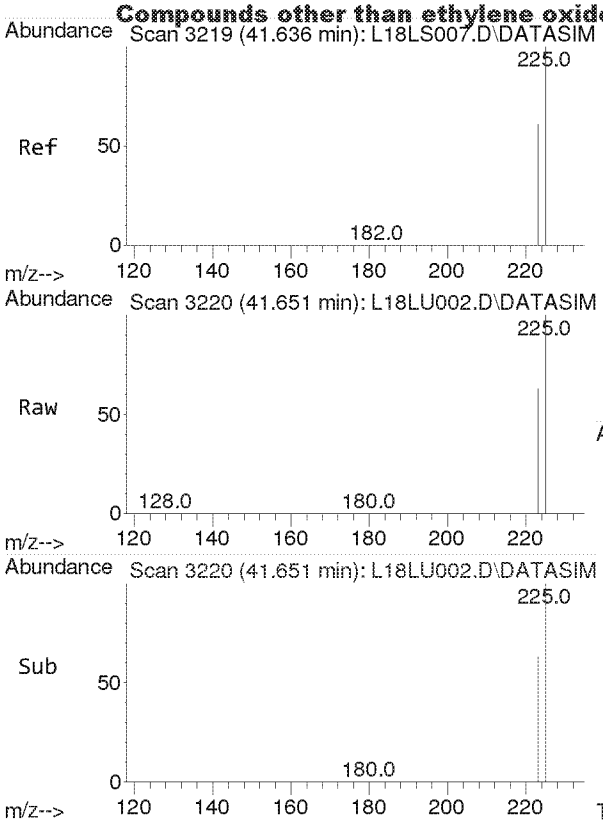

#61
1,2,4-Trichlorobenzene
Concen: 2.715 ppbv
RT: 40.856 min Scan# 3167
Delta R.T. 0.015 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:180 Resp: 6589

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 95.5 | 76.1 | 114.1 |
| 184 | 30.7 | 24.6 | 36.8 |



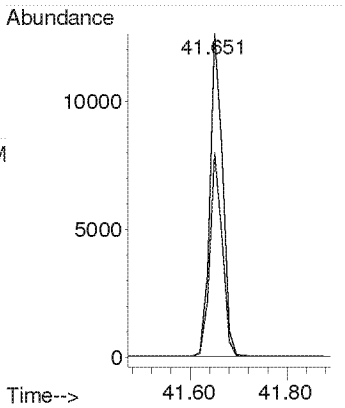
**Compounds other than ethylene oxide were not quantitated.**




#62
Hexachloro-1,3-butadiene
Concen: 2.565 ppbv
RT: 41.651 min Scan# 3220
Delta R.T. 0.015 min
Lab File: L18LU002.D
Acq: 21 Dec 2018 7:40 am

Tgt Ion:225 Resp: 22707

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 225 | 100 | | |
| 223 | 61.9 | 49.9 | 74.9 |



**Compounds other than ethylene oxide were not quantitated.**

**TO-15 Method Blank and**
**Annual Canister Certification Blank**

Analyst: K Date: 12/6/17
Reviewer: CAB Date: 12/31/18

| | |
|---|---|
| Data File Name | L18LU003.D |
| Operator | MAH |
| Acq. Method File | 8120004.M |
| Sample Name | B8L2103-BLK1 |
| Misc Info | 80 ML 8L13001 |

| # | Name | Target Response | Amount (ppbv) | PASS* | | Blank Criteria |
|---|---|---|---|---|---|---|
| 1) | IS-Hexane-d14 | 56325 | | NA | | NA |
| 2) | Acetylene | 0 | 0.000 | Y | | 0.118 |
| 3) | Propylene | 56 | 0.010 | Y | | 0.192 |
| 4) | Dichlorodifluoromethane | 0 | 0.000 | Y | | 0.082 |
| 5) | Chloromethane | 34 | 0.005 | Y | | 0.139 |
| 6) | Dichlorotetrafluoroethane | 0 | 0.000 | Y | | 0.040 |
| 7) | Vinyl Chloride | 0 | 0.000 | Y | | 0.038 |
| 8) | 1,3-Butadiene | 0 | 0.000 | Y | | 0.058 |
| | Ethylene oxide | 0 | 0.000 | Y | | 0.136 |
| 9) | Bromomethane | 0 | 0.000 | Y | | 0.035 |
| 10) | Chloroethane | 0 | 0.000 | Y | | 0.075 |
| 11) | Acetonitrile | 0 | 0.000 | Y | | 0.049 |
| 12) | Acrolein | 60 | 0.019 | Y | | 0.200 |
| 13) | Trichlorofluoromethane | 0 | 0.000 | Y | | 0.035 |
| 14) | Acrylonitrile | 0 | 0.000 | Y | | 0.032 |
| 15) | 1,1-Dichloroethene | 0 | 0.000 | Y | | 0.036 |
| 16) | Methylene Chloride | 0 | 0.000 | Y | | 0.043 |
| 17) | Carbon Disulfide | 475 | 0.022 | Y | MAX | 0.200 |
| 18) | Trichlorotrifluoroethane | 42 | 0.003 | Y | | 0.029 |
| 19) | trans-1,2-Dichloroethylene | 0 | 0.000 | Y | | 0.040 |
| 20) | 1,1-Dichloroethane | 0 | 0.000 | Y | | 0.043 |
| 21) | Methyl tert-Butyl Ether | 0 | 0.000 | Y | | 0.031 |
| 22) | Chloroprene | 0 | 0.000 | Y | | 0.039 |
| 23) | cis-1,2-Dichloroethylene | 0 | 0.000 | Y | | 0.056 |
| 24) | Bromochloromethane | 0 | 0.000 | Y | | 0.040 |
| 25) | Chloroform | 0 | 0.000 | Y | | 0.039 |
| 26) | Ethyl tert-Butyl Ether | 0 | 0.000 | Y | | 0.033 |
| 27) | 1,2-Dichloroethane | 0 | 0.000 | Y | | 0.042 |
| 28) | IS-1,4-Difluorobenzene | 137862 | | NA | | NA |
| 29) | 1,1,1-Trichloroethane | 0 | 0.000 | Y | | 0.041 |
| 30) | Benzene | 58 | 0.004 | Y | | 0.043 |
| 31) | Carbon Tetrachloride | 0 | 0.000 | Y | | 0.040 |
| 32) | tert-Amyl Methyl Ether | 0 | 0.000 | Y | | 0.037 |
| 33) | 1,2-Dichloropropane | 0 | 0.000 | Y | | 0.061 |
| 34) | Ethyl Acrylate | 0 | 0.000 | Y | | 0.070 |
| 35) | Bromodichloromethane | 0 | 0.000 | Y | | 0.049 |
| 36) | Trichloroethylene | 0 | 0.000 | Y | | 0.045 |
| 37) | Methyl Methacrylate | 0 | 0.000 | Y | | 0.200 |
| 38) | cis-1,3-dichloropropene | 0 | 0.000 | Y | | 0.059 |
| 39) | Methyl Isobutyl Ketone | 85 | 0.006 | Y | | 0.071 |
| 40) | trans-1,3-Dichloropropene | 0 | 0.000 | Y | | 0.059 |
| 41) | 1,1,2-Trichloroethane | 0 | 0.000 | Y | | 0.057 |
| 42) | IS-Chlorobenzene-d5 | 95608 | | NA | | NA |
| 43) | Toluene | 35 | 0.002 | Y | | 0.200 |
| 44) | Dibromochloromethane | 0 | 0.000 | Y | | 0.046 |
| 45) | 1,2-Dibromoethane | 0 | 0.000 | Y | | 0.057 |
| 46) | n-Octane | 0 | 0.000 | Y | | 0.097 |
| 47) | Tetrachloroethylene | 0 | 0.000 | Y | | 0.044 |
| 48) | Chlorobenzene | 0 | 0.000 | Y | | 0.058 |
| 49) | Ethylbenzene | 87 | 0.005 | Y | | 0.077 |
| 50) | m,p-Xylene | 49 | 0.003 | Y | | 0.108 |
| 51) | Bromoform | 0 | 0.000 | Y | | 0.053 |
| 52) | Styrene | 0 | 0.000 | Y | | 0.109 |
| 53) | 1,1,2,2-Tetrachloroethane | 0 | 0.000 | Y | | 0.063 |
| 54) | o-Xylene | 101 | 0.007 | Y | | 0.080 |
| 55) | 1,3,5-Trimethylbenzene | 0 | 0.000 | Y | | 0.102 |
| 56) | 1,2,4-Trimethylbenzene | 50 | 0.004 | Y | | 0.080 |
| 57) | m-Dichlorobenzene | 0 | 0.000 | Y | | 0.055 |
| 58) | p-Dichlorobenzene | 0 | 0.000 | Y | | 0.060 |
| 59) | o-Dichlorobenzene | 0 | 0.000 | Y | | 0.062 |
| 60) | 1,2,4-Trichlorobenzene | 40 | 0.017 | Y | | 0.200 |
| 61) | Hexachloro-1,3-butadiene | 0 | 0.000 | Y | | 0.082 |

*All Blanks must be below 0.2 ppb or 3 times the MDL whichever value is lower

TO-15_BLANK_TEMPLATES_3-19-18
2018 BLANK
Y:\AIR TOX\TO-15 BLANK TEST\TO-15_BLANK_TEMPLATES_8-29-18.xlsx

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU003.D
Acq On : 21 Dec 2018 9:24 am
Operator : MAH
Sample : B8L2103-BLK1
Misc : 80 ML 8L13001
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 26 09:56:23 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) IS-Hexane-d14 | 19.990 | 66 | 56325 | 4.7700 ppbv | 0.00 |
| 29) IS-1,4-Difluorobenzene | 23.169 | 114 | 137862 | 4.9900 ppbv | 0.02 |
| 43) IS-Chlorobenzene-d5 | 30.134 | 117 | 95608 | 4.7400 ppbv | 0.04 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) Acetylene | 0.000 | 26 | 0 | N.D. | |
| 3) Propylene | 7.837 | 41 | 56 | 0.0099 ppbv | 88 |
| 4) Dichlorodifluoromethane | 0.000 | 85 | 0 | N.D. | |
| 5) Chloromethane | 9.757 | 50 | 34 | 0.0048 ppbv # | 42 |
| 6) Dichlorotetrafluoroethane | 0.000 | 85 | 0 | N.D. | |
| 7) Vinyl Chloride | 0.000 | 62 | 0 | N.D. | |
| 8) 1,3-Butadiene | 0.000 | 54 | 0 | N.D. | |
| 9) Ethylene oxide | 0.000 | 29 | 0 | N.D. d | |
| 10) Bromomethane | 0.000 | 94 | 0 | N.D. | |
| 11) Chloroethane | 0.000 | 64 | 0 | N.D. | |
| 12) Acetonitrile | 0.000 | 41 | 0 | N.D. | |
| 13) Acrolein | 14.750 | 56 | 60 | 0.0185 ppbv # | 41 |
| 14) Trichlorofluoromethane | 0.000 | 101 | 0 | N.D. | |
| 15) Acrylonitrile | 0.000 | 53 | 0 | N.D. | |
| 16) 1,1-Dichloroethene | 0.000 | 61 | 0 | N.D. | |
| 17) Methylene Chloride | 0.000 | 49 | 0 | N.D. | |
| 18) Carbon Disulfide | 16.930 | 76 | 475 | 0.0222 ppbv | 100 |
| 19) Trichlorotrifluoroethane | 17.255 | 101 | 42 | 0.0027 ppbv # | 9 |
| 20) trans-1,2-Dichloroethy... | 0.000 | 96 | 0 | N.D. | |
| 21) 1,1-Dichloroethane | 0.000 | 63 | 0 | N.D. | |
| 22) Methyl tert-Butyl Ether | 0.000 | 73 | 0 | N.D. | |
| 23) Chloroprene | 0.000 | 53 | 0 | N.D. | |
| 24) cis-1,2-Dichloroethylene | 0.000 | 61 | 0 | N.D. d | |
| 25) Bromochloromethane | 0.000 | 128 | 0 | N.D. | |
| 26) Chloroform | 0.000 | 83 | 0 | N.D. | |
| 27) Ethyl tert-Butyl Ether | 0.000 | 59 | 0 | N.D. | |
| 28) 1,2-Dichloroethane | 0.000 | 62 | 0 | N.D. | |
| 30) 1,1,1-Trichloroethane | 0.000 | 97 | 0 | N.D. | |
| 31) Benzene | 22.552 | 78 | 58 | 0.0036 ppbv # | 53 |
| 32) Carbon Tetrachloride | 0.000 | 117 | 0 | N.D. | |
| 33) tert-Amyl Methyl Ether | 0.000 | 73 | 0 | N.D. | |
| 34) 1,2-Dichloropropane | 0.000 | 63 | 0 | N.D. | |
| 35) Ethyl Acrylate | 0.000 | 55 | 0 | N.D. | |
| 36) Bromodichloromethane | 0.000 | 83 | 0 | N.D. | |
| 37) Trichloroethylene | 0.000 | 130 | 0 | N.D. | |
| 38) Methyl Methacrylate | 0.000 | 41 | 0 | N.D. d | |
| 39) cis-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 40) Methyl Isobutyl Ketone | 25.661 | 43 | 85 | 0.0064 ppbv # | 47 |
| 41) trans-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 42) 1,1,2-Trichloroethane | 0.000 | 97 | 0 | N.D. | |
| 44) Toluene | 27.111 | 91 | 35 | 0.0021 ppbv # | 41 |
| 45) Dibromochloromethane | 0.000 | 129 | 0 | N.D. | |
| 46) 1,2-Dibromoethane | 0.000 | 107 | 0 | N.D. | |
| 47) n-Octane | 0.000 | 43 | 0 | N.D. | |
| 48) Tetrachloroethylene | 0.000 | 166 | 0 | N.D. | |
| 49) Chlorobenzene | 0.000 | 112 | 0 | N.D. | |
| 50) Ethylbenzene | 30.936 | 91 | 87 | 0.0049 ppbv | 91 |

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU003.D
Acq On : 21 Dec 2018 9:24 am
Operator : MAH
Sample : B8L2103-BLK1
Misc : 80 ML 8L13001
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 26 09:56:23 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

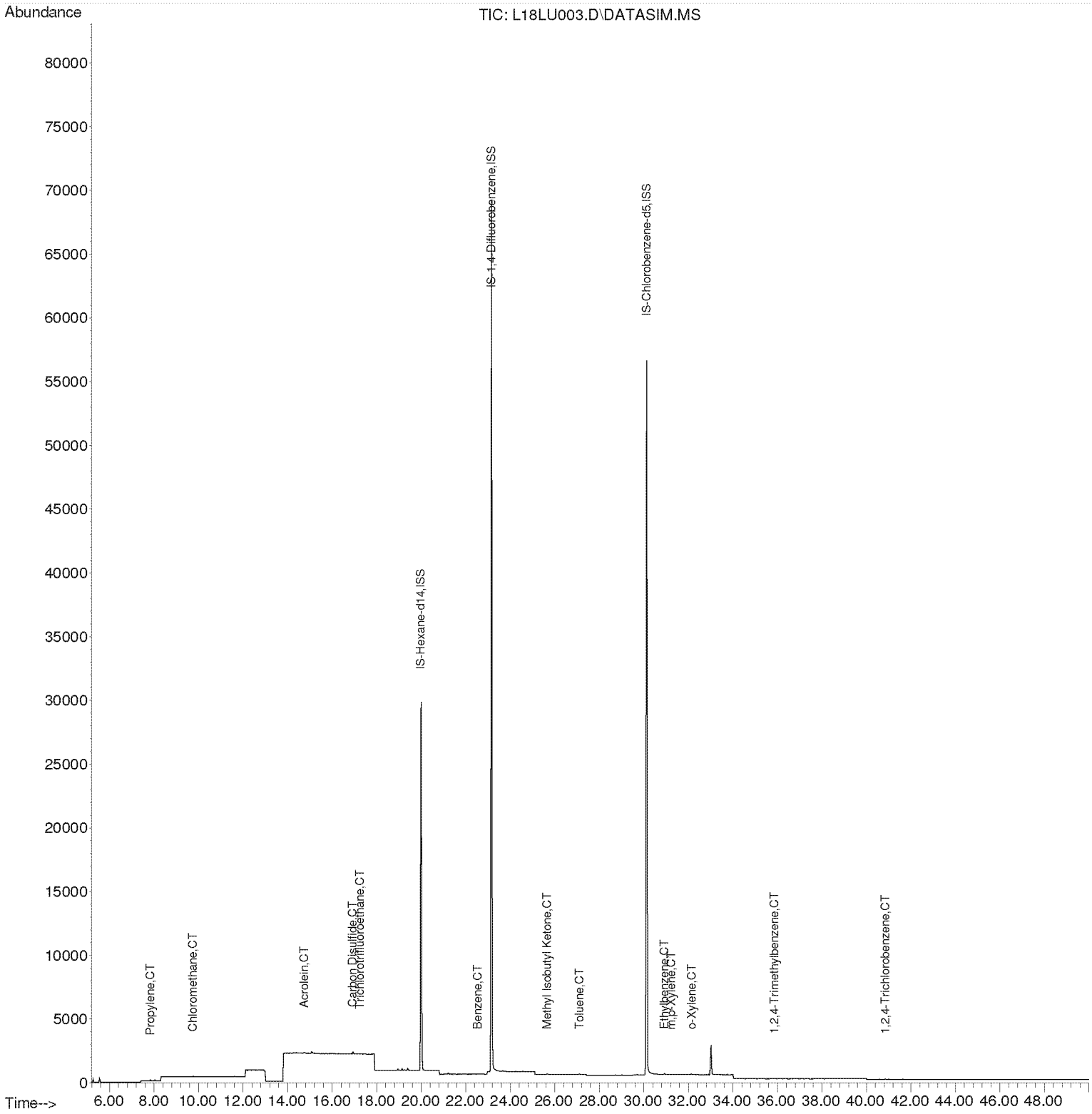
| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 51) m,p-Xylene | 31.241 | 91 | 49 | 0.0032 ppbv # | 74 |
| 52) Bromoform | 0.000 | 173 | 0 | N.D. | |
| 53) Styrene | 0.000 | 104 | 0 | N.D. | |
| 54) 1,1,2,2-Tetrachloroethane | 0.000 | 83 | 0 | N.D. | |
| 55) o-Xylene | 32.157 | 91 | 101 | 0.0068 ppbv | 87 |
| 56) 1,3,5-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | |
| 57) 1,2,4-Trimethylbenzene | 35.863 | 105 | 50 | 0.0041 ppbv # | 33 |
| 58) m-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 59) p-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 60) o-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 61) 1,2,4-Trichlorobenzene | 40.856 | 180 | 40 | 0.0170 ppbv # | 82 |
| 62) Hexachloro-1,3-butadiene | 0.000 | 225 | 0 | N.D. | |

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

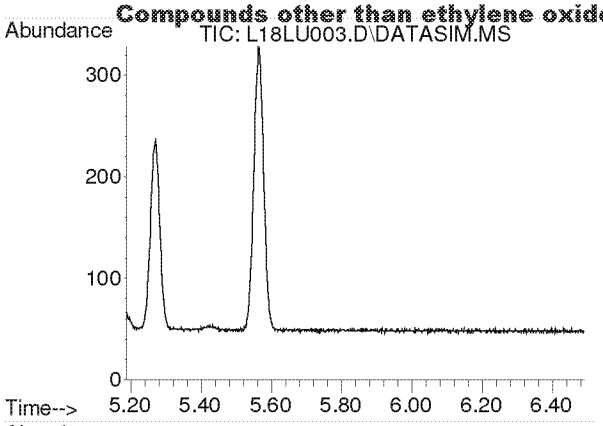
**Compounds other than ethylene oxide were not quantitated.**

Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU003.D
Acq On : 21 Dec 2018 9:24 am
Operator : MAH
Sample : B8L2103-BLK1
Misc : 80 ML 8L13001
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Dec 26 09:50:01 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



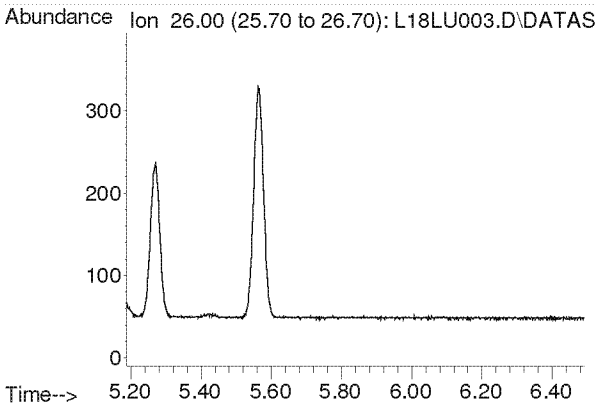
**Compounds other than ethylene oxide were not quantitated.**

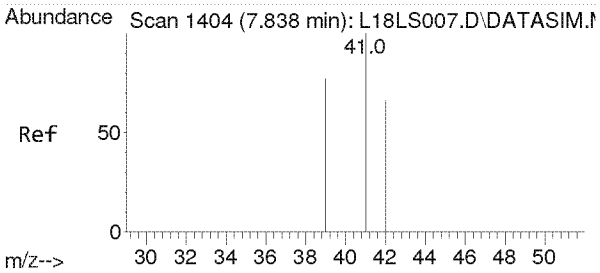



#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 26

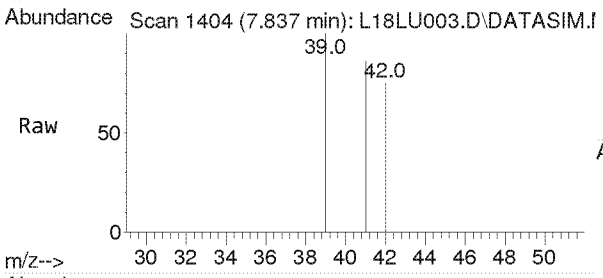


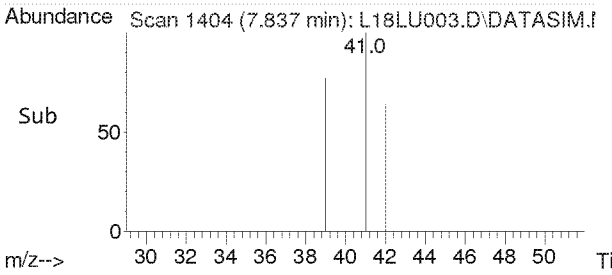



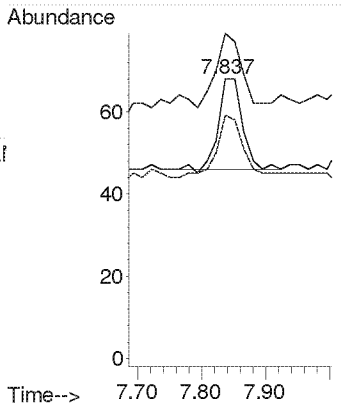

#3
Propylene
Concen: 0.010 ppbv
RT: 7.837 min Scan# 1404
Delta R.T. -0.000 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 41 Resp: 56

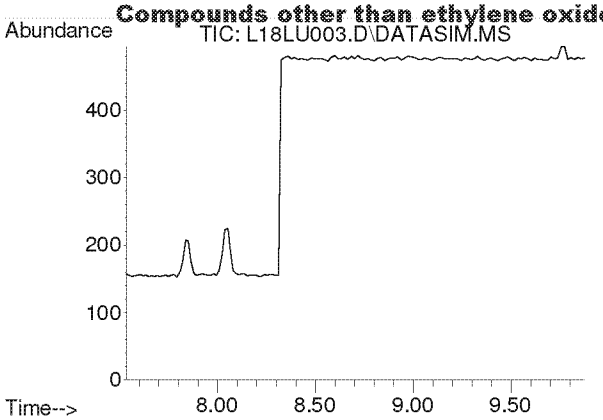
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 41 | 100 | | |
| 39 | 87.5 | 62.6 | 93.8 |
| 42 | 76.8 | 52.6 | 79.0 |



**Compounds other than ethylene oxide were not quantitated.**

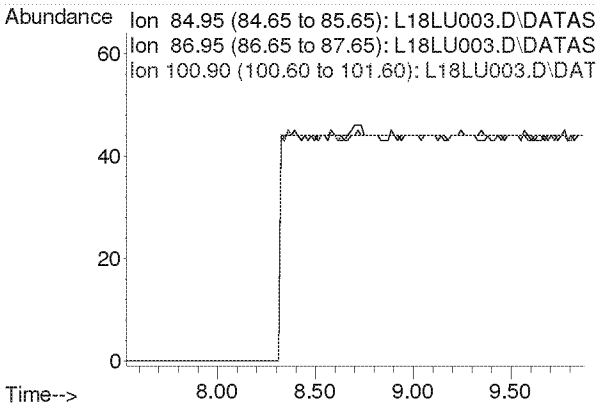


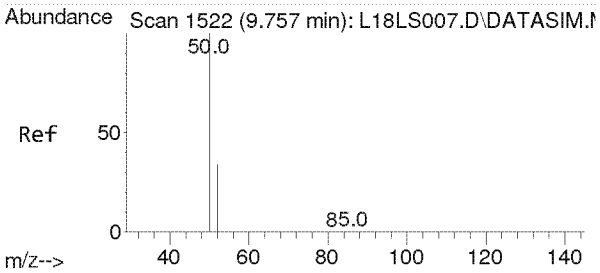

#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 87 | 32.5 |
| 101 | 8.9 |

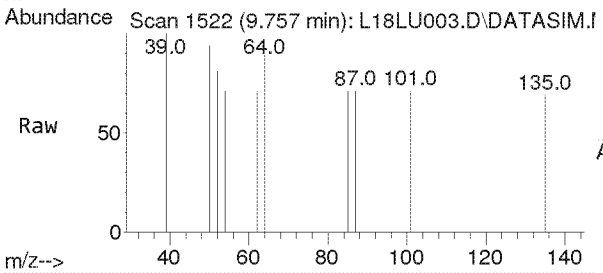


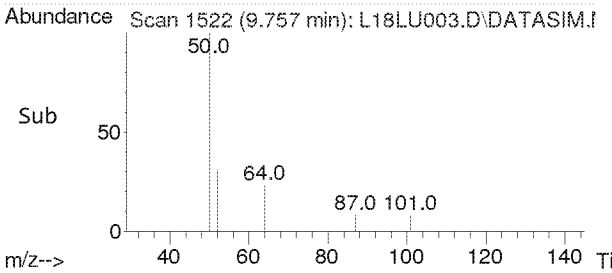



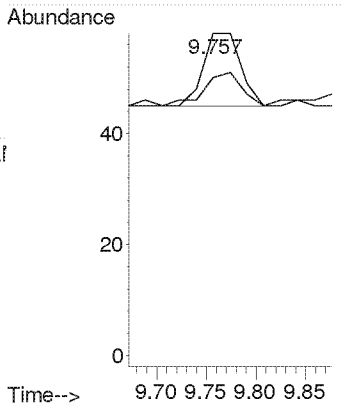

#5
Chloromethane
Concen: 0.005 ppbv
RT: 9.757 min Scan# 1522
Delta R.T. -0.000 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 50 Resp: 34

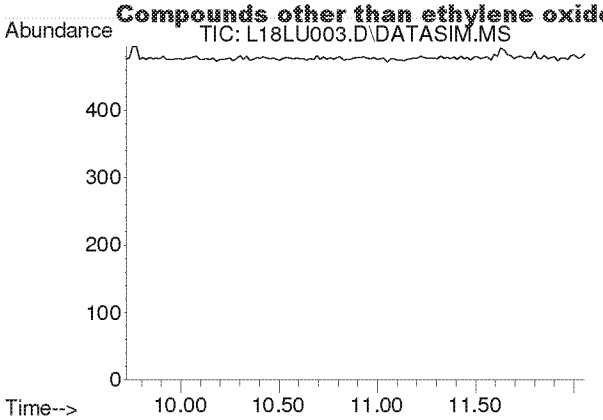
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 50 | 100 | | |
| 52 | 0.0 | 26.1 | 39.1# |



**Compounds other than ethylene oxide were not quantitated.**

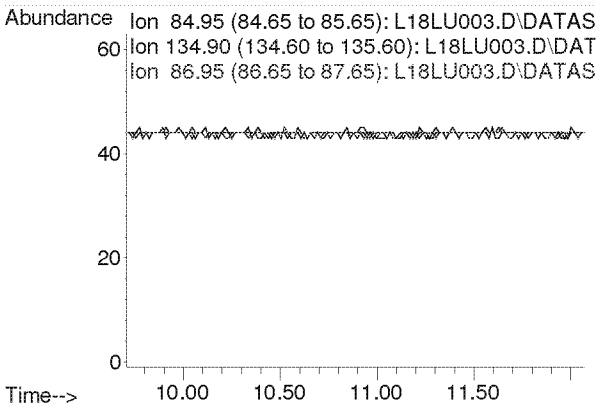


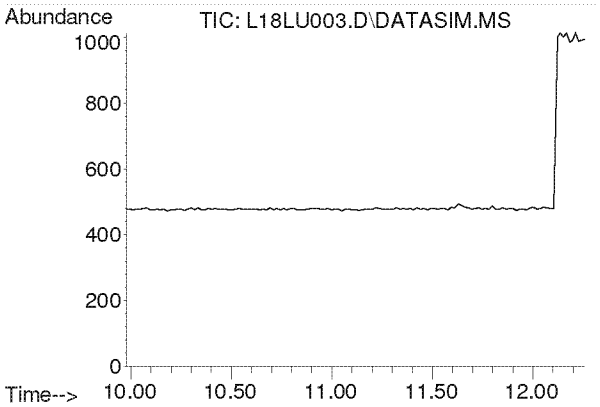

#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 135 | 79.1 |
| 87 | 32.1 |



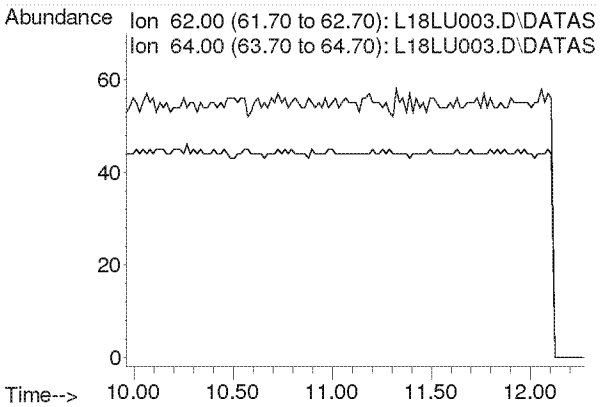




#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

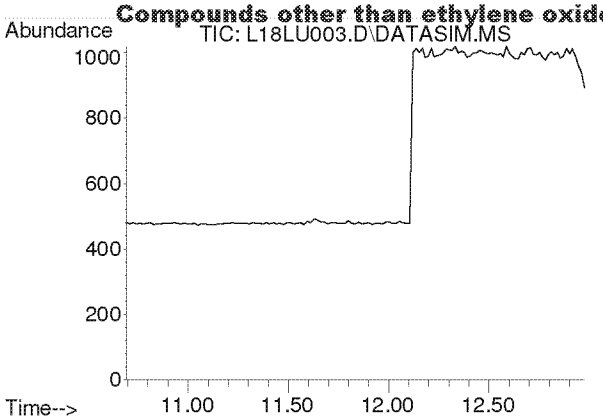
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 64 | 31.8 |



**Compounds other than ethylene oxide were not quantitated.**

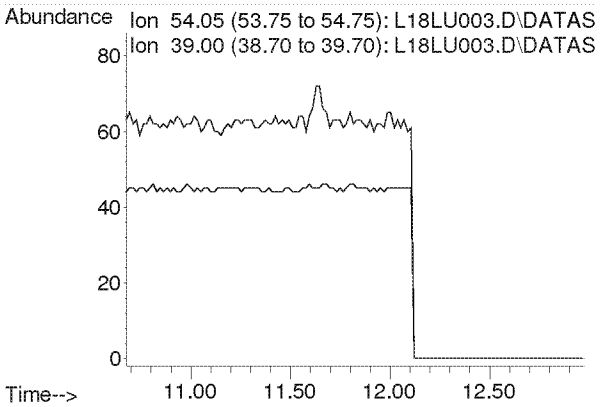


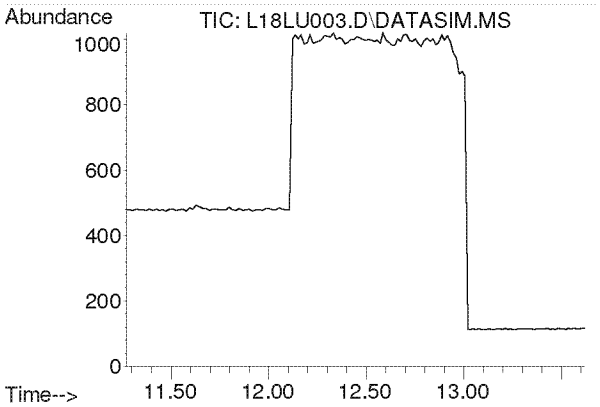

#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 54

| Sig | Exp Ratio |
|---|---|
| 54 | 100 |
| 39 | 105.4 |



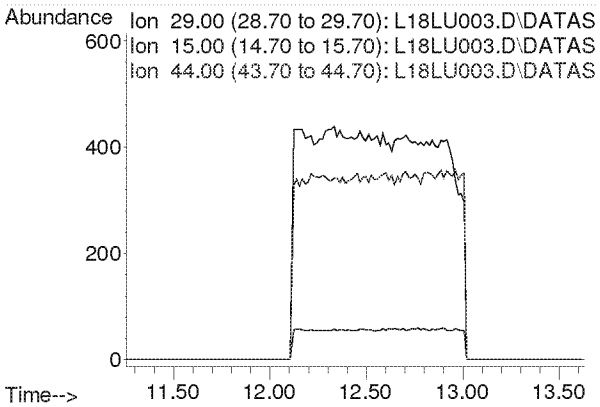




#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

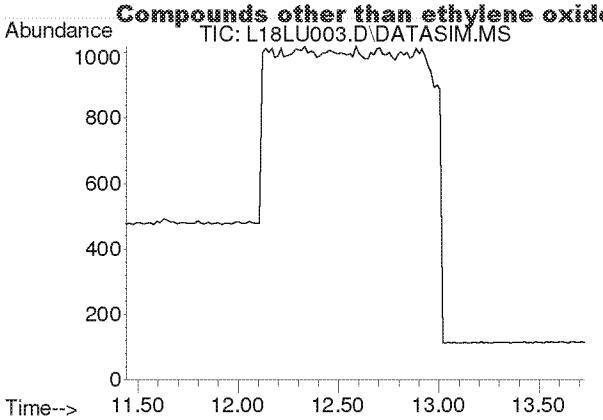
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 29

| Sig | Exp Ratio |
|---|---|
| 29 | 100 |
| 15 | 20.3 |
| 44 | 90.0 |



**Compounds other than ethylene oxide were not quantitated.**

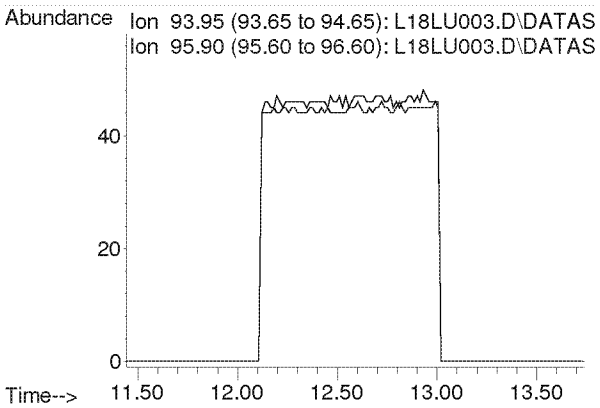


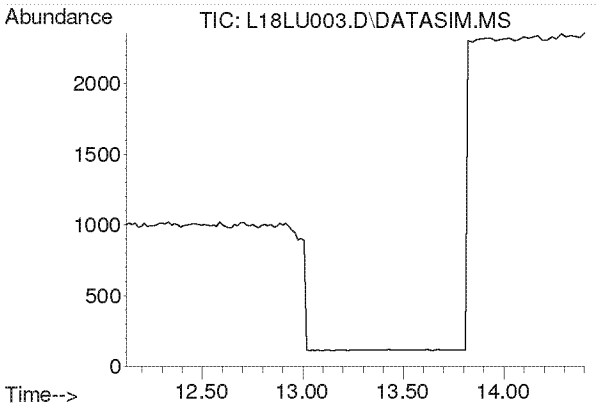

#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 94

| Sig | Exp Ratio |
|---|---|
| 94 | 100 |
| 96 | 93.9 |



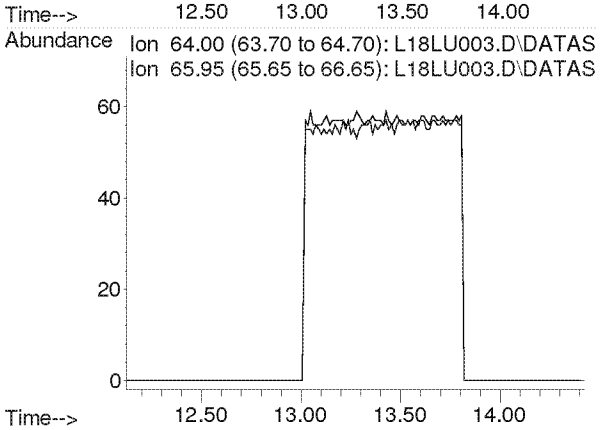




#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

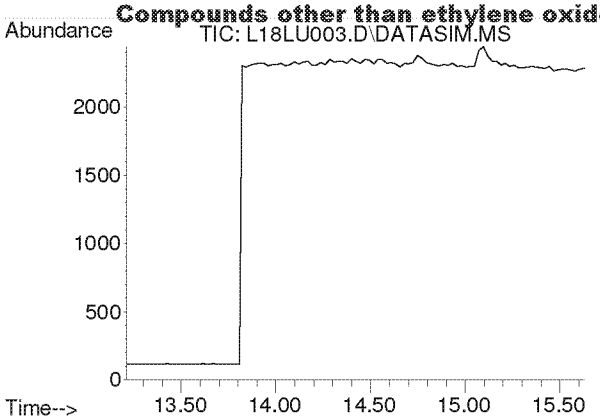
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 64

| Sig | Exp Ratio |
|---|---|
| 64 | 100 |
| 66 | 32.0 |



**Compounds other than ethylene oxide were not quantitated.**

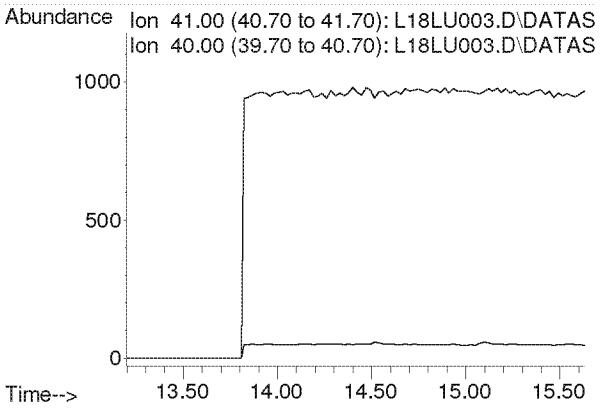


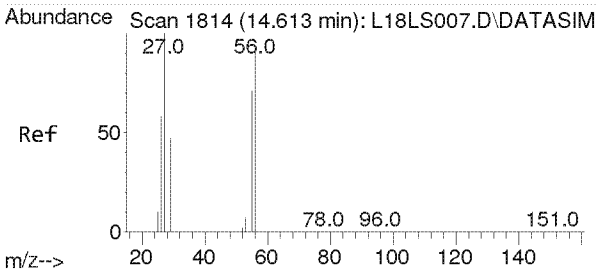

#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 40 | 50.9 |

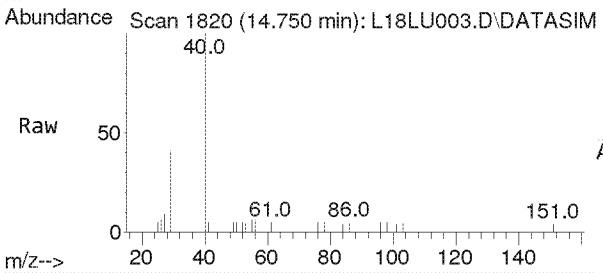


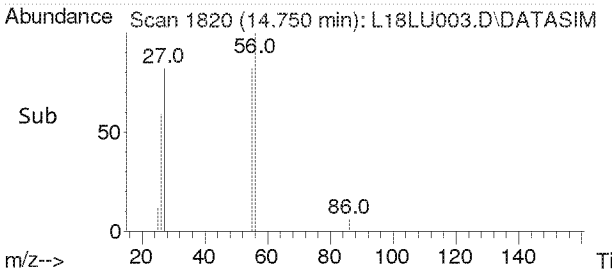



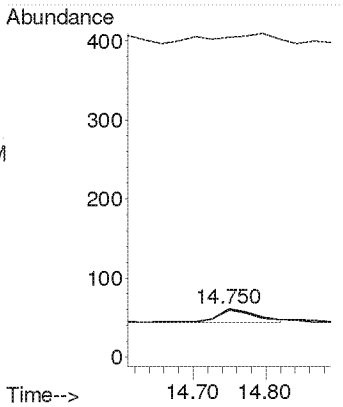

#13
Acrolein
Concen: 0.019 ppbv
RT: 14.750 min Scan# 1820
Delta R.T. 0.137 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 56 Resp: 60

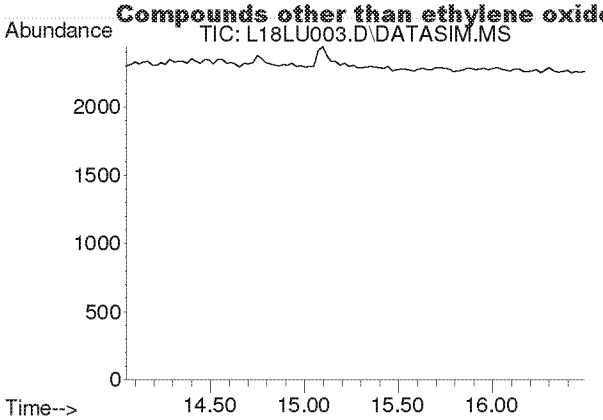
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 56 | 100 | | |
| 55 | 96.7 | 60.3 | 90.5# |
| 29 | 128.3 | 42.3 | 63.5# |



**Compounds other than ethylene oxide were not quantitated.**

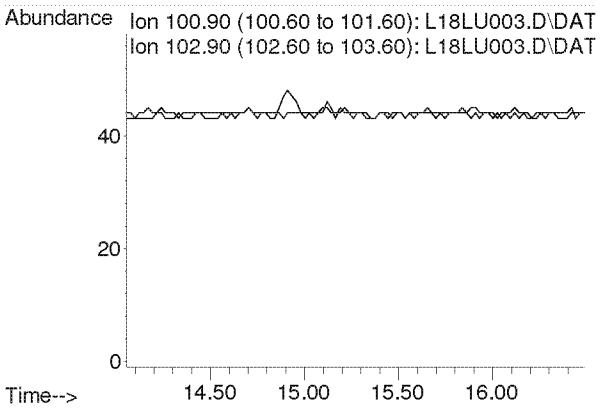


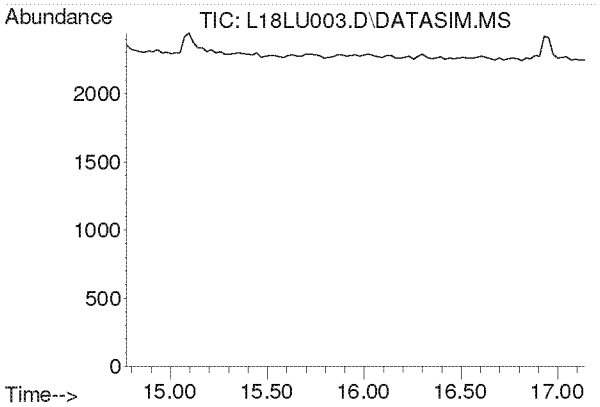

#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 103 | 64.6 |



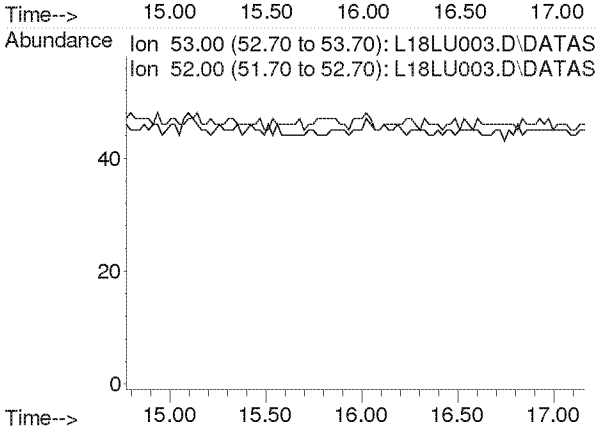




#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

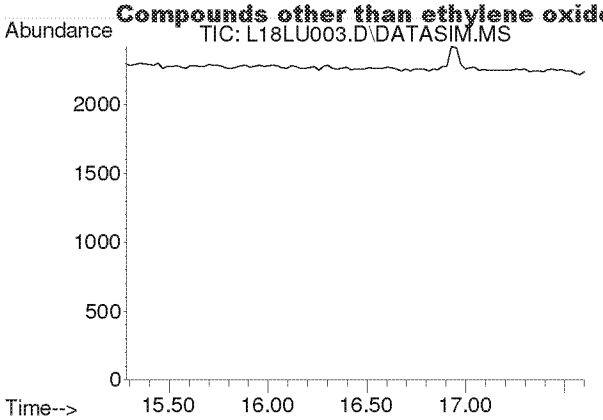
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 52 | 85.4 |



**Compounds other than ethylene oxide were not quantitated.**

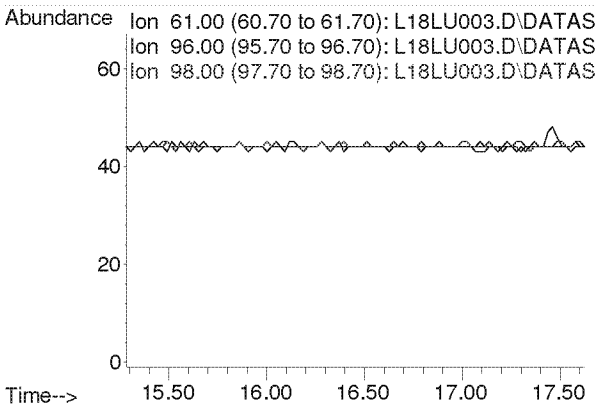


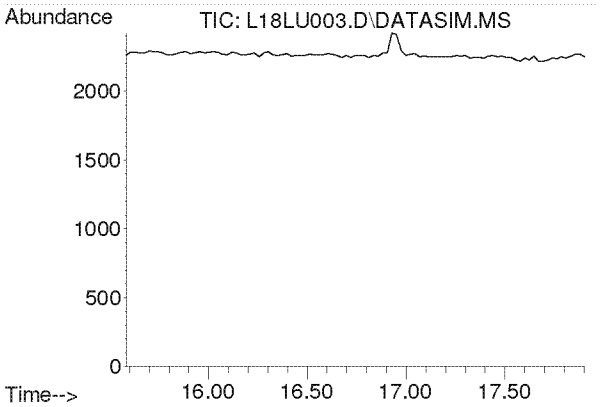

#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 58.3 |
| 98 | 37.4 |



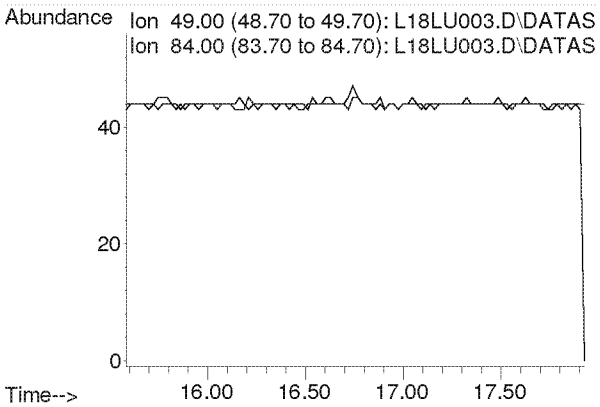




#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

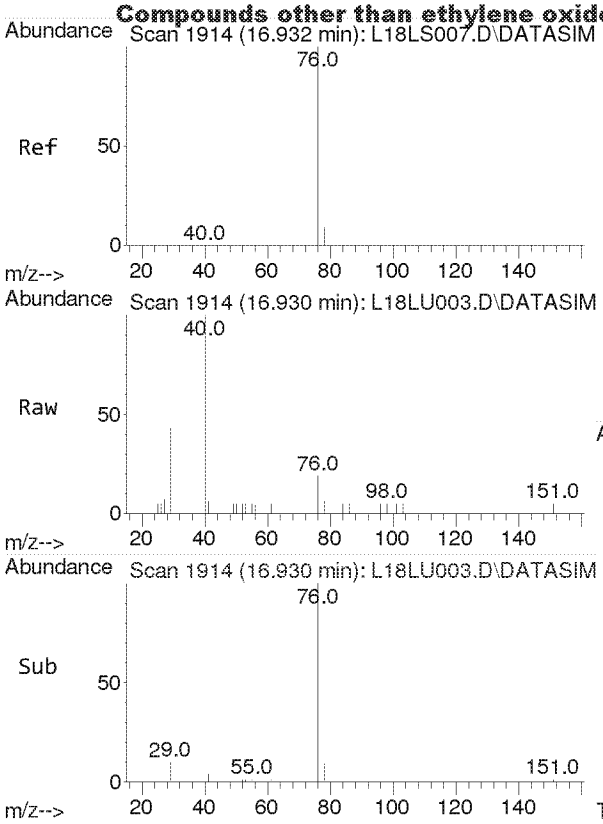
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 49

| Sig | Exp Ratio |
|---|---|
| 49 | 100 |
| 84 | 76.4 |



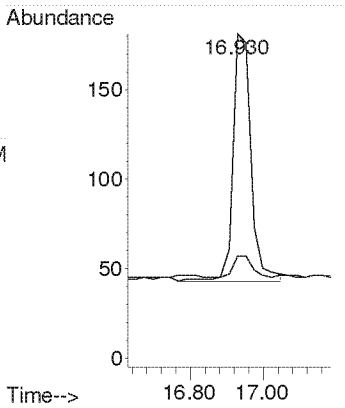
**Compounds other than ethylene oxide were not quantitated.**

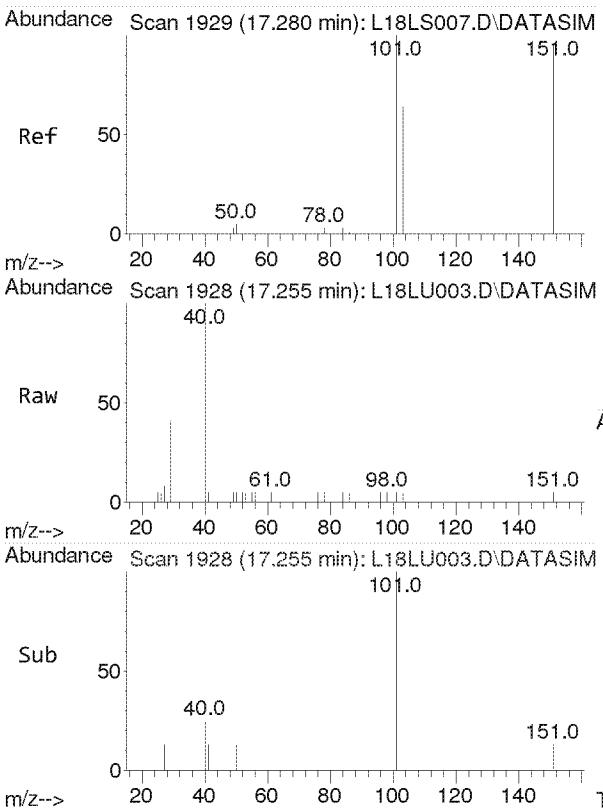



#18
Carbon Disulfide
Concen: 0.022 ppbv
RT: 16.930 min Scan# 1914
Delta R.T. -0.002 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 76 Resp: 475

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 76 | 100 | | |
| 78 | 9.1 | 7.3 | 10.9 |

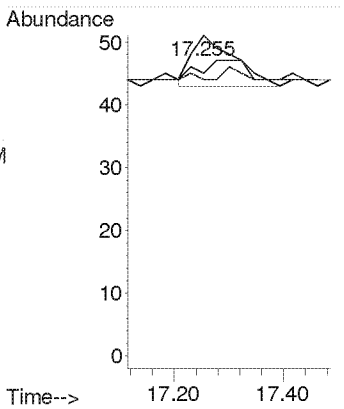


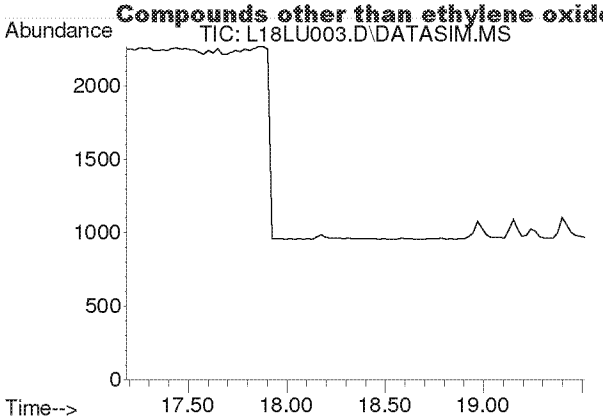

#19
Trichlorotrifluoroethane
Concen: 0.003 ppbv
RT: 17.255 min Scan# 1928
Delta R.T. -0.025 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion:101 Resp: 42

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 101 | 100 | | |
| 151 | 0.0 | 76.2 | 114.4# |
| 103 | 0.0 | 51.3 | 76.9# |



**Compounds other than ethylene oxide were not quantitated.**

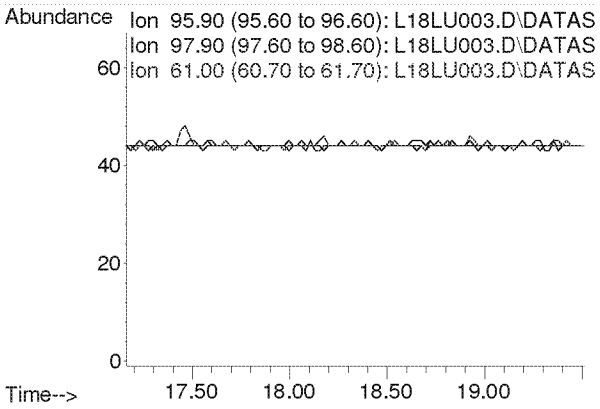


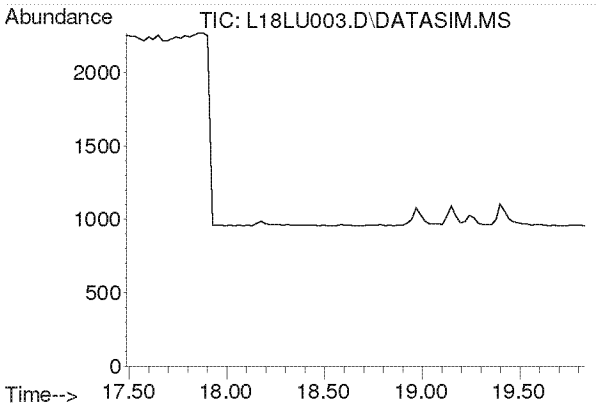

#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 96

| Sig | Exp Ratio |
|---|---|
| 96 | 100 |
| 98 | 63.7 |
| 61 | 159.2 |



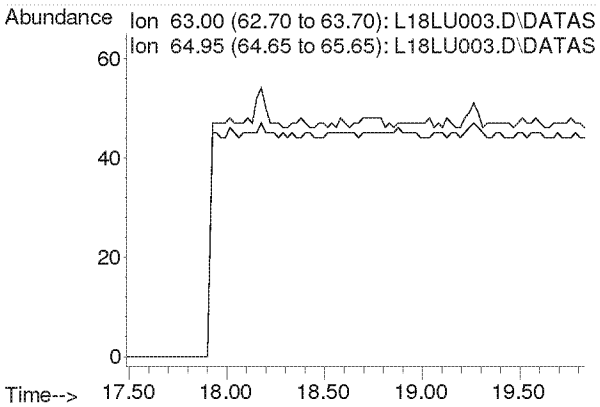




#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

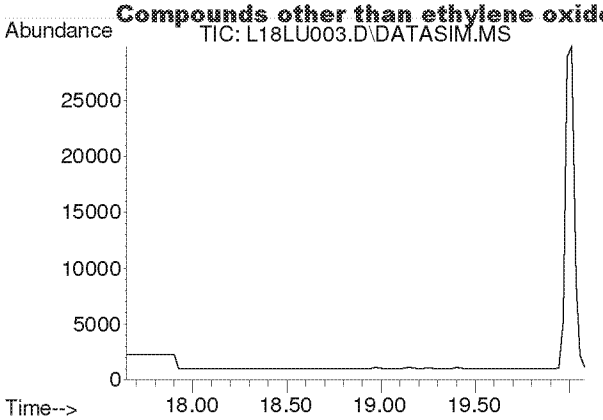
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 65 | 31.7 |



**Compounds other than ethylene oxide were not quantitated.**

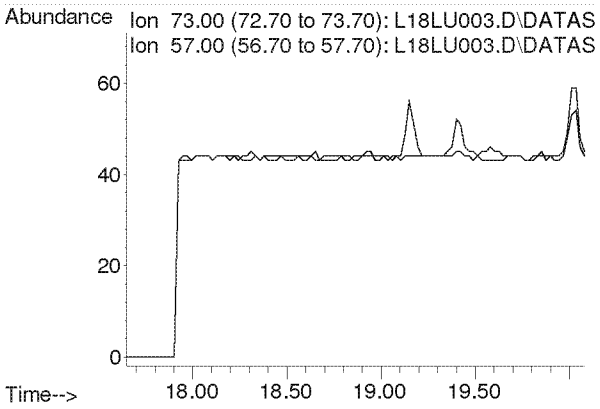


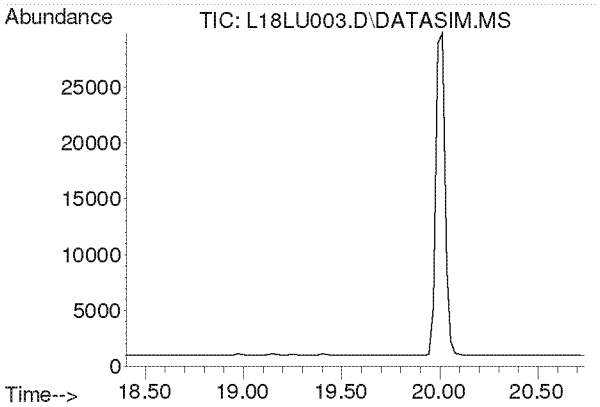

#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 57 | 23.4 |



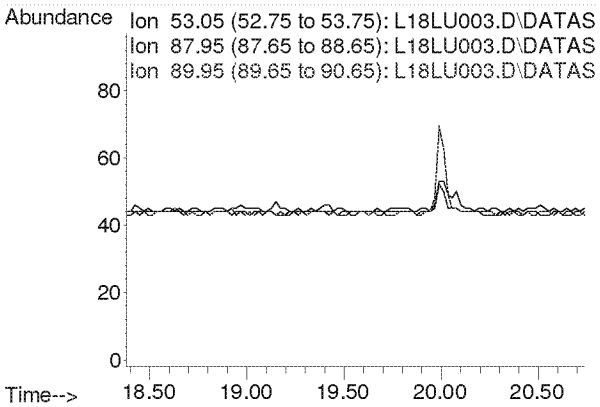




#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

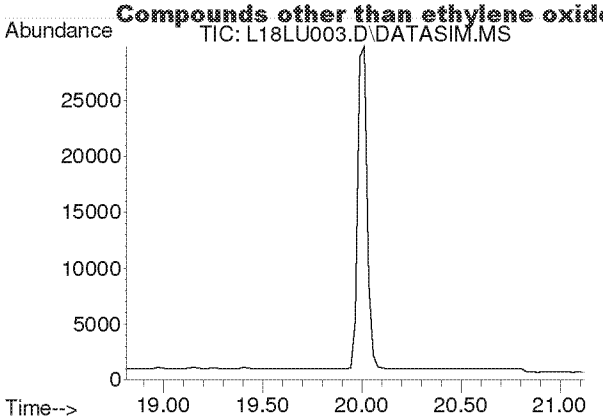
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 88 | 51.8 |
| 90 | 16.8 |



**Compounds other than ethylene oxide were not quantitated.**

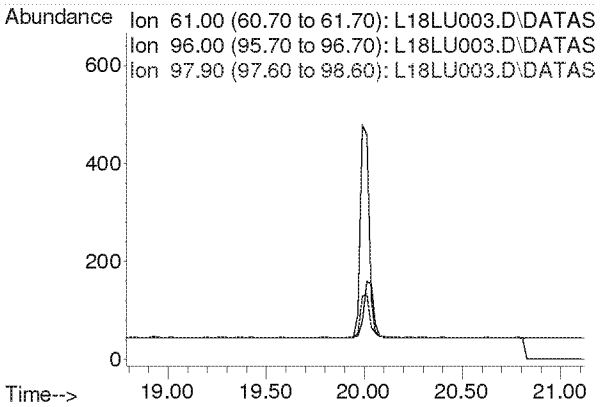


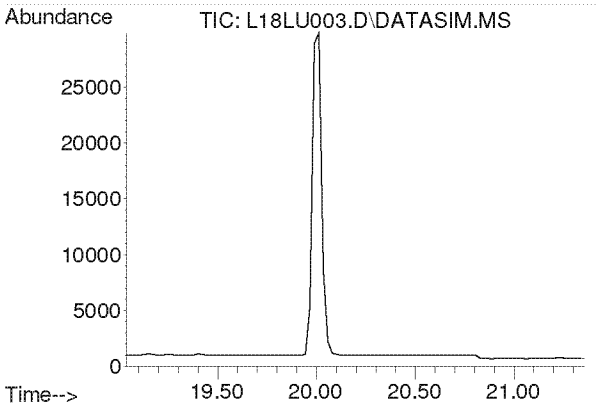

#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 73.7 |
| 98 | 45.2 |



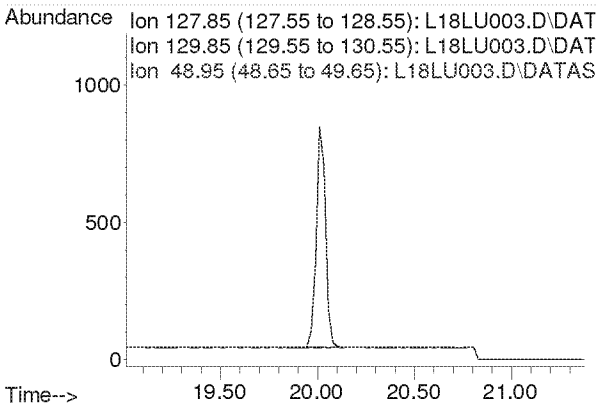




#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

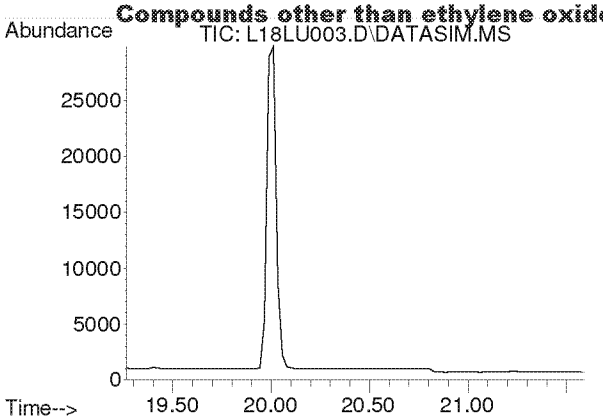
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 128

| Sig | Exp Ratio |
|---|---|
| 128 | 100 |
| 130 | 129.1 |
| 49 | 171.2 |



**Compounds other than ethylene oxide were not quantitated.**

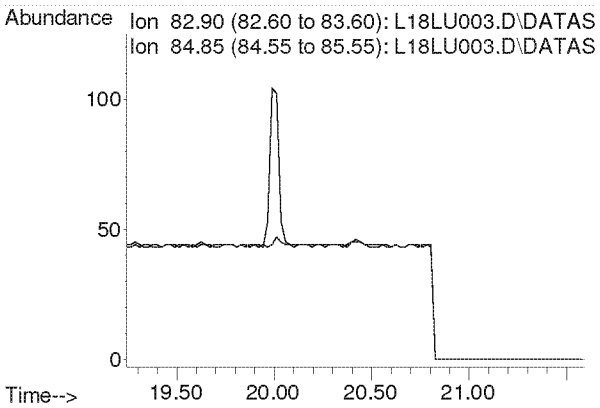


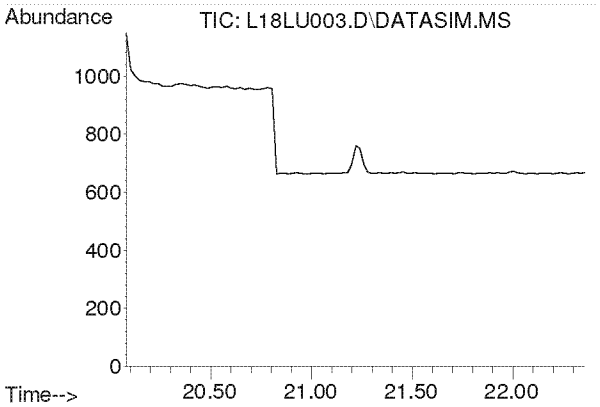

#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.4 |



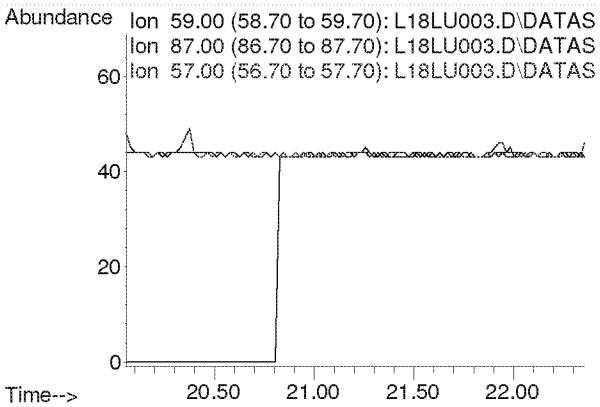




#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

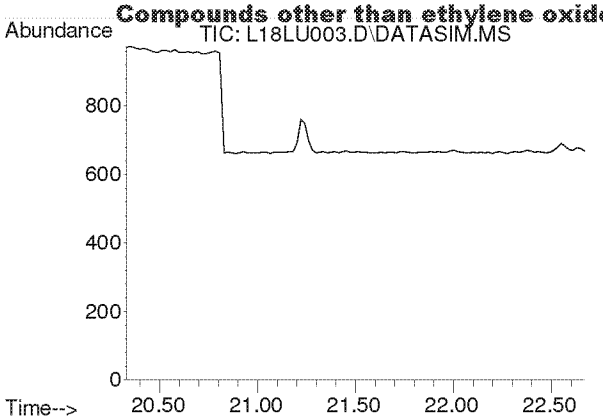
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 59

| Sig | Exp Ratio |
|---|---|
| 59 | 100 |
| 87 | 37.5 |
| 57 | 33.8 |



**Compounds other than ethylene oxide were not quantitated.**

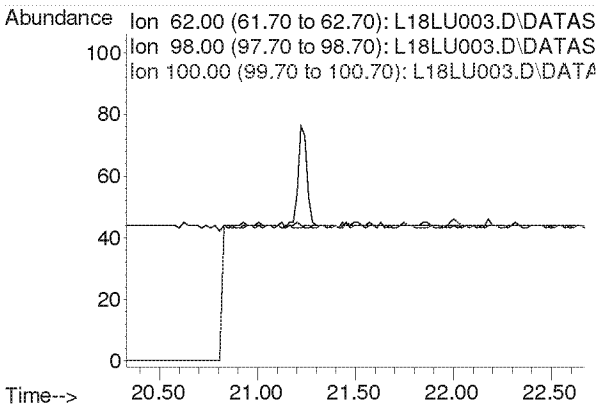


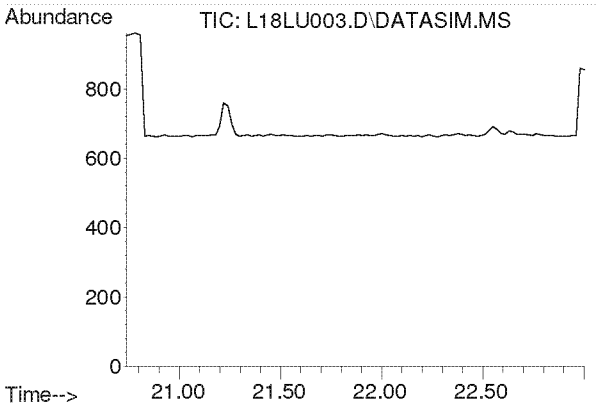

#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 98 | 6.4 |
| 100 | 4.0 |



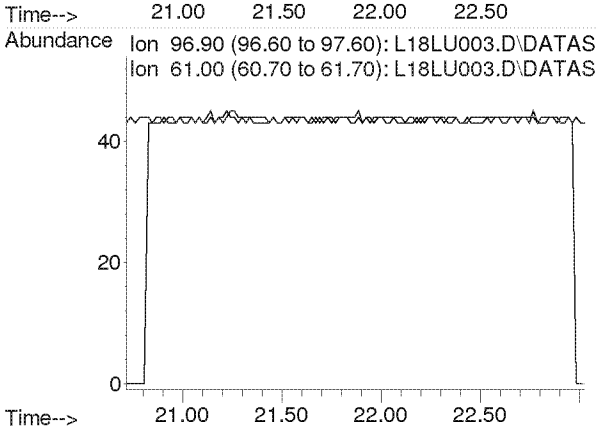




#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

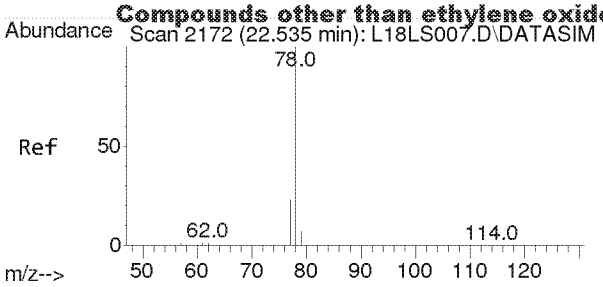
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 61 | 60.5 |



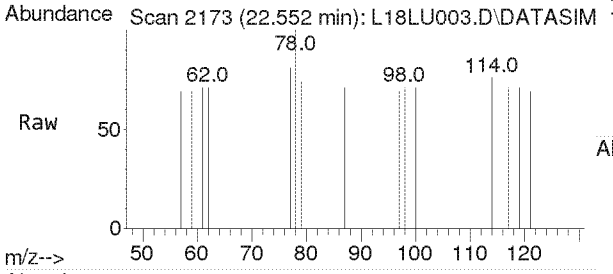
**Compounds other than ethylene oxide were not quantitated.**

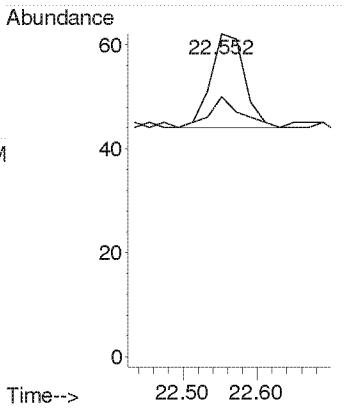


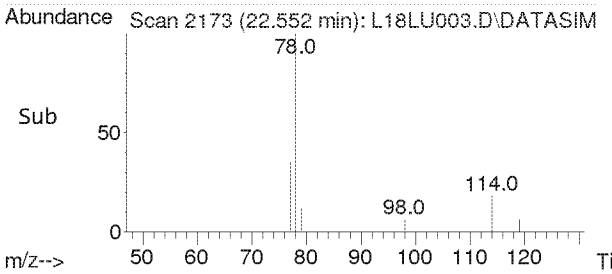

#31
Benzene
Concen: 0.004 ppbv
RT: 22.552 min Scan# 2173
Delta R.T. 0.017 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

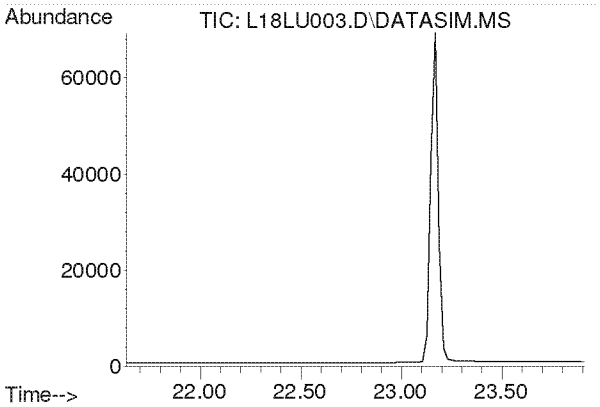
Tgt Ion: 78 Resp: 58

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 78 | 100 | | |
| 77 | 0.0 | 18.2 | 27.2# |



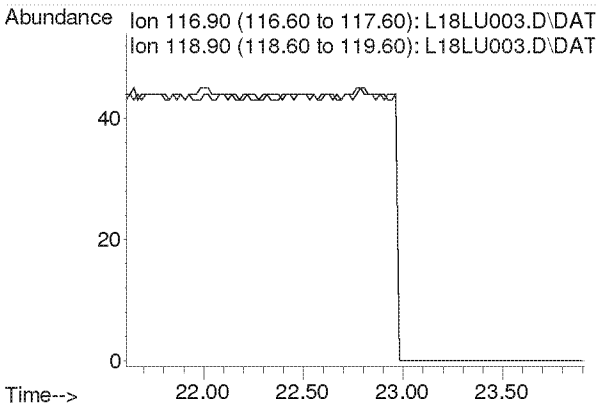




#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

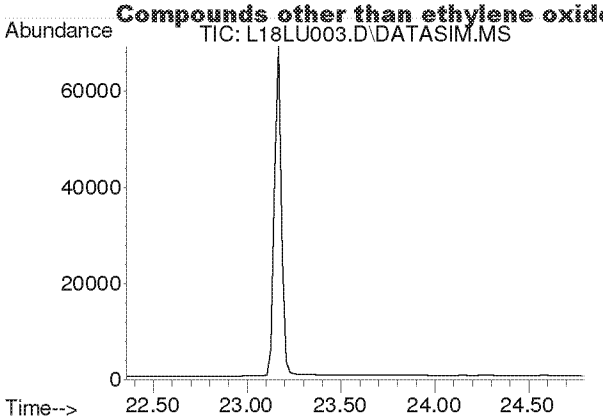
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 117

| Sig | Exp Ratio |
|---|---|
| 117 | 100 |
| 119 | 96.5 |



**Compounds other than ethylene oxide were not quantitated.**

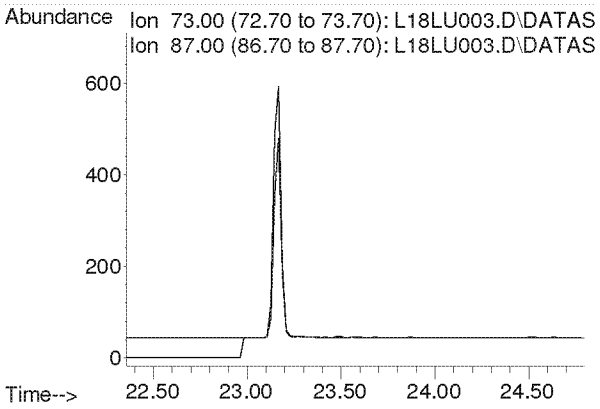


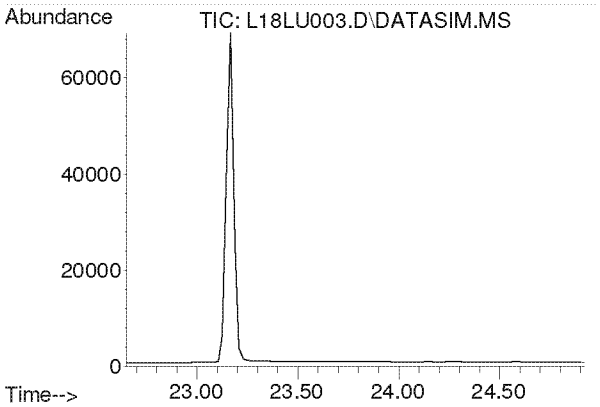

#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 87 | 24.9 |



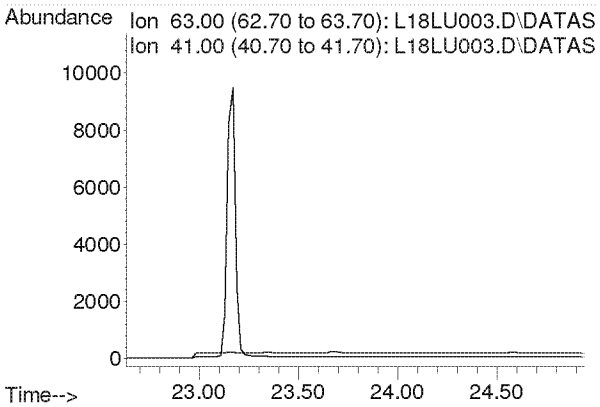




#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

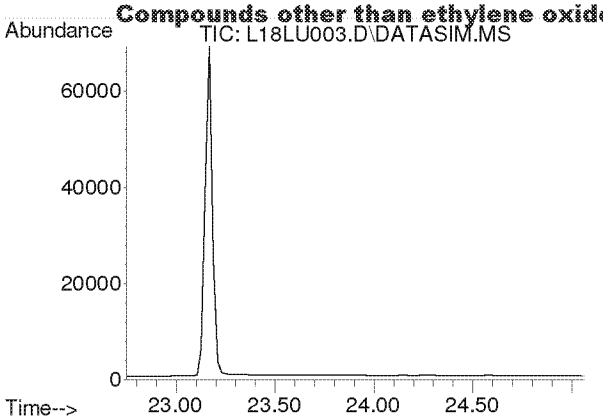
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 41 | 212.8 |



**Compounds other than ethylene oxide were not quantitated.**

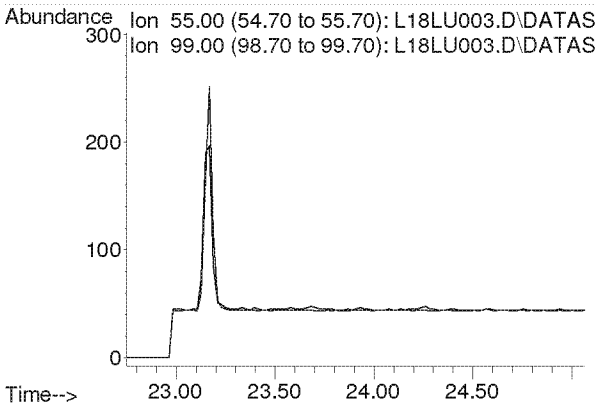


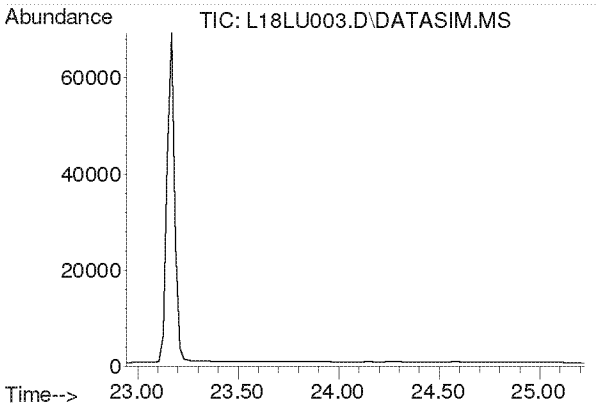

#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 55

| Sig | Exp Ratio |
|---|---|
| 55 | 100 |
| 99 | 6.1 |



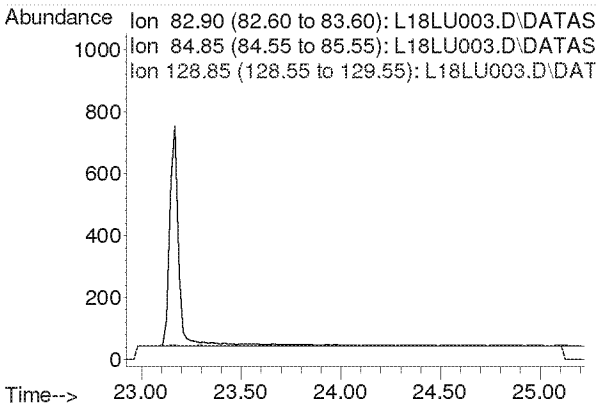




#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

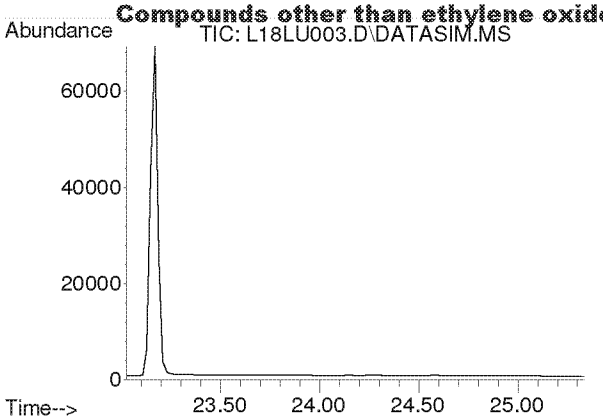
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.0 |
| 129 | 12.4 |



**Compounds other than ethylene oxide were not quantitated.**

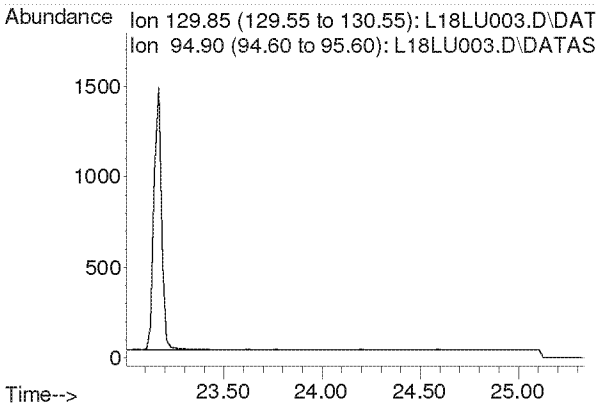


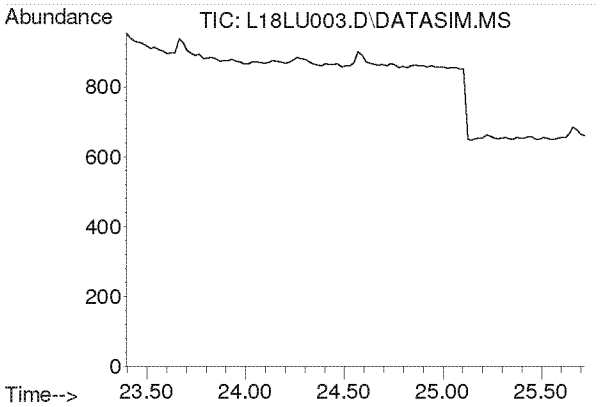

#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 130

| Sig | Exp Ratio |
|---|---|
| 130 | 100 |
| 95 | 110.3 |



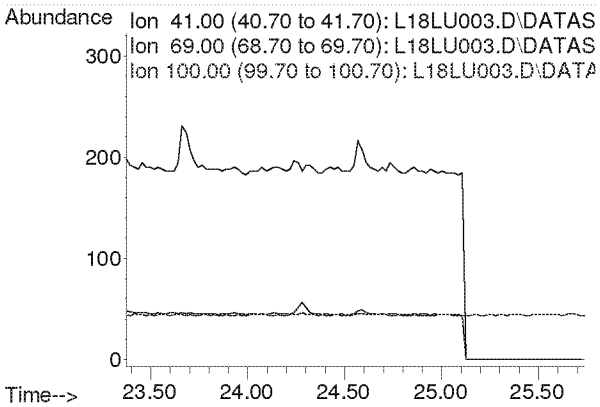




#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

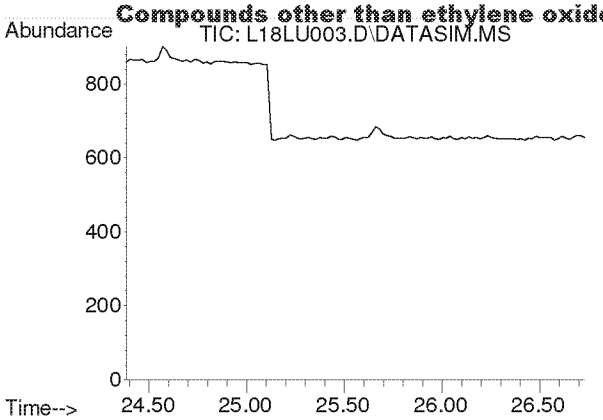
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 69 | 19.9 |
| 100 | 5.2 |



**Compounds other than ethylene oxide were not quantitated.**

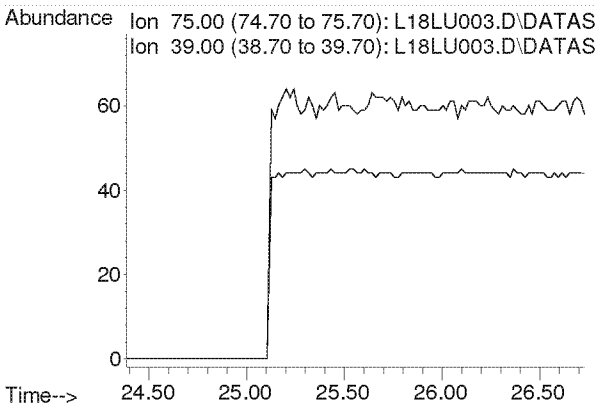


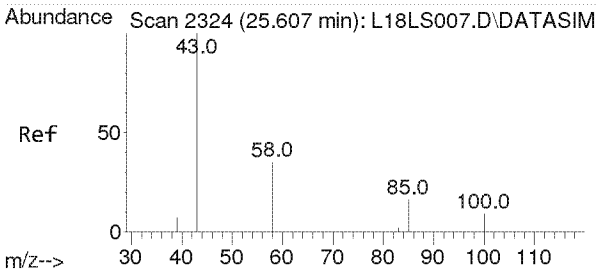

#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 54.4 |

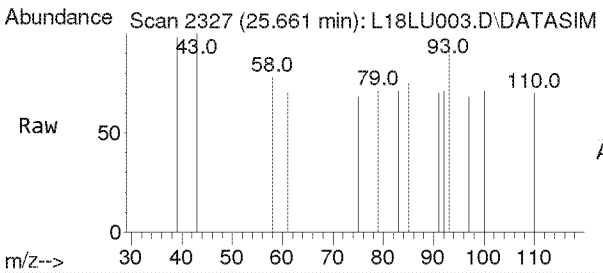


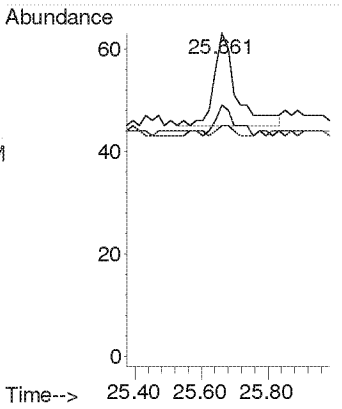



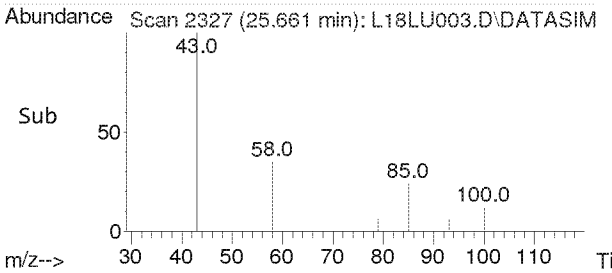

#40
Methyl Isobutyl Ketone
Concen: 0.006 ppbv
RT: 25.661 min Scan# 2327
Delta R.T. 0.055 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 43 Resp: 85

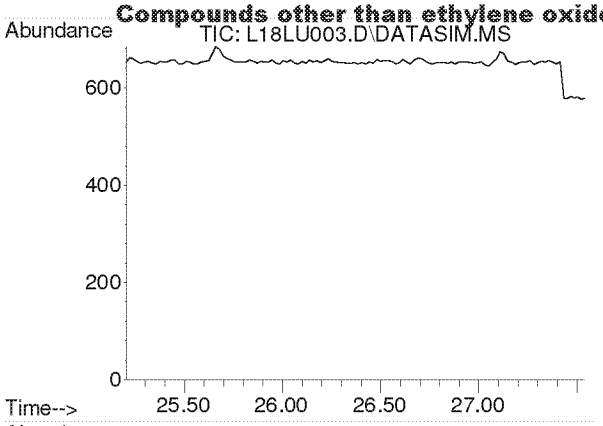
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 43 | 100 | | |
| 58 | 0.0 | 27.4 | 41.0# |
| 100 | 0.0 | 6.3 | 9.5# |



**Compounds other than ethylene oxide were not quantitated.**

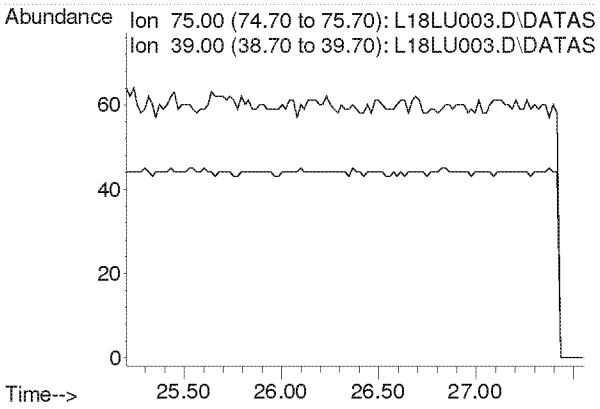


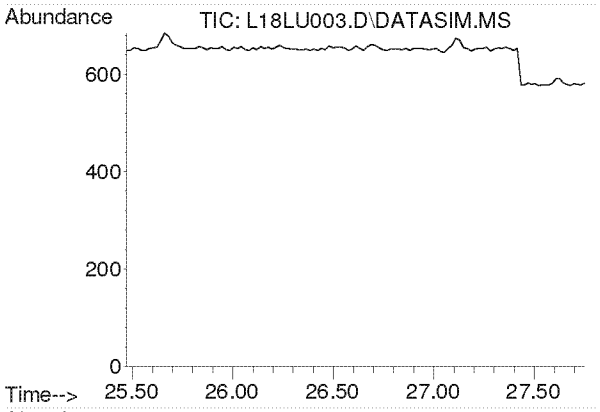

#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 50.9 |



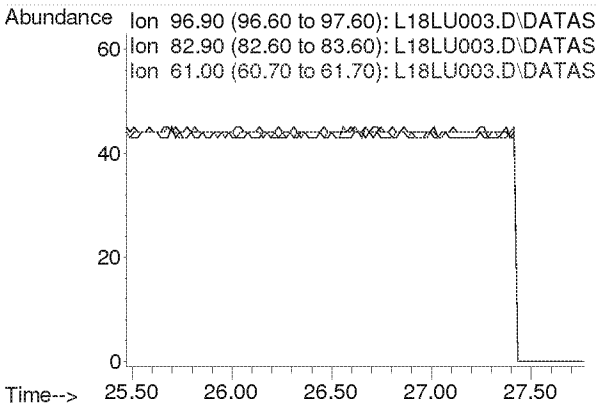




#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

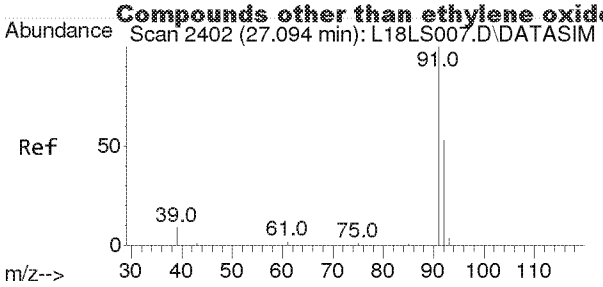
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 83 | 96.1 |
| 61 | 63.5 |



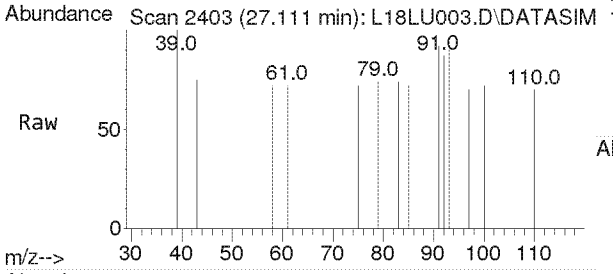
**Compounds other than ethylene oxide were not quantitated.**

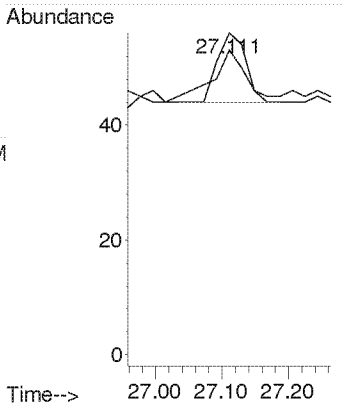


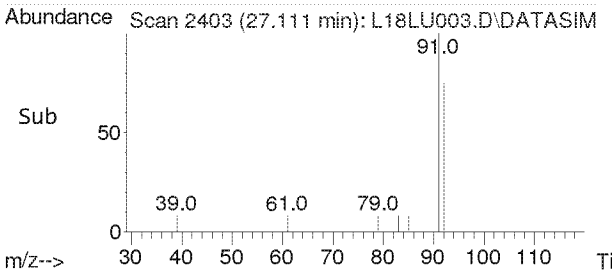

#44
Toluene
Concen: 0.002 ppbv
RT: 27.111 min Scan# 2403
Delta R.T. 0.017 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

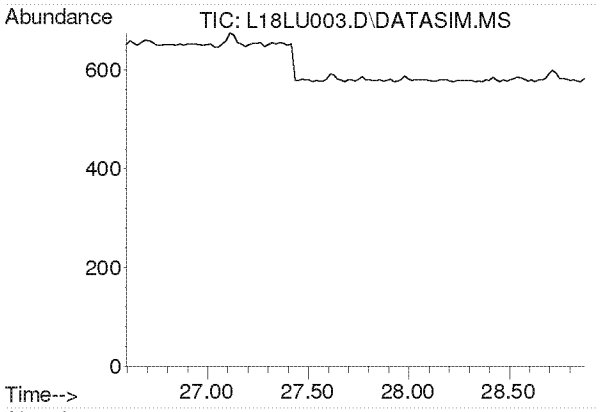
Tgt Ion: 91 Resp: 35

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 92 | 94.3 | 42.1 | 63.1# |



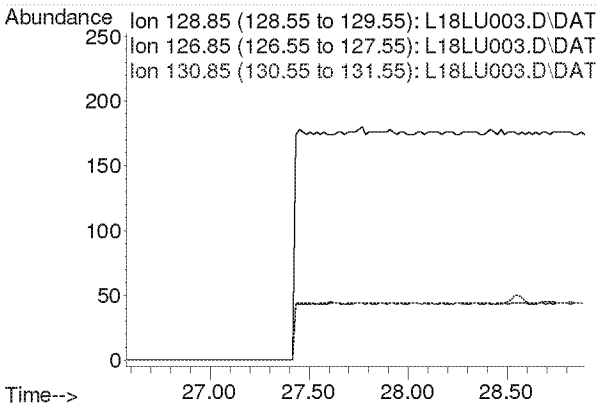




#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

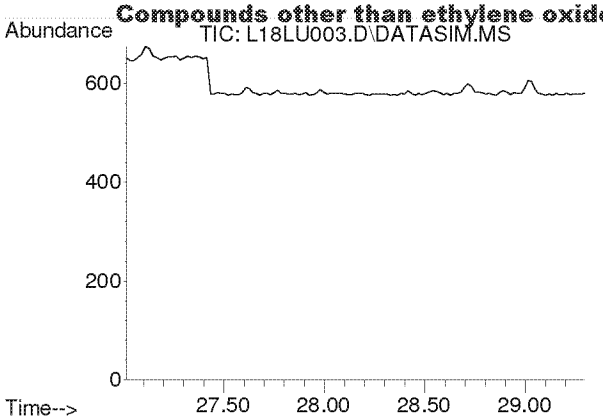
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 129

| Sig | Exp Ratio |
|---|---|
| 129 | 100 |
| 127 | 19.2 |
| 131 | 6.0 |



**Compounds other than ethylene oxide were not quantitated.**

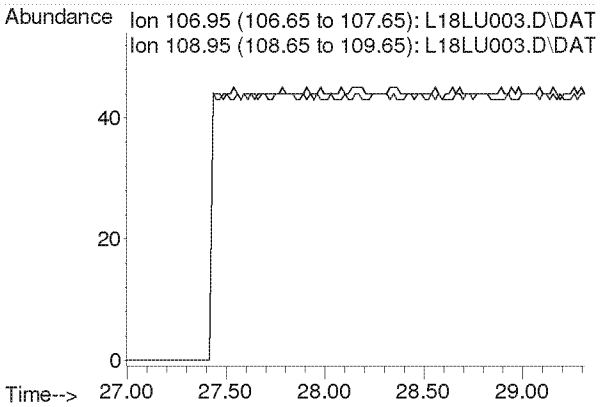


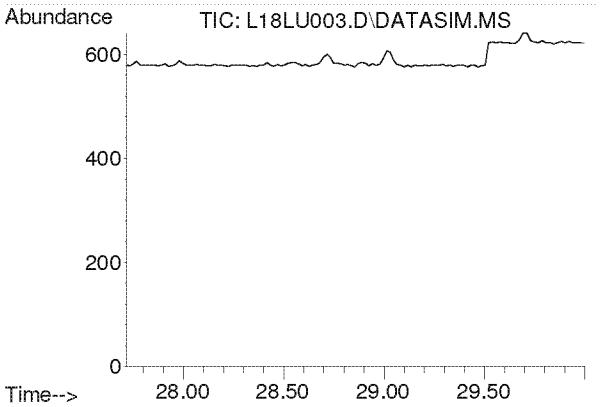

#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 107

| Sig | Exp Ratio |
|---|---|
| 107 | 100 |
| 109 | 94.5 |



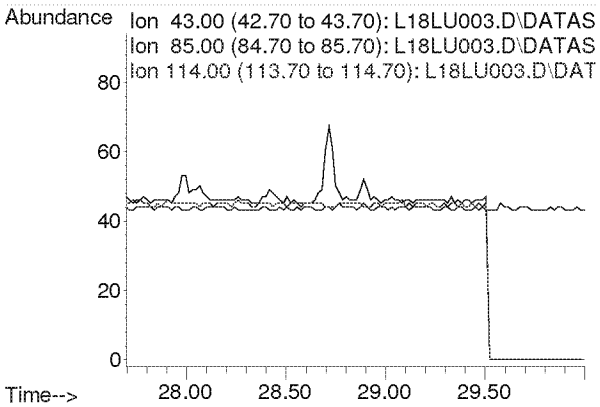




#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

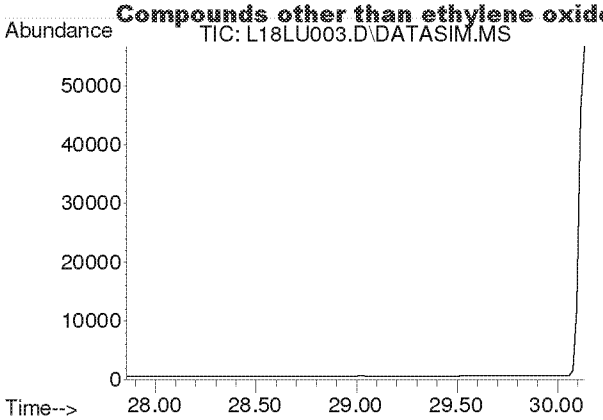
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 85 | 36.0 |
| 114 | 2.2 |



**Compounds other than ethylene oxide were not quantitated.**

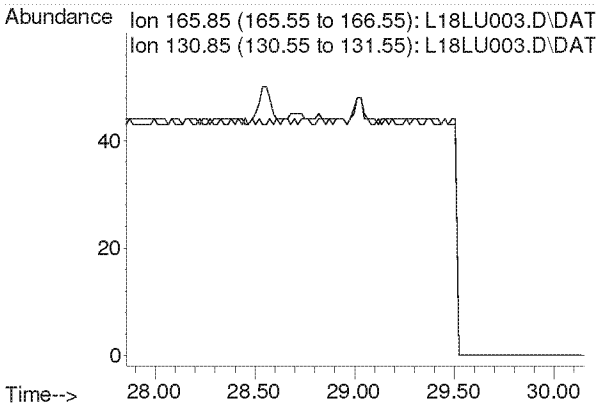


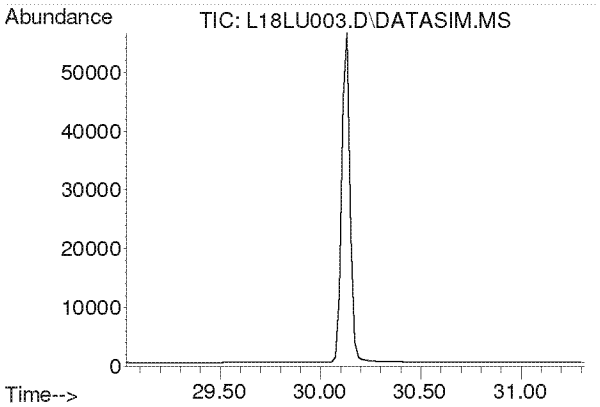

#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 166

| Sig | Exp Ratio |
|---|---|
| 166 | 100 |
| 131 | 78.2 |



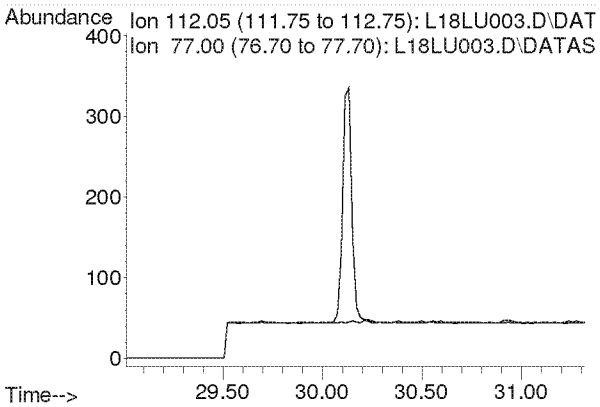




#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

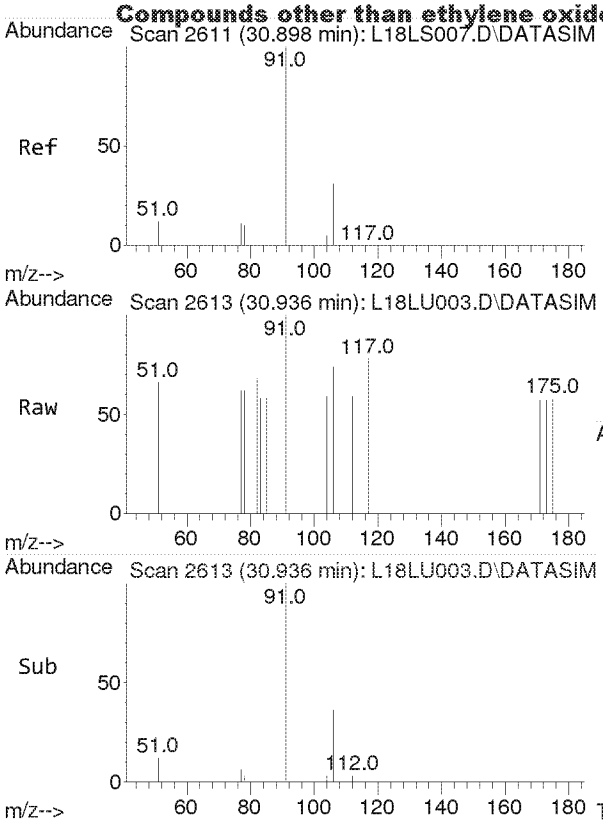
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 112

| Sig | Exp Ratio |
|---|---|
| 112 | 100 |
| 77 | 63.0 |



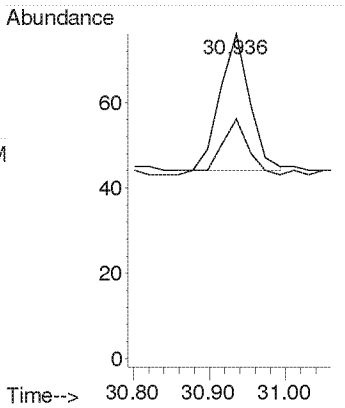
**Compounds other than ethylene oxide were not quantitated.**

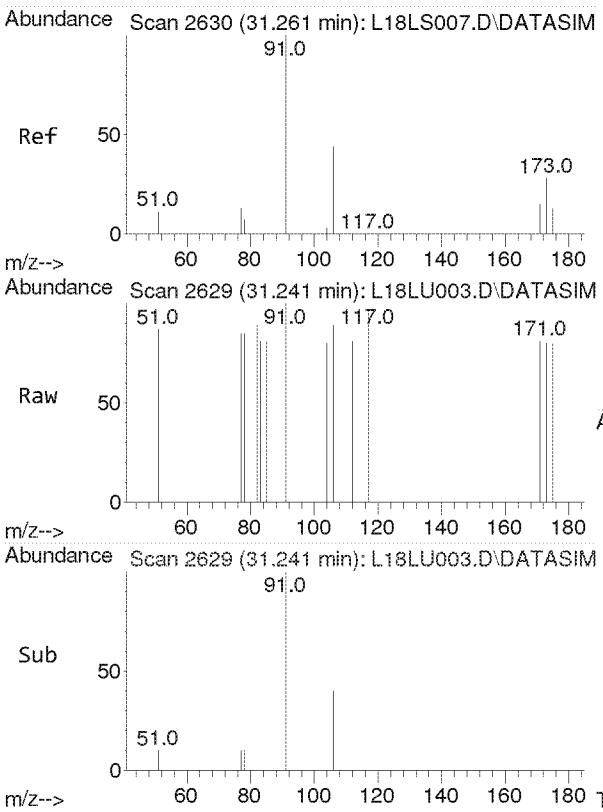



#50
Ethylbenzene
Concen: 0.005 ppbv
RT: 30.936 min Scan# 2613
Delta R.T. 0.037 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 91 Resp: 87

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 36.8 | 25.4 | 38.2 |

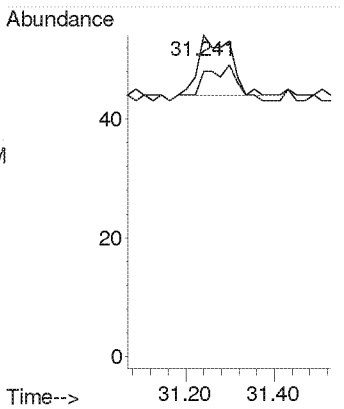


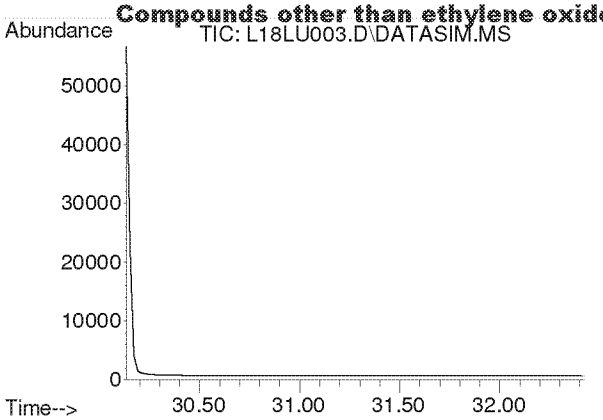

#51
m,p-Xylene
Concen: 0.003 ppbv
RT: 31.241 min Scan# 2629
Delta R.T. -0.020 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 91 Resp: 49

| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 61.2 | 35.5 | 53.3# |



**Compounds other than ethylene oxide were not quantitated.**

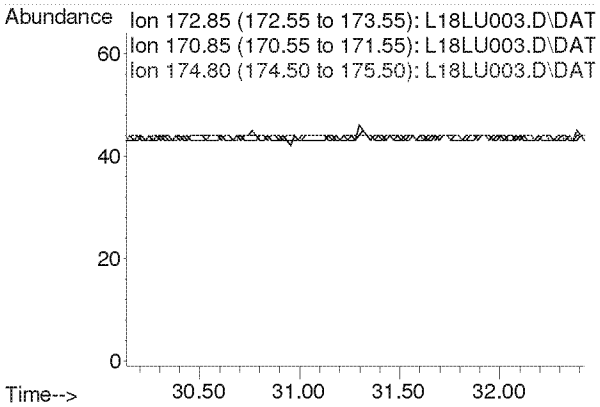


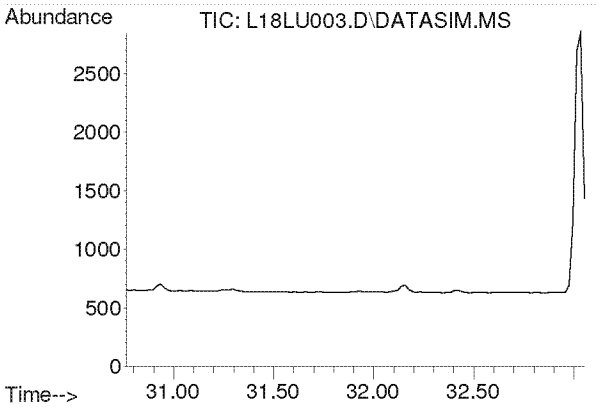

#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 173

| Sig | Exp Ratio |
|---|---|
| 173 | 100 |
| 171 | 51.3 |
| 175 | 49.0 |



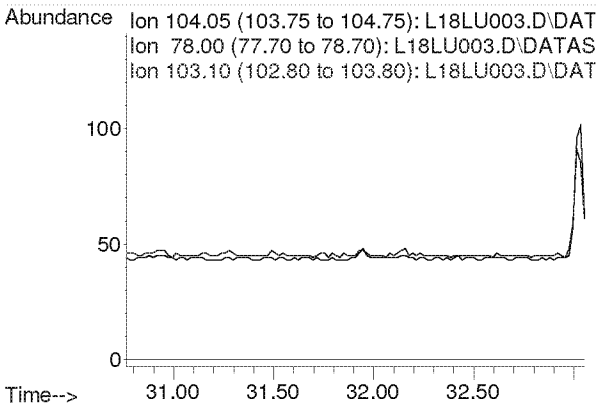




#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

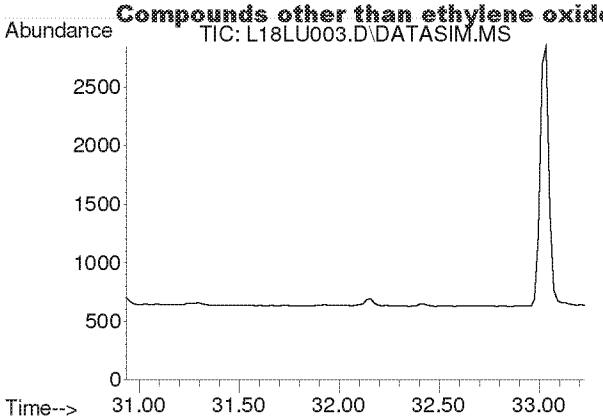
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 104

| Sig | Exp Ratio |
|---|---|
| 104 | 100 |
| 78 | 45.6 |
| 103 | 0.0 |



**Compounds other than ethylene oxide were not quantitated.**

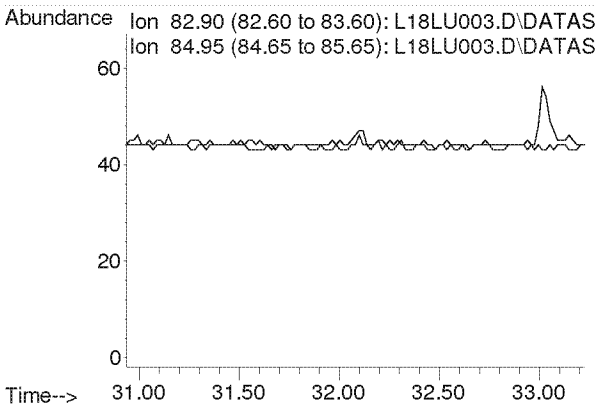


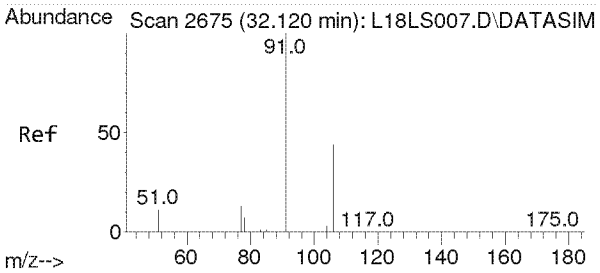

#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 63.9 |

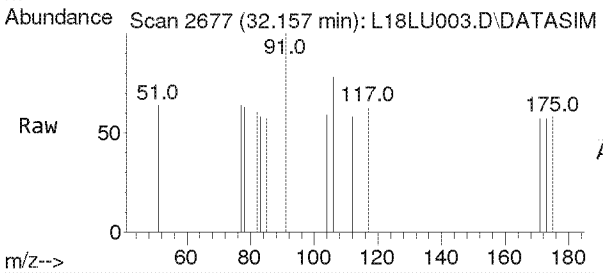


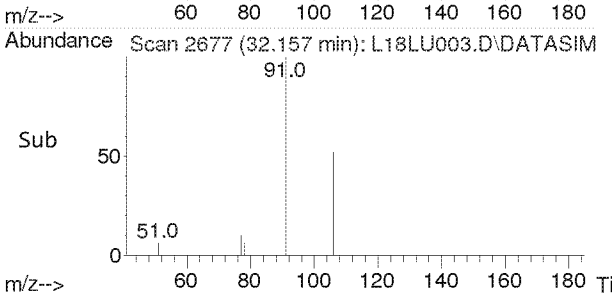



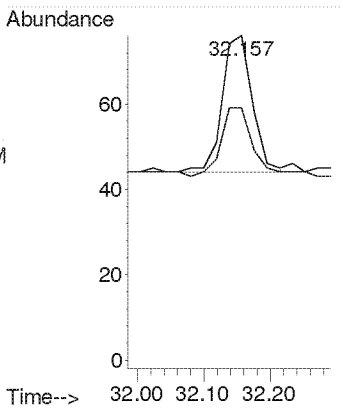

#55
o-Xylene
Concen: 0.007 ppbv
RT: 32.157 min Scan# 2677
Delta R.T. 0.037 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 91 Resp: 101

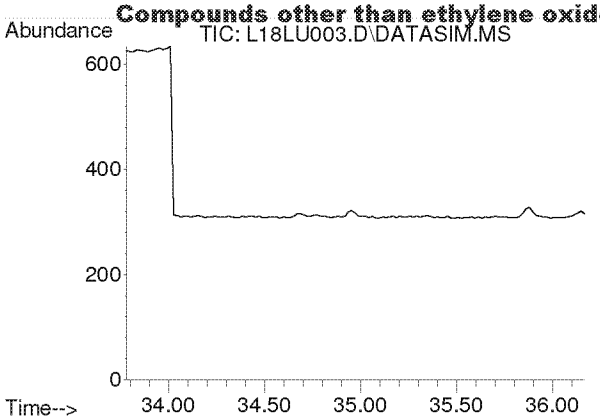
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 91 | 100 | | |
| 106 | 52.5 | 35.4 | 53.0 |



**Compounds other than ethylene oxide were not quantitated.**

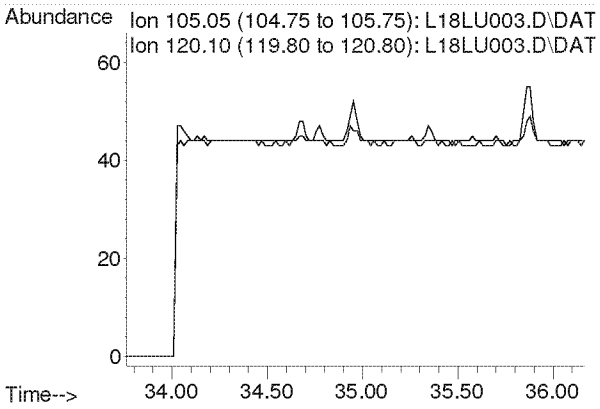


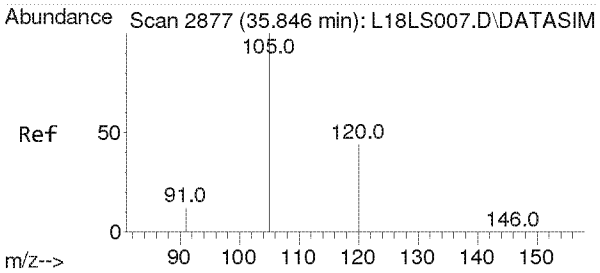

#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 45.0 |

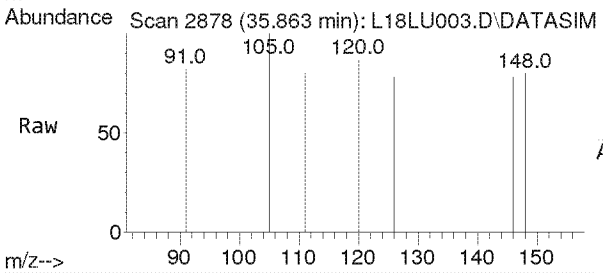


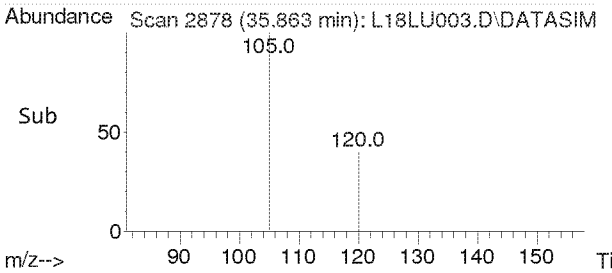



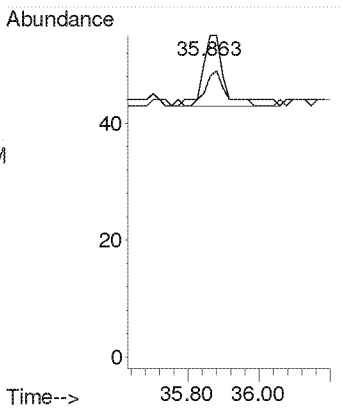

#57
1,2,4-Trimethylbenzene
Concen: 0.004 ppbv
RT: 35.863 min Scan# 2878
Delta R.T. 0.017 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion:105 Resp: 50

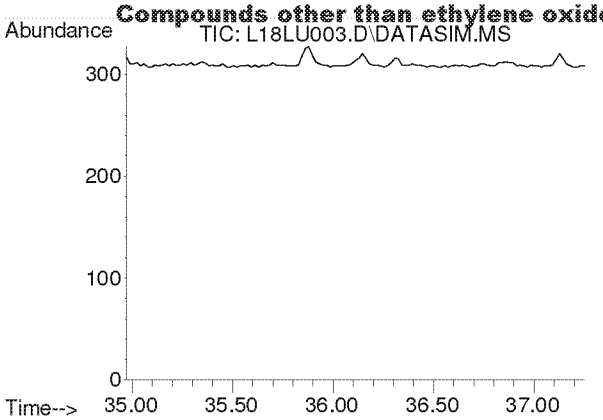
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 105 | 100 | | |
| 120 | 0.0 | 34.2 | 51.4# |



**Compounds other than ethylene oxide were not quantitated.**

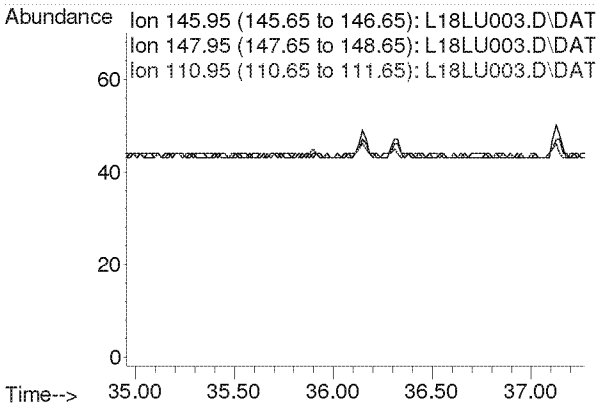


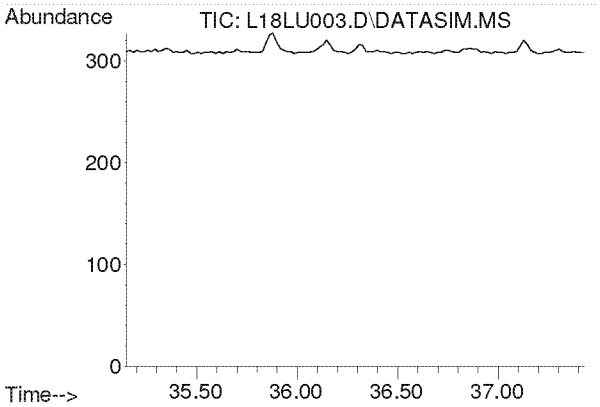

#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 40.5 |



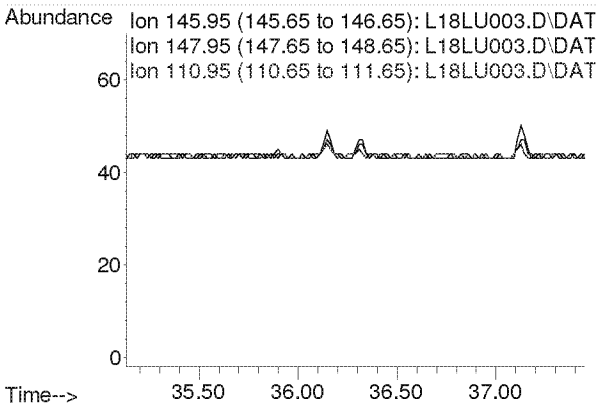




#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

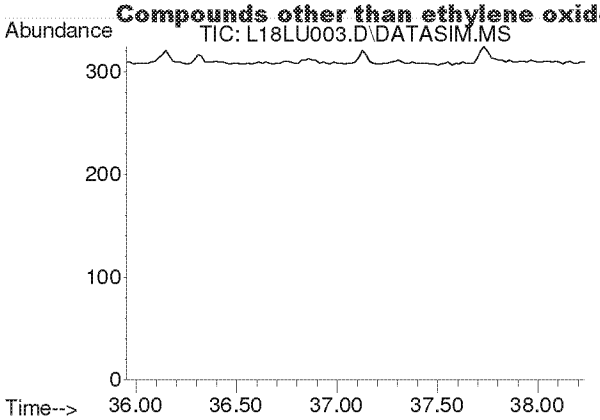
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 39.5 |



**Compounds other than ethylene oxide were not quantitated.**

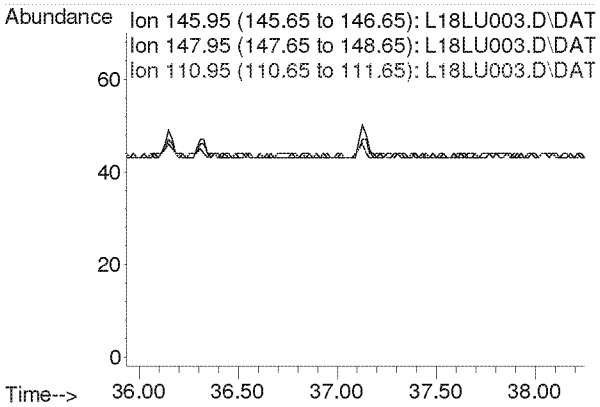


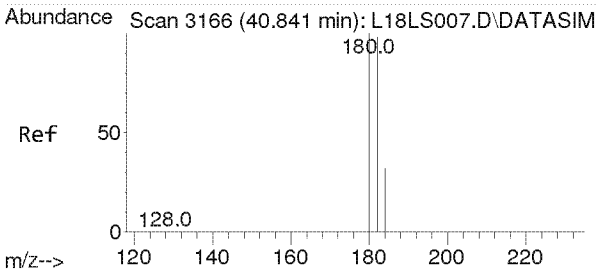

#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.1 |
| 111 | 41.4 |

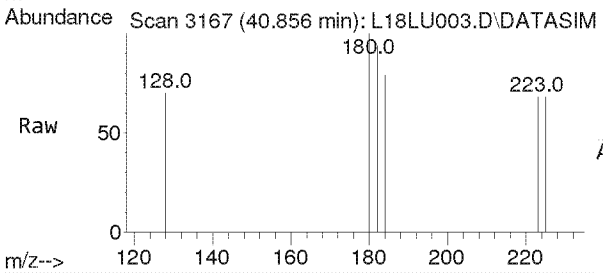


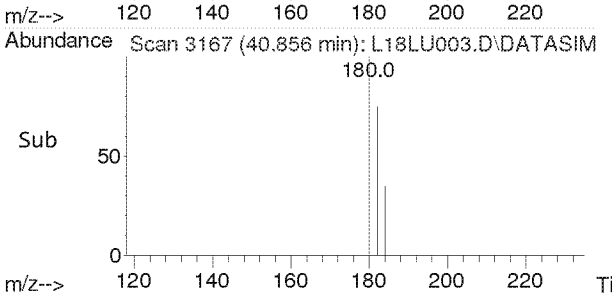



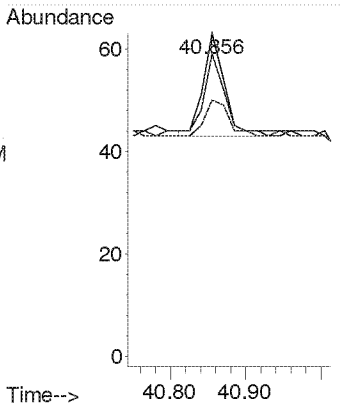

#61
1,2,4-Trichlorobenzene
Concen: 0.017 ppbv
RT: 40.856 min Scan# 3167
Delta R.T. 0.014 min
Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion:180 Resp: 40

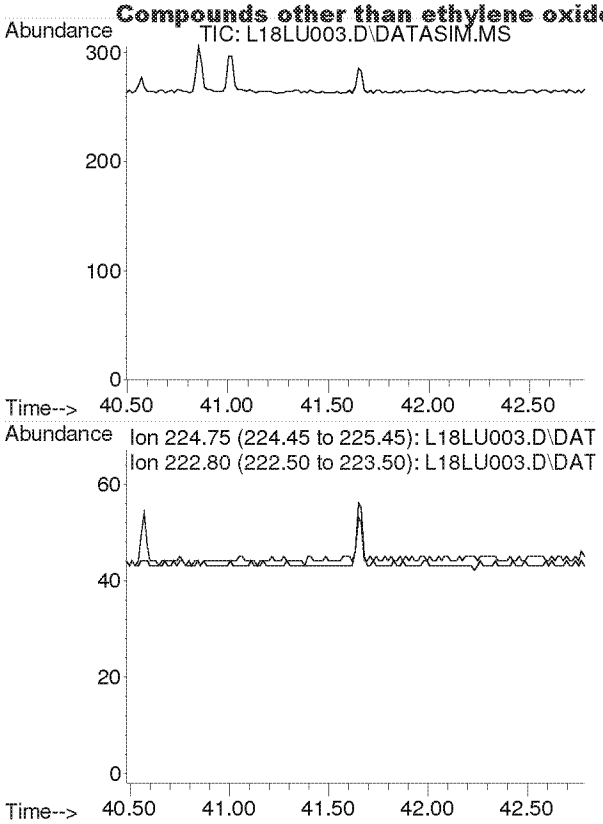
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 180 | 100 | | |
| 182 | 90.0 | 76.1 | 114.1 |
| 184 | 0.0 | 24.6 | 36.8# |



**Compounds other than ethylene oxide were not quantitated.**




#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18LU003.D
Acq: 21 Dec 2018 9:24 am

Tgt Ion: 225

| Sig | Exp Ratio |
|---|---|
| 225 | 100 |
| 223 | 62.4 |

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU009.D
Acq On : 21 Dec 2018 3:33 pm (#1); 21-Dec-18, 15:28:10 (#2)
Operator : MAH
Sample : 8120701-01
Misc : GOWER MS 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 26 10:02:05 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

EDTs only

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) IS-Hexane-d14 | 20.015 | 66 | 54299 | 4.7700 ppbv | 0.02 |
| 29) IS-1,4-Difluorobenzene | 23.171 | 114 | 130578 | 4.9900 ppbv | 0.02 |
| 43) IS-Chlorobenzene-d5 | 30.135 | 117 | 93081 | 4.7400 ppbv | 0.04 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) Acetylene | 0.000 | 26 | 0 | N.D. d | |
| 3) Propylene | 0.000 | 41 | 0 | N.D. d | |
| 4) Dichlorodifluoromethane | 0.000 | 85 | 0 | N.D. d | |
| 5) Chloromethane | 0.000 | 50 | 0 | N.D. d | |
| 6) Dichlorotetrafluoroethane | 0.000 | 85 | 0 | N.D. d | |
| 7) Vinyl Chloride | 0.000 | 62 | 0 | N.D. | |
| 8) 1,3-Butadiene | 0.000 | 54 | 0 | N.D. d | |
| 9) Ethylene oxide | 0.000 | 29 | 0 | N.D. d SV | |
| 10) Bromomethane | 0.000 | 94 | 0 | N.D. d | |
| 11) Chloroethane | 0.000 | 64 | 0 | N.D. | |
| 12) Acetonitrile | 0.000 | 41 | 0 | N.D. d | |
| 13) Acrolein | 0.000 | 56 | 0 | N.D. d | |
| 14) Trichlorofluoromethane | 0.000 | 101 | 0 | N.D. d | |
| 15) Acrylonitrile | 0.000 | 53 | 0 | N.D. d | |
| 16) 1,1-Dichloroethene | 0.000 | 61 | 0 | N.D. | |
| 17) Methylene Chloride | 0.000 | 49 | 0 | N.D. d | |
| 18) Carbon Disulfide | 0.000 | 76 | 0 | N.D. d | |
| 19) Trichlorotrifluoroethane | 0.000 | 101 | 0 | N.D. d | |
| 20) trans-1,2-Dichloroethy... | 0.000 | 96 | 0 | N.D. | |
| 21) 1,1-Dichloroethane | 0.000 | 63 | 0 | N.D. | |
| 22) Methyl tert-Butyl Ether | 0.000 | 73 | 0 | N.D. d | |
| 23) Chloroprene | 0.000 | 53 | 0 | N.D. d | |
| 24) cis-1,2-Dichloroethylene | 0.000 | 61 | 0 | N.D. d | |
| 25) Bromochloromethane | 0.000 | 128 | 0 | N.D. | |
| 26) Chloroform | 0.000 | 83 | 0 | N.D. d | |
| 27) Ethyl tert-Butyl Ether | 0.000 | 59 | 0 | N.D. | |
| 28) 1,2-Dichloroethane | 0.000 | 62 | 0 | N.D. d | |
| 30) 1,1,1-Trichloroethane | 0.000 | 97 | 0 | N.D. d | |
| 31) Benzene | 0.000 | 78 | 0 | N.D. d | |
| 32) Carbon Tetrachloride | 0.000 | 117 | 0 | N.D. d | |
| 33) tert-Amyl Methyl Ether | 0.000 | 73 | 0 | N.D. | |
| 34) 1,2-Dichloropropane | 0.000 | 63 | 0 | N.D. d | |
| 35) Ethyl Acrylate | 0.000 | 55 | 0 | N.D. | |
| 36) Bromodichloromethane | 0.000 | 83 | 0 | N.D. d | |
| 37) Trichloroethylene | 0.000 | 130 | 0 | N.D. d | |
| 38) Methyl Methacrylate | 0.000 | 41 | 0 | N.D. d | |
| 39) cis-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 40) Methyl Isobutyl Ketone | 0.000 | 43 | 0 | N.D. d | |
| 41) trans-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 42) 1,1,2-Trichloroethane | 0.000 | 97 | 0 | N.D. | |
| 44) Toluene | 0.000 | 91 | 0 | N.D. d | |
| 45) Dibromochloromethane | 0.000 | 129 | 0 | N.D. d | |
| 46) 1,2-Dibromoethane | 0.000 | 107 | 0 | N.D. | |
| 47) n-Octane | 0.000 | 43 | 0 | N.D. d | |
| 48) Tetrachloroethylene | 0.000 | 166 | 0 | N.D. d | |
| 49) Chlorobenzene | 0.000 | 112 | 0 | N.D. | |
| 50) Ethylbenzene | 0.000 | 91 | 0 | N.D. d | |

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU009.D
Acq On : 21 Dec 2018 3:33 pm (#1); 21-Dec-18, 15:28:10 (#2)
Operator : MAH
Sample : 8120701-01
Misc : GOWER MS 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 26 10:02:05 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

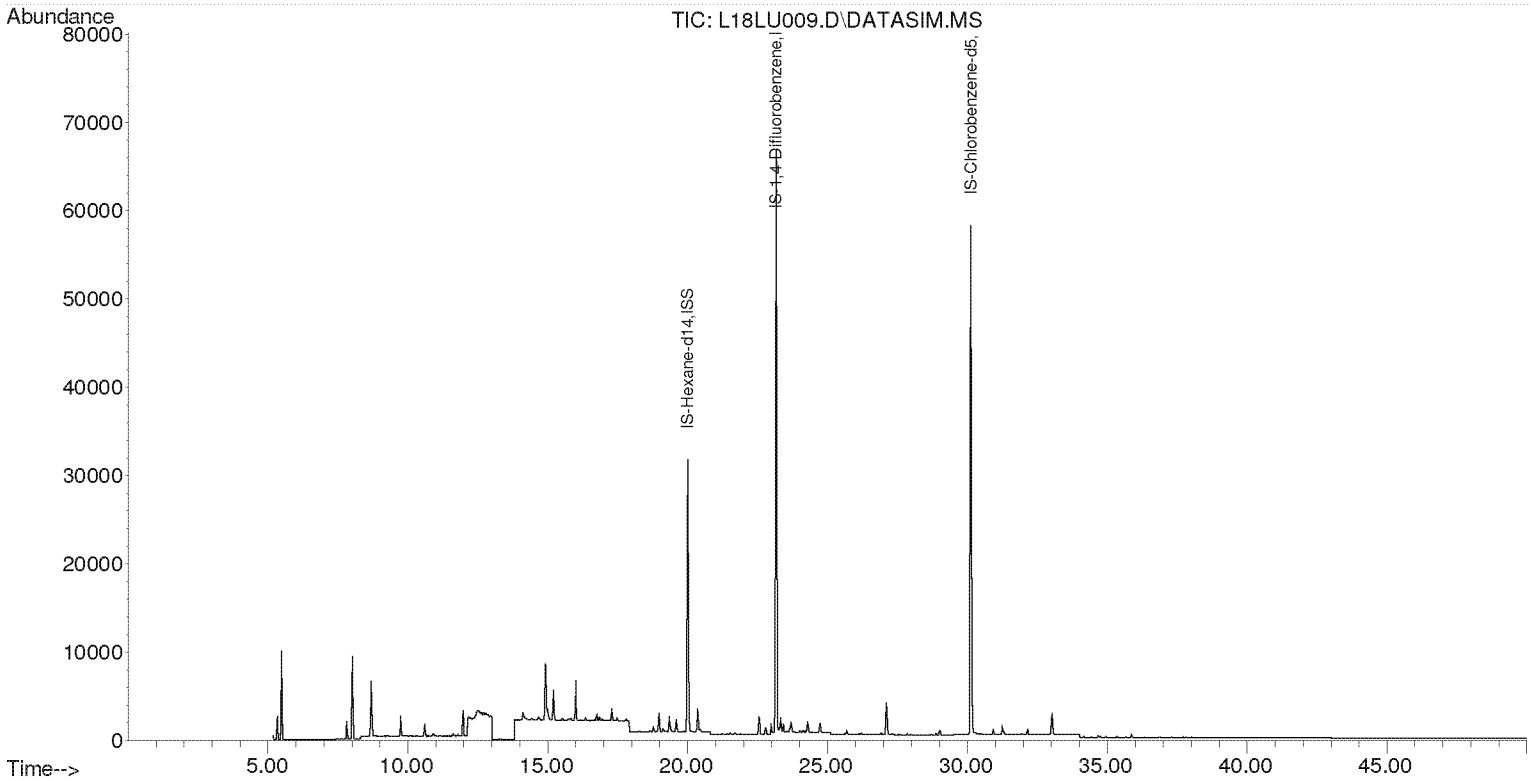
| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 51) m,p-Xylene | 0.000 | 91 | 0 | N.D. | d |
| 52) Bromoform | 0.000 | 173 | 0 | N.D. | |
| 53) Styrene | 0.000 | 104 | 0 | N.D. | d |
| 54) 1,1,2,2-Tetrachloroethane | 0.000 | 83 | 0 | N.D. | |
| 55) o-Xylene | 0.000 | 91 | 0 | N.D. | d |
| 56) 1,3,5-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | d |
| 57) 1,2,4-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | d |
| 58) m-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 59) p-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | d |
| 60) o-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 61) 1,2,4-Trichlorobenzene | 0.000 | 180 | 0 | N.D. | |
| 62) Hexachloro-1,3-butadiene | 0.000 | 225 | 0 | N.D. | |

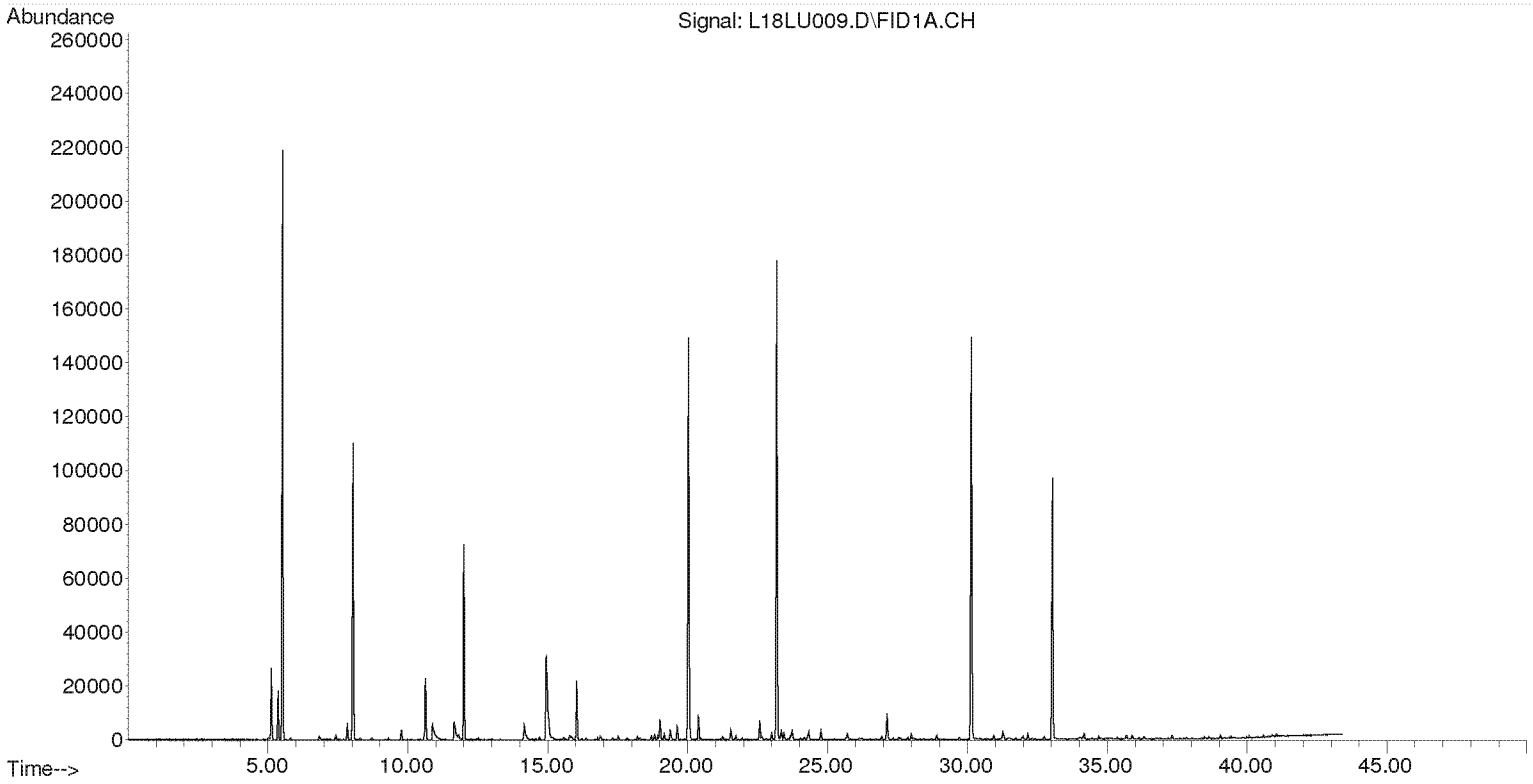
(#) = qualifier out of range (m) = manual integration (+) = signals summed

**Compounds other than ethylene oxide were not quantitated.**

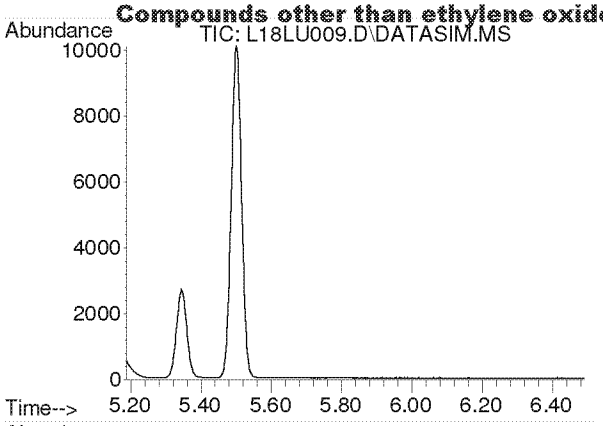
Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU009.D
Acq On : 21 Dec 2018 3:33 pm (#1); 21 Dec 2018 3:28 pm (#2)
Operator : MAH
Sample : 8120701-01
Misc : GOWER MS 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Dec 26 09:50:44 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



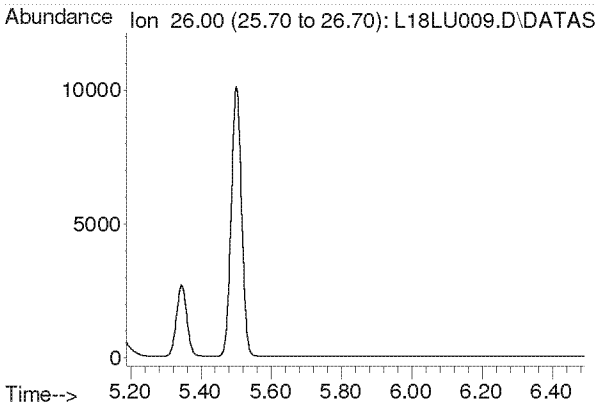
**Compounds other than ethylene oxide were not quantitated.**

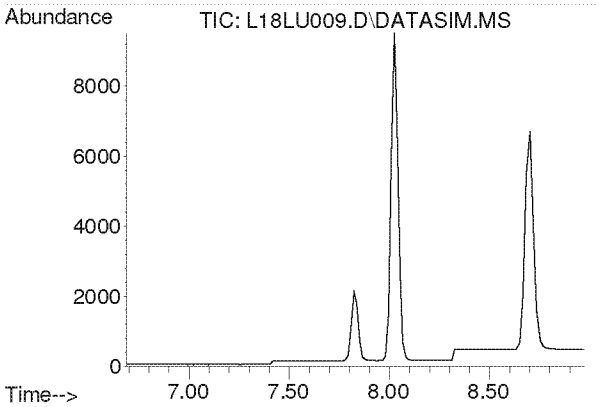



#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 26



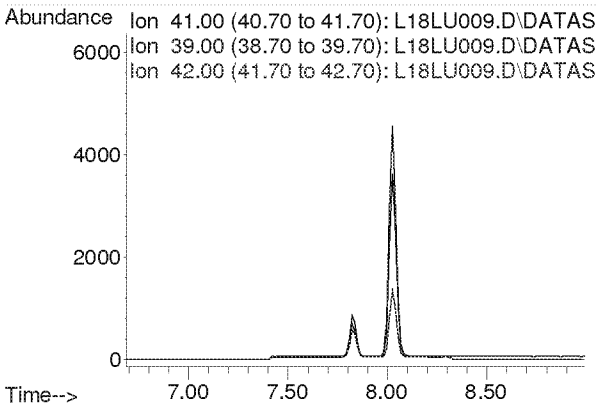




#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

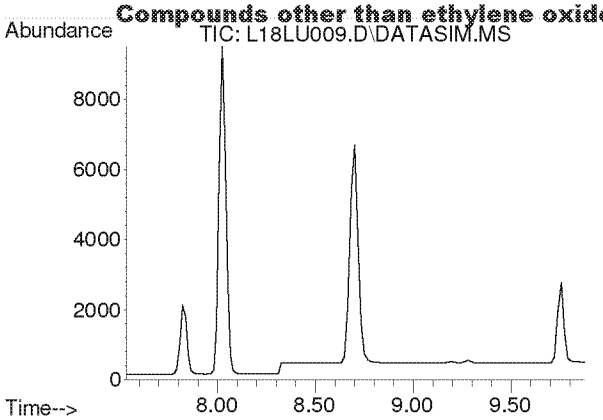
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 39 | 78.2 |
| 42 | 65.8 |



**Compounds other than ethylene oxide were not quantitated.**

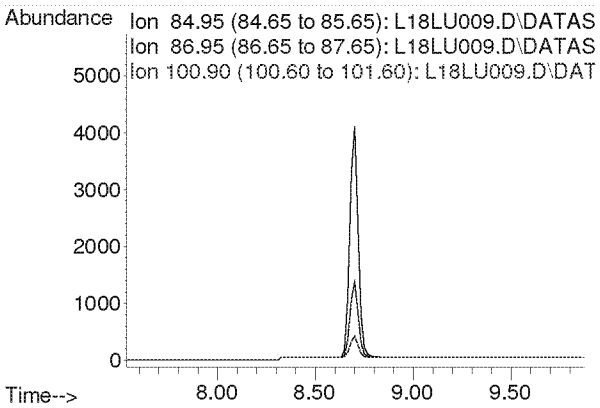


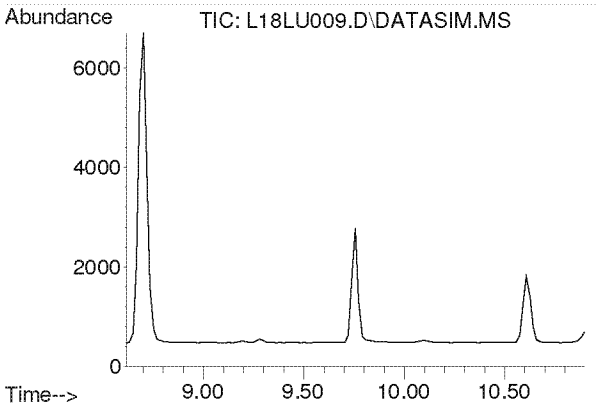

#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 87 | 32.5 |
| 101 | 8.9 |



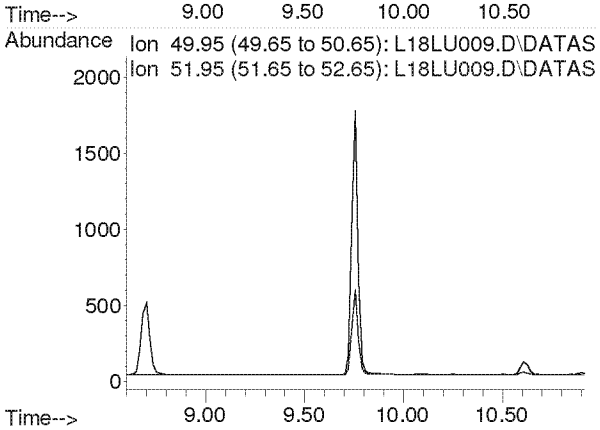




#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

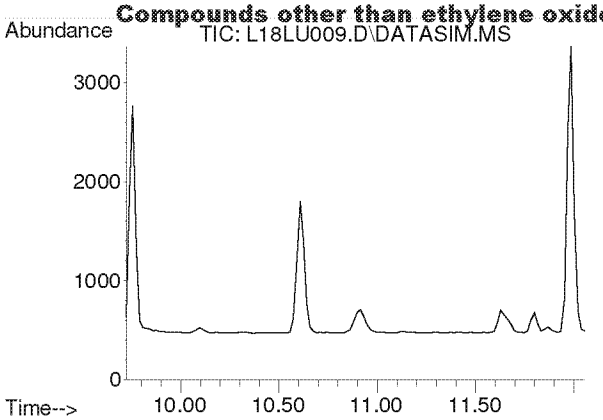
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 50

| Sig | Exp Ratio |
|---|---|
| 50 | 100 |
| 52 | 32.6 |



**Compounds other than ethylene oxide were not quantitated.**

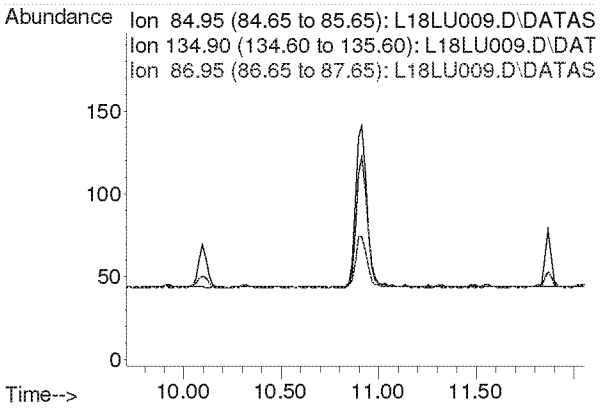


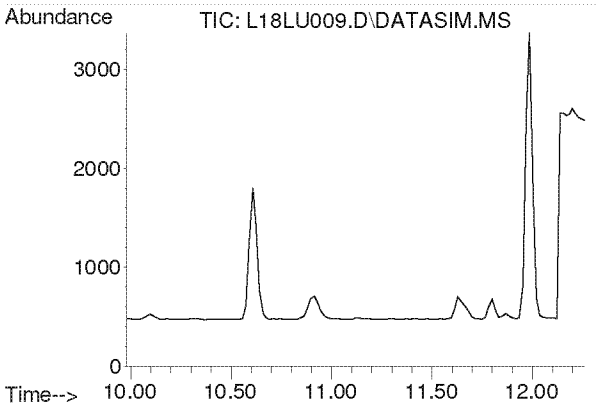

#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 135 | 79.1 |
| 87 | 32.1 |



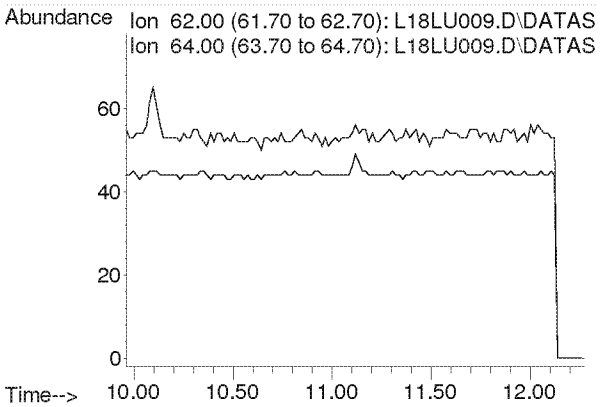




#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

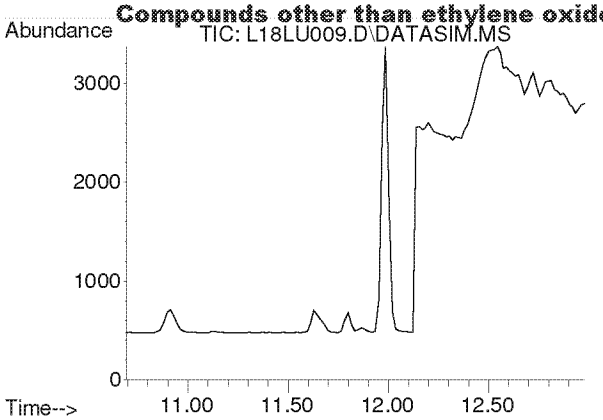
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 64 | 31.8 |



**Compounds other than ethylene oxide were not quantitated.**

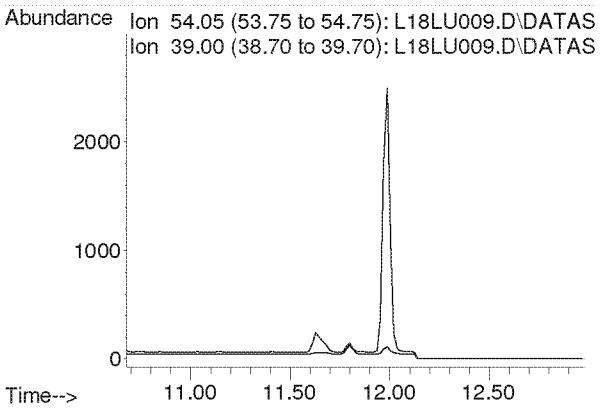


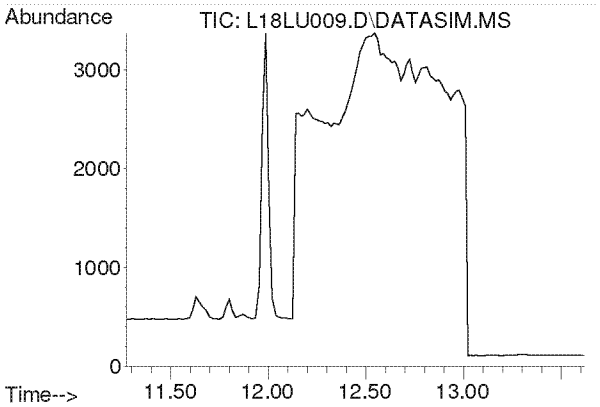

#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 54

| Sig | Exp Ratio |
|---|---|
| 54 | 100 |
| 39 | 105.4 |



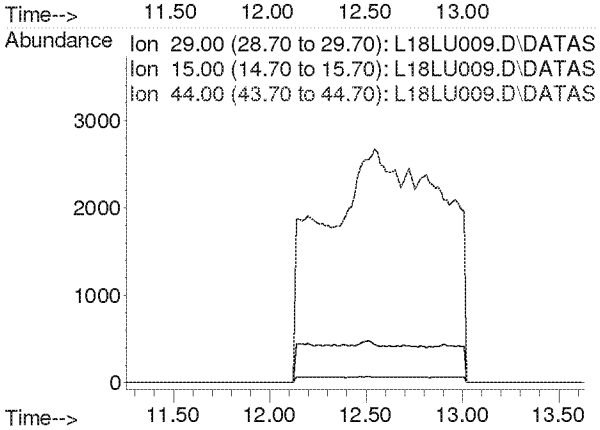




#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

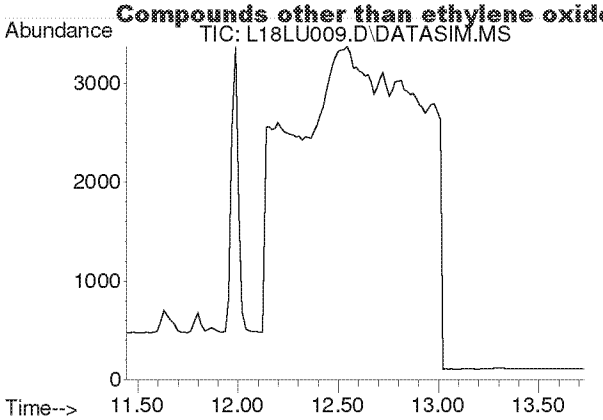
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 29

| Sig | Exp Ratio |
|---|---|
| 29 | 100 |
| 15 | 20.3 |
| 44 | 90.0 |



**Compounds other than ethylene oxide were not quantitated.**

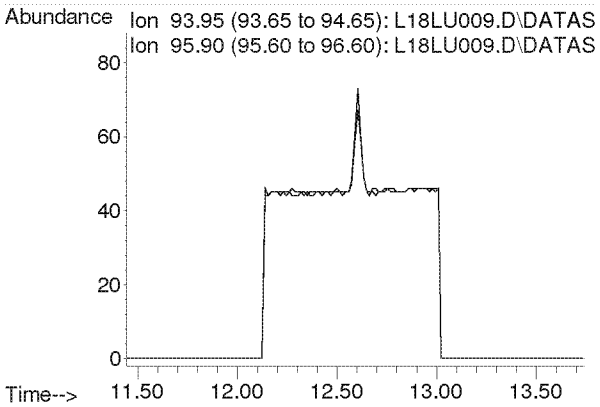


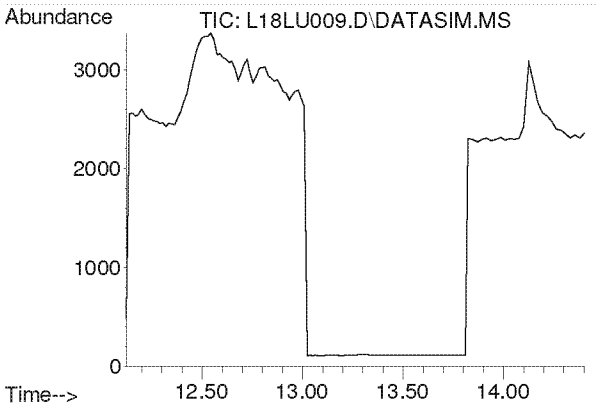

#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 94

| Sig | Exp Ratio |
|---|---|
| 94 | 100 |
| 96 | 93.9 |



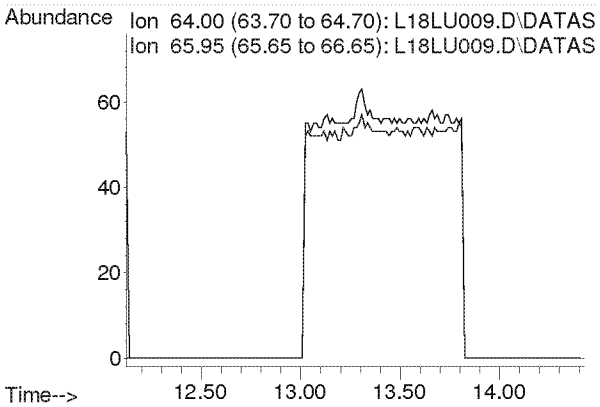




#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

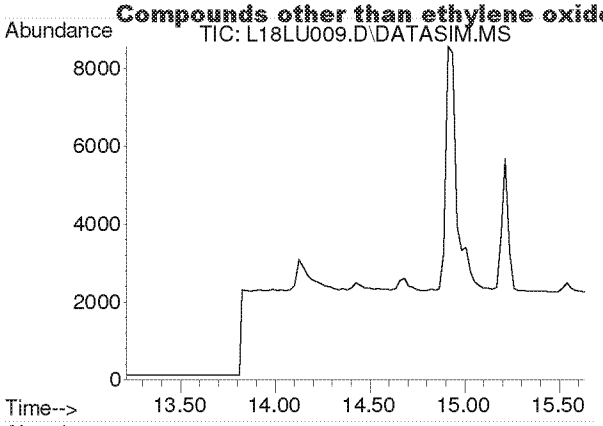
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 64

| Sig | Exp Ratio |
|---|---|
| 64 | 100 |
| 66 | 32.0 |



**Compounds other than ethylene oxide were not quantitated.**

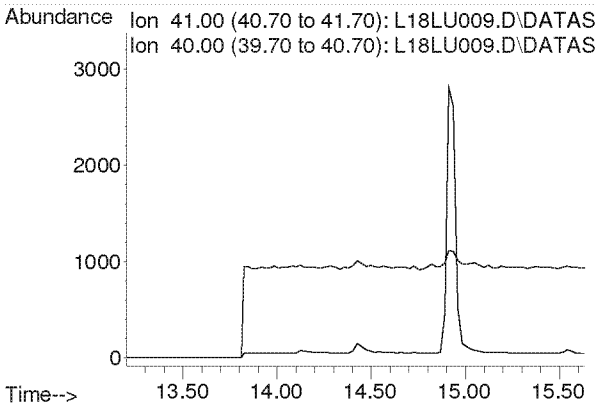


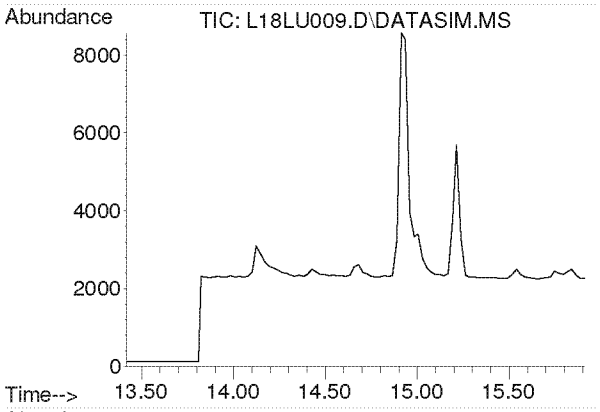

#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 40 | 50.9 |



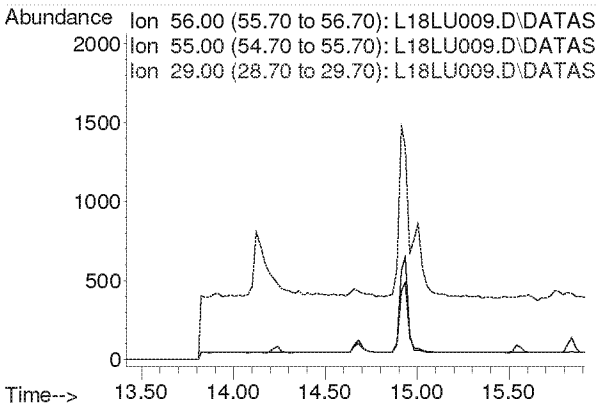




#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

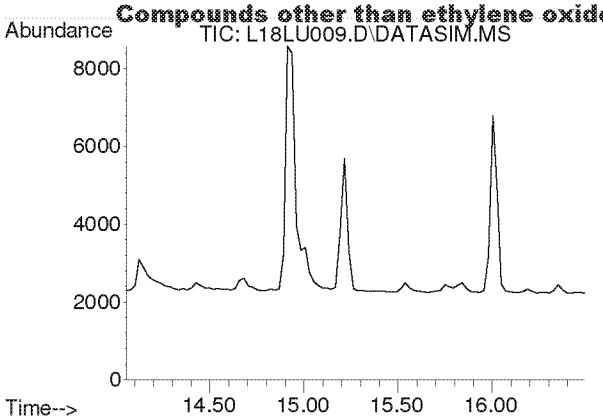
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 56

| Sig | Exp Ratio |
|---|---|
| 56 | 100 |
| 55 | 75.4 |
| 29 | 52.9 |



**Compounds other than ethylene oxide were not quantitated.**

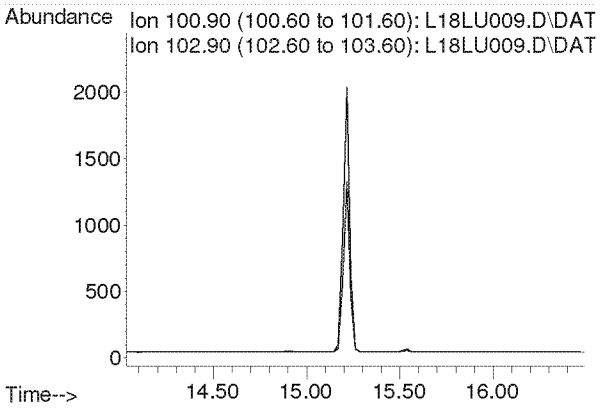


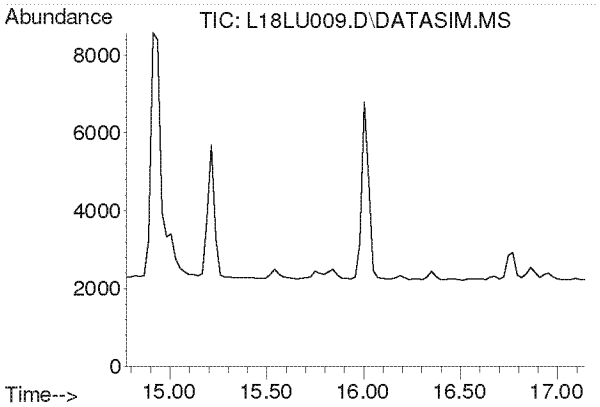

#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 103 | 64.6 |



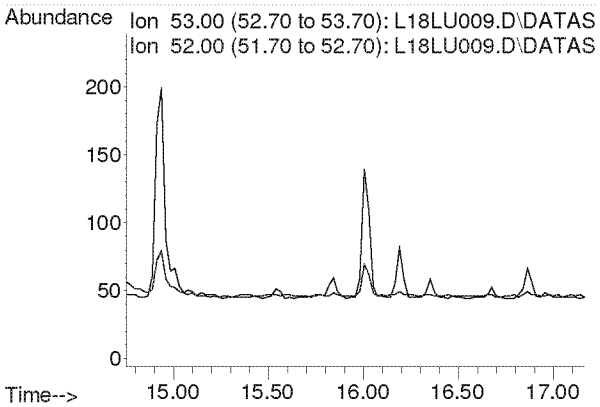




#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

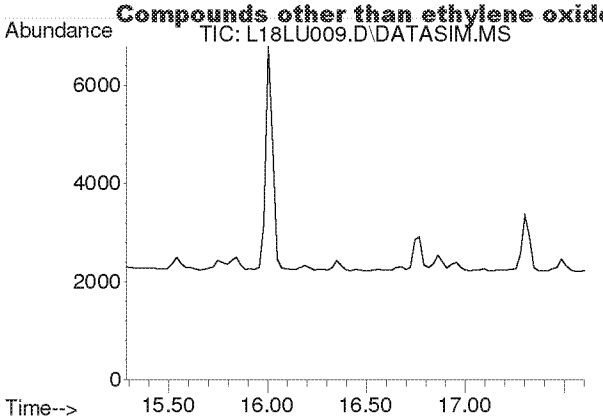
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 52 | 85.4 |



**Compounds other than ethylene oxide were not quantitated.**

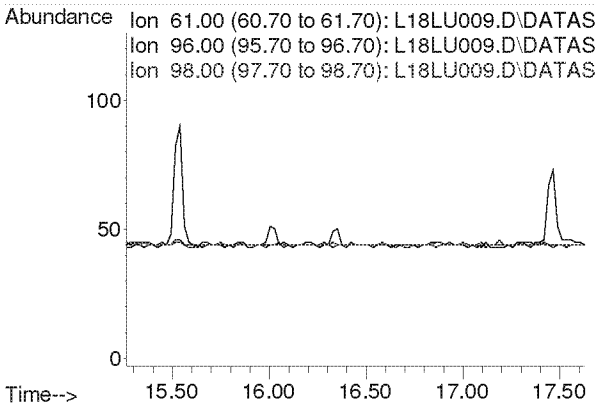


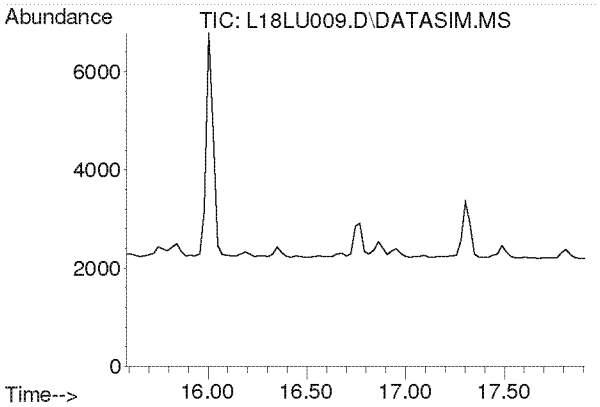

#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 58.3 |
| 98 | 37.4 |



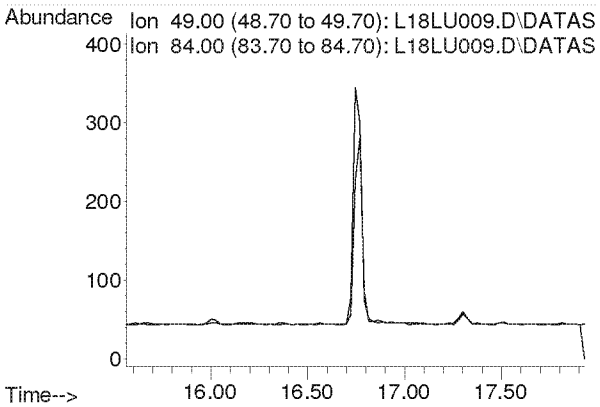




#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

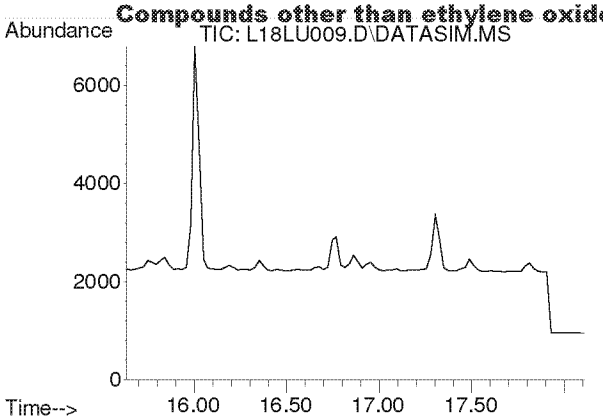
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 49

| Sig | Exp Ratio |
|---|---|
| 49 | 100 |
| 84 | 76.4 |



**Compounds other than ethylene oxide were not quantitated.**

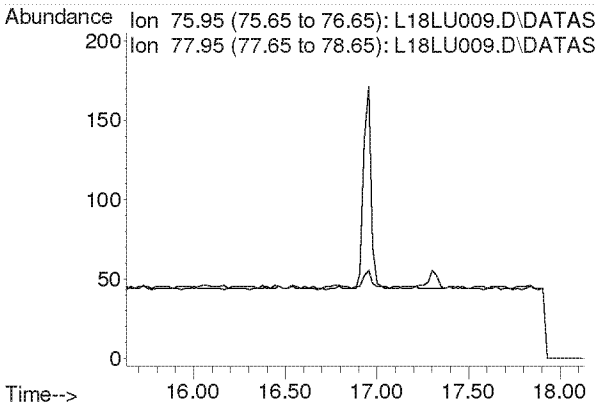


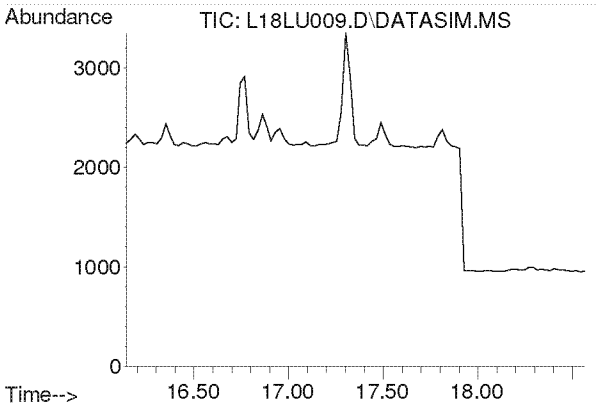

#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 76

| Sig | Exp Ratio |
|---|---|
| 76 | 100 |
| 78 | 9.1 |



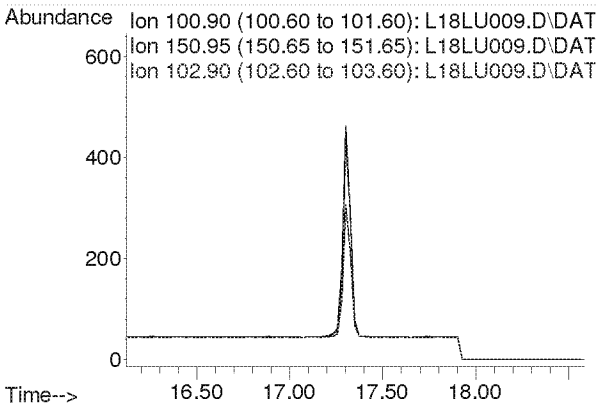




#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

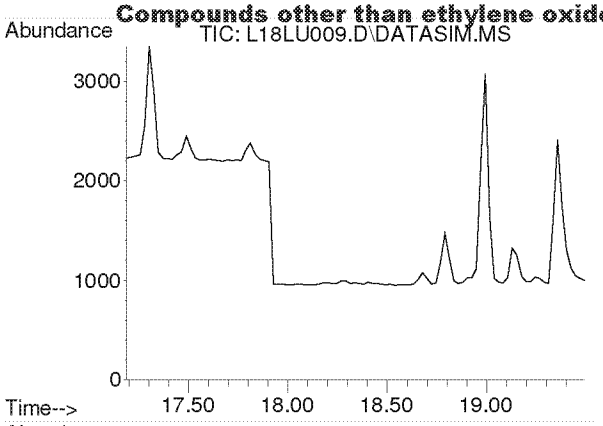
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 151 | 95.3 |
| 103 | 64.1 |



**Compounds other than ethylene oxide were not quantitated.**

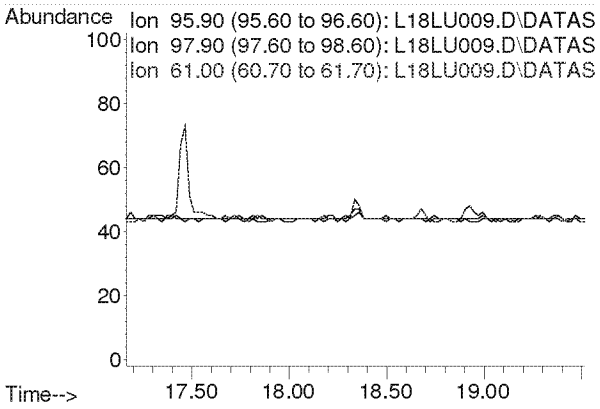


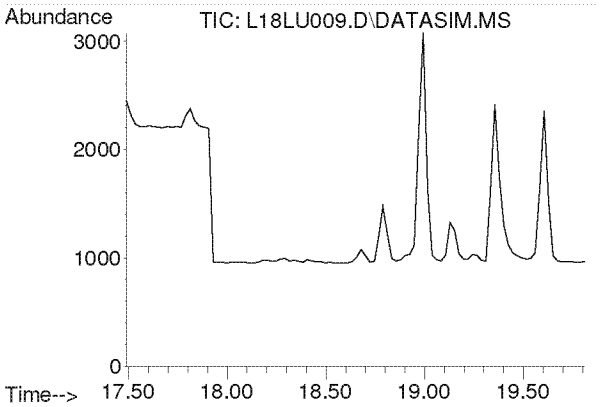

#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 96

| Sig | Exp Ratio |
|---|---|
| 96 | 100 |
| 98 | 63.7 |
| 61 | 159.2 |



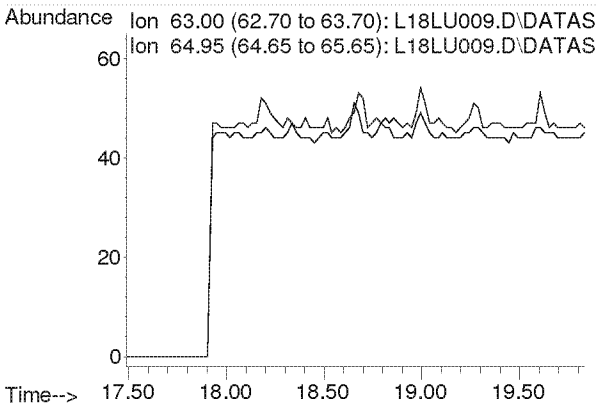




#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

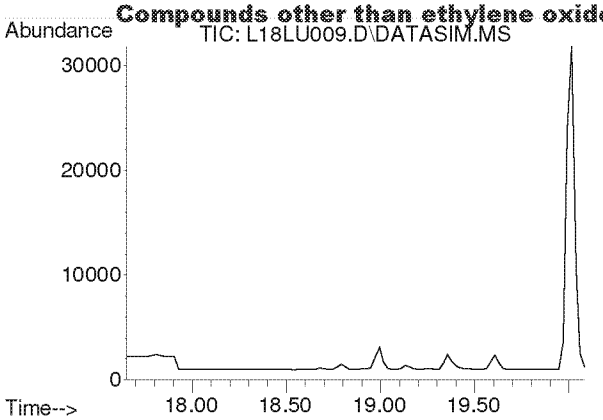
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 65 | 31.7 |



**Compounds other than ethylene oxide were not quantitated.**

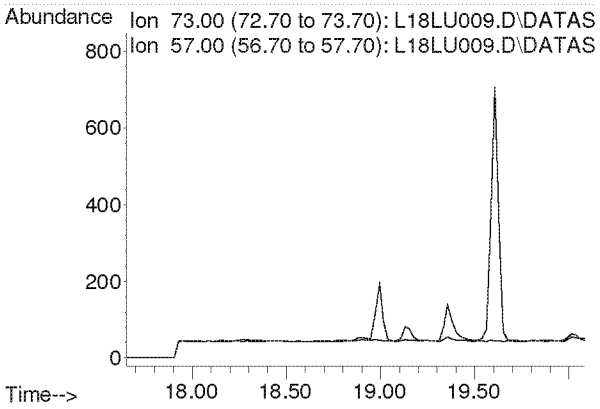


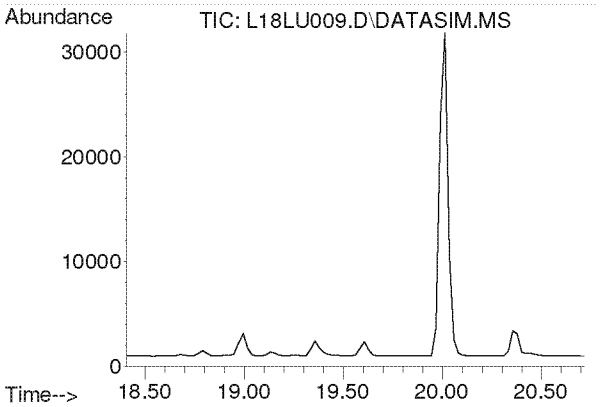

#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 57 | 23.4 |



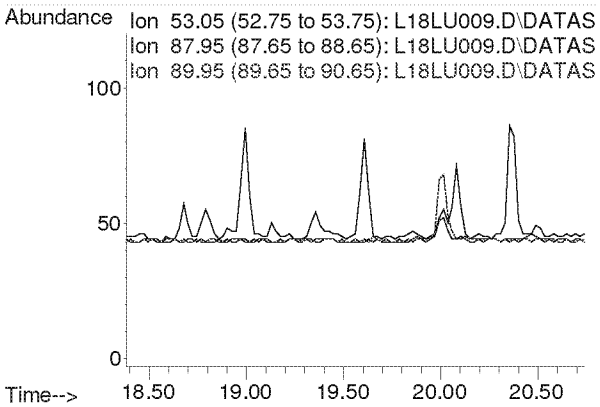




#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

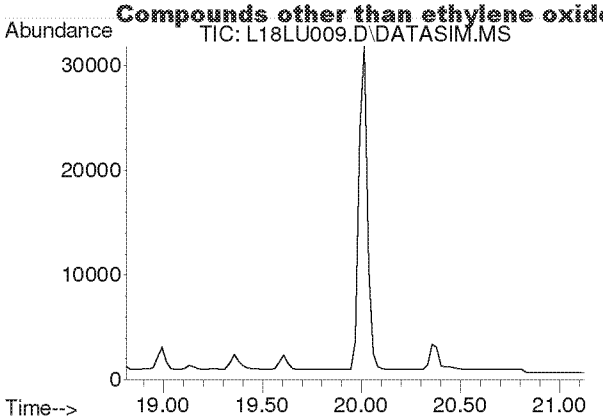
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 88 | 51.8 |
| 90 | 16.8 |



**Compounds other than ethylene oxide were not quantitated.**

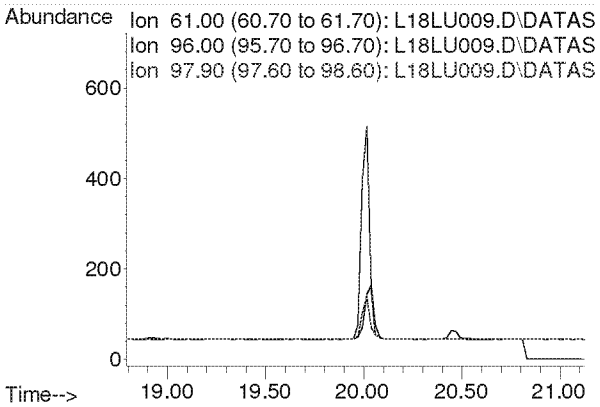


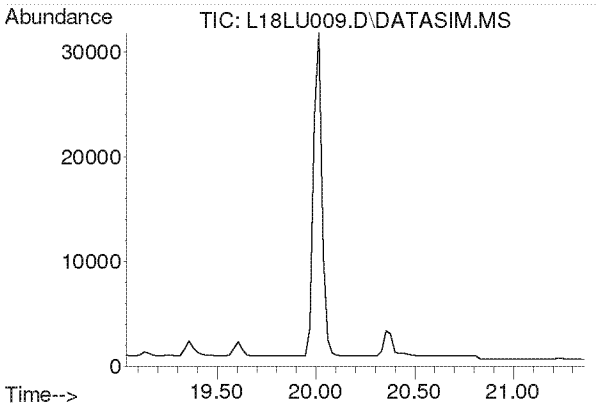

#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 73.7 |
| 98 | 45.2 |



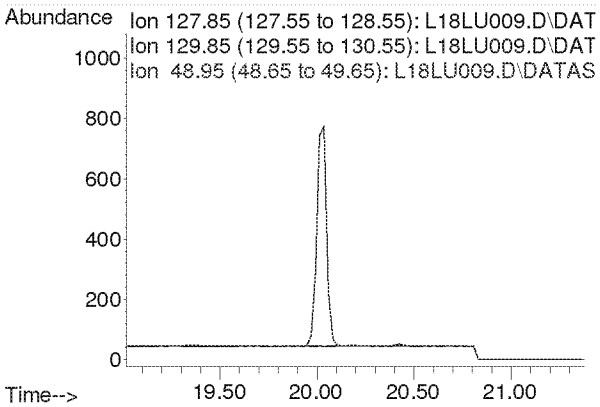




#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

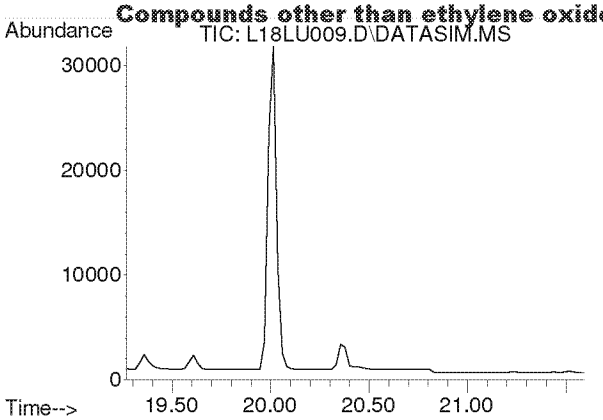
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 128

| Sig | Exp Ratio |
|---|---|
| 128 | 100 |
| 130 | 129.1 |
| 49 | 171.2 |



**Compounds other than ethylene oxide were not quantitated.**

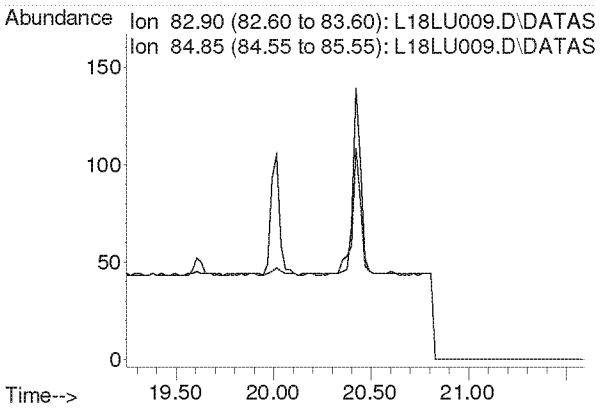


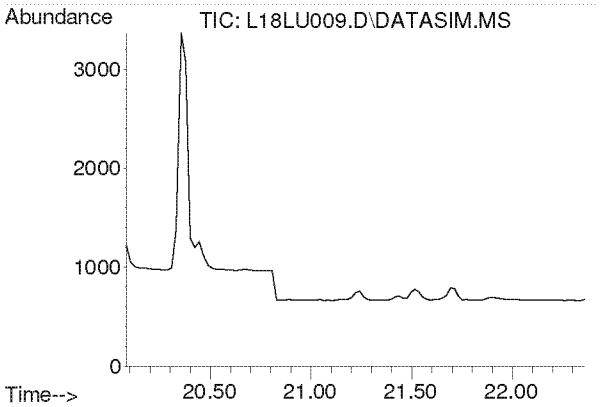

#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.4 |



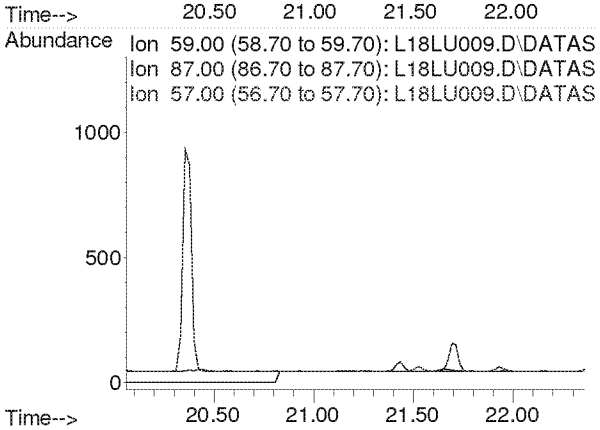




#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

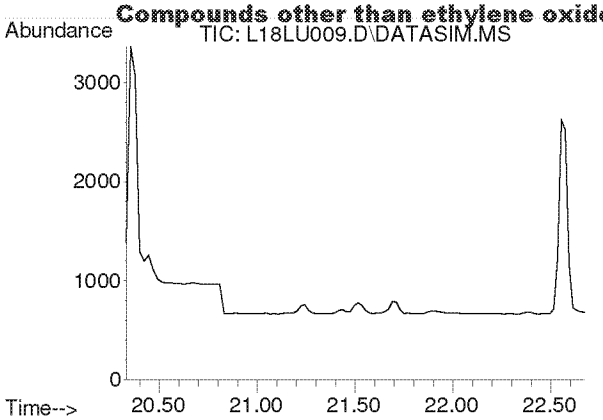
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 59

| Sig | Exp Ratio |
|---|---|
| 59 | 100 |
| 87 | 37.5 |
| 57 | 33.8 |



**Compounds other than ethylene oxide were not quantitated.**

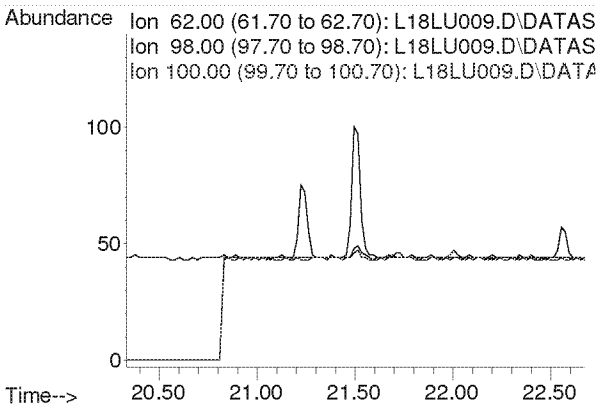


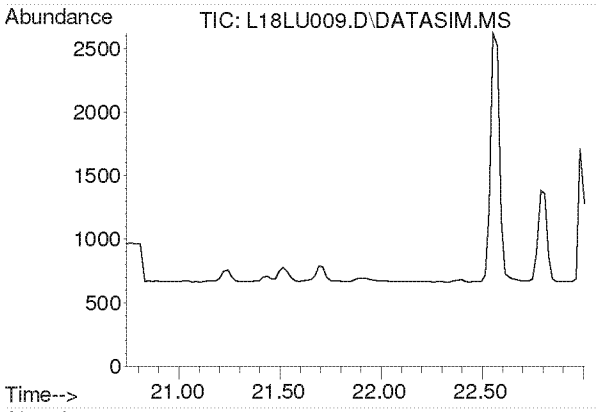

#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 98 | 6.4 |
| 100 | 4.0 |



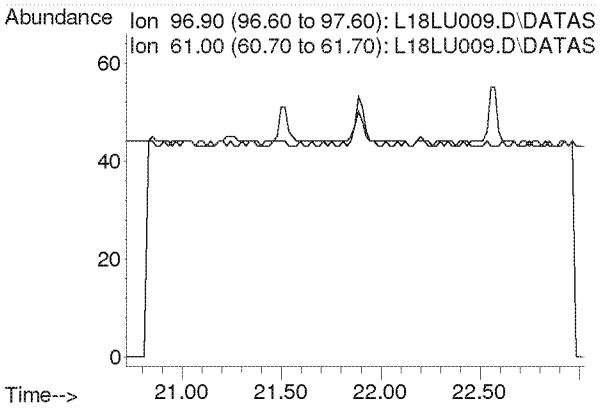




#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

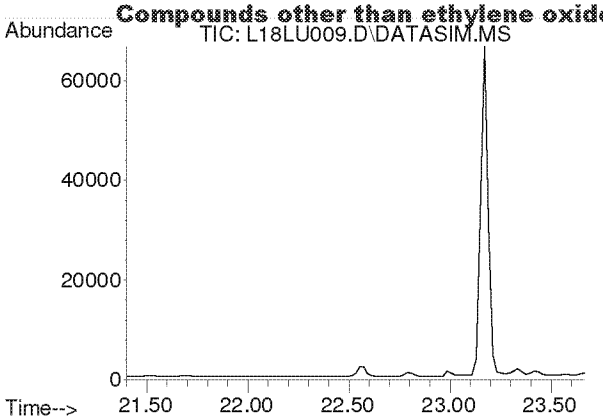
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 61 | 60.5 |



**Compounds other than ethylene oxide were not quantitated.**

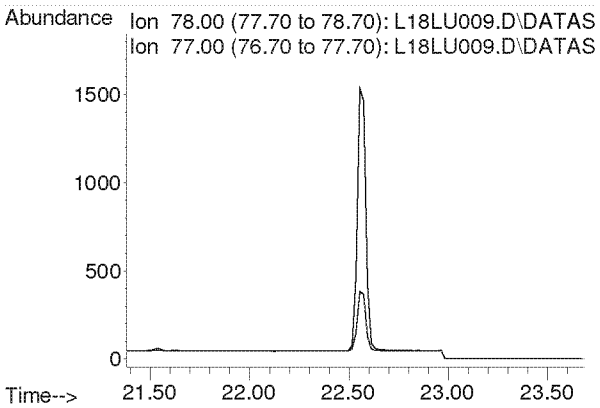


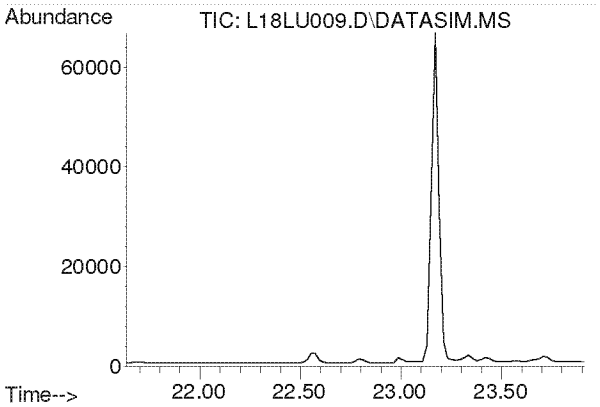

#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 78

| Sig | Exp Ratio |
|---|---|
| 78 | 100 |
| 77 | 22.7 |



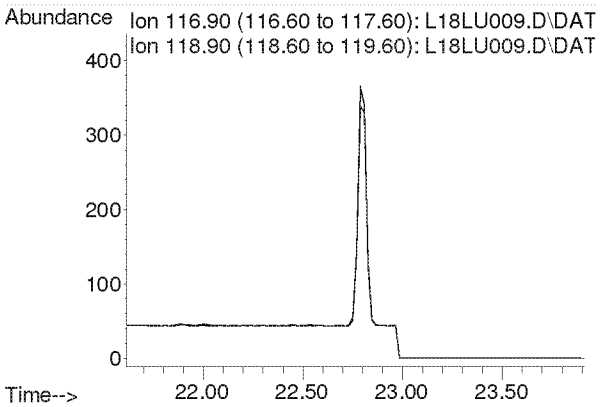




#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

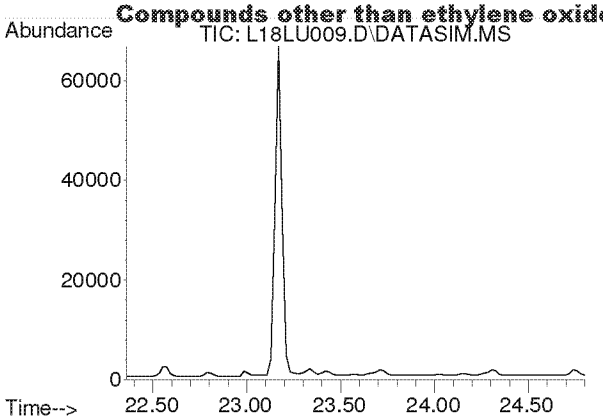
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 117

| Sig | Exp Ratio |
|---|---|
| 117 | 100 |
| 119 | 96.5 |



**Compounds other than ethylene oxide were not quantitated.**

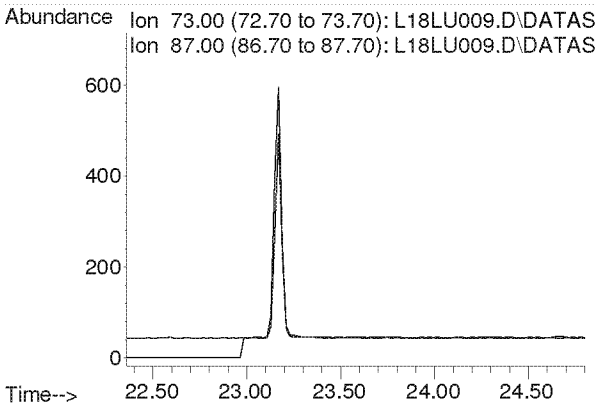


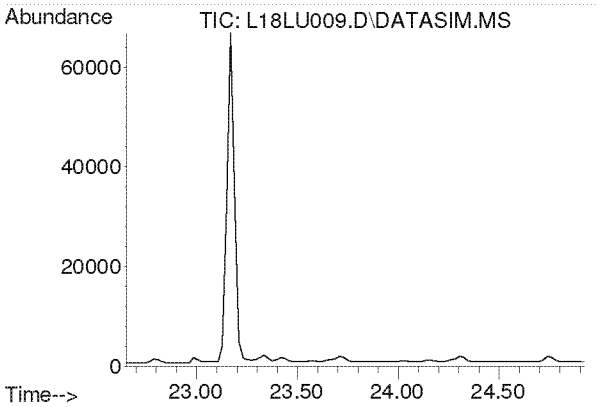

#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 87 | 24.9 |



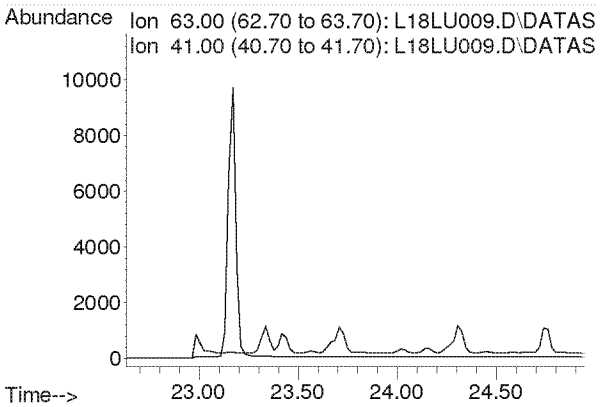




#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

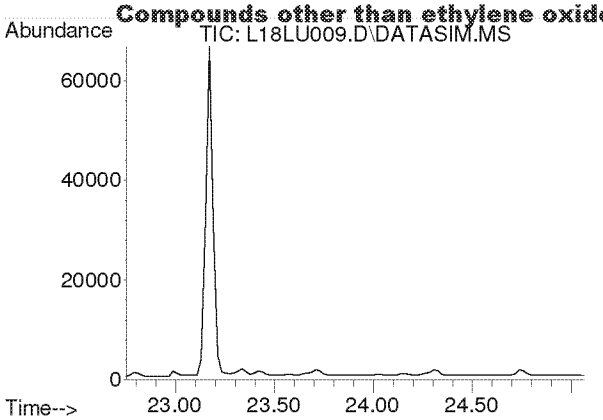
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 41 | 212.8 |



**Compounds other than ethylene oxide were not quantitated.**

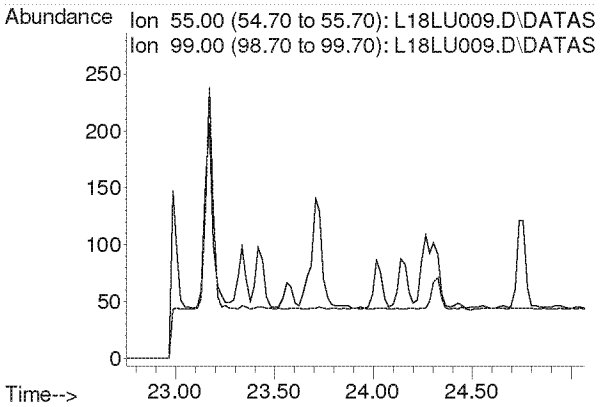


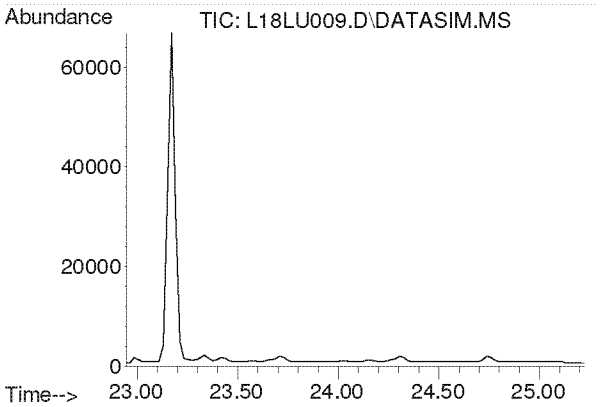

#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 55

| Sig | Exp Ratio |
|---|---|
| 55 | 100 |
| 99 | 6.1 |



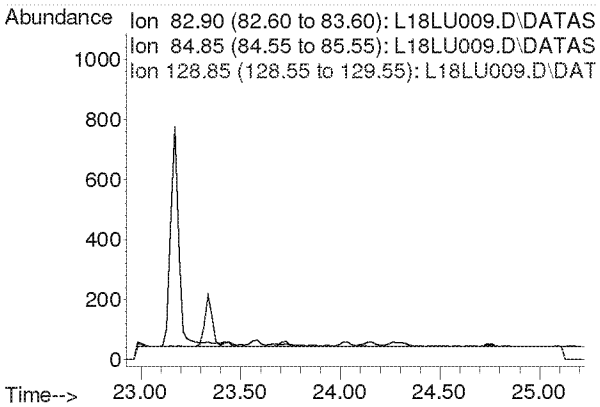




#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

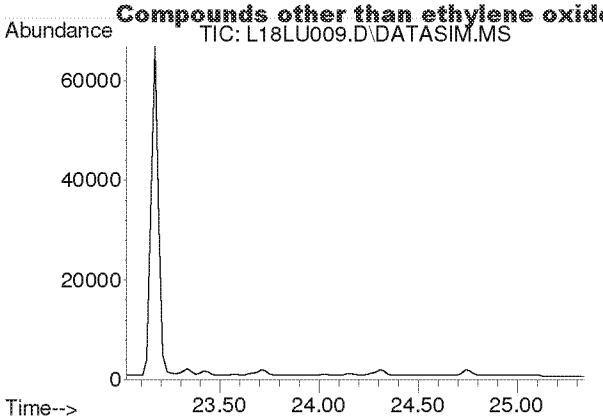
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.0 |
| 129 | 12.4 |



**Compounds other than ethylene oxide were not quantitated.**

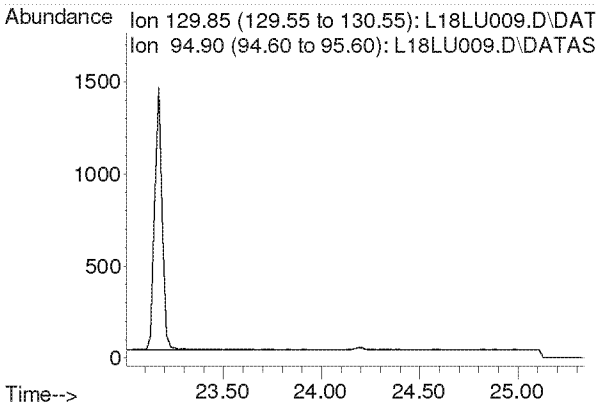


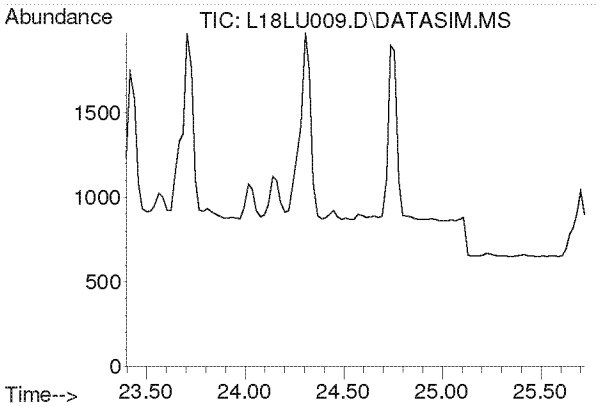

#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 130

| Sig | Exp Ratio |
|---|---|
| 130 | 100 |
| 95 | 110.3 |



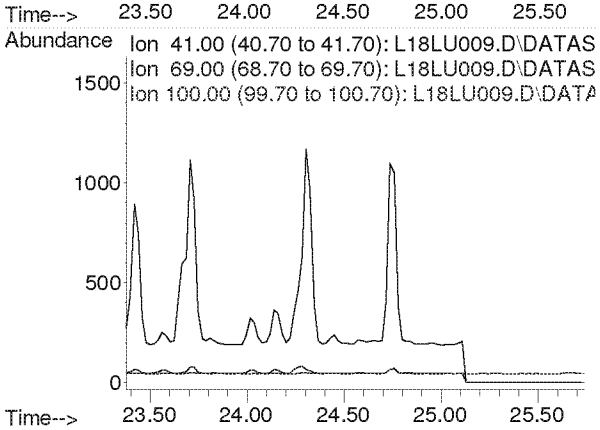




#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

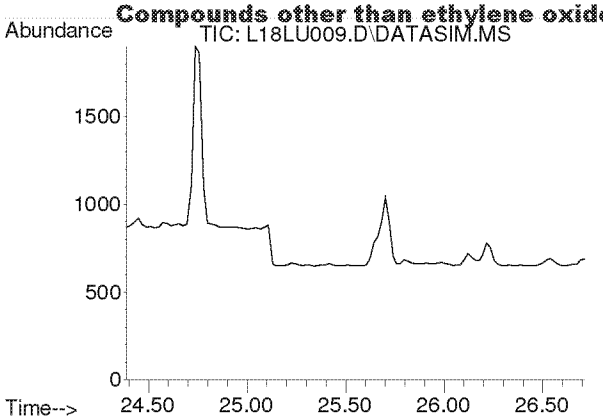
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 69 | 19.9 |
| 100 | 5.2 |



**Compounds other than ethylene oxide were not quantitated.**

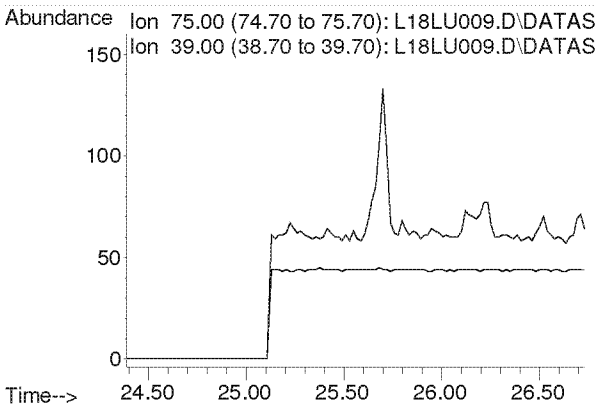


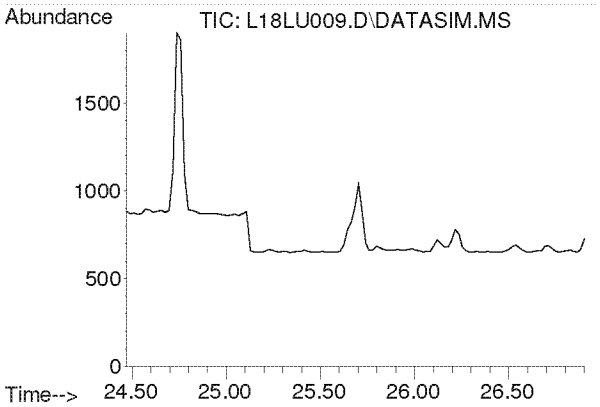

#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 54.4 |



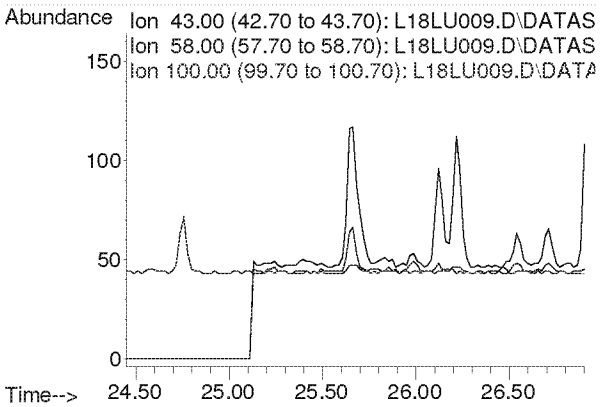




#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

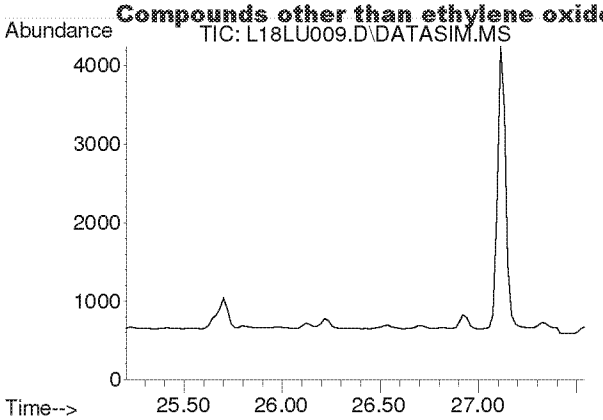
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 58 | 34.2 |
| 100 | 7.9 |



**Compounds other than ethylene oxide were not quantitated.**

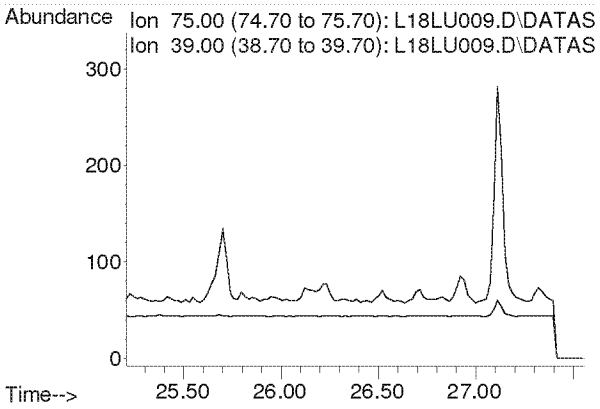


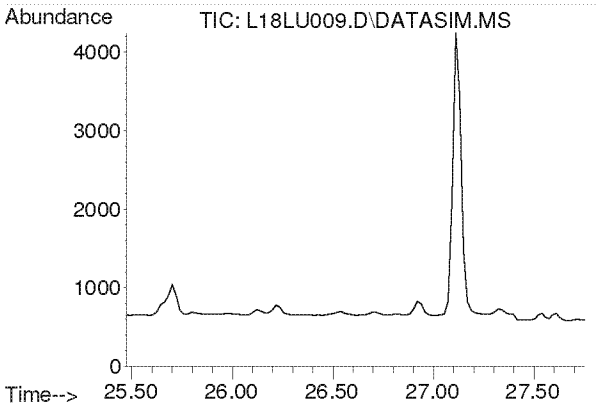

#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 50.9 |



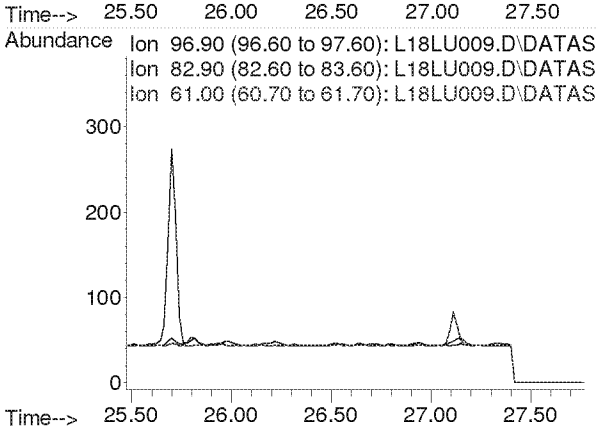




#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

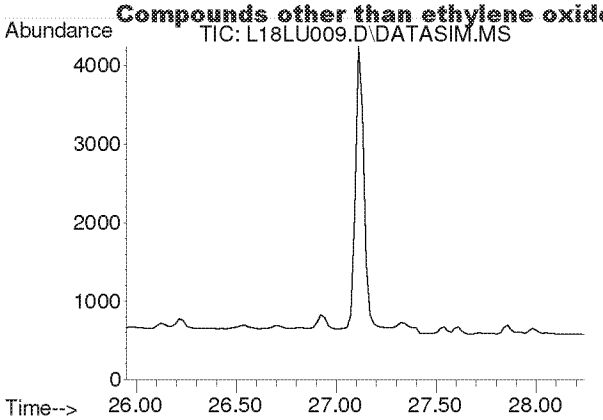
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 83 | 96.1 |
| 61 | 63.5 |



**Compounds other than ethylene oxide were not quantitated.**

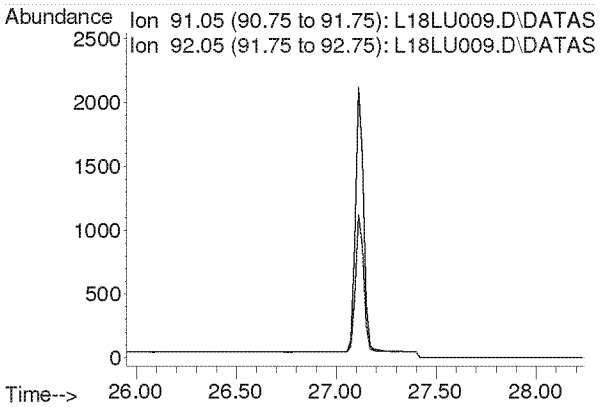


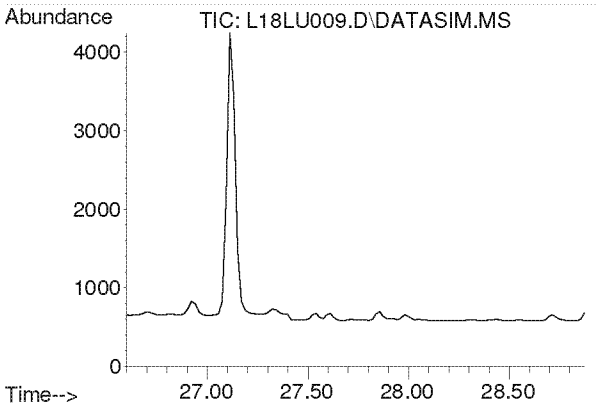

#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 92 | 52.6 |



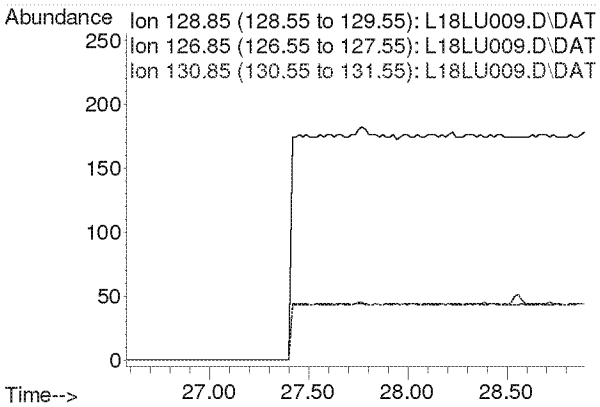




#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

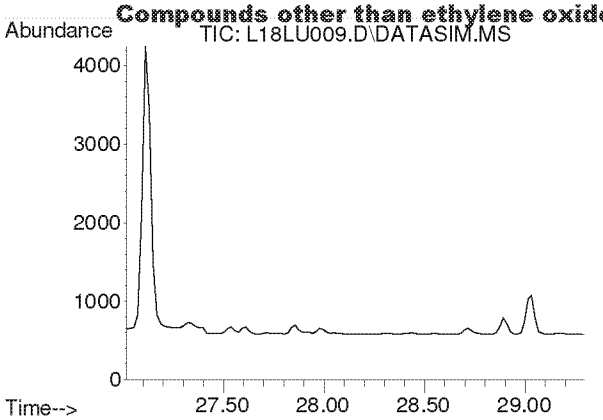
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 129

| Sig | Exp Ratio |
|---|---|
| 129 | 100 |
| 127 | 19.2 |
| 131 | 6.0 |



**Compounds other than ethylene oxide were not quantitated.**

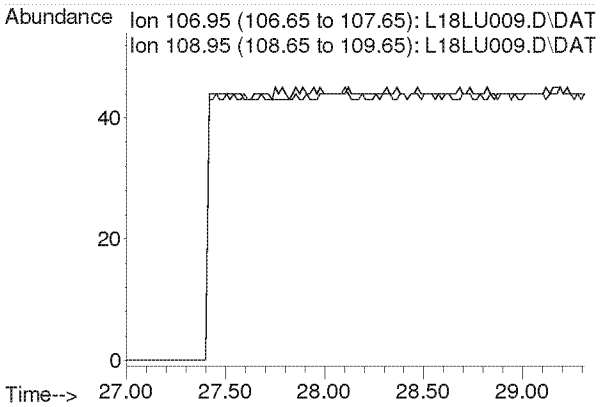


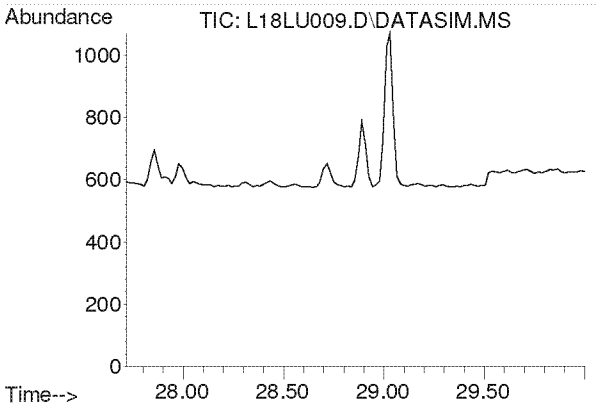

#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 107

| Sig | Exp Ratio |
|---|---|
| 107 | 100 |
| 109 | 94.5 |



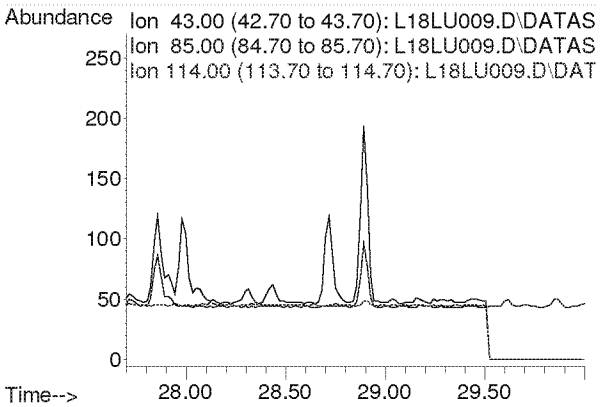




#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

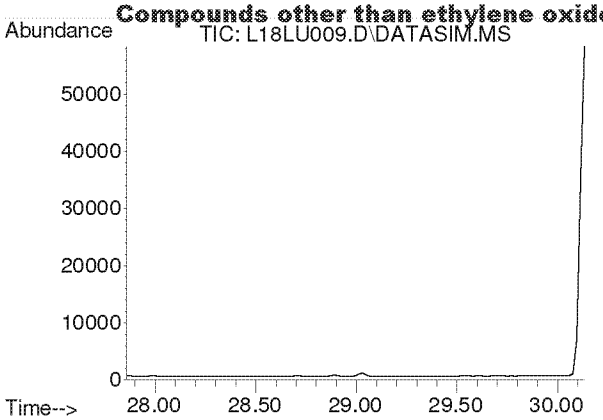
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 85 | 36.0 |
| 114 | 2.2 |



**Compounds other than ethylene oxide were not quantitated.**

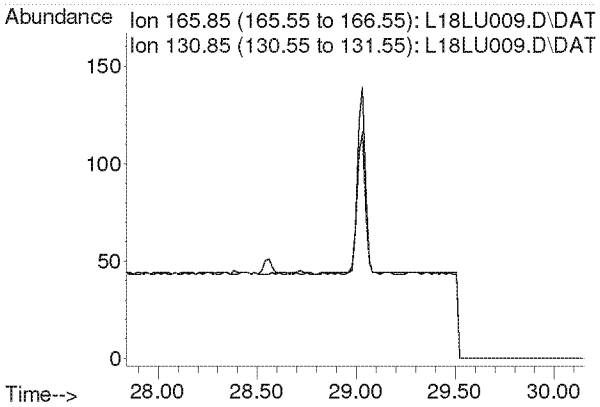


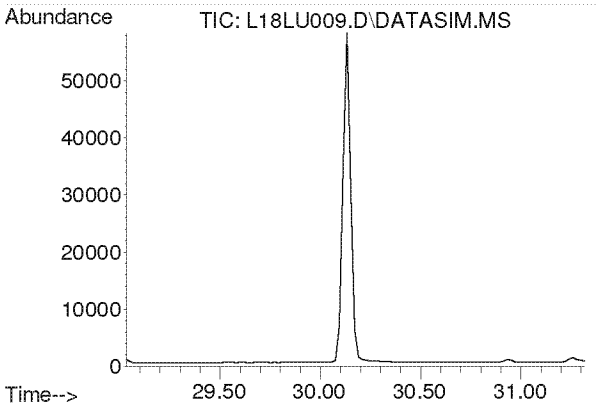

#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 166

| Sig | Exp Ratio |
|---|---|
| 166 | 100 |
| 131 | 78.2 |



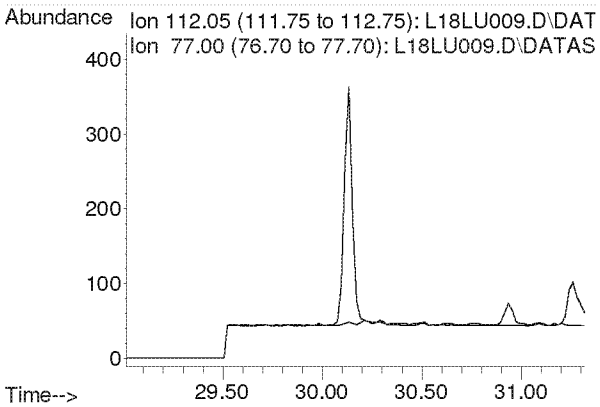




#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

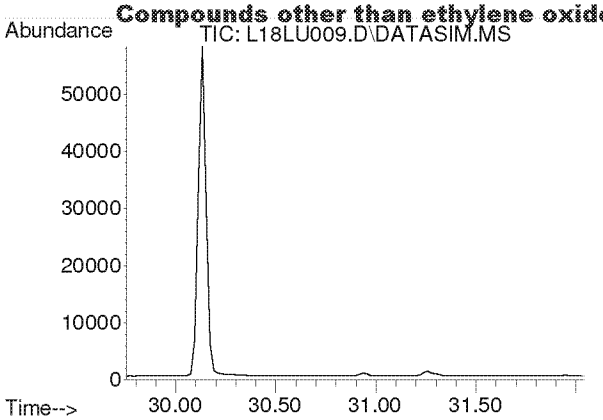
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 112

| Sig | Exp Ratio |
|---|---|
| 112 | 100 |
| 77 | 63.0 |



**Compounds other than ethylene oxide were not quantitated.**

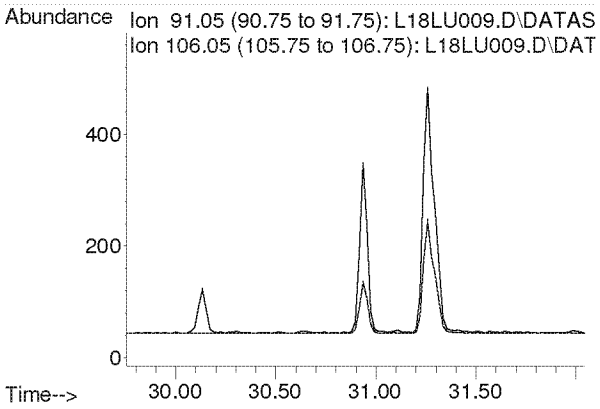


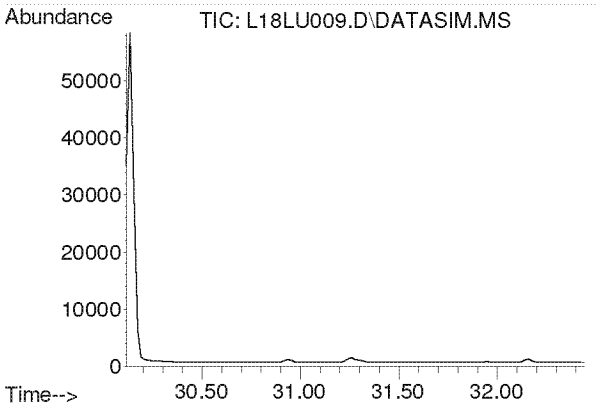

#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 31.8 |



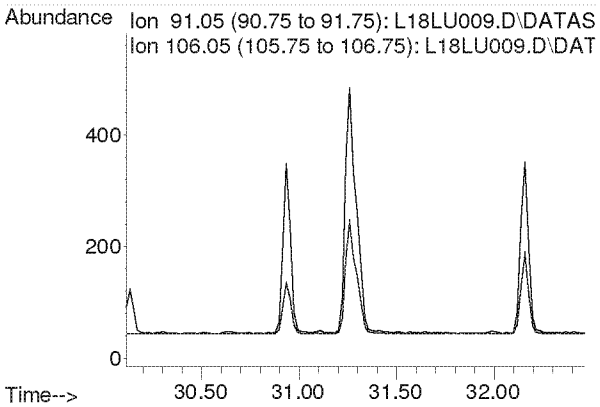




#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

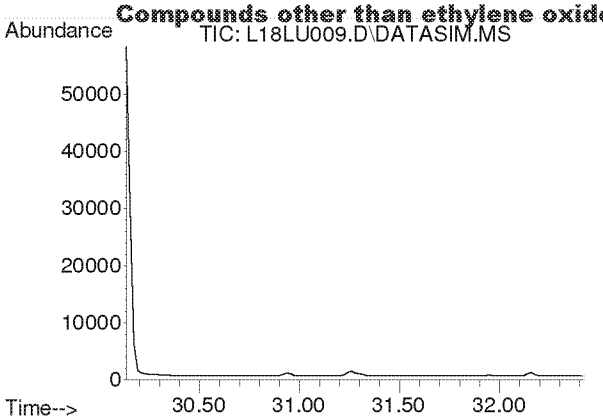
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.4 |



**Compounds other than ethylene oxide were not quantitated.**

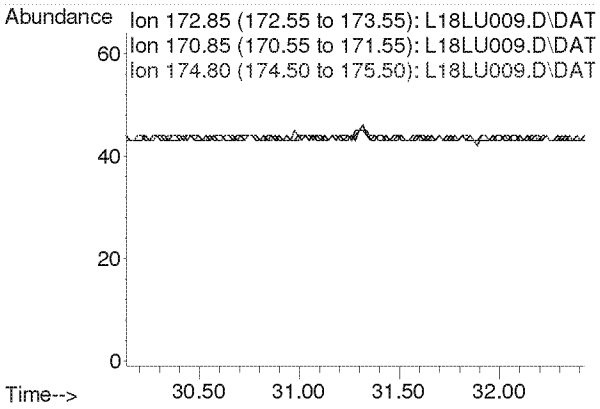


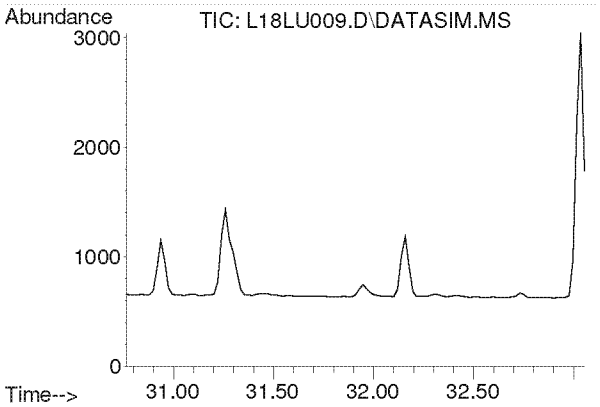

#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 173

| Sig | Exp Ratio |
|---|---|
| 173 | 100 |
| 171 | 51.3 |
| 175 | 49.0 |



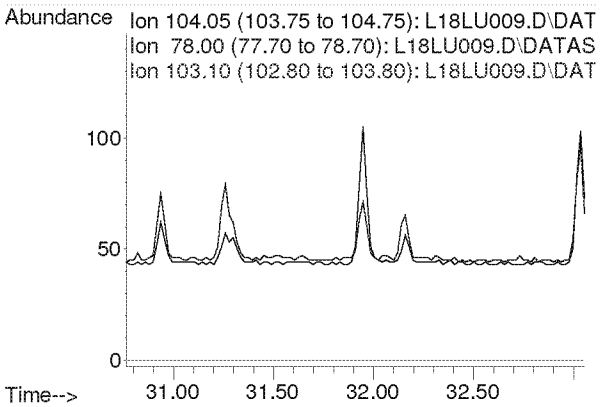




#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

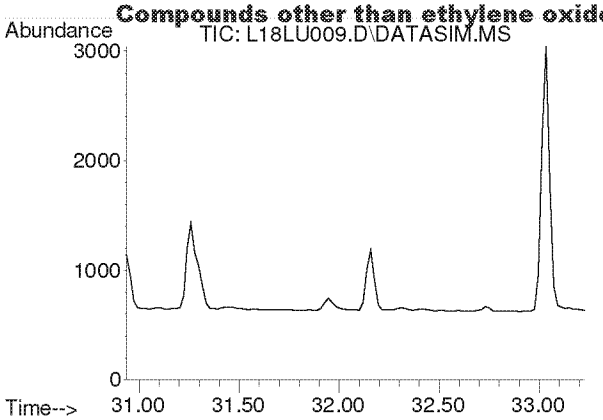
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 104

| Sig | Exp Ratio |
|---|---|
| 104 | 100 |
| 78 | 45.6 |
| 103 | 0.0 |



**Compounds other than ethylene oxide were not quantitated.**

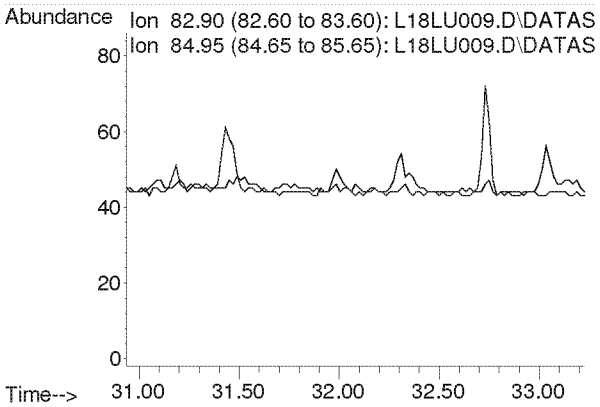


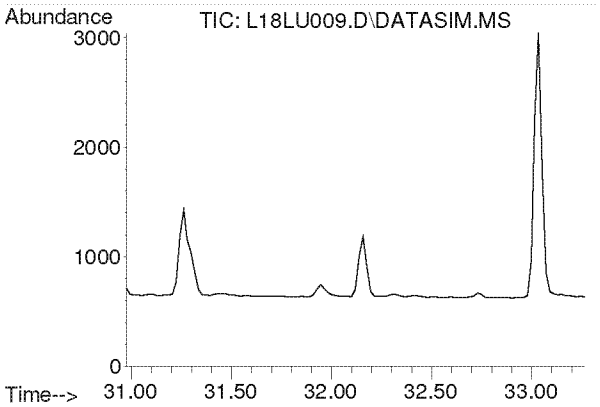

#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 63.9 |



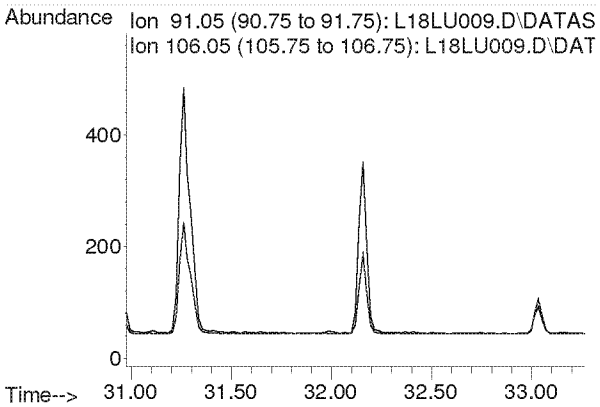




#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

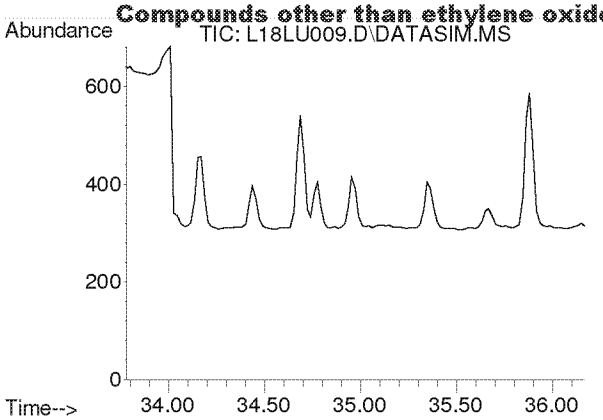
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.2 |



**Compounds other than ethylene oxide were not quantitated.**

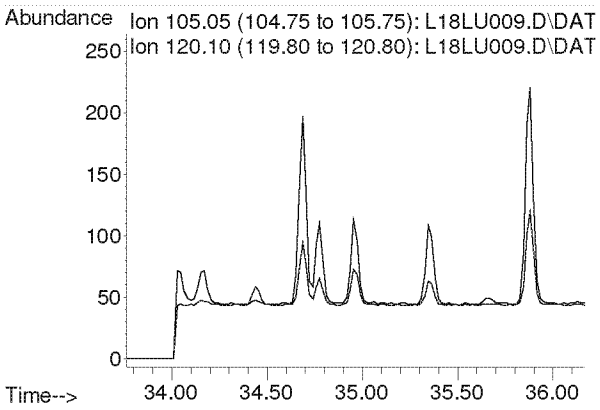


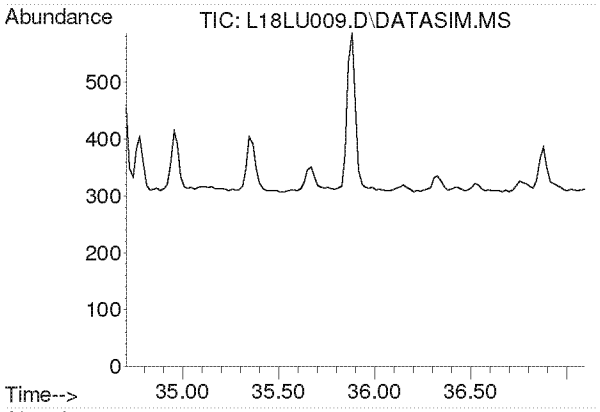

#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 45.0 |



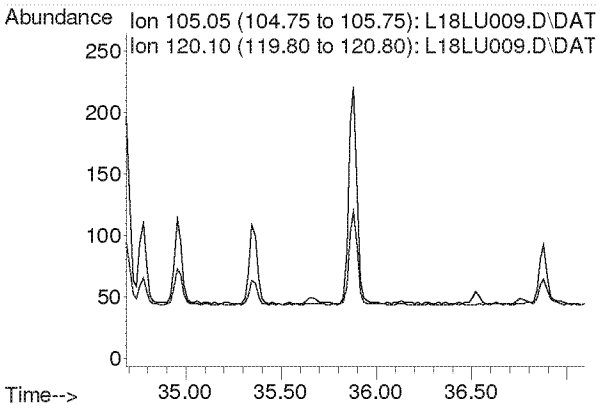




#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

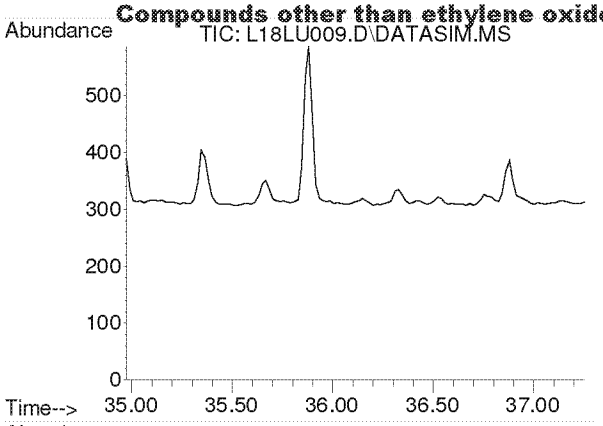
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 42.8 |



**Compounds other than ethylene oxide were not quantitated.**

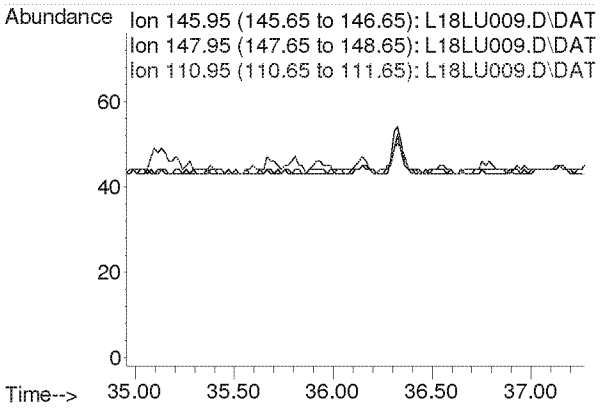


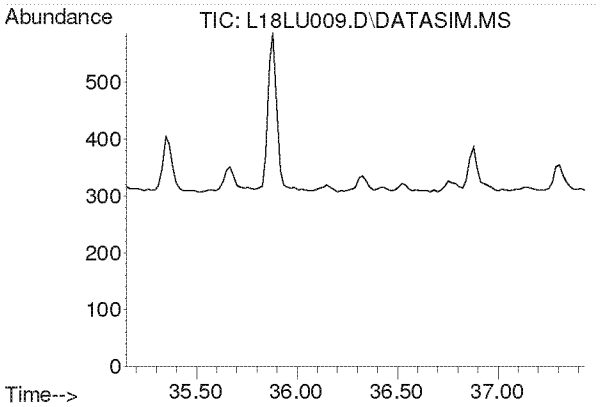

#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 40.5 |



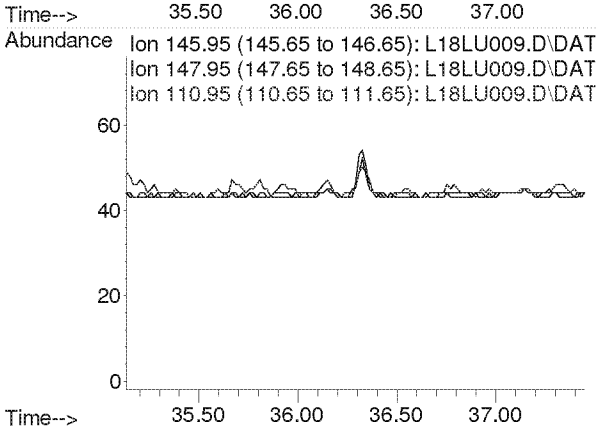




#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

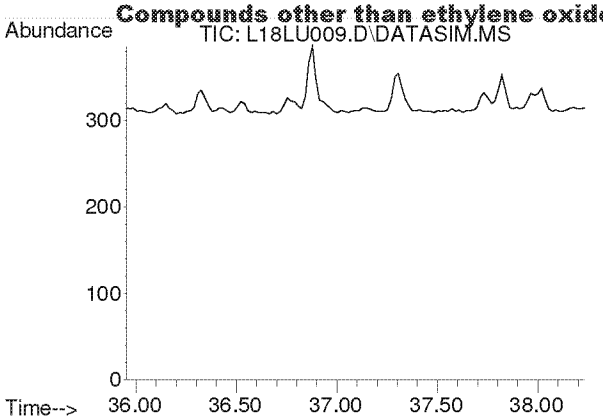
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 39.5 |



**Compounds other than ethylene oxide were not quantitated.**

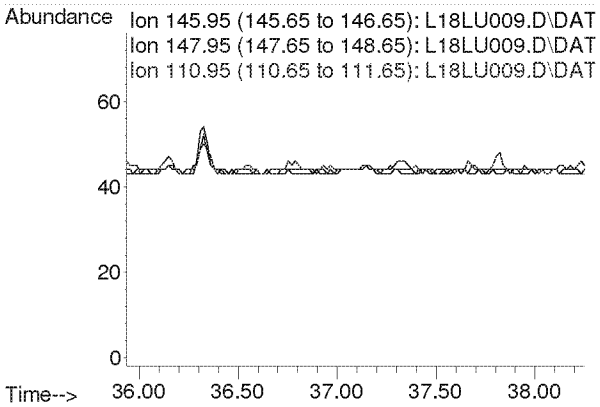


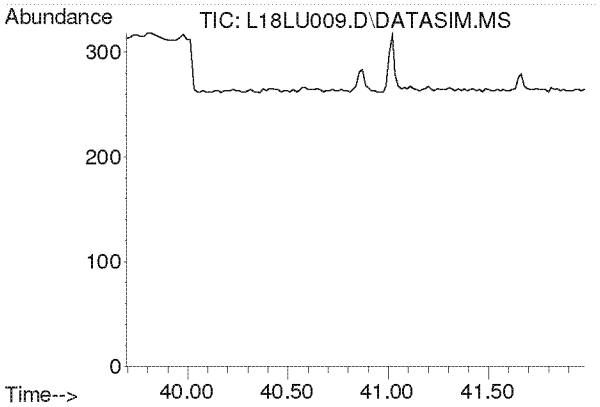

#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.1 |
| 111 | 41.4 |



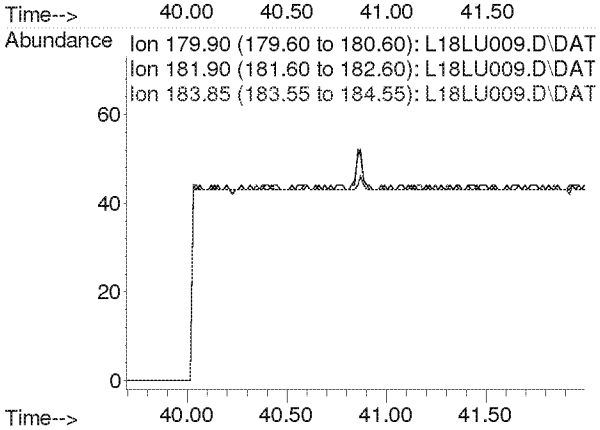




#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

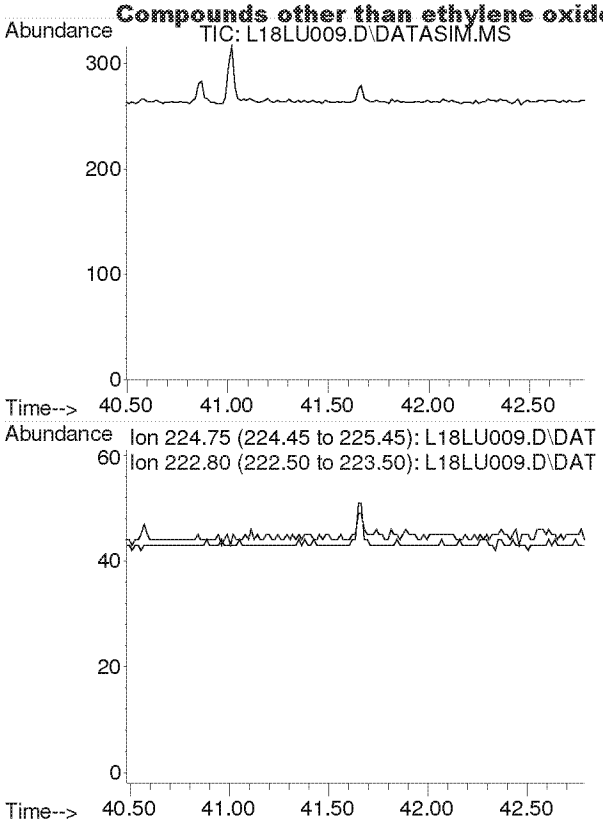
Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 180

| Sig | Exp Ratio |
|---|---|
| 180 | 100 |
| 182 | 95.1 |
| 184 | 30.7 |



**Compounds other than ethylene oxide were not quantitated.**




#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18LU009.D
Acq: 21 Dec 2018 3:33 pm

Tgt Ion: 225

| Sig | Exp Ratio |
|---|---|
| 225 | 100 |
| 223 | 62.4 |

**Compounds other than ethylene oxide were not quantitated.**

Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU010.D
Acq On : 21 Dec 2018 4:35 pm (#1); 21 Dec 2018 4:30 pm (#2)
Operator : MAH
Sample : 8120701-02
Misc : WB WAREHOUSE 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 26 09:50:50 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) IS-Hexane-d14 | 19.993 | 66 | 52754 | 4.7700 ppbv | 0.00 |
| 29) IS-1,4-Difluorobenzene | 23.171 | 114 | 124895 | 4.9900 ppbv | 0.02 |
| 43) IS-Chlorobenzene-d5 | 30.135 | 117 | 85664 | 4.7400 ppbv | 0.04 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) Acetylene | 0.000 | 26 | 0 | N.D. d | |
| 3) Propylene | 0.000 | 41 | 0 | N.D. d | |
| 4) Dichlorodifluoromethane | 0.000 | 85 | 0 | N.D. d | |
| 5) Chloromethane | 0.000 | 50 | 0 | N.D. d | |
| 6) Dichlorotetrafluoroethane | 0.000 | 85 | 0 | N.D. d | |
| 7) Vinyl Chloride | 0.000 | 62 | 0 | N.D. | |
| 8) 1,3-Butadiene | 0.000 | 54 | 0 | N.D. d | |
| 9) Ethylene oxide | 12.455 | 29 | 795m | 0.2521 ppbv | manual re-integration requested by client RMB 1/22/19 |
| 10) Bromomethane | 0.000 | 94 | 0 | N.D. d | |
| 11) Chloroethane | 0.000 | 64 | 0 | N.D. | |
| 12) Acetonitrile | 0.000 | 41 | 0 | N.D. d | |
| 13) Acrolein | 0.000 | 56 | 0 | N.D. d | |
| 14) Trichlorofluoromethane | 0.000 | 101 | 0 | N.D. d | |
| 15) Acrylonitrile | 0.000 | 53 | 0 | N.D. d | |
| 16) 1,1-Dichloroethene | 0.000 | 61 | 0 | N.D. | |
| 17) Methylene Chloride | 0.000 | 49 | 0 | N.D. d | |
| 18) Carbon Disulfide | 0.000 | 76 | 0 | N.D. d | |
| 19) Trichlorotrifluoroethane | 0.000 | 101 | 0 | N.D. d | |
| 20) trans-1,2-Dichloroethy... | 0.000 | 96 | 0 | N.D. | |
| 21) 1,1-Dichloroethane | 0.000 | 63 | 0 | N.D. | |
| 22) Methyl tert-Butyl Ether | 0.000 | 73 | 0 | N.D. d | |
| 23) Chloroprene | 0.000 | 53 | 0 | N.D. d | |
| 24) cis-1,2-Dichloroethylene | 0.000 | 61 | 0 | N.D. d | |
| 25) Bromochloromethane | 0.000 | 128 | 0 | N.D. | |
| 26) Chloroform | 0.000 | 83 | 0 | N.D. d | |
| 27) Ethyl tert-Butyl Ether | 0.000 | 59 | 0 | N.D. | |
| 28) 1,2-Dichloroethane | 0.000 | 62 | 0 | N.D. d | |
| 30) 1,1,1-Trichloroethane | 0.000 | 97 | 0 | N.D. d | |
| 31) Benzene | 0.000 | 78 | 0 | N.D. d | |
| 32) Carbon Tetrachloride | 0.000 | 117 | 0 | N.D. d | |
| 33) tert-Amyl Methyl Ether | 0.000 | 73 | 0 | N.D. | |
| 34) 1,2-Dichloropropane | 0.000 | 63 | 0 | N.D. | |
| 35) Ethyl Acrylate | 0.000 | 55 | 0 | N.D. | |
| 36) Bromodichloromethane | 0.000 | 83 | 0 | N.D. d | |
| 37) Trichloroethylene | 0.000 | 130 | 0 | N.D. d | |
| 38) Methyl Methacrylate | 0.000 | 41 | 0 | N.D. d | |
| 39) cis-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 40) Methyl Isobutyl Ketone | 0.000 | 43 | 0 | N.D. d | |
| 41) trans-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 42) 1,1,2-Trichloroethane | 0.000 | 97 | 0 | N.D. | |
| 44) Toluene | 0.000 | 91 | 0 | N.D. d | |
| 45) Dibromochloromethane | 0.000 | 129 | 0 | N.D. | |
| 46) 1,2-Dibromoethane | 0.000 | 107 | 0 | N.D. | |
| 47) n-Octane | 0.000 | 43 | 0 | N.D. d | |
| 48) Tetrachloroethylene | 0.000 | 166 | 0 | N.D. d | |

**Compounds other than ethylene oxide were not quantitated.**

Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU010.D
Acq On : 21 Dec 2018 4:35 pm (#1); 21 Dec 2018 4:30 pm (#2)
Operator : MAH
Sample : 8120701-02
Misc : WB WAREHOUSE 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 26 09:50:50 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

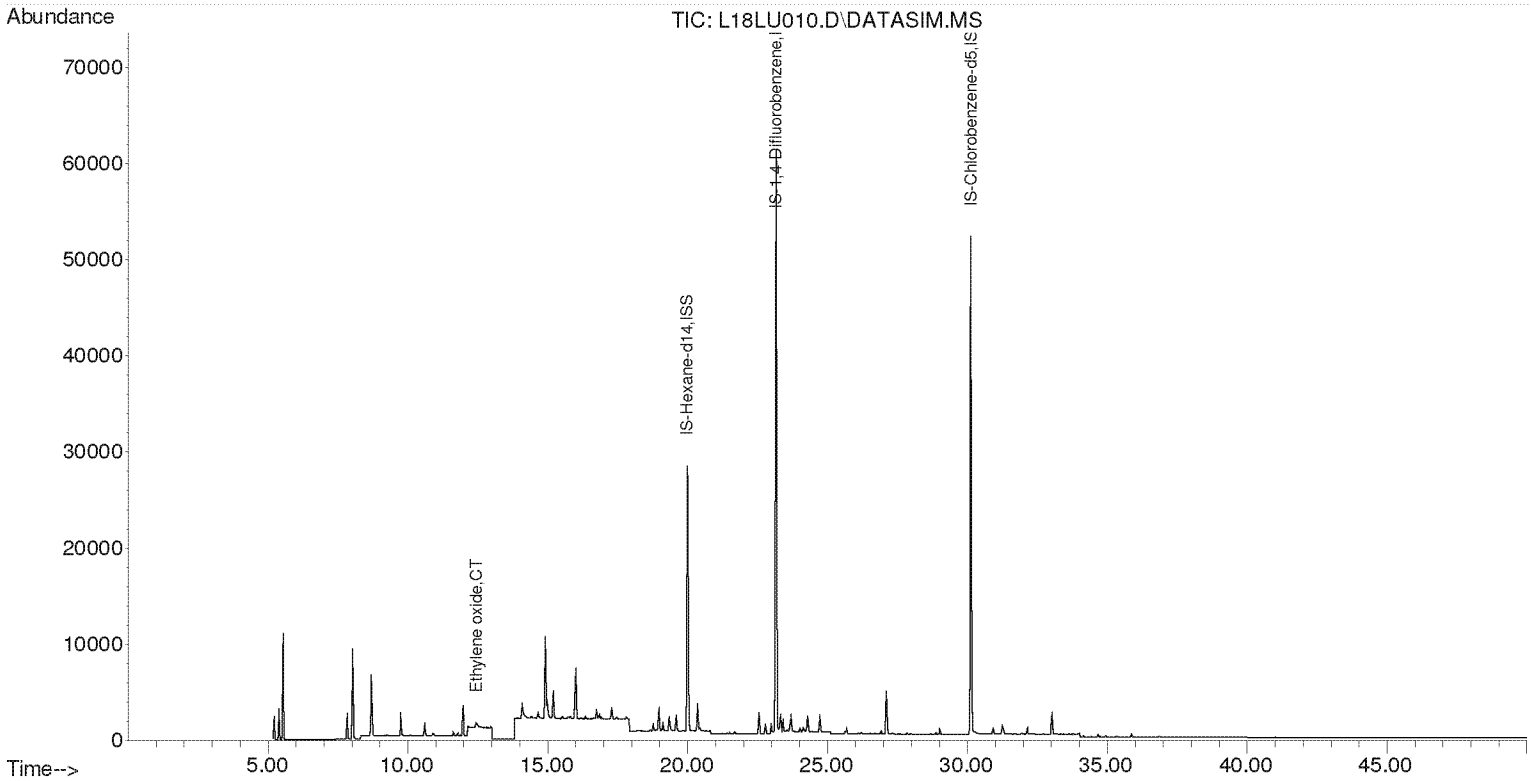
| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 49) Chlorobenzene | 0.000 | 112 | 0 | N.D. | |
| 50) Ethylbenzene | 0.000 | 91 | 0 | N.D. | d |
| 51) m,p-Xylene | 0.000 | 91 | 0 | N.D. | d |
| 52) Bromoform | 0.000 | 173 | 0 | N.D. | |
| 53) Styrene | 0.000 | 104 | 0 | N.D. | d |
| 54) 1,1,2,2-Tetrachloroethane | 0.000 | 83 | 0 | N.D. | |
| 55) o-Xylene | 0.000 | 91 | 0 | N.D. | d |
| 56) 1,3,5-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | d |
| 57) 1,2,4-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | d |
| 58) m-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 59) p-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 60) o-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 61) 1,2,4-Trichlorobenzene | 0.000 | 180 | 0 | N.D. | |
| 62) Hexachloro-1,3-butadiene | 0.000 | 225 | 0 | N.D. | |

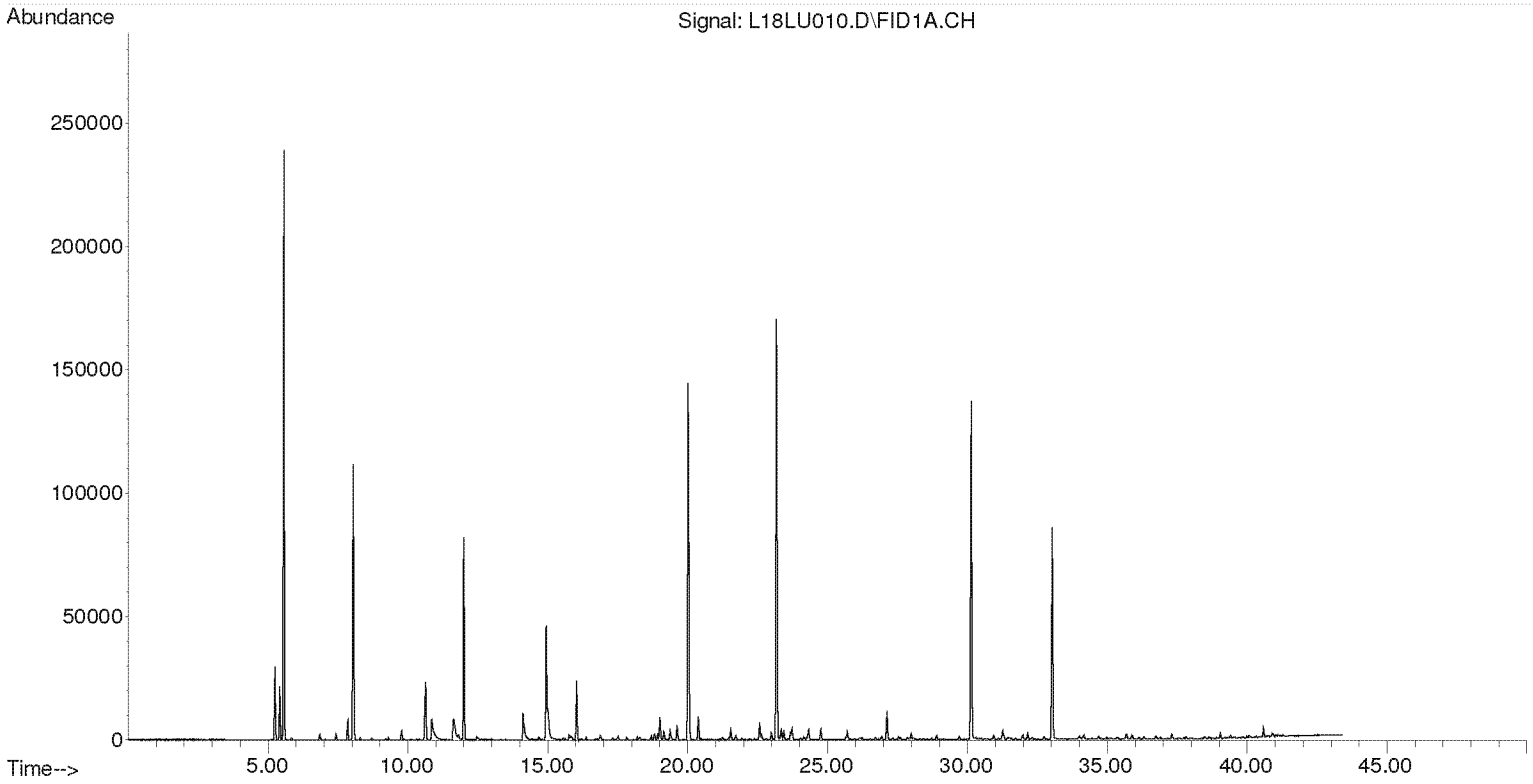
(#) = qualifier out of range (m) = manual integration (+) = signals summed

**Compounds other than ethylene oxide were not quantitated.**

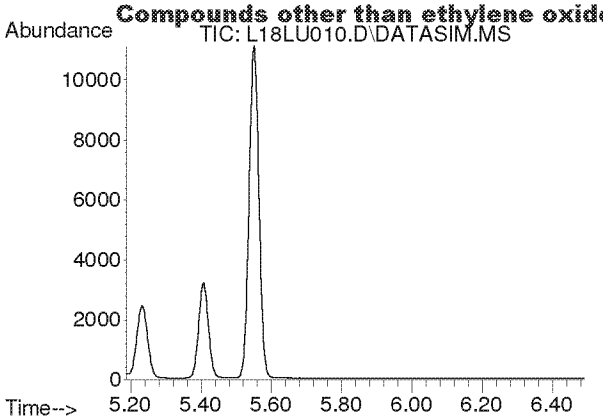
Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU010.D
Acq On : 21 Dec 2018 4:35 pm (#1); 21 Dec 2018 4:30 pm (#2)
Operator : MAH
Sample : 8120701-02
Misc : WB WAREHOUSE 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Dec 26 09:50:50 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



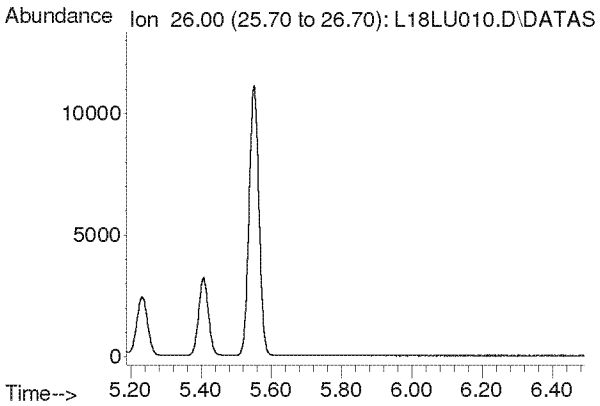
**Compounds other than ethylene oxide were not quantitated.**

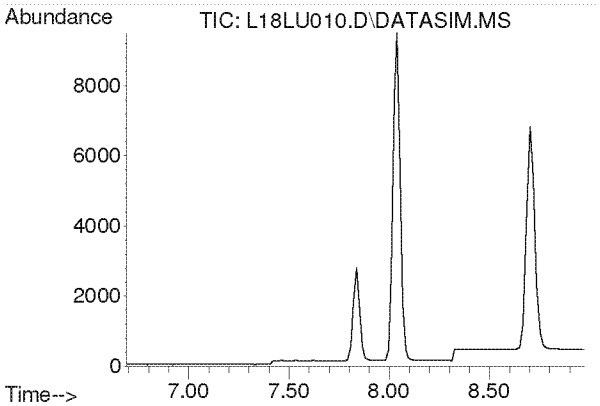



#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 26



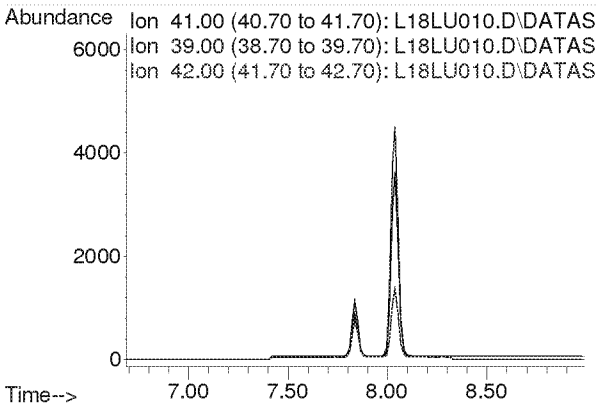




#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

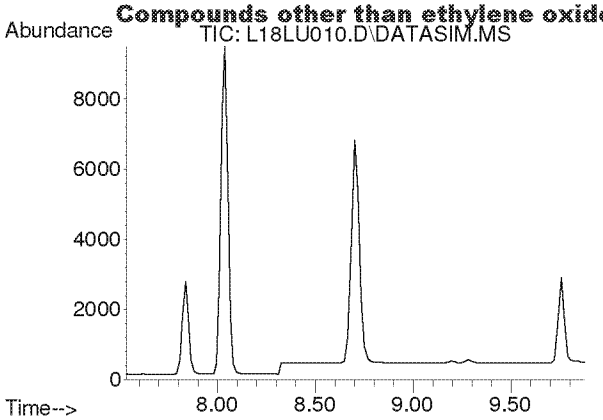
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 39 | 78.2 |
| 42 | 65.8 |



**Compounds other than ethylene oxide were not quantitated.**

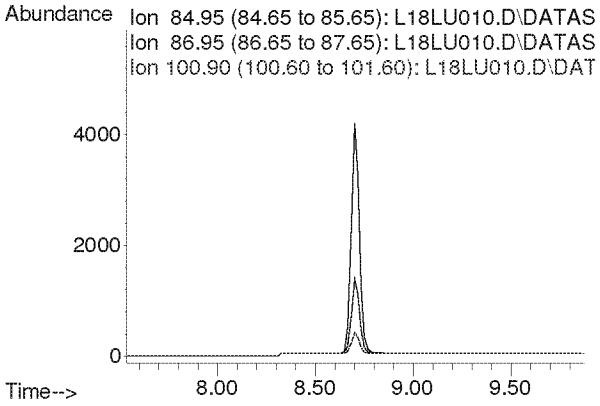


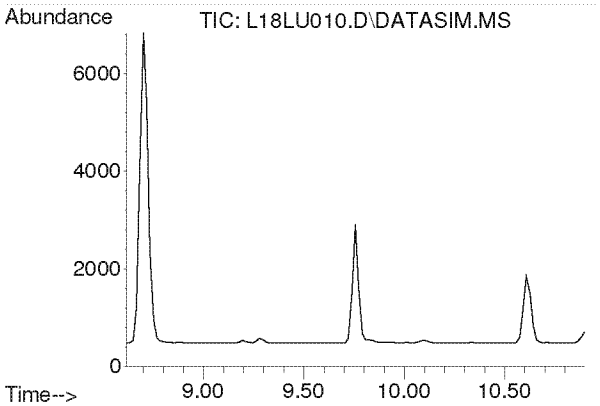

#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 87 | 32.5 |
| 101 | 8.9 |



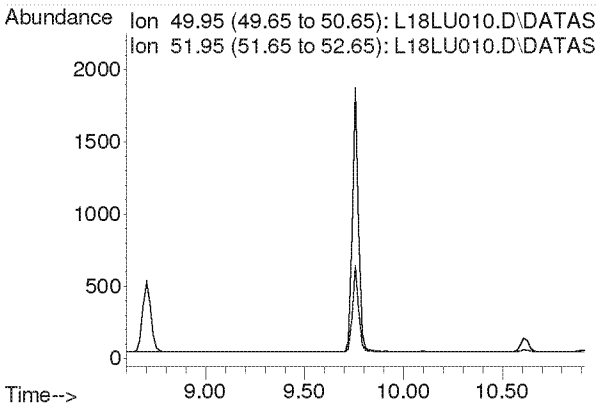




#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

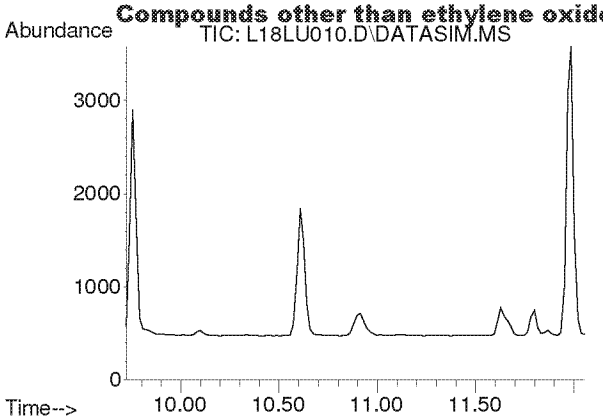
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 50

| Sig | Exp Ratio |
|---|---|
| 50 | 100 |
| 52 | 32.6 |



**Compounds other than ethylene oxide were not quantitated.**

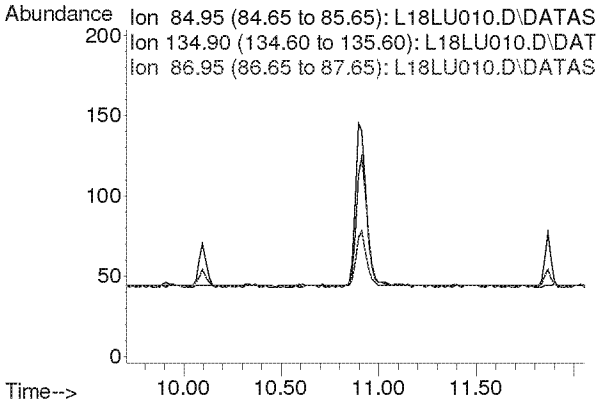


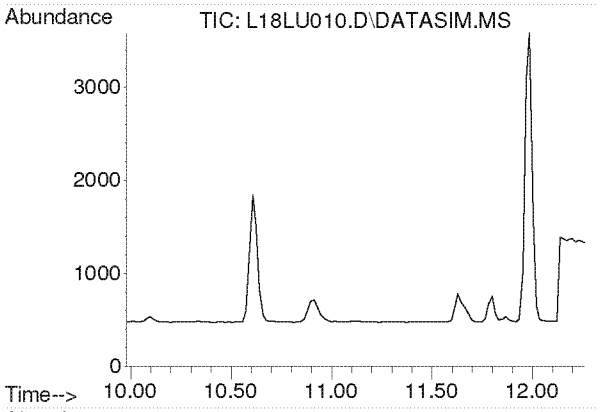

#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 135 | 79.1 |
| 87 | 32.1 |



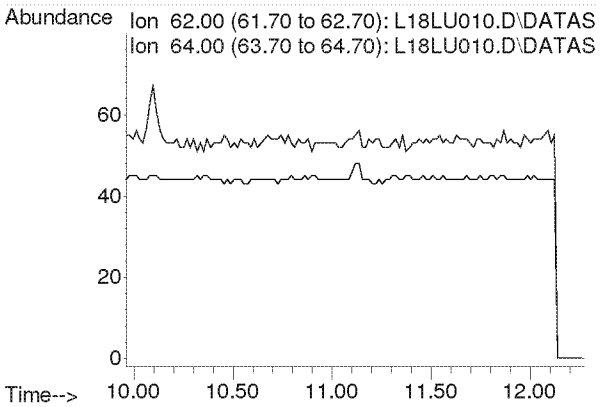




#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

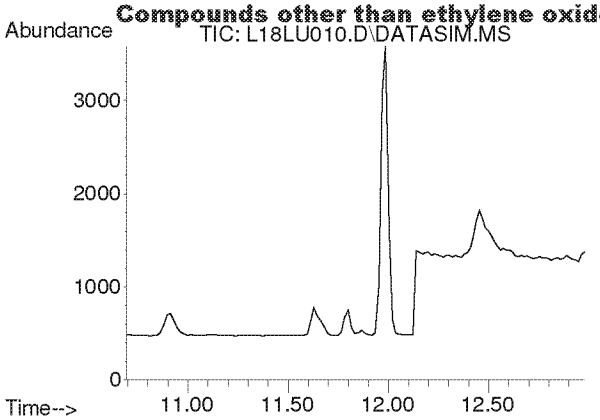
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 64 | 31.8 |



**Compounds other than ethylene oxide were not quantitated.**

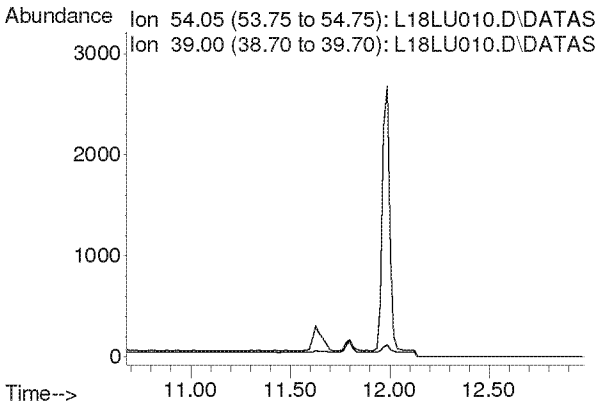


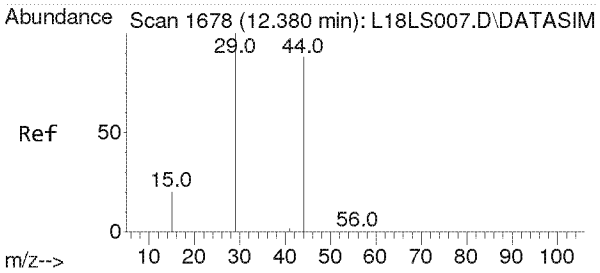

#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 54

| Sig | Exp Ratio |
|---|---|
| 54 | 100 |
| 39 | 105.4 |

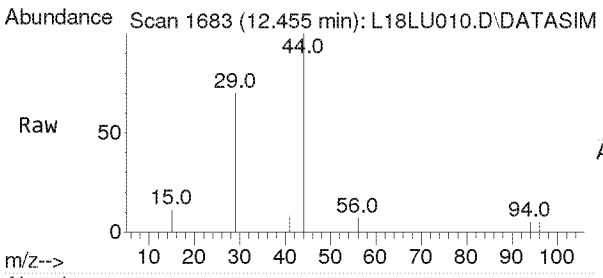


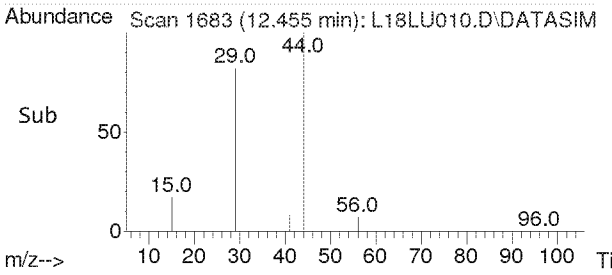



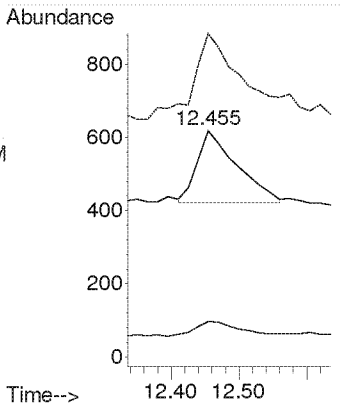

#9
Ethylene oxide
Concen: 0.252 ppbv m
RT: 12.455 min Scan# 1683
Delta R.T. 0.075 min
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 29 Resp: 795

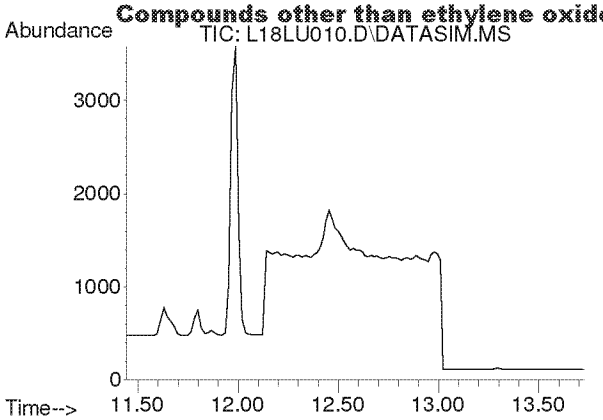
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 29 | 100 | | |
| 15 | 22.9 | 16.2 | 24.4 |
| 44 | 171.1 | 72.0 | 108.0# |



**Compounds other than ethylene oxide were not quantitated.**

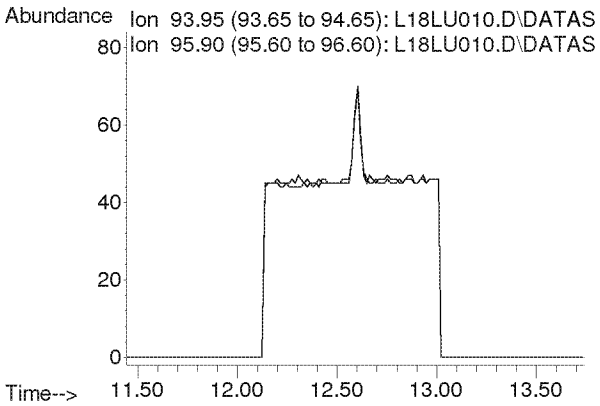


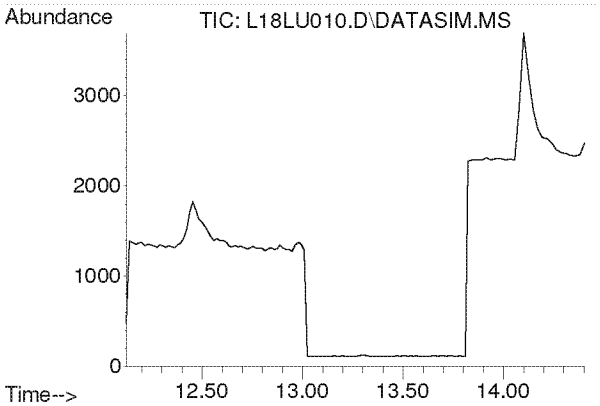

#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 94

| Sig | Exp Ratio |
|---|---|
| 94 | 100 |
| 96 | 93.9 |



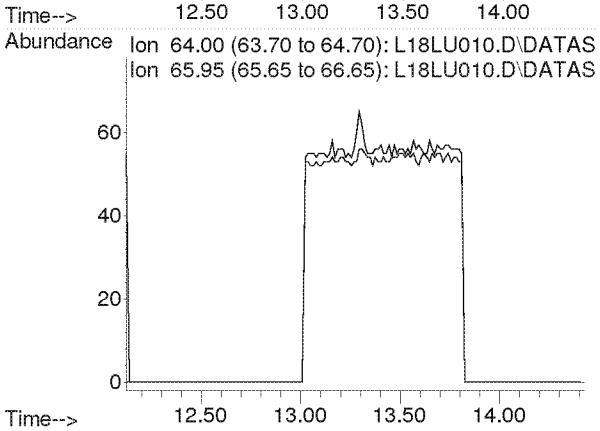




#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

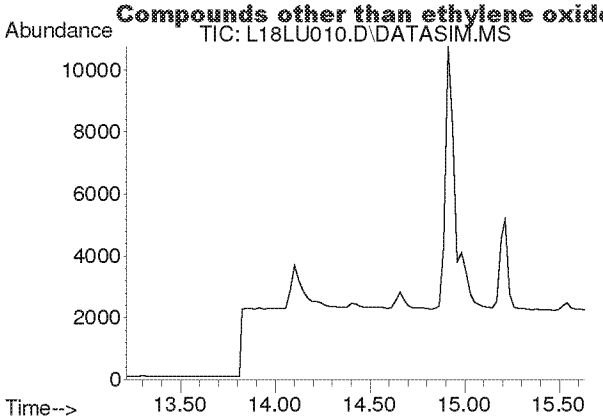
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 64

| Sig | Exp Ratio |
|---|---|
| 64 | 100 |
| 66 | 32.0 |



**Compounds other than ethylene oxide were not quantitated.**

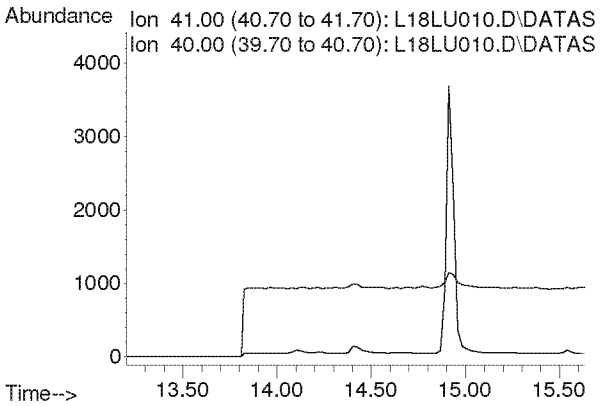


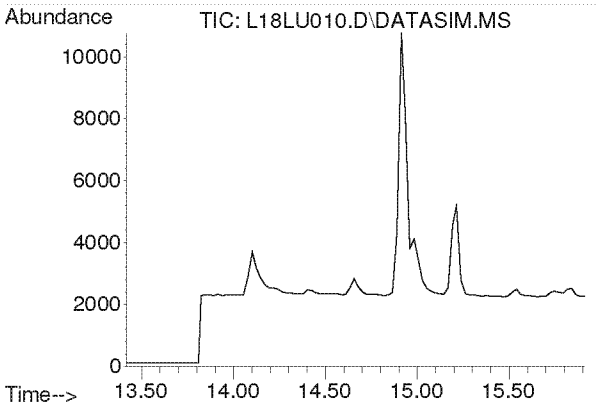

#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 40 | 50.9 |



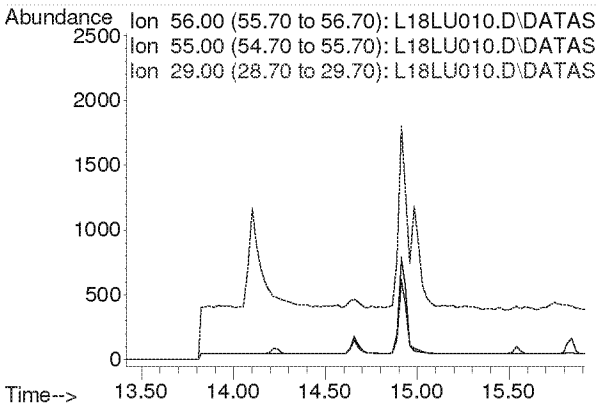




#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

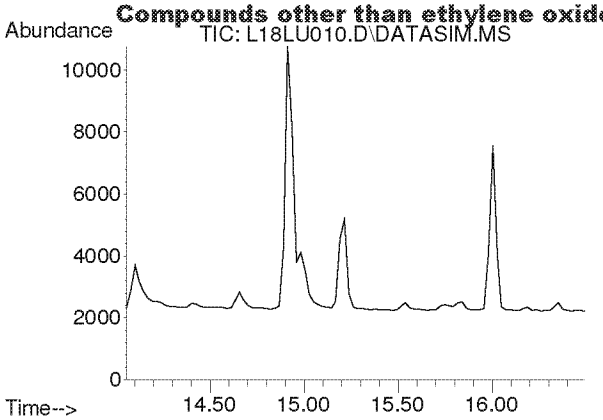
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 56

| Sig | Exp Ratio |
|---|---|
| 56 | 100 |
| 55 | 75.4 |
| 29 | 52.9 |



**Compounds other than ethylene oxide were not quantitated.**

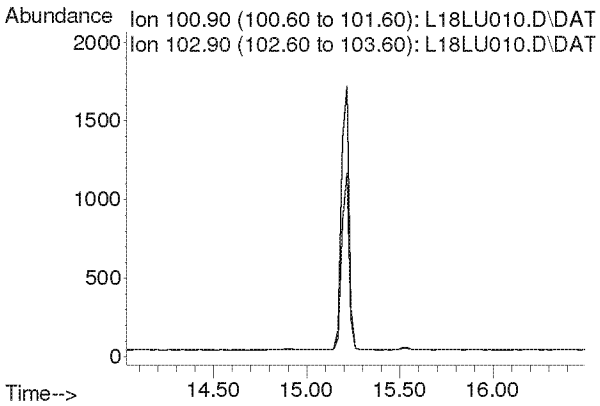


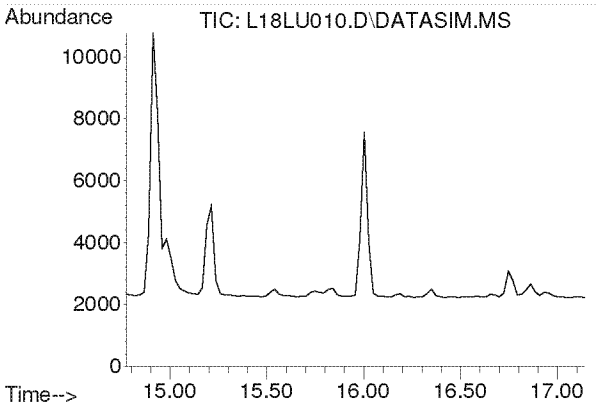

#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 103 | 64.6 |



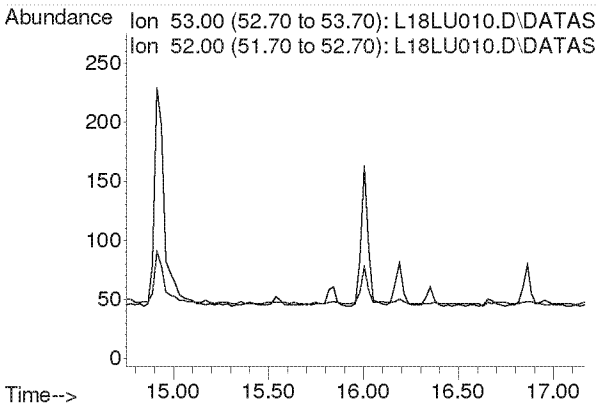




#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

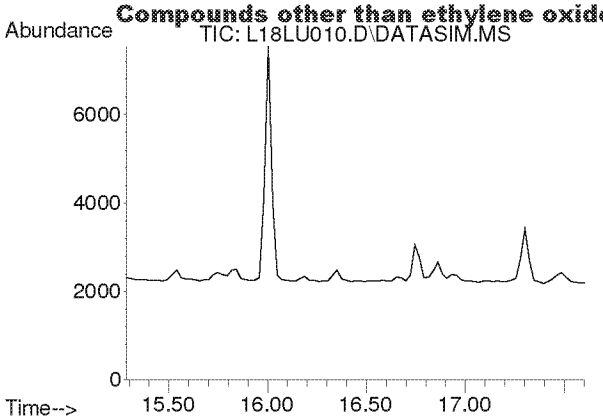
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 52 | 85.4 |



**Compounds other than ethylene oxide were not quantitated.**

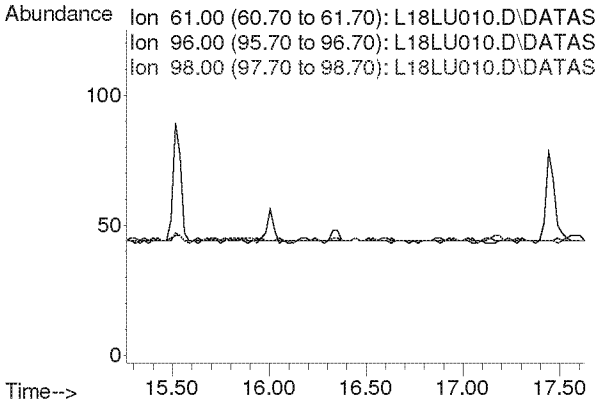


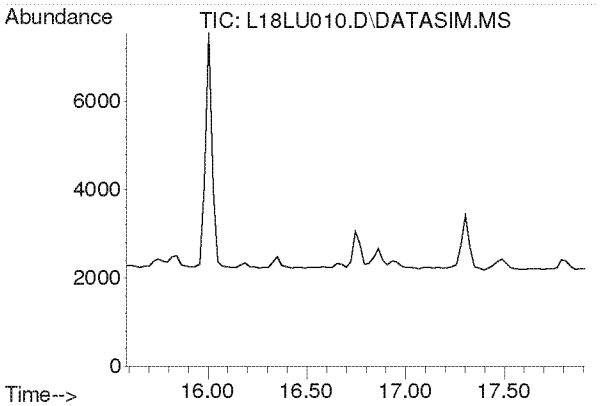

#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 58.3 |
| 98 | 37.4 |



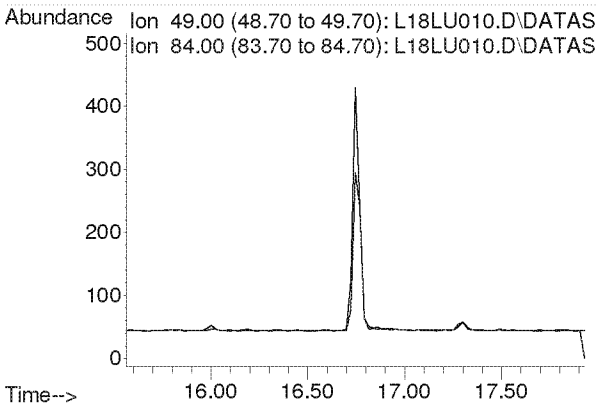




#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

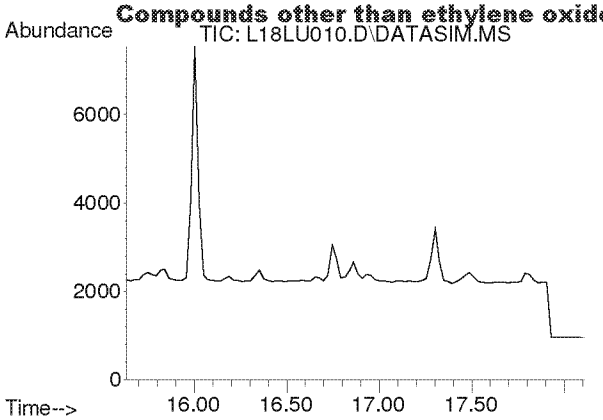
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 49

| Sig | Exp Ratio |
|---|---|
| 49 | 100 |
| 84 | 76.4 |



**Compounds other than ethylene oxide were not quantitated.**

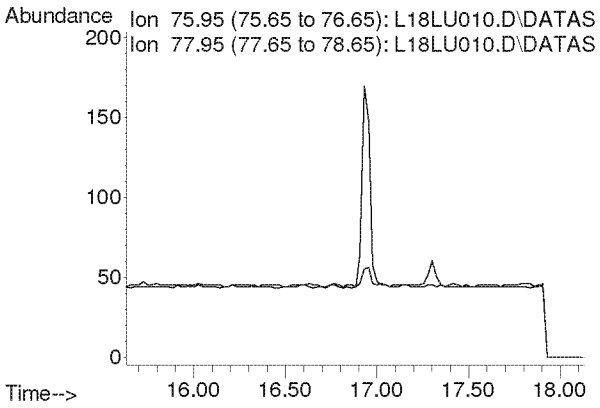


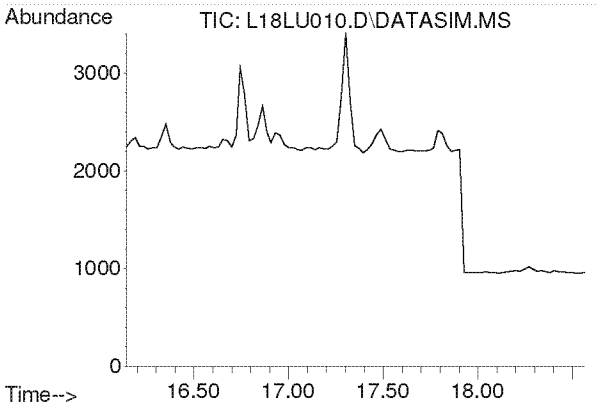

#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 76

| Sig | Exp Ratio |
|---|---|
| 76 | 100 |
| 78 | 9.1 |



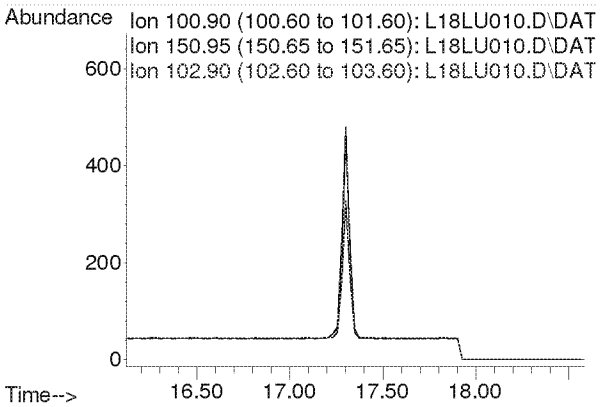




#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

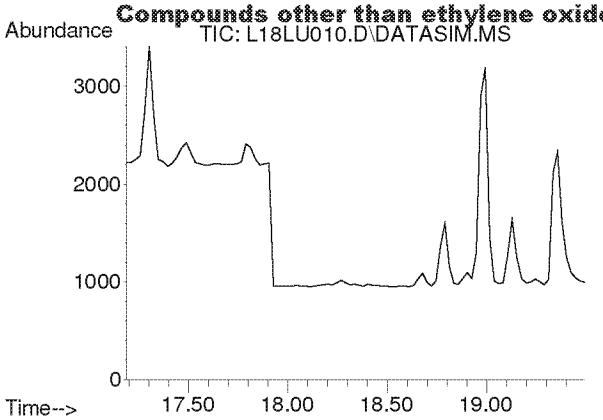
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 151 | 95.3 |
| 103 | 64.1 |



**Compounds other than ethylene oxide were not quantitated.**

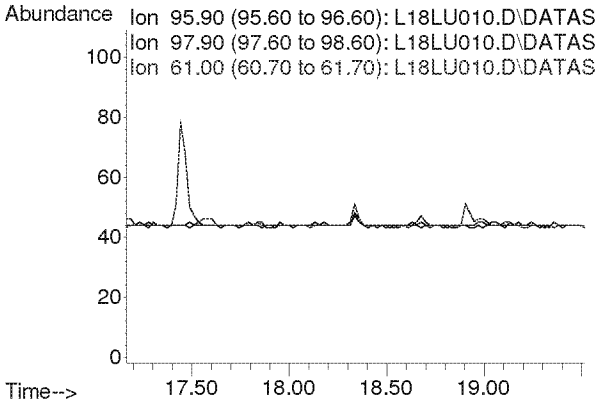


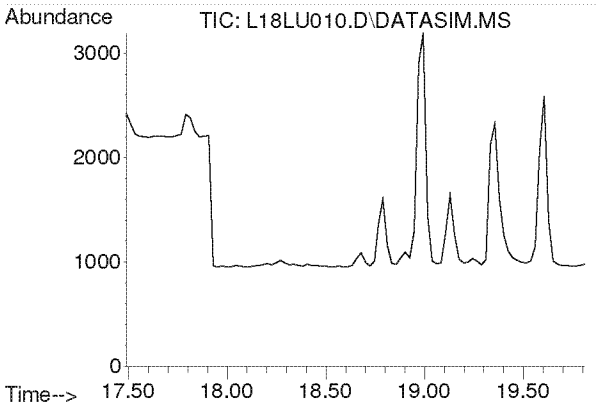

#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 96

| Sig | Exp Ratio |
|---|---|
| 96 | 100 |
| 98 | 63.7 |
| 61 | 159.2 |



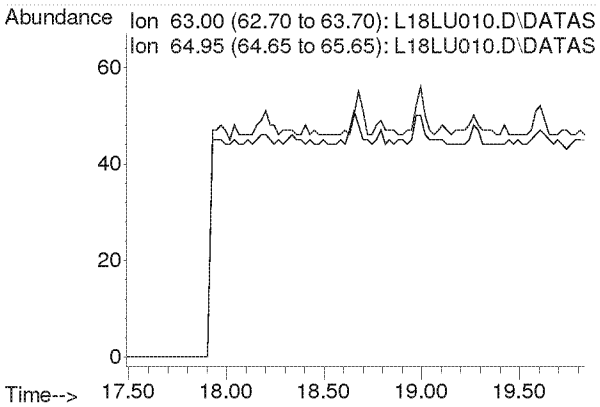




#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

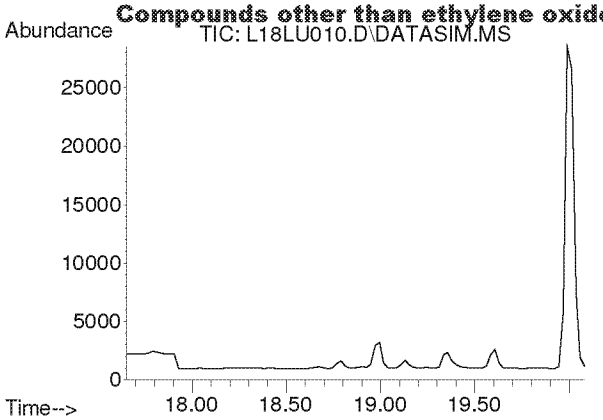
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 65 | 31.7 |



**Compounds other than ethylene oxide were not quantitated.**

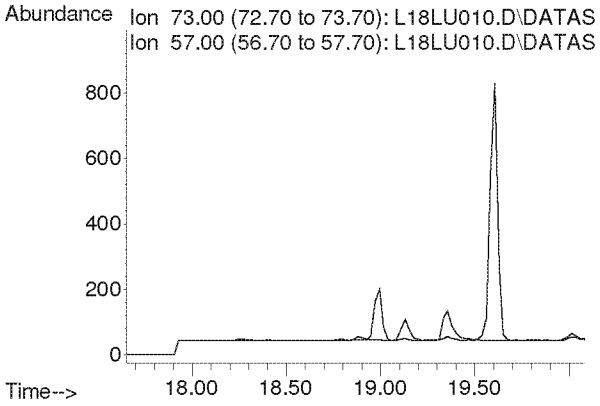


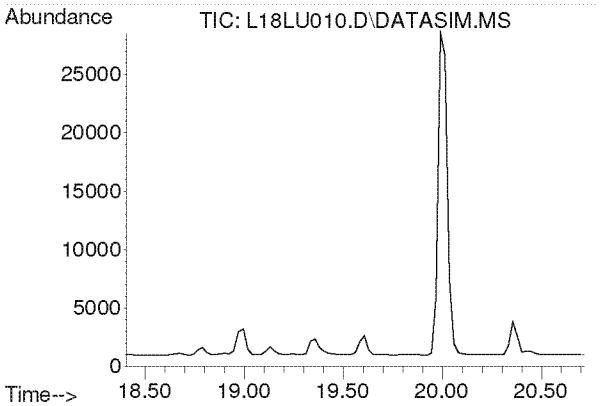

#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 57 | 23.4 |



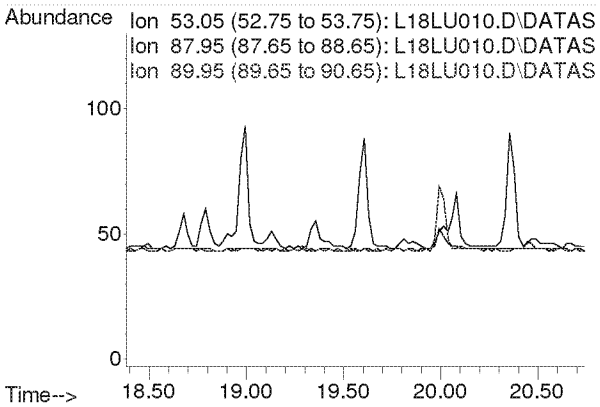




#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

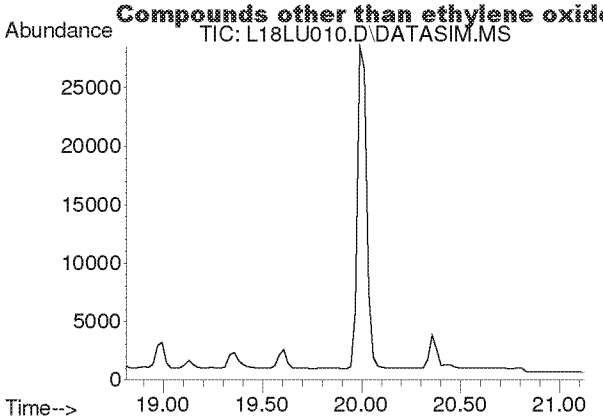
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 88 | 51.8 |
| 90 | 16.8 |



**Compounds other than ethylene oxide were not quantitated.**

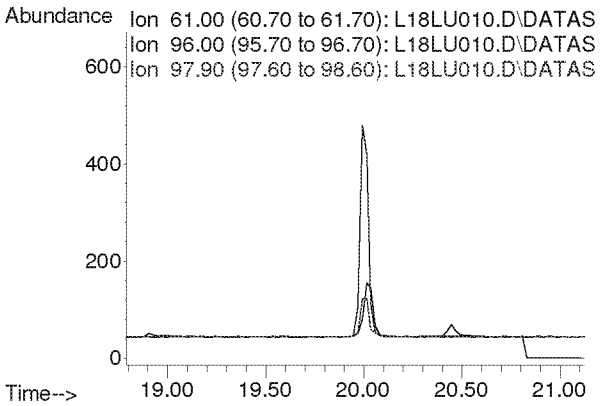


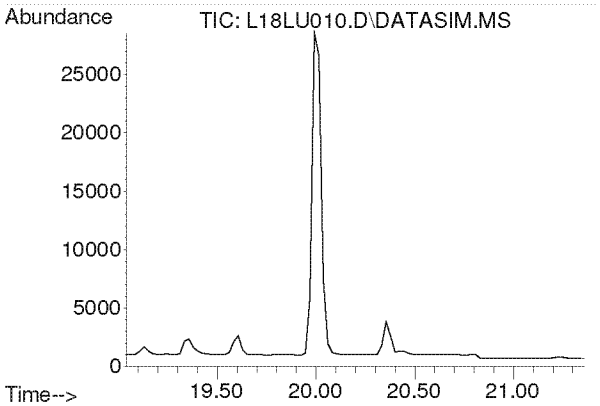

#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 73.7 |
| 98 | 45.2 |



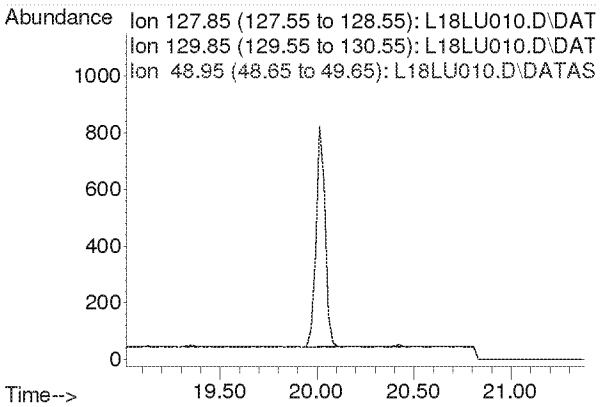




#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

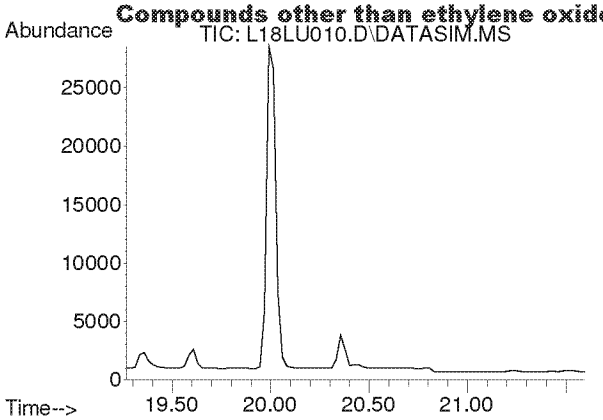
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 128

| Sig | Exp Ratio |
|---|---|
| 128 | 100 |
| 130 | 129.1 |
| 49 | 171.2 |



**Compounds other than ethylene oxide were not quantitated.**

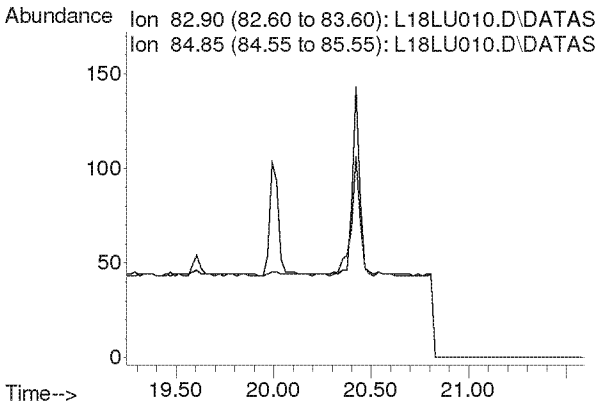


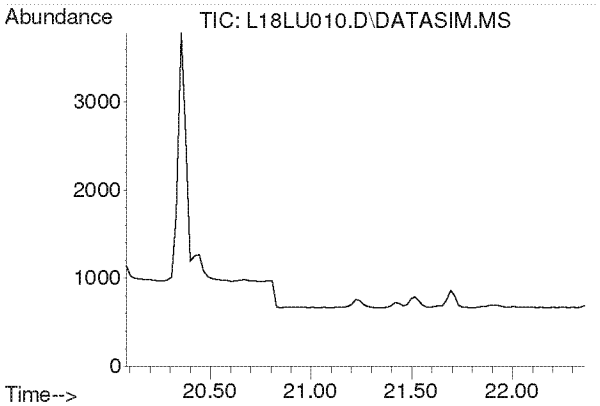

#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.4 |



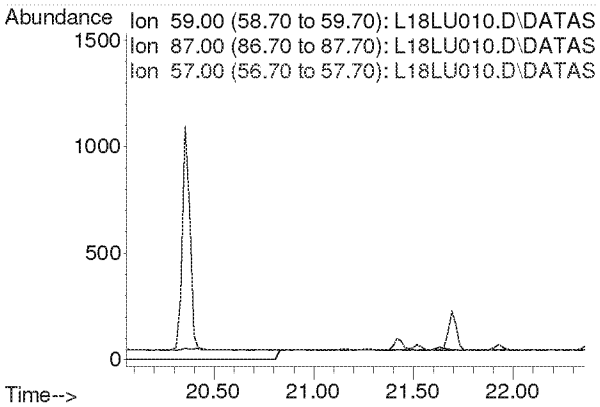




#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

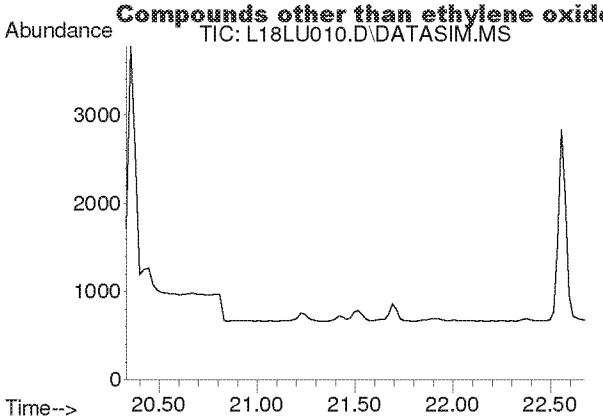
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 59

| Sig | Exp Ratio |
|---|---|
| 59 | 100 |
| 87 | 37.5 |
| 57 | 33.8 |



**Compounds other than ethylene oxide were not quantitated.**

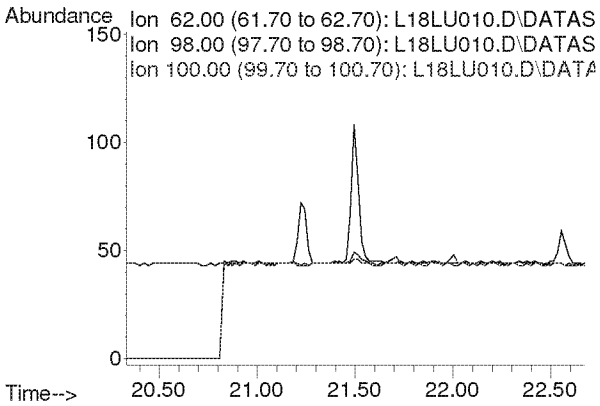


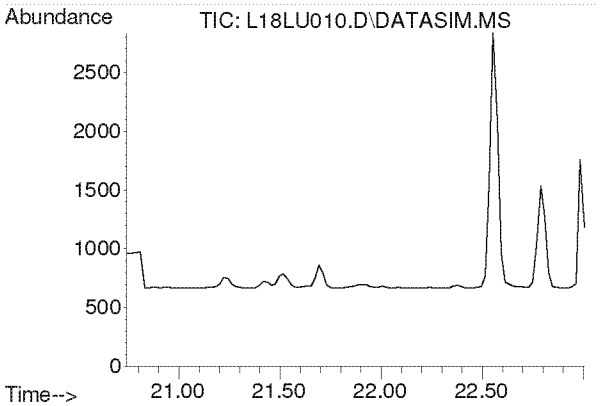

#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 98 | 6.4 |
| 100 | 4.0 |



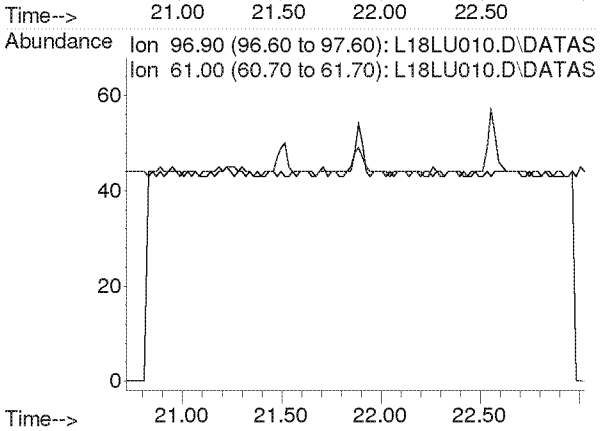




#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

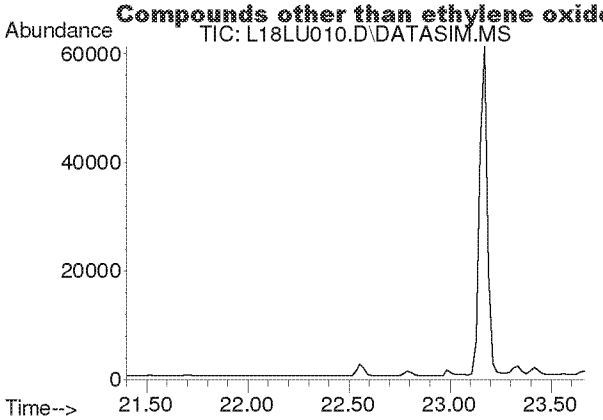
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 61 | 60.5 |



**Compounds other than ethylene oxide were not quantitated.**

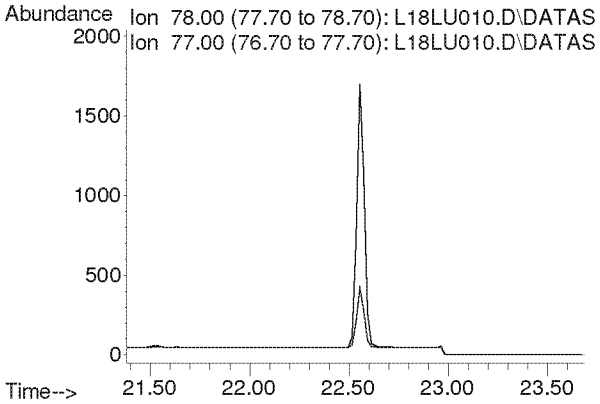


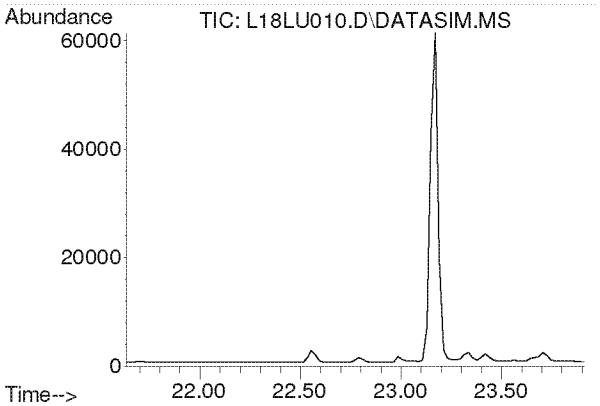

#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 78

| Sig | Exp Ratio |
|---|---|
| 78 | 100 |
| 77 | 22.7 |



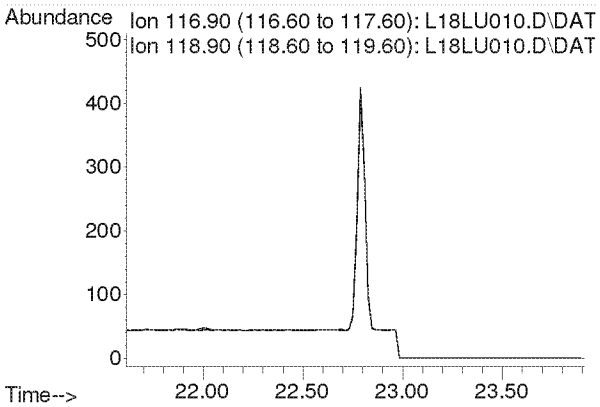




#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

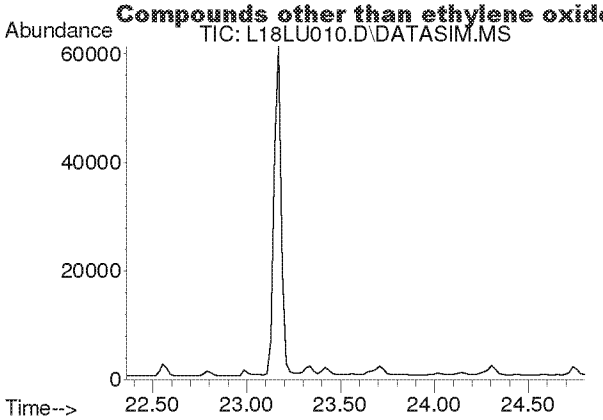
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 117

| Sig | Exp Ratio |
|---|---|
| 117 | 100 |
| 119 | 96.5 |



**Compounds other than ethylene oxide were not quantitated.**

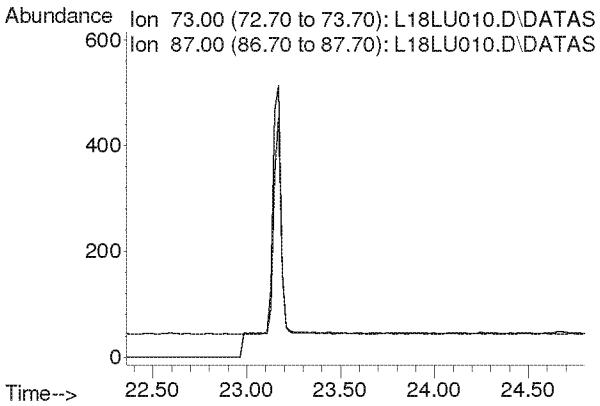


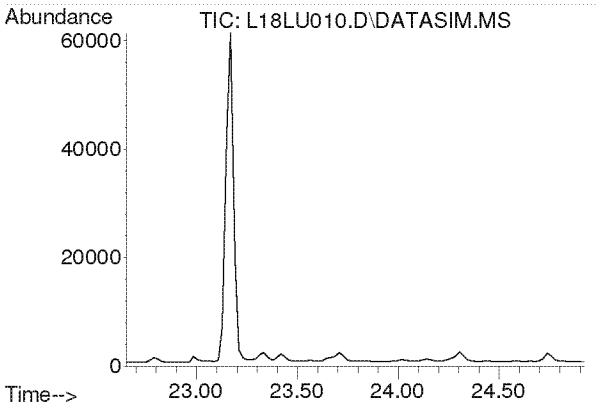

#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 87 | 24.9 |



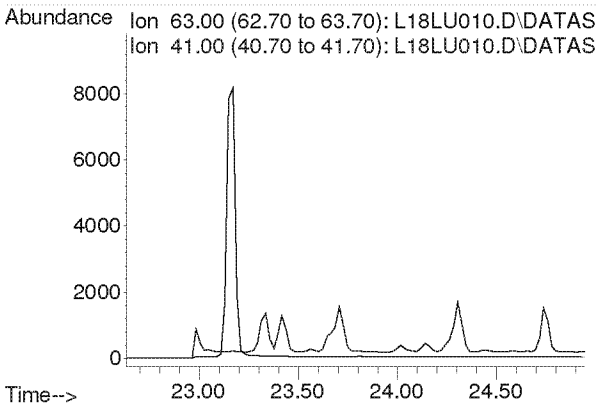




#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

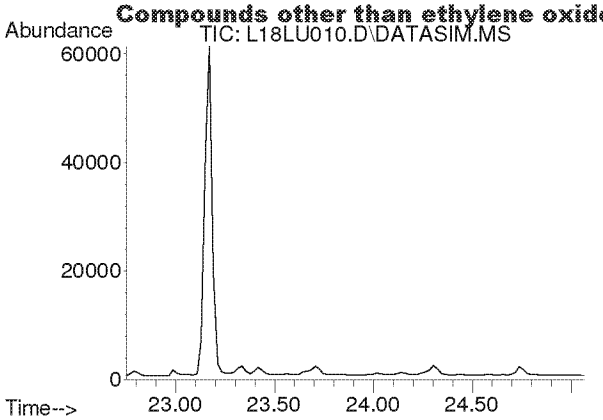
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 41 | 212.8 |



**Compounds other than ethylene oxide were not quantitated.**

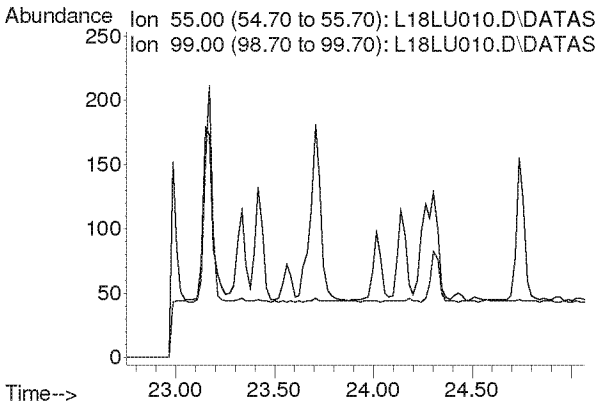


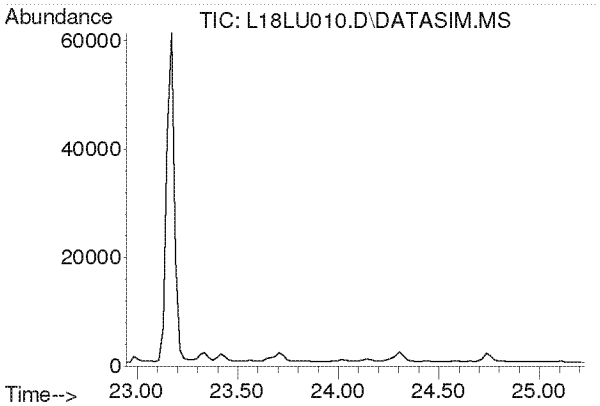

#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 55

| Sig | Exp Ratio |
|---|---|
| 55 | 100 |
| 99 | 6.1 |



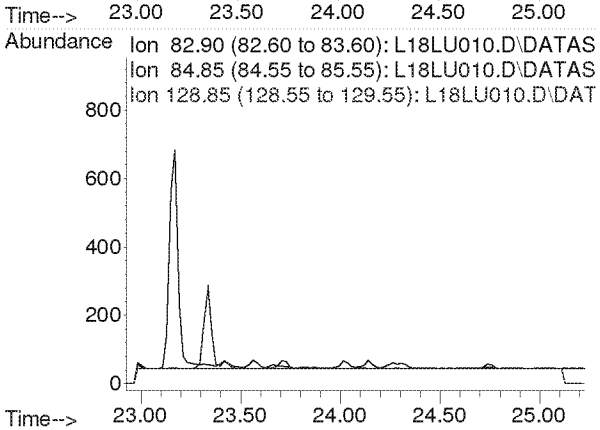




#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

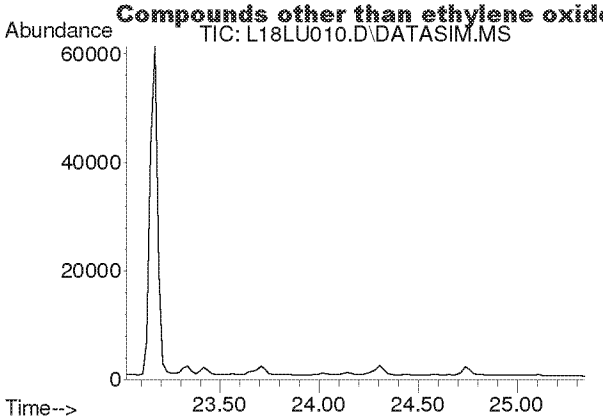
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.0 |
| 129 | 12.4 |



**Compounds other than ethylene oxide were not quantitated.**

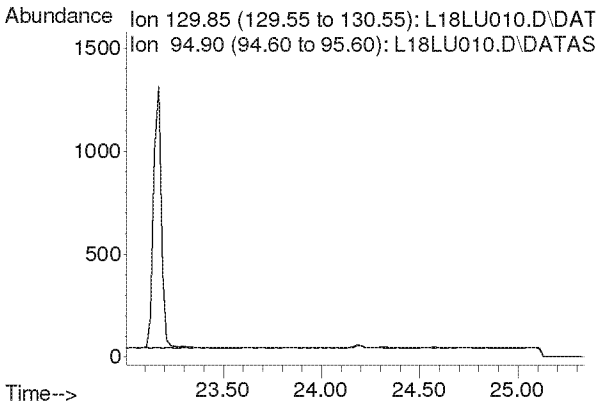


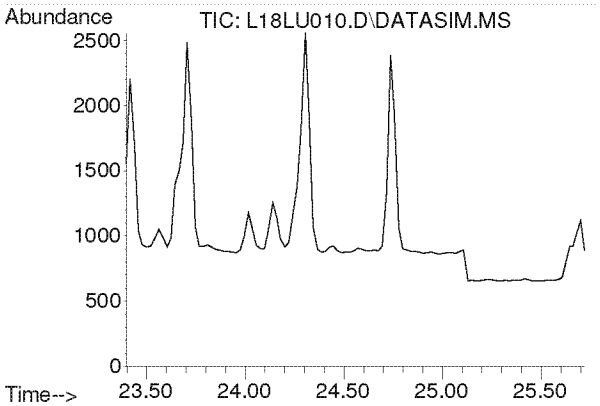

#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 130

| Sig | Exp Ratio |
|---|---|
| 130 | 100 |
| 95 | 110.3 |



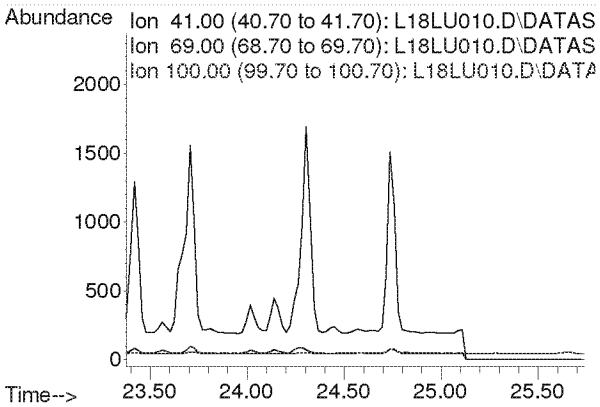




#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

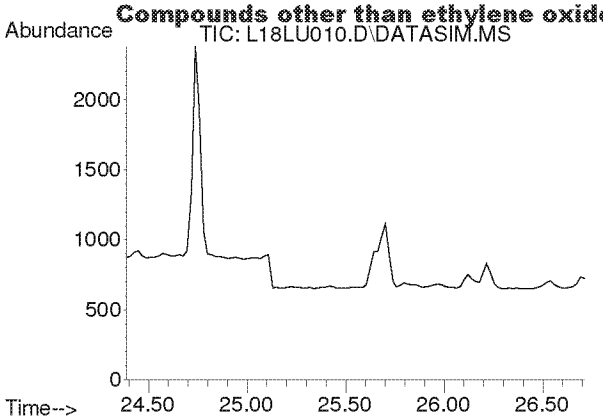
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 69 | 19.9 |
| 100 | 5.2 |



**Compounds other than ethylene oxide were not quantitated.**

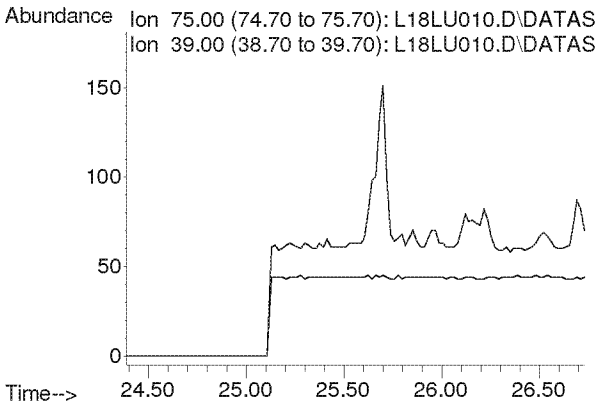


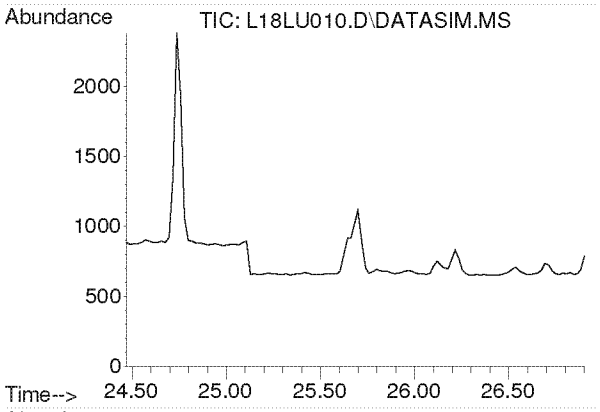

#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 54.4 |



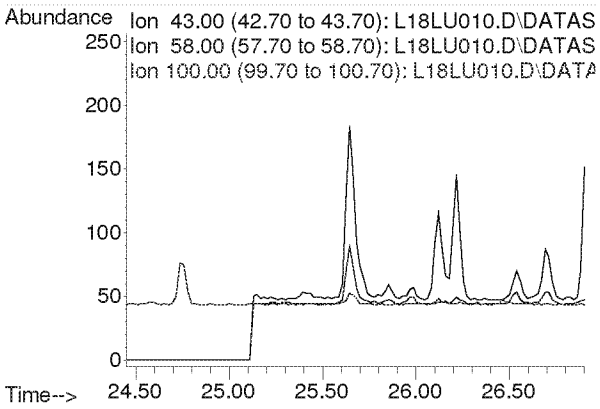




#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

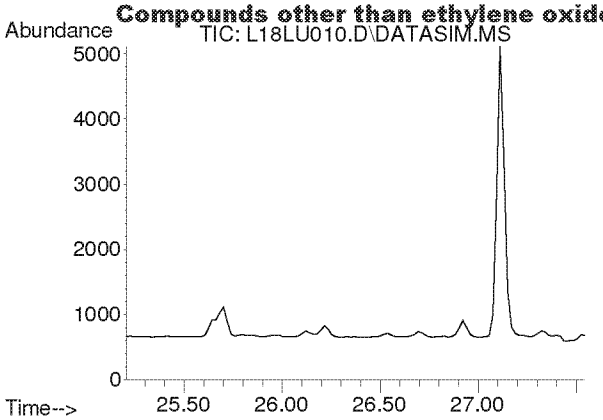
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 58 | 34.2 |
| 100 | 7.9 |



**Compounds other than ethylene oxide were not quantitated.**

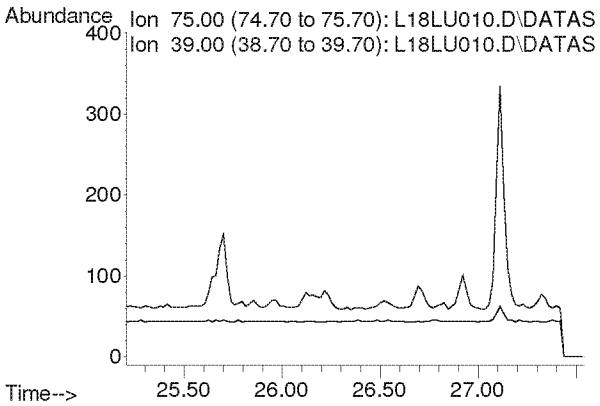


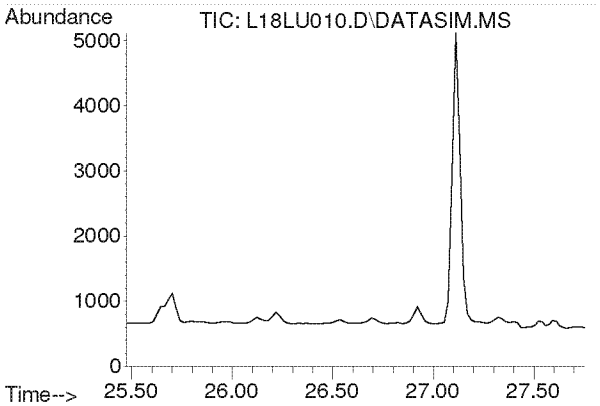

#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 50.9 |



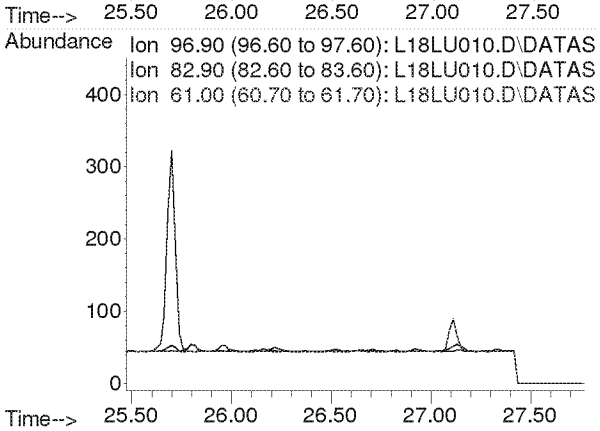




#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

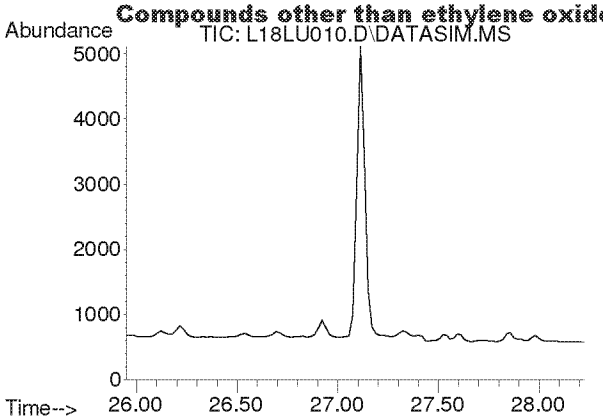
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 83 | 96.1 |
| 61 | 63.5 |



**Compounds other than ethylene oxide were not quantitated.**

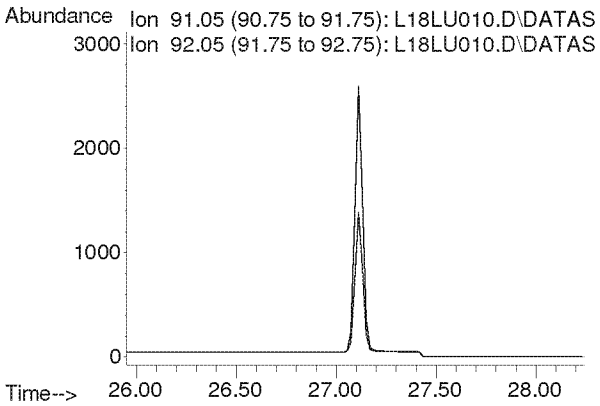


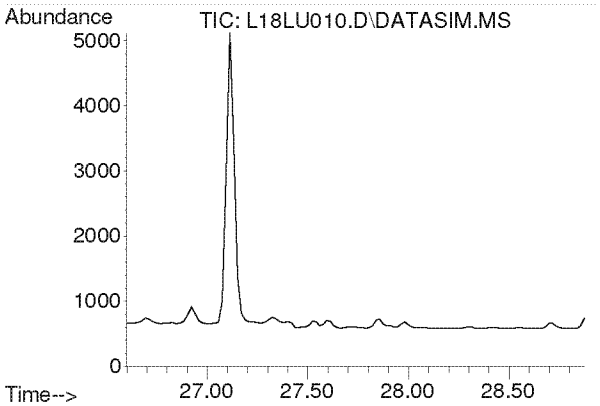

#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 92 | 52.6 |



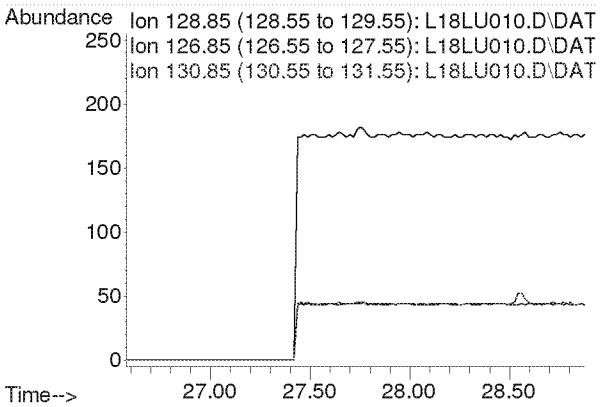




#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

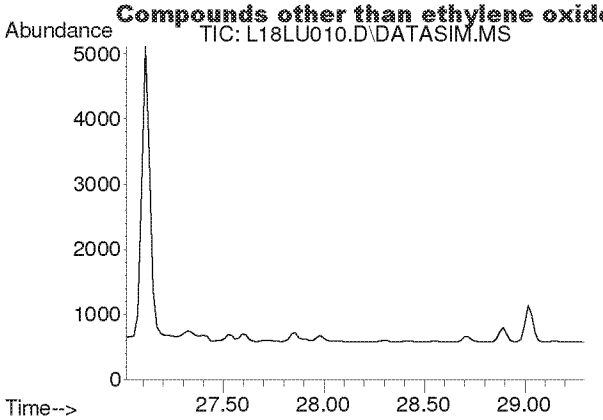
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 129

| Sig | Exp Ratio |
|---|---|
| 129 | 100 |
| 127 | 19.2 |
| 131 | 6.0 |



**Compounds other than ethylene oxide were not quantitated.**

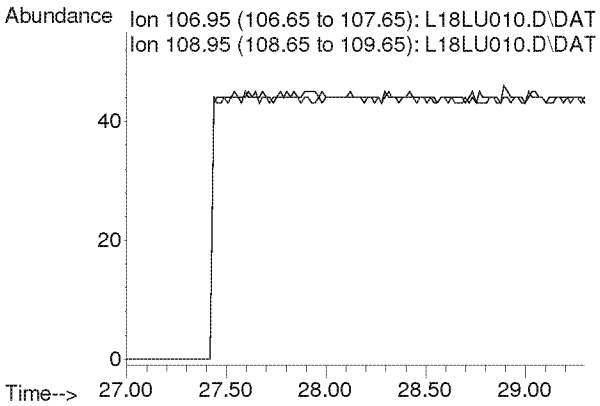


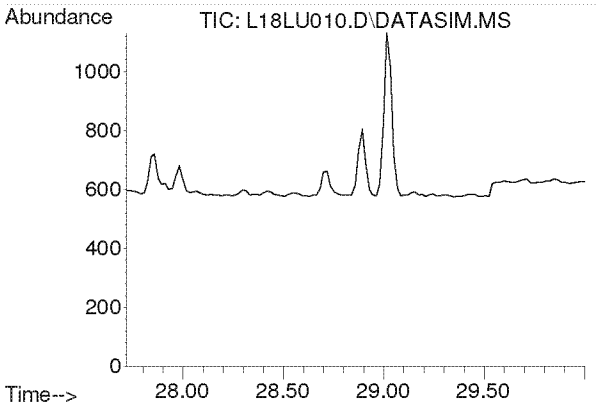

#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 107

| Sig | Exp Ratio |
|---|---|
| 107 | 100 |
| 109 | 94.5 |



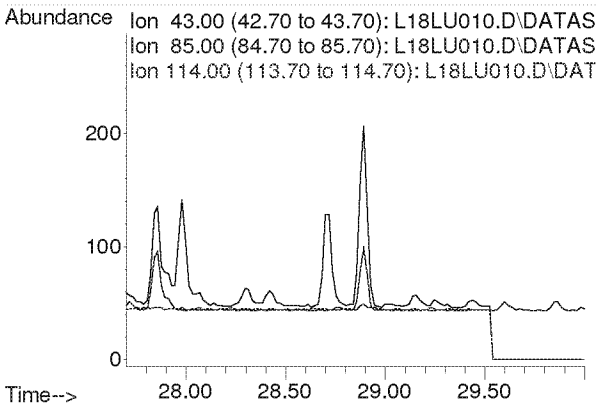




#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

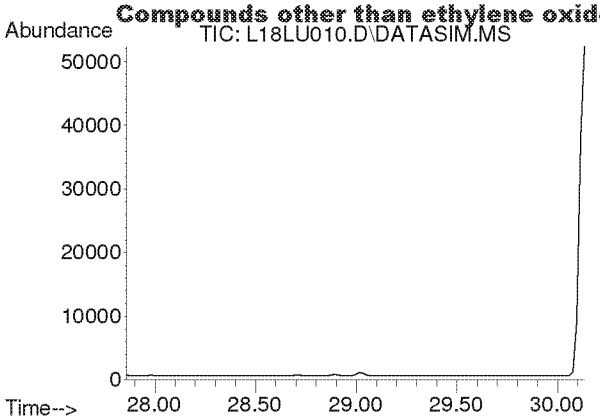
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 85 | 36.0 |
| 114 | 2.2 |



**Compounds other than ethylene oxide were not quantitated.**

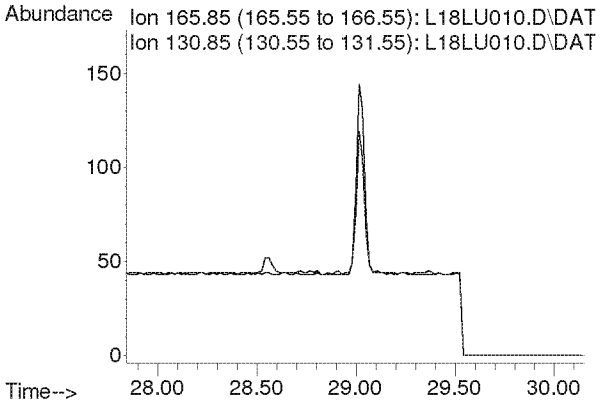


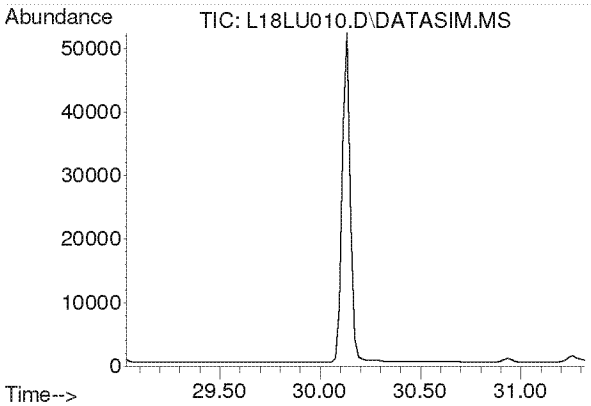

#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 166

| Sig | Exp Ratio |
|---|---|
| 166 | 100 |
| 131 | 78.2 |



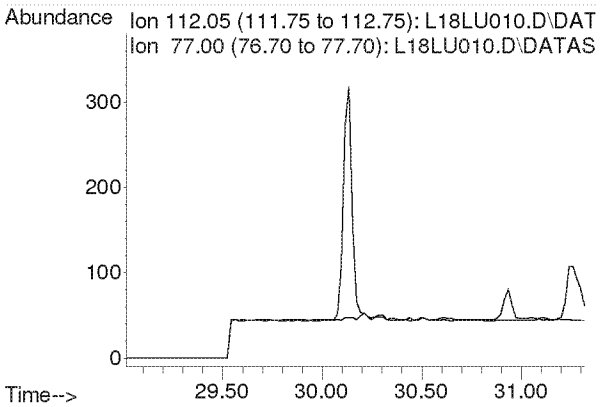




#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

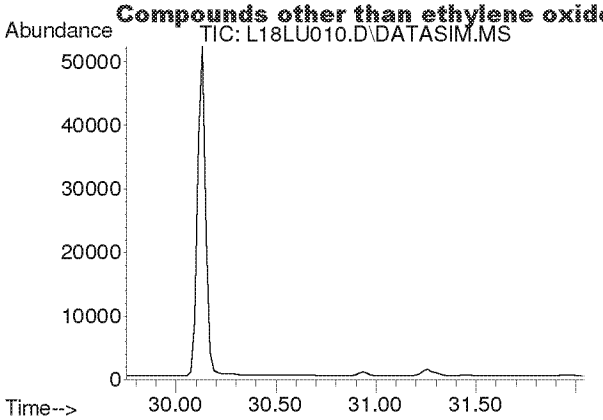
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 112

| Sig | Exp Ratio |
|---|---|
| 112 | 100 |
| 77 | 63.0 |



**Compounds other than ethylene oxide were not quantitated.**

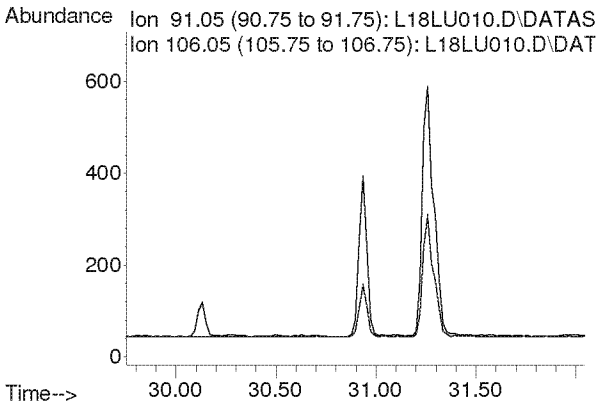


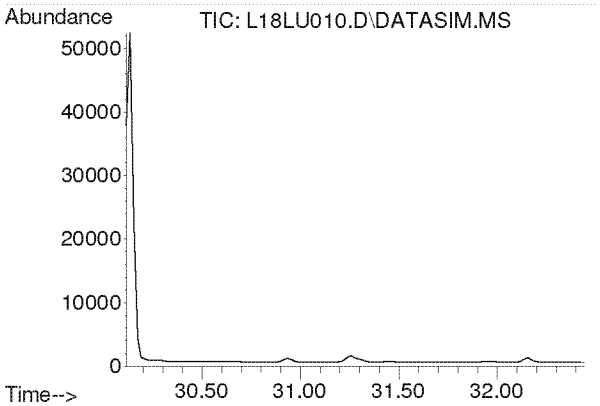

#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 31.8 |



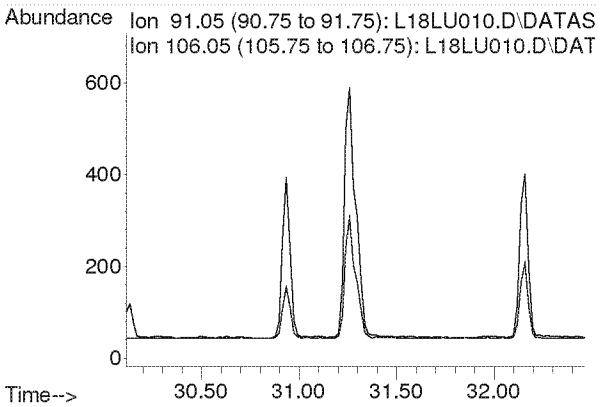




#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

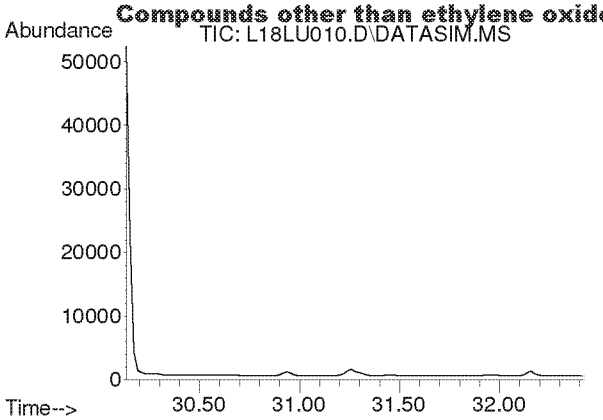
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.4 |



**Compounds other than ethylene oxide were not quantitated.**

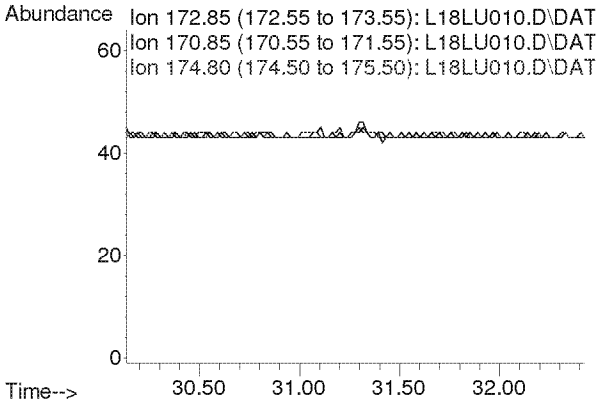


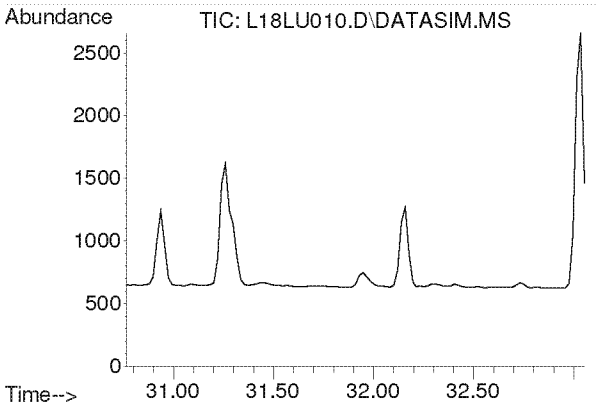

#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 173

| Sig | Exp Ratio |
|---|---|
| 173 | 100 |
| 171 | 51.3 |
| 175 | 49.0 |



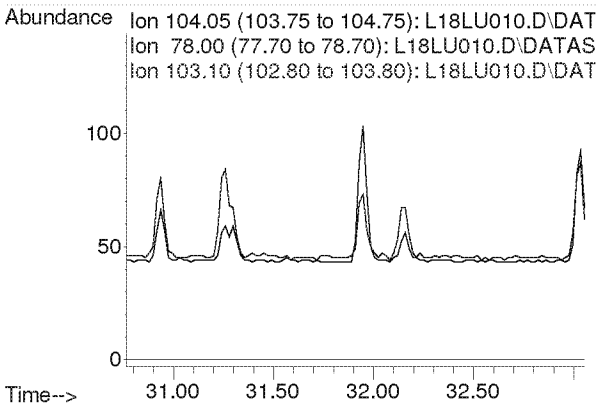




#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

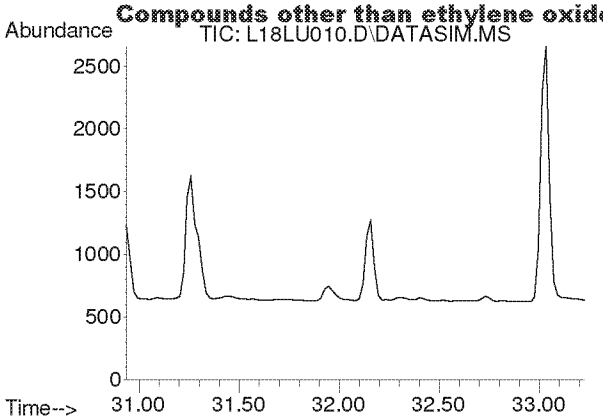
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 104

| Sig | Exp Ratio |
|---|---|
| 104 | 100 |
| 78 | 45.6 |
| 103 | 0.0 |



**Compounds other than ethylene oxide were not quantitated.**

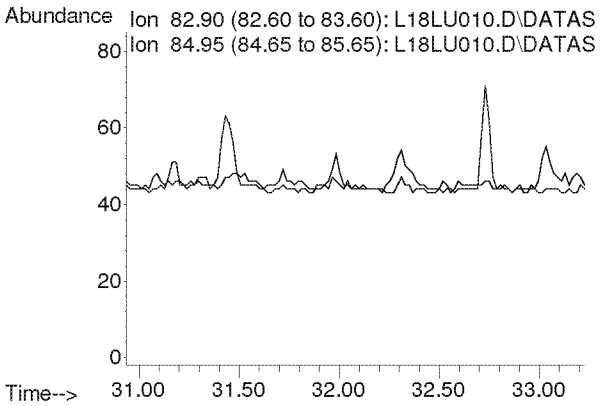


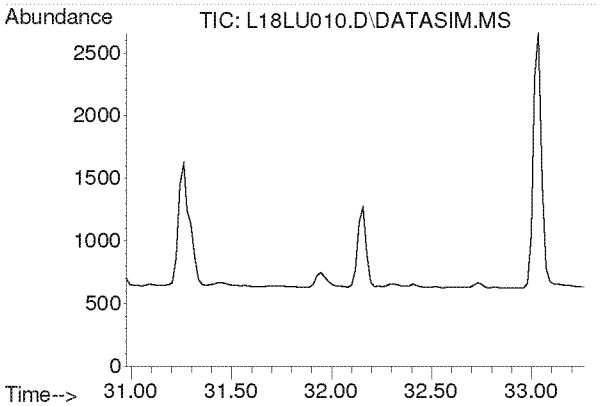

#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 63.9 |



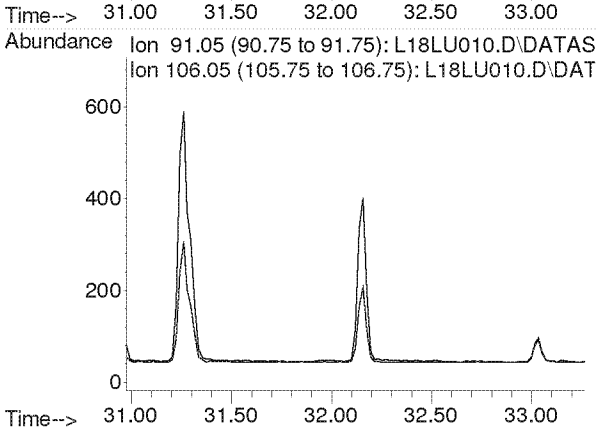




#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

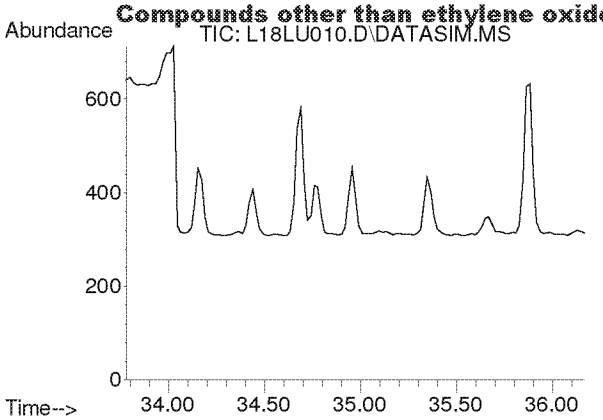
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.2 |



**Compounds other than ethylene oxide were not quantitated.**

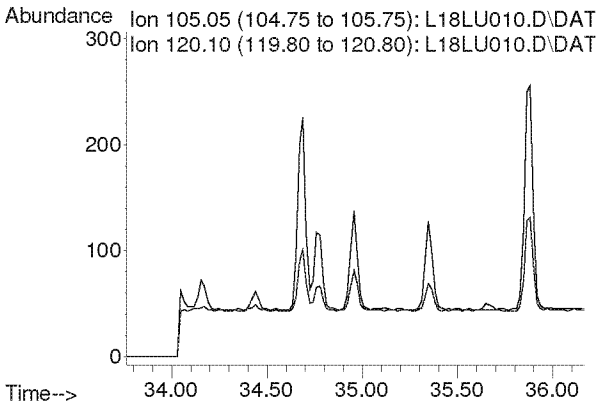


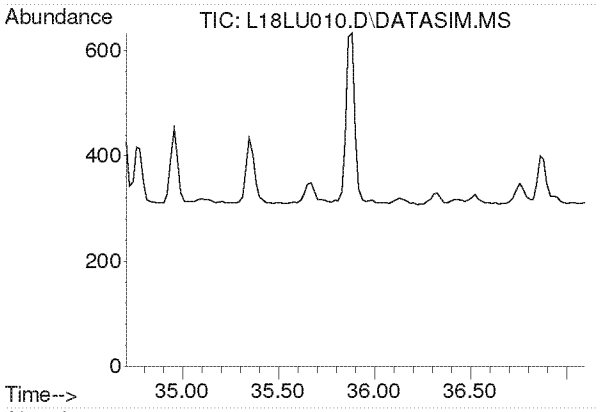

#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 45.0 |



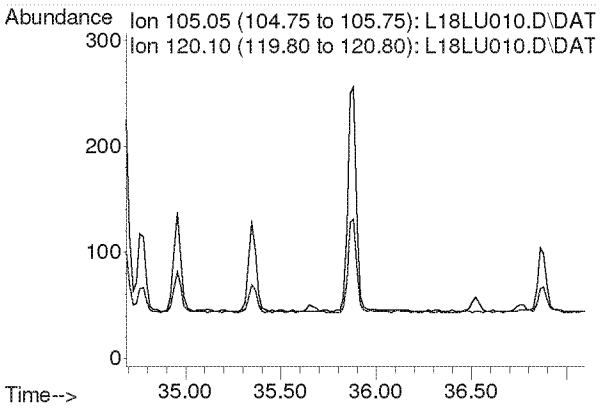




#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

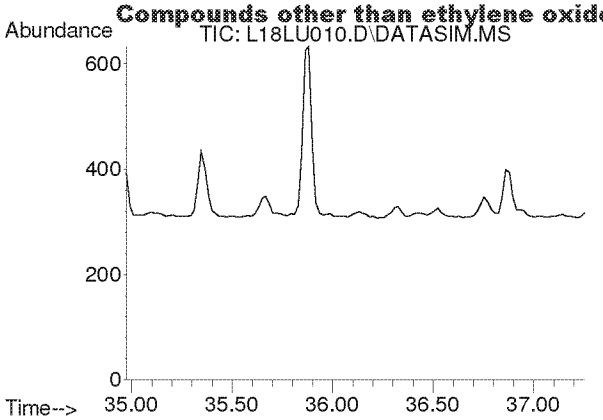
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 42.8 |



**Compounds other than ethylene oxide were not quantitated.**

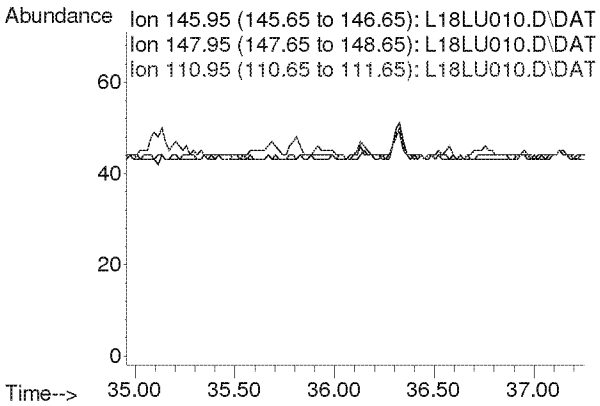


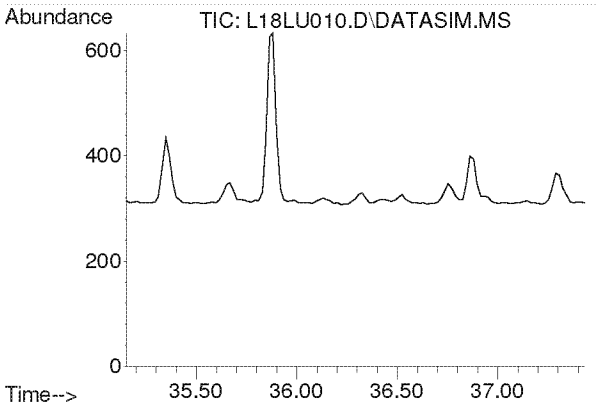

#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 40.5 |



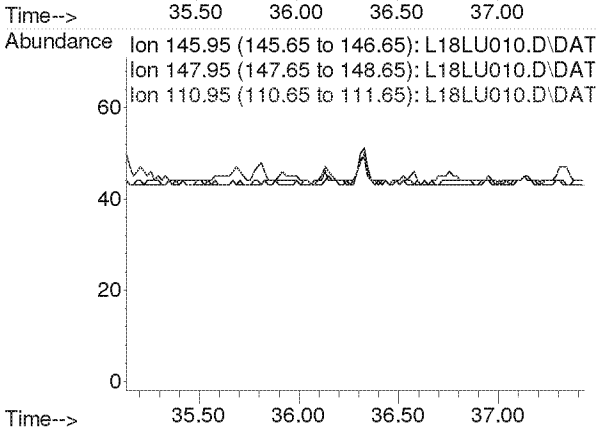




#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

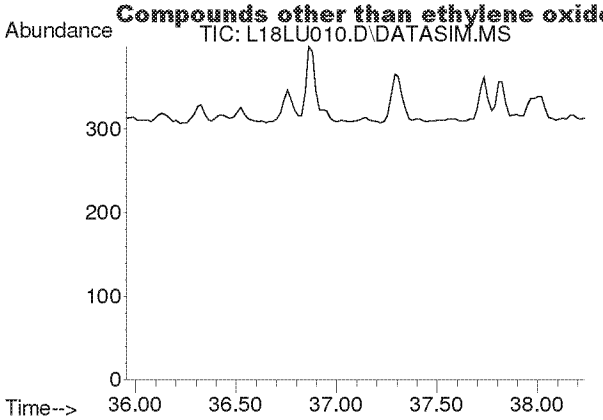
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 39.5 |



**Compounds other than ethylene oxide were not quantitated.**

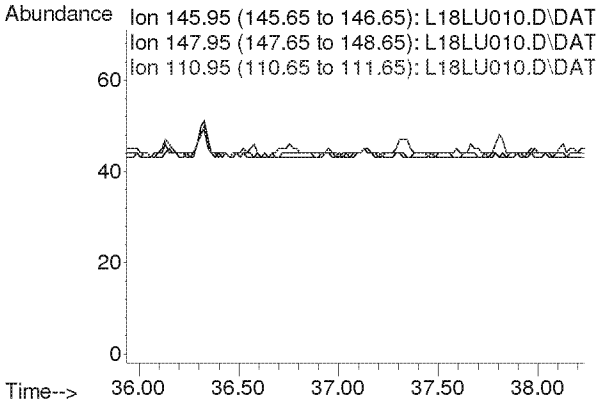


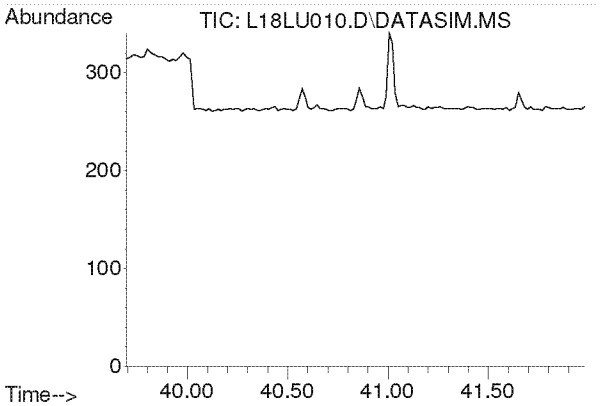

#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.1 |
| 111 | 41.4 |



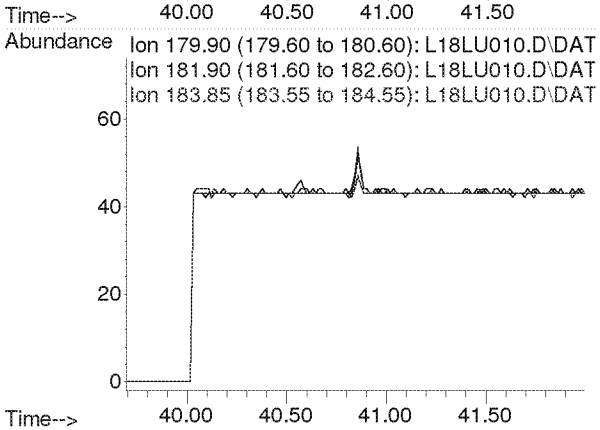




#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

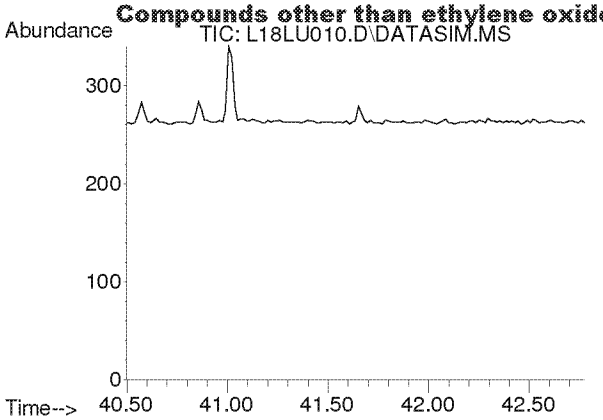
Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 180

| Sig | Exp Ratio |
|---|---|
| 180 | 100 |
| 182 | 95.1 |
| 184 | 30.7 |



**Compounds other than ethylene oxide were not quantitated.**

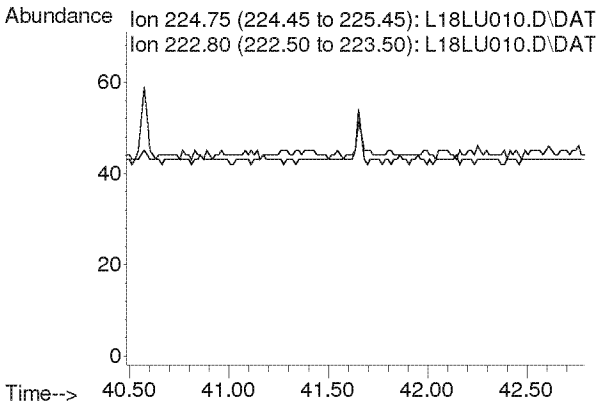



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18LU010.D
Acq: 21 Dec 2018 4:35 pm

Tgt Ion: 225

| Sig | Exp Ratio |
|---|---|
| 225 | 100 |
| 223 | 62.4 |



**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU011.D
Acq On : 21 Dec 2018 5:37 pm
Operator : MAH
Sample : 8120701-03
Misc : HINSDALE S. HS 12/1/18
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 26 09:50:58 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) IS-Hexane-d14 | 19.992 | 66 | 54828 | 4.7700 ppbv | 0.00 |
| 29) IS-1,4-Difluorobenzene | 23.171 | 114 | 132609 | 4.9900 ppbv | 0.02 |
| 43) IS-Chlorobenzene-d5 | 30.135 | 117 | 90922 | 4.7400 ppbv | 0.04 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) Acetylene | 0.000 | 26 | 0 | N.D. d | |
| 3) Propylene | 0.000 | 41 | 0 | N.D. d | |
| 4) Dichlorodifluoromethane | 0.000 | 85 | 0 | N.D. d | |
| 5) Chloromethane | 0.000 | 50 | 0 | N.D. d | |
| 6) Dichlorotetrafluoroethane | 0.000 | 85 | 0 | N.D. d | |
| 7) Vinyl Chloride | 0.000 | 62 | 0 | N.D. | |
| 8) 1,3-Butadiene | 0.000 | 54 | 0 | N.D. d | |
| 9) Ethylene oxide | 12.440 | 29 | 1141m | 0.3482 ppbv | |
| 10) Bromomethane | 0.000 | 94 | 0 | N.D. d | |
| 11) Chloroethane | 0.000 | 64 | 0 | N.D. d | |
| 12) Acetonitrile | 0.000 | 41 | 0 | N.D. d | |
| 13) Acrolein | 0.000 | 56 | 0 | N.D. d | |
| 14) Trichlorofluoromethane | 0.000 | 101 | 0 | N.D. d | |
| 15) Acrylonitrile | 0.000 | 53 | 0 | N.D. d | |
| 16) 1,1-Dichloroethene | 0.000 | 61 | 0 | N.D. | |
| 17) Methylene Chloride | 0.000 | 49 | 0 | N.D. d | |
| 18) Carbon Disulfide | 0.000 | 76 | 0 | N.D. d | |
| 19) Trichlorotrifluoroethane | 0.000 | 101 | 0 | N.D. d | |
| 20) trans-1,2-Dichloroethy... | 0.000 | 96 | 0 | N.D. | |
| 21) 1,1-Dichloroethane | 0.000 | 63 | 0 | N.D. d | |
| 22) Methyl tert-Butyl Ether | 0.000 | 73 | 0 | N.D. d | |
| 23) Chloroprene | 0.000 | 53 | 0 | N.D. d | |
| 24) cis-1,2-Dichloroethylene | 0.000 | 61 | 0 | N.D. d | |
| 25) Bromochloromethane | 0.000 | 128 | 0 | N.D. | |
| 26) Chloroform | 0.000 | 83 | 0 | N.D. d | |
| 27) Ethyl tert-Butyl Ether | 0.000 | 59 | 0 | N.D. | |
| 28) 1,2-Dichloroethane | 0.000 | 62 | 0 | N.D. d | |
| 30) 1,1,1-Trichloroethane | 0.000 | 97 | 0 | N.D. d | |
| 31) Benzene | 0.000 | 78 | 0 | N.D. d | |
| 32) Carbon Tetrachloride | 0.000 | 117 | 0 | N.D. d | |
| 33) tert-Amyl Methyl Ether | 0.000 | 73 | 0 | N.D. | |
| 34) 1,2-Dichloropropane | 0.000 | 63 | 0 | N.D. d | |
| 35) Ethyl Acrylate | 0.000 | 55 | 0 | N.D. | |
| 36) Bromodichloromethane | 0.000 | 83 | 0 | N.D. d | |
| 37) Trichloroethylene | 0.000 | 130 | 0 | N.D. | |
| 38) Methyl Methacrylate | 0.000 | 41 | 0 | N.D. d | |
| 39) cis-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 40) Methyl Isobutyl Ketone | 0.000 | 43 | 0 | N.D. d | |
| 41) trans-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 42) 1,1,2-Trichloroethane | 0.000 | 97 | 0 | N.D. | |
| 44) Toluene | 0.000 | 91 | 0 | N.D. d | |
| 45) Dibromochloromethane | 0.000 | 129 | 0 | N.D. d | |
| 46) 1,2-Dibromoethane | 0.000 | 107 | 0 | N.D. | |
| 47) n-Octane | 0.000 | 43 | 0 | N.D. d | |
| 48) Tetrachloroethylene | 0.000 | 166 | 0 | N.D. d | |

Manual re-integration requested by client RUB 1/18/19

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU011.D
Acq On : 21 Dec 2018 5:37 pm (#1); 21-Dec-18, 17:32:12 (#2)
Operator : MAH
Sample : 8120701-03
Misc : HINSDALE S. HS 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 26 10:03:04 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

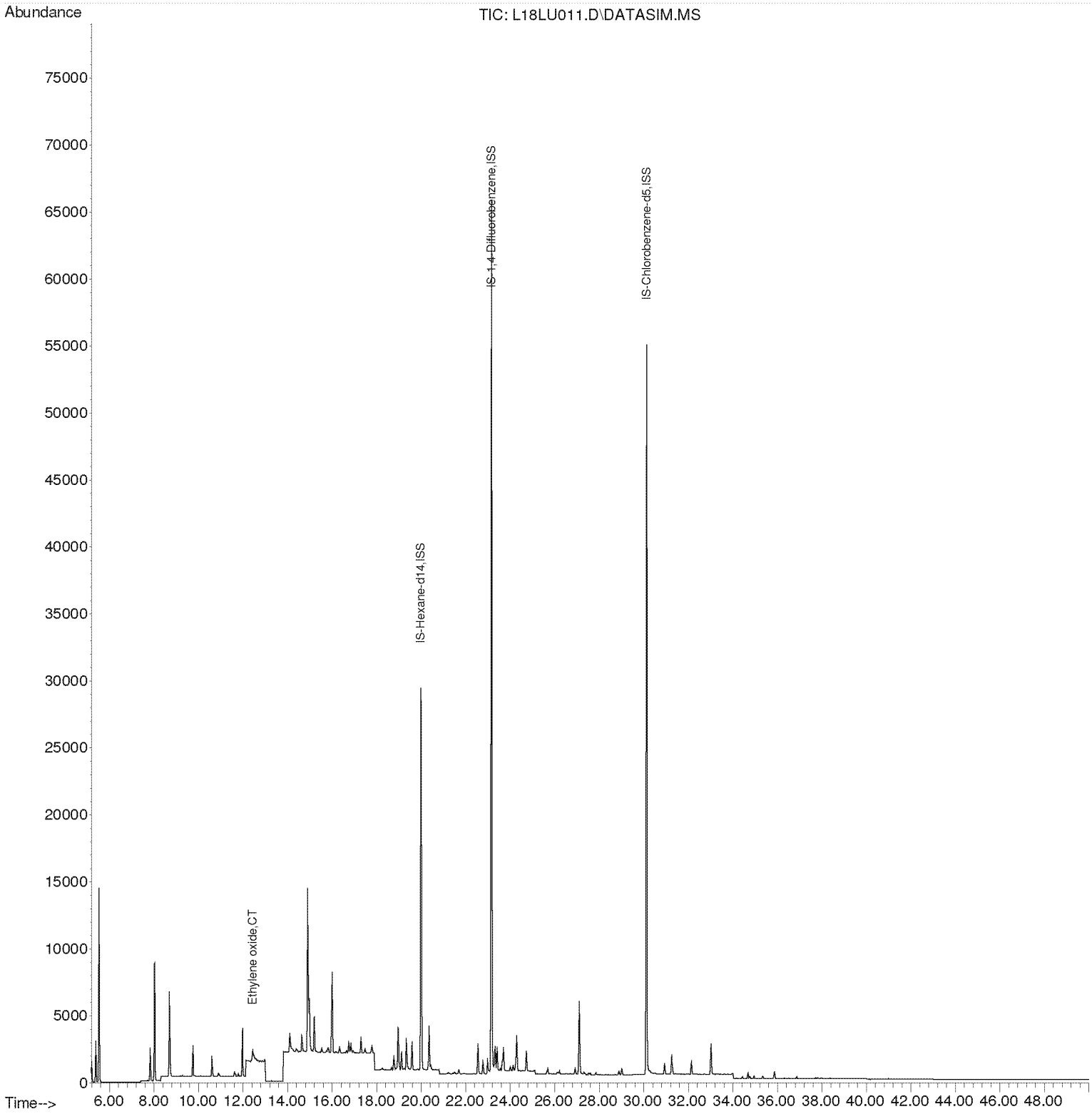
| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 51) m,p-Xylene | 0.000 | 91 | 0 | N.D. | d |
| 52) Bromoform | 0.000 | 173 | 0 | N.D. | |
| 53) Styrene | 0.000 | 104 | 0 | N.D. | d |
| 54) 1,1,2,2-Tetrachloroethane | 0.000 | 83 | 0 | N.D. | |
| 55) o-Xylene | 0.000 | 91 | 0 | N.D. | d |
| 56) 1,3,5-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | d |
| 57) 1,2,4-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | d |
| 58) m-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 59) p-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | d |
| 60) o-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 61) 1,2,4-Trichlorobenzene | 0.000 | 180 | 0 | N.D. | |
| 62) Hexachloro-1,3-butadiene | 0.000 | 225 | 0 | N.D. | |

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

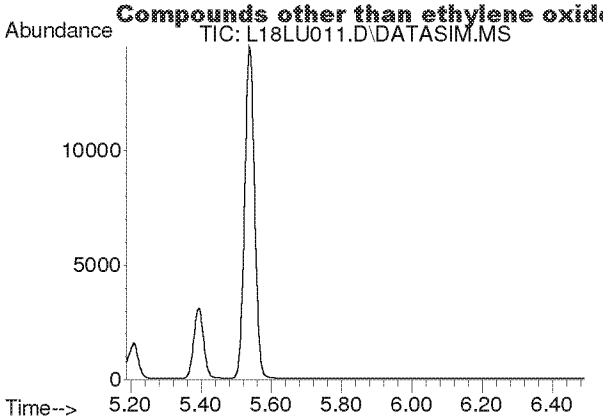
**Compounds other than ethylene oxide were not quantitated.**

Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU011.D
Acq On : 21 Dec 2018 5:37 pm
Operator : MAH
Sample : 8120701-03
Misc : HINSDALE S. HS 12/1/18
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Dec 26 09:50:58 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



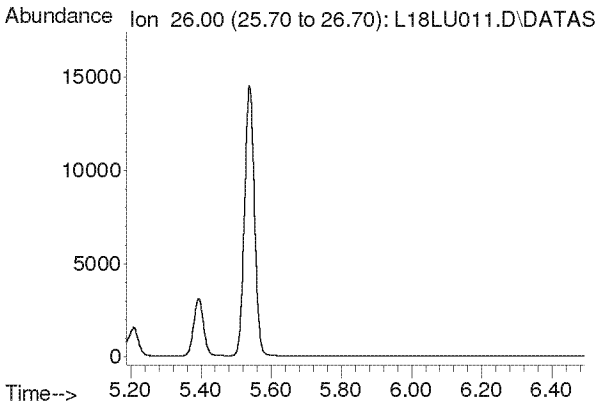
**Compounds other than ethylene oxide were not quantitated.**

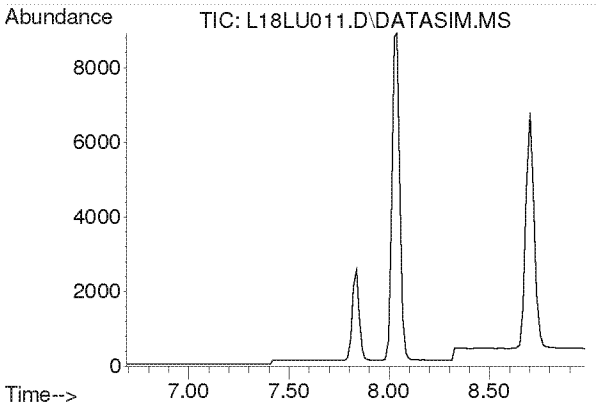



#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 26



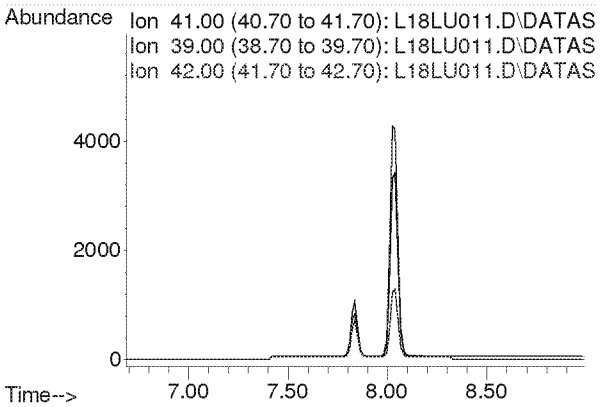




#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

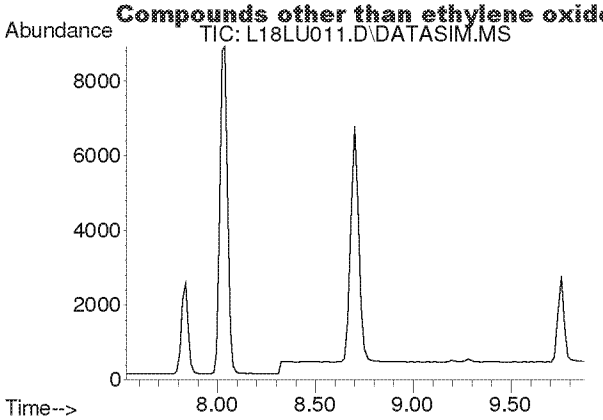
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 39 | 78.2 |
| 42 | 65.8 |



**Compounds other than ethylene oxide were not quantitated.**

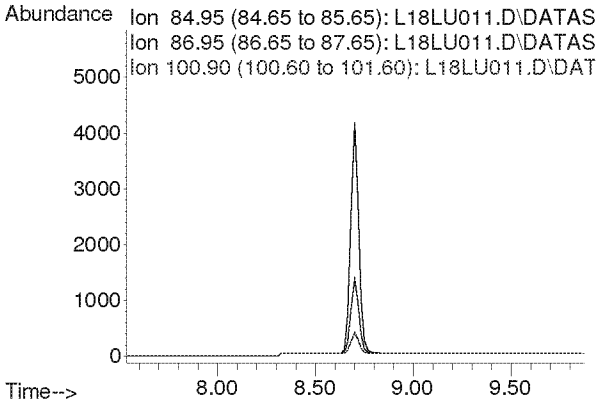


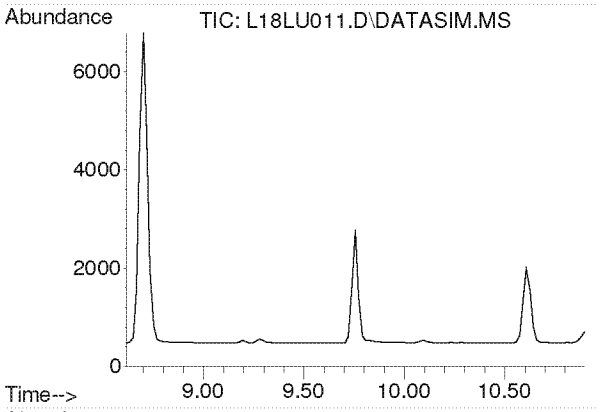

#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 87 | 32.5 |
| 101 | 8.9 |



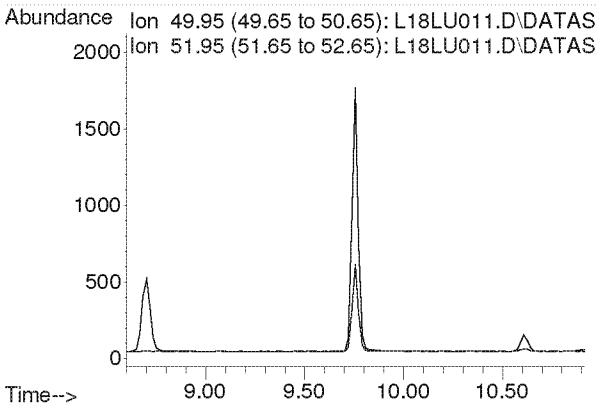




#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

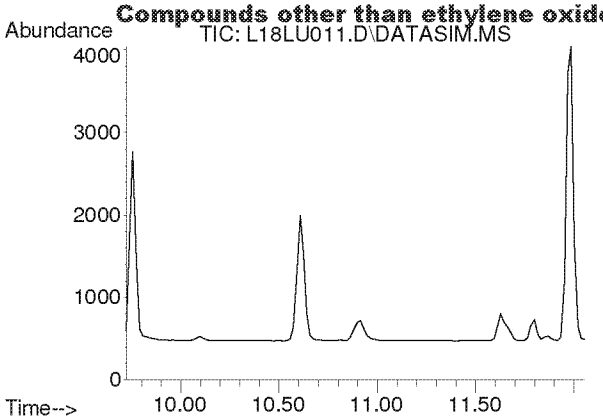
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 50

| Sig | Exp Ratio |
|---|---|
| 50 | 100 |
| 52 | 32.6 |



**Compounds other than ethylene oxide were not quantitated.**

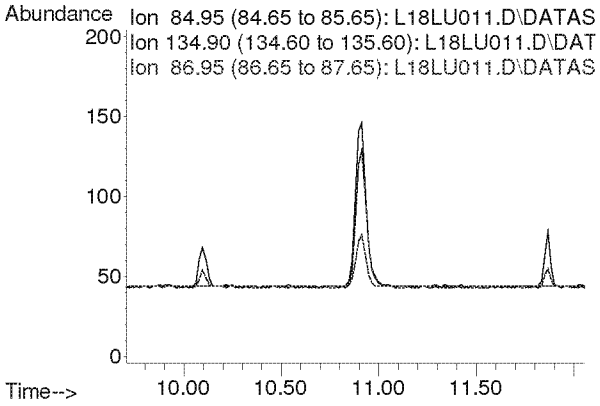


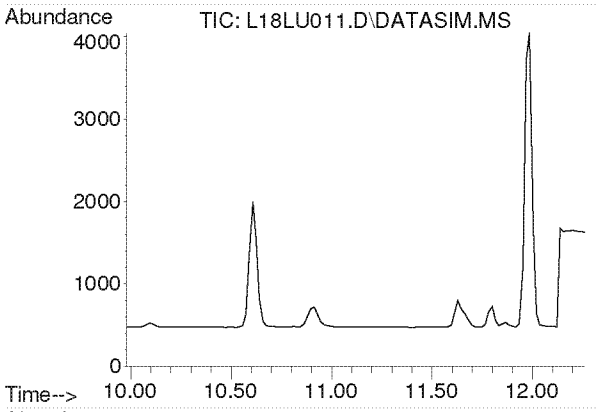

#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 135 | 79.1 |
| 87 | 32.1 |



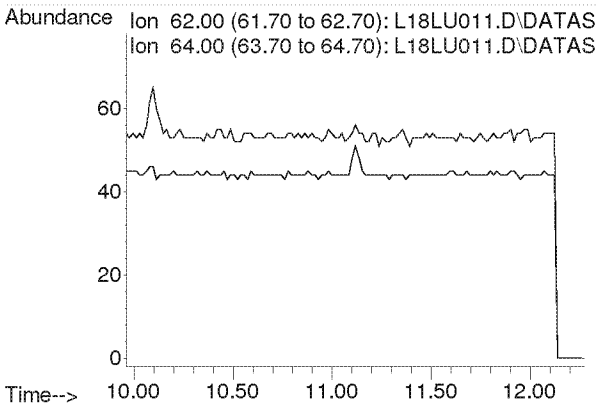




#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

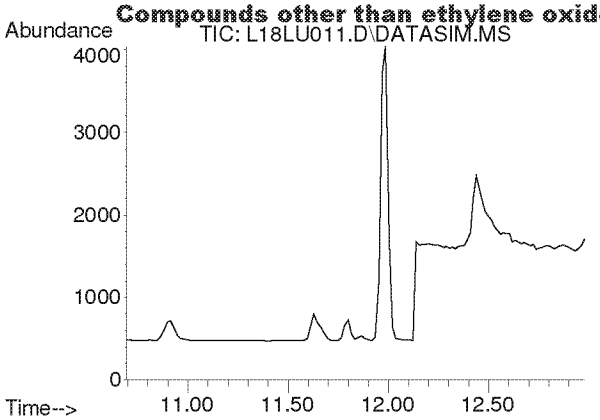
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 64 | 31.8 |



**Compounds other than ethylene oxide were not quantitated.**

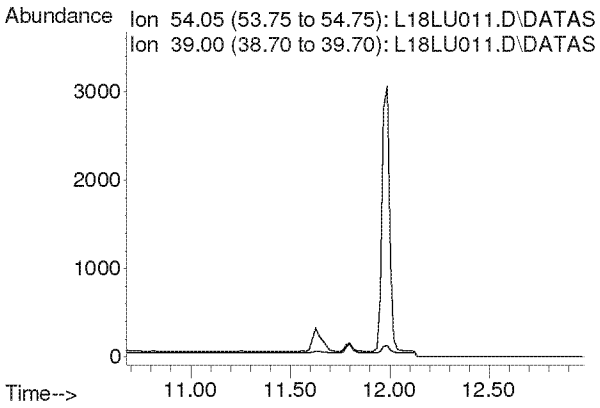


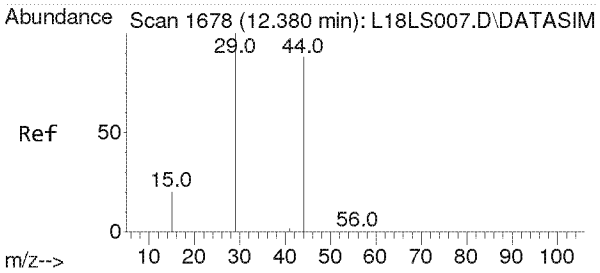

#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 54

| Sig | Exp Ratio |
|---|---|
| 54 | 100 |
| 39 | 105.4 |

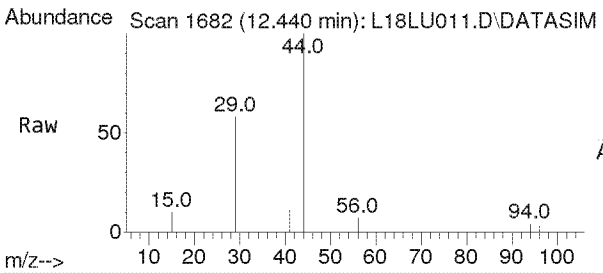


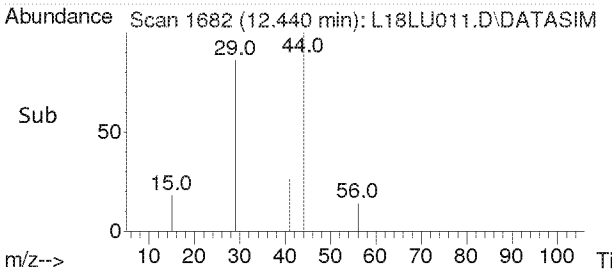



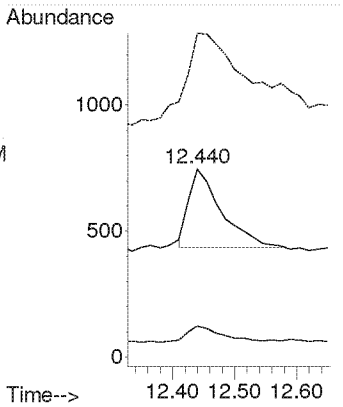

#9
Ethylene oxide
Concen: 0.348 ppbv m
RT: 12.440 min Scan# 1682
Delta R.T. 0.060 min
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 29 Resp: 1141

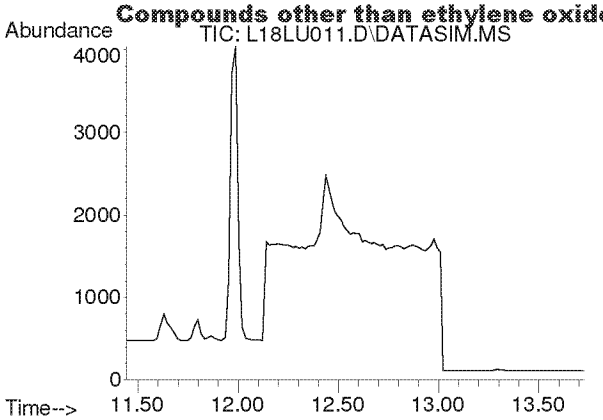
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 29 | 100 | | |
| 15 | 21.6 | 16.2 | 24.4 |
| 44 | 219.5 | 72.0 | 108.0# |



**Compounds other than ethylene oxide were not quantitated.**

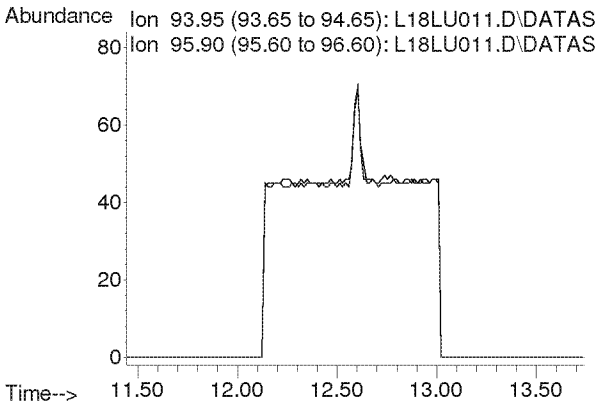


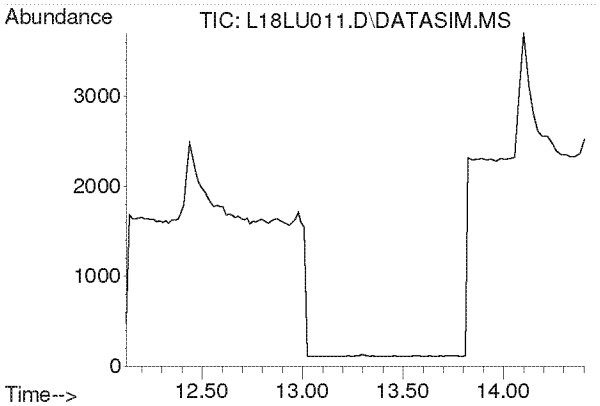

#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 94

| Sig | Exp Ratio |
|---|---|
| 94 | 100 |
| 96 | 93.9 |



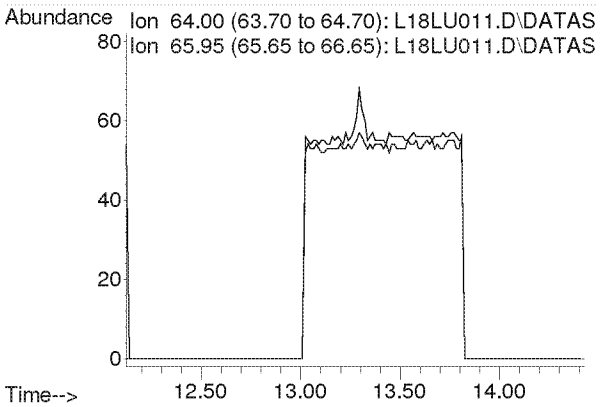




#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

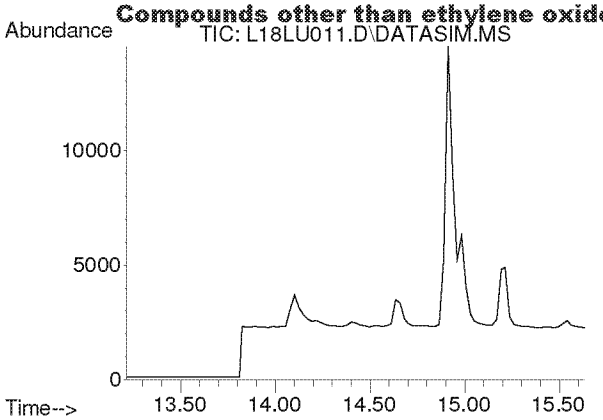
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 64

| Sig | Exp Ratio |
|---|---|
| 64 | 100 |
| 66 | 32.0 |



**Compounds other than ethylene oxide were not quantitated.**

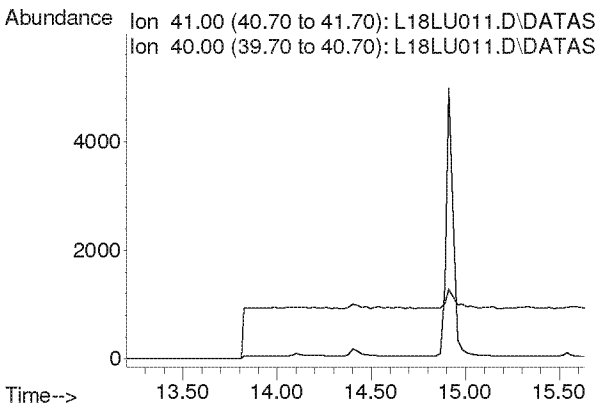


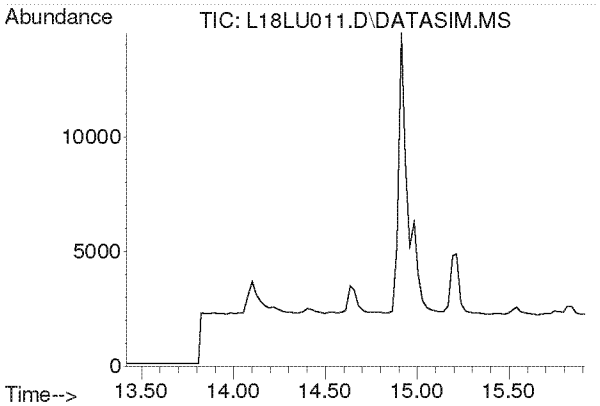

#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 40 | 50.9 |



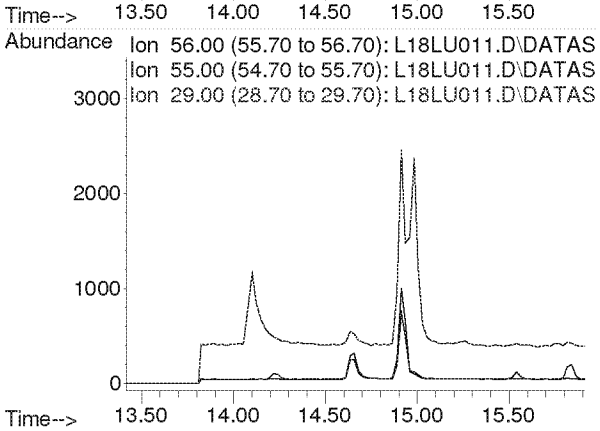




#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

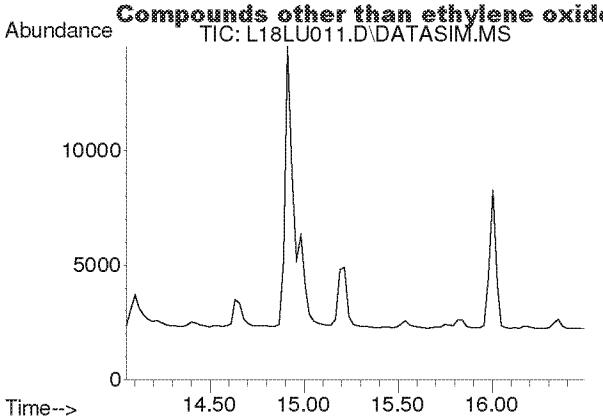
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 56

| Sig | Exp Ratio |
|---|---|
| 56 | 100 |
| 55 | 75.4 |
| 29 | 52.9 |



**Compounds other than ethylene oxide were not quantitated.**

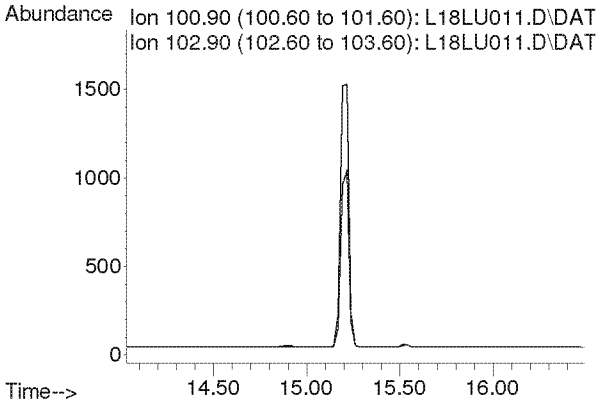


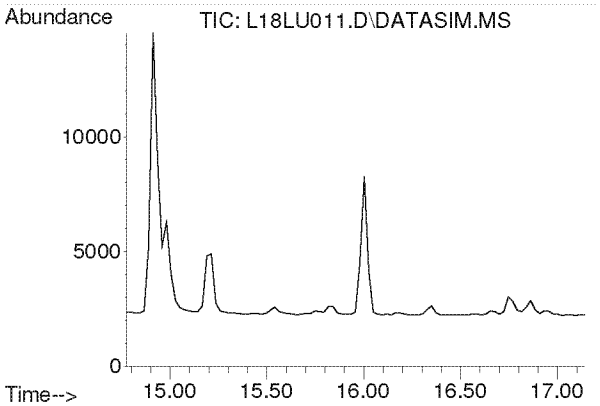

#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 103 | 64.6 |



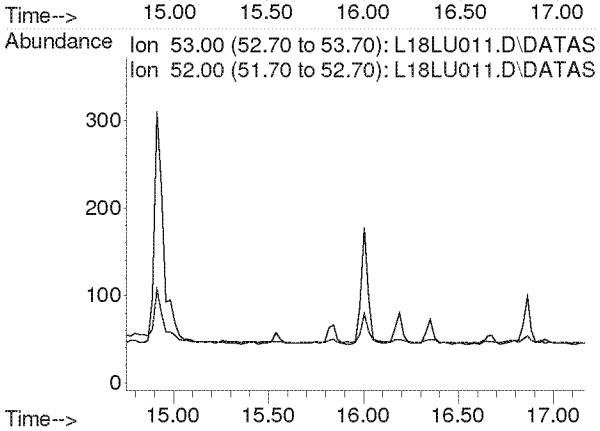




#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

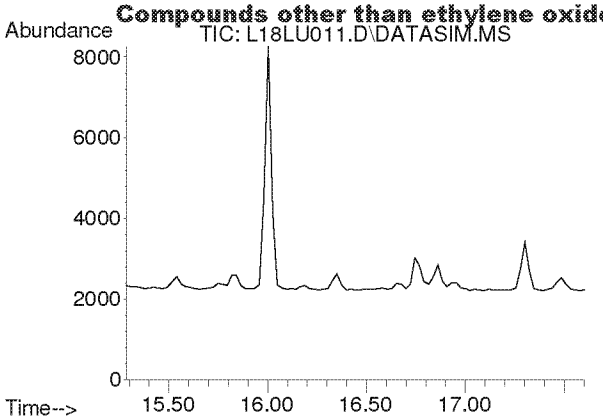
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 52 | 85.4 |



**Compounds other than ethylene oxide were not quantitated.**

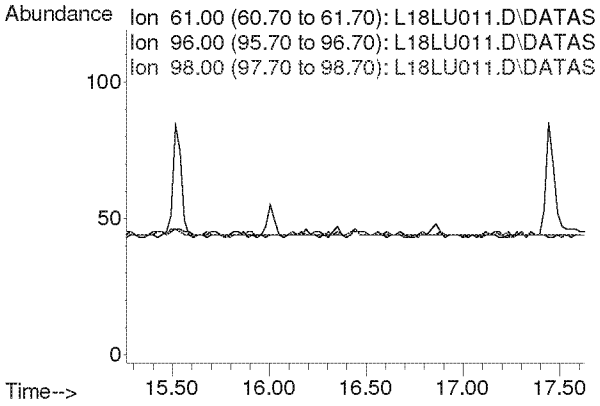


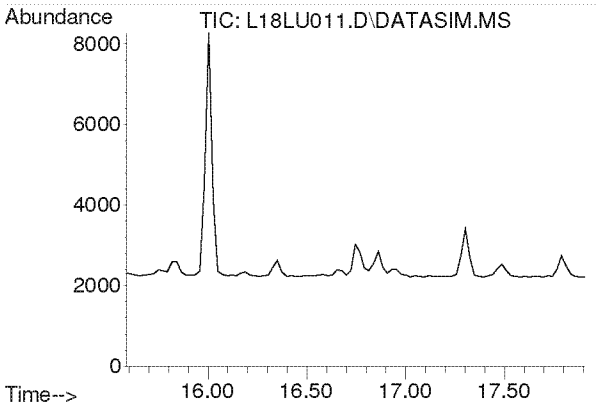

#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 58.3 |
| 98 | 37.4 |



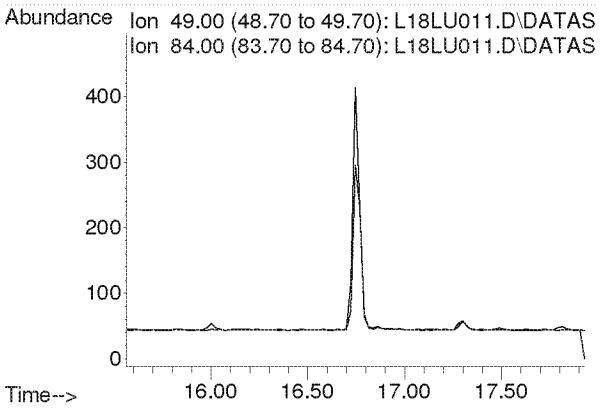




#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

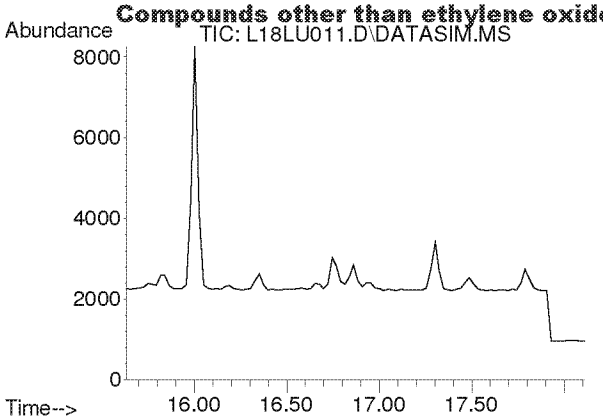
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 49

| Sig | Exp Ratio |
|---|---|
| 49 | 100 |
| 84 | 76.4 |



**Compounds other than ethylene oxide were not quantitated.**

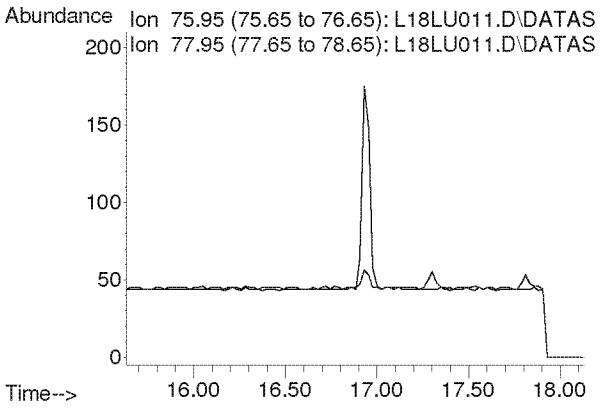


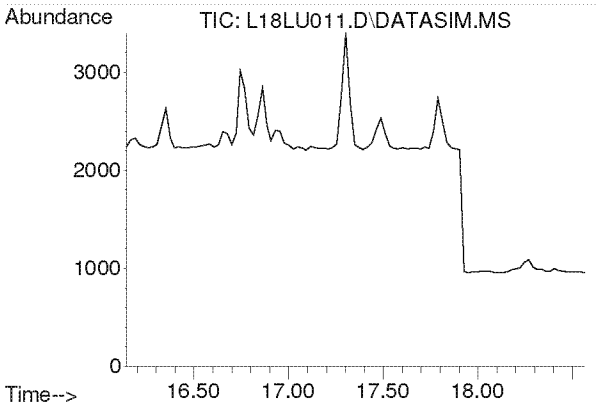

#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 76

| Sig | Exp Ratio |
|---|---|
| 76 | 100 |
| 78 | 9.1 |



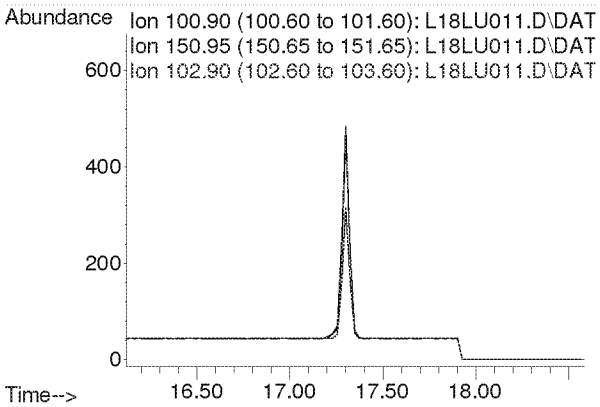




#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

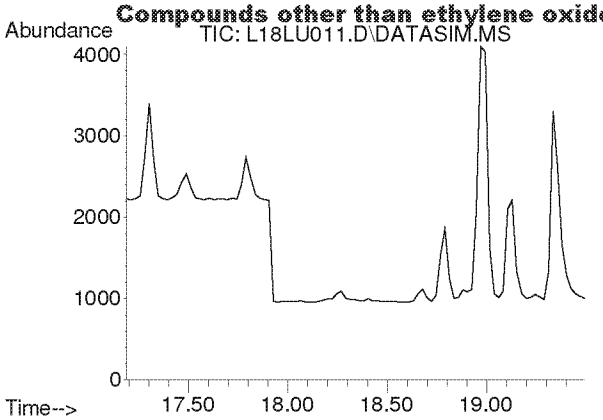
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 151 | 95.3 |
| 103 | 64.1 |



**Compounds other than ethylene oxide were not quantitated.**

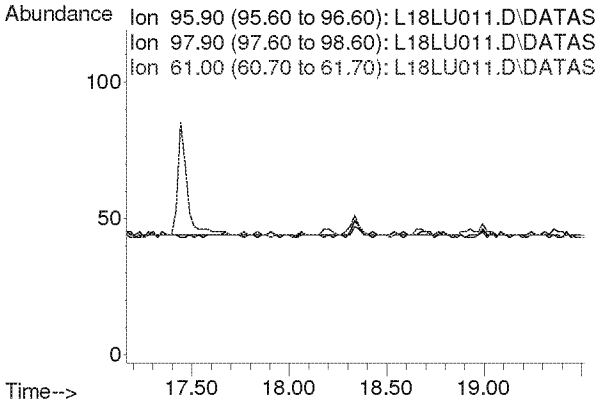


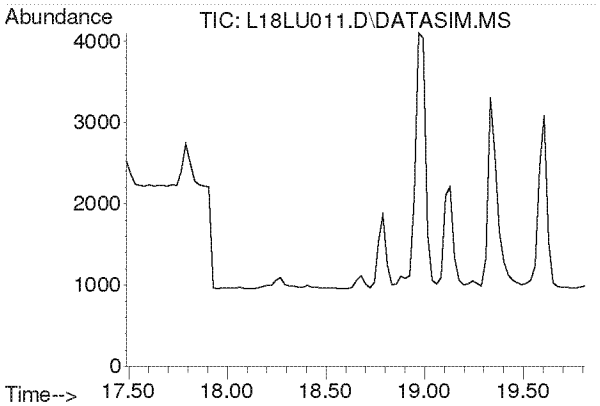

#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 96

| Sig | Exp Ratio |
|---|---|
| 96 | 100 |
| 98 | 63.7 |
| 61 | 159.2 |



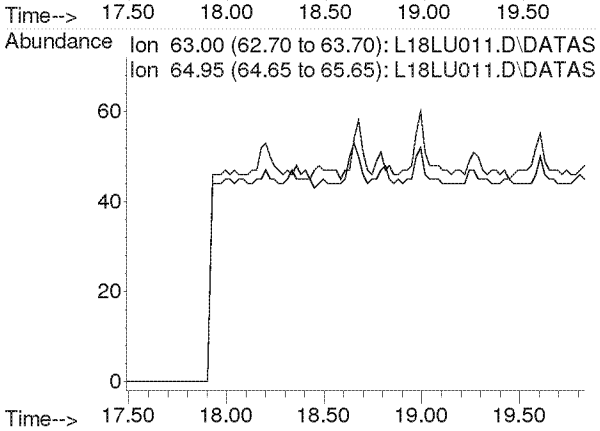




#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

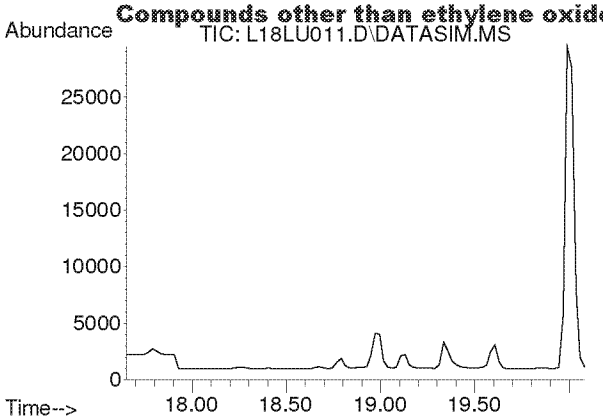
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 65 | 31.7 |



**Compounds other than ethylene oxide were not quantitated.**

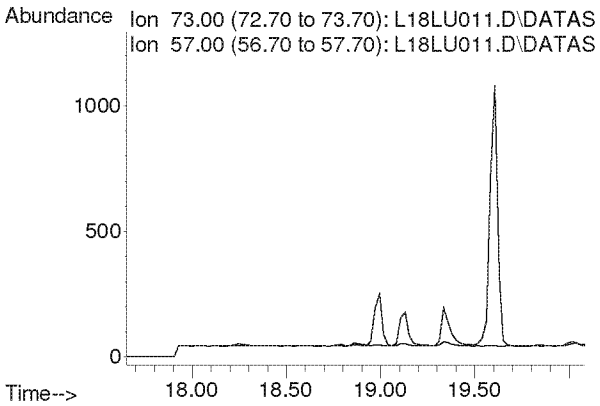


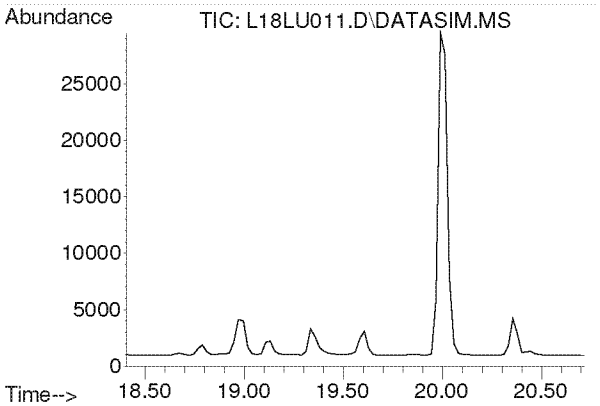

#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 57 | 23.4 |



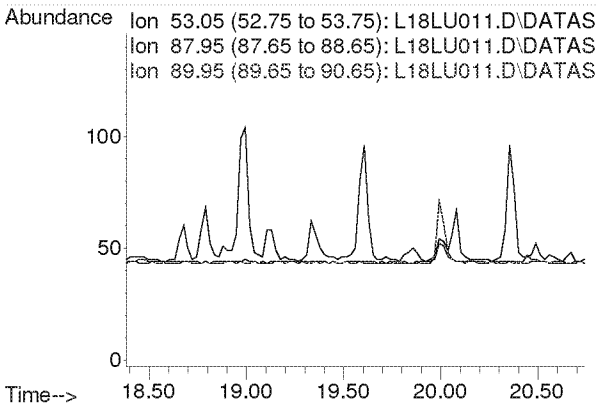




#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

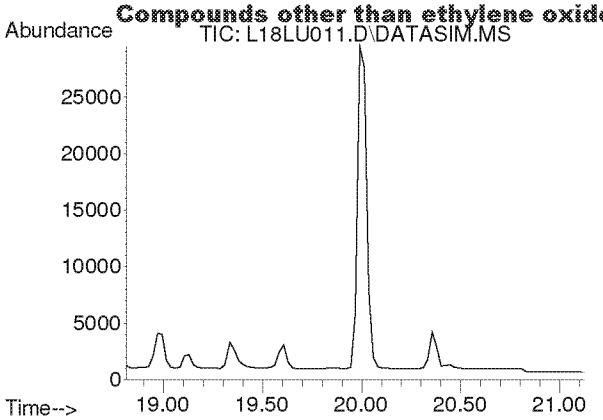
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 88 | 51.8 |
| 90 | 16.8 |



**Compounds other than ethylene oxide were not quantitated.**

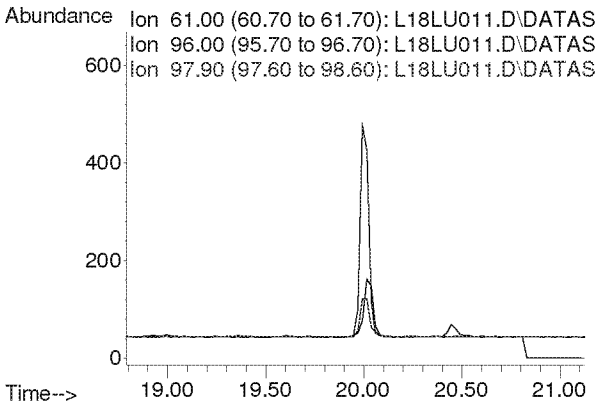


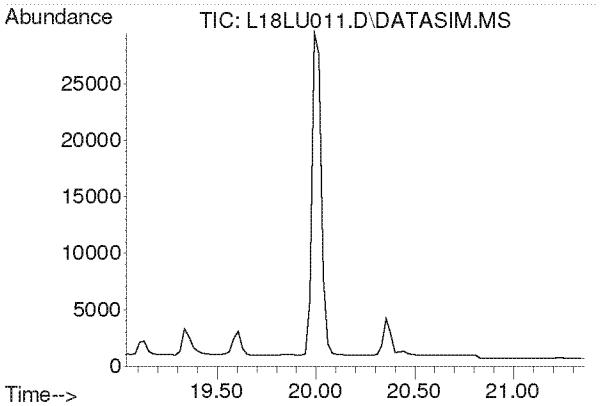

#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 73.7 |
| 98 | 45.2 |



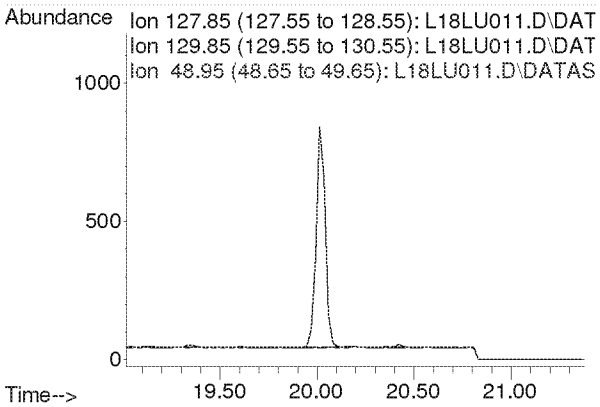




#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

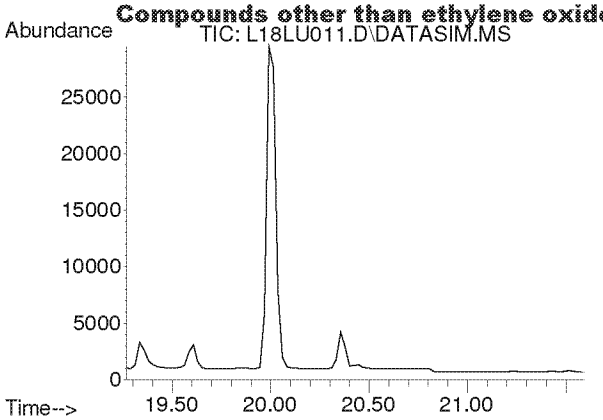
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 128

| Sig | Exp Ratio |
|---|---|
| 128 | 100 |
| 130 | 129.1 |
| 49 | 171.2 |



**Compounds other than ethylene oxide were not quantitated.**

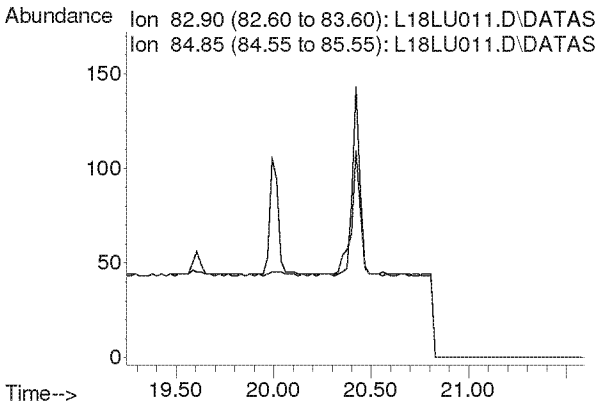


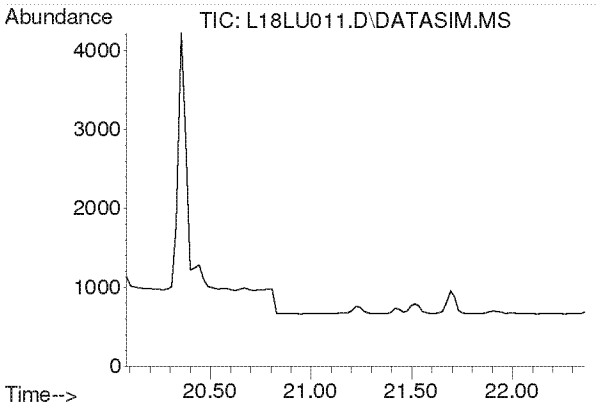

#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.4 |



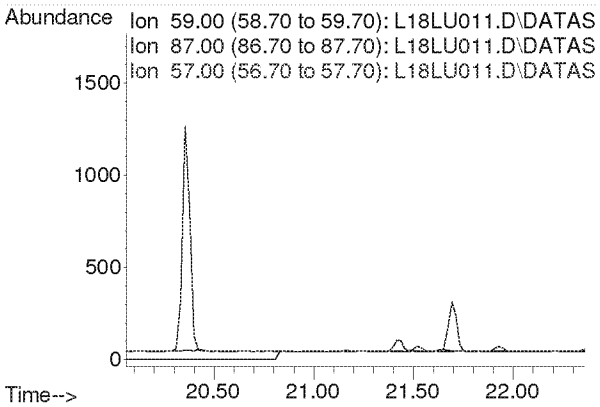




#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

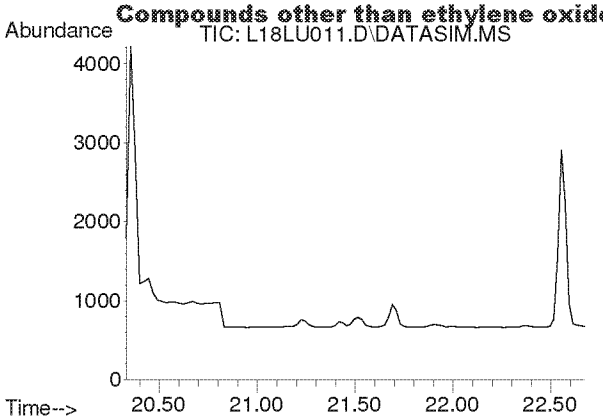
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 59

| Sig | Exp Ratio |
|---|---|
| 59 | 100 |
| 87 | 37.5 |
| 57 | 33.8 |



**Compounds other than ethylene oxide were not quantitated.**

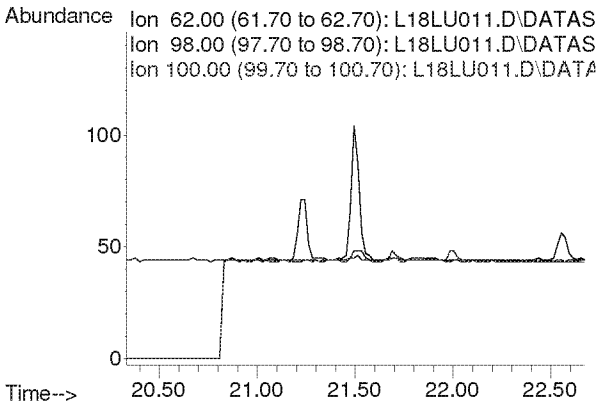


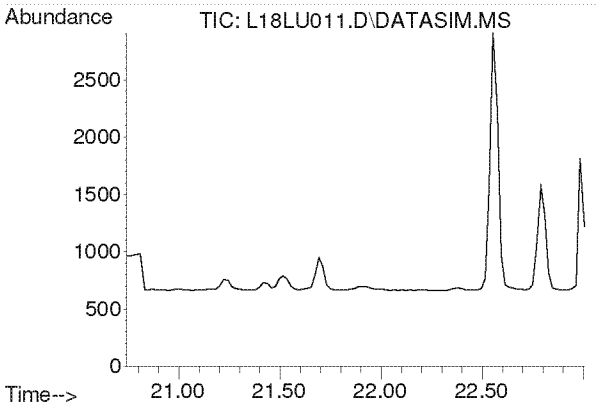

#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 98 | 6.4 |
| 100 | 4.0 |



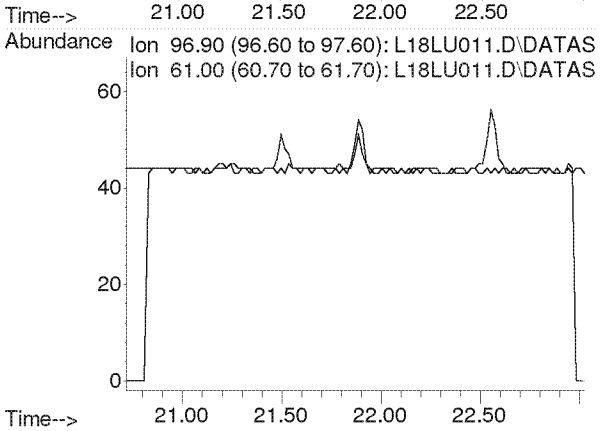




#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

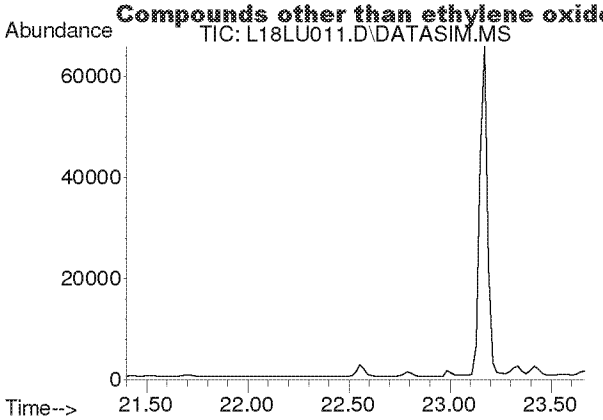
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 61 | 60.5 |



**Compounds other than ethylene oxide were not quantitated.**

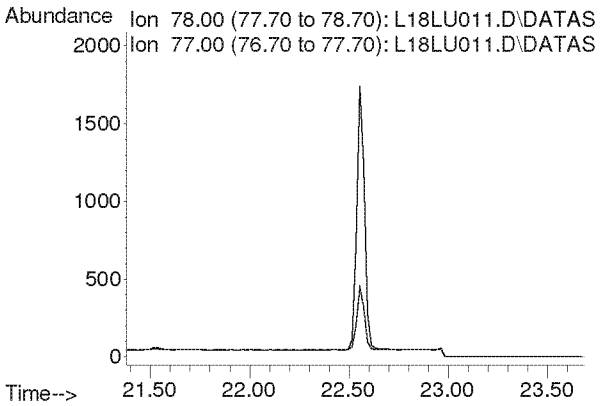


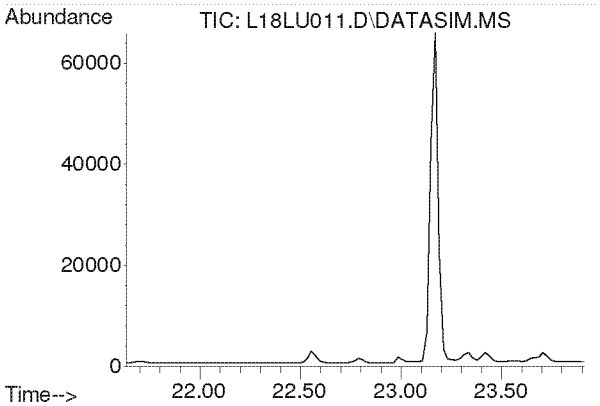

#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 78

| Sig | Exp Ratio |
|---|---|
| 78 | 100 |
| 77 | 22.7 |



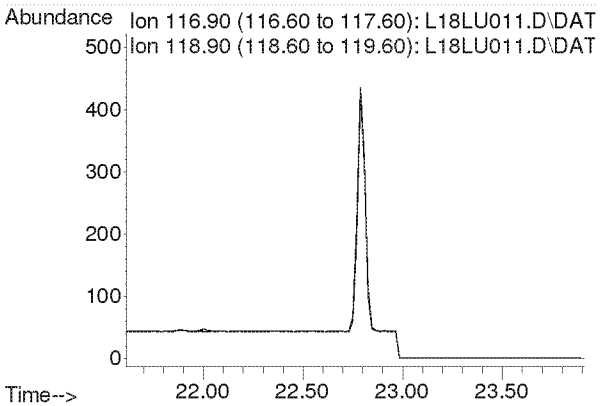




#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

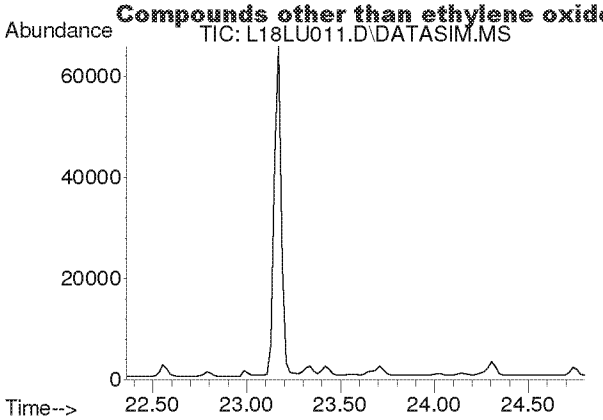
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 117

| Sig | Exp Ratio |
|---|---|
| 117 | 100 |
| 119 | 96.5 |



**Compounds other than ethylene oxide were not quantitated.**

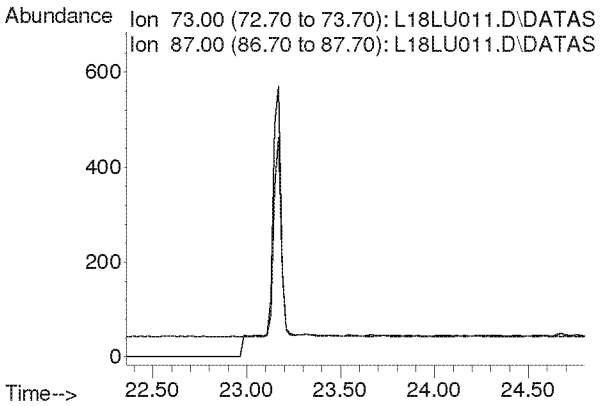


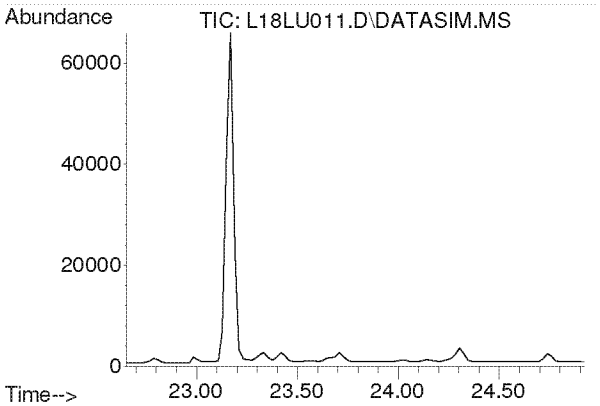

#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 87 | 24.9 |



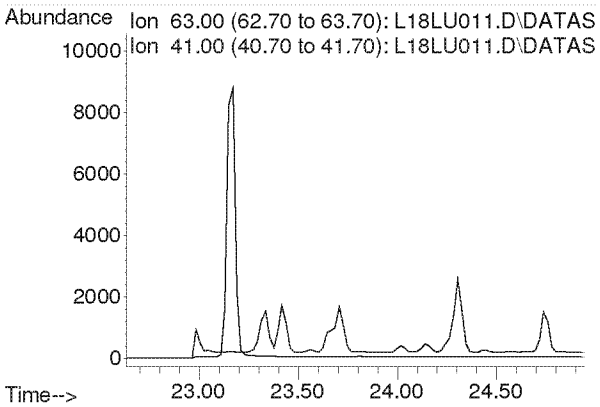




#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

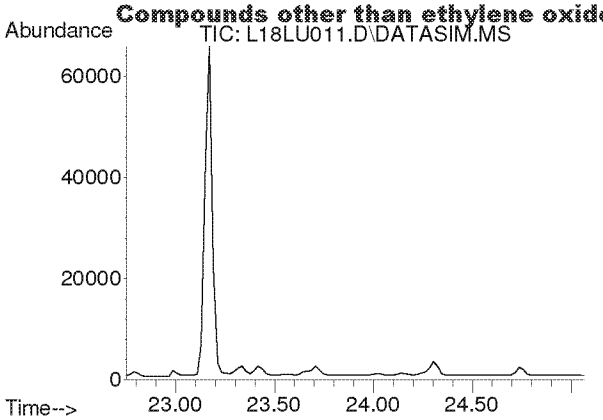
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 41 | 212.8 |



**Compounds other than ethylene oxide were not quantitated.**

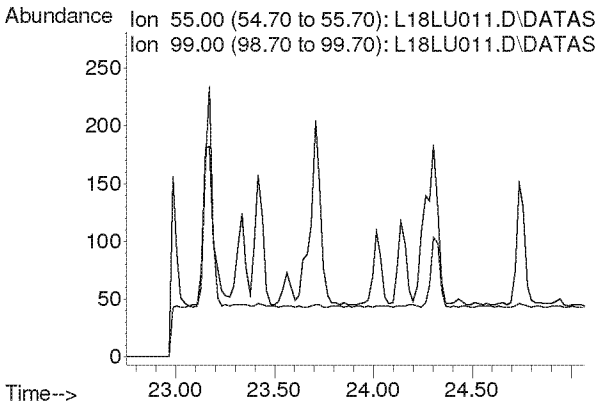


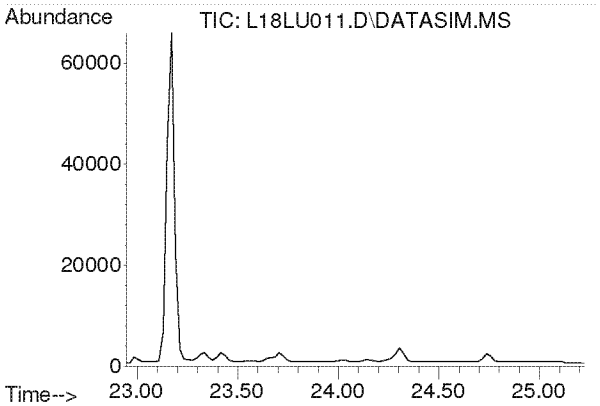

#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 55

| Sig | Exp Ratio |
|---|---|
| 55 | 100 |
| 99 | 6.1 |



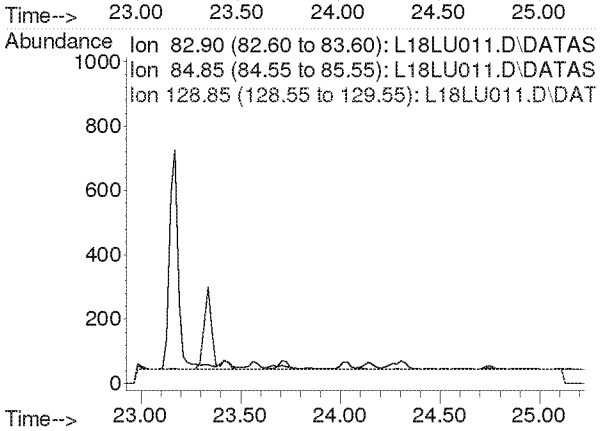




#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

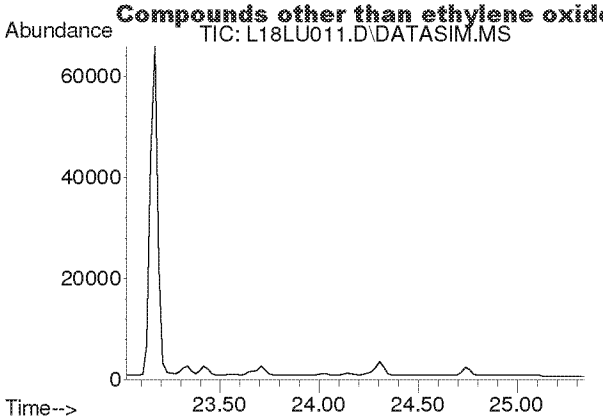
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.0 |
| 129 | 12.4 |



**Compounds other than ethylene oxide were not quantitated.**

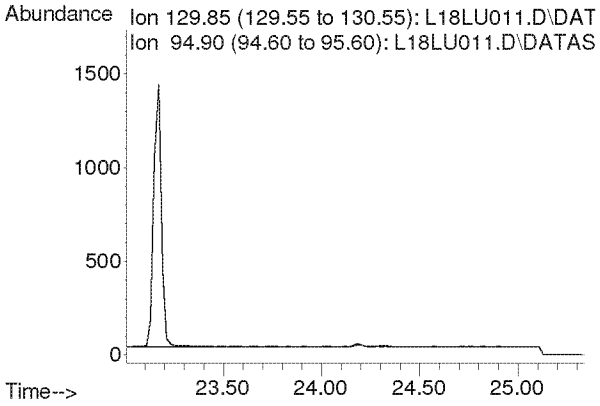


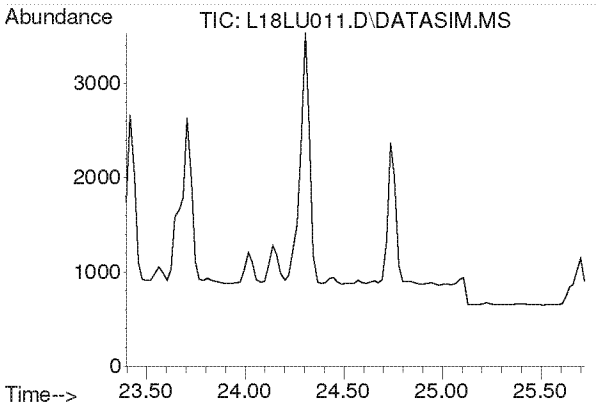

#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 130

| Sig | Exp Ratio |
|---|---|
| 130 | 100 |
| 95 | 110.3 |



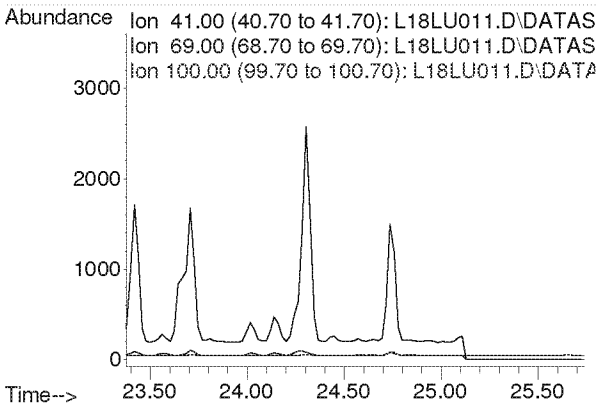




#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

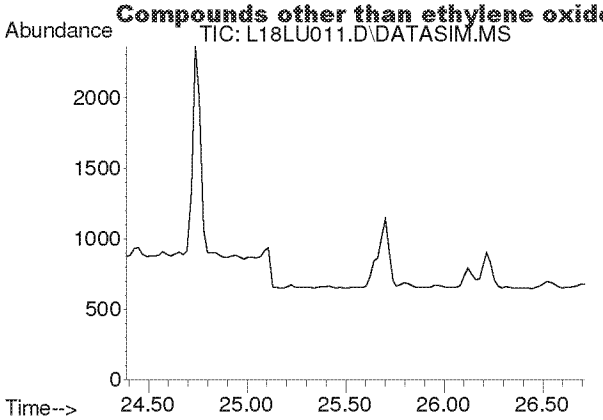
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 69 | 19.9 |
| 100 | 5.2 |



**Compounds other than ethylene oxide were not quantitated.**

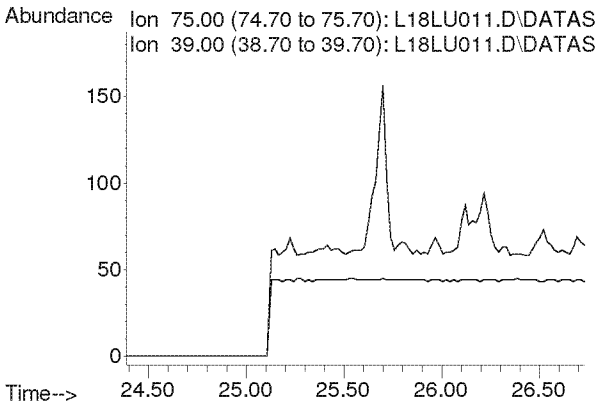


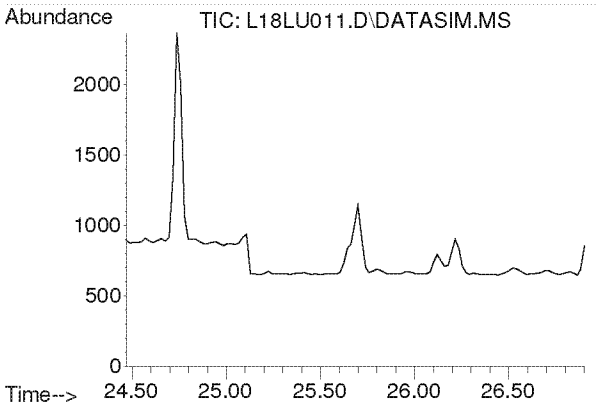

#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 54.4 |



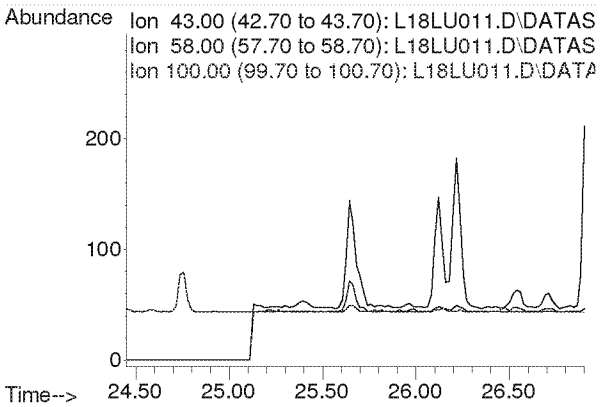




#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

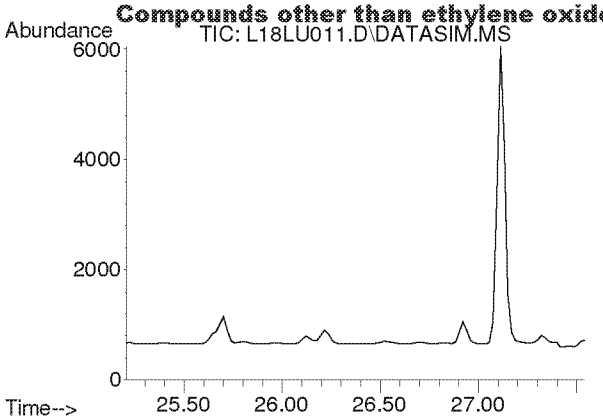
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 58 | 34.2 |
| 100 | 7.9 |



**Compounds other than ethylene oxide were not quantitated.**

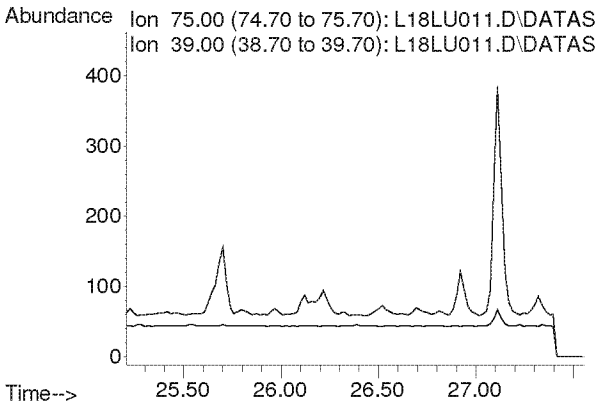


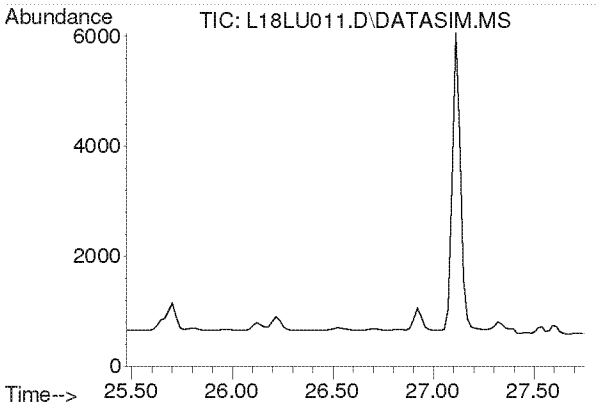

#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 50.9 |



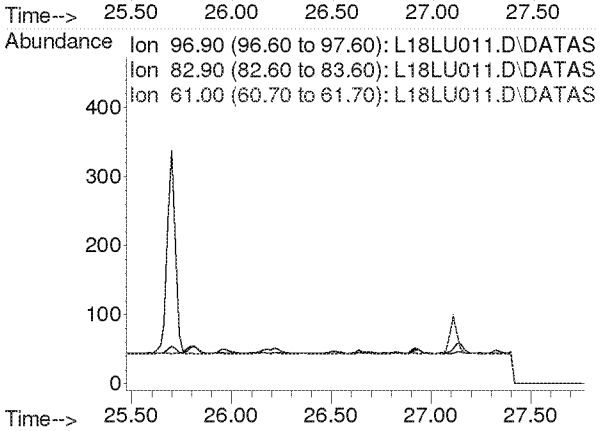




#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

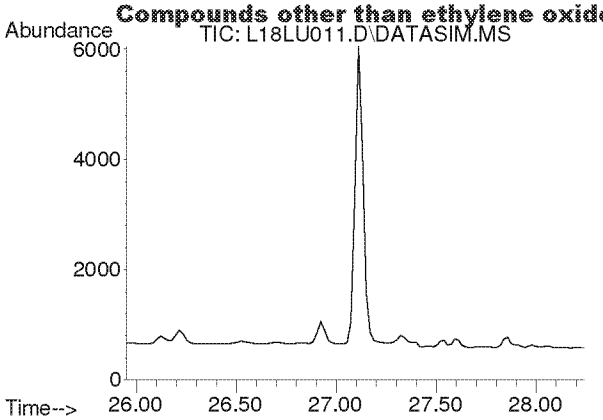
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 83 | 96.1 |
| 61 | 63.5 |



**Compounds other than ethylene oxide were not quantitated.**

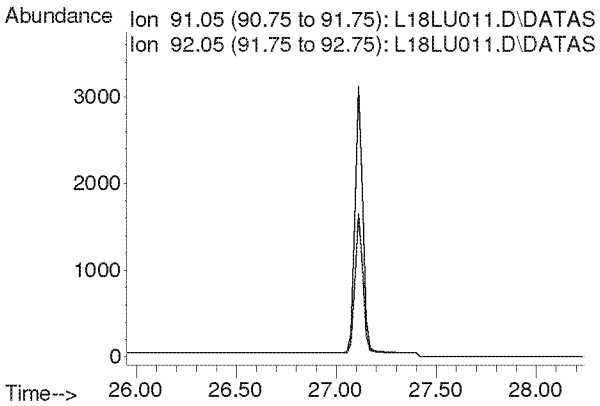


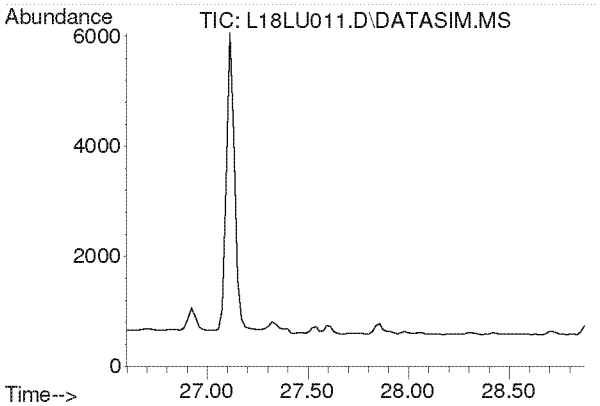

#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 92 | 52.6 |



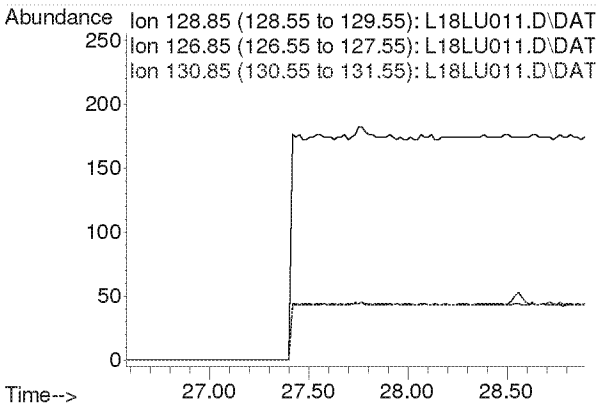




#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

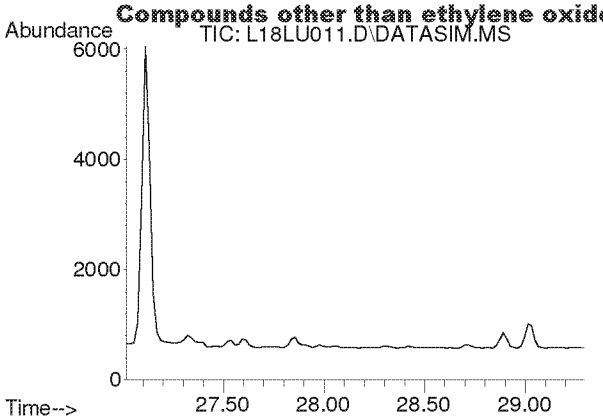
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 129

| Sig | Exp Ratio |
|---|---|
| 129 | 100 |
| 127 | 19.2 |
| 131 | 6.0 |



**Compounds other than ethylene oxide were not quantitated.**

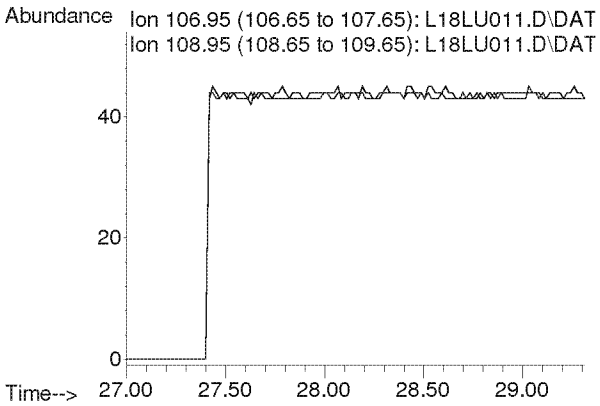


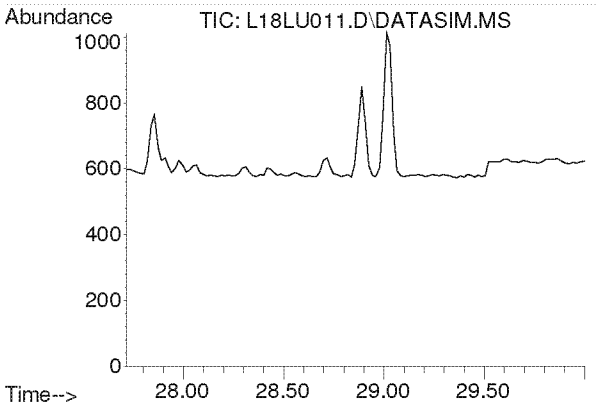

#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 107

| Sig | Exp Ratio |
|---|---|
| 107 | 100 |
| 109 | 94.5 |



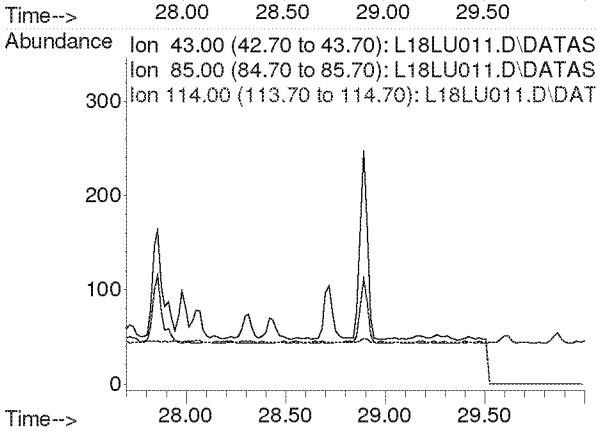




#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

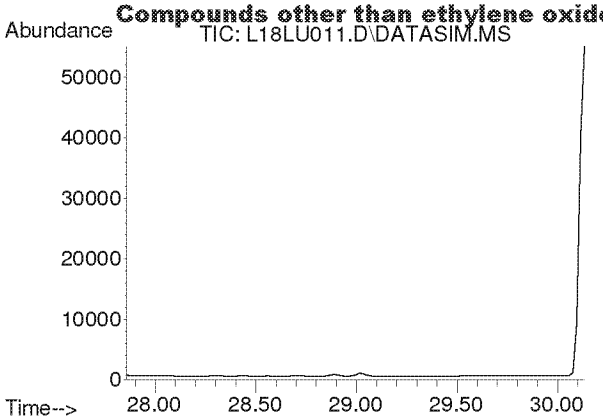
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 85 | 36.0 |
| 114 | 2.2 |



**Compounds other than ethylene oxide were not quantitated.**

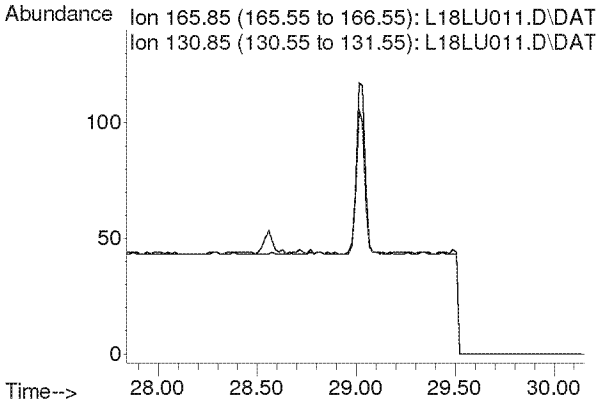


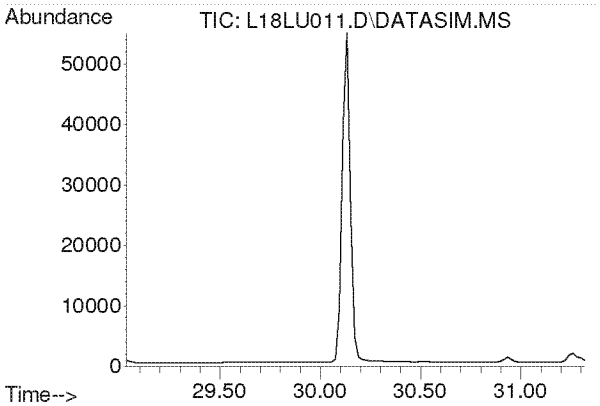

#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 166

| Sig | Exp Ratio |
|---|---|
| 166 | 100 |
| 131 | 78.2 |



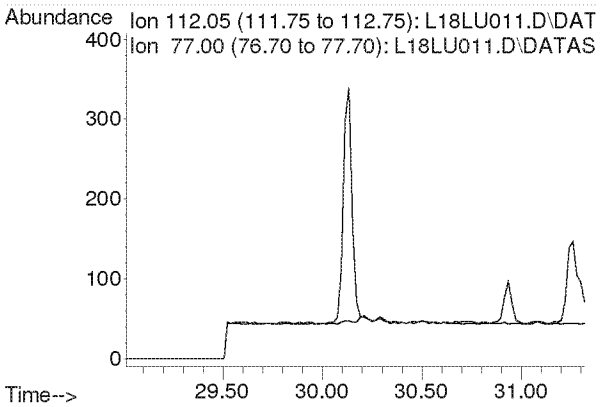




#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

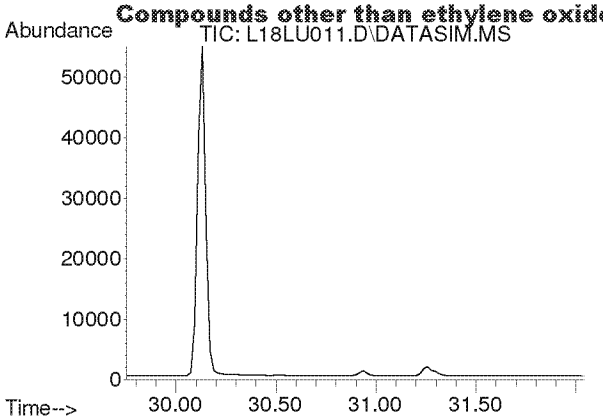
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 112

| Sig | Exp Ratio |
|---|---|
| 112 | 100 |
| 77 | 63.0 |



**Compounds other than ethylene oxide were not quantitated.**

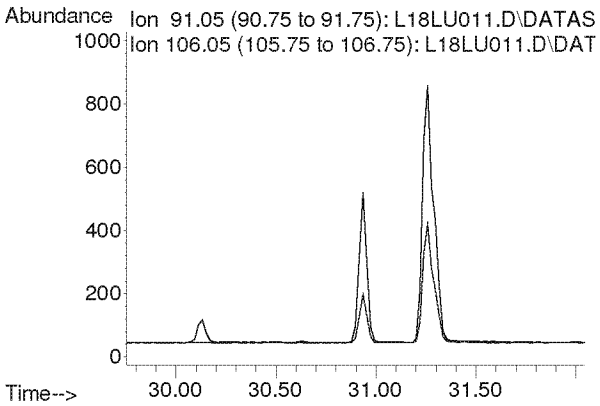


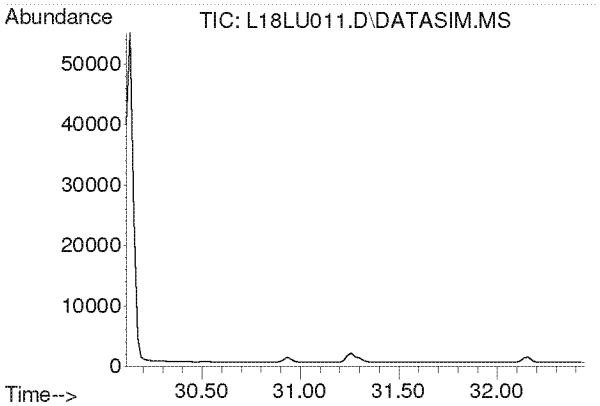

#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 31.8 |



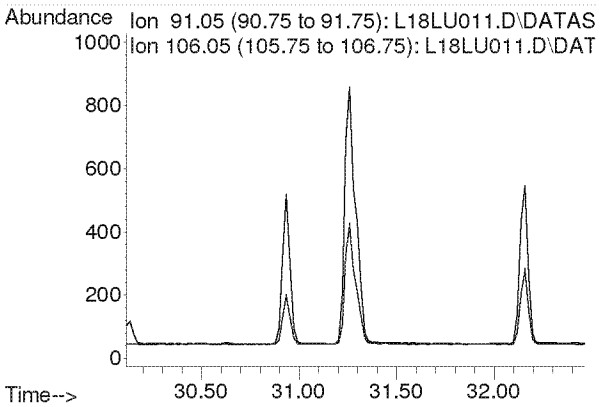




#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

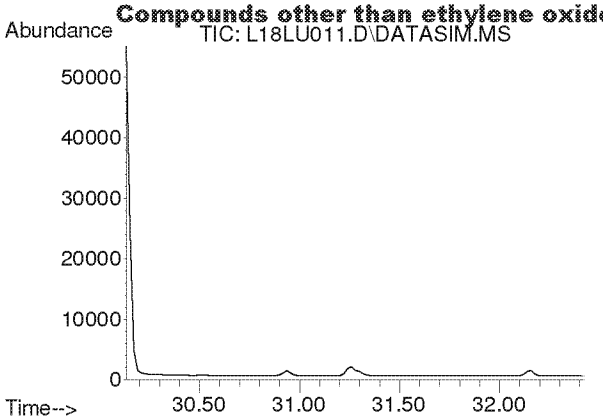
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.4 |



**Compounds other than ethylene oxide were not quantitated.**

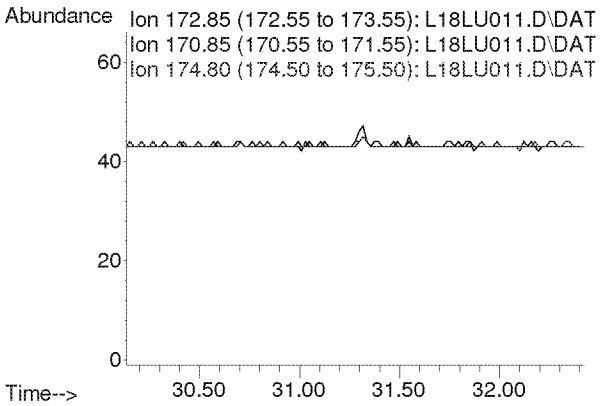


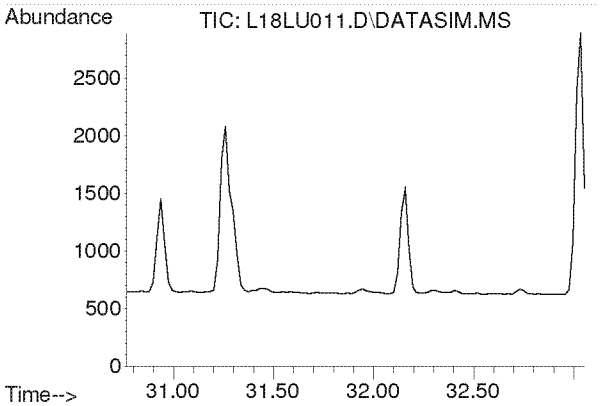

#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 173

| Sig | Exp Ratio |
|---|---|
| 173 | 100 |
| 171 | 51.3 |
| 175 | 49.0 |



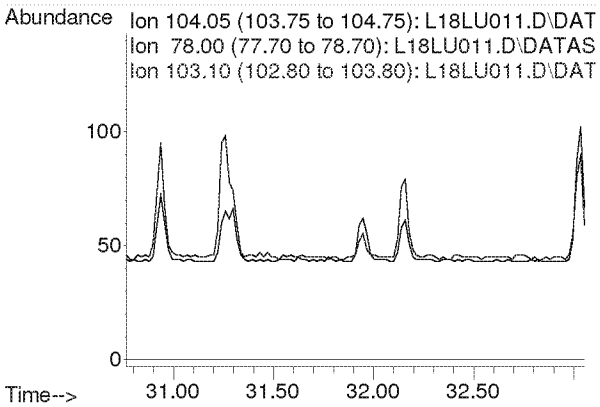




#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

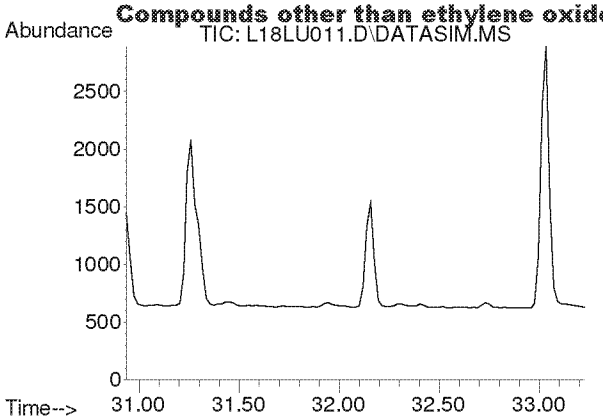
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 104

| Sig | Exp Ratio |
|---|---|
| 104 | 100 |
| 78 | 45.6 |
| 103 | 0.0 |



**Compounds other than ethylene oxide were not quantitated.**

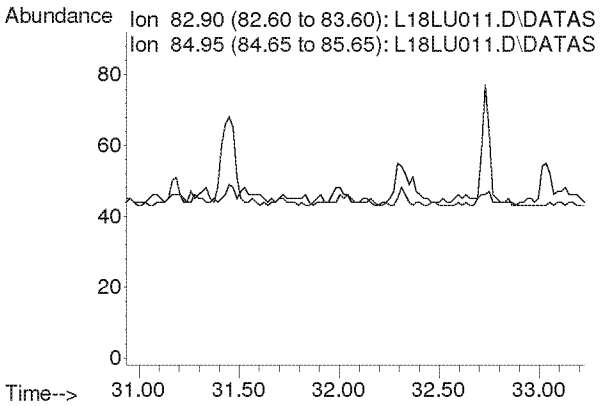


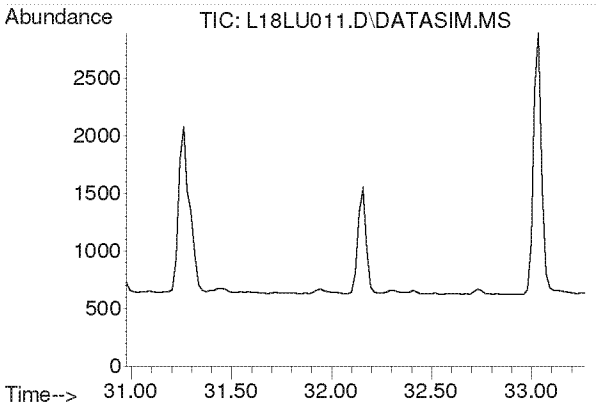

#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 63.9 |



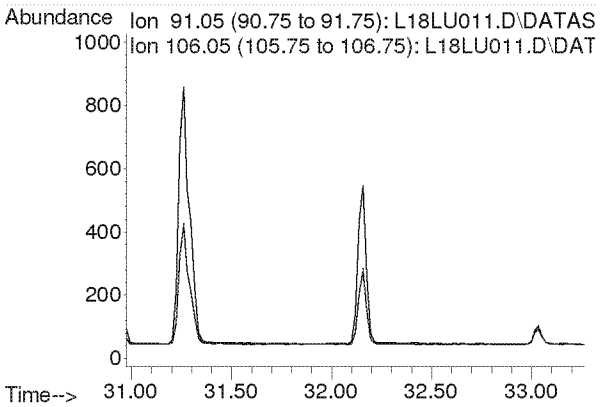




#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

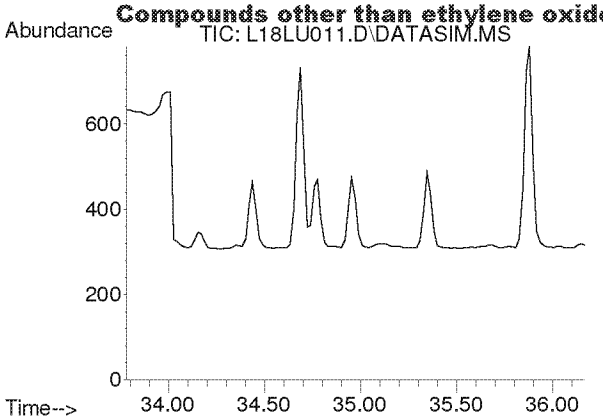
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.2 |



**Compounds other than ethylene oxide were not quantitated.**

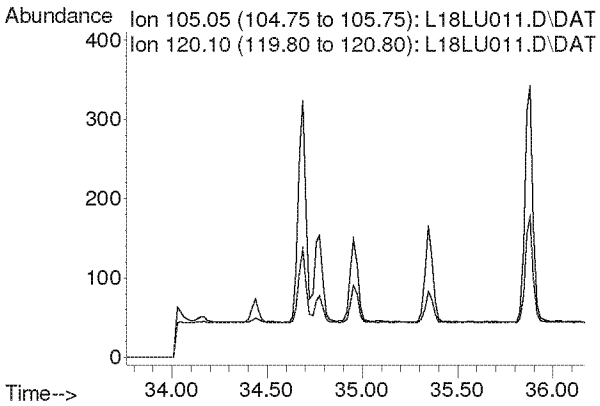


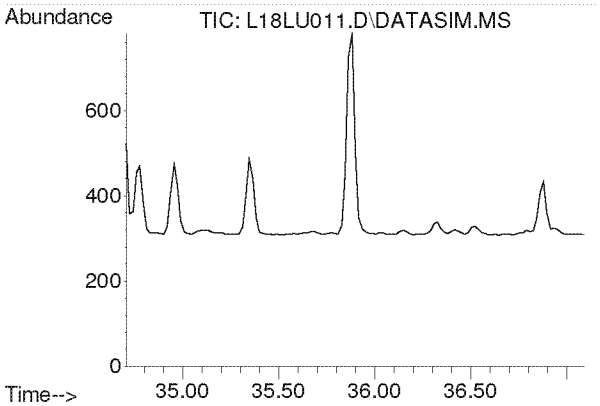

#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 45.0 |



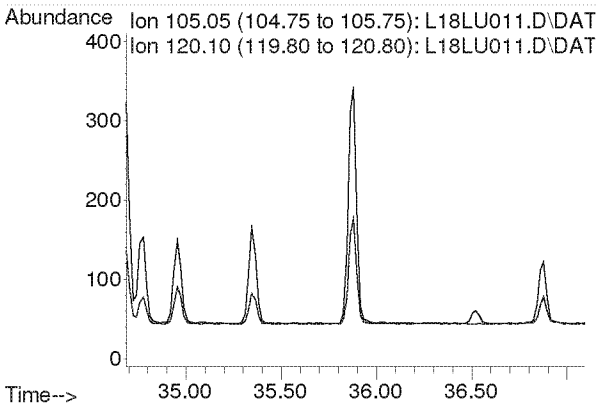




#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

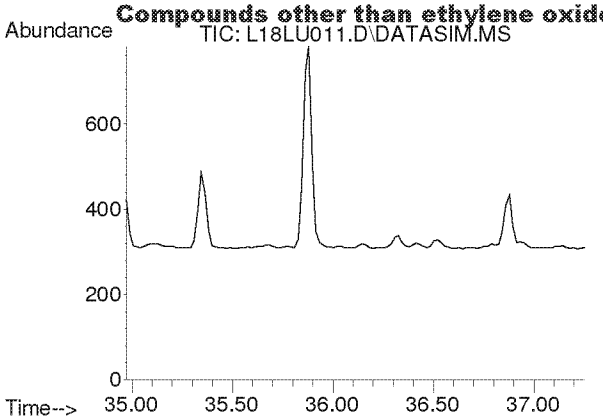
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 42.8 |



**Compounds other than ethylene oxide were not quantitated.**

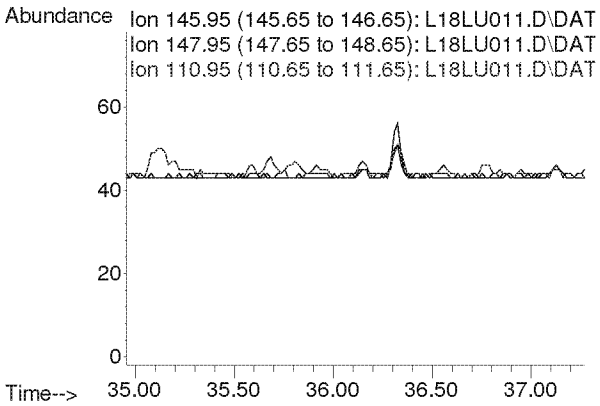


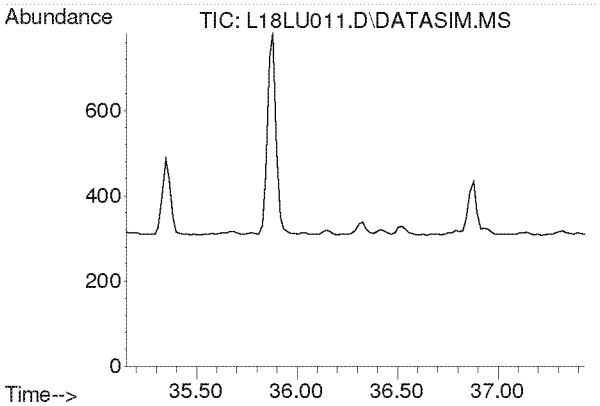

#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 40.5 |



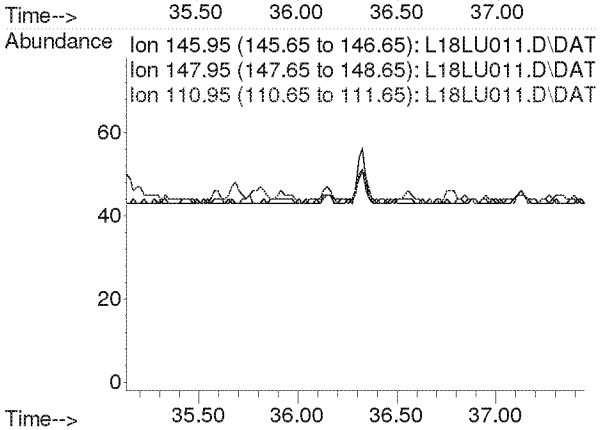




#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

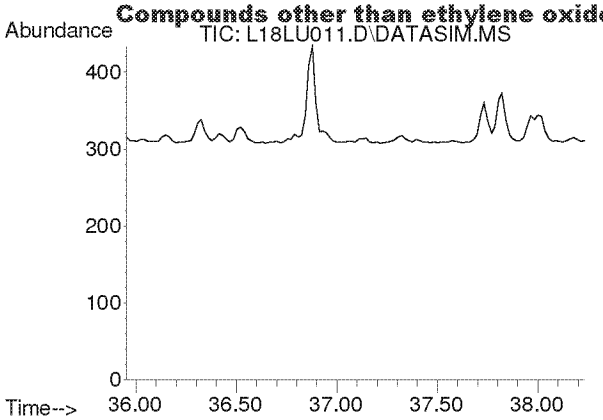
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 39.5 |



**Compounds other than ethylene oxide were not quantitated.**

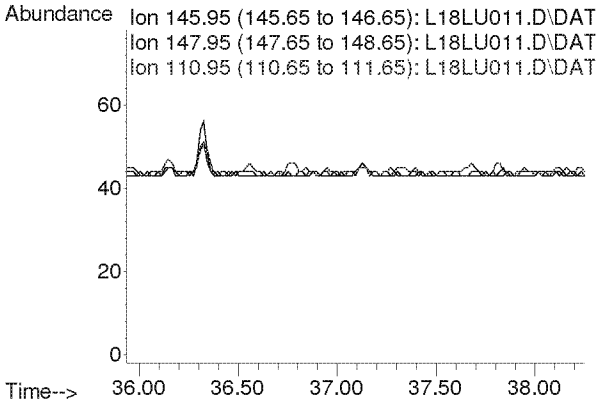


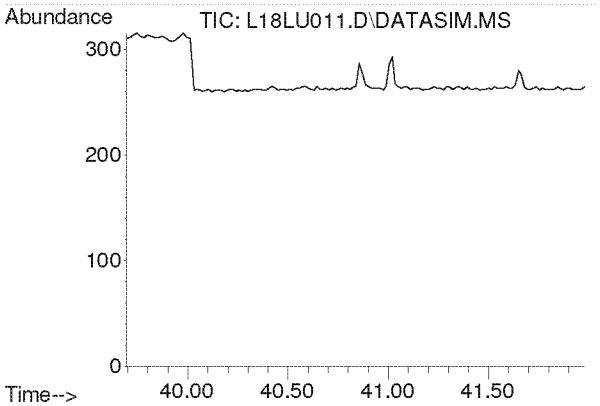

#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.1 |
| 111 | 41.4 |



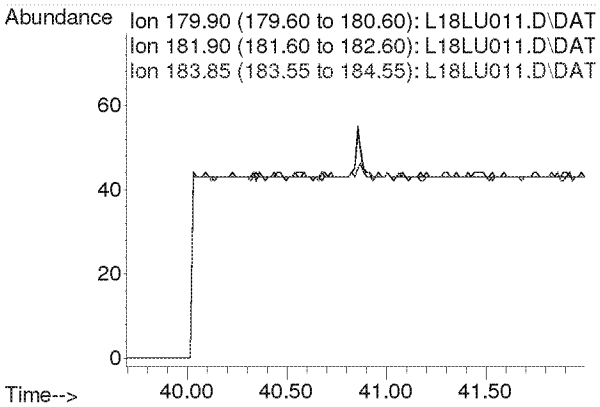




#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

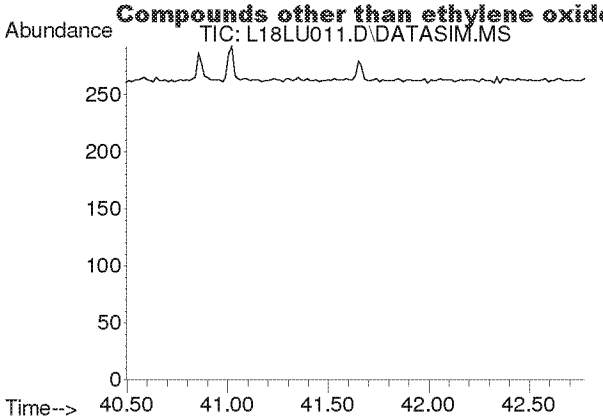
Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 180

| Sig | Exp Ratio |
|---|---|
| 180 | 100 |
| 182 | 95.1 |
| 184 | 30.7 |



**Compounds other than ethylene oxide were not quantitated.**

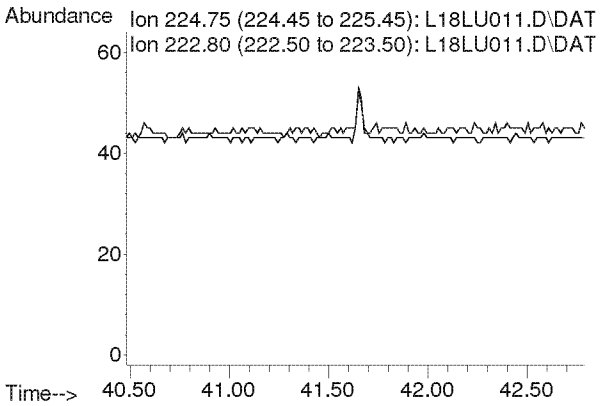



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18LU011.D
Acq: 21 Dec 2018 5:37 pm

Tgt Ion: 225

| Sig | Exp Ratio |
|---|---|
| 225 | 100 |
| 223 | 62.4 |



**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU012.D
Acq On : 21 Dec 2018 6:37 pm (#1); 21-Dec-18, 18:32:13 (#2)
Operator : MAH
Sample : 8120701-04
Misc : WILLOW POND PARK 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 26 10:03:28 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

First only

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) IS-Hexane-d14 | 19.993 | 66 | 55561 | 4.7700 ppbv | 0.00 |
| 29) IS-1,4-Difluorobenzene | 23.171 | 114 | 136691 | 4.9900 ppbv | 0.02 |
| 43) IS-Chlorobenzene-d5 | 30.135 | 117 | 94270 | 4.7400 ppbv | 0.04 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) Acetylene | 0.000 | 26 | 0 | N.D. d | |
| 3) Propylene | 0.000 | 41 | 0 | N.D. d | |
| 4) Dichlorodifluoromethane | 0.000 | 85 | 0 | N.D. d | |
| 5) Chloromethane | 0.000 | 50 | 0 | N.D. d | |
| 6) Dichlorotetrafluoroethane | 0.000 | 85 | 0 | N.D. d | |
| 7) Vinyl Chloride | 0.000 | 62 | 0 | N.D. | |
| 8) 1,3-Butadiene | 0.000 | 54 | 0 | N.D. d | |
| 9) Ethylene oxide | 0.000 | 29 | 0 | N.D. d SV | |
| 10) Bromomethane | 0.000 | 94 | 0 | N.D. d | |
| 11) Chloroethane | 0.000 | 64 | 0 | N.D. d | |
| 12) Acetonitrile | 0.000 | 41 | 0 | N.D. d | |
| 13) Acrolein | 0.000 | 56 | 0 | N.D. d | |
| 14) Trichlorofluoromethane | 0.000 | 101 | 0 | N.D. d | |
| 15) Acrylonitrile | 0.000 | 53 | 0 | N.D. d | |
| 16) 1,1-Dichloroethene | 0.000 | 61 | 0 | N.D. | |
| 17) Methylene Chloride | 0.000 | 49 | 0 | N.D. d | |
| 18) Carbon Disulfide | 0.000 | 76 | 0 | N.D. d | |
| 19) Trichlorotrifluoroethane | 0.000 | 101 | 0 | N.D. d | |
| 20) trans-1,2-Dichloroethy... | 0.000 | 96 | 0 | N.D. d | |
| 21) 1,1-Dichloroethane | 0.000 | 63 | 0 | N.D. | |
| 22) Methyl tert-Butyl Ether | 0.000 | 73 | 0 | N.D. d | |
| 23) Chloroprene | 0.000 | 53 | 0 | N.D. d | |
| 24) cis-1,2-Dichloroethylene | 0.000 | 61 | 0 | N.D. d | |
| 25) Bromochloromethane | 0.000 | 128 | 0 | N.D. | |
| 26) Chloroform | 0.000 | 83 | 0 | N.D. d | |
| 27) Ethyl tert-Butyl Ether | 0.000 | 59 | 0 | N.D. | |
| 28) 1,2-Dichloroethane | 0.000 | 62 | 0 | N.D. d | |
| 30) 1,1,1-Trichloroethane | 0.000 | 97 | 0 | N.D. d | |
| 31) Benzene | 0.000 | 78 | 0 | N.D. d | |
| 32) Carbon Tetrachloride | 0.000 | 117 | 0 | N.D. d | |
| 33) tert-Amyl Methyl Ether | 0.000 | 73 | 0 | N.D. | |
| 34) 1,2-Dichloropropane | 0.000 | 63 | 0 | N.D. d | |
| 35) Ethyl Acrylate | 0.000 | 55 | 0 | N.D. | |
| 36) Bromodichloromethane | 0.000 | 83 | 0 | N.D. d | |
| 37) Trichloroethylene | 0.000 | 130 | 0 | N.D. d | |
| 38) Methyl Methacrylate | 0.000 | 41 | 0 | N.D. d | |
| 39) cis-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 40) Methyl Isobutyl Ketone | 0.000 | 43 | 0 | N.D. d | |
| 41) trans-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 42) 1,1,2-Trichloroethane | 0.000 | 97 | 0 | N.D. | |
| 44) Toluene | 0.000 | 91 | 0 | N.D. d | |
| 45) Dibromochloromethane | 0.000 | 129 | 0 | N.D. d | |
| 46) 1,2-Dibromoethane | 0.000 | 107 | 0 | N.D. | |
| 47) n-Octane | 0.000 | 43 | 0 | N.D. d | |
| 48) Tetrachloroethylene | 0.000 | 166 | 0 | N.D. d | |
| 49) Chlorobenzene | 0.000 | 112 | 0 | N.D. | |
| 50) Ethylbenzene | 0.000 | 91 | 0 | N.D. d | |

**Compounds other than ethylene oxide were not quantitated**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU012.D
Acq On : 21 Dec 2018 6:37 pm (#1); 21-Dec-18, 18:32:13 (#2)
Operator : MAH
Sample : 8120701-04
Misc : WILLOW POND PARK 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 26 10:03:28 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

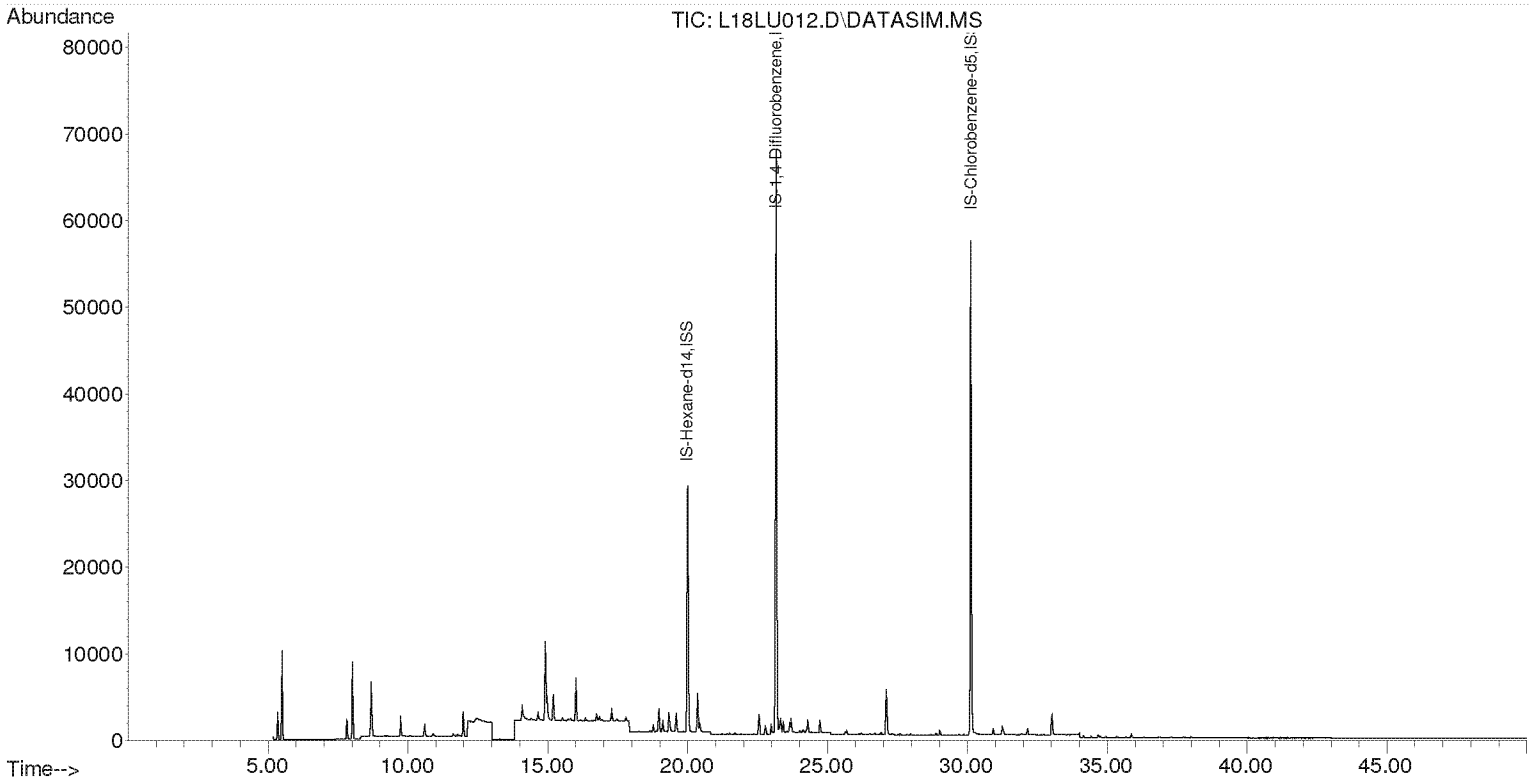
| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 51) m,p-Xylene | 0.000 | 91 | 0 | N.D. d | |
| 52) Bromoform | 0.000 | 173 | 0 | N.D. | |
| 53) Styrene | 0.000 | 104 | 0 | N.D. d | |
| 54) 1,1,2,2-Tetrachloroethane | 0.000 | 83 | 0 | N.D. | |
| 55) o-Xylene | 0.000 | 91 | 0 | N.D. d | |
| 56) 1,3,5-Trimethylbenzene | 0.000 | 105 | 0 | N.D. d | |
| 57) 1,2,4-Trimethylbenzene | 0.000 | 105 | 0 | N.D. d | |
| 58) m-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 59) p-Dichlorobenzene | 0.000 | 146 | 0 | N.D. d | |
| 60) o-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 61) 1,2,4-Trichlorobenzene | 0.000 | 180 | 0 | N.D. | |
| 62) Hexachloro-1,3-butadiene | 0.000 | 225 | 0 | N.D. | |

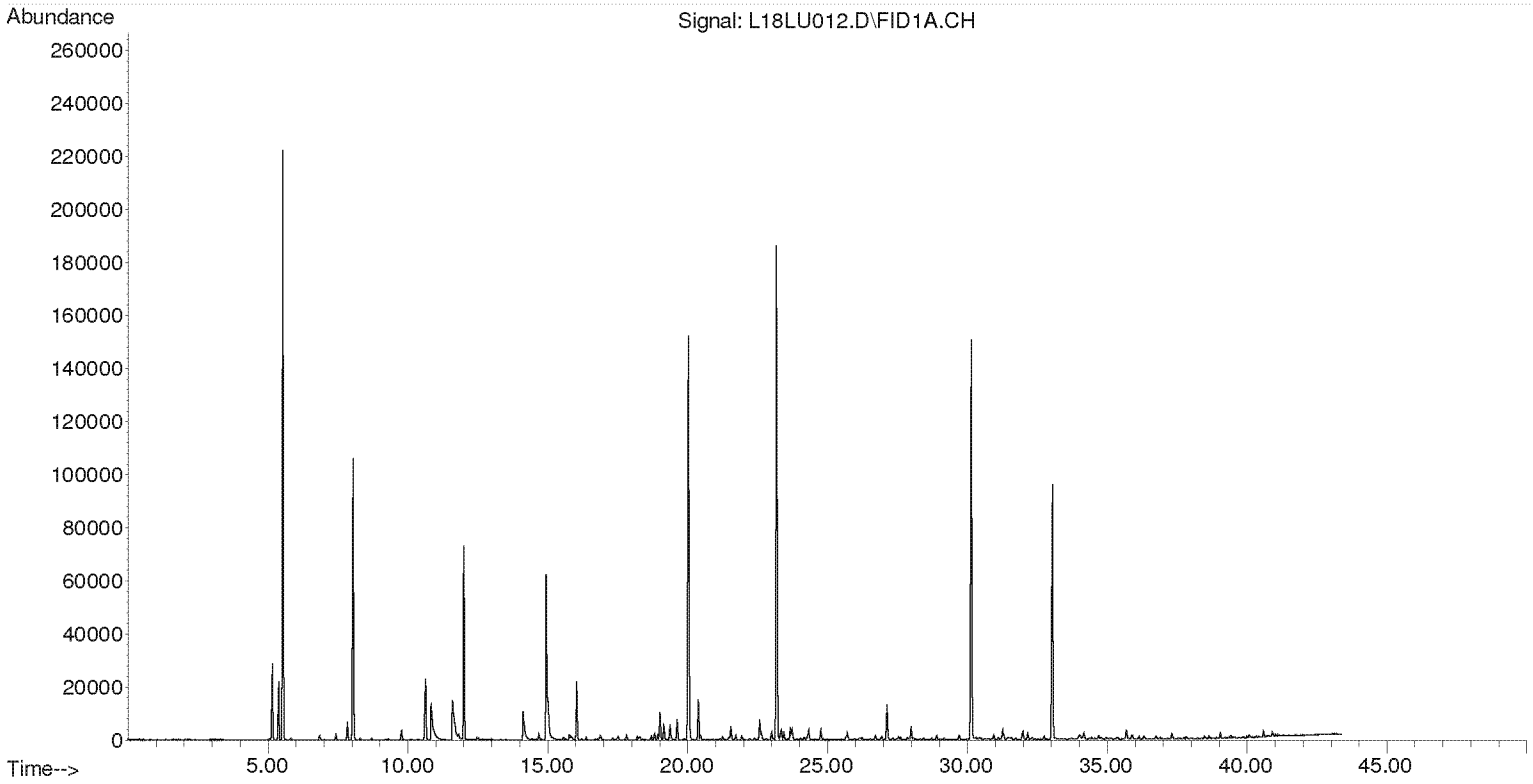
(#) = qualifier out of range (m) = manual integration (+) = signals summed

**Compounds other than ethylene oxide were not quantitated.**

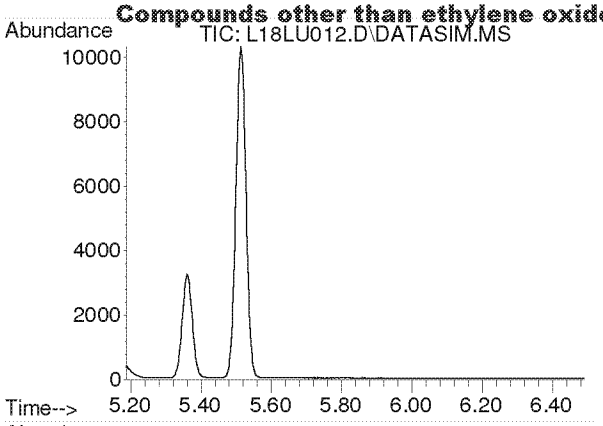
Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU012.D
Acq On : 21 Dec 2018 6:37 pm (#1); 21 Dec 2018 6:32 pm (#2)
Operator : MAH
Sample : 8120701-04
Misc : WILLOW POND PARK 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Dec 26 09:51:04 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



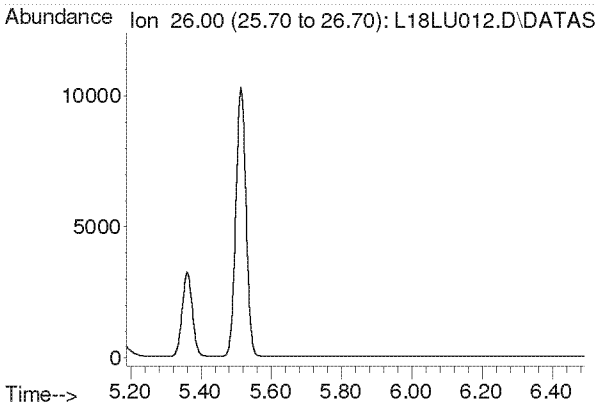
**Compounds other than ethylene oxide were not quantitated.**

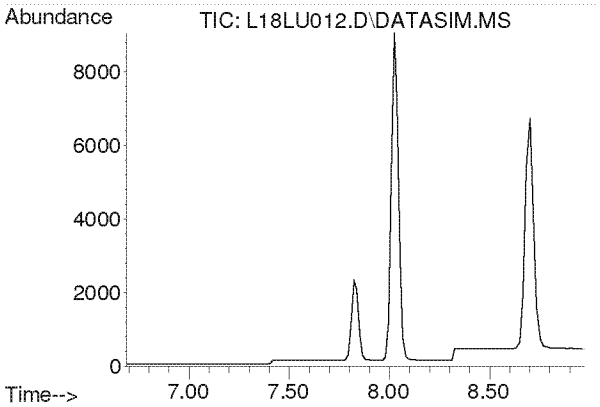



#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 26



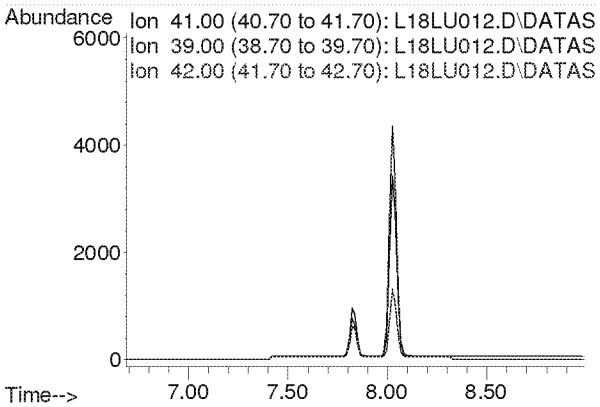




#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

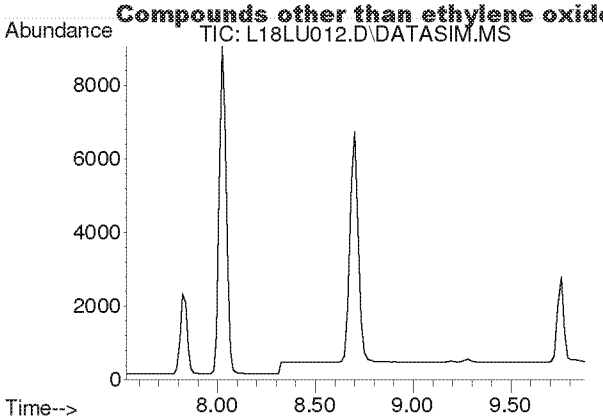
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 39 | 78.2 |
| 42 | 65.8 |



**Compounds other than ethylene oxide were not quantitated.**

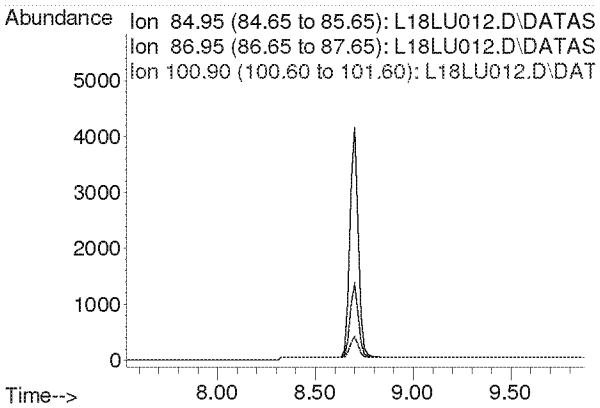


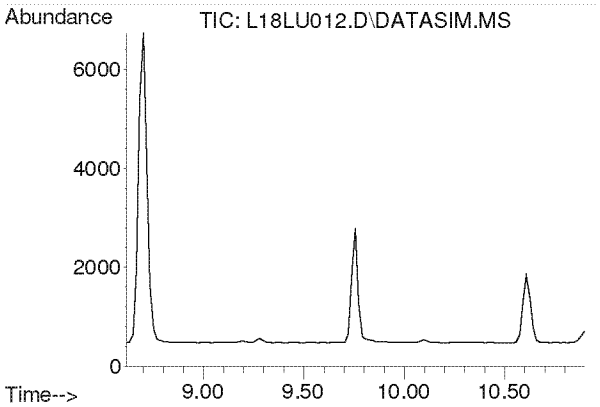

#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 87 | 32.5 |
| 101 | 8.9 |



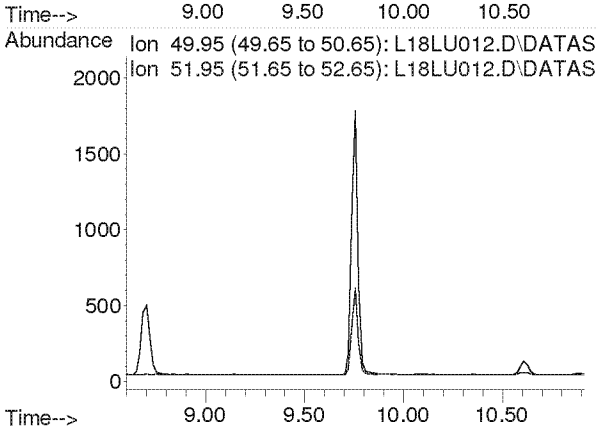




#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

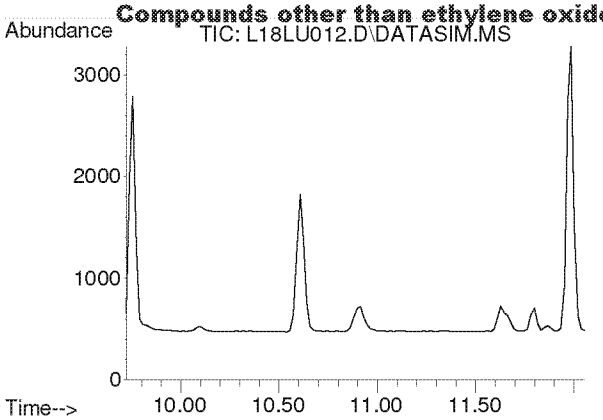
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 50

| Sig | Exp Ratio |
|---|---|
| 50 | 100 |
| 52 | 32.6 |



**Compounds other than ethylene oxide were not quantitated.**

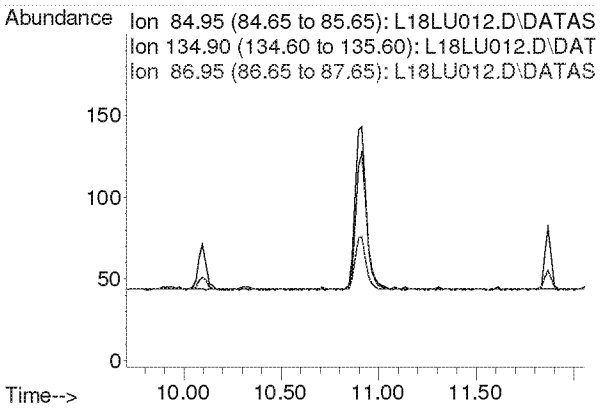


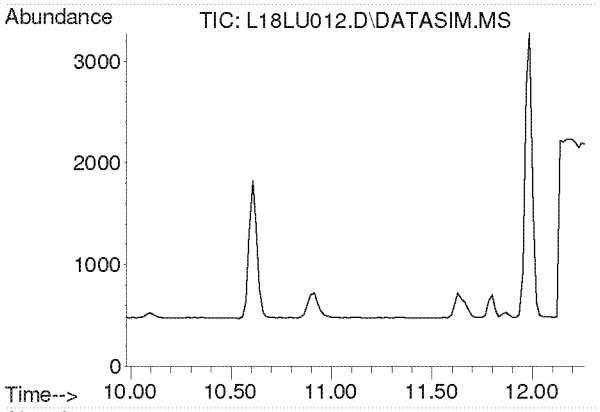

#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 135 | 79.1 |
| 87 | 32.1 |



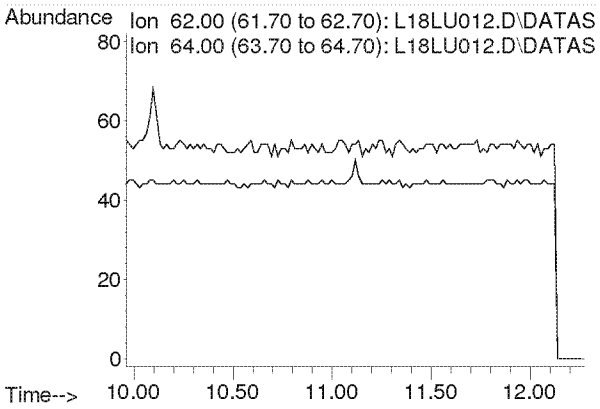




#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

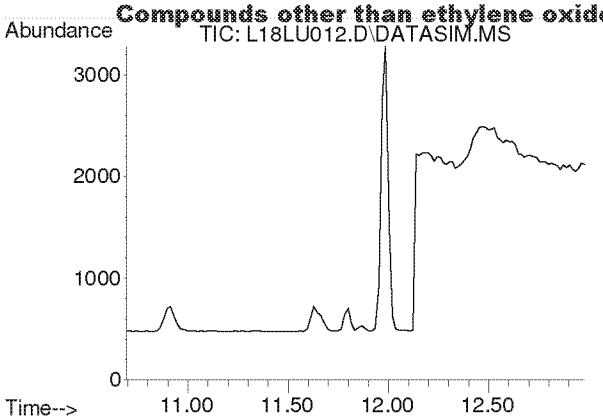
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 64 | 31.8 |



**Compounds other than ethylene oxide were not quantitated.**

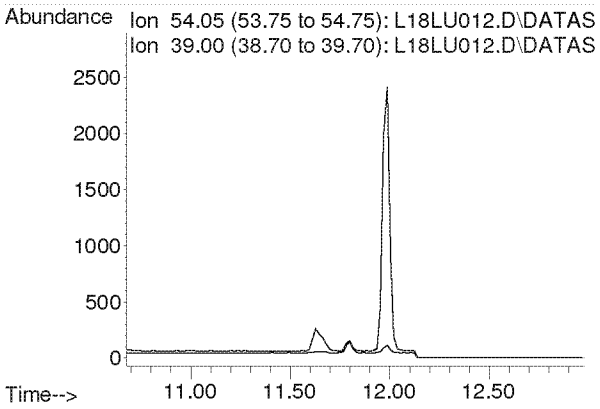


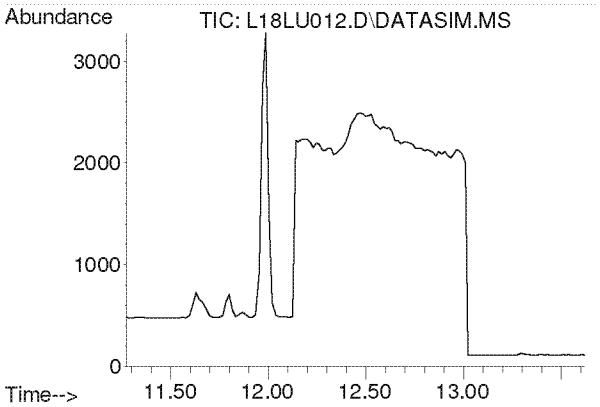

#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 54

| Sig | Exp Ratio |
|---|---|
| 54 | 100 |
| 39 | 105.4 |



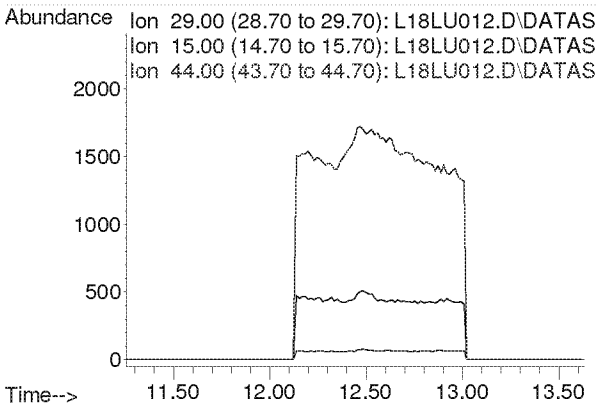




#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

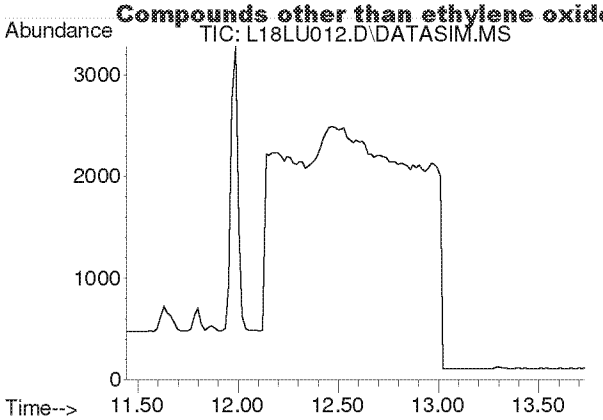
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 29

| Sig | Exp Ratio |
|---|---|
| 29 | 100 |
| 15 | 20.3 |
| 44 | 90.0 |



**Compounds other than ethylene oxide were not quantitated.**

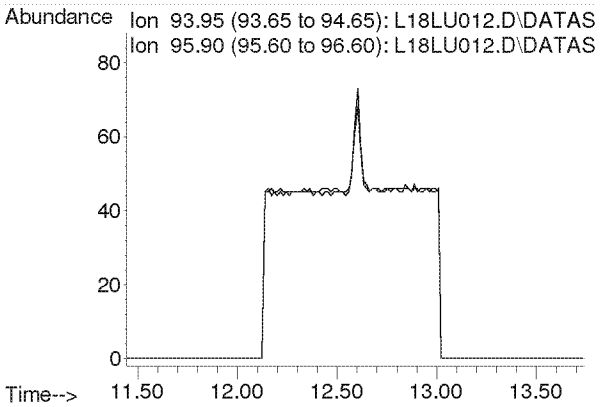


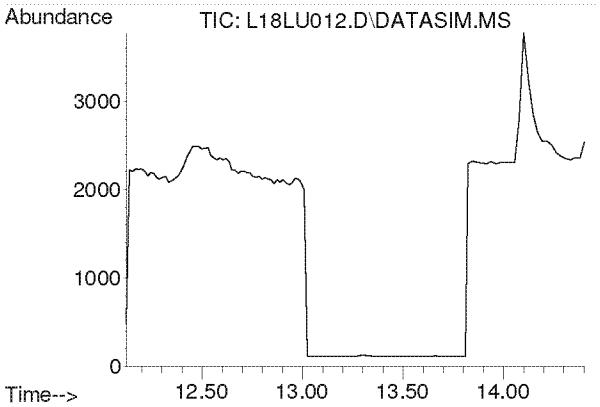

#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 94

| Sig | Exp Ratio |
|---|---|
| 94 | 100 |
| 96 | 93.9 |



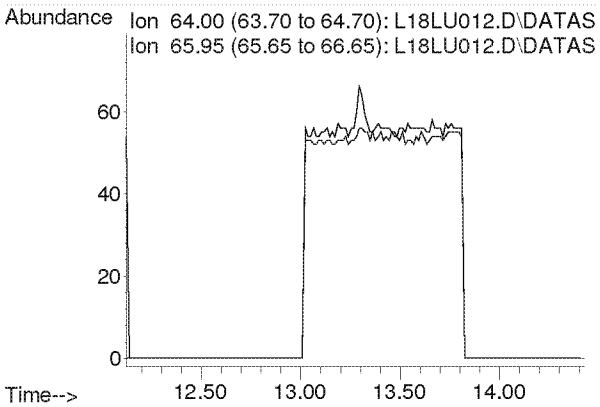




#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

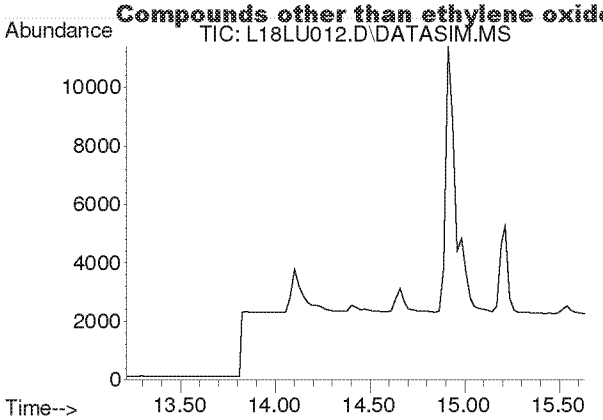
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 64

| Sig | Exp Ratio |
|---|---|
| 64 | 100 |
| 66 | 32.0 |



**Compounds other than ethylene oxide were not quantitated.**

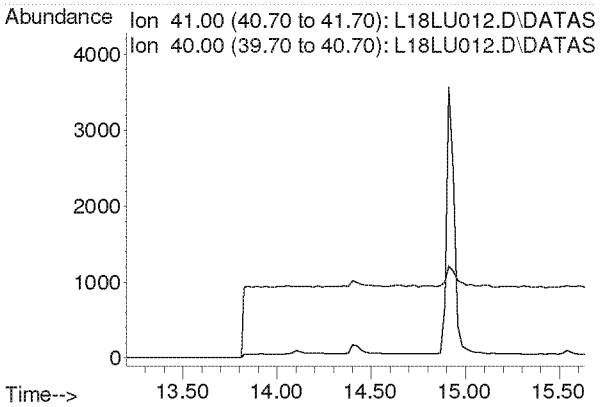


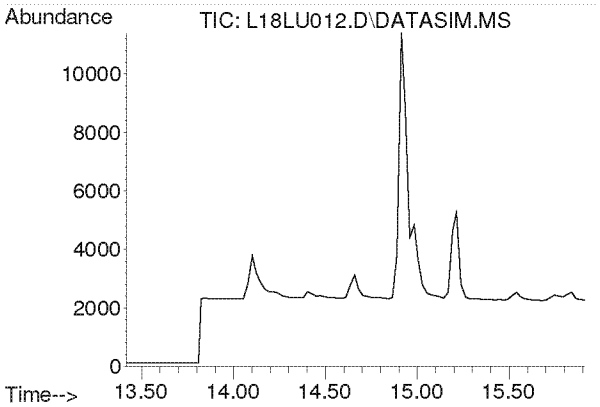

#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 40 | 50.9 |



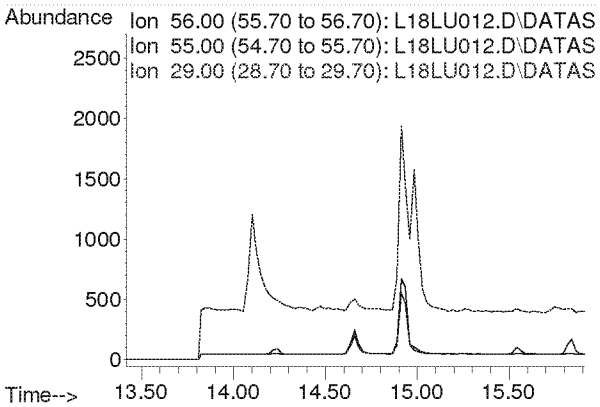




#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

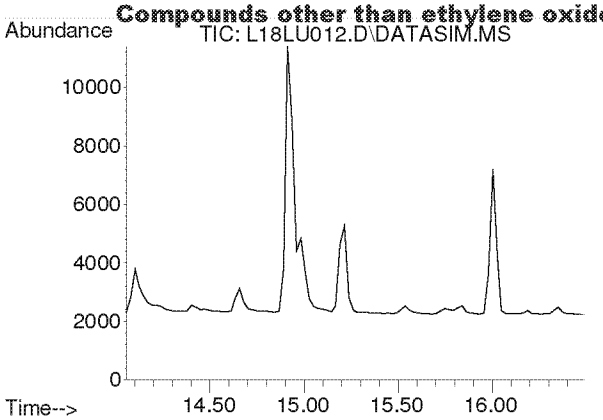
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 56

| Sig | Exp Ratio |
|---|---|
| 56 | 100 |
| 55 | 75.4 |
| 29 | 52.9 |



**Compounds other than ethylene oxide were not quantitated.**

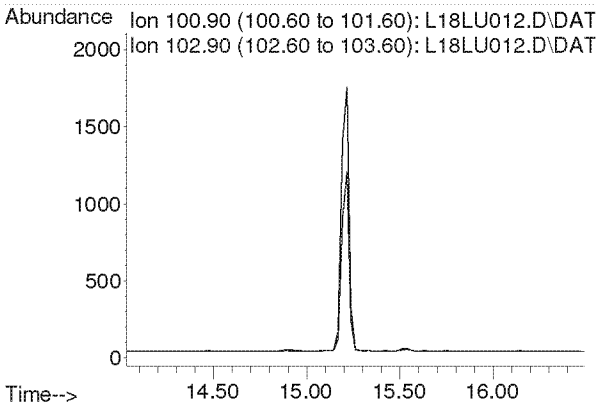


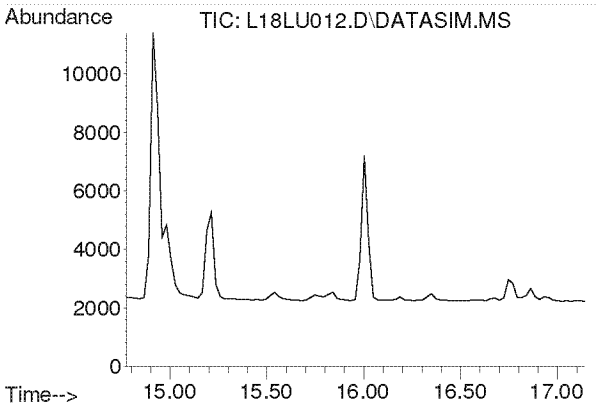

#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 103 | 64.6 |



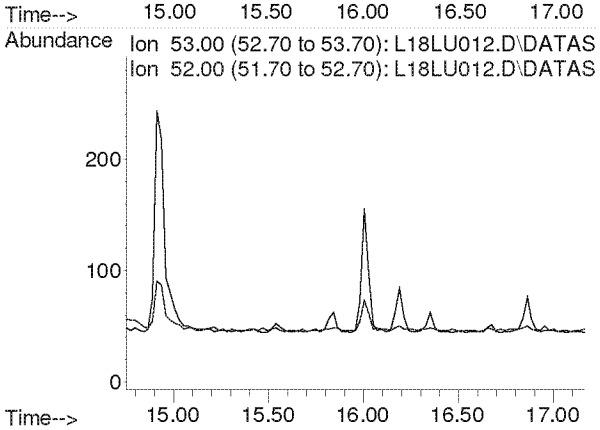




#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

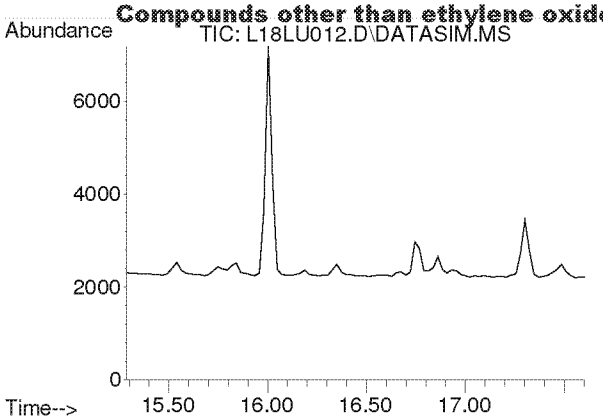
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 52 | 85.4 |



**Compounds other than ethylene oxide were not quantitated.**

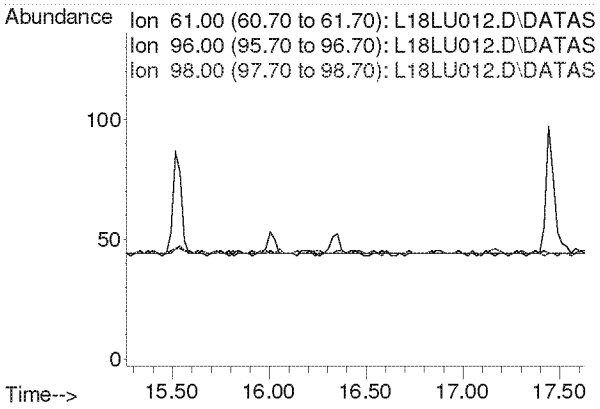


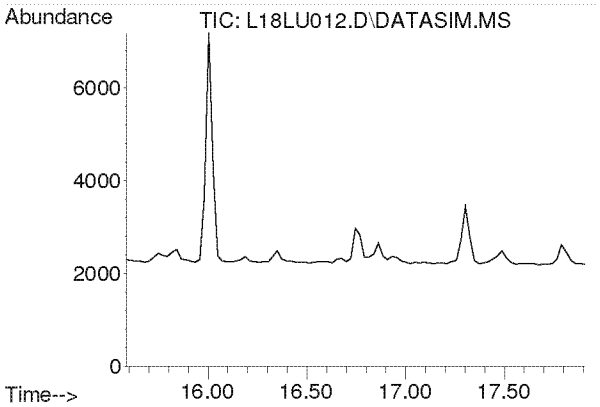

#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 58.3 |
| 98 | 37.4 |



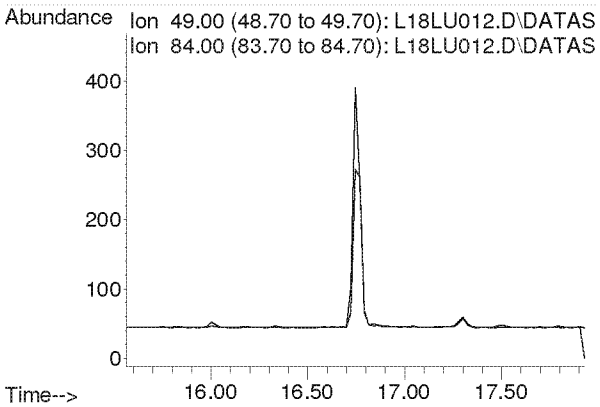




#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

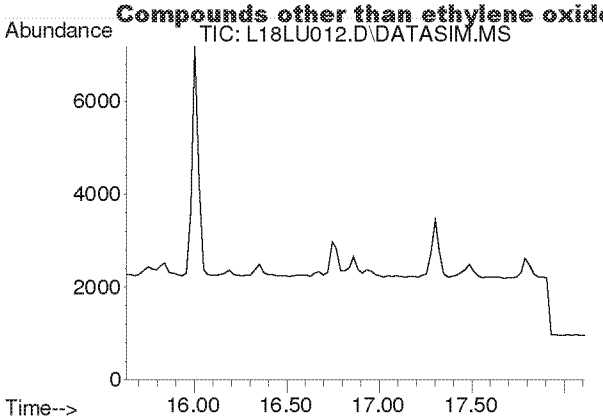
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 49

| Sig | Exp Ratio |
|---|---|
| 49 | 100 |
| 84 | 76.4 |



**Compounds other than ethylene oxide were not quantitated.**

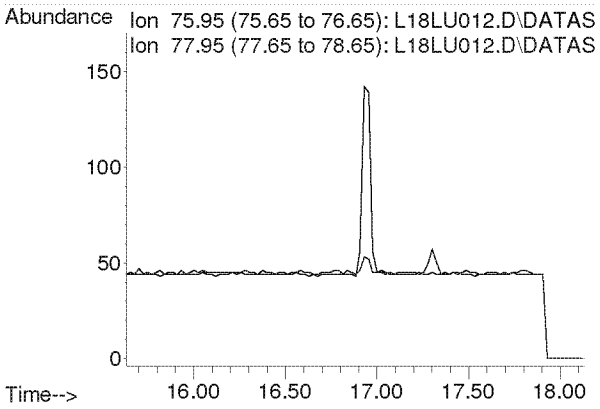


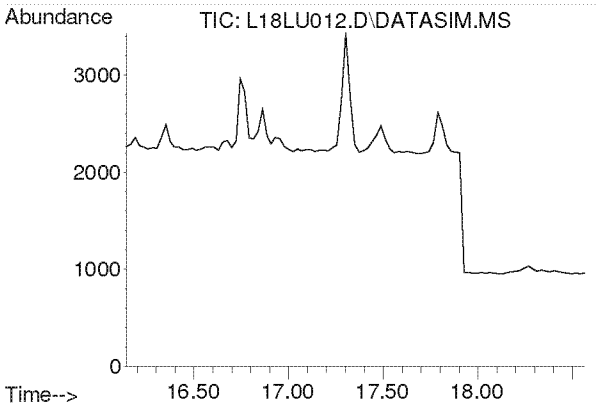

#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 76

| Sig | Exp Ratio |
|---|---|
| 76 | 100 |
| 78 | 9.1 |



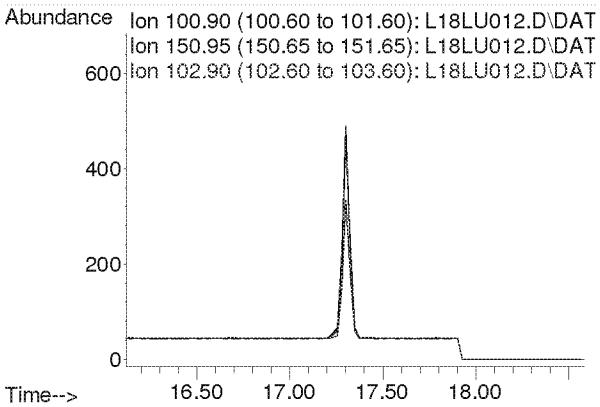




#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

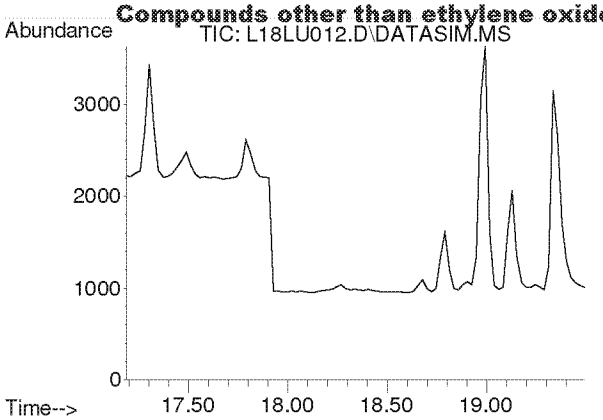
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 151 | 95.3 |
| 103 | 64.1 |



**Compounds other than ethylene oxide were not quantitated.**

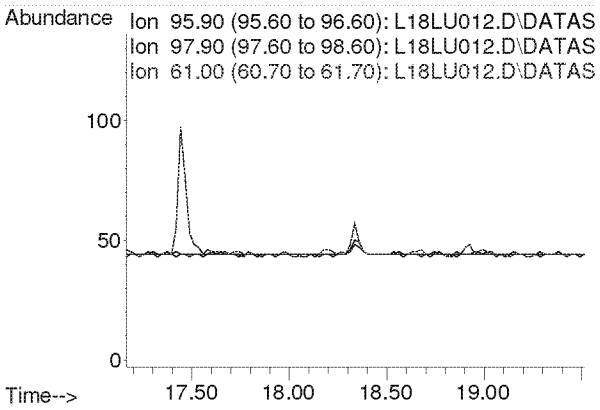


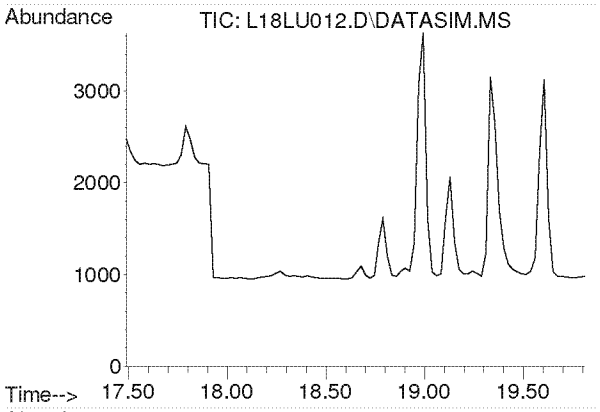

#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 96

| Sig | Exp Ratio |
|---|---|
| 96 | 100 |
| 98 | 63.7 |
| 61 | 159.2 |



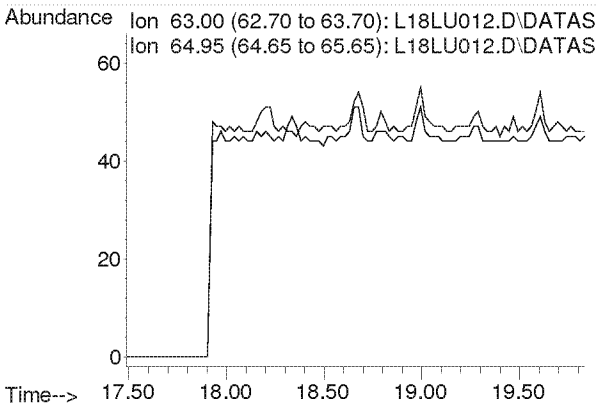




#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

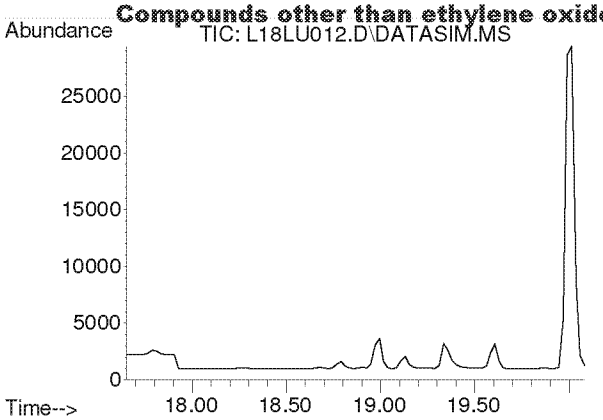
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 65 | 31.7 |



**Compounds other than ethylene oxide were not quantitated.**

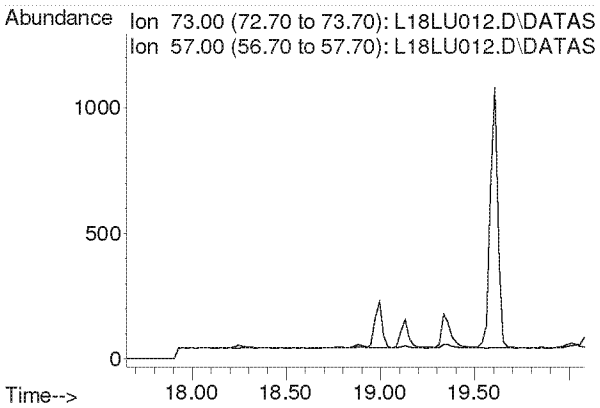


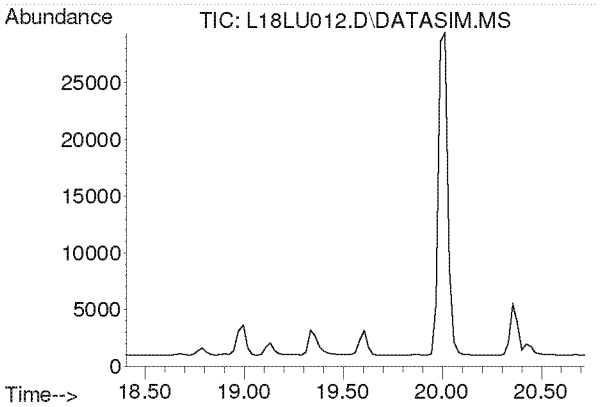

#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 57 | 23.4 |



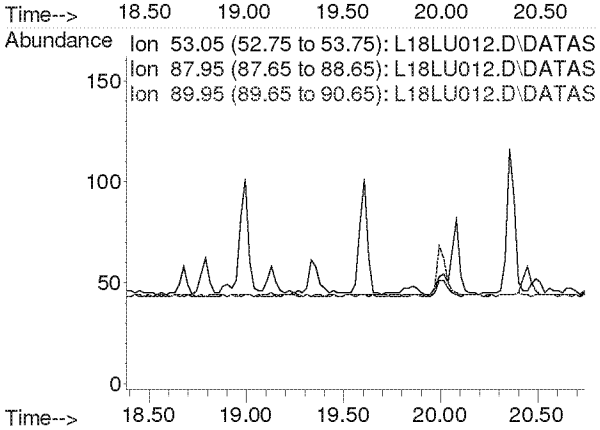




#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

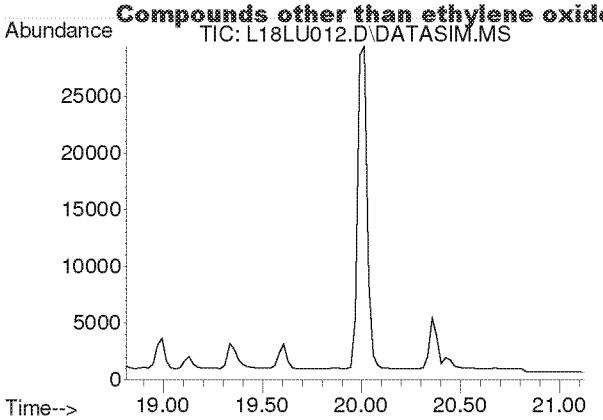
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 88 | 51.8 |
| 90 | 16.8 |



**Compounds other than ethylene oxide were not quantitated.**

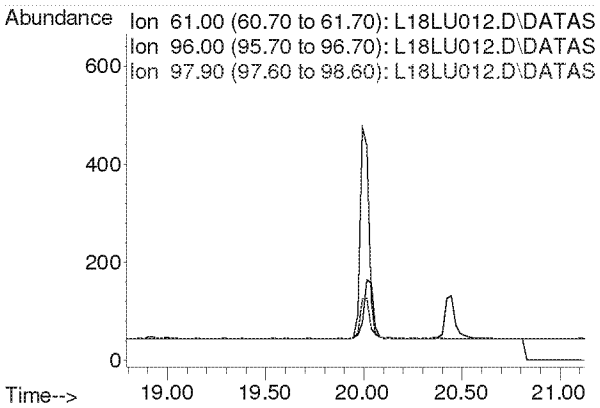


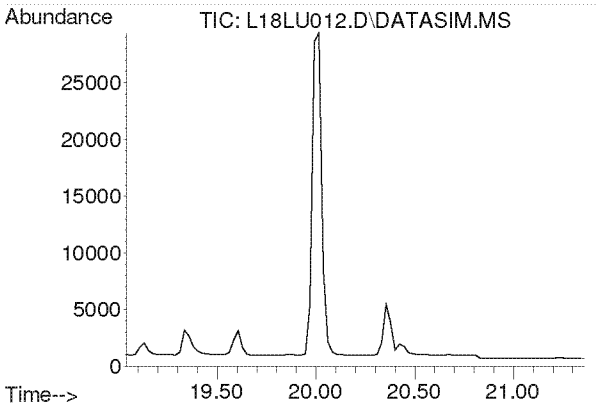

#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 73.7 |
| 98 | 45.2 |



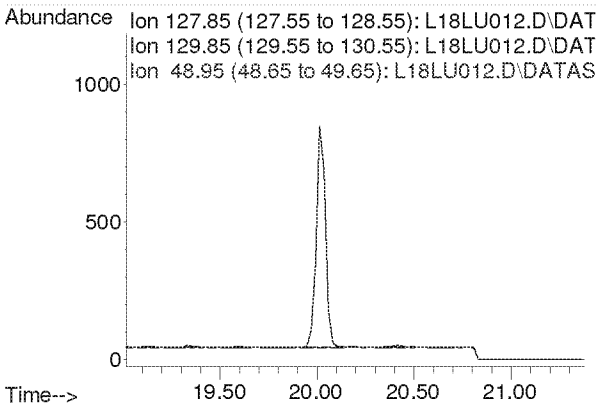




#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

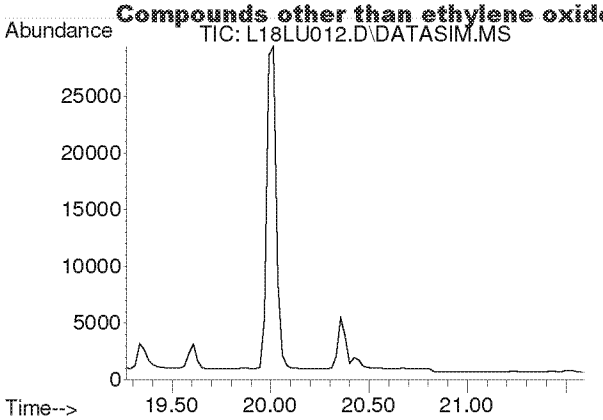
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 128

| Sig | Exp Ratio |
|---|---|
| 128 | 100 |
| 130 | 129.1 |
| 49 | 171.2 |



**Compounds other than ethylene oxide were not quantitated.**

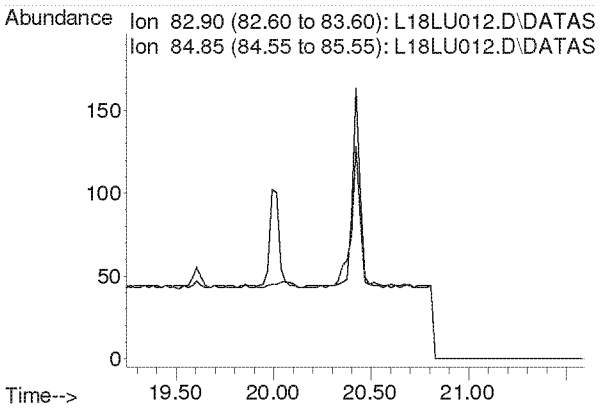


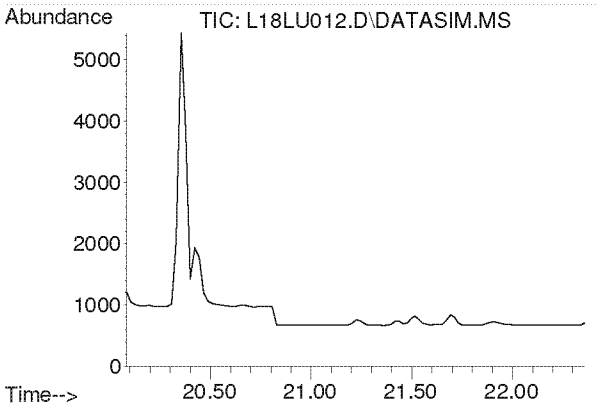

#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.4 |



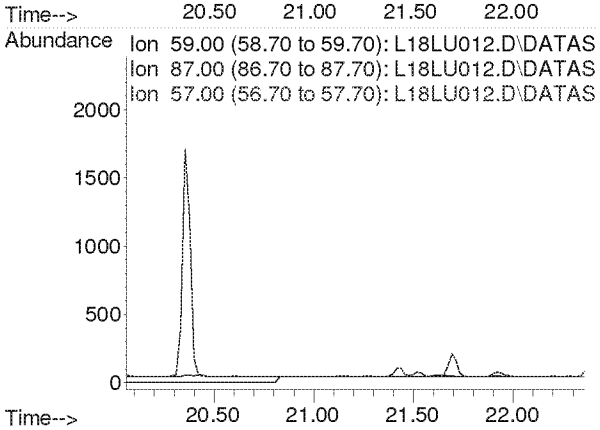




#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

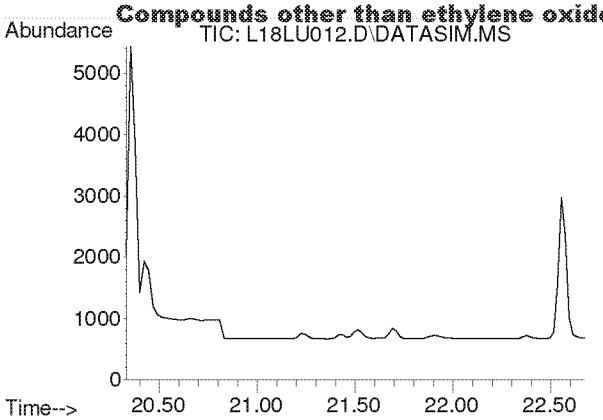
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 59

| Sig | Exp Ratio |
|---|---|
| 59 | 100 |
| 87 | 37.5 |
| 57 | 33.8 |



**Compounds other than ethylene oxide were not quantitated.**

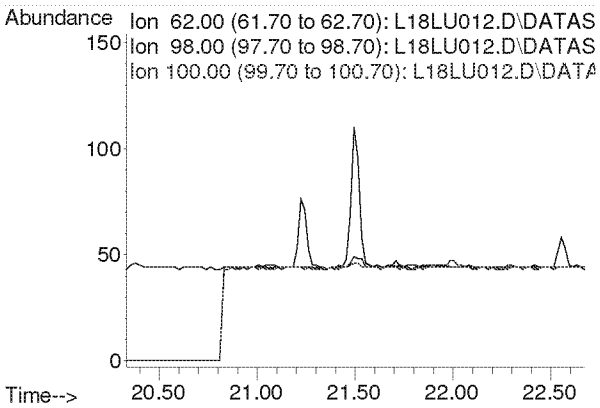


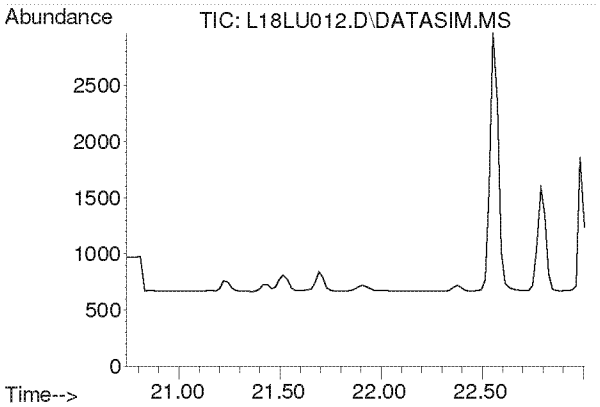

#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 98 | 6.4 |
| 100 | 4.0 |



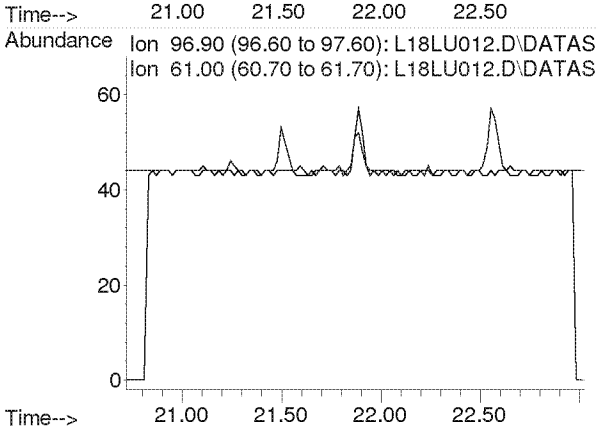




#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

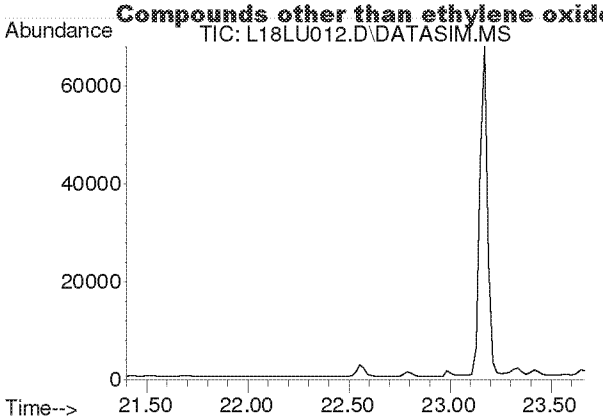
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 61 | 60.5 |



**Compounds other than ethylene oxide were not quantitated.**

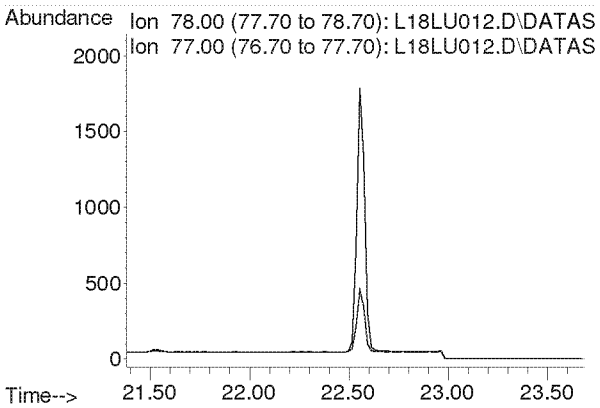


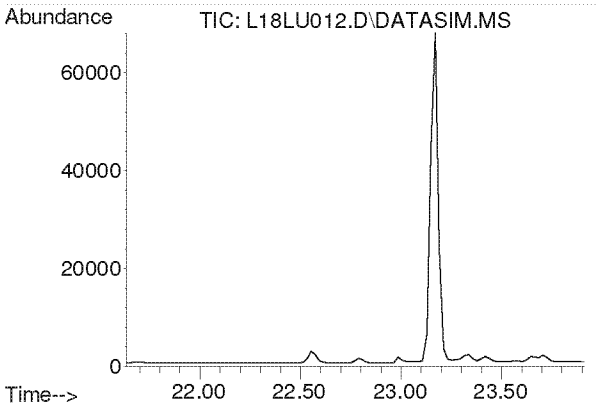

#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 78

| Sig | Exp Ratio |
|---|---|
| 78 | 100 |
| 77 | 22.7 |



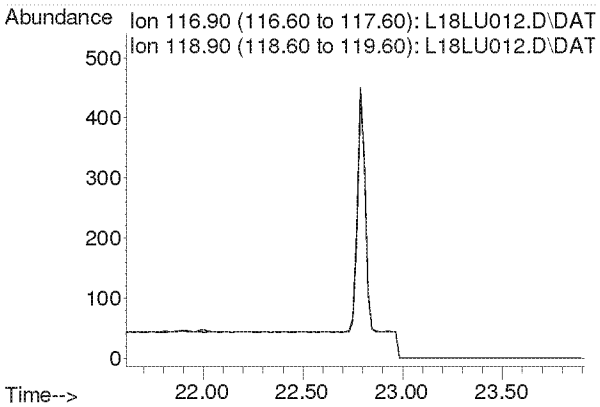




#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

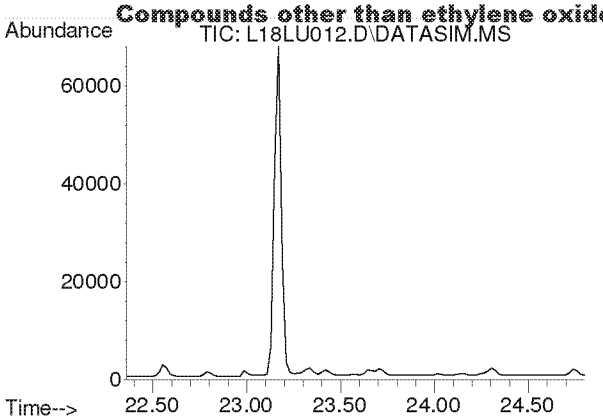
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 117

| Sig | Exp Ratio |
|---|---|
| 117 | 100 |
| 119 | 96.5 |



**Compounds other than ethylene oxide were not quantitated.**

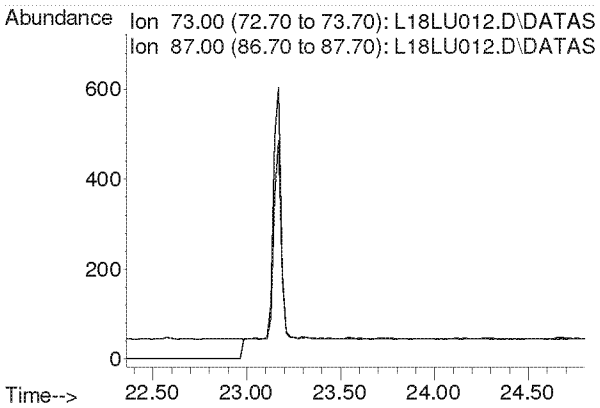


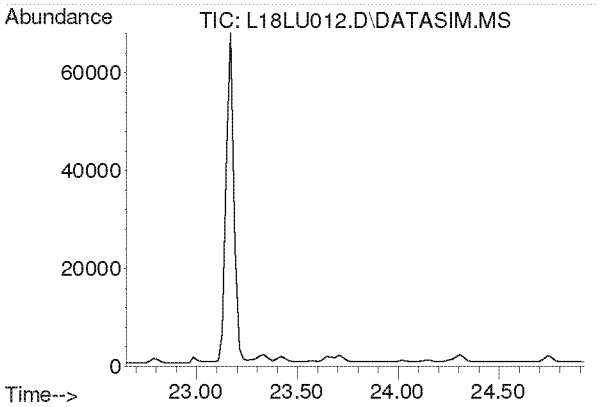

#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 87 | 24.9 |



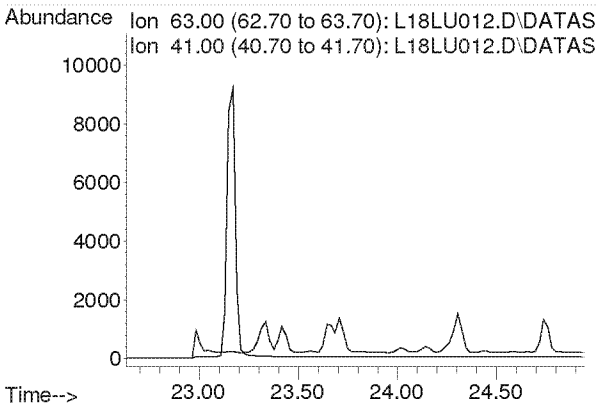




#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

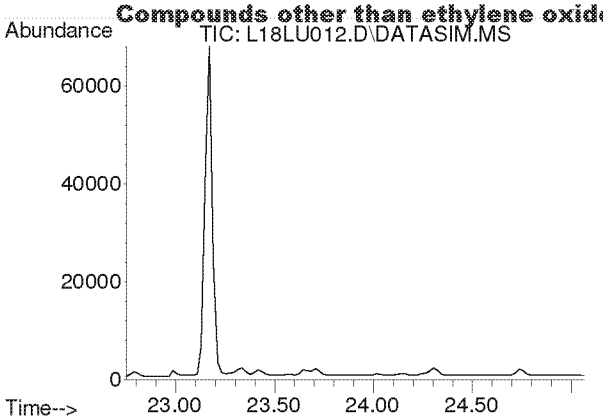
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 41 | 212.8 |



**Compounds other than ethylene oxide were not quantitated.**

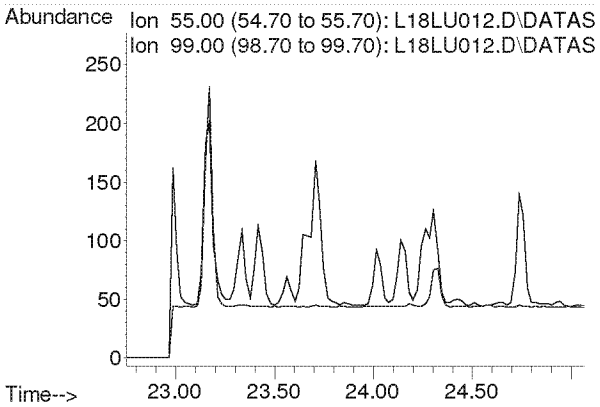


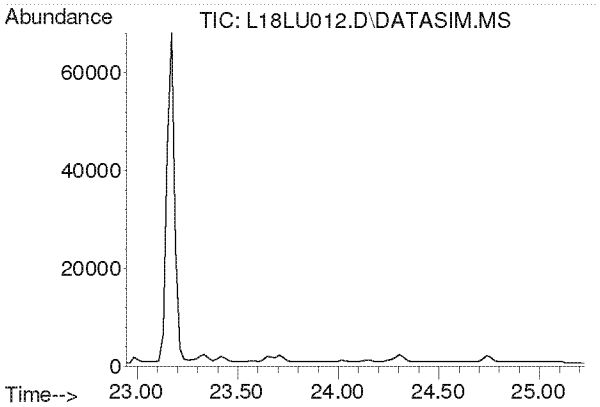

#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 55

| Sig | Exp Ratio |
|---|---|
| 55 | 100 |
| 99 | 6.1 |



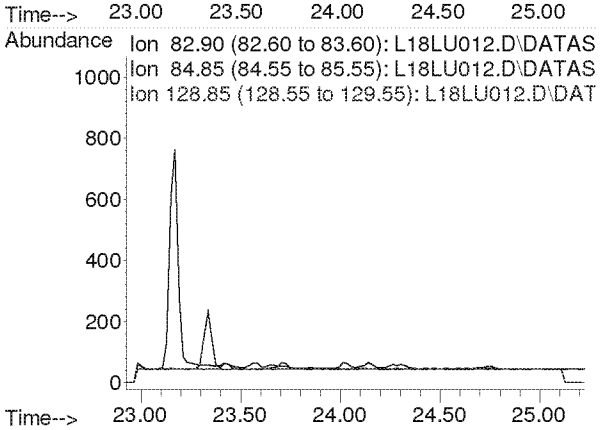




#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

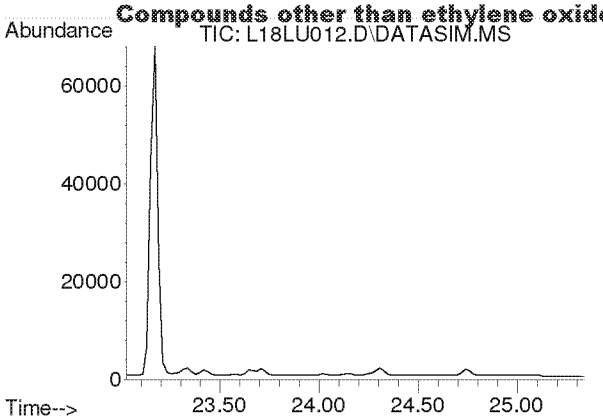
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.0 |
| 129 | 12.4 |



**Compounds other than ethylene oxide were not quantitated.**

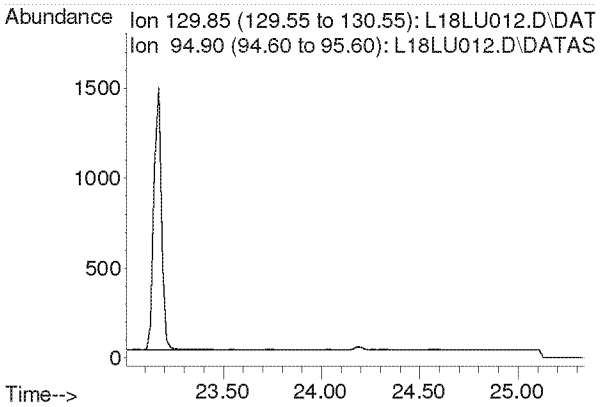


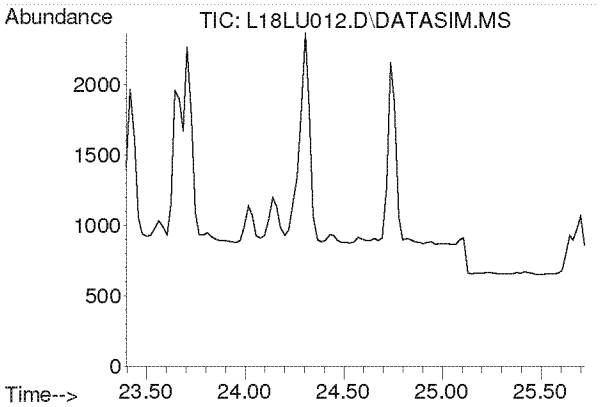

#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 130

| Sig | Exp Ratio |
|---|---|
| 130 | 100 |
| 95 | 110.3 |



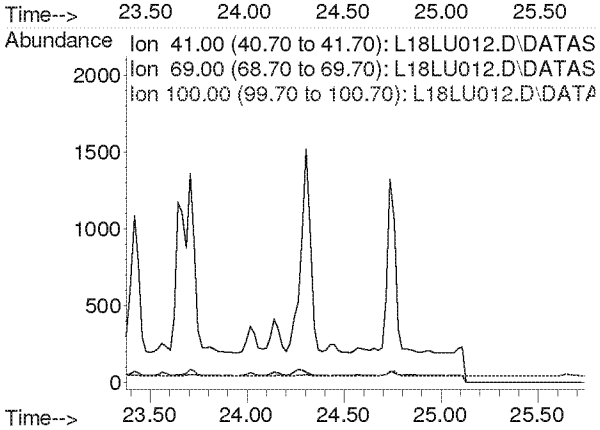




#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

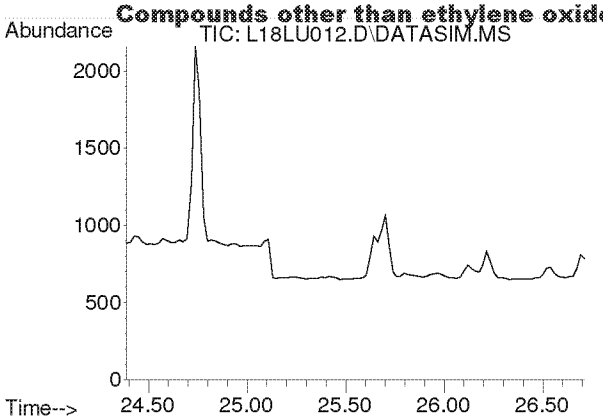
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 69 | 19.9 |
| 100 | 5.2 |



**Compounds other than ethylene oxide were not quantitated.**

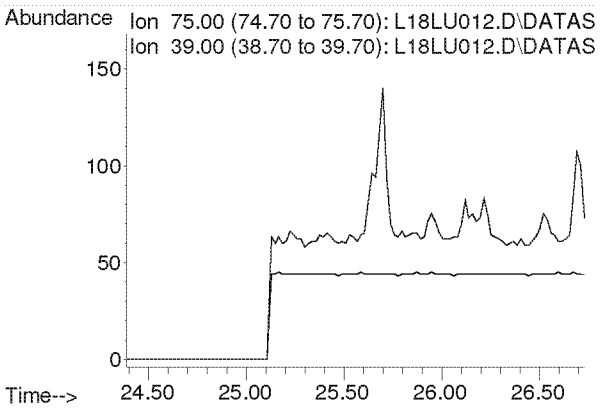


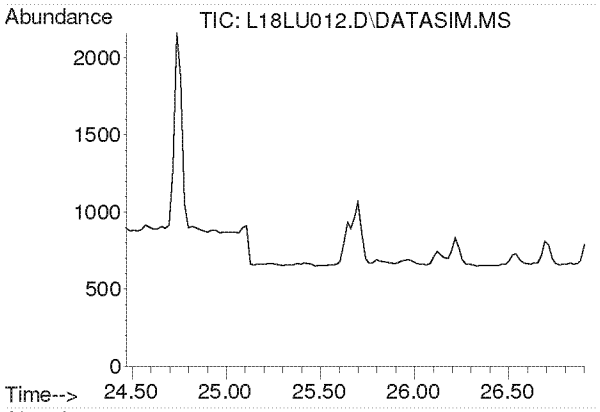

#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 54.4 |



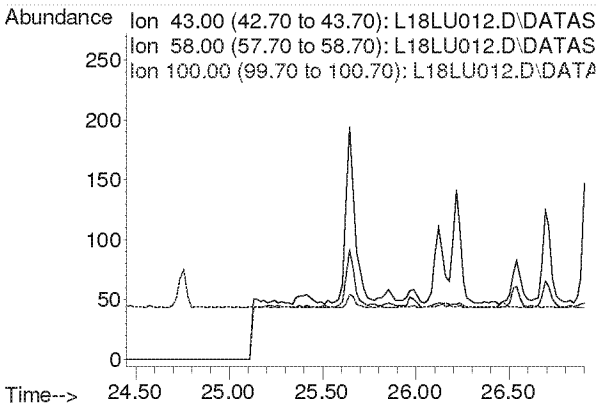




#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

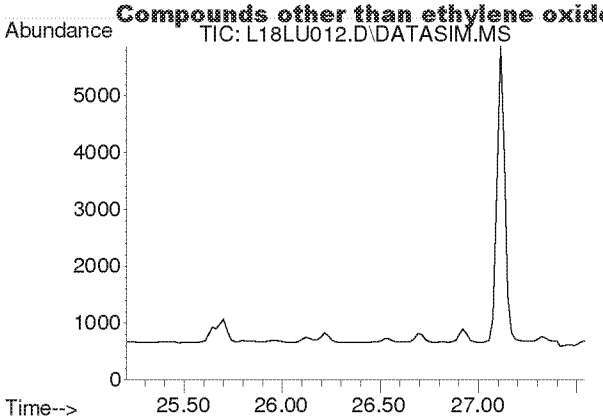
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 58 | 34.2 |
| 100 | 7.9 |



**Compounds other than ethylene oxide were not quantitated.**

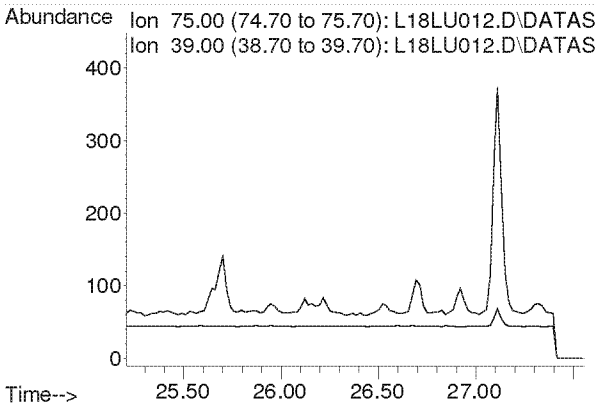


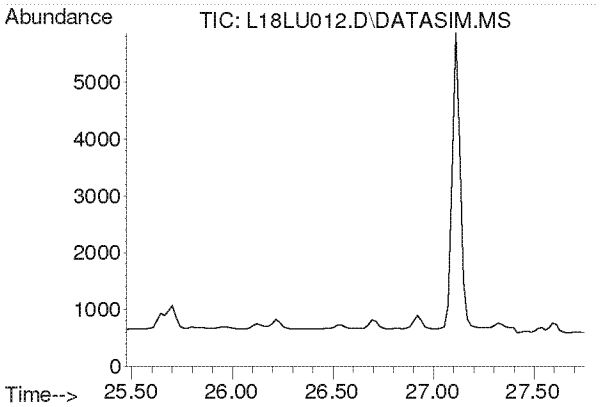

#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 50.9 |



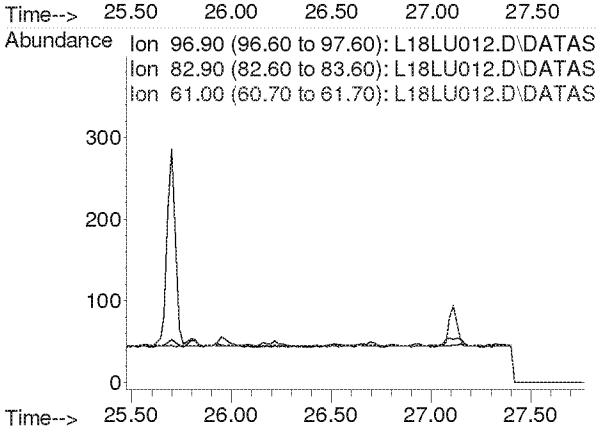




#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

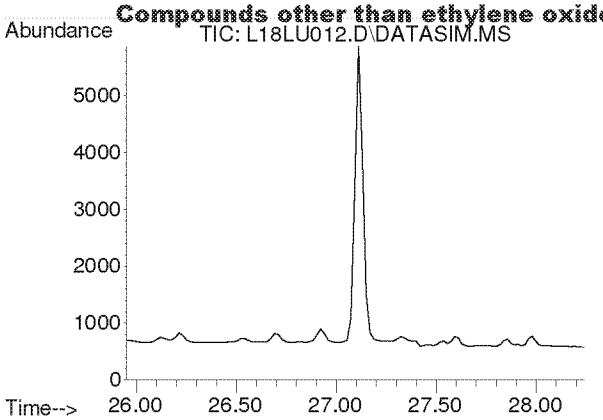
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 83 | 96.1 |
| 61 | 63.5 |



**Compounds other than ethylene oxide were not quantitated.**

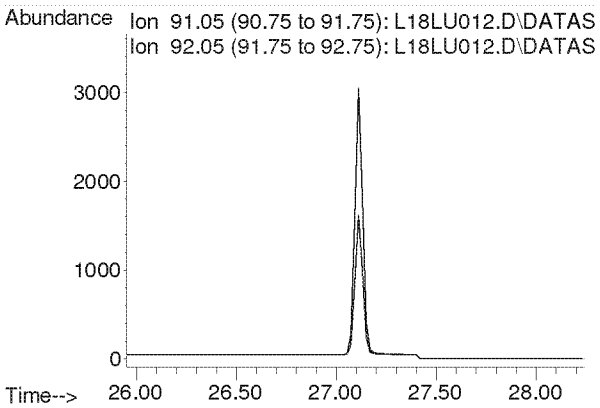


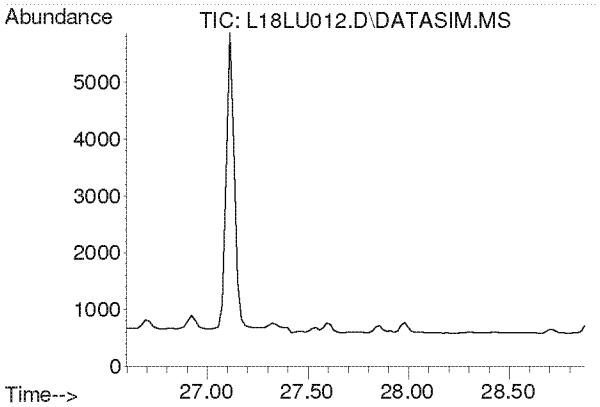

#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 92 | 52.6 |



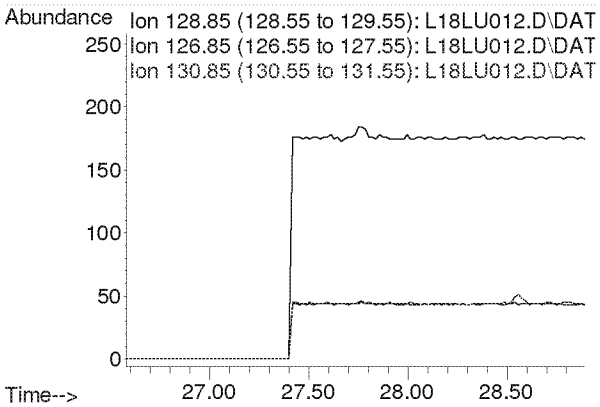




#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

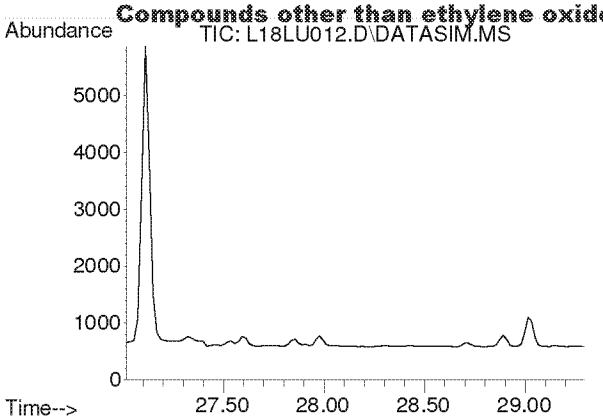
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 129

| Sig | Exp Ratio |
|---|---|
| 129 | 100 |
| 127 | 19.2 |
| 131 | 6.0 |



**Compounds other than ethylene oxide were not quantitated.**

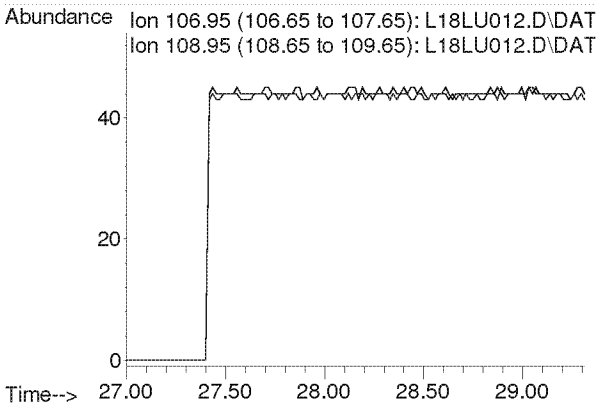


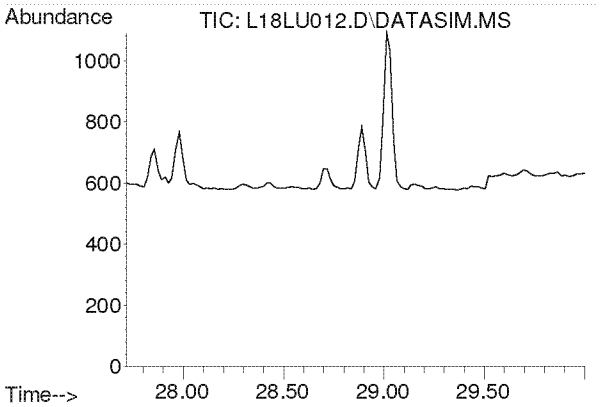

#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 107

| Sig | Exp Ratio |
|---|---|
| 107 | 100 |
| 109 | 94.5 |



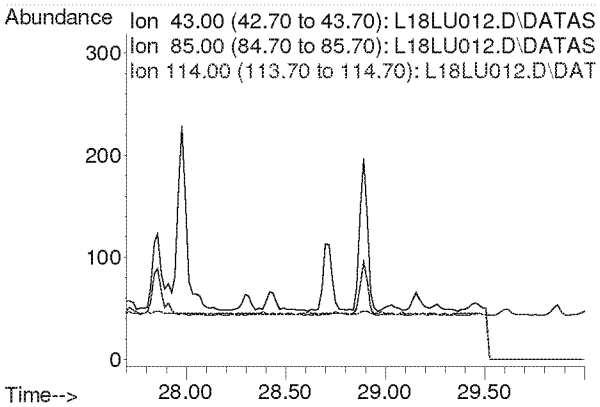




#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

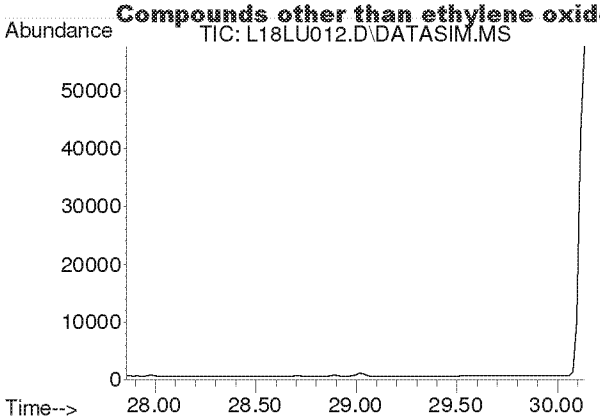
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 85 | 36.0 |
| 114 | 2.2 |



**Compounds other than ethylene oxide were not quantitated.**

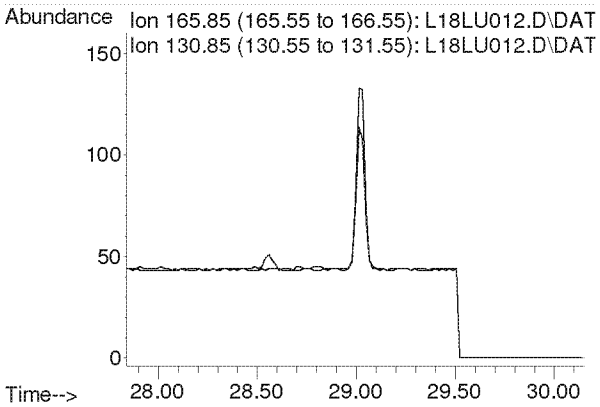


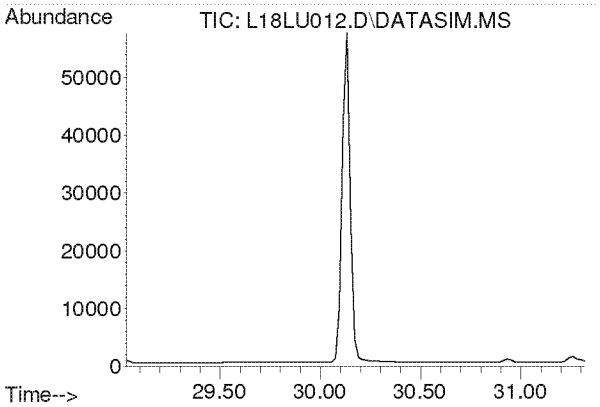

#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 166

| Sig | Exp Ratio |
|---|---|
| 166 | 100 |
| 131 | 78.2 |



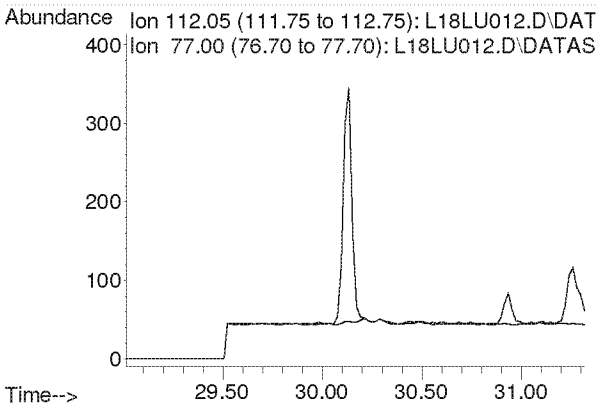




#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

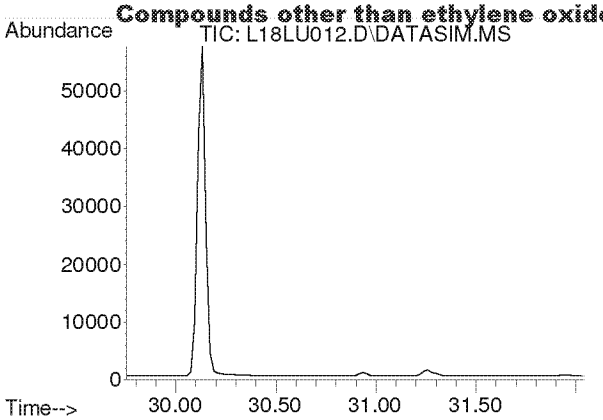
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 112

| Sig | Exp Ratio |
|---|---|
| 112 | 100 |
| 77 | 63.0 |



**Compounds other than ethylene oxide were not quantitated.**

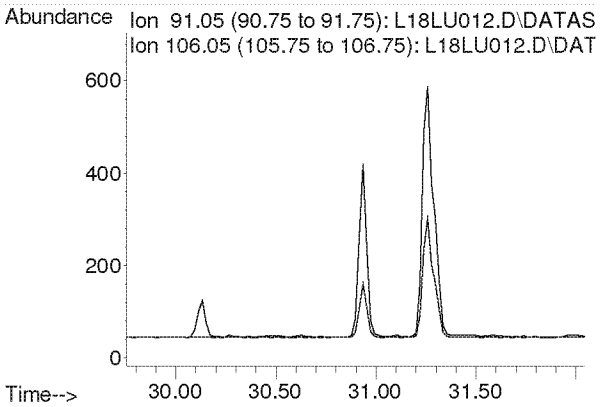


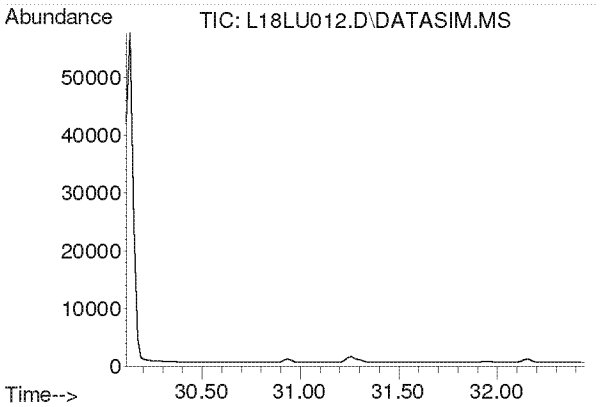

#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 31.8 |



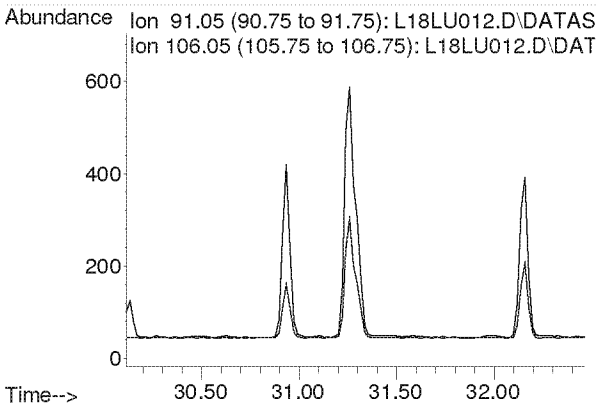




#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

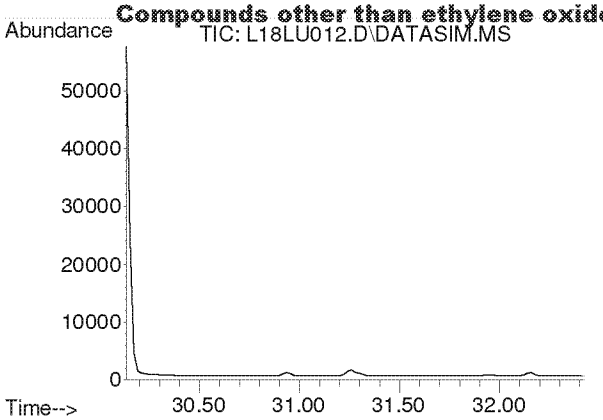
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.4 |



**Compounds other than ethylene oxide were not quantitated.**

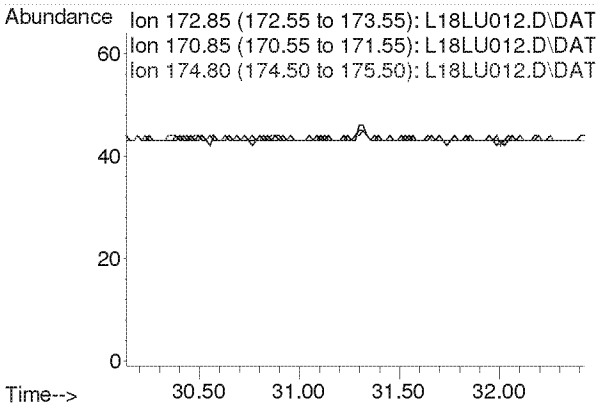


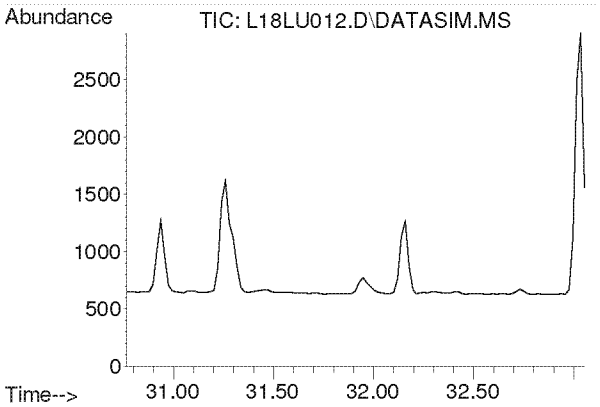

#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 173

| Sig | Exp Ratio |
|---|---|
| 173 | 100 |
| 171 | 51.3 |
| 175 | 49.0 |



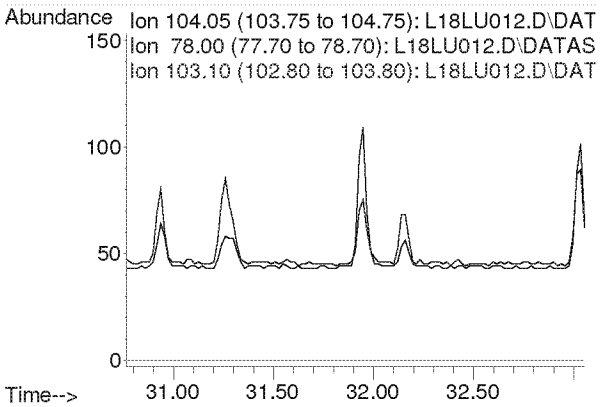




#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

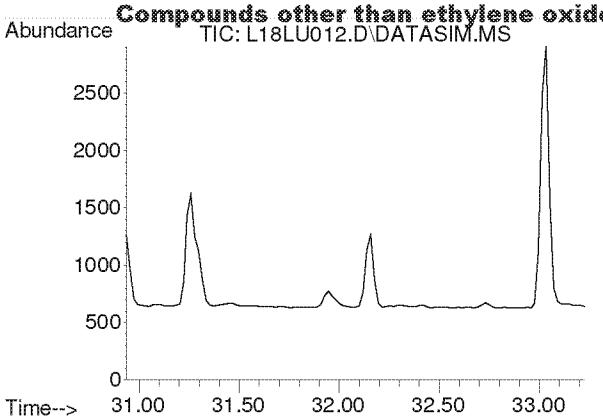
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 104

| Sig | Exp Ratio |
|---|---|
| 104 | 100 |
| 78 | 45.6 |
| 103 | 0.0 |



**Compounds other than ethylene oxide were not quantitated.**

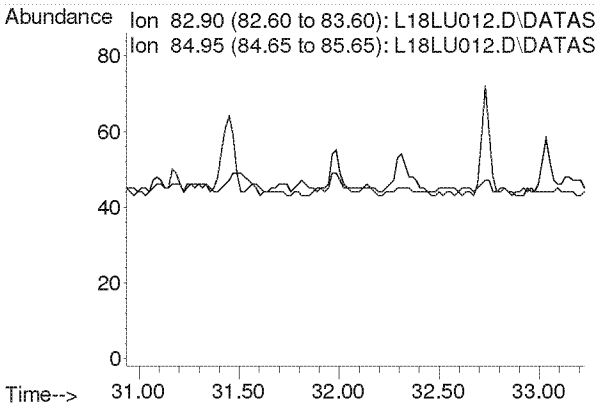


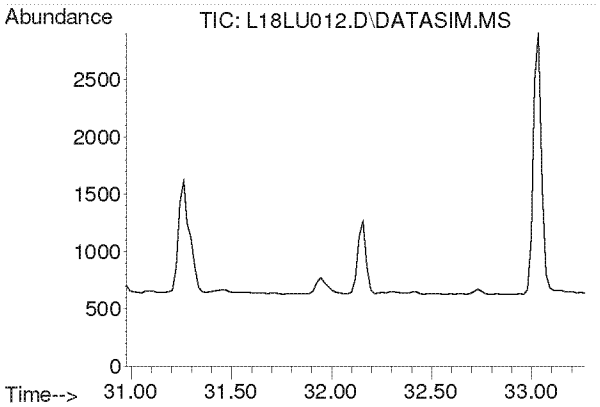

#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 63.9 |



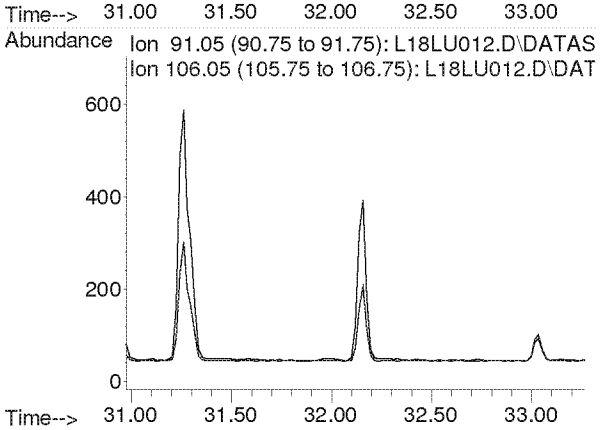




#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

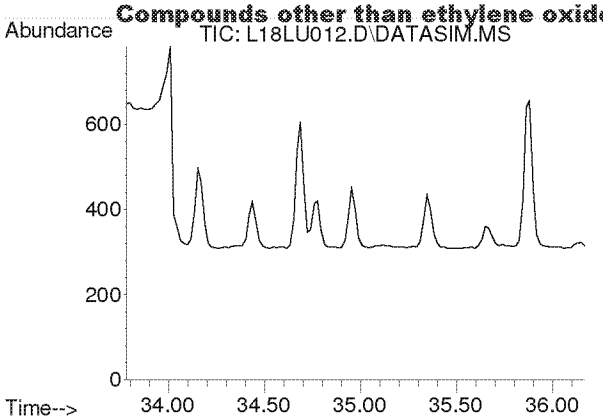
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.2 |



**Compounds other than ethylene oxide were not quantitated.**

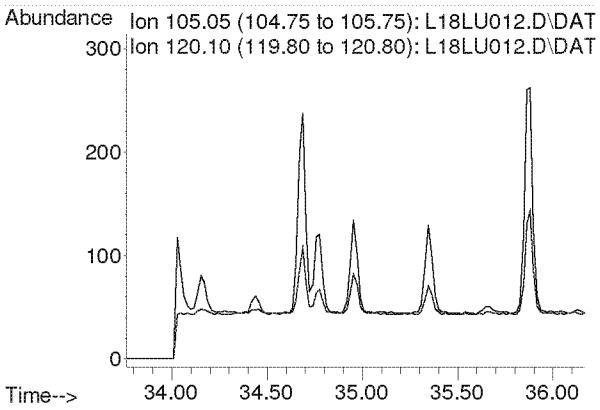


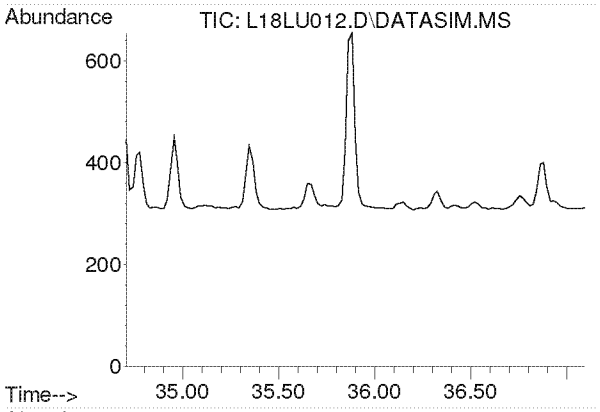

#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 45.0 |



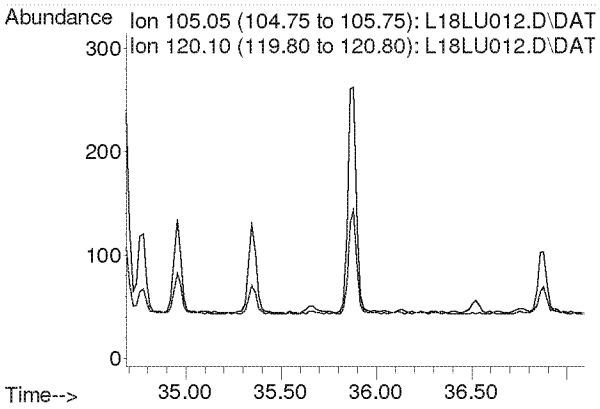




#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

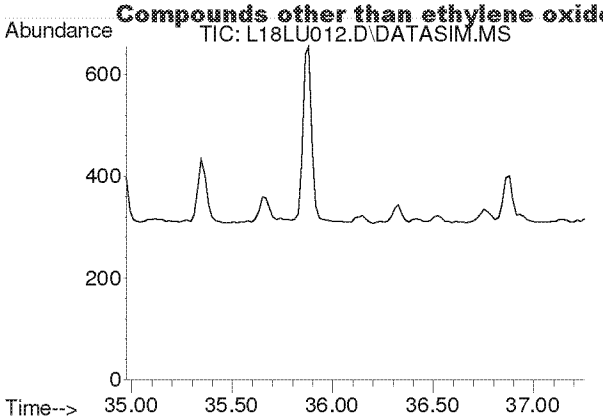
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 42.8 |



**Compounds other than ethylene oxide were not quantitated.**

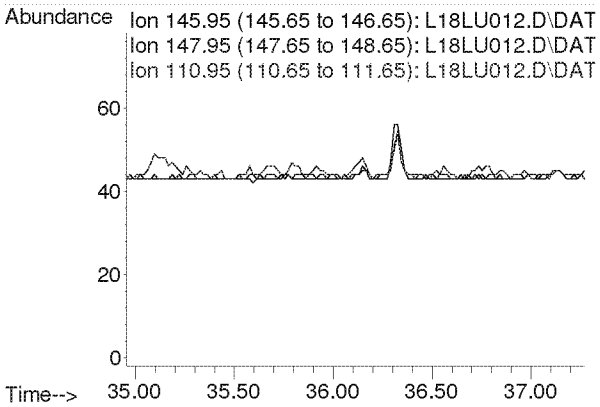


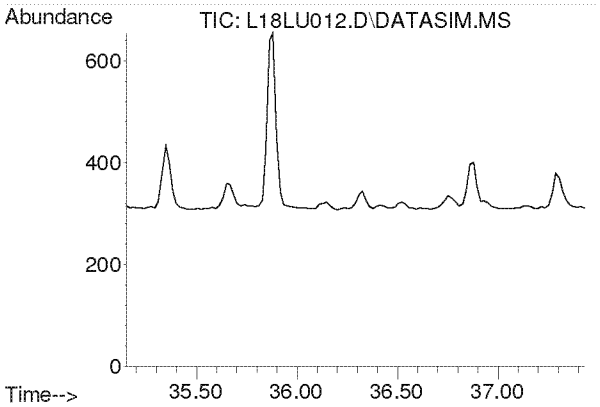

#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 40.5 |



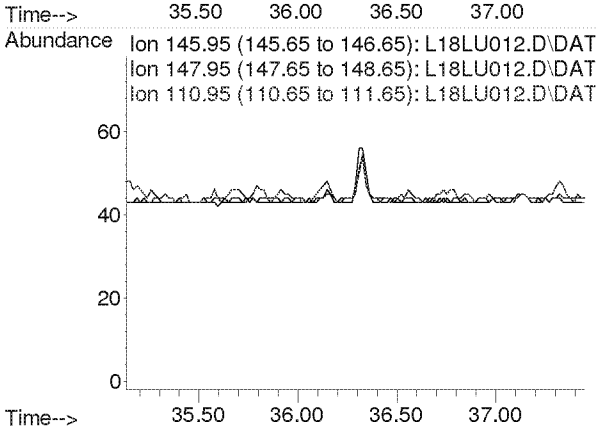




#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

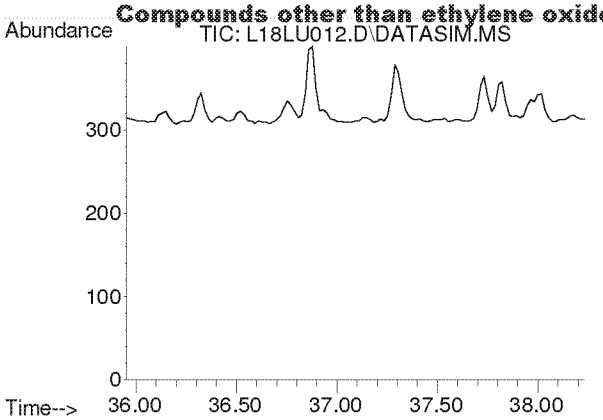
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 39.5 |



**Compounds other than ethylene oxide were not quantitated.**

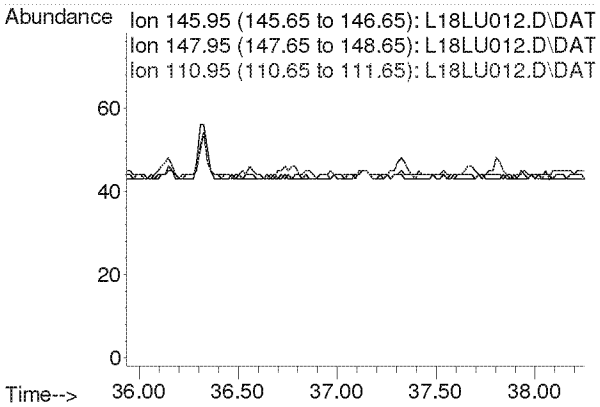


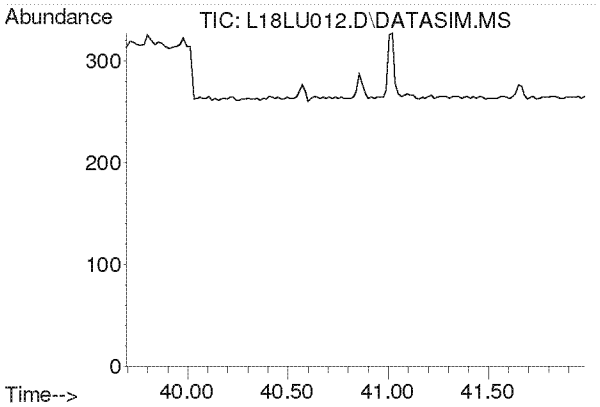

#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.1 |
| 111 | 41.4 |



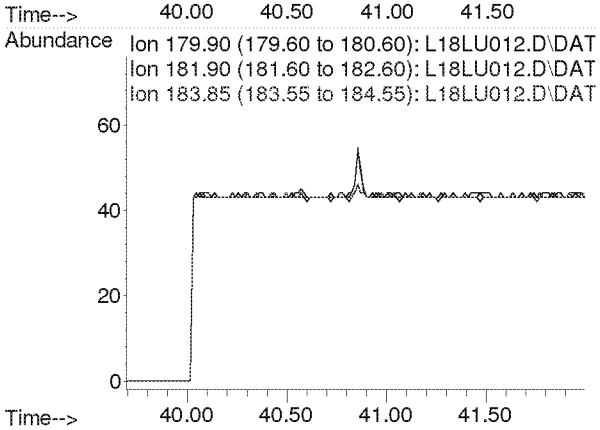




#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

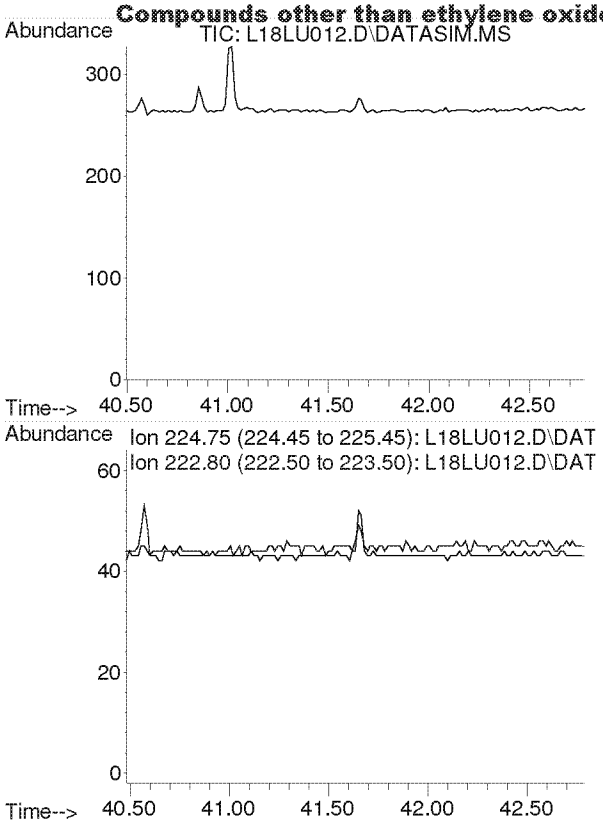
Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 180

| Sig | Exp Ratio |
|---|---|
| 180 | 100 |
| 182 | 95.1 |
| 184 | 30.7 |



**Compounds other than ethylene oxide were not quantitated.**




#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18LU012.D
Acq: 21 Dec 2018 6:37 pm

Tgt Ion: 225

| Sig | Exp Ratio |
|---|---|
| 225 | 100 |
| 223 | 62.4 |

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU013.D
Acq On : 21 Dec 2018 7:39 pm (#1); 21 Dec 2018 7:33 pm (#2)
Operator : MAH
Sample : 8120701-05
Misc : WEST NEIGHBORHOOD 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 26 09:51:09 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) IS-Hexane-d14 | 19.993 | 66 | 53686 | 4.7700 ppbv | 0.00 |
| 29) IS-1,4-Difluorobenzene | 23.171 | 114 | 126420 | 4.9900 ppbv | 0.02 |
| 43) IS-Chlorobenzene-d5 | 30.135 | 117 | 88262 | 4.7400 ppbv | 0.04 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) Acetylene | 0.000 | 26 | 0 | N.D. d | |
| 3) Propylene | 0.000 | 41 | 0 | N.D. d | |
| 4) Dichlorodifluoromethane | 0.000 | 85 | 0 | N.D. d | |
| 5) Chloromethane | 0.000 | 50 | 0 | N.D. d | |
| 6) Dichlorotetrafluoroethane | 0.000 | 85 | 0 | N.D. d | |
| 7) Vinyl Chloride | 0.000 | 62 | 0 | N.D. | |
| 8) 1,3-Butadiene | 0.000 | 54 | 0 | N.D. d | |
| 9) Ethylene oxide | 12.440 | 29 | 1429m | 0.4453 ppbv | |
| 10) Bromomethane | 0.000 | 94 | 0 | N.D. d | |
| 11) Chloroethane | 0.000 | 64 | 0 | N.D. d | |
| 12) Acetonitrile | 0.000 | 41 | 0 | N.D. d | |
| 13) Acrolein | 0.000 | 56 | 0 | N.D. d | |
| 14) Trichlorofluoromethane | 0.000 | 101 | 0 | N.D. d | |
| 15) Acrylonitrile | 0.000 | 53 | 0 | N.D. d | |
| 16) 1,1-Dichloroethene | 0.000 | 61 | 0 | N.D. | |
| 17) Methylene Chloride | 0.000 | 49 | 0 | N.D. d | |
| 18) Carbon Disulfide | 0.000 | 76 | 0 | N.D. d | |
| 19) Trichlorotrifluoroethane | 0.000 | 101 | 0 | N.D. d | |
| 20) trans-1,2-Dichloroethy... | 0.000 | 96 | 0 | N.D. | |
| 21) 1,1-Dichloroethane | 0.000 | 63 | 0 | N.D. d | |
| 22) Methyl tert-Butyl Ether | 0.000 | 73 | 0 | N.D. d | |
| 23) Chloroprene | 0.000 | 53 | 0 | N.D. d | |
| 24) cis-1,2-Dichloroethylene | 0.000 | 61 | 0 | N.D. d | |
| 25) Bromochloromethane | 0.000 | 128 | 0 | N.D. | |
| 26) Chloroform | 0.000 | 83 | 0 | N.D. d | |
| 27) Ethyl tert-Butyl Ether | 0.000 | 59 | 0 | N.D. | |
| 28) 1,2-Dichloroethane | 0.000 | 62 | 0 | N.D. d | |
| 30) 1,1,1-Trichloroethane | 0.000 | 97 | 0 | N.D. d | |
| 31) Benzene | 0.000 | 78 | 0 | N.D. d | |
| 32) Carbon Tetrachloride | 0.000 | 117 | 0 | N.D. d | |
| 33) tert-Amyl Methyl Ether | 0.000 | 73 | 0 | N.D. | |
| 34) 1,2-Dichloropropane | 0.000 | 63 | 0 | N.D. d | |
| 35) Ethyl Acrylate | 0.000 | 55 | 0 | N.D. | |
| 36) Bromodichloromethane | 0.000 | 83 | 0 | N.D. d | |
| 37) Trichloroethylene | 0.000 | 130 | 0 | N.D. d | |
| 38) Methyl Methacrylate | 0.000 | 41 | 0 | N.D. d | |
| 39) cis-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 40) Methyl Isobutyl Ketone | 0.000 | 43 | 0 | N.D. d | |
| 41) trans-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 42) 1,1,2-Trichloroethane | 0.000 | 97 | 0 | N.D. | |
| 44) Toluene | 0.000 | 91 | 0 | N.D. d | |
| 45) Dibromochloromethane | 0.000 | 129 | 0 | N.D. | |
| 46) 1,2-Dibromoethane | 0.000 | 107 | 0 | N.D. | |
| 47) n-Octane | 0.000 | 43 | 0 | N.D. d | |
| 48) Tetrachloroethylene | 0.000 | 166 | 0 | N.D. d | |

manual re-integration requested by client RMB 1/18/19

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU013.D
Acq On : 21 Dec 2018 7:39 pm (#1); 21-Dec-18, 19:33:57 (#2)
Operator : MAH
Sample : 8120701-05
Misc : WEST NEIGHBORHOOD 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 26 10:03:55 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

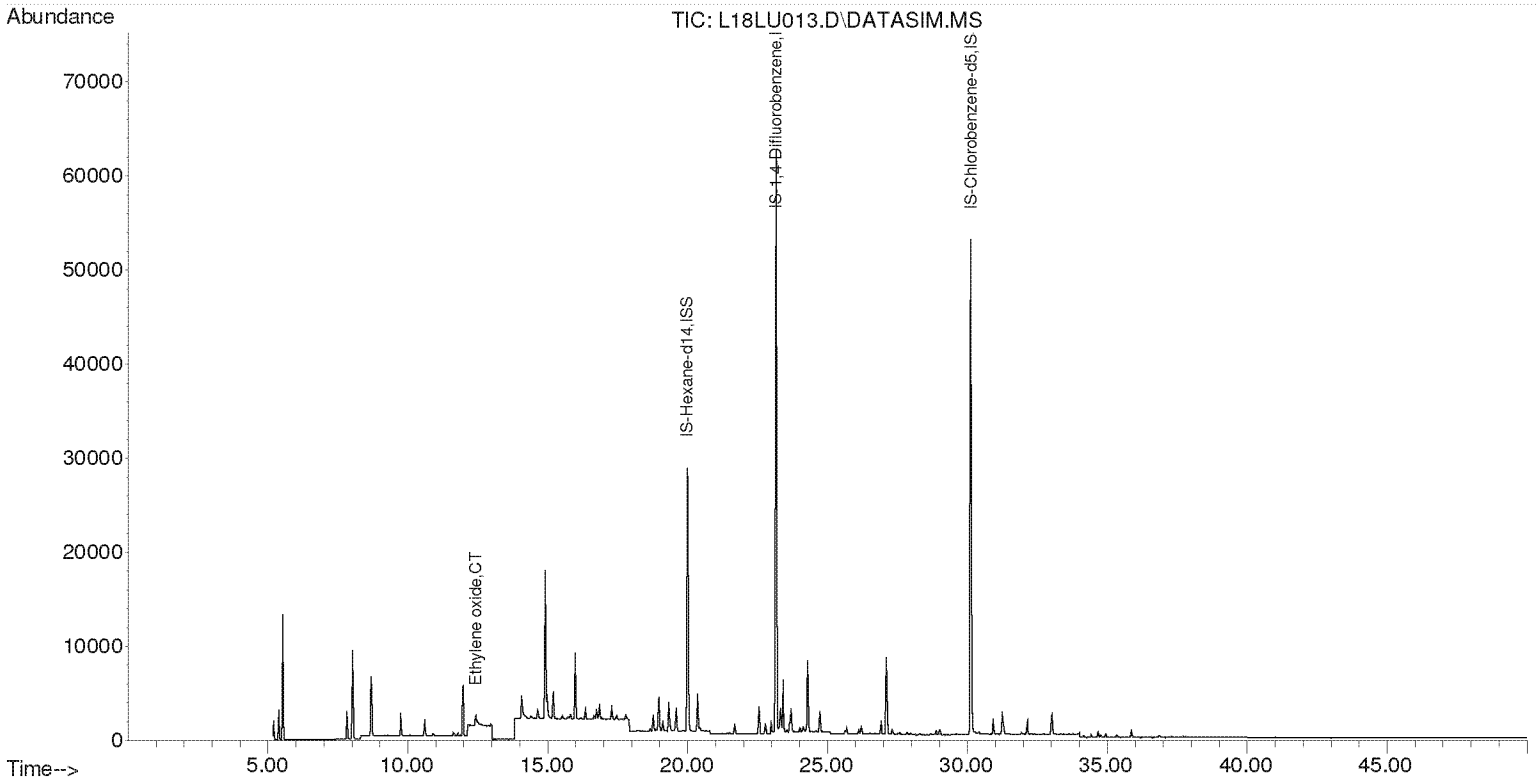
| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 51) m,p-Xylene | 0.000 | 91 | 0 | N.D. | d |
| 52) Bromoform | 0.000 | 173 | 0 | N.D. | |
| 53) Styrene | 0.000 | 104 | 0 | N.D. | d |
| 54) 1,1,2,2-Tetrachloroethane | 0.000 | 83 | 0 | N.D. | |
| 55) o-Xylene | 0.000 | 91 | 0 | N.D. | d |
| 56) 1,3,5-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | d |
| 57) 1,2,4-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | d |
| 58) m-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 59) p-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | d |
| 60) o-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 61) 1,2,4-Trichlorobenzene | 0.000 | 180 | 0 | N.D. | |
| 62) Hexachloro-1,3-butadiene | 0.000 | 225 | 0 | N.D. | |

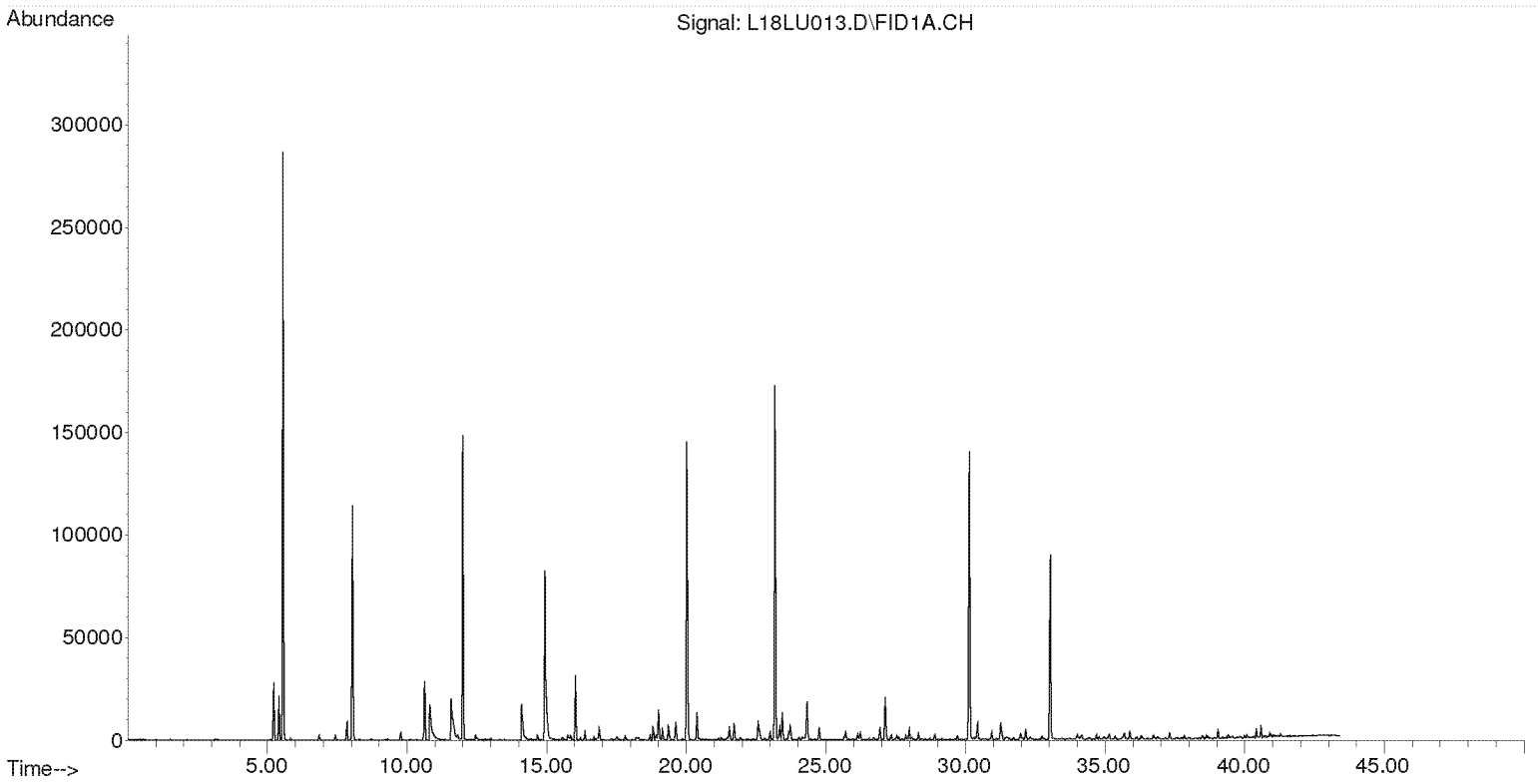
(#) = qualifier out of range (m) = manual integration (+) = signals summed

**Compounds other than ethylene oxide were not quantitated.**

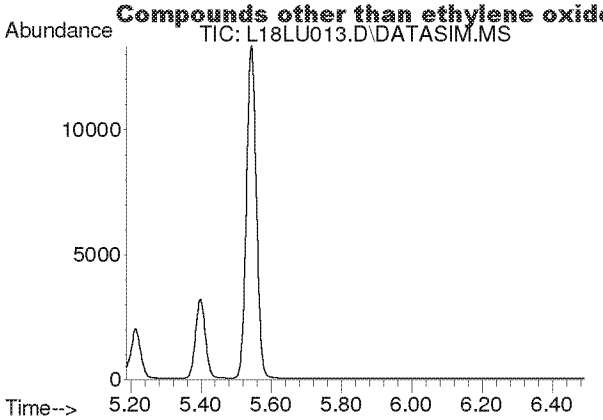
Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU013.D
Acq On : 21 Dec 2018 7:39 pm (#1); 21 Dec 2018 7:33 pm (#2)
Operator : MAH
Sample : 8120701-05
Misc : WEST NEIGHBORHOOD 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Dec 26 09:51:09 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



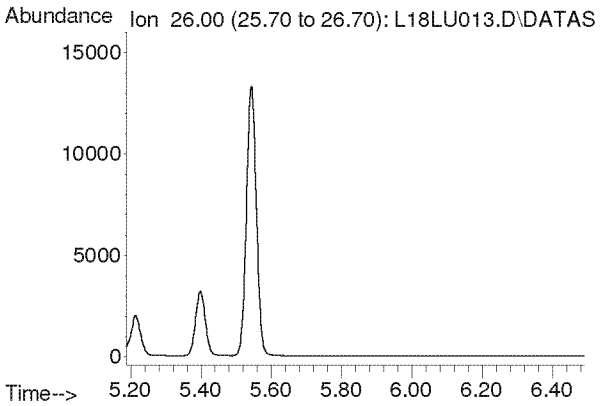
**Compounds other than ethylene oxide were not quantitated.**

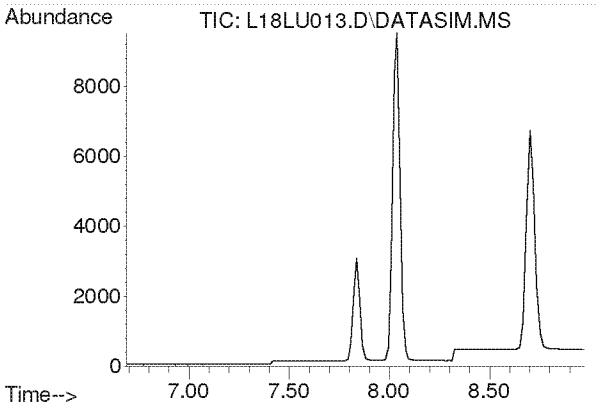



#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 26



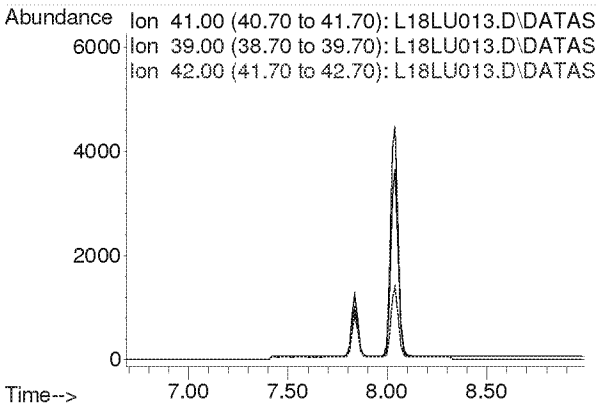




#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

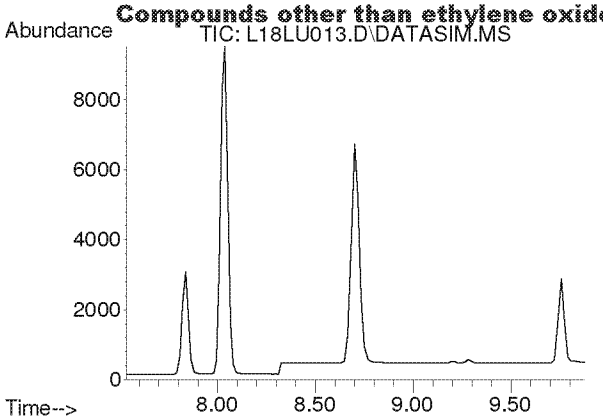
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 39 | 78.2 |
| 42 | 65.8 |



**Compounds other than ethylene oxide were not quantitated.**

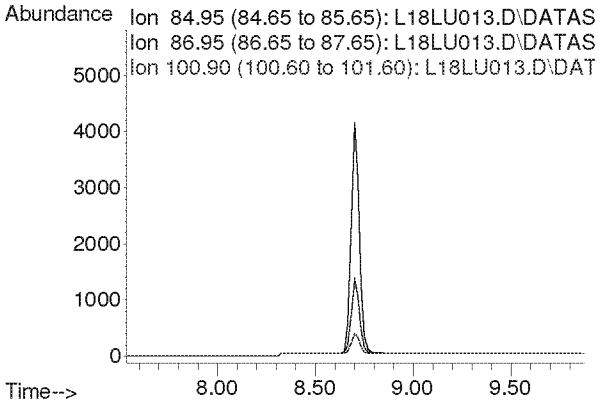


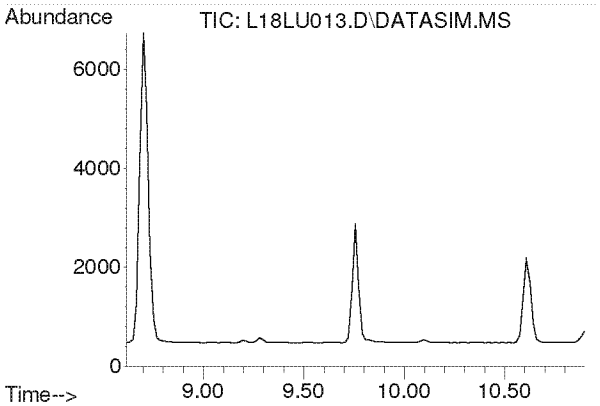

#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 87 | 32.5 |
| 101 | 8.9 |



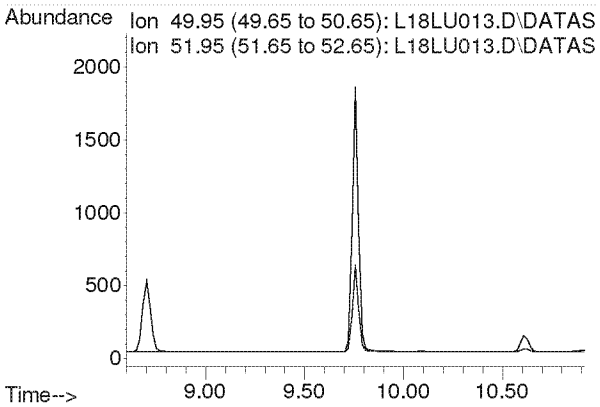




#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

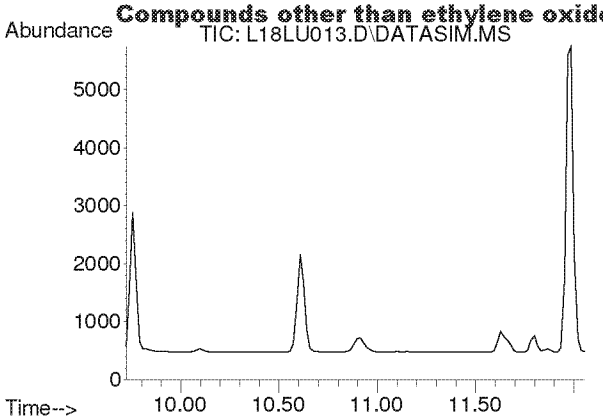
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 50

| Sig | Exp Ratio |
|---|---|
| 50 | 100 |
| 52 | 32.6 |



**Compounds other than ethylene oxide were not quantitated.**

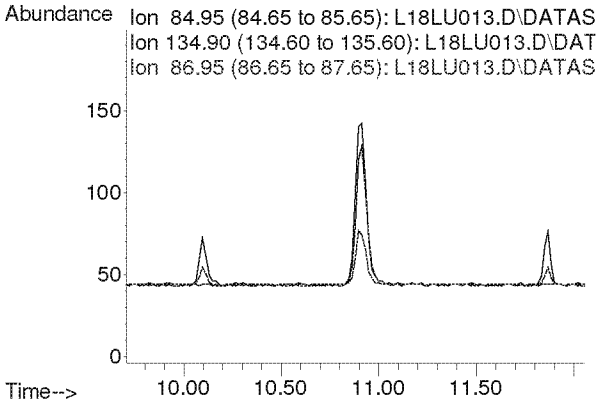


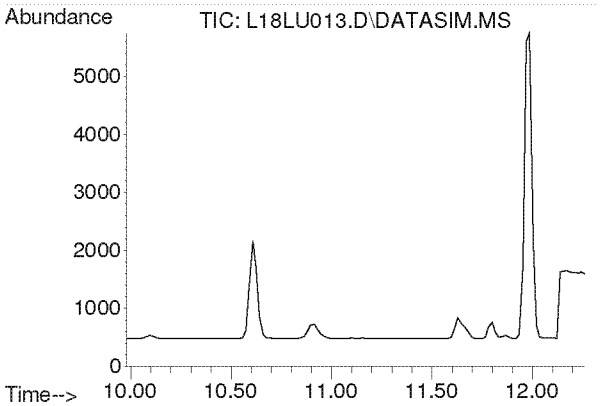

#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 135 | 79.1 |
| 87 | 32.1 |



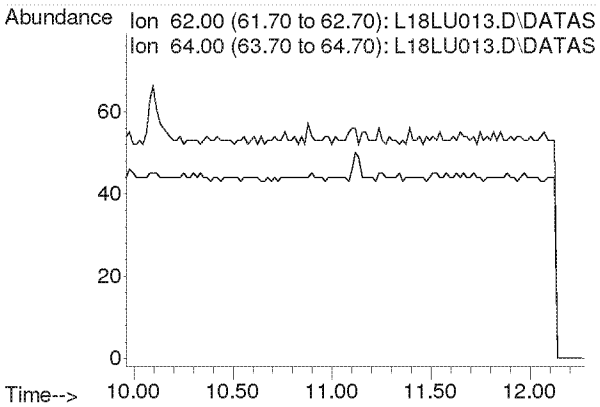




#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

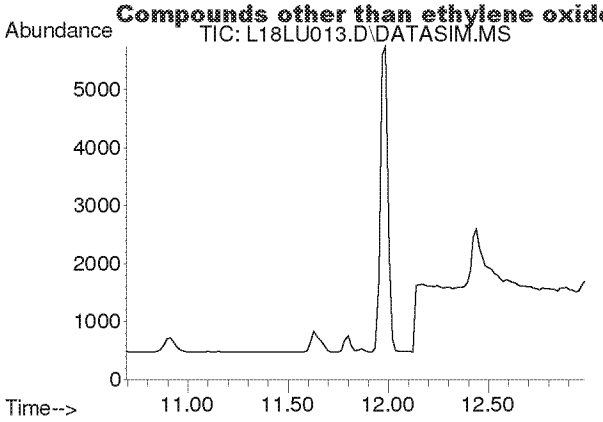
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 64 | 31.8 |



**Compounds other than ethylene oxide were not quantitated.**

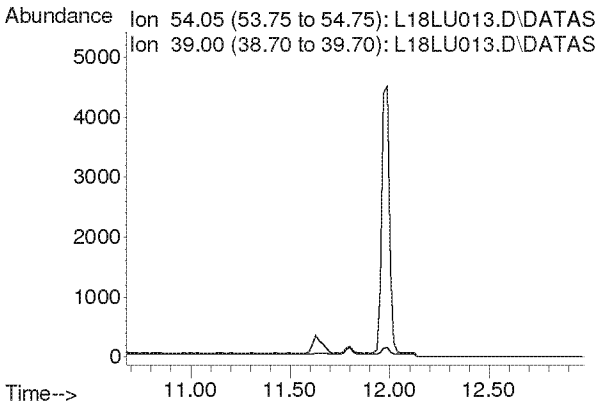


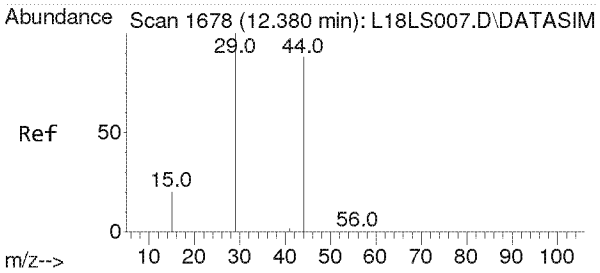

#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 54

| Sig | Exp Ratio |
|---|---|
| 54 | 100 |
| 39 | 105.4 |

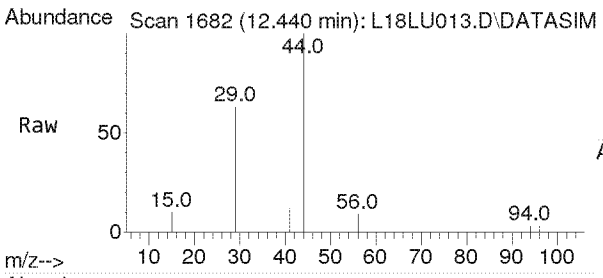


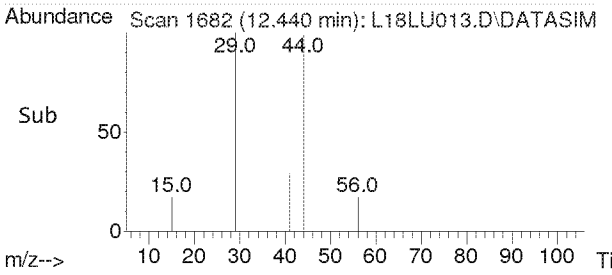



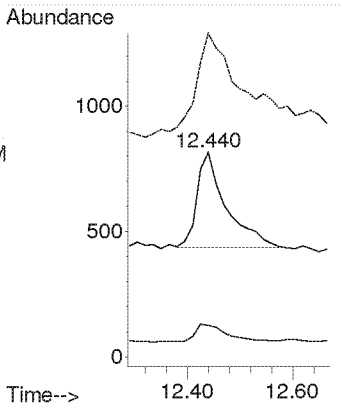

#9
Ethylene oxide
Concen: 0.445 ppbv m
RT: 12.440 min Scan# 1682
Delta R.T. 0.060 min
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 29 Resp: 1429

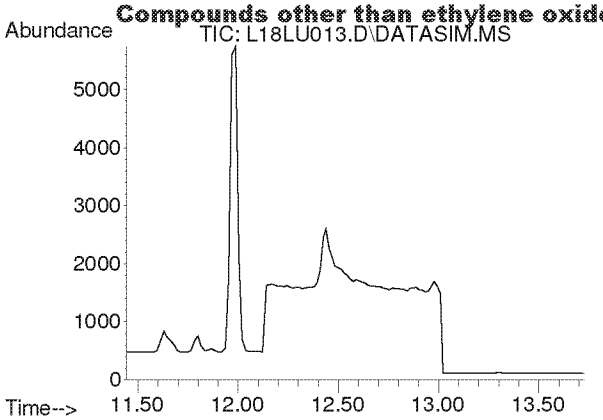
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 29 | 100 | | |
| 15 | 19.2 | 16.2 | 24.4 |
| 44 | 181.0 | 72.0 | 108.0# |



**Compounds other than ethylene oxide were not quantitated.**

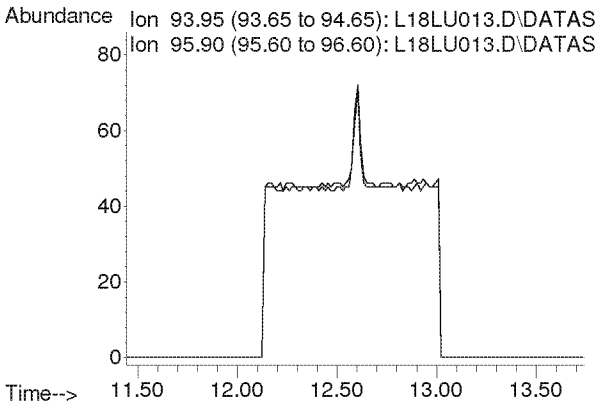


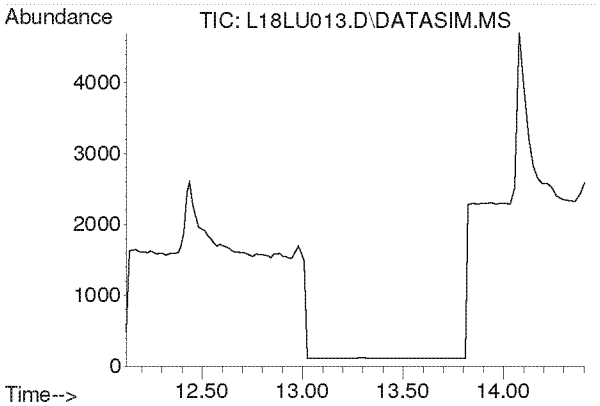

#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 94

| Sig | Exp Ratio |
|---|---|
| 94 | 100 |
| 96 | 93.9 |



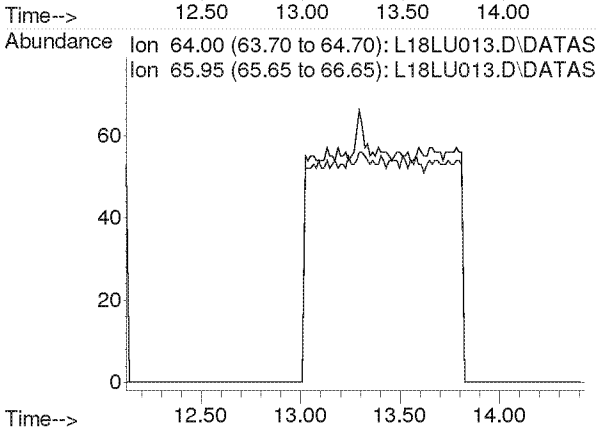




#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

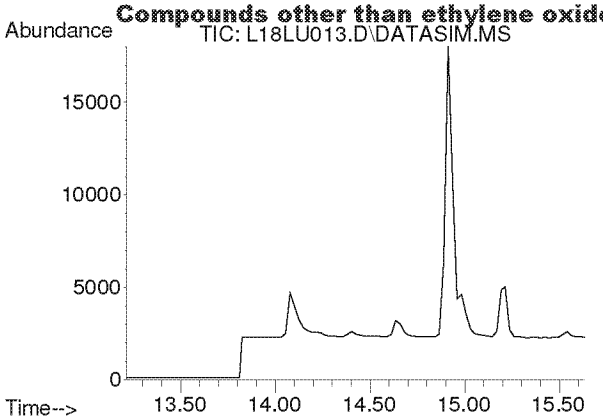
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 64

| Sig | Exp Ratio |
|---|---|
| 64 | 100 |
| 66 | 32.0 |



**Compounds other than ethylene oxide were not quantitated.**

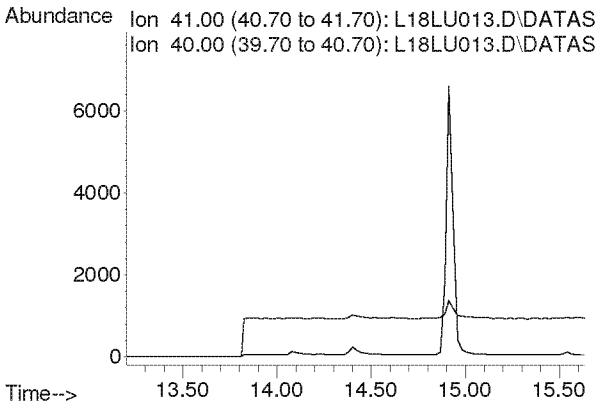


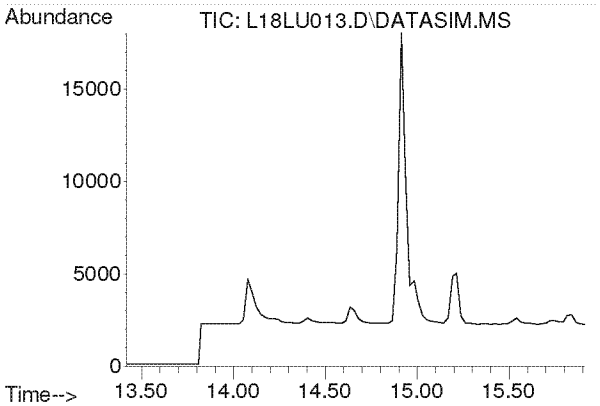

#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 40 | 50.9 |



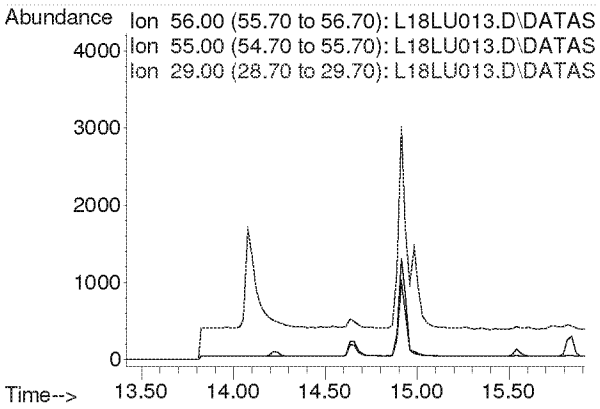




#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

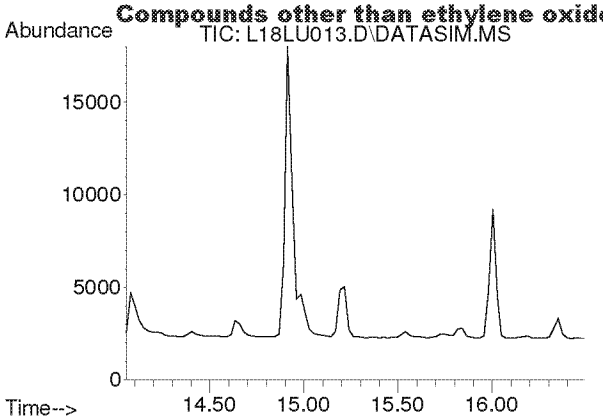
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 56

| Sig | Exp Ratio |
|---|---|
| 56 | 100 |
| 55 | 75.4 |
| 29 | 52.9 |



**Compounds other than ethylene oxide were not quantitated.**

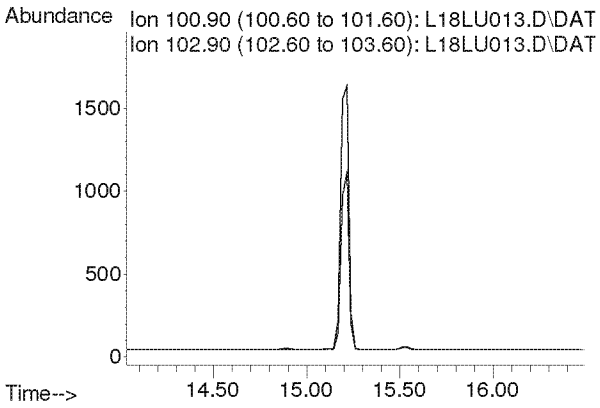


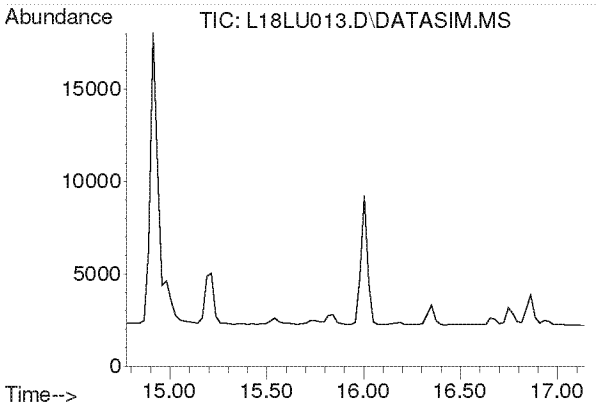

#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 103 | 64.6 |



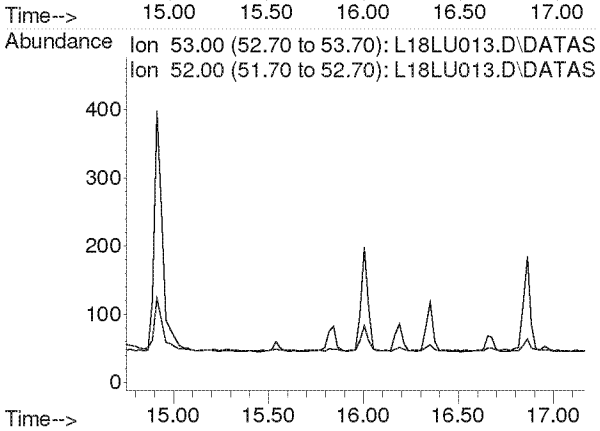




#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

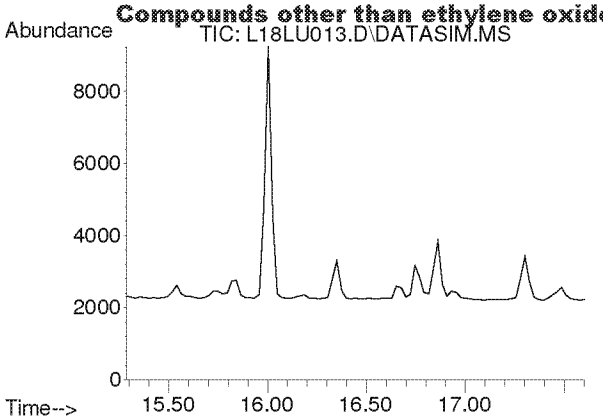
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 52 | 85.4 |



**Compounds other than ethylene oxide were not quantitated.**

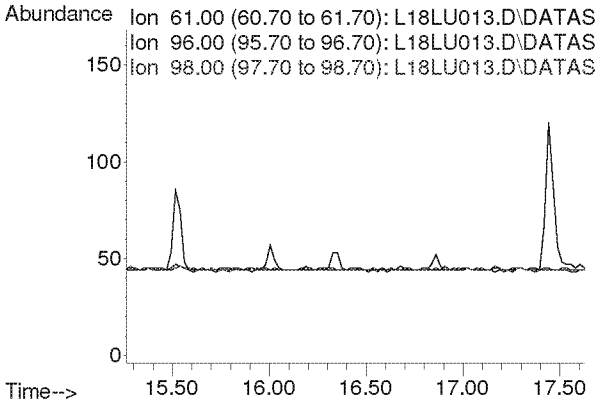


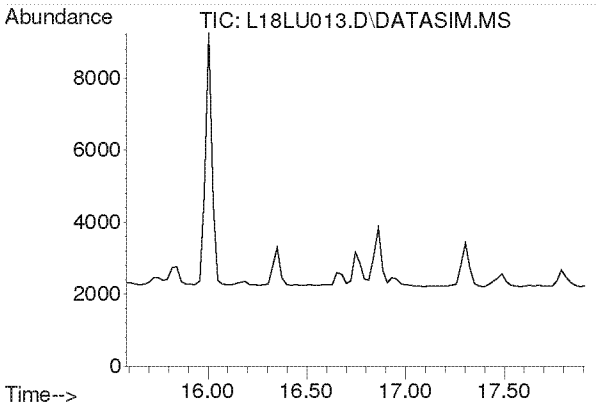

#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 58.3 |
| 98 | 37.4 |



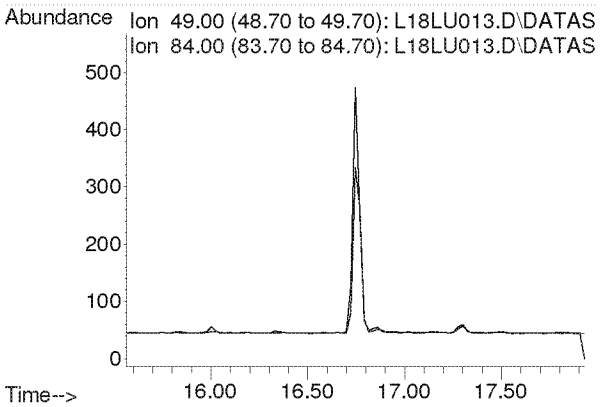




#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

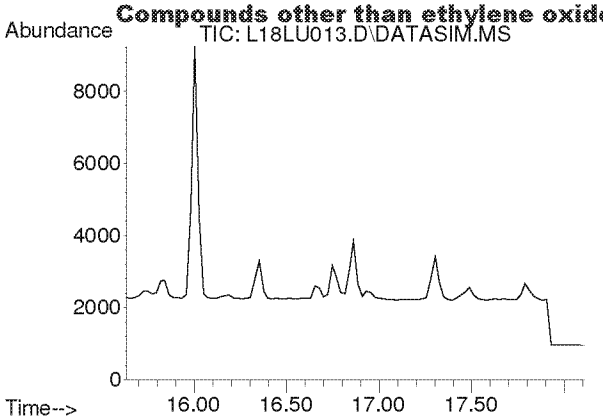
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 49

| Sig | Exp Ratio |
|---|---|
| 49 | 100 |
| 84 | 76.4 |



**Compounds other than ethylene oxide were not quantitated.**

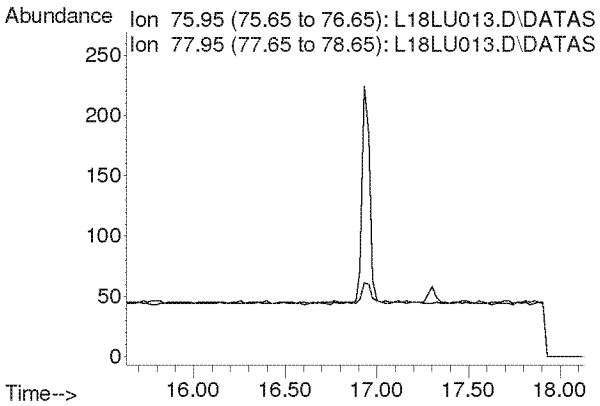


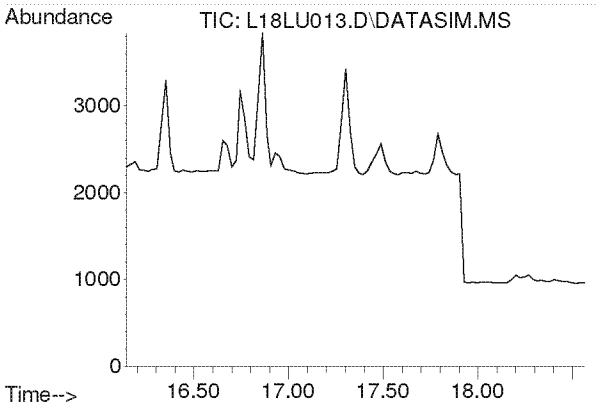

#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 76

| Sig | Exp Ratio |
|---|---|
| 76 | 100 |
| 78 | 9.1 |



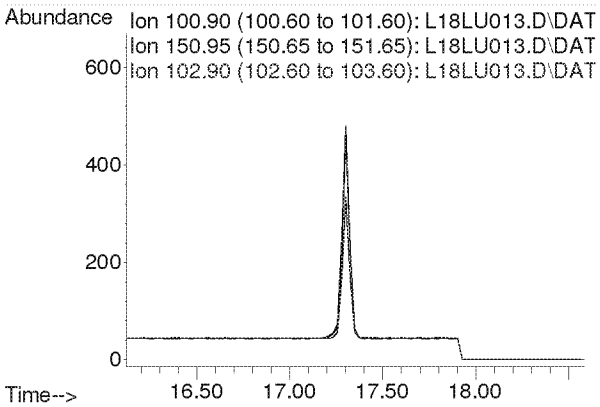




#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

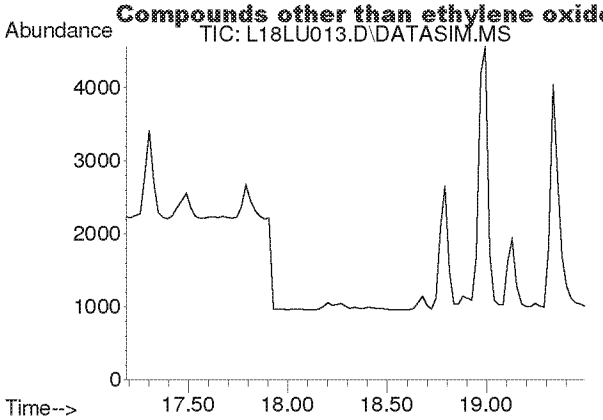
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 151 | 95.3 |
| 103 | 64.1 |



**Compounds other than ethylene oxide were not quantitated.**

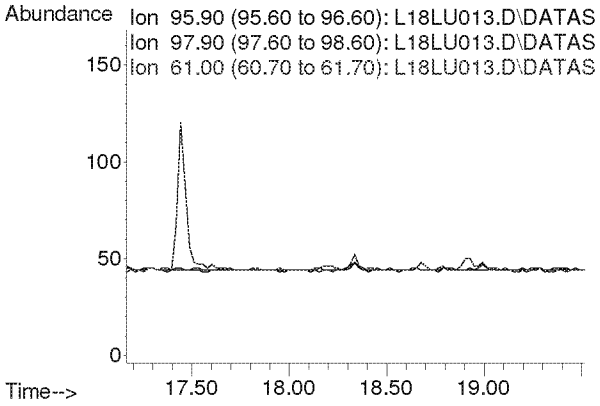


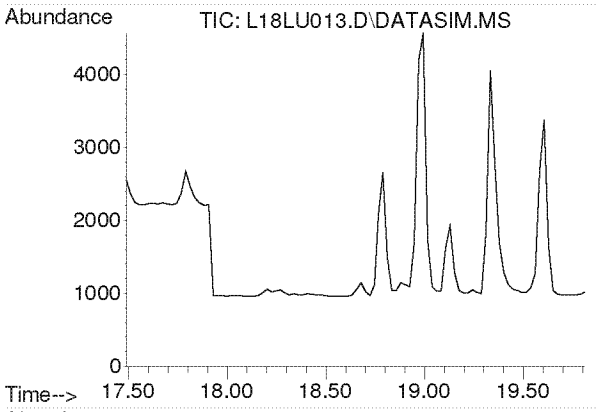

#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 96

| Sig | Exp Ratio |
|---|---|
| 96 | 100 |
| 98 | 63.7 |
| 61 | 159.2 |



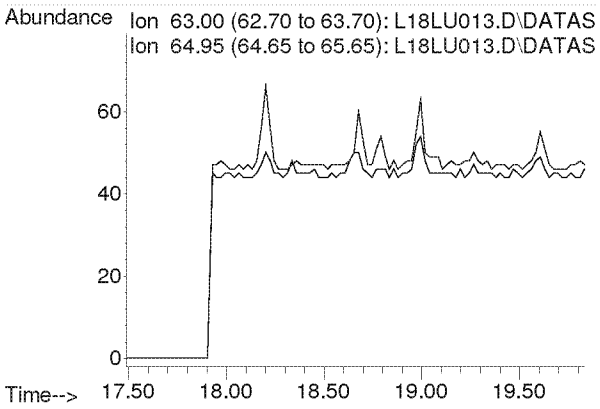




#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

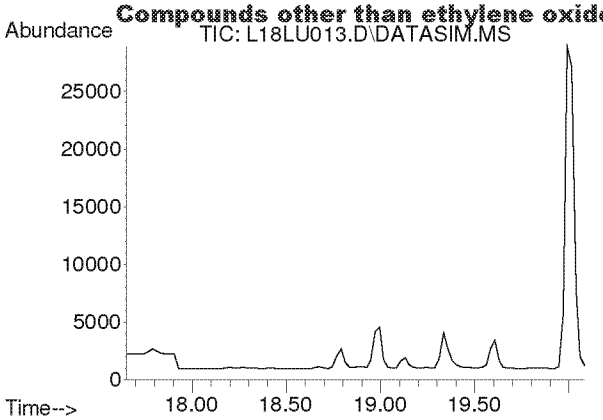
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 65 | 31.7 |



**Compounds other than ethylene oxide were not quantitated.**

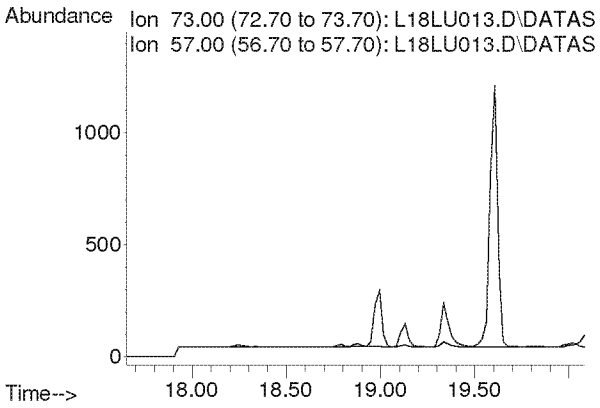


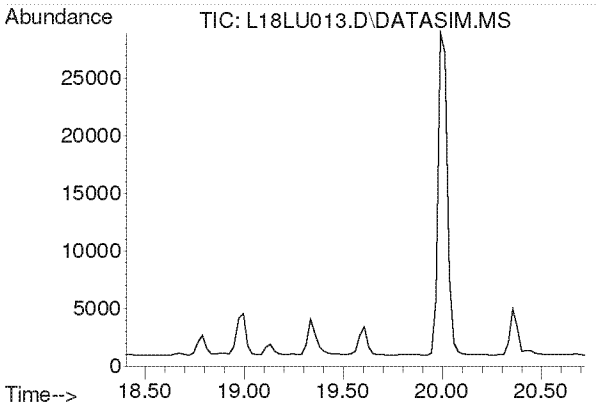

#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 57 | 23.4 |



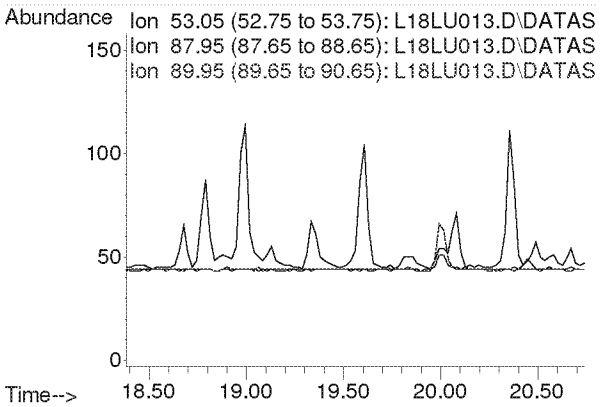




#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

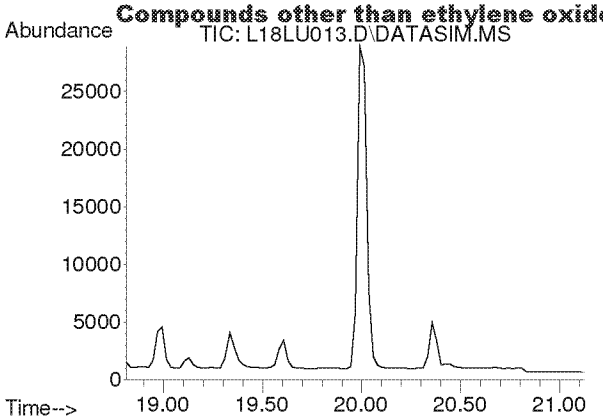
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 88 | 51.8 |
| 90 | 16.8 |



**Compounds other than ethylene oxide were not quantitated.**

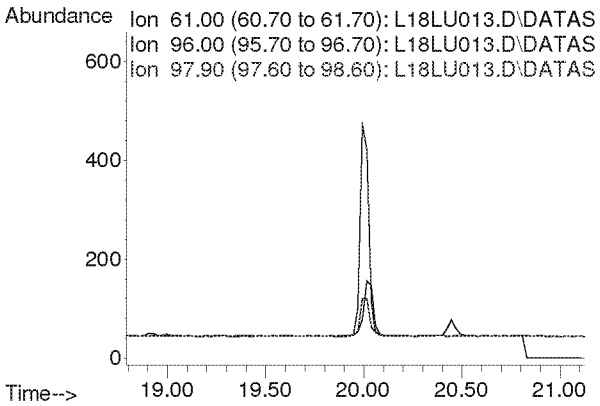


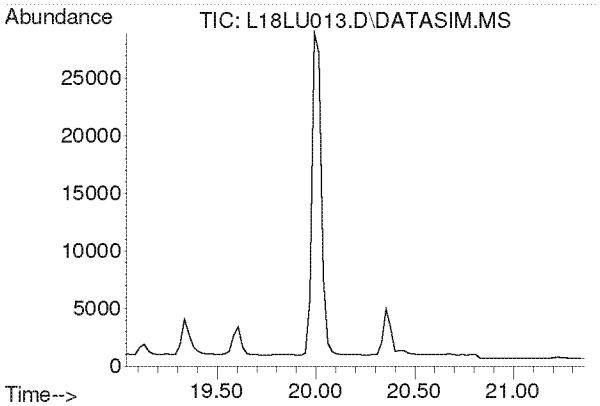

#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 73.7 |
| 98 | 45.2 |



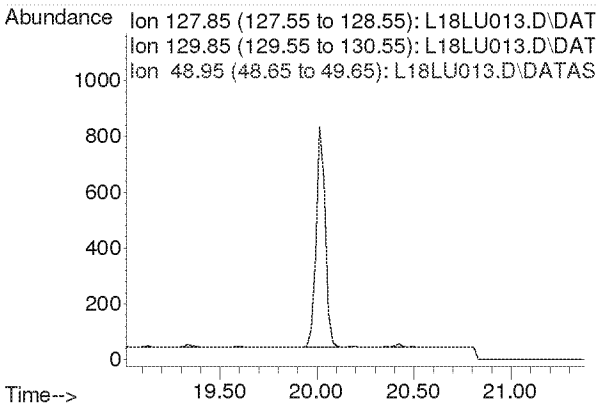




#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

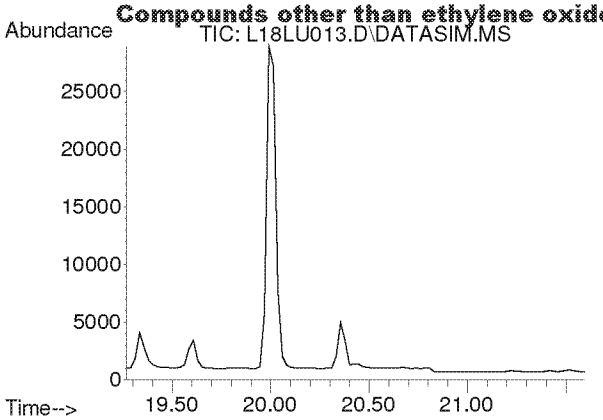
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 128

| Sig | Exp Ratio |
|---|---|
| 128 | 100 |
| 130 | 129.1 |
| 49 | 171.2 |



**Compounds other than ethylene oxide were not quantitated.**

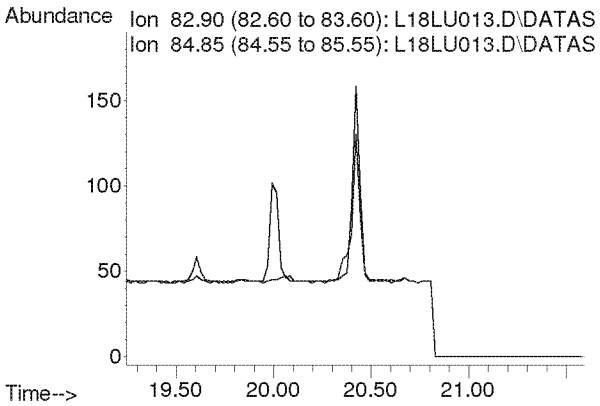


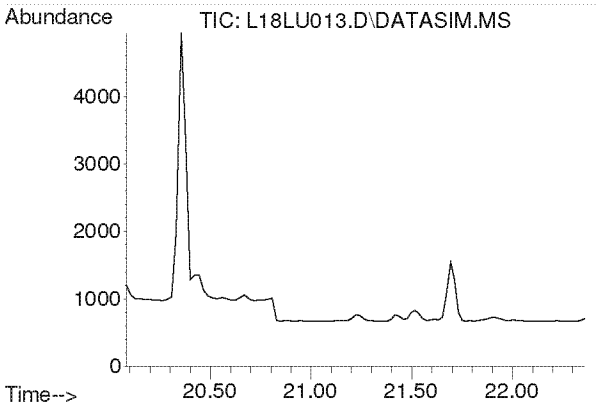

#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.4 |



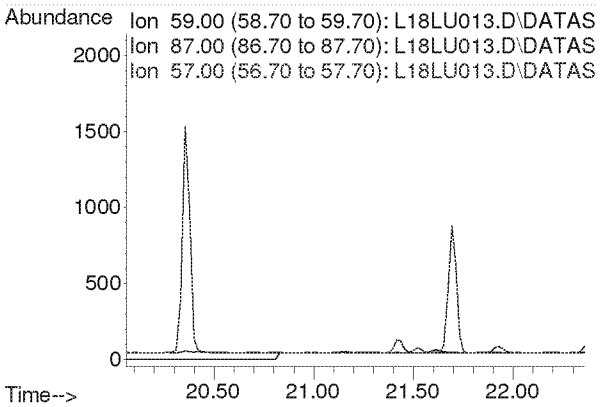




#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

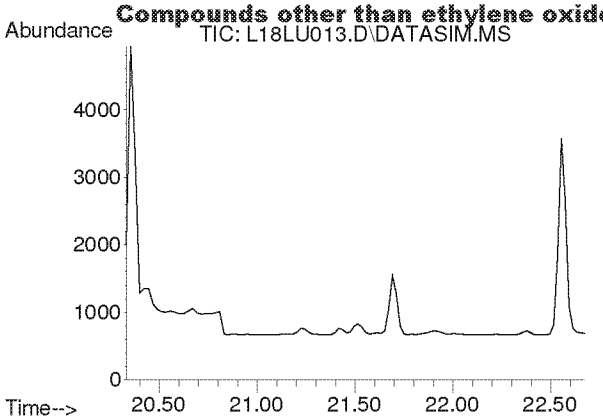
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 59

| Sig | Exp Ratio |
|---|---|
| 59 | 100 |
| 87 | 37.5 |
| 57 | 33.8 |



**Compounds other than ethylene oxide were not quantitated.**

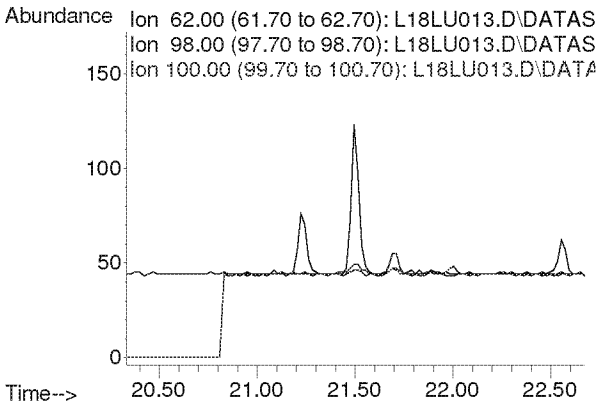


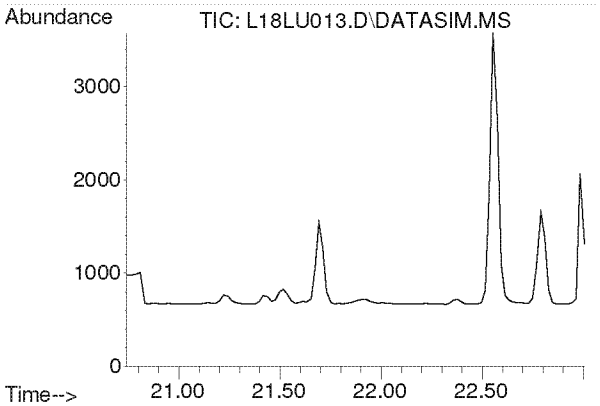

#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 98 | 6.4 |
| 100 | 4.0 |



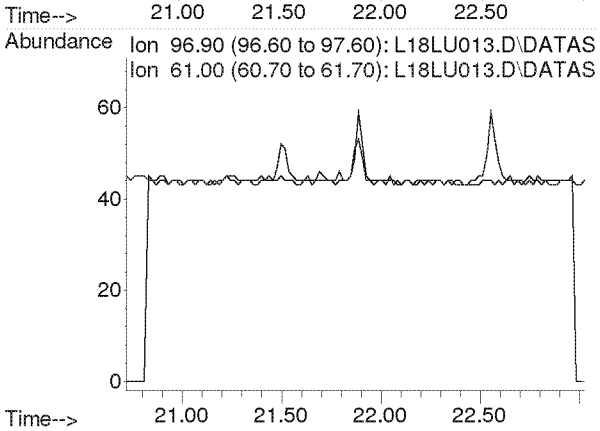




#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

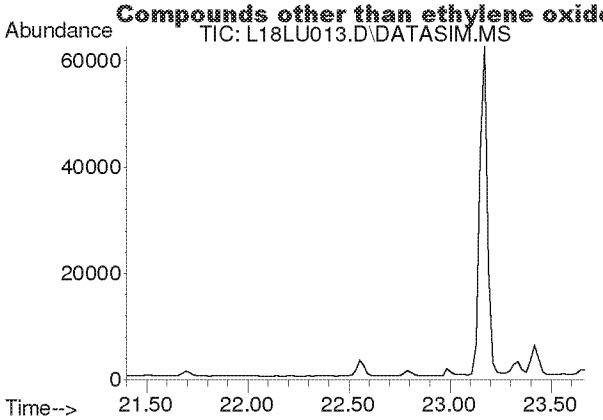
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 61 | 60.5 |



**Compounds other than ethylene oxide were not quantitated.**

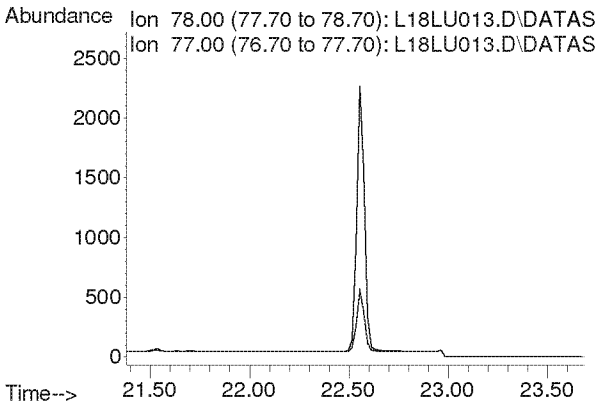


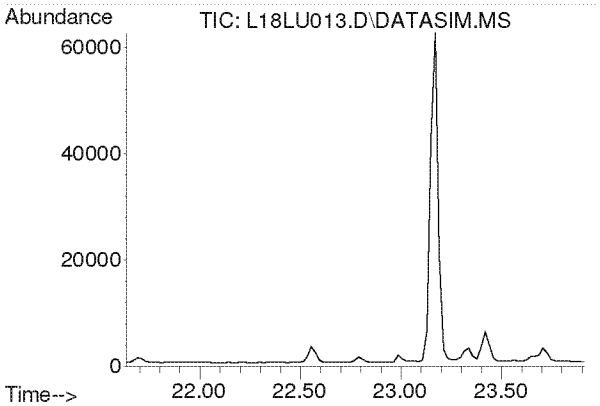

#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 78

| Sig | Exp Ratio |
|---|---|
| 78 | 100 |
| 77 | 22.7 |



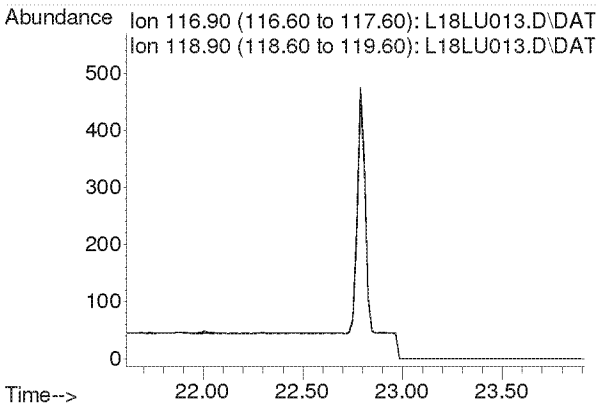




#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

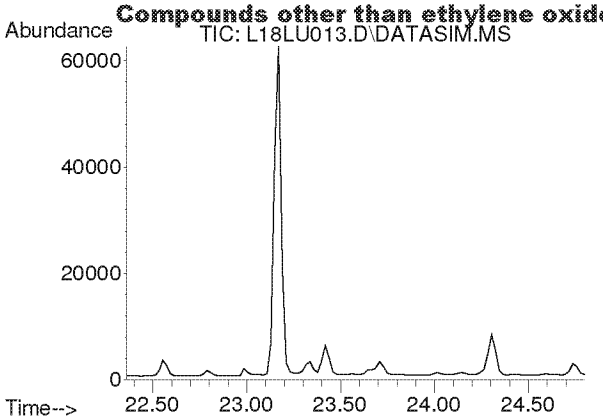
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 117

| Sig | Exp Ratio |
|---|---|
| 117 | 100 |
| 119 | 96.5 |



**Compounds other than ethylene oxide were not quantitated.**

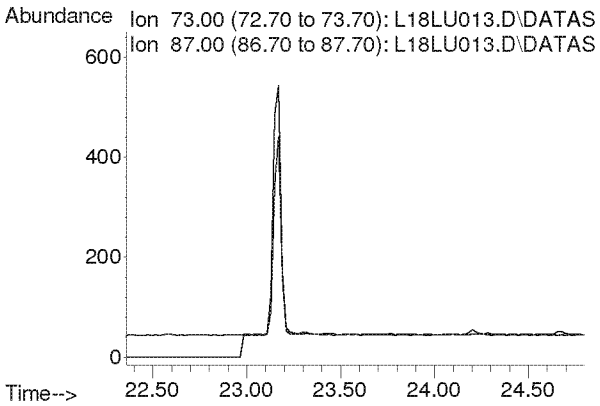


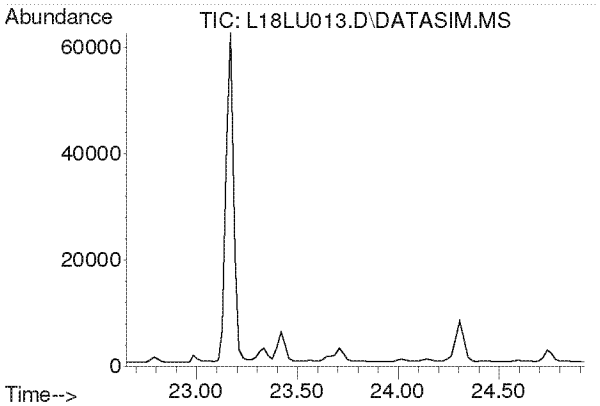

#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 87 | 24.9 |



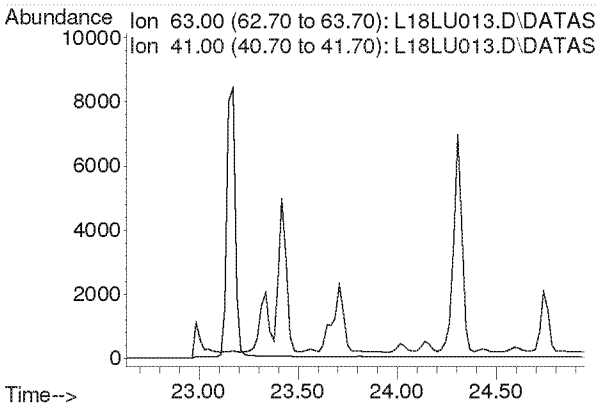




#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

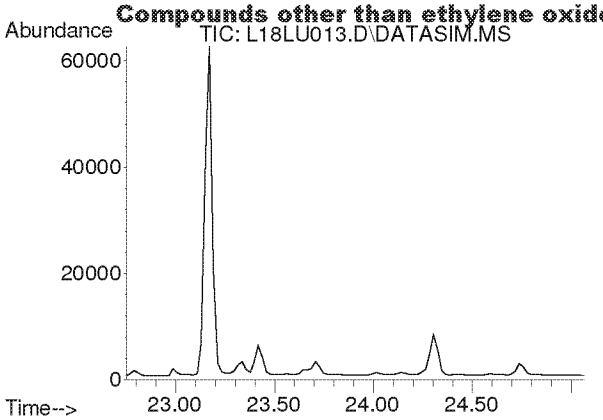
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 41 | 212.8 |



**Compounds other than ethylene oxide were not quantitated.**

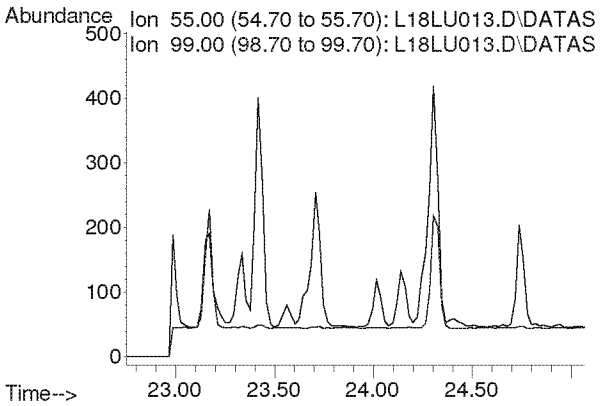


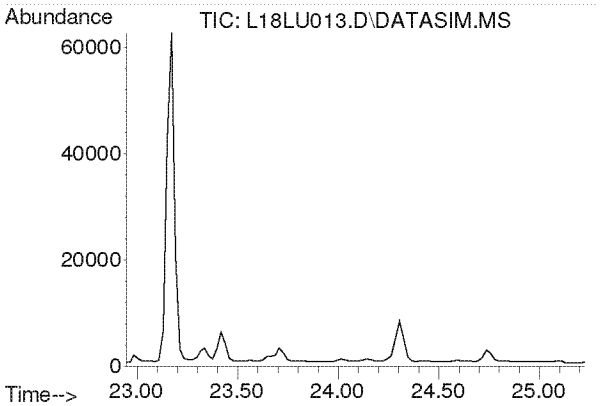

#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 55

| Sig | Exp Ratio |
|---|---|
| 55 | 100 |
| 99 | 6.1 |



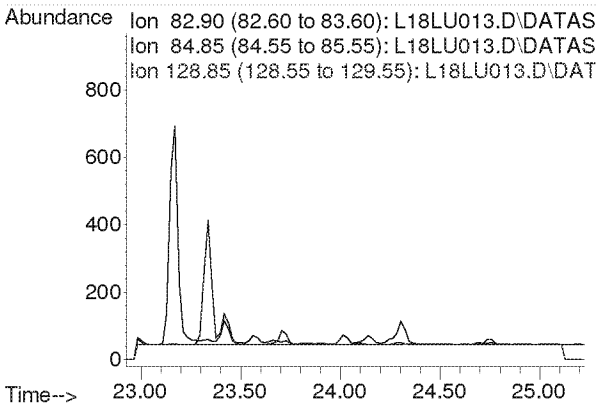




#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

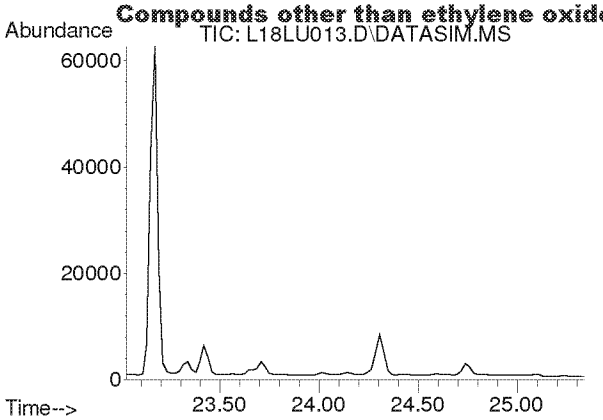
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.0 |
| 129 | 12.4 |



**Compounds other than ethylene oxide were not quantitated.**

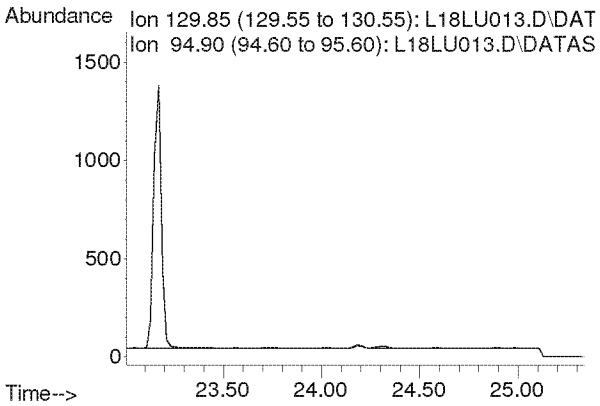


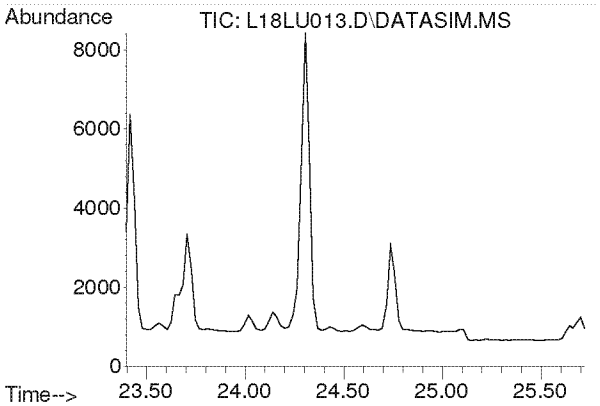

#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 130

| Sig | Exp Ratio |
|---|---|
| 130 | 100 |
| 95 | 110.3 |



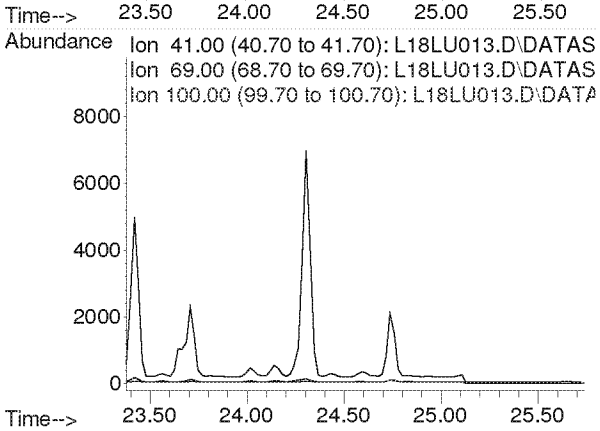




#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

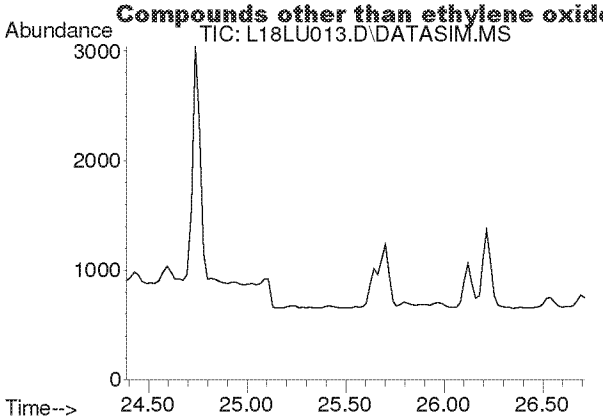
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 69 | 19.9 |
| 100 | 5.2 |



**Compounds other than ethylene oxide were not quantitated.**

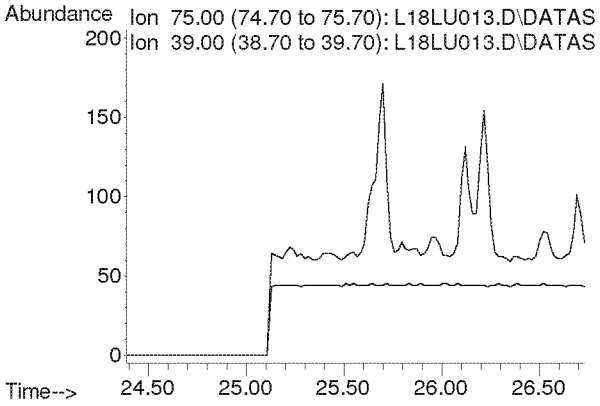


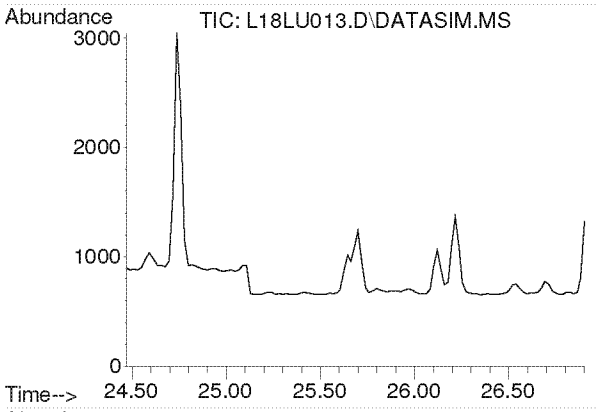

#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 54.4 |



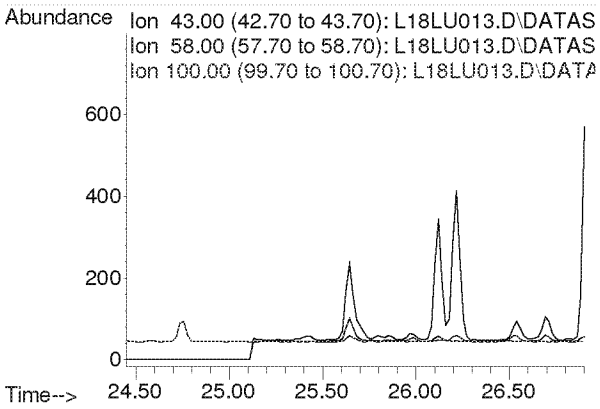




#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

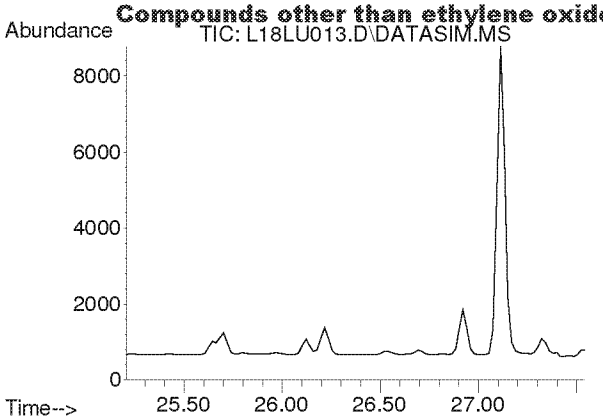
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 58 | 34.2 |
| 100 | 7.9 |



**Compounds other than ethylene oxide were not quantitated.**

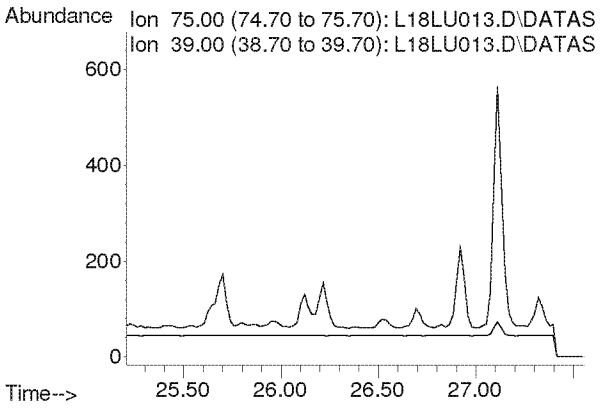


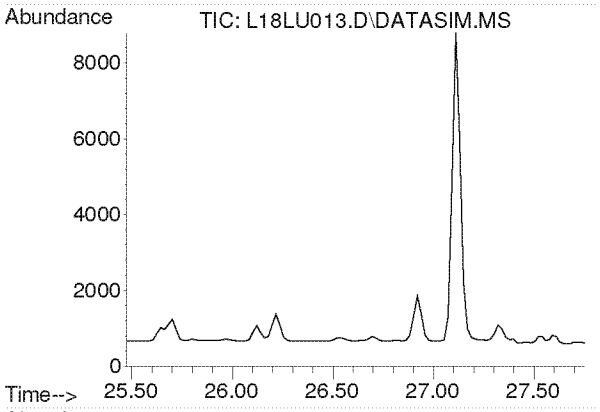

#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 50.9 |



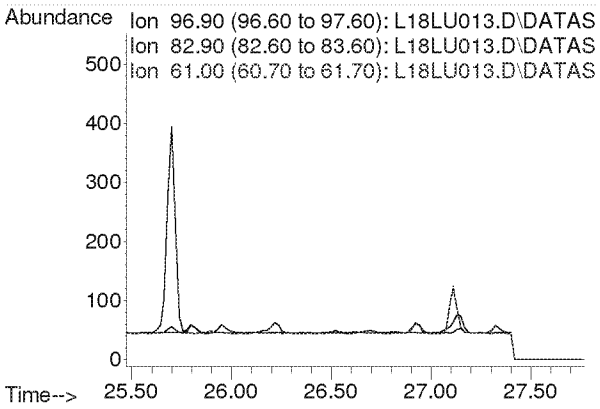




#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

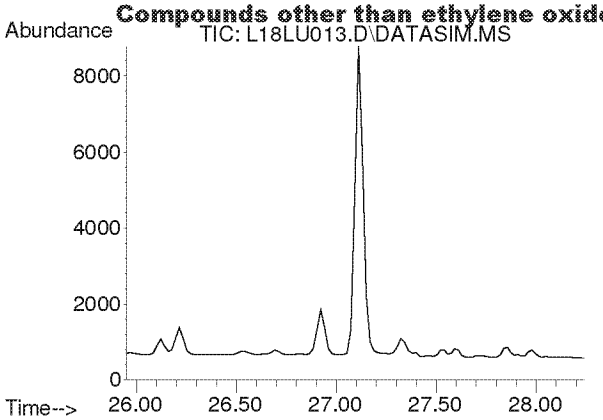
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 83 | 96.1 |
| 61 | 63.5 |



**Compounds other than ethylene oxide were not quantitated.**

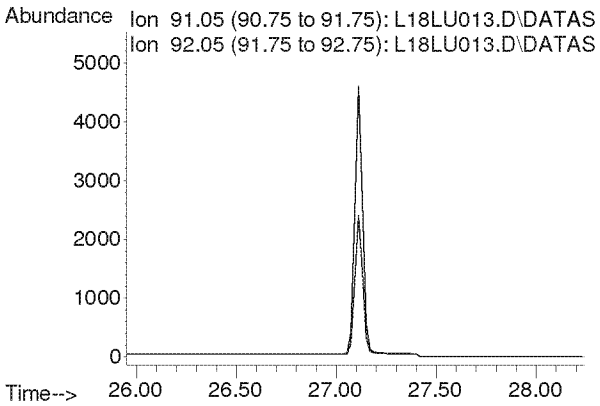


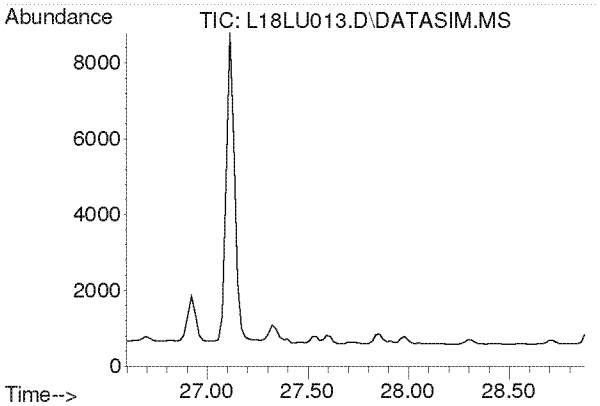

#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 92 | 52.6 |



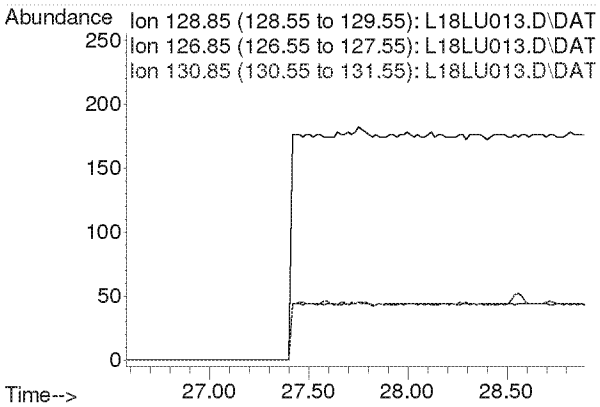




#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

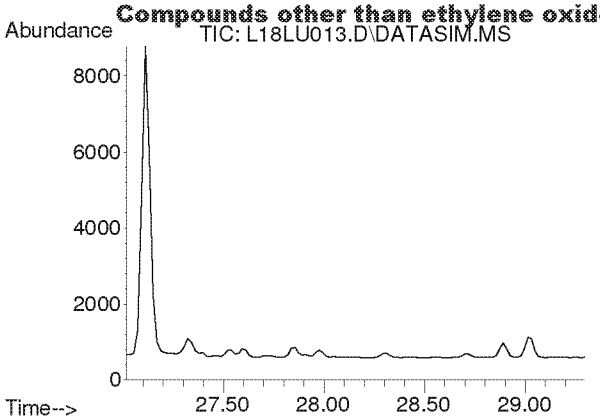
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 129

| Sig | Exp Ratio |
|---|---|
| 129 | 100 |
| 127 | 19.2 |
| 131 | 6.0 |



**Compounds other than ethylene oxide were not quantitated.**

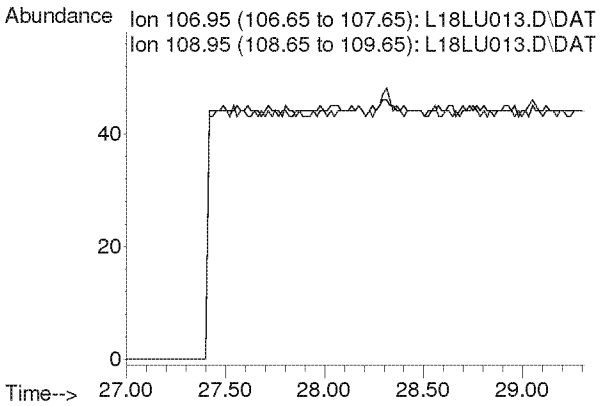


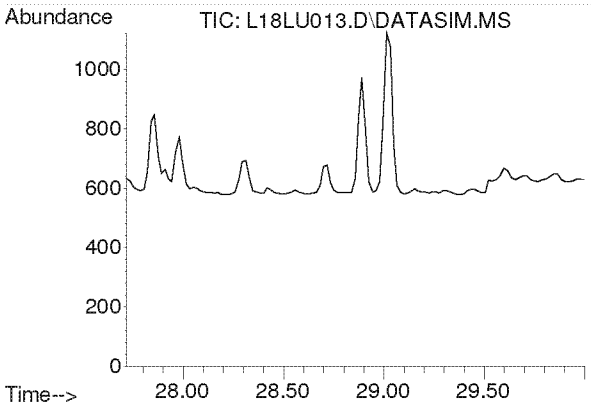

#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 107

| Sig | Exp Ratio |
|---|---|
| 107 | 100 |
| 109 | 94.5 |



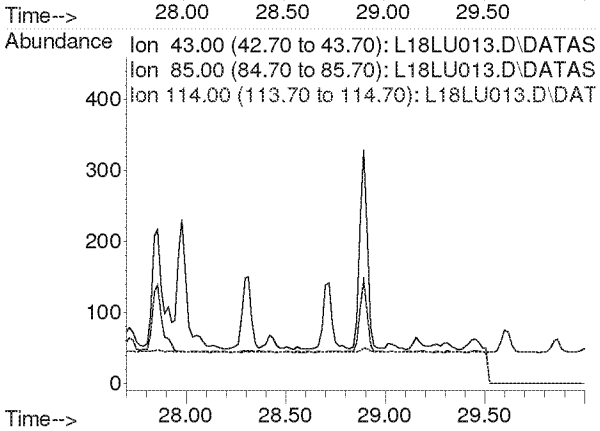




#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

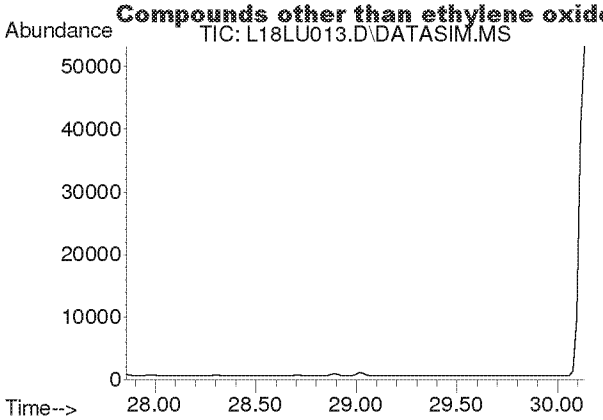
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 85 | 36.0 |
| 114 | 2.2 |



**Compounds other than ethylene oxide were not quantitated.**

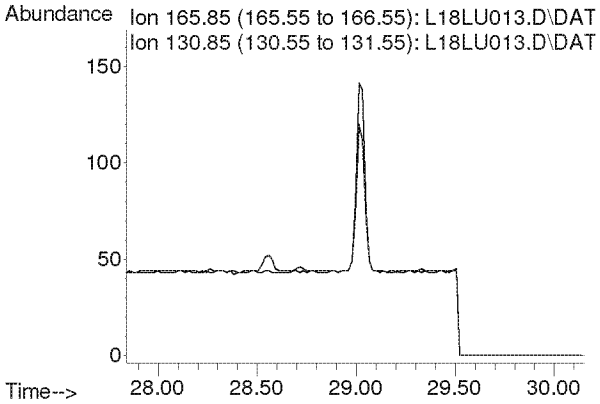


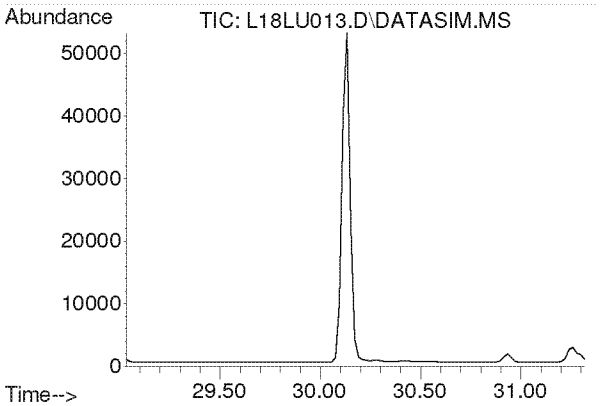

#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 166

| Sig | Exp Ratio |
|---|---|
| 166 | 100 |
| 131 | 78.2 |



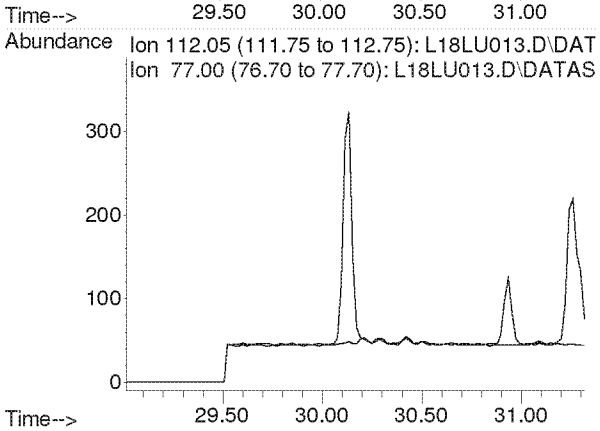




#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

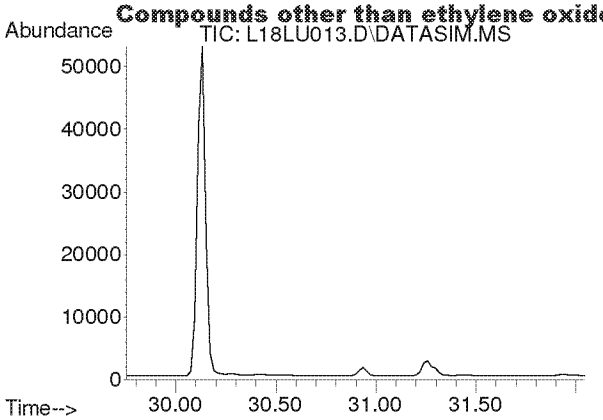
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 112

| Sig | Exp Ratio |
|---|---|
| 112 | 100 |
| 77 | 63.0 |



**Compounds other than ethylene oxide were not quantitated.**

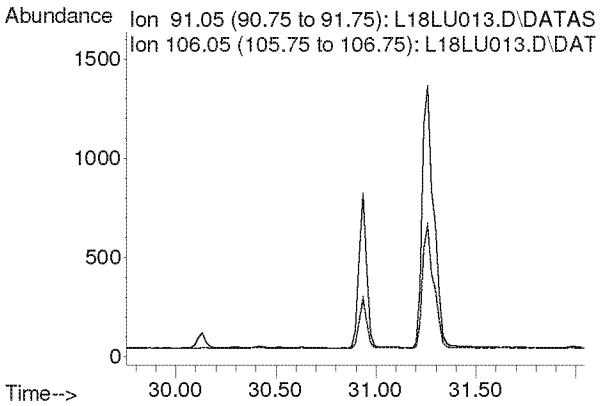


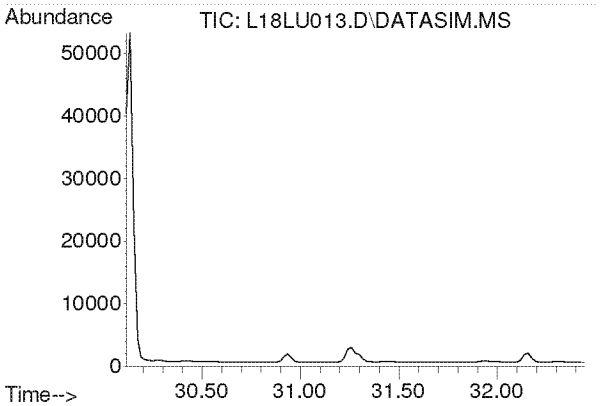

#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 31.8 |



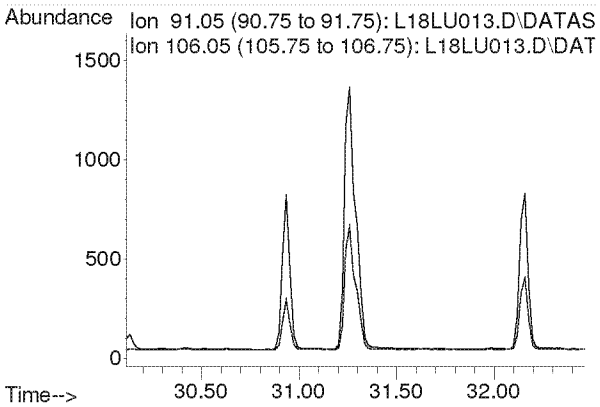




#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

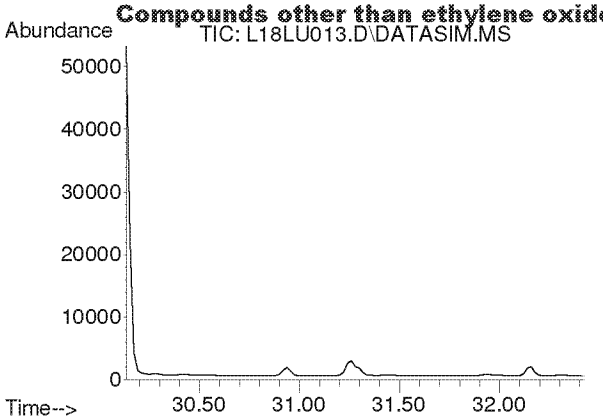
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.4 |



**Compounds other than ethylene oxide were not quantitated.**

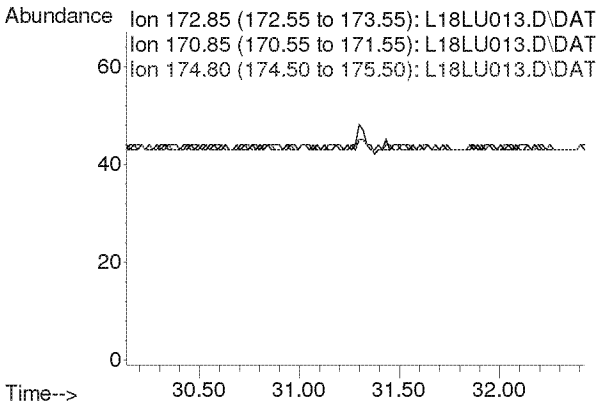


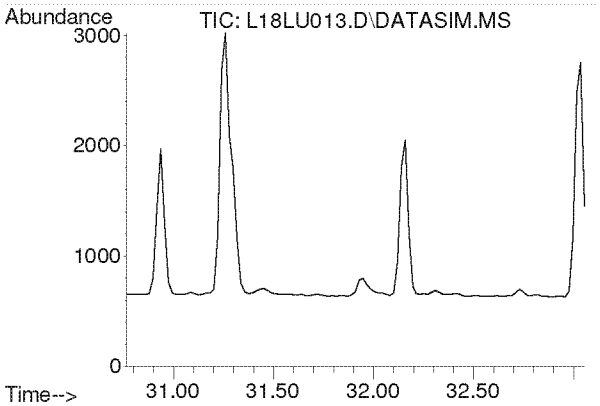

#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 173

| Sig | Exp Ratio |
|---|---|
| 173 | 100 |
| 171 | 51.3 |
| 175 | 49.0 |



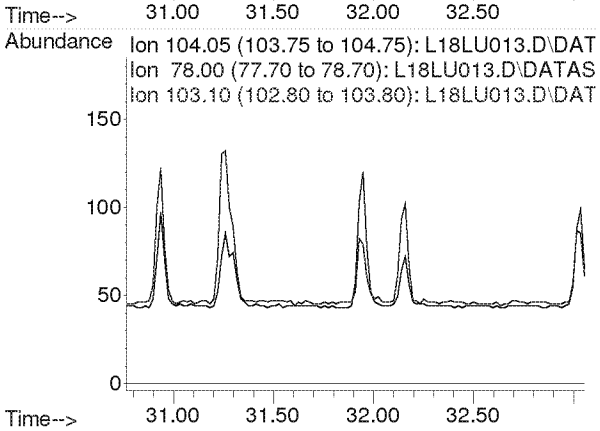




#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

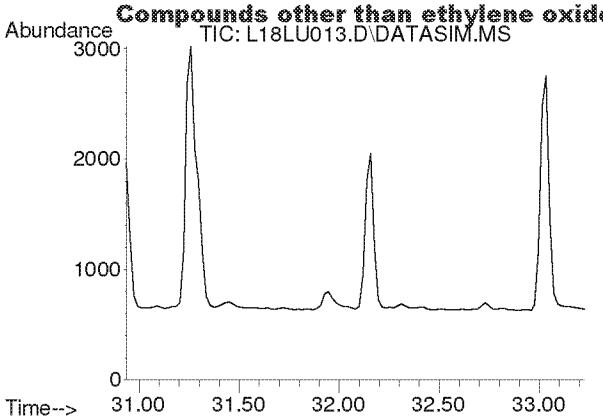
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 104

| Sig | Exp Ratio |
|---|---|
| 104 | 100 |
| 78 | 45.6 |
| 103 | 0.0 |



**Compounds other than ethylene oxide were not quantitated.**

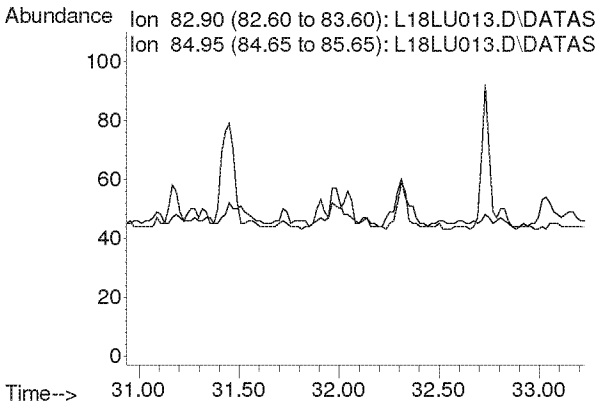


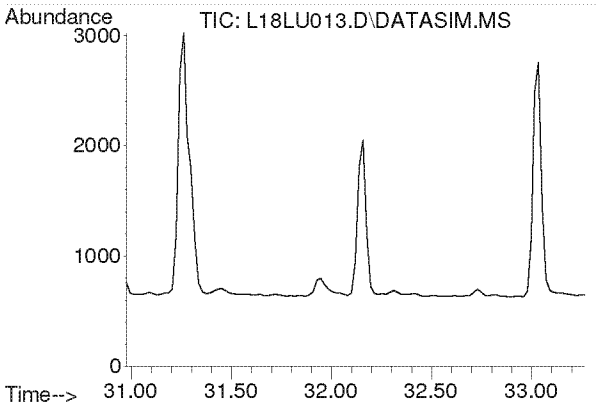

#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 63.9 |



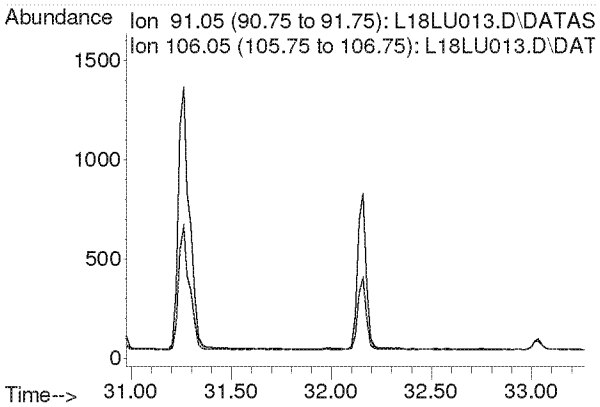




#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

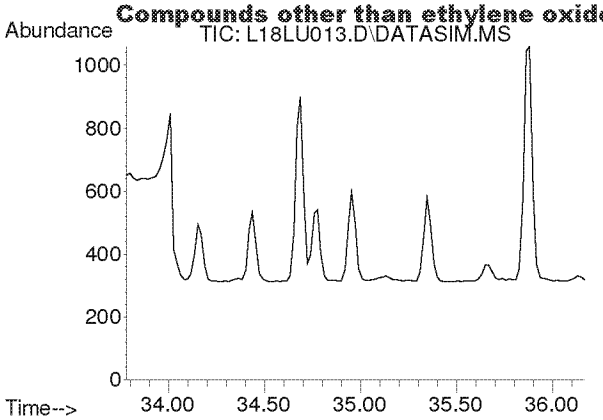
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.2 |



**Compounds other than ethylene oxide were not quantitated.**

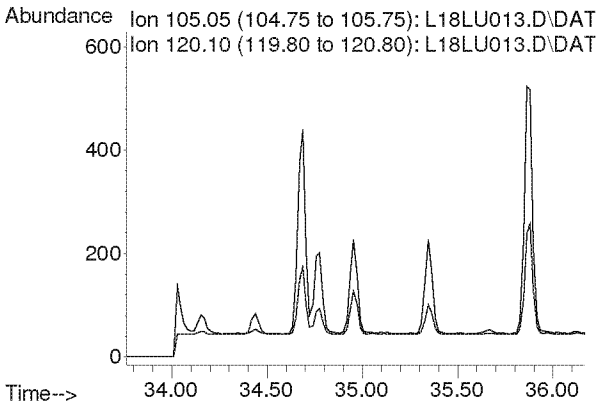


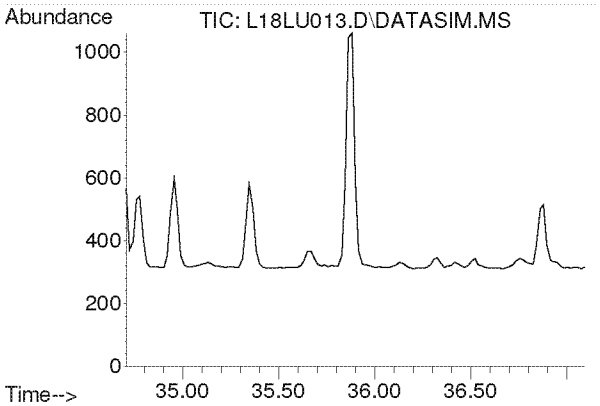

#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 45.0 |



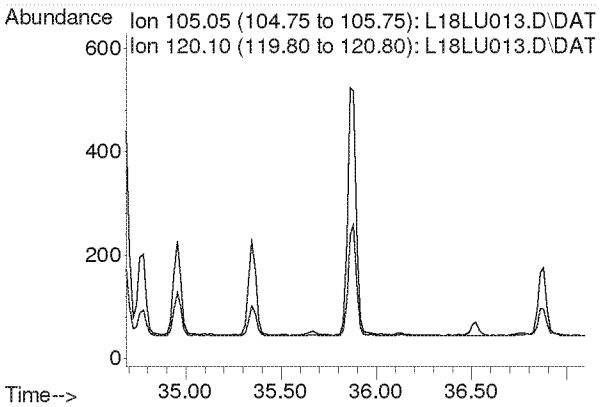




#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

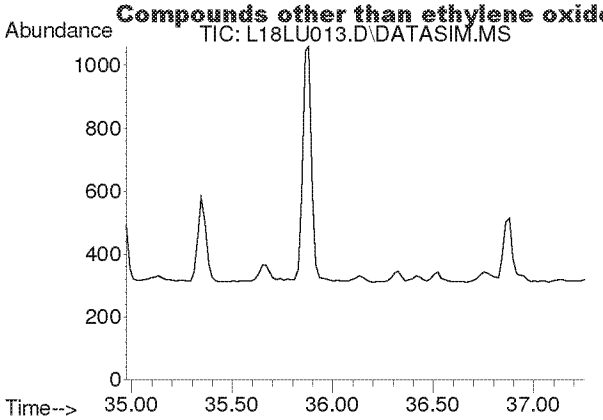
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 42.8 |



**Compounds other than ethylene oxide were not quantitated.**

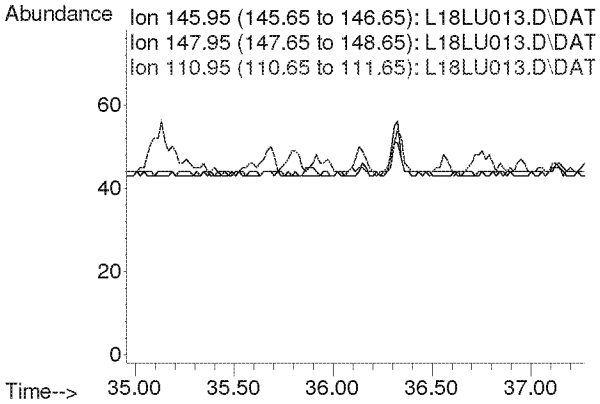


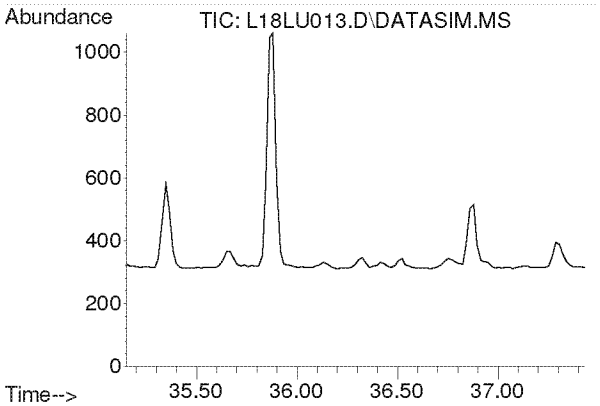

#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 40.5 |



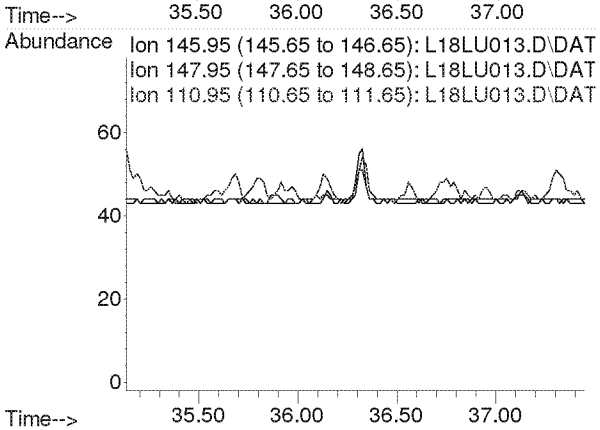




#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

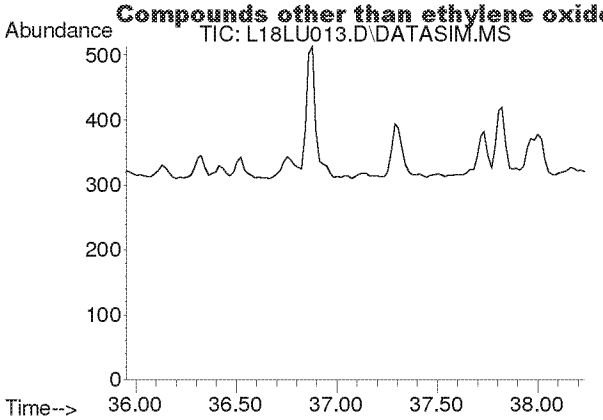
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 39.5 |



**Compounds other than ethylene oxide were not quantitated.**

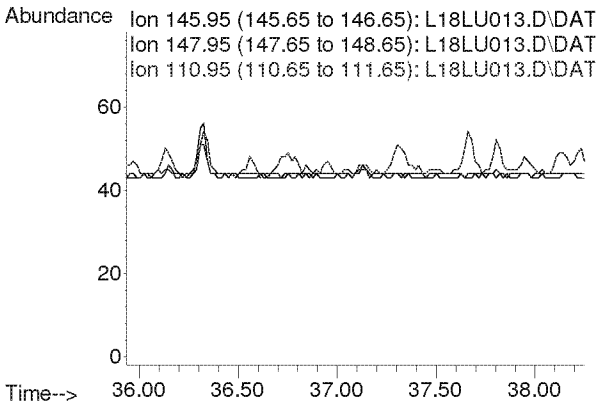


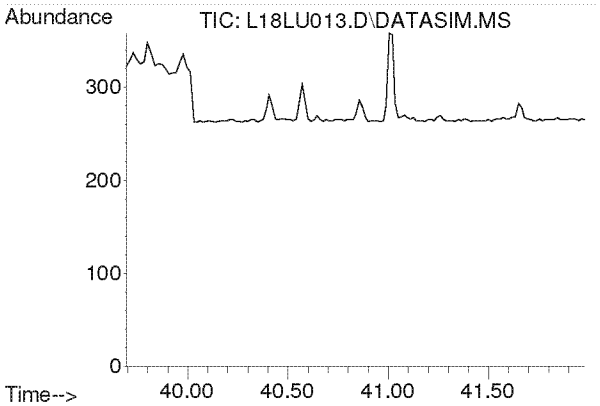

#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.1 |
| 111 | 41.4 |



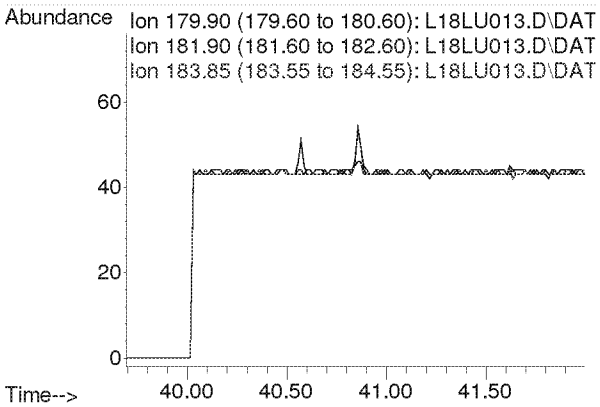




#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

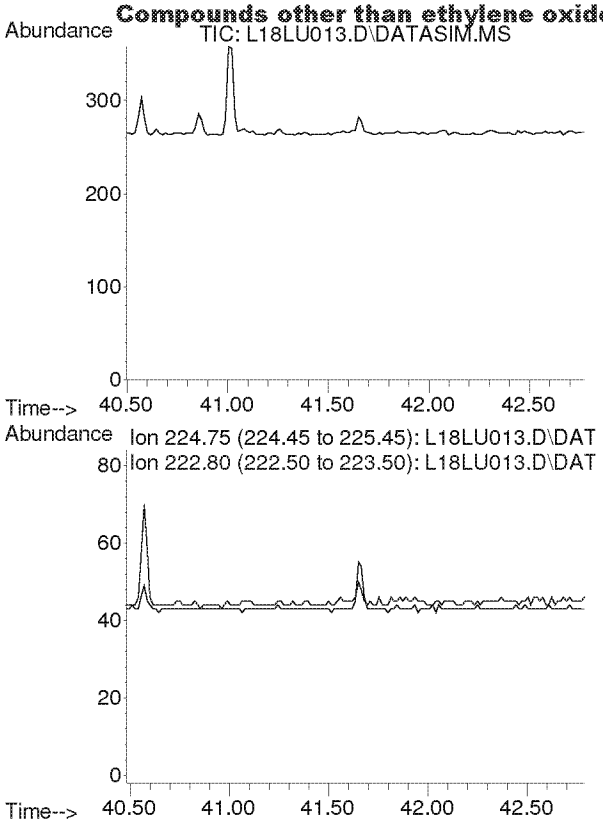
Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 180

| Sig | Exp Ratio |
|---|---|
| 180 | 100 |
| 182 | 95.1 |
| 184 | 30.7 |



**Compounds other than ethylene oxide were not quantitated.**




#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18LU013.D
Acq: 21 Dec 2018 7:39 pm

Tgt Ion: 225

| Sig | Exp Ratio |
|---|---|
| 225 | 100 |
| 223 | 62.4 |

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU014.D
Acq On : 21 Dec 2018 8:39 pm (#1); 21-Dec-18, 20:33:58 (#2)
Operator : MAH
Sample : 8120701-06
Misc : WATER TOWER 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 26 10:04:24 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

EtOH only

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) IS-Hexane-d14 | 20.015 | 66 | 55681 | 4.7700 ppbv | 0.02 |
| 29) IS-1,4-Difluorobenzene | 23.171 | 114 | 136365 | 4.9900 ppbv | 0.02 |
| 43) IS-Chlorobenzene-d5 | 30.135 | 117 | 95115 | 4.7400 ppbv | 0.04 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) Acetylene | 0.000 | 26 | 0 | N.D. d | |
| 3) Propylene | 0.000 | 41 | 0 | N.D. d | |
| 4) Dichlorodifluoromethane | 0.000 | 85 | 0 | N.D. d | |
| 5) Chloromethane | 0.000 | 50 | 0 | N.D. d | |
| 6) Dichlorotetrafluoroethane | 0.000 | 85 | 0 | N.D. d | |
| 7) Vinyl Chloride | 0.000 | 62 | 0 | N.D. | |
| 8) 1,3-Butadiene | 0.000 | 54 | 0 | N.D. d | |
| 9) Ethylene oxide | 0.000 | 29 | 0 | N.D. d | |
| 10) Bromomethane | 0.000 | 94 | 0 | N.D. d | |
| 11) Chloroethane | 0.000 | 64 | 0 | N.D. d | |
| 12) Acetonitrile | 0.000 | 41 | 0 | N.D. d | |
| 13) Acrolein | 0.000 | 56 | 0 | N.D. d | |
| 14) Trichlorofluoromethane | 0.000 | 101 | 0 | N.D. d | |
| 15) Acrylonitrile | 0.000 | 53 | 0 | N.D. d | |
| 16) 1,1-Dichloroethene | 0.000 | 61 | 0 | N.D. | |
| 17) Methylene Chloride | 0.000 | 49 | 0 | N.D. d | |
| 18) Carbon Disulfide | 0.000 | 76 | 0 | N.D. d | |
| 19) Trichlorotrifluoroethane | 0.000 | 101 | 0 | N.D. d | |
| 20) trans-1,2-Dichloroethy... | 0.000 | 96 | 0 | N.D. | |
| 21) 1,1-Dichloroethane | 0.000 | 63 | 0 | N.D. d | |
| 22) Methyl tert-Butyl Ether | 0.000 | 73 | 0 | N.D. d | |
| 23) Chloroprene | 0.000 | 53 | 0 | N.D. d | |
| 24) cis-1,2-Dichloroethylene | 0.000 | 61 | 0 | N.D. d | |
| 25) Bromochloromethane | 0.000 | 128 | 0 | N.D. | |
| 26) Chloroform | 0.000 | 83 | 0 | N.D. d | |
| 27) Ethyl tert-Butyl Ether | 0.000 | 59 | 0 | N.D. | |
| 28) 1,2-Dichloroethane | 0.000 | 62 | 0 | N.D. d | |
| 30) 1,1,1-Trichloroethane | 0.000 | 97 | 0 | N.D. d | |
| 31) Benzene | 0.000 | 78 | 0 | N.D. d | |
| 32) Carbon Tetrachloride | 0.000 | 117 | 0 | N.D. d | |
| 33) tert-Amyl Methyl Ether | 0.000 | 73 | 0 | N.D. | |
| 34) 1,2-Dichloropropane | 0.000 | 63 | 0 | N.D. d | |
| 35) Ethyl Acrylate | 0.000 | 55 | 0 | N.D. | |
| 36) Bromodichloromethane | 0.000 | 83 | 0 | N.D. d | |
| 37) Trichloroethylene | 0.000 | 130 | 0 | N.D. d | |
| 38) Methyl Methacrylate | 0.000 | 41 | 0 | N.D. d | |
| 39) cis-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 40) Methyl Isobutyl Ketone | 0.000 | 43 | 0 | N.D. d | |
| 41) trans-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 42) 1,1,2-Trichloroethane | 0.000 | 97 | 0 | N.D. | |
| 44) Toluene | 0.000 | 91 | 0 | N.D. d | |
| 45) Dibromochloromethane | 0.000 | 129 | 0 | N.D. d | |
| 46) 1,2-Dibromoethane | 0.000 | 107 | 0 | N.D. | |
| 47) n-Octane | 0.000 | 43 | 0 | N.D. d | |
| 48) Tetrachloroethylene | 0.000 | 166 | 0 | N.D. d | |
| 49) Chlorobenzene | 0.000 | 112 | 0 | N.D. d | |
| 50) Ethylbenzene | 0.000 | 91 | 0 | N.D. d | |

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU014.D
Acq On : 21 Dec 2018 8:39 pm (#1); 21-Dec-18, 20:33:58 (#2)
Operator : MAH
Sample : 8120701-06
Misc : WATER TOWER 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 26 10:04:24 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

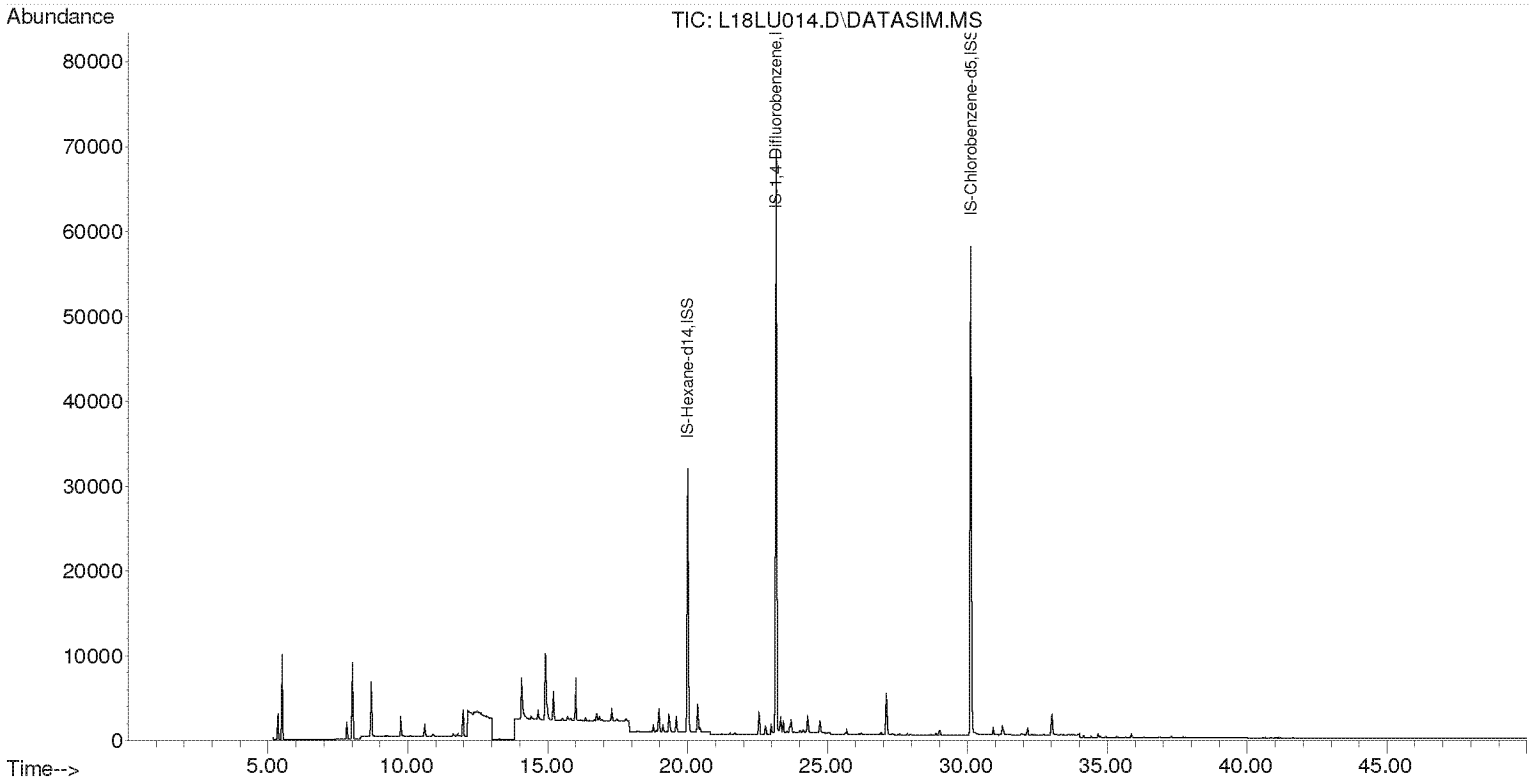
| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 51) m,p-Xylene | 0.000 | 91 | 0 | N.D. | d |
| 52) Bromoform | 0.000 | 173 | 0 | N.D. | |
| 53) Styrene | 0.000 | 104 | 0 | N.D. | d |
| 54) 1,1,2,2-Tetrachloroethane | 0.000 | 83 | 0 | N.D. | |
| 55) o-Xylene | 0.000 | 91 | 0 | N.D. | d |
| 56) 1,3,5-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | d |
| 57) 1,2,4-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | d |
| 58) m-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 59) p-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | d |
| 60) o-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 61) 1,2,4-Trichlorobenzene | 0.000 | 180 | 0 | N.D. | |
| 62) Hexachloro-1,3-butadiene | 0.000 | 225 | 0 | N.D. | |

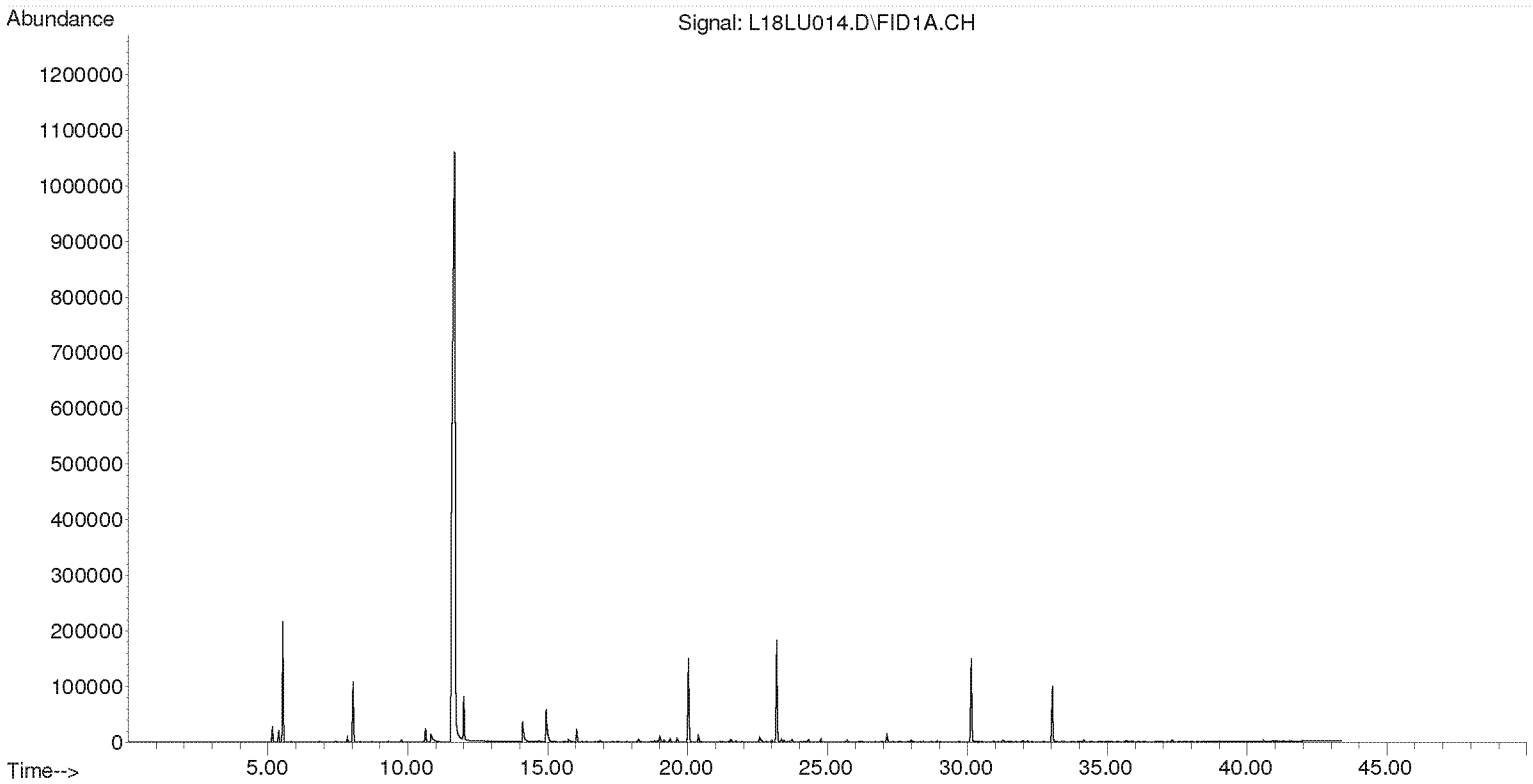
(#) = qualifier out of range (m) = manual integration (+) = signals summed

**Compounds other than ethylene oxide were not quantitated.**

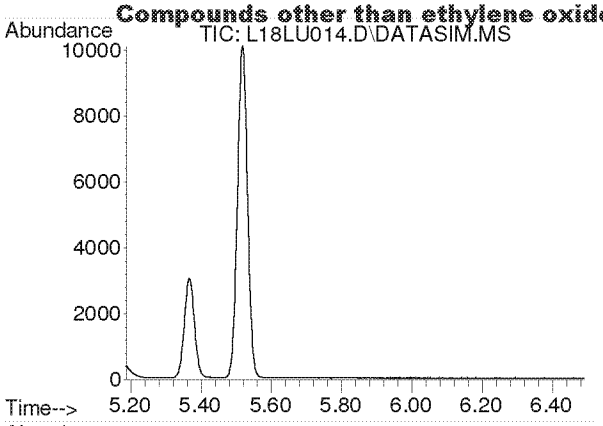
Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU014.D
Acq On : 21 Dec 2018 8:39 pm (#1); 21 Dec 2018 8:33 pm (#2)
Operator : MAH
Sample : 8120701-06
Misc : WATER TOWER 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Dec 26 09:51:15 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



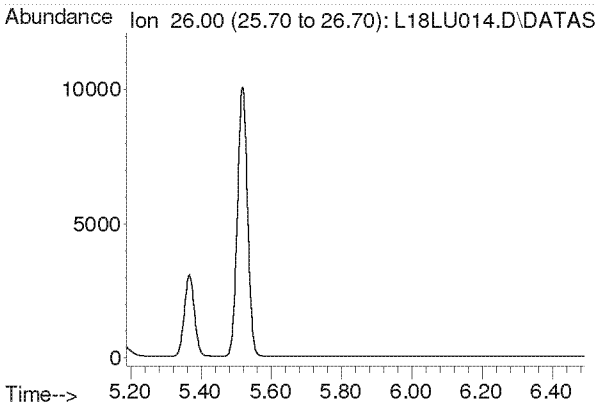
**Compounds other than ethylene oxide were not quantitated.**

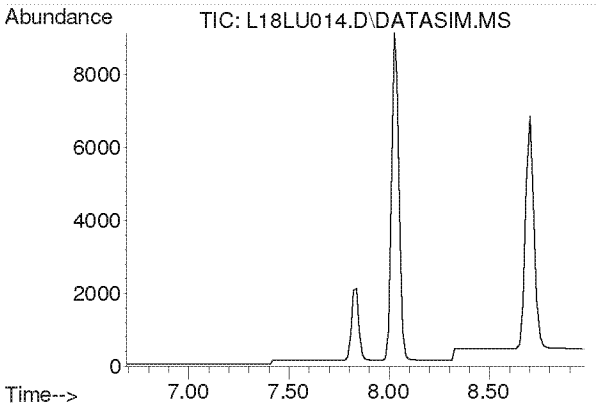



#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 26



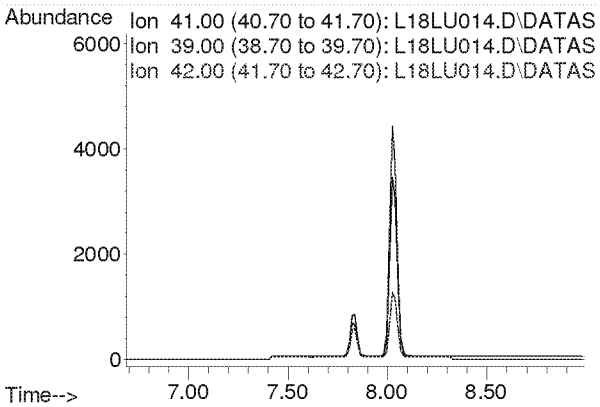




#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

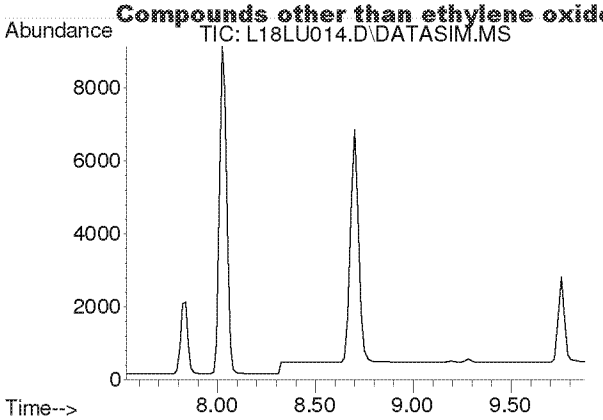
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 39 | 78.2 |
| 42 | 65.8 |



**Compounds other than ethylene oxide were not quantitated.**

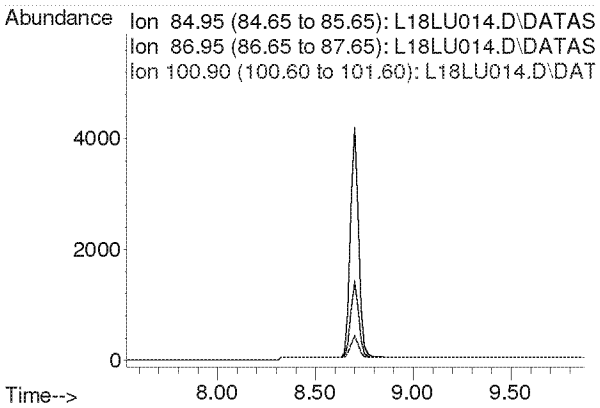


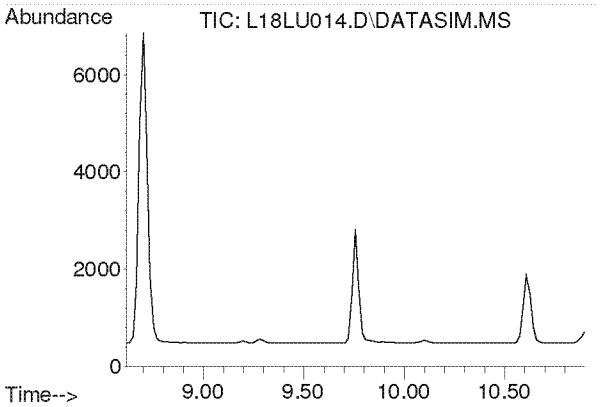

#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 87 | 32.5 |
| 101 | 8.9 |



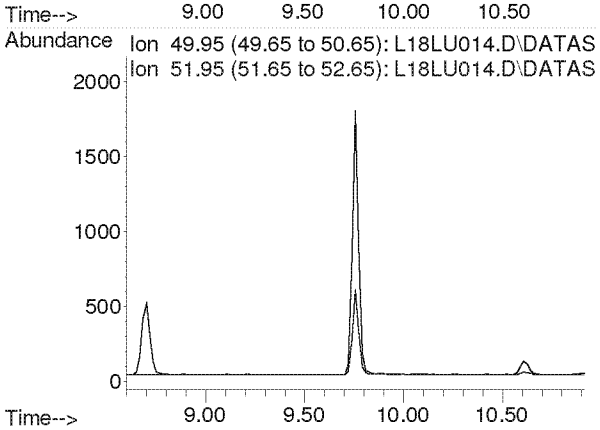




#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

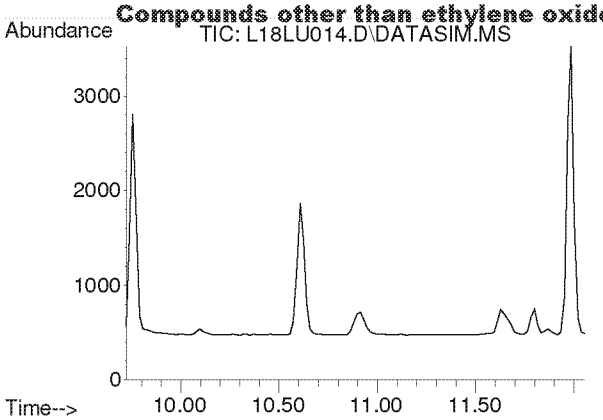
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 50

| Sig | Exp Ratio |
|---|---|
| 50 | 100 |
| 52 | 32.6 |



**Compounds other than ethylene oxide were not quantitated.**

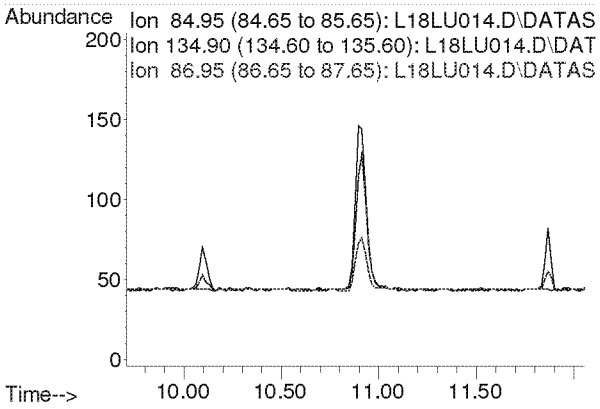


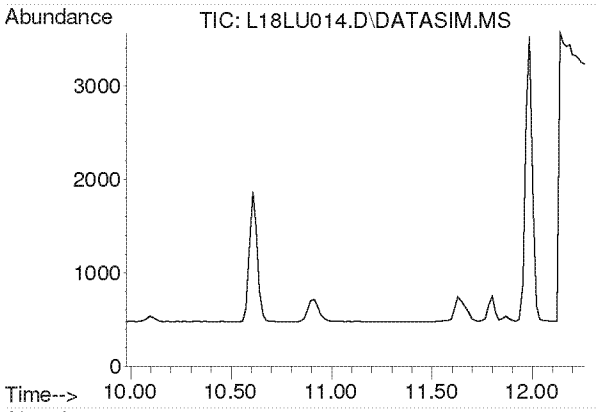

#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 135 | 79.1 |
| 87 | 32.1 |



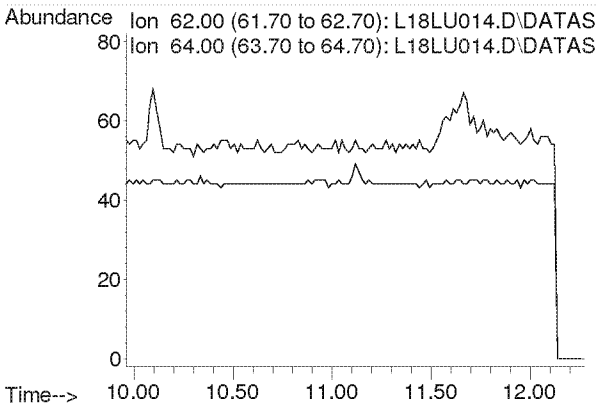




#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

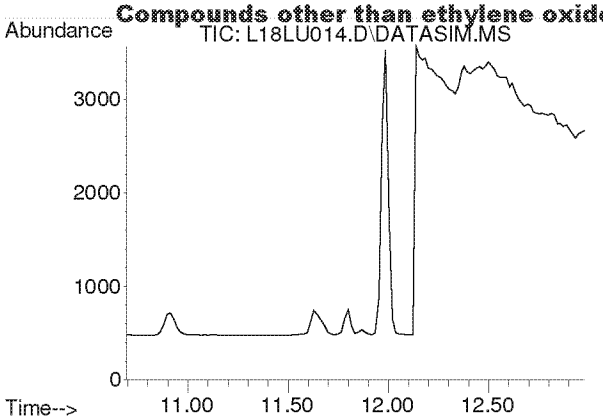
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 64 | 31.8 |



**Compounds other than ethylene oxide were not quantitated.**

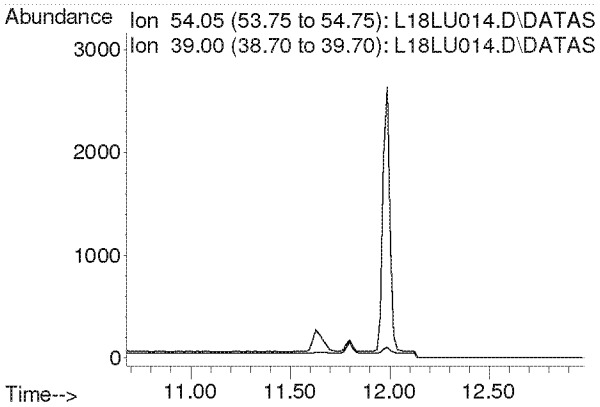


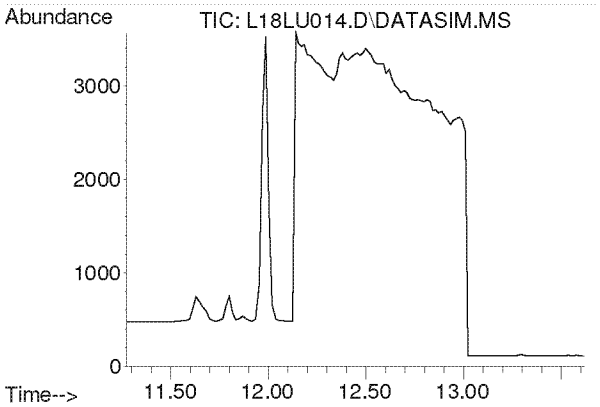

#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 54

| Sig | Exp Ratio |
|---|---|
| 54 | 100 |
| 39 | 105.4 |



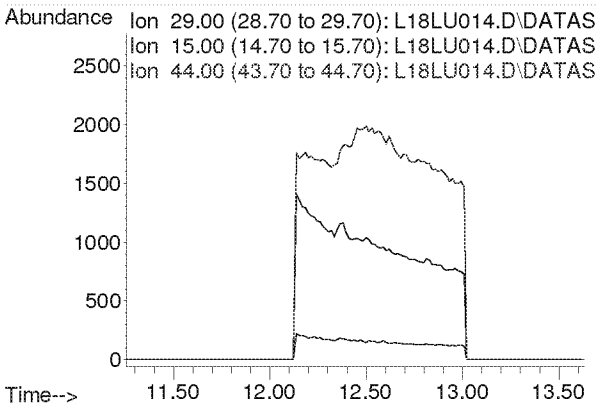




#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

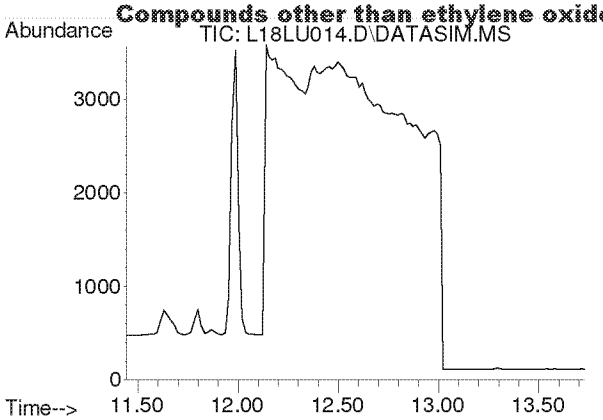
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 29

| Sig | Exp Ratio |
|---|---|
| 29 | 100 |
| 15 | 20.3 |
| 44 | 90.0 |



**Compounds other than ethylene oxide were not quantitated.**

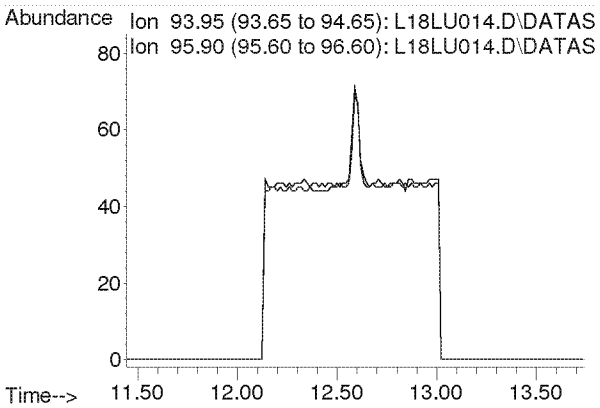


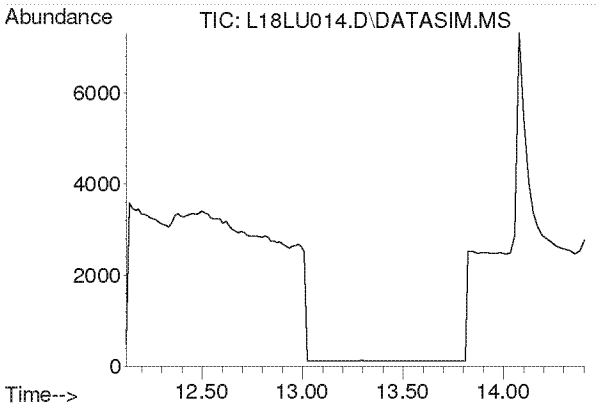

#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 94

| Sig | Exp Ratio |
|---|---|
| 94 | 100 |
| 96 | 93.9 |



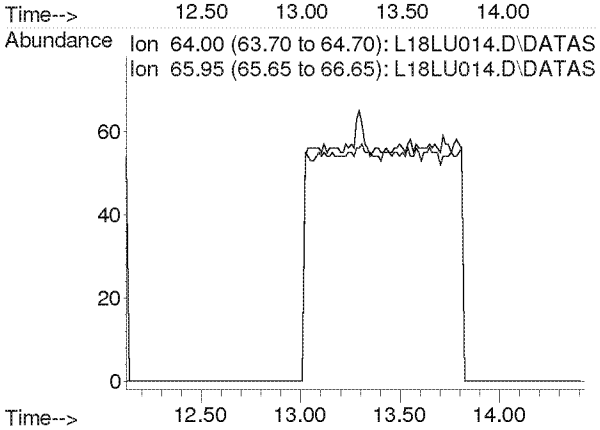




#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

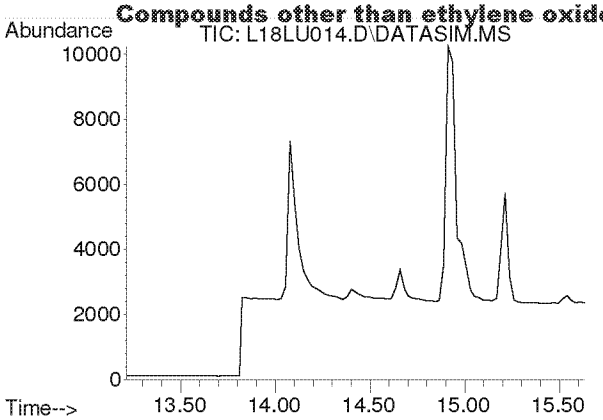
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 64

| Sig | Exp Ratio |
|---|---|
| 64 | 100 |
| 66 | 32.0 |



**Compounds other than ethylene oxide were not quantitated.**

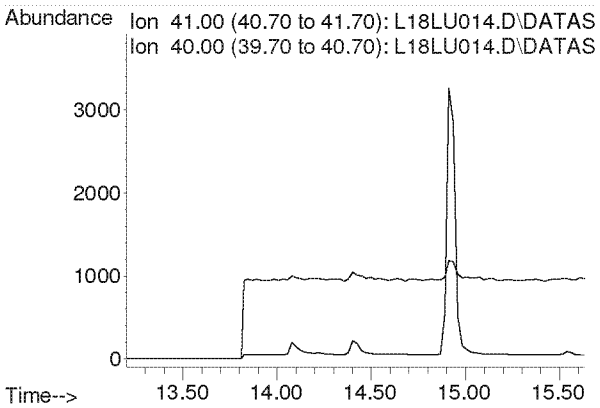


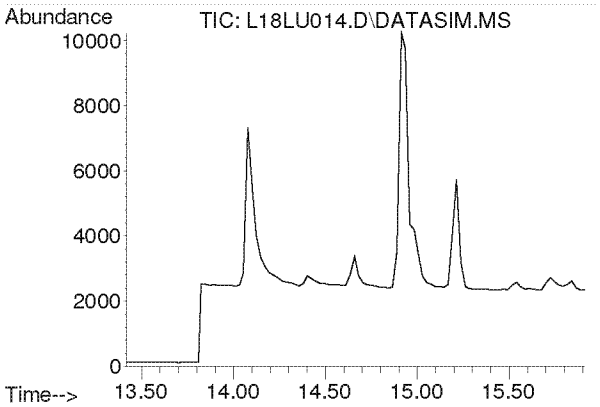

#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 40 | 50.9 |



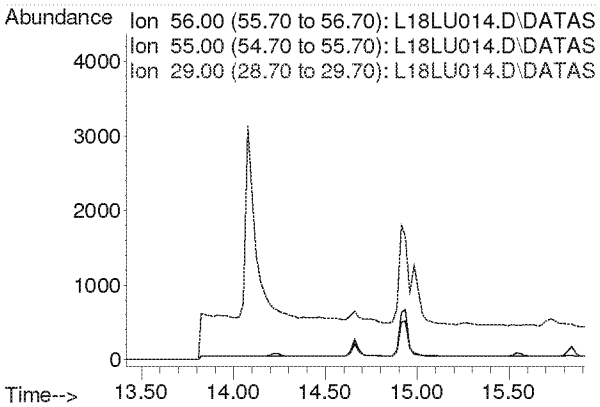




#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

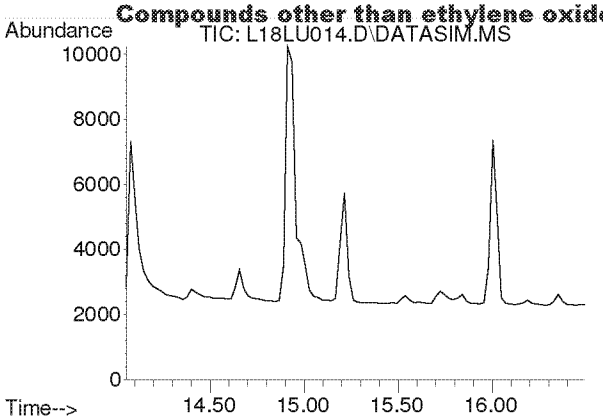
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 56

| Sig | Exp Ratio |
|---|---|
| 56 | 100 |
| 55 | 75.4 |
| 29 | 52.9 |



**Compounds other than ethylene oxide were not quantitated.**

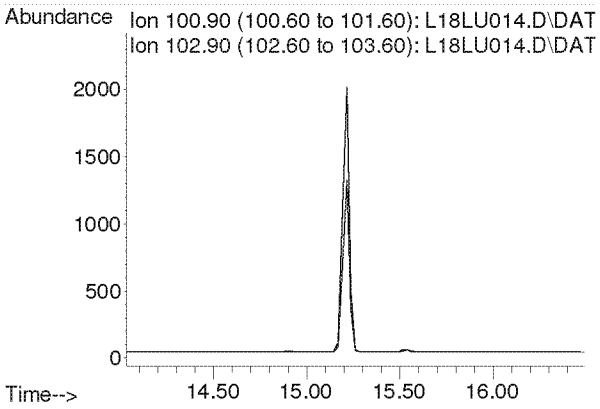


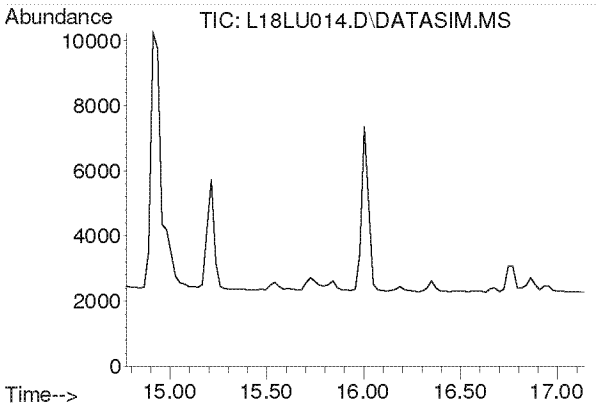

#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 103 | 64.6 |



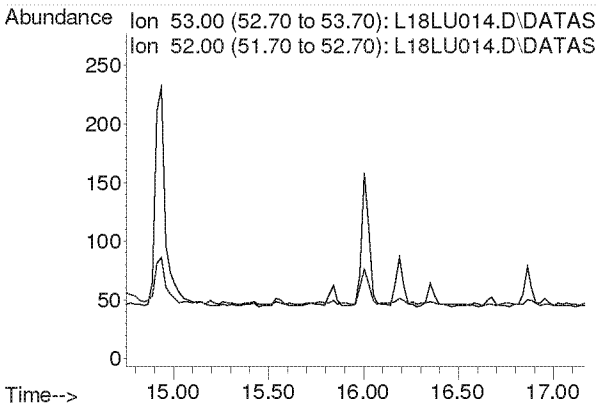




#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

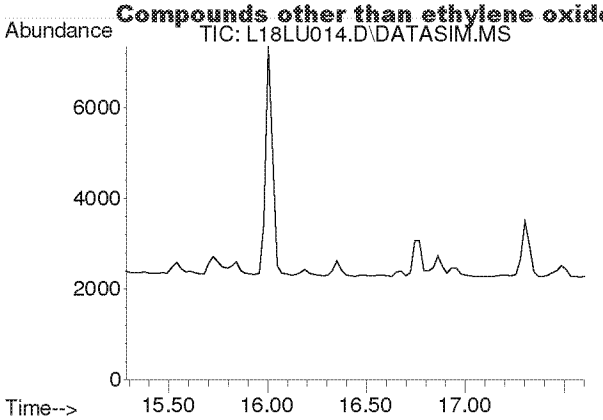
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 52 | 85.4 |



**Compounds other than ethylene oxide were not quantitated.**

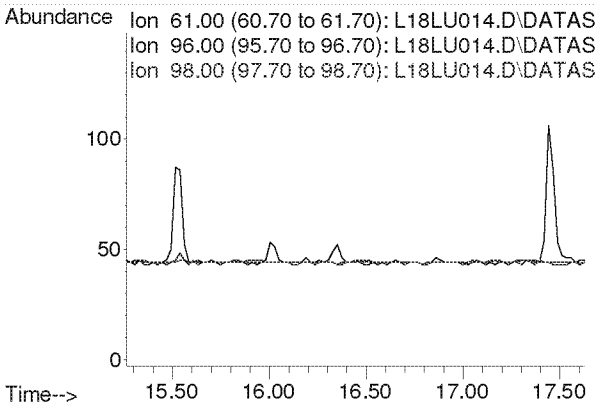


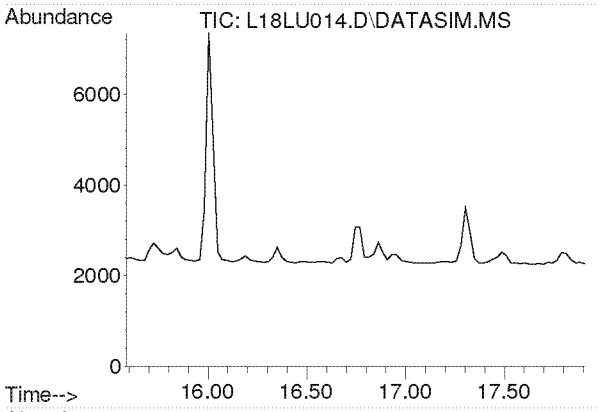

#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 58.3 |
| 98 | 37.4 |



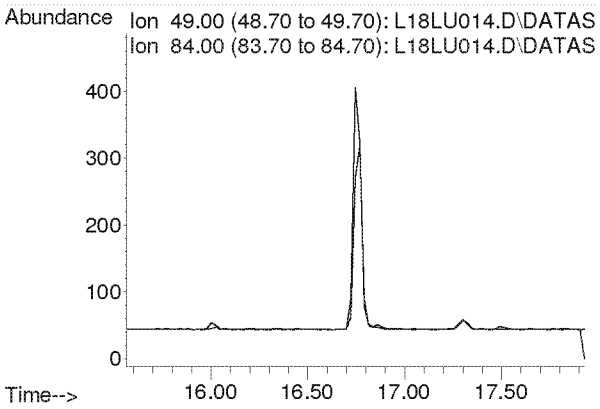




#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

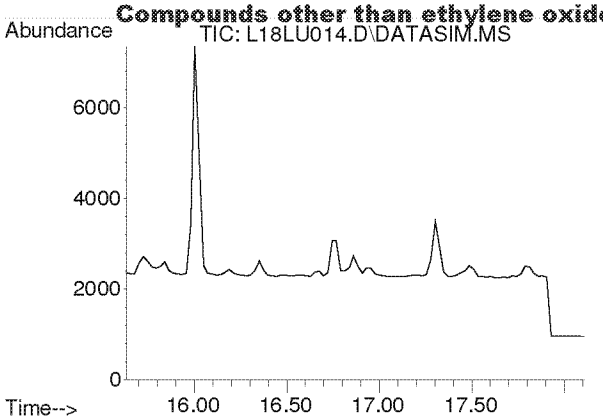
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 49

| Sig | Exp Ratio |
|---|---|
| 49 | 100 |
| 84 | 76.4 |



**Compounds other than ethylene oxide were not quantitated.**

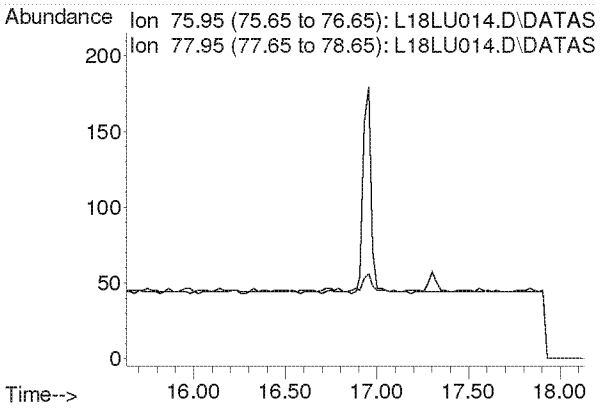


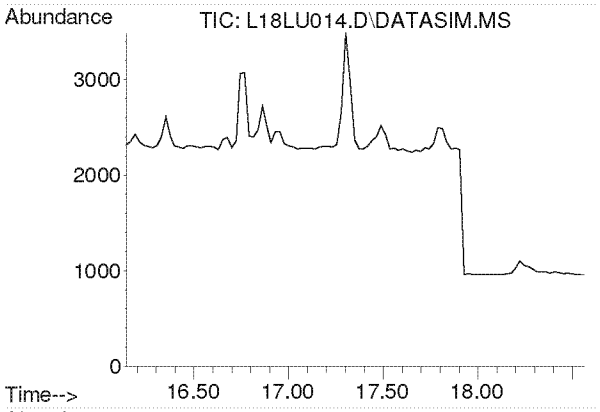

#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 76

| Sig | Exp Ratio |
|---|---|
| 76 | 100 |
| 78 | 9.1 |



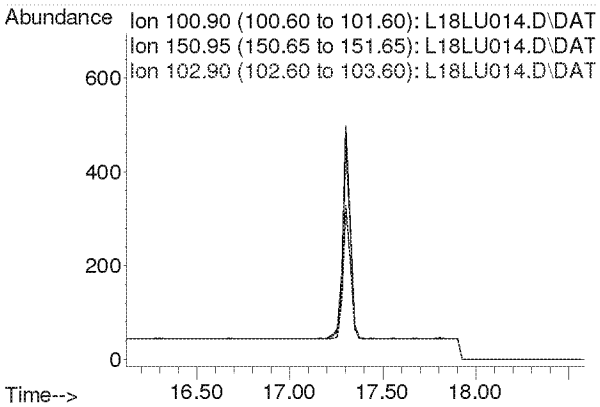




#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

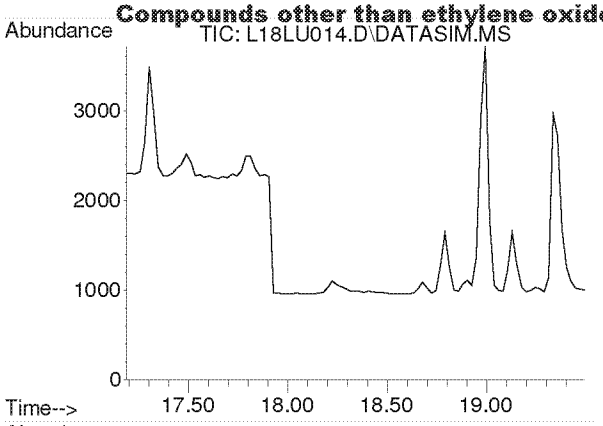
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 151 | 95.3 |
| 103 | 64.1 |



**Compounds other than ethylene oxide were not quantitated.**

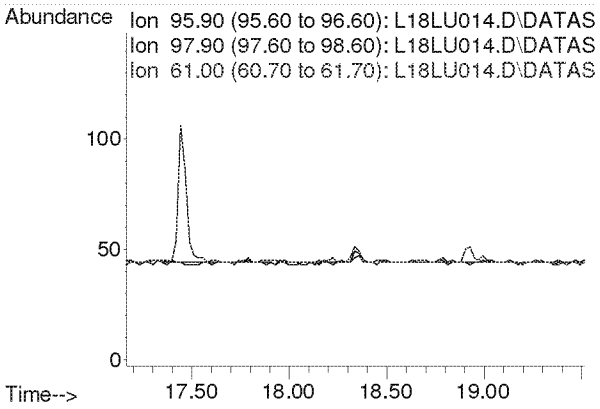


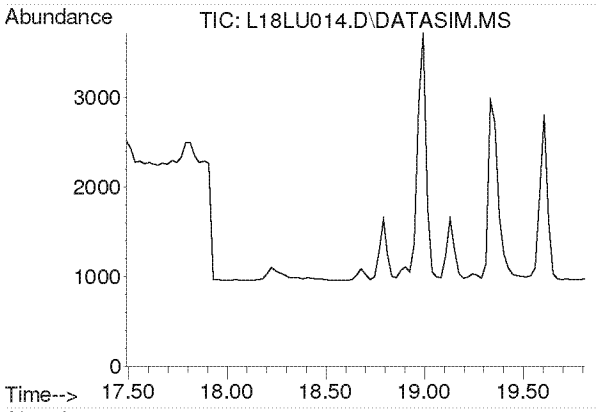

#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 96

| Sig | Exp Ratio |
|---|---|
| 96 | 100 |
| 98 | 63.7 |
| 61 | 159.2 |



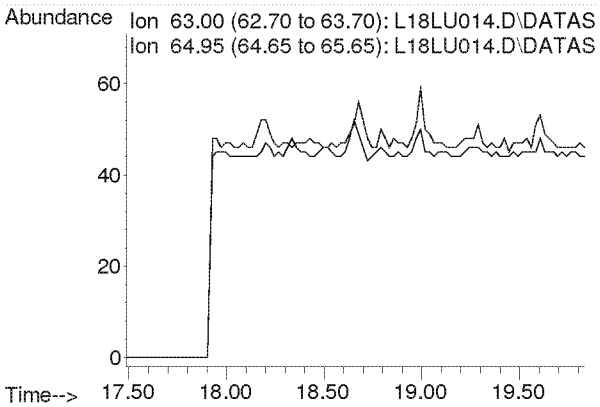




#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

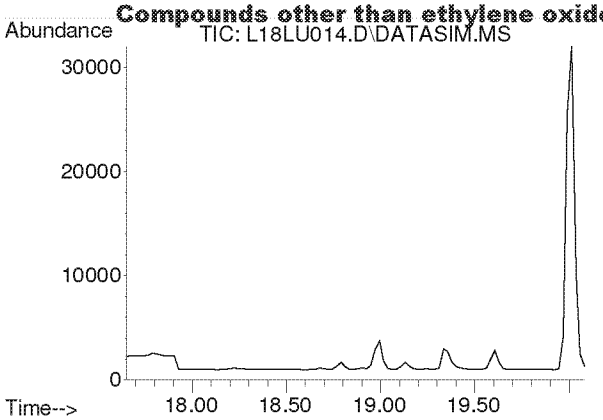
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 65 | 31.7 |



**Compounds other than ethylene oxide were not quantitated.**

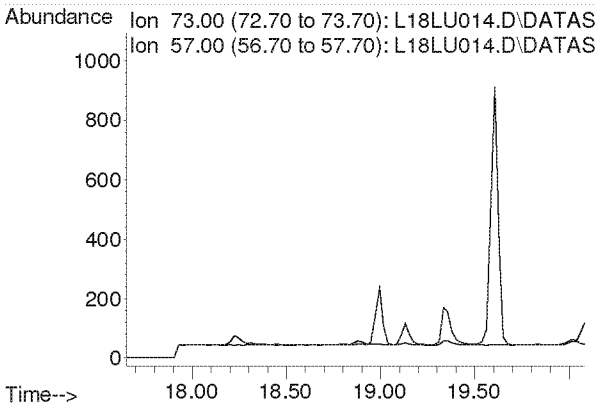


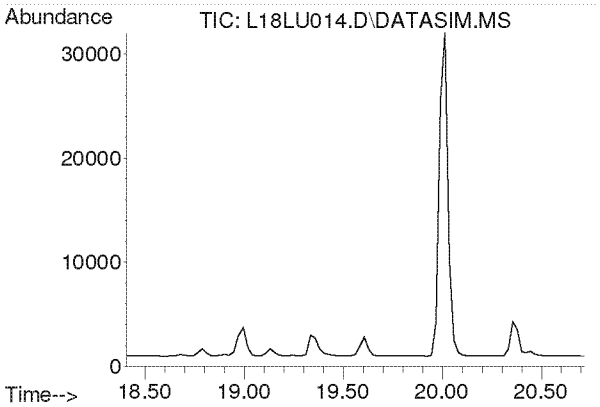

#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 57 | 23.4 |



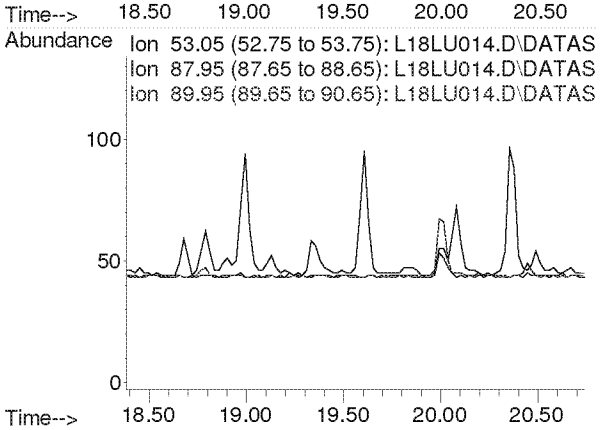




#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

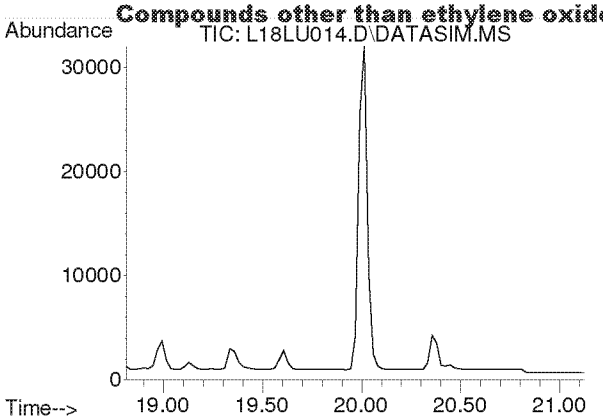
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 88 | 51.8 |
| 90 | 16.8 |



**Compounds other than ethylene oxide were not quantitated.**

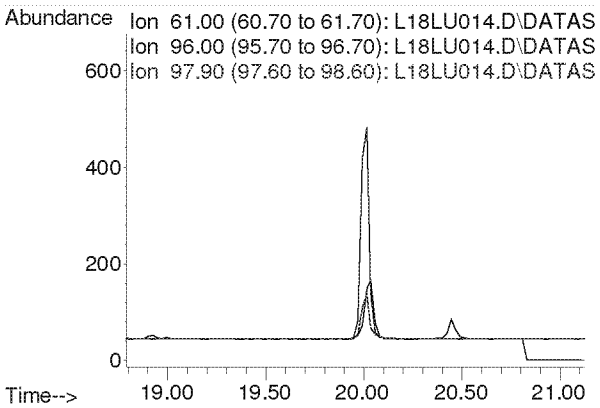


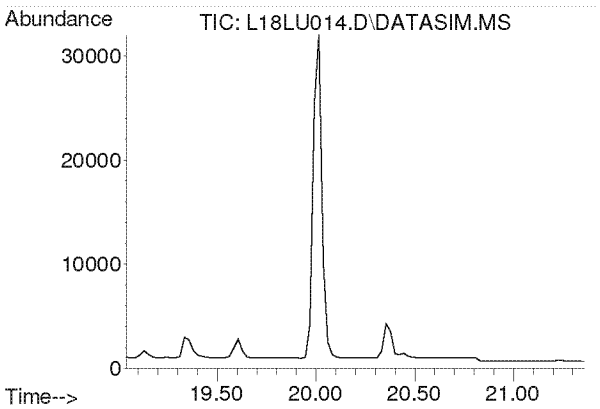

#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 73.7 |
| 98 | 45.2 |



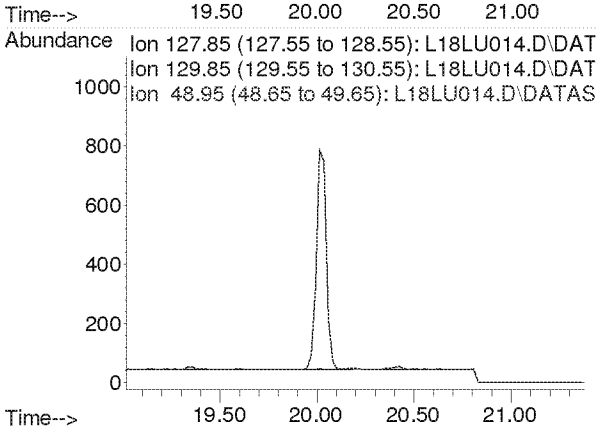




#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

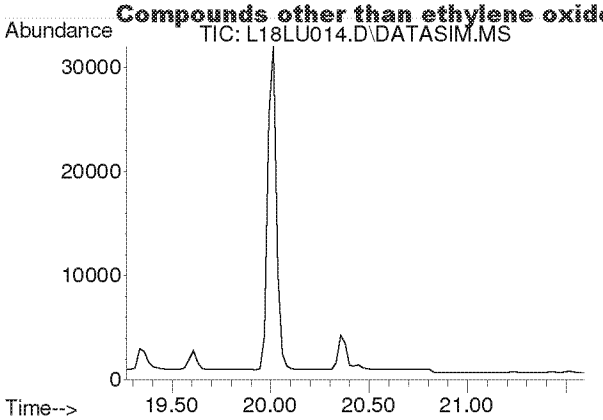
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 128

| Sig | Exp Ratio |
|---|---|
| 128 | 100 |
| 130 | 129.1 |
| 49 | 171.2 |



**Compounds other than ethylene oxide were not quantitated.**

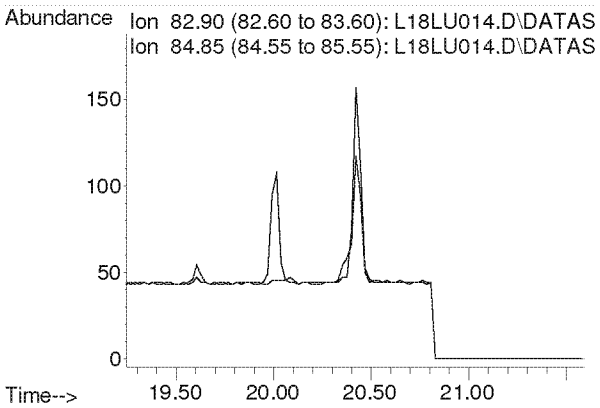


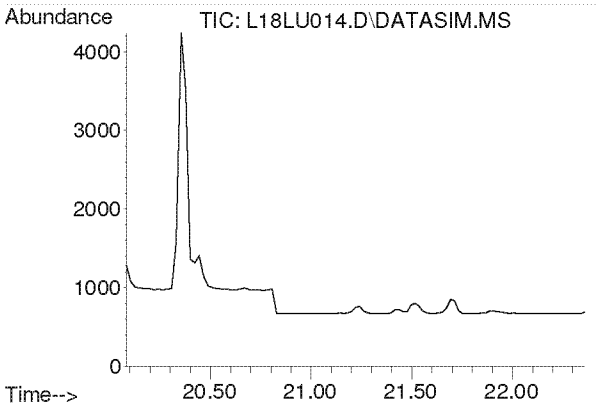

#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.4 |



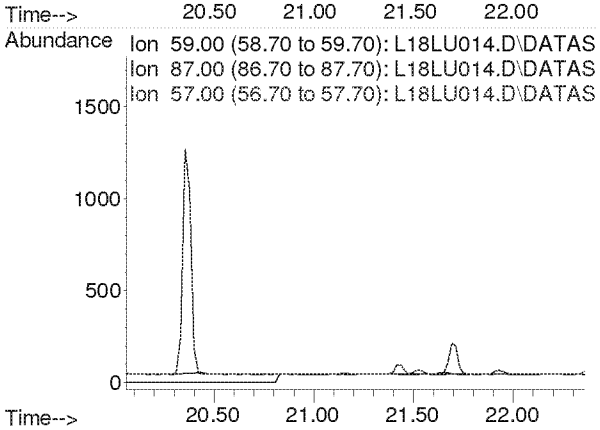




#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

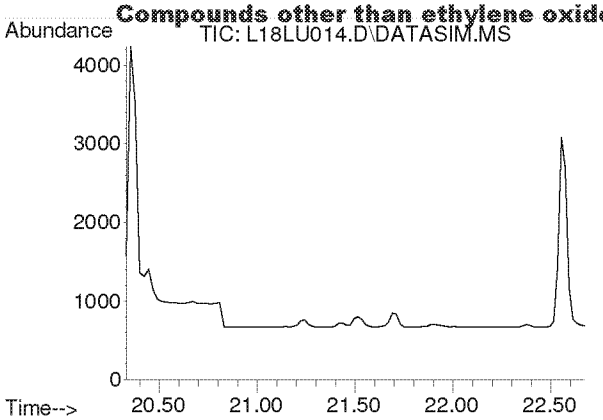
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 59

| Sig | Exp Ratio |
|---|---|
| 59 | 100 |
| 87 | 37.5 |
| 57 | 33.8 |



**Compounds other than ethylene oxide were not quantitated.**

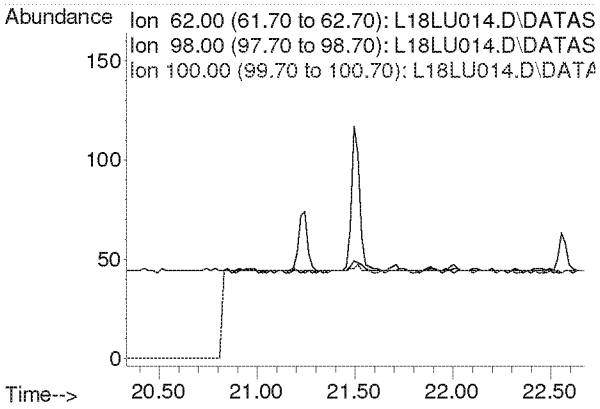


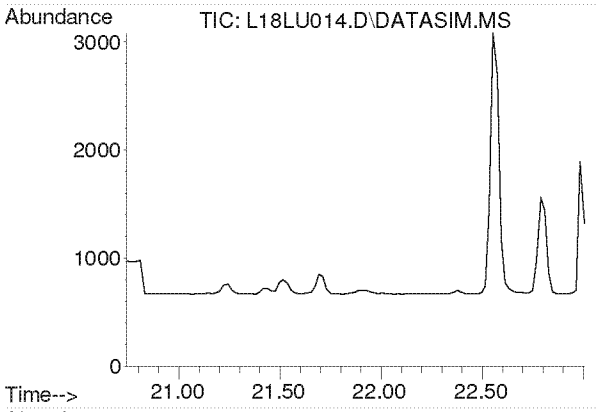

#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 98 | 6.4 |
| 100 | 4.0 |



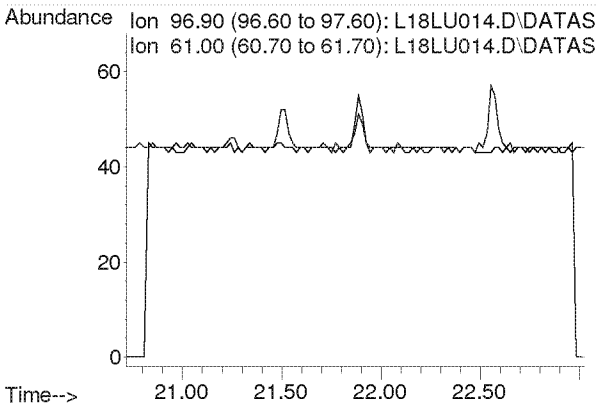




#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

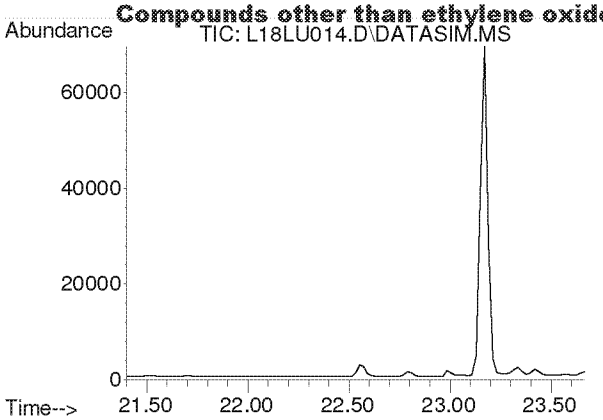
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 61 | 60.5 |



**Compounds other than ethylene oxide were not quantitated.**

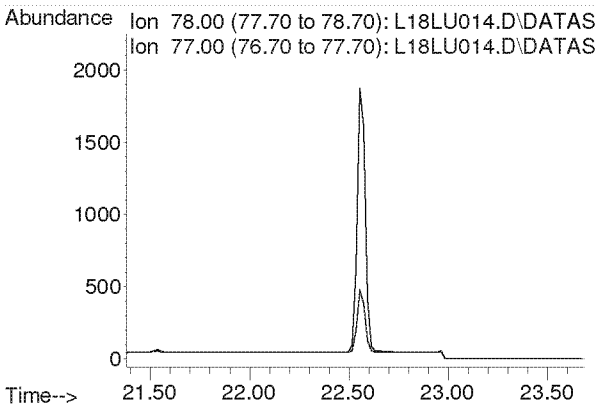


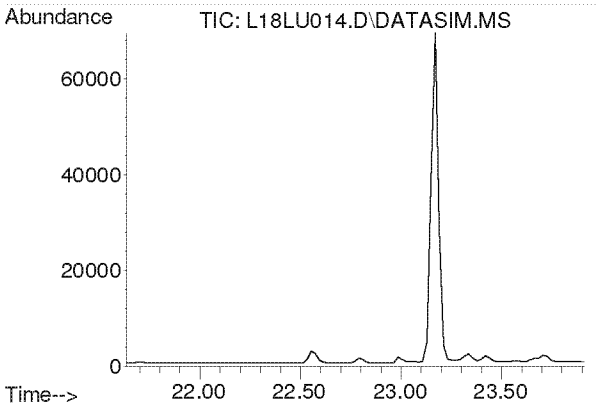

#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 78

| Sig | Exp Ratio |
|---|---|
| 78 | 100 |
| 77 | 22.7 |



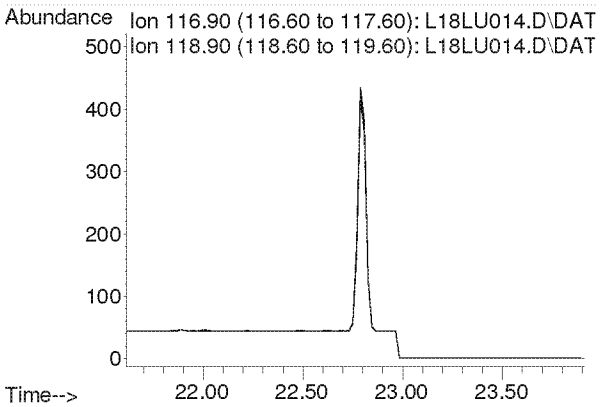




#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

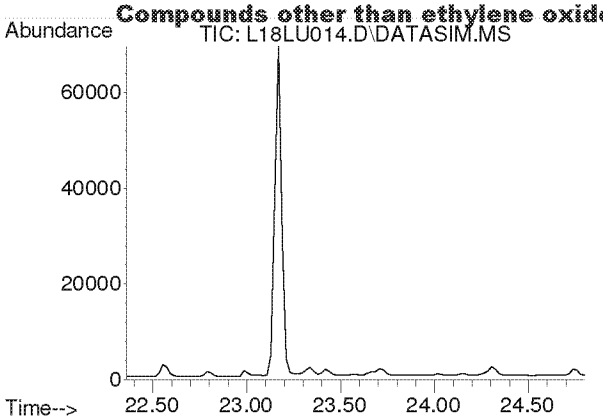
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 117

| Sig | Exp Ratio |
|---|---|
| 117 | 100 |
| 119 | 96.5 |



**Compounds other than ethylene oxide were not quantitated.**

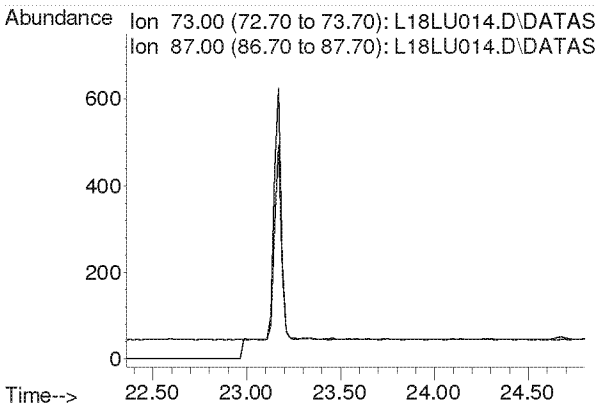


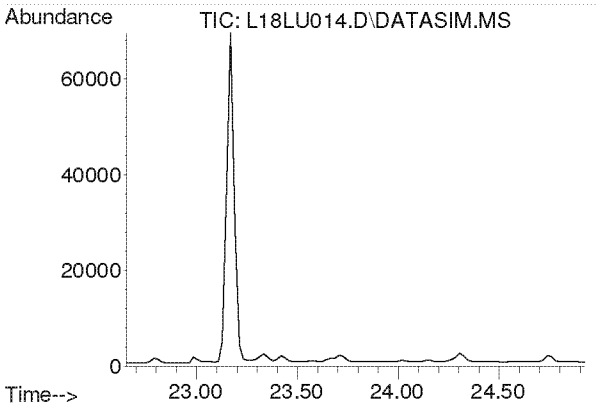

#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 87 | 24.9 |



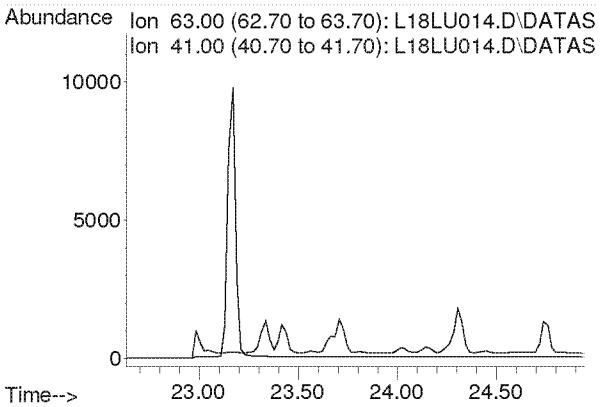




#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

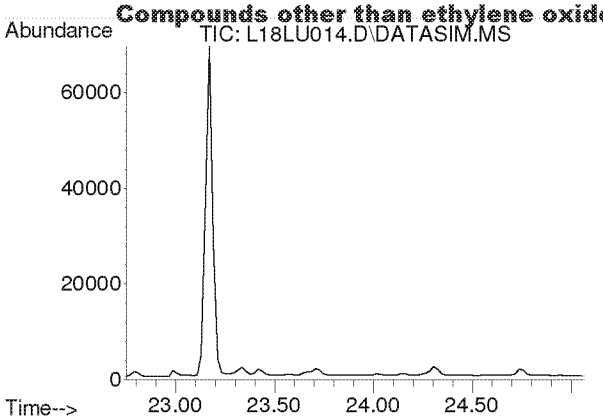
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 41 | 212.8 |



**Compounds other than ethylene oxide were not quantitated.**

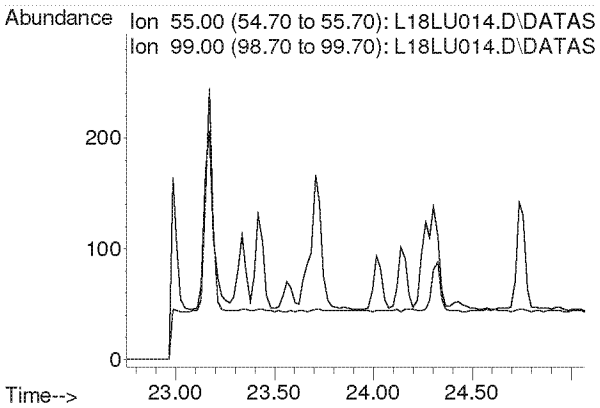


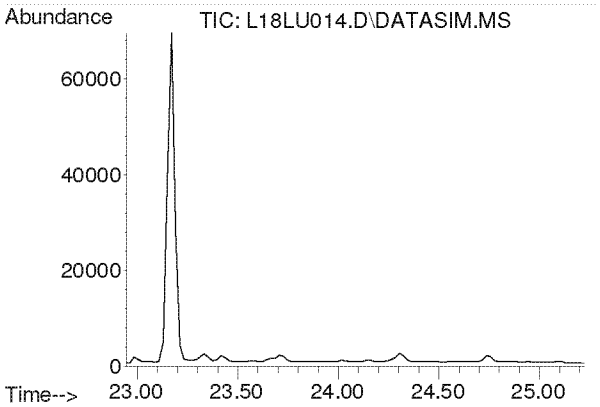

#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 55

| Sig | Exp Ratio |
|---|---|
| 55 | 100 |
| 99 | 6.1 |



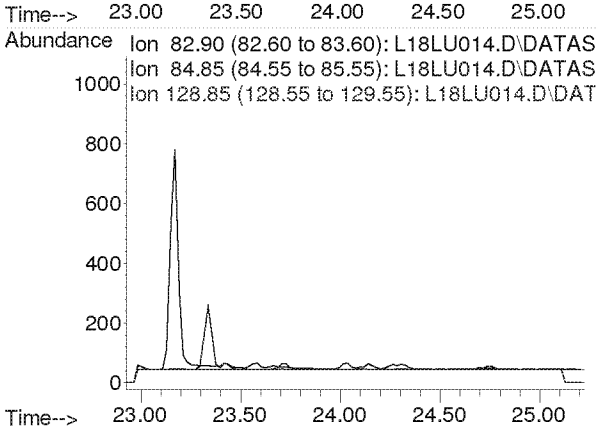




#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

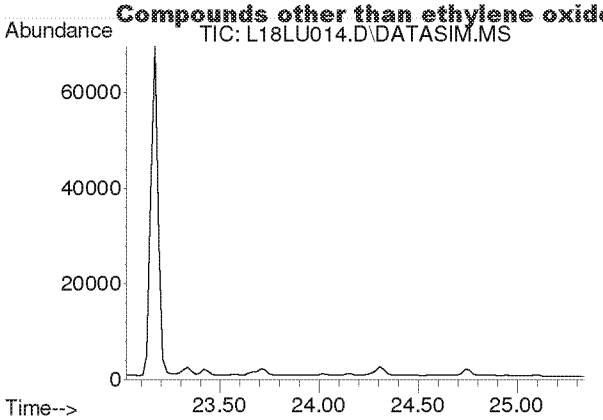
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.0 |
| 129 | 12.4 |



**Compounds other than ethylene oxide were not quantitated.**

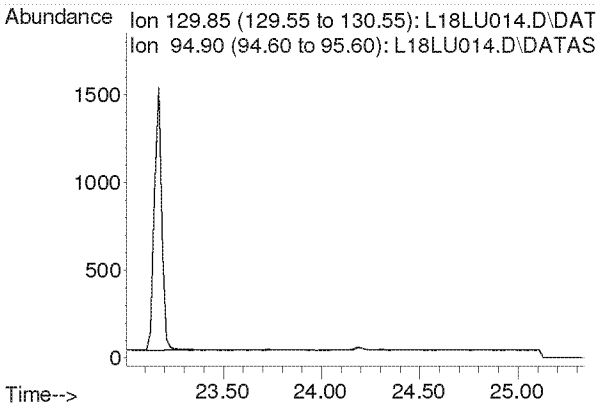


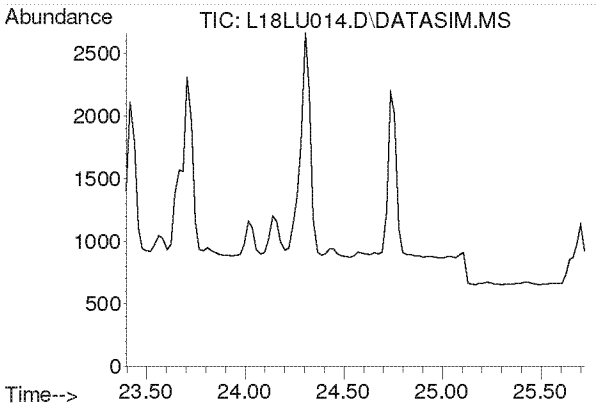

#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 130

| Sig | Exp Ratio |
|---|---|
| 130 | 100 |
| 95 | 110.3 |



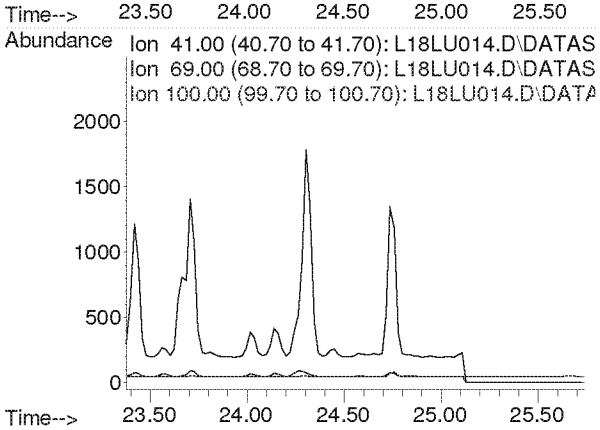




#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

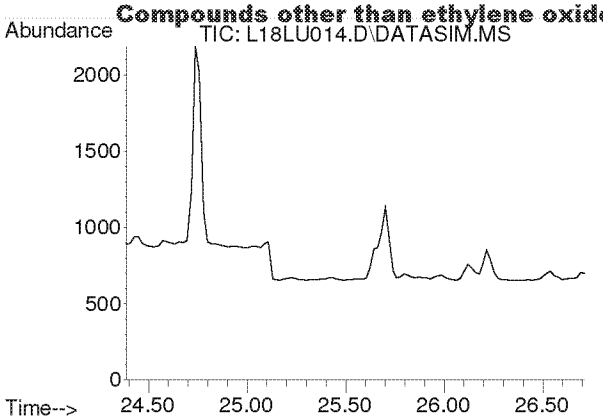
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 69 | 19.9 |
| 100 | 5.2 |



**Compounds other than ethylene oxide were not quantitated.**

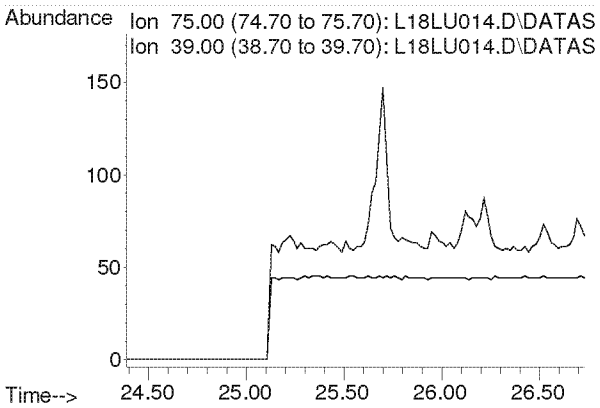


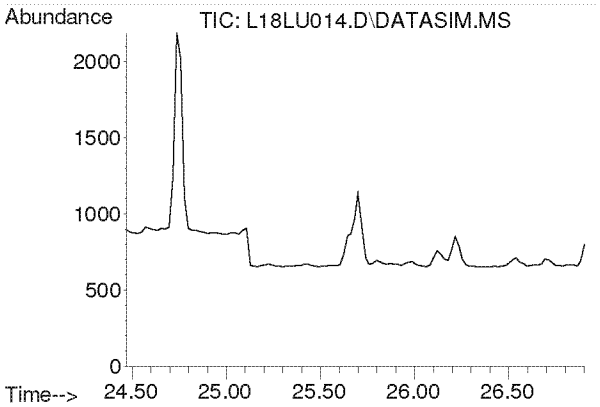

#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 54.4 |



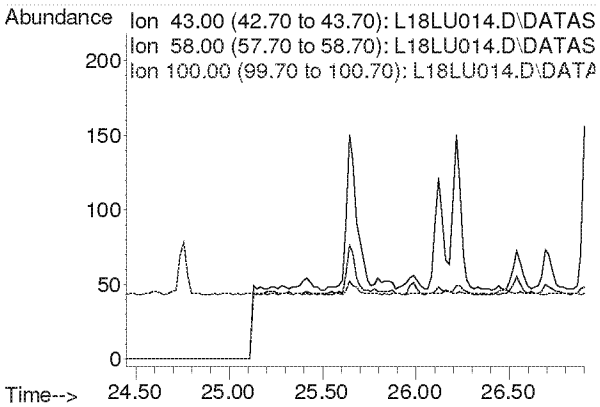




#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

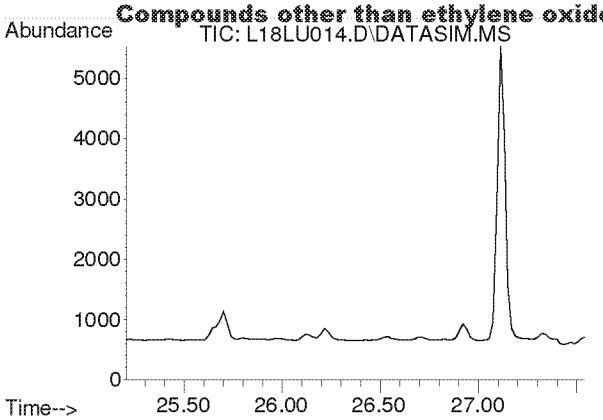
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 58 | 34.2 |
| 100 | 7.9 |



**Compounds other than ethylene oxide were not quantitated.**

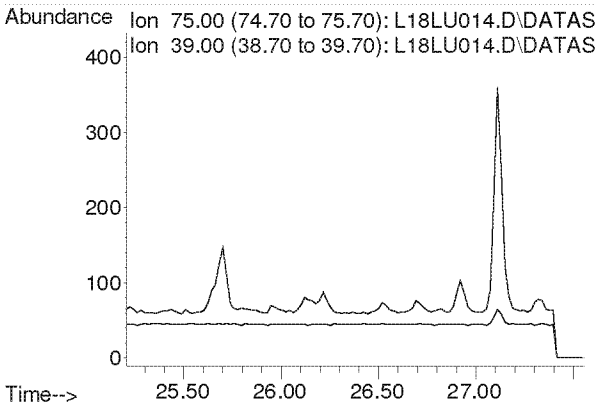


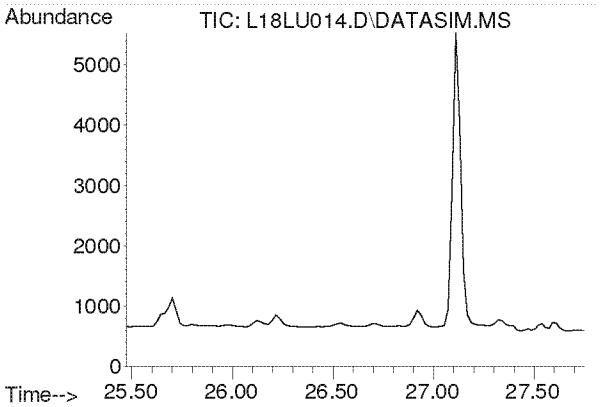

#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 50.9 |



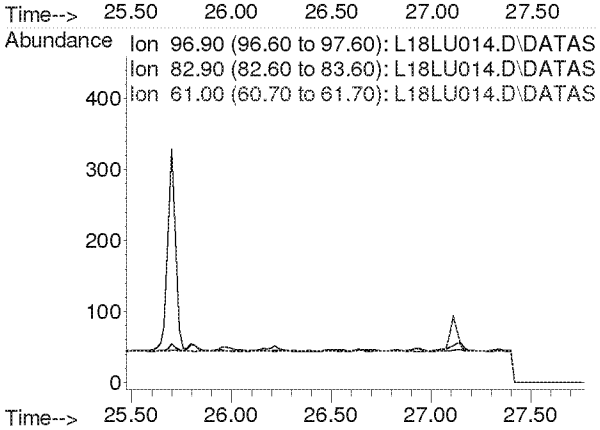




#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

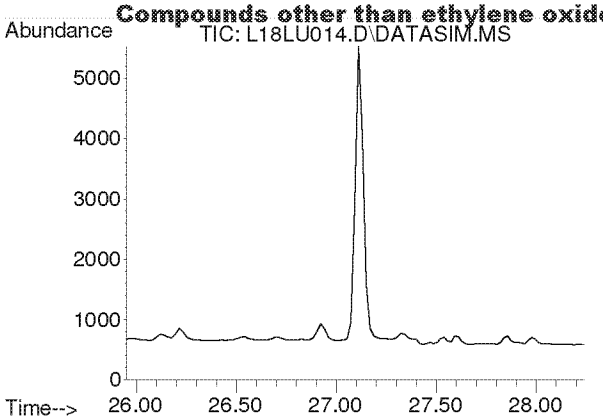
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 83 | 96.1 |
| 61 | 63.5 |



**Compounds other than ethylene oxide were not quantitated.**

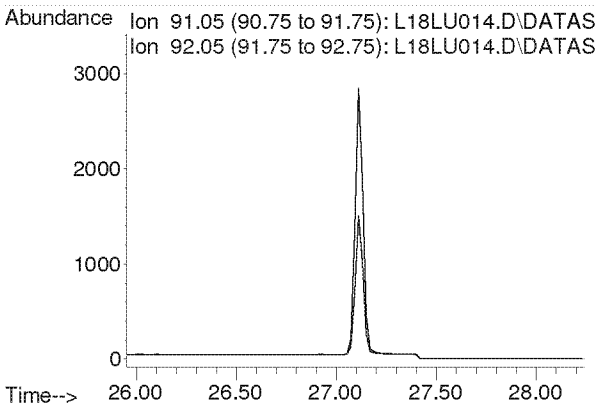


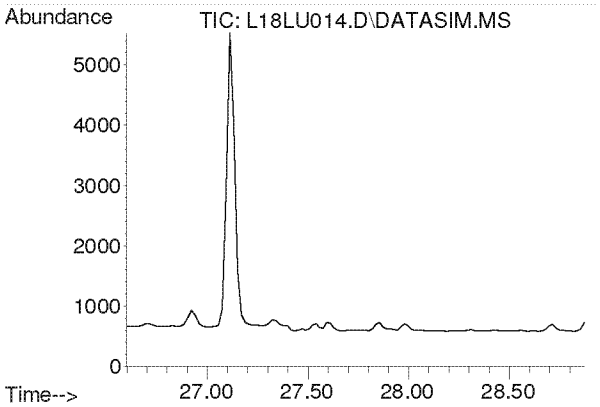

#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 92 | 52.6 |



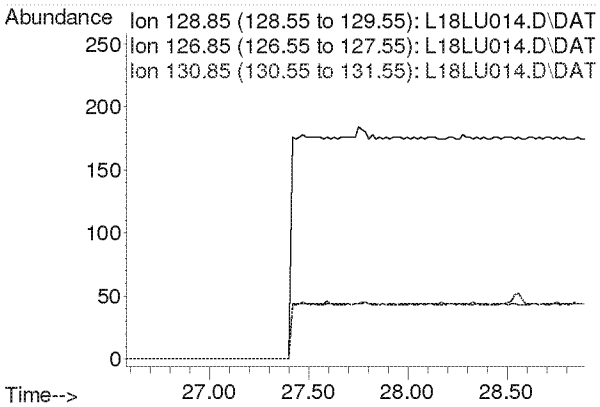




#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

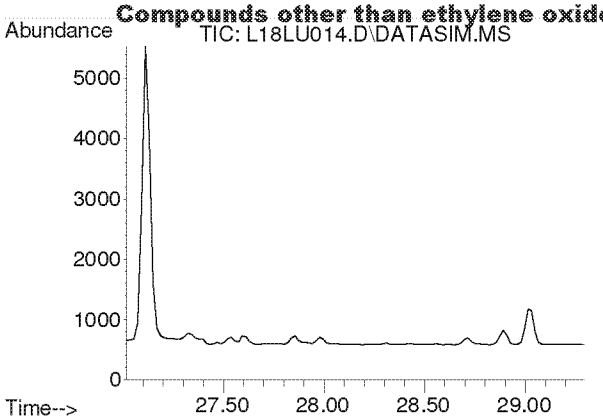
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 129

| Sig | Exp Ratio |
|---|---|
| 129 | 100 |
| 127 | 19.2 |
| 131 | 6.0 |



**Compounds other than ethylene oxide were not quantitated.**

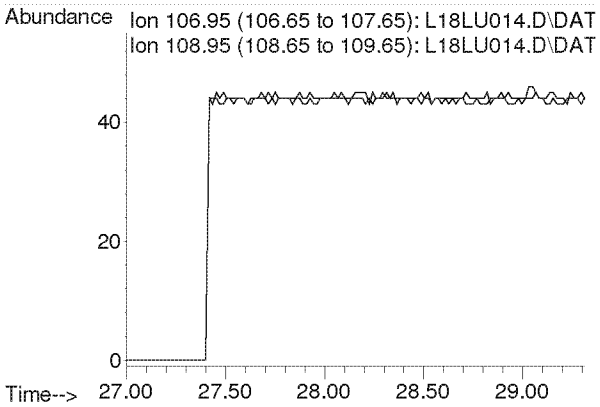


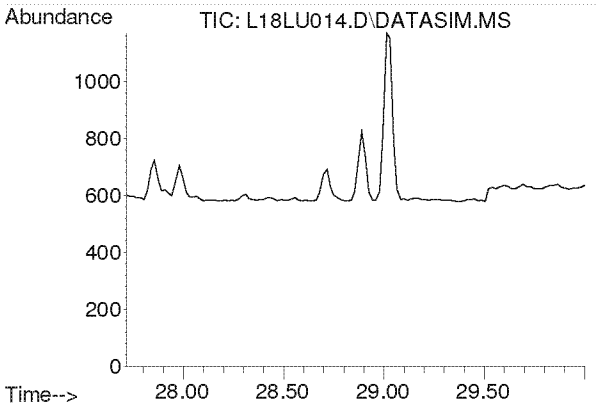

#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 107

| Sig | Exp Ratio |
|---|---|
| 107 | 100 |
| 109 | 94.5 |



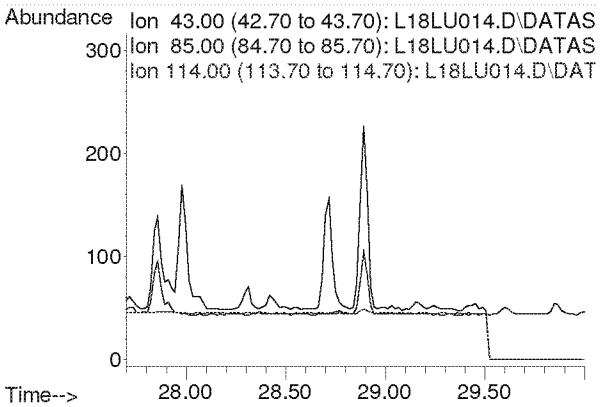




#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

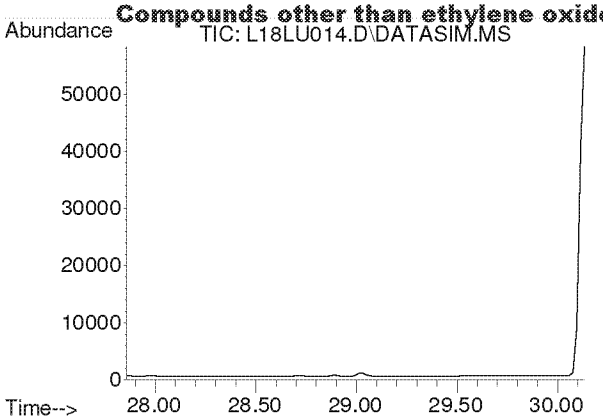
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 85 | 36.0 |
| 114 | 2.2 |



**Compounds other than ethylene oxide were not quantitated.**

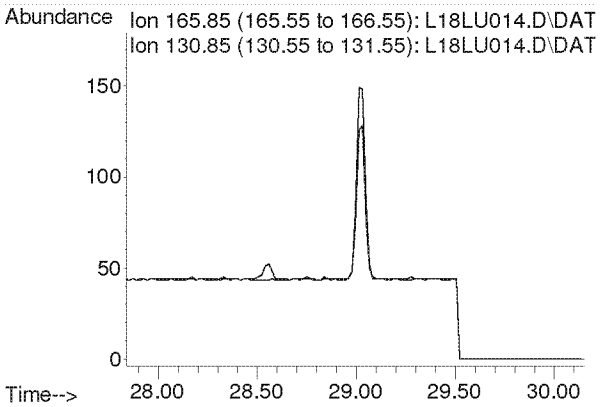


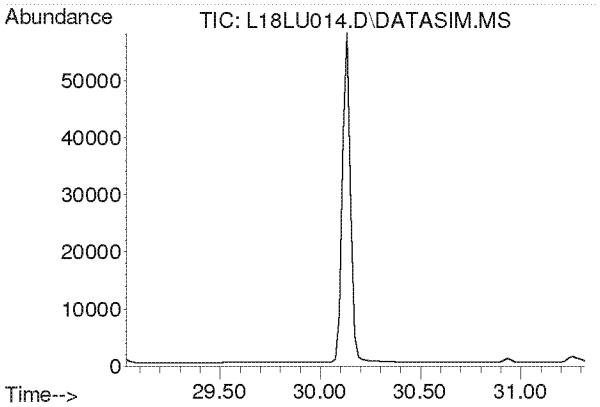

#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 166

| Sig | Exp Ratio |
|---|---|
| 166 | 100 |
| 131 | 78.2 |



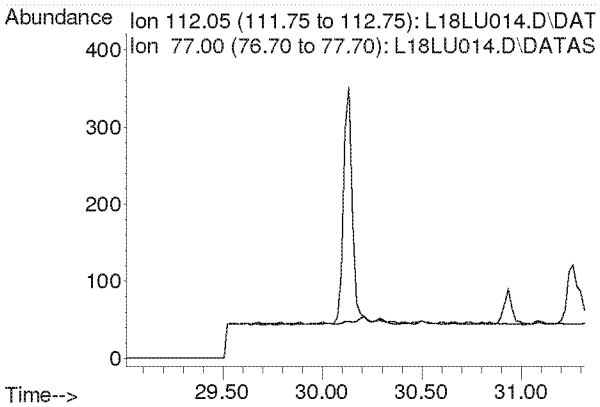




#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

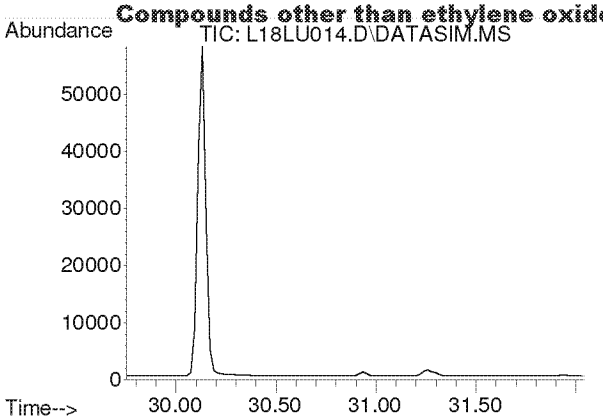
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 112

| Sig | Exp Ratio |
|---|---|
| 112 | 100 |
| 77 | 63.0 |



**Compounds other than ethylene oxide were not quantitated.**

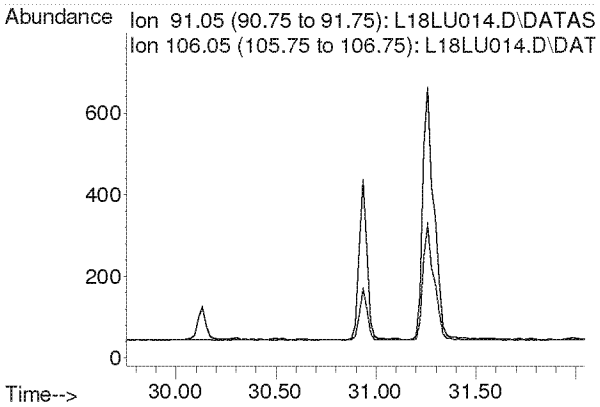


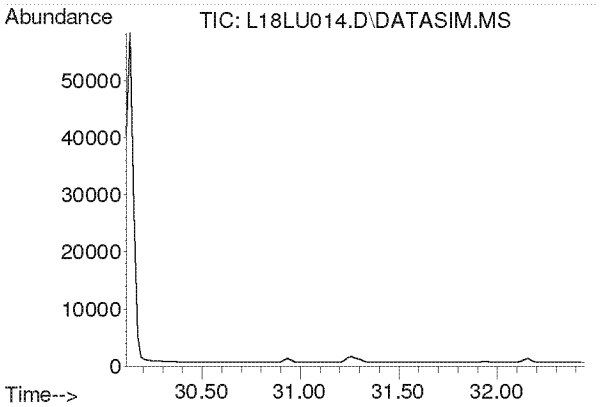

#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 31.8 |



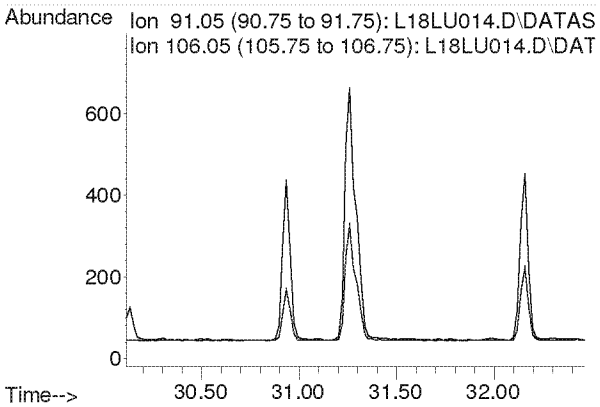




#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

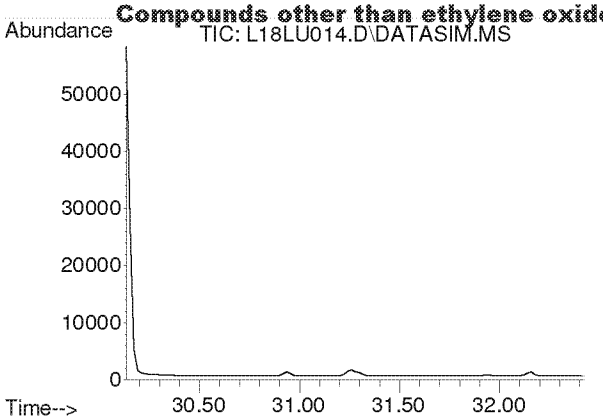
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.4 |



**Compounds other than ethylene oxide were not quantitated.**

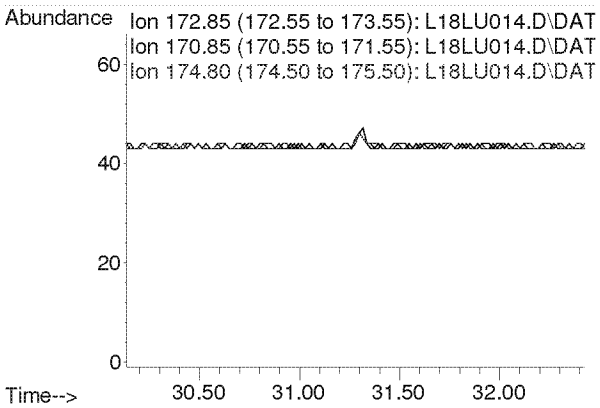


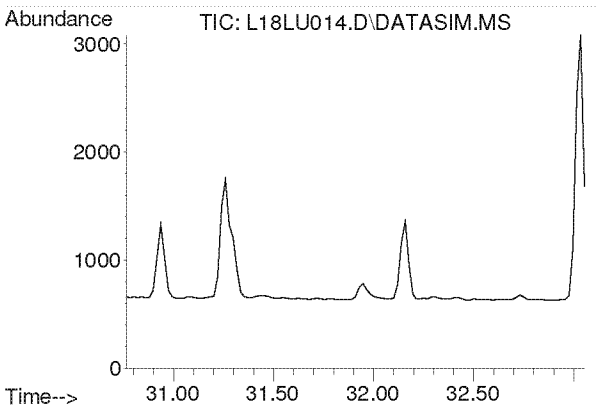

#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 173

| Sig | Exp Ratio |
|---|---|
| 173 | 100 |
| 171 | 51.3 |
| 175 | 49.0 |



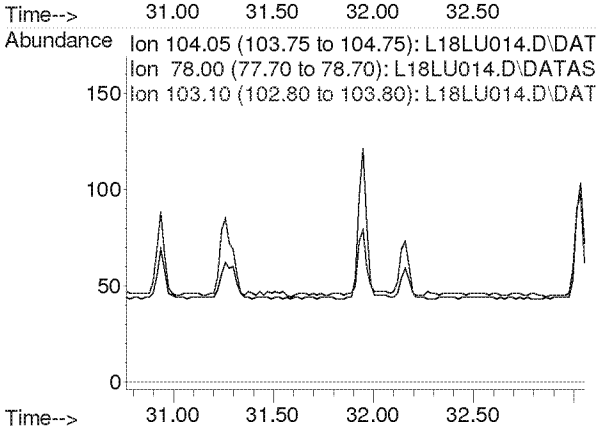




#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

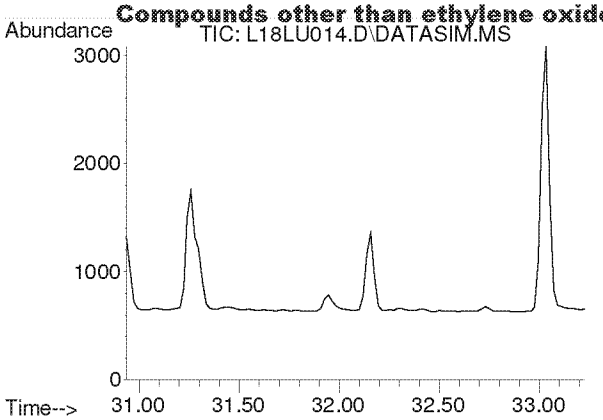
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 104

| Sig | Exp Ratio |
|---|---|
| 104 | 100 |
| 78 | 45.6 |
| 103 | 0.0 |



**Compounds other than ethylene oxide were not quantitated.**

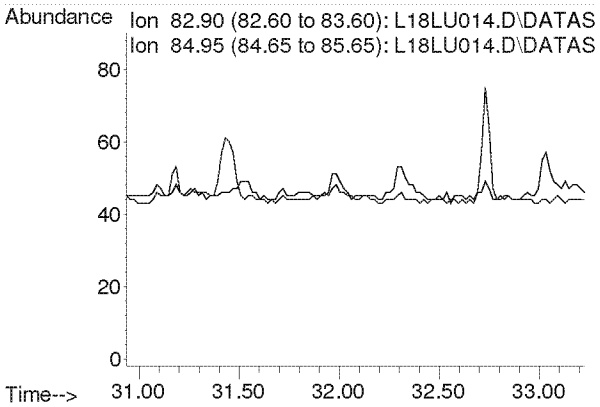


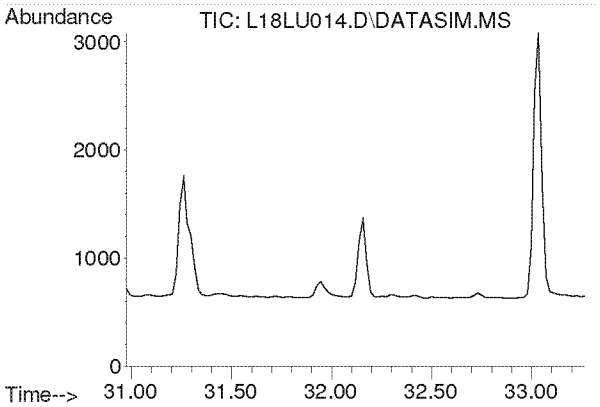

#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 63.9 |



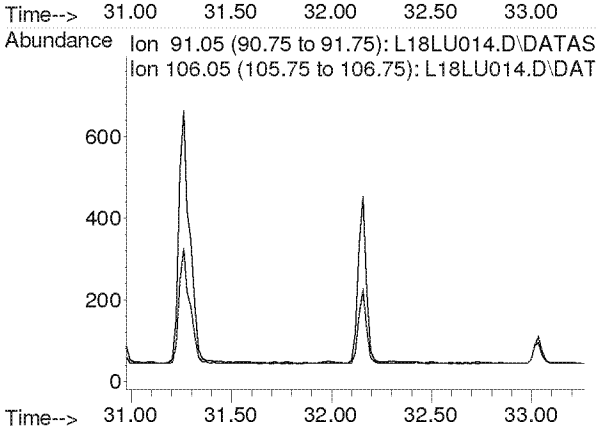




#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

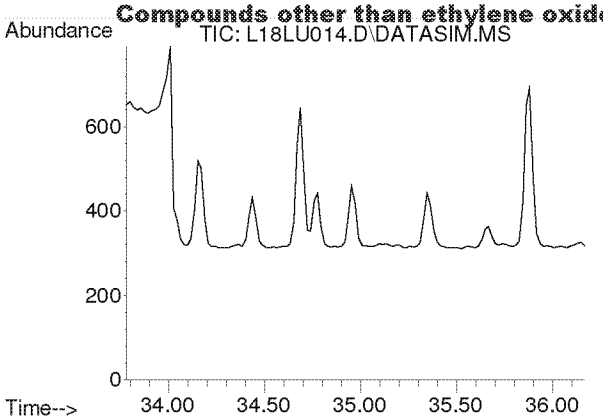
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.2 |



**Compounds other than ethylene oxide were not quantitated.**

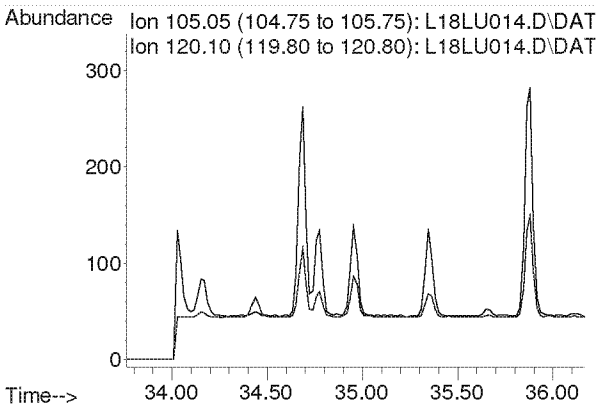


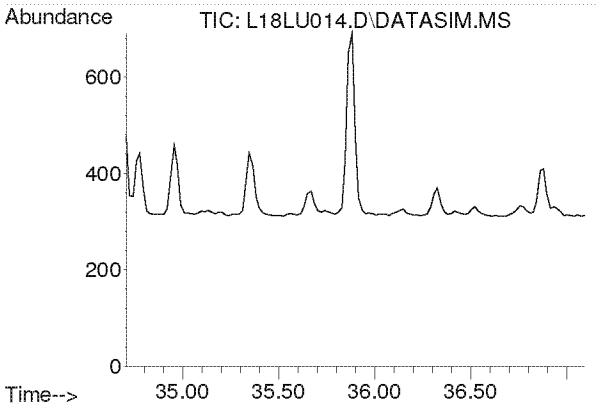

#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 45.0 |



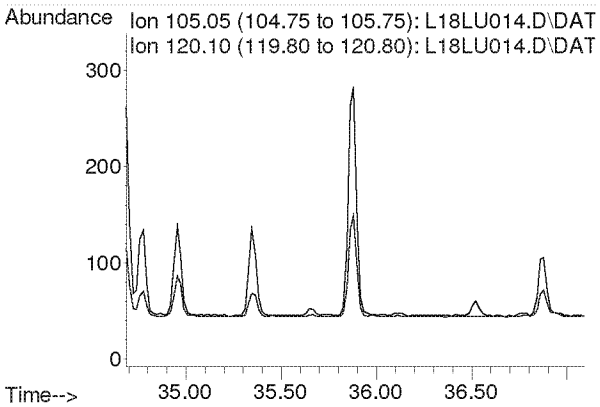




#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

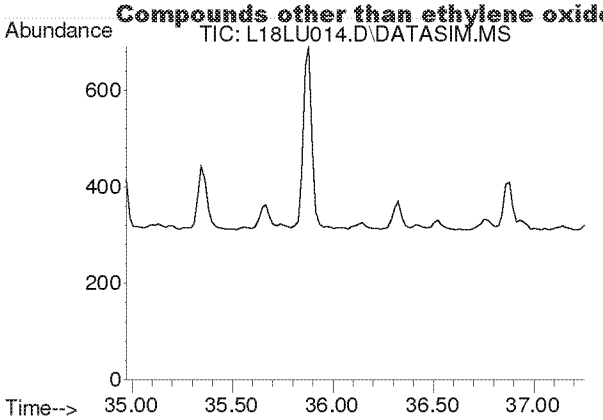
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 42.8 |



**Compounds other than ethylene oxide were not quantitated.**

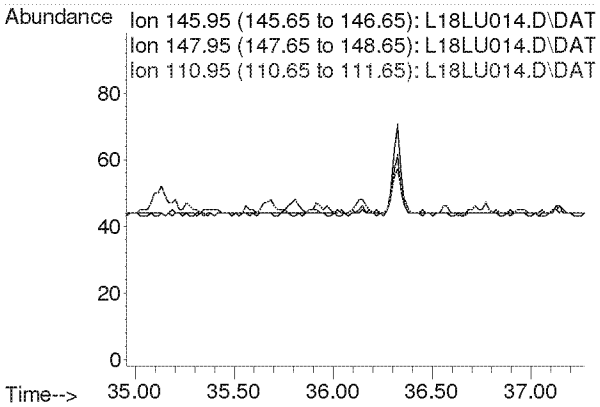


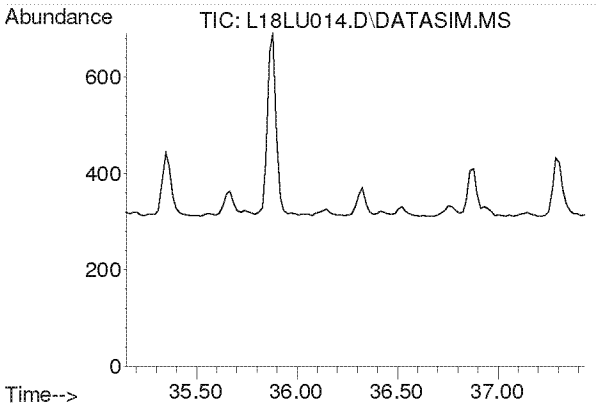

#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 40.5 |



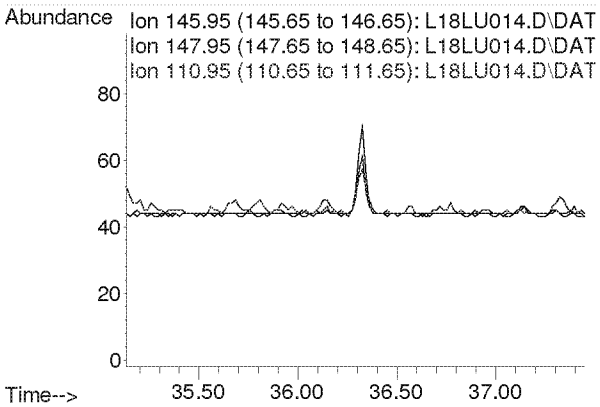




#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

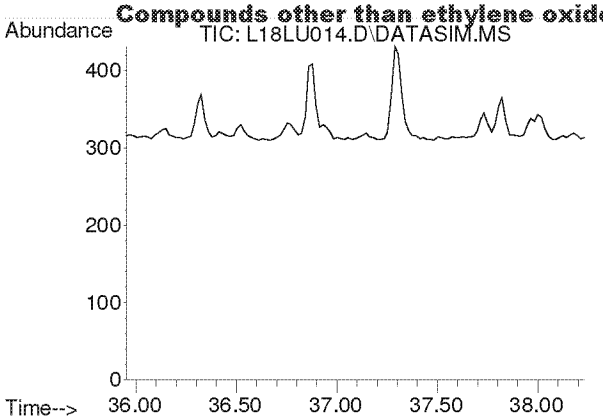
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 39.5 |



**Compounds other than ethylene oxide were not quantitated.**

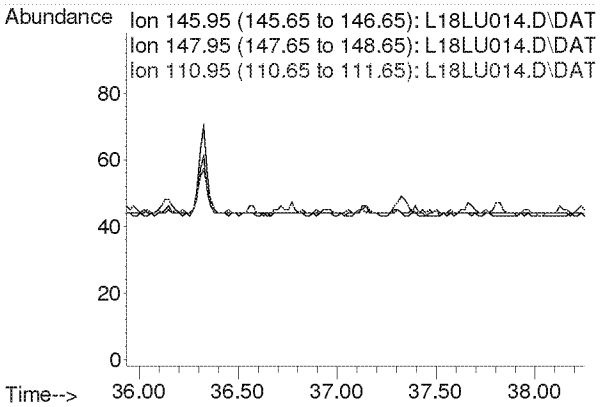


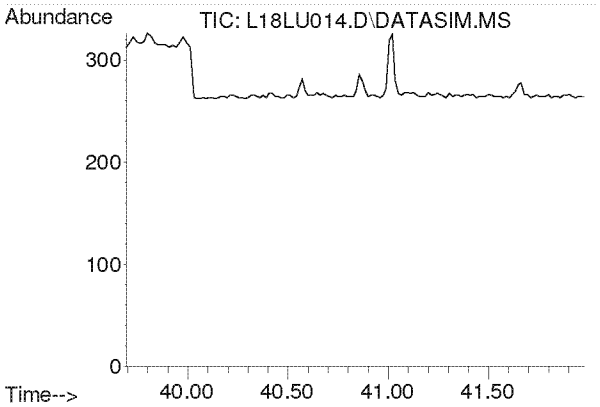

#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.1 |
| 111 | 41.4 |



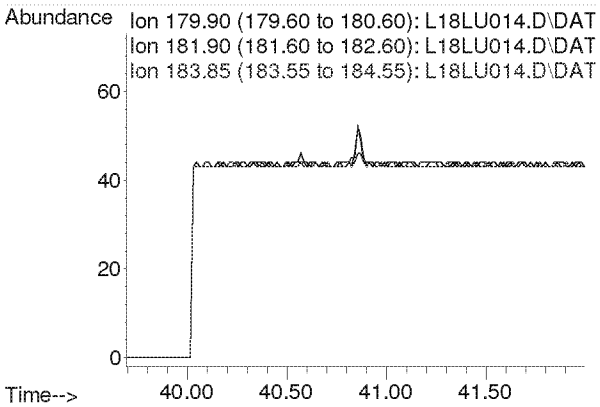




#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

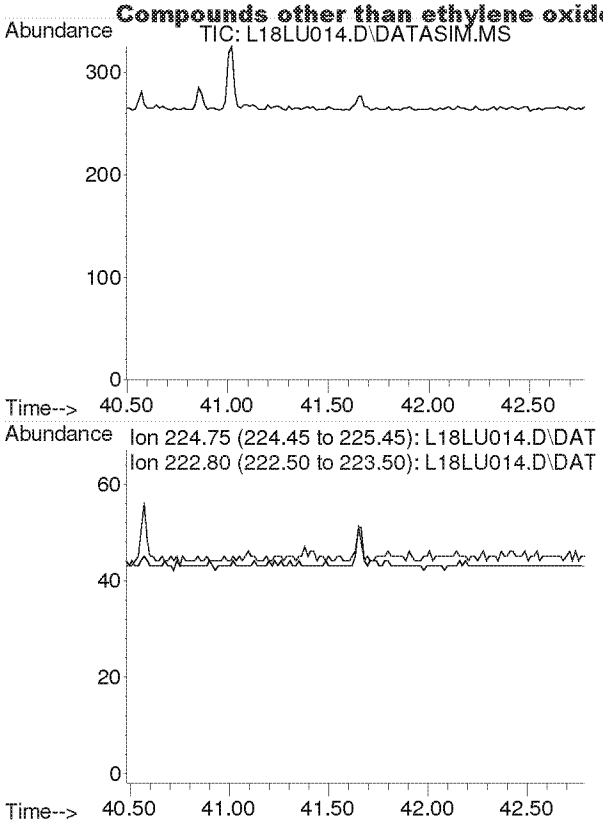
Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 180

| Sig | Exp Ratio |
|---|---|
| 180 | 100 |
| 182 | 95.1 |
| 184 | 30.7 |



**Compounds other than ethylene oxide were not quantitated.**




#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18LU014.D
Acq: 21 Dec 2018 8:39 pm

Tgt Ion: 225

| Sig | Exp Ratio |
|---|---|
| 225 | 100 |
| 223 | 62.4 |

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU015.D
Acq On : 21 Dec 2018 9:39 pm (#1); 21-Dec-18, 21:34:03 (#2)
Operator : MAH
Sample : 8120701-07
Misc : GOWER 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 26 10:05:06 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) IS-Hexane-d14 | 20.015 | 66 | 55379 | 4.7700 ppbv | 0.02 |
| 29) IS-1,4-Difluorobenzene | 23.171 | 114 | 135810 | 4.9900 ppbv | 0.02 |
| 43) IS-Chlorobenzene-d5 | 30.134 | 117 | 97633 | 4.7400 ppbv | 0.04 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) Acetylene | 0.000 | 26 | 0 | N.D. d | |
| 3) Propylene | 0.000 | 41 | 0 | N.D. d | |
| 4) Dichlorodifluoromethane | 0.000 | 85 | 0 | N.D. d | |
| 5) Chloromethane | 0.000 | 50 | 0 | N.D. d | |
| 6) Dichlorotetrafluoroethane | 0.000 | 85 | 0 | N.D. d | |
| 7) Vinyl Chloride | 0.000 | 62 | 0 | N.D. | |
| 8) 1,3-Butadiene | 0.000 | 54 | 0 | N.D. d | |
| 9) Ethylene oxide | 12.455 | 29 | 852m | 0.2574 ppbv | |
| 10) Bromomethane | 0.000 | 94 | 0 | N.D. d | |
| 11) Chloroethane | 0.000 | 64 | 0 | N.D. d | |
| 12) Acetonitrile | 0.000 | 41 | 0 | N.D. d | |
| 13) Acrolein | 0.000 | 56 | 0 | N.D. d | |
| 14) Trichlorofluoromethane | 0.000 | 101 | 0 | N.D. d | |
| 15) Acrylonitrile | 0.000 | 53 | 0 | N.D. d | |
| 16) 1,1-Dichloroethene | 0.000 | 61 | 0 | N.D. | |
| 17) Methylene Chloride | 0.000 | 49 | 0 | N.D. d | |
| 18) Carbon Disulfide | 0.000 | 76 | 0 | N.D. d | |
| 19) Trichlorotrifluoroethane | 0.000 | 101 | 0 | N.D. d | |
| 20) trans-1,2-Dichloroethy... | 0.000 | 96 | 0 | N.D. | |
| 21) 1,1-Dichloroethane | 0.000 | 63 | 0 | N.D. | |
| 22) Methyl tert-Butyl Ether | 0.000 | 73 | 0 | N.D. d | |
| 23) Chloroprene | 0.000 | 53 | 0 | N.D. d | |
| 24) cis-1,2-Dichloroethylene | 0.000 | 61 | 0 | N.D. d | |
| 25) Bromochloromethane | 0.000 | 128 | 0 | N.D. | |
| 26) Chloroform | 0.000 | 83 | 0 | N.D. d | |
| 27) Ethyl tert-Butyl Ether | 0.000 | 59 | 0 | N.D. | |
| 28) 1,2-Dichloroethane | 0.000 | 62 | 0 | N.D. d | |
| 30) 1,1,1-Trichloroethane | 0.000 | 97 | 0 | N.D. d | |
| 31) Benzene | 0.000 | 78 | 0 | N.D. d | |
| 32) Carbon Tetrachloride | 0.000 | 117 | 0 | N.D. d | |
| 33) tert-Amyl Methyl Ether | 0.000 | 73 | 0 | N.D. | |
| 34) 1,2-Dichloropropane | 0.000 | 63 | 0 | N.D. d | |
| 35) Ethyl Acrylate | 0.000 | 55 | 0 | N.D. | |
| 36) Bromodichloromethane | 0.000 | 83 | 0 | N.D. d | |
| 37) Trichloroethylene | 0.000 | 130 | 0 | N.D. d | |
| 38) Methyl Methacrylate | 0.000 | 41 | 0 | N.D. d | |
| 39) cis-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 40) Methyl Isobutyl Ketone | 0.000 | 43 | 0 | N.D. d | |
| 41) trans-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 42) 1,1,2-Trichloroethane | 0.000 | 97 | 0 | N.D. | |
| 44) Toluene | 0.000 | 91 | 0 | N.D. d | |
| 45) Dibromochloromethane | 0.000 | 129 | 0 | N.D. | |
| 46) 1,2-Dibromoethane | 0.000 | 107 | 0 | N.D. | |
| 47) n-Octane | 0.000 | 43 | 0 | N.D. d | |
| 48) Tetrachloroethylene | 0.000 | 166 | 0 | N.D. d | |
| 49) Chlorobenzene | 0.000 | 112 | 0 | N.D. | |
| 50) Ethylbenzene | 0.000 | 91 | 0 | N.D. d | |

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU015.D
Acq On : 21 Dec 2018 9:39 pm (#1); 21-Dec-18, 21:34:03 (#2)
Operator : MAH
Sample : 8120701-07
Misc : GOWER 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 26 10:05:06 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

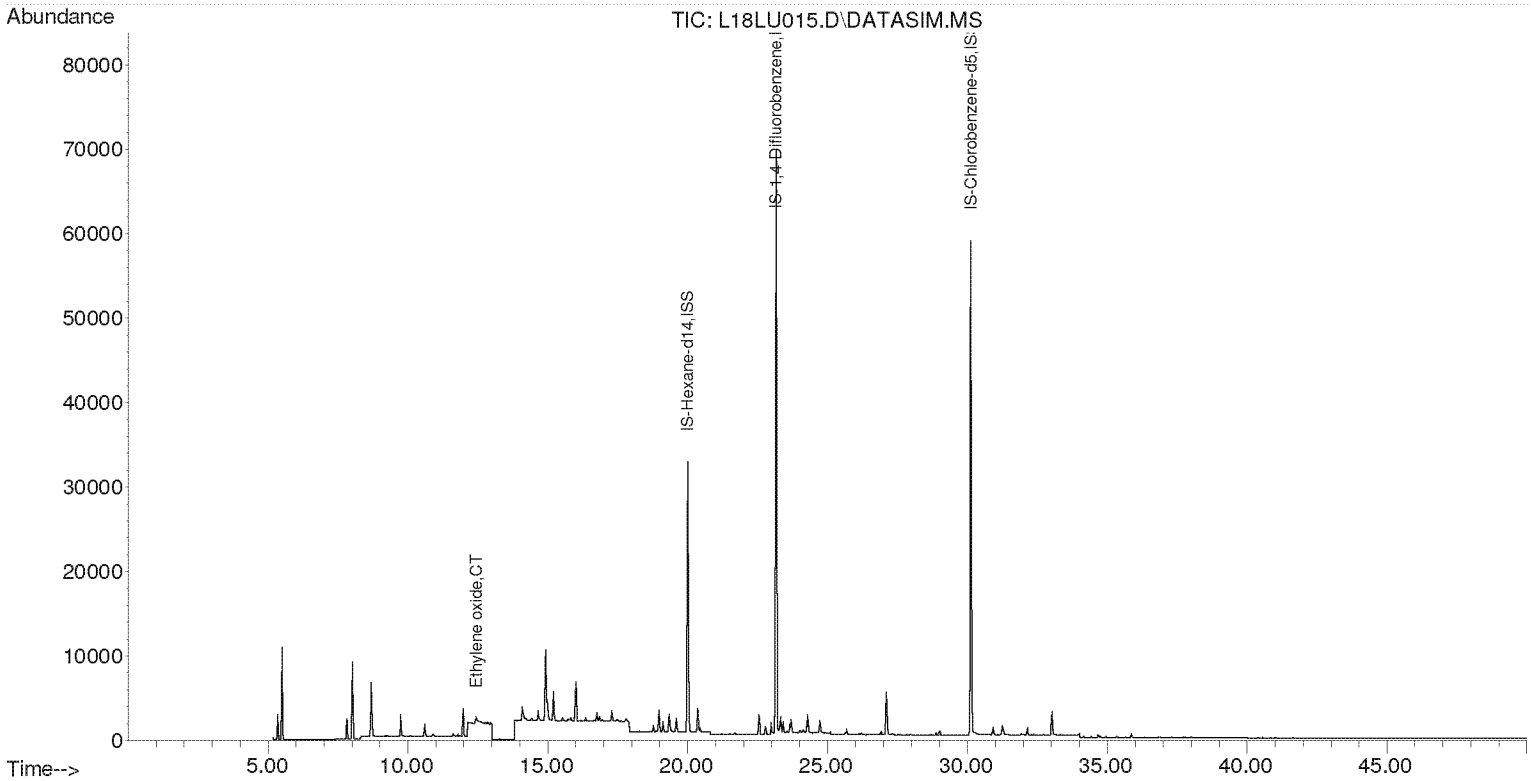
| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 51) m,p-Xylene | 0.000 | 91 | 0 | N.D. | d |
| 52) Bromoform | 0.000 | 173 | 0 | N.D. | |
| 53) Styrene | 0.000 | 104 | 0 | N.D. | d |
| 54) 1,1,2,2-Tetrachloroethane | 0.000 | 83 | 0 | N.D. | |
| 55) o-Xylene | 0.000 | 91 | 0 | N.D. | d |
| 56) 1,3,5-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | d |
| 57) 1,2,4-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | d |
| 58) m-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 59) p-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | d |
| 60) o-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 61) 1,2,4-Trichlorobenzene | 0.000 | 180 | 0 | N.D. | d |
| 62) Hexachloro-1,3-butadiene | 0.000 | 225 | 0 | N.D. | |

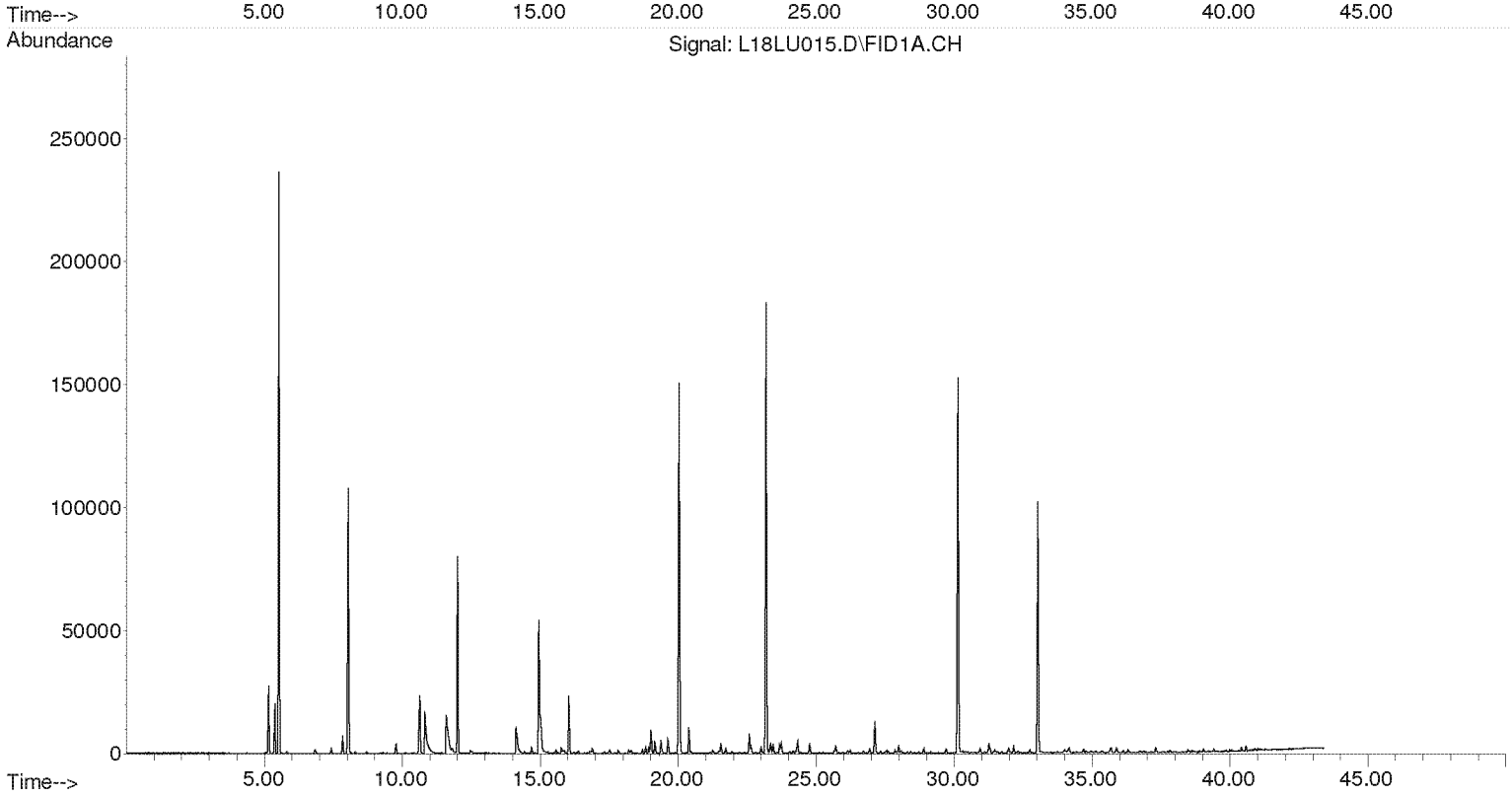
(#) = qualifier out of range (m) = manual integration (+) = signals summed

**Compounds other than ethylene oxide were not quantitated.**

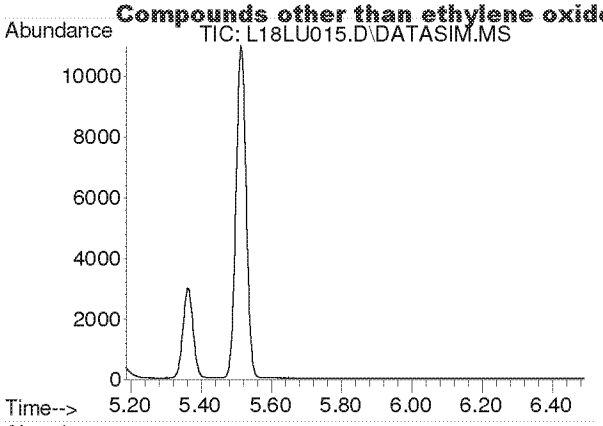
Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU015.D
Acq On : 21 Dec 2018 9:39 pm (#1); 21 Dec 2018 9:34 pm (#2)
Operator : MAH
Sample : 8120701-07
Misc : GOWER 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Dec 26 09:51:21 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



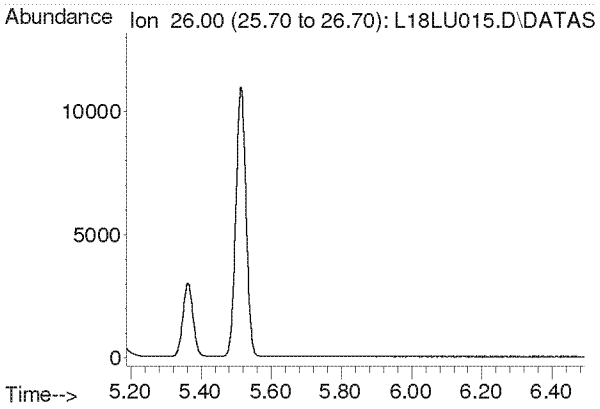
**Compounds other than ethylene oxide were not quantitated.**

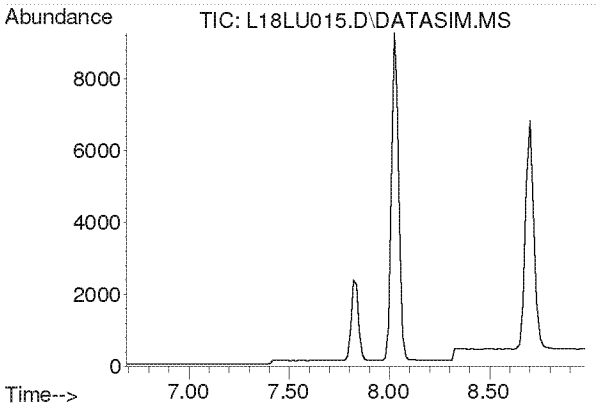



#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 26



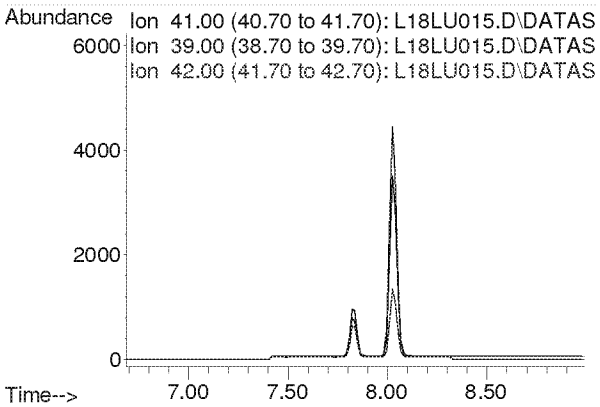




#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

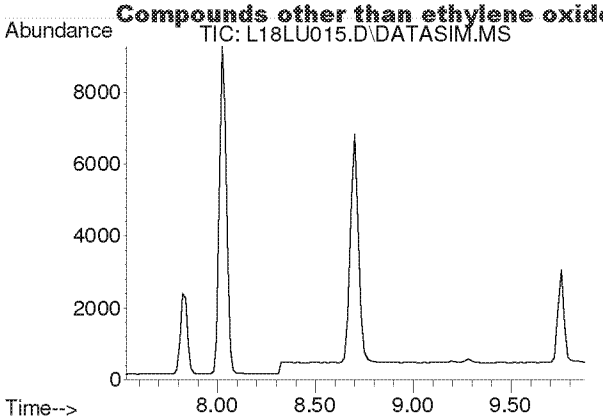
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 39 | 78.2 |
| 42 | 65.8 |



**Compounds other than ethylene oxide were not quantitated.**

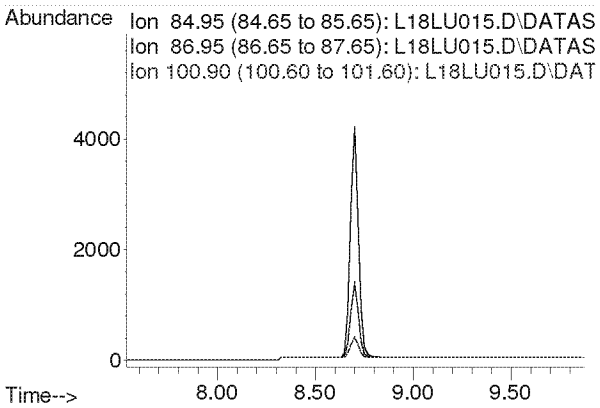


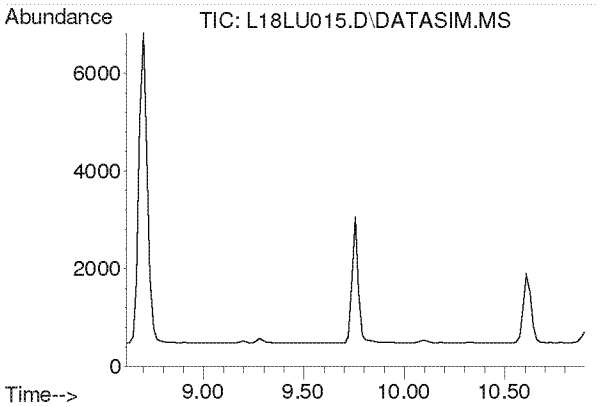

#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 87 | 32.5 |
| 101 | 8.9 |



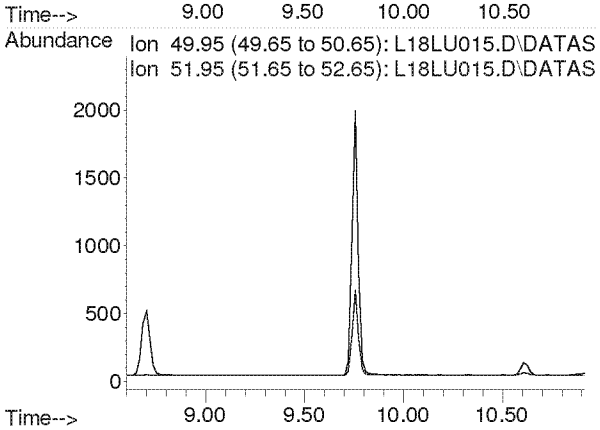




#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

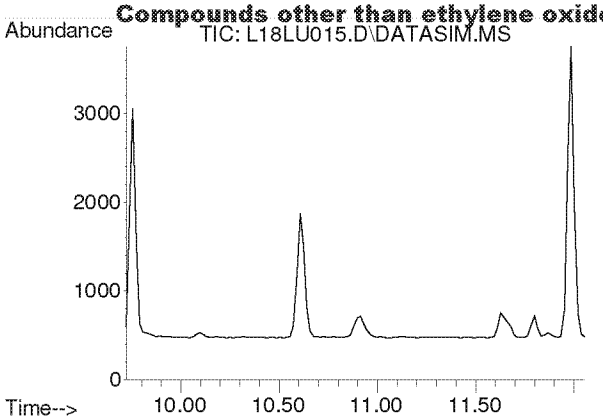
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 50

| Sig | Exp Ratio |
|---|---|
| 50 | 100 |
| 52 | 32.6 |



**Compounds other than ethylene oxide were not quantitated.**

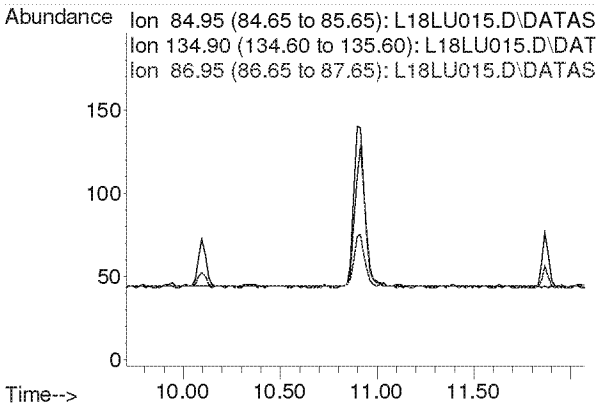


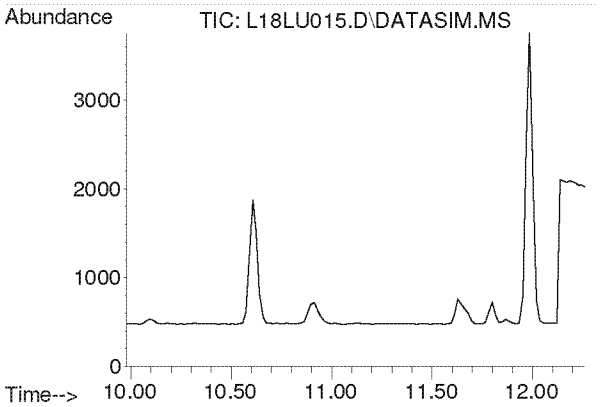

#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 135 | 79.1 |
| 87 | 32.1 |



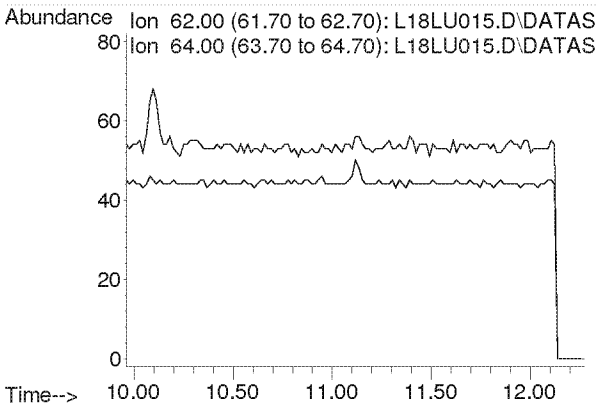




#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

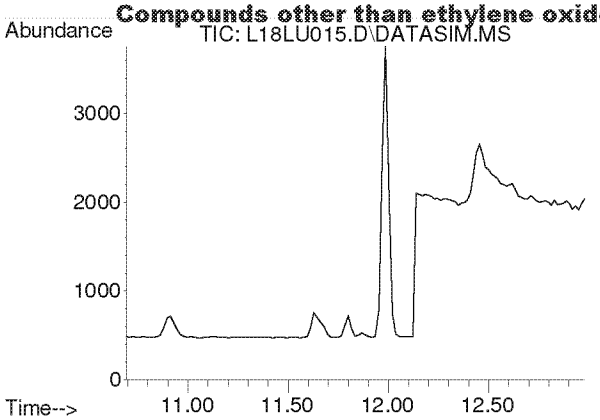
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 64 | 31.8 |



**Compounds other than ethylene oxide were not quantitated.**

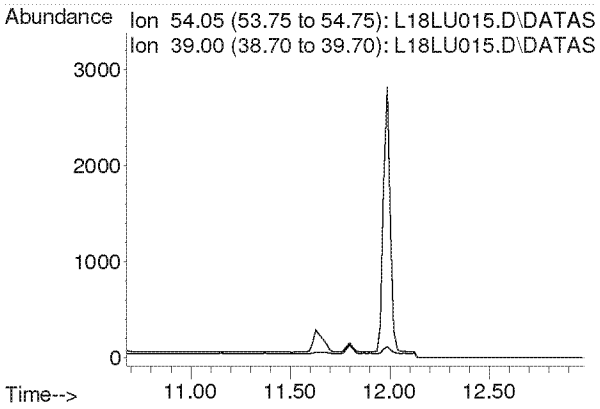


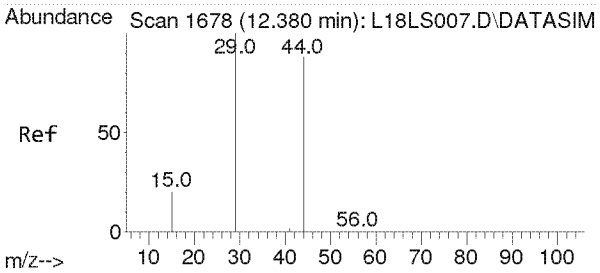

#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 54

| Sig | Exp Ratio |
|---|---|
| 54 | 100 |
| 39 | 105.4 |

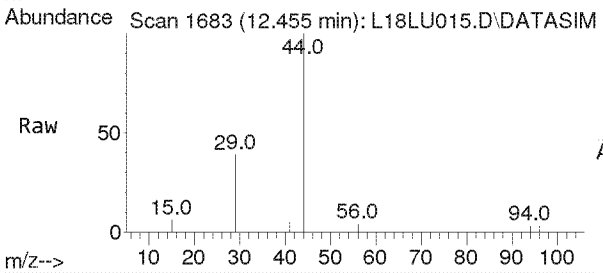


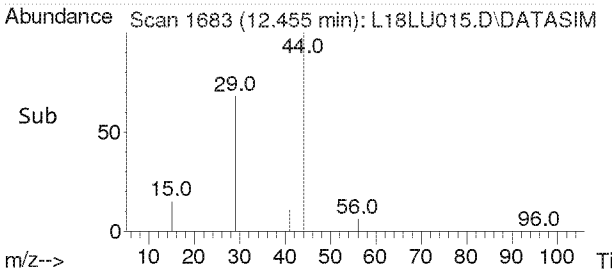



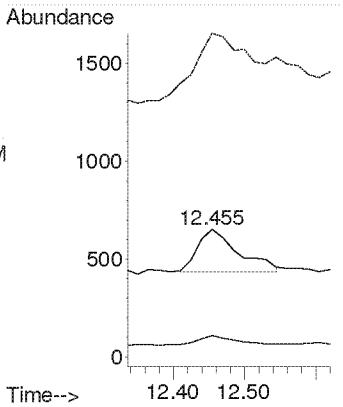

#9
Ethylene oxide
Concen: 0.257 ppbv m
RT: 12.455 min Scan# 1683
Delta R.T. 0.075 min
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 29 Resp: 852

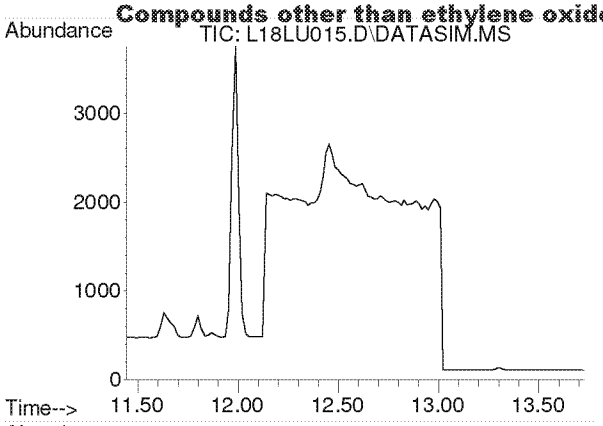
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 29 | 100 | | |
| 15 | 0.0 | 16.2 | 24.4# |
| 44 | 0.0 | 72.0 | 108.0# |



**Compounds other than ethylene oxide were not quantitated.**

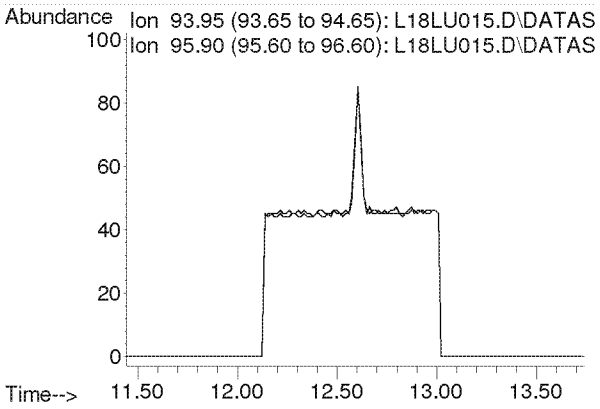


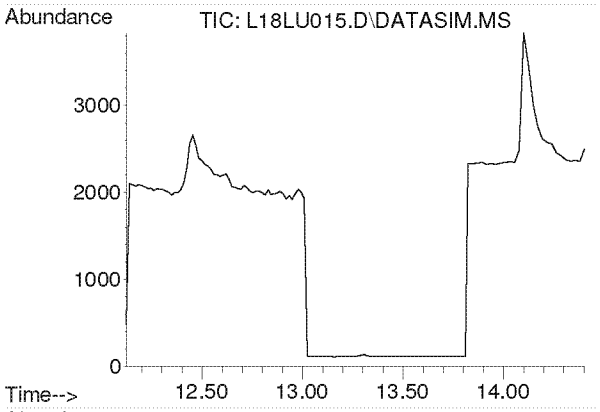

#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 94

| Sig | Exp Ratio |
|---|---|
| 94 | 100 |
| 96 | 93.9 |



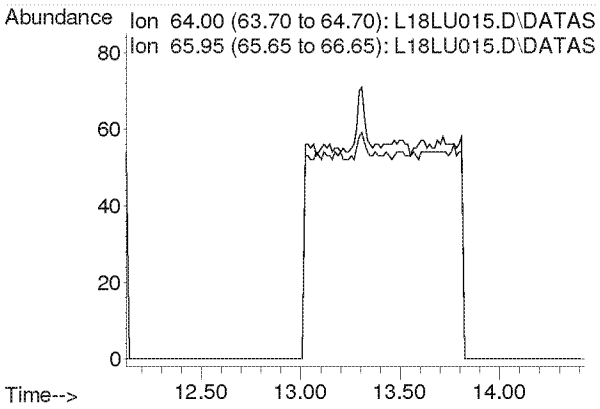




#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

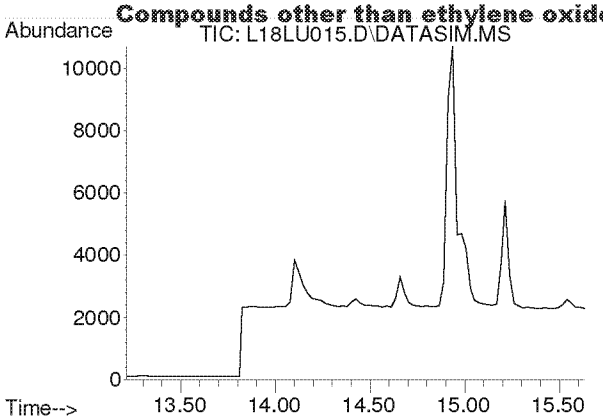
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 64

| Sig | Exp Ratio |
|---|---|
| 64 | 100 |
| 66 | 32.0 |



**Compounds other than ethylene oxide were not quantitated.**

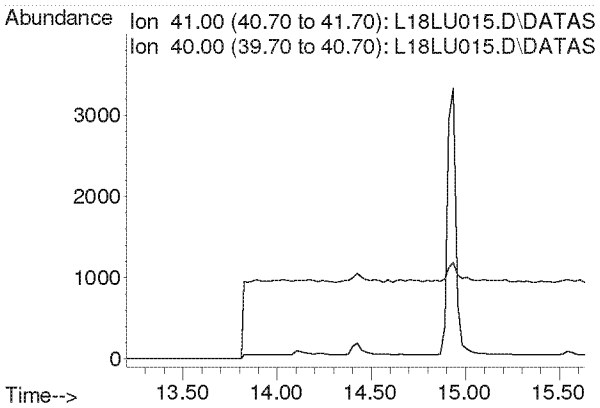


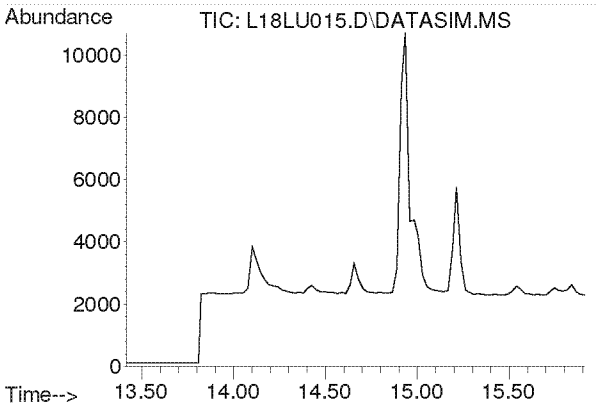

#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 40 | 50.9 |



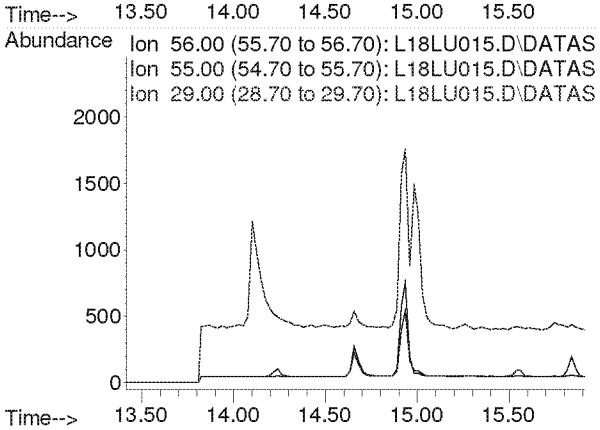




#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

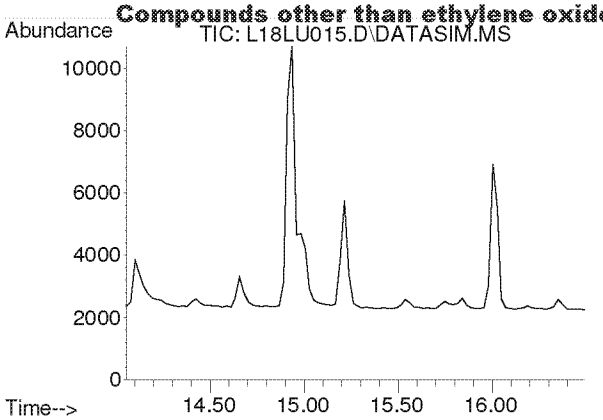
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 56

| Sig | Exp Ratio |
|---|---|
| 56 | 100 |
| 55 | 75.4 |
| 29 | 52.9 |



**Compounds other than ethylene oxide were not quantitated.**

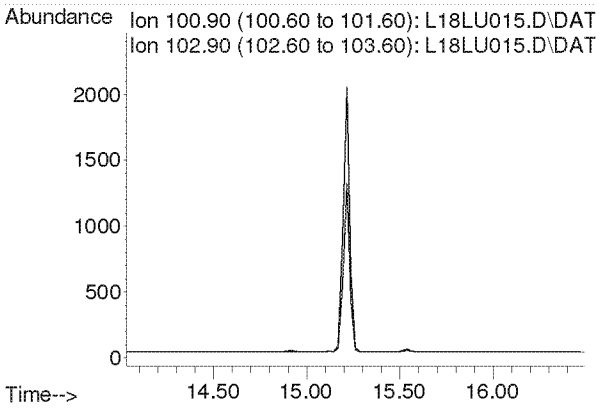


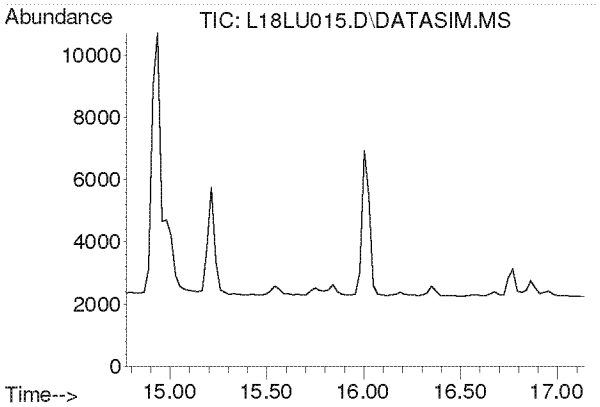

#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 103 | 64.6 |



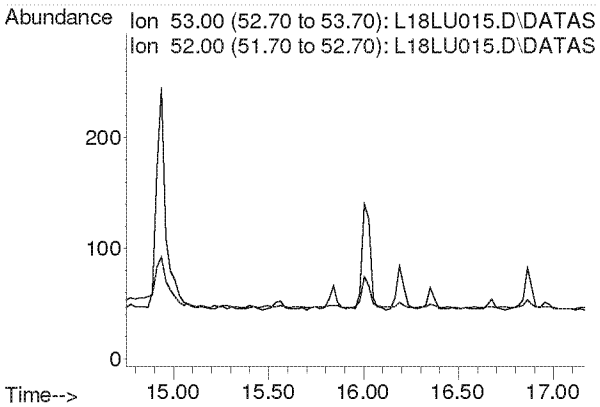




#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

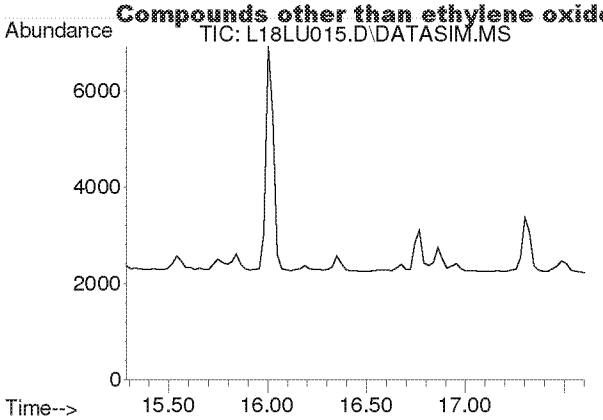
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 52 | 85.4 |



**Compounds other than ethylene oxide were not quantitated.**

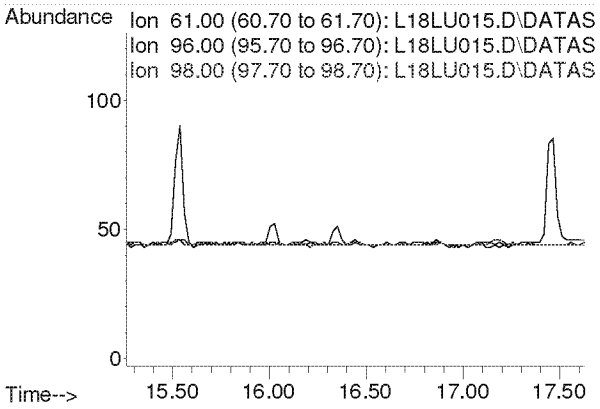


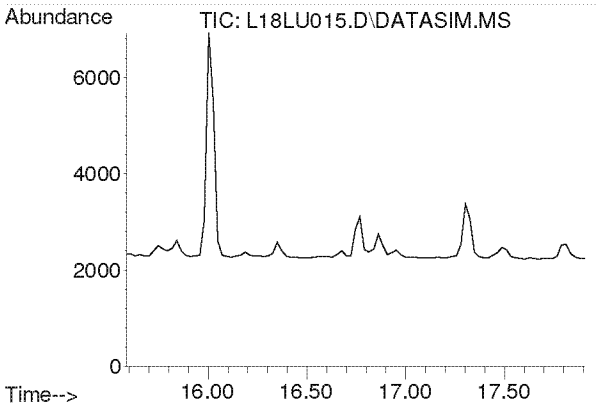

#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 58.3 |
| 98 | 37.4 |



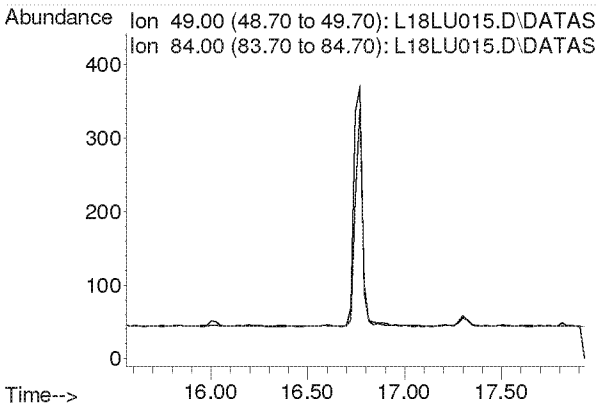




#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

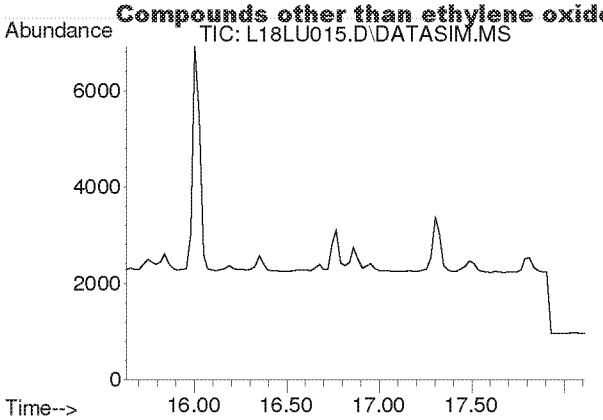
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 49

| Sig | Exp Ratio |
|---|---|
| 49 | 100 |
| 84 | 76.4 |



**Compounds other than ethylene oxide were not quantitated.**

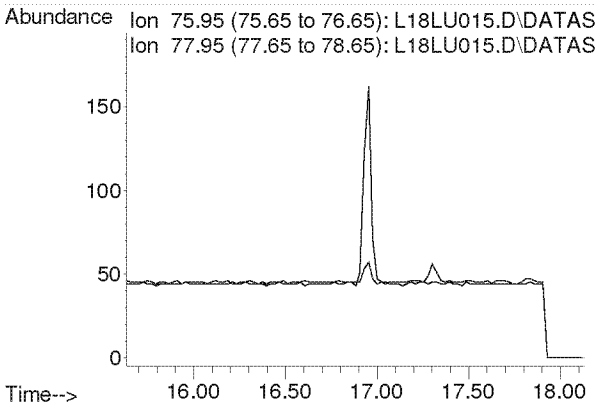


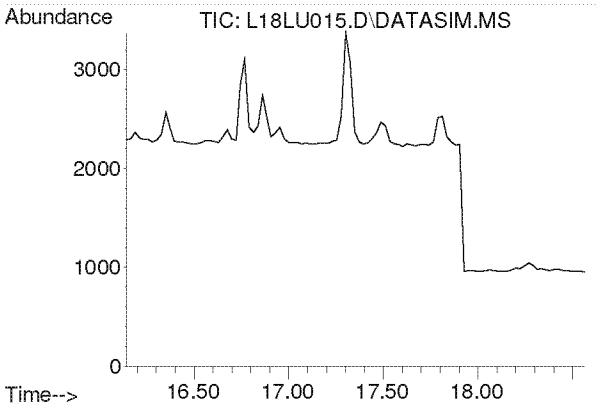

#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 76

| Sig | Exp Ratio |
|---|---|
| 76 | 100 |
| 78 | 9.1 |



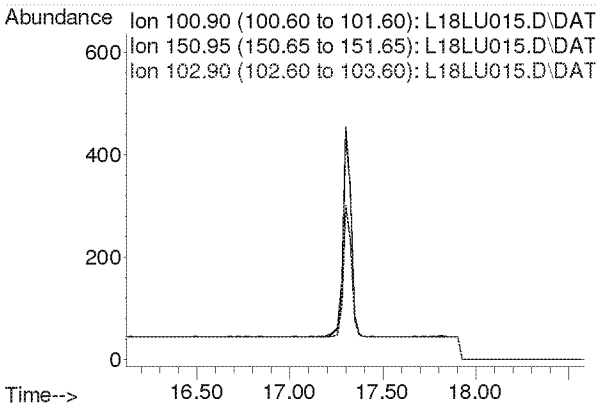




#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

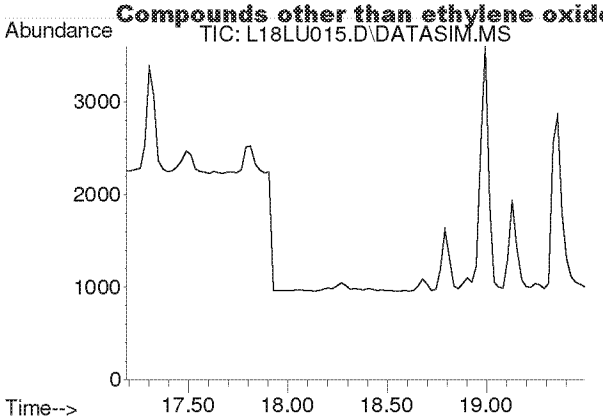
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 151 | 95.3 |
| 103 | 64.1 |



**Compounds other than ethylene oxide were not quantitated.**

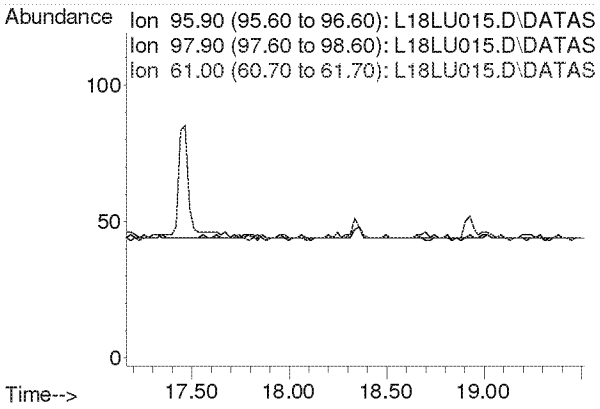


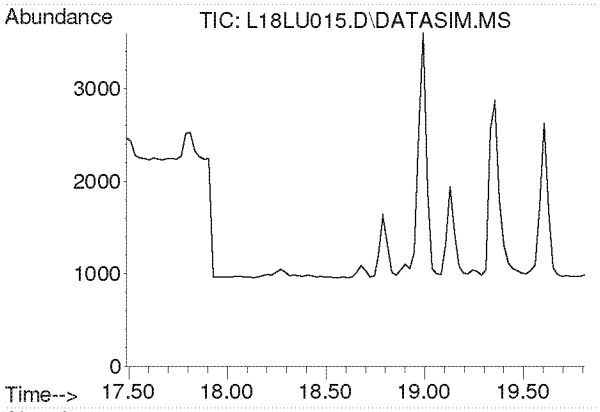

#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 96

| Sig | Exp Ratio |
|---|---|
| 96 | 100 |
| 98 | 63.7 |
| 61 | 159.2 |



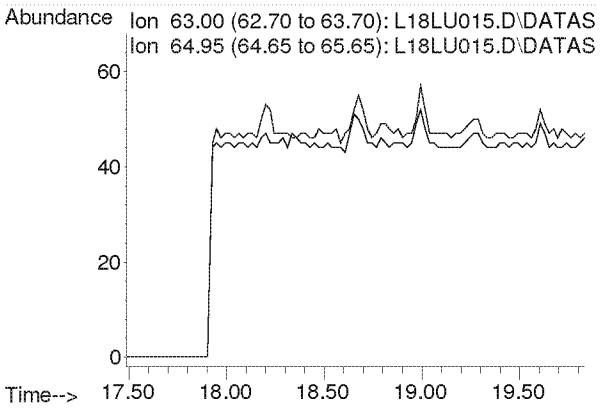




#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

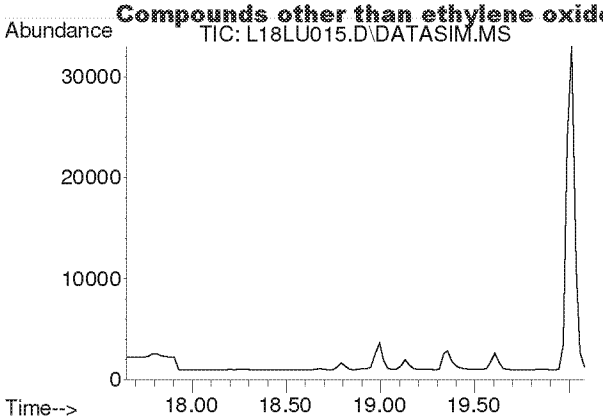
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 65 | 31.7 |



**Compounds other than ethylene oxide were not quantitated.**

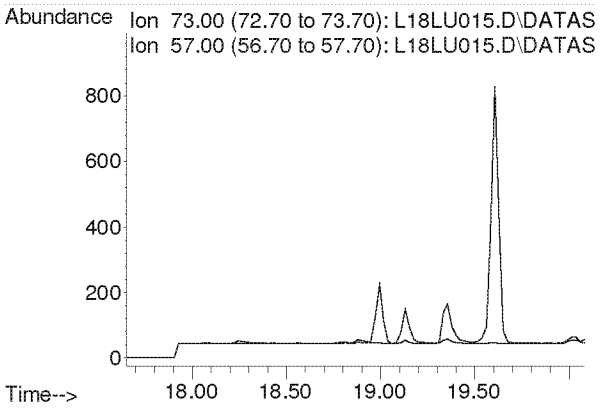


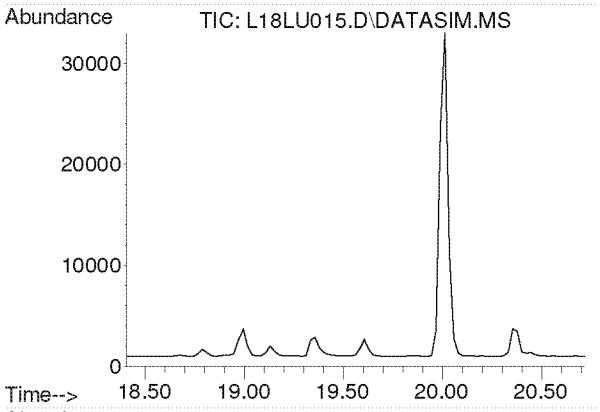

#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 57 | 23.4 |



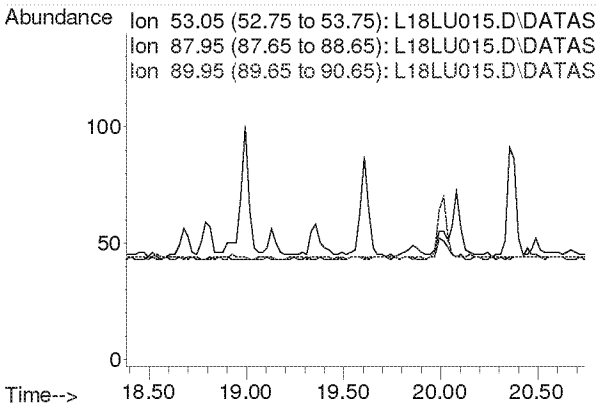




#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

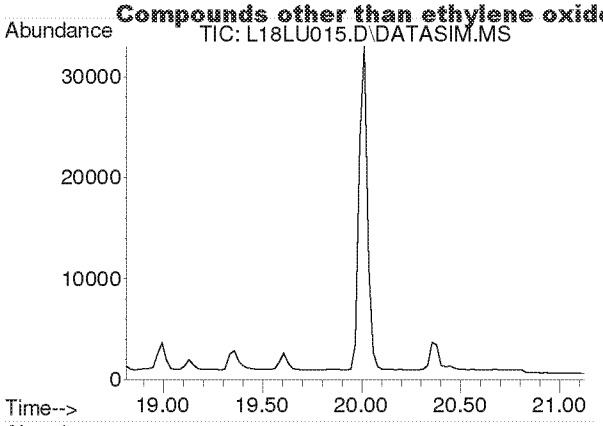
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 88 | 51.8 |
| 90 | 16.8 |



**Compounds other than ethylene oxide were not quantitated.**

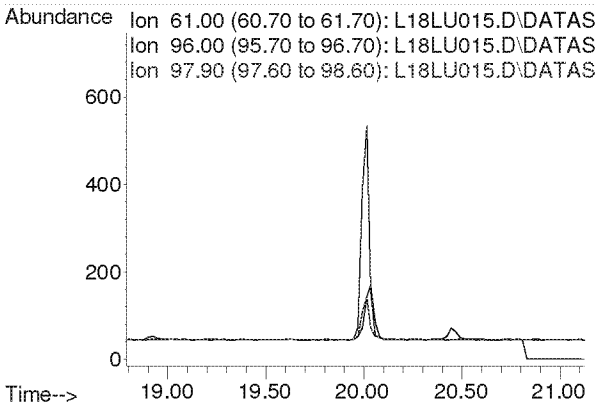


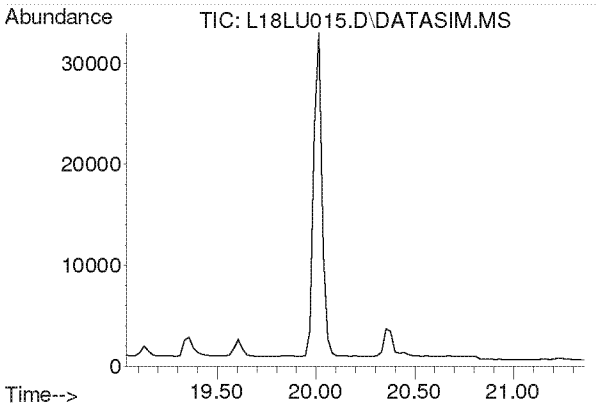

#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 73.7 |
| 98 | 45.2 |



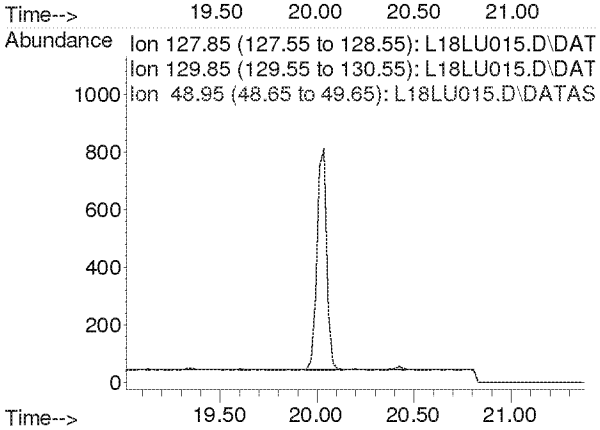




#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

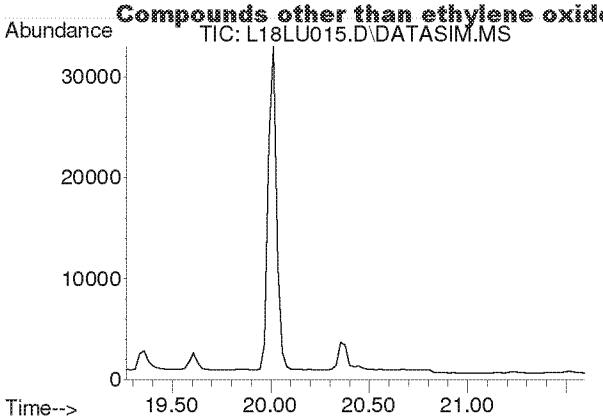
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 128

| Sig | Exp Ratio |
|---|---|
| 128 | 100 |
| 130 | 129.1 |
| 49 | 171.2 |



**Compounds other than ethylene oxide were not quantitated.**

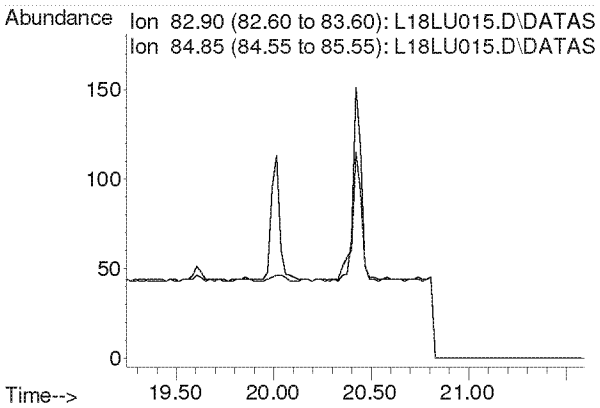


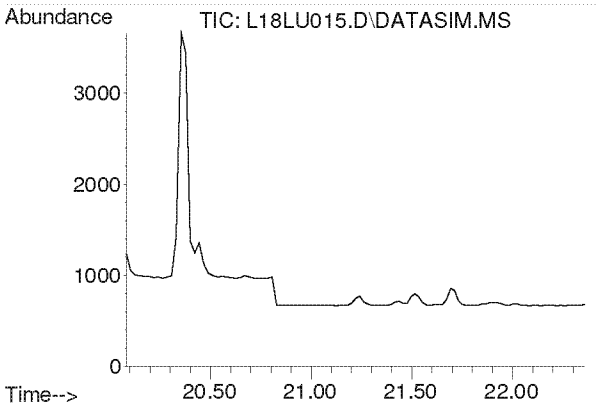

#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.4 |



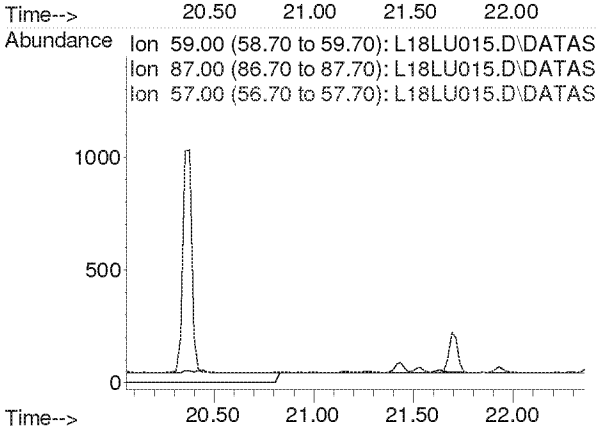




#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

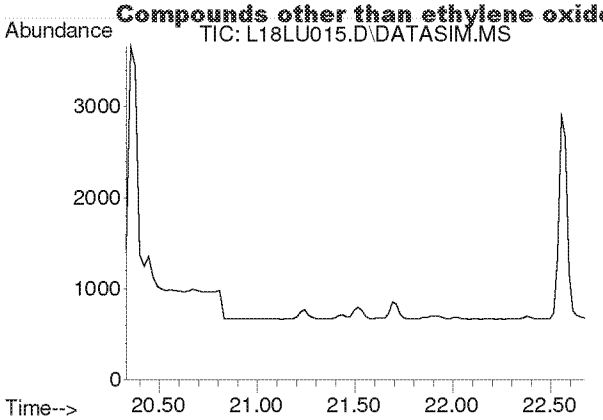
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 59

| Sig | Exp Ratio |
|---|---|
| 59 | 100 |
| 87 | 37.5 |
| 57 | 33.8 |



**Compounds other than ethylene oxide were not quantitated.**

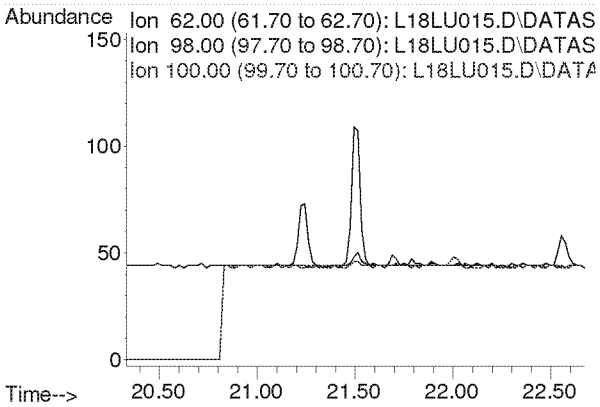


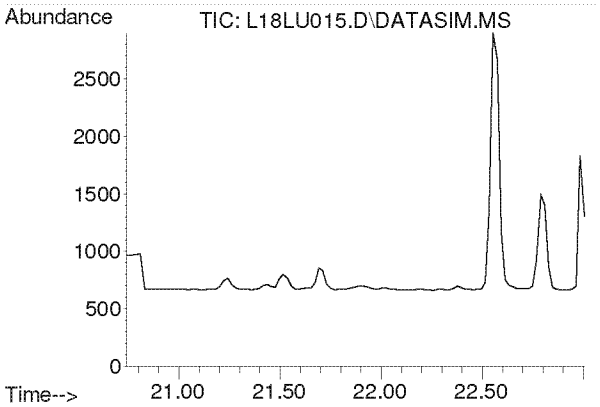

#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 98 | 6.4 |
| 100 | 4.0 |



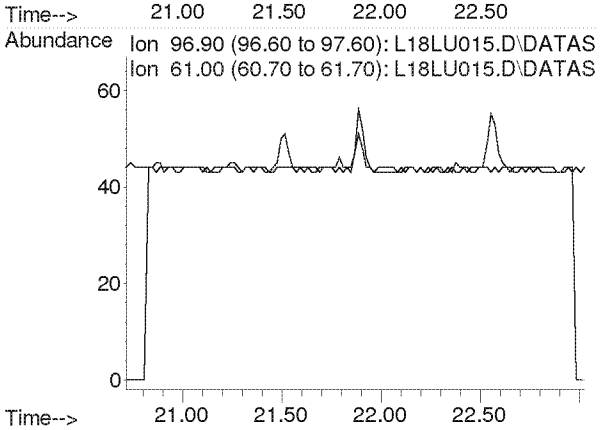




#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

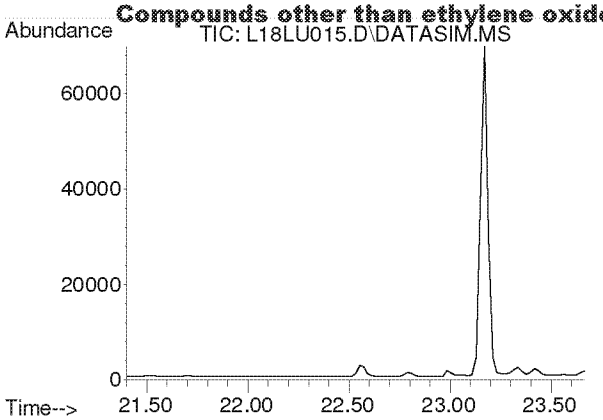
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 61 | 60.5 |



**Compounds other than ethylene oxide were not quantitated.**

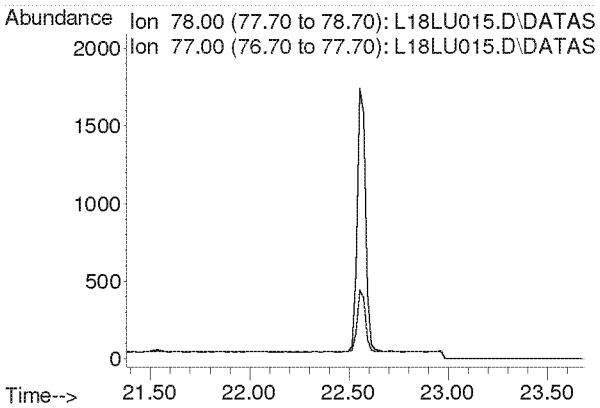


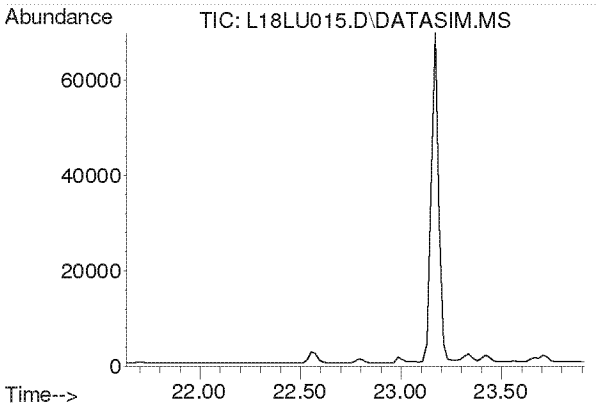

#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 78

| Sig | Exp Ratio |
|---|---|
| 78 | 100 |
| 77 | 22.7 |



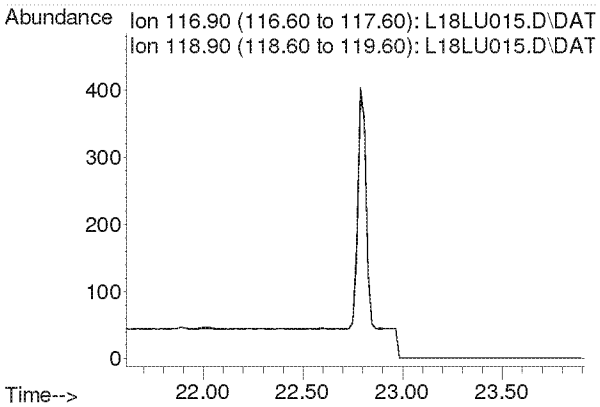




#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

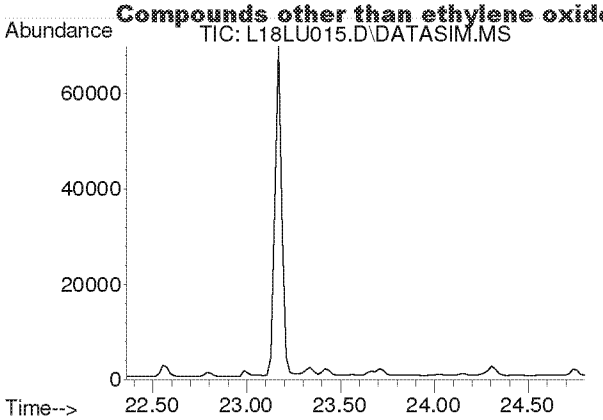
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 117

| Sig | Exp Ratio |
|---|---|
| 117 | 100 |
| 119 | 96.5 |



**Compounds other than ethylene oxide were not quantitated.**

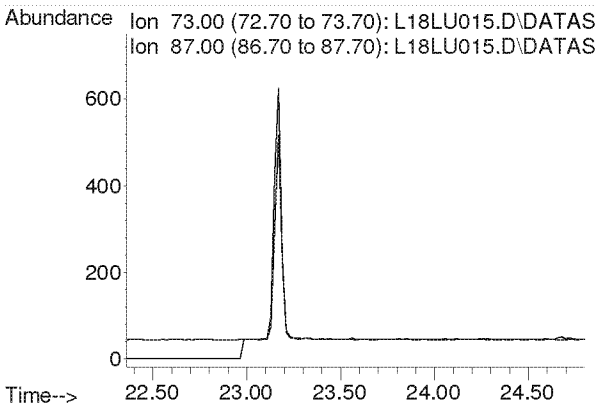


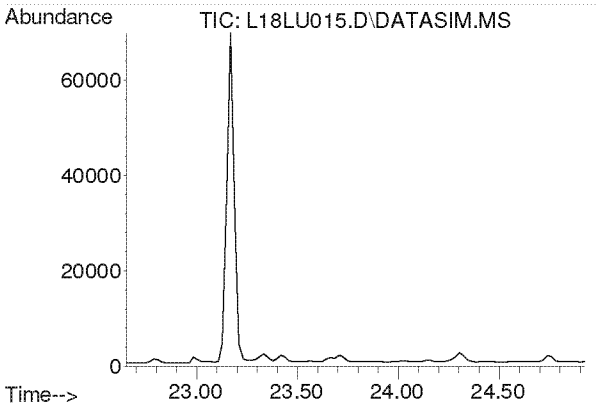

#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 87 | 24.9 |



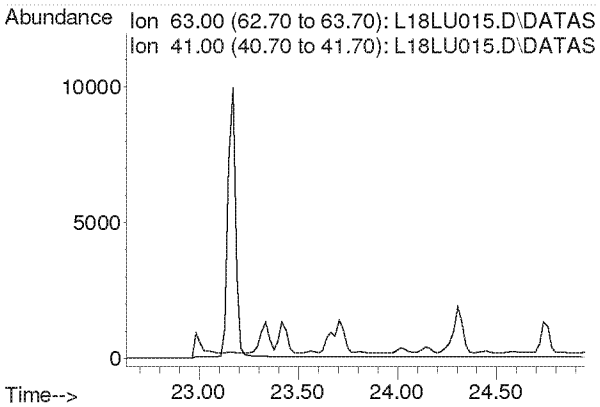




#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

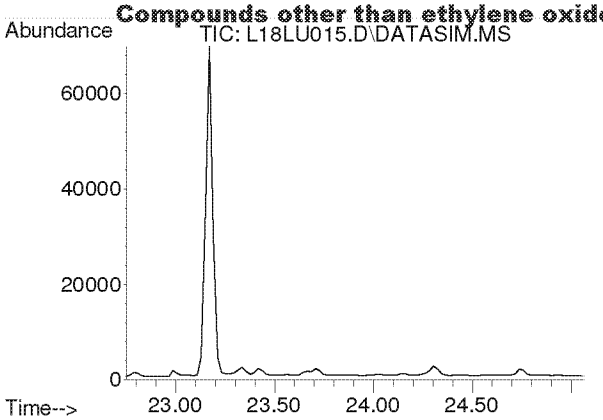
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 41 | 212.8 |



**Compounds other than ethylene oxide were not quantitated.**

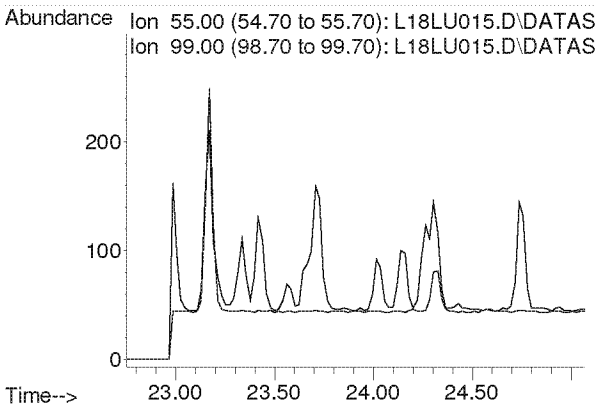


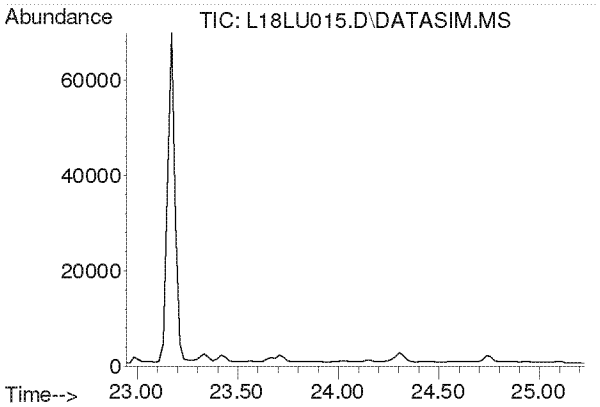

#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 55

| Sig | Exp Ratio |
|---|---|
| 55 | 100 |
| 99 | 6.1 |



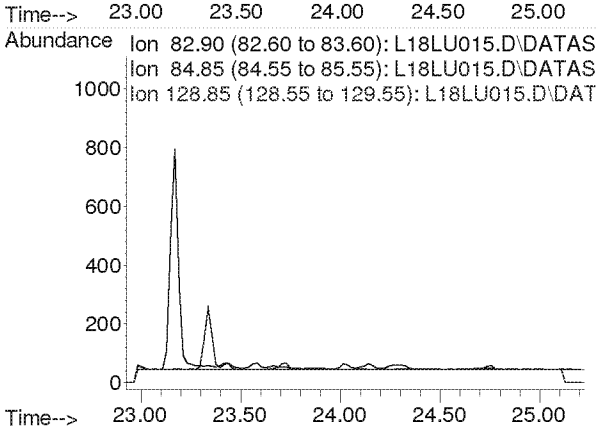




#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

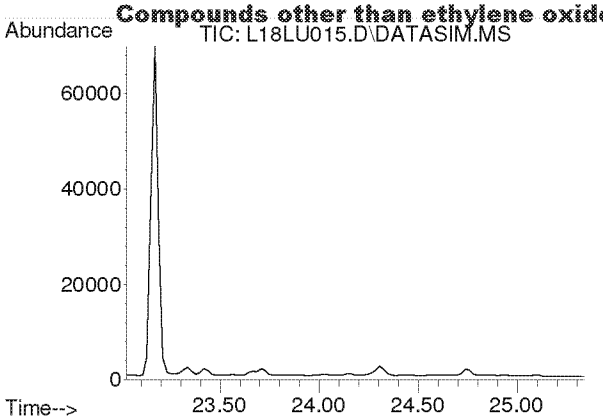
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.0 |
| 129 | 12.4 |



**Compounds other than ethylene oxide were not quantitated.**

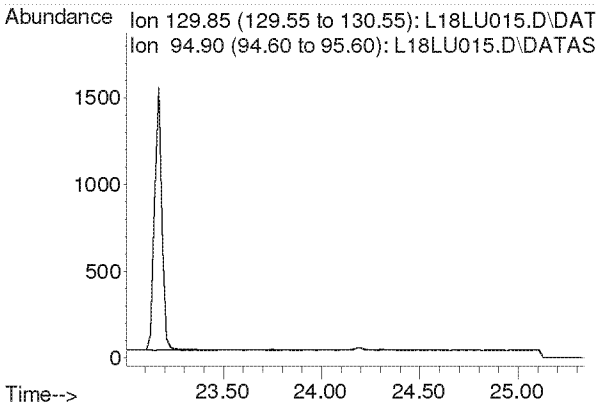


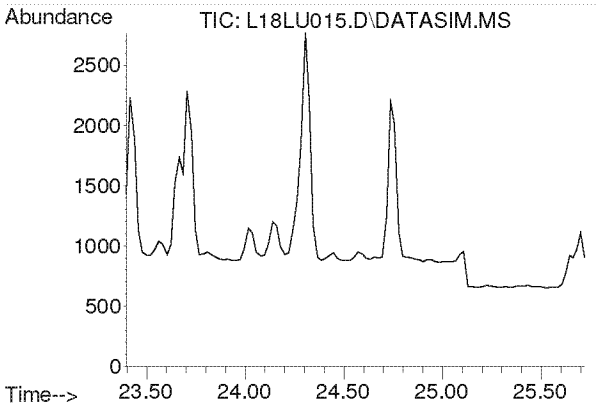

#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 130

| Sig | Exp Ratio |
|---|---|
| 130 | 100 |
| 95 | 110.3 |



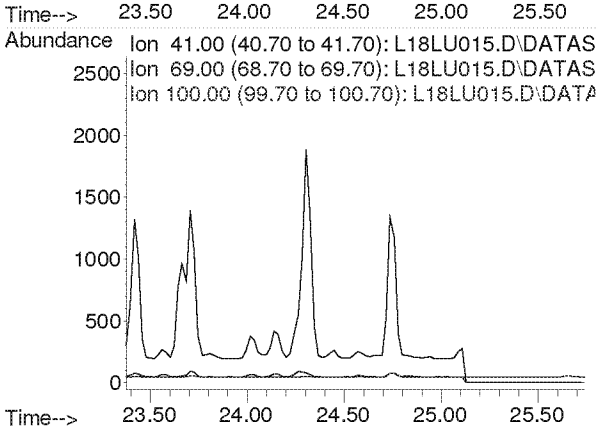




#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

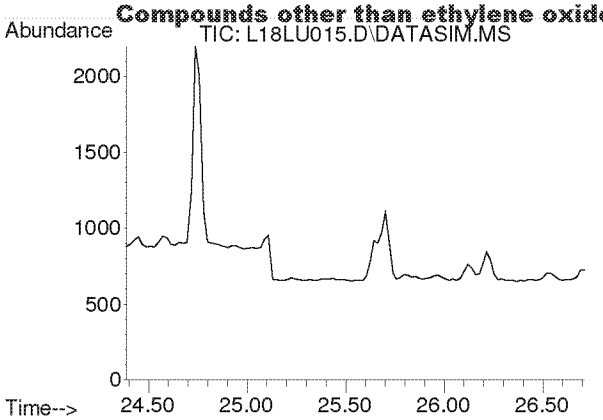
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 69 | 19.9 |
| 100 | 5.2 |



**Compounds other than ethylene oxide were not quantitated.**

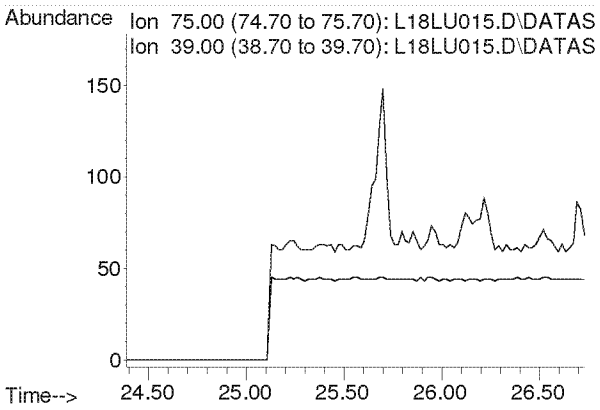


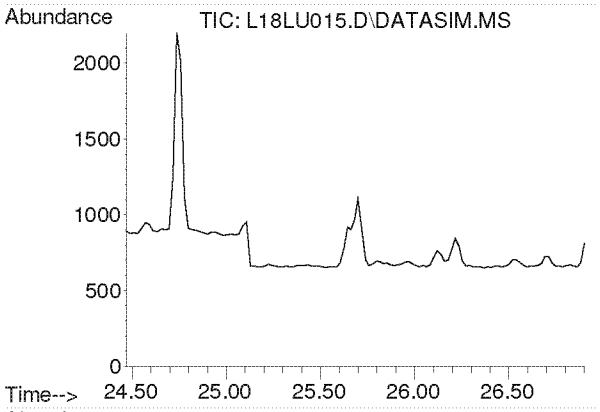

#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 54.4 |



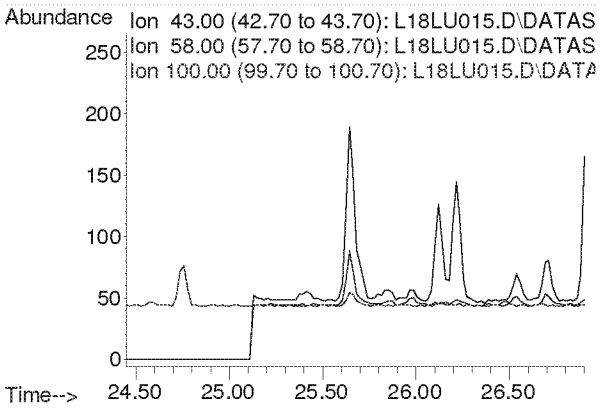




#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

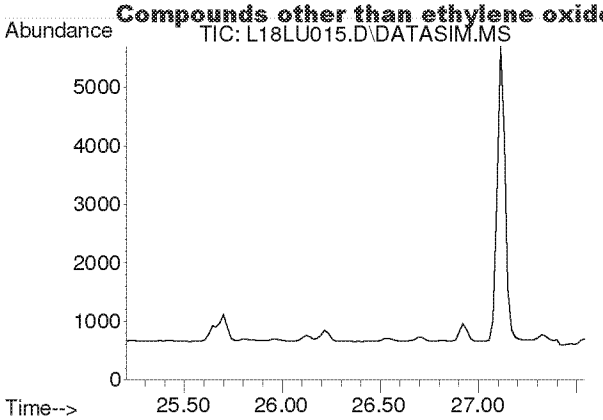
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 58 | 34.2 |
| 100 | 7.9 |



**Compounds other than ethylene oxide were not quantitated.**

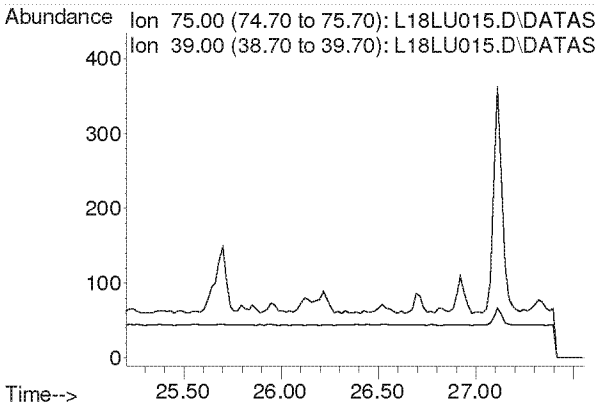


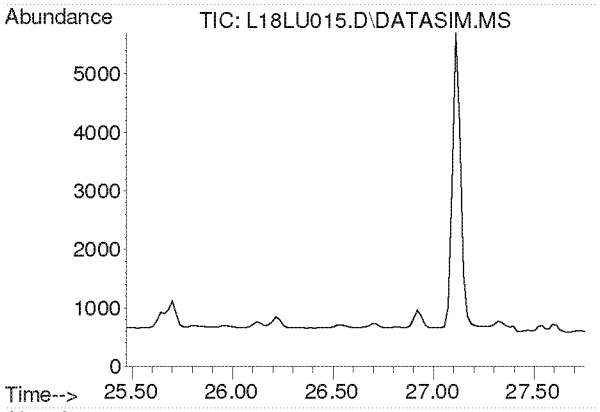

#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 50.9 |



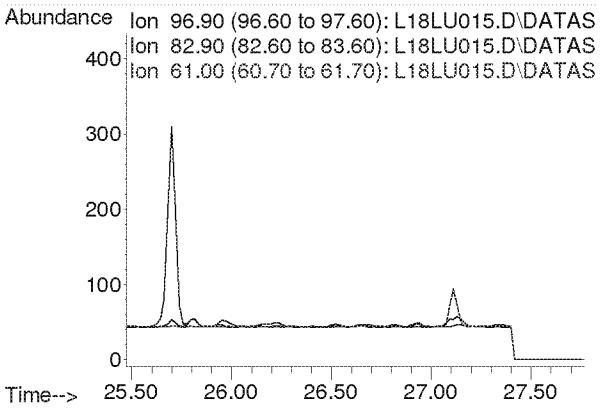




#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

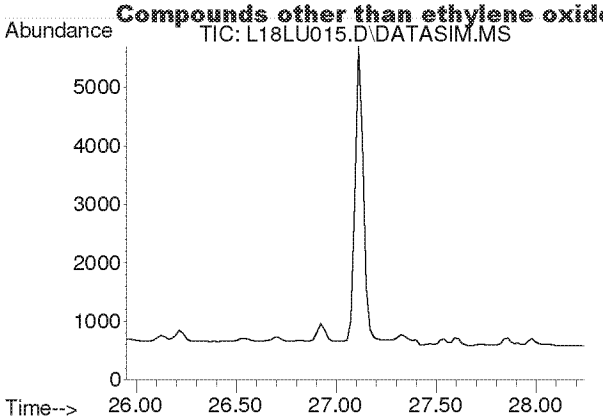
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 83 | 96.1 |
| 61 | 63.5 |



**Compounds other than ethylene oxide were not quantitated.**

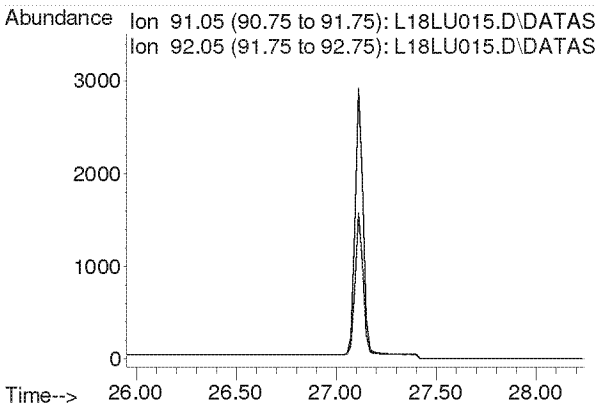


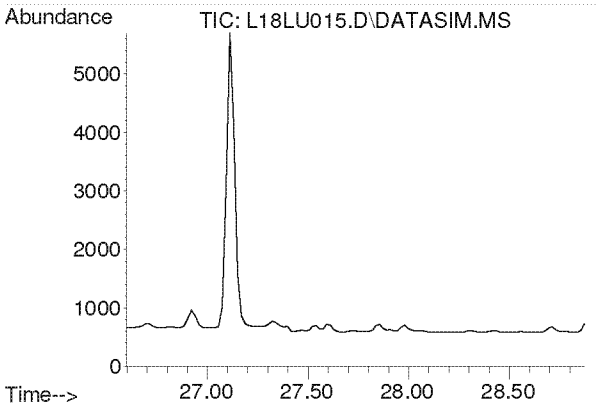

#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 92 | 52.6 |



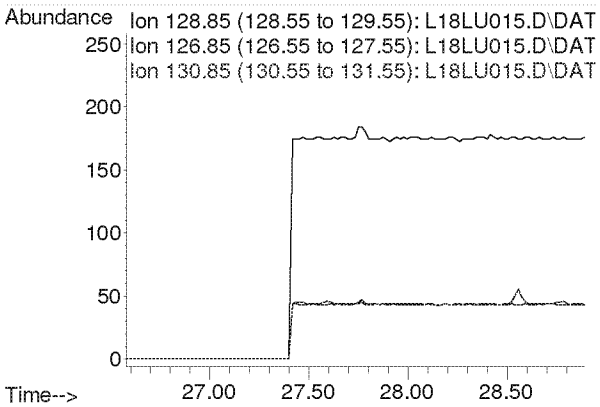




#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

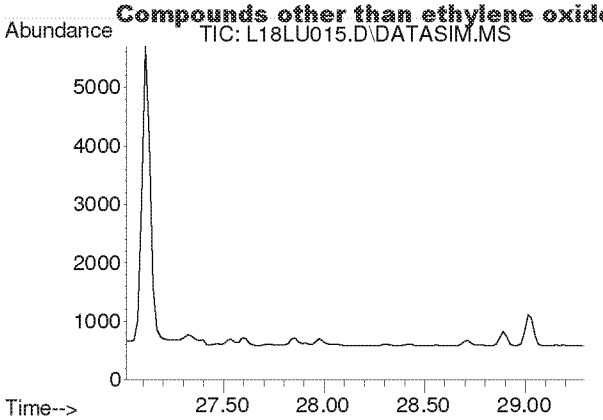
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 129

| Sig | Exp Ratio |
|---|---|
| 129 | 100 |
| 127 | 19.2 |
| 131 | 6.0 |



**Compounds other than ethylene oxide were not quantitated.**

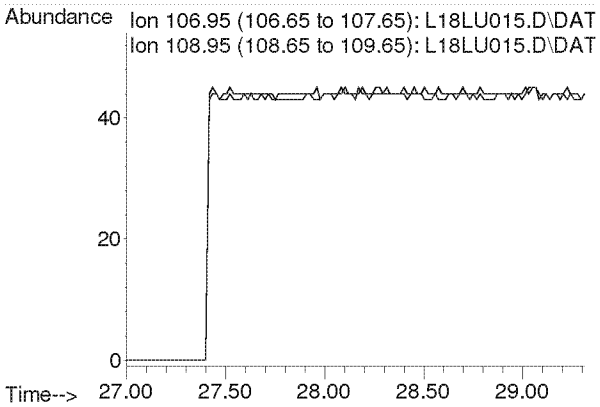


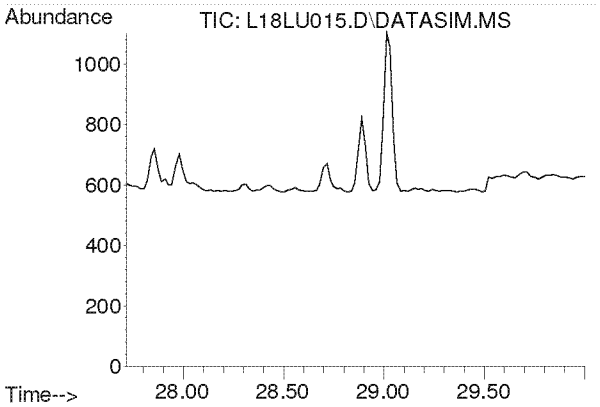

#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 107

| Sig | Exp Ratio |
|---|---|
| 107 | 100 |
| 109 | 94.5 |



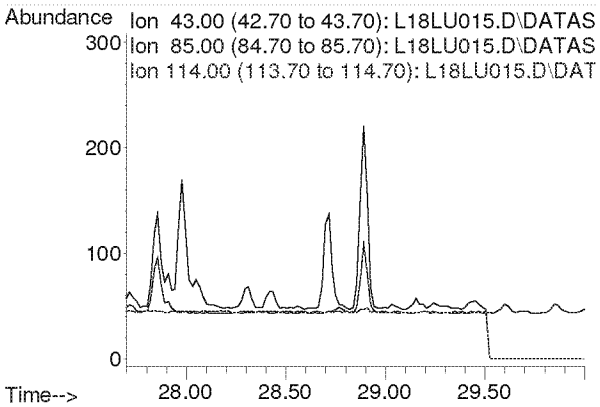




#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

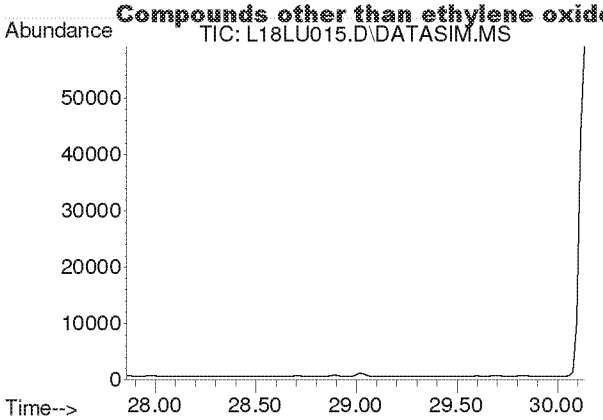
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 85 | 36.0 |
| 114 | 2.2 |



**Compounds other than ethylene oxide were not quantitated.**

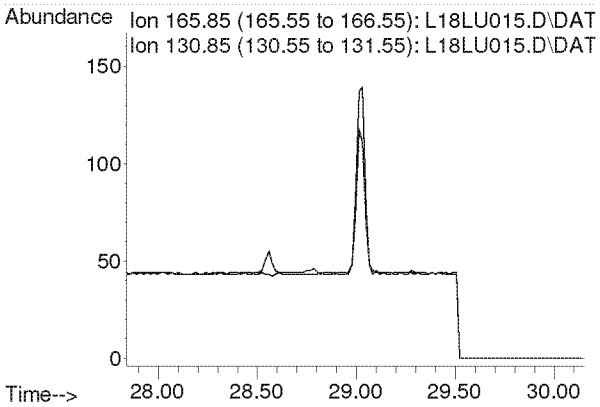


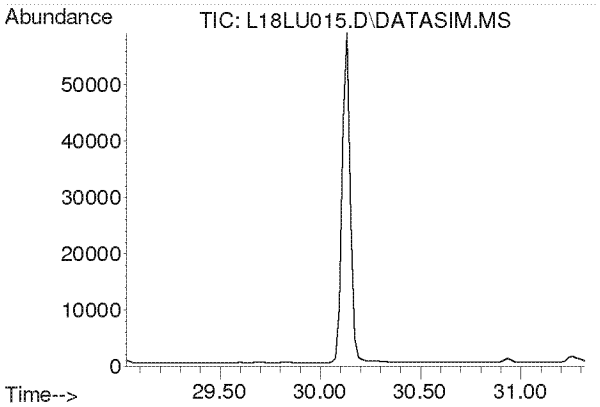

#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 166

| Sig | Exp Ratio |
|---|---|
| 166 | 100 |
| 131 | 78.2 |



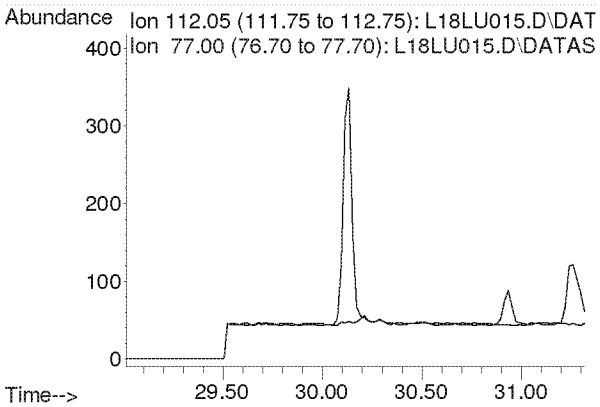




#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

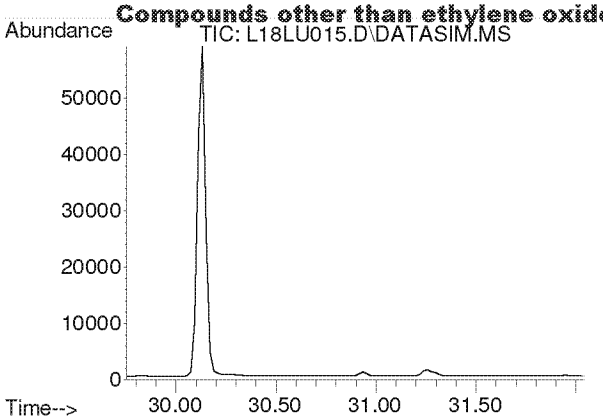
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 112

| Sig | Exp Ratio |
|---|---|
| 112 | 100 |
| 77 | 63.0 |



**Compounds other than ethylene oxide were not quantitated.**

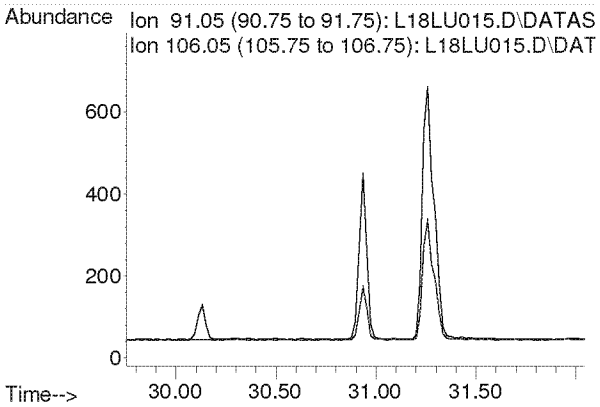


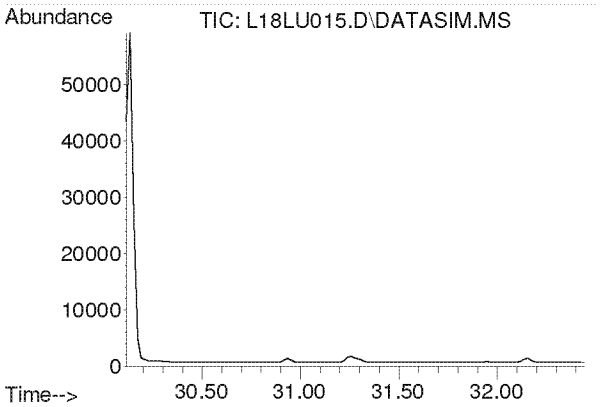

#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 31.8 |



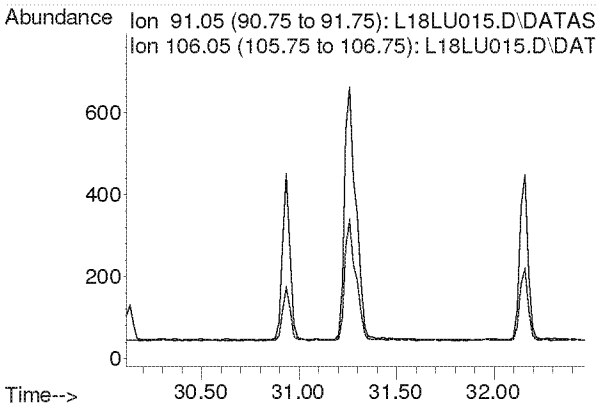




#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

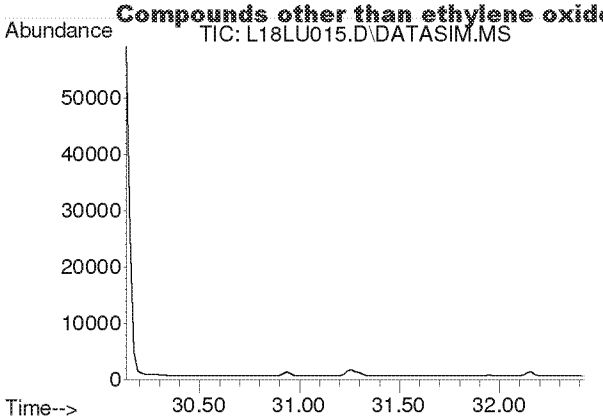
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.4 |



**Compounds other than ethylene oxide were not quantitated.**

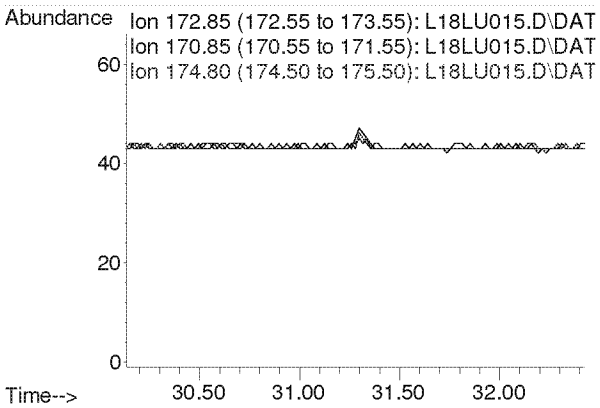


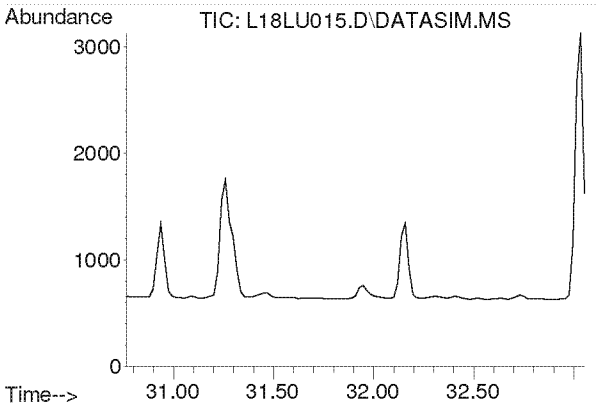

#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 173

| Sig | Exp Ratio |
|---|---|
| 173 | 100 |
| 171 | 51.3 |
| 175 | 49.0 |



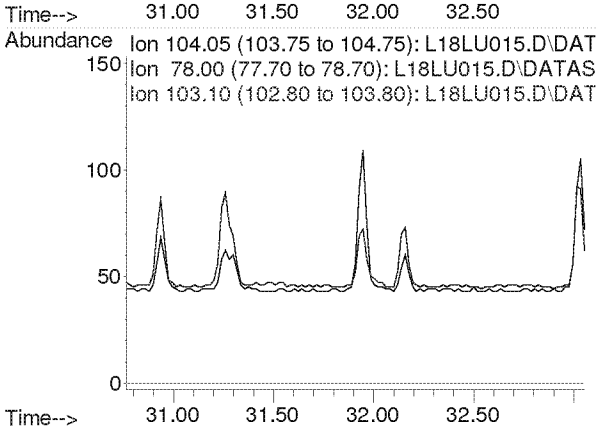




#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

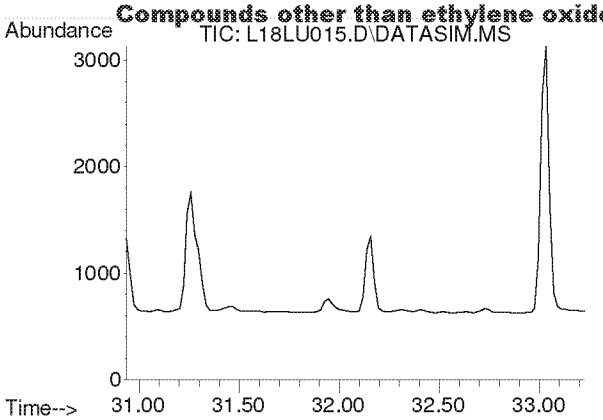
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 104

| Sig | Exp Ratio |
|---|---|
| 104 | 100 |
| 78 | 45.6 |
| 103 | 0.0 |



**Compounds other than ethylene oxide were not quantitated.**

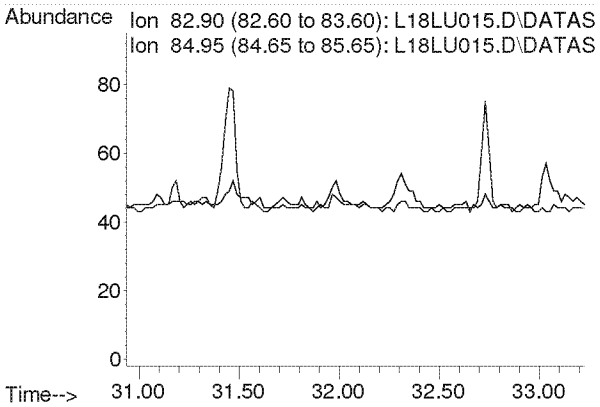


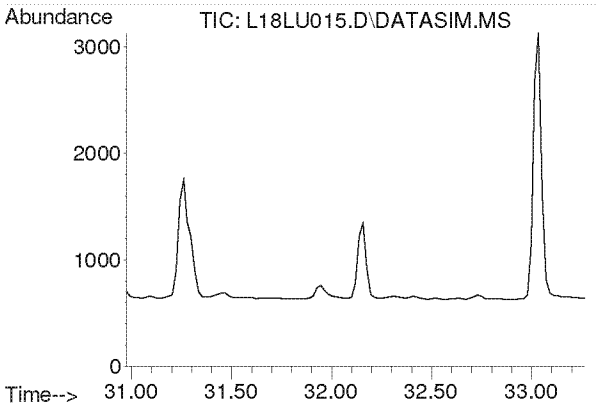

#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 63.9 |



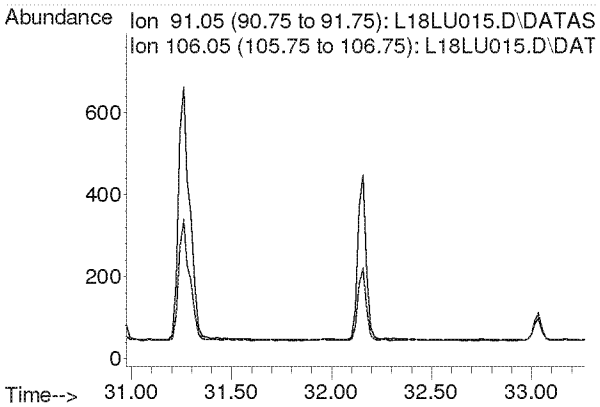




#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

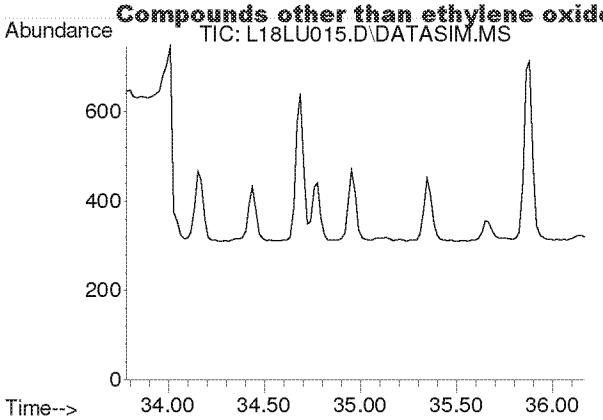
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.2 |



**Compounds other than ethylene oxide were not quantitated.**

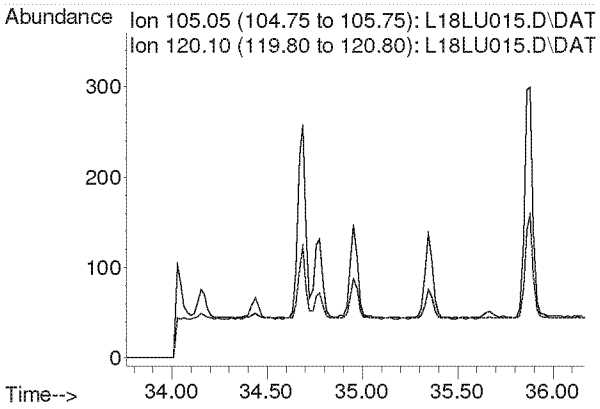


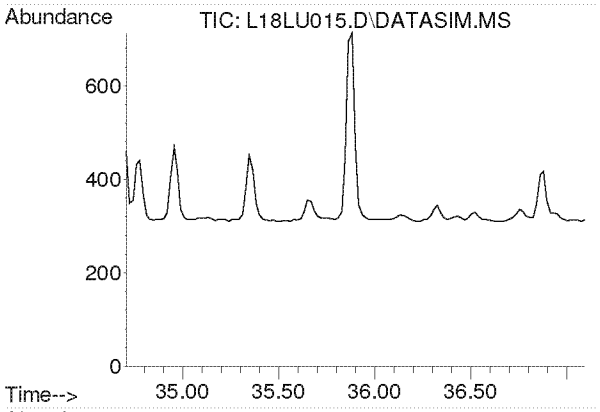

#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 45.0 |



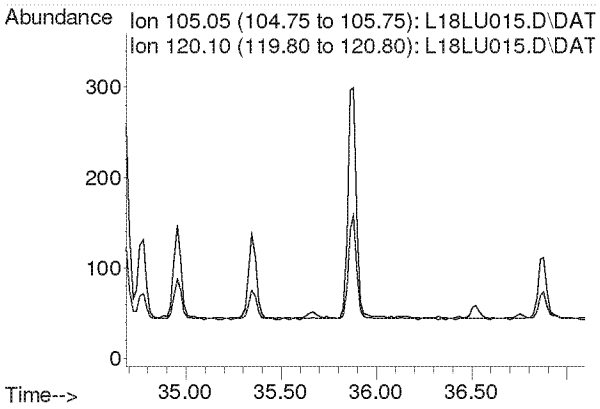




#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

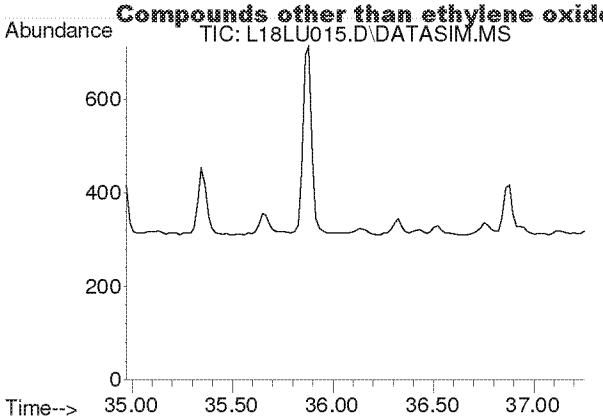
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 42.8 |



**Compounds other than ethylene oxide were not quantitated.**

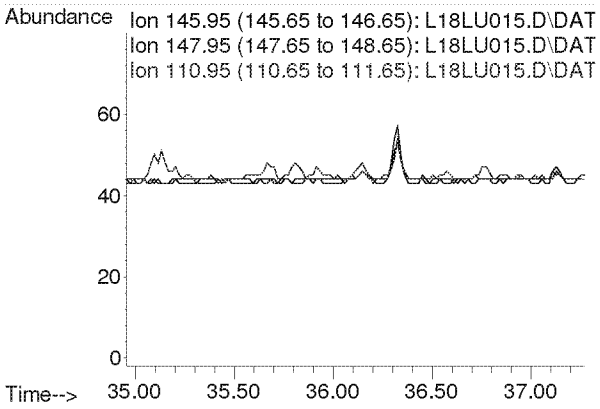


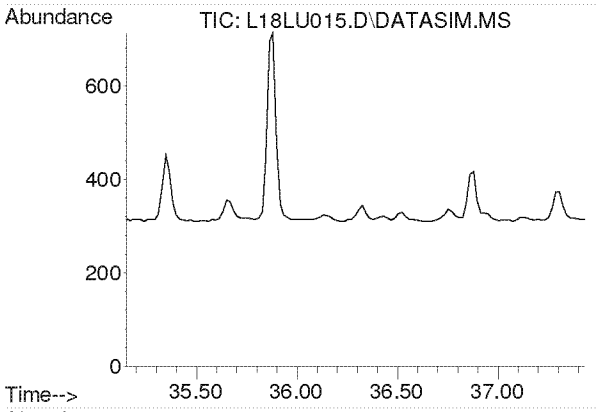

#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 40.5 |



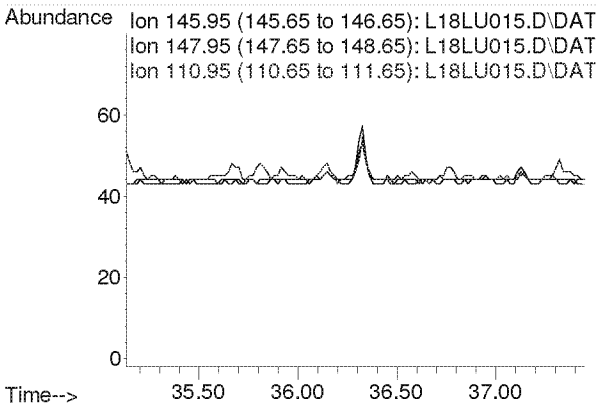




#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

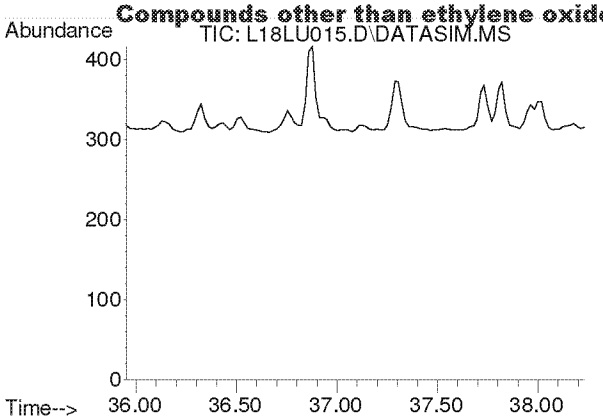
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 39.5 |



**Compounds other than ethylene oxide were not quantitated.**

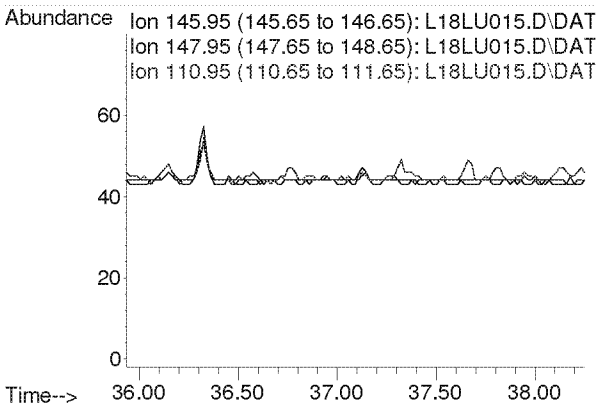


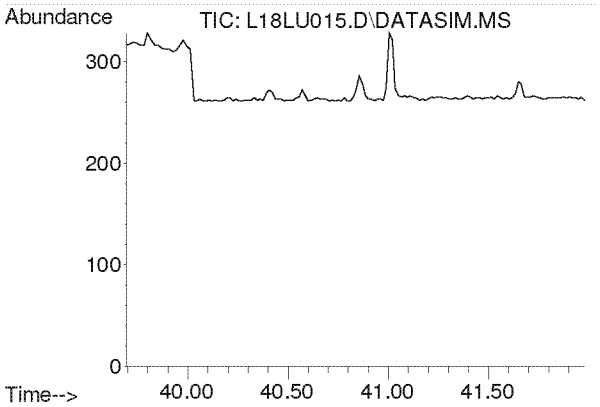

#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.1 |
| 111 | 41.4 |



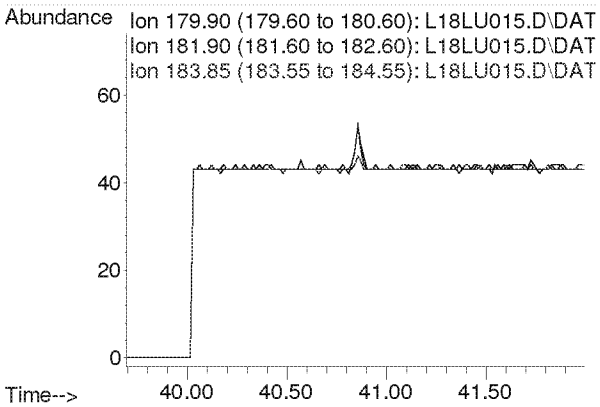




#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

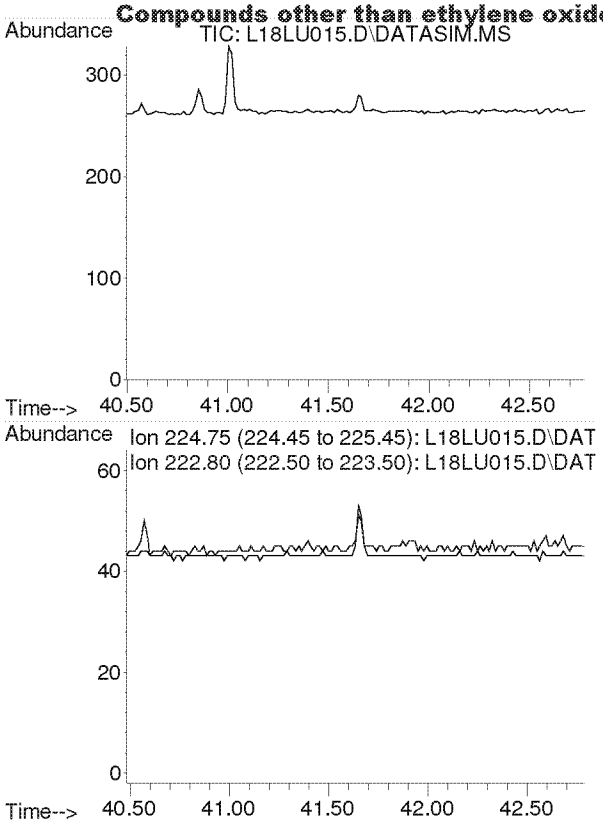
Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 180

| Sig | Exp Ratio |
|---|---|
| 180 | 100 |
| 182 | 95.1 |
| 184 | 30.7 |



**Compounds other than ethylene oxide were not quantitated.**




#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18LU015.D
Acq: 21 Dec 2018 9:39 pm

Tgt Ion: 225

| Sig | Exp Ratio |
|---|---|
| 225 | 100 |
| 223 | 62.4 |

**Compounds other than ethylene oxide were not quantitated.**

## *Duplicate Comparison Check*

*Comparison of Duplicate Samples*

| | | D1 | D2 | | |
|---|---|---|---|---|---|
| File ID | | L18LU016.D | L18LU017.D | | |
| Analyst | | MAH | MAH | | |
| Method | | 8120004.M | 8120004.M | | |
| Sample ID | | 8120701-08 | 8120701-09 | | |
| Mics Comments | | WB VILLAGE HALL | WB VILLAGE HALL C2 12/1/18 | | |
| Compound | MDL | Amount (ppbv) | Amount (ppbv) | RPD | Passed? |
| IS-Hexane-d14 | NA | | | NA | |
| Acetylene | 0.0394 | 0 | 0 | NA | |
| Propylene | 0.0639 | 0 | 0 | NA | |
| Dichlorodifluoromethane | 0.0273 | 0 | 0 | NA | |
| Chloromethane | 0.0465 | 0 | 0 | NA | |
| Dichlorotetrafluoroethane | 0.0134 | 0 | 0 | NA | |
| Vinyl chloride | 0.0128 | 0 | 0 | NA | |
| 1,3-Butadiene | 0.0193 | 0 | 0 | NA | |
| Ethylene Oxide | 0.0453 | 0.931 | 1.048 | 11.82 | Y |
| Bromomethane | 0.0115 | 0 | 0 | NA | |
| Chloroethane | 0.0249 | 0 | 0 | NA | |
| Acetonitrile | 0.0163 | 0 | 0 | NA | |
| Acrolein | 0.2250 | 0 | 0 | NA | |
| Trichlorofluoromethane | 0.0116 | 0 | 0 | NA | |
| Acrylonitrile | 0.0106 | 0 | 0 | NA | |
| 1,1-Dichloroethene | 0.0119 | 0 | 0 | NA | |
| Dichloromethane | 0.0144 | 0 | 0 | NA | |
| Carbon Disulfide | 0.0768 | 0 | 0 | NA | |
| Trichlorotrifluoroethane | 0.0098 | 0 | 0 | NA | |
| trans-1,2-Dichloroethylene | 0.0134 | 0 | 0 | NA | |
| 1,1-Dichloroethane | 0.0143 | 0 | 0 | NA | |
| Methyl tert-Butyl Ether | 0.0103 | 0 | 0 | NA | |
| Chloroprene | 0.0129 | 0 | 0 | NA | |
| cis-1,2-Dichloroethylene | 0.0186 | 0 | 0 | NA | |
| Bromochloromethane | 0.0133 | 0 | 0 | NA | |
| Chloroform | 0.0129 | 0 | 0 | NA | |
| Ethyl tert-Butyl Ether | 0.0109 | 0 | 0 | NA | |
| 1,2-Dichloroethane | 0.0139 | 0 | 0 | NA | |
| IS-1,4-Difluorobenzene | NA | | | NA | |
| 1,1,1-Trichloroethane | 0.0137 | 0 | 0 | NA | |
| Benzene | 0.0145 | 0 | 0 | NA | |
| Carbon Tetrachloride | 0.0133 | 0 | 0 | NA | |
| tert-Amyl Methyl Ether | 0.0124 | 0 | 0 | NA | |
| 1,2-Dichloropropane | 0.0203 | 0 | 0 | NA | |
| Ethyl Acrylate | 0.0235 | 0 | 0 | NA | |
| Bromodichloromethane | 0.0165 | 0 | 0 | NA | |
| Trichloroethylene | 0.0150 | 0 | 0 | NA | |
| Methyl Methacrylate | 0.1000 | 0 | 0 | NA | |
| cis-1,3-Dichloropropene | 0.0197 | 0 | 0 | NA | |
| Methyl Isobutyl Ketone | 0.0237 | 0 | 0 | NA | |
| trans-1,3-Dichloropropene | 0.0195 | 0 | 0 | NA | |
| 1,1,2-Trichloroethane | 0.0190 | 0 | 0 | NA | |
| IS-Chlorobenzene-d5 | NA | | | NA | |
| Toluene | 0.1300 | 0 | 0 | NA | |
| Dibromochloromethane | 0.0154 | 0 | 0 | NA | |
| 1,2-Dibromoethane | 0.0189 | 0 | 0 | NA | |
| n-Octane | 0.0323 | 0 | 0 | NA | |
| Tetrachloroethylene | 0.0146 | 0 | 0 | NA | |
| Chlorobenzene | 0.0192 | 0 | 0 | NA | |
| Ethylbenzene | 0.0258 | 0 | 0 | NA | |
| m,p-Xylene | 0.0360 | 0 | 0 | NA | |
| Bromoform | 0.0177 | 0 | 0 | NA | |
| Styrene | 0.0363 | 0 | 0 | NA | |
| 1,1,2,2-Tetrachloroethane | 0.0209 | 0 | 0 | NA | |
| o-Xylene | 0.0268 | 0 | 0 | NA | |
| 1,3,5-Trimethylbenzene | 0.0340 | 0 | 0 | NA | |
| 1,2,4-Trimethylbenzene | 0.0268 | 0 | 0 | NA | |
| m-Dichlorobenzene | 0.0182 | 0 | 0 | NA | |
| p-Dichlorobenzene | 0.0200 | 0 | 0 | NA | |
| o-Dichlorobenzene | 0.0206 | 0 | 0 | NA | |
| 1,2,4-Trichlorobenzene | 0.2490 | 0 | 0 | NA | |
| Hexachloro-1,3-butadiene | 0.0274 | 0 | 0 | NA | |

12-26-18

NA = Not Applicable. Precision can not be evaluated due to an average value less than 5 times the MDL.

**Compounds other than ethylene oxide were not quantitated.**

## *Duplicate Comparison Check*

*Comparison of Replicate Analyses*

| | | D1 | R1 | | |
|---|---|---|---|---|---|
| File ID | | L18LU016.D | L18LU018.D | | |
| Analyst | | MAH | MAH | | |
| Method | | 8120004.M | 8120004.M | | |
| Sample ID | | 8120701-08 | B8L2103-DUP3 | | |
| Mics Comments | | WB VILLAGE H | WB VILLAGE HALL R1 12/1/18 | | |
| Compound | MDL | Amount/ppbv | Amount (ppbv) | RPD | Passed? |
| IS-Hexane-d14 | NA | | | NA | |
| Acetylene | 0.0394 | 0 | 0 | NA | |
| Propylene | 0.0639 | 0 | 0 | NA | |
| Dichlorodifluoromethane | 0.0273 | 0 | 0 | NA | |
| Chloromethane | 0.0465 | 0 | 0 | NA | |
| Dichlorotetrafluoroethane | 0.0134 | 0 | 0 | NA | |
| Vinyl chloride | 0.0128 | 0 | 0 | NA | |
| 1,3-Butadiene | 0.0193 | 0 | 0 | NA | |
| Ethylene Oxide | 0.0453 | 0.931 | 0.93 | 0.11 | Y |
| Bromomethane | 0.0115 | 0 | 0 | NA | |
| Chloroethane | 0.0249 | 0 | 0 | NA | |
| Acetonitrile | 0.0163 | 0 | 0 | NA | |
| Acrolein | 0.2250 | 0 | 0 | NA | |
| Trichlorofluoromethane | 0.0116 | 0 | 0 | NA | |
| Acrylonitrile | 0.0106 | 0 | 0 | NA | |
| 1,1-Dichloroethene | 0.0119 | 0 | 0 | NA | |
| Dichloromethane | 0.0144 | 0 | 0 | NA | |
| Carbon Disulfide | 0.0768 | 0 | 0 | NA | |
| Trichlorotrifluoroethane | 0.0098 | 0 | 0 | NA | |
| trans-1,2-Dichloroethylene | 0.0134 | 0 | 0 | NA | |
| 1,1-Dichloroethane | 0.0143 | 0 | 0 | NA | |
| Methyl tert-Butyl Ether | 0.0103 | 0 | 0 | NA | |
| Chloroprene | 0.0129 | 0 | 0 | NA | |
| cis-1,2-Dichloroethylene | 0.0186 | 0 | 0 | NA | |
| Bromochloromethane | 0.0133 | 0 | 0 | NA | |
| Chloroform | 0.0129 | 0 | 0 | NA | |
| Ethyl tert-Butyl Ether | 0.0109 | 0 | 0 | NA | |
| 1,2-Dichloroethane | 0.0139 | 0 | 0 | NA | |
| IS-1,4-Difluorobenzene | NA | | | NA | |
| 1,1,1-Trichloroethane | 0.0137 | 0 | 0 | NA | |
| Benzene | 0.0145 | 0 | 0 | NA | |
| Carbon Tetrachloride | 0.0133 | 0 | 0 | NA | |
| tert-Amyl Methyl Ether | 0.0124 | 0 | 0 | NA | |
| 1,2-Dichloropropane | 0.0203 | 0 | 0 | NA | |
| Ethyl Acrylate | 0.0235 | 0 | 0 | NA | |
| Bromodichloromethane | 0.0165 | 0 | 0 | NA | |
| Trichloroethylene | 0.0150 | 0 | 0 | NA | |
| Methyl Methacrylate | 0.1000 | 0 | 0 | NA | |
| cis-1,3-Dichloropropene | 0.0197 | 0 | 0 | NA | |
| Methyl Isobutyl Ketone | 0.0237 | 0 | 0 | NA | |
| trans-1,3-Dichloropropene | 0.0195 | 0 | 0 | NA | |
| 1,1,2-Trichloroethane | 0.0190 | 0 | 0 | NA | |
| IS-Chlorobenzene-d5 | NA | | | NA | |
| Toluene | 0.1300 | 0 | 0 | NA | |
| Dibromochloromethane | 0.0154 | 0 | 0 | NA | |
| 1,2-Dibromoethane | 0.0189 | 0 | 0 | NA | |
| n-Octane | 0.0323 | 0 | 0 | NA | |
| Tetrachloroethylene | 0.0146 | 0 | 0 | NA | |
| Chlorobenzene | 0.0192 | 0 | 0 | NA | |
| Ethylbenzene | 0.0258 | 0 | 0 | NA | |
| m,p-Xylene | 0.0360 | 0 | 0 | NA | |
| Bromoform | 0.0177 | 0 | 0 | NA | |
| Styrene | 0.0363 | 0 | 0 | NA | |
| 1,1,2,2-Tetrachloroethane | 0.0209 | 0 | 0 | NA | |
| o-Xylene | 0.0268 | 0 | 0 | NA | |
| 1,3,5-Trimethylbenzene | 0.0340 | 0 | 0 | NA | |
| 1,2,4-Trimethylbenzene | 0.0268 | 0 | 0 | NA | |
| m-Dichlorobenzene | 0.0182 | 0 | 0 | NA | |
| p-Dichlorobenzene | 0.0200 | 0 | 0 | NA | |
| o-Dichlorobenzene | 0.0206 | 0 | 0 | NA | |
| 1,2,4-Trichlorobenzene | 0.2490 | 0 | 0 | NA | |
| Hexachloro-1,3-butadiene | 0.0274 | 0 | 0 | NA | |

*Comparison of Replicate Analyses*

| | | D2 | R2 | | |
|---|---|---|---|---|---|
| File ID | | L18LU017.D | L18LU019.D | | |
| Analyst | | MAH | MAH | | |
| Method | | 8120004.M | 8120004.M | | |
| Sample ID | | 8120701-09 | B8L2103-DUP4 | | |
| Mics Comments | | WB VILLAGE H | WB VILLAGE HALL R2 12/1/18 | | |
| Compound | MDL | Amount/ppbv | Amount (ppbv) | RPD | Passed? |
| IS-Hexane-d14 | NA | | | NA | |
| Acetylene | 0.0394 | 0 | 0 | NA | |
| Propylene | 0.0639 | 0 | 0 | NA | |
| Dichlorodifluoromethane | 0.0273 | 0 | 0 | NA | |
| Chloromethane | 0.0465 | 0 | 0 | NA | |
| Dichlorotetrafluoroethane | 0.0134 | 0 | 0 | NA | |
| Vinyl chloride | 0.0128 | 0 | 0 | NA | |
| 1,3-Butadiene | 0.0193 | 0 | 0 | NA | |
| Ethylene Oxide | 0.0453 | 1.048 | 1.018 | 2.90 | Y |
| Bromomethane | 0.0115 | 0 | 0 | NA | |
| Chloroethane | 0.0249 | 0 | 0 | NA | |
| Acetonitrile | 0.0163 | 0 | 0 | NA | |
| Acrolein | 0.2250 | 0 | 0 | NA | |
| Trichlorofluoromethane | 0.0116 | 0 | 0 | NA | |
| Acrylonitrile | 0.0106 | 0 | 0 | NA | |
| 1,1-Dichloroethene | 0.0119 | 0 | 0 | NA | |
| Dichloromethane | 0.0144 | 0 | 0 | NA | |
| Carbon Disulfide | 0.0768 | 0 | 0 | NA | |
| Trichlorotrifluoroethane | 0.0098 | 0 | 0 | NA | |
| trans-1,2-Dichloroethylene | 0.0134 | 0 | 0 | NA | |
| 1,1-Dichloroethane | 0.0143 | 0 | 0 | NA | |
| Methyl tert-Butyl Ether | 0.0103 | 0 | 0 | NA | |
| Chloroprene | 0.0129 | 0 | 0 | NA | |
| cis-1,2-Dichloroethylene | 0.0186 | 0 | 0 | NA | |
| Bromochloromethane | 0.0133 | 0 | 0 | NA | |
| Chloroform | 0.0129 | 0 | 0 | NA | |
| Ethyl tert-Butyl Ether | 0.0109 | 0 | 0 | NA | |
| 1,2-Dichloroethane | 0.0139 | 0 | 0 | NA | |
| IS-1,4-Difluorobenzene | NA | | | NA | |
| 1,1,1-Trichloroethane | 0.0137 | 0 | 0 | NA | |
| Benzene | 0.0145 | 0 | 0 | NA | |
| Carbon Tetrachloride | 0.0133 | 0 | 0 | NA | |
| tert-Amyl Methyl Ether | 0.0124 | 0 | 0 | NA | |
| 1,2-Dichloropropane | 0.0203 | 0 | 0 | NA | |
| Ethyl Acrylate | 0.0235 | 0 | 0 | NA | |
| Bromodichloromethane | 0.0165 | 0 | 0 | NA | |
| Trichloroethylene | 0.0150 | 0 | 0 | NA | |
| Methyl Methacrylate | 0.1000 | 0 | 0 | NA | |
| cis-1,3-Dichloropropene | 0.0197 | 0 | 0 | NA | |
| Methyl Isobutyl Ketone | 0.0237 | 0 | 0 | NA | |
| trans-1,3-Dichloropropene | 0.0195 | 0 | 0 | NA | |
| 1,1,2-Trichloroethane | 0.0190 | 0 | 0 | NA | |
| IS-Chlorobenzene-d5 | NA | | | NA | |
| Toluene | 0.1300 | 0 | 0 | NA | |
| Dibromochloromethane | 0.0154 | 0 | 0 | NA | |
| 1,2-Dibromoethane | 0.0189 | 0 | 0 | NA | |
| n-Octane | 0.0323 | 0 | 0 | NA | |
| Tetrachloroethylene | 0.0146 | 0 | 0 | NA | |
| Chlorobenzene | 0.0192 | 0 | 0 | NA | |
| Ethylbenzene | 0.0258 | 0 | 0 | NA | |
| m,p-Xylene | 0.0360 | 0 | 0 | NA | |
| Bromoform | 0.0177 | 0 | 0 | NA | |
| Styrene | 0.0363 | 0 | 0 | NA | |
| 1,1,2,2-Tetrachloroethane | 0.0209 | 0 | 0 | NA | |
| o-Xylene | 0.0268 | 0 | 0 | NA | |
| 1,3,5-Trimethylbenzene | 0.0340 | 0 | 0 | NA | |
| 1,2,4-Trimethylbenzene | 0.0268 | 0 | 0 | NA | |
| m-Dichlorobenzene | 0.0182 | 0 | 0 | NA | |
| p-Dichlorobenzene | 0.0200 | 0 | 0 | NA | |
| o-Dichlorobenzene | 0.0206 | 0 | 0 | NA | |
| 1,2,4-Trichlorobenzene | 0.2490 | 0 | 0 | NA | |
| Hexachloro-1,3-butadiene | 0.0274 | 0 | 0 | NA | |

NA = Not Applicable. Precision can not be evaluated due to an average value less than 5 times the MDL.

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU016.D
Acq On : 21 Dec 2018 10:41 pm (#1); 21-Dec-18, 22:35:55 (#2)
Operator : MAH
Sample : 8120701-08
Misc : WB VILLAGE HALL C1 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 26 10:05:55 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) IS-Hexane-d14 | 20.013 | 66 | 52604 | 4.7700 ppbv | 0.02 |
| 29) IS-1,4-Difluorobenzene | 23.169 | 114 | 125132 | 4.9900 ppbv | 0.02 |
| 43) IS-Chlorobenzene-d5 | 30.133 | 117 | 86666 | 4.7400 ppbv | 0.04 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) Acetylene | 0.000 | 26 | 0 | N.D. d | |
| 3) Propylene | 0.000 | 41 | 0 | N.D. d | |
| 4) Dichlorodifluoromethane | 0.000 | 85 | 0 | N.D. d | |
| 5) Chloromethane | 0.000 | 50 | 0 | N.D. d | |
| 6) Dichlorotetrafluoroethane | 0.000 | 85 | 0 | N.D. d | |
| 7) Vinyl Chloride | 0.000 | 62 | 0 | N.D. | |
| 8) 1,3-Butadiene | 0.000 | 54 | 0 | N.D. d | |
| 9) Ethylene oxide | 12.423 | 29 | 2928 | 0.9312 ppbv # | 83 |
| 10) Bromomethane | 0.000 | 94 | 0 | N.D. d | |
| 11) Chloroethane | 0.000 | 64 | 0 | N.D. | |
| 12) Acetonitrile | 0.000 | 41 | 0 | N.D. d | |
| 13) Acrolein | 0.000 | 56 | 0 | N.D. d | |
| 14) Trichlorofluoromethane | 0.000 | 101 | 0 | N.D. d | |
| 15) Acrylonitrile | 0.000 | 53 | 0 | N.D. d | |
| 16) 1,1-Dichloroethene | 0.000 | 61 | 0 | N.D. | |
| 17) Methylene Chloride | 0.000 | 49 | 0 | N.D. d | |
| 18) Carbon Disulfide | 0.000 | 76 | 0 | N.D. d | |
| 19) Trichlorotrifluoroethane | 0.000 | 101 | 0 | N.D. d | |
| 20) trans-1,2-Dichloroethy... | 0.000 | 96 | 0 | N.D. | |
| 21) 1,1-Dichloroethane | 0.000 | 63 | 0 | N.D. d | |
| 22) Methyl tert-Butyl Ether | 0.000 | 73 | 0 | N.D. d | |
| 23) Chloroprene | 0.000 | 53 | 0 | N.D. d | |
| 24) cis-1,2-Dichloroethylene | 0.000 | 61 | 0 | N.D. d | |
| 25) Bromochloromethane | 0.000 | 128 | 0 | N.D. | |
| 26) Chloroform | 0.000 | 83 | 0 | N.D. d | |
| 27) Ethyl tert-Butyl Ether | 0.000 | 59 | 0 | N.D. | |
| 28) 1,2-Dichloroethane | 0.000 | 62 | 0 | N.D. d | |
| 30) 1,1,1-Trichloroethane | 0.000 | 97 | 0 | N.D. d | |
| 31) Benzene | 0.000 | 78 | 0 | N.D. d | |
| 32) Carbon Tetrachloride | 0.000 | 117 | 0 | N.D. d | |
| 33) tert-Amyl Methyl Ether | 0.000 | 73 | 0 | N.D. | |
| 34) 1,2-Dichloropropane | 0.000 | 63 | 0 | N.D. d | |
| 35) Ethyl Acrylate | 0.000 | 55 | 0 | N.D. | |
| 36) Bromodichloromethane | 0.000 | 83 | 0 | N.D. d | |
| 37) Trichloroethylene | 0.000 | 130 | 0 | N.D. d | |
| 38) Methyl Methacrylate | 0.000 | 41 | 0 | N.D. d | |
| 39) cis-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 40) Methyl Isobutyl Ketone | 0.000 | 43 | 0 | N.D. d | |
| 41) trans-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 42) 1,1,2-Trichloroethane | 0.000 | 97 | 0 | N.D. | |
| 44) Toluene | 0.000 | 91 | 0 | N.D. d | |
| 45) Dibromochloromethane | 0.000 | 129 | 0 | N.D. | |
| 46) 1,2-Dibromoethane | 0.000 | 107 | 0 | N.D. | |
| 47) n-Octane | 0.000 | 43 | 0 | N.D. d | |
| 48) Tetrachloroethylene | 0.000 | 166 | 0 | N.D. d | |
| 49) Chlorobenzene | 0.000 | 112 | 0 | N.D. | |
| 50) Ethylbenzene | 0.000 | 91 | 0 | N.D. d | |

**Compounds other than ethylene oxide were not quantitated**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU016.D
Acq On : 21 Dec 2018 10:41 pm (#1); 21-Dec-18, 22:35:55 (#2)
Operator : MAH
Sample : 8120701-08
Misc : WB VILLAGE HALL C1 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 26 10:05:55 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

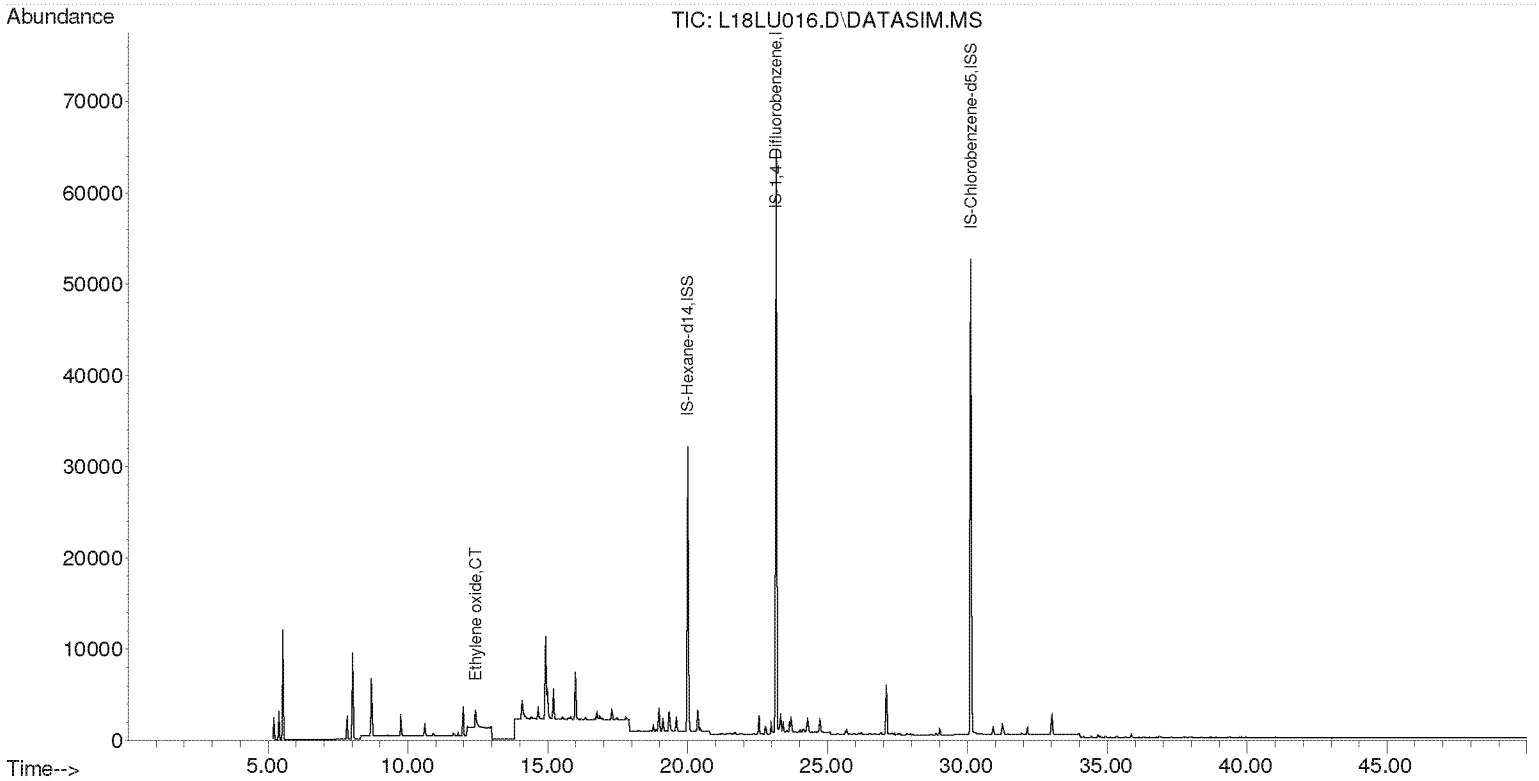
| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 51) m,p-Xylene | 0.000 | 91 | 0 | N.D. | d |
| 52) Bromoform | 0.000 | 173 | 0 | N.D. | |
| 53) Styrene | 0.000 | 104 | 0 | N.D. | d |
| 54) 1,1,2,2-Tetrachloroethane | 0.000 | 83 | 0 | N.D. | |
| 55) o-Xylene | 0.000 | 91 | 0 | N.D. | d |
| 56) 1,3,5-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | d |
| 57) 1,2,4-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | d |
| 58) m-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 59) p-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | d |
| 60) o-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 61) 1,2,4-Trichlorobenzene | 0.000 | 180 | 0 | N.D. | |
| 62) Hexachloro-1,3-butadiene | 0.000 | 225 | 0 | N.D. | d |

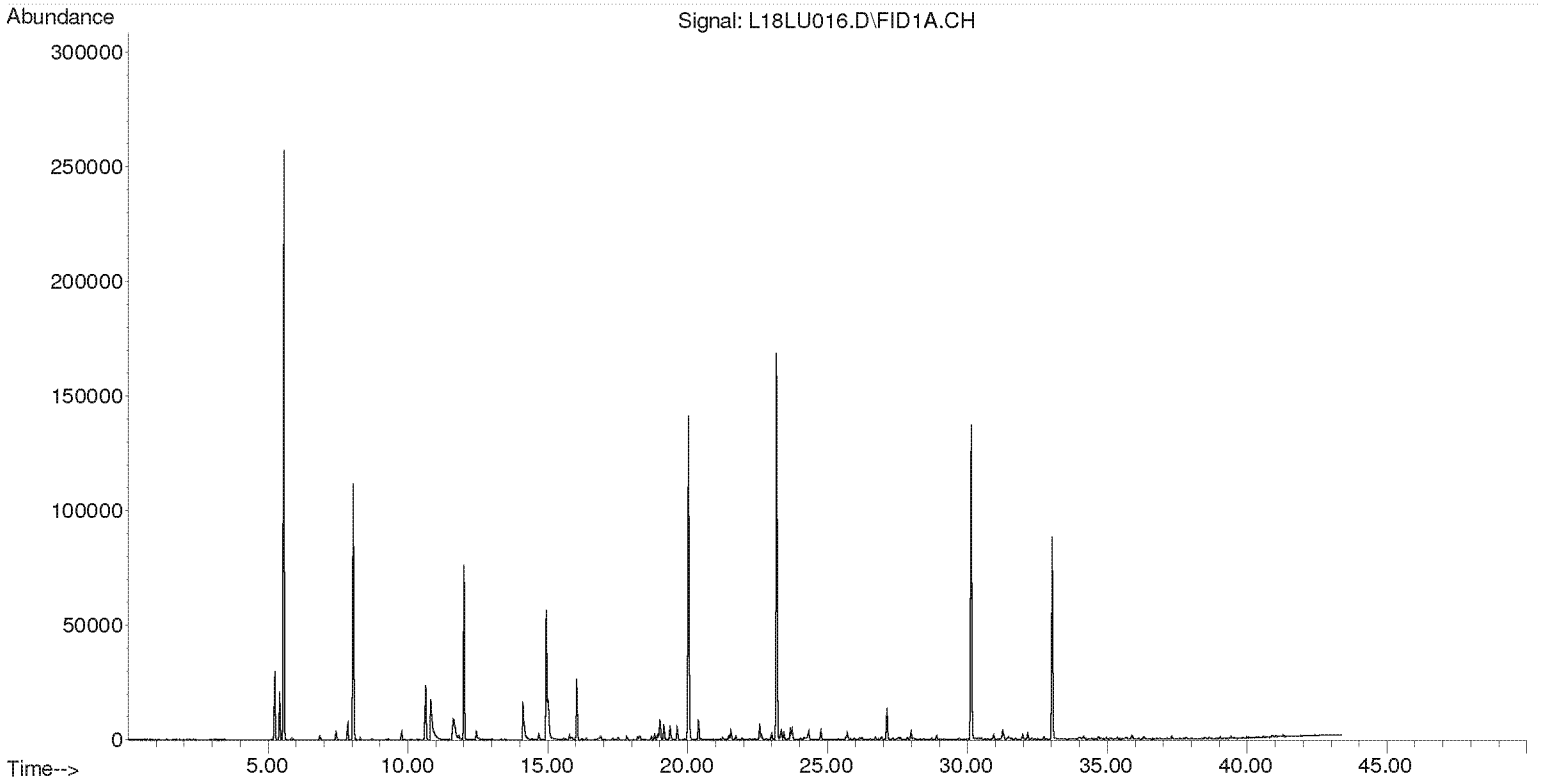
(#) = qualifier out of range (m) = manual integration (+) = signals summed

**Compounds other than ethylene oxide were not quantitated.**

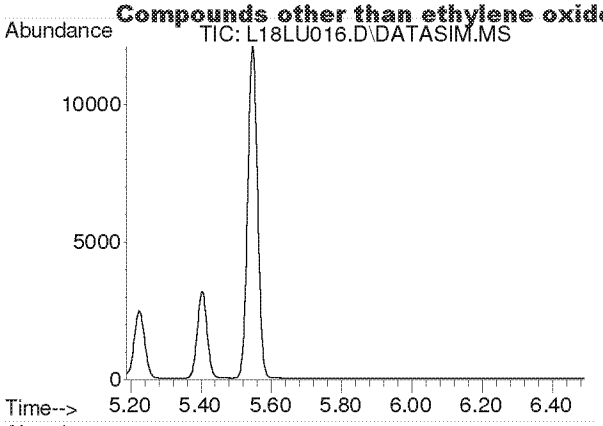
Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU016.D
Acq On : 21 Dec 2018 10:41 pm (#1); 21 Dec 2018 10:35 pm (#2)
Operator : MAH
Sample : 8120701-08
Misc : WB VILLAGE HALL C1 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Dec 26 09:51:27 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



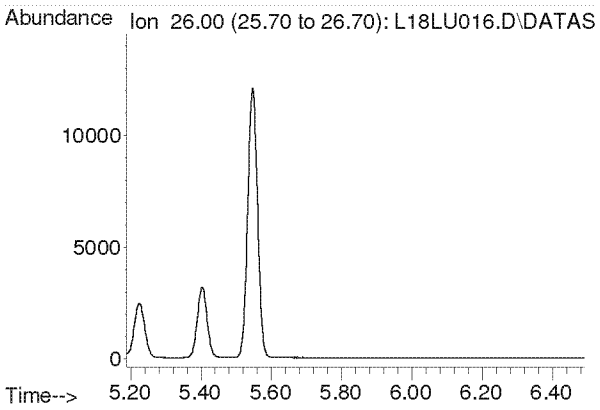
**Compounds other than ethylene oxide were not quantitated.**

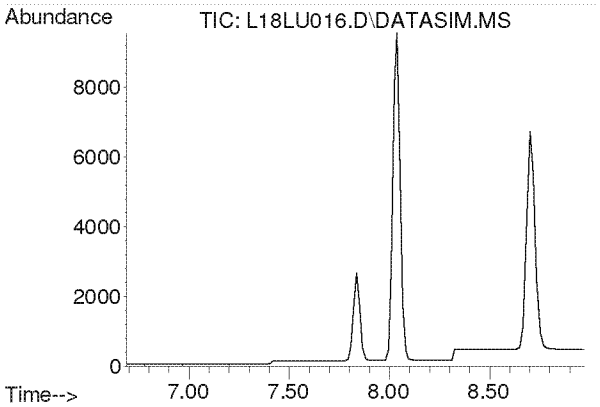



#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 26



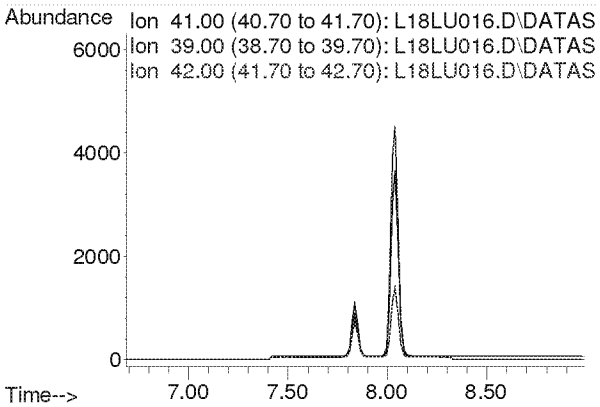




#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

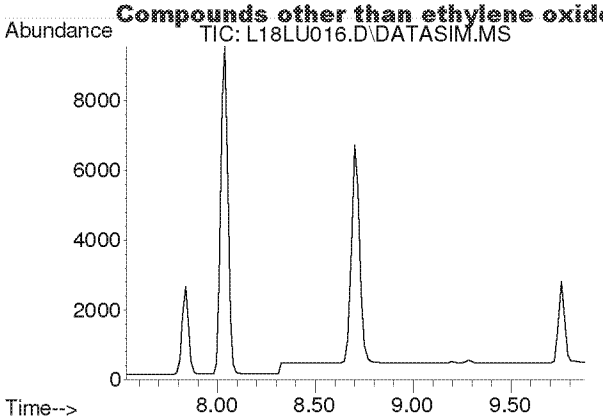
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 39 | 78.2 |
| 42 | 65.8 |



**Compounds other than ethylene oxide were not quantitated.**

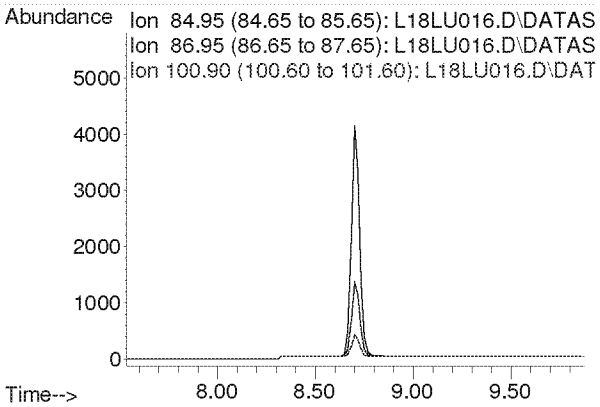


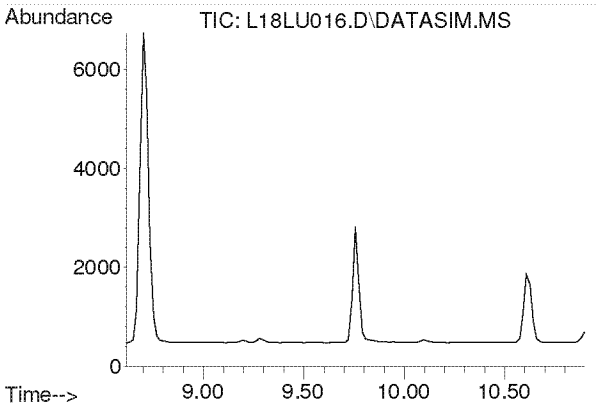

#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 87 | 32.5 |
| 101 | 8.9 |



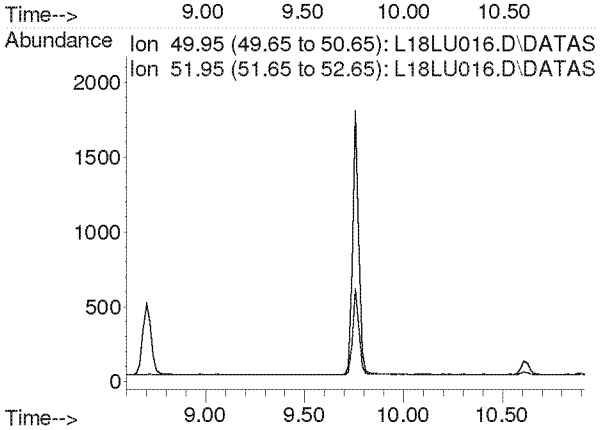




#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

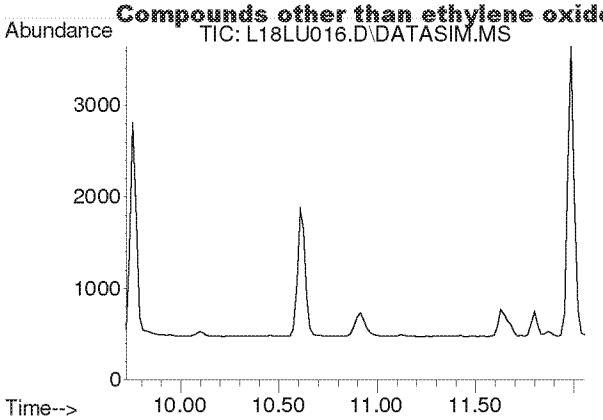
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 50

| Sig | Exp Ratio |
|---|---|
| 50 | 100 |
| 52 | 32.6 |



**Compounds other than ethylene oxide were not quantitated.**

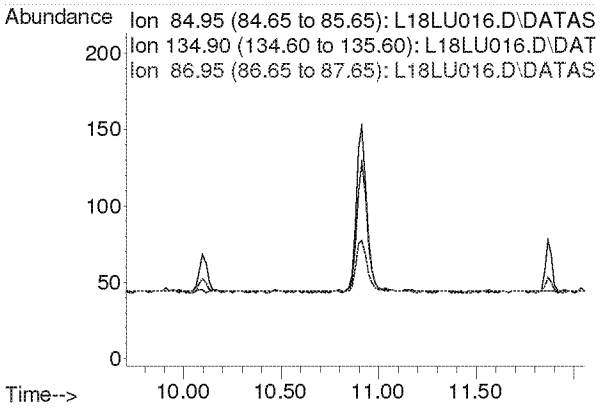


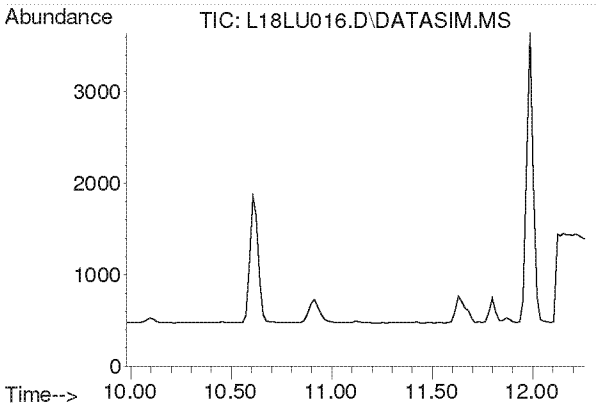

#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 135 | 79.1 |
| 87 | 32.1 |



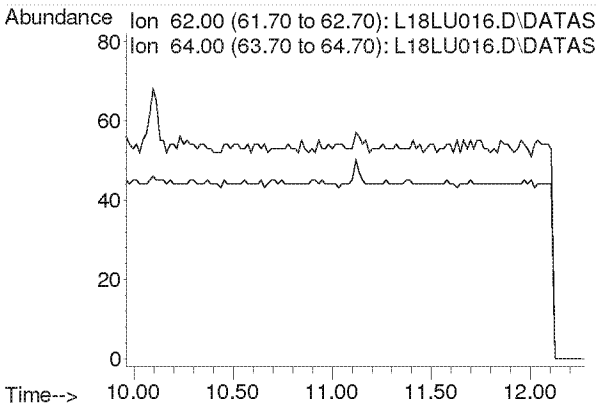




#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

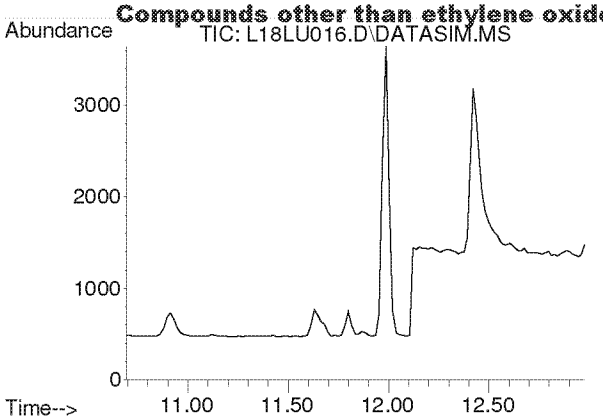
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 64 | 31.8 |



**Compounds other than ethylene oxide were not quantitated.**

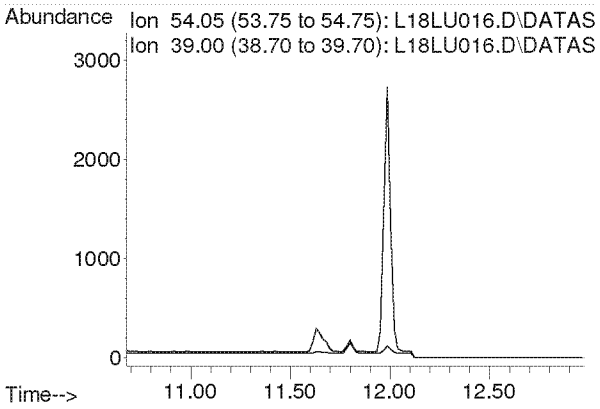


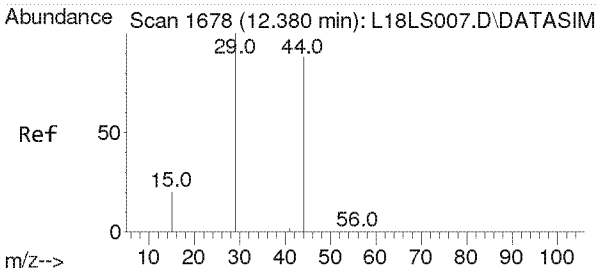

#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 54

| Sig | Exp Ratio |
|---|---|
| 54 | 100 |
| 39 | 105.4 |

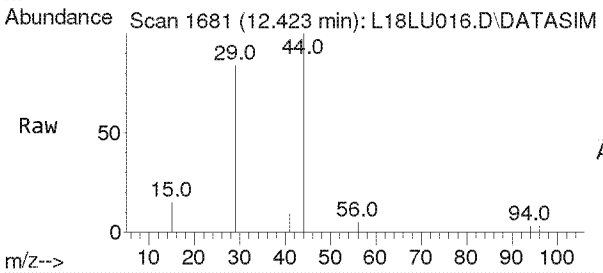


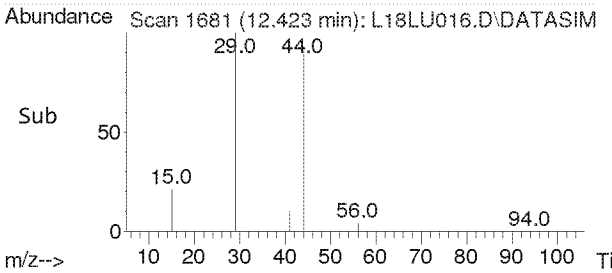



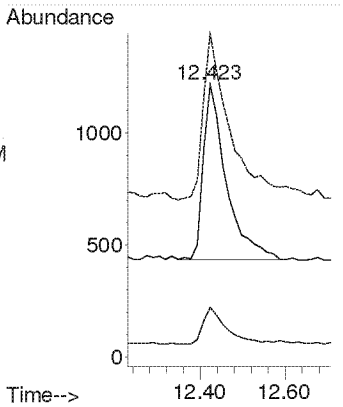

#9
Ethylene oxide
Concen: 0.931 ppbv
RT: 12.423 min Scan# 1681
Delta R.T. 0.043 min
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 29 Resp: 2928

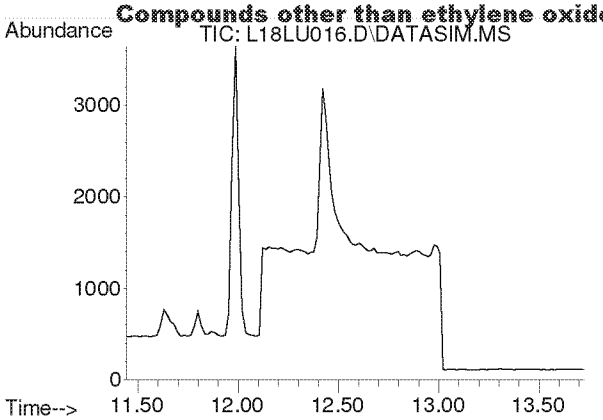
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 29 | 100 | | |
| 15 | 20.7 | 16.2 | 24.4 |
| 44 | 109.9 | 72.0 | 108.0# |



**Compounds other than ethylene oxide were not quantitated.**

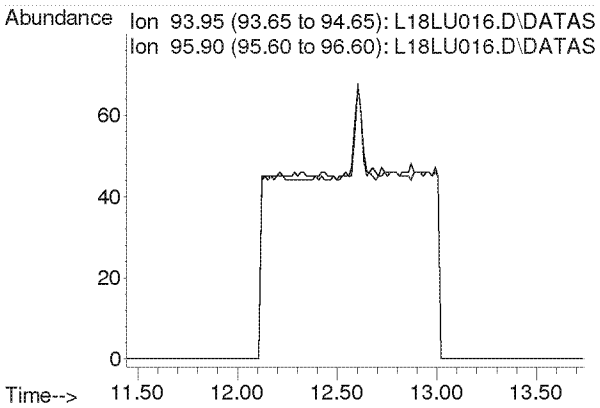


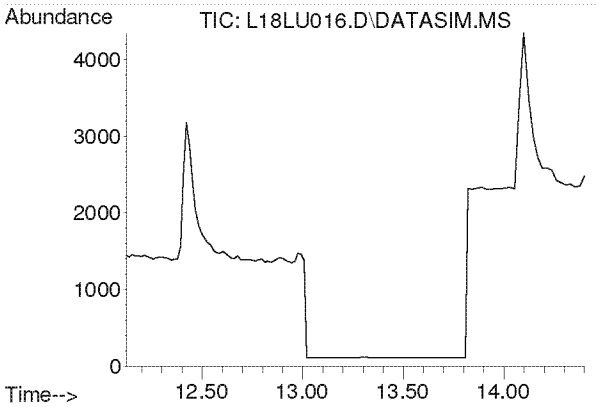

#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 94

| Sig | Exp Ratio |
|---|---|
| 94 | 100 |
| 96 | 93.9 |



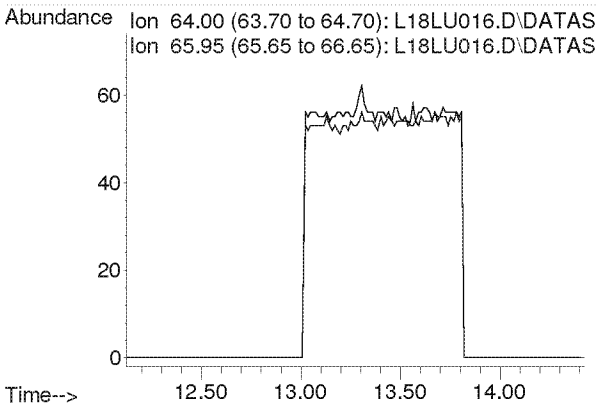




#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

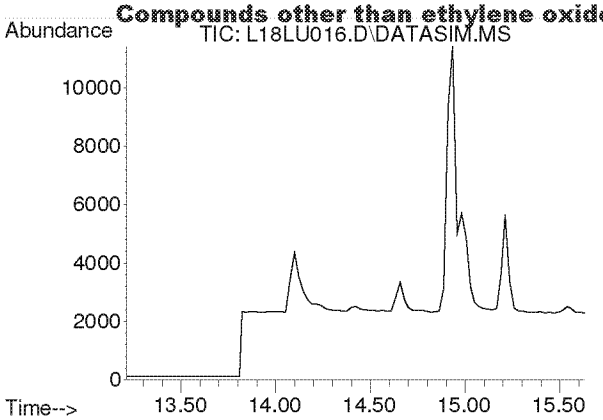
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 64

| Sig | Exp Ratio |
|---|---|
| 64 | 100 |
| 66 | 32.0 |



**Compounds other than ethylene oxide were not quantitated.**

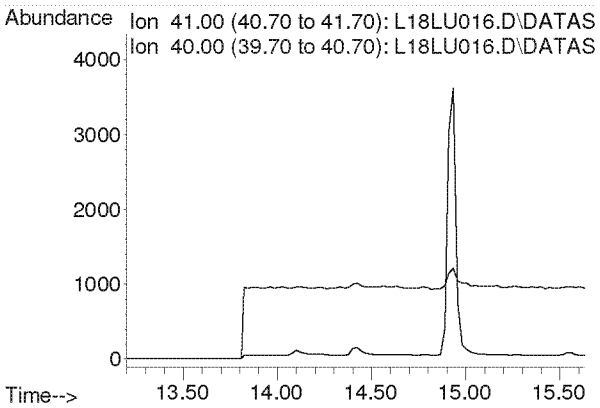


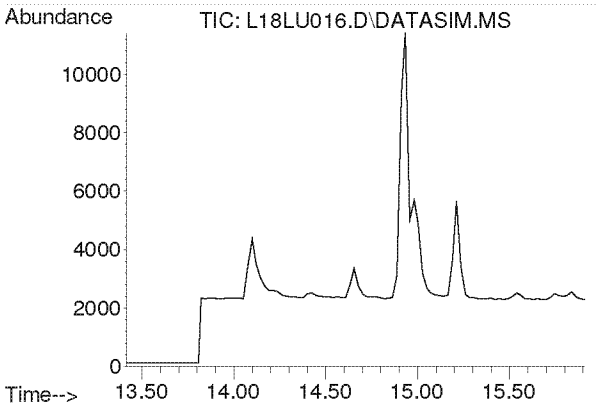

#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 40 | 50.9 |



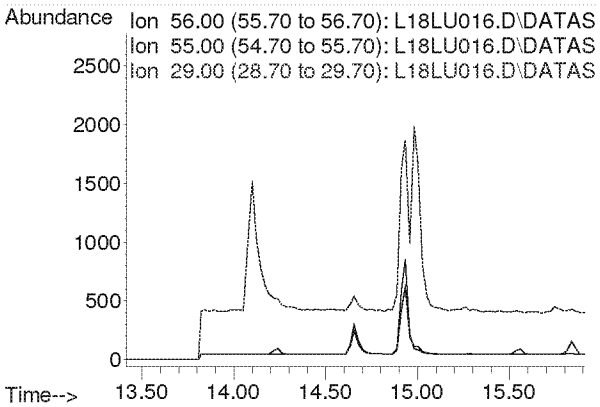




#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

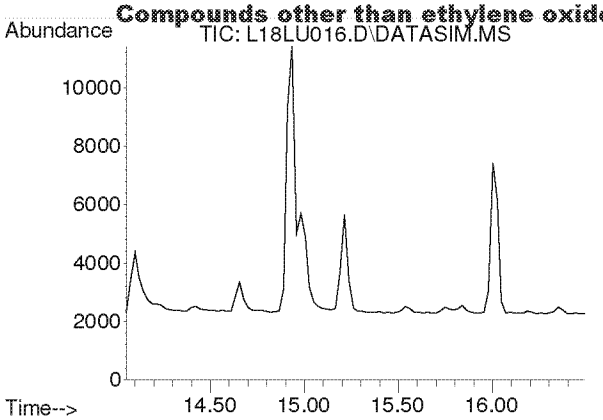
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 56

| Sig | Exp Ratio |
|---|---|
| 56 | 100 |
| 55 | 75.4 |
| 29 | 52.9 |



**Compounds other than ethylene oxide were not quantitated.**

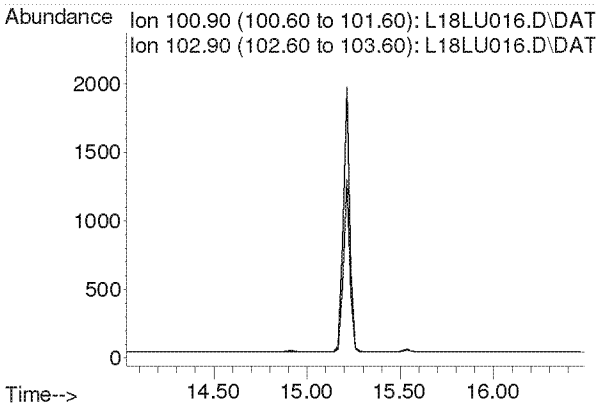


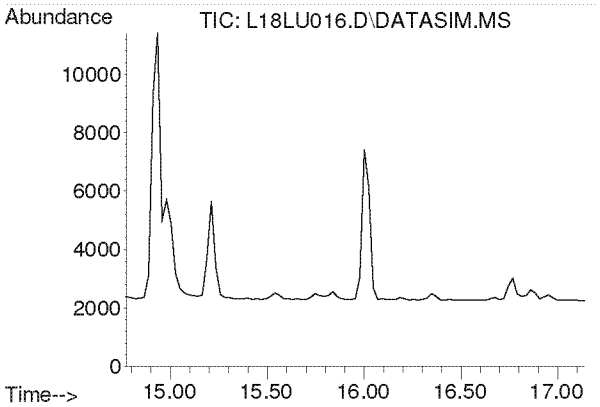

#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 103 | 64.6 |



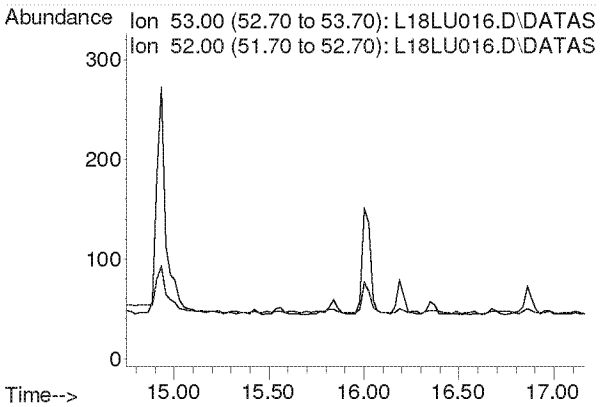




#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

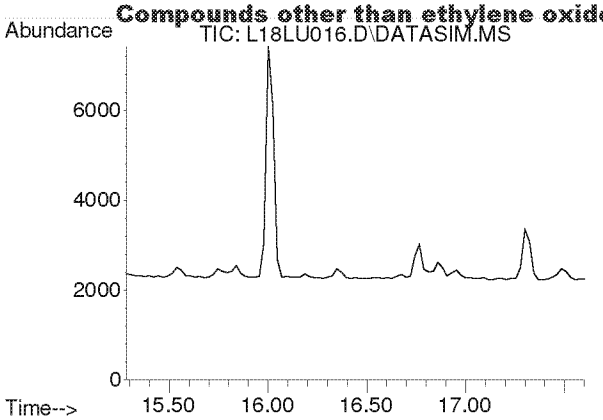
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 52 | 85.4 |



**Compounds other than ethylene oxide were not quantitated.**

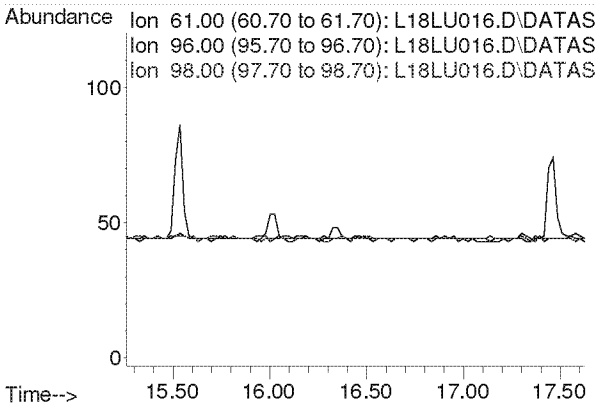


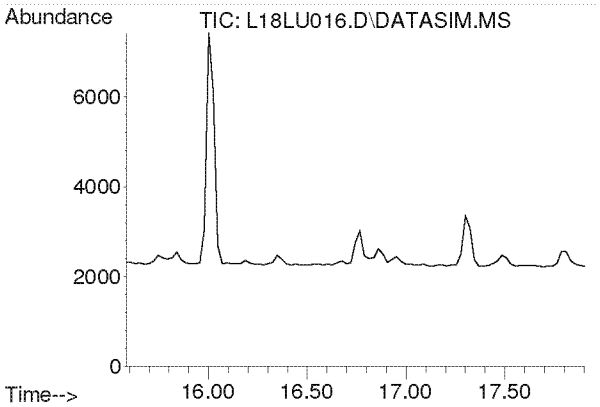

#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 58.3 |
| 98 | 37.4 |



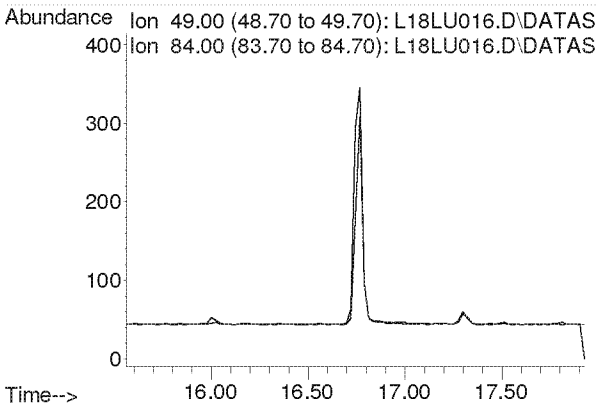




#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

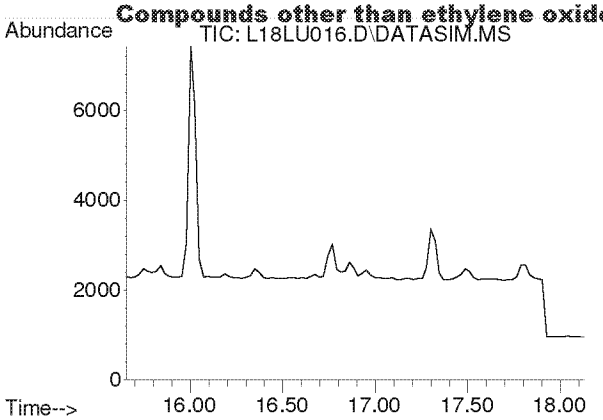
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 49

| Sig | Exp Ratio |
|---|---|
| 49 | 100 |
| 84 | 76.4 |



**Compounds other than ethylene oxide were not quantitated.**

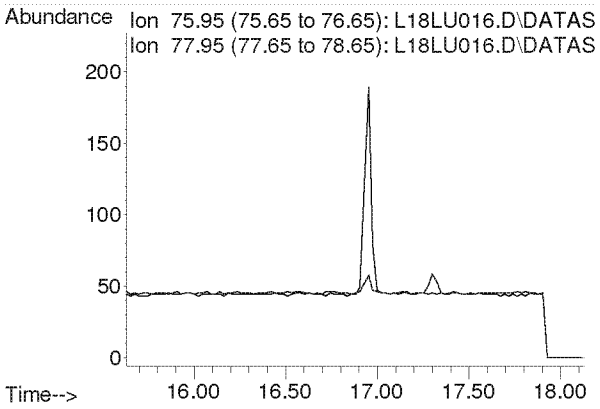


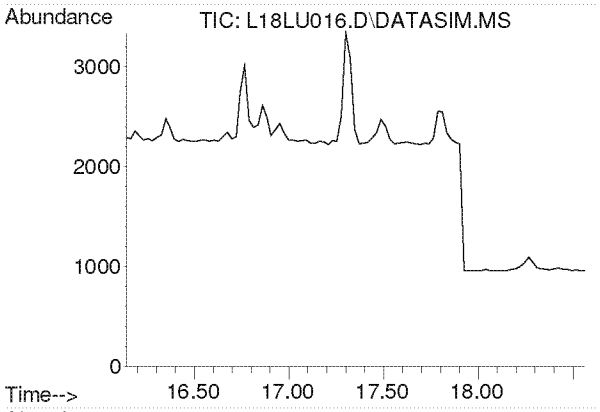

#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 76

| Sig | Exp Ratio |
|---|---|
| 76 | 100 |
| 78 | 9.1 |



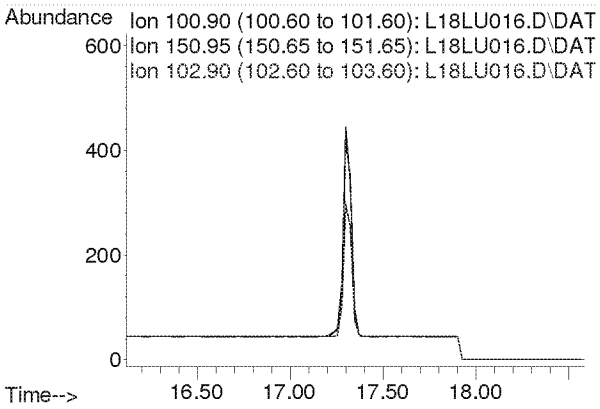




#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

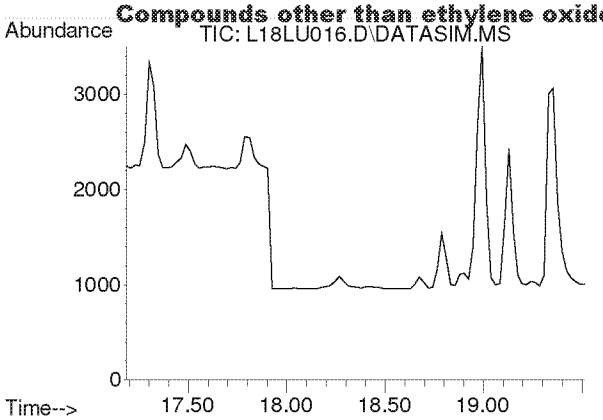
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 151 | 95.3 |
| 103 | 64.1 |



**Compounds other than ethylene oxide were not quantitated.**

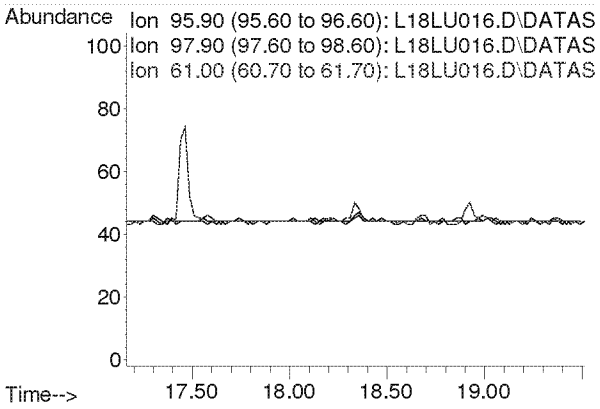


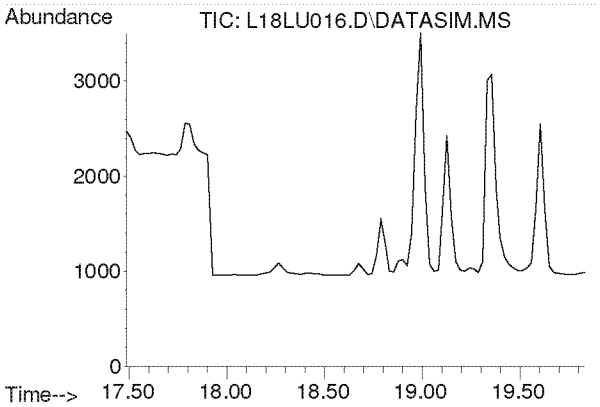

#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 96

| Sig | Exp Ratio |
|---|---|
| 96 | 100 |
| 98 | 63.7 |
| 61 | 159.2 |



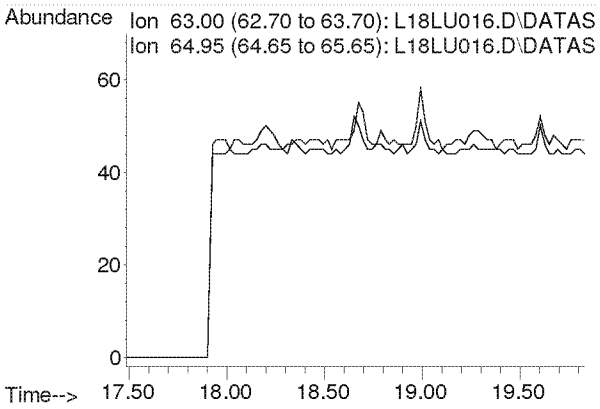




#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

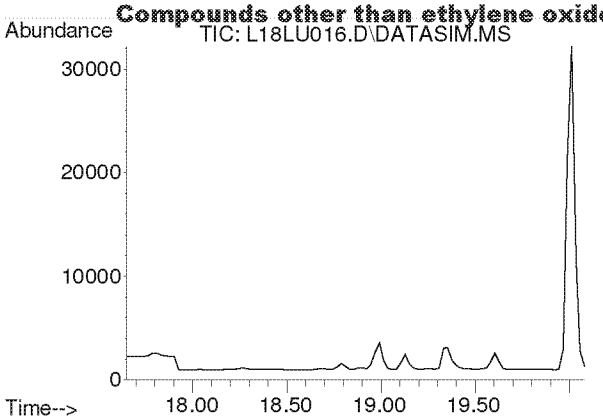
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 65 | 31.7 |



**Compounds other than ethylene oxide were not quantitated.**

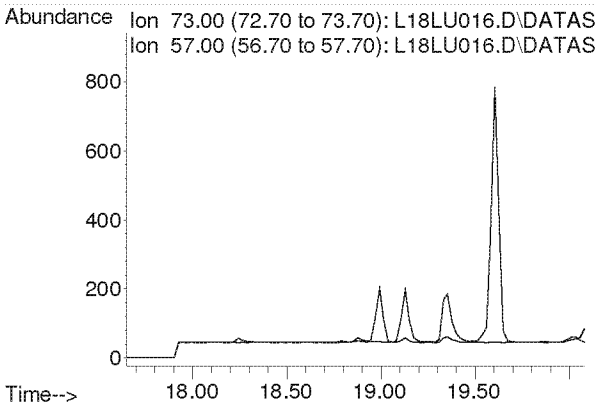


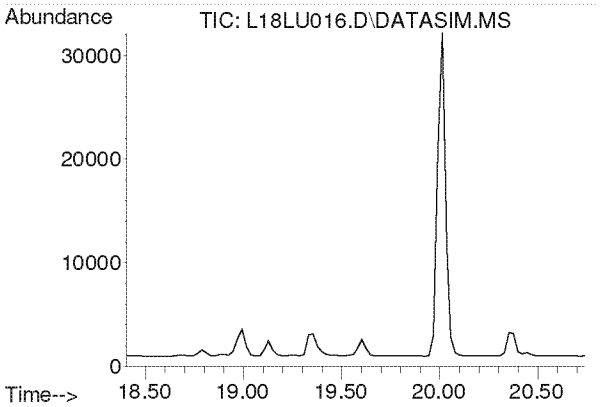

#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 57 | 23.4 |



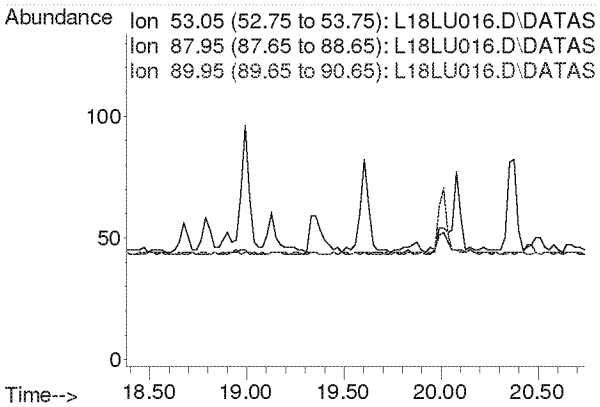




#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

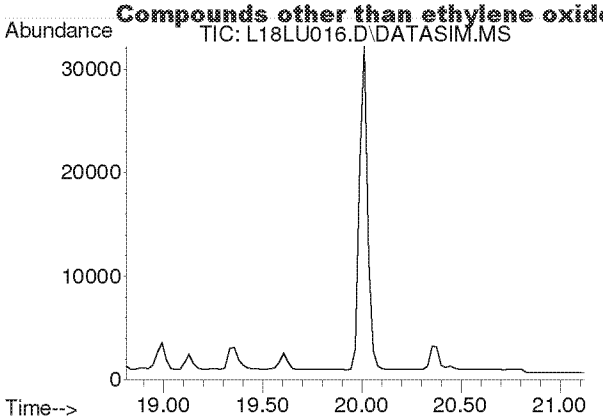
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 88 | 51.8 |
| 90 | 16.8 |



**Compounds other than ethylene oxide were not quantitated.**

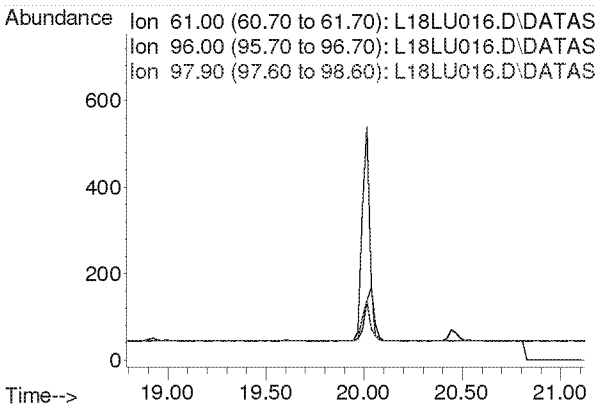


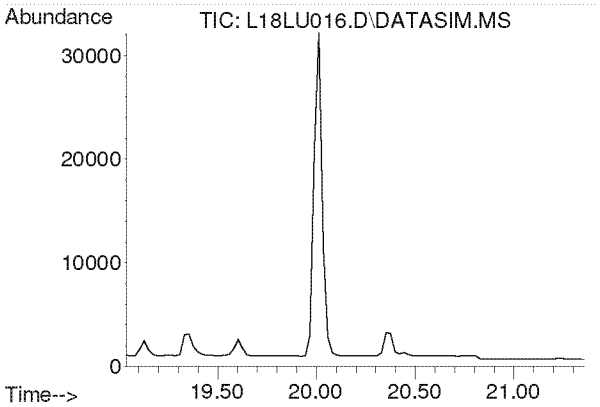

#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 73.7 |
| 98 | 45.2 |



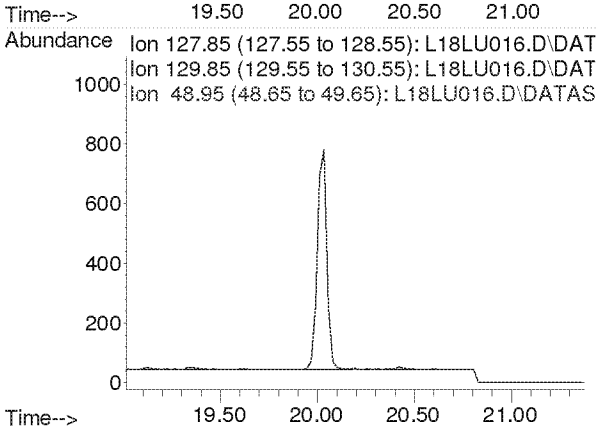




#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

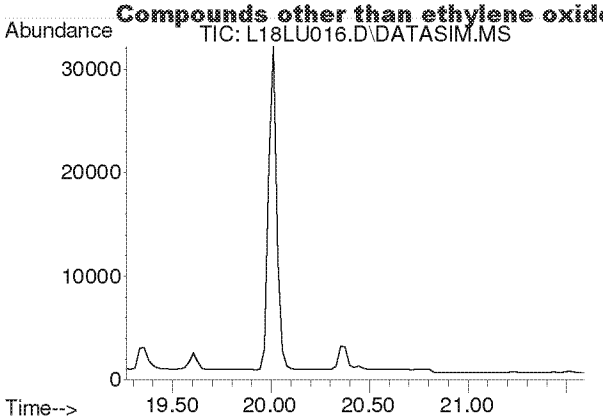
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 128

| Sig | Exp Ratio |
|---|---|
| 128 | 100 |
| 130 | 129.1 |
| 49 | 171.2 |



**Compounds other than ethylene oxide were not quantitated.**

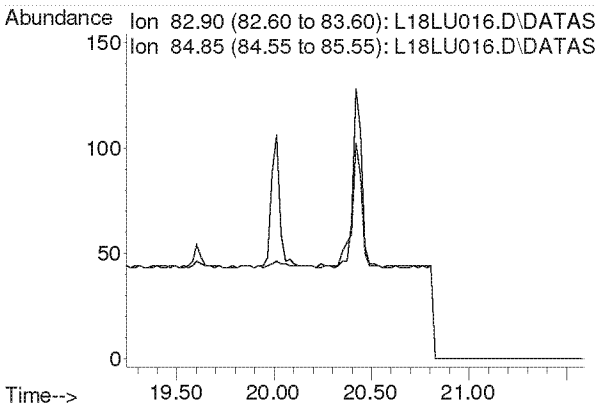


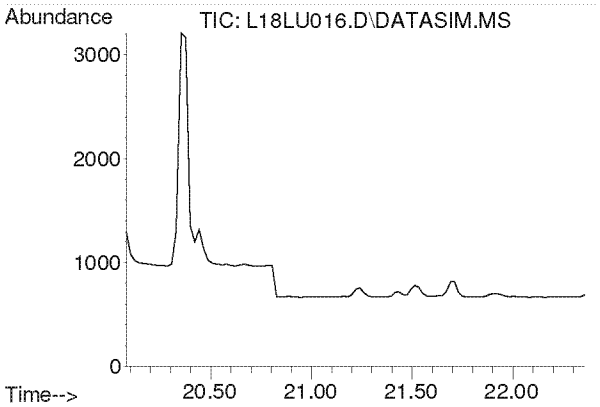

#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.4 |



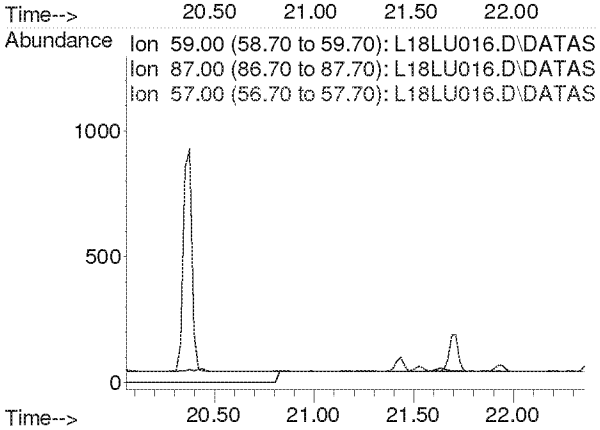




#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

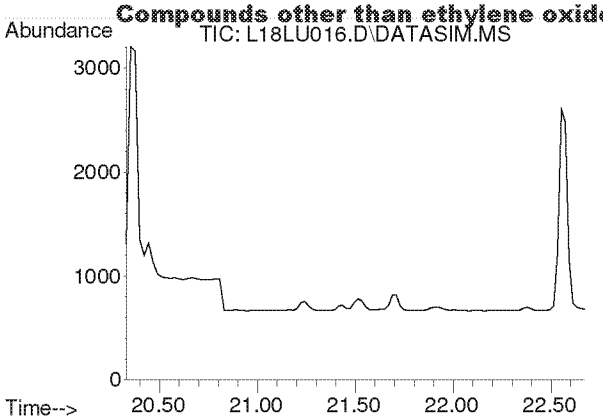
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 59

| Sig | Exp Ratio |
|---|---|
| 59 | 100 |
| 87 | 37.5 |
| 57 | 33.8 |



**Compounds other than ethylene oxide were not quantitated.**

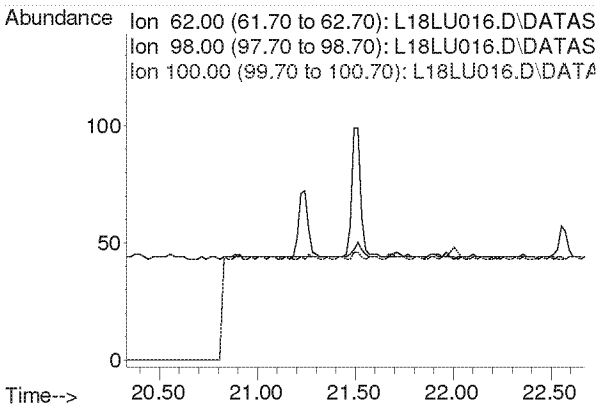


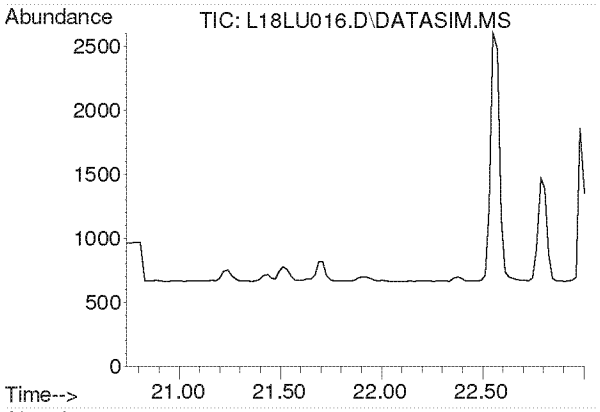

#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 98 | 6.4 |
| 100 | 4.0 |



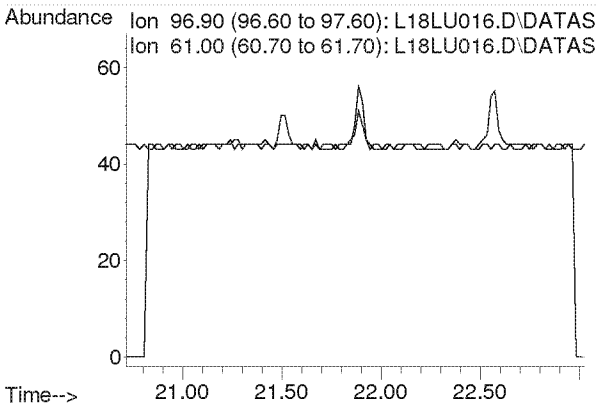




#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

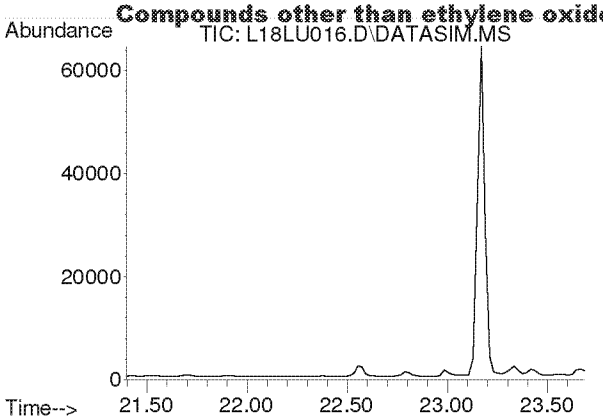
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 61 | 60.5 |



**Compounds other than ethylene oxide were not quantitated.**

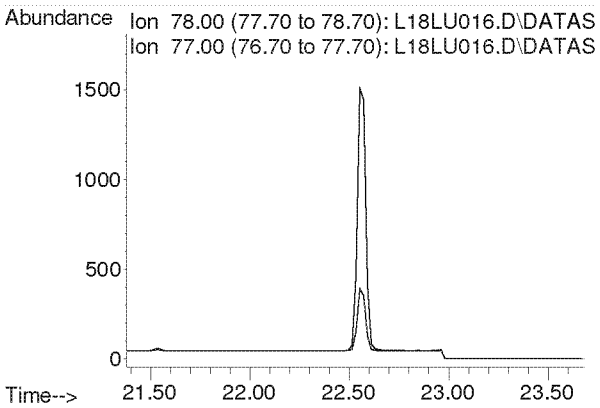


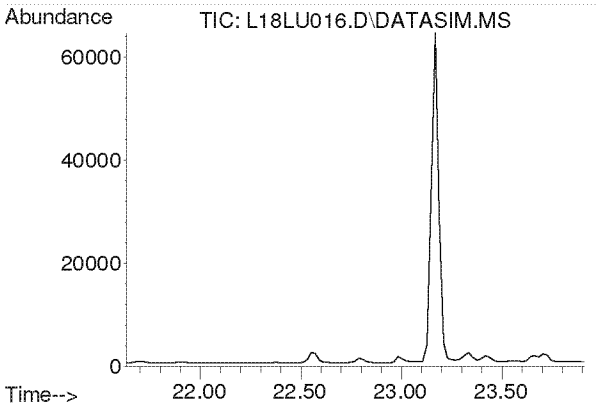

#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 78

| Sig | Exp Ratio |
|---|---|
| 78 | 100 |
| 77 | 22.7 |



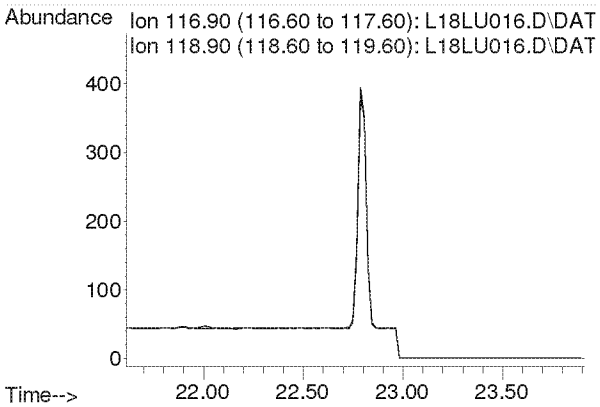




#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

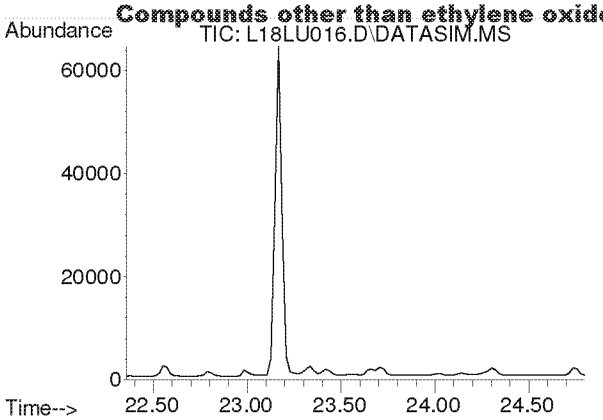
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 117

| Sig | Exp Ratio |
|---|---|
| 117 | 100 |
| 119 | 96.5 |



**Compounds other than ethylene oxide were not quantitated.**

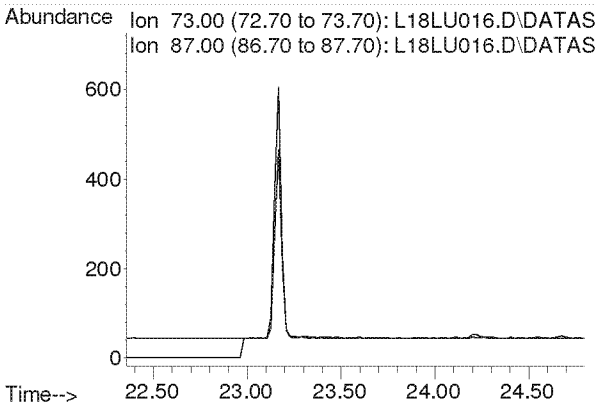


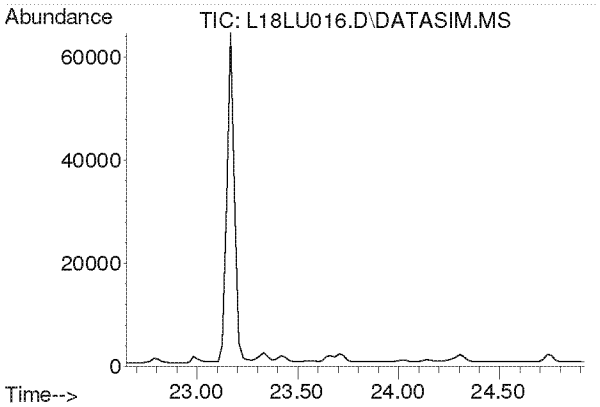

#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 87 | 24.9 |



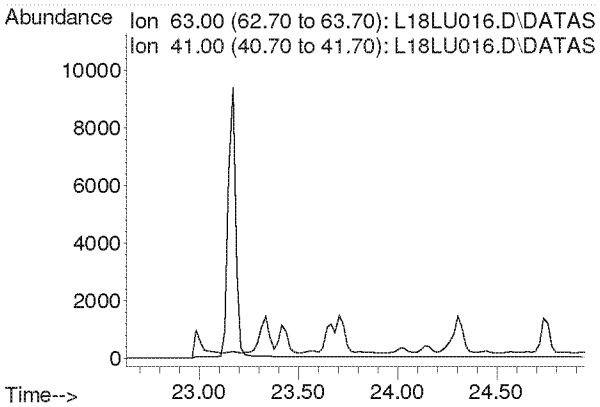




#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

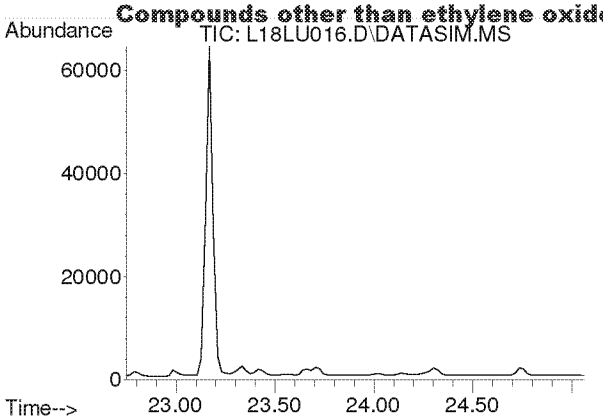
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 41 | 212.8 |



**Compounds other than ethylene oxide were not quantitated.**

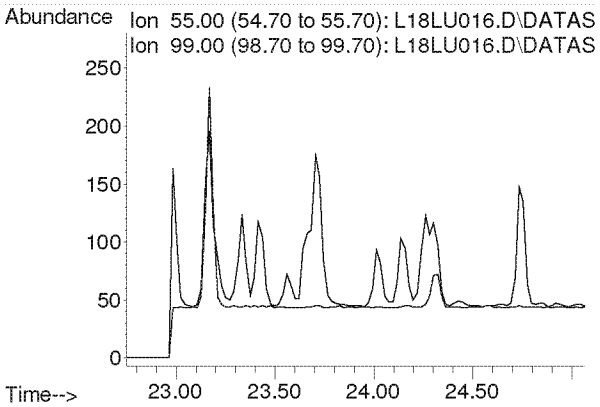


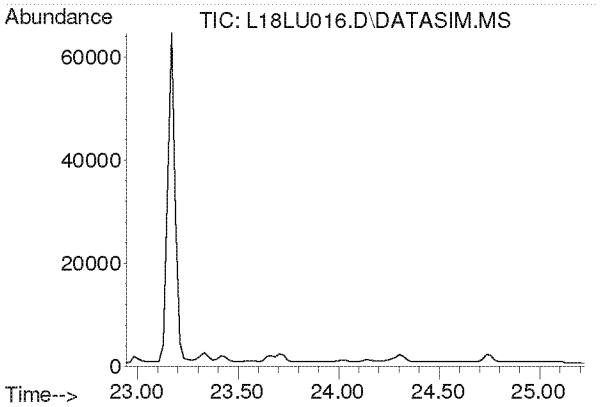

#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 55

| Sig | Exp Ratio |
|---|---|
| 55 | 100 |
| 99 | 6.1 |



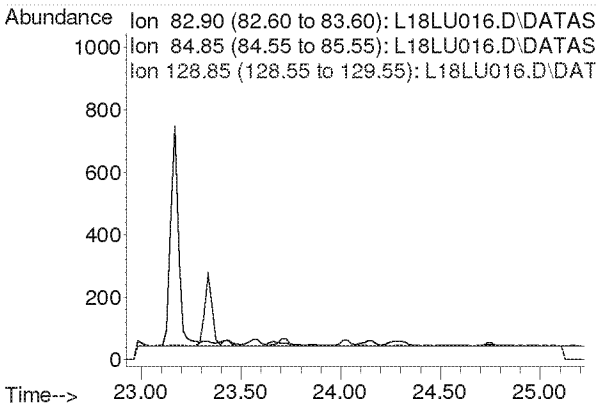




#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

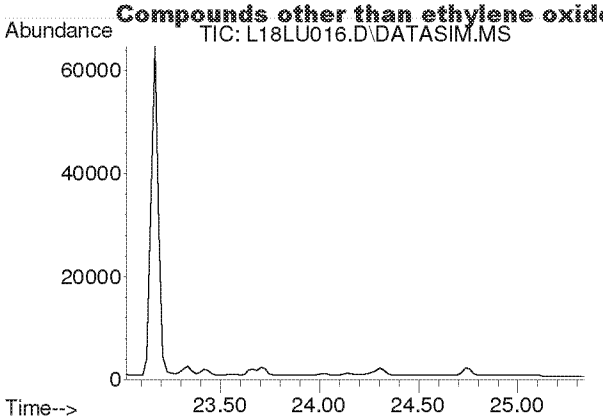
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.0 |
| 129 | 12.4 |



**Compounds other than ethylene oxide were not quantitated.**

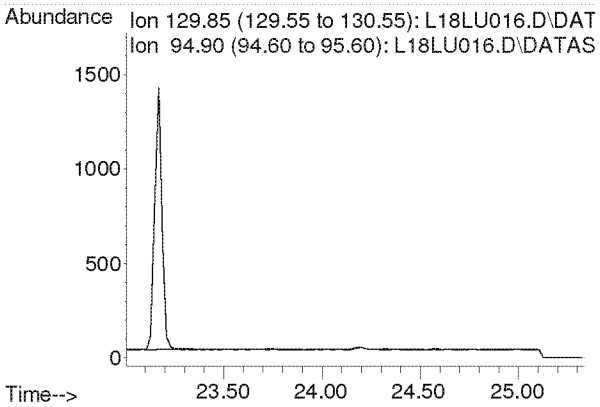


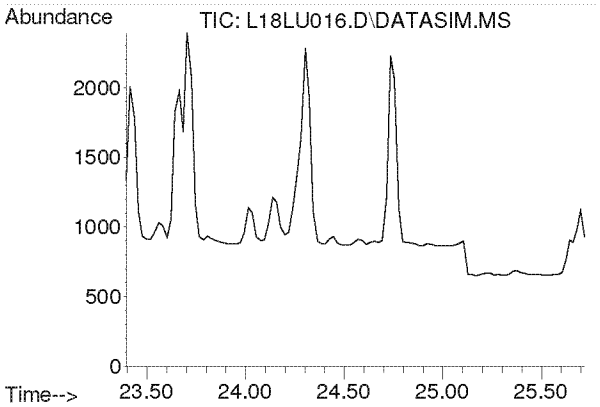

#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 130

| Sig | Exp Ratio |
|---|---|
| 130 | 100 |
| 95 | 110.3 |



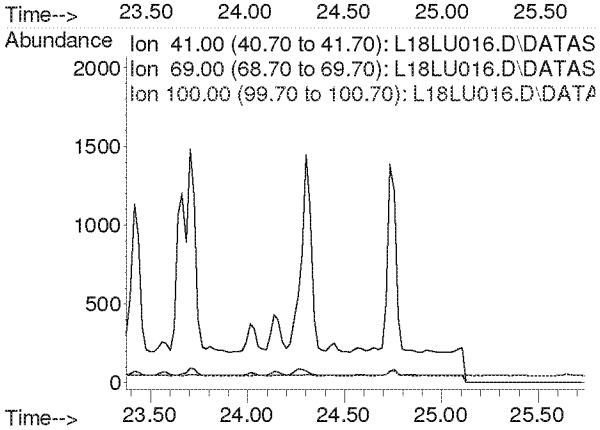




#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

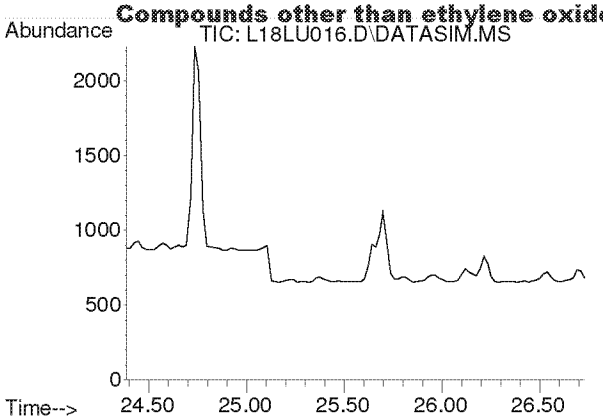
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 69 | 19.9 |
| 100 | 5.2 |



**Compounds other than ethylene oxide were not quantitated.**

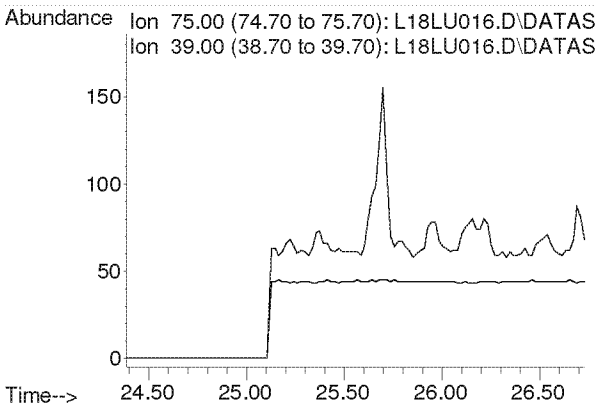


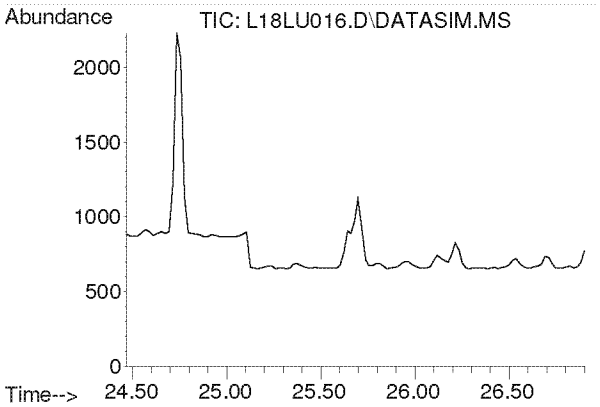

#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 54.4 |



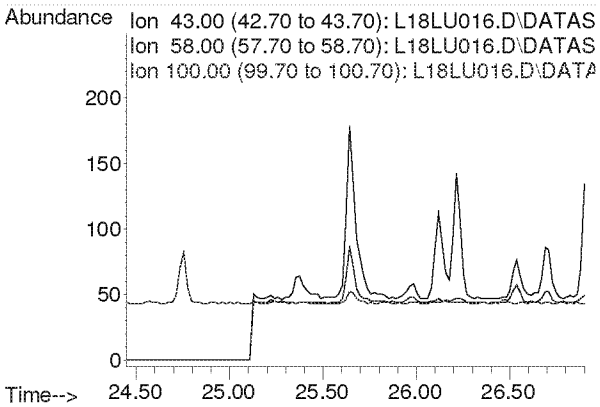




#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

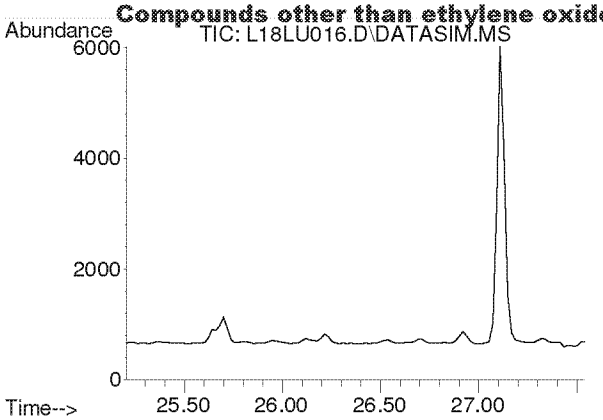
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 58 | 34.2 |
| 100 | 7.9 |



**Compounds other than ethylene oxide were not quantitated.**

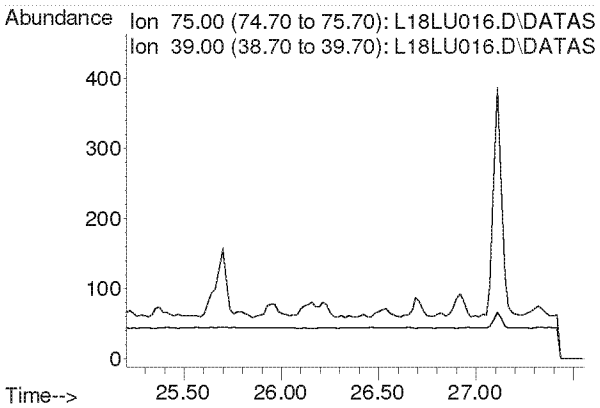


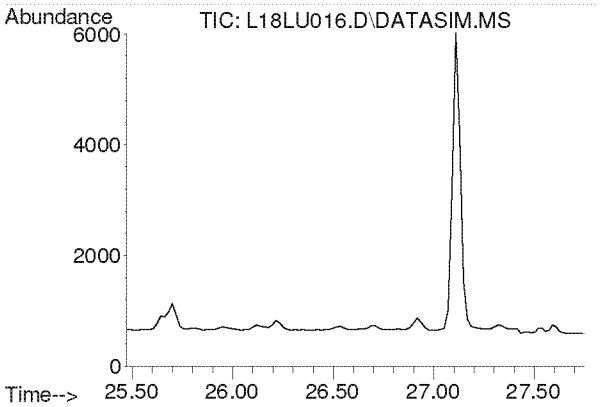

#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 50.9 |



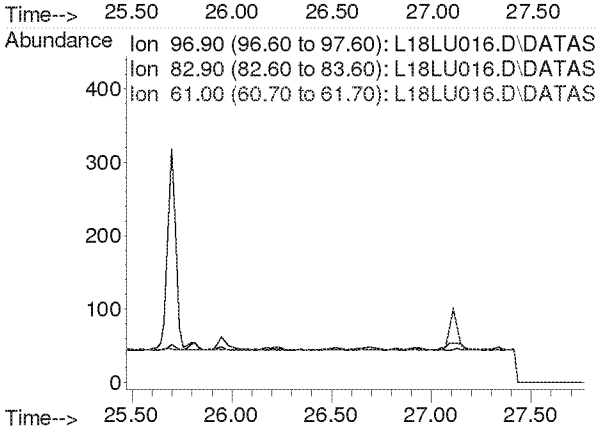




#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

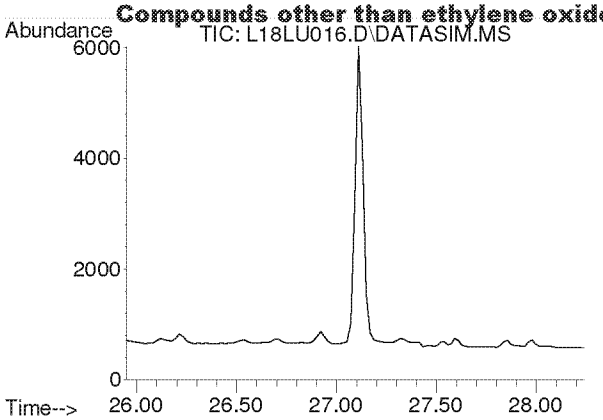
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 83 | 96.1 |
| 61 | 63.5 |



**Compounds other than ethylene oxide were not quantitated.**

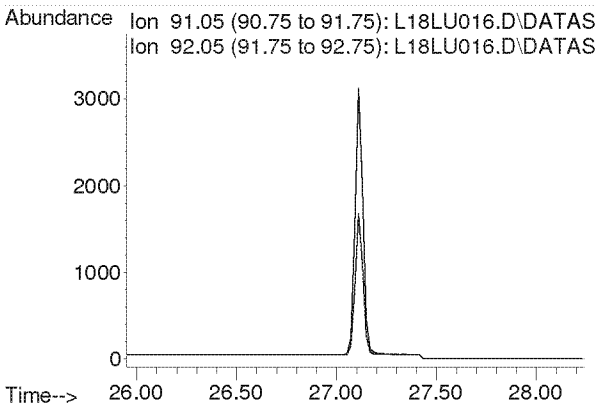


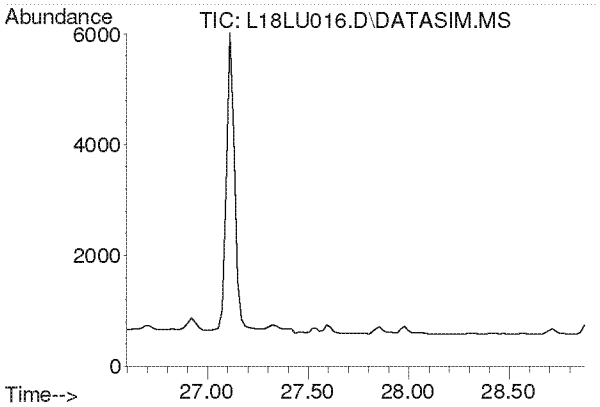

#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 92 | 52.6 |



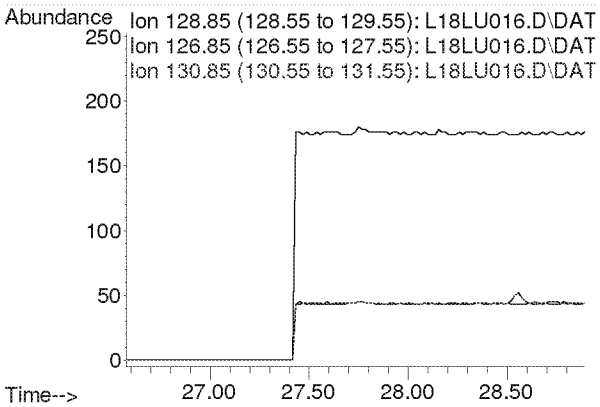




#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

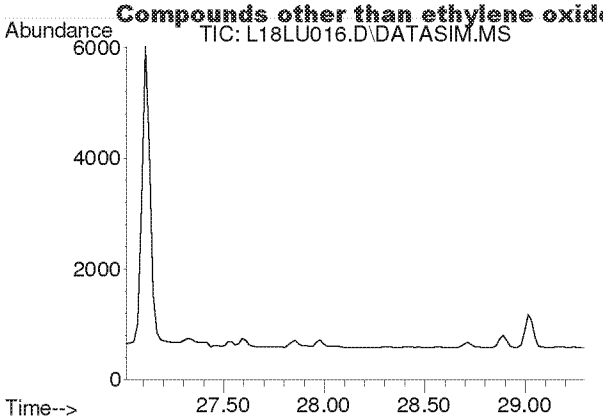
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 129

| Sig | Exp Ratio |
|---|---|
| 129 | 100 |
| 127 | 19.2 |
| 131 | 6.0 |



**Compounds other than ethylene oxide were not quantitated.**

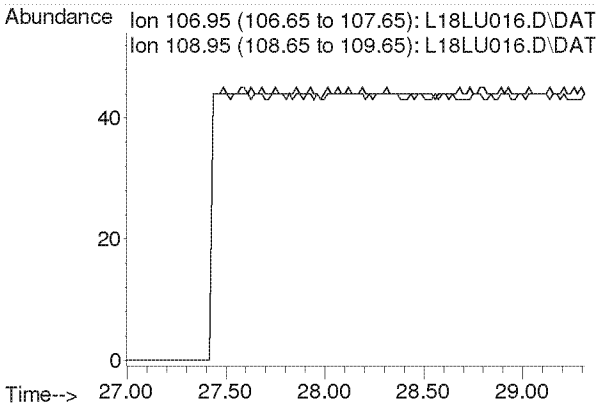


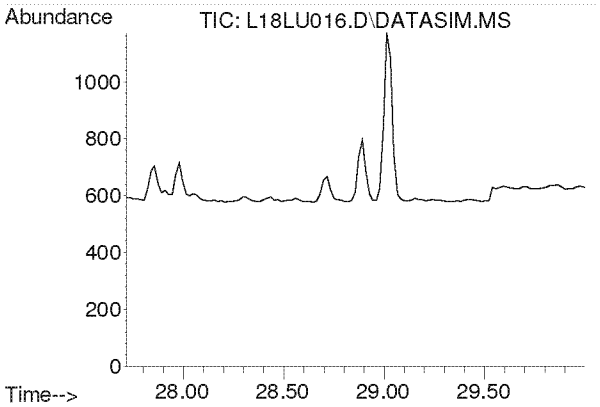

#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 107

| Sig | Exp Ratio |
|---|---|
| 107 | 100 |
| 109 | 94.5 |



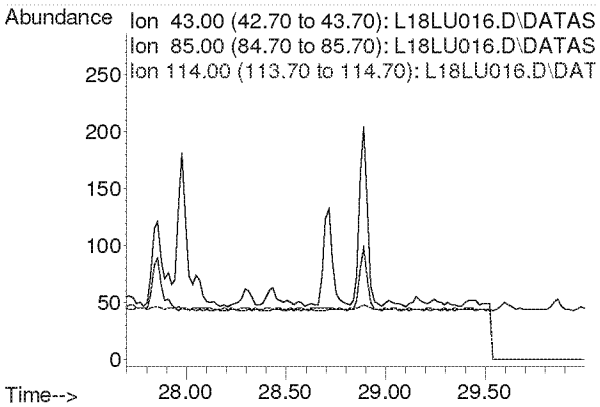




#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

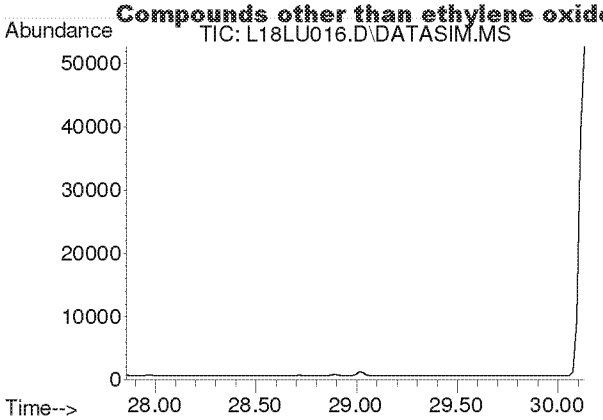
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 85 | 36.0 |
| 114 | 2.2 |



**Compounds other than ethylene oxide were not quantitated.**

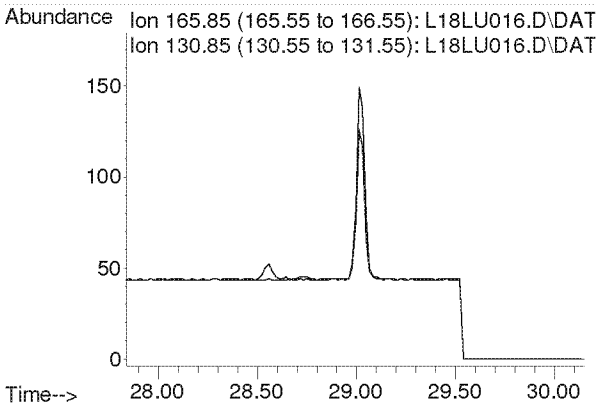


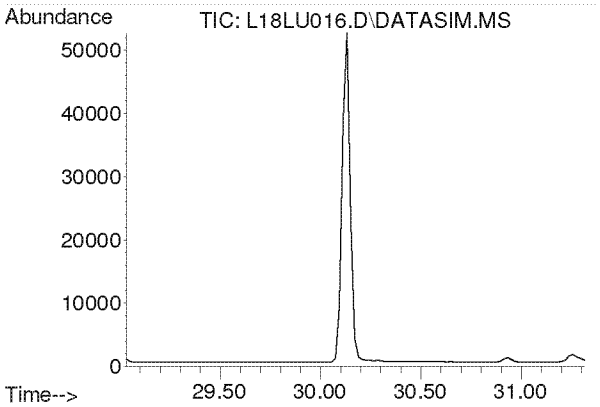

#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 166

| Sig | Exp Ratio |
|---|---|
| 166 | 100 |
| 131 | 78.2 |



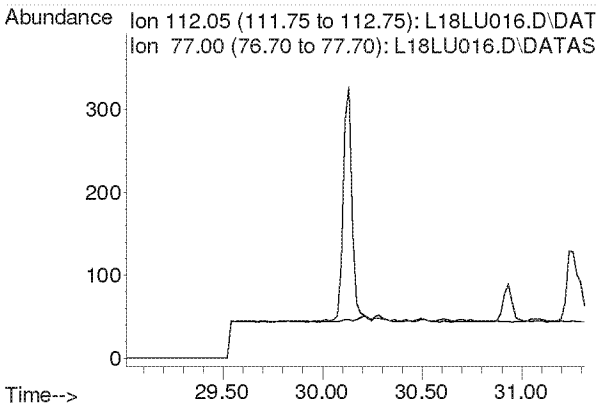




#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

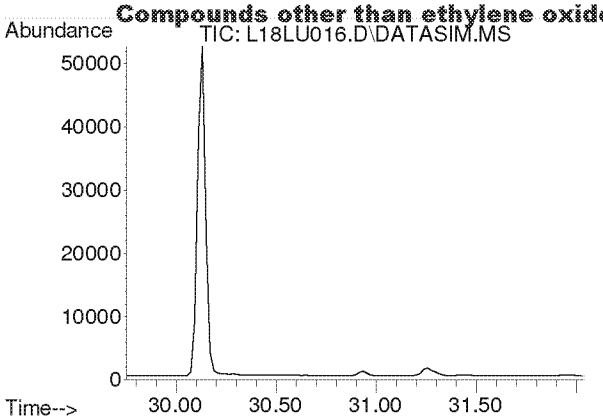
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 112

| Sig | Exp Ratio |
|---|---|
| 112 | 100 |
| 77 | 63.0 |



**Compounds other than ethylene oxide were not quantitated.**

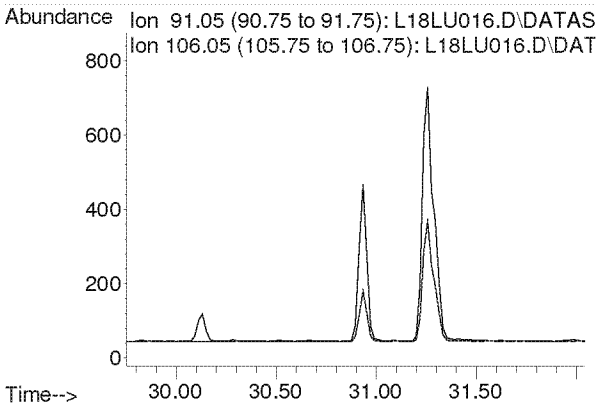


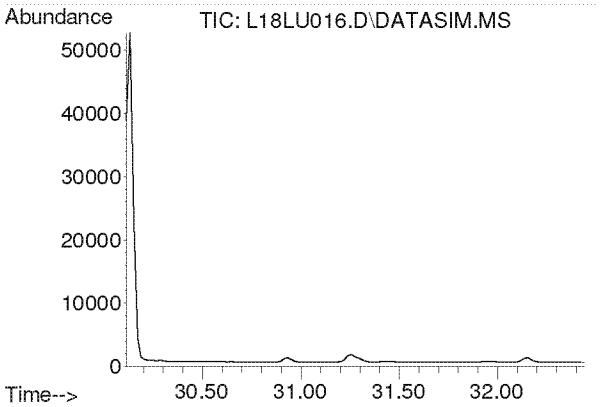

#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 31.8 |



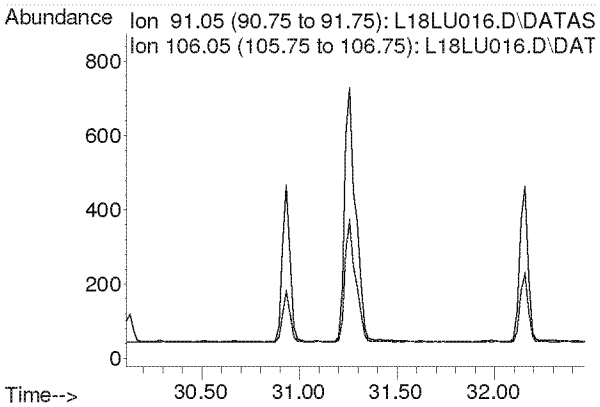




#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

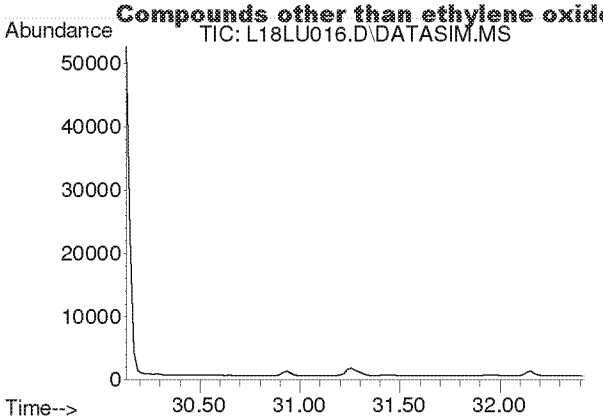
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.4 |



**Compounds other than ethylene oxide were not quantitated.**

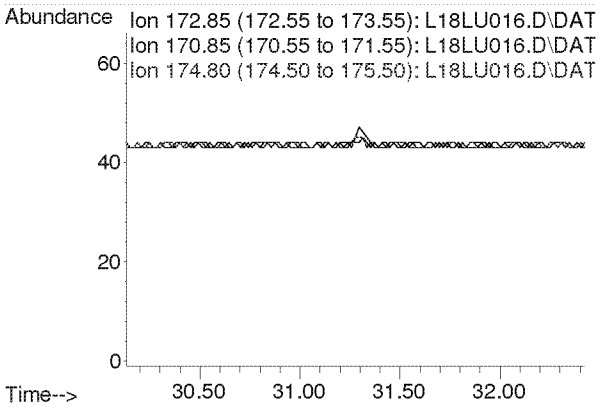


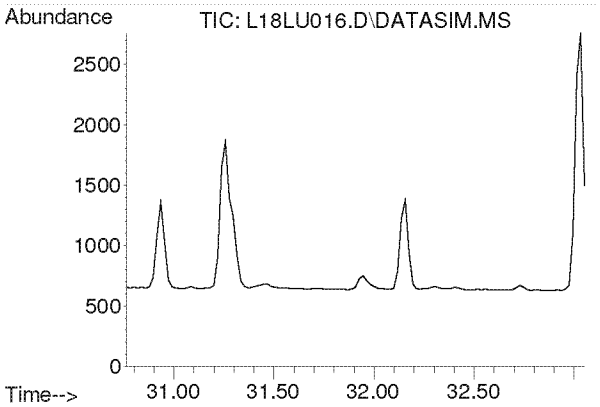

#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 173

| Sig | Exp Ratio |
|---|---|
| 173 | 100 |
| 171 | 51.3 |
| 175 | 49.0 |



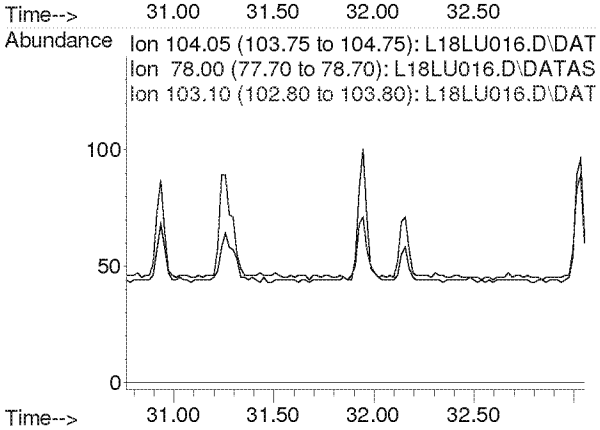




#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

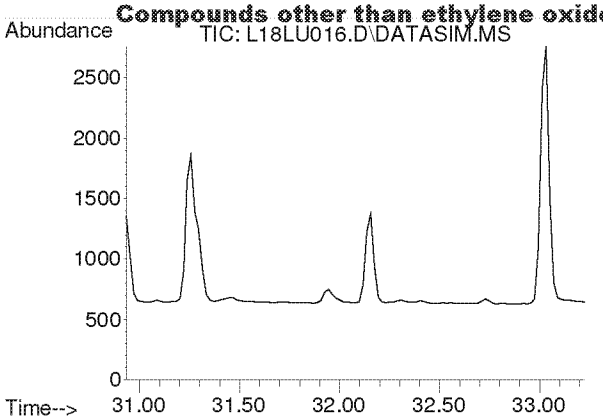
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 104

| Sig | Exp Ratio |
|---|---|
| 104 | 100 |
| 78 | 45.6 |
| 103 | 0.0 |



**Compounds other than ethylene oxide were not quantitated.**

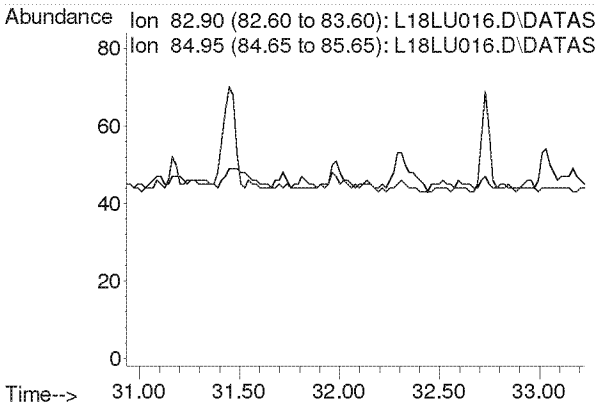


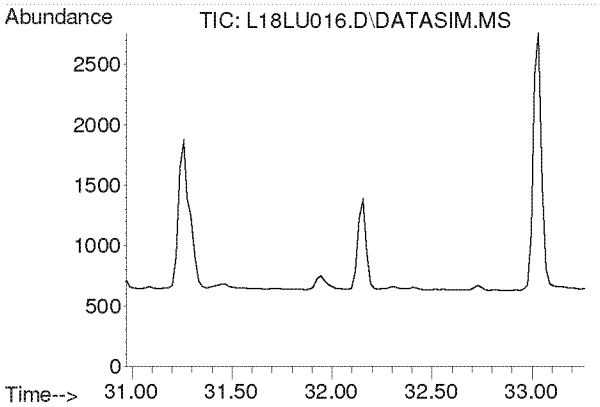

#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 63.9 |



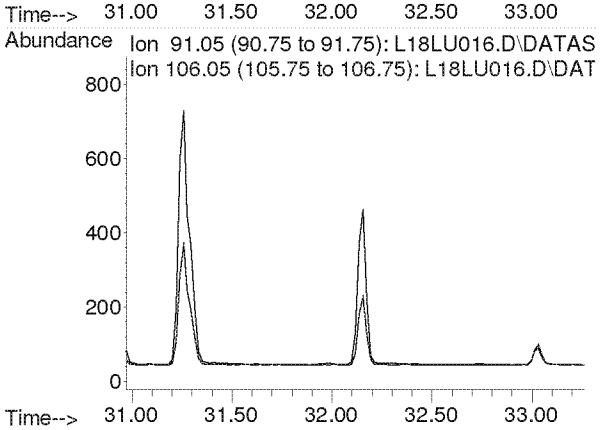




#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

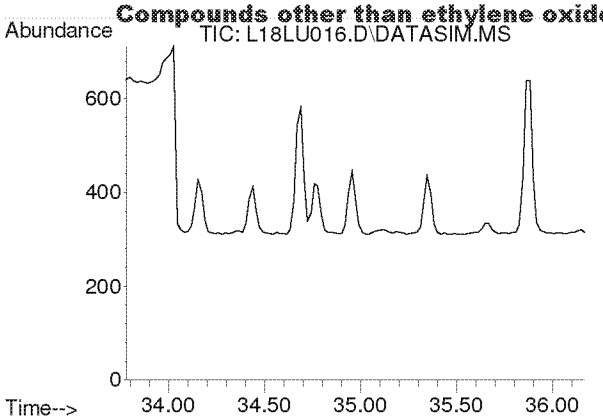
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.2 |



**Compounds other than ethylene oxide were not quantitated.**

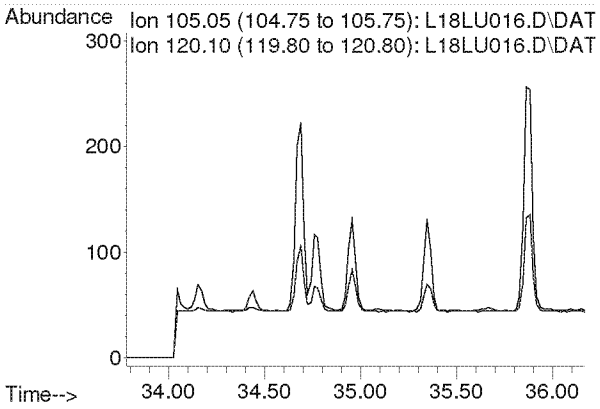


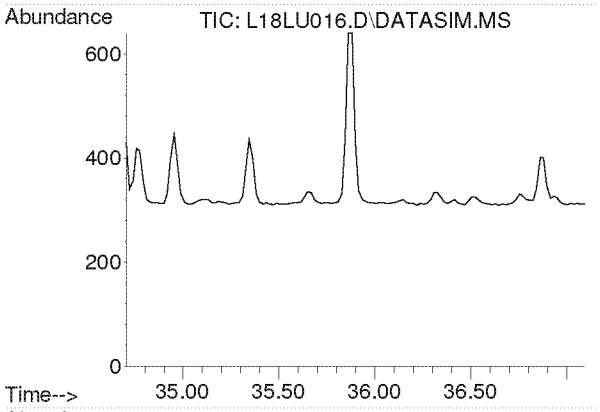

#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 45.0 |



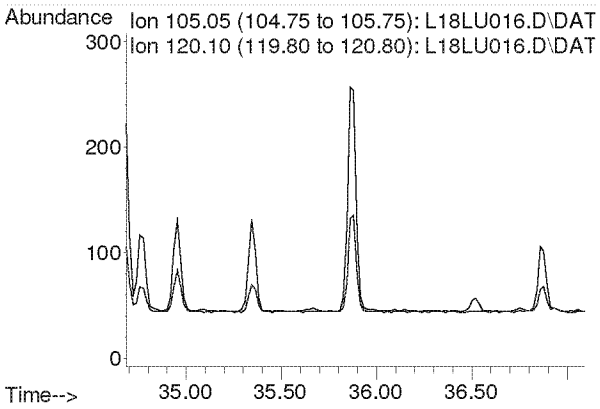




#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

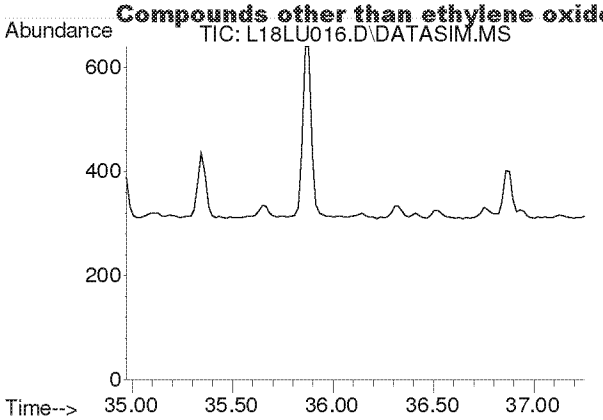
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 42.8 |



**Compounds other than ethylene oxide were not quantitated.**

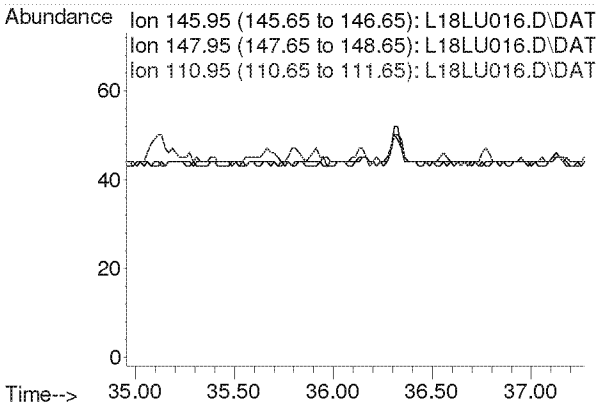


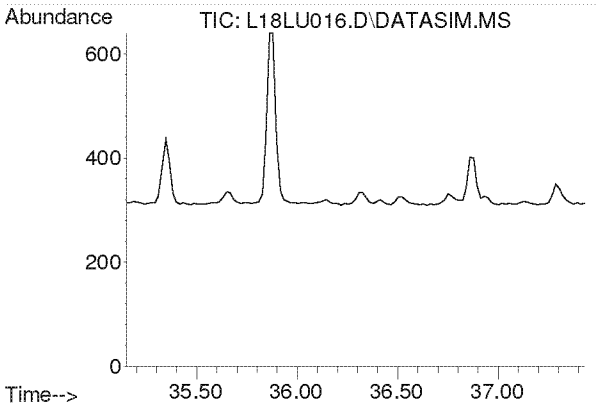

#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 40.5 |



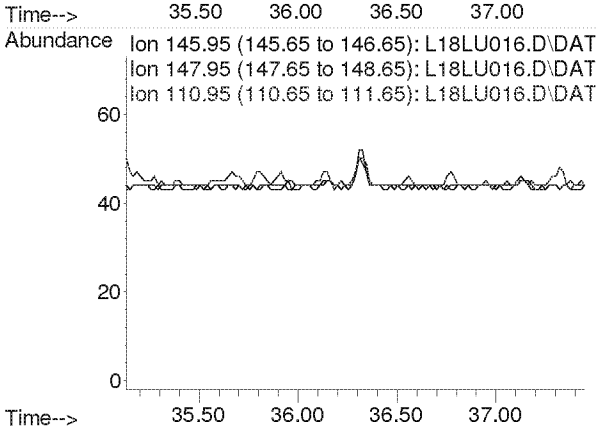




#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

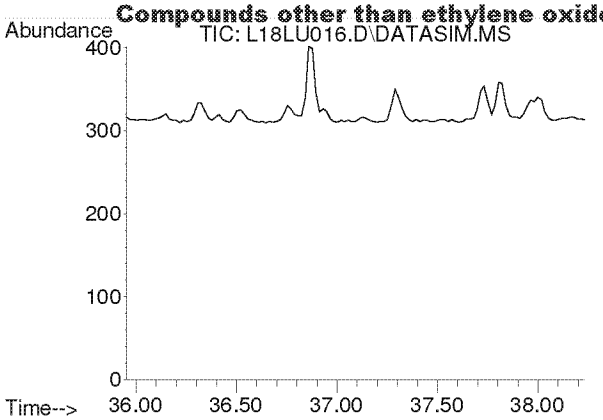
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 39.5 |



**Compounds other than ethylene oxide were not quantitated.**

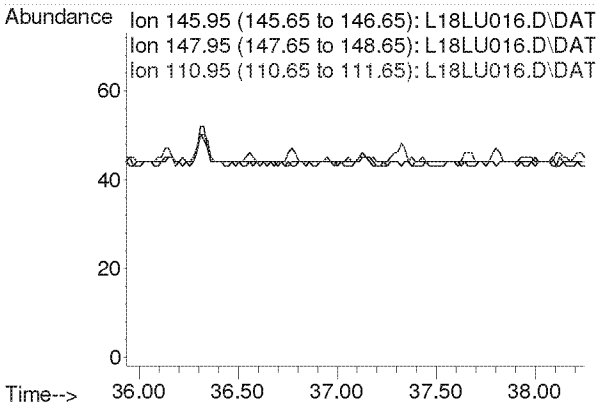


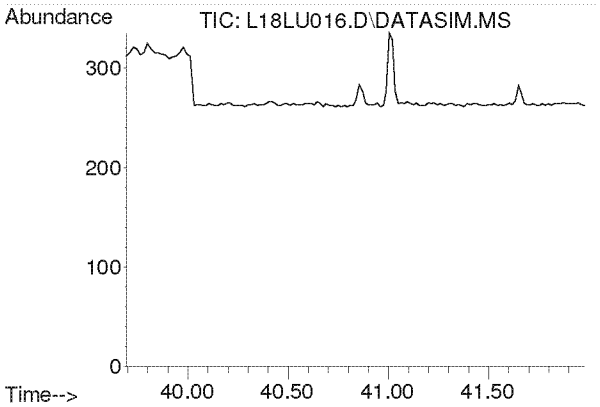

#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.1 |
| 111 | 41.4 |



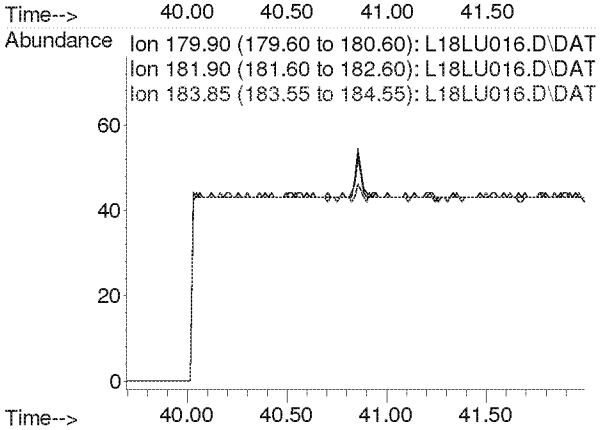




#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

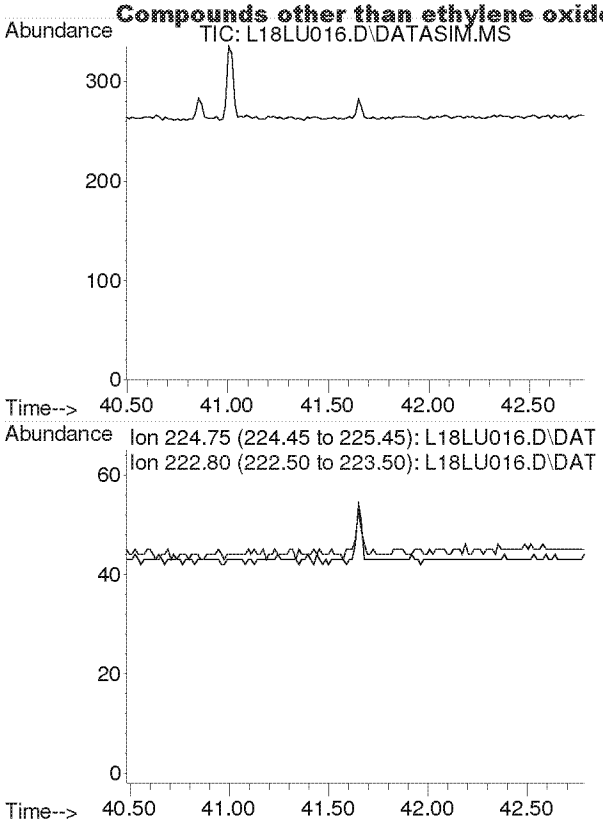
Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 180

| Sig | Exp Ratio |
|---|---|
| 180 | 100 |
| 182 | 95.1 |
| 184 | 30.7 |



**Compounds other than ethylene oxide were not quantitated.**




#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18LU016.D
Acq: 21 Dec 2018 10:41 pm

Tgt Ion: 225

| Sig | Exp Ratio |
|---|---|
| 225 | 100 |
| 223 | 62.4 |

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU017.D
Acq On : 21 Dec 2018 11:43 pm (#1); 21-Dec-18, 23:37:54 (#2)
Operator : MAH
Sample : 8120701-09
Misc : WB VILLAGE HALL C2 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 26 10:06:20 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) IS-Hexane-d14 | 20.015 | 66 | 51939 | 4.7700 ppbv | 0.02 |
| 29) IS-1,4-Difluorobenzene | 23.171 | 114 | 127600 | 4.9900 ppbv | 0.02 |
| 43) IS-Chlorobenzene-d5 | 30.135 | 117 | 88908 | 4.7400 ppbv | 0.04 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) Acetylene | 0.000 | 26 | 0 | N.D. d | |
| 3) Propylene | 0.000 | 41 | 0 | N.D. d | |
| 4) Dichlorodifluoromethane | 0.000 | 85 | 0 | N.D. d | |
| 5) Chloromethane | 0.000 | 50 | 0 | N.D. d | |
| 6) Dichlorotetrafluoroethane | 0.000 | 85 | 0 | N.D. d | |
| 7) Vinyl Chloride | 0.000 | 62 | 0 | N.D. | |
| 8) 1,3-Butadiene | 0.000 | 54 | 0 | N.D. d | |
| 9) Ethylene oxide | 12.425 | 29 | 3253 | 1.0478 ppbv # | 68 |
| 10) Bromomethane | 0.000 | 94 | 0 | N.D. d | |
| 11) Chloroethane | 0.000 | 64 | 0 | N.D. | |
| 12) Acetonitrile | 0.000 | 41 | 0 | N.D. d | |
| 13) Acrolein | 0.000 | 56 | 0 | N.D. d | |
| 14) Trichlorofluoromethane | 0.000 | 101 | 0 | N.D. d | |
| 15) Acrylonitrile | 0.000 | 53 | 0 | N.D. d | |
| 16) 1,1-Dichloroethene | 0.000 | 61 | 0 | N.D. | |
| 17) Methylene Chloride | 0.000 | 49 | 0 | N.D. d | |
| 18) Carbon Disulfide | 0.000 | 76 | 0 | N.D. d | |
| 19) Trichlorotrifluoroethane | 0.000 | 101 | 0 | N.D. d | |
| 20) trans-1,2-Dichloroethy... | 0.000 | 96 | 0 | N.D. | |
| 21) 1,1-Dichloroethane | 0.000 | 63 | 0 | N.D. | |
| 22) Methyl tert-Butyl Ether | 0.000 | 73 | 0 | N.D. d | |
| 23) Chloroprene | 0.000 | 53 | 0 | N.D. d | |
| 24) cis-1,2-Dichloroethylene | 0.000 | 61 | 0 | N.D. d | |
| 25) Bromochloromethane | 0.000 | 128 | 0 | N.D. | |
| 26) Chloroform | 0.000 | 83 | 0 | N.D. d | |
| 27) Ethyl tert-Butyl Ether | 0.000 | 59 | 0 | N.D. | |
| 28) 1,2-Dichloroethane | 0.000 | 62 | 0 | N.D. d | |
| 30) 1,1,1-Trichloroethane | 0.000 | 97 | 0 | N.D. d | |
| 31) Benzene | 0.000 | 78 | 0 | N.D. d | |
| 32) Carbon Tetrachloride | 0.000 | 117 | 0 | N.D. d | |
| 33) tert-Amyl Methyl Ether | 0.000 | 73 | 0 | N.D. | |
| 34) 1,2-Dichloropropane | 0.000 | 63 | 0 | N.D. d | |
| 35) Ethyl Acrylate | 0.000 | 55 | 0 | N.D. | |
| 36) Bromodichloromethane | 0.000 | 83 | 0 | N.D. d | |
| 37) Trichloroethylene | 0.000 | 130 | 0 | N.D. d | |
| 38) Methyl Methacrylate | 0.000 | 41 | 0 | N.D. d | |
| 39) cis-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 40) Methyl Isobutyl Ketone | 0.000 | 43 | 0 | N.D. d | |
| 41) trans-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 42) 1,1,2-Trichloroethane | 0.000 | 97 | 0 | N.D. | |
| 44) Toluene | 0.000 | 91 | 0 | N.D. d | |
| 45) Dibromochloromethane | 0.000 | 129 | 0 | N.D. d | |
| 46) 1,2-Dibromoethane | 0.000 | 107 | 0 | N.D. | |
| 47) n-Octane | 0.000 | 43 | 0 | N.D. d | |
| 48) Tetrachloroethylene | 0.000 | 166 | 0 | N.D. d | |
| 49) Chlorobenzene | 0.000 | 112 | 0 | N.D. d | |
| 50) Ethylbenzene | 0.000 | 91 | 0 | N.D. d | |

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU017.D
Acq On : 21 Dec 2018 11:43 pm (#1); 21-Dec-18, 23:37:54 (#2)
Operator : MAH
Sample : 8120701-09
Misc : WB VILLAGE HALL C2 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 26 10:06:20 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

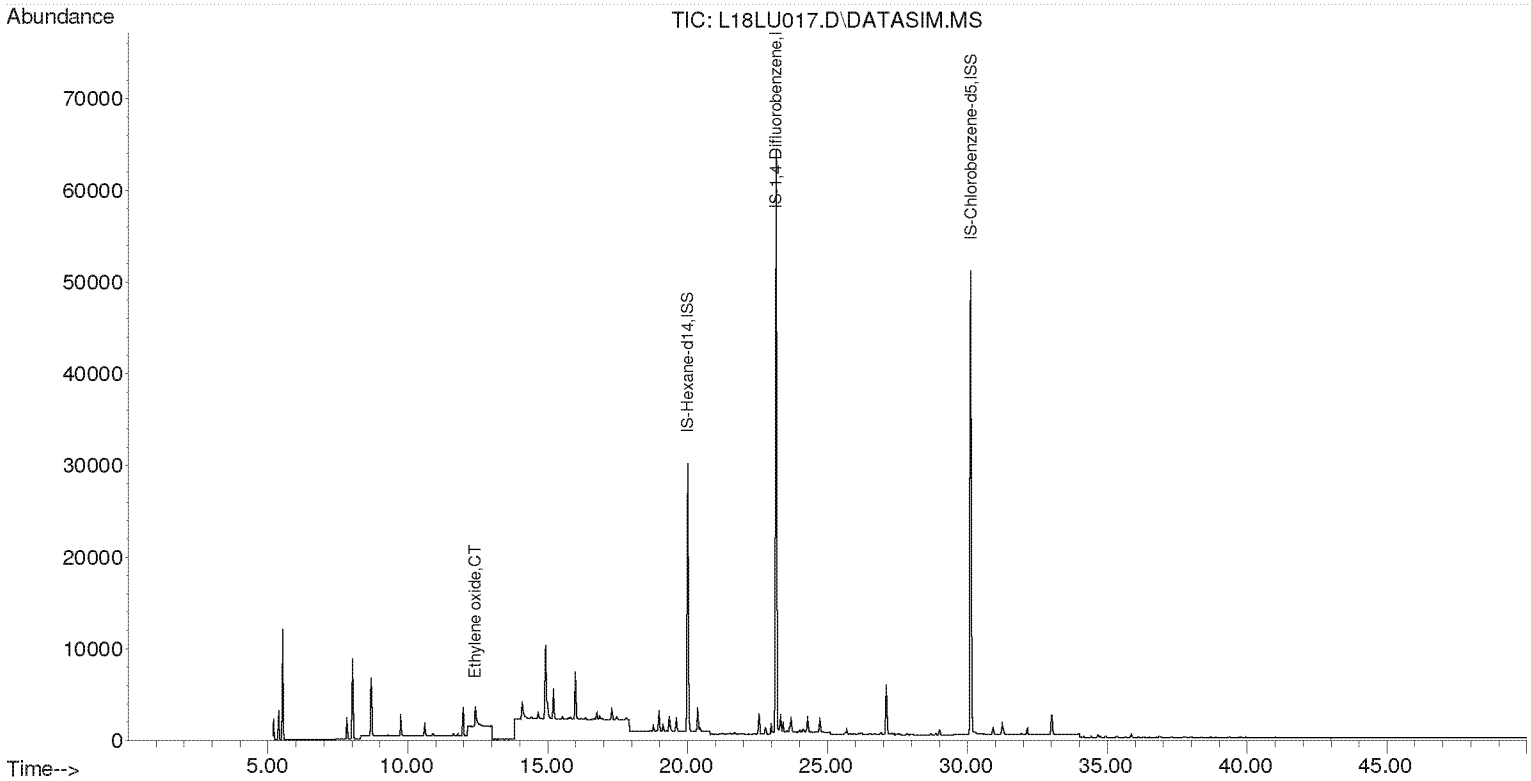
| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 51) m,p-Xylene | 0.000 | 91 | 0 | N.D. | d |
| 52) Bromoform | 0.000 | 173 | 0 | N.D. | |
| 53) Styrene | 0.000 | 104 | 0 | N.D. | d |
| 54) 1,1,2,2-Tetrachloroethane | 0.000 | 83 | 0 | N.D. | |
| 55) o-Xylene | 0.000 | 91 | 0 | N.D. | d |
| 56) 1,3,5-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | d |
| 57) 1,2,4-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | d |
| 58) m-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 59) p-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | d |
| 60) o-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 61) 1,2,4-Trichlorobenzene | 0.000 | 180 | 0 | N.D. | |
| 62) Hexachloro-1,3-butadiene | 0.000 | 225 | 0 | N.D. | |

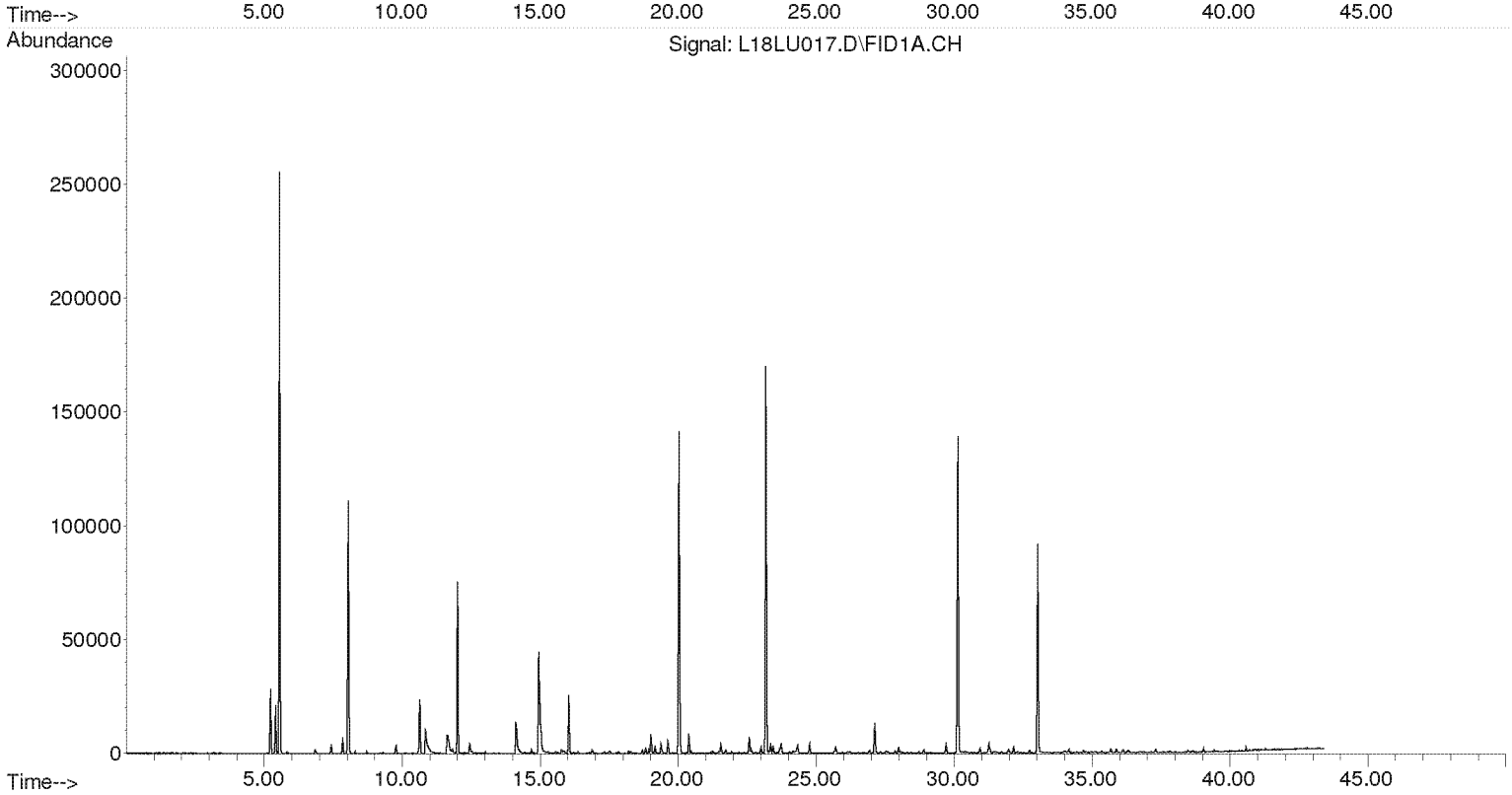
(#) = qualifier out of range (m) = manual integration (+) = signals summed

**Compounds other than ethylene oxide were not quantitated.**

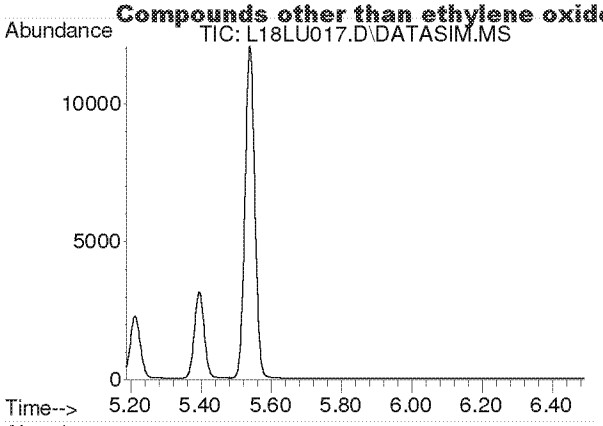
Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU017.D
Acq On : 21 Dec 2018 11:43 pm (#1); 21 Dec 2018 11:37 pm (#2)
Operator : MAH
Sample : 8120701-09
Misc : WB VILLAGE HALL C2 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Dec 26 09:51:33 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



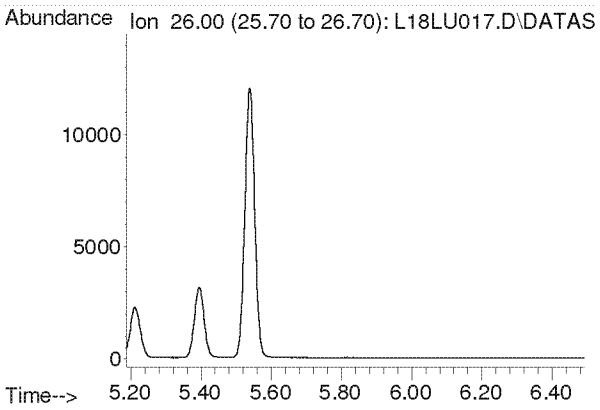
**Compounds other than ethylene oxide were not quantitated.**

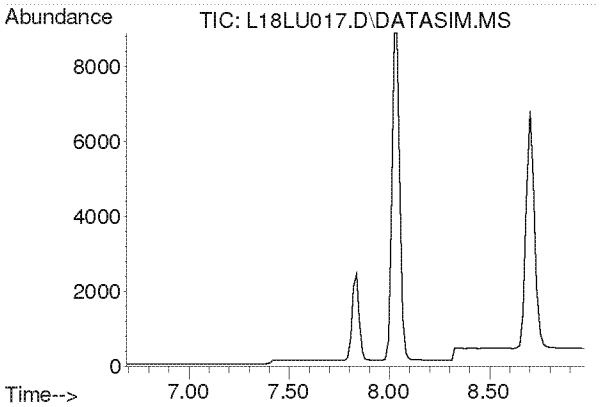



#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 26



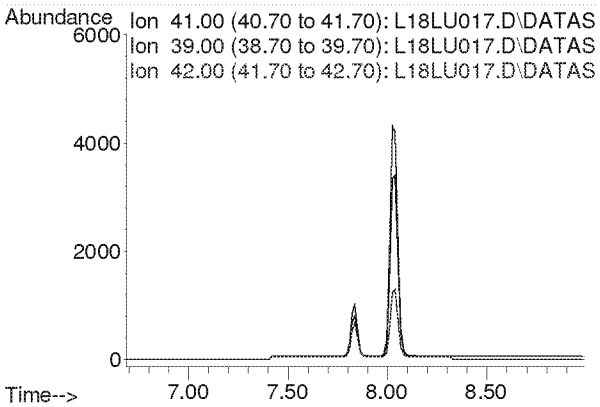




#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

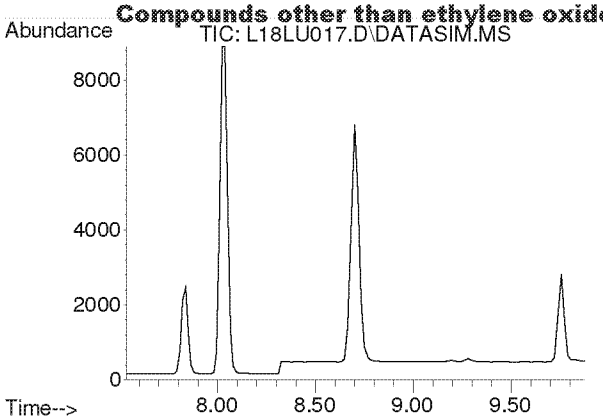
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 39 | 78.2 |
| 42 | 65.8 |



**Compounds other than ethylene oxide were not quantitated.**

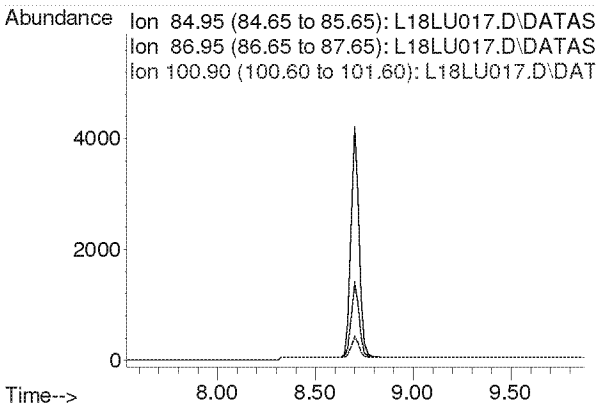


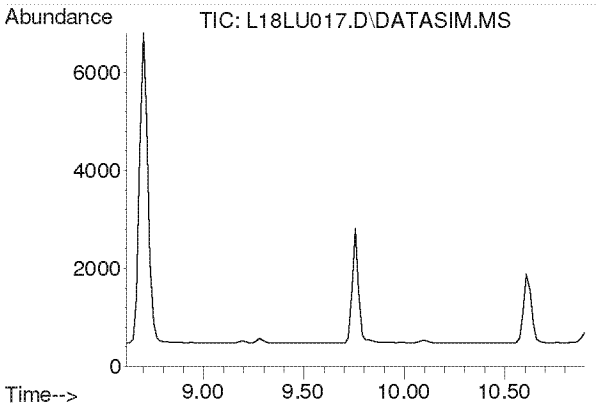

#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 87 | 32.5 |
| 101 | 8.9 |



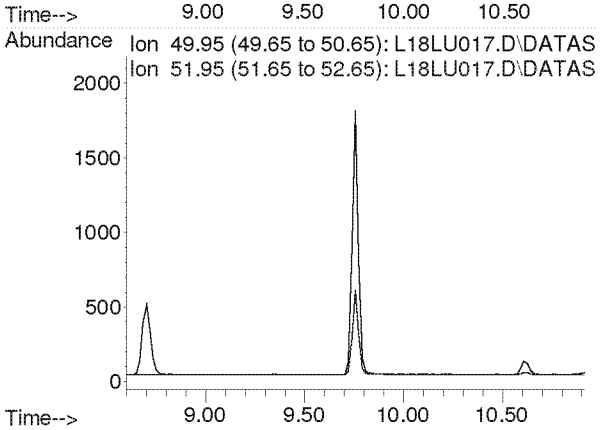




#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

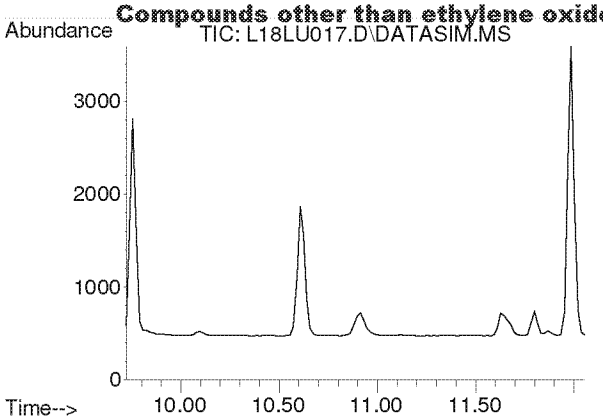
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 50

| Sig | Exp Ratio |
|---|---|
| 50 | 100 |
| 52 | 32.6 |



**Compounds other than ethylene oxide were not quantitated.**

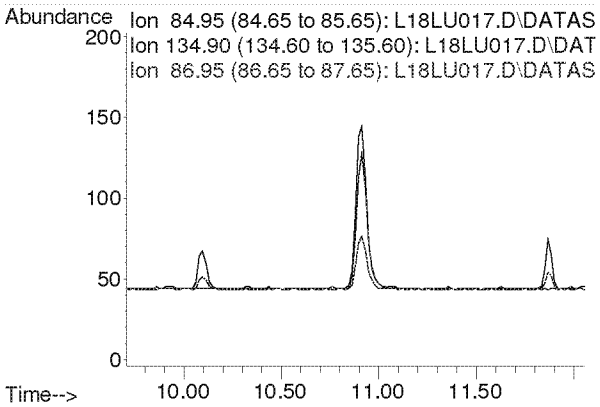


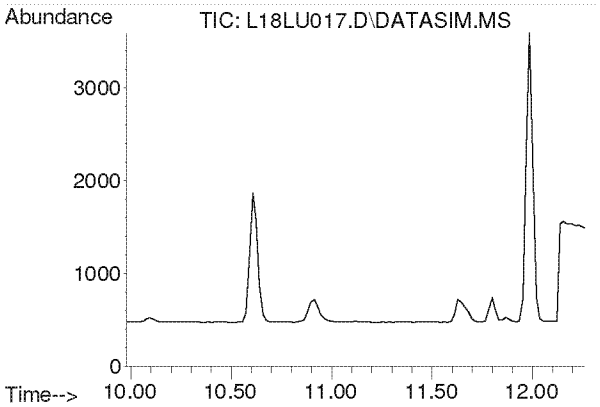

#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 135 | 79.1 |
| 87 | 32.1 |



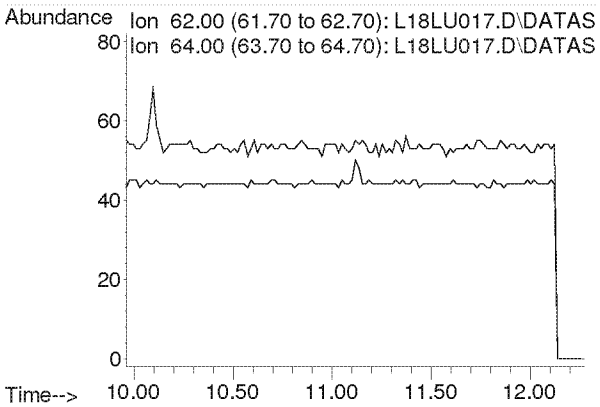




#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

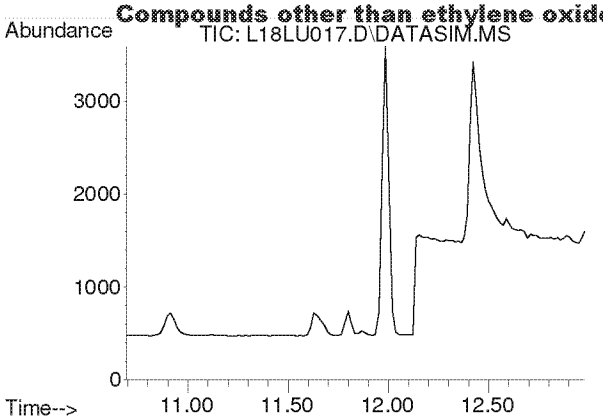
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 64 | 31.8 |



**Compounds other than ethylene oxide were not quantitated.**

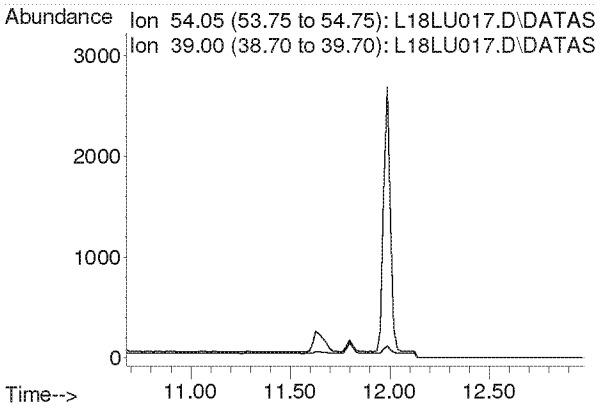


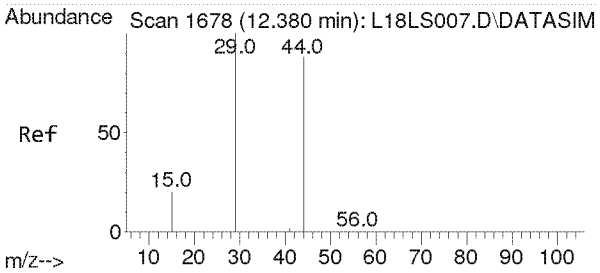

#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 54

| Sig | Exp Ratio |
|---|---|
| 54 | 100 |
| 39 | 105.4 |

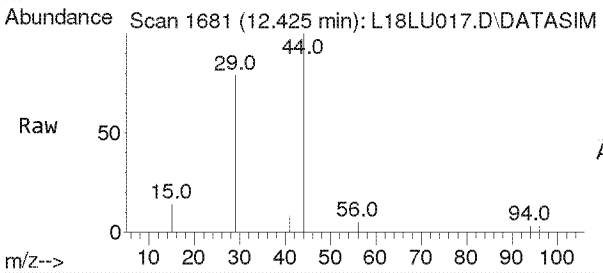


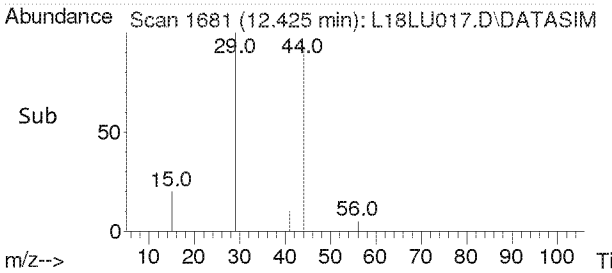



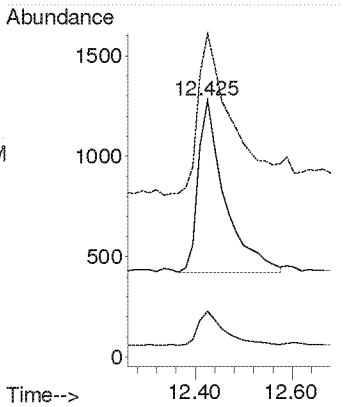

#9
Ethylene oxide
Concen: 1.048 ppbv
RT: 12.425 min Scan# 1681
Delta R.T. 0.045 min
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 29 Resp: 3253

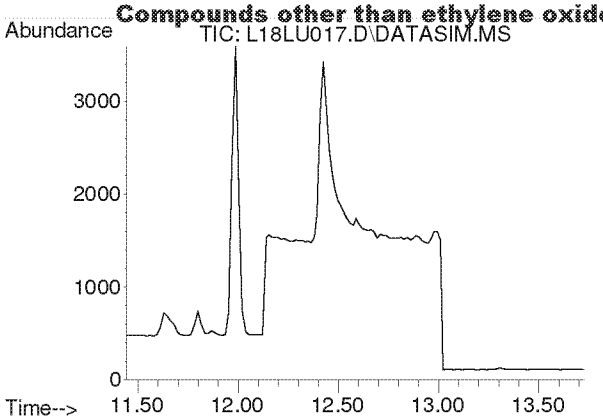
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 29 | 100 | | |
| 15 | 19.5 | 16.2 | 24.4 |
| 44 | 127.1 | 72.0 | 108.0# |



**Compounds other than ethylene oxide were not quantitated.**

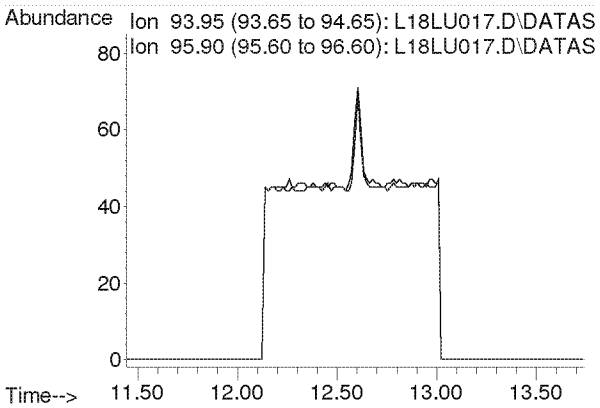


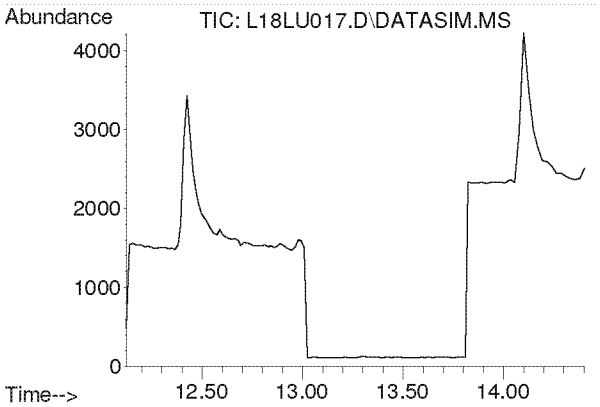

#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 94

| Sig | Exp Ratio |
|---|---|
| 94 | 100 |
| 96 | 93.9 |



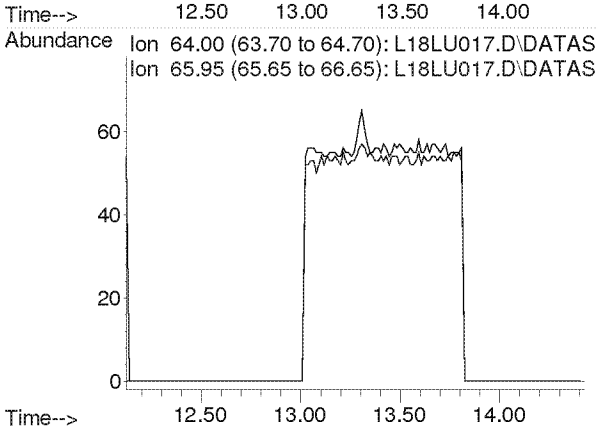




#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

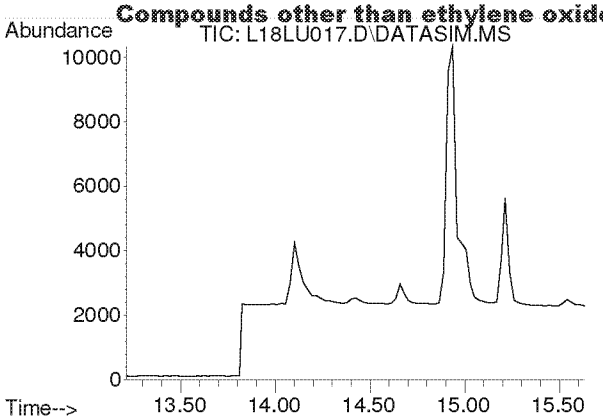
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 64

| Sig | Exp Ratio |
|---|---|
| 64 | 100 |
| 66 | 32.0 |



**Compounds other than ethylene oxide were not quantitated.**

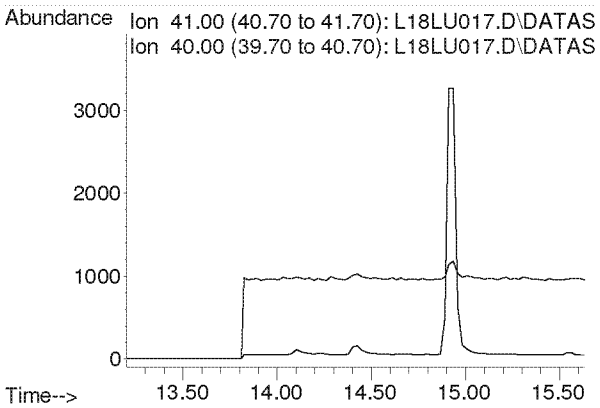


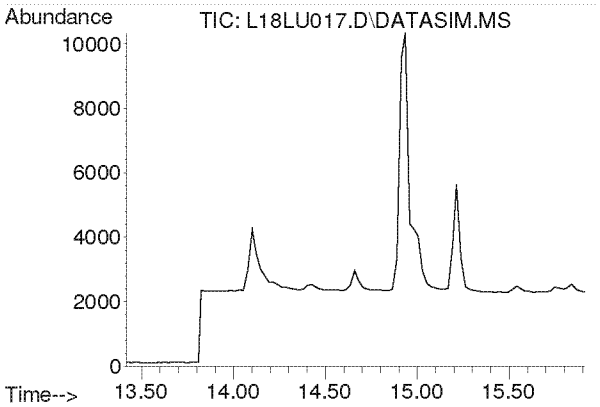

#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 40 | 50.9 |



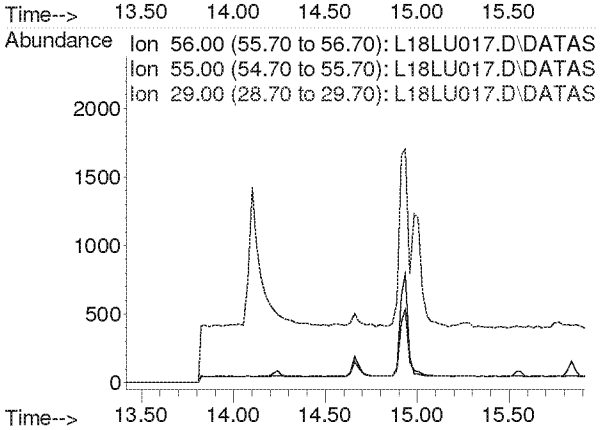




#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

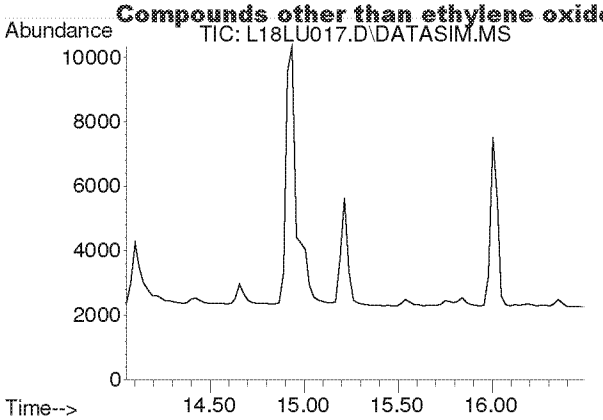
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 56

| Sig | Exp Ratio |
|---|---|
| 56 | 100 |
| 55 | 75.4 |
| 29 | 52.9 |



**Compounds other than ethylene oxide were not quantitated.**

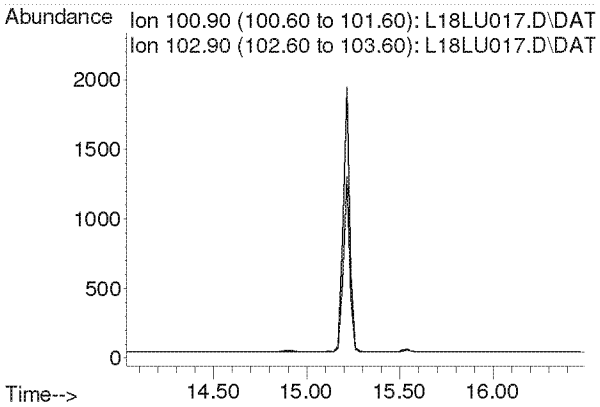


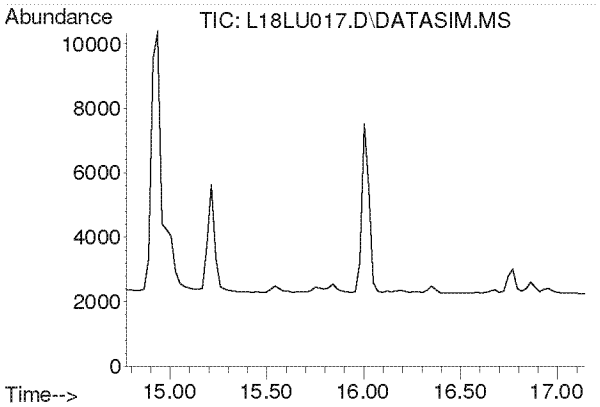

#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 103 | 64.6 |



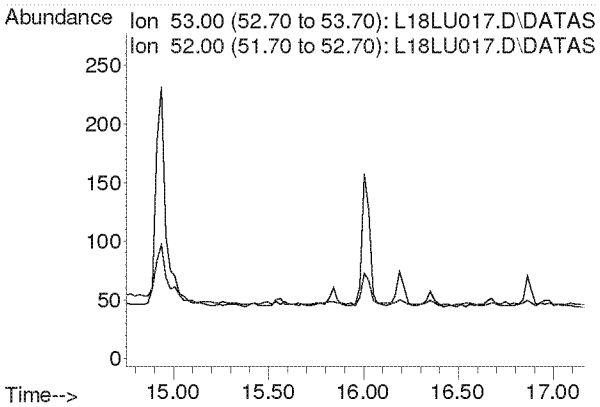




#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

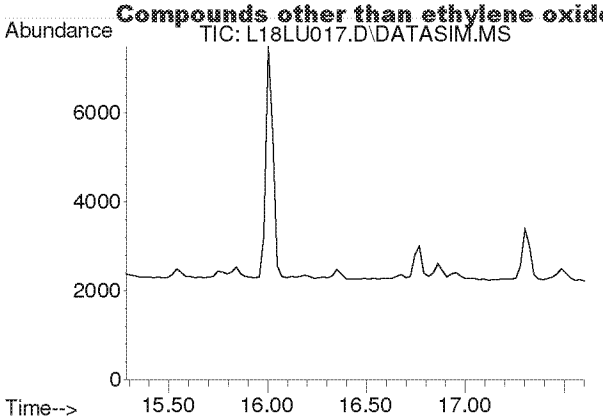
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 52 | 85.4 |



**Compounds other than ethylene oxide were not quantitated.**

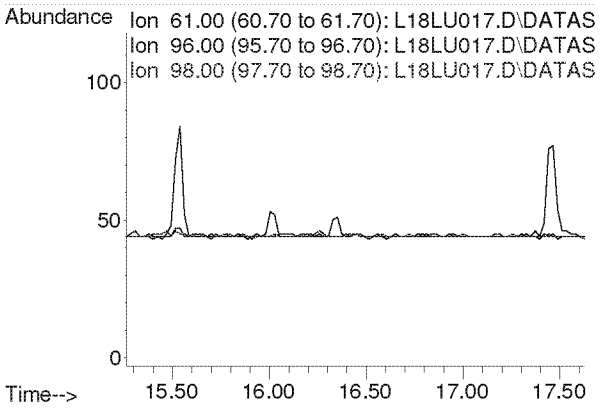


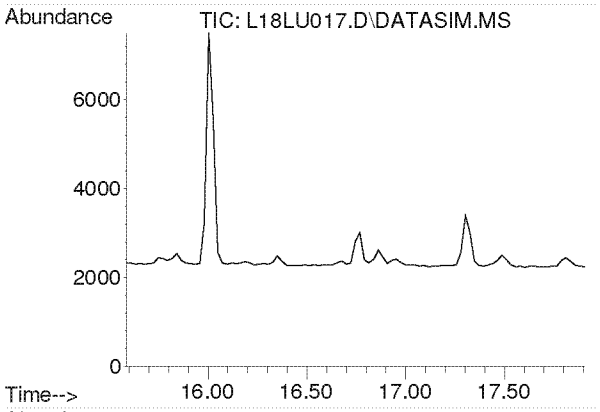

#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 58.3 |
| 98 | 37.4 |



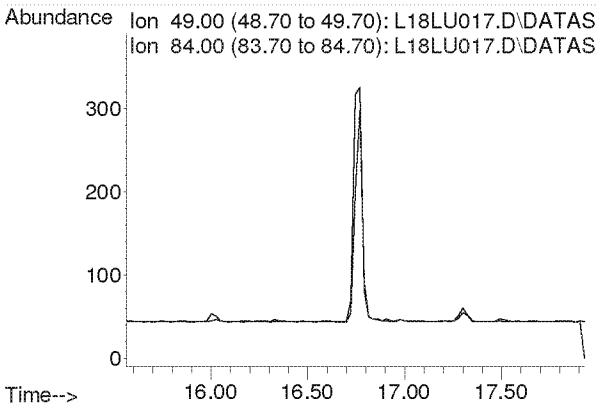




#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

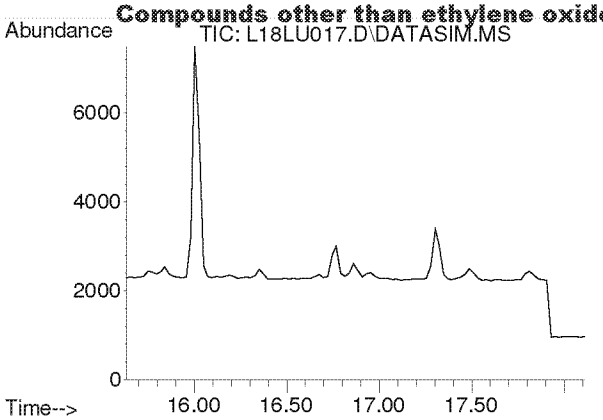
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 49

| Sig | Exp Ratio |
|---|---|
| 49 | 100 |
| 84 | 76.4 |



**Compounds other than ethylene oxide were not quantitated.**

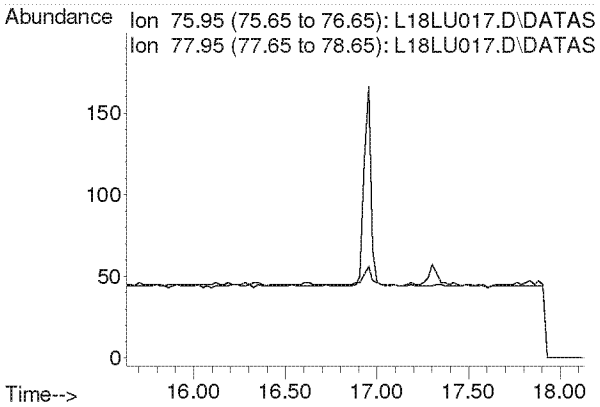


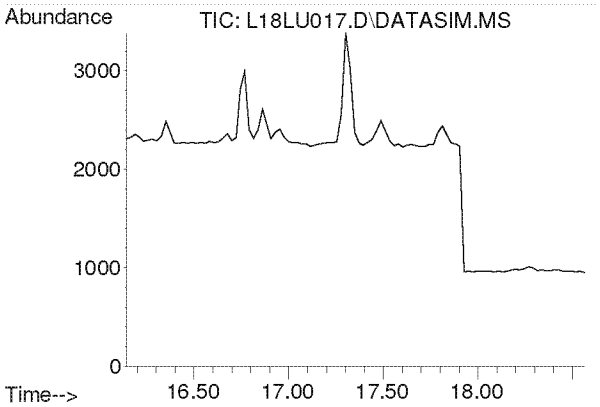

#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 76

| Sig | Exp Ratio |
|---|---|
| 76 | 100 |
| 78 | 9.1 |



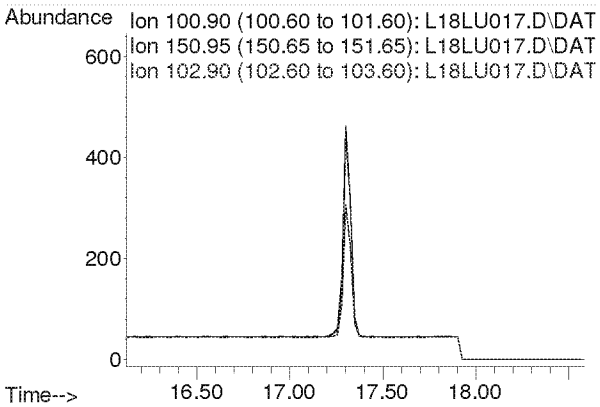




#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

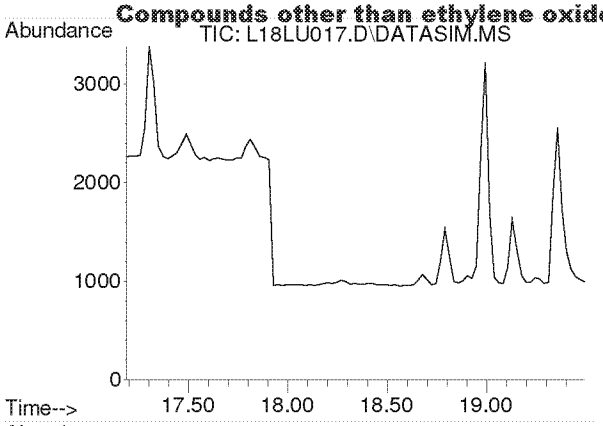
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 151 | 95.3 |
| 103 | 64.1 |



**Compounds other than ethylene oxide were not quantitated.**

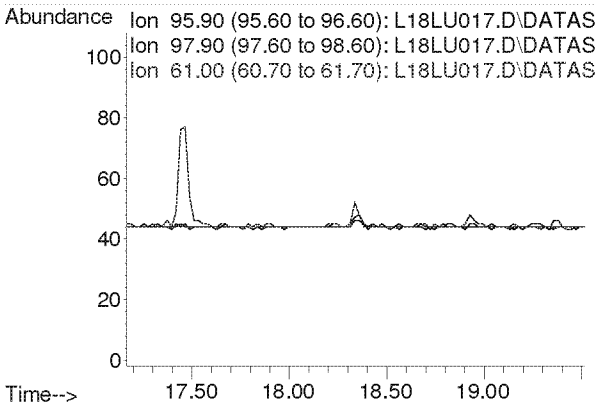


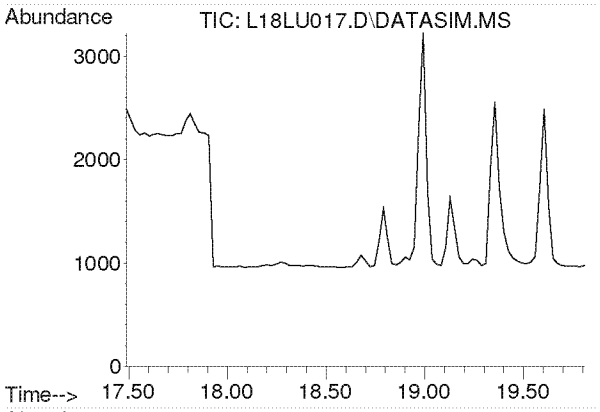

#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 96

| Sig | Exp Ratio |
|---|---|
| 96 | 100 |
| 98 | 63.7 |
| 61 | 159.2 |



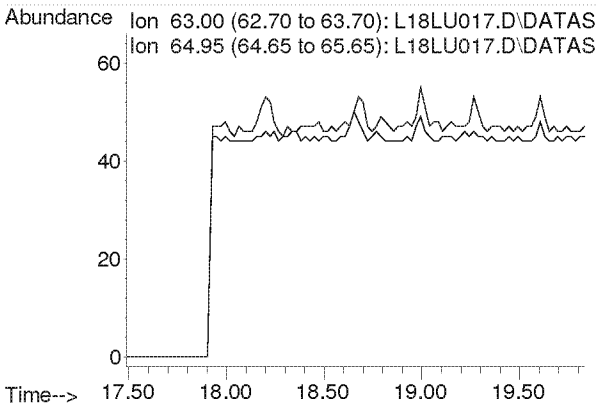




#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

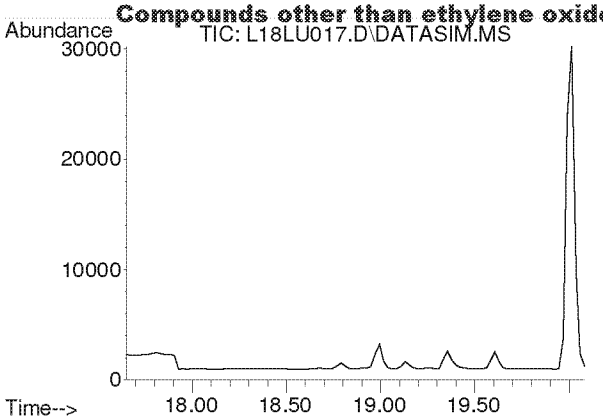
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 65 | 31.7 |



**Compounds other than ethylene oxide were not quantitated.**

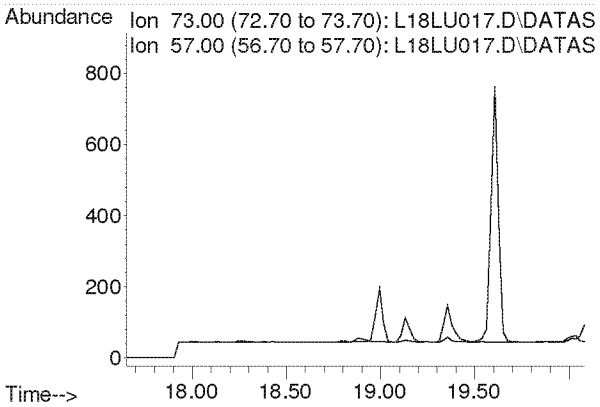


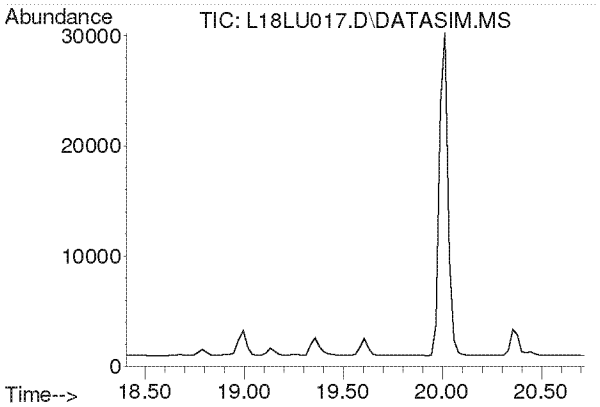

#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 57 | 23.4 |



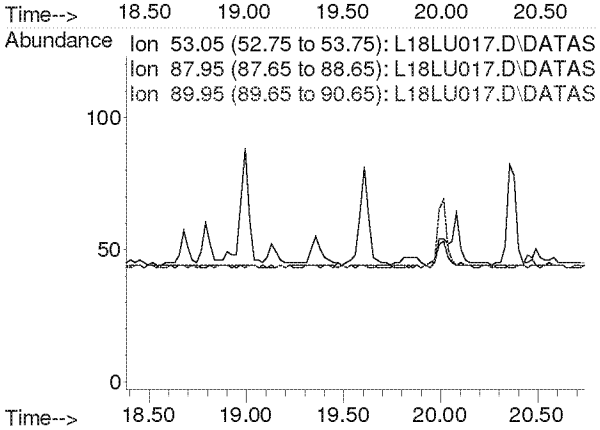




#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

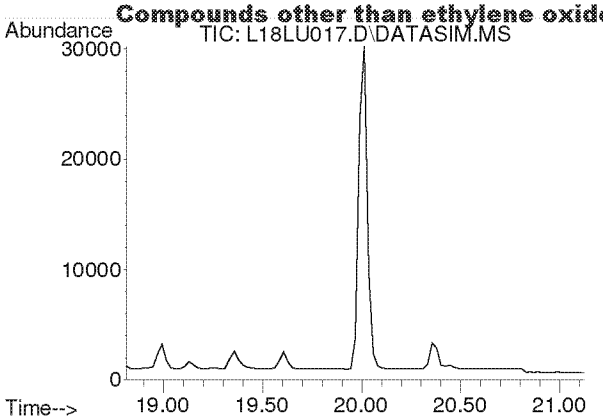
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 88 | 51.8 |
| 90 | 16.8 |



**Compounds other than ethylene oxide were not quantitated.**

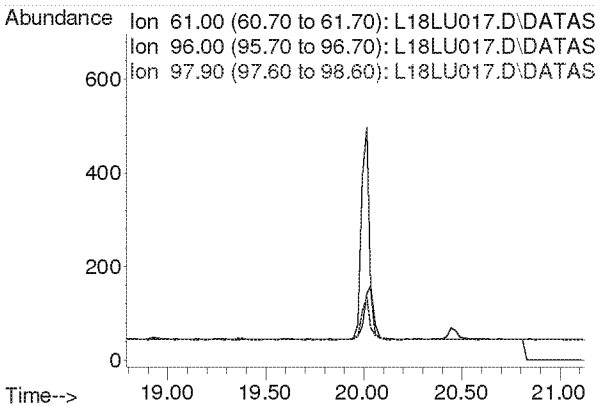


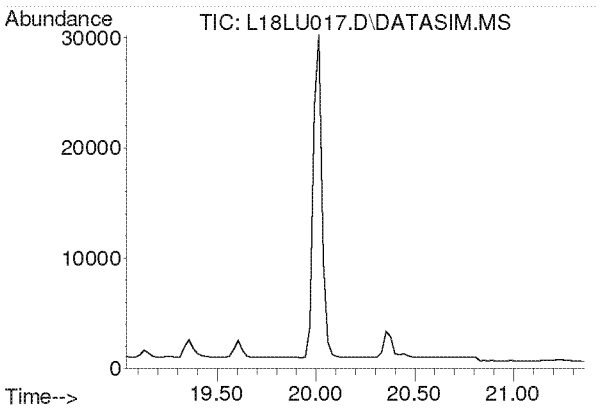

#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 73.7 |
| 98 | 45.2 |



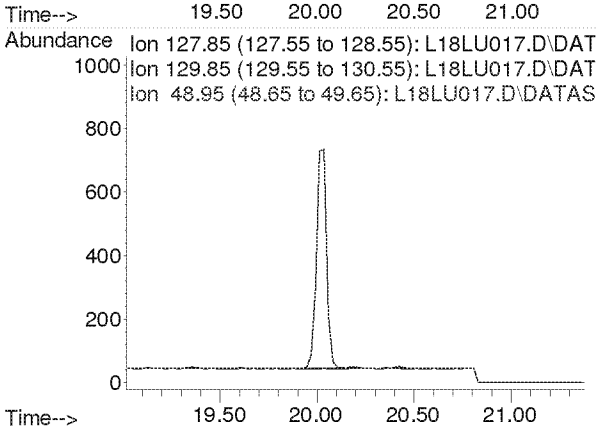




#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

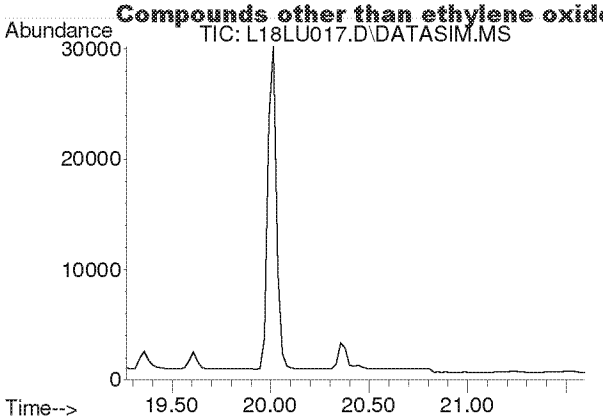
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 128

| Sig | Exp Ratio |
|---|---|
| 128 | 100 |
| 130 | 129.1 |
| 49 | 171.2 |



**Compounds other than ethylene oxide were not quantitated.**

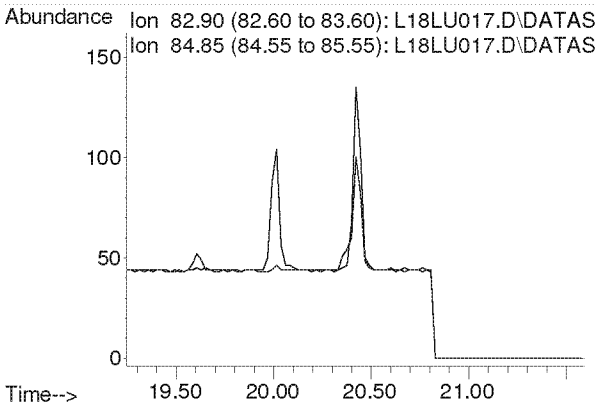


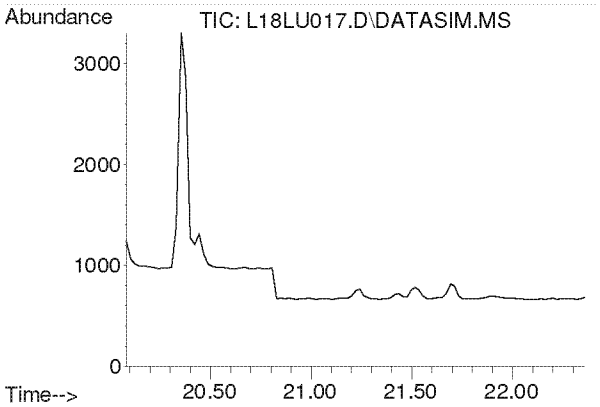

#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.4 |



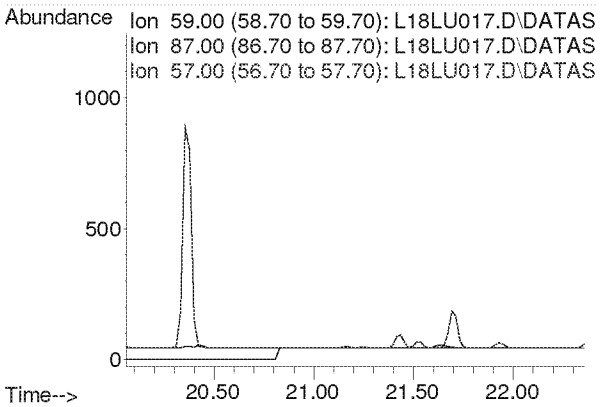




#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

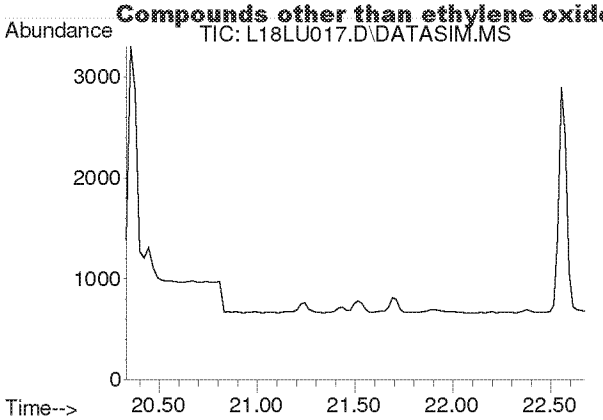
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 59

| Sig | Exp Ratio |
|---|---|
| 59 | 100 |
| 87 | 37.5 |
| 57 | 33.8 |



**Compounds other than ethylene oxide were not quantitated.**

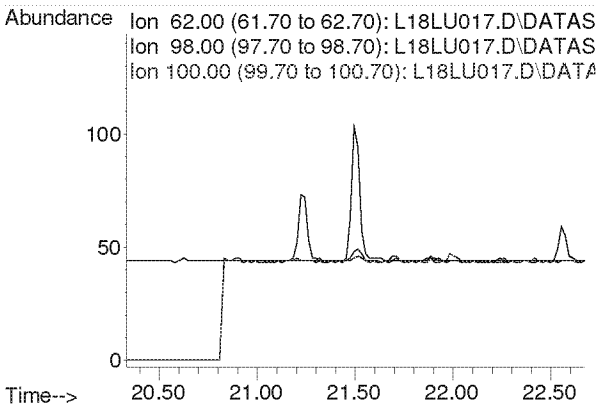


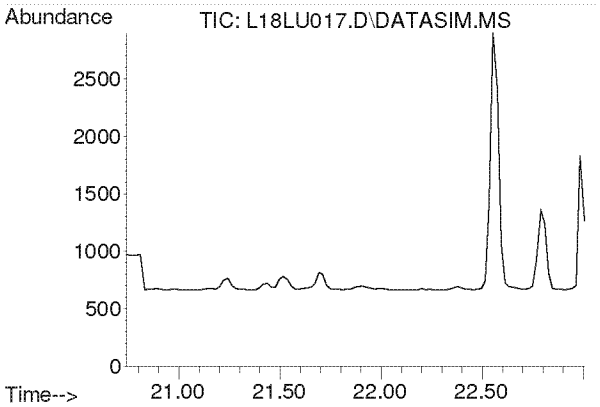

#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 98 | 6.4 |
| 100 | 4.0 |



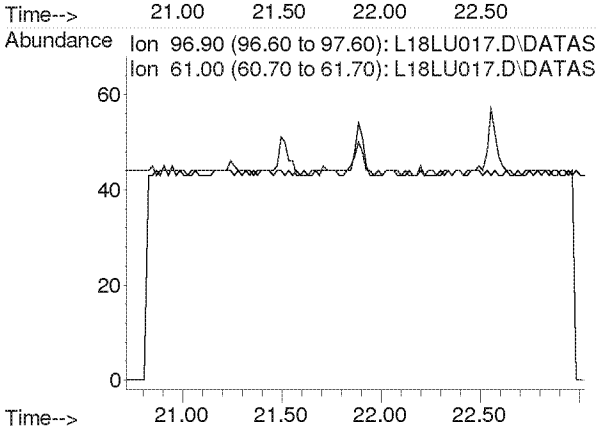




#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

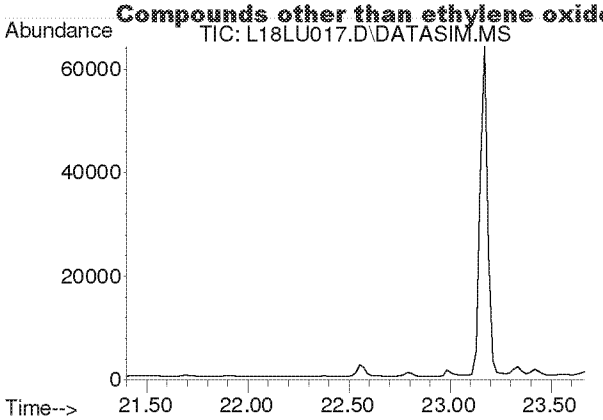
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 61 | 60.5 |



**Compounds other than ethylene oxide were not quantitated.**

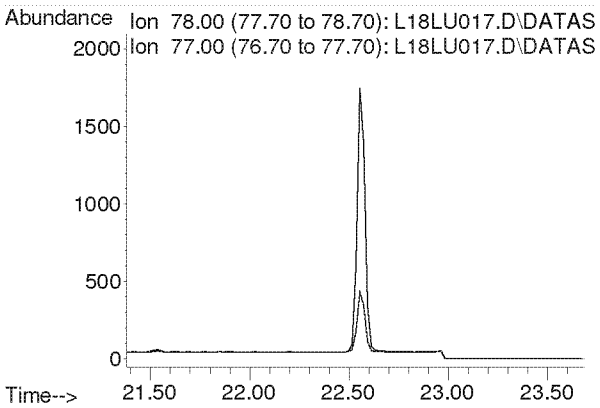


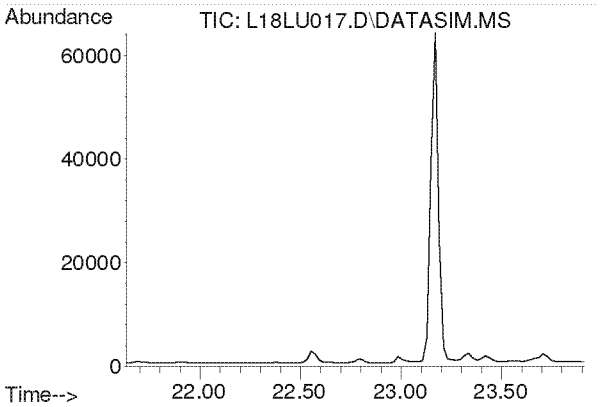

#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 78

| Sig | Exp Ratio |
|---|---|
| 78 | 100 |
| 77 | 22.7 |



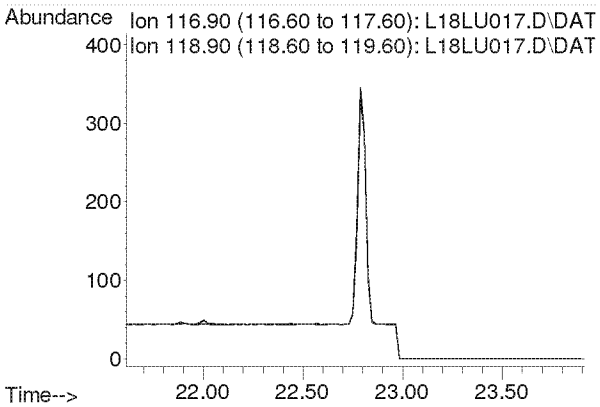




#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

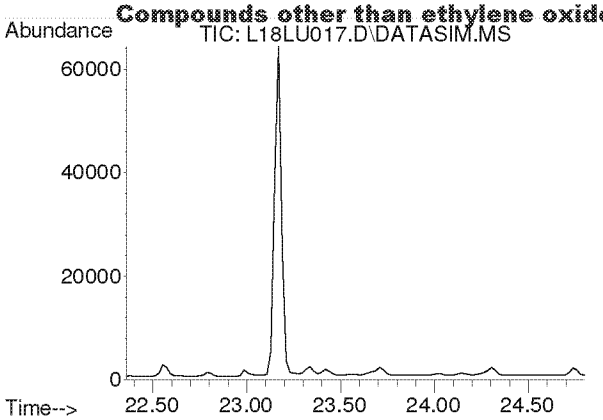
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 117

| Sig | Exp Ratio |
|---|---|
| 117 | 100 |
| 119 | 96.5 |



**Compounds other than ethylene oxide were not quantitated.**

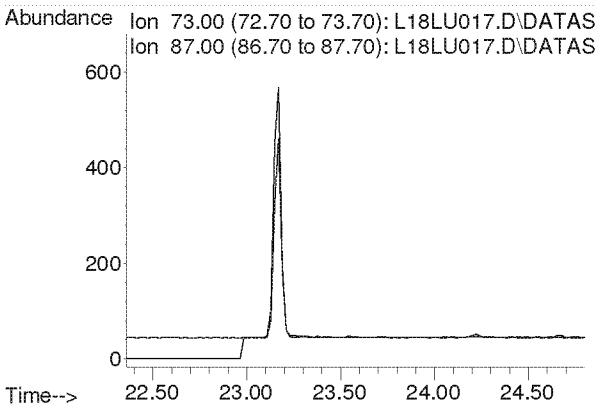


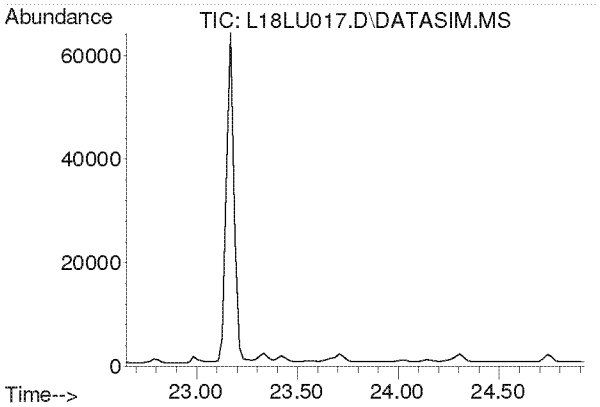

#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 87 | 24.9 |



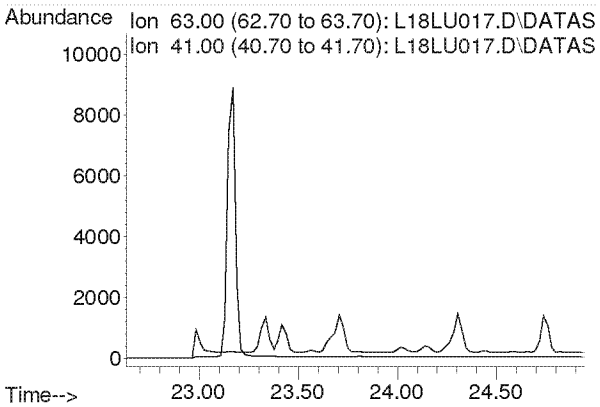




#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

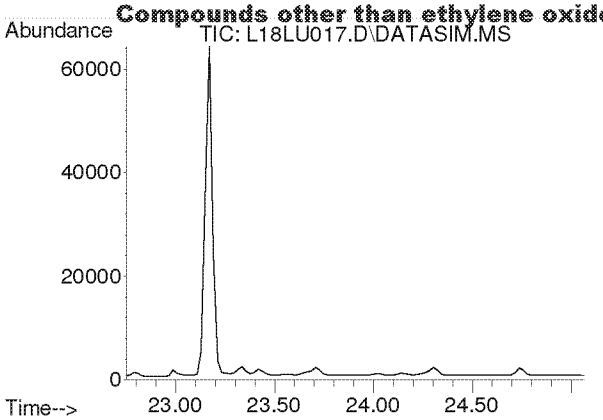
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 41 | 212.8 |



**Compounds other than ethylene oxide were not quantitated.**

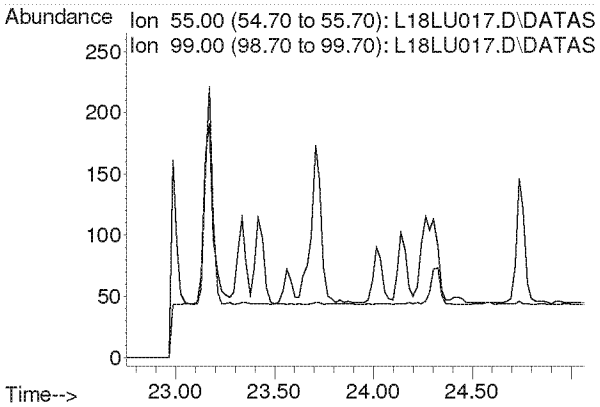


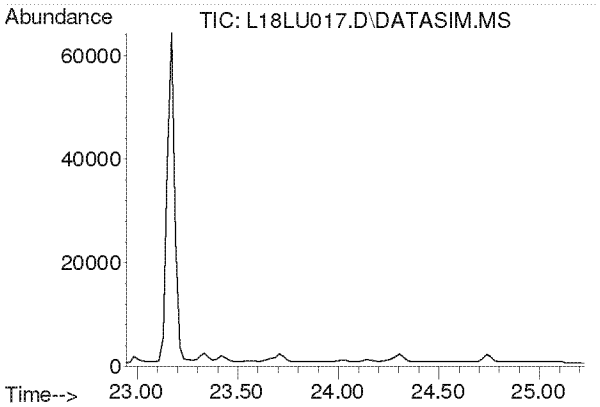

#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 55

| Sig | Exp Ratio |
|---|---|
| 55 | 100 |
| 99 | 6.1 |



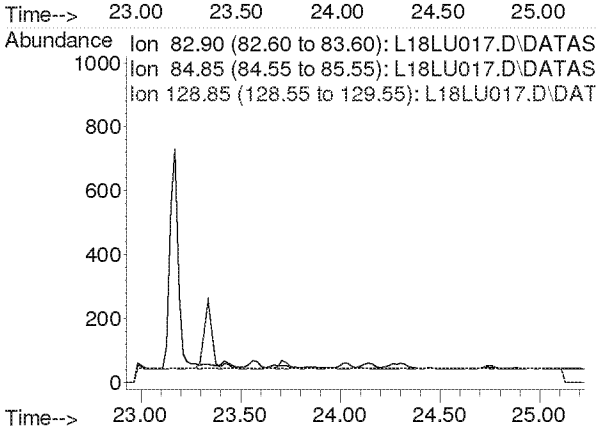




#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

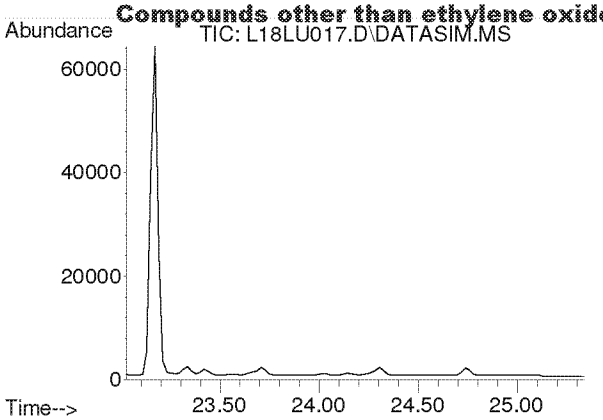
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.0 |
| 129 | 12.4 |



**Compounds other than ethylene oxide were not quantitated.**

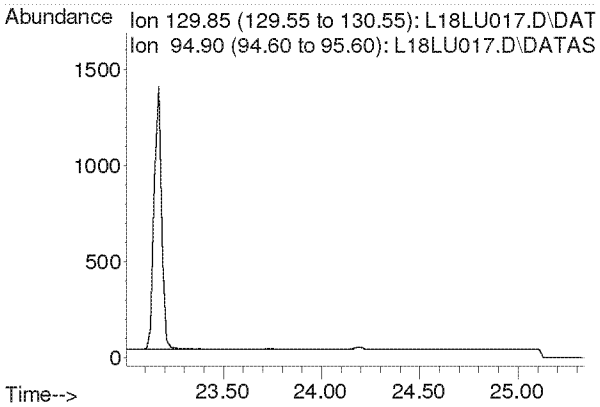


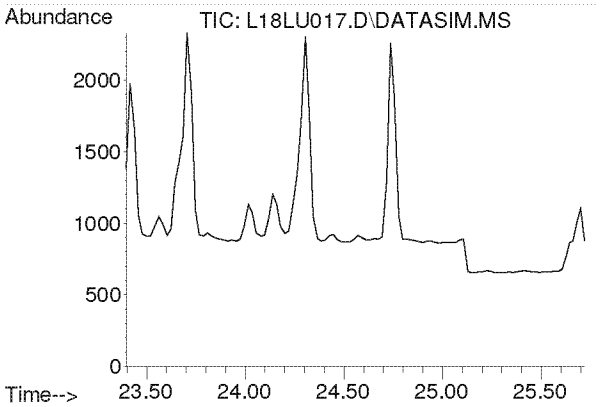

#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 130

| Sig | Exp Ratio |
|---|---|
| 130 | 100 |
| 95 | 110.3 |



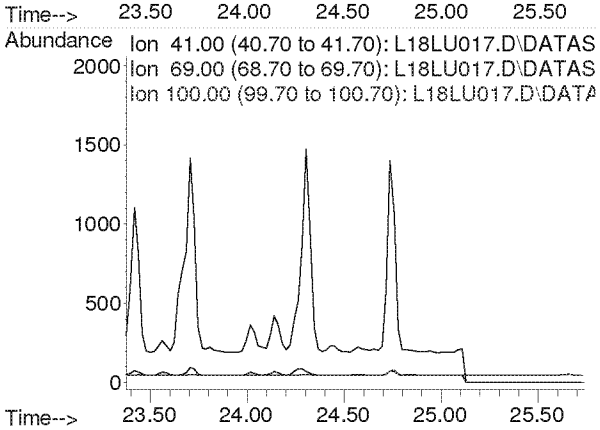




#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

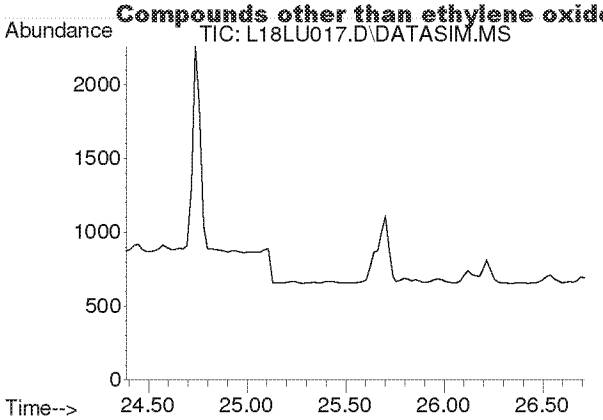
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 69 | 19.9 |
| 100 | 5.2 |



**Compounds other than ethylene oxide were not quantitated.**

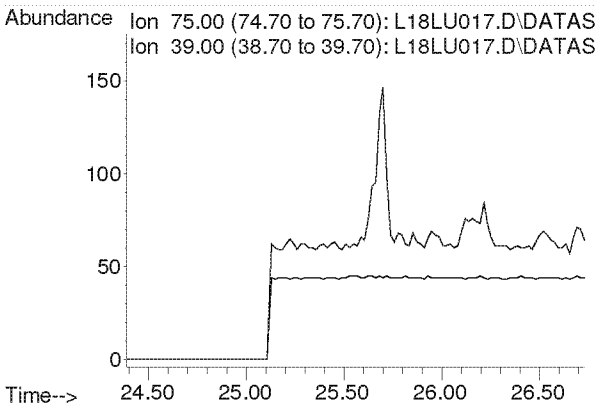


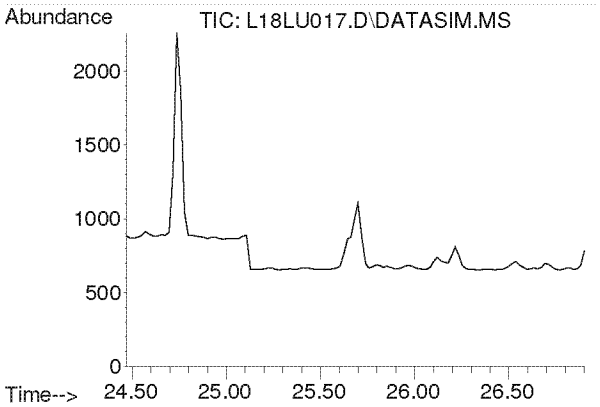

#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 54.4 |



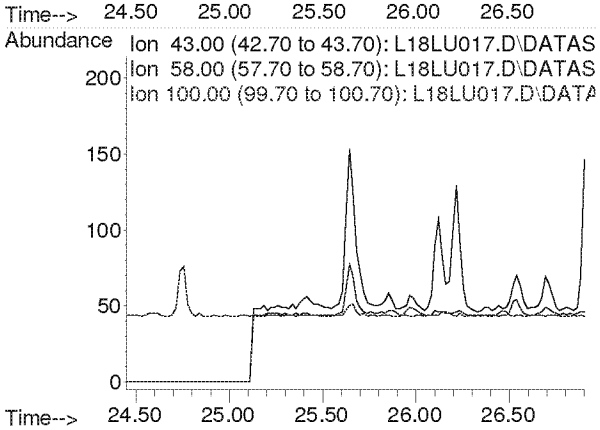




#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

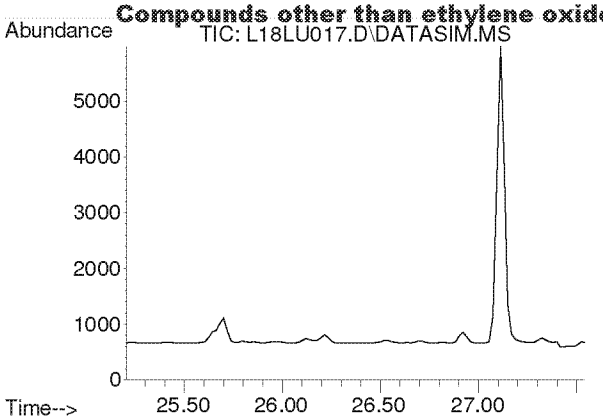
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 58 | 34.2 |
| 100 | 7.9 |



**Compounds other than ethylene oxide were not quantitated.**

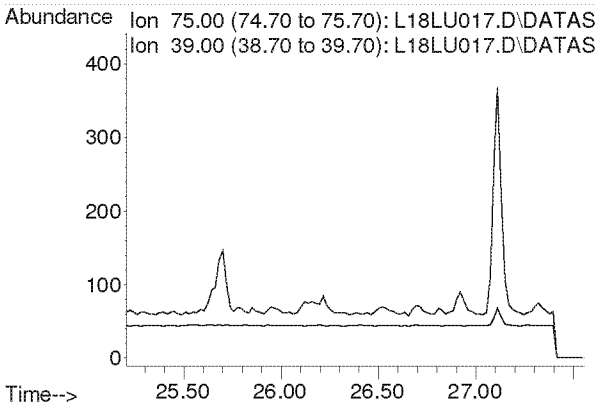


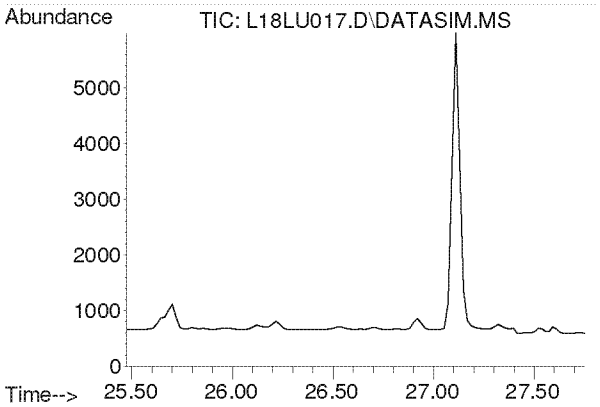

#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 50.9 |



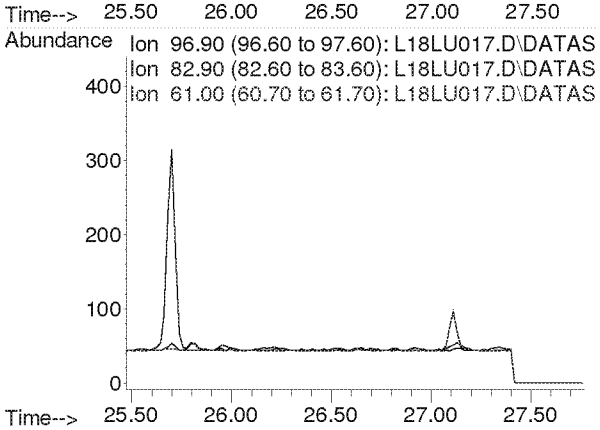




#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

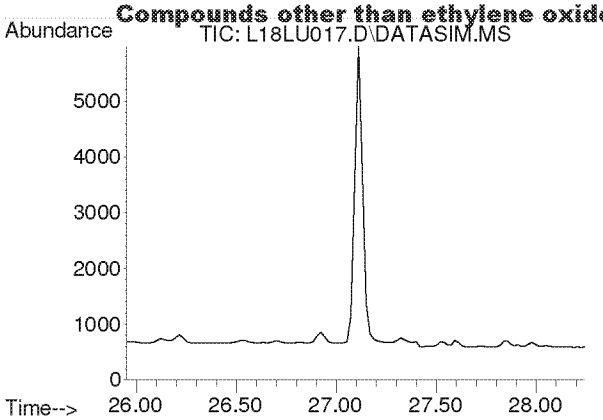
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 83 | 96.1 |
| 61 | 63.5 |



**Compounds other than ethylene oxide were not quantitated.**

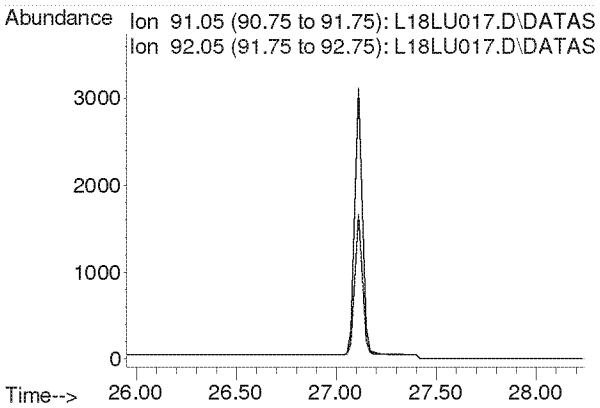


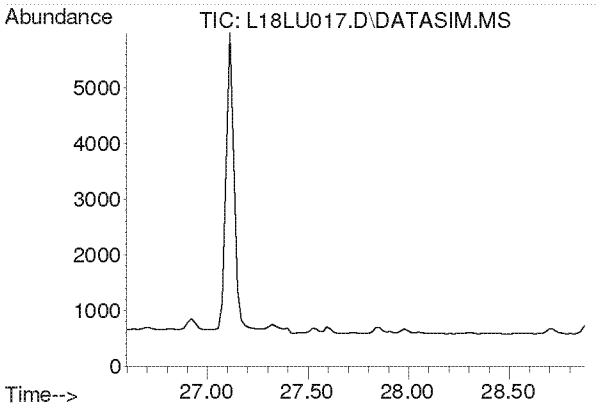

#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 92 | 52.6 |



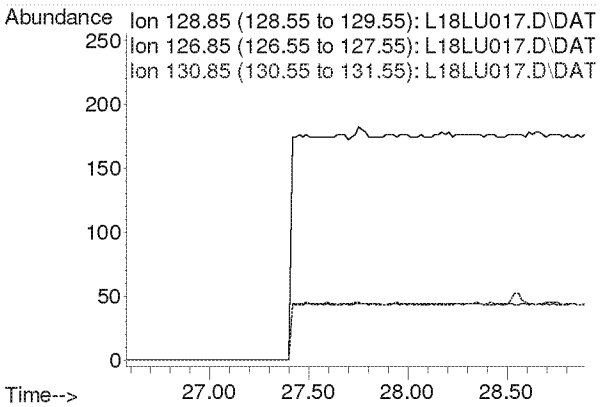




#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

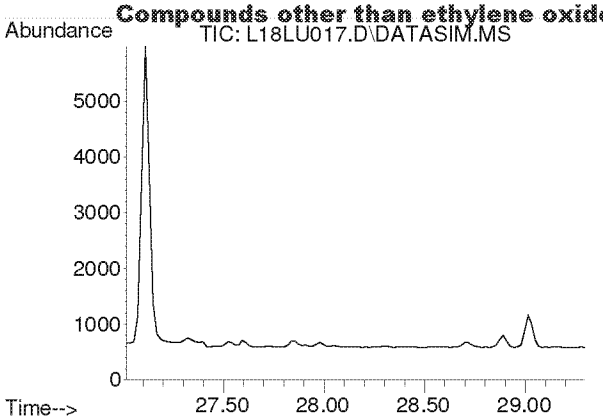
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 129

| Sig | Exp Ratio |
|---|---|
| 129 | 100 |
| 127 | 19.2 |
| 131 | 6.0 |



**Compounds other than ethylene oxide were not quantitated.**

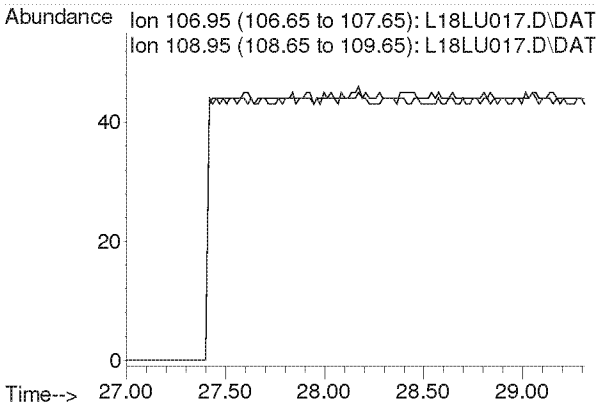


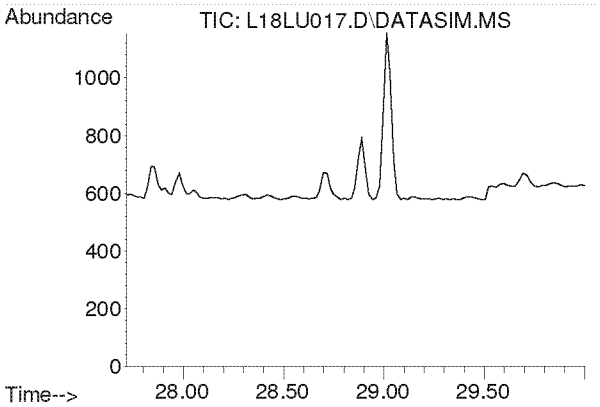

#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 107

| Sig | Exp Ratio |
|---|---|
| 107 | 100 |
| 109 | 94.5 |



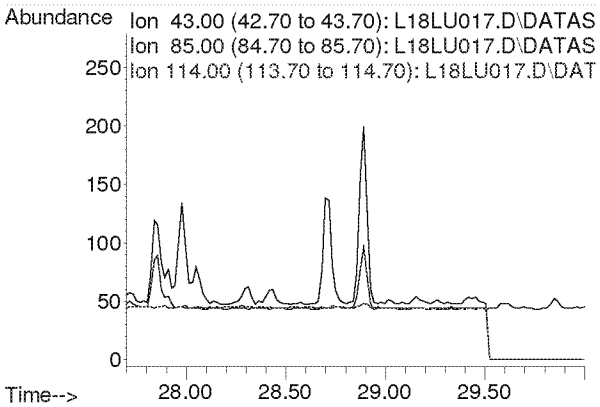




#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

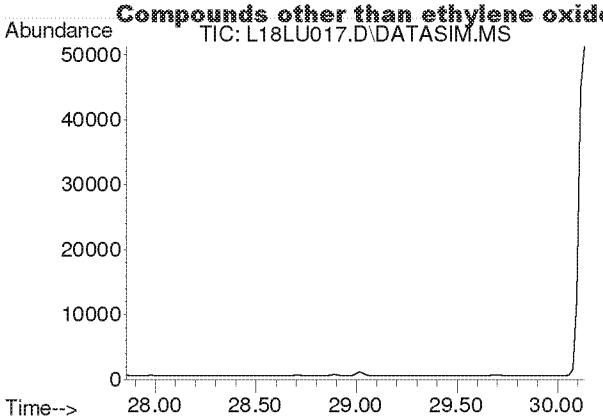
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 85 | 36.0 |
| 114 | 2.2 |



**Compounds other than ethylene oxide were not quantitated.**

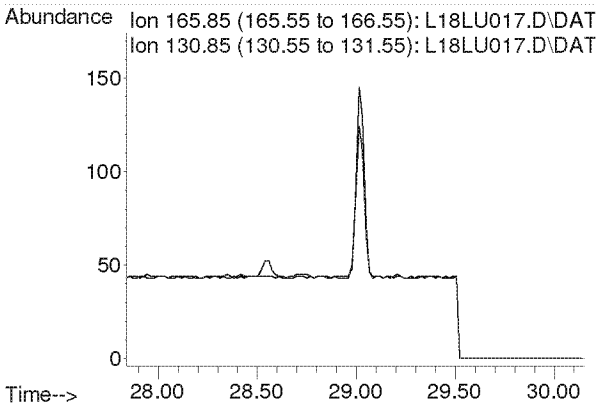


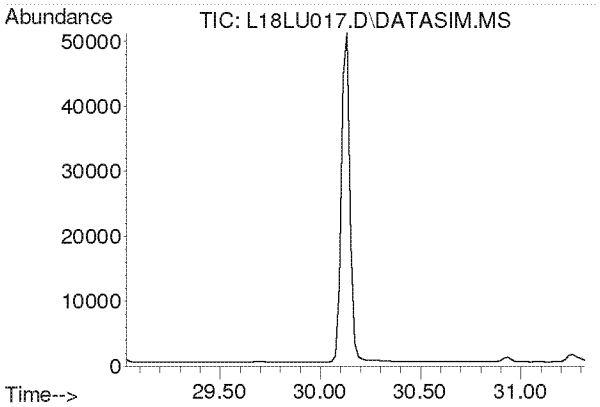

#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 166

| Sig | Exp Ratio |
|---|---|
| 166 | 100 |
| 131 | 78.2 |



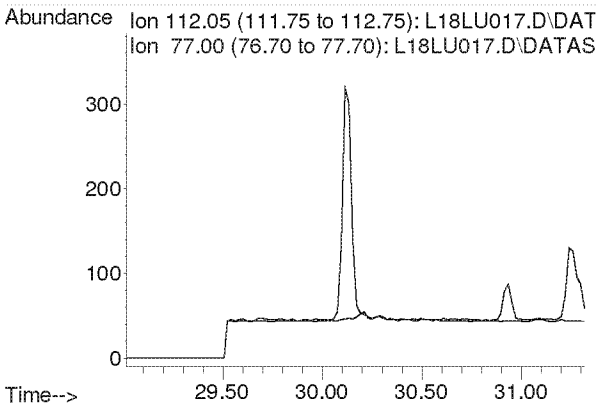




#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

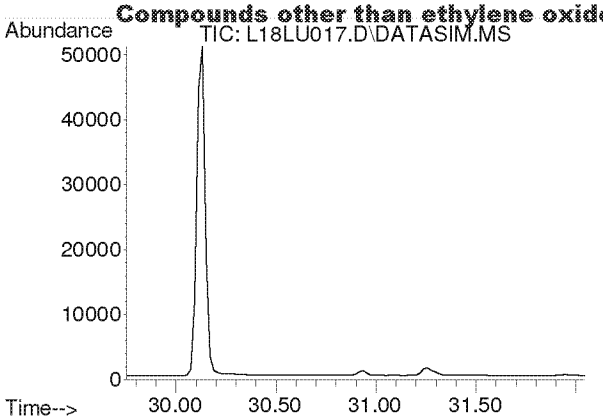
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 112

| Sig | Exp Ratio |
|---|---|
| 112 | 100 |
| 77 | 63.0 |



**Compounds other than ethylene oxide were not quantitated.**

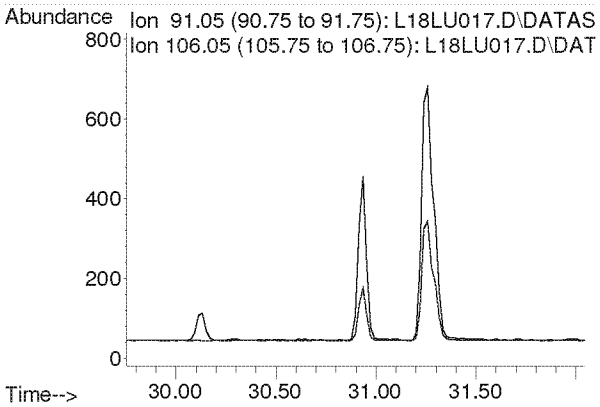


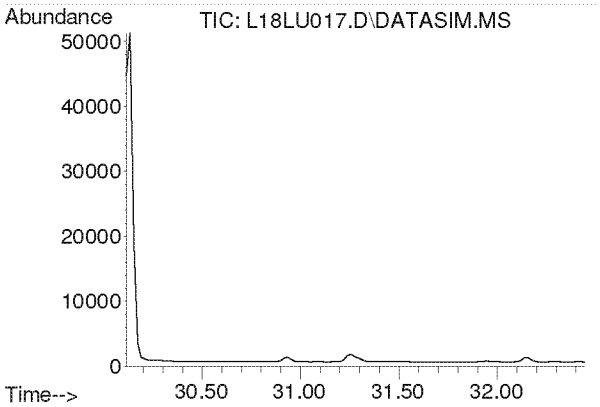

#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 31.8 |



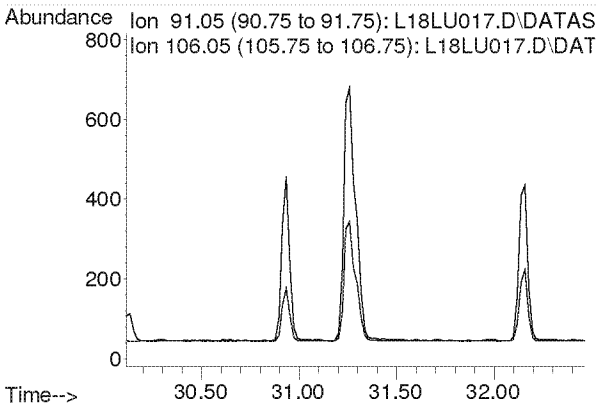




#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

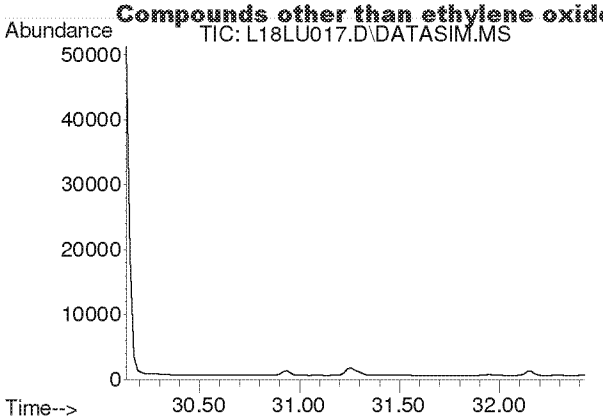
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.4 |



**Compounds other than ethylene oxide were not quantitated.**

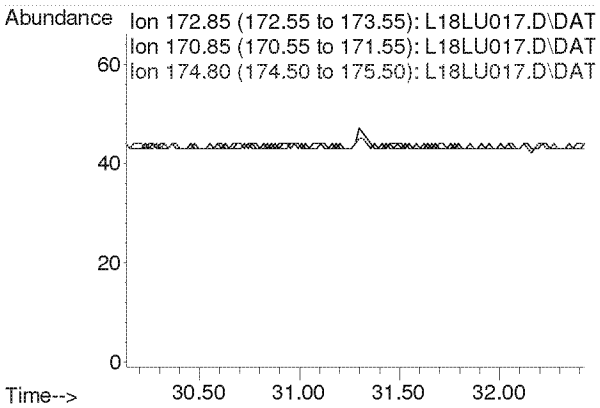


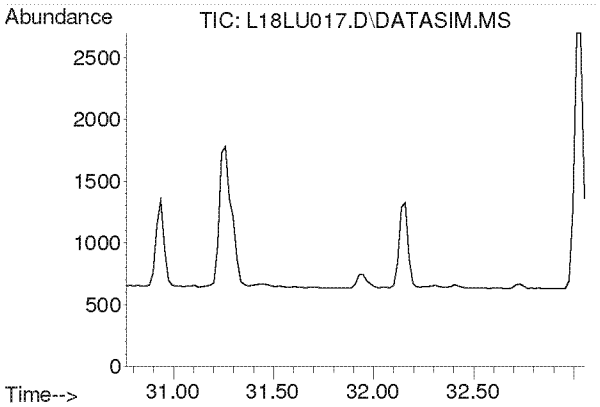

#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 173

| Sig | Exp Ratio |
|---|---|
| 173 | 100 |
| 171 | 51.3 |
| 175 | 49.0 |



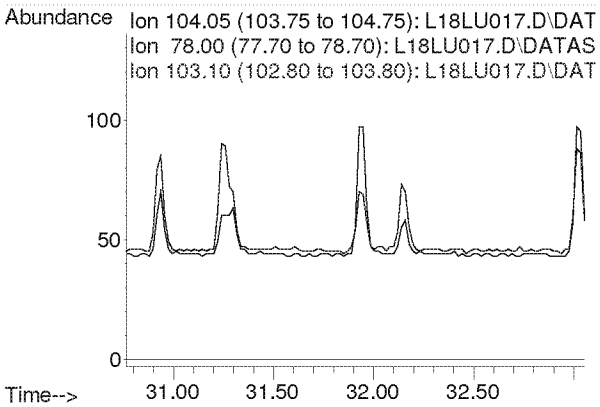




#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

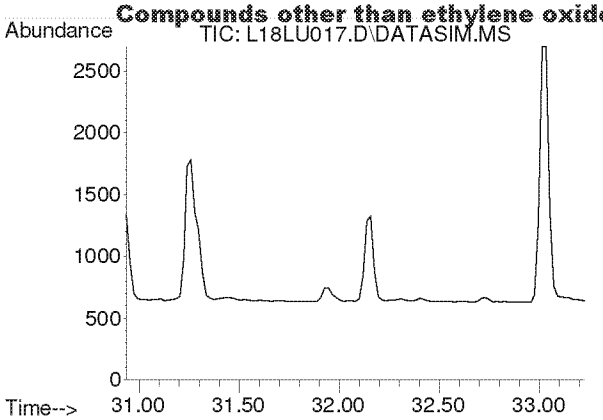
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 104

| Sig | Exp Ratio |
|---|---|
| 104 | 100 |
| 78 | 45.6 |
| 103 | 0.0 |



**Compounds other than ethylene oxide were not quantitated.**

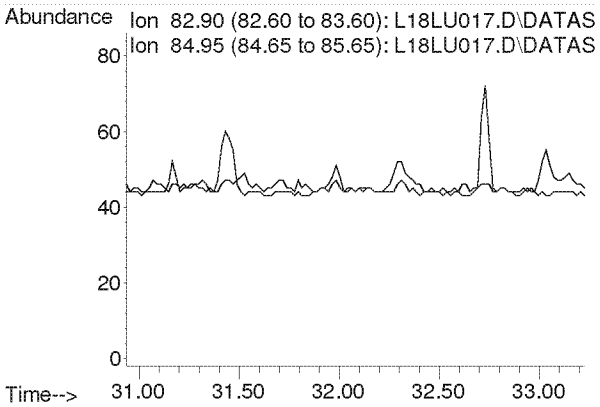


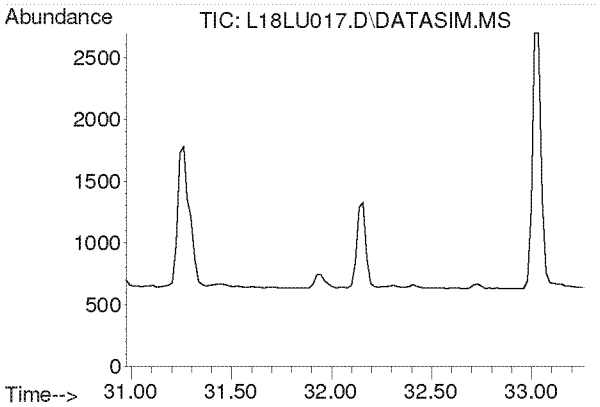

#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 63.9 |



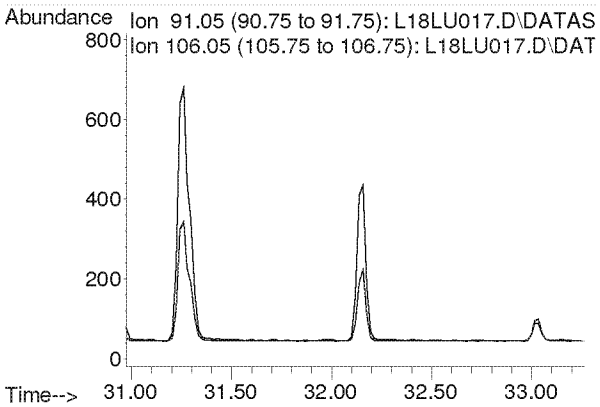




#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

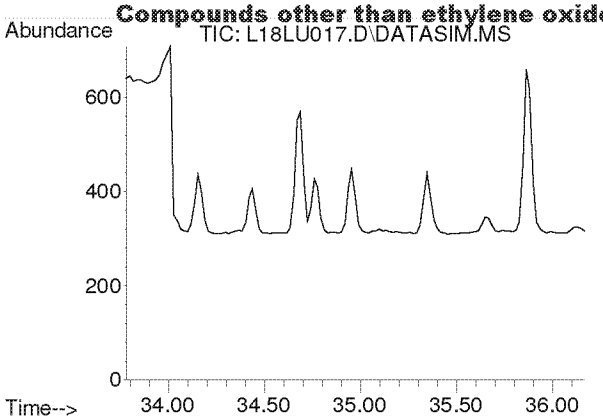
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.2 |



**Compounds other than ethylene oxide were not quantitated.**

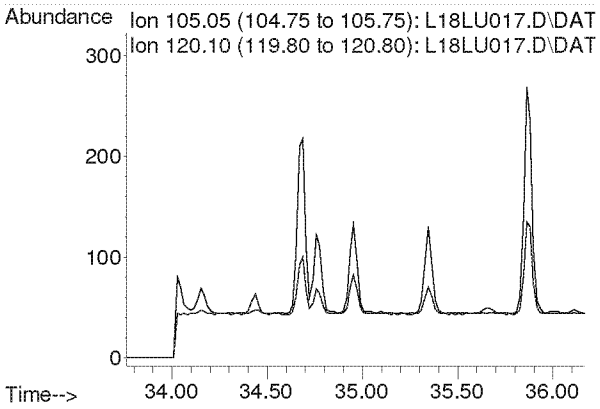


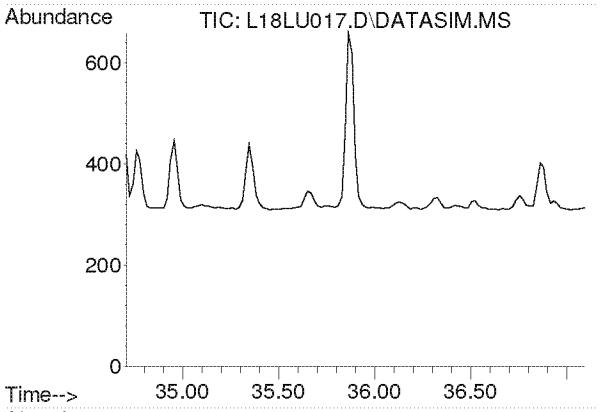

#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 45.0 |



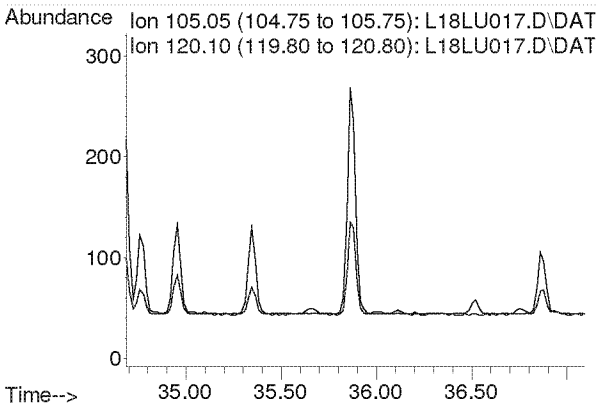




#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

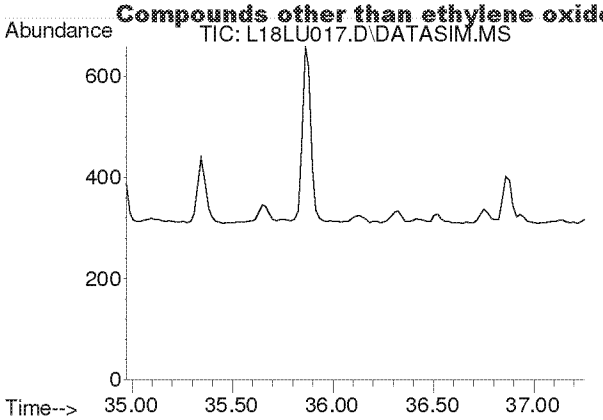
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 42.8 |



**Compounds other than ethylene oxide were not quantitated.**

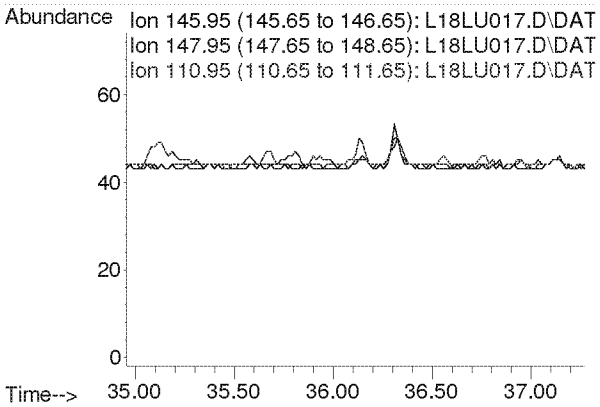


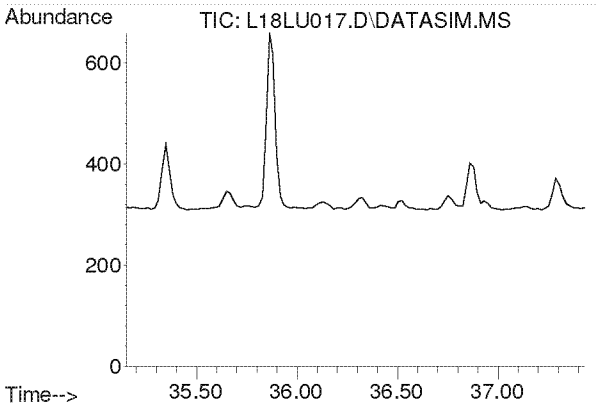

#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 40.5 |



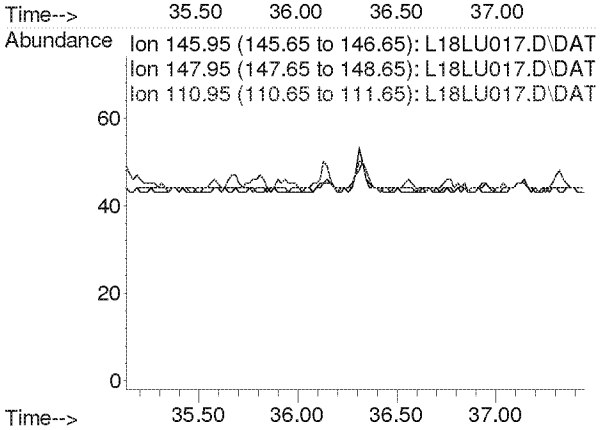




#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

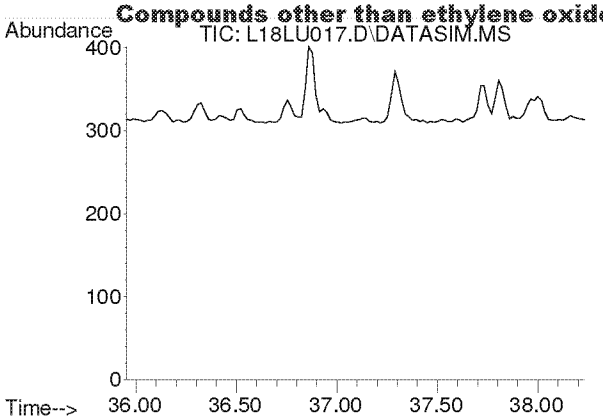
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 39.5 |



**Compounds other than ethylene oxide were not quantitated.**

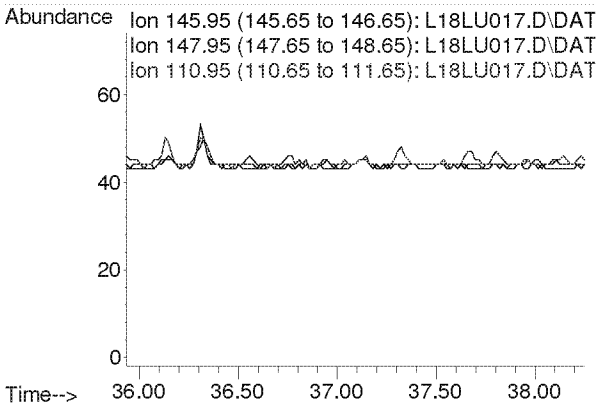


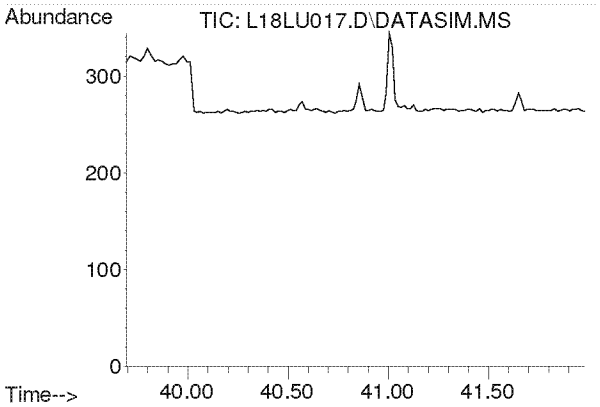

#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.1 |
| 111 | 41.4 |



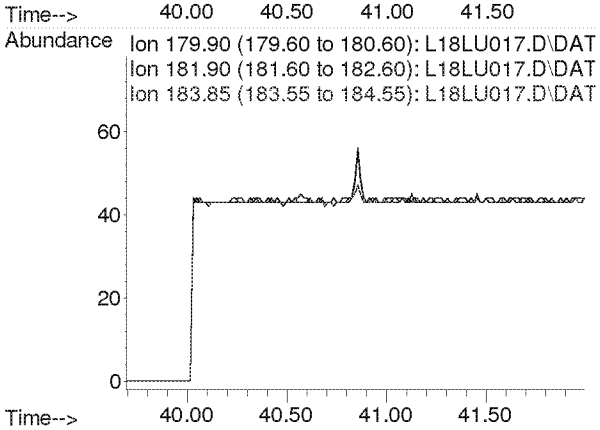




#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

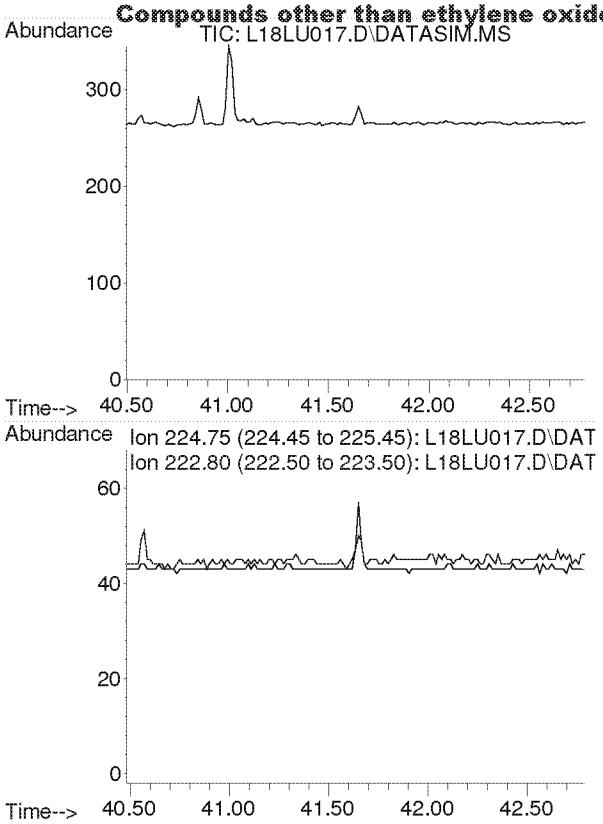
Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 180

| Sig | Exp Ratio |
|---|---|
| 180 | 100 |
| 182 | 95.1 |
| 184 | 30.7 |



**Compounds other than ethylene oxide were not quantitated.**




#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18LU017.D
Acq: 21 Dec 2018 11:43 pm

Tgt Ion: 225

| Sig | Exp Ratio |
|---|---|
| 225 | 100 |
| 223 | 62.4 |

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU018.D
Acq On : 22 Dec 2018 12:45 am (#1); 22-Dec-18, 00:39:52 (#2)
Operator : MAH
Sample : B8L2103-DUP3
Misc : WB VILLAGE HALL R1 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 26 10:06:47 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

df AK

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) IS-Hexane-d14 | 20.015 | 66 | 53399 | 4.7700 ppbv | 0.02 |
| 29) IS-1,4-Difluorobenzene | 23.171 | 114 | 130083 | 4.9900 ppbv | 0.02 |
| 43) IS-Chlorobenzene-d5 | 30.135 | 117 | 88891 | 4.7400 ppbv | 0.04 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) Acetylene | 0.000 | 26 | 0 | N.D. d | |
| 3) Propylene | 0.000 | 41 | 0 | N.D. d | |
| 4) Dichlorodifluoromethane | 0.000 | 85 | 0 | N.D. d | |
| 5) Chloromethane | 0.000 | 50 | 0 | N.D. d | |
| 6) Dichlorotetrafluoroethane | 0.000 | 85 | 0 | N.D. d | |
| 7) Vinyl Chloride | 0.000 | 62 | 0 | N.D. | |
| 8) 1,3-Butadiene | 0.000 | 54 | 0 | N.D. d | |
| 9) Ethylene oxide | 12.425 | 29 | 2967 | 0.9296 ppbv # | 82 |
| 10) Bromomethane | 0.000 | 94 | 0 | N.D. d | |
| 11) Chloroethane | 0.000 | 64 | 0 | N.D. | |
| 12) Acetonitrile | 0.000 | 41 | 0 | N.D. d | |
| 13) Acrolein | 0.000 | 56 | 0 | N.D. d | |
| 14) Trichlorofluoromethane | 0.000 | 101 | 0 | N.D. d | |
| 15) Acrylonitrile | 0.000 | 53 | 0 | N.D. d | |
| 16) 1,1-Dichloroethene | 0.000 | 61 | 0 | N.D. | |
| 17) Methylene Chloride | 0.000 | 49 | 0 | N.D. d | |
| 18) Carbon Disulfide | 0.000 | 76 | 0 | N.D. d | |
| 19) Trichlorotrifluoroethane | 0.000 | 101 | 0 | N.D. d | |
| 20) trans-1,2-Dichloroethy... | 0.000 | 96 | 0 | N.D. | |
| 21) 1,1-Dichloroethane | 0.000 | 63 | 0 | N.D. | |
| 22) Methyl tert-Butyl Ether | 0.000 | 73 | 0 | N.D. d | |
| 23) Chloroprene | 0.000 | 53 | 0 | N.D. d | |
| 24) cis-1,2-Dichloroethylene | 0.000 | 61 | 0 | N.D. d | |
| 25) Bromochloromethane | 0.000 | 128 | 0 | N.D. | |
| 26) Chloroform | 0.000 | 83 | 0 | N.D. d | |
| 27) Ethyl tert-Butyl Ether | 0.000 | 59 | 0 | N.D. | |
| 28) 1,2-Dichloroethane | 0.000 | 62 | 0 | N.D. d | |
| 30) 1,1,1-Trichloroethane | 0.000 | 97 | 0 | N.D. d | |
| 31) Benzene | 0.000 | 78 | 0 | N.D. d | |
| 32) Carbon Tetrachloride | 0.000 | 117 | 0 | N.D. d | |
| 33) tert-Amyl Methyl Ether | 0.000 | 73 | 0 | N.D. | |
| 34) 1,2-Dichloropropane | 0.000 | 63 | 0 | N.D. d | |
| 35) Ethyl Acrylate | 0.000 | 55 | 0 | N.D. | |
| 36) Bromodichloromethane | 0.000 | 83 | 0 | N.D. d | |
| 37) Trichloroethylene | 0.000 | 130 | 0 | N.D. d | |
| 38) Methyl Methacrylate | 0.000 | 41 | 0 | N.D. d | |
| 39) cis-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 40) Methyl Isobutyl Ketone | 0.000 | 43 | 0 | N.D. d | |
| 41) trans-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 42) 1,1,2-Trichloroethane | 0.000 | 97 | 0 | N.D. | |
| 44) Toluene | 0.000 | 91 | 0 | N.D. d | |
| 45) Dibromochloromethane | 0.000 | 129 | 0 | N.D. d | |
| 46) 1,2-Dibromoethane | 0.000 | 107 | 0 | N.D. | |
| 47) n-Octane | 0.000 | 43 | 0 | N.D. d | |
| 48) Tetrachloroethylene | 0.000 | 166 | 0 | N.D. d | |
| 49) Chlorobenzene | 0.000 | 112 | 0 | N.D. | |
| 50) Ethylbenzene | 0.000 | 91 | 0 | N.D. d | |

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU018.D
Acq On : 22 Dec 2018 12:45 am (#1); 22-Dec-18, 00:39:52 (#2)
Operator : MAH
Sample : B8L2103-DUP3
Misc : WB VILLAGE HALL R1 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 26 10:06:47 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

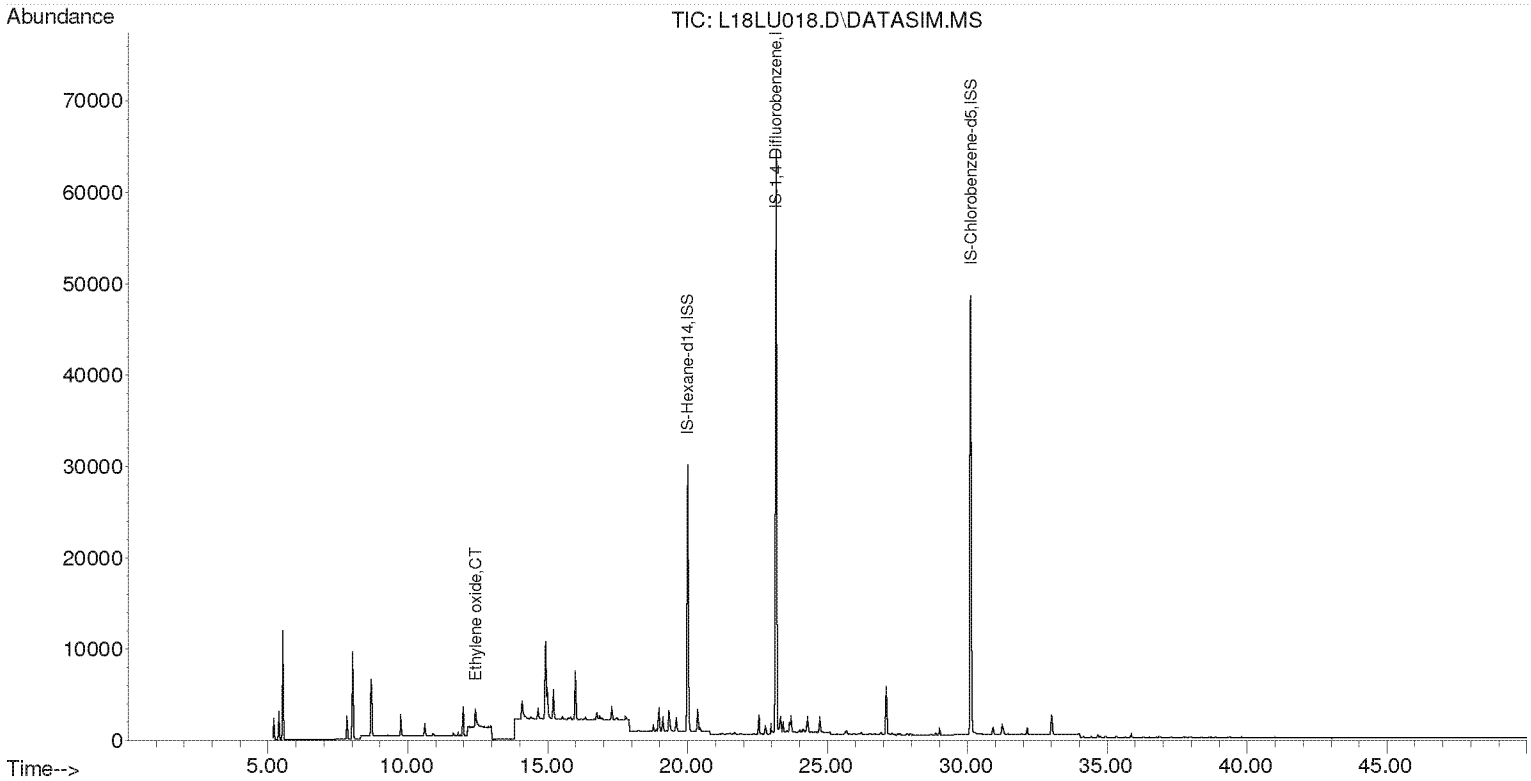
| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 51) m,p-Xylene | 0.000 | 91 | 0 | N.D. | d |
| 52) Bromoform | 0.000 | 173 | 0 | N.D. | |
| 53) Styrene | 0.000 | 104 | 0 | N.D. | d |
| 54) 1,1,2,2-Tetrachloroethane | 0.000 | 83 | 0 | N.D. | |
| 55) o-Xylene | 0.000 | 91 | 0 | N.D. | d |
| 56) 1,3,5-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | d |
| 57) 1,2,4-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | d |
| 58) m-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 59) p-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 60) o-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 61) 1,2,4-Trichlorobenzene | 0.000 | 180 | 0 | N.D. | |
| 62) Hexachloro-1,3-butadiene | 0.000 | 225 | 0 | N.D. | |

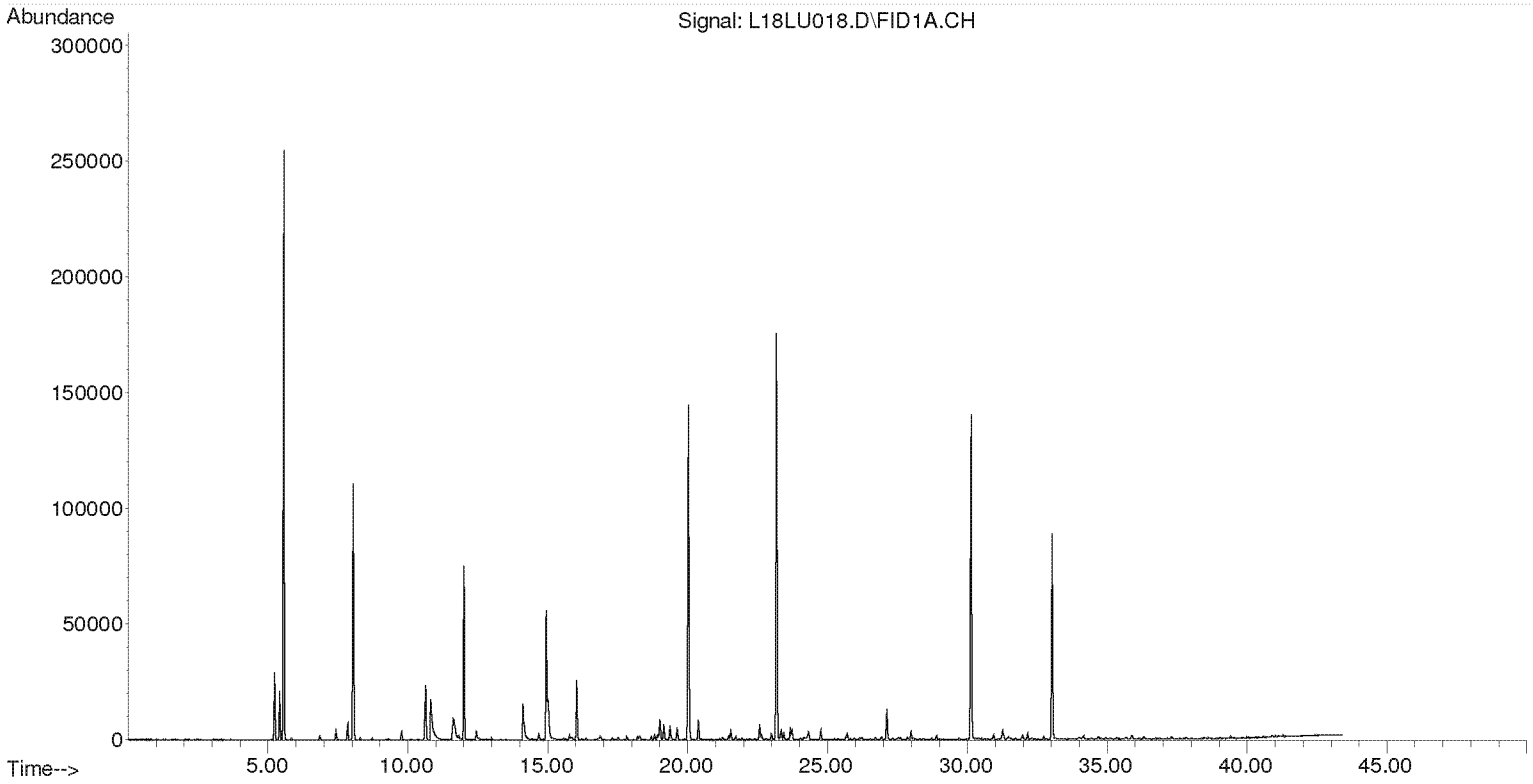
(#) = qualifier out of range (m) = manual integration (+) = signals summed

**Compounds other than ethylene oxide were not quantitated.**

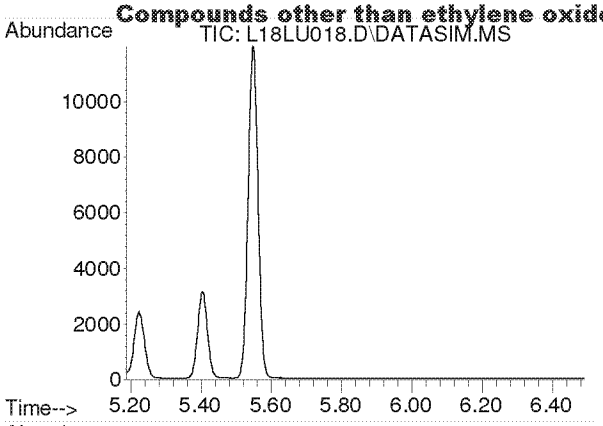
Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU018.D
Acq On : 22 Dec 2018 12:45 am (#1); 22 Dec 2018 0:39 am (#2)
Operator : MAH
Sample : B8L2103-DUP3
Misc : WB VILLAGE HALL R1 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Dec 26 09:51:39 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



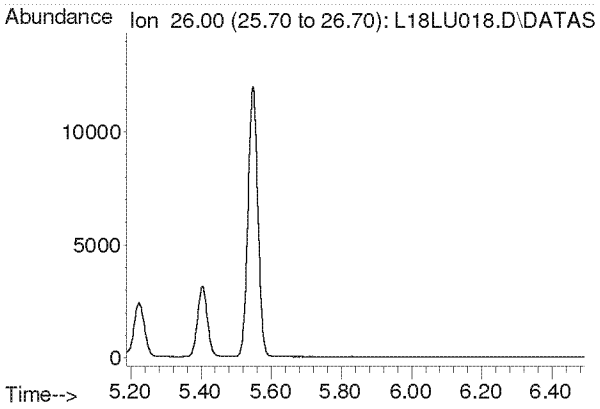
**Compounds other than ethylene oxide were not quantitated.**

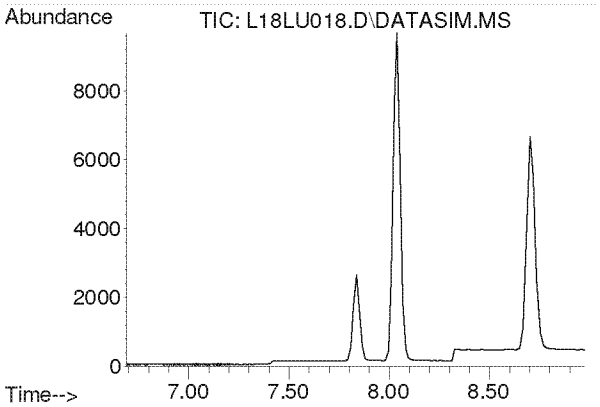



#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 26



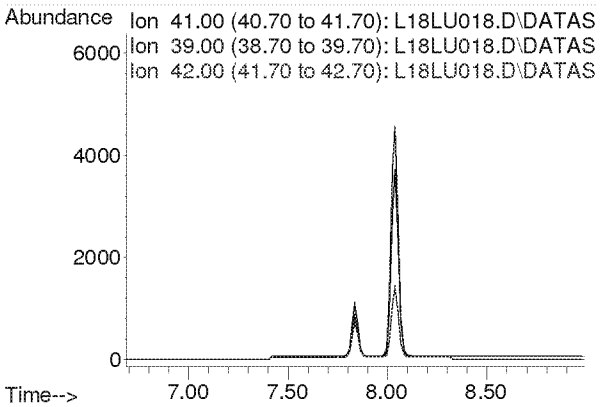




#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

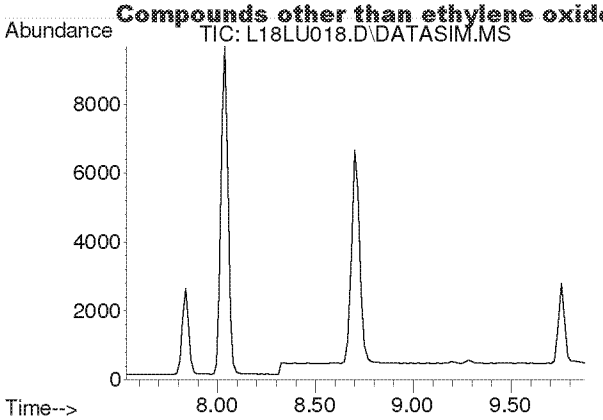
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 39 | 78.2 |
| 42 | 65.8 |



**Compounds other than ethylene oxide were not quantitated.**

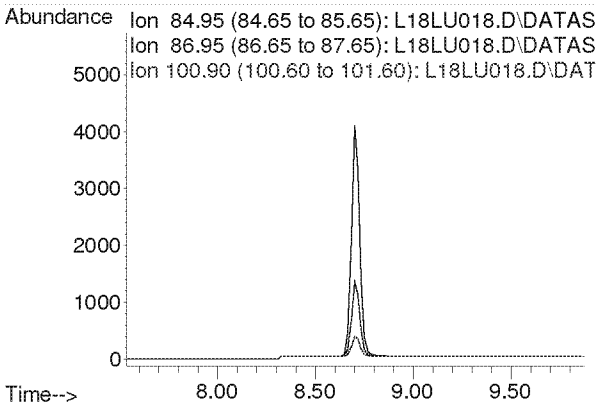


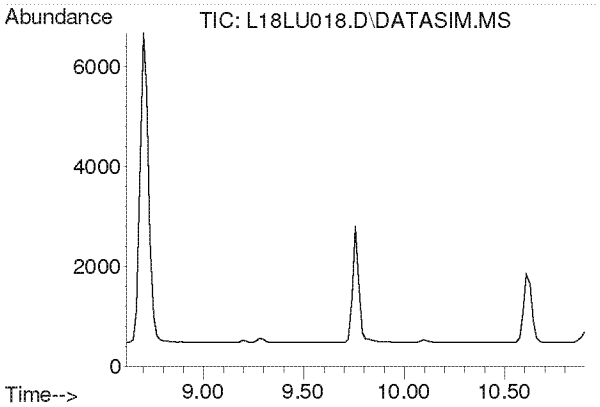

#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 87 | 32.5 |
| 101 | 8.9 |



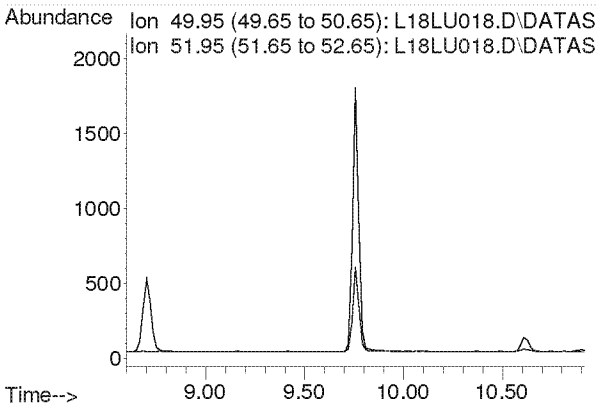




#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

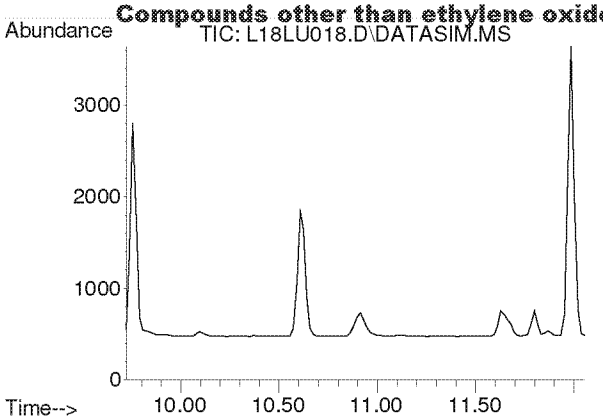
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 50

| Sig | Exp Ratio |
|---|---|
| 50 | 100 |
| 52 | 32.6 |



**Compounds other than ethylene oxide were not quantitated.**

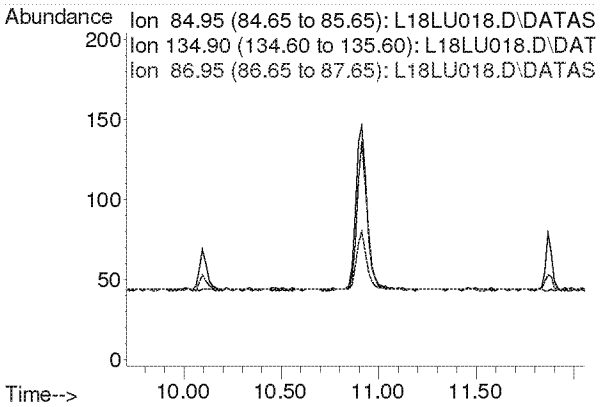


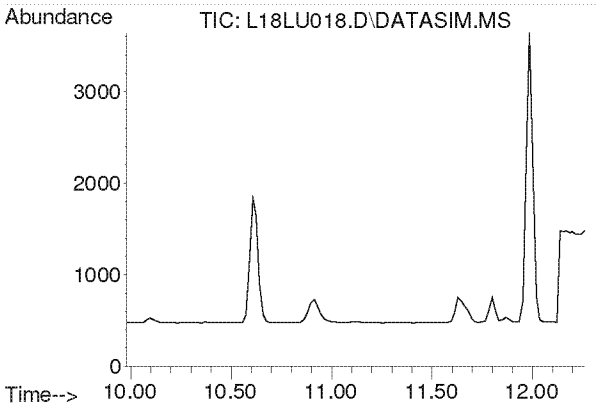

#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 135 | 79.1 |
| 87 | 32.1 |



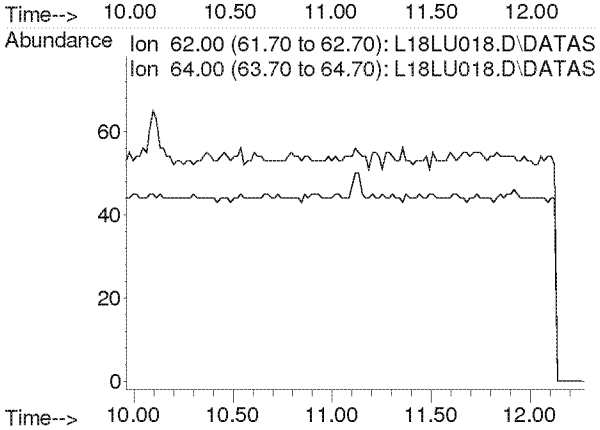




#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

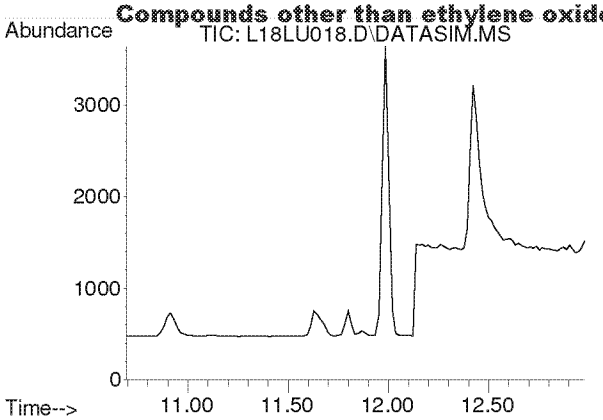
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 64 | 31.8 |



**Compounds other than ethylene oxide were not quantitated.**

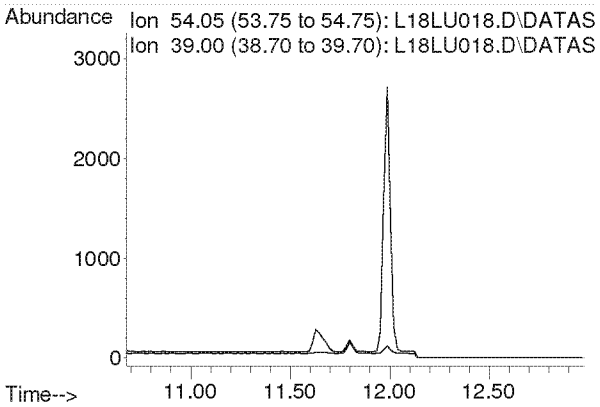


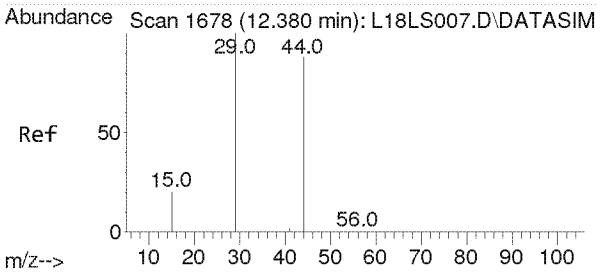

#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 54

| Sig | Exp Ratio |
|---|---|
| 54 | 100 |
| 39 | 105.4 |

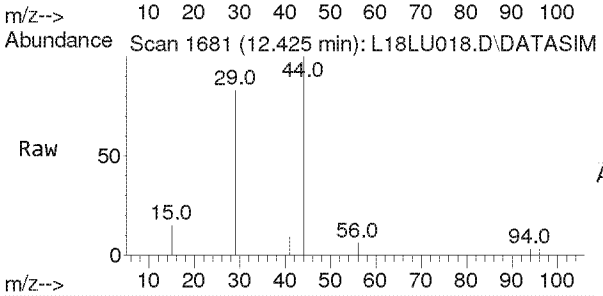


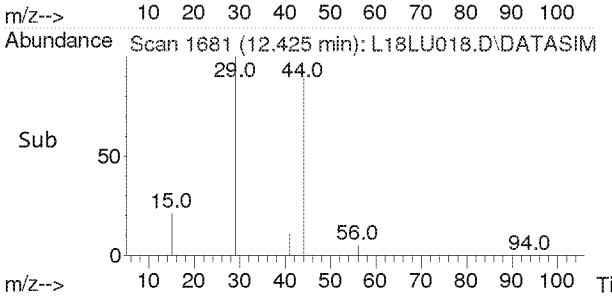



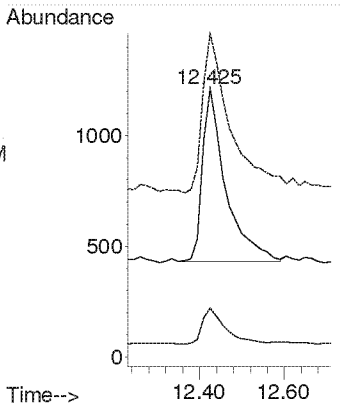

#9
Ethylene oxide
Concen: 0.930 ppbv
RT: 12.425 min Scan# 1681
Delta R.T. 0.045 min
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 29 Resp: 2967

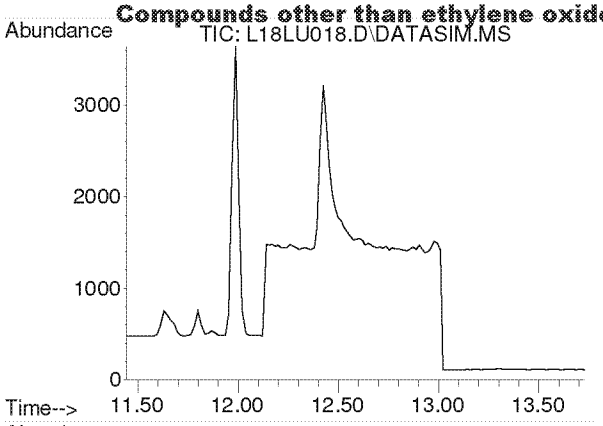
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 29 | 100 | | |
| 15 | 21.3 | 16.2 | 24.4 |
| 44 | 110.8 | 72.0 | 108.0# |



**Compounds other than ethylene oxide were not quantitated.**

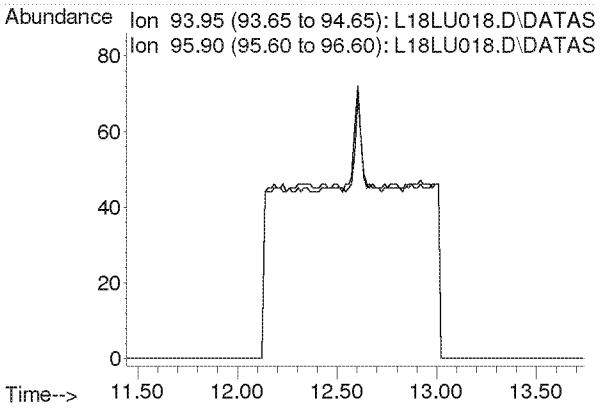


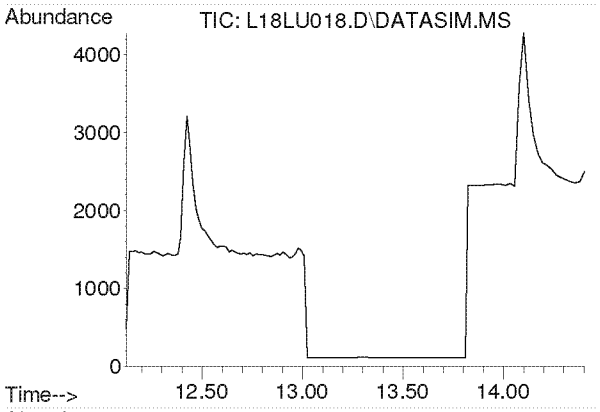

#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 94

| Sig | Exp Ratio |
|---|---|
| 94 | 100 |
| 96 | 93.9 |



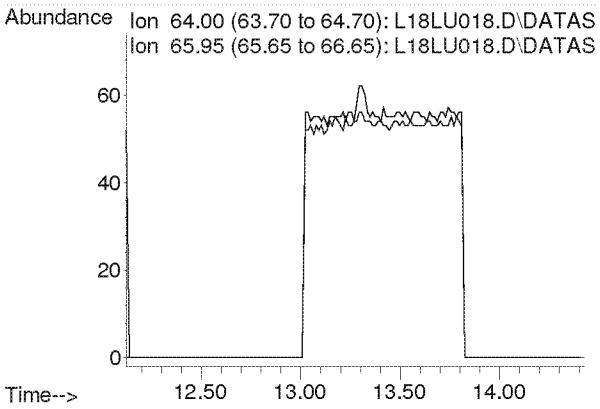




#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

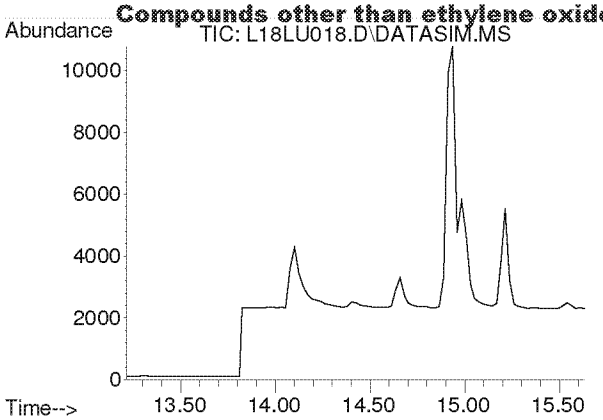
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 64

| Sig | Exp Ratio |
|---|---|
| 64 | 100 |
| 66 | 32.0 |



**Compounds other than ethylene oxide were not quantitated.**

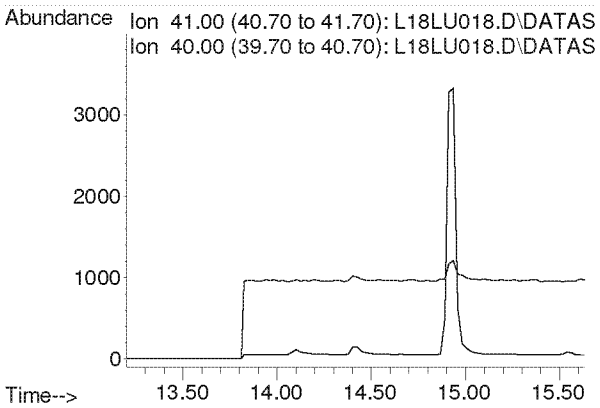


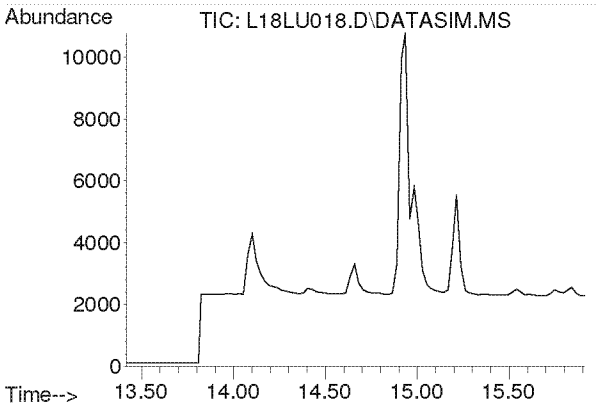

#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 40 | 50.9 |



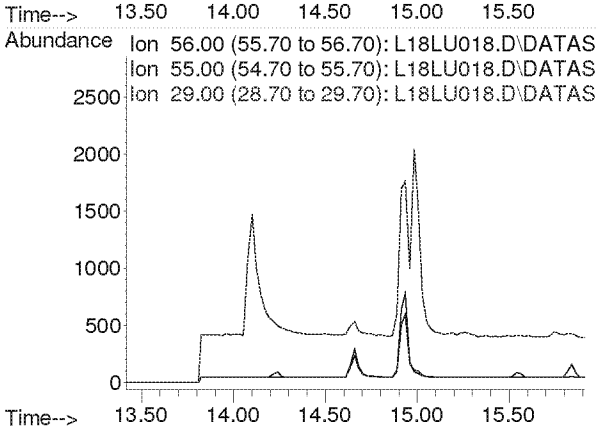




#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

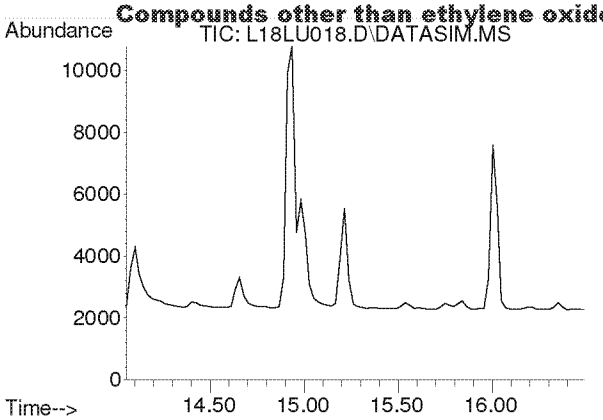
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 56

| Sig | Exp Ratio |
|---|---|
| 56 | 100 |
| 55 | 75.4 |
| 29 | 52.9 |



**Compounds other than ethylene oxide were not quantitated.**

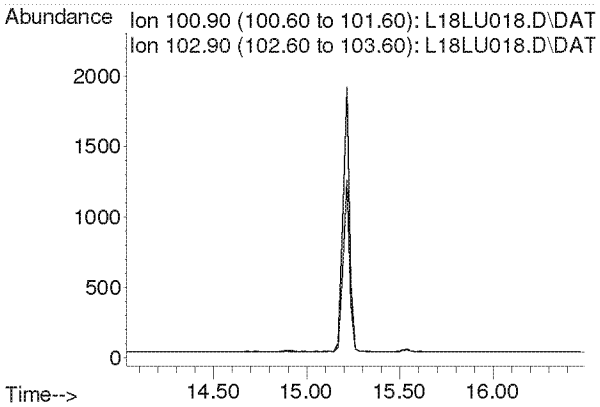


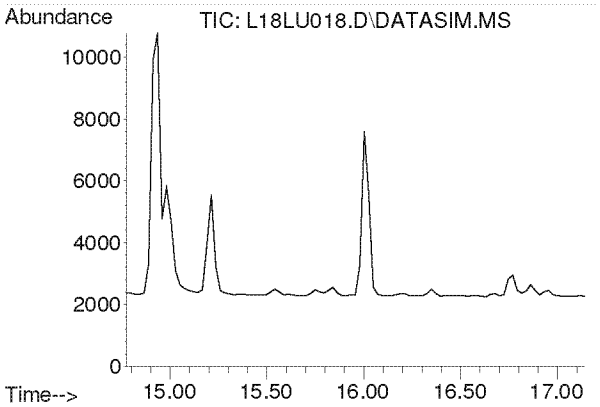

#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 103 | 64.6 |



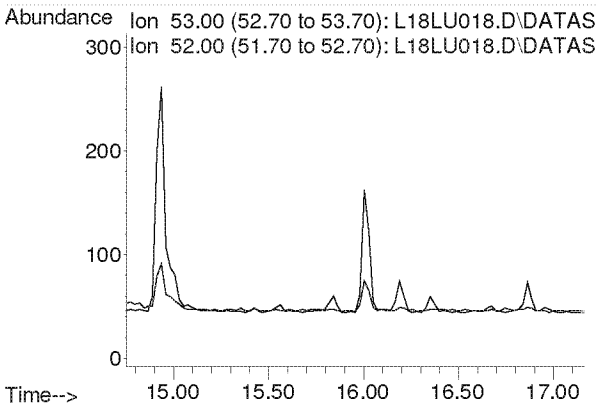




#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

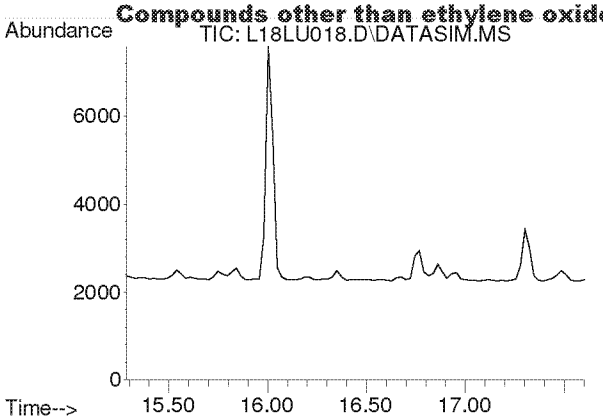
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 52 | 85.4 |



**Compounds other than ethylene oxide were not quantitated.**

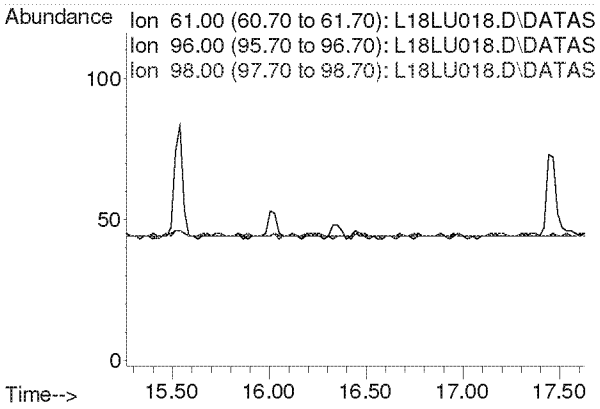


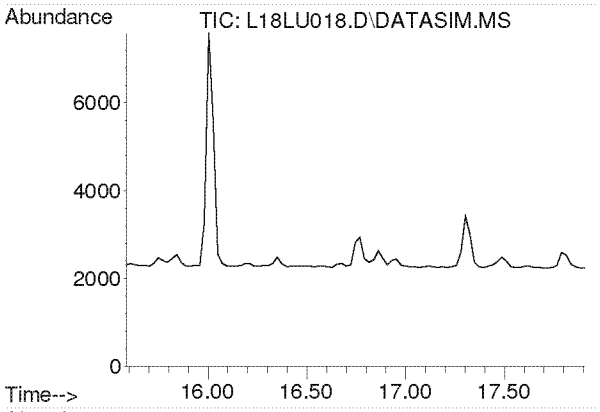

#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 58.3 |
| 98 | 37.4 |



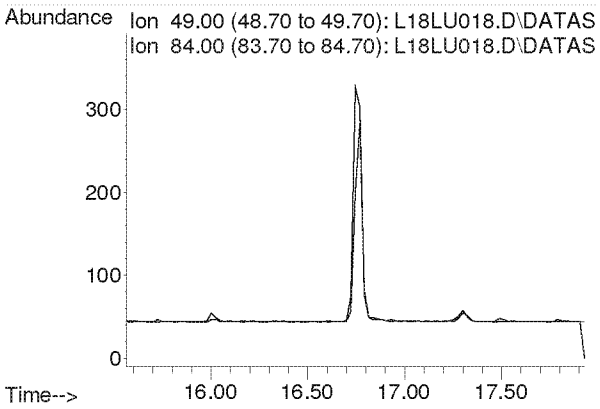




#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

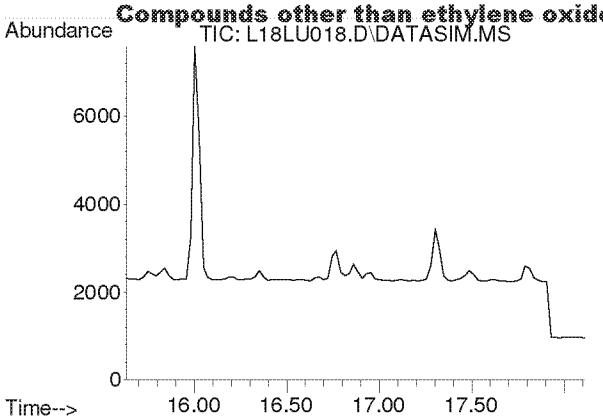
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 49

| Sig | Exp Ratio |
|---|---|
| 49 | 100 |
| 84 | 76.4 |



**Compounds other than ethylene oxide were not quantitated.**

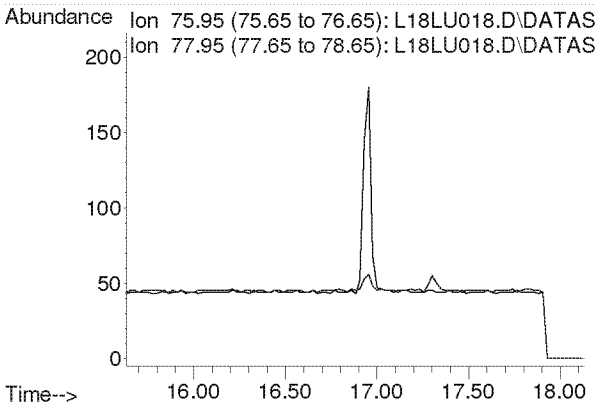


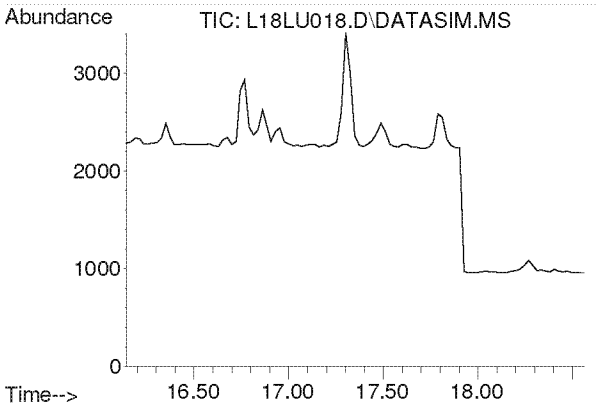

#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 76

| Sig | Exp Ratio |
|---|---|
| 76 | 100 |
| 78 | 9.1 |



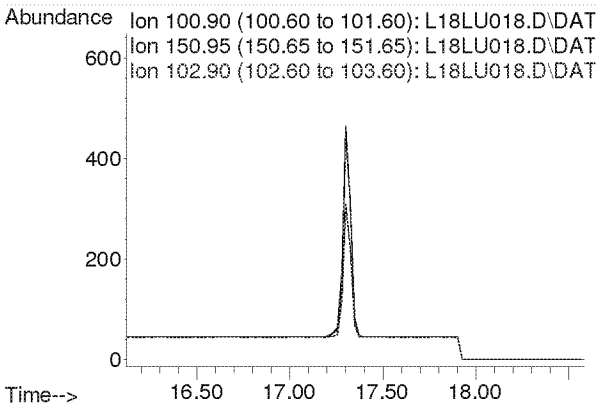




#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

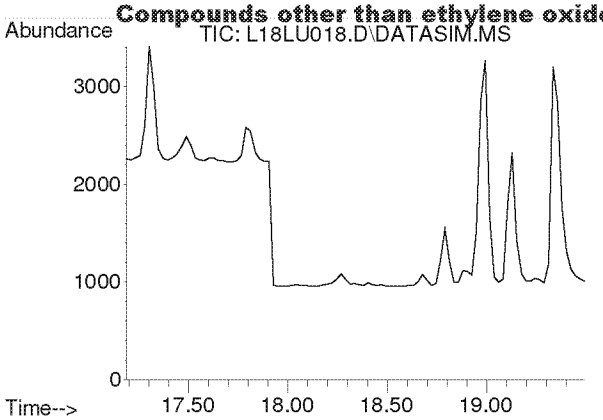
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 151 | 95.3 |
| 103 | 64.1 |



**Compounds other than ethylene oxide were not quantitated.**

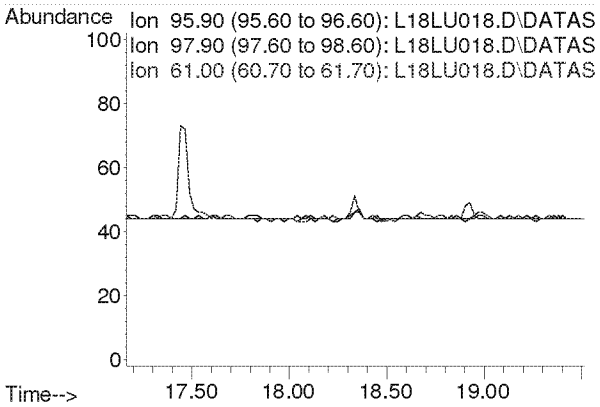


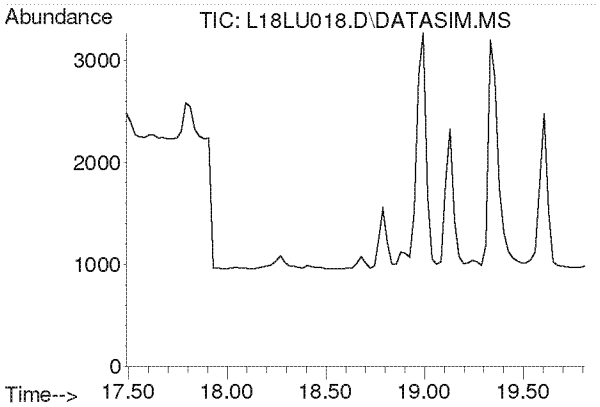

#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 96

| Sig | Exp Ratio |
|---|---|
| 96 | 100 |
| 98 | 63.7 |
| 61 | 159.2 |



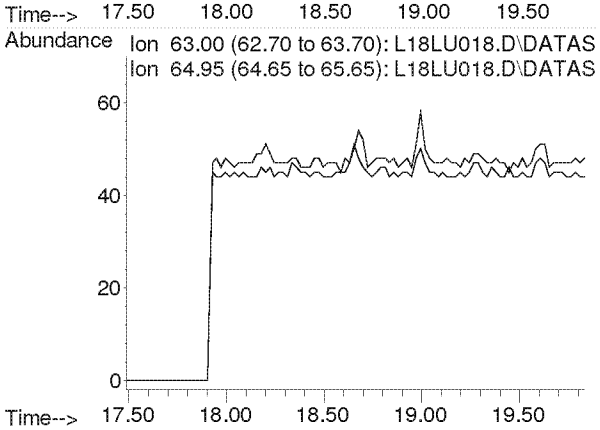




#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

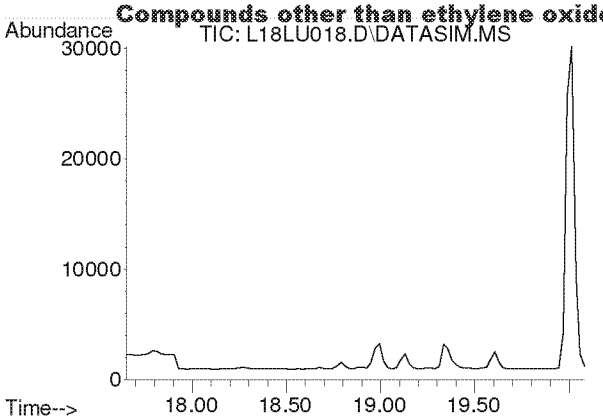
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 65 | 31.7 |



**Compounds other than ethylene oxide were not quantitated.**

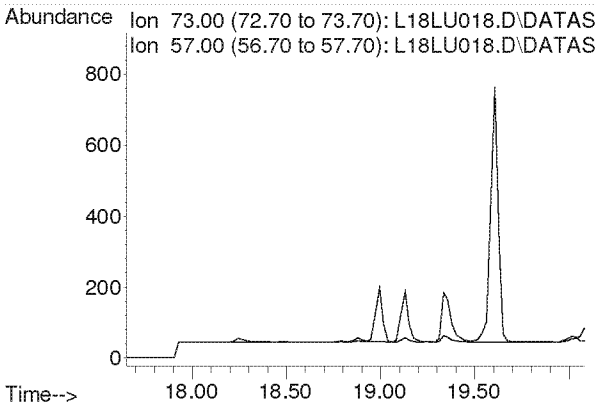


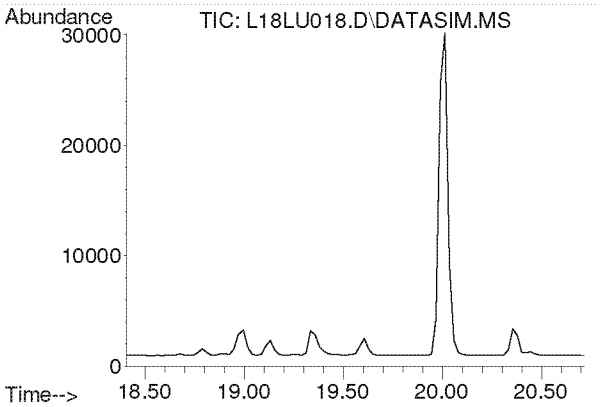

#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 57 | 23.4 |



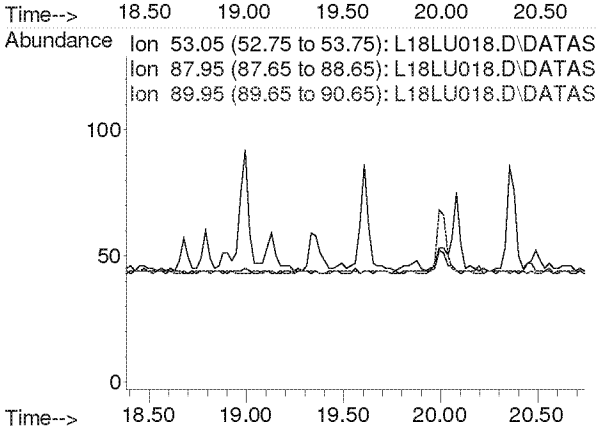




#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

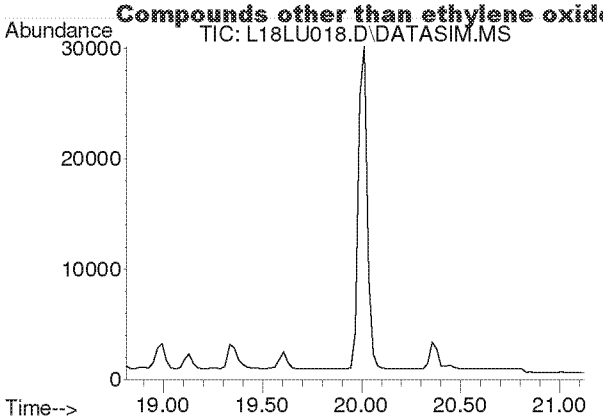
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 88 | 51.8 |
| 90 | 16.8 |



**Compounds other than ethylene oxide were not quantitated.**

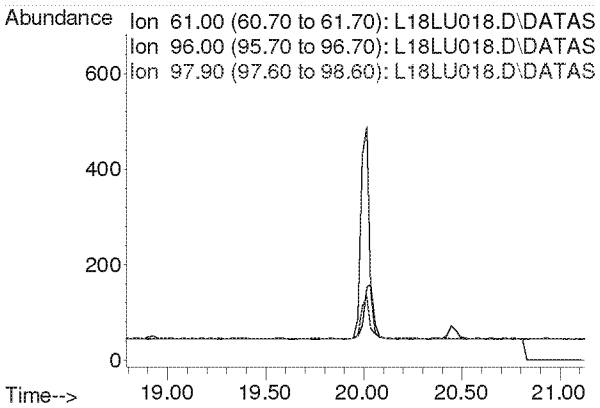


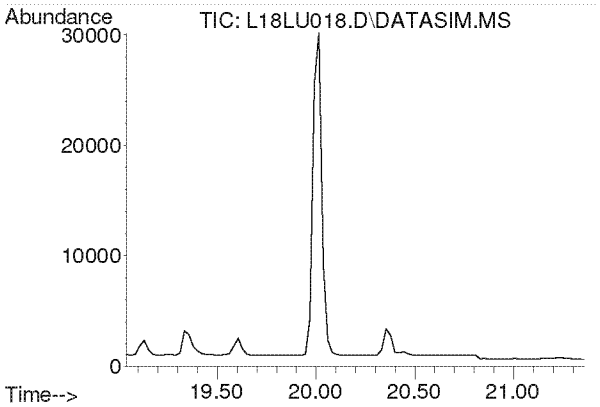

#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 73.7 |
| 98 | 45.2 |



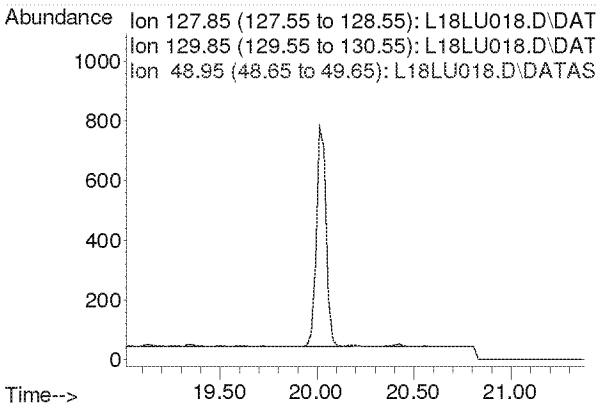




#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

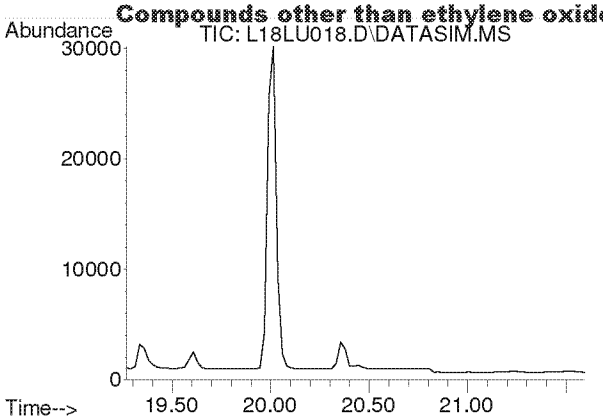
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 128

| Sig | Exp Ratio |
|---|---|
| 128 | 100 |
| 130 | 129.1 |
| 49 | 171.2 |



**Compounds other than ethylene oxide were not quantitated.**

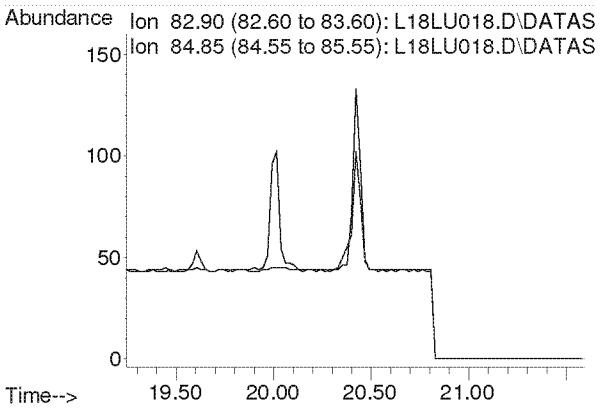


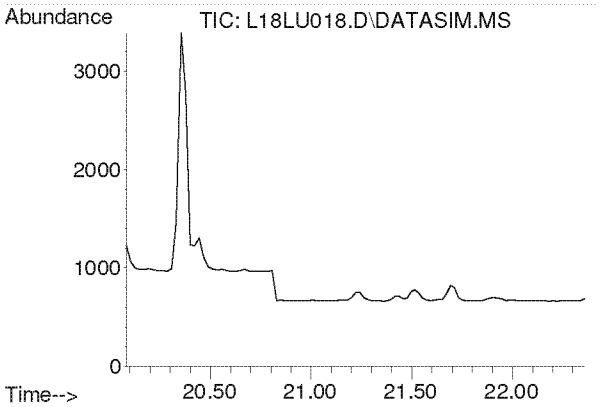

#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.4 |



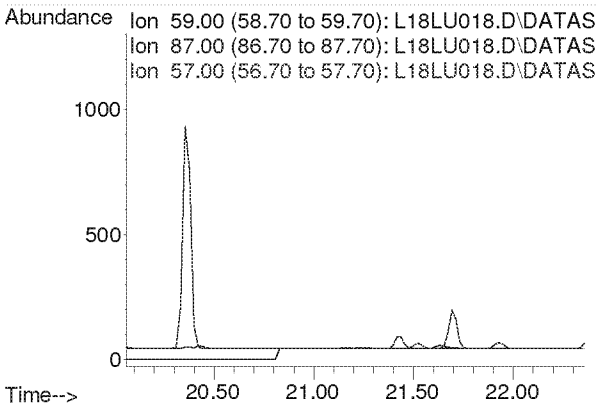




#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

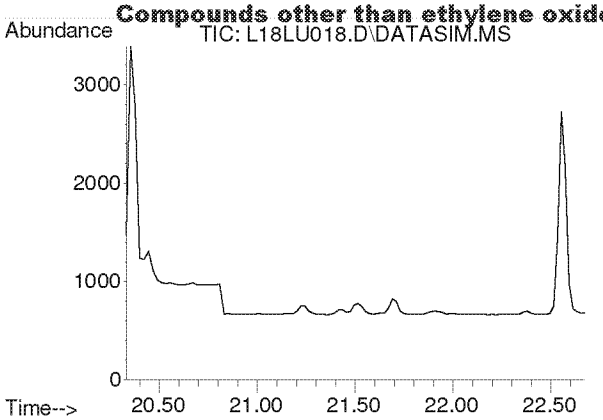
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 59

| Sig | Exp Ratio |
|---|---|
| 59 | 100 |
| 87 | 37.5 |
| 57 | 33.8 |



**Compounds other than ethylene oxide were not quantitated.**

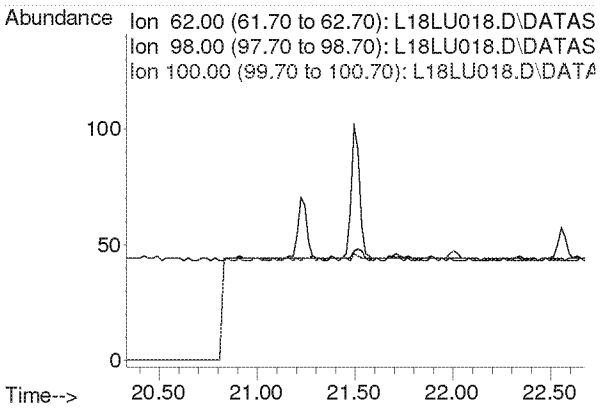


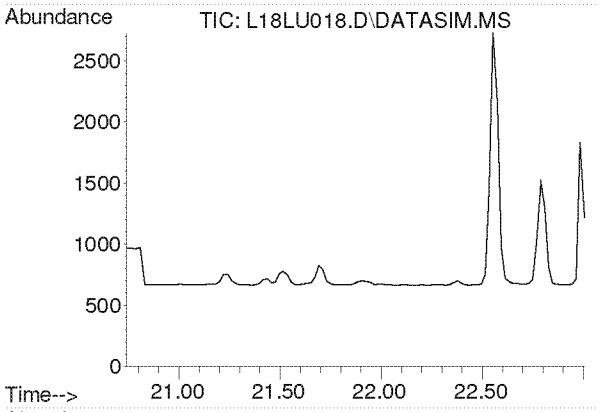

#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 98 | 6.4 |
| 100 | 4.0 |



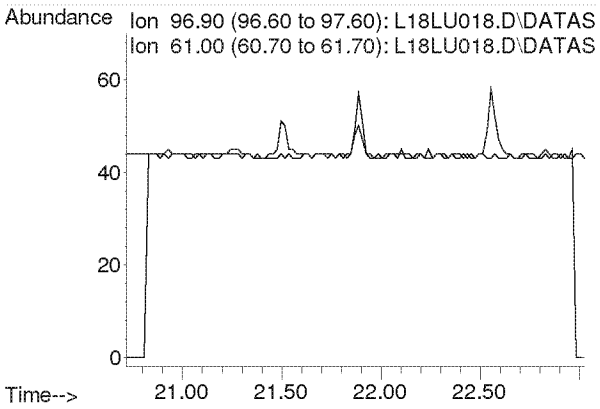




#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

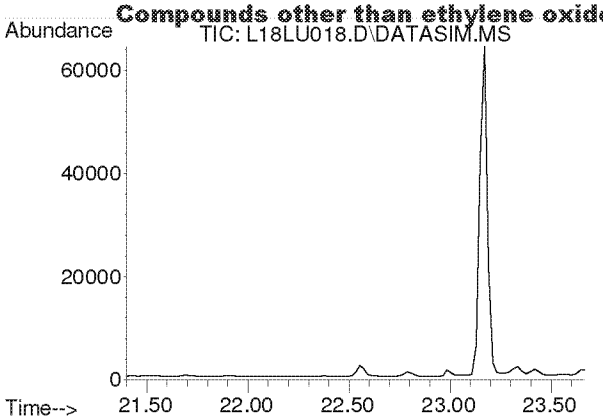
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 61 | 60.5 |



**Compounds other than ethylene oxide were not quantitated.**

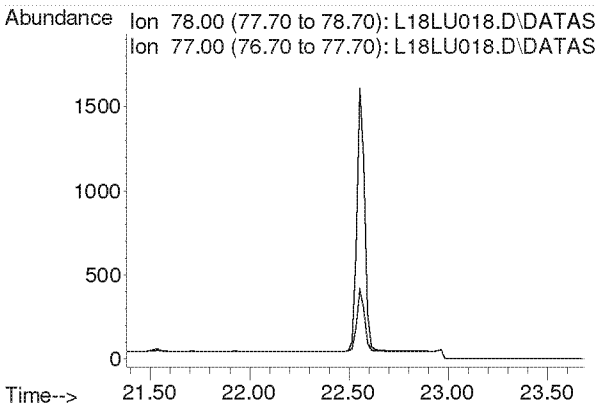


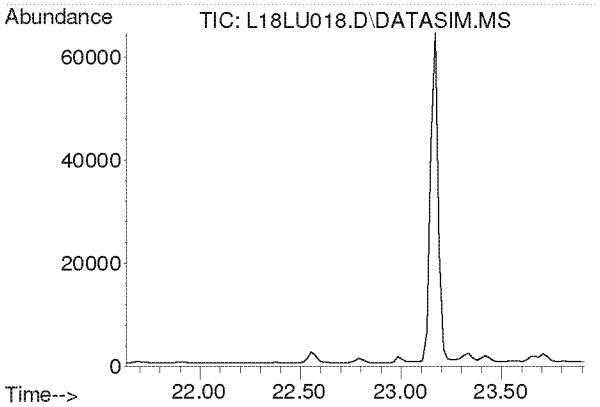

#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 78

| Sig | Exp Ratio |
|---|---|
| 78 | 100 |
| 77 | 22.7 |



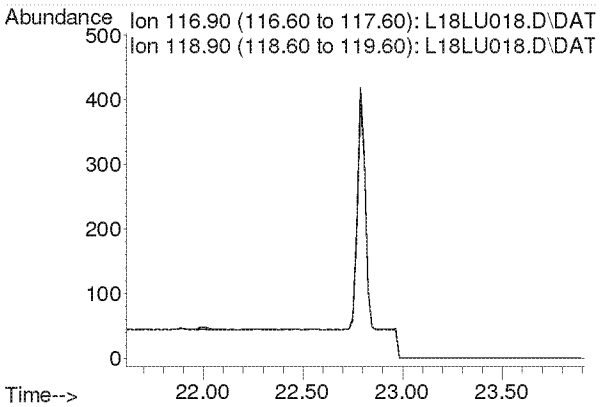




#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

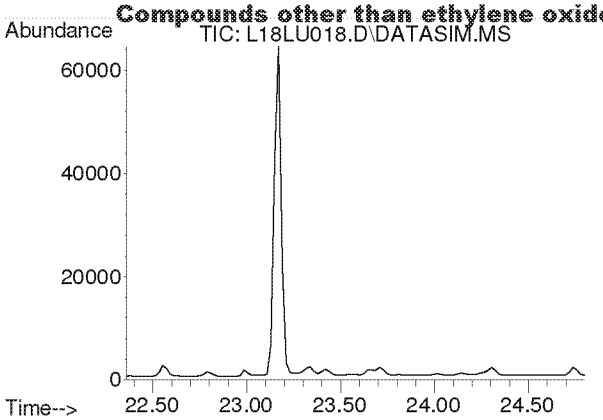
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 117

| Sig | Exp Ratio |
|---|---|
| 117 | 100 |
| 119 | 96.5 |



**Compounds other than ethylene oxide were not quantitated.**

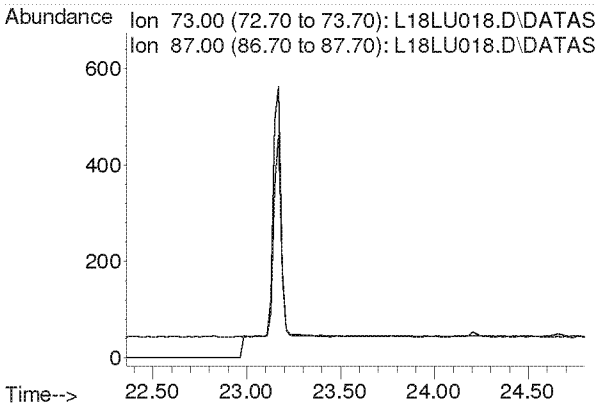


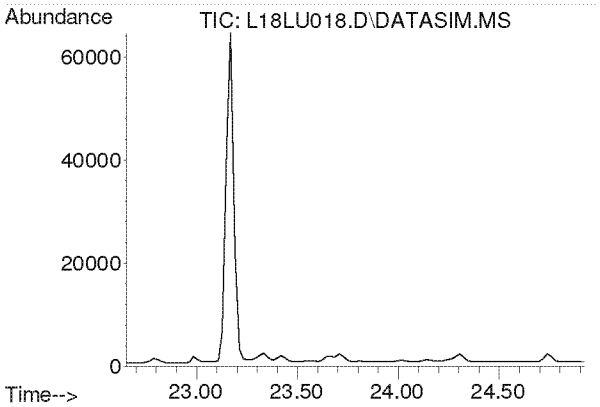

#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 87 | 24.9 |



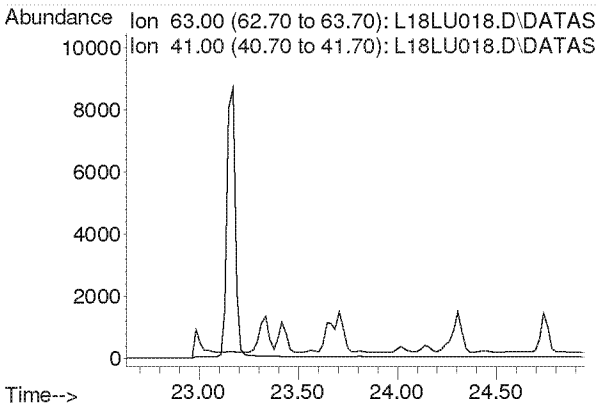




#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

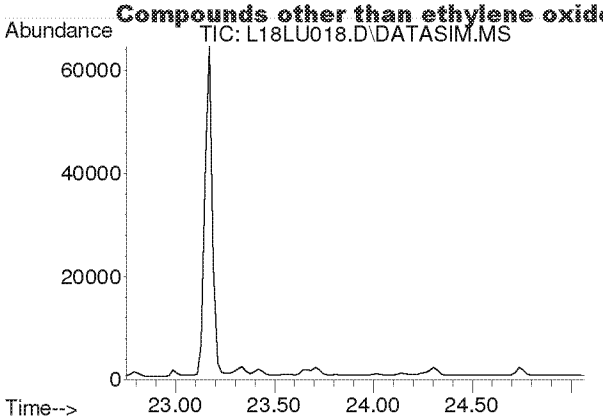
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 41 | 212.8 |



**Compounds other than ethylene oxide were not quantitated.**

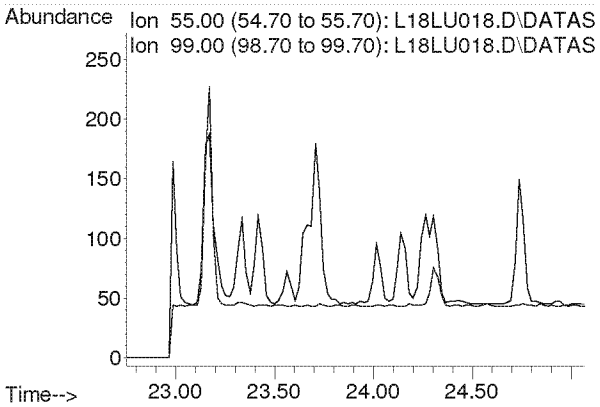


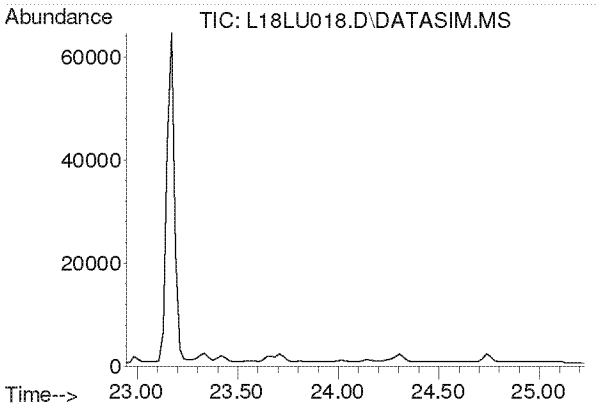

#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 55

| Sig | Exp Ratio |
|---|---|
| 55 | 100 |
| 99 | 6.1 |



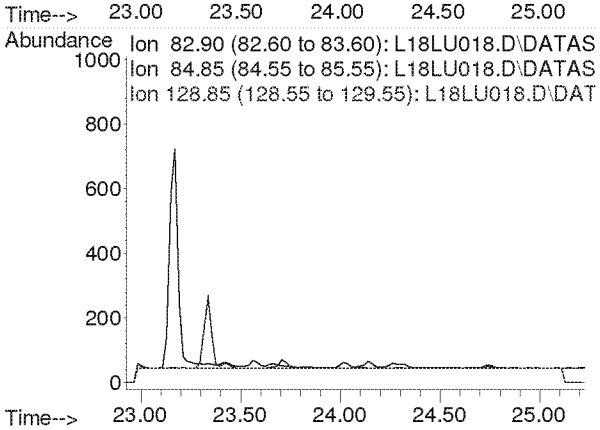




#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

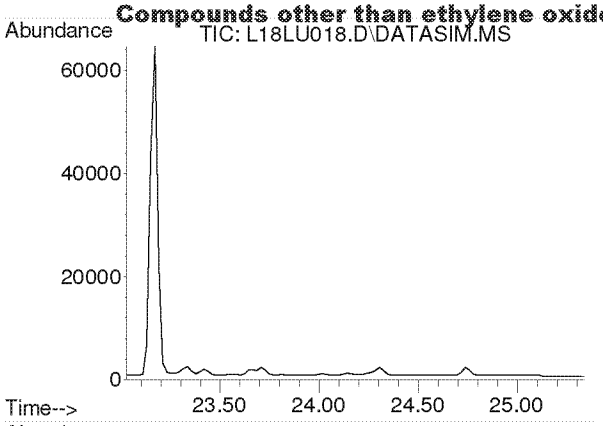
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.0 |
| 129 | 12.4 |



**Compounds other than ethylene oxide were not quantitated.**

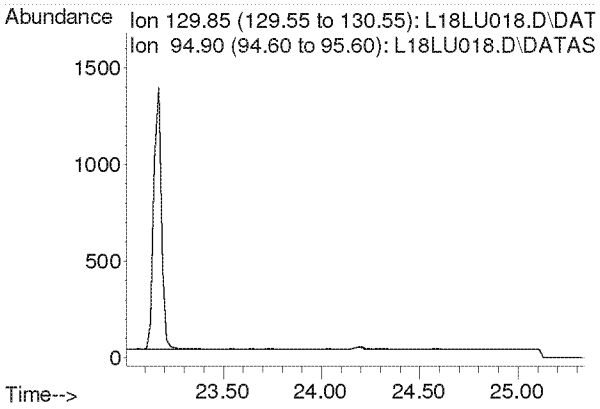


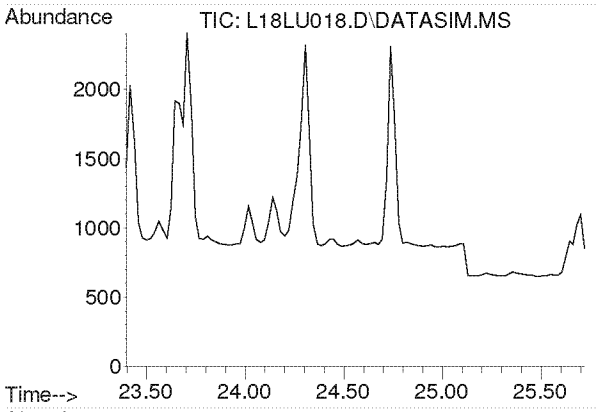

#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 130

| Sig | Exp Ratio |
|---|---|
| 130 | 100 |
| 95 | 110.3 |



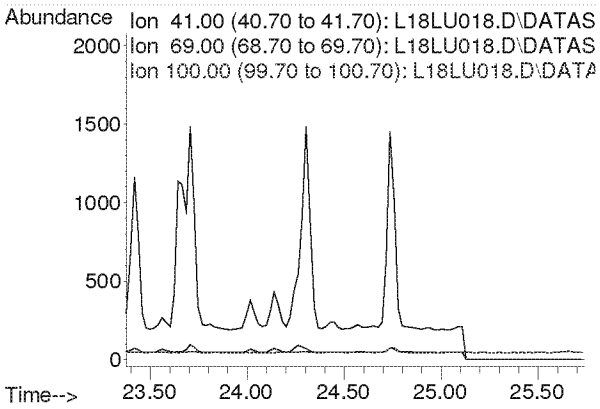




#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

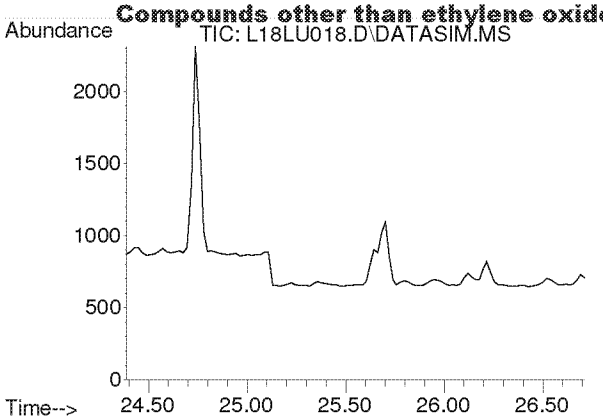
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 69 | 19.9 |
| 100 | 5.2 |



**Compounds other than ethylene oxide were not quantitated.**

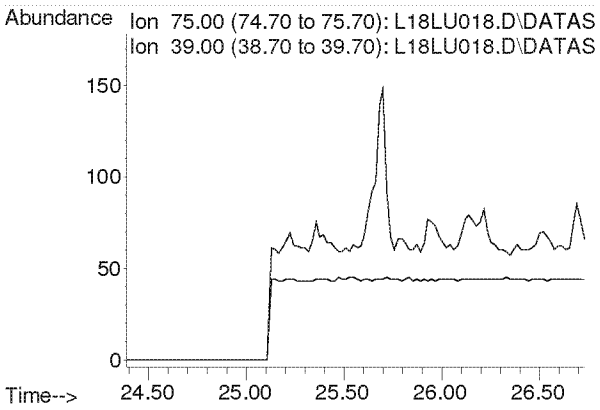


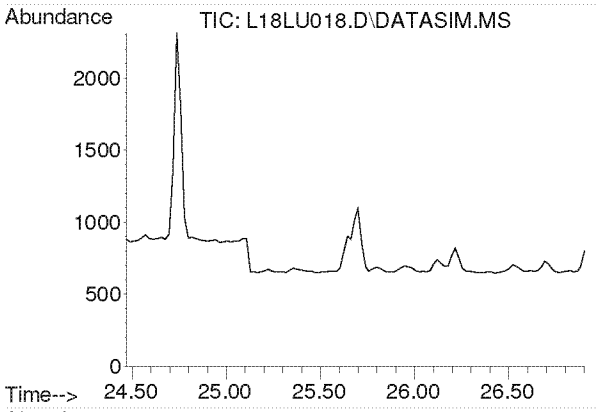

#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 54.4 |



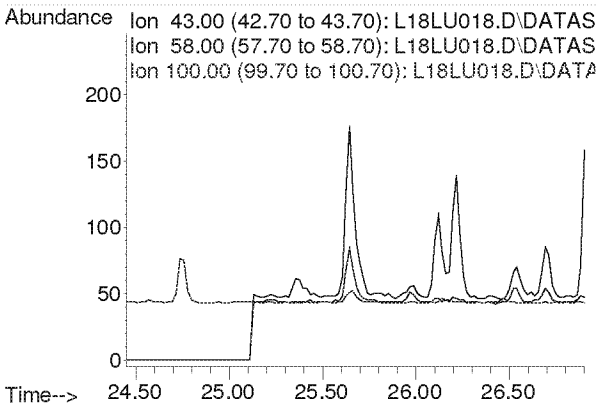




#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

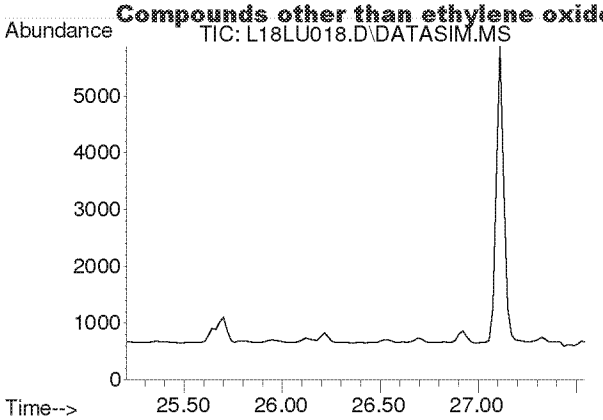
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 58 | 34.2 |
| 100 | 7.9 |



**Compounds other than ethylene oxide were not quantitated.**

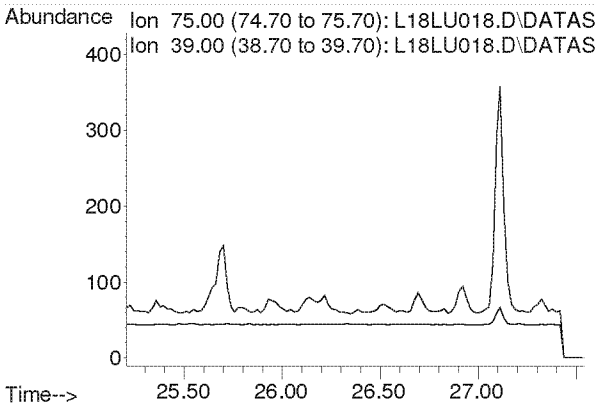


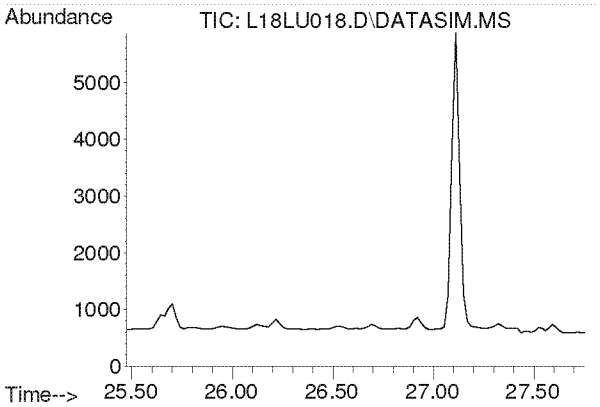

#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 50.9 |



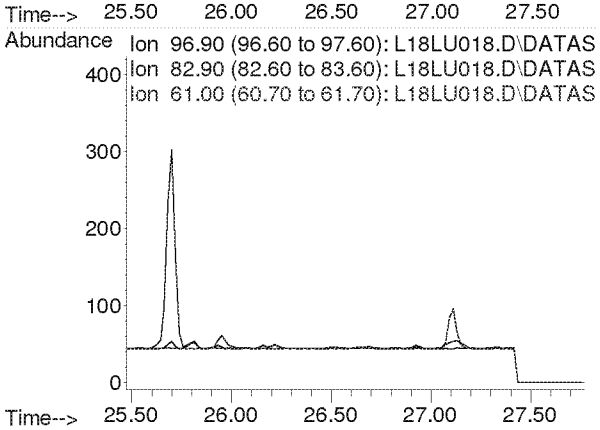




#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

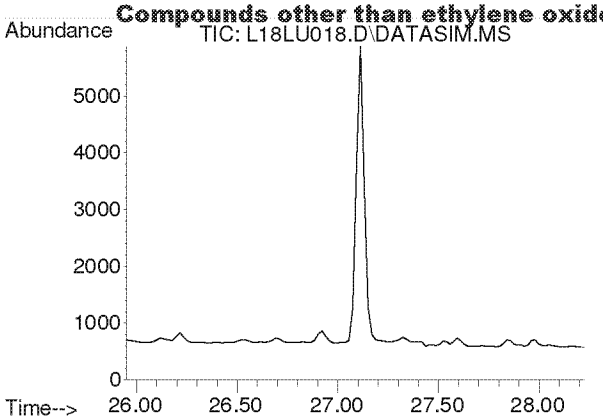
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 83 | 96.1 |
| 61 | 63.5 |



**Compounds other than ethylene oxide were not quantitated.**

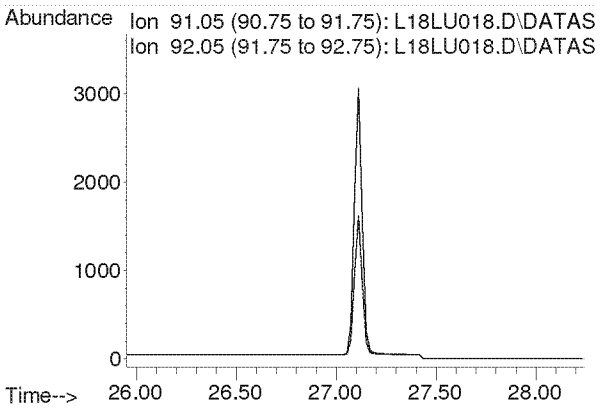


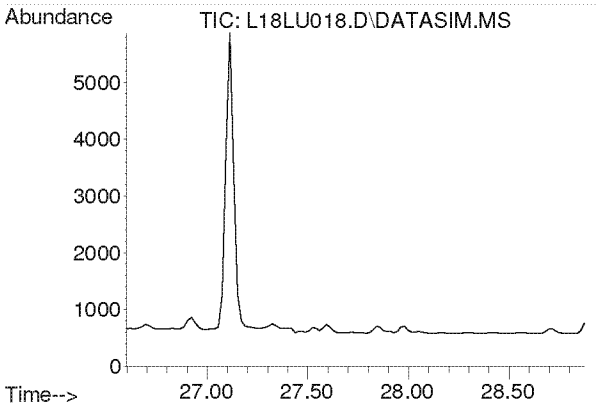

#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 92 | 52.6 |



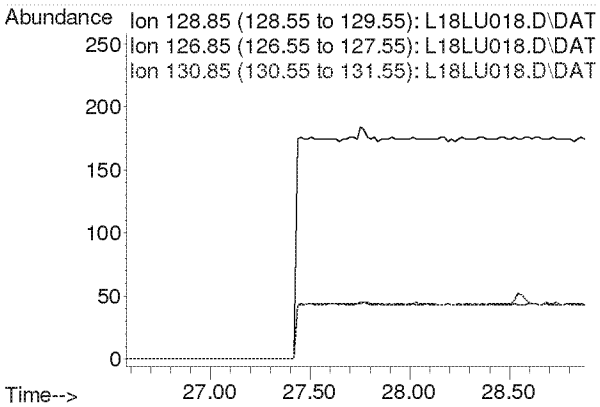




#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

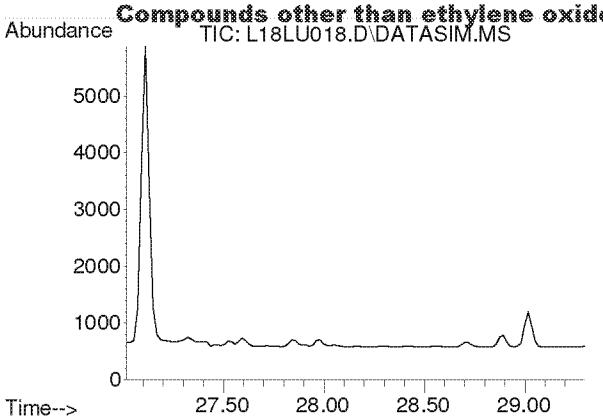
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 129

| Sig | Exp Ratio |
|---|---|
| 129 | 100 |
| 127 | 19.2 |
| 131 | 6.0 |



**Compounds other than ethylene oxide were not quantitated.**

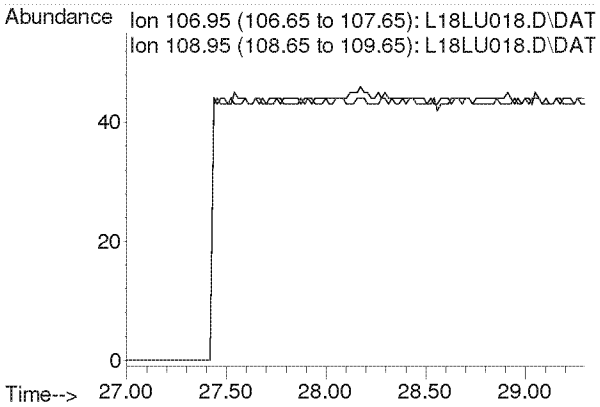


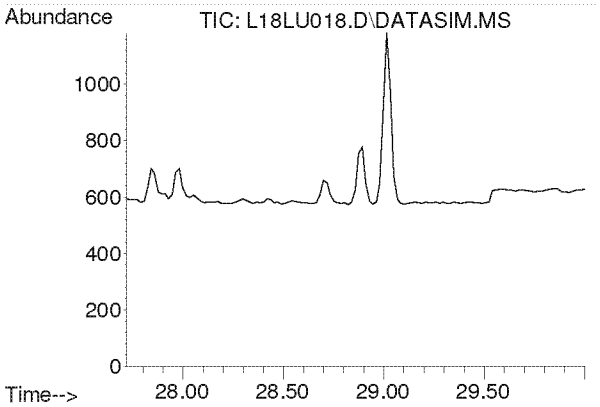

#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 107

| Sig | Exp Ratio |
|---|---|
| 107 | 100 |
| 109 | 94.5 |



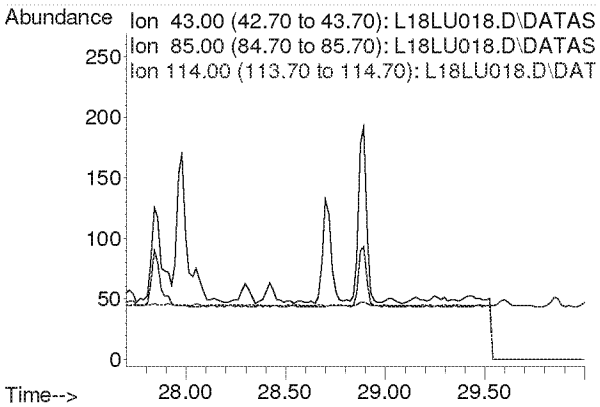




#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

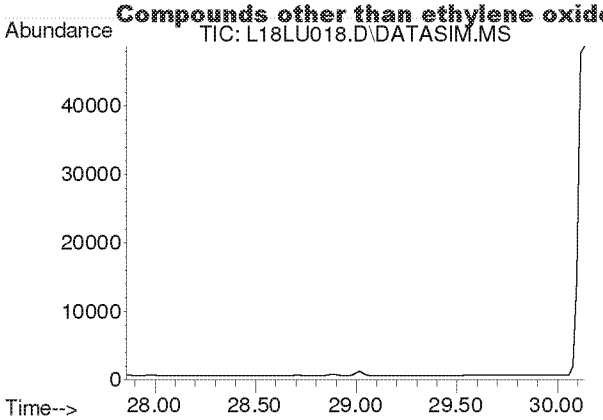
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 85 | 36.0 |
| 114 | 2.2 |



**Compounds other than ethylene oxide were not quantitated.**

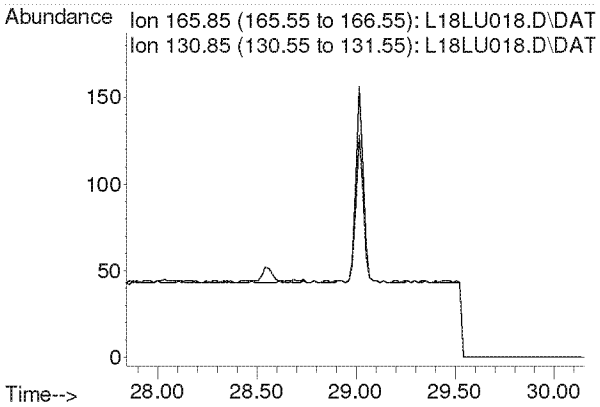


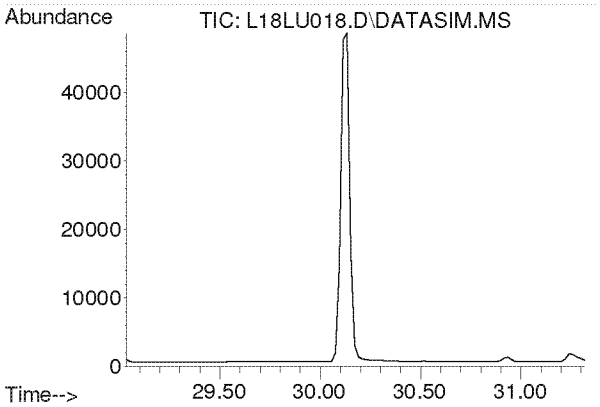

#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 166

| Sig | Exp Ratio |
|---|---|
| 166 | 100 |
| 131 | 78.2 |



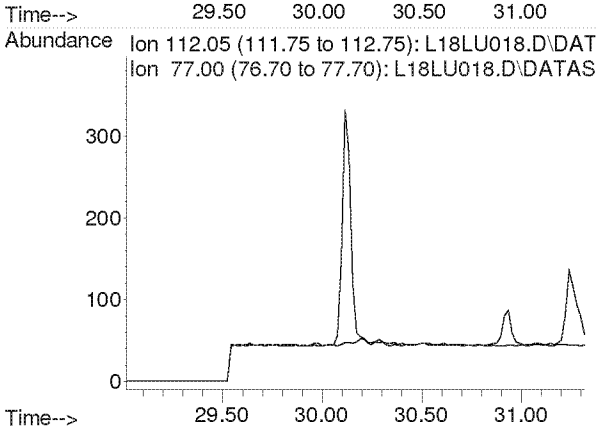




#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

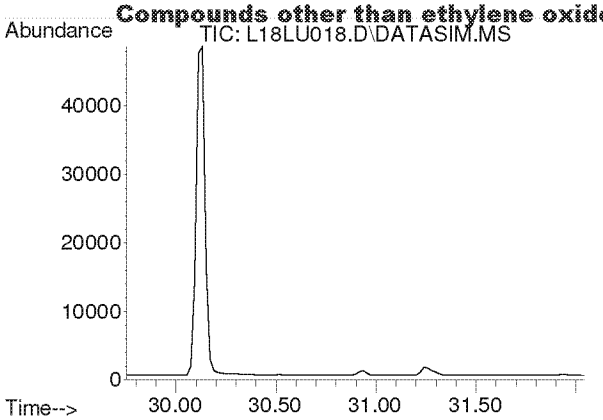
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 112

| Sig | Exp Ratio |
|---|---|
| 112 | 100 |
| 77 | 63.0 |



**Compounds other than ethylene oxide were not quantitated.**

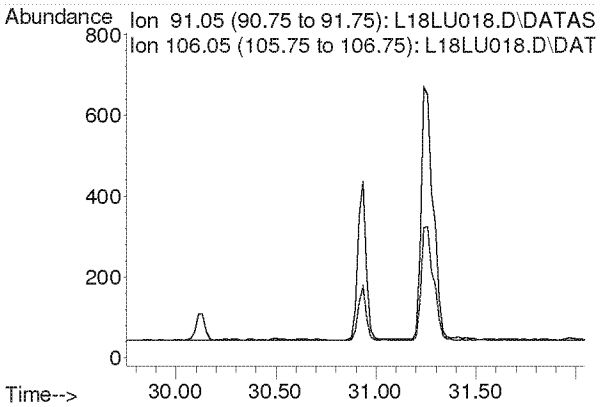


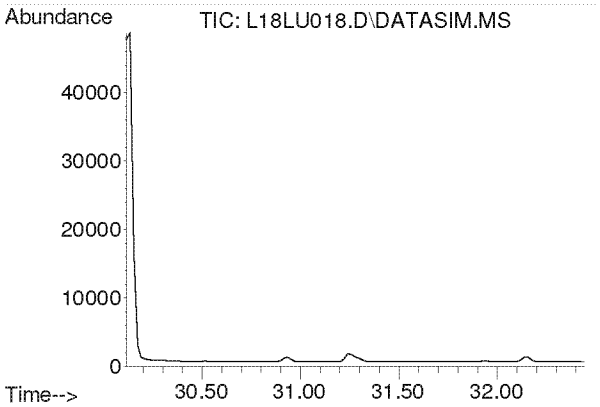

#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 31.8 |



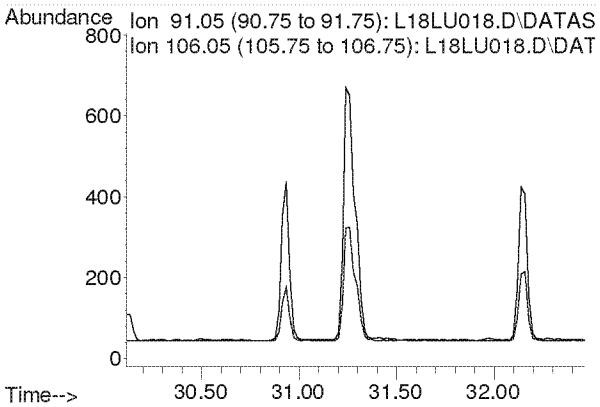




#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

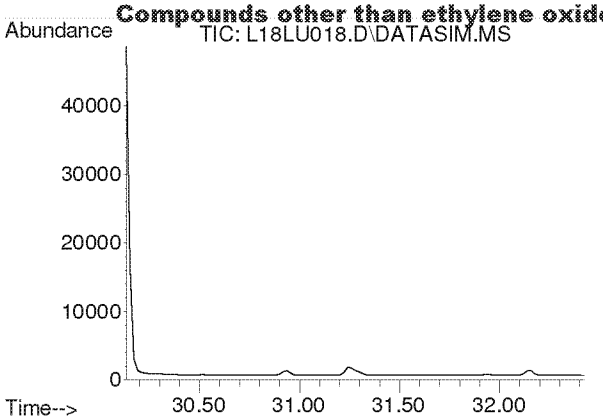
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.4 |



**Compounds other than ethylene oxide were not quantitated.**

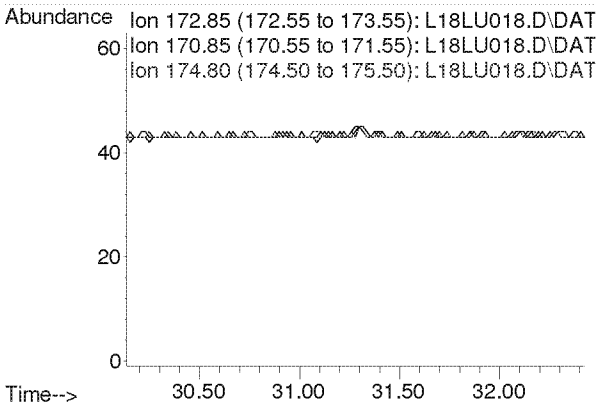


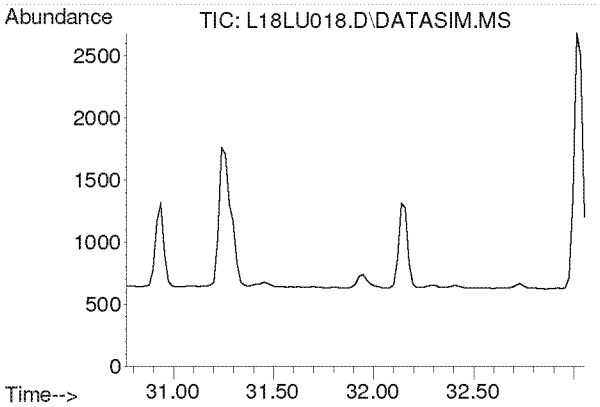

#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 173

| Sig | Exp Ratio |
|---|---|
| 173 | 100 |
| 171 | 51.3 |
| 175 | 49.0 |



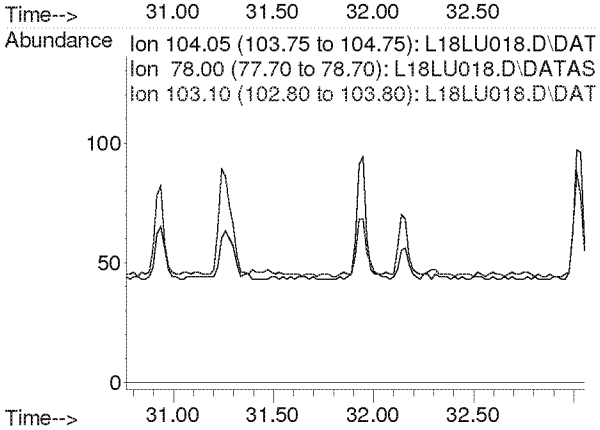




#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

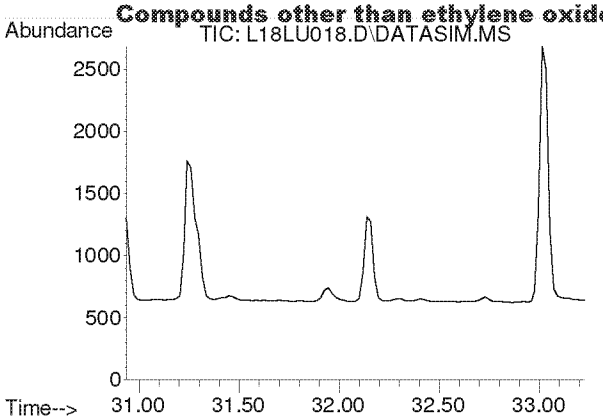
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 104

| Sig | Exp Ratio |
|---|---|
| 104 | 100 |
| 78 | 45.6 |
| 103 | 0.0 |



**Compounds other than ethylene oxide were not quantitated.**

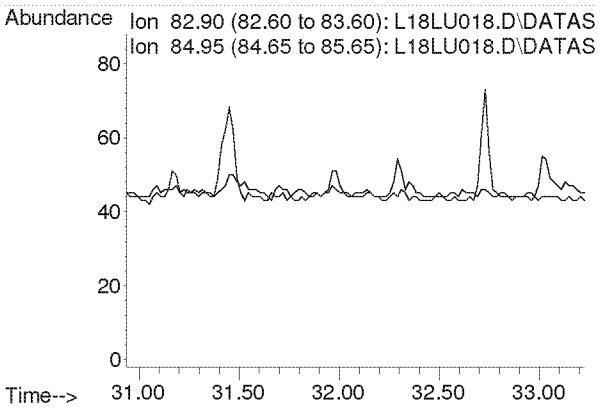


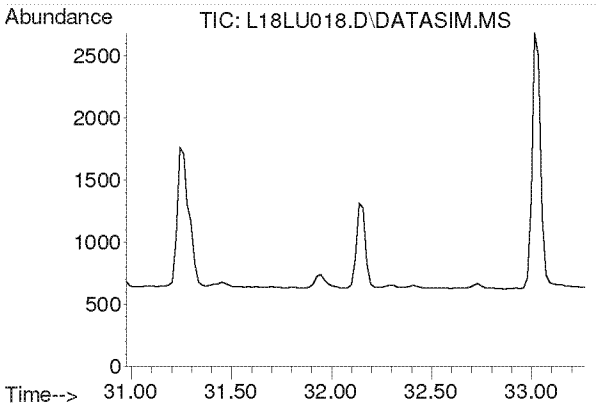

#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 63.9 |



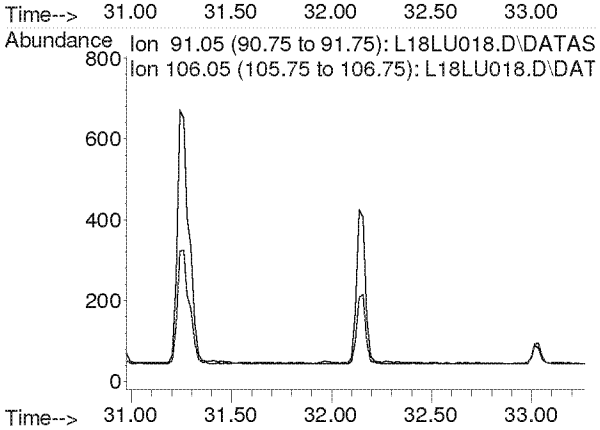




#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

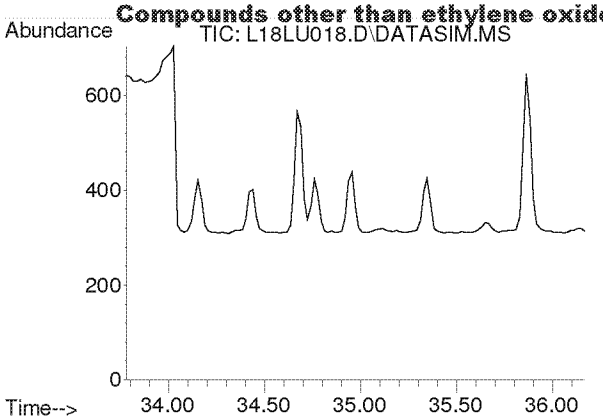
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.2 |



**Compounds other than ethylene oxide were not quantitated.**

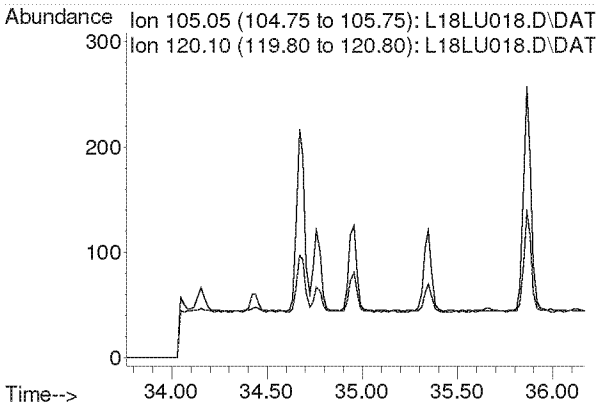


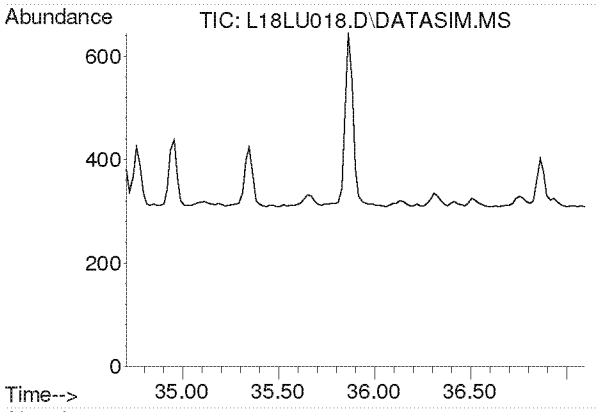

#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 45.0 |



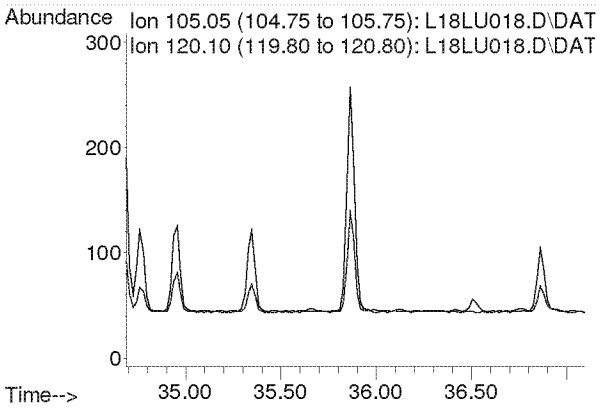




#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

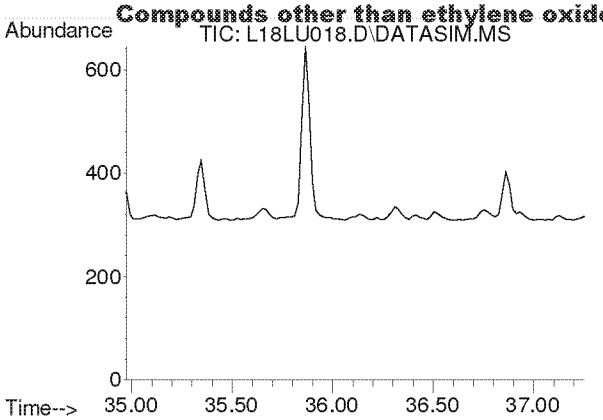
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 42.8 |



**Compounds other than ethylene oxide were not quantitated.**

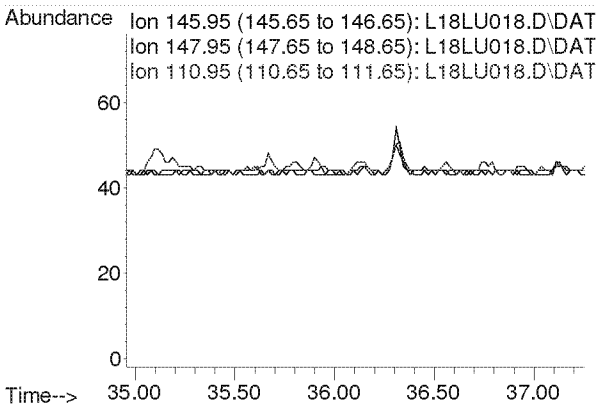


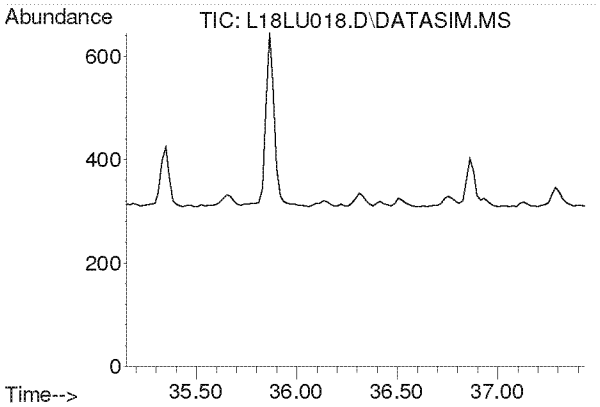

#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 40.5 |



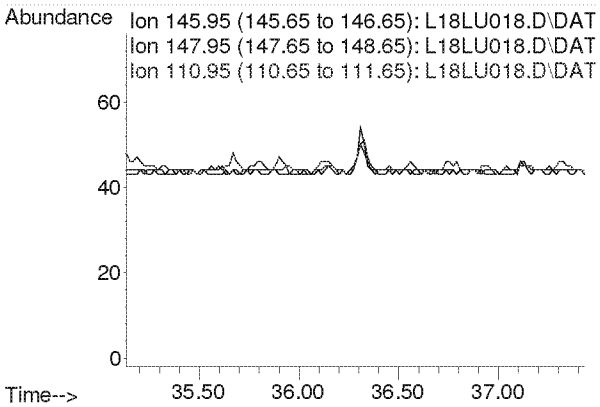




#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

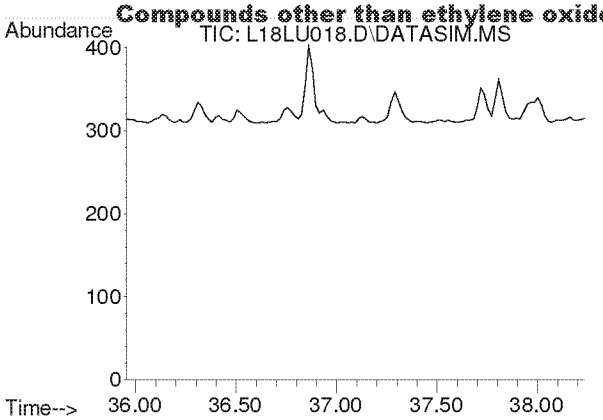
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 39.5 |



**Compounds other than ethylene oxide were not quantitated.**

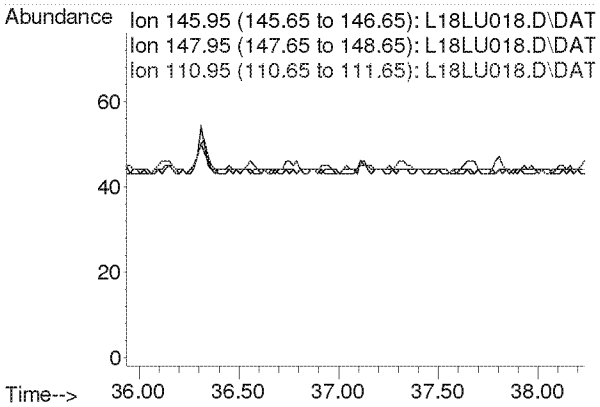


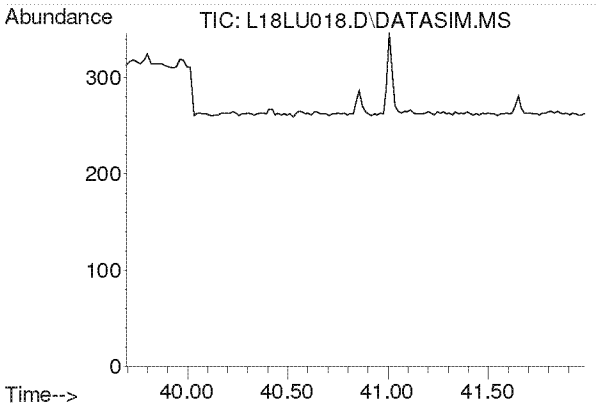

#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.1 |
| 111 | 41.4 |



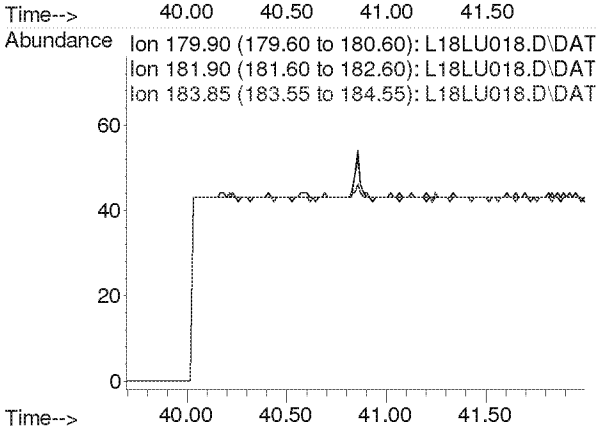




#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

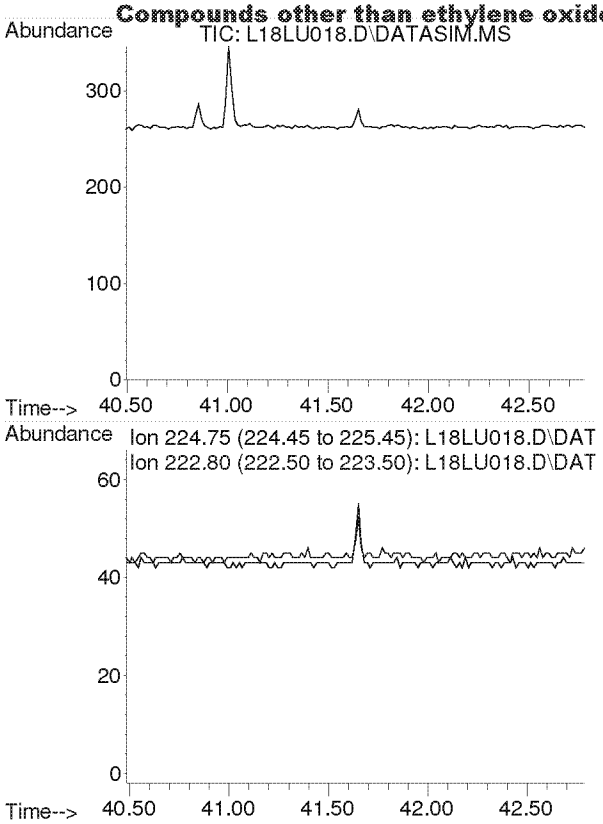
Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 180

| Sig | Exp Ratio |
|---|---|
| 180 | 100 |
| 182 | 95.1 |
| 184 | 30.7 |



**Compounds other than ethylene oxide were not quantitated.**




#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18LU018.D
Acq: 22 Dec 2018 12:45 am

Tgt Ion: 225

| Sig | Exp Ratio |
|---|---|
| 225 | 100 |
| 223 | 62.4 |

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU019.D
Acq On : 22 Dec 2018 1:47 am (#1); 22-Dec-18, 01:42:01 (#2)
Operator : MAH
Sample : B8L2103-DUP4
Misc : WB VILLAGE HALL R2 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 26 10:07:15 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) IS-Hexane-d14 | 20.013 | 66 | 52565 | 4.7700 ppbv | 0.02 |
| 29) IS-1,4-Difluorobenzene | 23.169 | 114 | 127745 | 4.9900 ppbv | 0.02 |
| 43) IS-Chlorobenzene-d5 | 30.133 | 117 | 88109 | 4.7400 ppbv | 0.04 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) Acetylene | 0.000 | 26 | 0 | N.D. d | |
| 3) Propylene | 0.000 | 41 | 0 | N.D. d | |
| 4) Dichlorodifluoromethane | 0.000 | 85 | 0 | N.D. d | |
| 5) Chloromethane | 0.000 | 50 | 0 | N.D. d | |
| 6) Dichlorotetrafluoroethane | 0.000 | 85 | 0 | N.D. d | |
| 7) Vinyl Chloride | 0.000 | 62 | 0 | N.D. | |
| 8) 1,3-Butadiene | 0.000 | 54 | 0 | N.D. d | |
| 9) Ethylene oxide | 12.423 | 29 | 3199 | 1.0182 ppbv # | 1 |
| 10) Bromomethane | 0.000 | 94 | 0 | N.D. d | |
| 11) Chloroethane | 0.000 | 64 | 0 | N.D. | |
| 12) Acetonitrile | 0.000 | 41 | 0 | N.D. d | |
| 13) Acrolein | 0.000 | 56 | 0 | N.D. d | |
| 14) Trichlorofluoromethane | 0.000 | 101 | 0 | N.D. d | |
| 15) Acrylonitrile | 0.000 | 53 | 0 | N.D. d | |
| 16) 1,1-Dichloroethene | 0.000 | 61 | 0 | N.D. | |
| 17) Methylene Chloride | 0.000 | 49 | 0 | N.D. d | |
| 18) Carbon Disulfide | 0.000 | 76 | 0 | N.D. d | |
| 19) Trichlorotrifluoroethane | 0.000 | 101 | 0 | N.D. d | |
| 20) trans-1,2-Dichloroethy... | 0.000 | 96 | 0 | N.D. | |
| 21) 1,1-Dichloroethane | 0.000 | 63 | 0 | N.D. d | |
| 22) Methyl tert-Butyl Ether | 0.000 | 73 | 0 | N.D. d | |
| 23) Chloroprene | 0.000 | 53 | 0 | N.D. d | |
| 24) cis-1,2-Dichloroethylene | 0.000 | 61 | 0 | N.D. d | |
| 25) Bromochloromethane | 0.000 | 128 | 0 | N.D. | |
| 26) Chloroform | 0.000 | 83 | 0 | N.D. d | |
| 27) Ethyl tert-Butyl Ether | 0.000 | 59 | 0 | N.D. | |
| 28) 1,2-Dichloroethane | 0.000 | 62 | 0 | N.D. d | |
| 30) 1,1,1-Trichloroethane | 0.000 | 97 | 0 | N.D. d | |
| 31) Benzene | 0.000 | 78 | 0 | N.D. d | |
| 32) Carbon Tetrachloride | 0.000 | 117 | 0 | N.D. d | |
| 33) tert-Amyl Methyl Ether | 0.000 | 73 | 0 | N.D. | |
| 34) 1,2-Dichloropropane | 0.000 | 63 | 0 | N.D. | |
| 35) Ethyl Acrylate | 0.000 | 55 | 0 | N.D. | |
| 36) Bromodichloromethane | 0.000 | 83 | 0 | N.D. d | |
| 37) Trichloroethylene | 0.000 | 130 | 0 | N.D. d | |
| 38) Methyl Methacrylate | 0.000 | 41 | 0 | N.D. d | |
| 39) cis-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 40) Methyl Isobutyl Ketone | 0.000 | 43 | 0 | N.D. d | |
| 41) trans-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 42) 1,1,2-Trichloroethane | 0.000 | 97 | 0 | N.D. | |
| 44) Toluene | 0.000 | 91 | 0 | N.D. d | |
| 45) Dibromochloromethane | 0.000 | 129 | 0 | N.D. | |
| 46) 1,2-Dibromoethane | 0.000 | 107 | 0 | N.D. | |
| 47) n-Octane | 0.000 | 43 | 0 | N.D. d | |
| 48) Tetrachloroethylene | 0.000 | 166 | 0 | N.D. d | |
| 49) Chlorobenzene | 0.000 | 112 | 0 | N.D. d | |
| 50) Ethylbenzene | 0.000 | 91 | 0 | N.D. d | |

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU019.D
Acq On : 22 Dec 2018 1:47 am (#1); 22-Dec-18, 01:42:01 (#2)
Operator : MAH
Sample : B8L2103-DUP4
Misc : WB VILLAGE HALL R2 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 26 10:07:15 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

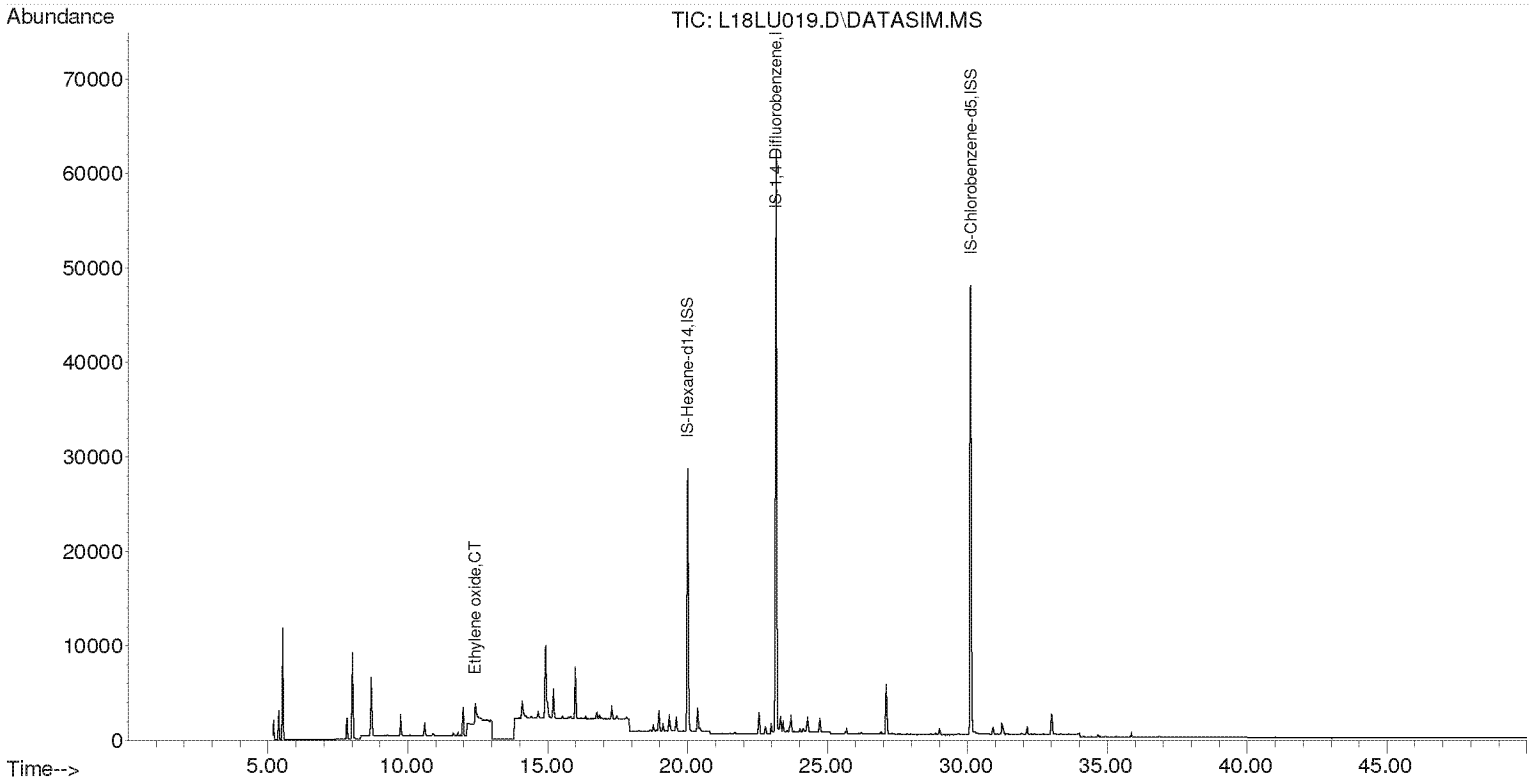
| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 51) m,p-Xylene | 0.000 | 91 | 0 | N.D. d | |
| 52) Bromoform | 0.000 | 173 | 0 | N.D. | |
| 53) Styrene | 0.000 | 104 | 0 | N.D. d | |
| 54) 1,1,2,2-Tetrachloroethane | 0.000 | 83 | 0 | N.D. | |
| 55) o-Xylene | 0.000 | 91 | 0 | N.D. d | |
| 56) 1,3,5-Trimethylbenzene | 0.000 | 105 | 0 | N.D. d | |
| 57) 1,2,4-Trimethylbenzene | 0.000 | 105 | 0 | N.D. d | |
| 58) m-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 59) p-Dichlorobenzene | 0.000 | 146 | 0 | N.D. d | |
| 60) o-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 61) 1,2,4-Trichlorobenzene | 0.000 | 180 | 0 | N.D. | |
| 62) Hexachloro-1,3-butadiene | 0.000 | 225 | 0 | N.D. | |

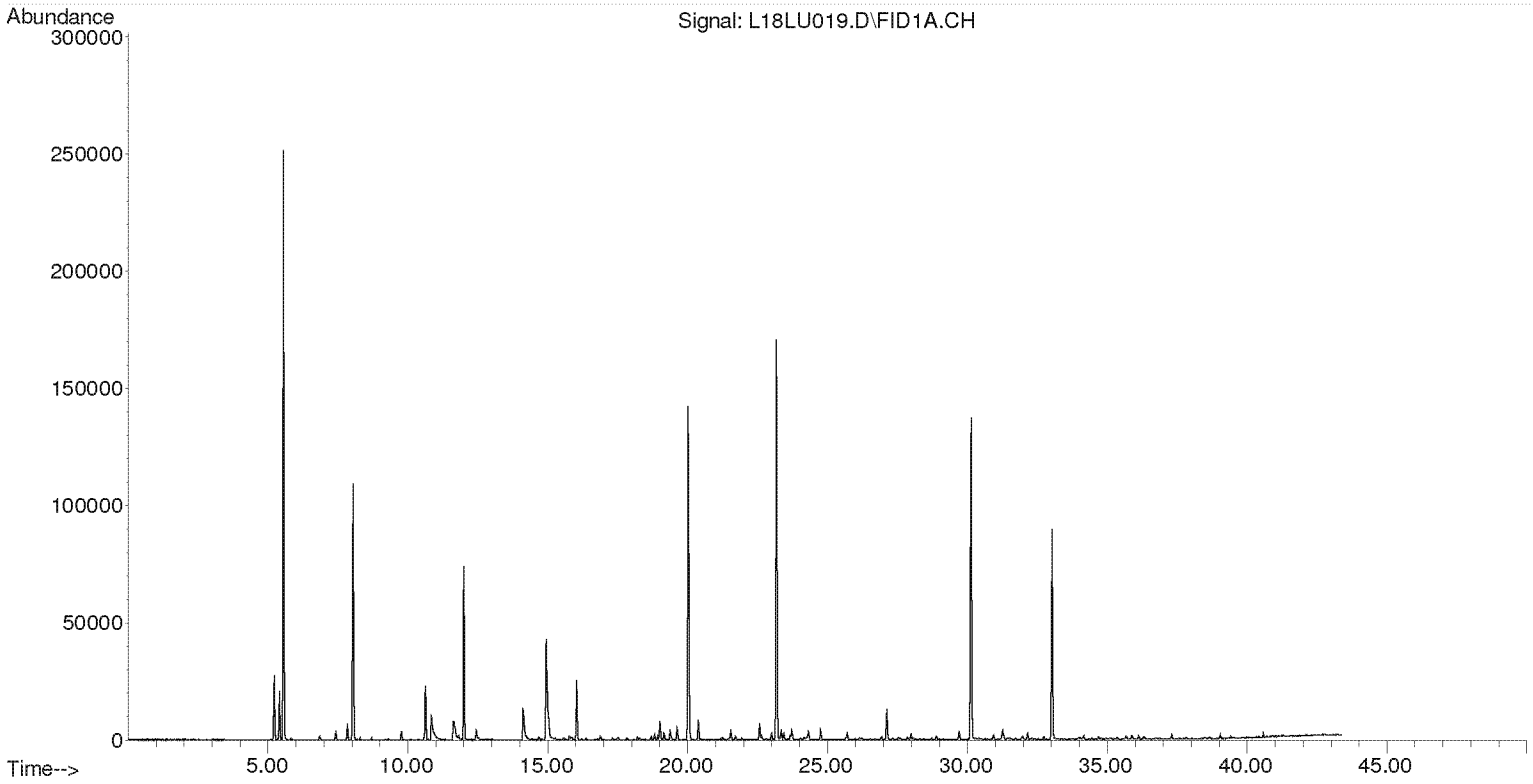
(#) = qualifier out of range (m) = manual integration (+) = signals summed

**Compounds other than ethylene oxide were not quantitated.**

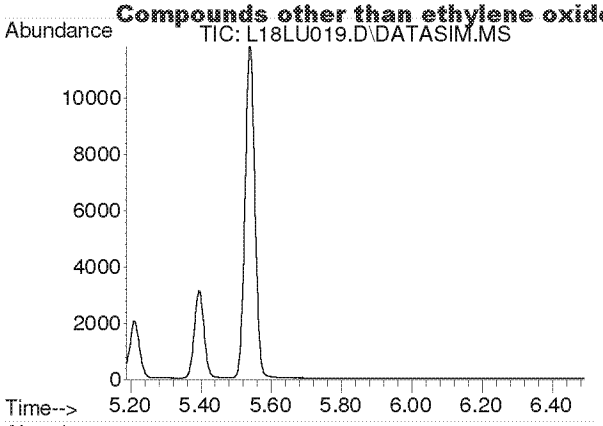
Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU019.D
Acq On : 22 Dec 2018 1:47 am (#1); 22 Dec 2018 1:42 am (#2)
Operator : MAH
Sample : B8L2103-DUP4
Misc : WB VILLAGE HALL R2 12/1/18 (Sig #1); (Sig #2)
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Dec 26 09:51:45 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



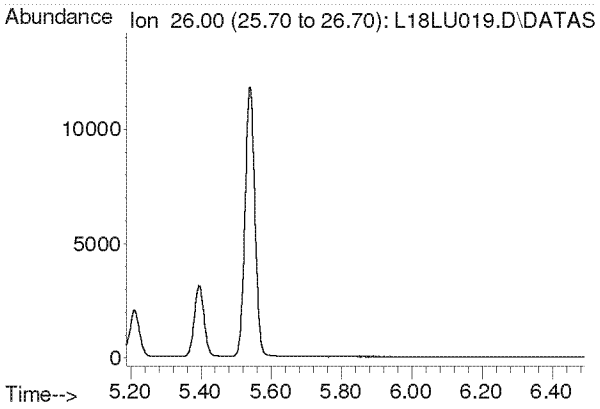
**Compounds other than ethylene oxide were not quantitated.**

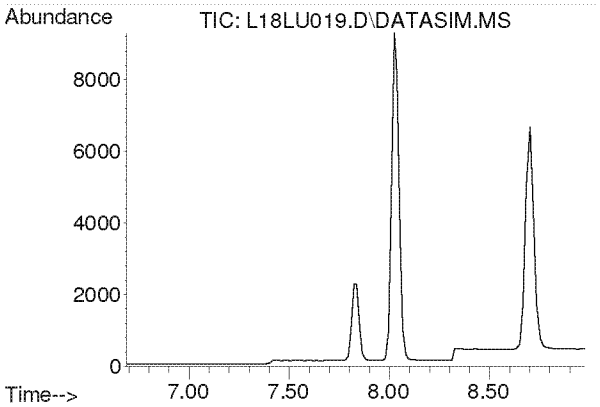



#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 26



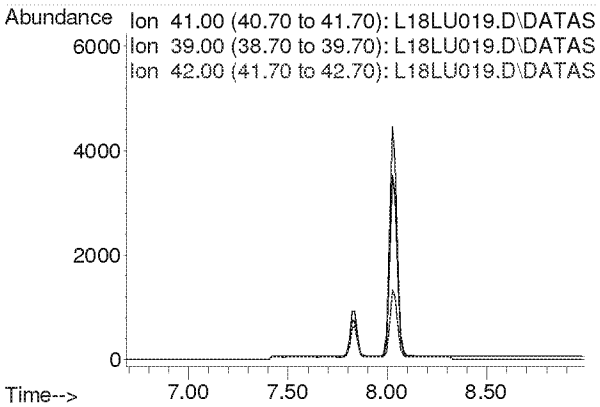




#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

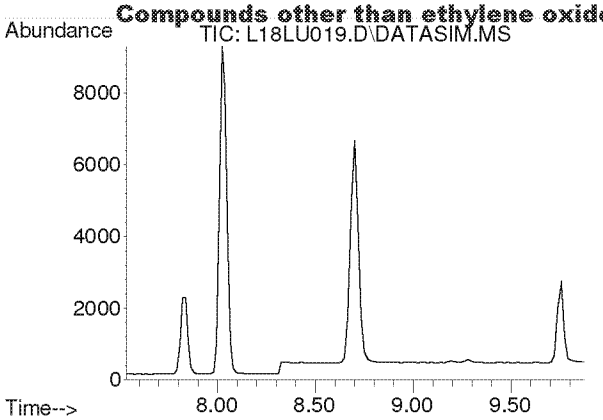
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 39 | 78.2 |
| 42 | 65.8 |



**Compounds other than ethylene oxide were not quantitated.**

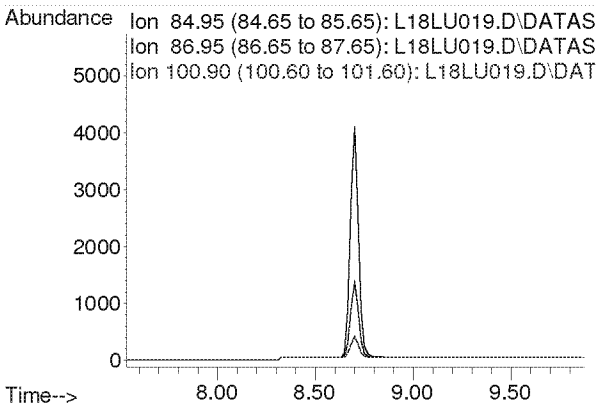


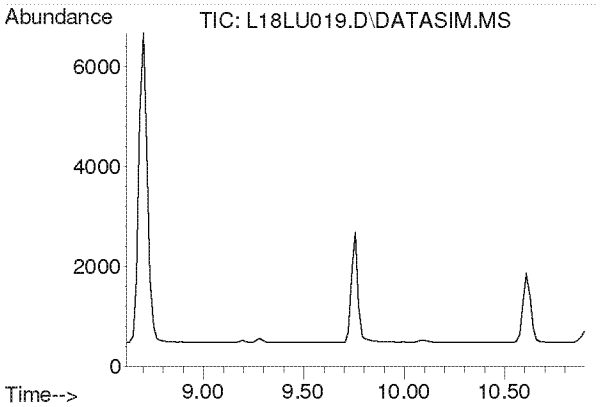

#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 87 | 32.5 |
| 101 | 8.9 |



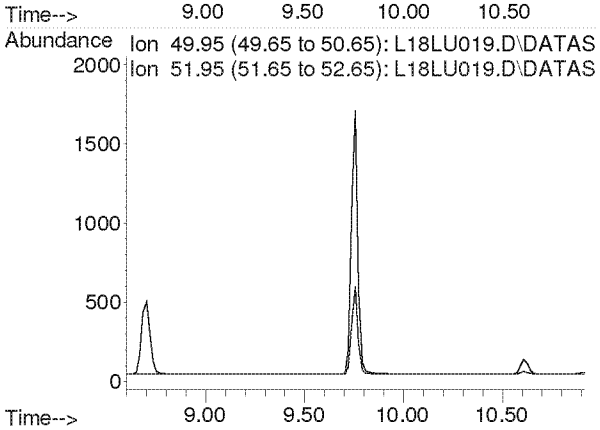




#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

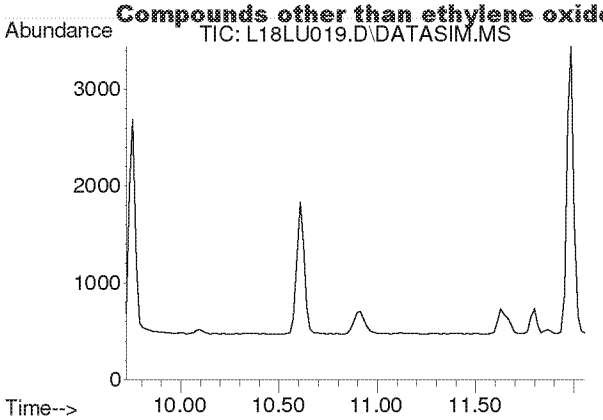
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 50

| Sig | Exp Ratio |
|---|---|
| 50 | 100 |
| 52 | 32.6 |



**Compounds other than ethylene oxide were not quantitated.**

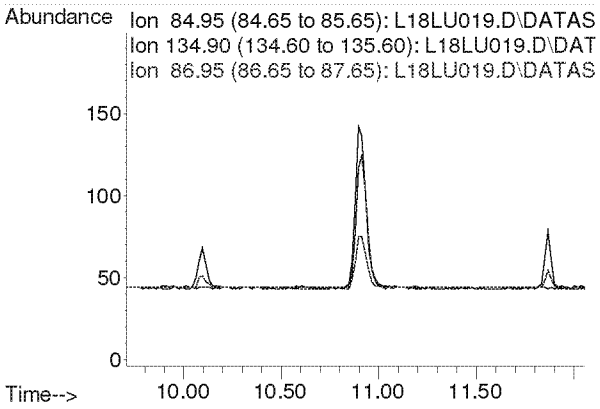


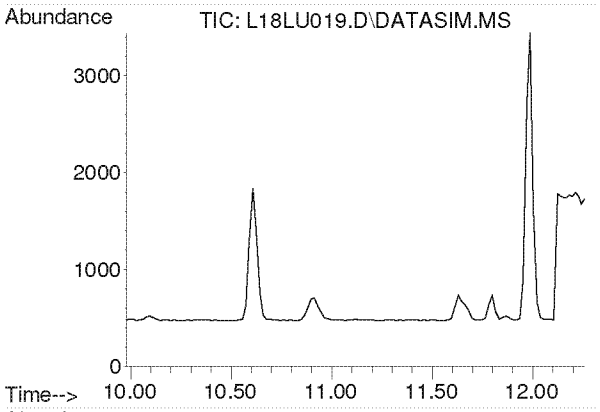

#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 135 | 79.1 |
| 87 | 32.1 |



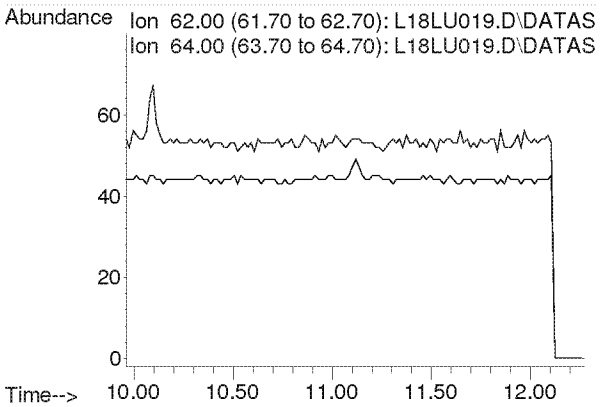




#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

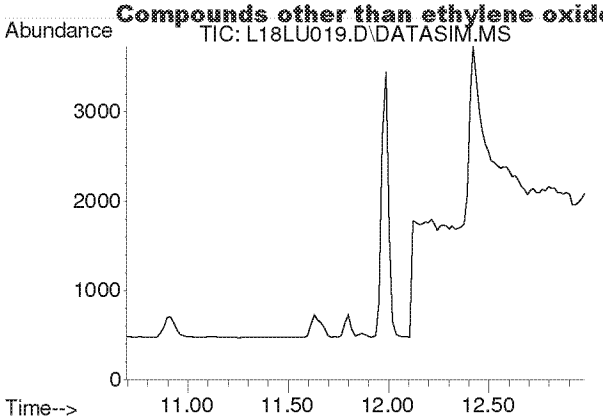
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 64 | 31.8 |



**Compounds other than ethylene oxide were not quantitated.**

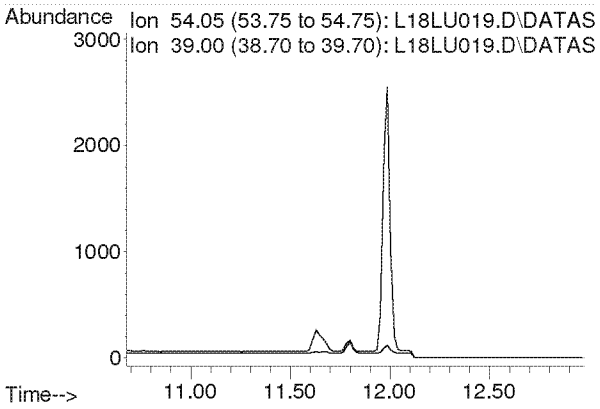


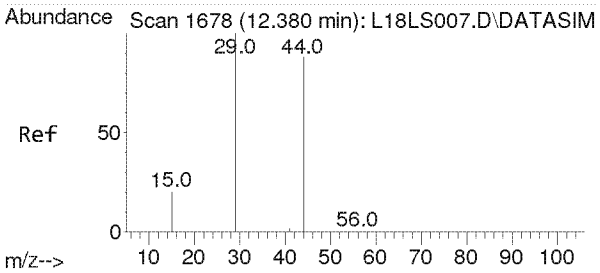

#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 54

| Sig | Exp Ratio |
|---|---|
| 54 | 100 |
| 39 | 105.4 |

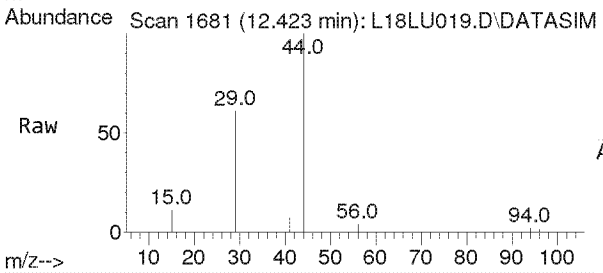


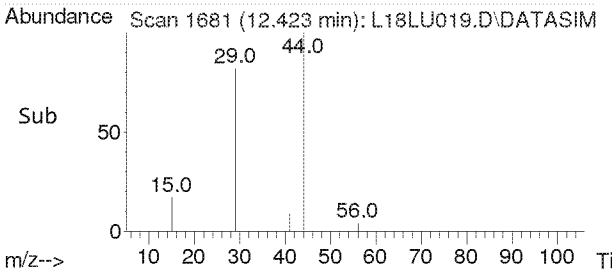



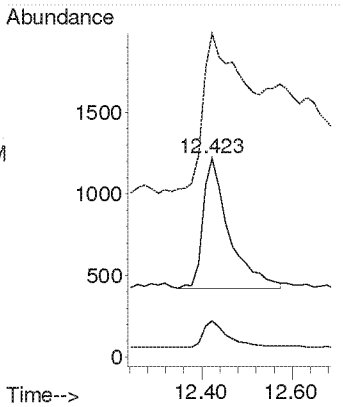

#9
Ethylene oxide
Concen: 1.018 ppbv
RT: 12.423 min Scan# 1681
Delta R.T. 0.043 min
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 29 Resp: 3199

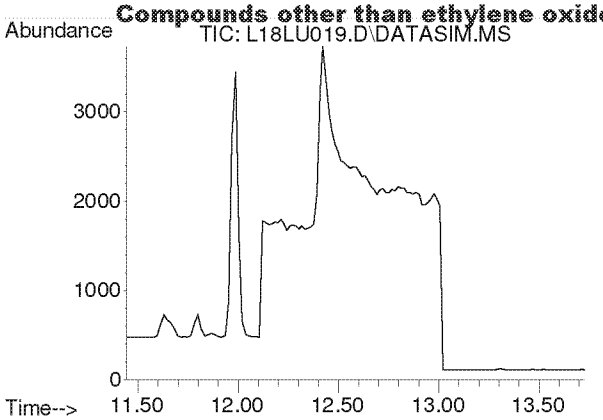
| Ion | Ratio | Lower | Upper |
|---|---|---|---|
| 29 | 100 | | |
| 15 | 19.5 | 16.2 | 24.4 |
| 44 | 274.6 | 72.0 | 108.0# |



**Compounds other than ethylene oxide were not quantitated.**

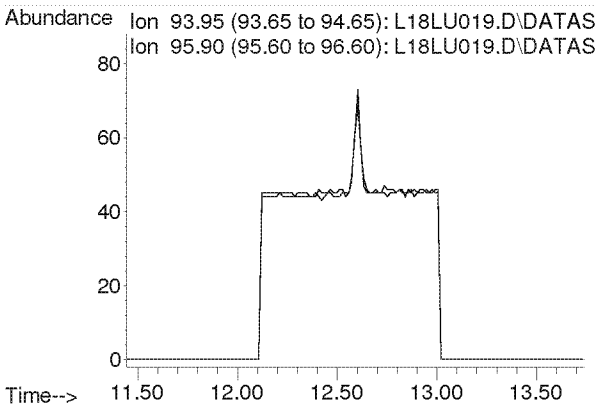


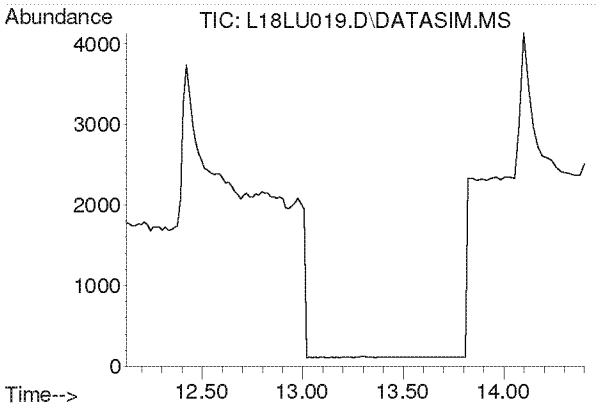

#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 94

| Sig | Exp Ratio |
|---|---|
| 94 | 100 |
| 96 | 93.9 |



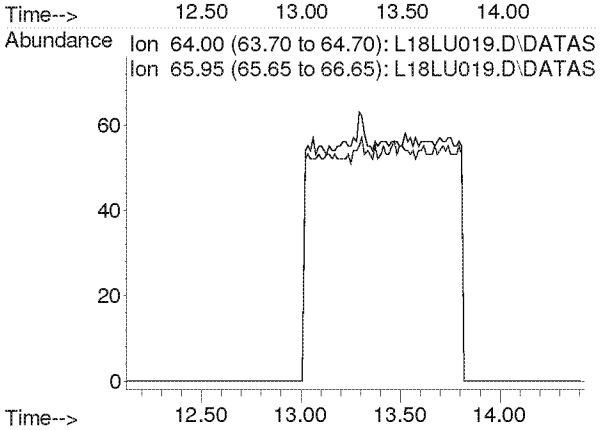




#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

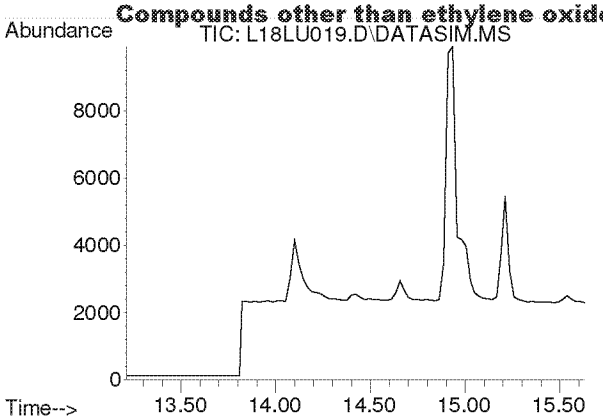
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 64

| Sig | Exp Ratio |
|---|---|
| 64 | 100 |
| 66 | 32.0 |



**Compounds other than ethylene oxide were not quantitated.**

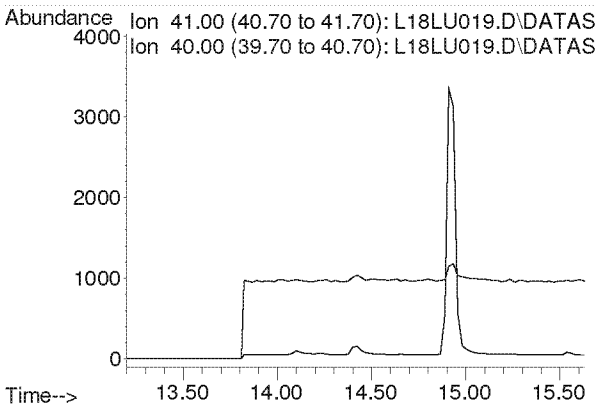


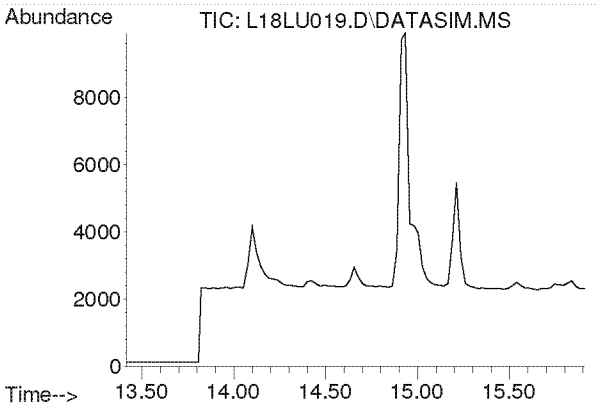

#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 40 | 50.9 |



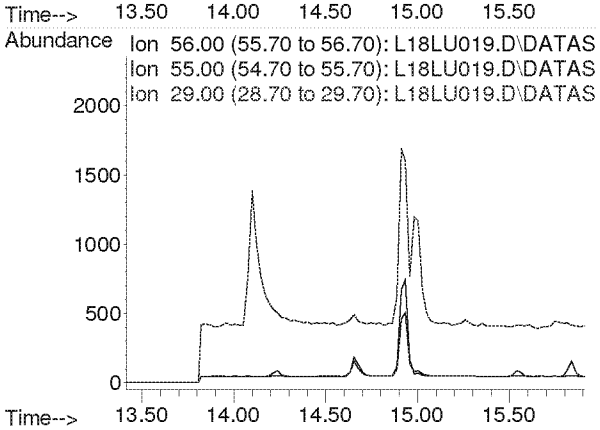




#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

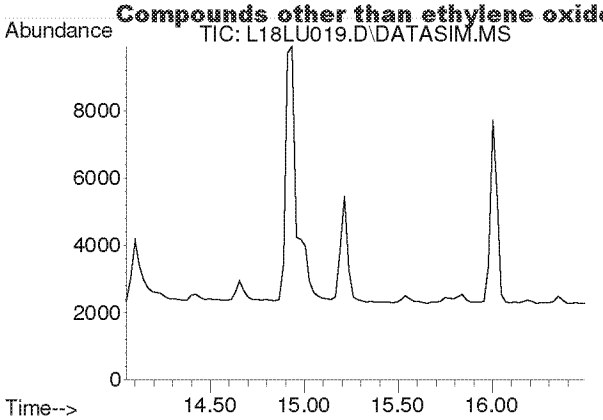
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 56

| Sig | Exp Ratio |
|---|---|
| 56 | 100 |
| 55 | 75.4 |
| 29 | 52.9 |



**Compounds other than ethylene oxide were not quantitated.**

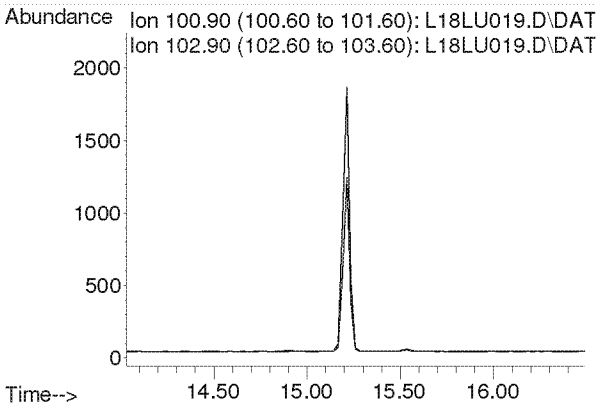


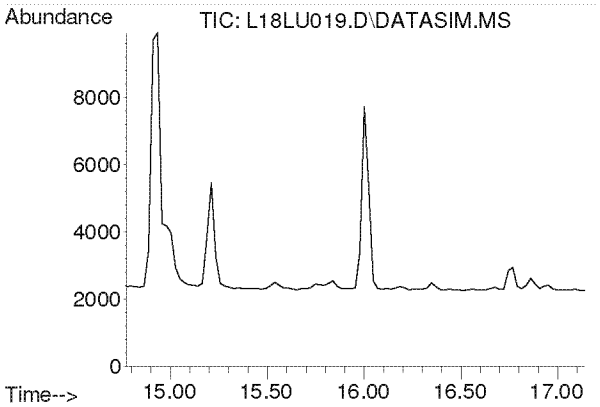

#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 103 | 64.6 |



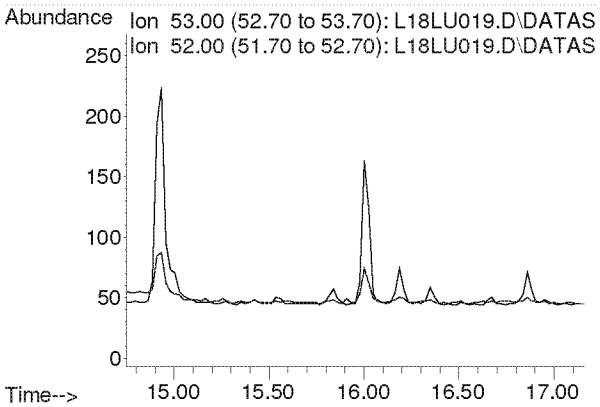




#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

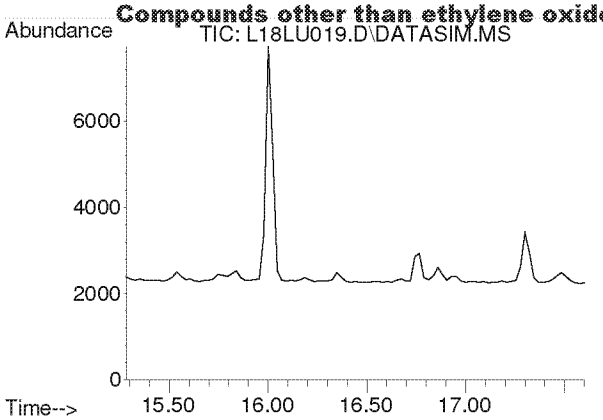
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 52 | 85.4 |



**Compounds other than ethylene oxide were not quantitated.**

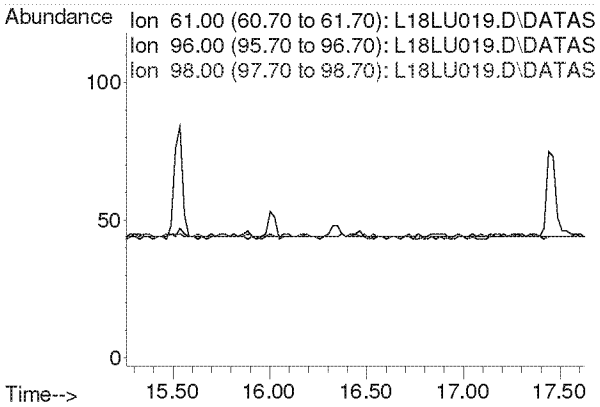


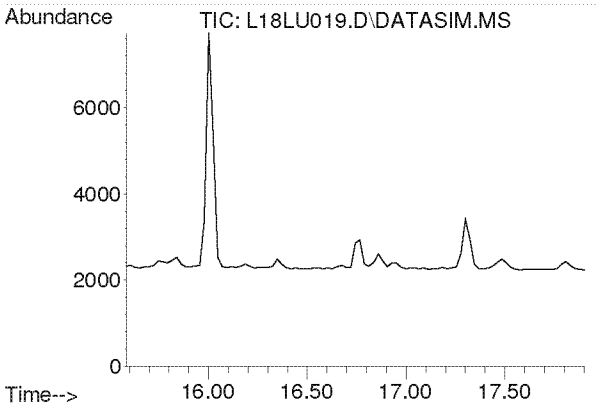

#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 58.3 |
| 98 | 37.4 |



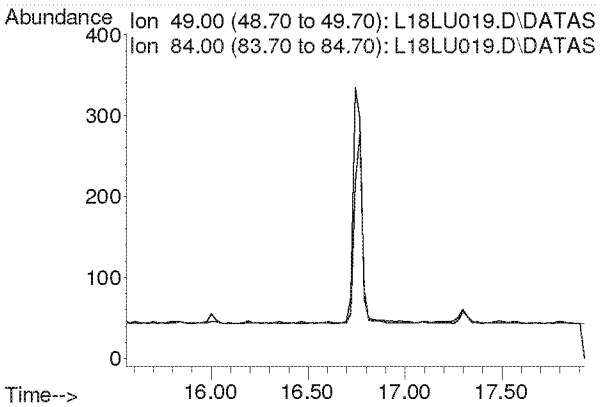




#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

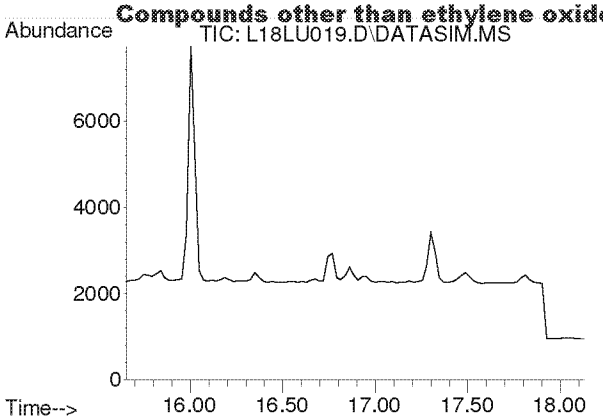
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 49

| Sig | Exp Ratio |
|---|---|
| 49 | 100 |
| 84 | 76.4 |



**Compounds other than ethylene oxide were not quantitated.**

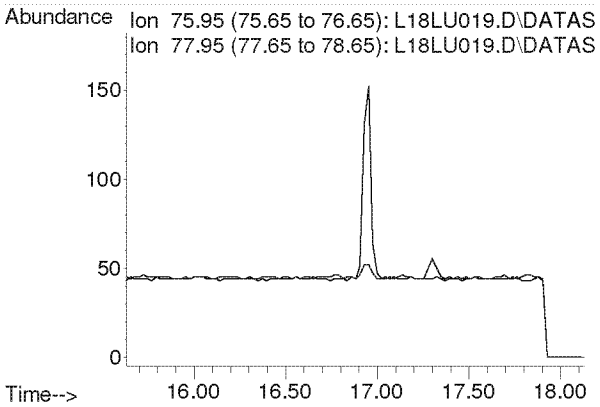


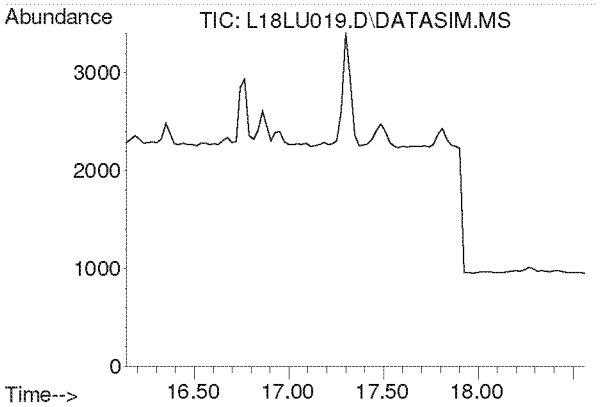

#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 76

| Sig | Exp Ratio |
|---|---|
| 76 | 100 |
| 78 | 9.1 |



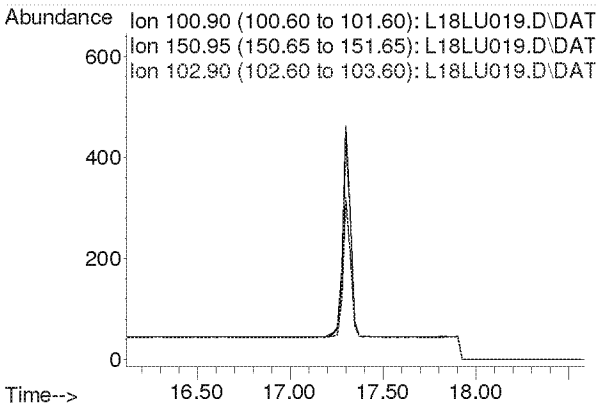




#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

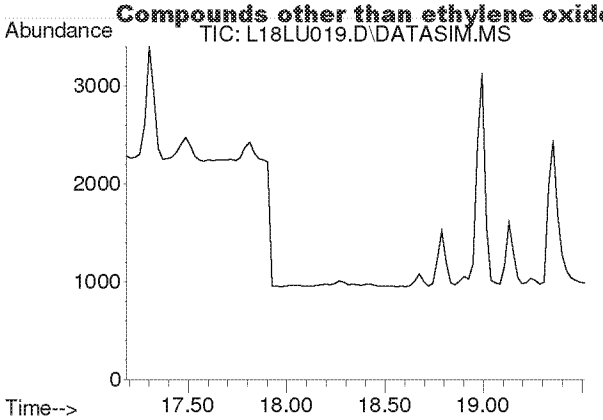
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 151 | 95.3 |
| 103 | 64.1 |



**Compounds other than ethylene oxide were not quantitated.**

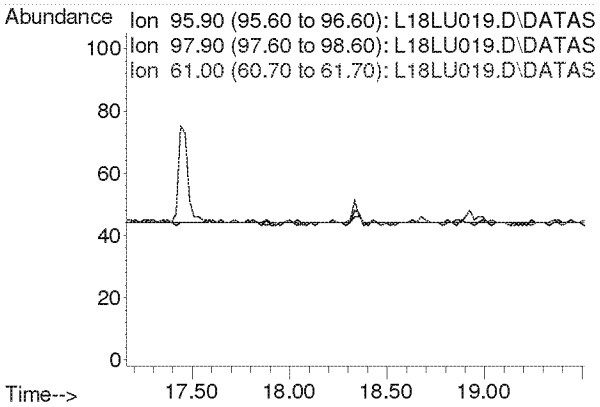


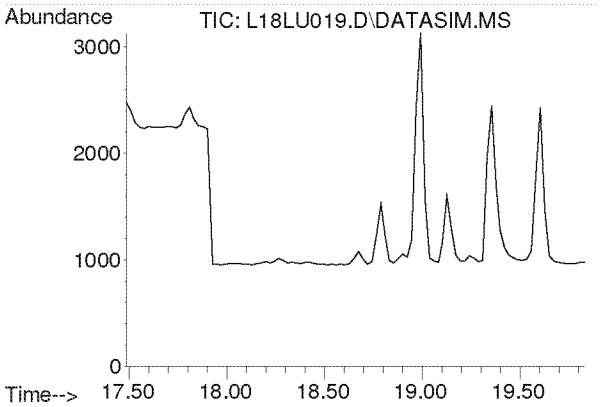

#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 96

| Sig | Exp Ratio |
|---|---|
| 96 | 100 |
| 98 | 63.7 |
| 61 | 159.2 |



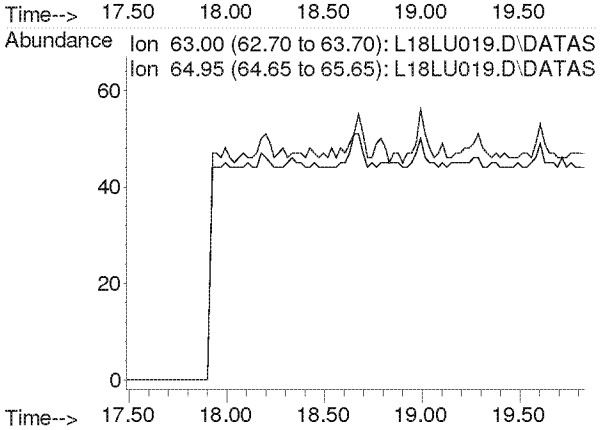




#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

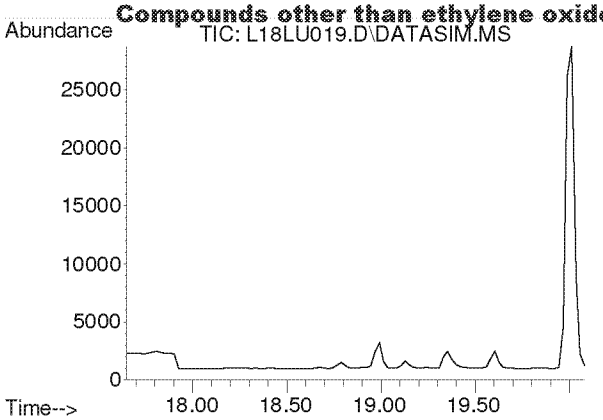
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 65 | 31.7 |



**Compounds other than ethylene oxide were not quantitated.**

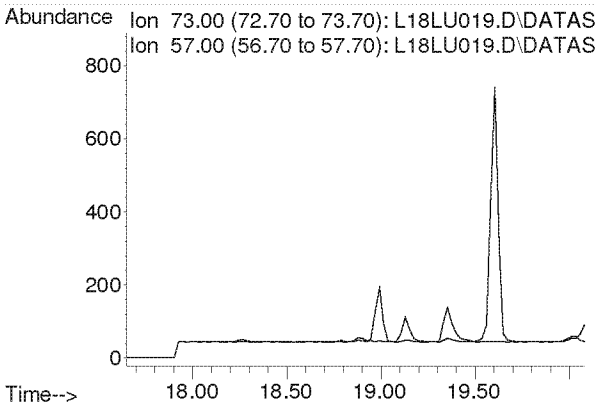


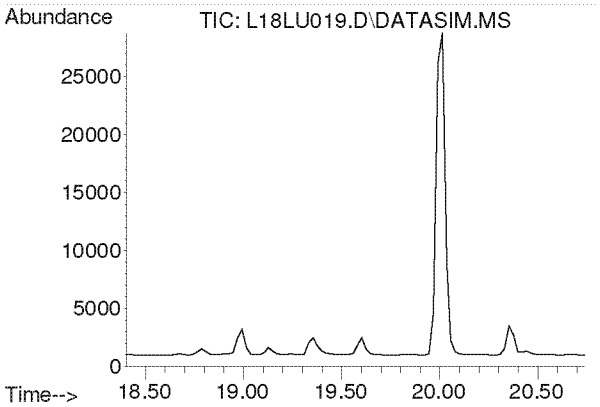

#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 57 | 23.4 |



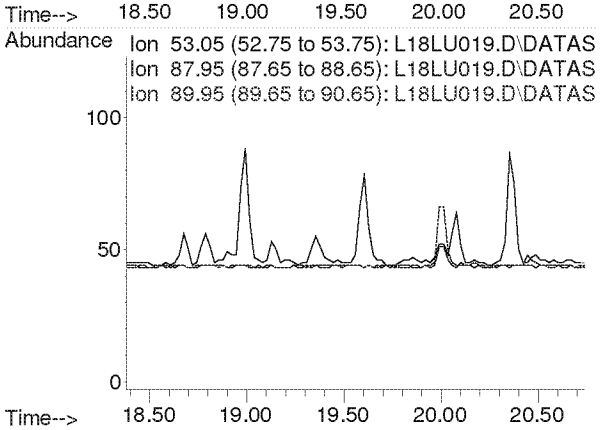




#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

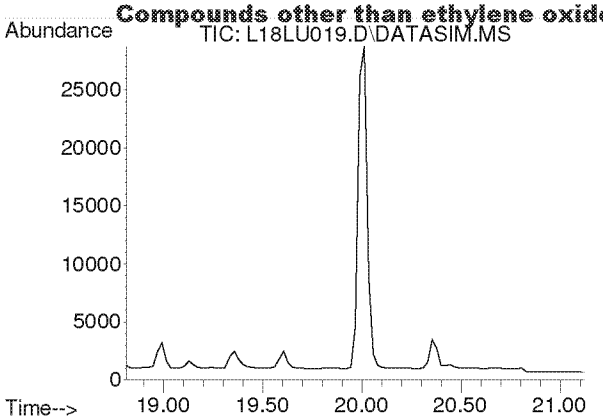
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 88 | 51.8 |
| 90 | 16.8 |



**Compounds other than ethylene oxide were not quantitated.**

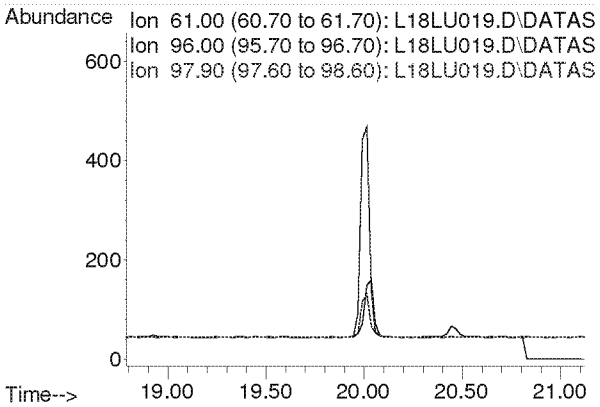


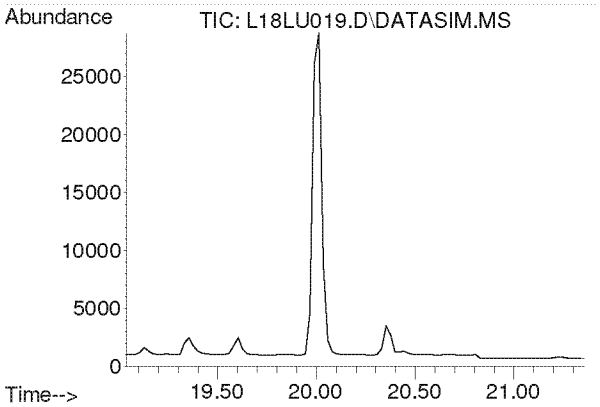

#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 73.7 |
| 98 | 45.2 |



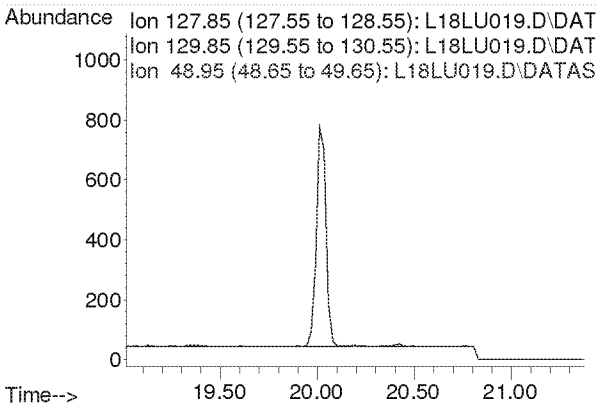




#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

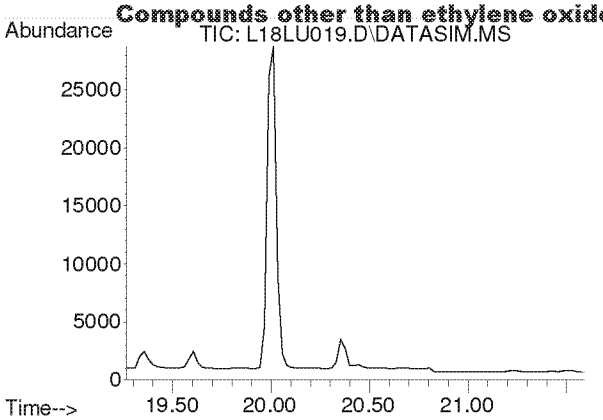
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 128

| Sig | Exp Ratio |
|---|---|
| 128 | 100 |
| 130 | 129.1 |
| 49 | 171.2 |



**Compounds other than ethylene oxide were not quantitated.**

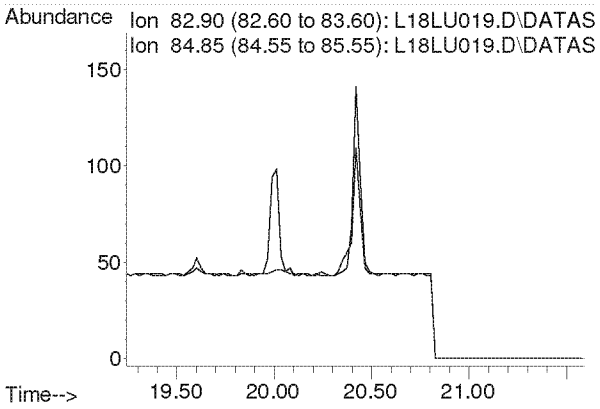


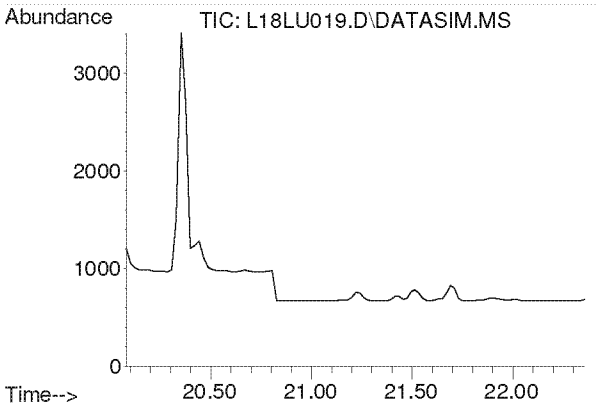

#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.4 |



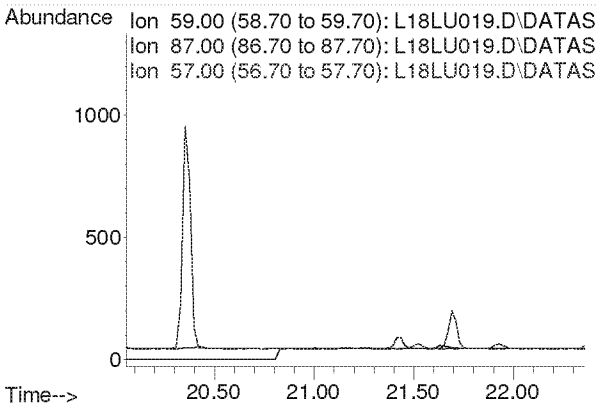




#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

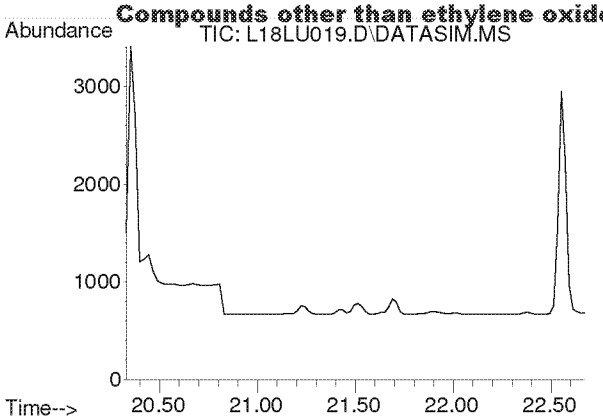
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 59

| Sig | Exp Ratio |
|---|---|
| 59 | 100 |
| 87 | 37.5 |
| 57 | 33.8 |



**Compounds other than ethylene oxide were not quantitated.**

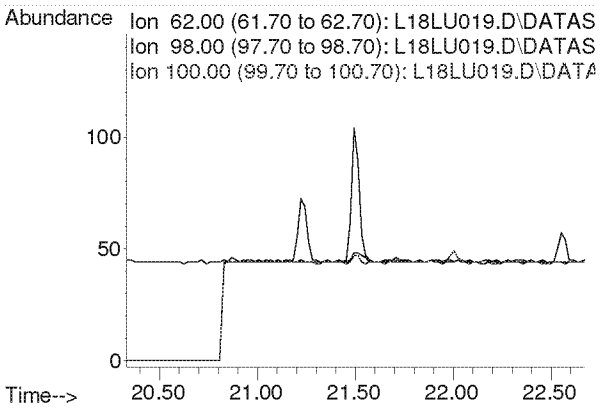


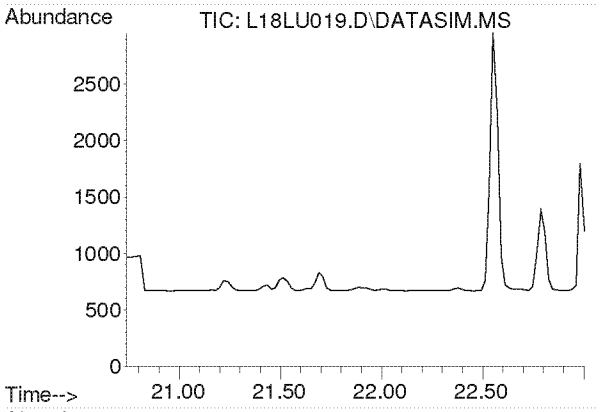

#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 98 | 6.4 |
| 100 | 4.0 |



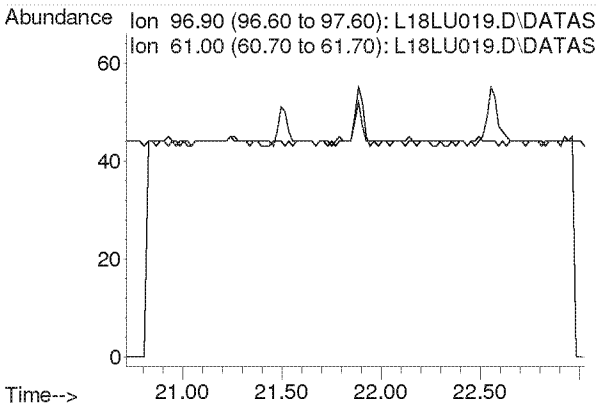




#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

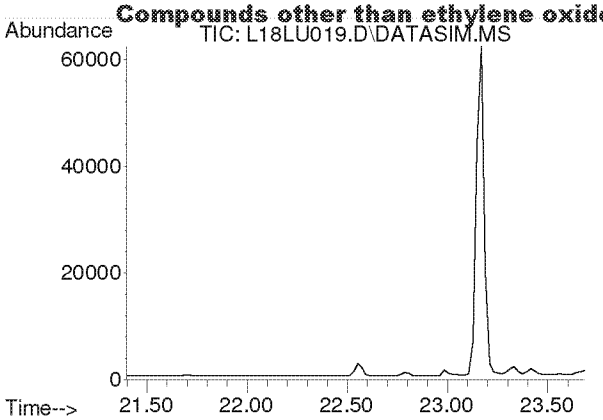
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 61 | 60.5 |



**Compounds other than ethylene oxide were not quantitated.**

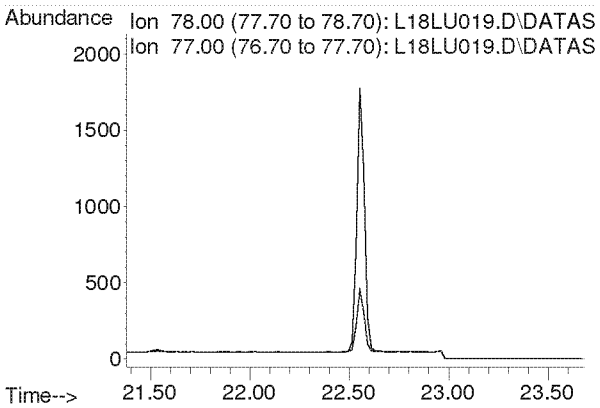


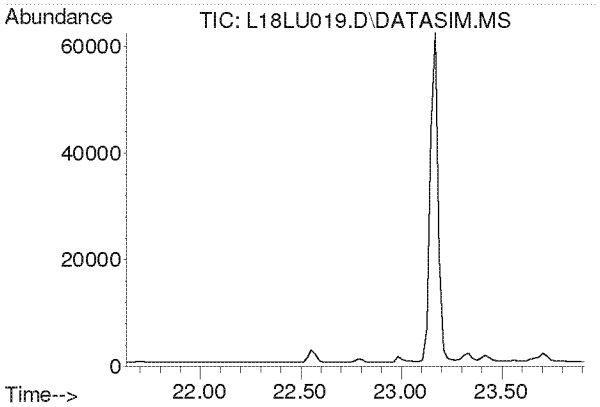

#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 78

| Sig | Exp Ratio |
|---|---|
| 78 | 100 |
| 77 | 22.7 |



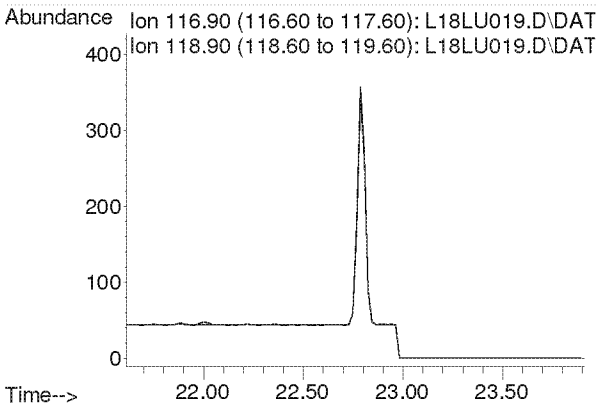




#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

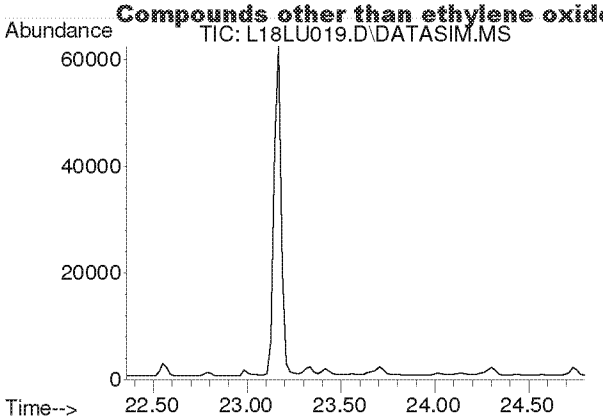
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 117

| Sig | Exp Ratio |
|---|---|
| 117 | 100 |
| 119 | 96.5 |



**Compounds other than ethylene oxide were not quantitated.**

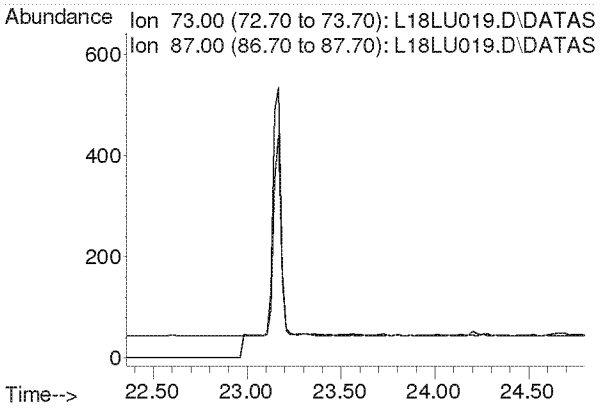


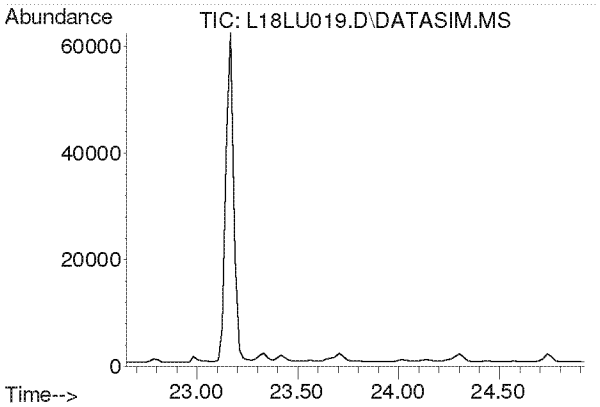

#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 87 | 24.9 |



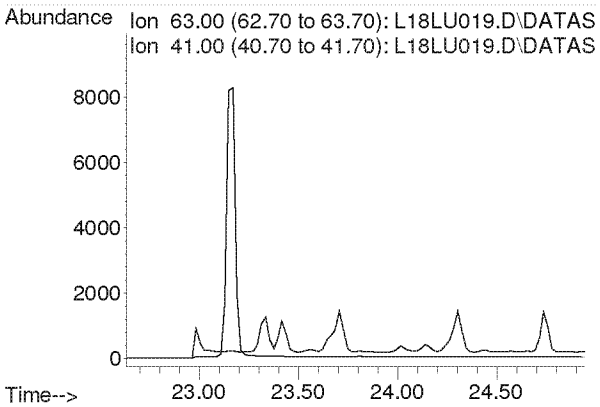




#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

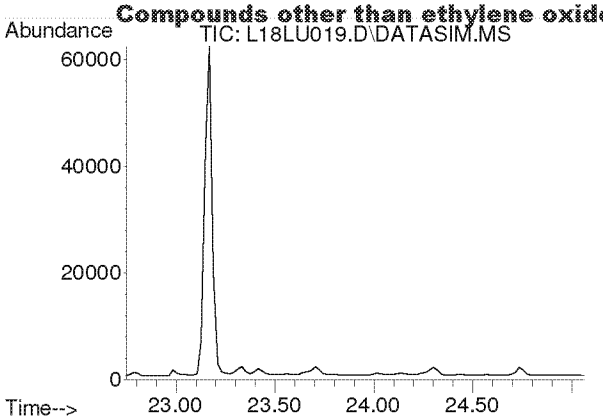
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 41 | 212.8 |



**Compounds other than ethylene oxide were not quantitated.**

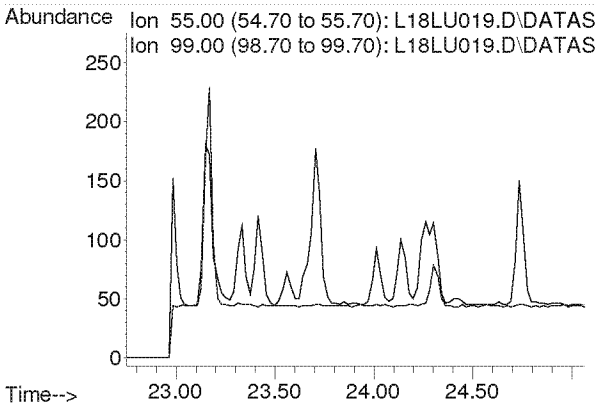


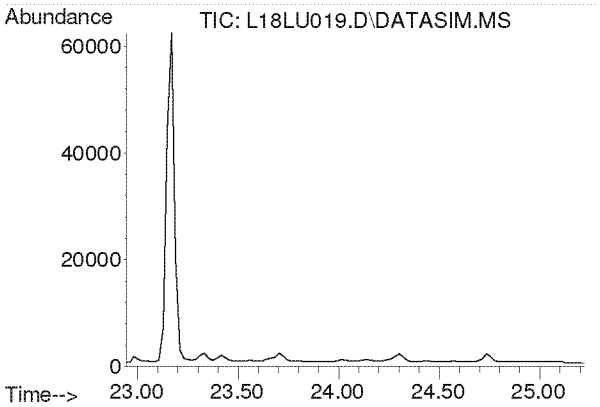

#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 55

| Sig | Exp Ratio |
|---|---|
| 55 | 100 |
| 99 | 6.1 |



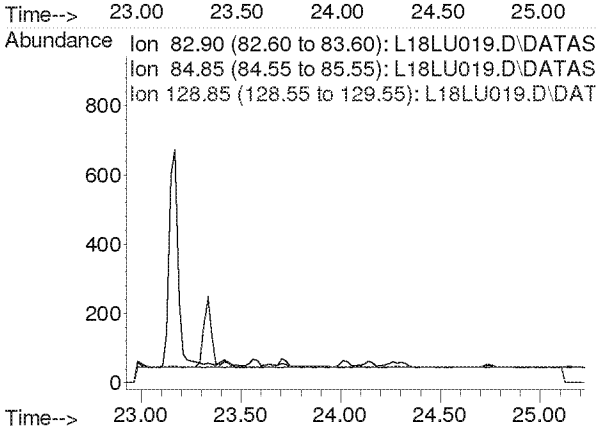




#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

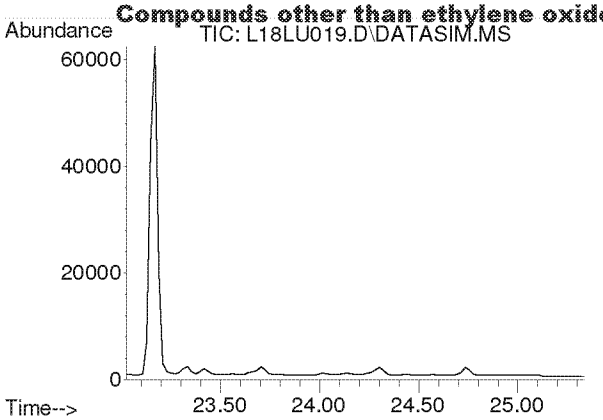
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.0 |
| 129 | 12.4 |



**Compounds other than ethylene oxide were not quantitated.**

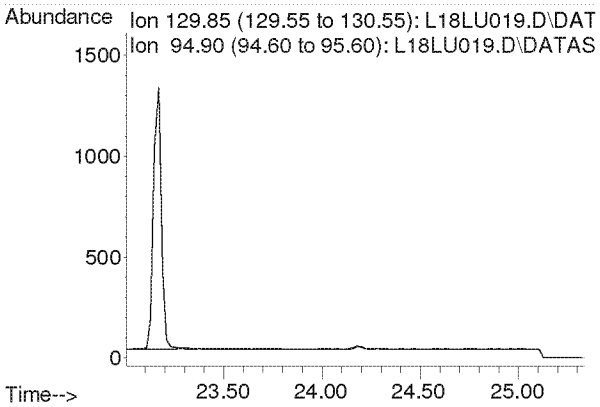


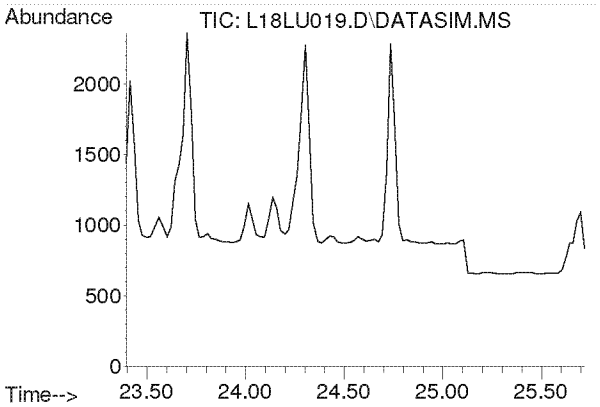

#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 130

| Sig | Exp Ratio |
|---|---|
| 130 | 100 |
| 95 | 110.3 |



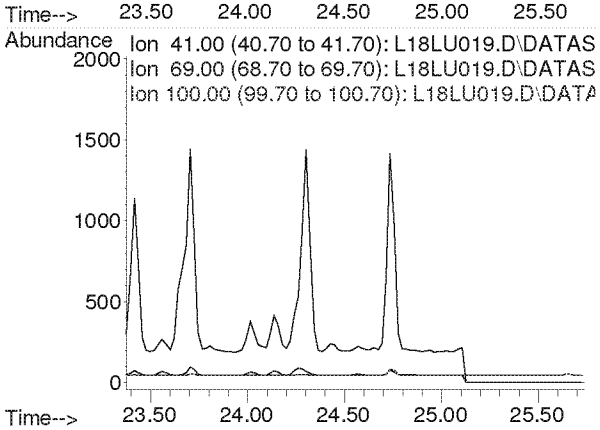




#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

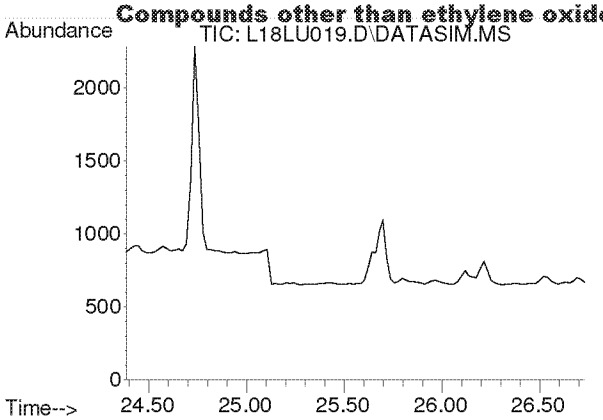
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 69 | 19.9 |
| 100 | 5.2 |



**Compounds other than ethylene oxide were not quantitated.**

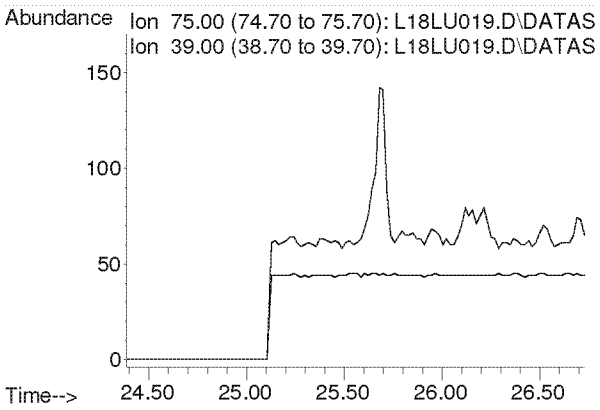


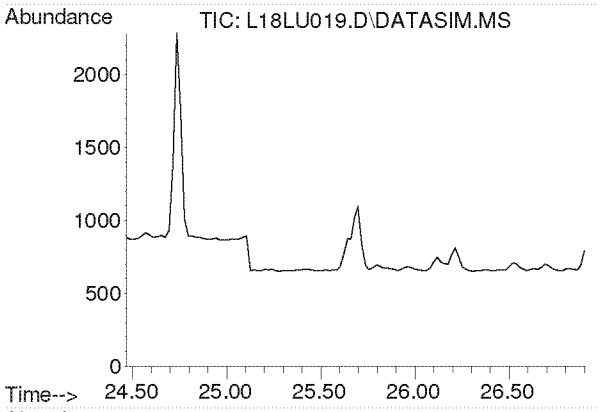

#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 54.4 |



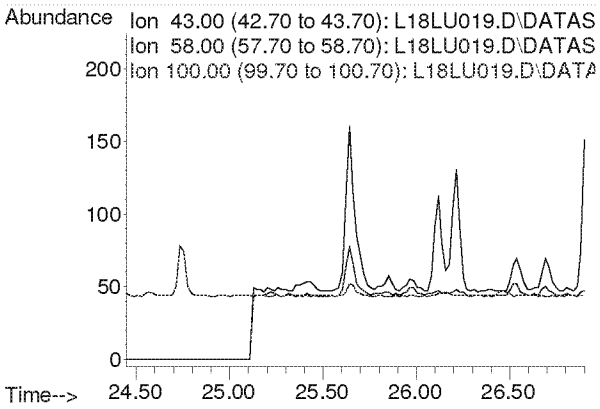




#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

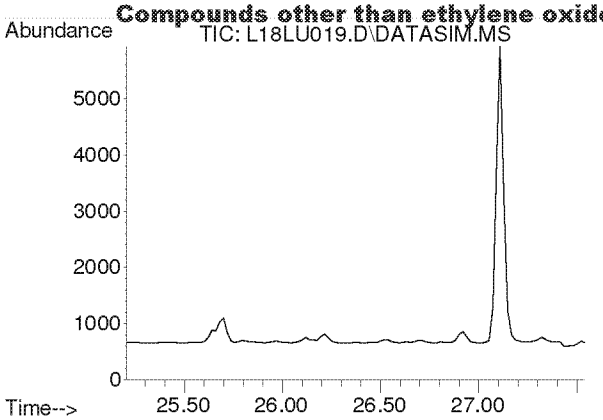
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 58 | 34.2 |
| 100 | 7.9 |



**Compounds other than ethylene oxide were not quantitated.**

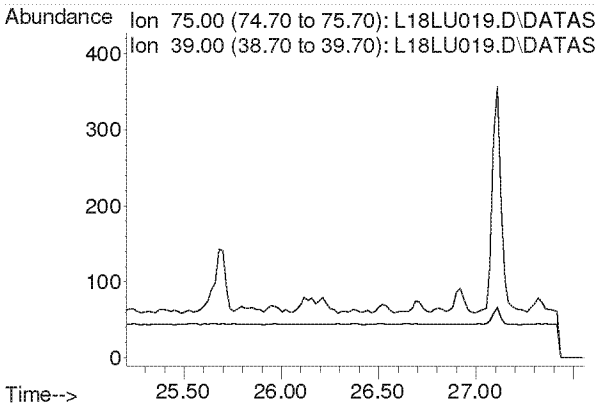


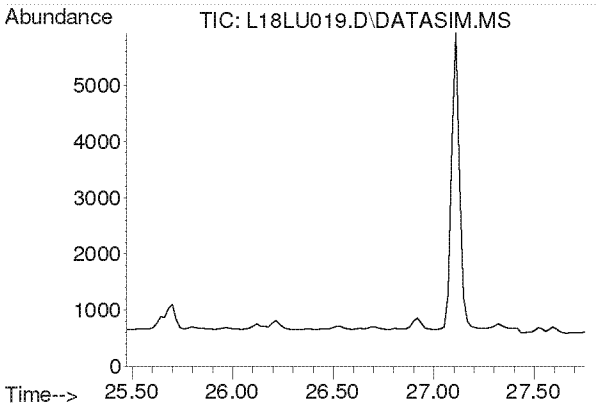

#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 50.9 |



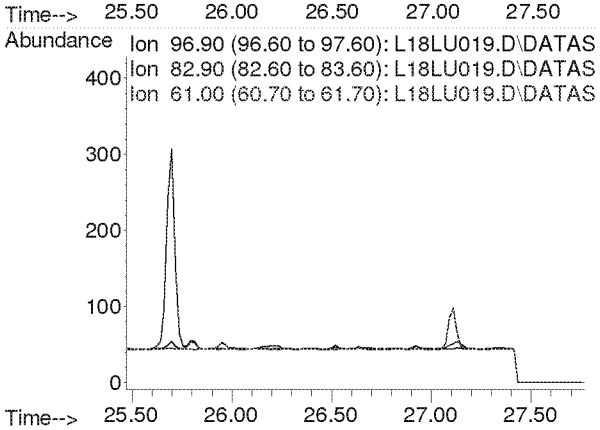




#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

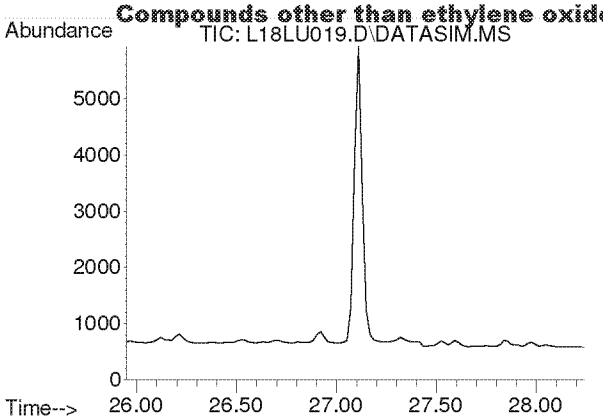
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 83 | 96.1 |
| 61 | 63.5 |



**Compounds other than ethylene oxide were not quantitated.**

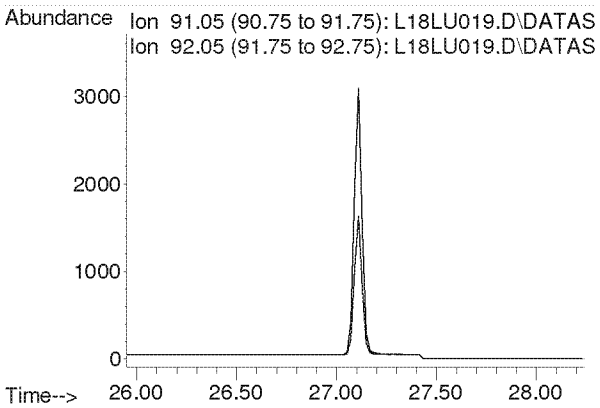


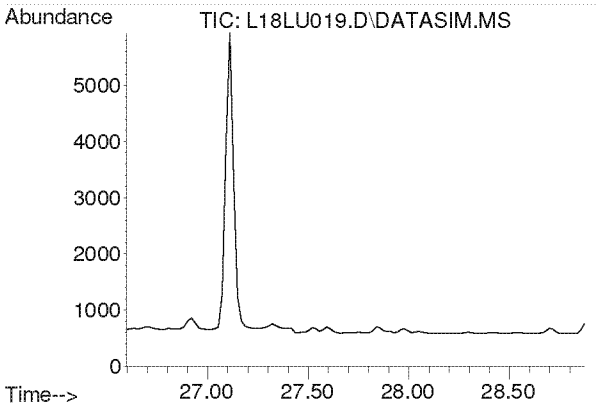

#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 92 | 52.6 |



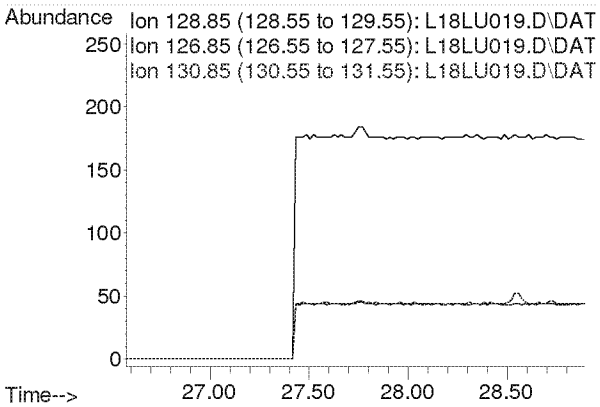




#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

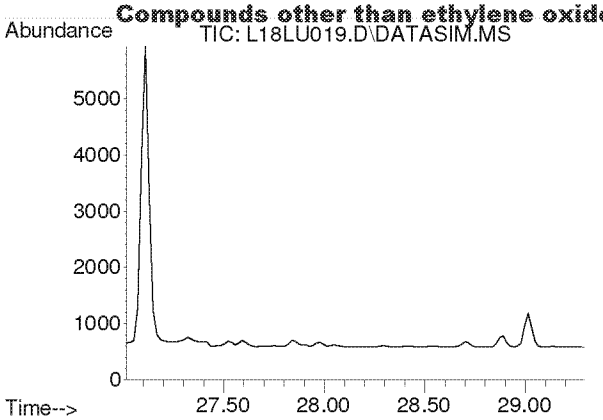
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 129

| Sig | Exp Ratio |
|---|---|
| 129 | 100 |
| 127 | 19.2 |
| 131 | 6.0 |



**Compounds other than ethylene oxide were not quantitated.**

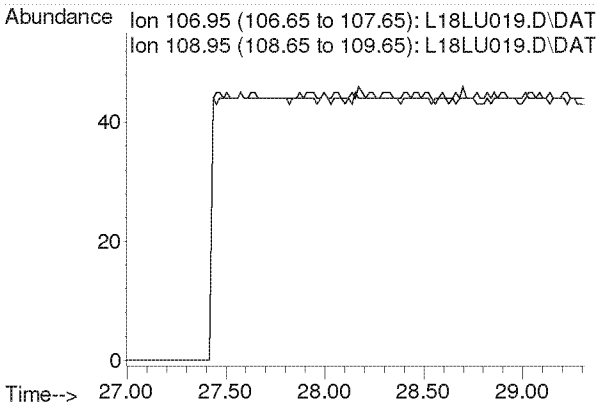


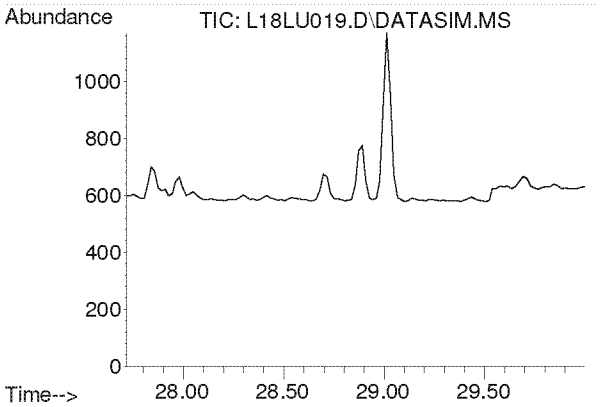

#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 107

| Sig | Exp Ratio |
|---|---|
| 107 | 100 |
| 109 | 94.5 |



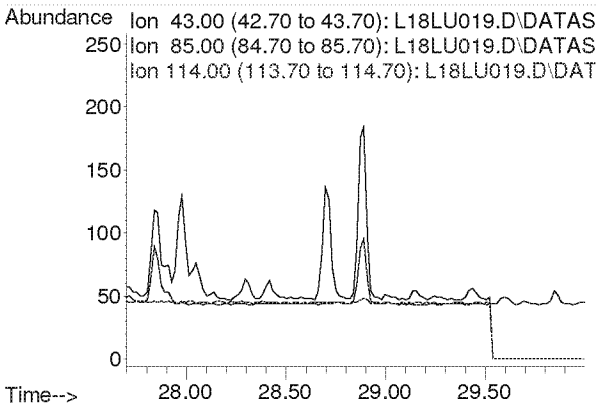




#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

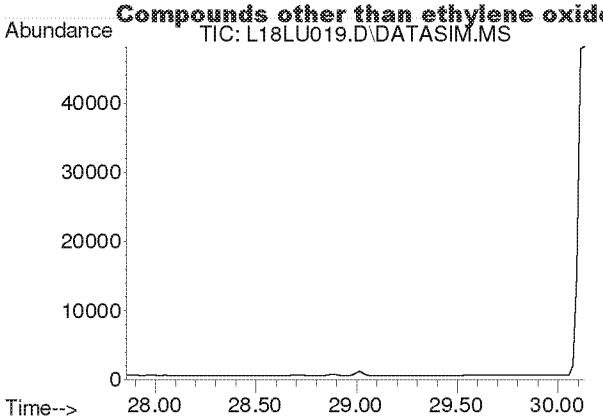
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 85 | 36.0 |
| 114 | 2.2 |



**Compounds other than ethylene oxide were not quantitated.**

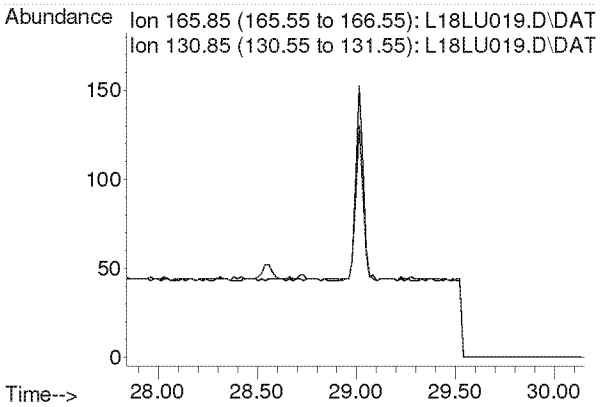


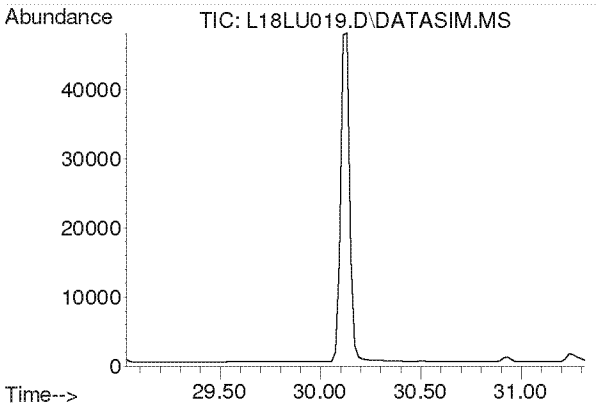

#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 166

| Sig | Exp Ratio |
|---|---|
| 166 | 100 |
| 131 | 78.2 |



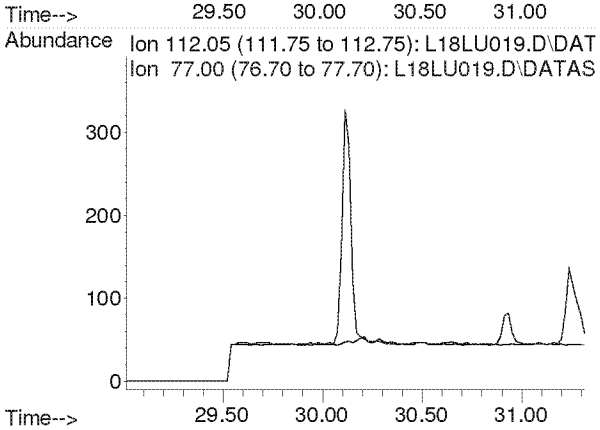




#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

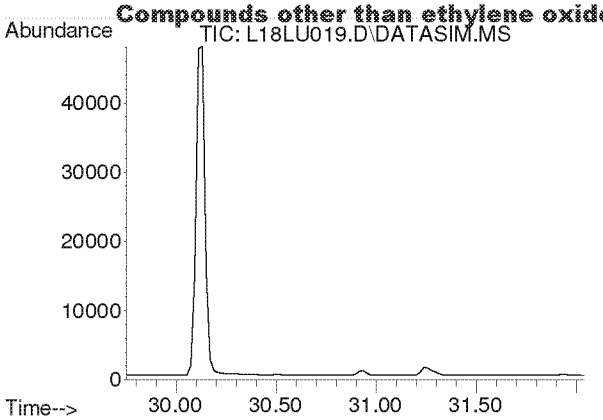
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 112

| Sig | Exp Ratio |
|---|---|
| 112 | 100 |
| 77 | 63.0 |



**Compounds other than ethylene oxide were not quantitated.**

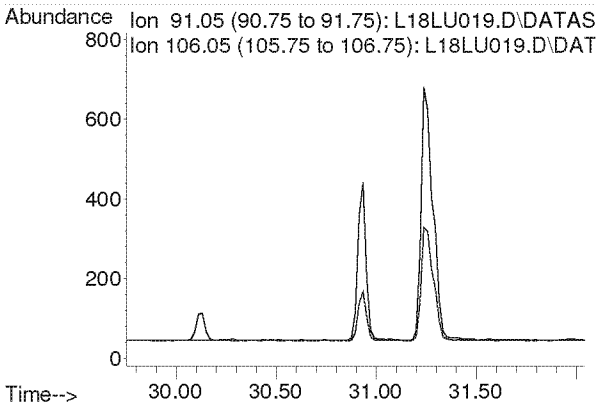


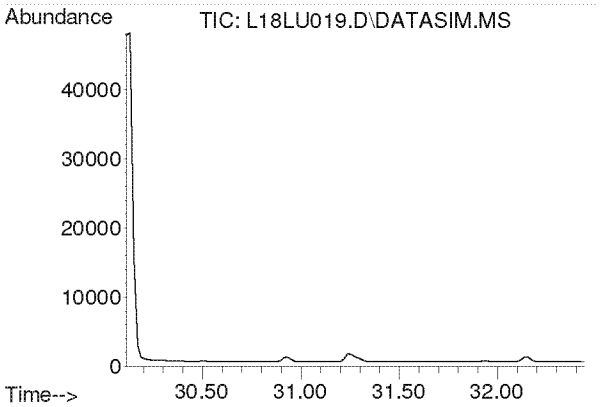

#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 31.8 |



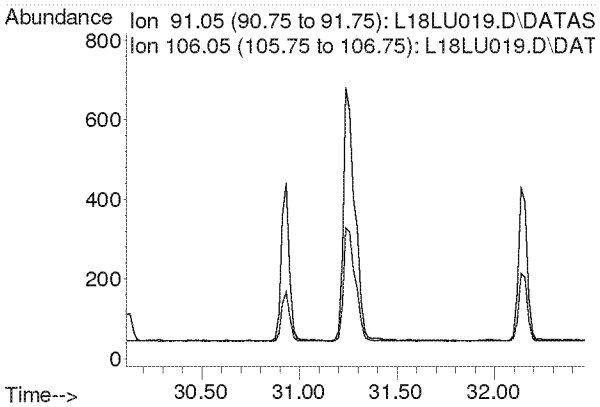




#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

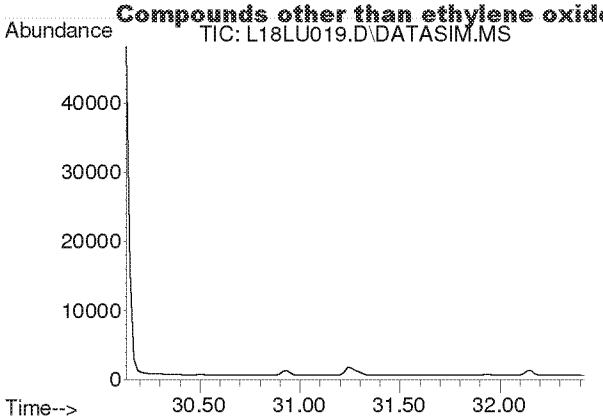
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.4 |



**Compounds other than ethylene oxide were not quantitated.**

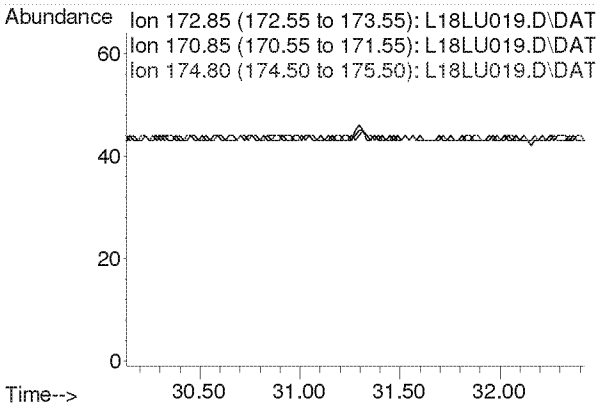


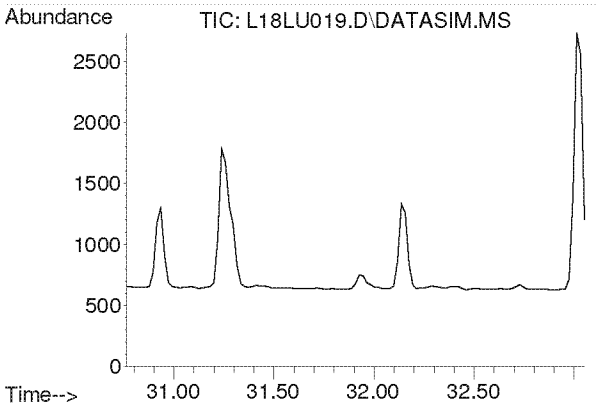

#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 173

| Sig | Exp Ratio |
|---|---|
| 173 | 100 |
| 171 | 51.3 |
| 175 | 49.0 |



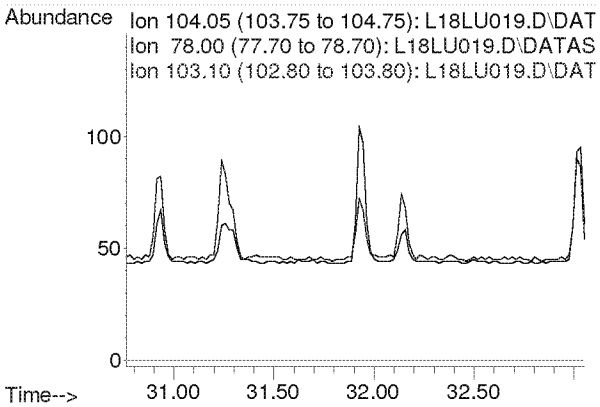




#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

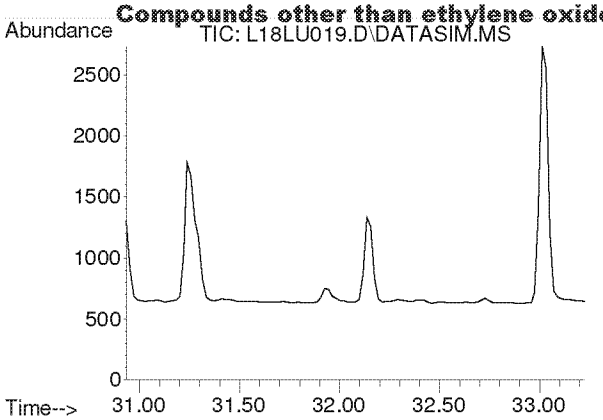
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 104

| Sig | Exp Ratio |
|---|---|
| 104 | 100 |
| 78 | 45.6 |
| 103 | 0.0 |



**Compounds other than ethylene oxide were not quantitated.**

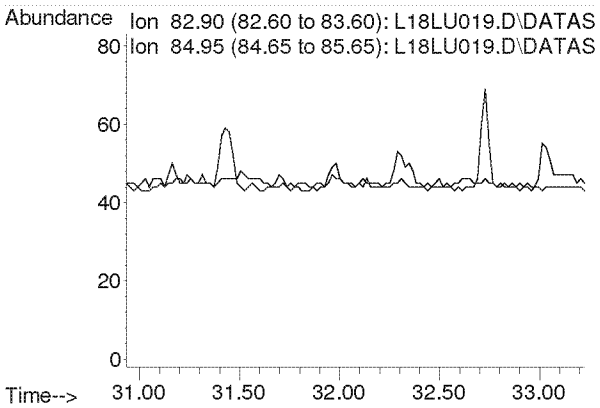


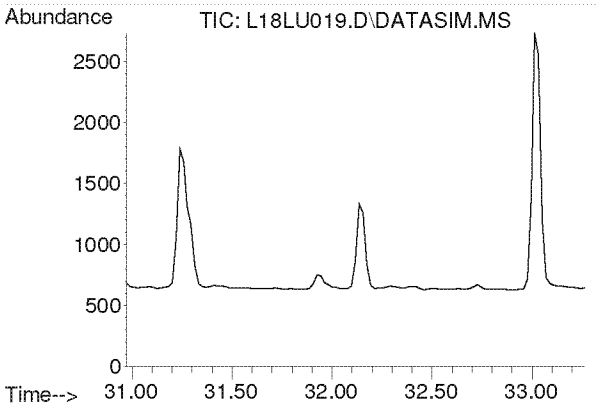

#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 63.9 |



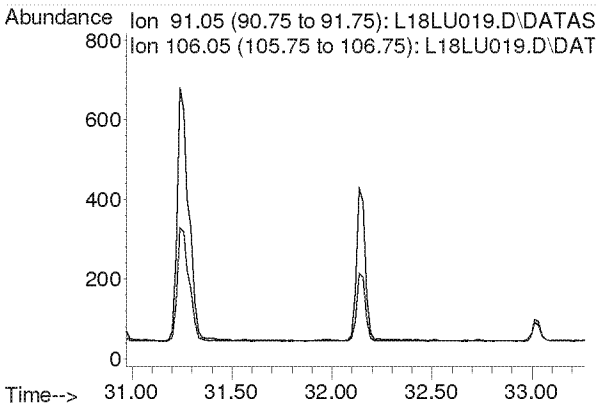




#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

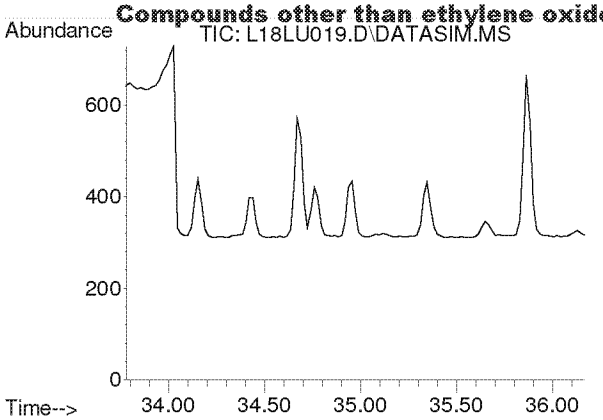
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.2 |



**Compounds other than ethylene oxide were not quantitated.**

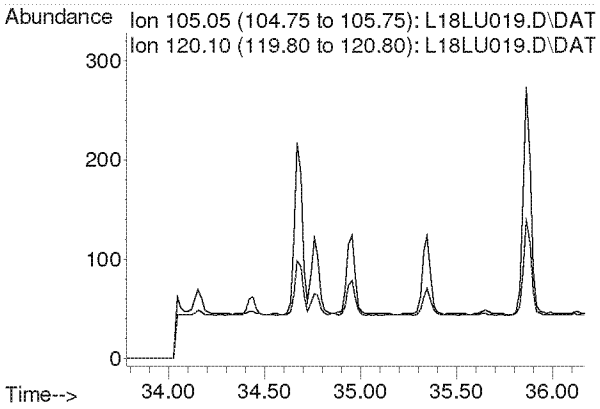


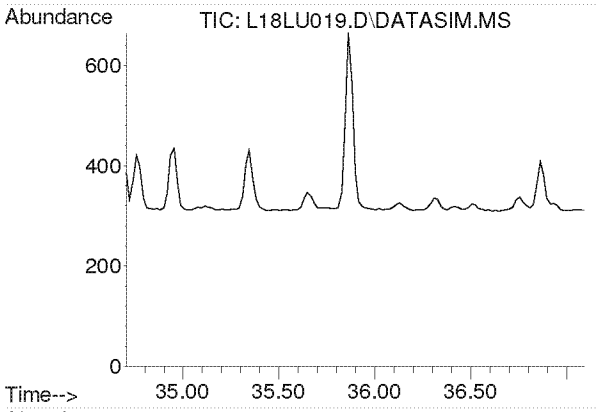

#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 45.0 |



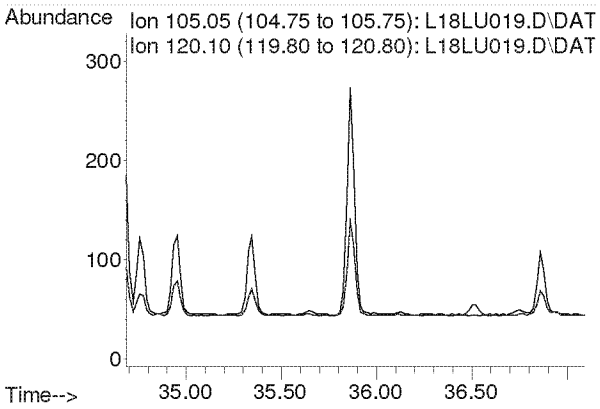




#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

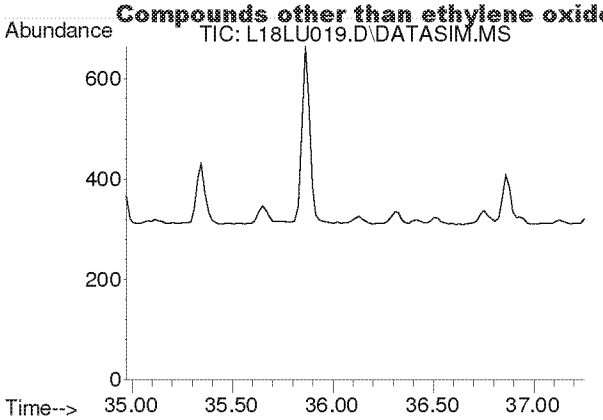
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 42.8 |



**Compounds other than ethylene oxide were not quantitated.**

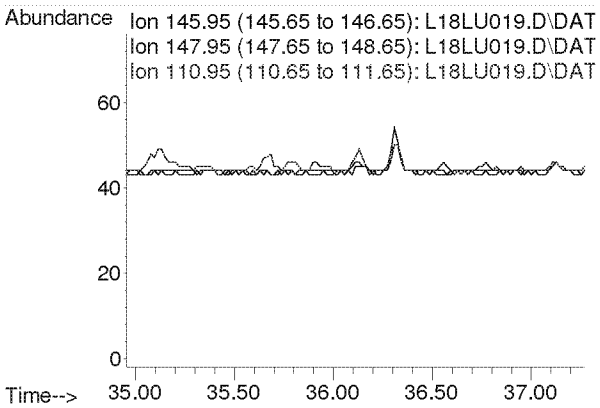


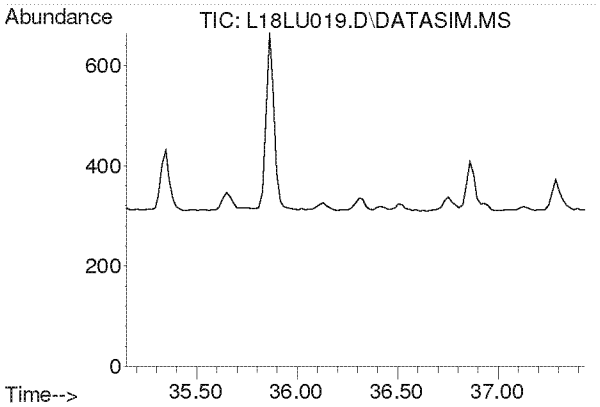

#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 40.5 |



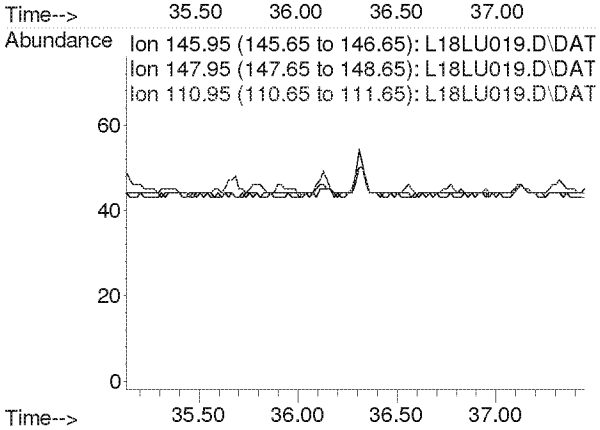




#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

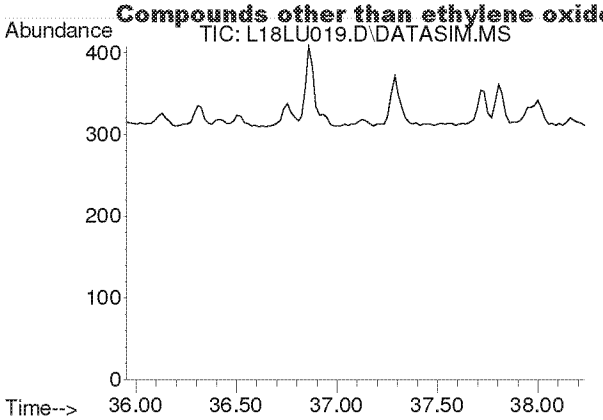
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 39.5 |



**Compounds other than ethylene oxide were not quantitated.**

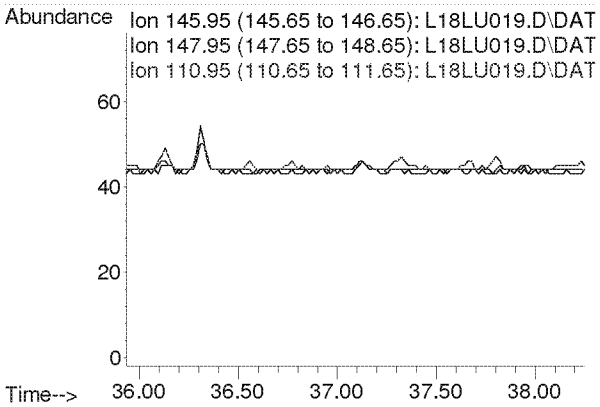


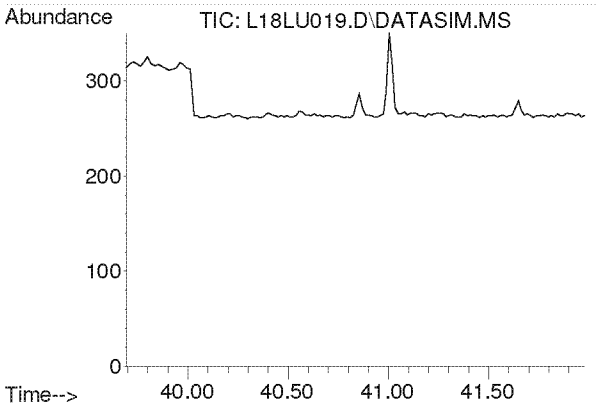

#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.1 |
| 111 | 41.4 |



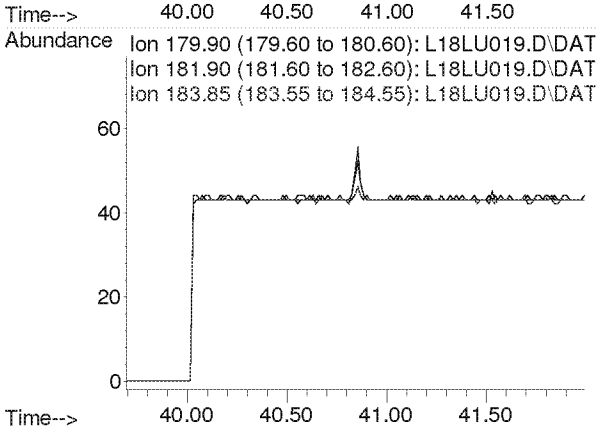




#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

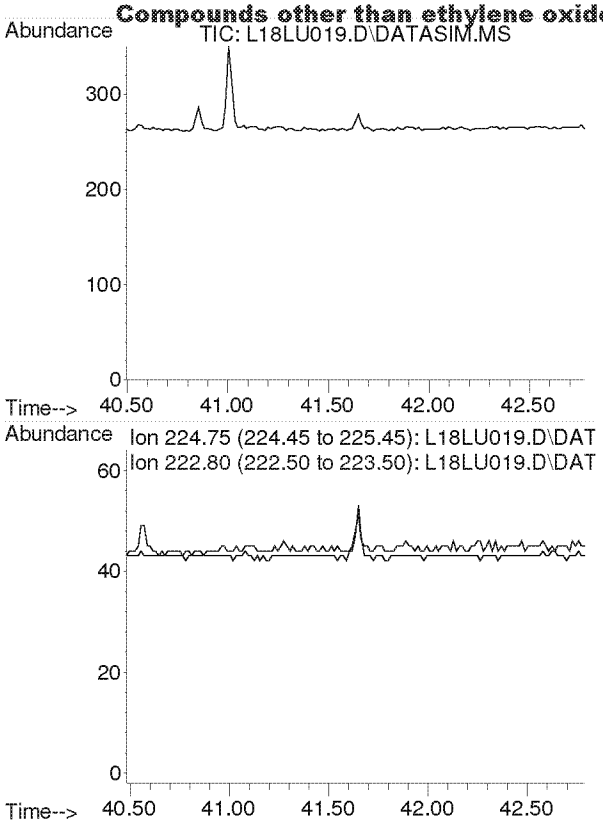
Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 180

| Sig | Exp Ratio |
|---|---|
| 180 | 100 |
| 182 | 95.1 |
| 184 | 30.7 |



**Compounds other than ethylene oxide were not quantitated.**




#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18LU019.D
Acq: 22 Dec 2018 1:47 am

Tgt Ion: 225

| Sig | Exp Ratio |
|---|---|
| 225 | 100 |
| 223 | 62.4 |

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU020.D
Acq On : 22 Dec 2018 2:47 am (#1); 22-Dec-18, 02:42:06 (#2)
Operator : MAH
Sample : 8120701-10
Misc : WEAT NEIGHBOROHOOD 11/25/18 (Sig #1); (Sig #2)
ALS Vial : 20 Sample Multiplier: 1

Eto Only

Quant Time: Dec 26 10:09:39 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 1) IS-Hexane-d14 | 19.992 | 66 | 54183 | 4.7700 ppbv | 0.00 |
| 29) IS-1,4-Difluorobenzene | 23.171 | 114 | 136263 | 4.9900 ppbv | 0.02 |
| 43) IS-Chlorobenzene-d5 | 30.116 | 117 | 96333 | 4.7400 ppbv | 0.02 |

System Monitoring Compounds

| Target Compounds | | | | | Qvalue |
|---|---|---|---|---|---|
| 2) Acetylene | 0.000 | 26 | 0 | N.D. d | |
| 3) Propylene | 0.000 | 41 | 0 | N.D. d | |
| 4) Dichlorodifluoromethane | 0.000 | 85 | 0 | N.D. d | |
| 5) Chloromethane | 0.000 | 50 | 0 | N.D. d | |
| 6) Dichlorotetrafluoroethane | 0.000 | 85 | 0 | N.D. d | |
| 7) Vinyl Chloride | 0.000 | 62 | 0 | N.D. | |
| 8) 1,3-Butadiene | 0.000 | 54 | 0 | N.D. d | |
| 9) Ethylene oxide | 0.000 | 29 | 0 | N.D. d | |
| 10) Bromomethane | 0.000 | 94 | 0 | N.D. d | |
| 11) Chloroethane | 0.000 | 64 | 0 | N.D. d | |
| 12) Acetonitrile | 0.000 | 41 | 0 | N.D. d | |
| 13) Acrolein | 0.000 | 56 | 0 | N.D. d | |
| 14) Trichlorofluoromethane | 0.000 | 101 | 0 | N.D. d | |
| 15) Acrylonitrile | 0.000 | 53 | 0 | N.D. d | |
| 16) 1,1-Dichloroethene | 0.000 | 61 | 0 | N.D. | |
| 17) Methylene Chloride | 0.000 | 49 | 0 | N.D. d | |
| 18) Carbon Disulfide | 0.000 | 76 | 0 | N.D. d | |
| 19) Trichlorotrifluoroethane | 0.000 | 101 | 0 | N.D. d | |
| 20) trans-1,2-Dichloroethy... | 0.000 | 96 | 0 | N.D. | |
| 21) 1,1-Dichloroethane | 0.000 | 63 | 0 | N.D. | |
| 22) Methyl tert-Butyl Ether | 0.000 | 73 | 0 | N.D. d | |
| 23) Chloroprene | 0.000 | 53 | 0 | N.D. d | |
| 24) cis-1,2-Dichloroethylene | 0.000 | 61 | 0 | N.D. d | |
| 25) Bromochloromethane | 0.000 | 128 | 0 | N.D. | |
| 26) Chloroform | 0.000 | 83 | 0 | N.D. d | |
| 27) Ethyl tert-Butyl Ether | 0.000 | 59 | 0 | N.D. | |
| 28) 1,2-Dichloroethane | 0.000 | 62 | 0 | N.D. d | |
| 30) 1,1,1-Trichloroethane | 0.000 | 97 | 0 | N.D. | |
| 31) Benzene | 0.000 | 78 | 0 | N.D. d | |
| 32) Carbon Tetrachloride | 0.000 | 117 | 0 | N.D. d | |
| 33) tert-Amyl Methyl Ether | 0.000 | 73 | 0 | N.D. | |
| 34) 1,2-Dichloropropane | 0.000 | 63 | 0 | N.D. | |
| 35) Ethyl Acrylate | 0.000 | 55 | 0 | N.D. | |
| 36) Bromodichloromethane | 0.000 | 83 | 0 | N.D. | |
| 37) Trichloroethylene | 0.000 | 130 | 0 | N.D. | |
| 38) Methyl Methacrylate | 0.000 | 41 | 0 | N.D. | |
| 39) cis-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 40) Methyl Isobutyl Ketone | 0.000 | 43 | 0 | N.D. d | |
| 41) trans-1,3-Dichloropropene | 0.000 | 75 | 0 | N.D. | |
| 42) 1,1,2-Trichloroethane | 0.000 | 97 | 0 | N.D. | |
| 44) Toluene | 0.000 | 91 | 0 | N.D. d | |
| 45) Dibromochloromethane | 0.000 | 129 | 0 | N.D. | |
| 46) 1,2-Dibromoethane | 0.000 | 107 | 0 | N.D. | |
| 47) n-Octane | 0.000 | 43 | 0 | N.D. d | |
| 48) Tetrachloroethylene | 0.000 | 166 | 0 | N.D. d | |
| 49) Chlorobenzene | 0.000 | 112 | 0 | N.D. d | |
| 50) Ethylbenzene | 0.000 | 91 | 0 | N.D. d | |

**Compounds other than ethylene oxide were not quantitated.**

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LU\
Data File : L18LU020.D
Acq On : 22 Dec 2018 2:47 am (#1); 22-Dec-18, 02:42:06 (#2)
Operator : MAH
Sample : 8120701-10
Misc : WEAT NEIGHBOROHOOD 11/25/18 (Sig #1); (Sig #2)
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 26 10:09:39 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration

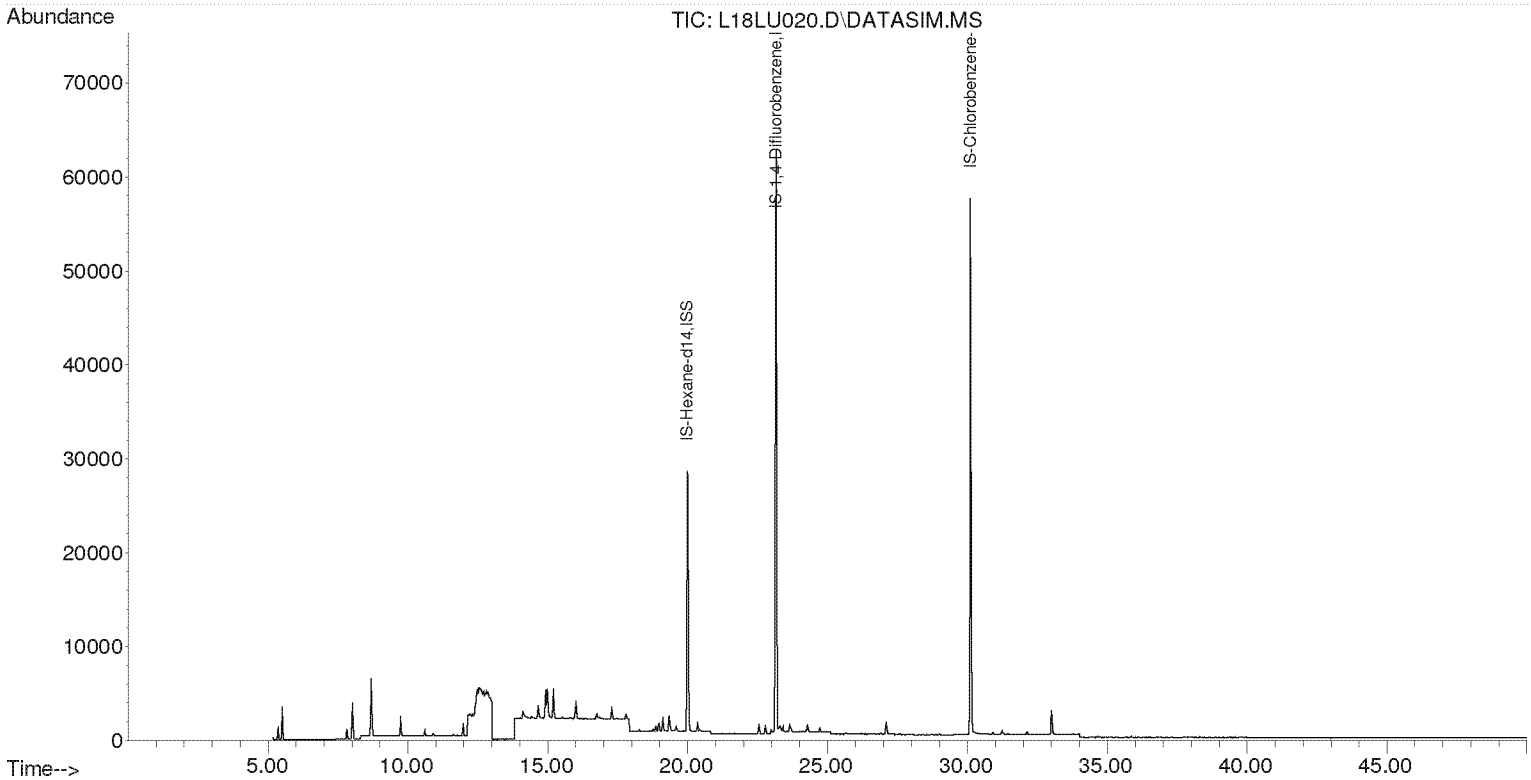
| Internal Standards | R.T. | QIon | Response | Conc Units | Dev(Min) |
|---|---|---|---|---|---|
| 51) m,p-Xylene | 0.000 | 91 | 0 | N.D. | d |
| 52) Bromoform | 0.000 | 173 | 0 | N.D. | |
| 53) Styrene | 0.000 | 104 | 0 | N.D. | |
| 54) 1,1,2,2-Tetrachloroethane | 0.000 | 83 | 0 | N.D. | |
| 55) o-Xylene | 0.000 | 91 | 0 | N.D. | d |
| 56) 1,3,5-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | d |
| 57) 1,2,4-Trimethylbenzene | 0.000 | 105 | 0 | N.D. | d |
| 58) m-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 59) p-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 60) o-Dichlorobenzene | 0.000 | 146 | 0 | N.D. | |
| 61) 1,2,4-Trichlorobenzene | 0.000 | 180 | 0 | N.D. | |
| 62) Hexachloro-1,3-butadiene | 0.000 | 225 | 0 | N.D. | |

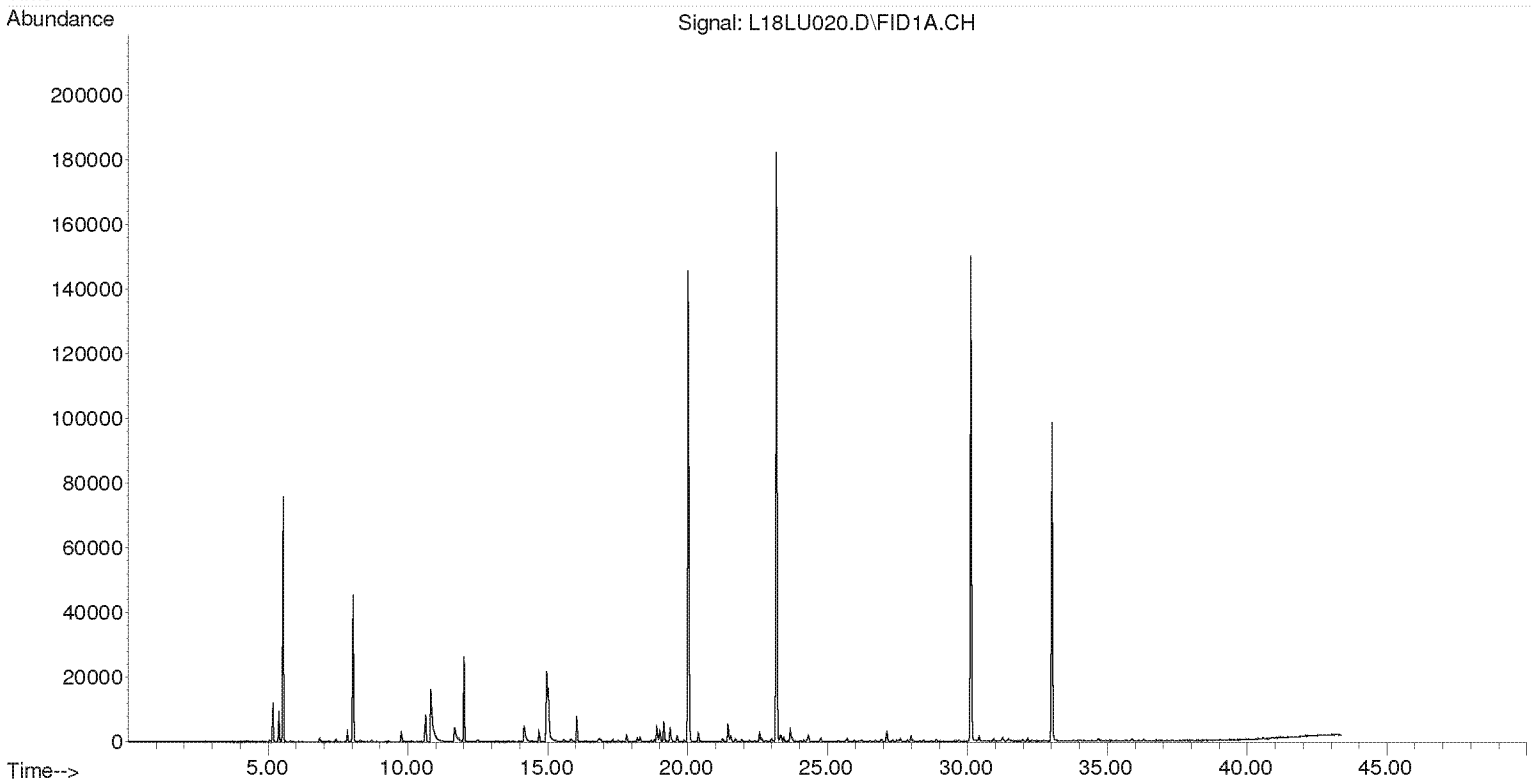
(#) = qualifier out of range (m) = manual integration (+) = signals summed

**Compounds other than ethylene oxide were not quantitated.**

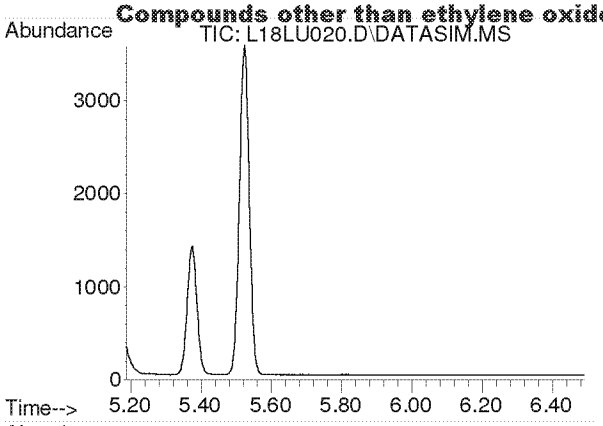
Data Path : Y:\MASS SPEC 1 DATA\L18LU\
Data File : L18LU020.D
Acq On : 22 Dec 2018 2:47 am (#1); 22 Dec 2018 2:42 am (#2)
Operator : MAH
Sample : 8120701-10
Misc : WEAT NEIGHBOROHOOD 11/25/18 (Sig #1); (Sig #2)
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Dec 26 09:51:51 2018
Quant Method : C:\msdchem\1\METHODS\8120004.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Thu Dec 20 06:20:47 2018
Response via : Initial Calibration



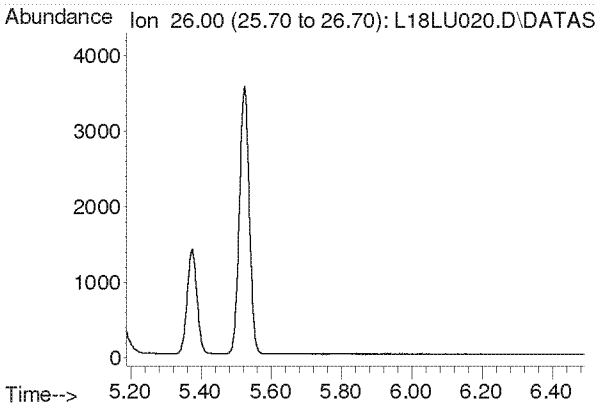
**Compounds other than ethylene oxide were not quantitated.**

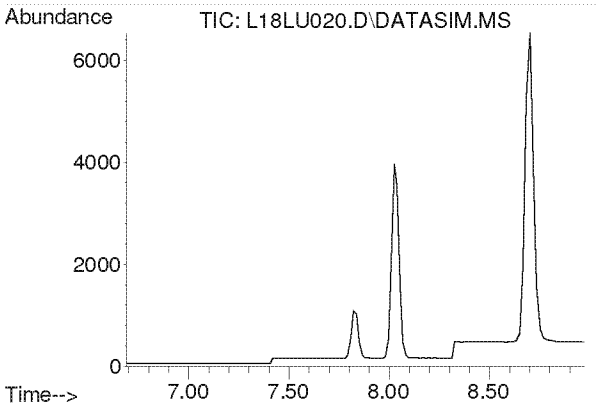



#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 26



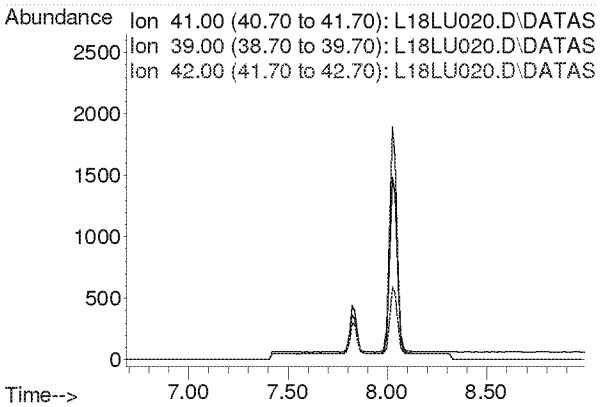




#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

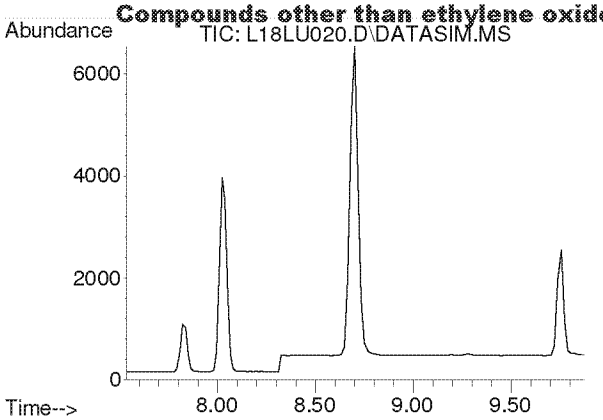
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 39 | 78.2 |
| 42 | 65.8 |



**Compounds other than ethylene oxide were not quantitated.**

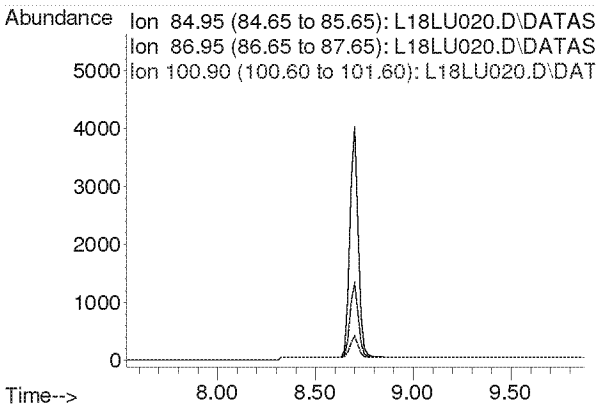


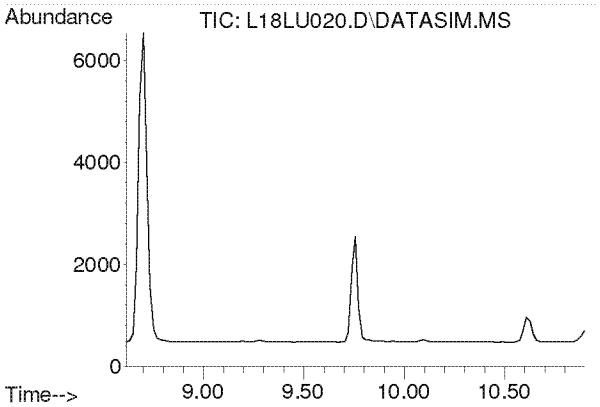

#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 87 | 32.5 |
| 101 | 8.9 |



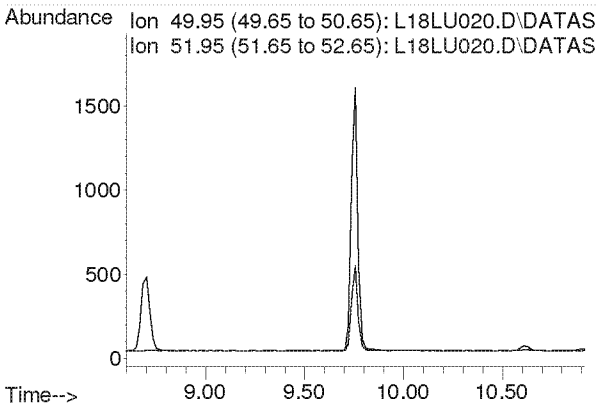




#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

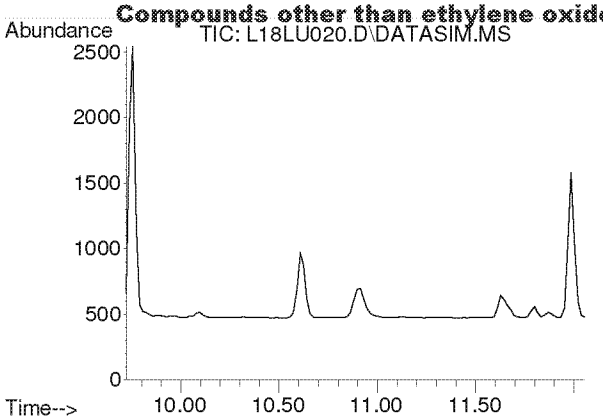
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 50

| Sig | Exp Ratio |
|---|---|
| 50 | 100 |
| 52 | 32.6 |



**Compounds other than ethylene oxide were not quantitated.**

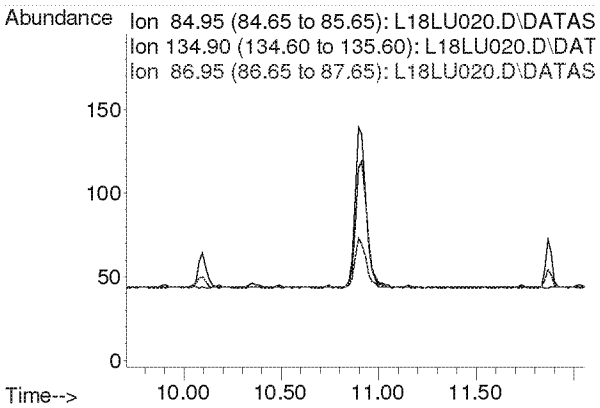


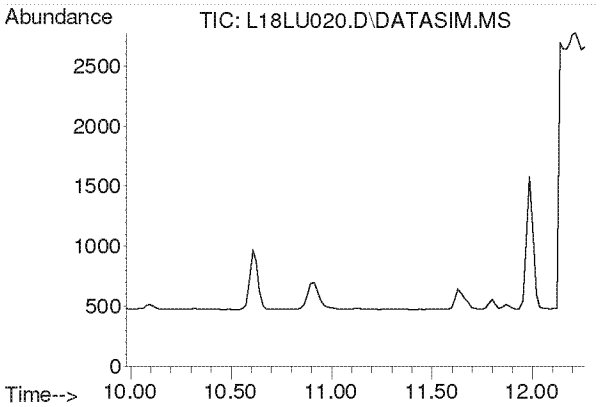

#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 85

| Sig | Exp Ratio |
|---|---|
| 85 | 100 |
| 135 | 79.1 |
| 87 | 32.1 |



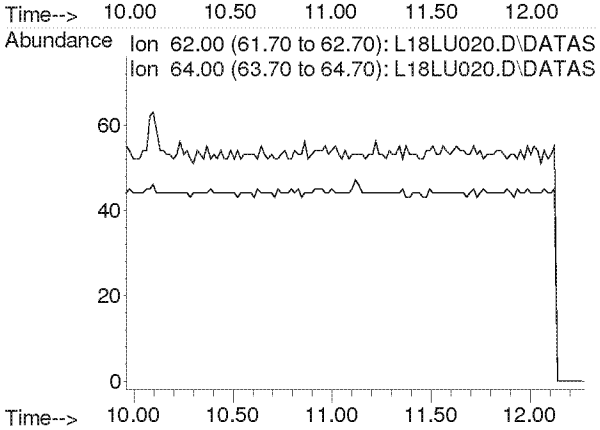




#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

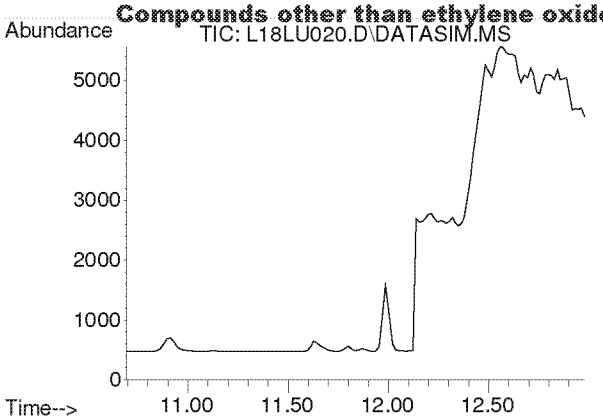
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 64 | 31.8 |



**Compounds other than ethylene oxide were not quantitated.**

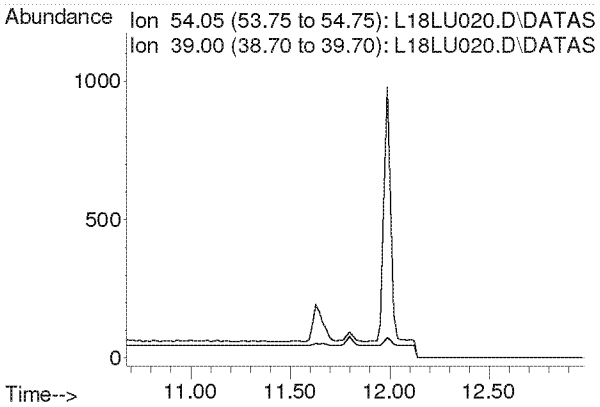


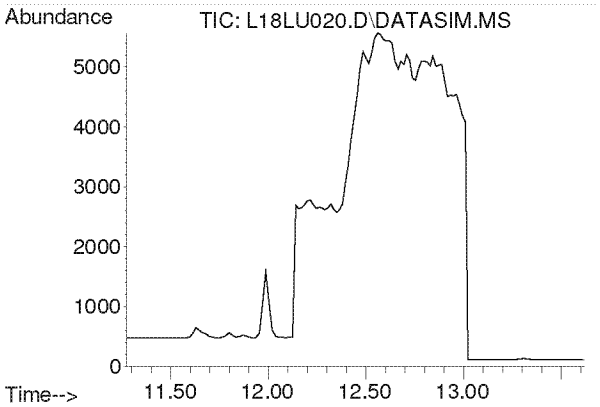

#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 54

| Sig | Exp Ratio |
|---|---|
| 54 | 100 |
| 39 | 105.4 |



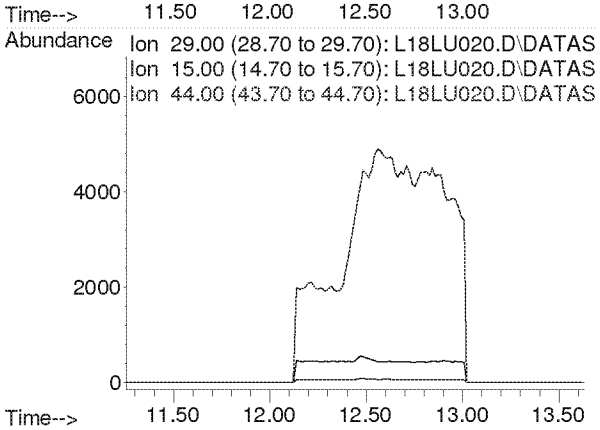




#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

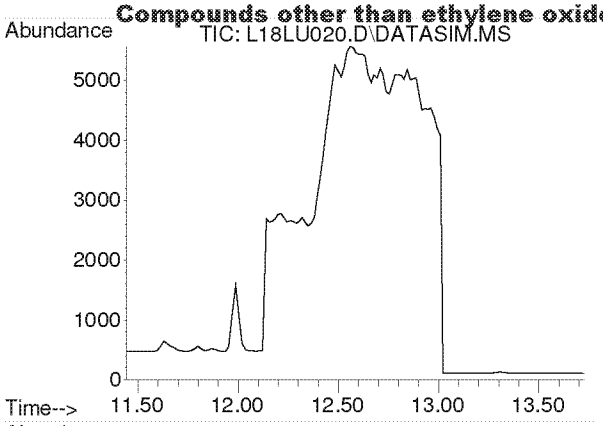
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 29

| Sig | Exp Ratio |
|---|---|
| 29 | 100 |
| 15 | 20.3 |
| 44 | 90.0 |



**Compounds other than ethylene oxide were not quantitated.**

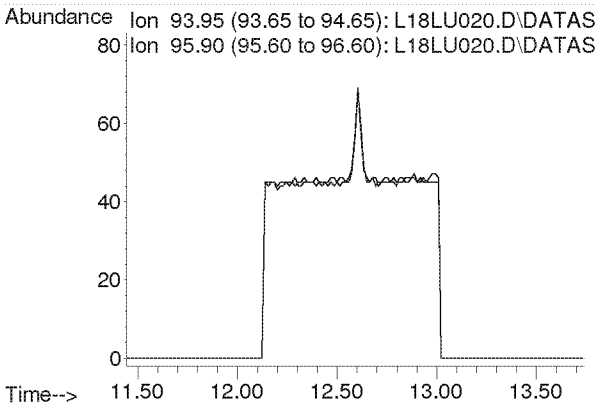


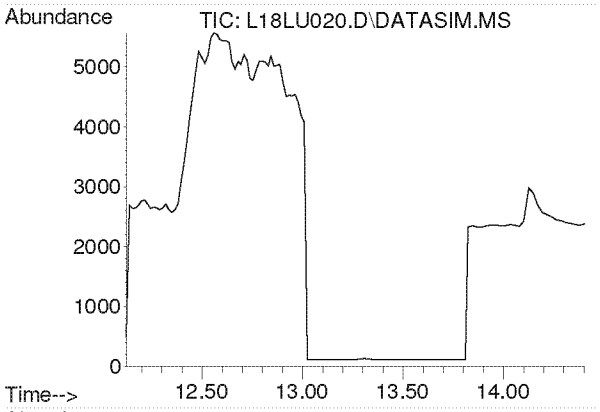

#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 94

| Sig | Exp Ratio |
|---|---|
| 94 | 100 |
| 96 | 93.9 |



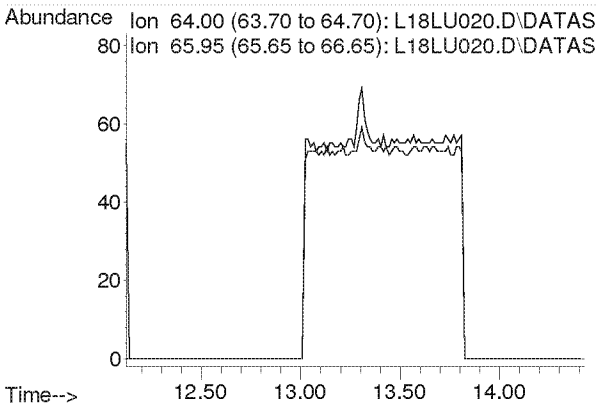




#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

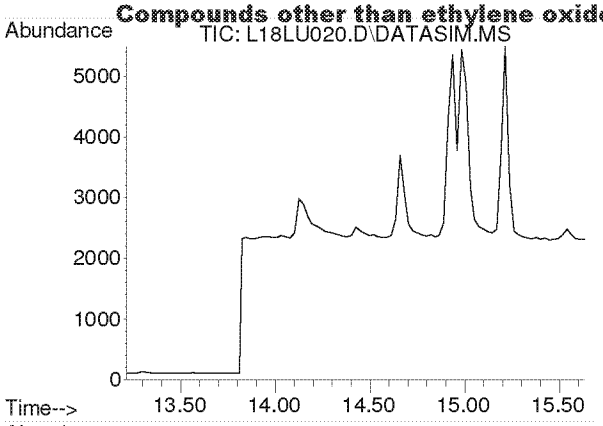
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 64

| Sig | Exp Ratio |
|---|---|
| 64 | 100 |
| 66 | 32.0 |



**Compounds other than ethylene oxide were not quantitated.**

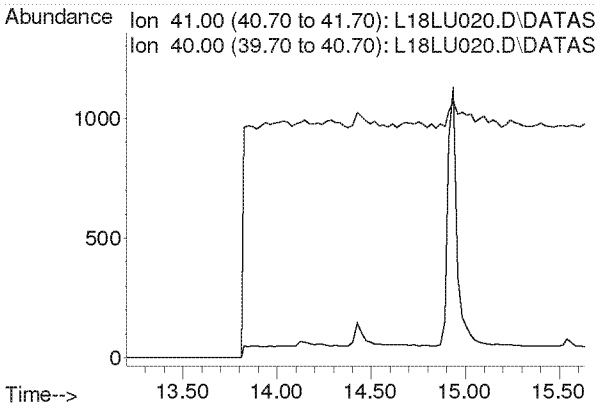


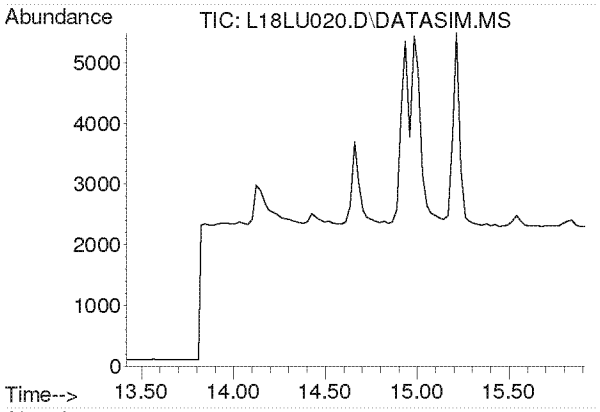

#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 40 | 50.9 |



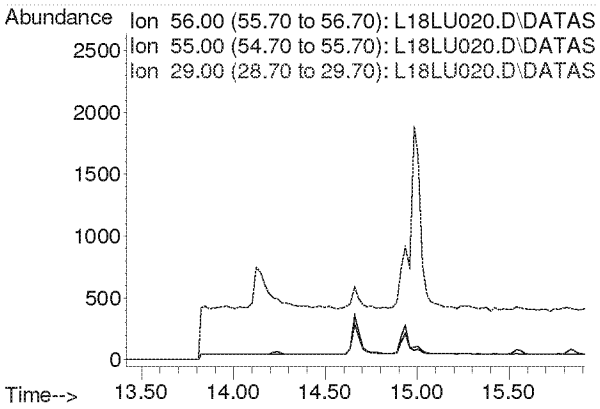




#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

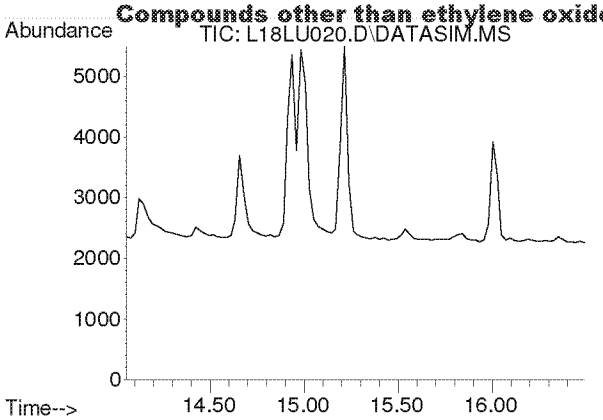
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 56

| Sig | Exp Ratio |
|---|---|
| 56 | 100 |
| 55 | 75.4 |
| 29 | 52.9 |



**Compounds other than ethylene oxide were not quantitated.**

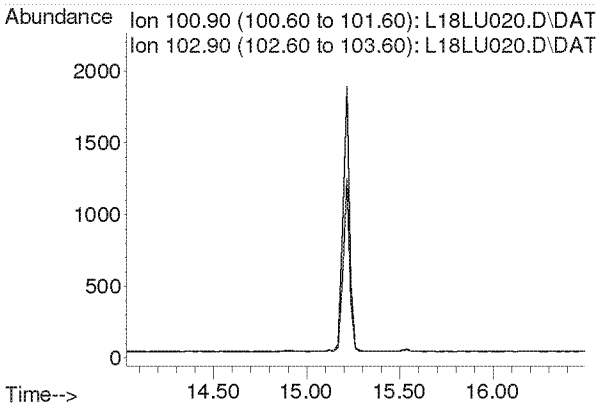


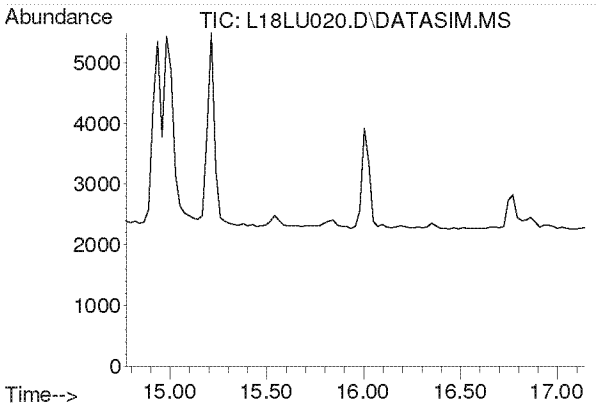

#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 103 | 64.6 |



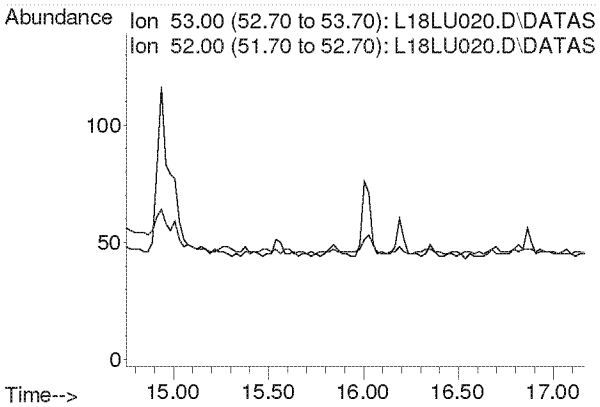




#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

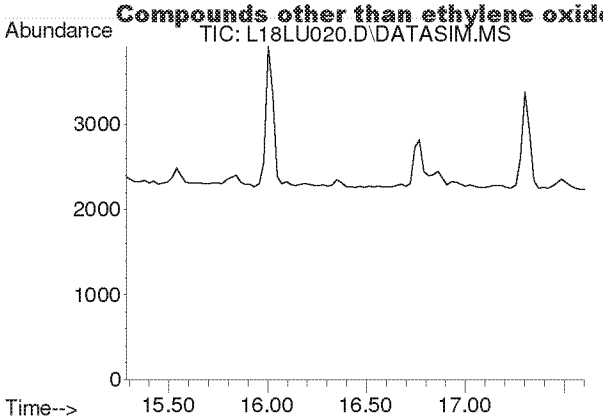
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 52 | 85.4 |



**Compounds other than ethylene oxide were not quantitated.**

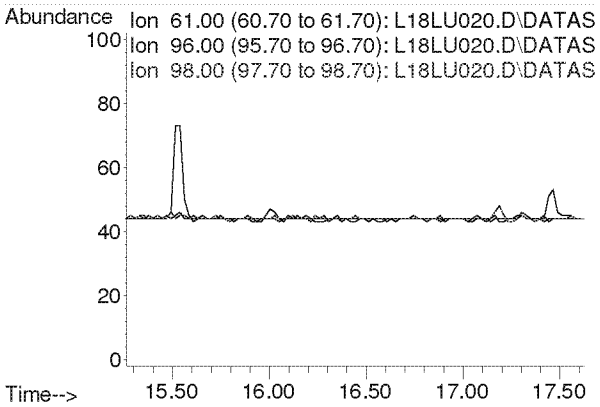


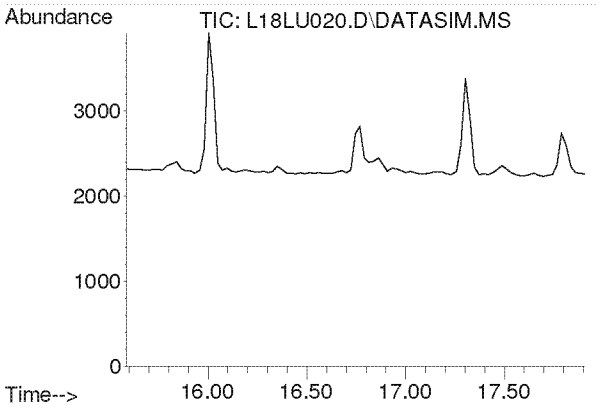

#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 58.3 |
| 98 | 37.4 |



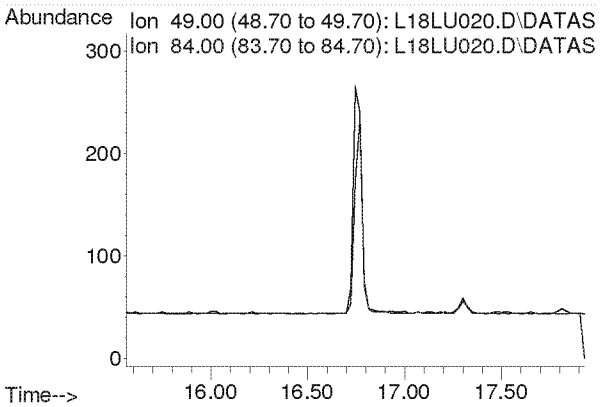




#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

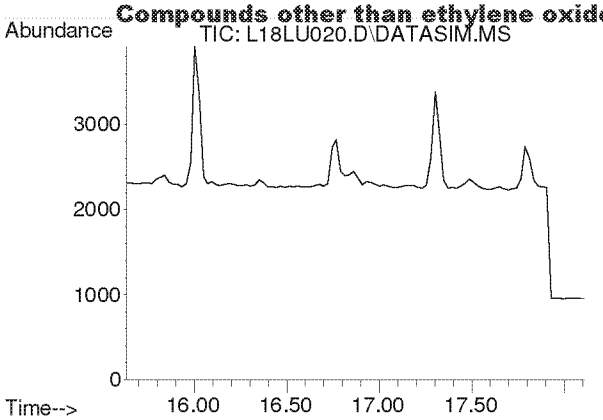
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 49

| Sig | Exp Ratio |
|---|---|
| 49 | 100 |
| 84 | 76.4 |



**Compounds other than ethylene oxide were not quantitated.**

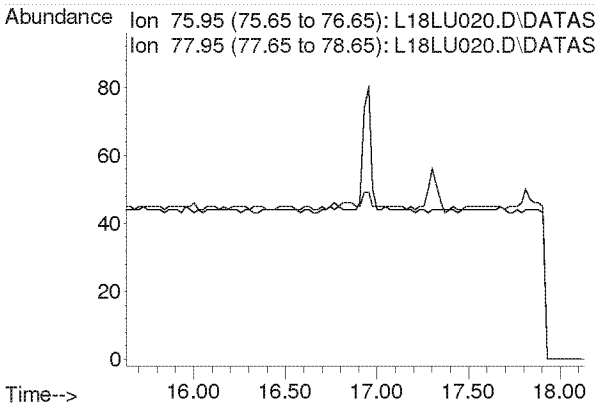


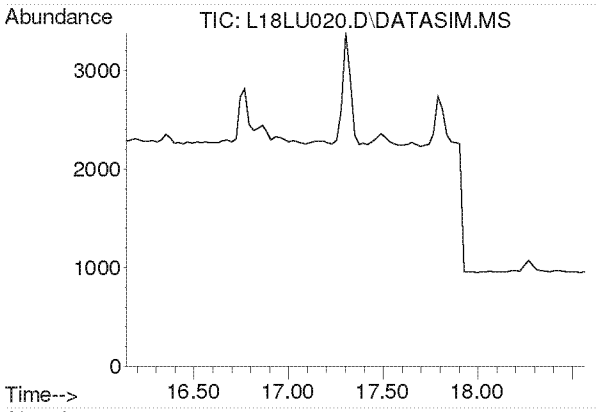

#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 76

| Sig | Exp Ratio |
|---|---|
| 76 | 100 |
| 78 | 9.1 |



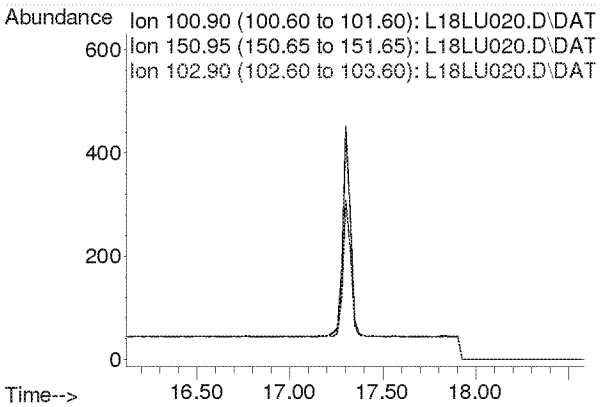




#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

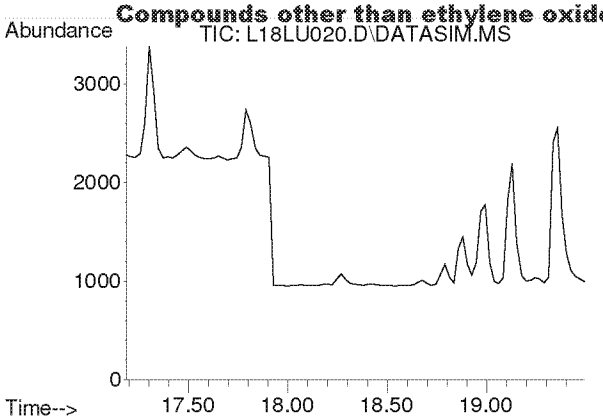
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 101

| Sig | Exp Ratio |
|---|---|
| 101 | 100 |
| 151 | 95.3 |
| 103 | 64.1 |



**Compounds other than ethylene oxide were not quantitated.**

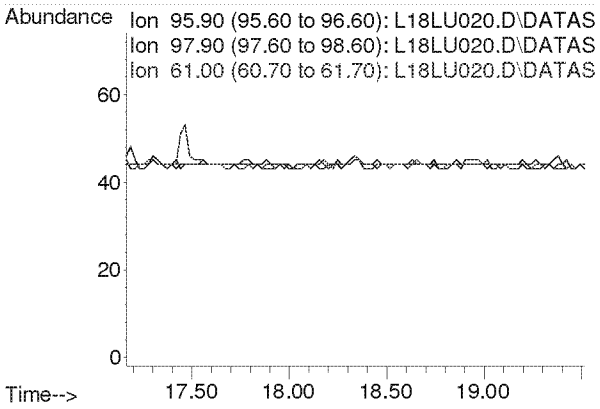


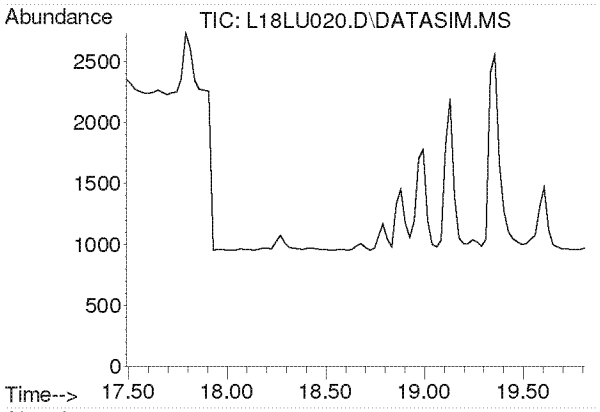

#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 96

| Sig | Exp Ratio |
|---|---|
| 96 | 100 |
| 98 | 63.7 |
| 61 | 159.2 |



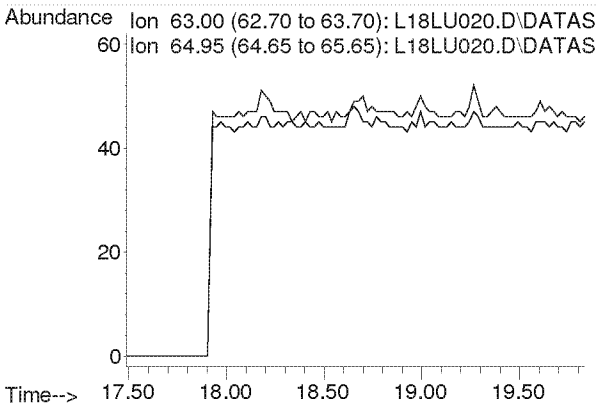




#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

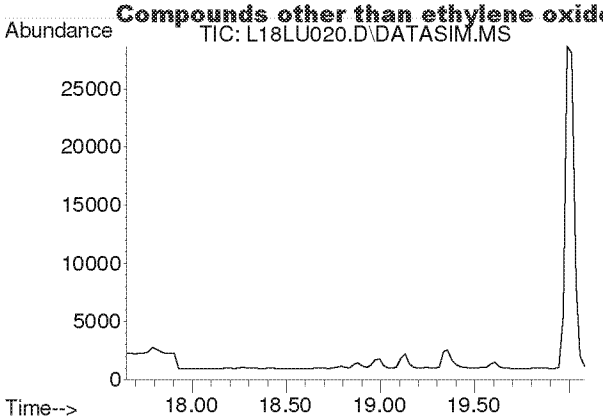
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 65 | 31.7 |



**Compounds other than ethylene oxide were not quantitated.**

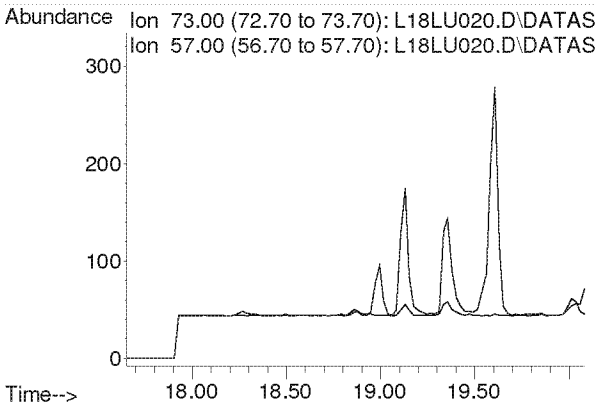


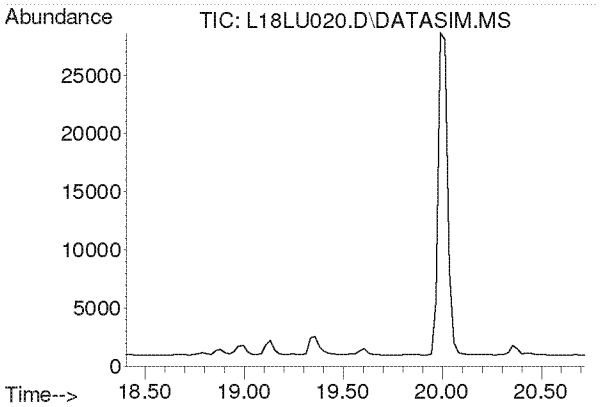

#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 57 | 23.4 |



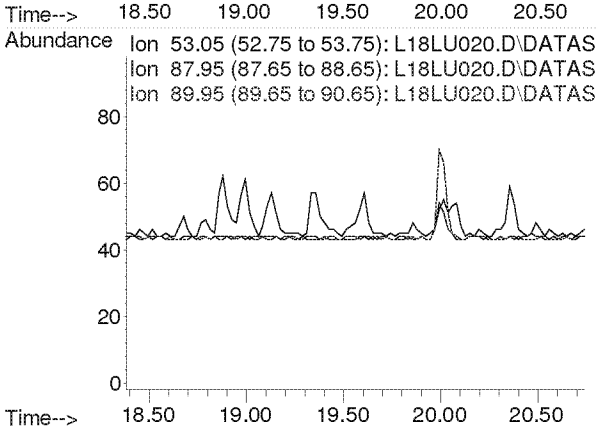




#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

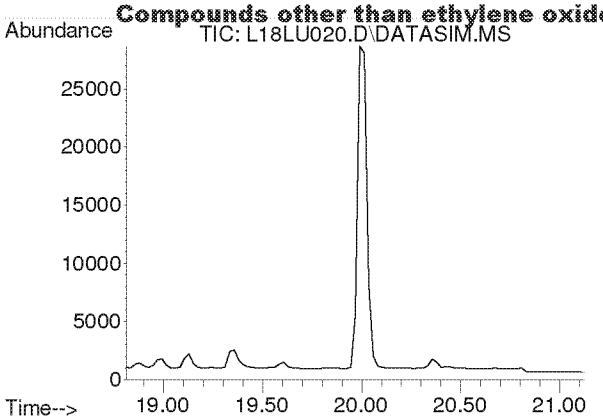
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 53

| Sig | Exp Ratio |
|---|---|
| 53 | 100 |
| 88 | 51.8 |
| 90 | 16.8 |



**Compounds other than ethylene oxide were not quantitated.**

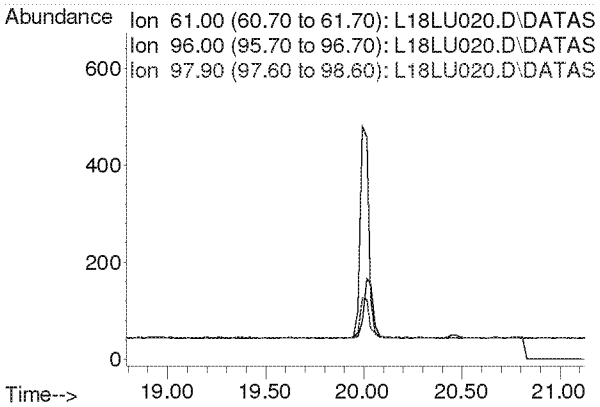


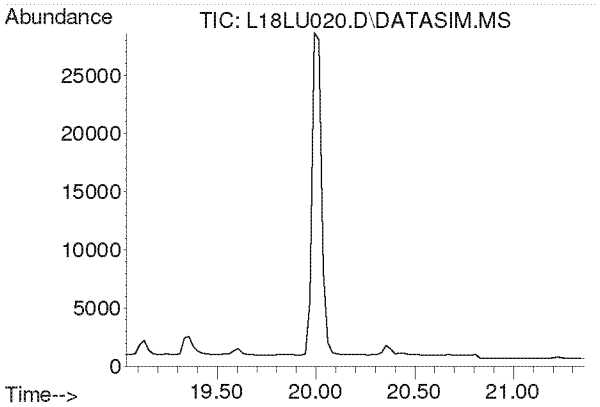

#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 61

| Sig | Exp Ratio |
|---|---|
| 61 | 100 |
| 96 | 73.7 |
| 98 | 45.2 |



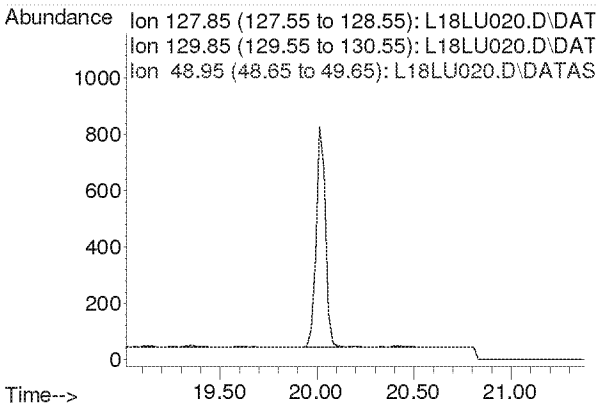




#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

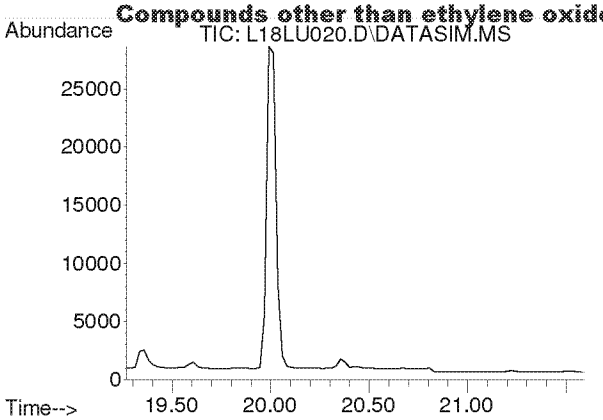
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 128

| Sig | Exp Ratio |
|---|---|
| 128 | 100 |
| 130 | 129.1 |
| 49 | 171.2 |



**Compounds other than ethylene oxide were not quantitated.**

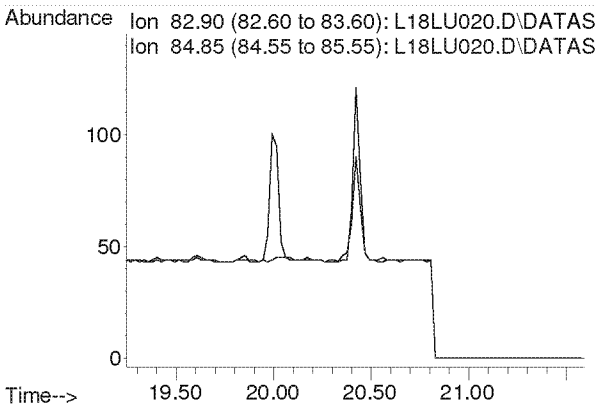


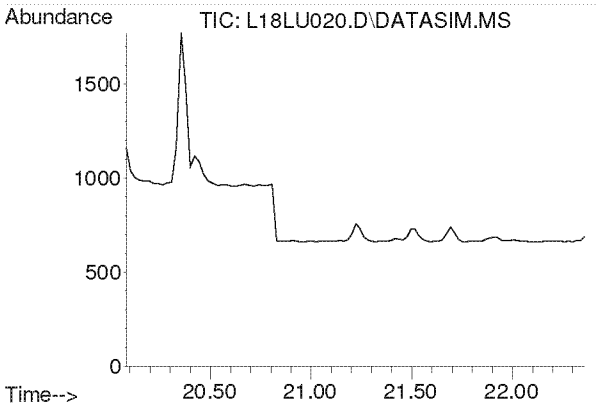

#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.4 |



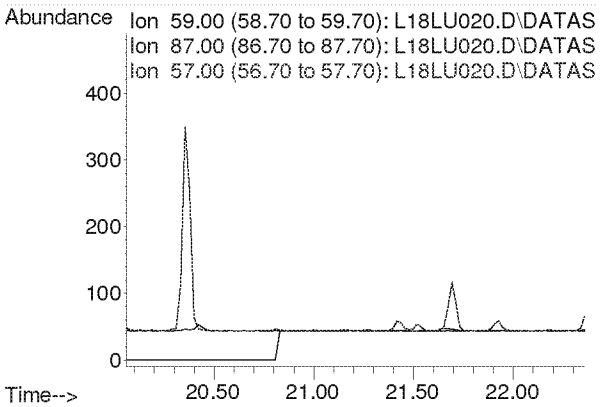




#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

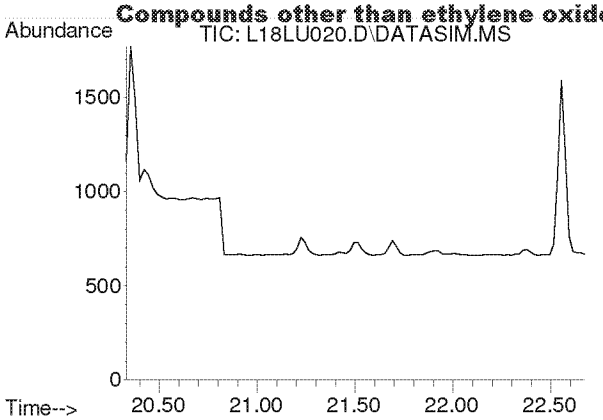
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 59

| Sig | Exp Ratio |
|---|---|
| 59 | 100 |
| 87 | 37.5 |
| 57 | 33.8 |



**Compounds other than ethylene oxide were not quantitated.**

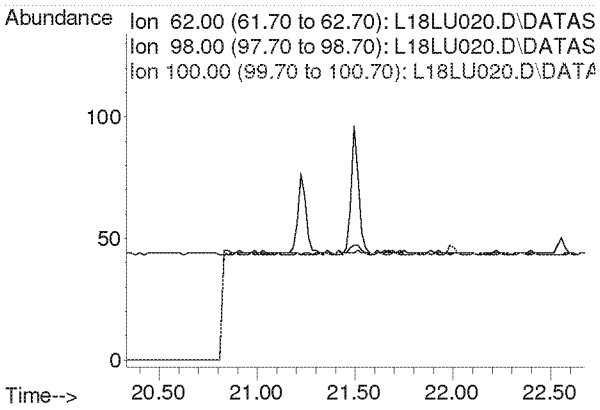


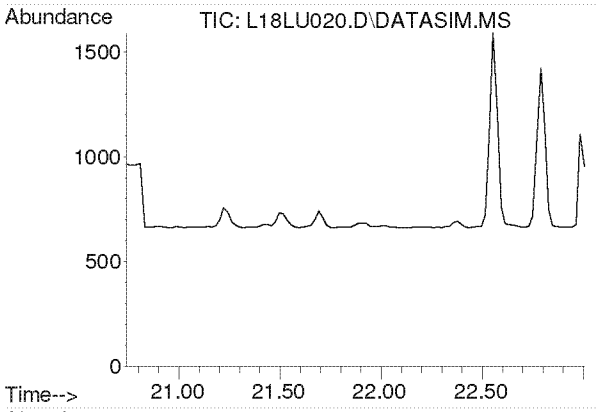

#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 62

| Sig | Exp Ratio |
|---|---|
| 62 | 100 |
| 98 | 6.4 |
| 100 | 4.0 |



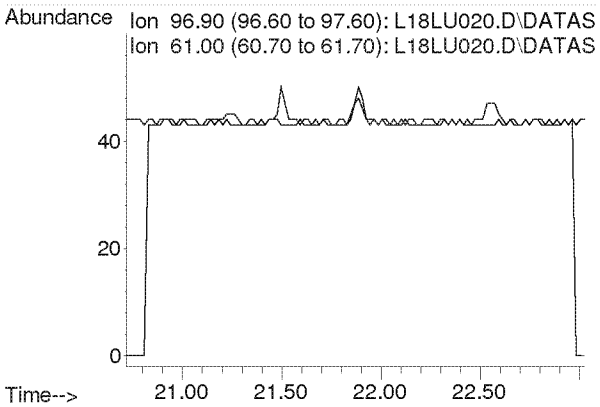




#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

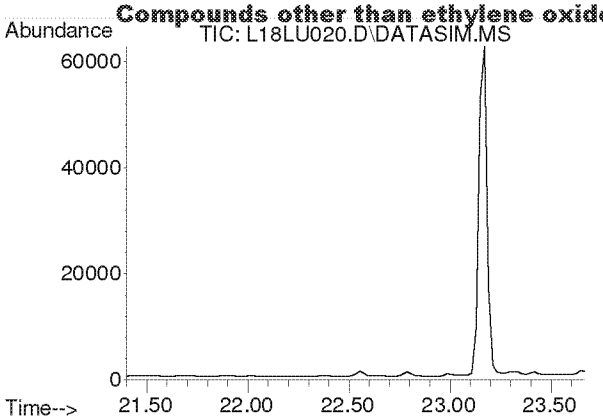
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 61 | 60.5 |



**Compounds other than ethylene oxide were not quantitated.**

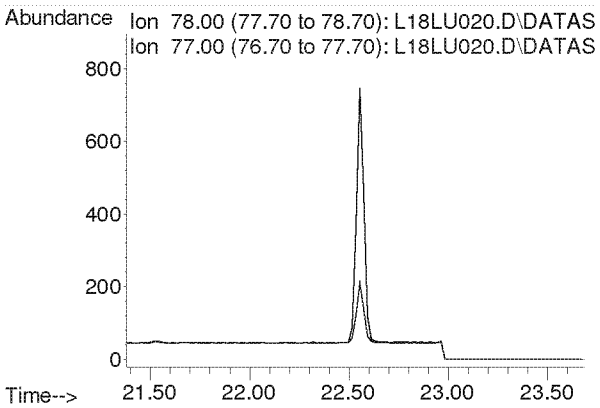


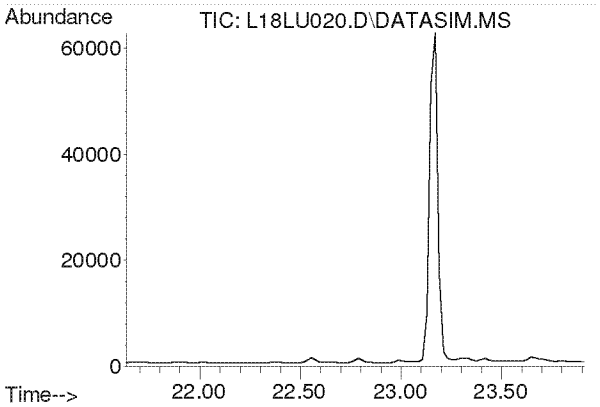

#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 78

| Sig | Exp Ratio |
|---|---|
| 78 | 100 |
| 77 | 22.7 |



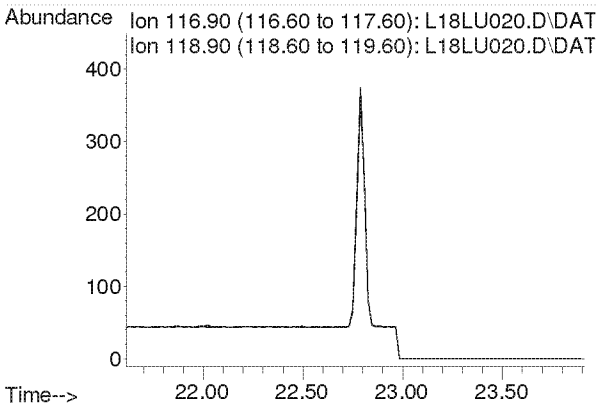




#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

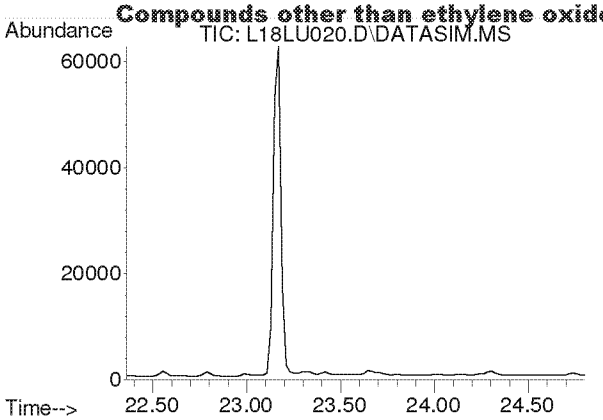
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 117

| Sig | Exp Ratio |
|---|---|
| 117 | 100 |
| 119 | 96.5 |



**Compounds other than ethylene oxide were not quantitated.**

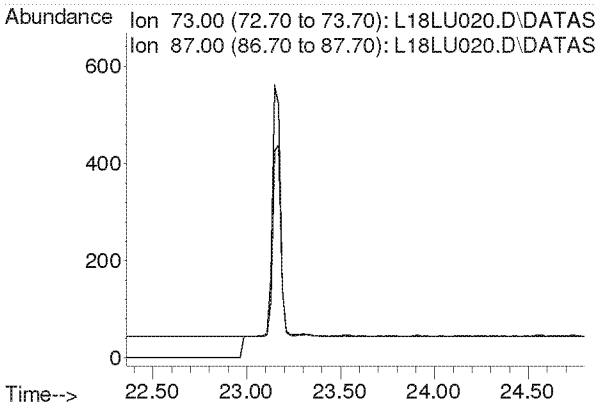


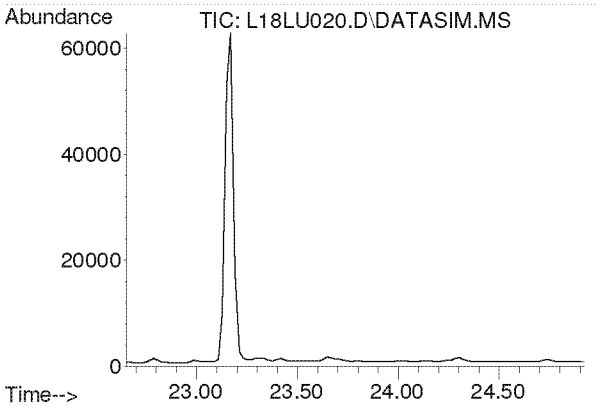

#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 73

| Sig | Exp Ratio |
|---|---|
| 73 | 100 |
| 87 | 24.9 |



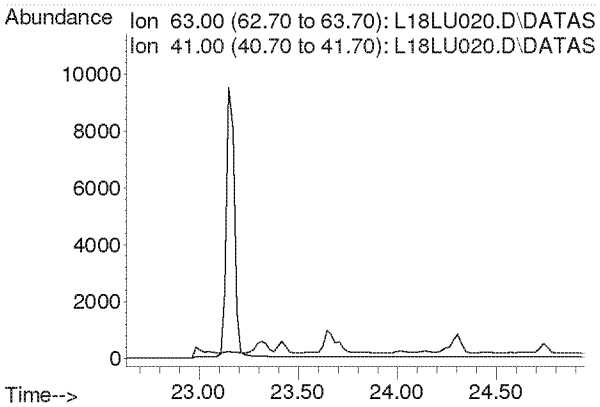




#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

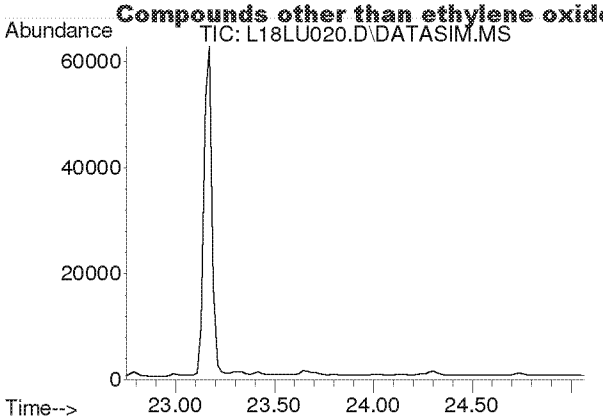
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 63

| Sig | Exp Ratio |
|---|---|
| 63 | 100 |
| 41 | 212.8 |



**Compounds other than ethylene oxide were not quantitated.**

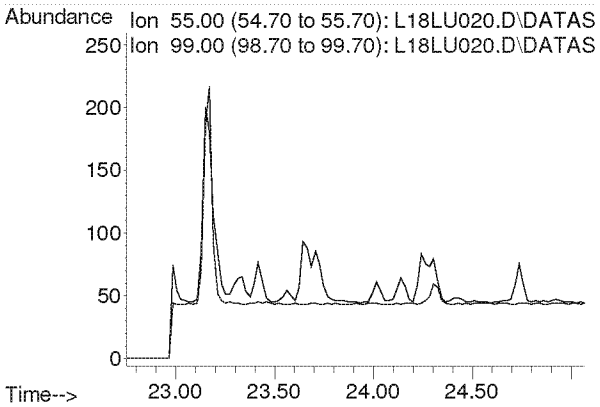


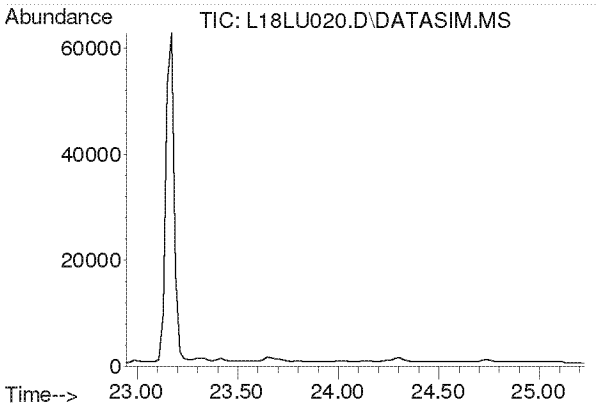

#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 55

| Sig | Exp Ratio |
|---|---|
| 55 | 100 |
| 99 | 6.1 |



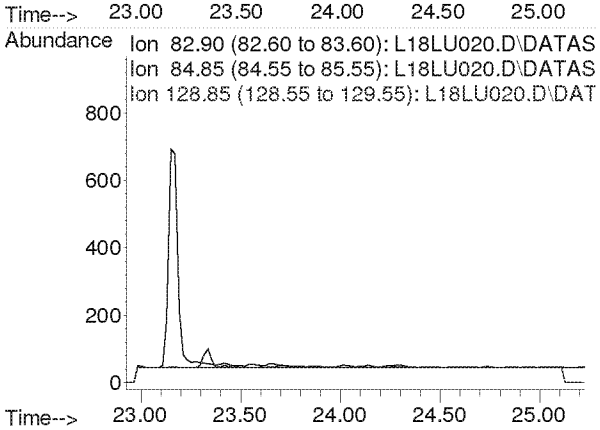




#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

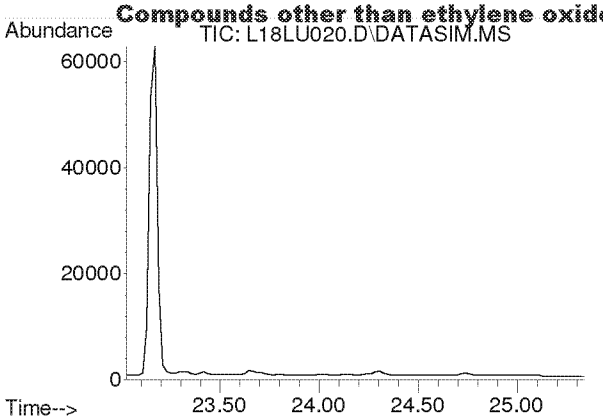
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 64.0 |
| 129 | 12.4 |



**Compounds other than ethylene oxide were not quantitated.**

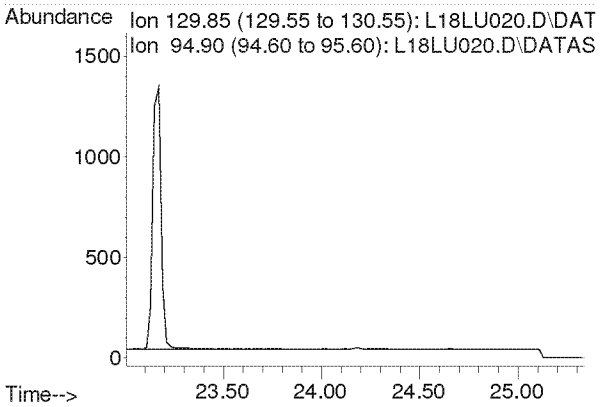


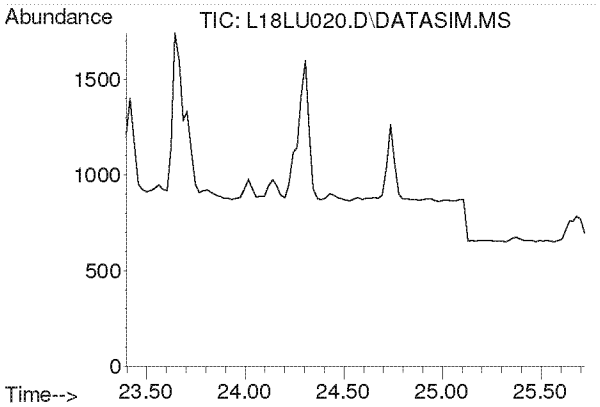

#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 130

| Sig | Exp Ratio |
|---|---|
| 130 | 100 |
| 95 | 110.3 |



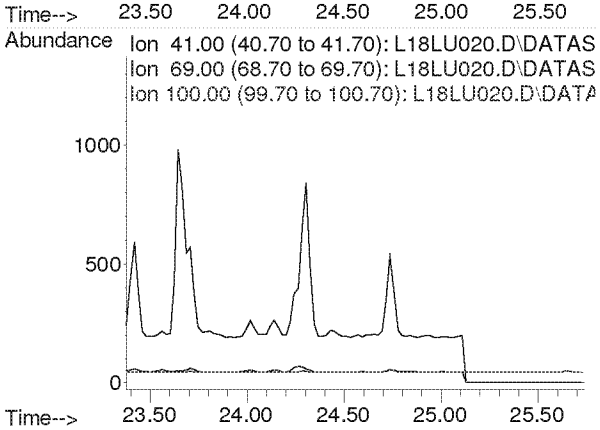




#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

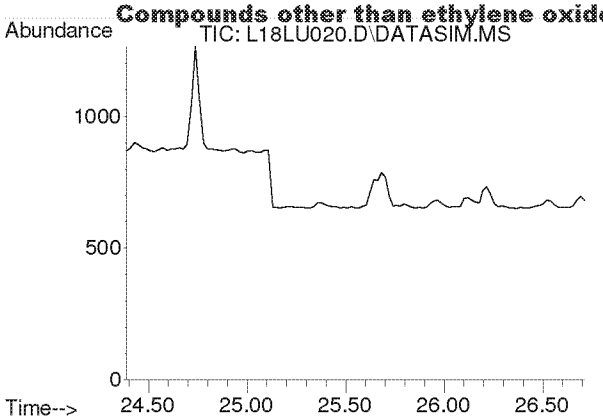
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 41

| Sig | Exp Ratio |
|---|---|
| 41 | 100 |
| 69 | 19.9 |
| 100 | 5.2 |



**Compounds other than ethylene oxide were not quantitated.**

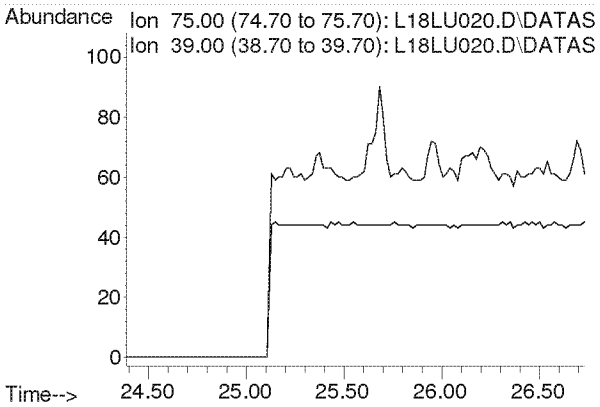


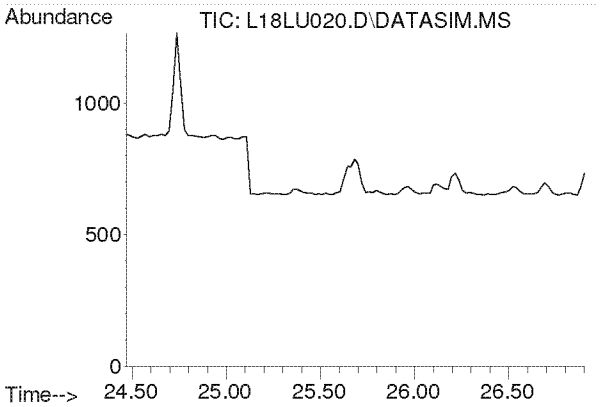

#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 54.4 |



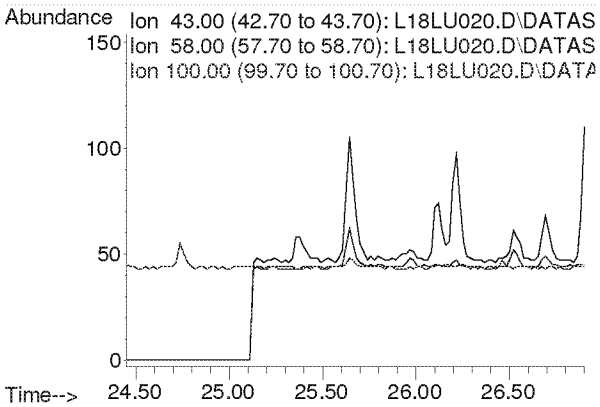




#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

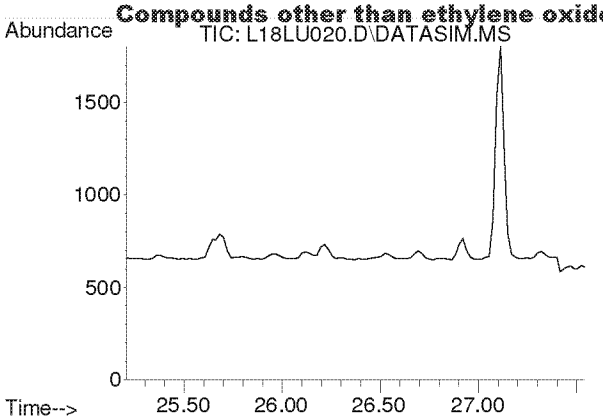
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 58 | 34.2 |
| 100 | 7.9 |



**Compounds other than ethylene oxide were not quantitated.**

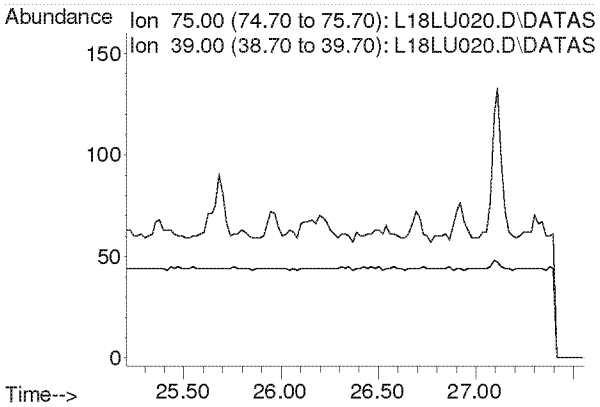


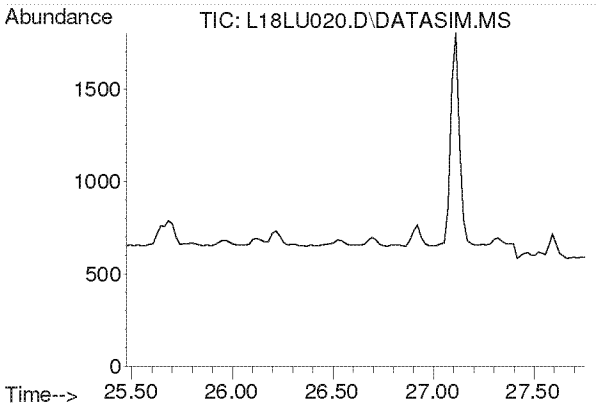

#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 75

| Sig | Exp Ratio |
|---|---|
| 75 | 100 |
| 39 | 50.9 |



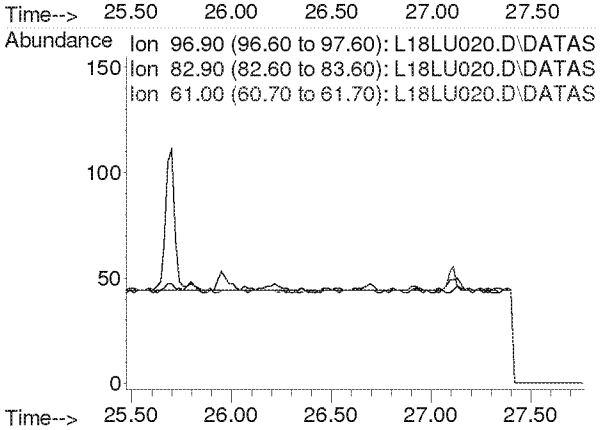




#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

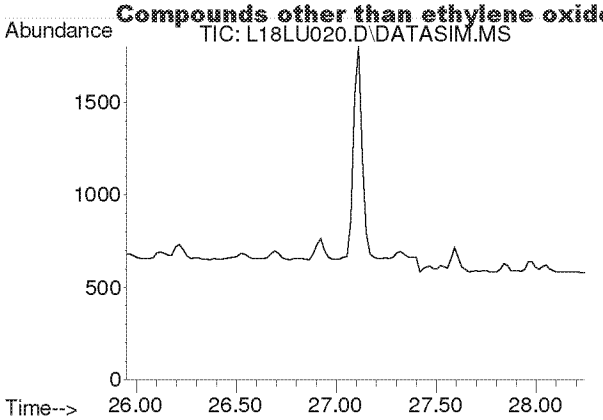
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 97

| Sig | Exp Ratio |
|---|---|
| 97 | 100 |
| 83 | 96.1 |
| 61 | 63.5 |



**Compounds other than ethylene oxide were not quantitated.**

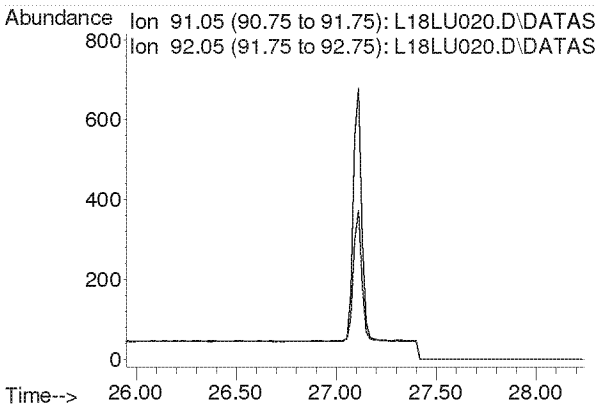


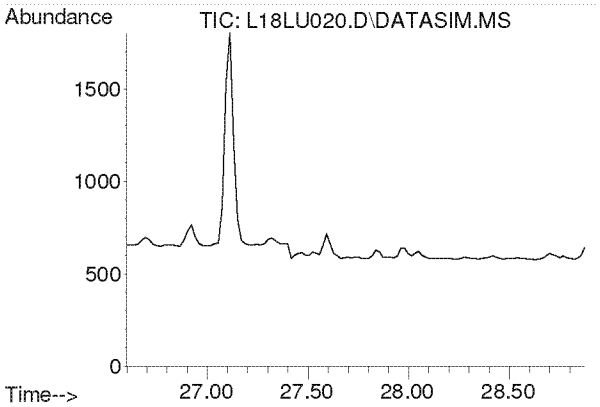

#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 92 | 52.6 |



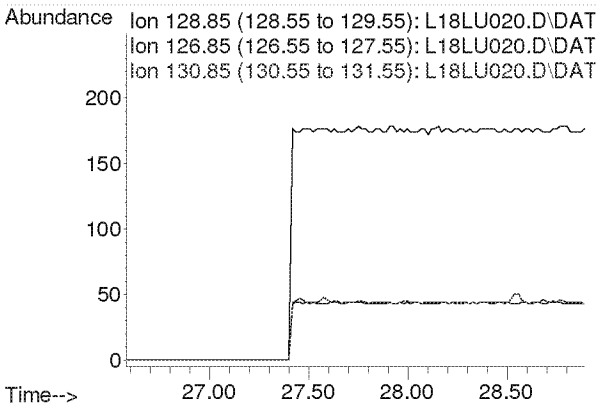




#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

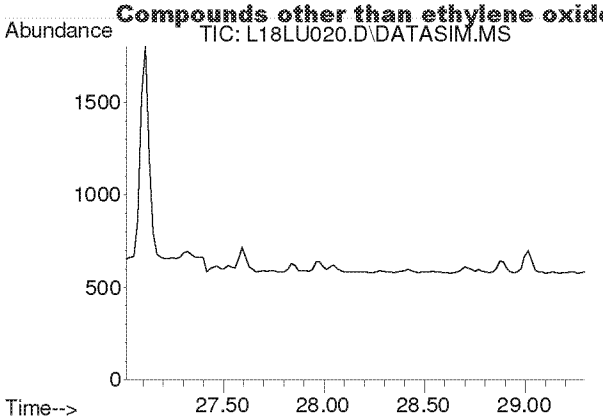
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 129

| Sig | Exp Ratio |
|---|---|
| 129 | 100 |
| 127 | 19.2 |
| 131 | 6.0 |



**Compounds other than ethylene oxide were not quantitated.**

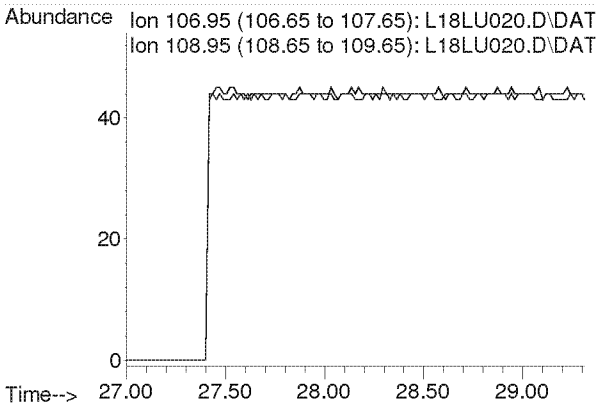


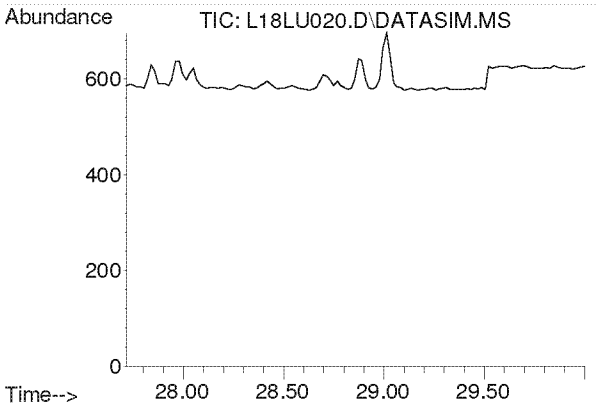

#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 107

| Sig | Exp Ratio |
|---|---|
| 107 | 100 |
| 109 | 94.5 |



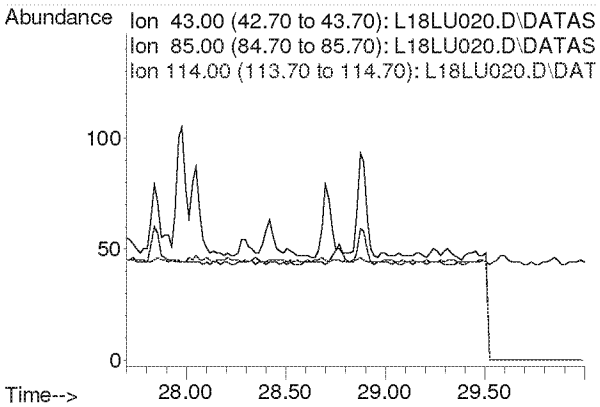




#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

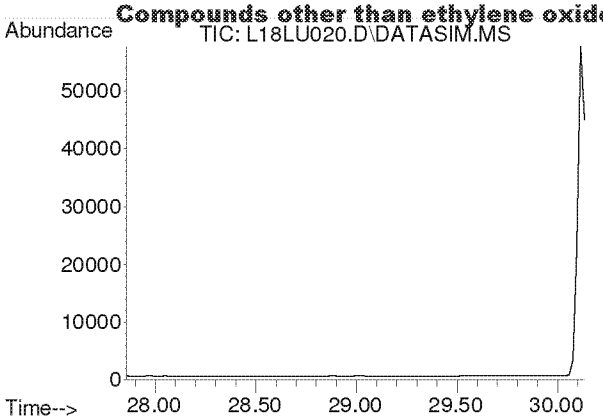
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 43

| Sig | Exp Ratio |
|---|---|
| 43 | 100 |
| 85 | 36.0 |
| 114 | 2.2 |



**Compounds other than ethylene oxide were not quantitated.**

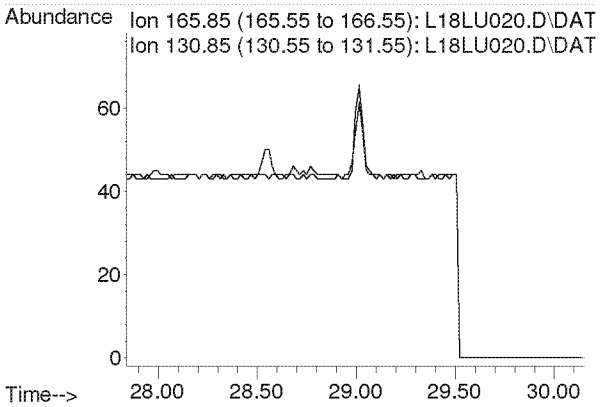


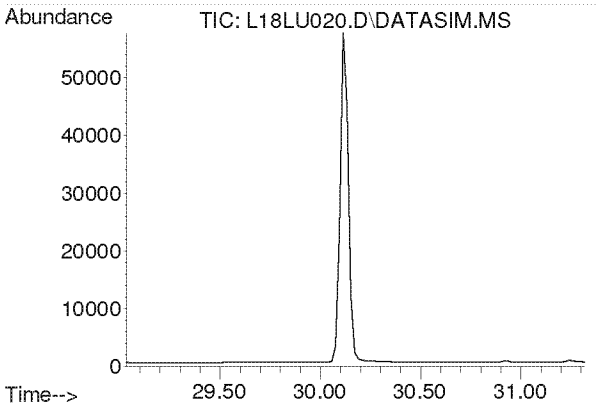

#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 166

| Sig | Exp Ratio |
|---|---|
| 166 | 100 |
| 131 | 78.2 |



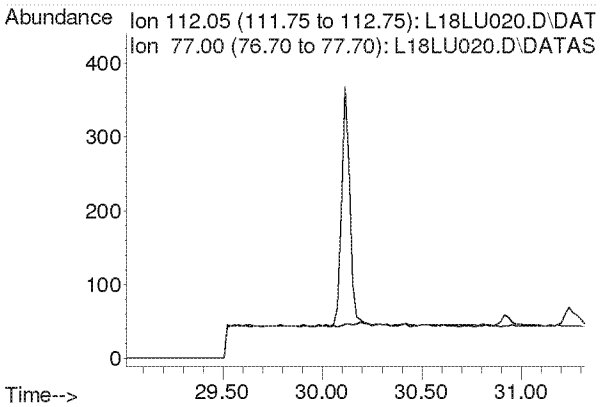




#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

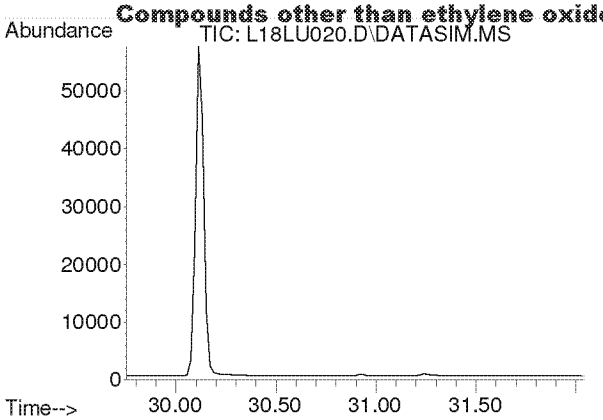
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 112

| Sig | Exp Ratio |
|---|---|
| 112 | 100 |
| 77 | 63.0 |



**Compounds other than ethylene oxide were not quantitated.**

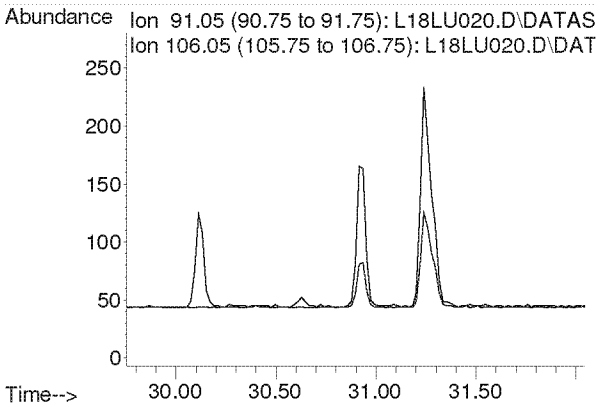


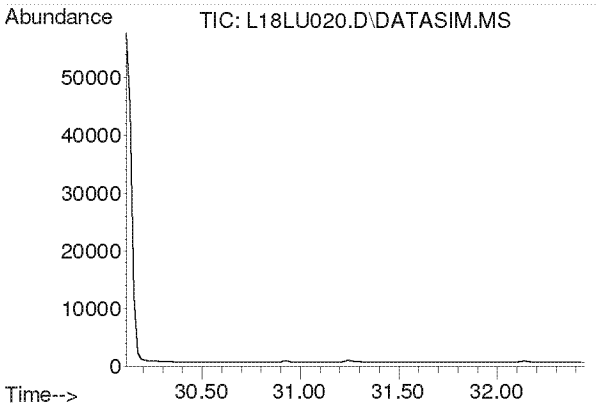

#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 31.8 |



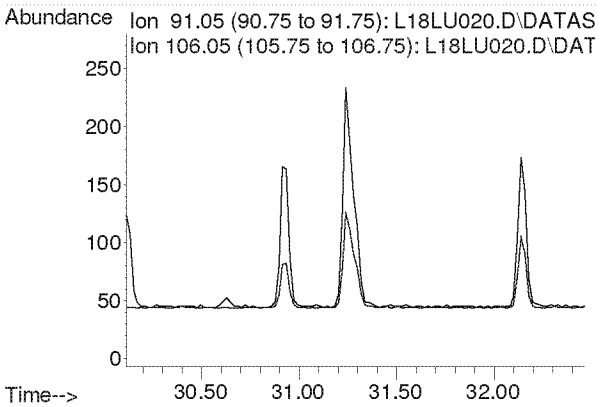




#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

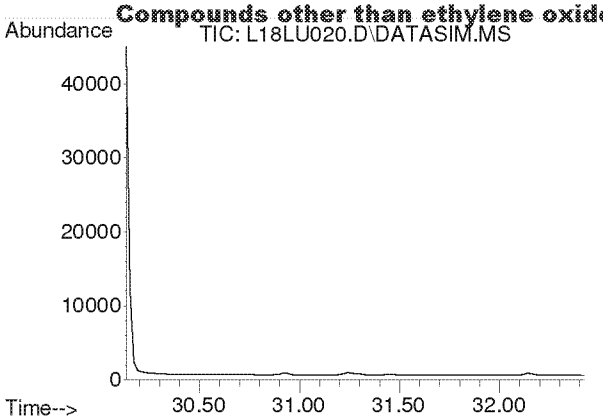
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.4 |



**Compounds other than ethylene oxide were not quantitated.**

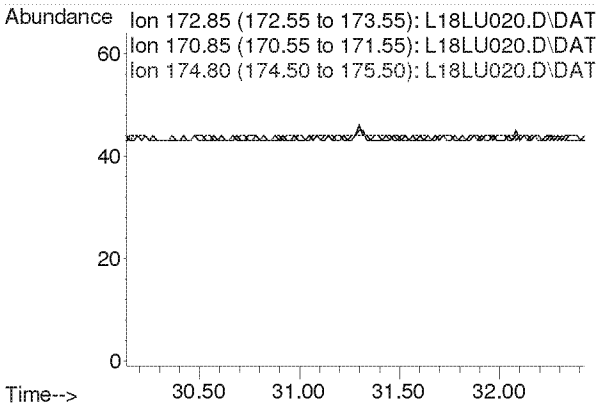


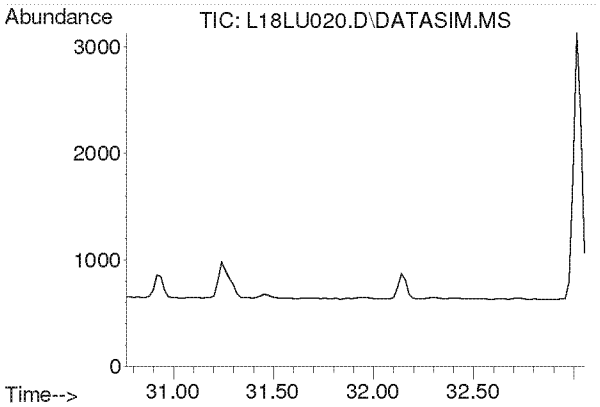

#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 173

| Sig | Exp Ratio |
|---|---|
| 173 | 100 |
| 171 | 51.3 |
| 175 | 49.0 |



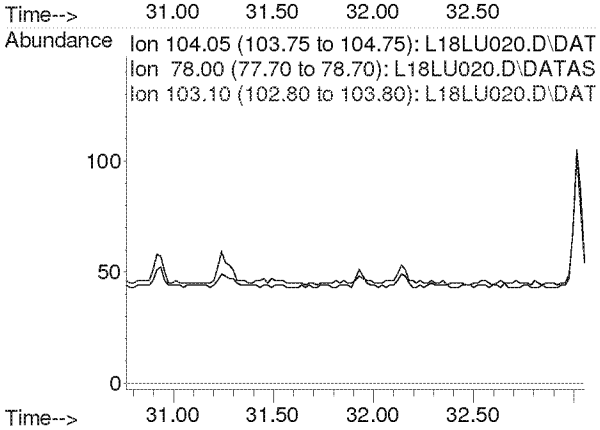




#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

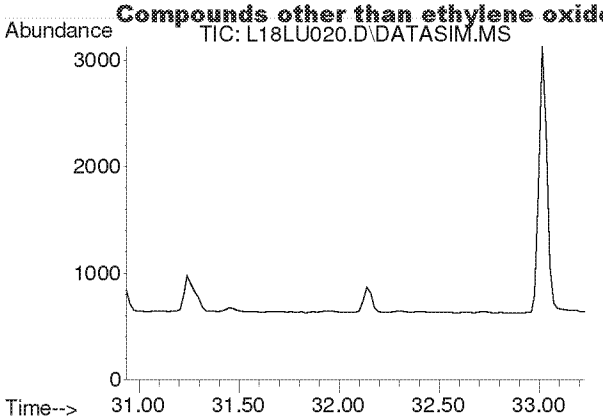
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 104

| Sig | Exp Ratio |
|---|---|
| 104 | 100 |
| 78 | 45.6 |
| 103 | 0.0 |



**Compounds other than ethylene oxide were not quantitated.**

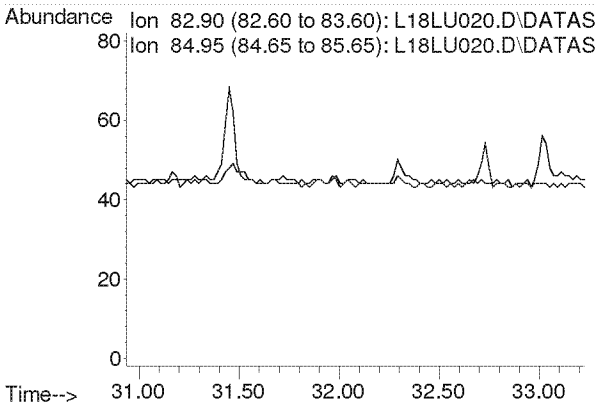


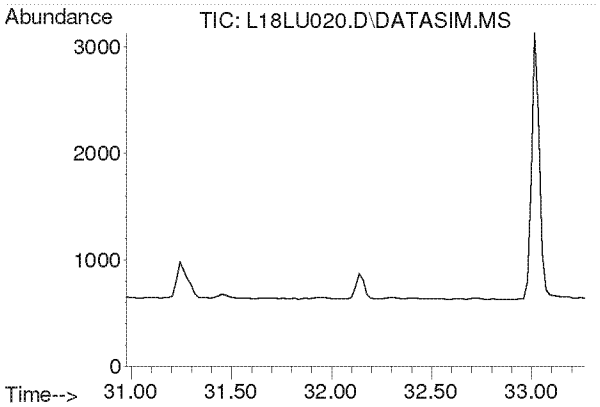

#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 83

| Sig | Exp Ratio |
|---|---|
| 83 | 100 |
| 85 | 63.9 |



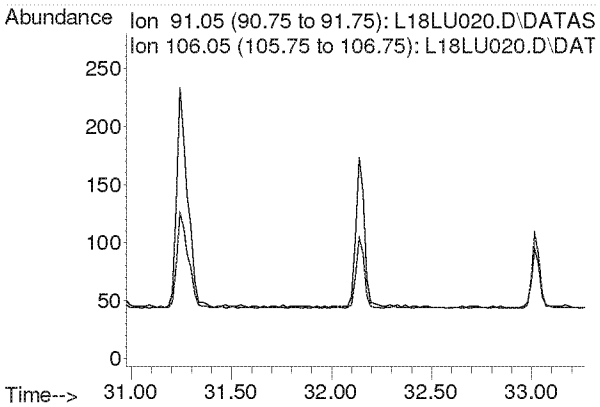




#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

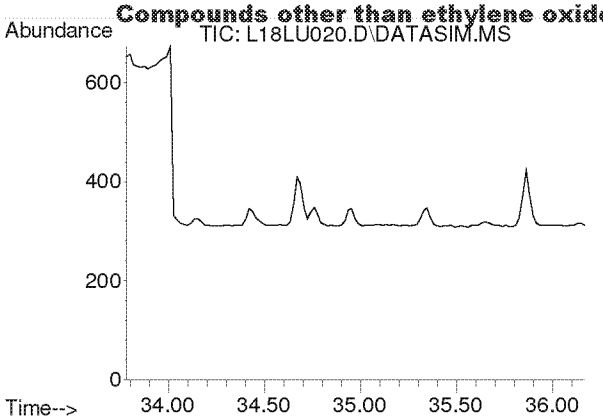
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 91

| Sig | Exp Ratio |
|---|---|
| 91 | 100 |
| 106 | 44.2 |



**Compounds other than ethylene oxide were not quantitated.**

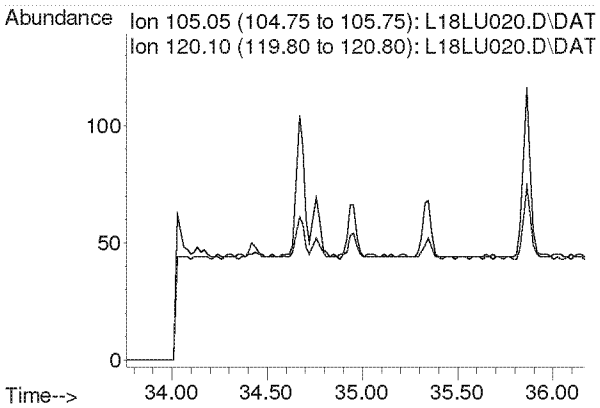


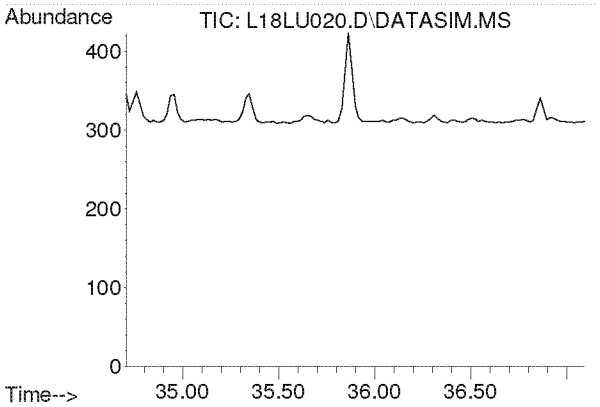

#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 45.0 |



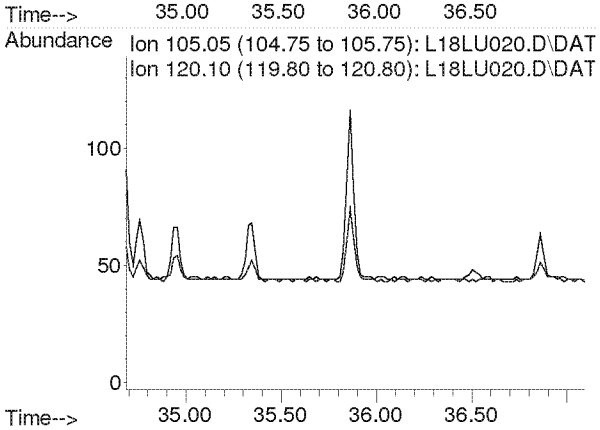




#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

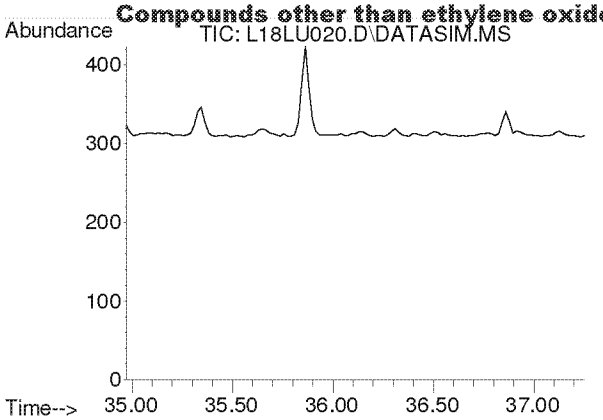
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 105

| Sig | Exp Ratio |
|---|---|
| 105 | 100 |
| 120 | 42.8 |



**Compounds other than ethylene oxide were not quantitated.**

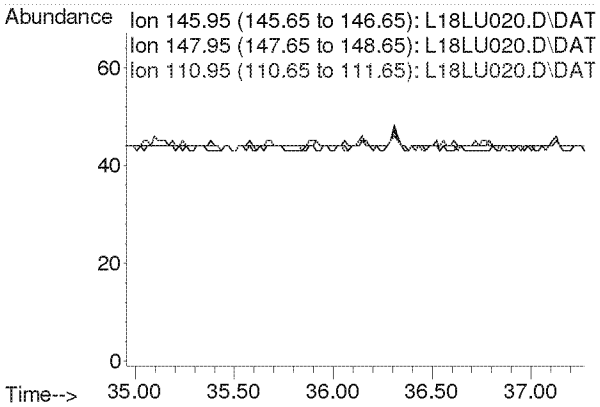


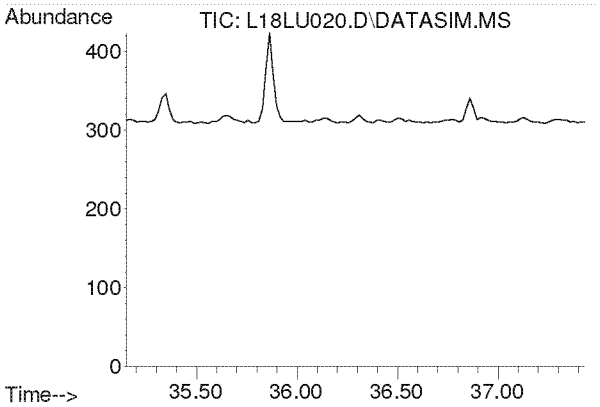

#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 40.5 |



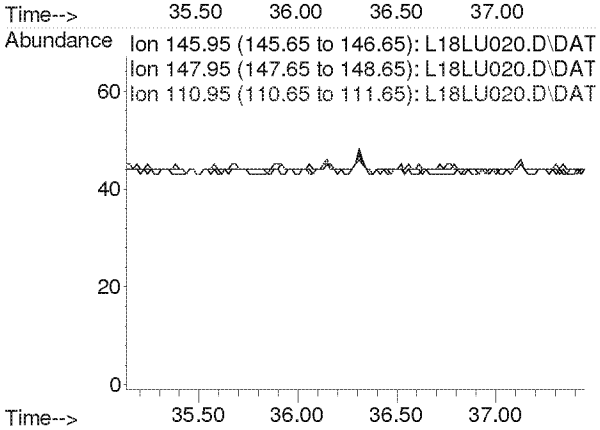




#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

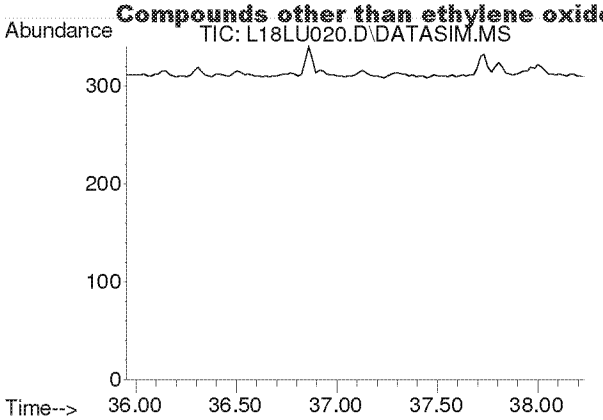
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.0 |
| 111 | 39.5 |



**Compounds other than ethylene oxide were not quantitated.**

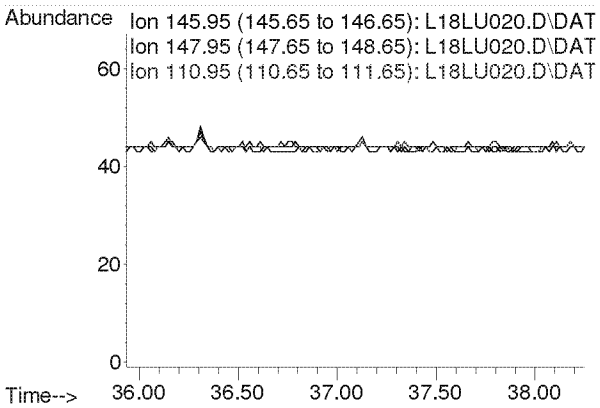


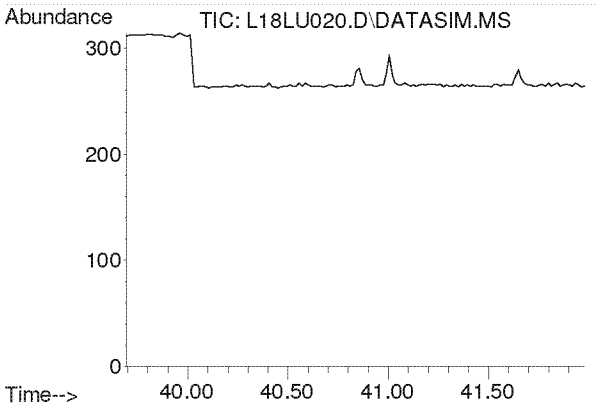

#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 146

| Sig | Exp Ratio |
|---|---|
| 146 | 100 |
| 148 | 64.1 |
| 111 | 41.4 |



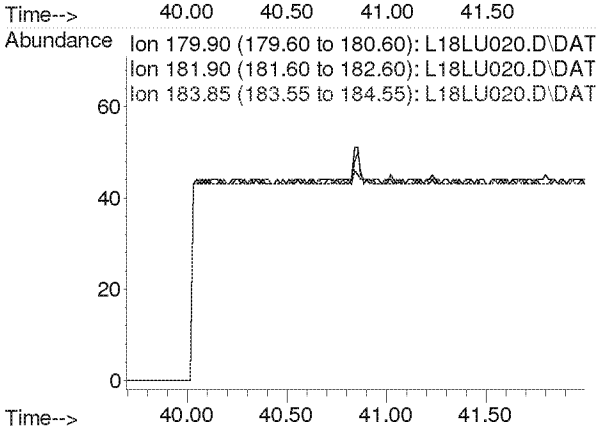




#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

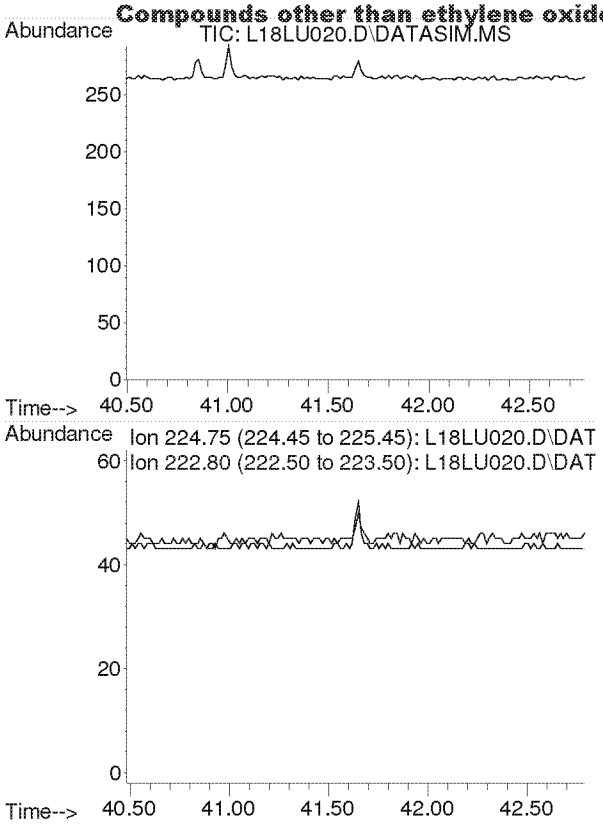
Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 180

| Sig | Exp Ratio |
|---|---|
| 180 | 100 |
| 182 | 95.1 |
| 184 | 30.7 |



**Compounds other than ethylene oxide were not quantitated.**




#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18LU020.D
Acq: 22 Dec 2018 2:47 am

Tgt Ion: 225

| Sig | Exp Ratio |
|---|---|
| 225 | 100 |
| 223 | 62.4 |

**Compounds other than ethylene oxide were not quantitated.**

# PREPARATION BENCH SHEET

B8L2103

## Eastern Research Group

**Matrix: Air** | **Prepared using: Air Toxics - Summa Canister Prep** | **nted: 12/21/2018 10:45:06AM**

| Lab Number | Prepared | Initial (ml) | Final (ml) | Spike ID | Source ID | ul Spike | Comments | |
|---|---|---|---|---|---|---|---|---|
| **8120528-01** *TO-15 2018* | 11/29/18 23:59 | 250 | 250 | U.S. Environmental Protection Agency, Region 5 | Ethylene Oxide only | | | Ethylene Oxide only |
| **8120528-02** *TO-15 2018* | 11/29/18 23:59 | 250 | 250 | U.S. Environmental Protection Agency, Region 5 | Ethylene Oxide only | | | Ethylene Oxide only |
| **8120528-05** *TO-15 2018* | 11/29/18 23:59 | 250 | 250 | U.S. Environmental Protection Agency, Region 5 | Ethylene Oxide only | | | Ethylene Oxide only |
| **8120701-01** *TO-15 2018* | 12/02/18 09:29 | 250 | 250 | U.S. Environmental Protection Agency - OAQPS | Ethylene Oxide only | | | Ethylene Oxide only |
| **8120701-02** *TO-15 2018* | 12/02/18 09:12 | 250 | 250 | U.S. Environmental Protection Agency - OAQPS | Ethylene Oxide only | | | Ethylene Oxide only |
| **8120701-03** *TO-15 2018* | 12/02/18 09:55 | 250 | 250 | U.S. Environmental Protection Agency - OAQPS | Ethylene Oxide only | | | Ethylene Oxide only |
| **8120701-04** *TO-15 2018* | 12/02/18 09:46 | 250 | 250 | U.S. Environmental Protection Agency - OAQPS | Ethylene Oxide only | | | Ethylene Oxide only |
| **8120701-05** *TO-15 2018* | 12/02/18 10:10 | 250 | 250 | U.S. Environmental Protection Agency - OAQPS | Ethylene Oxide only | | | Ethylene Oxide only |
| **8120701-06** *TO-15 2018* | 12/02/18 09:37 | 250 | 250 | U.S. Environmental Protection Agency - OAQPS | Ethylene Oxide only | | | Ethylene Oxide only |
| **8120701-07** *TO-15 2018* | 12/02/18 10:03 | 250 | 250 | U.S. Environmental Protection Agency - OAQPS | Ethylene Oxide only | | | Ethylene Oxide only |
| **8120701-08** *TO-15 2018* | 12/02/18 09:17 | 250 | 250 | U.S. Environmental Protection Agency - OAQPS | Ethylene Oxide only | | | Ethylene Oxide only |
| **8120701-09** *TO-15 2018* | 12/02/18 09:18 | 250 | 250 | U.S. Environmental Protection Agency - OAQPS | Ethylene Oxide only | | | Ethylene Oxide only |
| **8120701-10** *TO-15 2018* | 11/26/18 10:30 | 250 | 250 | U.S. Environmental Protection Agency - OAQPS | Ethylene Oxide only | | | Ethylene Oxide only |
| **8121220-01** *TO-15 2018* | 12/11/18 09:53 | 250 | 250 | U.S. Environmental Protection Agency - OAQPS | Ethylene Oxide only | | | Ethylene Oxide only |

Spiking Witnessed By: Date

Preparation Reviewed By: 12-26-18 Date

Extracts Received By Date



Page 1 of 2

**Compounds other than ethylene oxide were not quantitated.**

PREPARATION BENCH SHEET

B8L2103

## Eastern Research Group

**Matrix: Air** **Prepared using: Air Toxics - Summa Canister Prep** **nted: 12/21/2018 10:45:06AM**

| Lab Number | Prepared | Initial (ml) | Final (ml) | Spike ID | Source ID | ul Spike | Comments | |
|---|---|---|---|---|---|---|---|---|
| **8121220-02** *TO-15 2018* | 12/11/18 08:57 | 250 | 250 | U.S. Environmental Protection Agency - OAQPS | Ethylene Oxide only | | | Ethylene Oxide only |
| **8121220-03** *TO-15 2018* | 12/11/18 09:58 | 250 | 250 | U.S. Environmental Protection Agency - OAQPS | Ethylene Oxide only | | | Ethylene Oxide only |
| **B8L2103-BLK1** | 12/18/18 08:00 | 250 | 250 | | | | | |
| **B8L2103-DUP1** | 11/29/18 23:59 | 250 | 250 | | 8120528-01 | | | |
| **B8L2103-DUP2** | 11/29/18 23:59 | 250 | 250 | | 8120528-02 | | | |
| **B8L2103-DUP3** | 12/02/18 09:17 | 250 | 250 | | 8120701-08 | | | |
| **B8L2103-DUP4** | 12/02/18 09:18 | 250 | 250 | | 8120701-09 | | | |

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

Compounds other than ethylene oxide were not quantitated.

4 of 5

ERG Lab ID # S120701-01

ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

# AIR TOXICS SAMPLE CHAIN OF CUSTODY

**Lab Pre-Sampling**

Site Code: Gower MS
Canister Number: A22244
City/State: Burr Ridge, IL
Lab Initial Can. Press. ("Hg): 29.6
AQS Code:
Cleaning Batch # : H1-509
Collection Date: 12/1/18
Date Can. Cleaned: 11/20/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: LR
Date: 11/28/18

**Field Setup**

Received by: Qazzaz
Date: 12/1/18
Operator: Qazzaz
MFC Setting:
System #: 1031
Elapsed Timer Reset (Y/N):
Setup Date: 12/1/18
Canister Valve Opened (Y/N): Y 9:38am
Field Initial Can. Press.: -29.0 psig psia "Hg (Circle one)

**Field Recovery**

Recovery Date: 12/2/18
Sample Duration (3 or 24 hr): 24
Operator: Qazzaz
Elapsed Time:
Field Final Can. Press.: -4.0 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y 9:29am
Relinquished by:
Date: 12/2/18

**Lab Recovery**

Received by: KB
Date: 12/7/18
Lab Final Can. Press.: 3.50 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

***Samples stored in Air Tox Lab (Room 130)***

5-2016

Comments: Leak check @ -29.0 at 9:38am
Ambient Temp @ deployment = 37°F
" " @ collection = 44°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

12/7/18 S

ERG Lab ID # 8412C701-02

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

# AIR TOXICS SAMPLE CHAIN OF CUSTODY

**Lab Pre-Sampling**

Site Code: EPA WB WAREHOUSE
Canister Number: 161
City/State: WILLOWBROOK, IL
Lab Initial Can. Press. ("Hg): 29.6
AQS Code: —
Cleaning Batch # : H1509
Collection Date: 12/1/18
Date Can. Cleaned: 11/20/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: LC
Date: 11/28/18

**Field Setup**

Received by: J. NWIA
Date: 12/1/18
Operator: J. NWIA
MFC Setting:
System #: PROBE # 10314
Elapsed Timer Reset (Y/N):
Setup Date: 12/1/18
Canister Valve Opened (Y/N): Y @ 9:11am
Field Initial Can. Press.: -29.0 psig psia "Hg (Circle one)

**Field Recovery**

Recovery Date: 12/2/18
Sample Duration (3 or 24 hr): 24
Operator: Qazzaz
Elapsed Time:
Field Final Can. Press.: -4.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 9:12am
Relinquished by:
Date: 12/2/18

**Lab Recovery**

Received by: RB
Date: 12/7/18
Lab Final Can. Press.: 3.50 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

*Samples stored in Air Tox Lab (Room 130)*

5-2016

Comments: Leak check @ -29.0 @ 9:16am
Ambient Temp @ deploy = 37°F
" " " collection = 44°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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ERG Lab ID # 8120201-03

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

# AIR TOXICS SAMPLE CHAIN OF CUSTODY

**Lab Pre-Sampling**

Site Code: Hinds Co South HS
Canister Number: 5135
City/State: Darien, IL
Lab Initial Can. Press. ("Hg): 29.6
AQS Code: ——
Cleaning Batch # : H1-308
Collection Date: 12/1/18
Date Can. Cleaned: 11/20/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: KR
Date: 11/28/18

**Field Setup**

Received by: Qazzaz
Date: 12/1/18
Operator: Qazzaz
MFC Setting:
System #: 1076
Elapsed Timer Reset (Y/N):
Setup Date: 12/1/18
Canister Valve Opened (Y/N): Y @ 10:18 AM
Field Initial Can. Press.: -28 psig psia "Hg (Circle one)

**Field Recovery**

Recovery Date: 12/2/18
Sample Duration (3 or 24 hr): 24
Operator: Qazzaz
Elapsed Time:
Field Final Can. Press.: -6.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 9:55 AM
Relinquished by:
Date: 12/2/18

**Lab Recovery**

Received by: KB
Date: 12/7/18
Lab Final Can. Press.: 7.00 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

*Samples stored in Air Tox Lab (Room 130)*

5-2016

Comments: Leak check @ -28" Hg @ 10:23 AM
Ambient temp @ deployment = 37°F
" " " @ collection = 44°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

79r

ERG Lab ID # 8120701-04

ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

# AIR TOXICS SAMPLE CHAIN OF CUSTODY

**Lab Pre-Sampling**

Site Code: Willow Pond Park
Canister Number: 082
City/State: Wilmington, NC
Lab Initial Can. Press. ("Hg): 29.6
AQS Code: ——
Cleaning Batch # : H1-509
Collection Date: 12/1/18
Date Can. Cleaned: 11/20/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: HK
Date: 11/28/18

**Field Setup**

Received by: Qazzaz
Date: 12/1/18
Operator: Qazzaz
MFC Setting:
System #: 10294
Elapsed Timer Reset (Y/N):
Setup Date: 12/1/18
Canister Valve Opened (Y/N): Y @ 9:57am
Field Initial Can. Press.: -28.8 psig psia "Hg (Circle one)

**Field Recovery**

Recovery Date: 12/2/18
Sample Duration (3 or 24 hr): 24
Operator: Qazzaz
Elapsed Time:
Field Final Can. Press.: -4.0 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 9:46am
Relinquished by:
Date: 12/2/18

**Lab Recovery**

Received by: KB
Date: 12/7/18
Lab Final Can. Press.: 4.50 psig "Hg (Circle one) Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

*Samples stored in Air Tox Lab (Room 130)*

5-2016

Comments: Leak check - 28.5 @ 10:02am
Ambient temp @ deployment = 37°F
" " @ collection = 44°F

White: Sample Traveler Canary: Lab Copy Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

$ 10

ERG Lab ID # 8120701-05

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

# AIR TOXICS SAMPLE CHAIN OF CUSTODY

**Lab Pre-Sampling**

Site Code: WEST NEIGHBORHOOD
Canister Number: EPC92
City/State: WILLOWBROOK, IL
Lab Initial Can. Press. ("Hg): 29.6
AQS Code: —
Cleaning Batch # : H1-509
Collection Date: 12/1/18
Date Can. Cleaned: 11/20/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: WC
Date: 11/28/18

**Field Setup**

Received by: J. NWIA
Date: 12/1/18
Operator: J. NWIA
MFC Setting:
System #: PUBE # 10310
Elapsed Timer Reset (Y/N):
Setup Date: 12/1/18
Canister Valve Opened (Y/N): Y @ 10:43am
Field Initial Can. Press.: -28 psig psia "Hg (Circle one)

**Field Recovery**

Recovery Date: 12/2/18
Sample Duration (3 or 24 hr): 24
Operator: [illegible]
Elapsed Time:
Field Final Can. Press.: -4.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:10am
Relinquished by: [illegible]
Date: 12/2/18

**Lab Recovery**

Received by: KB
Date: 12/7/18
Lab Final Can. Press.: 5.00 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

*Samples stored in Air Tox Lab (Room 130)*

5-2016

Comments: Leak Check @ -28" Hg @ 10:48am.
Ambient temperature @ deployment = 37°F
" " " collection = 44°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

-1/5

ERG Lab ID # 8120701.06

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

# AIR TOXICS SAMPLE CHAIN OF CUSTODY

**Lab Pre-Sampling**

Site Code: WaterTower
Canister Number: 406
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.6
AQS Code: ——
Cleaning Batch # : H1-509
Collection Date: 12/1/18
Date Can. Cleaned: 11/20/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: HR
Date: 11/28/18

**Field Setup**

Received by: Qazzaz
Date: 12/1/18
Operator: Qazzaz
MFC Setting:
System #: 10312
Elapsed Timer Reset (Y/N):
Setup Date: 12/1/18
Canister Valve Opened (Y/N): Y @ 9:45
Field Initial Can. Press.: -28.5 psig psia "Hg (Circle one)

**Field Recovery**

Recovery Date: 12/2/18
Sample Duration (3 or 24 hr): 24
Operator: Qazzaz
Elapsed Time:
Field Final Can. Press.: -3.0 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 9:37am
Relinquished by:
Date: 12/2/18

**Lab Recovery**

Received by: KB
Date: 12/7/18
Lab Final Can. Press.: 3.50 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

***Samples stored in Air Tox Lab (Room 130)***

5-2016

Comments: Leak check @ 22.5 @ 9:50 am
Ambient temp on deployment = 37°F
collection = 44°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 8120701-07

# AIR TOXICS SAMPLE CHAIN OF CUSTODY

**Lab Pre-Sampling**

Site Code: GOWER ES

Canister Number: 061

City/State: WILLOW BROOK

Lab Initial Can. Press. ("Hg): 29.6

AQS Code: —

Cleaning Batch # : H1-509

Collection Date: 12/1/18

Date Can. Cleaned: 11/20/18

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: HR

Date: 11/28/18

**Field Setup**

Received by: J. NWIA

Date: 12/1/18

Operator: J. NWIA

MFC Setting:

System #: PROBE #10293

Elapsed Timer Reset (Y/N):

Setup Date: 12/1/18

Canister Valve Opened (Y/N): Y @ 10:33 am

Field Initial Can. Press.: -28 psig psia "Hg (Circle one)

**Field Recovery**

Recovery Date: 12/2/18

Sample Duration (3 or 24 hr): 24

Operator: Qazzaz

Elapsed Time:

Field Final Can. Press.: -4.5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 10:03 am

Relinquished by:

Date: 12/2/18

**Lab Recovery**

Received by: KB

Date: 12/7/18

Lab Final Can. Press.: 550 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

*Samples stored in Air Tox Lab (Room 130)*

5-2016

Comments: Leak Check @ -28 @ 10:36 am
Ambient temp @ deployment = 37°F
" " " Collection = 44°F

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

11 3

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Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 8120701-08

# AIR TOXICS SAMPLE CHAIN OF CUSTODY

**Lab Pre-Sampling**

Site Code: WB Village Hall
Canister Number: SAT079
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.6
AQS Code: —
Cleaning Batch # : H1-508
Collection Date: 12/1/18
Date Can. Cleaned: 11/20/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): Y
TOXICS (Y/N): Y
Duplicate Can # : 101
METHANE (Y/N):
Relinquished by: LR
Date: 11/28/18

**Field Setup**

Received by: J NWIA
Date: 12/1/18
Operator: J NWIA
MFC Setting:
System #: Probe # 10313
Elapsed Timer Reset (Y/N):
Setup Date: 12/1/18
Canister Valve Opened (Y/N): Y @ 9:24 AM
Field Initial Can. Press.: -28.2 psig psia "Hg (Circle one)

**Field Recovery**

Recovery Date: 12/2/18
Sample Duration (3 or 24 hr): 24
Operator: Gazzaz
Elapsed Time:
Field Final Can. Press.: -3.0 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 9:17 AM
Relinquished by:
Date: 12/2/18

**Lab Recovery**

Received by: KB
Date: 12/7/18
Lab Final Can. Press.: 3.50 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

*Samples stored in Air Tox Lab (Room 130)*

5-2016

Comments: Leakcheck @ 9:26 am 28.2" Hg
Ambient temp @ deployment = 37°F
" " " collection = 44°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

IL KV 12/7/18

ERG Lab ID # 8 ~~KC~~ 120701-09

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Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

# AIR TOXICS SAMPLE CHAIN OF CUSTODY

**Lab Pre-Sampling**

Site Code: WBVILLAGEHALL-DUP
Canister Number: 101
City/State: WILLOWBROOK, IL
Lab Initial Can. Press. ("Hg): 29.6
AQS Code: —
Cleaning Batch # : H1-509
Collection Date: 12/1/18
Date Can. Cleaned: 11/20/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): Y
TOXICS (Y/N): Y
Duplicate Can # : SA1079
METHANE (Y/N):
Relinquished by: WR
Date: 11/28/18

**Field Setup**

Received by: J. NWIA
Date: 12/1/18
Operator: J. NWIA
MFC Setting:
System #: PROBE #10315
Elapsed Timer Reset (Y/N):
Setup Date: 12/1/18
Canister Valve Opened (Y/N): Y @ 9:21am
Field Initial Can. Press.: -29 psig psia (Hg) (Circle one)

**Field Recovery**

Recovery Date: 12/2/18
Sample Duration (3 or 24 hr): 24
Operator: Qazar
Elapsed Time:
Field Final Can. Press.: -5.0 psig psia (Hg) (Circle one)
Status: (VALID) VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 9:18am
Relinquished by:
Date: 12/2/18

**Lab Recovery**

Received by: KB
Date: 12/7/18
Lab Final Can. Press.: 5.50 psig (Hg) (Circle one)
Converted to psia:
Status: (VALID) VOID (Circle one)
Gauge: 1 (2) (Circle one)
If void, why:

*Samples stored in Air Tox Lab (Room 130)*

5-2016

Comments: Leak check @ 29"Hg @ 9:24am
Ambient temp @ deployment = 37°F
" " @ collection = 44°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

3 of 13

ERG Lab ID # 8120701-10

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Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

# AIR TOXICS SAMPLE CHAIN OF CUSTODY

**Lab Pre-Sampling**

Site Code: ~~Gower ES - CEC~~ ~~Eisenhower JH~~ West Neighborhood - CEC gn

Canister Number: 5034

City/State: Willowbrook, IL

Lab Initial Can. Press. ("Hg): 29.8

AQS Code:

Cleaning Batch # : 11-503

Collection Date: 11/25/18

Date Can. Cleaned: 11/15/18

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: RMB

Date: 11/19/18

**Field Setup**

Received by: Carrie Cummings

Date: 11/25/18

Operator: Carrie Cummings

MFC Setting:

System #: 10310

Elapsed Timer Reset (Y/N):

Setup Date: 11/25/18

Canister Valve Opened (Y/N): Y @ 10:25 am

Field Initial Can. Press.: -28.1 psig psia "Hg (Circle one)

**Field Recovery**

Recovery Date: 11/26/18

Sample Duration (3 or 24 hr): 24 hr

Operator: Cummings/Compher

Elapsed Time:

Field Final Can. Press.: -5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 10:30 am

Relinquished by: Carrie Cummings

Date: 11/26/2018

**Lab Recovery**

Received by: KB

Date: 12/7/18

Lab Final Can. Press.: 4.50 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

*Samples stored in Air Tox Lab (Room 130)*

5-2016

Comments: leak check -28.1 @ 10:30 am Temp @ deployment 37°F
Temp at recovery 27°F

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy