Compounds other than ethylene oxide were not quantitated.

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

Sequence ID: L18L2, 1812052	**Instrument:** MS1	**Batch:** BBL2603
Cal Curve (Method):	**Analyst:** [illegible]	**Date Analyzed:** 12-26-18
10% Review Sample IDs: 8121220-04	**Reviewer:** DST	**Date:** 1/7/19
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	1-3-19	RMB 1/7/19	DST 1/7/19		
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) 2) IS response < ±40% of mean 3) RRTs for target peaks ±0.06 units from mean RRT 4) IS RTs within 20sec of mean 5) Each calibration standard within ±30% of nominal conc (for Tier I compounds)	1-3-19	RMB 1/7/19	DST 1/7/19		L18L5
ICV(LCS) Second source calibration verification check - immediately following ICAL	The response factor ≤ ±30% DEV from calibration curve average response factor	1-3-19	RMB 1/7/19	DST 1/7/19		L18L5
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	1-3-19	RMB 1/7/19	DST 1/7/19		Low source
Method Blank Analysis – one per analysis sequence	1) < 3xMDL or 0.2ppbv, whichever is lower 2) Internal Standard (IS) area response within < ±40% and IS Retention Time (RT) within ±0.33 min. of most recent initial calibration	1-3-19	RMB 1/7/19	DST 1/7/19		

In 8121220-04, ethylene oxide was not detected. DST 1/7/19

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	1-3-19	RMB 1/7/19	DST 1/7/19		
Canister Cleaning Certification	<3xMDL or 0.2ppbv per VOC targeted compound, whichever is lower	—	RMB 1/7/19	NA		
Preconcentrator Leak Check	≤ ± 0.2 psi/min	1-3-19	RMB 1/7/19	DST 1/7/19		
Samples/Internal Standard Check	IS area within ±40% and IS RT within ±0.33 min. of most recent initial calibration	1-3-19	RMB 1/7/19	DST 1/7/19		
COC Included and filled out	Lab receipt acknowledged, LIMS number added to COC	1-3-19	RMB 1/7/19	DST 1/7/19		
Manual Integration and peak deletion	Conforms with ERG-SOP-097 "Procedure for Manual Integration of Chromatographic Peaks"	1-3-19	RMB 1/7/19	DST 1/7/19		
Manual Calculation Check	One compound manual check must agree with software generated result		RMB 1/7/19	DST 1/7/19		8121130-01 20104 (4.77 ppbv) / 51871 (0.2851) = 6.454 ppbv
Qualifiers Check	Check to make sure LIMS data flags are correct	1-3-19	RMB 1/7/19	~~NA~~ DST 1/7/19 DST 1/7/19		

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

L18LZ002 ethylene oxide

$$\frac{8645 \times 4.77}{71798 \times 0.2851} = 2.01 \text{ ppbv}$$

Compounds other than ethylene oxide were not quantitated.

ANALYSIS SEQUENCE

Instrument: ERGMS#1

1812052

Printed: 1/7/2019 10:13:03AM

Calibration ID: 8120004

Lab Number	Sample Name	Analysis	Container	Order	Position	STD ID	ISTD ID	Comments
1812052-CCV1	Calibration Check	QC		1		8L14004	8L13002	
B8L2603-BLK1	Blank	QC		2			8L13002	
8121130-14	Willow Pond Park	TO-15 2018	A	3			8L13002	Ethylene Oxide only
8121130-15	Gower MS	TO-15 2018	A	4			8L13002	Ethylene Oxide only
8121130-16	West Neighborhood	TO-15 2018	A	5			8L13002	Ethylene Oxide only
8121130-17	Gower ES	TO-15 2018	A	6			8L13002	Ethylene Oxide only
8121130-18	Water Tower	TO-15 2018	A	7			8L13002	Ethylene Oxide only
8121130-19	Hinsdale South HS	TO-15 2018	A	8			8L13002	Ethylene Oxide only
8121220-04	Willow Pond Park	TO-15 2018	A	9			8L13002	Ethylene Oxide only
8121220-05	Watertower	TO-15 2018	A	10			8L13002	Ethylene Oxide only
8121220-06	Hinsdale South HS	TO-15 2018	A	11			8L13002	Ethylene Oxide only
8121220-07	Gower MS	TO-15 2018	A	12			8L13002	Ethylene Oxide only
8121220-08	WB Warehouse C1	TO-15 2018	A	13			8L13002	Ethylene Oxide only
8121220-09	WB Warehouse C2	TO-15 2018	A	14			8L13002	Ethylene Oxide only
B8L2603-DUP1	Duplicate	QC		15			8L13002	
B8L2603-DUP2	Duplicate	QC		16			8L13002	
8121130-01	WB Warehouse C1	TO-15 2018	A	17			8L13002	Ethylene Oxide only
8121130-02	WB Warehouse C2	TO-15 2018	A	18			8L13002	Ethylene Oxide only
B8L2603-DUP3	Duplicate	QC		19			8L13002	
B8L2603-DUP4	Duplicate	QC		20			8L13002	
8121130-03	Willow Pond Park	TO-15 2018	A	21			8L13002	Ethylene Oxide only
8121130-04	WB Village Hall	TO-15 2018	A	22			8L13002	Ethylene Oxide only

Samples Loaded By Date

Randy Bower 1/7/19

Data Processed By Date

Compounds other than ethylene oxide were not quantitated.

Sequence Name: C:\msdchem\1\sequence\L18LZ.s
Comment: ANALYZE 12/26/18,8120004 exp 3/19/19, L18LZ
Operator: MAH
Data Path: C:\MSDCHEM\1\DATA\L18LZ\
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	L18LZ001	BFB	BFB
2)	Sample	2	L18LZ002	8120004	1812052-CCV1
3)	Sample	3	L18LZ003	8120004	B8L2603-BLK1
4)	Sample	4	L18LZ004	8120004	8121130-14
5)	Sample	5	L18LZ005	8120004	8121130-15
6)	Sample	6	L18LZ006	8120004	8121130-16
7)	Sample	7	L18LZ007	8120004	8121130-17
8)	Sample	8	L18LZ008	8120004	8121130-18
9)	Sample	9	L18LZ009	8120004	8121130-19
10)	Sample	10	L18LZ010	8120004	8121220-04
11)	Sample	11	L18LZ011	8120004	8121220-05
12)	Sample	12	L18LZ012	8120004	8121220-06
13)	Sample	13	L18LZ013	8120004	8121220-07
14)	Sample	14	L18LZ014	8120004	8121220-08
15)	Sample	15	L18LZ015	8120004	8121220-09
16)	Sample	16	L18LZ016	8120004	B8L2603-DUP1
17)	Sample	17	L18LZ017	8120004	B8L2603-DUP2
18)	Sample	18	L18LZ018	8120004	8121130-01
19)	Sample	19	L18LZ019	8120004	8121130-02
20)	Sample	20	L18LZ020	8120004	B8L2603-DUP3
21)	Sample	21	L18LZ021	8120004	B8L2603-DUP4
22)	Sample	22	L18LZ022	8120004	8121130-03
23)	Sample	23	L18LZ023	8120004	8121130-04
24)	Sample	100	OFF	FIDOFF	OFF

1-3-19

Compounds other than ethylene oxide were not quantitated.

Sample	1	BFB	BFB	L18LZ001	80 ML 8L13001	1
Sample	2	1812052-CCV1	8120004	L18LZ002	80 ML 8L13001,8L14004	1
Sample	3	B8L2603-BLK1	8120004	L18LZ003	80 ML 8L13001	1
Sample	4	8121130-14	8120004	L18LZ004	WILLO W POND PARK 12/8/18	1
Sample	5	8121130-15	8120004	L18LZ005	GOWER MS 12/8/18	1
Sample	6	8121130-16	8120004	L18LZ006	WEST NEIGHBORHOOD 12/8/18	1
Sample	7	8121130-17	8120004	L18LZ007	GPWER ES 12/8/18	1
Sample	8	8121130-18	8120004	L18LZ008	WATER TOWER 12/8/18	1
Sample	9	8121130-19	8120004	L18LZ009	HINSDALE HS 12/8/18	1
Sample	10	8121220-04	8120004	L18LZ010	WILLOWBROOK POND PARK 12/11/18	1
Sample	11	8121220-05	8120004	L18LZ011	WATER TOWER 12/11/18	1
Sample	12	8121220-06	8120004	L18LZ012	HINSDALE S. HS 12/11/18	1
Sample	13	8121220-07	8120004	L18LZ013	GOWER MS 12/11/18	1
Sample	14	8121220-08	8120004	L18LZ014	WB WAREHOUSE C1 12/11/18	1
Sample	15	8121220-09	8120004	L18LZ015	WB WAREHOUSE C2 12/11/18	1
Sample	16	B8L2603-DUP1	8120004	L18LZ016	WB WAREHOUSE R1 12/11/18	1
Sample	17	B8L2603-DUP2	8120004	L18LZ017	WB WAREHOUSE R2 12/11/18	1
Sample	18	8121130-01	8120004	L18LZ018	WILLOWBROOK HS C1 12/7/18*	1
Sample	19	8121130-02	8120004	L18LZ019	WILLOWBROOK HS C2 12/7/18*	1
Sample	20	B8L2603-DUP3	8120004	L18LZ020	WILLOWBROOK HS R1 12/7/18*	1
Sample	21	B8L2603-DUP4	8120004	L18LZ021	WILLOWBROOK HS R2 12/7/18*	1
Sample	22	8121130-03	8120004	L18LZ022	WILLOW POND PARK 12/7/18	1
Sample	23	8121130-04	8120004	L18LZ023	WB NILLAGE HALL 12/7/18	1
Sample	100	OFF	FIDOFF	OFF	OFF	1

Files LZ018 thru LZ021 are for WB Warehouse 12/7/18 as designated on all other forms

Compounds other than ethylene oxide were not quantitated.

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

Sequence Name: C:\Smart\L18LZ.SEQ
Date: 12-27-2018
Time: 10:48:43
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
1812052-CCV1	2	1	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B8L2603-BLK1	1	1	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8121130-14	1	1	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8121130-15	1	2	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8121130-16	1	3	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8121130-17	1	4	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8121130-18	1	5	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8121130-19	1	6	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8121220-04	1	7	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8121220-05	1	8	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8121220-06	1	9	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8121220-07	1	10	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8121220-08	1	11	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8121220-09	1	12	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B8L2603-DUP1	1	11	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B8L2603-DUP2	1	12	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8121130-01	1	13	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8121130-02	1	14	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B8L2603-DUP3	1	13	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B8L2603-DUP4	1	14	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8121130-03	1	15	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
8121130-04	1	16	250		0	C:\Smart\TO-15A_MS1.MPT	12:00

1-3-19

Compounds other than ethylene oxide were not quantitated.

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

12/27/2018 11:17:36 AM
Leak Check for C:\Smart\L18LZ.SEQ
Report File: C:\Smart\L18LZ.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	---	---	1.2	1.2	0.00
1	6	---	---	1.1	1.2	0.10
1	7	---	---	1.2	1.2	0.00
1	8	---	---	1.2	1.2	0.00
1	9	---	---	1.2	1.2	0.00
1	10	---	---	1.2	1.2	0.00
1	11	---	---	1.2	1.2	0.00
1	12	---	---	1.2	1.2	0.00
1	13	---	---	1.2	1.2	0.00
1	14	---	---	1.2	1.2	0.00
1	15	---	---	1.2	1.2	0.00
1	16	---	---	1.2	1.2	0.00

9-3-19

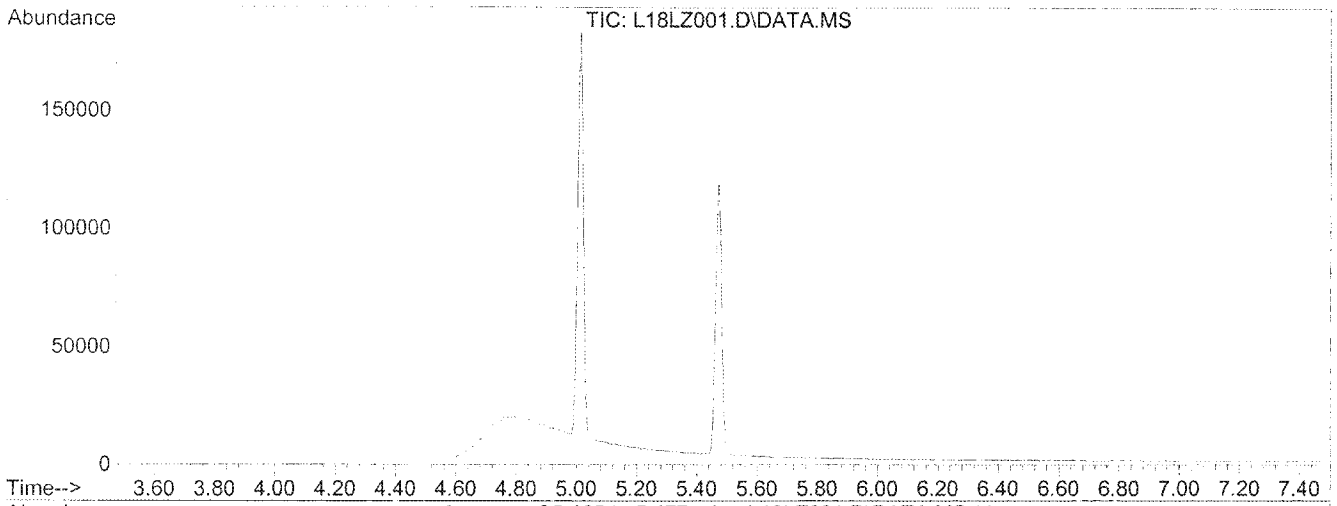
Compounds other than ethylene oxide were not quantitated.

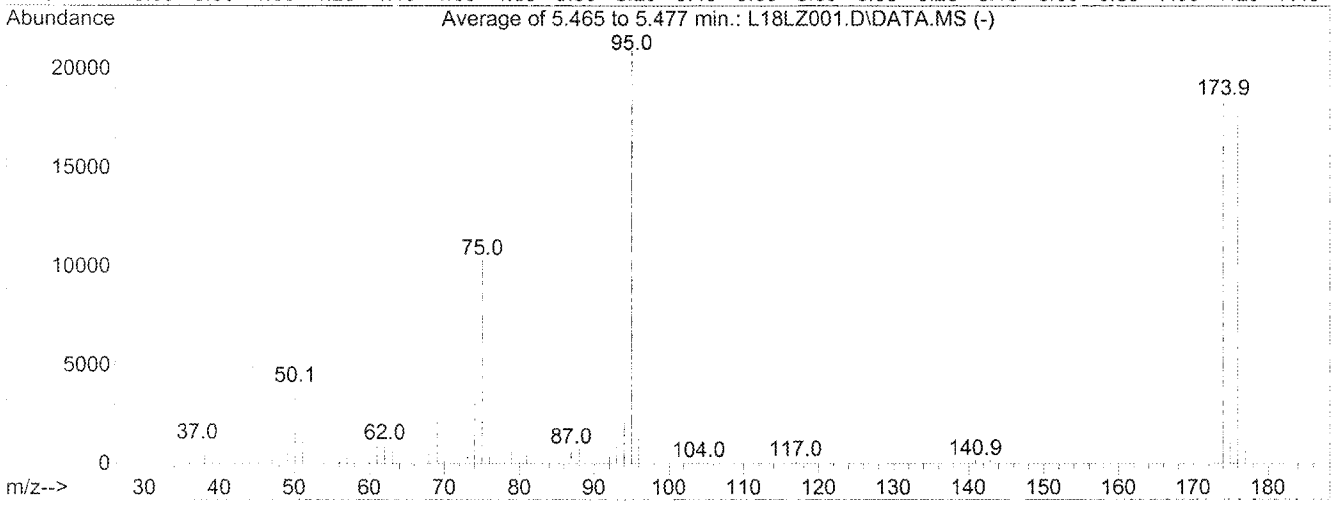
BFB

Data Path : C:\msdchem\1\DATA\L18LZ\
Data File : L18LZ001.D
Acq On : 26 Dec 2018 11:11 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 144, 145, 146; Background Corrected with Scan 138

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	18.5	3866	PASS
75	95	30	66	49.3	10301	PASS
95	95	100	100	100.0	20877	PASS
96	95	5	9	6.9	1449	PASS
173	174	0.00	2	0.3	51	PASS
174	95	50	120	88.2	18415	PASS
175	174	4	9	7.2	1324	PASS
176	174	93	101	95.7	17627	PASS
177	176	5	9	6.8	1193	PASS

Compounds other than ethylene oxide were not quantitated.

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\L18LZ\L18LZ001.D
Tune Time : 26 Dec 2018 11:11 am

8120004	IS Avg Area	61164	145160	104175
	+40%	85629	203224	145845
	-40%	36698	87096	62505

File	Sample	Internal Standard Responses		
L18LZ002.D	1812052-CCV1	71798	171520	123406
L18LZ003.D	B8L2603-BLK1	65267	159480	113335
L18LZ004.D	8121130-14	61022	145995	108211
L18LZ005.D	8121130-15	62164	149066	107206
L18LZ006.D	8121130-16	59434	142032	99616
L18LZ007.D	8121130-17	58738	140878	95845
L18LZ008.D	8121130-18	59940	143137	97144
L18LZ009.D	8121130-19	54569	131044	92567
L18LZ010.D	8121220-04	57930	145322	99570
L18LZ011.D	8121220-05	59972	143977	99509
L18LZ012.D	8121220-06	55062	132765	96011
L18LZ013.D	8121220-07	58417	139066	97161
L18LZ014.D	8121220-08	56855	134290	92844
L18LZ015.D	8121220-09	56002	133081	92324
L18LZ016.D	B8L2603-DUP1	54212	130091	91776
L18LZ017.D	B8L2603-DUP2	53785	128876	92498
L18LZ018.D	8121130-01	51871	124594	90412
L18LZ019.D	8121130-02	57596	136547	93396
L18LZ020.D	B8L2603-DUP3	53525	126910	86220
L18LZ021.D	B8L2603-DUP4	54208	129824	88665
L18LZ022.D	8121130-03	54324	128260	86851
L18LZ023.D	8121130-04	54207	128653	87744

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

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

— 1-3-19

Reviewed By 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 1-3-19 Date

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\L18LZ\
Data File : L18LZ002.D
Acq On : 26 Dec 2018 12:00 pm
Operator : MAH
Sample : 1812052-CCV1
Misc : 80 ML 8L13001,8L14004
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 03 10:23:50 2019
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	0.368	8.5	100	0.00
3	CT	Propylene	0.478	0.494	-3.3	100	0.00
4	CT	Dichlorodifluoromethane	2.036	1.982	2.7	100	0.00
5	CT	Chloromethane	0.595	0.572	3.9	100	0.00
6	CT	Dichlorotetrafluoroethane	1.881	2.046	-8.8	100	0.00
7	CT	Vinyl Chloride	0.638	0.635	0.5	100	0.00
8	CT	1,3-Butadiene	0.422	0.433	-2.6	100	0.00
9	CT	Ethylene oxide	0.285	0.230	19.3	100	0.00
10	CT	Bromomethane	0.628	0.629	-0.2	100	0.00
11	CT	Chloroethane	0.277	0.279	-0.7	100	0.00
12	CT	Acetonitrile	0.489	0.442	9.6	100	0.00
13	CT	Acrolein	0.274	0.215	21.5	100	0.00
14	CT	Trichlorofluoromethane	1.866	1.612	13.6	100	0.00
15	CT	Acrylonitrile	0.384	0.337	12.2	100	0.00
16	CT	1,1-Dichloroethene	0.862	0.891	-3.4	100	0.00
17	CT	Methylene Chloride	0.618	0.609	1.5	100	0.00
18	CT	Carbon Disulfide	1.810	1.790	1.1	100	0.00
19	CT	Trichlorotrifluoroethane	1.338	1.376	-2.8	100	0.00
20	CT	trans-1,2-Dichloroethylene	0.485	0.458	5.6	100	0.00
21	CT	1,1-Dichloroethane	0.881	0.817	7.3	100	0.00
22	CT	Methyl tert-Butyl Ether	1.284	1.303	-1.5	100	0.00
23	CT	Chloroprene	0.631	0.587	7.0	100	0.00
24	CT	cis-1,2-Dichloroethylene	0.682	0.616	9.7	100	0.00
25	CT	Bromochloromethane	0.367	0.327	10.9	100	0.00
26	CT	Chloroform	1.010	0.946	6.3	100	0.00
27	CT	Ethyl tert-Butyl Ether	1.351	1.365	-1.0	100	0.00
28	CT	1,2-Dichloroethane	0.612	0.555	9.3	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	0.393	7.7	100	0.00
31	CT	Benzene	0.583	0.568	2.6	100	0.00
32	CT	Carbon Tetrachloride	0.464	0.468	-0.9	100	0.00
33	CT	tert-Amyl Methyl Ether	0.493	0.480	2.6	100	0.00
34	CT	1,2-Dichloropropane	0.243	0.217	10.7	100	0.00
35	CT	Ethyl Acrylate	0.325	0.285	12.3	100	0.00
36	CT	Bromodichloromethane	0.449	0.344	23.4	100	0.00
37	CT	Trichloroethylene	0.275	0.307	-11.6	100	0.00
38	CT	Methyl Methacrylate	0.903	0.759	15.9	100	0.00
39	CT	cis-1,3-Dichloropropene	0.216	0.202	6.5	100	0.00
40	CT	Methyl Isobutyl Ketone	0.482	0.429	11.0	100	0.00
41	CT	trans-1,3-Dichloropropene	0.160	0.138	13.7	100	0.00
42	CT	1,1,2-Trichloroethane	0.209	0.189	9.6	100	0.00
43	ISS	IS-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
44	CT	Toluene	0.844	0.791	6.3	100	0.00
45	CT	Dibromochloromethane	2.000	1.654	17.3	100	0.00
46	CT	1,2-Dibromoethane	0.335	0.312	6.9	100	0.00
47	CT	n-Octane	0.542	0.481	11.3	100	0.00
48	CT	Tetrachloroethylene	0.421	0.397	5.7	100	0.00

ED_002475_00000324-00012

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\DATA\L18LZ\
Data File : L18LZ002.D
Acq On : 26 Dec 2018 12:00 pm
Operator : MAH
Sample : 1812052-CCV1
Misc : 80 ML 8L13001,8L14004
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 03 10:23:50 2019
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	0.498	8.3	100	0.00
50	CT	Ethylbenzene	0.873	0.810	7.2	100	0.00
51	CT	m,p-Xylene	0.750	0.674	10.1	100	0.00
52	CT	Bromoform	0.379	0.323	14.8	100	0.00
53	CT	Styrene	0.381	0.354	7.1	100	0.00
54	CT	1,1,2,2-Tetrachloroethane *	0.531	0.340	36.0#	100	0.00
55	CT	o-Xylene	0.737	0.709	3.8	100	0.00
56	CT	1,3,5-Trimethylbenzene	0.720	0.668	7.2	100	0.00
57	CT	1,2,4-Trimethylbenzene	0.607	0.570	6.1	100	0.00
58	CT	m-Dichlorobenzene	0.320	0.267	16.6	100	0.00
59	CT	p-Dichlorobenzene	0.244	0.219	10.2	100	0.00
60	CT	o-Dichlorobenzene	0.299	0.271	9.4	100	0.00
61	CT	1,2,4-Trichlorobenzene	0.117	0.121	-3.4	100	0.00
62	CT	Hexachloro-1,3-butadiene	0.425	0.403	5.2	100	0.00

(#) = Out of Range SPCC's out = 0 CCC's out = 1

*- NL - EtOX only

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LZ\
Data File : L18LZ002.D
Acq On : 26 Dec 2018 12:00 pm
Operator : MAH
Sample : 1812052-CCV1
Misc : 80 ML 8L13001,8L14004
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 03 10:23:50 2019
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	19.970	66	71798	4.7700	ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	171520	4.9900	ppbv	-0.02
43) IS-Chlorobenzene-d5	30.097	117	123406	4.7400	ppbv	0.00

System Monitoring Compounds

Target Compounds						Qvalue
2) Acetylene	5.415	26	13286	2.1940	ppbv	100
3) Propylene	7.823	41	18221	2.5324	ppbv	99
4) Dichlorodifluoromethane	8.685	85	71013	2.3174	ppbv	100
5) Chloromethane	9.740	50	21359	2.3866	ppbv	100
6) Dichlorotetrafluoroethane	10.864	85	75150	2.6541	ppbv	100
7) Vinyl Chloride	11.102	62	23882	2.4877	ppbv	99
8) 1,3-Butadiene	11.783	54	16094	2.5336	ppbv	98
9) Ethylene oxide	12.380	29	8645	2.0145	ppbv	94
10) Bromomethane	12.590	94	23661	2.5021	ppbv	100
11) Chloroethane	13.268	64	10486	2.5167	ppbv	100
12) Acetonitrile	14.335	41	16834	2.2880	ppbv	97
13) Acrolein	14.613	56	7843	1.8984	ppbv	96
14) Trichlorofluoromethane	15.193	101	60654	2.1592	ppbv	100
15) Acrylonitrile	15.912	53	12696	2.1991	ppbv	100
16) 1,1-Dichloroethene	16.422	61	32706	2.5221	ppbv	98
17) Methylene Chloride	16.723	49	22736	2.4444	ppbv	99
18) Carbon Disulfide	16.932	76	66830	2.4527	ppbv	100
19) Trichlorotrifluoroethane	17.280	101	50543	2.5105	ppbv	99
20) trans-1,2-Dichloroethy...	18.315	96	16955	2.3240	ppbv	99
21) 1,1-Dichloroethane	18.632	63	29898	2.2549	ppbv	100
22) Methyl tert-Butyl Ether	18.791	73	49827	2.5785	ppbv	100
23) Chloroprene	19.539	53	21903	2.3045	ppbv	98
24) cis-1,2-Dichloroethylene	19.947	61	23170	2.2564	ppbv	98
25) Bromochloromethane	20.174	128	12152	2.2002	ppbv	99
26) Chloroform	20.401	83	35592	2.3409	ppbv	99
27) Ethyl tert-Butyl Ether	21.164	59	52788	2.5955	ppbv	100
28) 1,2-Dichloroethane	21.478	62	20801	2.2580	ppbv	99
30) 1,1,1-Trichloroethane	21.850	97	33336	2.2776	ppbv	98
31) Benzene	22.535	78	49025	2.4482	ppbv	100
32) Carbon Tetrachloride	22.770	117	40522	2.5421	ppbv	99
33) tert-Amyl Methyl Ether	23.501	73	42935	2.5333	ppbv	100
34) 1,2-Dichloropropane	23.769	63	18837	2.2593	ppbv	92
35) Ethyl Acrylate	23.872	55	24919	2.2284	ppbv	100
36) Bromodichloromethane	24.058	83	30267	1.9630	ppbv	100
37) Trichloroethylene	24.161	130	26582	2.8149	ppbv	98
38) Methyl Methacrylate	24.532	41	66251	2.1350	ppbv	99
39) cis-1,3-Dichloropropene	25.511	75	17630	2.3724	ppbv	94
40) Methyl Isobutyl Ketone	25.588	43	37326	2.2536	ppbv	99
41) trans-1,3-Dichloropropene	26.350	75	11637	2.1134	ppbv	100
42) 1,1,2-Trichloroethane	26.598	97	16092	2.2385	ppbv	98
44) Toluene	27.075	91	50276	2.2878	ppbv	100
45) Dibromochloromethane	27.717	129	109380	2.1007	ppbv	100
46) 1,2-Dibromoethane	28.138	107	20298	2.3257	ppbv	100
47) n-Octane	28.857	43	31537	2.2338	ppbv	98
48) Tetrachloroethylene	28.980	166	25735	2.3466	ppbv	99
49) Chlorobenzene	30.173	112	31885	2.2567	ppbv	98
50) Ethylbenzene	30.898	91	52713	2.3206	ppbv	100

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LZ\
Data File : L18LZ002.D
Acq On : 26 Dec 2018 12:00 pm
Operator : MAH
Sample : 1812052-CCV1
Misc : 80 ML 8L13001,8L14004
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 03 10:23:50 2019
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	31.223	91	87446	4.4800	ppbv	98
52) Bromoform	31.261	173	21377	2.1660	ppbv	100
53) Styrene	31.891	104	23018	2.3187	ppbv #	99
54) 1,1,2,2-Tetrachloroethane	32.063	83	22376	1.6201	ppbv	100
55) o-Xylene	32.101	91	45062	2.3500	ppbv	98
56) 1,3,5-Trimethylbenzene	34.902	105	43854	2.3407	ppbv	99
57) 1,2,4-Trimethylbenzene	35.828	105	35347	2.2356	ppbv	99
58) m-Dichlorobenzene	36.095	146	16658	2.0007	ppbv	99
59) p-Dichlorobenzene	36.273	146	14879	2.3435	ppbv	99
60) o-Dichlorobenzene	37.075	146	17645	2.2630	ppbv	99
61) 1,2,4-Trichlorobenzene	40.827	180	7829	2.5799	ppbv	100
62) Hexachloro-1,3-butadiene	41.621	225	26245	2.3713	ppbv	100

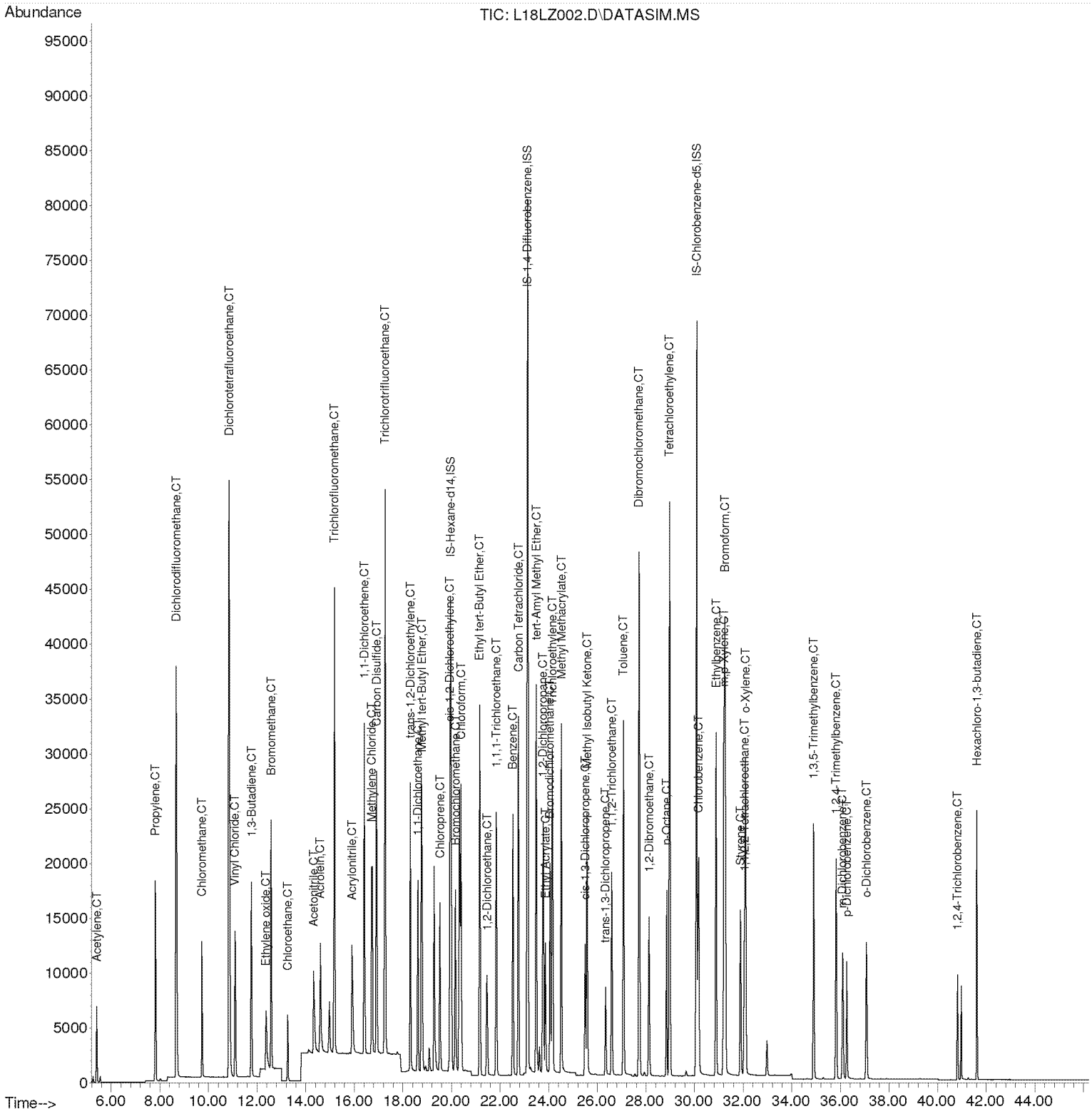
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

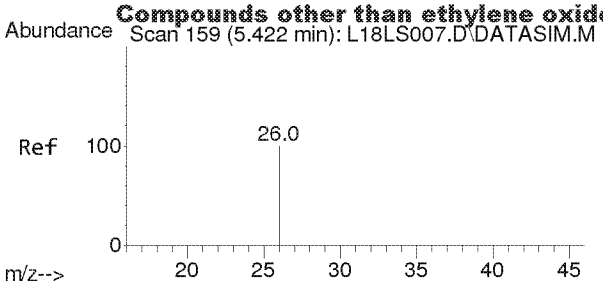
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ002.D
Acq On : 26 Dec 2018 12:00 pm
Operator : MAH
Sample : 1812052-CCV1
Misc : 80 ML 8L13001,8L14004
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 03 10:23:50 2019
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

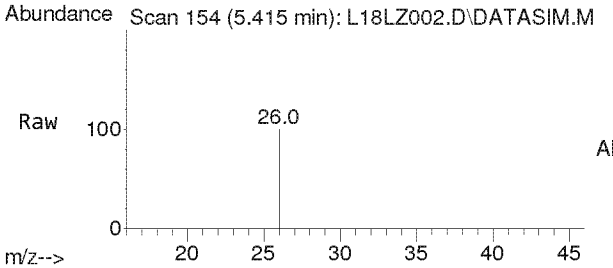


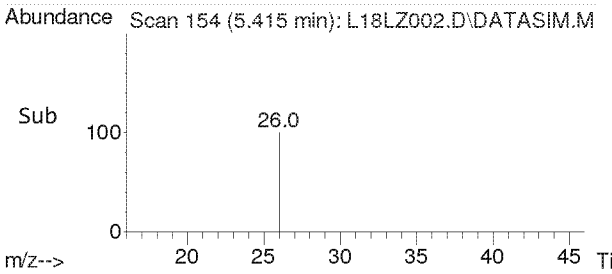
Compounds other than ethylene oxide were not quantitated.

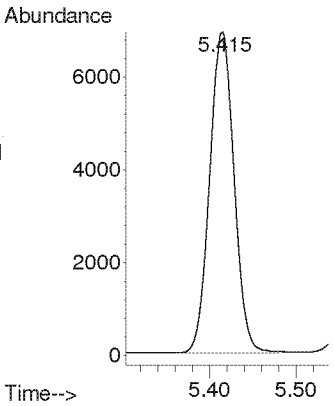


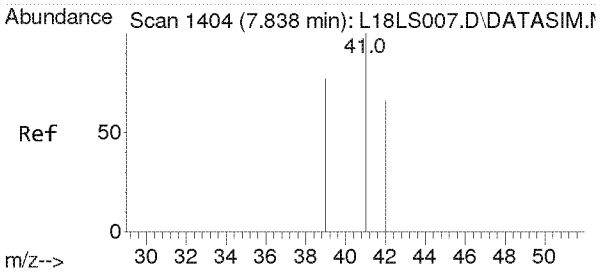
#2
Acetylene
Concen: 2.194 ppbv
RT: 5.415 min Scan# 154
Delta R.T. -0.007 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 26 Resp: 13286





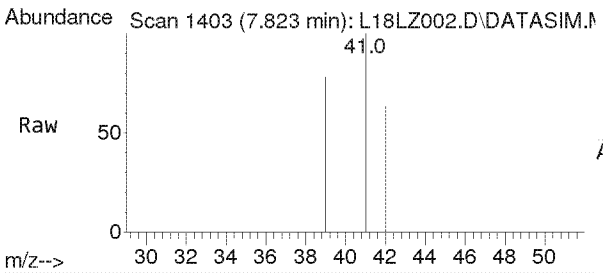


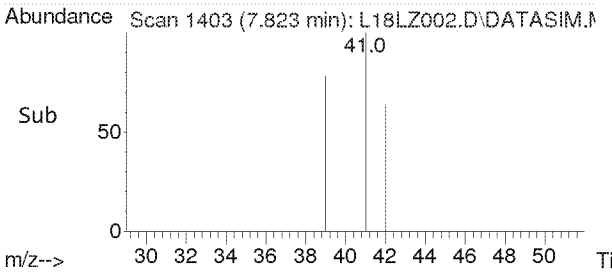


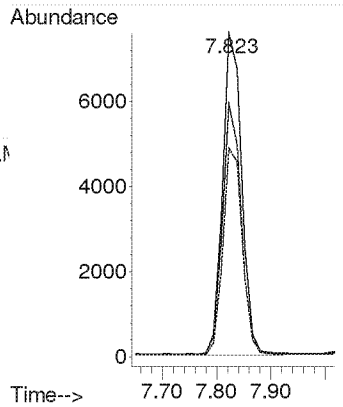
#3
Propylene
Concen: 2.532 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. -0.014 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 41 Resp: 18221

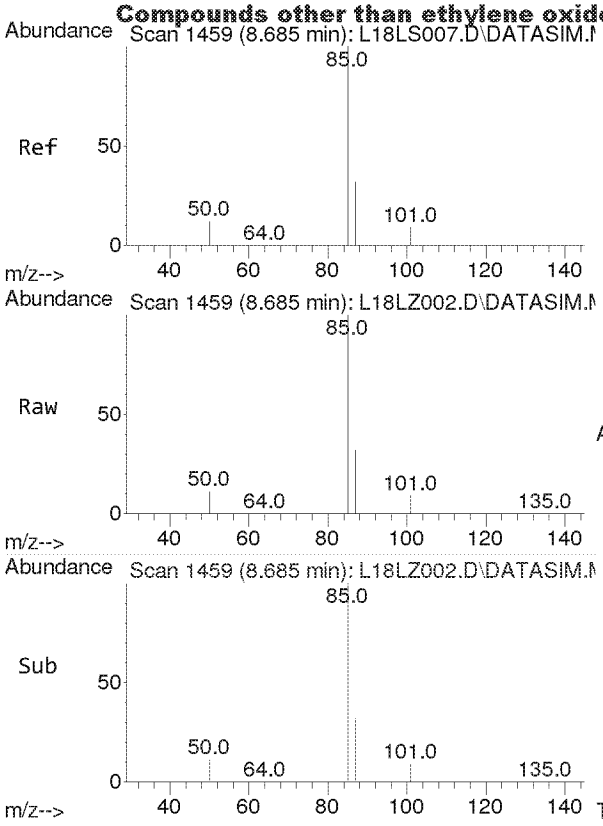
Ion	Ratio	Lower	Upper
41	100		
39	76.4	62.6	93.8
42	65.7	52.6	79.0







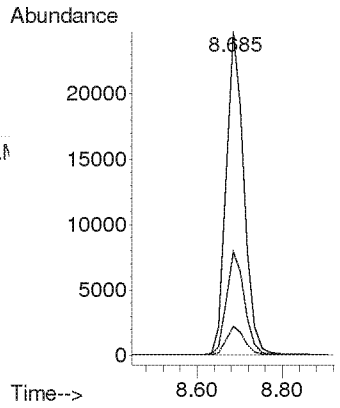
Compounds other than ethylene oxide were not quantitated.

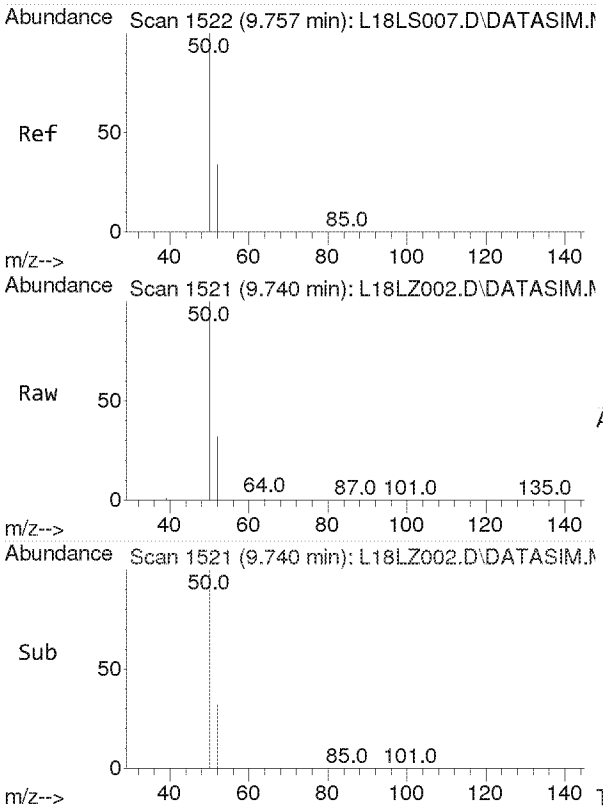


#4
Dichlorodifluoromethane
Concen: 2.317 ppbv
RT: 8.685 min Scan# 1459
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 85 Resp: 71013

Ion	Ratio	Lower	Upper
85	100		
87	32.3	26.0	39.0
101	8.9	7.1	10.7

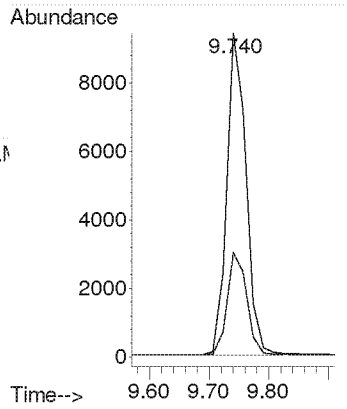




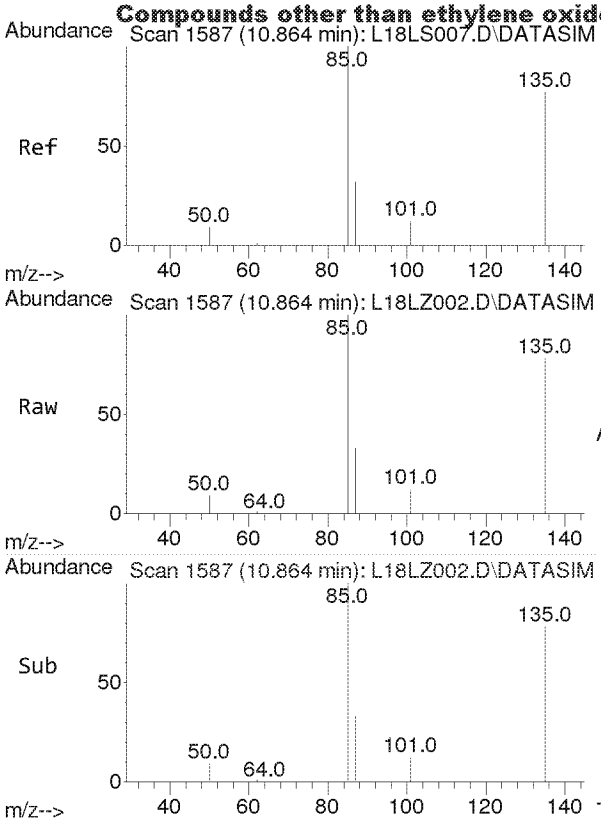
#5
Chloromethane
Concen: 2.387 ppbv
RT: 9.740 min Scan# 1521
Delta R.T. -0.017 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 50 Resp: 21359

Ion	Ratio	Lower	Upper
50	100		
52	32.4	26.1	39.1



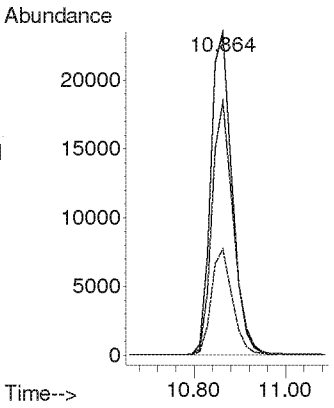
Compounds other than ethylene oxide were not quantitated.

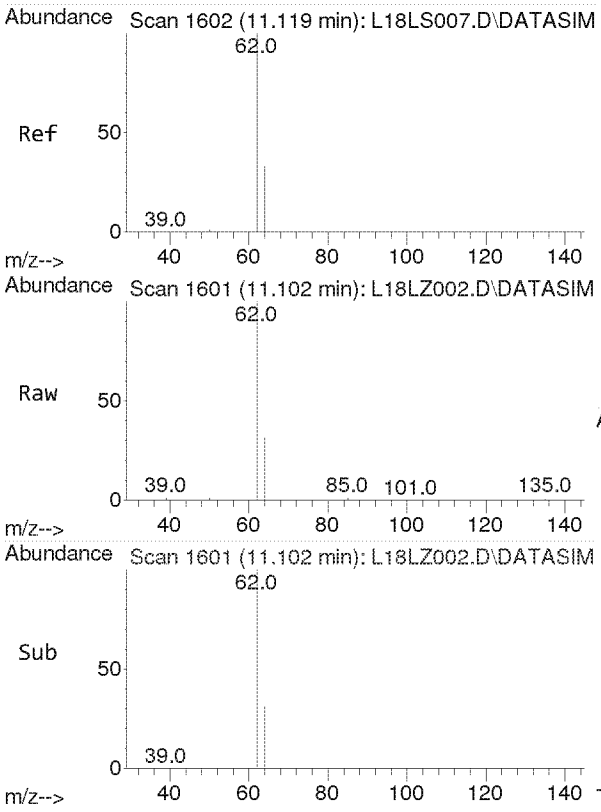


#6
Dichlorotetrafluoroethane
Concen: 2.654 ppbv
RT: 10.864 min Scan# 1587
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 85 Resp: 75150

Ion	Ratio	Lower	Upper
85	100		
135	78.7	63.3	94.9
87	32.2	25.7	38.5

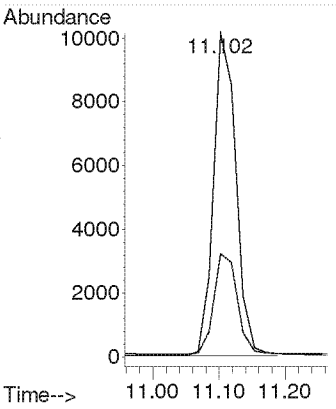




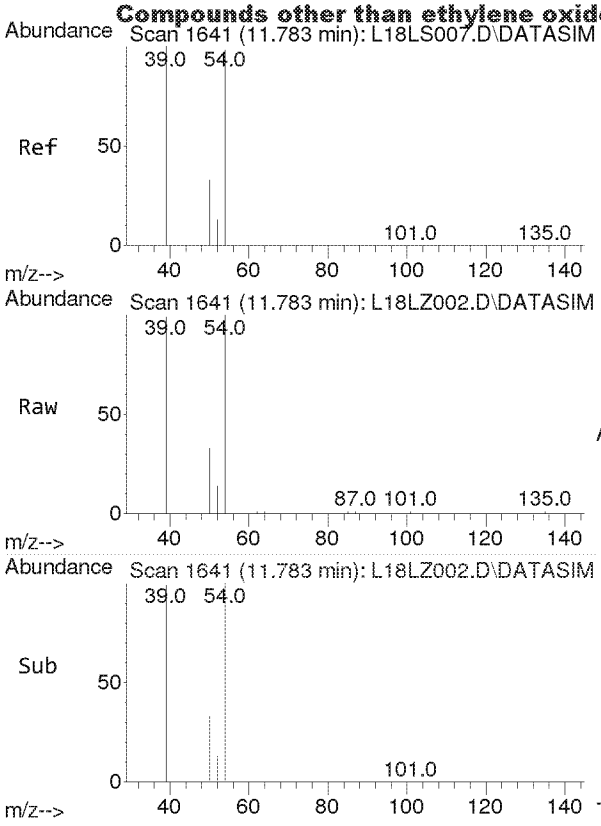
#7
Vinyl Chloride
Concen: 2.488 ppbv
RT: 11.102 min Scan# 1601
Delta R.T. -0.017 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 62 Resp: 23882

Ion	Ratio	Lower	Upper
62	100		
64	32.3	25.4	38.2



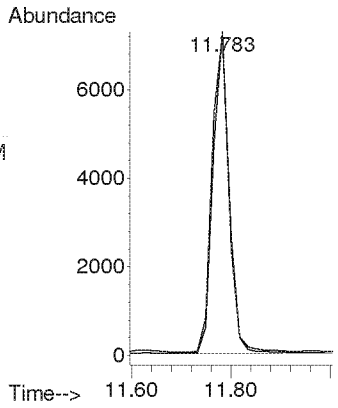
Compounds other than ethylene oxide were not quantitated.

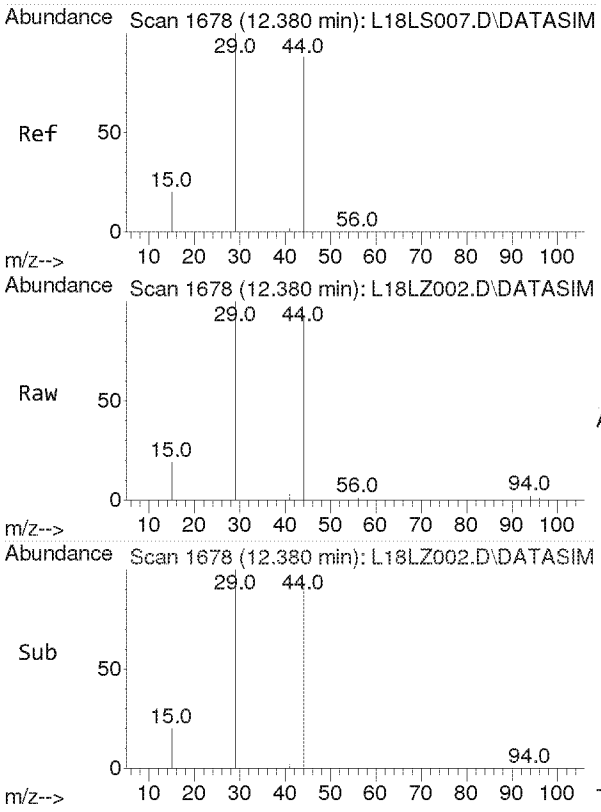


#8
1,3-Butadiene
Concen: 2.534 ppbv
RT: 11.783 min Scan# 1641
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 54 Resp: 16094

Ion	Ratio	Lower	Upper
54	100		
39	103.8	84.3	126.5

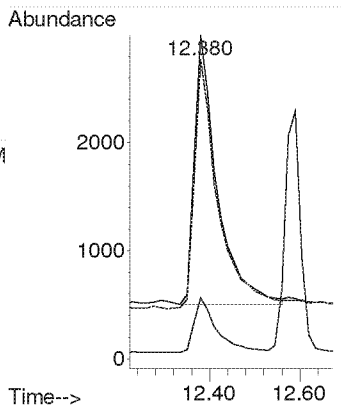




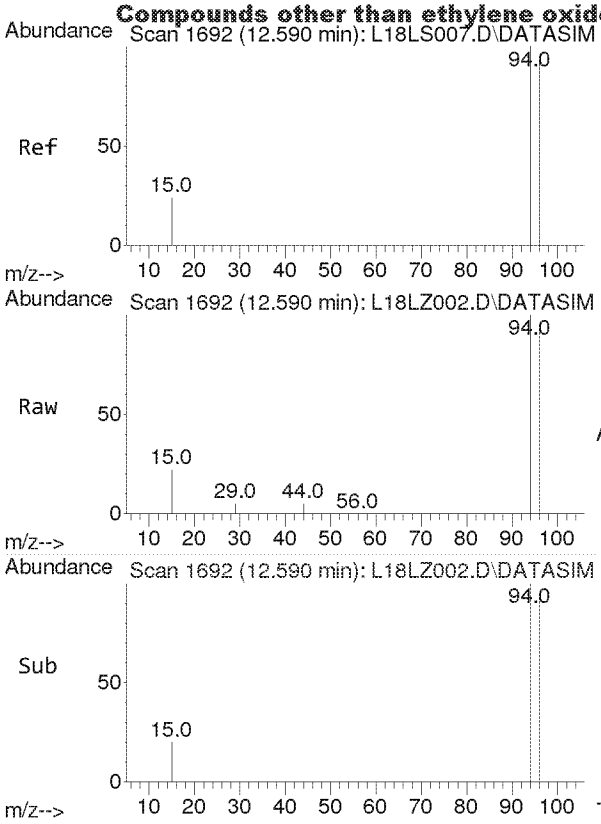
#9
Ethylene oxide
Concen: 2.014 ppbv
RT: 12.380 min Scan# 1678
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 29 Resp: 8645

Ion	Ratio	Lower	Upper
29	100		
15	20.0	16.2	24.4
44	96.9	72.0	108.0



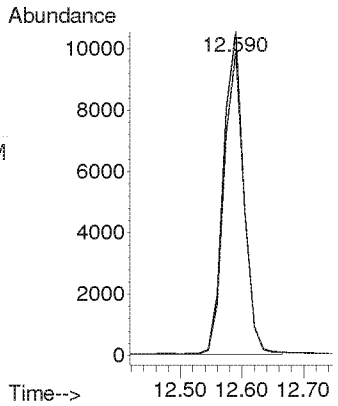
Compounds other than ethylene oxide were not quantitated.

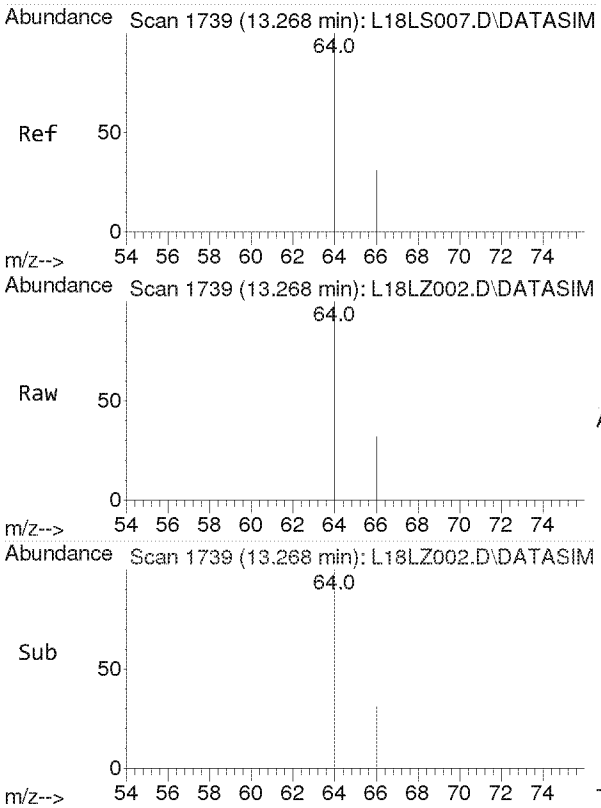


#10
Bromomethane
Concen: 2.502 ppbv
RT: 12.590 min Scan# 1692
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 94 Resp: 23661

Ion	Ratio	Lower	Upper
94	100		
96	93.7	75.1	112.7

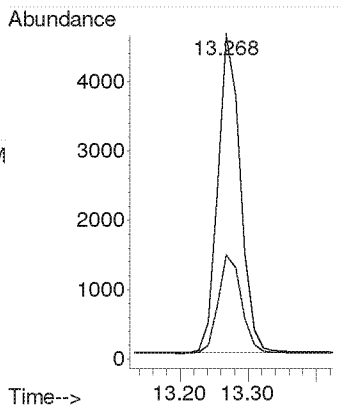




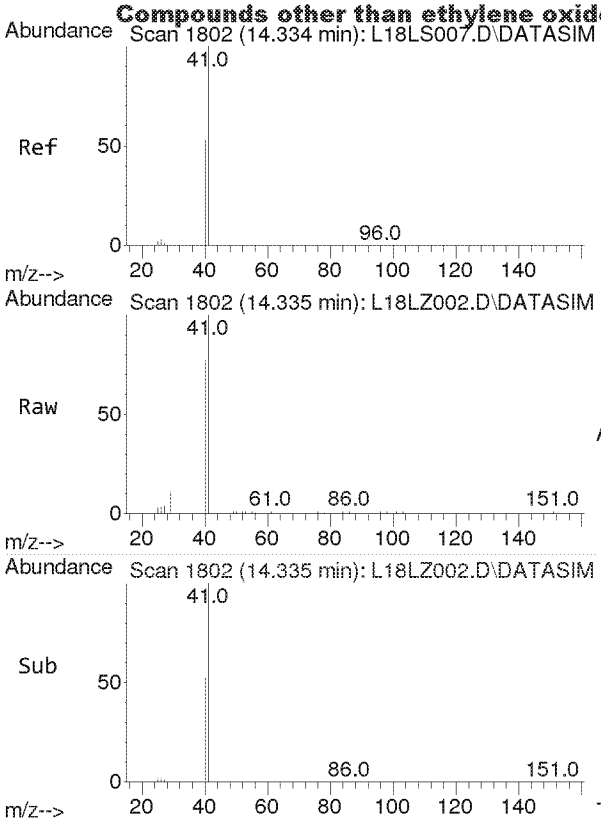
#11
Chloroethane
Concen: 2.517 ppbv
RT: 13.268 min Scan# 1739
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 64 Resp: 10486

Ion	Ratio	Lower	Upper
64	100		
66	32.1	25.6	38.4



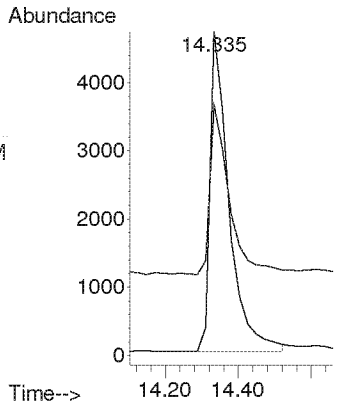
Compounds other than ethylene oxide were not quantitated.

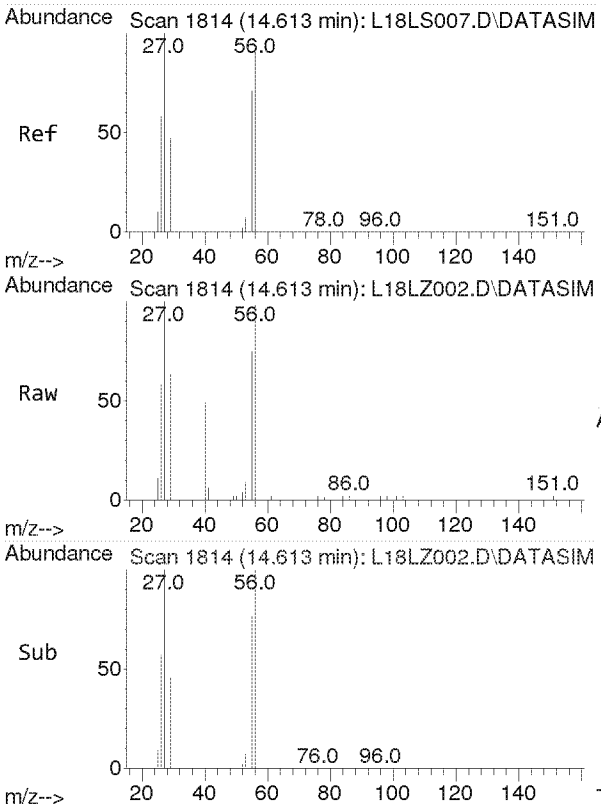


#12
Acetonitrile
Concen: 2.288 ppbv
RT: 14.335 min Scan# 1802
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 41 Resp: 16834

Ion	Ratio	Lower	Upper
41	100		
40	53.0	40.7	61.1

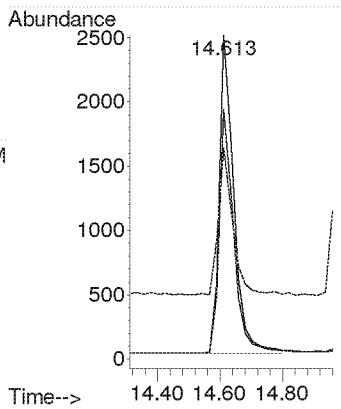




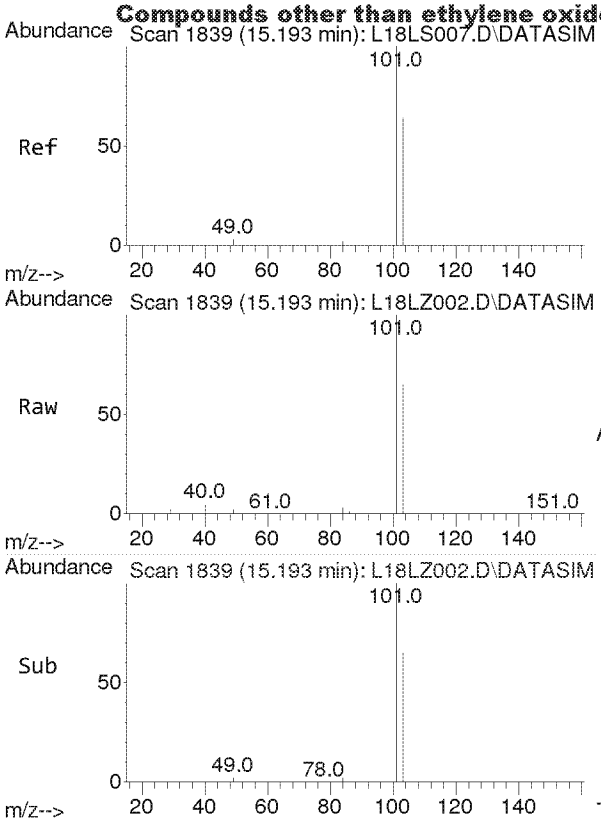
#13
Acrolein
Concen: 1.898 ppbv
RT: 14.613 min Scan# 1814
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 56 Resp: 7843

Ion	Ratio	Lower	Upper
56	100		
55	76.4	60.3	90.5
29	46.9	42.3	63.5



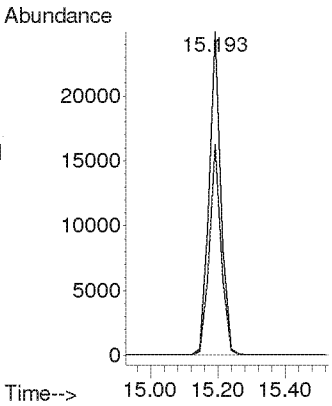
Compounds other than ethylene oxide were not quantitated.

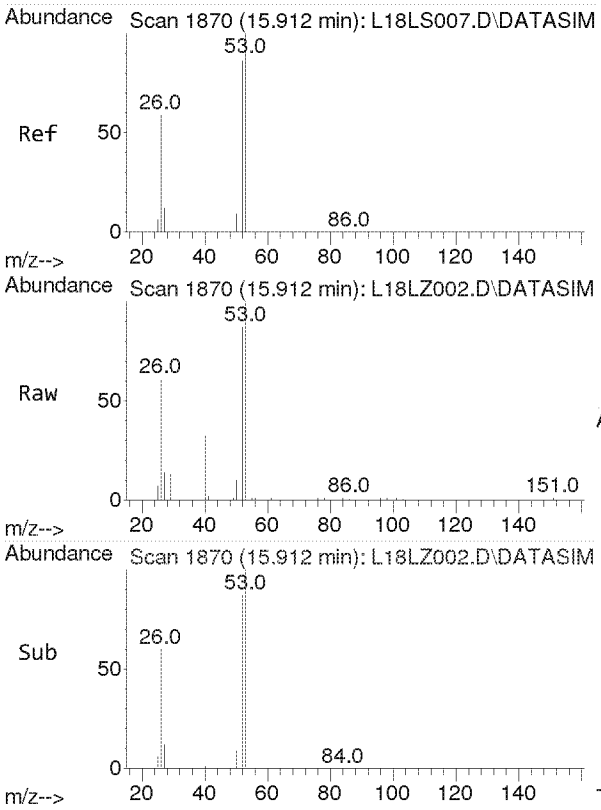


#14
Trichlorofluoromethane
Concen: 2.159 ppbv
RT: 15.193 min Scan# 1839
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion:101 Resp: 60654

Ion	Ratio	Lower	Upper
101	100		
103	64.9	51.7	77.5

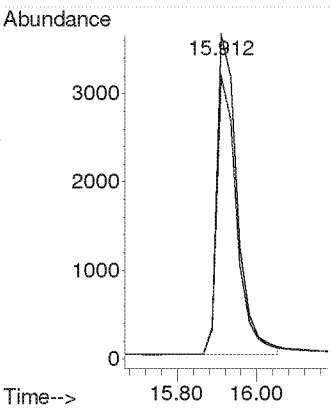




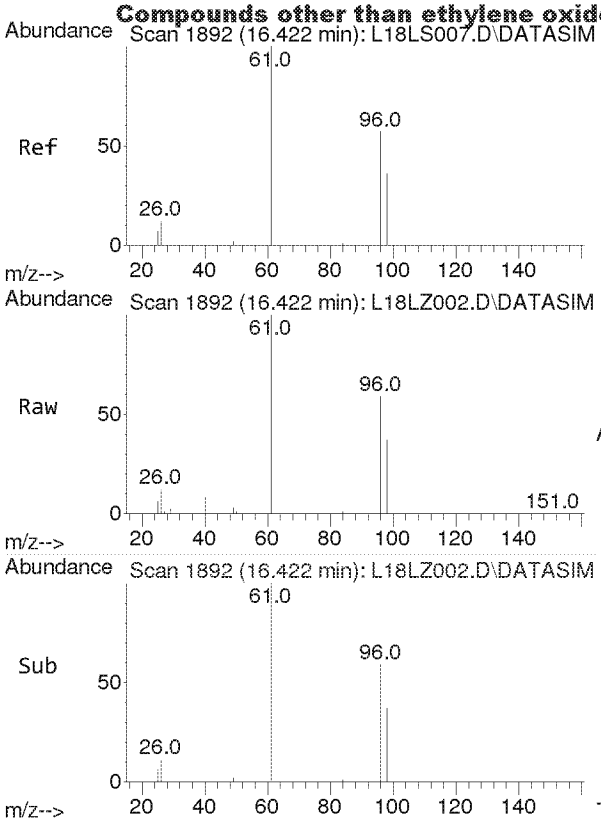
#15
Acrylonitrile
Concen: 2.199 ppbv
RT: 15.912 min Scan# 1870
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 53 Resp: 12696

Ion	Ratio	Lower	Upper
53	100		
52	85.6	68.3	102.5



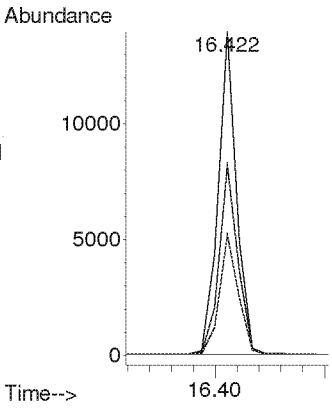
Compounds other than ethylene oxide were not quantitated.

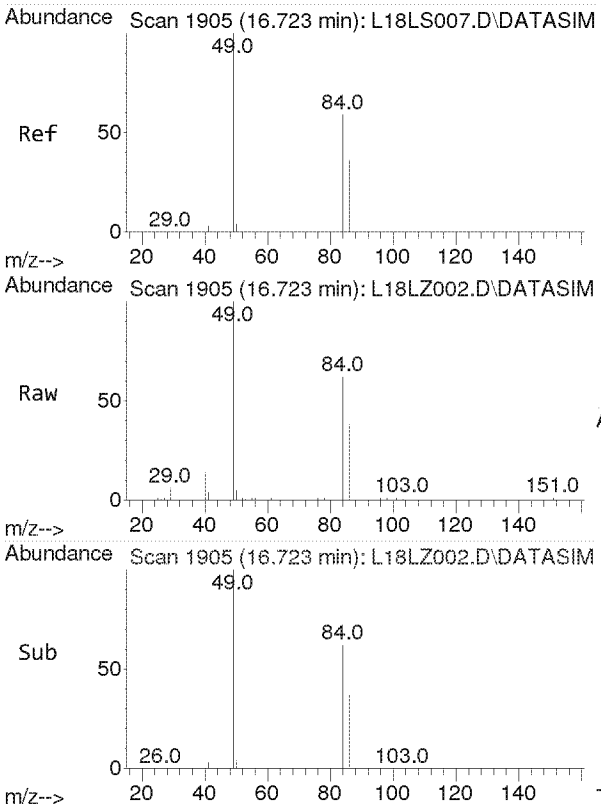


#16
1,1-Dichloroethene
Concen: 2.522 ppbv
RT: 16.422 min Scan# 1892
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 61 Resp: 32706

Ion	Ratio	Lower	Upper
61	100		
96	59.8	46.6	70.0
98	38.0	29.9	44.9

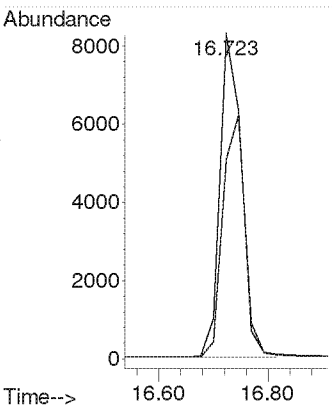




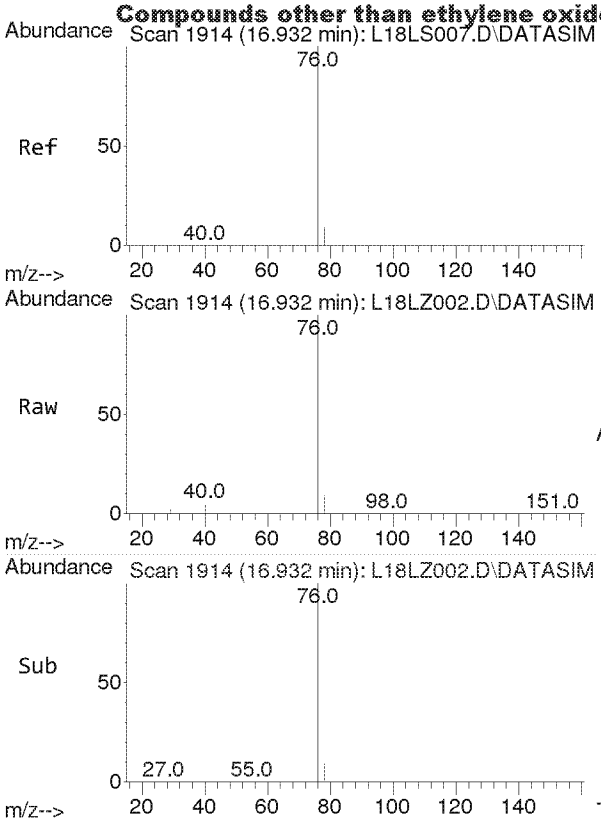
#17
Methylene Chloride
Concen: 2.444 ppbv
RT: 16.723 min Scan# 1905
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 49 Resp: 22736

Ion	Ratio	Lower	Upper
49	100		
84	77.4	53.5	99.3



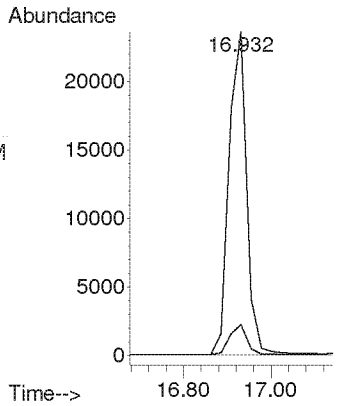
Compounds other than ethylene oxide were not quantitated.

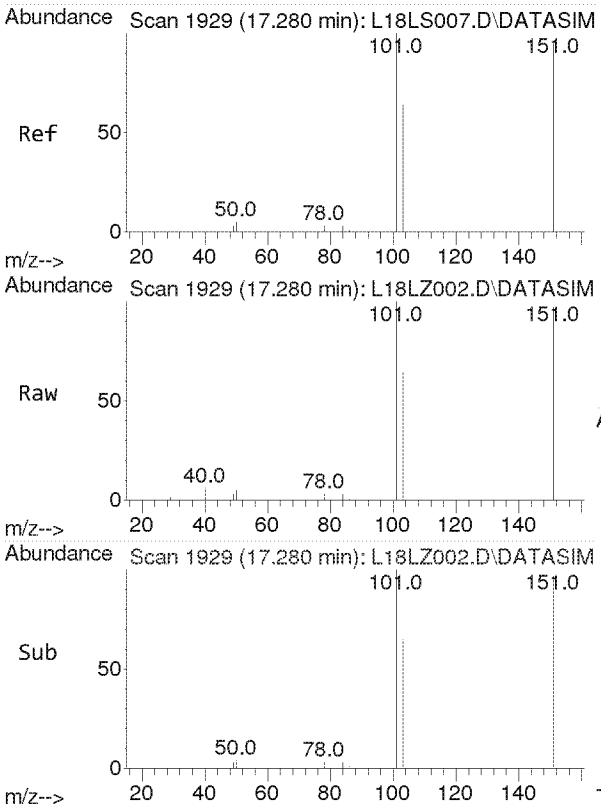


#18
Carbon Disulfide
Concen: 2.453 ppbv
RT: 16.932 min Scan# 1914
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 76 Resp: 66830

Ion	Ratio	Lower	Upper
76	100		
78	9.0	7.3	10.9

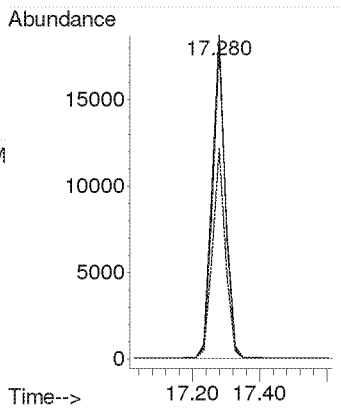




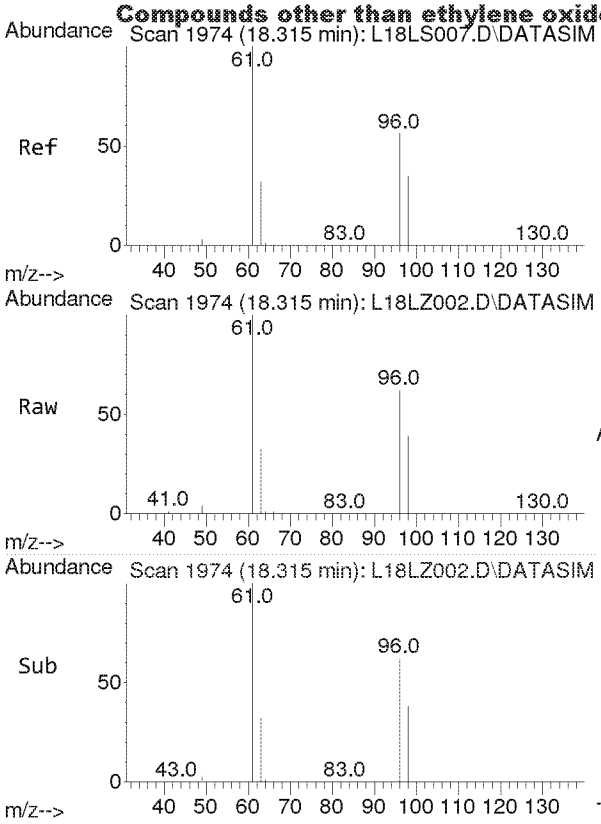
#19
Trichlorotrifluoroethane
Concen: 2.511 ppbv
RT: 17.280 min Scan# 1929
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion:101 Resp: 50543

Ion	Ratio	Lower	Upper
101	100		
151	96.0	76.2	114.4
103	64.3	51.3	76.9



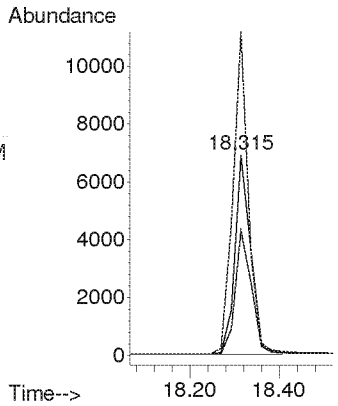
Compounds other than ethylene oxide were not quantitated.

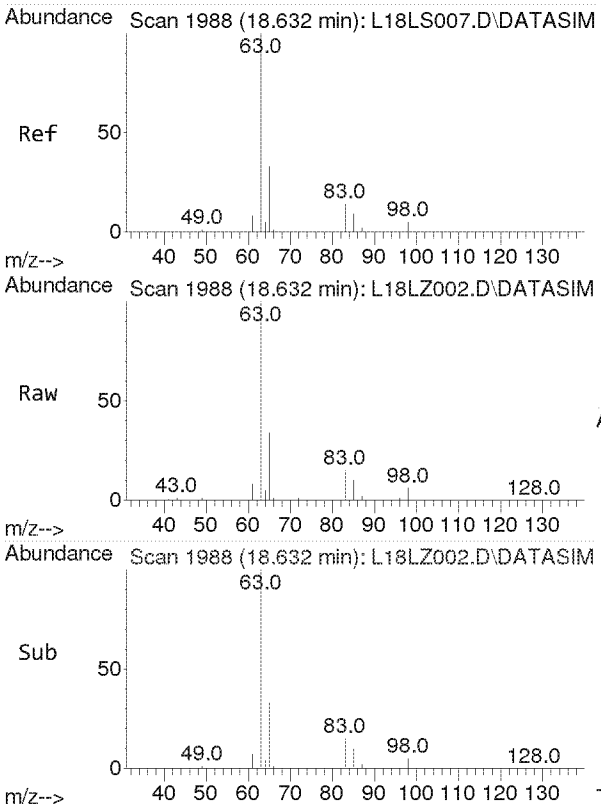


#20
trans-1,2-Dichloroethylene
Concen: 2.324 ppbv
RT: 18.315 min Scan# 1974
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 96 Resp: 16955

Ion	Ratio	Lower	Upper
96	100		
98	63.8	51.0	76.4
61	158.1	127.4	191.0

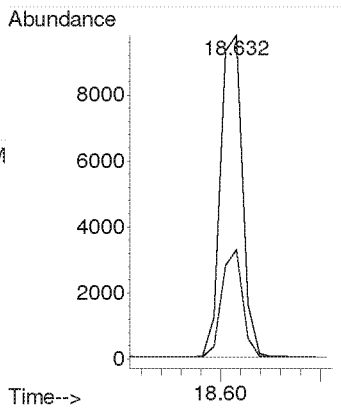




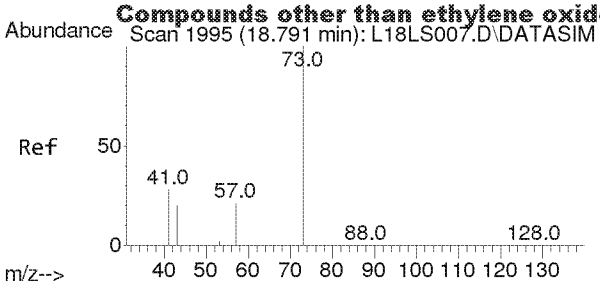
#21
1,1-Dichloroethane
Concen: 2.255 ppbv
RT: 18.632 min Scan# 1988
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 63 Resp: 29898

Ion	Ratio	Lower	Upper
63	100		
65	31.8	25.4	38.0



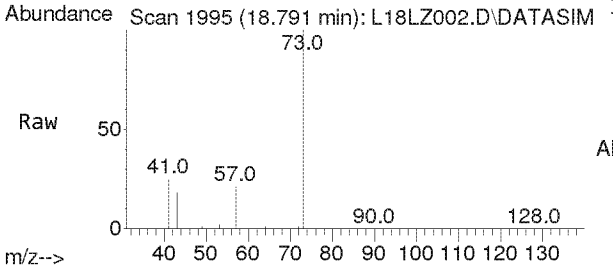
Compounds other than ethylene oxide were not quantitated.

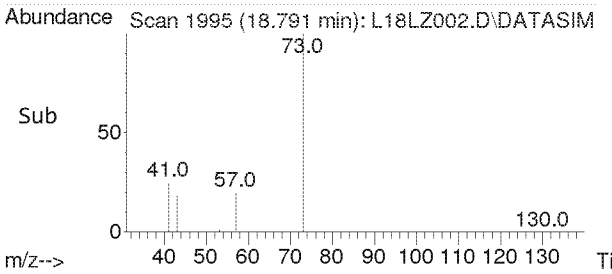


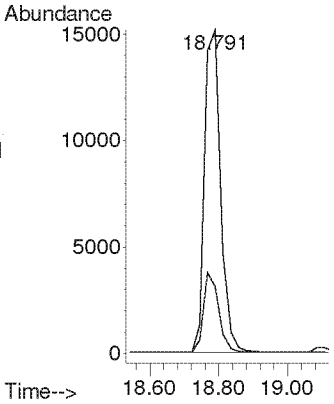
#22
Methyl tert-Butyl Ether
Concen: 2.578 ppbv
RT: 18.791 min Scan# 1995
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

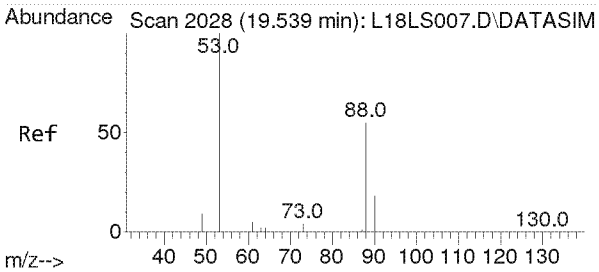
Tgt Ion: 73 Resp: 49827

Ion	Ratio	Lower	Upper
73	100		
57	23.2	18.7	28.1





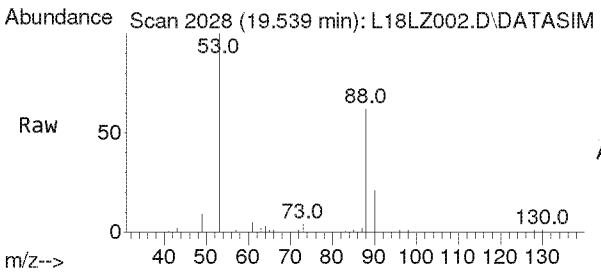


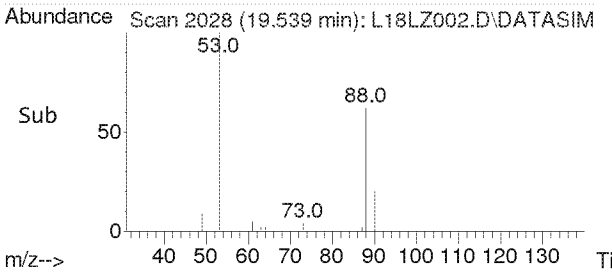


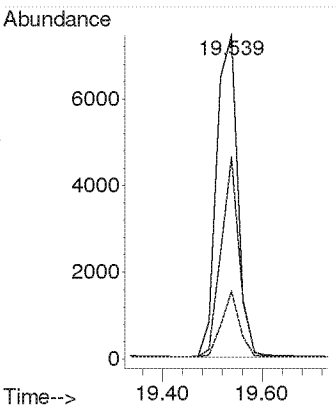
#23
Chloroprene
Concen: 2.305 ppbv
RT: 19.539 min Scan# 2028
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 53 Resp: 21903

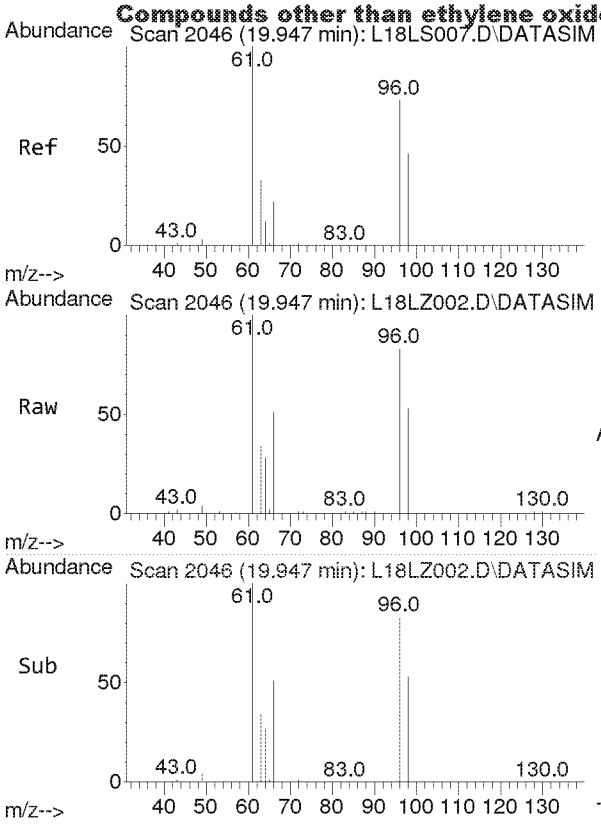
Ion	Ratio	Lower	Upper
53	100		
88	53.7	41.4	62.2
90	17.3	13.4	20.2







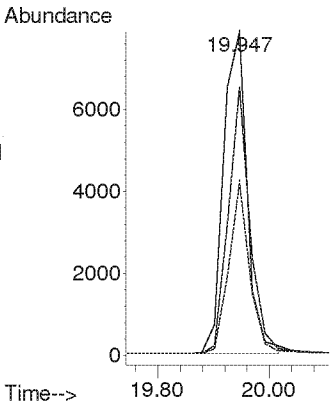
Compounds other than ethylene oxide were not quantitated.

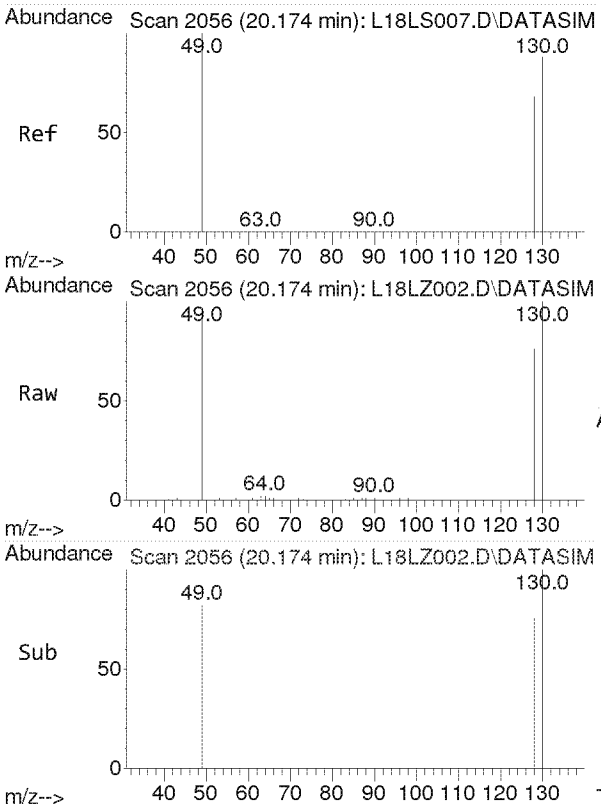


#24
cis-1,2-Dichloroethylene
Concen: 2.256 ppbv
RT: 19.947 min Scan# 2046
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 61 Resp: 23170

Ion	Ratio	Lower	Upper
61	100		
96	74.9	59.0	88.4
98	46.4	36.2	54.2

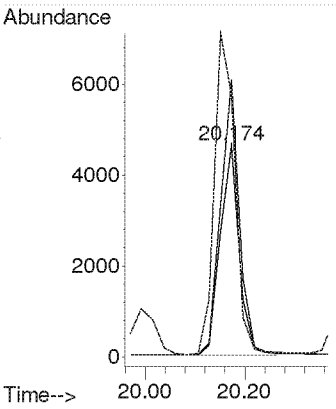




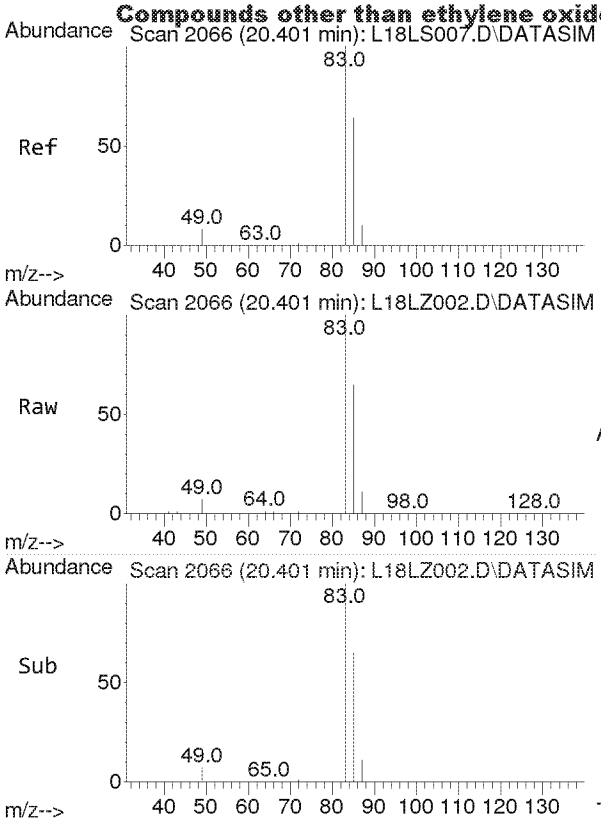
#25
Bromochloromethane
Concen: 2.200 ppbv
RT: 20.174 min Scan# 2056
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion:128 Resp: 12152

Ion	Ratio	Lower	Upper
128	100		
130	129.2	103.3	154.9
49	168.6	137.0	205.4



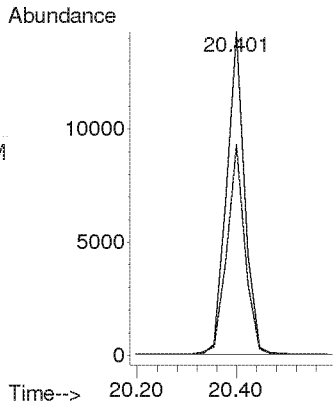
Compounds other than ethylene oxide were not quantitated.

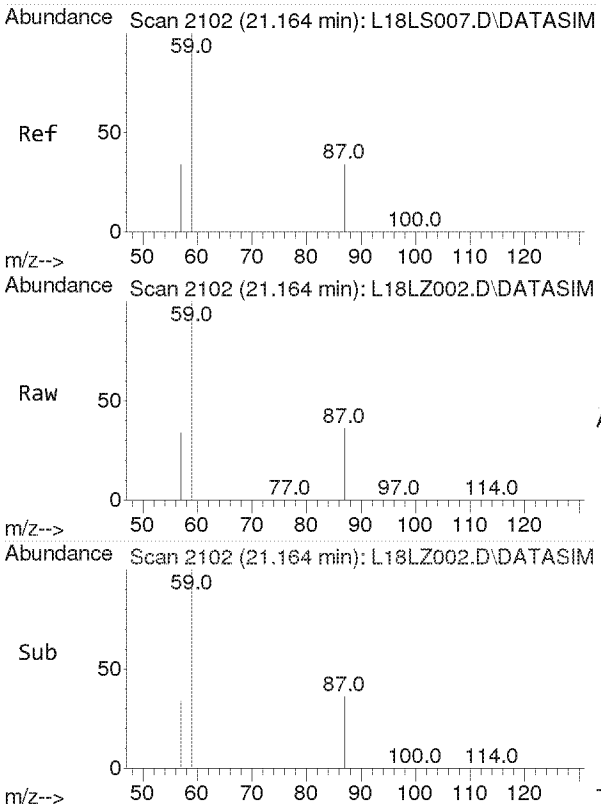


#26
Chloroform
Concen: 2.341 ppbv
RT: 20.401 min Scan# 2066
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 83 Resp: 35592

Ion	Ratio	Lower	Upper
83	100		
85	65.2	51.5	77.3

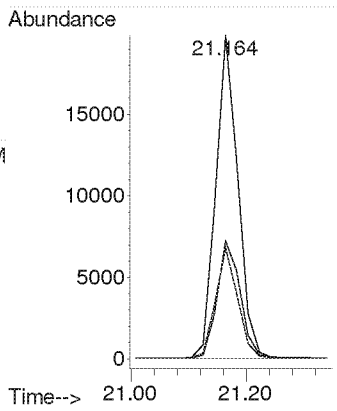




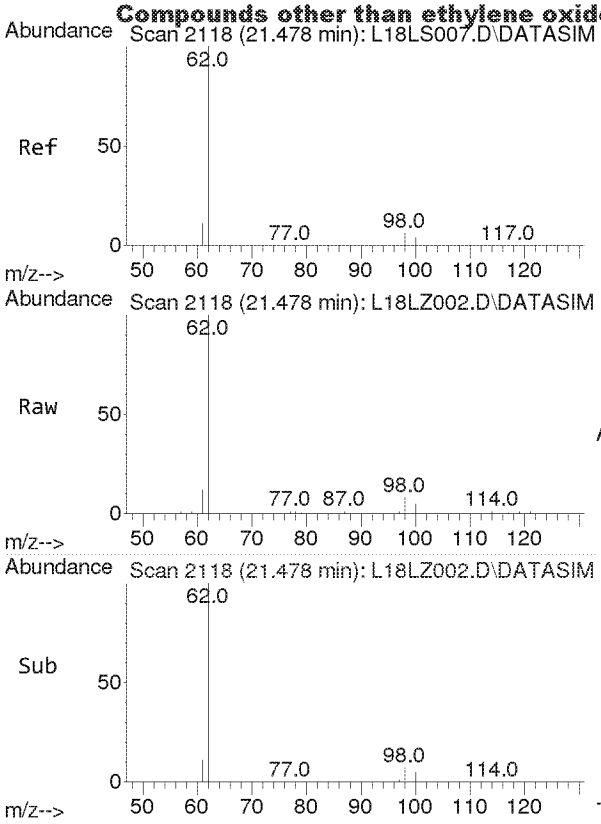
#27
Ethyl tert-Butyl Ether
Concen: 2.596 ppbv
RT: 21.164 min Scan# 2102
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 59 Resp: 52788

Ion	Ratio	Lower	Upper
59	100		
87	37.6	30.0	45.0
57	33.9	27.0	40.6



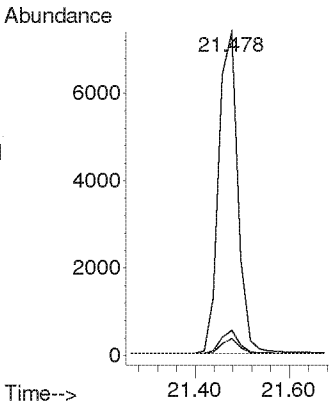
Compounds other than ethylene oxide were not quantitated.

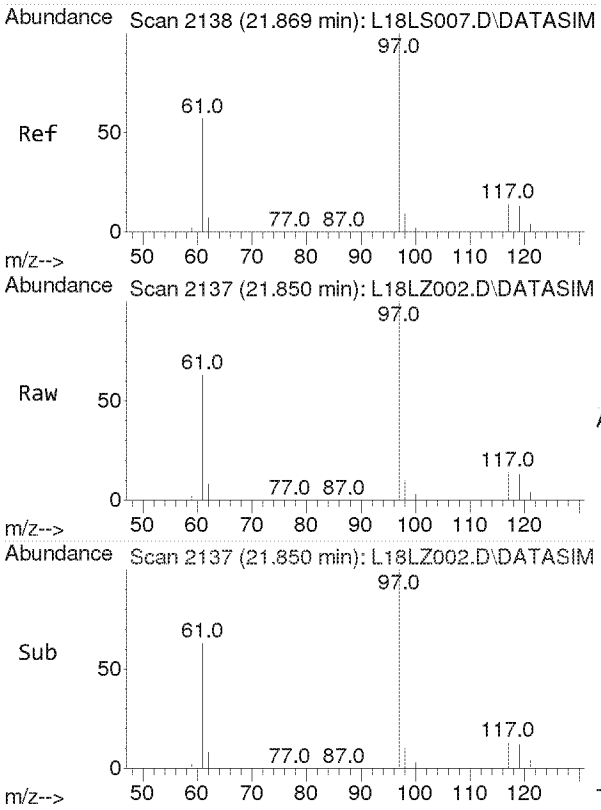


#28
1,2-Dichloroethane
Concen: 2.258 ppbv
RT: 21.478 min Scan# 2118
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 62 Resp: 20801

Ion	Ratio	Lower	Upper
62	100		
98	6.7	5.1	7.7
100	4.2	3.2	4.8

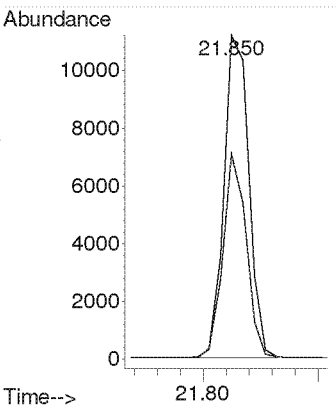




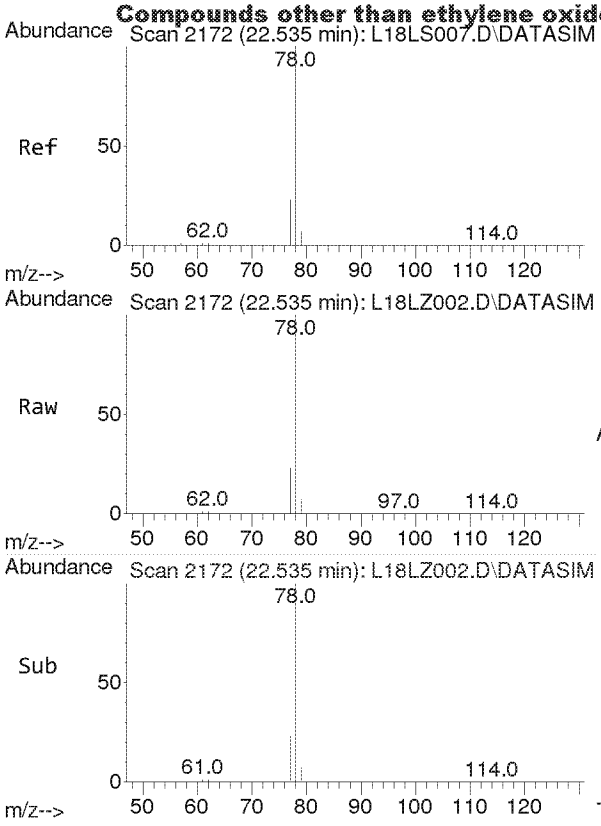
#30
1,1,1-Trichloroethane
Concen: 2.278 ppbv
RT: 21.850 min Scan# 2137
Delta R.T. -0.019 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 97 Resp: 33336

Ion	Ratio	Lower	Upper
97	100		
61	59.0	48.4	72.6



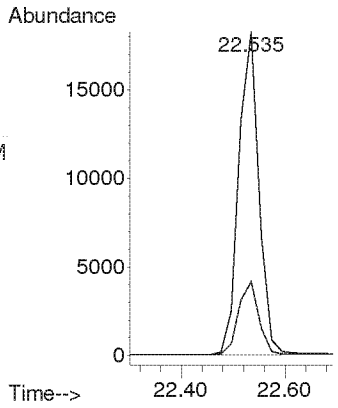
Compounds other than ethylene oxide were not quantitated.

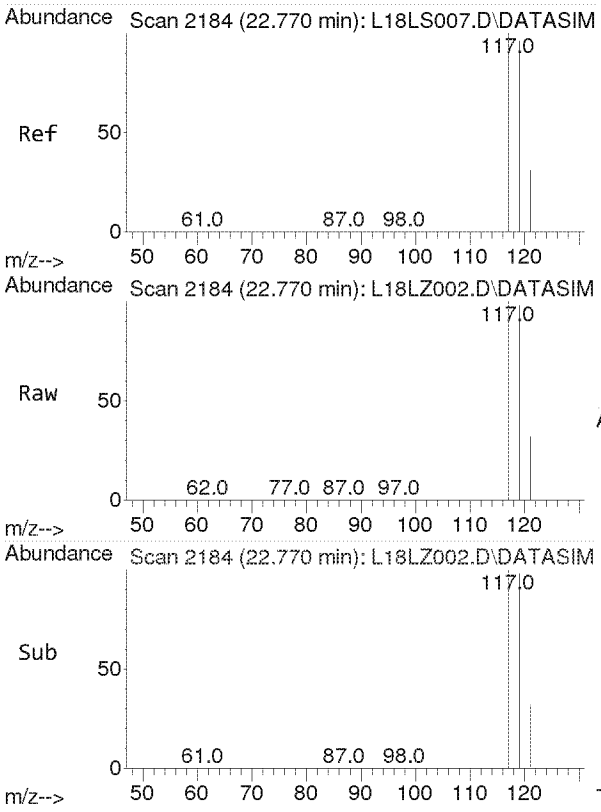


#31
Benzene
Concen: 2.448 ppbv
RT: 22.535 min Scan# 2172
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 78 Resp: 49025

Ion	Ratio	Lower	Upper
78	100		
77	22.7	18.2	27.2

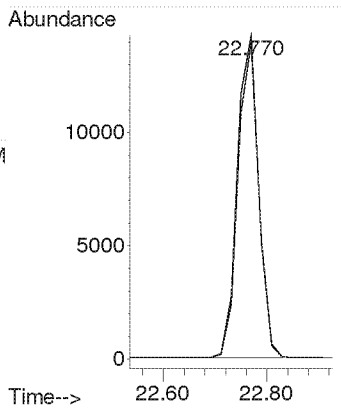




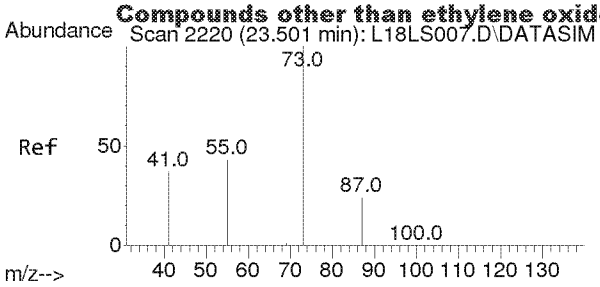
#32
Carbon Tetrachloride
Concen: 2.542 ppbv
RT: 22.770 min Scan# 2184
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion:117 Resp: 40522

Ion	Ratio	Lower	Upper
117	100		
119	95.9	77.2	115.8



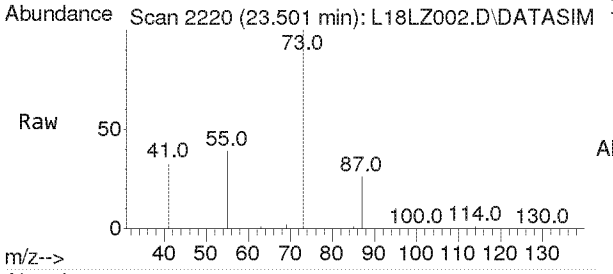
Compounds other than ethylene oxide were not quantitated.

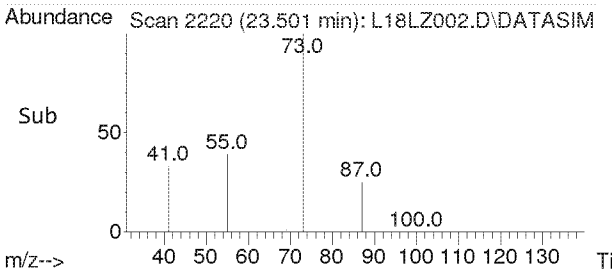


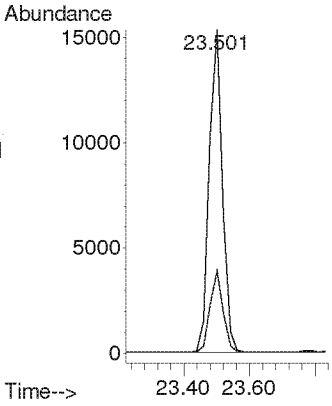
#33
tert-Amyl Methyl Ether
Concen: 2.533 ppbv
RT: 23.501 min Scan# 2220
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

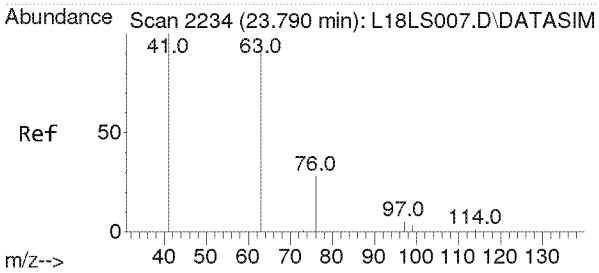
Tgt Ion: 73 Resp: 42935

Ion	Ratio	Lower	Upper
73	100		
87	24.8	19.9	29.9





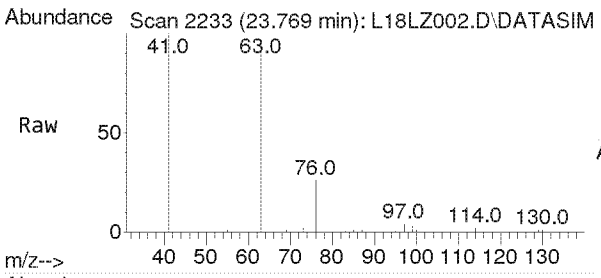


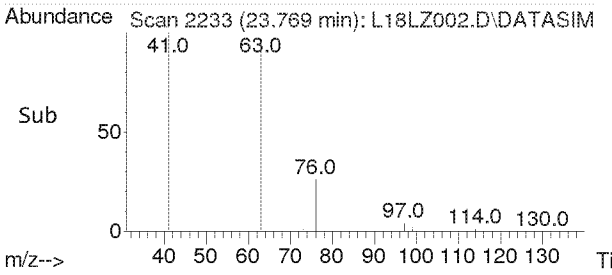


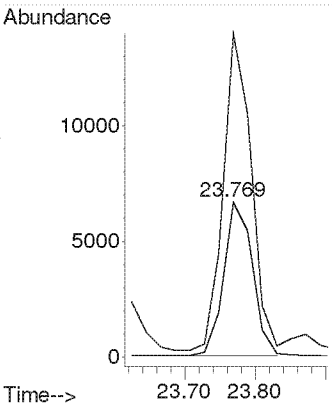
#34
1,2-Dichloropropane
Concen: 2.259 ppbv
RT: 23.769 min Scan# 2233
Delta R.T. -0.020 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 63 Resp: 18837

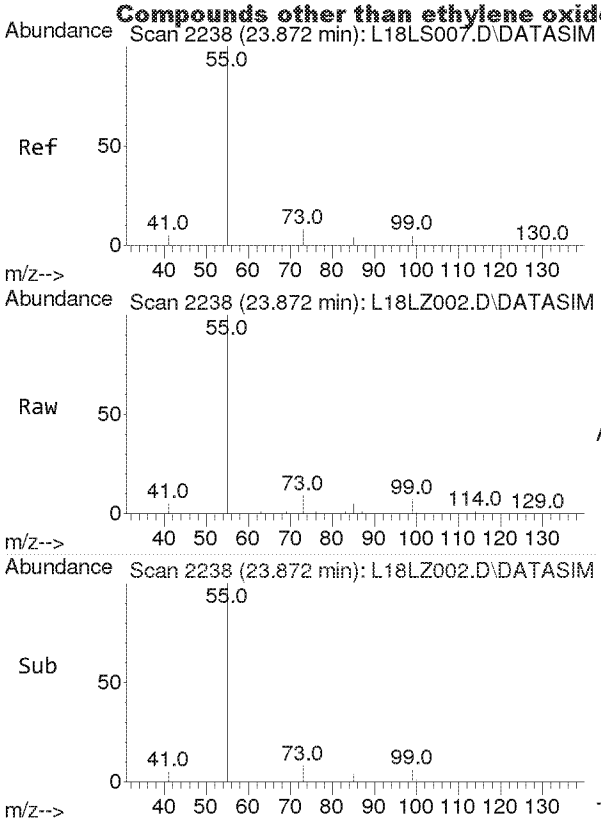
Ion	Ratio	Lower	Upper
63	100		
41	200.8	170.2	255.4







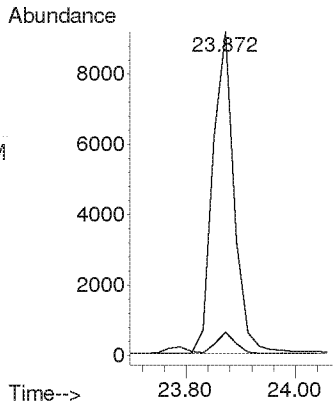
Compounds other than ethylene oxide were not quantitated.

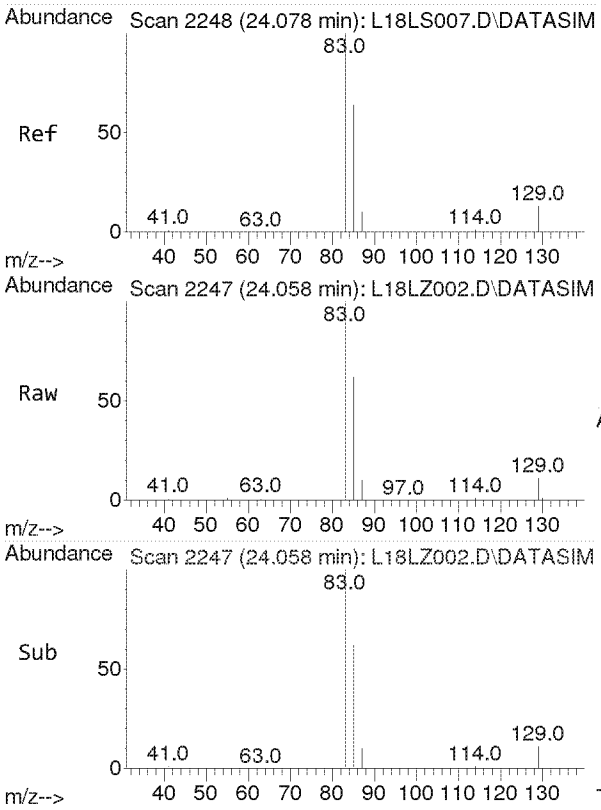


#35
Ethyl Acrylate
Concen: 2.228 ppbv
RT: 23.872 min Scan# 2238
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 55 Resp: 24919

Ion	Ratio	Lower	Upper
55	100		
99	6.0	4.9	7.3

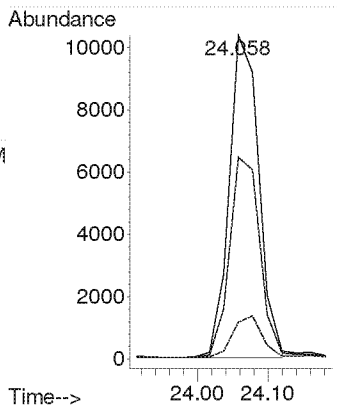




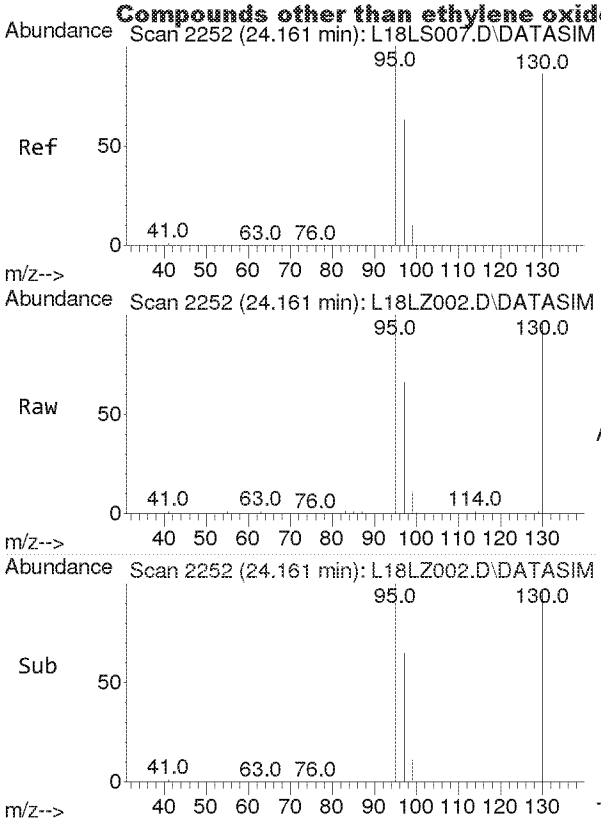
#36
Bromodichloromethane
Concen: 1.963 ppbv
RT: 24.058 min Scan# 2247
Delta R.T. -0.020 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 83 Resp: 30267

Ion	Ratio	Lower	Upper
83	100		
85	63.7	51.2	76.8
129	12.7	9.9	14.9



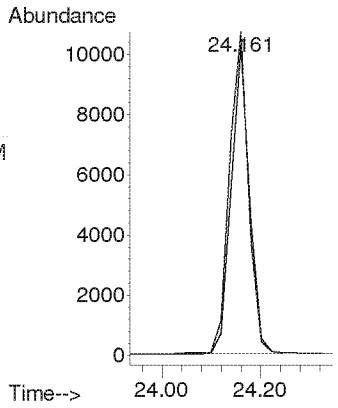
Compounds other than ethylene oxide were not quantitated.

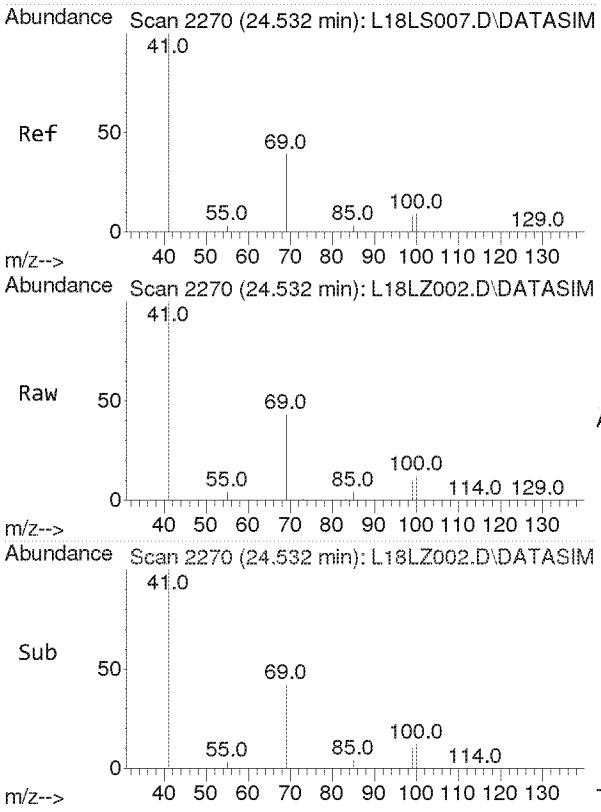


#37
Trichloroethylene
Concen: 2.815 ppbv
RT: 24.161 min Scan# 2252
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion:130 Resp: 26582

Ion	Ratio	Lower	Upper
130	100		
95	108.5	88.2	132.4

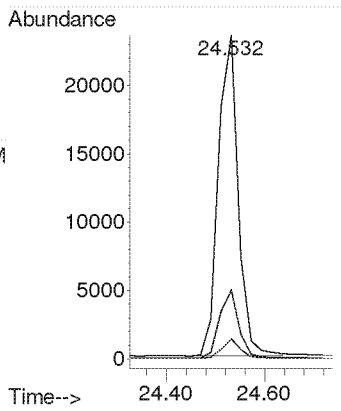




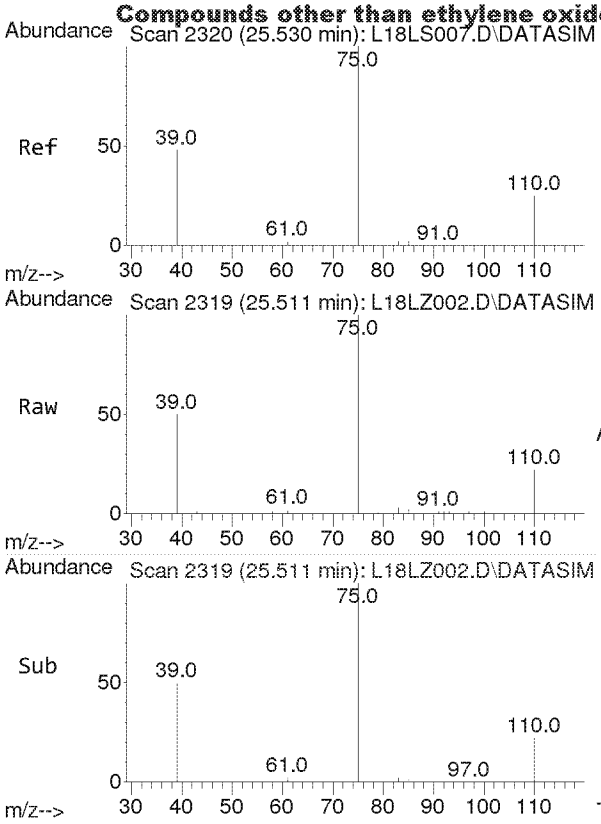
#38
Methyl Methacrylate
Concen: 2.135 ppbv
RT: 24.532 min Scan# 2270
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 41 Resp: 66251

Ion	Ratio	Lower	Upper
41	100		
69	20.5	15.9	23.9
100	5.4	4.2	6.2



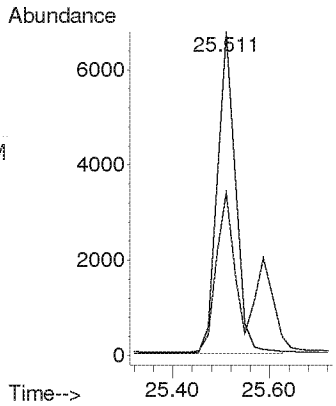
Compounds other than ethylene oxide were not quantitated.

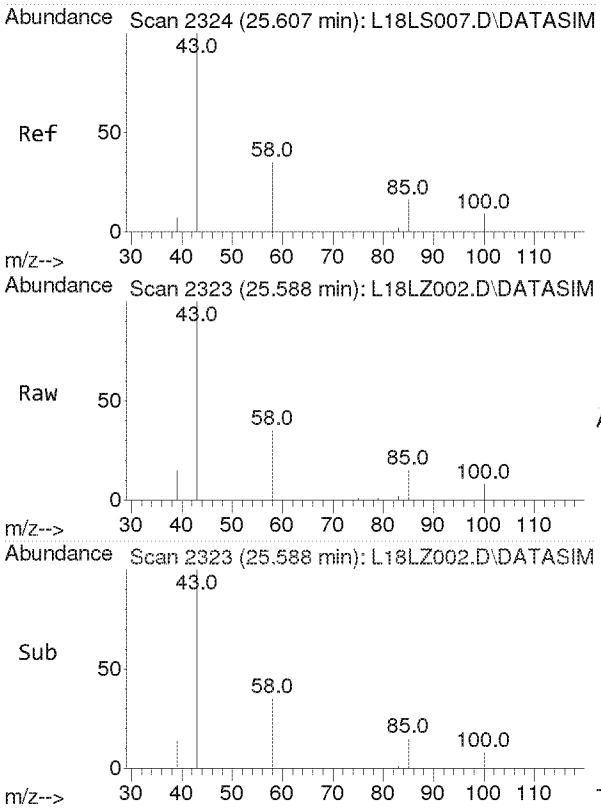


#39
cis-1,3-Dichloropropene
Concen: 2.372 ppbv
RT: 25.511 min Scan# 2319
Delta R.T. -0.019 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 75 Resp: 17630

Ion	Ratio	Lower	Upper
75	100		
39	50.4	43.5	65.3

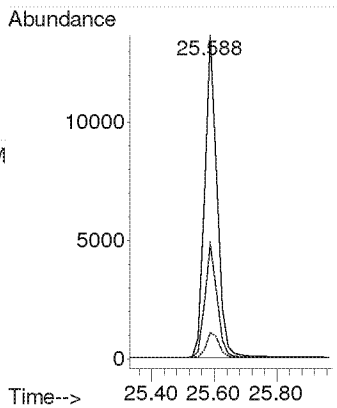




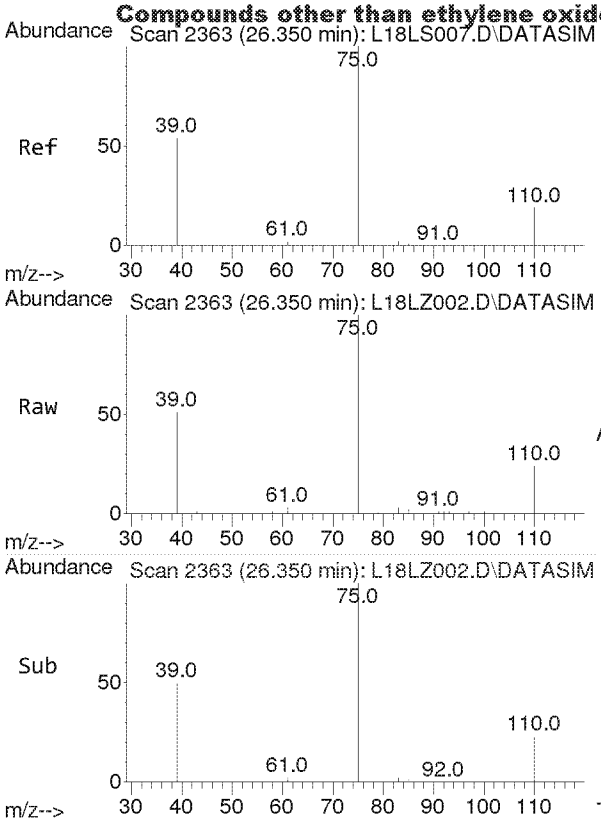
#40
Methyl Isobutyl Ketone
Concen: 2.254 ppbv
RT: 25.588 min Scan# 2323
Delta R.T. -0.019 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 43 Resp: 37326

Ion	Ratio	Lower	Upper
43	100		
58	35.0	27.4	41.0
100	8.2	6.3	9.5



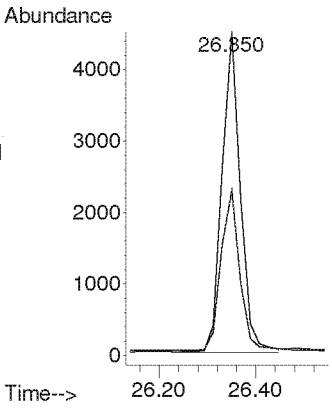
Compounds other than ethylene oxide were not quantitated.

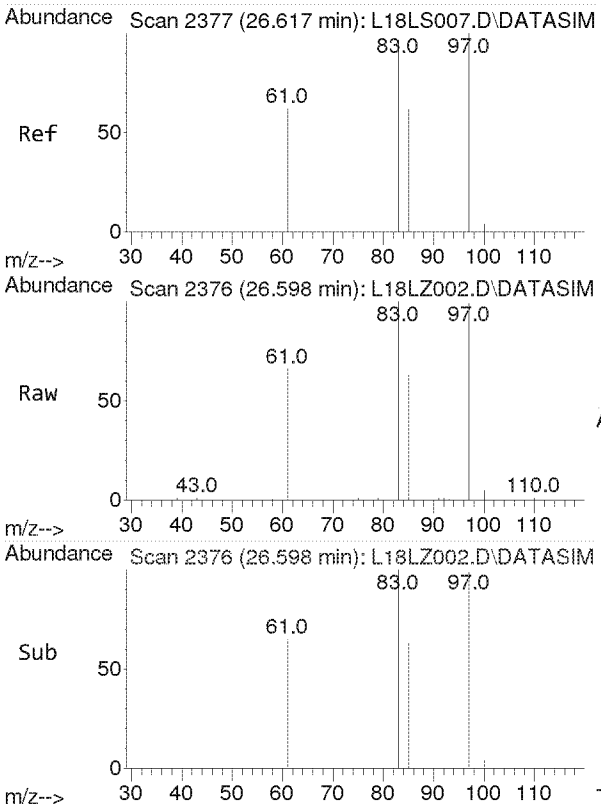


#41
trans-1,3-Dichloropropene
Concen: 2.113 ppbv
RT: 26.350 min Scan# 2363
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 75 Resp: 11637

Ion	Ratio	Lower	Upper
75	100		
39	51.1	40.7	61.1

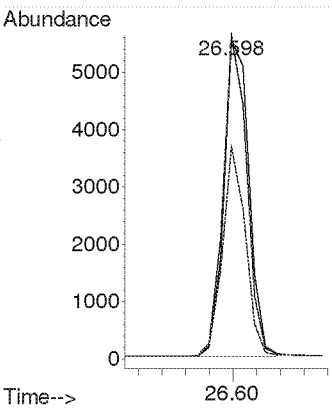




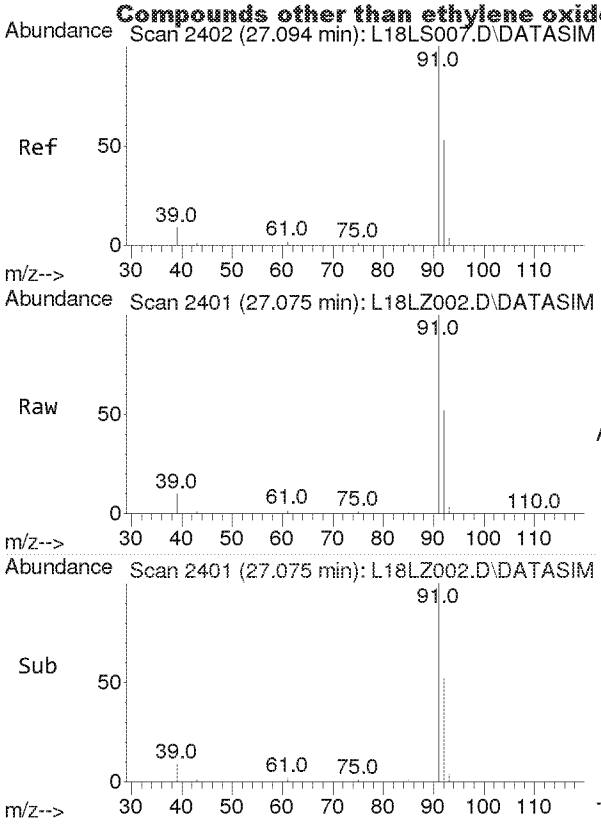
#42
1,1,2-Trichloroethane
Concen: 2.238 ppbv
RT: 26.598 min Scan# 2376
Delta R.T. -0.019 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 97 Resp: 16092

Ion	Ratio	Lower	Upper
97	100		
83	95.7	76.9	115.3
61	60.9	50.8	76.2



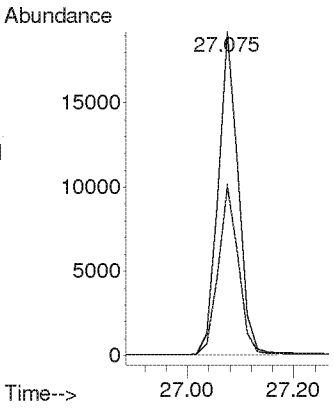
Compounds other than ethylene oxide were not quantitated.

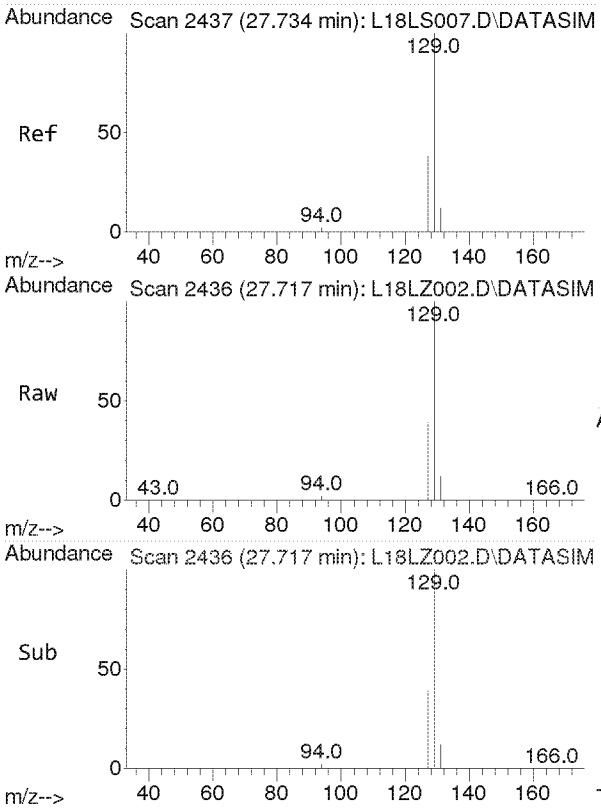


#44
Toluene
Concen: 2.288 ppbv
RT: 27.075 min Scan# 2401
Delta R.T. -0.019 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 91 Resp: 50276

Ion	Ratio	Lower	Upper
91	100		
92	52.3	42.1	63.1

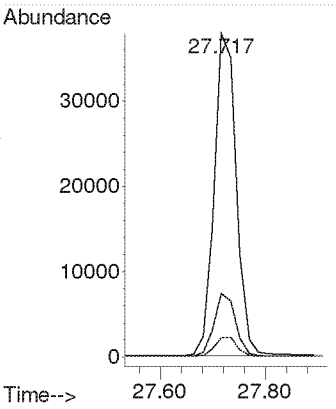




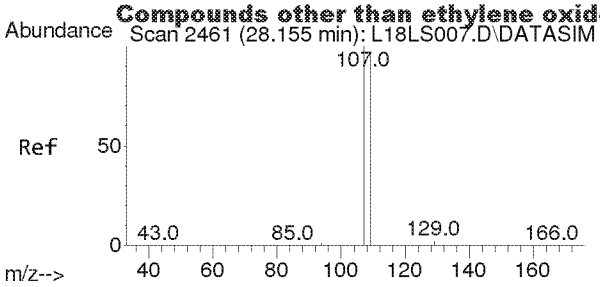
#45
Dibromochloromethane
Concen: 2.101 ppbv
RT: 27.717 min Scan# 2436
Delta R.T. -0.017 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion:129 Resp: 109380

Ion	Ratio	Lower	Upper
129	100		
127	19.2	15.4	23.0
131	6.0	4.8	7.2



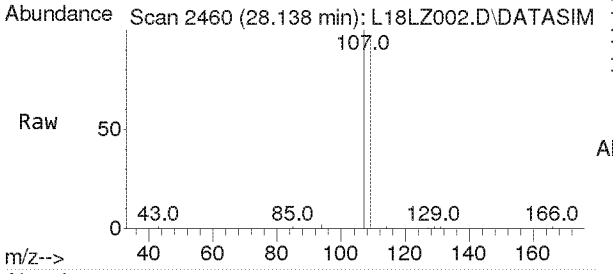
Compounds other than ethylene oxide were not quantitated.

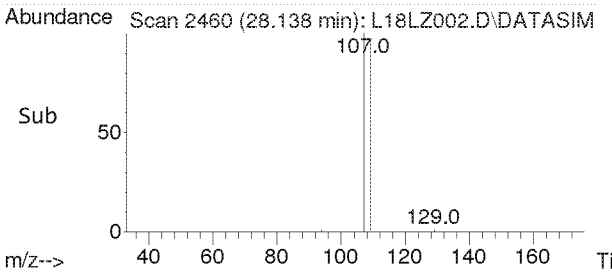


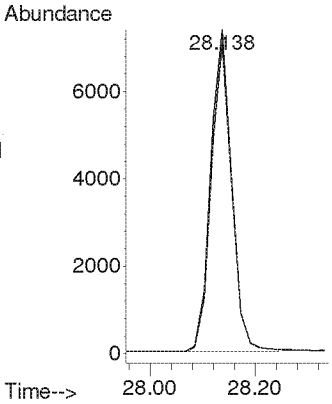
#46
1,2-Dibromoethane
Concen: 2.326 ppbv
RT: 28.138 min Scan# 2460
Delta R.T. -0.017 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

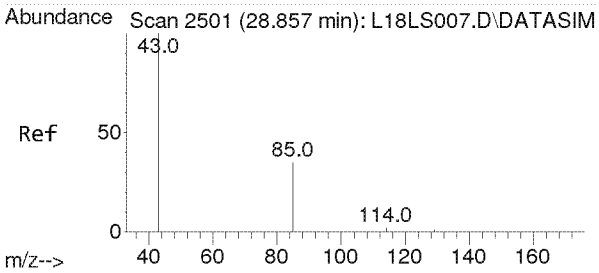
Tgt Ion:107 Resp: 20298

Ion	Ratio	Lower	Upper
107	100		
109	94.7	75.6	113.4





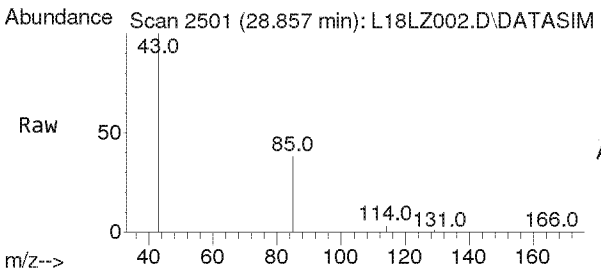


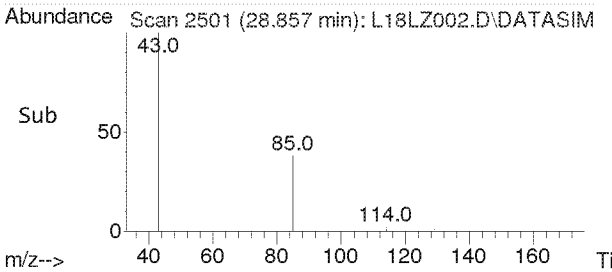


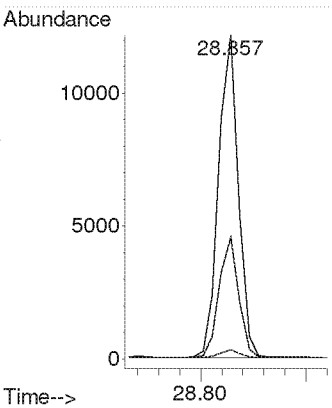
#47
n-Octane
Concen: 2.234 ppbv
RT: 28.857 min Scan# 2501
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 43 Resp: 31537

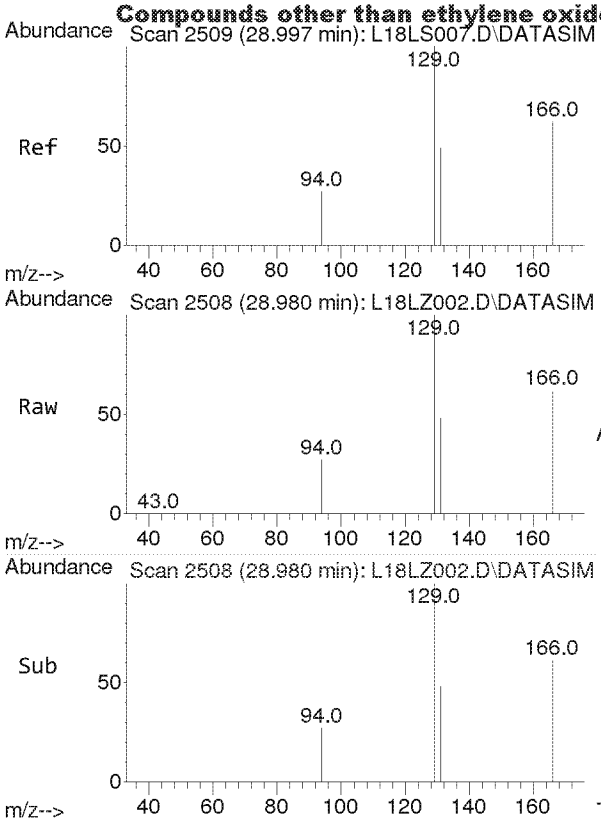
Ion	Ratio	Lower	Upper
43	100		
85	36.9	28.8	43.2
114	2.3	1.8	2.6







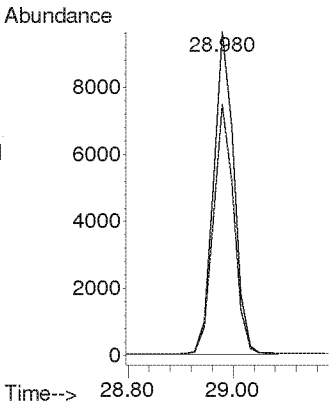
Compounds other than ethylene oxide were not quantitated.

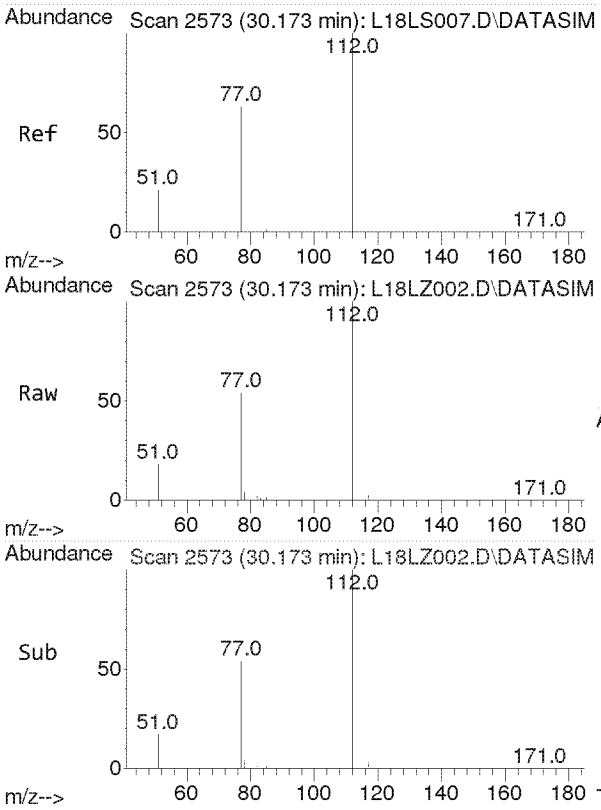


#48
Tetrachloroethylene
Concen: 2.347 ppbv
RT: 28.980 min Scan# 2508
Delta R.T. -0.017 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion:166 Resp: 25735

Ion	Ratio	Lower	Upper
166	100		
131	77.5	62.6	93.8

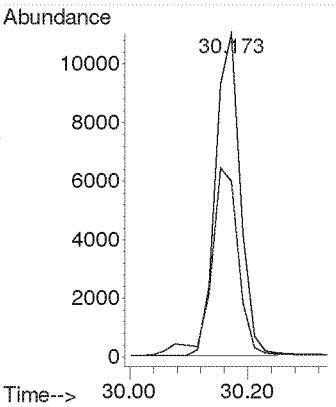




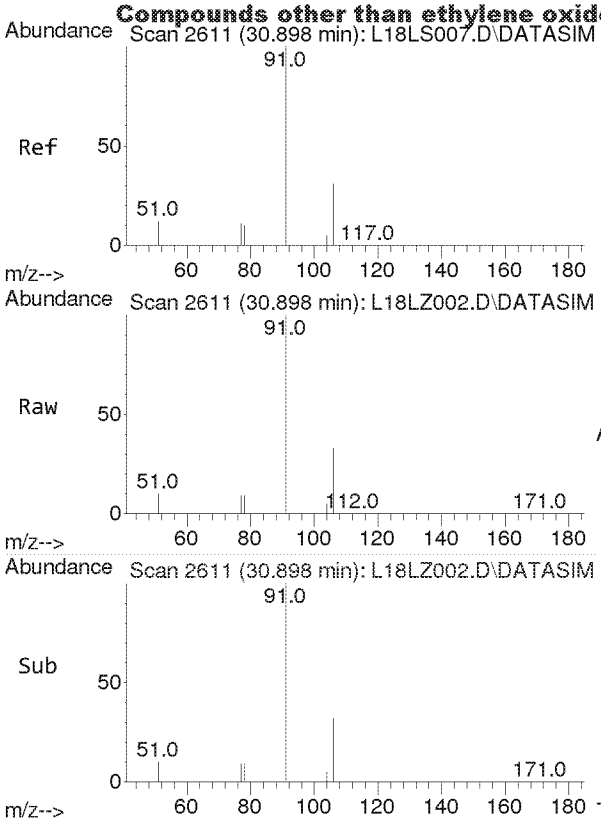
#49
Chlorobenzene
Concen: 2.257 ppbv
RT: 30.173 min Scan# 2573
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion:112 Resp: 31885

Ion	Ratio	Lower	Upper
112	100		
77	61.7	50.4	75.6



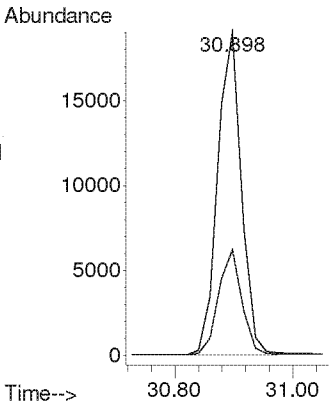
Compounds other than ethylene oxide were not quantitated.

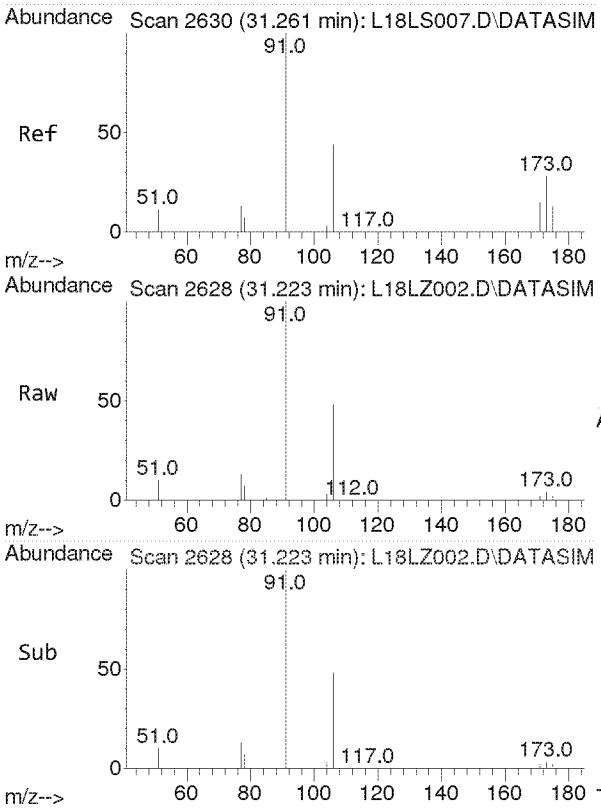


#50
Ethylbenzene
Concen: 2.321 ppbv
RT: 30.898 min Scan# 2611
Delta R.T. 0.000 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 91 Resp: 52713

Ion	Ratio	Lower	Upper
91	100		
106	31.8	25.4	38.2

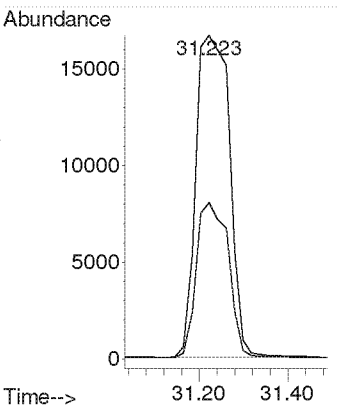




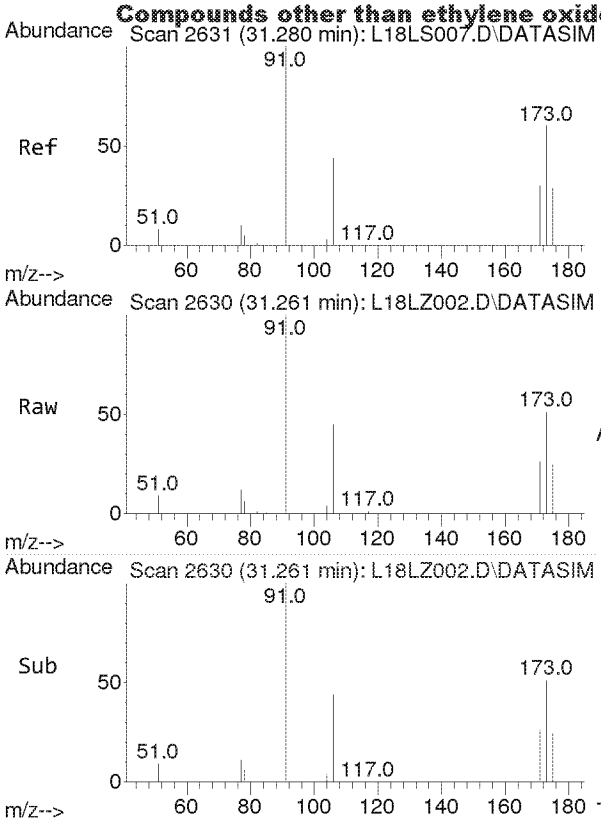
#51
m,p-Xylene
Concen: 4.480 ppbv
RT: 31.223 min Scan# 2628
Delta R.T. -0.038 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 91 Resp: 87446

Ion	Ratio	Lower	Upper
91	100		
106	45.7	35.5	53.3



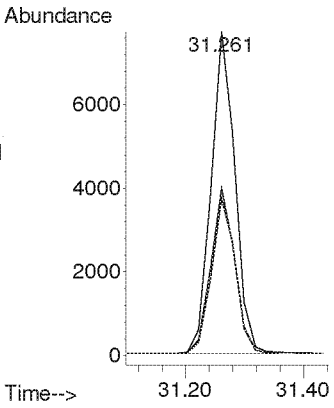
Compounds other than ethylene oxide were not quantitated.

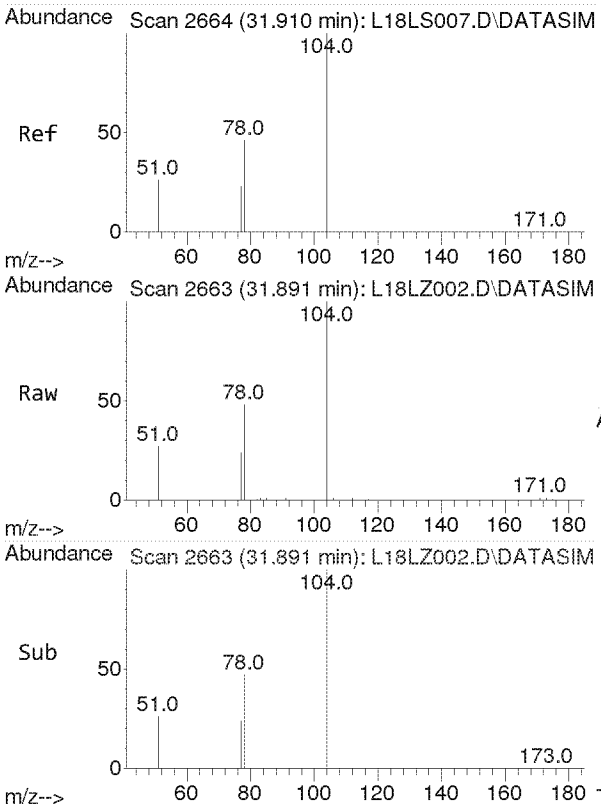


#52
Bromoform
Concen: 2.166 ppbv
RT: 31.261 min Scan# 2630
Delta R.T. -0.019 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion:173 Resp: 21377

Ion	Ratio	Lower	Upper
173	100		
171	51.3	41.0	61.6
175	48.7	39.2	58.8

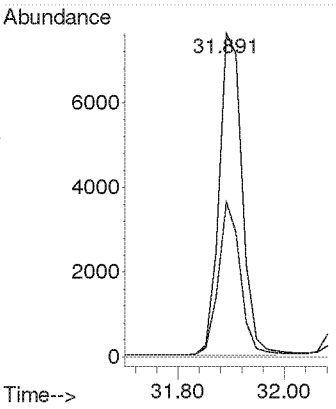




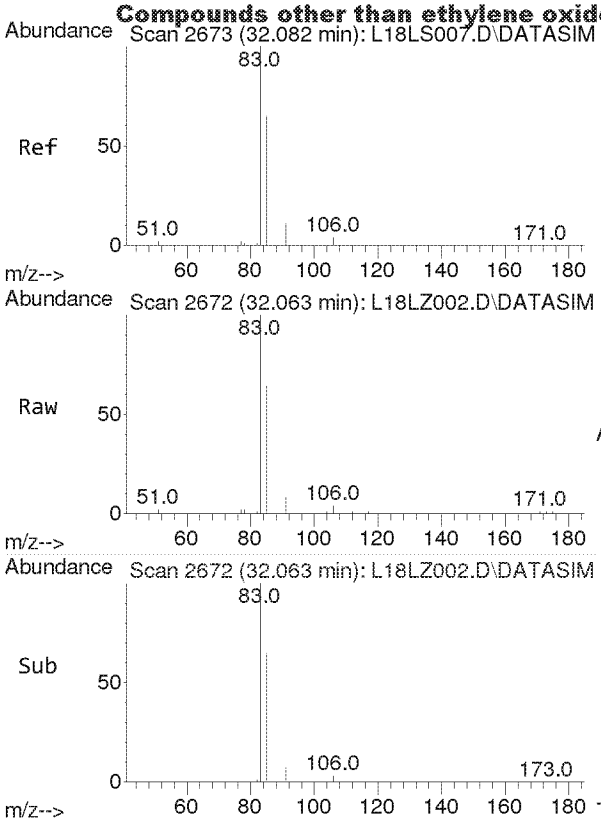
#53
Styrene
Concen: 2.319 ppbv
RT: 31.891 min Scan# 2663
Delta R.T. -0.019 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion:104 Resp: 23018

Ion	Ratio	Lower	Upper
104	100		
78	44.8	36.5	54.7
103	0.0	0.0	0.0



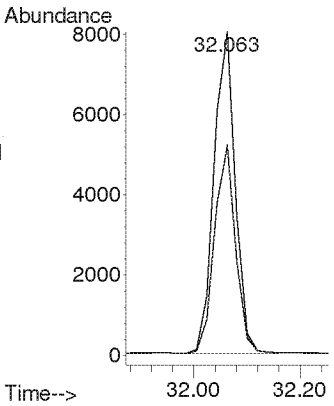
Compounds other than ethylene oxide were not quantitated.

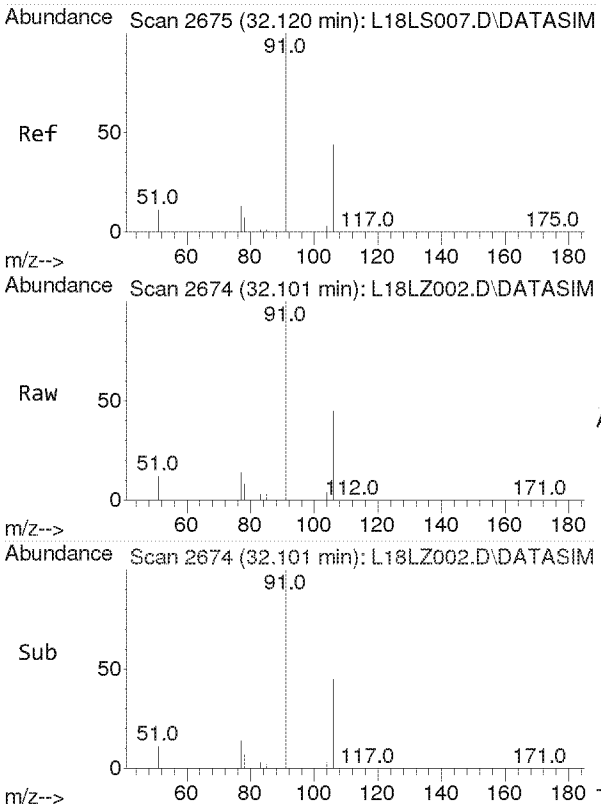


#54
1,1,2,2-Tetrachloroethane
Concen: 1.620 ppbv
RT: 32.063 min Scan# 2672
Delta R.T. -0.019 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 83 Resp: 22376

Ion	Ratio	Lower	Upper
83	100		
85	64.3	51.1	76.7

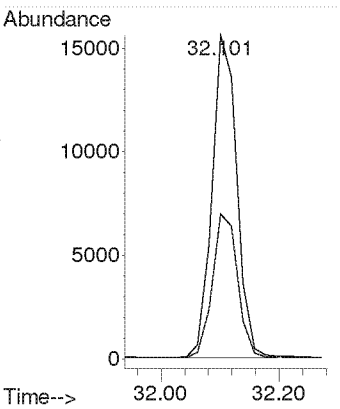




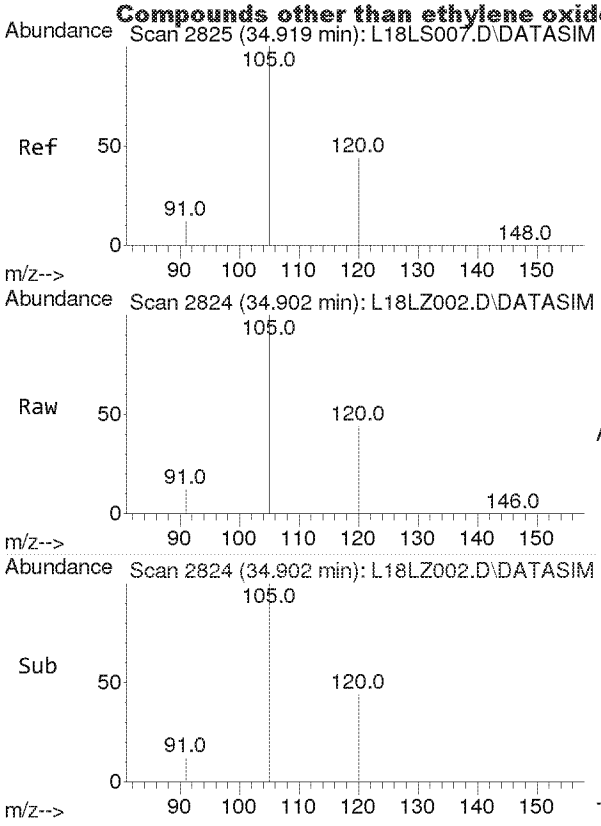
#55
o-Xylene
Concen: 2.350 ppbv
RT: 32.101 min Scan# 2674
Delta R.T. -0.019 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion: 91 Resp: 45062

Ion	Ratio	Lower	Upper
91	100		
106	45.5	35.4	53.0



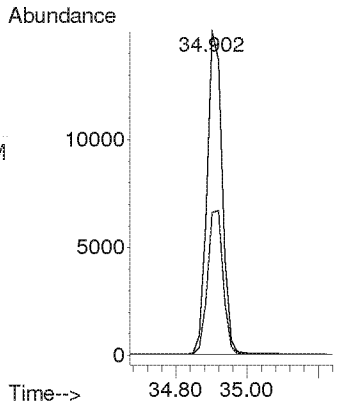
Compounds other than ethylene oxide were not quantitated.

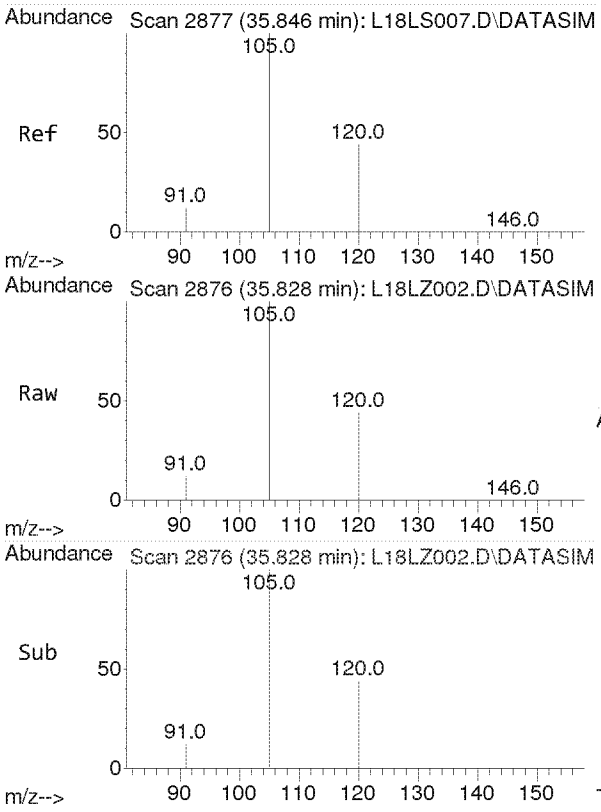


#56
1,3,5-Trimethylbenzene
Concen: 2.341 ppbv
RT: 34.902 min Scan# 2824
Delta R.T. -0.018 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion:105 Resp: 43854

Ion	Ratio	Lower	Upper
105	100		
120	45.9	36.0	54.0

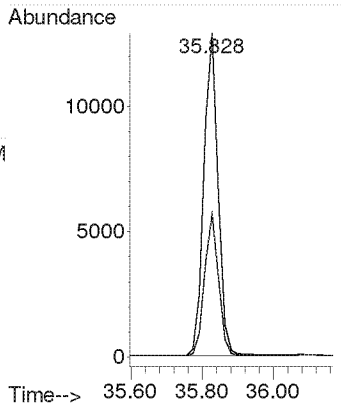




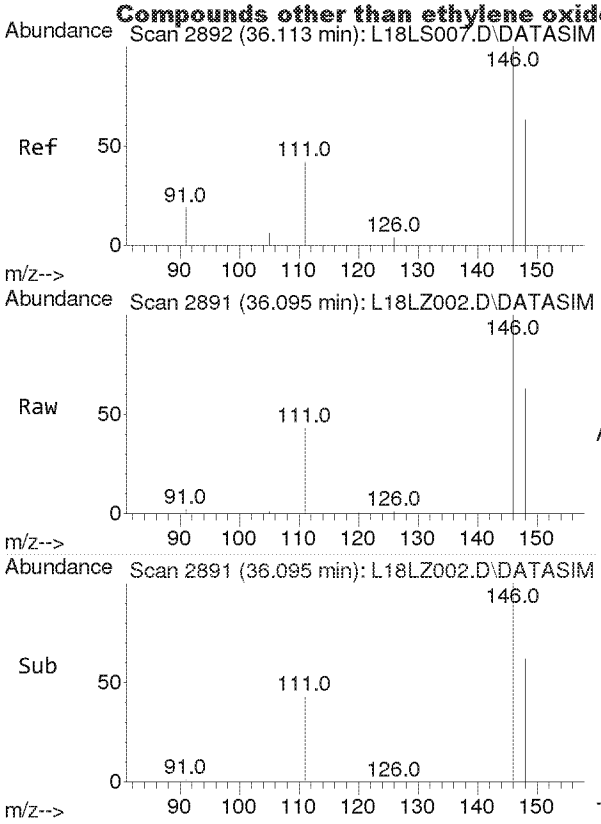
#57
1,2,4-Trimethylbenzene
Concen: 2.236 ppbv
RT: 35.828 min Scan# 2876
Delta R.T. -0.018 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion:105 Resp: 35347

Ion	Ratio	Lower	Upper
105	100		
120	43.3	34.2	51.4



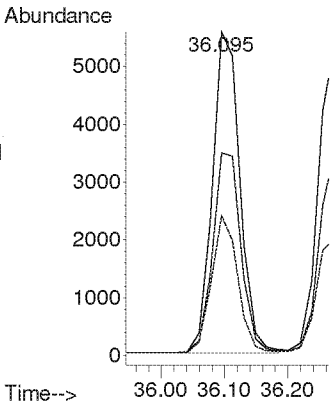
Compounds other than ethylene oxide were not quantitated.

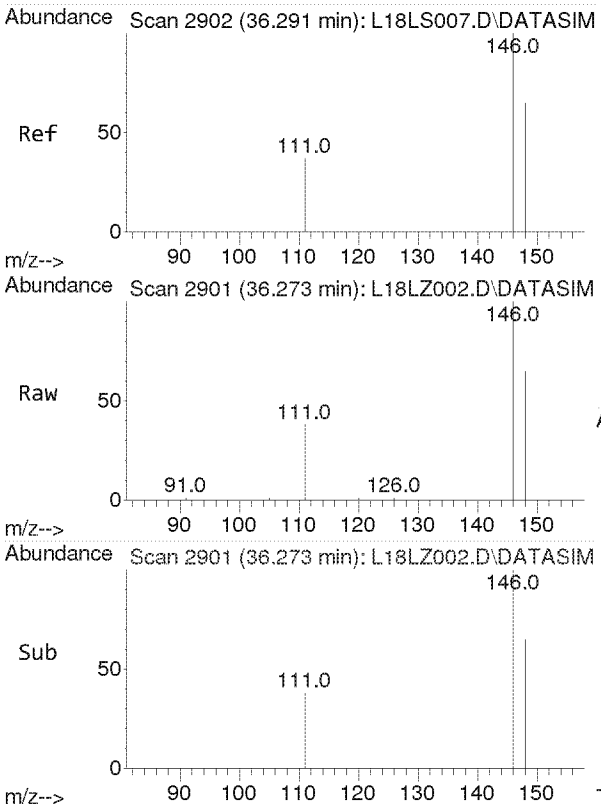


#58
m-Dichlorobenzene
Concen: 2.001 ppbv
RT: 36.095 min Scan# 2891
Delta R.T. -0.018 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion:146 Resp: 16658

Ion	Ratio	Lower	Upper
146	100		
148	64.1	51.2	76.8
111	41.2	32.4	48.6

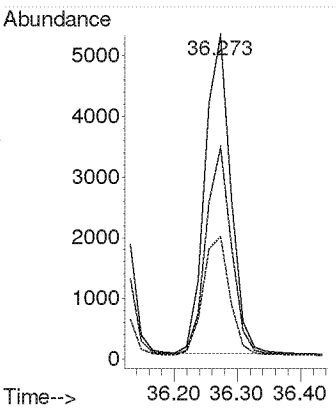




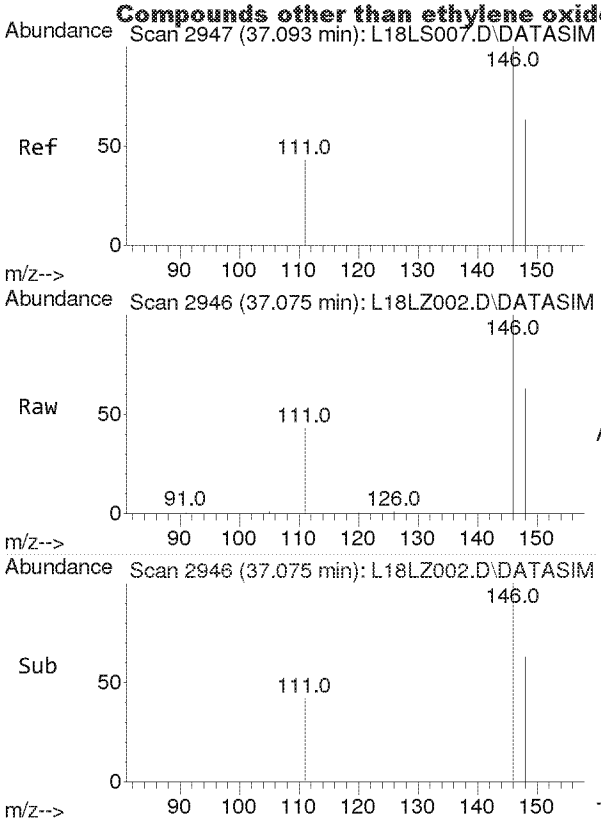
#59
p-Dichlorobenzene
Concen: 2.343 ppbv
RT: 36.273 min Scan# 2901
Delta R.T. -0.018 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion:146 Resp: 14879

Ion	Ratio	Lower	Upper
146	100		
148	64.2	51.2	76.8
111	38.8	31.6	47.4



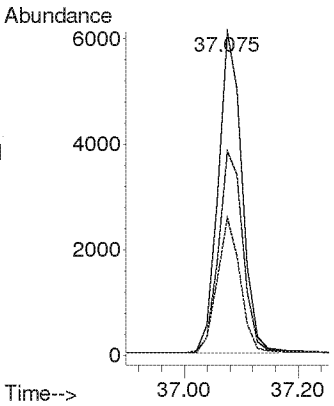
Compounds other than ethylene oxide were not quantitated.

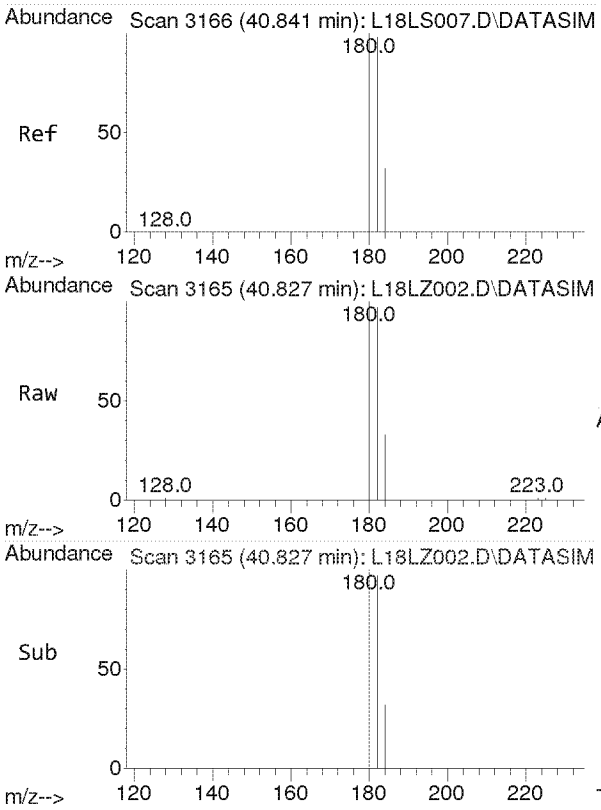


#60
o-Dichlorobenzene
Concen: 2.263 ppbv
RT: 37.075 min Scan# 2946
Delta R.T. -0.018 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion:146 Resp: 17645

Ion	Ratio	Lower	Upper
146	100		
148	64.5	51.3	76.9
111	40.9	33.1	49.7

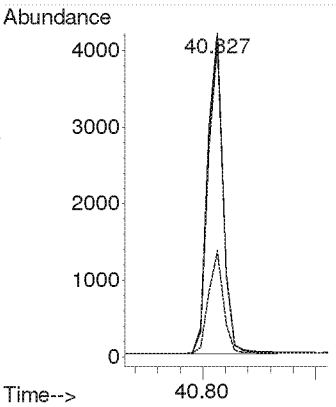




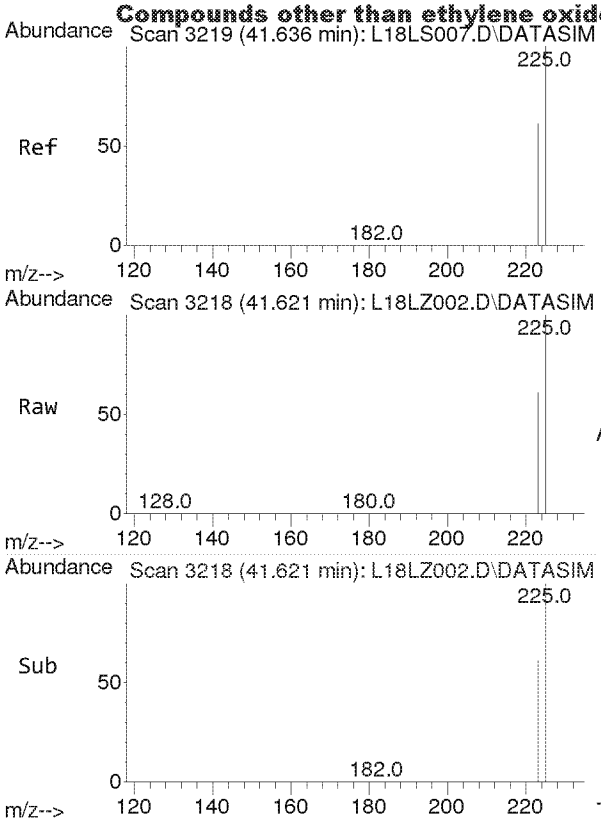
#61
1,2,4-Trichlorobenzene
Concen: 2.580 ppbv
RT: 40.827 min Scan# 3165
Delta R.T. -0.015 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion:180 Resp: 7829

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



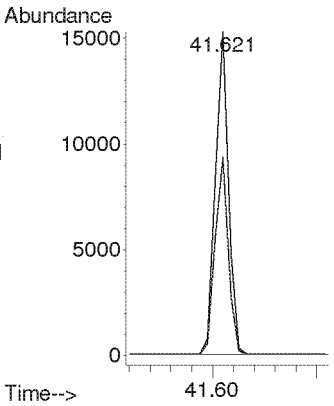
Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: 2.371 ppbv
RT: 41.621 min Scan# 3218
Delta R.T. -0.015 min
Lab File: L18LZ002.D
Acq: 26 Dec 2018 12:00 pm

Tgt Ion:225 Resp: 26245

Ion	Ratio	Lower	Upper
225	100		
223	62.1	49.9	74.9



Compounds other than ethylene oxide were not quantitated.

TO-15 Method Blank and Annual Canister Certification Blank

Analyst: [illegible] Date: 1-3-19

Reviewer: [illegible] Date: 1/7/19

Data File Name	L18LZ003.D
Operator	MAH
Acq. Method File	8120004.M
Sample Name	B8L2603-BLK1
Misc Info	80 ML 8L13001

#	Name	Target Response	Amount (ppbv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	65267		NA		NA
2)	Acetylene	57	0.010	Y		0.118
3)	Propylene	325	0.050	Y	MAX	0.192
4)	Dichlorodifluoromethane	120	0.004	Y		0.082
5)	Chloromethane	118	0.015	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	184	0.049	Y		0.200
13)	Trichlorofluoromethane	40	0.002	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	621	0.025	Y		0.200
18)	Trichlorotrifluoroethane	0	0.000	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	159480		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y		0.041
30)	Benzene	183	0.010	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	151	0.005	Y		0.200
38)	cis-1,3-dichloropropene	0	0.000	Y		0.059
39)	Methyl Isobutyl Ketone	286	0.019	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	113335		NA		NA
43)	Toluene	159	0.008	Y		0.200
44)	Dibromochloromethane	57	0.001	Y		0.046
45)	1,2-Dibromoethane	0	0.000	Y		0.057
46)	n-Octane	302	0.023	Y		0.097
47)	Tetrachloroethylene	35	0.003	Y		0.044
48)	Chlorobenzene	30	0.002	Y		0.058
49)	Ethylbenzene	139	0.007	Y		0.077
50)	m,p-Xylene	129	0.007	Y		0.108
51)	Bromoform	0	0.000	Y		0.053
52)	Styrene	42	0.005	Y		0.109
53)	1,1,2,2-Tetrachloroethane	31	0.002	Y		0.063
54)	o-Xylene	159	0.009	Y		0.080
55)	1,3,5-Trimethylbenzene	57	0.003	Y		0.102
56)	1,2,4-Trimethylbenzene	75	0.005	Y		0.080
57)	m-Dichlorobenzene	51	0.007	Y		0.055
58)	p-Dichlorobenzene	37	0.006	Y		0.060
59)	o-Dichlorobenzene	56	0.008	Y		0.062
60)	1,2,4-Trichlorobenzene	89	0.032	Y		0.200
61)	Hexachloro-1,3-butadiene	80	0.008	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\L18LZ\
Data File : L18LZ003.D
Acq On : 26 Dec 2018 1:25 pm
Operator : MAH
Sample : B8L2603-BLK1
Misc : 80 ML 8L13001
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 03 11:06:26 2019
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	65267	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	159480	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	113335	4.7400 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	5.415	26	57m	0.0104 ppbv	
3) Propylene	7.838	41	325	0.0497 ppbv	96
4) Dichlorodifluoromethane	8.702	85	120	0.0043 ppbv #	94
5) Chloromethane	9.758	50	118	0.0145 ppbv	99
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. d	
13) Acrolein	14.729	56	184	0.0490 ppbv #	55
14) Trichlorofluoromethane	15.216	101	40	0.0016 ppbv #	18
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.	
18) Carbon Disulfide	16.932	76	621	0.0251 ppbv	99
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.	
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	22.535	78	183	0.0098 ppbv	94
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	24.553	41	151	0.0052 ppbv #	84
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	25.626	43	286	0.0186 ppbv #	92
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	27.075	91	159	0.0079 ppbv	89
45) Dibromochloromethane	27.734	129	57	0.0012 ppbv #	63
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	28.857	43	302	0.0233 ppbv #	99
48) Tetrachloroethylene	28.980	166	35	0.0035 ppbv #	10
49) Chlorobenzene	30.173	112	30	0.0023 ppbv #	19
50) Ethylbenzene	30.898	91	139	0.0067 ppbv #	87

Compounds other than ethylene oxide were not quantitated

Qualification Report (QF Reviewed)

Data Path : C:\msdchem\1\DATA\L18LZ\
Data File : L18LZ003.D
Acq On : 26 Dec 2018 1:25 pm
Operator : MAH
Sample : B8L2603-BLK1
Misc : 80 ML 8L13001
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 03 11:06:26 2019
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	31.223	91	129	0.0072 ppbv #	86
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	31.910	104	42	0.0046 ppbv #	61
54) 1,1,2,2-Tetrachloroethane	32.063	83	31	0.0024 ppbv #	18
55) o-Xylene	32.120	91	159	0.0090 ppbv	96
56) 1,3,5-Trimethylbenzene	34.920	105	57	0.0033 ppbv #	70
57) 1,2,4-Trimethylbenzene	35.828	105	75	0.0052 ppbv #	77
58) m-Dichlorobenzene	36.113	146	51	0.0067 ppbv #	70
59) p-Dichlorobenzene	36.274	146	37	0.0063 ppbv #	62
60) o-Dichlorobenzene	37.093	146	56	0.0078 ppbv #	67
61) 1,2,4-Trichlorobenzene	40.827	180	89	0.0319 ppbv #	82
62) Hexachloro-1,3-butadiene	41.621	225	80	0.0079 ppbv	99

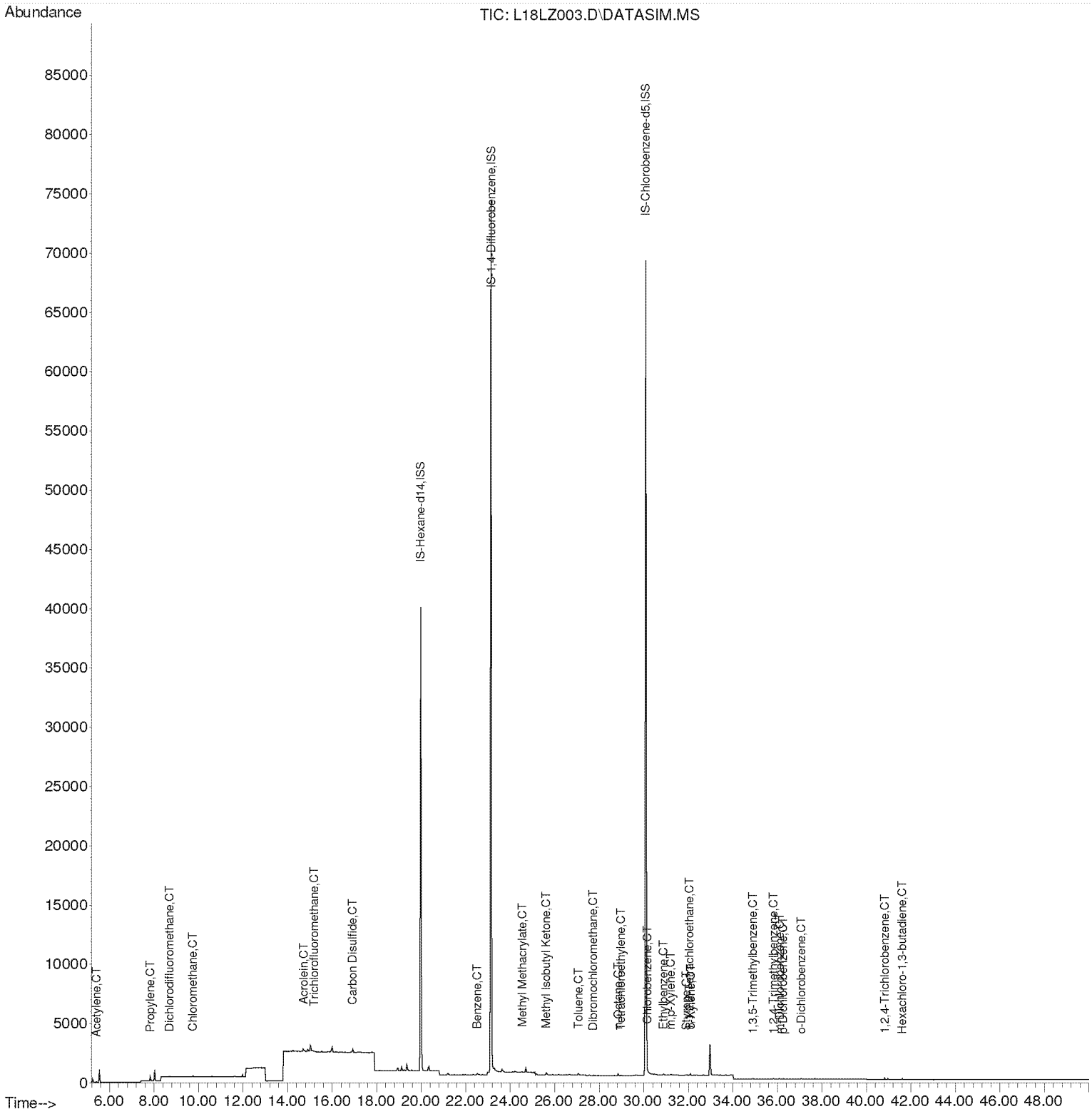
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

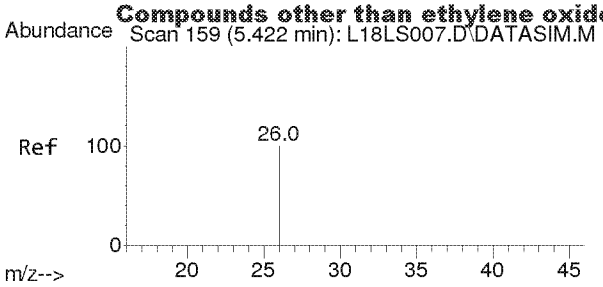
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ003.D
Acq On : 26 Dec 2018 1:25 pm
Operator : MAH
Sample : B8L2603-BLK1
Misc : 80 ML 8L13001
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jan 03 11:06:03 2019
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

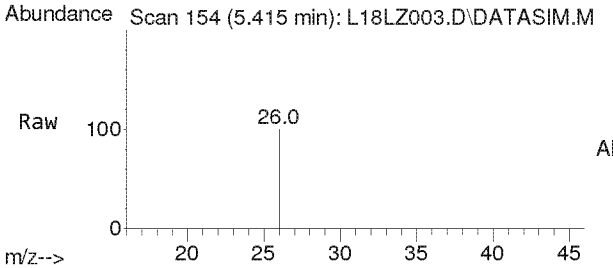


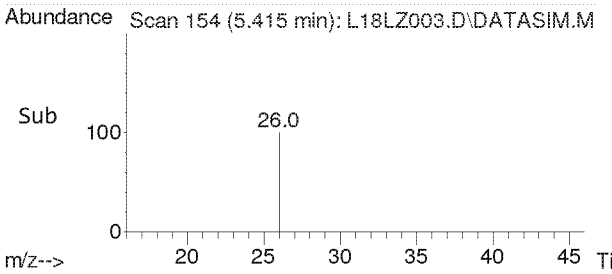
Compounds other than ethylene oxide were not quantitated.

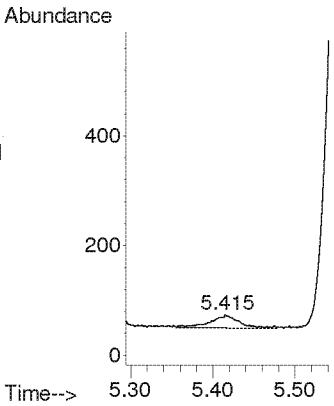


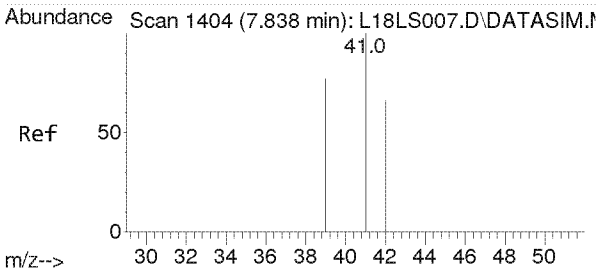
#2
Acetylene
Concen: 0.010 ppbv m
RT: 5.415 min Scan# 154
Delta R.T. -0.007 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 26 Resp: 57





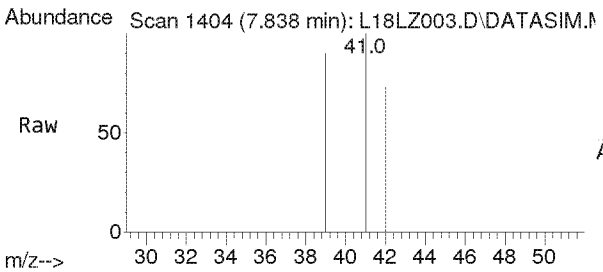


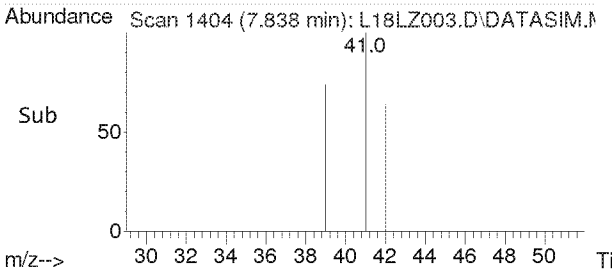


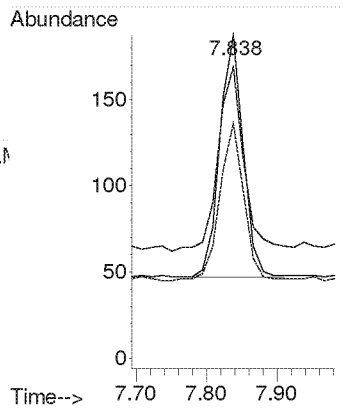
#3
Propylene
Concen: 0.050 ppbv
RT: 7.838 min Scan# 1404
Delta R.T. 0.000 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 41 Resp: 325

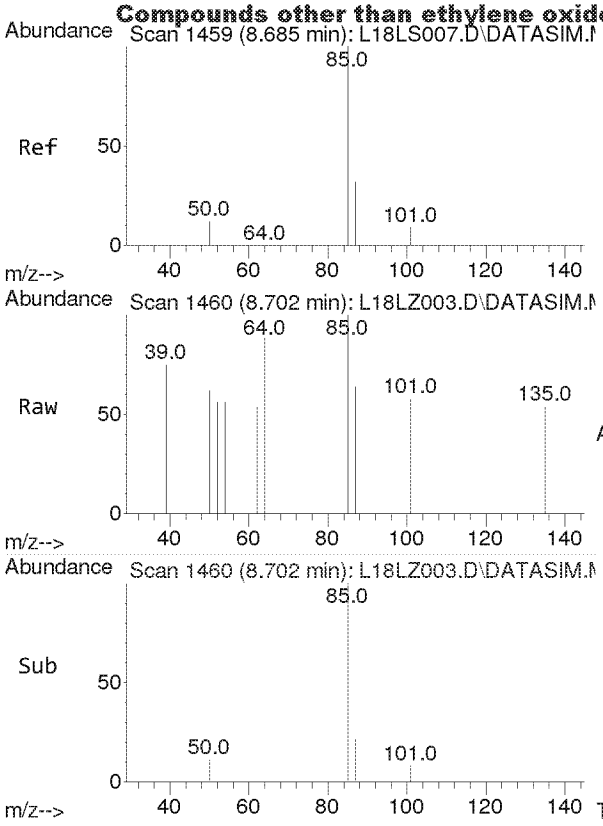
Ion	Ratio	Lower	Upper
41	100		
39	83.4	62.6	93.8
42	66.8	52.6	79.0







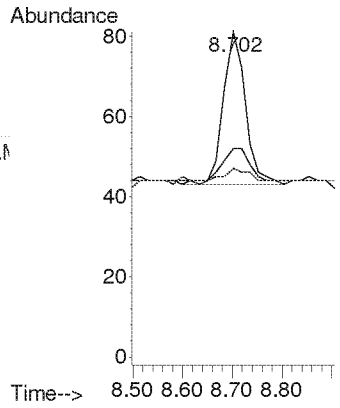
Compounds other than ethylene oxide were not quantitated.

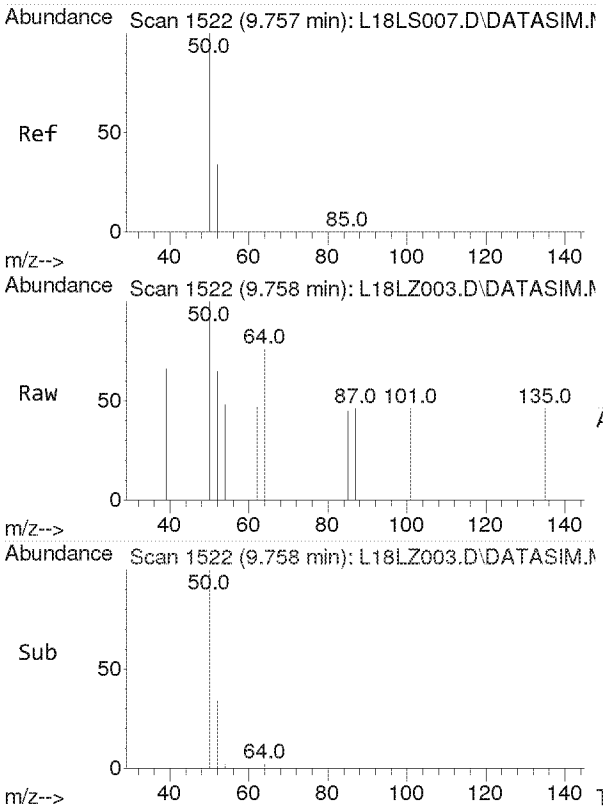


#4
Dichlorodifluoromethane
Concen: 0.004 ppbv
RT: 8.702 min Scan# 1460
Delta R.T. 0.017 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 85 Resp: 120

Ion	Ratio	Lower	Upper
85	100		
87	31.7	26.0	39.0
101	0.0	7.1	10.7#

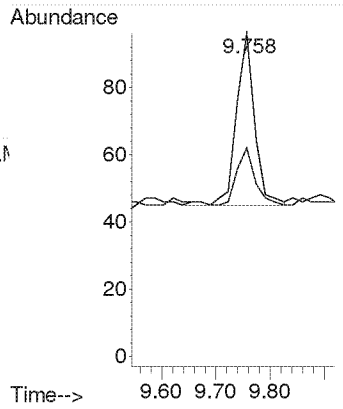




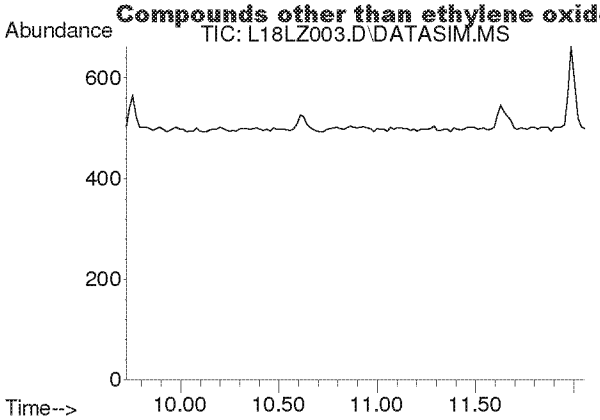
#5
Chloromethane
Concen: 0.015 ppbv
RT: 9.758 min Scan# 1522
Delta R.T. 0.000 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 50 Resp: 118

Ion	Ratio	Lower	Upper
50	100		
52	33.1	26.1	39.1



Compounds other than ethylene oxide were not quantitated.

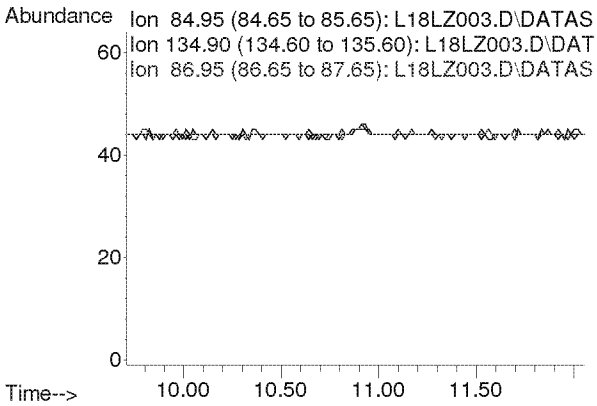


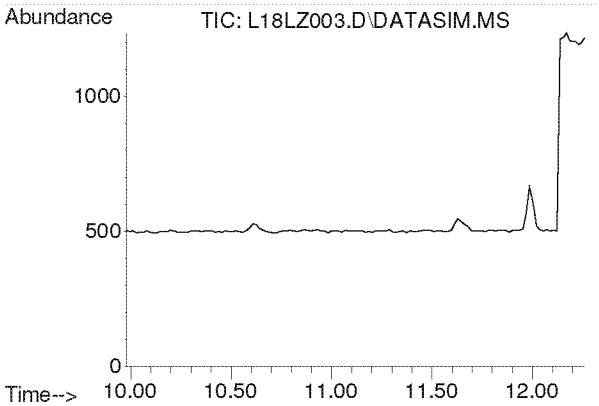
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



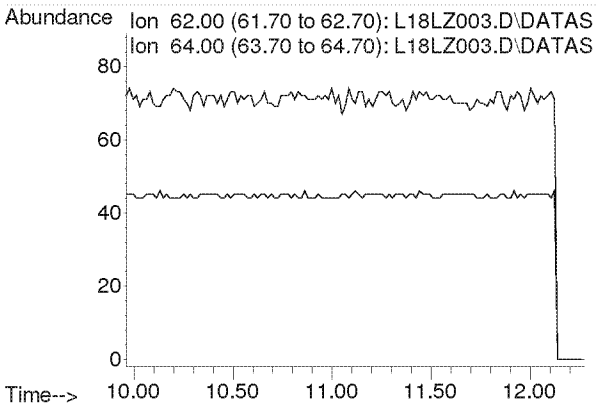


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

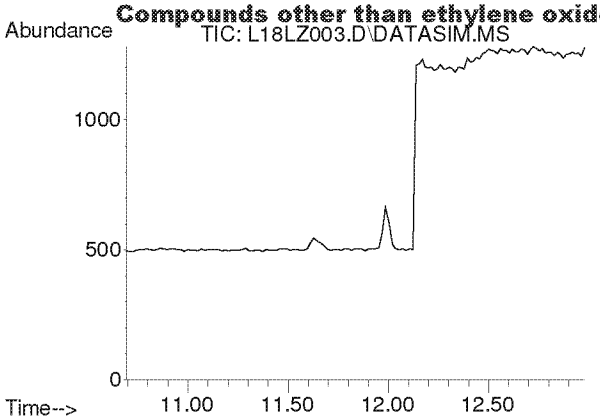
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

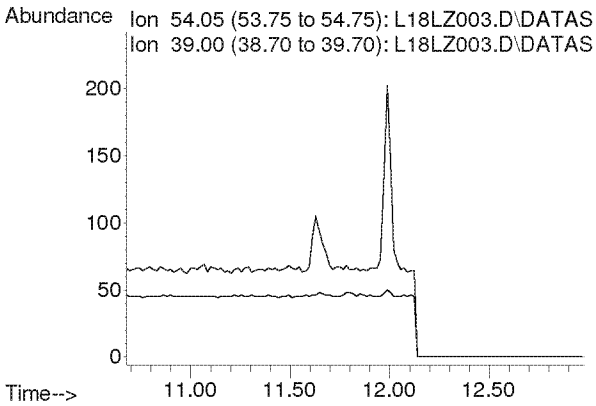


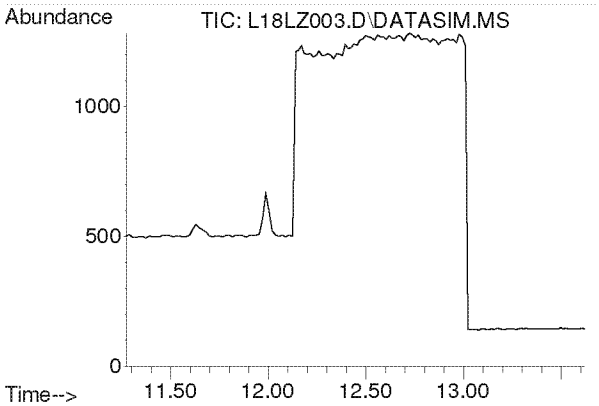
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4



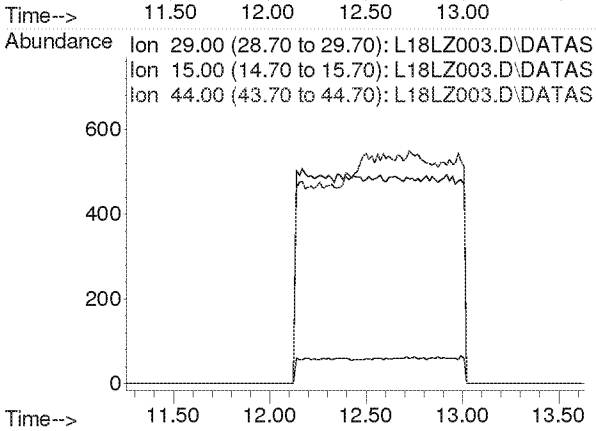


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

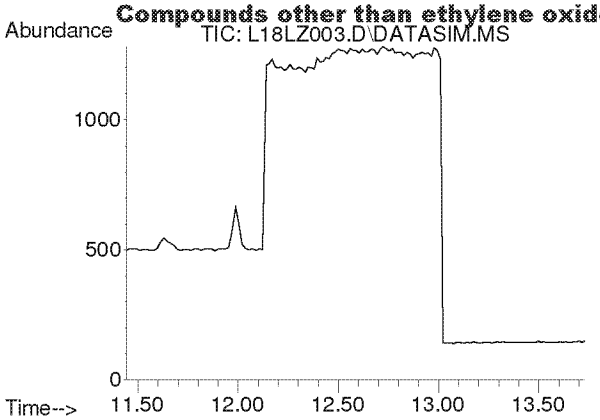
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.3
44	90.0



Compounds other than ethylene oxide were not quantitated.

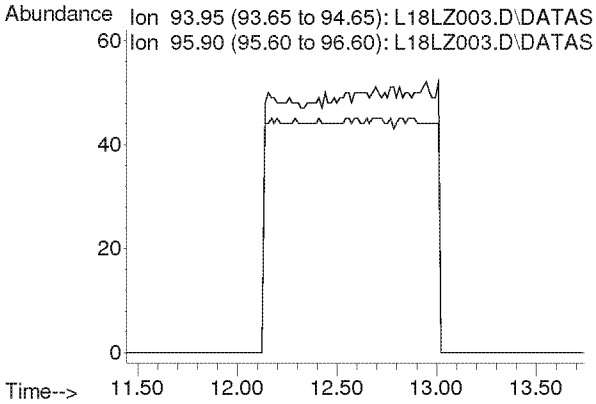


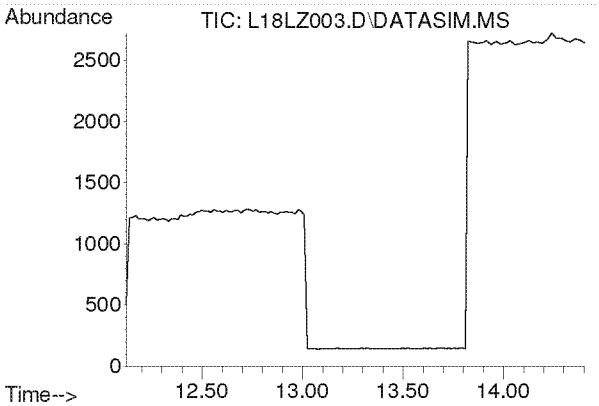
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



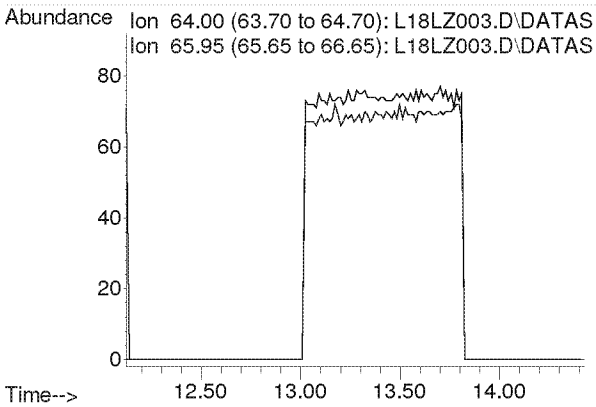


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

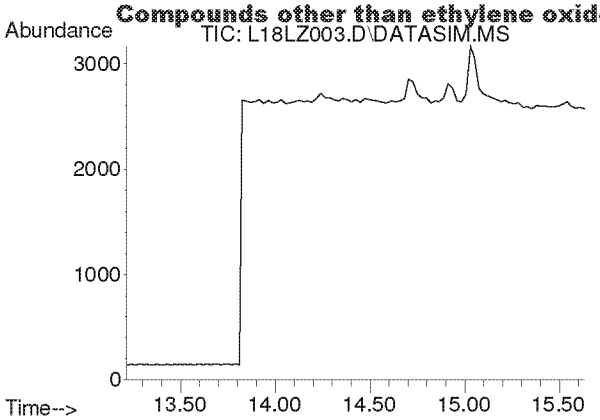
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

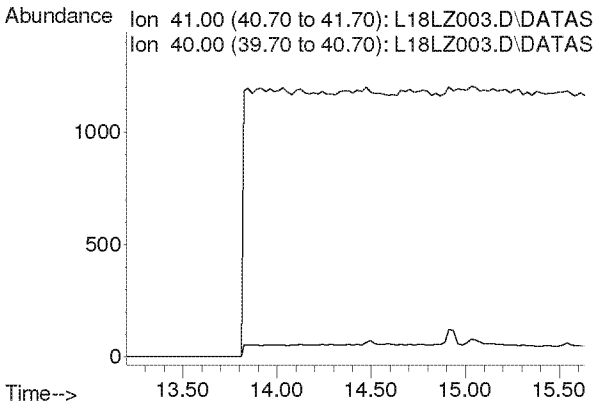


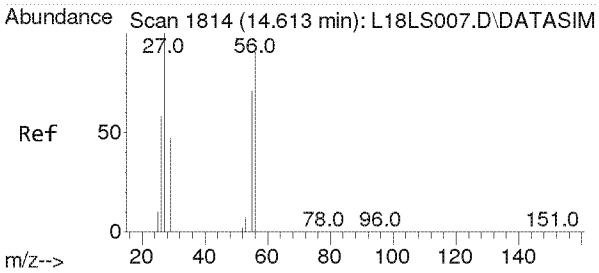
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9

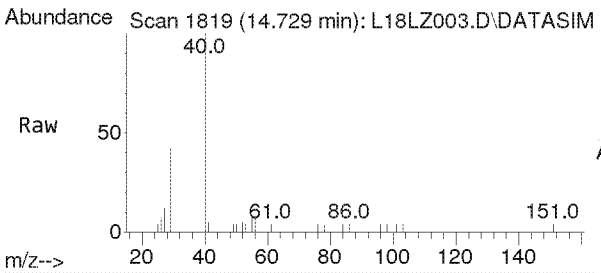


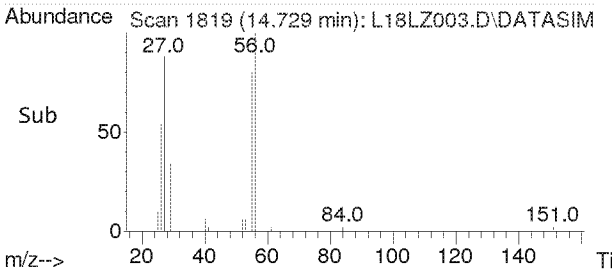


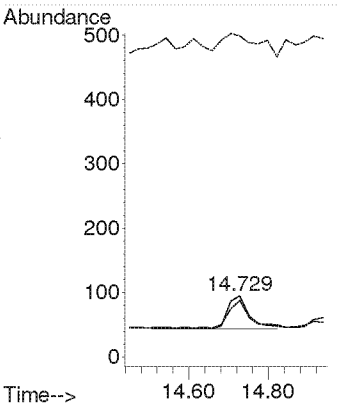
#13
Acrolein
Concen: 0.049 ppbv
RT: 14.729 min Scan# 1819
Delta R.T. 0.116 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 56 Resp: 184

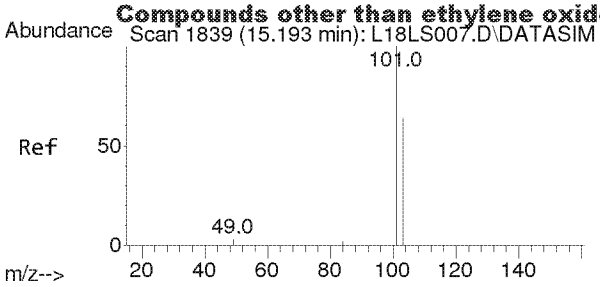
Ion	Ratio	Lower	Upper
56	100		
55	83.7	60.3	90.5
29	120.1	42.3	63.5#







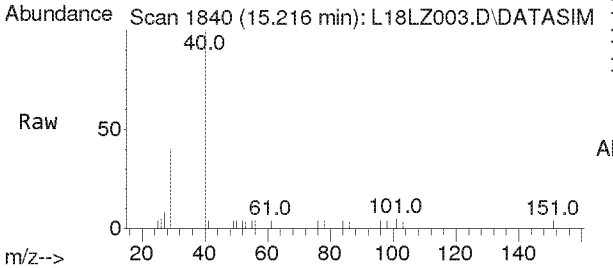
Compounds other than ethylene oxide were not quantitated.

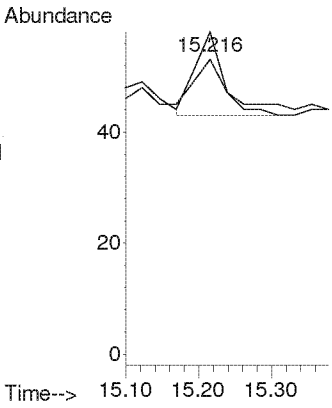


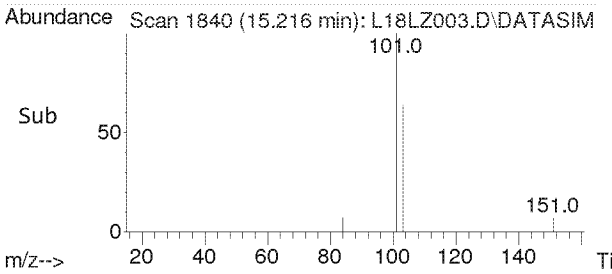
#14
Trichlorofluoromethane
Concen: 0.002 ppbv
RT: 15.216 min Scan# 1840
Delta R.T. 0.023 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

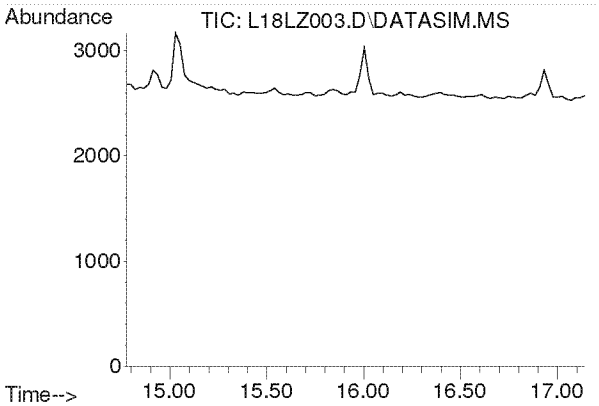
Tgt Ion:101 Resp: 40

Ion	Ratio	Lower	Upper
101	100		
103	0.0	51.7	77.5#







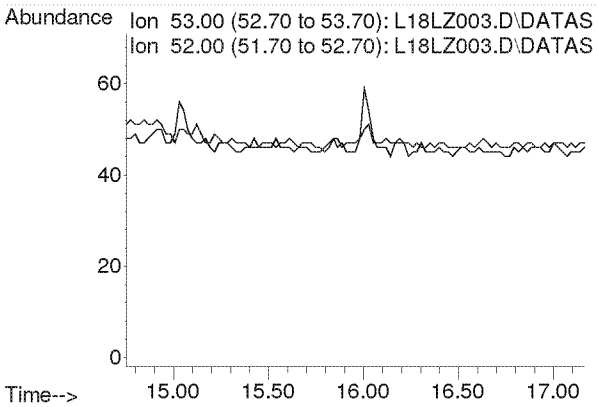


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

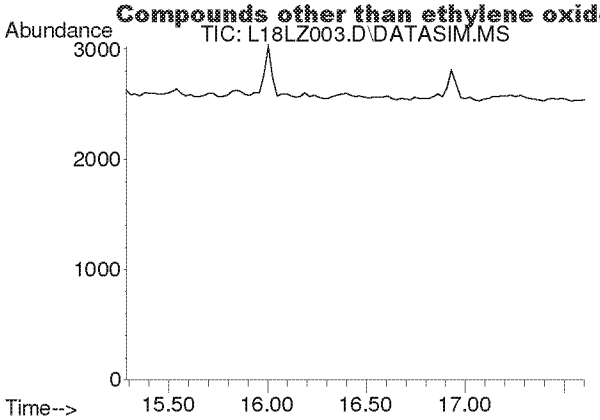
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

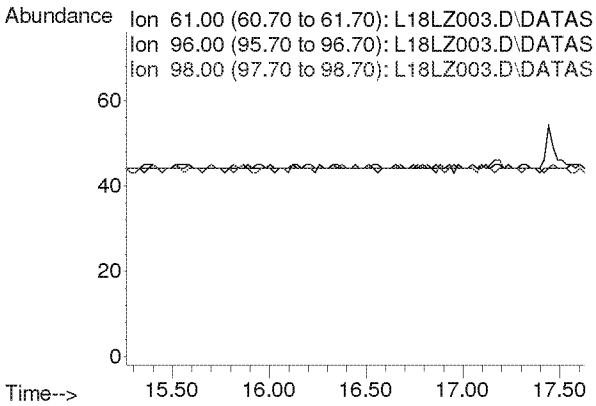


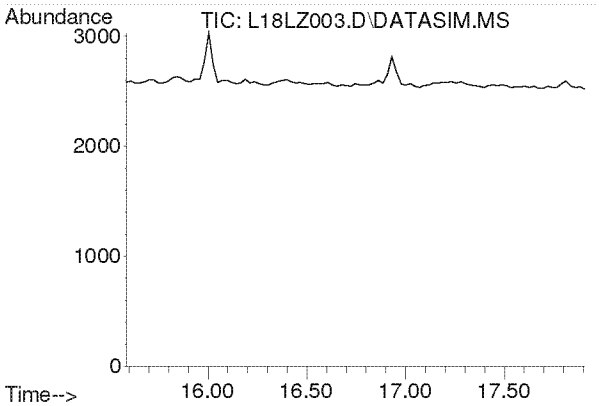
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



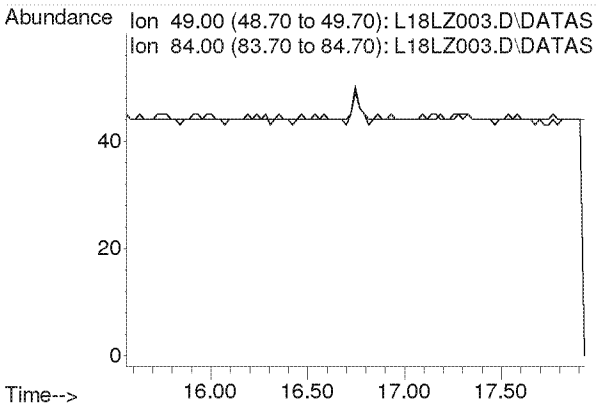


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

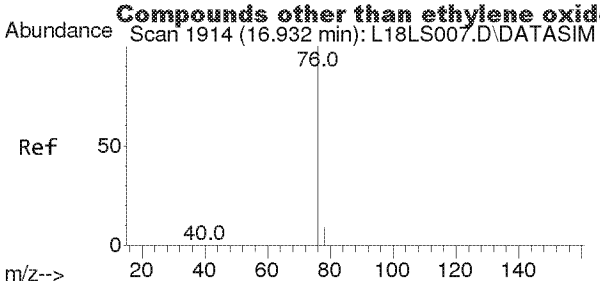
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



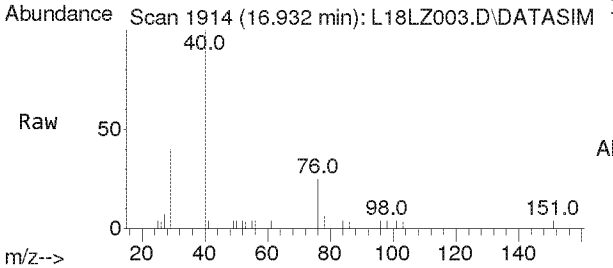
Compounds other than ethylene oxide were not quantitated.

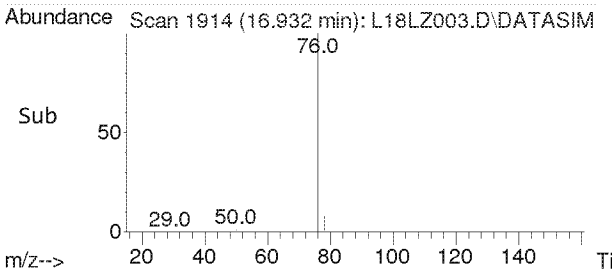


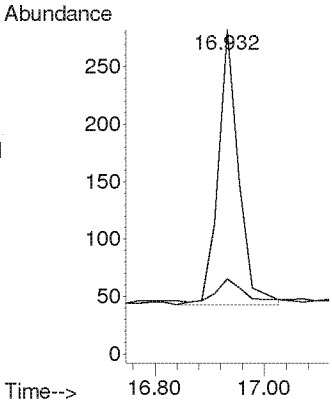
#18
Carbon Disulfide
Concen: 0.025 ppbv
RT: 16.932 min Scan# 1914
Delta R.T. 0.000 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

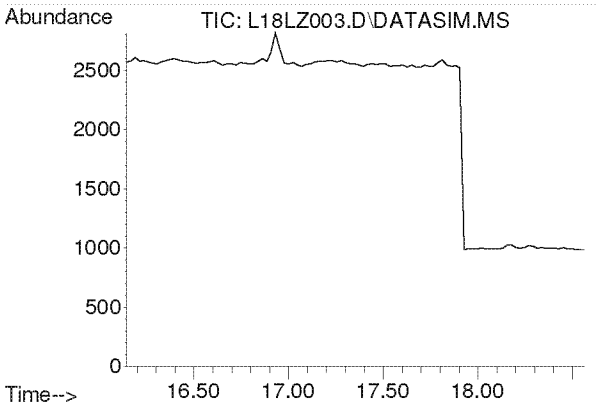
Tgt Ion: 76 Resp: 621

Ion	Ratio	Lower	Upper
76	100		
78	10.8	7.3	10.9







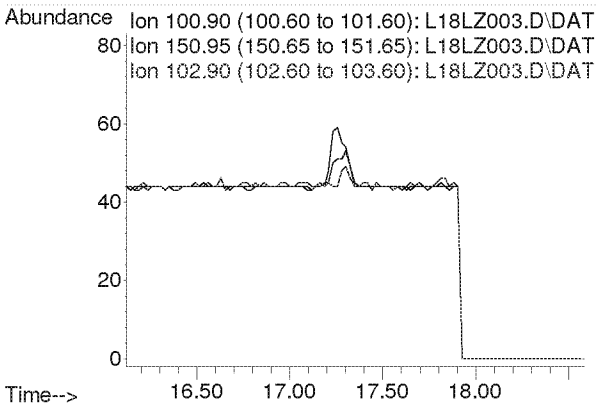


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

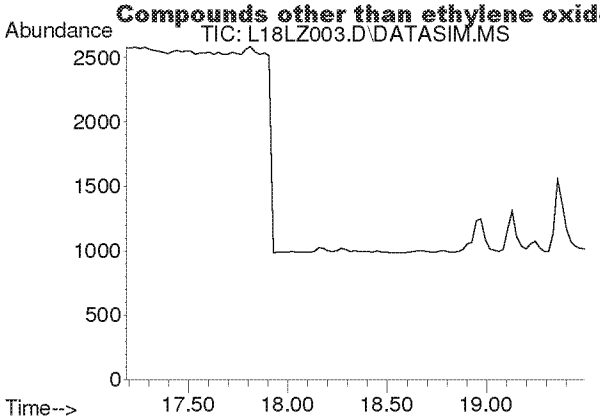
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

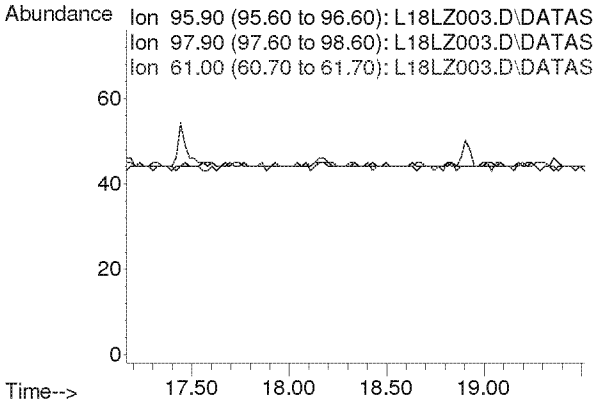


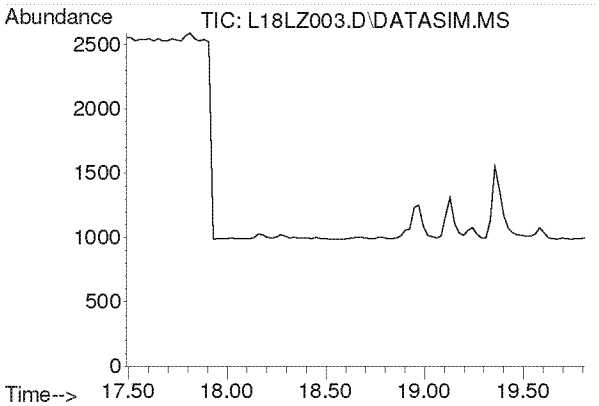
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



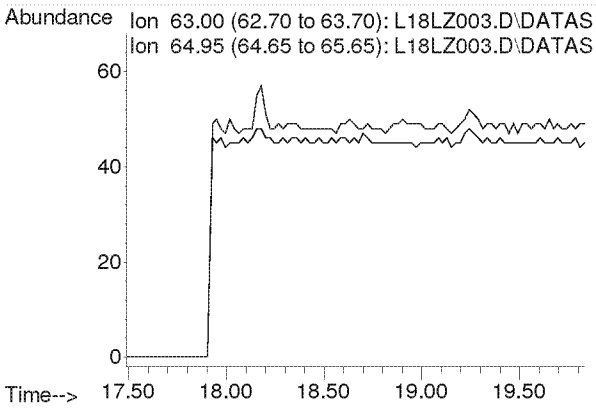


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

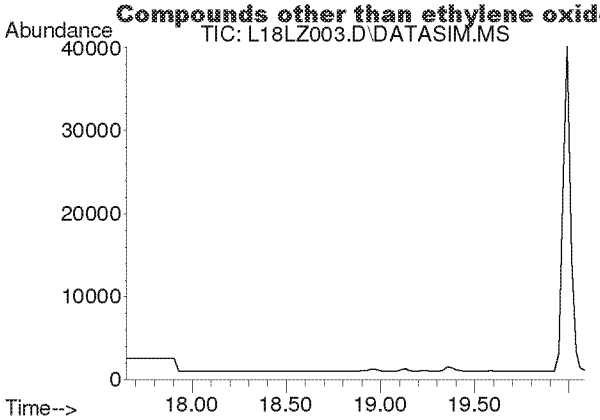
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

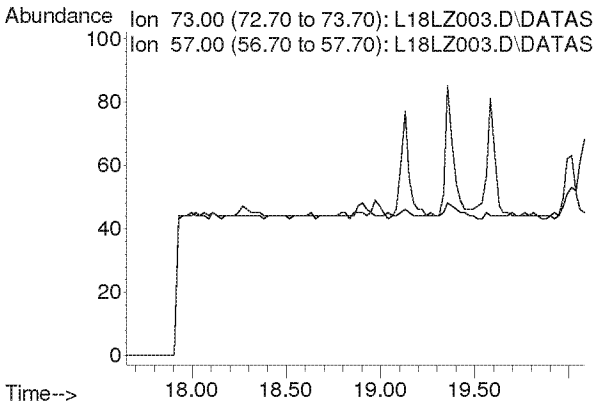


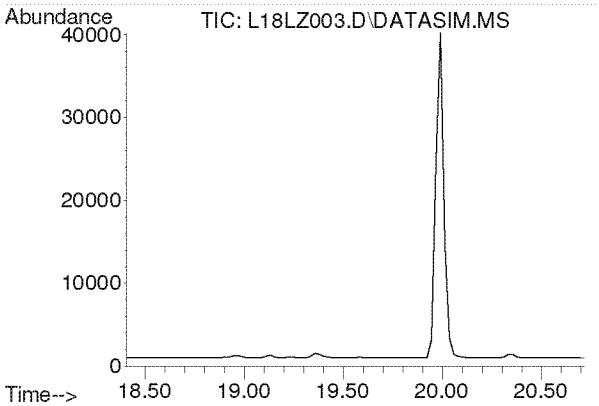
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



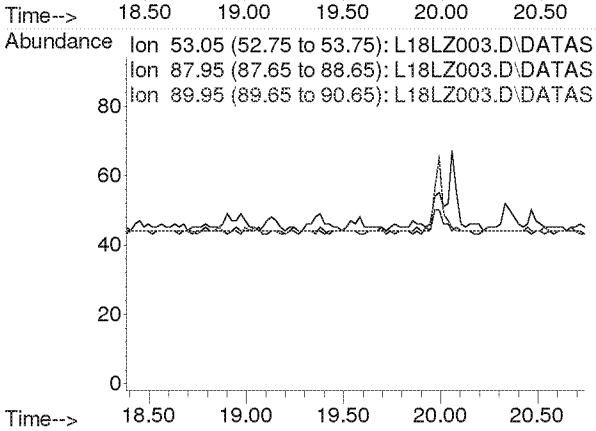


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

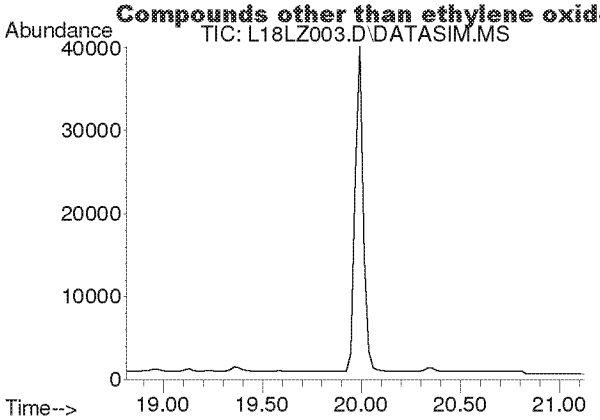
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

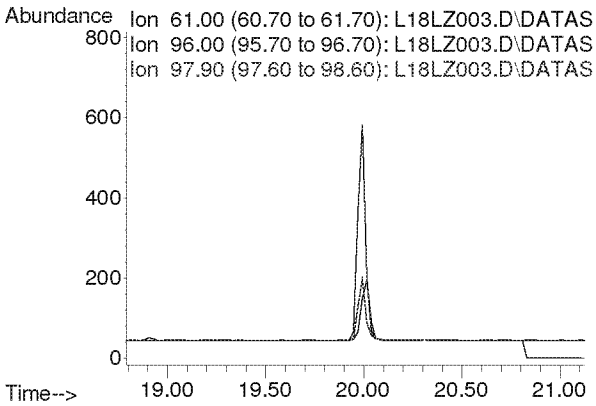


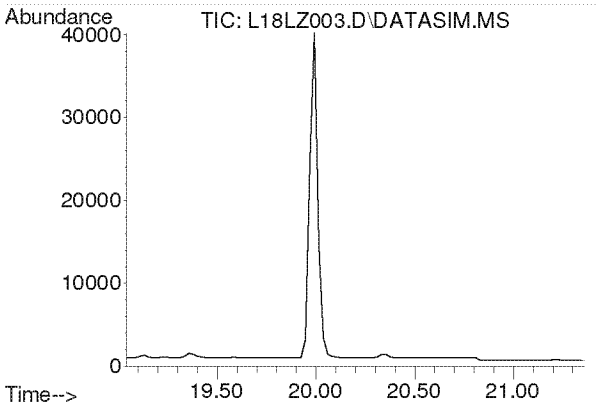
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



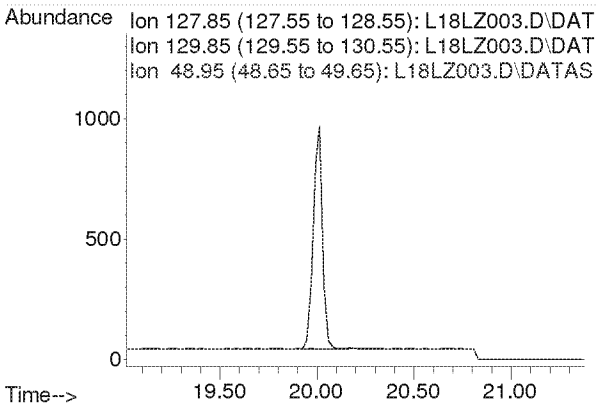


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

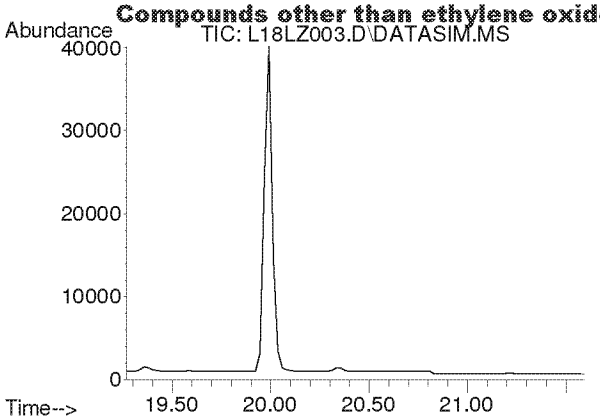
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

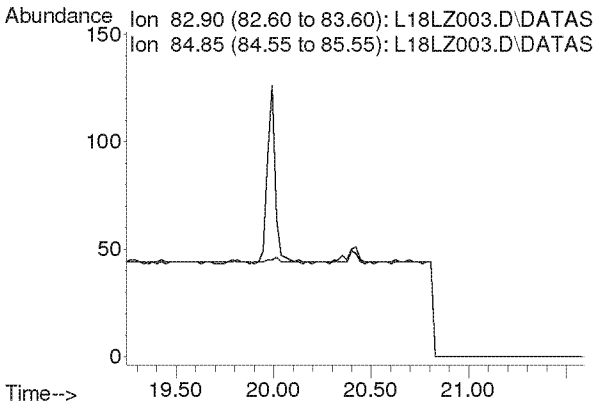


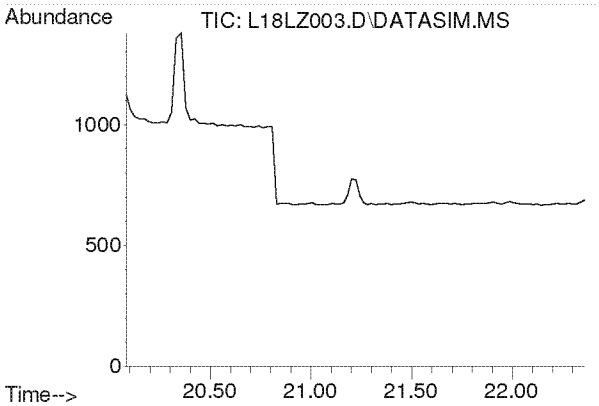
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



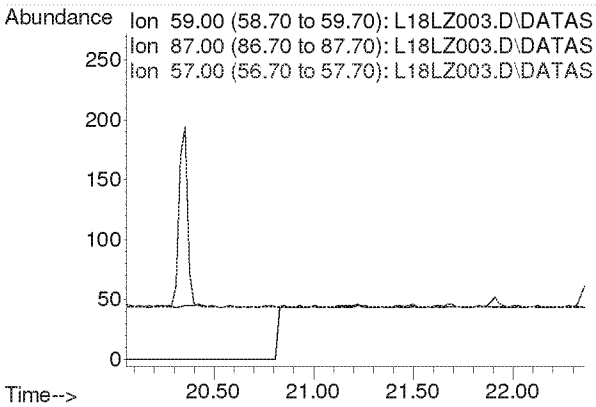


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

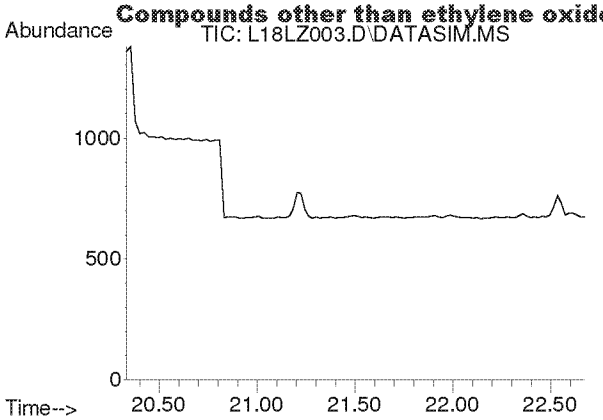
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

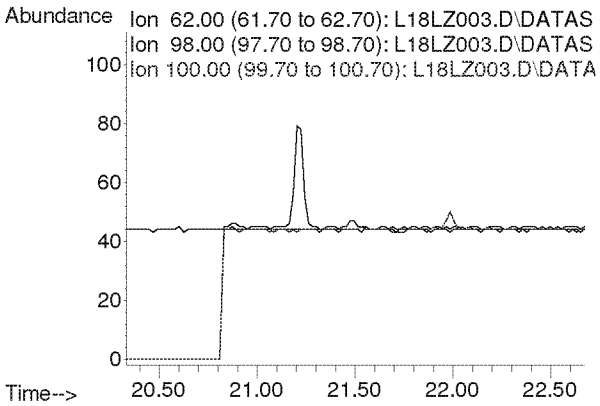


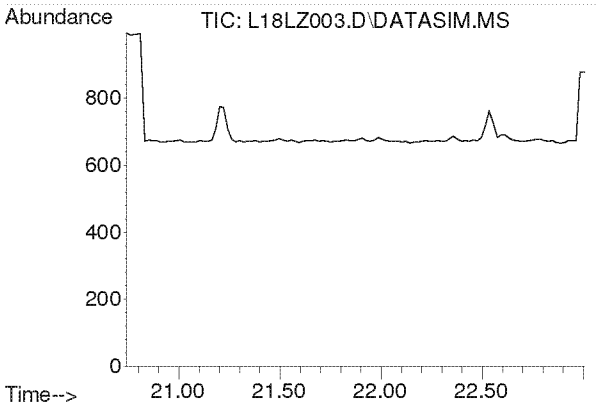
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



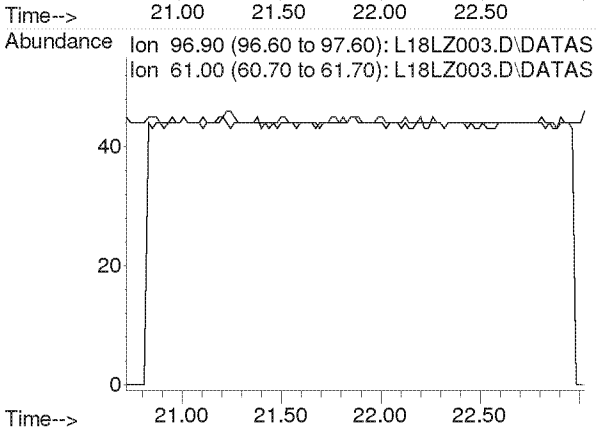


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

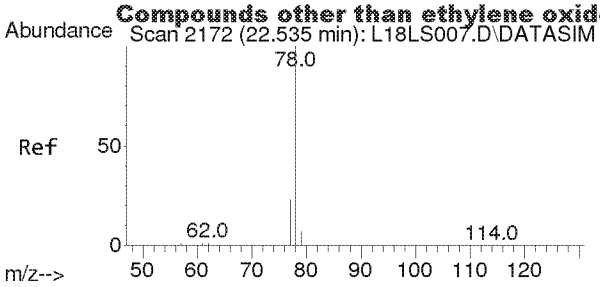
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



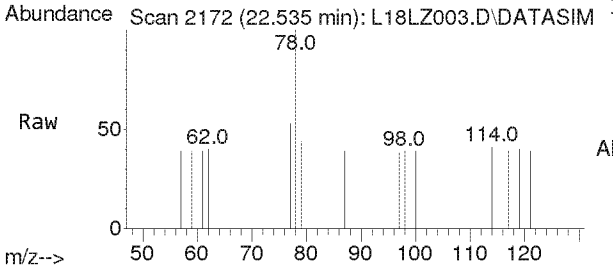
Compounds other than ethylene oxide were not quantitated.

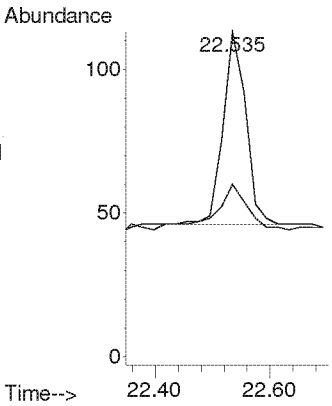


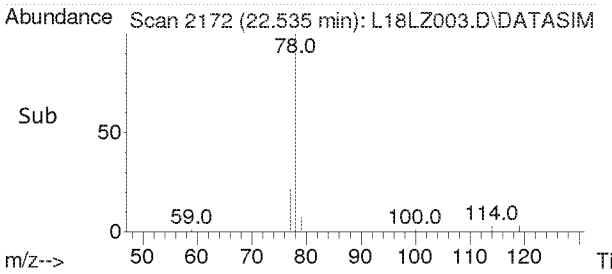
#31
Benzene
Concen: 0.010 ppbv
RT: 22.535 min Scan# 2172
Delta R.T. 0.000 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

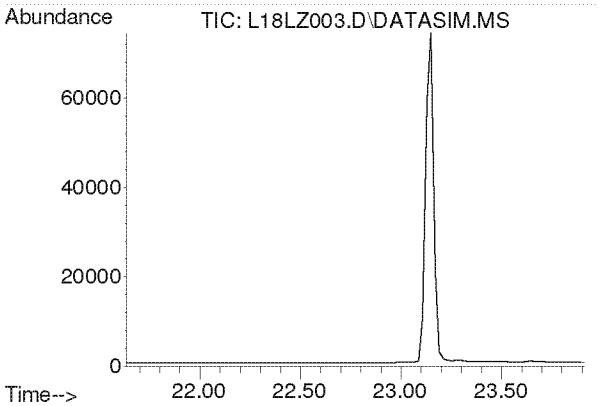
Tgt Ion: 78 Resp: 183

Ion	Ratio	Lower	Upper
78	100		
77	25.7	18.2	27.2







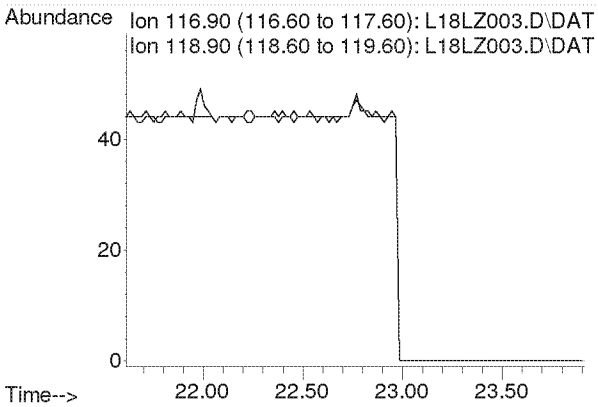


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

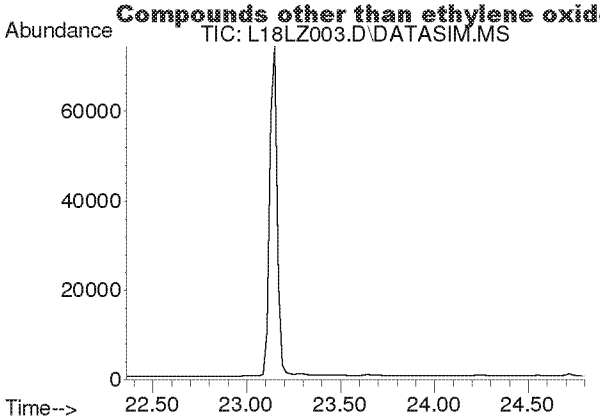
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

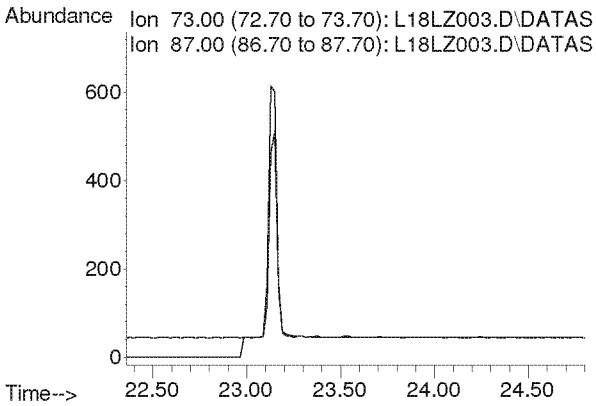


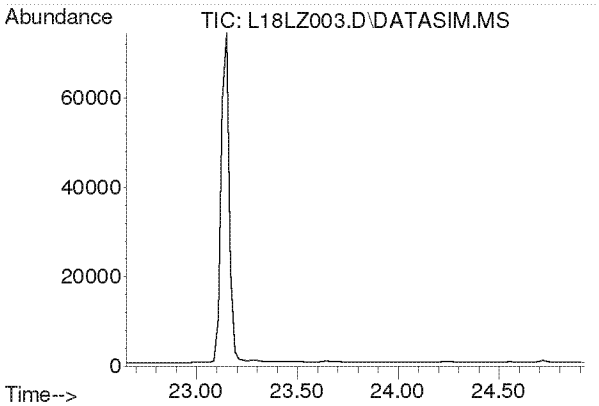
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



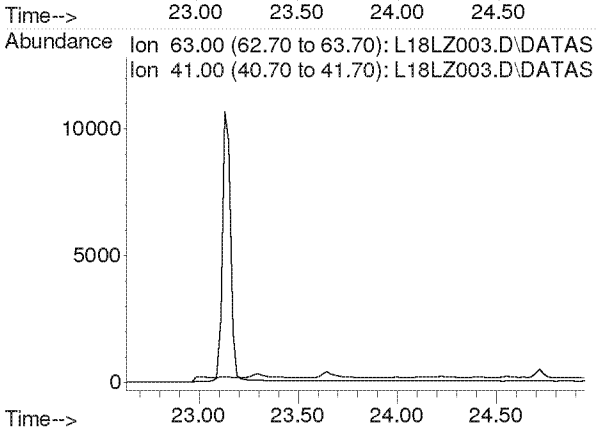


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

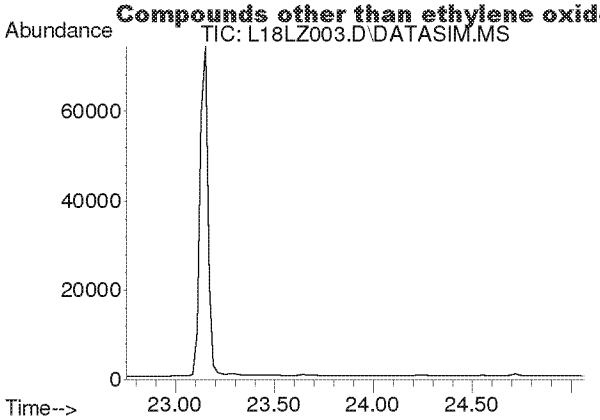
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

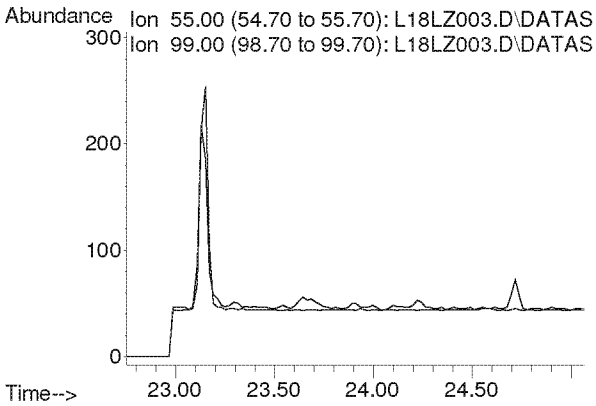


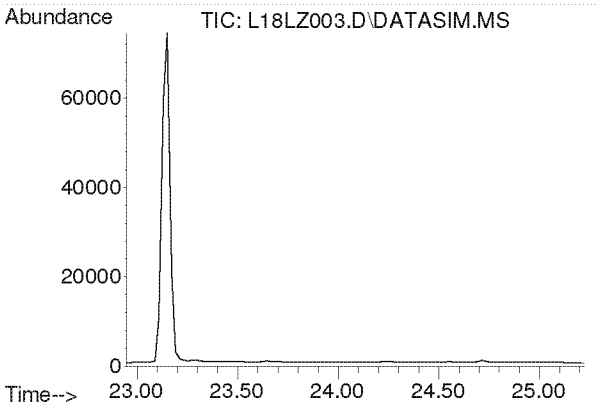
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



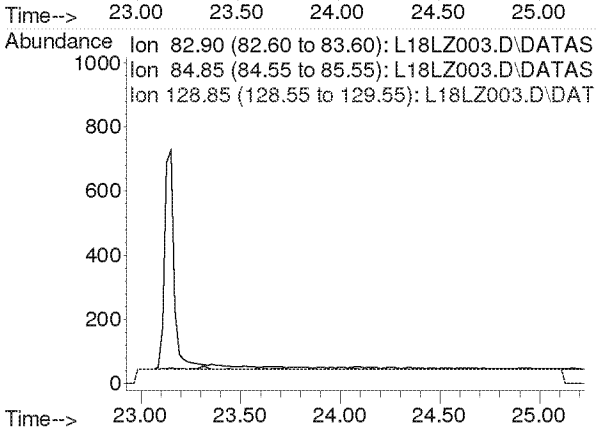


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

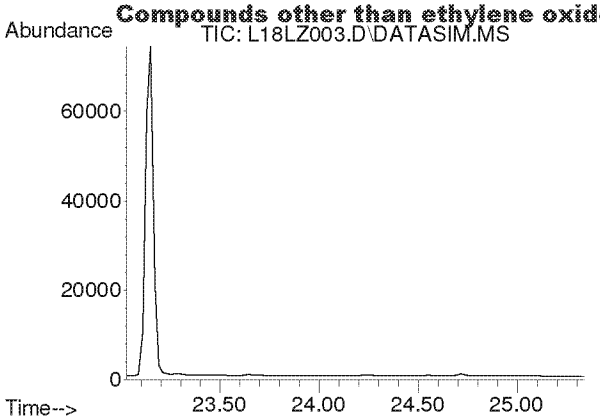
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

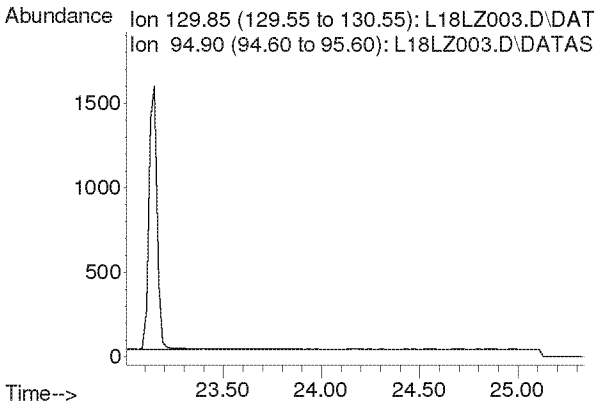


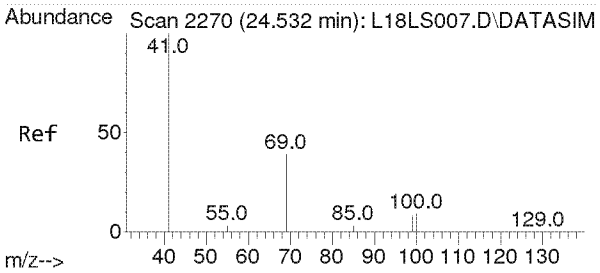
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3

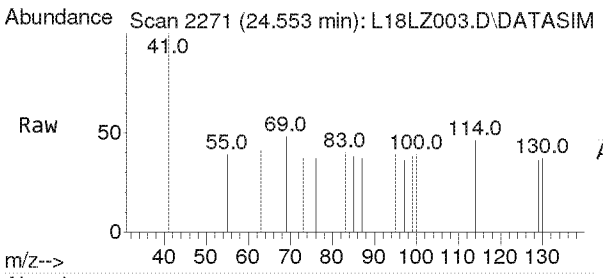


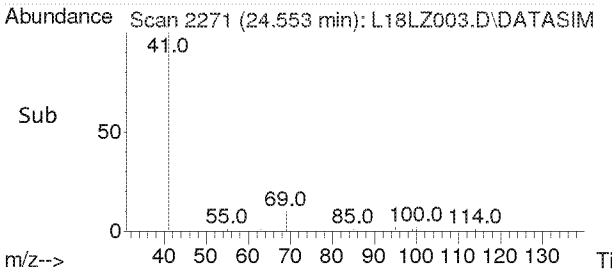


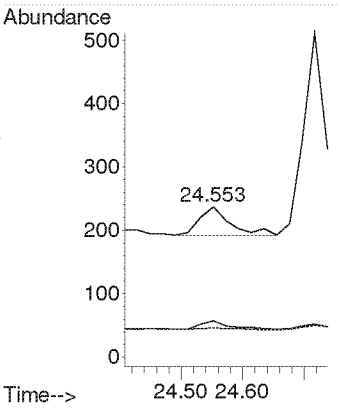
#38
Methyl Methacrylate
Concen: 0.005 ppbv
RT: 24.553 min Scan# 2271
Delta R.T. 0.021 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 41 Resp: 151

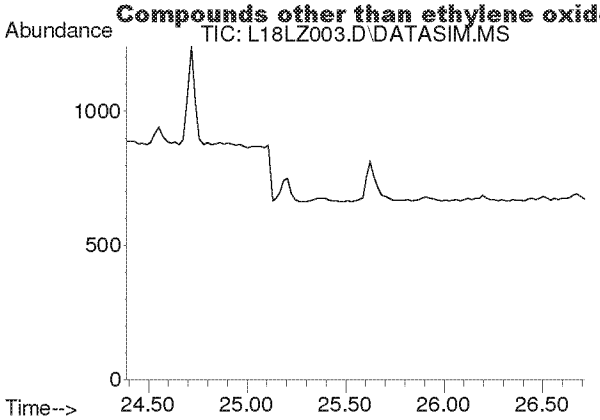
Ion	Ratio	Lower	Upper
41	100		
69	27.2	15.9	23.9#
100	0.0	4.2	6.2#







Compounds other than ethylene oxide were not quantitated.

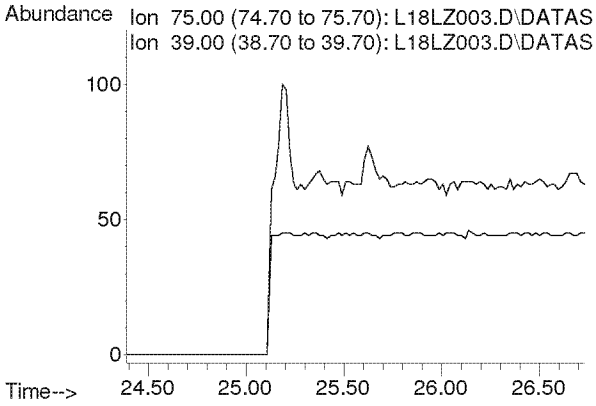


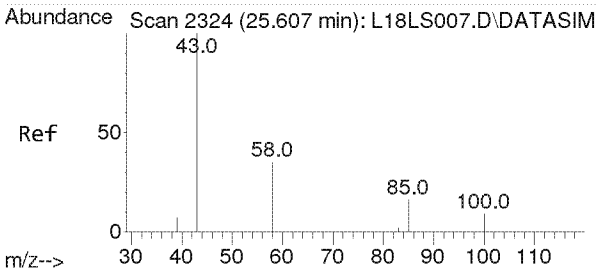
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4

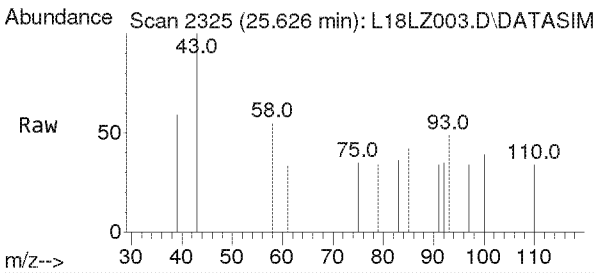


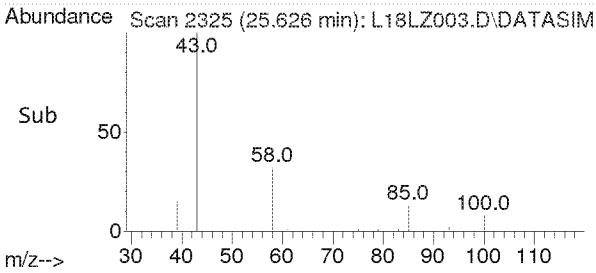


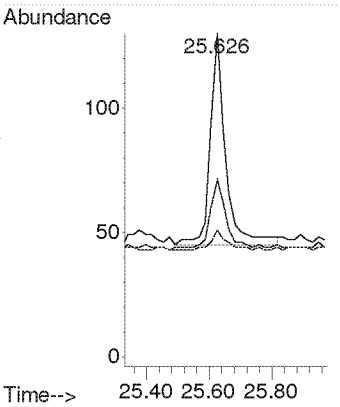
#40
Methyl Isobutyl Ketone
Concen: 0.019 ppbv
RT: 25.626 min Scan# 2325
Delta R.T. 0.019 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 43 Resp: 286

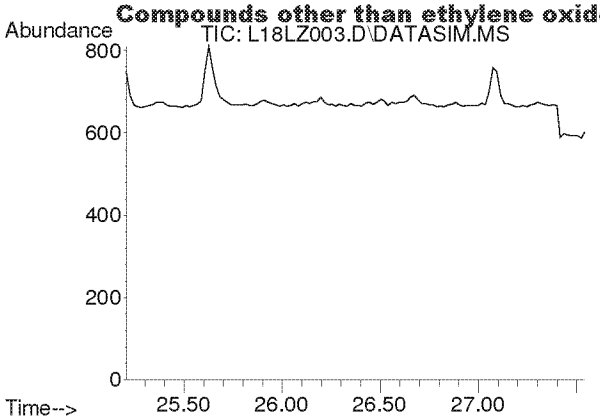
Ion	Ratio	Lower	Upper
43	100		
58	31.5	27.4	41.0
100	0.0	6.3	9.5#







Compounds other than ethylene oxide were not quantitated.

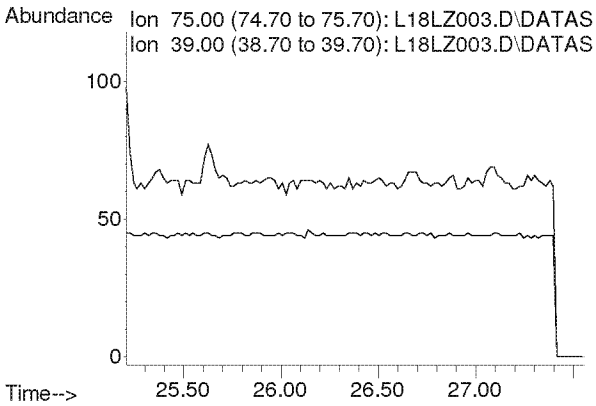


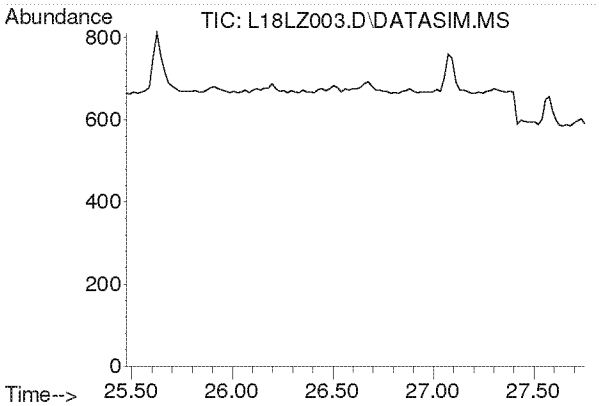
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



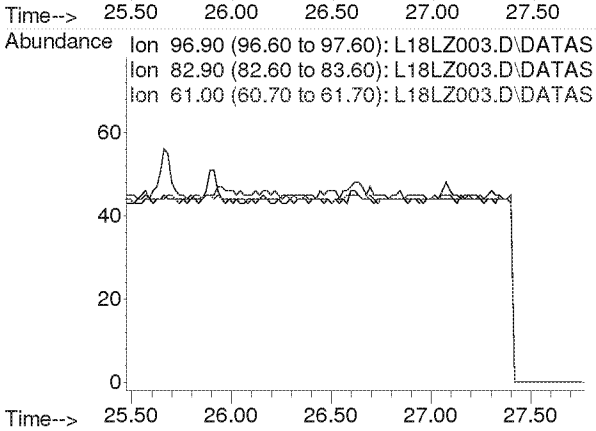


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

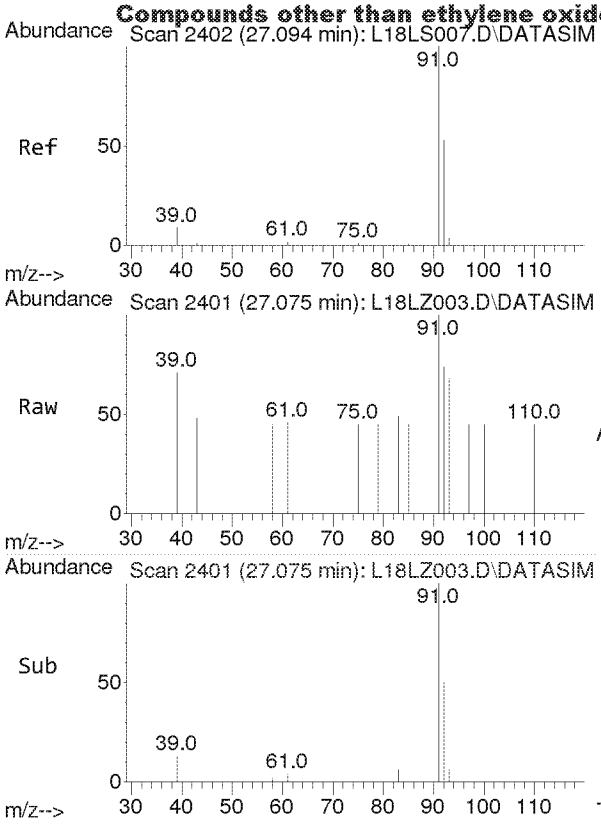
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



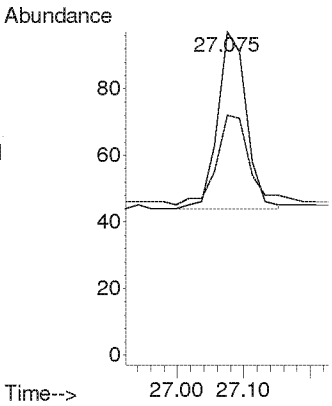
Compounds other than ethylene oxide were not quantitated.

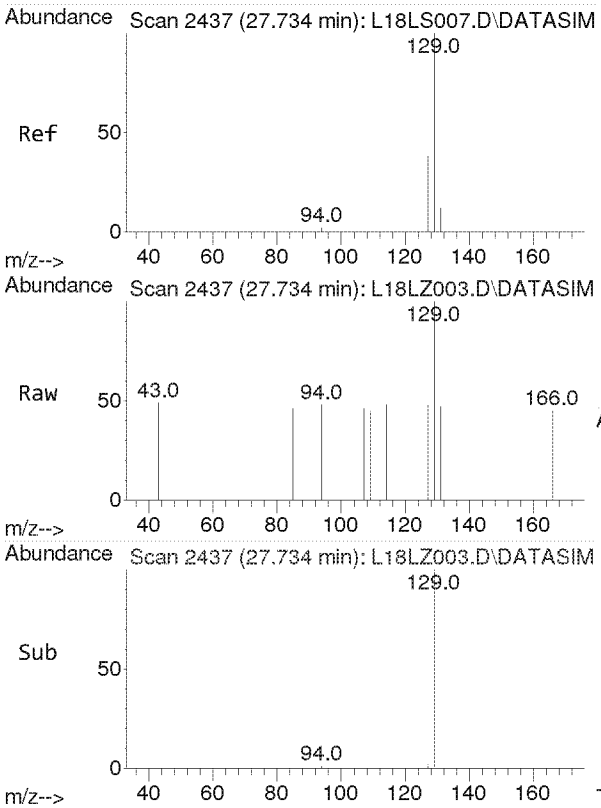


#44
Toluene
Concen: 0.008 ppbv
RT: 27.075 min Scan# 2401
Delta R.T. -0.019 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 91 Resp: 159

Ion	Ratio	Lower	Upper
91	100		
92	60.4	42.1	63.1

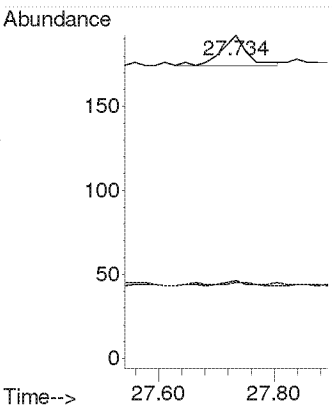




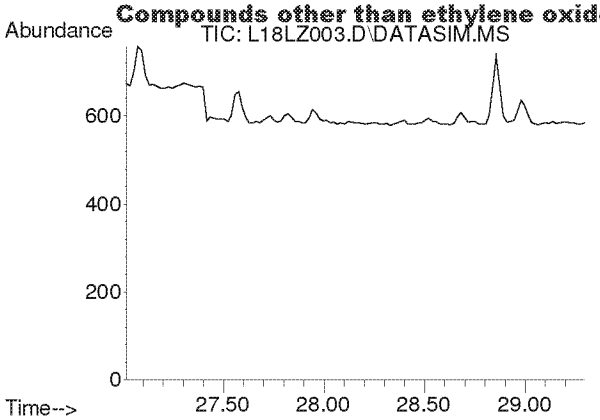
#45
Dibromochloromethane
Concen: 0.001 ppbv
RT: 27.734 min Scan# 2437
Delta R.T. 0.000 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion:129 Resp: 57

Ion	Ratio	Lower	Upper
129	100		
127	0.0	15.4	23.0#
131	0.0	4.8	7.2#



Compounds other than ethylene oxide were not quantitated.

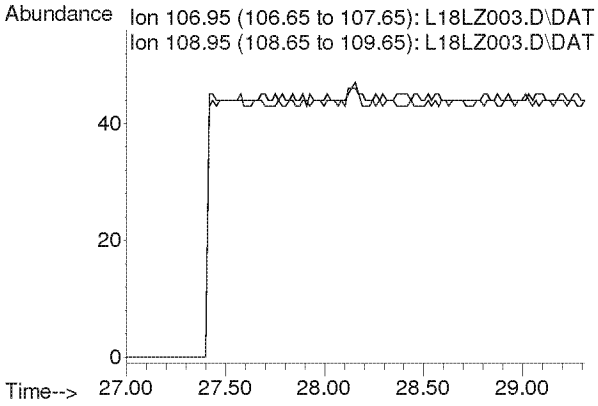


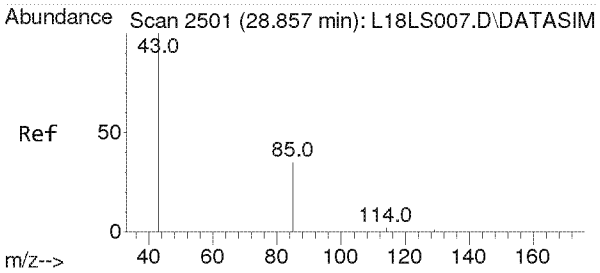
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5

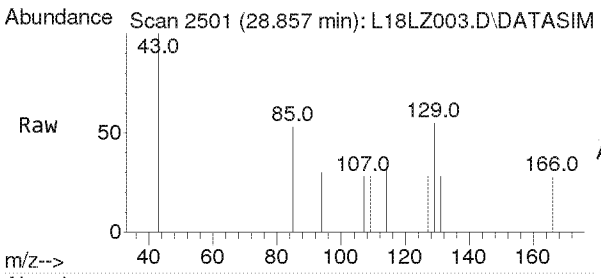


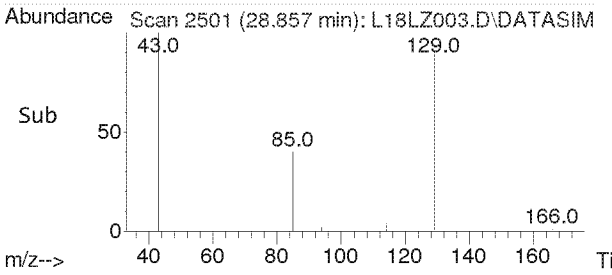


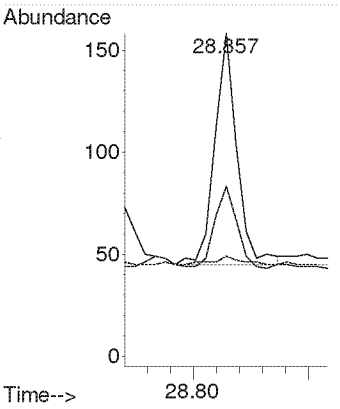
#47
n-Octane
Concen: 0.023 ppbv
RT: 28.857 min Scan# 2501
Delta R.T. 0.000 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 43 Resp: 302

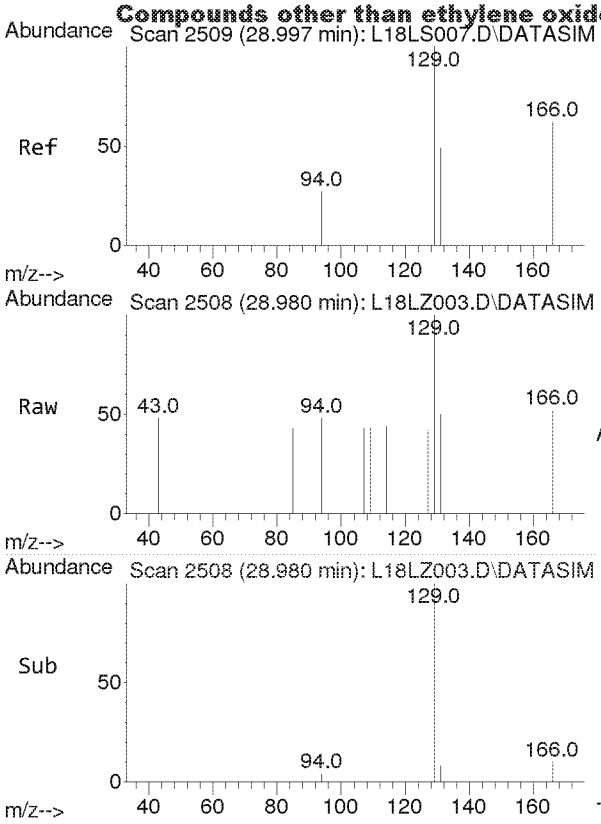
Ion	Ratio	Lower	Upper
43	100		
85	35.4	28.8	43.2
114	0.0	1.8	2.6#







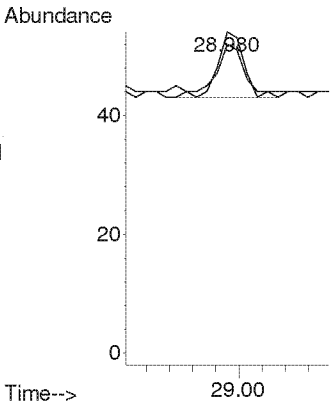
Compounds other than ethylene oxide were not quantitated.

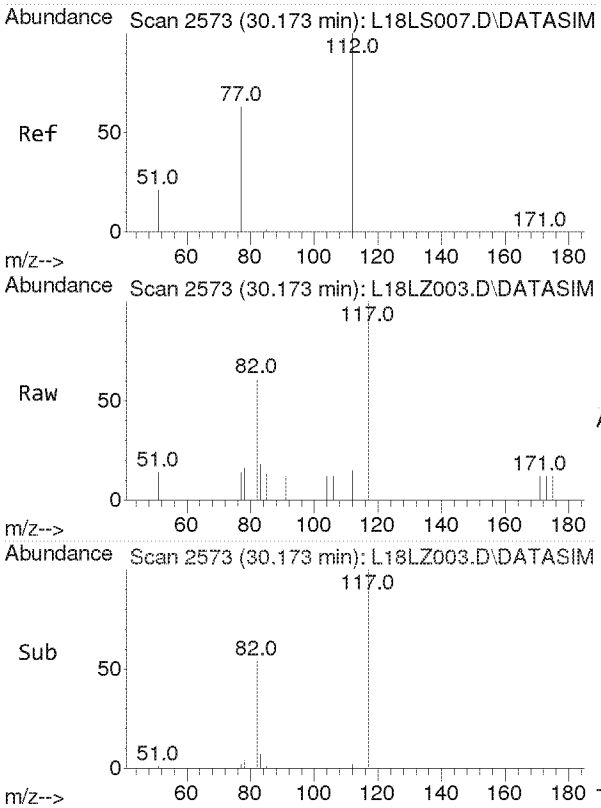


#48
Tetrachloroethylene
Concen: 0.003 ppbv
RT: 28.980 min Scan# 2508
Delta R.T. -0.017 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion:166 Resp: 35

Ion	Ratio	Lower	Upper
166	100		
131	0.0	62.6	93.8#

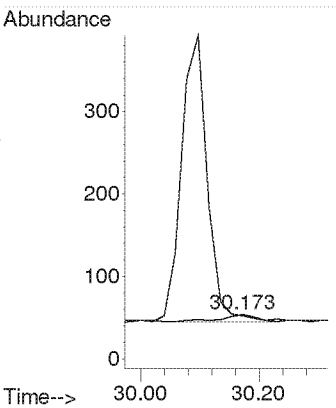




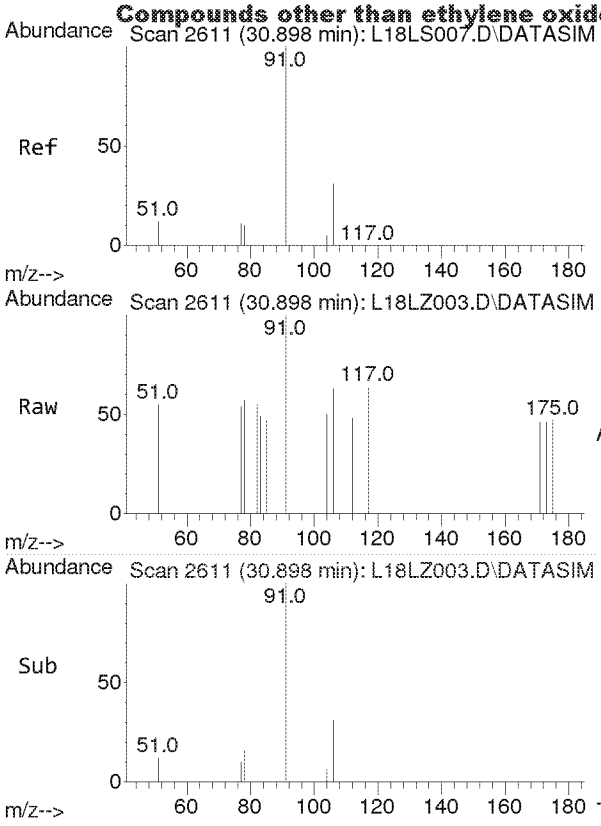
#49
Chlorobenzene
Concen: 0.002 ppbv
RT: 30.173 min Scan# 2573
Delta R.T. 0.000 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion:112 Resp: 30

Ion	Ratio	Lower	Upper
112	100		
77	0.0	50.4	75.6#



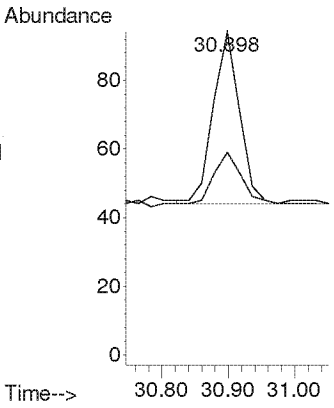
Compounds other than ethylene oxide were not quantitated.

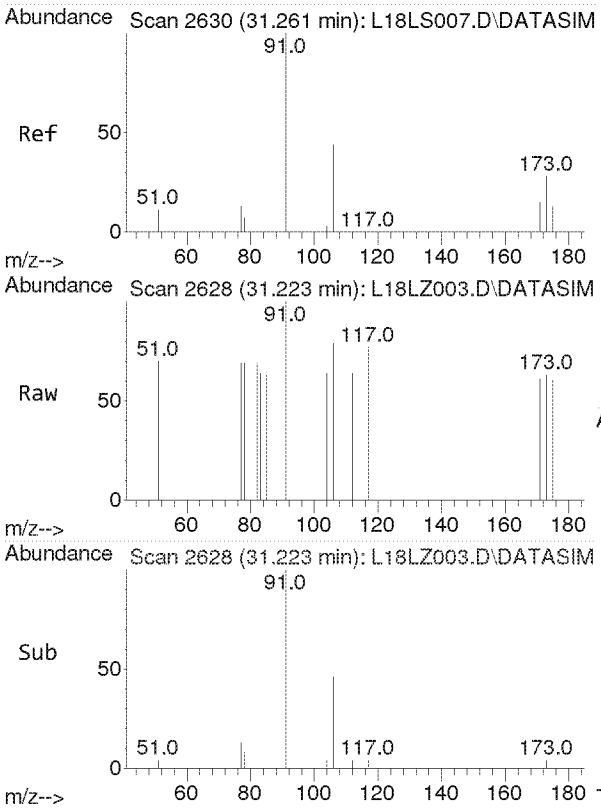


#50
Ethylbenzene
Concen: 0.007 ppbv
RT: 30.898 min Scan# 2611
Delta R.T. 0.000 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 91 Resp: 139

Ion	Ratio	Lower	Upper
91	100		
106	38.8	25.4	38.2#

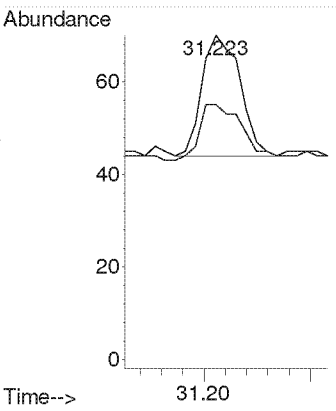




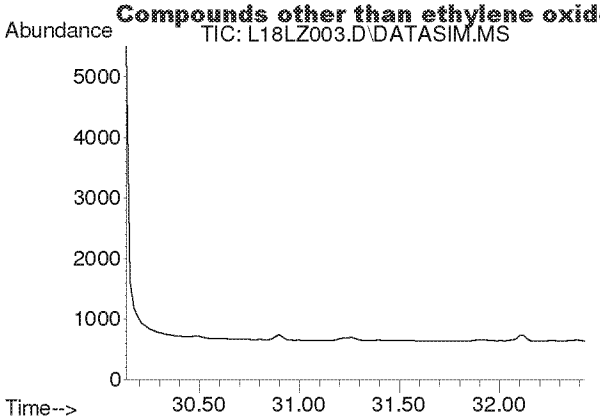
#51
m,p-Xylene
Concen: 0.007 ppbv
RT: 31.223 min Scan# 2628
Delta R.T. -0.038 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 91 Resp: 129

Ion	Ratio	Lower	Upper
91	100		
106	53.5	35.5	53.3#



Compounds other than ethylene oxide were not quantitated.

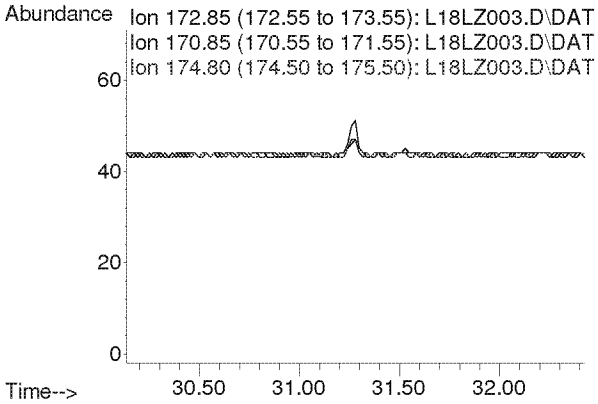


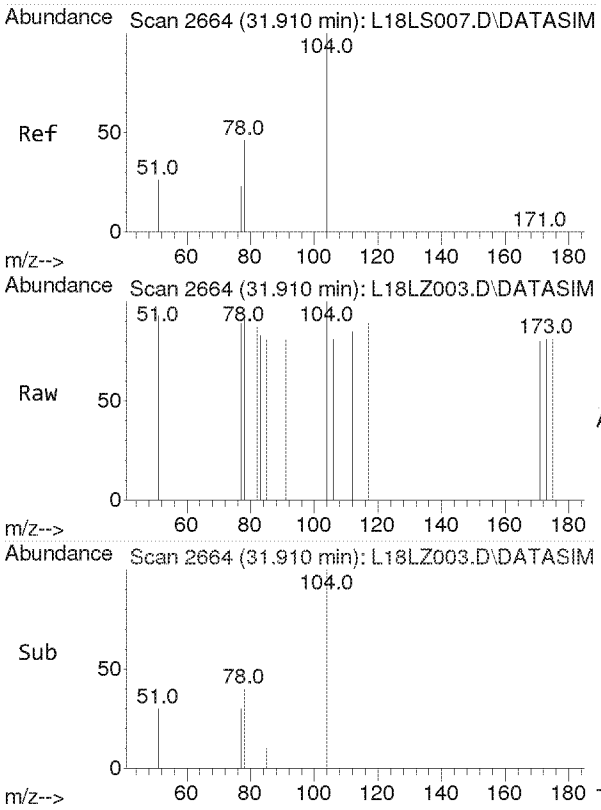
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0

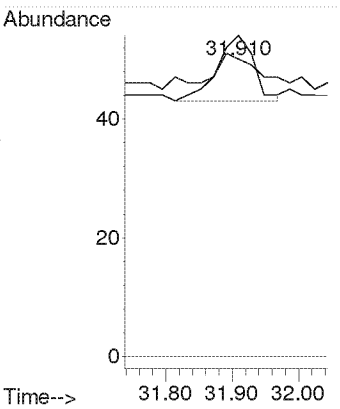




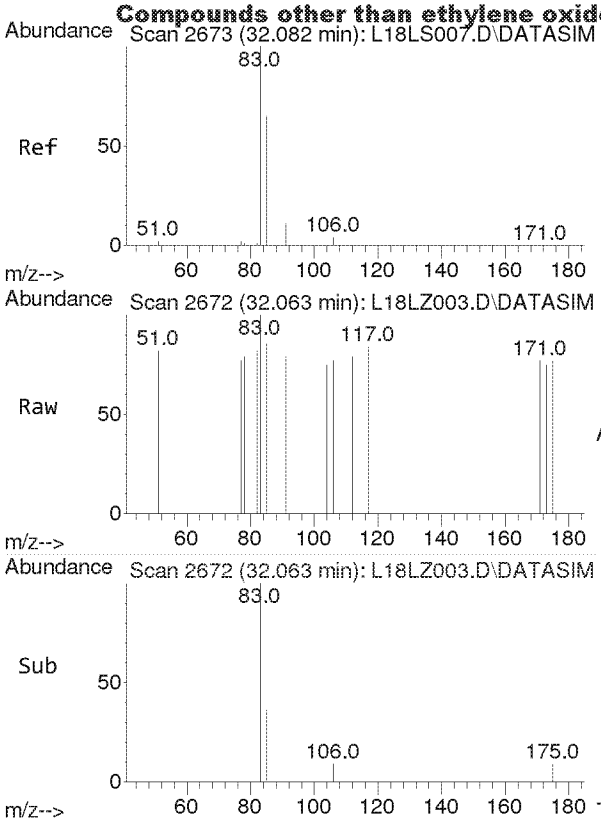
#53
Styrene
Concen: 0.005 ppbv
RT: 31.910 min Scan# 2664
Delta R.T. 0.000 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion:104 Resp: 42

Ion	Ratio	Lower	Upper
104	100		
78	71.4	36.5	54.7#
103	0.0	0.0	0.0



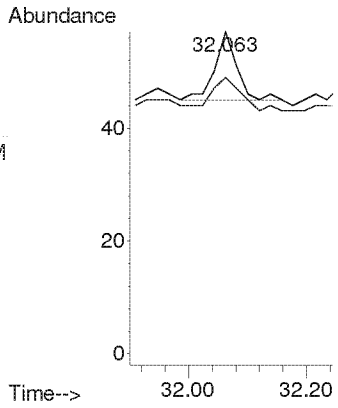
Compounds other than ethylene oxide were not quantitated.

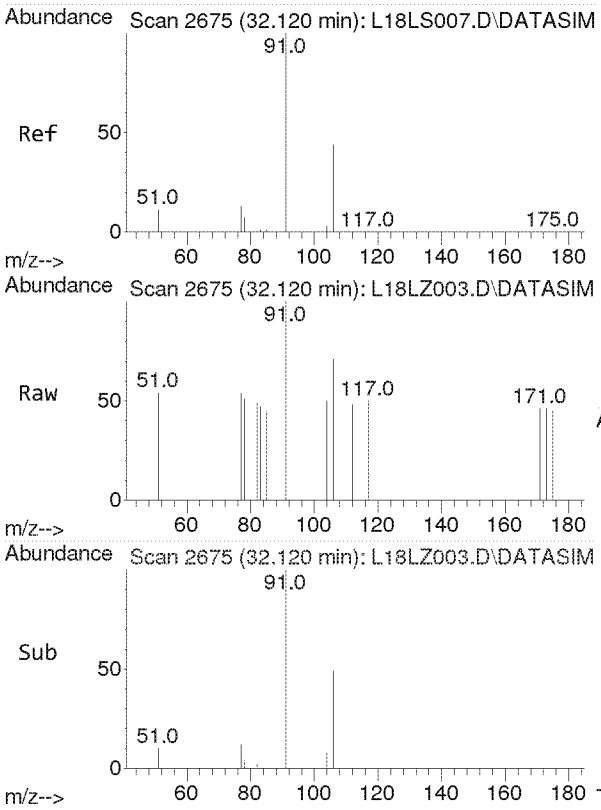


#54
1,1,2,2-Tetrachloroethane
Concen: 0.002 ppbv
RT: 32.063 min Scan# 2672
Delta R.T. -0.019 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 83 Resp: 31

Ion	Ratio	Lower	Upper
83	100		
85	0.0	51.1	76.7#

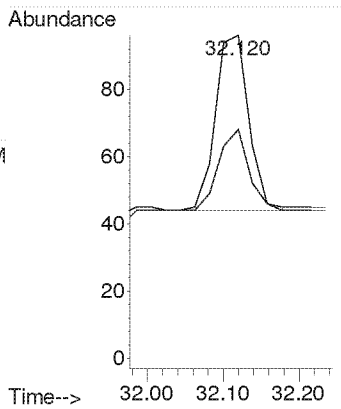




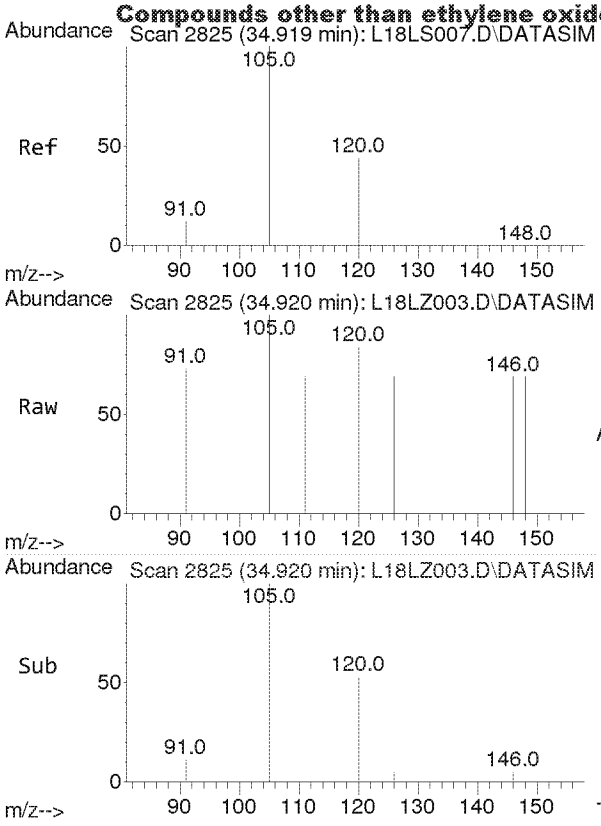
#55
o-Xylene
Concen: 0.009 ppbv
RT: 32.120 min Scan# 2675
Delta R.T. 0.000 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion: 91 Resp: 159

Ion	Ratio	Lower	Upper
91	100		
106	41.5	35.4	53.0



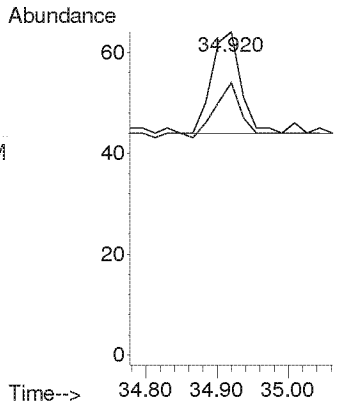
Compounds other than ethylene oxide were not quantitated.

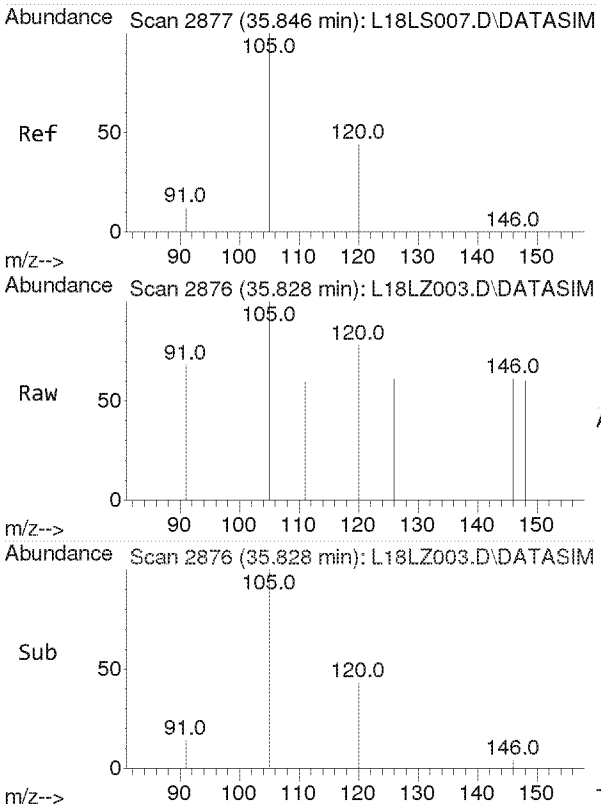


#56
1,3,5-Trimethylbenzene
Concen: 0.003 ppbv
RT: 34.920 min Scan# 2825
Delta R.T. 0.000 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion:105 Resp: 57

Ion	Ratio	Lower	Upper
105	100		
120	64.9	36.0	54.0#

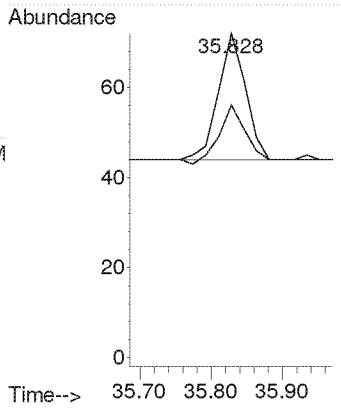




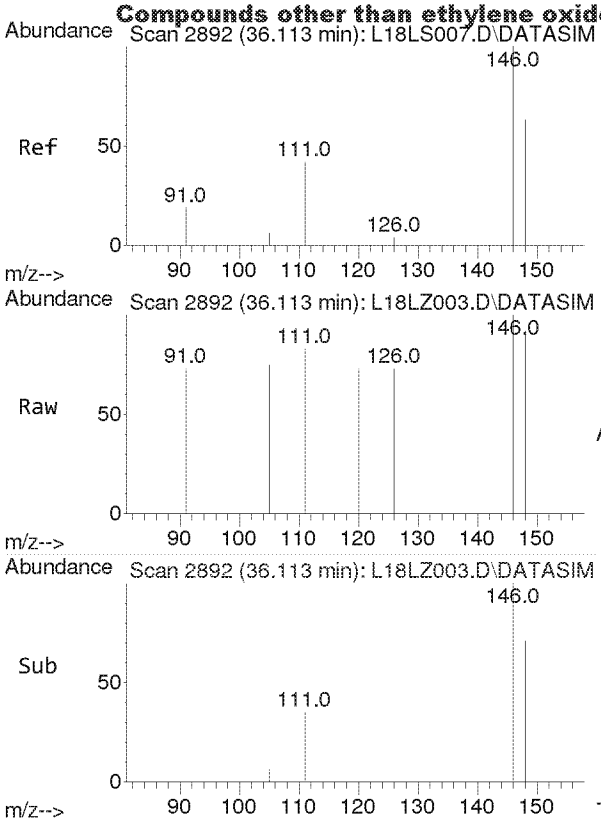
#57
1,2,4-Trimethylbenzene
Concen: 0.005 ppbv
RT: 35.828 min Scan# 2876
Delta R.T. -0.018 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion:105 Resp: 75

Ion	Ratio	Lower	Upper
105	100		
120	57.3	34.2	51.4#



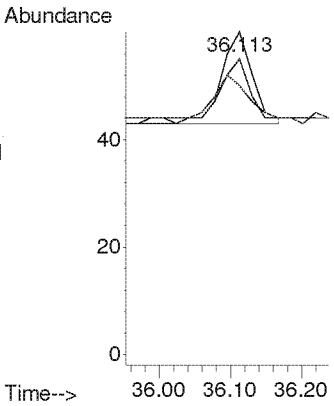
Compounds other than ethylene oxide were not quantitated.

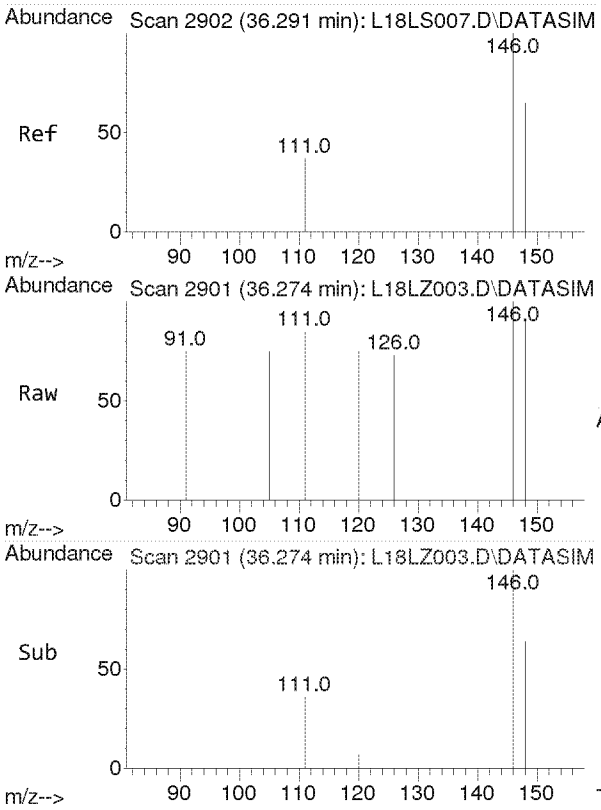


#58
m-Dichlorobenzene
Concen: 0.007 ppbv
RT: 36.113 min Scan# 2892
Delta R.T. 0.000 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion:146 Resp: 51

Ion	Ratio	Lower	Upper
146	100		
148	70.6	51.2	76.8
111	0.0	32.4	48.6#

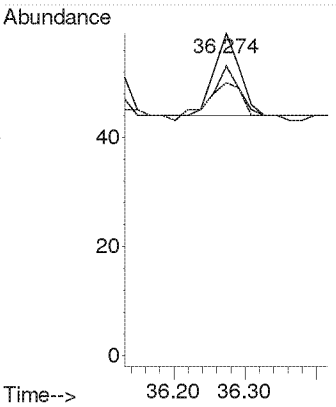




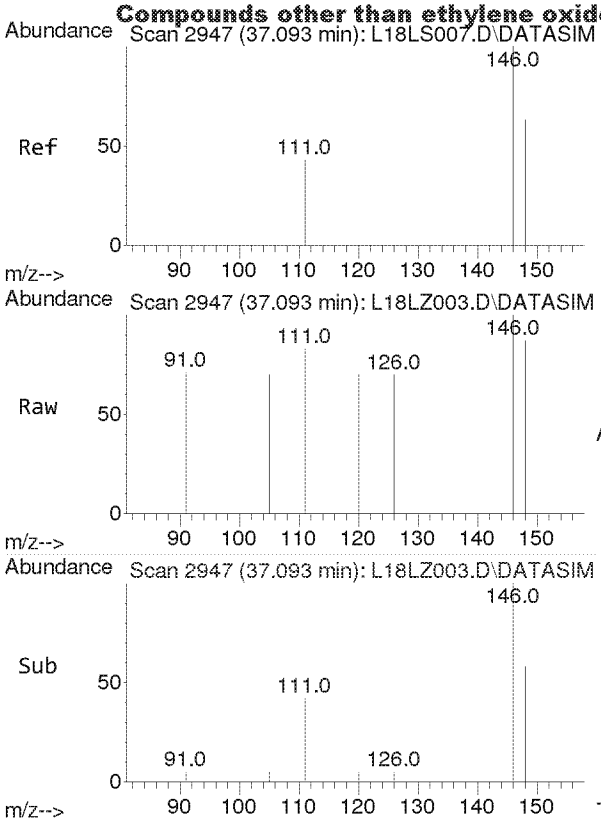
#59
p-Dichlorobenzene
Concen: 0.006 ppbv
RT: 36.274 min Scan# 2901
Delta R.T. -0.018 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion:146 Resp: 37

Ion	Ratio	Lower	Upper
146	100		
148	81.1	51.2	76.8#
111	0.0	31.6	47.4#



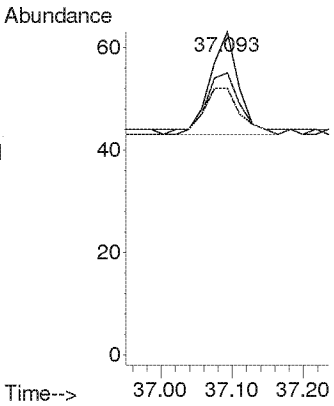
Compounds other than ethylene oxide were not quantitated.

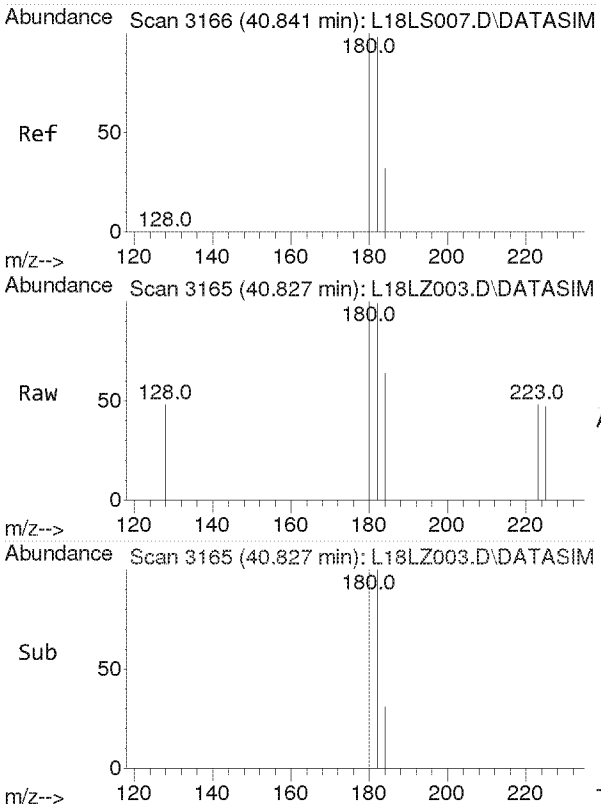


#60
o-Dichlorobenzene
Concen: 0.008 ppbv
RT: 37.093 min Scan# 2947
Delta R.T. 0.000 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion:146 Resp: 56

Ion	Ratio	Lower	Upper
146	100		
148	73.2	51.3	76.9
111	0.0	33.1	49.7#

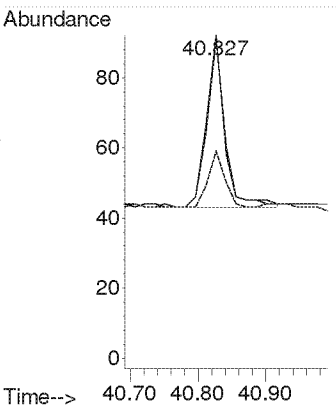




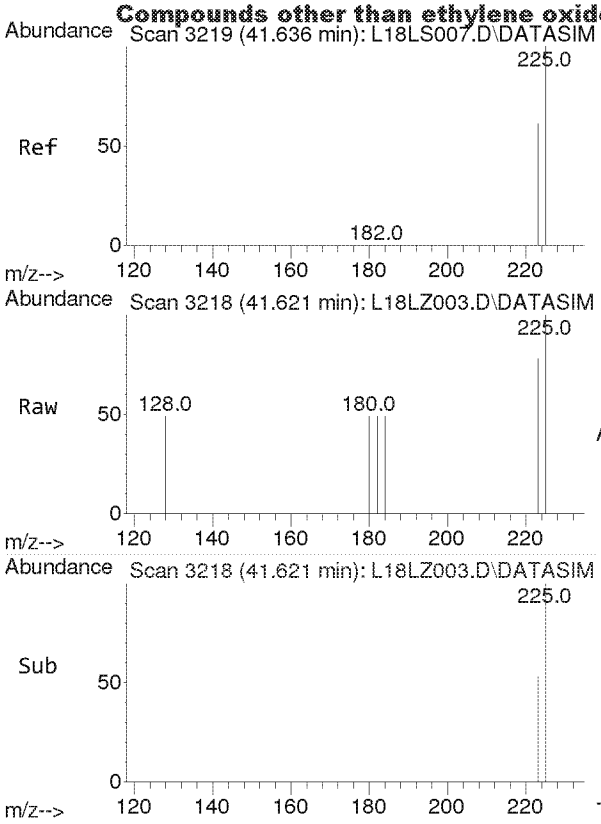
#61
1,2,4-Trichlorobenzene
Concen: 0.032 ppbv
RT: 40.827 min Scan# 3165
Delta R.T. -0.015 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion:180 Resp: 89

Ion	Ratio	Lower	Upper
180	100		
182	101.1	76.1	114.1
184	0.0	24.6	36.8#



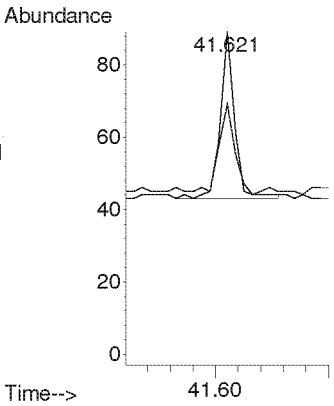
Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: 0.008 ppbv
RT: 41.621 min Scan# 3218
Delta R.T. -0.015 min
Lab File: L18LZ003.D
Acq: 26 Dec 2018 1:25 pm

Tgt Ion:225 Resp: 80

Ion	Ratio	Lower	Upper
225	100		
223	61.3	49.9	74.9



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LZ\
Data File : L18LZ004.D
Acq On : 26 Dec 2018 2:27 pm
Operator : MAH
Sample : 8121130-14
Misc : WILLO W POND PARK 12/8/18
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 03 11:09:48 2019
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	61022	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.150	114	145995	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	108211	4.7400 ppbv	0.00

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. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.455	29	815m	0.2234 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. 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. 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\L18LZ\
Data File : L18LZ004.D
Acq On : 26 Dec 2018 2:27 pm
Operator : MAH
Sample : 8121130-14
Misc : WILLO W POND PARK 12/8/18
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 03 11:09:48 2019
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

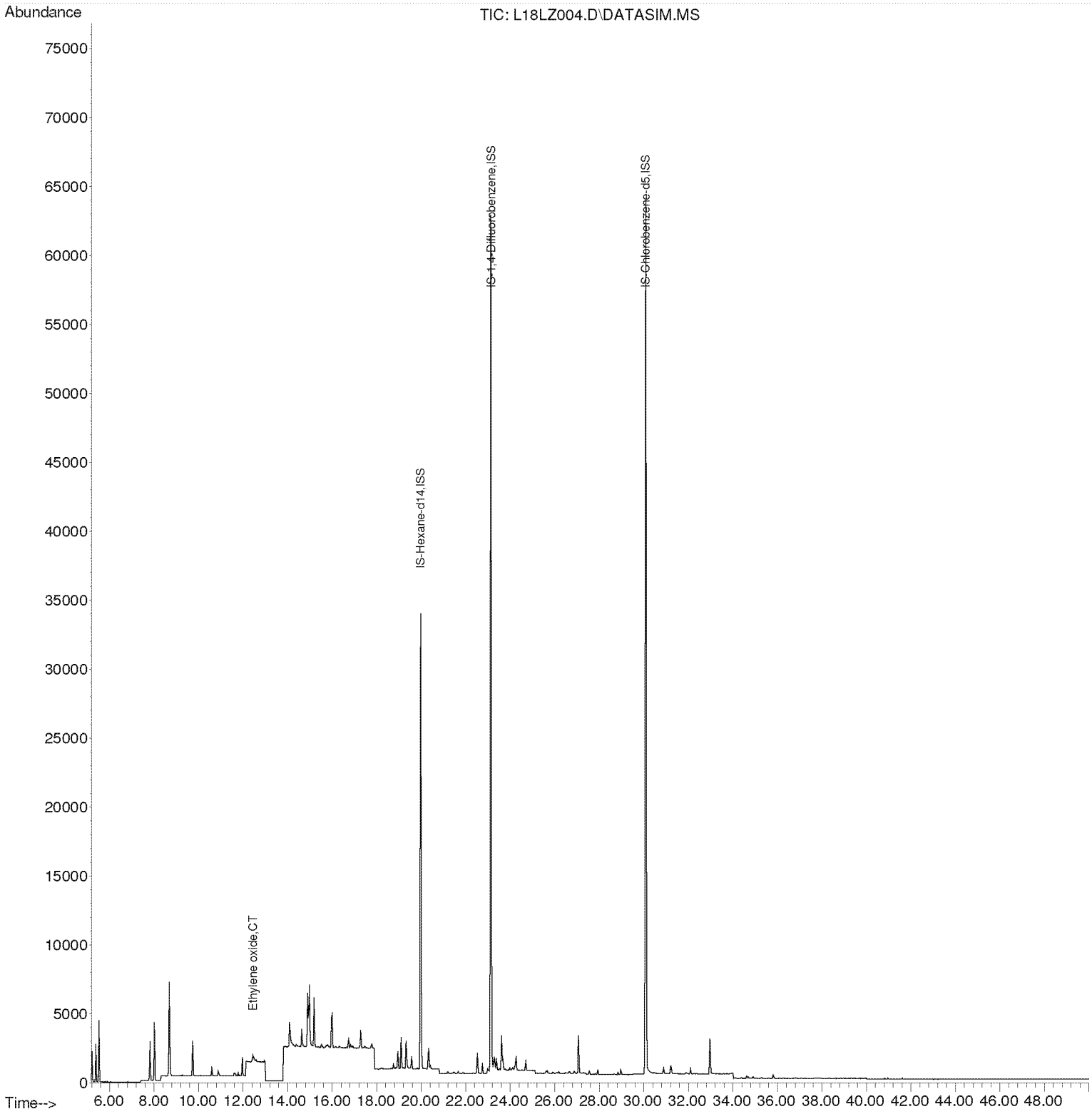
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D. d	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

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

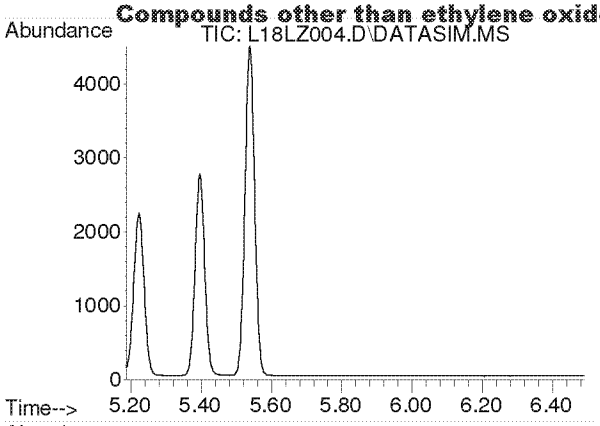
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ004.D
Acq On : 26 Dec 2018 2:27 pm
Operator : MAH
Sample : 8121130-14
Misc : WILLO W POND PARK 12/8/18
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jan 03 10:24:11 2019
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



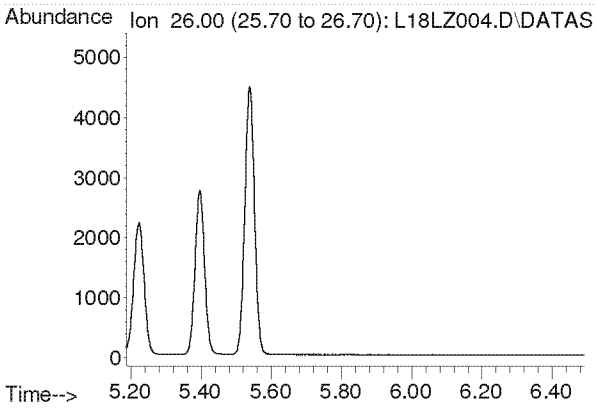
Compounds other than ethylene oxide were not quantitated.

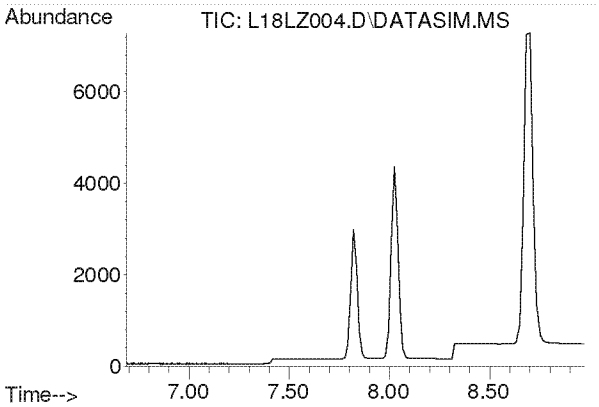


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 26



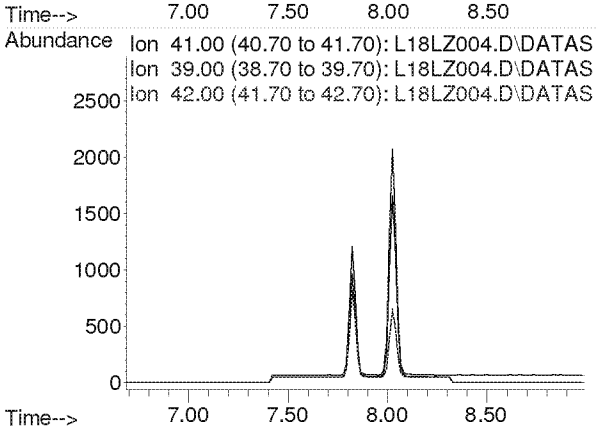


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

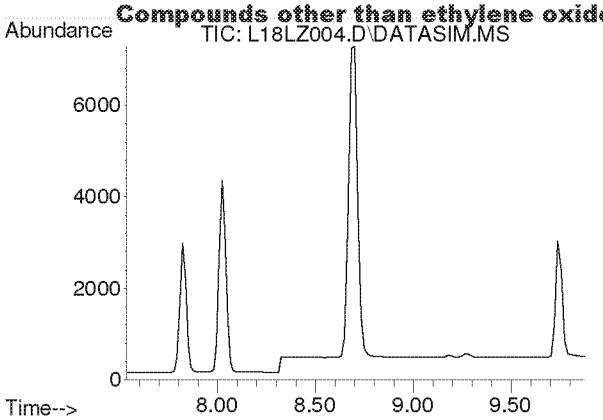
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

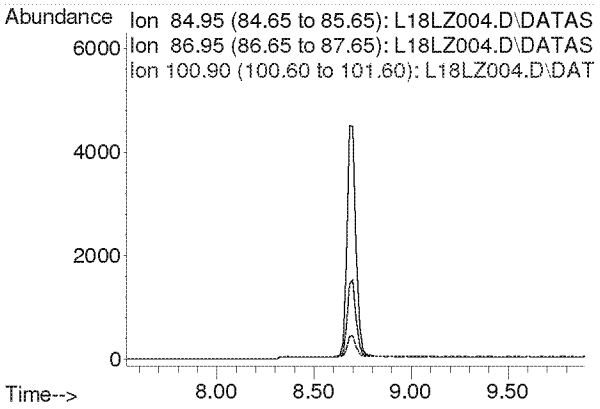


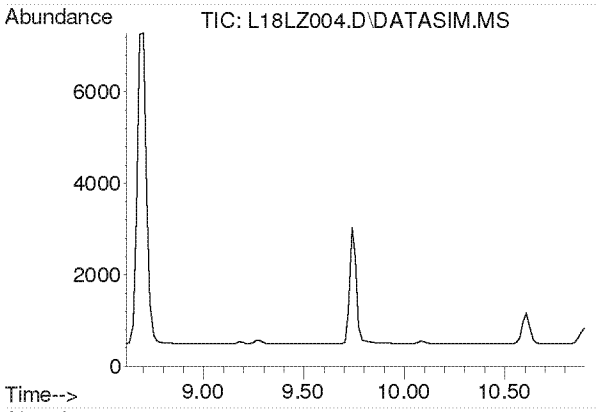
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



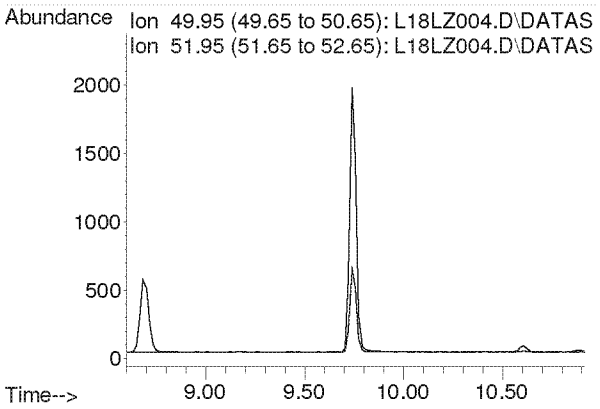


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

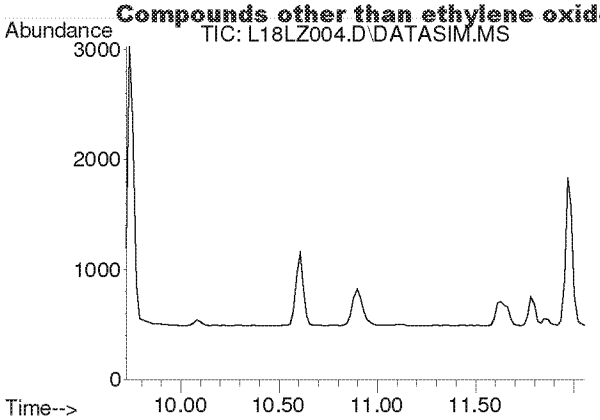
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

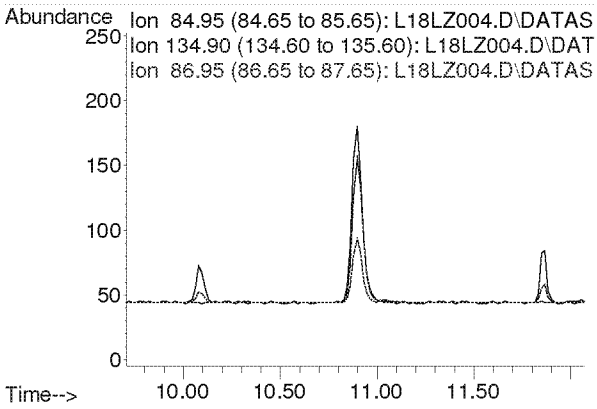


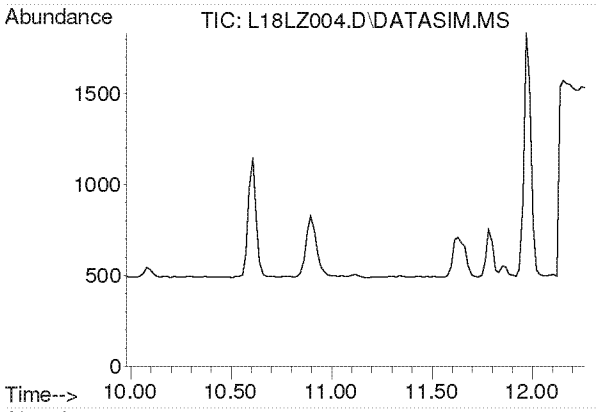
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



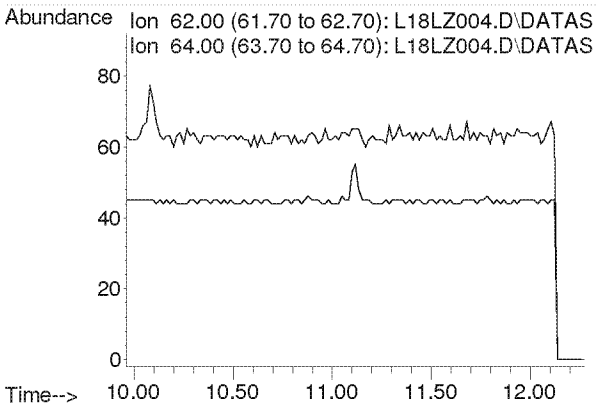


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

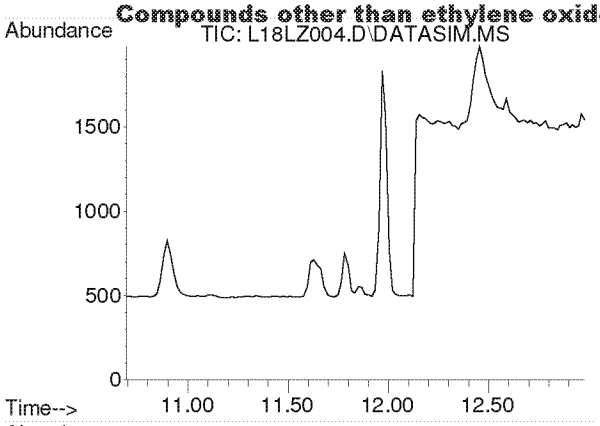
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

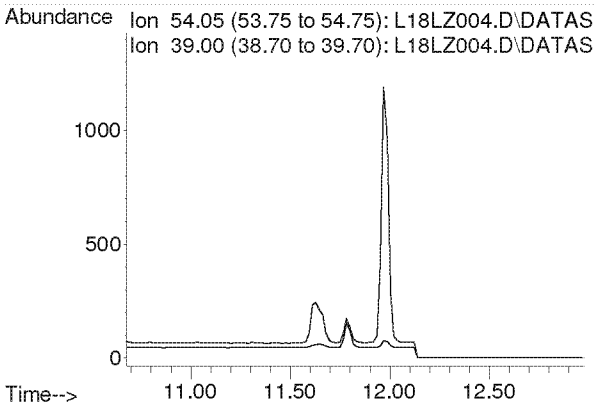


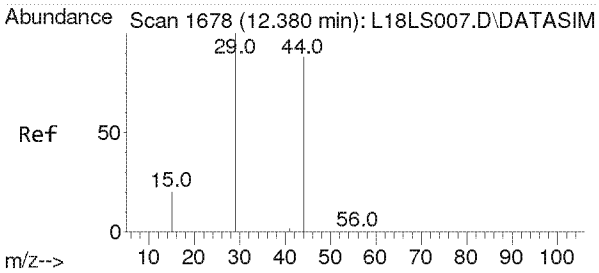
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

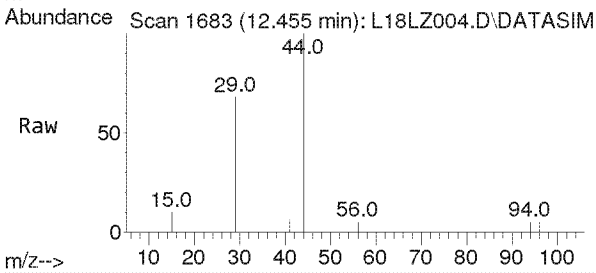


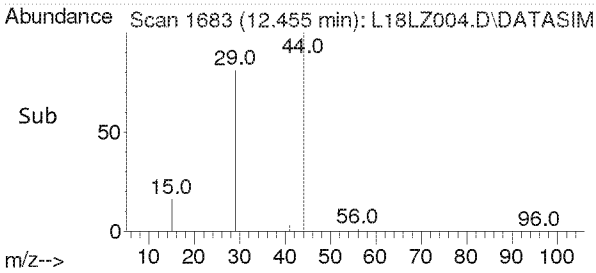


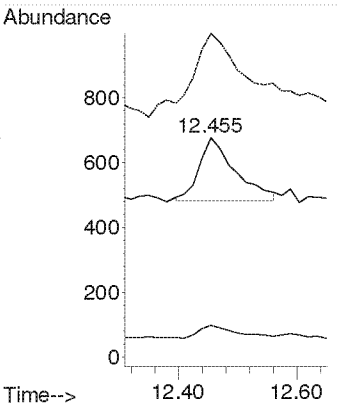
#9
Ethylene oxide
Concen: 0.223 ppbv m
RT: 12.455 min Scan# 1683
Delta R.T. 0.075 min
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 29 Resp: 815

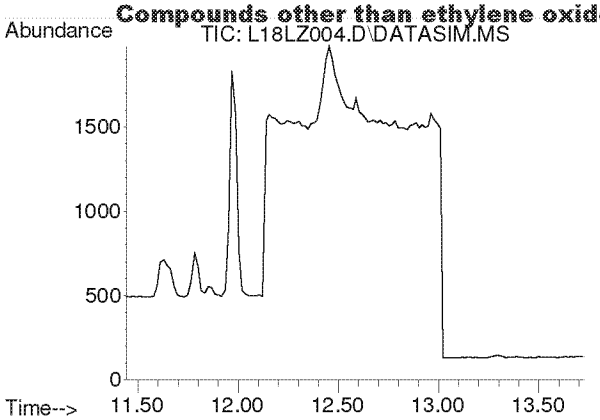
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.2	24.4#
44	0.0	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

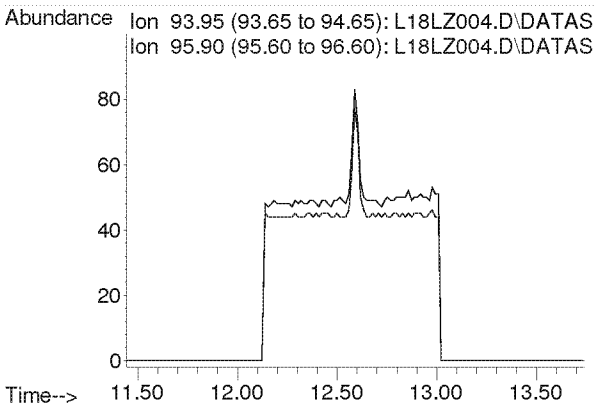


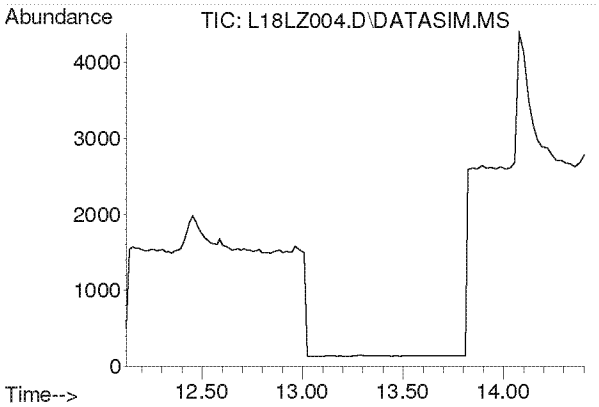
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



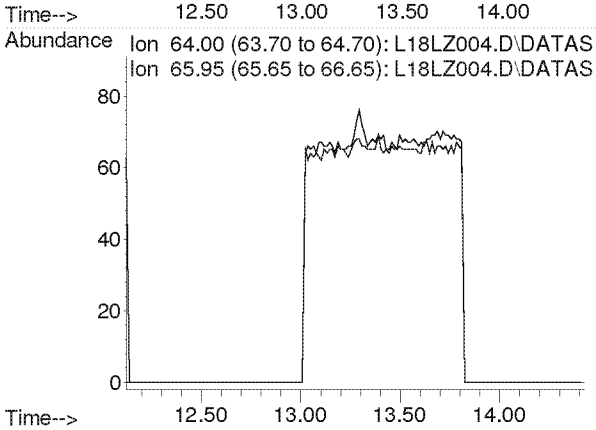


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

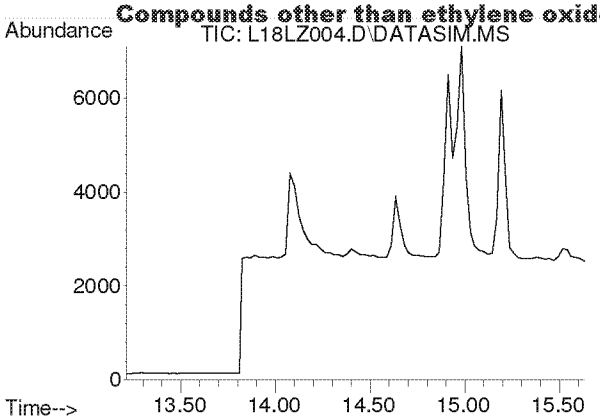
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

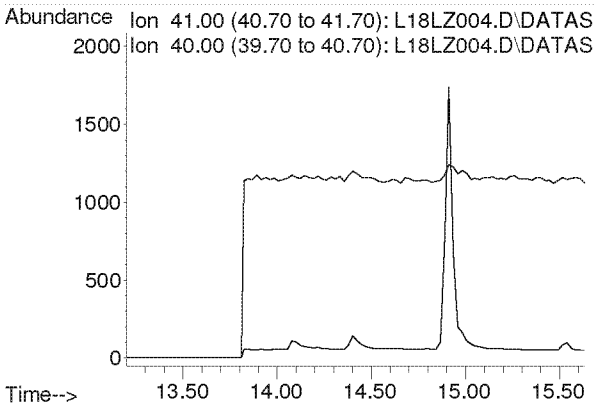


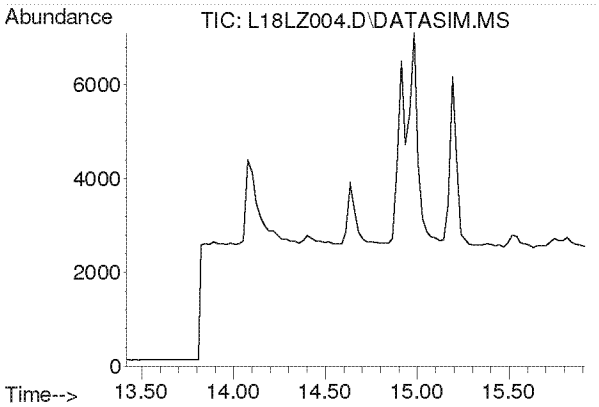
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



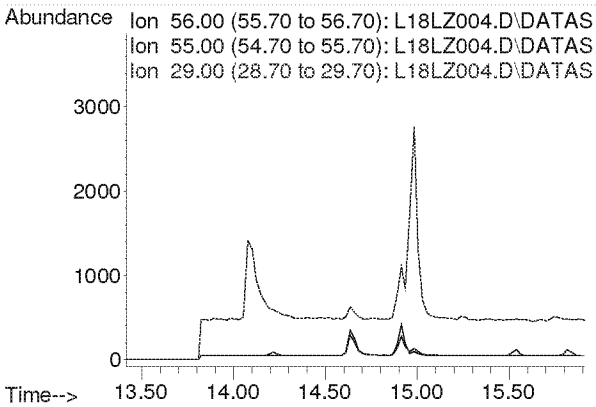


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

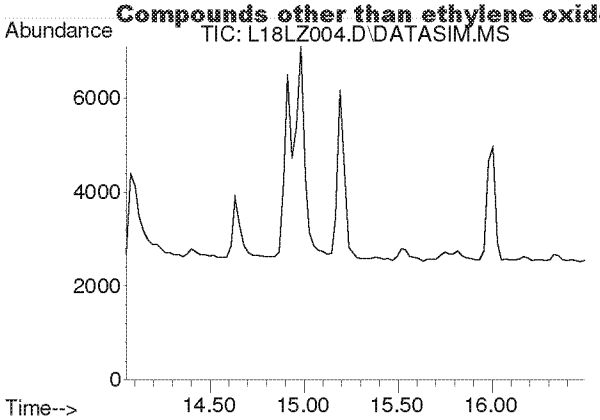
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

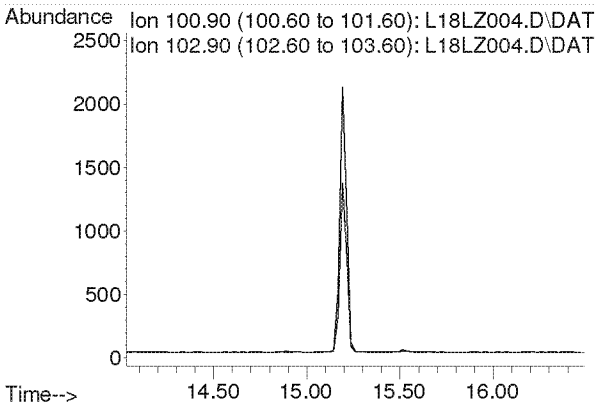


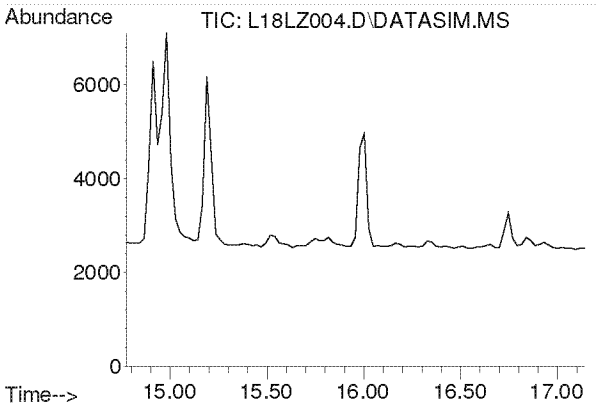
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



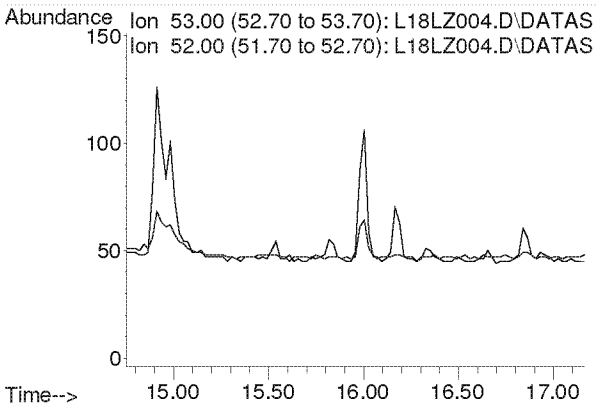


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

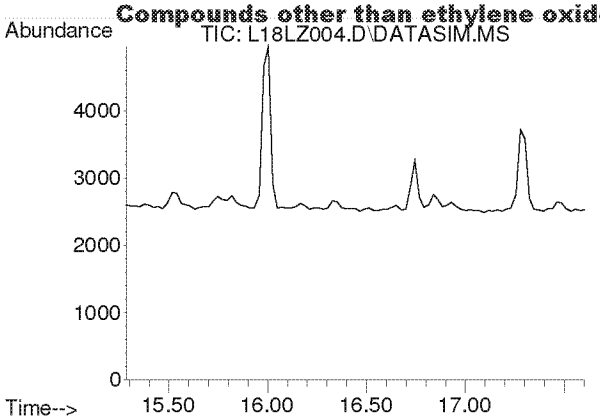
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

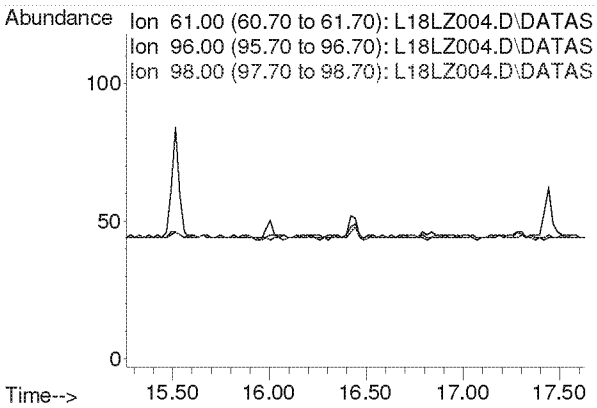


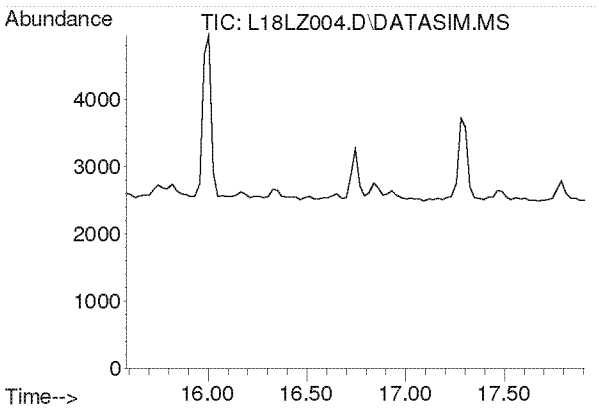
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



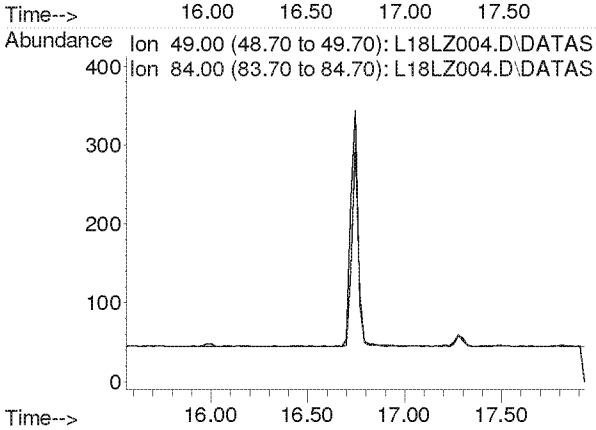


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

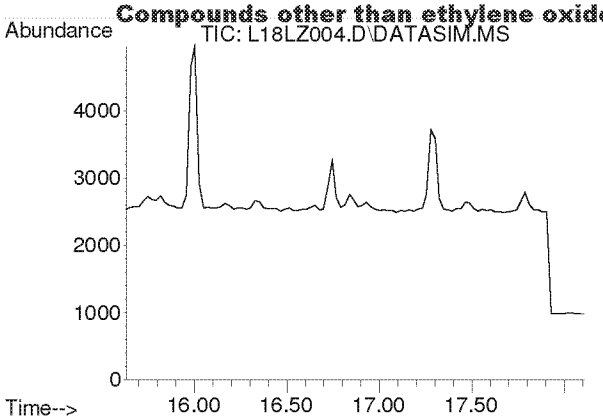
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

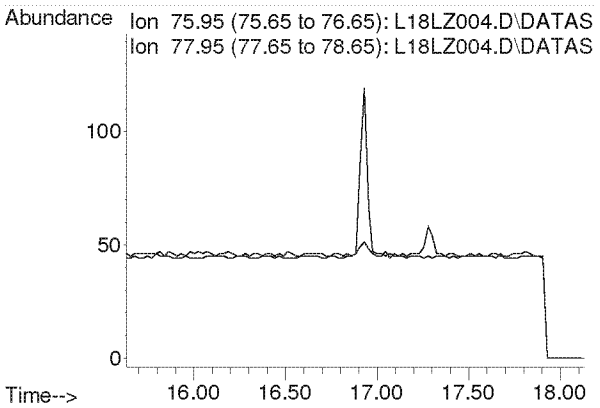


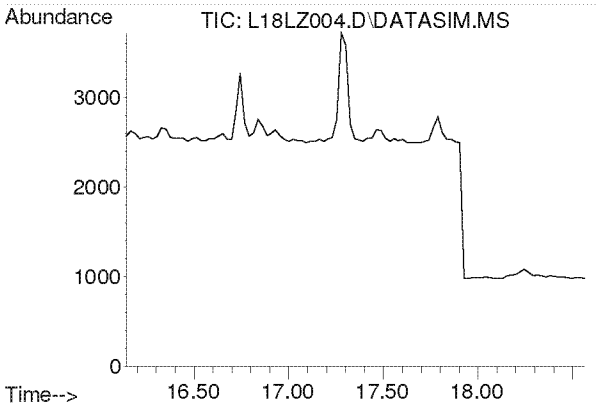
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



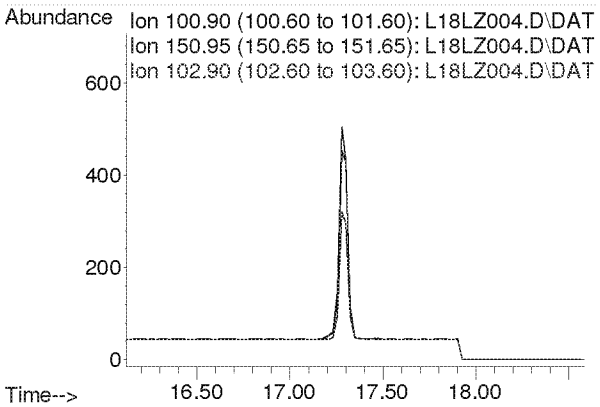


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

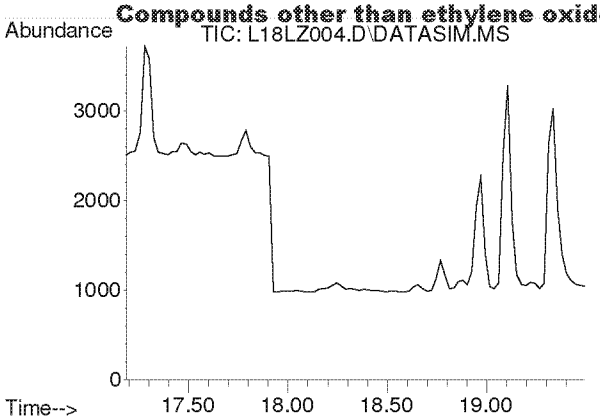
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

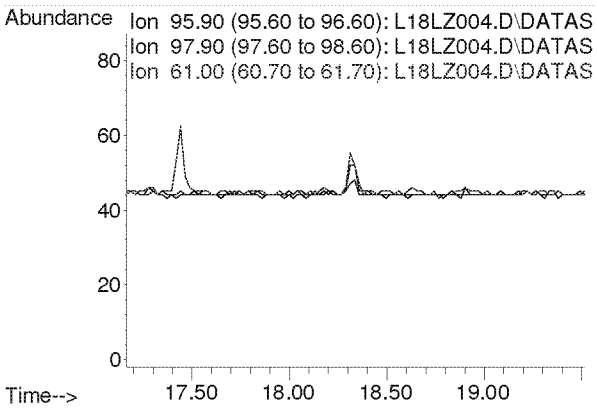


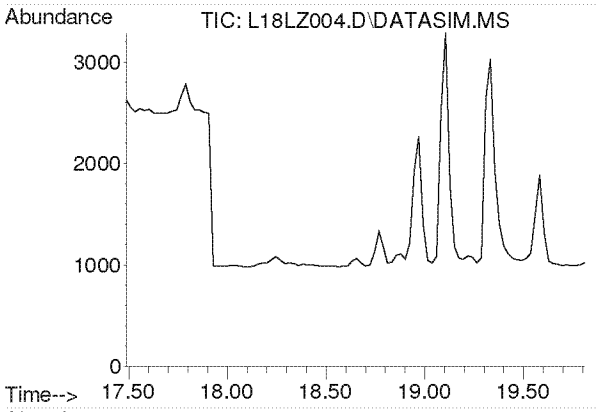
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



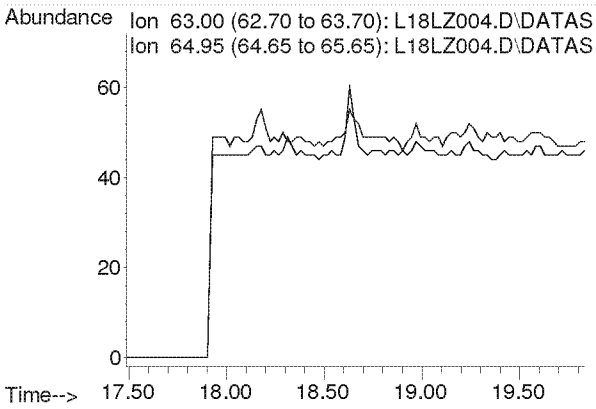


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

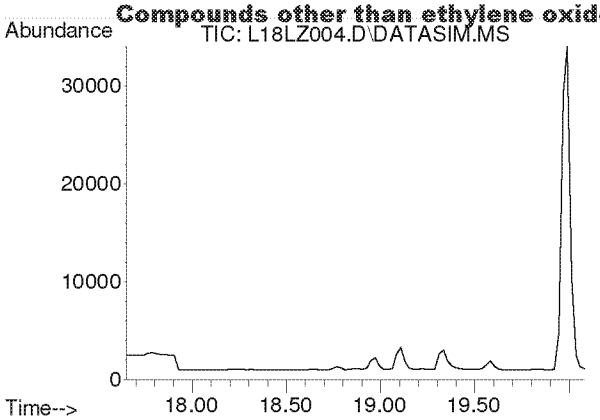
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

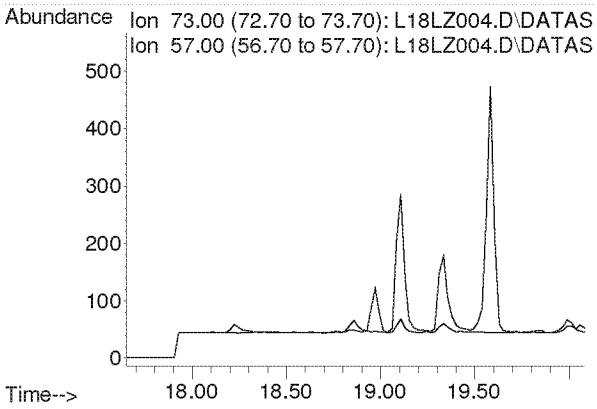


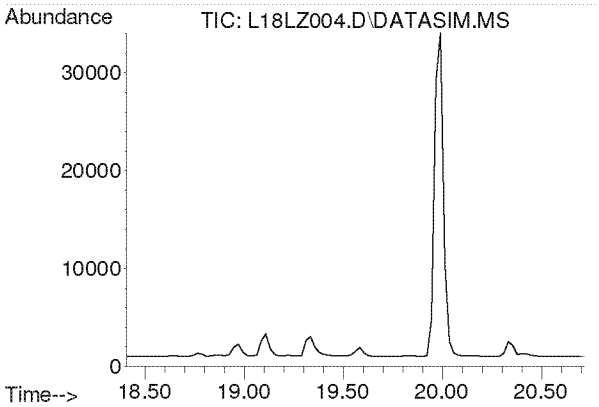
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



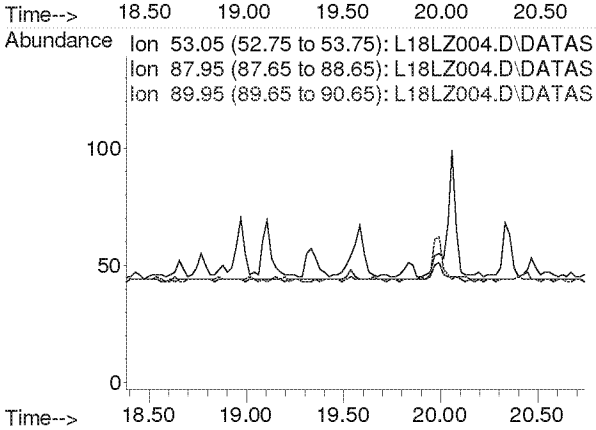


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

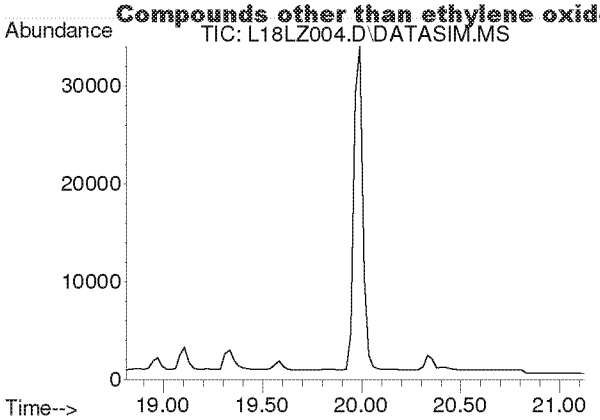
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

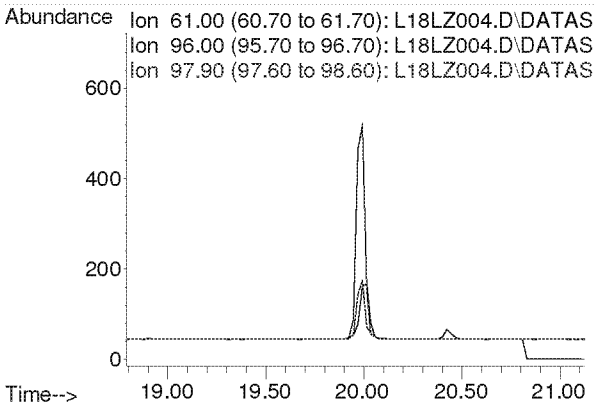


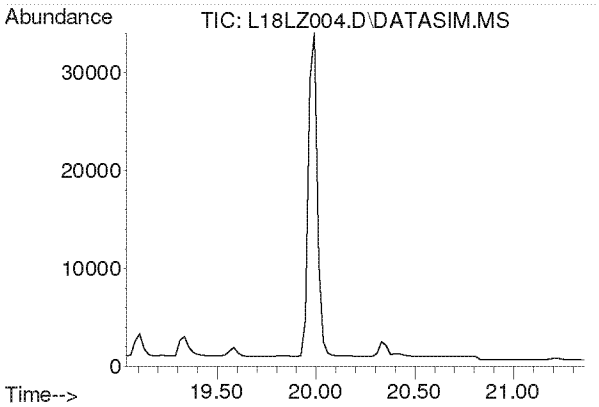
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



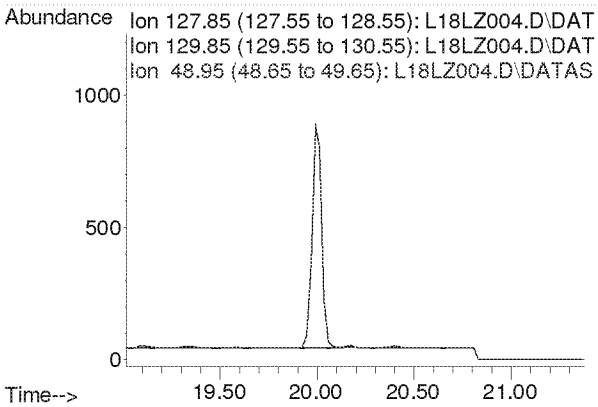


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

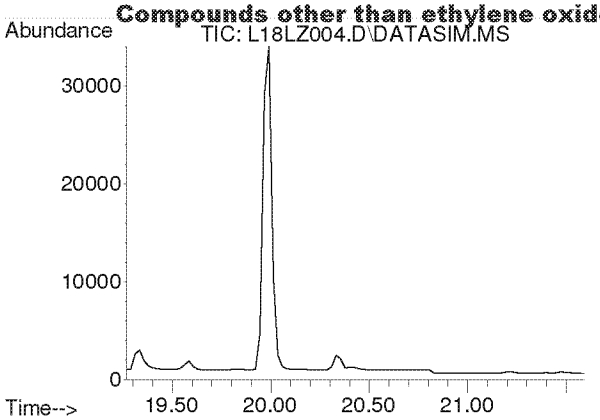
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

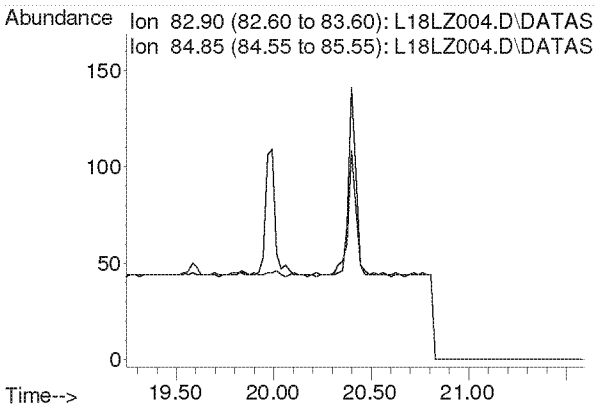


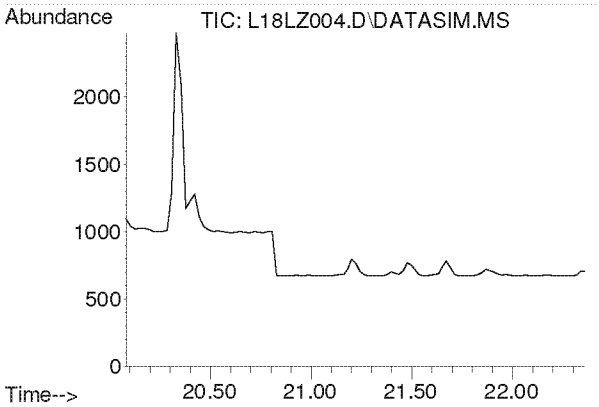
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



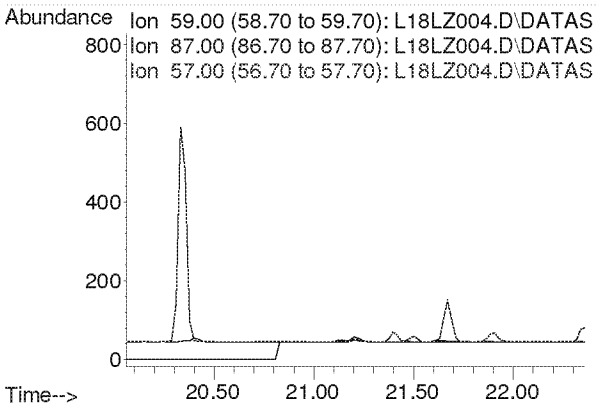


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

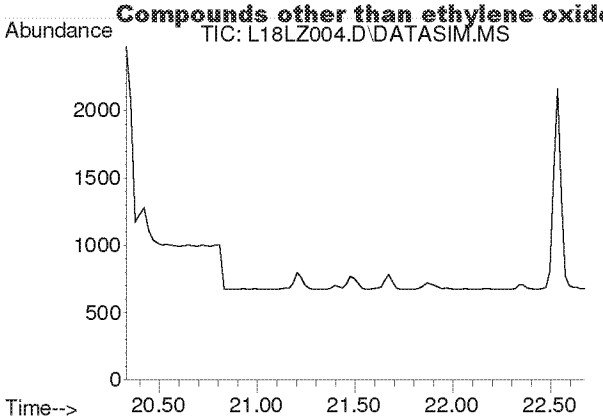
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

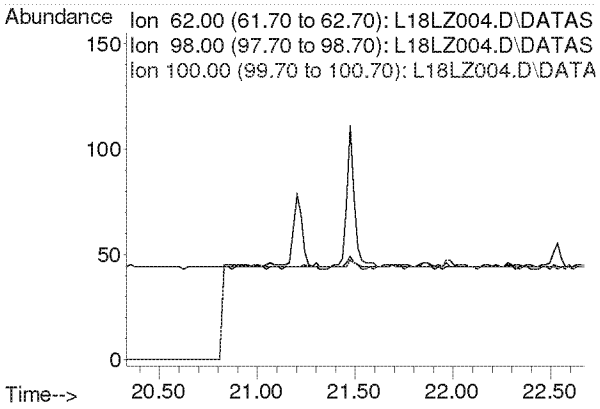


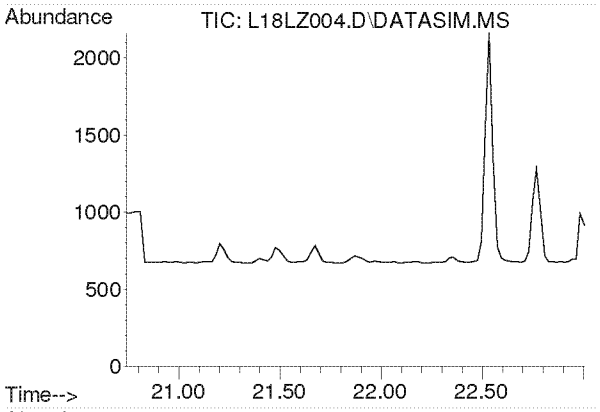
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



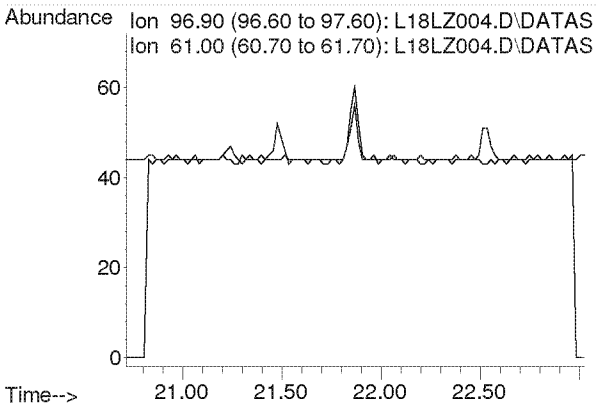


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

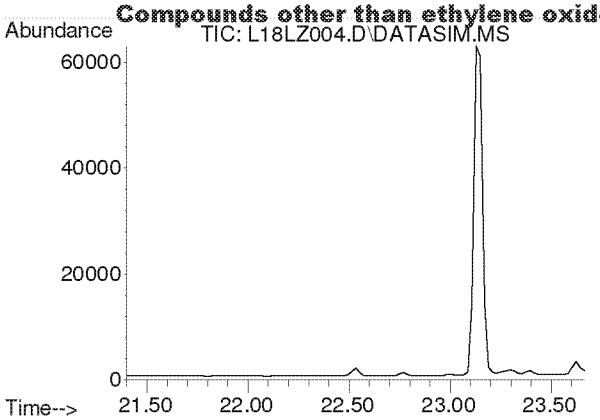
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

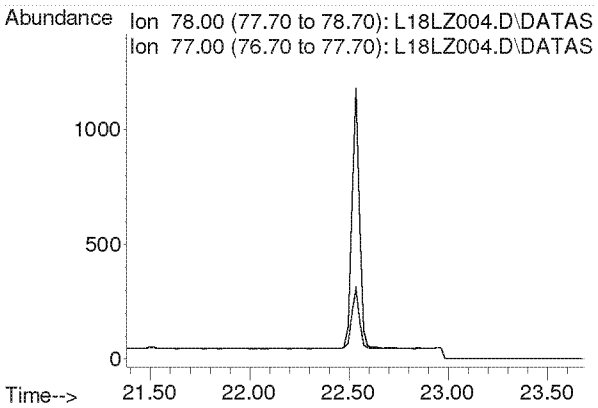


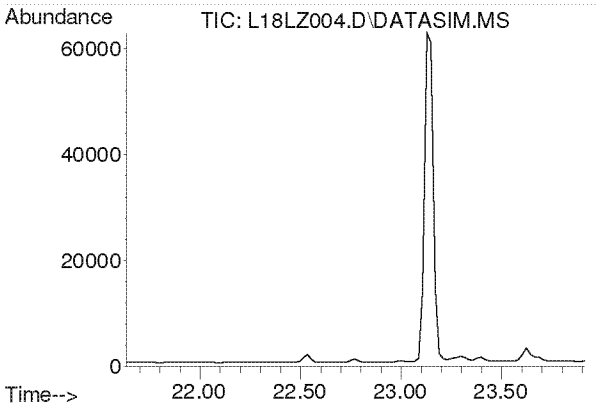
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



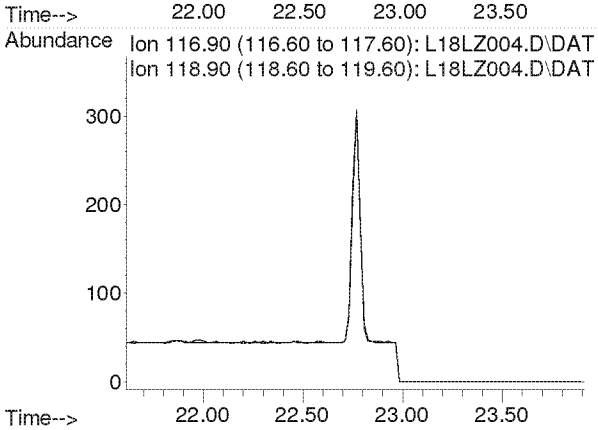


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

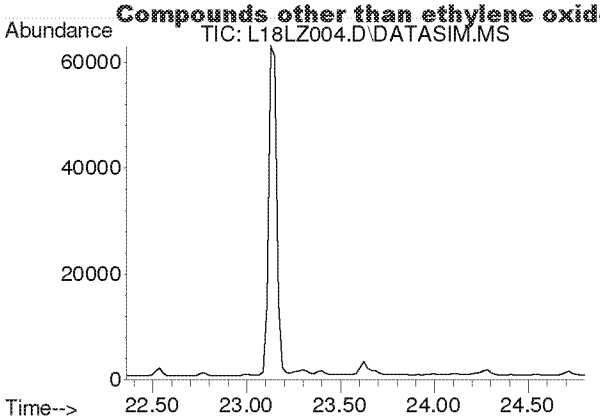
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

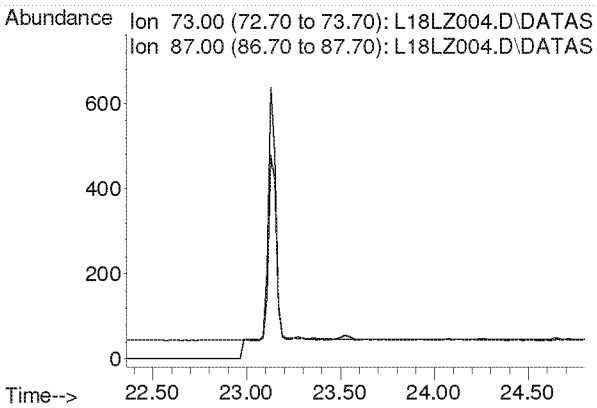


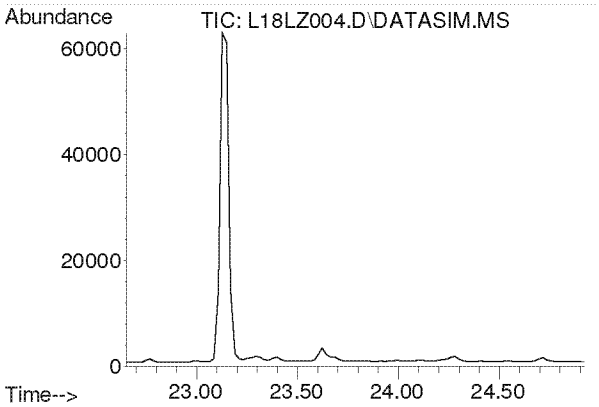
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



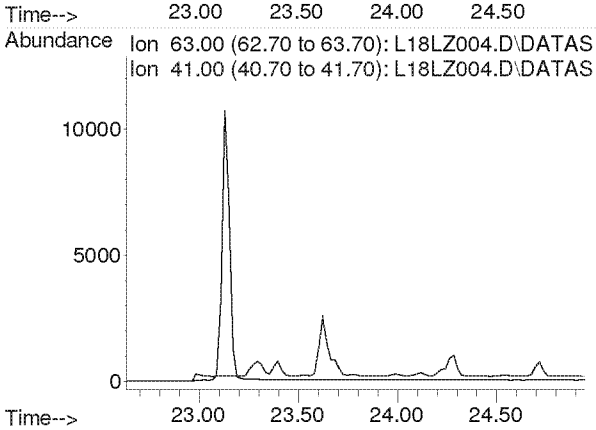


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

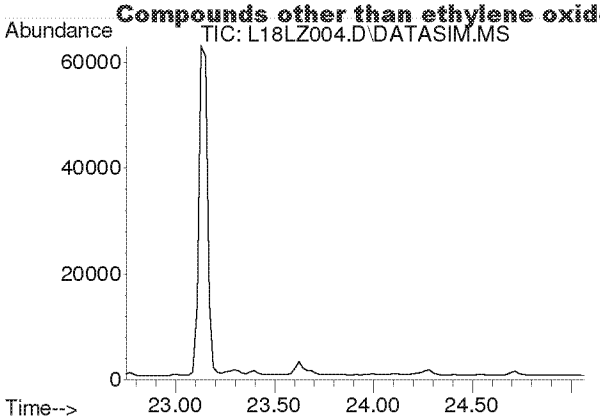
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

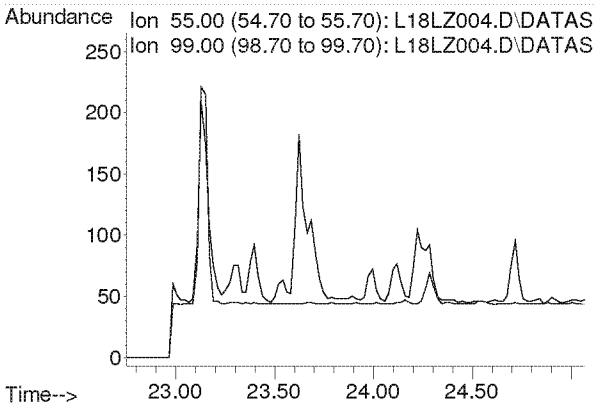


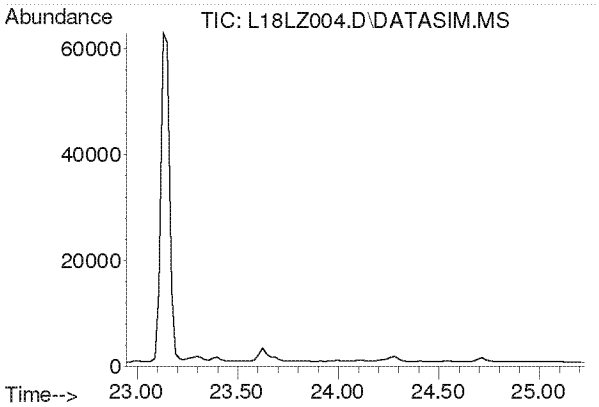
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



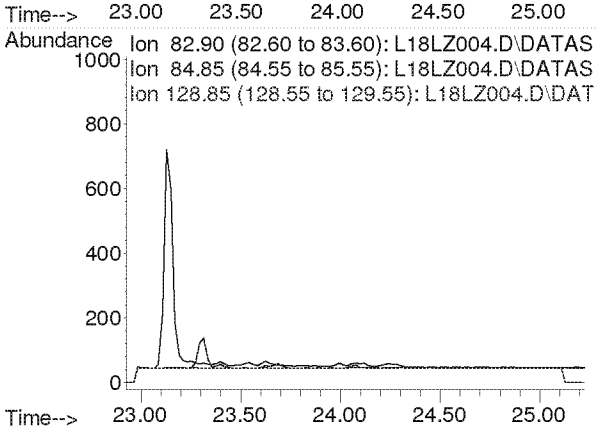


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

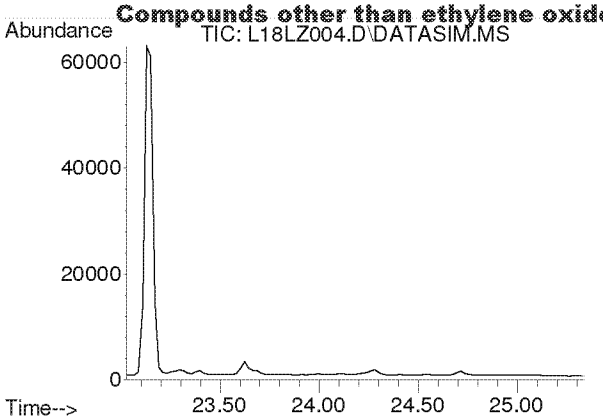
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

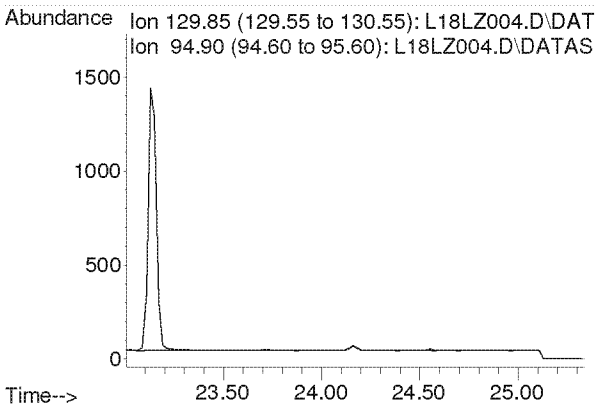


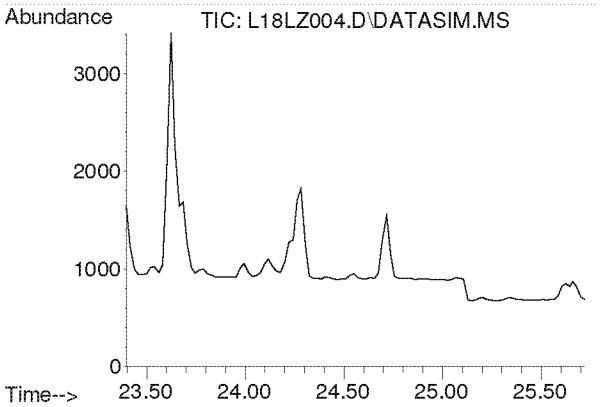
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



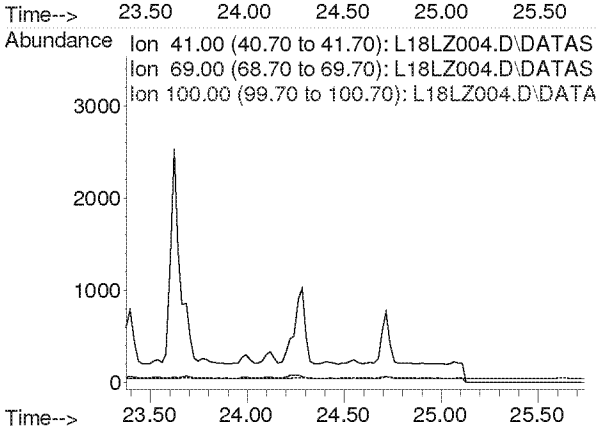


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

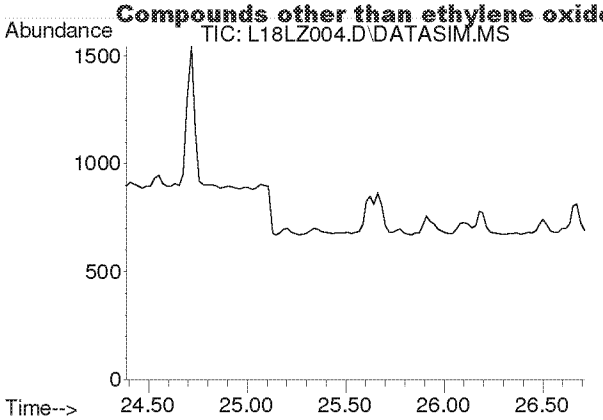
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

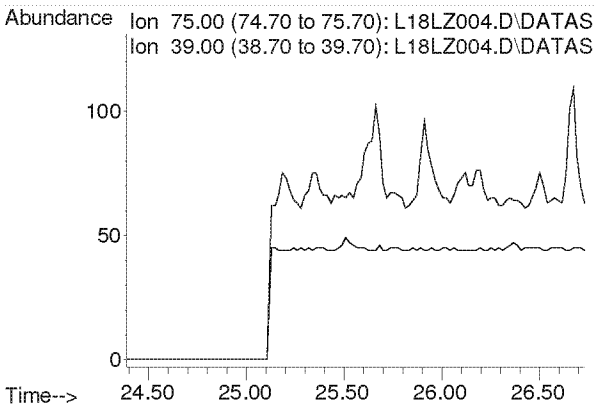


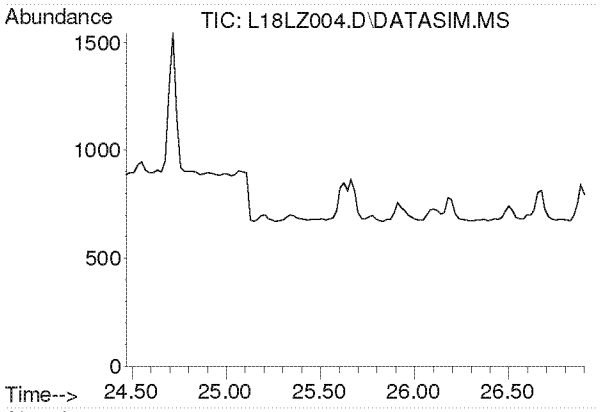
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



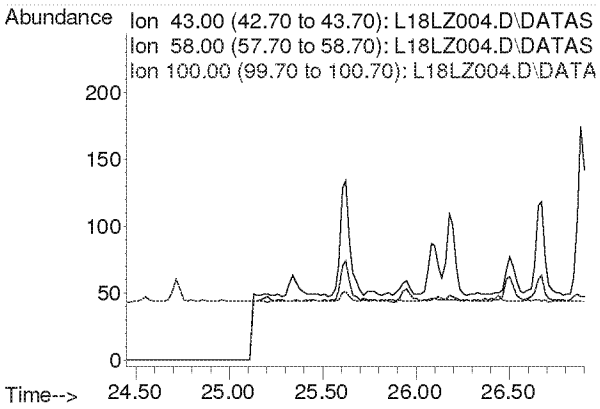


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

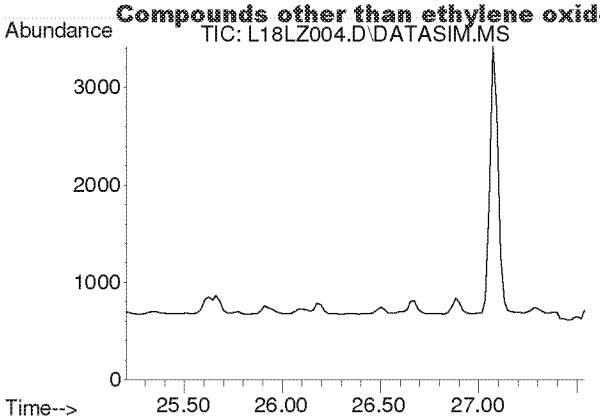
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

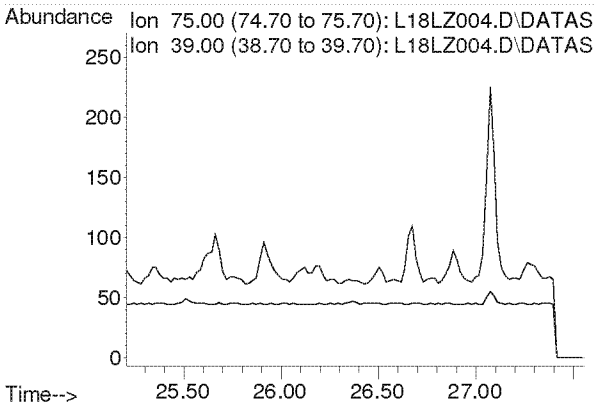


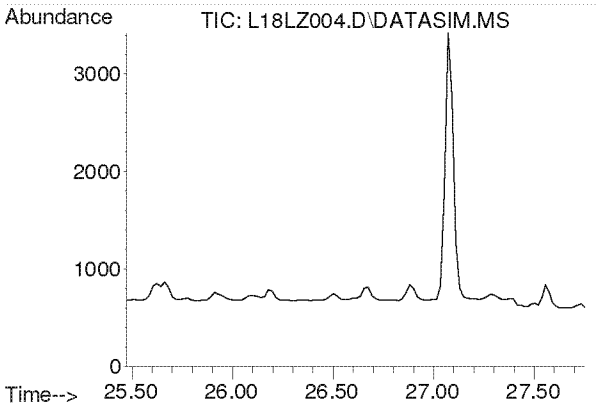
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



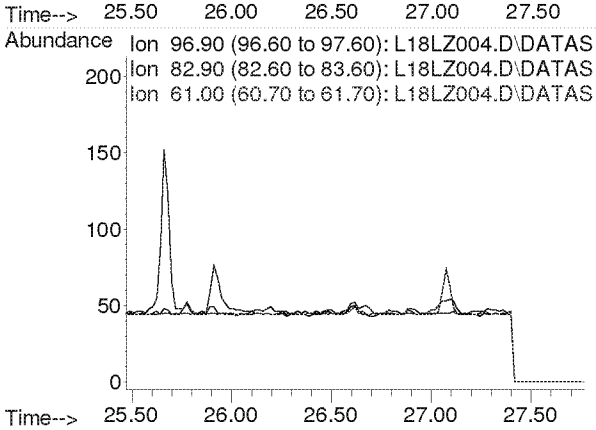


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

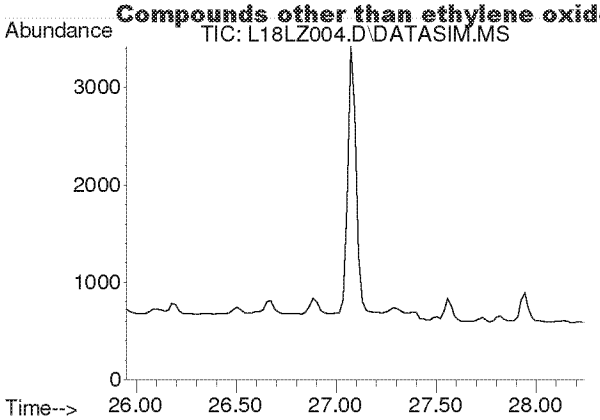
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

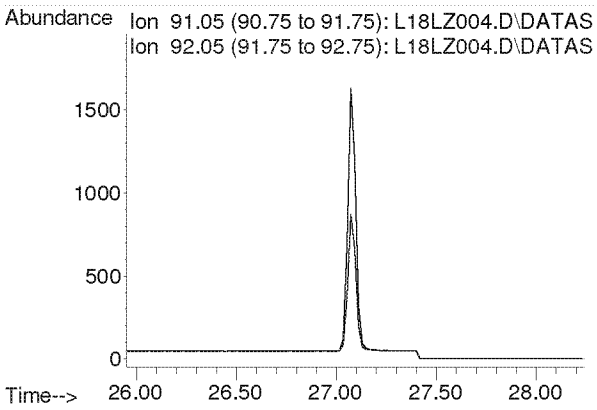


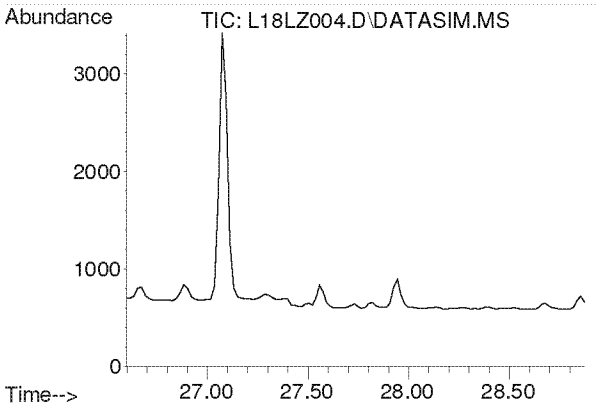
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



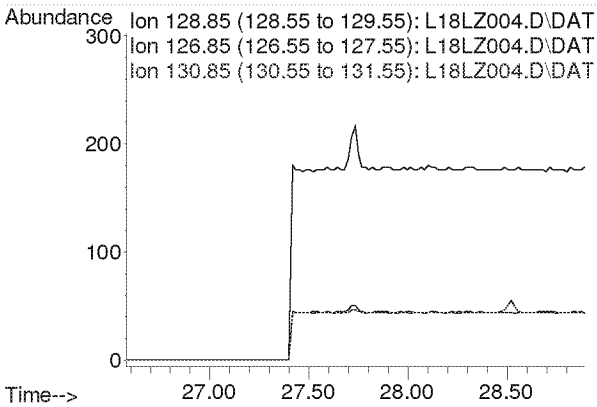


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

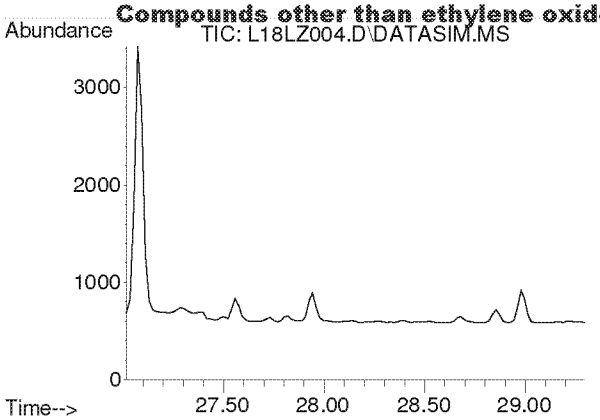
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

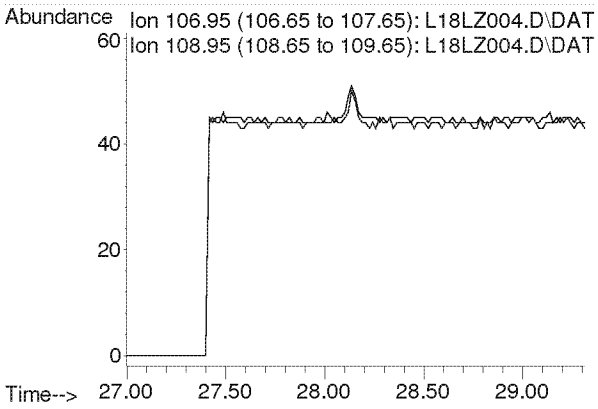


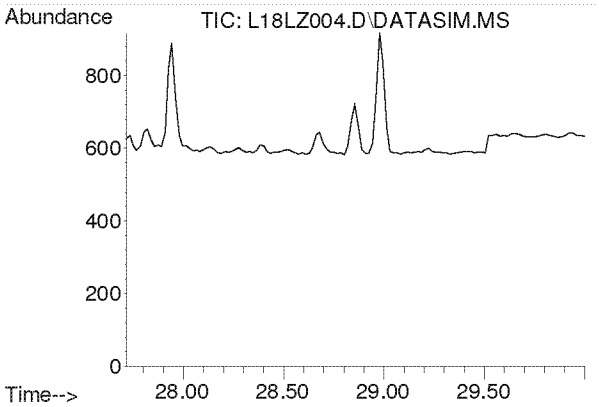
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



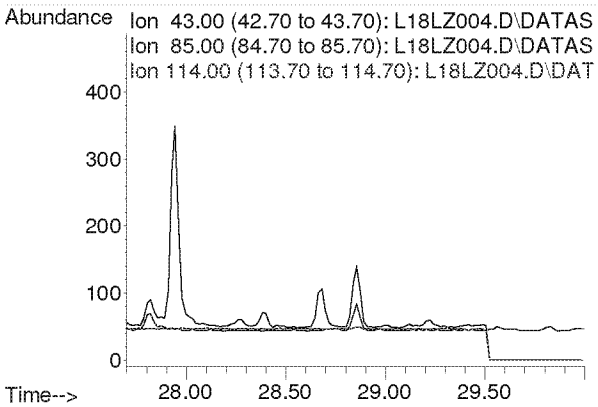


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

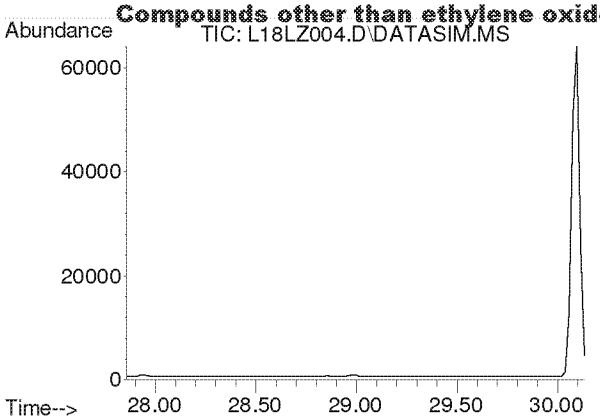
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

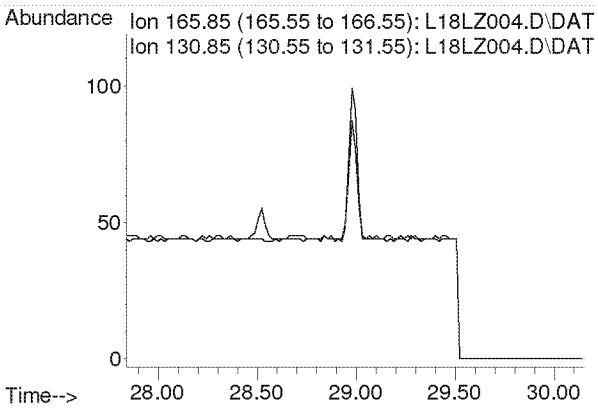


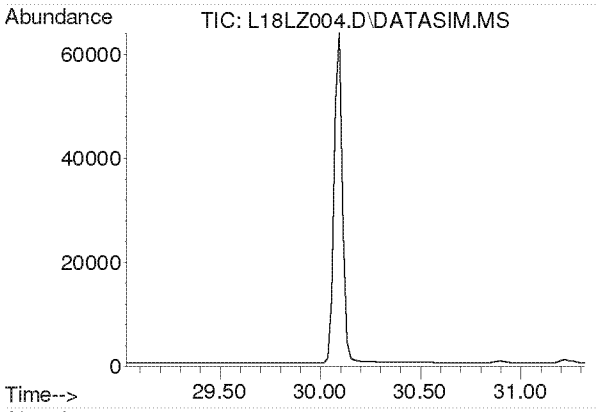
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



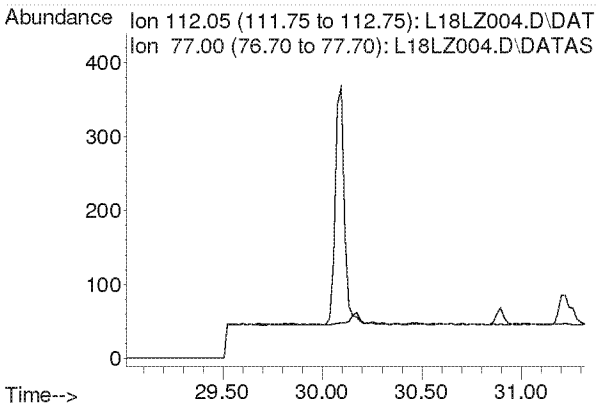


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

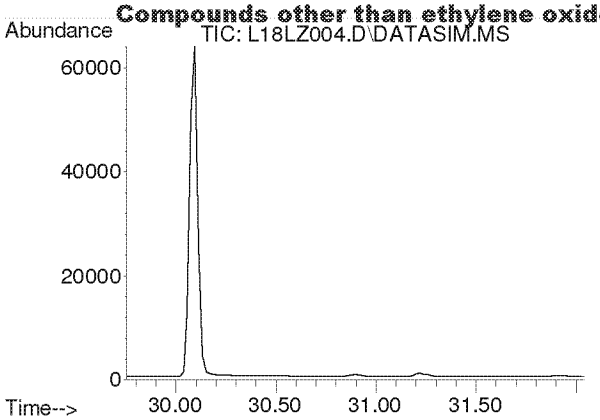
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

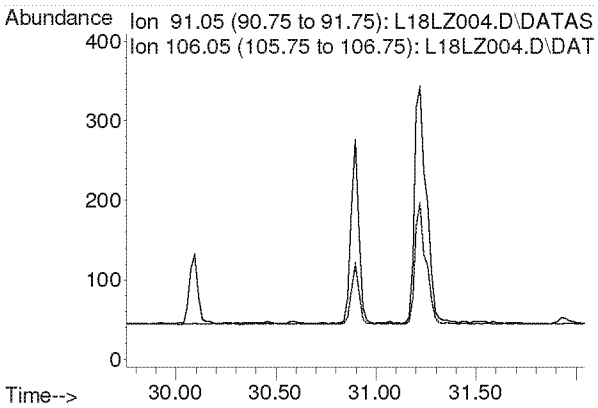


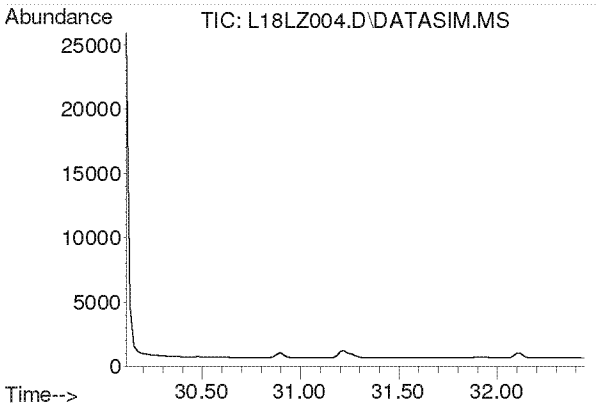
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



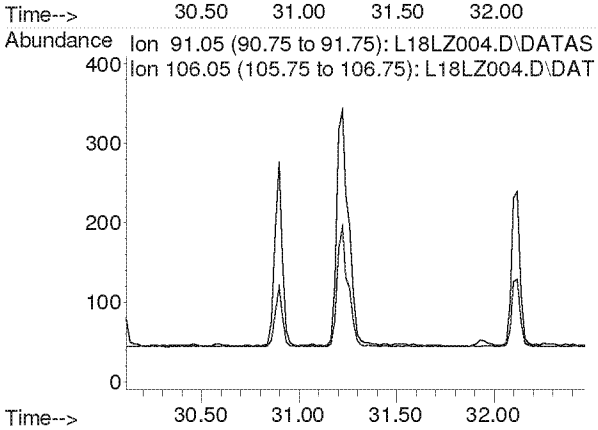


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

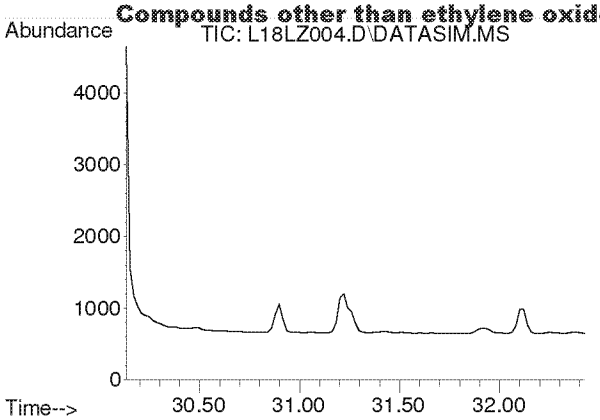
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

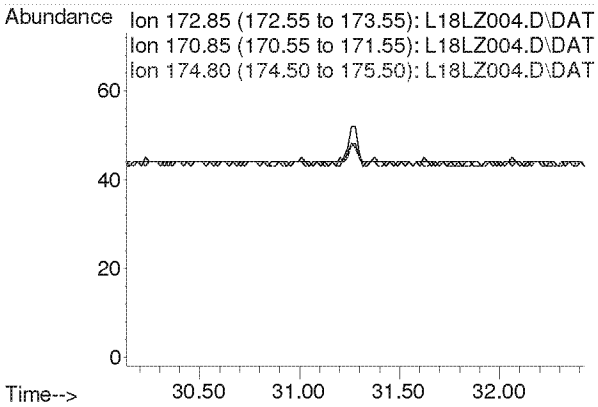


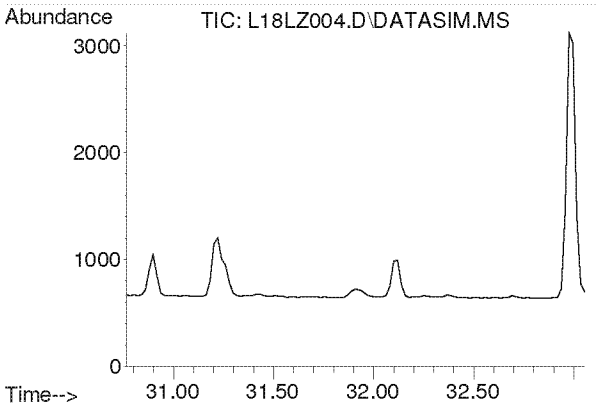
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



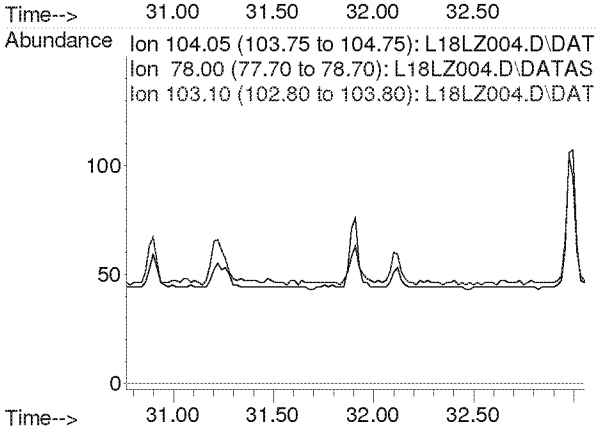


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

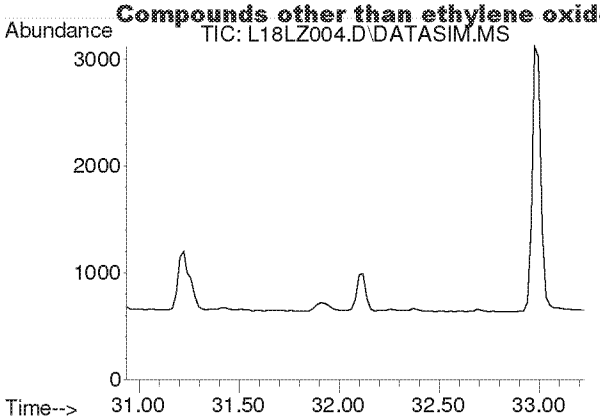
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

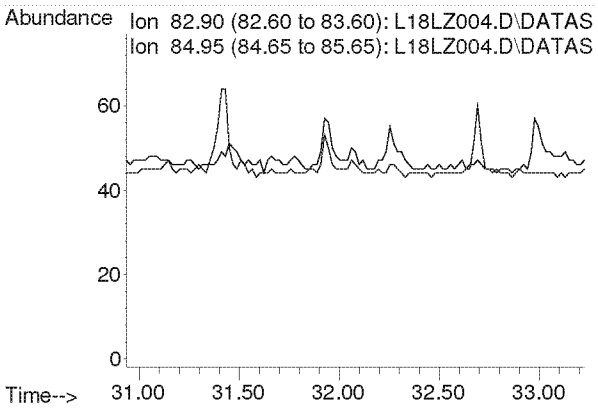


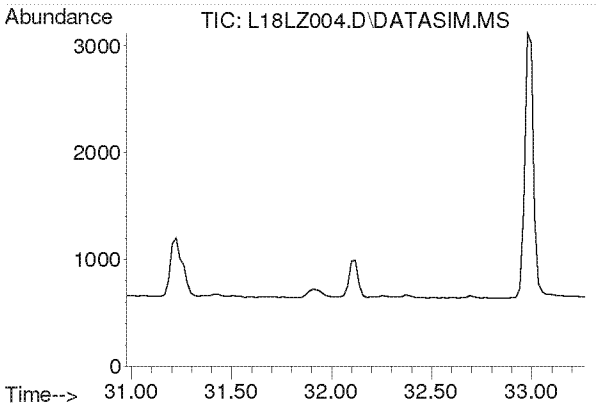
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



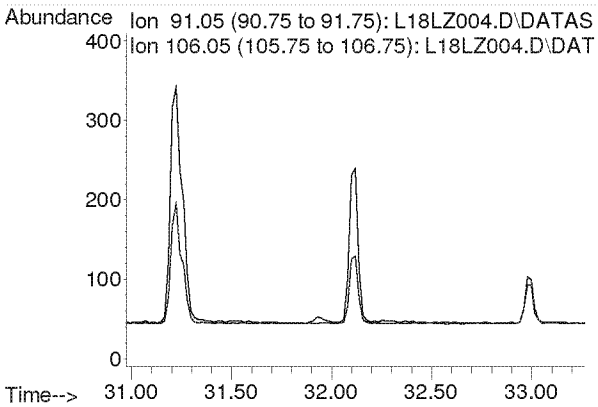


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

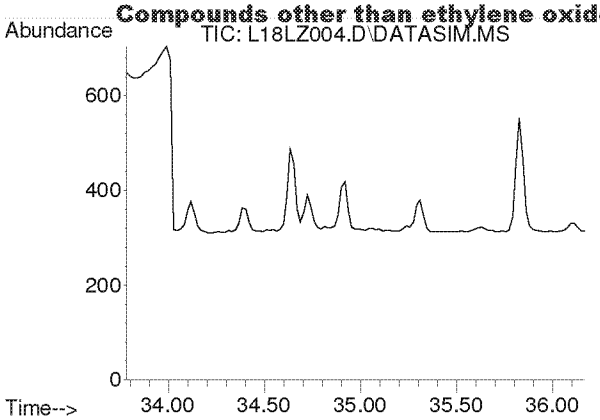
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

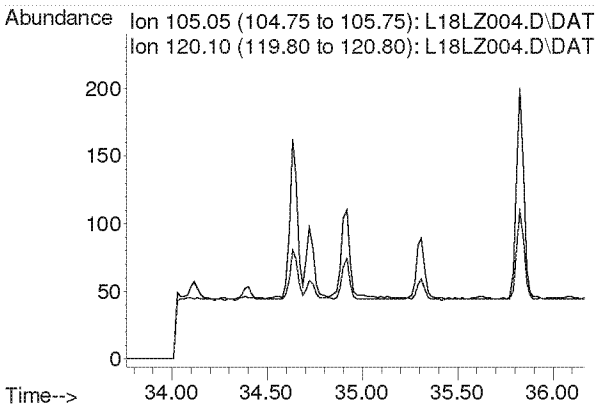


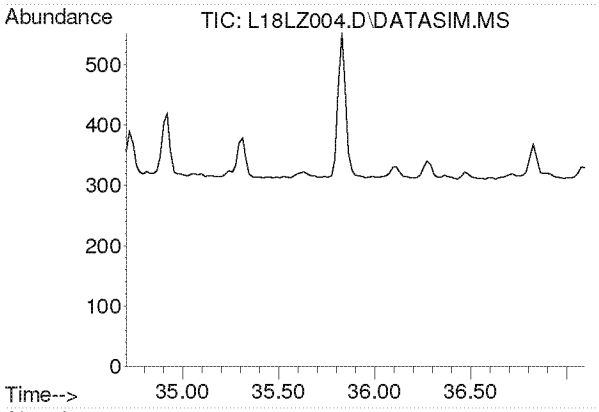
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



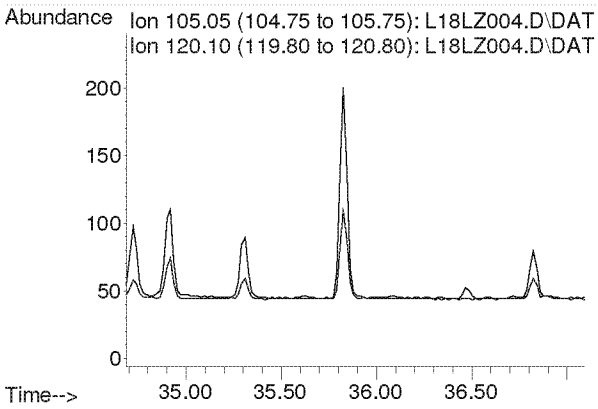


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

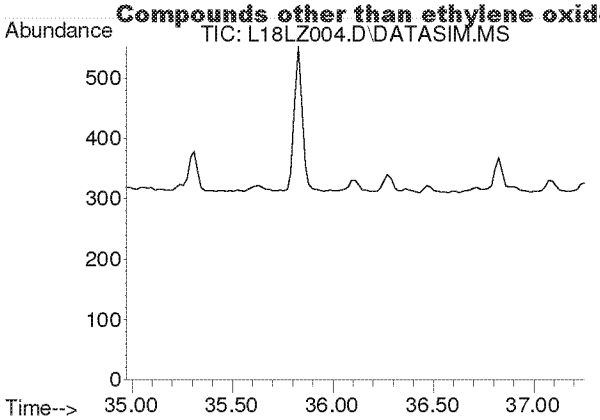
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

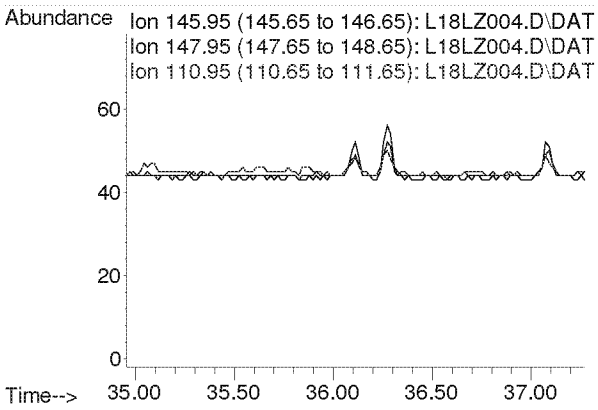


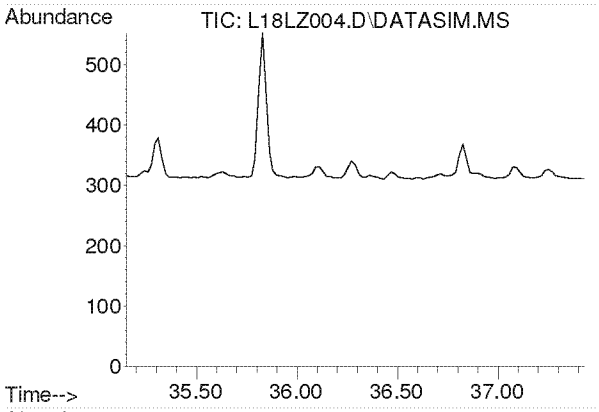
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



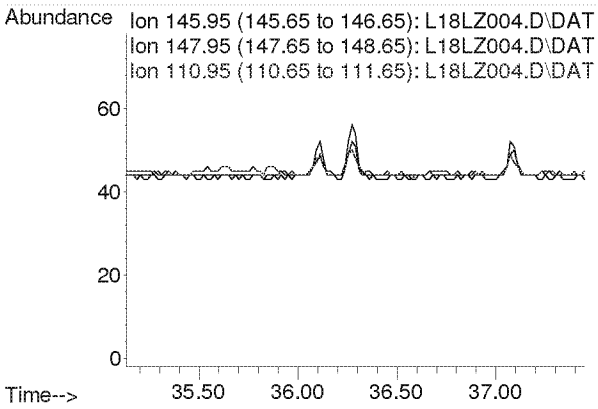


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

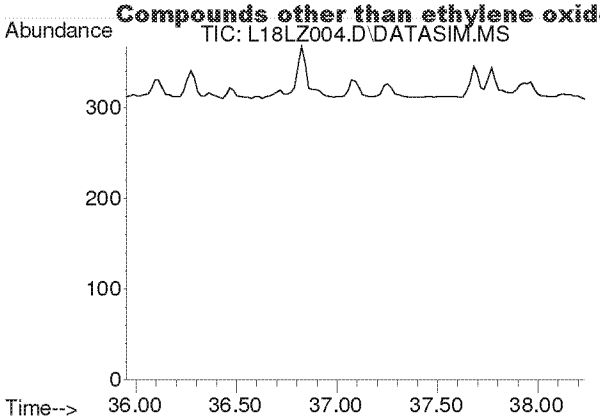
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

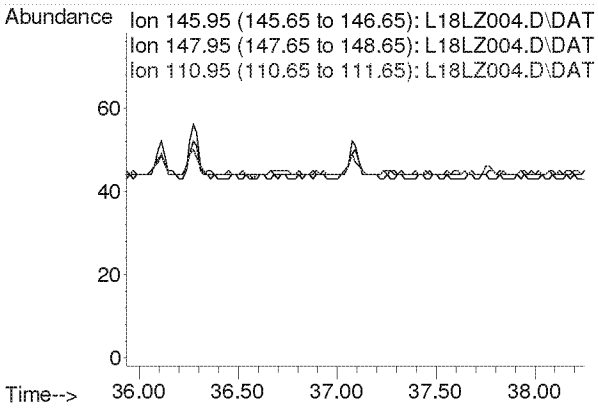


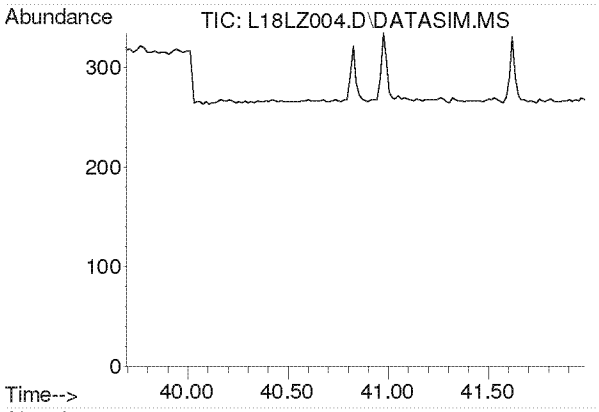
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



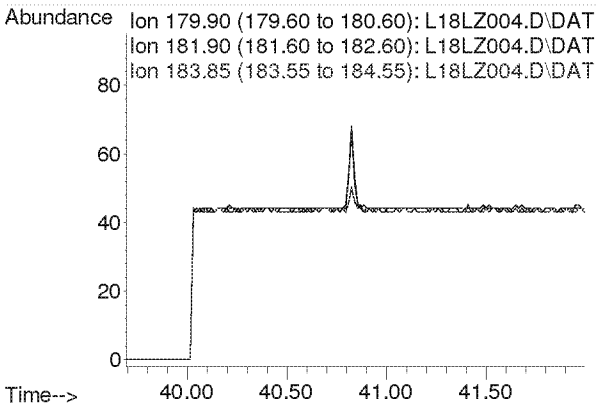


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

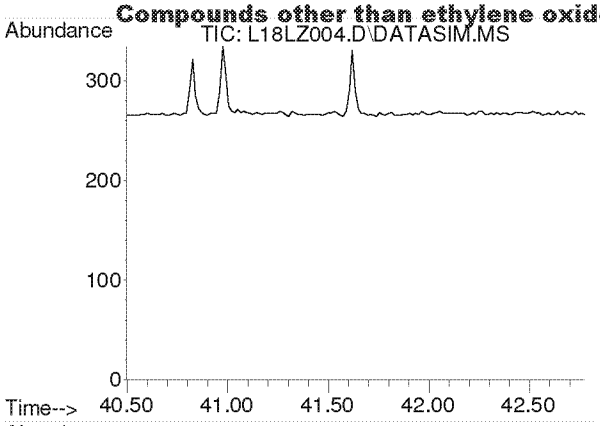
Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.1
184	30.7



Compounds other than ethylene oxide were not quantitated.

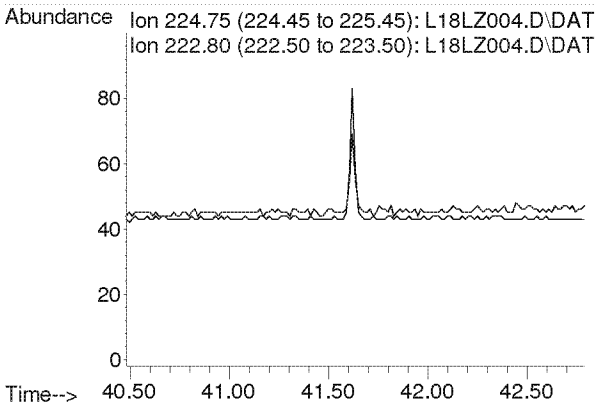


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18LZ004.D
Acq: 26 Dec 2018 2:27 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\L18LZ\
Data File : L18LZ005.D
Acq On : 26 Dec 2018 3:29 pm
Operator : MAH
Sample : 8121130-15
Misc : GOWER MS 12/8/18
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 03 11:10:19 2019
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

EPOX only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	62164	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	149066	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	107206	4.7400 ppbv	0.00

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. 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. 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\L18LZ\
Data File : L18LZ005.D
Acq. On : 26 Dec 2018 3:29 pm
Operator : MAH
Sample : 8121130-15
Misc : GOWER MS 12/8/18
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 03 11:10:19 2019
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.	d
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

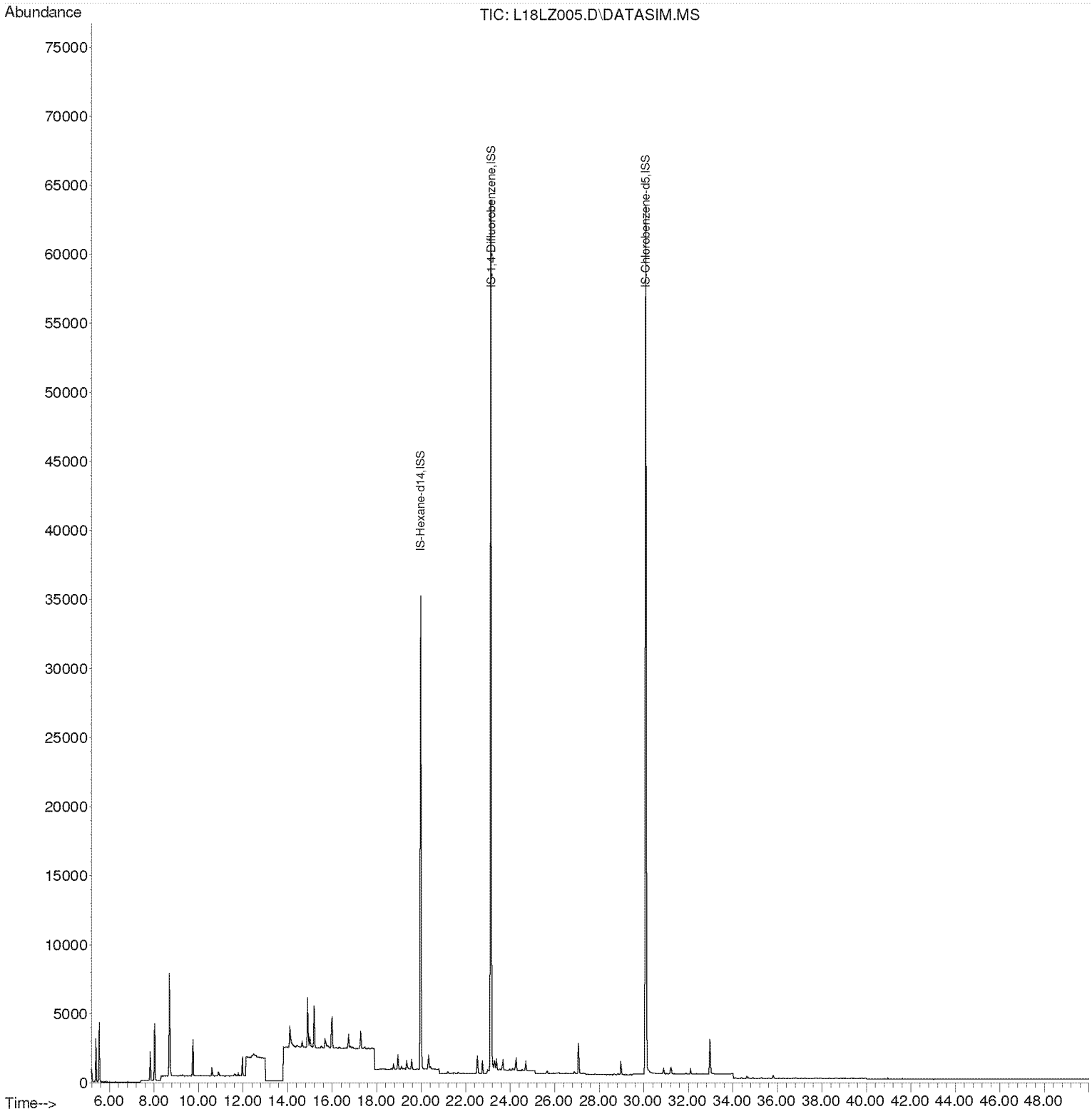
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000324-00115

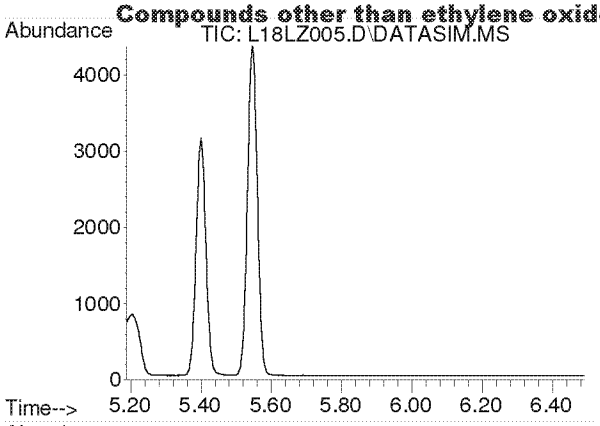
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ005.D
Acq On : 26 Dec 2018 3:29 pm
Operator : MAH
Sample : 8121130-15
Misc : GOWER MS 12/8/18
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 03 10:24:17 2019
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



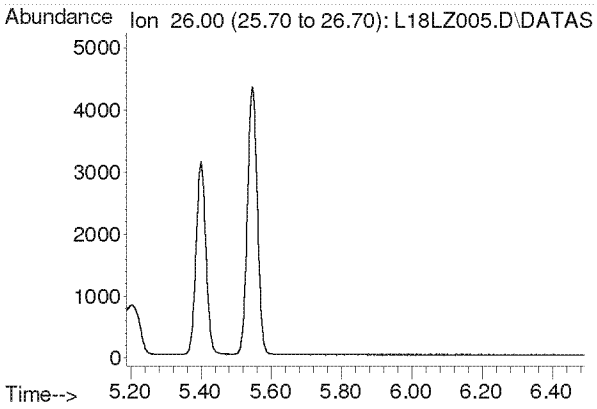
Compounds other than ethylene oxide were not quantitated.

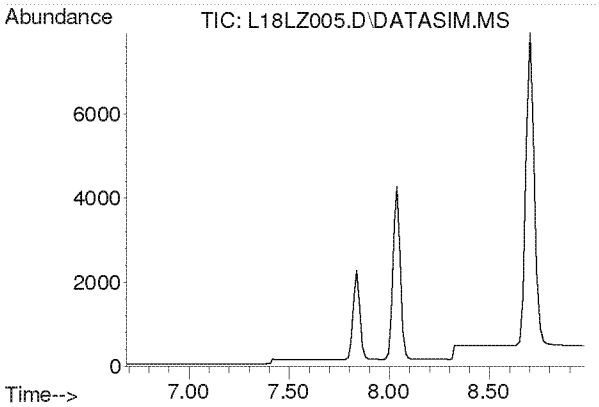


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 26



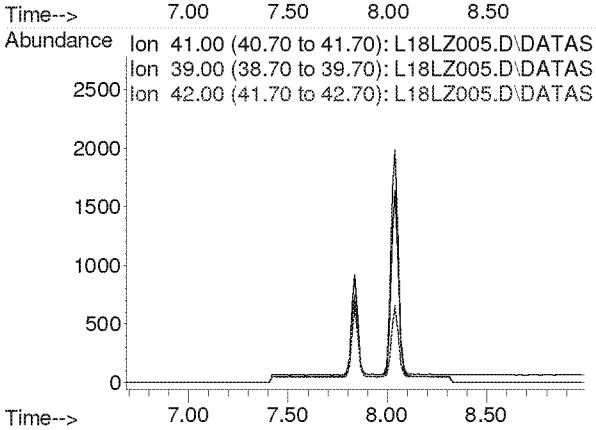


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

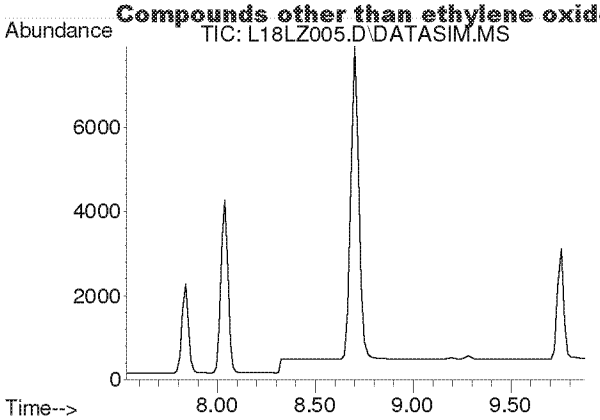
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

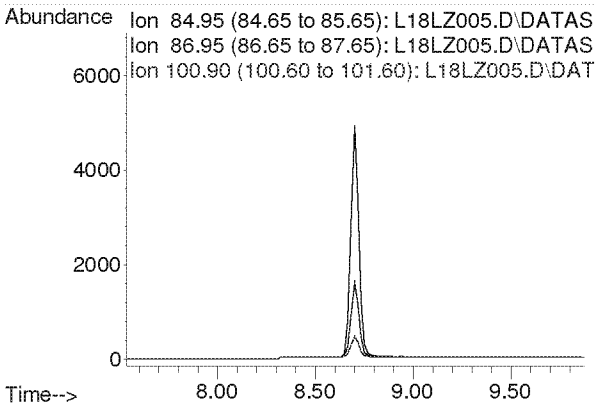


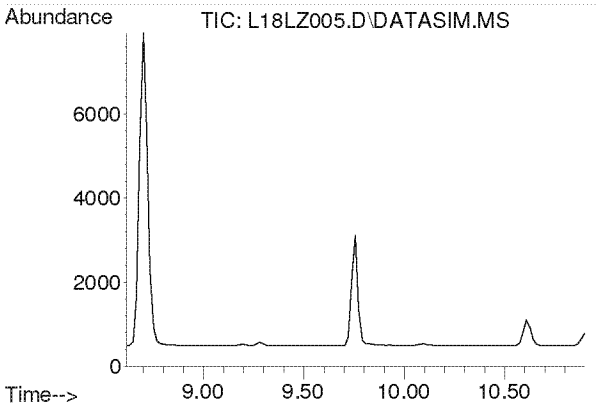
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



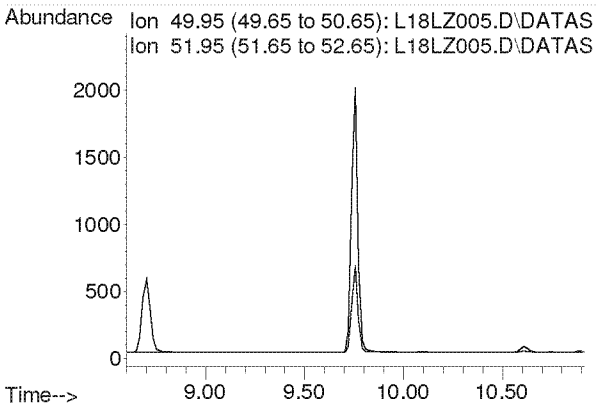


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

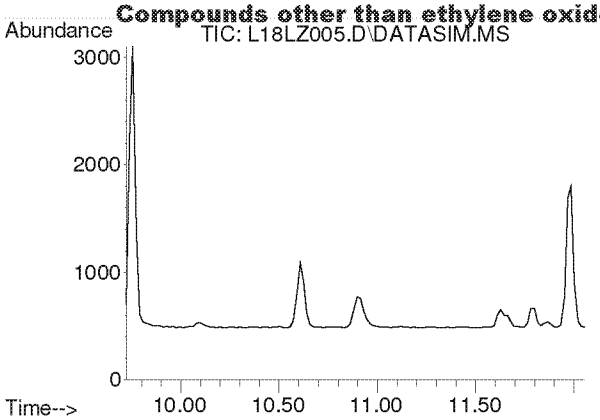
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

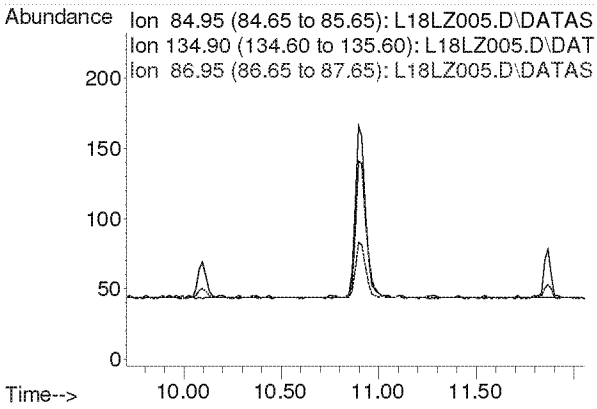


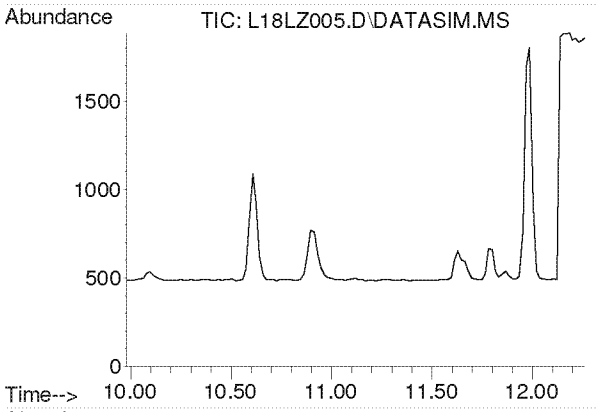
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



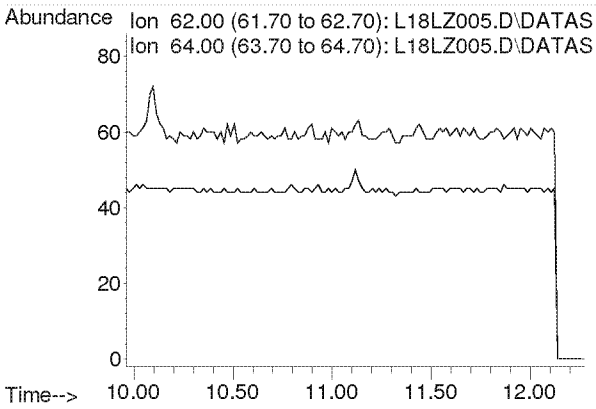


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

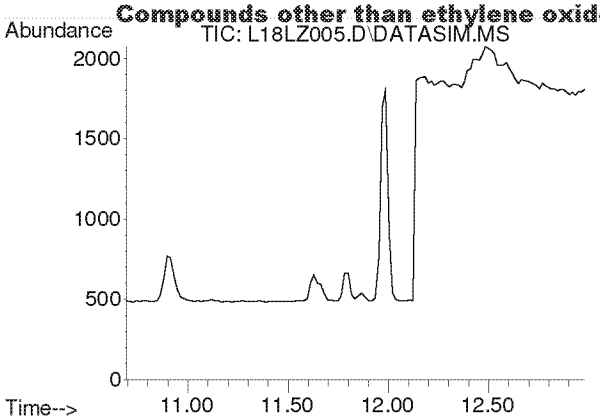
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

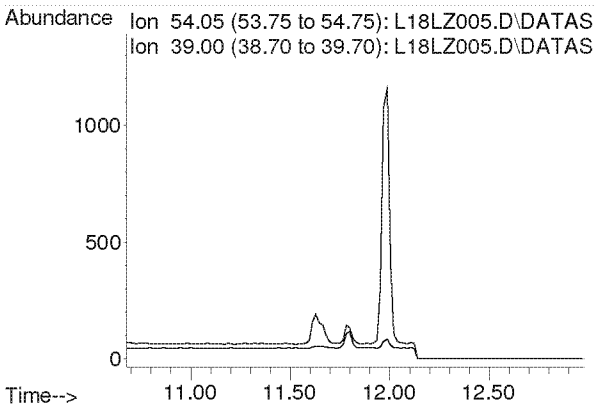


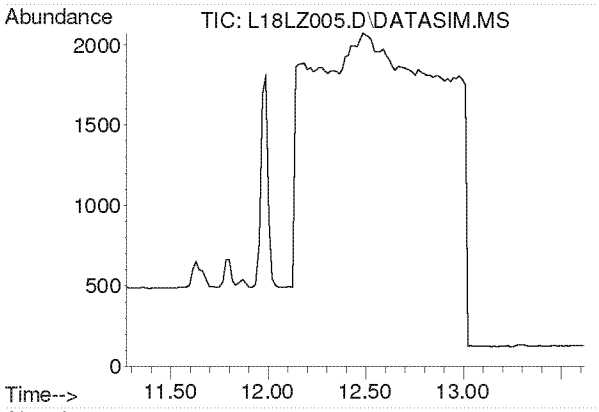
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4



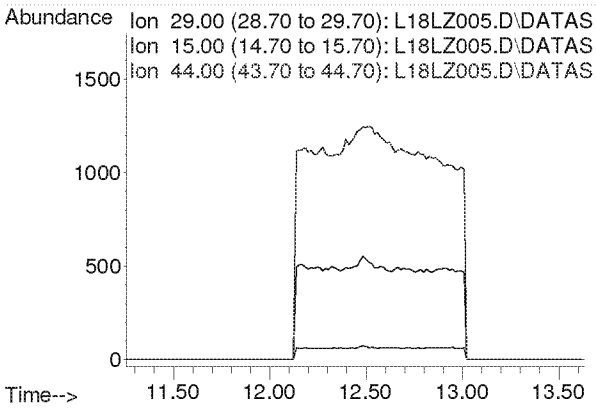


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

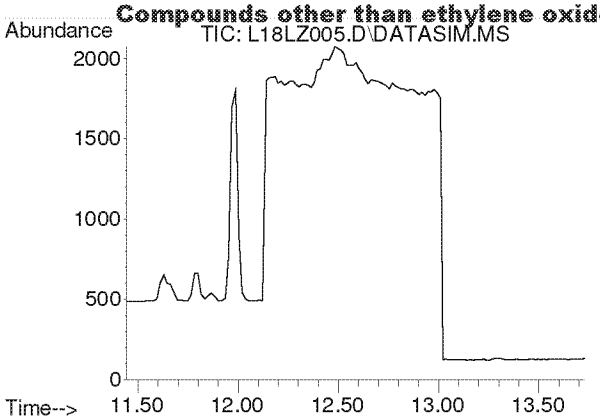
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.3
44	90.0



Compounds other than ethylene oxide were not quantitated.

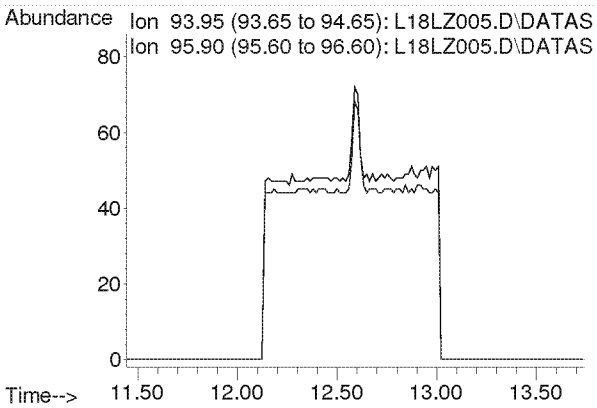


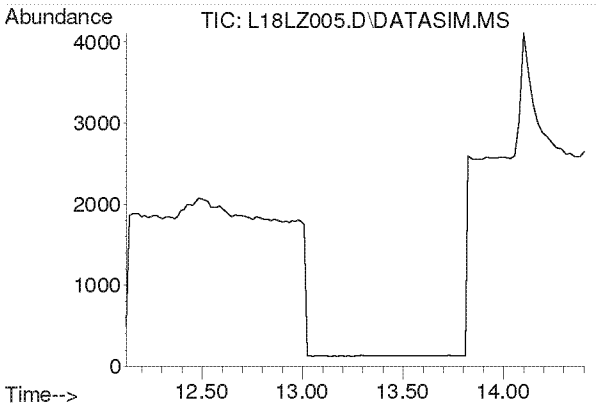
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



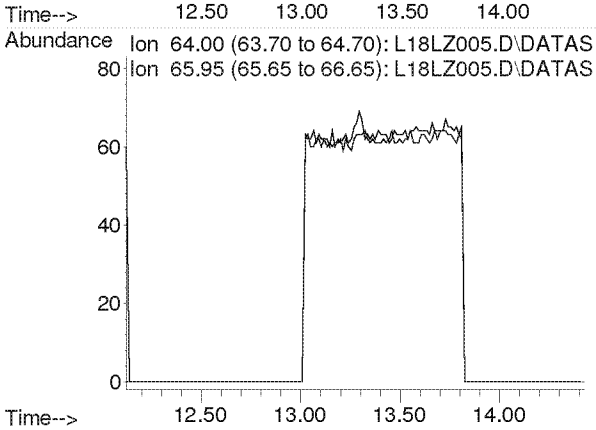


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

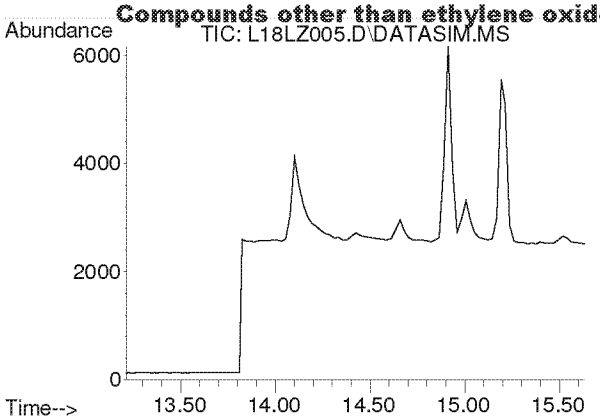
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

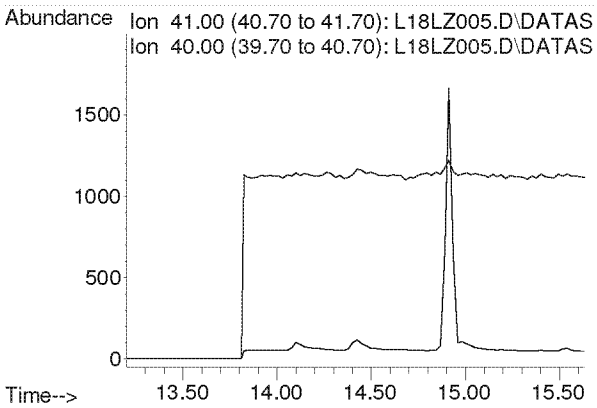


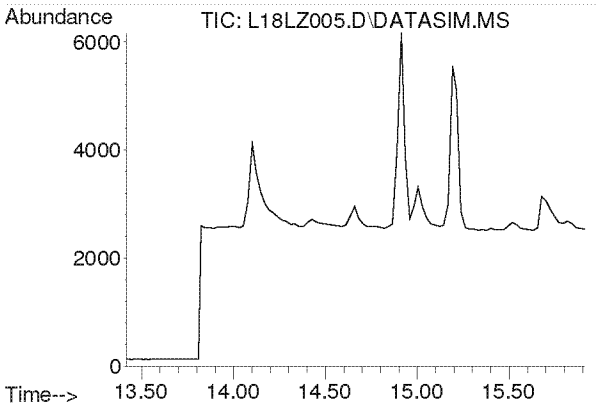
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



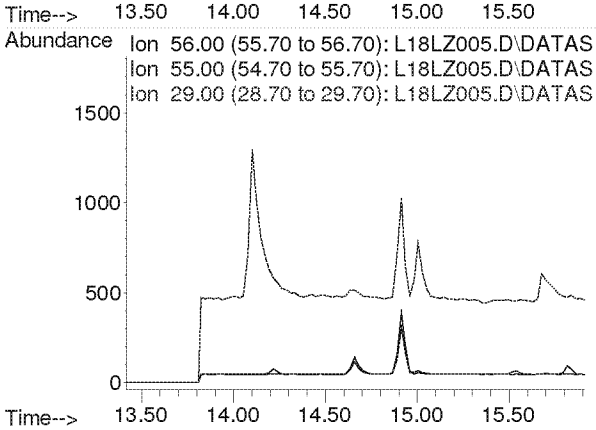


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

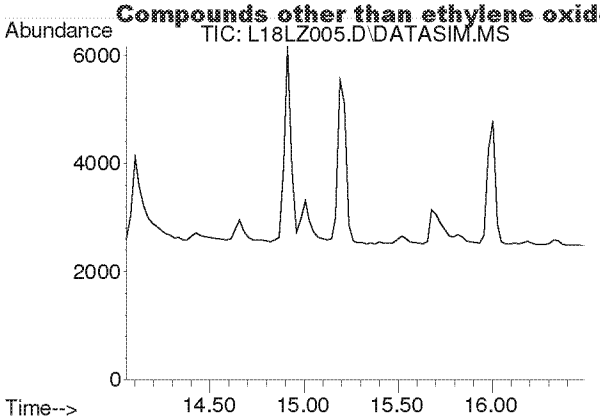
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

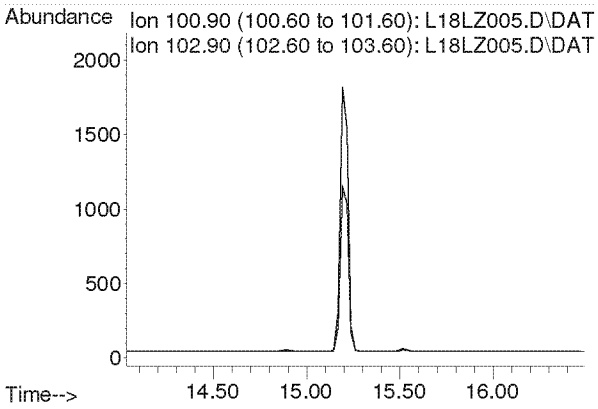


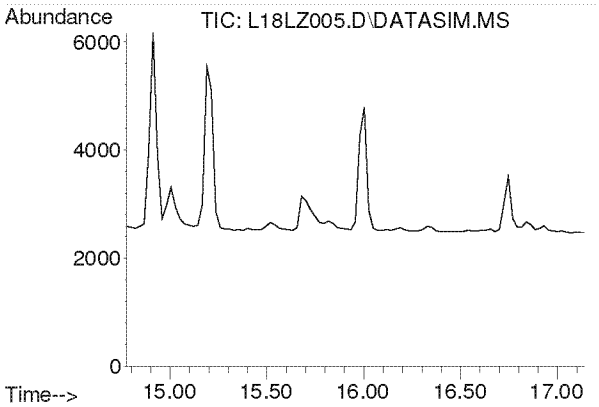
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



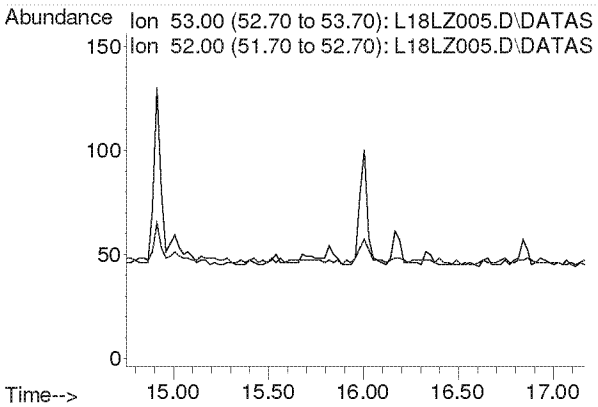


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

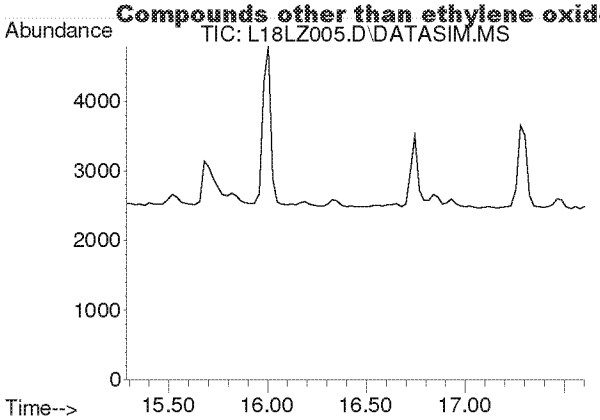
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

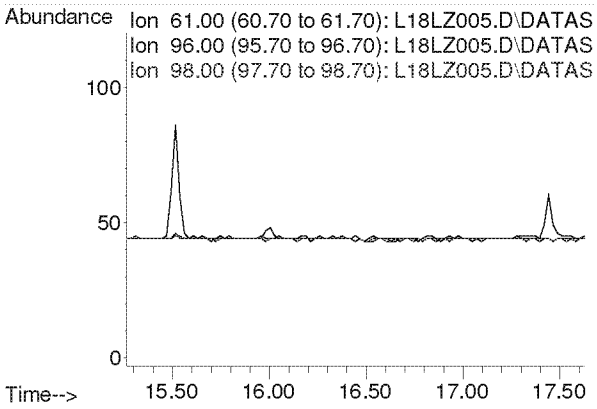


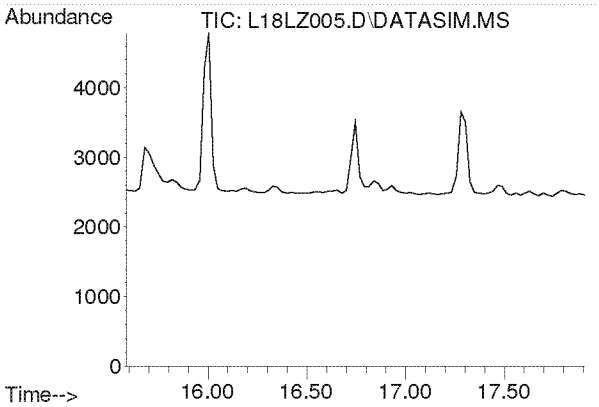
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



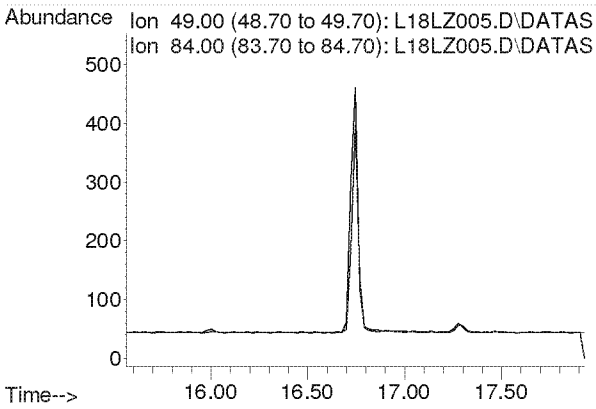


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

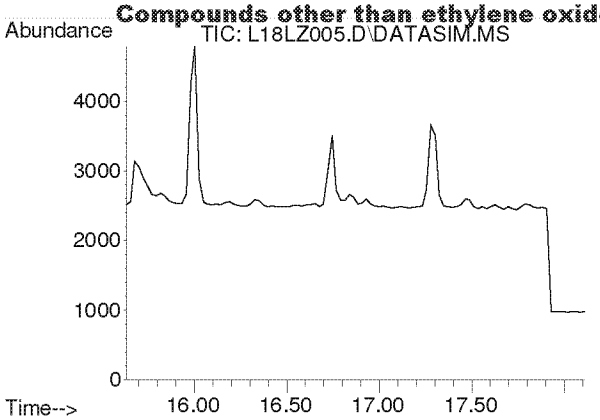
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

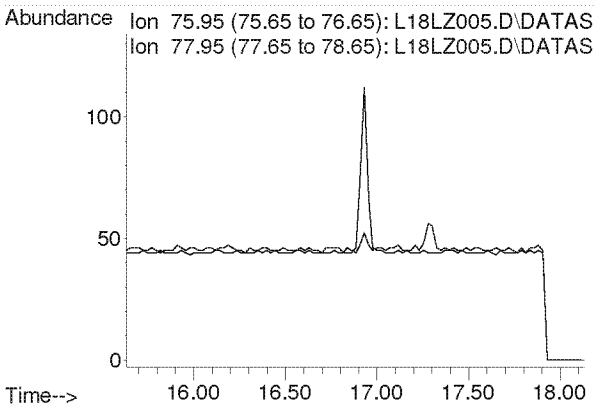


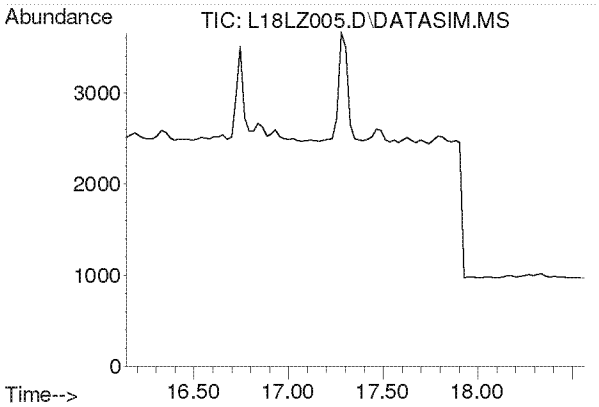
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



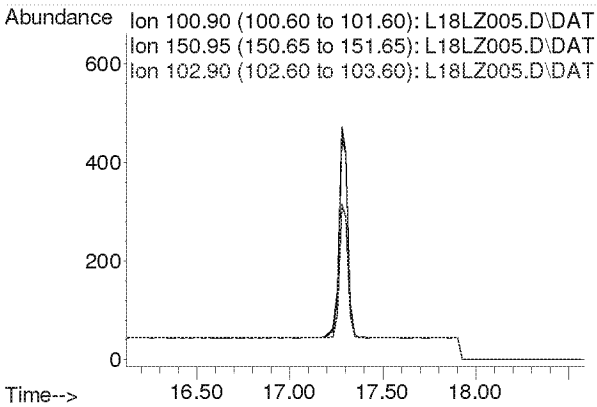


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

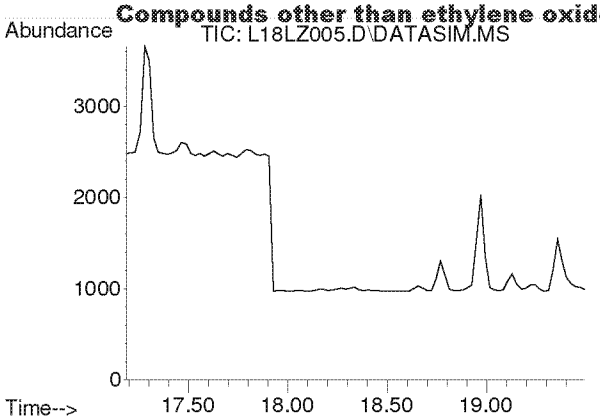
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

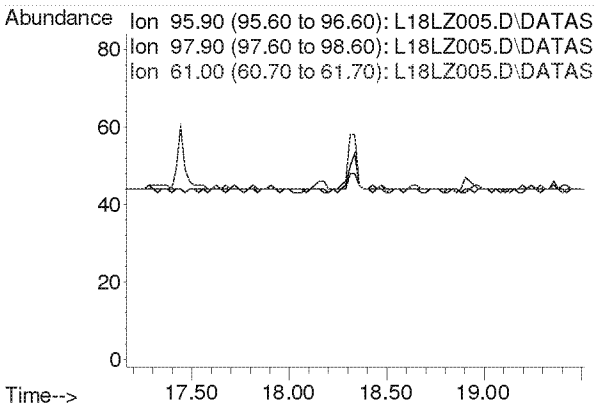


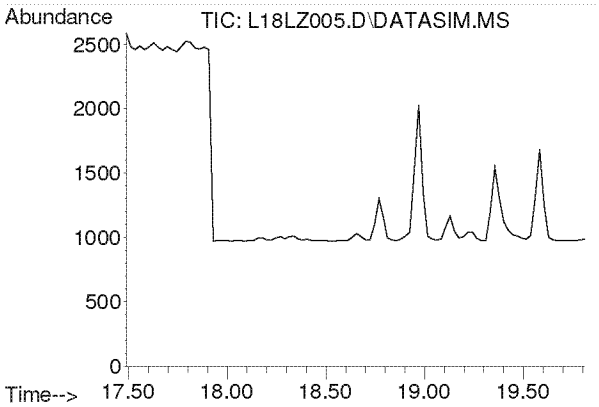
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



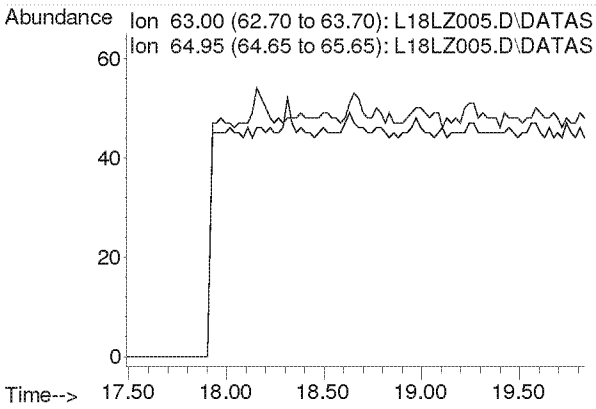


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

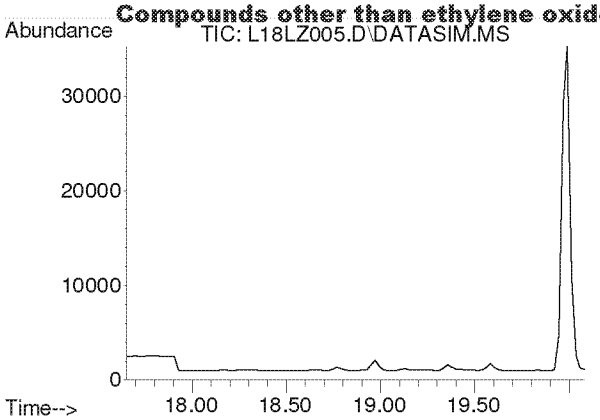
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

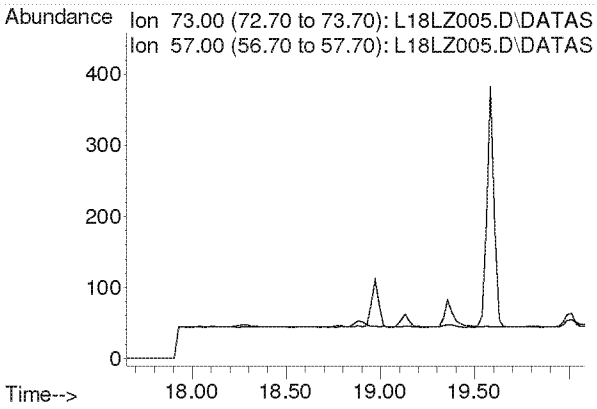


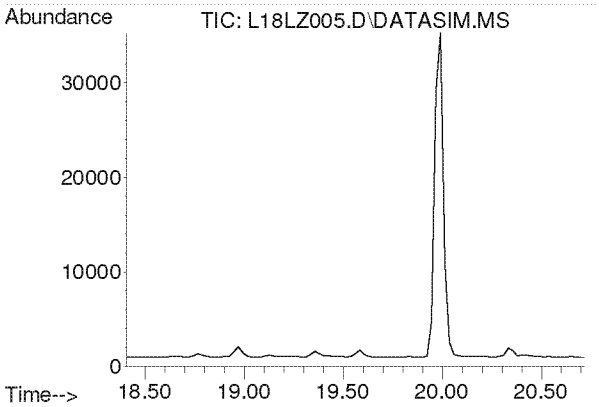
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



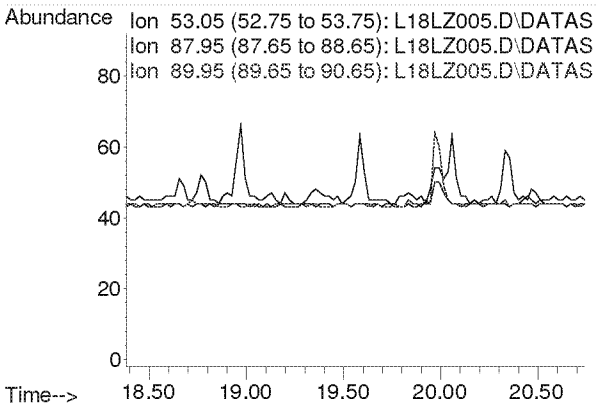


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

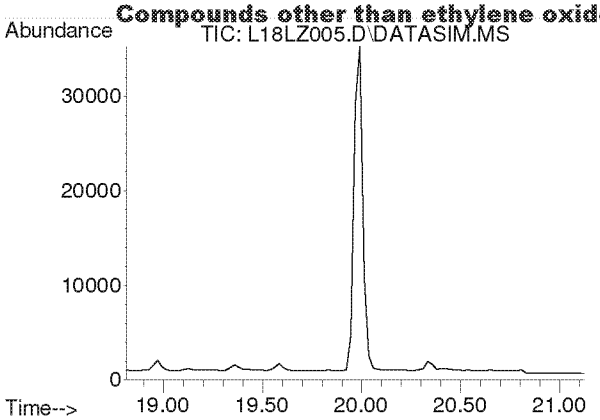
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

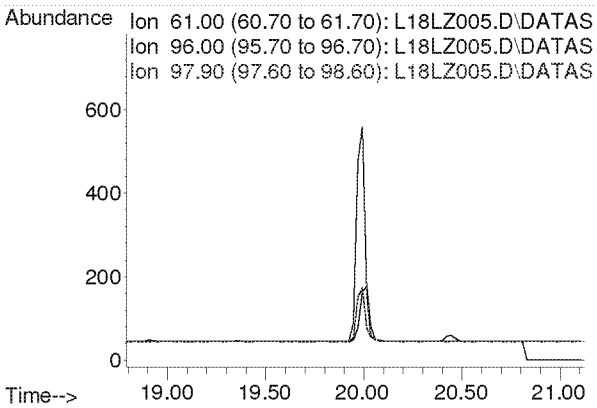


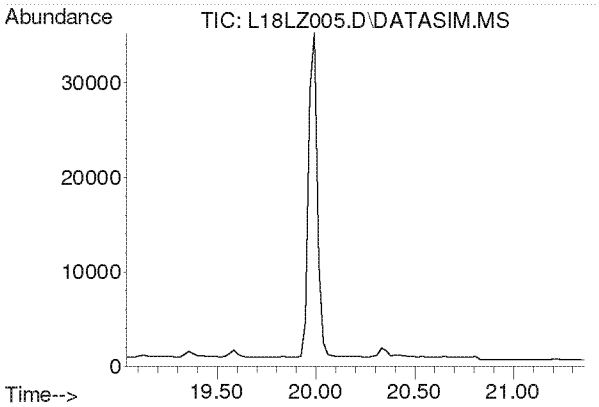
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



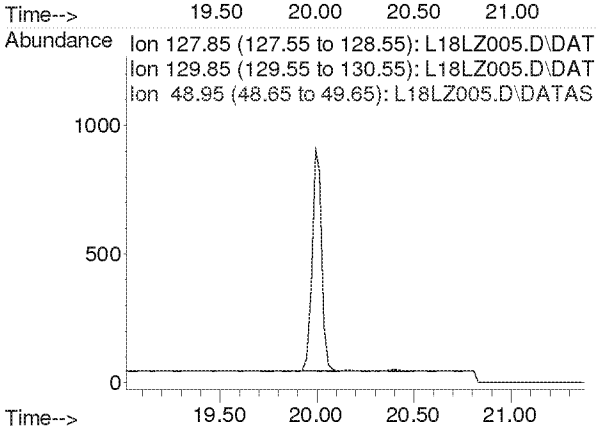


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

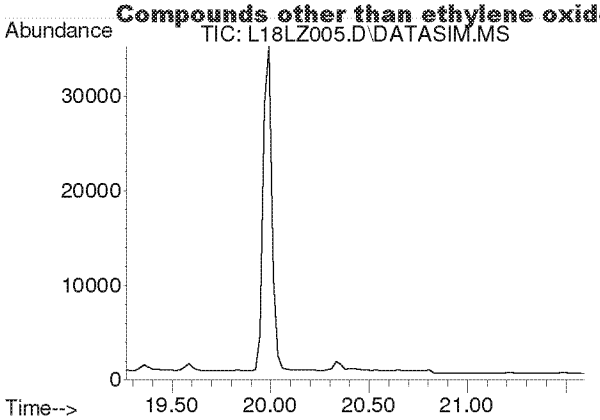
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

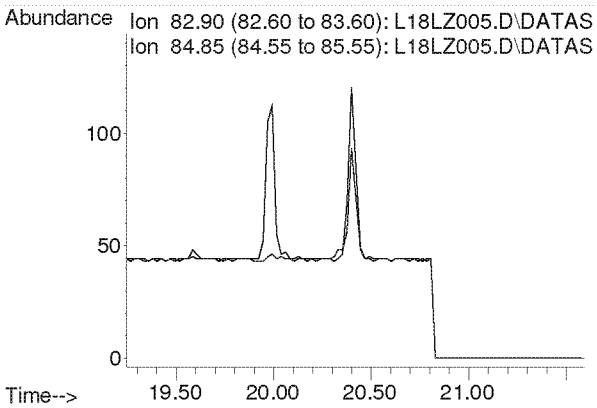


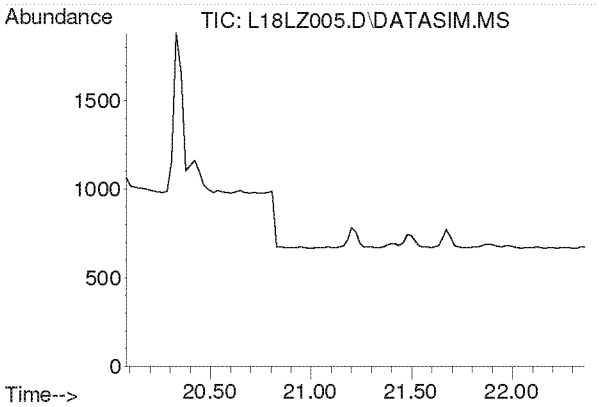
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



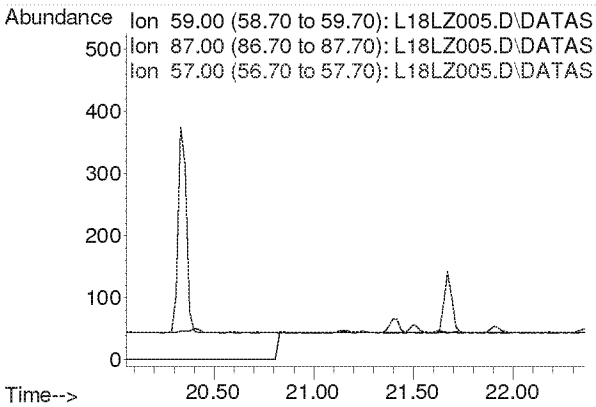


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

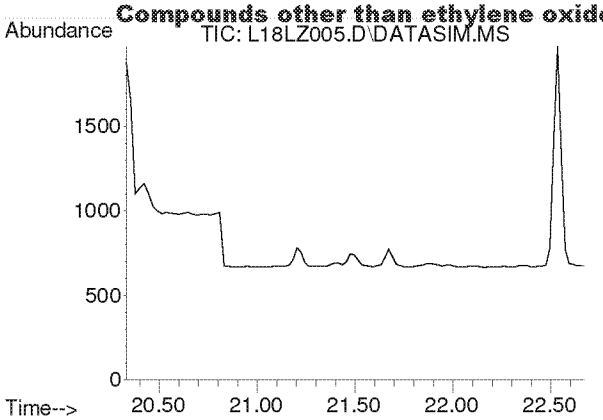
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

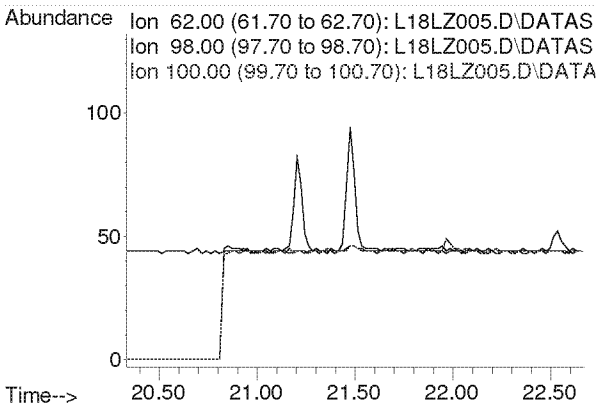


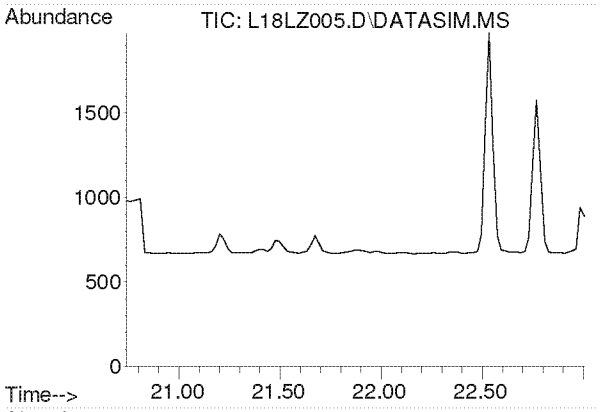
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



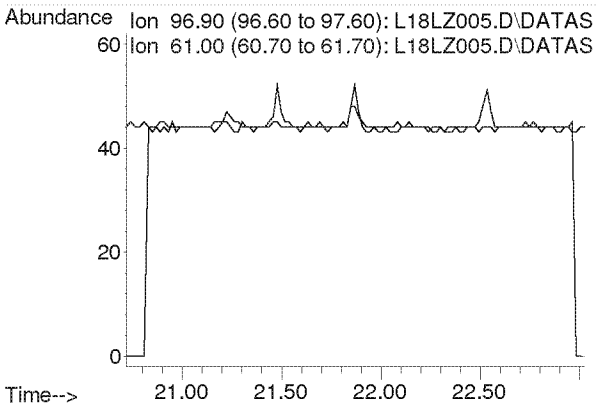


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

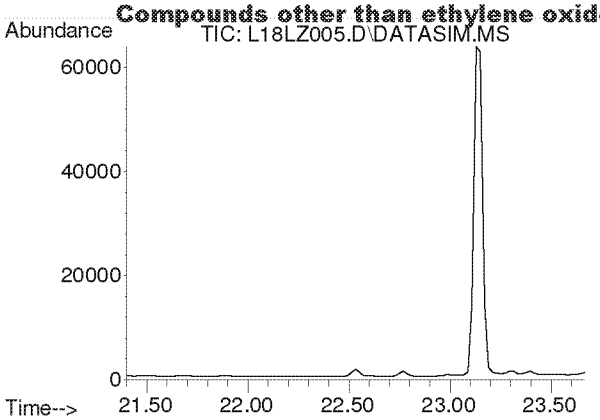
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

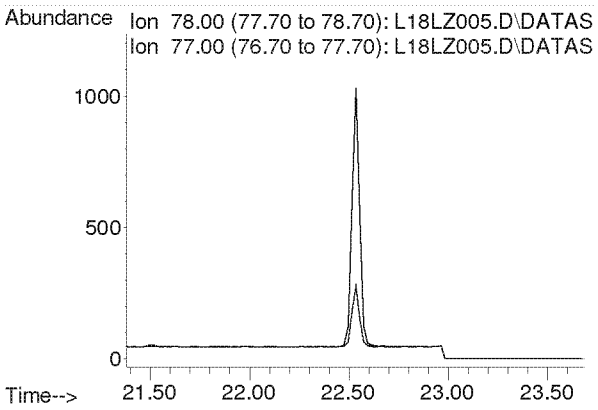


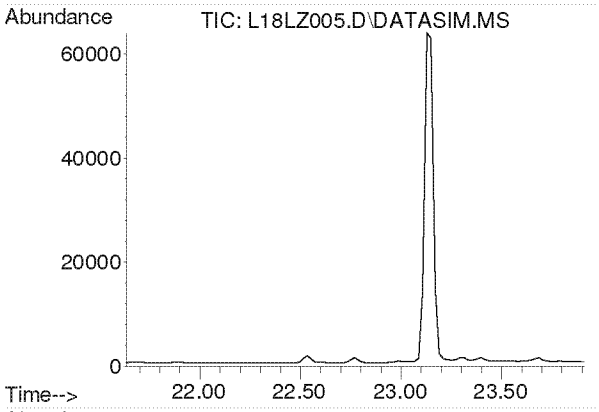
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



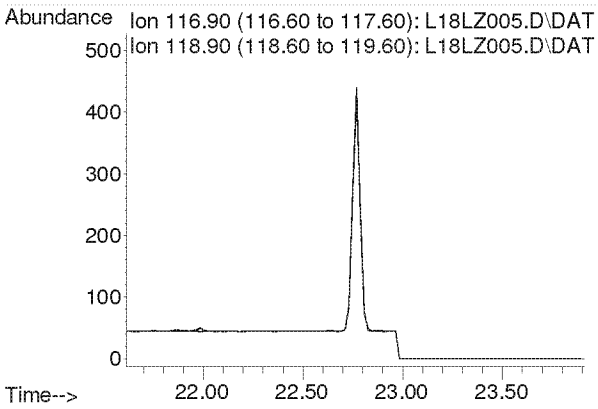


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

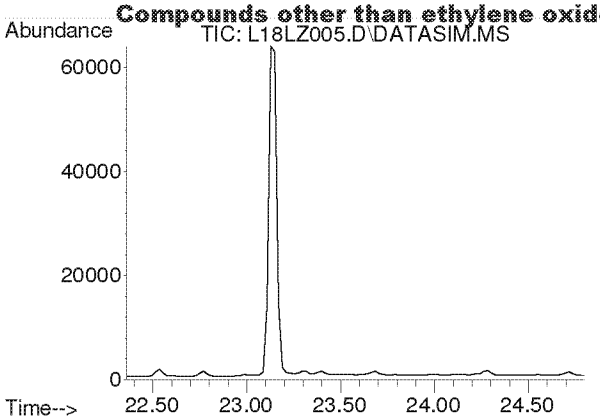
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

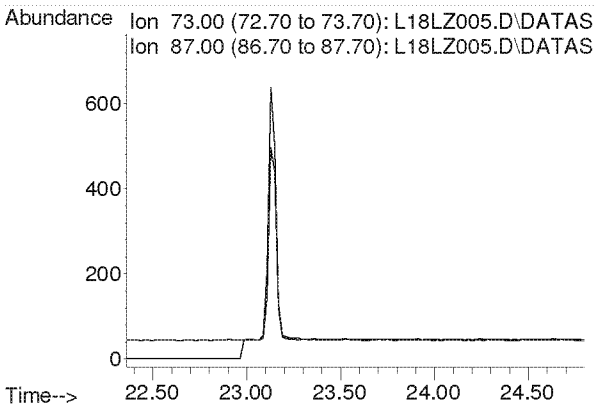


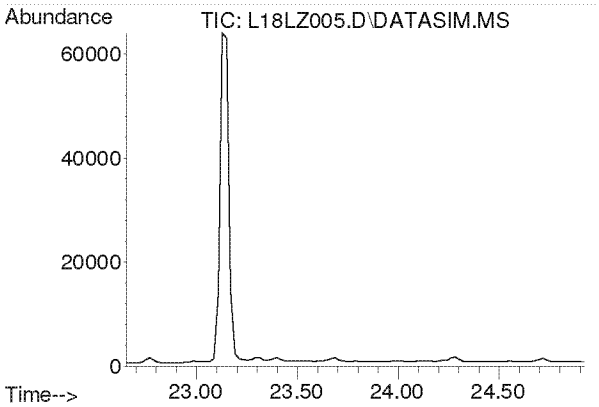
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



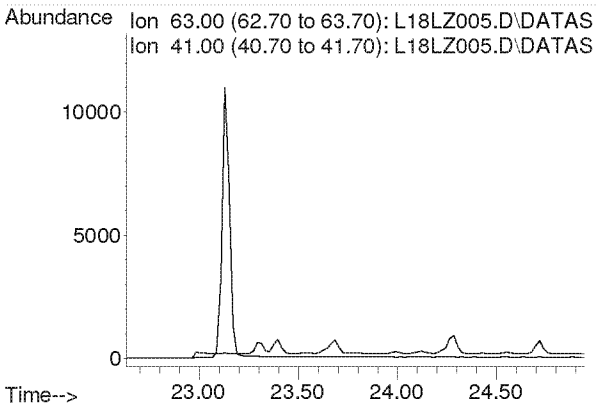


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

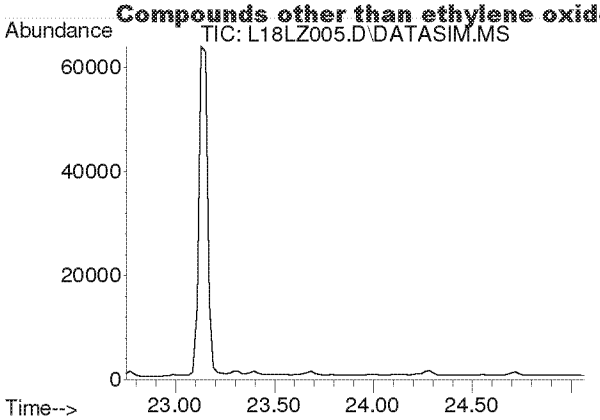
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

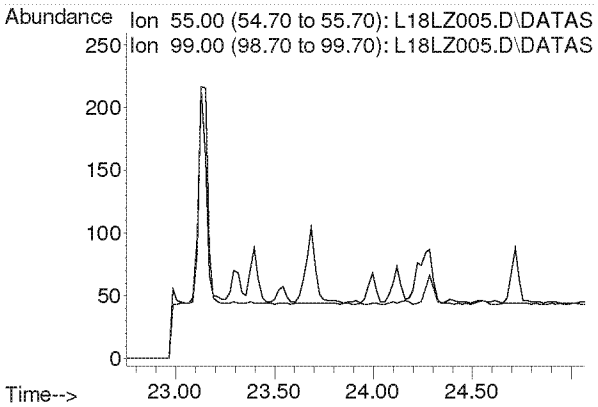


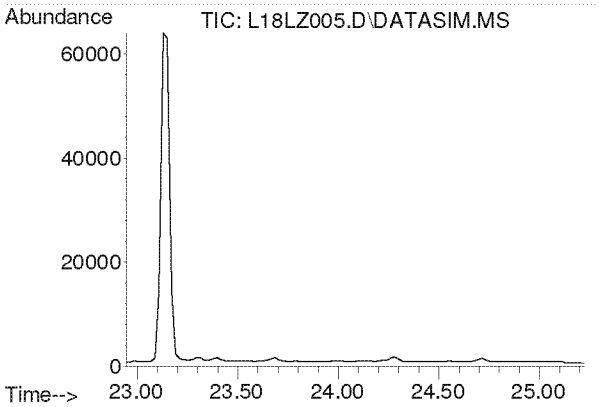
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



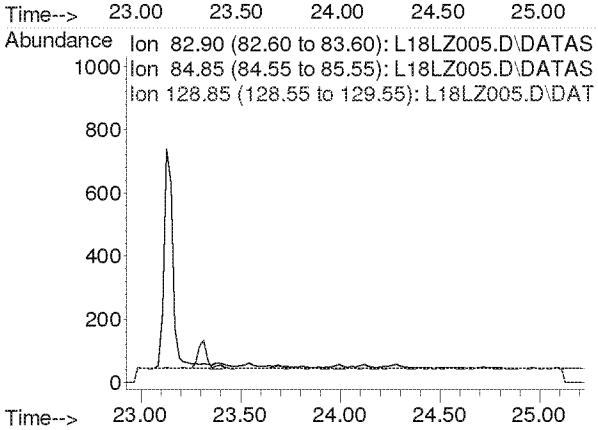


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

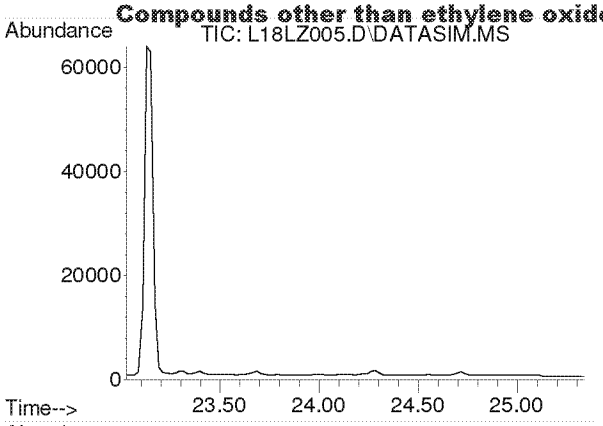
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

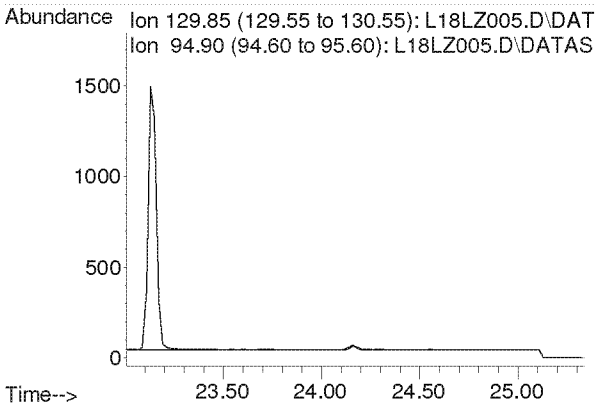


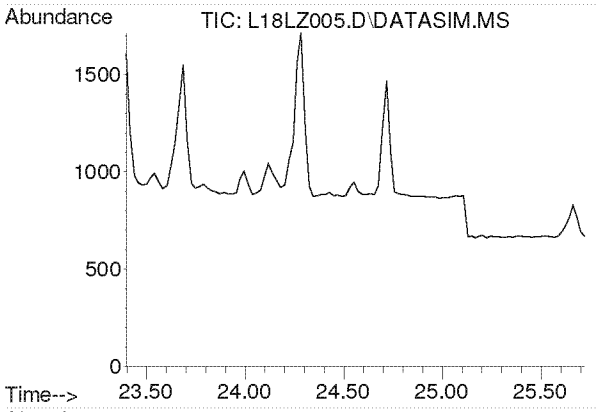
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



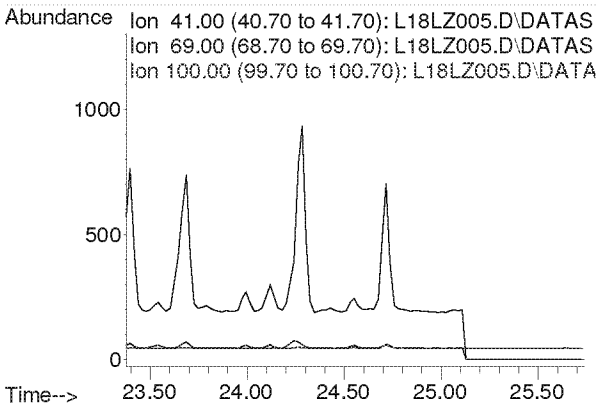


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

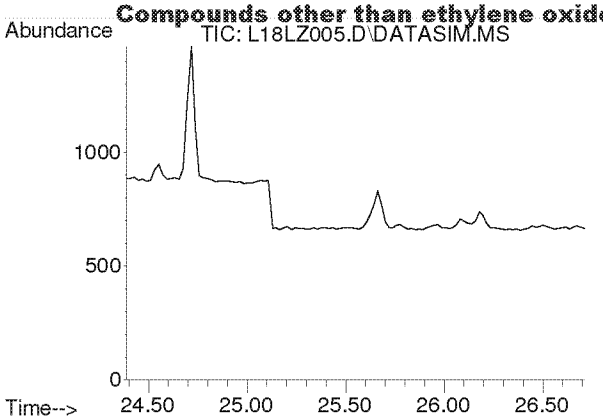
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

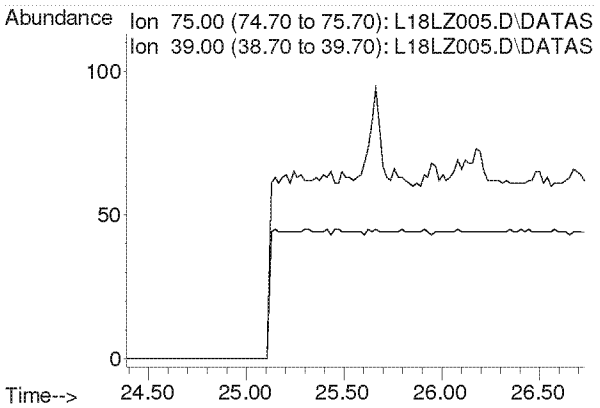


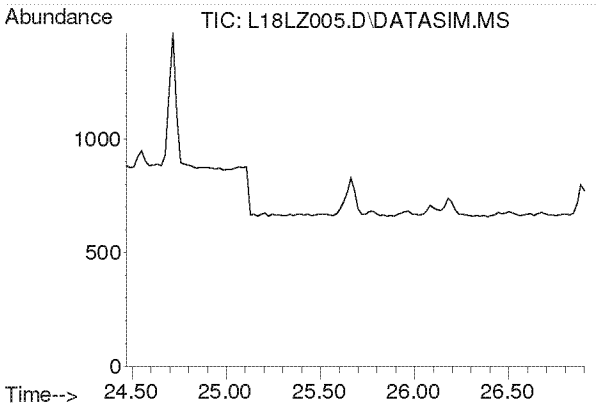
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



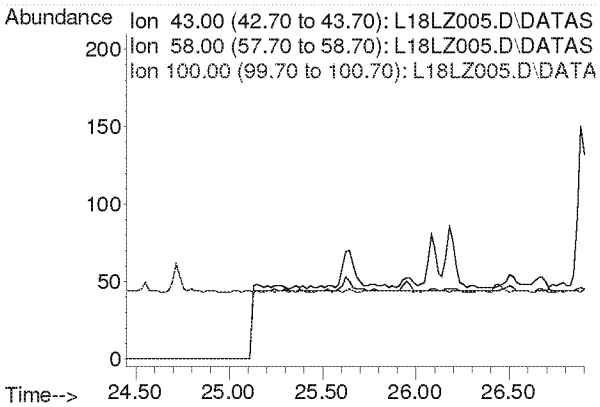


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

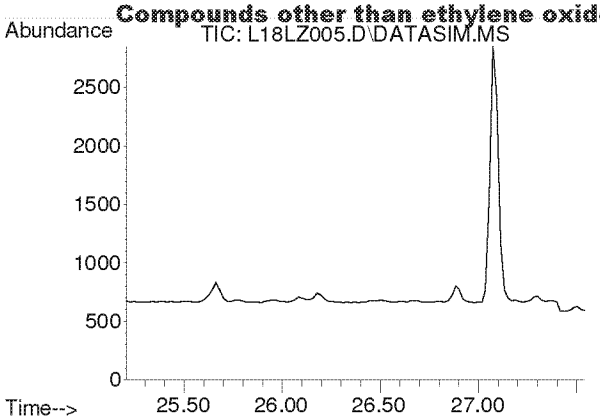
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

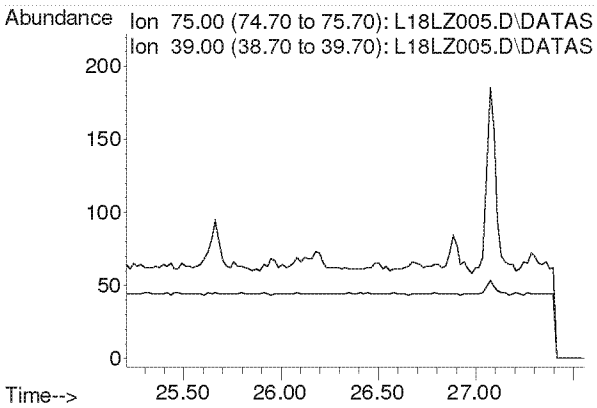


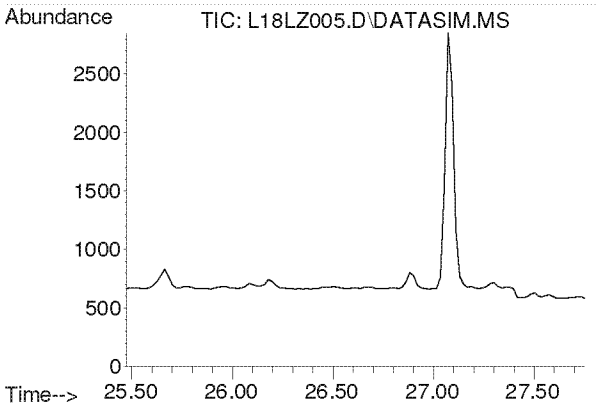
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



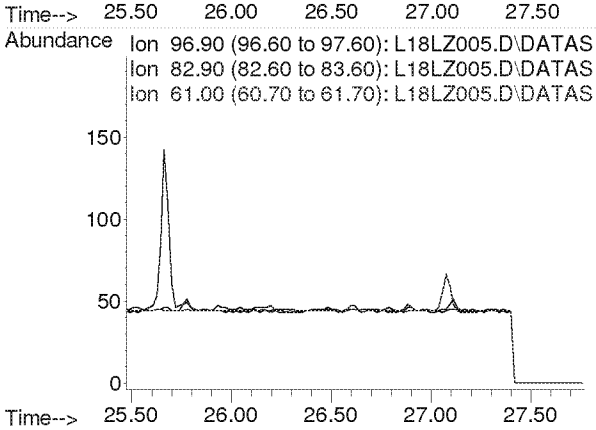


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

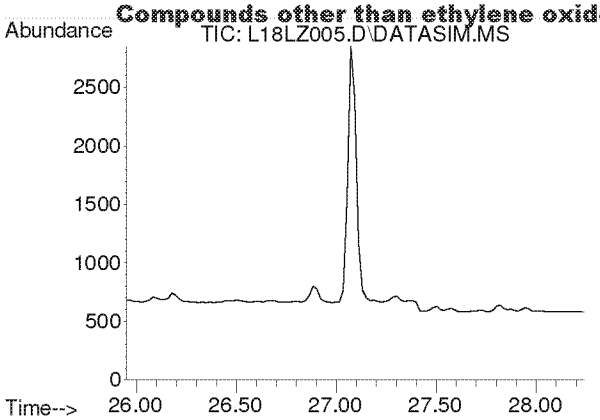
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

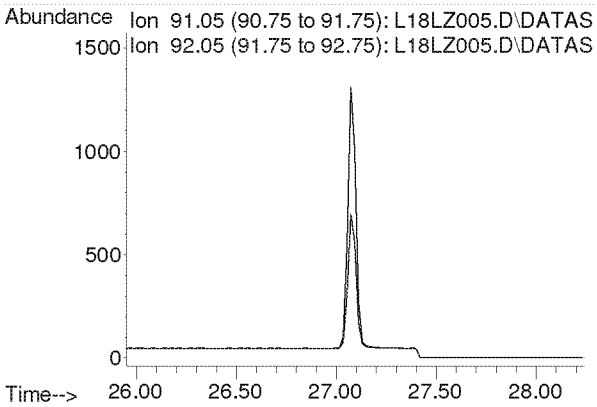


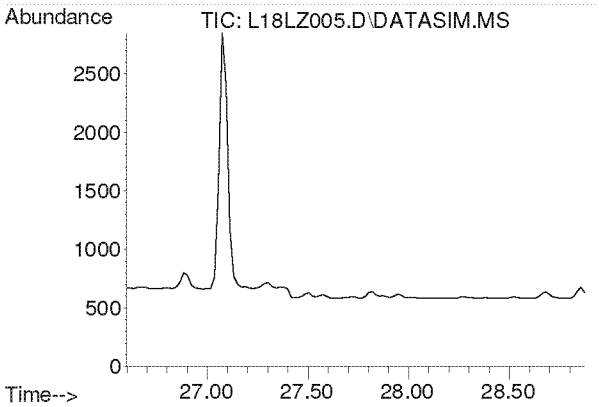
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



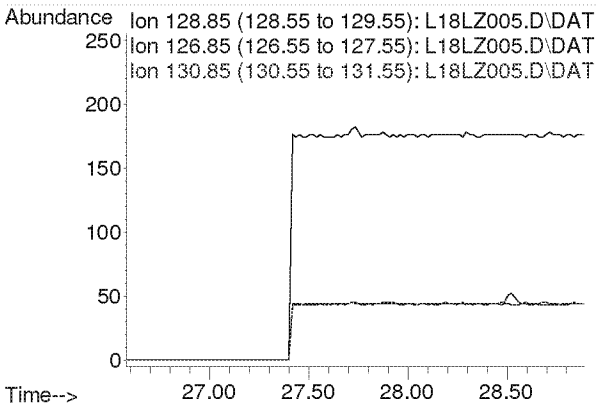


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

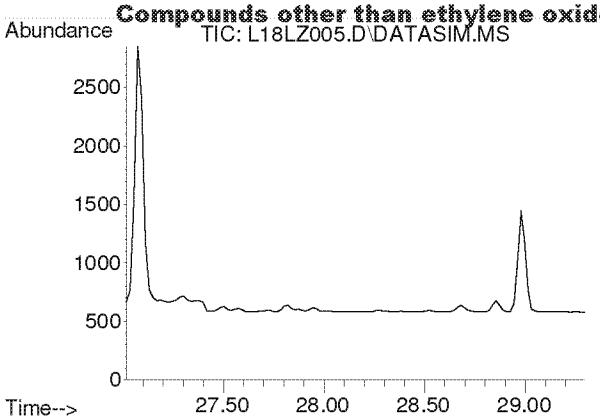
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

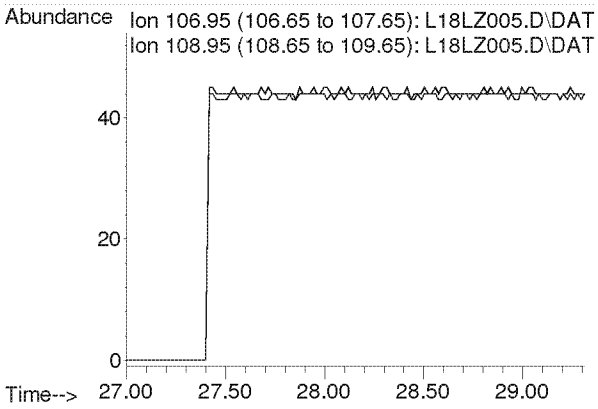


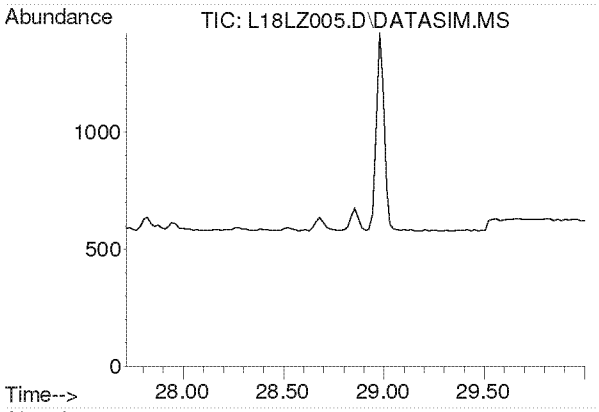
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



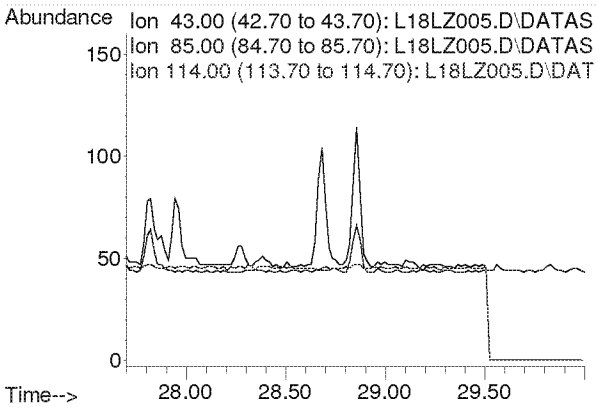


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

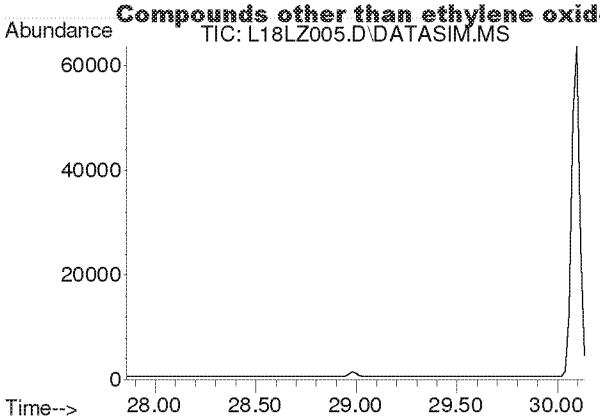
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

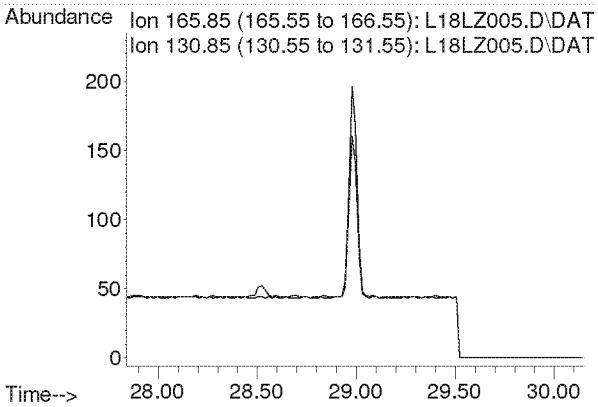


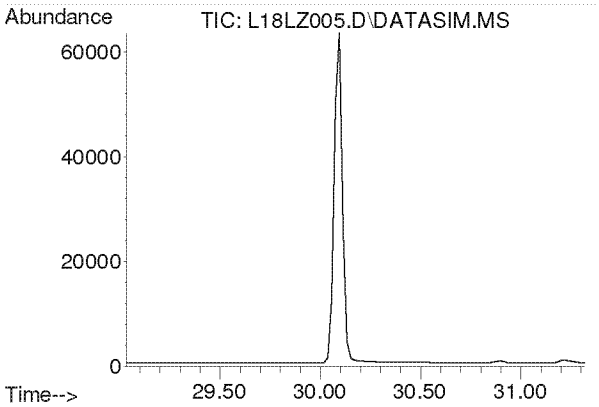
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



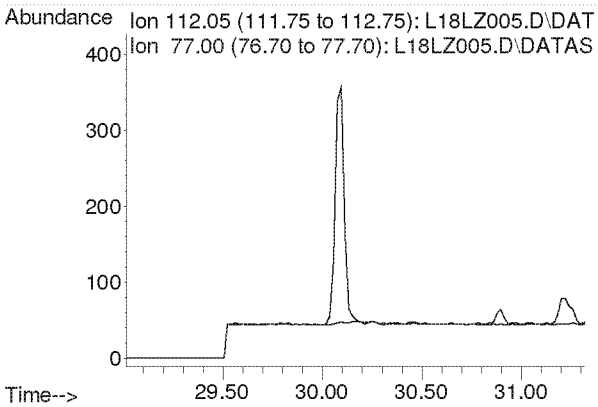


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

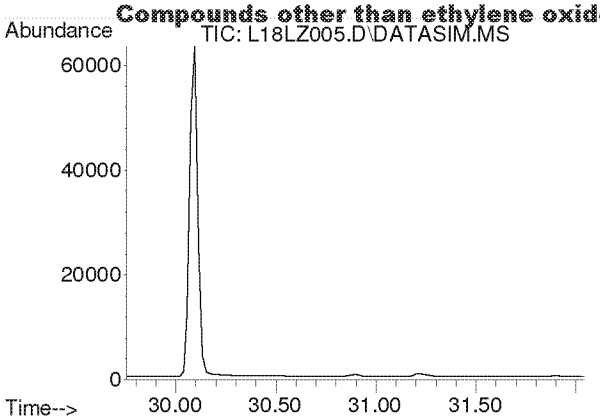
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

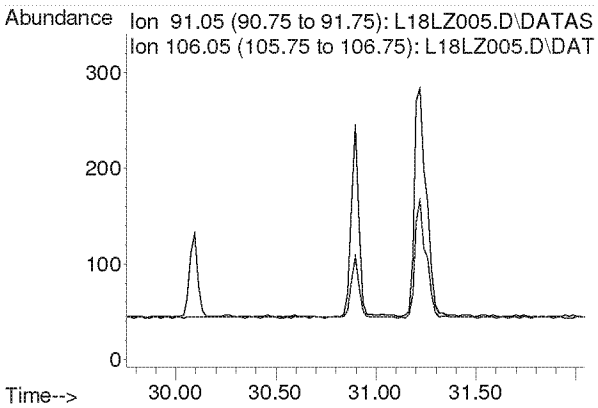


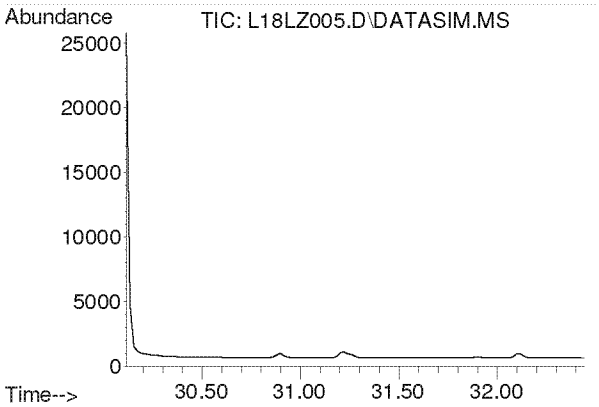
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



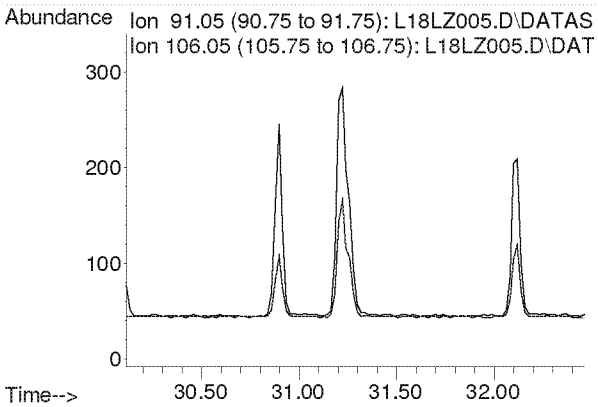


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

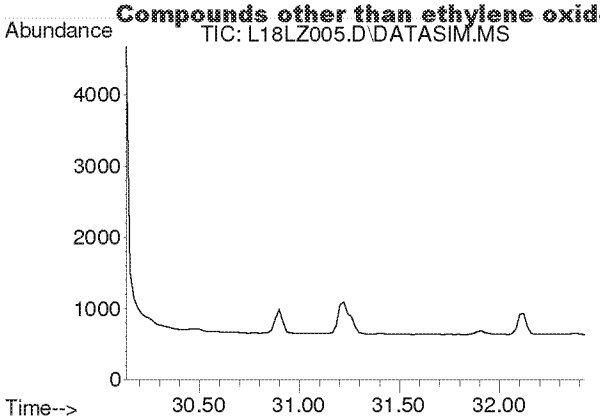
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

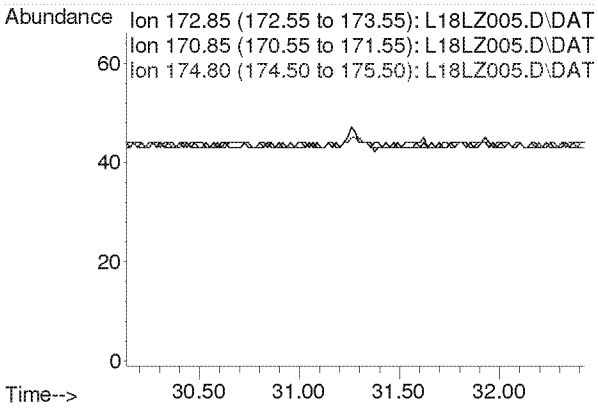


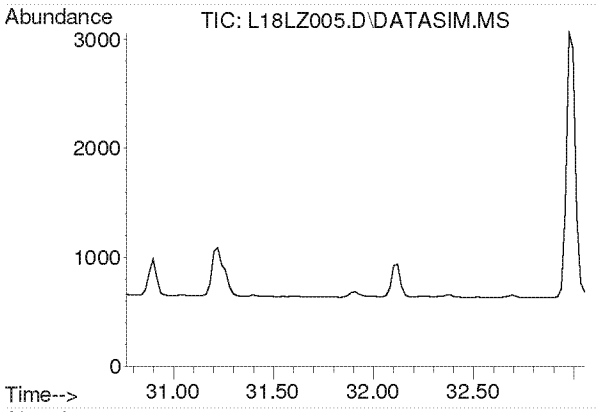
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



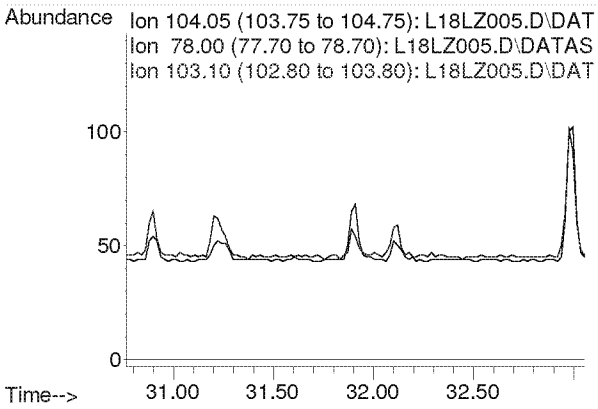


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

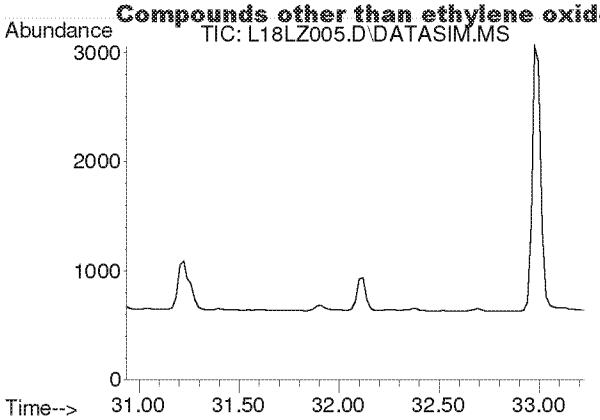
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

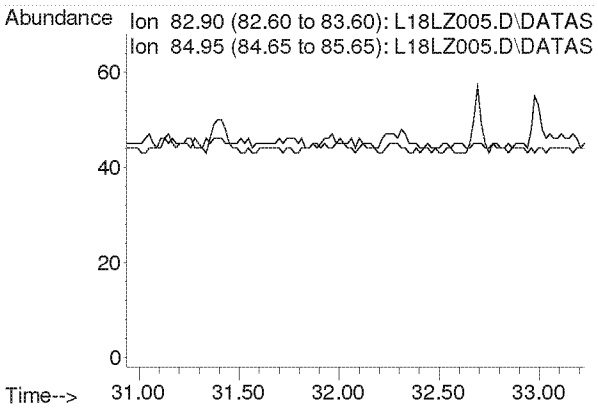


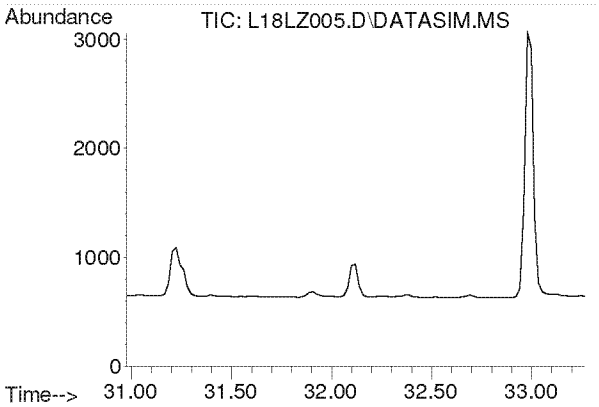
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



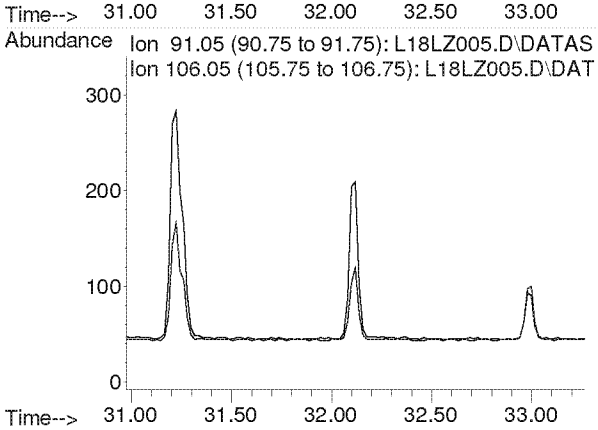


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

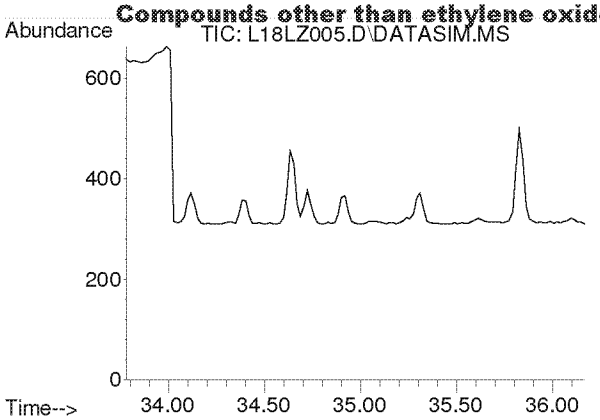
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

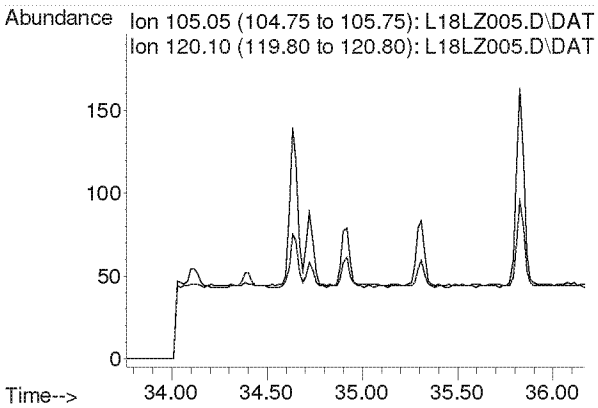


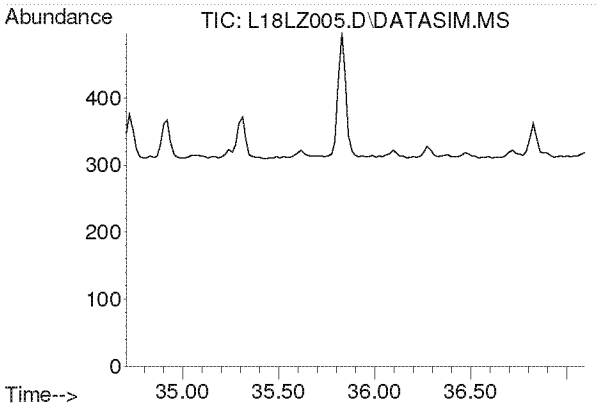
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



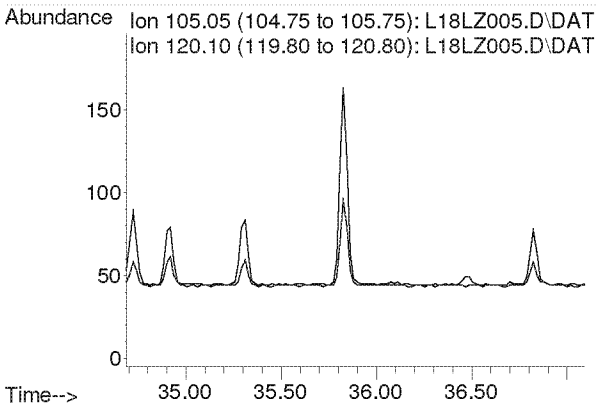


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

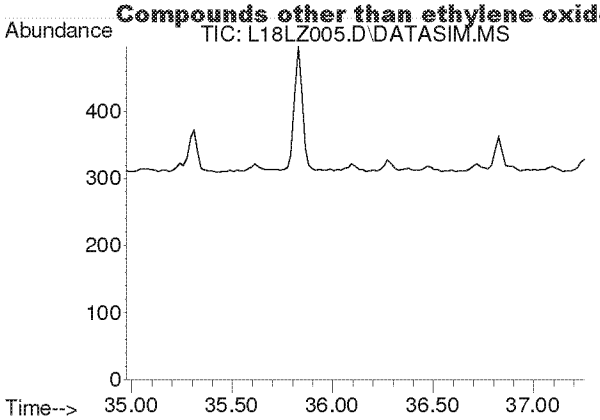
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

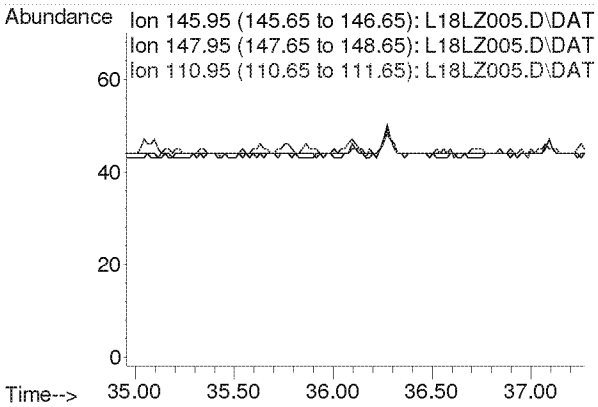


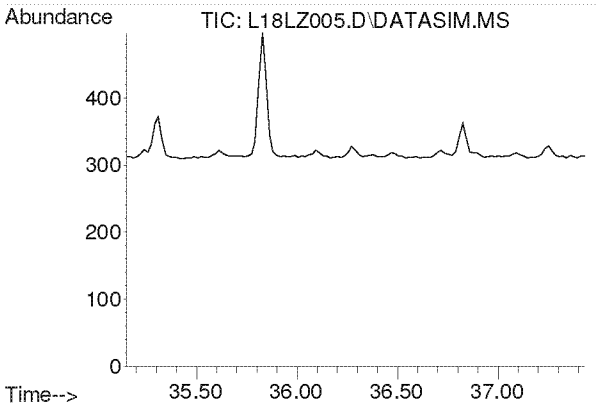
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



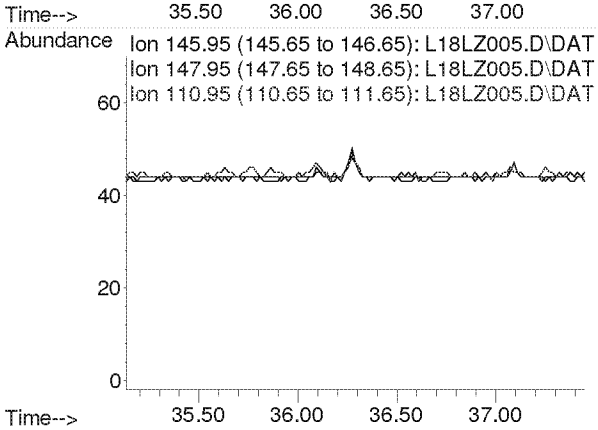


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

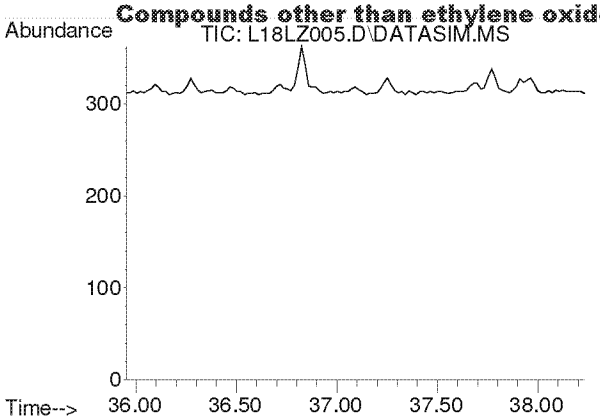
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

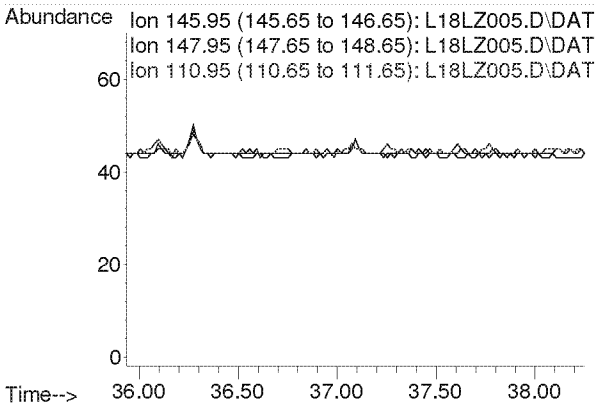


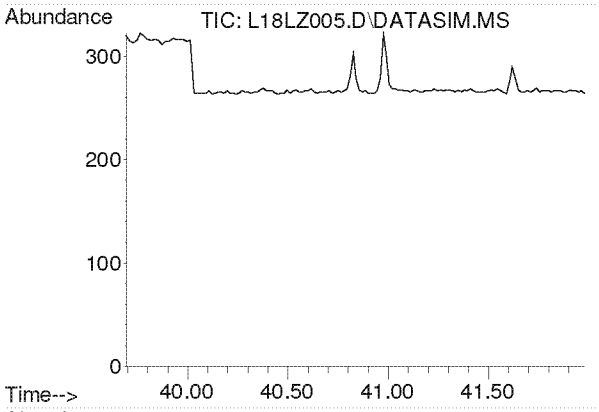
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



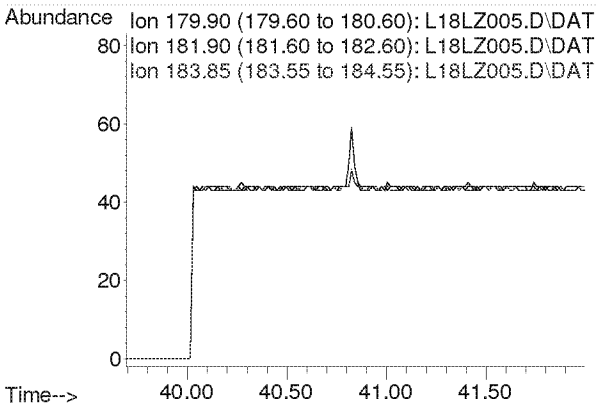


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

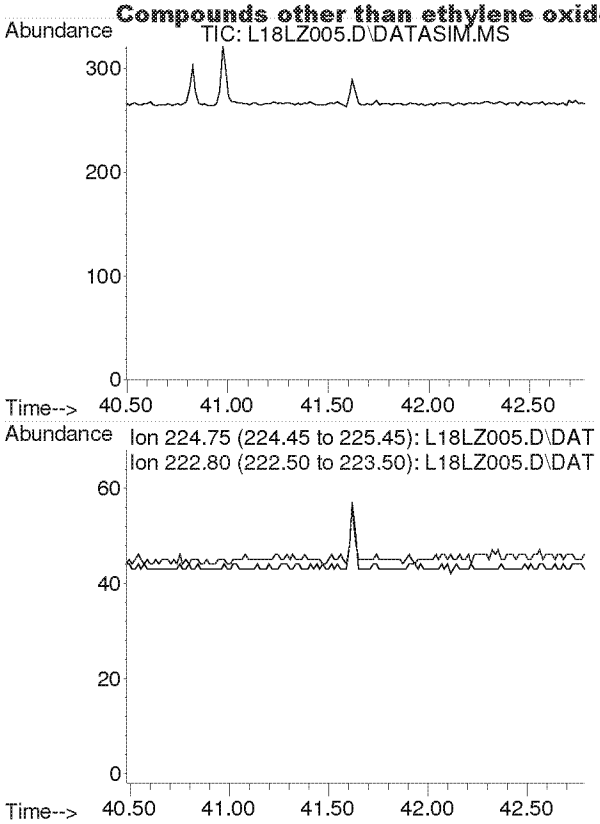
Lab File: L18LZ005.D
Acq: 26 Dec 2018 3:29 pm

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: L18LZ005.D
Acq: 26 Dec 2018 3:29 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\L18LZ\
Data File : L18LZ006.D
Acq On : 26 Dec 2018 4:31 pm
Operator : MAH
Sample : 8121130-16
Misc : WEST NEIGHBORHOOD 12/8/18
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 03 11:10:42 2019
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

EPH only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	59434	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	142032	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	99616	4.7400 ppbv	0.00

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.	
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\L18LZ\
Data File : L18LZ006.D
Acq On : 26 Dec 2018 4:31 pm
Operator : MAH
Sample : 8121130-16
Misc : WEST NEIGHBORHOOD 12/8/18
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 03 11:10:42 2019
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

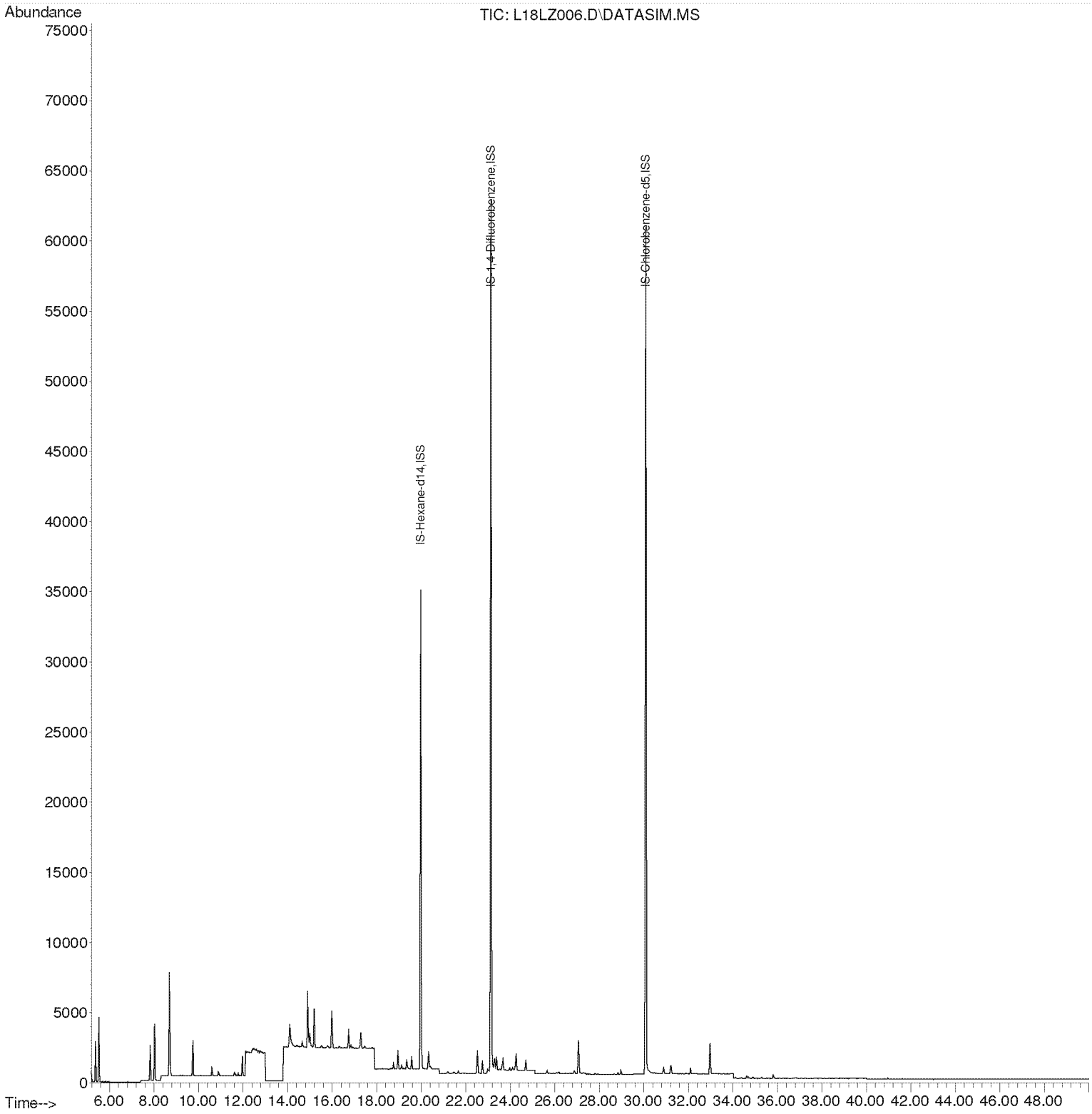
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	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

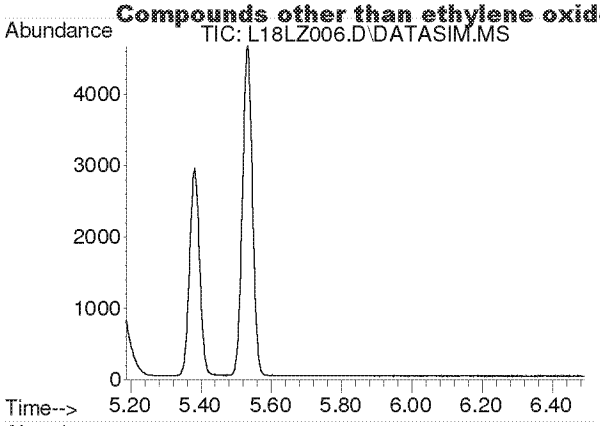
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ006.D
Acq On : 26 Dec 2018 4:31 pm
Operator : MAH
Sample : 8121130-16
Misc : WEST NEIGHBORHOOD 12/8/18
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 03 10:24:26 2019
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



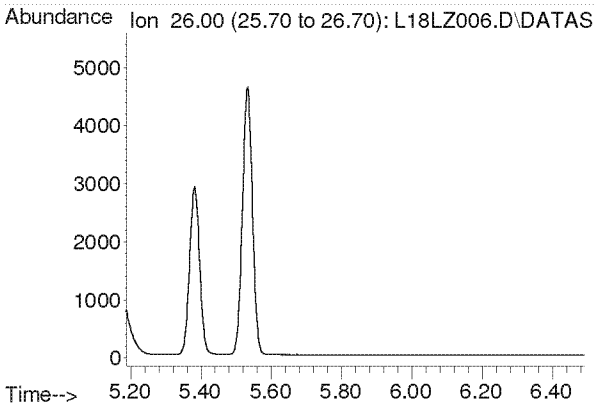
Compounds other than ethylene oxide were not quantitated.

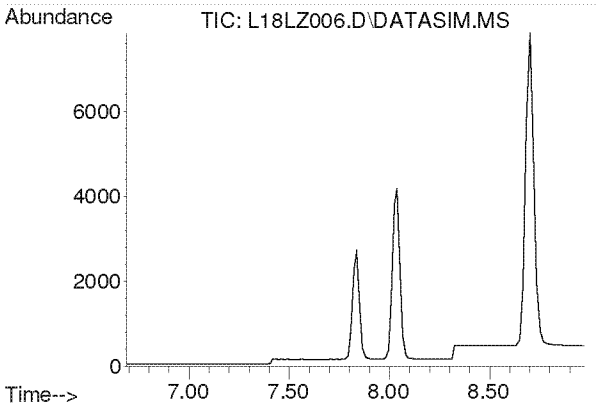


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 26



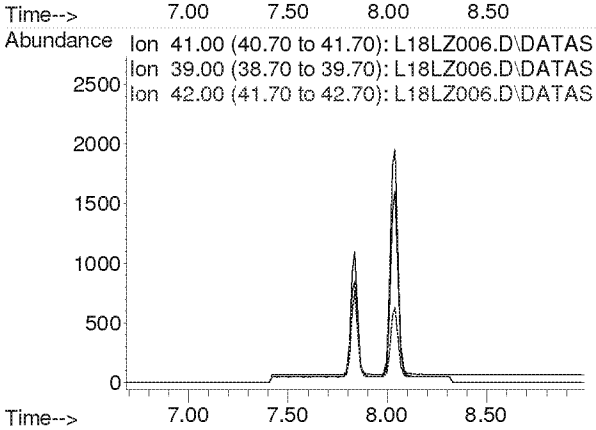


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

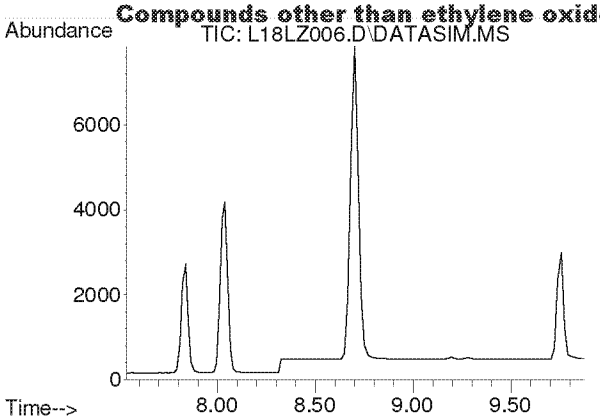
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

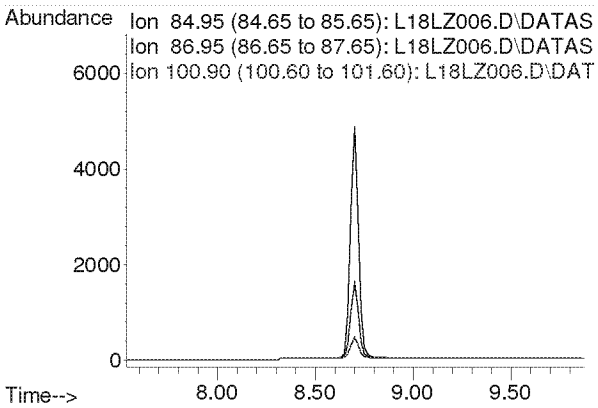


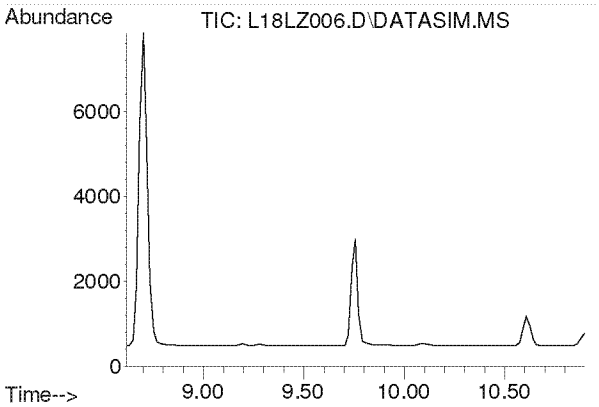
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



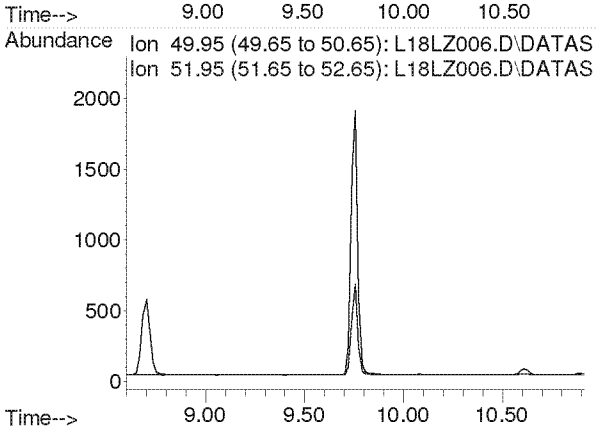


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

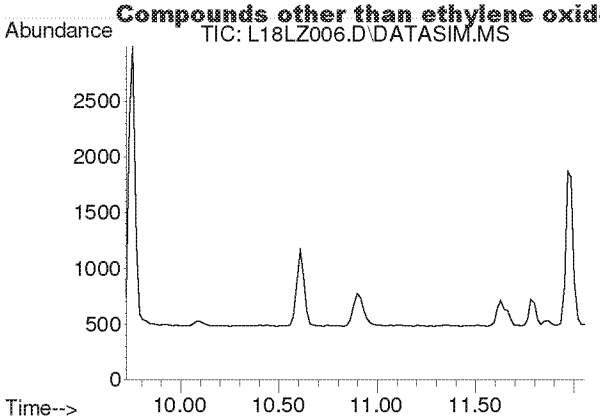
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

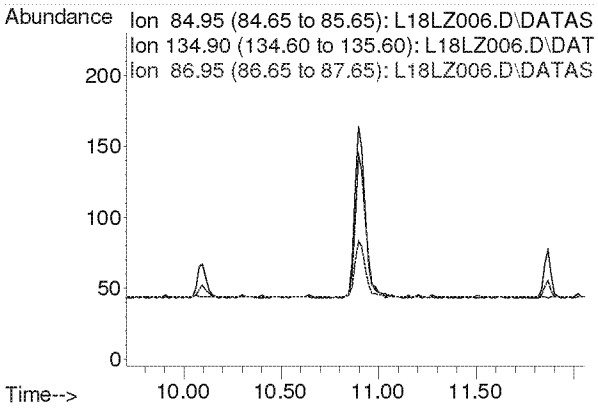


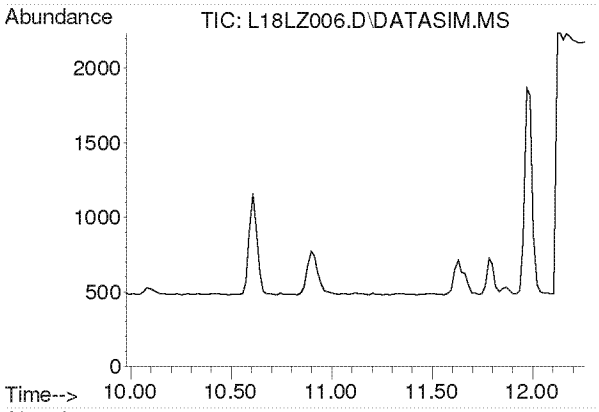
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



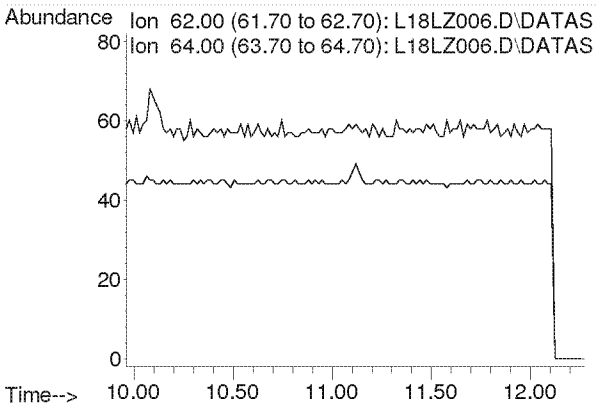


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

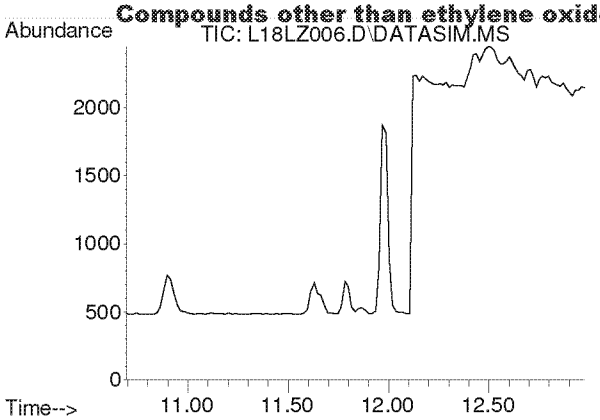
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

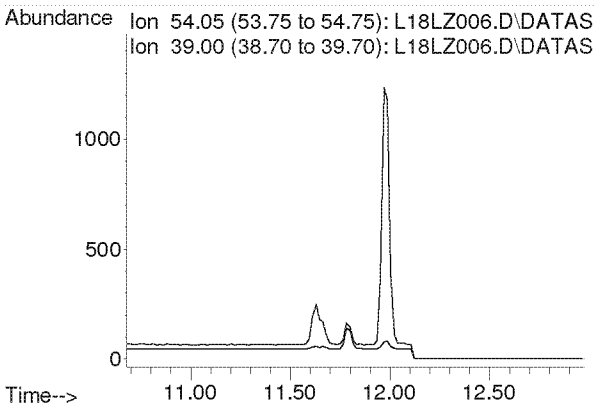


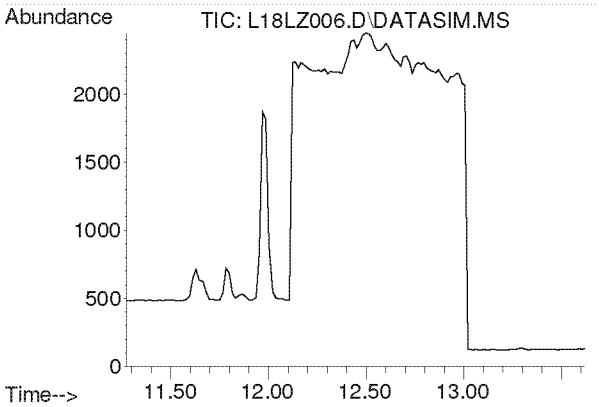
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4



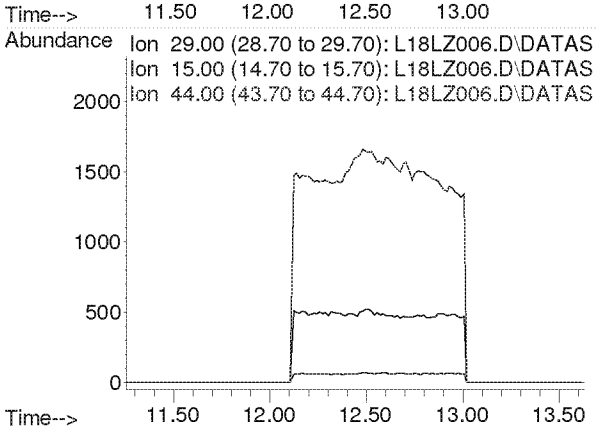


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

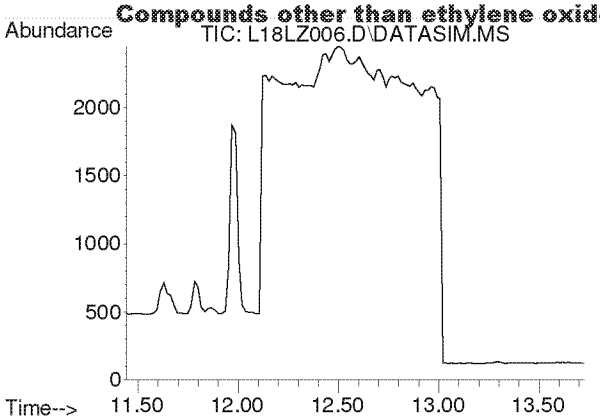
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.3
44	90.0



Compounds other than ethylene oxide were not quantitated.

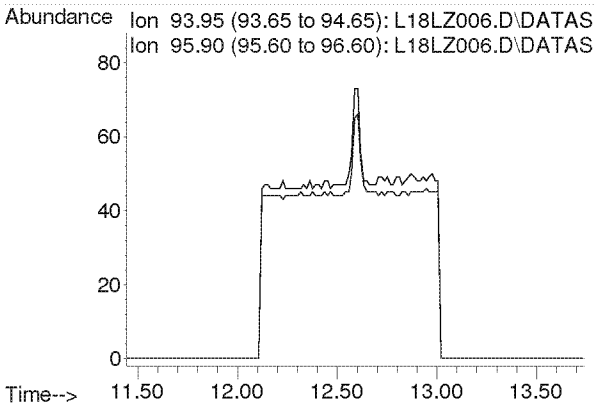


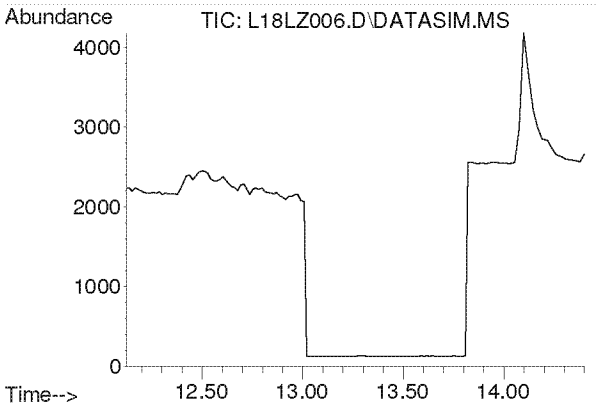
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



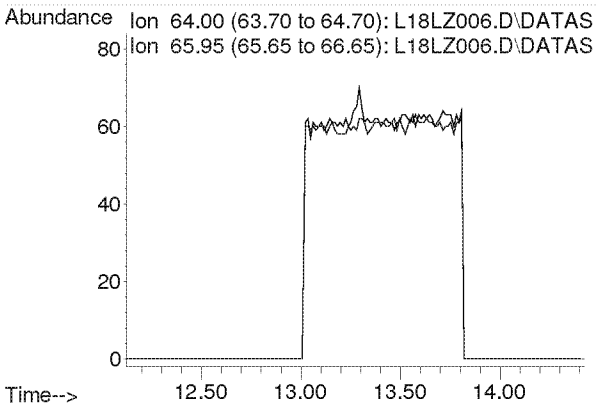


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

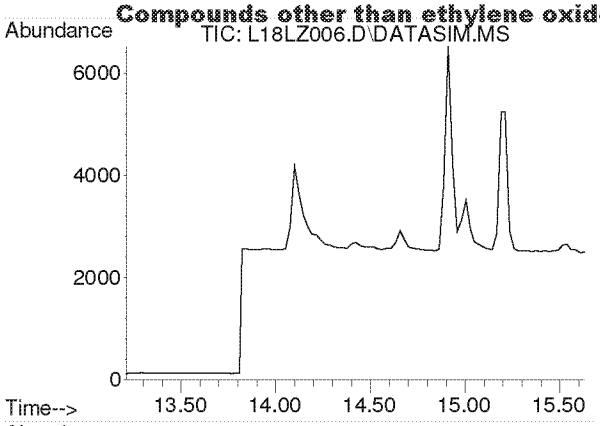
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

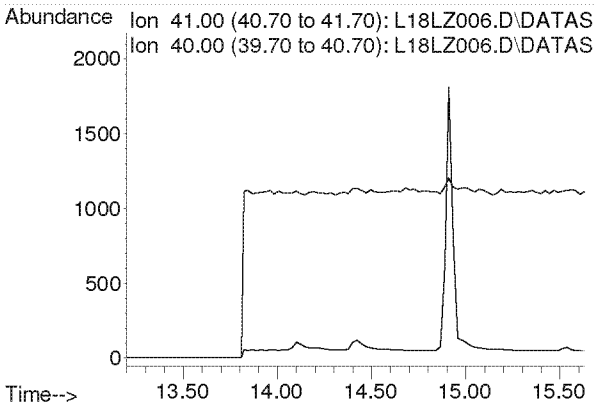


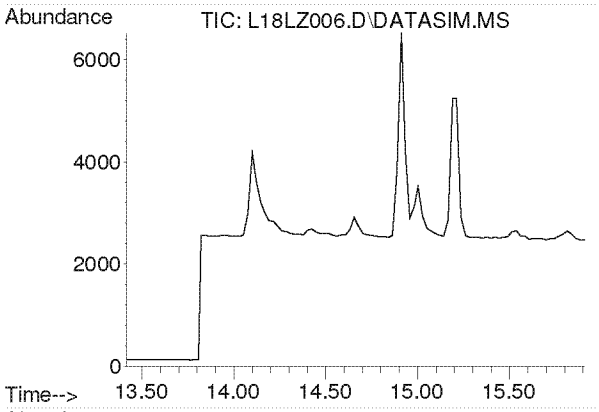
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



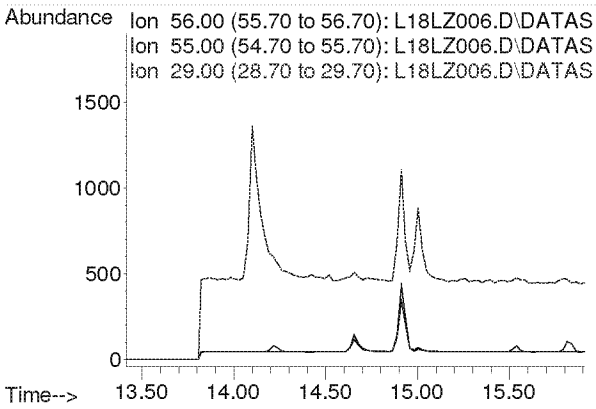


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

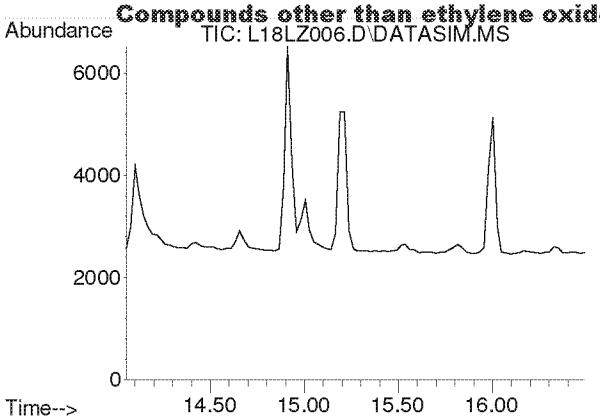
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

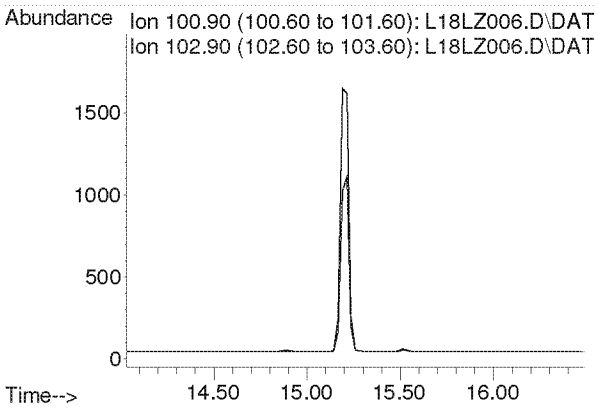


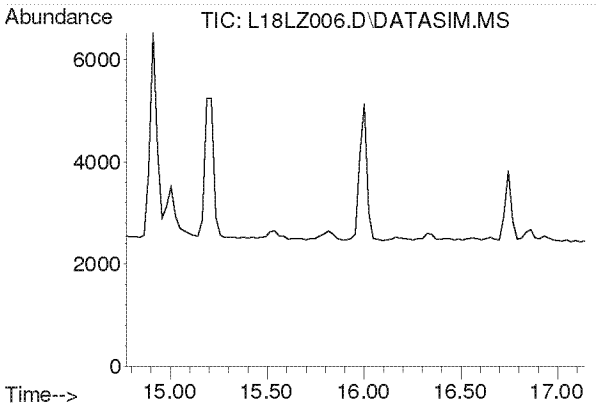
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



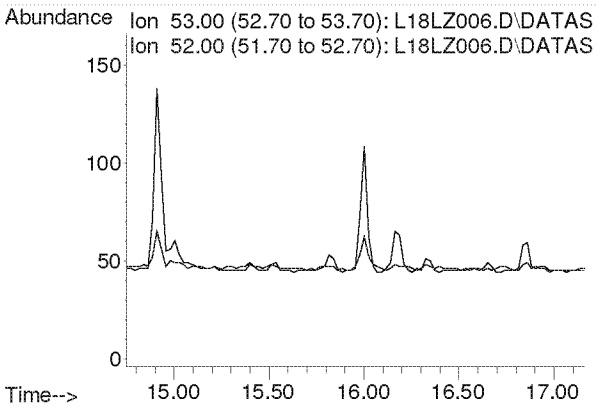


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

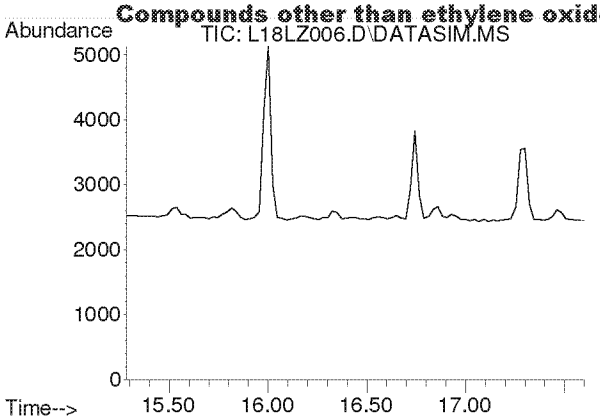
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

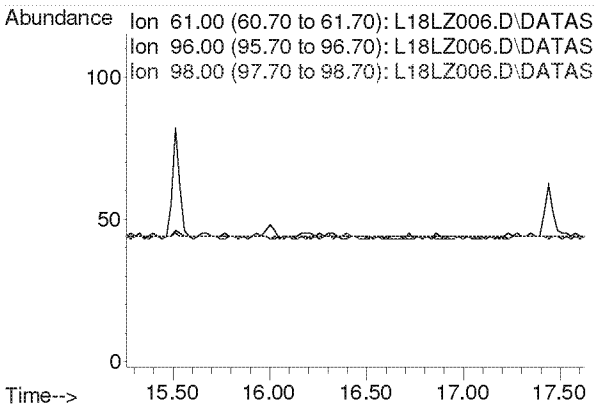


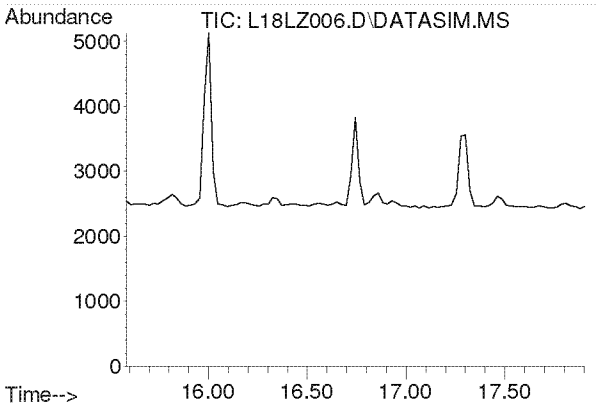
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



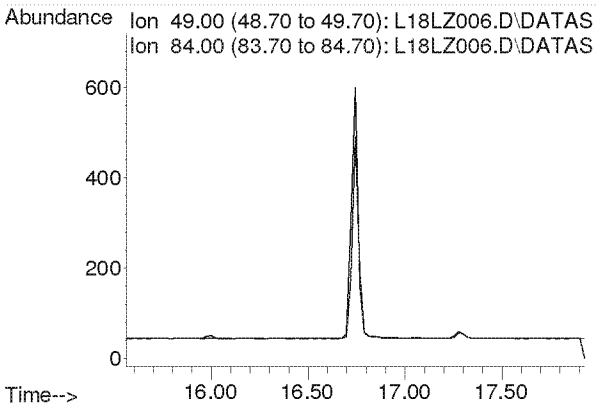


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

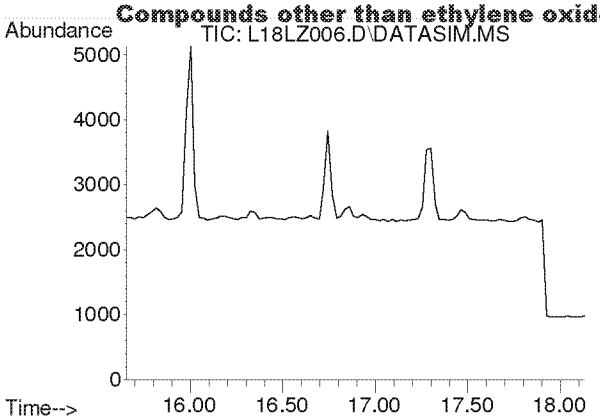
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

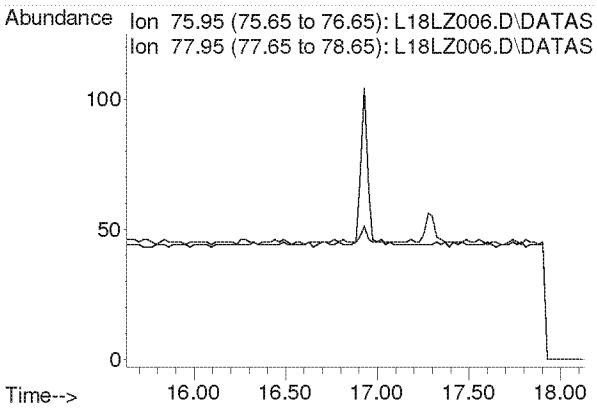


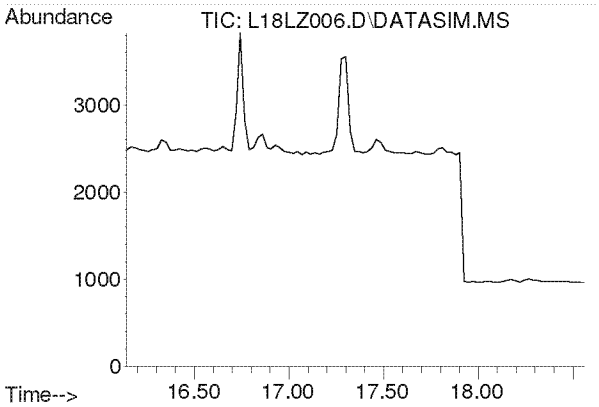
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



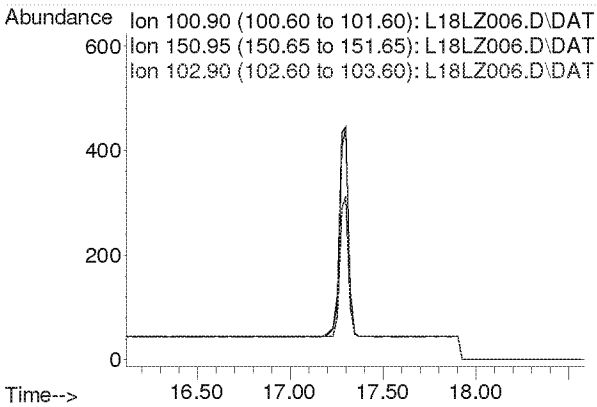


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

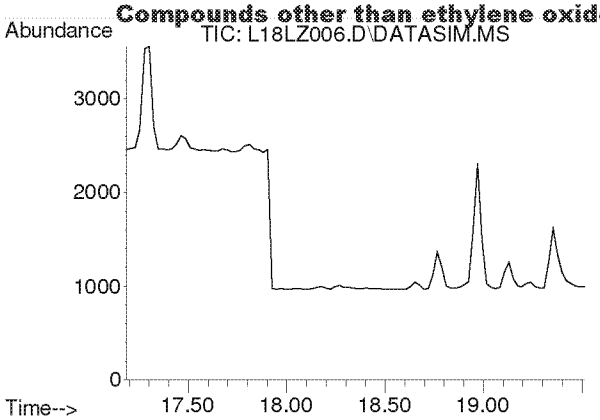
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

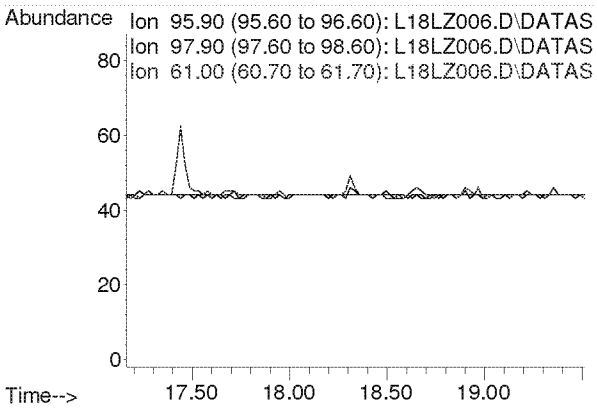


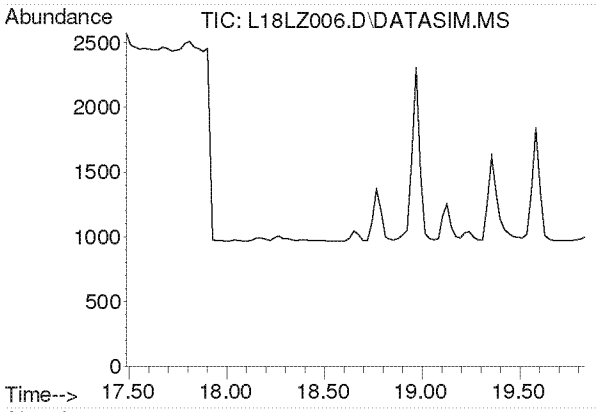
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



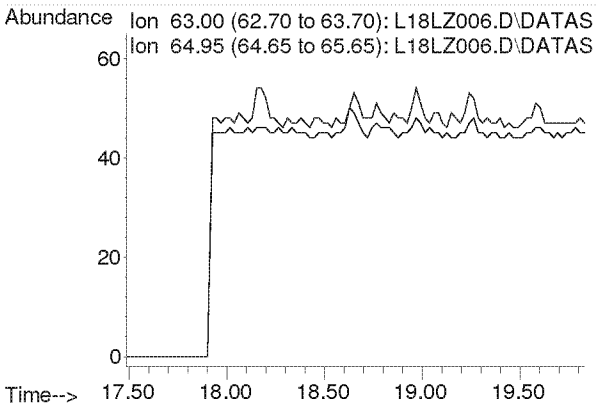


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

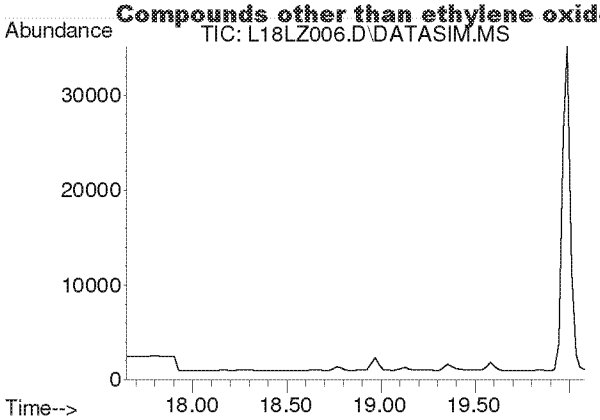
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

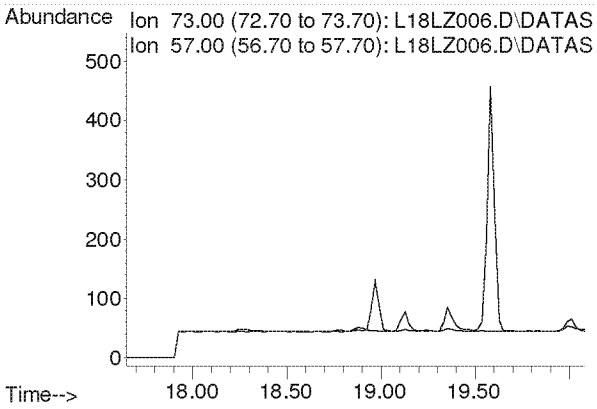


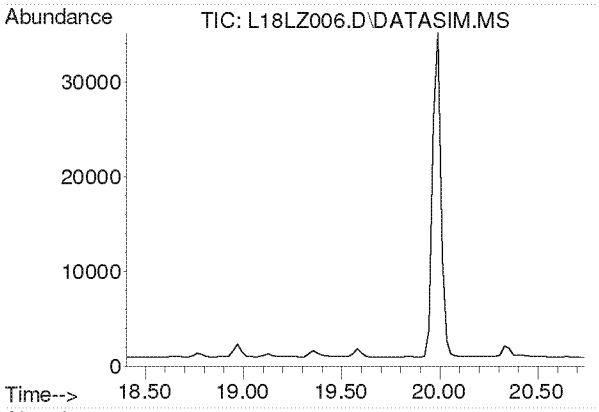
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



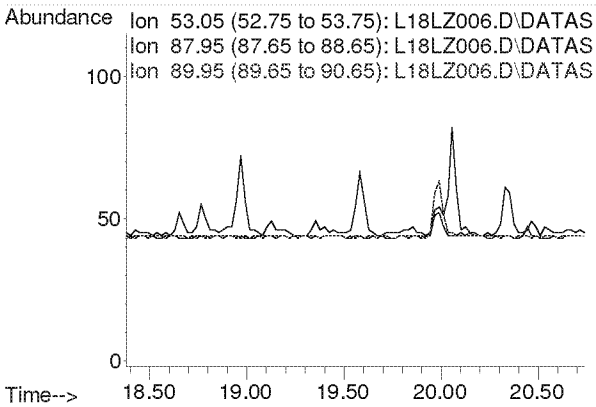


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

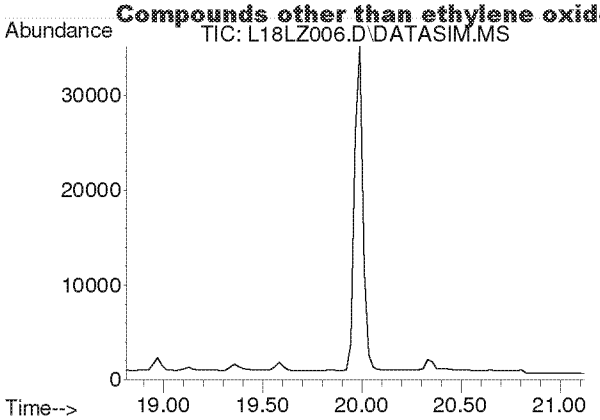
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

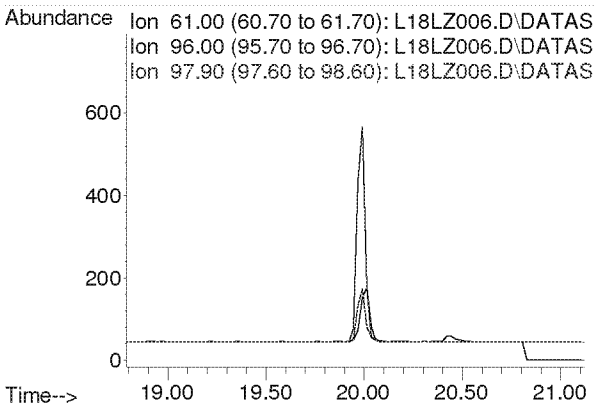


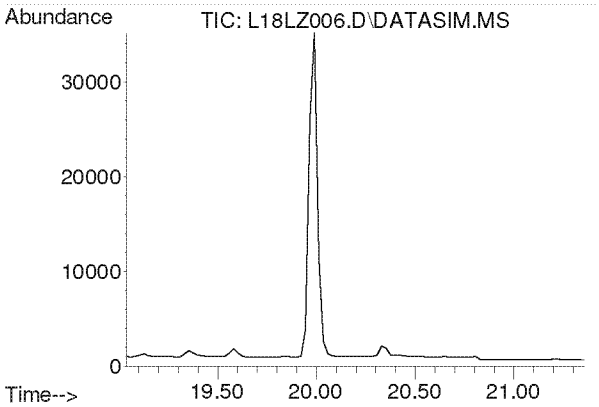
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



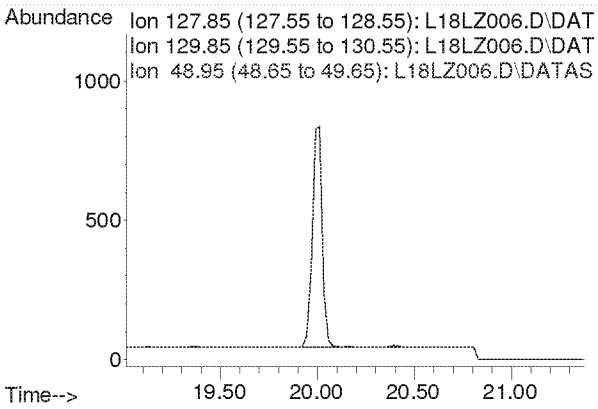


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

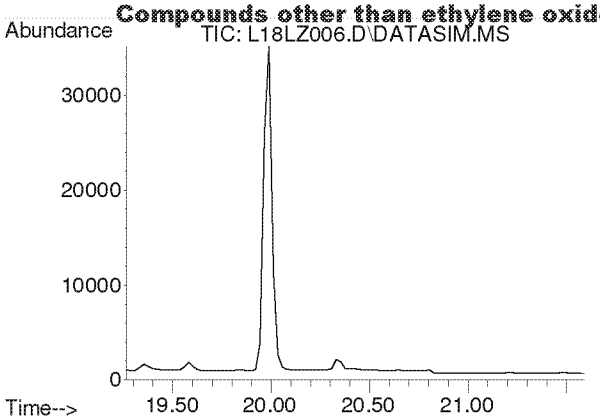
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

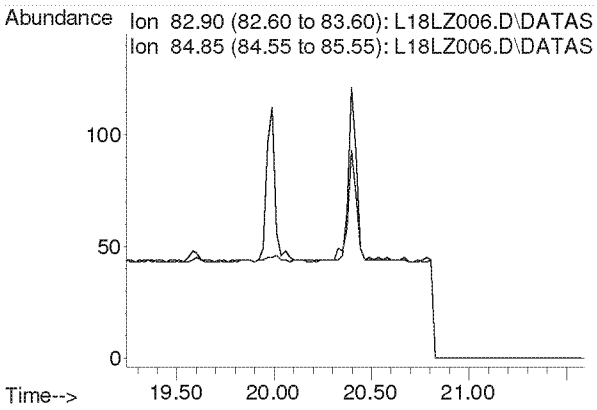


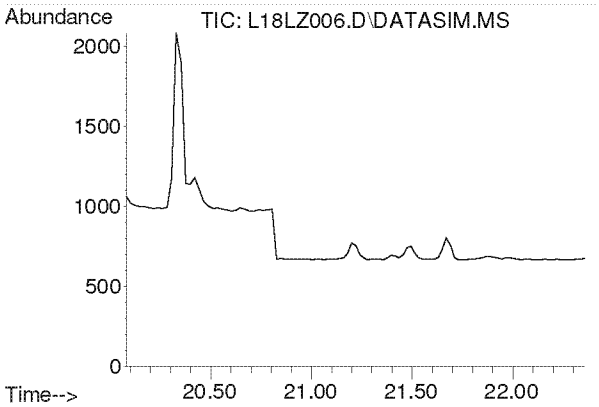
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



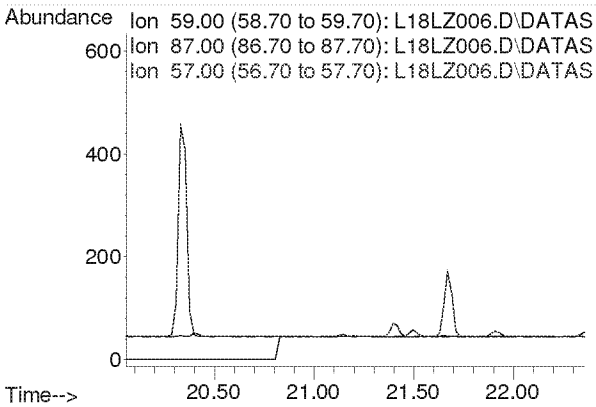


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

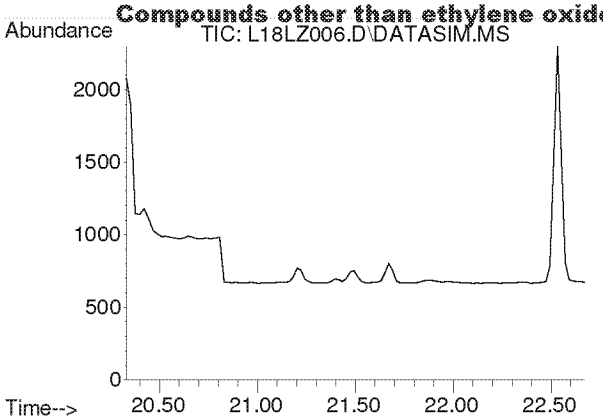
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

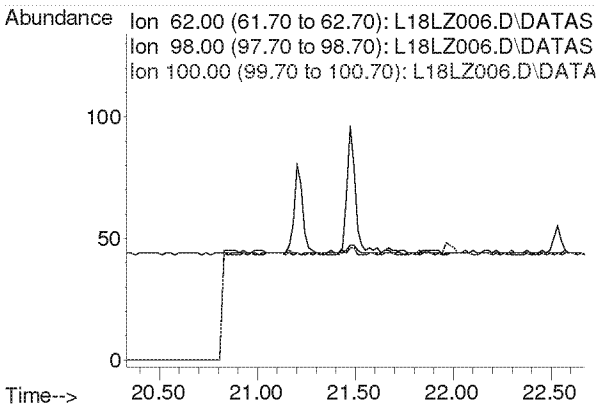


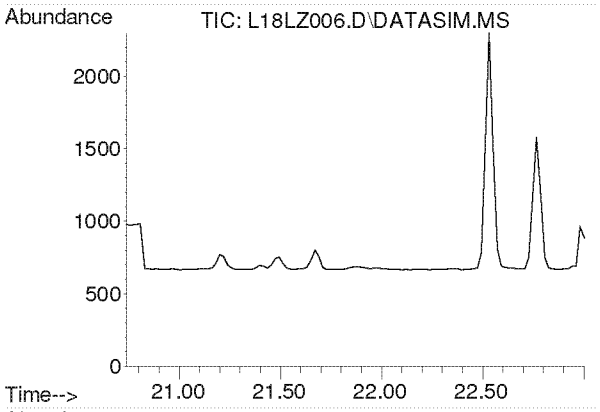
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



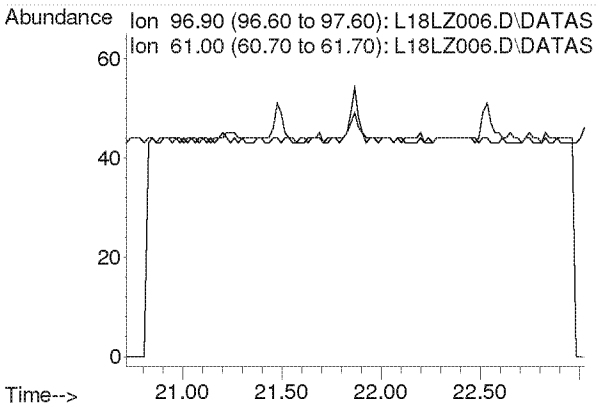


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

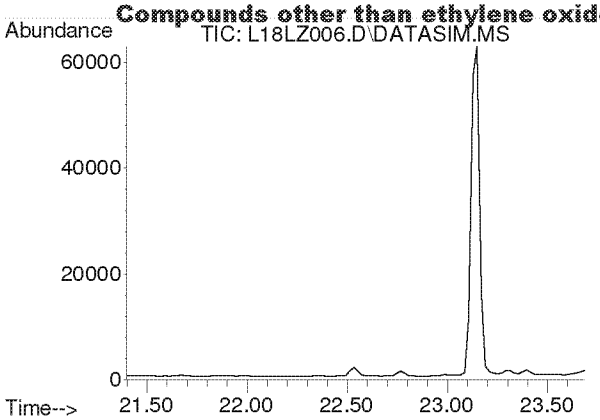
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

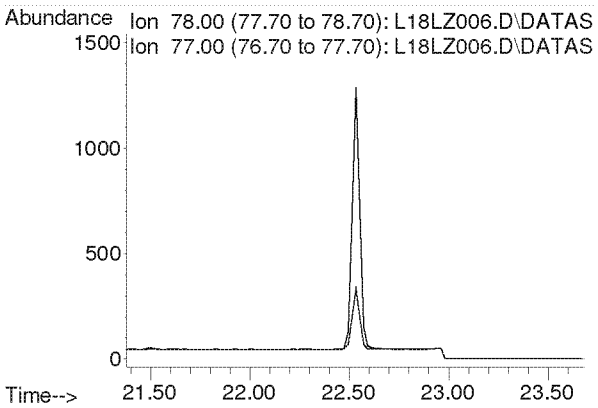


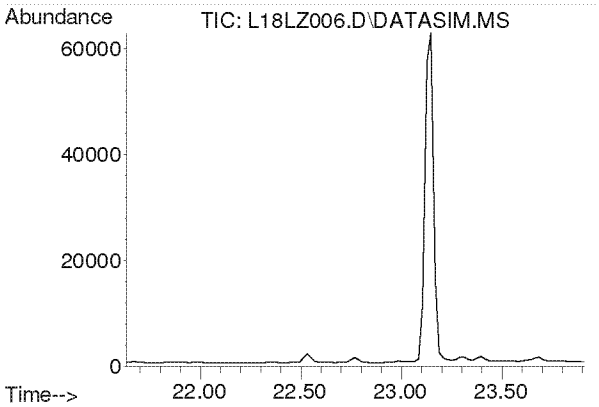
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



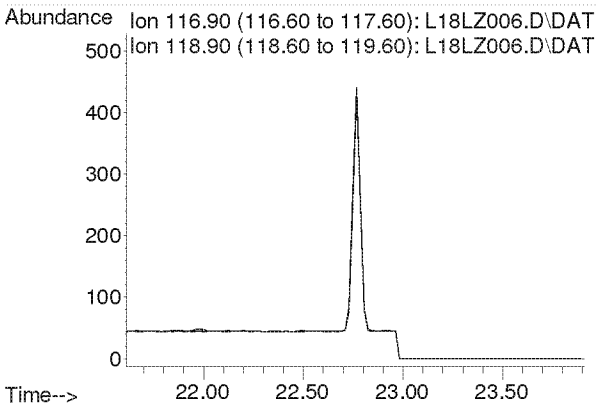


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

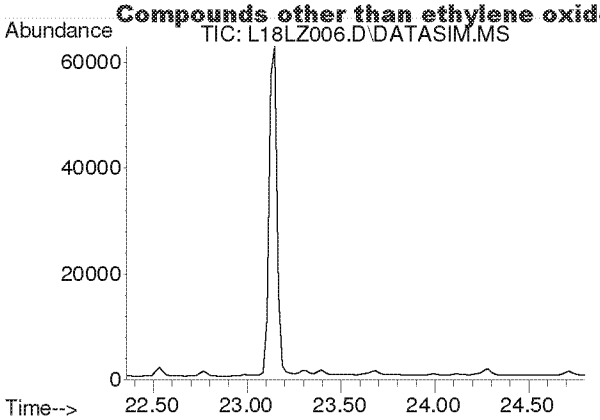
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

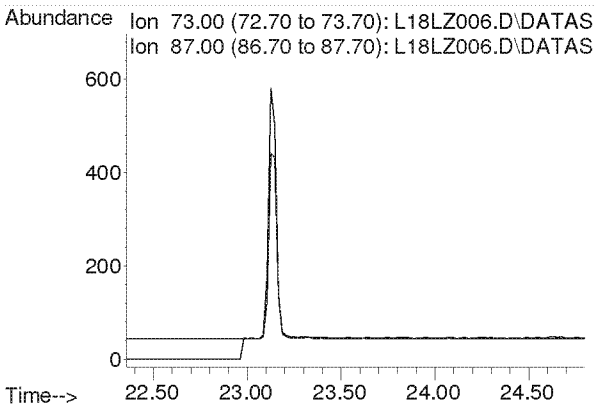


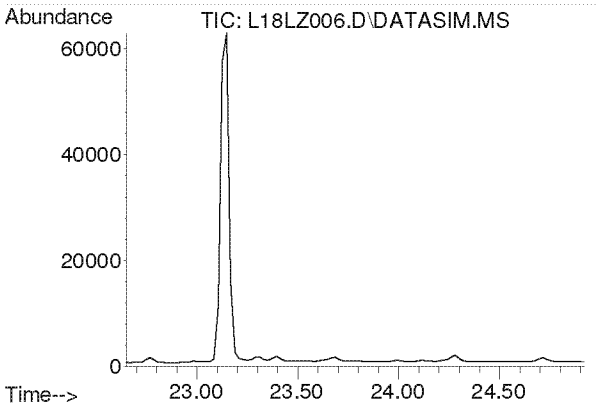
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



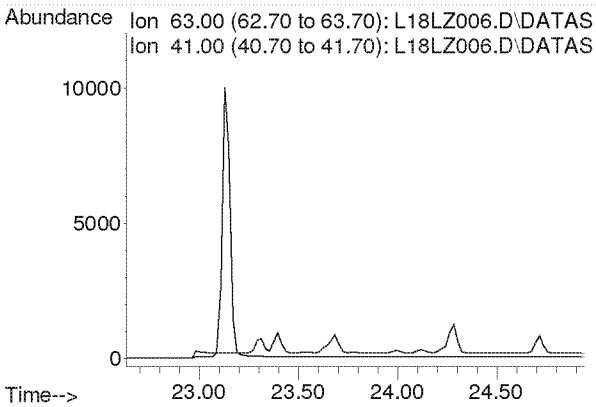


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

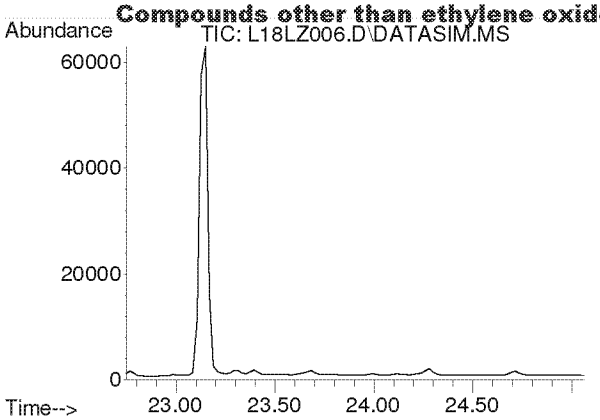
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

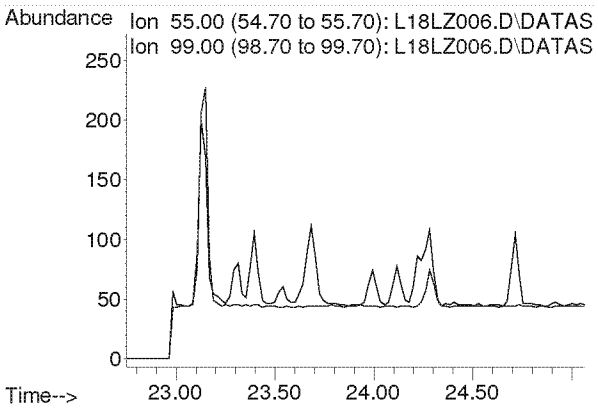


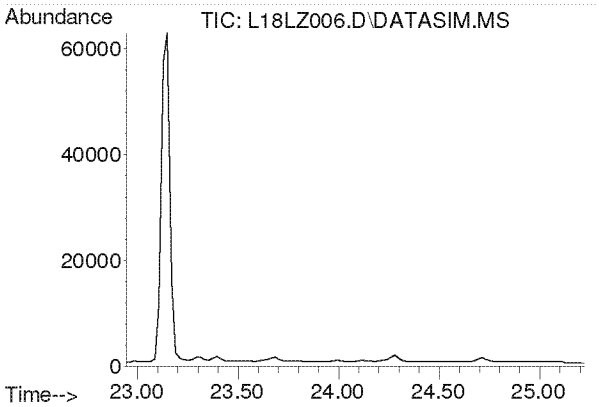
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



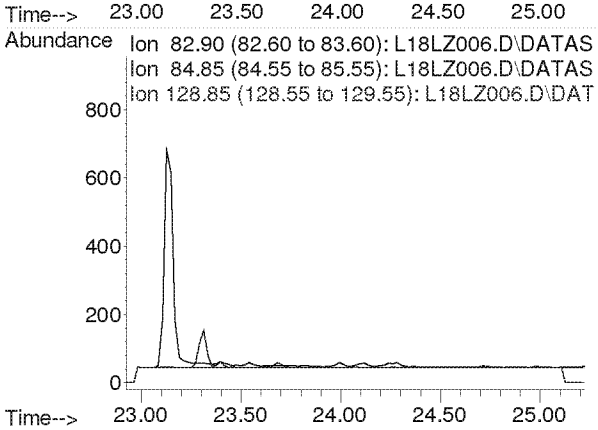


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

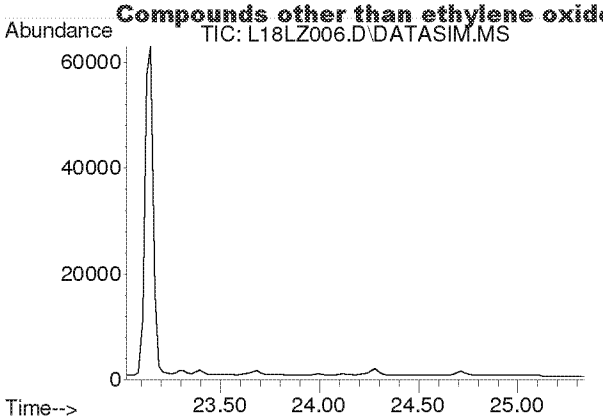
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

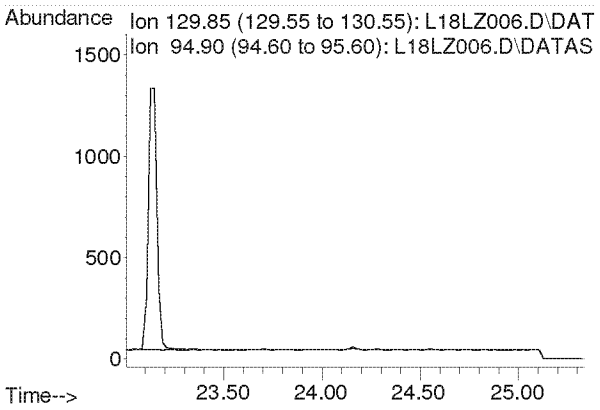


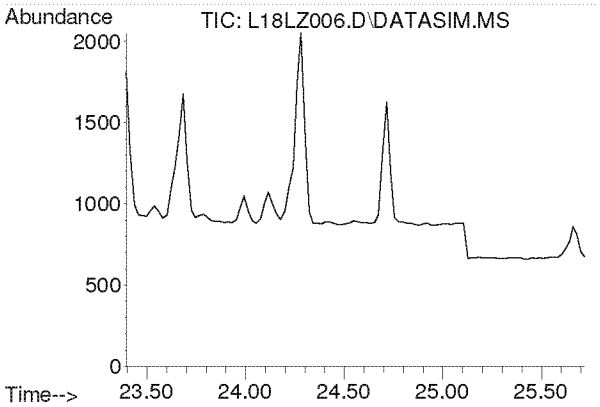
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



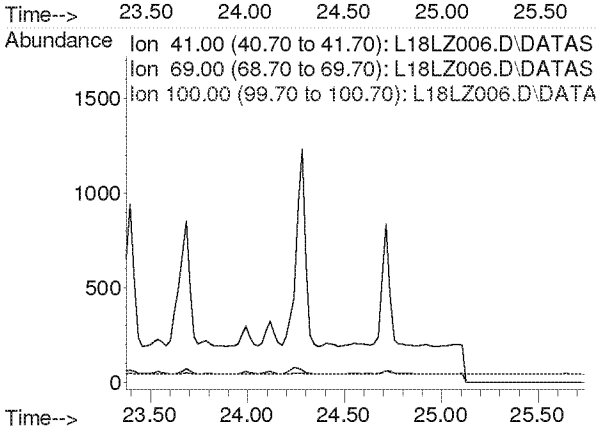


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

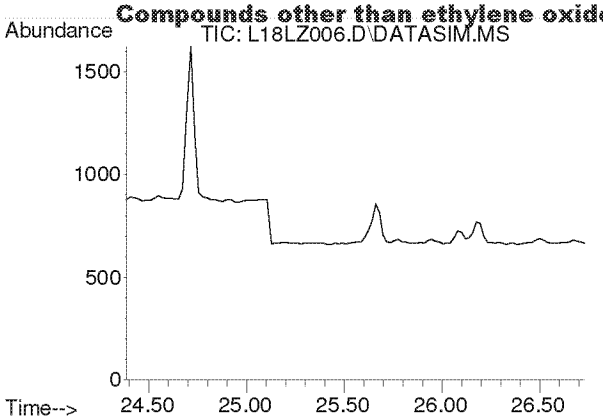
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

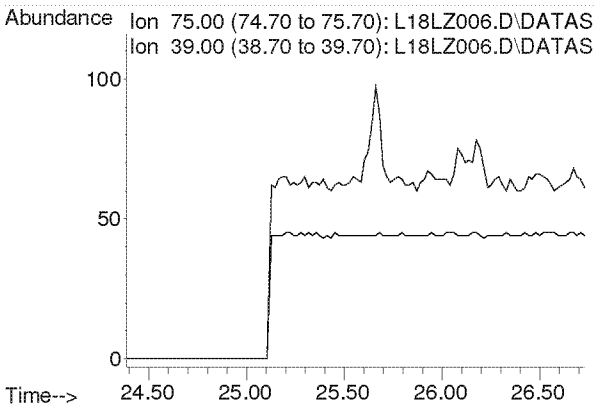


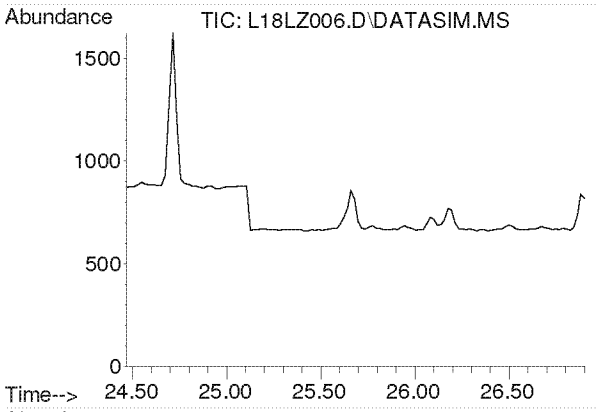
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



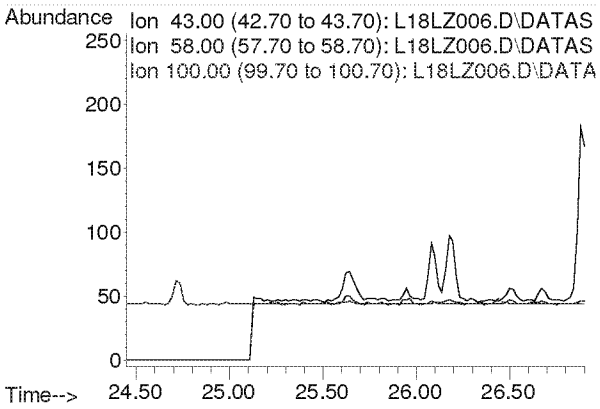


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

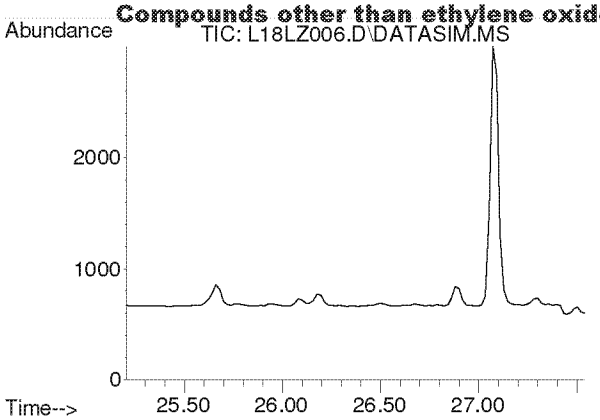
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

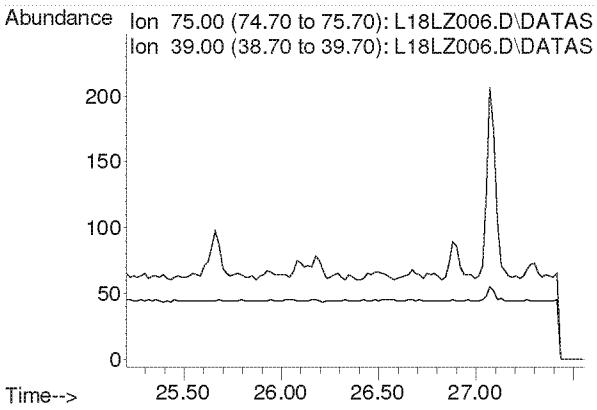


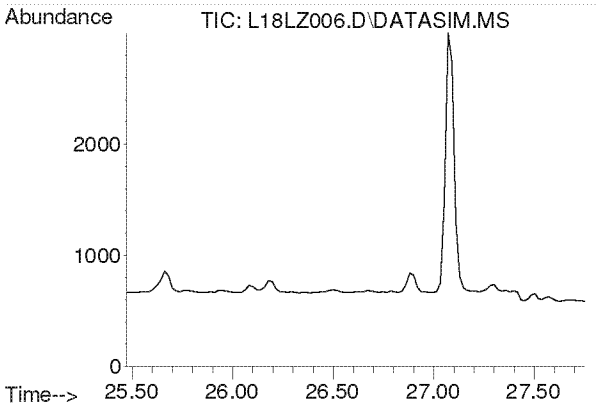
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



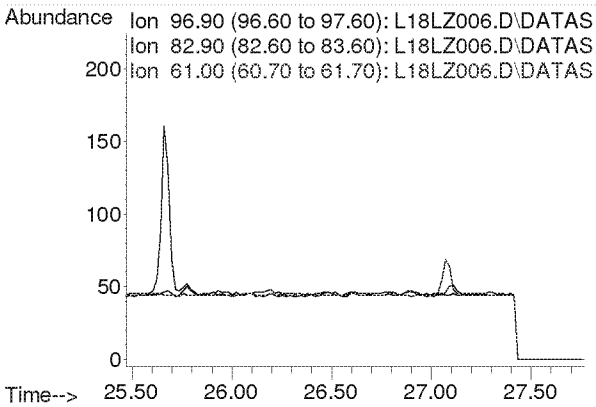


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

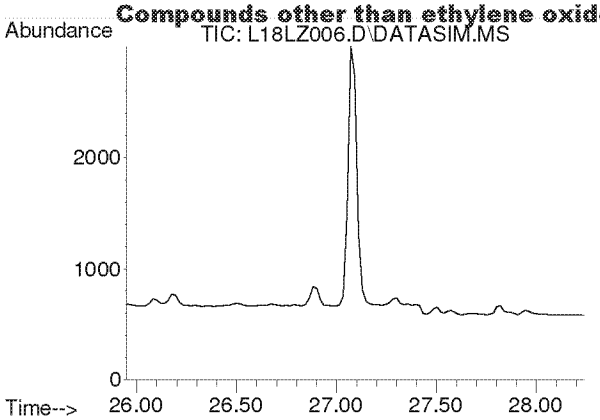
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

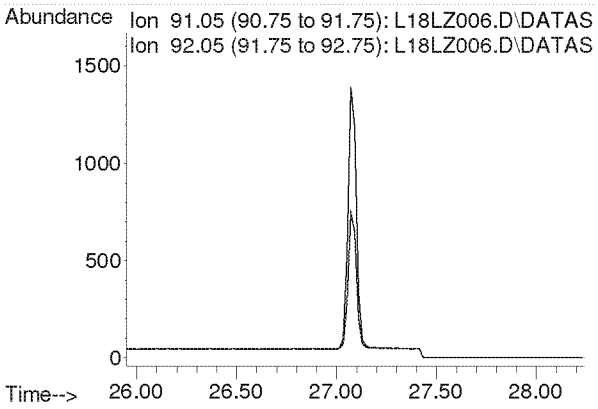


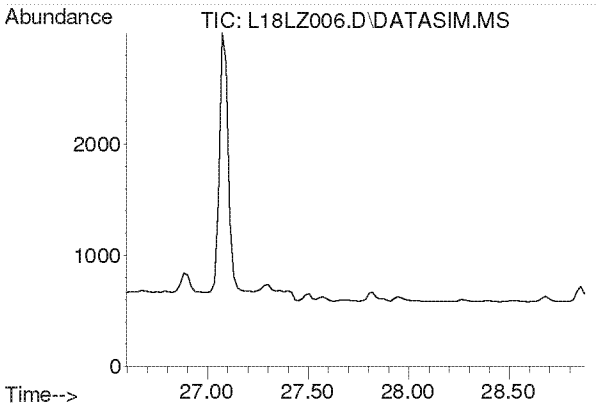
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



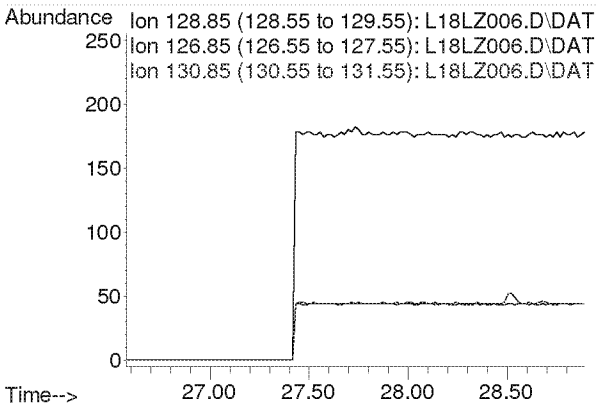


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

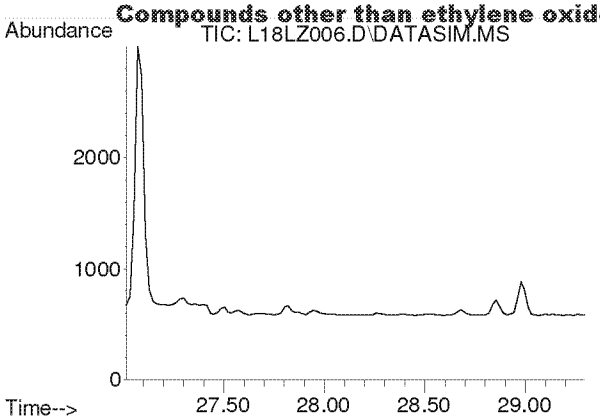
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

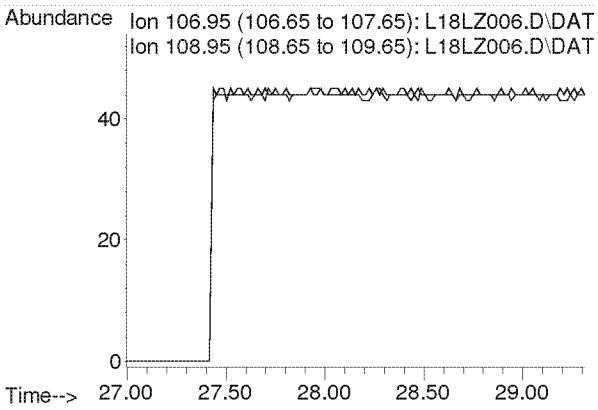


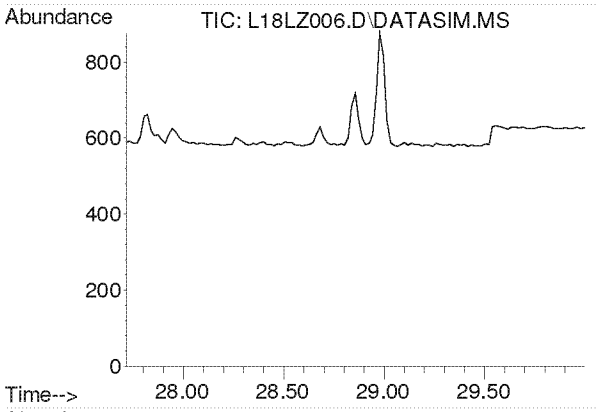
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



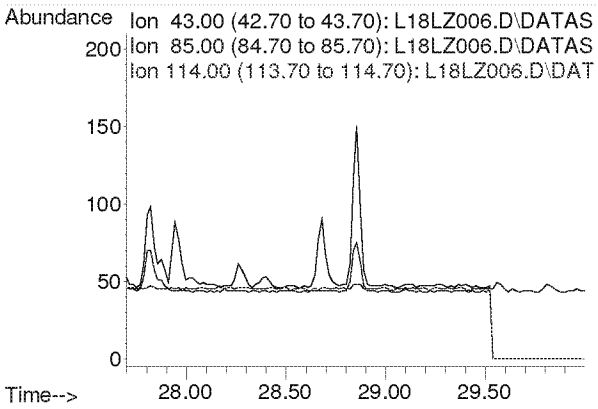


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

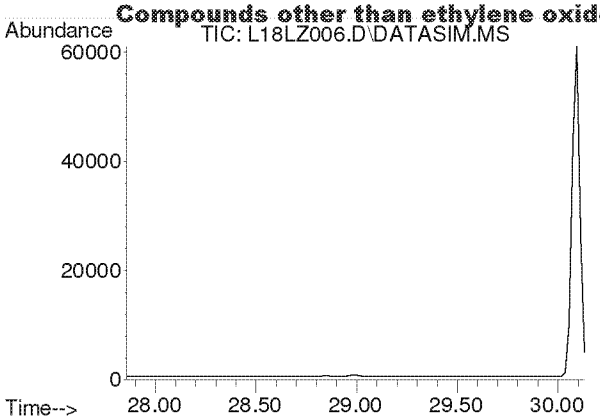
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

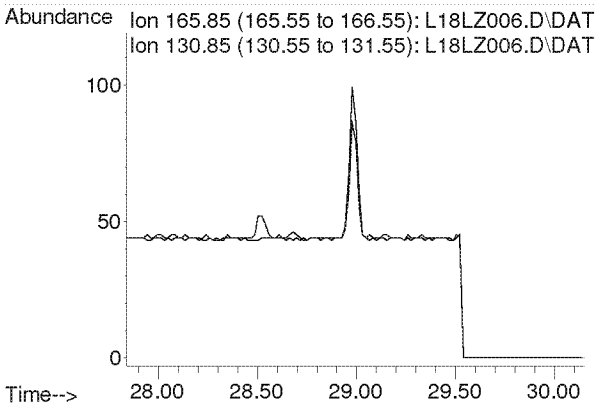


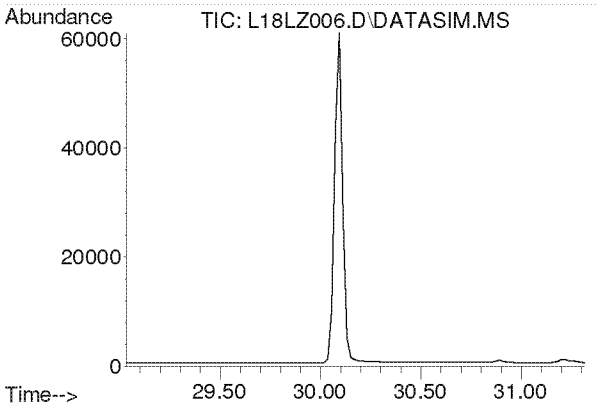
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



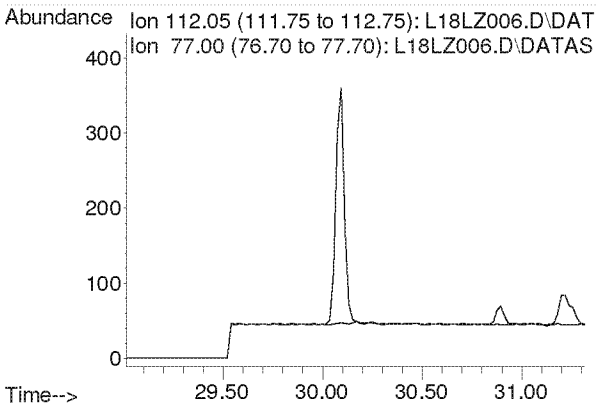


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

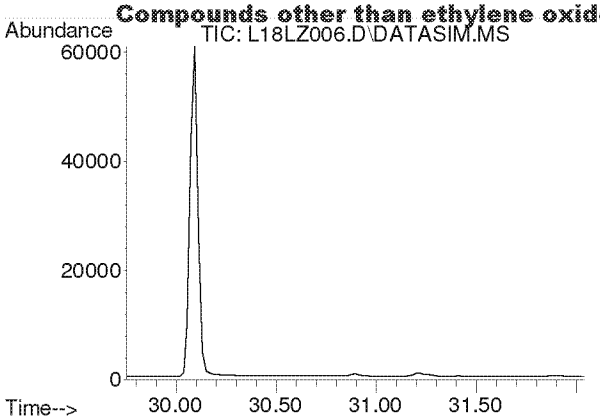
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

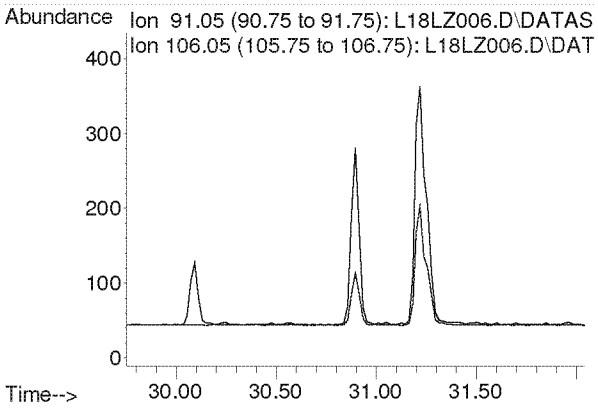


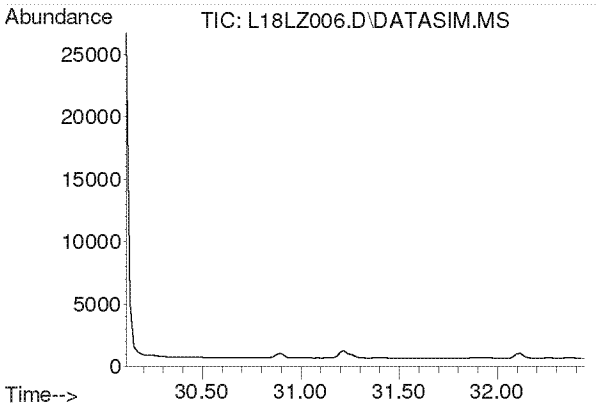
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



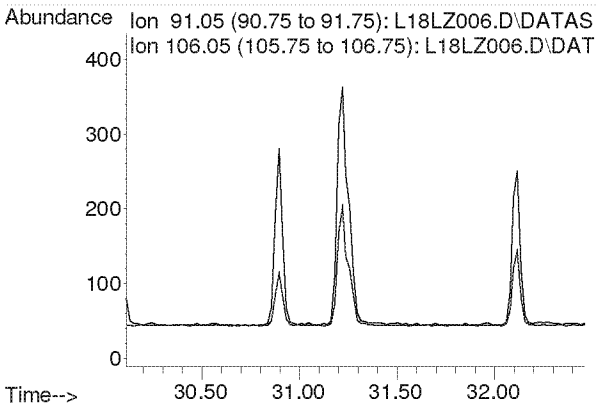


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

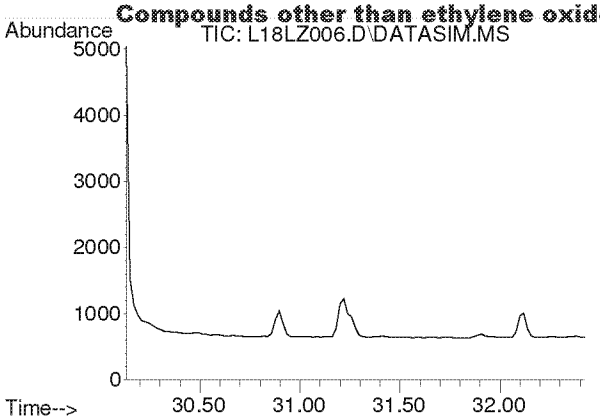
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

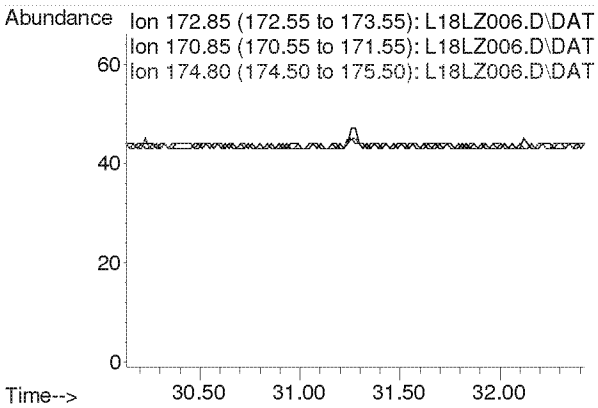


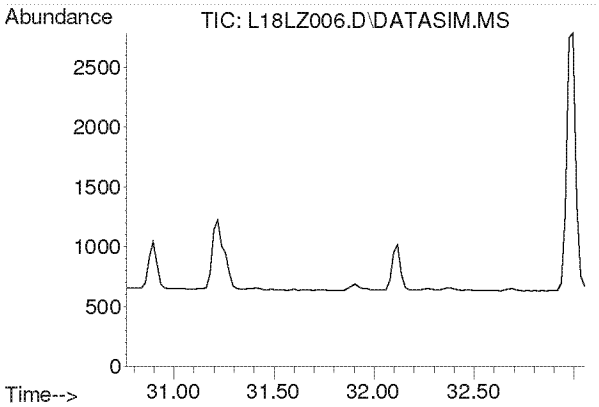
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



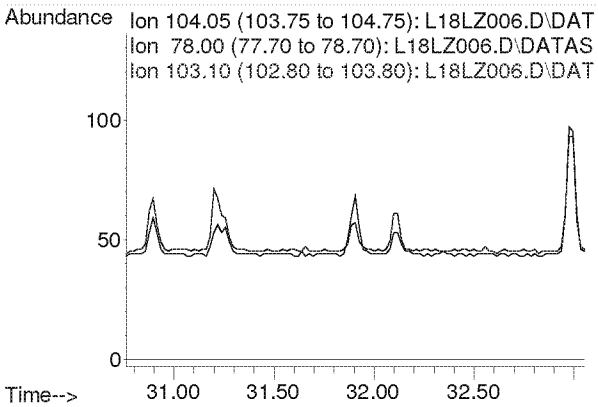


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

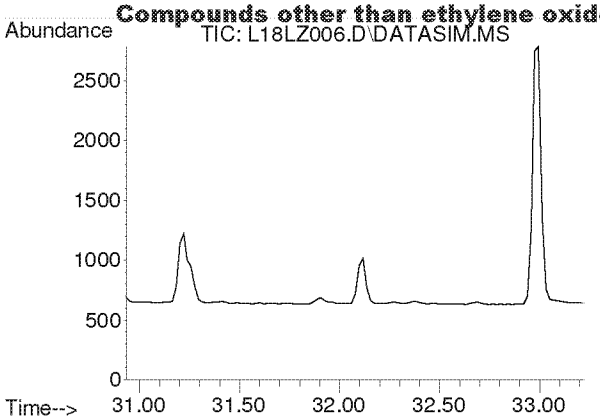
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

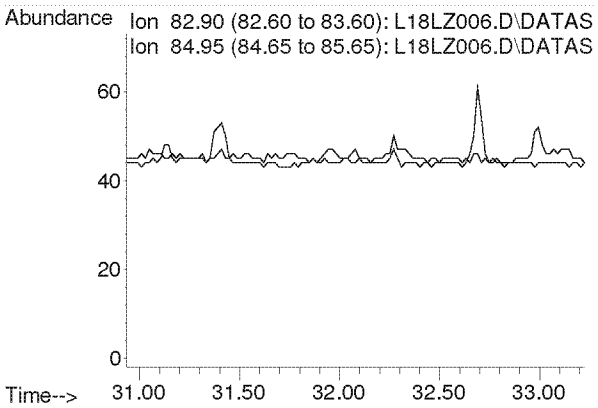


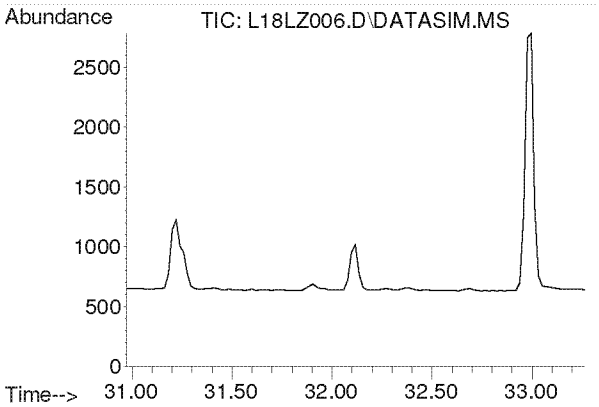
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



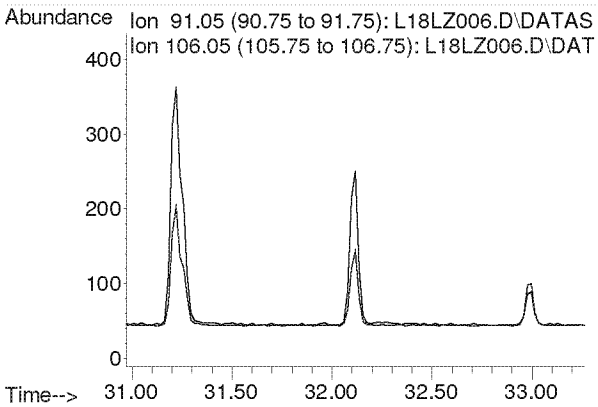


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

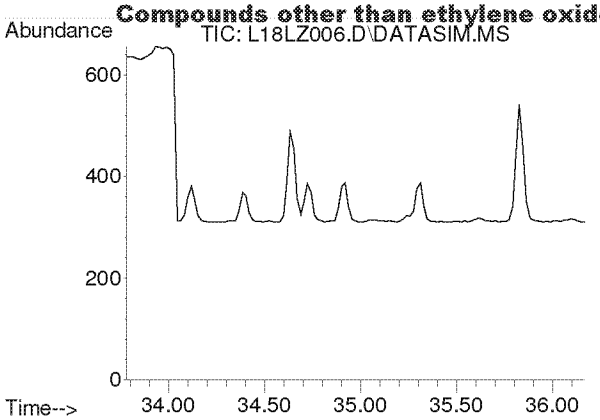
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

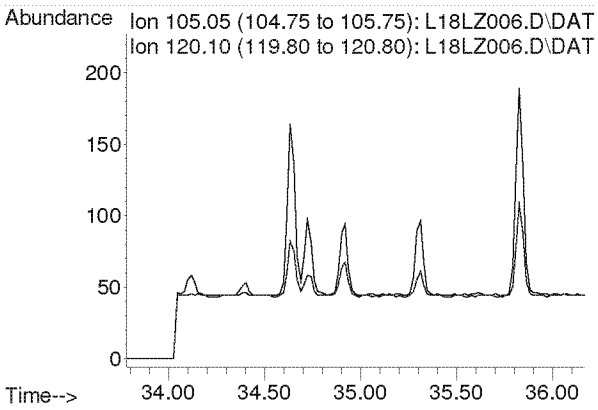


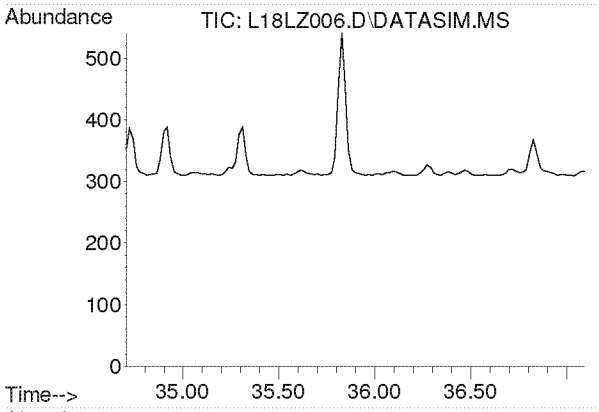
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



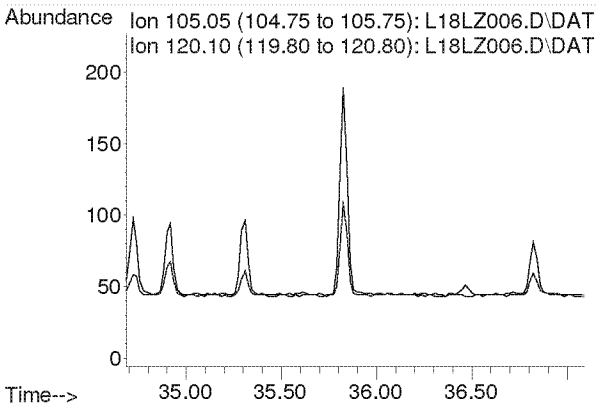


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

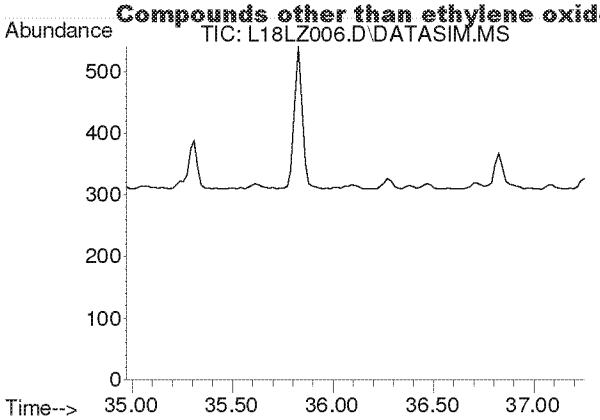
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

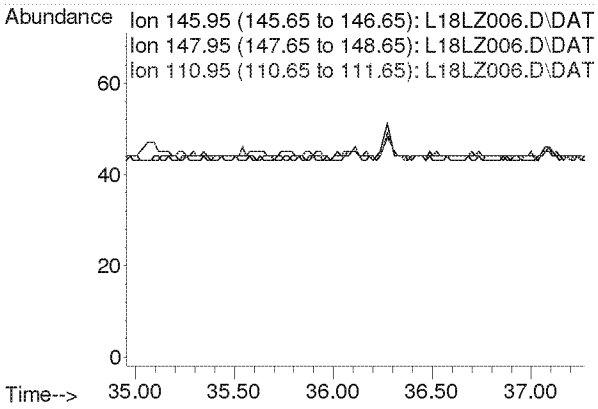


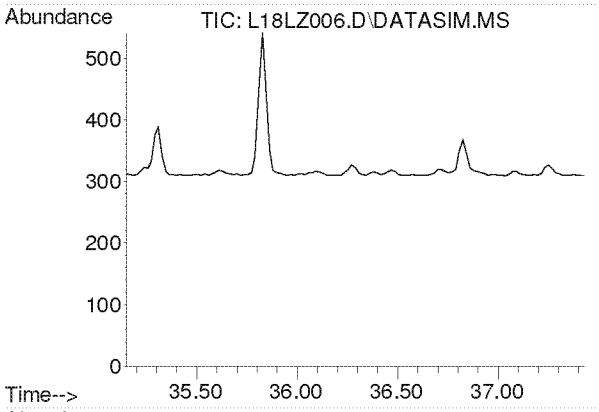
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



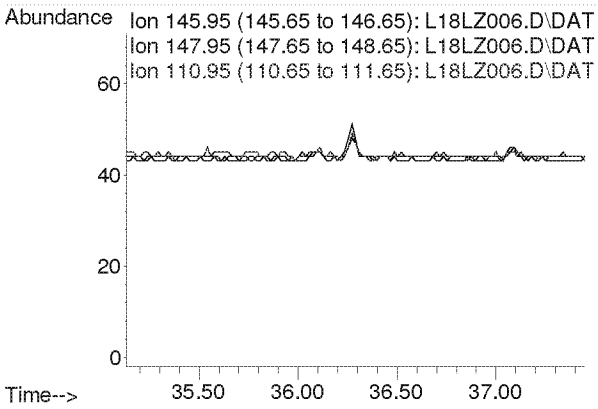


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

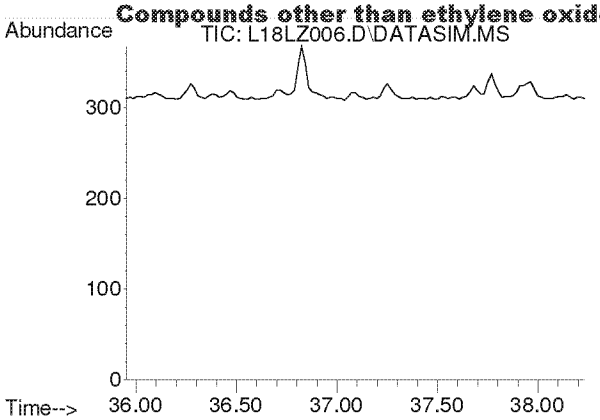
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

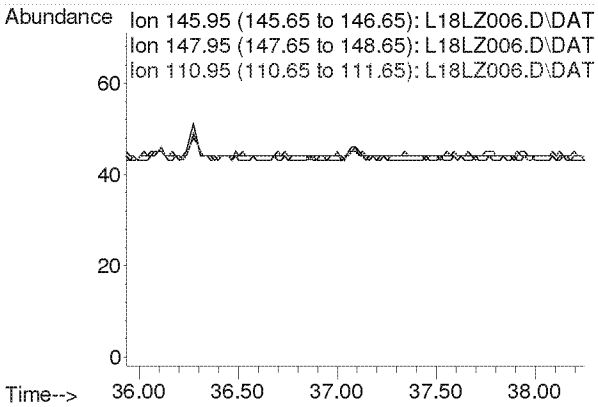


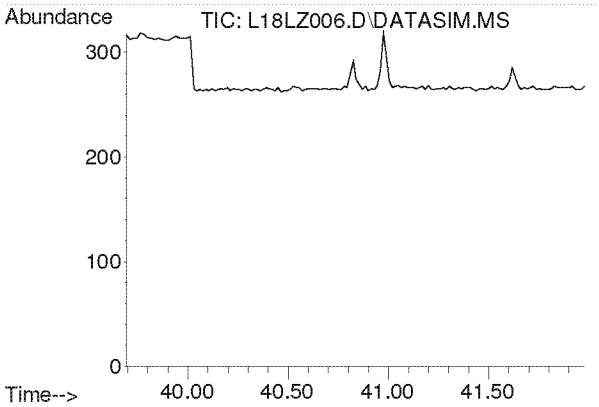
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



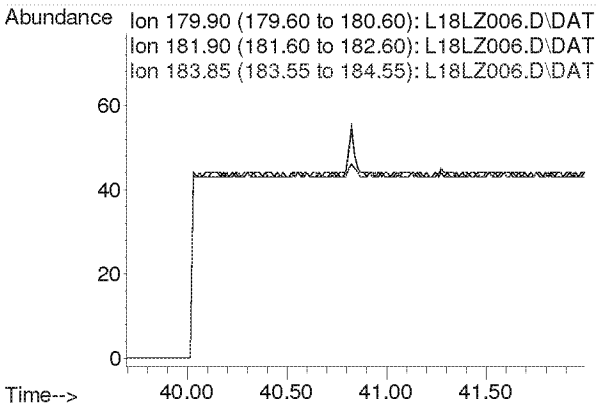


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

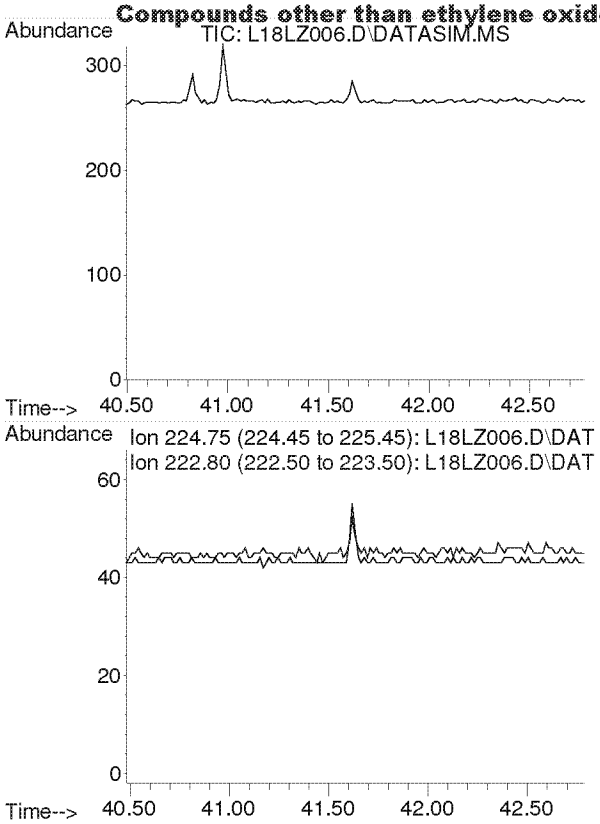
Lab File: L18LZ006.D
Acq: 26 Dec 2018 4:31 pm

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: L18LZ006.D
Acq: 26 Dec 2018 4:31 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\L18LZ\
Data File : L18LZ007.D
Acq On : 26 Dec 2018 5:33 pm
Operator : MAH
Sample : 8121130-17
Misc : GPWER ES 12/8/18
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 03 11:11:08 2019
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

ETOX ons
d=NR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	58738	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	140878	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	95845	4.7400 ppbv	0.00

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.	
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. 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\L18LZ\
Data File : L18LZ007.D
Acq On : 26 Dec 2018 5:33 pm
Operator : MAH
Sample : 8121130-17
Misc : GPWER ES 12/8/18
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 03 11:11:08 2019
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

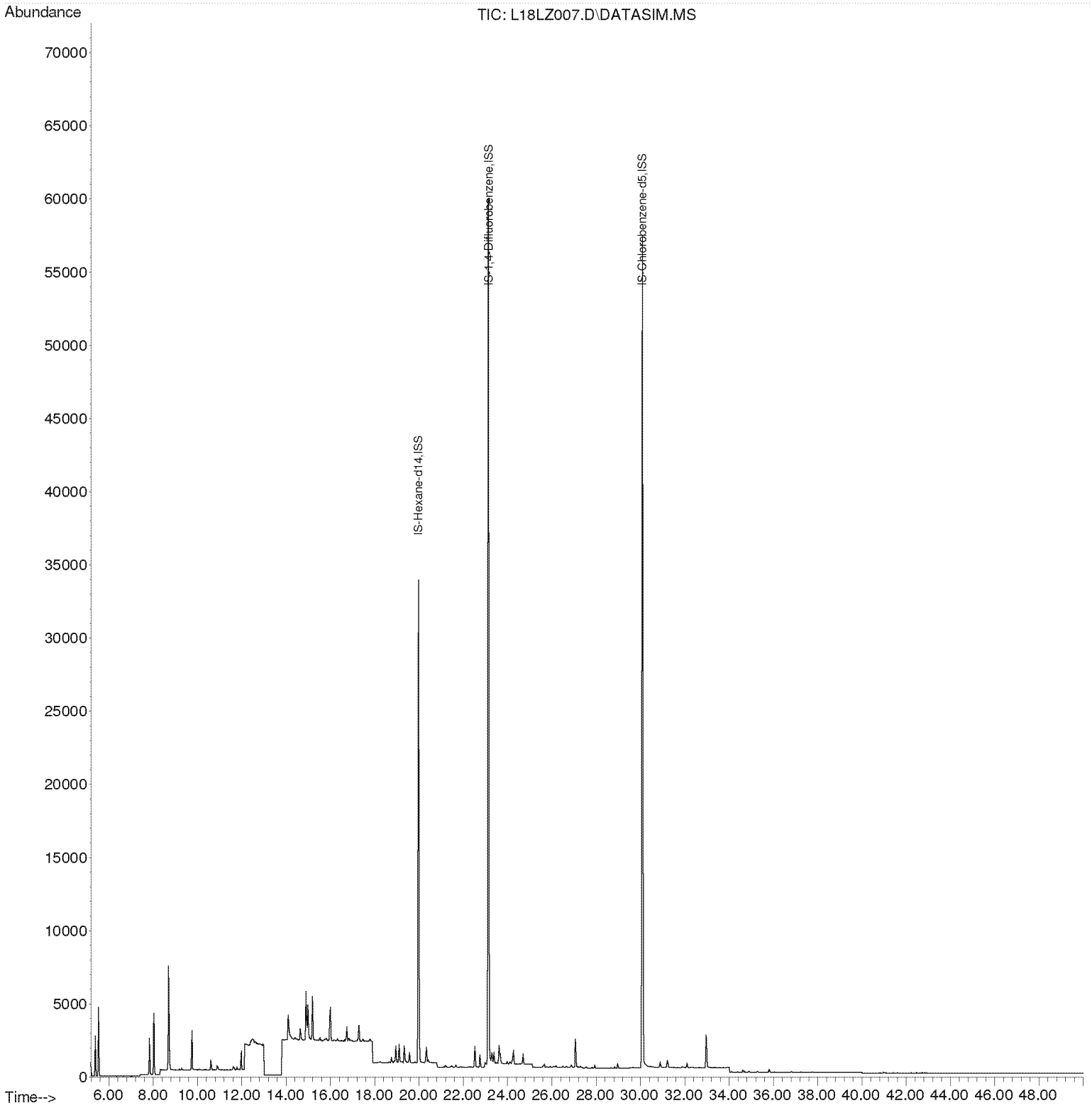
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	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

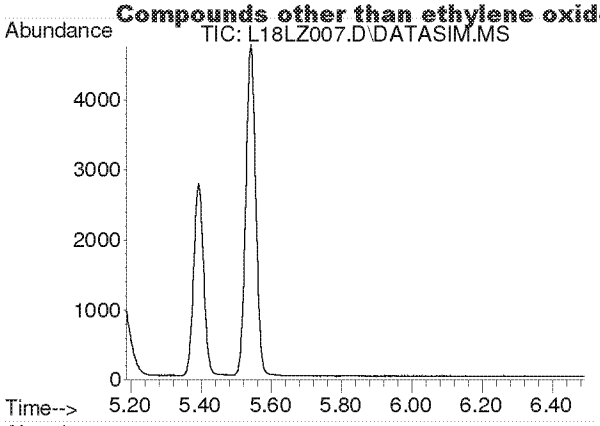
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ007.D
Acq On : 26 Dec 2018 5:33 pm
Operator : MAH
Sample : 8121130-17
Misc : GPWER ES 12/8/18
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 03 10:24:34 2019
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



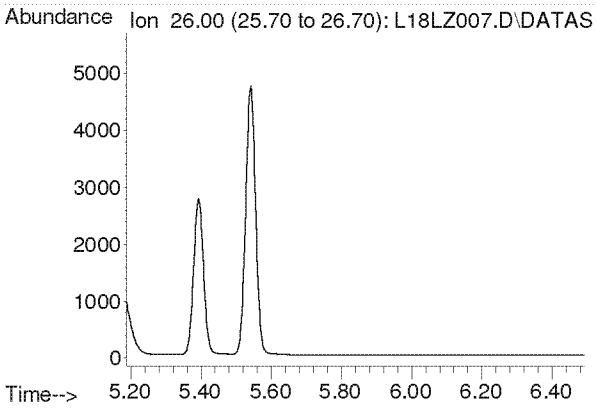
Compounds other than ethylene oxide were not quantitated.

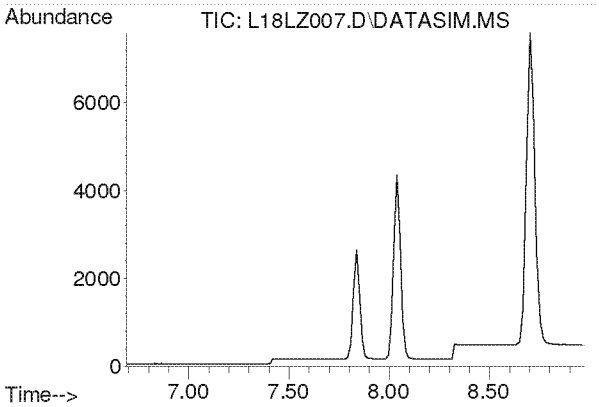


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 26



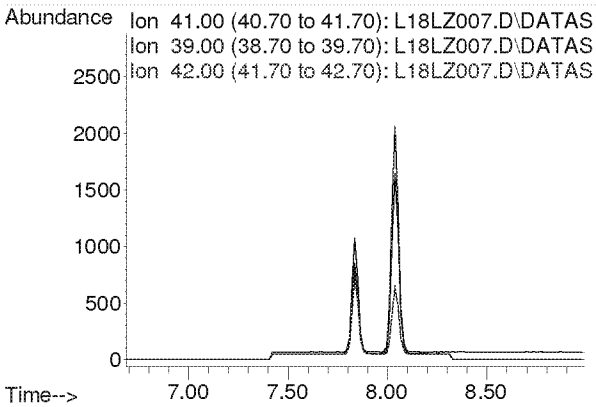


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

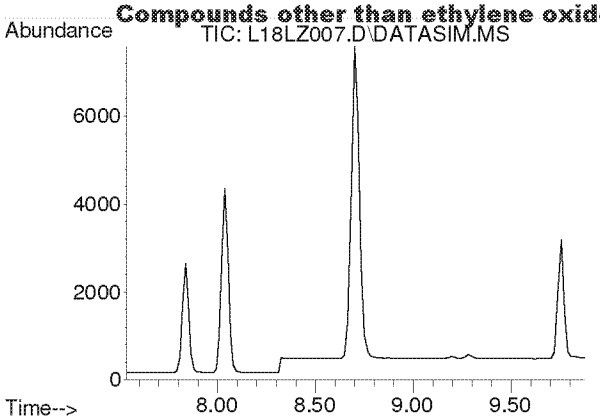
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

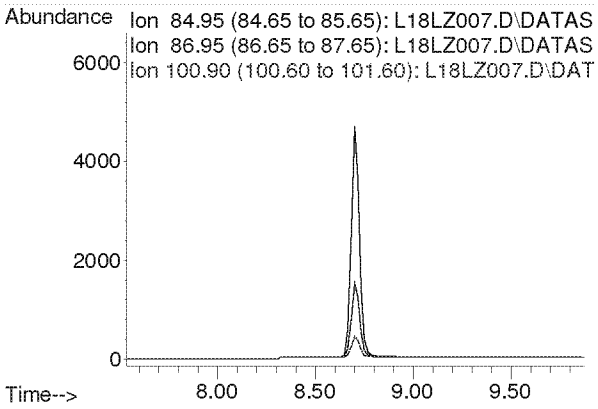


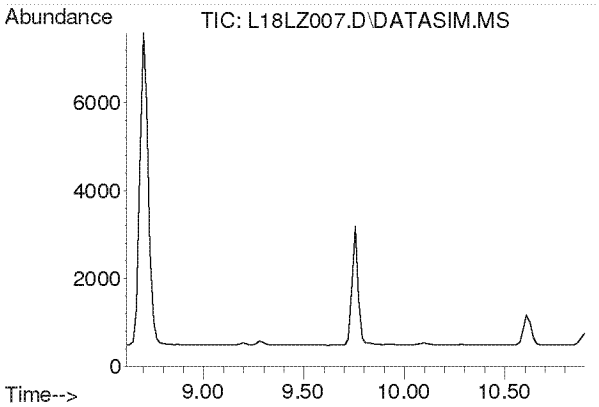
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



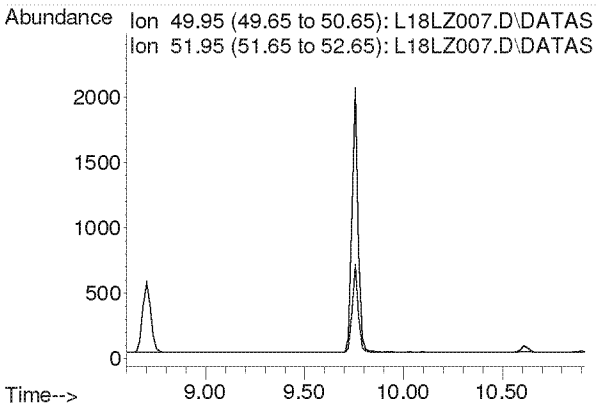


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

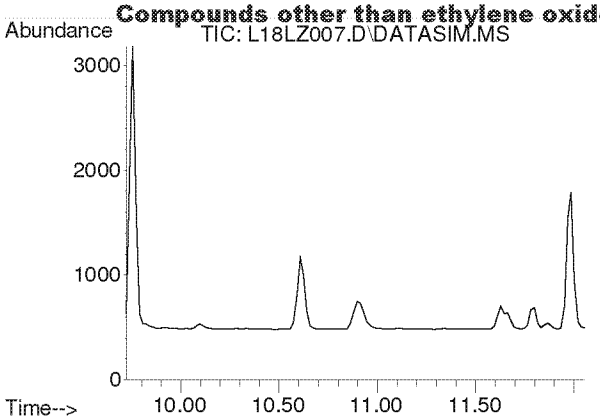
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

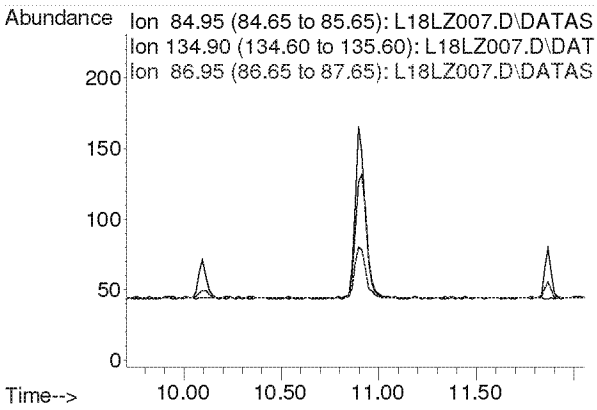


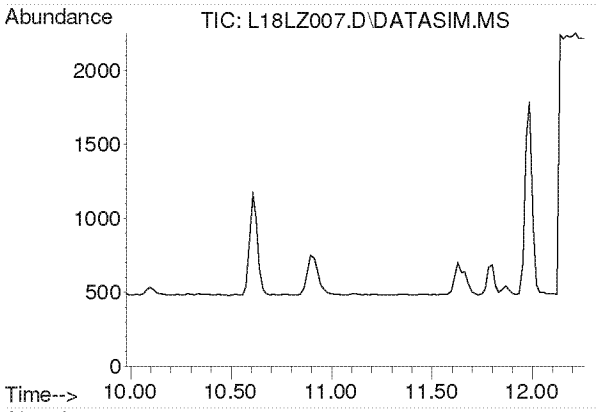
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



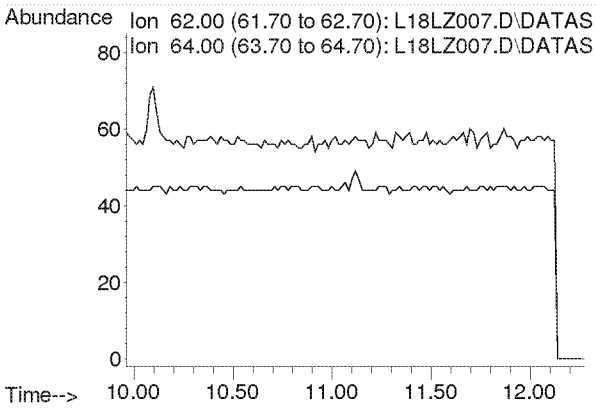


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

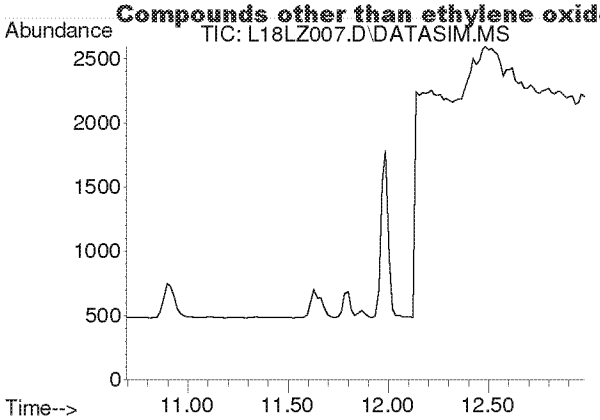
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

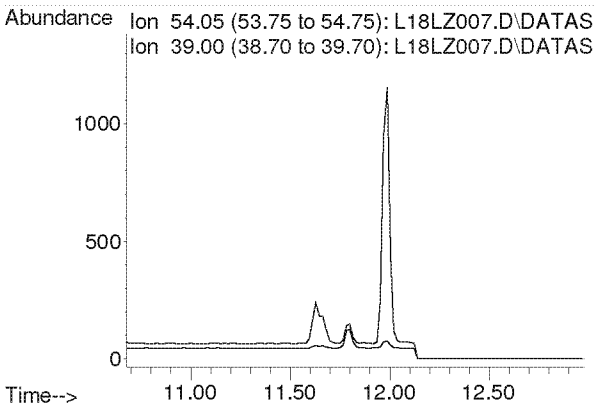


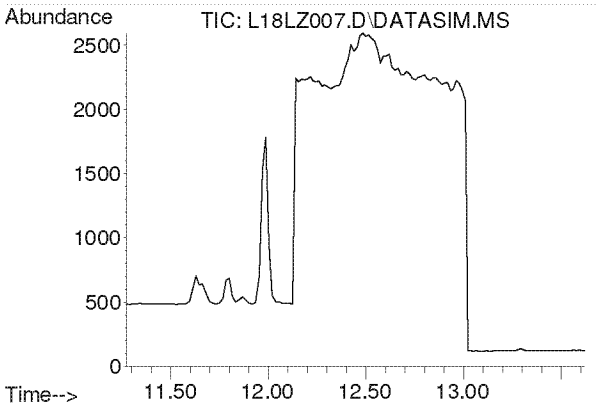
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4



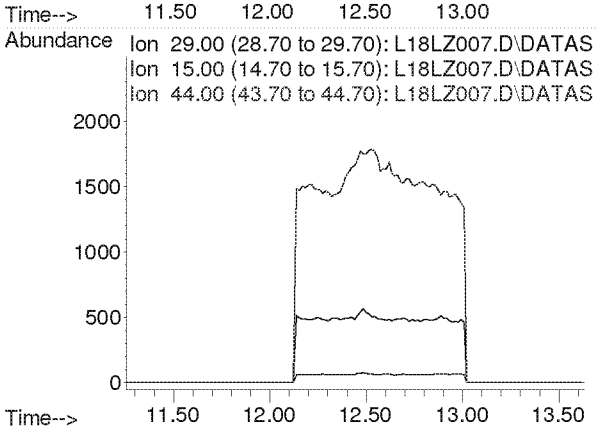


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

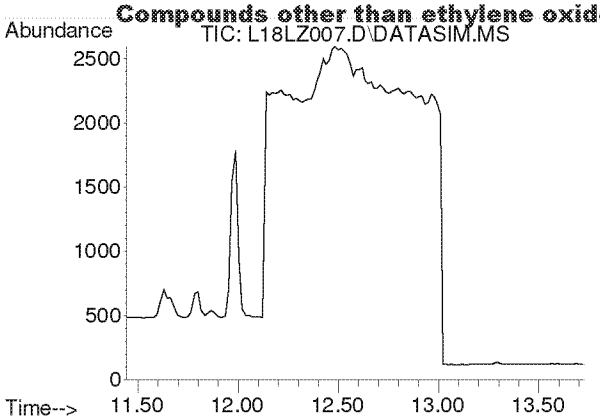
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.3
44	90.0



Compounds other than ethylene oxide were not quantitated.

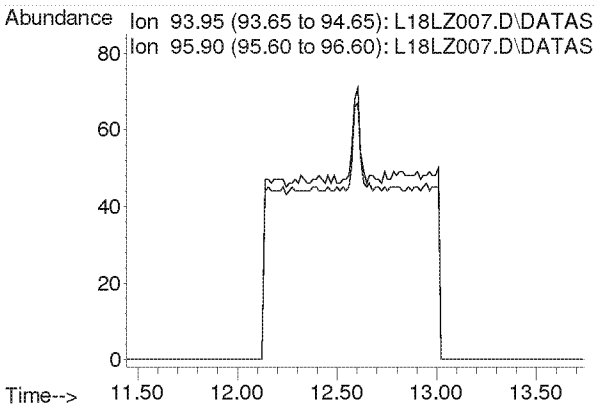


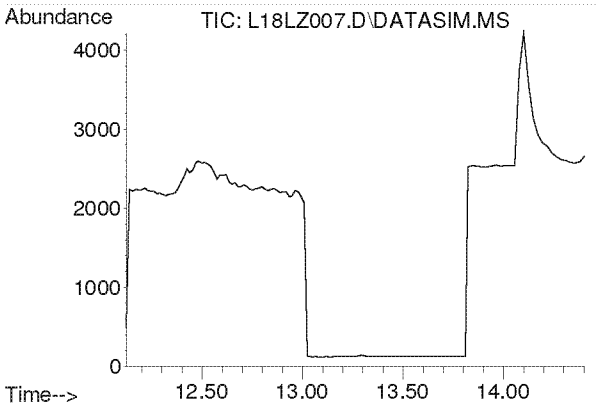
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



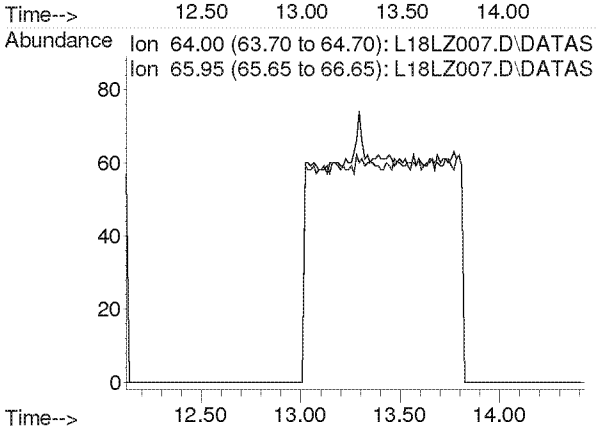


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

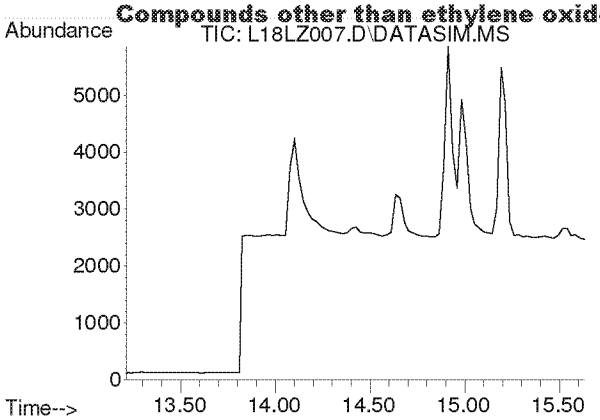
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

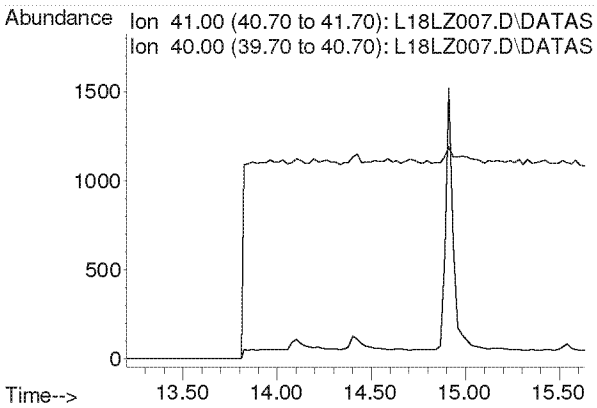


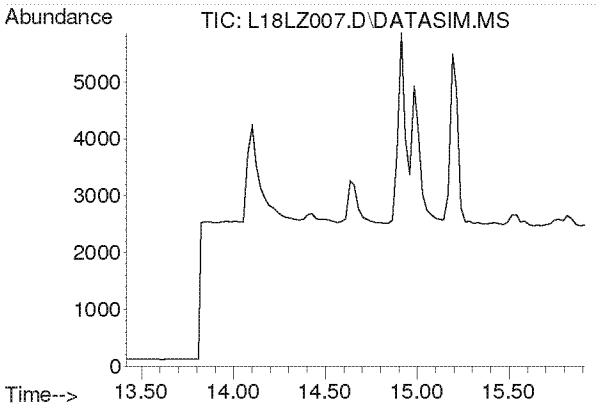
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



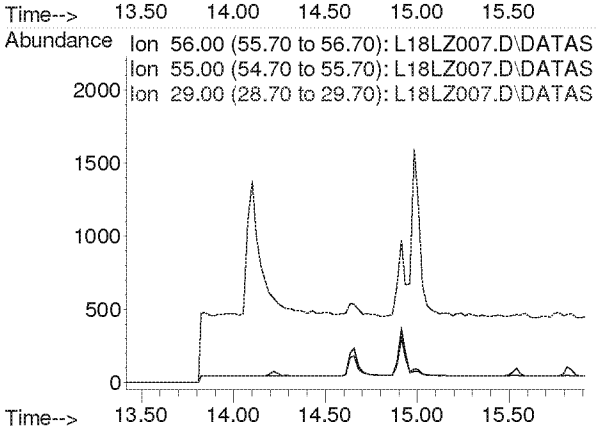


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

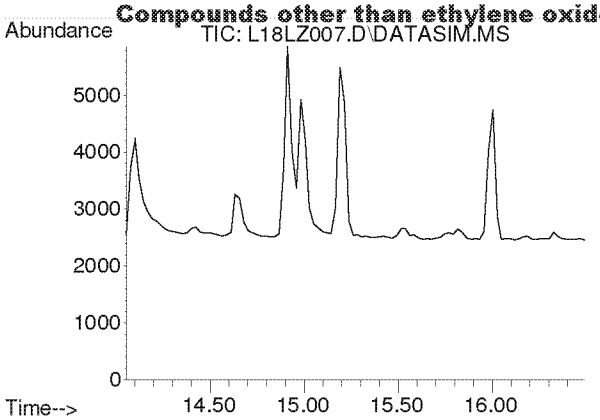
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

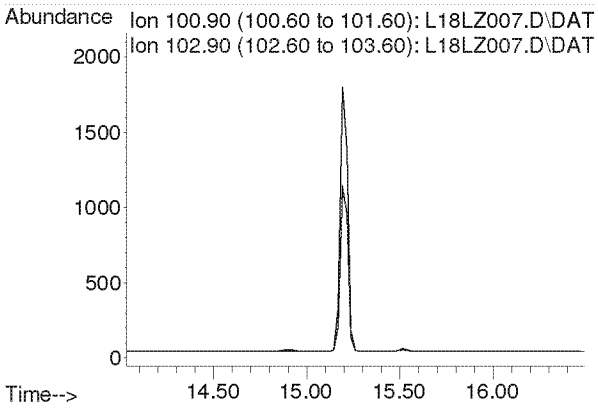


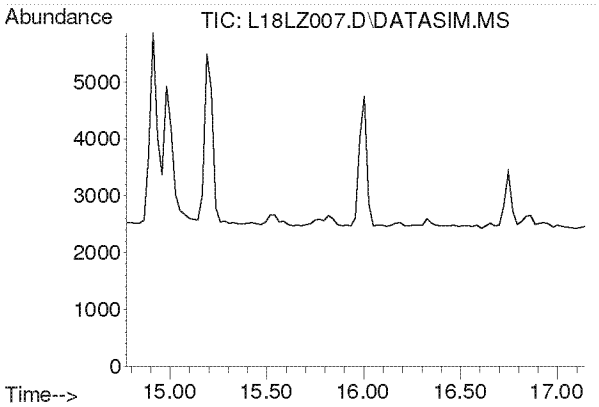
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



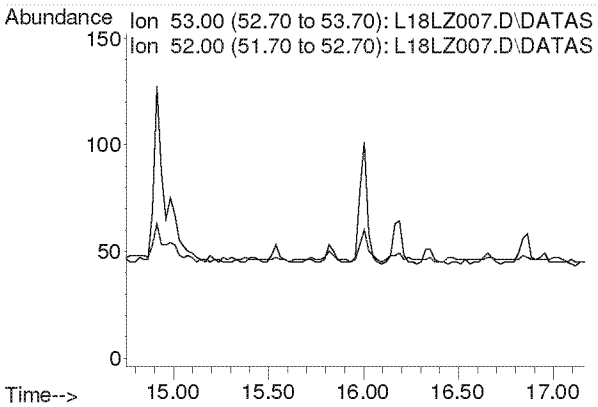


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

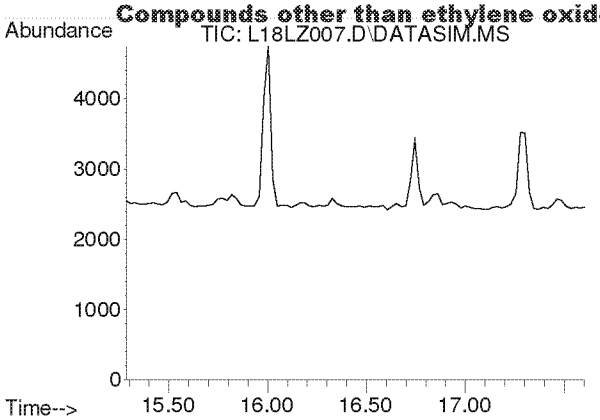
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

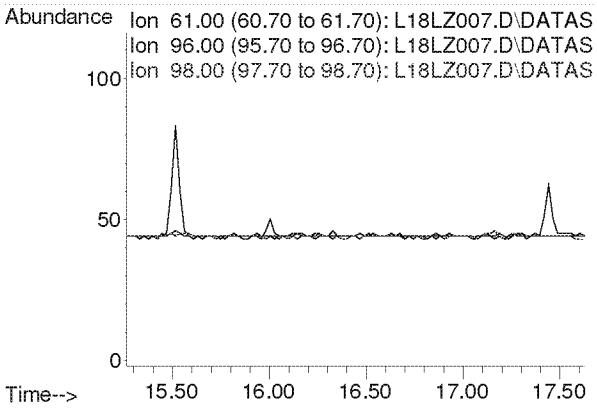


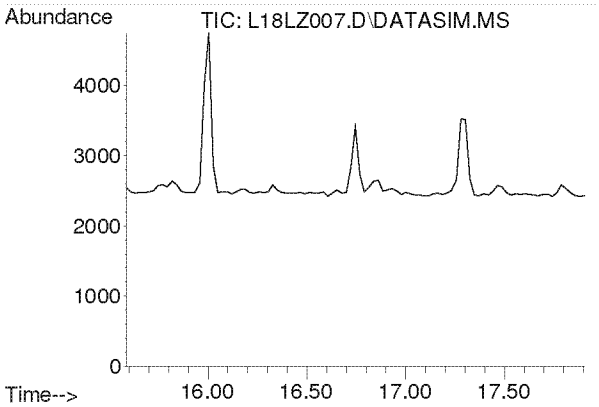
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



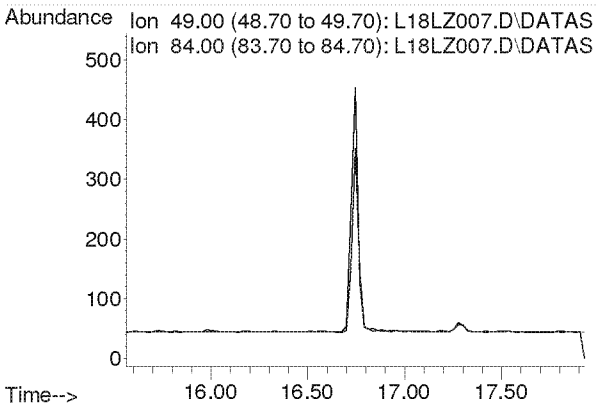


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

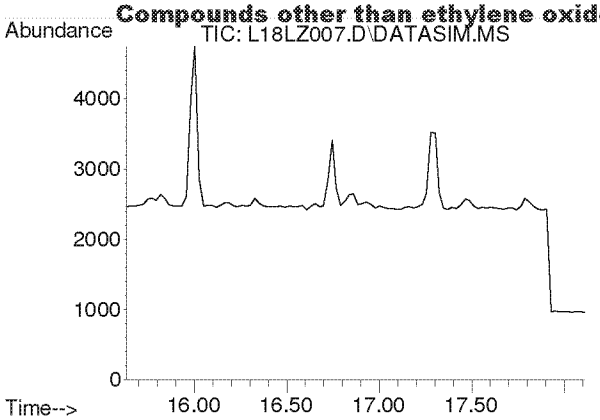
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

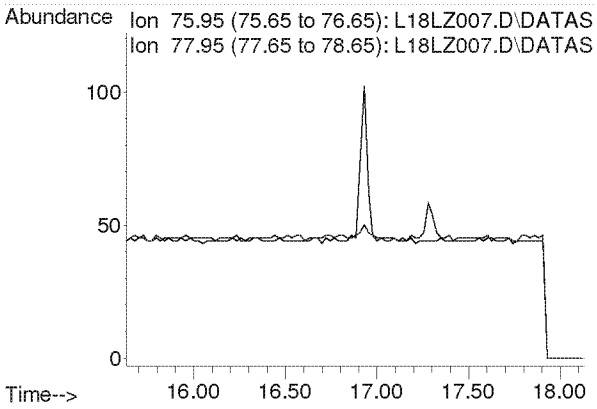


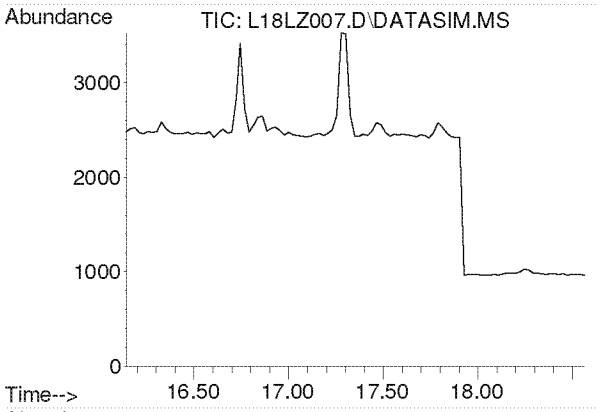
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



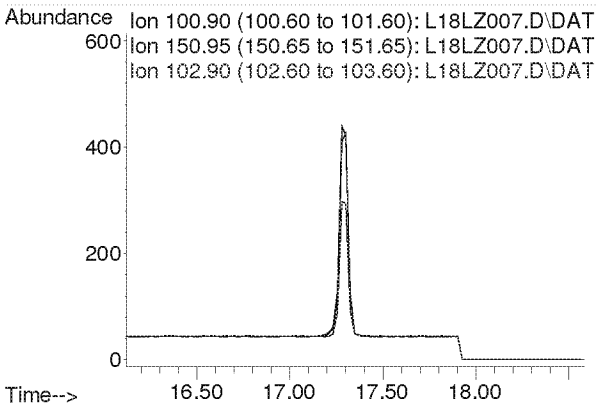


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

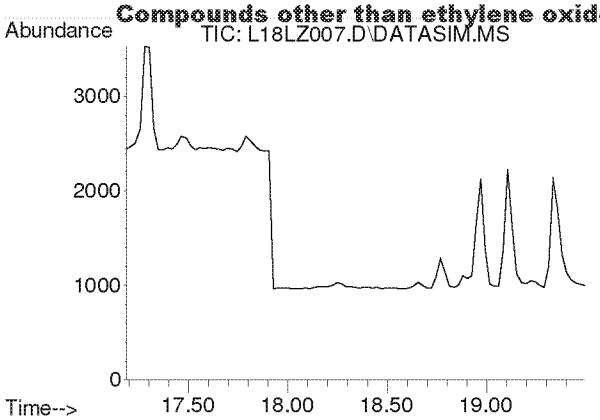
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

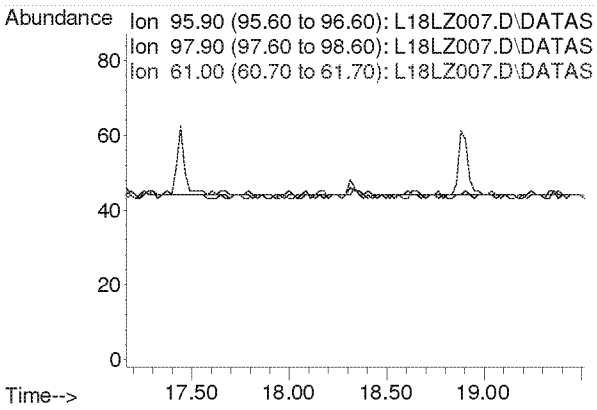


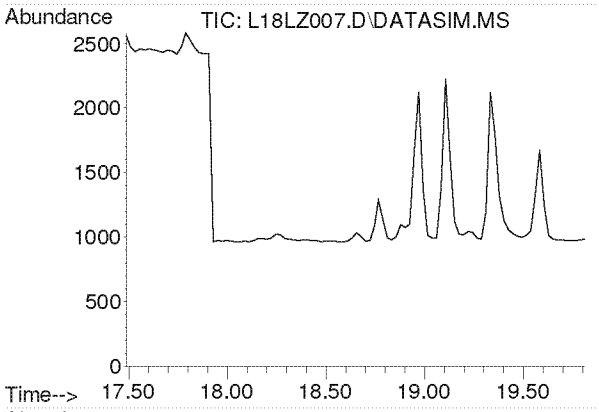
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



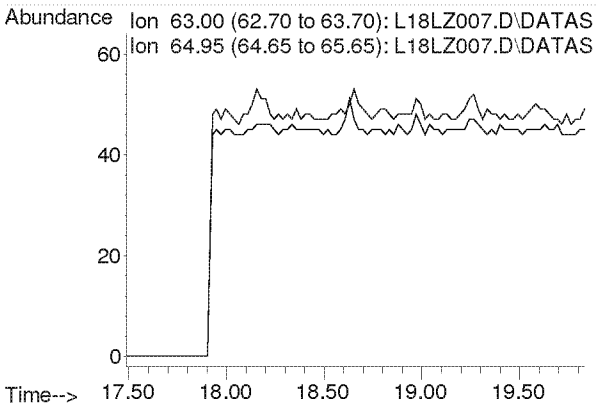


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

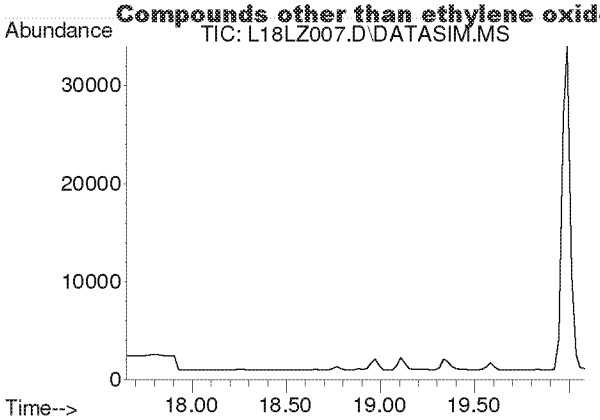
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

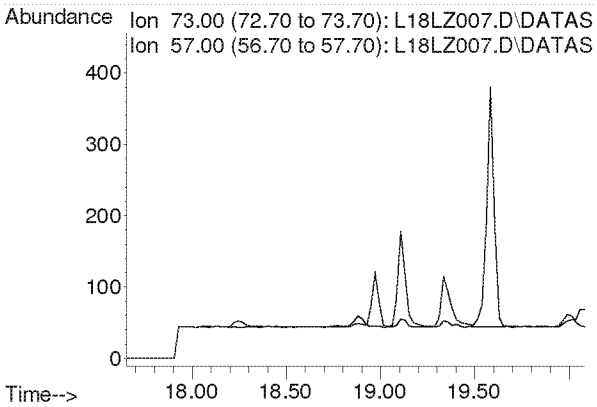


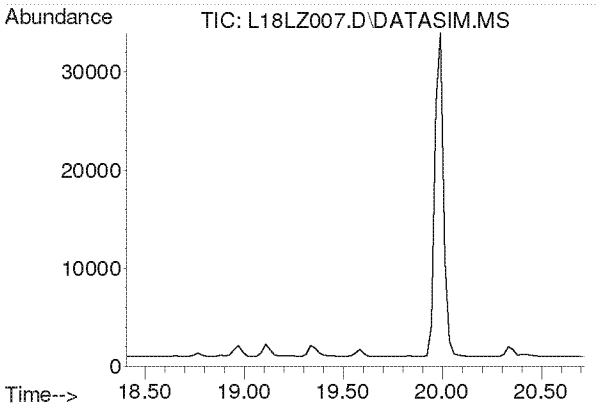
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



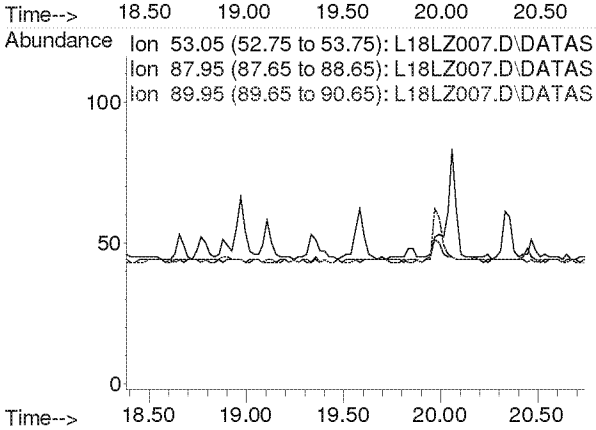


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

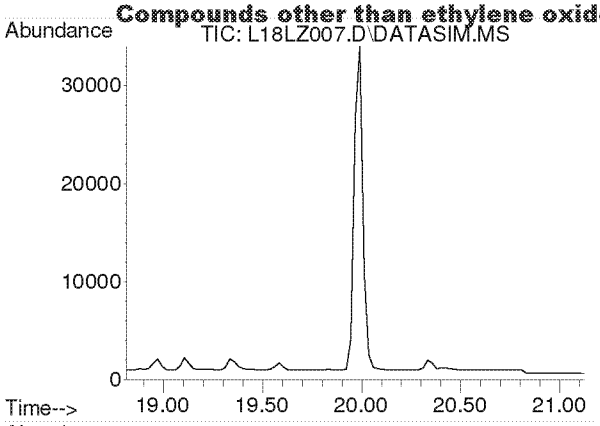
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

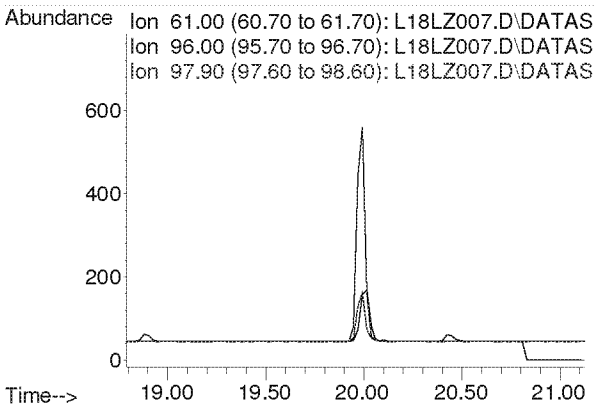


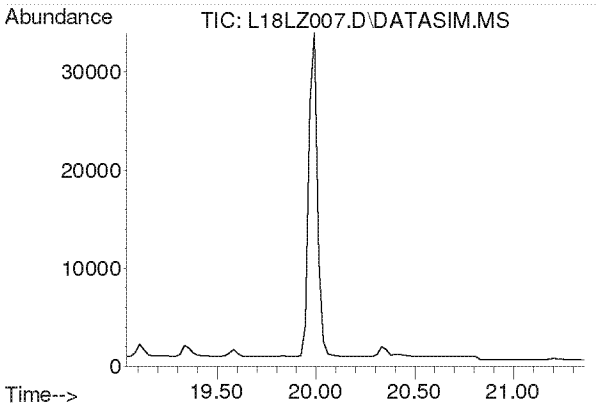
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



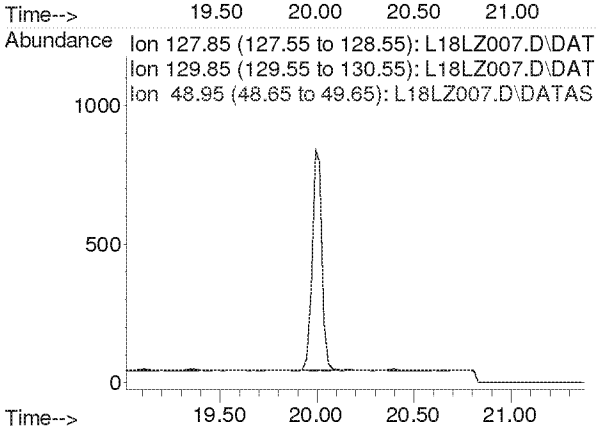


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

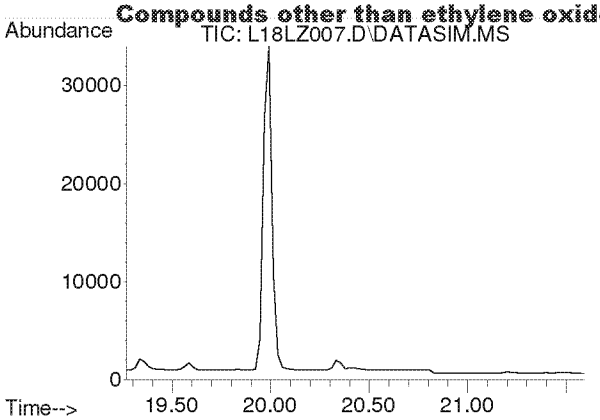
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

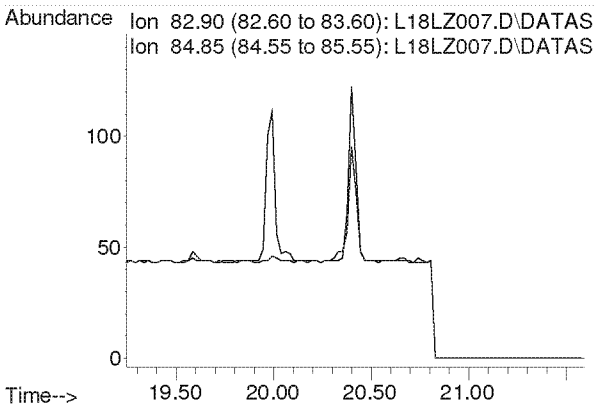


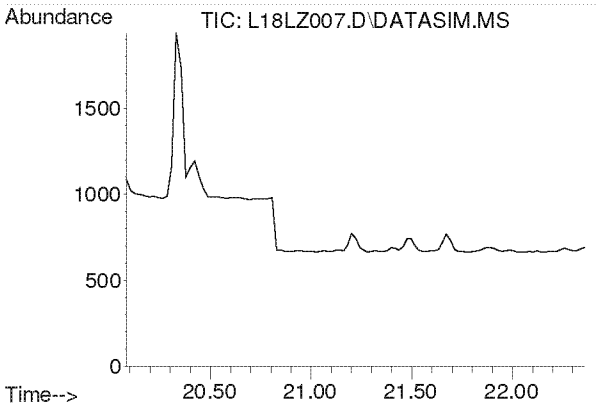
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



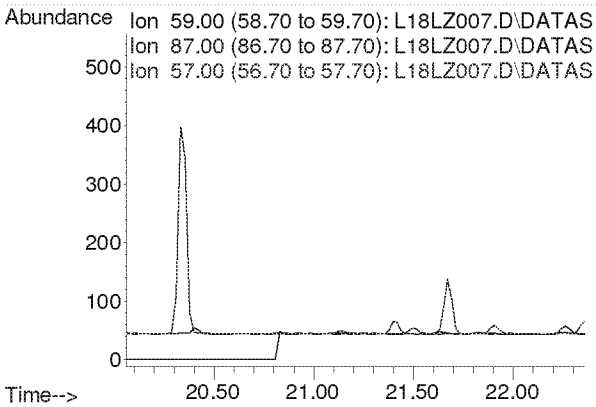


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

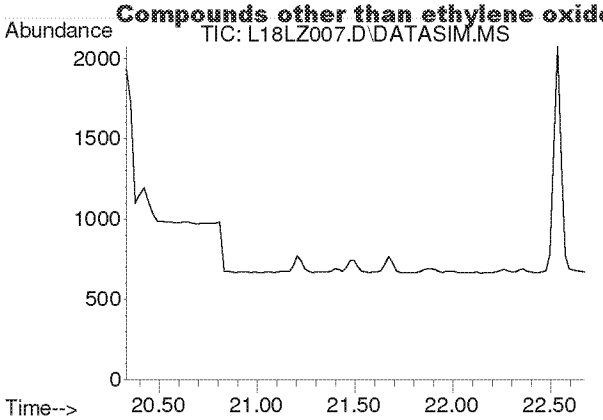
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

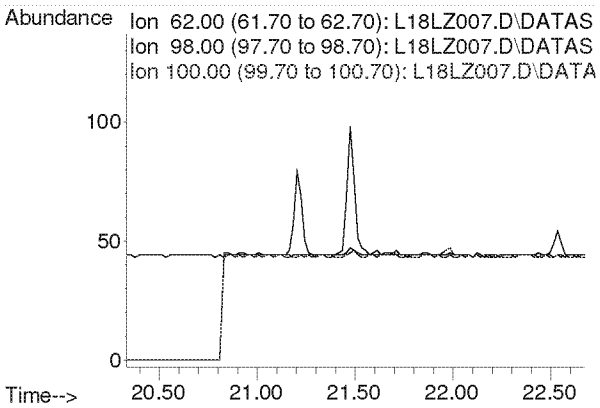


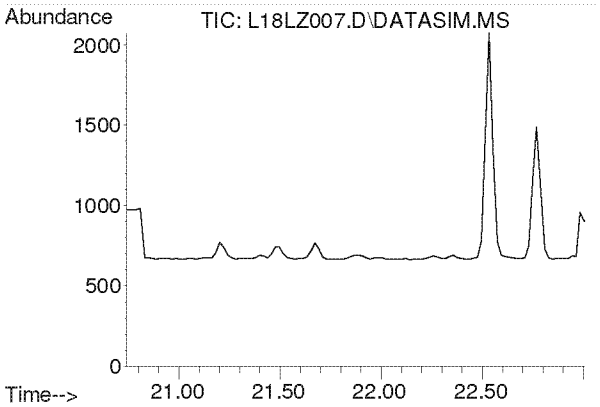
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



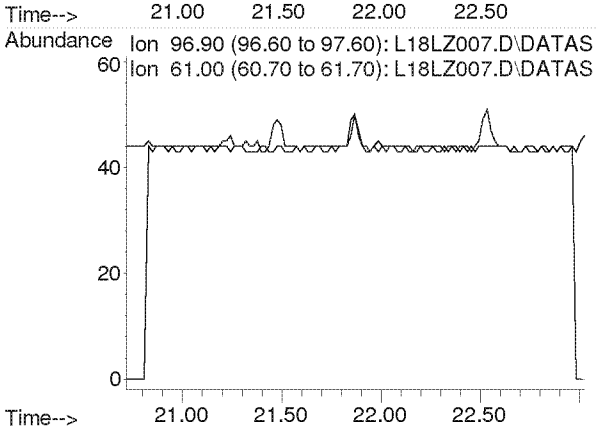


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

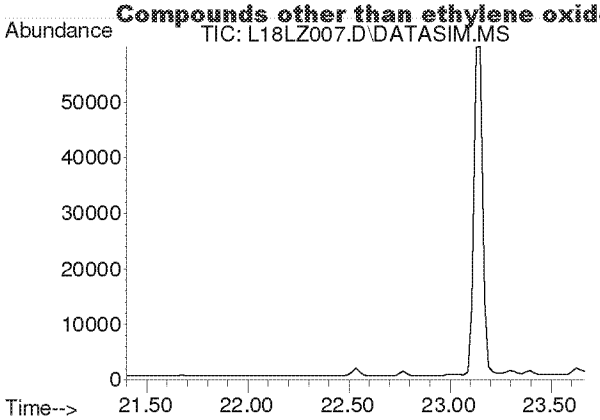
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

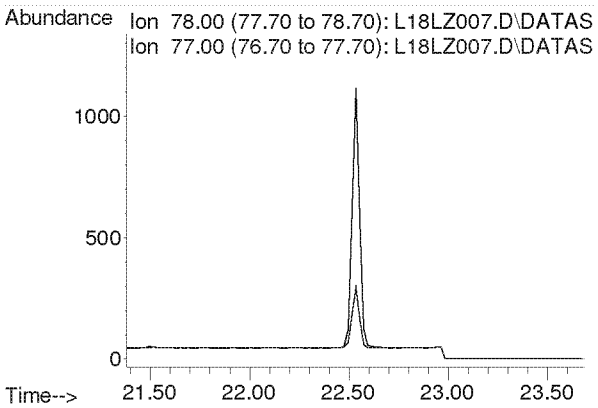


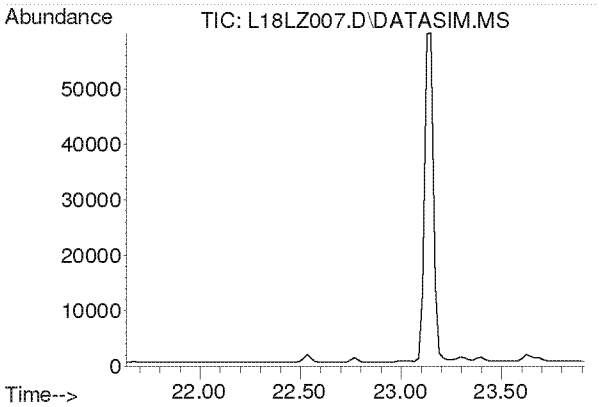
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



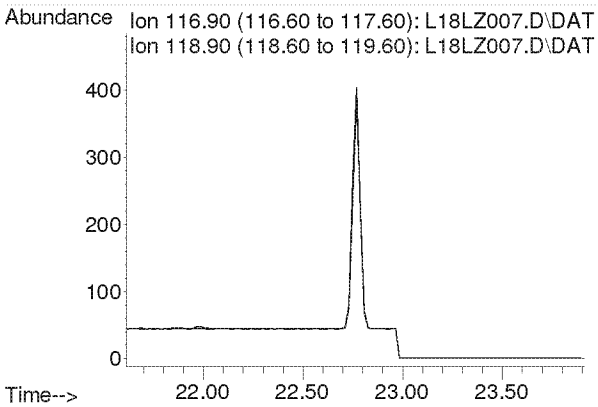


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

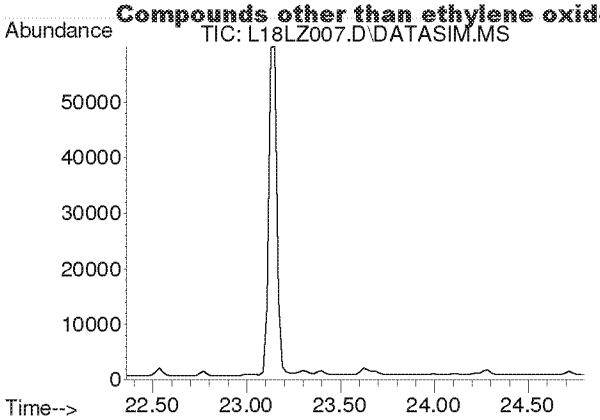
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

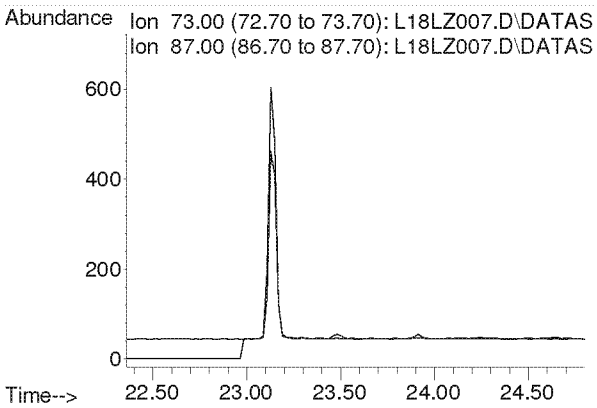


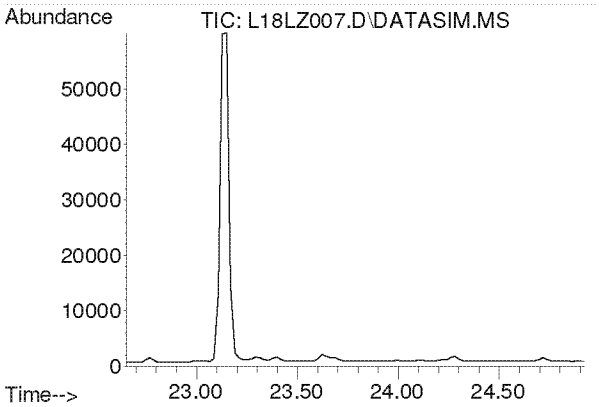
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



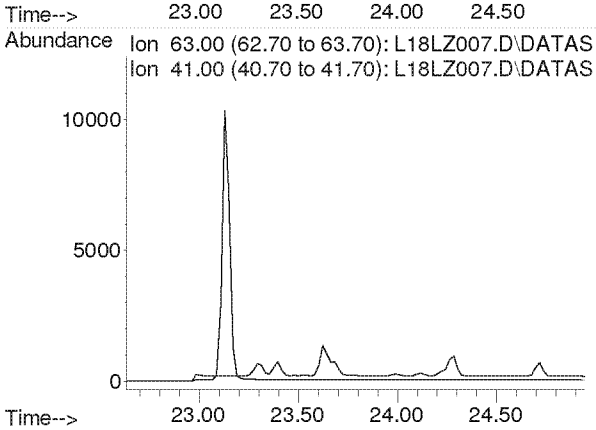


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

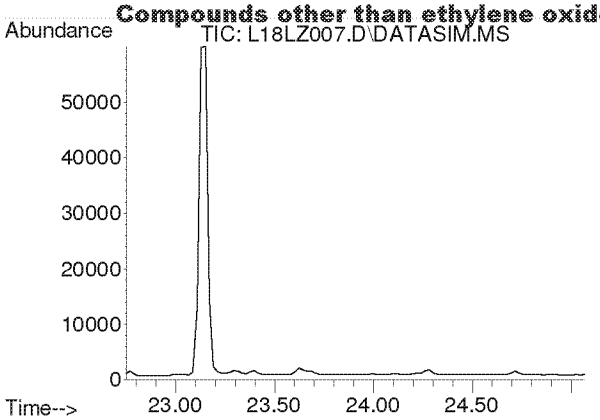
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

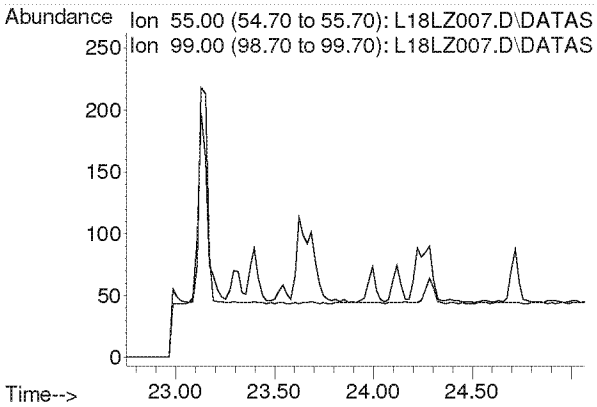


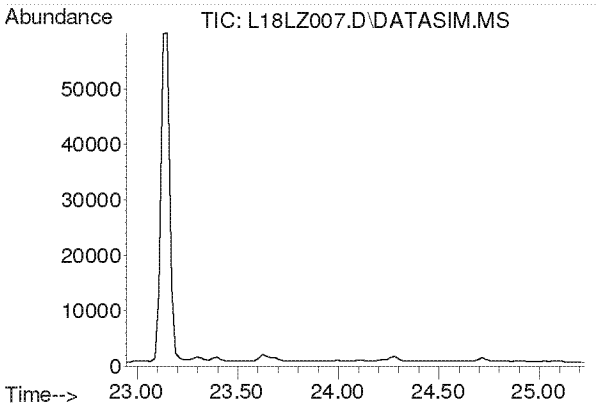
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



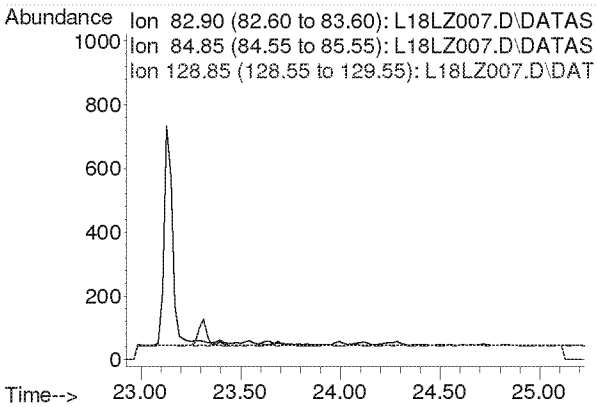


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

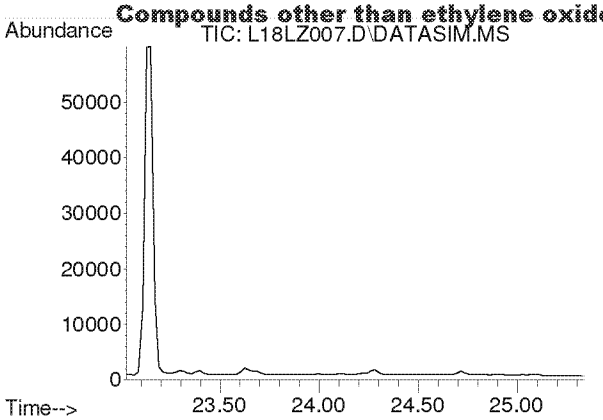
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

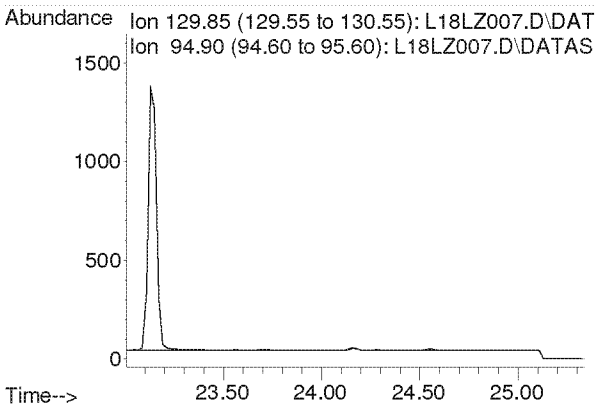


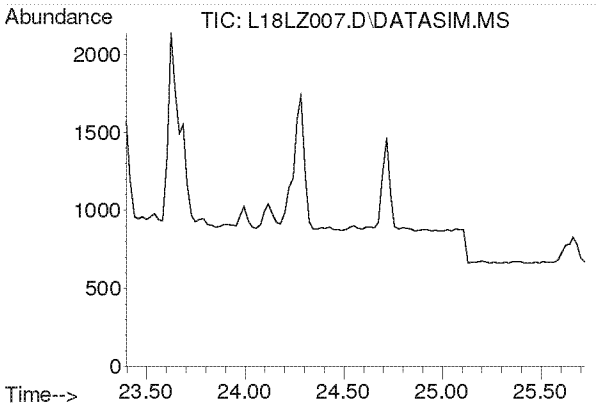
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



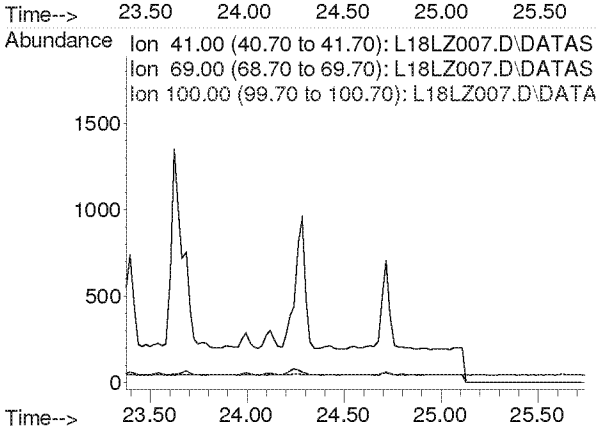


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

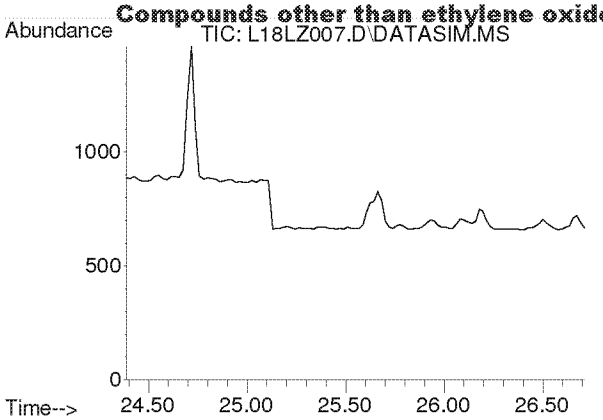
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

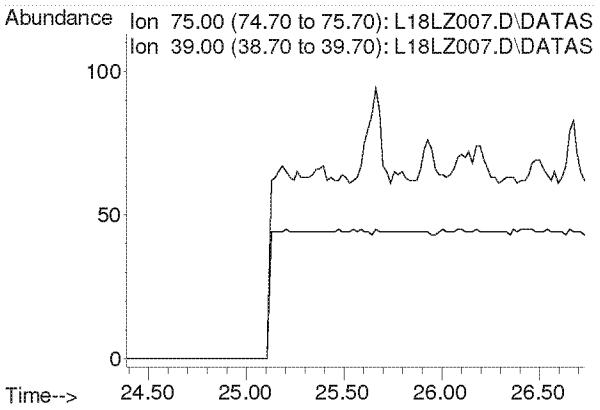


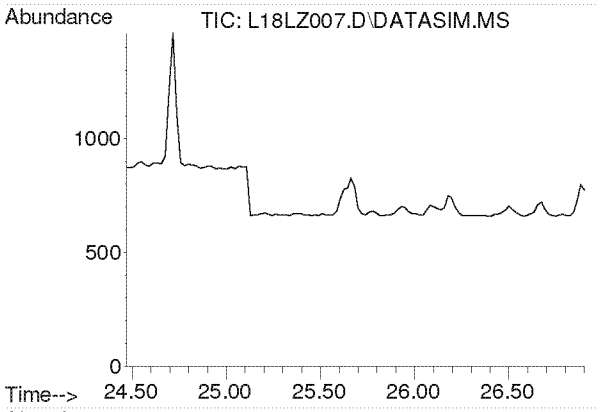
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



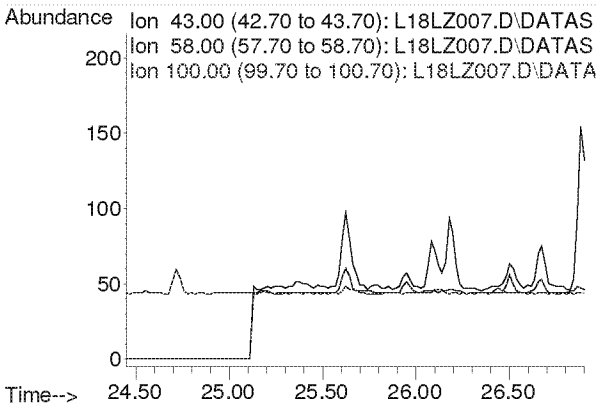


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

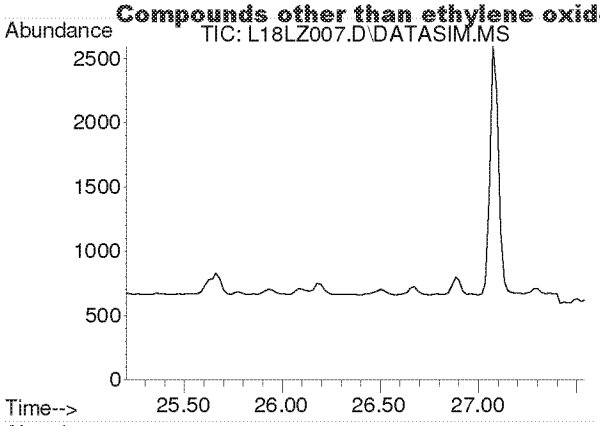
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

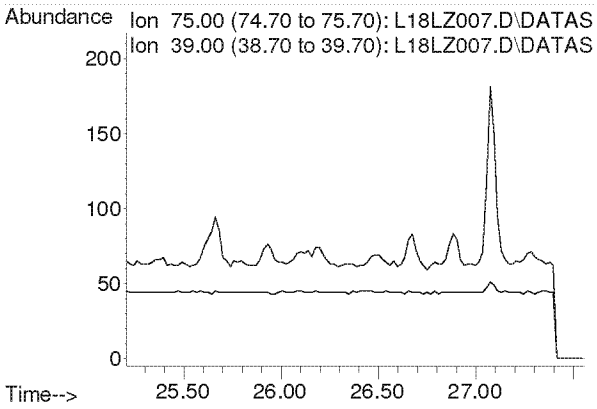


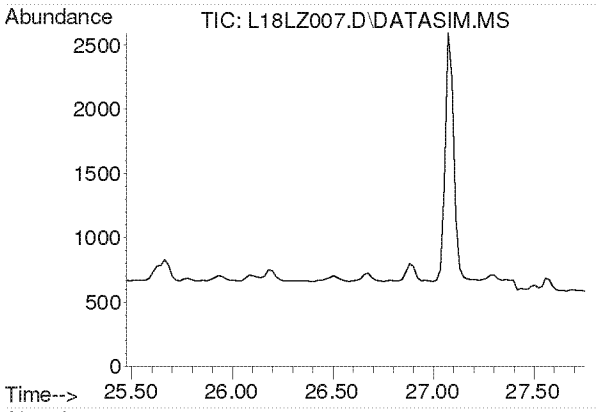
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



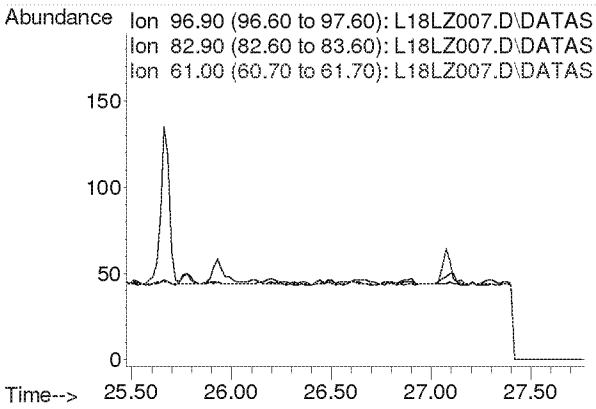


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

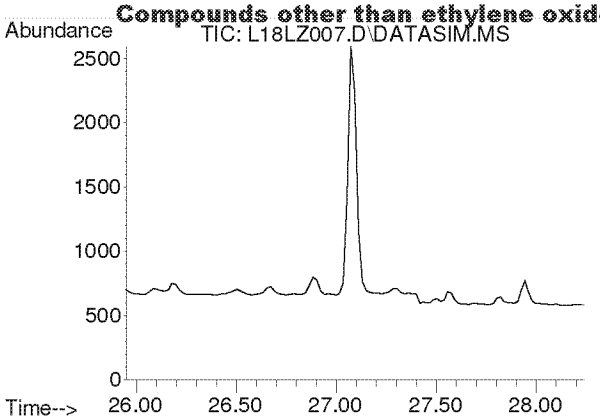
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

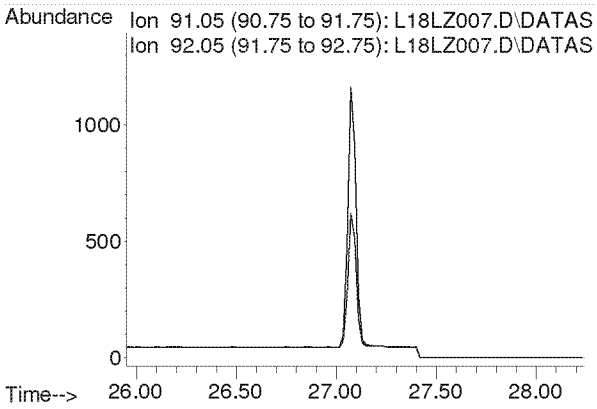


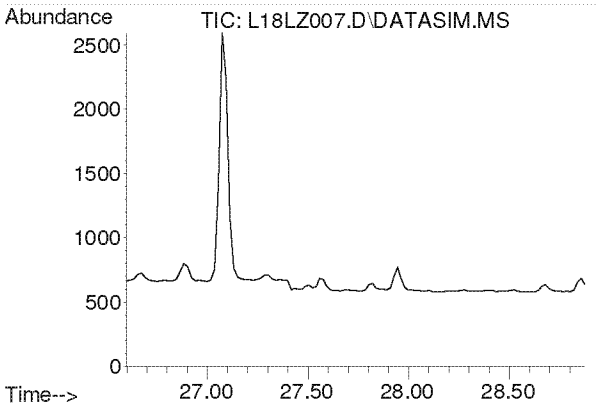
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



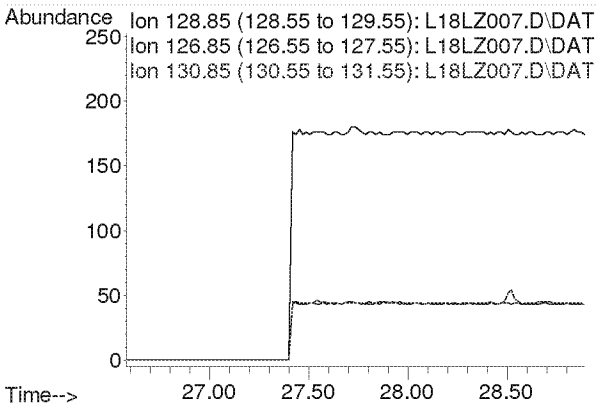


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

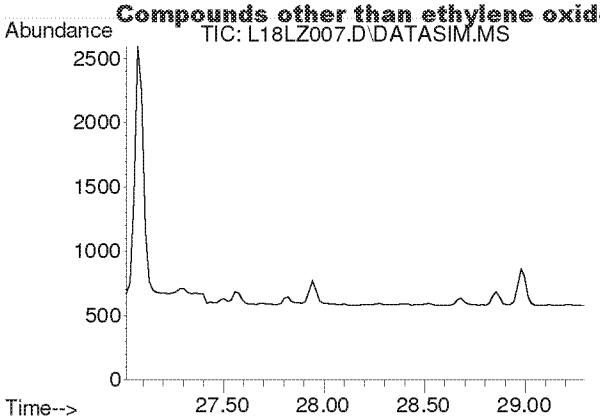
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

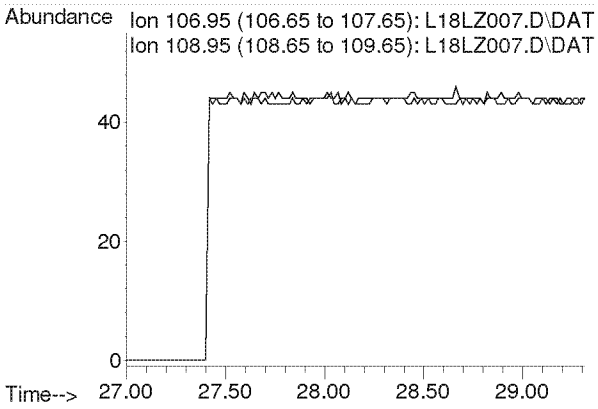


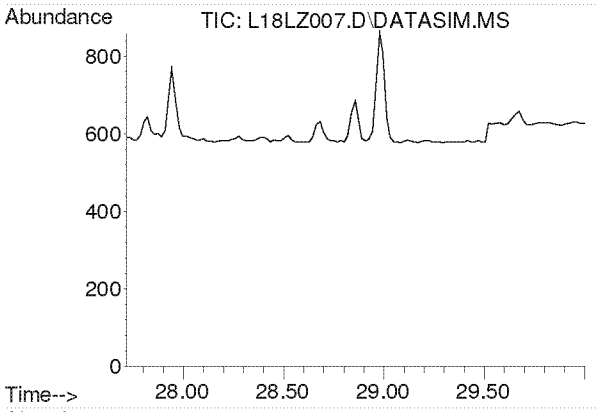
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



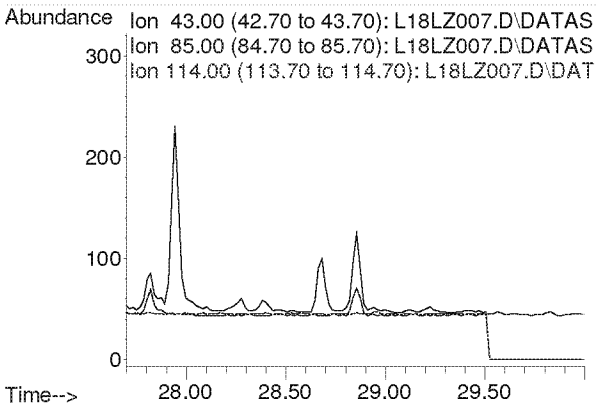


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

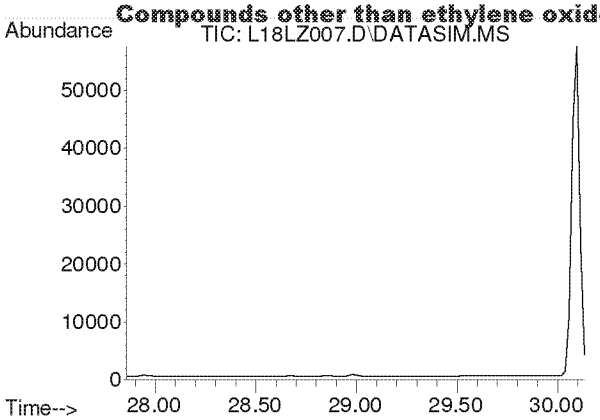
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

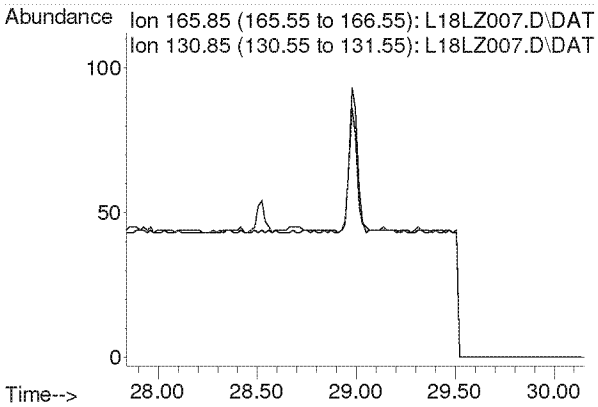


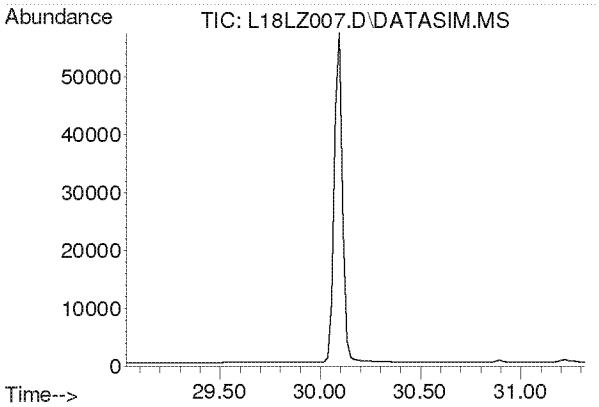
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



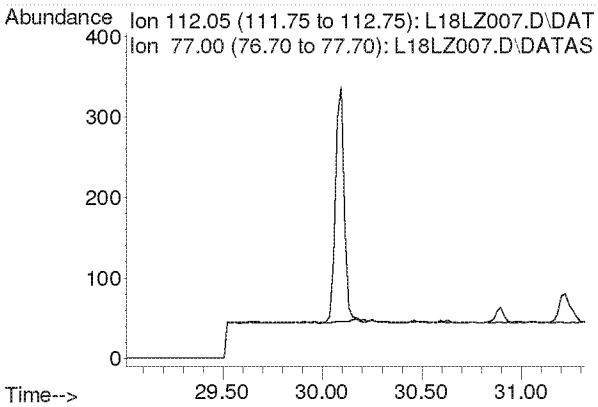


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

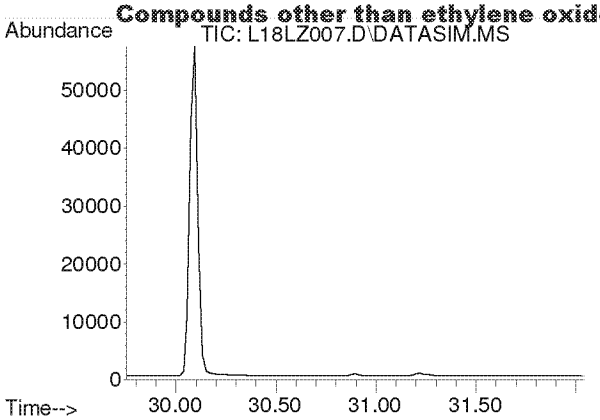
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

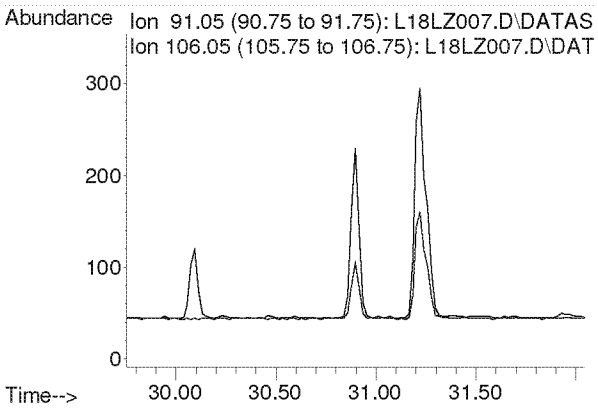


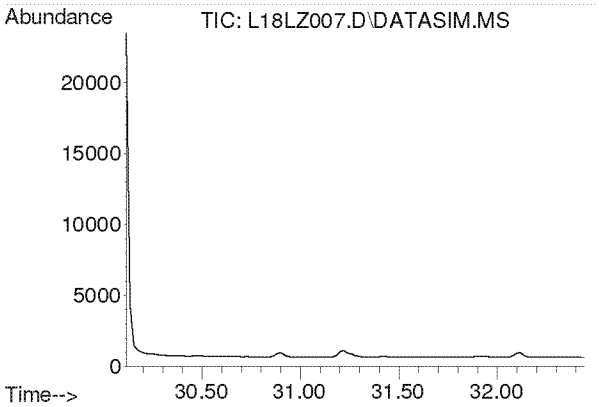
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



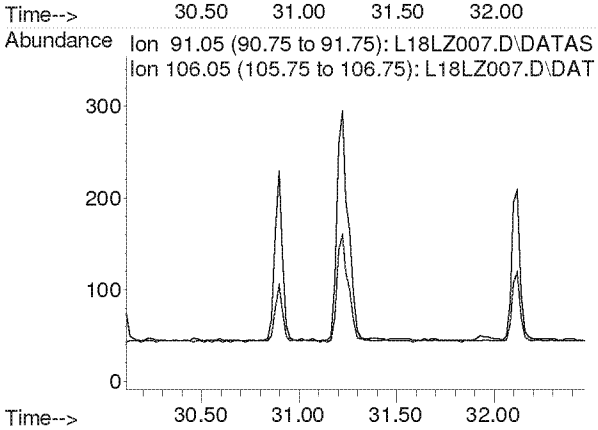


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

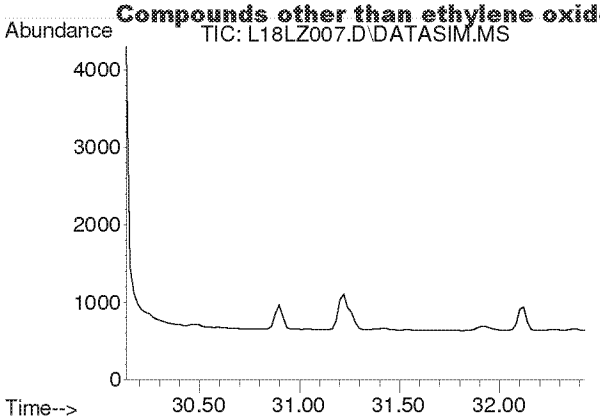
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

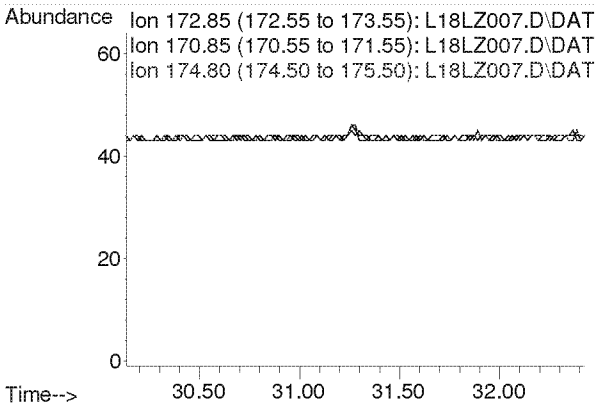


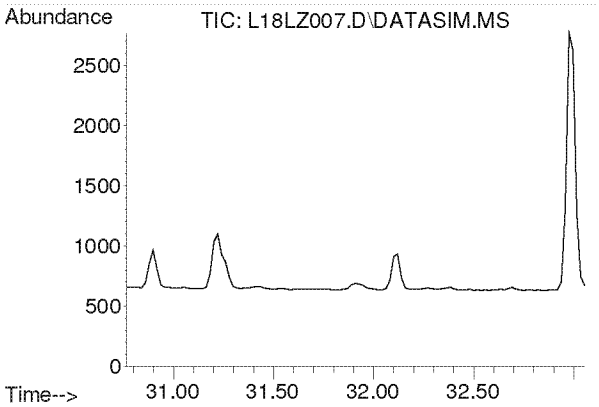
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



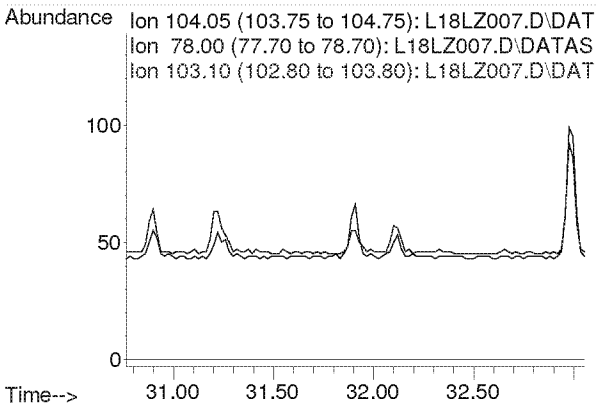


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

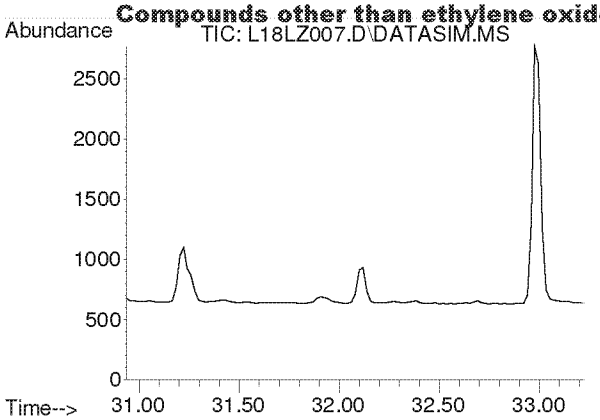
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

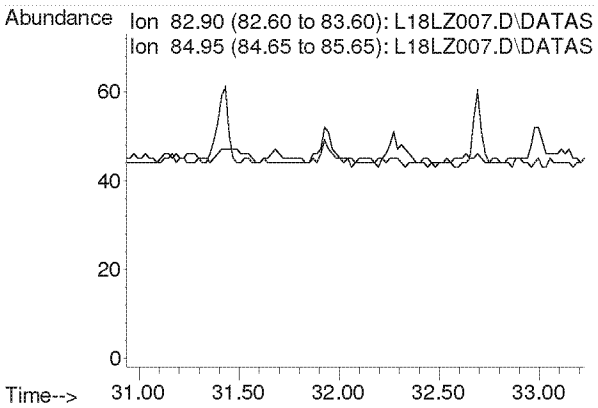


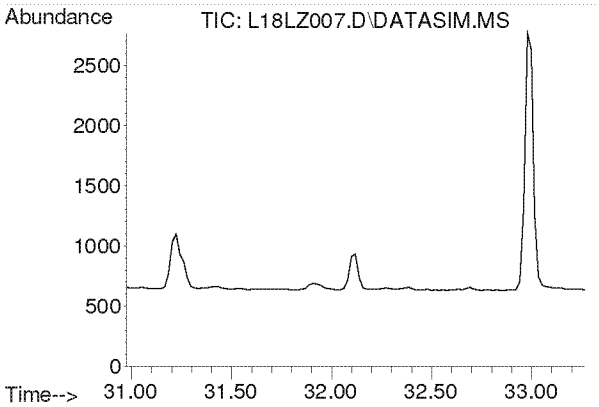
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



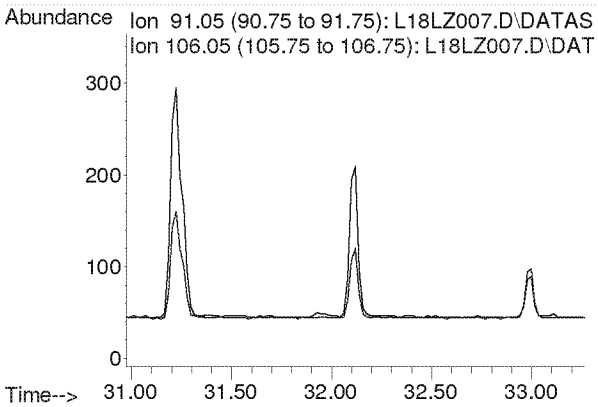


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

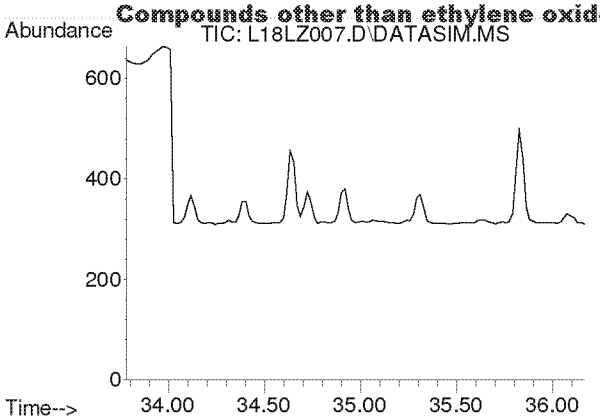
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

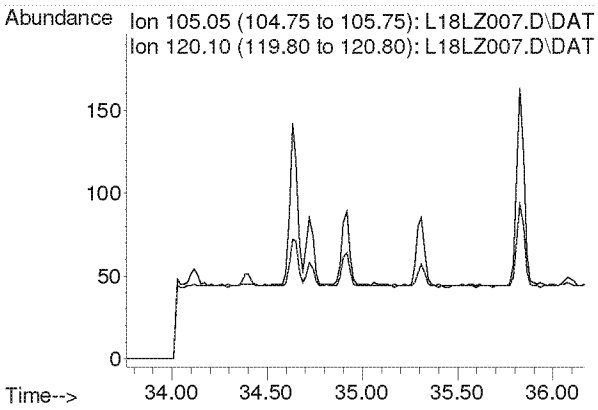


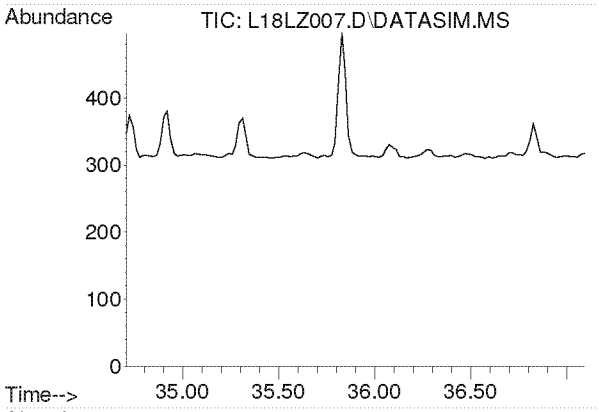
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



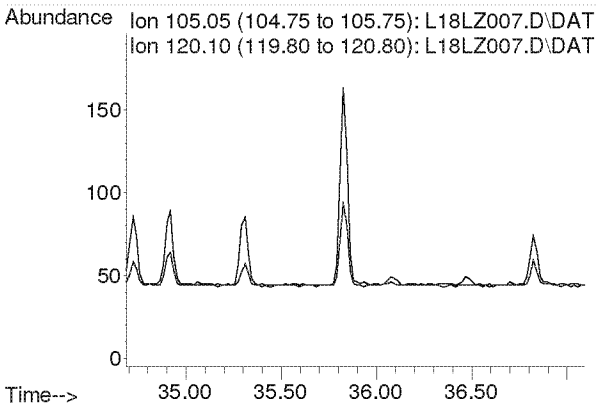


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

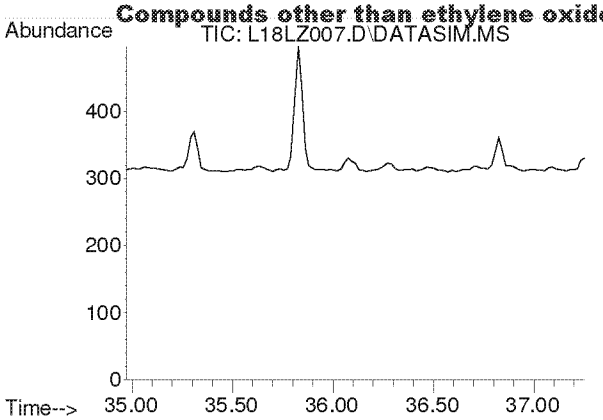
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

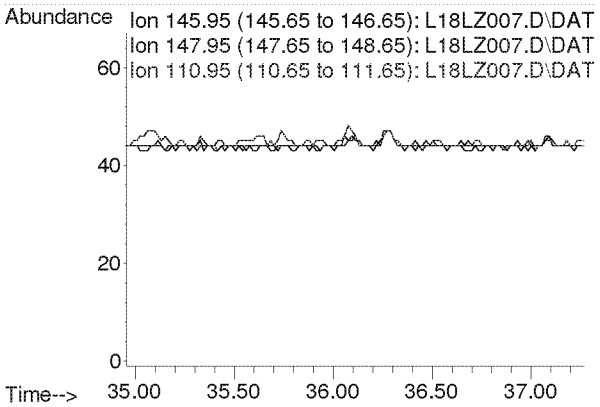


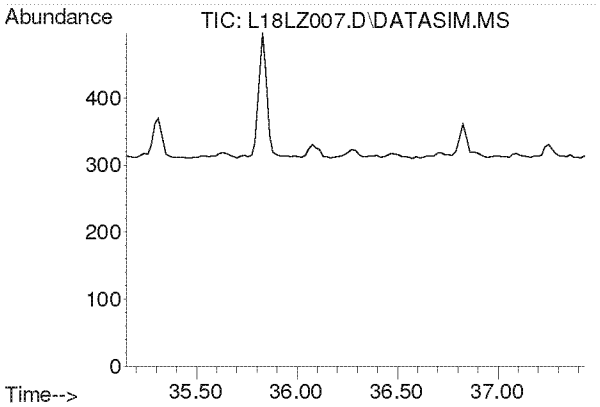
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



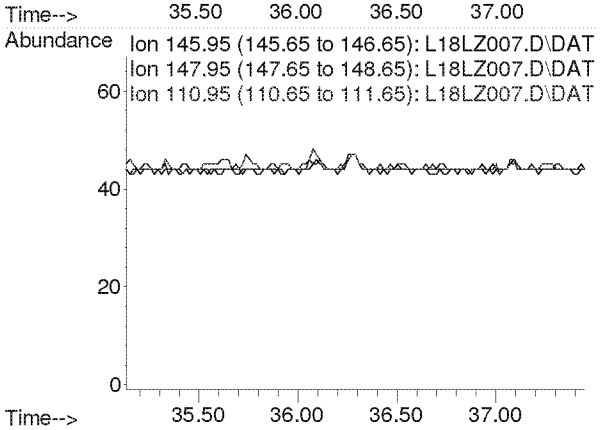


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

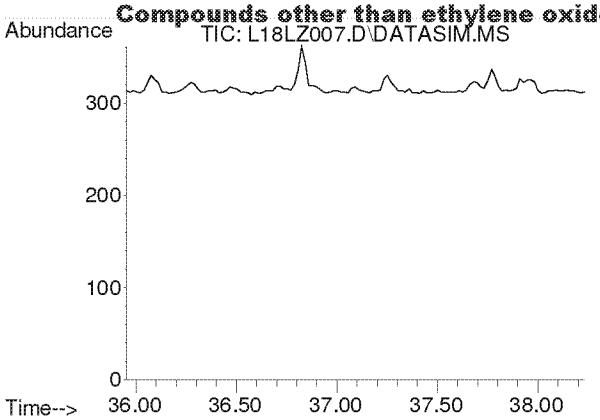
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

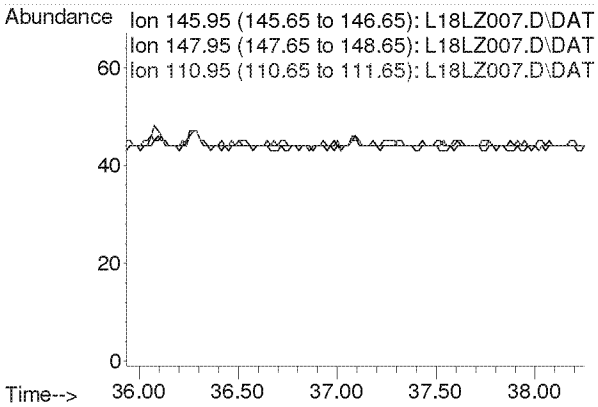


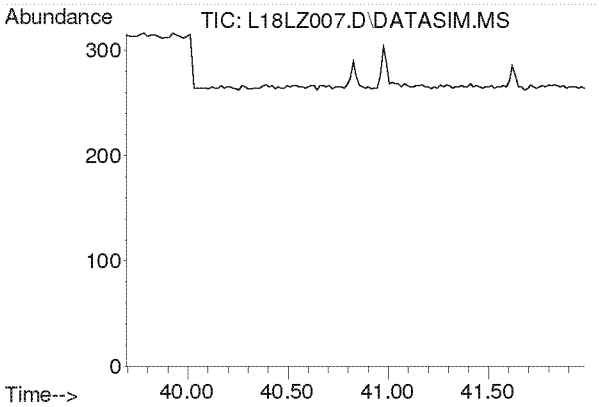
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



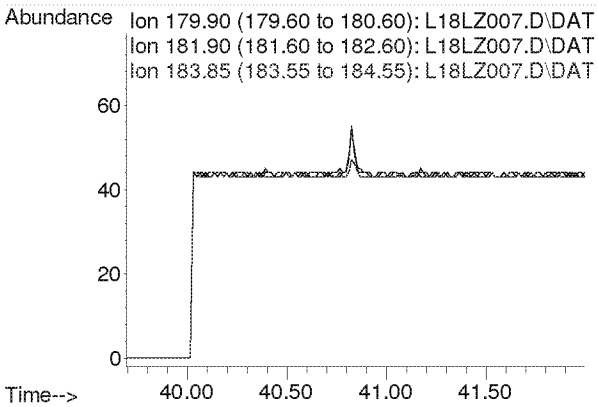


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

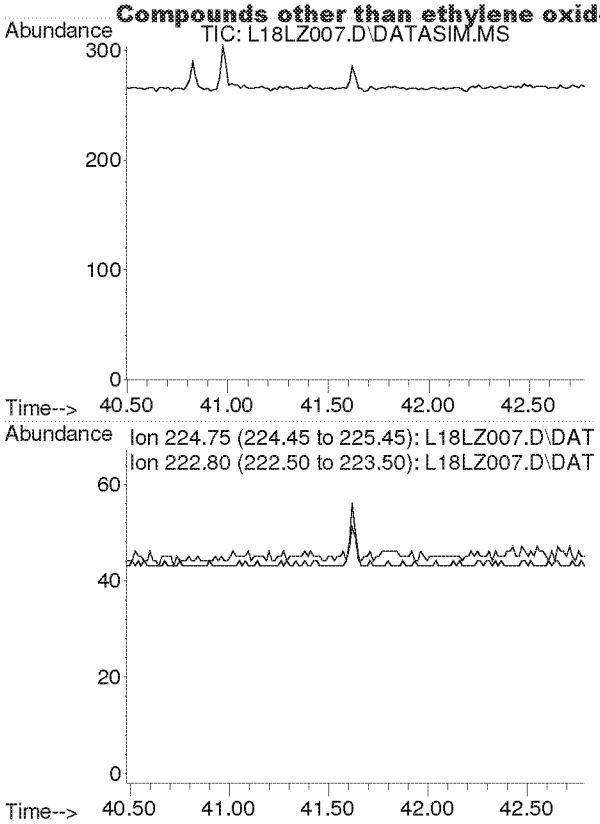
Lab File: L18LZ007.D
Acq: 26 Dec 2018 5:33 pm

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: L18LZ007.D
Acq: 26 Dec 2018 5:33 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\L18LZ\
Data File : L18LZ008.D
Acq On : 26 Dec 2018 6:36 pm
Operator : MAH
Sample : 8121130-18
Misc : WATER TOWER 12/8/18
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 03 11:11:57 2019
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	59940	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.130	114	143137	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.096	117	97144	4.7400 ppbv	0.00

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.	d
8) 1,3-Butadiene	0.000	54	0	N.D.	d
9) Ethylene oxide	12.455	29	542m	0.1513 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.	
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\L18LZ\
Data File : L18LZ008.D
Acq On : 26 Dec 2018 6:36 pm
Operator : MAH
Sample : 8121130-18
Misc : WATER TOWER 12/8/18
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 03 11:11:57 2019
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.	QIón	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. d	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

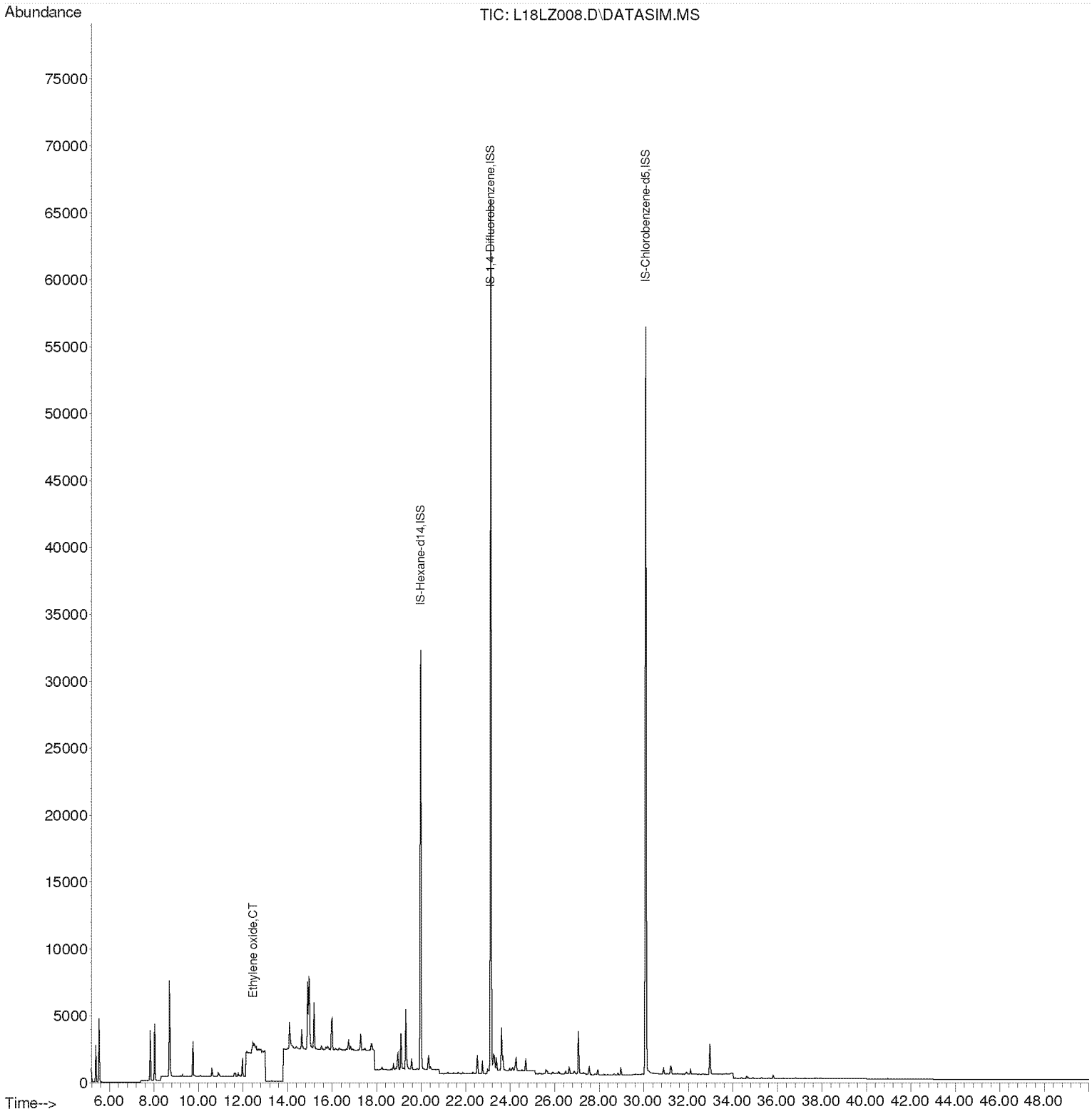
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000324-00214

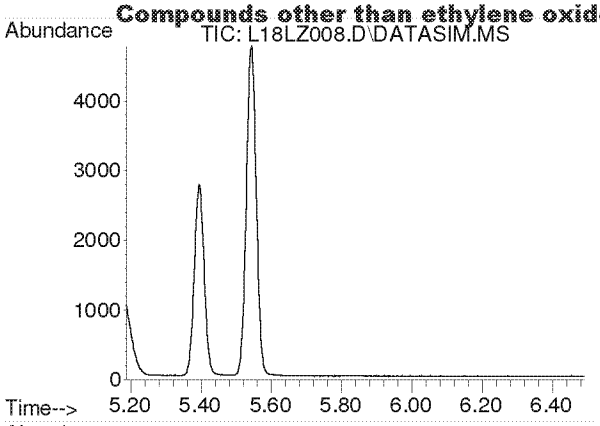
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ008.D
Acq On : 26 Dec 2018 6:36 pm
Operator : MAH
Sample : 8121130-18
Misc : WATER TOWER 12/8/18
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 03 10:24:40 2019
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



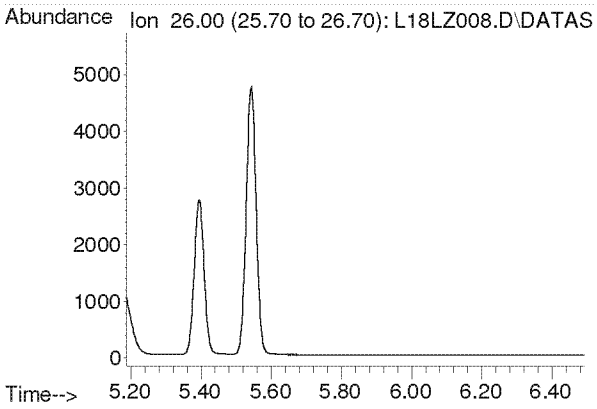
Compounds other than ethylene oxide were not quantitated.

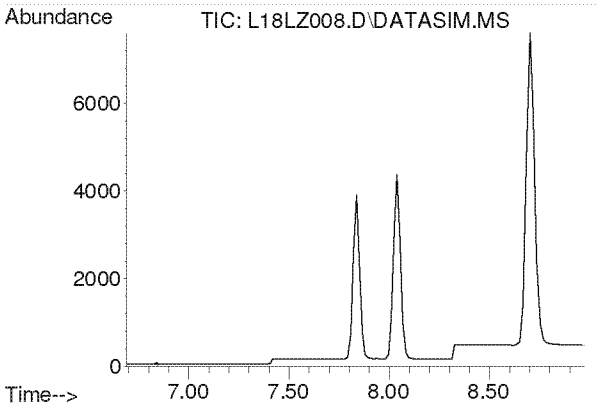


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 26



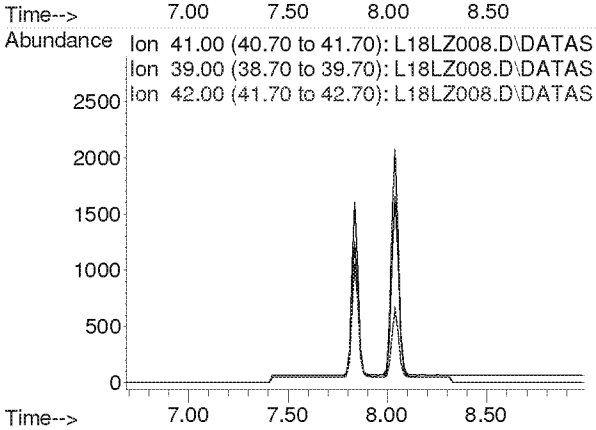


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

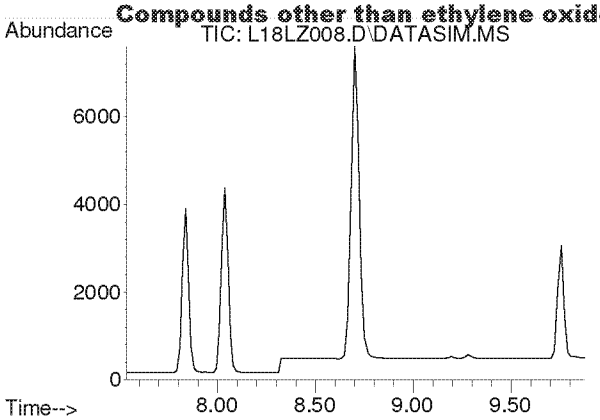
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

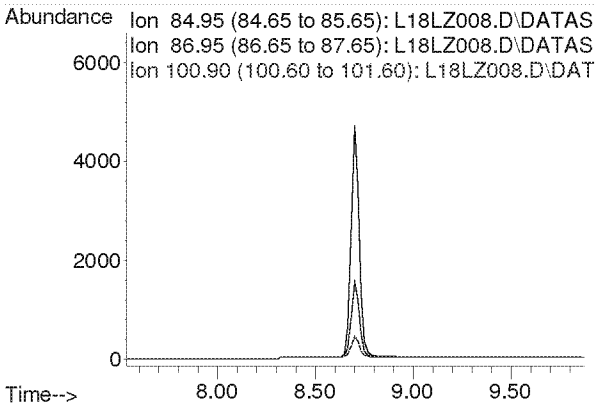


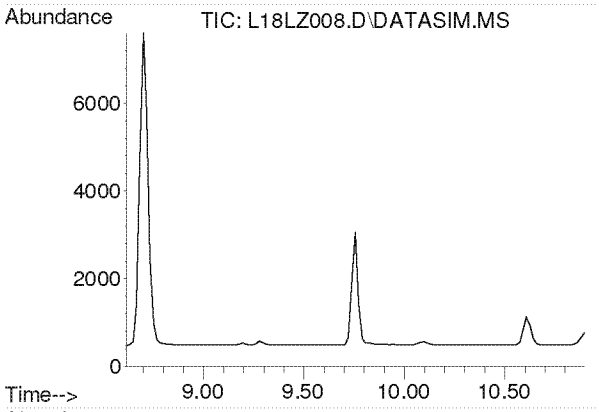
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



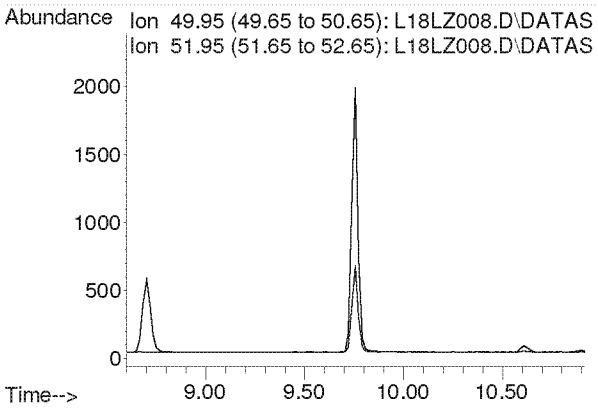


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

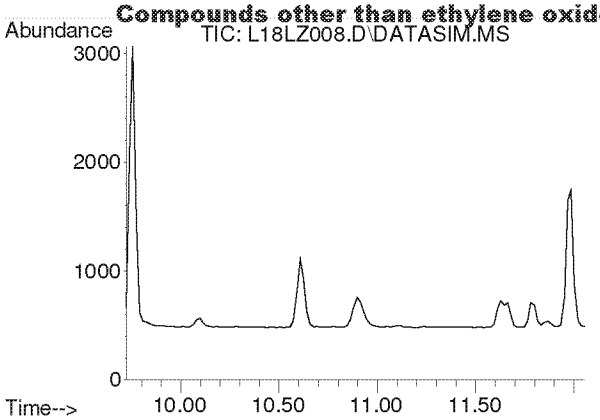
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

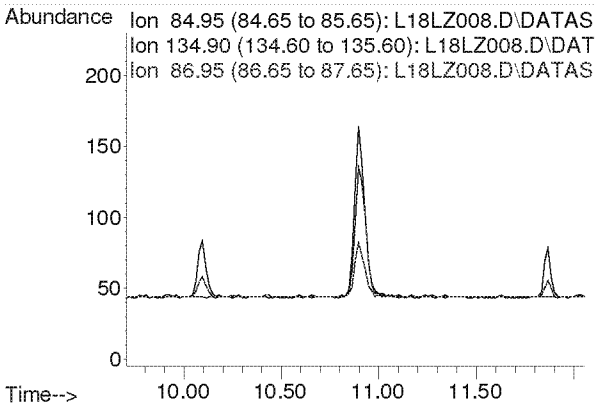


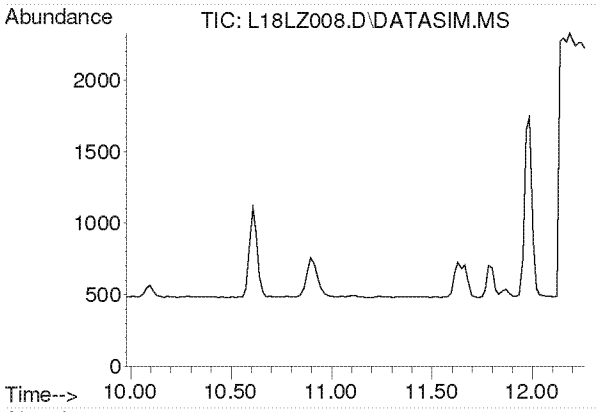
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



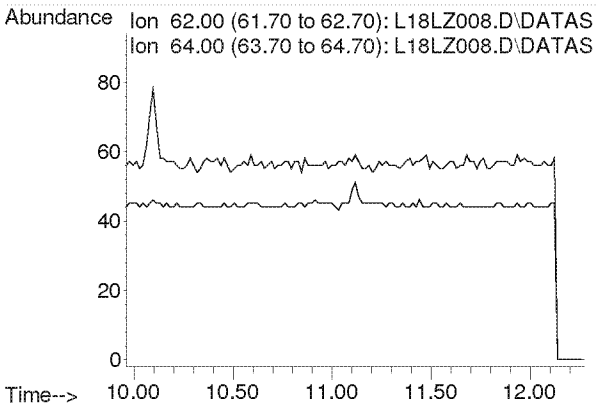


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

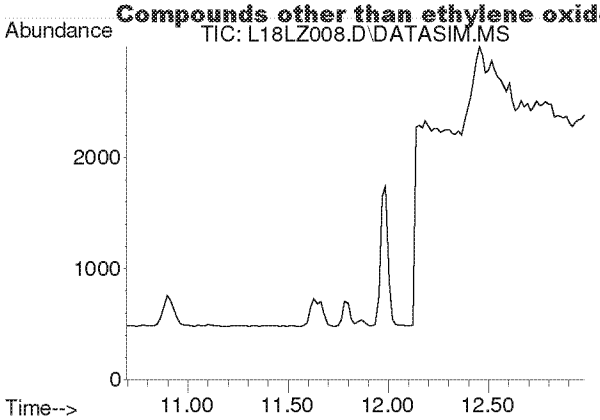
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

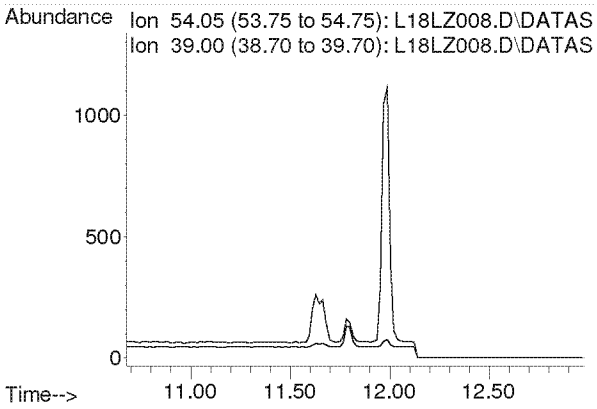


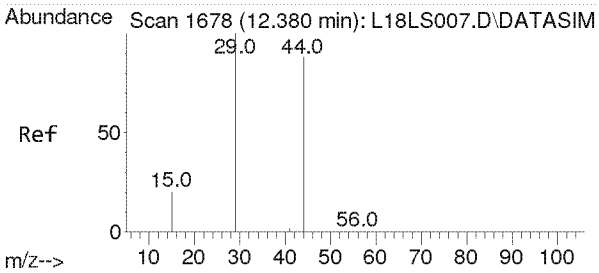
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

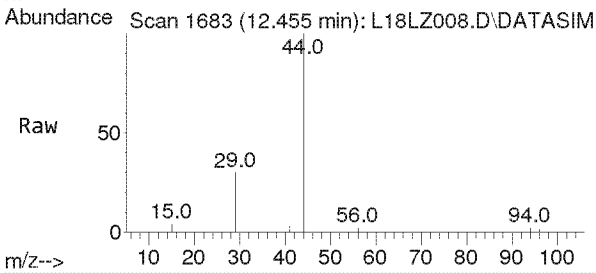


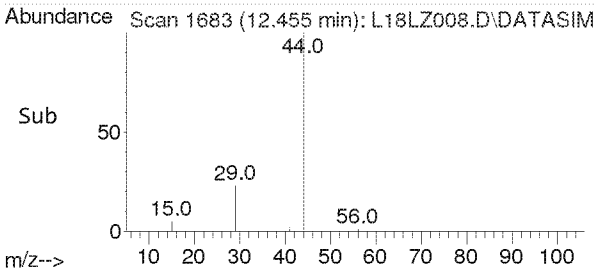


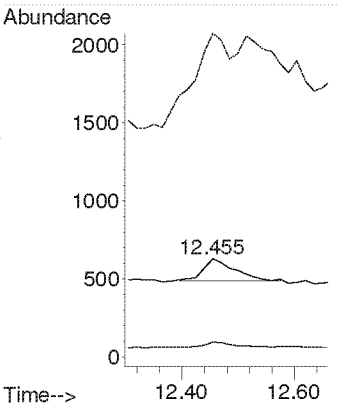
#9
Ethylene oxide
Concen: 0.151 ppbv m
RT: 12.455 min Scan# 1683
Delta R.T. 0.075 min
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 29 Resp: 542

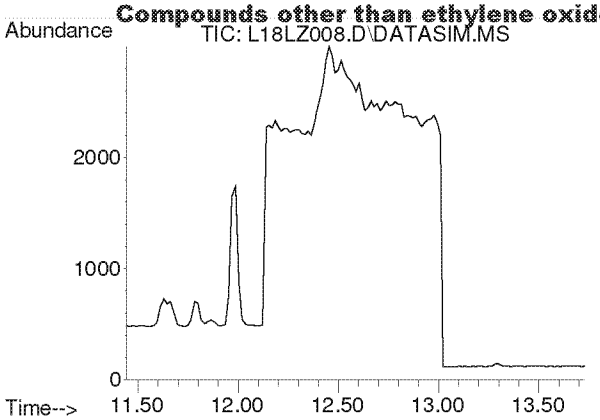
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.2	24.4#
44	0.0	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

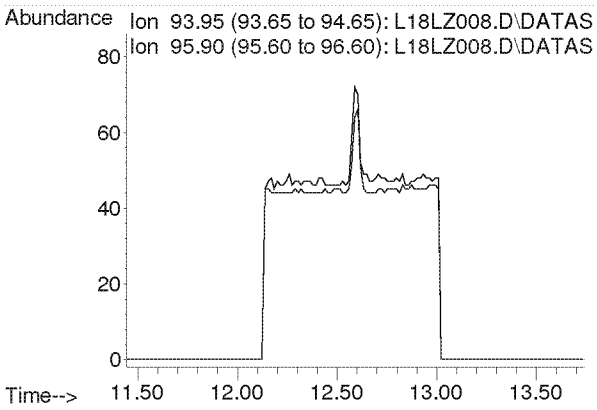


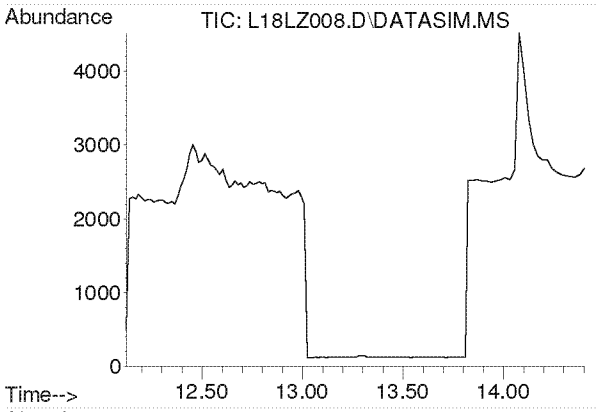
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



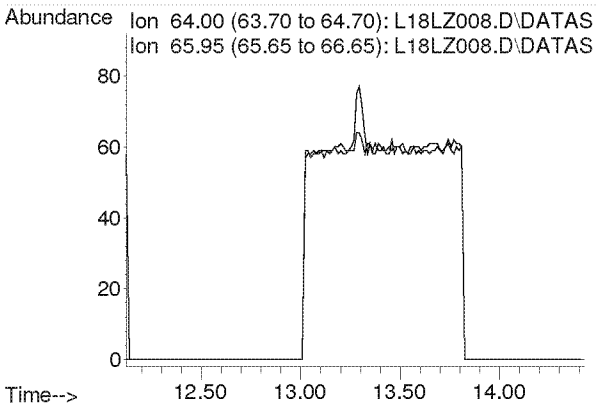


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

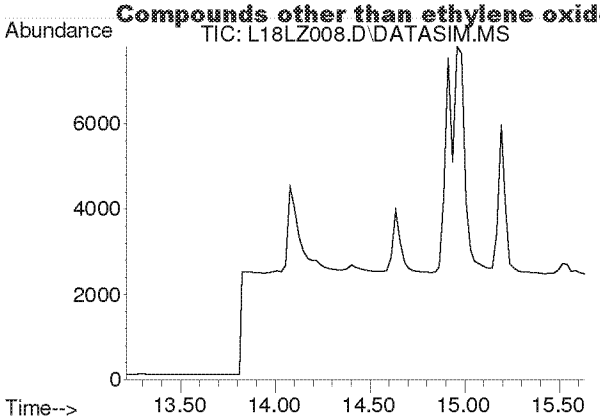
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

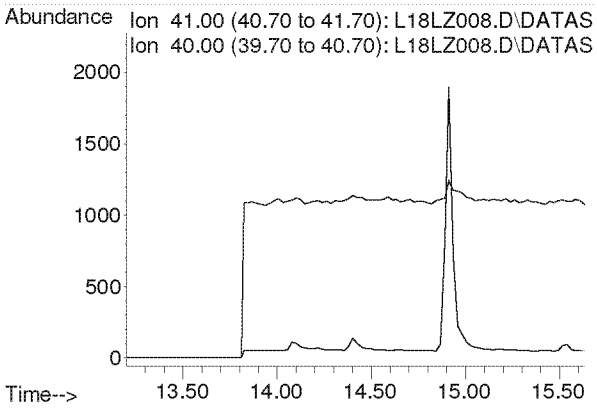


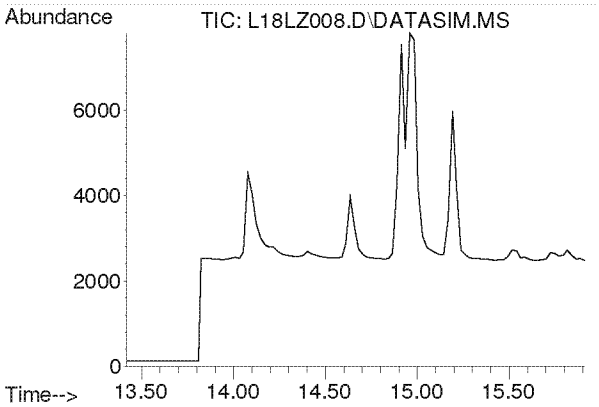
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



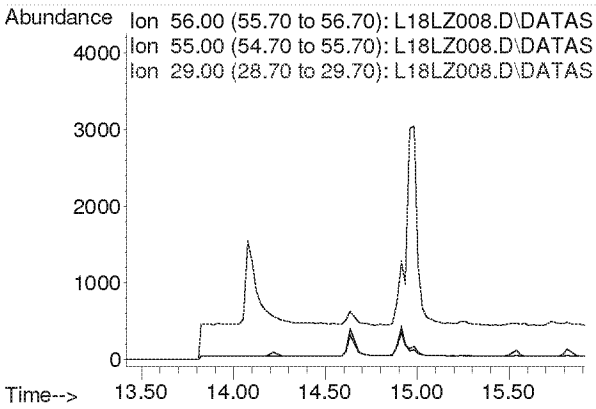


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

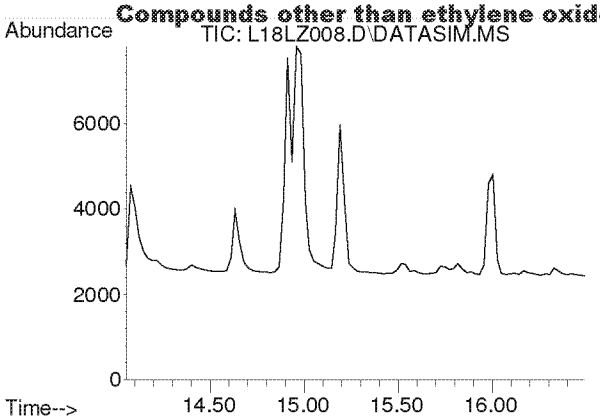
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

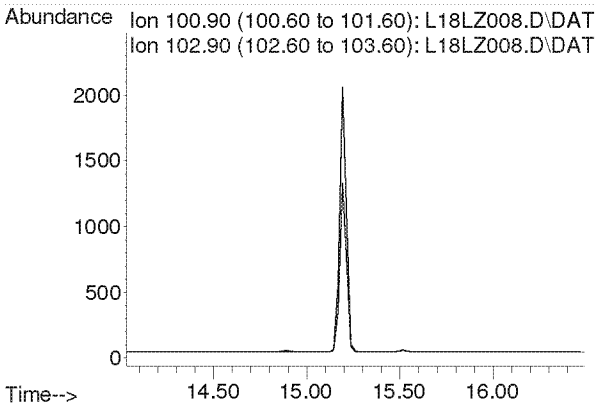


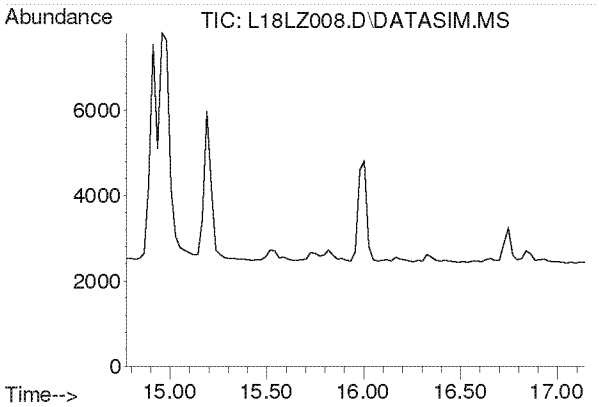
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



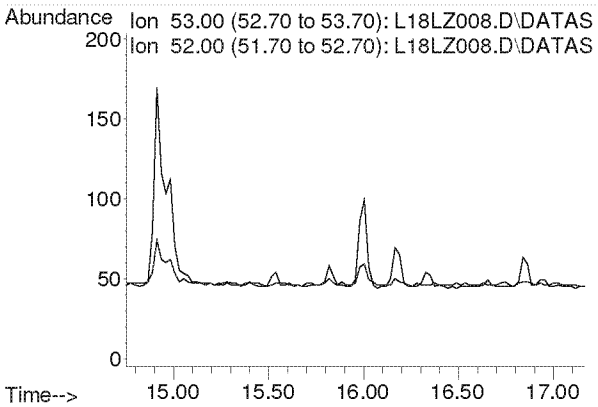


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

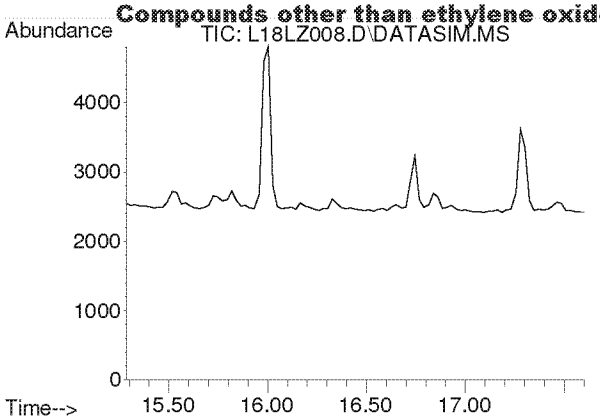
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

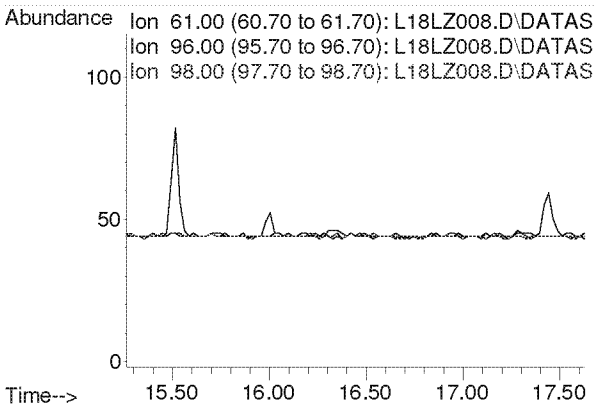


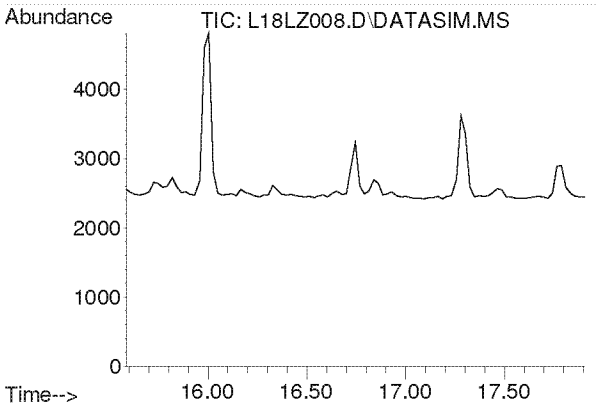
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



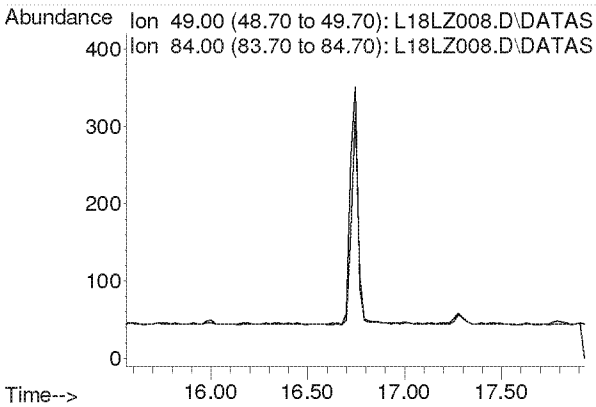


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

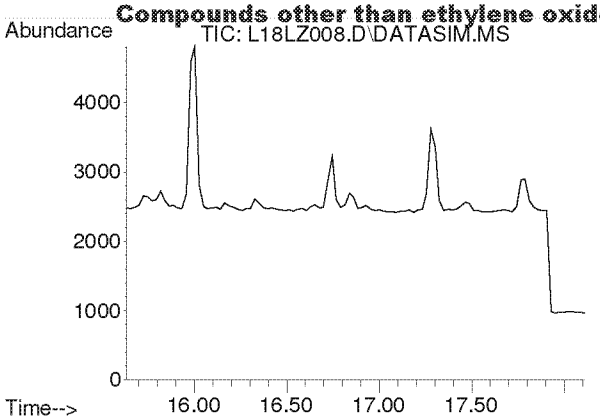
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

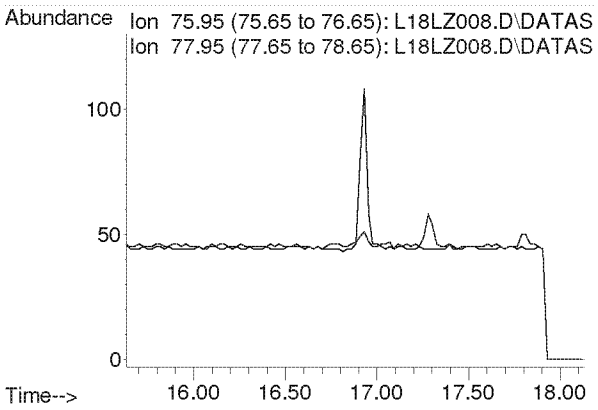


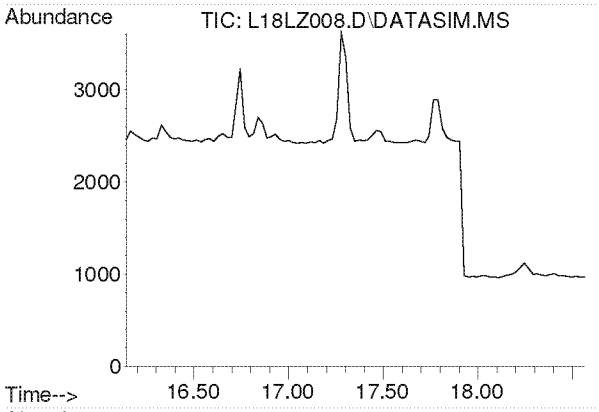
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



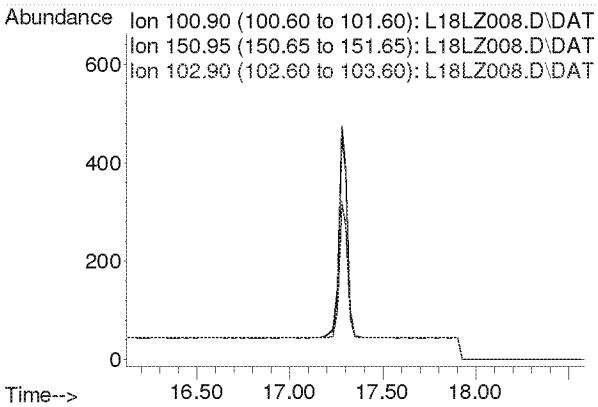


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

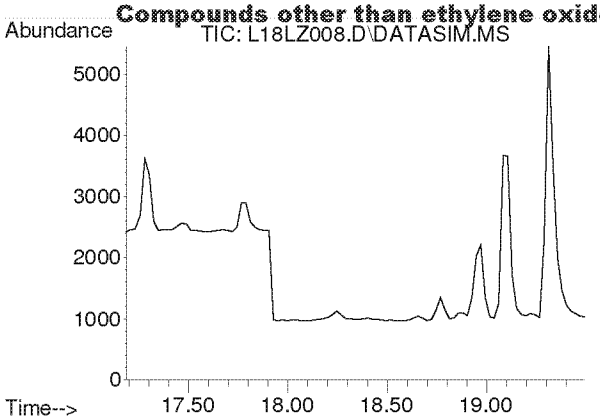
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

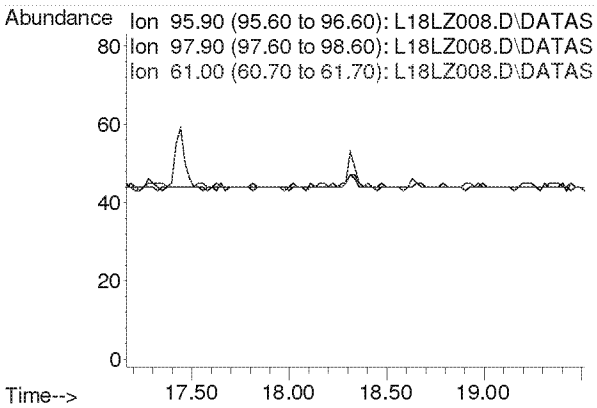


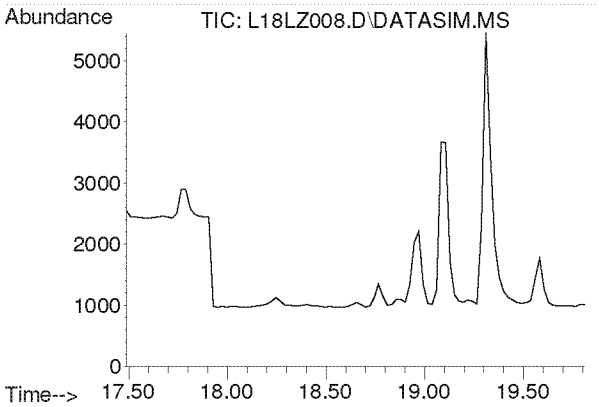
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



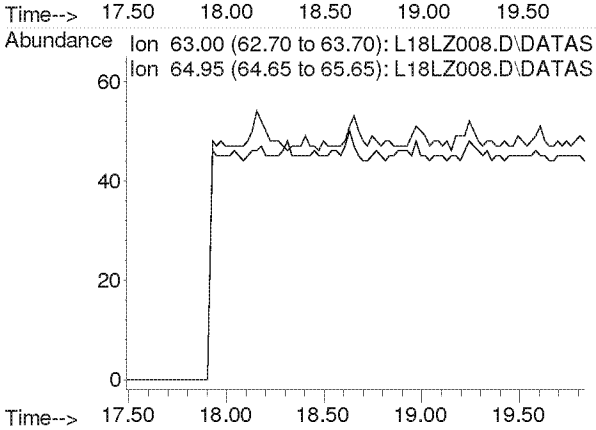


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

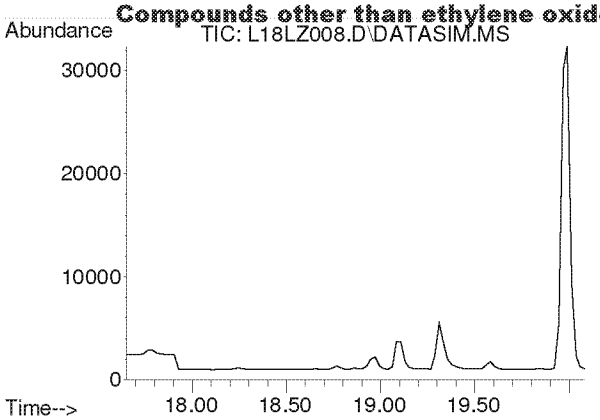
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

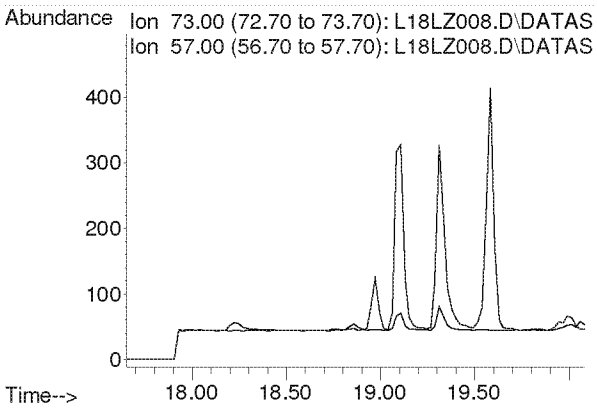


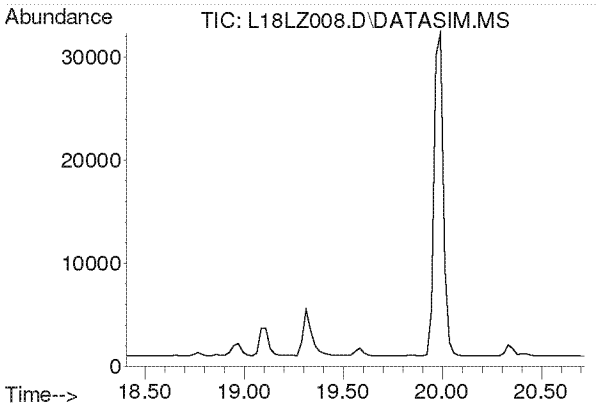
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



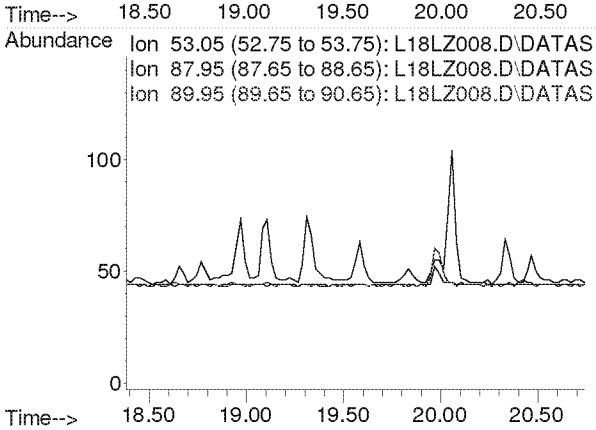


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

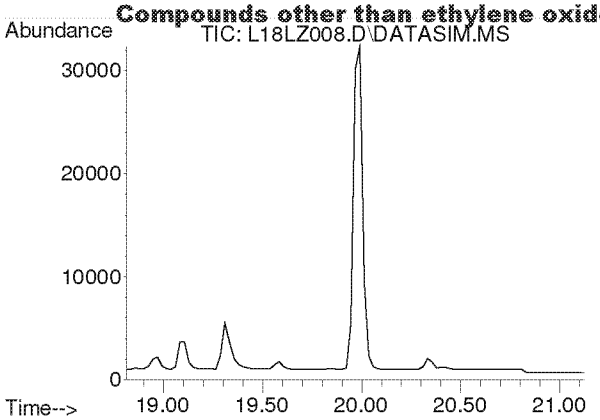
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

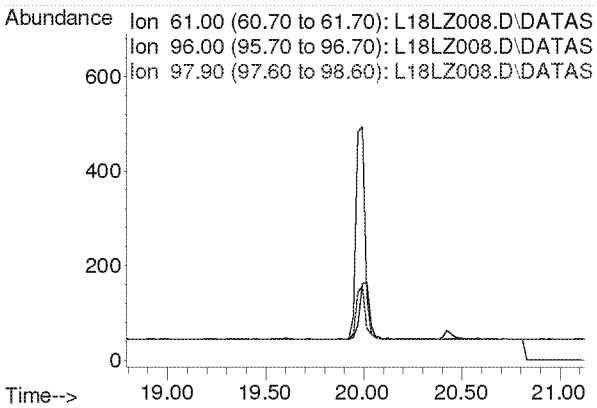


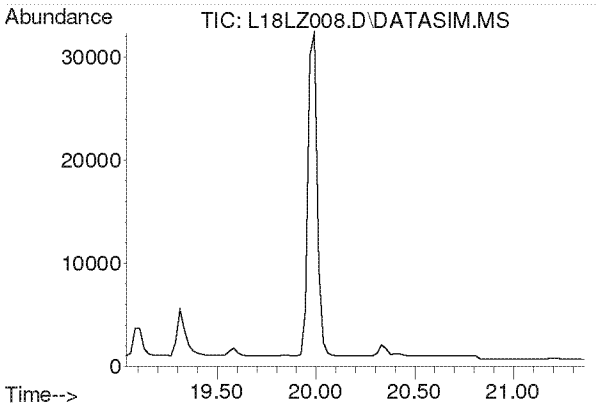
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



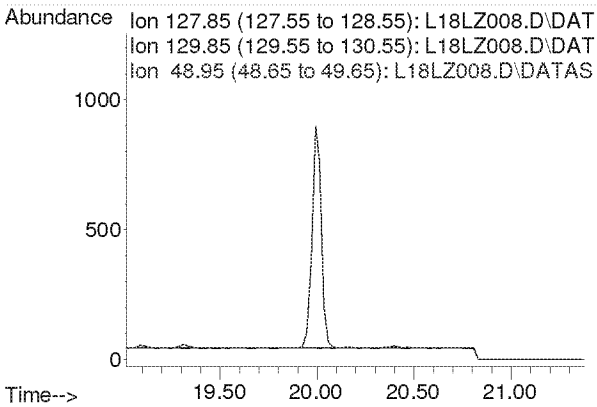


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

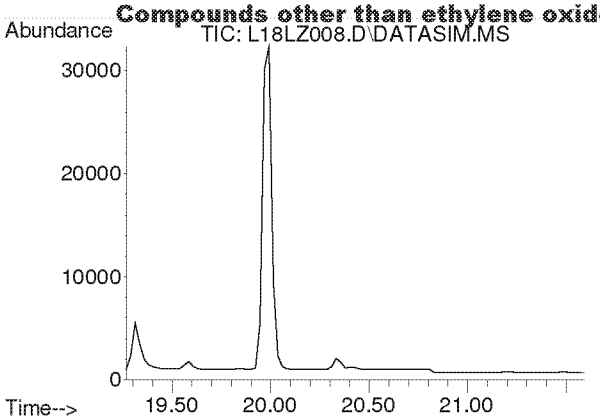
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

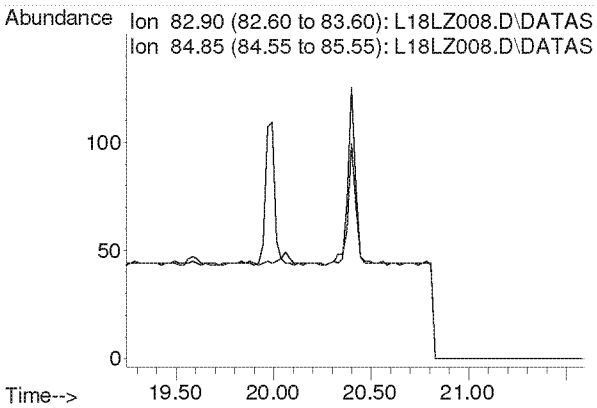


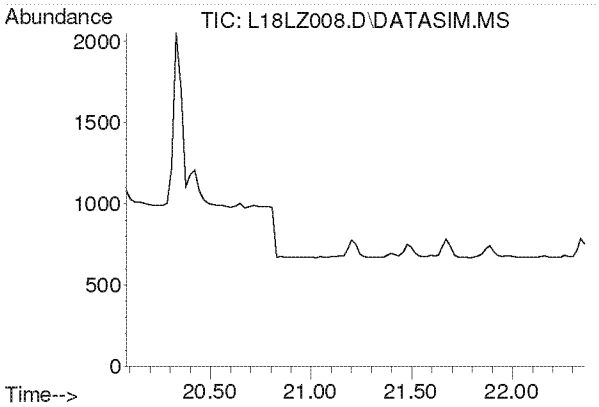
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



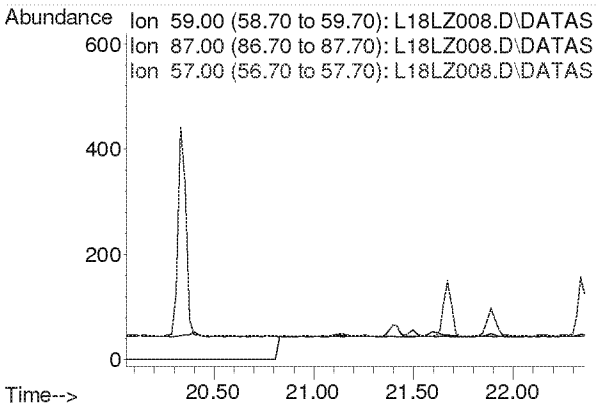


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

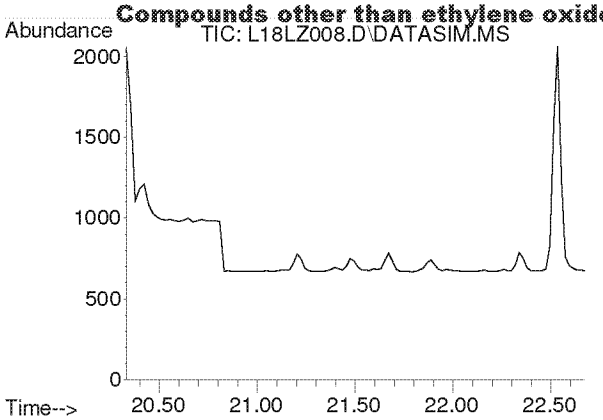
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

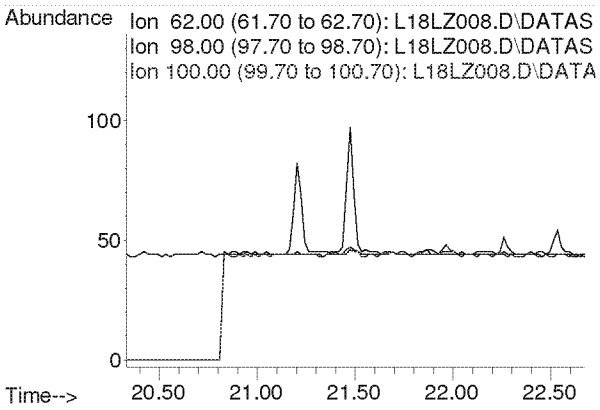


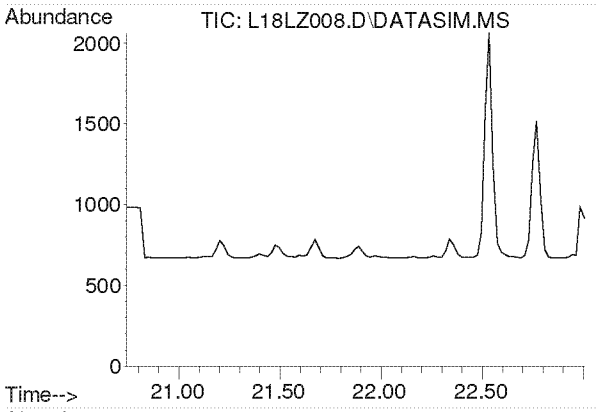
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



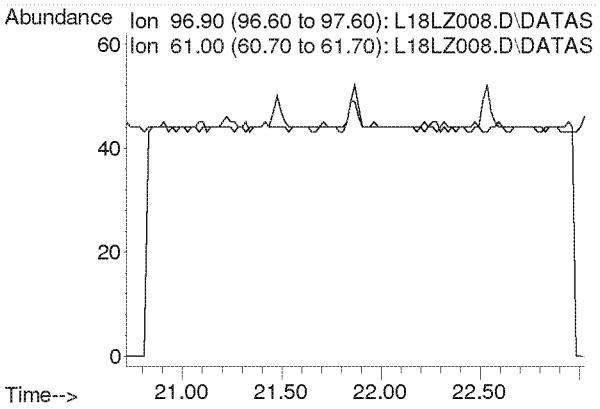


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

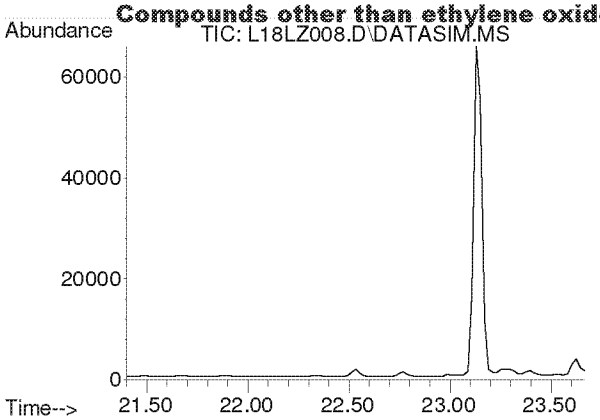
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

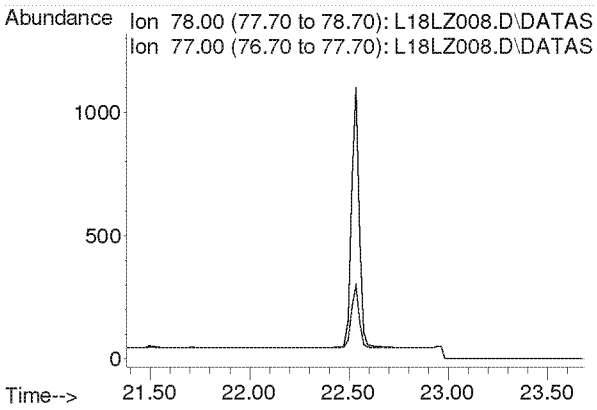


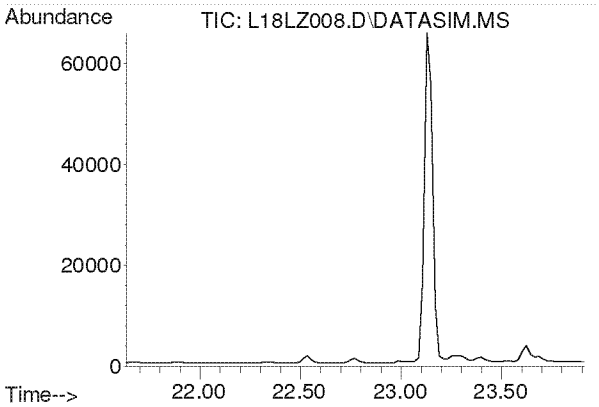
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



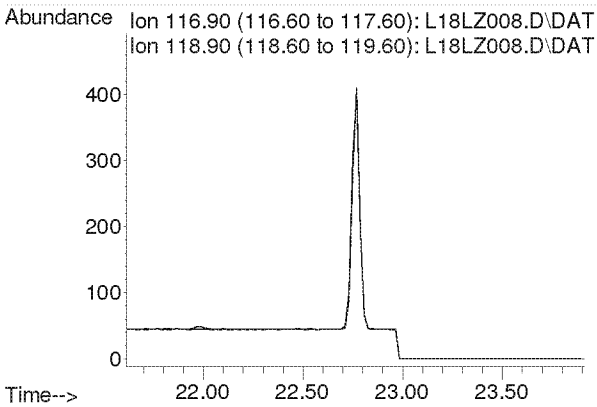


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

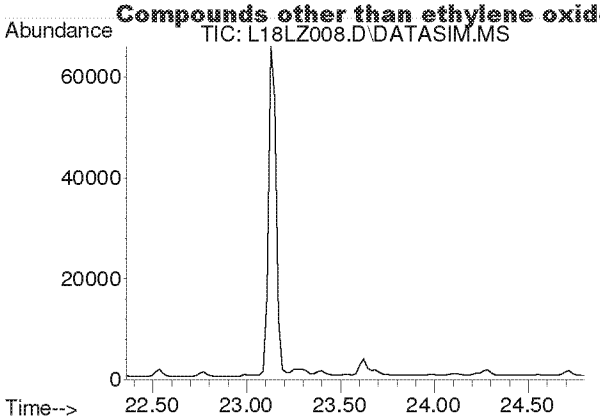
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

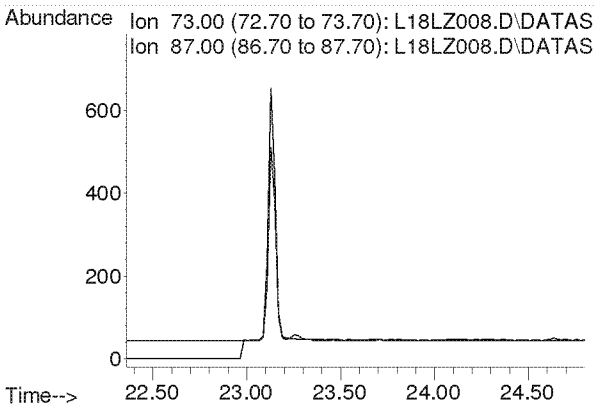


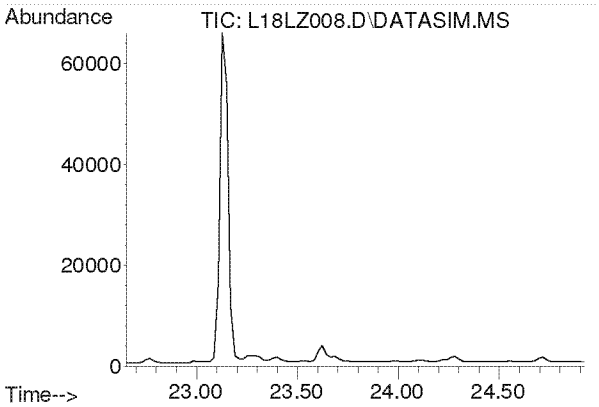
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



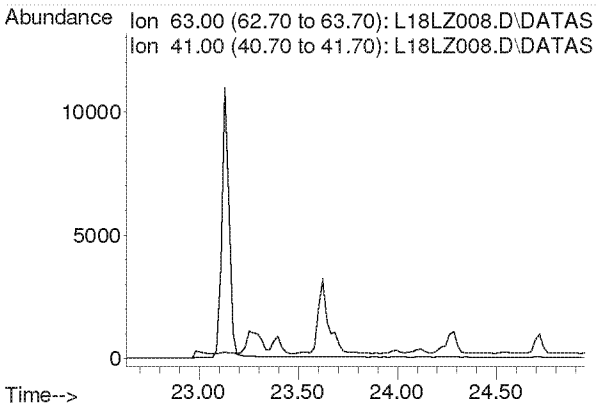


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

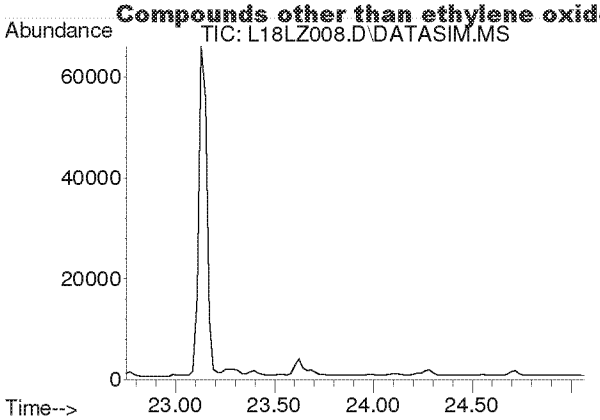
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

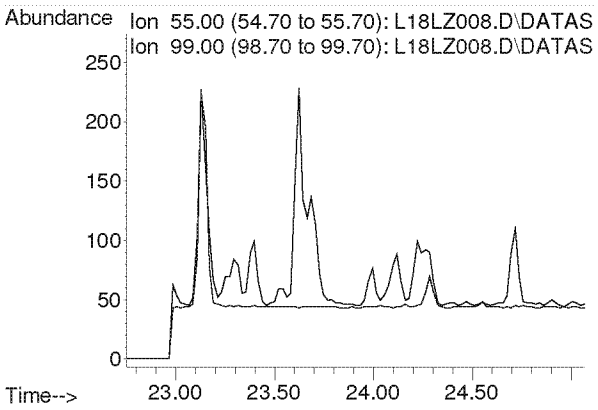


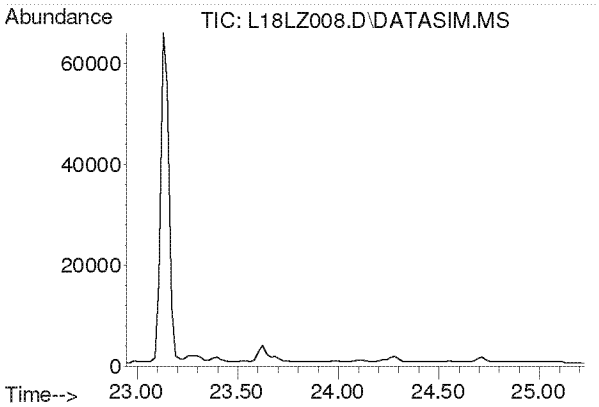
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



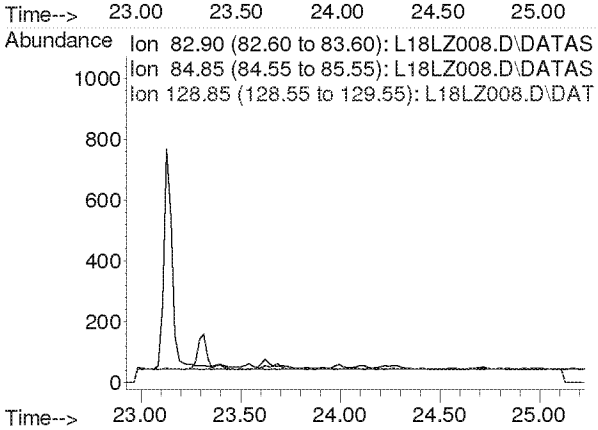


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

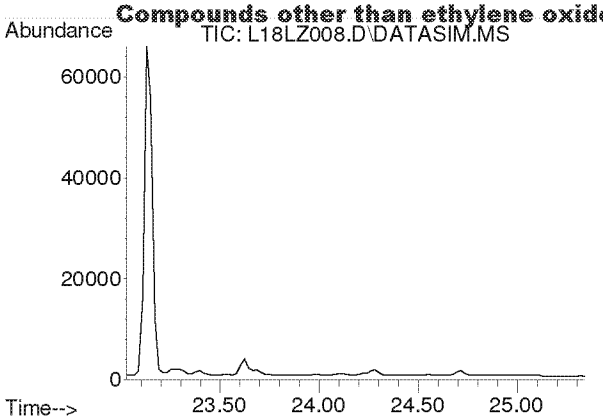
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

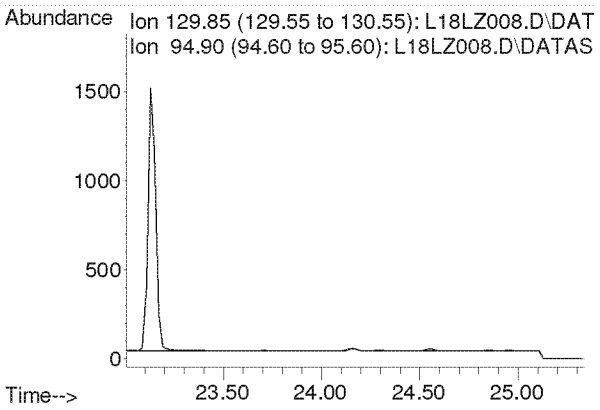


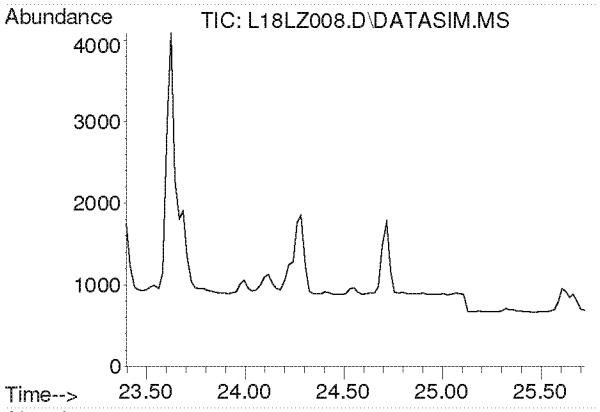
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



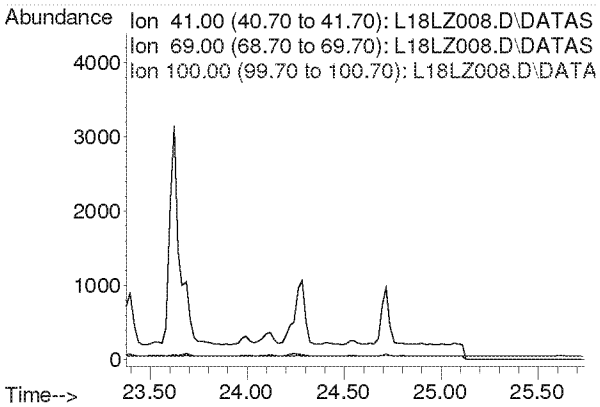


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

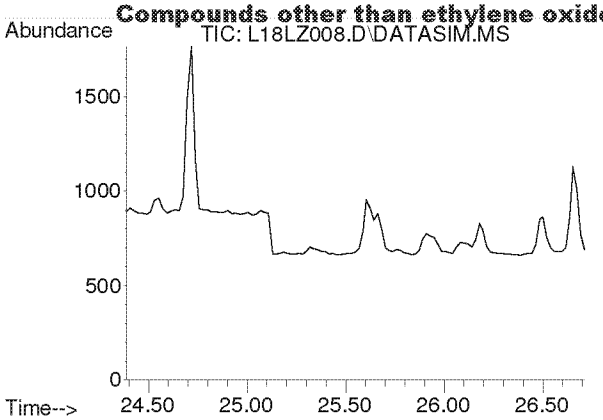
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

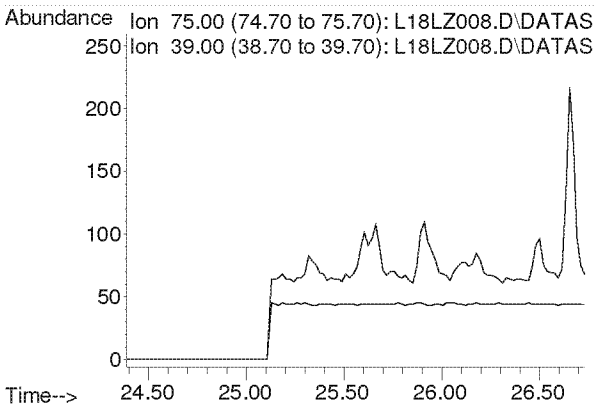


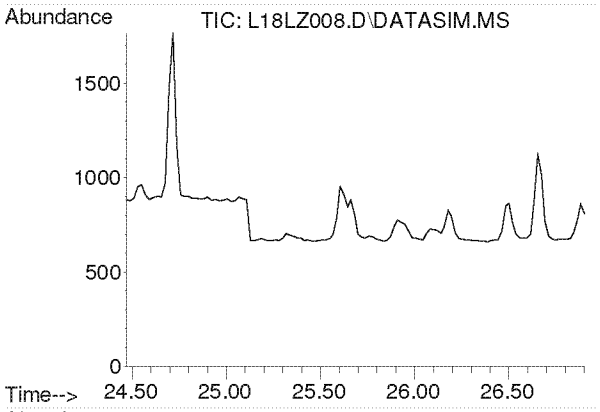
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



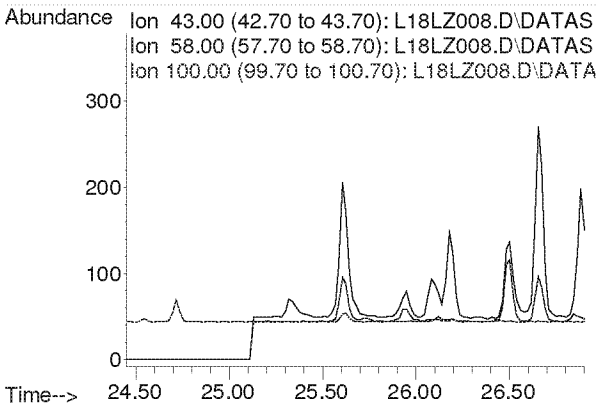


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

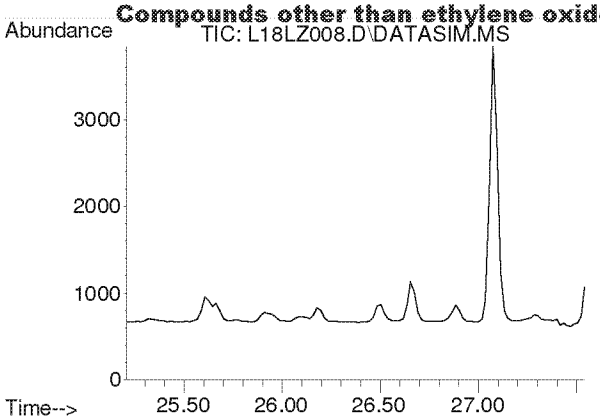
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

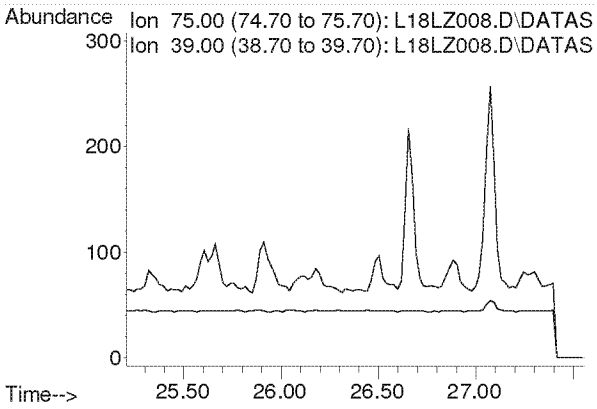


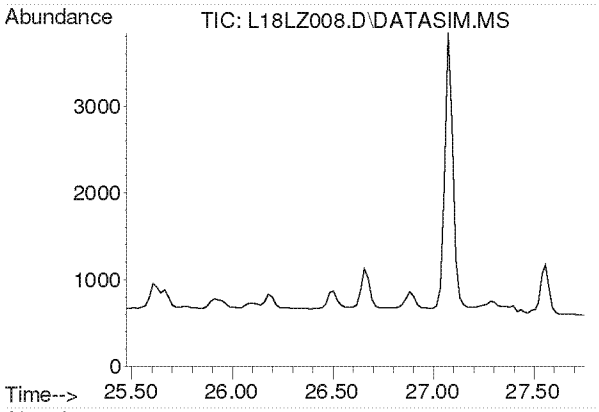
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



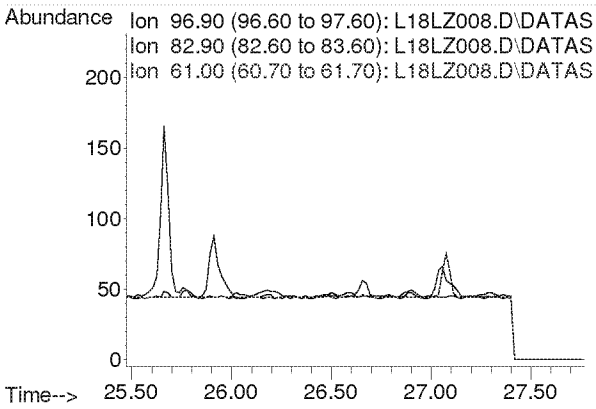


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

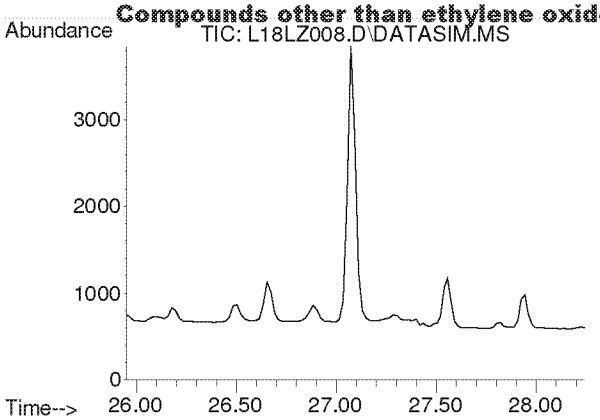
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

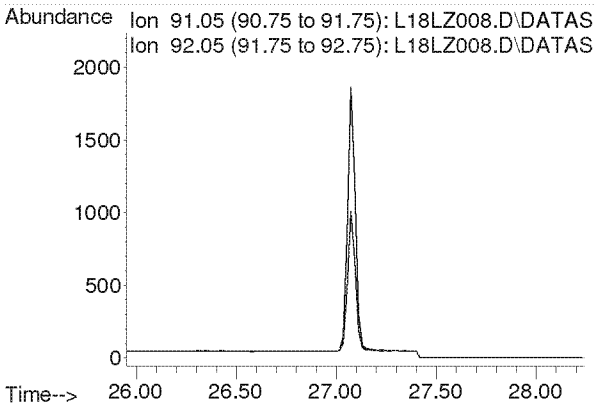


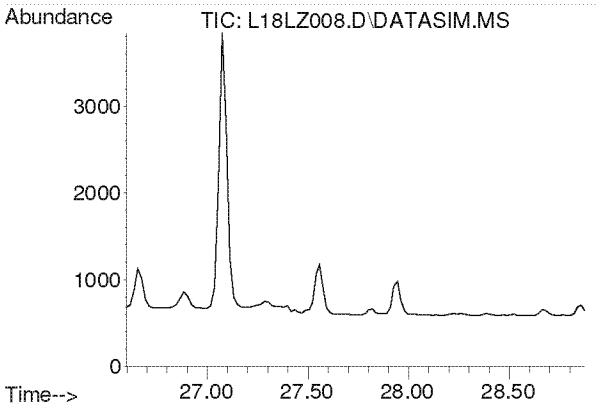
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



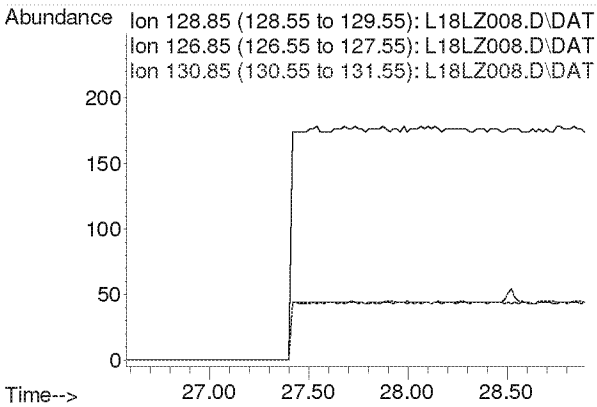


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

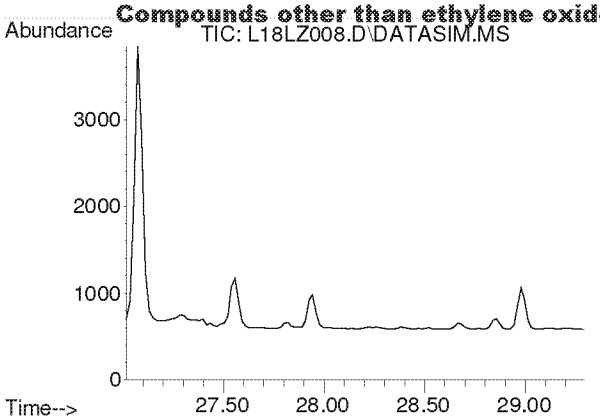
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

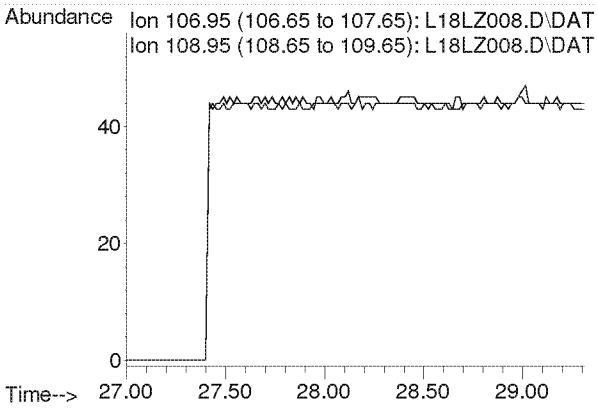


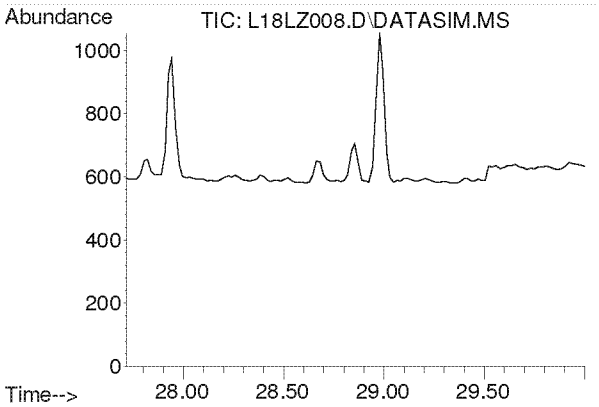
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



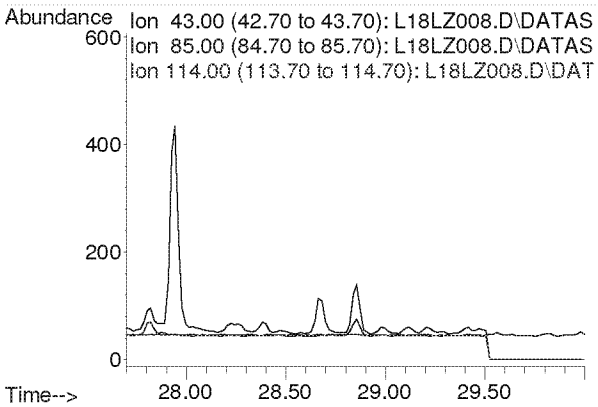


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

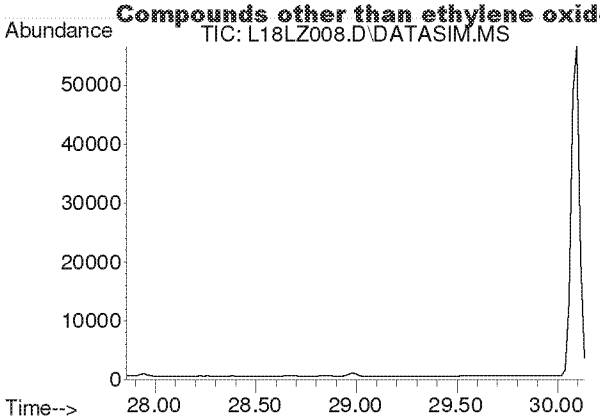
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

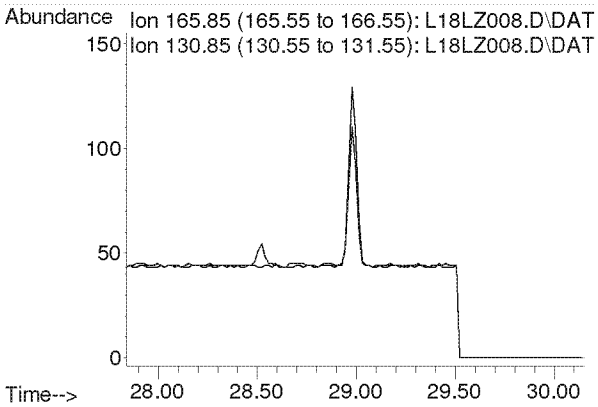


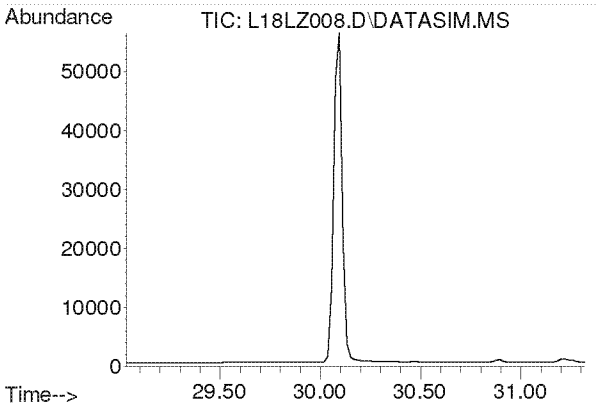
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



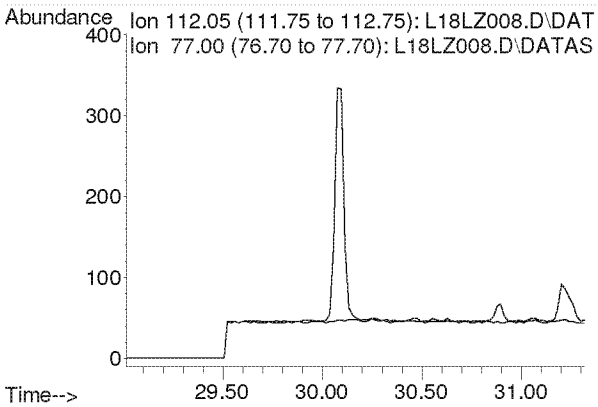


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

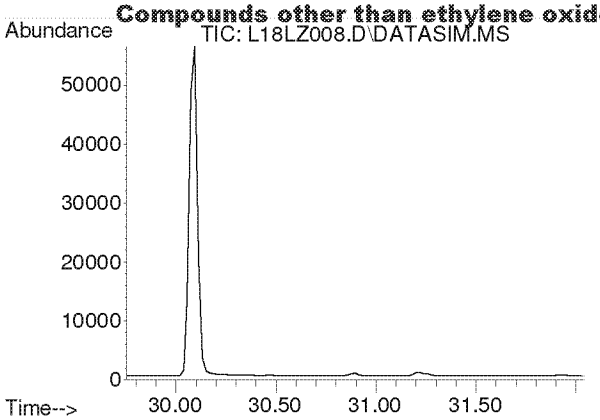
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

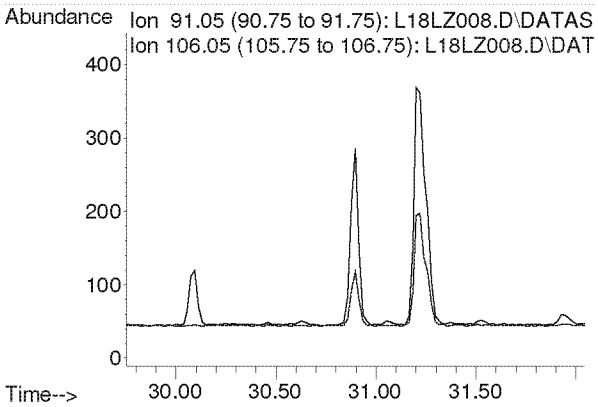


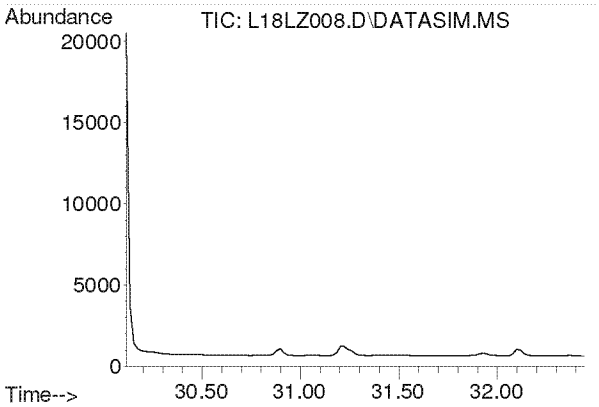
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



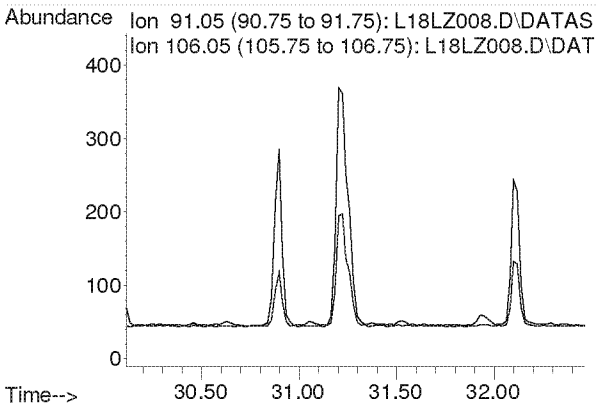


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

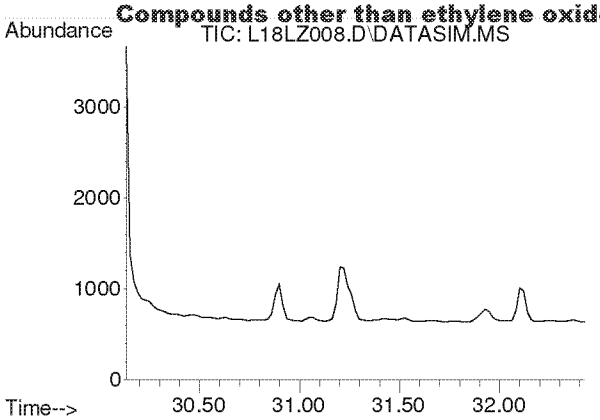
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

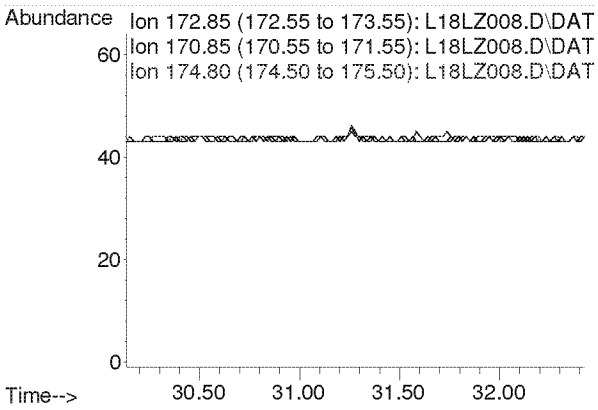


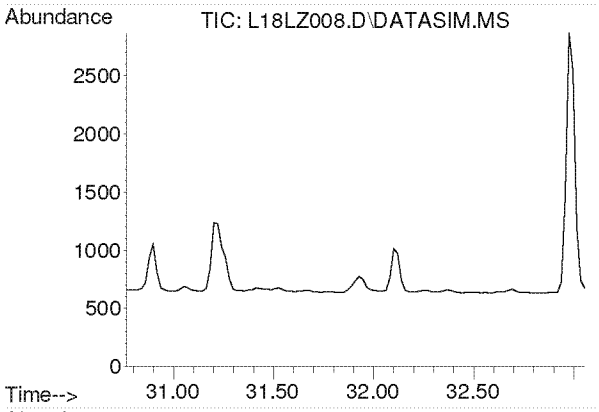
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



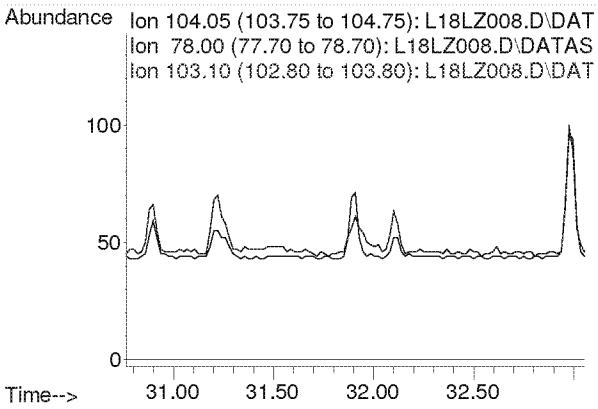


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

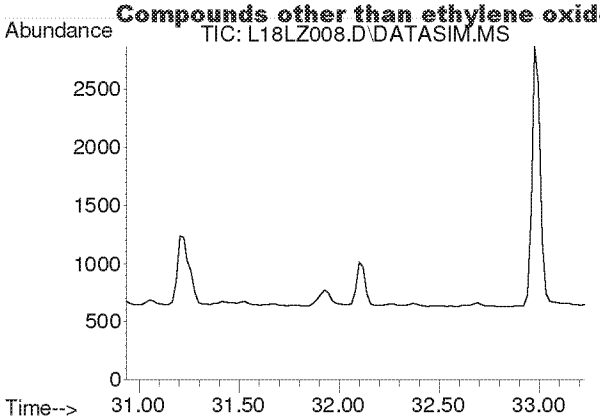
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

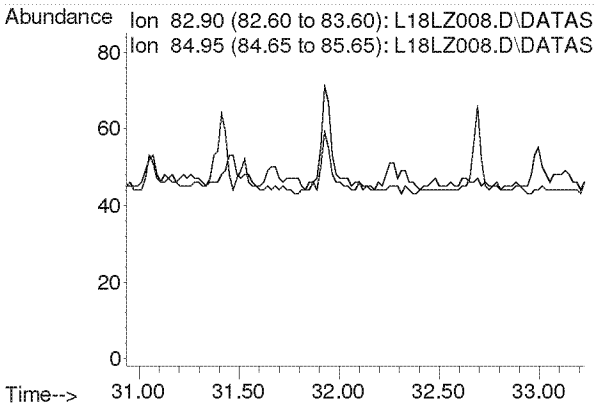


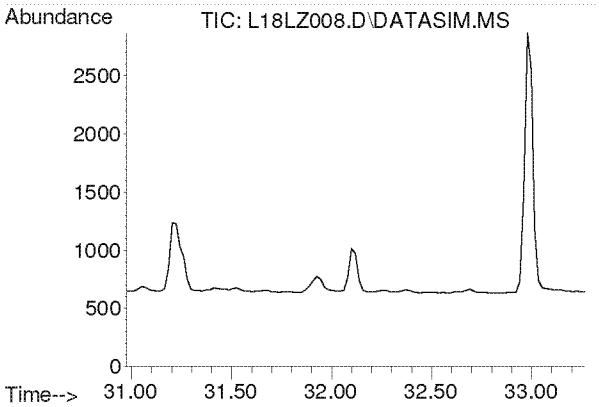
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



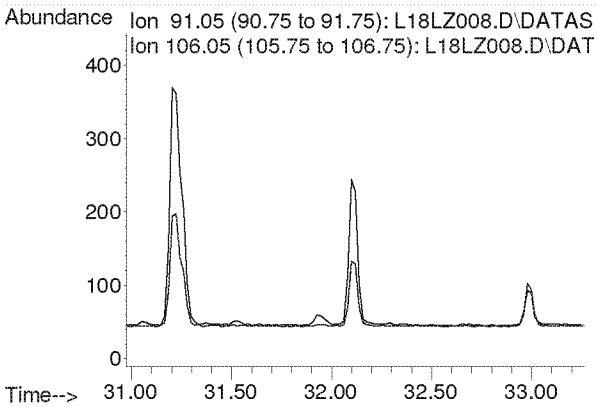


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

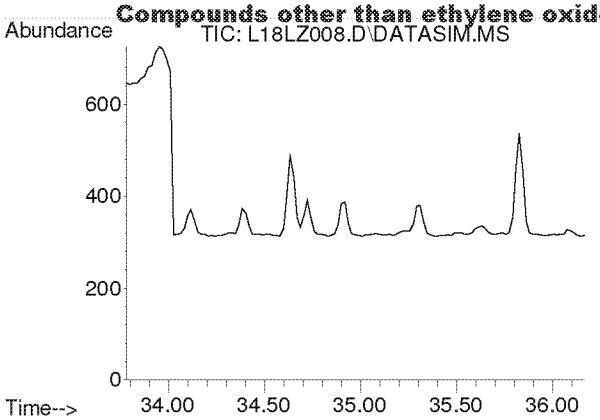
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

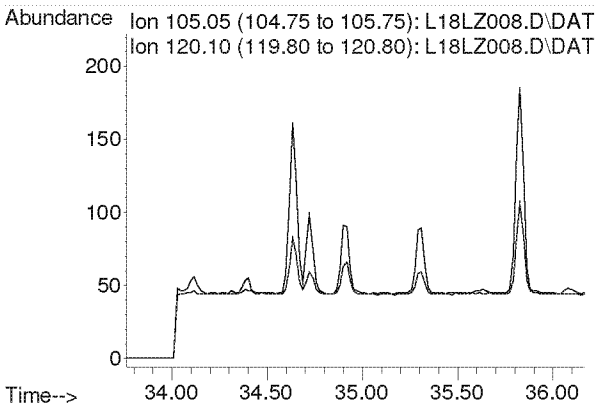


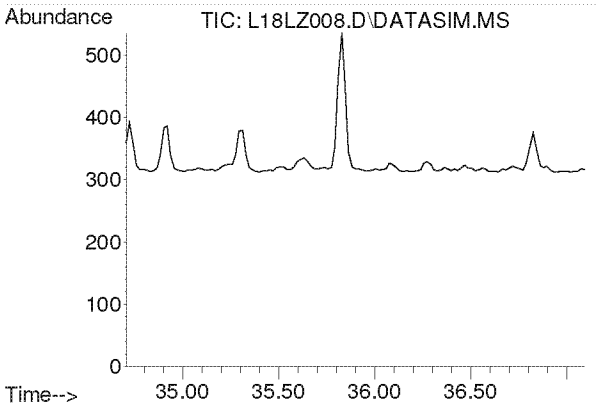
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



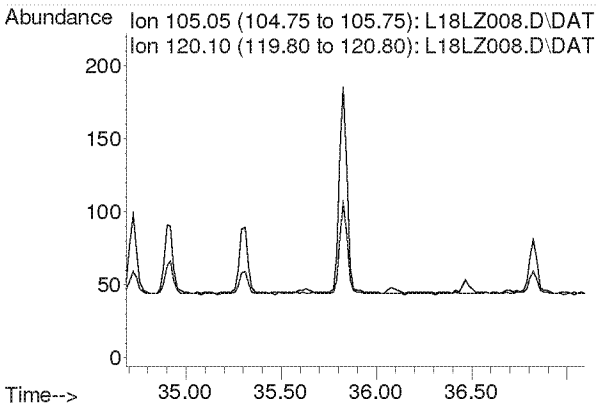


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

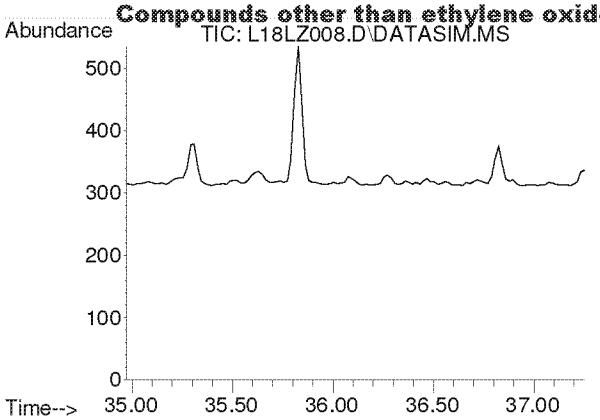
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

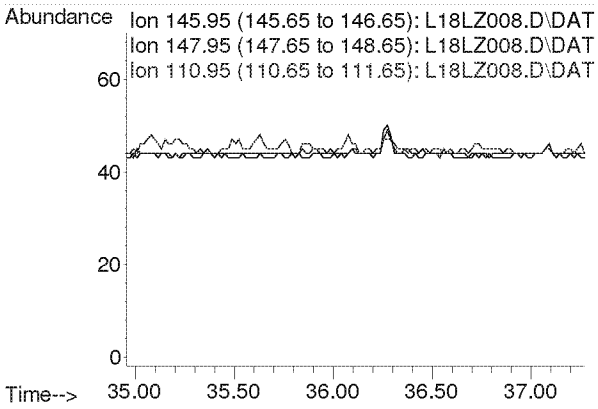


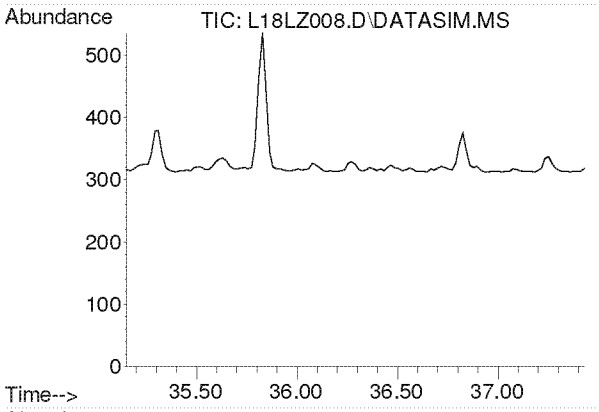
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



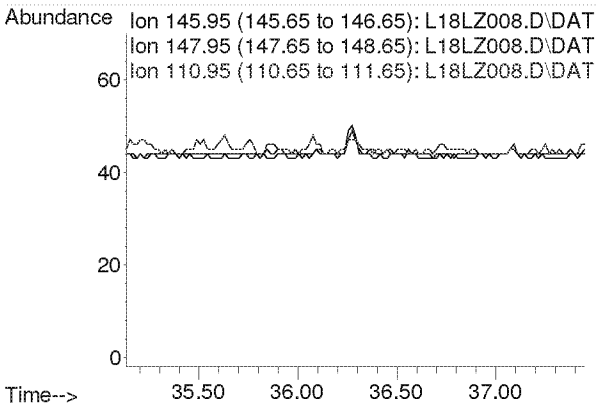


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

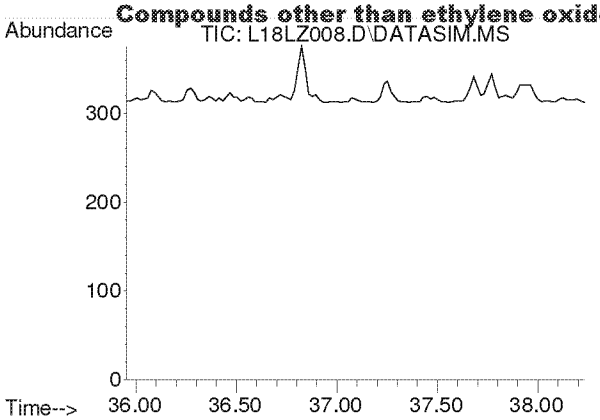
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

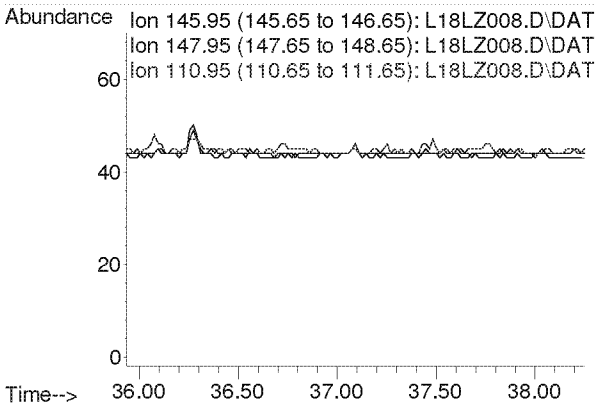


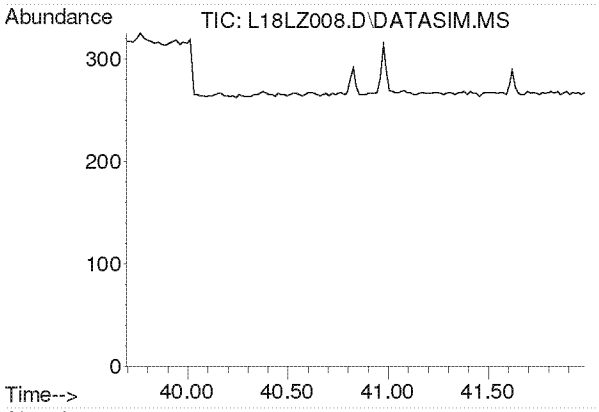
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



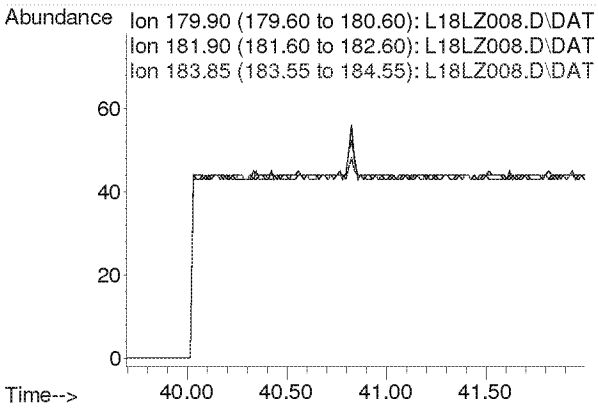


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

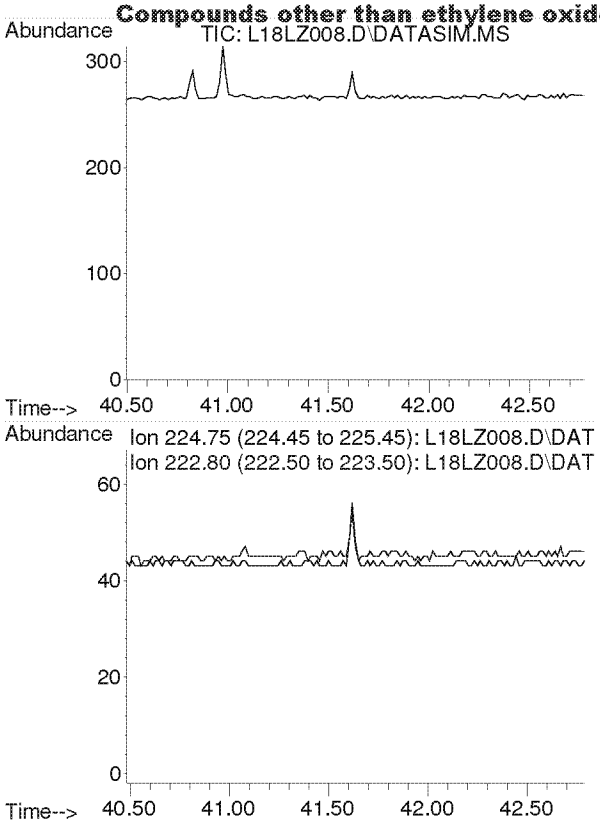
Lab File: L18LZ008.D
Acq: 26 Dec 2018 6:36 pm

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: L18LZ008.D
Acq: 26 Dec 2018 6:36 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\L18LZ\
Data File : L18LZ009.D
Acq On : 26 Dec 2018 7:38 pm
Operator : MAH
Sample : 8121130-19
Misc : HINSDALE HS 12/8/18
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 03 11:12:31 2019
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

ETOX ONS
d-AR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	54569	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.150	114	131044	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	92567	4.7400 ppbv	0.00

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.	
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. 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\L18LZ\
Data File : L18LZ009.D
Acq On : 26 Dec 2018 7:38 pm
Operator : MAH
Sample : 8121130-19
Misc : HINSDALE HS 12/8/18
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 03 11:12:31 2019
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.	

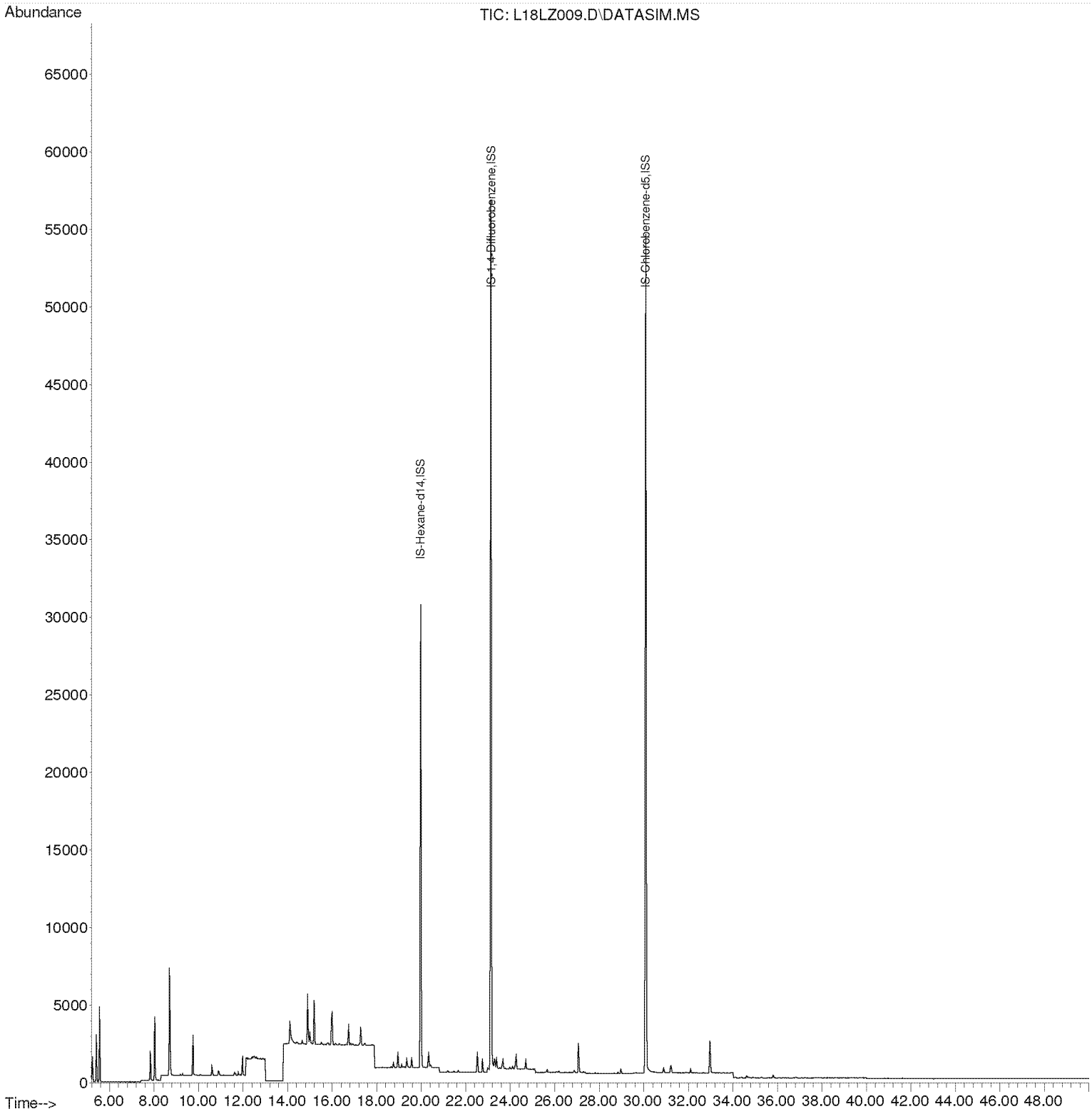
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000324-00247

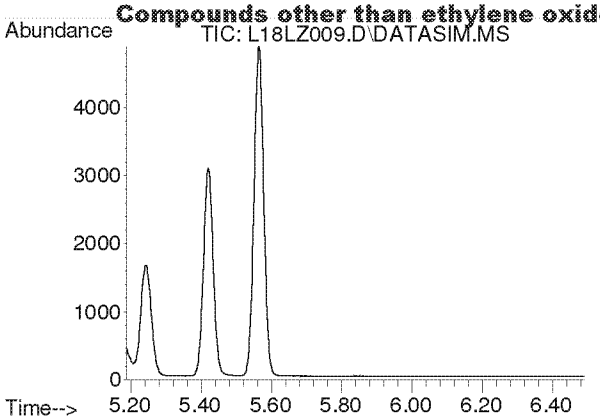
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ009.D
Acq On : 26 Dec 2018 7:38 pm
Operator : MAH
Sample : 8121130-19
Misc : HINSDALE HS 12/8/18
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 03 10:27:11 2019
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



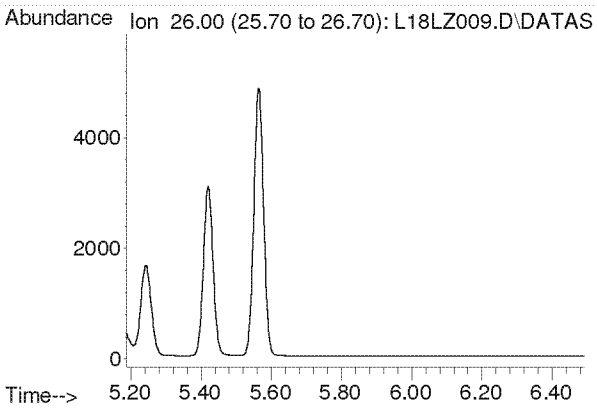
Compounds other than ethylene oxide were not quantitated.

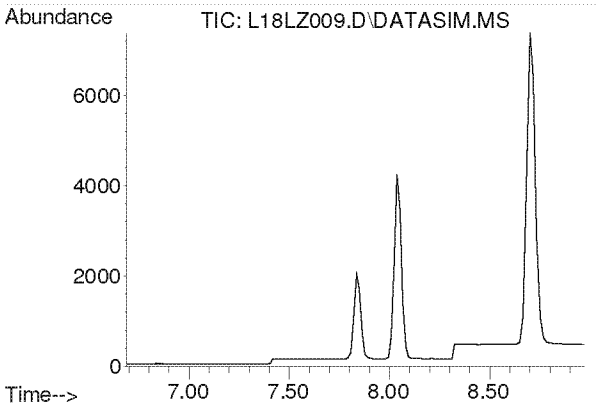


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 26



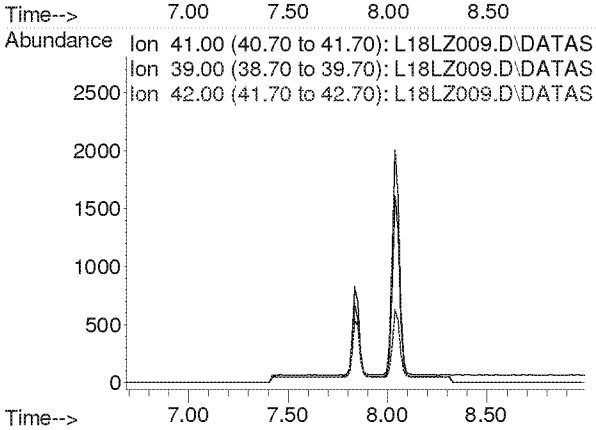


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

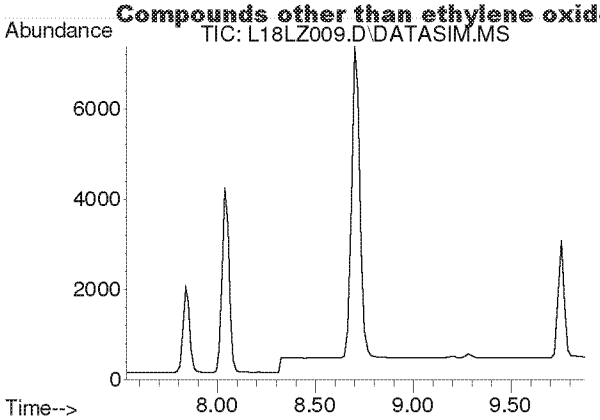
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

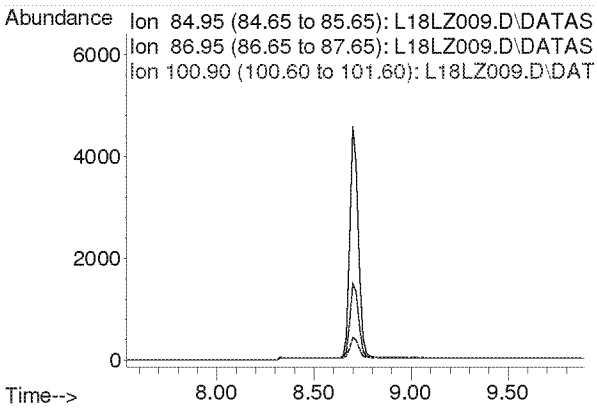


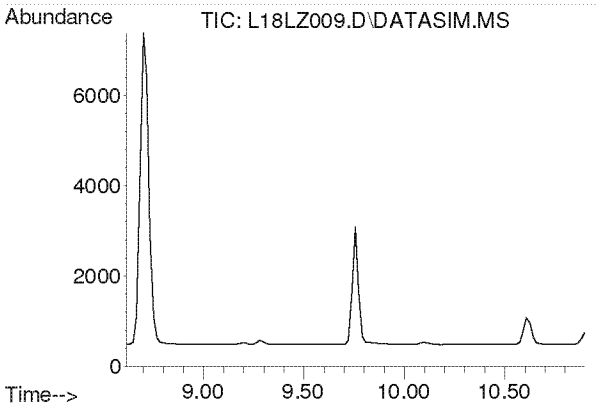
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



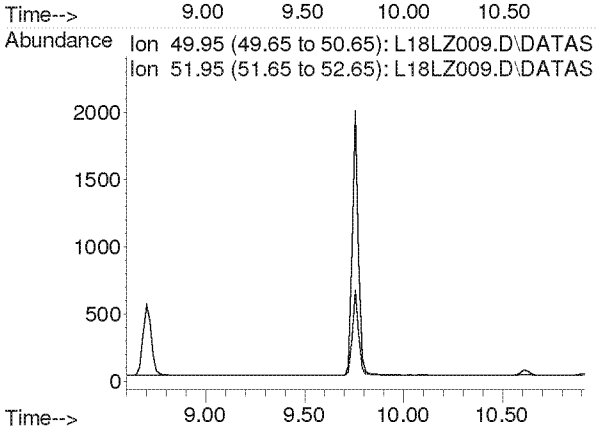


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

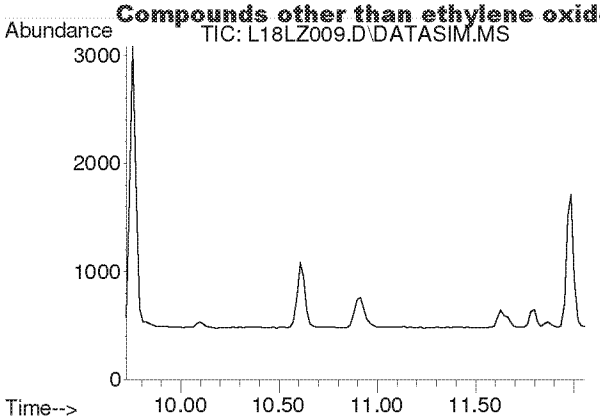
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

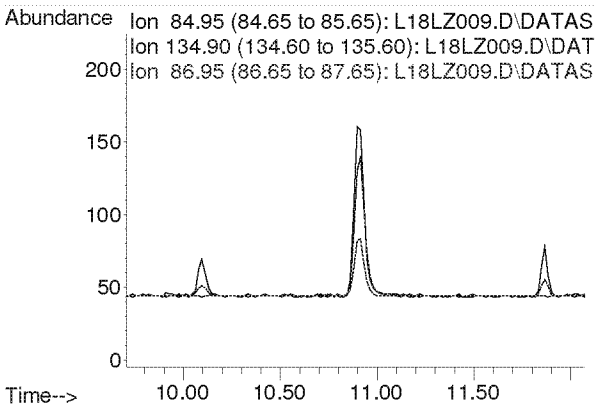


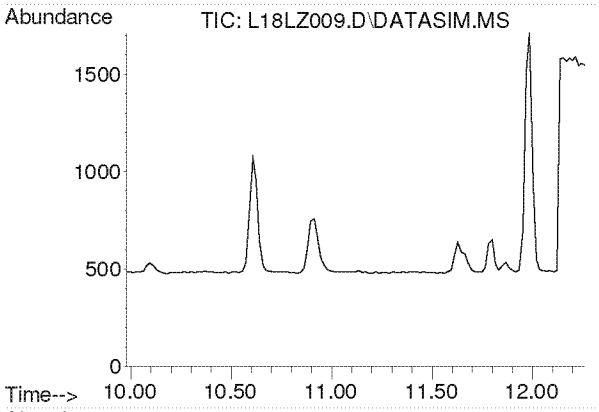
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



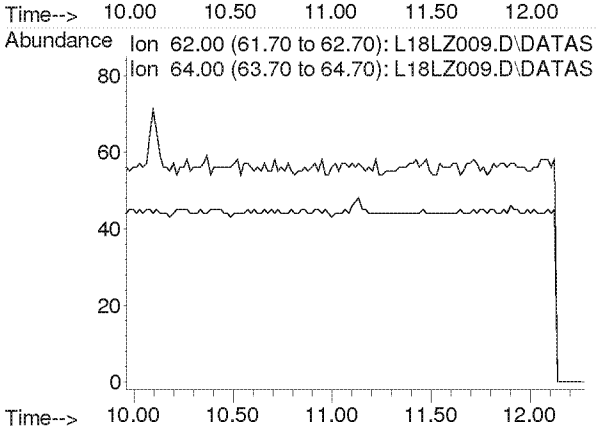


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

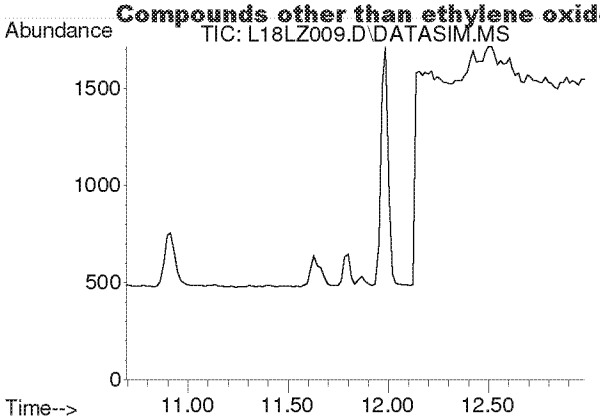
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

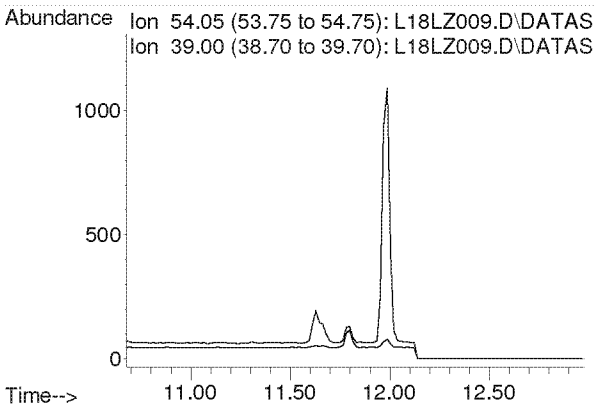


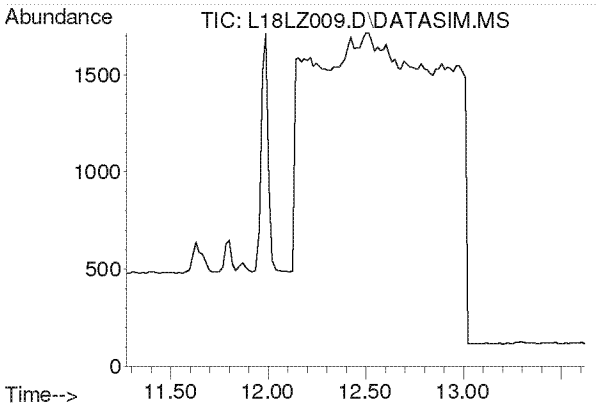
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4



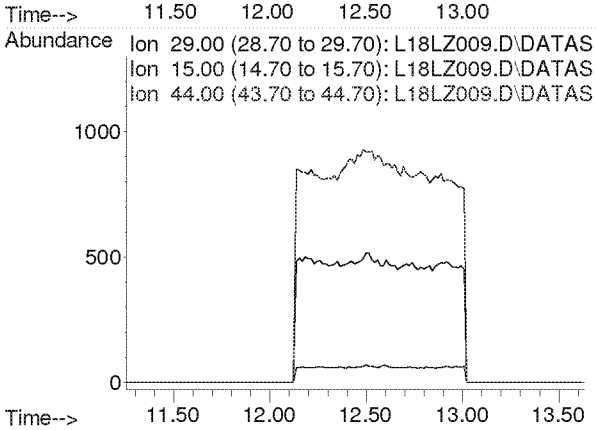


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

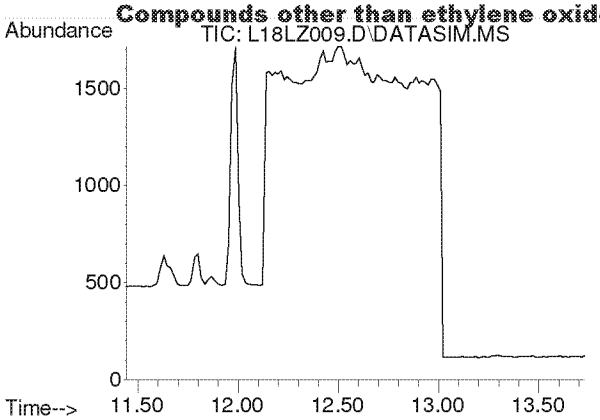
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.3
44	90.0



Compounds other than ethylene oxide were not quantitated.

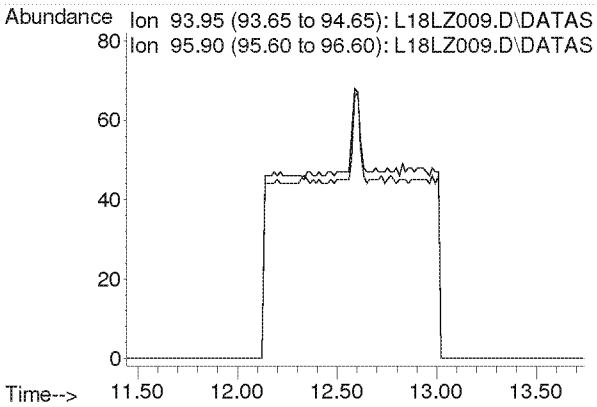


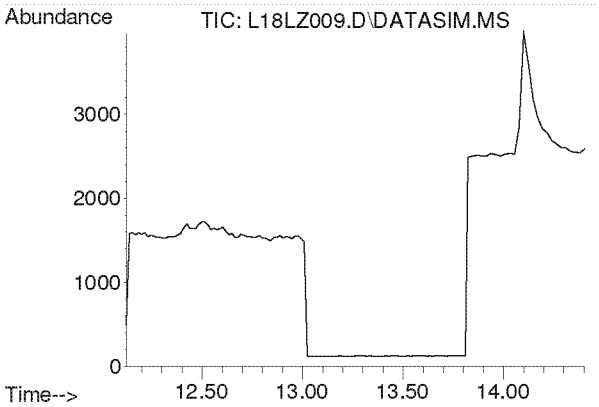
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



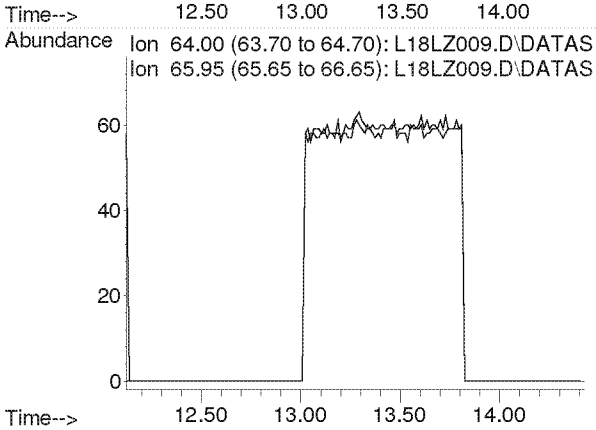


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

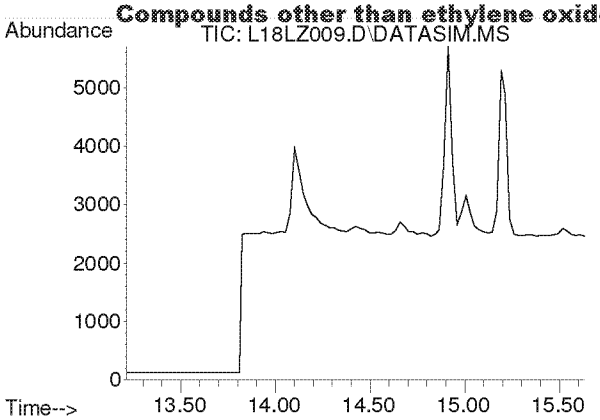
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

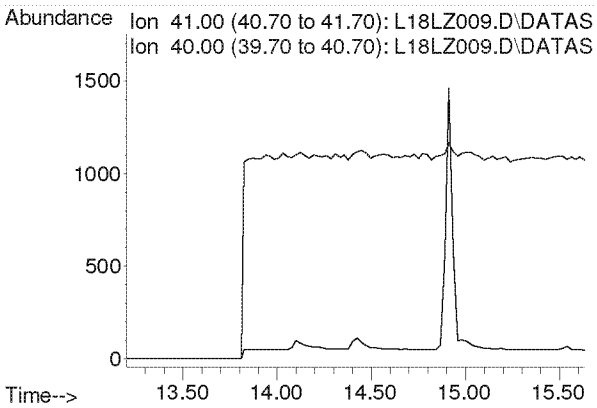


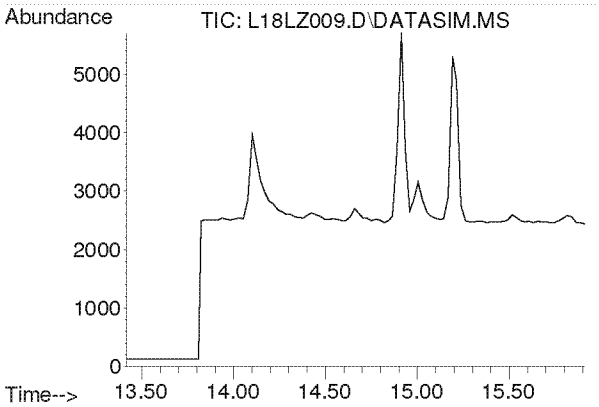
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



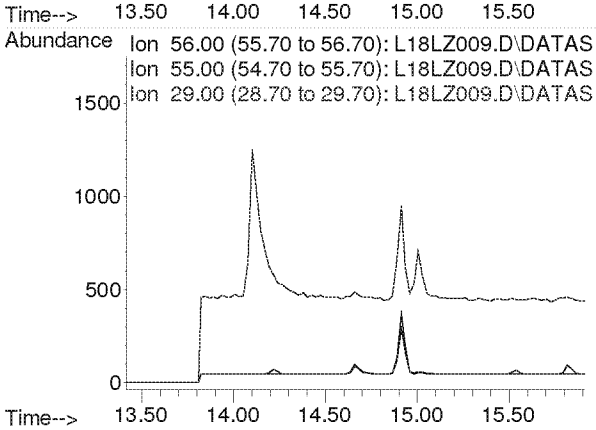


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

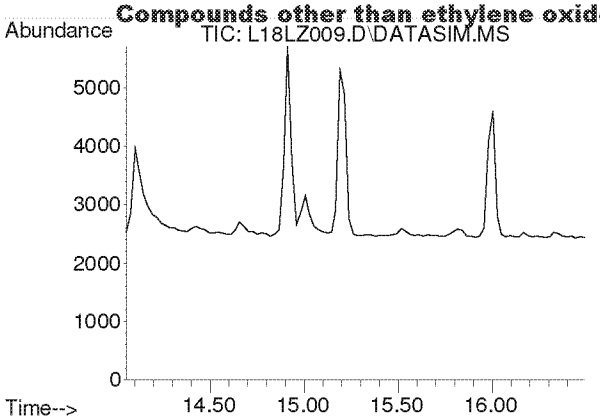
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

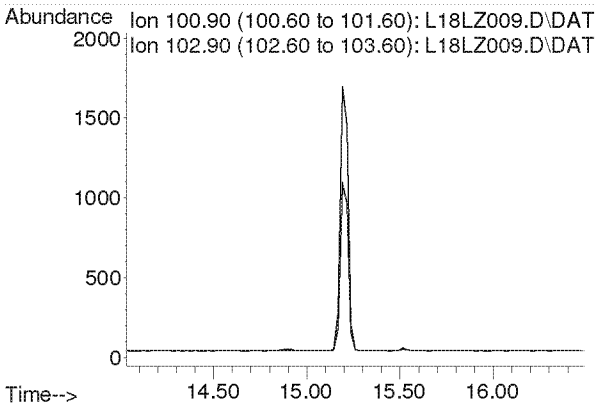


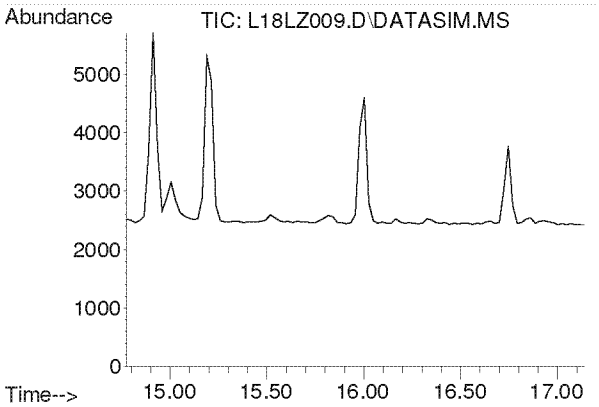
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



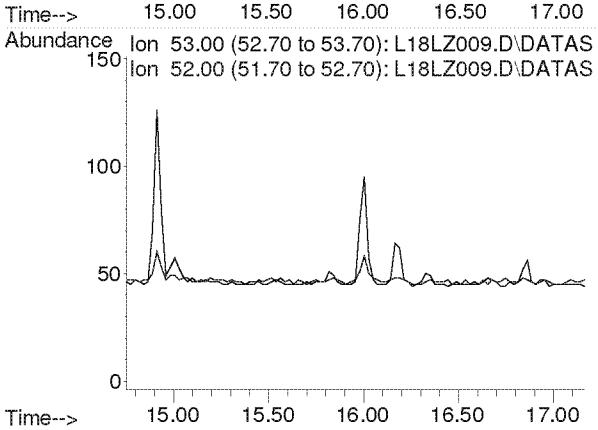


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

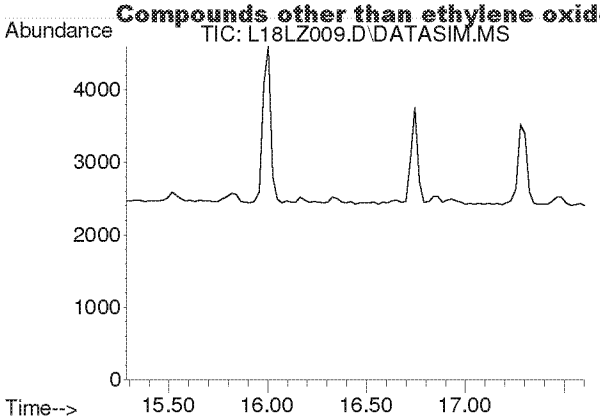
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

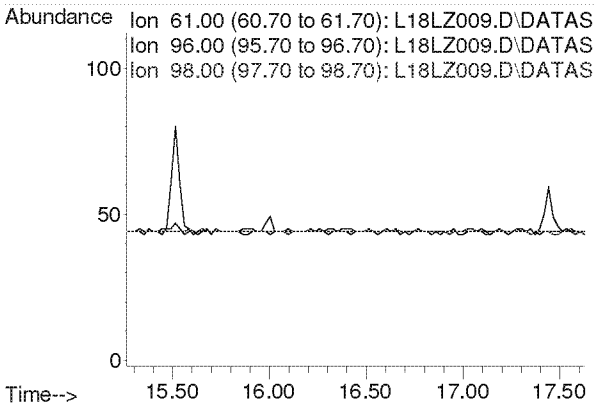


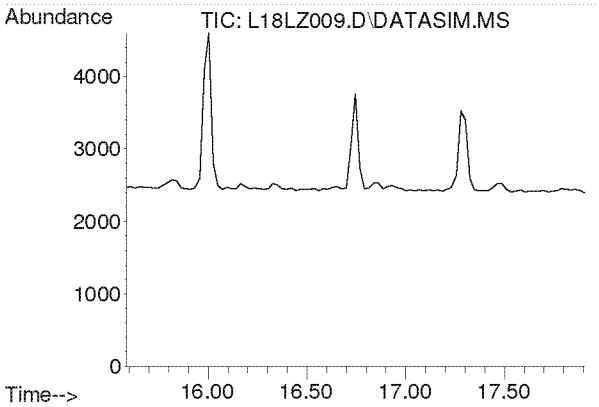
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



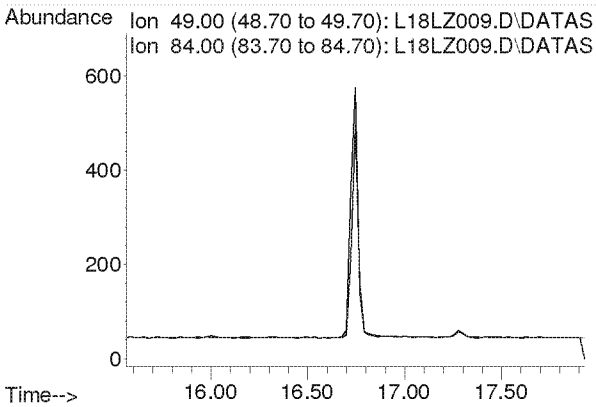


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

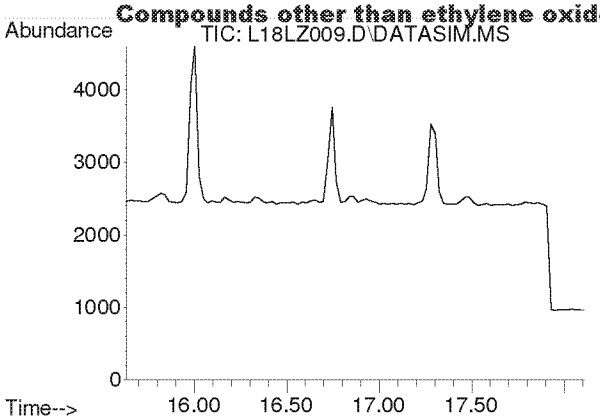
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

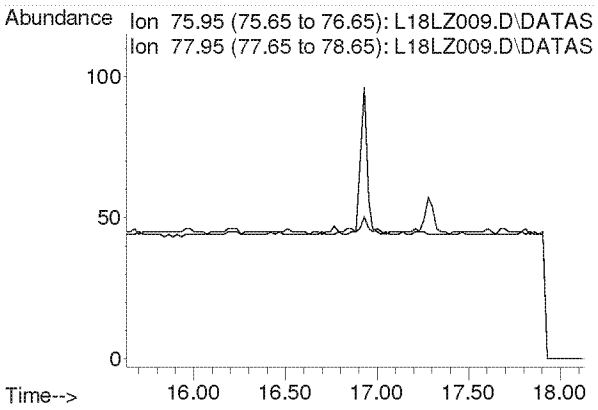


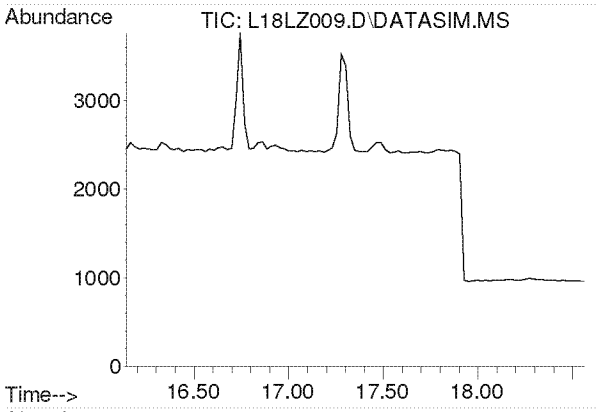
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



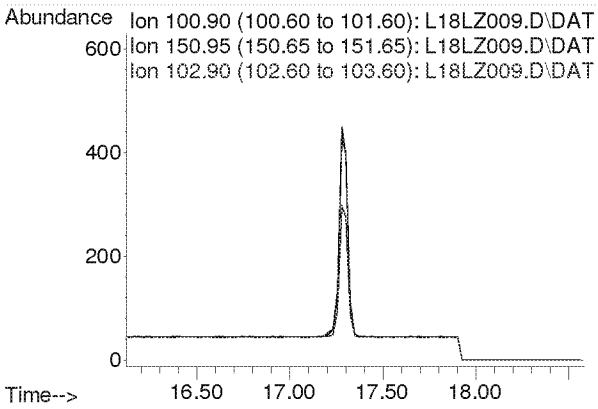


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

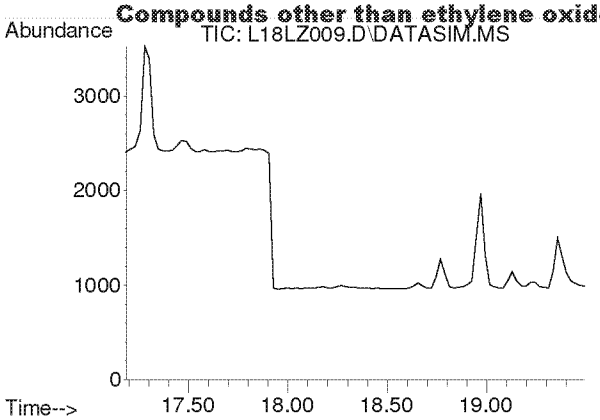
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

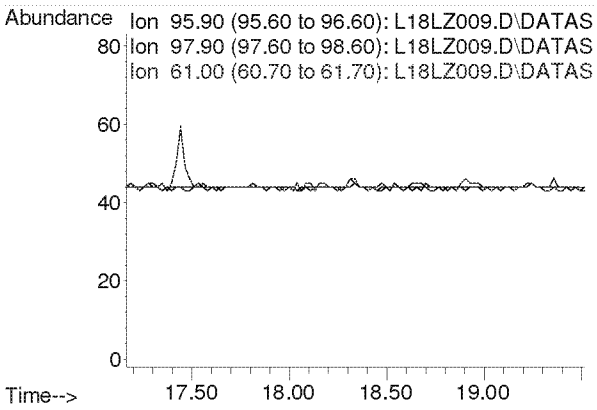


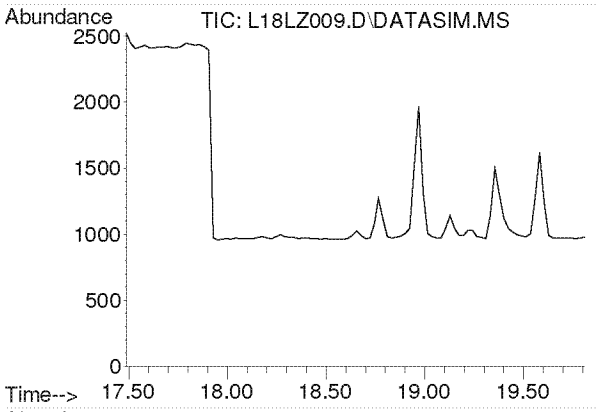
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



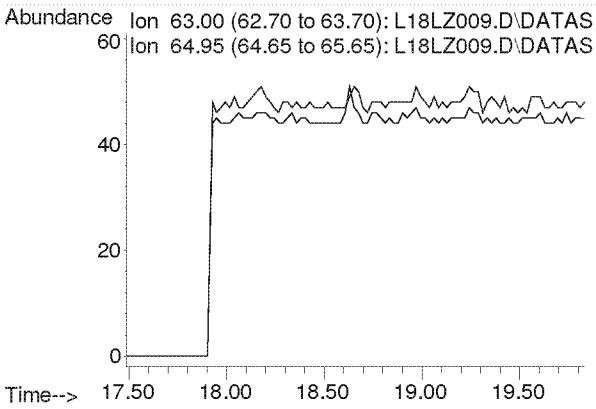


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

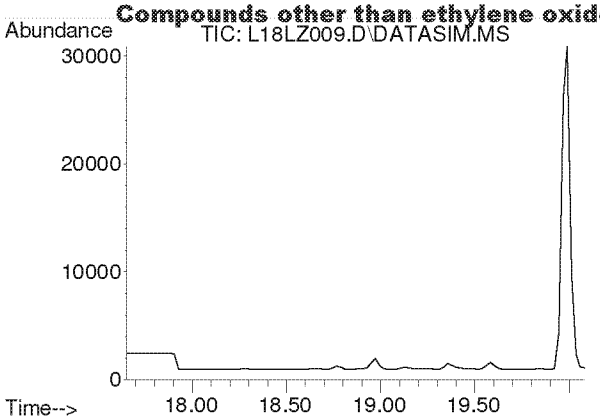
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

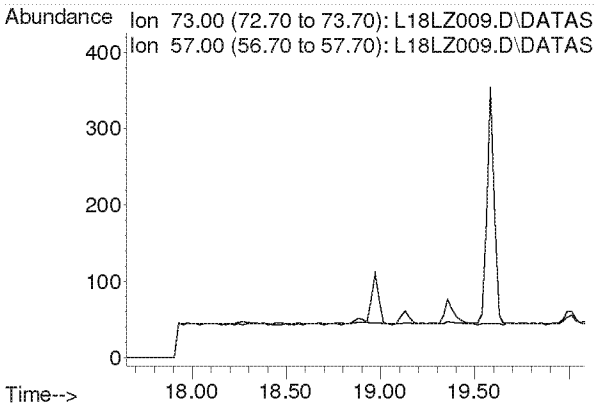


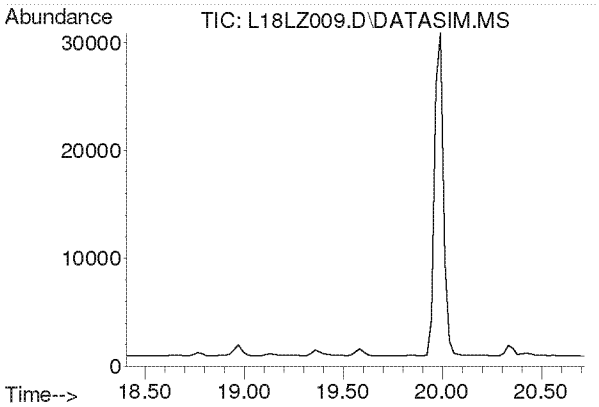
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



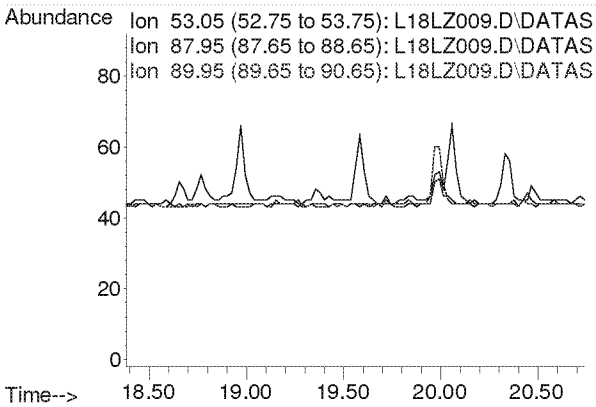


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

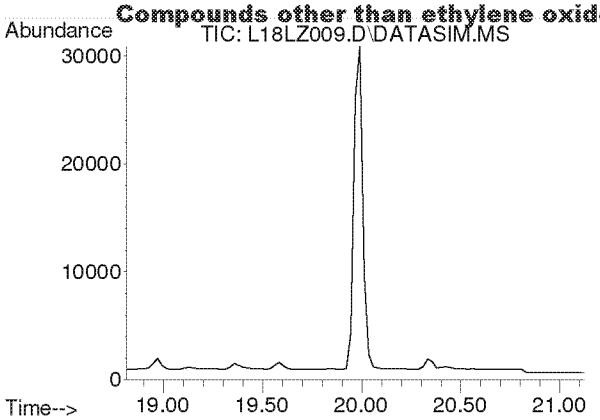
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

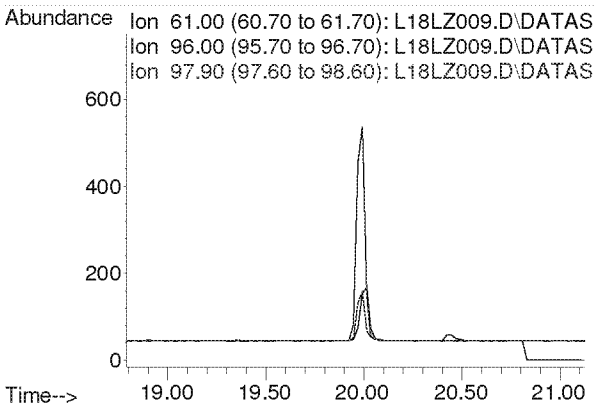


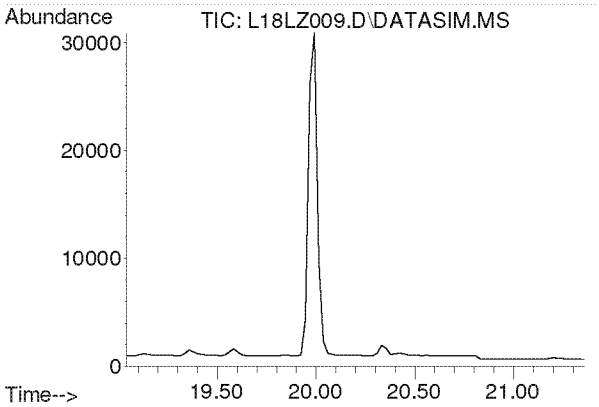
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



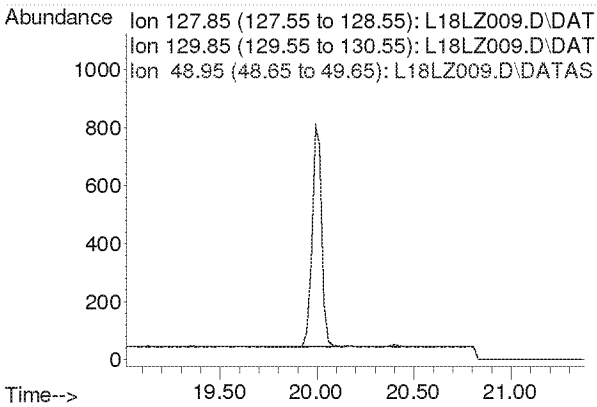


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

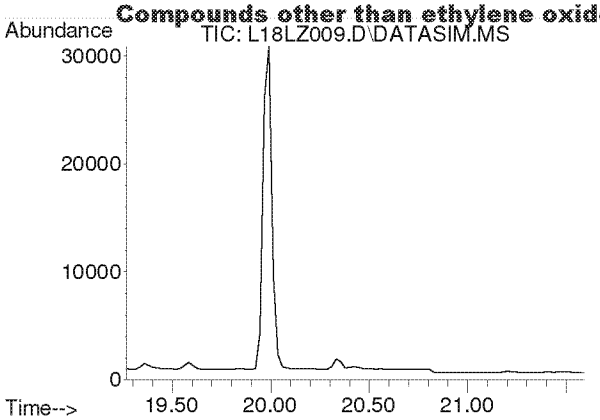
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

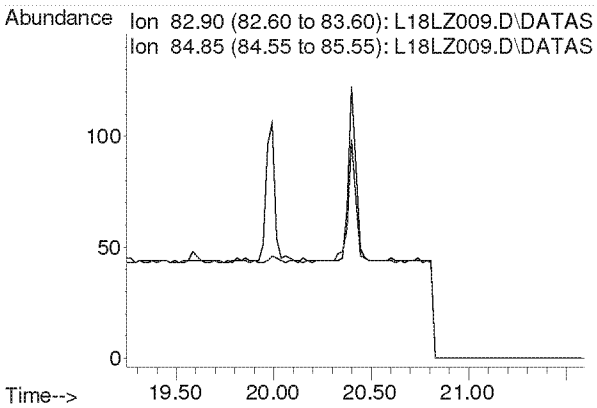


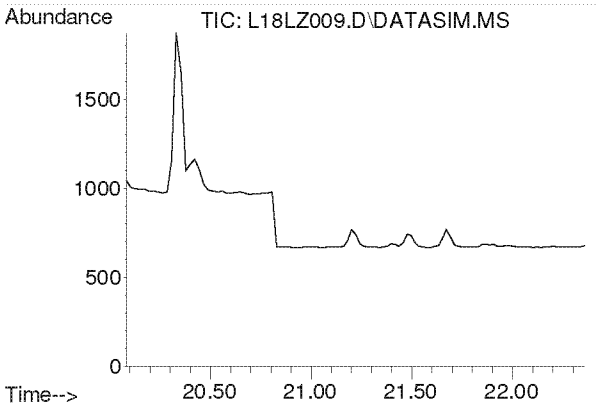
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



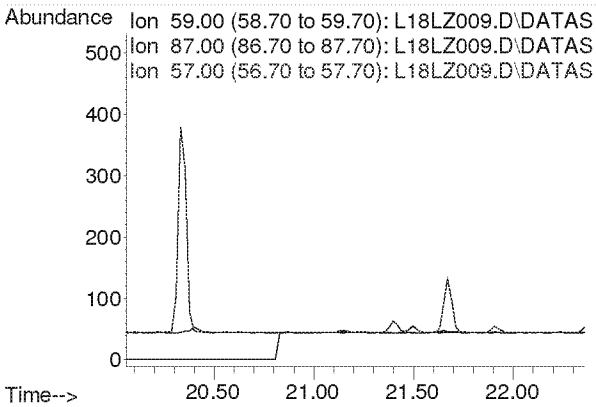


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

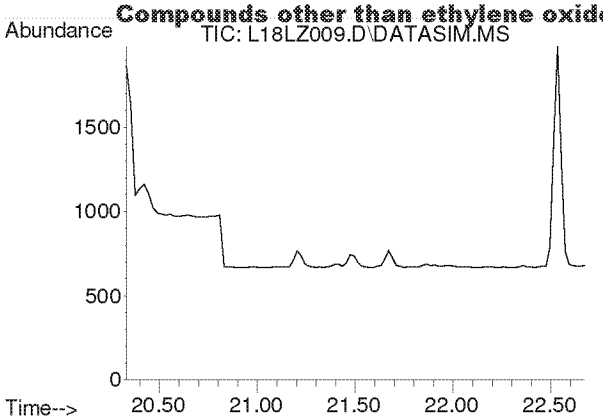
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

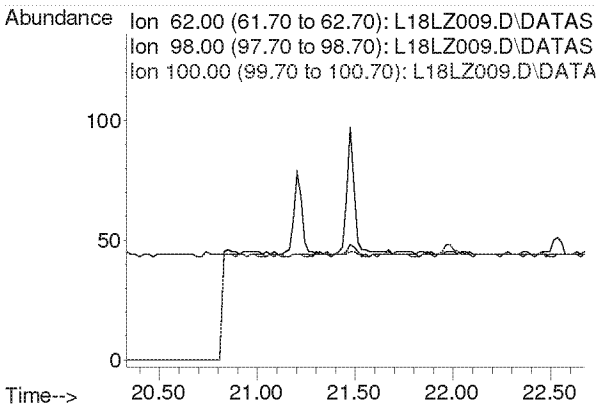


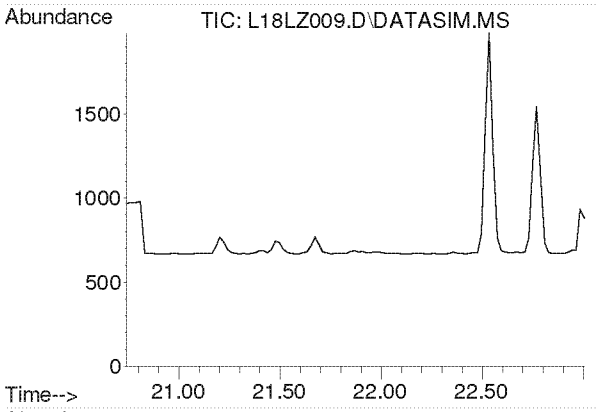
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



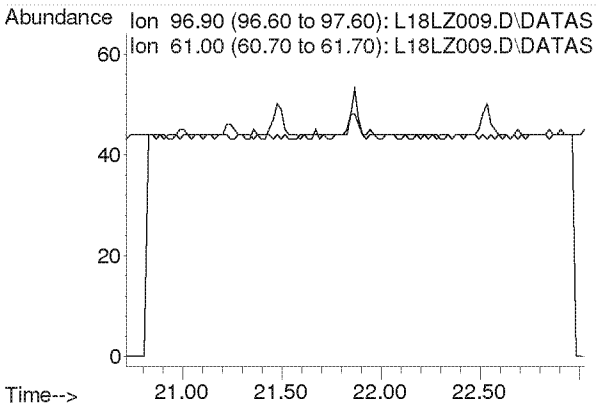


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

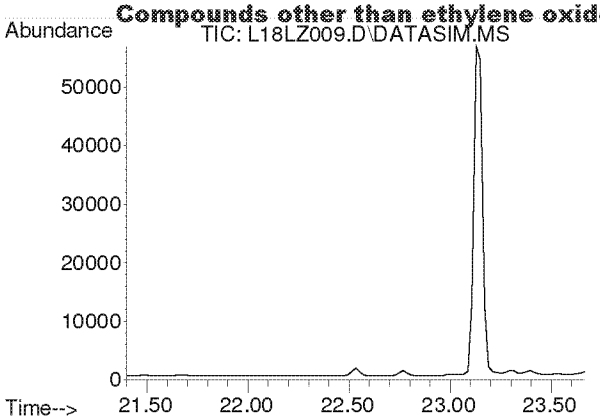
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

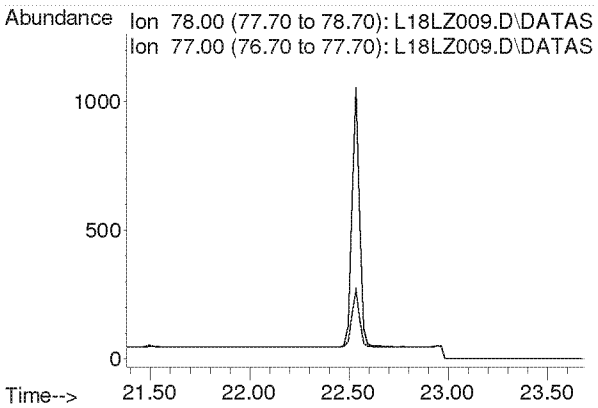


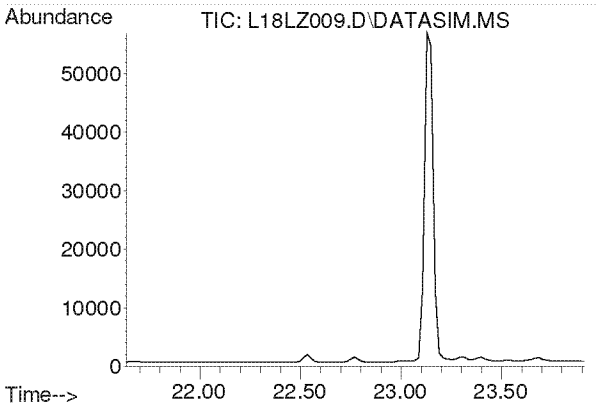
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



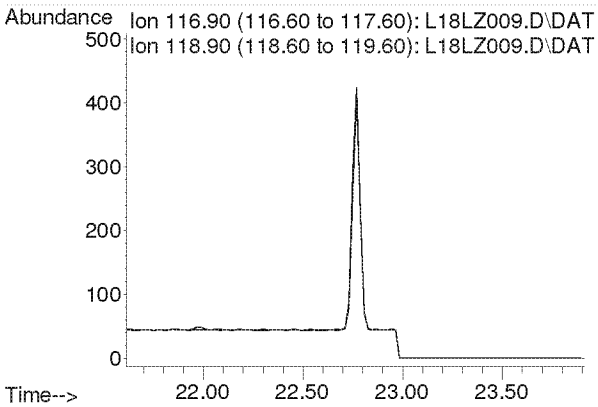


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

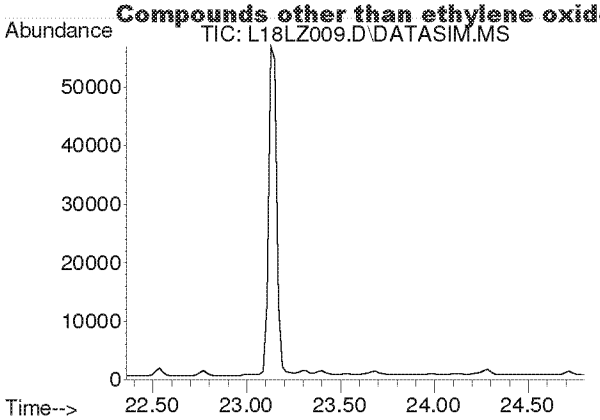
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

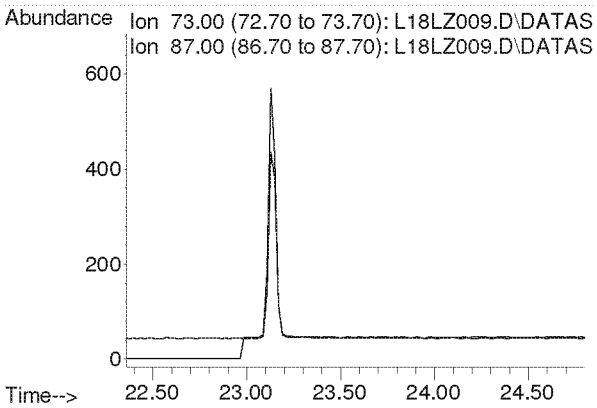


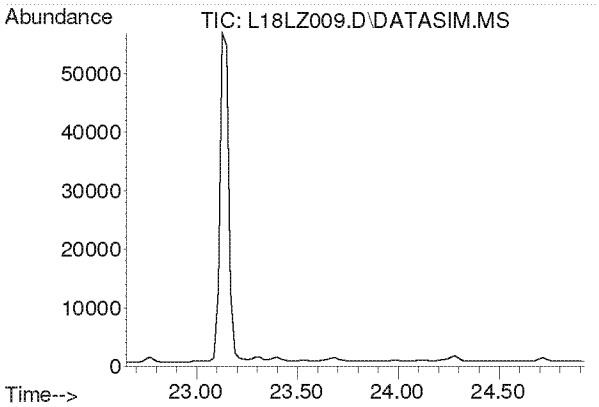
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



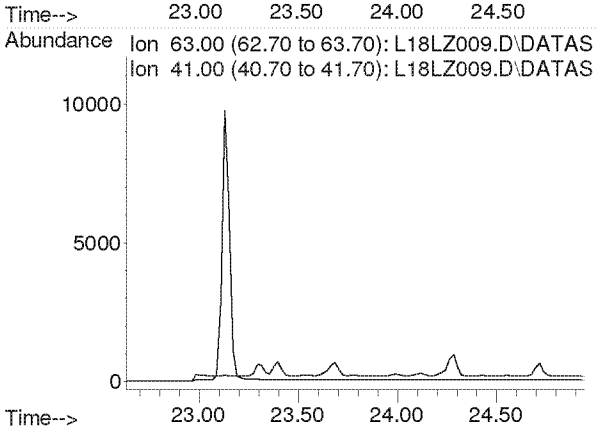


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

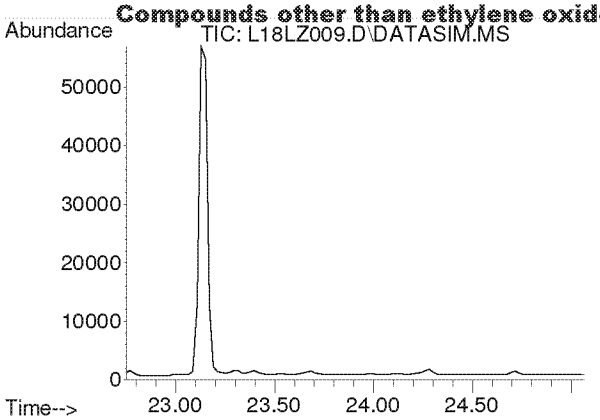
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

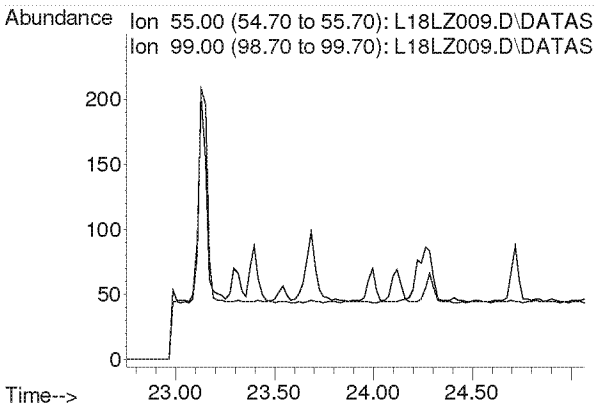


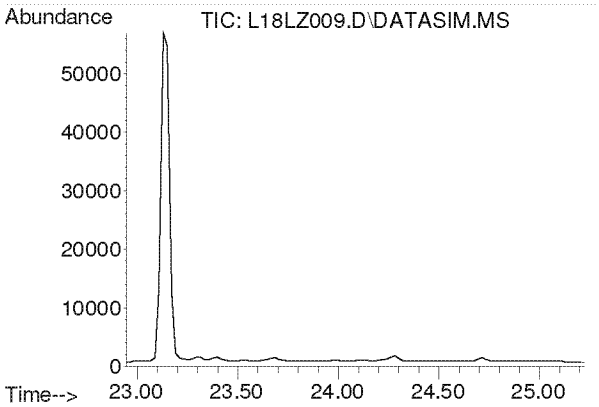
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



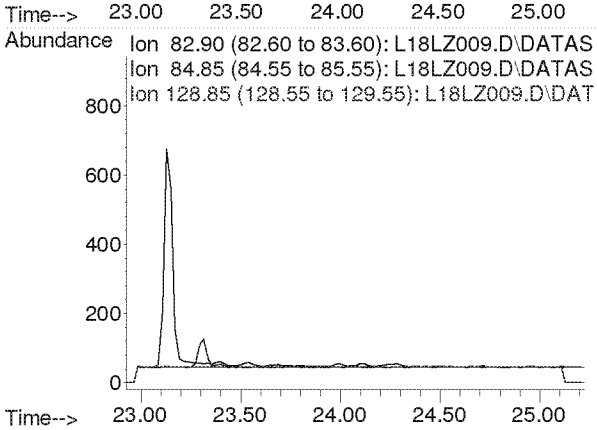


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

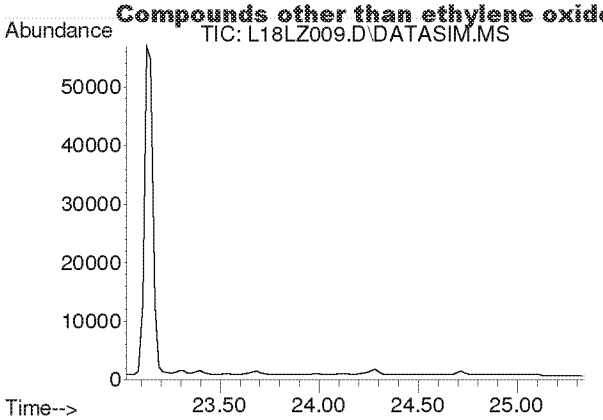
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

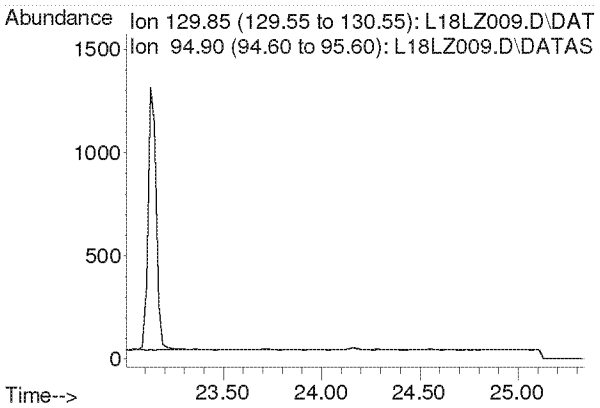


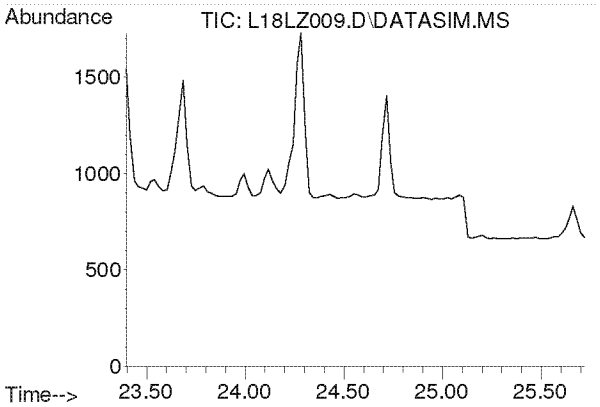
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



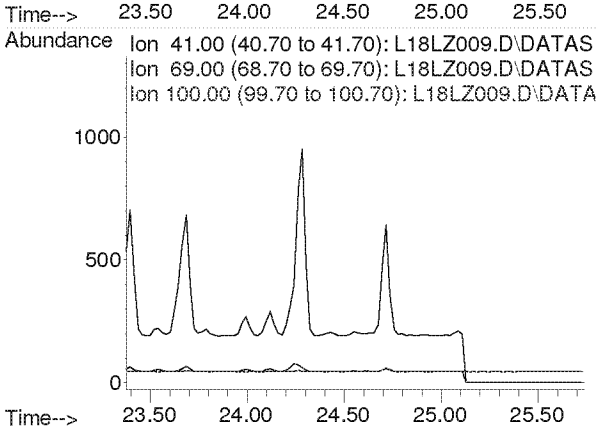


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

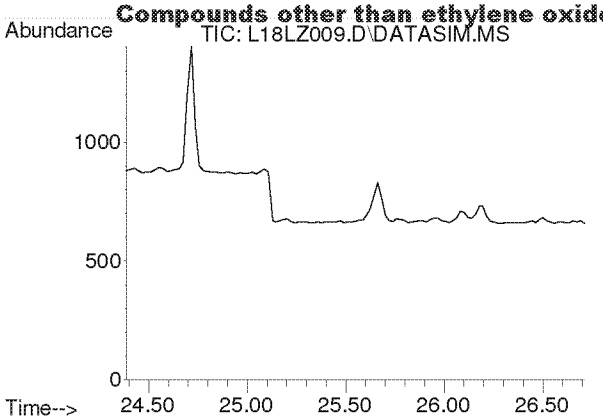
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

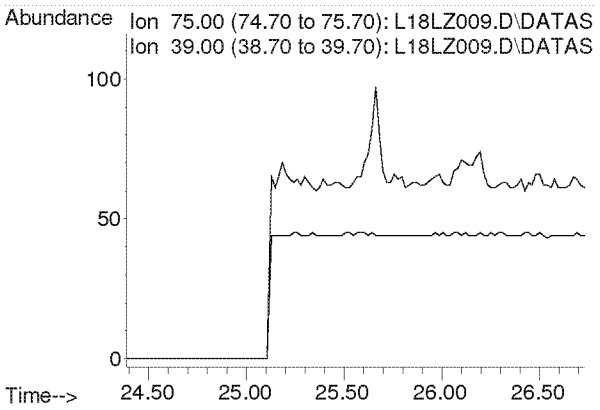


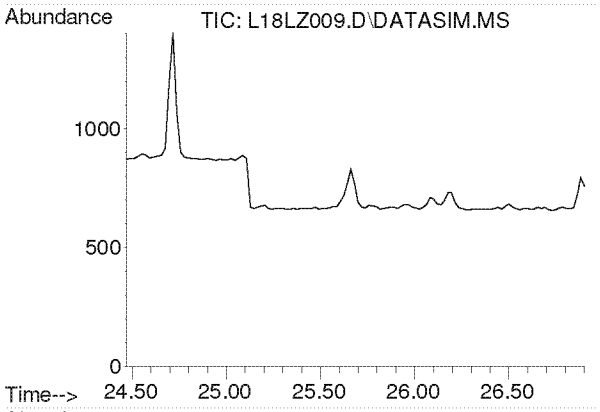
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



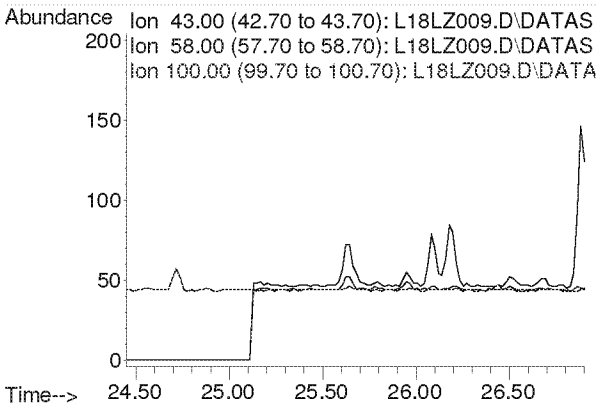


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

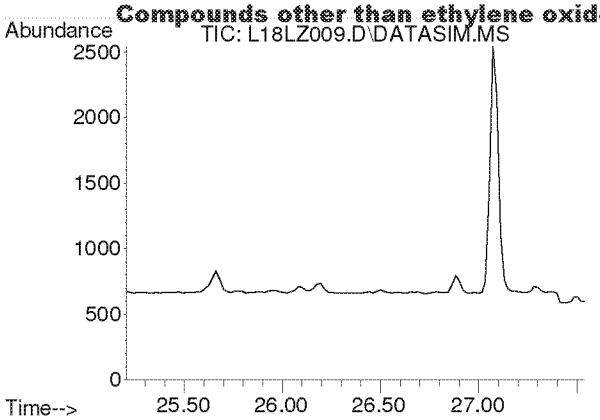
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

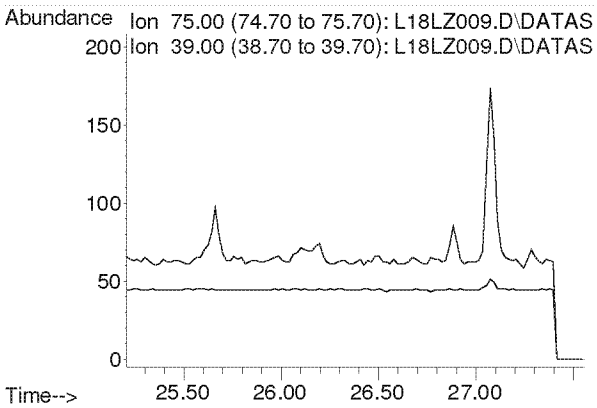


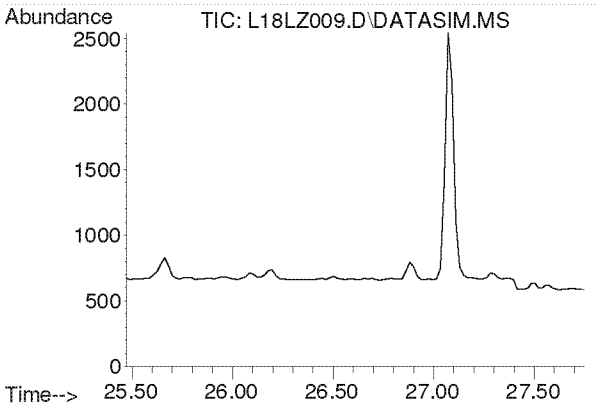
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



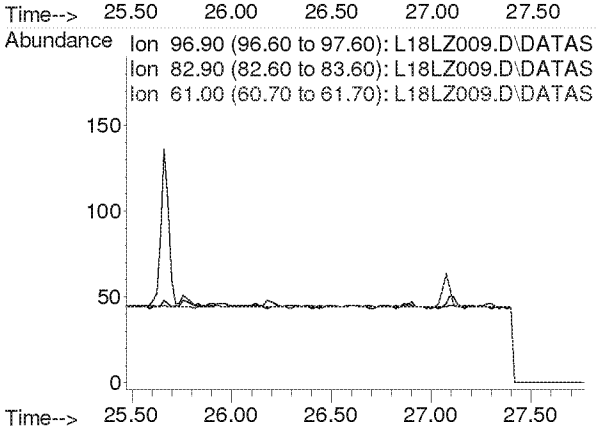


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

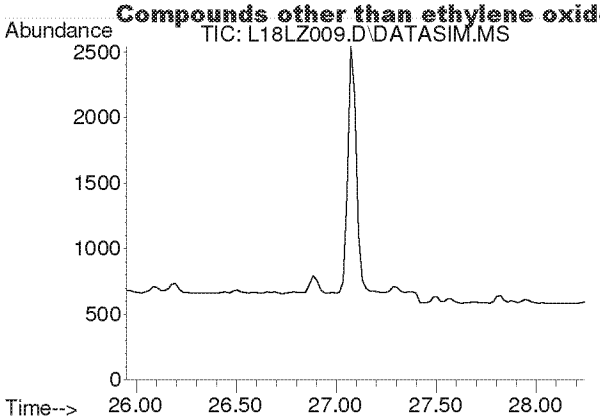
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

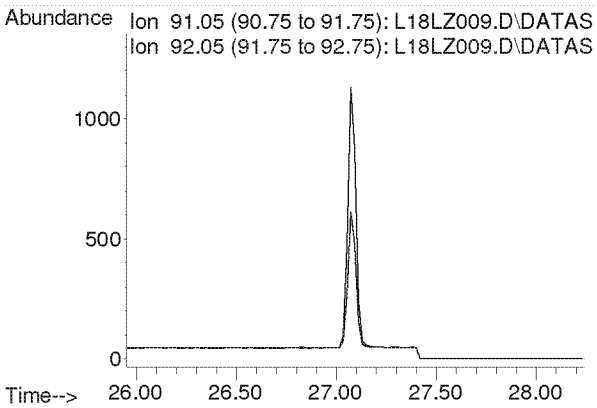


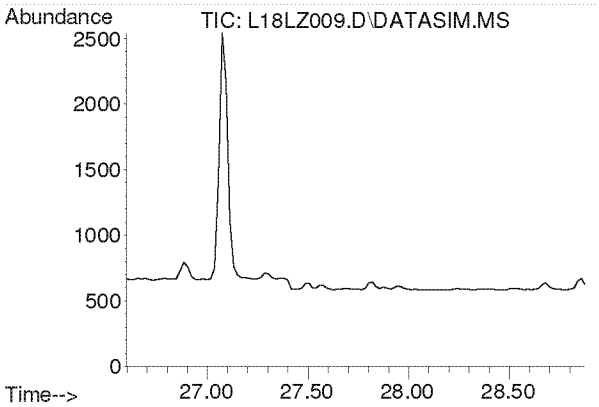
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



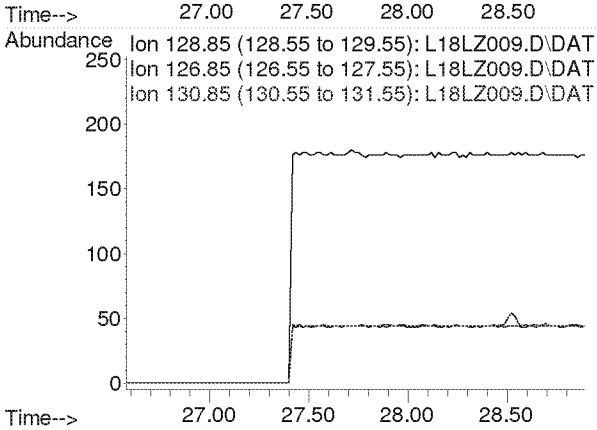


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

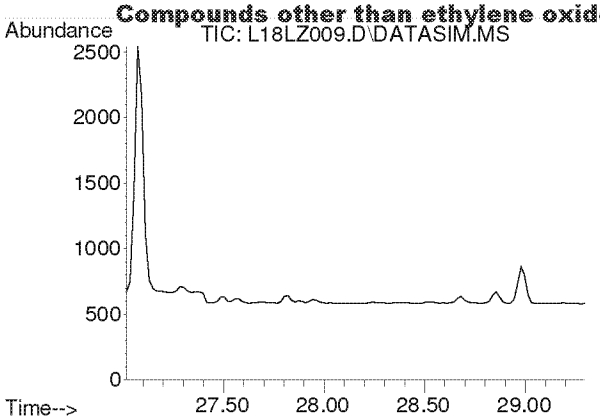
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

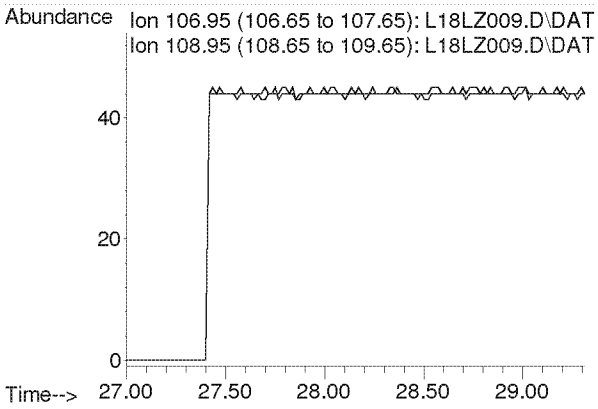


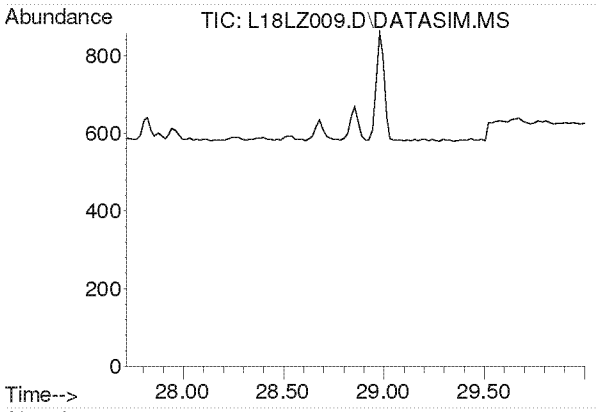
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



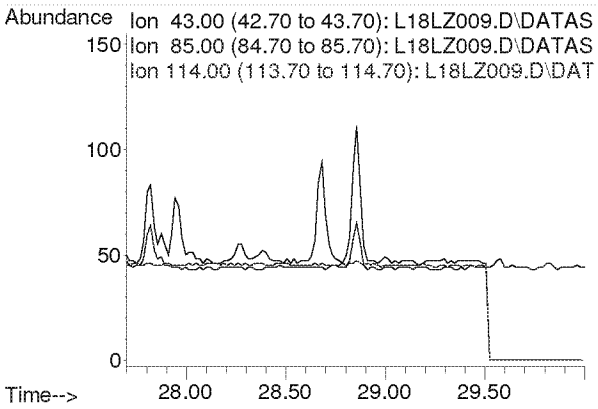


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

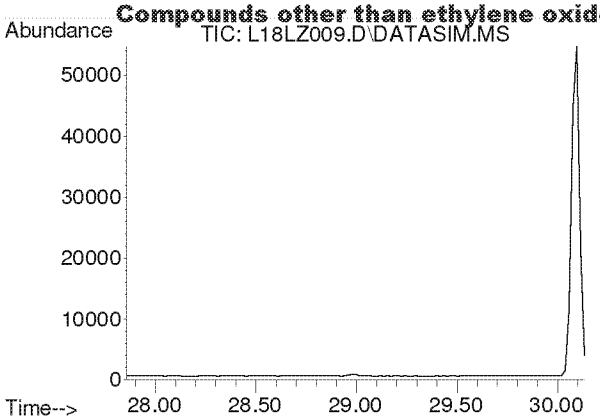
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

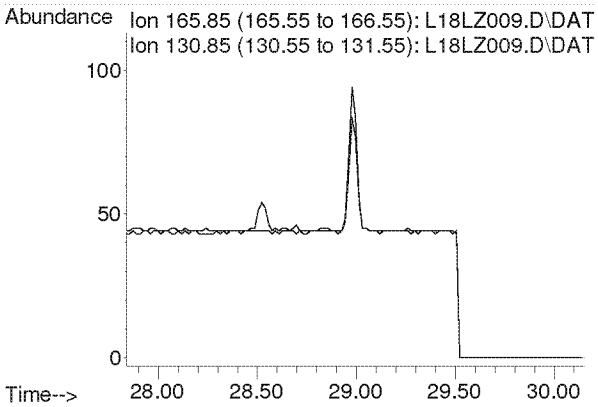


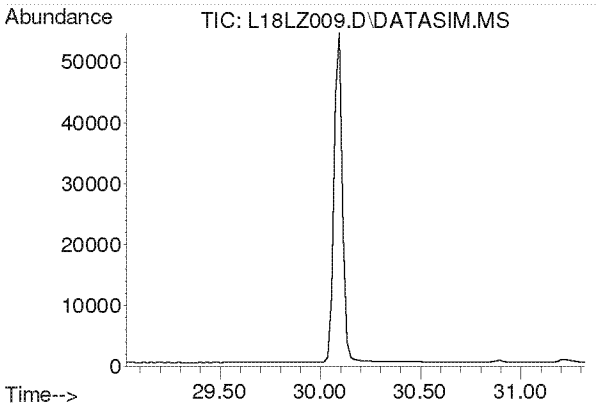
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



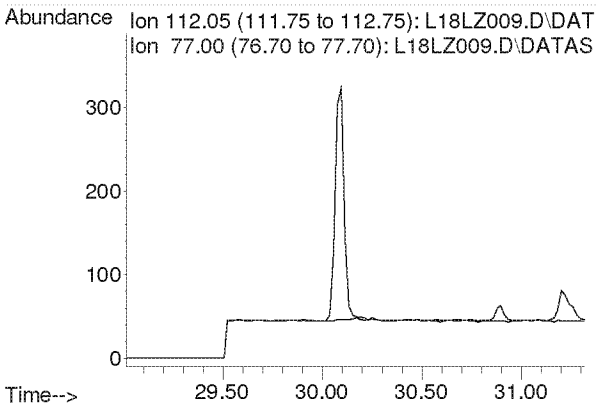


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

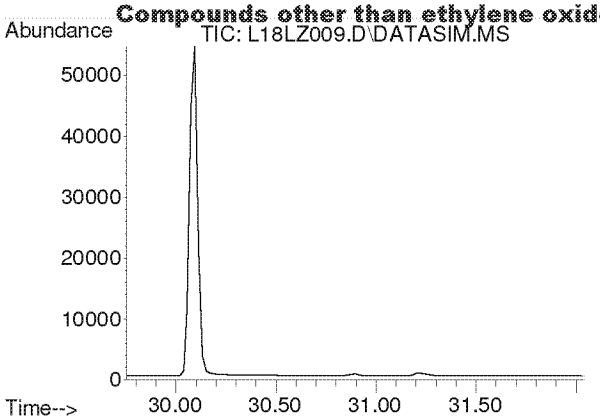
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

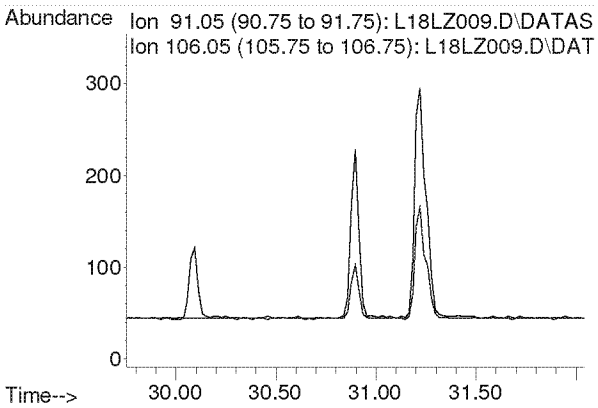


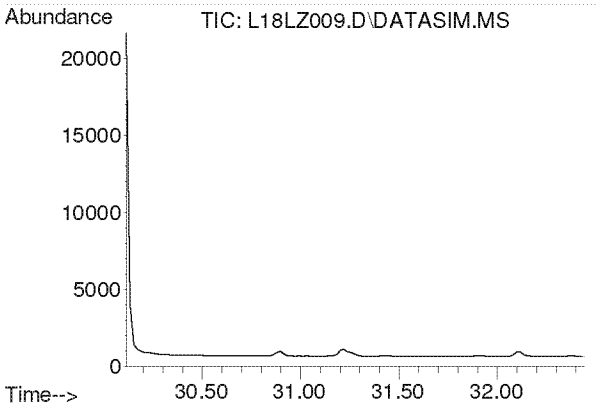
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



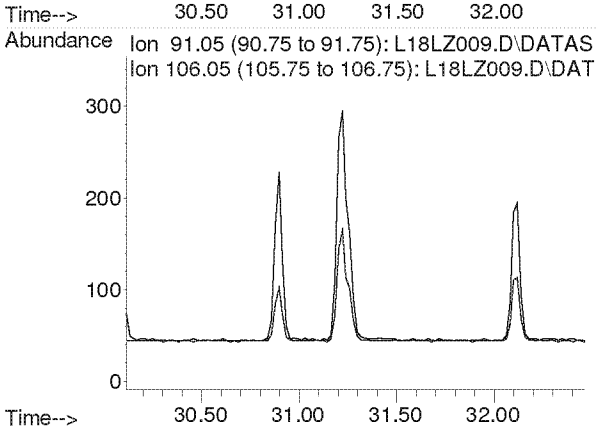


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

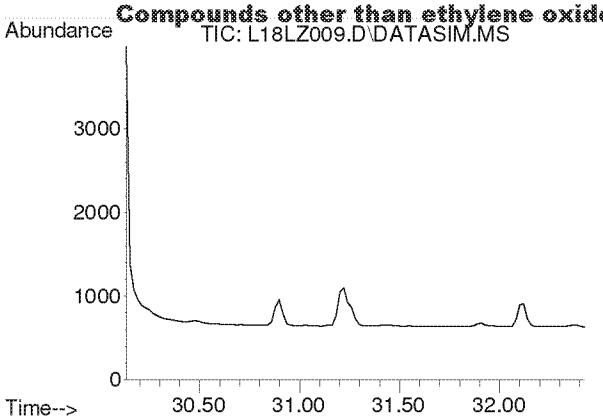
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

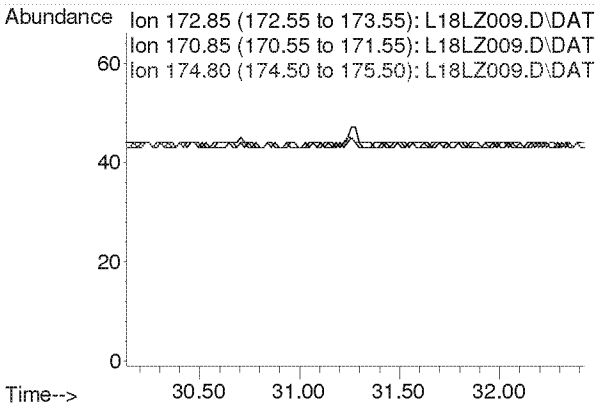


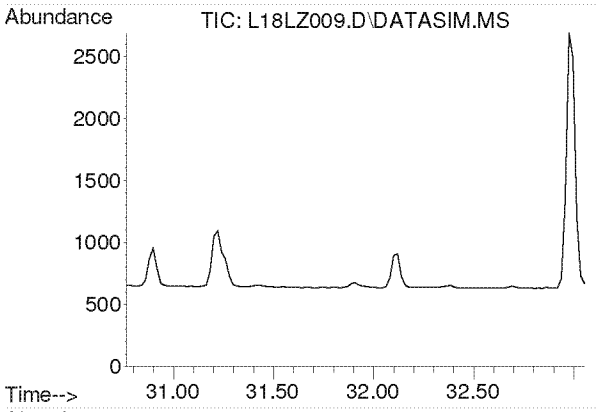
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



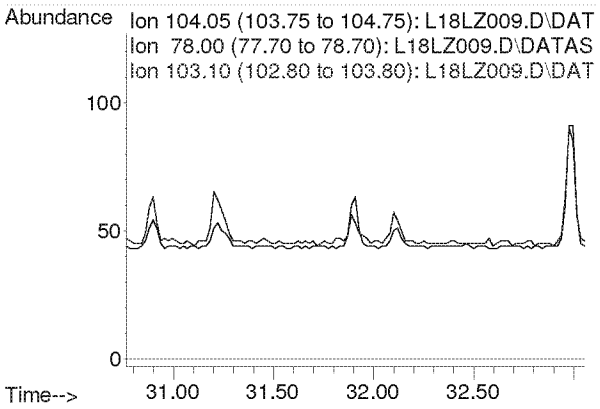


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

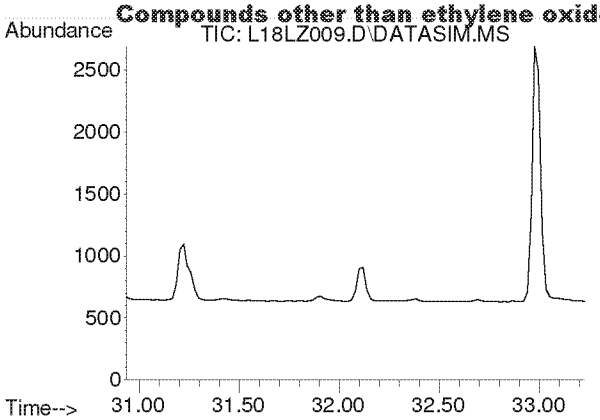
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

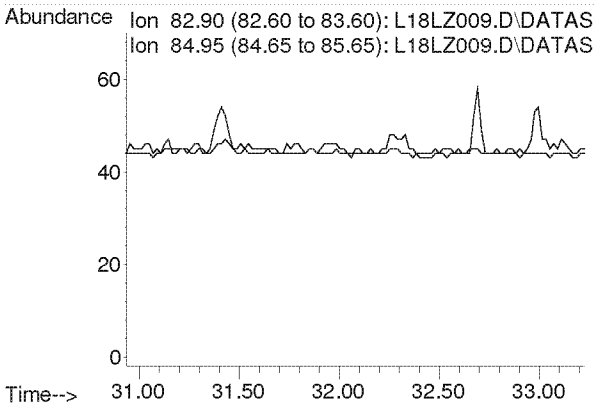


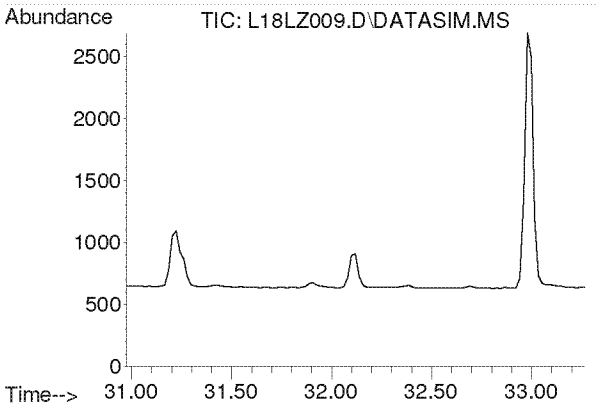
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



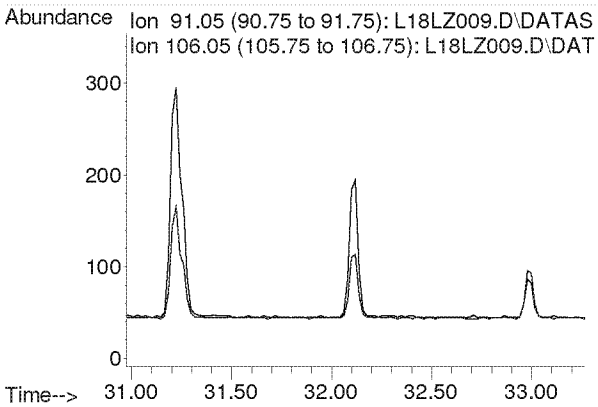


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

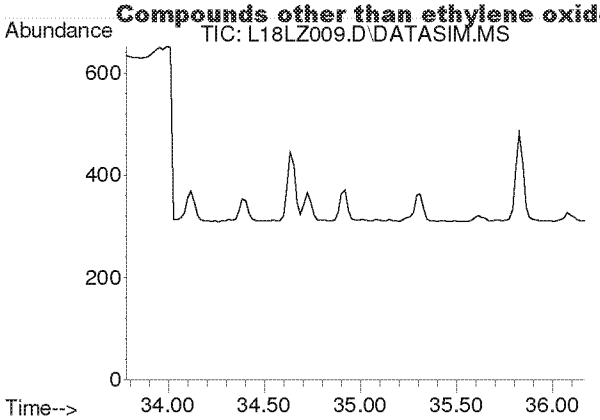
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

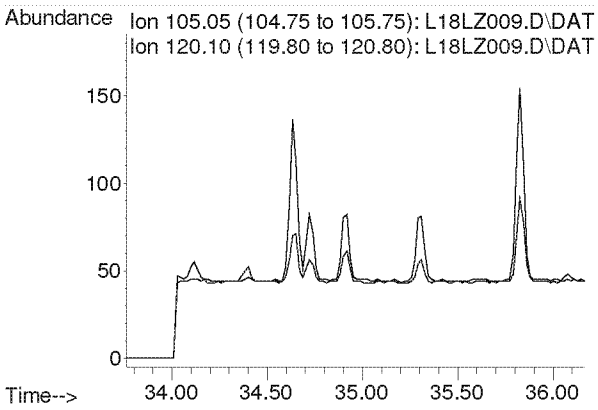


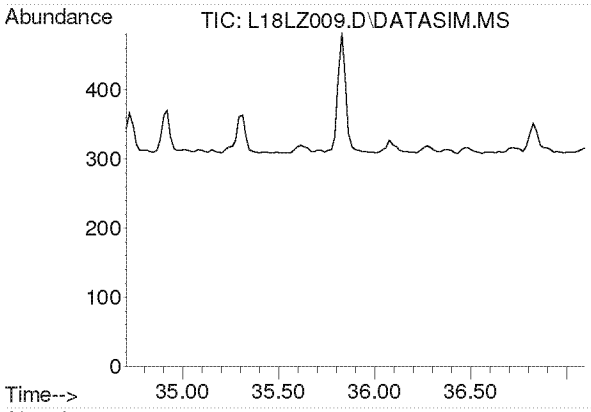
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



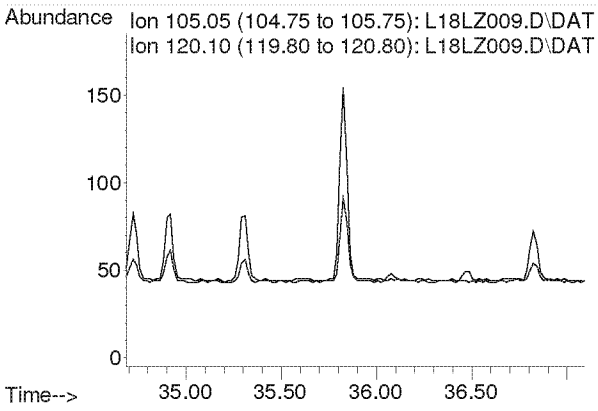


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

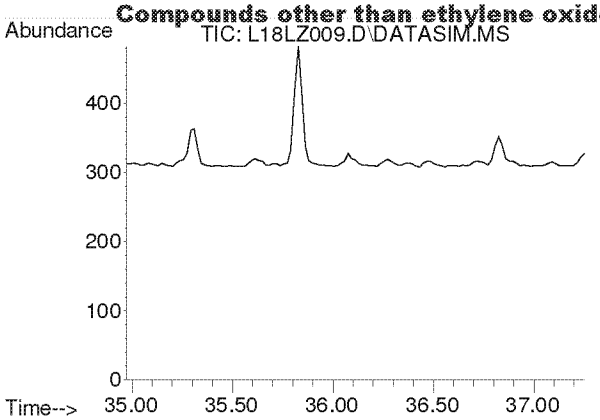
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

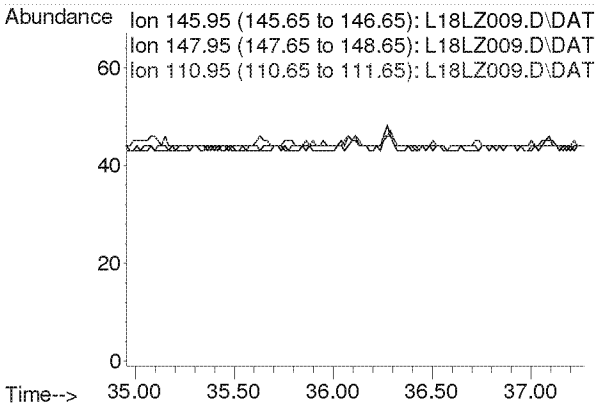


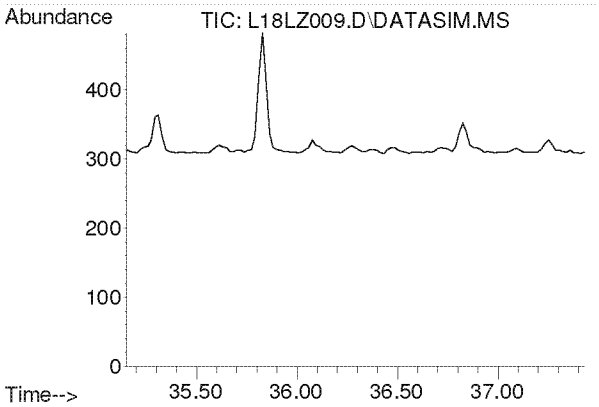
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



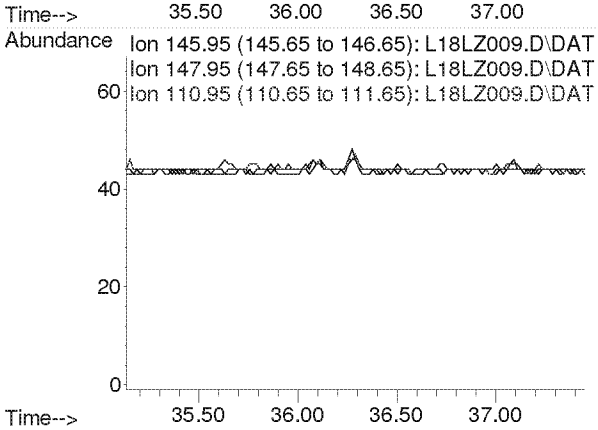


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

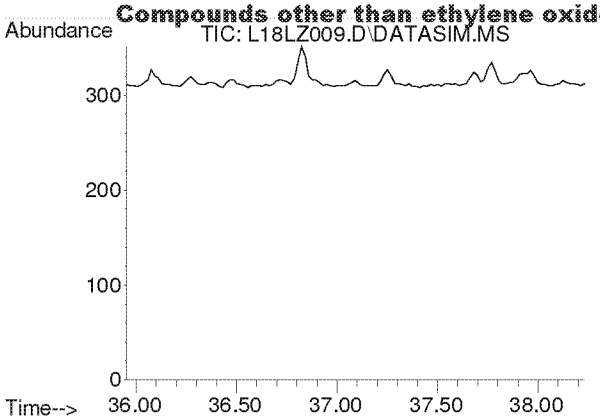
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

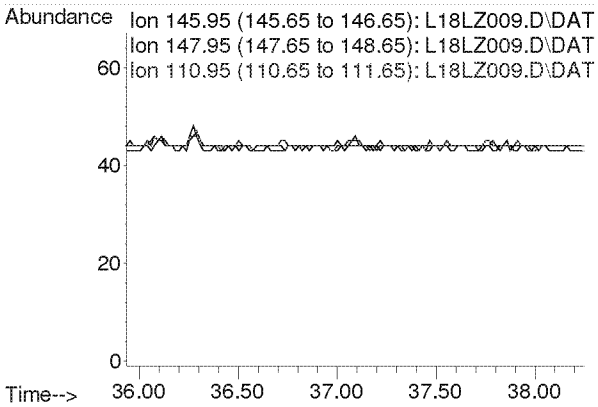


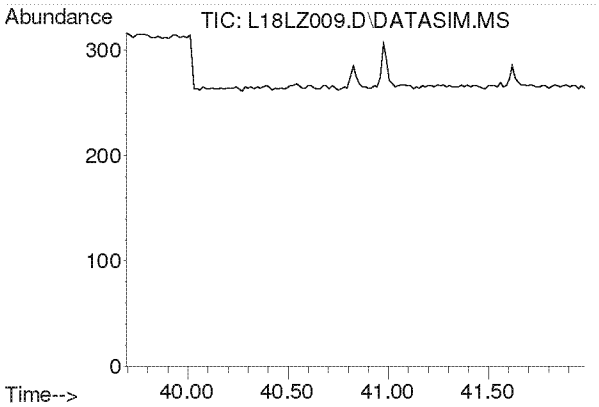
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



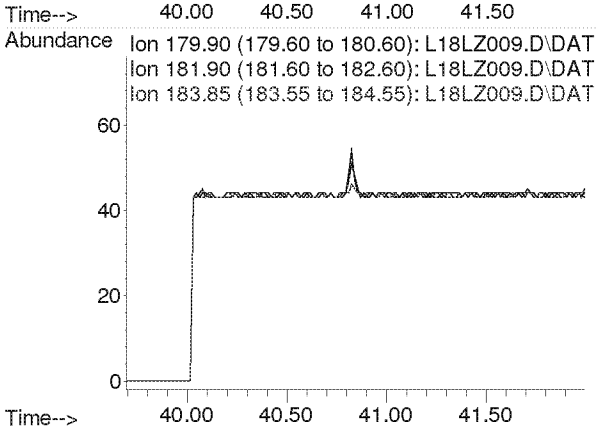


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

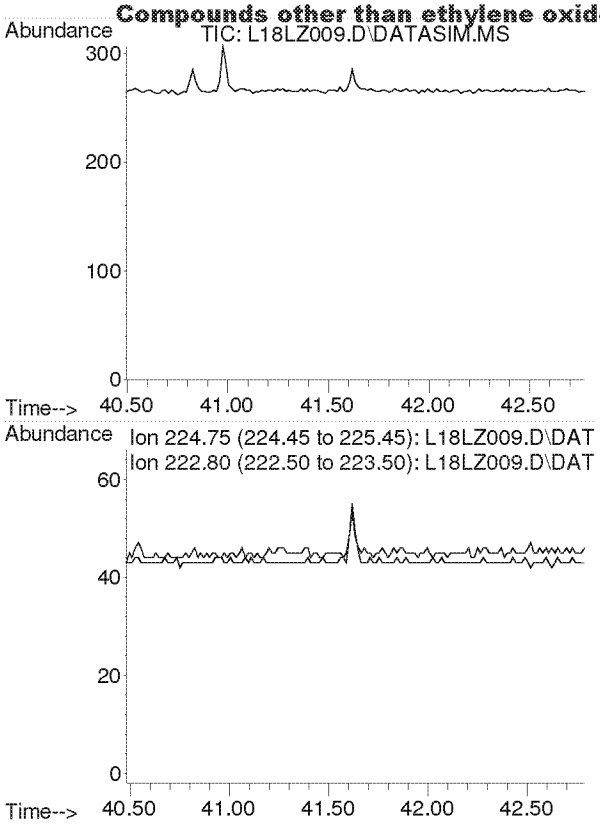
Lab File: L18LZ009.D
Acq: 26 Dec 2018 7:38 pm

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: L18LZ009.D
Acq: 26 Dec 2018 7:38 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\L18LZ\
Data File : L18LZ010.D
Acq On : 26 Dec 2018 8:38 pm
Operator : MAH
Sample : 8121220-04
Misc : WILLOWBROOK POND PARK 12/11/18
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 03 11:12:51 2019
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

EDX dils

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	57930	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.130	114	145322	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.097	117	99570	4.7400 ppbv	0.00

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. 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.	
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. 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	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\L18LZ\
Data File : L18LZ010.D
Acq On : 26 Dec 2018 8:38 pm
Operator : MAH
Sample : 8121220-04
Misc : WILLOWBROOK POND PARK 12/11/18
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 03 11:12:51 2019
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.	

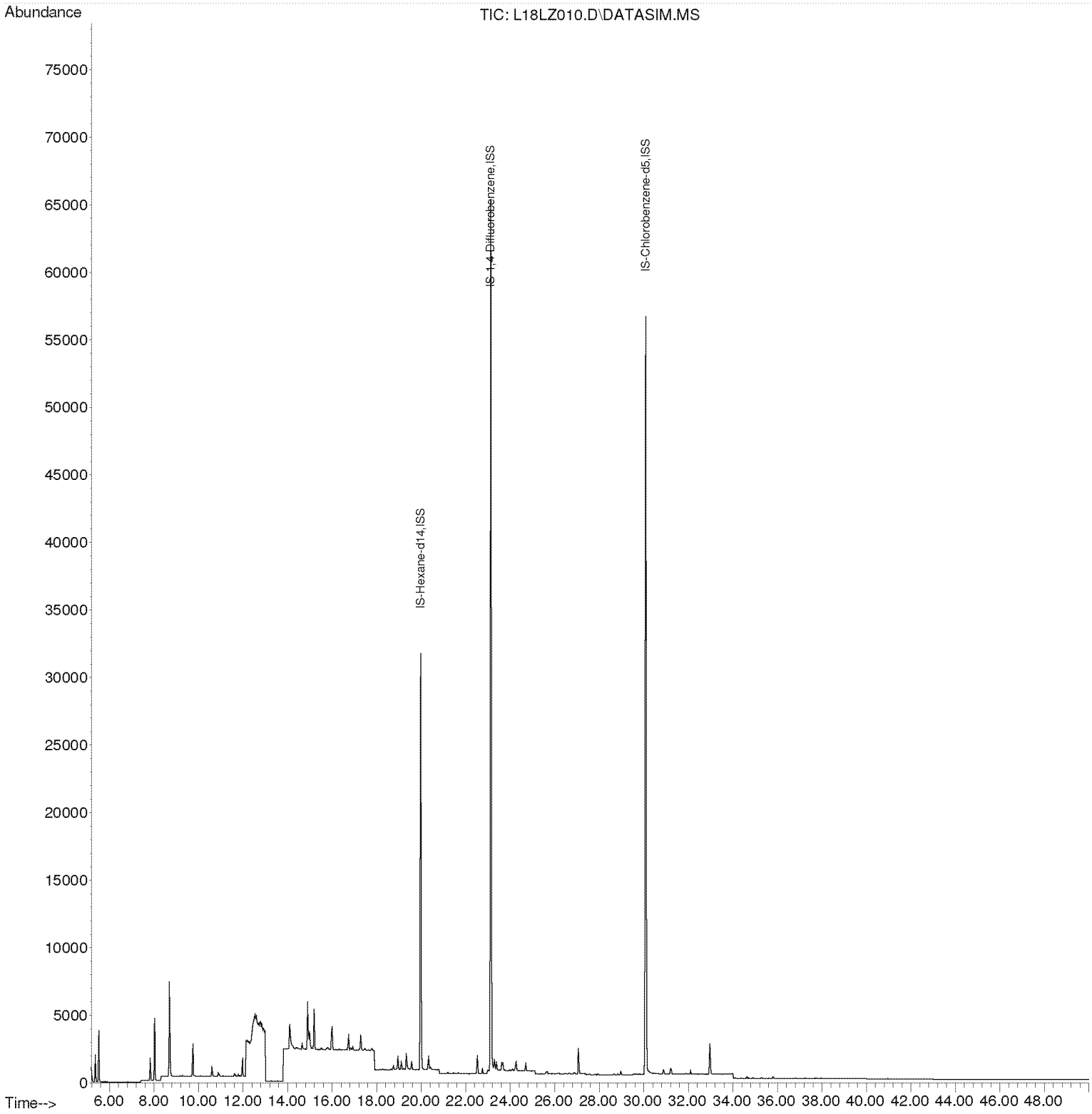
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000324-00280

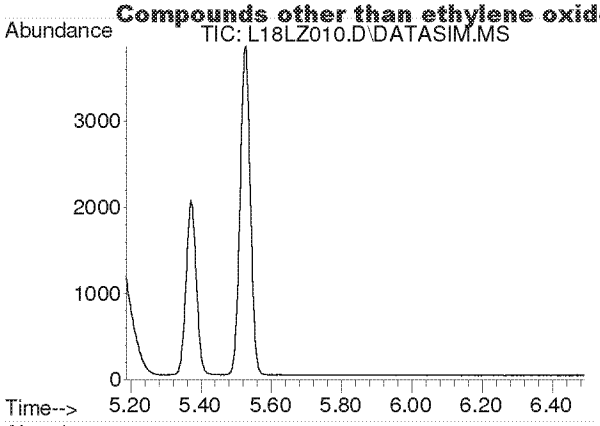
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ010.D
Acq On : 26 Dec 2018 8:38 pm
Operator : MAH
Sample : 8121220-04
Misc : WILLOWBROOK POND PARK 12/11/18
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 03 10:28:30 2019
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



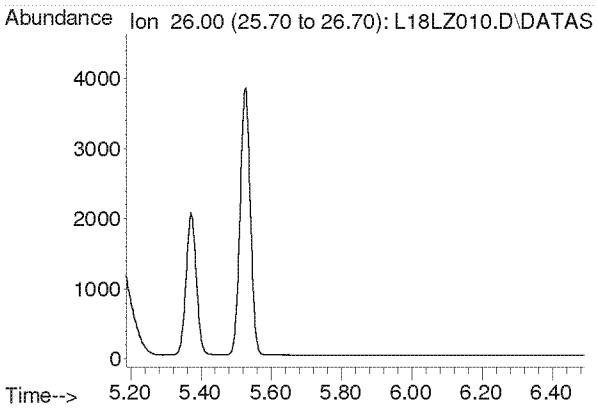
Compounds other than ethylene oxide were not quantitated.

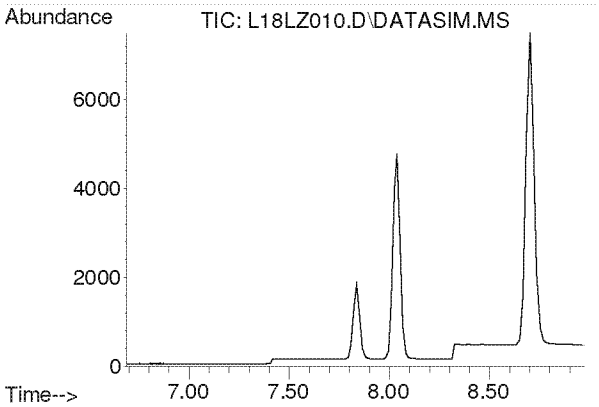


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 26



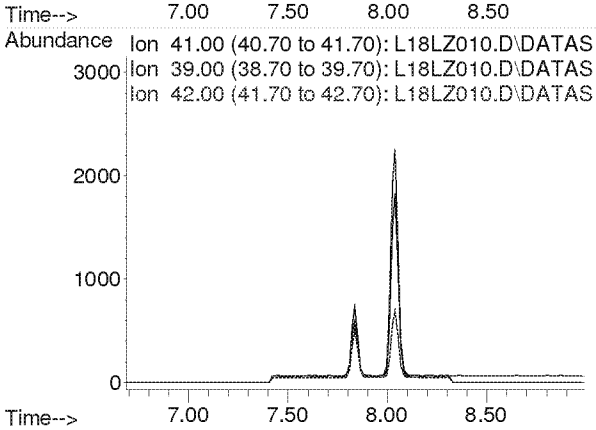


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

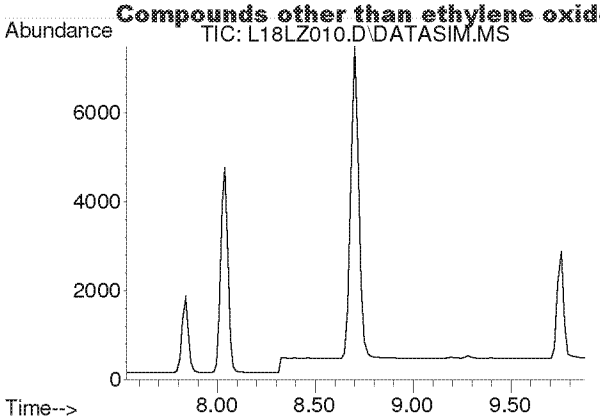
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

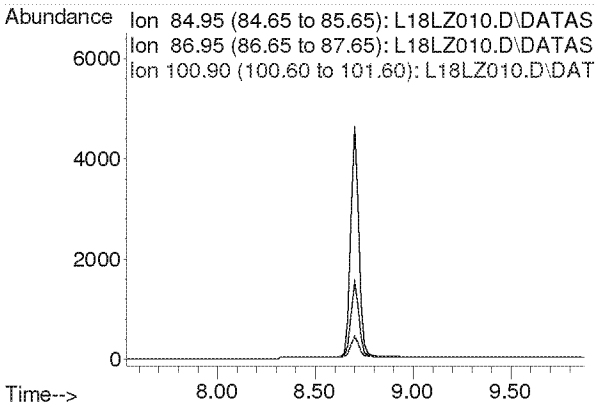


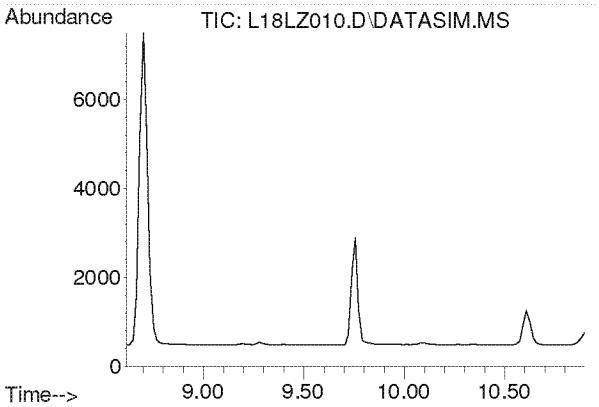
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



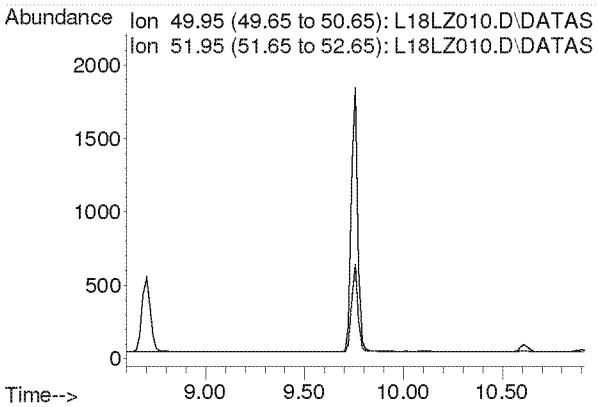


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

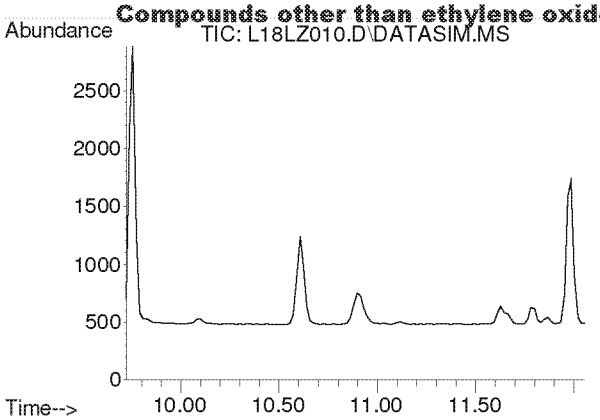
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

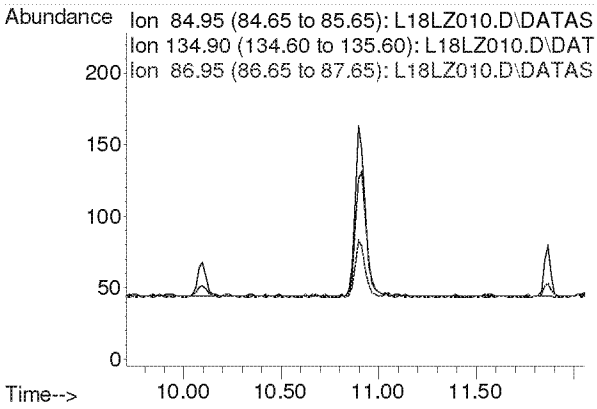


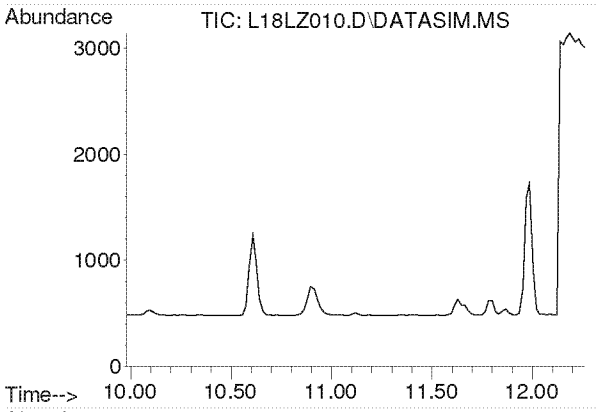
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



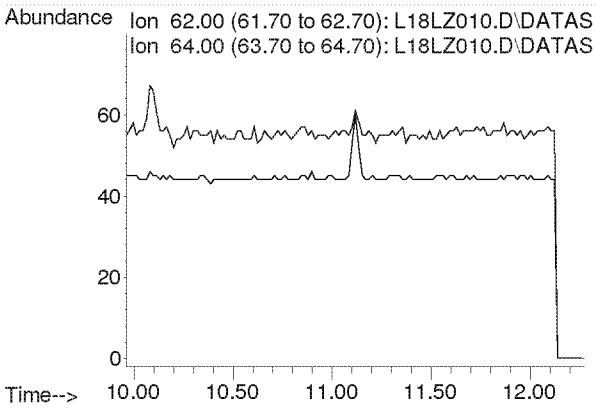


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

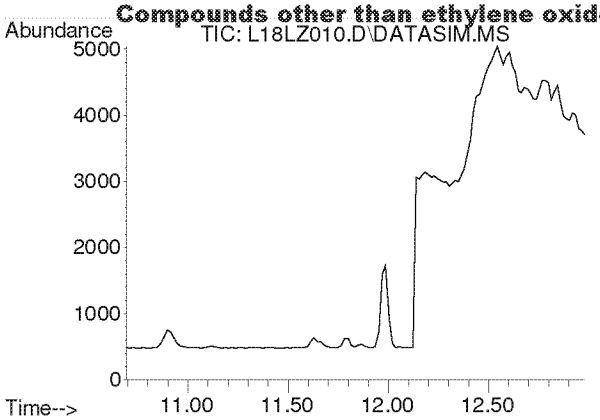
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

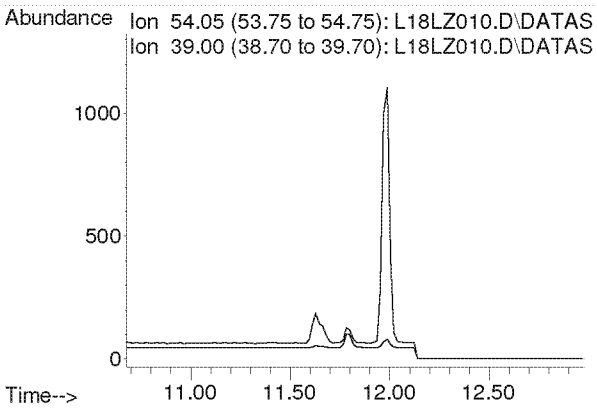


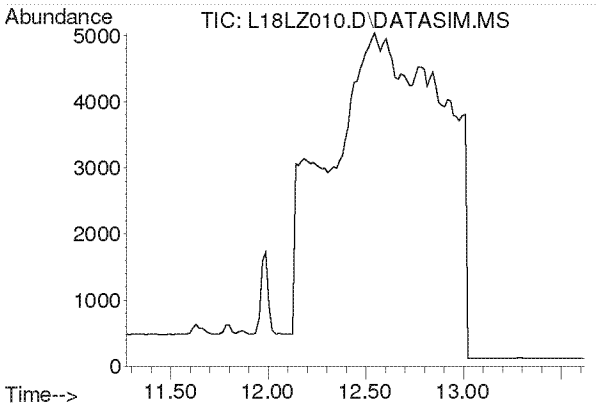
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4



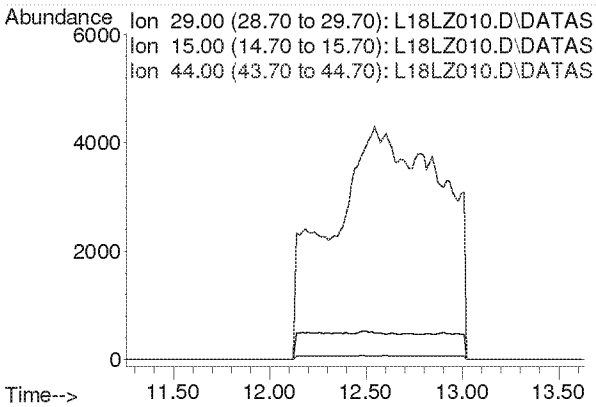


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

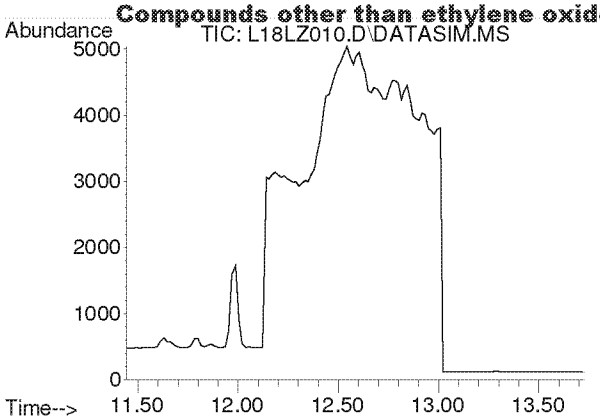
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.3
44	90.0



Compounds other than ethylene oxide were not quantitated.

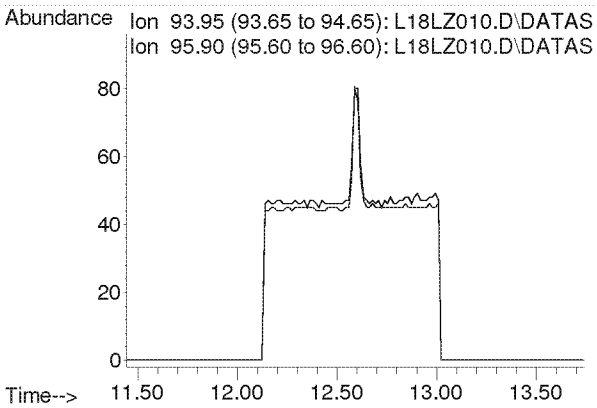


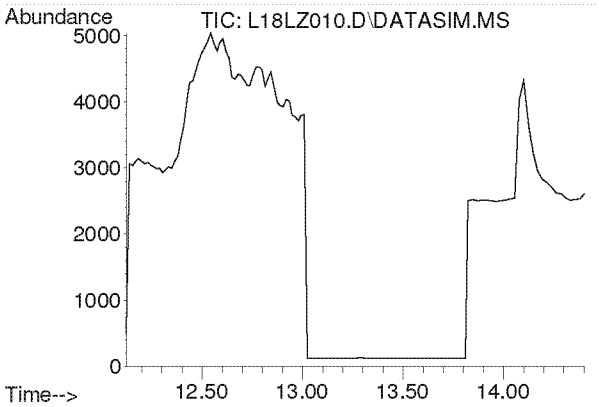
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



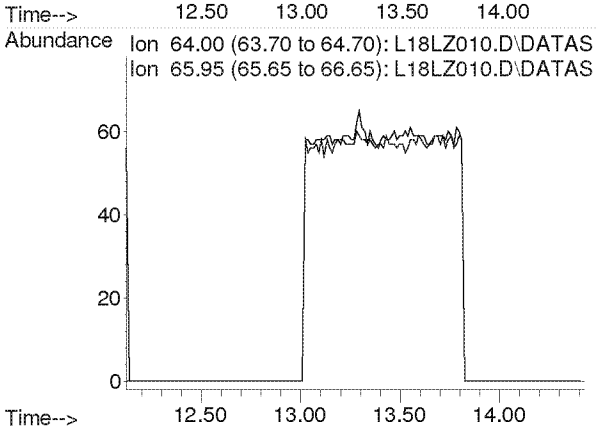


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

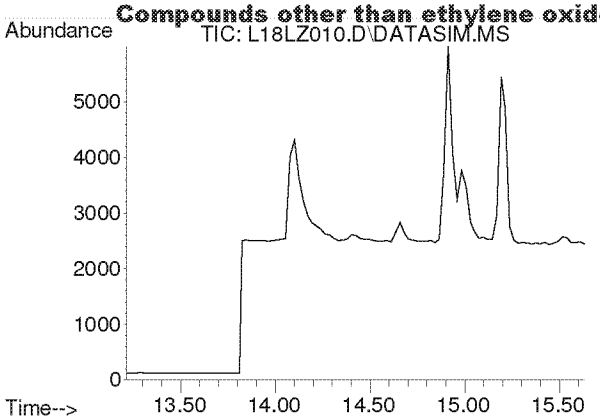
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

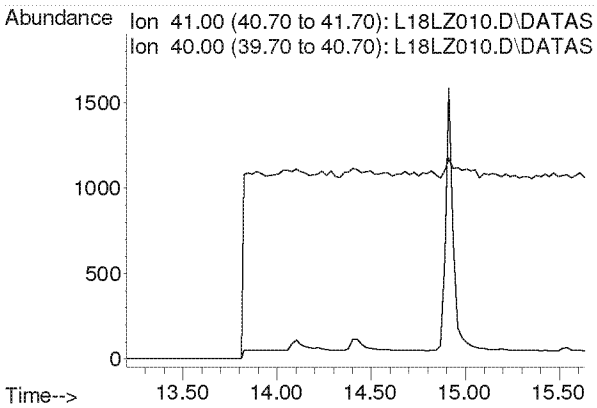


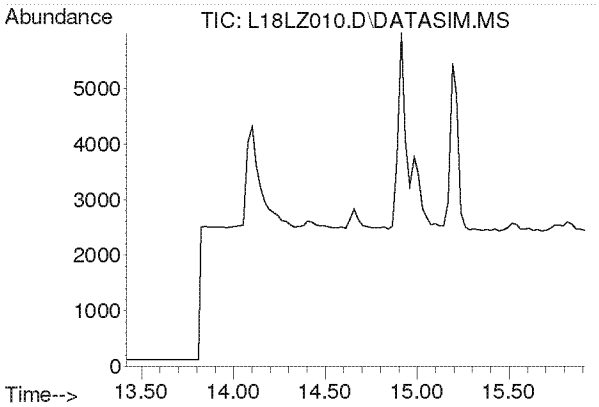
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



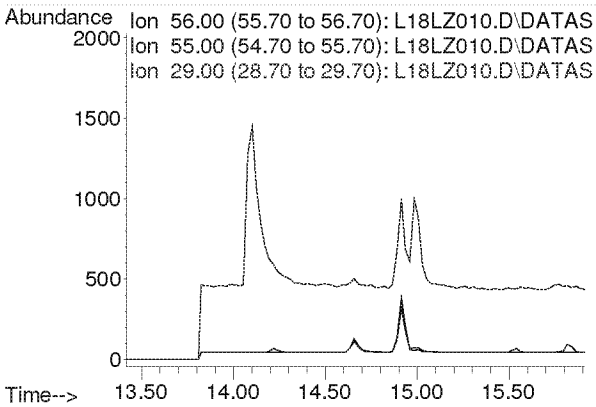


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

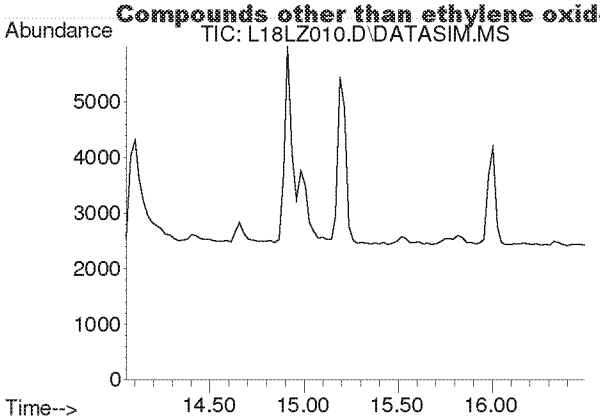
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

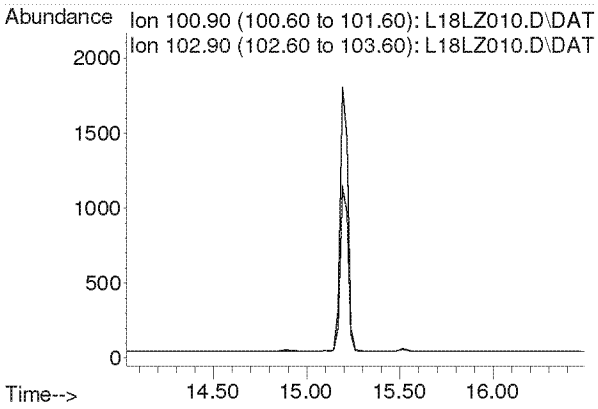


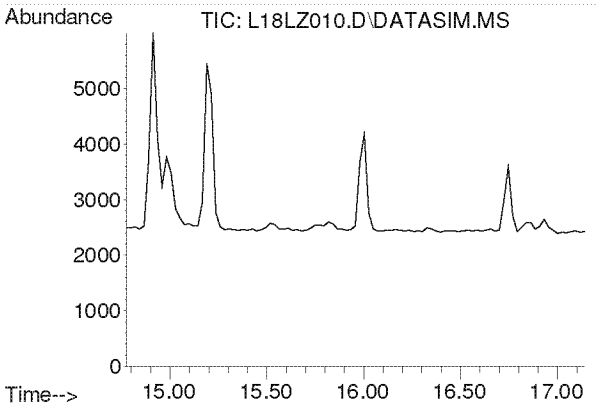
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



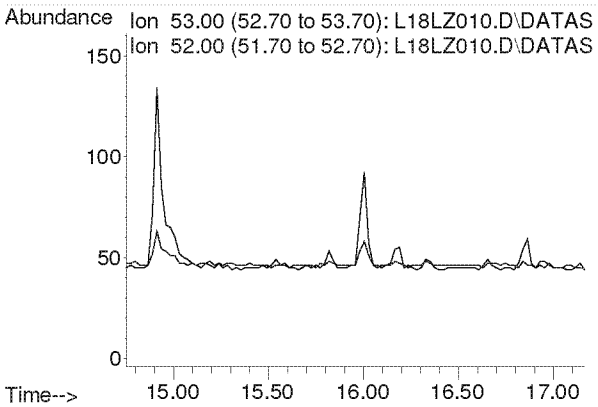


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

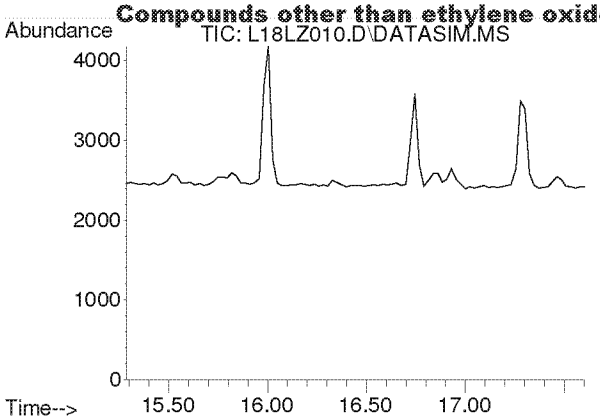
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

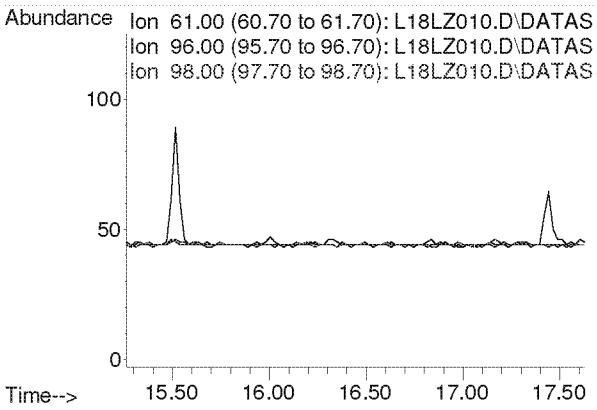


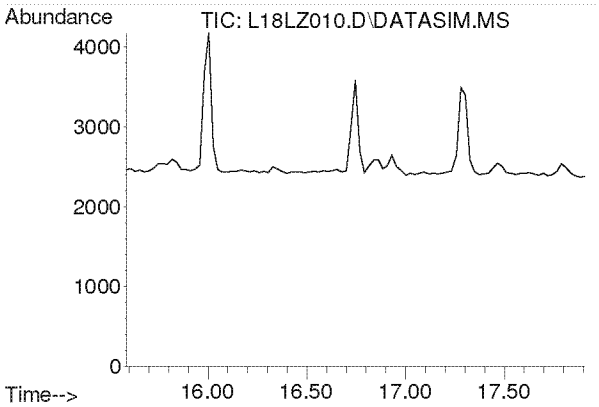
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



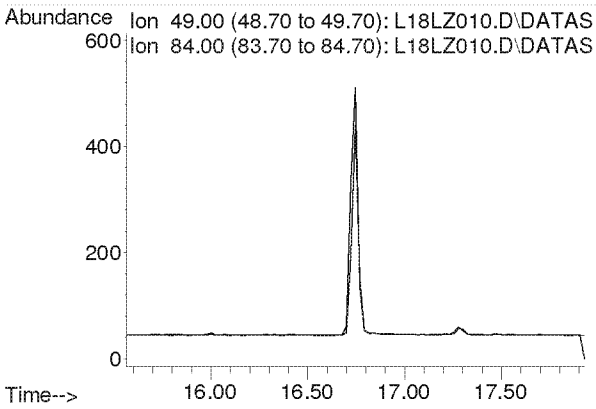


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

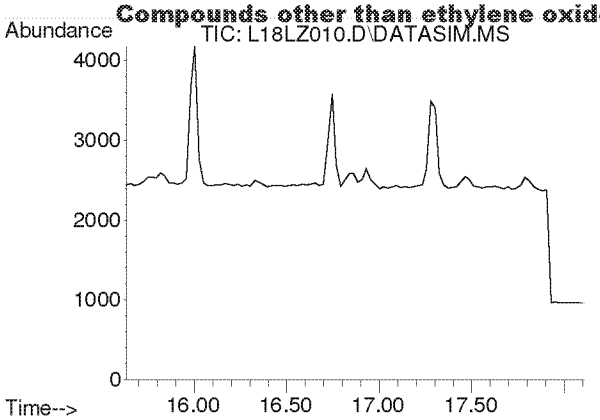
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

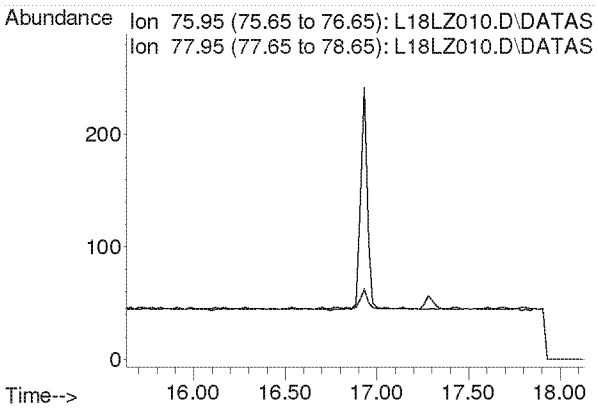


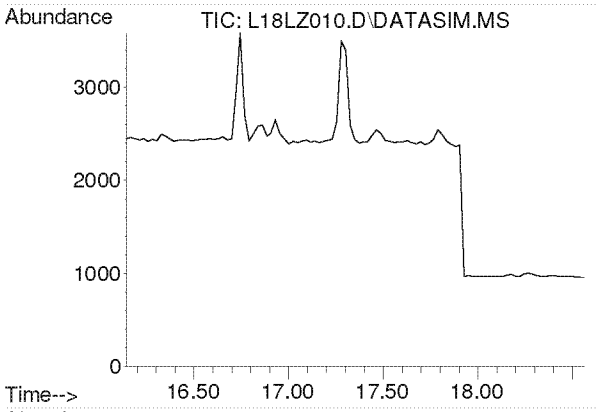
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



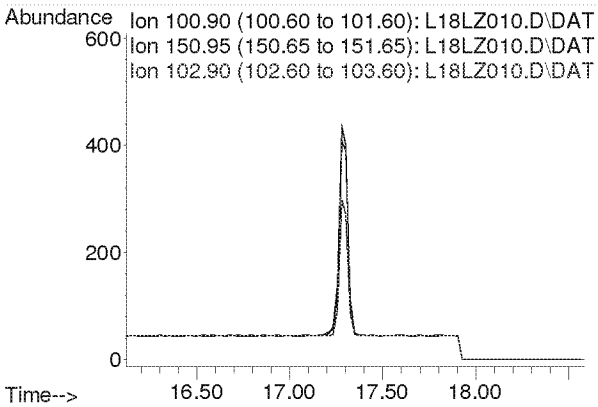


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

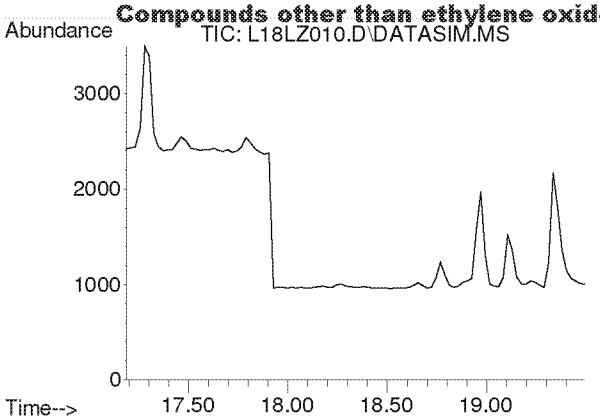
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

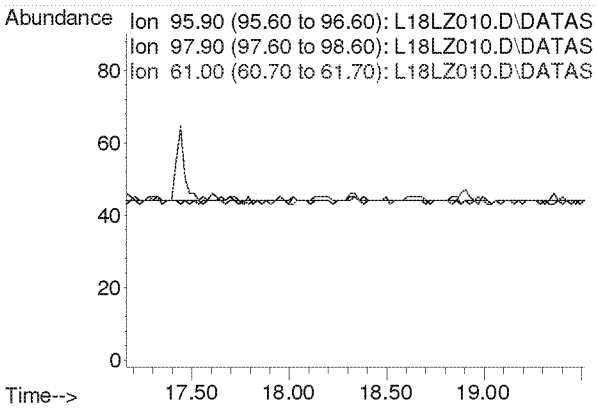


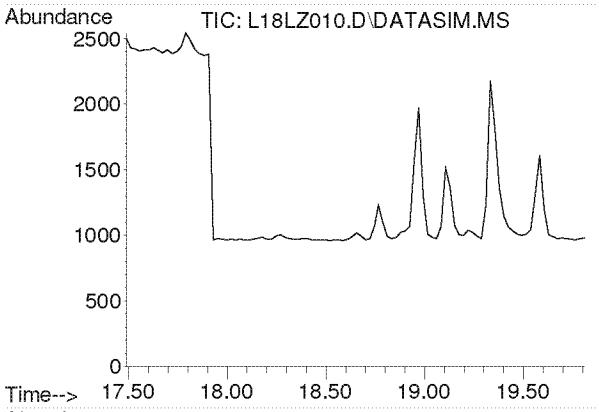
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



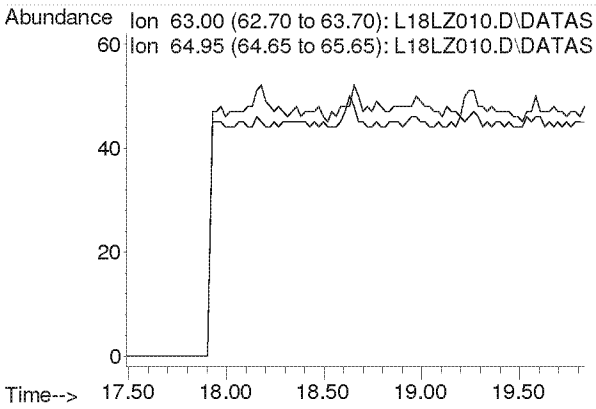


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

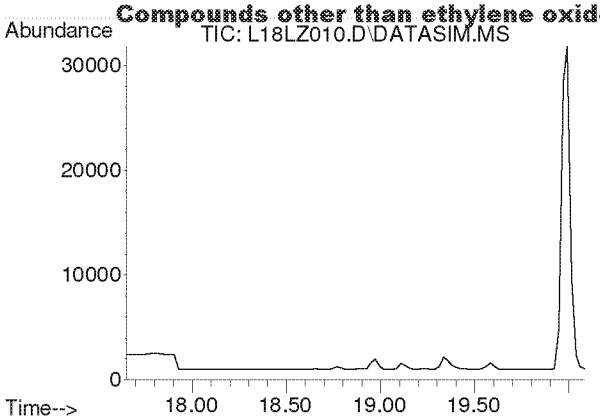
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

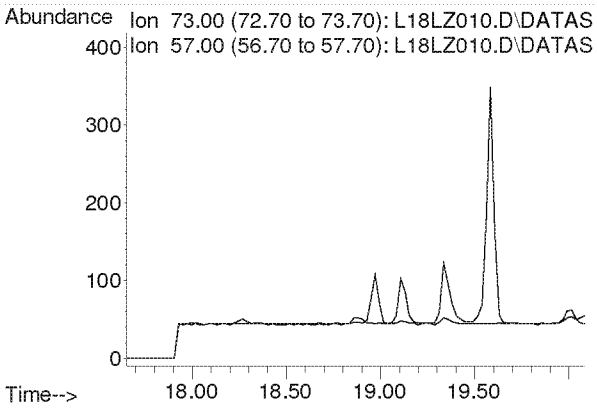


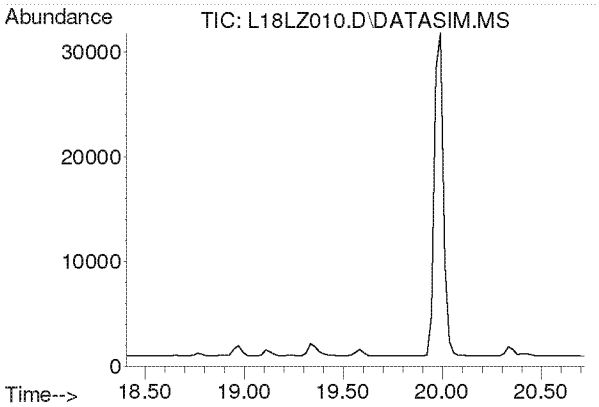
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



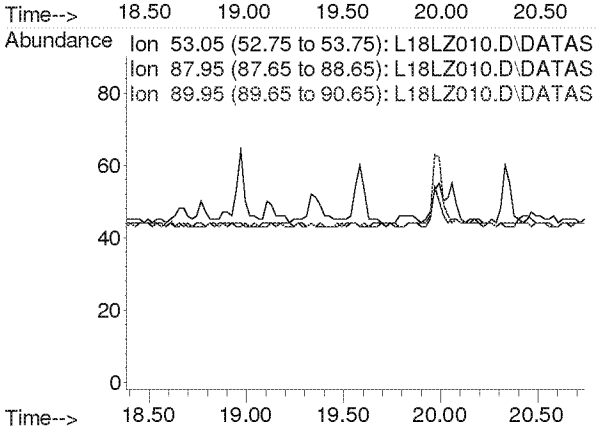


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

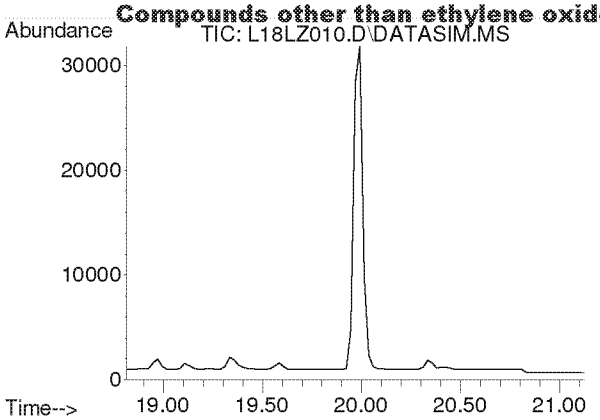
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

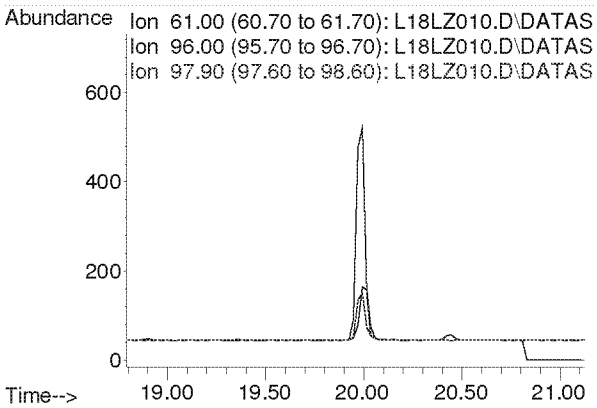


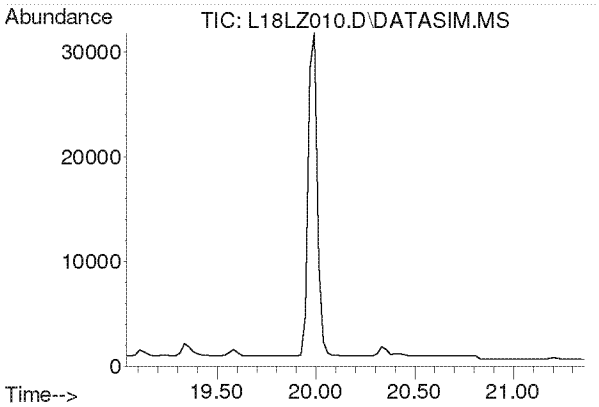
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



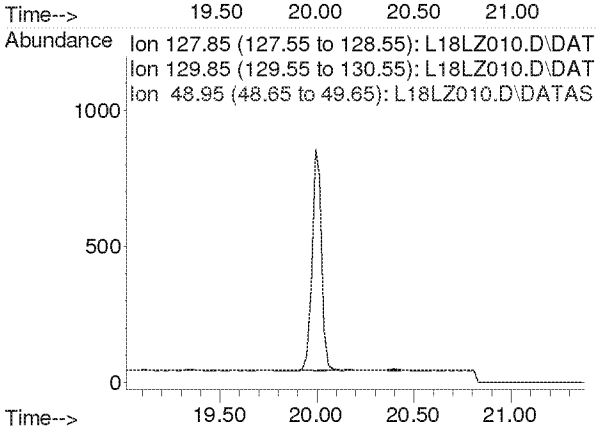


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

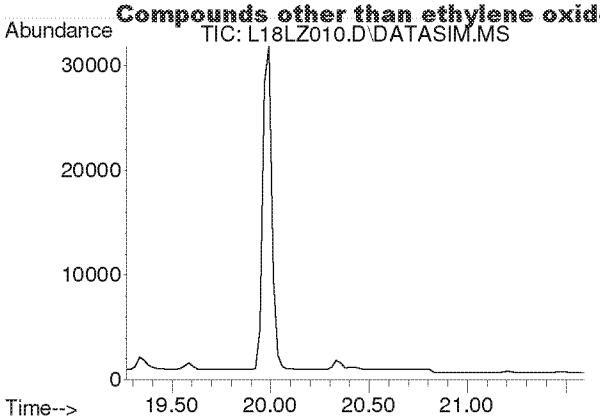
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

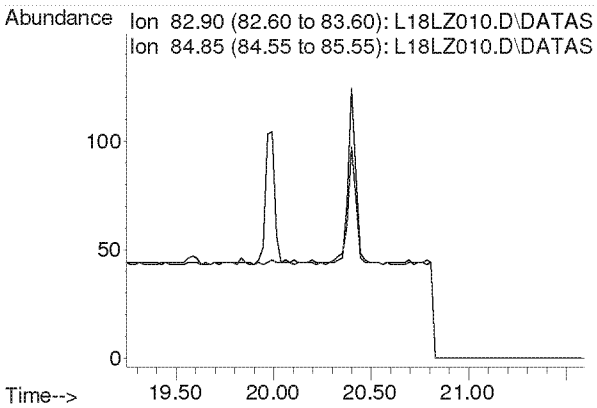


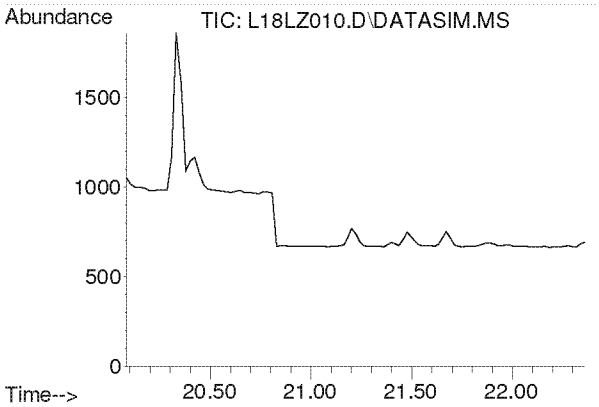
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



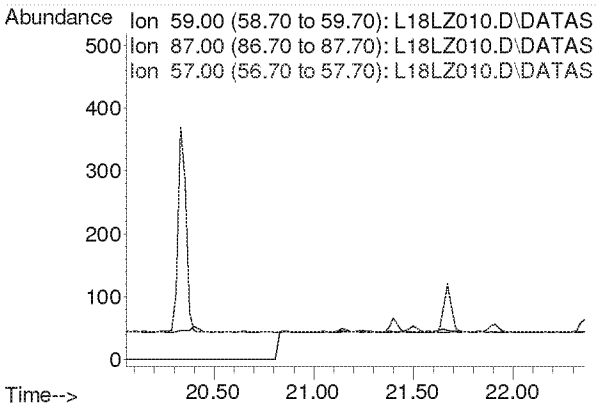


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

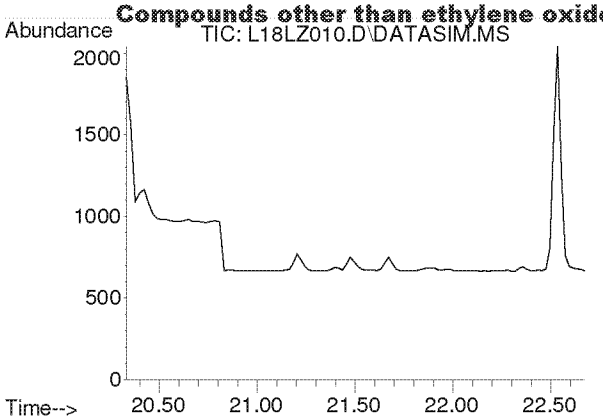
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

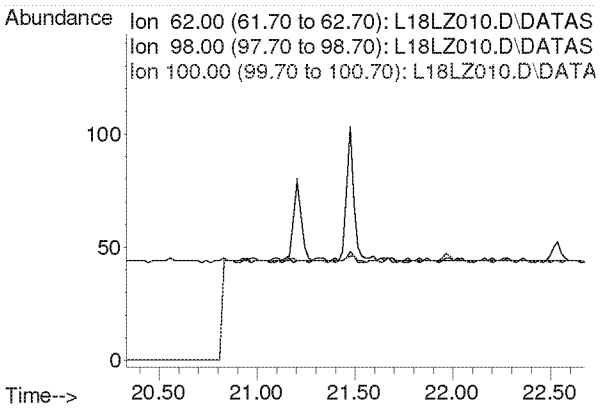


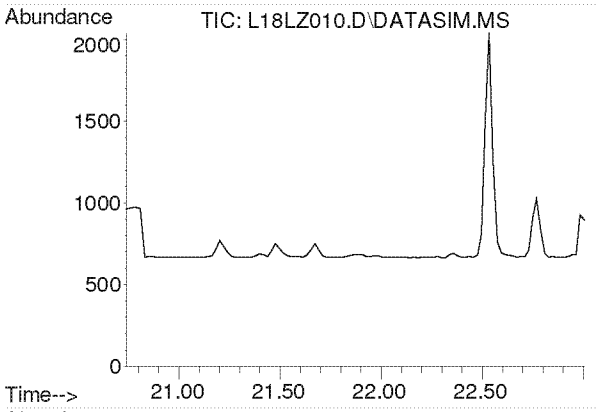
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



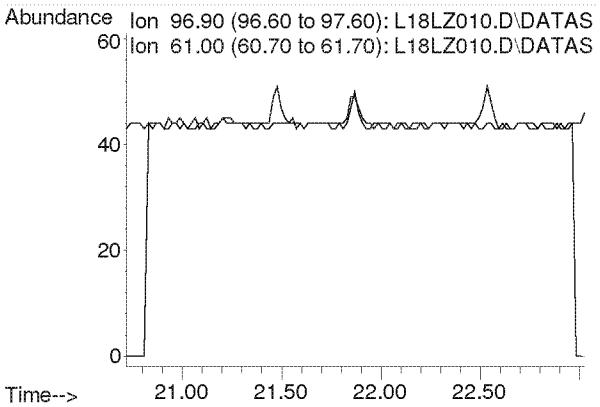


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

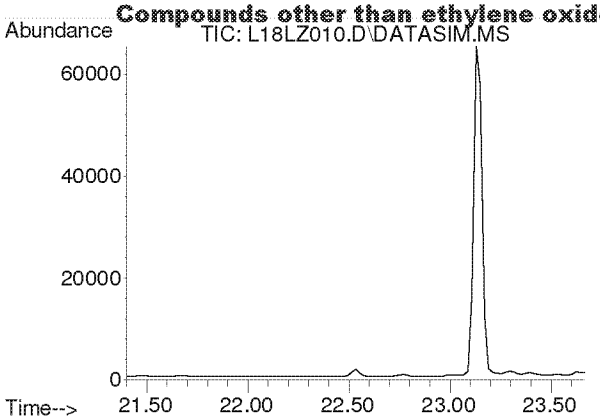
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

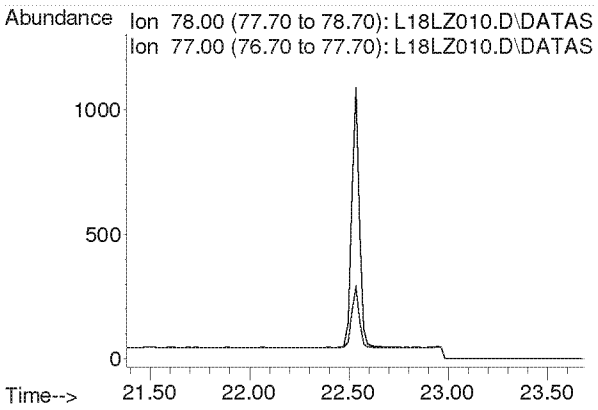


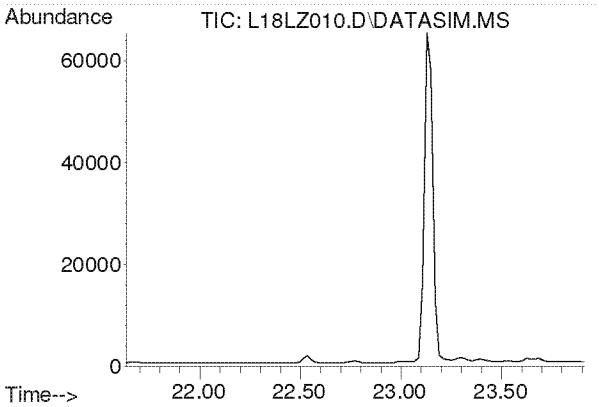
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



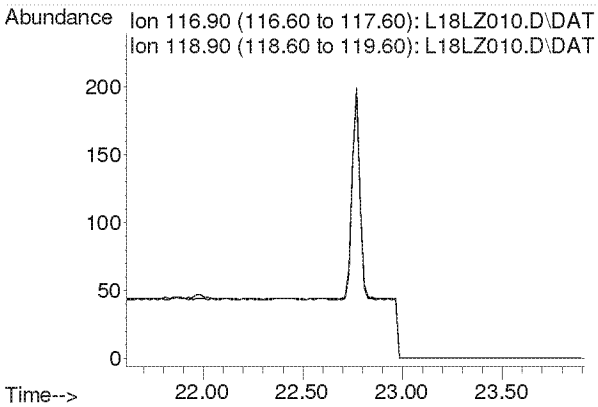


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

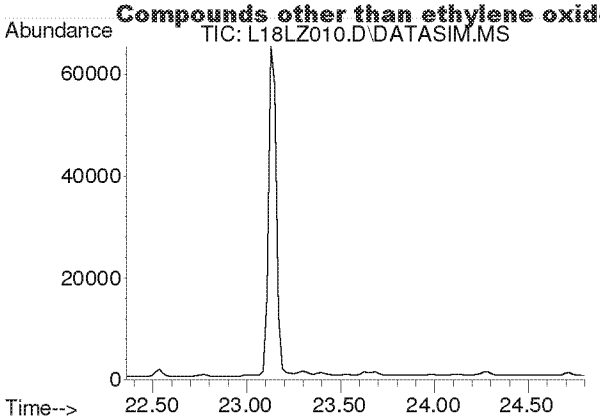
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

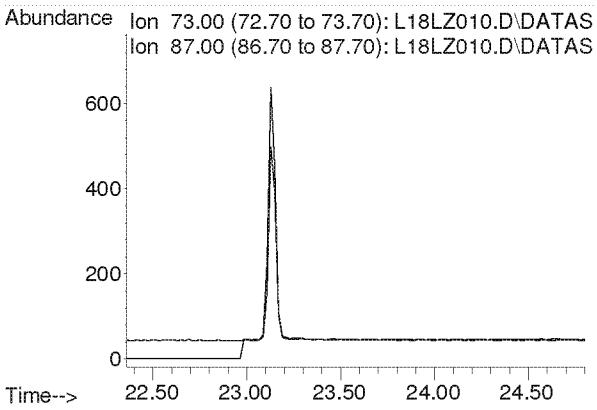


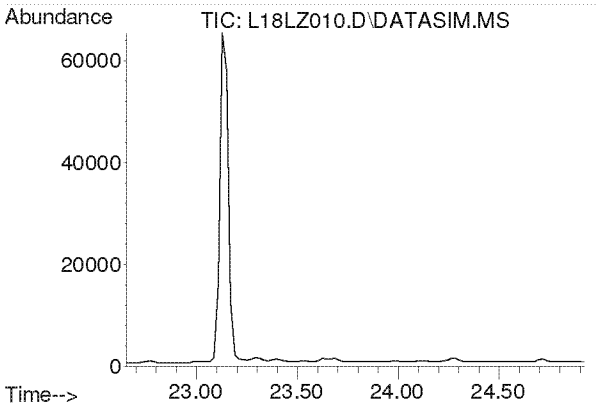
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



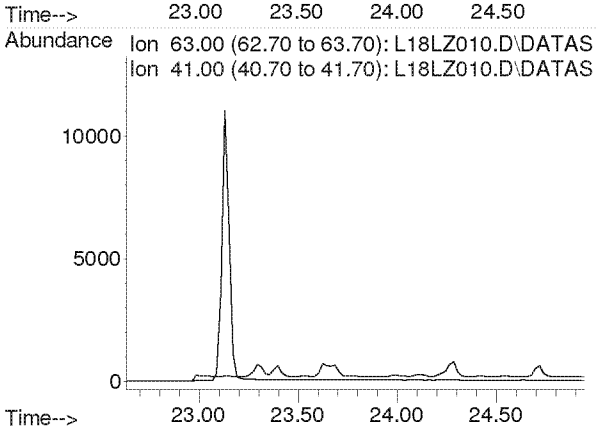


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

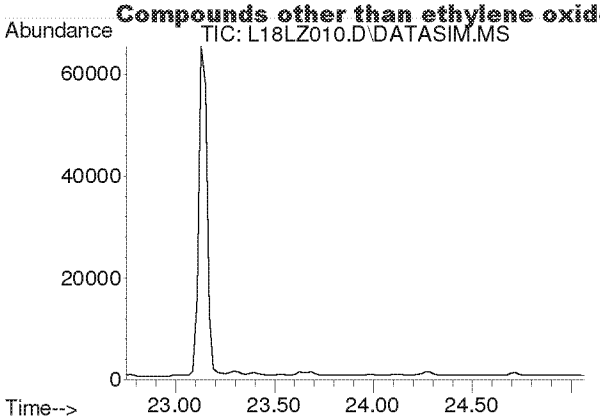
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

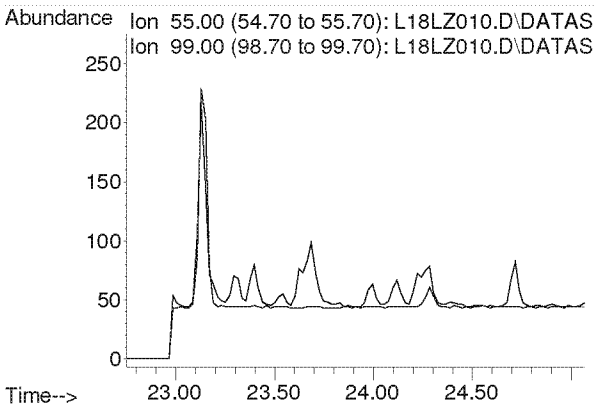


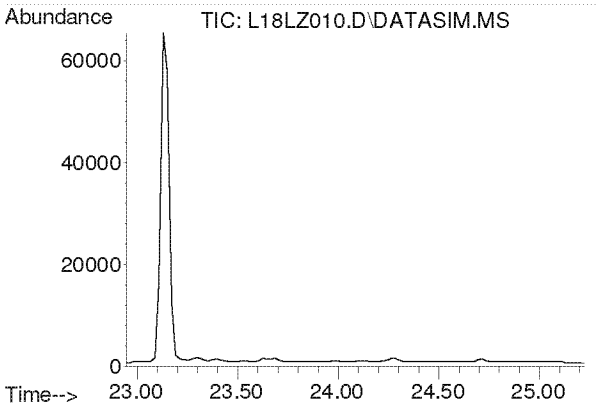
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



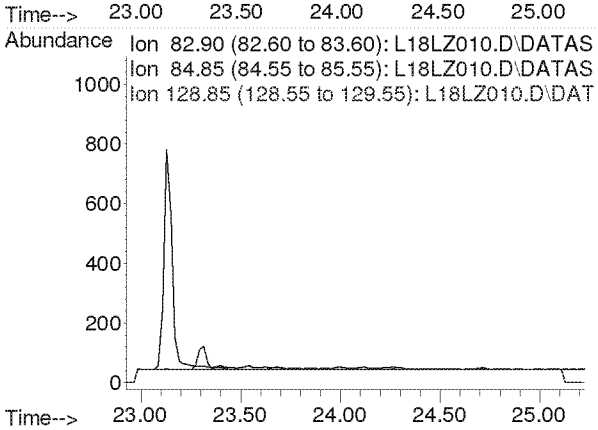


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

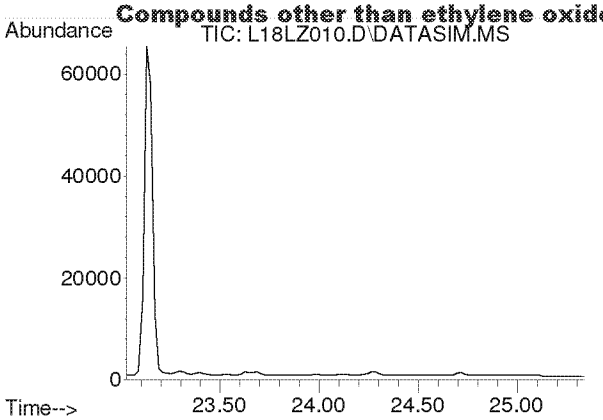
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

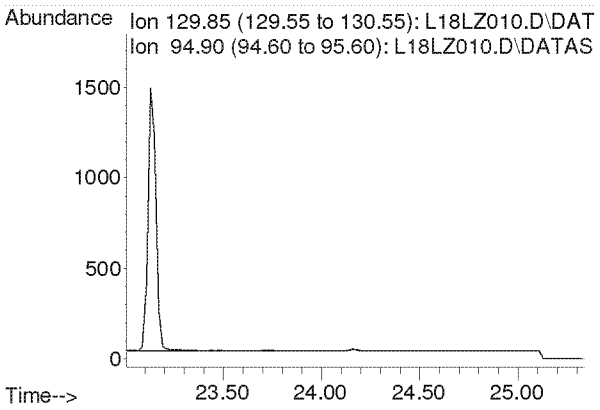


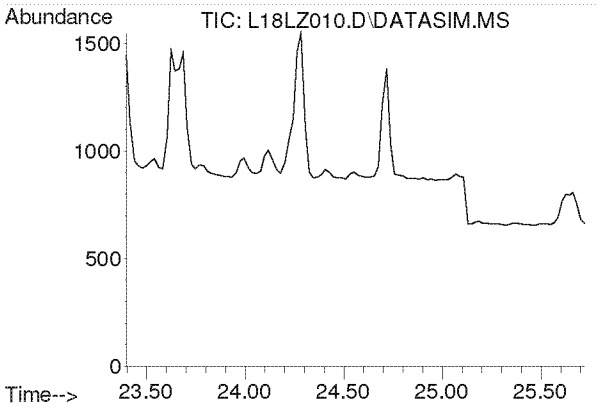
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



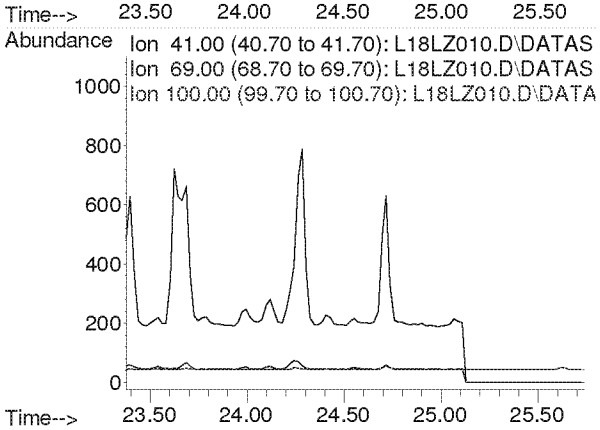


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

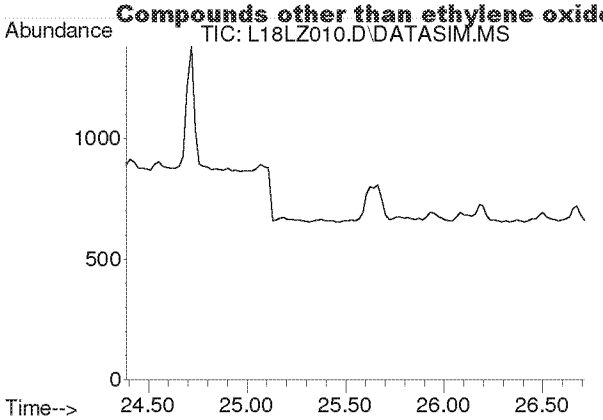
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

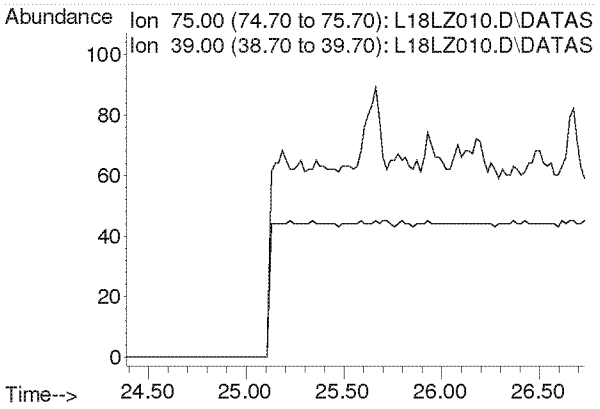


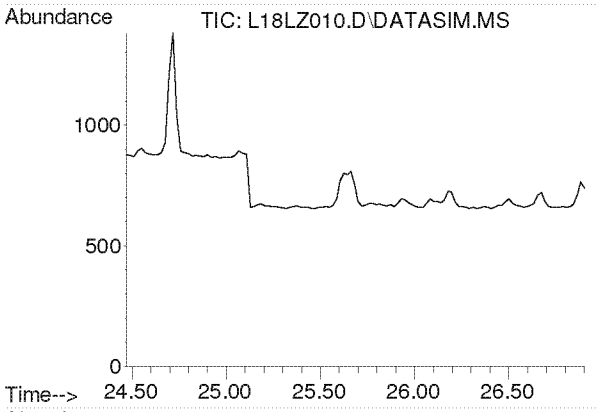
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



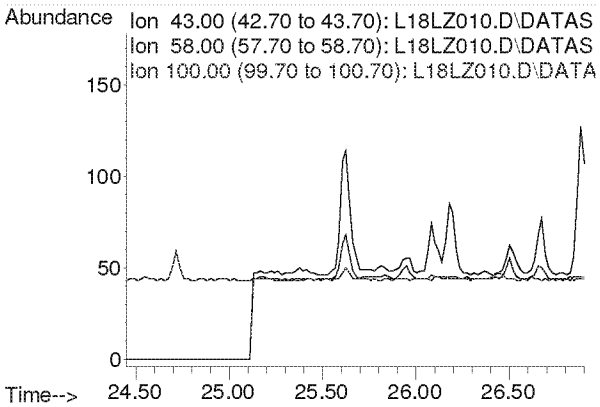


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

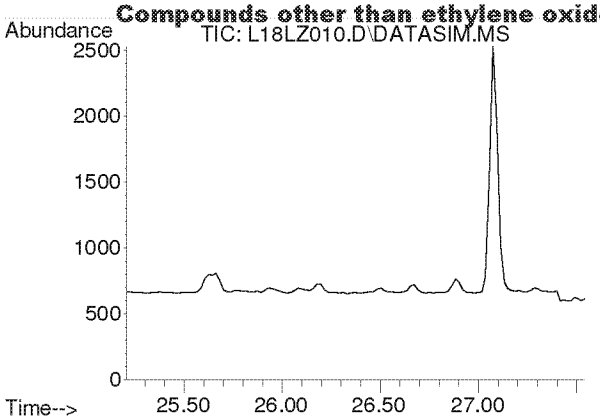
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

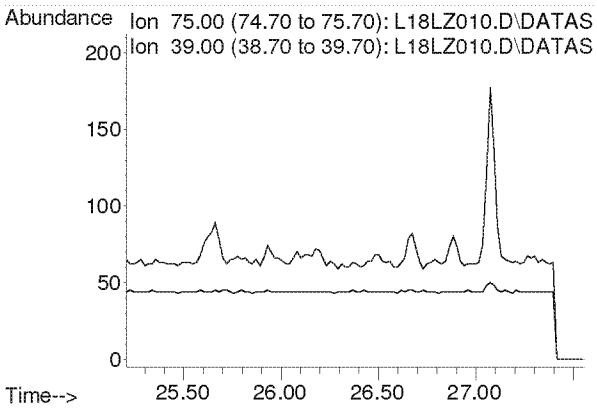


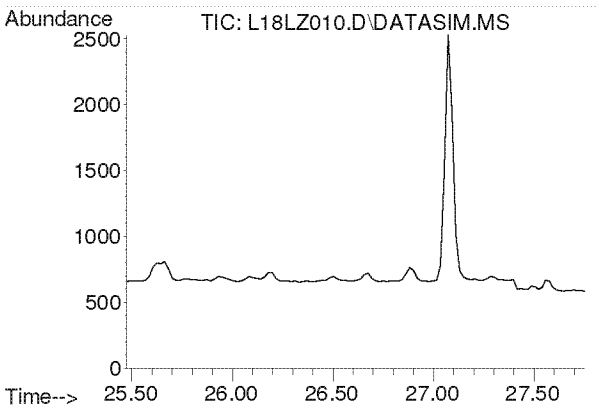
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



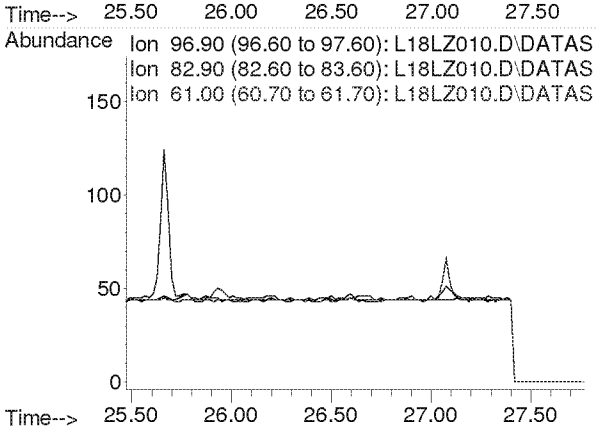


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

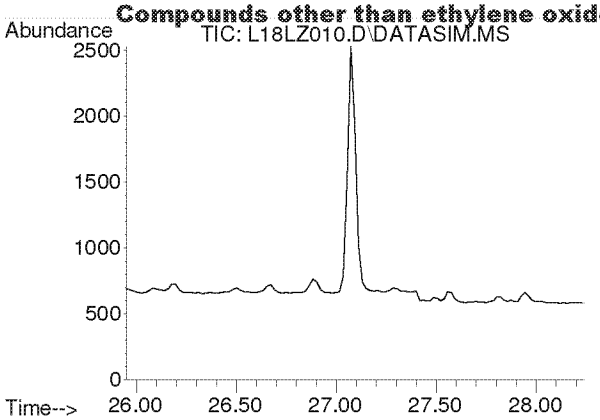
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

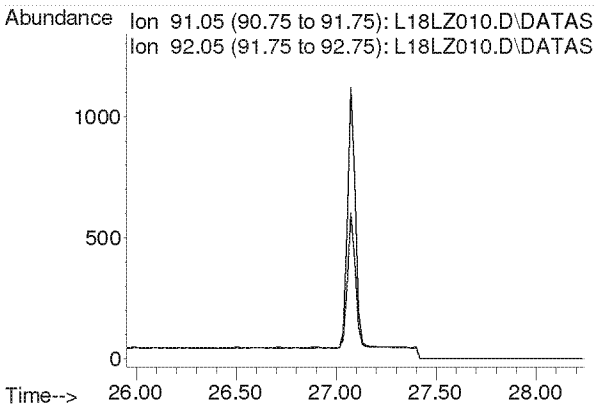


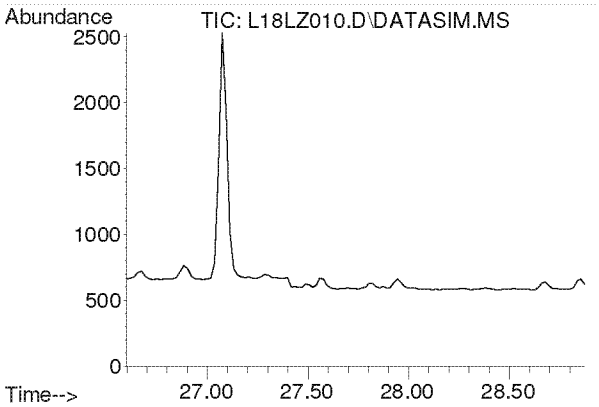
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



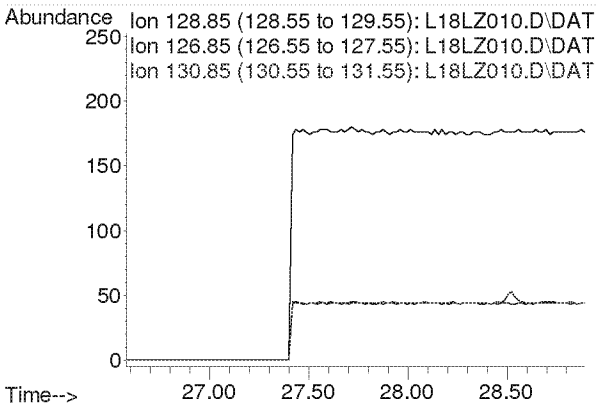


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

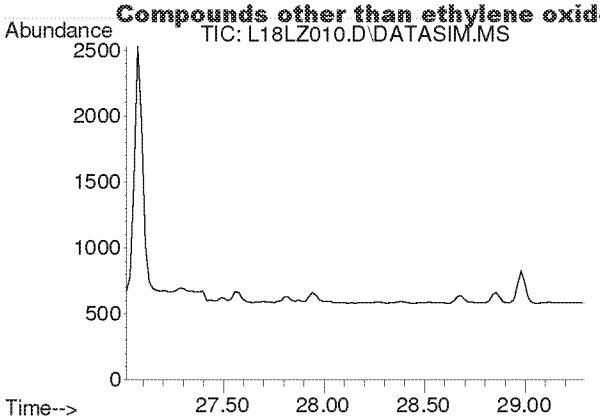
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

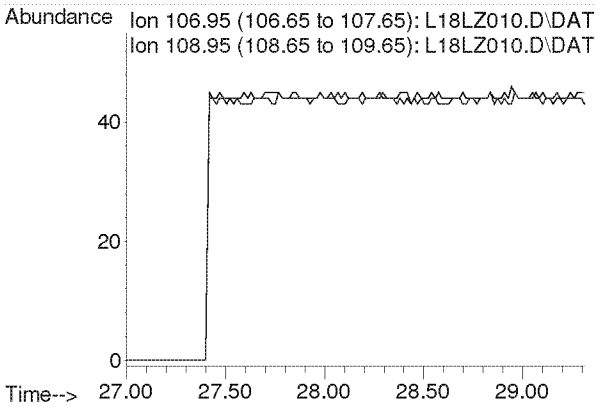


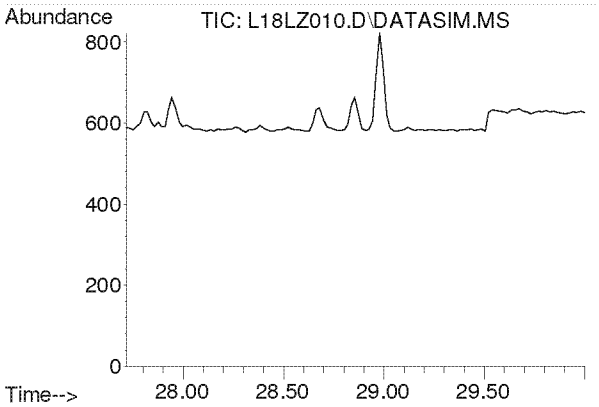
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



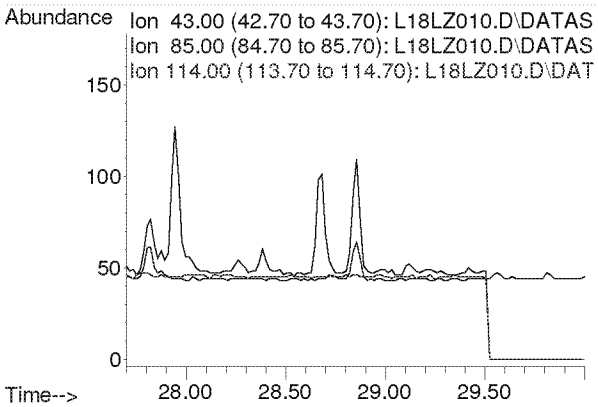


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

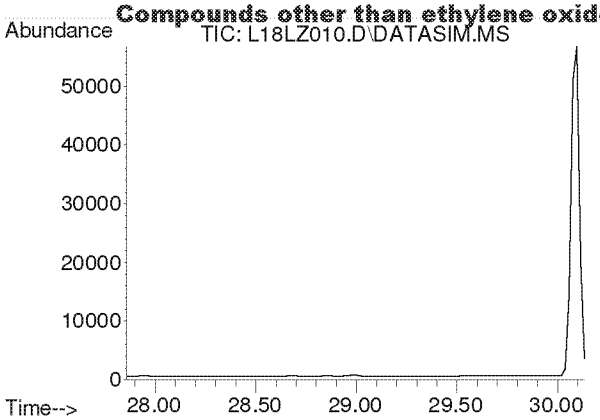
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

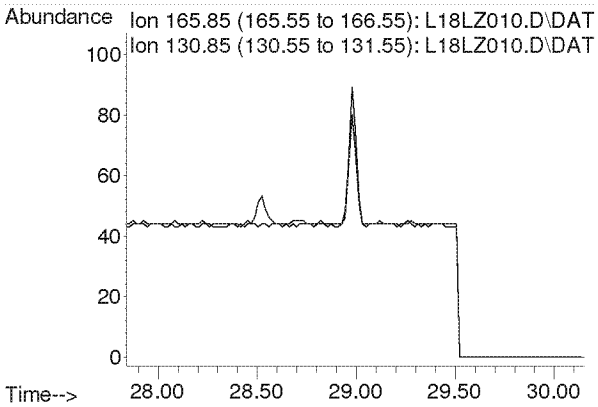


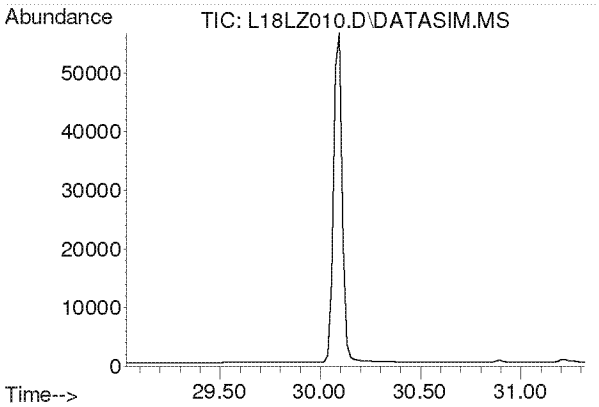
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



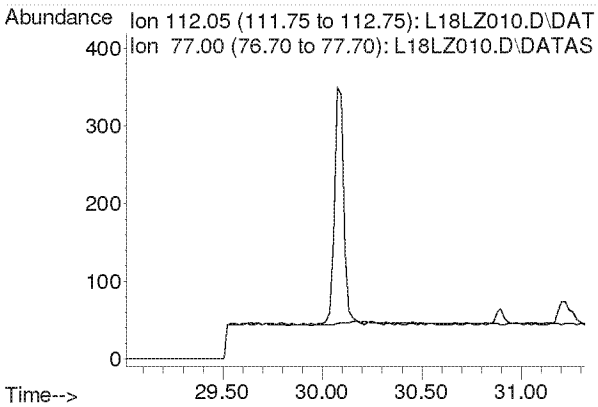


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

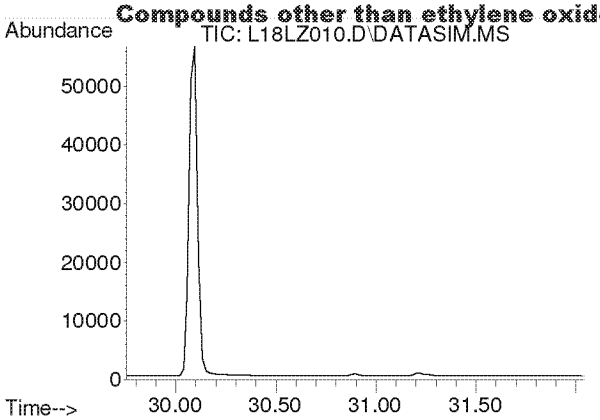
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

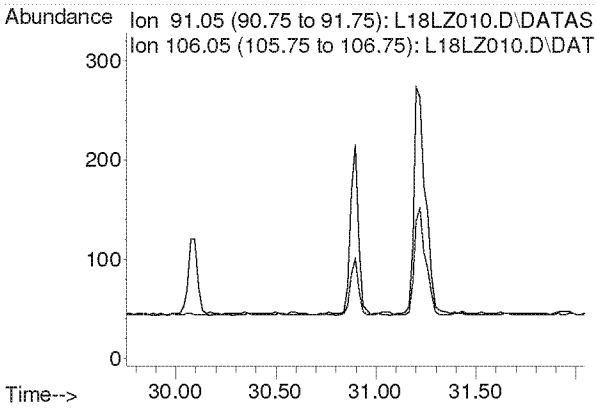


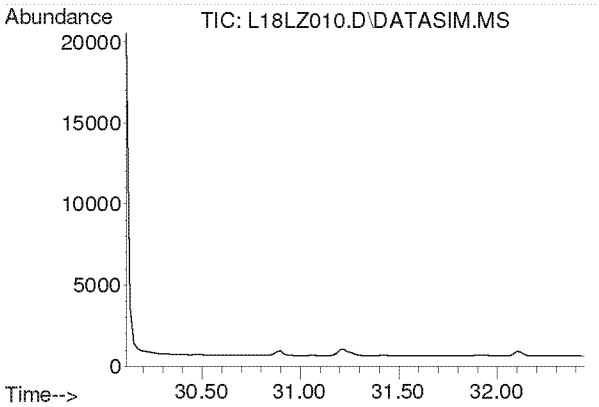
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



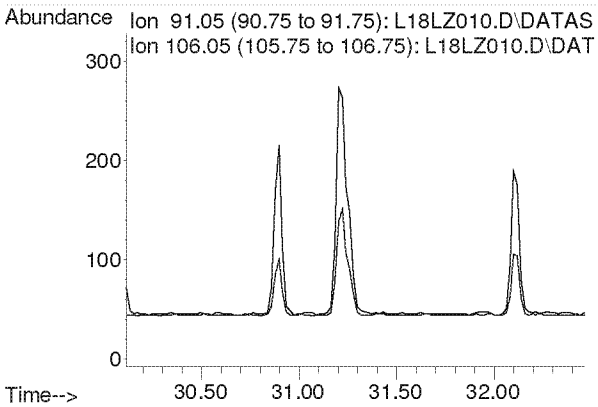


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

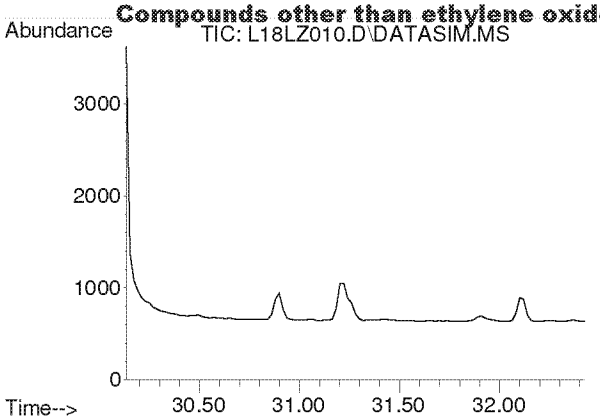
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

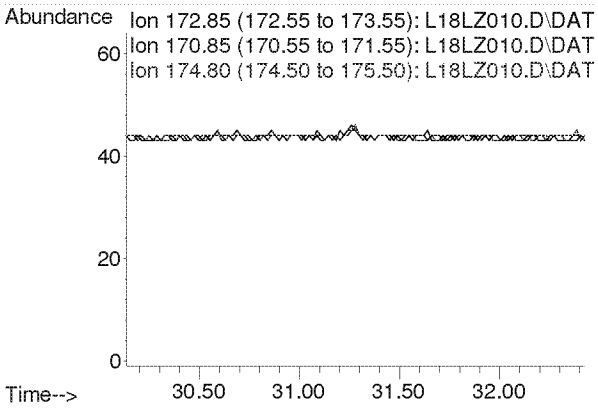


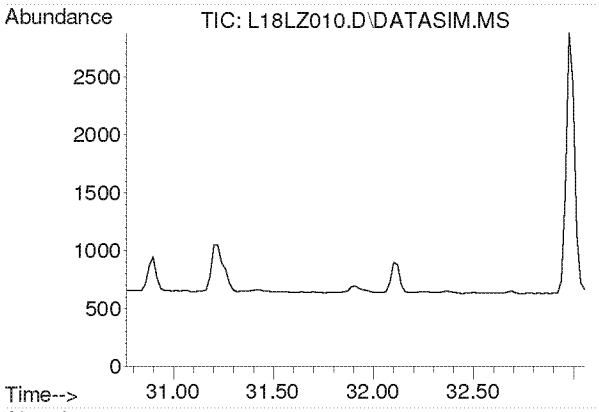
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



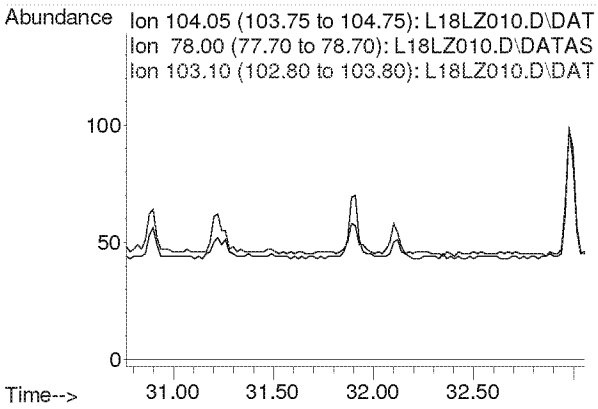


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

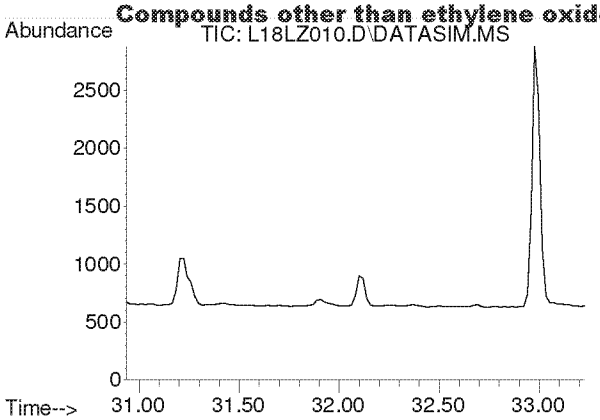
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

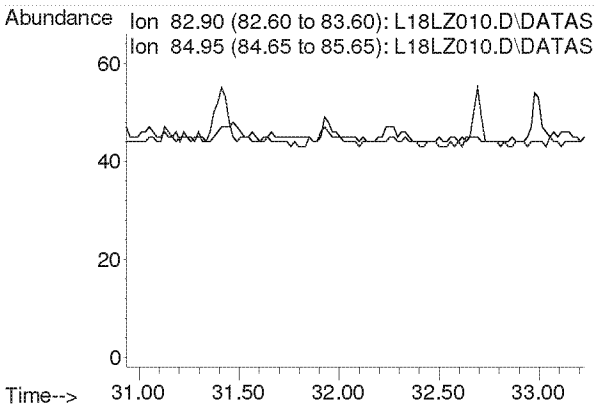


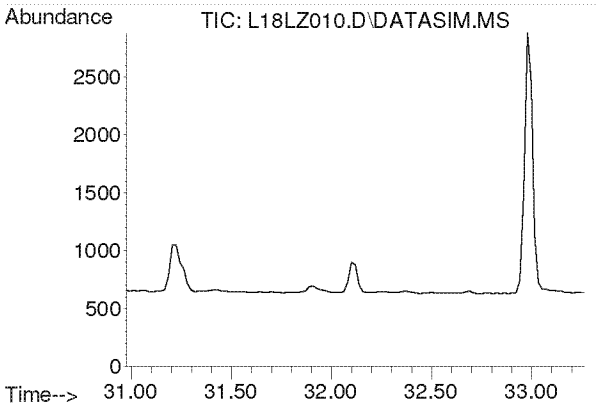
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



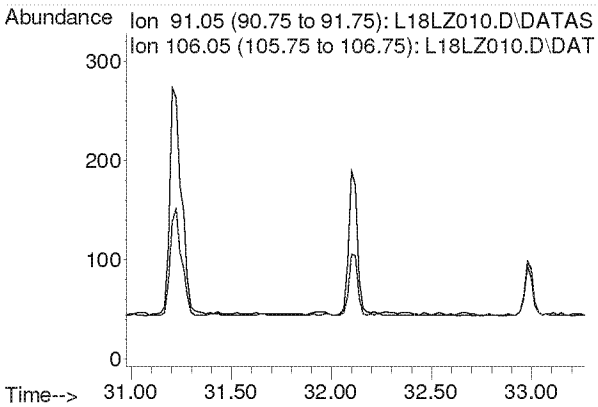


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

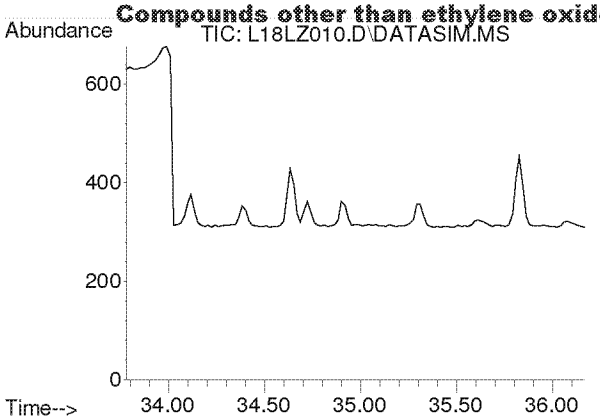
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

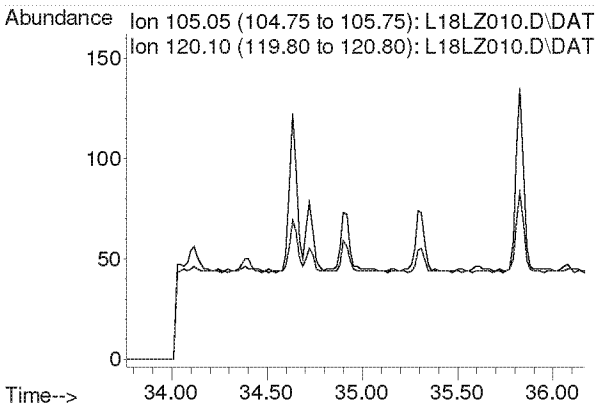


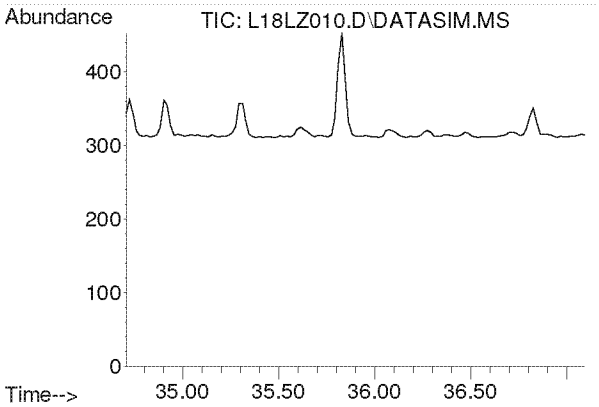
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



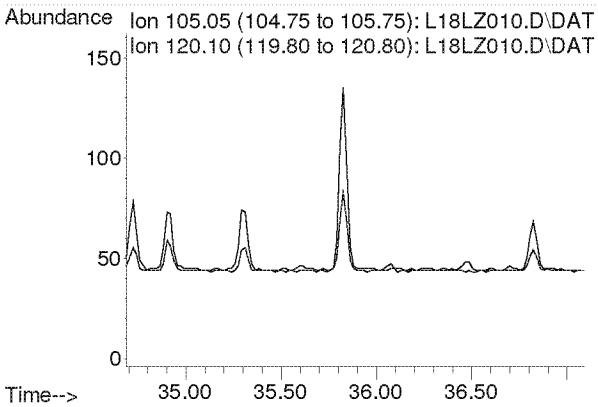


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

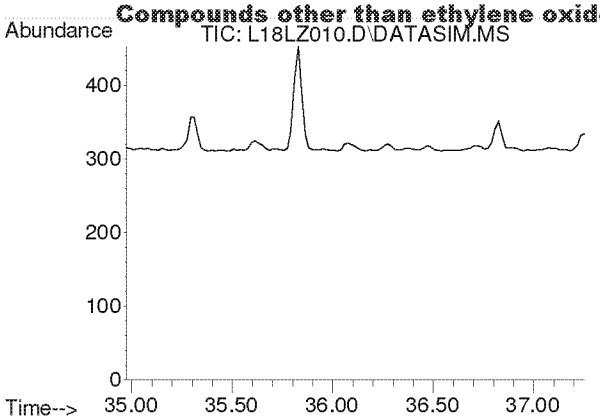
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

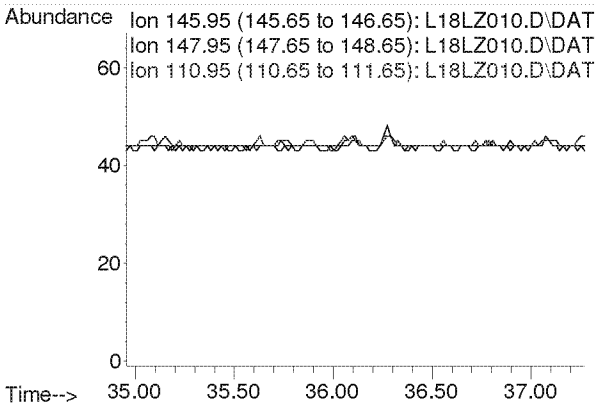


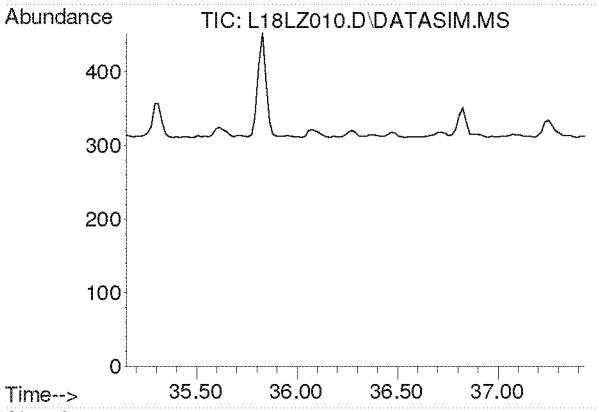
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



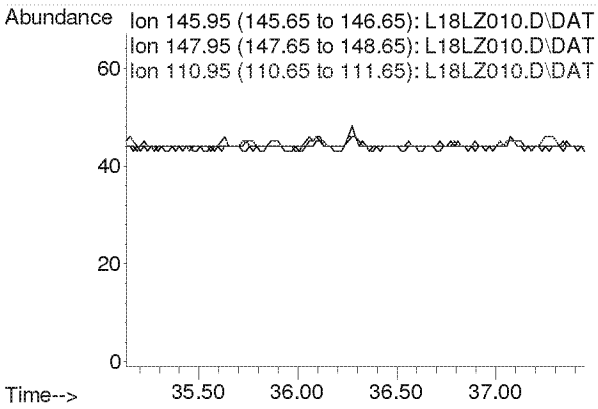


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

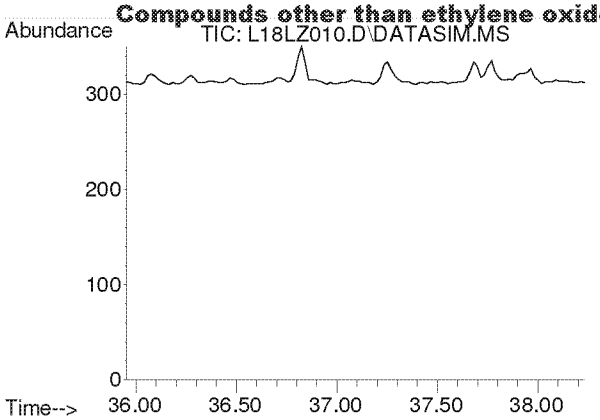
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

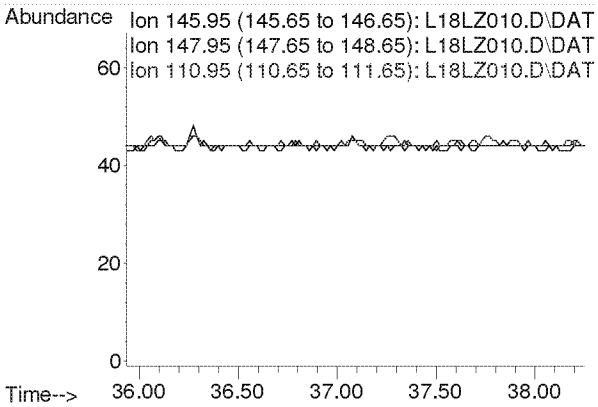


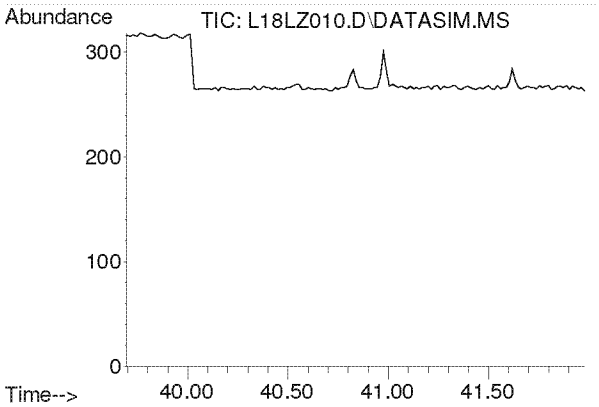
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



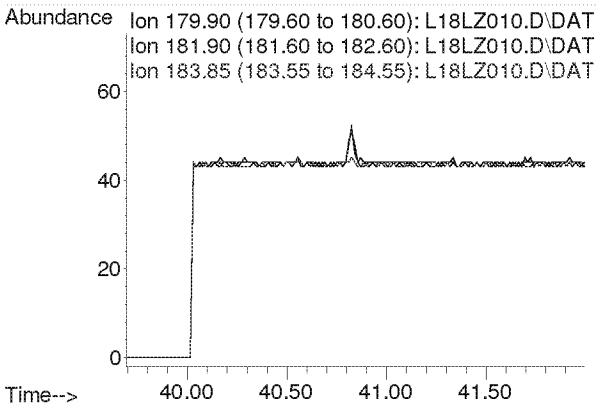


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

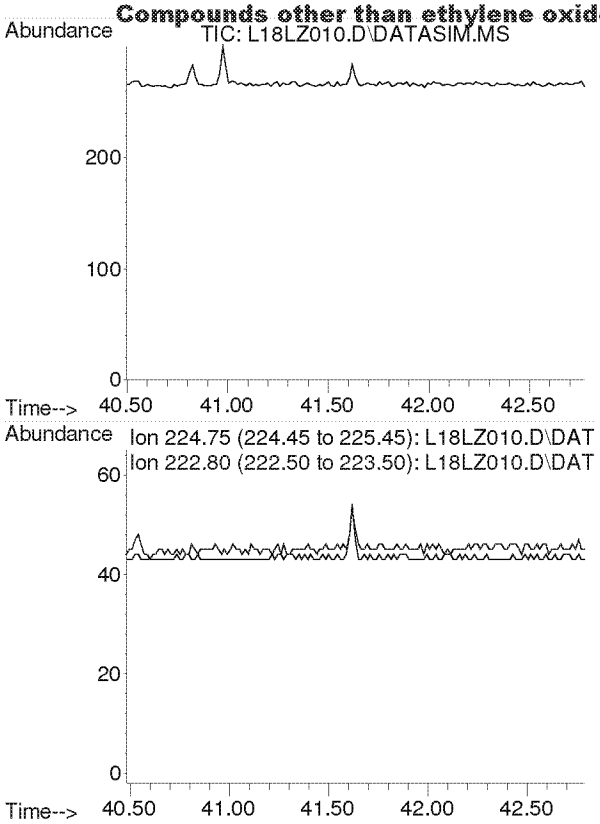
Lab File: L18LZ010.D
Acq: 26 Dec 2018 8:38 pm

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: L18LZ010.D
Acq: 26 Dec 2018 8:38 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\L18LZ\
Data File : L18LZ011.D
Acq On : 26 Dec 2018 9:40 pm
Operator : MAH
Sample : 8121220-05
Misc : WATER TOWER 12/11/18
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 03 11:13:29 2019
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

d = NL

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	59972	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.130	114	143977	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.096	117	99509	4.7400 ppbv	0.00

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. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.470	29	492m	0.1373 ppbv	
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.	
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.	
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.	
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\L18LZ\
Data File : L18LZ011.D
Acq On : 26 Dec 2018 9:40 pm
Operator : MAH
Sample : 8121220-05
Misc : WATER TOWER 12/11/18
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 03 11:13:29 2019
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

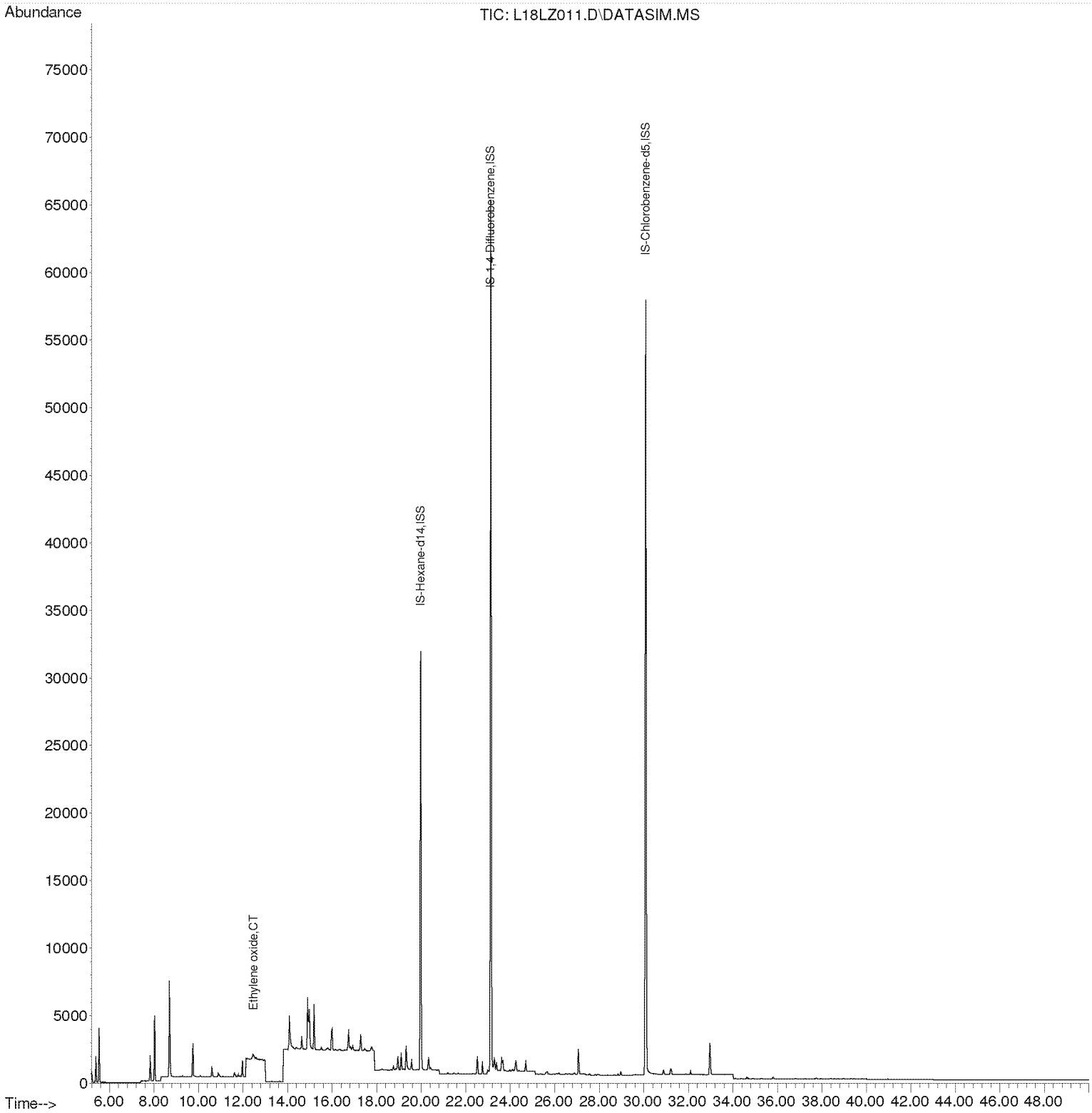
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	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

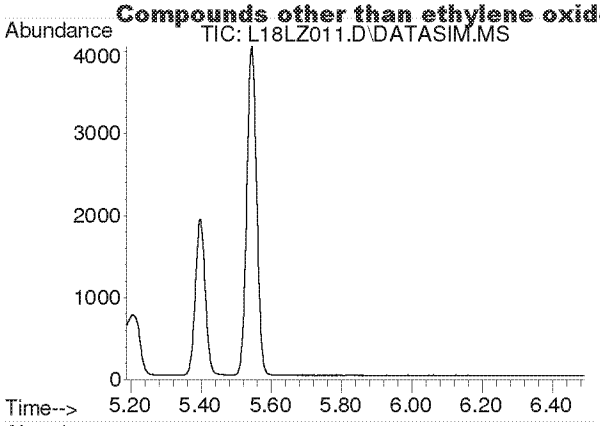
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ011.D
Acq On : 26 Dec 2018 9:40 pm
Operator : MAH
Sample : 8121220-05
Misc : WATER TOWER 12/11/18
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 03 10:29:14 2019
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



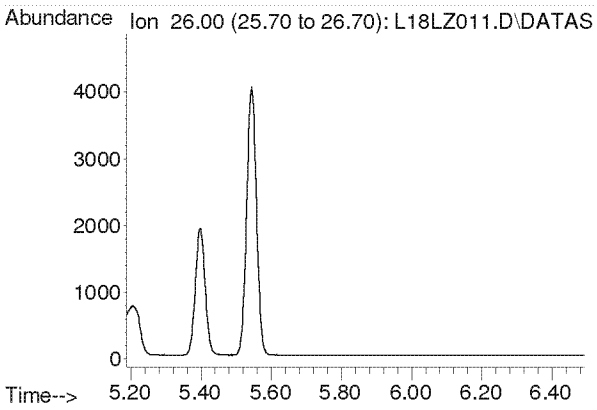
Compounds other than ethylene oxide were not quantitated.

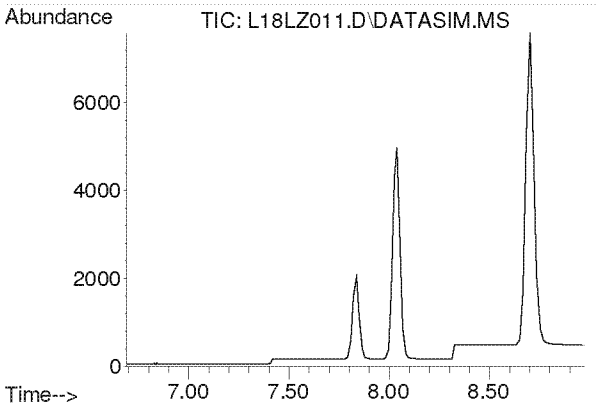


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 26



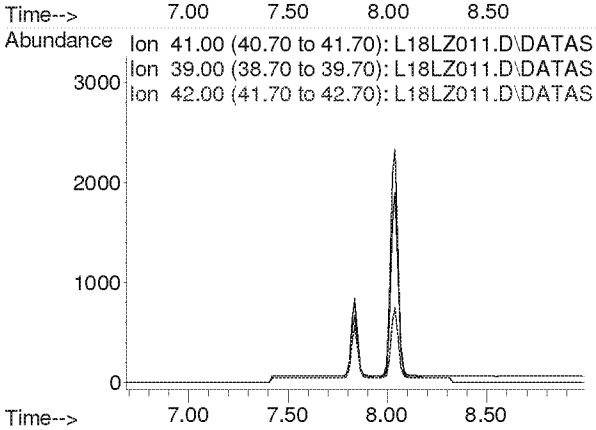


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

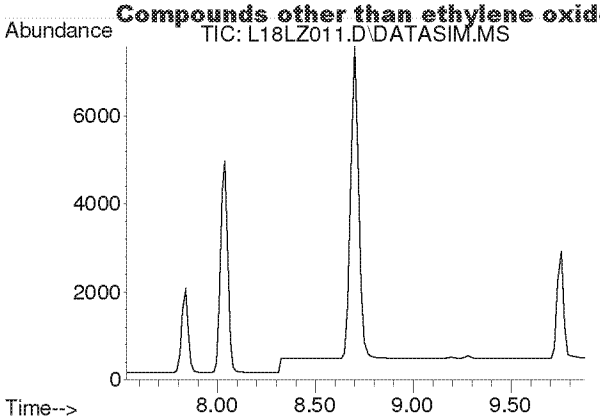
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

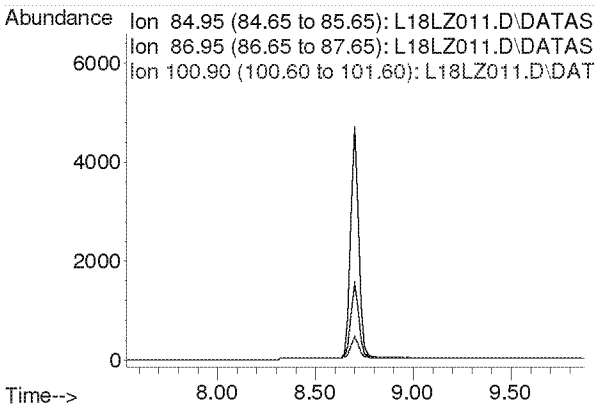


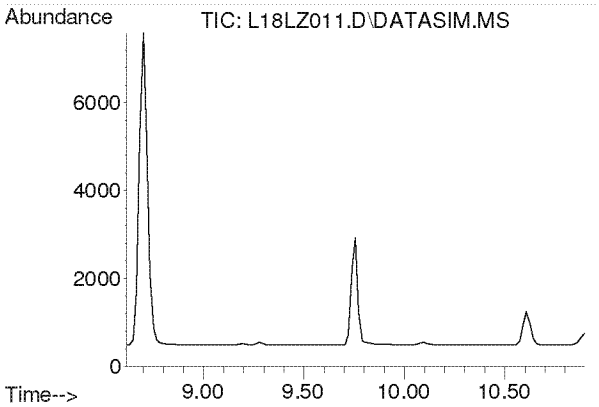
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



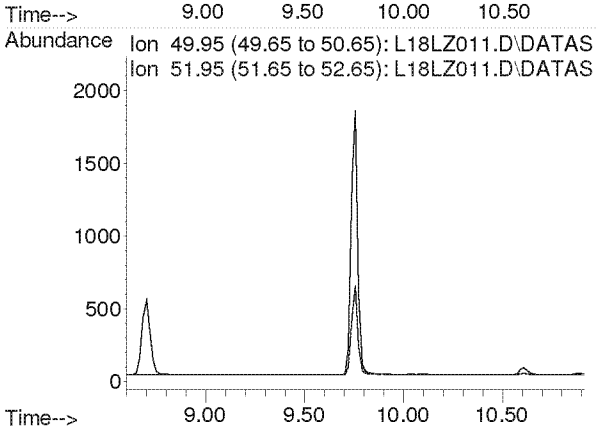


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

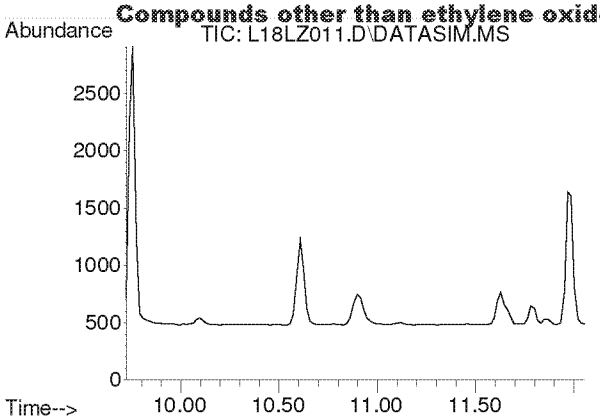
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

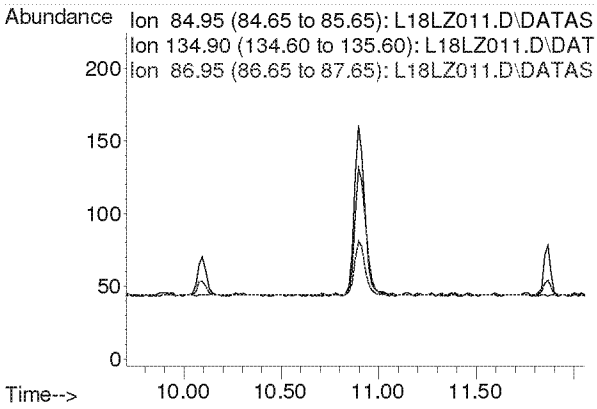


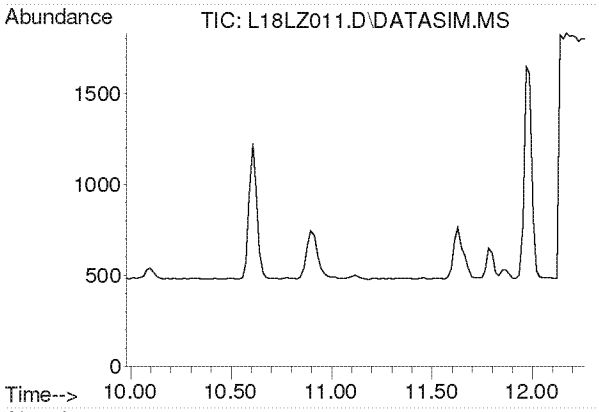
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



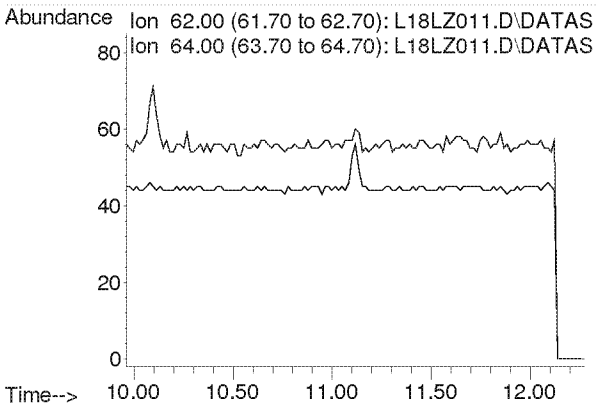


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

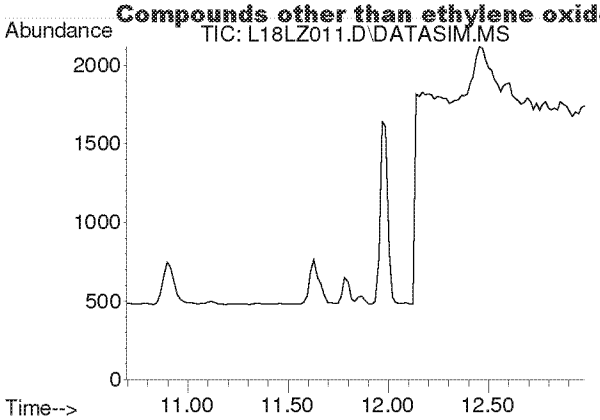
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

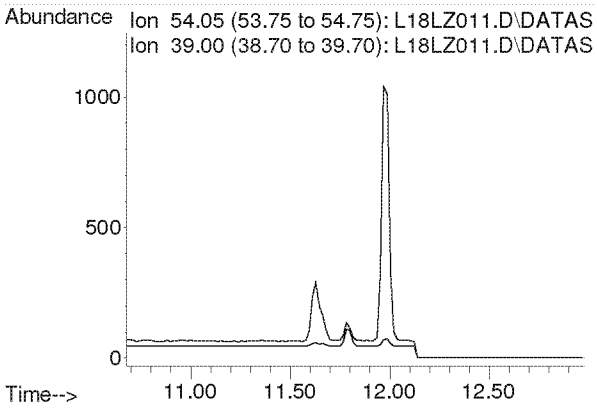


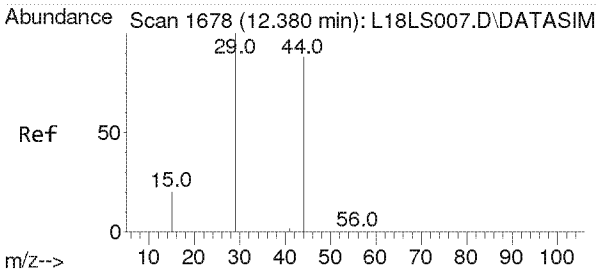
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

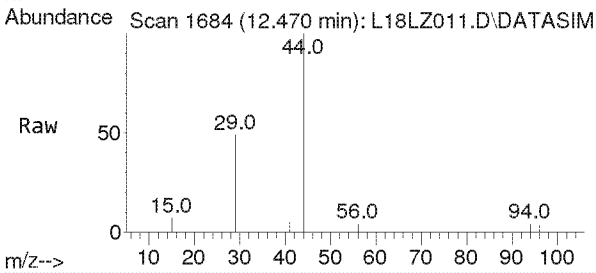


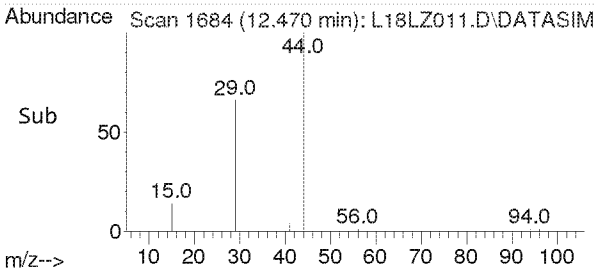


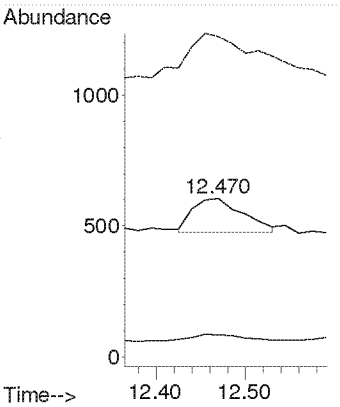
#9
Ethylene oxide
Concen: 0.137 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.090 min
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 29 Resp: 492

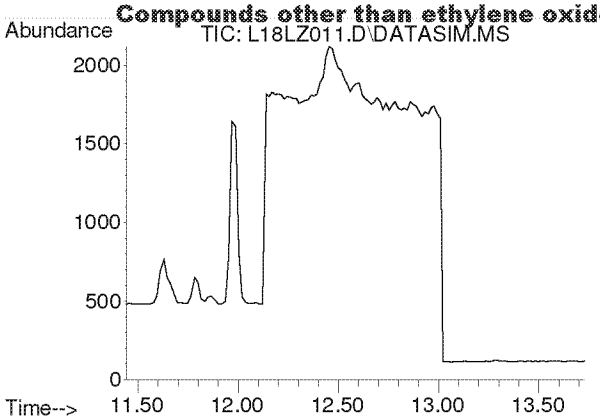
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.2	24.4#
44	0.0	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

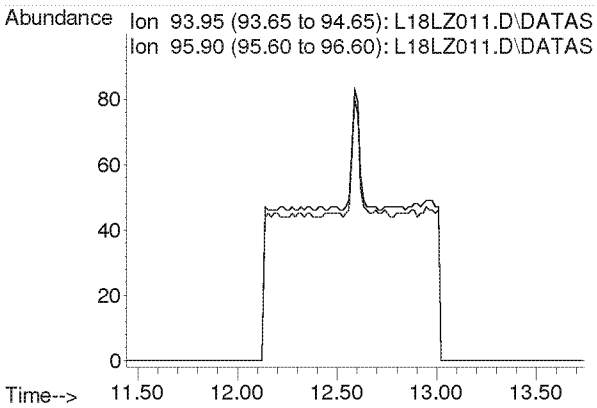


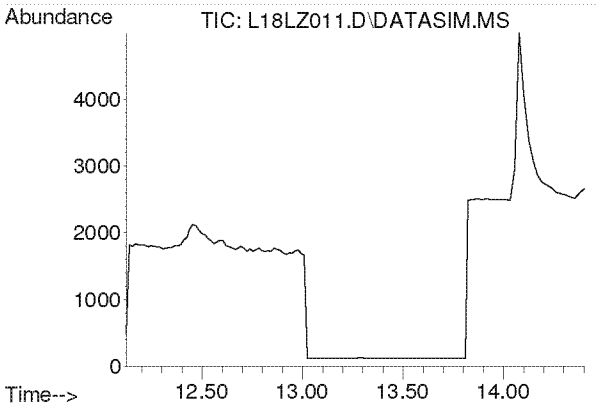
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



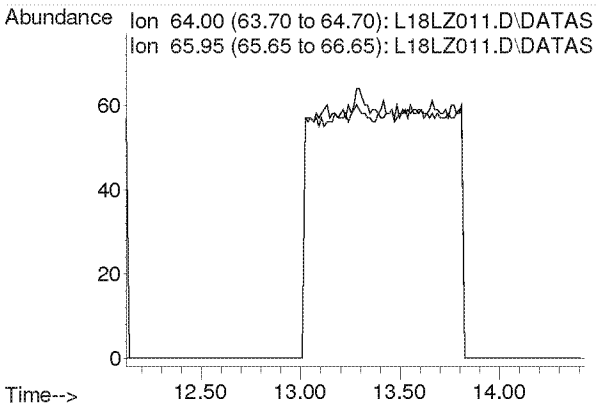


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

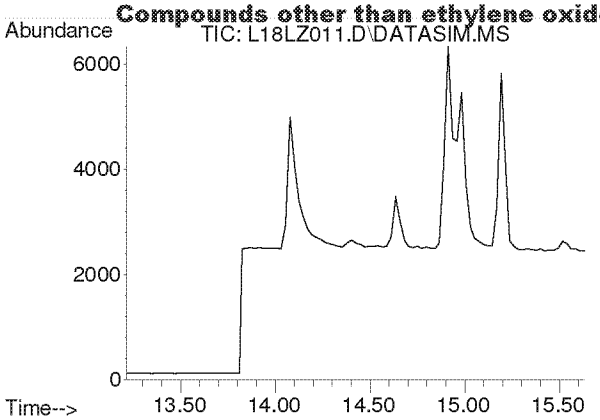
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

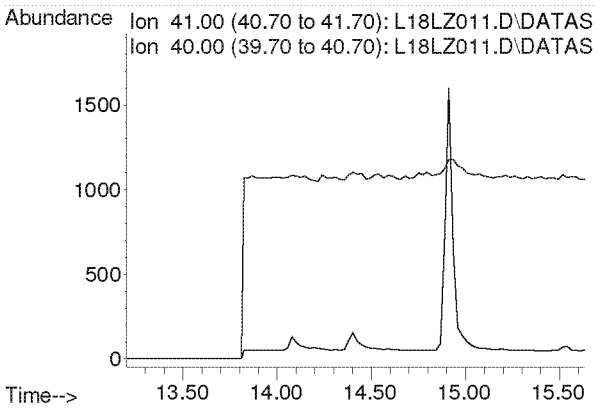


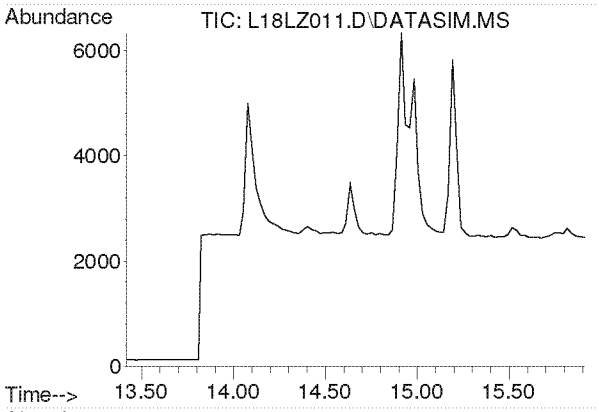
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



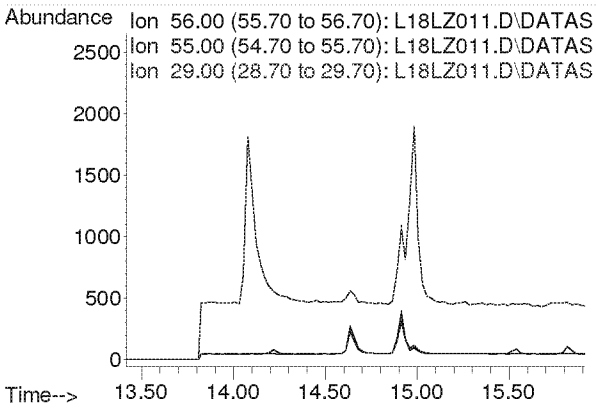


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

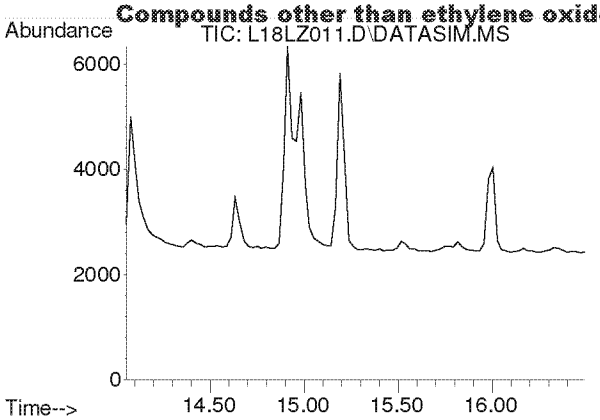
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

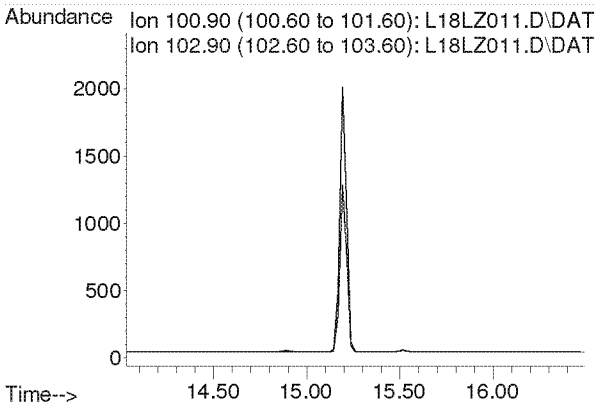


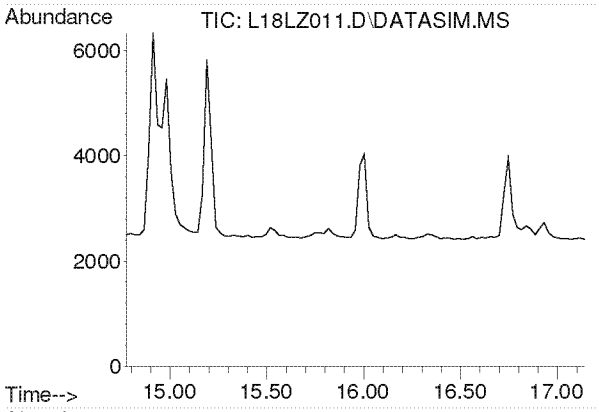
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



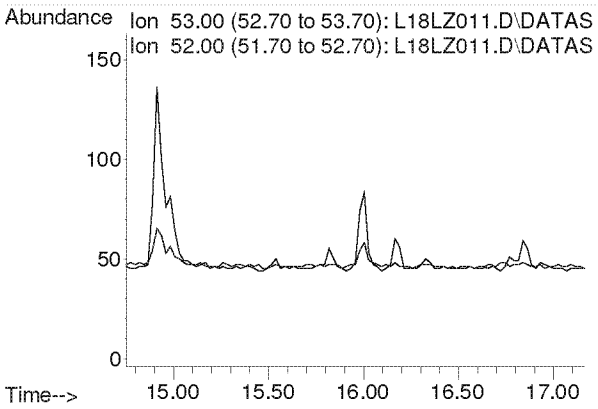


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

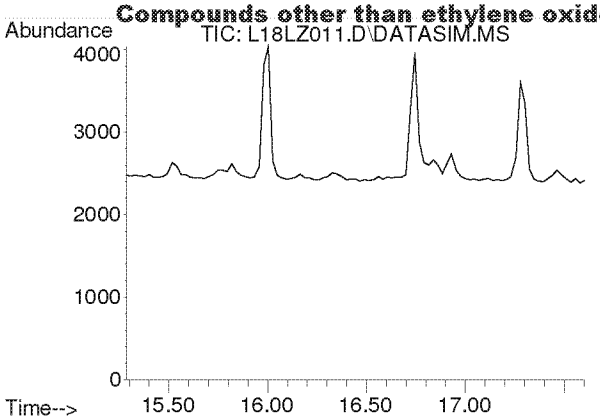
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

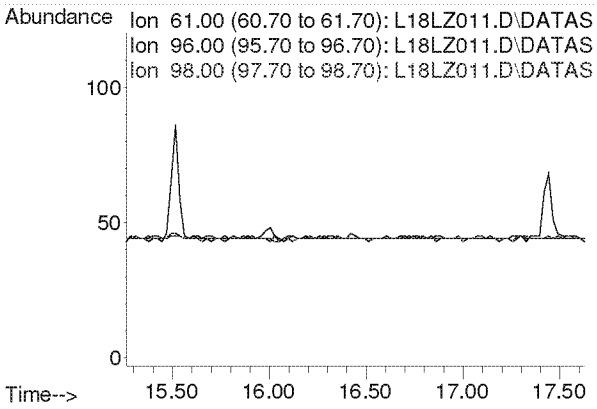


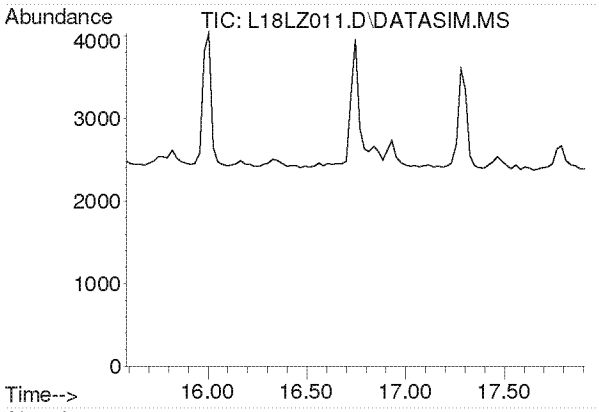
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



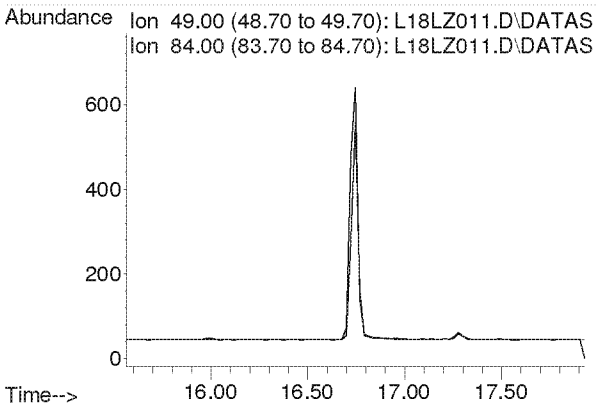


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

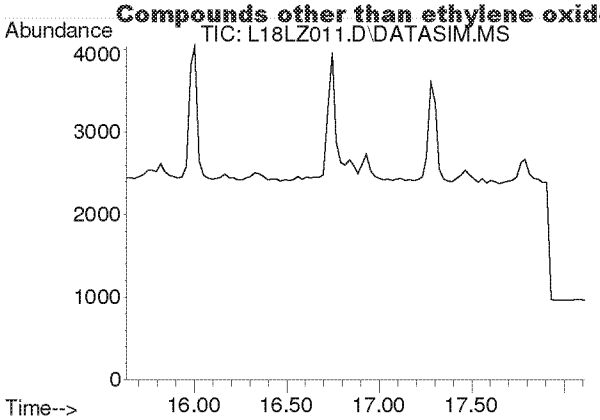
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

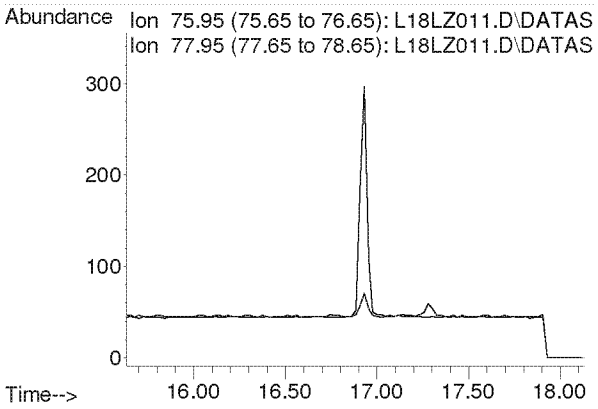


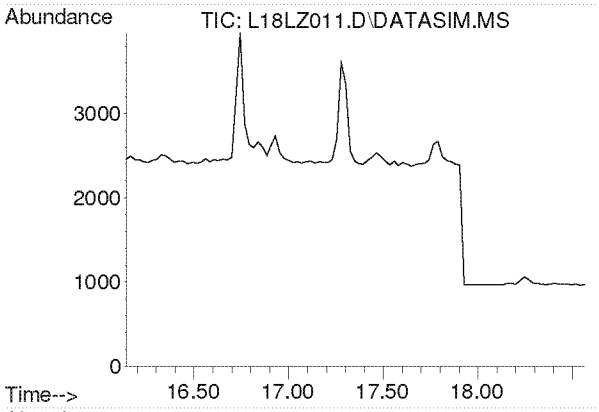
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



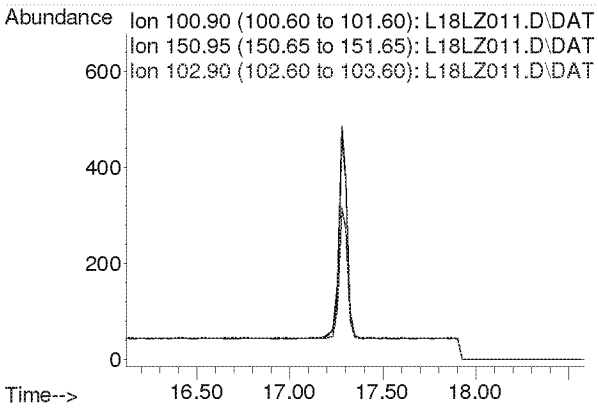


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

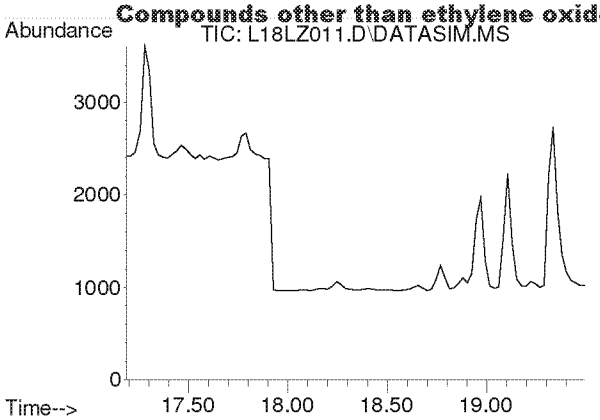
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

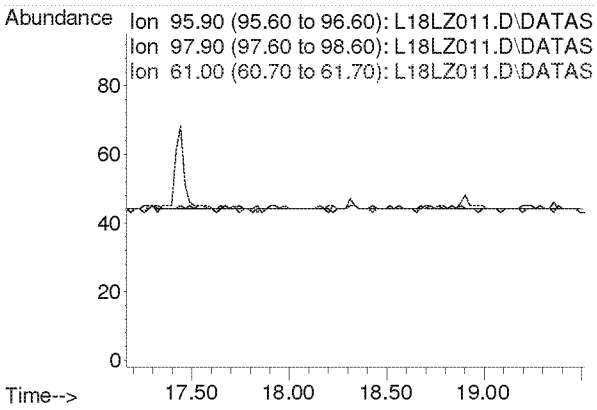


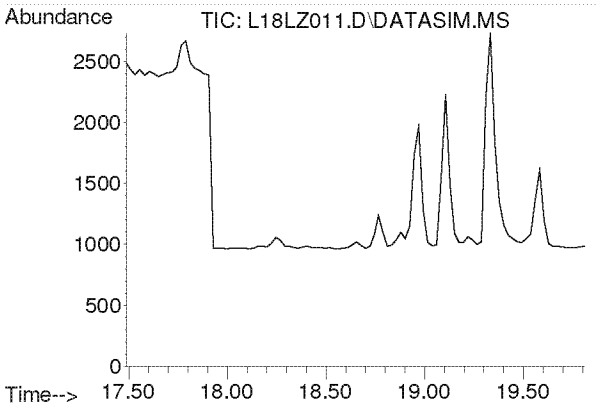
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



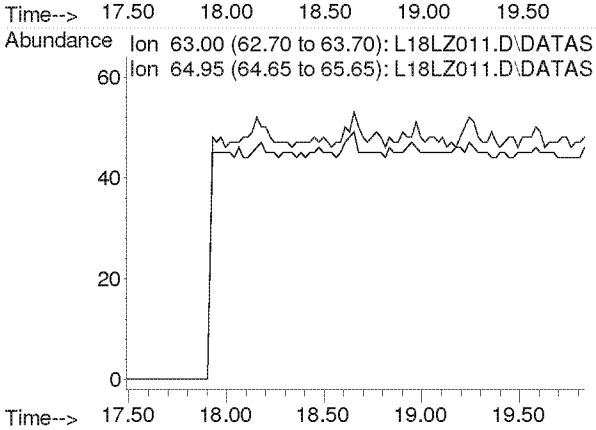


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

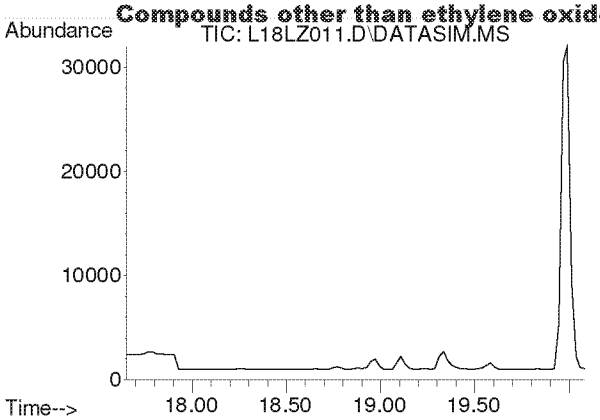
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

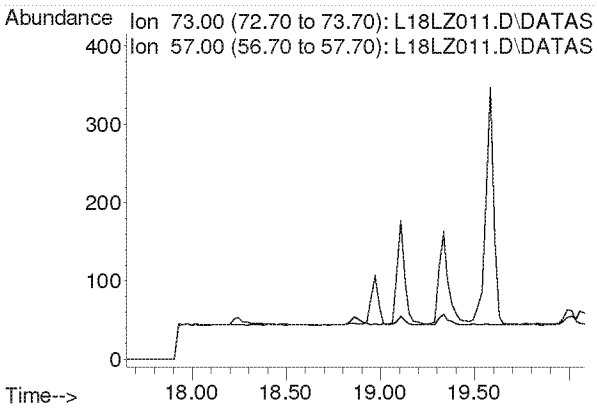


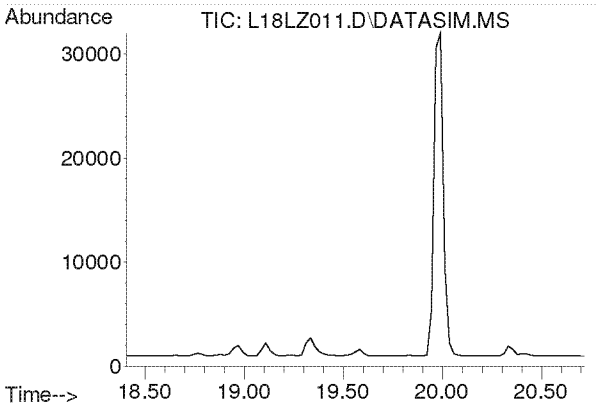
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



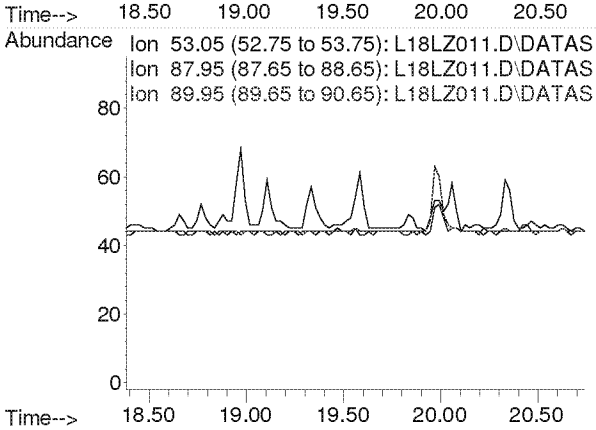


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

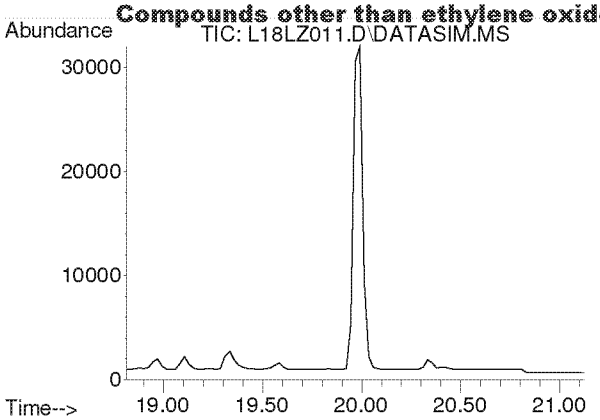
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

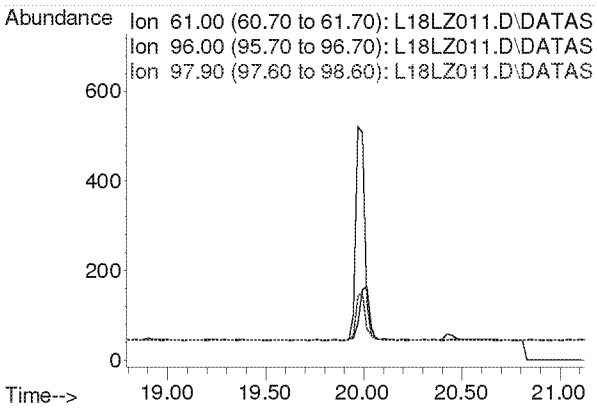


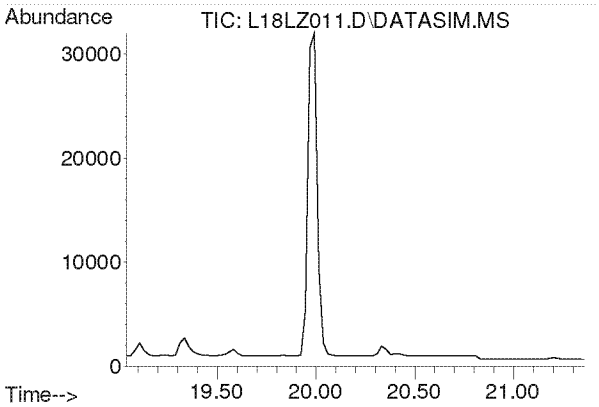
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



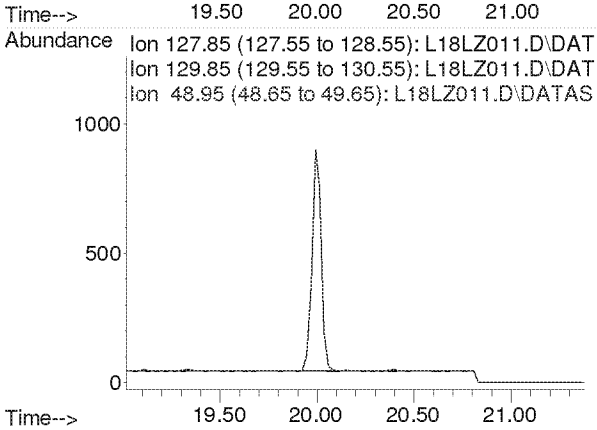


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

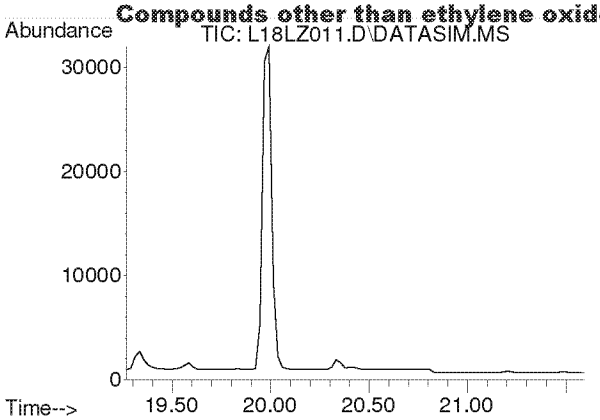
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

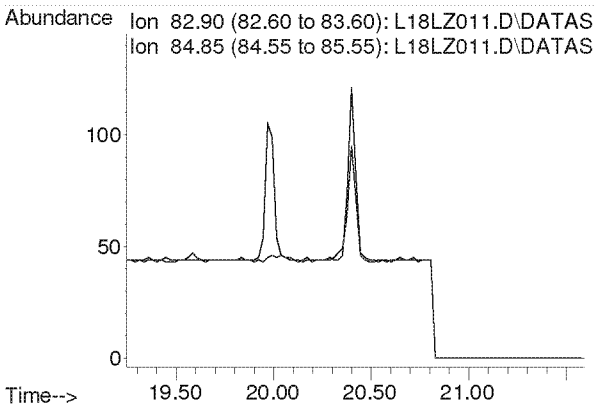


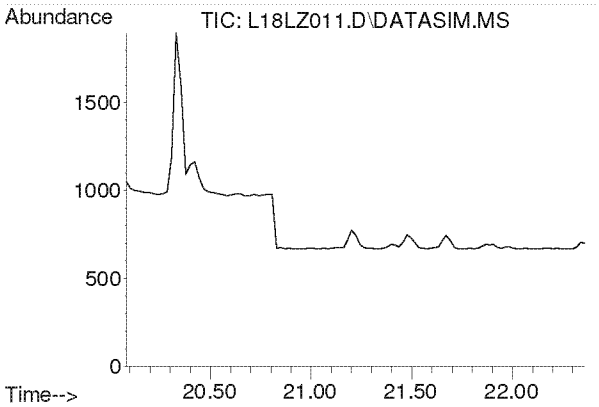
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



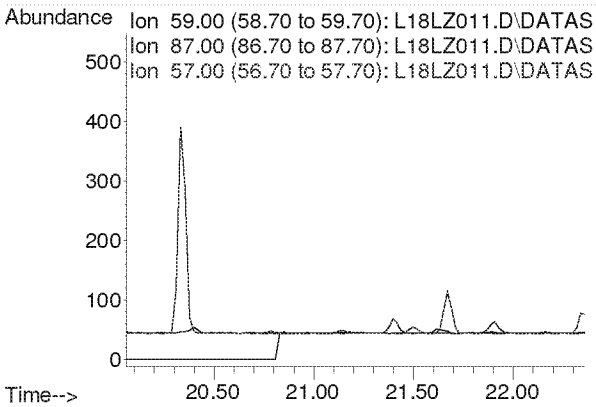


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

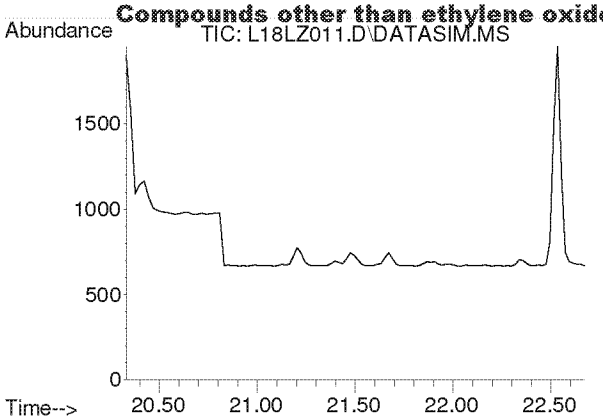
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

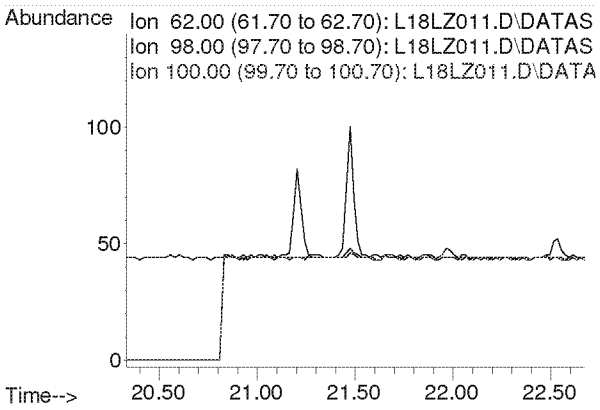


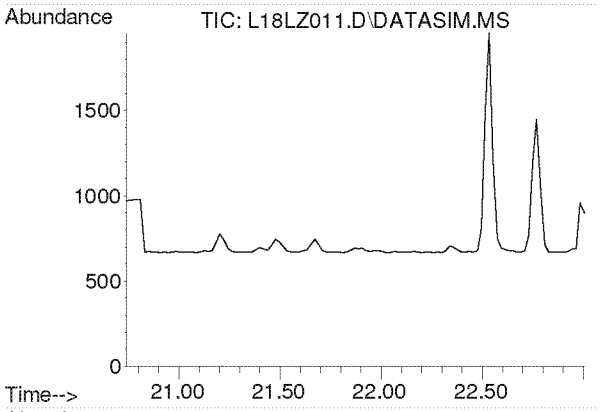
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



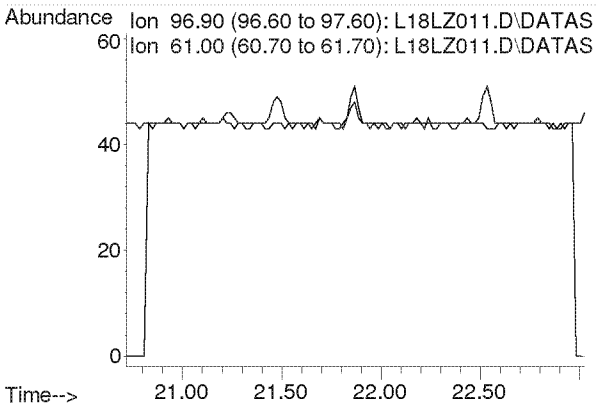


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

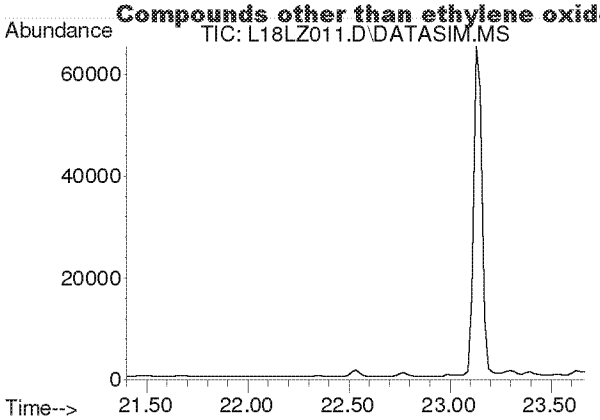
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

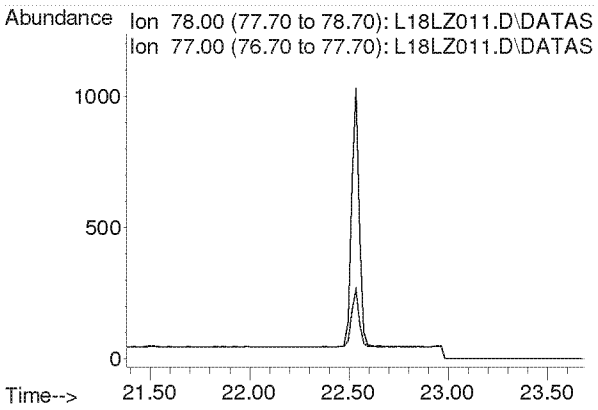


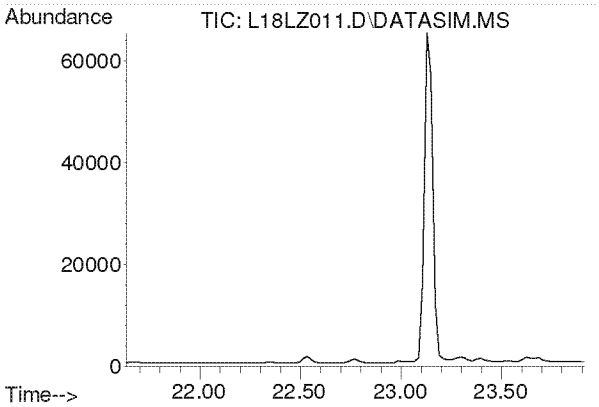
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



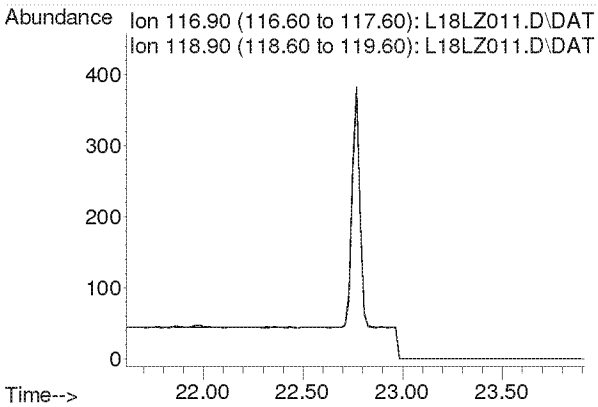


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

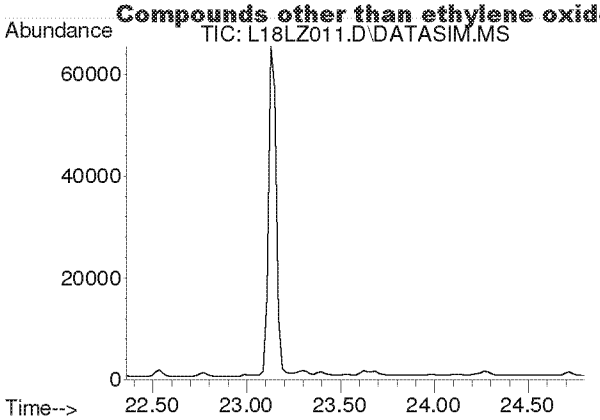
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

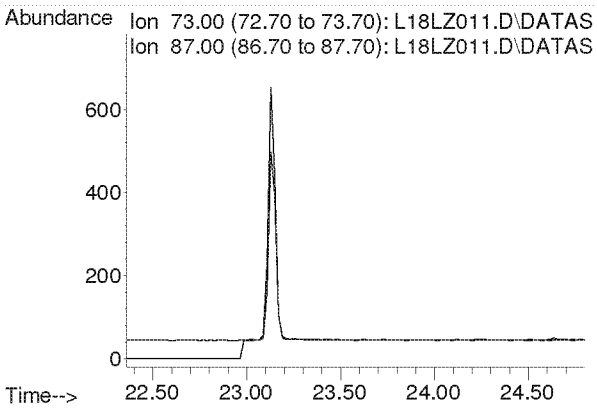


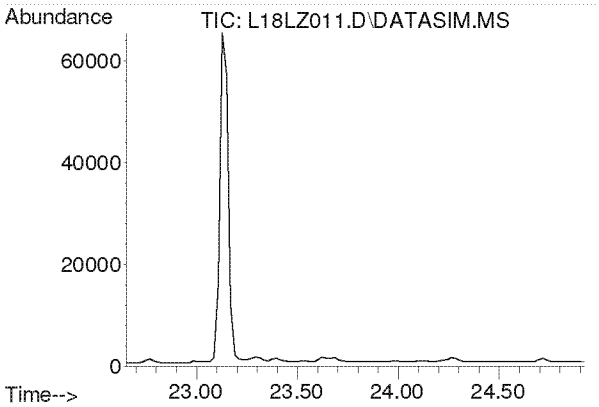
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



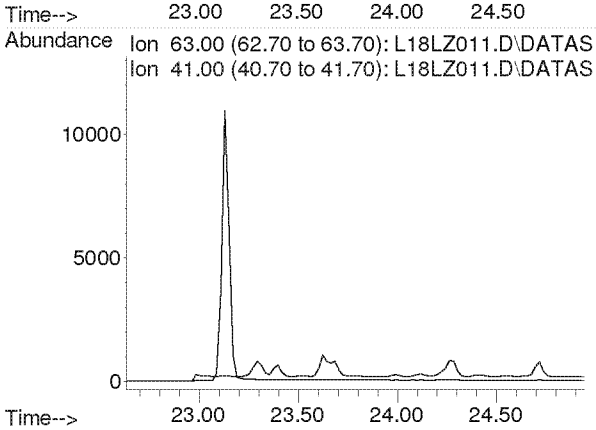


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

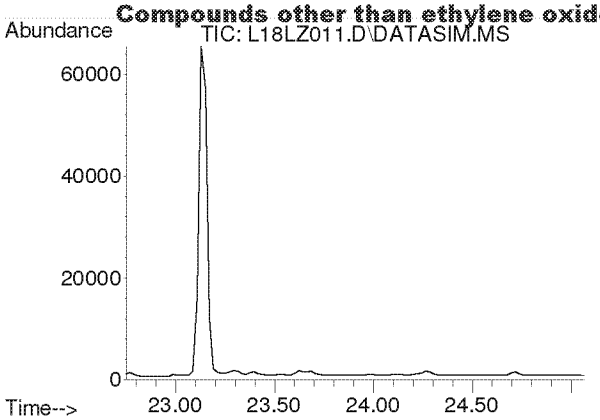
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

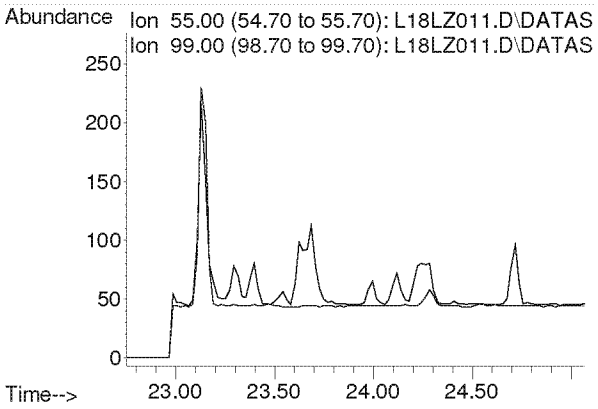


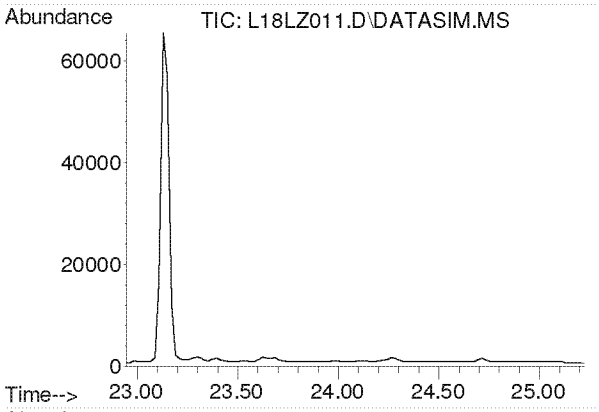
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



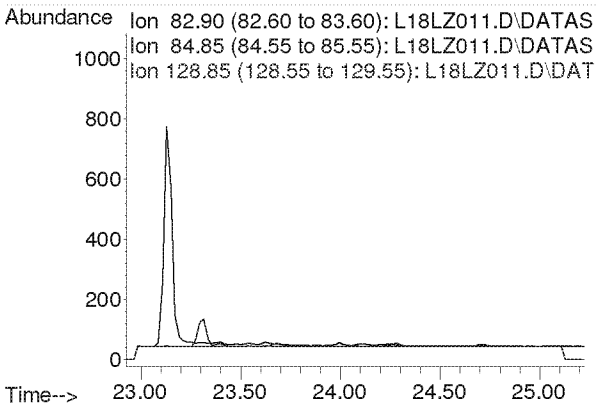


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

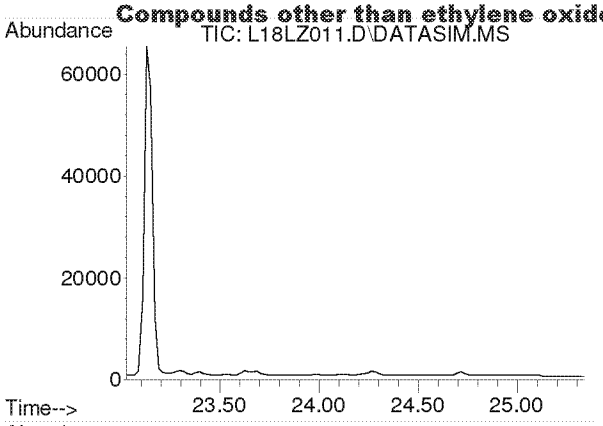
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

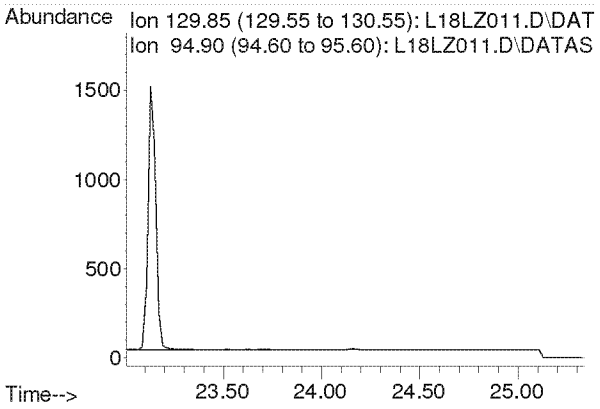


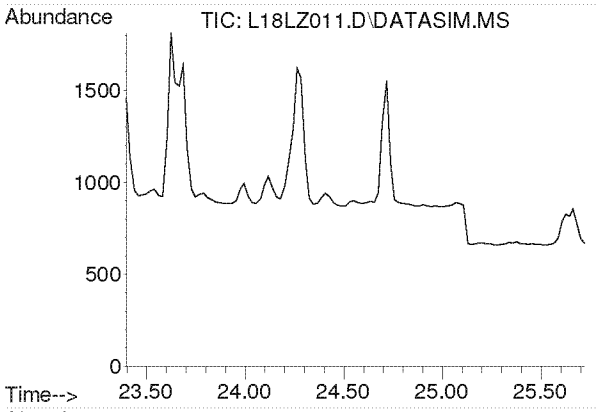
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



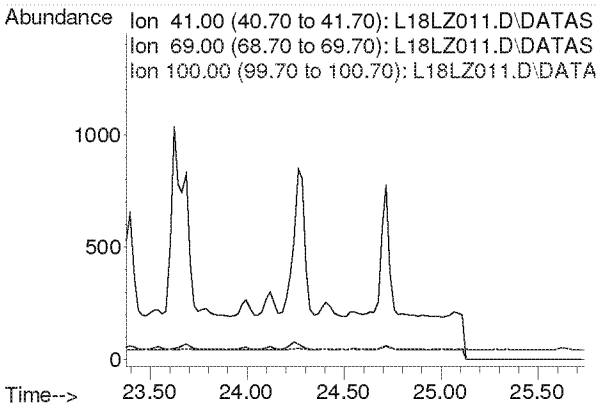


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

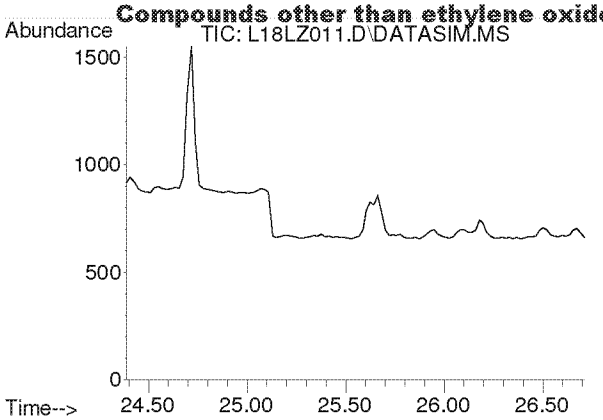
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

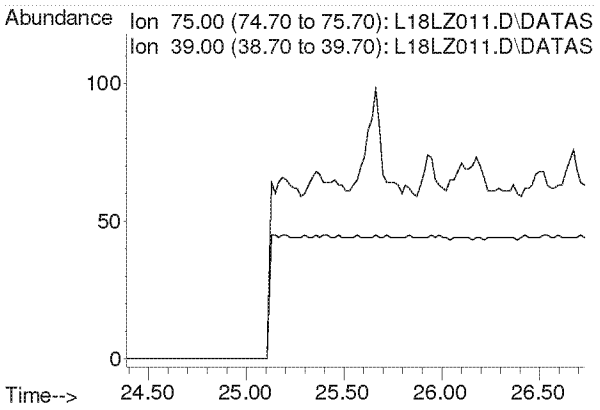


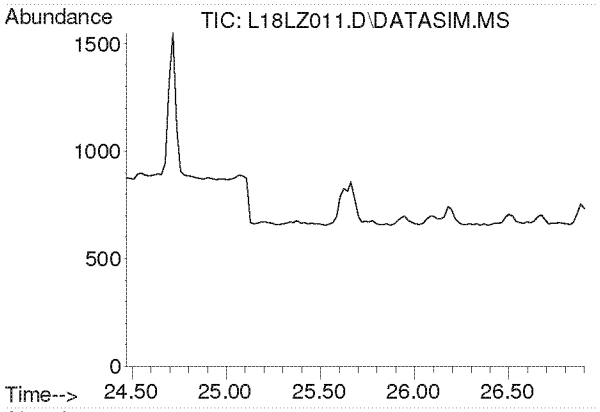
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



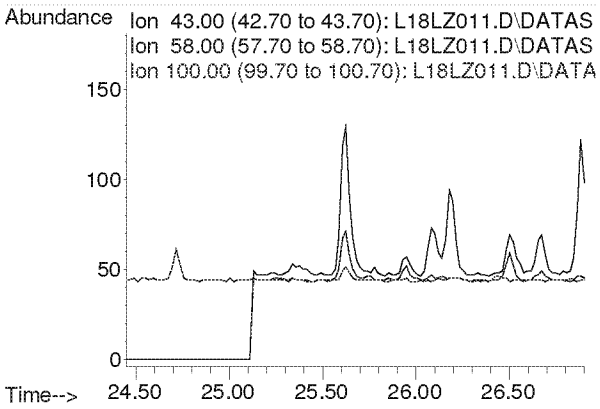


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

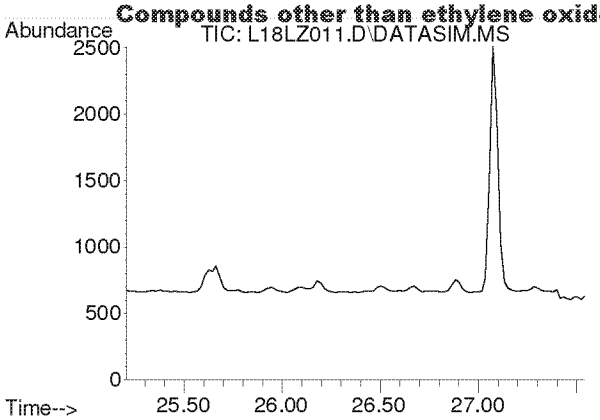
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

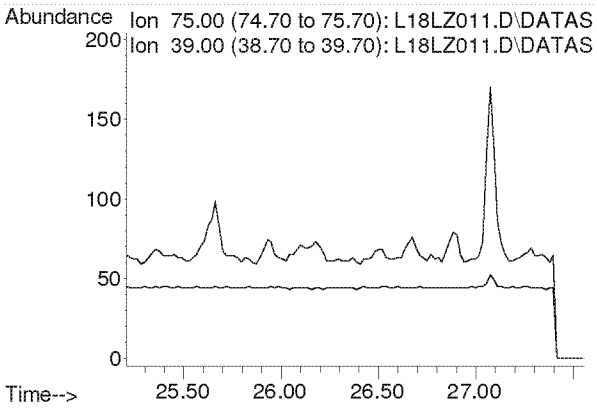


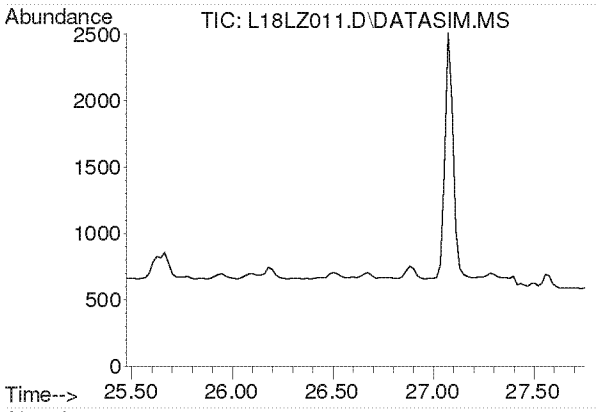
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



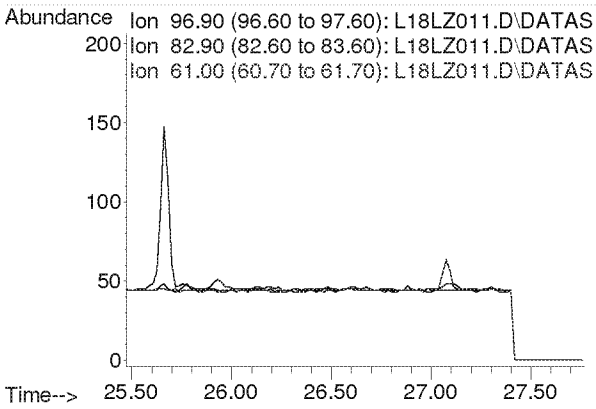


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

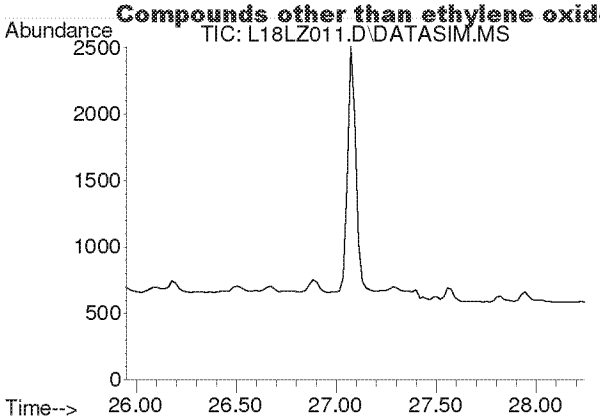
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

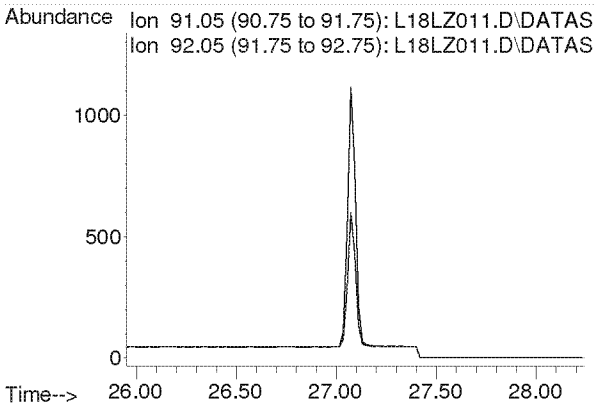


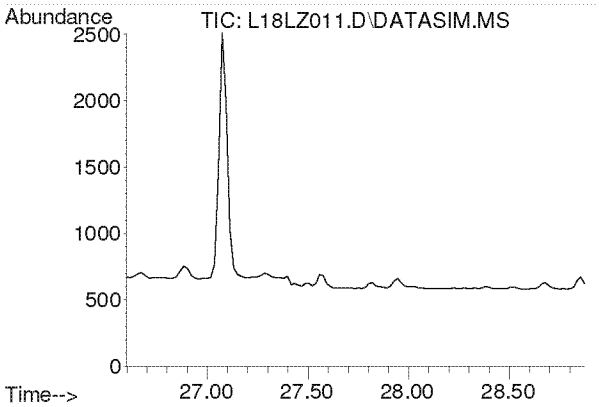
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



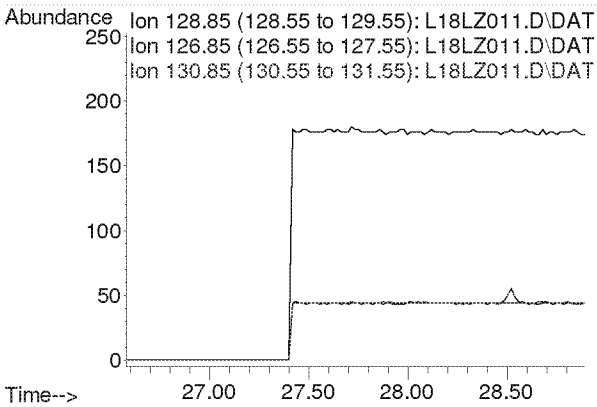


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

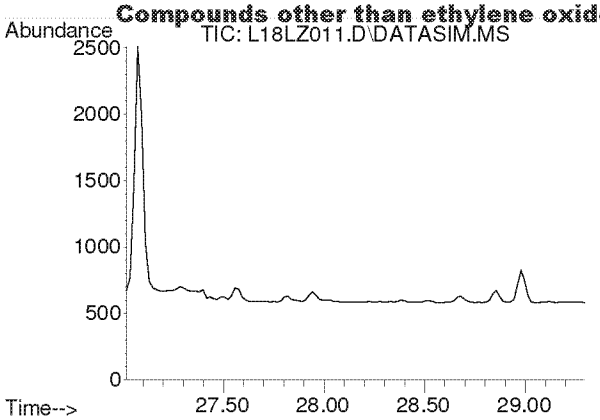
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

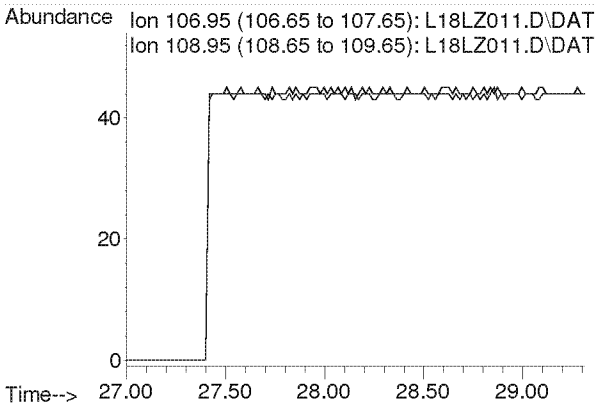


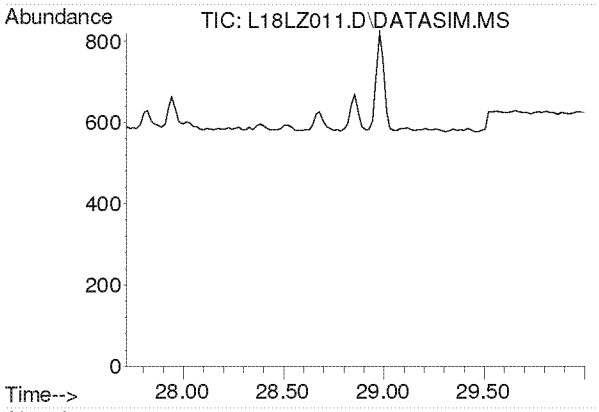
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



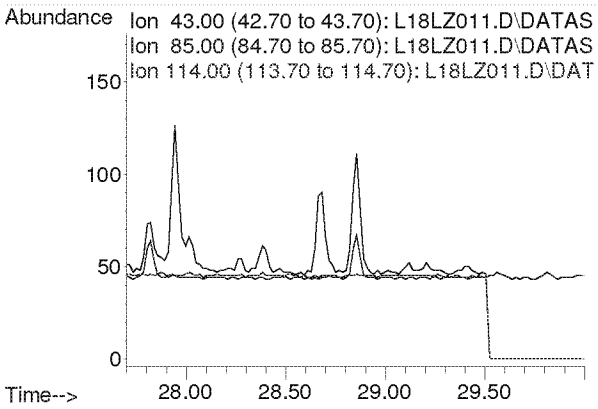


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

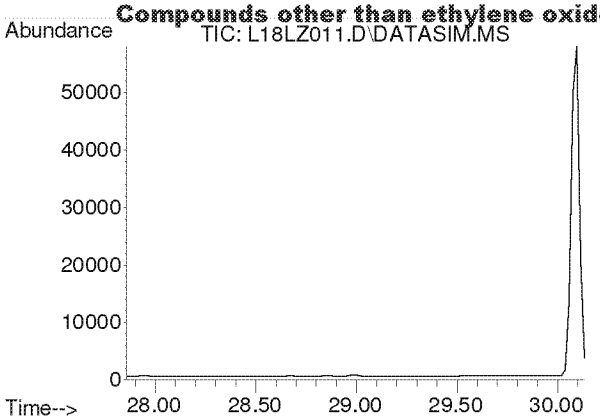
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

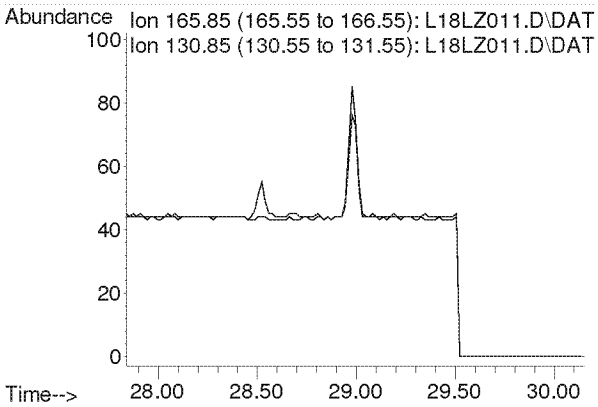


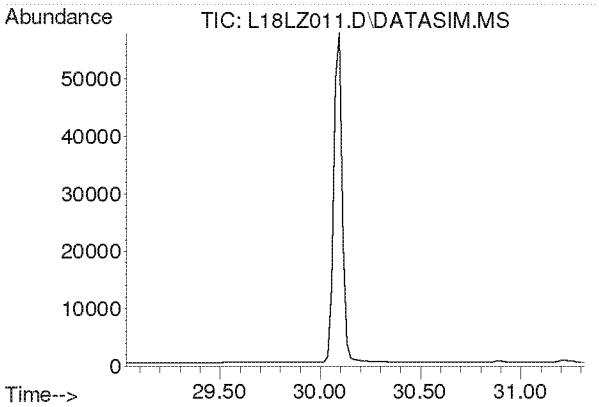
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



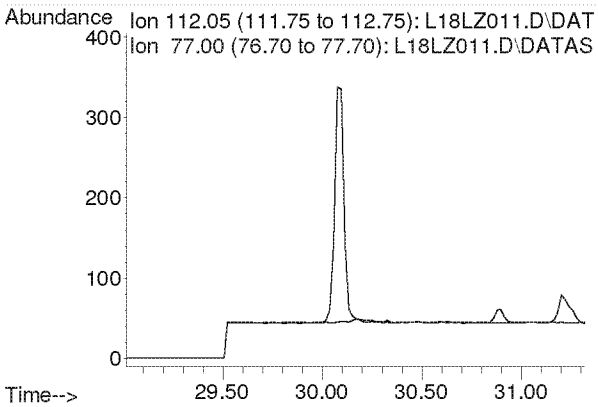


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

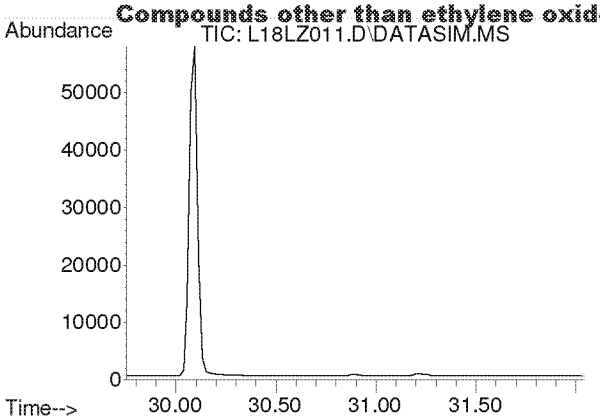
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

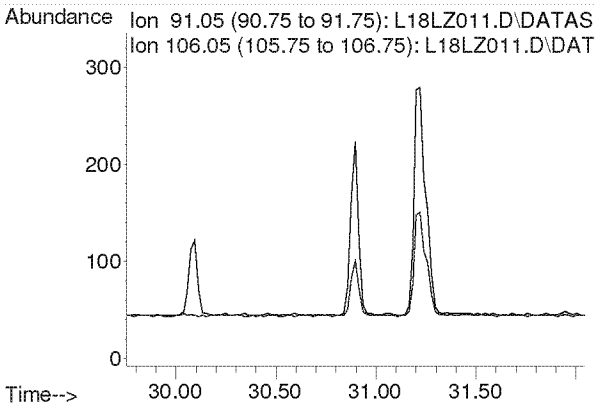


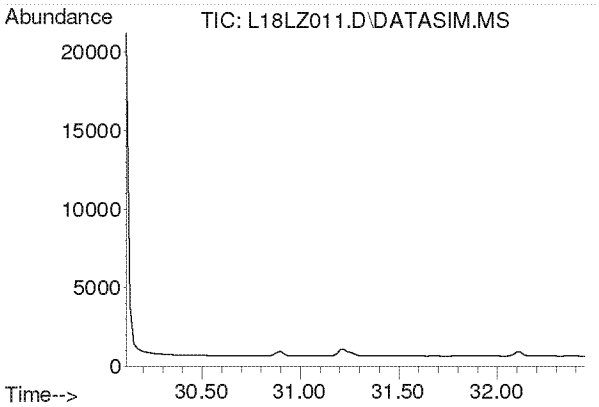
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



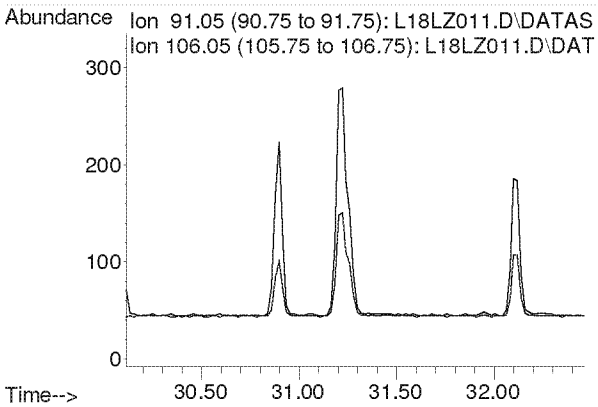


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

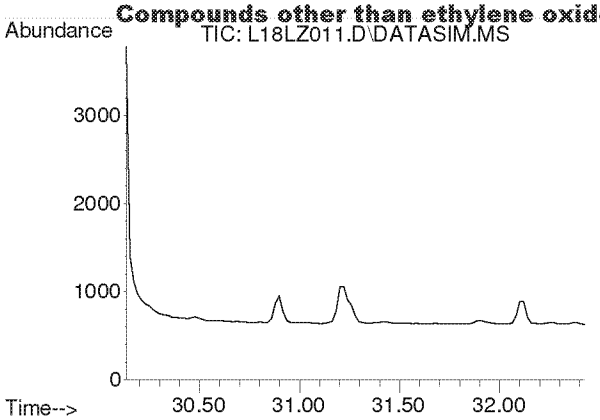
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

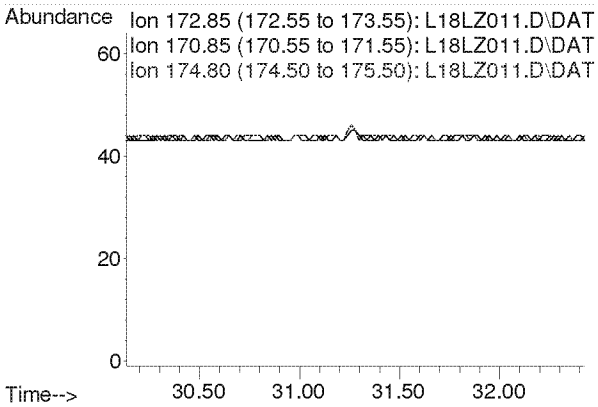


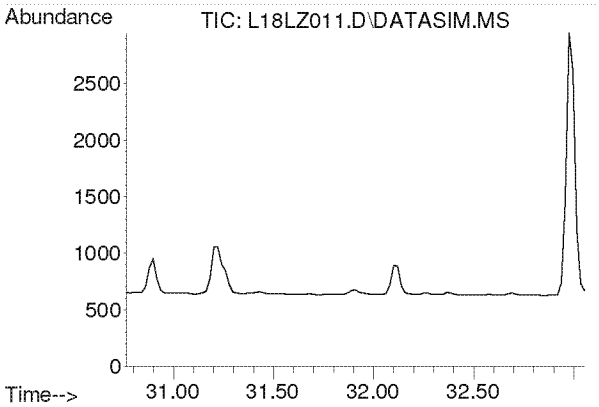
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



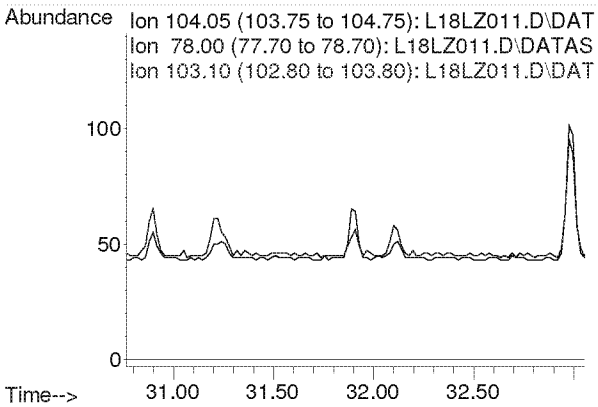


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

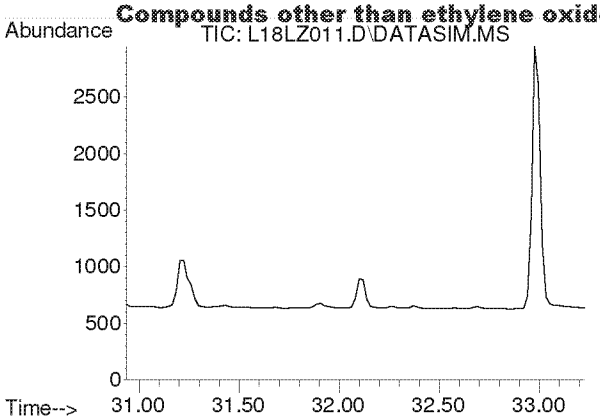
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

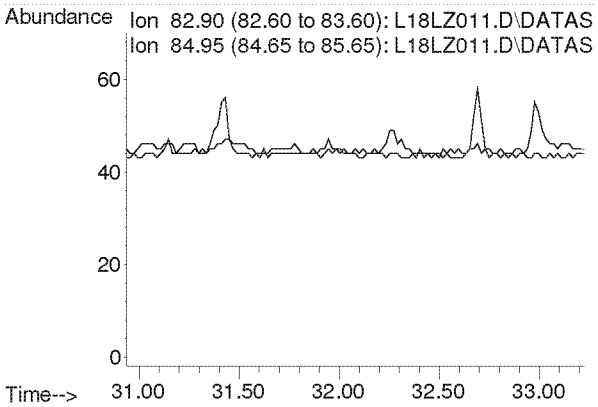


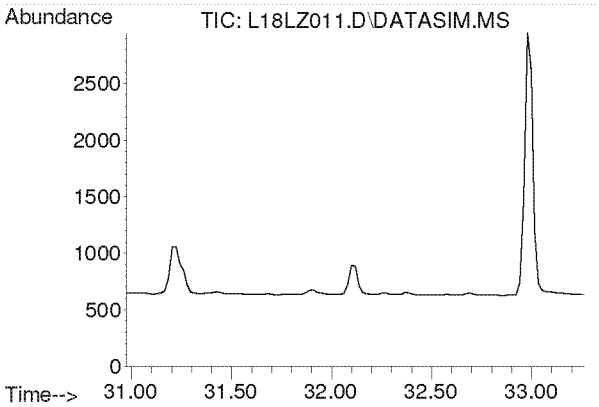
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



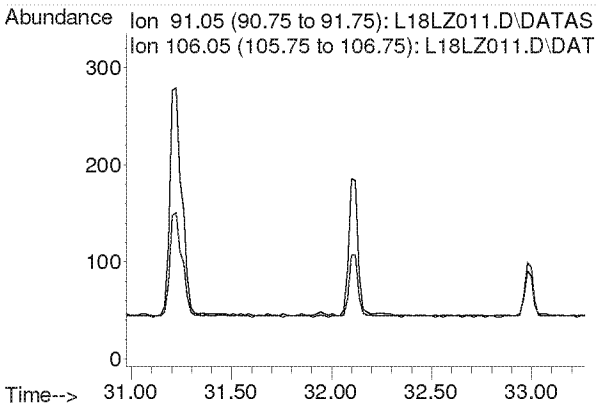


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

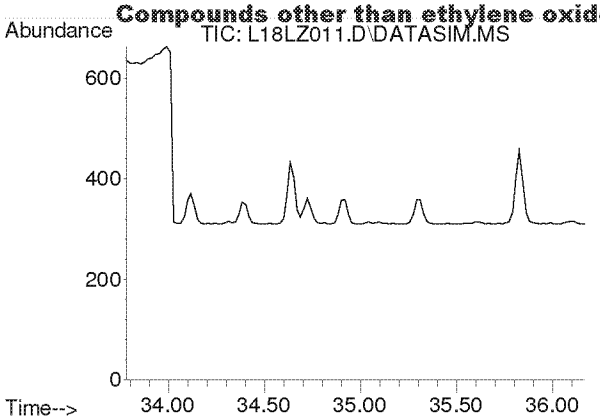
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

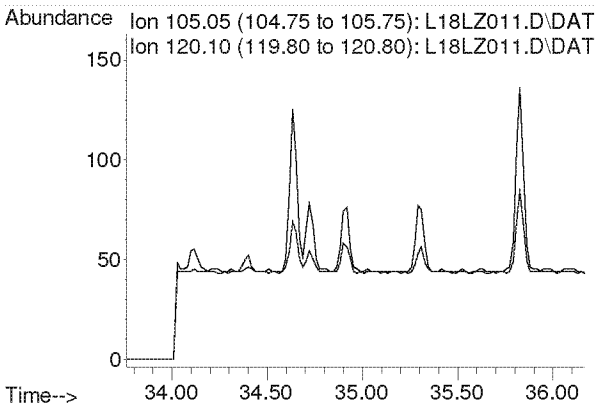


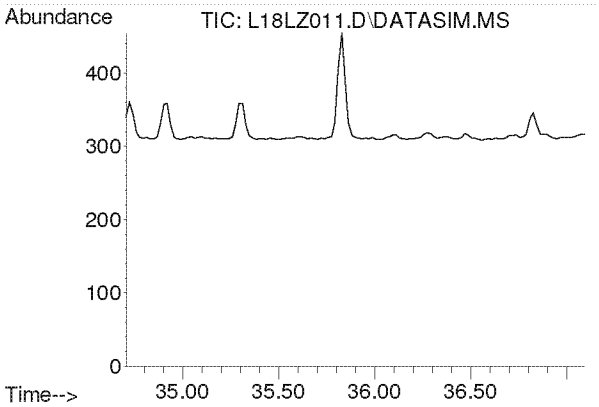
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



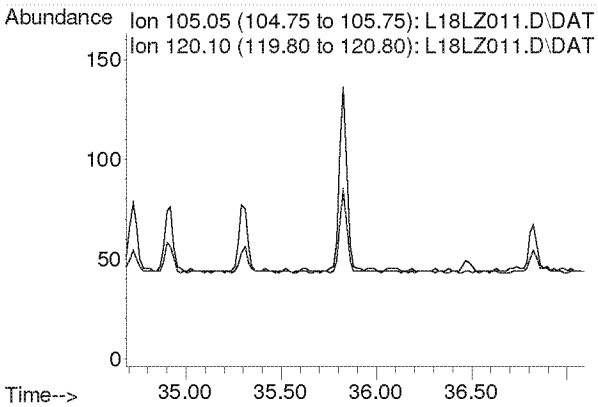


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

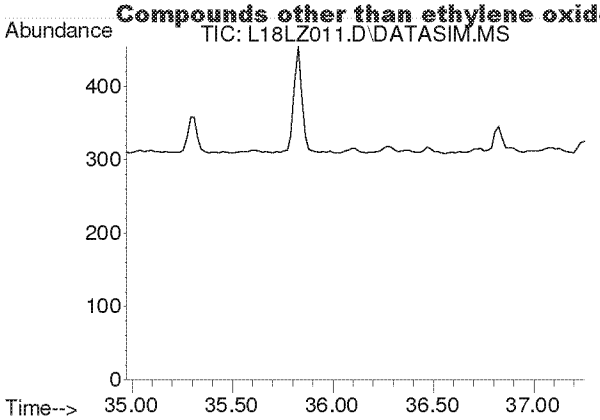
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

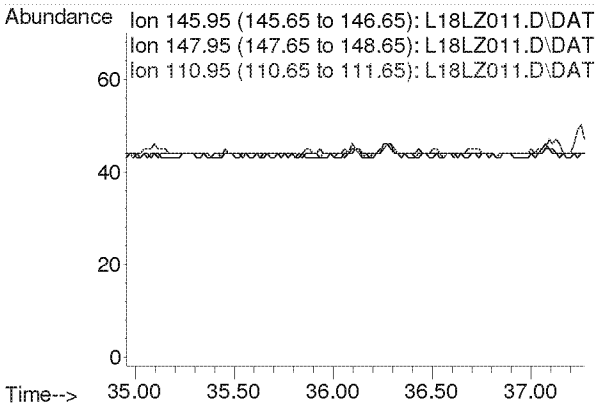


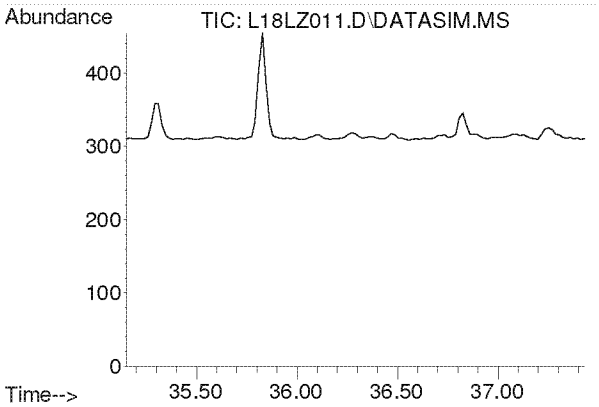
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



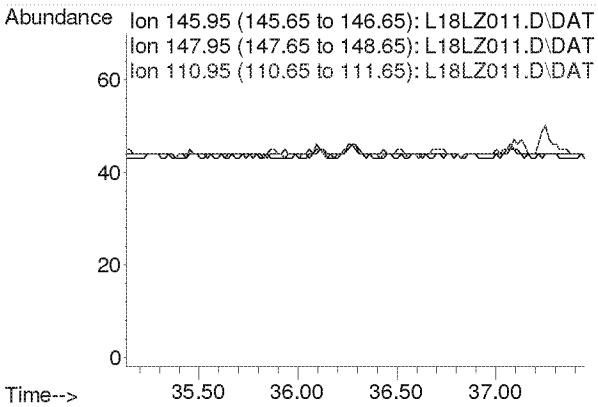


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

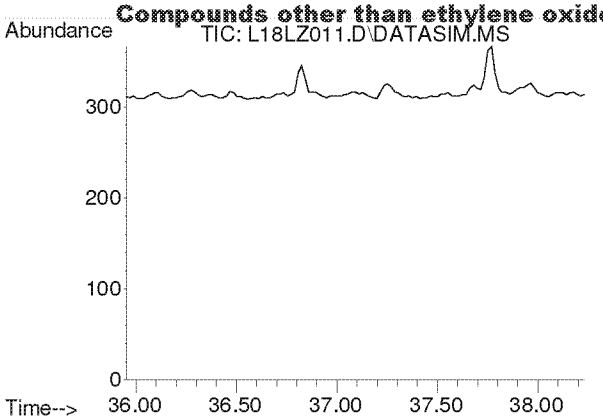
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

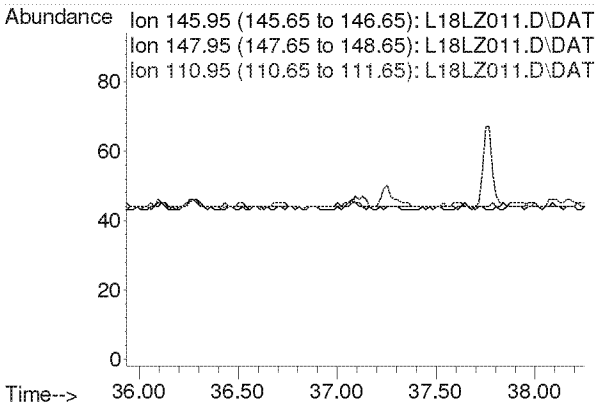


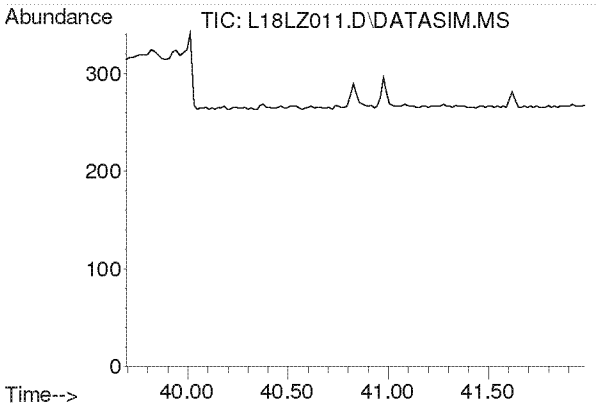
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



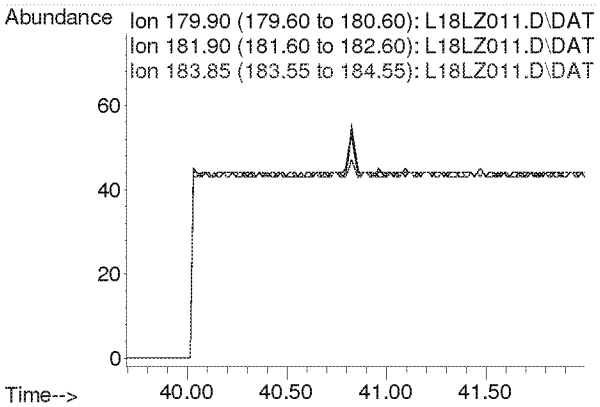


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

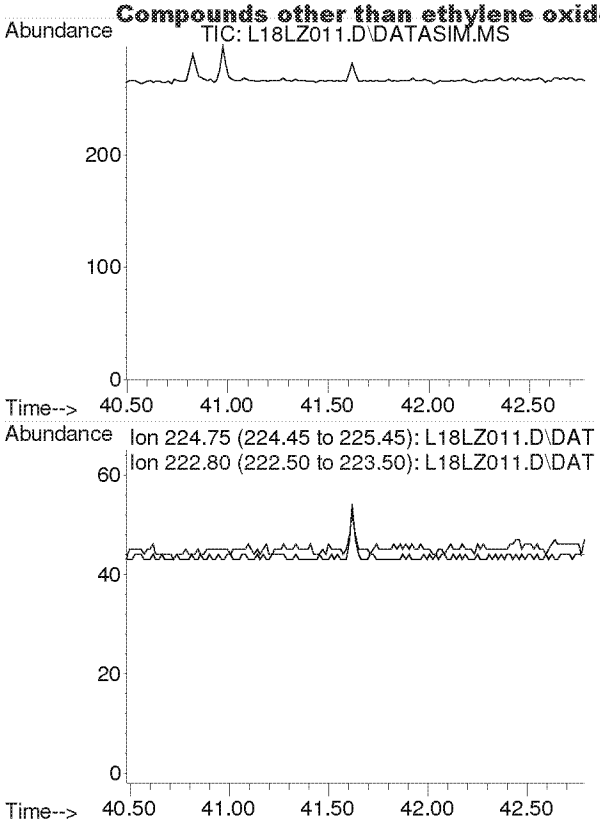
Lab File: L18LZ011.D
Acq: 26 Dec 2018 9:40 pm

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: L18LZ011.D
Acq: 26 Dec 2018 9:40 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\L18LZ\
Data File : L18LZ012.D
Acq On : 26 Dec 2018 10:42 pm
Operator : MAH
Sample : 8121220-06
Misc : HINSDALE S. HS 12/11/18
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 03 11:14:09 2019
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

d-MR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	55062	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	132765	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.096	117	96011	4.7400 ppbv	0.00

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. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.470	29	388m	0.1179 ppbv	
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.	
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. 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.

Quantification Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LZ\
Data File : L18LZ012.D
Acq On : 26 Dec 2018 10:42 pm
Operator : MAH
Sample : 8121220-06
Misc : HINSDALE S. HS 12/11/18
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 03 11:14:09 2019
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

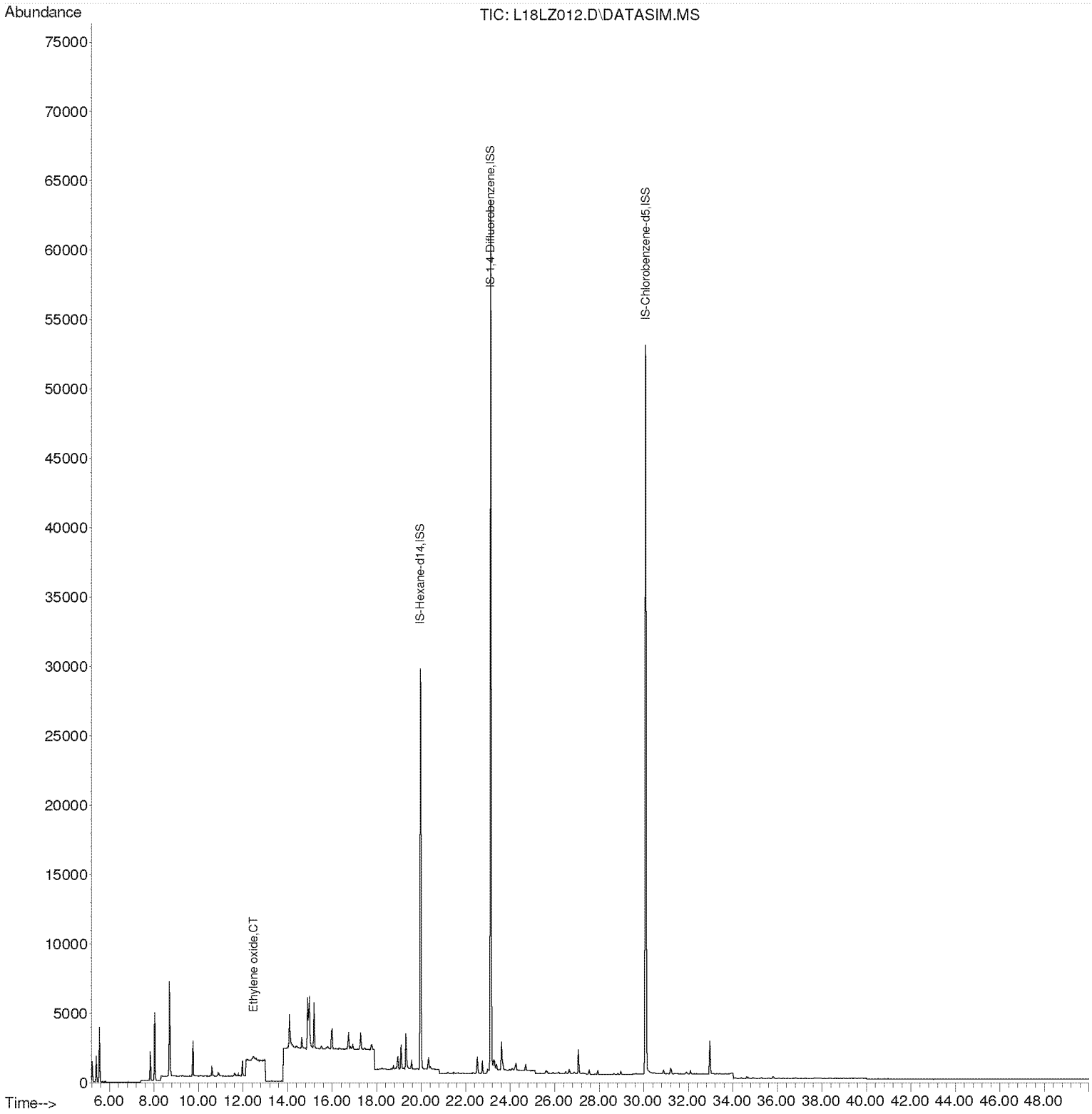
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	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

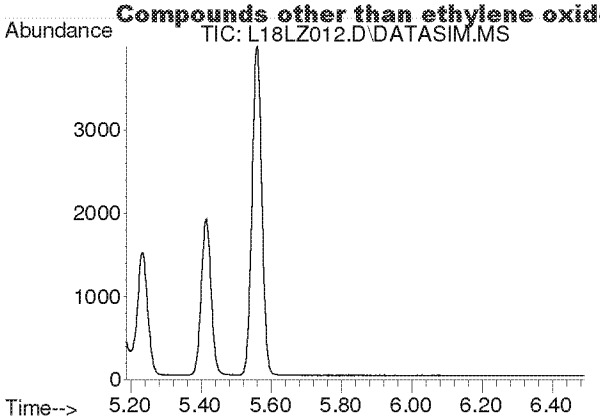
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ012.D
Acq On : 26 Dec 2018 10:42 pm
Operator : MAH
Sample : 8121220-06
Misc : HINSDALE S. HS 12/11/18
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 03 10:29:51 2019
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



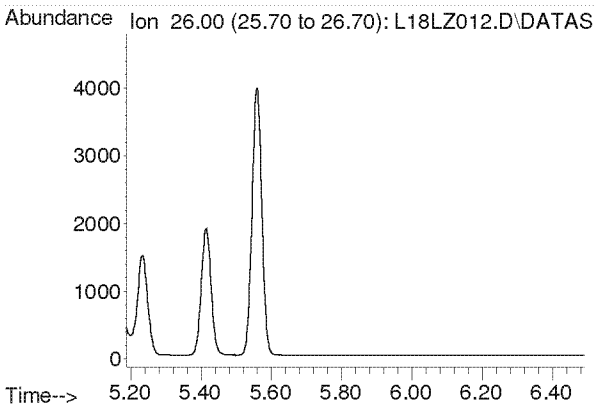
Compounds other than ethylene oxide were not quantitated.

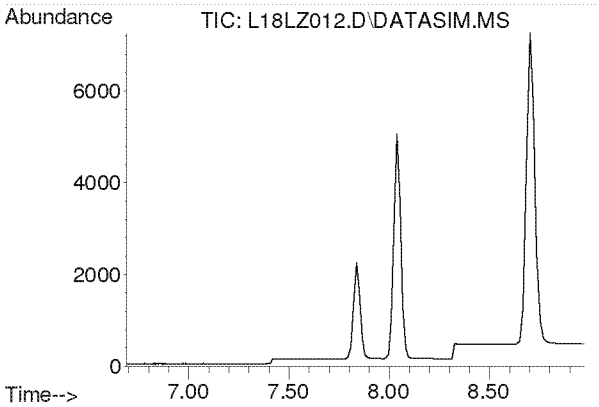


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 26



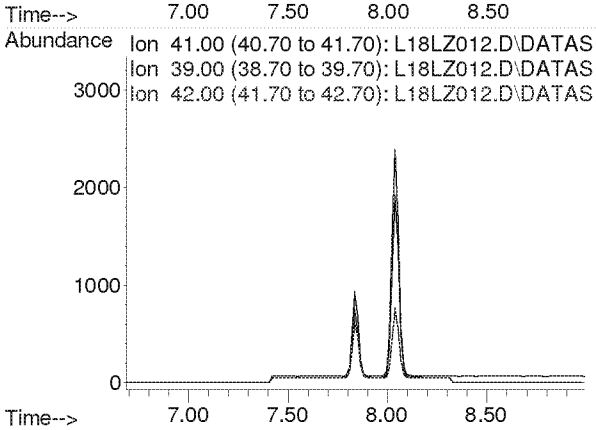


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

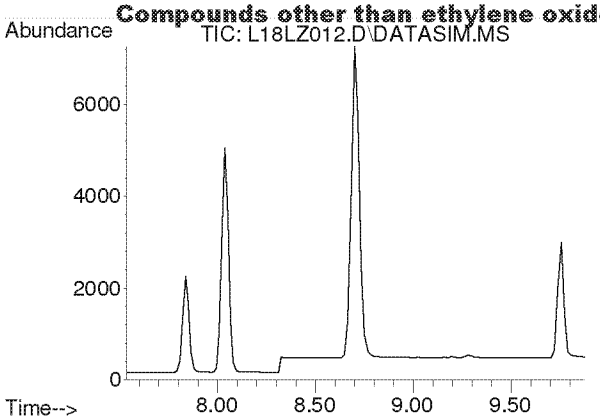
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

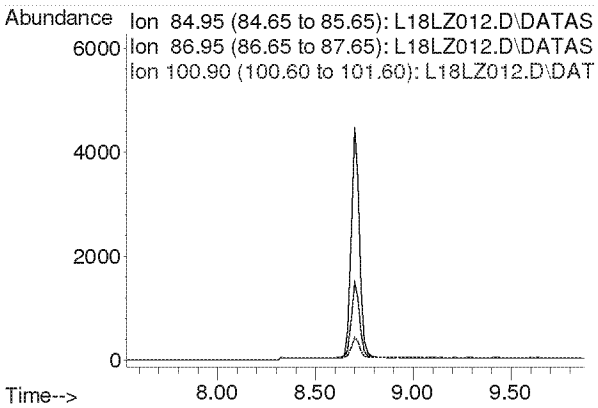


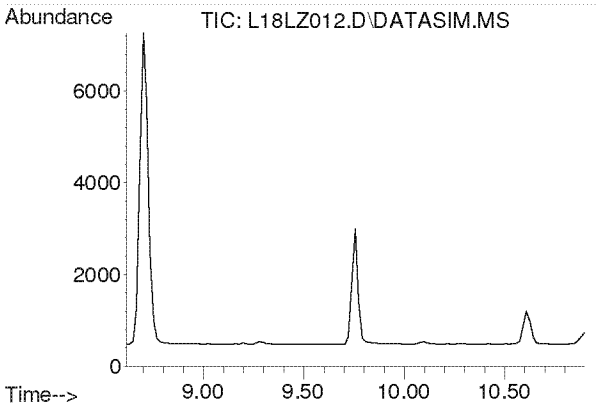
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



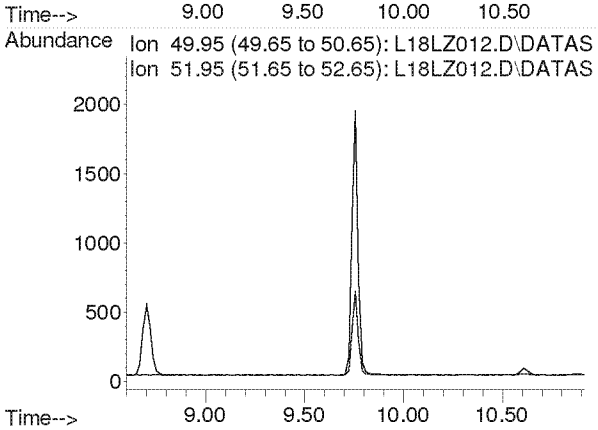


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

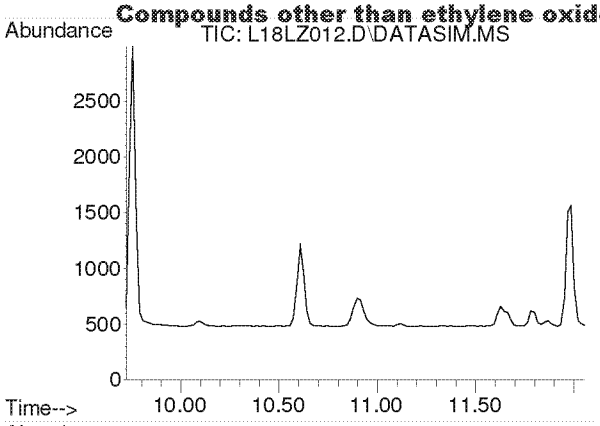
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

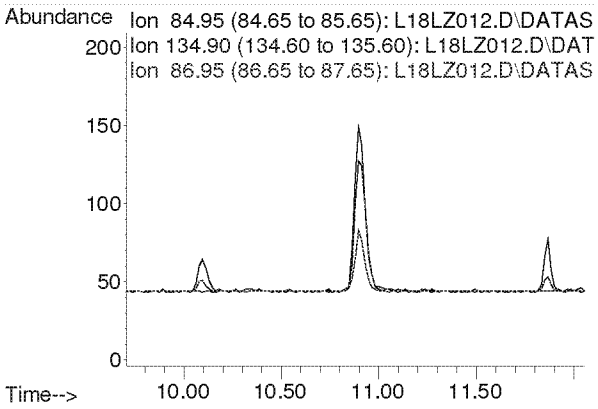


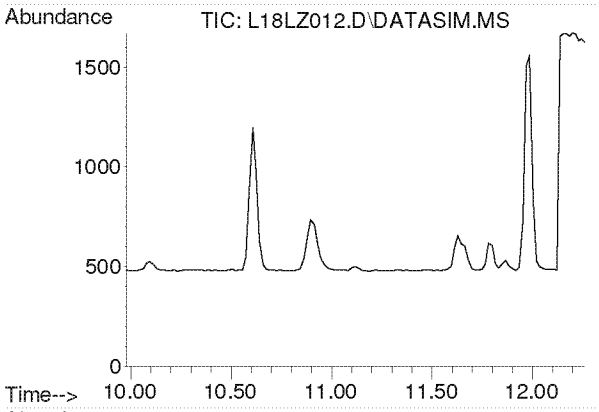
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



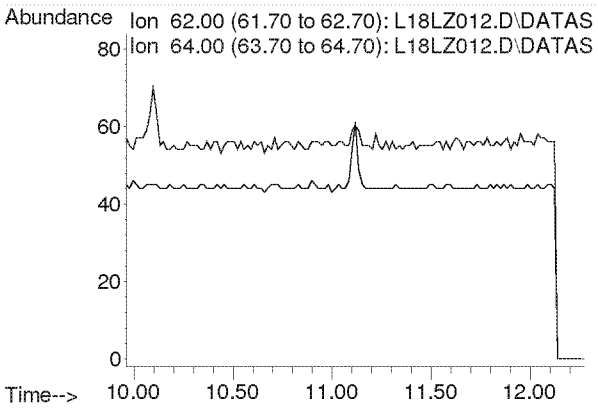


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

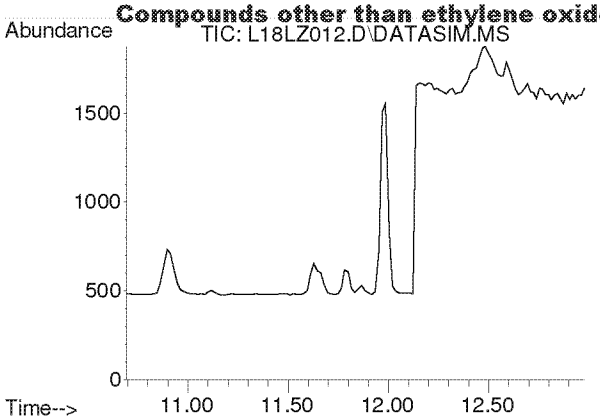
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

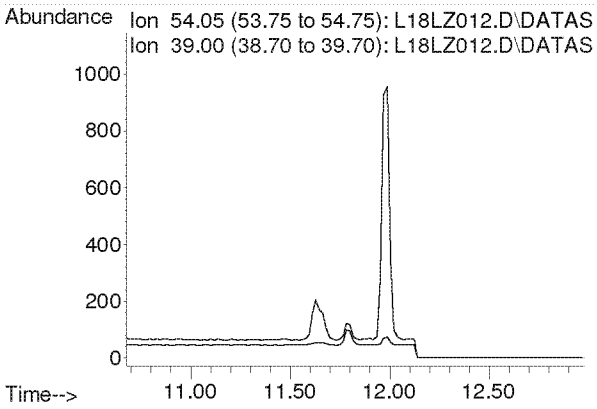


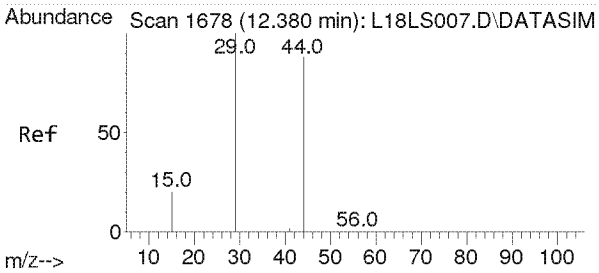
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

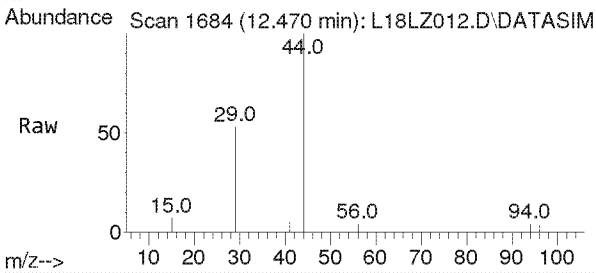


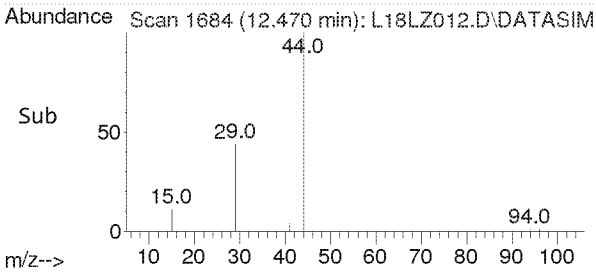


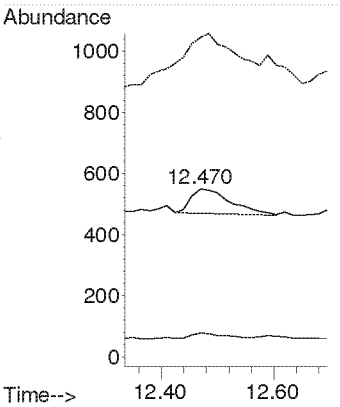
#9
Ethylene oxide
Concen: 0.118 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.090 min
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 29 Resp: 388

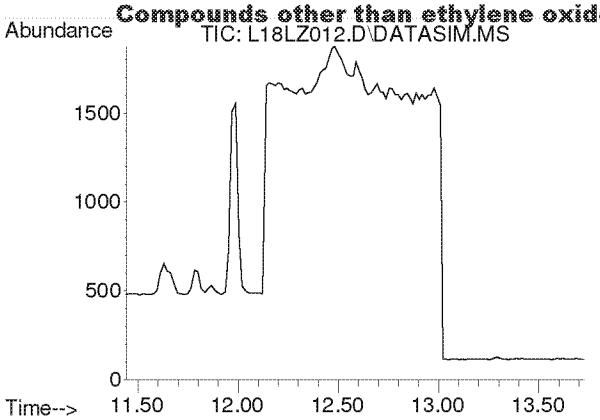
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.2	24.4#
44	0.0	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

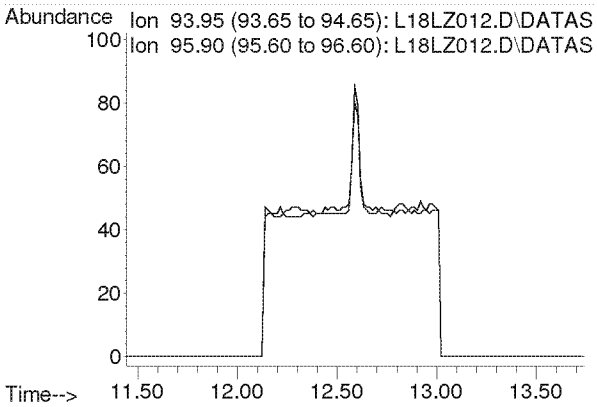


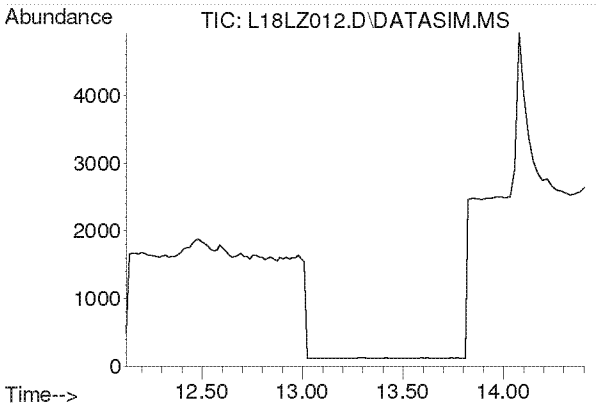
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



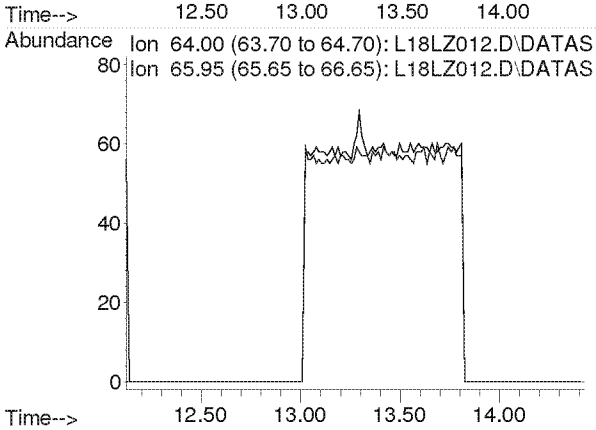


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

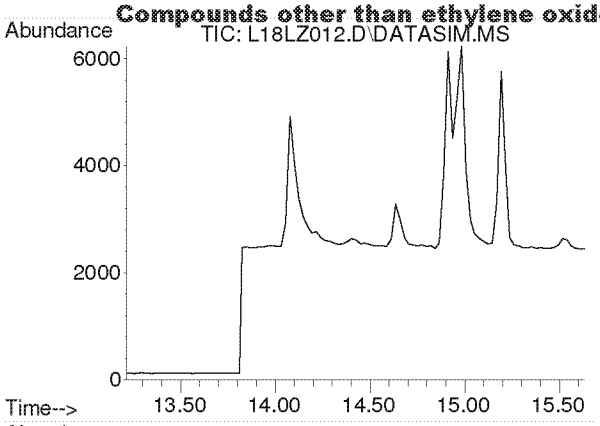
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

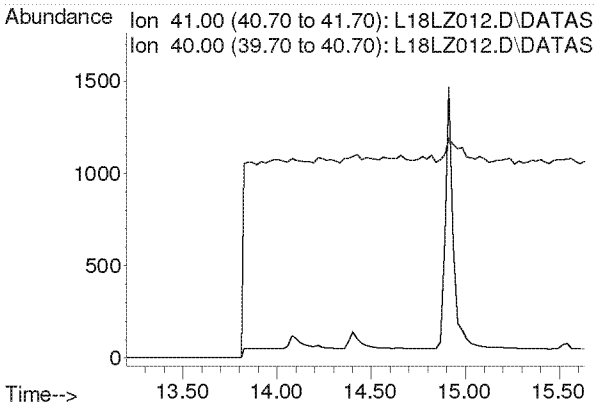


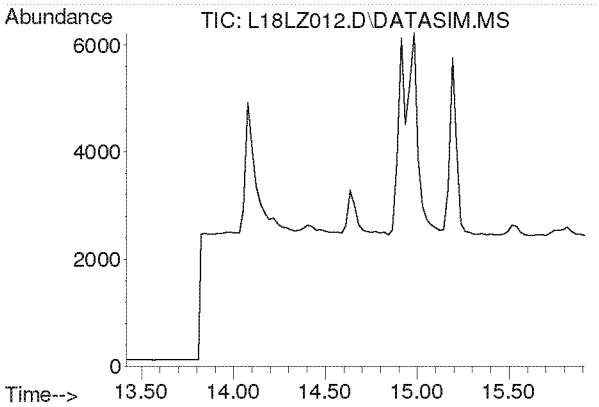
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



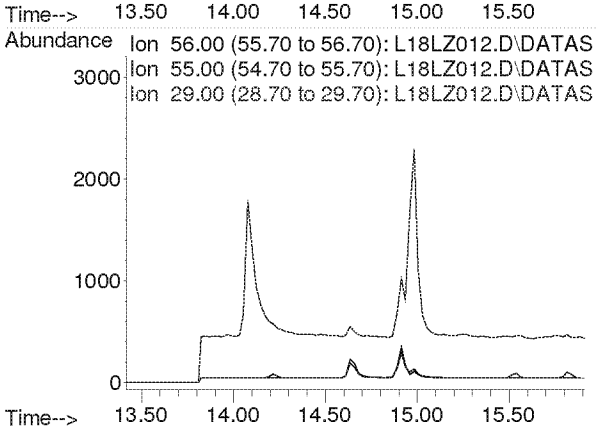


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

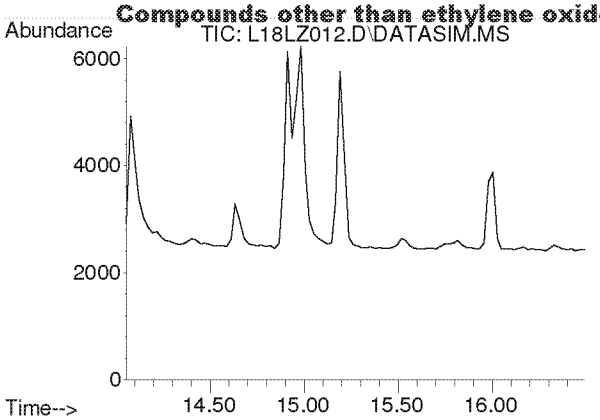
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

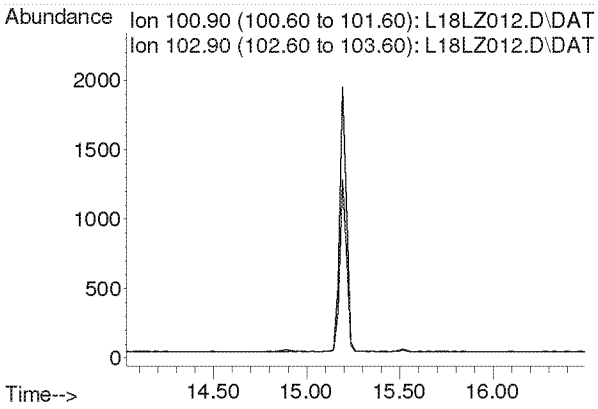


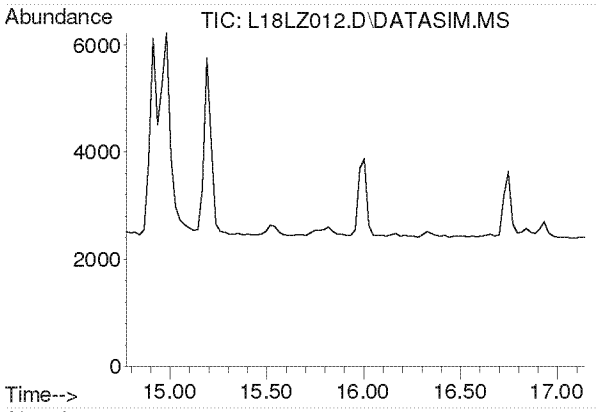
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



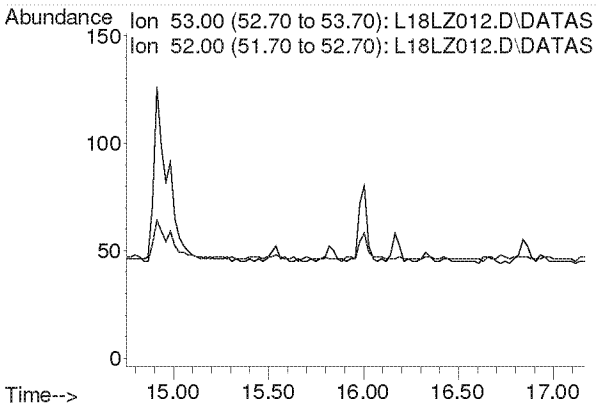


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

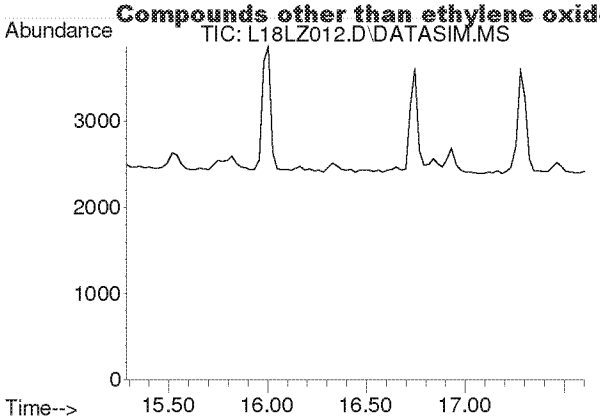
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

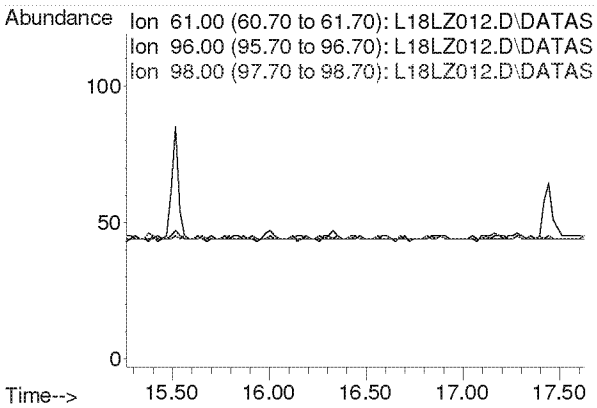


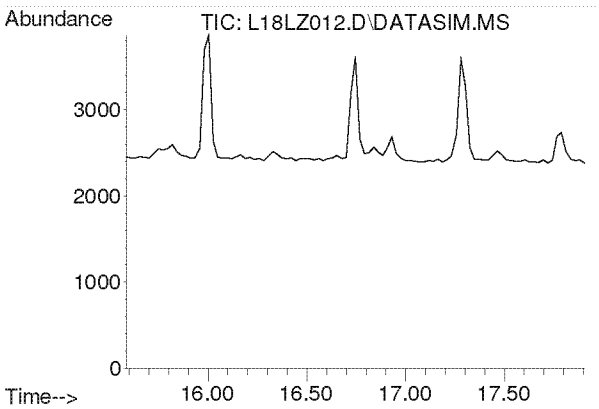
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



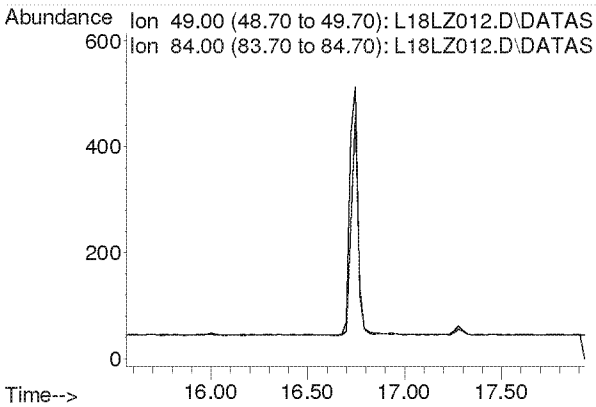


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

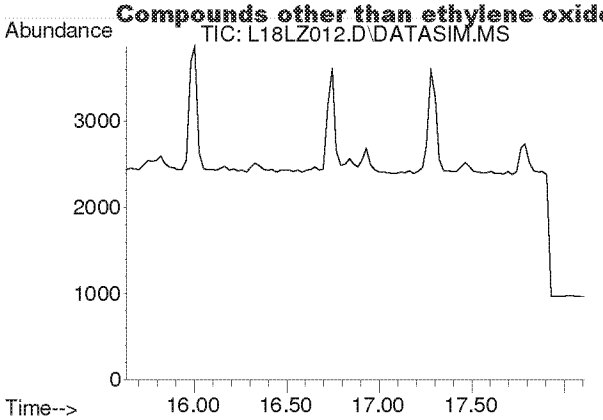
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

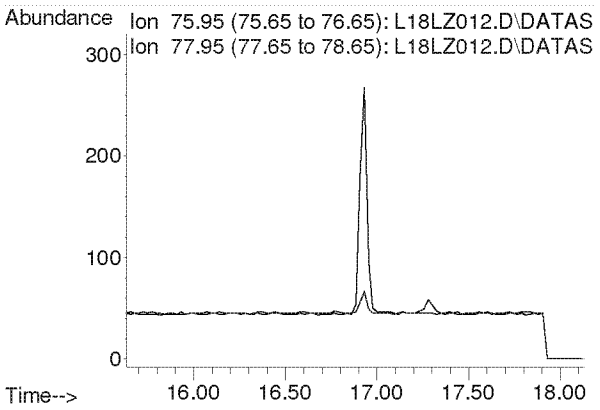


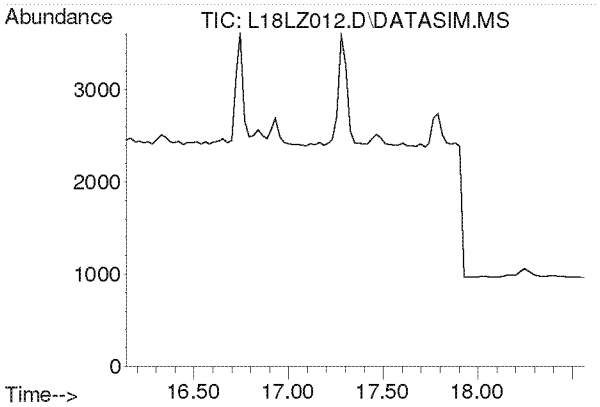
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



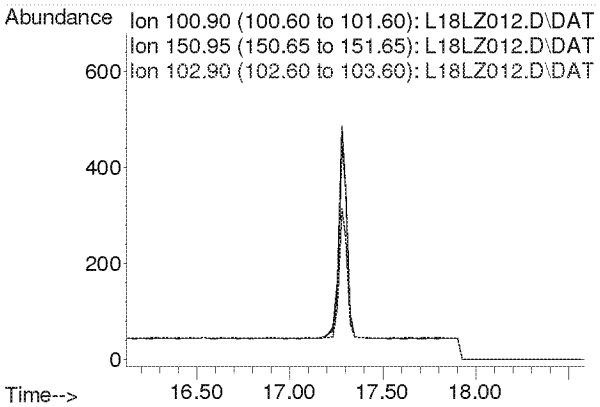


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

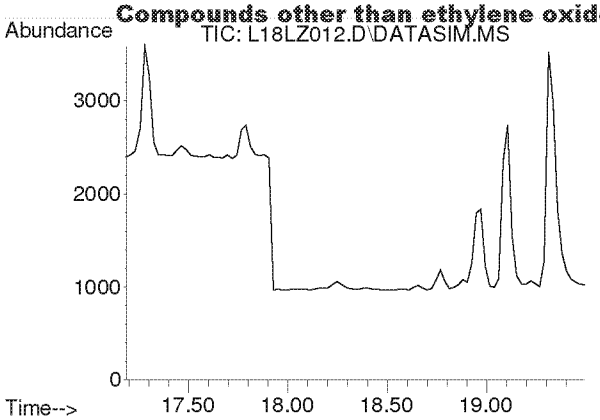
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

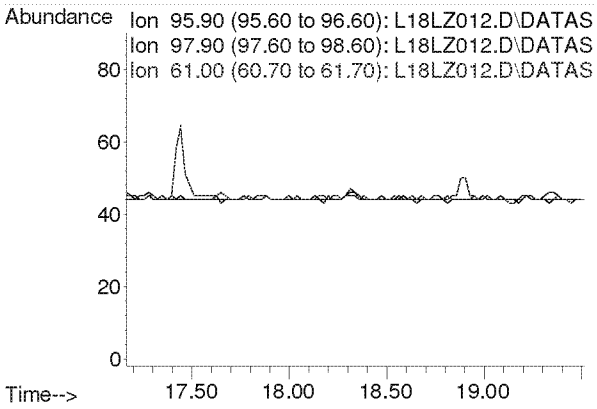


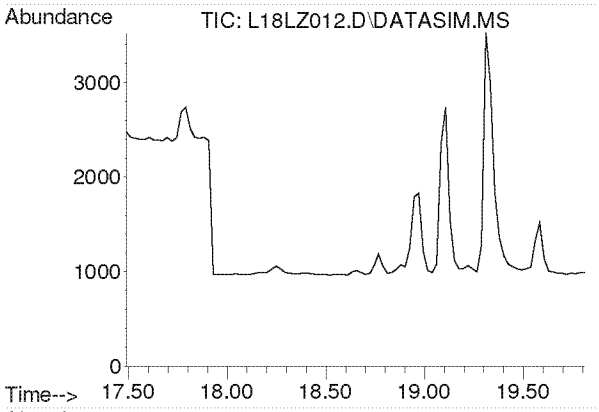
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



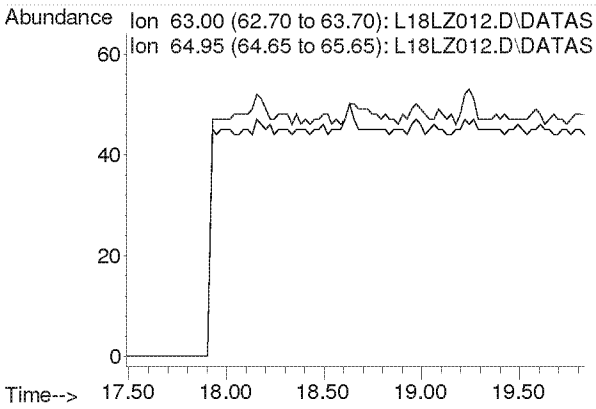


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

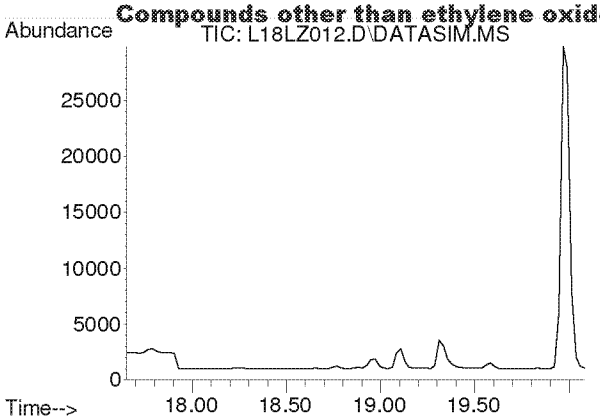
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

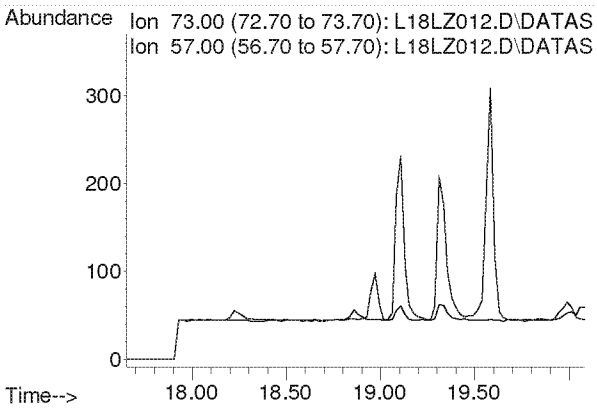


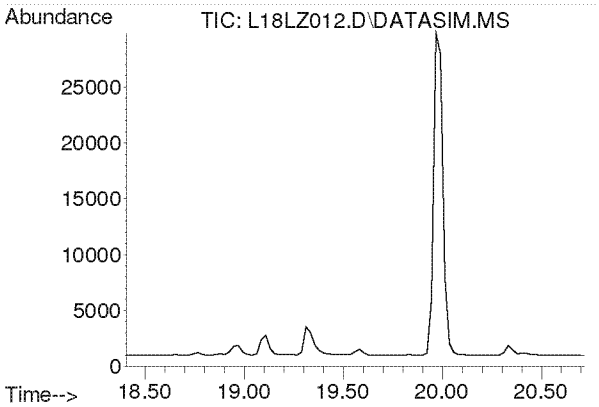
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



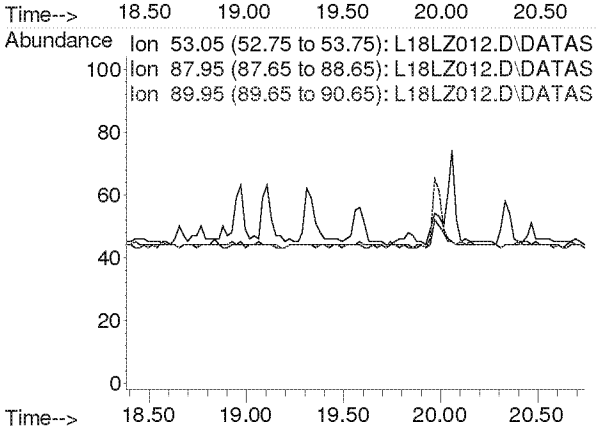


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

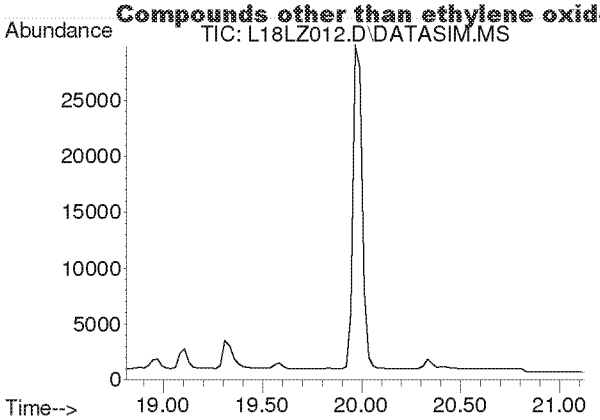
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

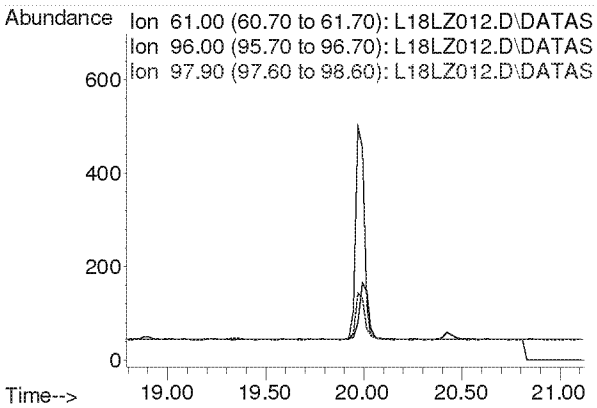


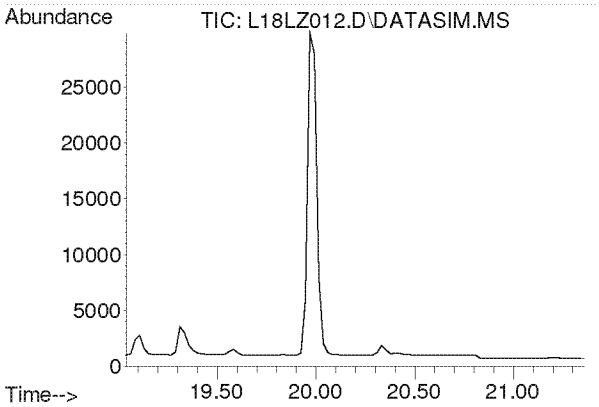
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



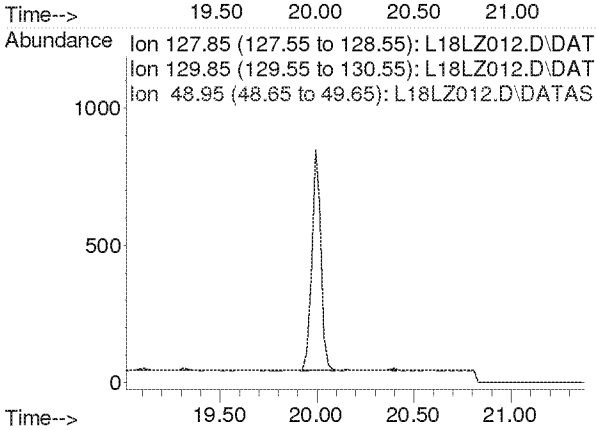


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

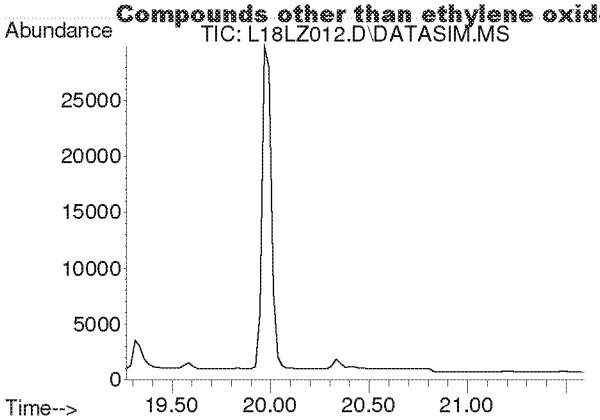
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

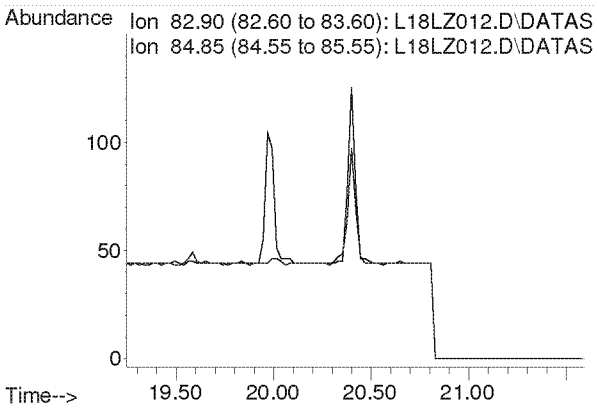


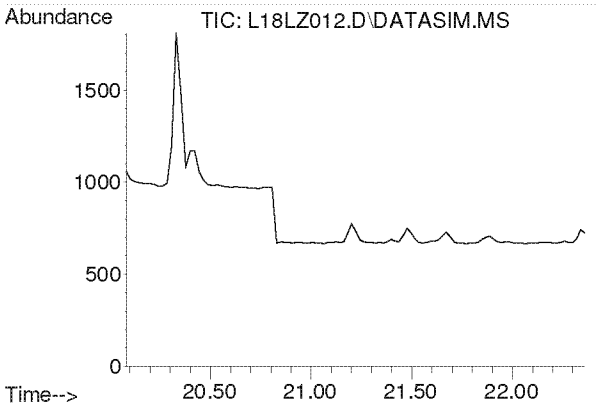
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



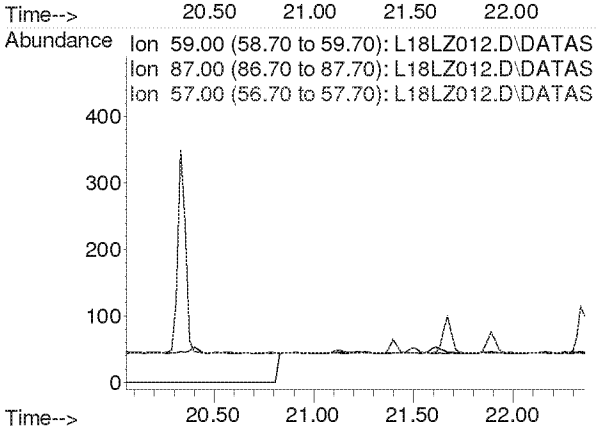


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

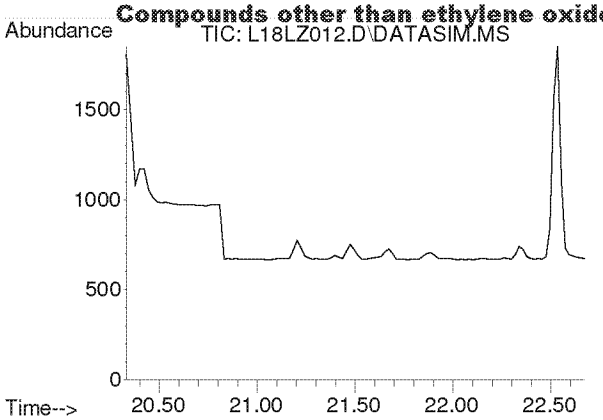
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

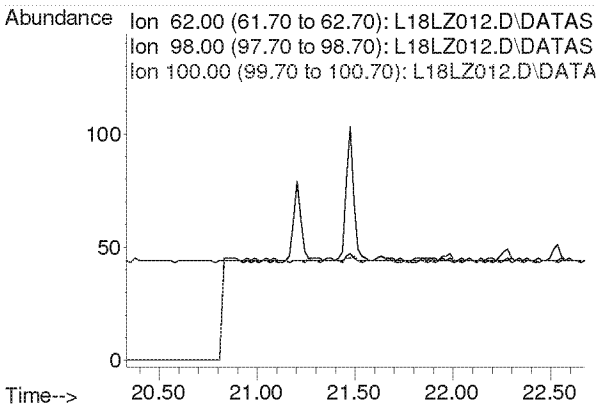


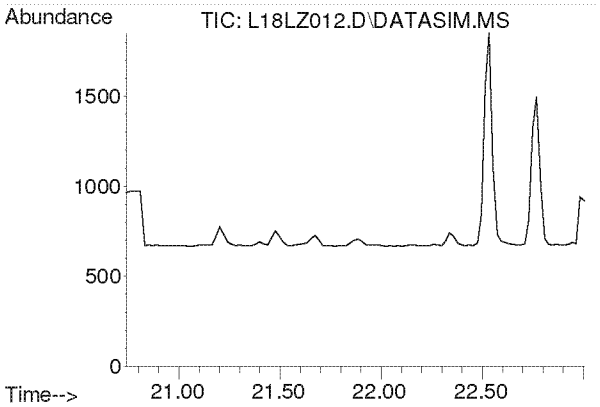
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



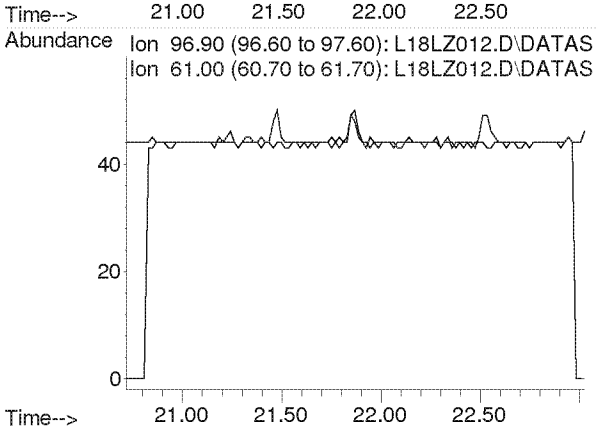


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

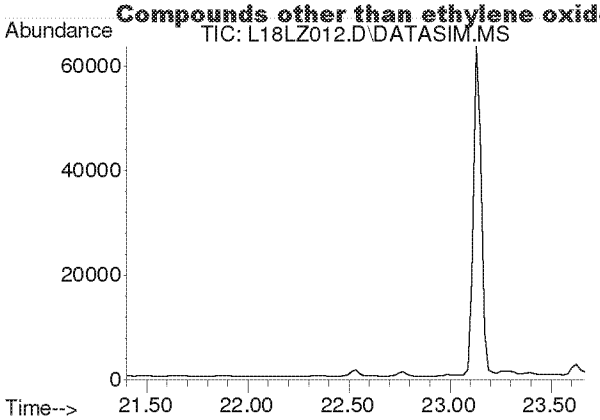
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

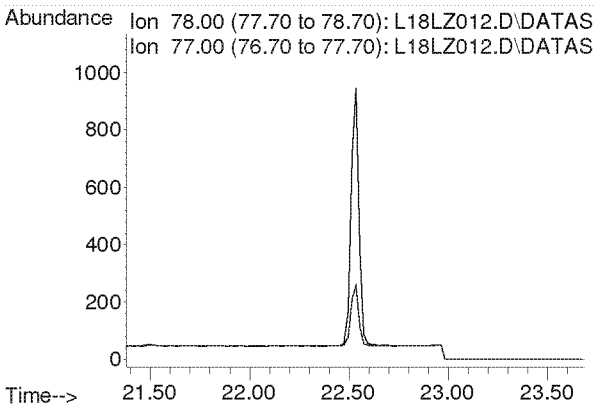


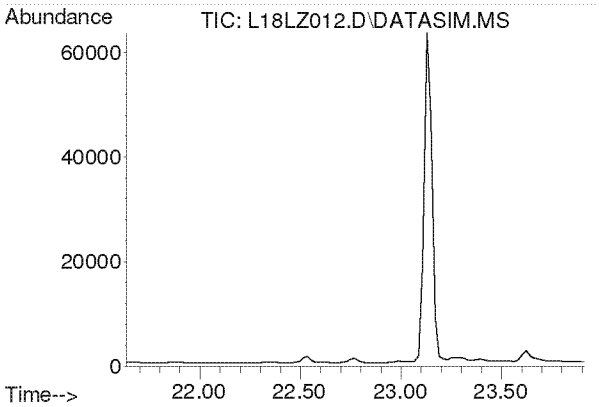
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



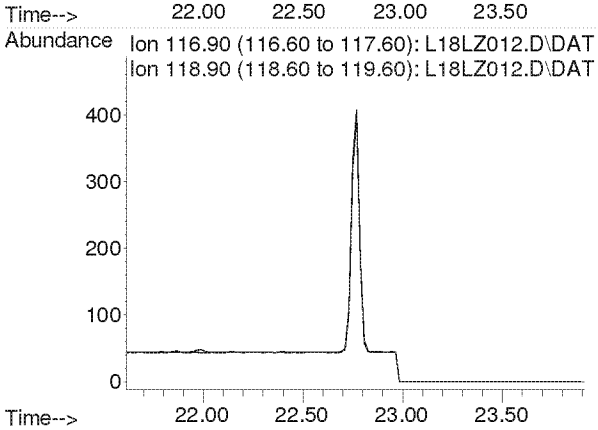


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

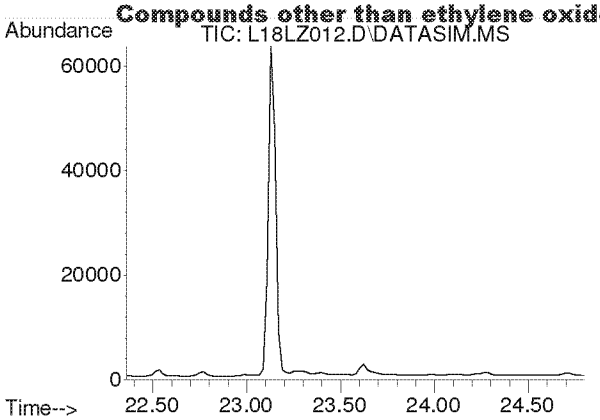
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

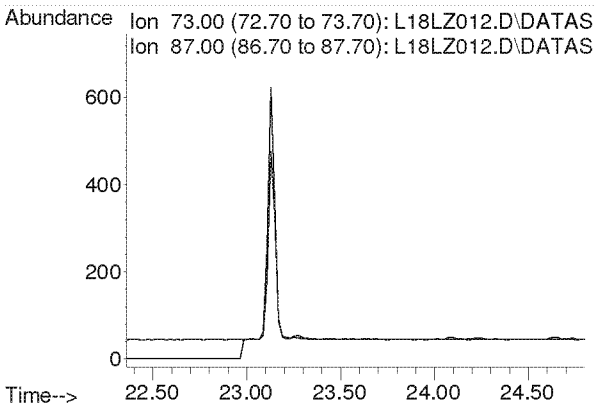


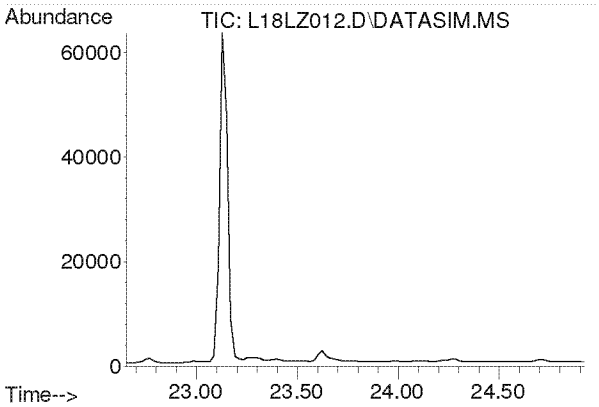
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



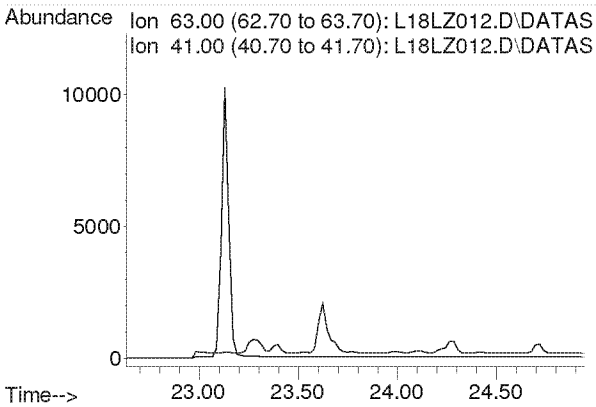


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

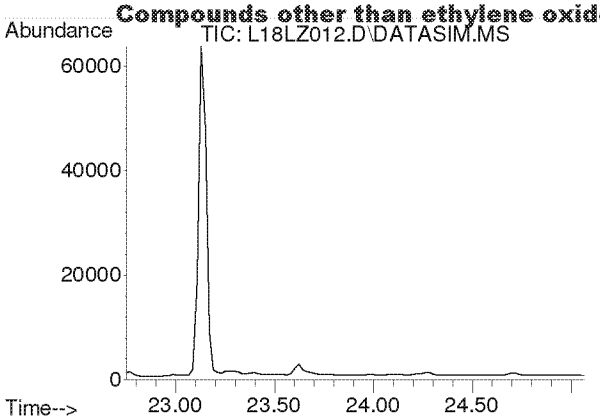
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

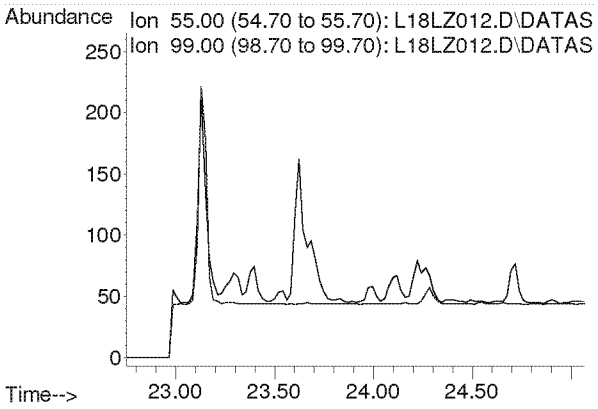


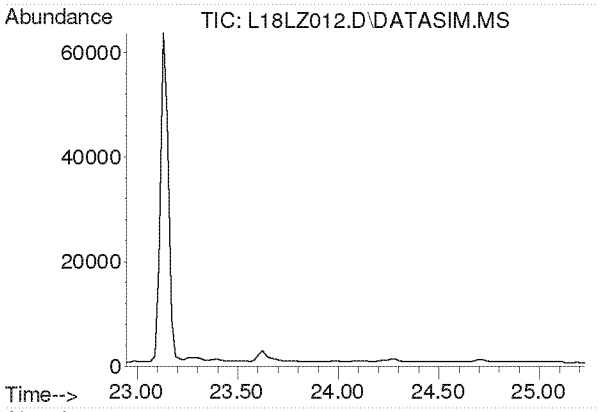
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



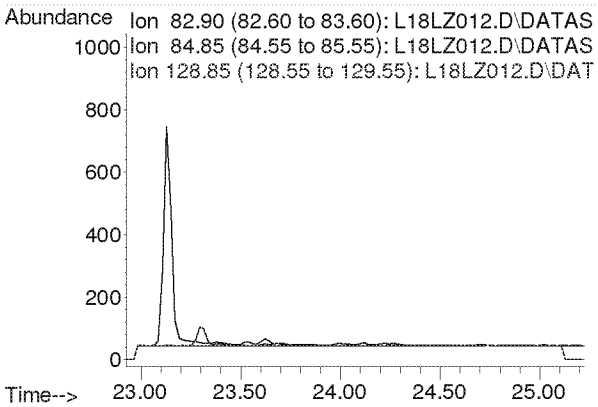


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

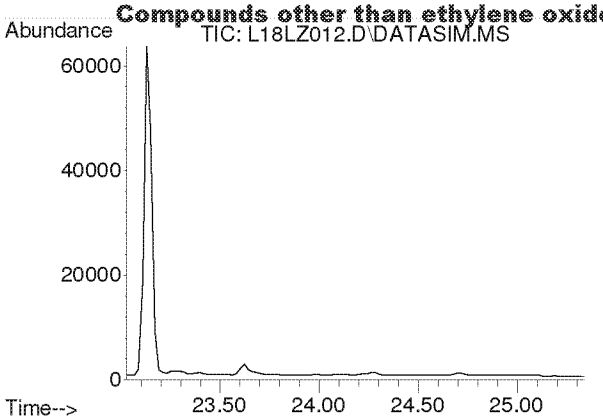
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

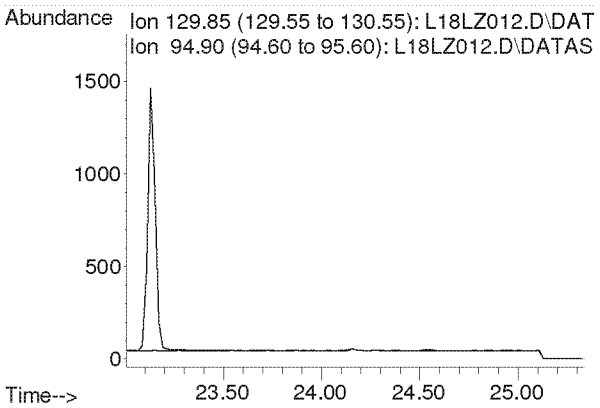


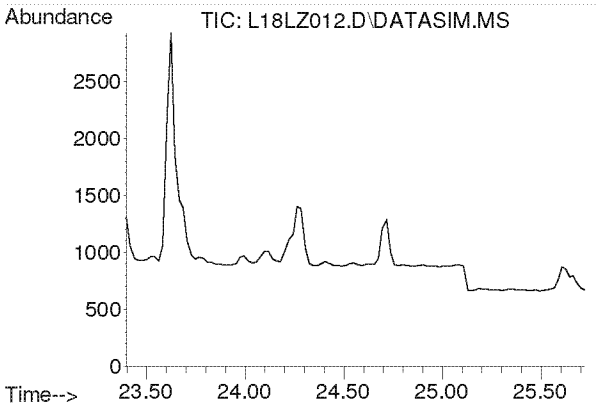
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



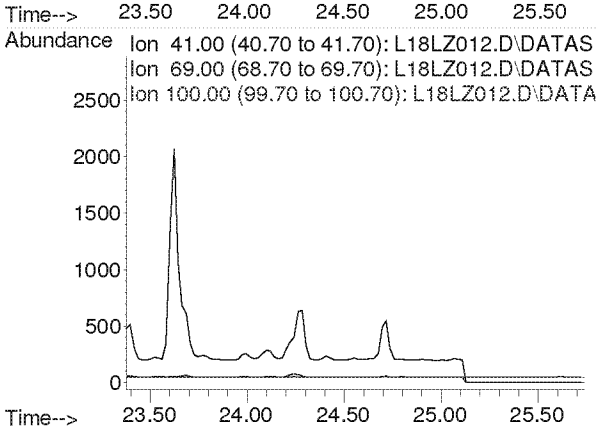


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

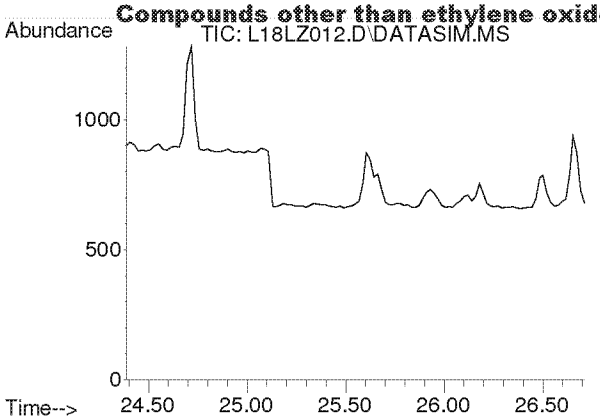
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

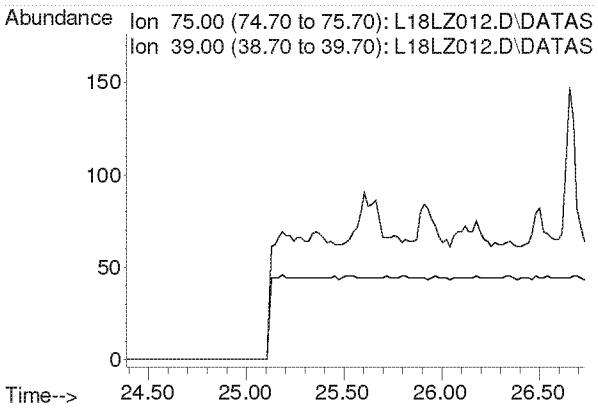


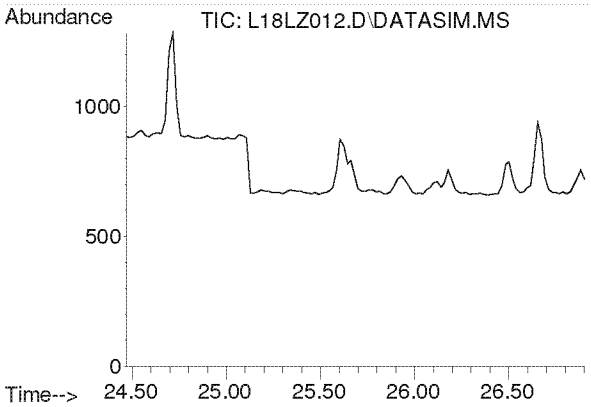
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



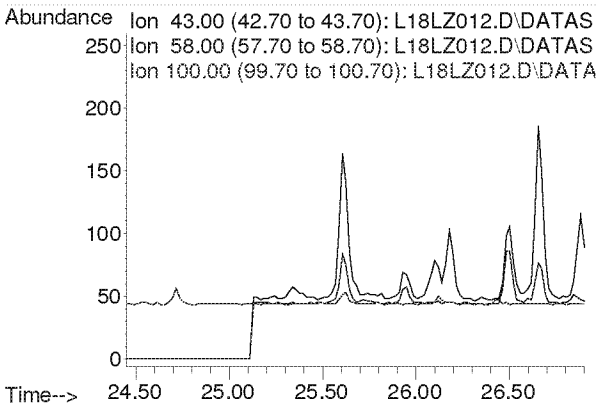


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

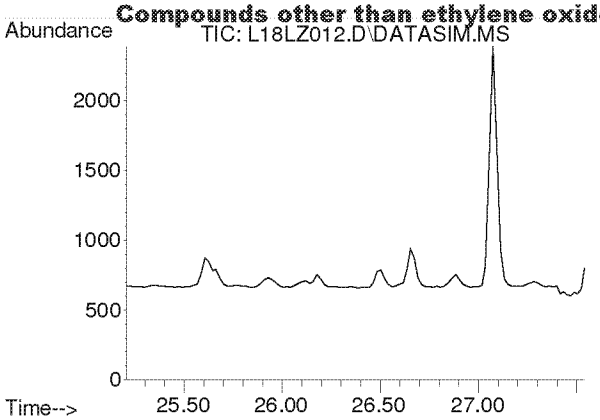
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

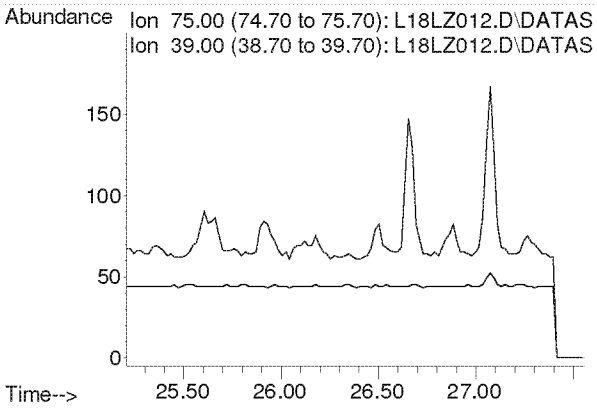


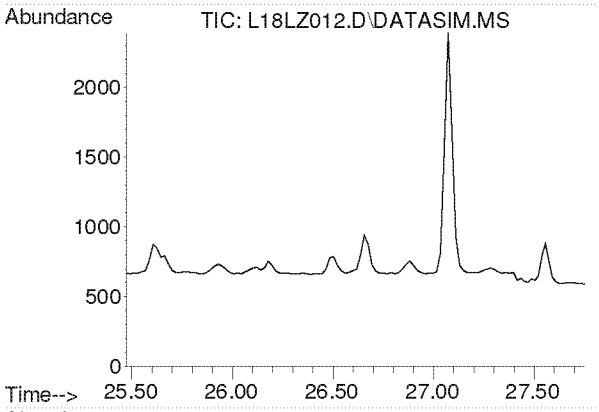
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



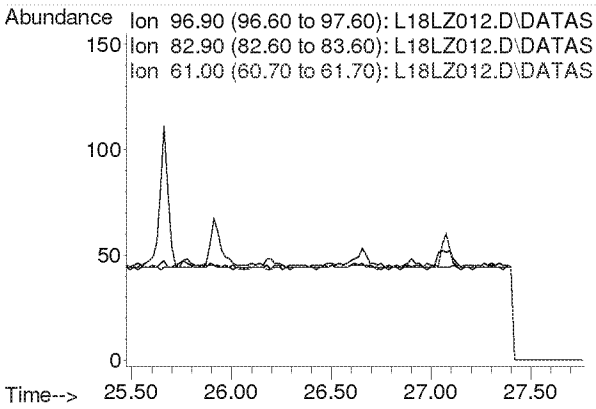


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

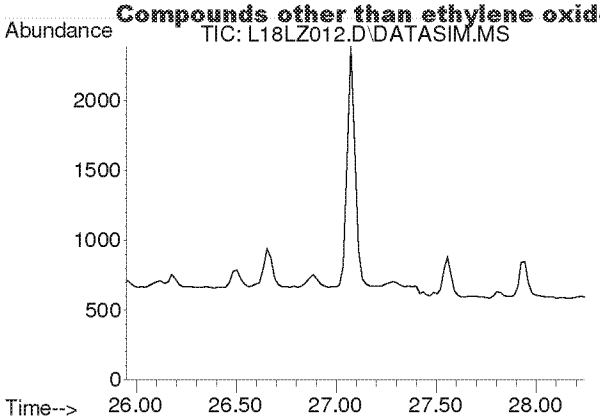
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

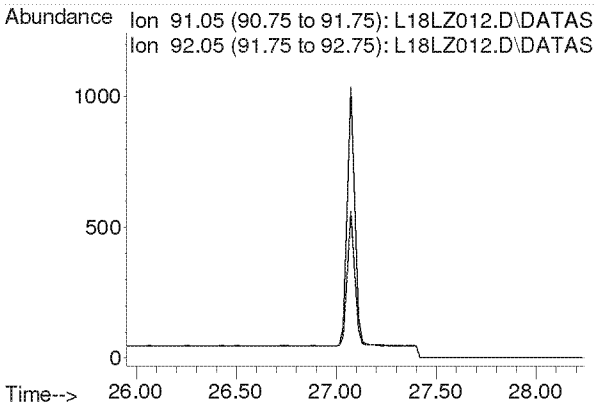


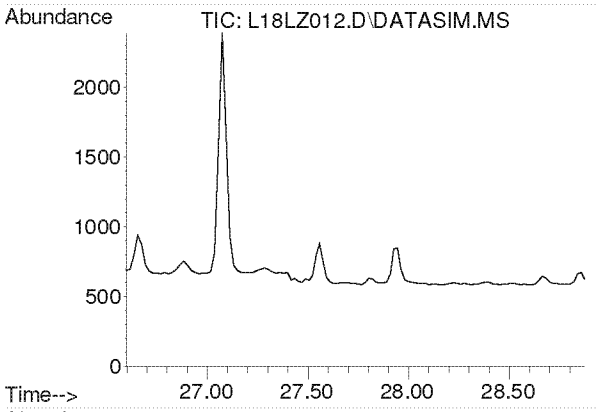
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



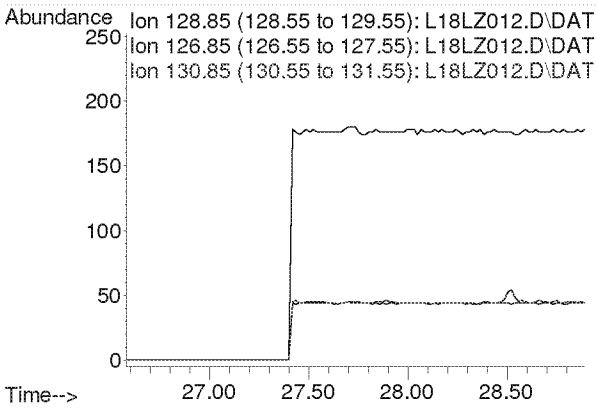


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

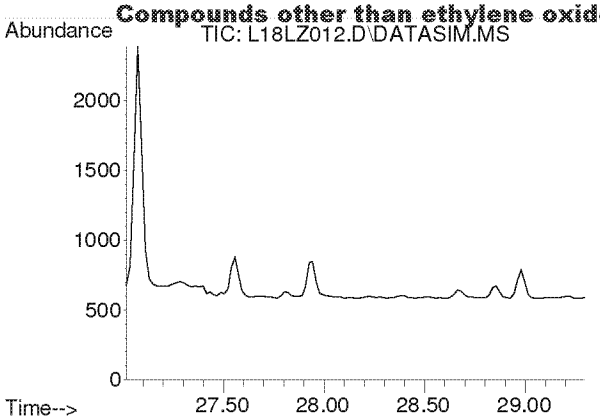
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

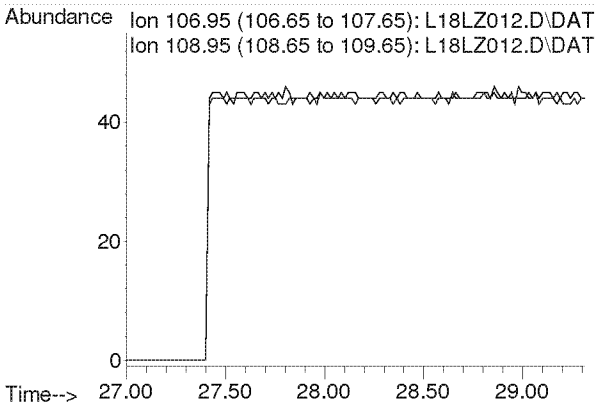


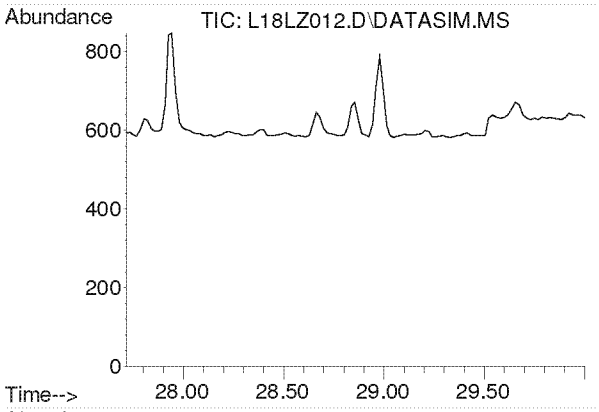
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



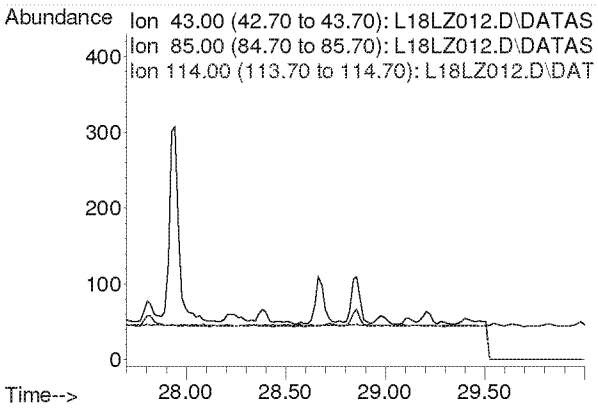


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

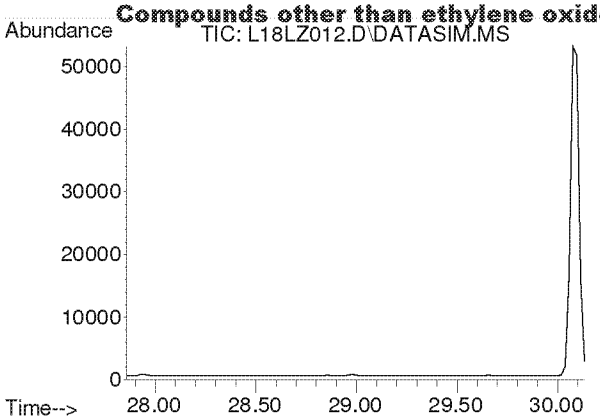
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

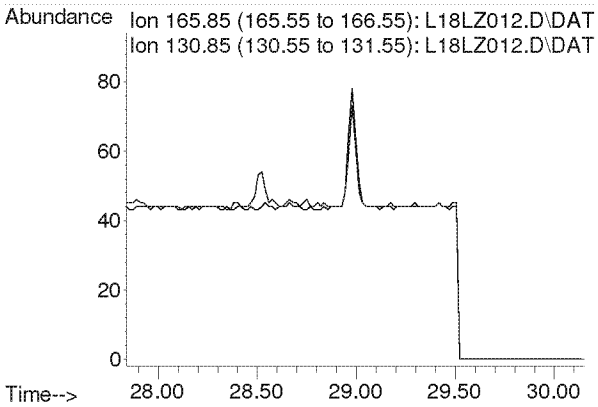


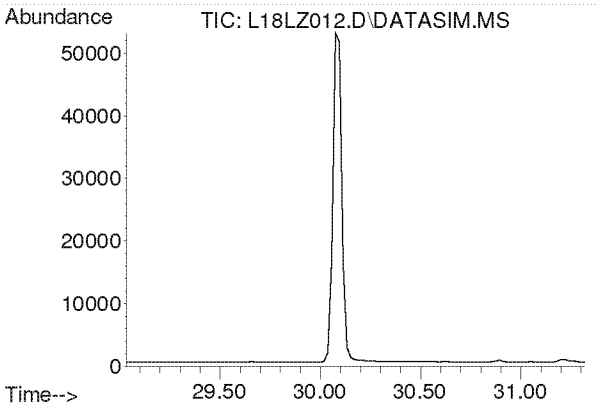
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



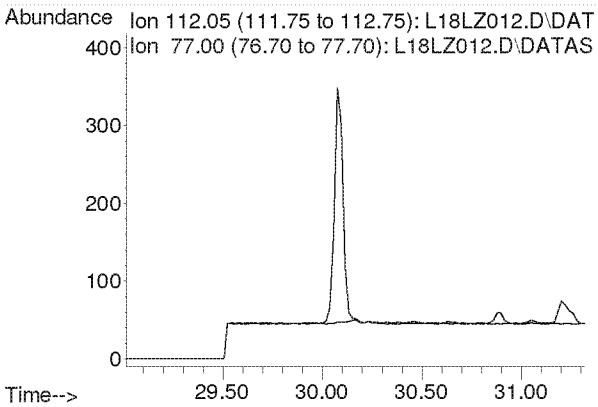


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

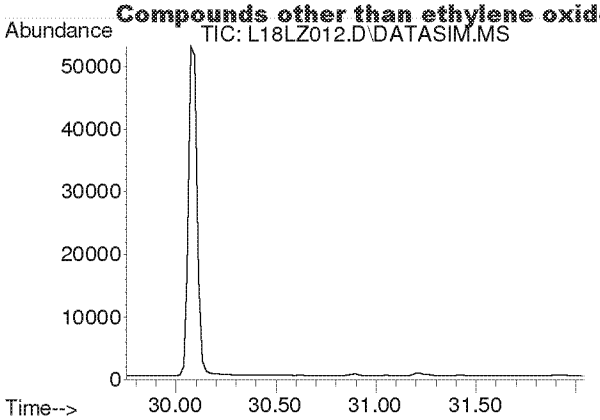
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

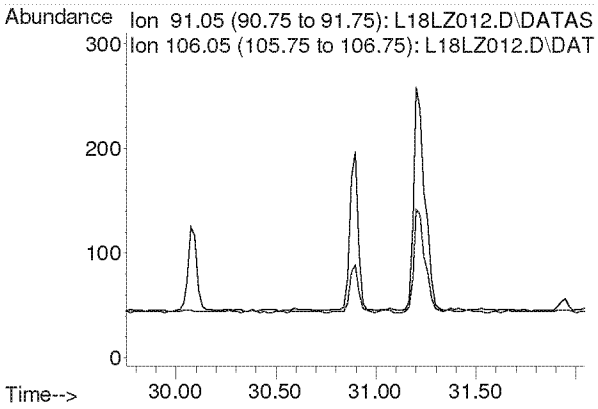


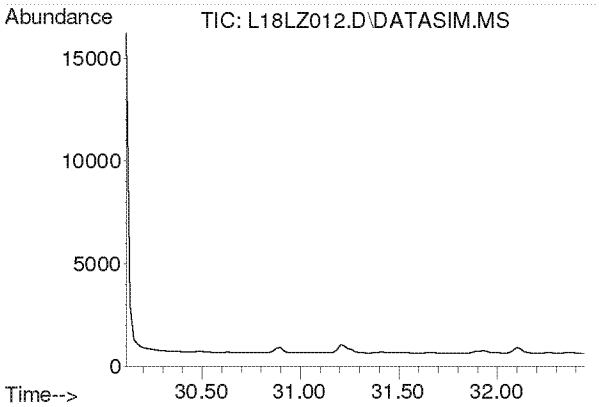
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



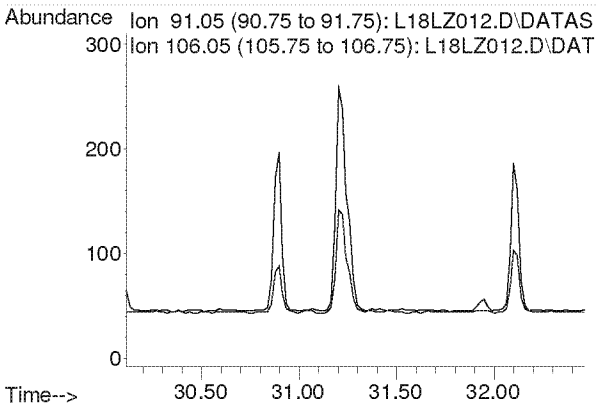


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

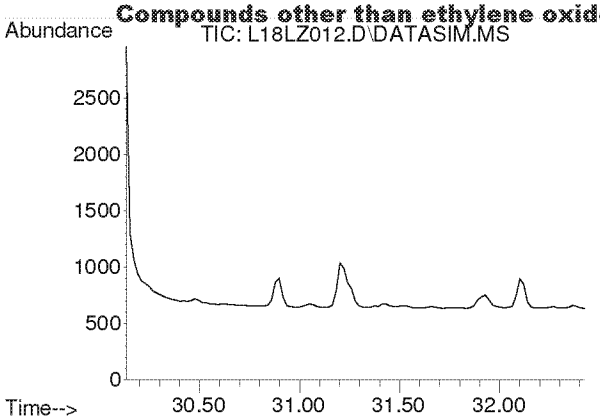
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

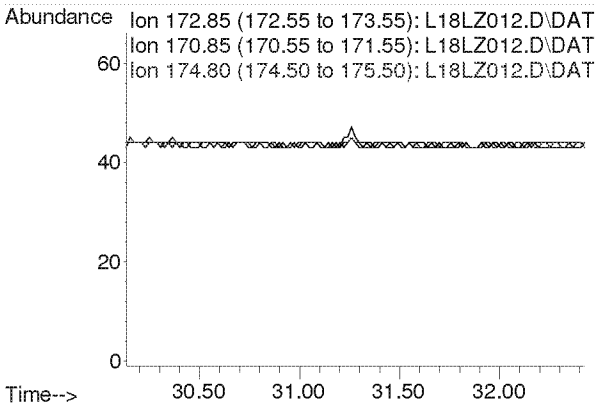


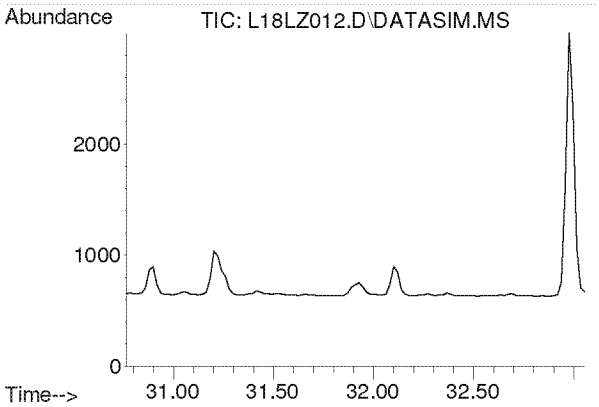
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



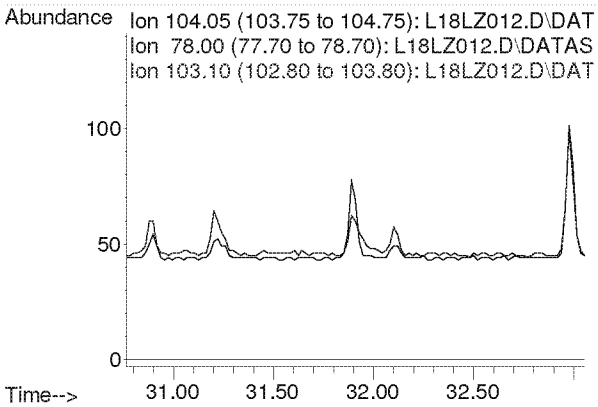


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

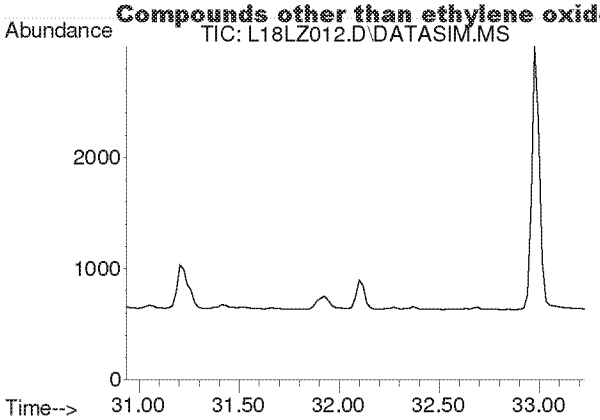
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

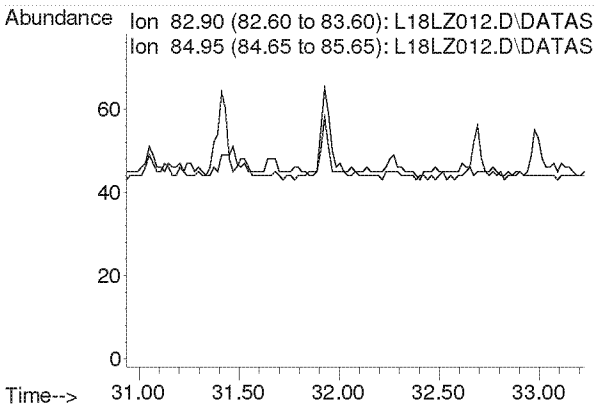


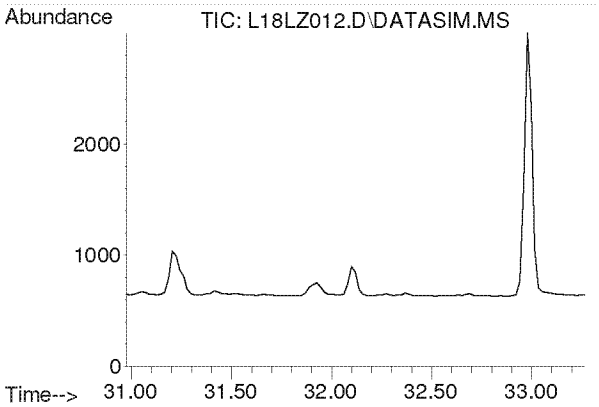
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



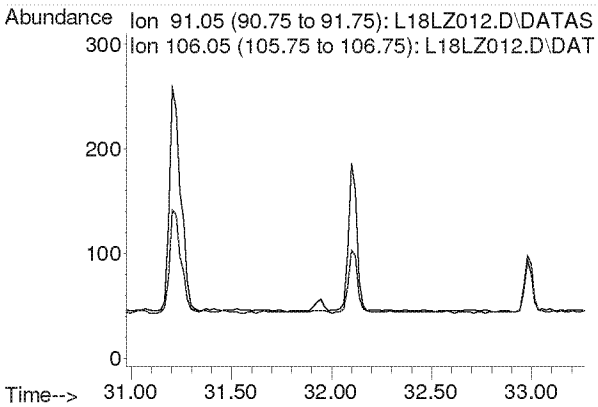


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

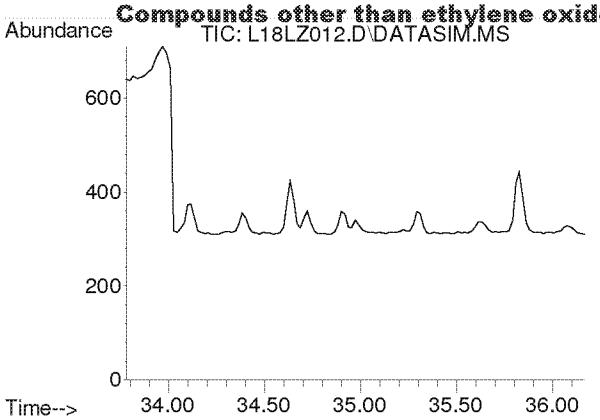
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

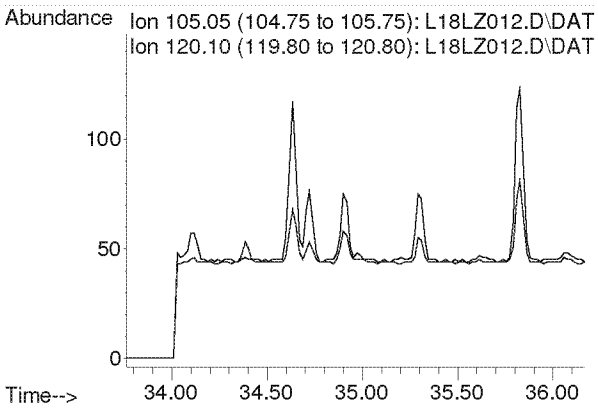


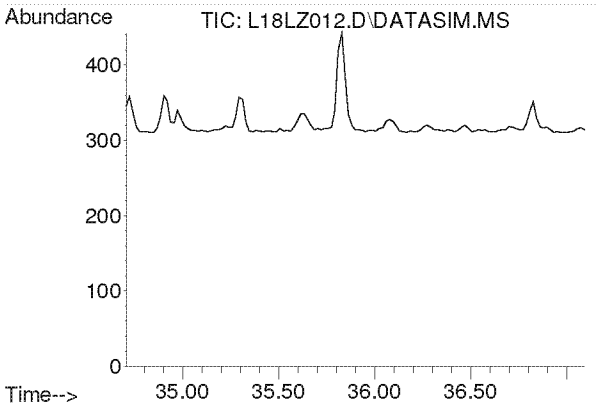
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



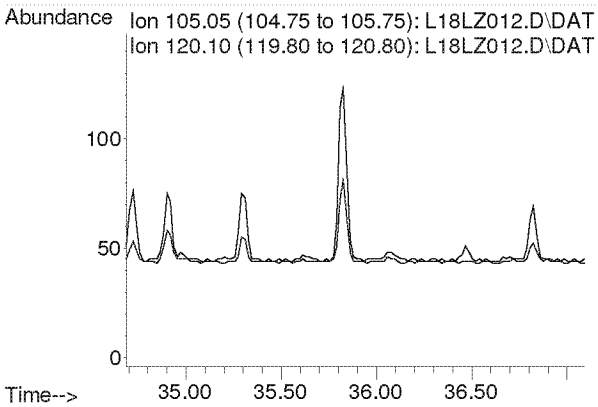


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

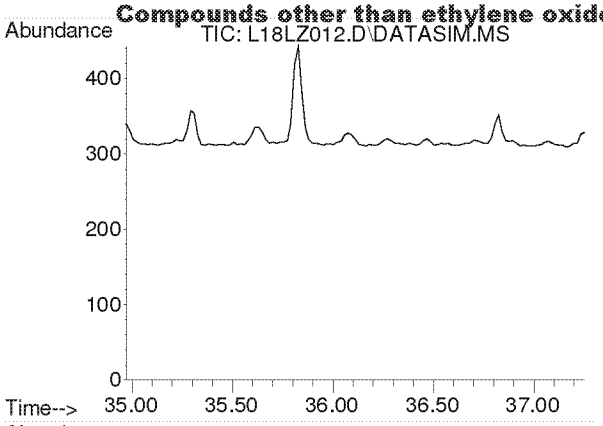
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

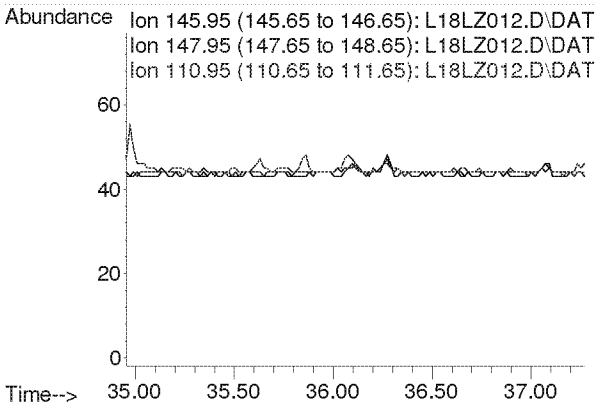


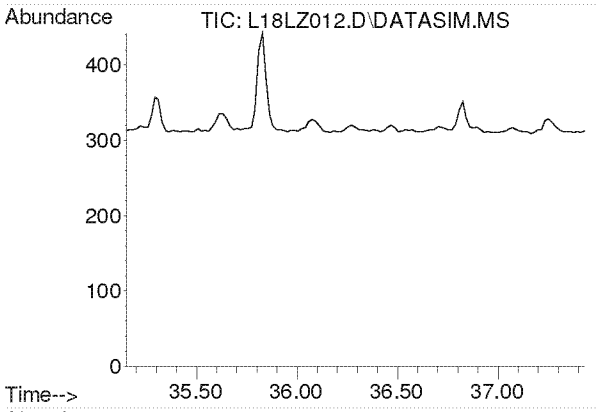
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



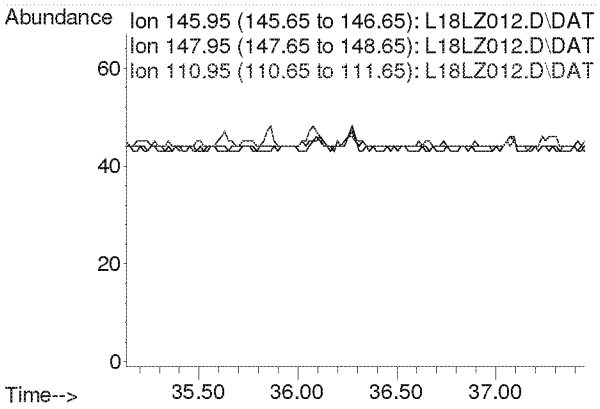


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

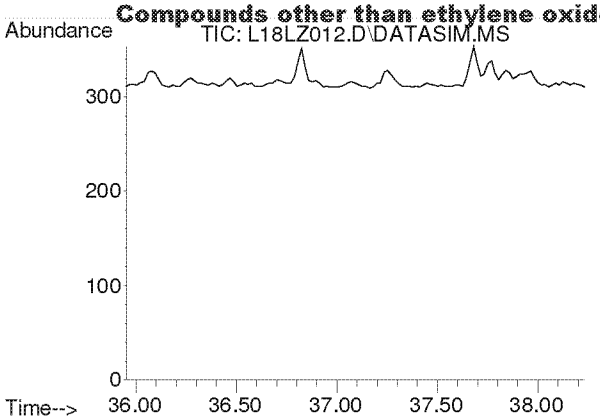
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

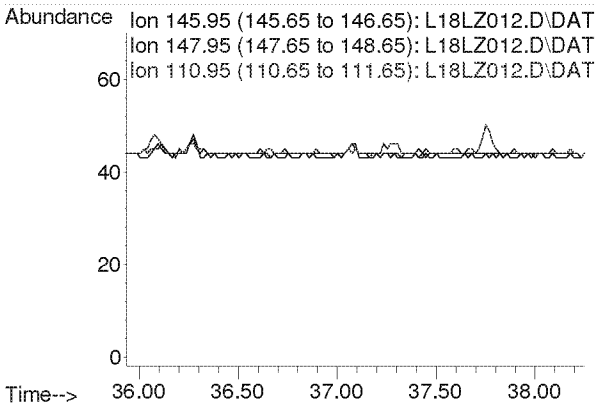


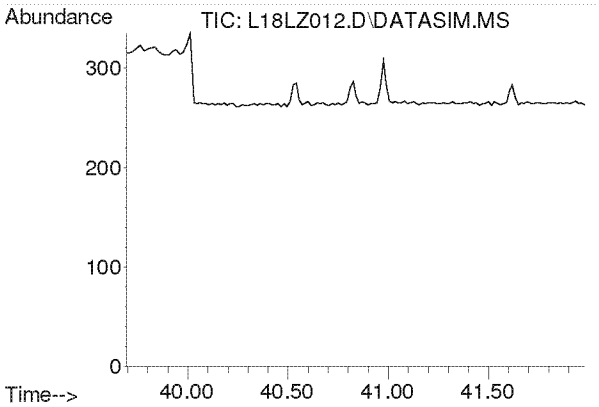
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



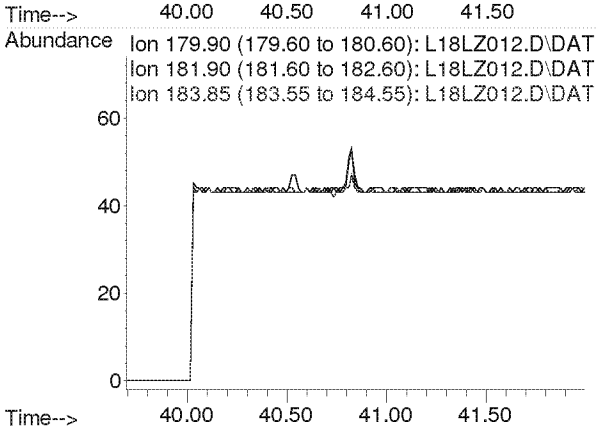


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

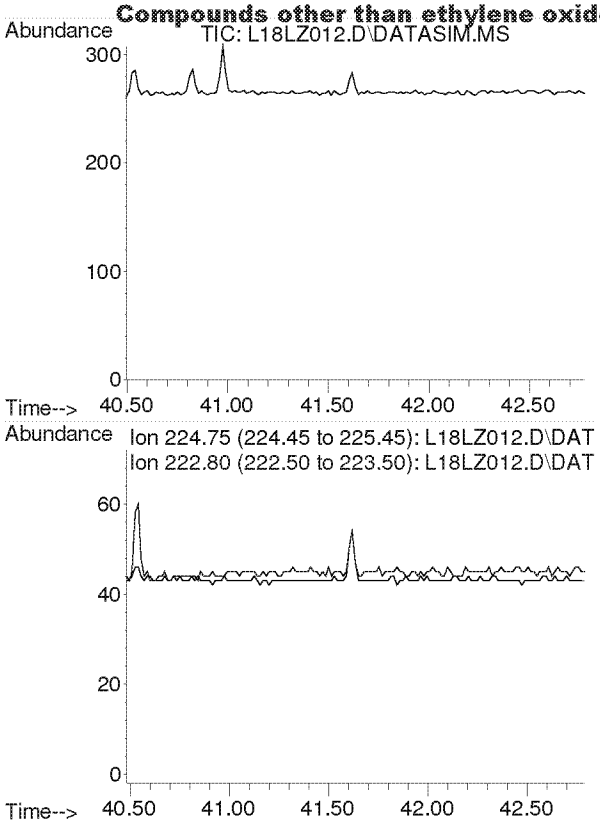
Lab File: L18LZ012.D
Acq: 26 Dec 2018 10:42 pm

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: L18LZ012.D
Acq: 26 Dec 2018 10:42 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\L18LZ\
Data File : L18LZ013.D
Acq On : 26 Dec 2018 11:45 pm
Operator : MAH
Sample : 8121220-07
Misc : GOWER MS 12/11/18
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 03 11:14:40 2019
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

A-NR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	58417	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	139066	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.078	117	97161	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	12.366	29	~~74~~	~~0.0212~~ ppbv #	14
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.	
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.	
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.	
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	

Peak shape/ not a real peak

RMB 1/7/19

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L18LZ\
Data File : L18LZ013.D
Acq On : 26 Dec 2018 11:45 pm
Operator : MAH
Sample : 8121220-07
Misc : GOWER MS 12/11/18
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 03 11:14:40 2019
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

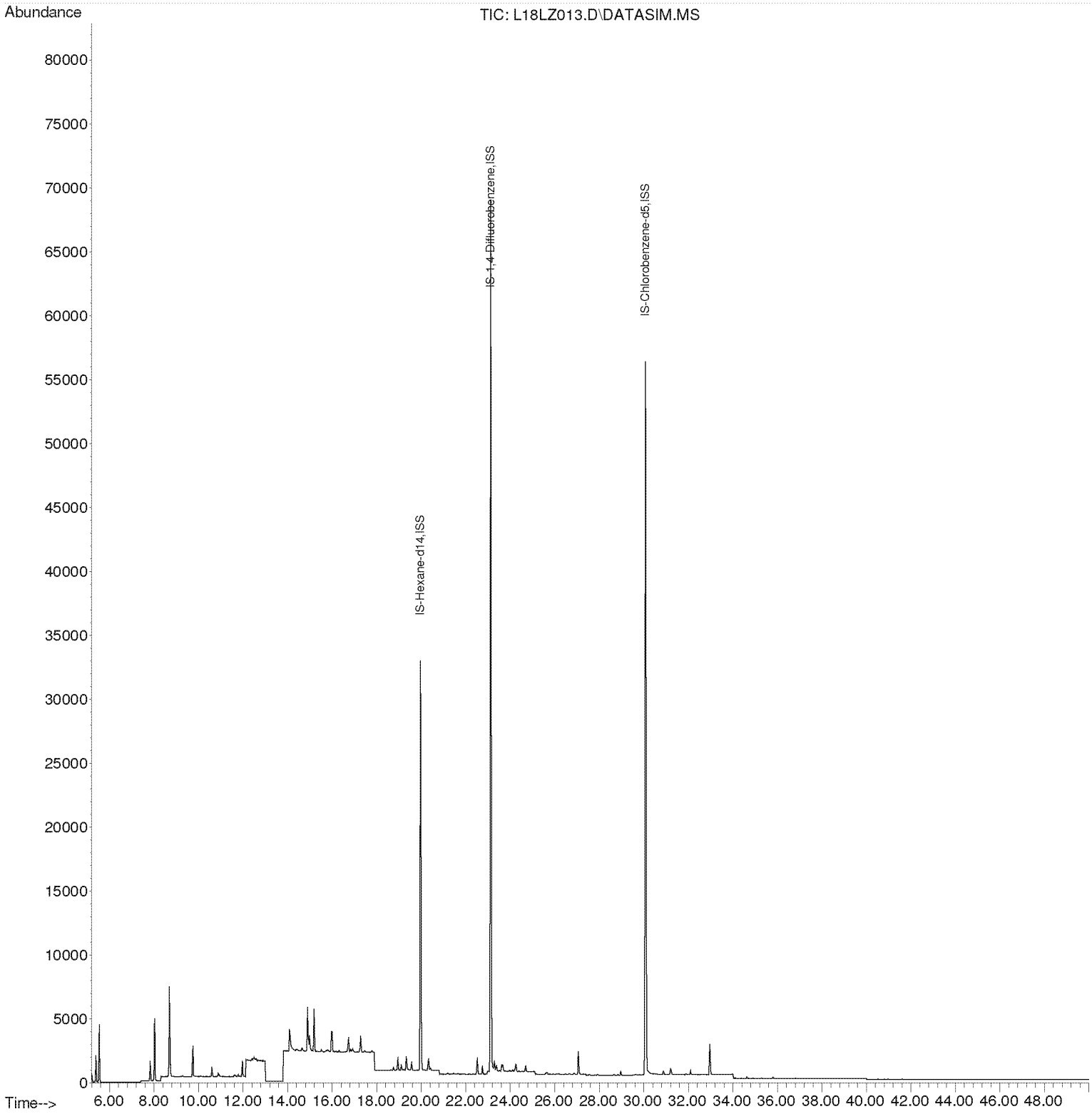
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene	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

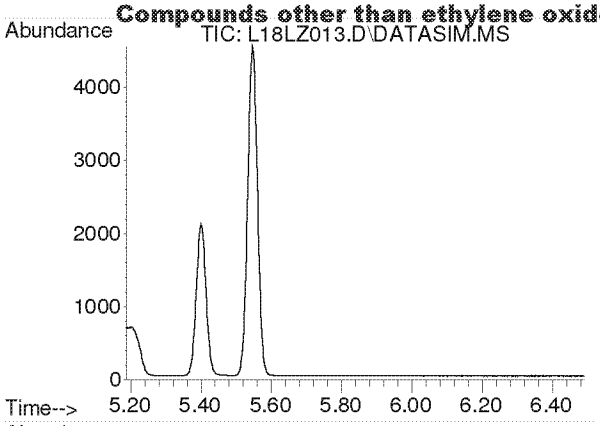
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ013.D
Acq On : 26 Dec 2018 11:45 pm
Operator : MAH
Sample : 8121220-07
Misc : GOWER MS 12/11/18
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 03 10:30:54 2019
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



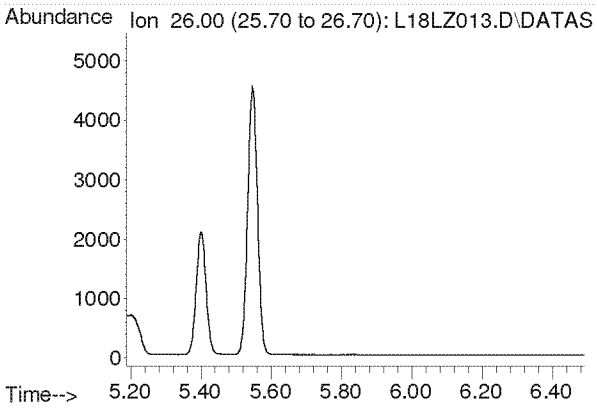
Compounds other than ethylene oxide were not quantitated.

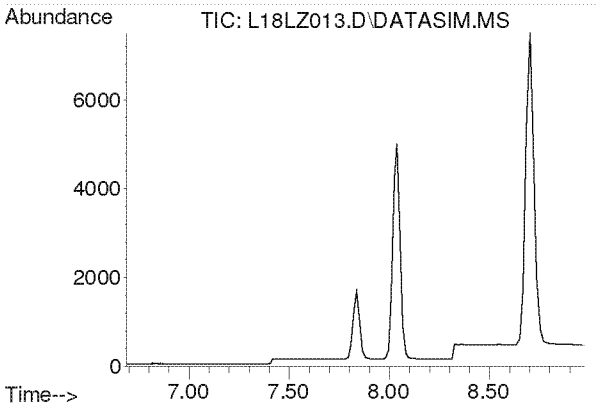


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 26



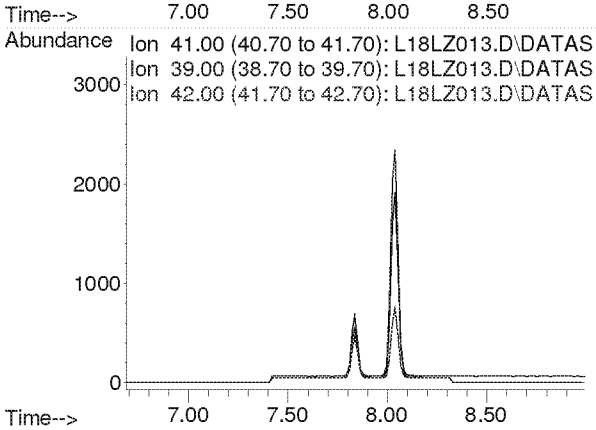


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

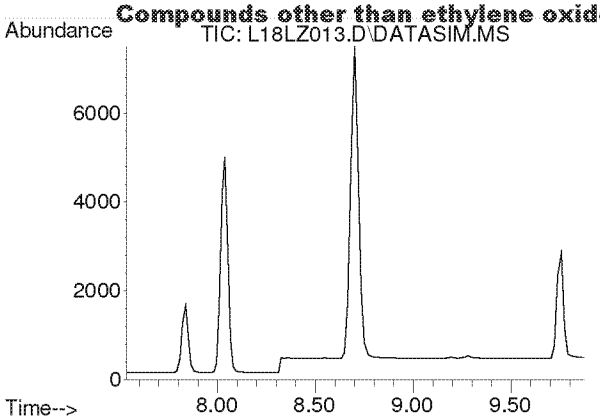
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

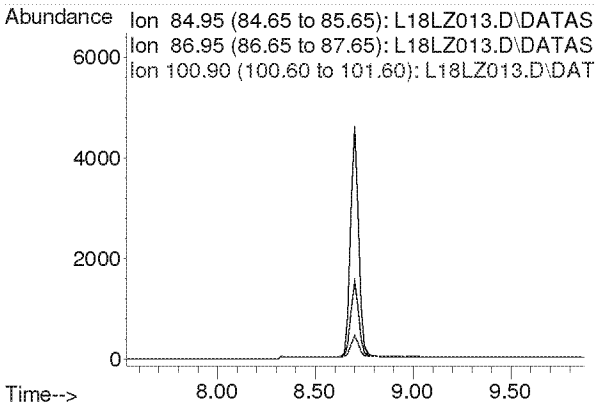


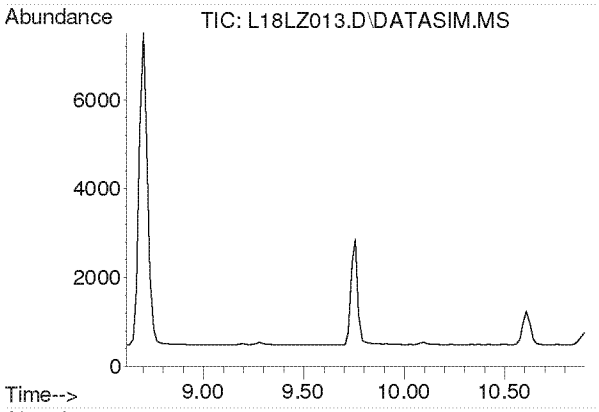
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



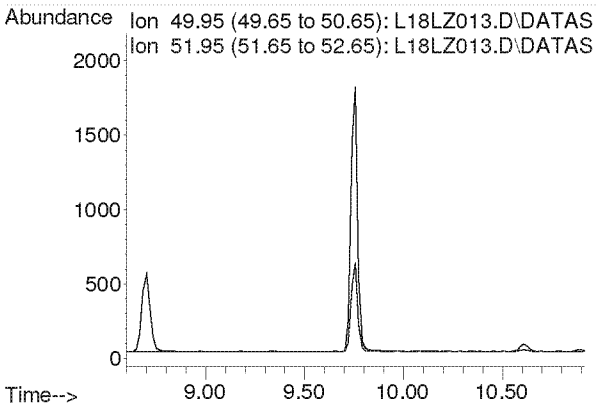


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

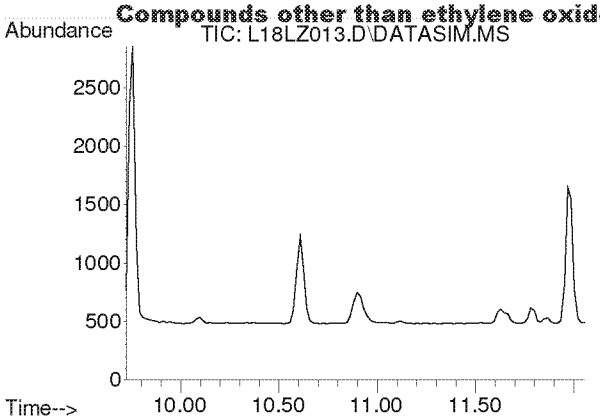
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

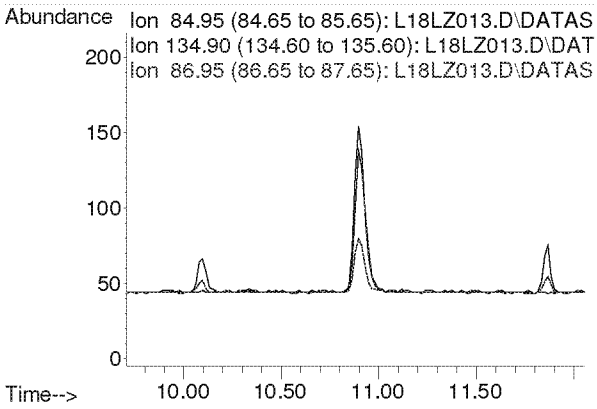


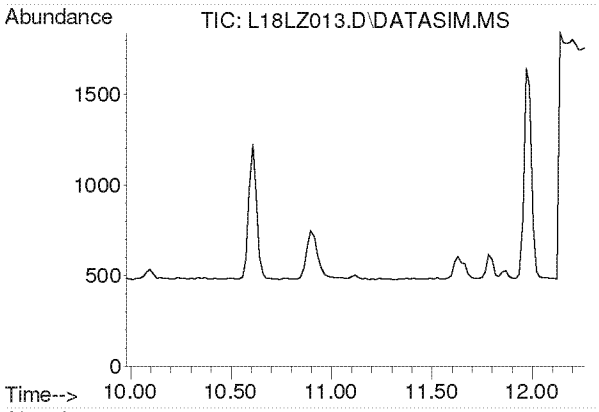
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



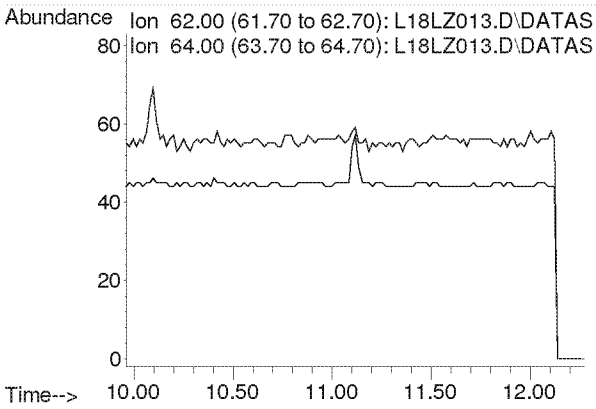


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

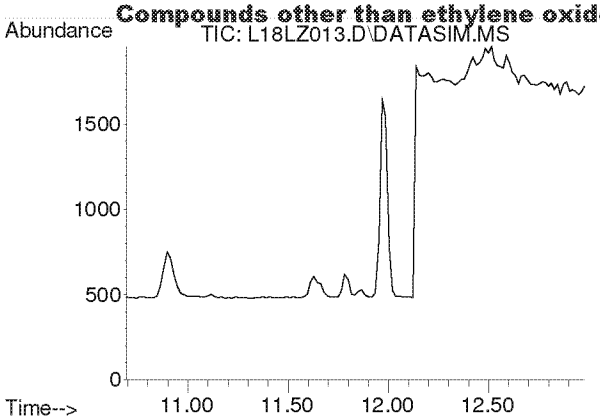
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

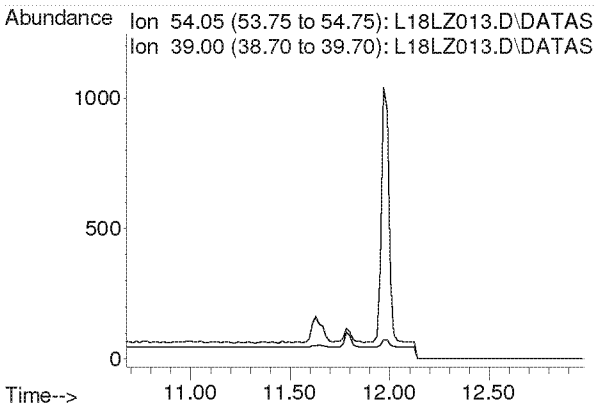


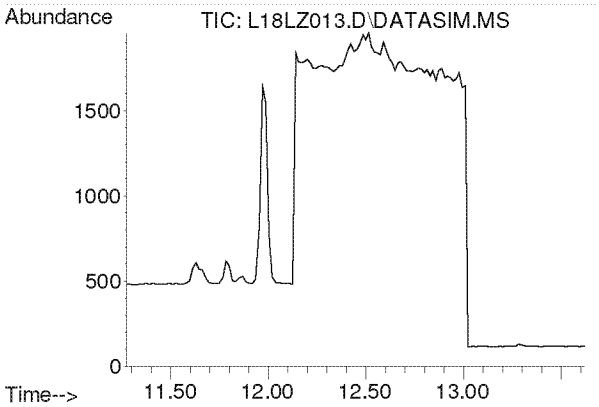
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4



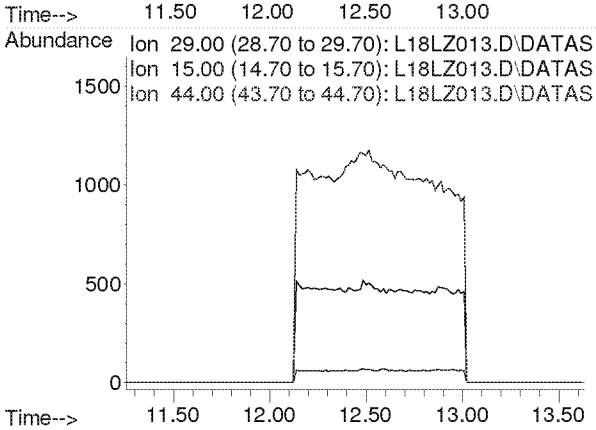


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

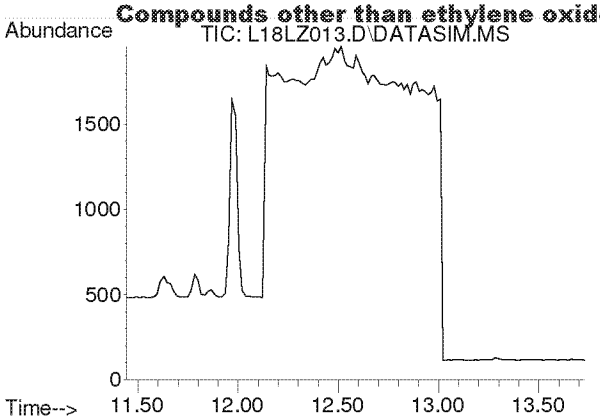
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.3
44	90.0



Compounds other than ethylene oxide were not quantitated.

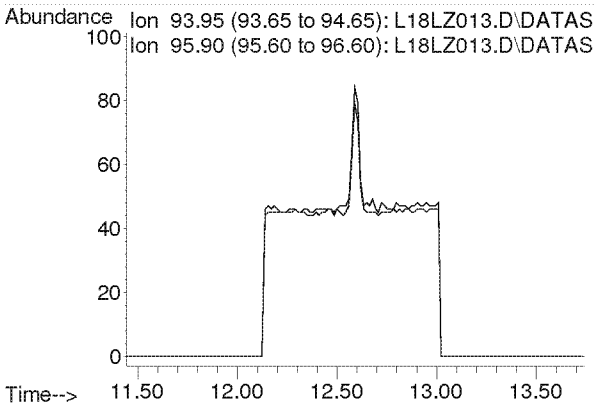


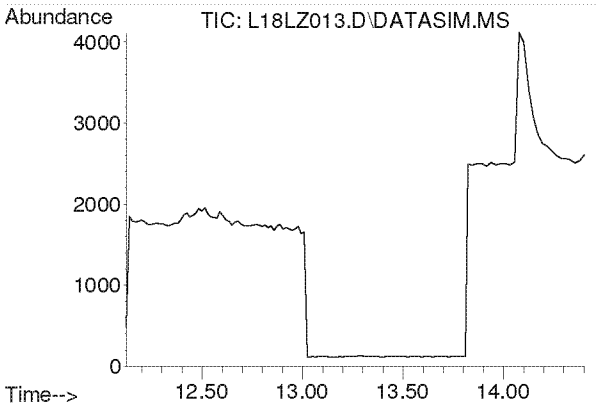
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



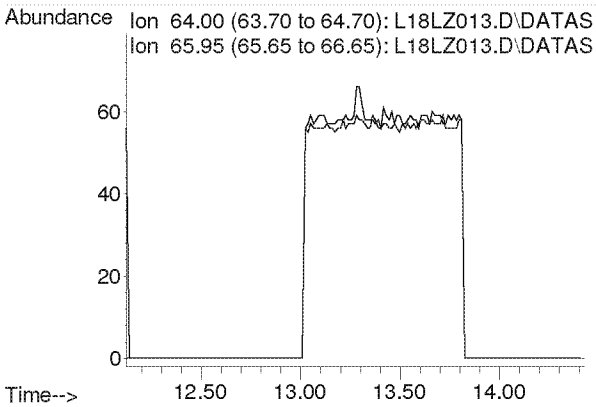


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

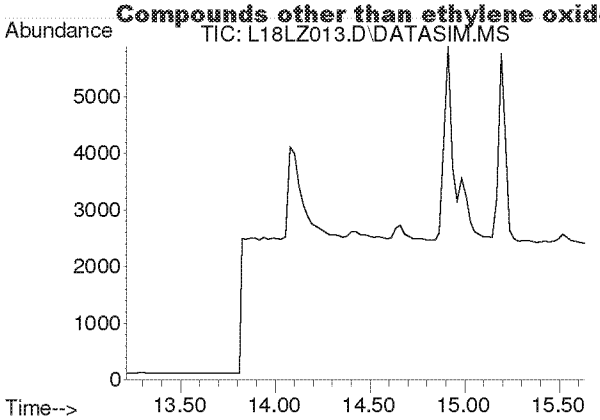
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

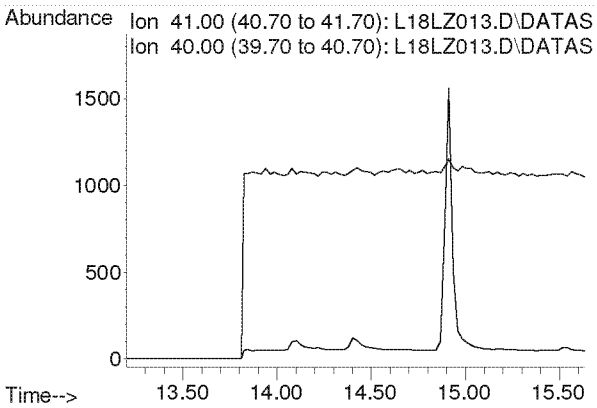


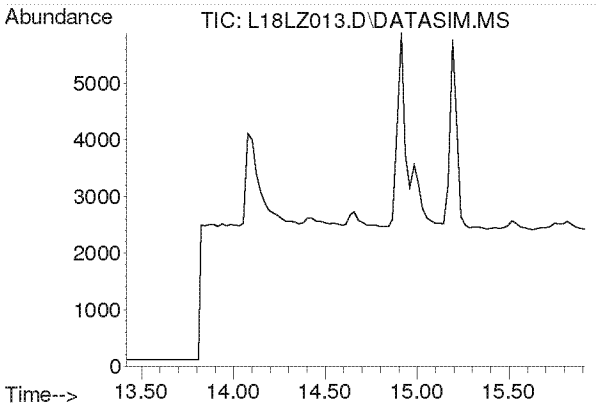
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



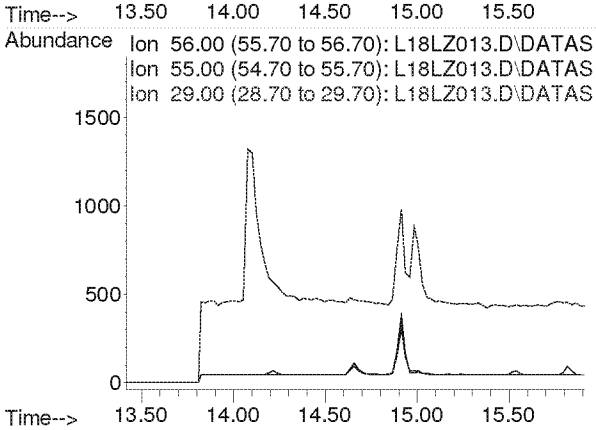


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

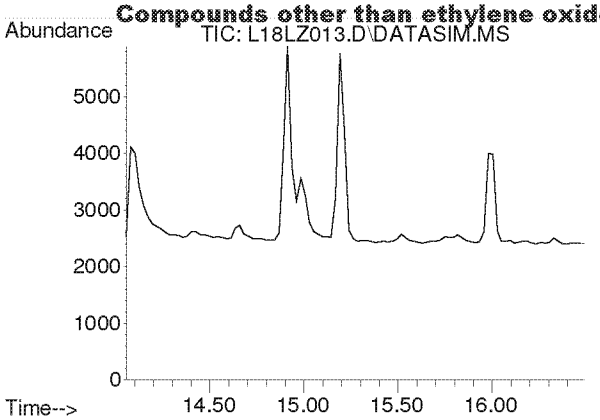
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

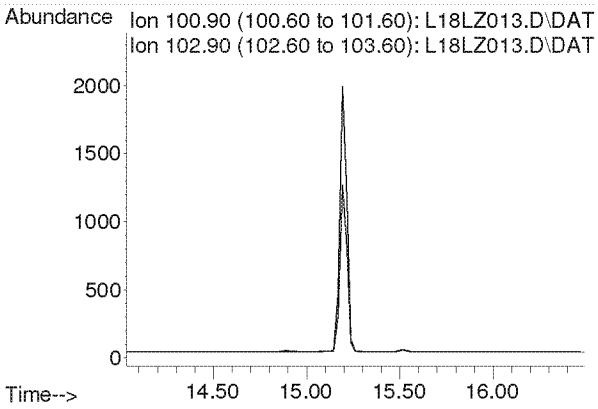


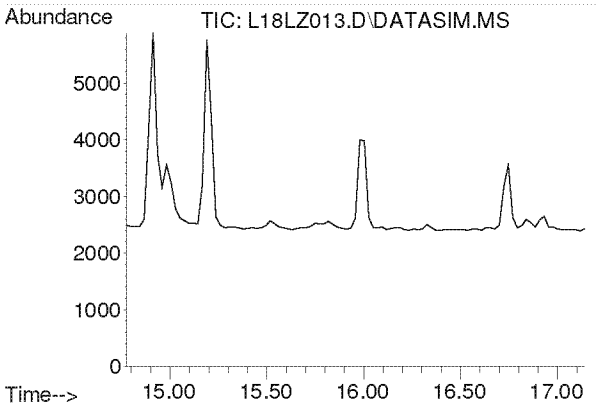
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



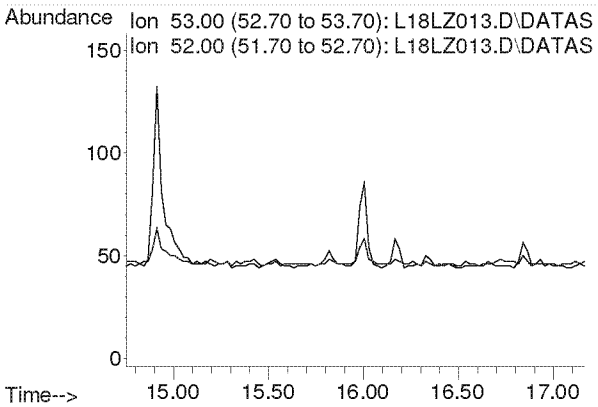


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

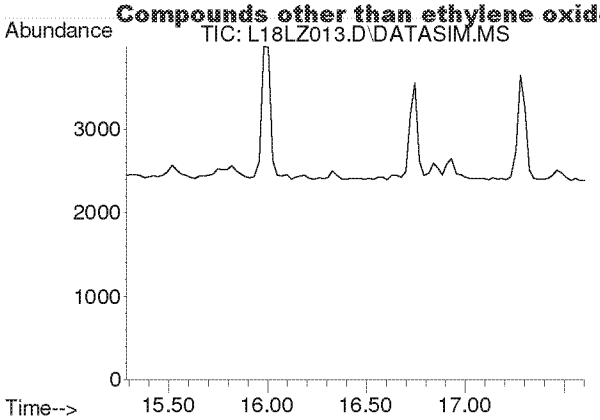
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

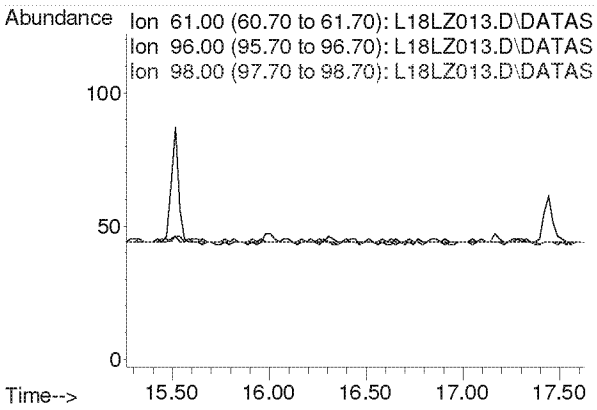


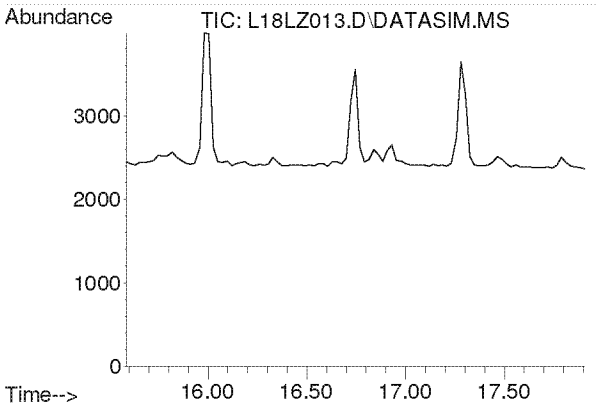
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



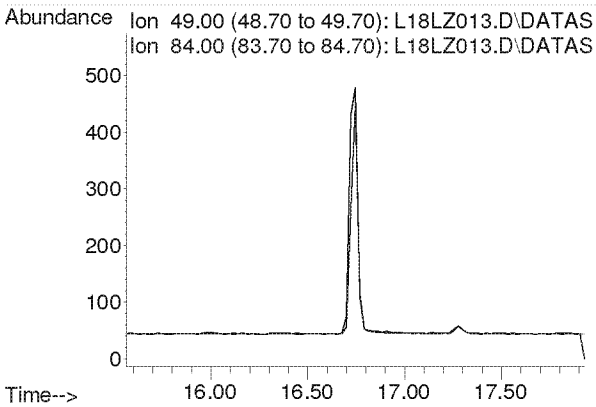


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

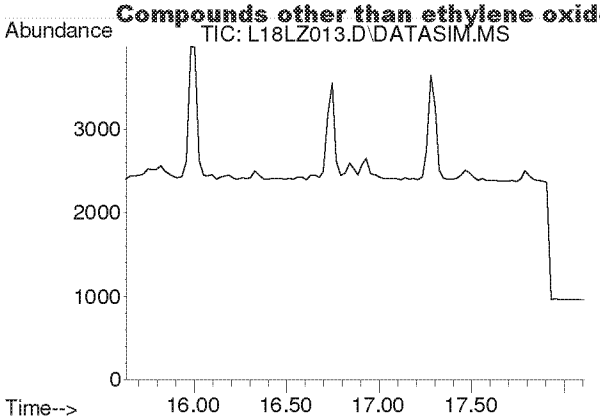
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

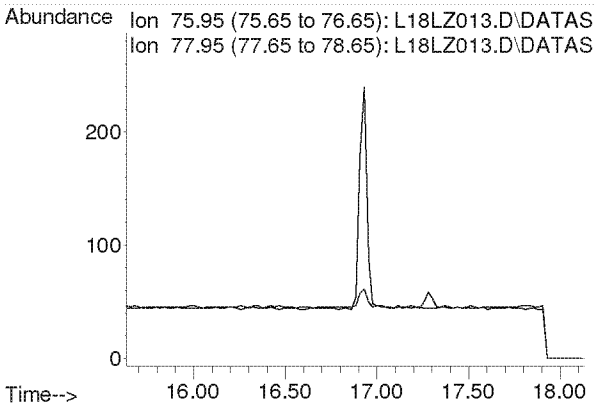


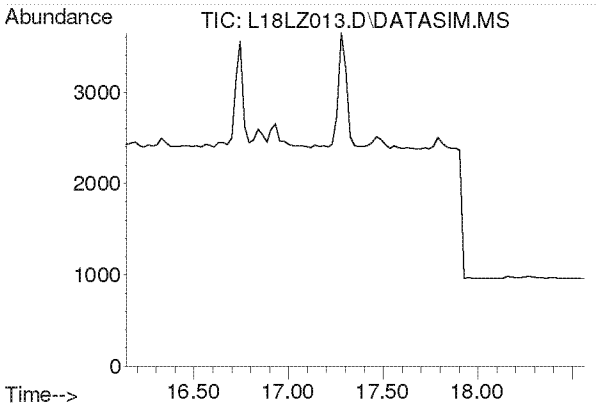
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



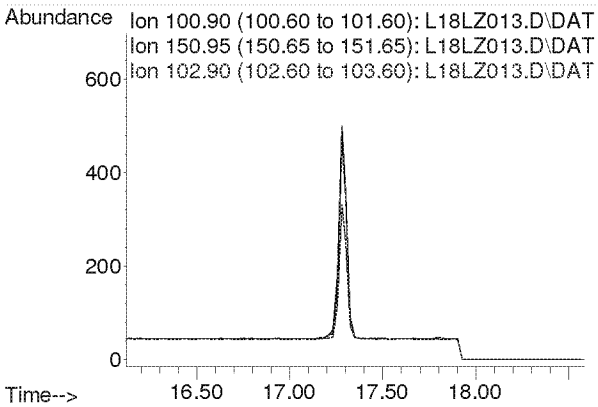


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

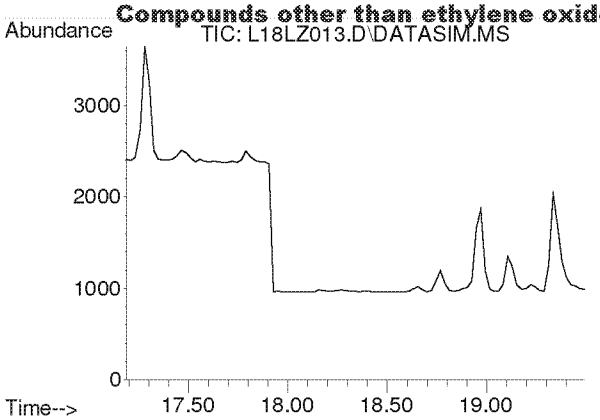
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

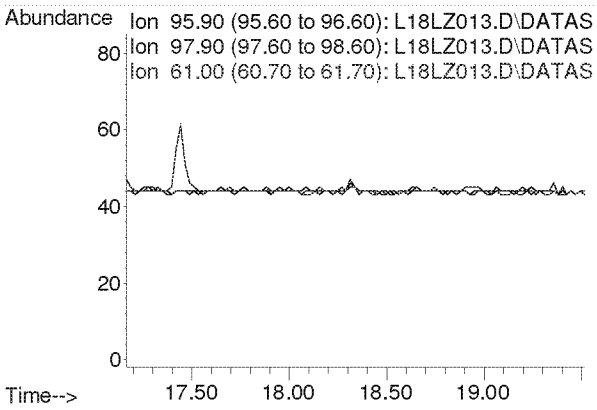


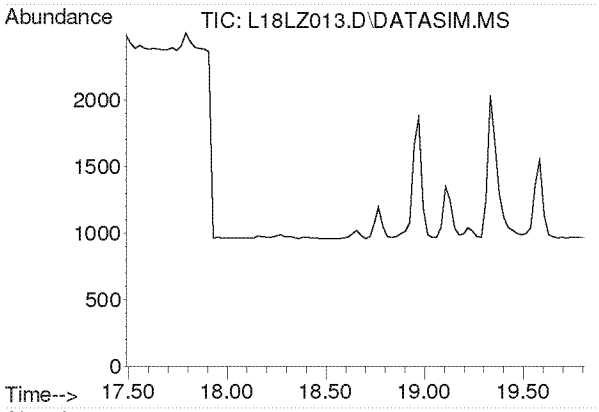
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



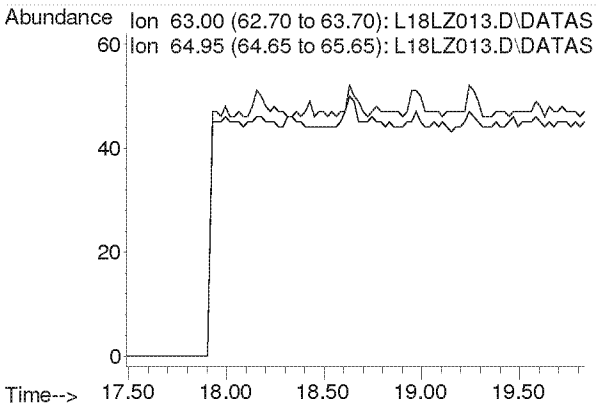


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

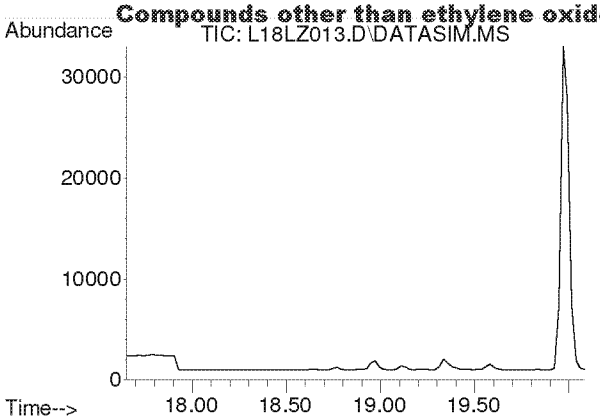
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

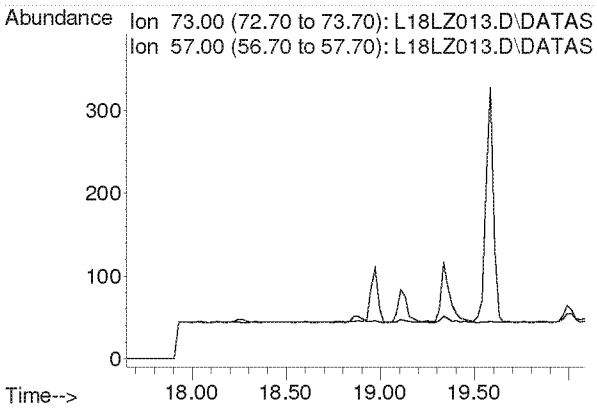


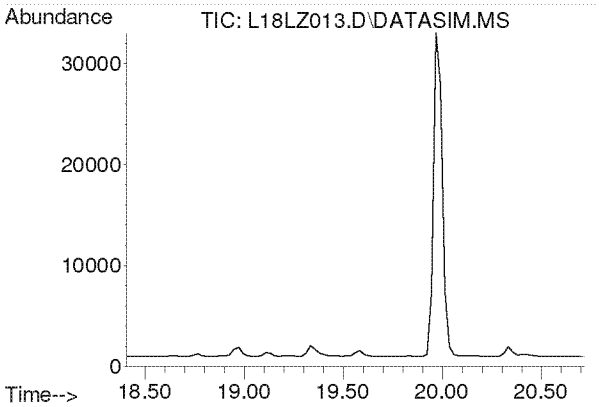
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



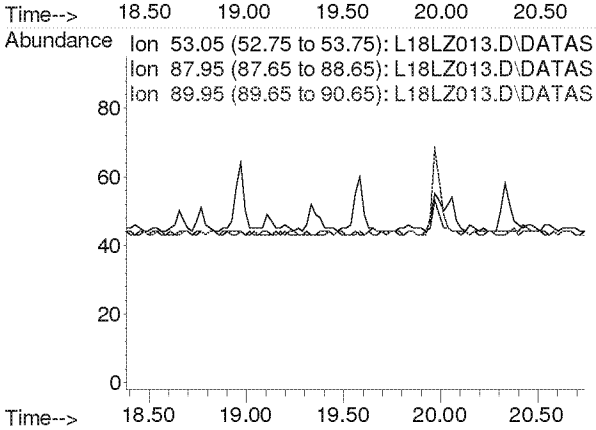


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

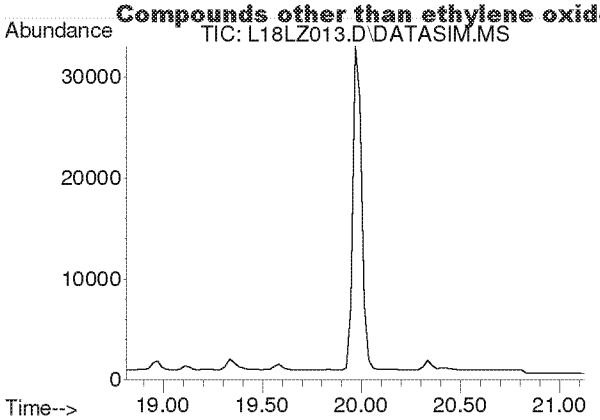
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

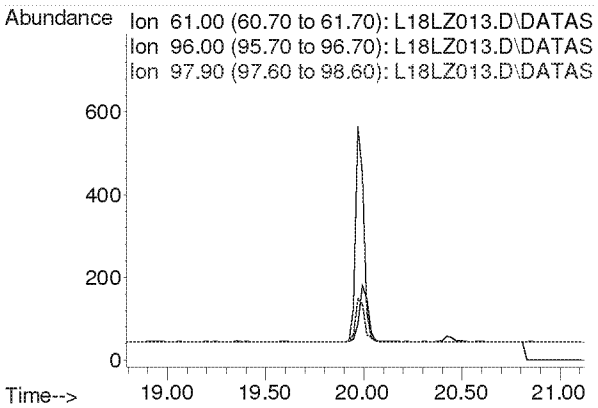


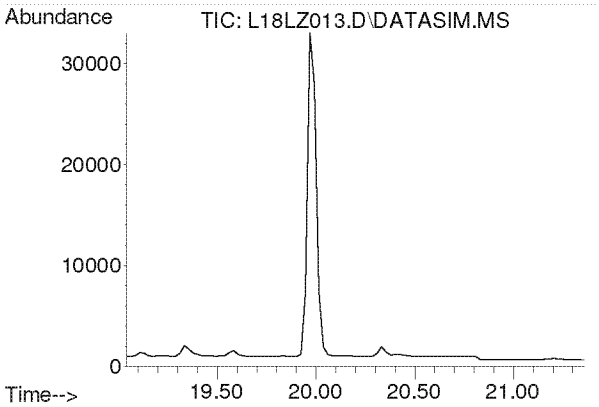
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



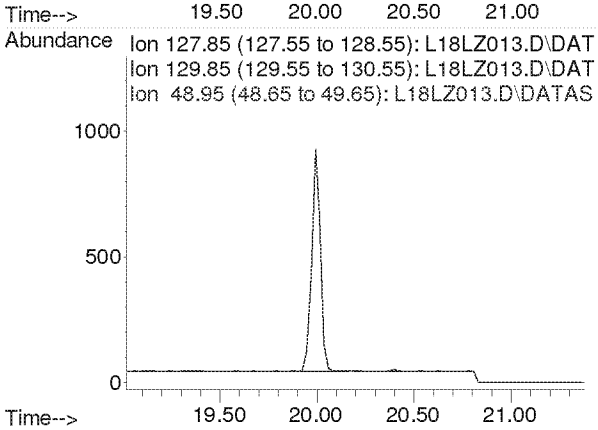


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

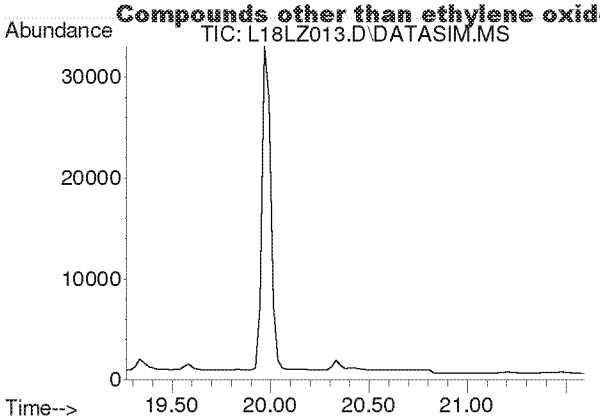
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

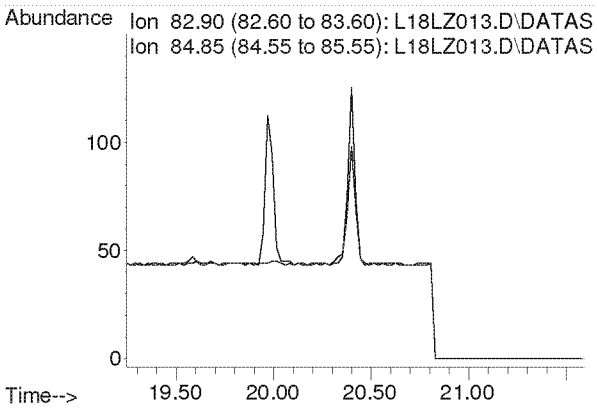


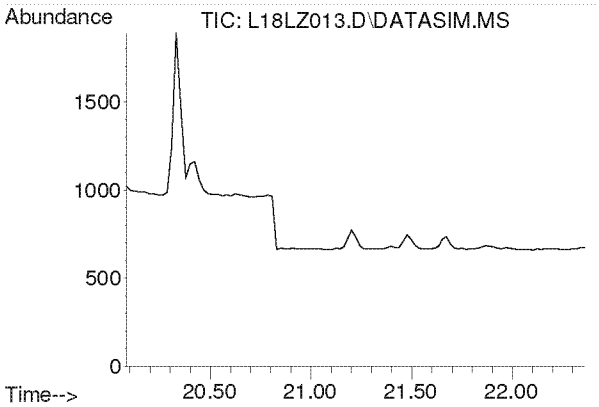
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



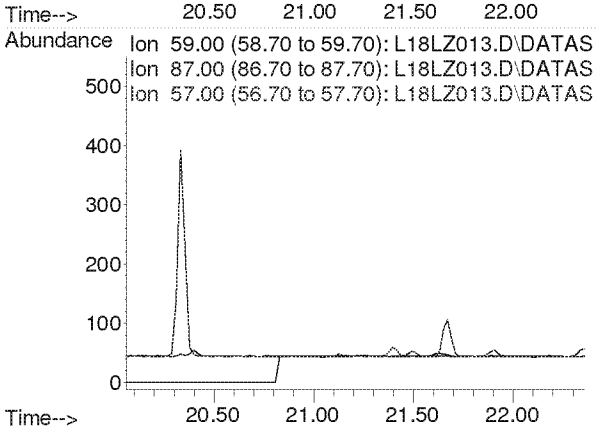


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

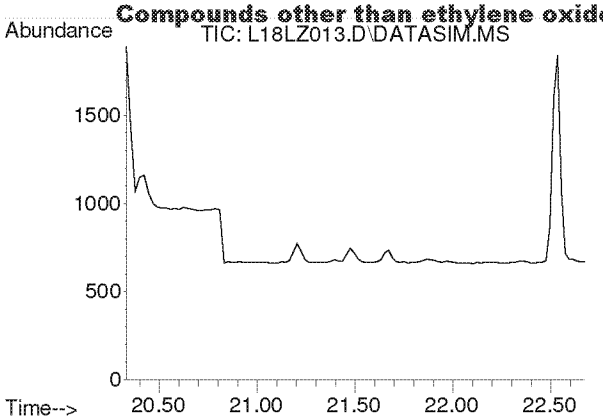
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

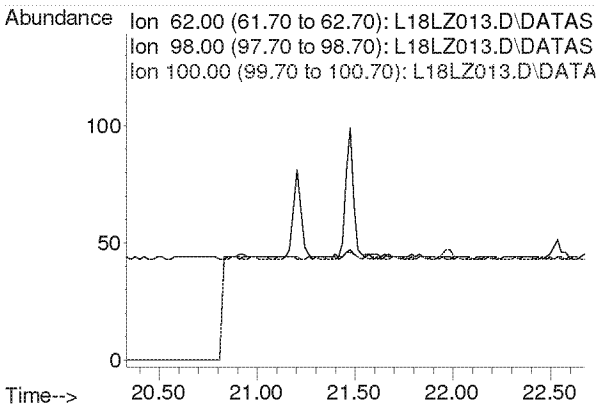


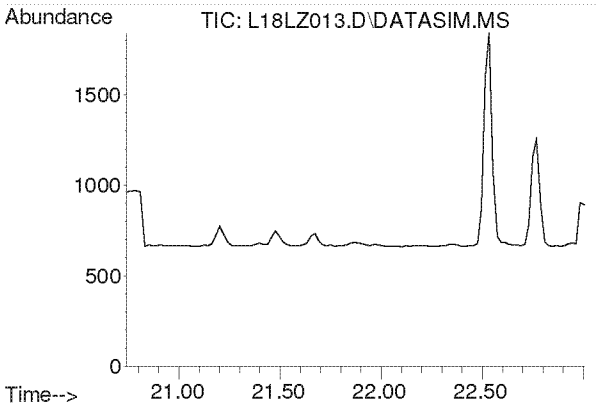
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



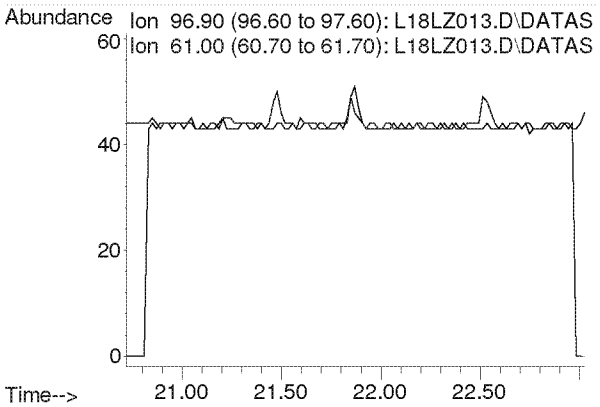


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

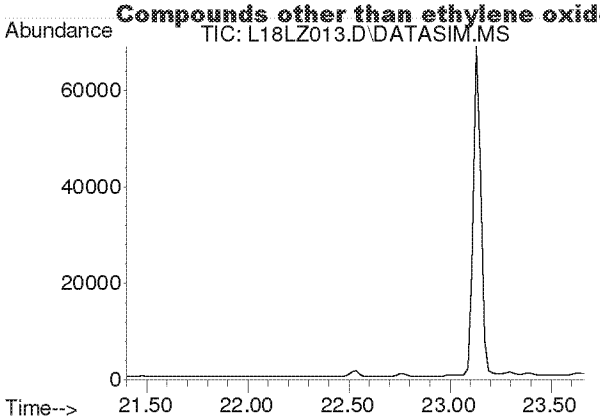
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

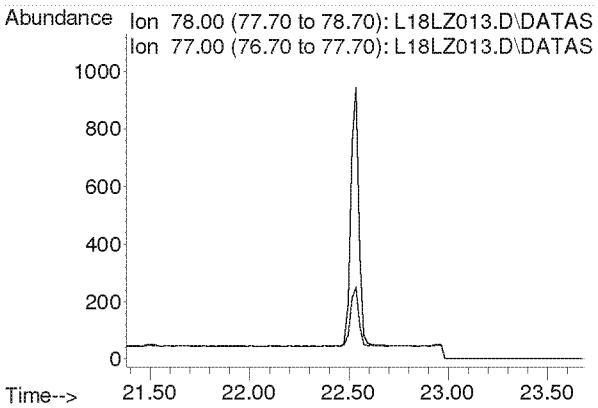


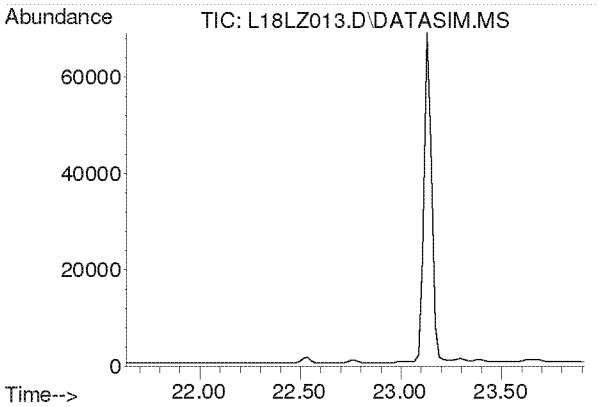
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



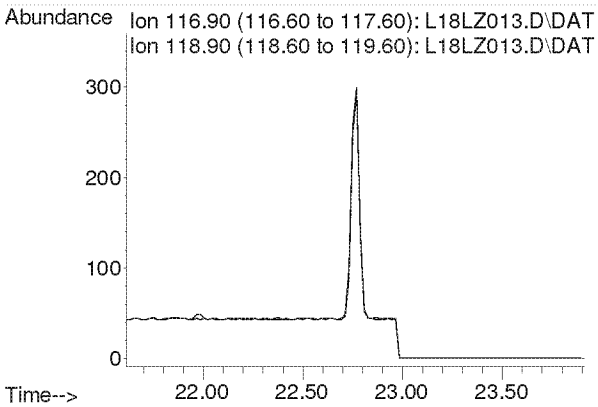


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

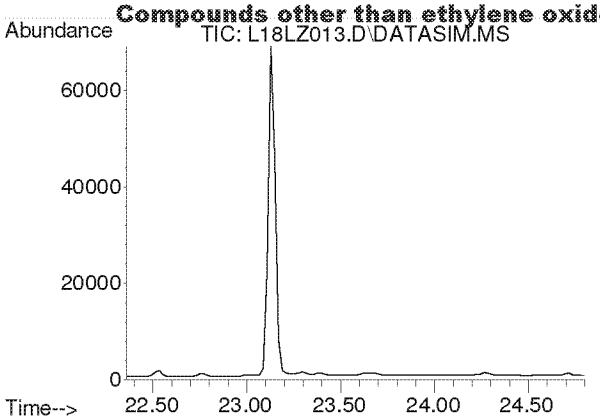
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

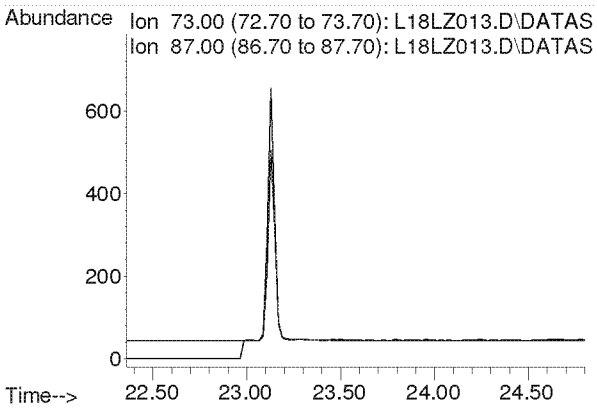


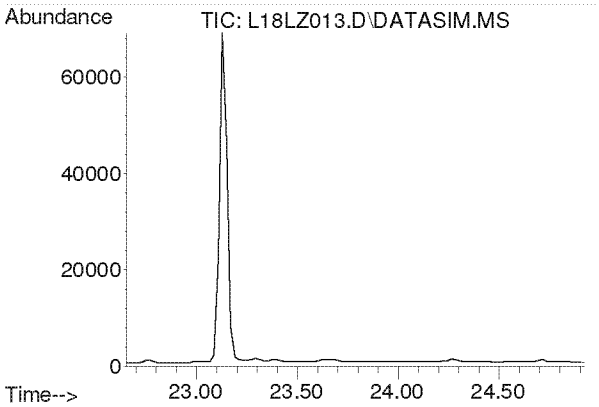
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



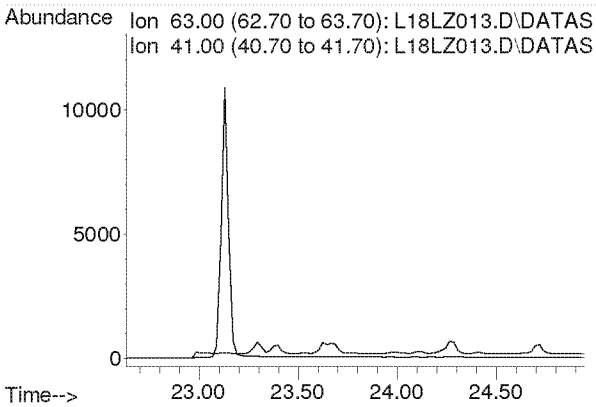


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

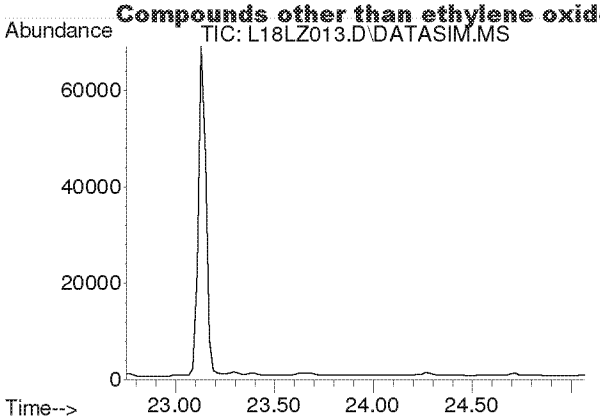
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

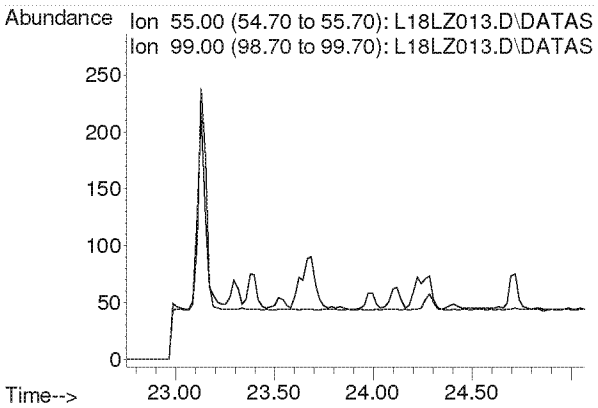


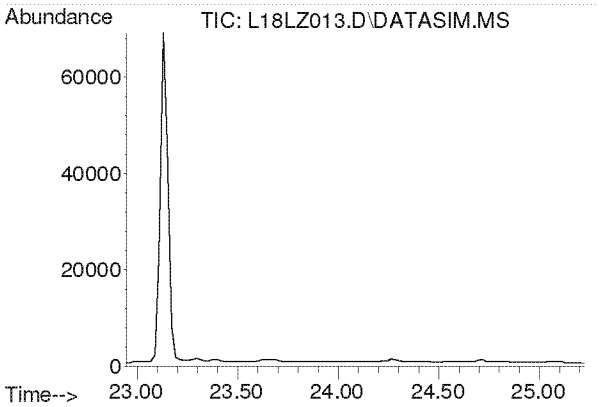
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



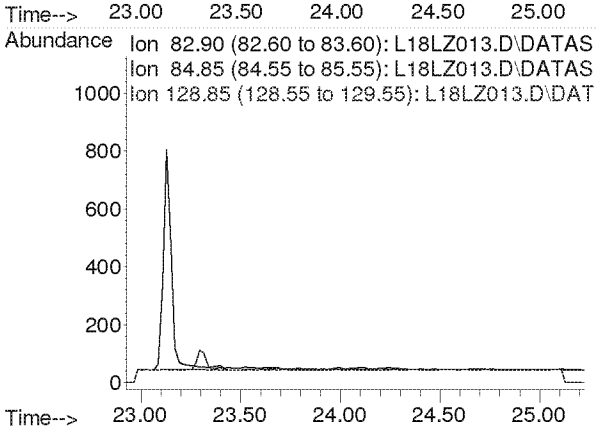


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

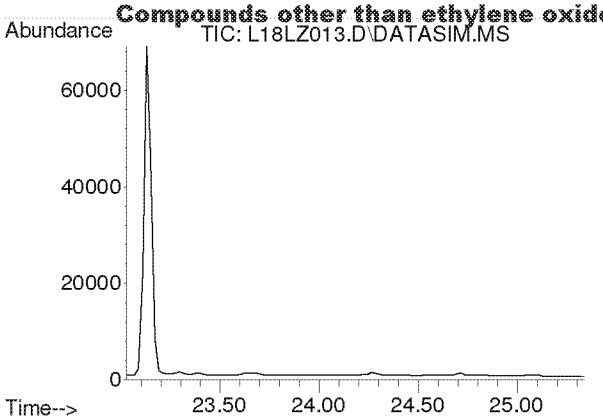
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

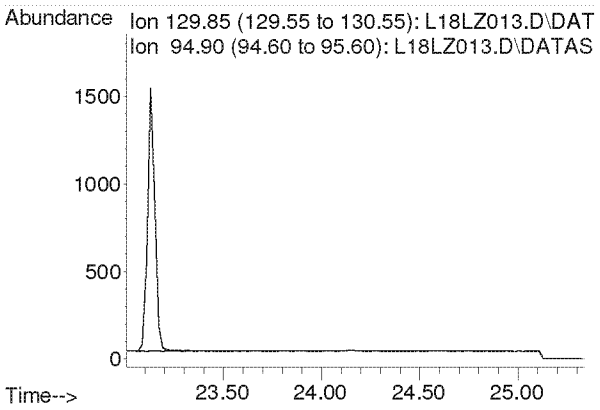


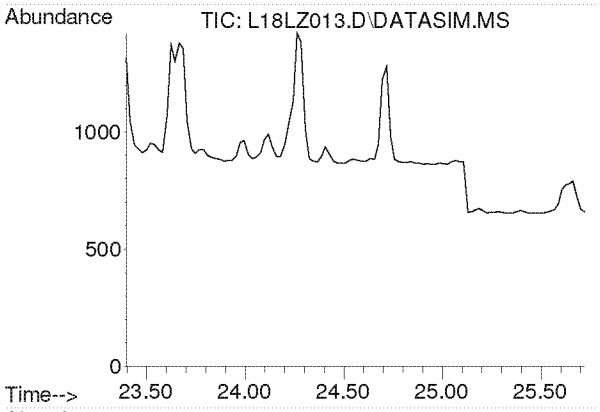
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



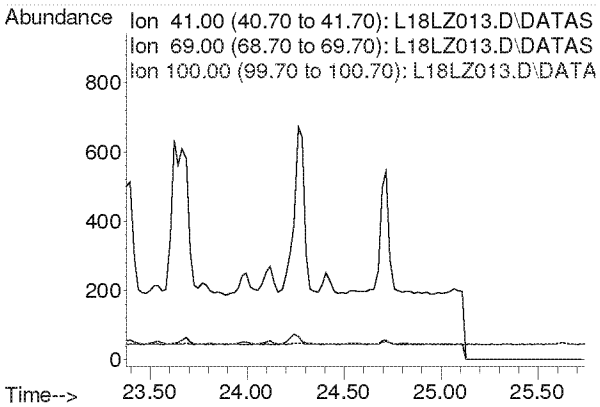


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

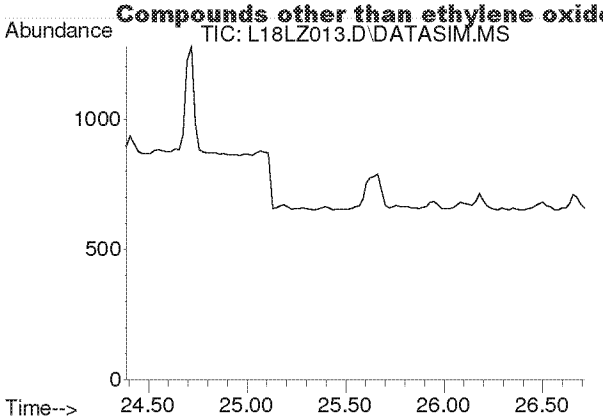
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

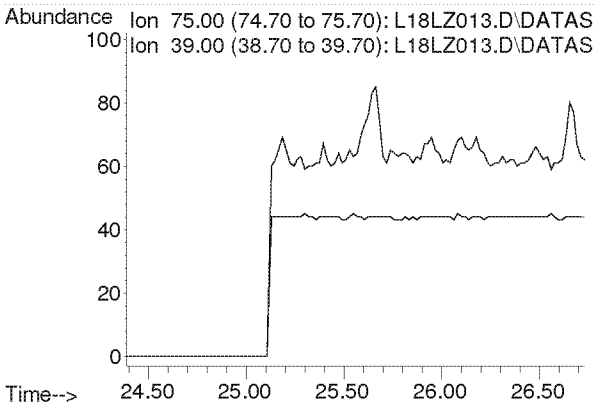


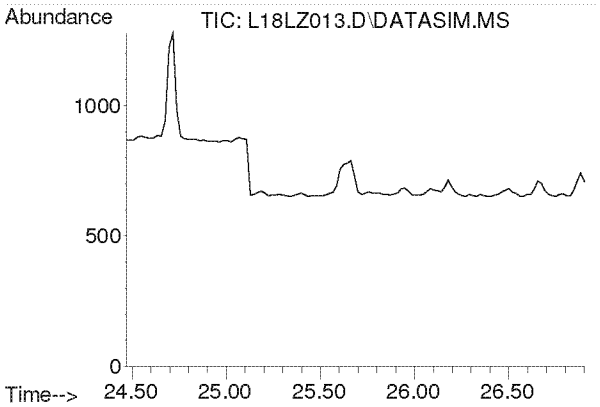
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



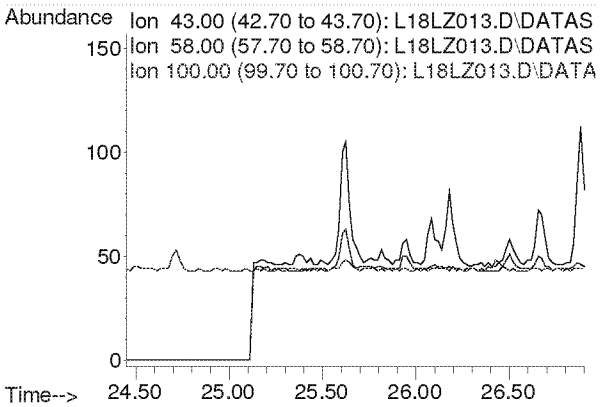


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

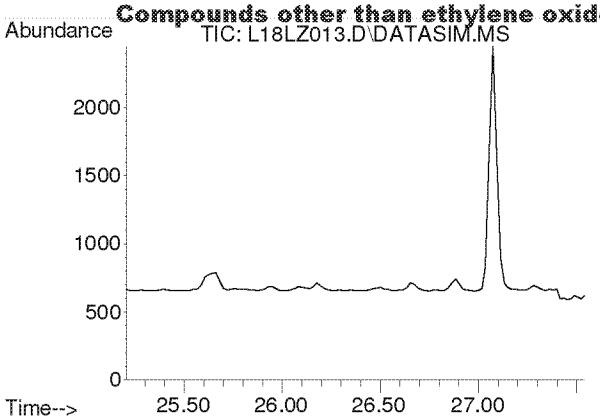
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

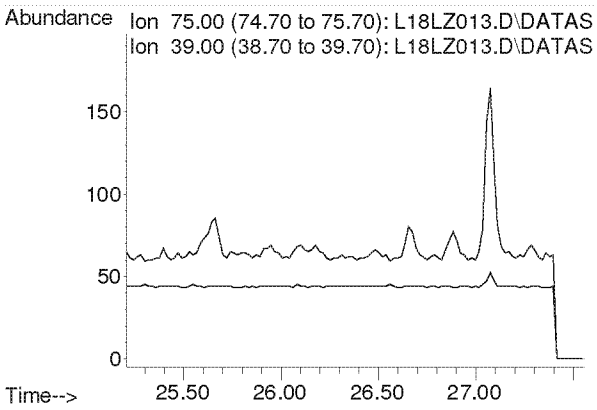


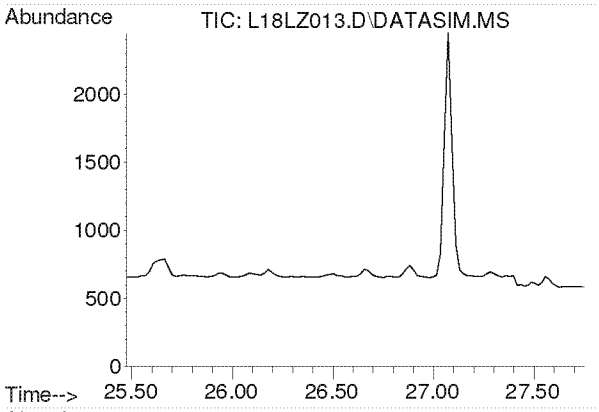
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



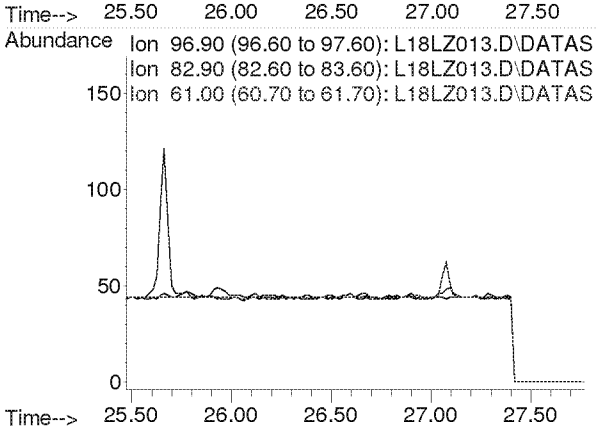


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

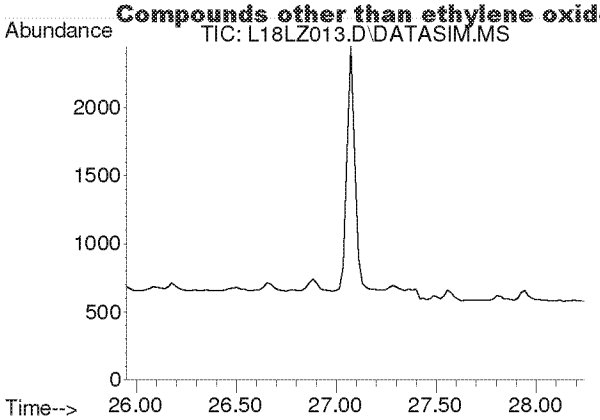
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

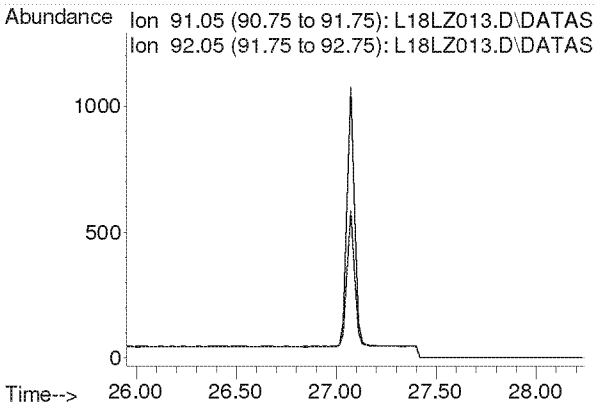


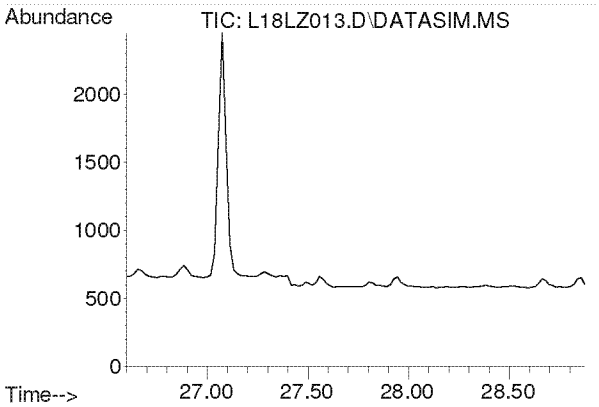
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



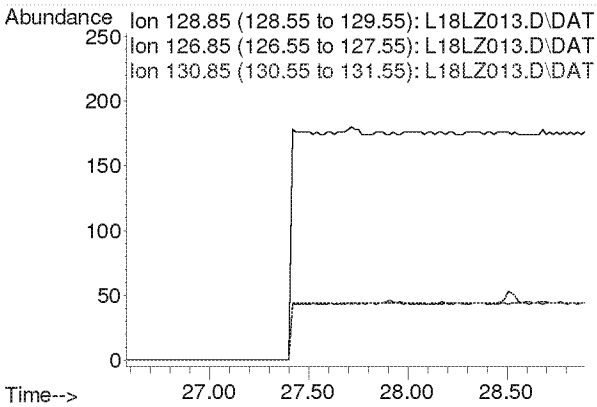


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

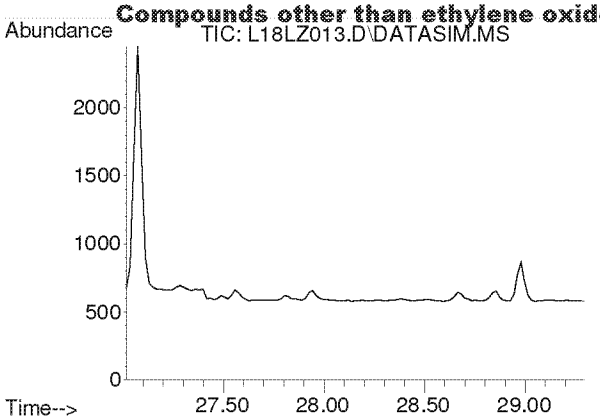
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

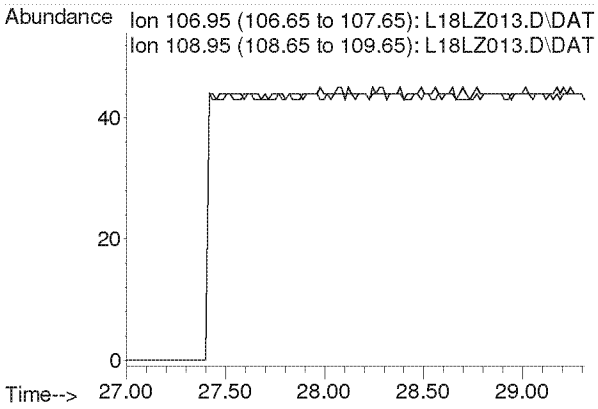


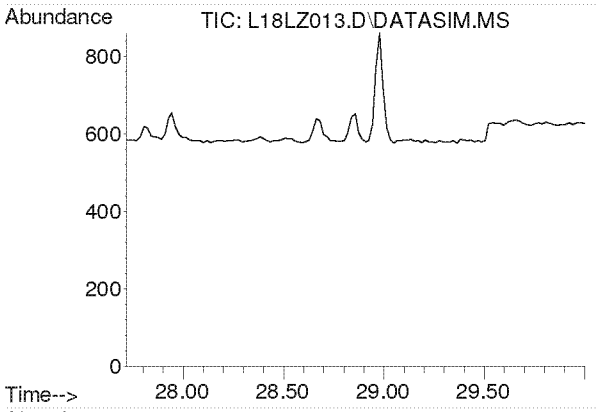
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



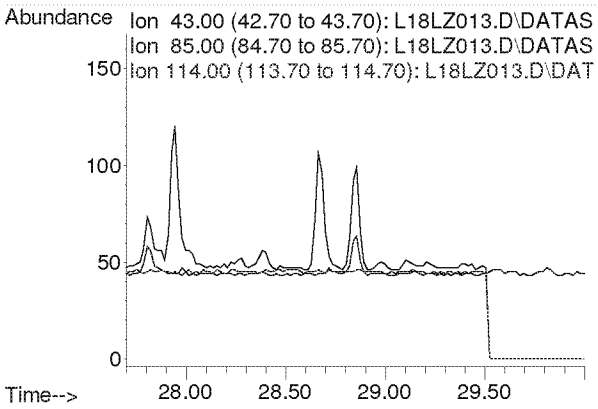


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

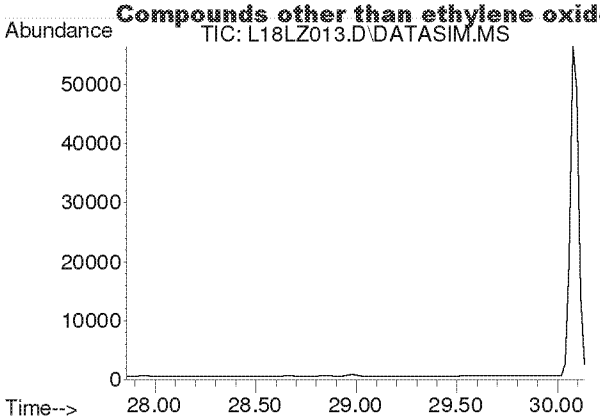
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

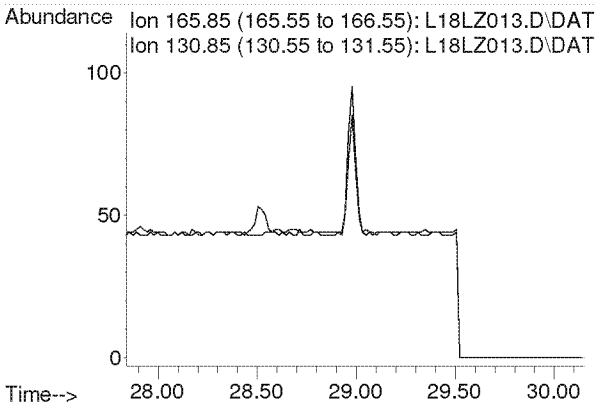


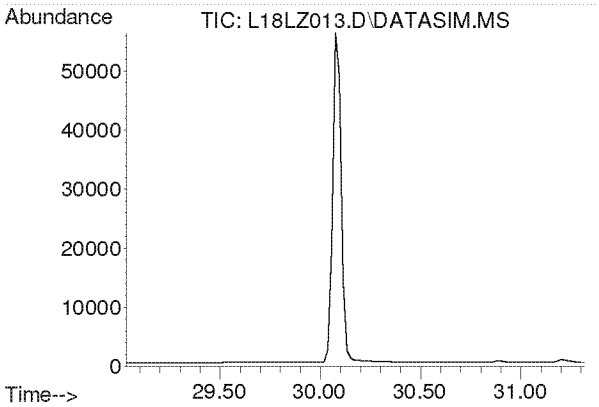
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



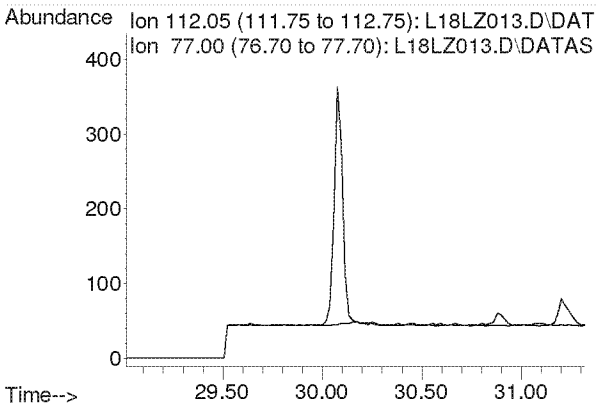


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

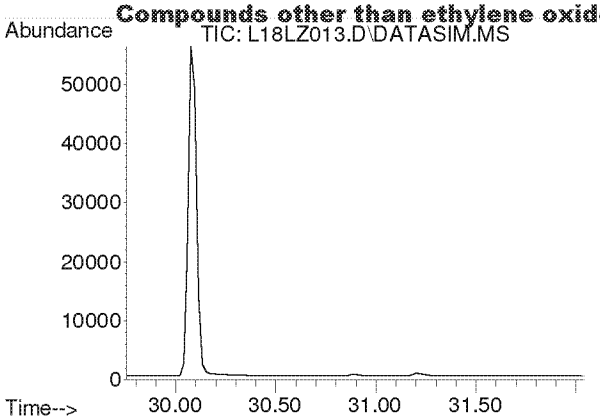
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

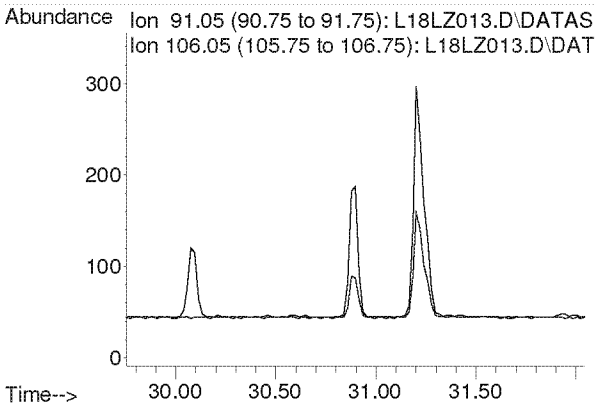


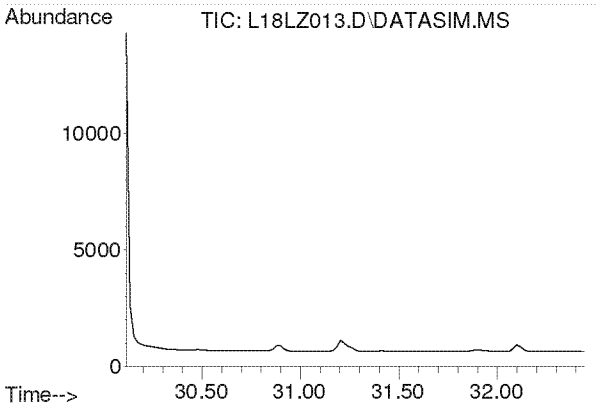
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



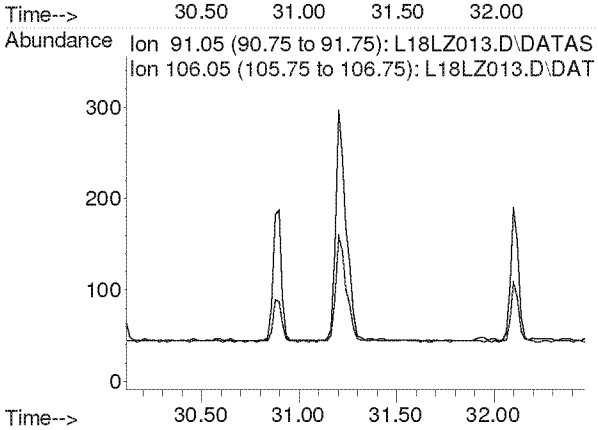


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

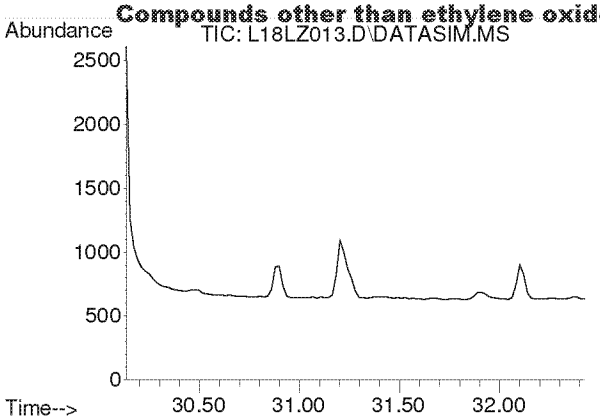
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

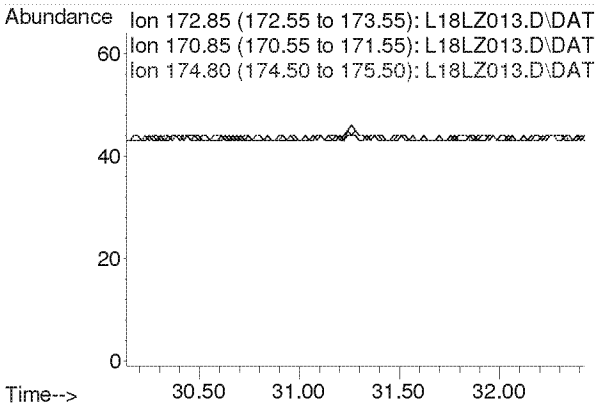


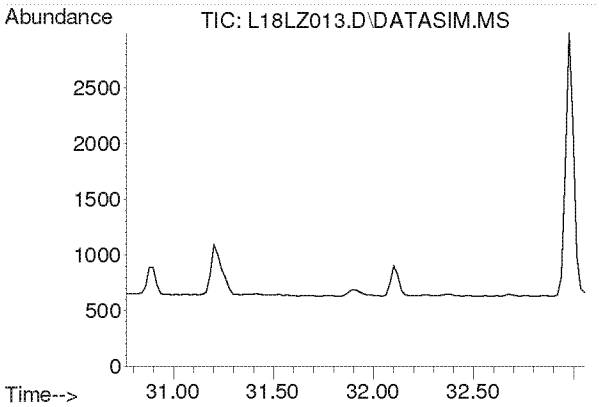
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



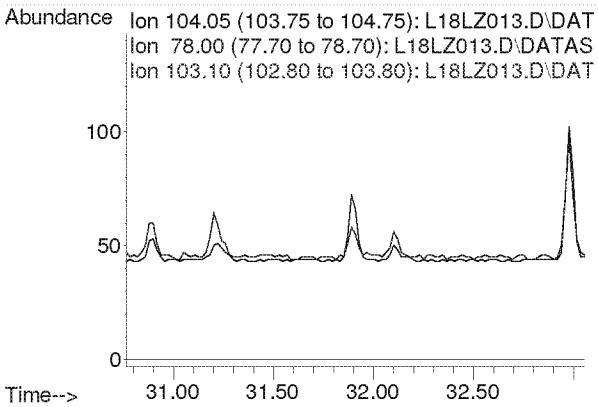


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

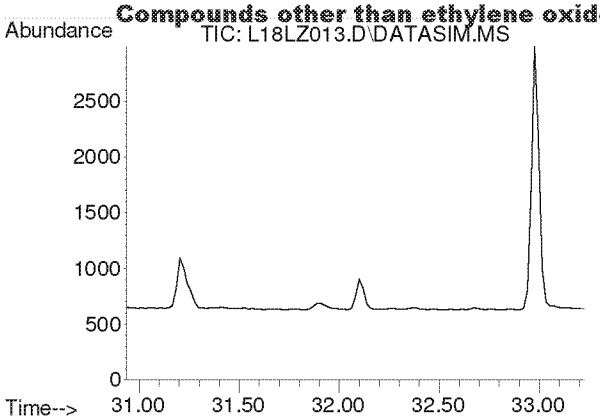
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

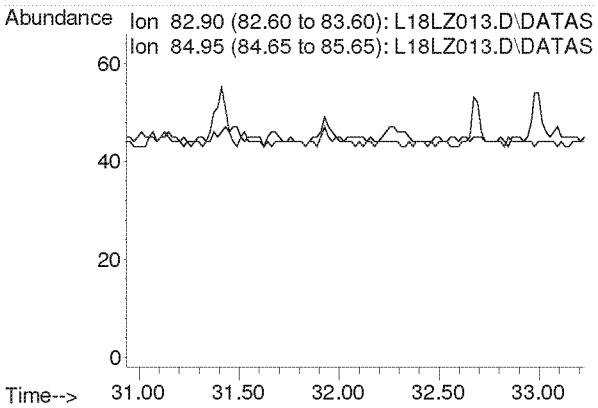


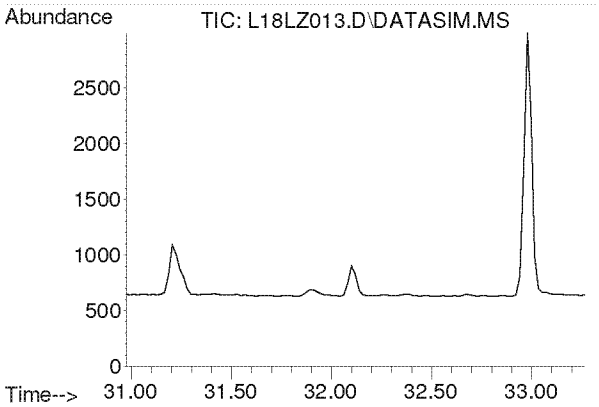
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



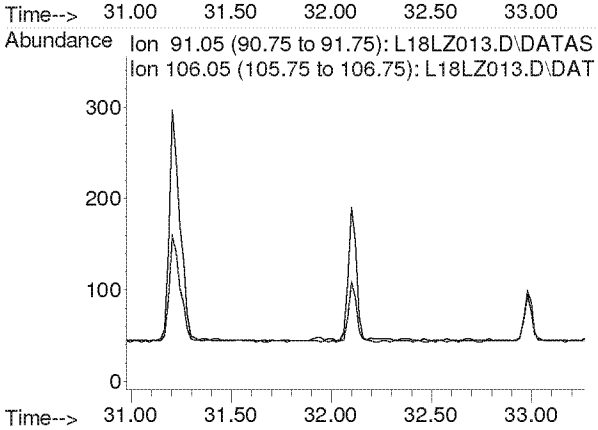


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

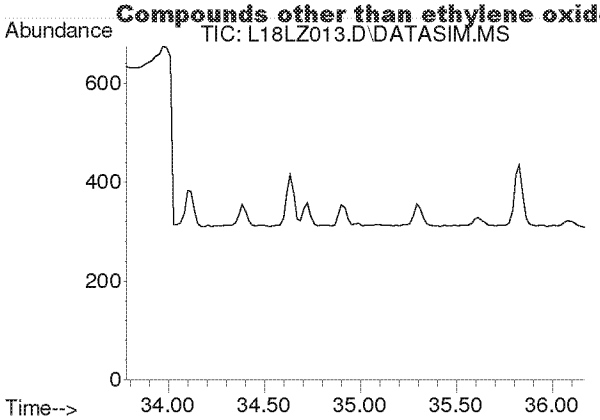
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

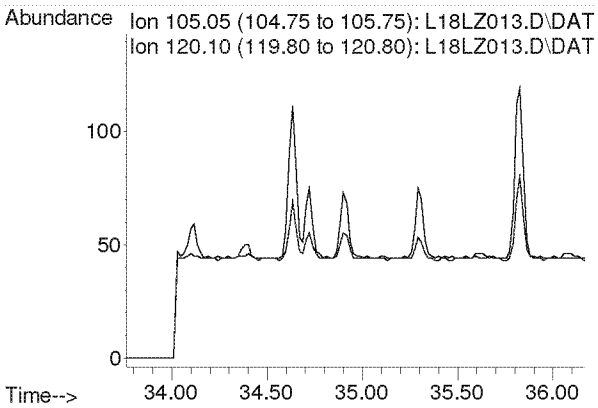


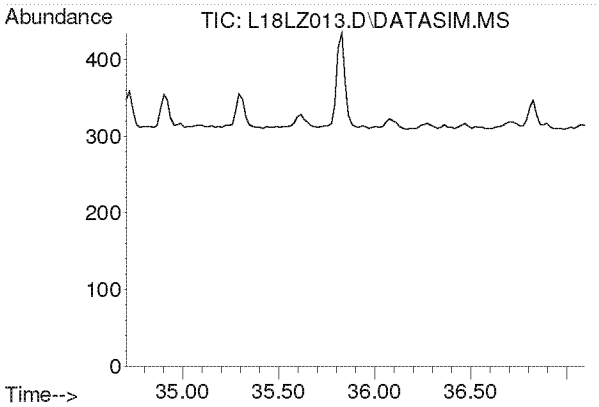
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



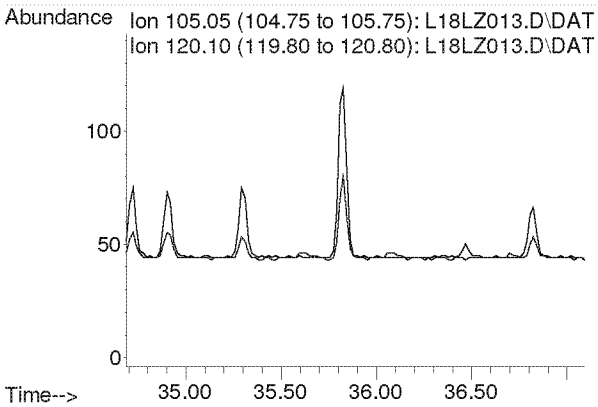


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

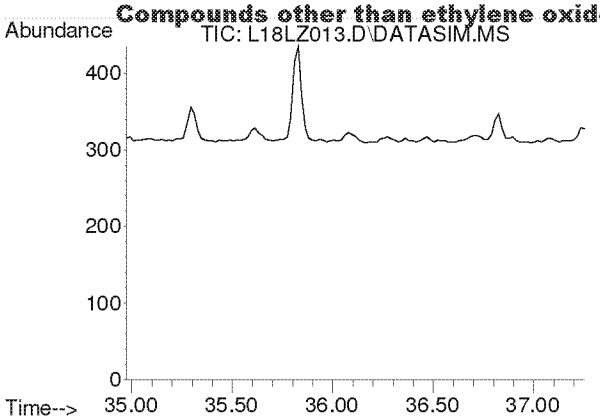
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

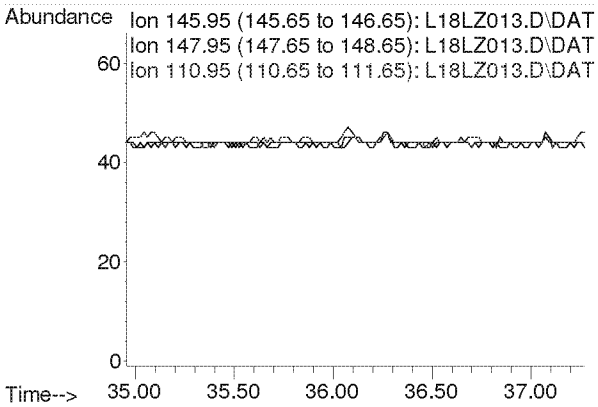


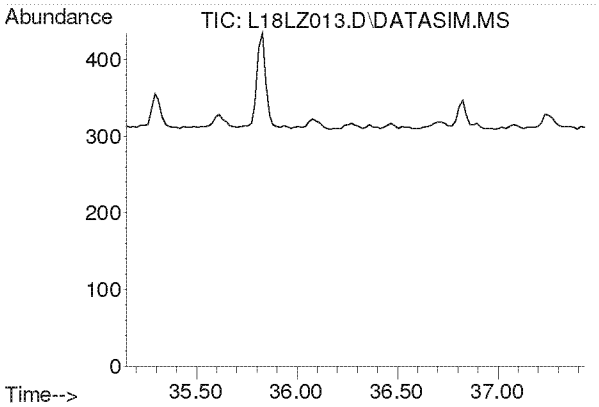
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



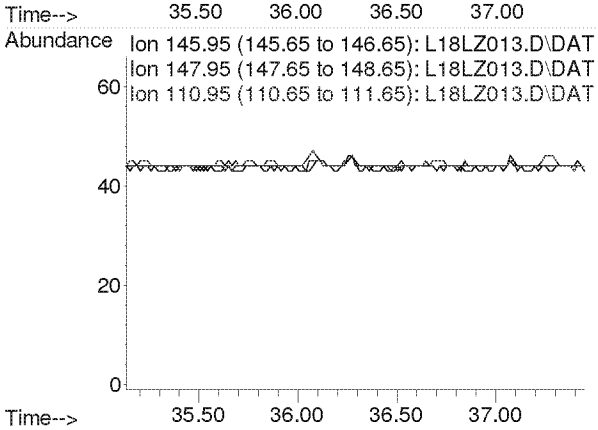


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

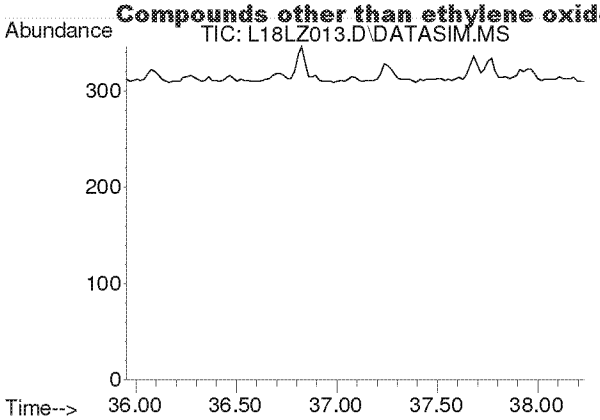
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

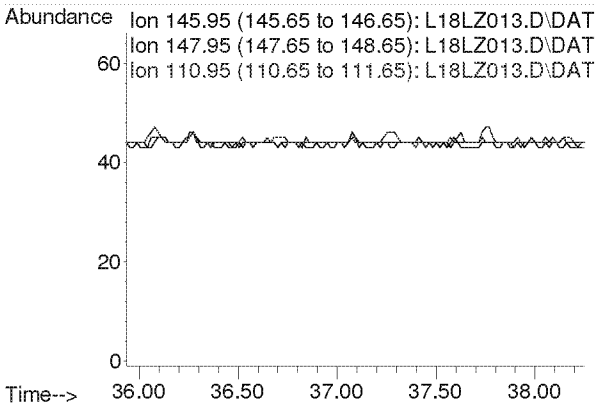


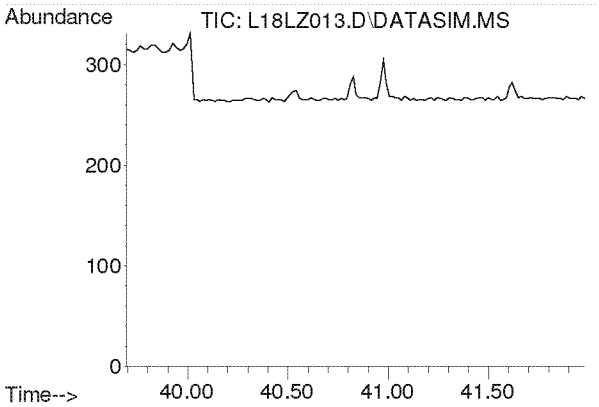
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



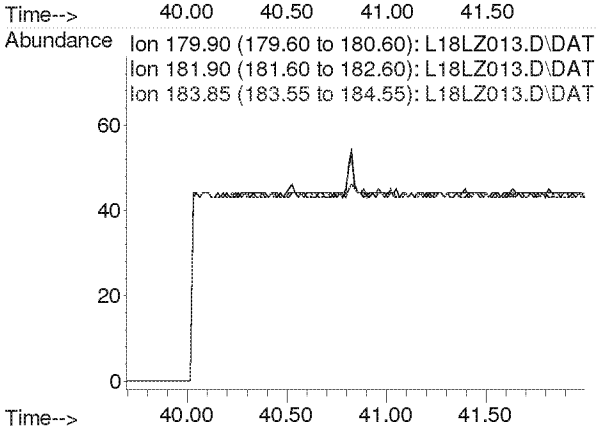


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

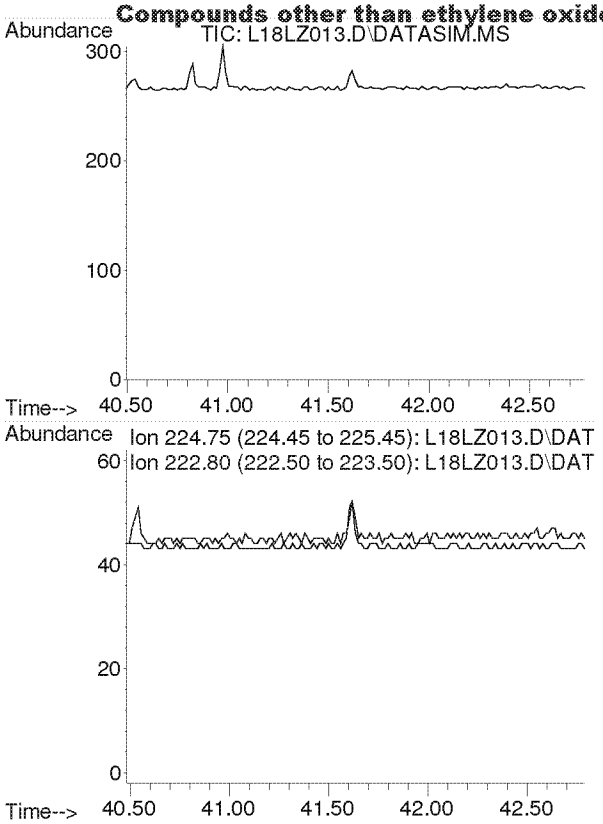
Lab File: L18LZ013.D
Acq: 26 Dec 2018 11:45 pm

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: L18LZ013.D
Acq: 26 Dec 2018 11:45 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		L18LZ014.D	L18LZ015.D		
Analyst		MAH	MAH		
Method		8120004.M	8120004.M		
Sample ID		8121220-08	8121220-09		
Mics Comments		WB WAREHOUSE	WB WAREHOUSE C2 12/11/18		
Compound	MDL	Amount (ppbv)	Amount (ppbv)	RPD	Passed?
IS-Hexane-d14	NA			NA	
Acetylene	0.0394	0	1.176	NA	
Propylene	0.0639	0	0.364	NA	
Dichlorodifluoromethane	0.0273	0	0.546	NA	
Chloromethane	0.0465	0	0.577	NA	
Dichlorotetrafluoroethane	0.0134	0	0.019	NA	
Vinyl chloride	0.0128	0	0.004	NA	
1,3-Butadiene	0.0193	0	0.037	NA	
Ethylene Oxide	0.0453	0.149	0.223	NA	
Bromomethane	0.0115	0	0.011	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0.073	NA	
Acrolein	0.2250	0	0.24	NA	
Trichlorofluoromethane	0.0116	0	0.222	NA	
Acrylonitrile	0.0106	0	0.036	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0.211	NA	
Carbon Disulfide	0.0768	0	0.029	NA	
Trichlorotrifluoroethane	0.0098	0	0.084	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	0.003	NA	
Chloroprene	0.0129	0	0.012	NA	
cis-1,2-Dichloroethylene	0.0186	0	0.051	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0.017	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0.021	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0.178	NA	
Carbon Tetrachloride	0.0133	0	0.065	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0.006	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	0.002	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0.021	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	0.241	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0.023	NA	
Tetrachloroethylene	0.0146	0	0.012	NA	
Chlorobenzene	0.0192	0	0.003	NA	
Ethylbenzene	0.0258	0	0.032	NA	
m,p-Xylene	0.0360	0	0.082	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0.01	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0.037	NA	
1,3,5-Trimethylbenzene	0.0340	0	0.01	NA	
1,2,4-Trimethylbenzene	0.0268	0	0.03	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	

r-J-19

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		L18LZ014.D	L18LZ016.D		
Analyst		MAH	MAH		
Method		8120004.M	8120004.M		
Sample ID		8121220-08	B8L2603-DUP1		
Mics Comments		WB WAREHOU	WB WAREHOUSE R1 12/11/18		
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**	0.149	0.117	NA	
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		L18LZ015.D	L18LZ017.D		
Analyst		MAH	MAH		
Method		8120004.M	8120004.M		
Sample ID		8121220-09	B8L2603-DUP2		
Mics Comments		WB WAREHOU	WB WAREHOUSE R2 12/11/18		
Compound	**MDL**	**Amount/ppbv**	**Amount (ppbv)**	**RPD**	**Passed?**
IS-Hexane-d14	**NA**			NA	
Acetylene	**0.0394**	1.176	0	NA	
Propylene	**0.0639**	0.364	0	NA	
Dichlorodifluoromethane	**0.0273**	0.546	0	NA	
Chloromethane	**0.0465**	0.577	0	NA	
Dichlorotetrafluoroethane	**0.0134**	0.019	0	NA	
Vinyl chloride	**0.0128**	0.004	0	NA	
1,3-Butadiene	**0.0193**	0.037	0	NA	
Ethylene Oxide	**0.0453**	0.223	0.211	NA	
Bromomethane	**0.0115**	0.011	0	NA	
Chloroethane	**0.0249**	0	0	NA	
Acetonitrile	**0.0163**	0.073	0	NA	
Acrolein	**0.2250**	0.24	0	NA	
Trichlorofluoromethane	**0.0116**	0.222	0	NA	
Acrylonitrile	**0.0106**	0.036	0	NA	
1,1-Dichloroethene	**0.0119**	0	0	NA	
Dichloromethane	**0.0144**	0.211	0	NA	
Carbon Disulfide	**0.0768**	0.029	0	NA	
Trichlorotrifluoroethane	**0.0098**	0.084	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**	0.003	0	NA	
Chloroprene	**0.0129**	0.012	0	NA	
cis-1,2-Dichloroethylene	**0.0186**	0.051	0	NA	
Bromochloromethane	**0.0133**	0	0	NA	
Chloroform	**0.0129**	0.017	0	NA	
Ethyl tert-Butyl Ether	**0.0109**	0	0	NA	
1,2-Dichloroethane	**0.0139**	0.021	0	NA	
IS-1,4-Difluorobenzene	**NA**			NA	
1,1,1-Trichloroethane	**0.0137**	0	0	NA	
Benzene	**0.0145**	0.178	0	NA	
Carbon Tetrachloride	**0.0133**	0.065	0	NA	
tert-Amyl Methyl Ether	**0.0124**	0	0	NA	
1,2-Dichloropropane	**0.0203**	0.006	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**	0.002	0	NA	
cis-1,3-Dichloropropene	**0.0197**	0	0	NA	
Methyl Isobutyl Ketone	**0.0237**	0.021	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**	0.241	0	NA	
Dibromochloromethane	**0.0154**	0	0	NA	
1,2-Dibromoethane	**0.0189**	0	0	NA	
n-Octane	**0.0323**	0.023	0	NA	
Tetrachloroethylene	**0.0146**	0.012	0	NA	
Chlorobenzene	**0.0192**	0.003	0	NA	
Ethylbenzene	**0.0258**	0.032	0	NA	
m,p-Xylene	**0.0360**	0.082	0	NA	
Bromoform	**0.0177**	0	0	NA	
Styrene	**0.0363**	0.01	0	NA	
1,1,2,2-Tetrachloroethane	**0.0209**	0	0	NA	
o-Xylene	**0.0268**	0.037	0	NA	
1,3,5-Trimethylbenzene	**0.0340**	0.01	0	NA	
1,2,4-Trimethylbenzene	**0.0268**	0.03	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\L18LZ\
Data File : L18LZ014.D
Acq On : 27 Dec 2018 12:47 am
Operator : MAH
Sample : 8121220-08
Misc : WB WAREHOUSE C1 12/11/18
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 03 11:15:28 2019
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	19.970	66	56855	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	134290	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.097	117	92844	4.7400 ppbv	0.00

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.	d
8) 1,3-Butadiene	0.000	54	0	N.D.	d
9) Ethylene oxide	12.470	29	505m	0.1486 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.	
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.	
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.	
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\L18LZ\
Data File : L18LZ014.D
Acq On : 27 Dec 2018 12:47 am
Operator : MAH
Sample : 8121220-08
Misc : WB WAREHOUSE C1 12/11/18
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 03 11:15:28 2019
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

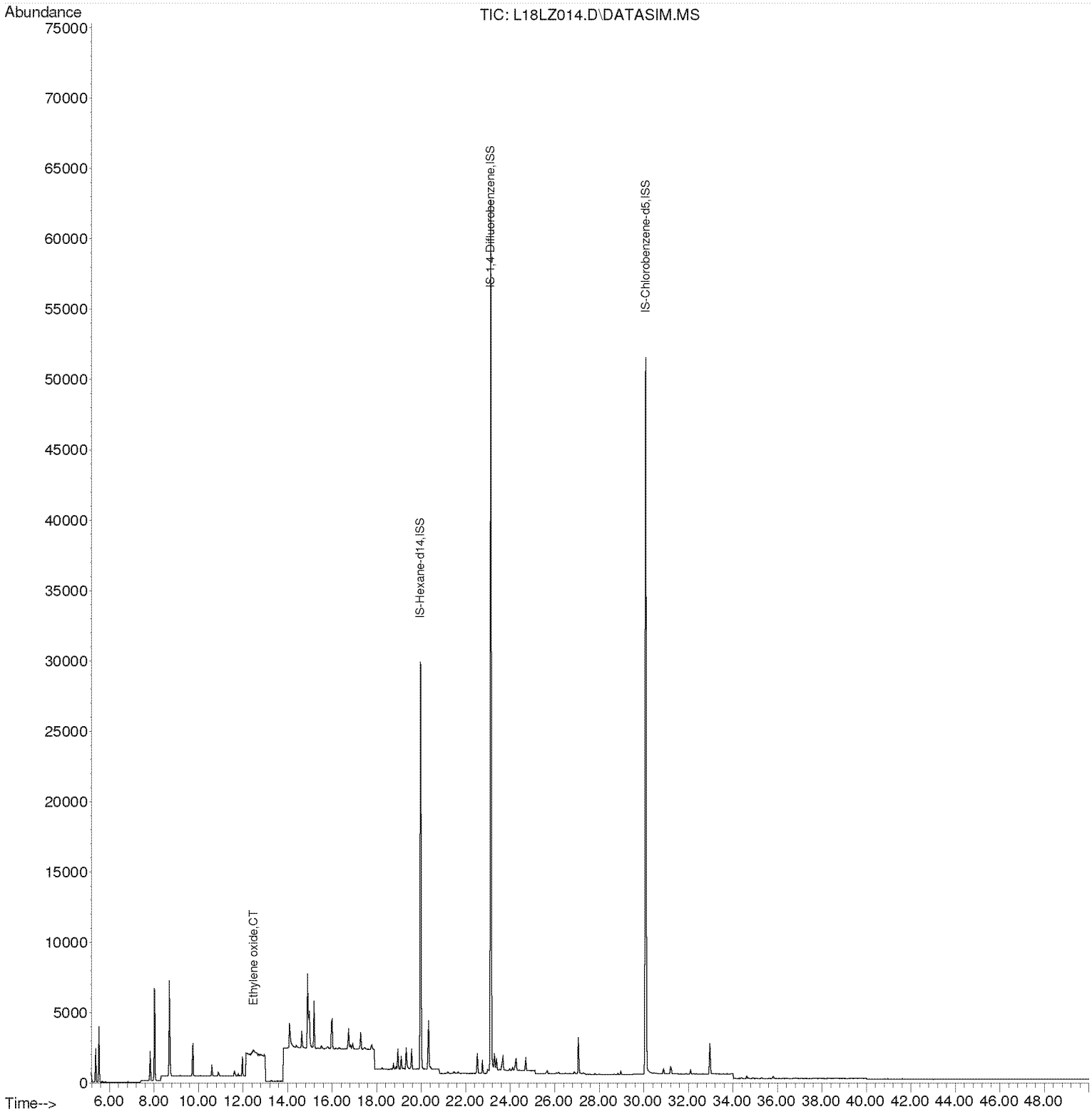
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene	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

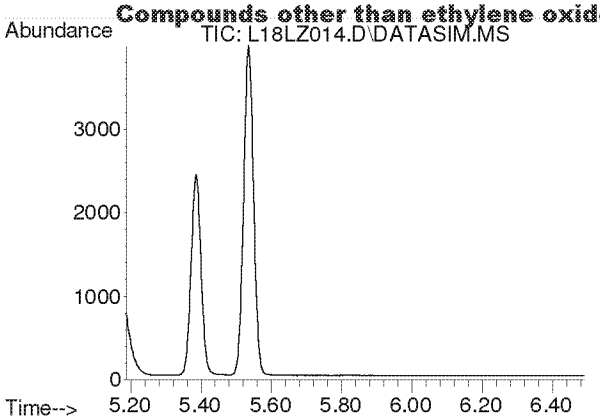
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ014.D
Acq On : 27 Dec 2018 12:47 am
Operator : MAH
Sample : 8121220-08
Misc : WB WAREHOUSE C1 12/11/18
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 03 10:31:50 2019
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



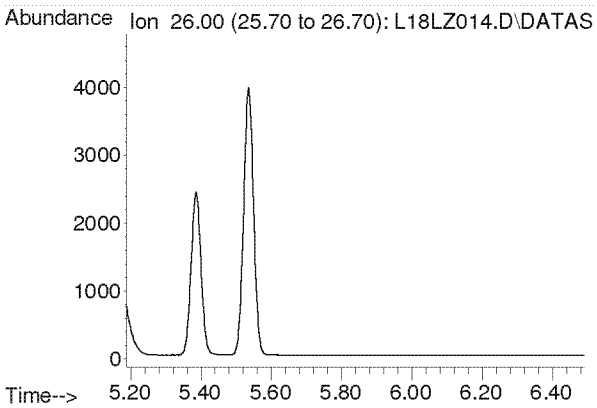
Compounds other than ethylene oxide were not quantitated.

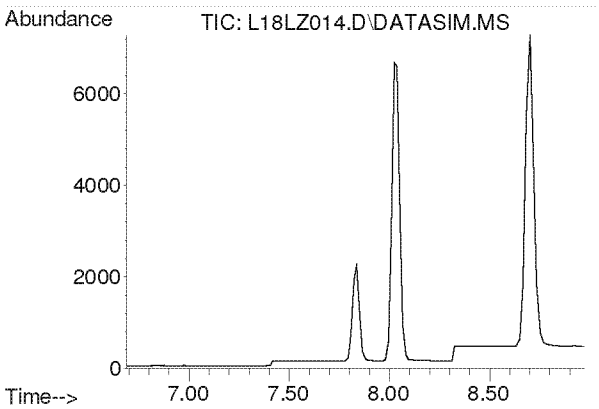


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 26



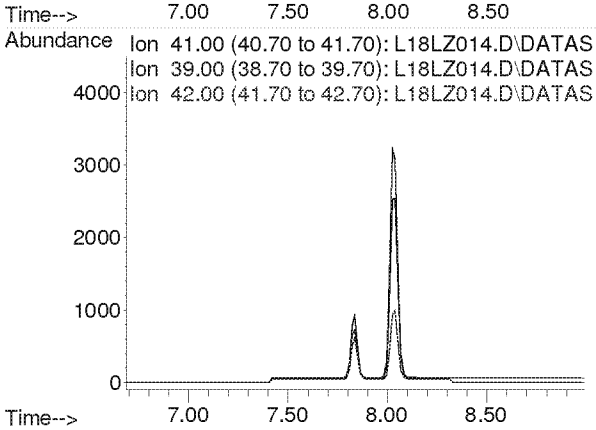


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

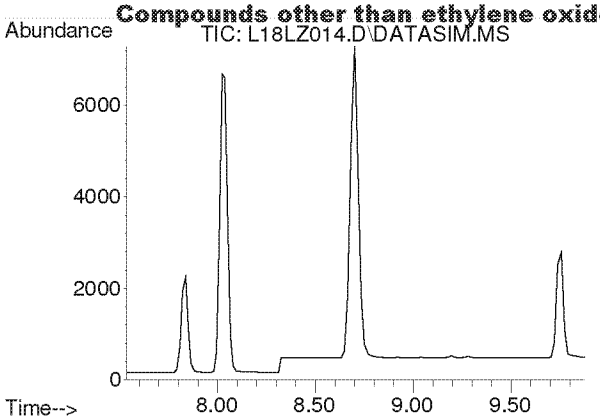
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

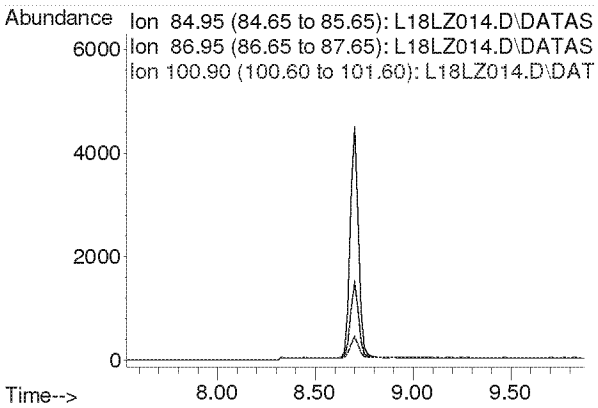


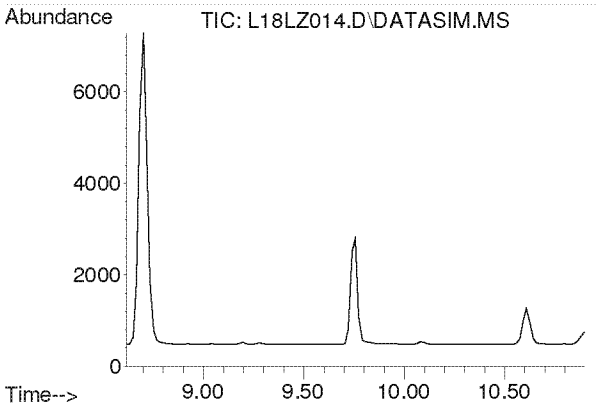
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



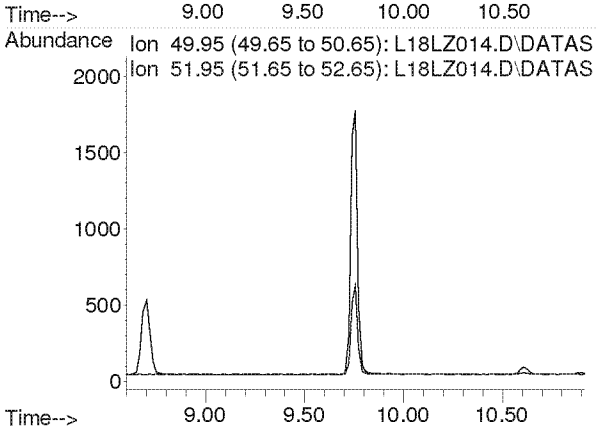


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

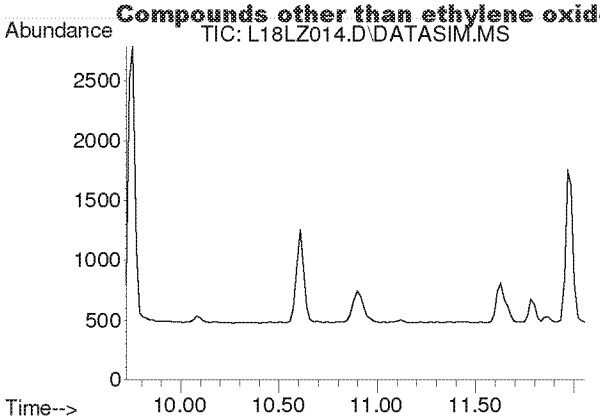
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

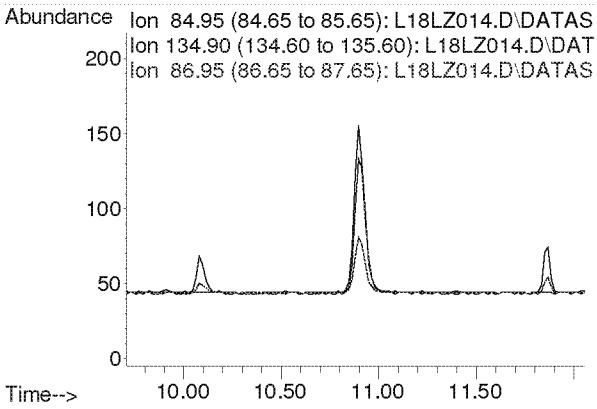


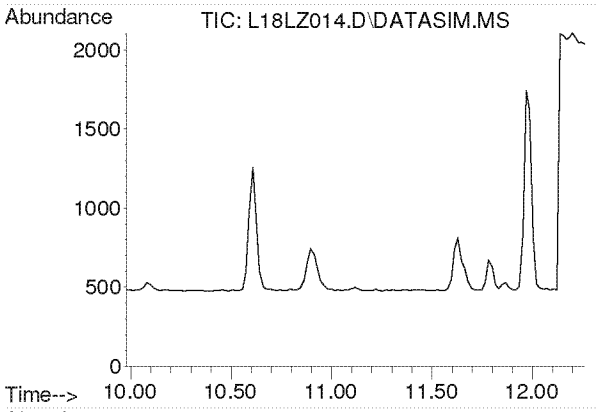
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



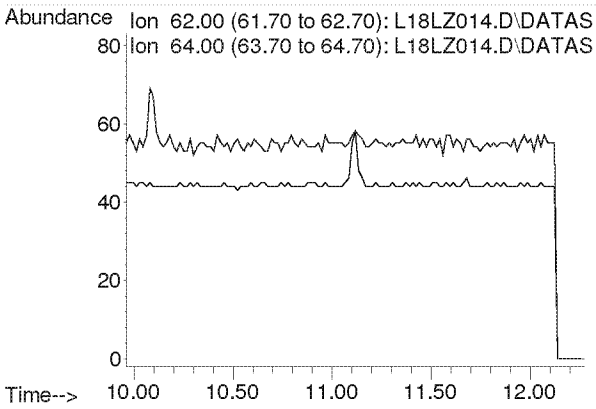


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

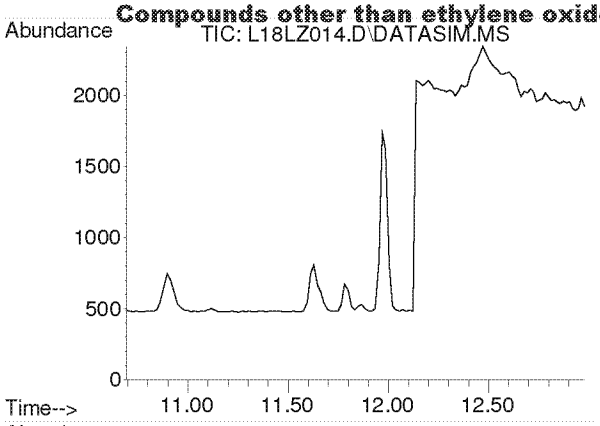
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

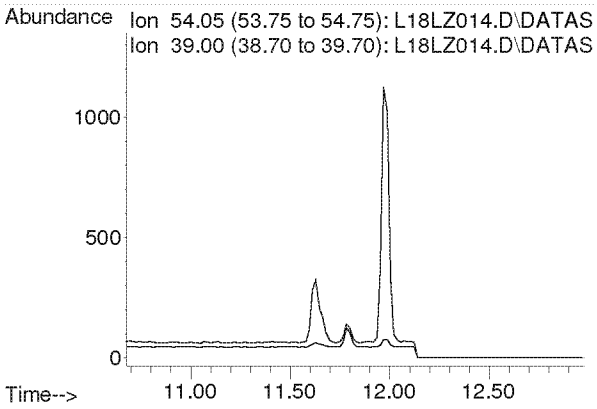


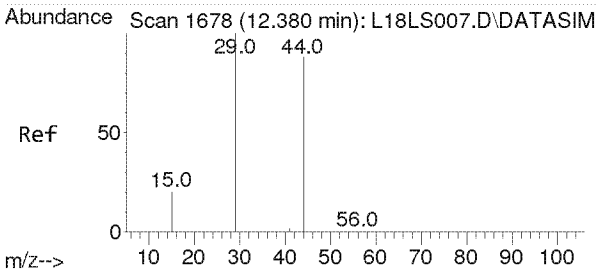
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

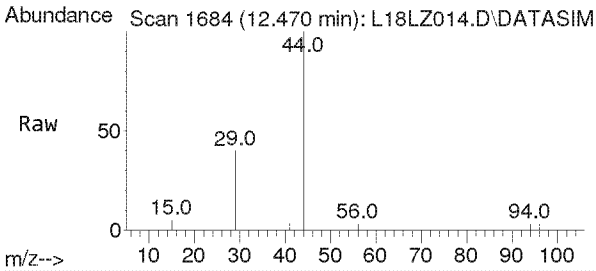


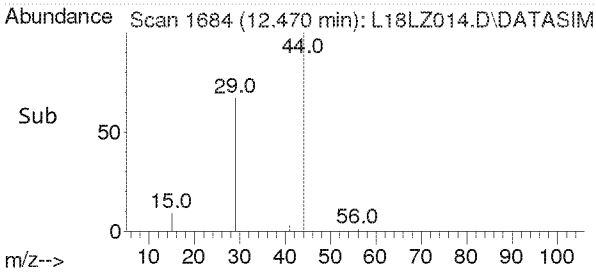


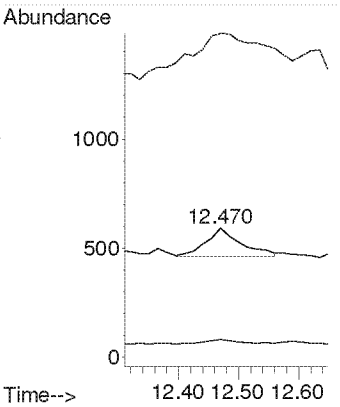
#9
Ethylene oxide
Concen: 0.149 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.090 min
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 29 Resp: 505

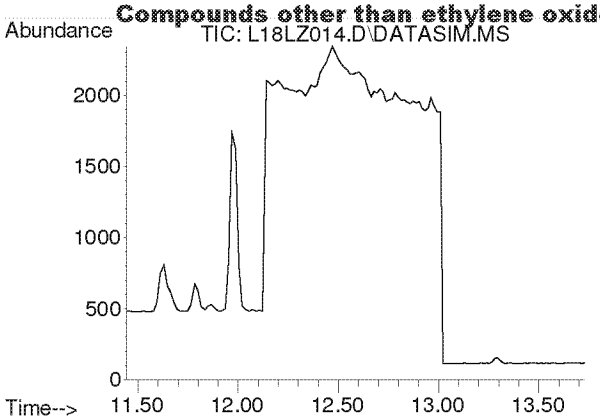
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.2	24.4#
44	0.0	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

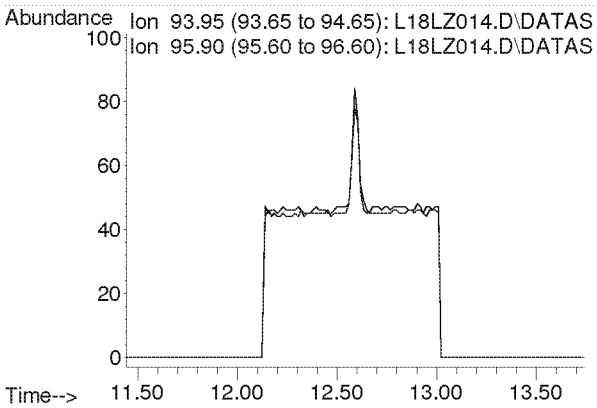


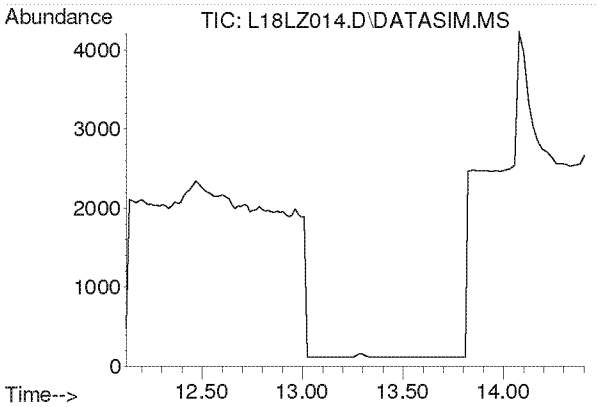
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



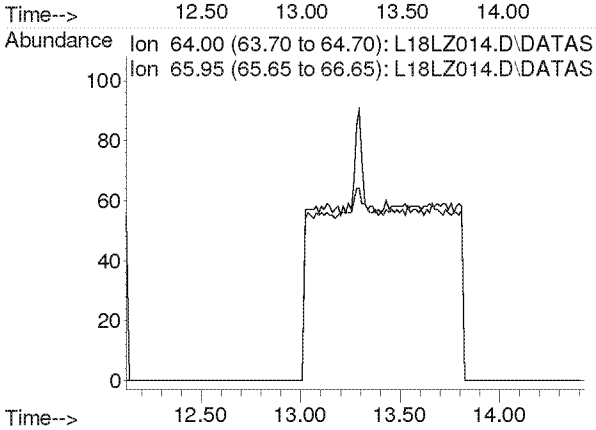


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

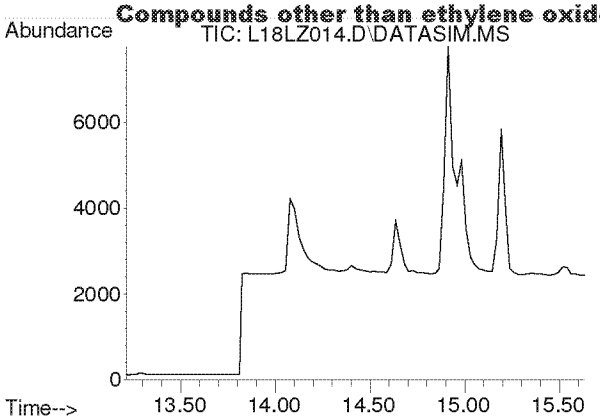
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

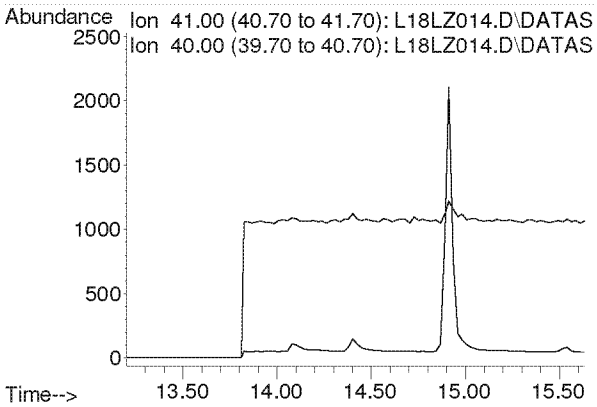


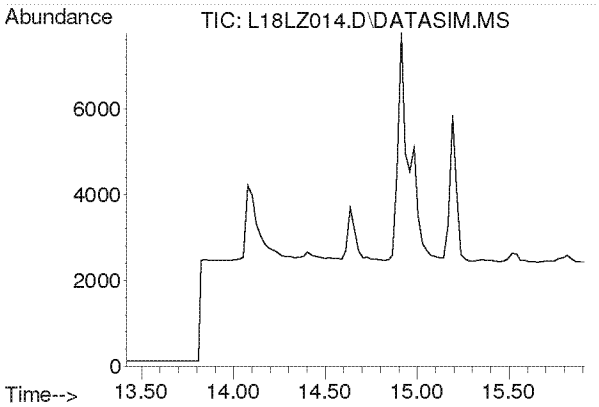
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



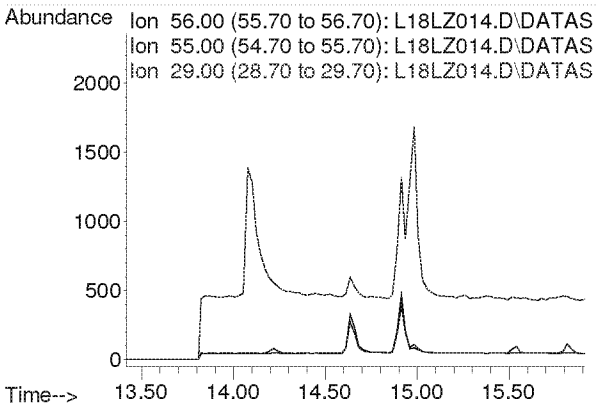


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

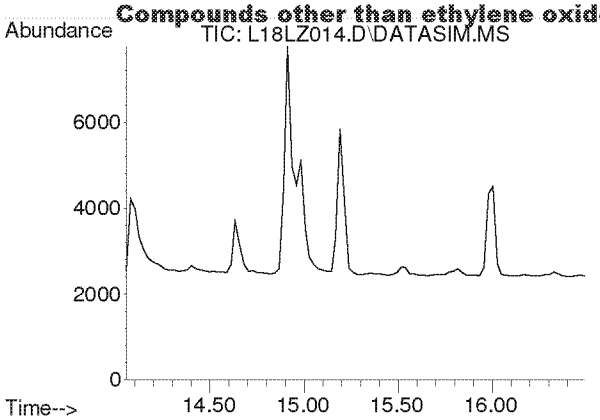
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

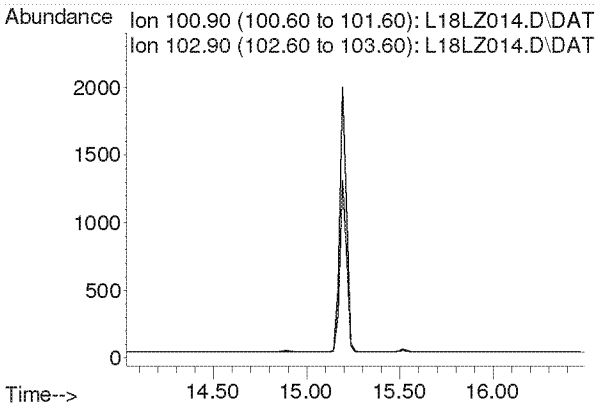


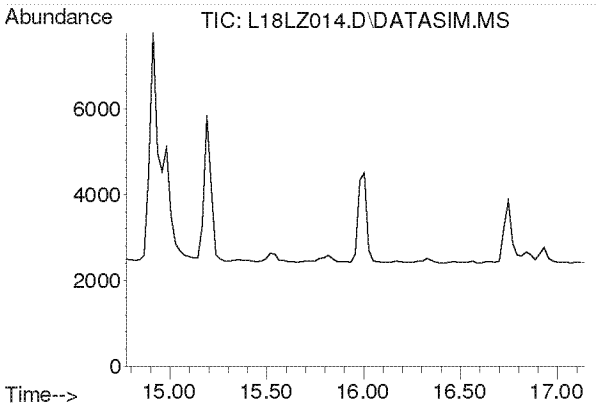
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



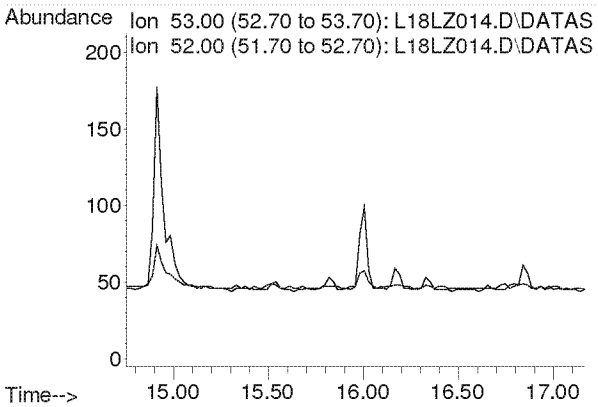


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

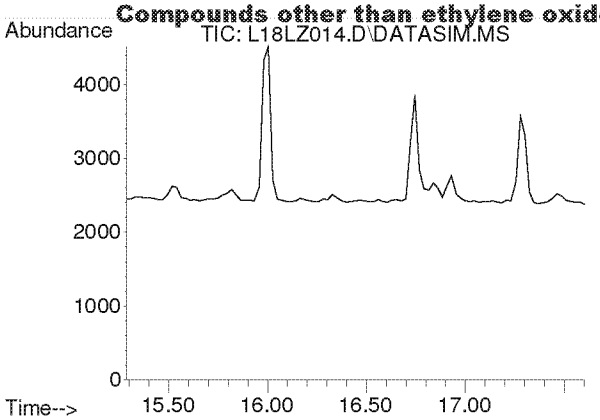
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

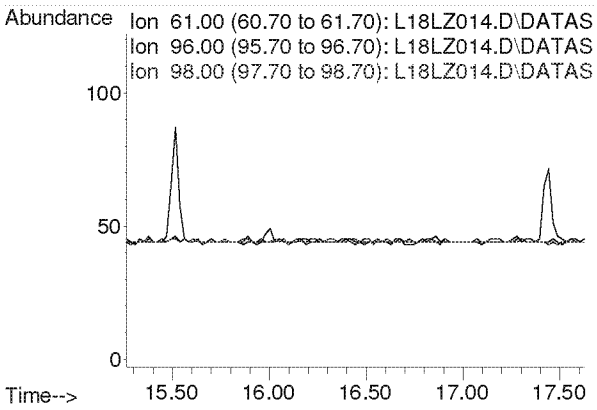


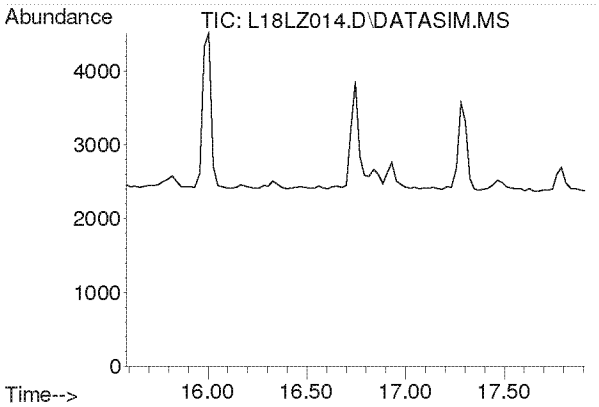
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



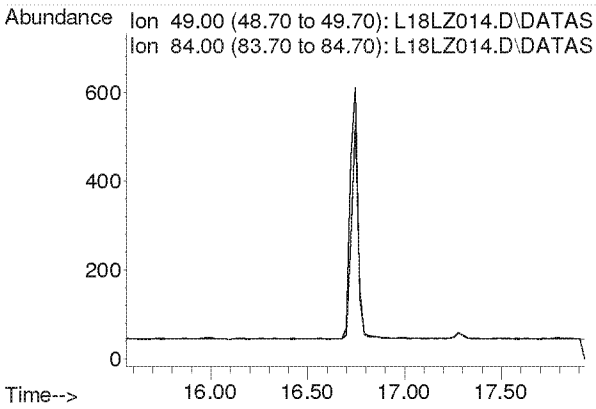


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

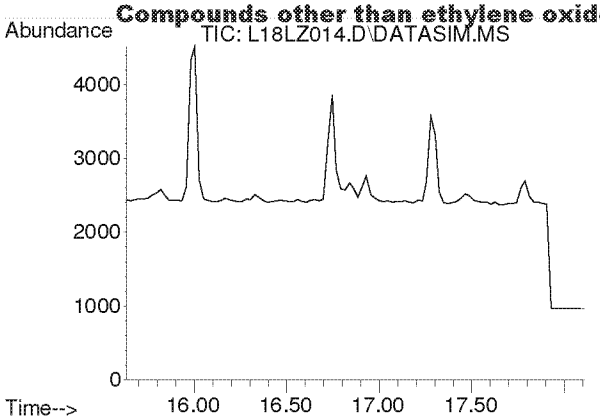
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

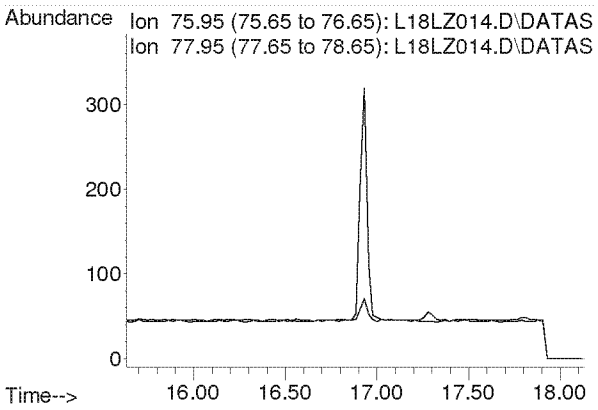


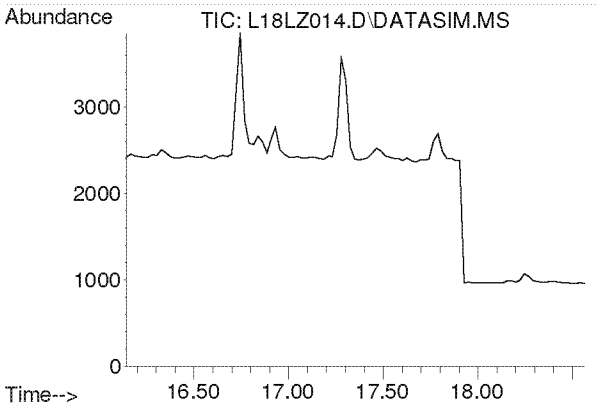
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



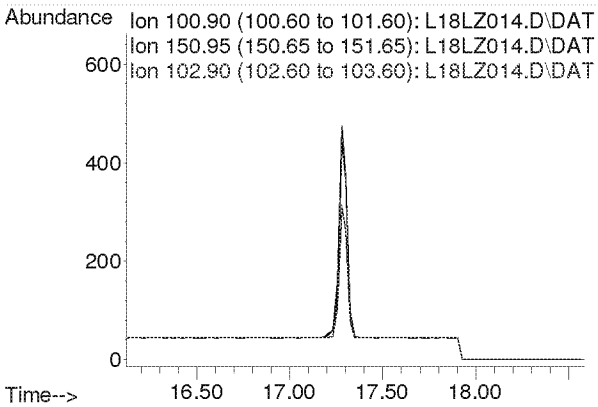


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

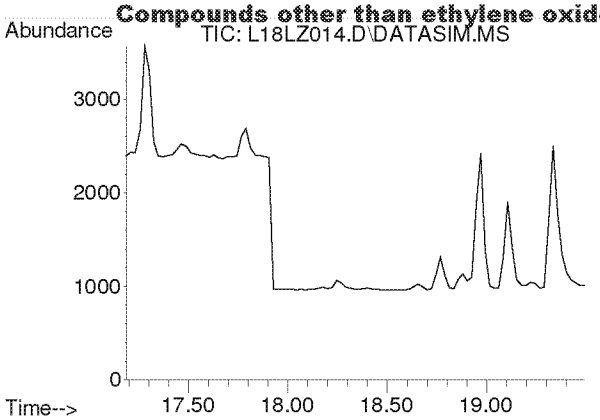
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

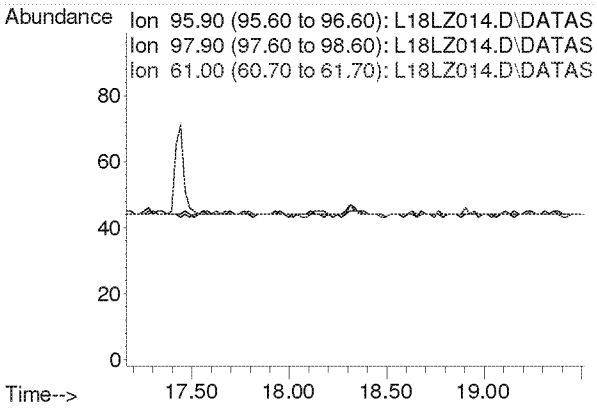


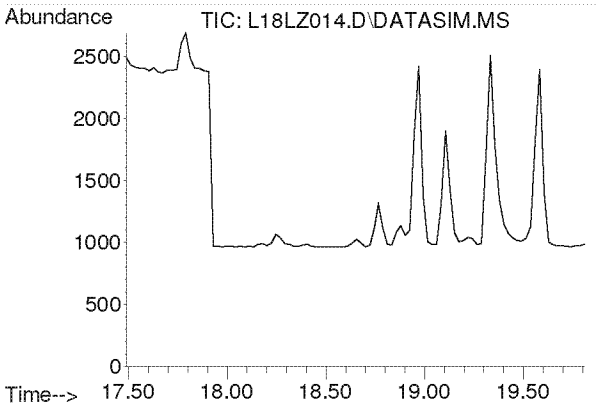
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



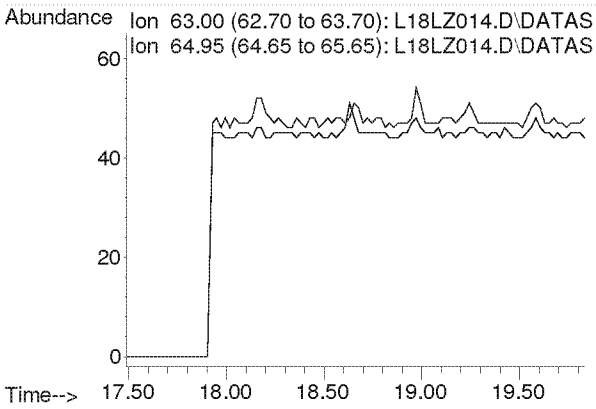


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

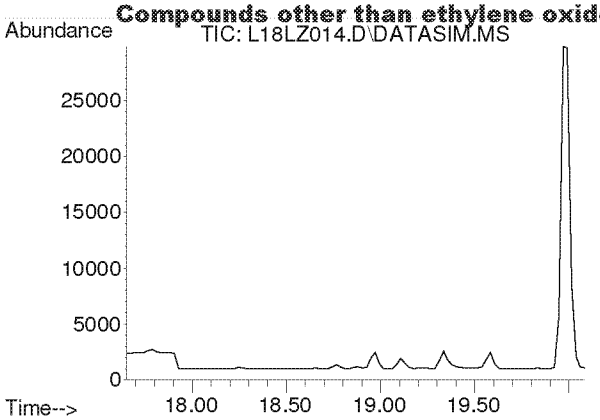
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

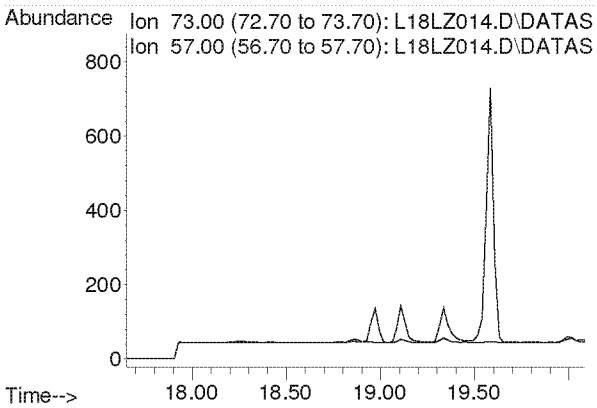


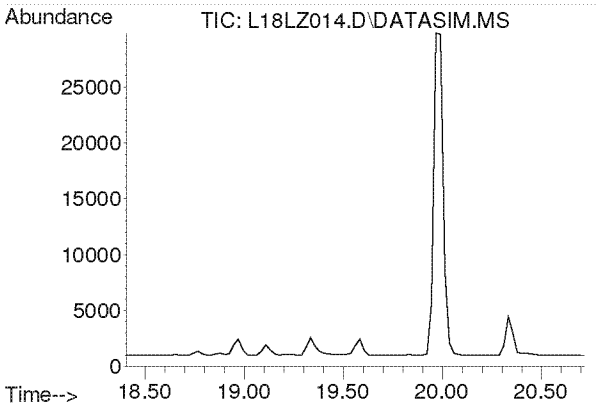
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



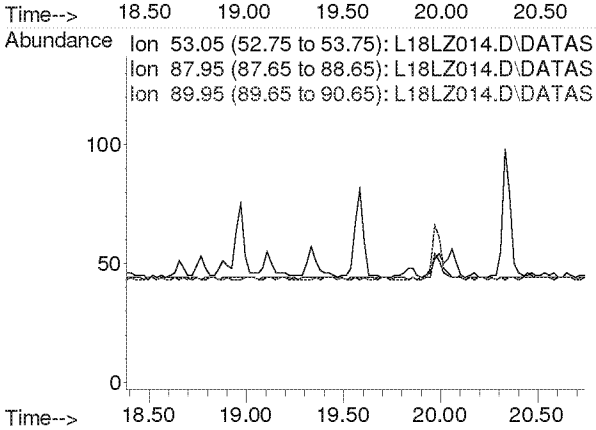


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

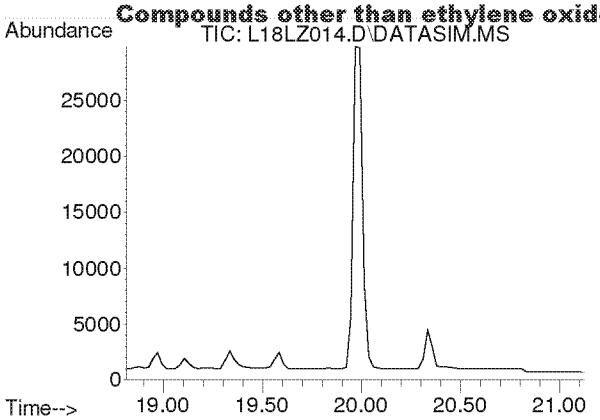
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

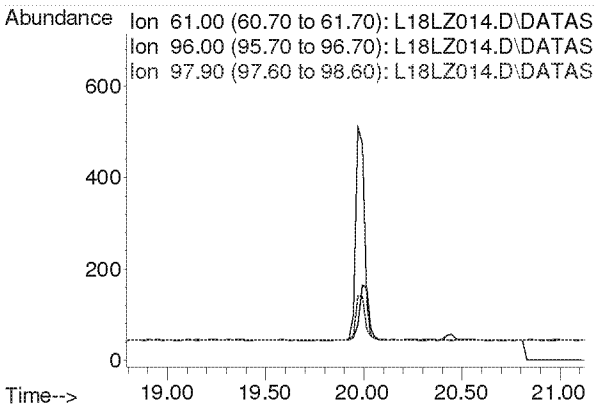


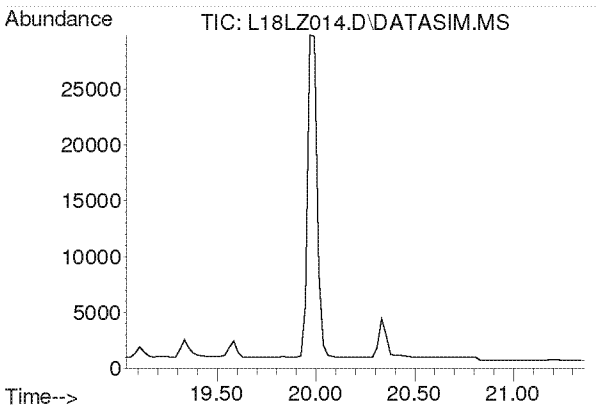
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



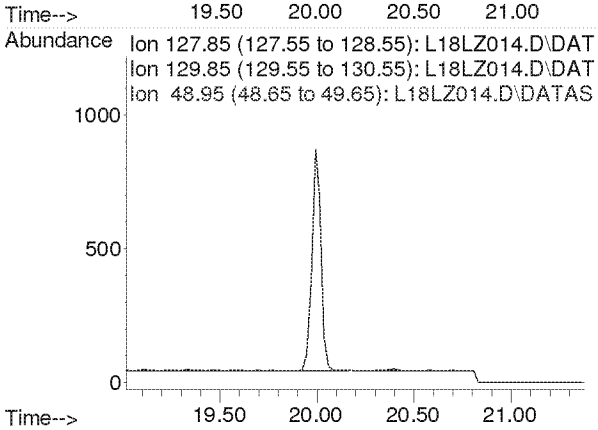


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

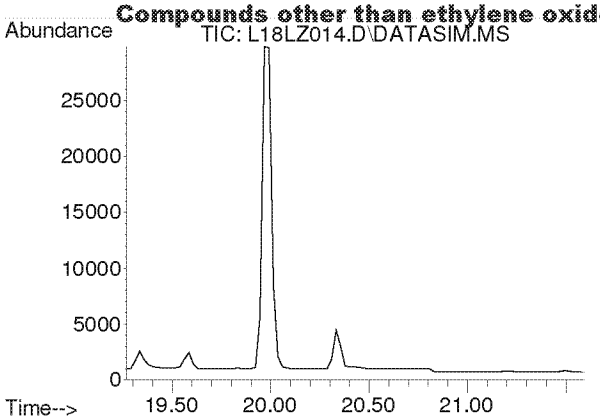
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

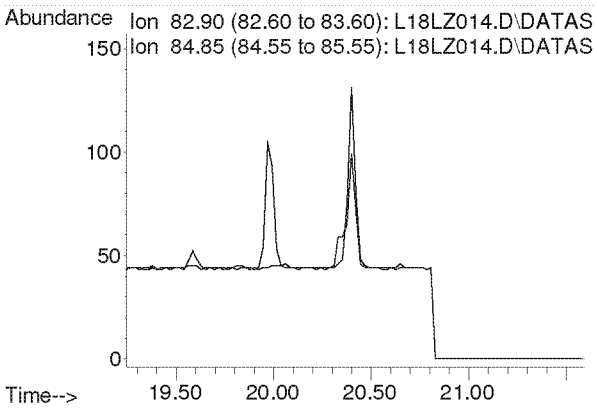


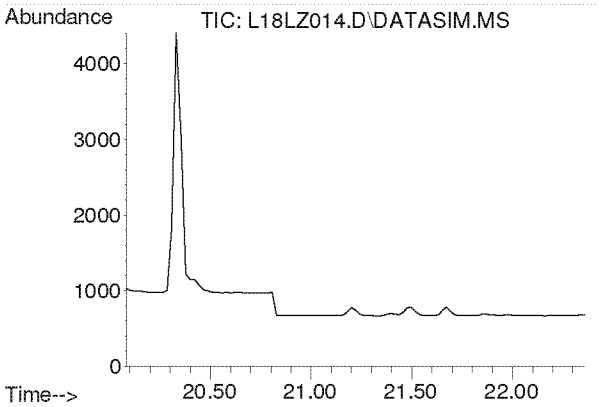
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



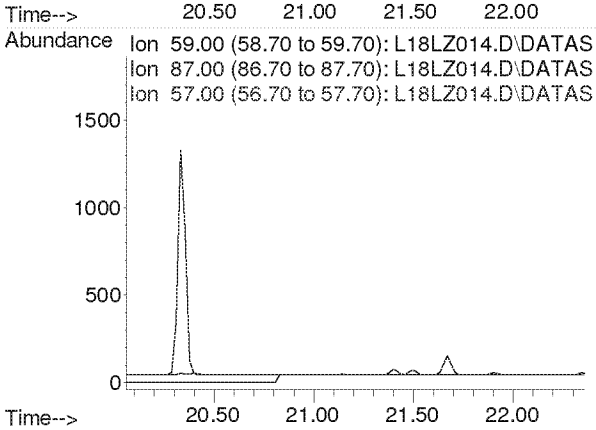


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

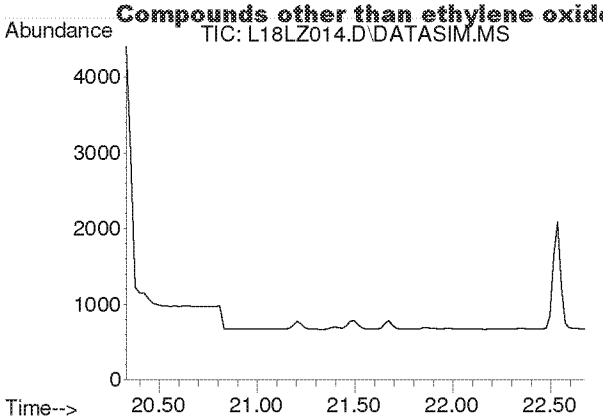
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

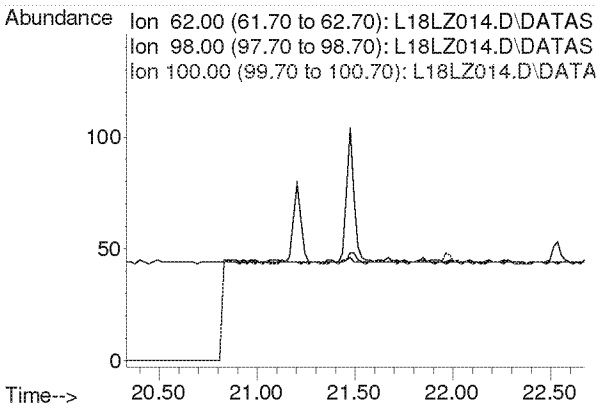


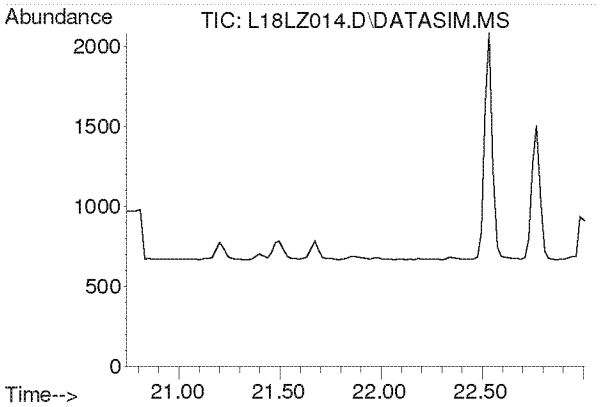
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



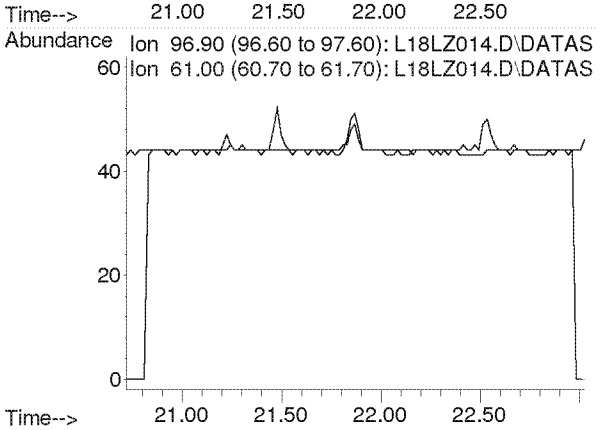


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

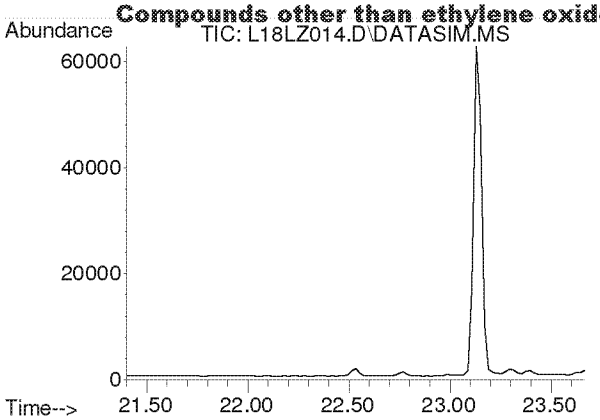
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

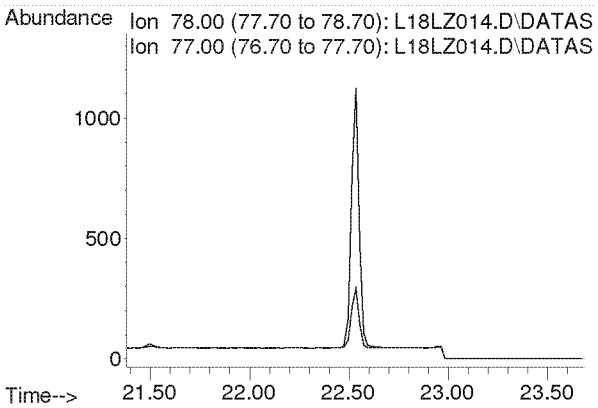


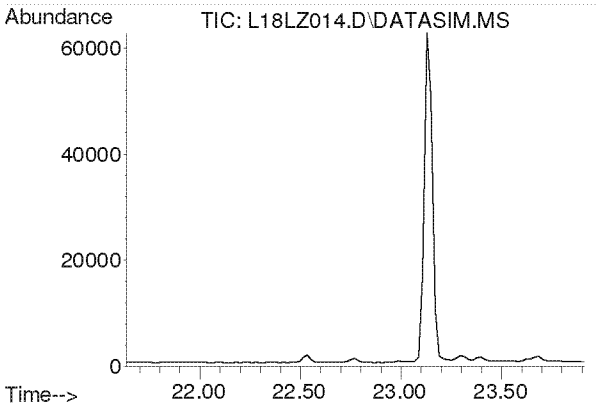
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



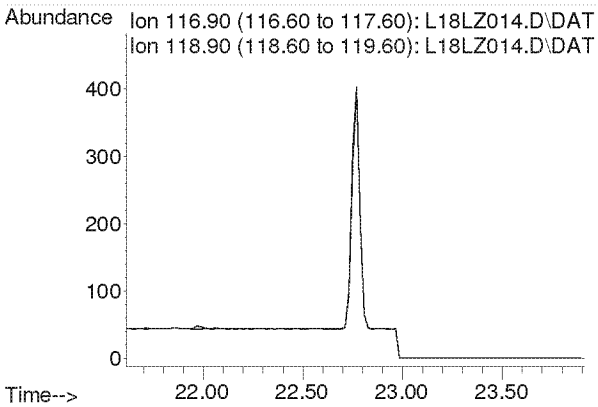


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

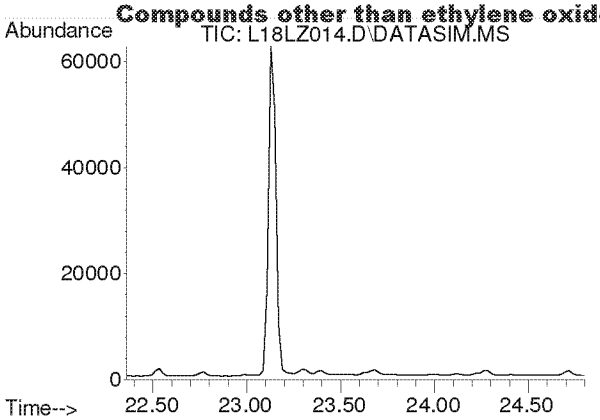
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

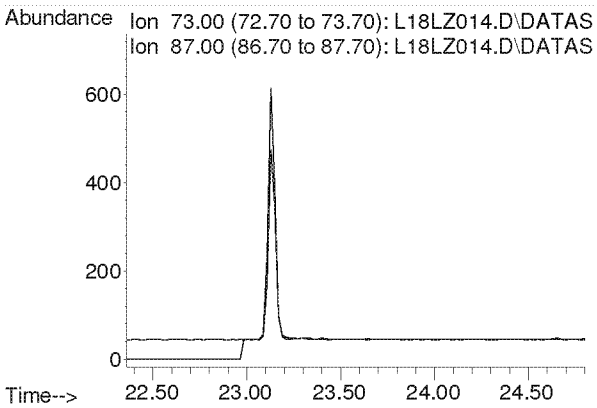


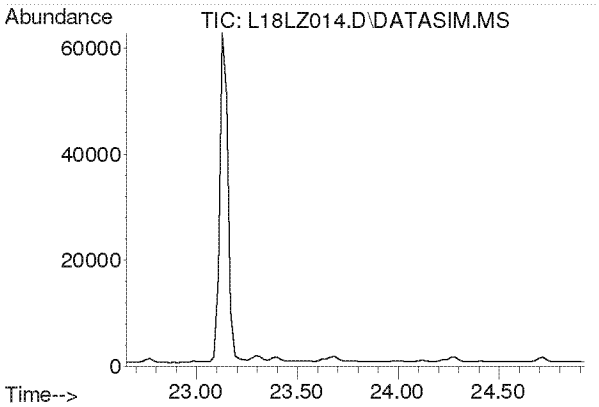
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



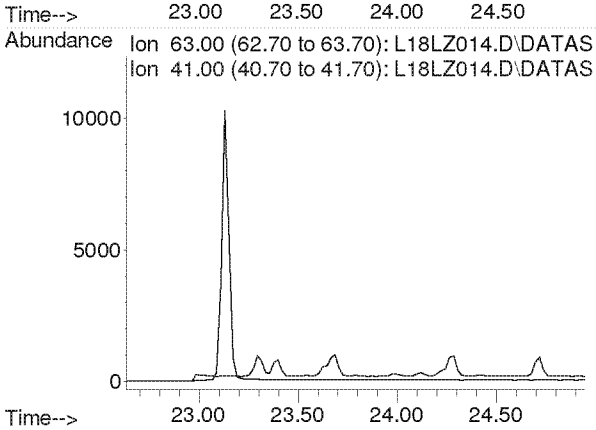


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

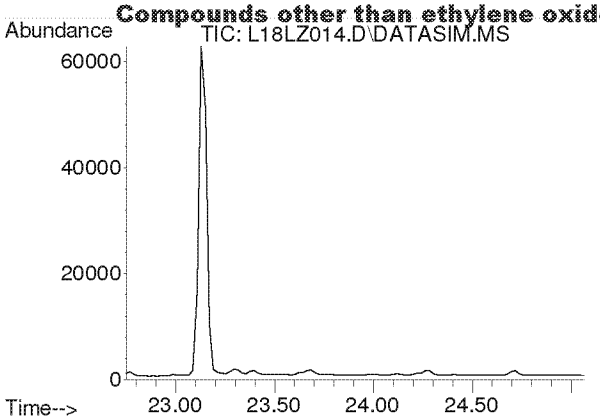
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

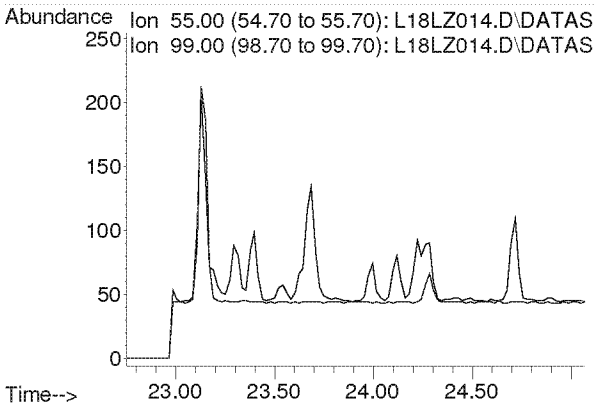


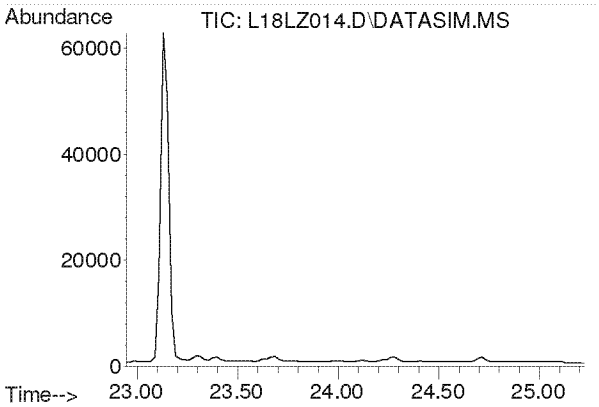
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



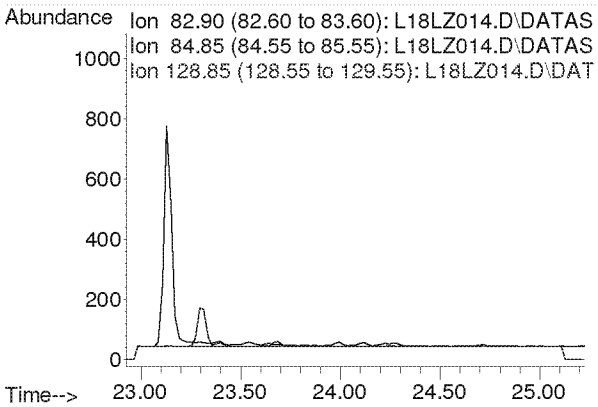


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

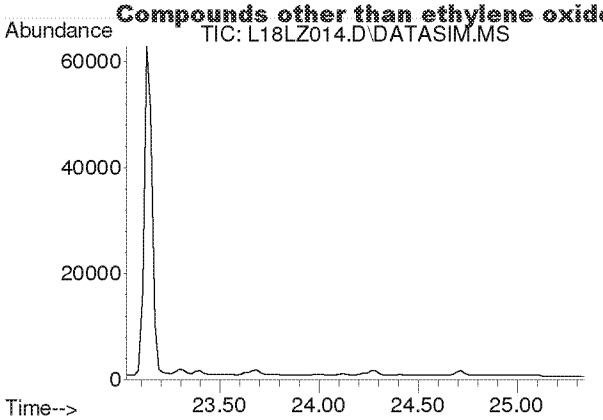
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

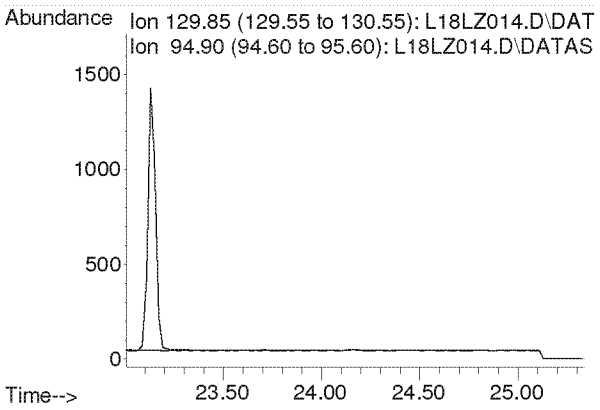


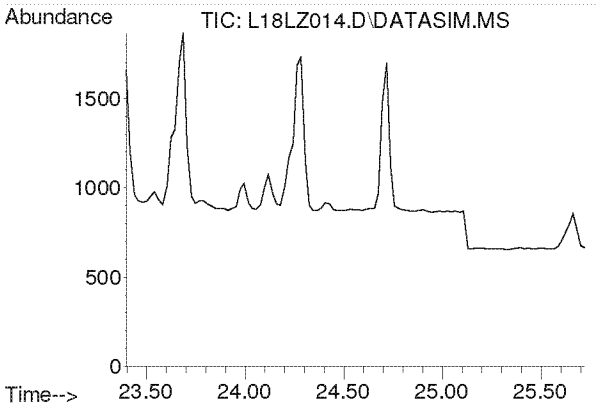
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



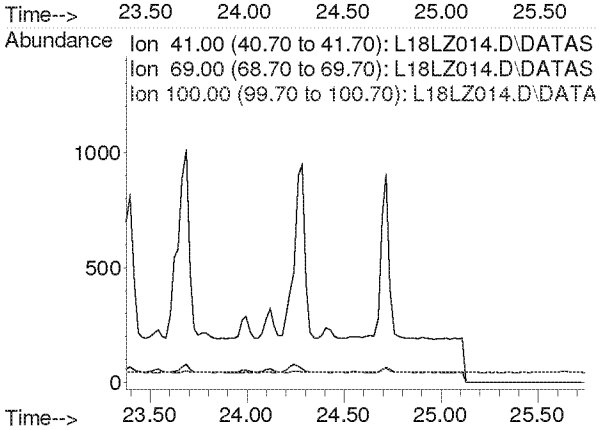


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

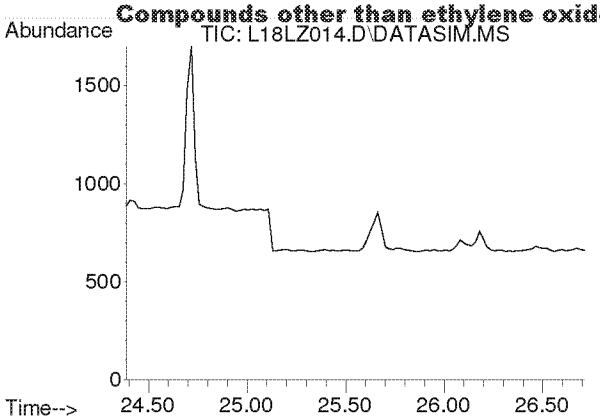
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

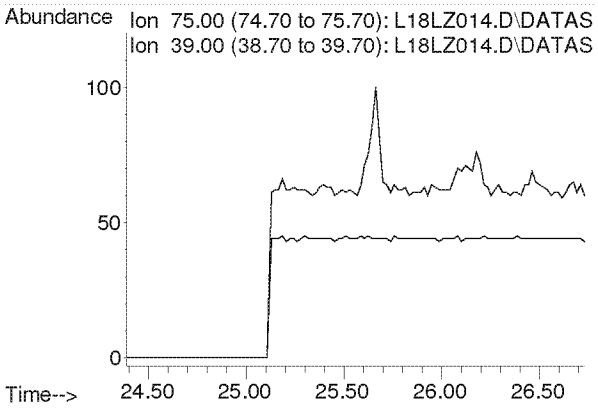


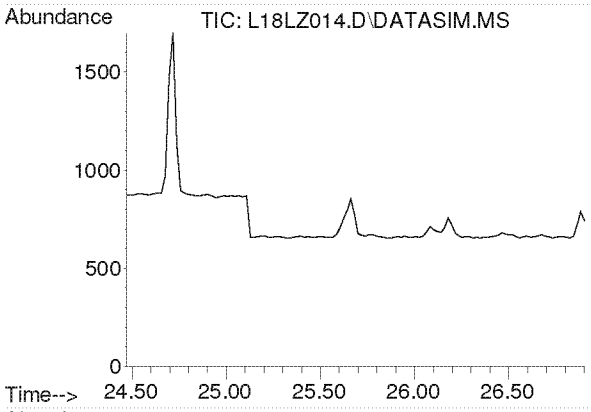
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



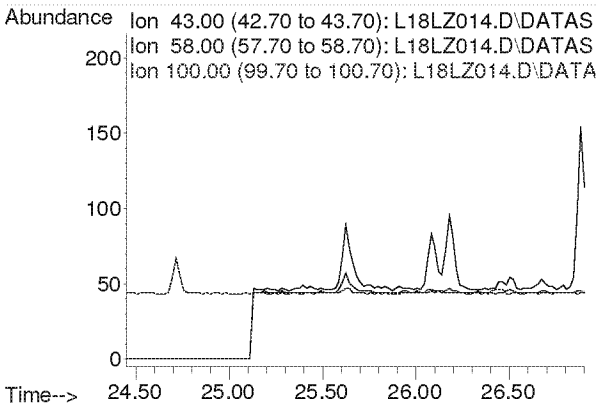


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

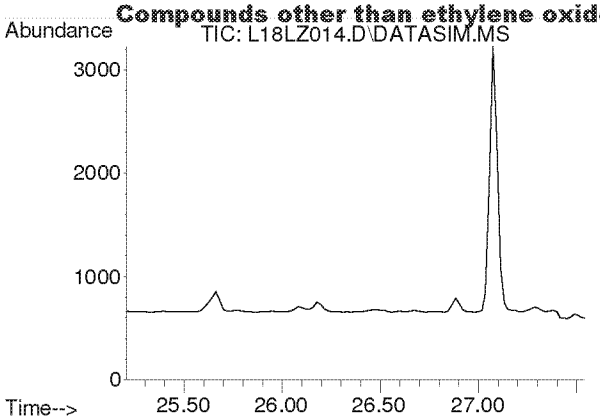
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

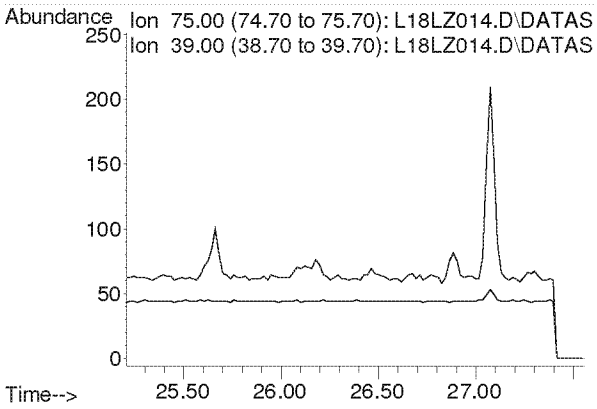


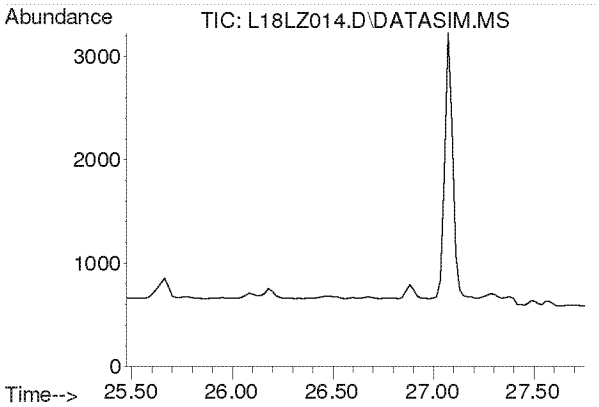
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



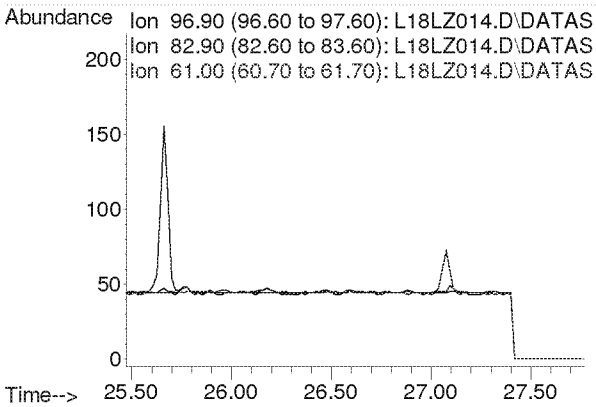


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

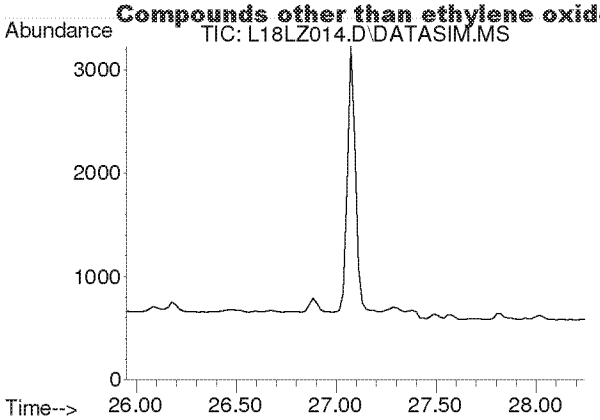
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

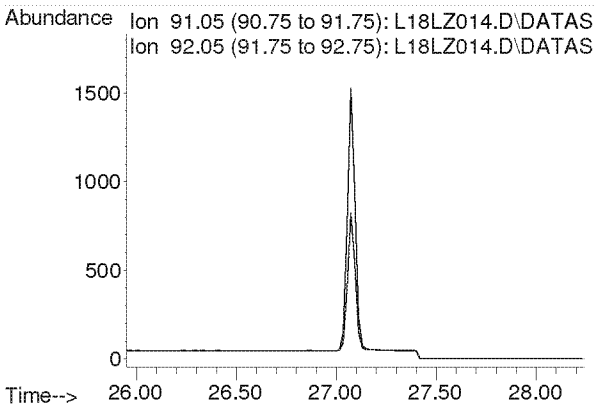


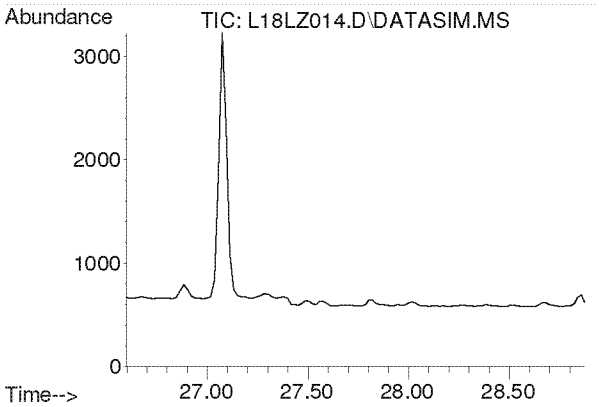
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



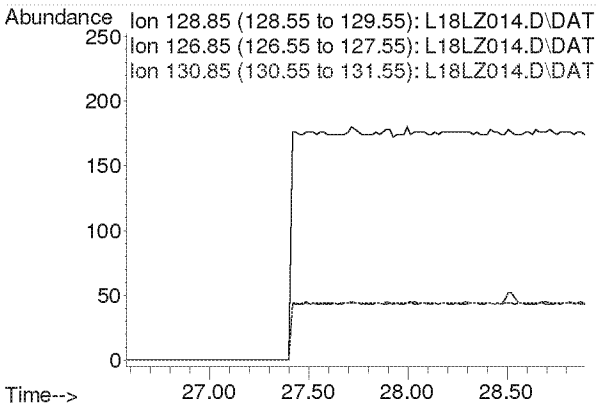


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

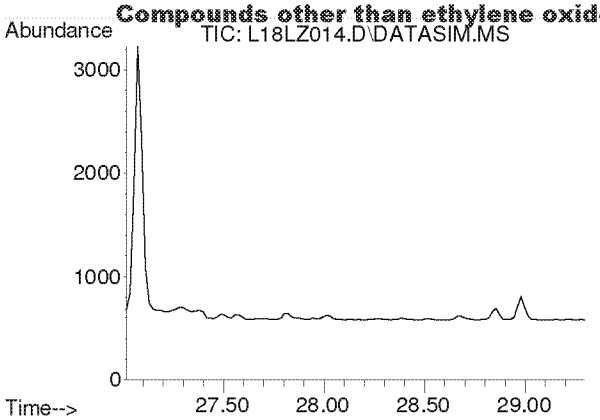
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

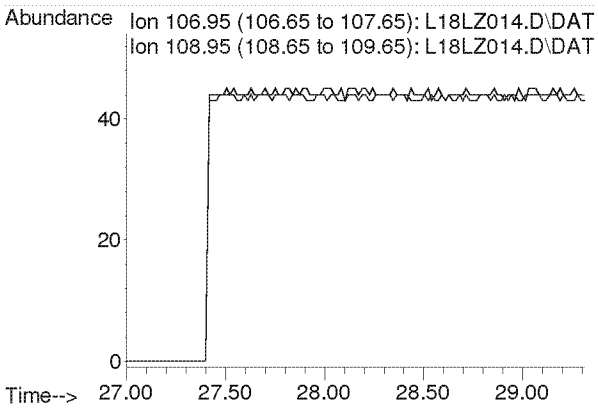


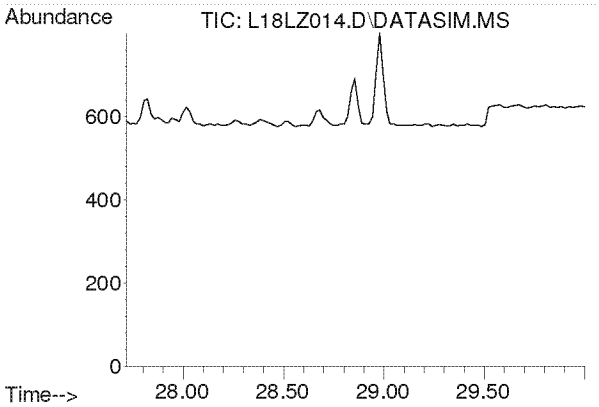
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



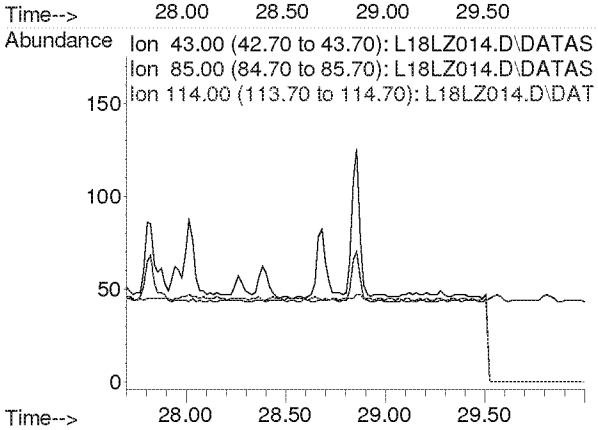


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

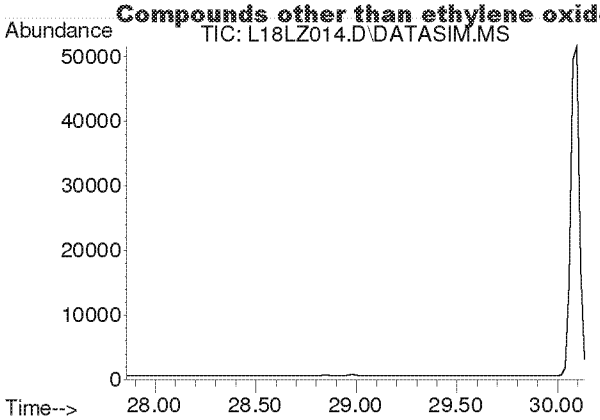
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

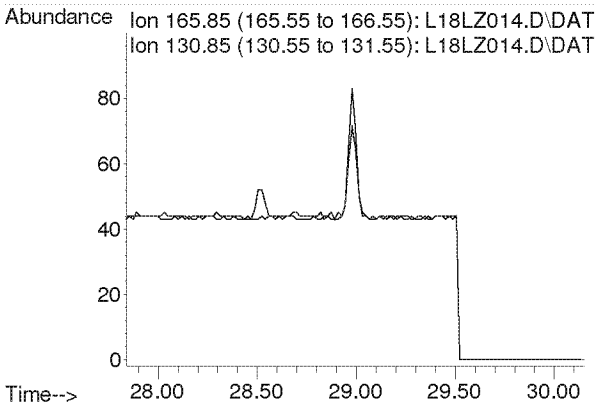


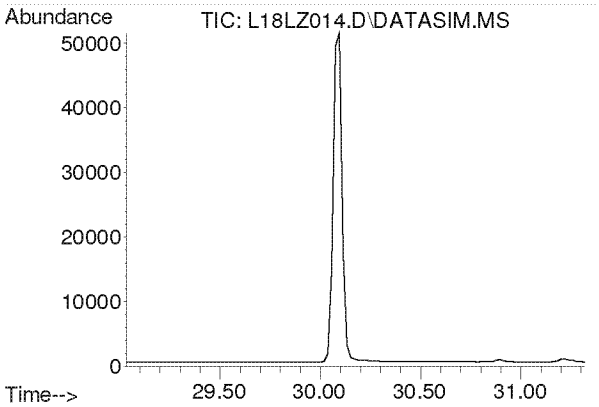
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



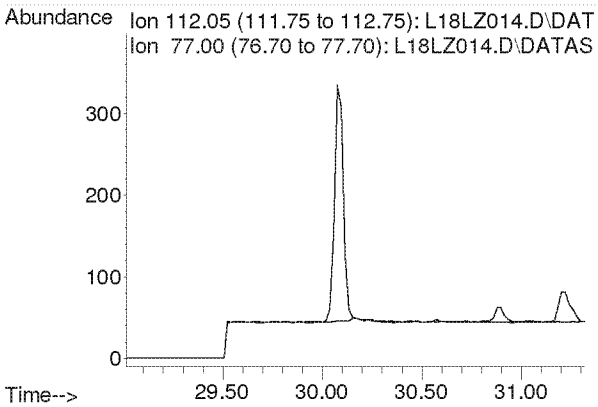


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

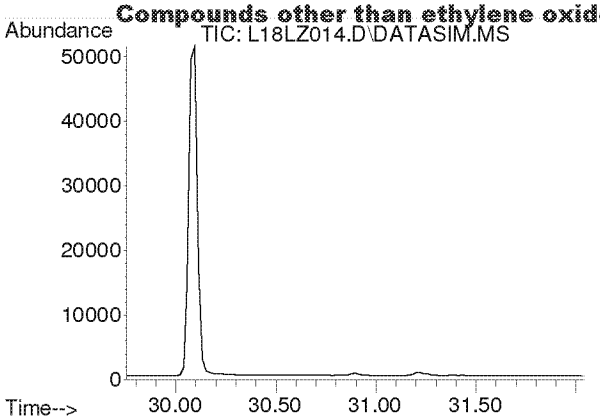
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

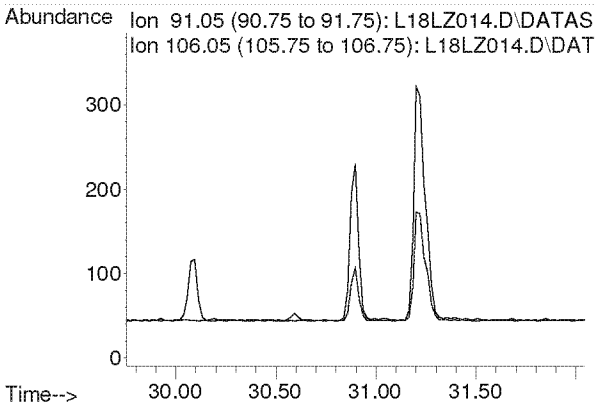


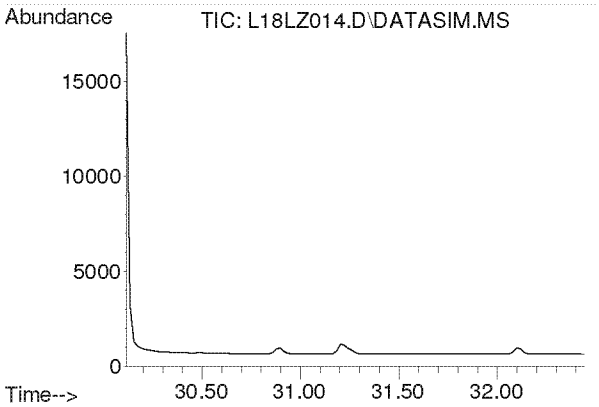
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



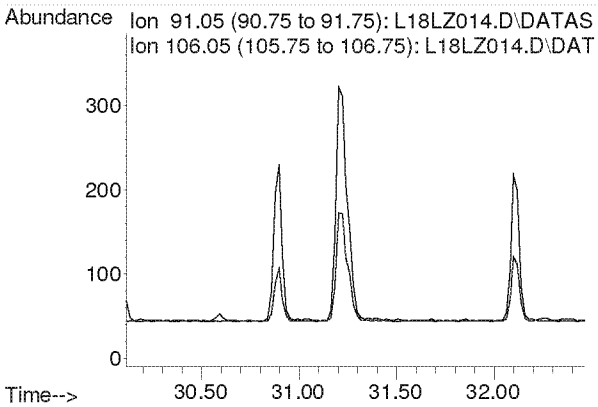


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

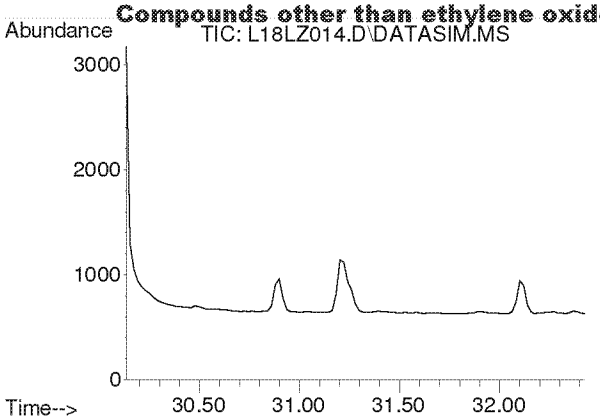
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

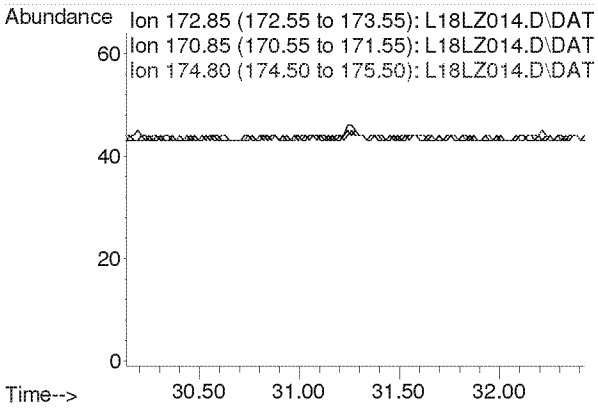


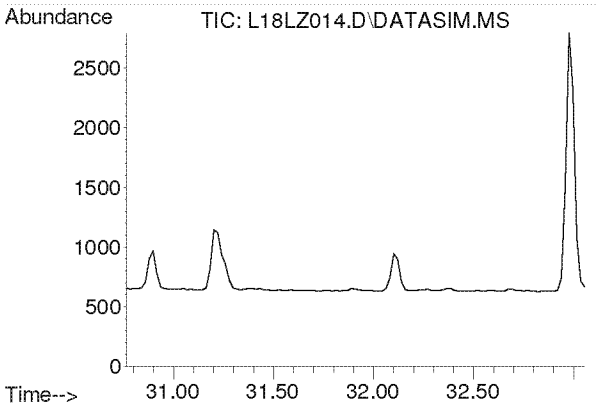
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



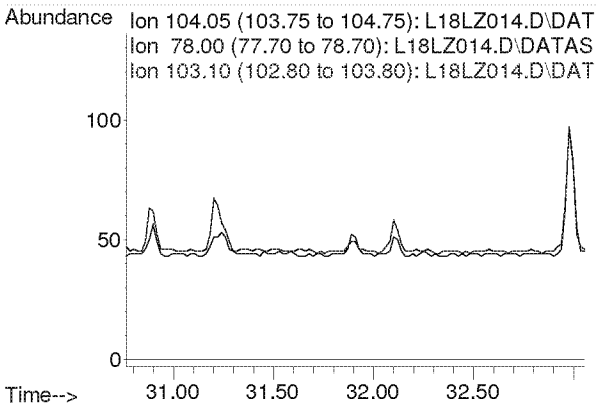


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

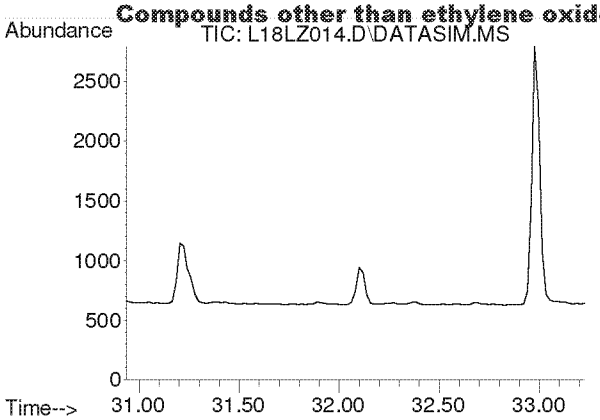
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

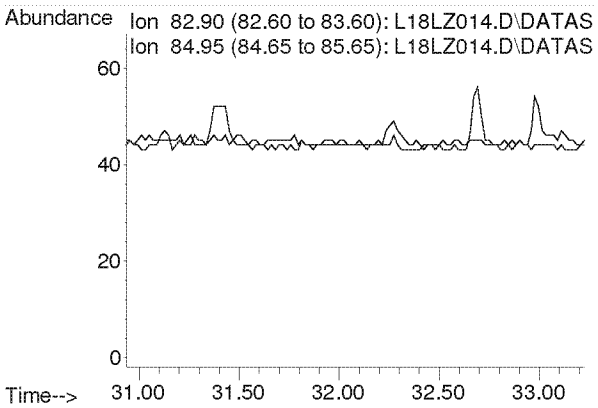


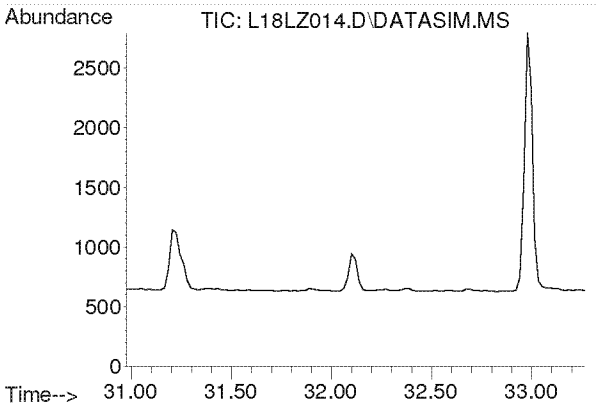
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



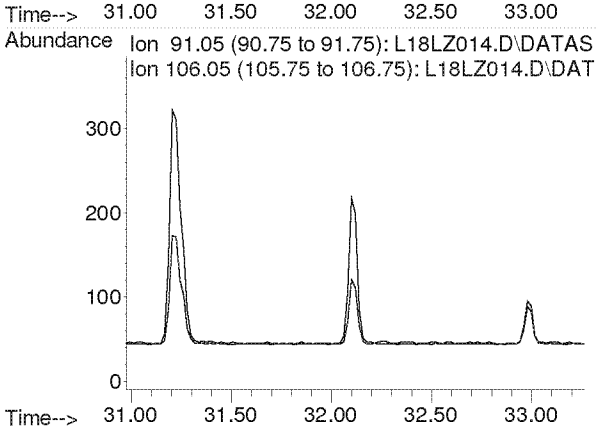


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

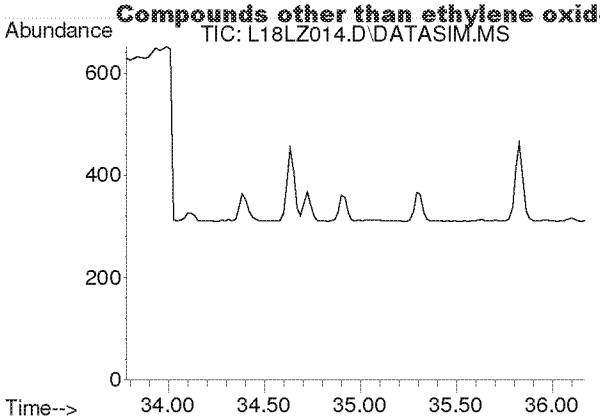
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

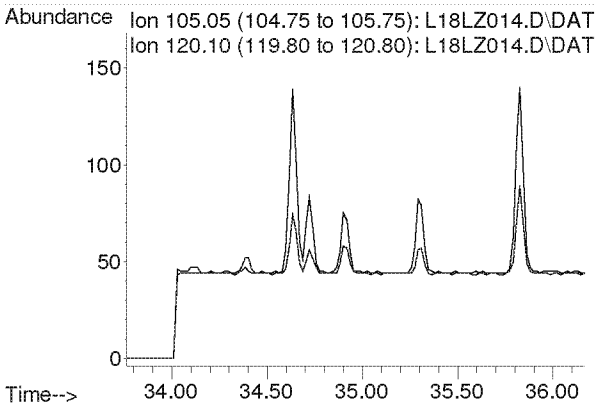


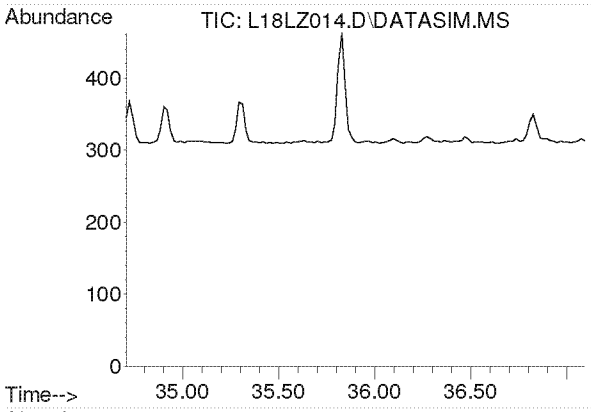
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



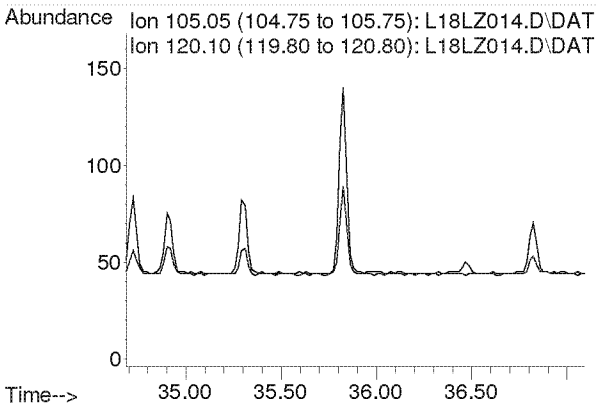


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

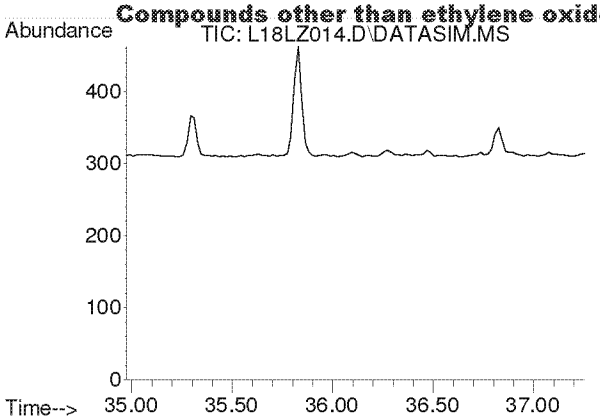
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

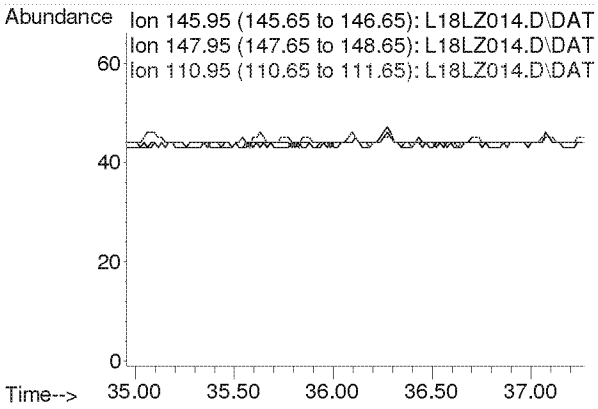


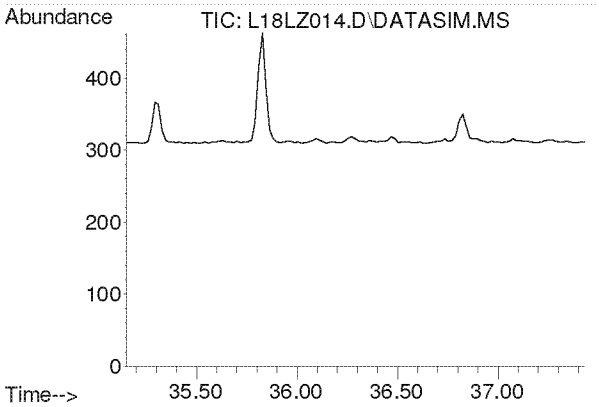
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



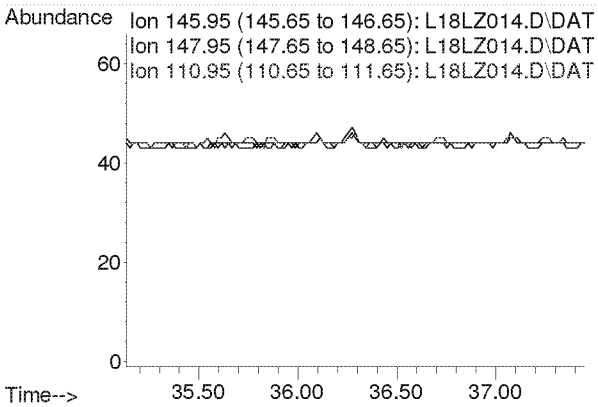


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

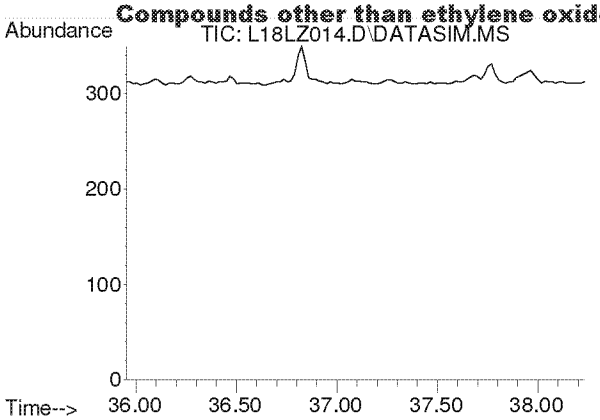
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

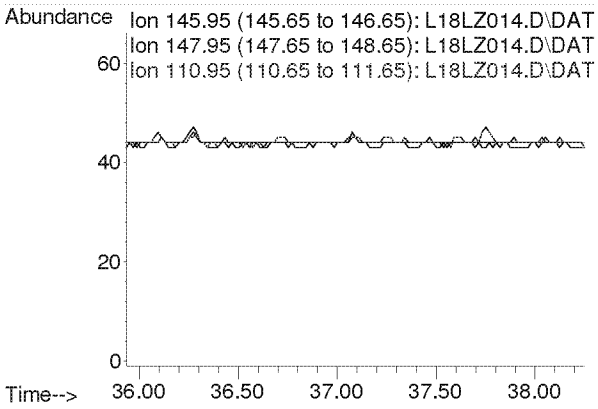


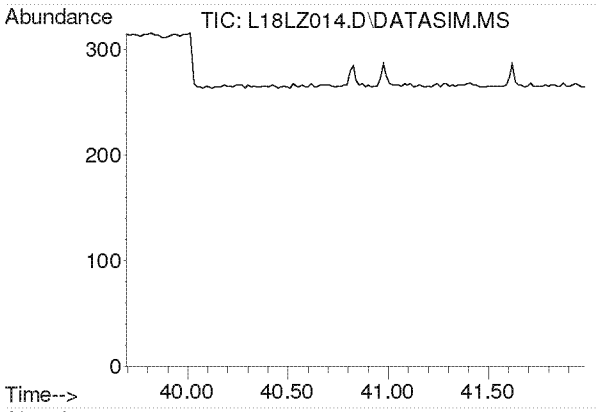
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



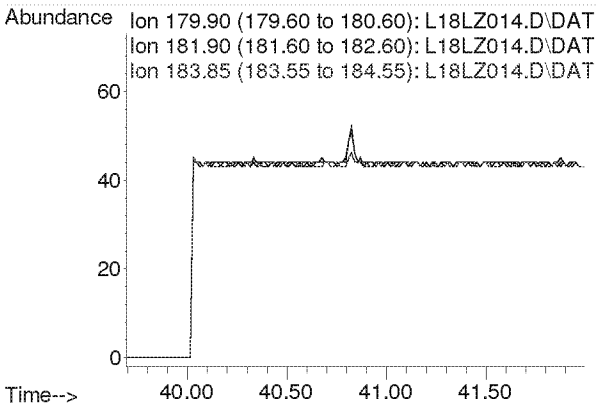


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

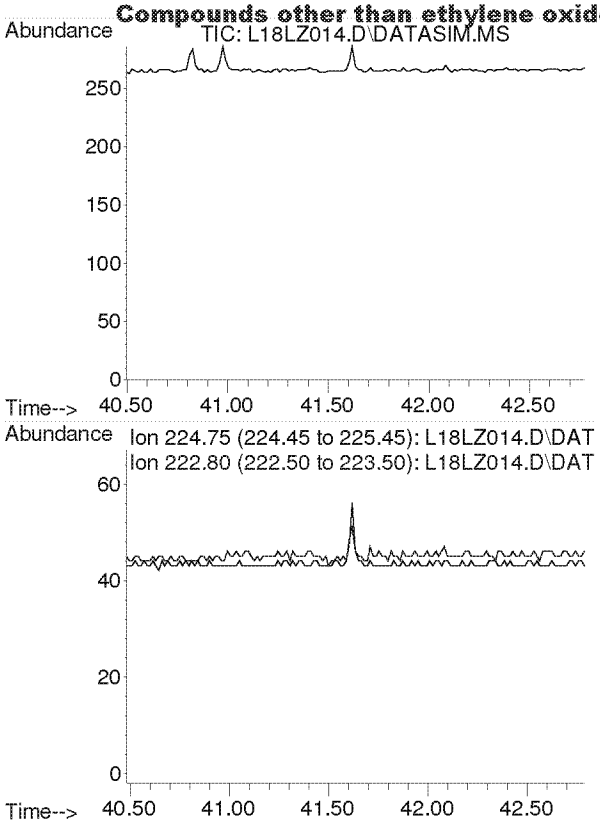
Lab File: L18LZ014.D
Acq: 27 Dec 2018 12:47 am

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: L18LZ014.D
Acq: 27 Dec 2018 12:47 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\L18LZ\
Data File : L18LZ015.D
Acq On : 27 Dec 2018 1:50 am
Operator : MAH
Sample : 8121220-09
Misc : WB WAREHOUSE C2 12/11/18
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 03 11:58:55 2019
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	19.991	66	56002	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	133081	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	92324	4.7400 ppbv	0.00

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. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.438	29	745m	0.2226 ppbv	
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.	
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.	
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.	
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\L18LZ\
Data File : L18LZ015.D
Acq On : 27 Dec 2018 1:50 am
Operator : MAH
Sample : 8121220-09
Misc : WB WAREHOUSE C2 12/11/18
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 03 11:58:55 2019
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

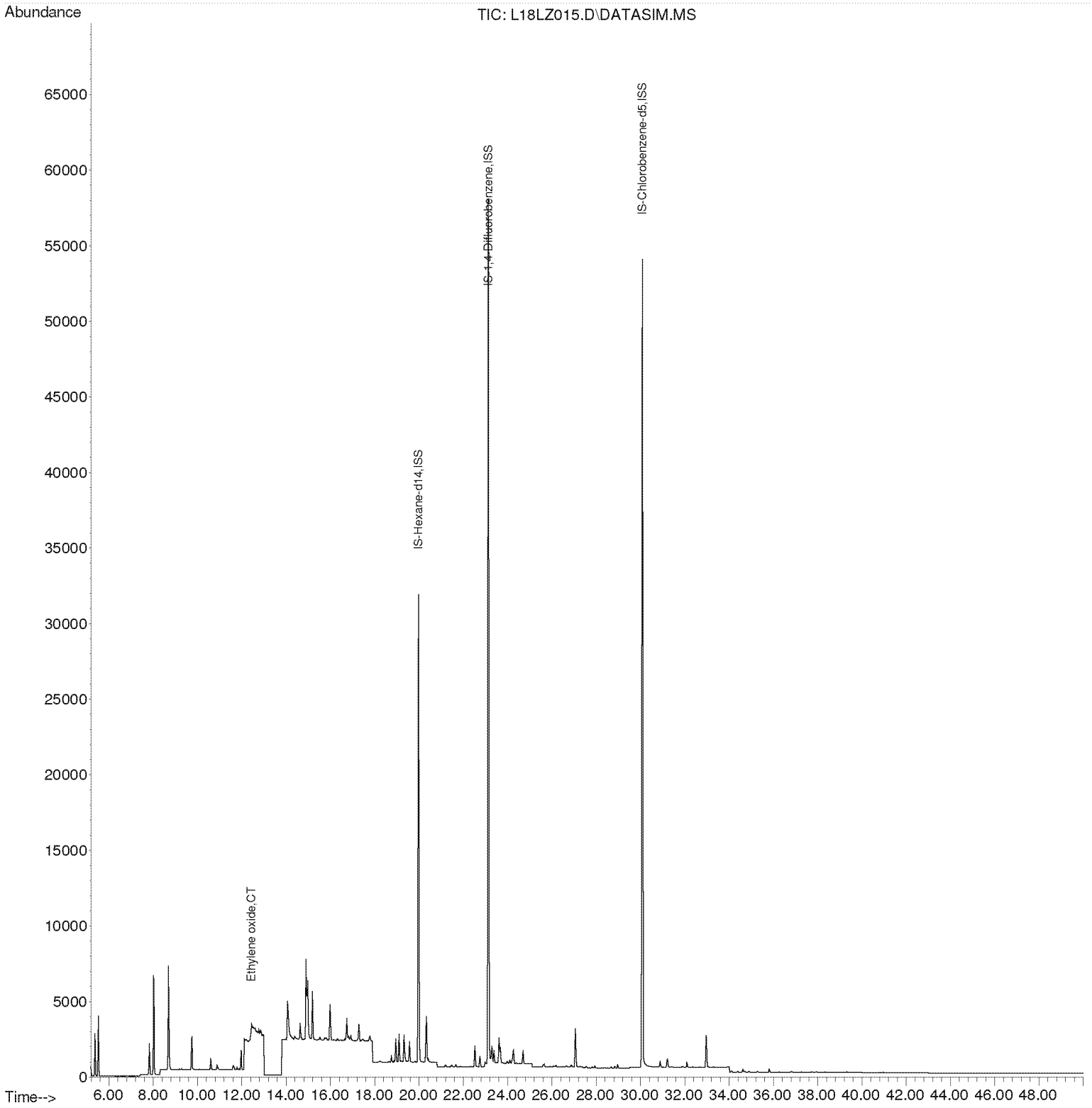
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	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

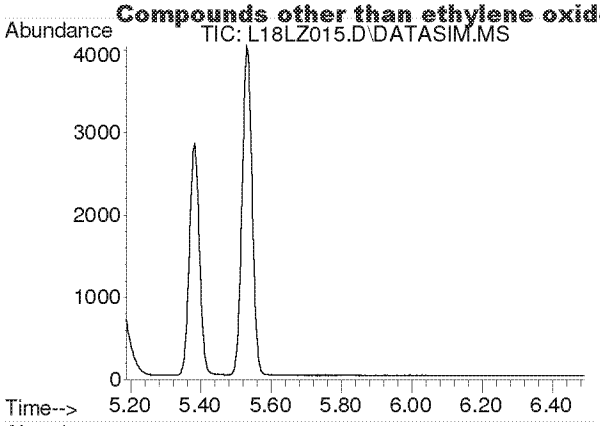
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ015.D
Acq On : 27 Dec 2018 1:50 am
Operator : MAH
Sample : 8121220-09
Misc : WB WAREHOUSE C2 12/11/18
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 03 10:33:43 2019
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



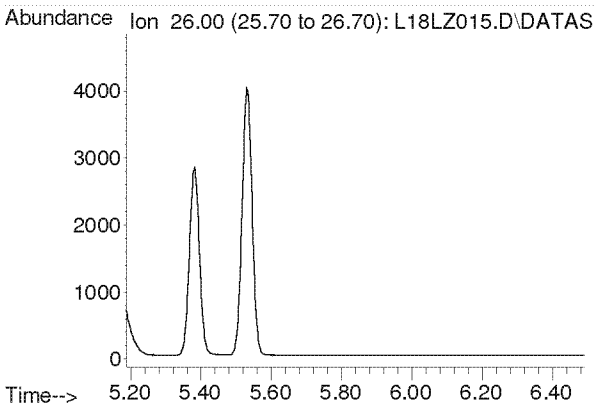
Compounds other than ethylene oxide were not quantitated.

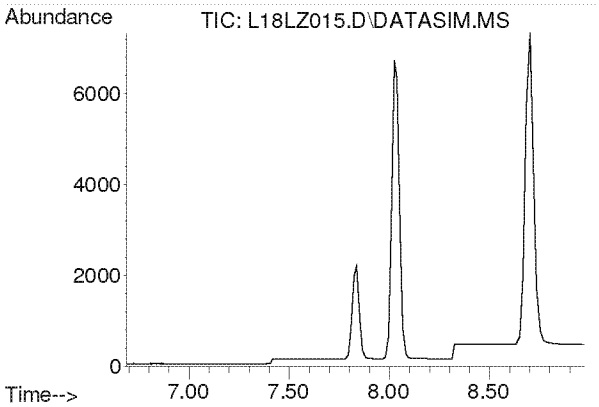


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 26



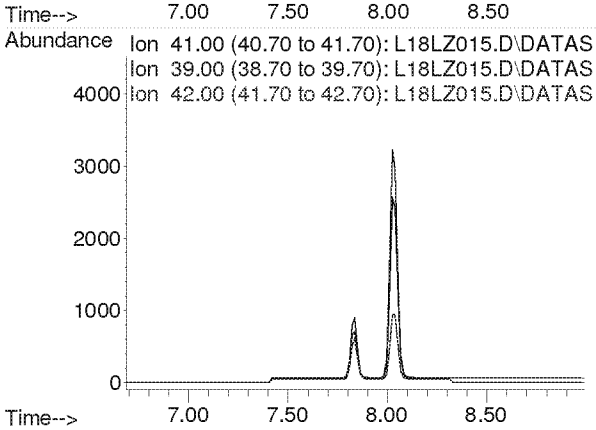


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

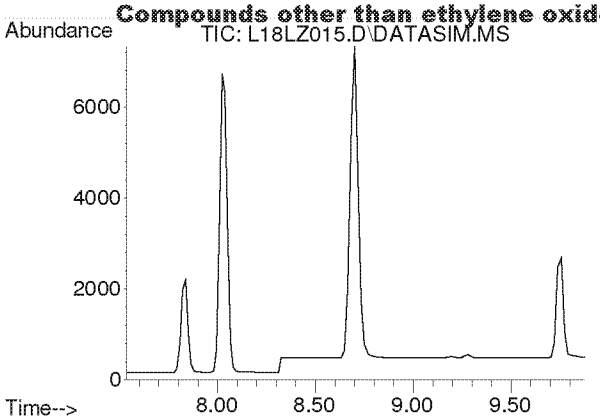
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

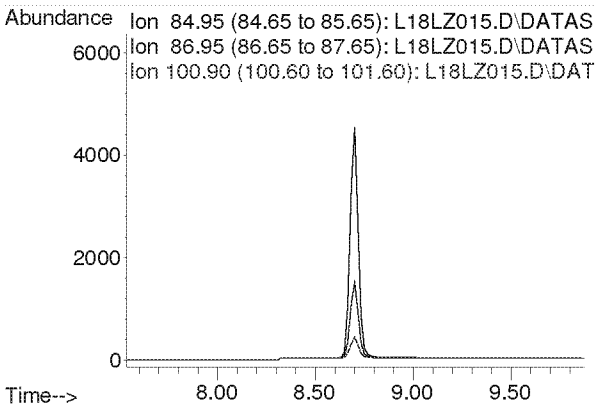


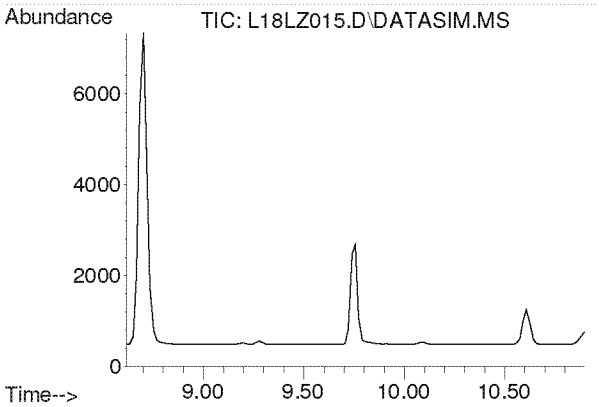
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



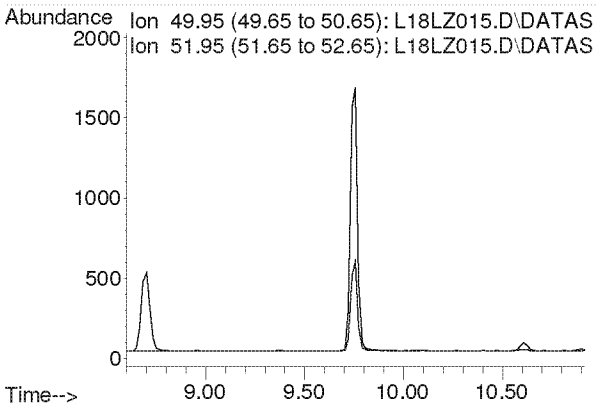


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

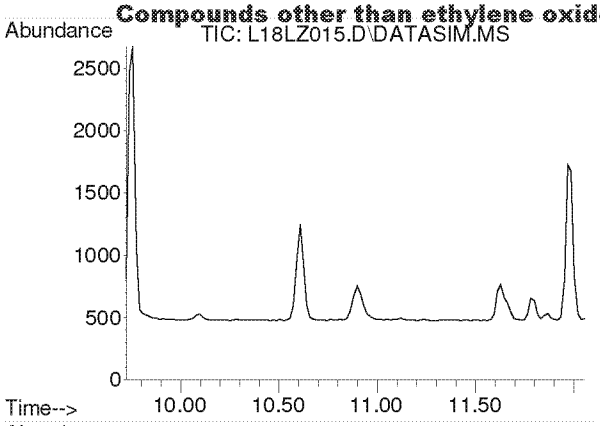
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

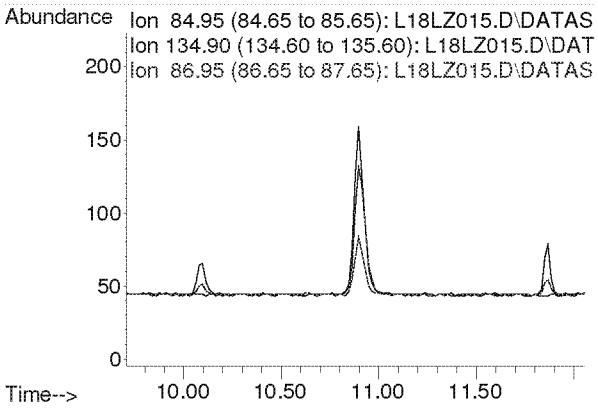


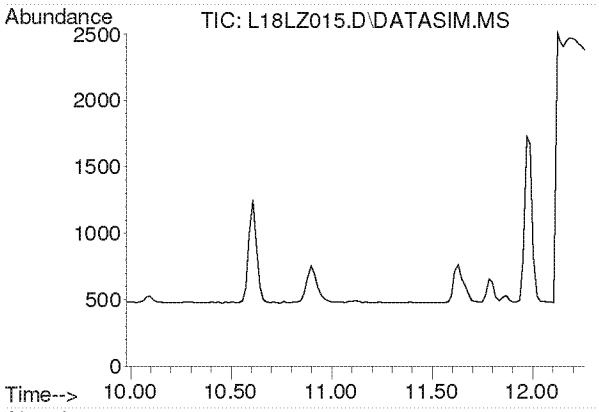
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



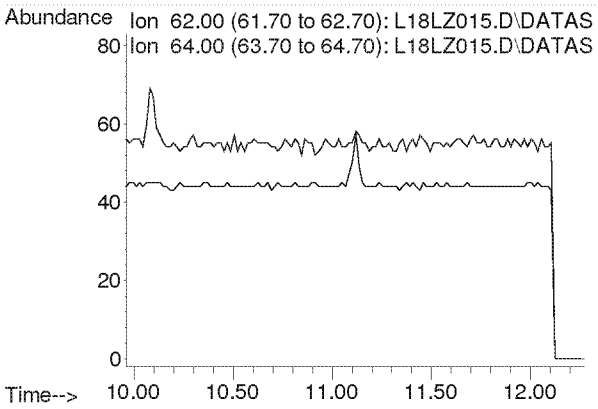


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

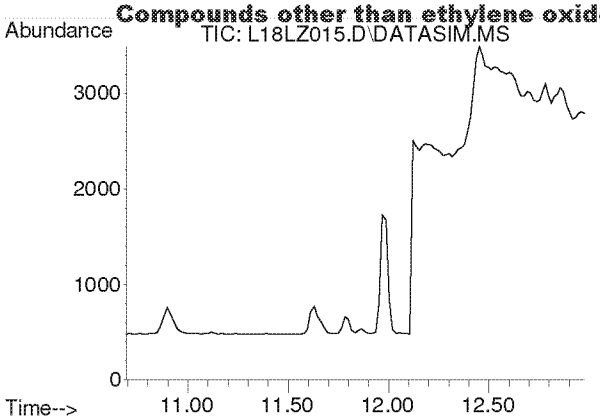
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

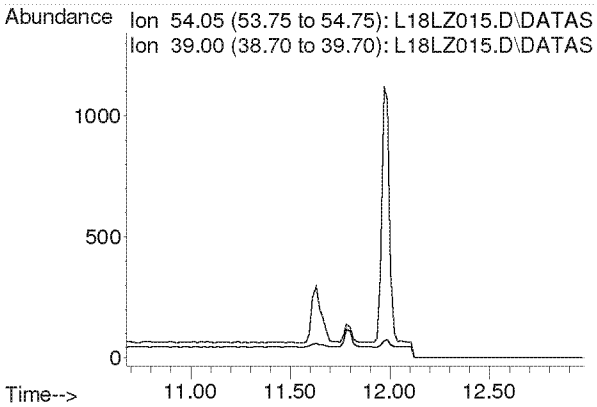


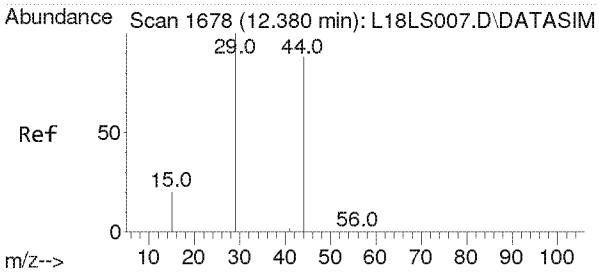
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

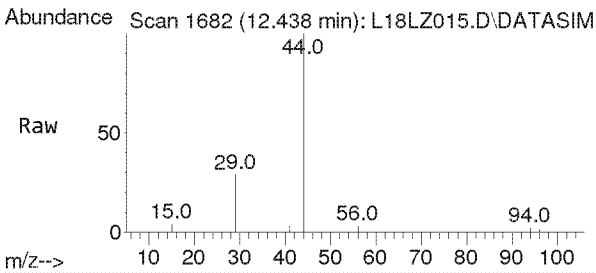


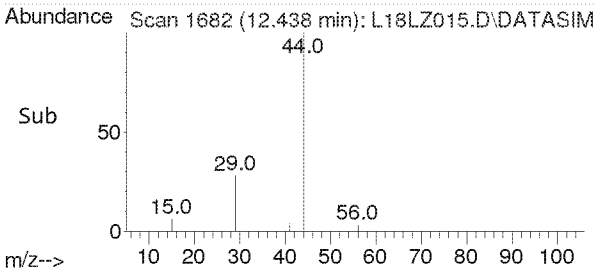


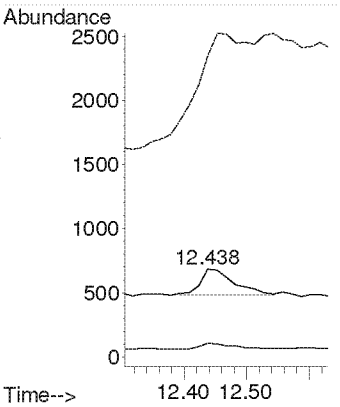
#9
Ethylene oxide
Concen: 0.223 ppbv m
RT: 12.438 min Scan# 1682
Delta R.T. 0.058 min
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 29 Resp: 745

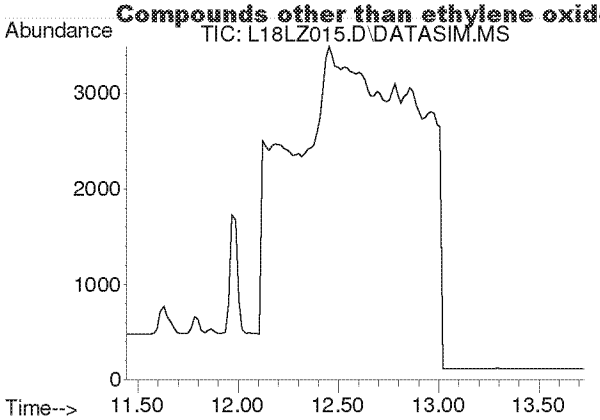
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.2	24.4#
44	0.0	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

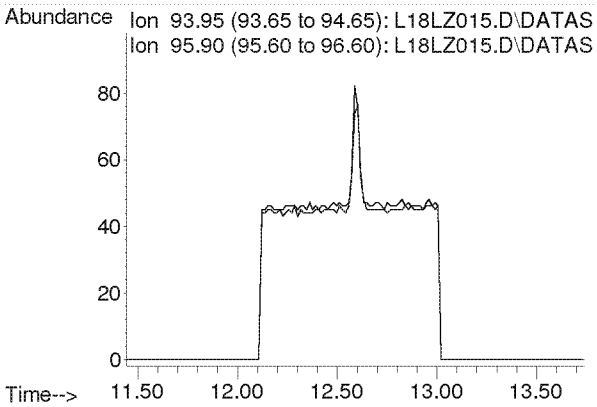


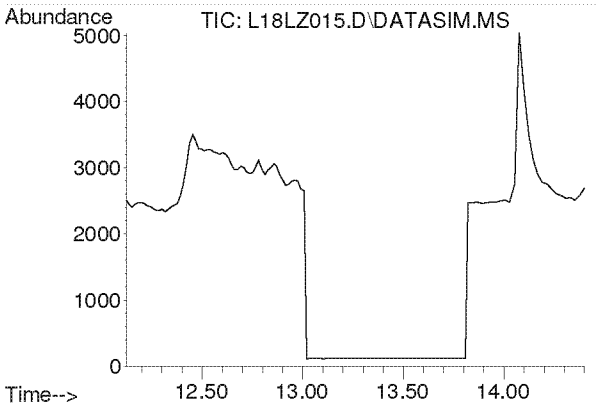
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



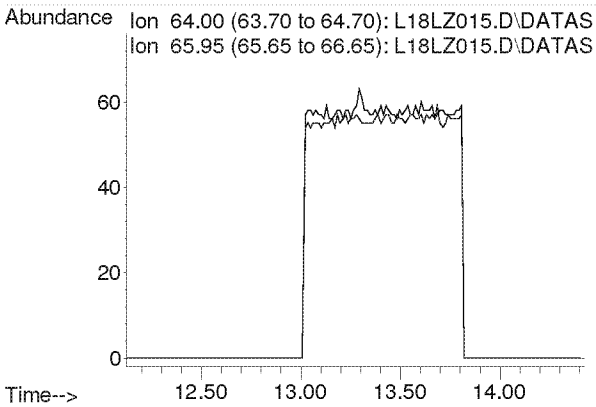


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

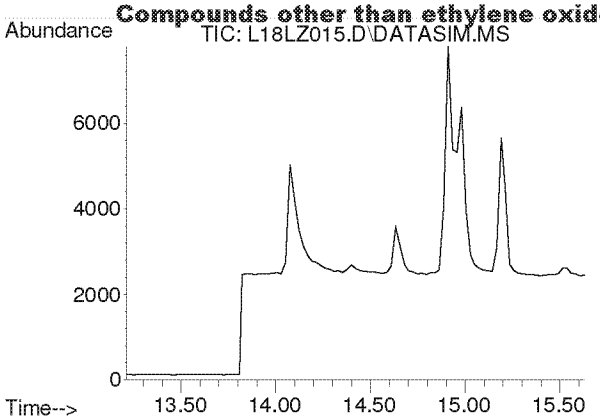
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

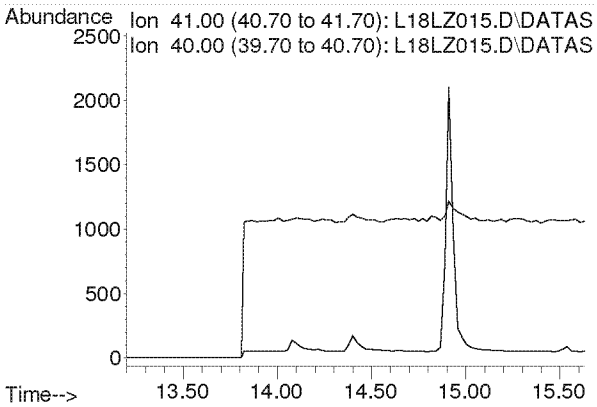


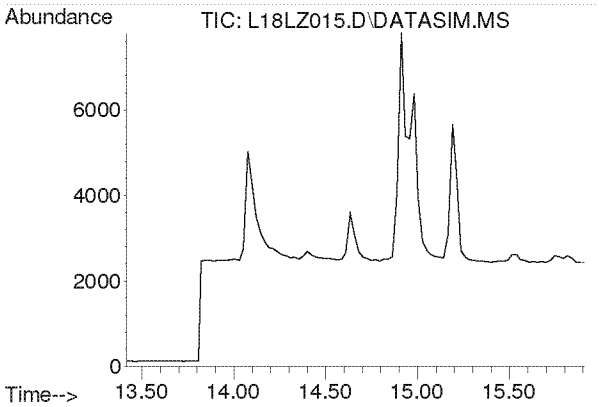
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



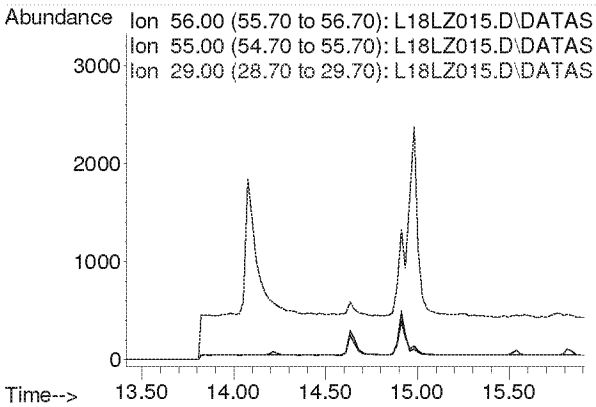


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

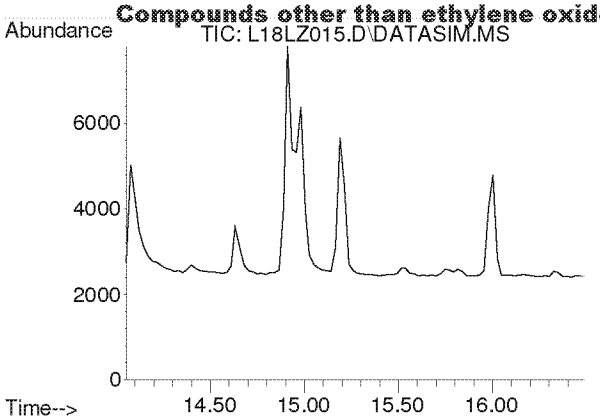
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

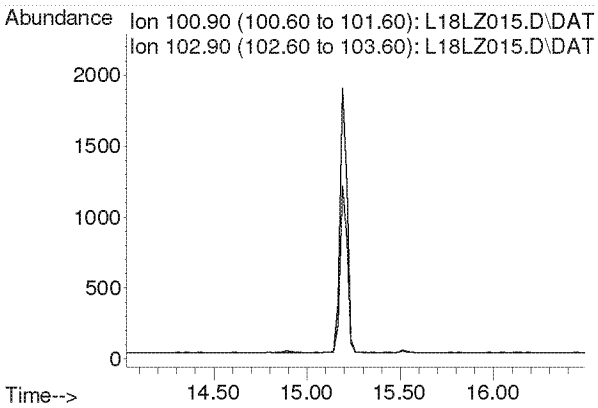


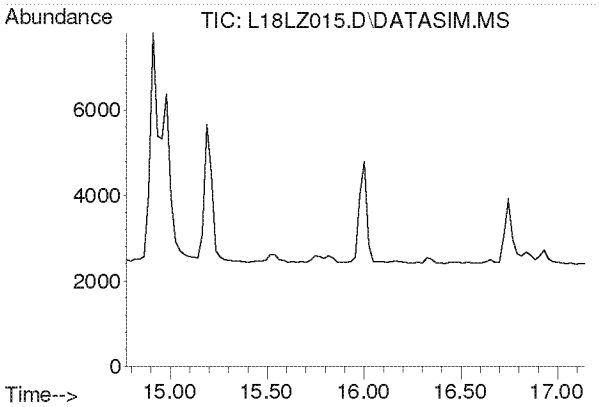
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



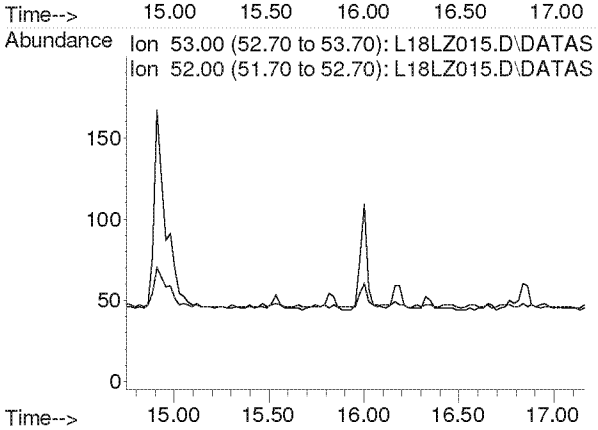


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

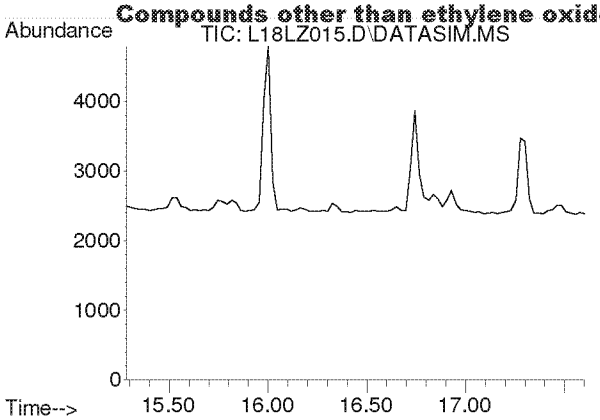
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

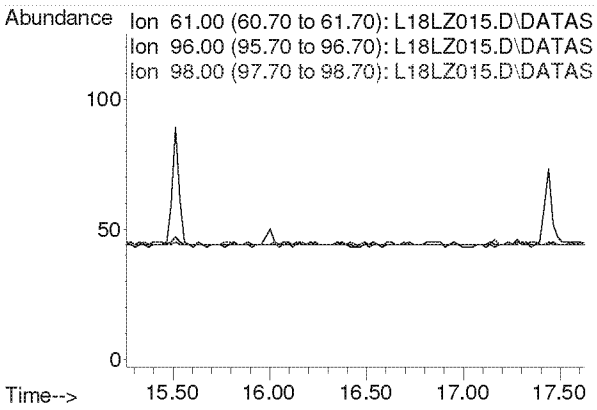


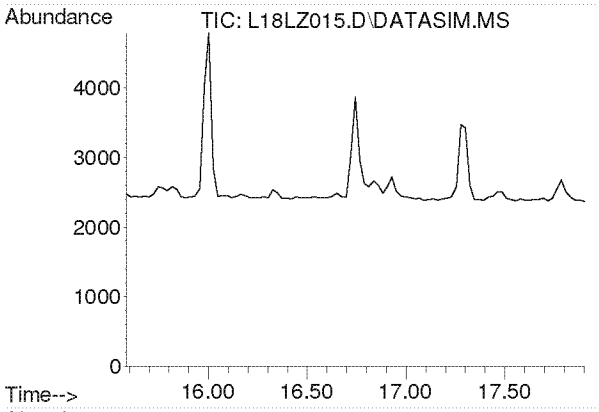
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



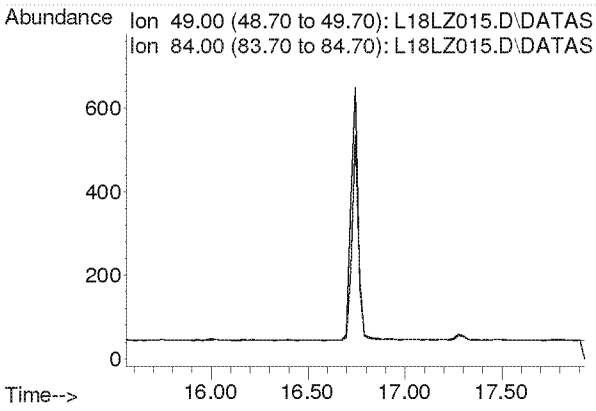


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

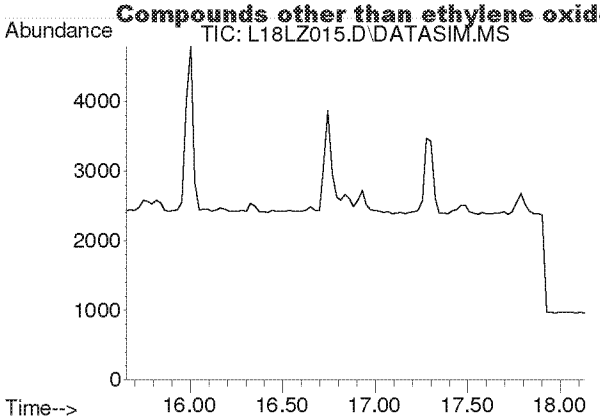
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

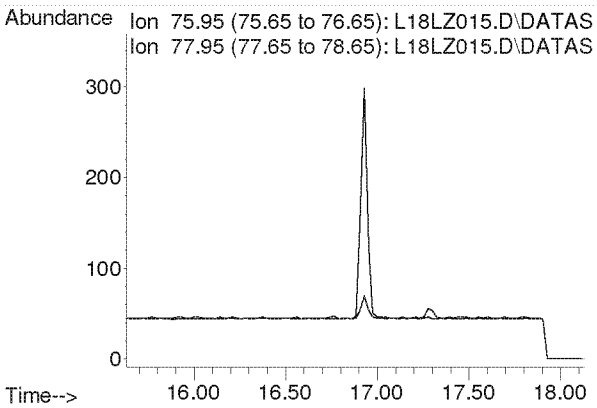


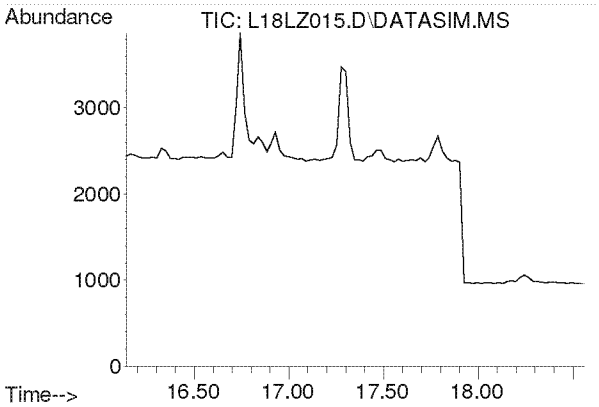
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



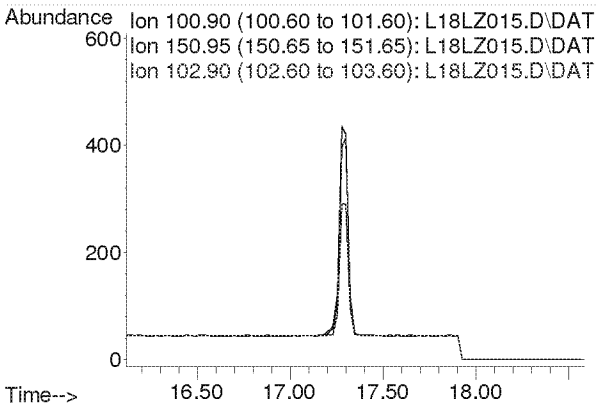


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

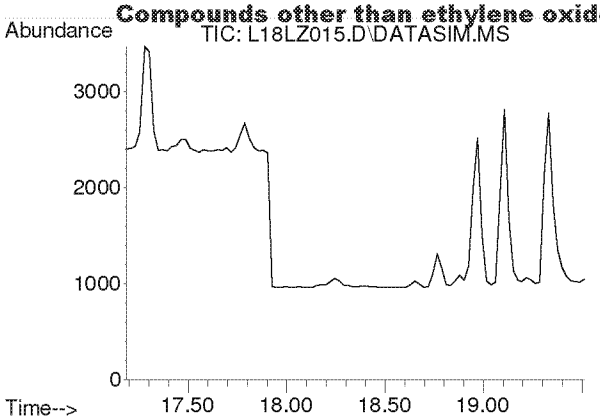
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

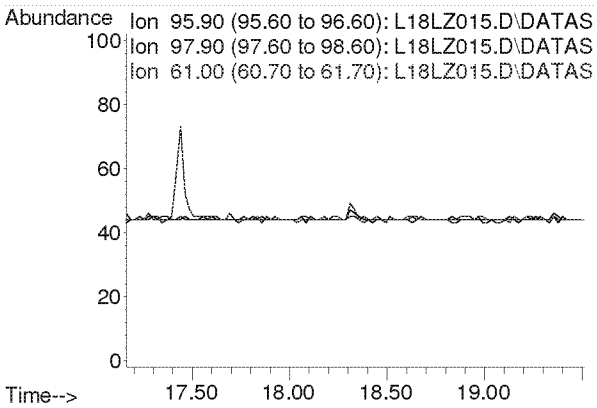


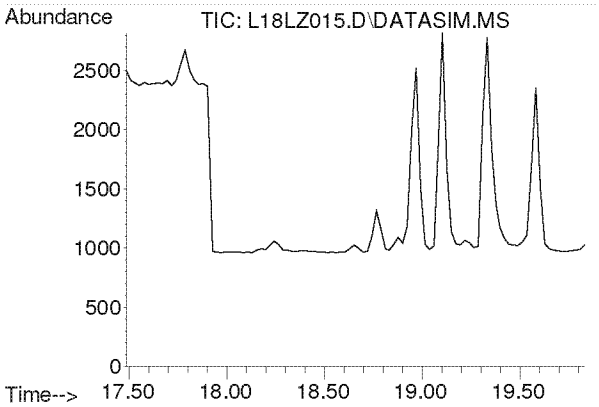
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



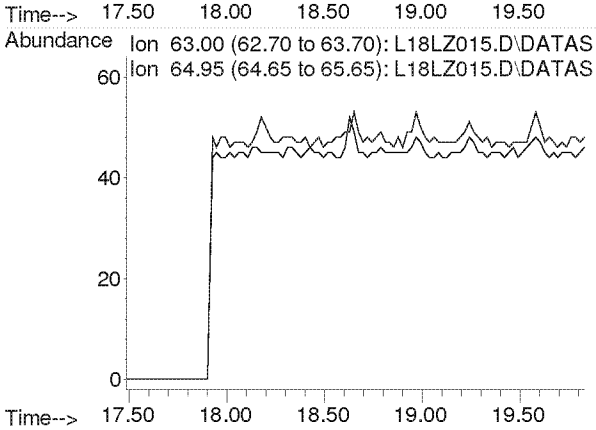


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

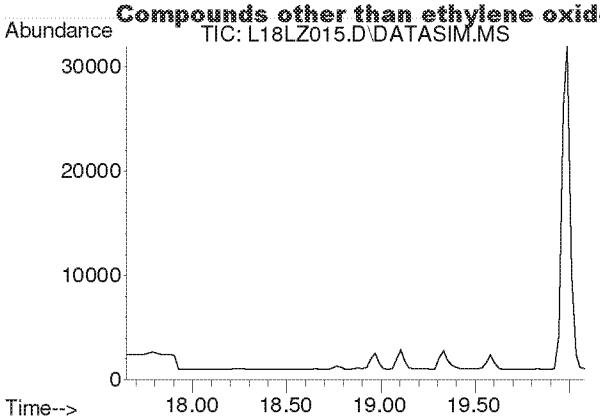
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

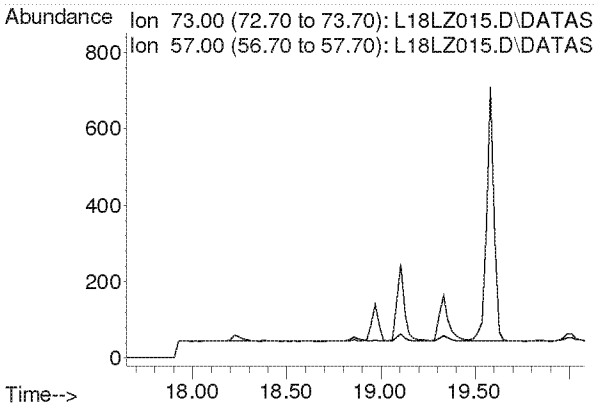


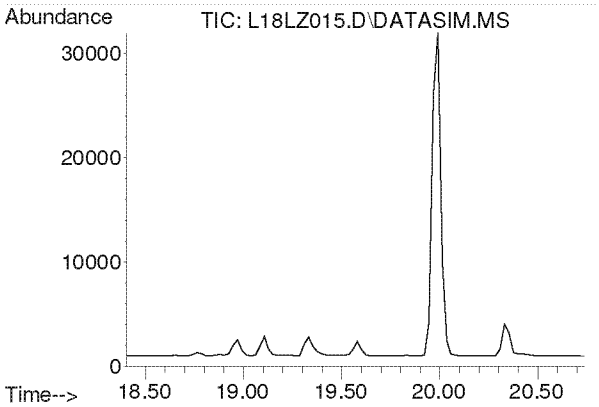
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



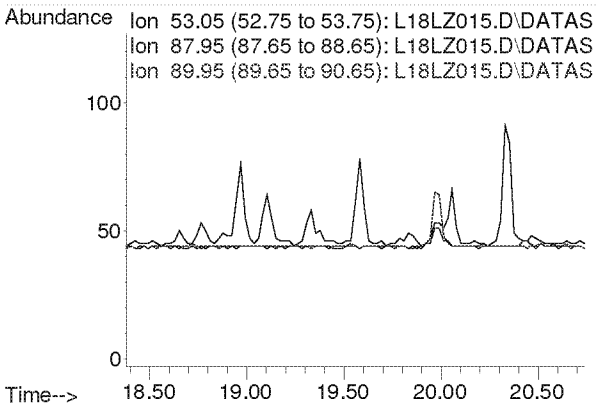


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

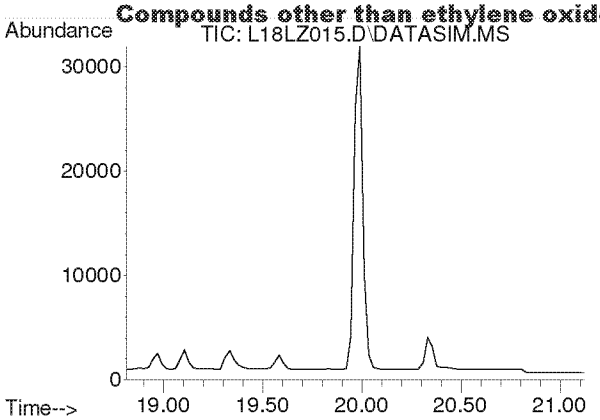
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

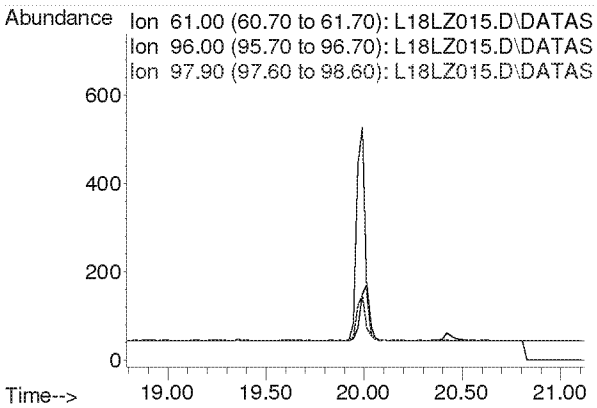


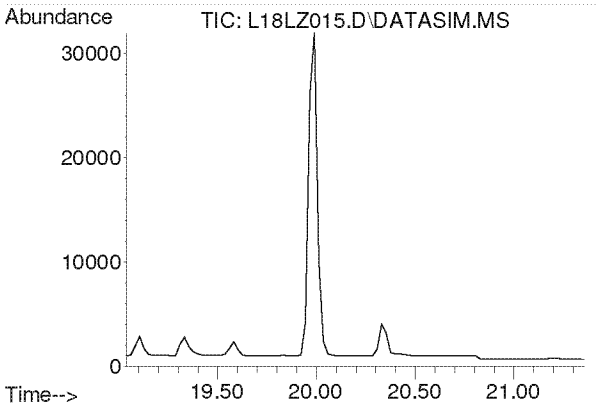
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



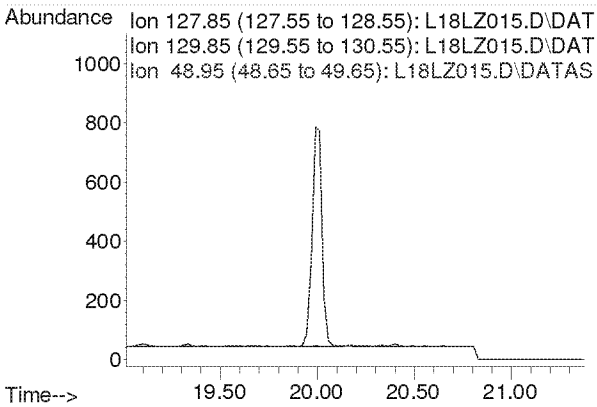


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

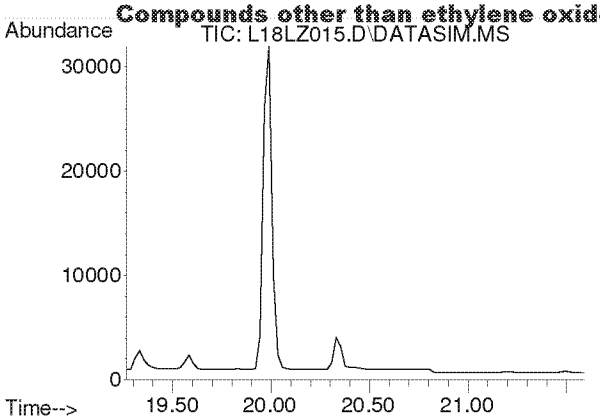
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

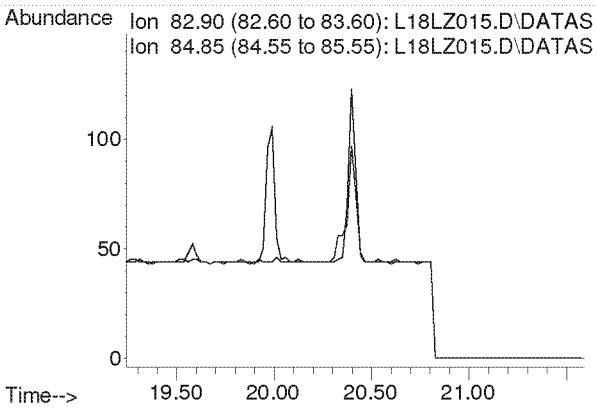


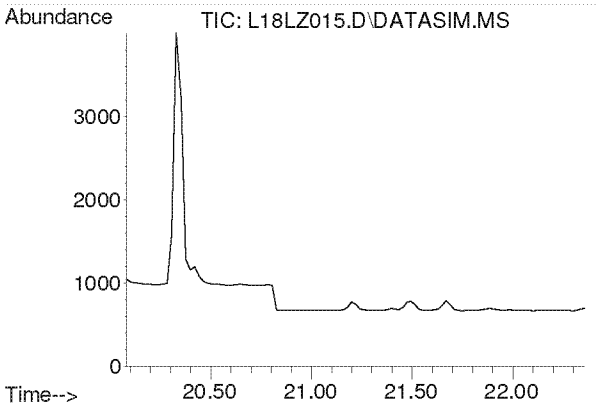
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



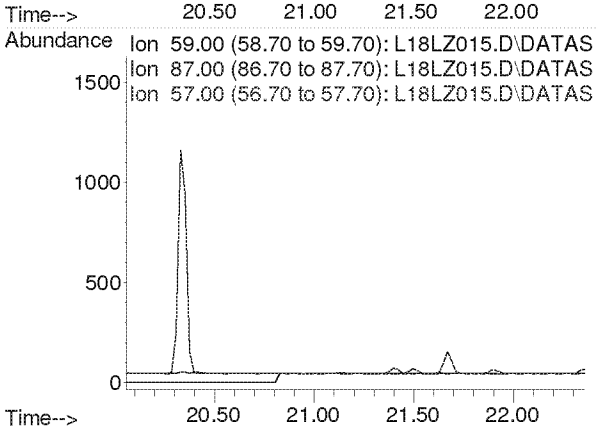


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

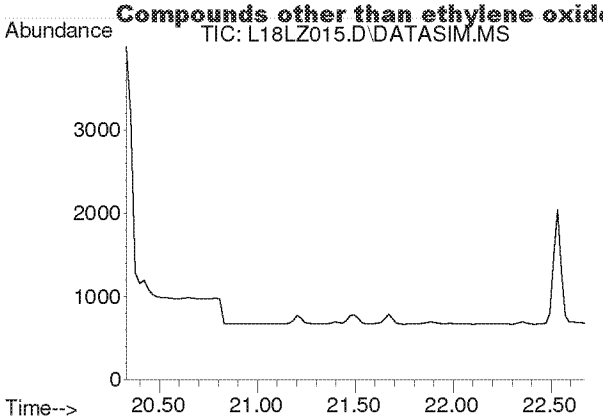
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

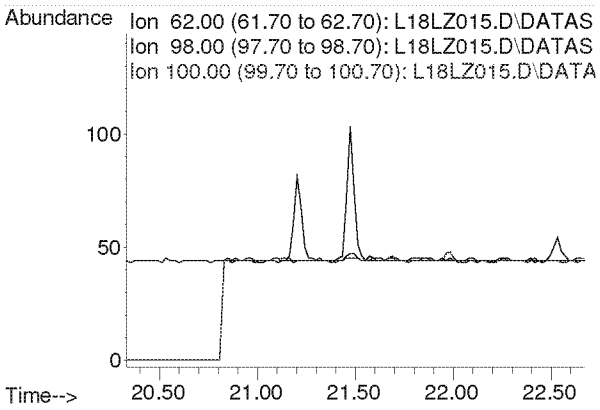


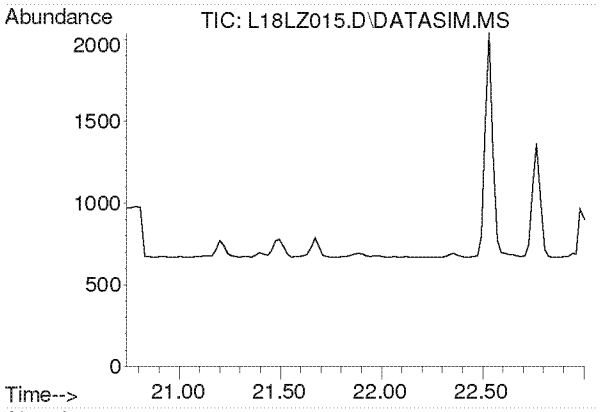
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



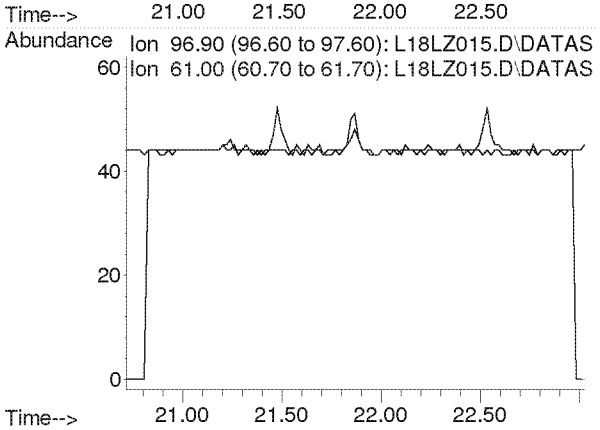


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

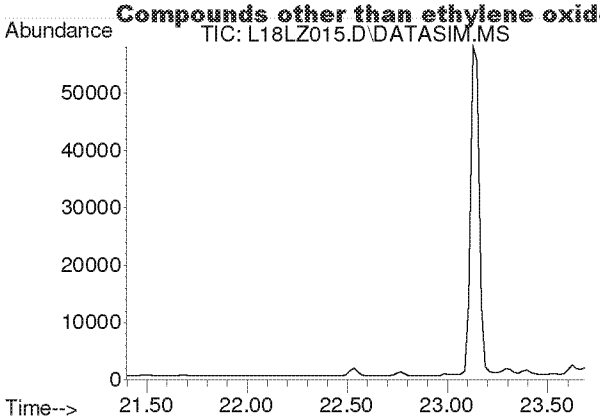
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

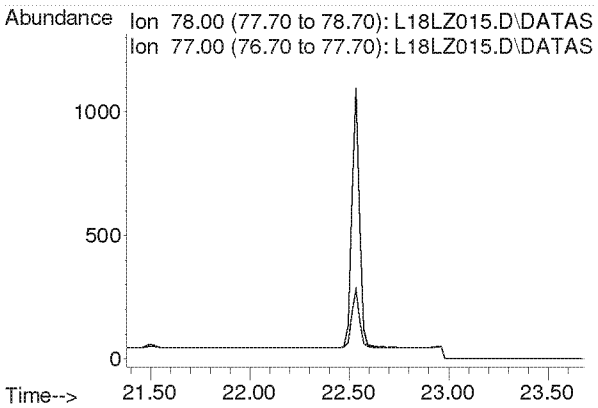


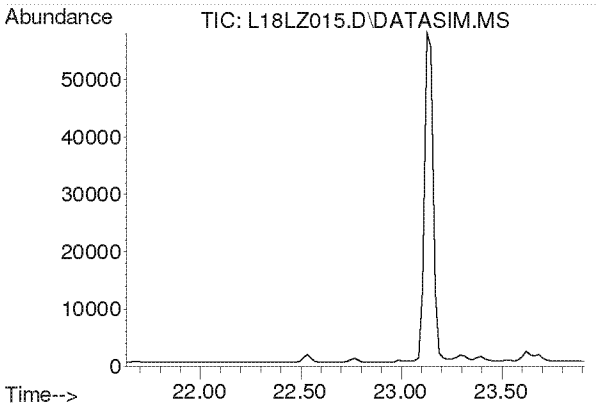
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



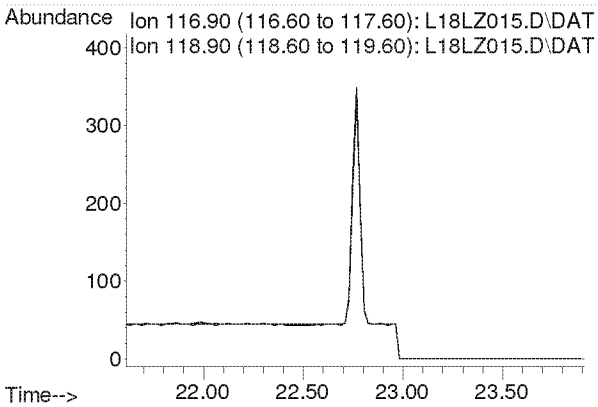


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

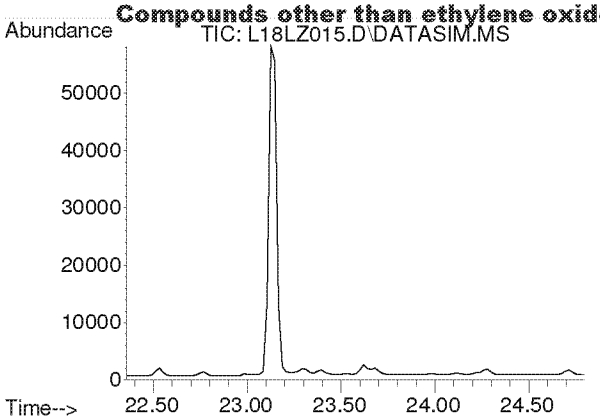
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

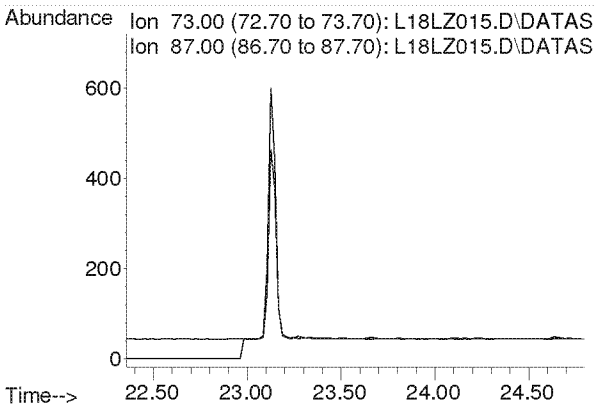


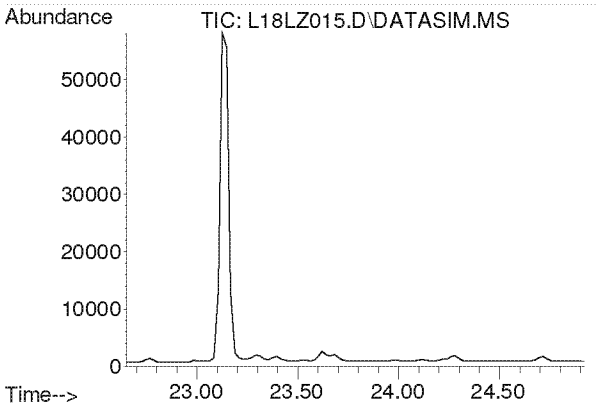
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



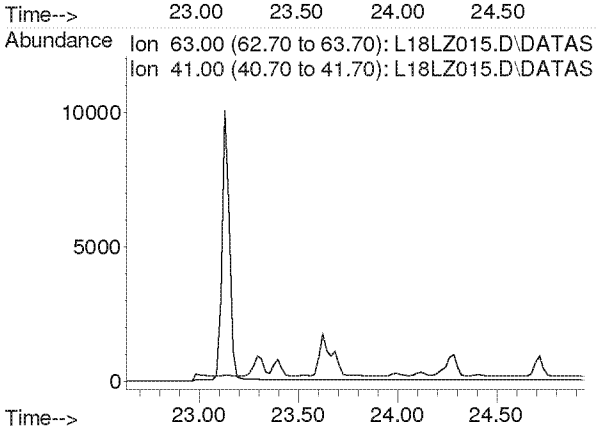


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

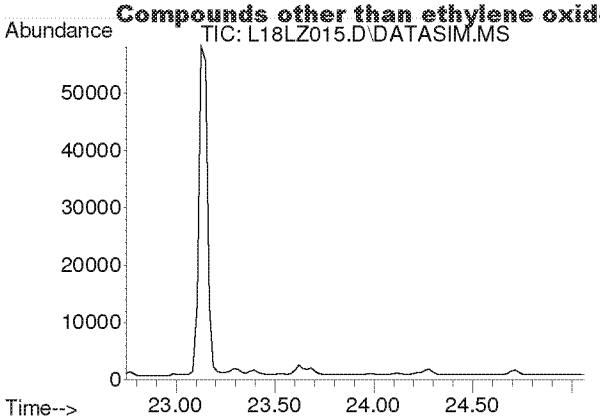
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

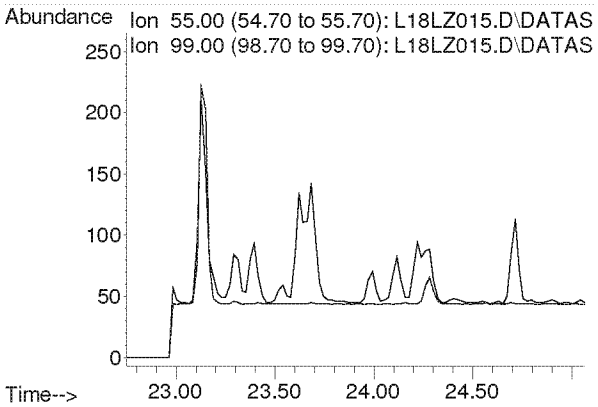


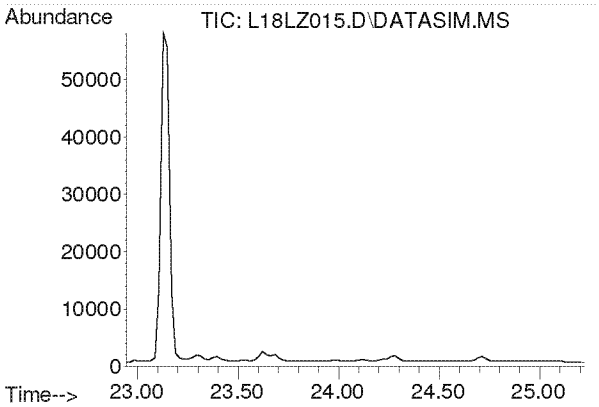
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



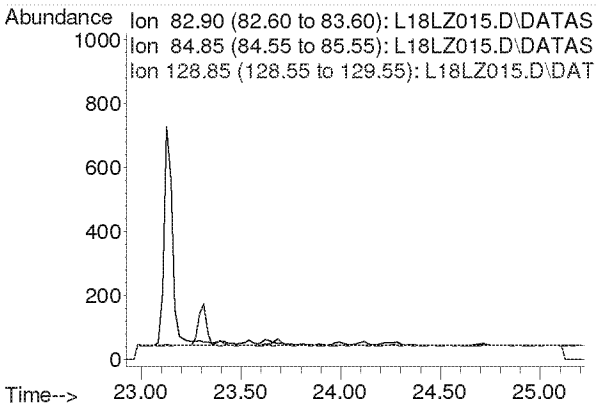


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

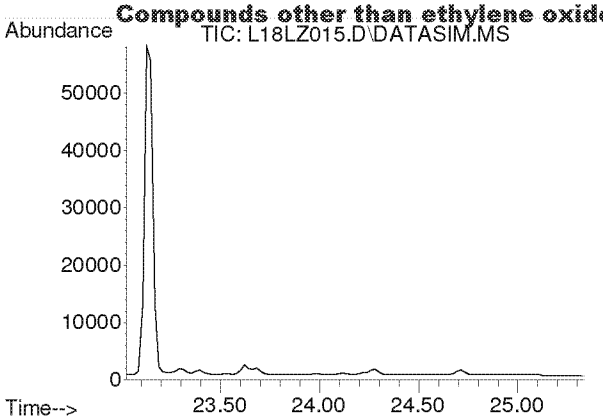
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

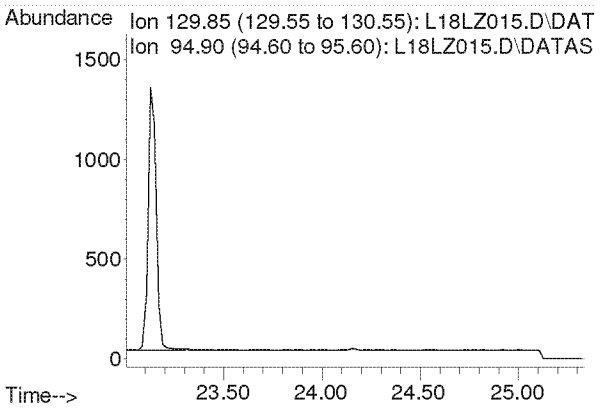


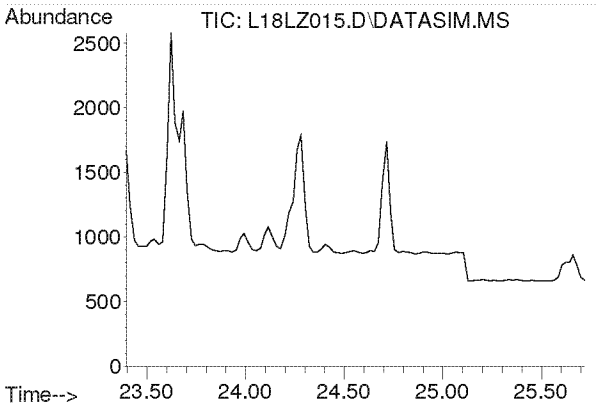
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



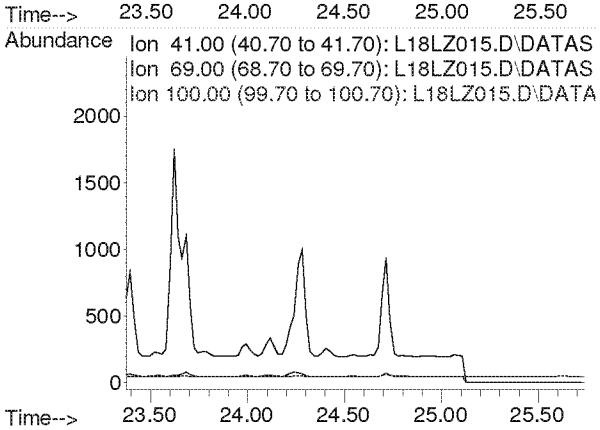


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

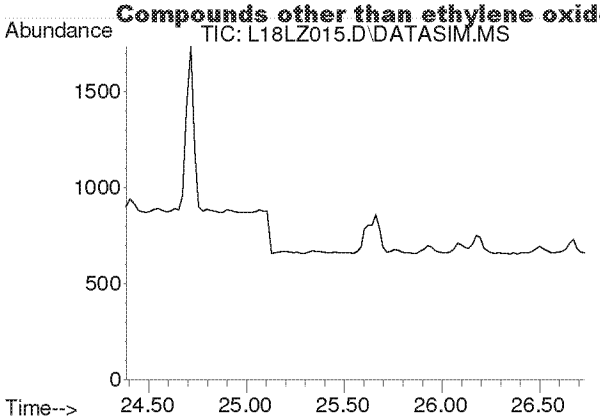
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

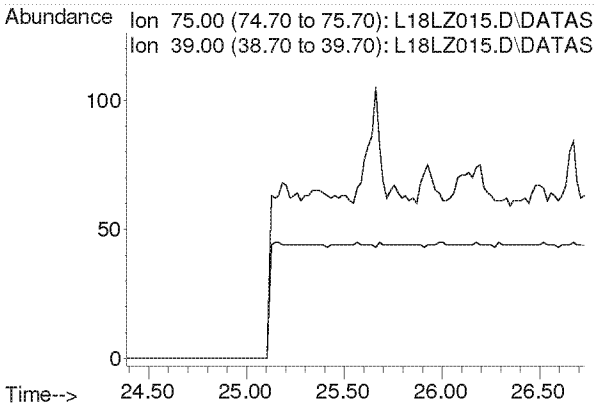


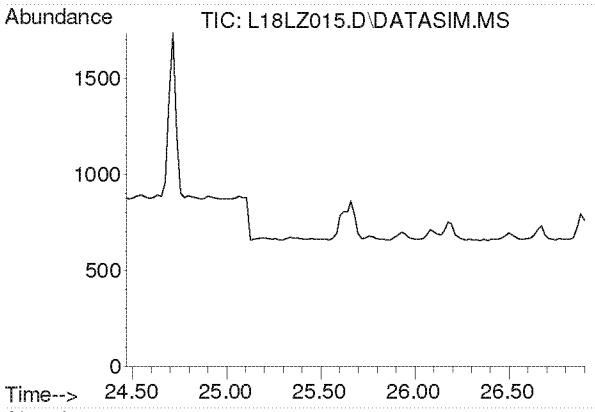
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



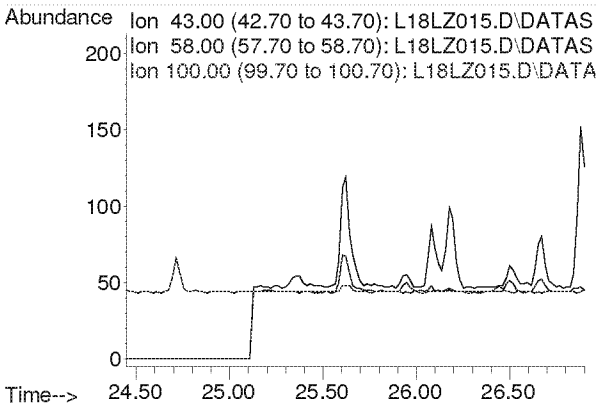


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

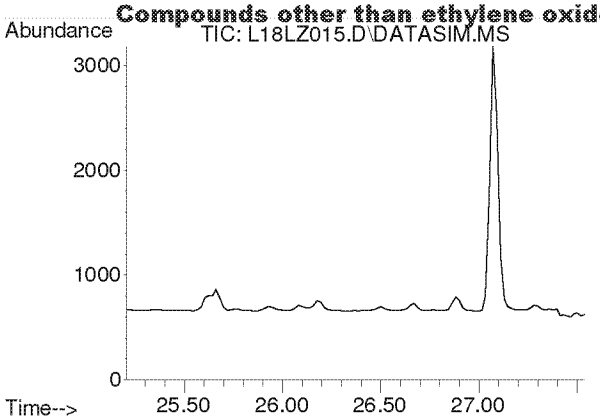
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

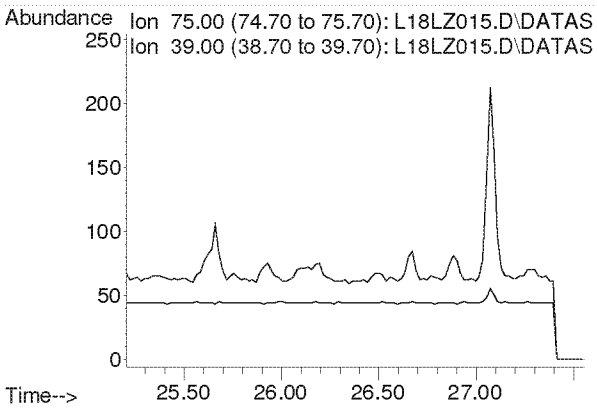


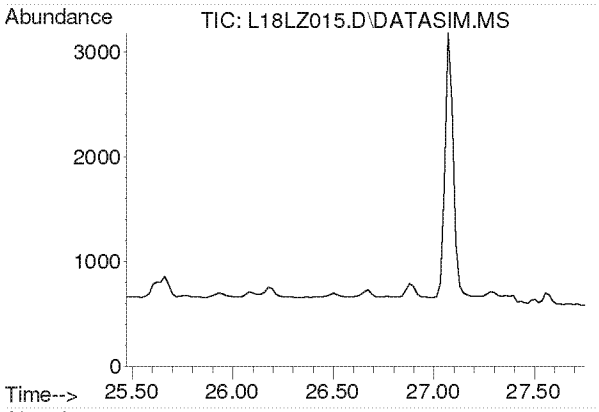
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



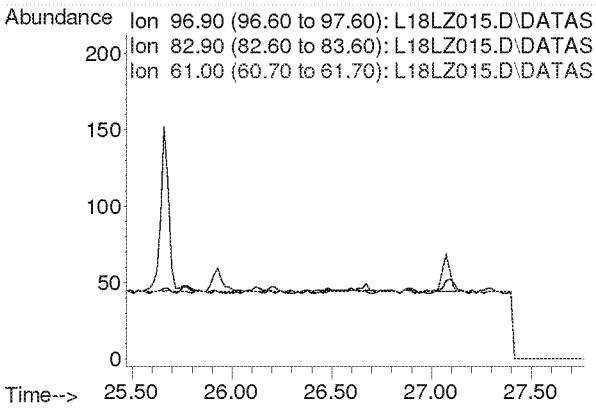


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

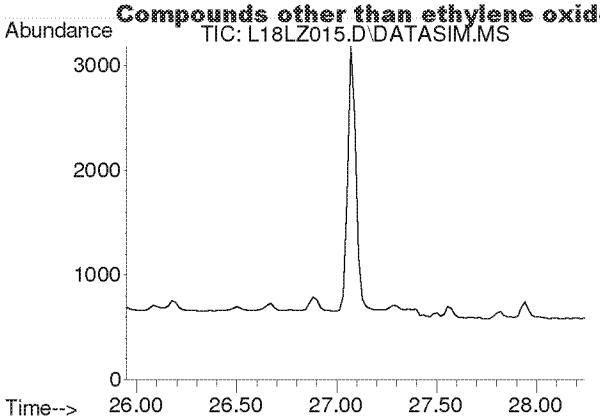
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

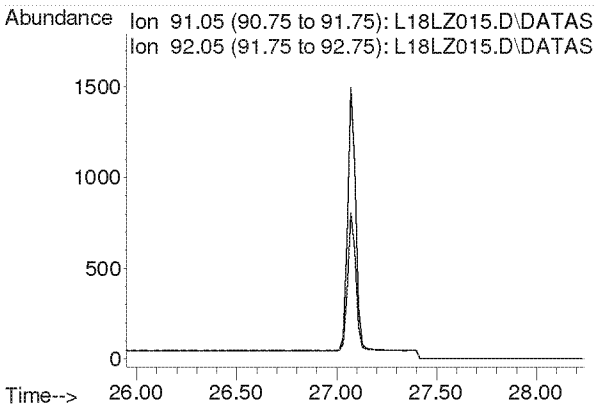


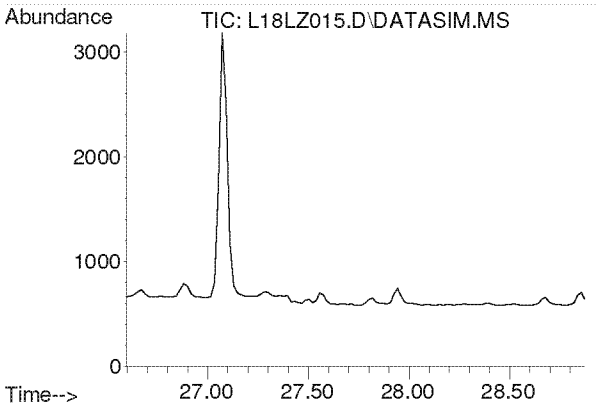
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



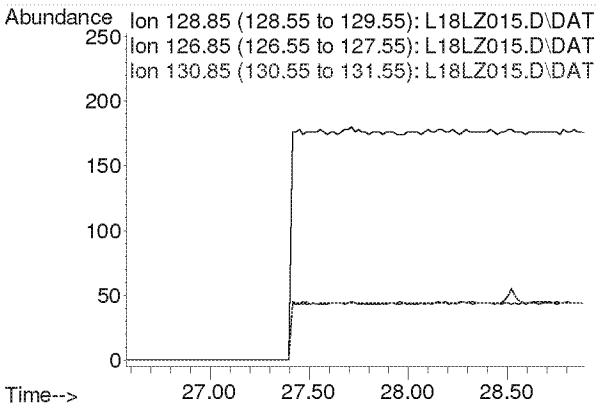


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

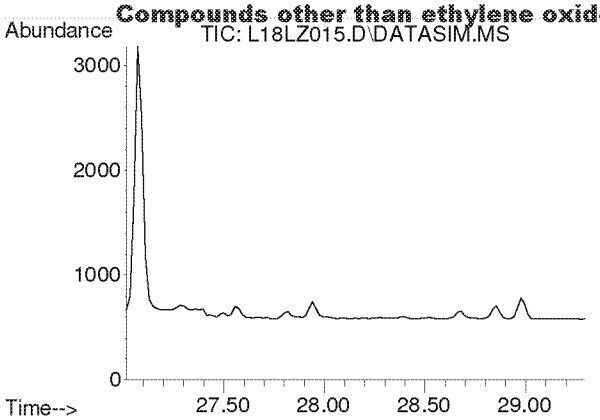
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

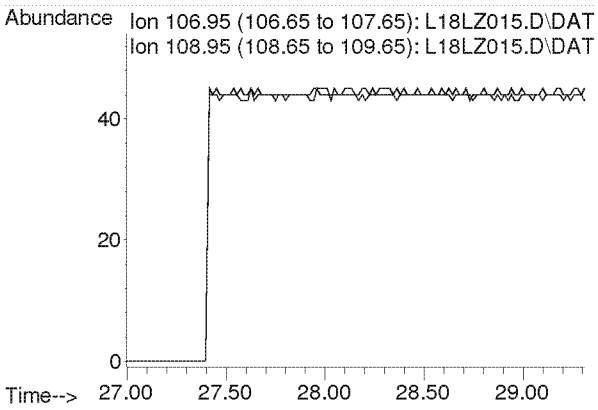


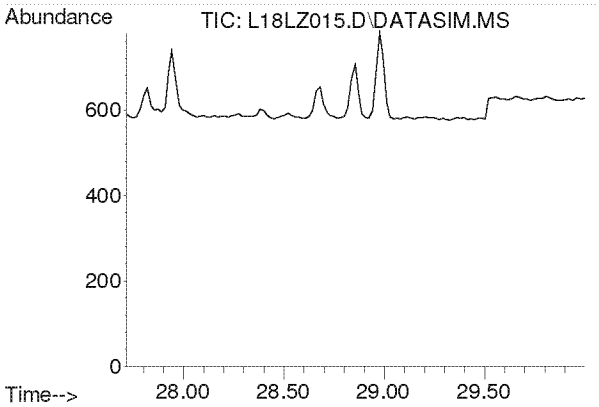
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



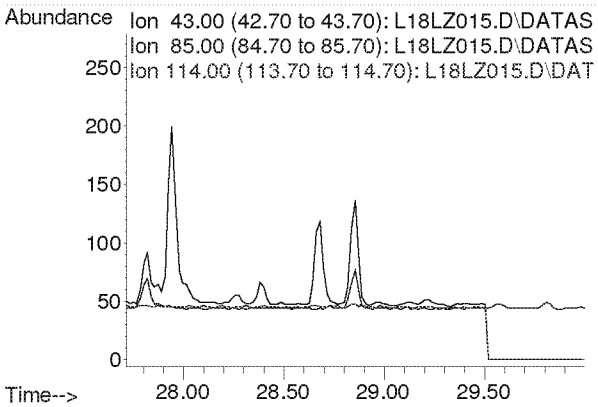


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

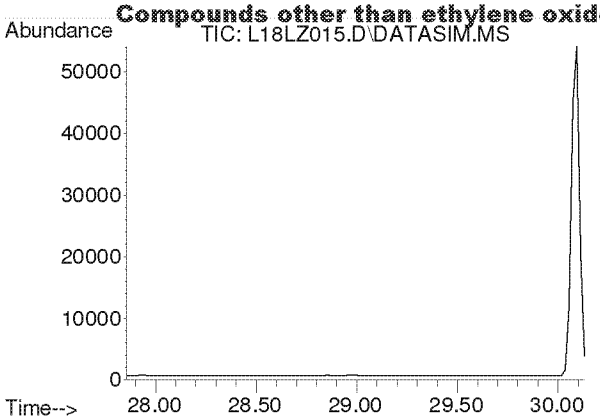
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

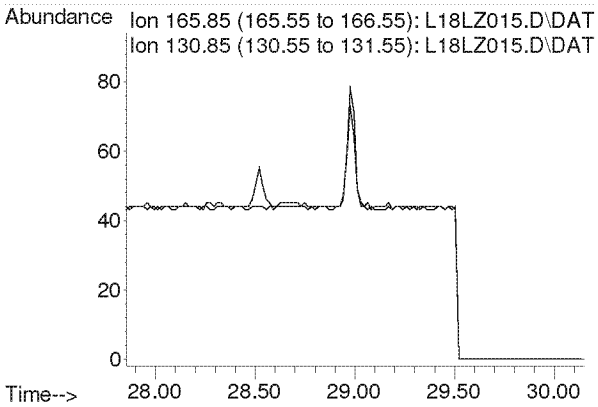


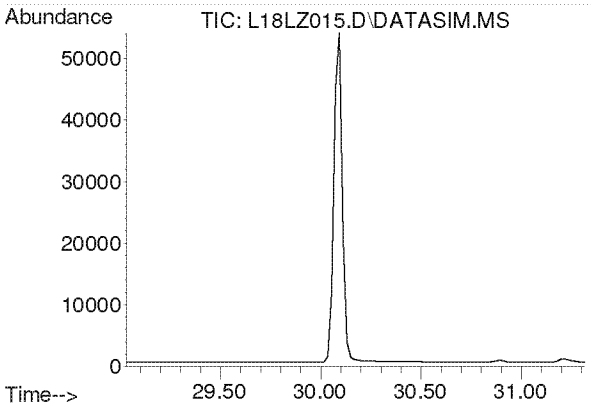
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



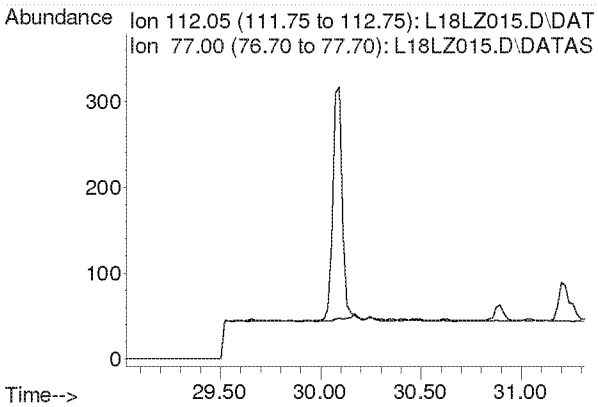


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

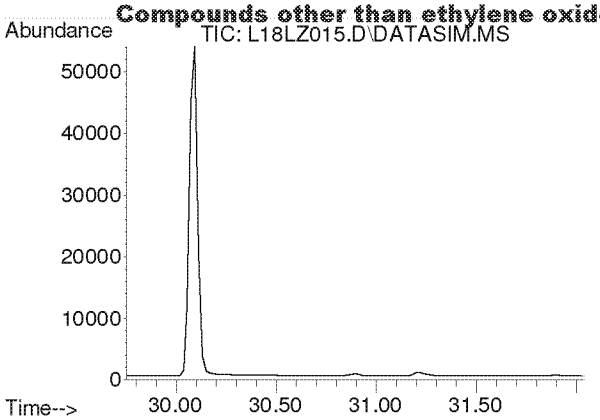
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

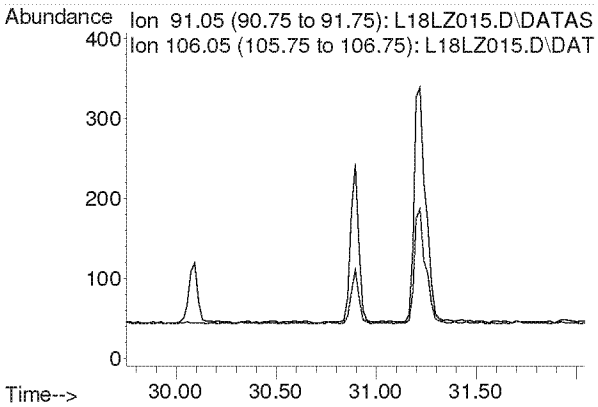


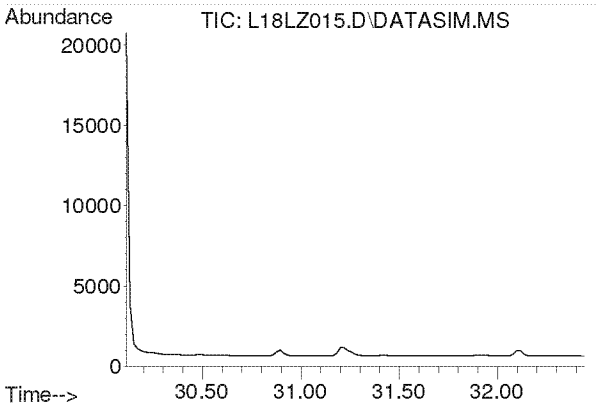
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



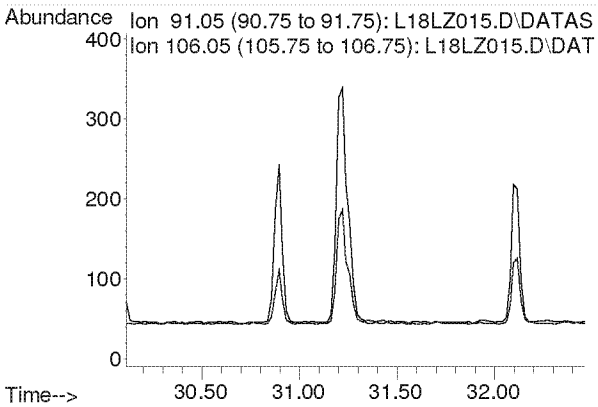


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

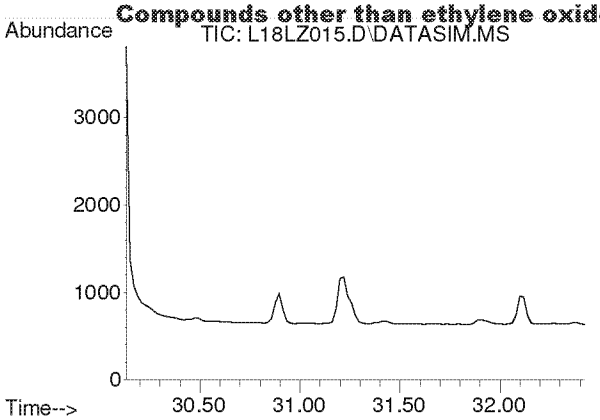
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

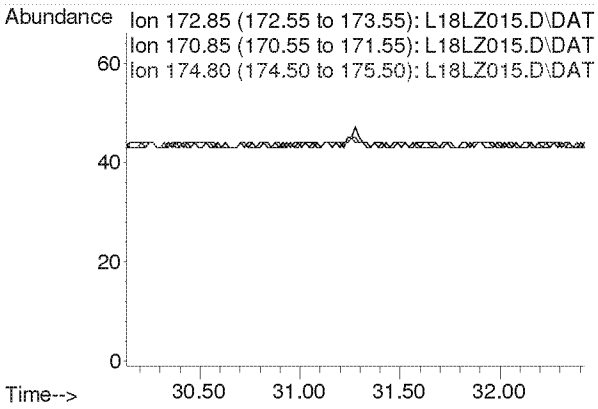


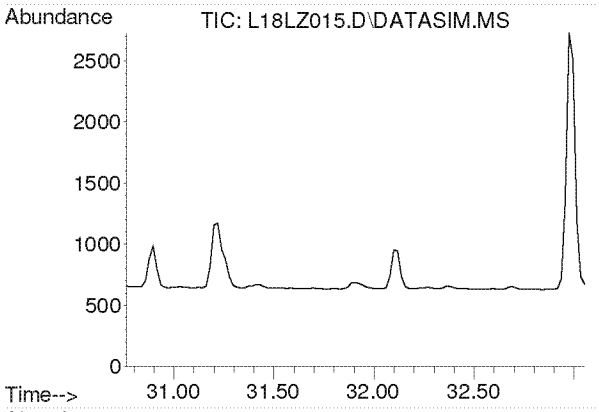
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



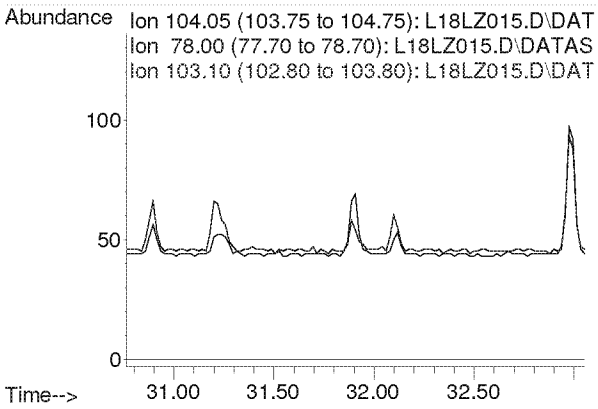


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

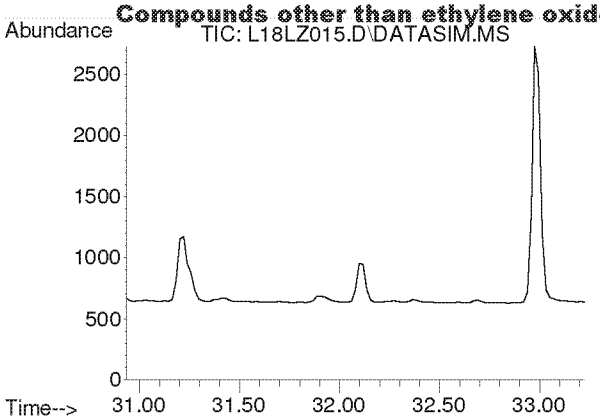
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

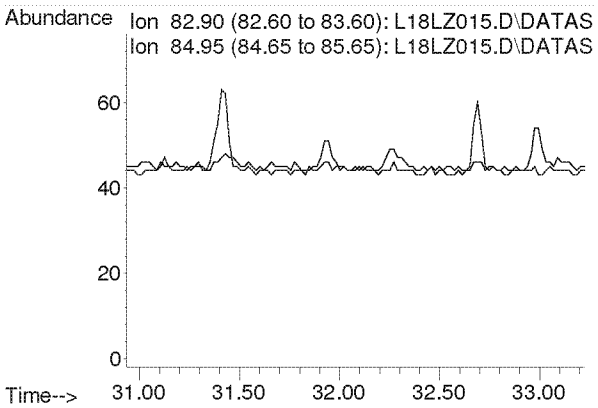


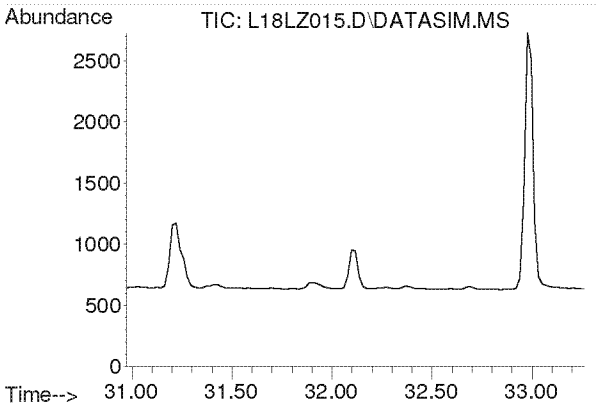
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



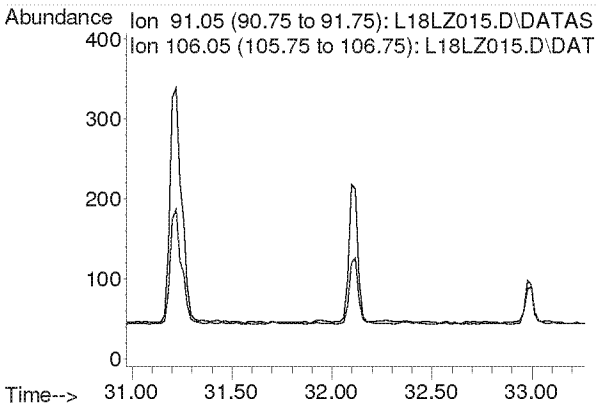


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

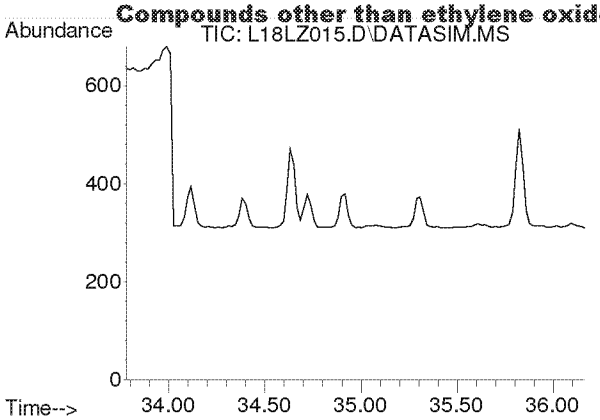
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

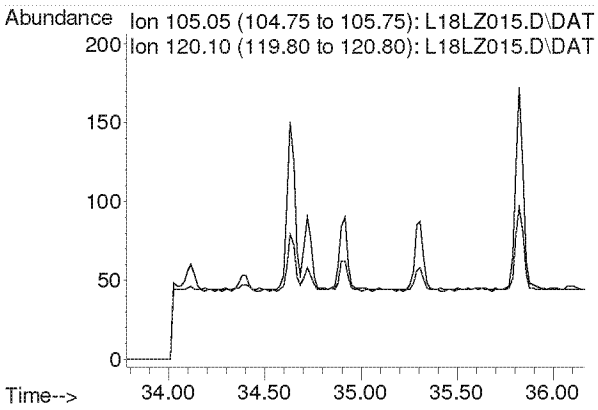


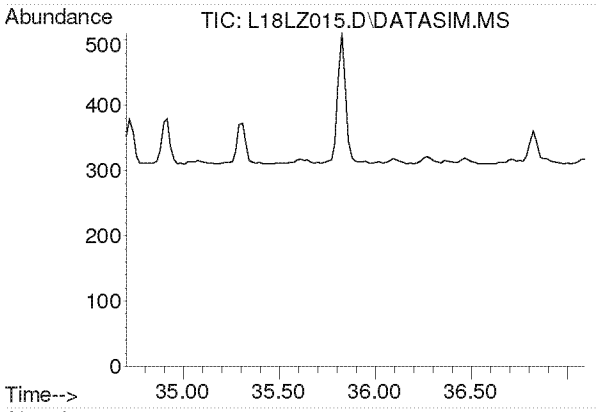
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



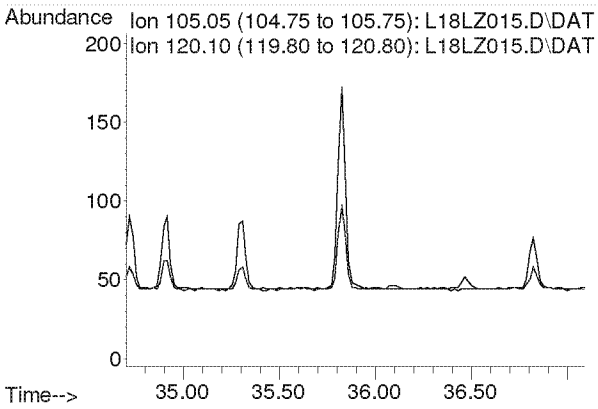


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

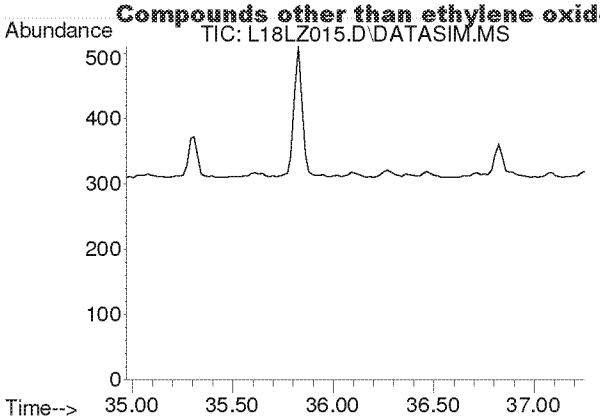
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

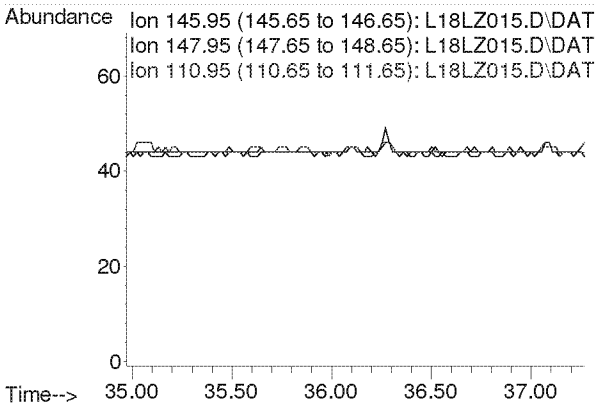


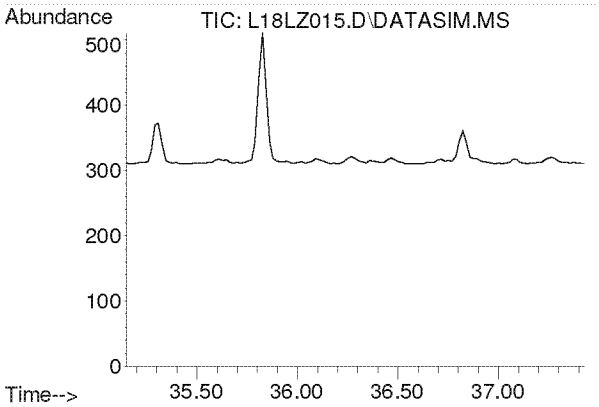
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



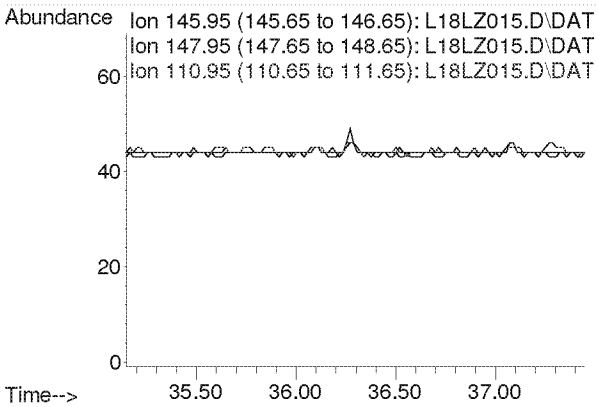


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

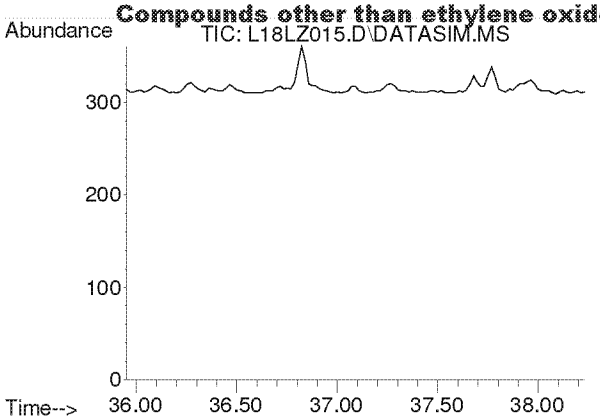
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

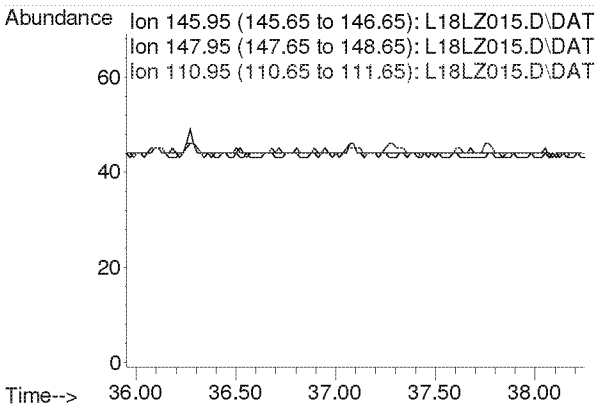


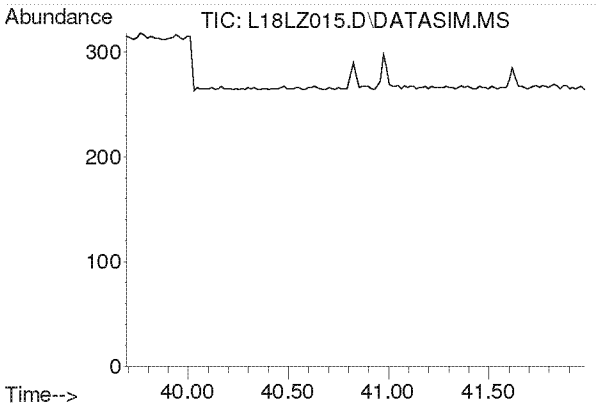
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



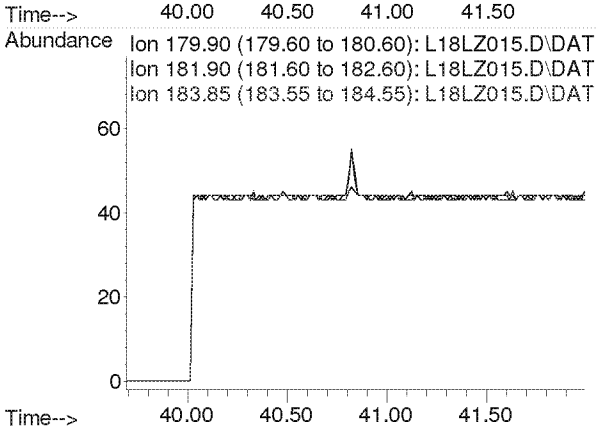


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

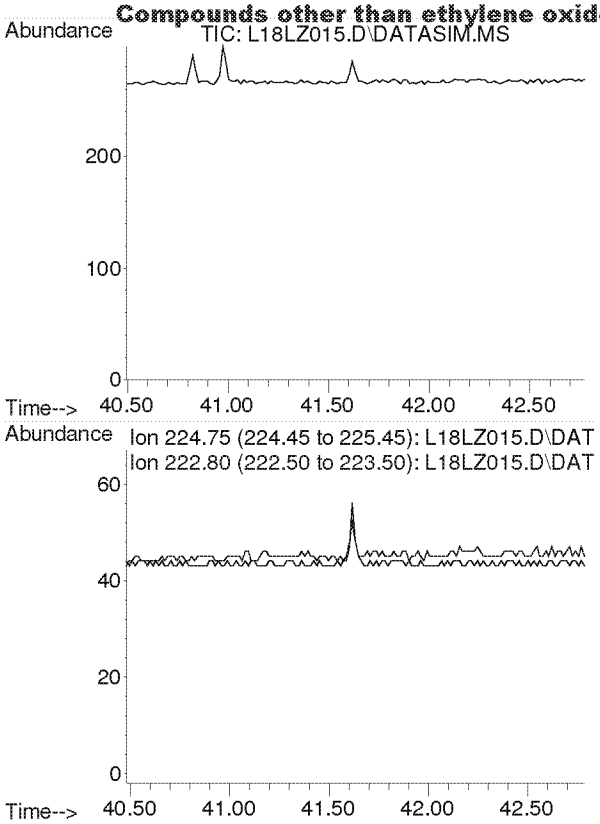
Lab File: L18LZ015.D
Acq: 27 Dec 2018 1:50 am

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: L18LZ015.D
Acq: 27 Dec 2018 1:50 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\L18LZ\
Data File : L18LZ016.D
Acq On : 27 Dec 2018 2:52 am
Operator : MAH
Sample : B8L2603-DUP1
Misc : WB WAREHOUSE R1 12/11/18
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 03 11:17:07 2019
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

JAR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	54212	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	130091	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.096	117	91776	4.7400 ppbv	0.00

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. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.470	29	378m 3-19	0.1167 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.	
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. 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	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\L18LZ\
Data File : L18LZ016.D
Acq.On : 27 Dec 2018 2:52 am
Operator : MAH
Sample : B8L2603-DUP1
Misc : WB WAREHOUSE R1 12/11/18
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 03 11:17:07 2019
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.	

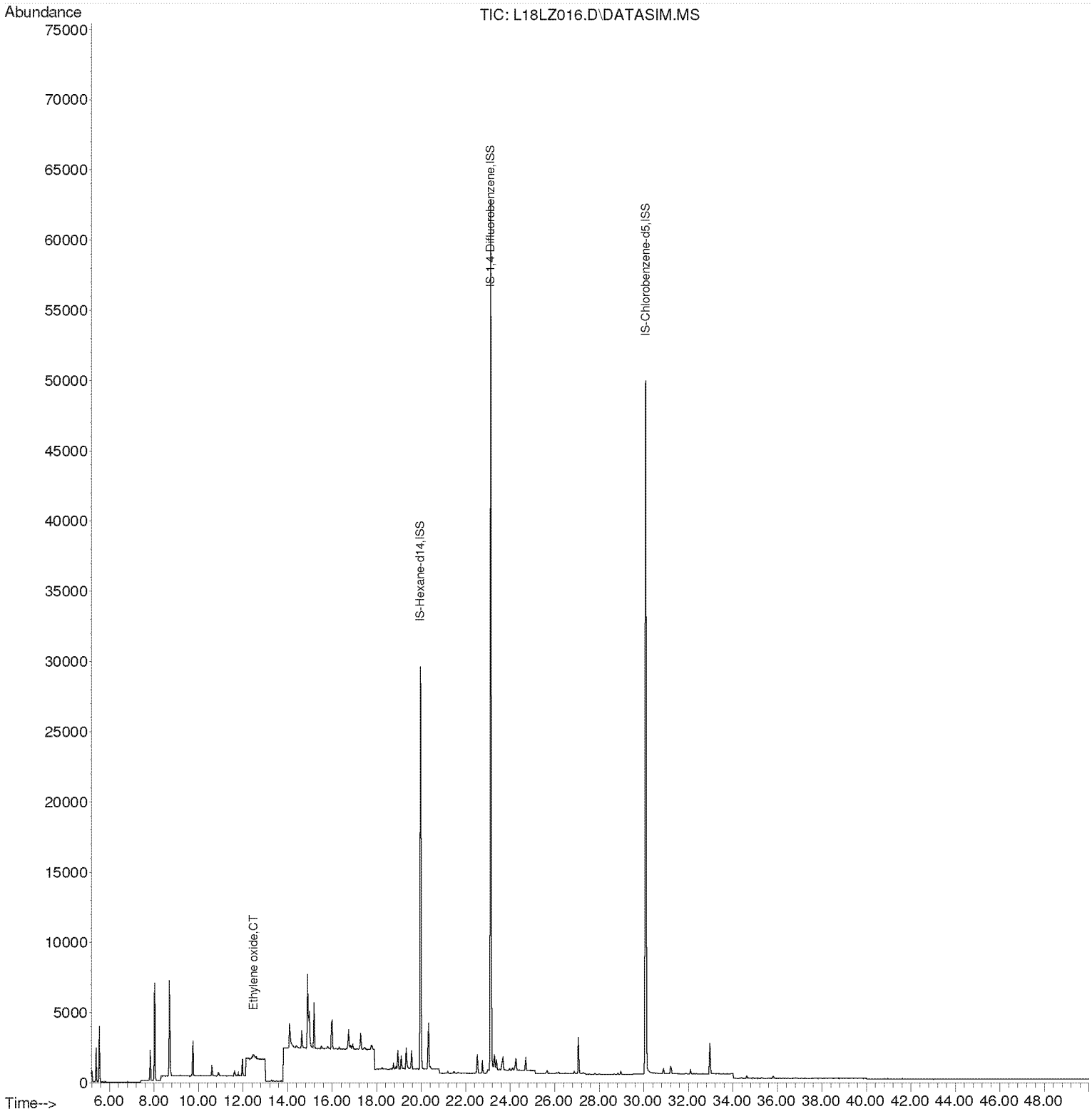
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000324-00480

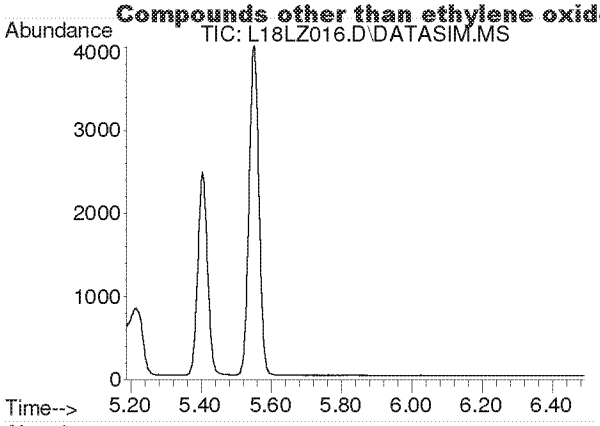
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ016.D
Acq On : 27 Dec 2018 2:52 am
Operator : MAH
Sample : B8L2603-DUP1
Misc : WB WAREHOUSE R1 12/11/18
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 03 10:34:40 2019
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



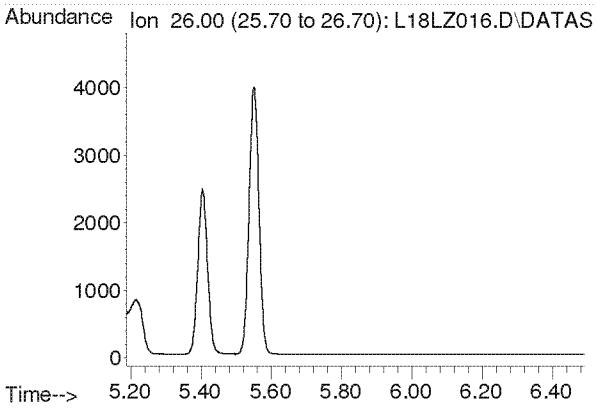
Compounds other than ethylene oxide were not quantitated.

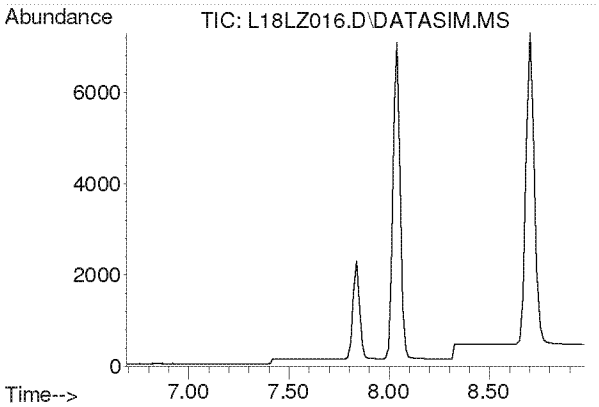


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 26



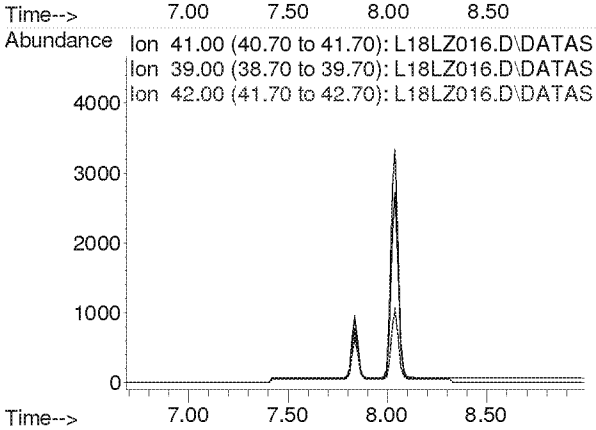


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

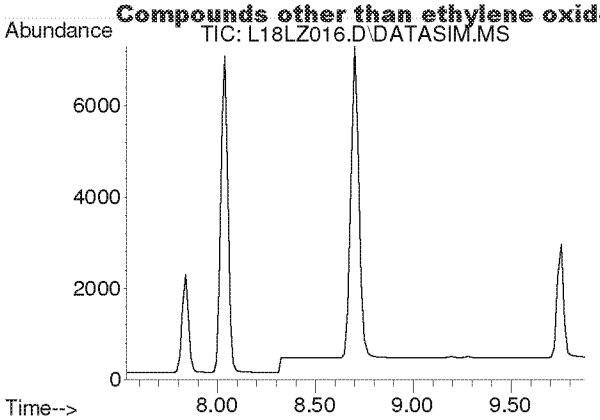
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

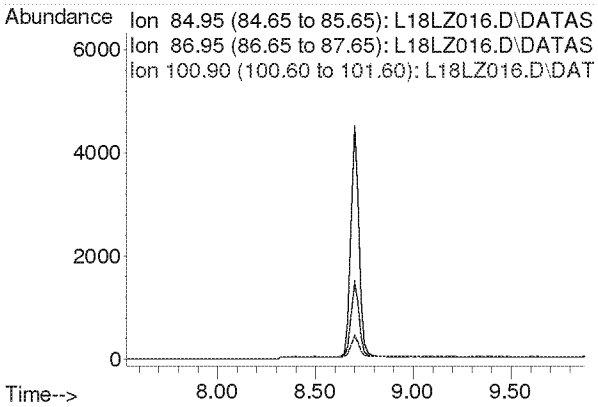


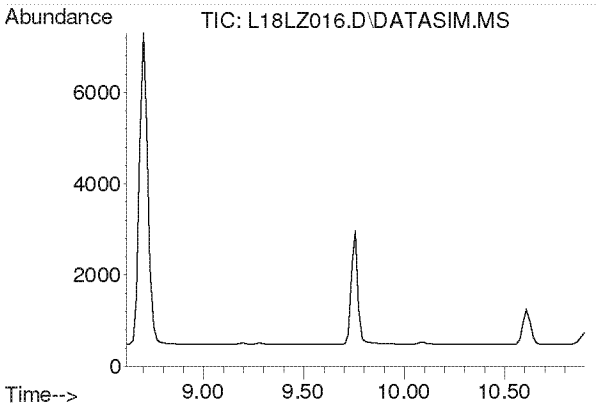
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



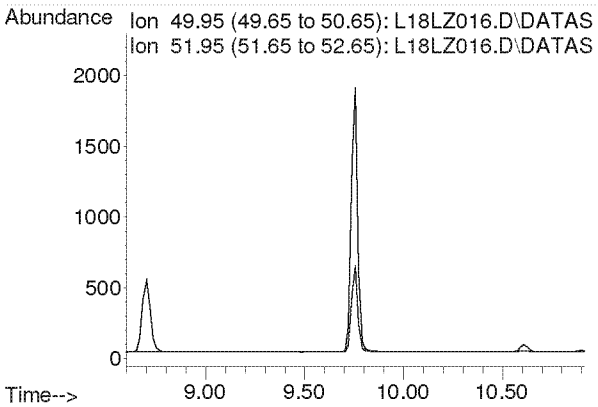


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

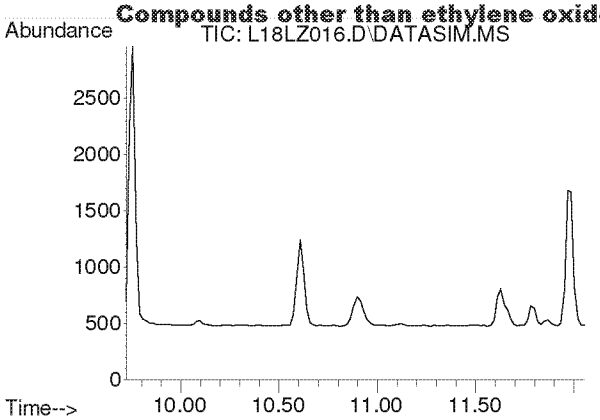
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

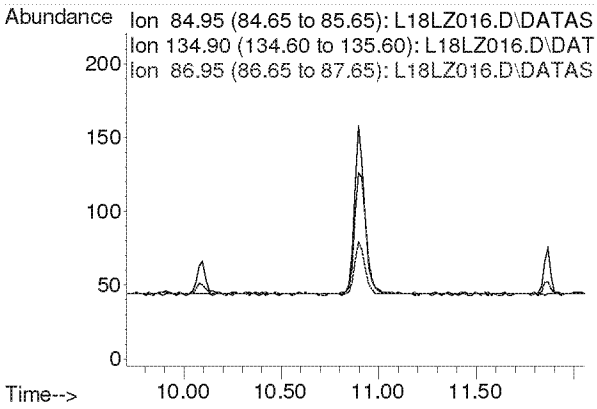


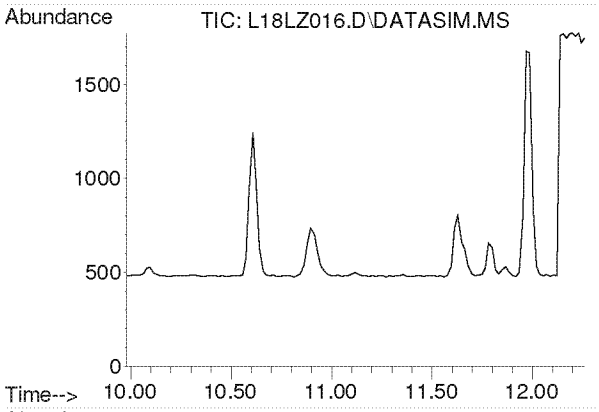
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



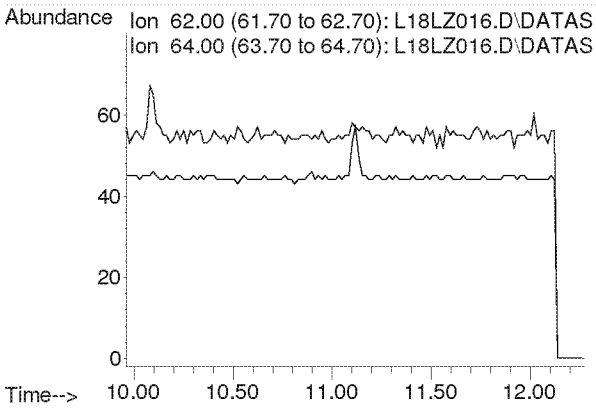


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

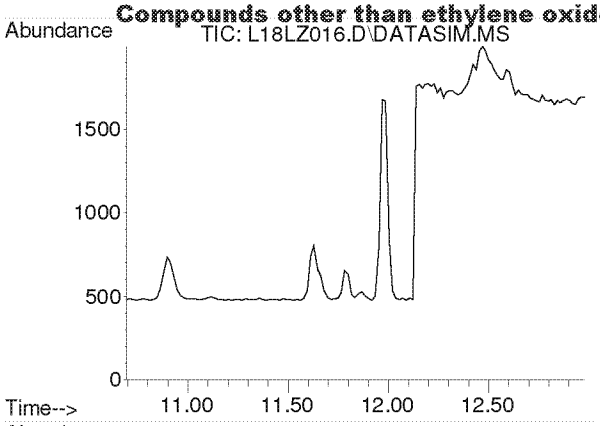
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

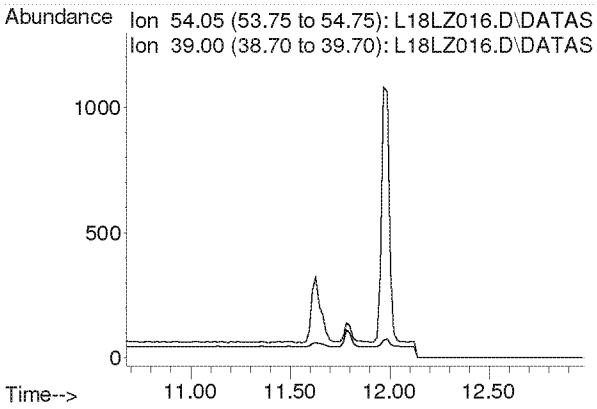


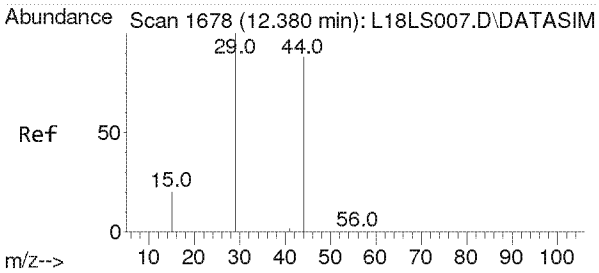
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

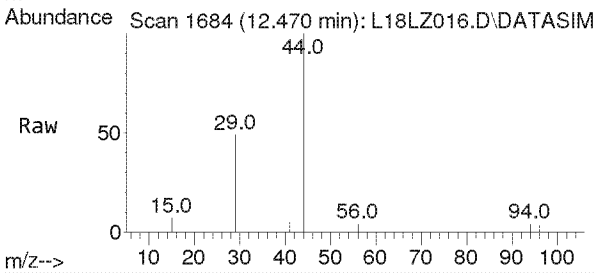


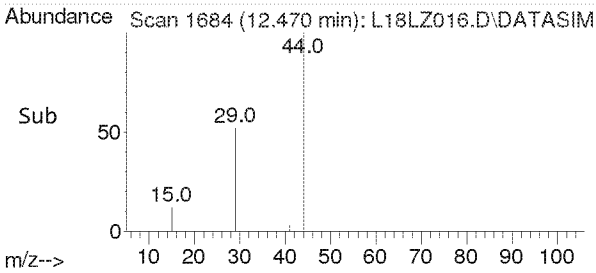


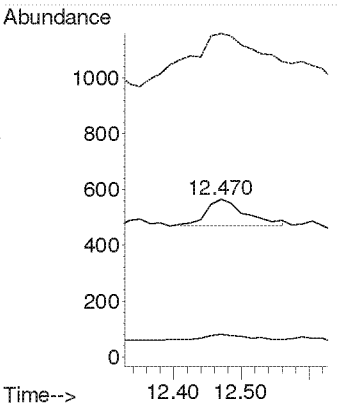
#9
Ethylene oxide
Concen: 0.117 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.090 min
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 29 Resp: 378

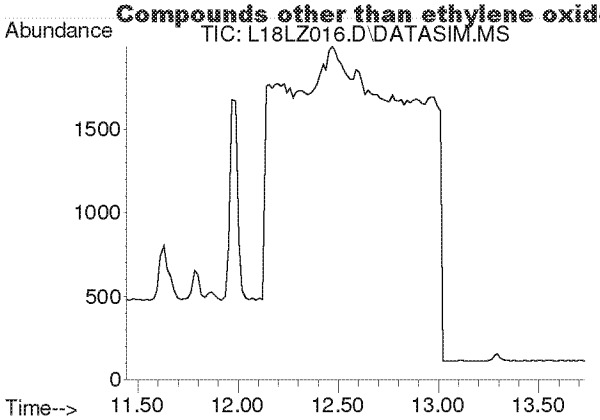
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.2	24.4#
44	0.0	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

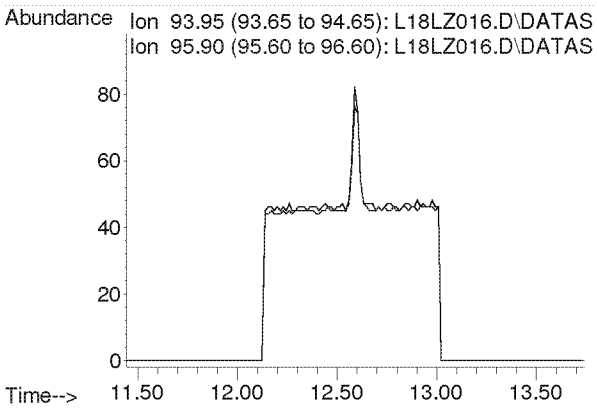


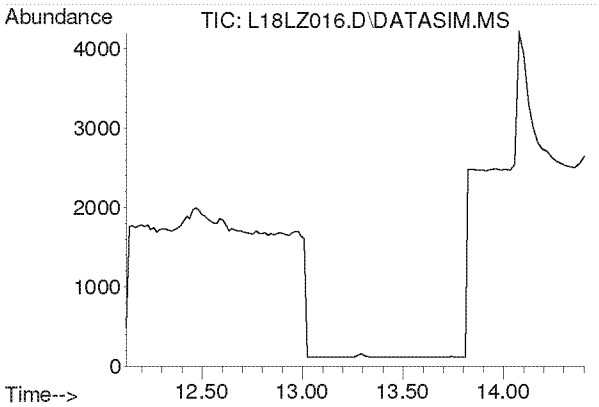
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



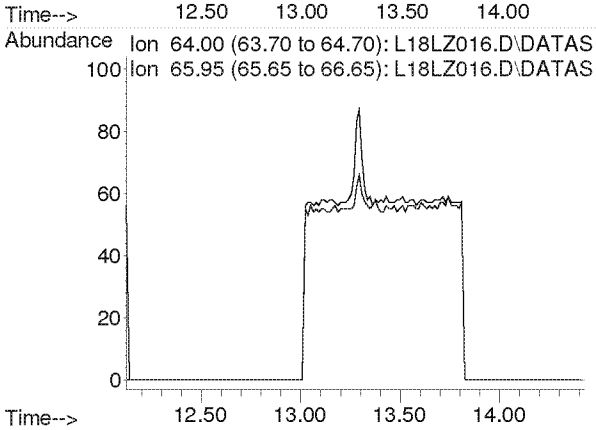


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

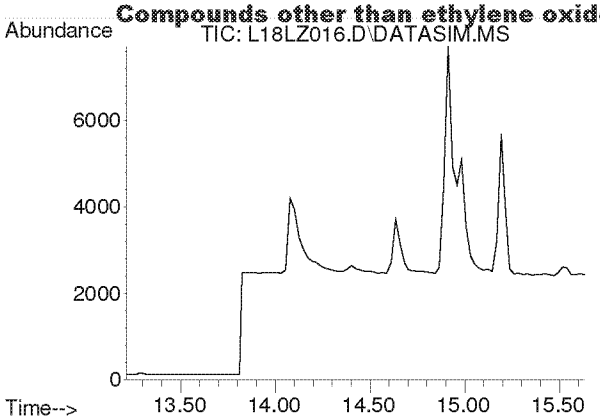
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

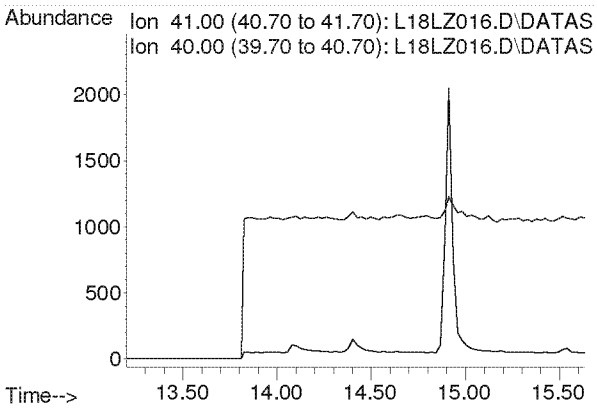


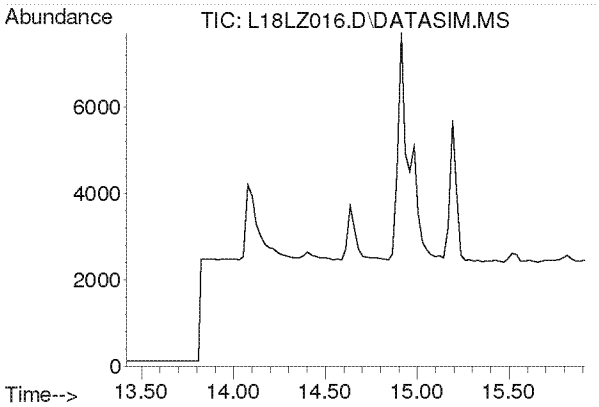
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



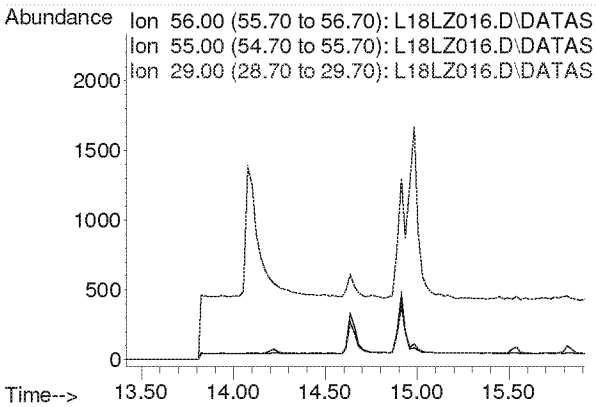


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

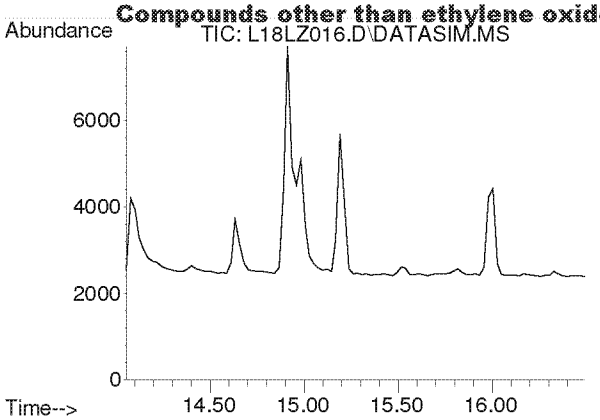
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

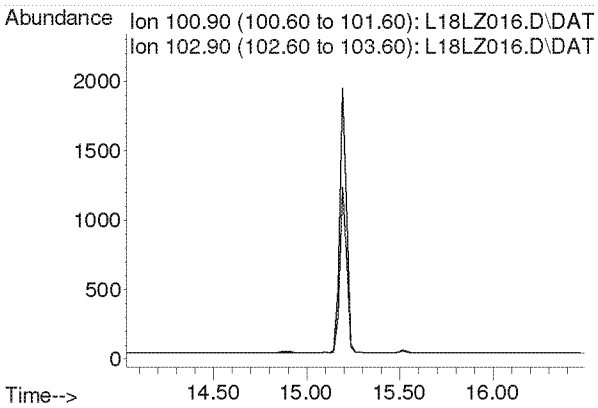


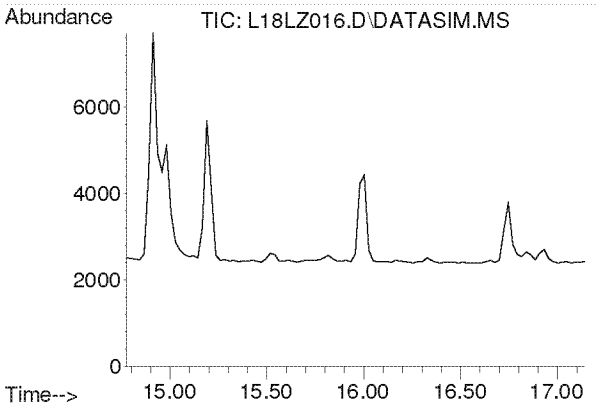
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



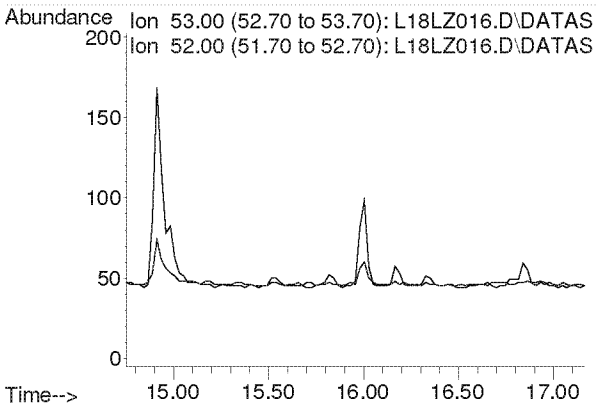


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

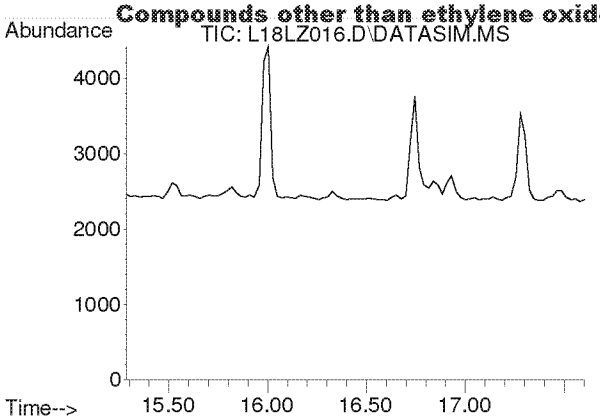
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

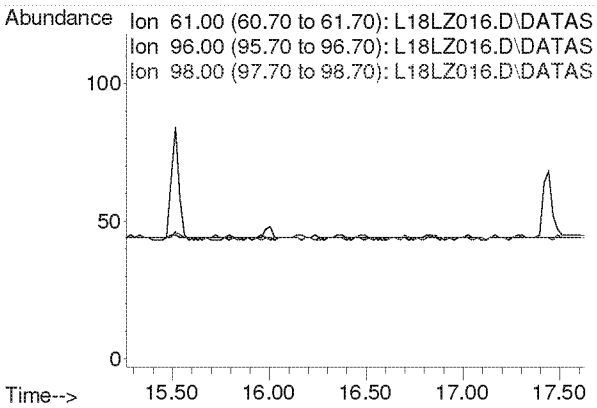


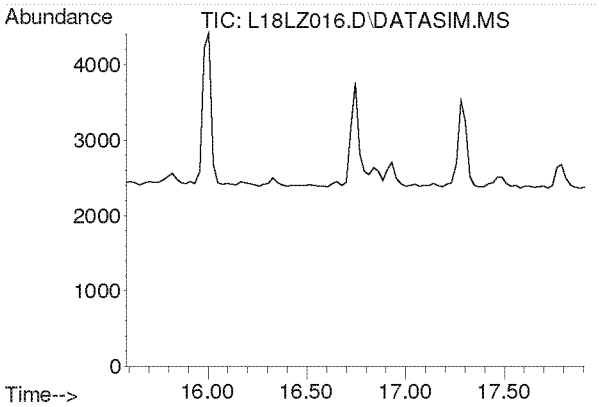
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



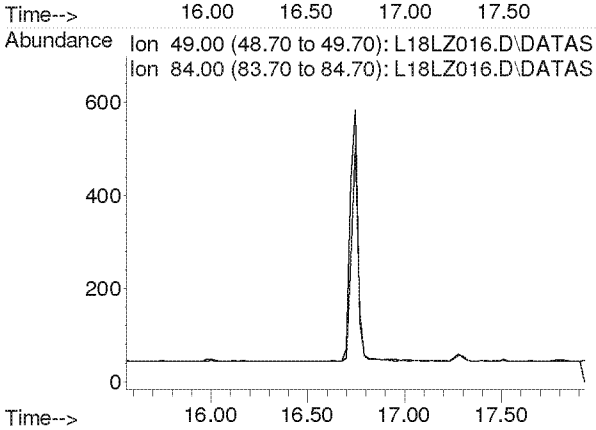


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

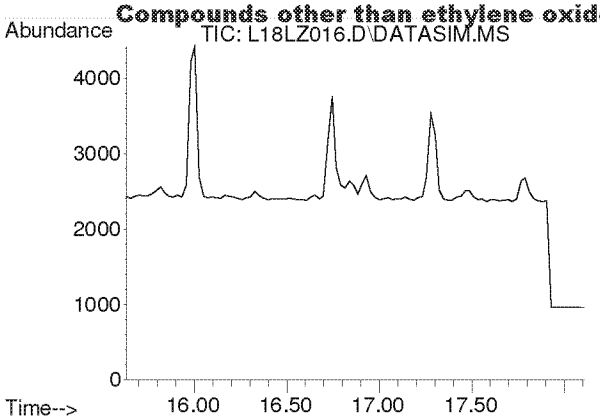
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

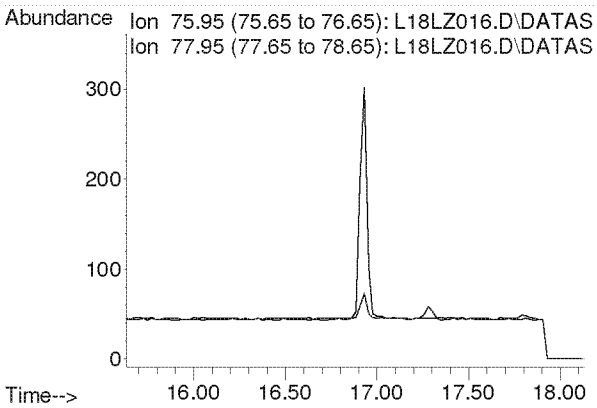


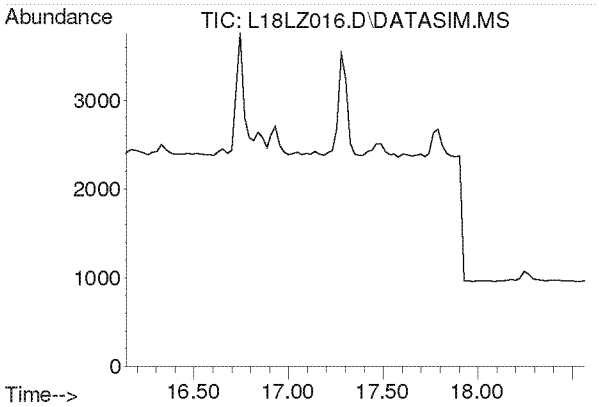
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



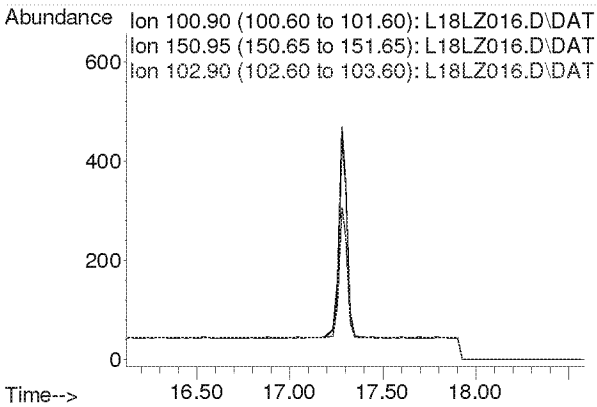


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

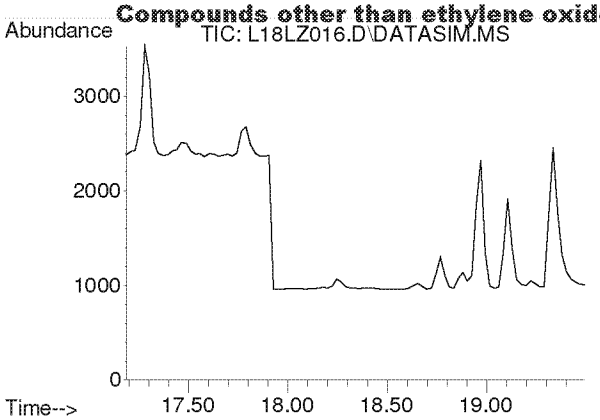
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

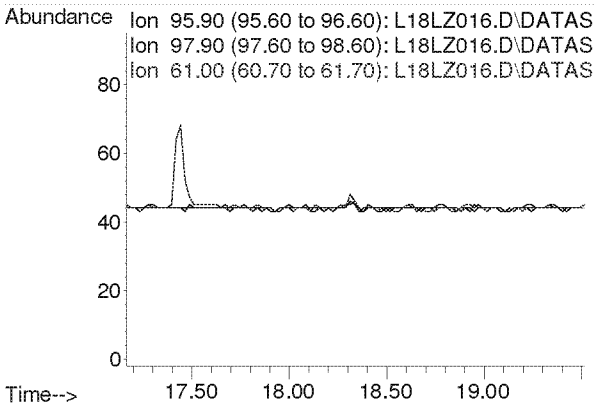


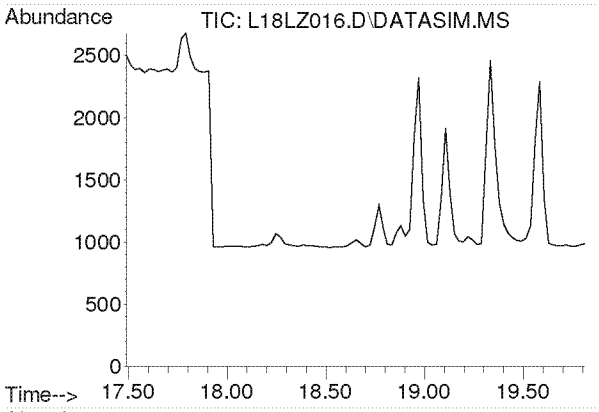
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



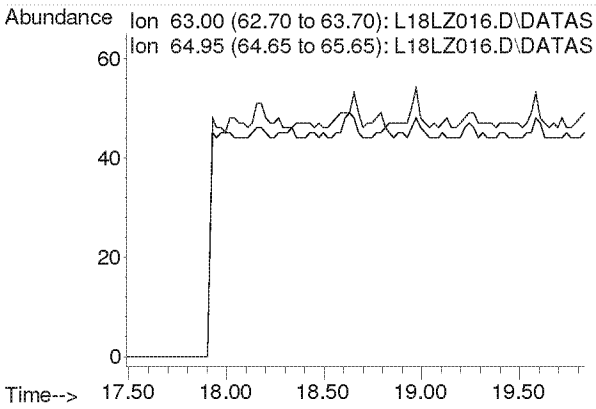


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

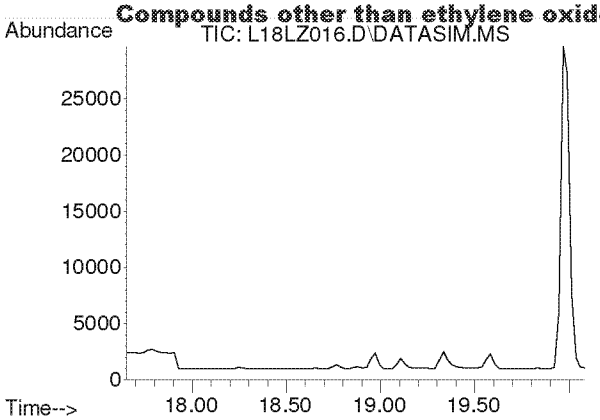
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

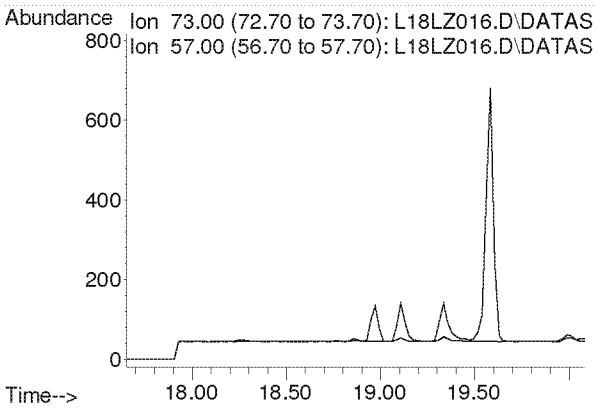


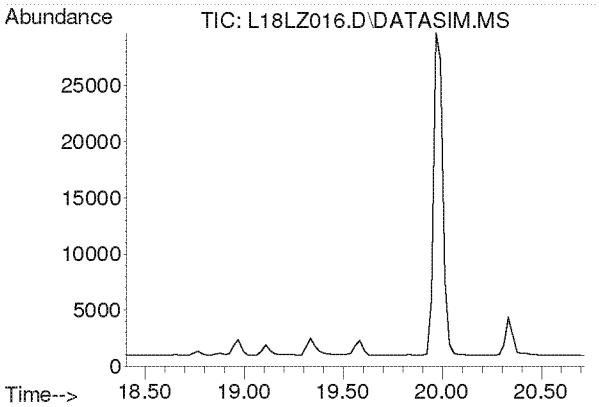
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



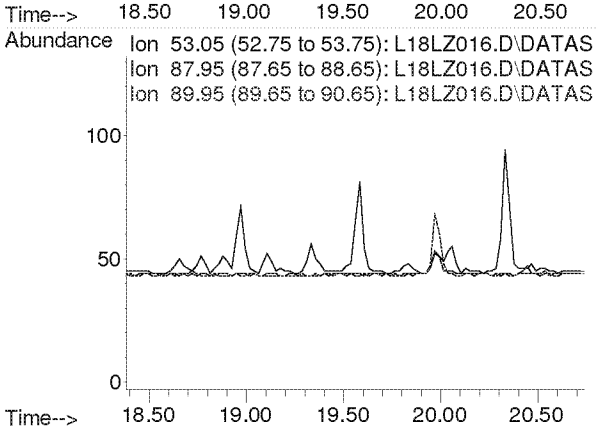


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

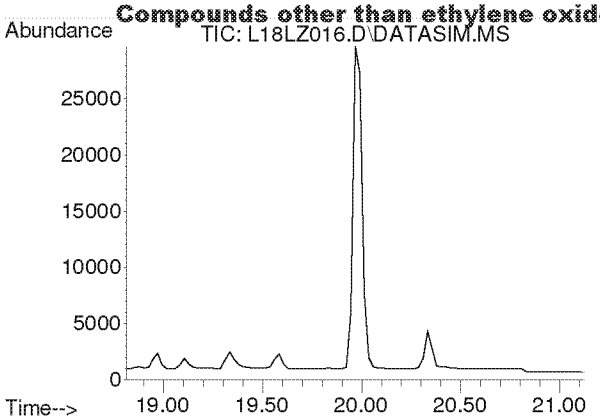
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

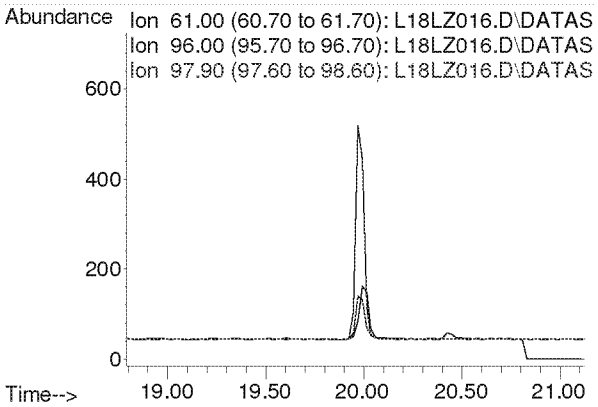


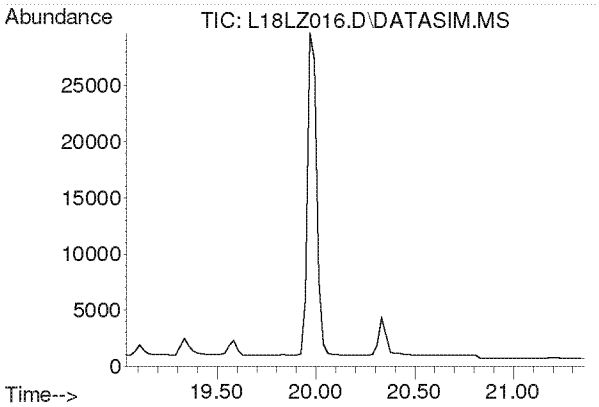
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



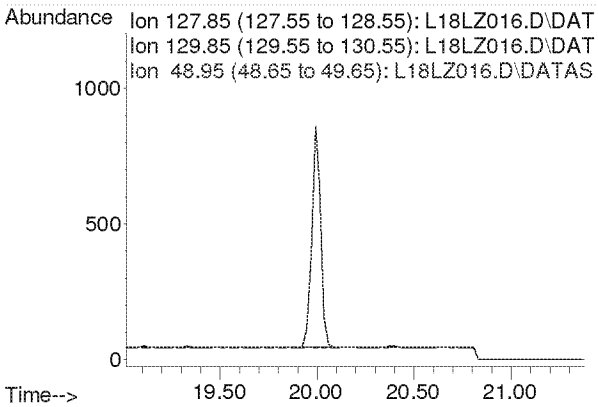


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

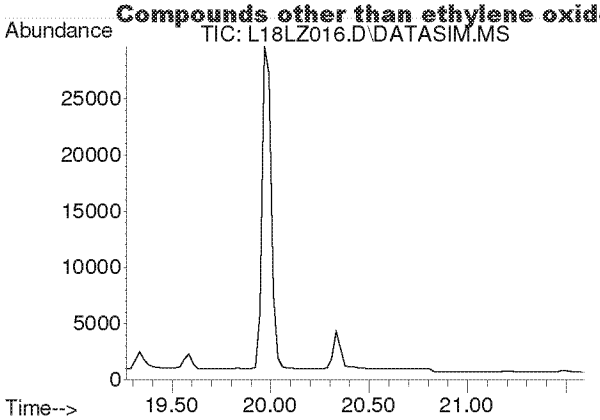
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

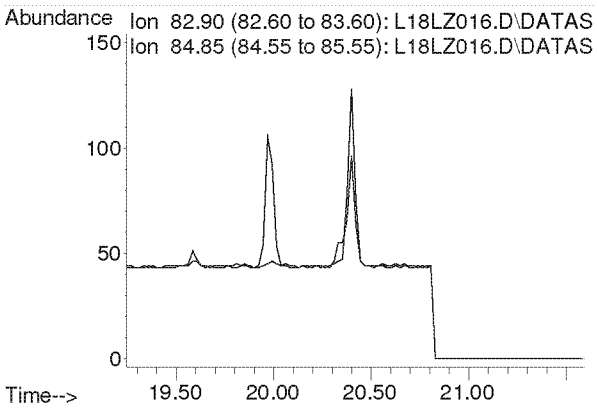


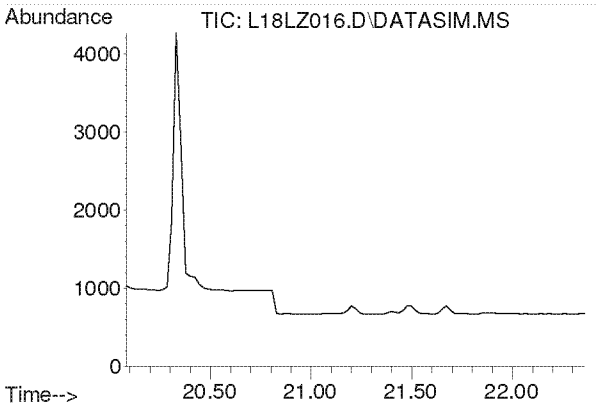
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



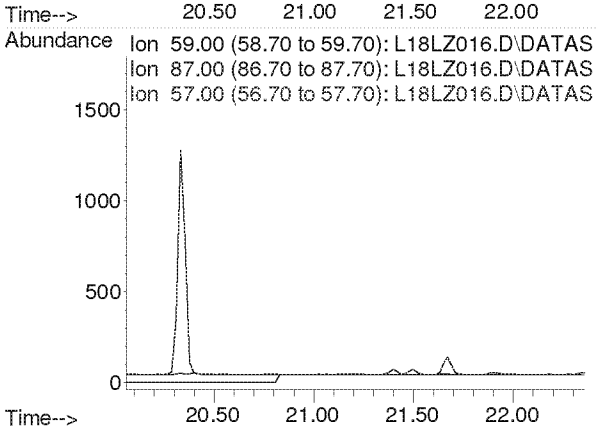


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

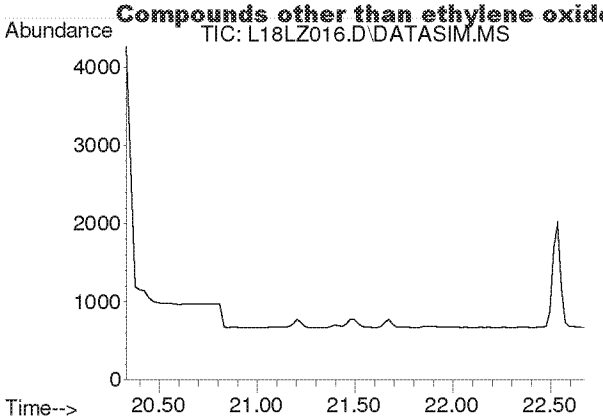
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

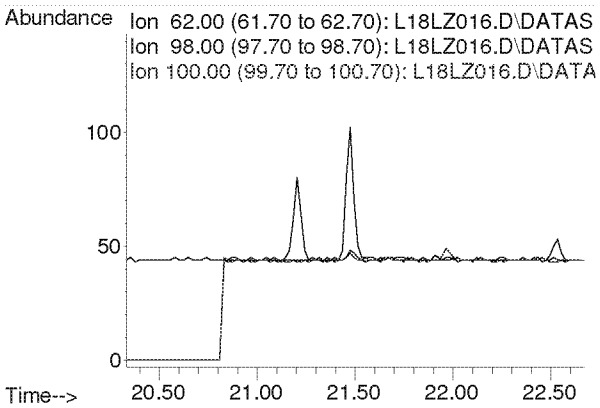


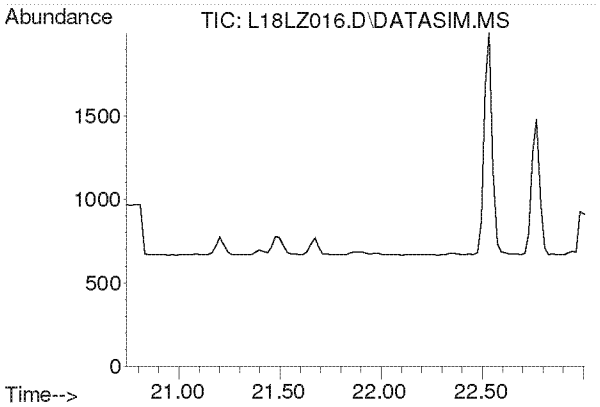
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



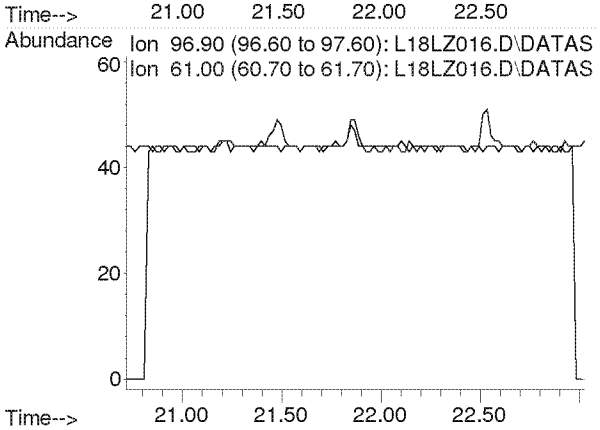


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

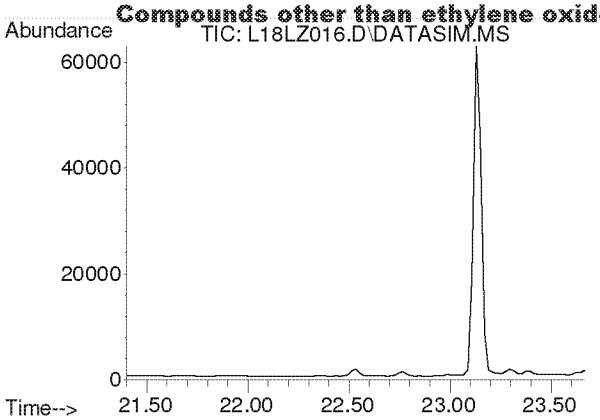
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

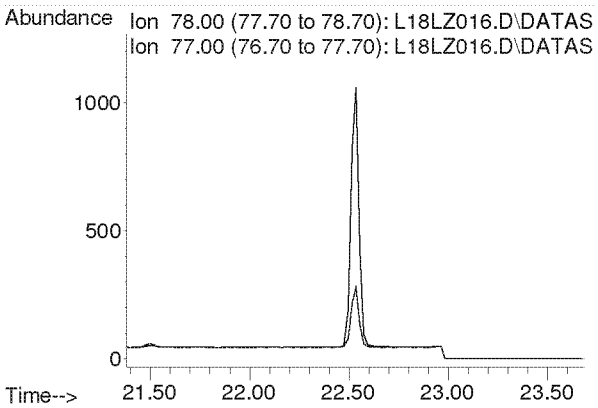


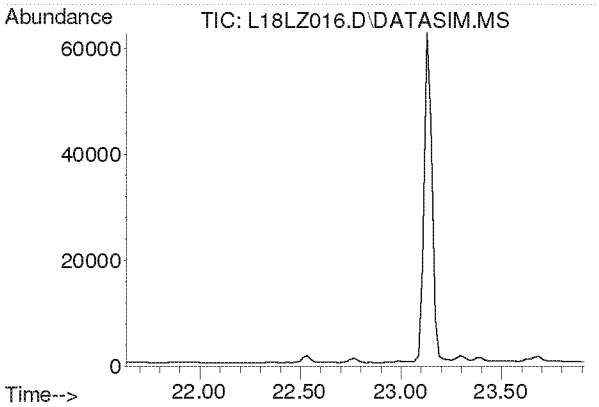
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



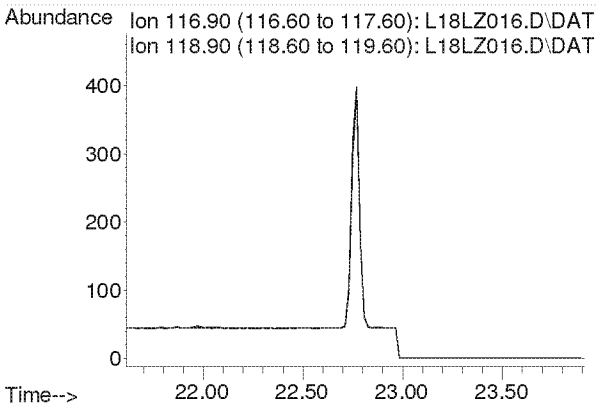


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

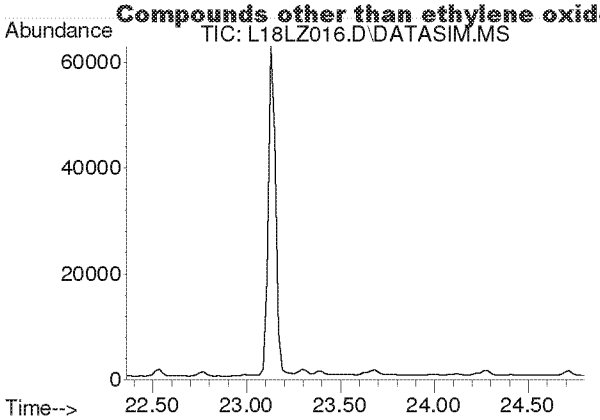
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

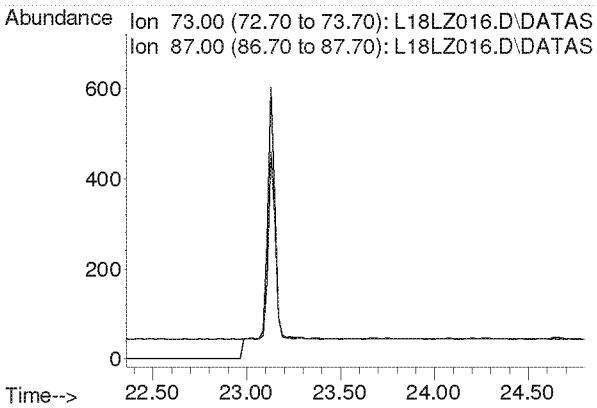


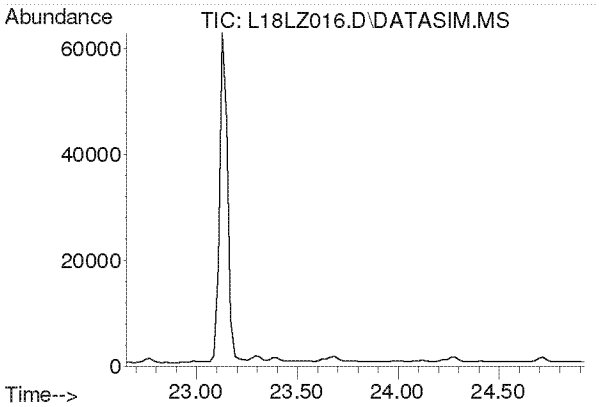
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



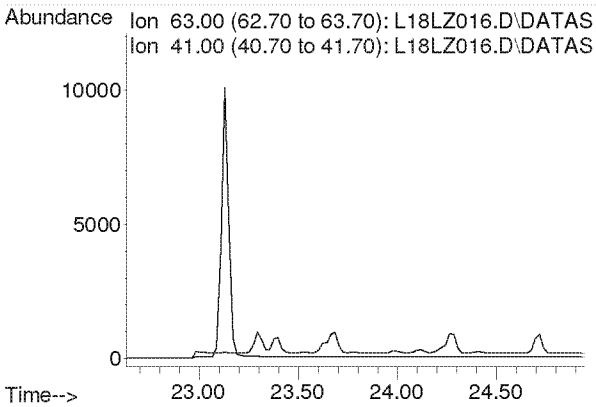


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

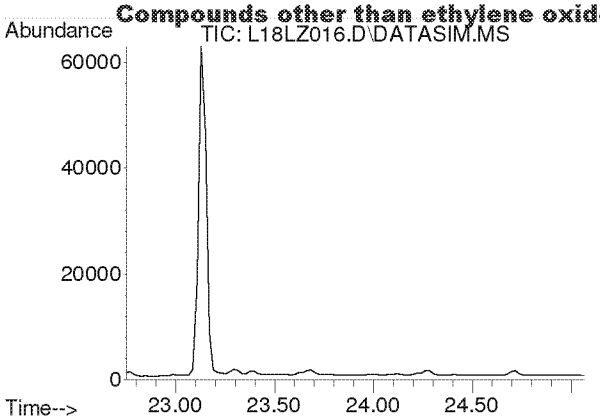
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

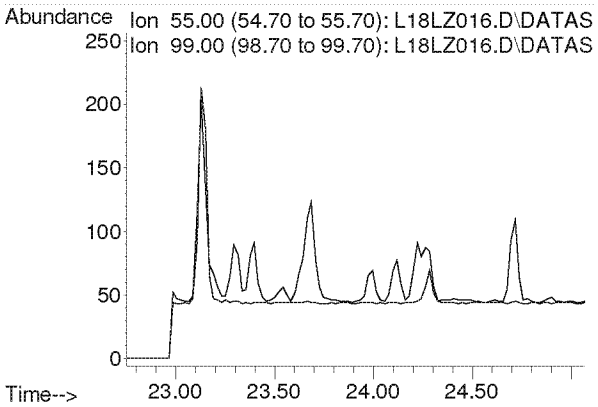


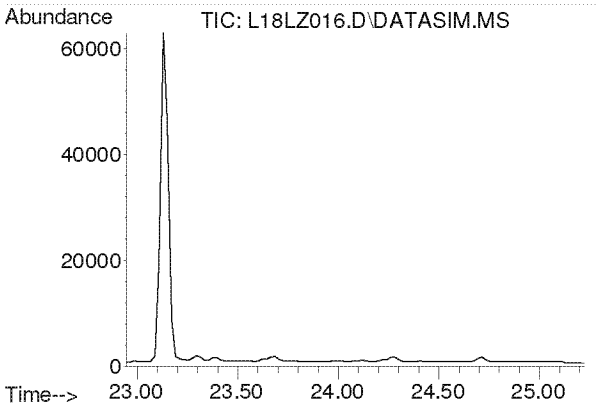
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



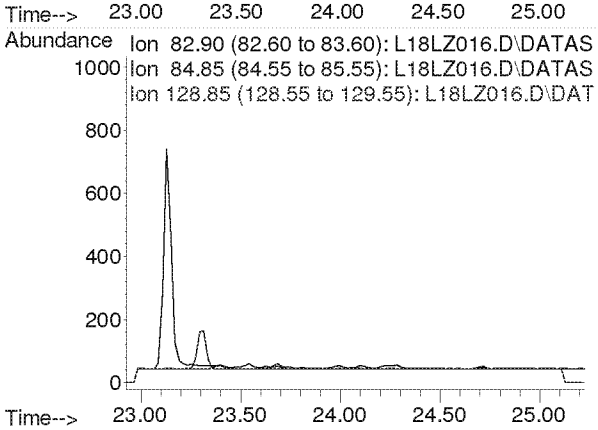


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

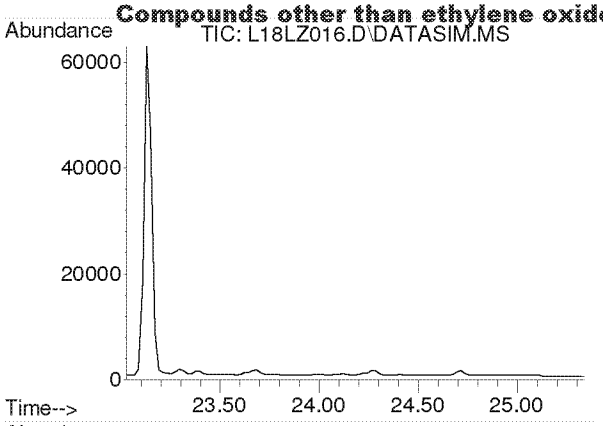
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

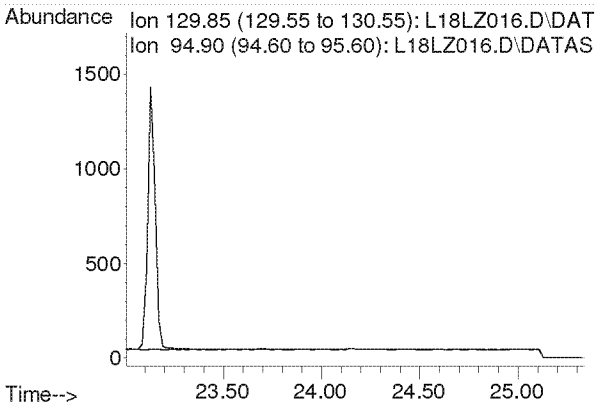


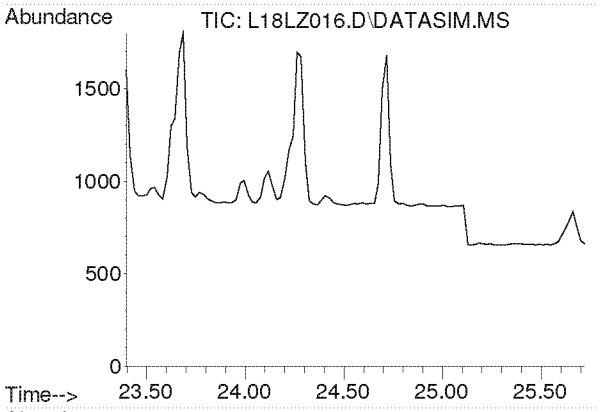
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



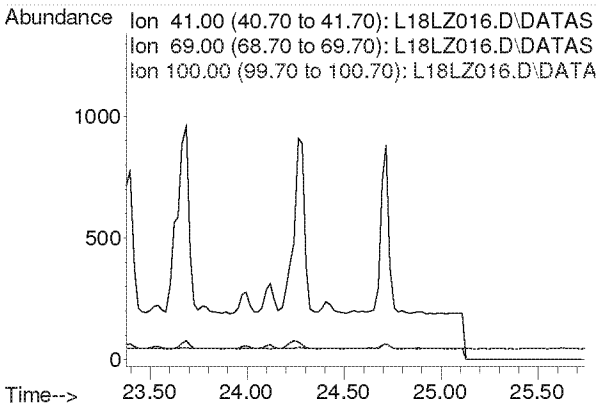


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

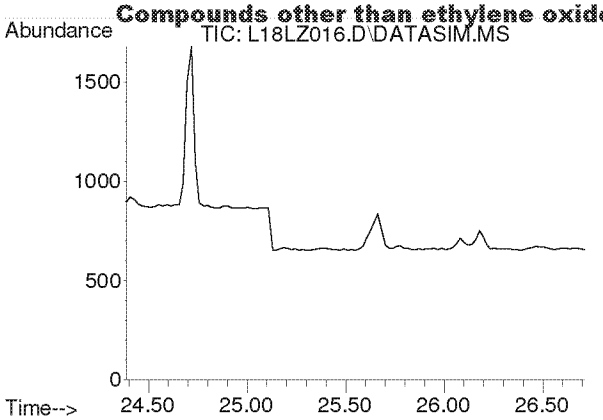
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

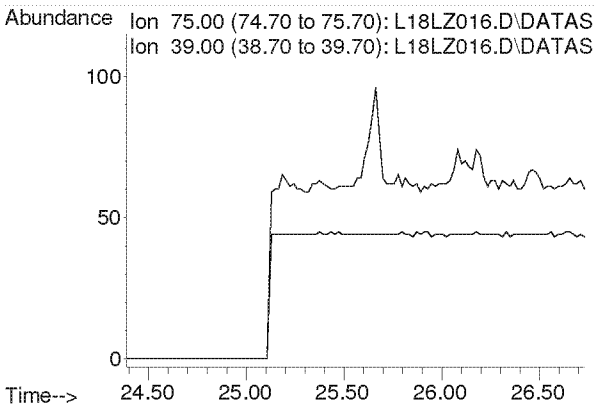


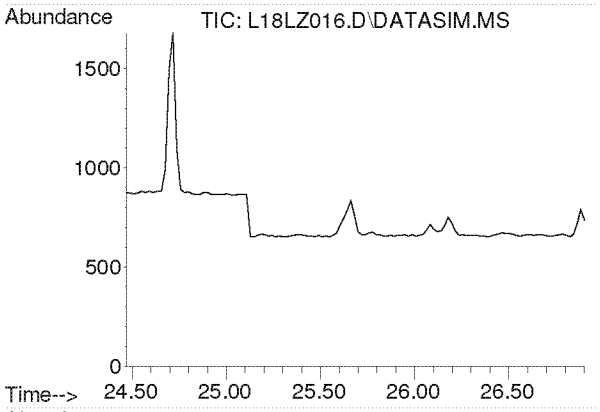
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



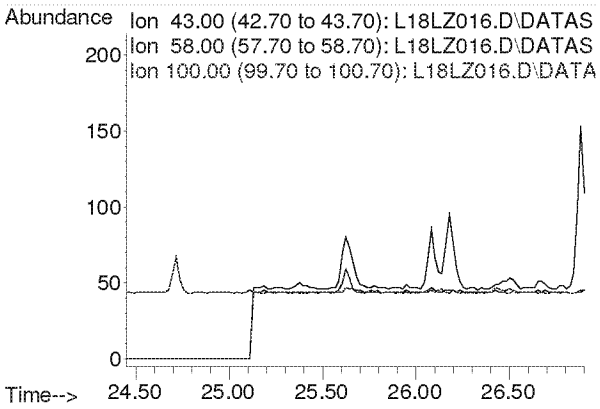


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

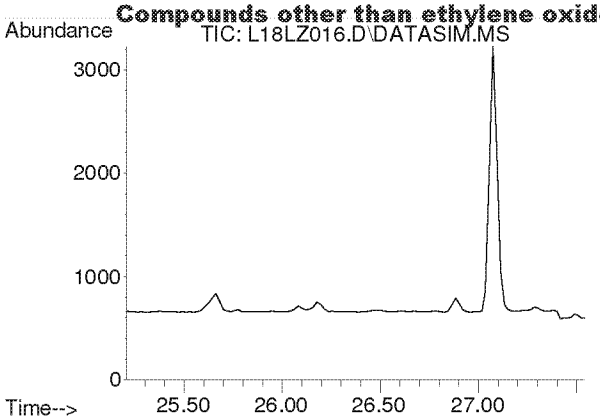
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

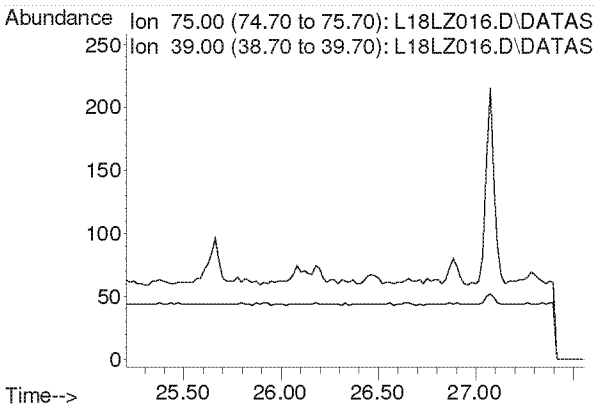


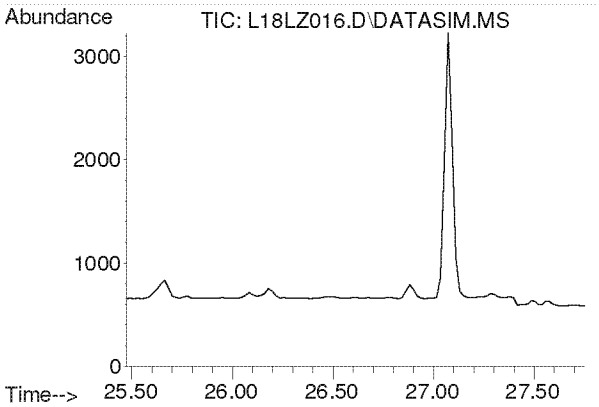
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



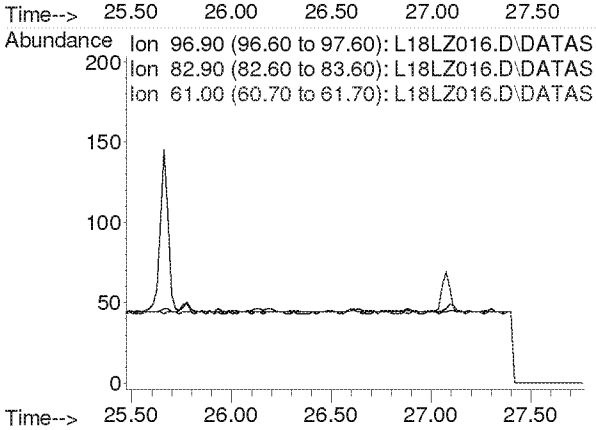


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

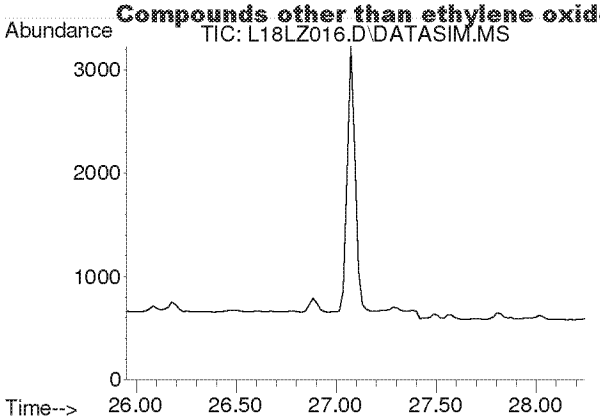
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

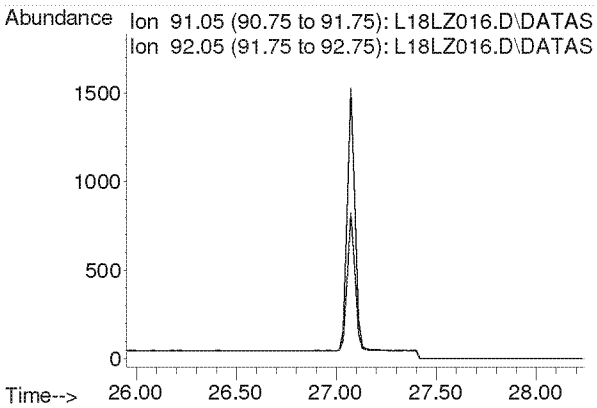


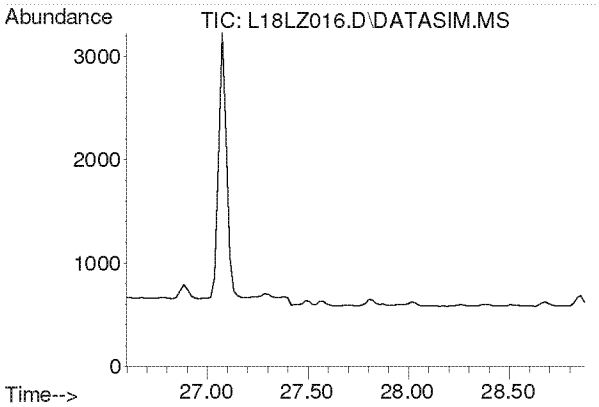
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



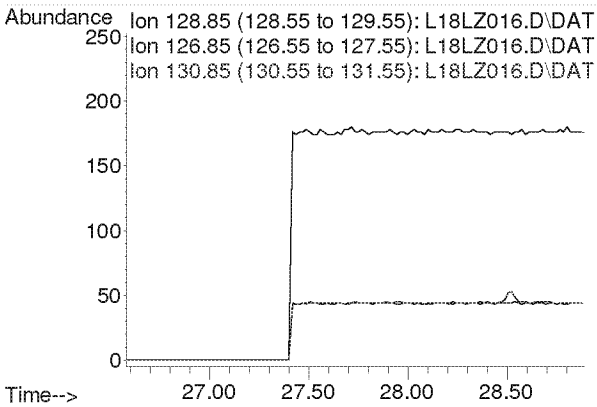


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

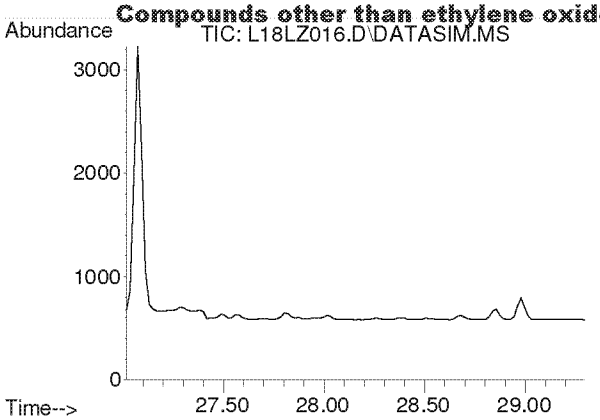
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

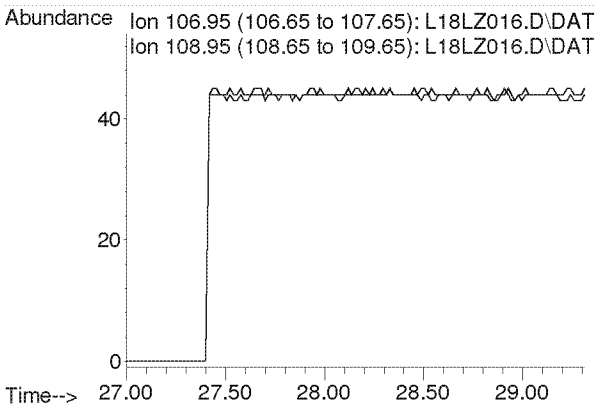


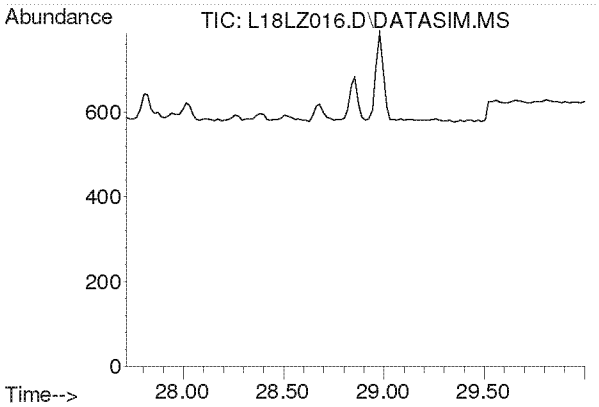
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



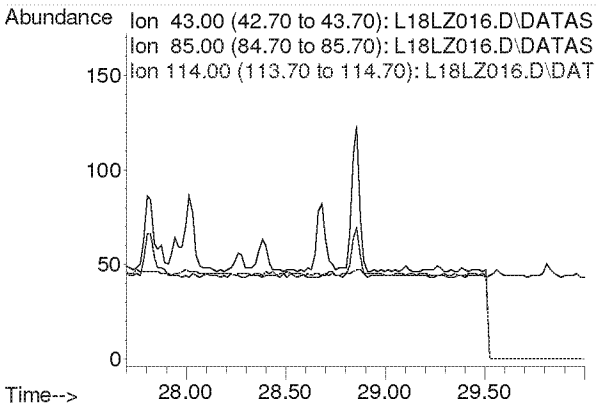


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

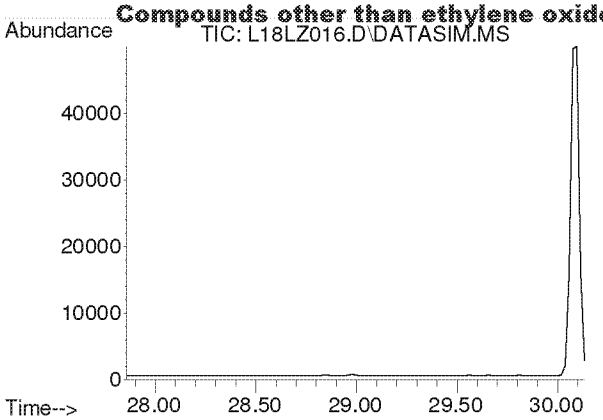
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

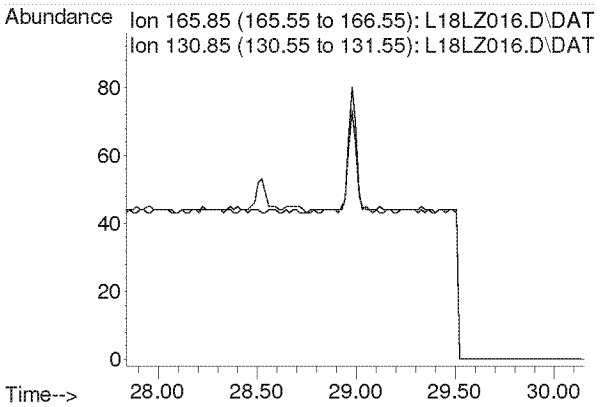


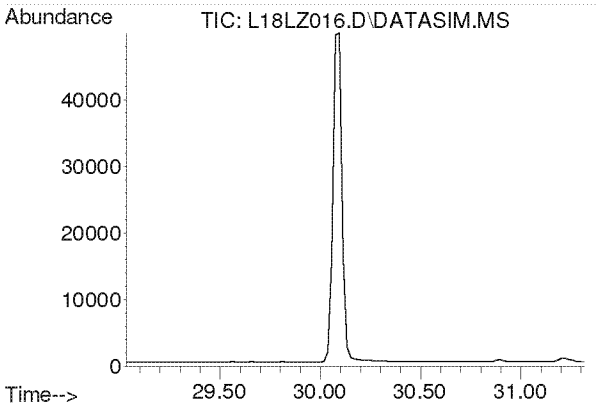
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



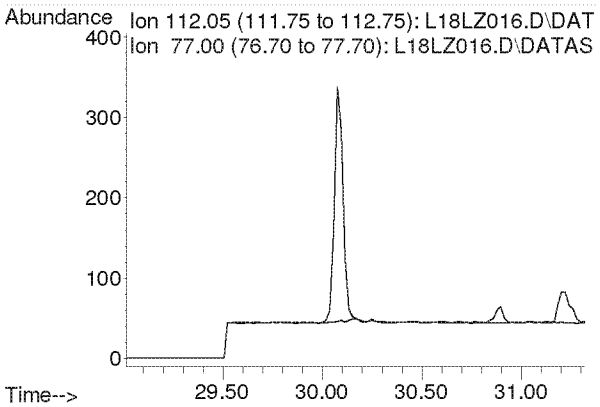


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

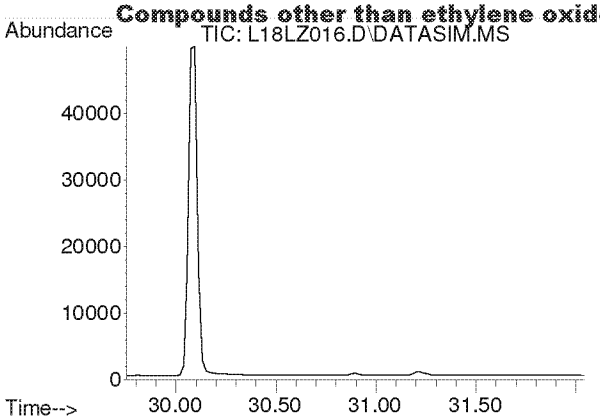
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

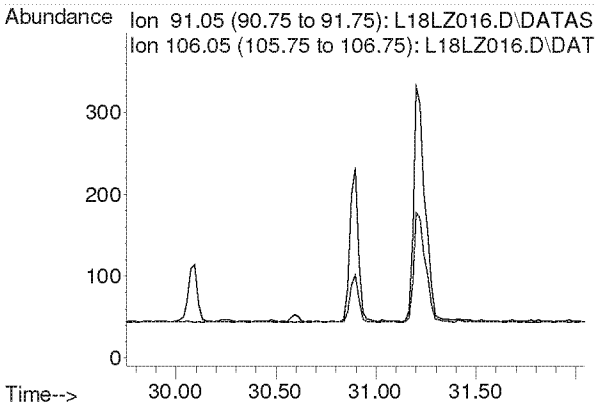


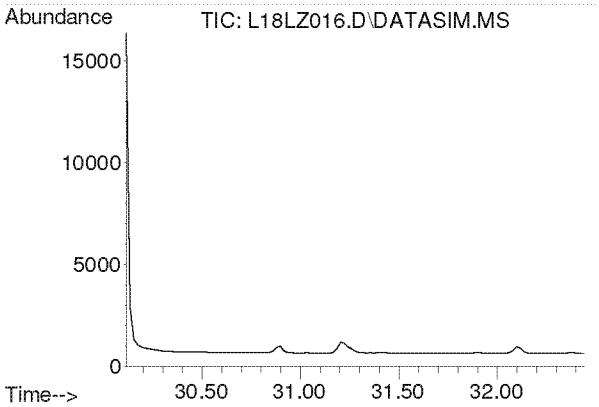
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



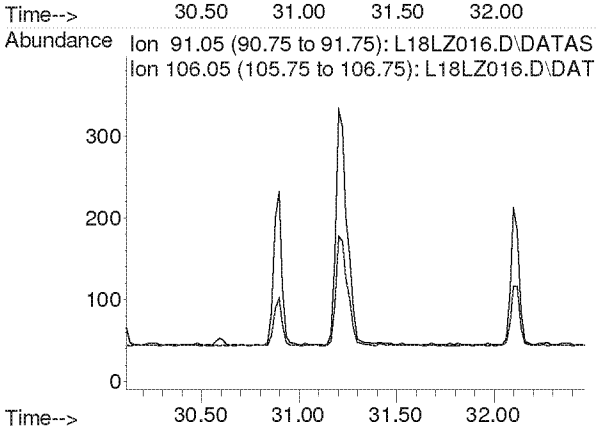


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

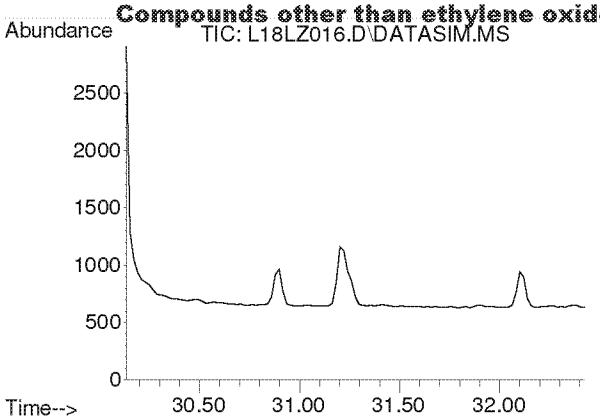
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

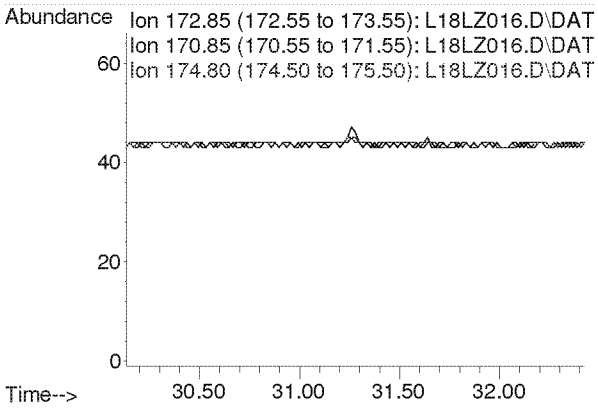


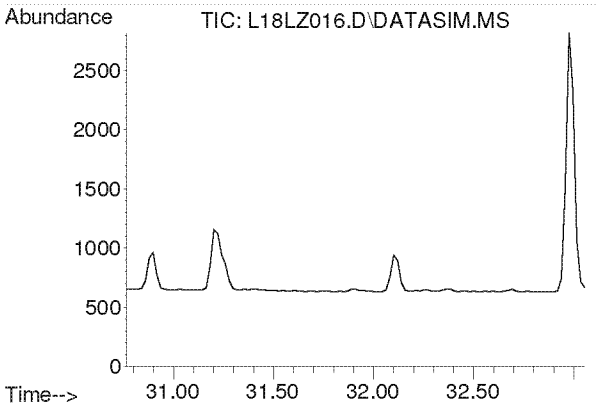
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



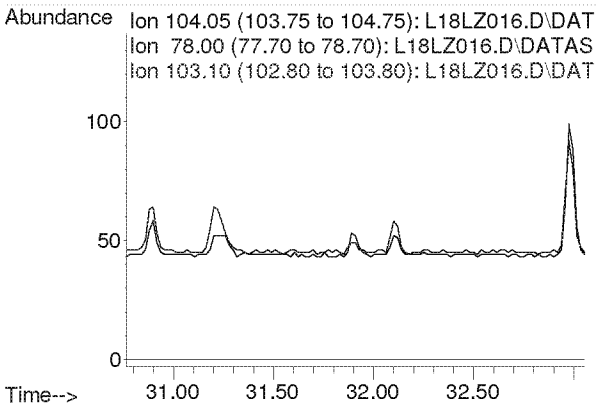


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

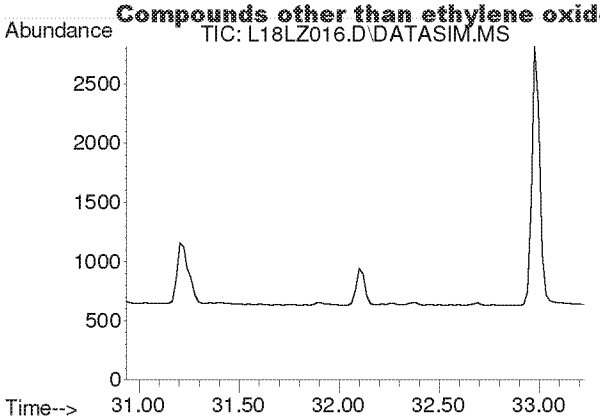
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

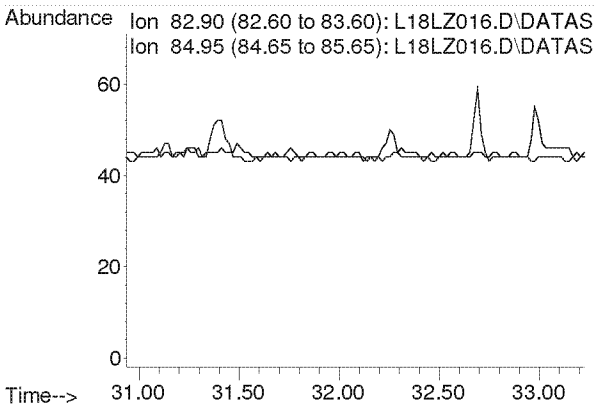


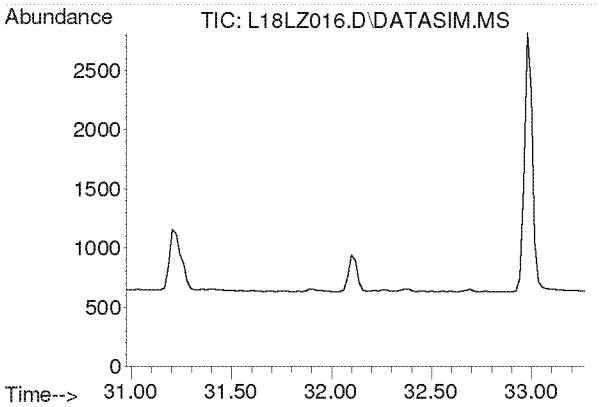
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



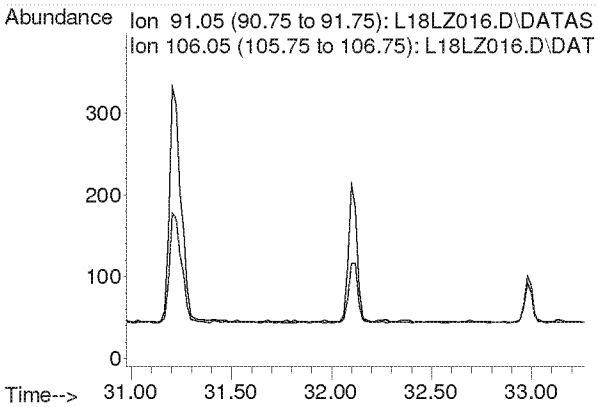


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

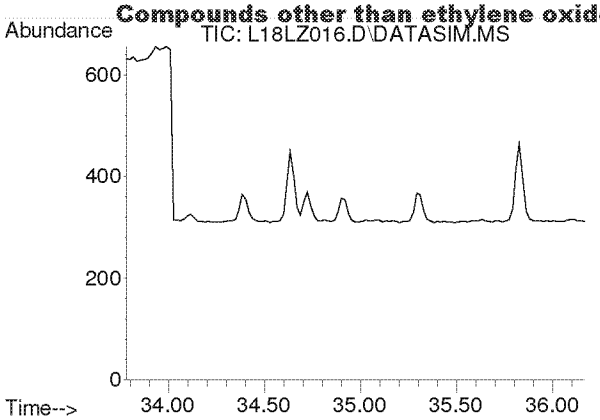
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

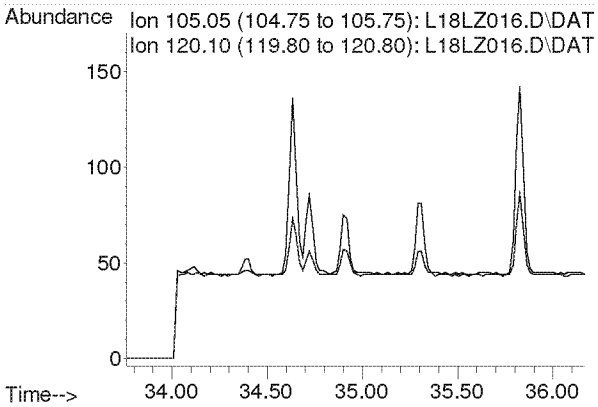


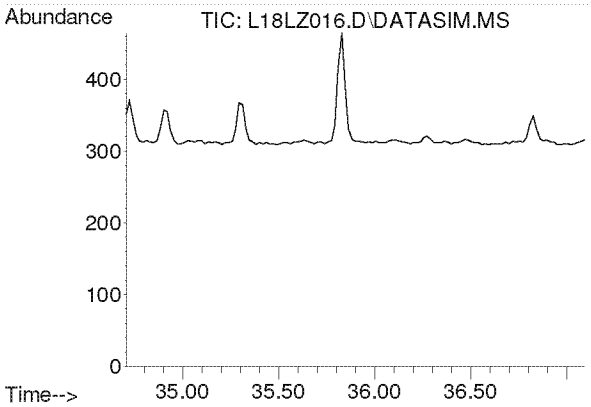
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



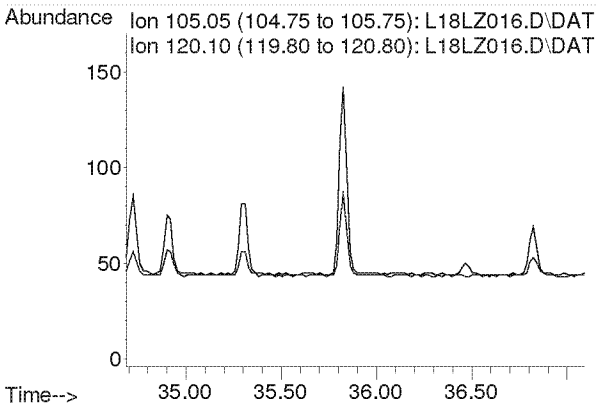


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

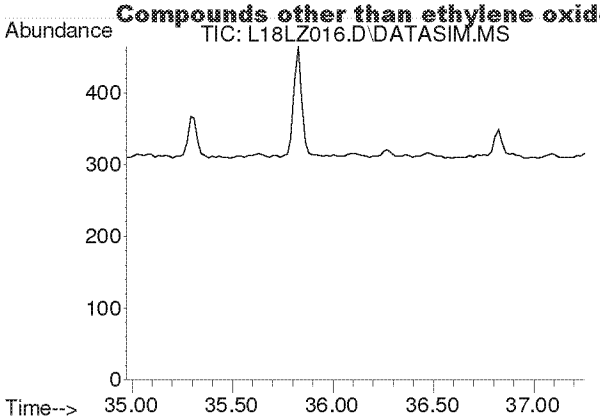
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

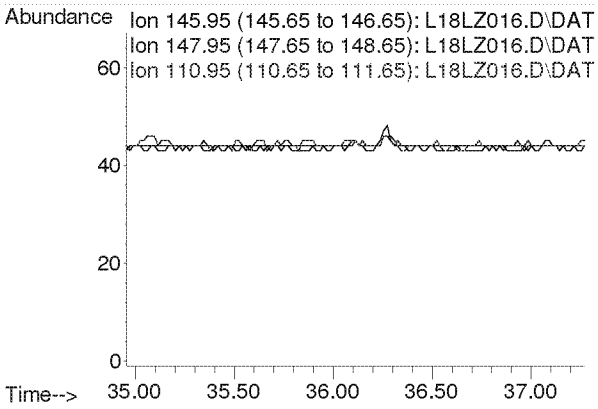


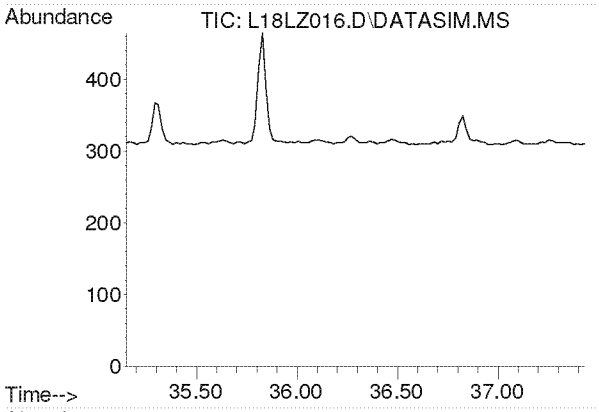
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



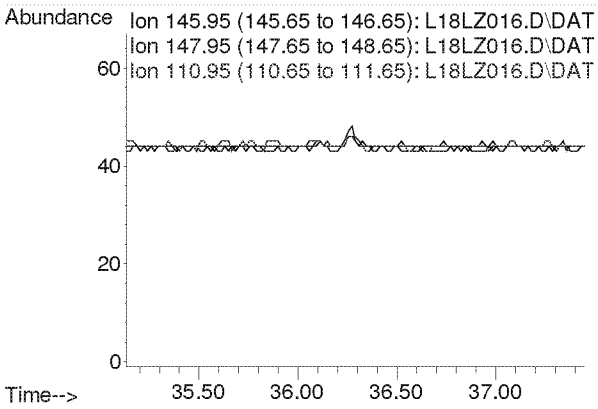


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

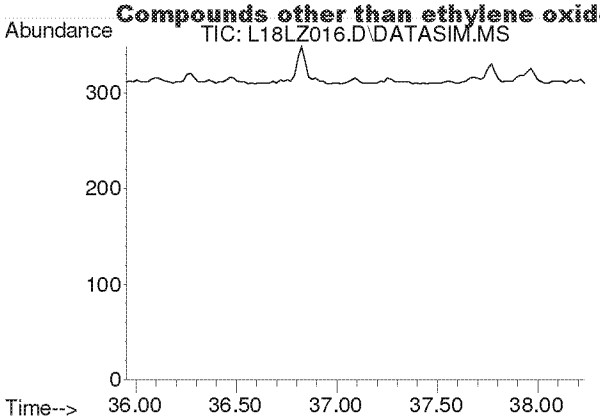
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

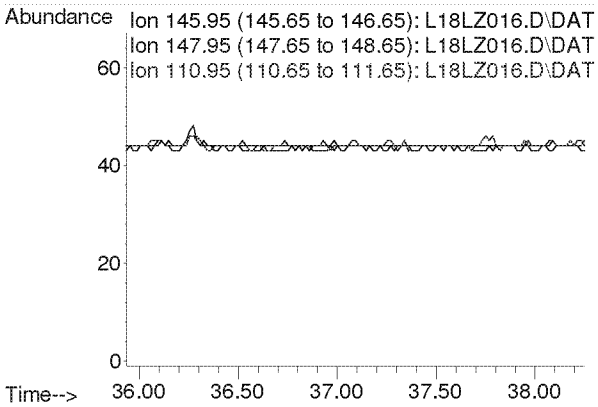


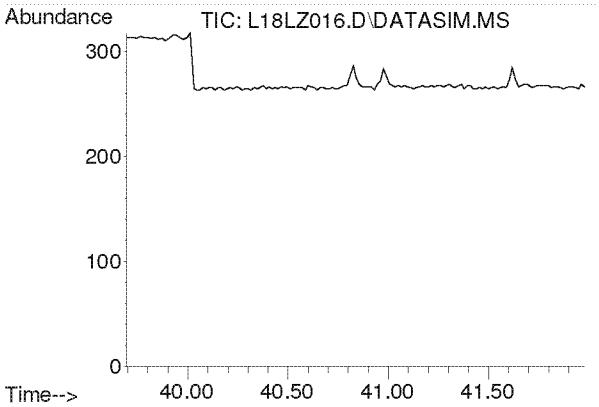
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



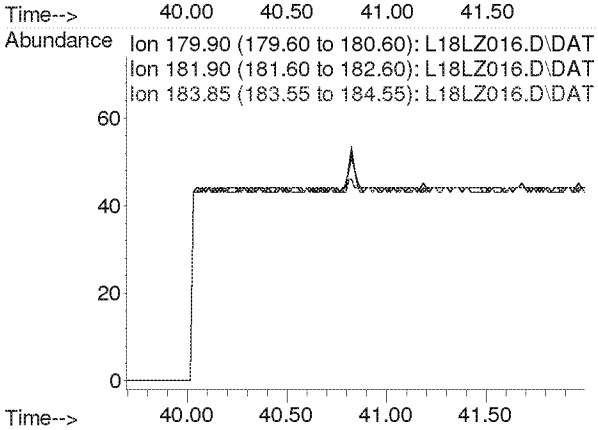


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

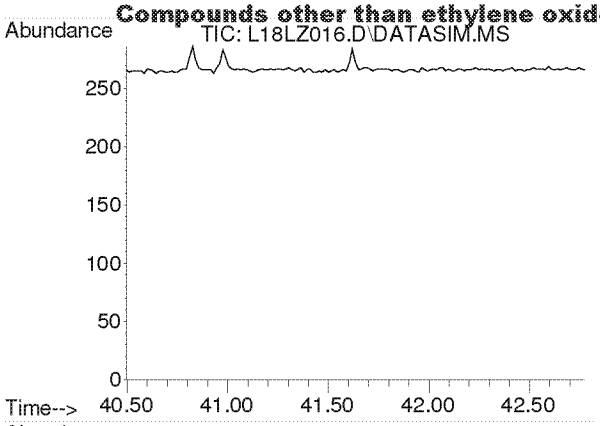
Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.1
184	30.7



Compounds other than ethylene oxide were not quantitated.

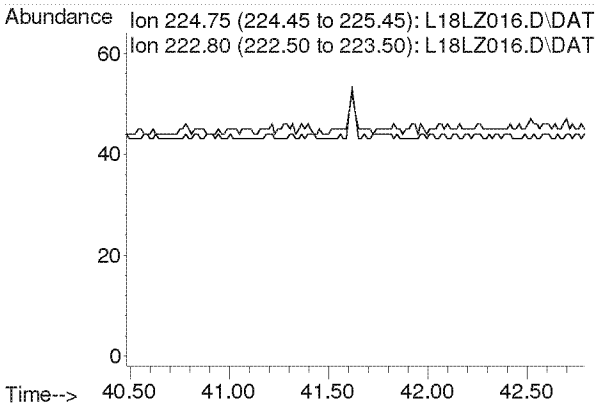


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18LZ016.D
Acq: 27 Dec 2018 2:52 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\L18LZ\
Data File : L18LZ017.D
Acq On : 27 Dec 2018 3:54 am
Operator : MAH
Sample : B8L2603-DUP2
Misc : WB WAREHOUSE R2 12/11/18
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 03 11:16:39 2019
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

d-MR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	53785	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	128876	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.097	117	92498	4.7400 ppbv	0.00

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. d	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	12.440	29	677m(-379	0.2106 ppbv	
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.	
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	
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\L18LZ\
Data File : L18LZ017.D
Acq On : 27 Dec 2018 3:54 am
Operator : MAH
Sample : B8L2603-DUP2
Misc : WB WAREHOUSE R2 12/11/18
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 03 11:16:39 2019
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.	

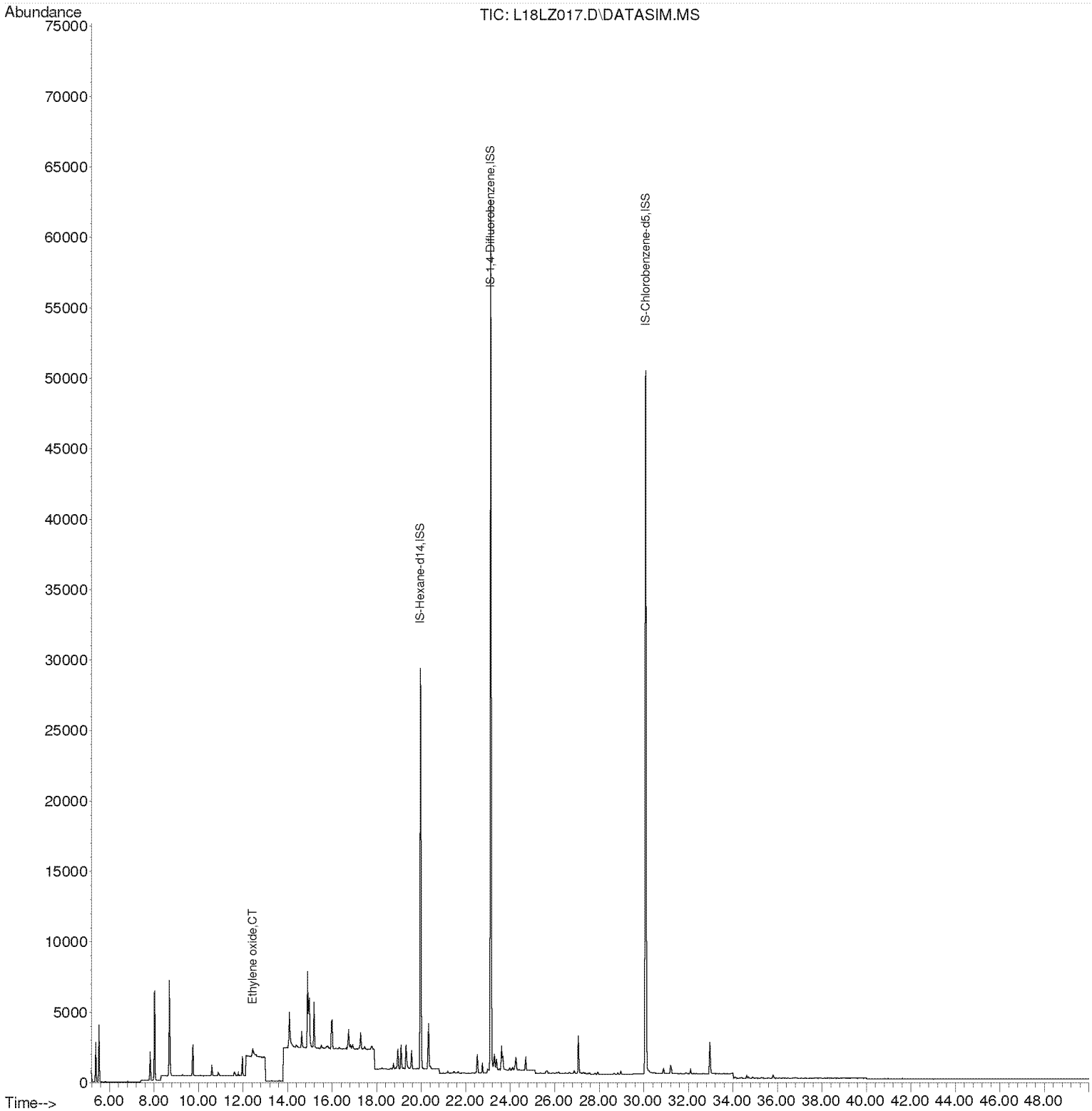
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000324-00513

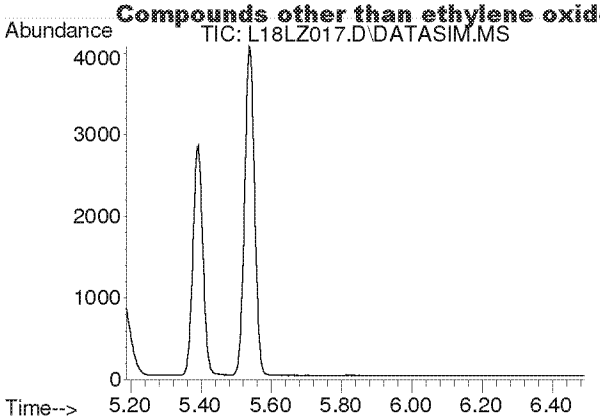
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ017.D
Acq On : 27 Dec 2018 3:54 am
Operator : MAH
Sample : B8L2603-DUP2
Misc : WB WAREHOUSE R2 12/11/18
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 03 10:34:27 2019
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



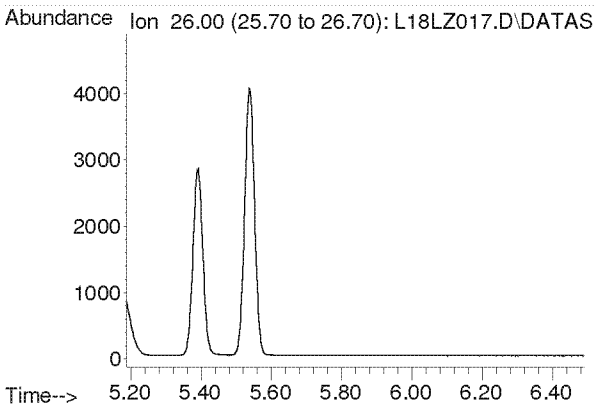
Compounds other than ethylene oxide were not quantitated.

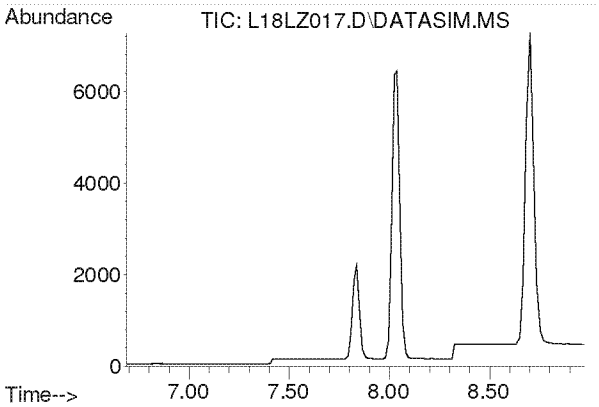


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 26



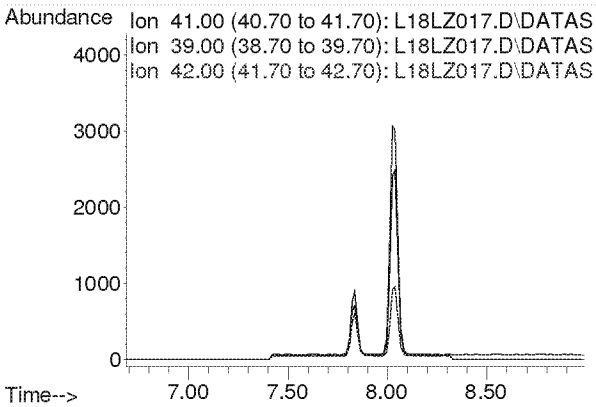


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

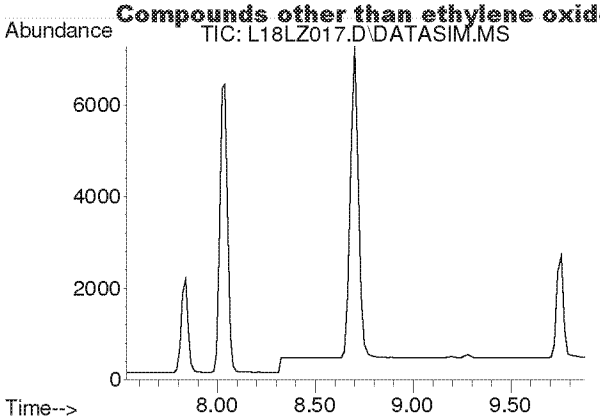
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

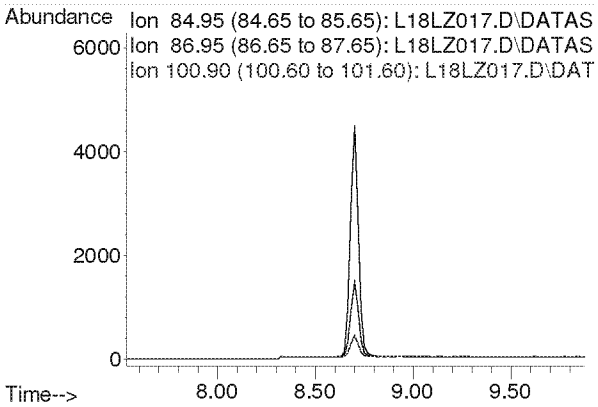


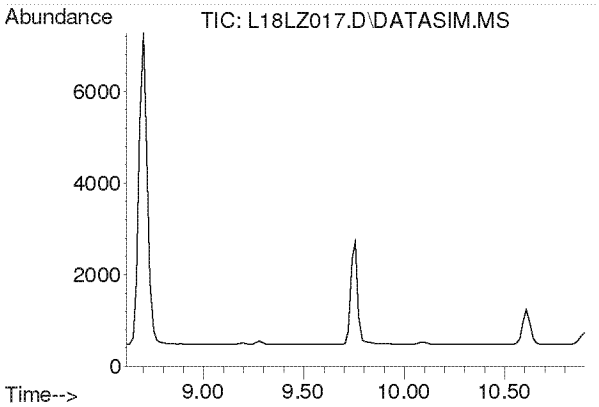
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



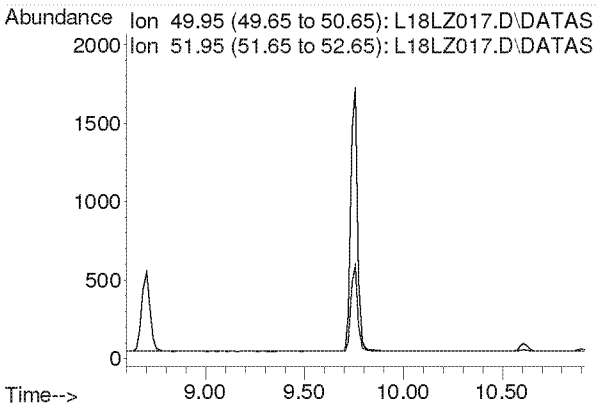


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

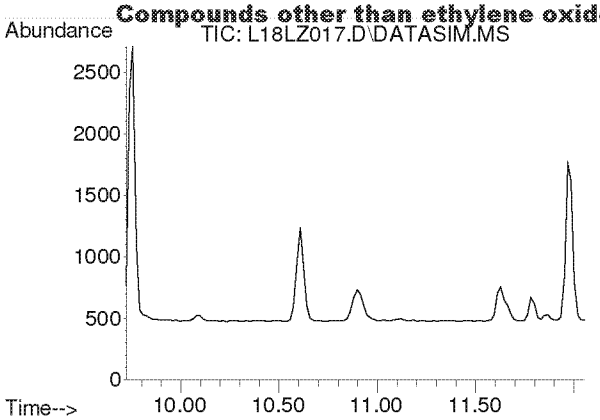
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

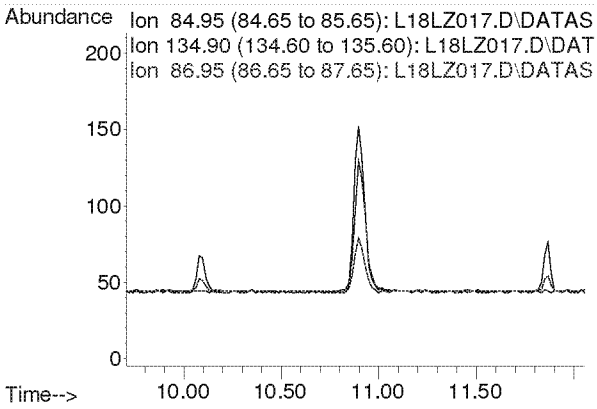


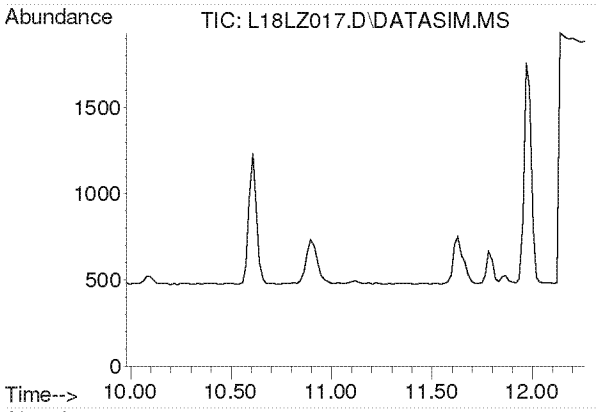
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



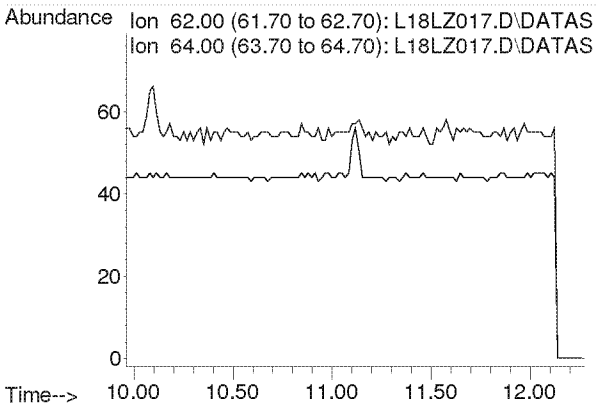


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

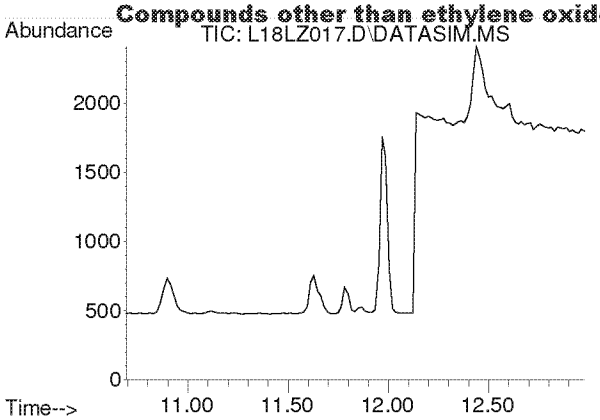
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

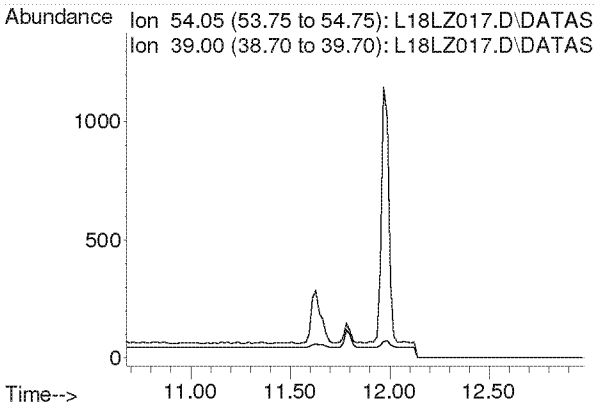


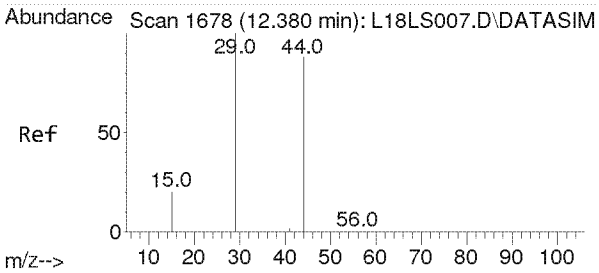
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

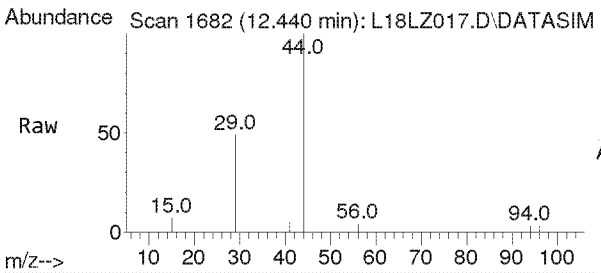


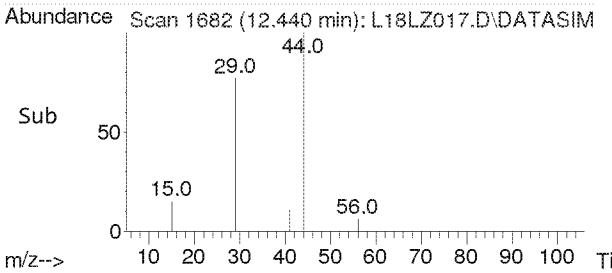


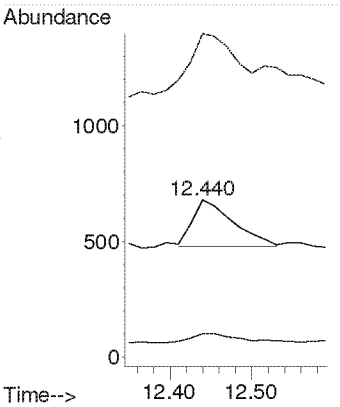
#9
Ethylene oxide
Concen: 0.211 ppbv m
RT: 12.440 min Scan# 1682
Delta R.T. 0.060 min
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 29 Resp: 677

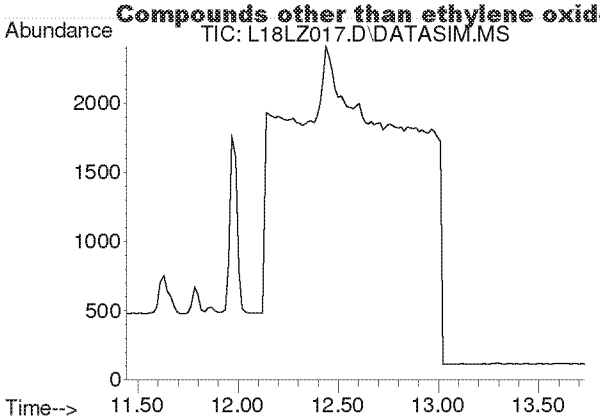
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.2	24.4#
44	0.0	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

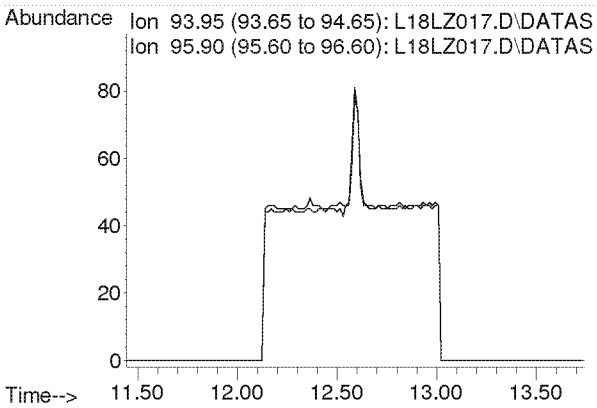


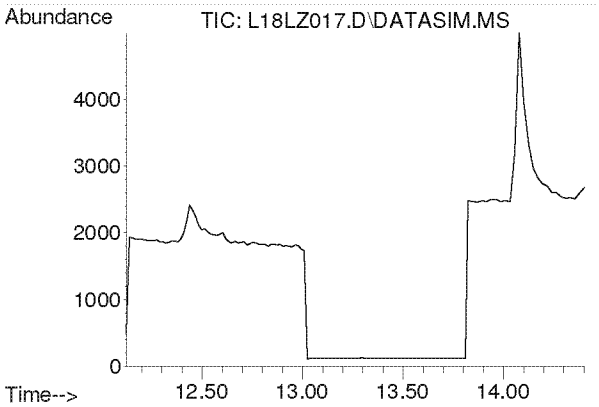
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



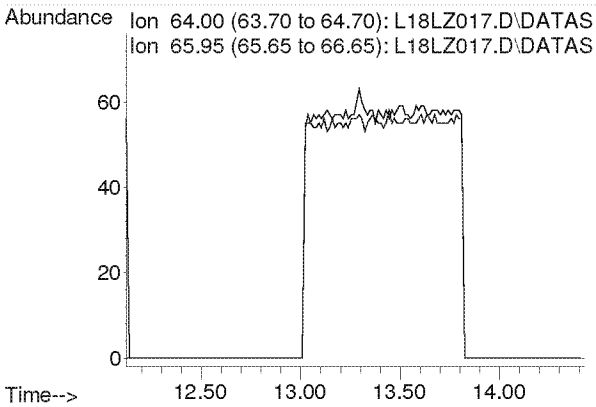


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

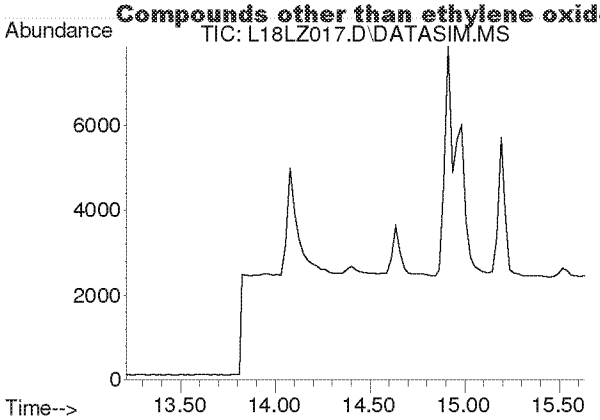
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

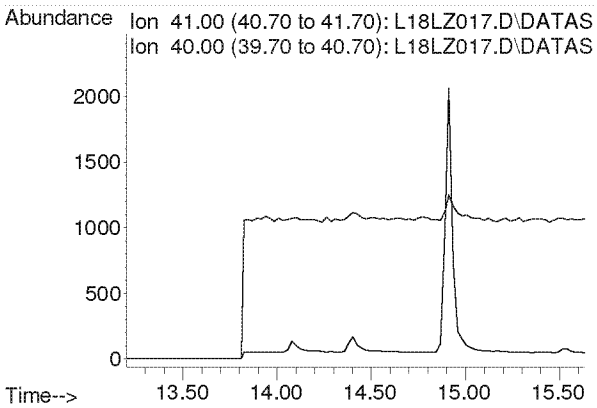


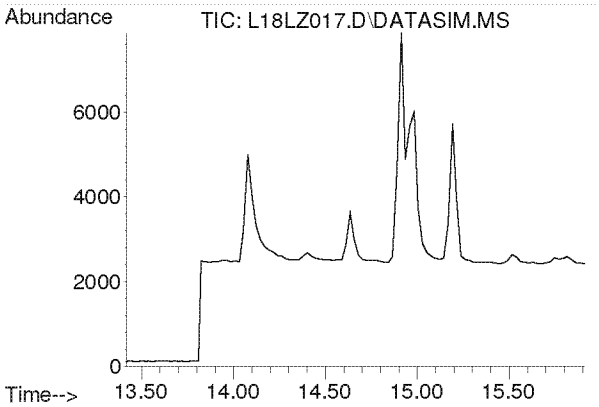
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



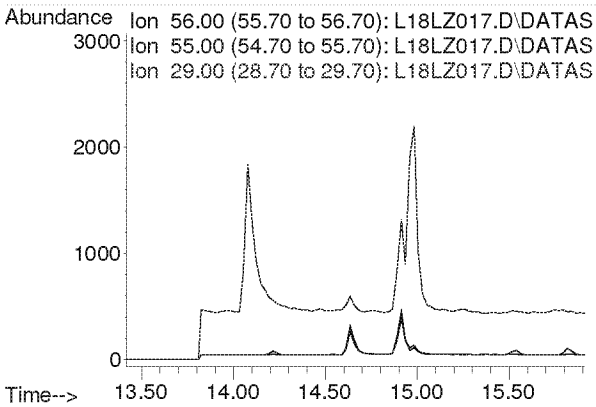


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

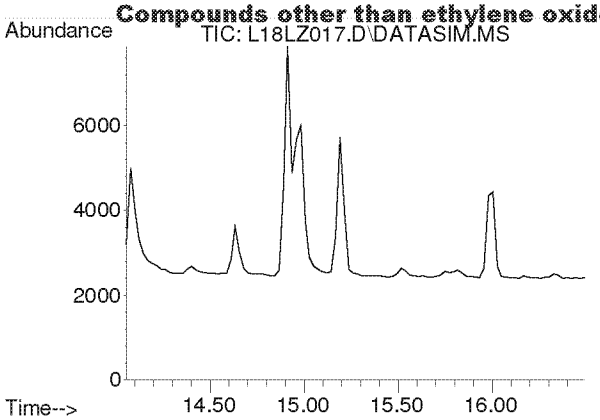
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

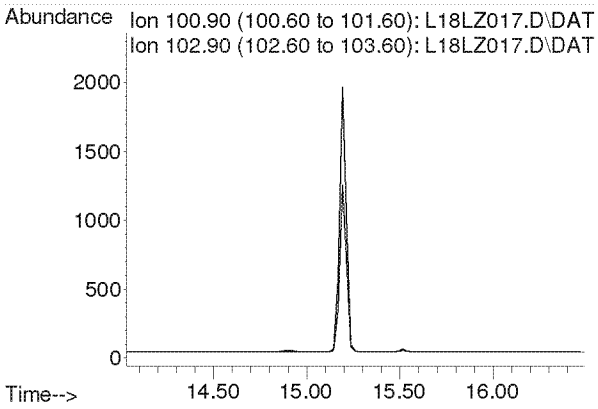


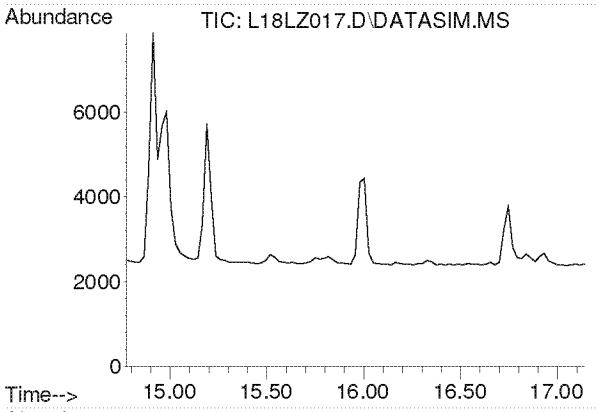
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



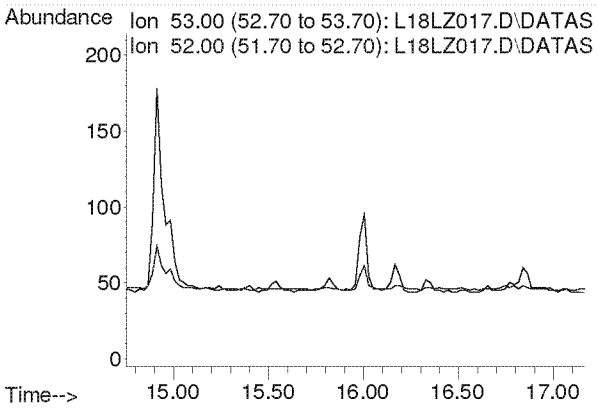


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

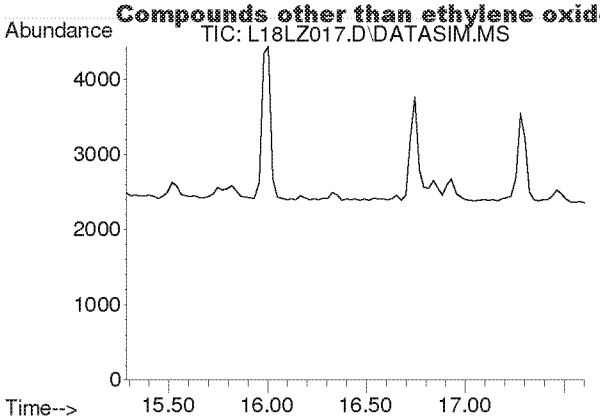
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

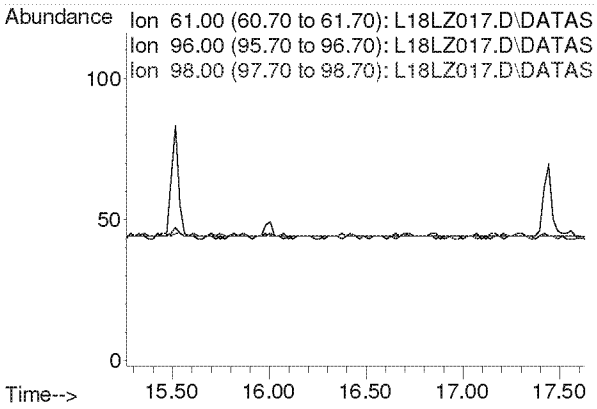


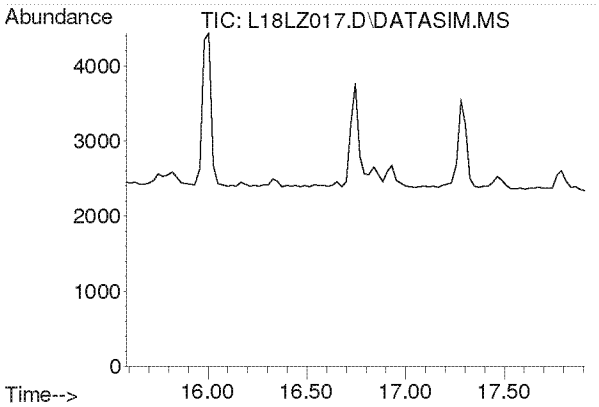
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



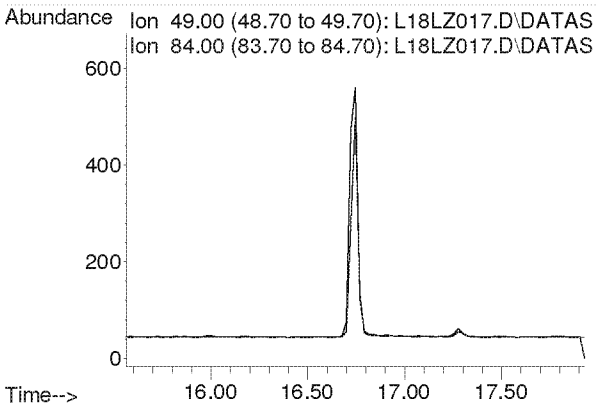


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

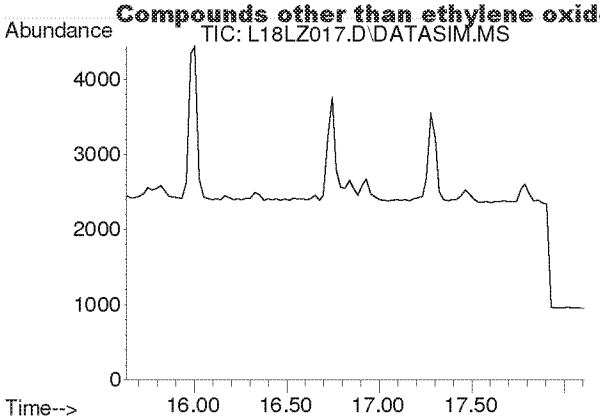
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

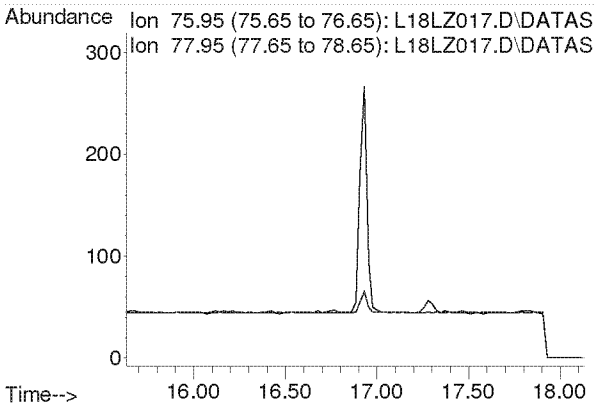


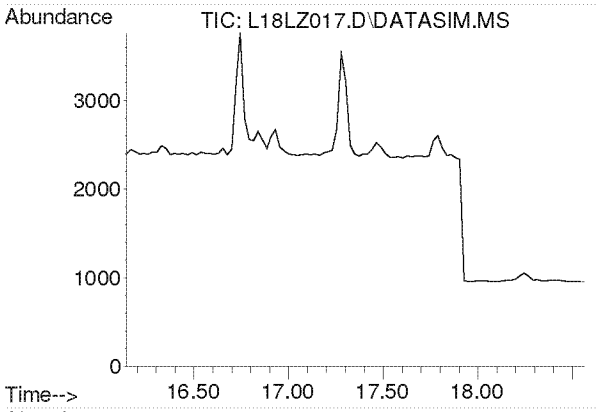
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



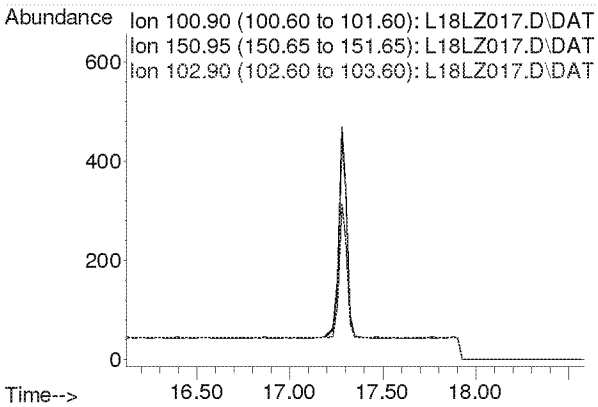


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

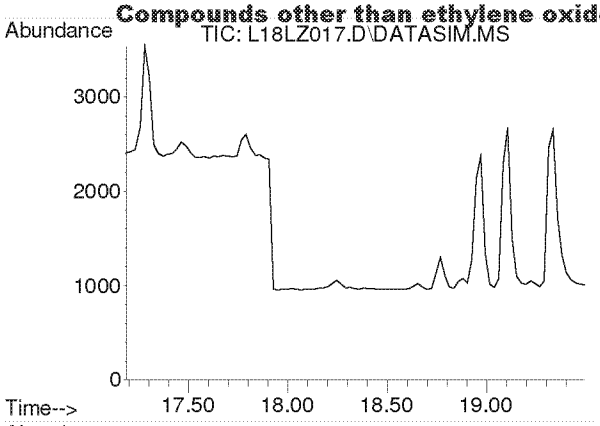
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

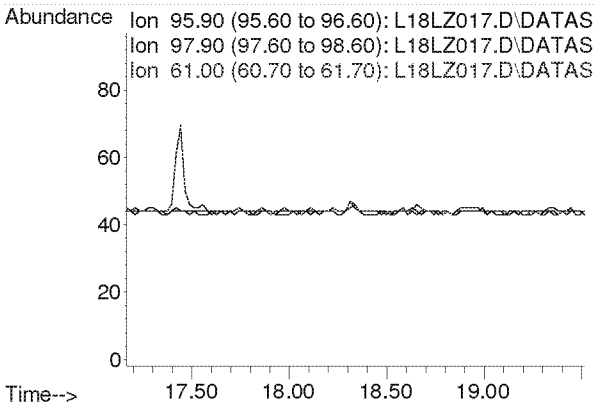


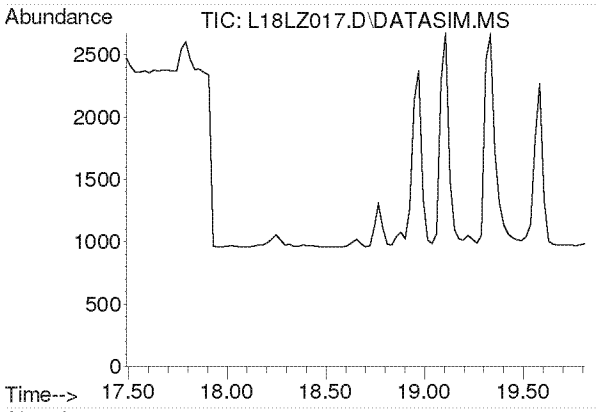
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



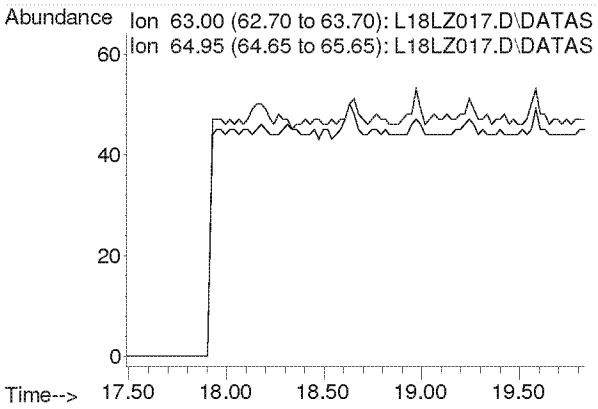


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

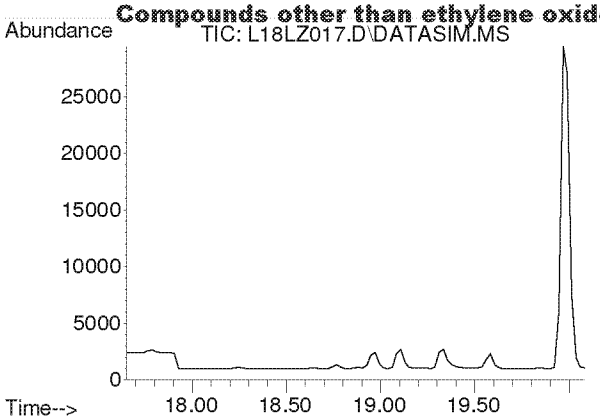
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

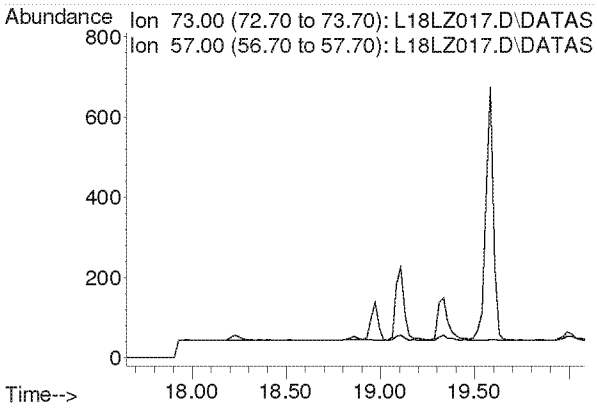


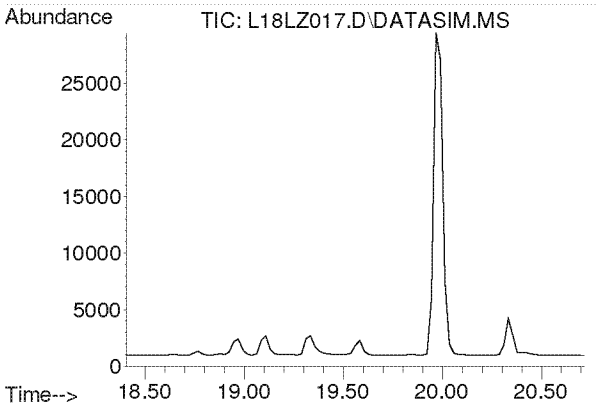
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



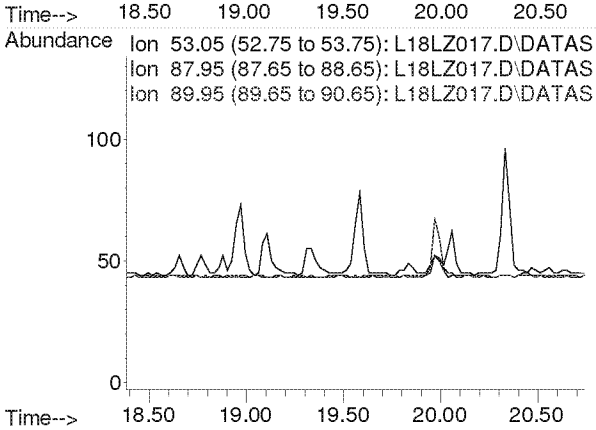


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

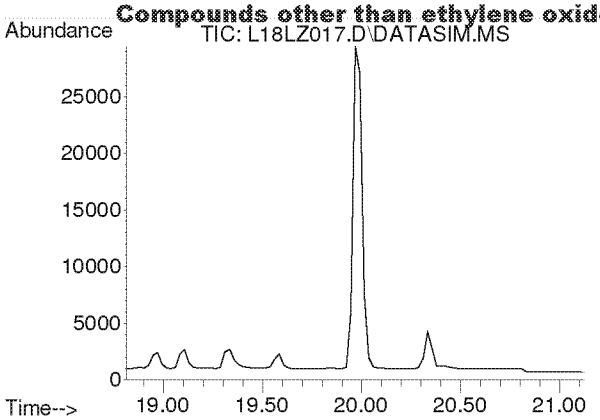
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

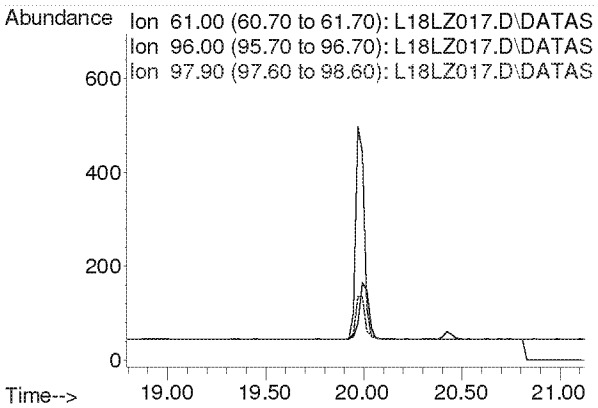


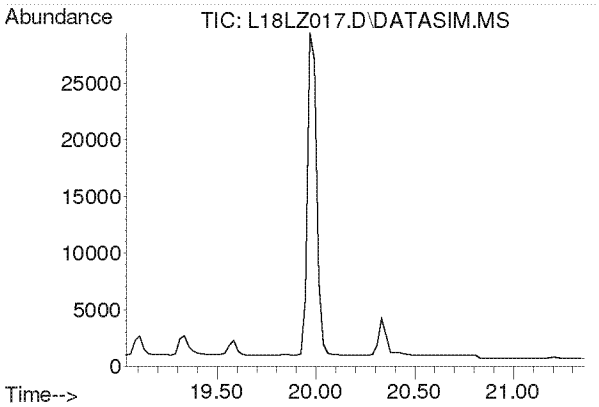
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



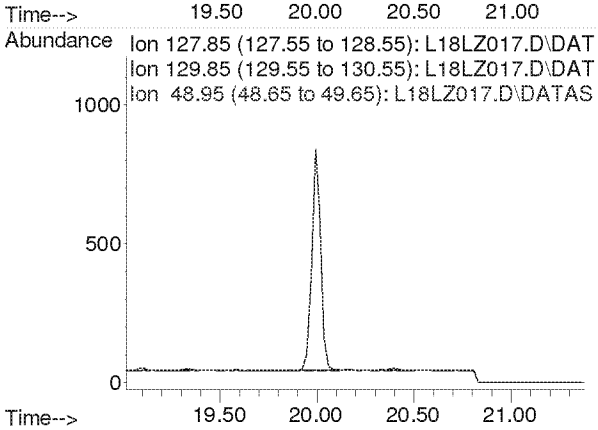


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

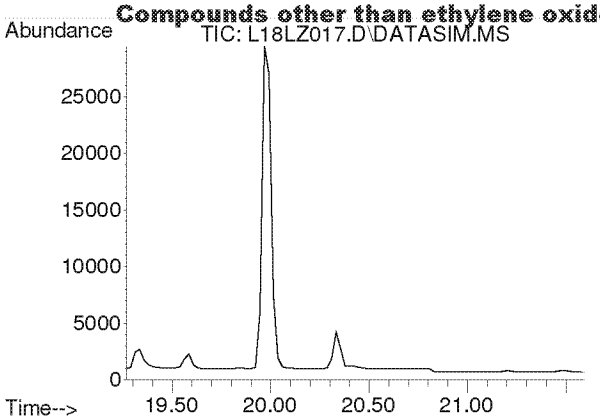
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

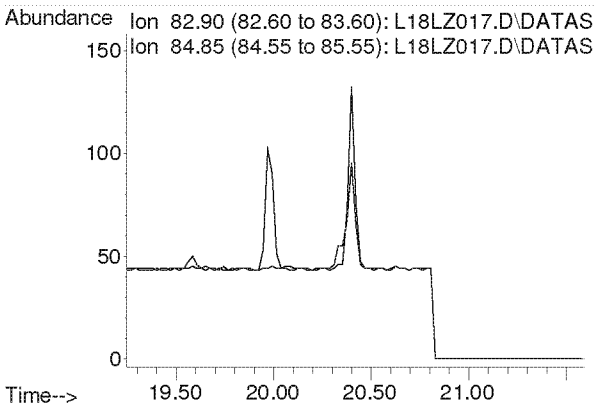


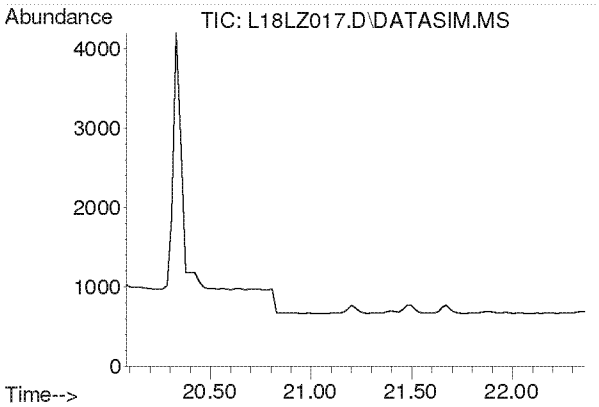
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



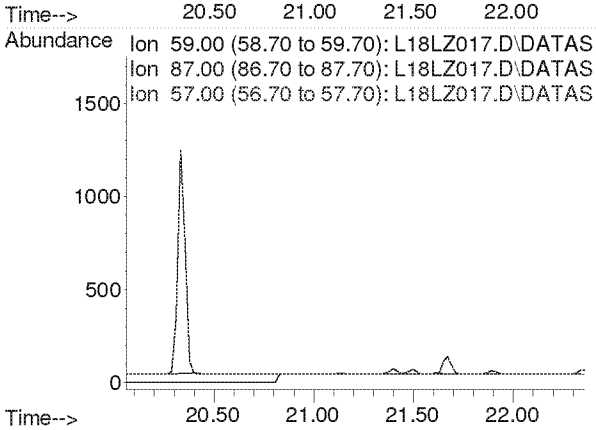


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

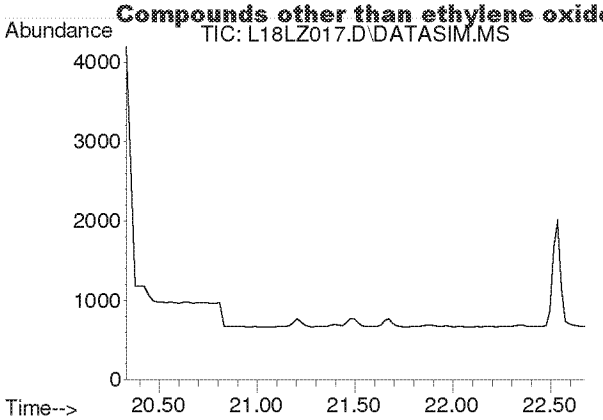
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

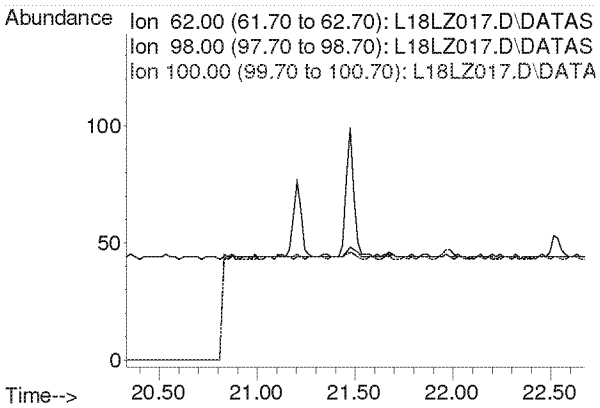


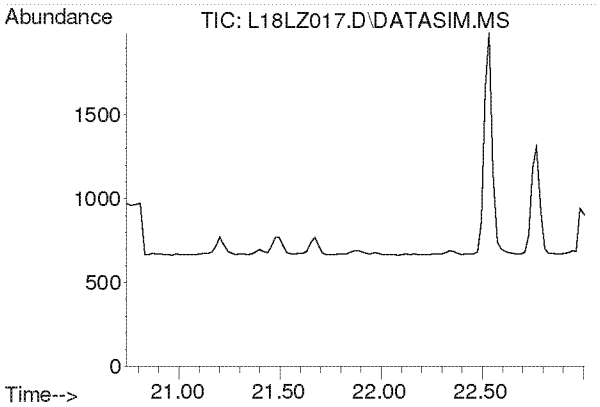
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



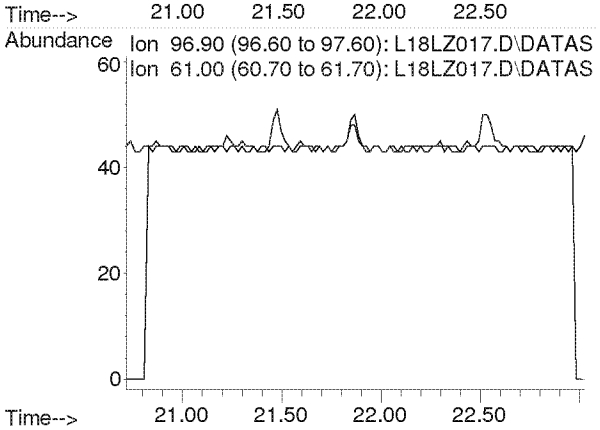


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

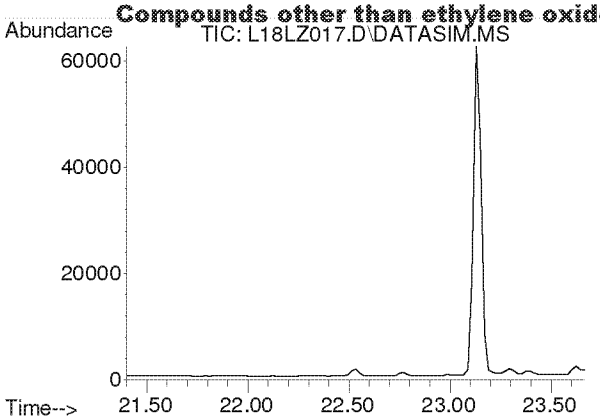
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

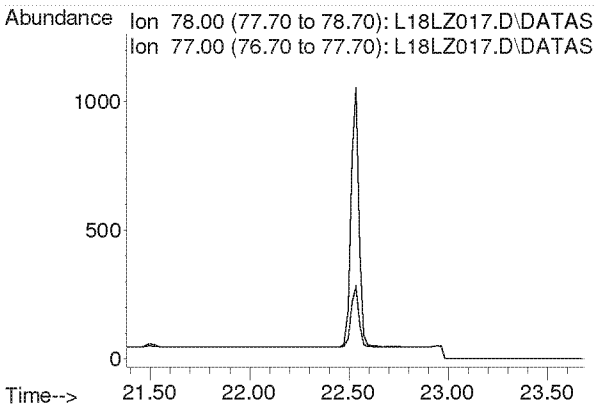


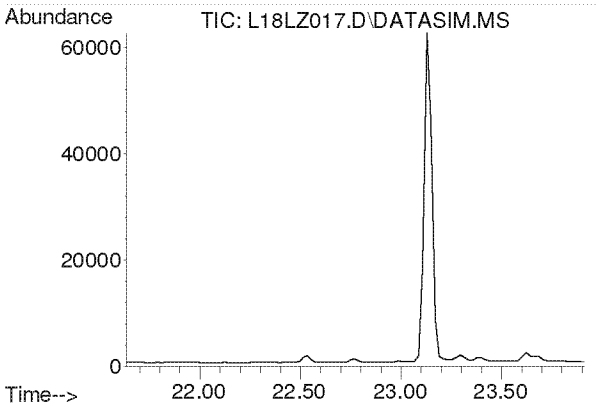
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



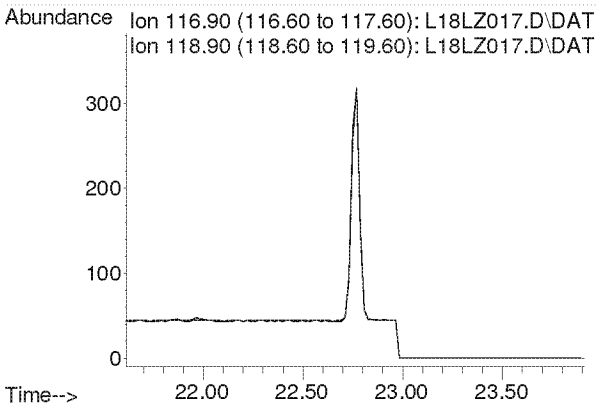


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

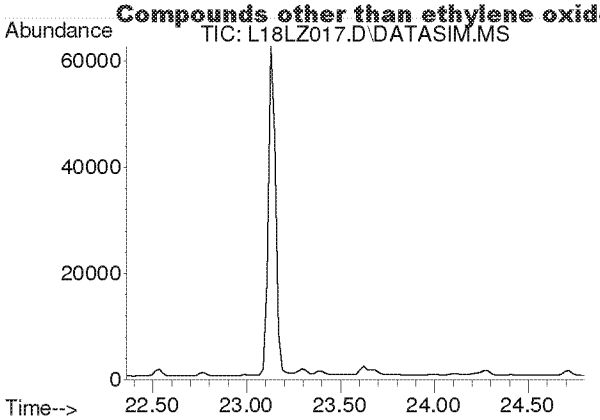
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

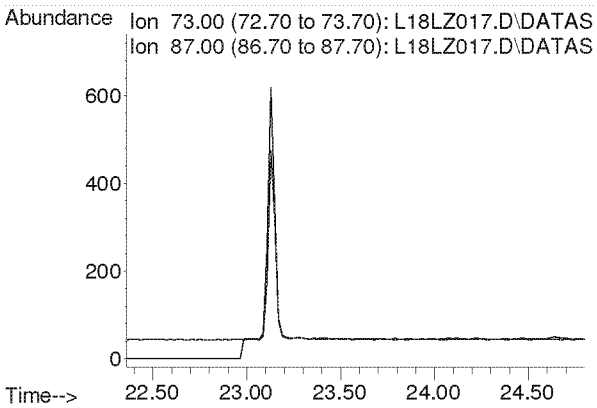


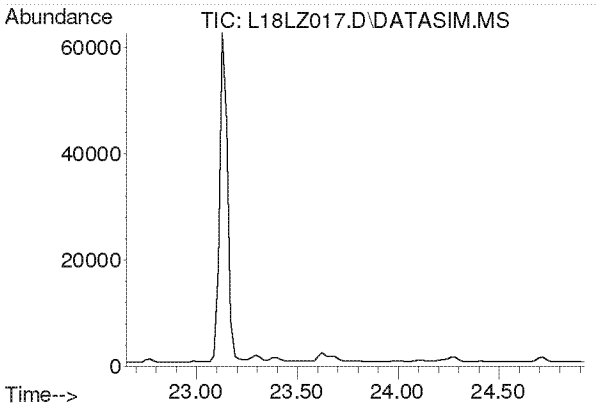
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



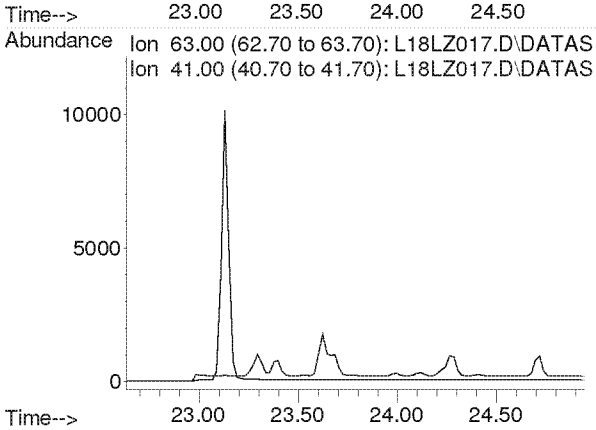


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

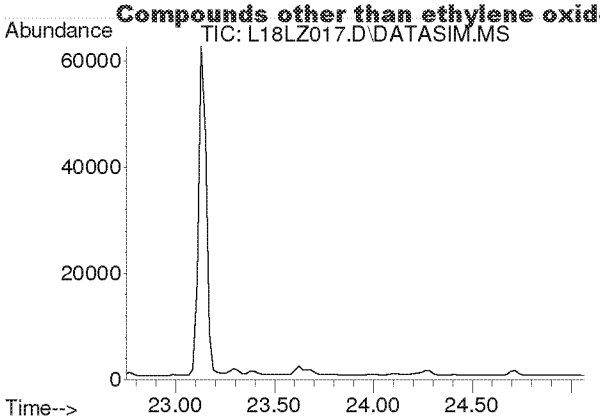
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

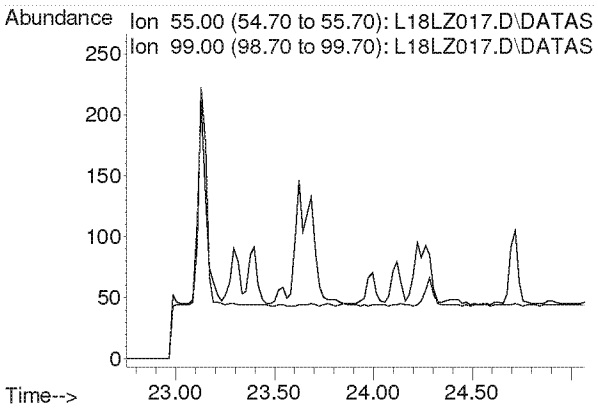


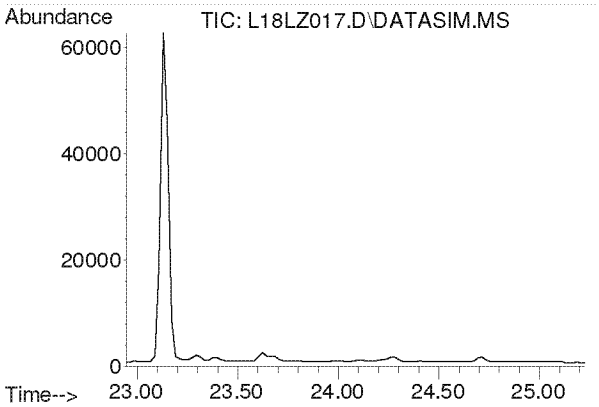
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



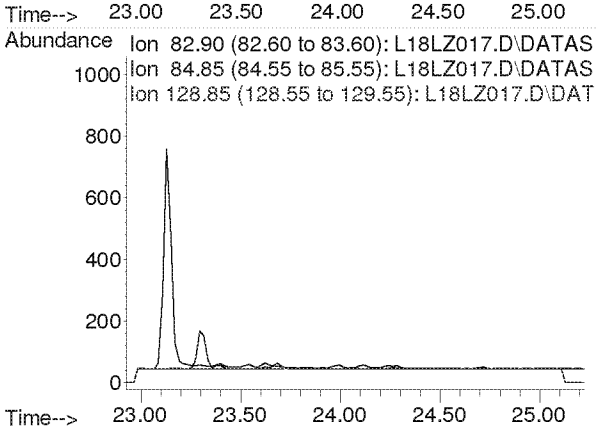


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

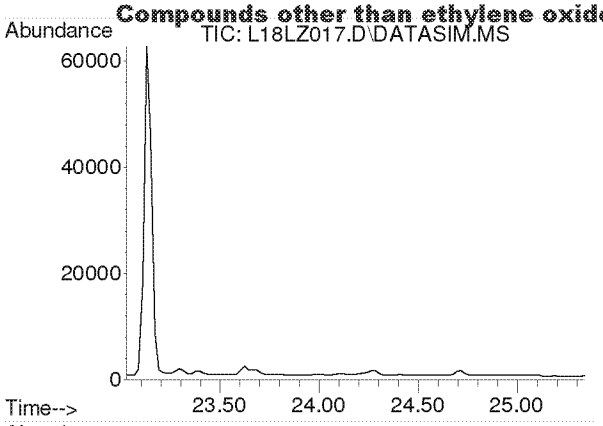
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

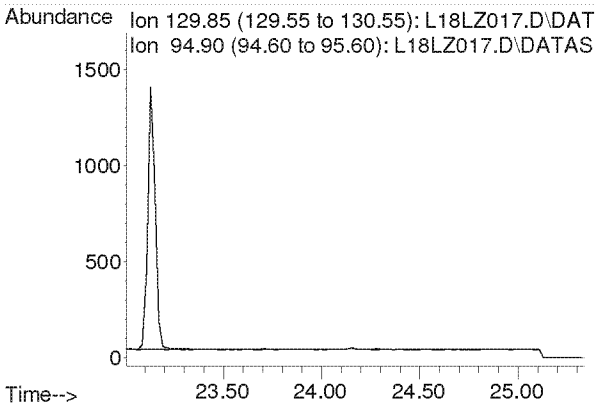


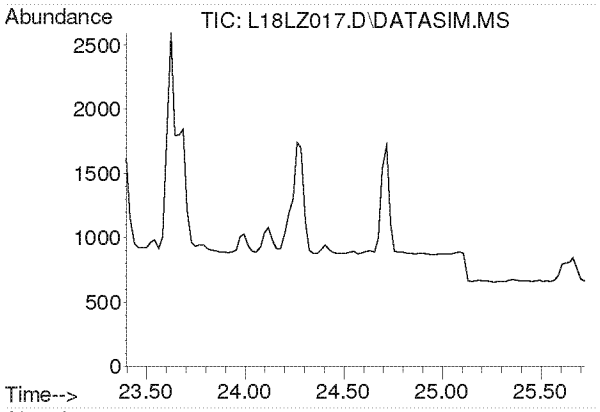
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



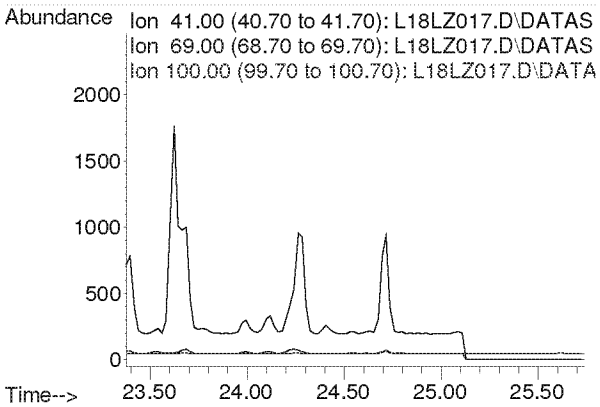


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

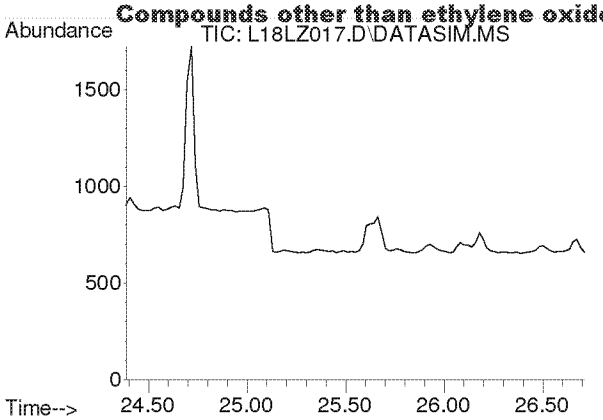
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

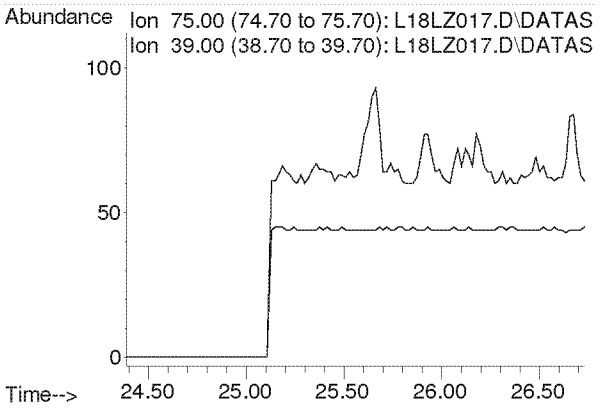


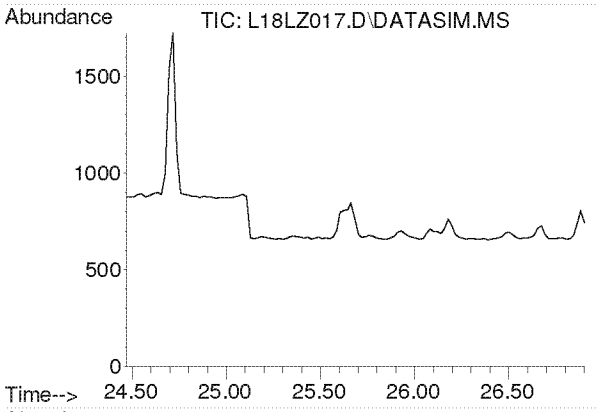
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



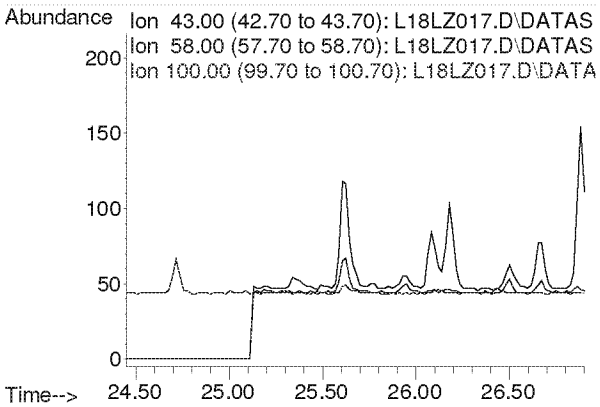


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

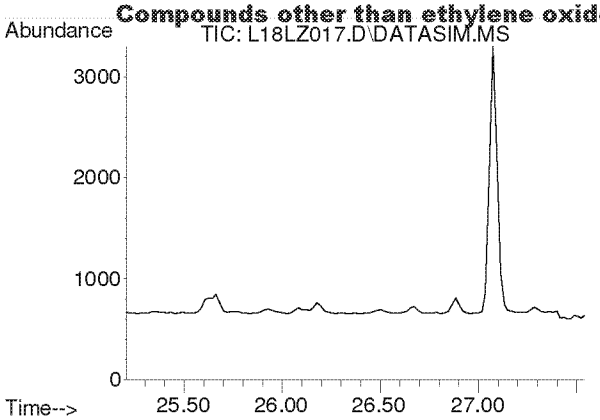
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

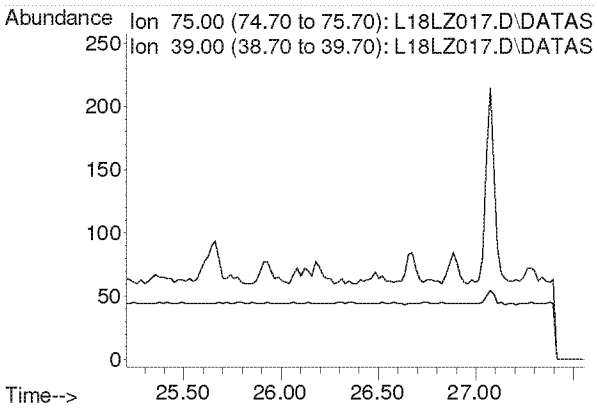


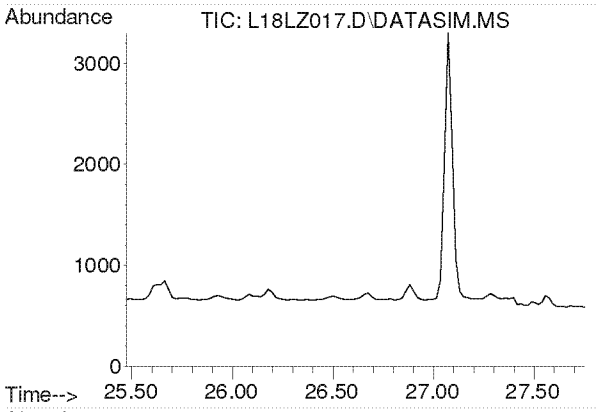
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



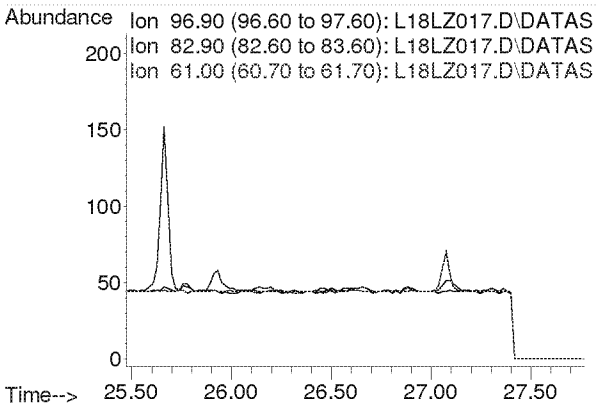


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

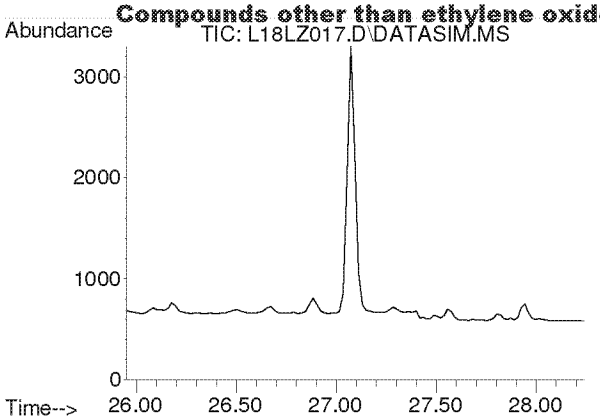
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

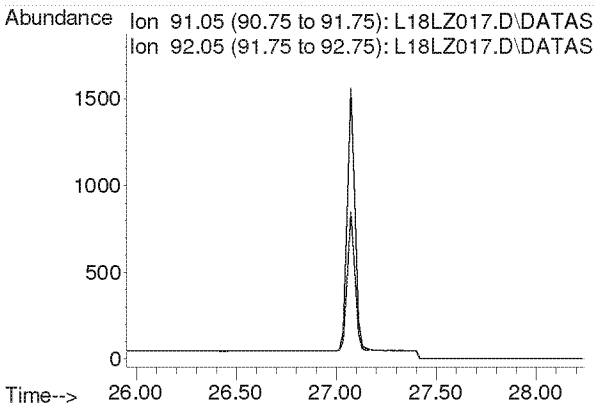


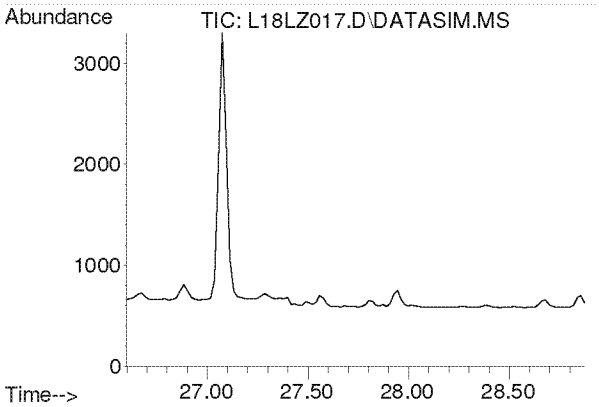
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



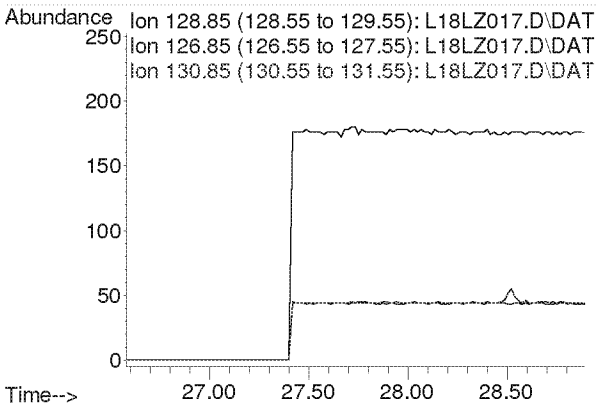


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

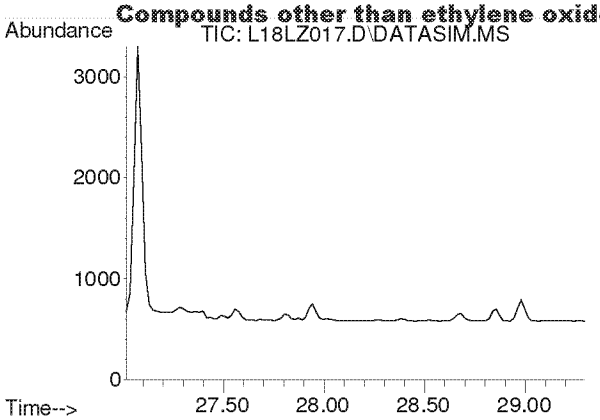
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

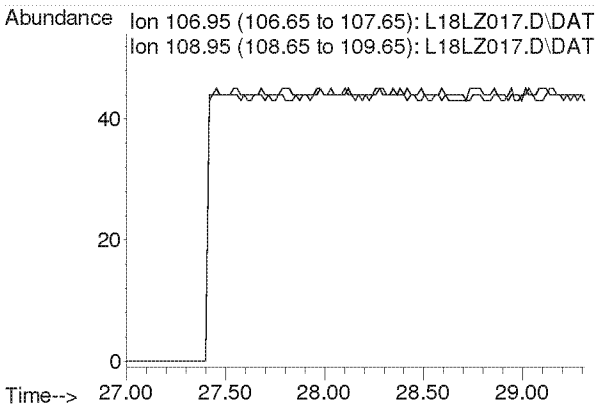


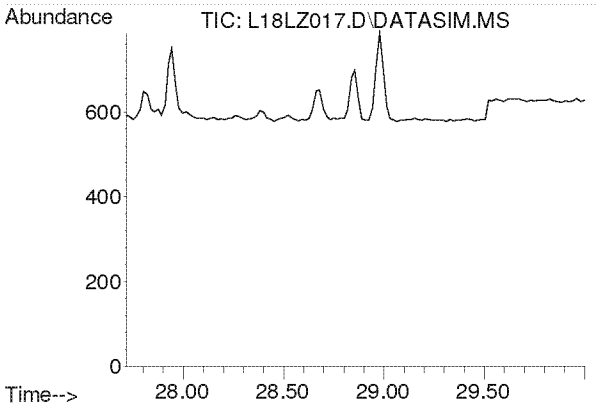
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



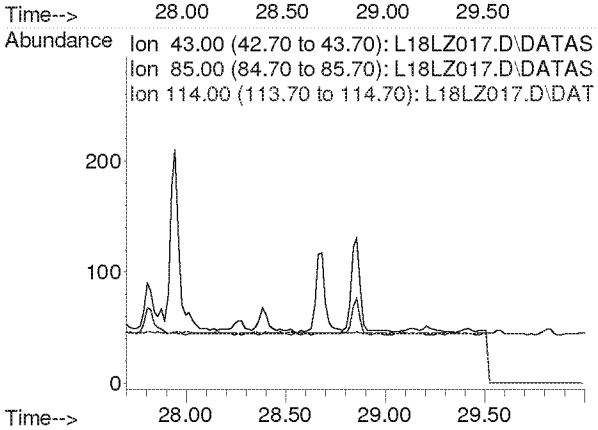


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

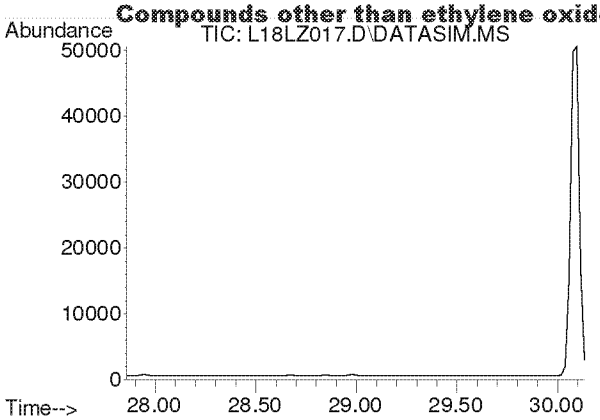
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

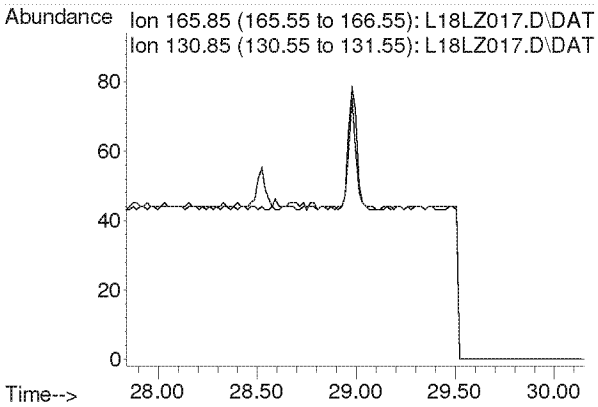


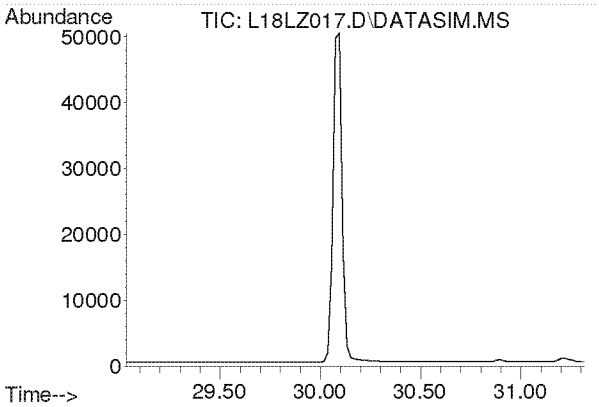
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



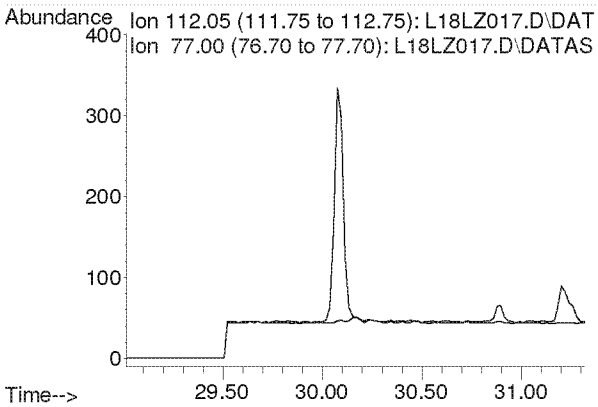


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

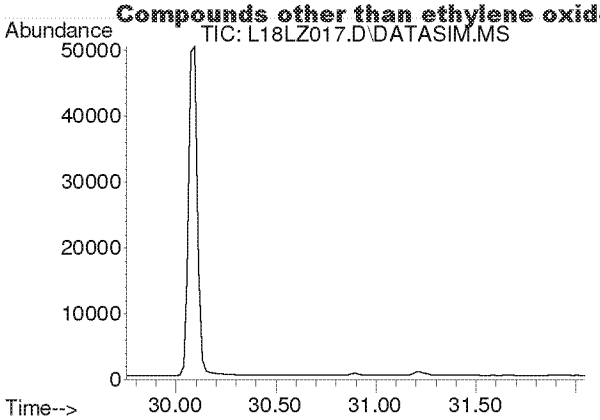
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

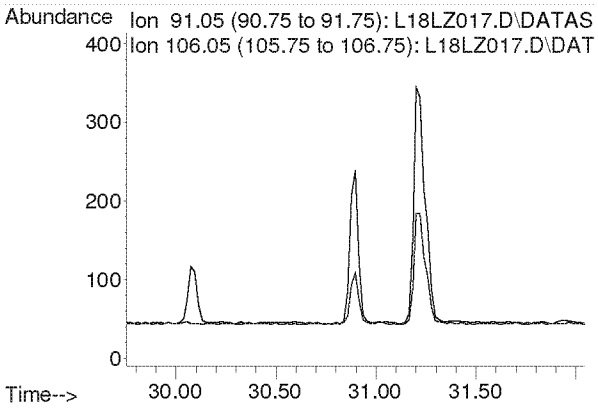


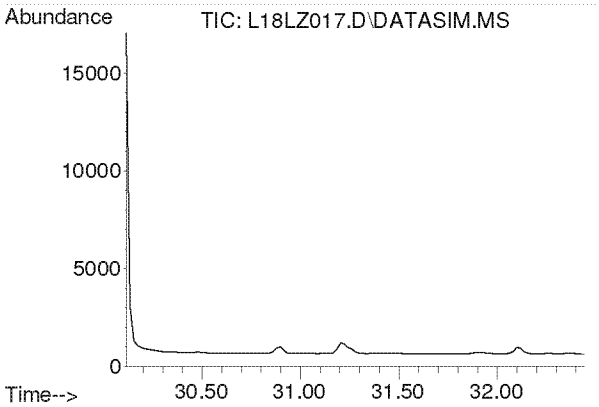
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



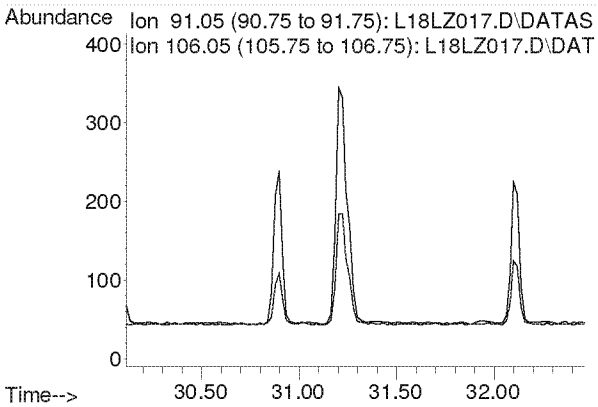


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

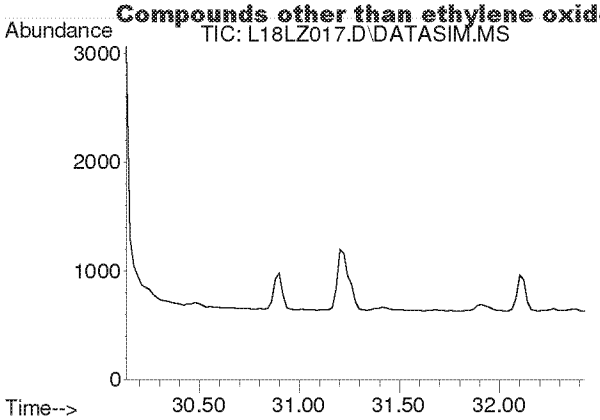
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

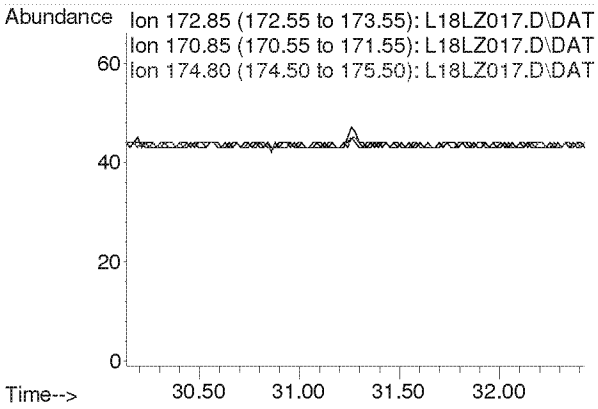


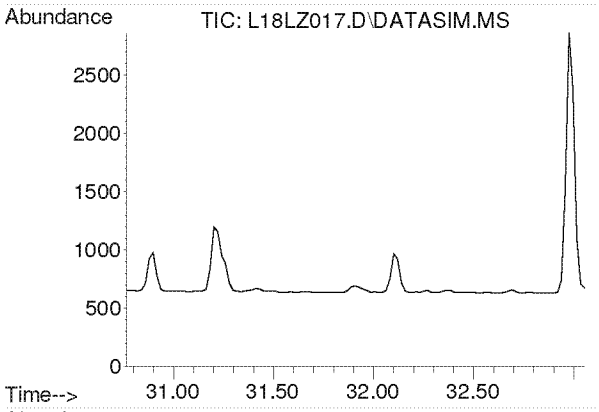
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



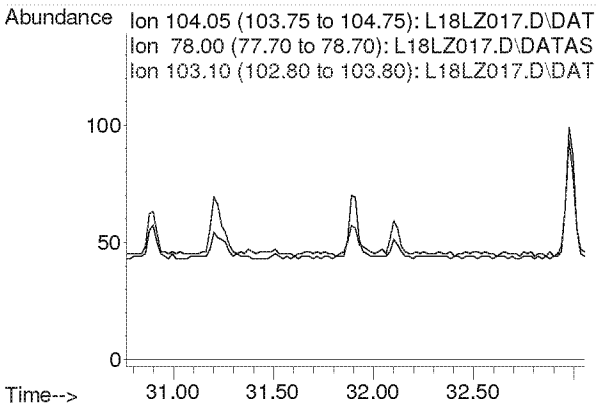


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

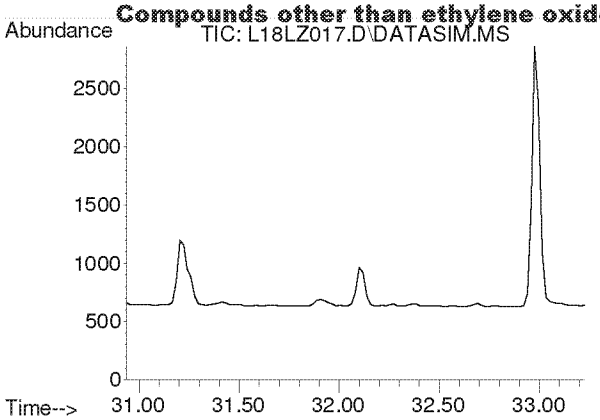
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

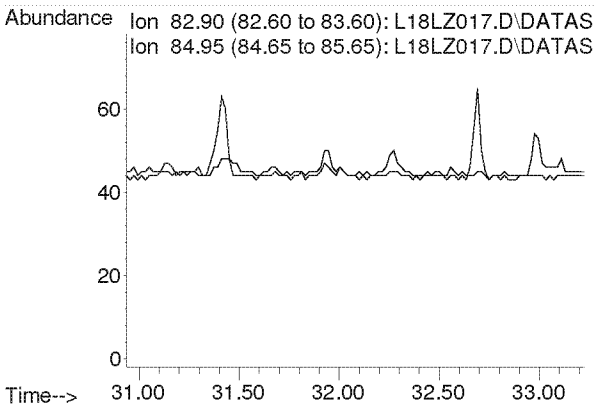


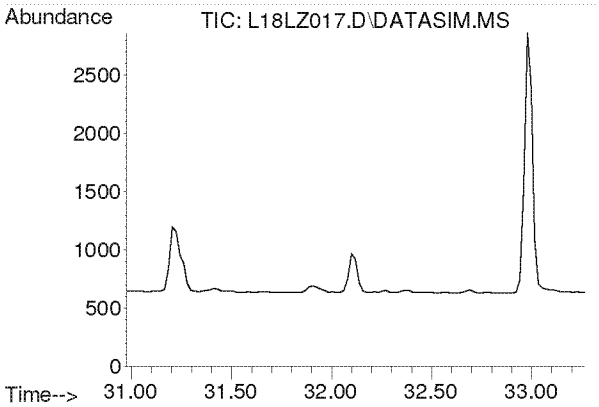
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



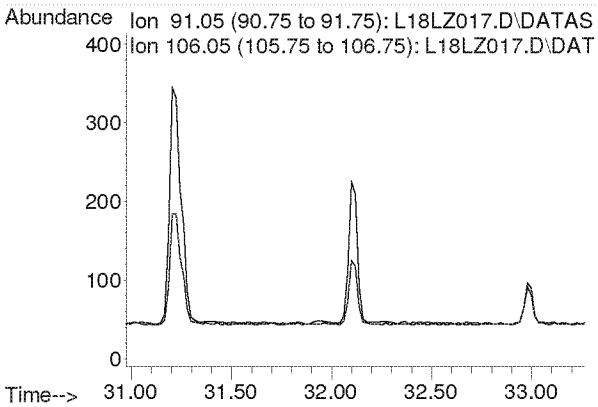


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

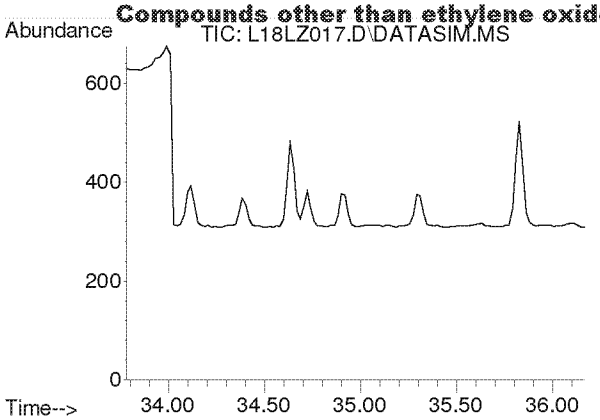
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

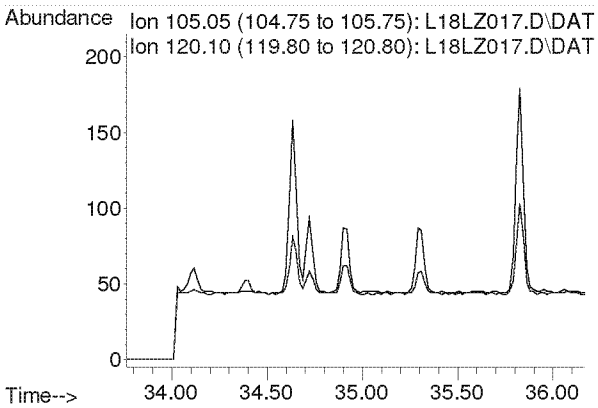


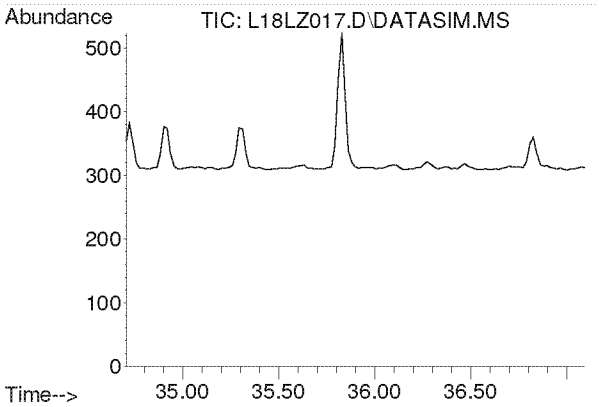
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



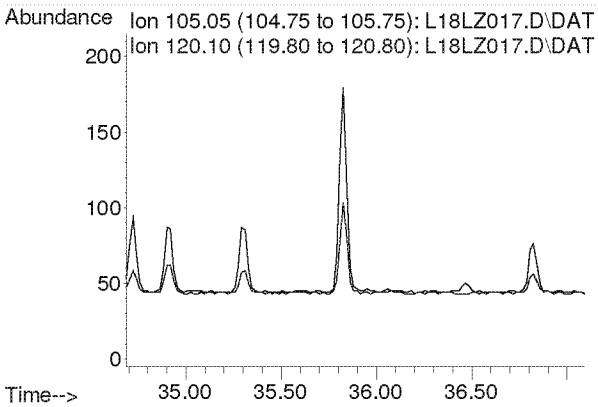


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

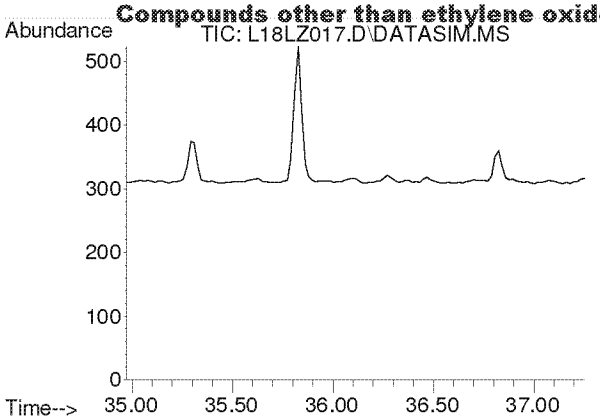
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

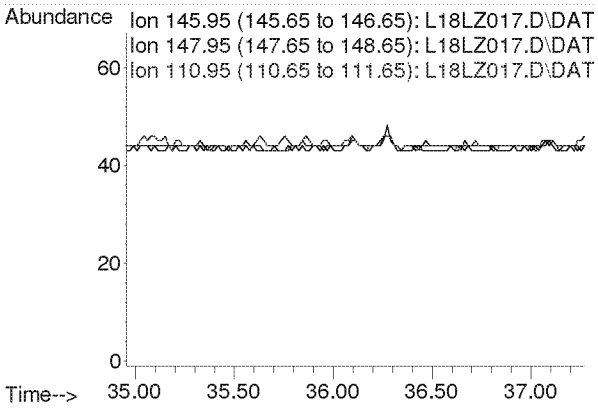


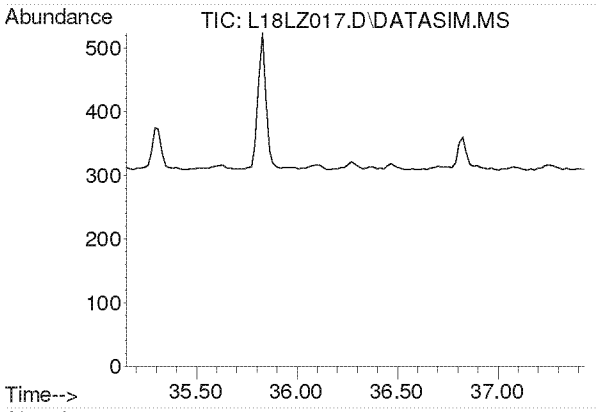
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



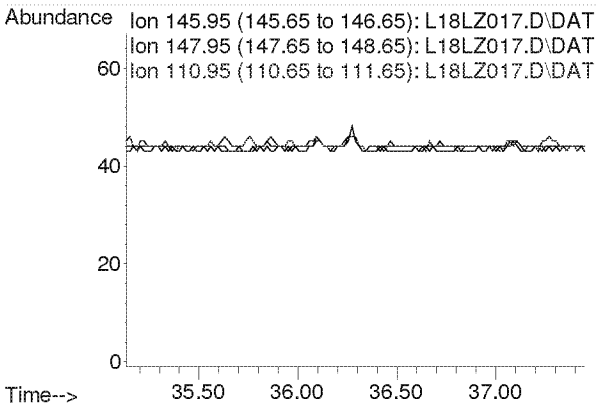


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

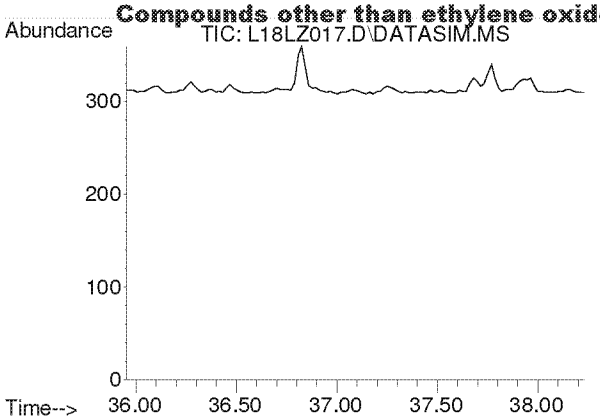
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

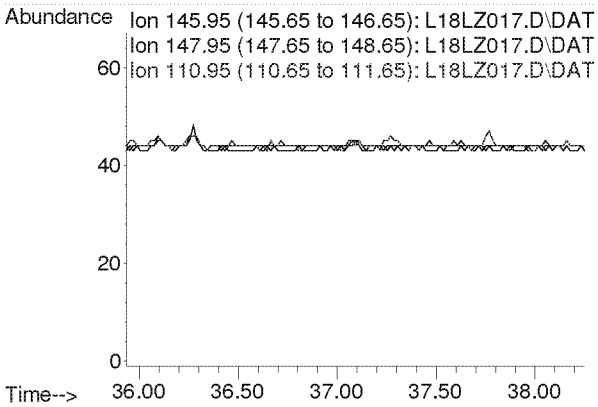


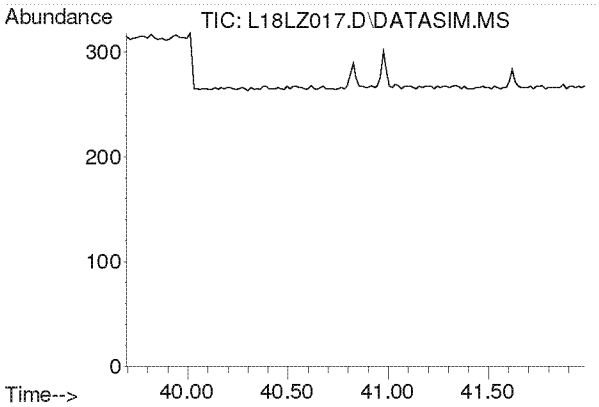
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



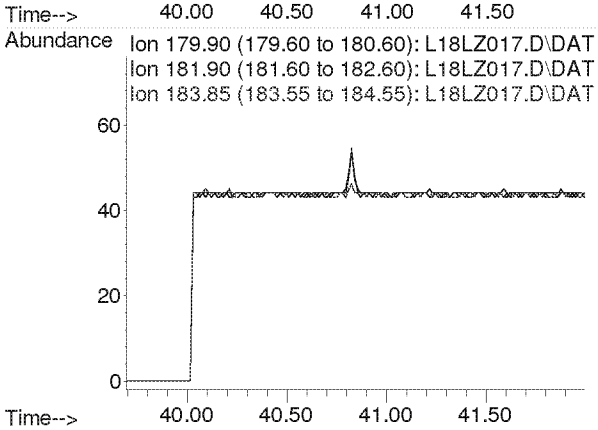


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

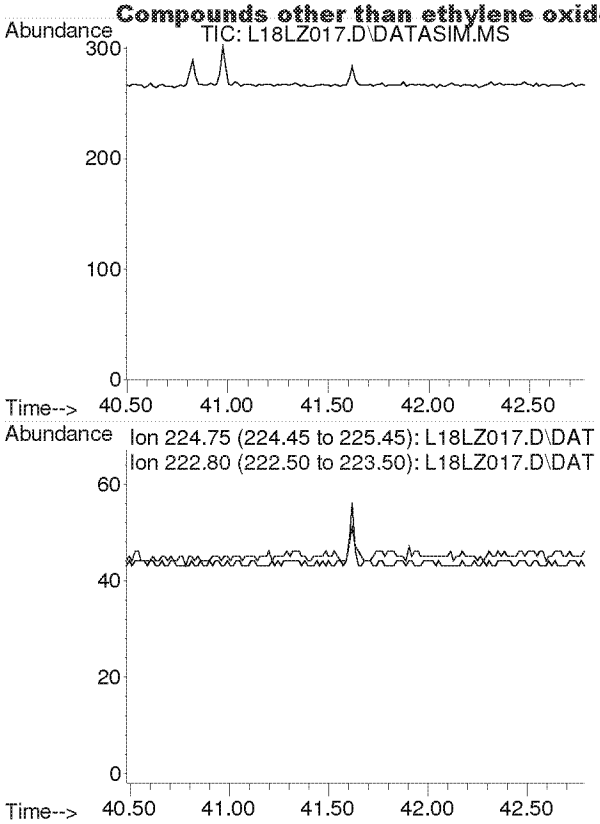
Lab File: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

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: L18LZ017.D
Acq: 27 Dec 2018 3:54 am

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		L18LZ018.D	L18LZ019.D		
Analyst		MAH	MAH		
Method		8120004.M	8120004.M		
Sample ID		8121130-01	8121130-02		
Mics Comments		WILLOWBROOK H	WILLOWBROOK HS C2 12/7/18		
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	6.484	5.813	10.91	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	

1-3-19

NA = Not Applicable. Precision can not be evaluated due to an average value less than 5 times the MDL.

Y:\AIR TOX\TO-15 DUPTEST\DUPTEST_2018_NATTS\ETOX\WILLOWBROOK HS_12_7_18.xlsx
DUPTEST 2017 TEMPLATE 012517

Compounds other than ethylene oxide were not quantitated.

Duplicate Comparison Check

Comparison of Replicate Analyses

		D1	R1		
File ID		L18LZ018.D	L18LZ020.D		
Analyst		MAH	MAH		
Method		8120004.M	8120004.M		
Sample ID		8121130-01	B8L2603-DUP3		
Mics Comments		WILLOWBROO	WILLOWBROOK HS R1 12/7/18		
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	6.484	6.363	1.88	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		L18LZ019.D	L18LZ021.D		
Analyst		MAH	MAH		
Method		8120004.M	8120004.M		
Sample ID		8121130-02	B8L2603-DUP4		
Mics Comments		WILLOWBROO	WILLOWBROOK HS R2 12/7/18		
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	5.813	6.197	6.39	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\L18LZ\
Data File : L18LZ018.D
Acq On : 27 Dec 2018 4:56 am
Operator : MAH
Sample : 8121130-01
Misc : WILLOWBROOK HS C1 12/7/18
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 03 11:17:37 2019
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

T-3-19
[illegible]

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	51871	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	124594	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.097	117	90412	4.7400 ppbv	0.00

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	12.365	29	20104	6.4843 ppbv	96
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.	
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.	
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\L18LZ\
Data File : L18LZ018.D
Acq On : 27 Dec 2018 4:56 am
Operator : MAH
Sample : 8121130-01
Misc : WILLOWBROOK HS C1 12/7/18
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 03 11:17:37 2019
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

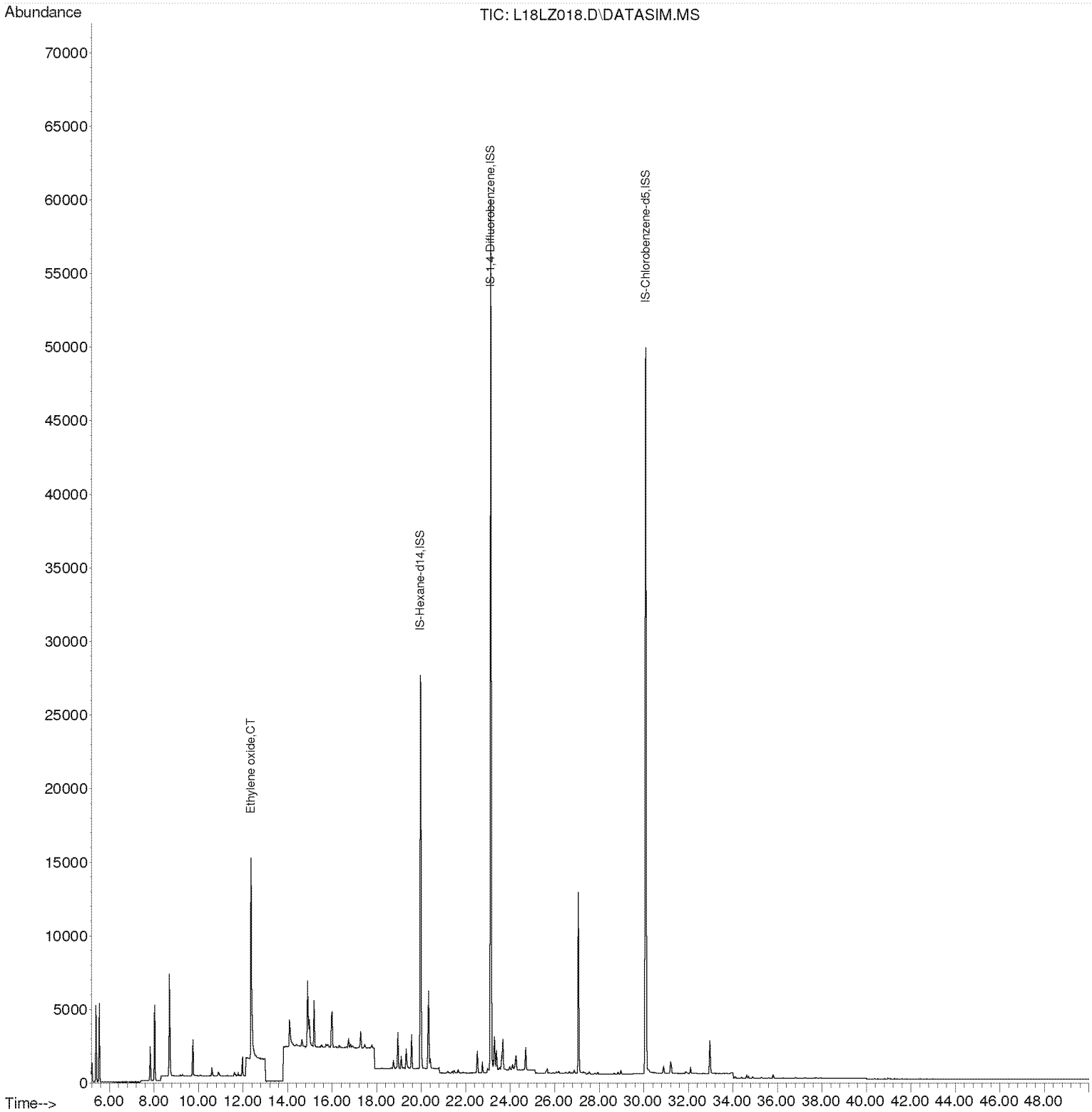
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	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

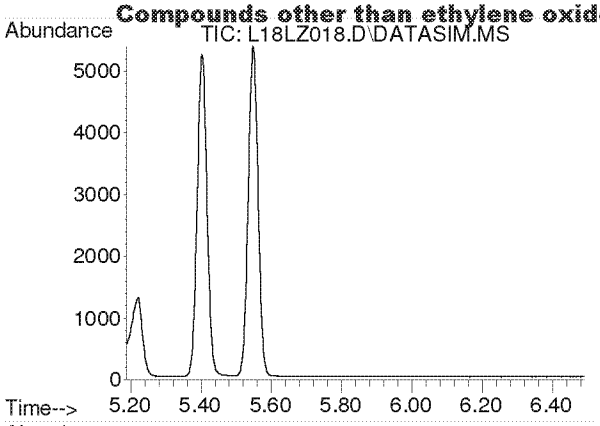
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ018.D
Acq On : 27 Dec 2018 4:56 am
Operator : MAH
Sample : 8121130-01
Misc : WILLOWBROOK HS C1 12/7/18
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 03 10:36:17 2019
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



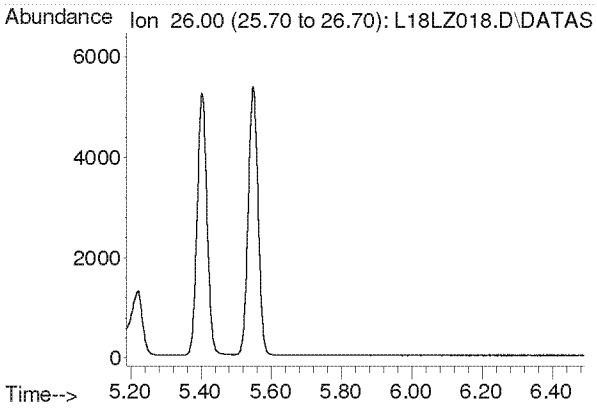
Compounds other than ethylene oxide were not quantitated.

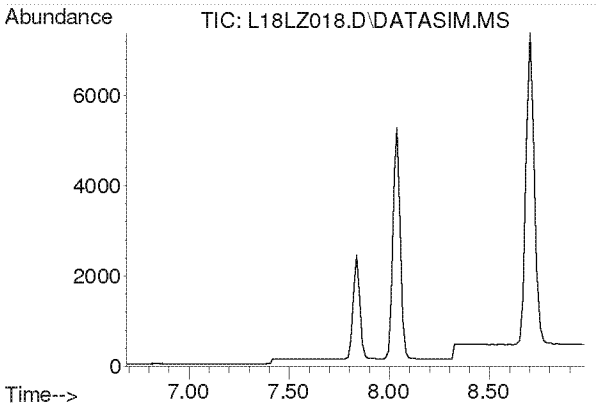


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 26



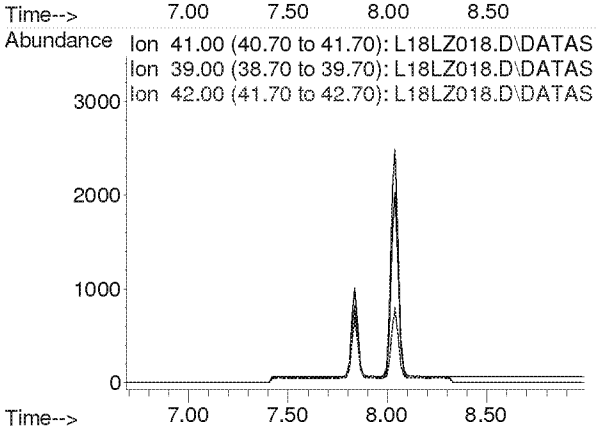


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

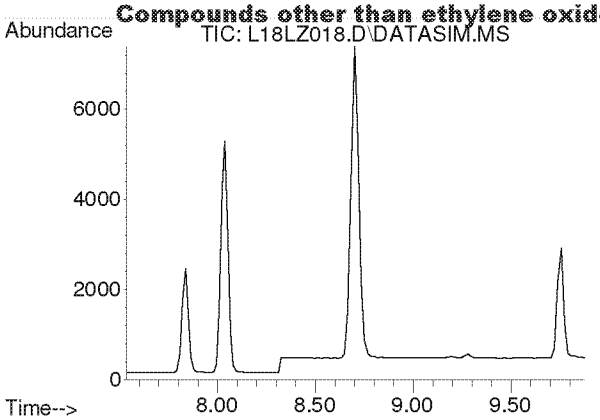
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

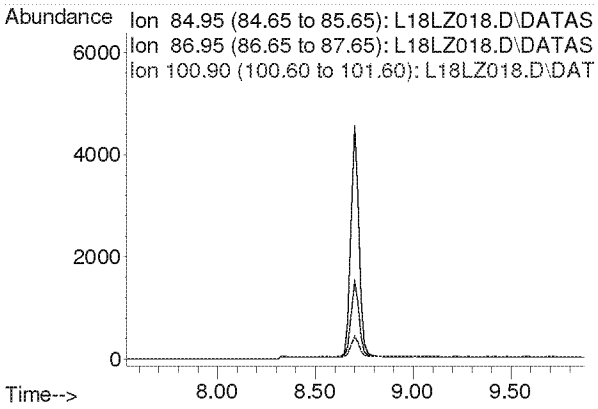


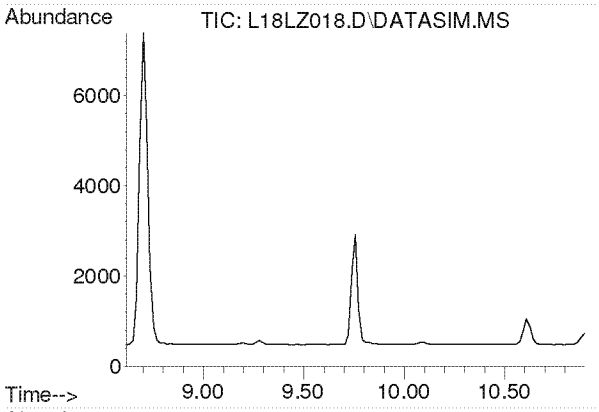
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



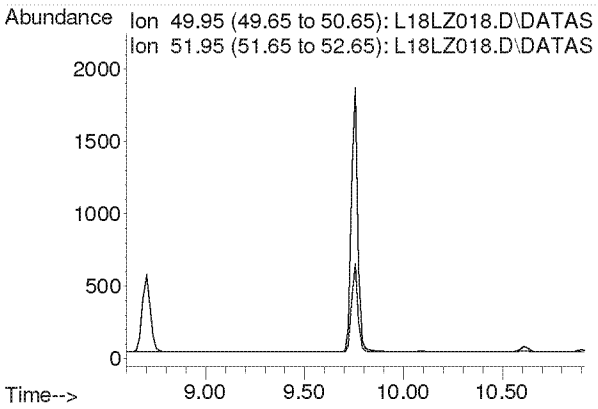


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

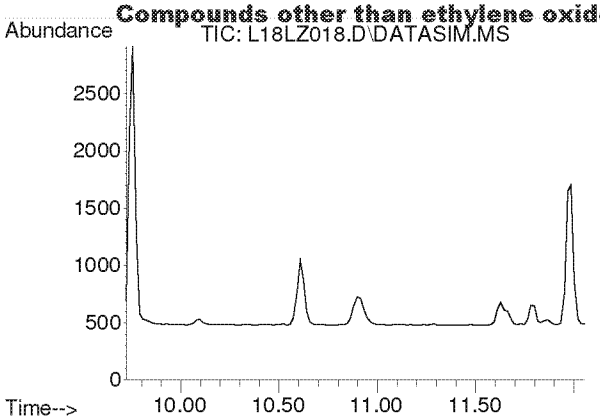
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

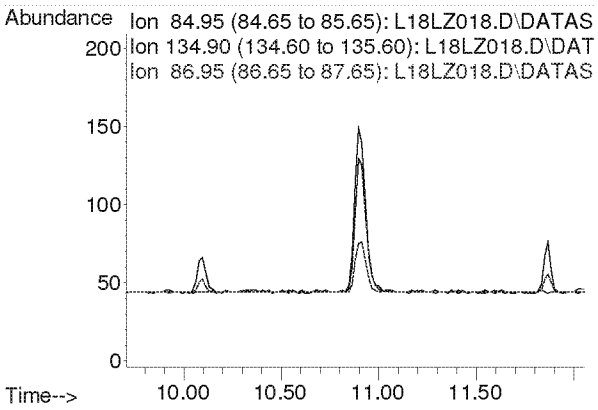


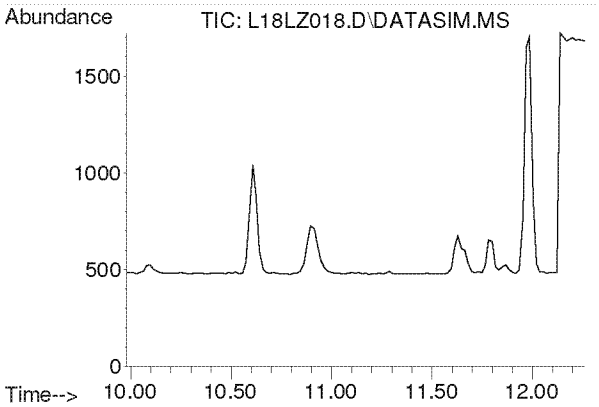
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



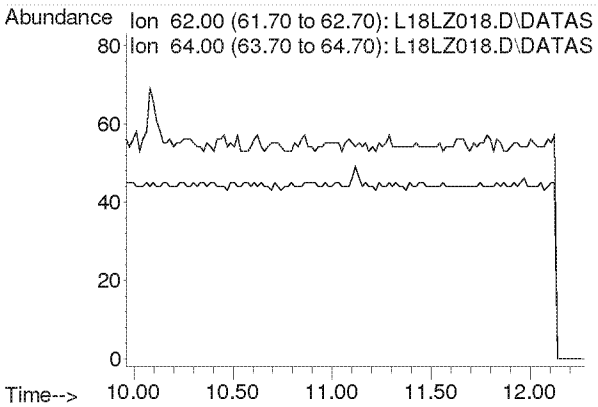


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

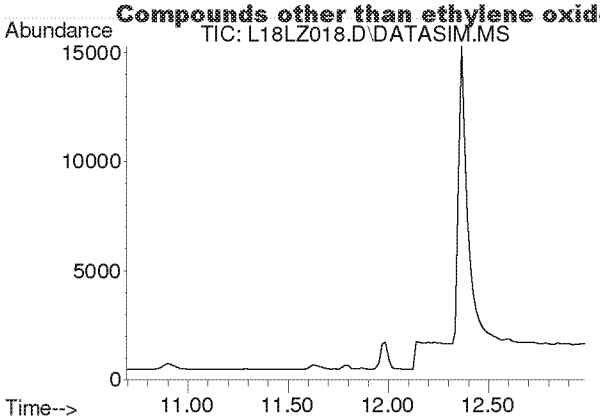
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

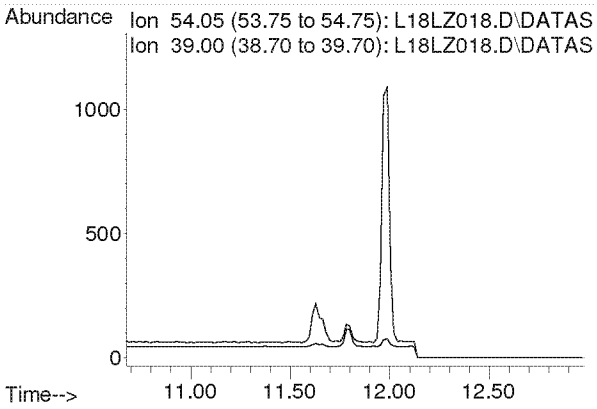


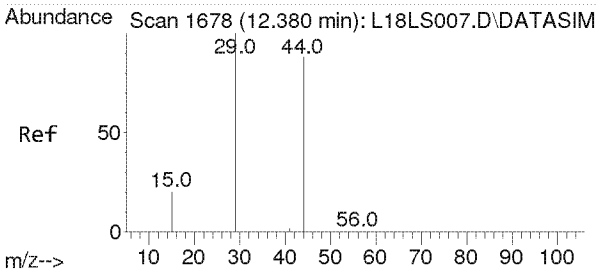
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

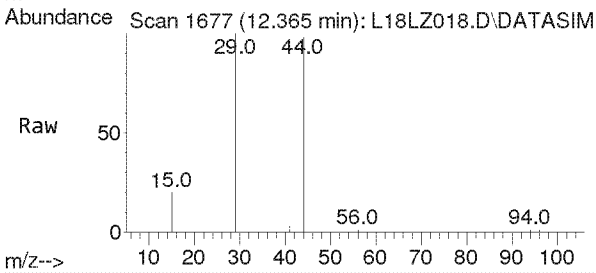


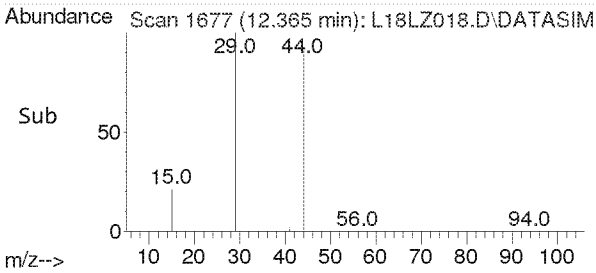


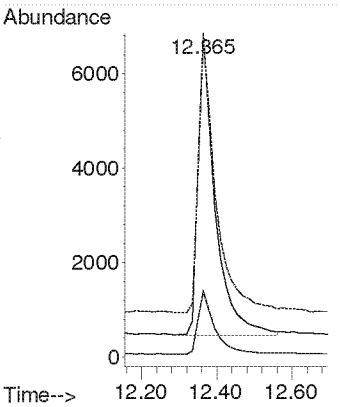
#9
Ethylene oxide
Concen: 6.484 ppbv
RT: 12.365 min Scan# 1677
Delta R.T. -0.015 min
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 29 Resp: 20104

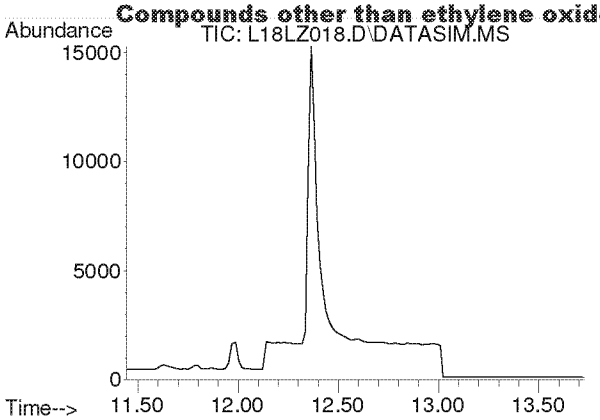
Ion	Ratio	Lower	Upper
29	100		
15	20.4	16.2	24.4
44	94.2	72.0	108.0







Compounds other than ethylene oxide were not quantitated.

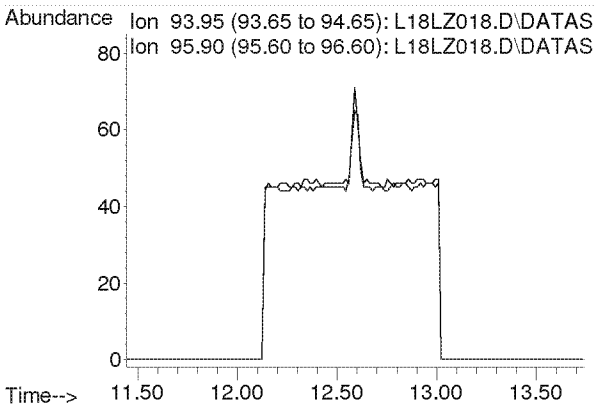


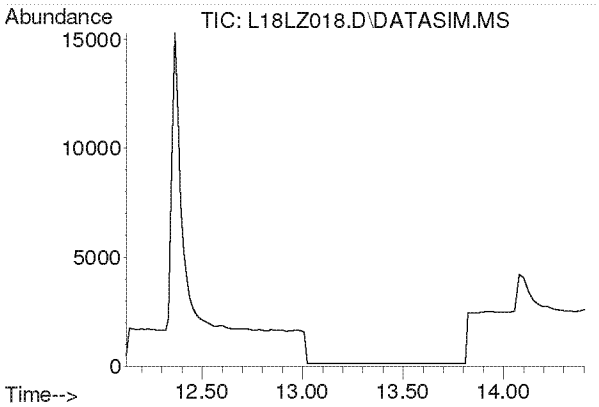
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



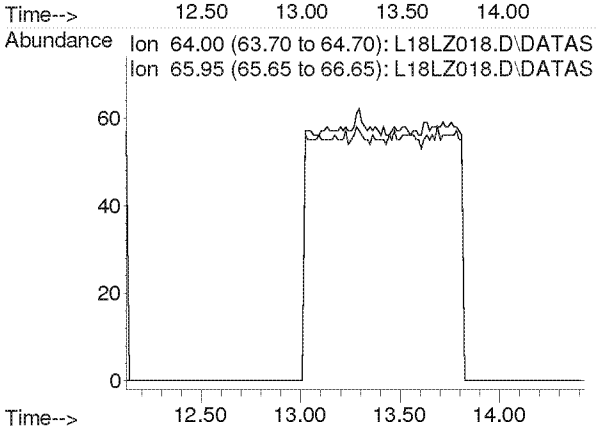


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

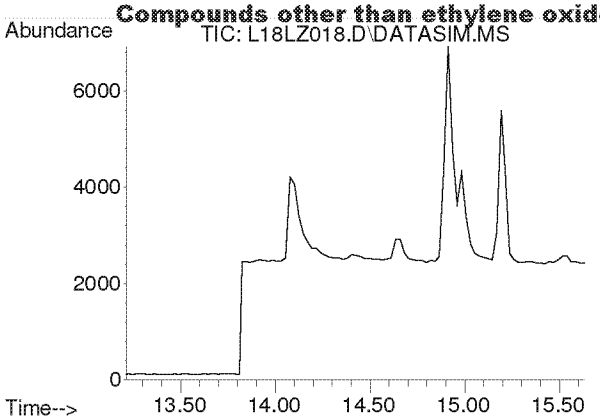
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

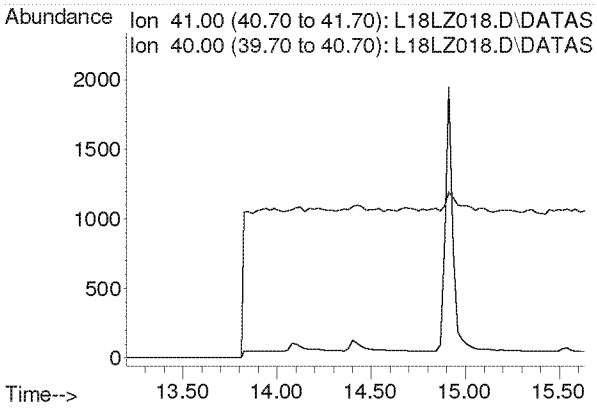


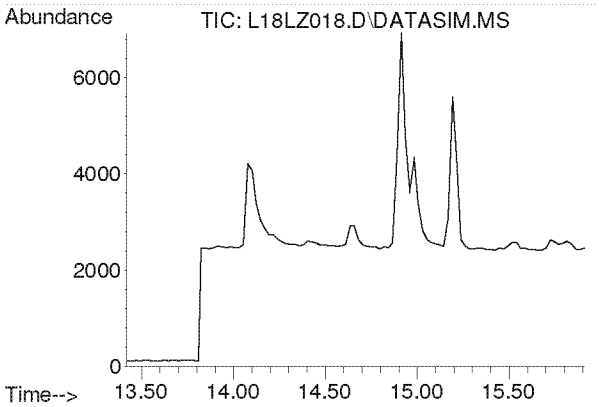
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



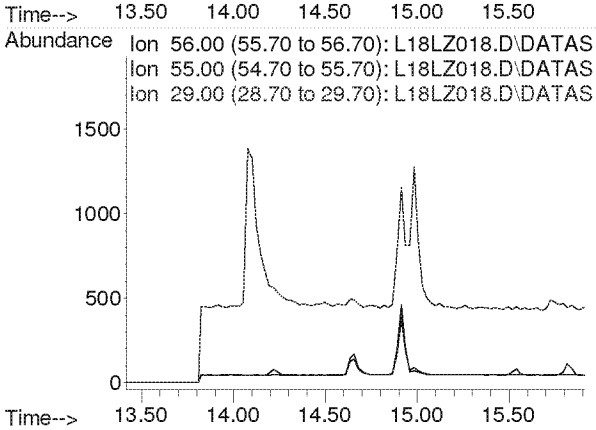


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

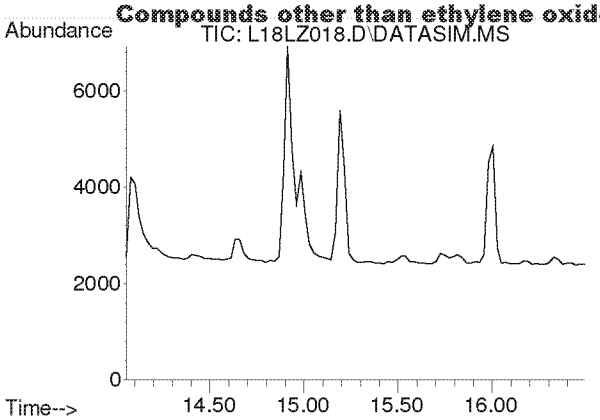
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

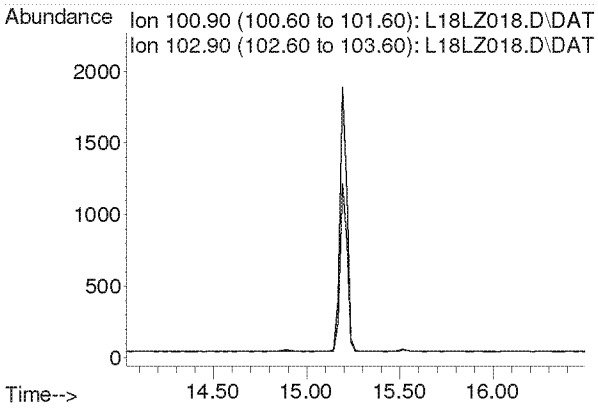


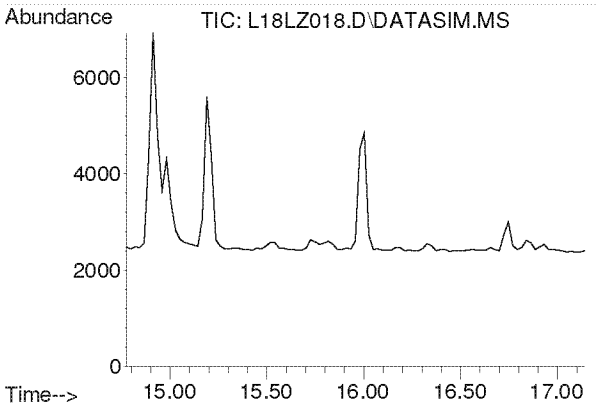
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



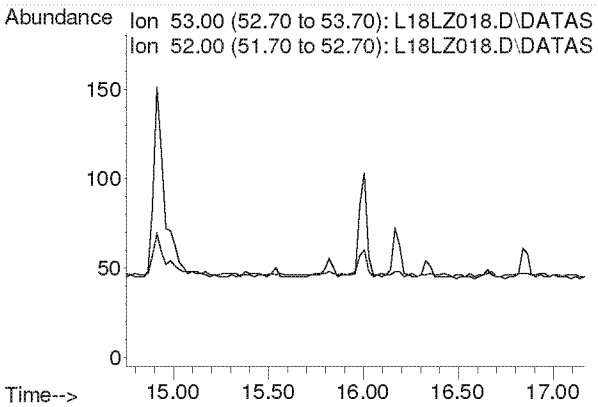


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

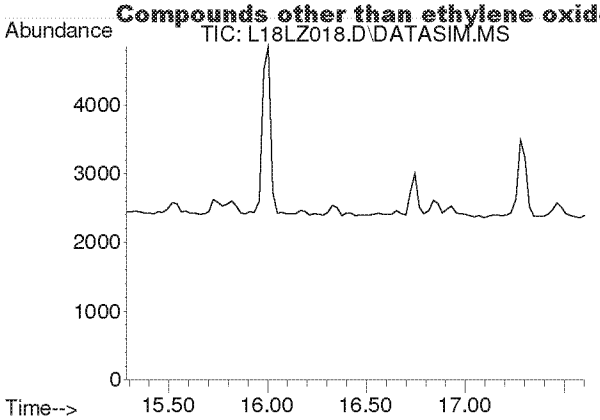
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

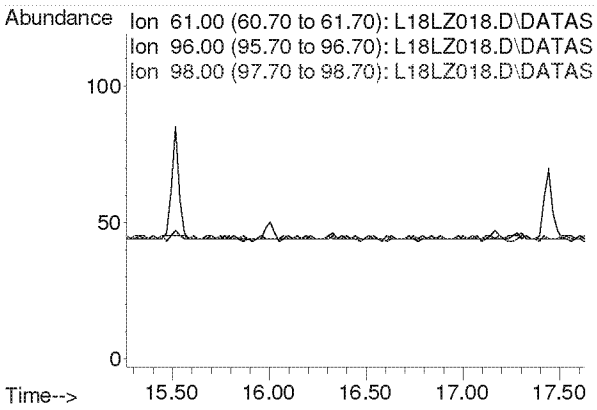


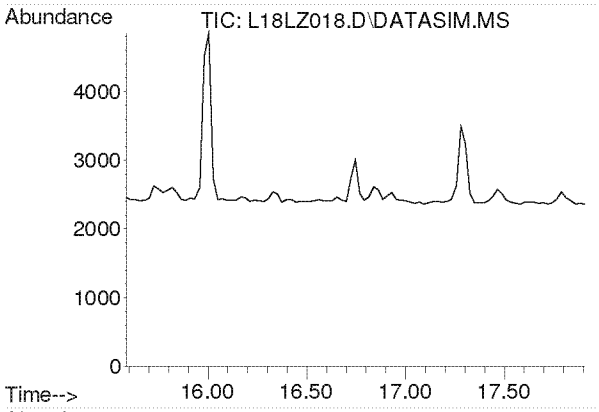
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



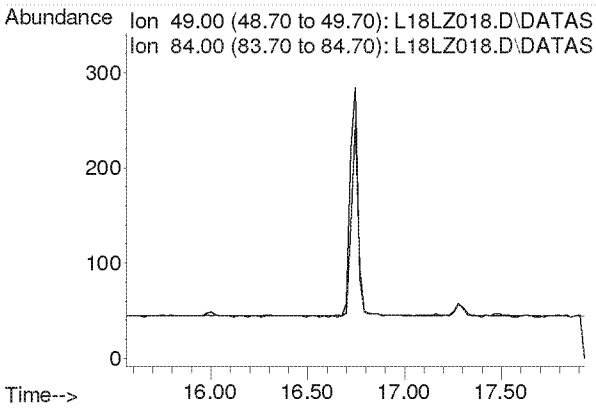


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

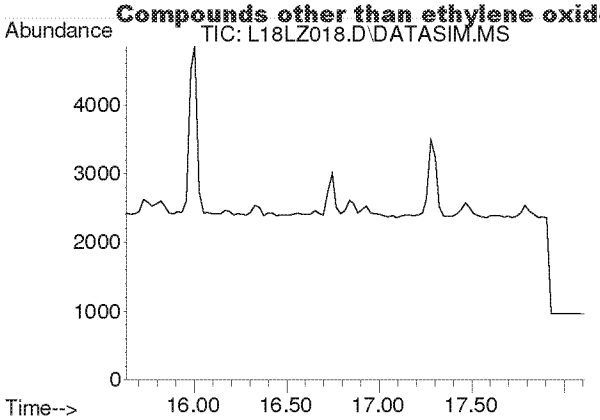
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

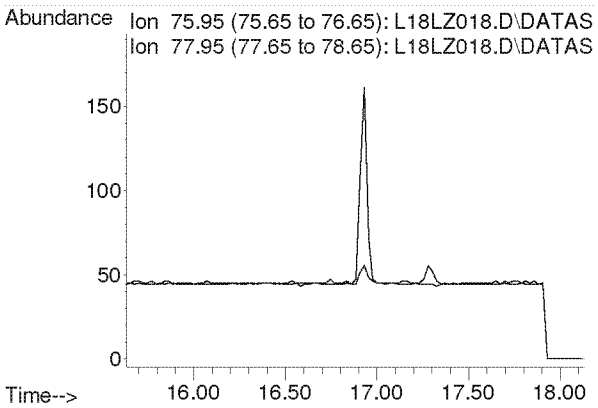


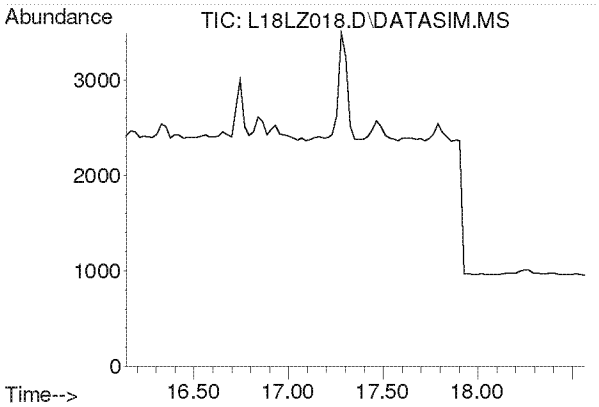
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



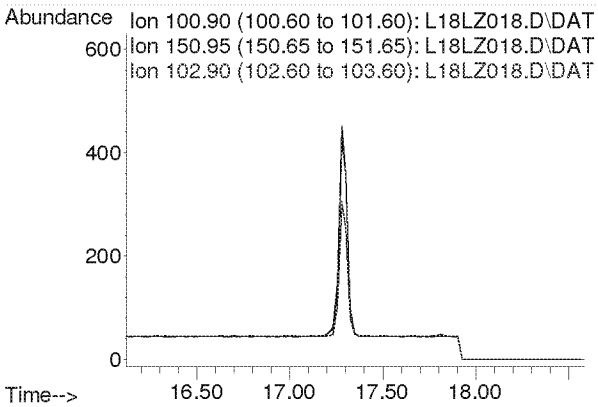


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

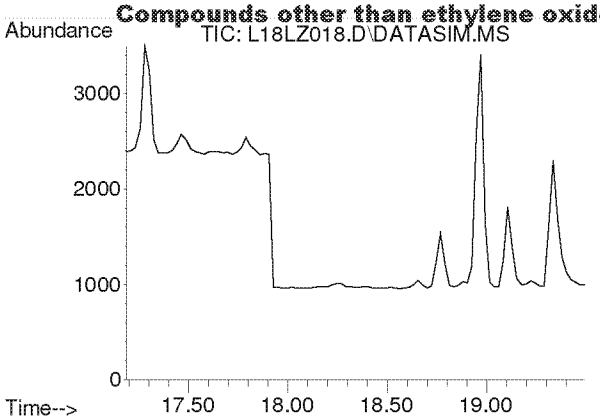
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

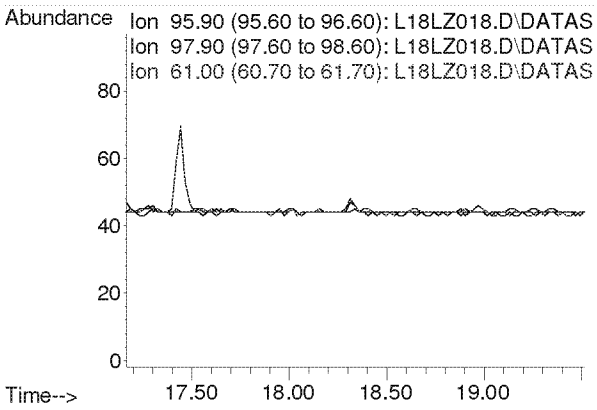


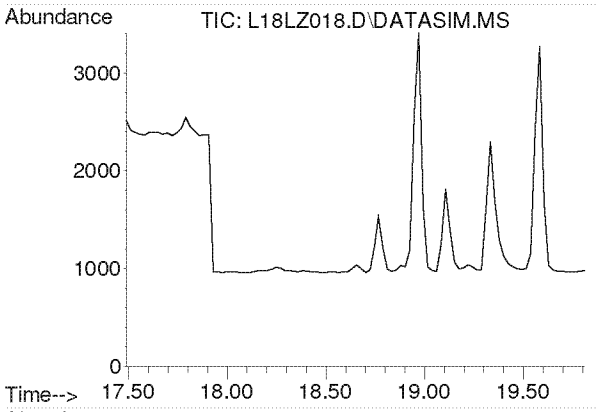
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



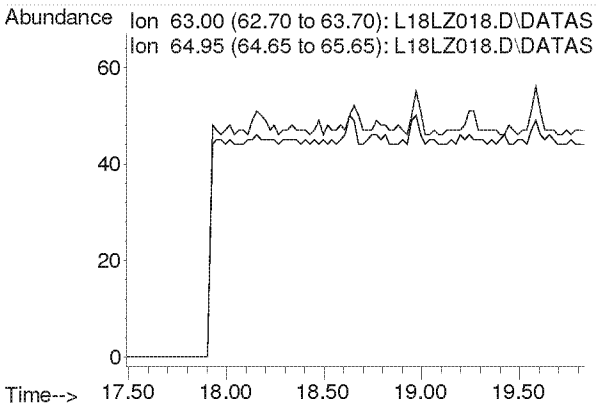


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

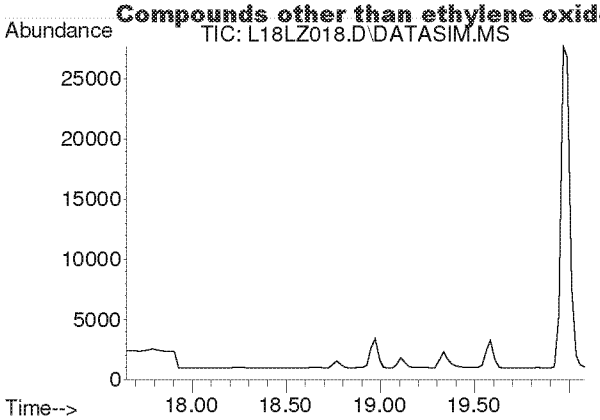
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

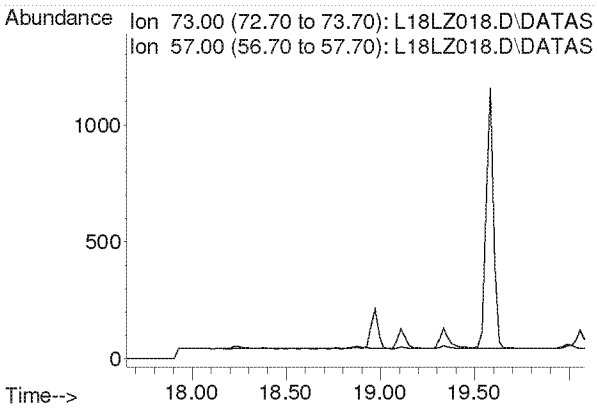


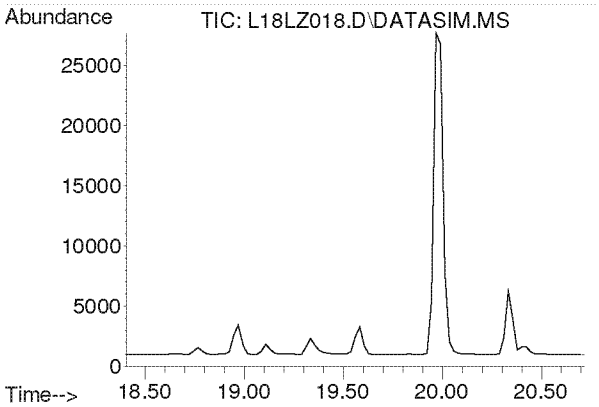
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



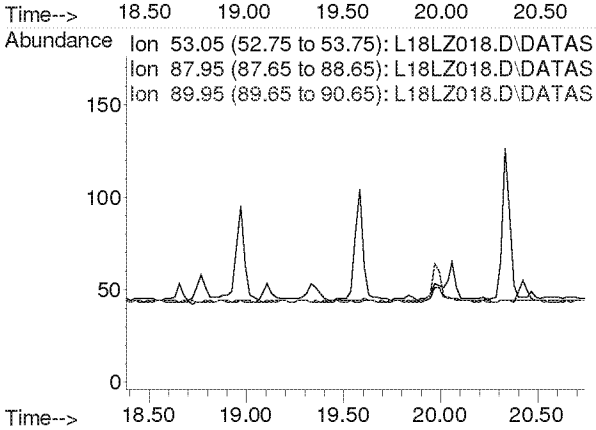


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

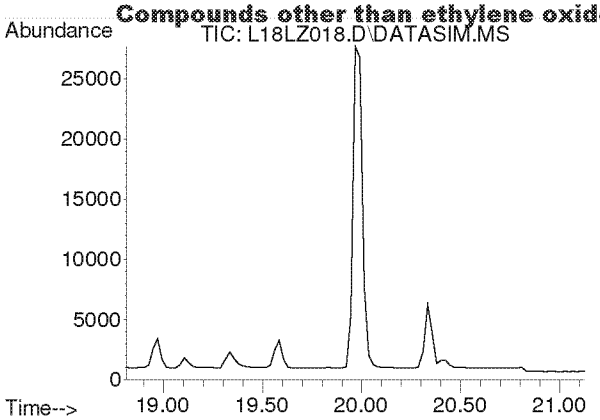
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

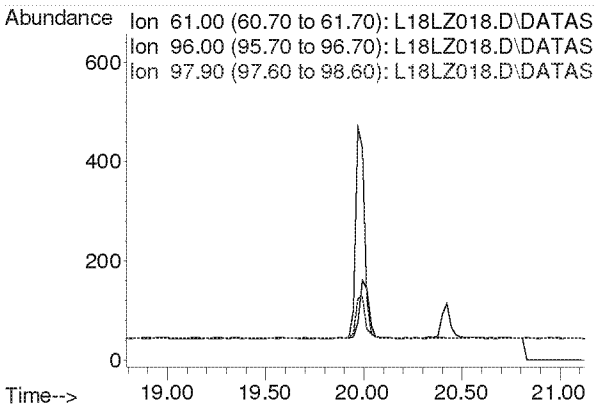


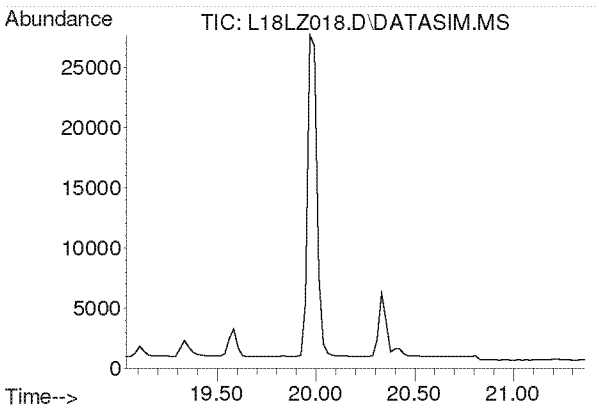
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



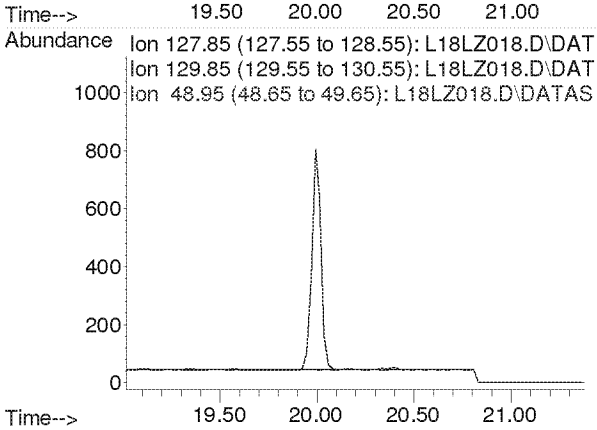


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

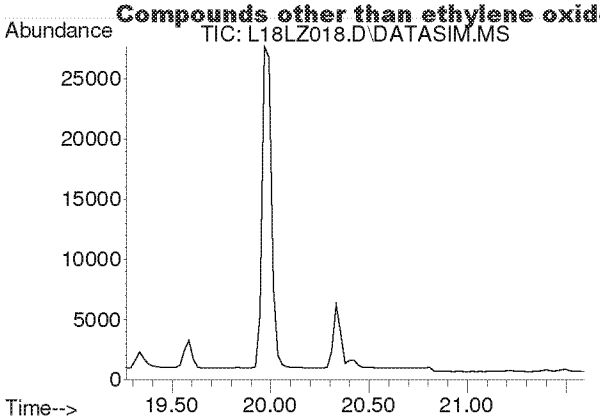
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

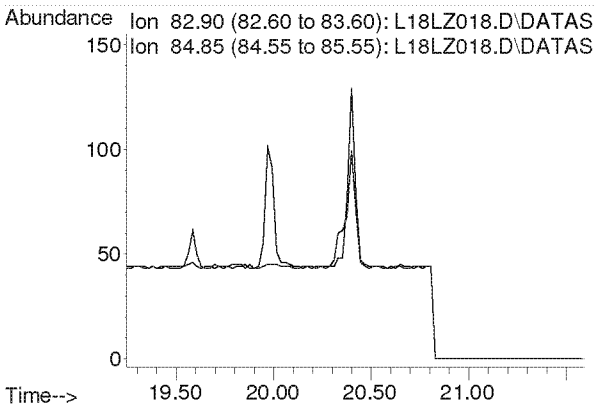


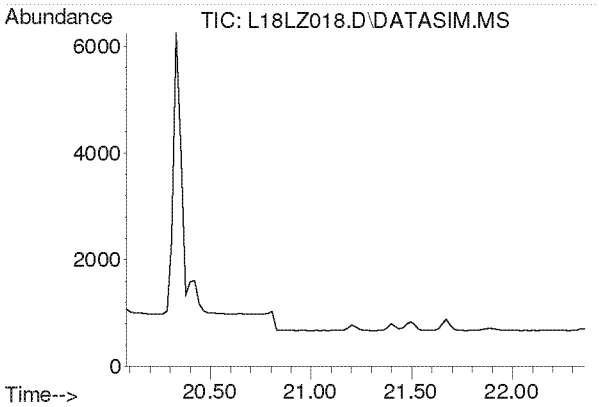
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



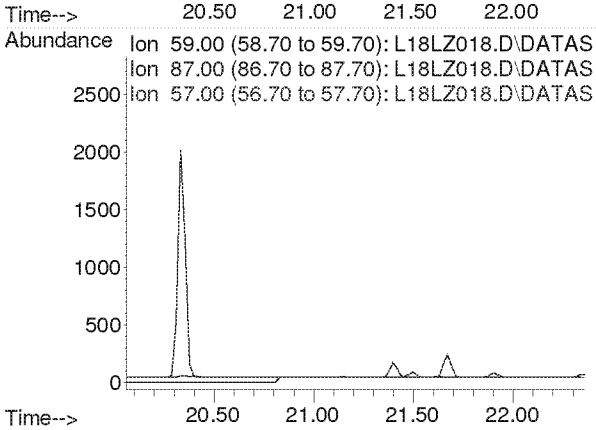


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

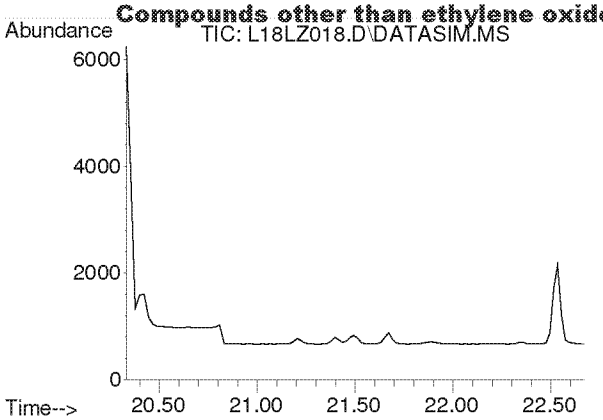
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

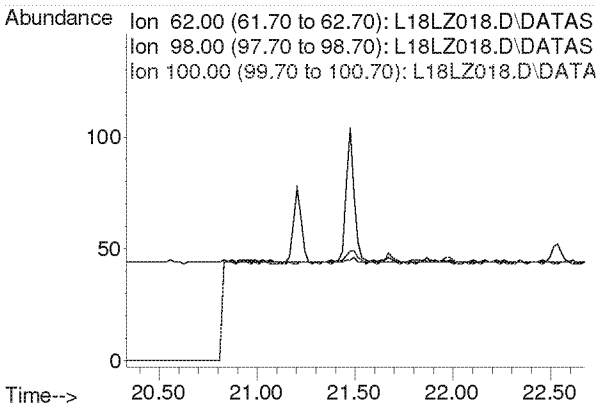


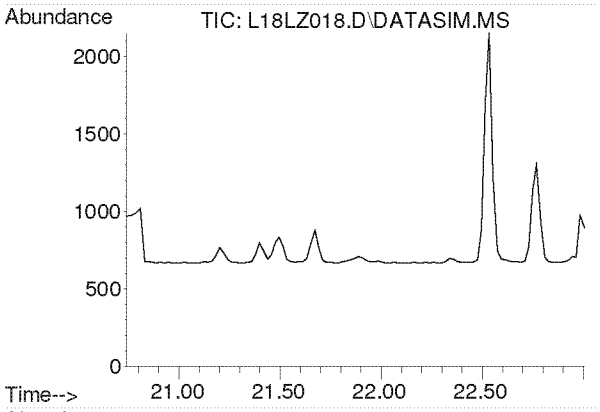
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



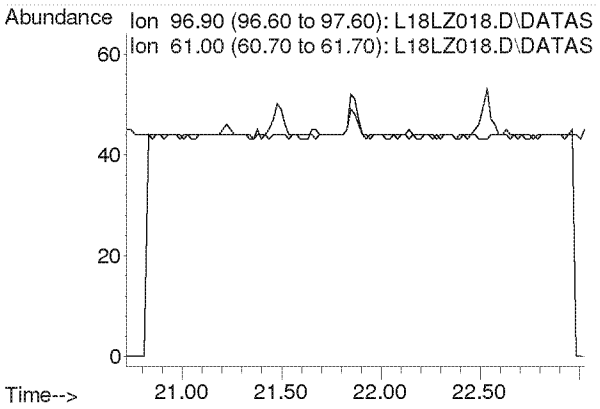


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

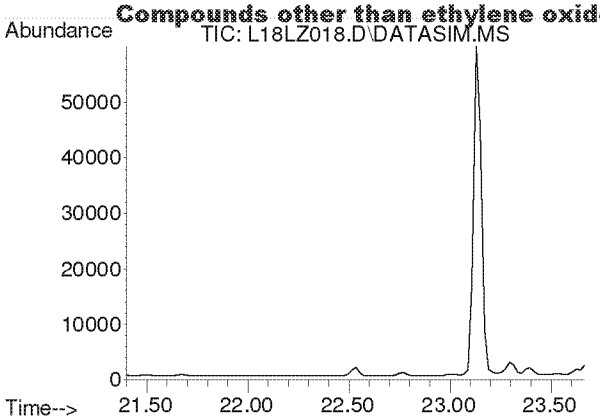
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

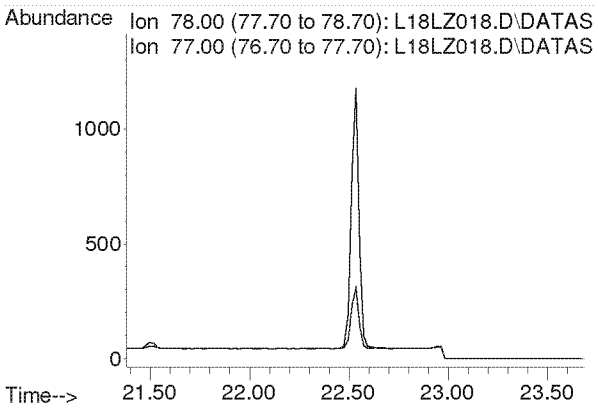


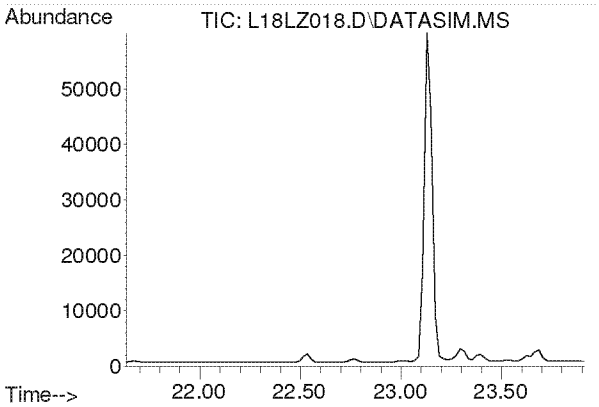
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



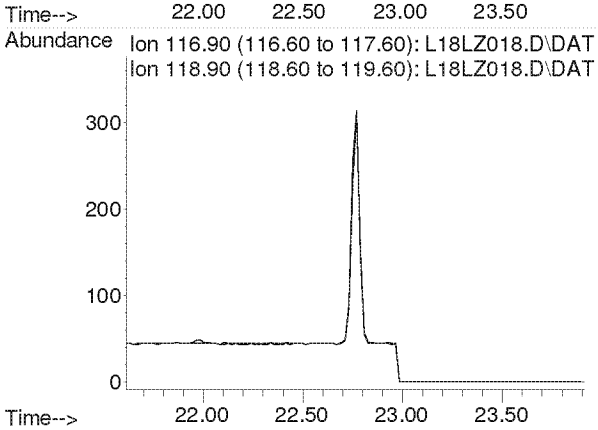


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

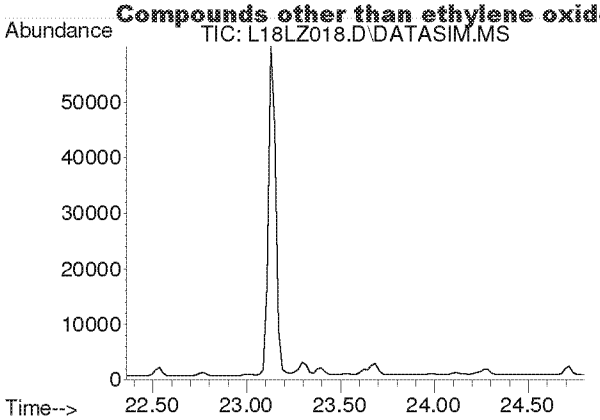
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

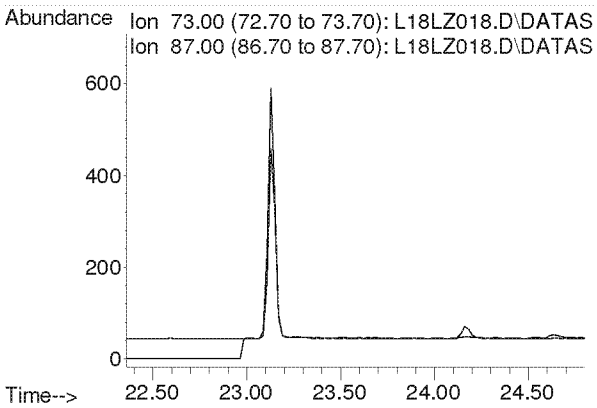


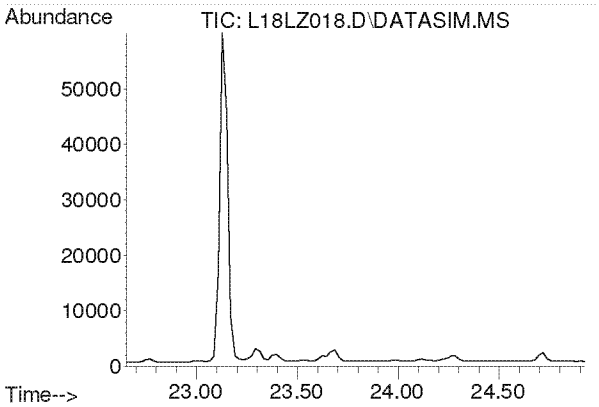
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



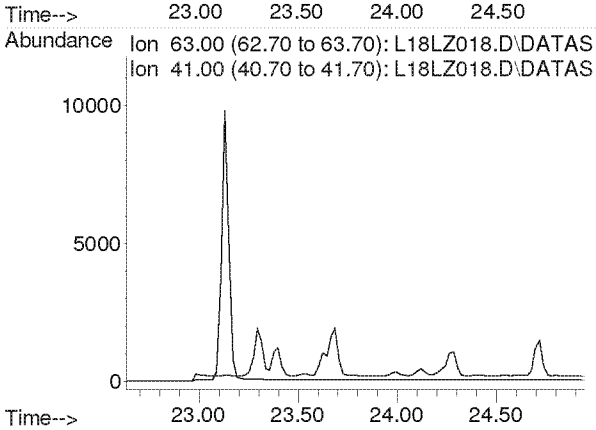


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

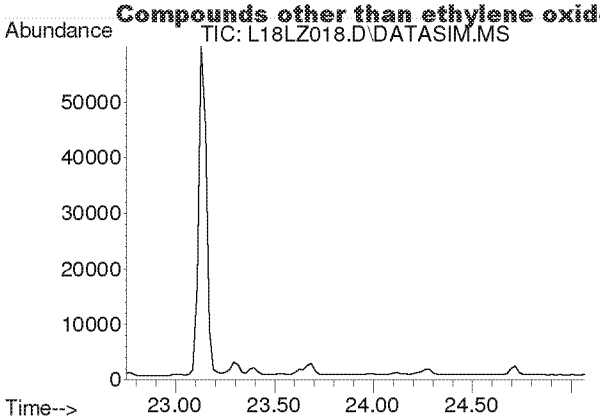
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

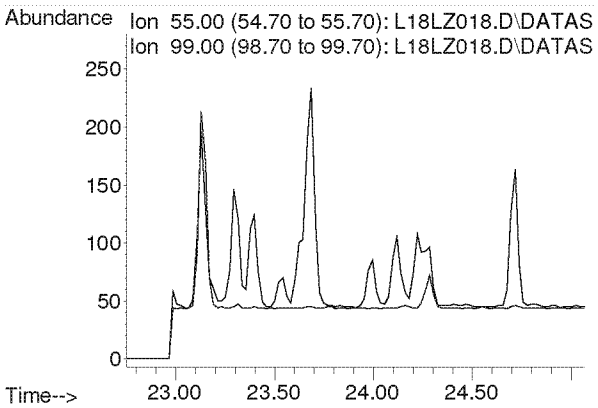


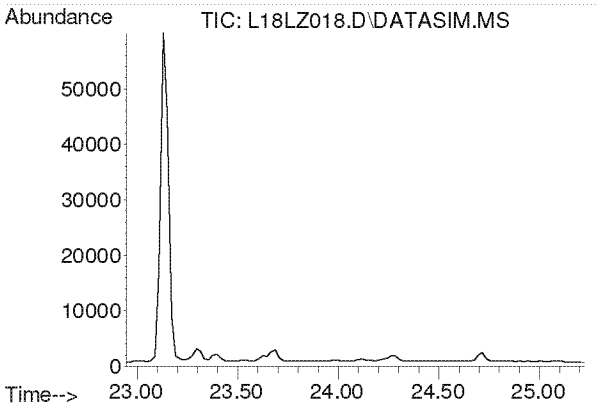
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



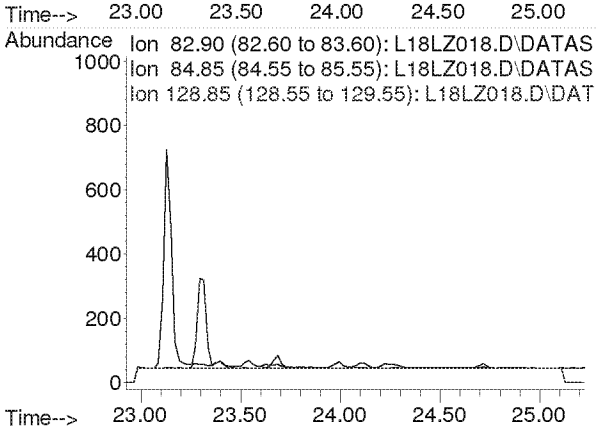


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

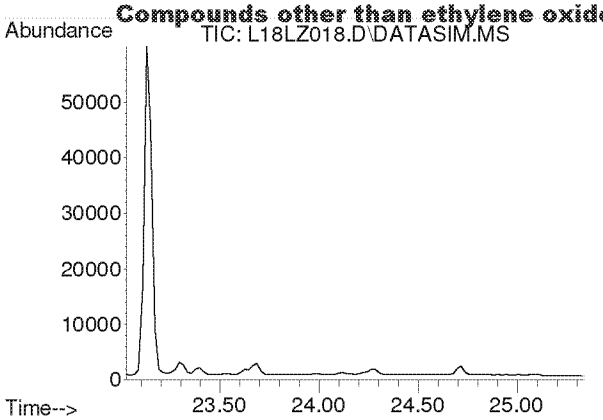
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

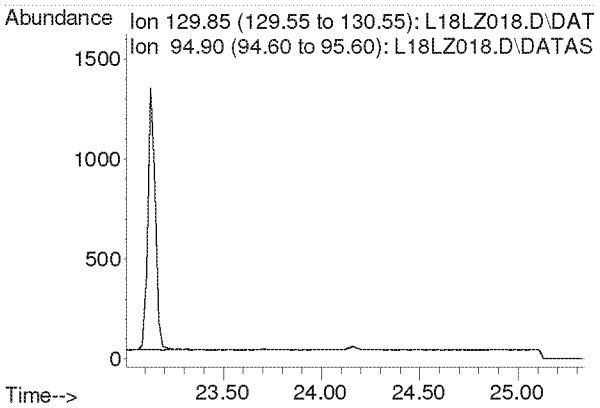


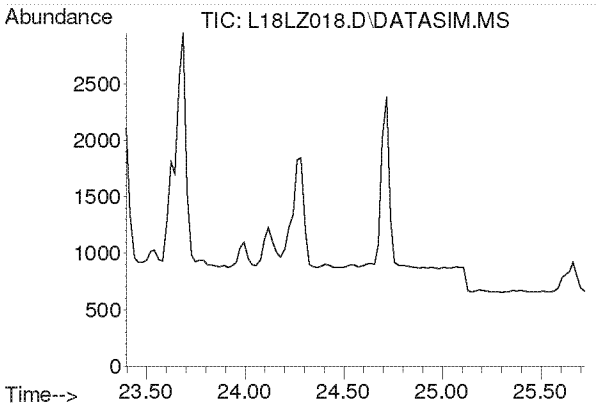
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



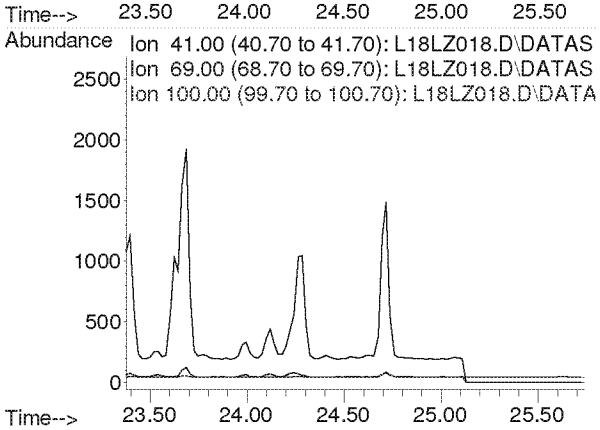


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

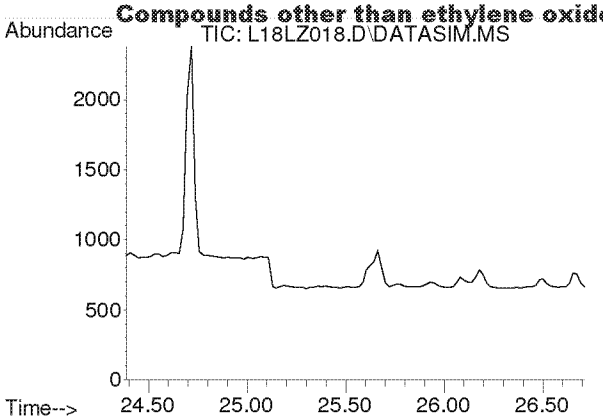
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

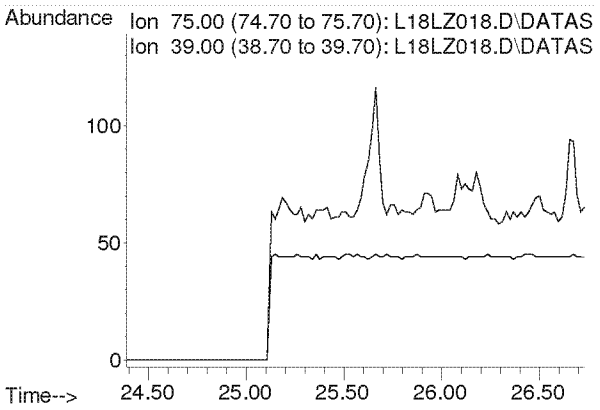


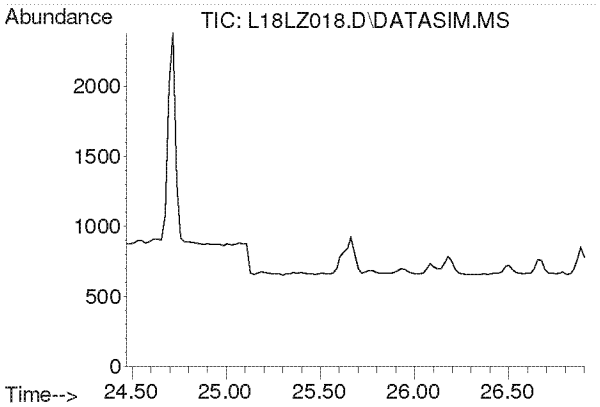
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



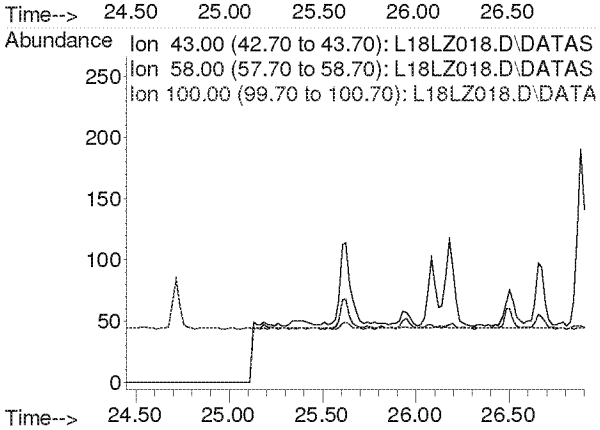


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

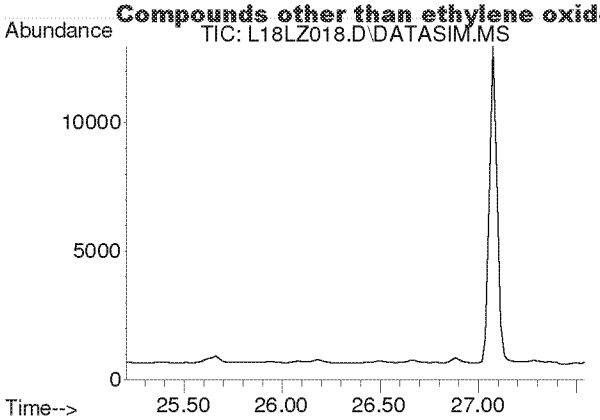
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

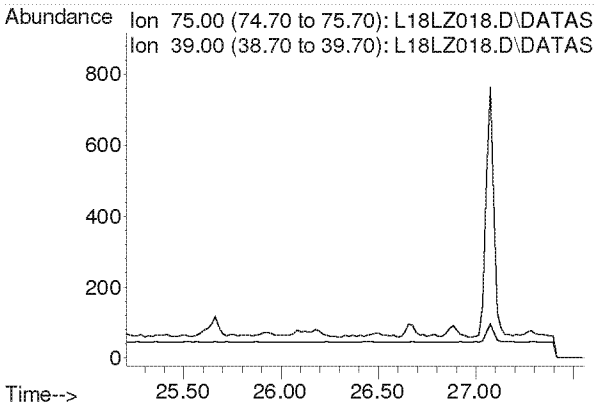


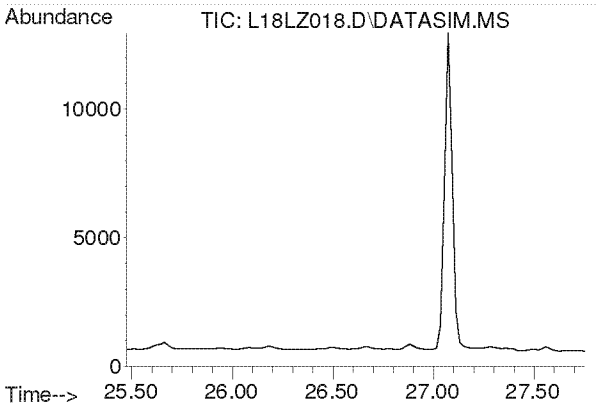
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



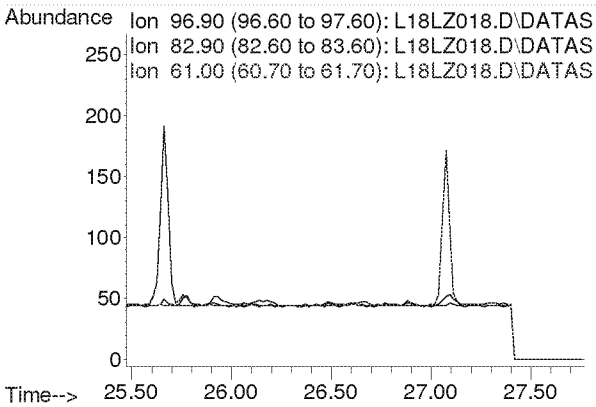


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

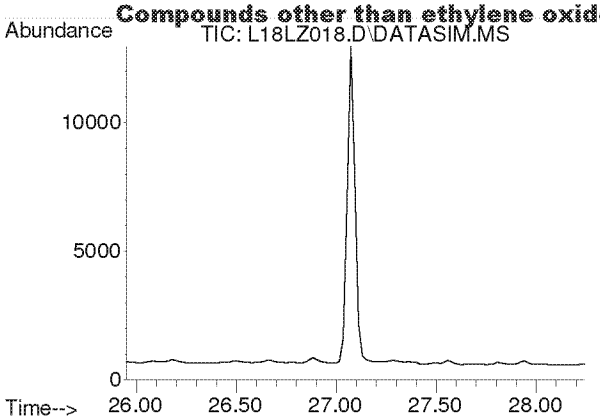
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

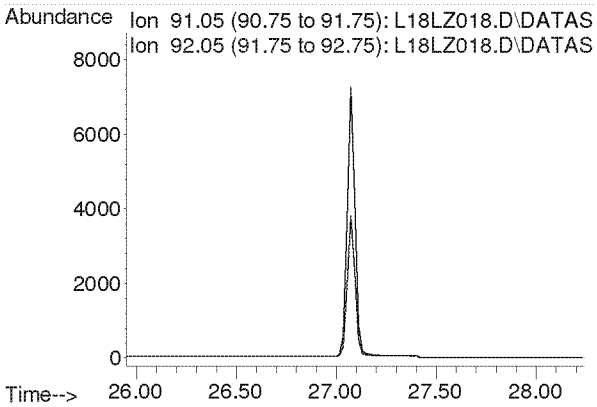


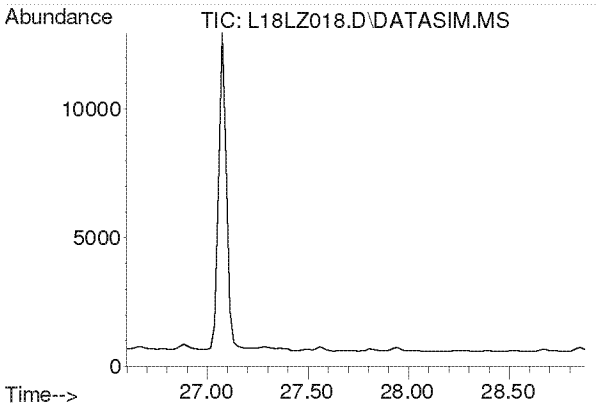
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



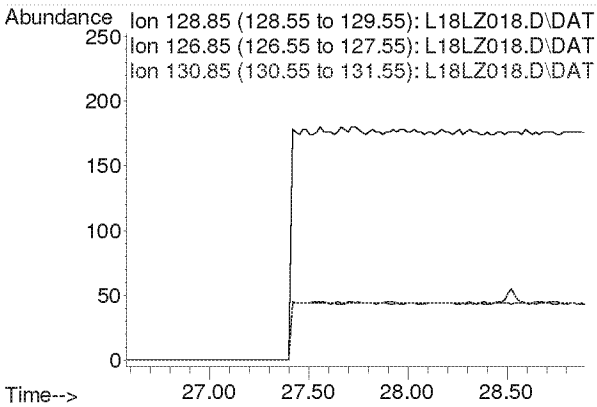


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

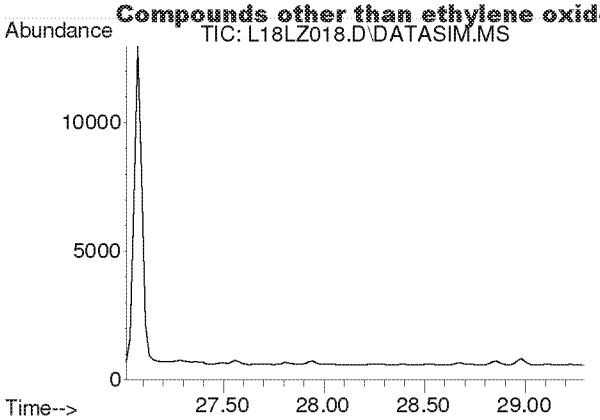
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

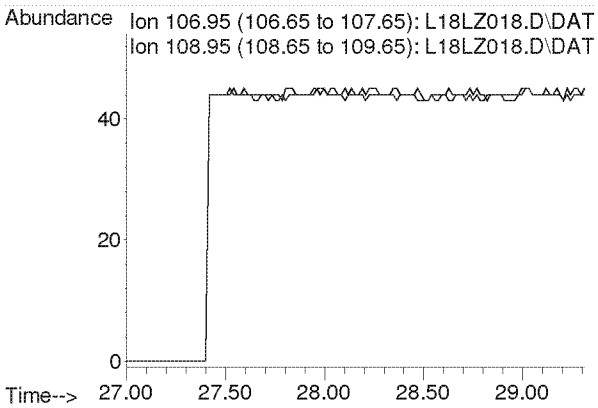


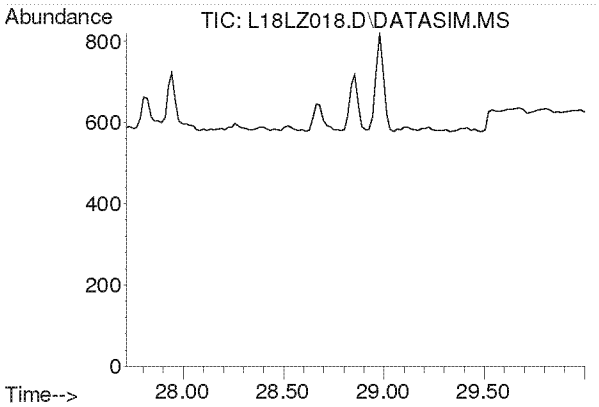
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



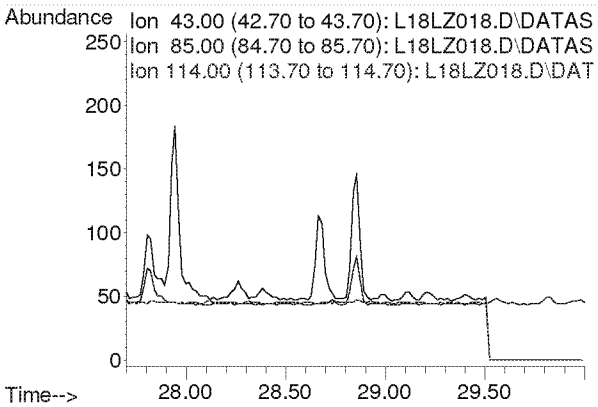


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

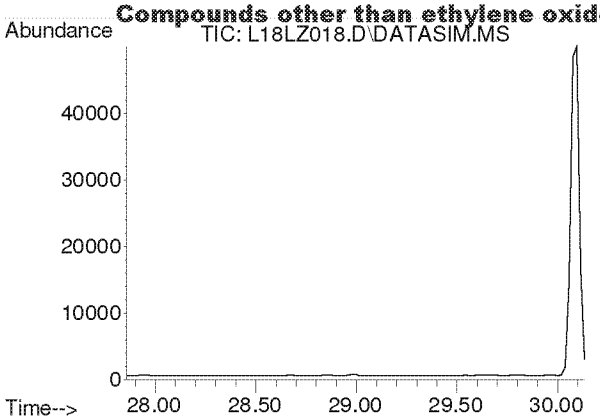
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

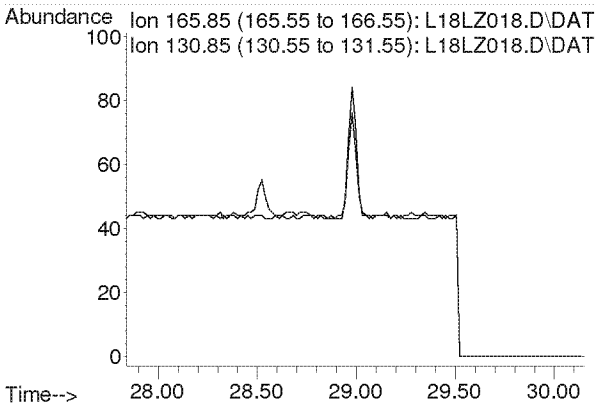


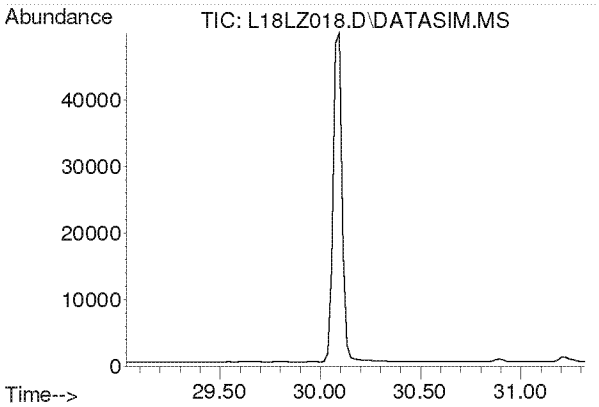
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



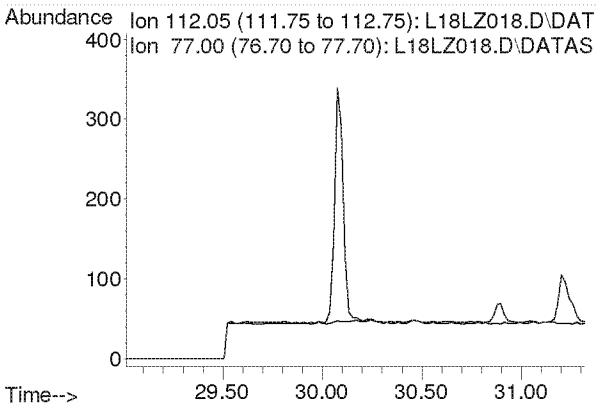


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

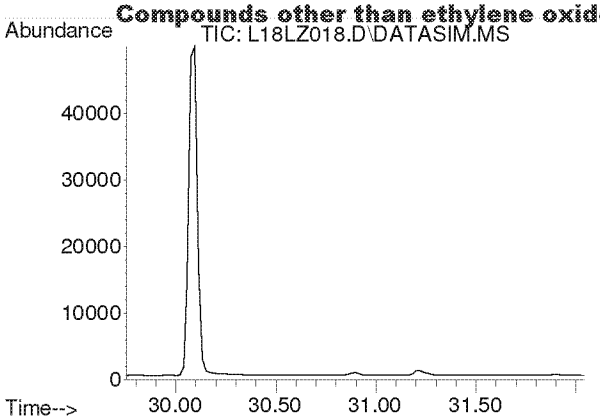
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

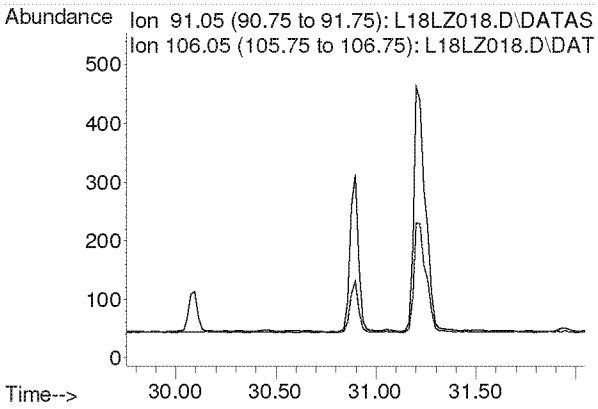


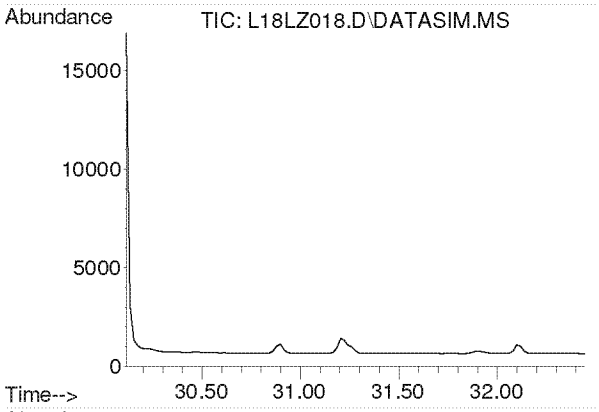
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



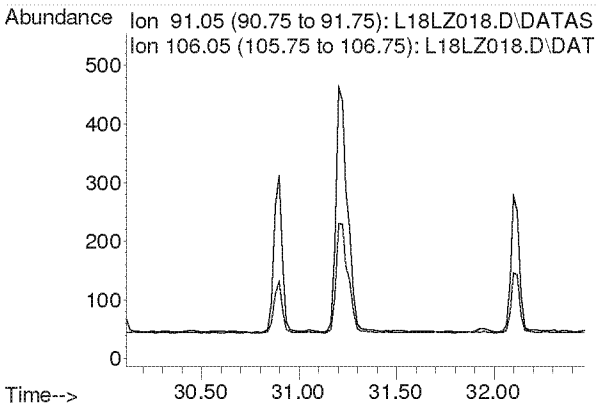


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

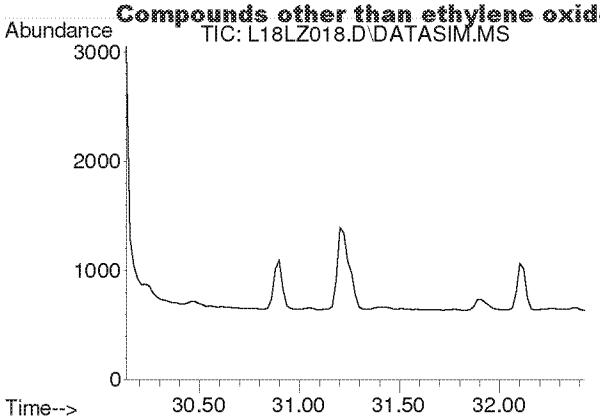
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

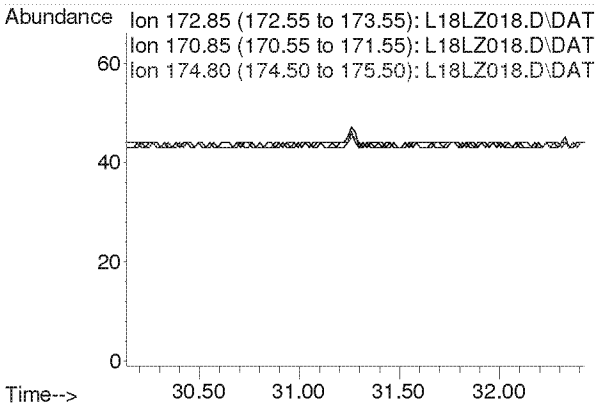


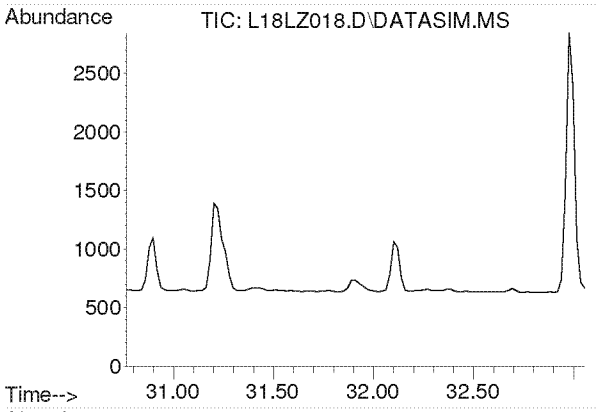
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



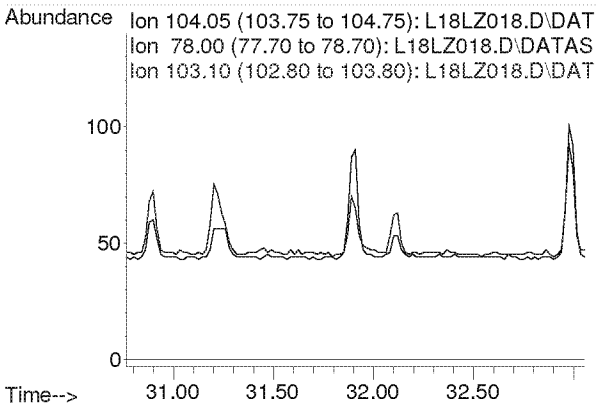


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

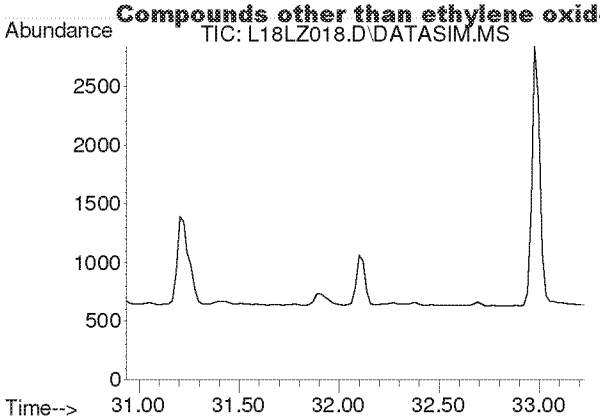
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

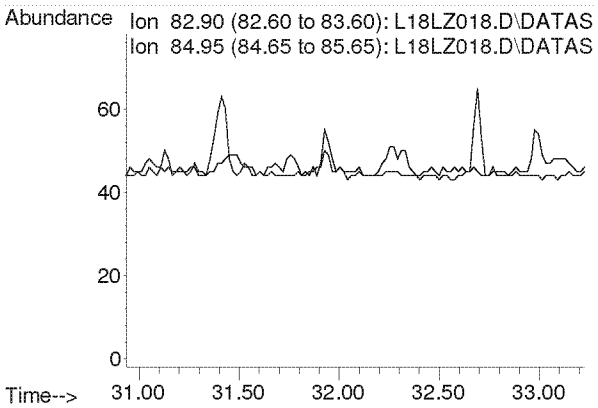


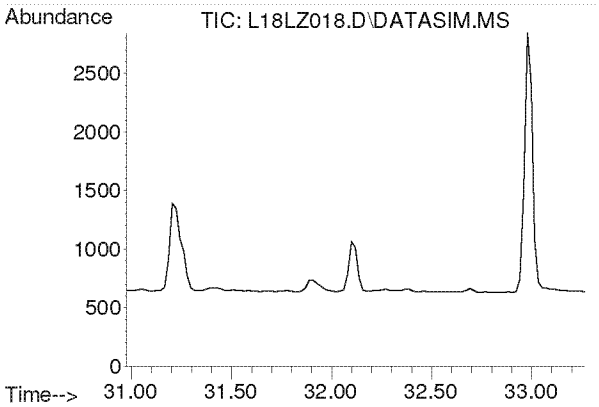
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



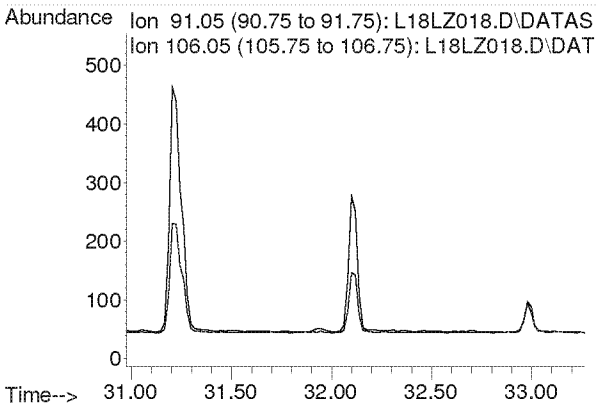


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

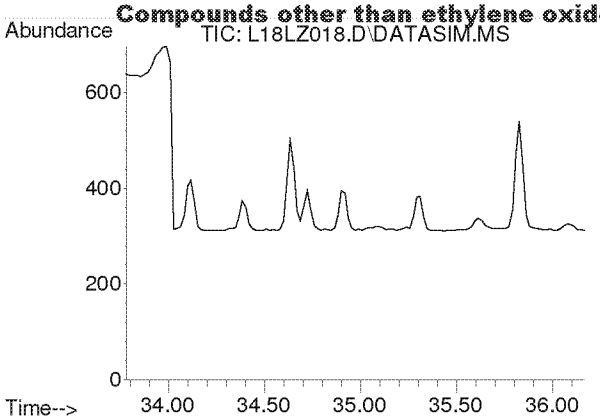
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

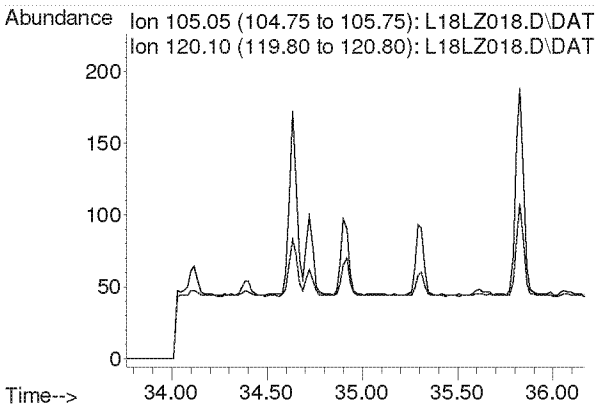


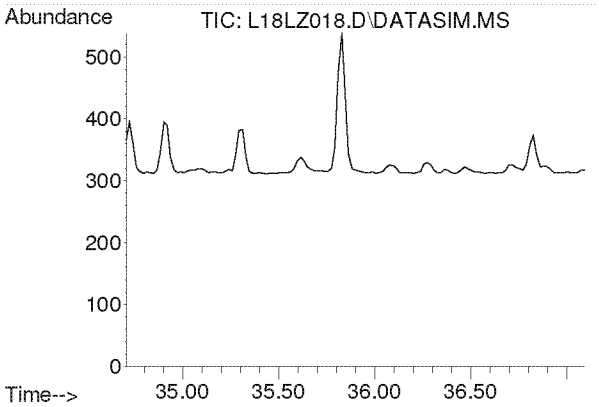
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



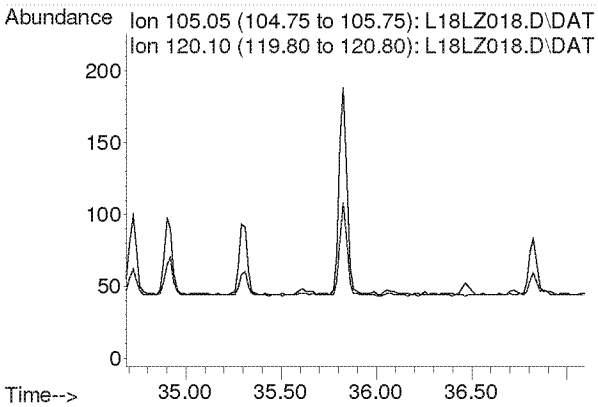


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

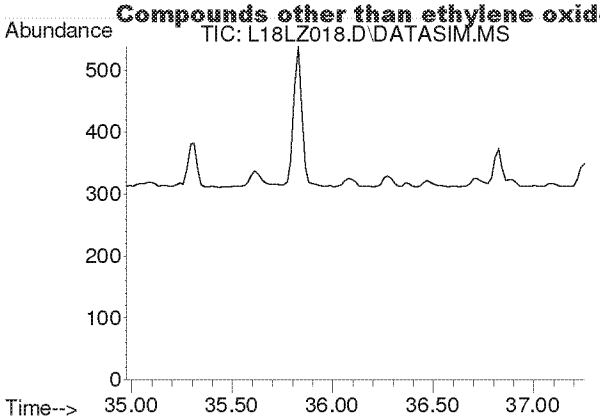
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

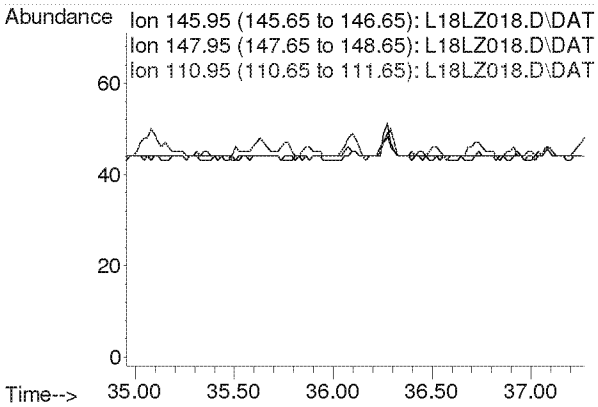


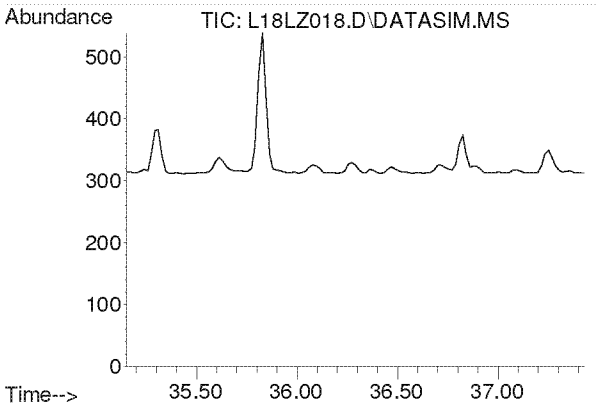
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



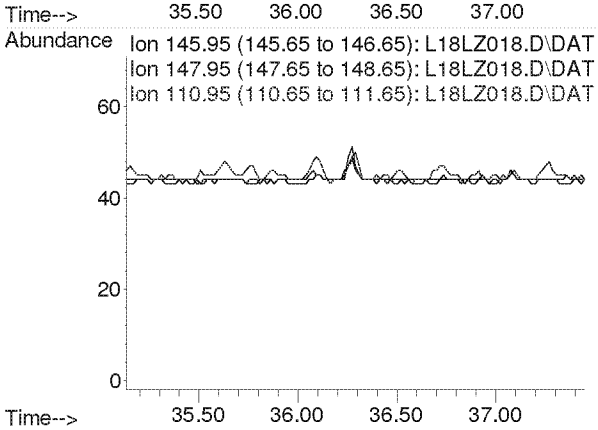


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

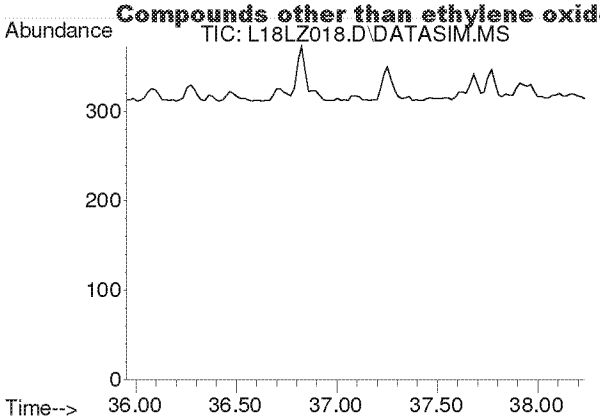
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

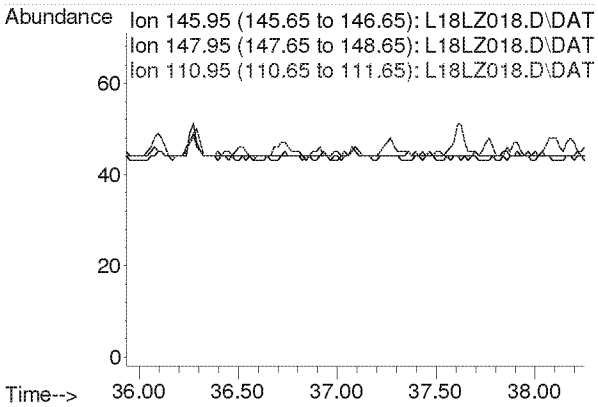


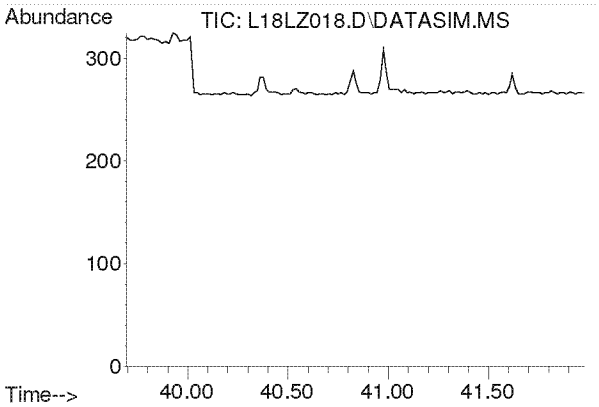
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



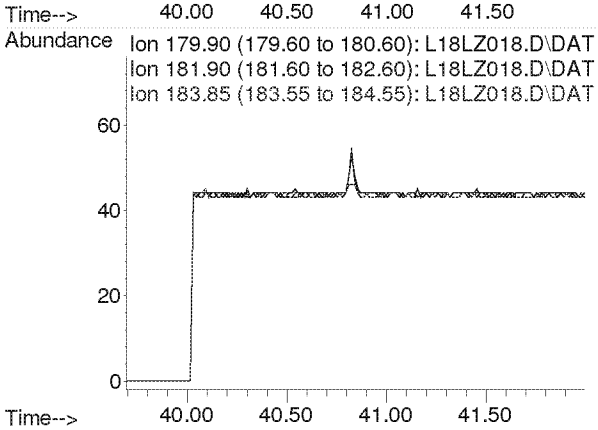


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

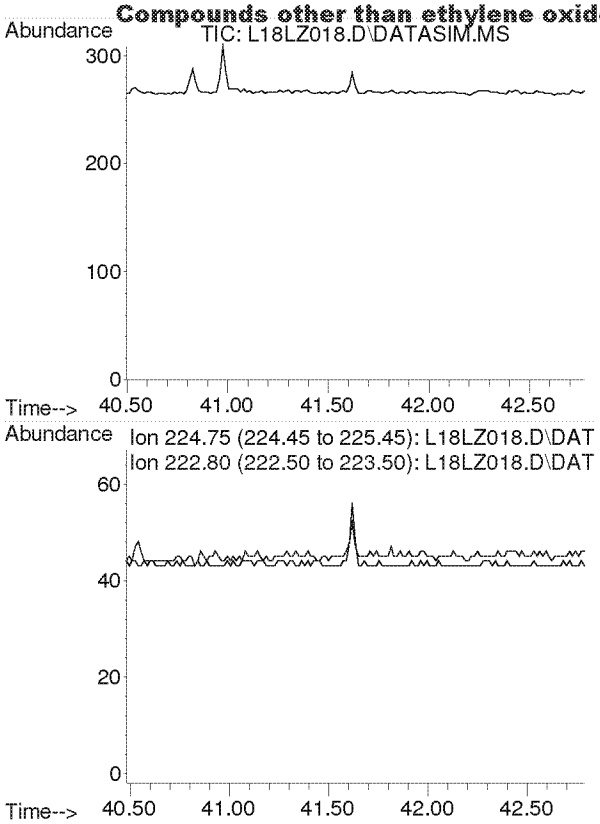
Lab File: L18LZ018.D
Acq: 27 Dec 2018 4:56 am

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: L18LZ018.D
Acq: 27 Dec 2018 4:56 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\L18LZ\
Data File : L18LZ019.D
Acq On : 27 Dec 2018 5:58 am
Operator : MAH
Sample : 8121130-02
Misc : WILLOWBROOK HS C2 12/7/18
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 03 11:18:12 2019
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	19.970	66	57596	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	136547	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.096	117	93396	4.7400 ppbv	0.00

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	12.365	29	20013	5.8133 ppbv #	72
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\L18LZ\
Data File : L18LZ019.D
Acq On : 27 Dec 2018 5:58 am
Operator : MAH
Sample : 8121130-02
Misc : WILLOWBROOK HS C2 12/7/18
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 03 11:18:12 2019
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

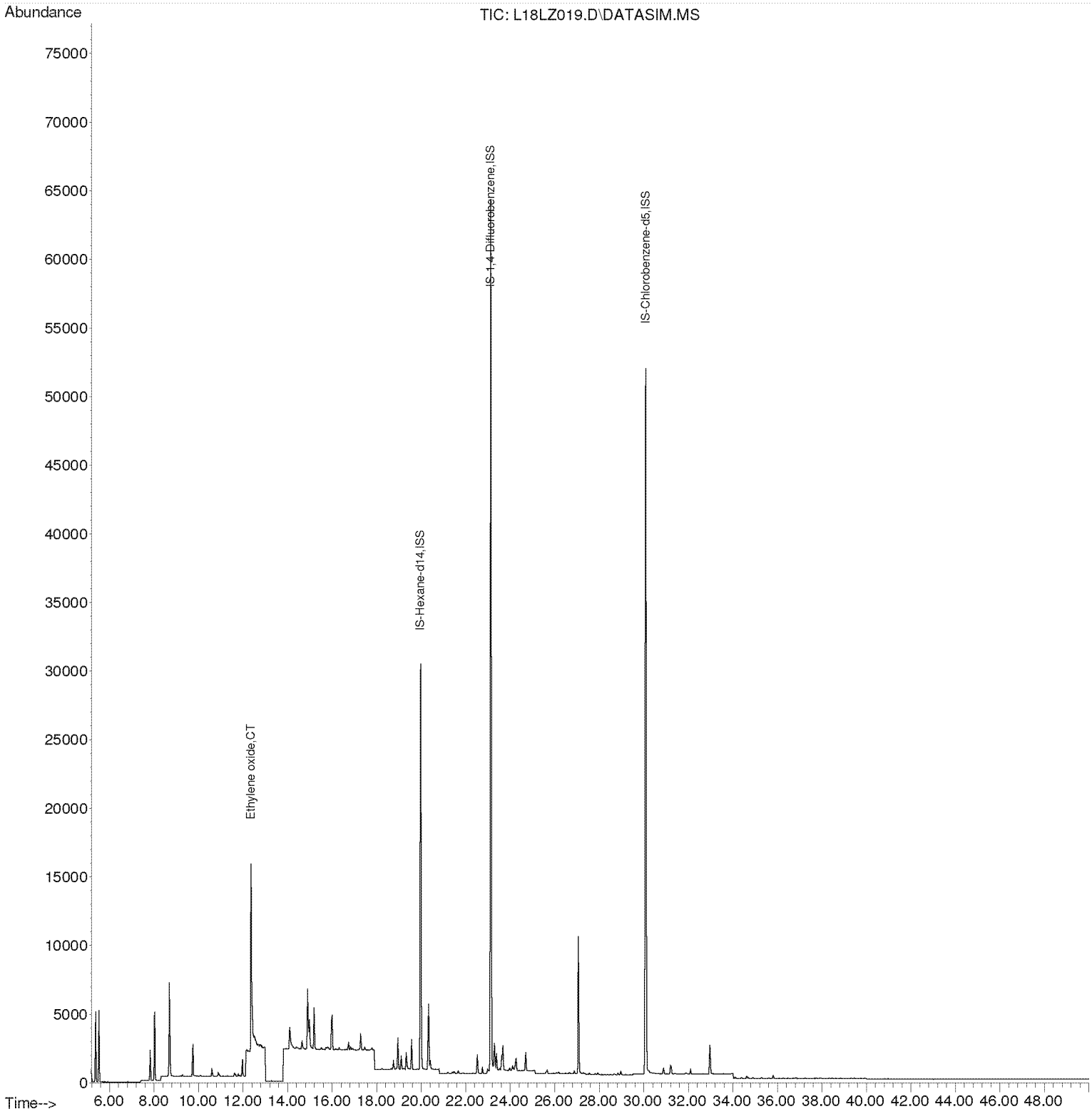
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene	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

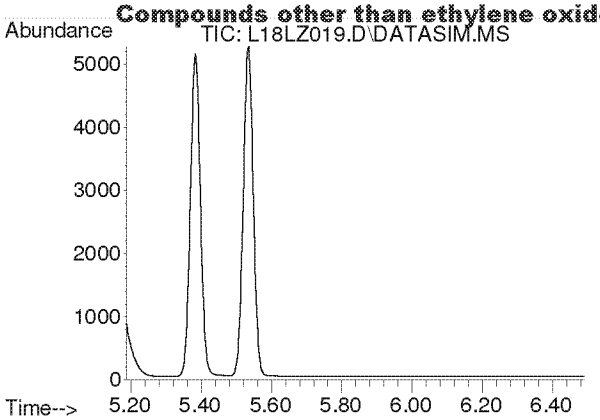
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ019.D
Acq On : 27 Dec 2018 5:58 am
Operator : MAH
Sample : 8121130-02
Misc : WILLOWBROOK HS C2 12/7/18
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 03 10:36:28 2019
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



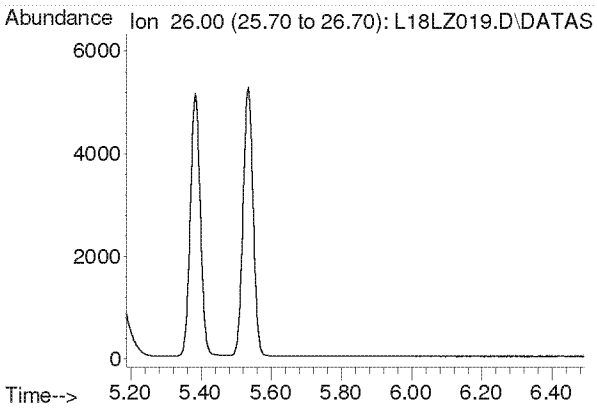
Compounds other than ethylene oxide were not quantitated.

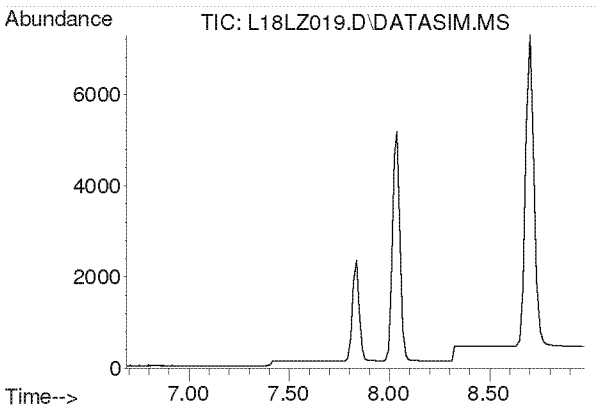


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 26



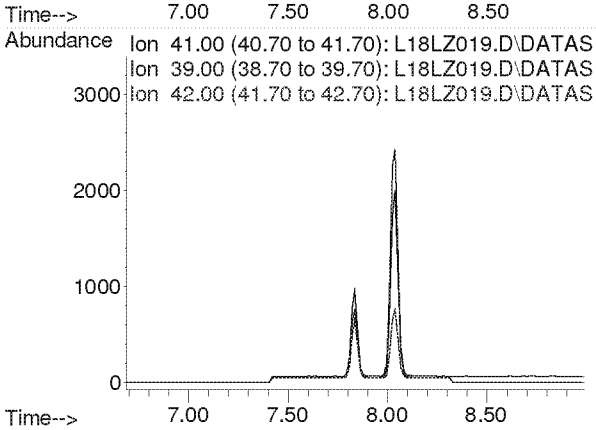


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

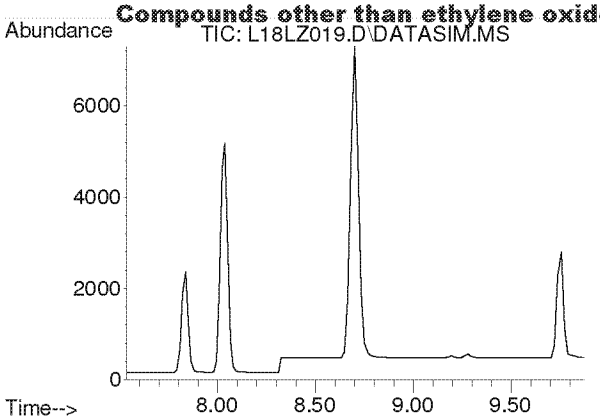
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

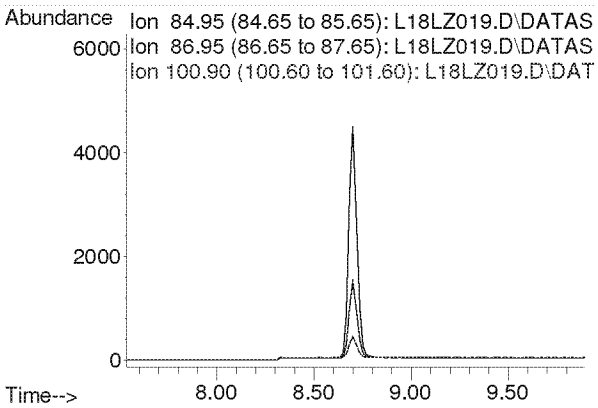


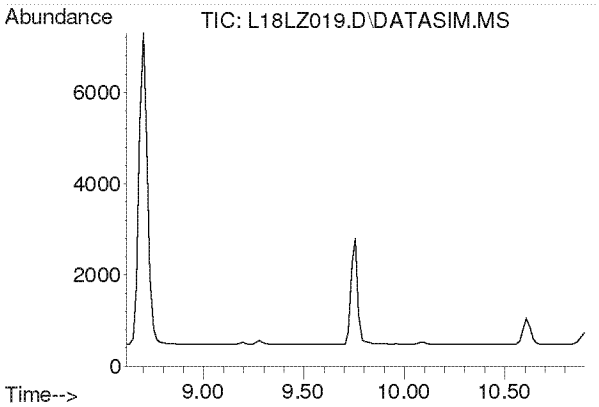
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



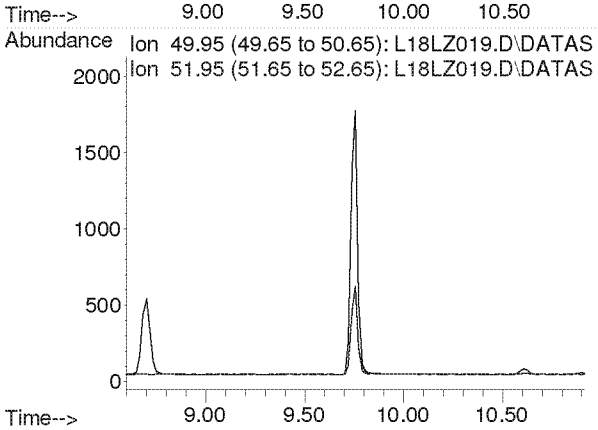


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

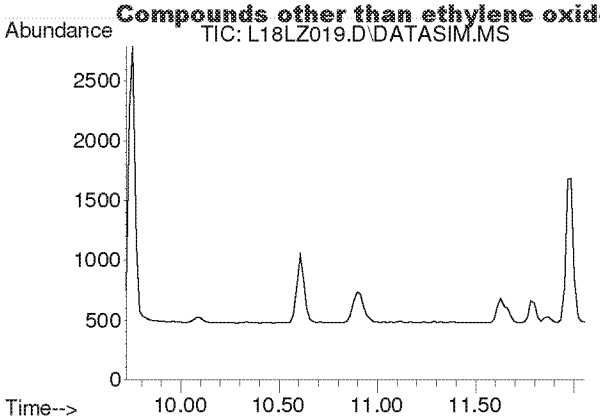
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

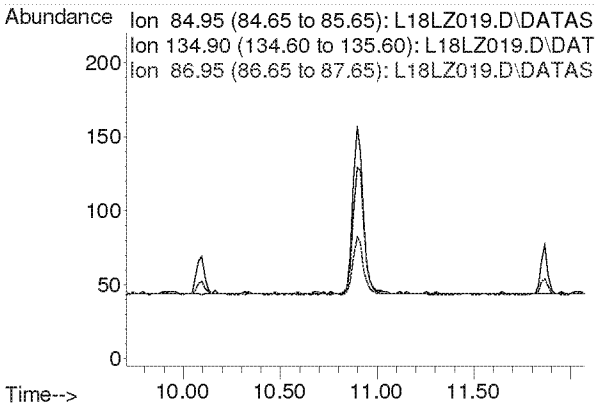


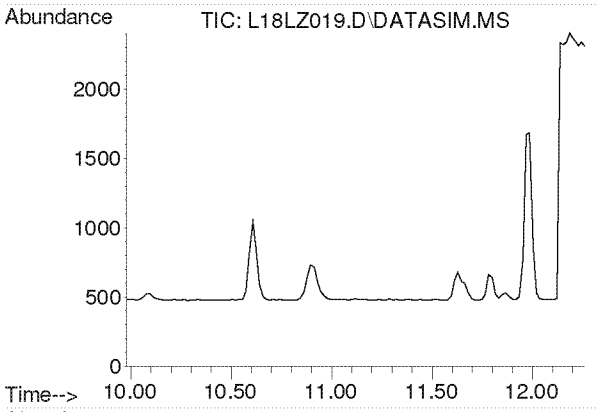
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



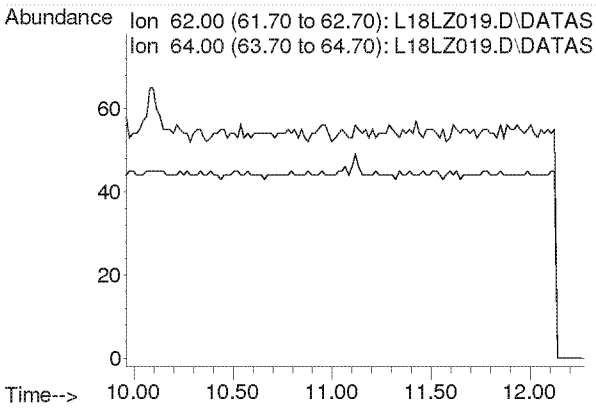


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

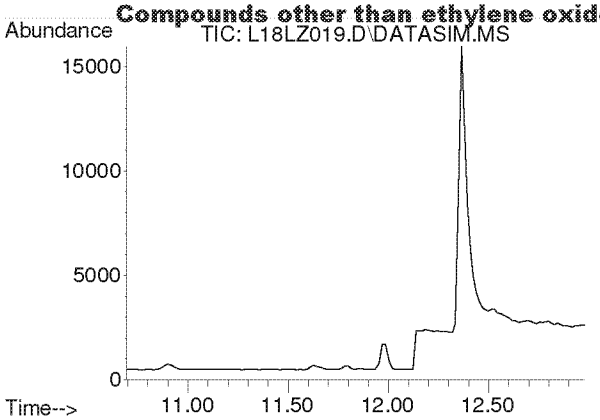
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

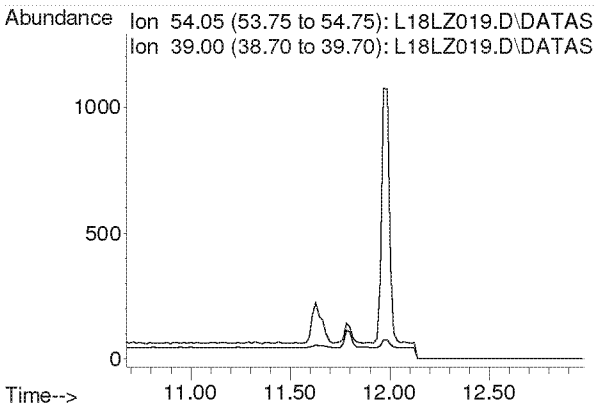


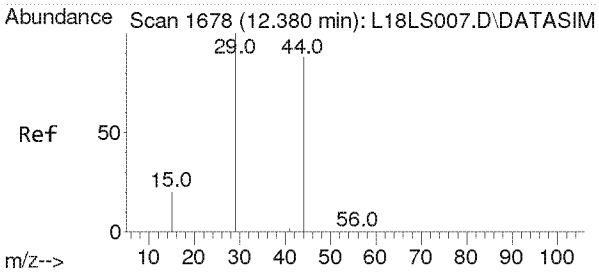
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

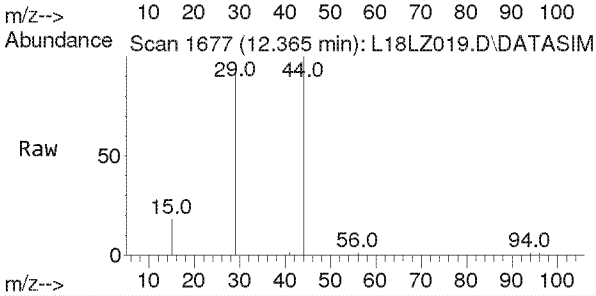


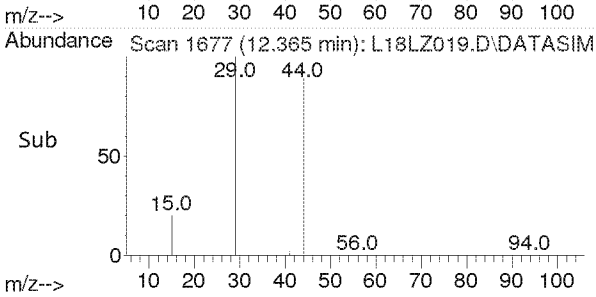


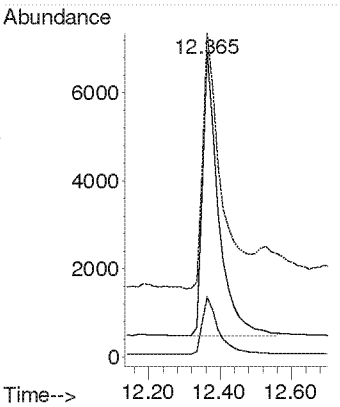
#9
Ethylene oxide
Concen: 5.813 ppbv
RT: 12.365 min Scan# 1677
Delta R.T. -0.015 min
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 29 Resp: 20013

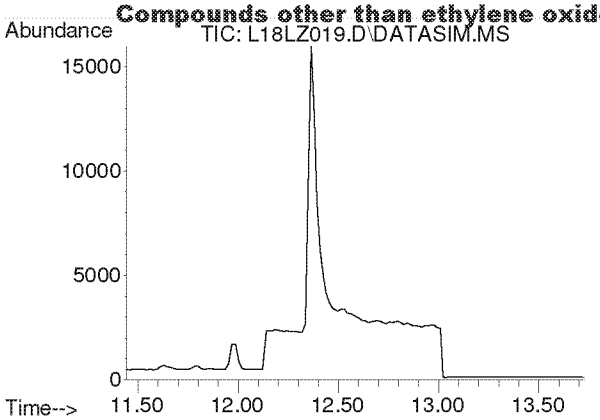
Ion	Ratio	Lower	Upper
29	100		
15	20.7	16.2	24.4
44	121.6	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

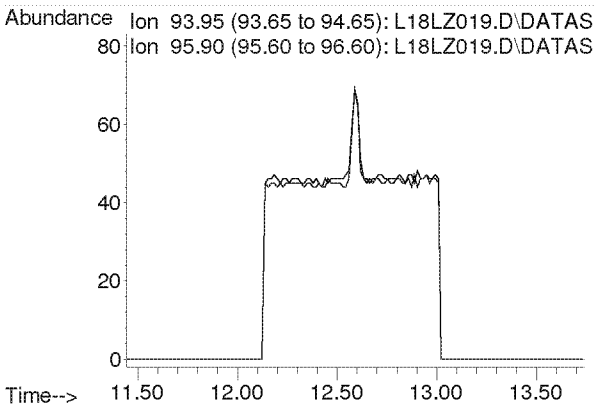


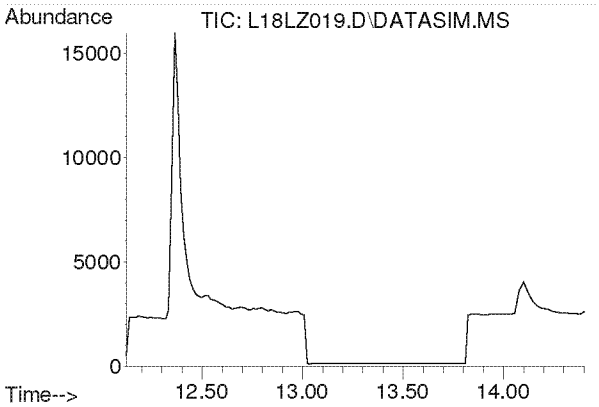
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



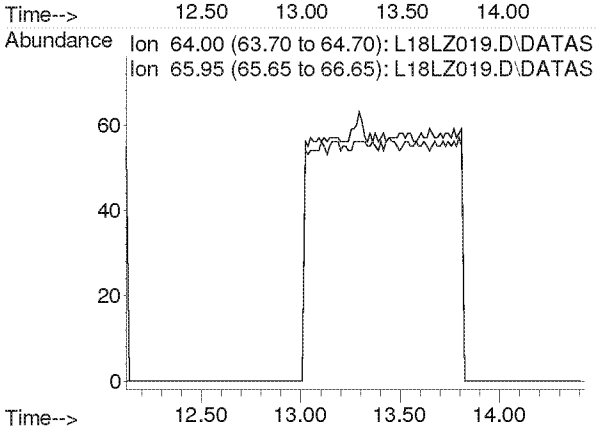


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

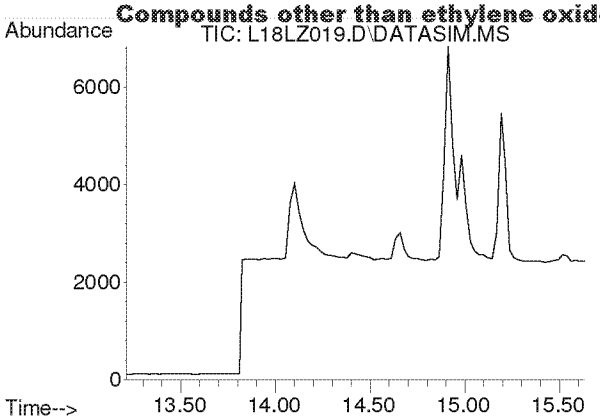
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

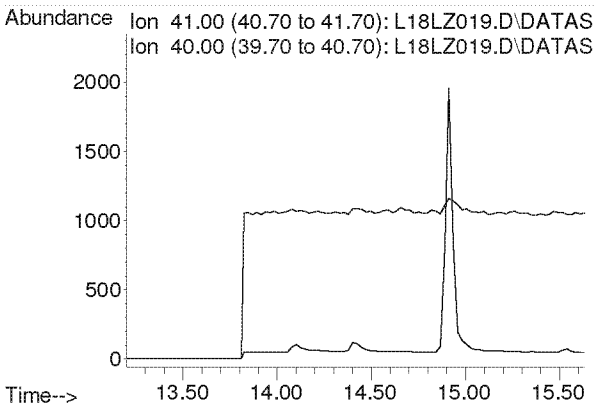


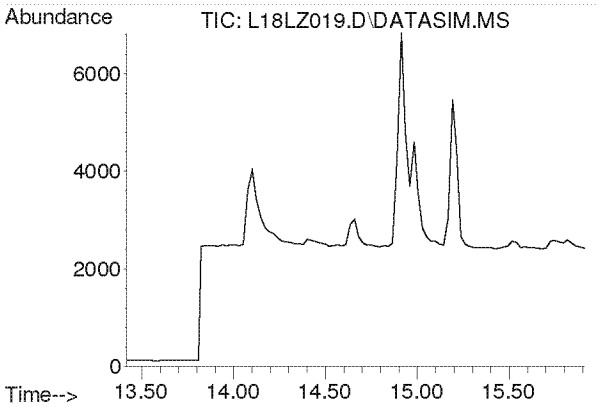
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



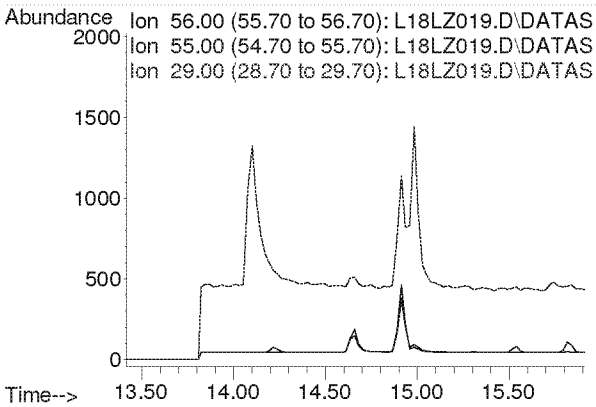


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

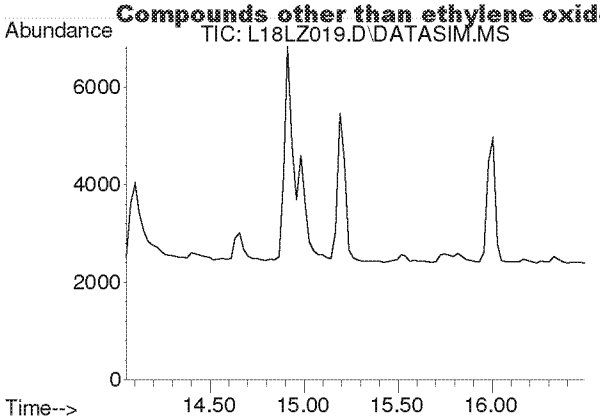
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

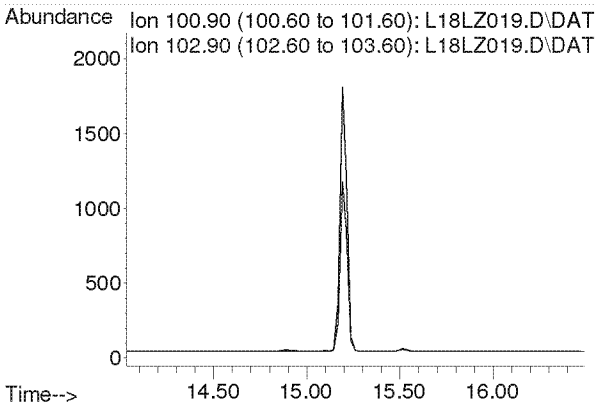


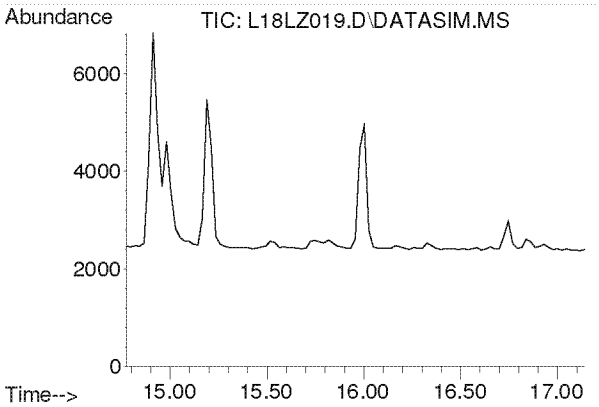
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



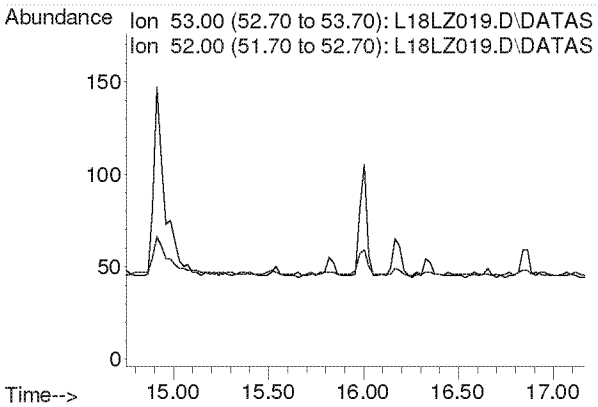


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

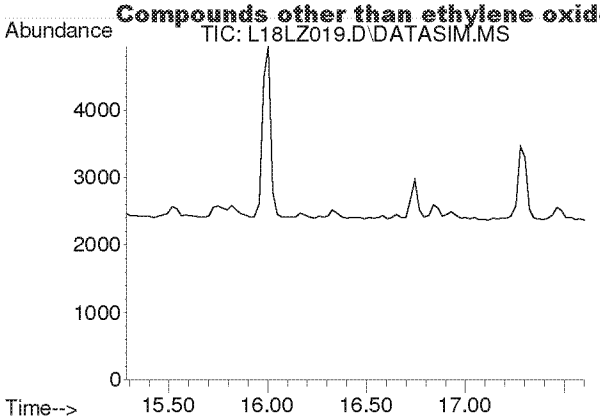
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

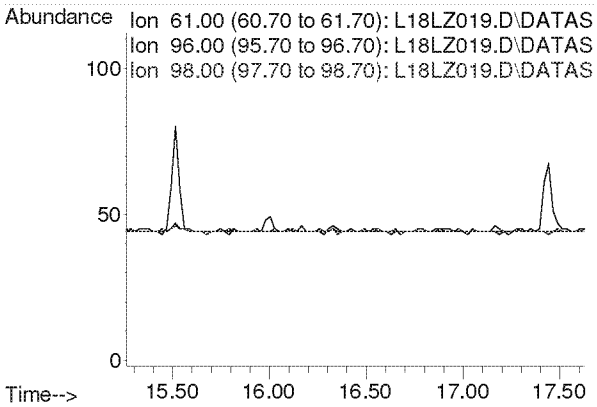


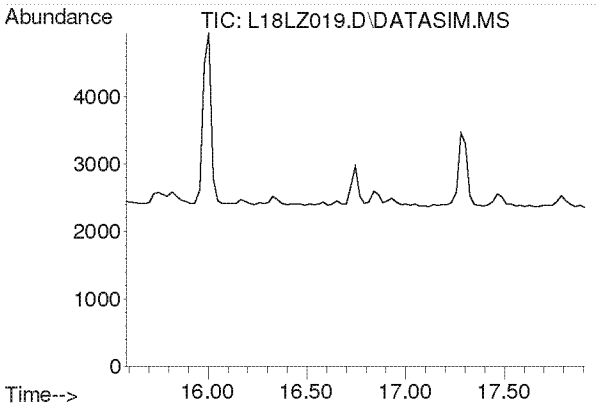
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



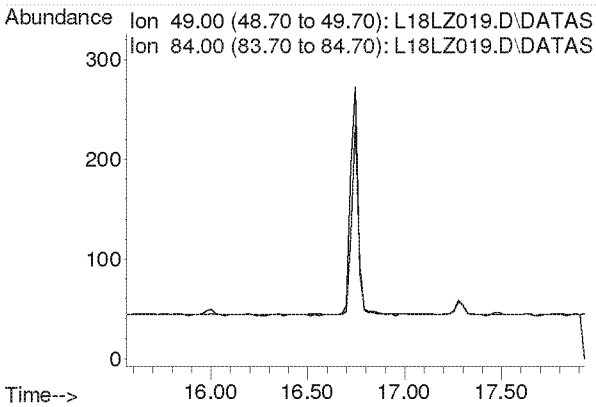


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

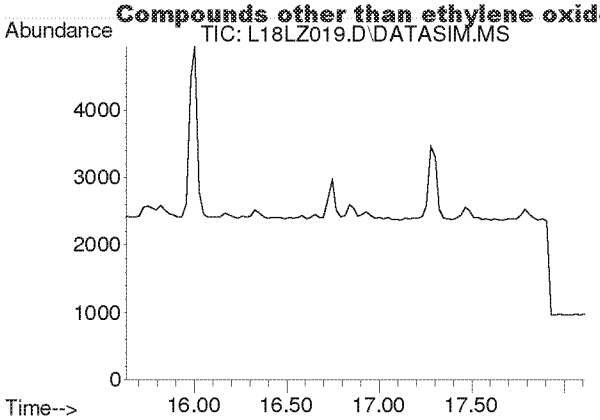
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

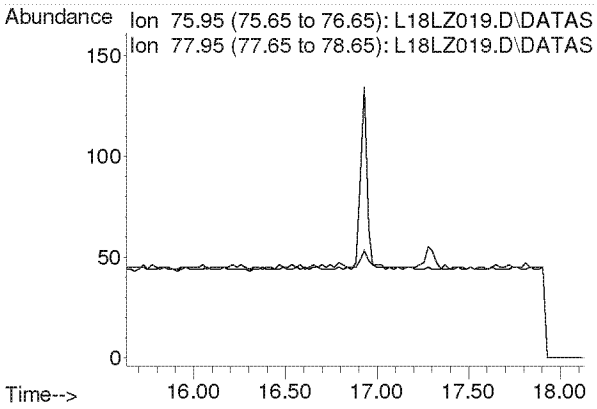


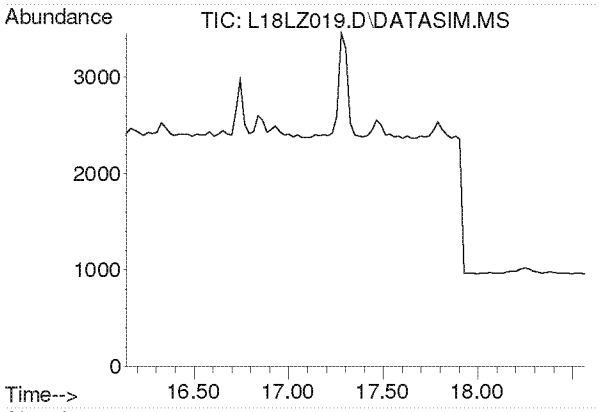
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



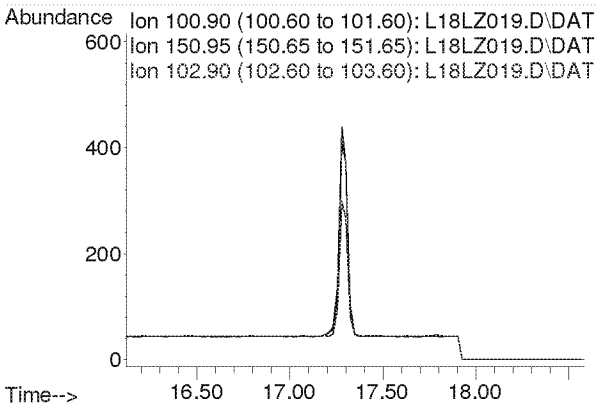


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

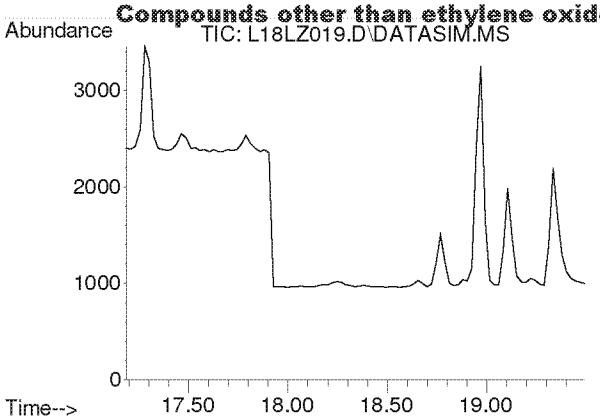
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

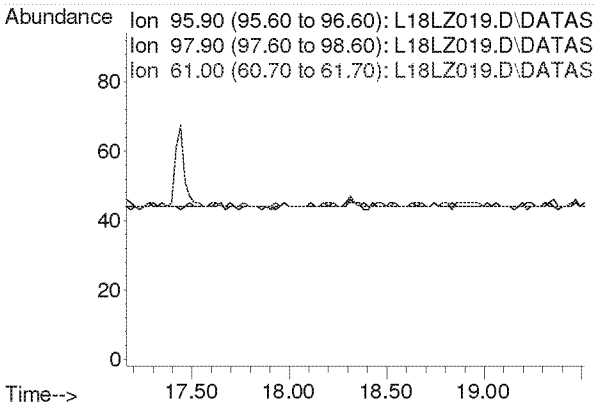


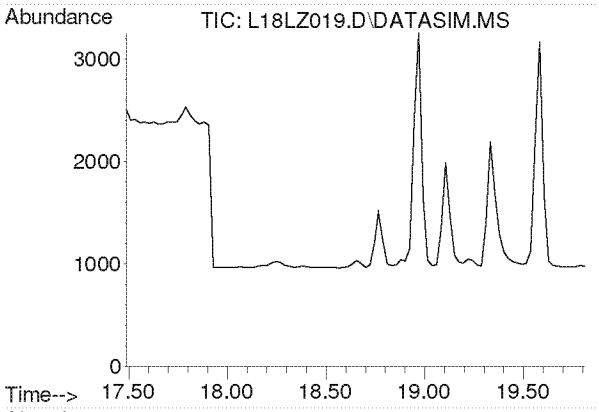
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



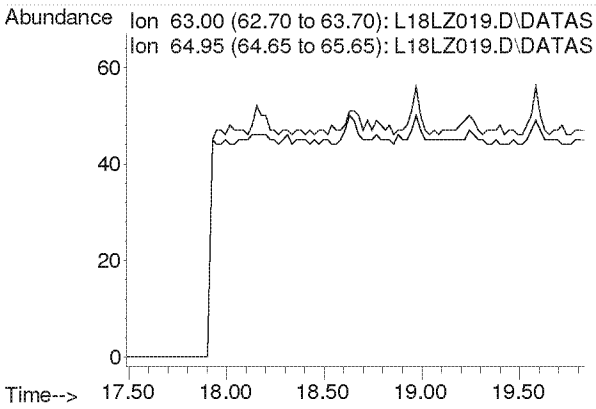


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

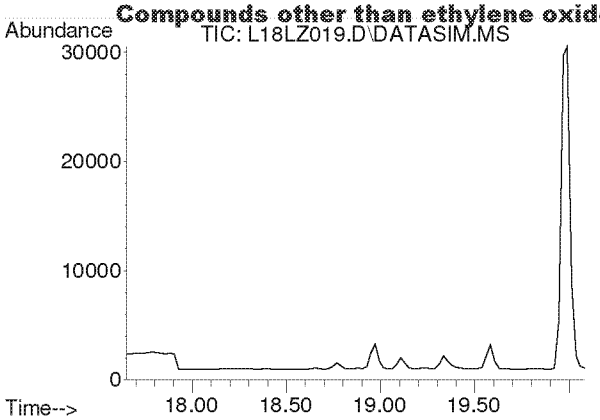
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

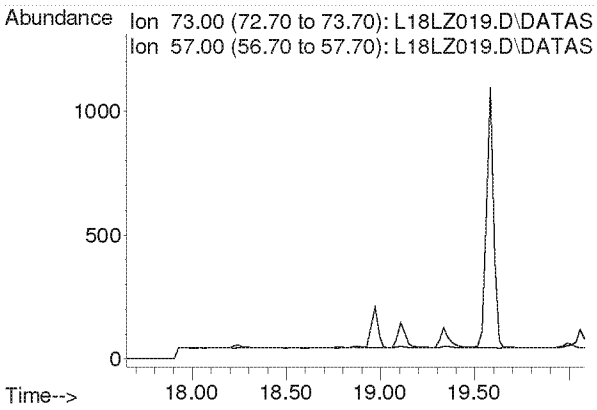


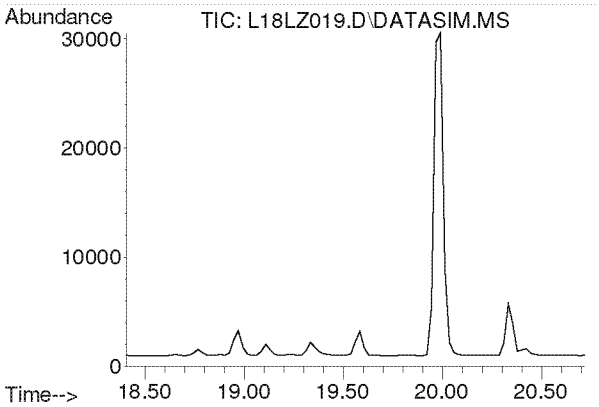
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



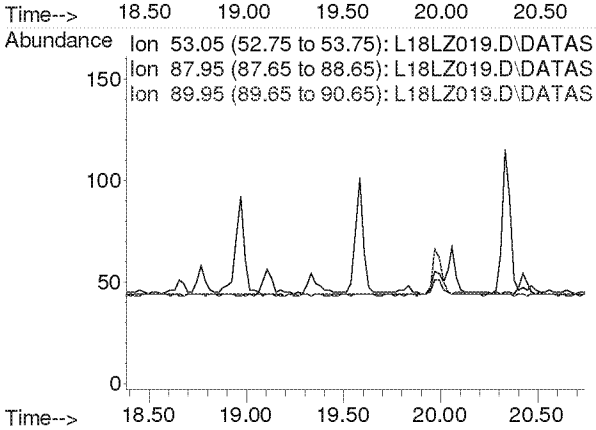


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

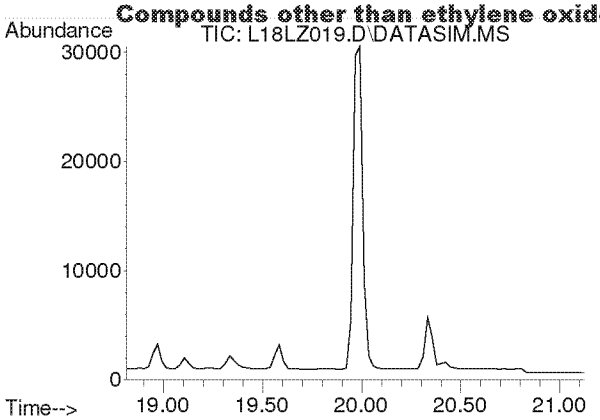
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

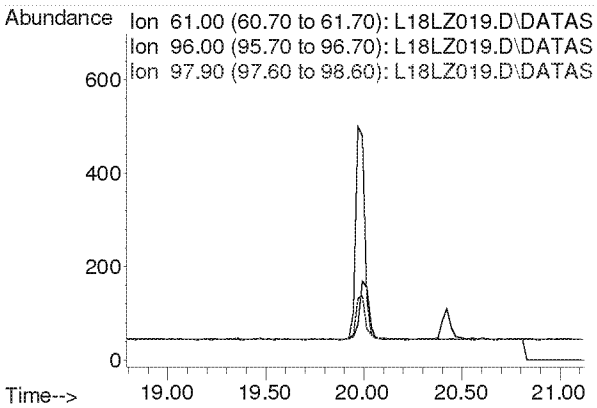


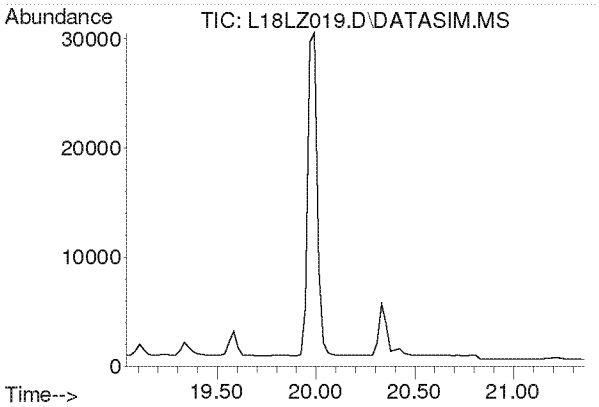
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



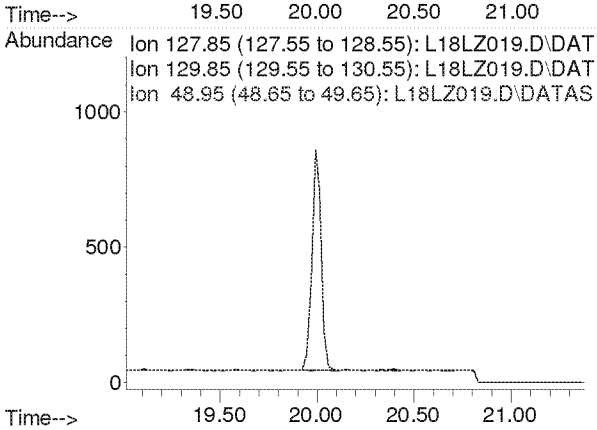


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

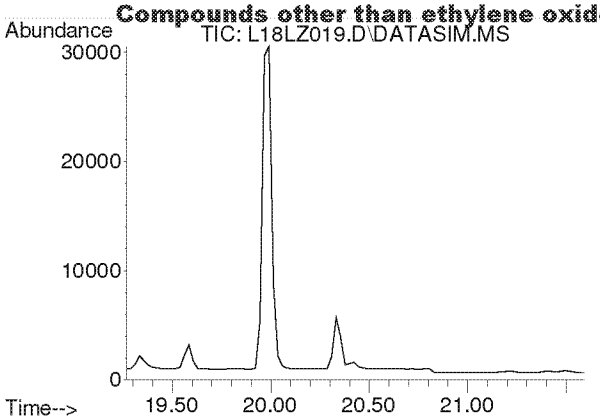
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

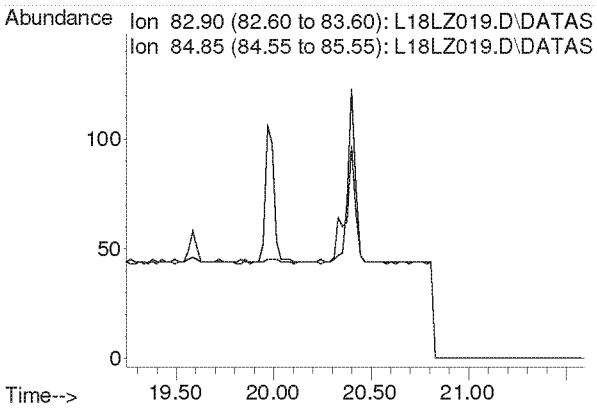


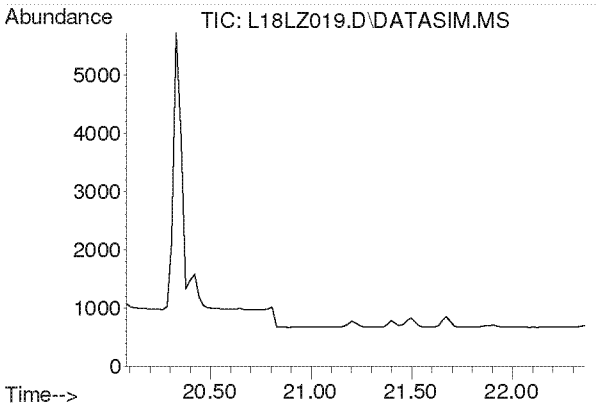
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



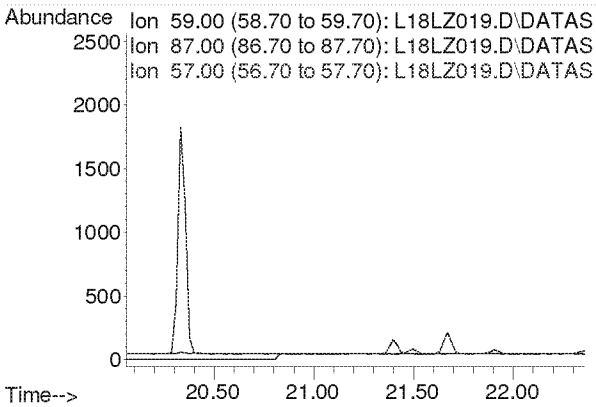


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

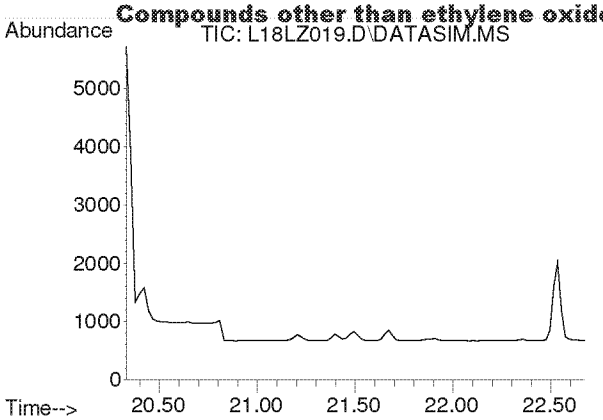
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

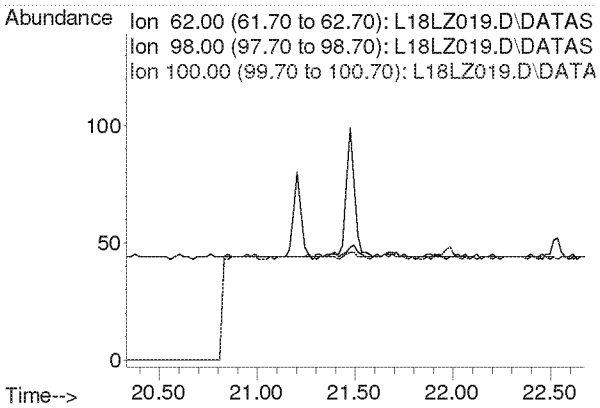


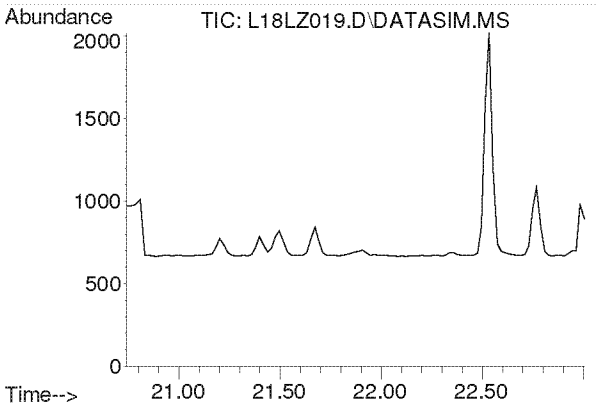
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



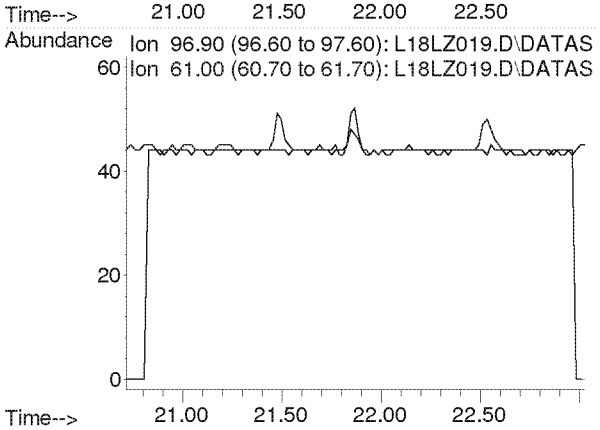


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

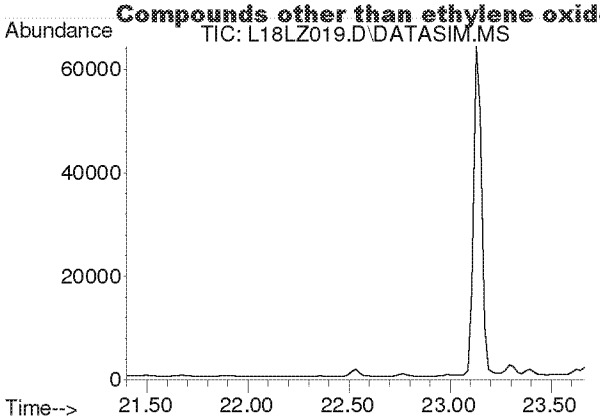
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

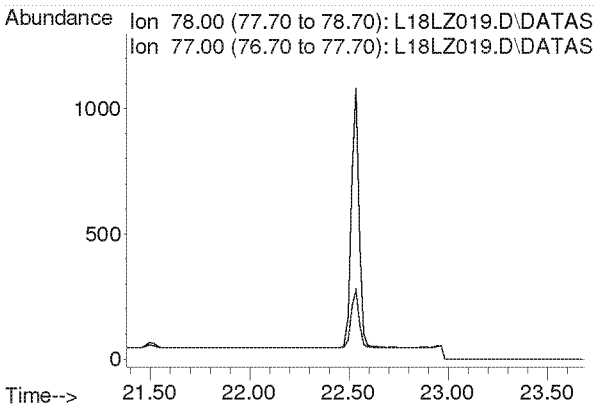


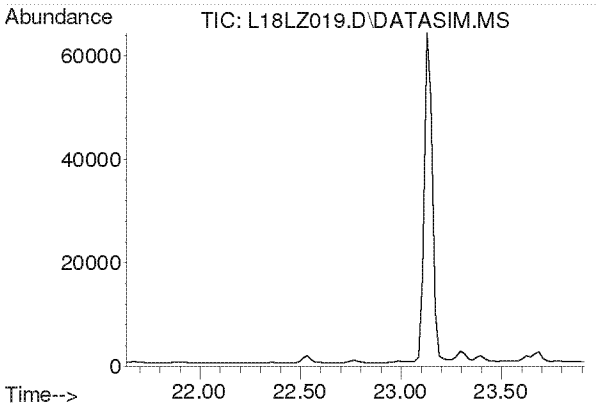
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



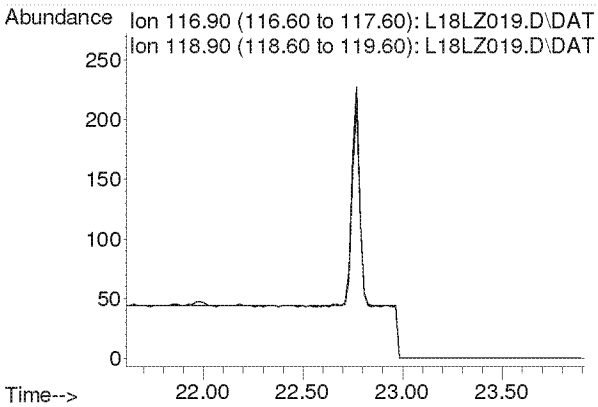


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

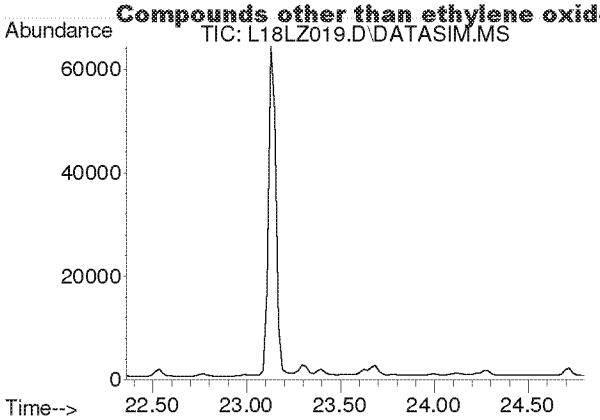
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

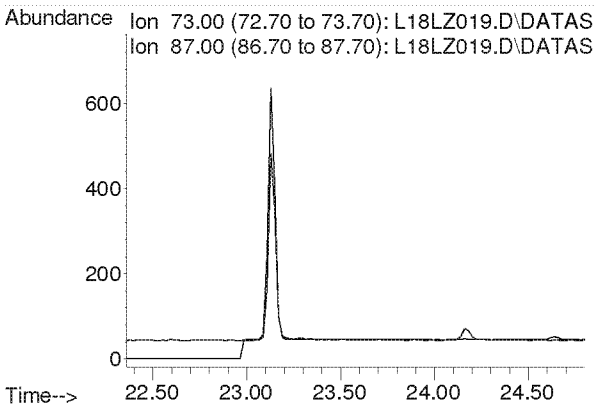


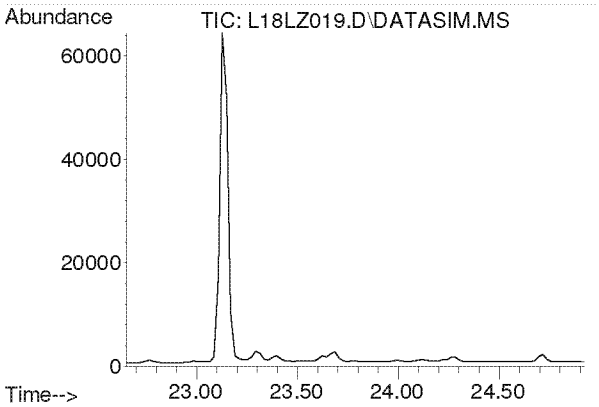
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



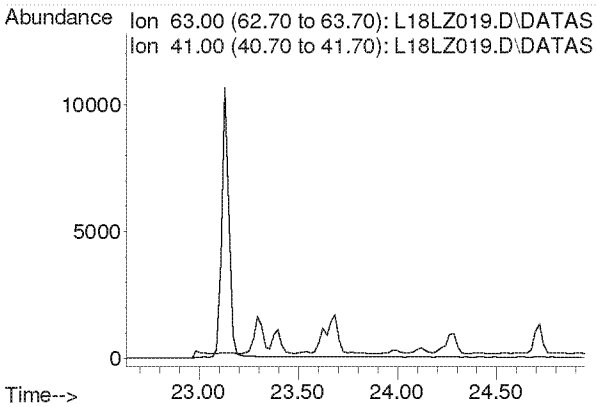


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

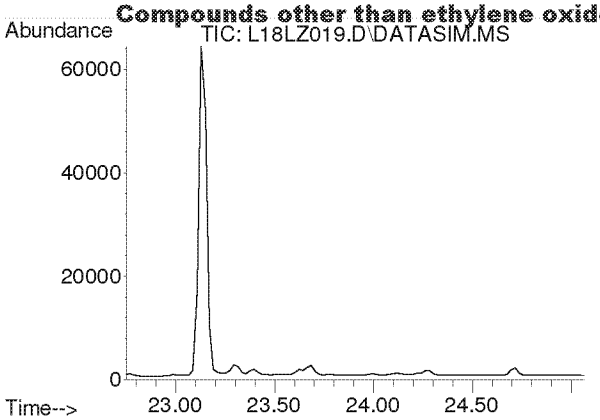
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

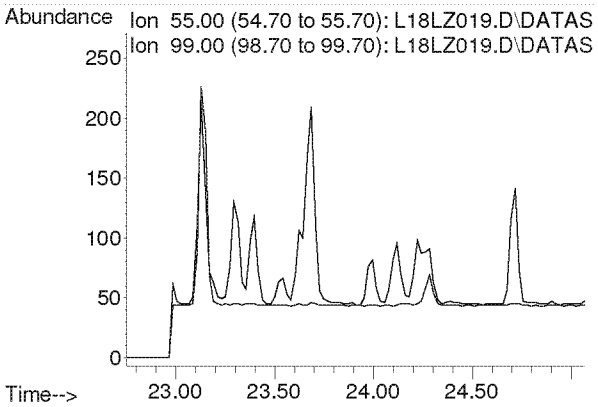


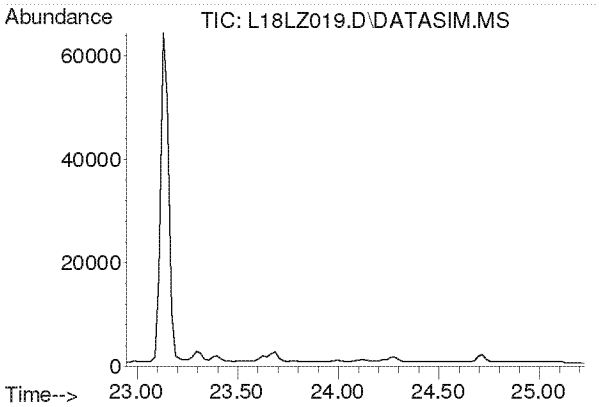
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



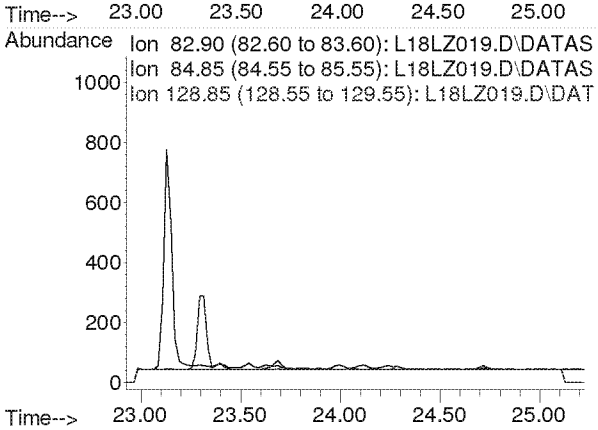


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

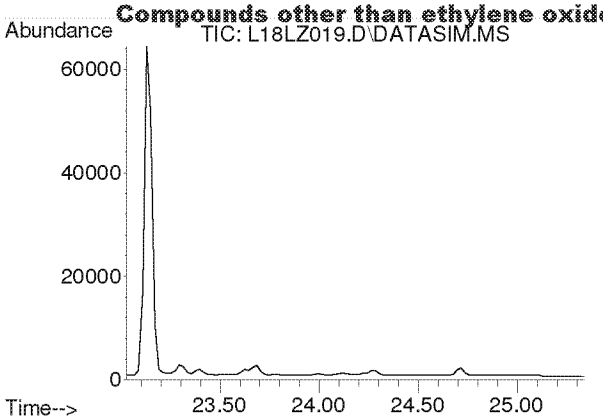
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

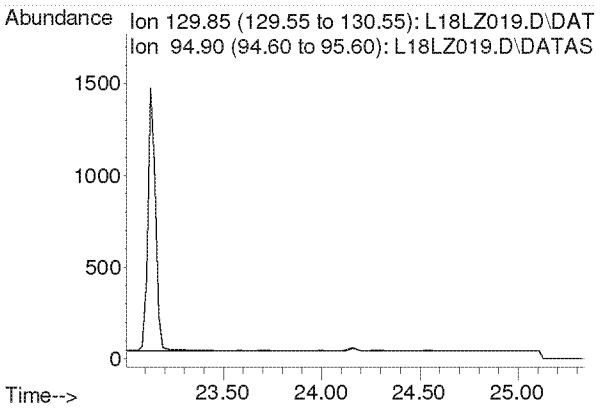


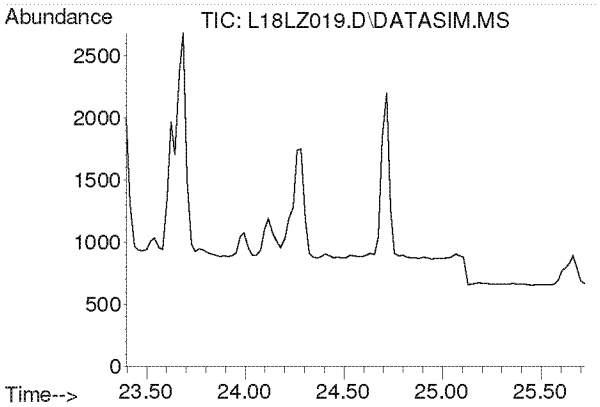
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



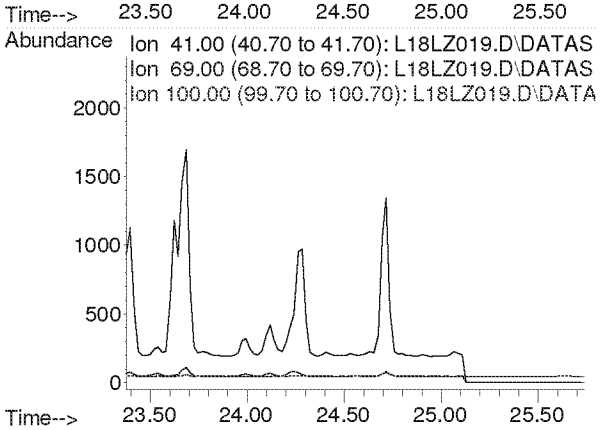


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

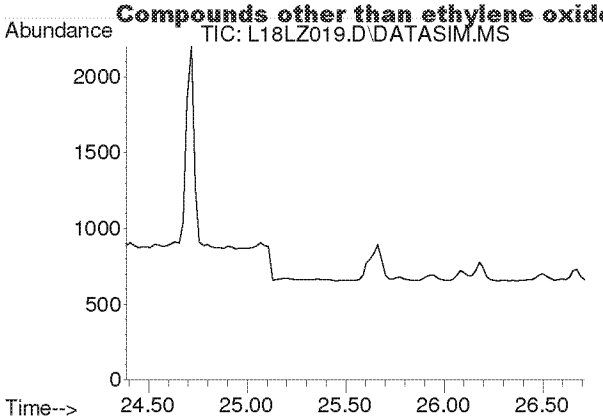
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

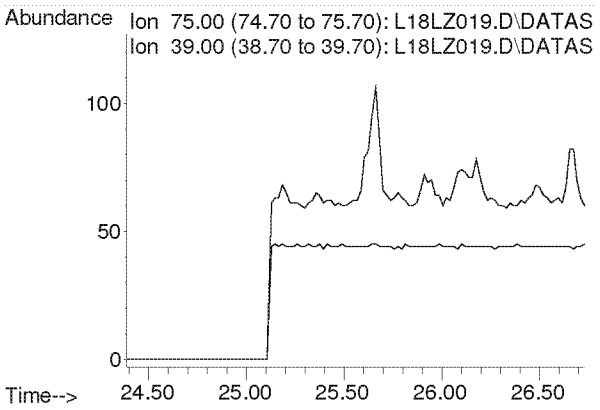


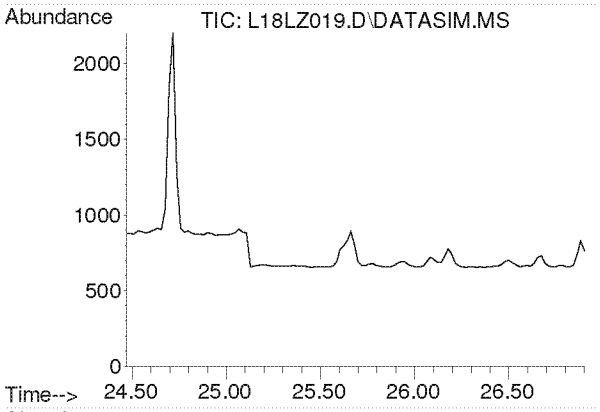
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



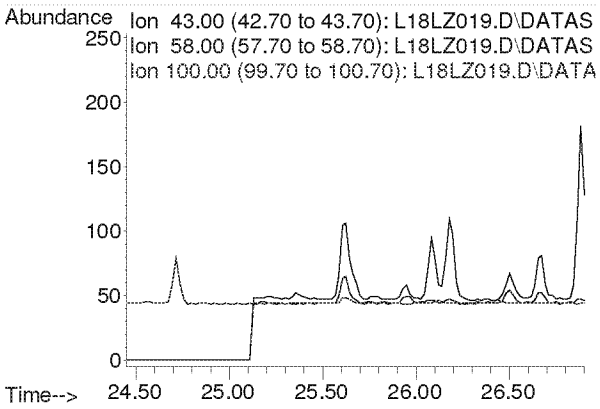


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

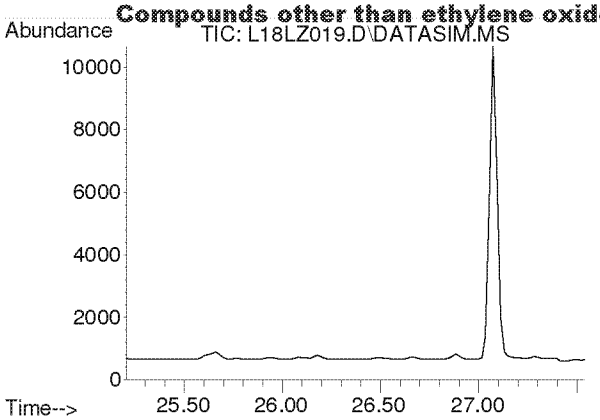
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

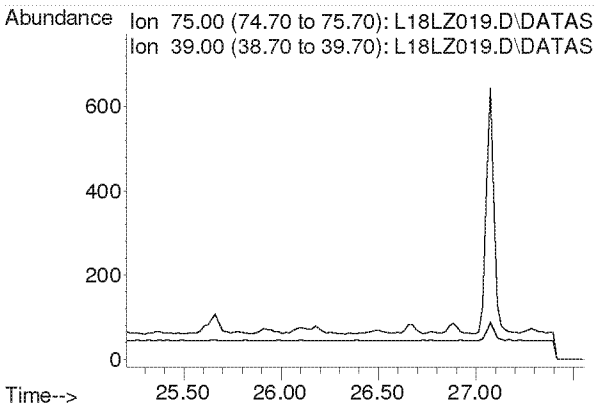


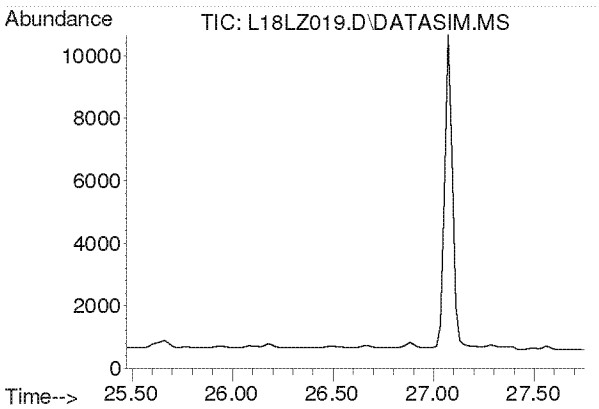
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



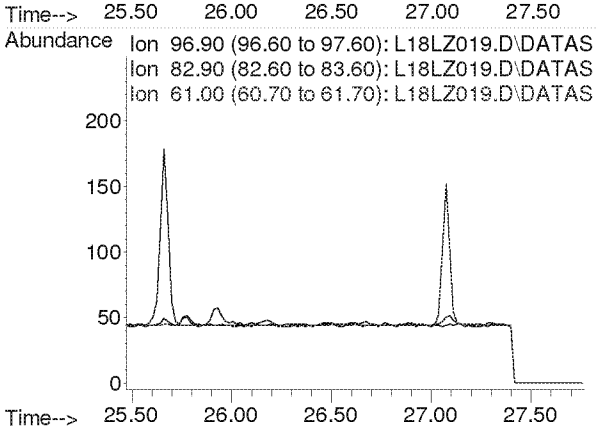


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

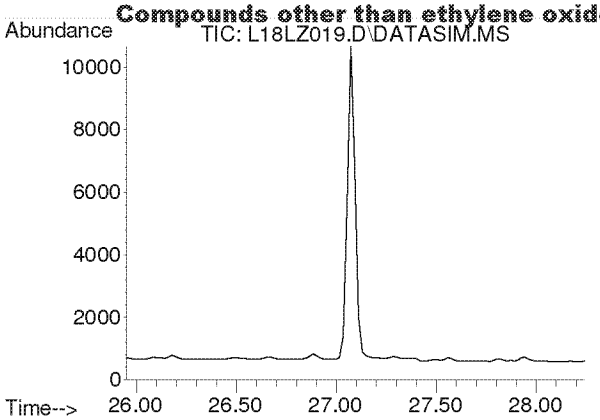
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

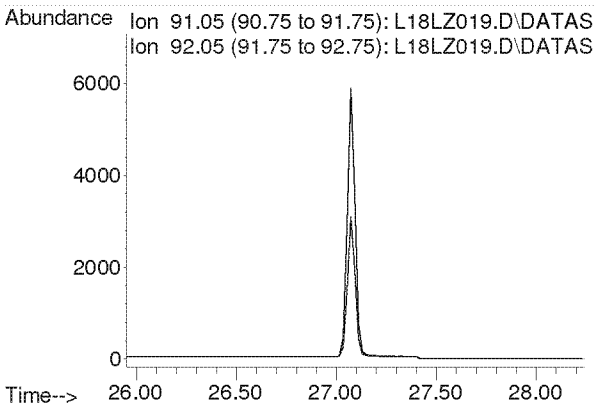


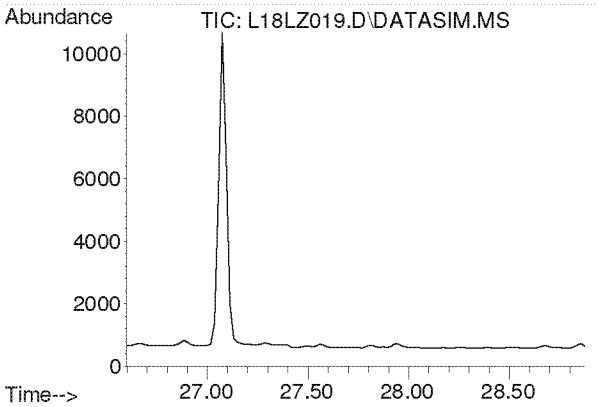
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



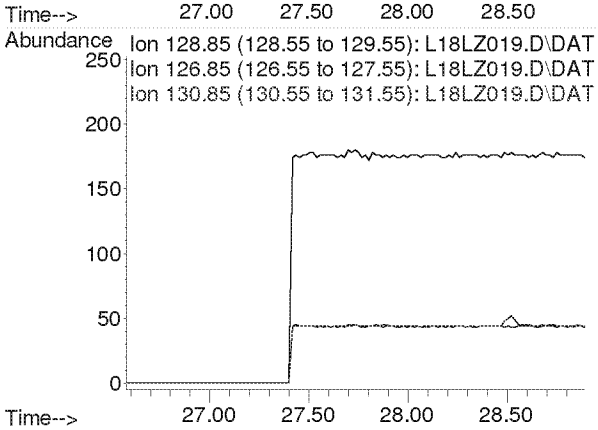


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

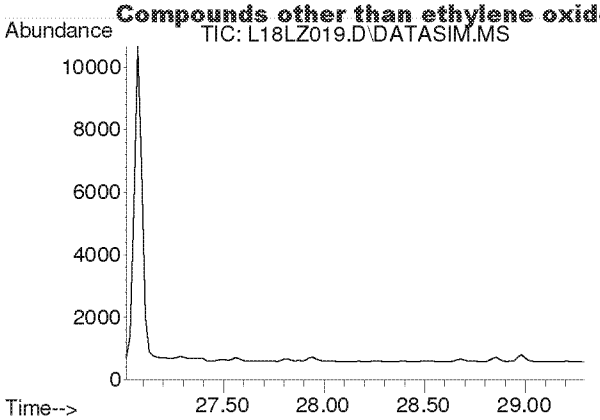
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

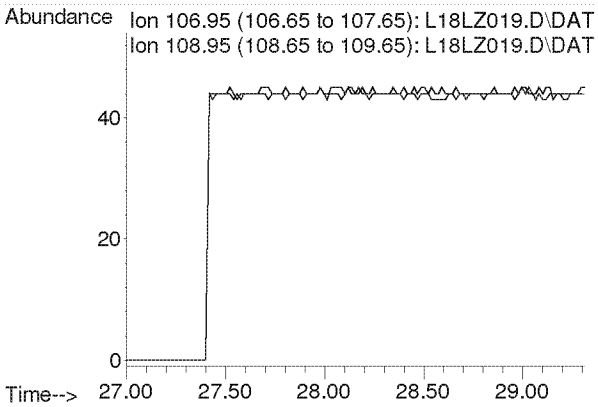


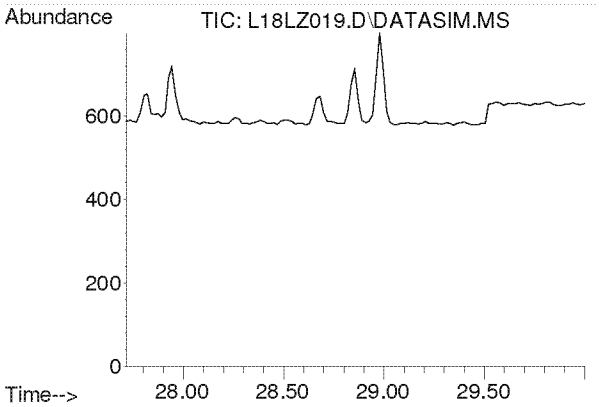
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



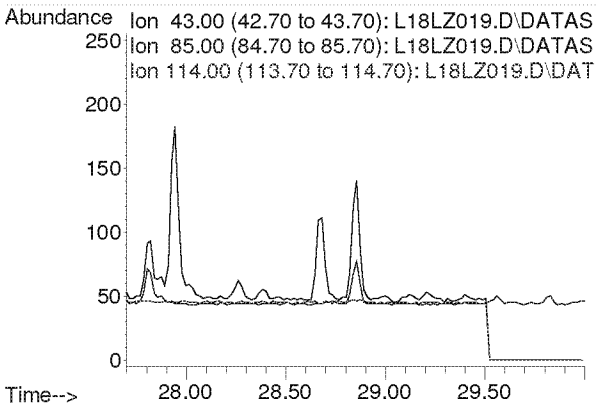


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

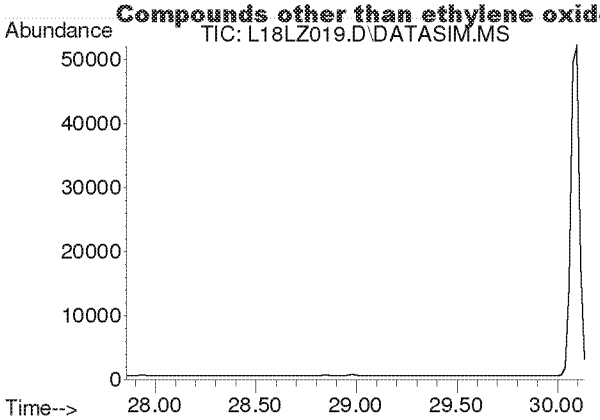
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

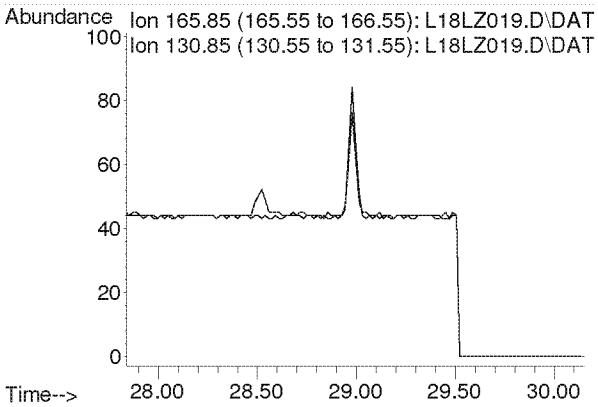


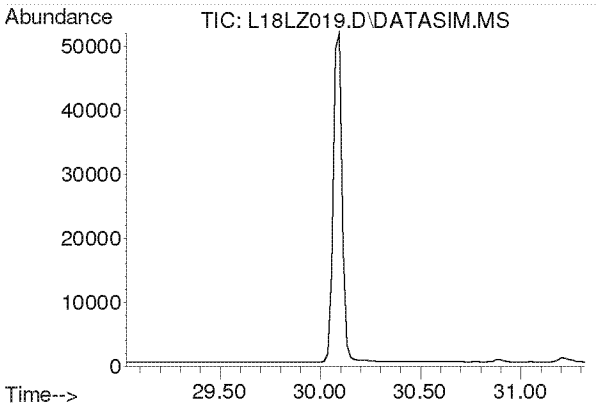
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



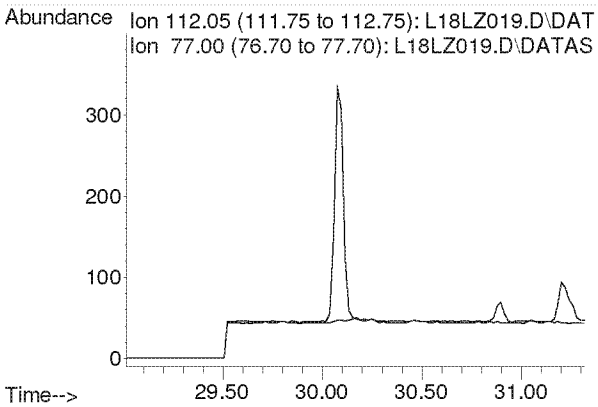


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

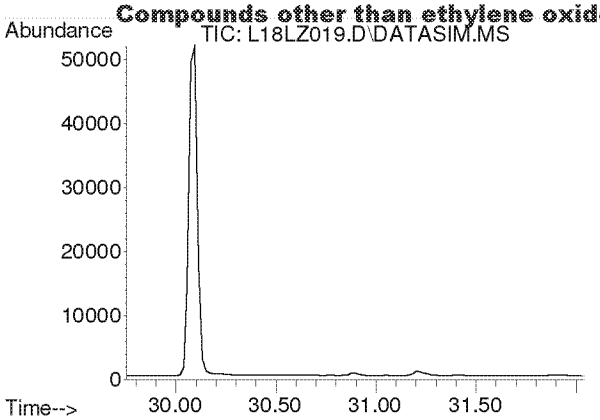
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

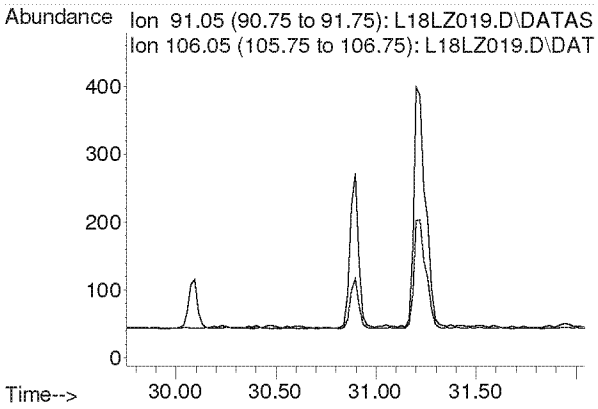


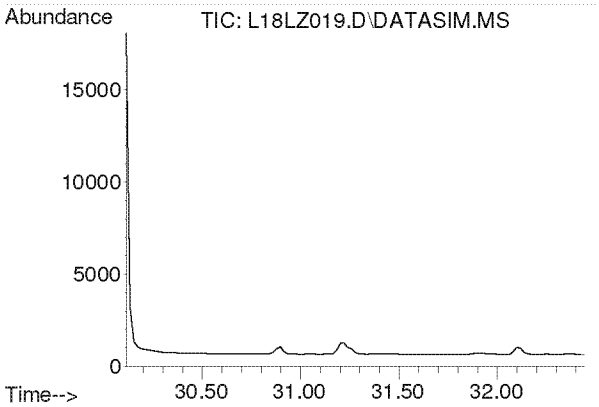
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



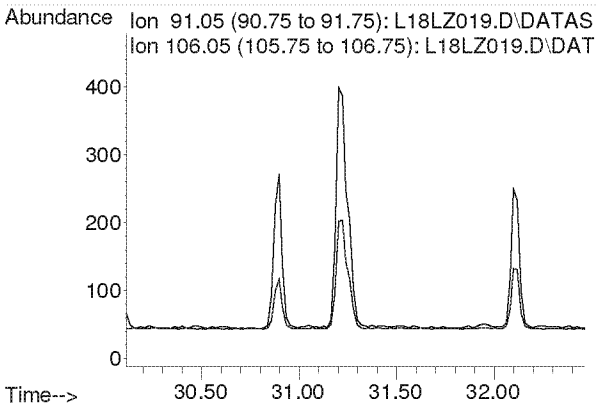


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

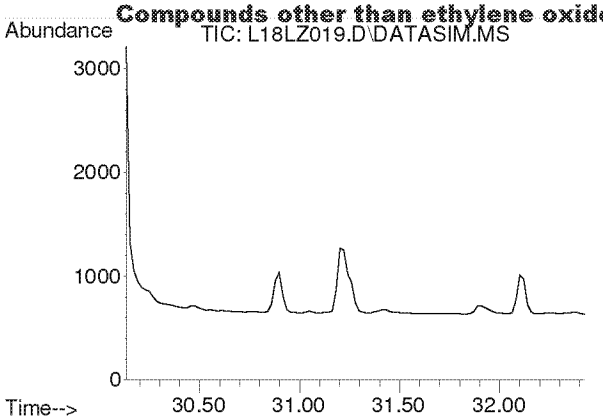
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

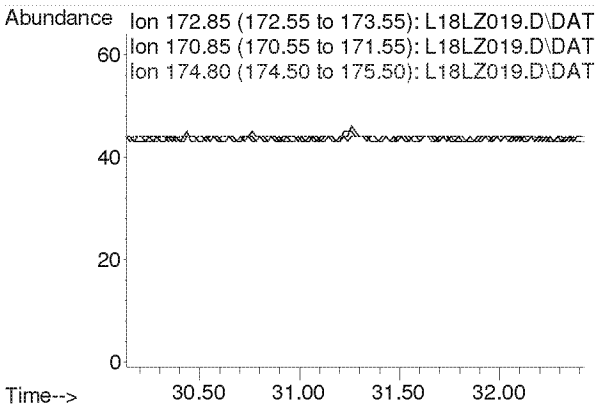


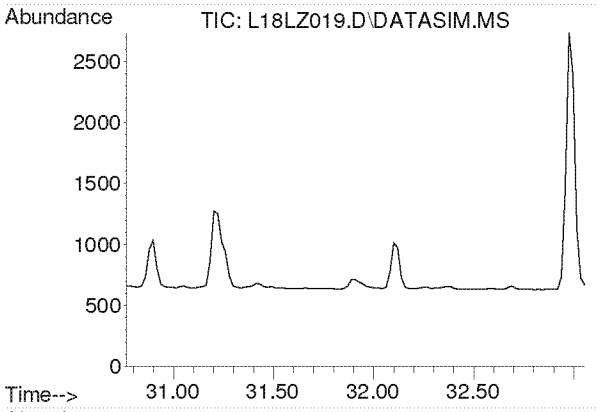
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



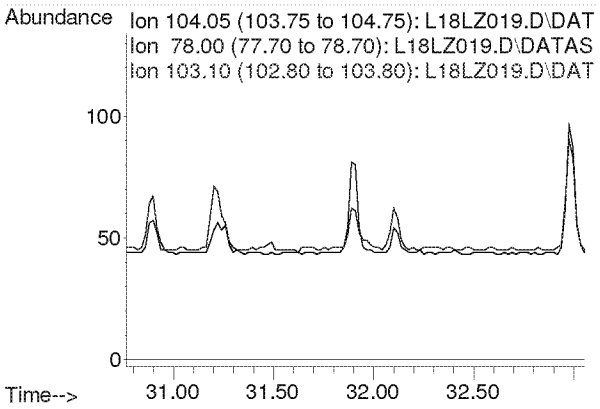


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

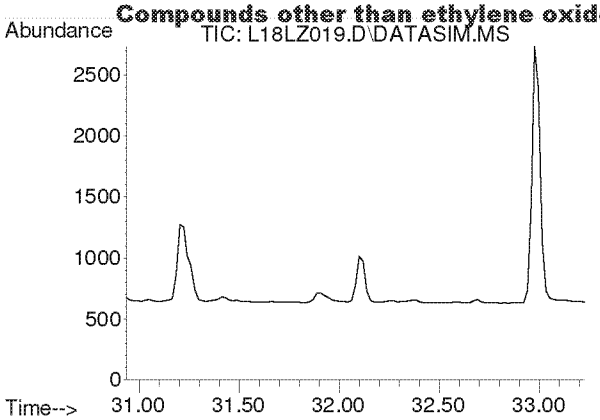
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

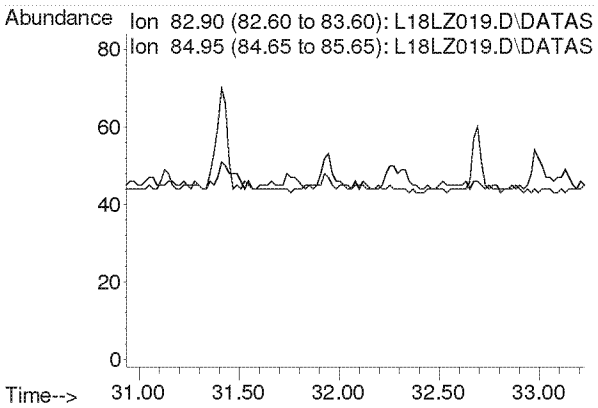


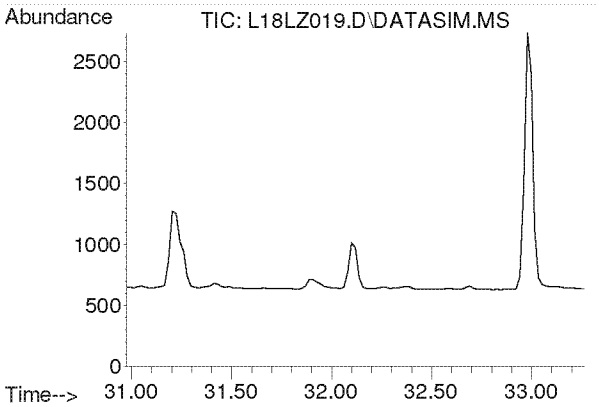
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



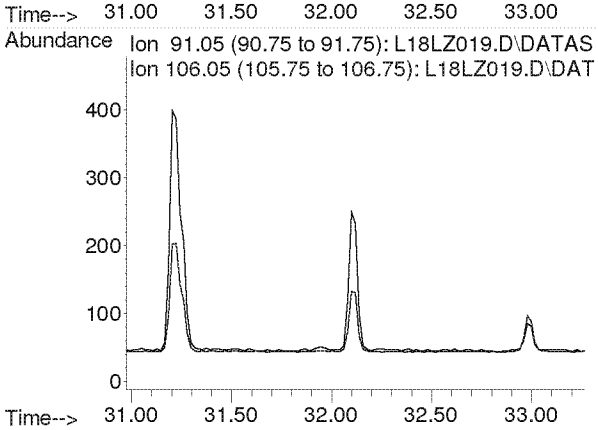


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

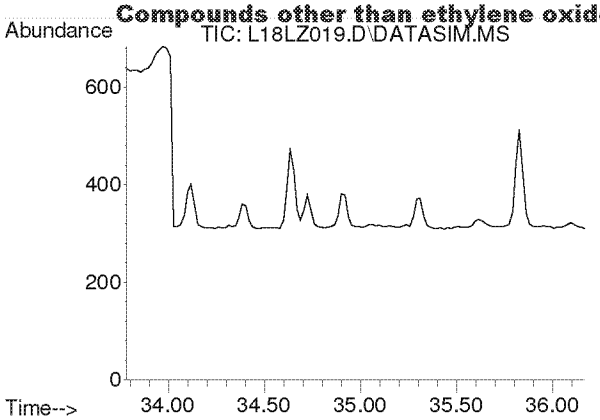
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

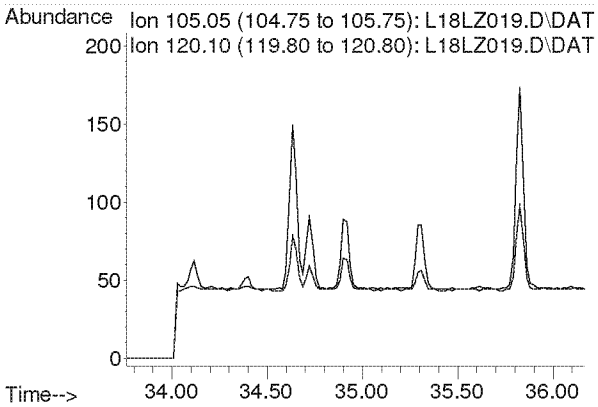


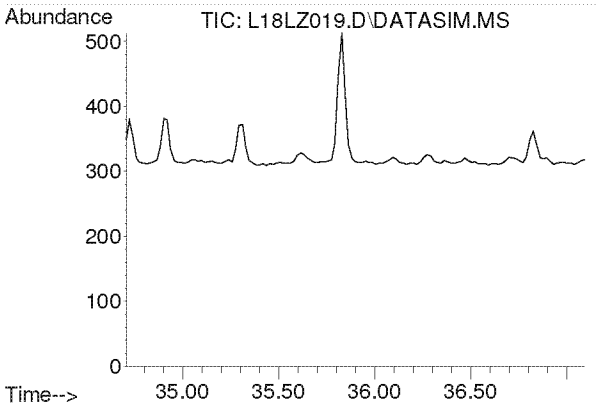
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



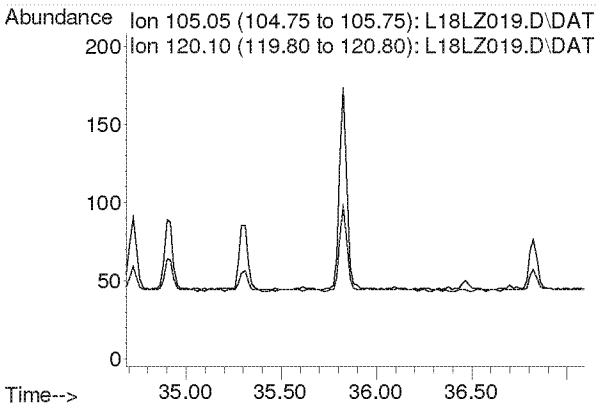


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

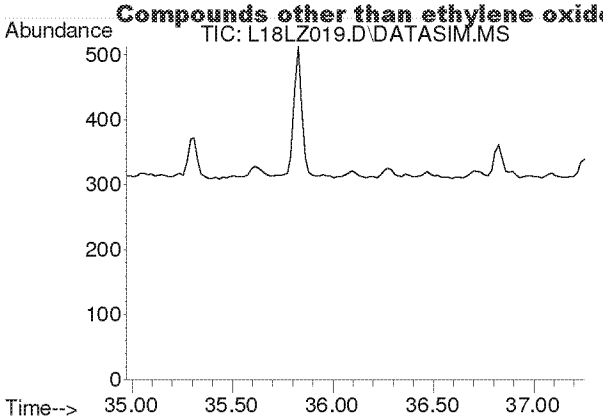
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

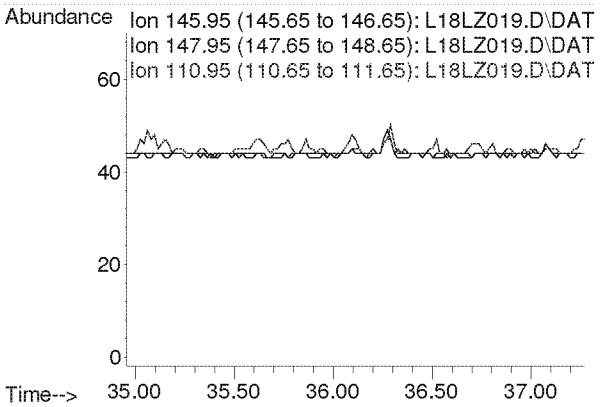


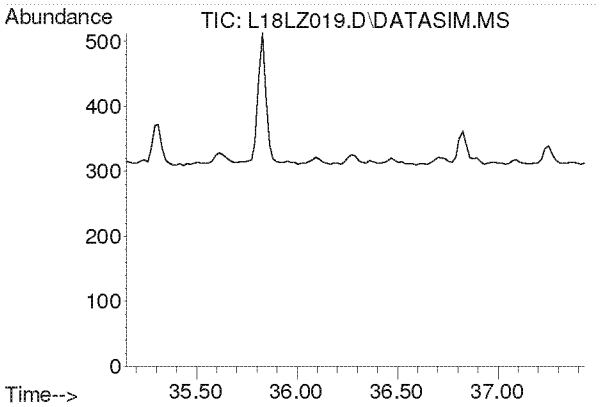
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



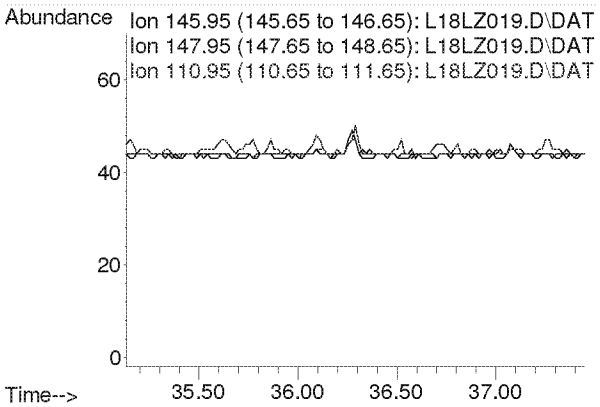


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

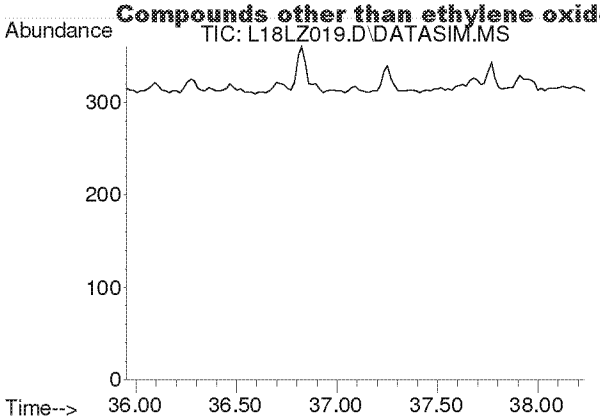
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

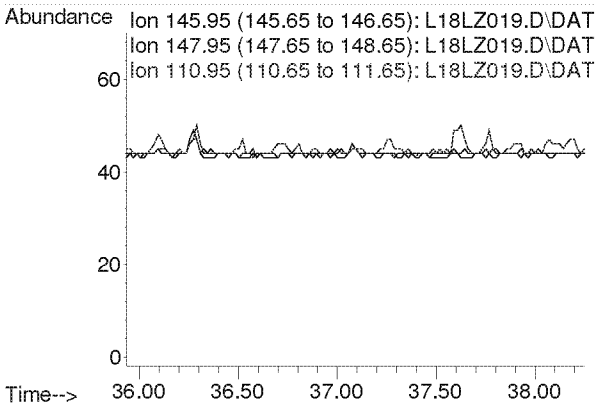


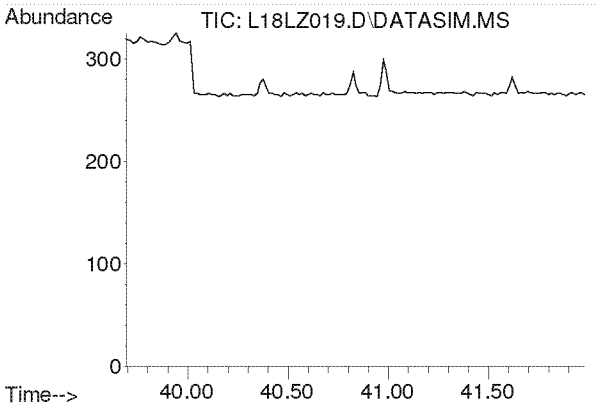
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



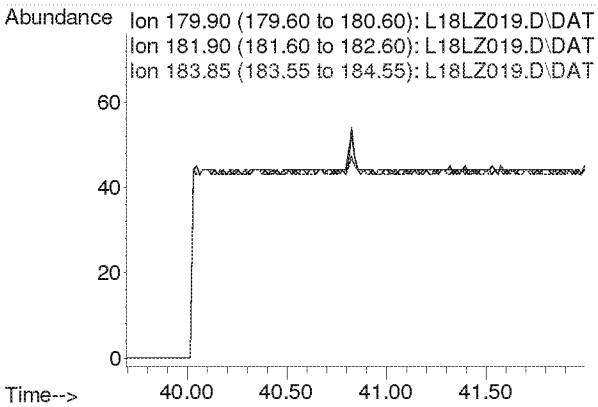


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

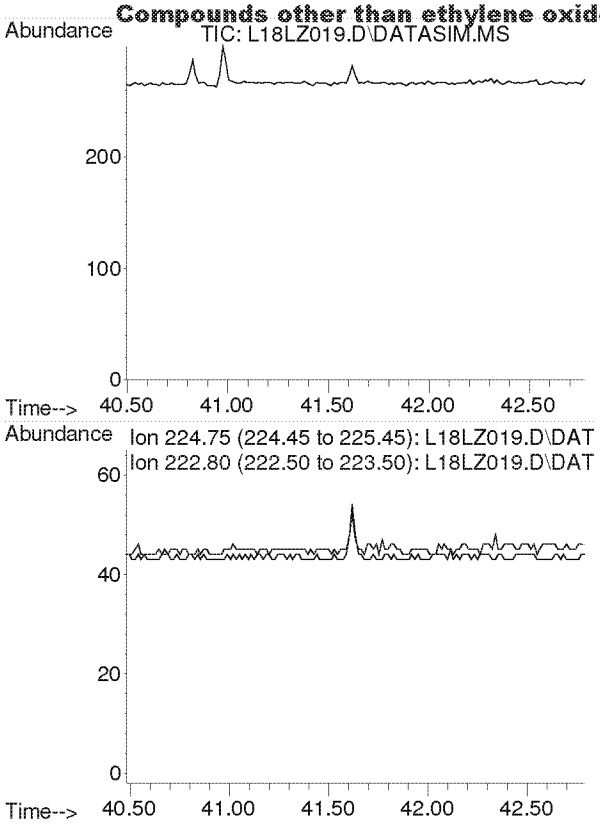
Lab File: L18LZ019.D
Acq: 27 Dec 2018 5:58 am

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: L18LZ019.D
Acq: 27 Dec 2018 5:58 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\L18LZ\
Data File : L18LZ020.D
Acq On : 27 Dec 2018 7:01 am
Operator : MAH
Sample : B8L2603-DUP3
Misc : WILLOWBROOK HS R1 12/7/18
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jan 03 11:18:37 2019
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	19.970	66	53525	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	126910	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.096	117	86220	4.7400 ppbv	0.00

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	12.365	29	20356	6.3627 ppbv	94
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.	
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\L18LZ\
Data File : L18LZ020.D
Acq On : 27 Dec 2018 7:01 am
Operator : MAH
Sample : B8L2603-DUP3
Misc : WILLOWBROOK HS R1 12/7/18
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jan 03 11:18:37 2019
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.	d

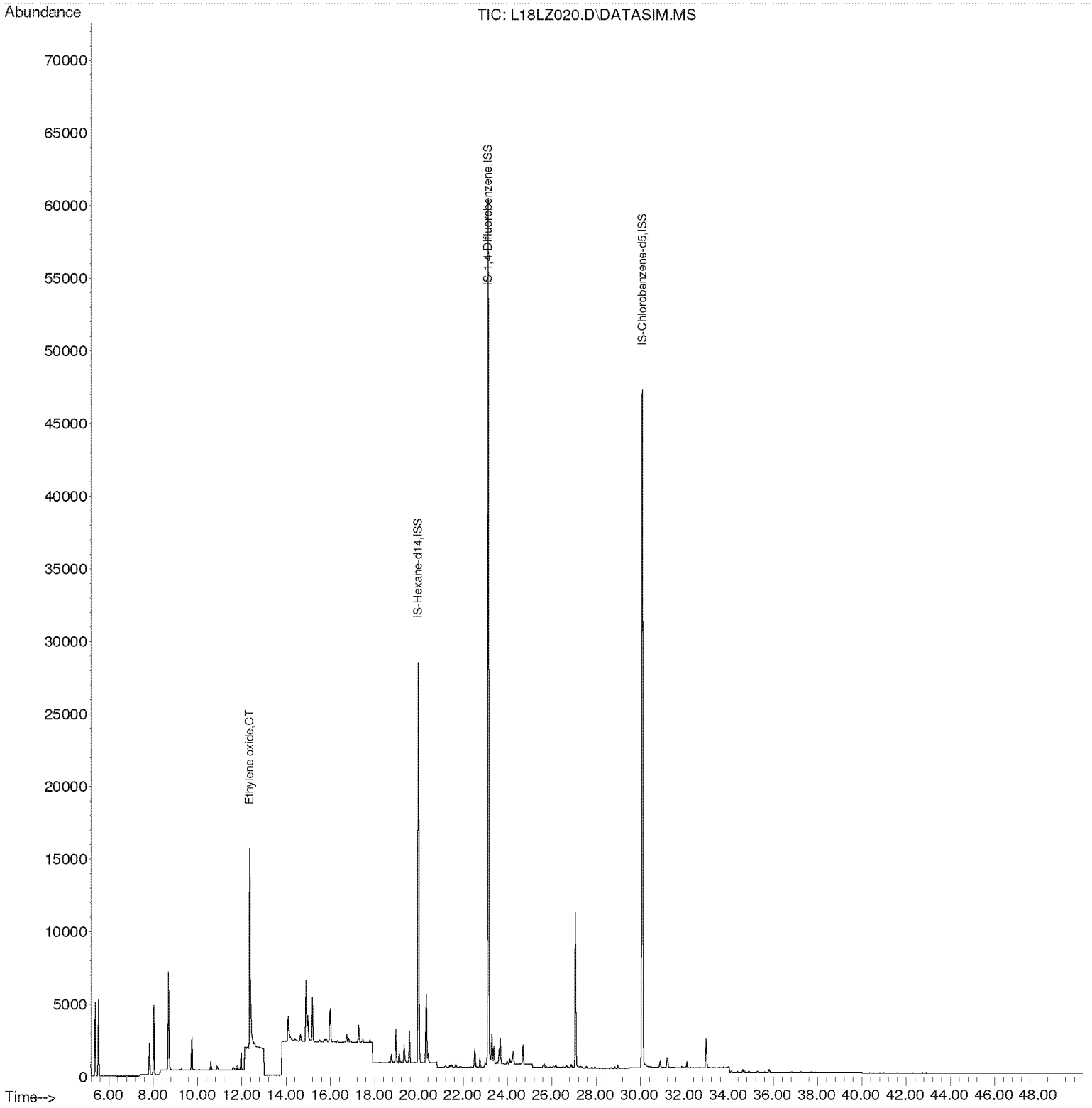
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000324-00614

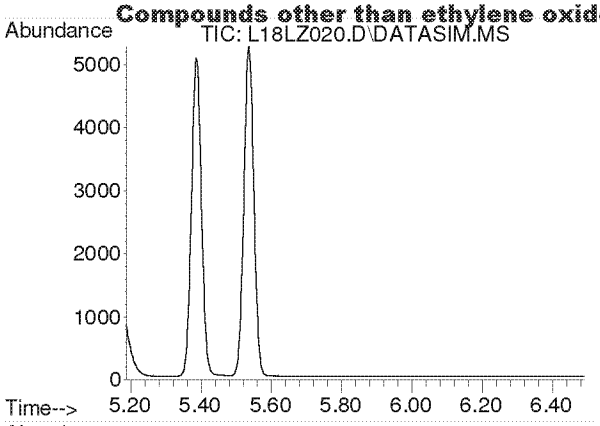
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ020.D
Acq On : 27 Dec 2018 7:01 am
Operator : MAH
Sample : B8L2603-DUP3
Misc : WILLOWBROOK HS R1 12/7/18
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jan 03 10:37:50 2019
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



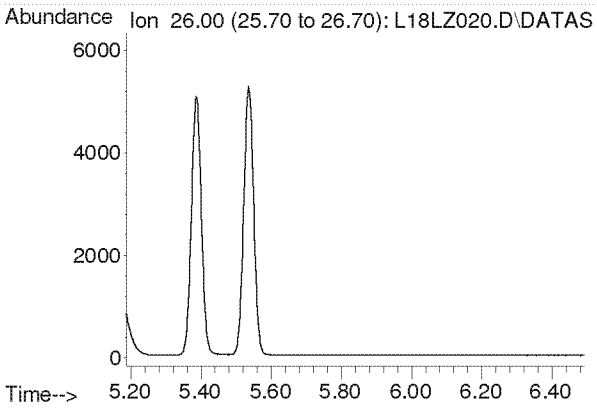
Compounds other than ethylene oxide were not quantitated.

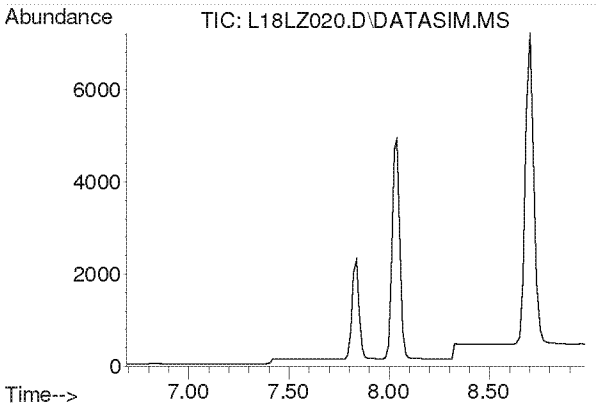


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 26



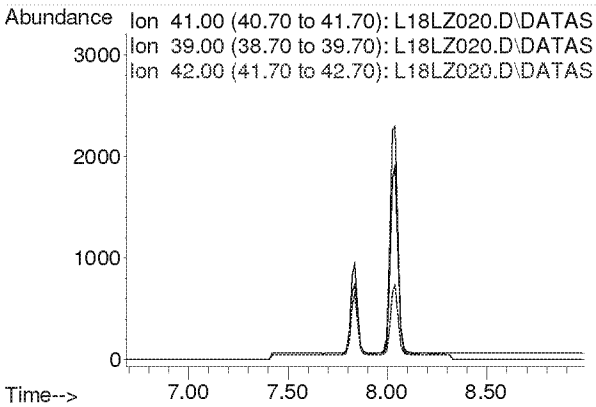


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

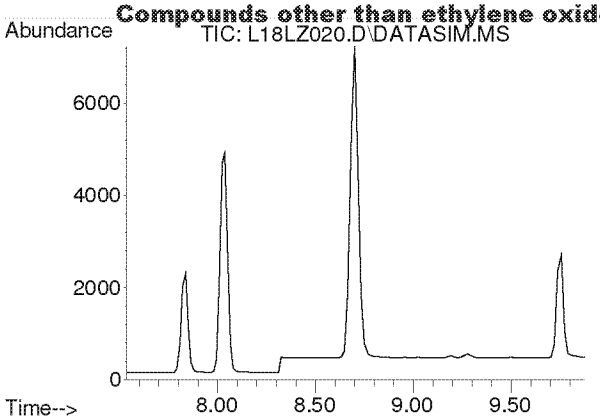
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

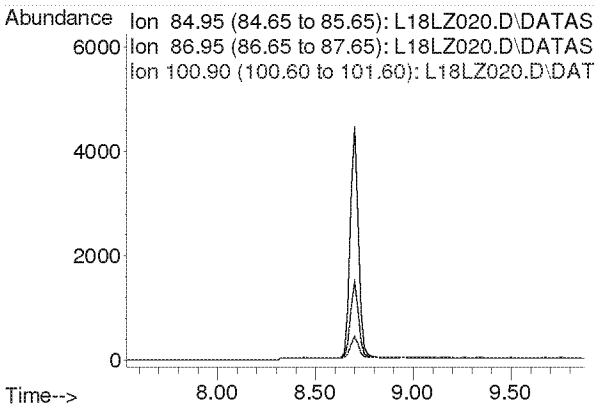


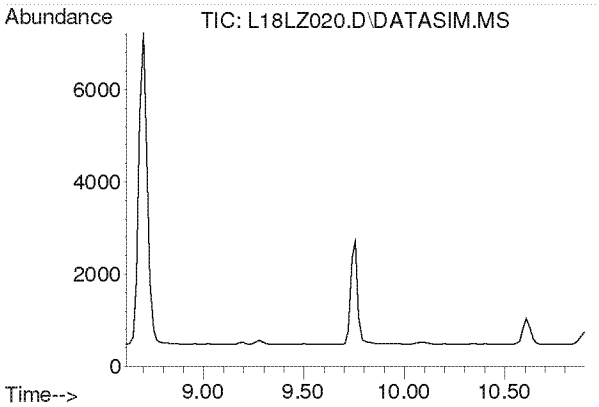
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



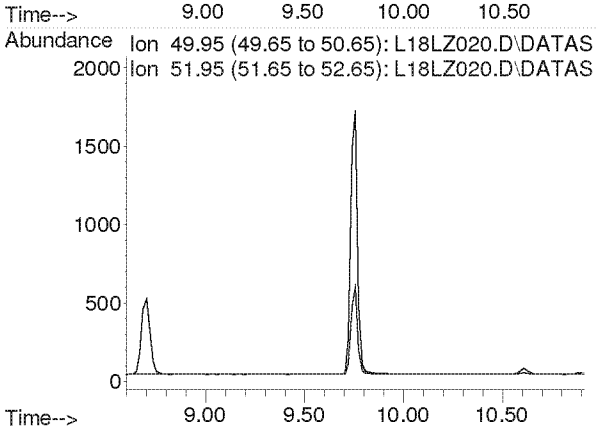


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

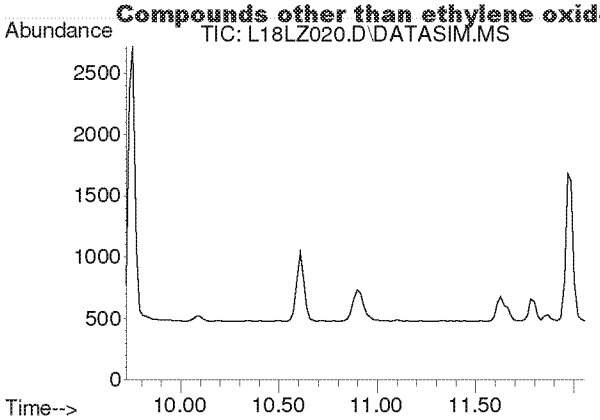
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

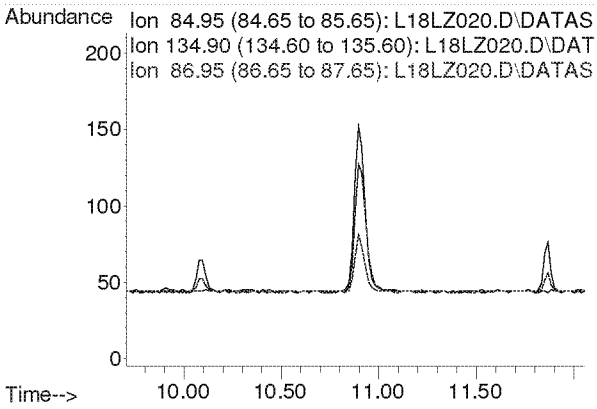


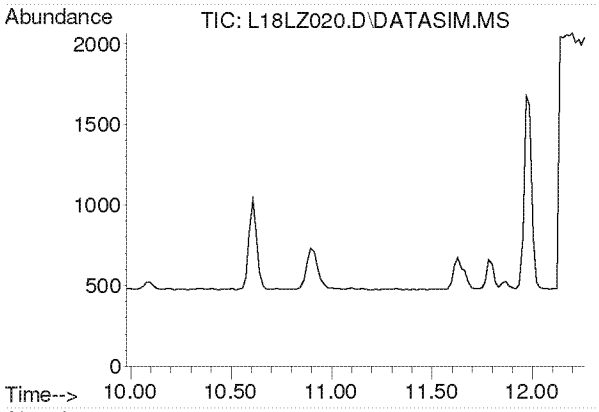
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



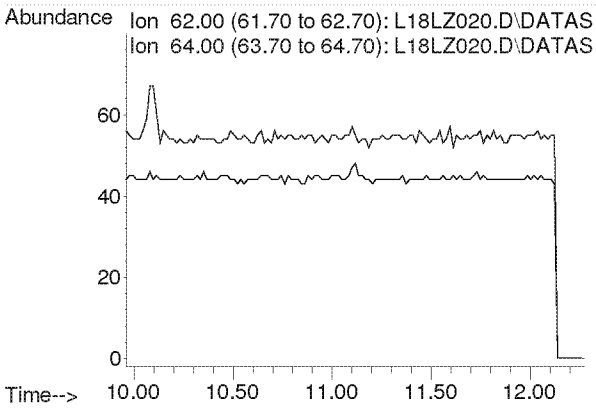


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

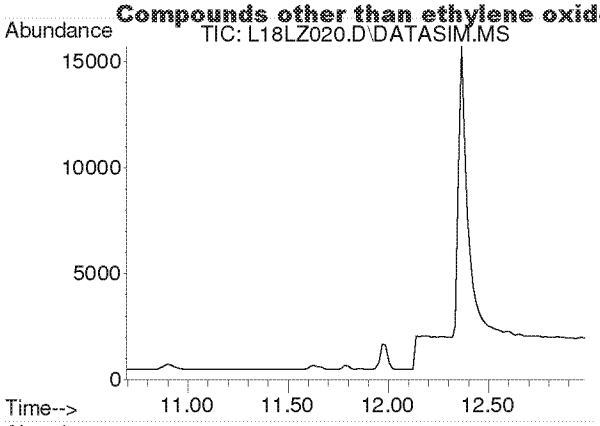
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

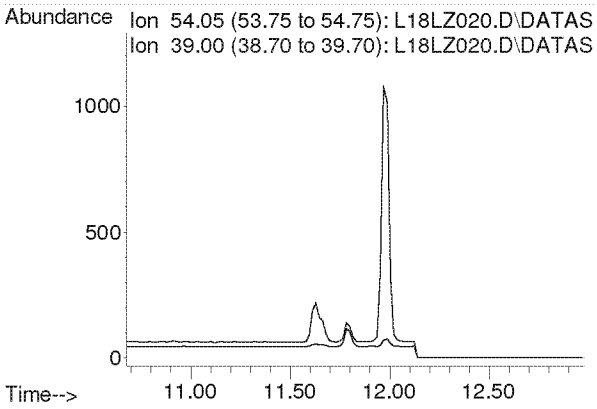


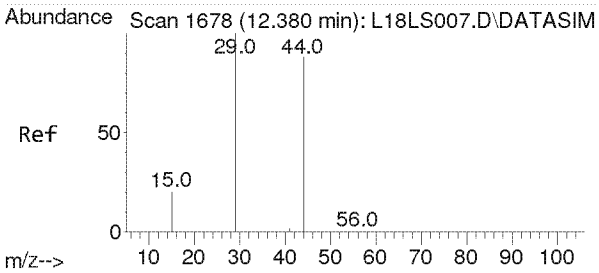
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

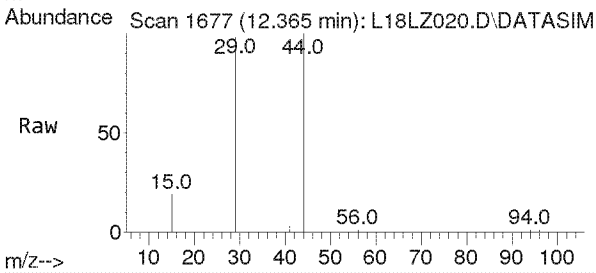


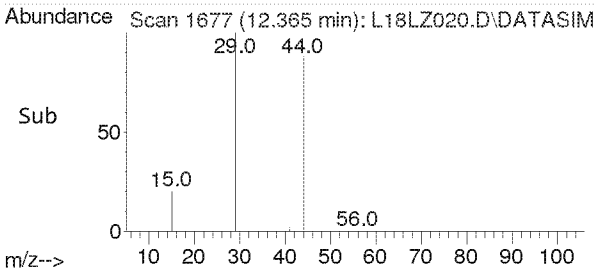


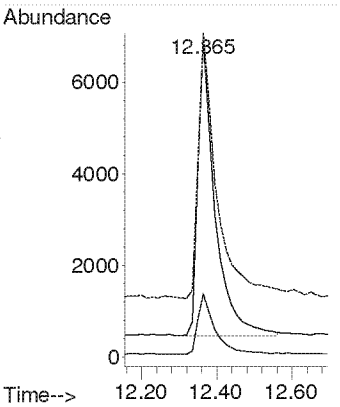
#9
Ethylene oxide
Concen: 6.363 ppbv
RT: 12.365 min Scan# 1677
Delta R.T. -0.015 min
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 29 Resp: 20356

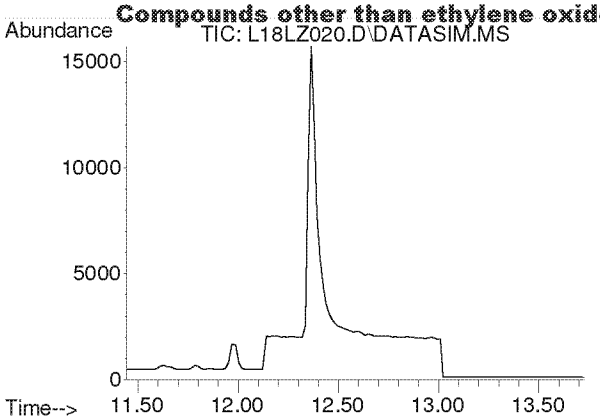
Ion	Ratio	Lower	Upper
29	100		
15	20.2	16.2	24.4
44	96.3	72.0	108.0







Compounds other than ethylene oxide were not quantitated.

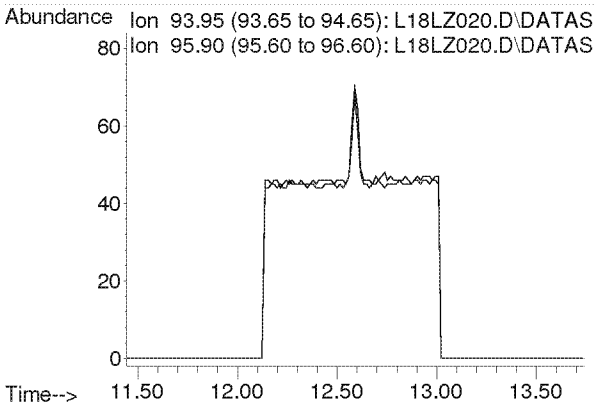


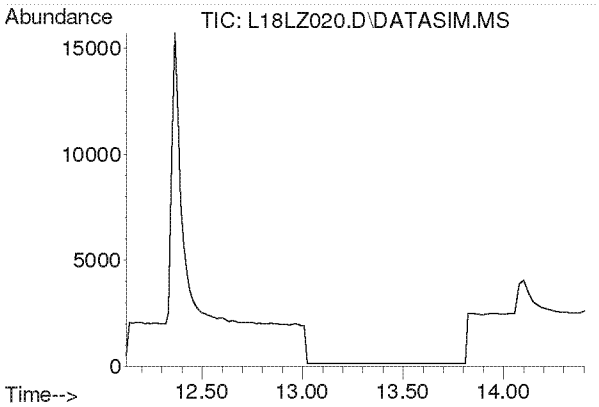
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



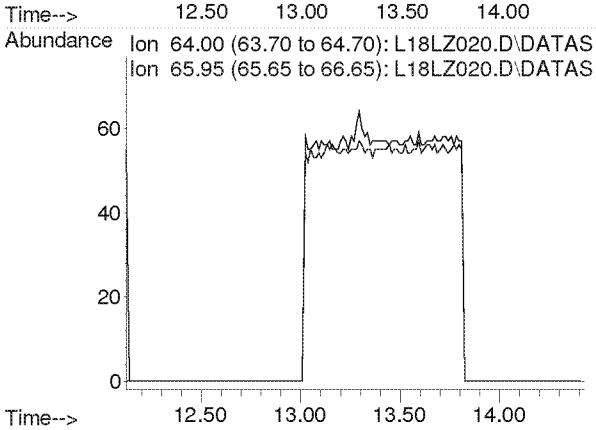


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

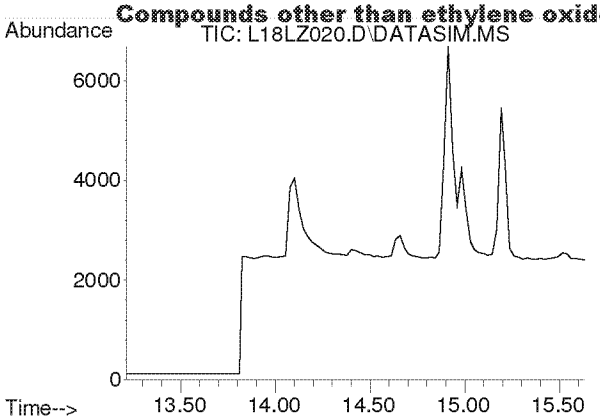
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

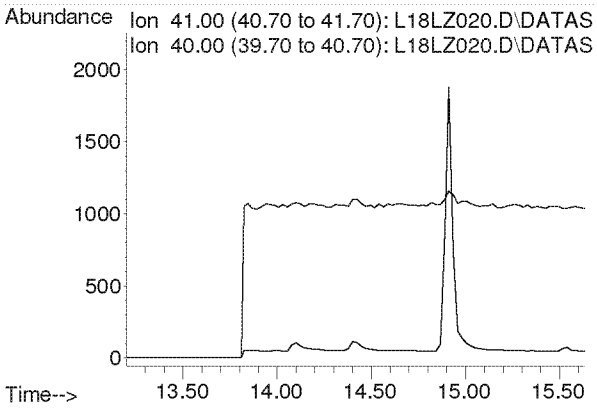


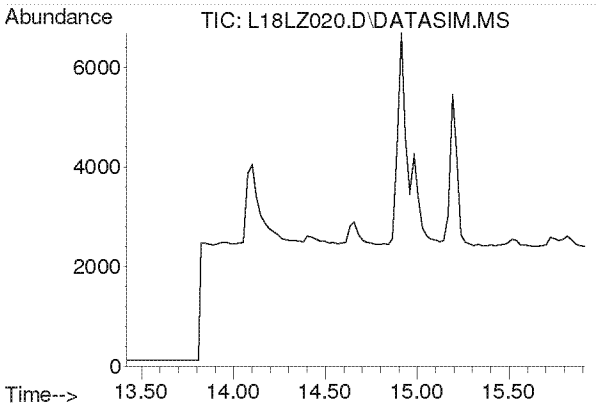
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



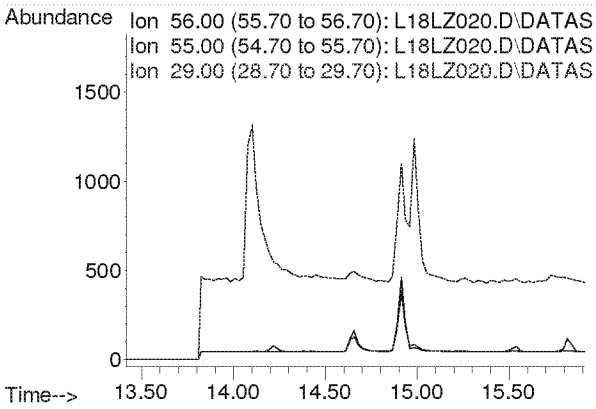


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

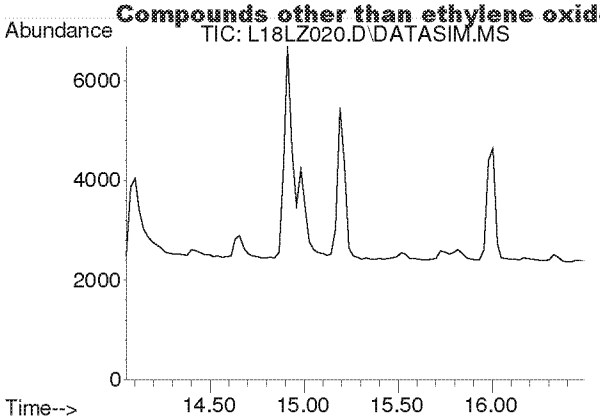
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

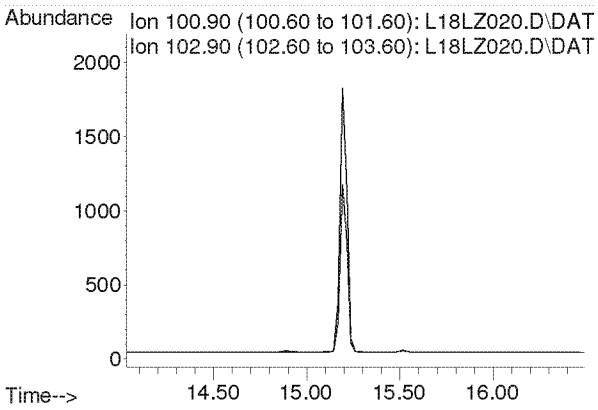


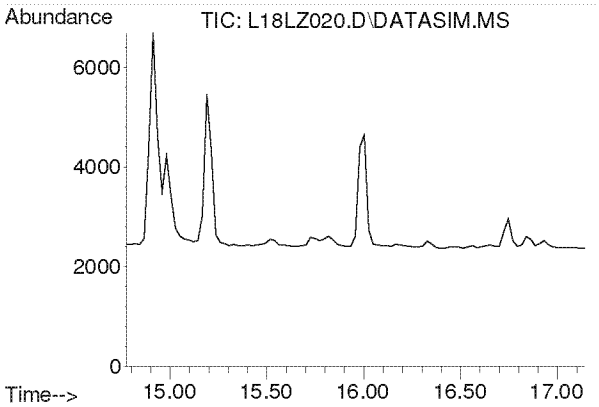
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



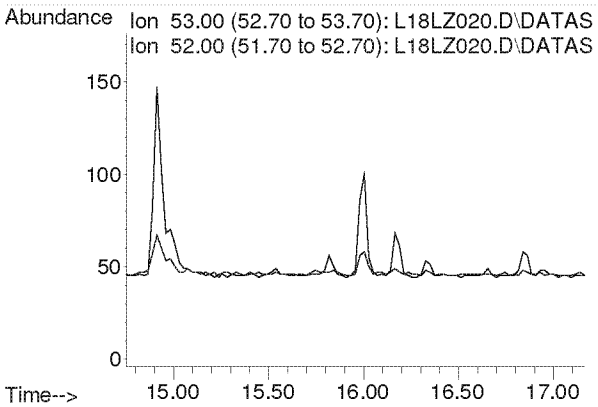


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

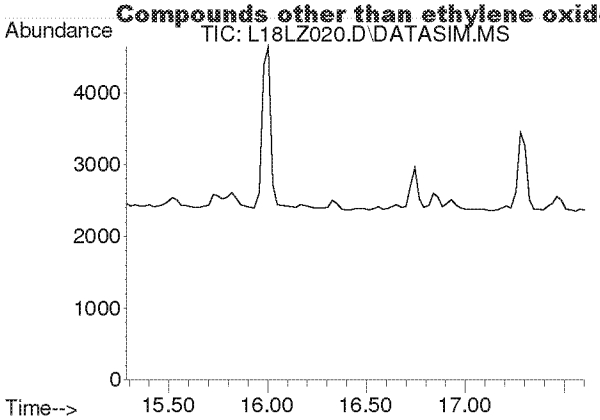
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

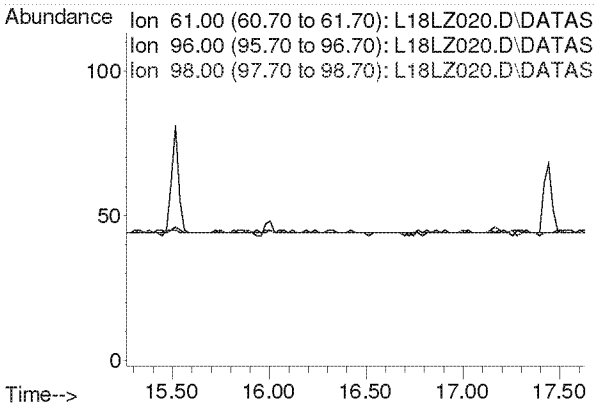


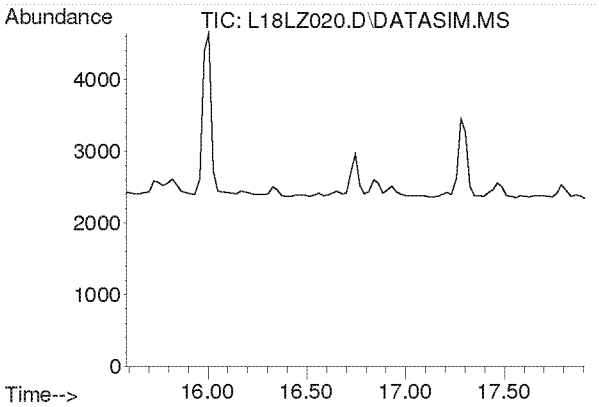
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



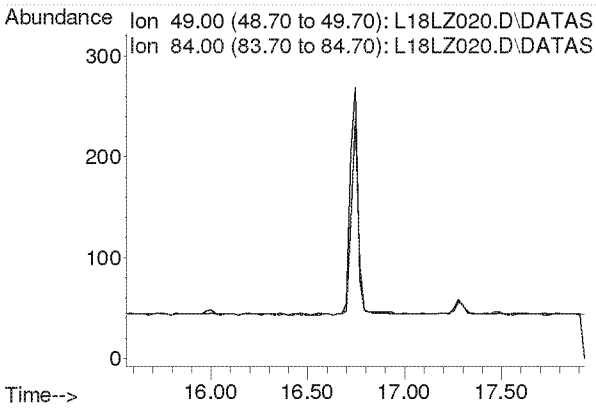


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

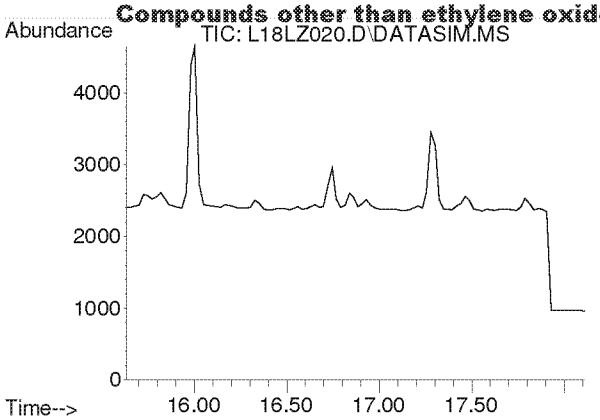
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

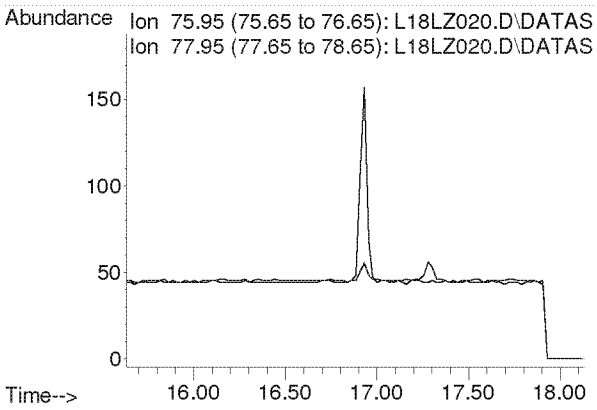


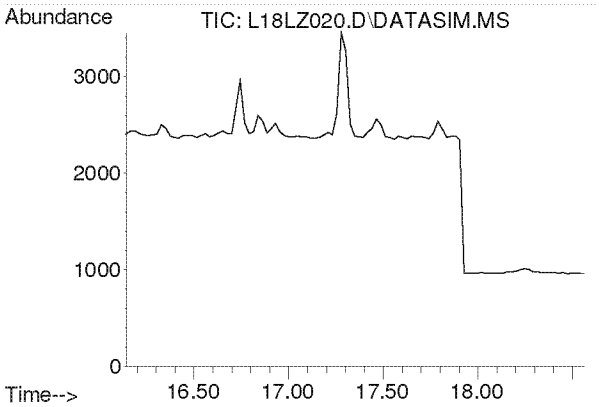
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



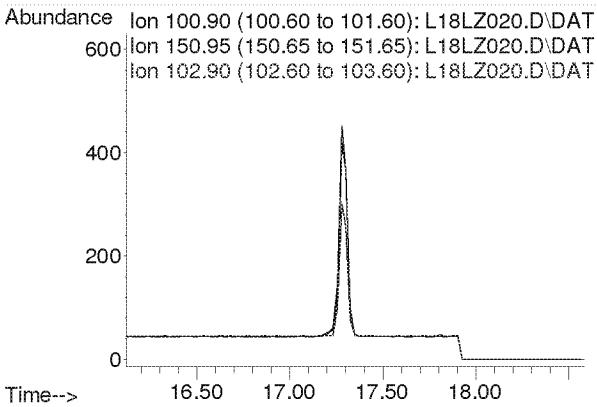


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

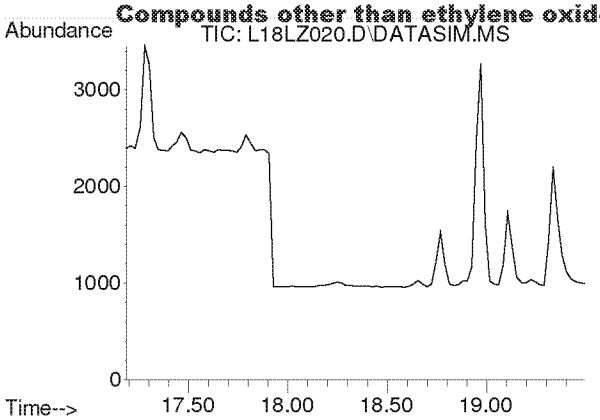
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

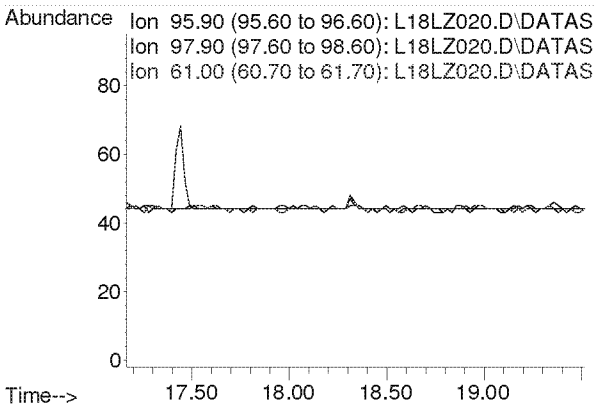


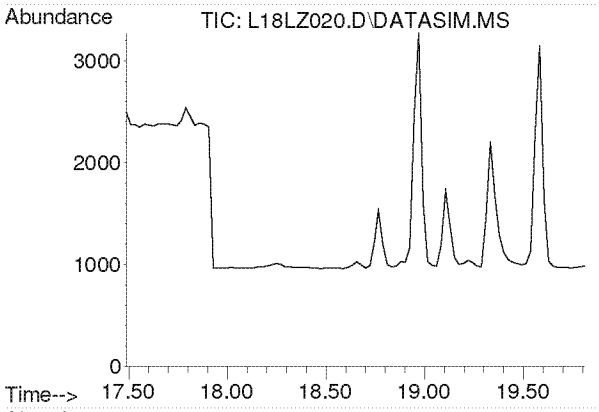
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



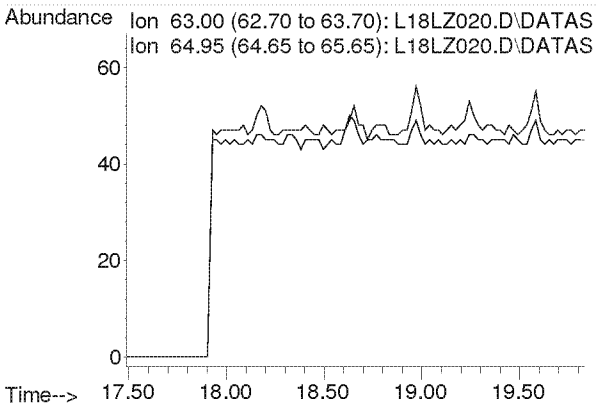


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

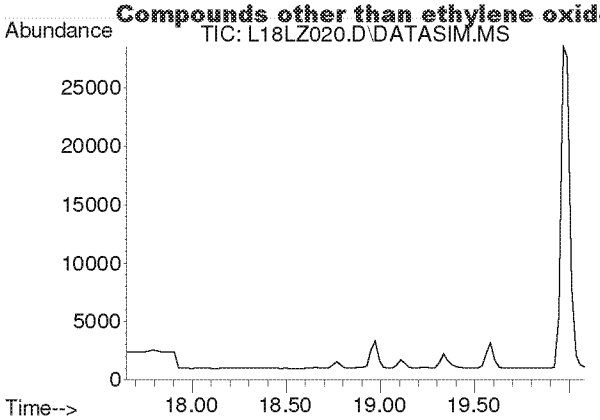
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

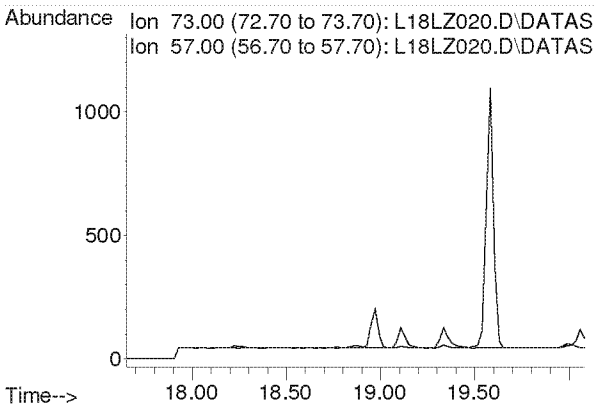


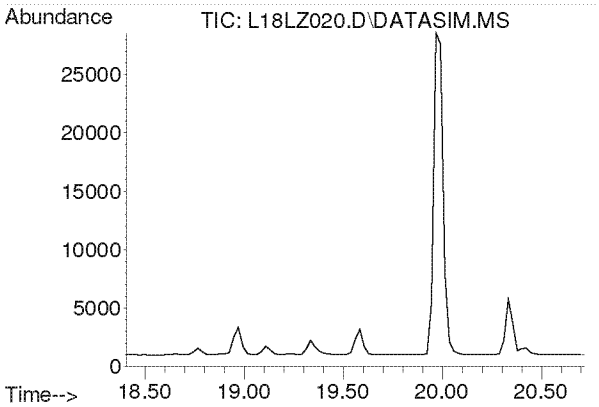
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



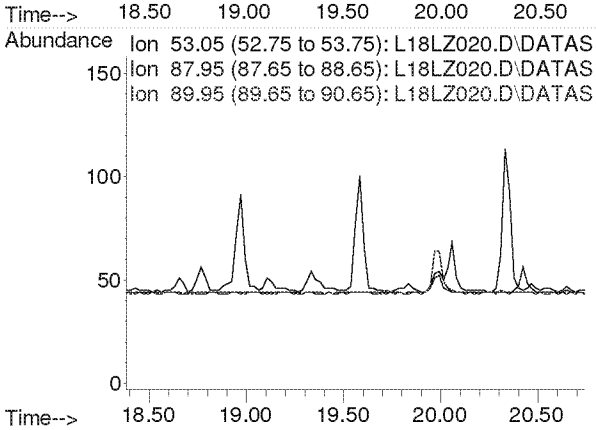


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

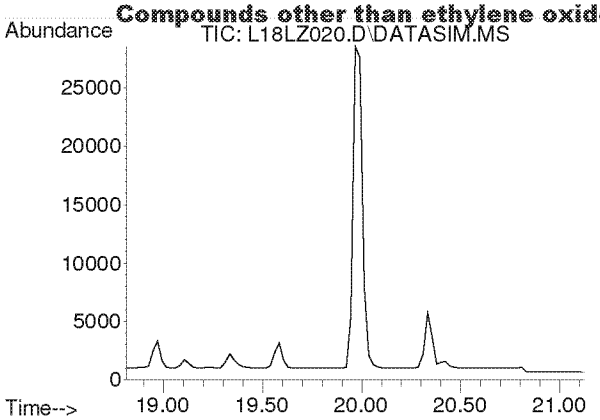
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

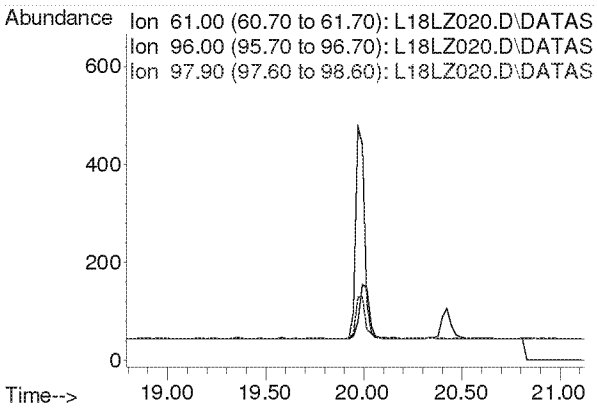


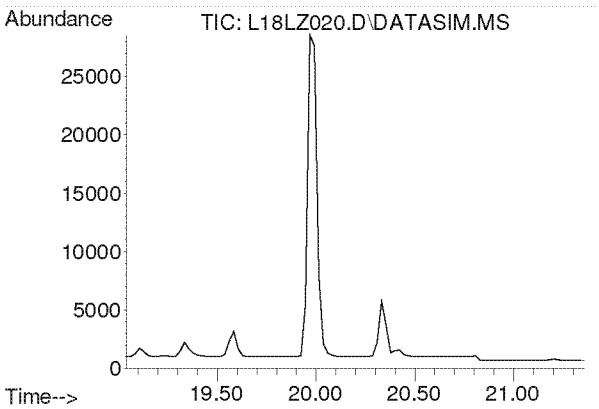
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



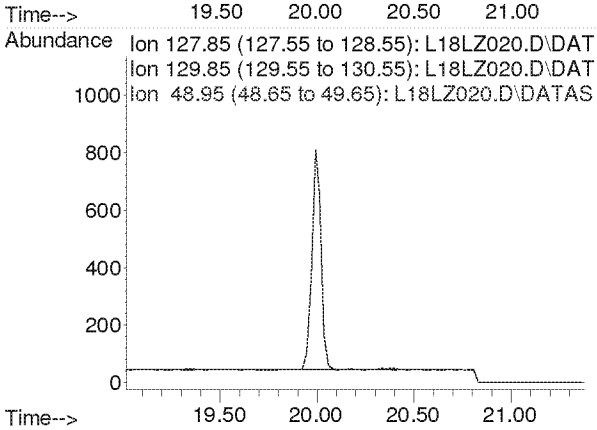


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

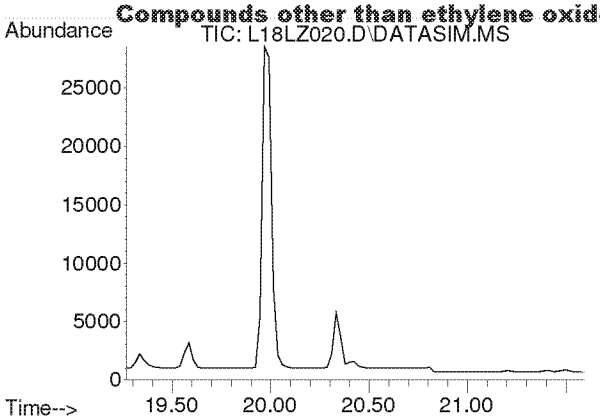
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

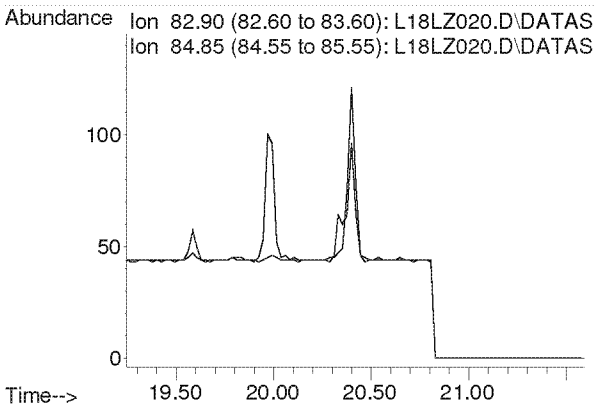


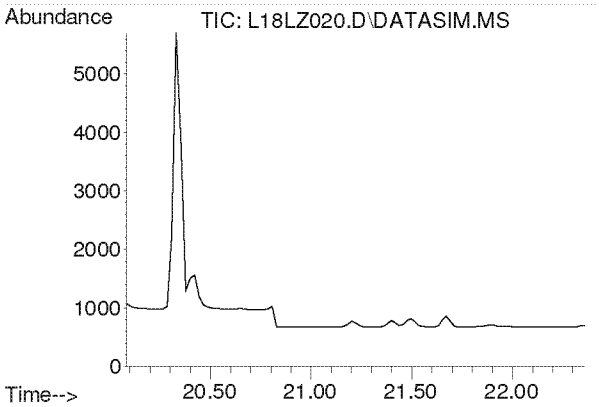
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



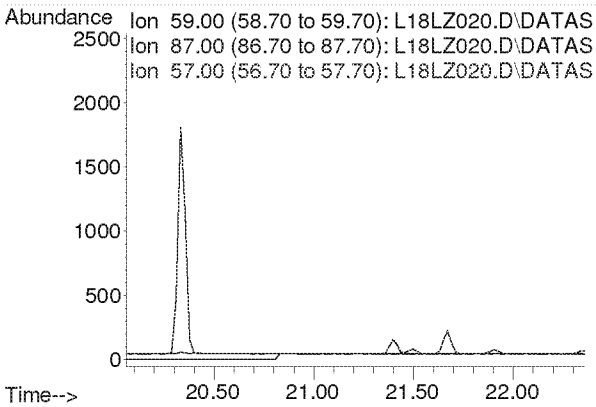


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

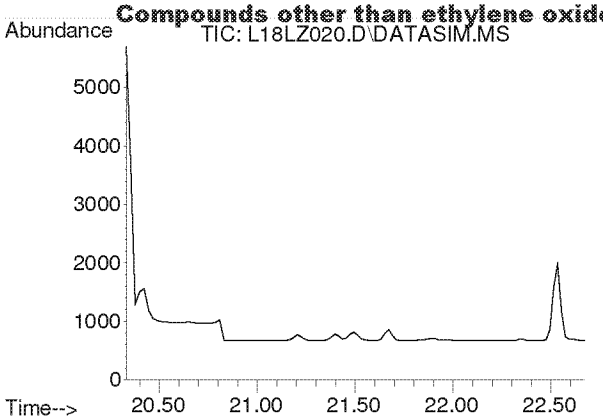
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

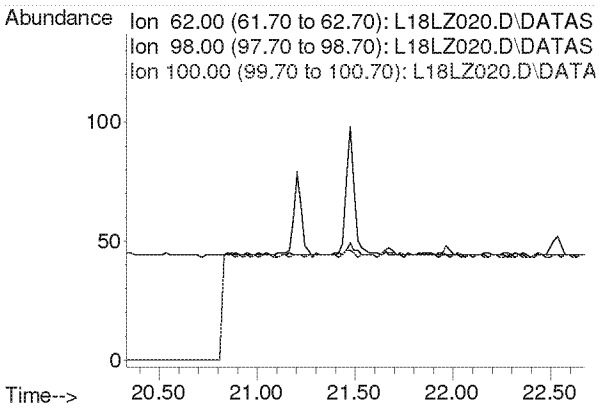


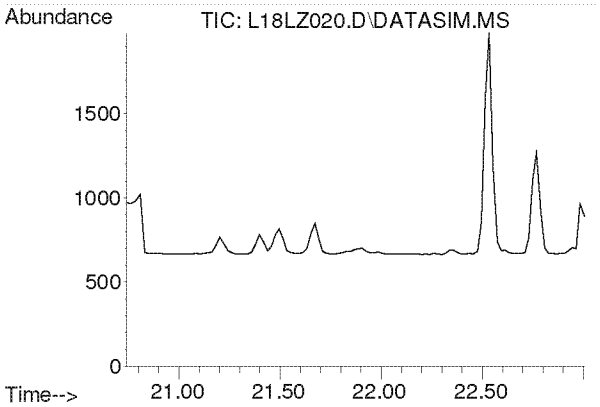
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



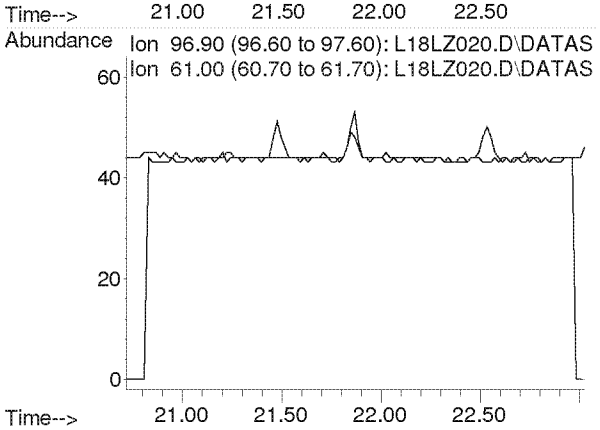


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

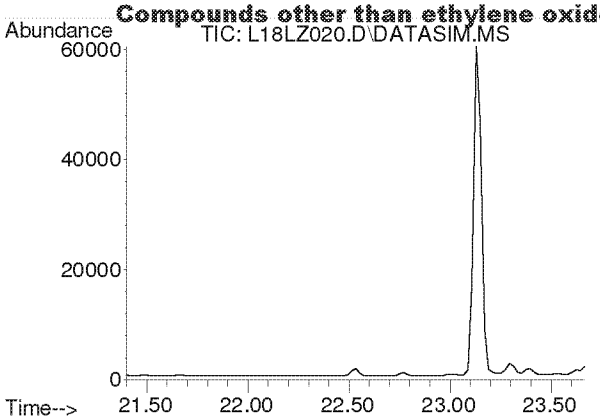
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

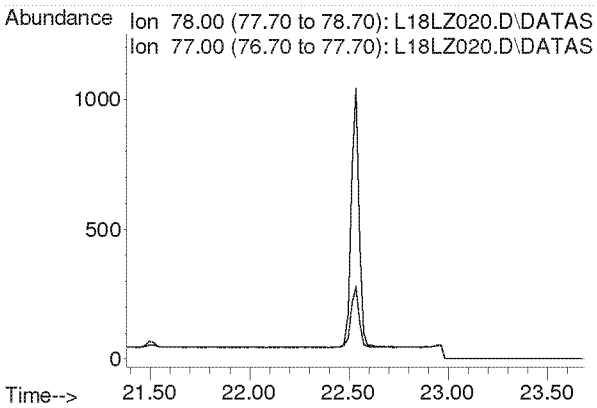


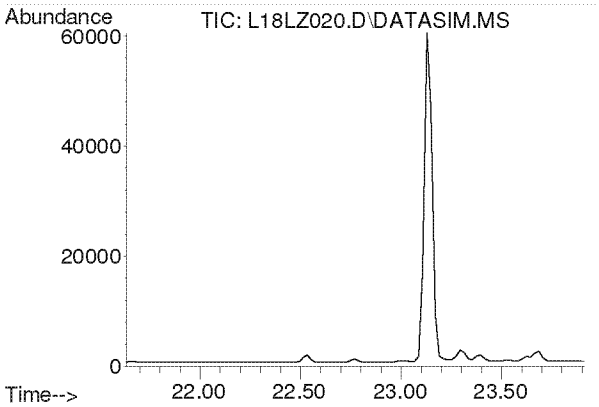
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



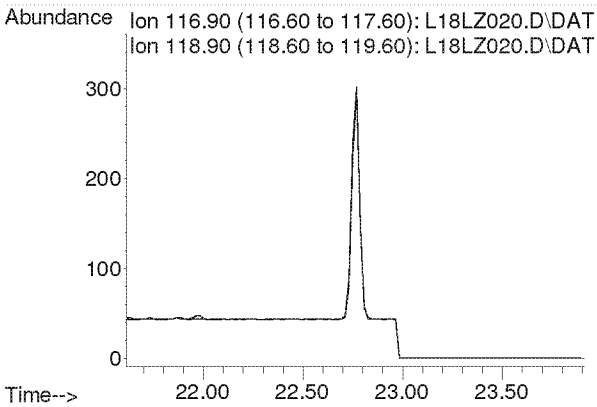


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

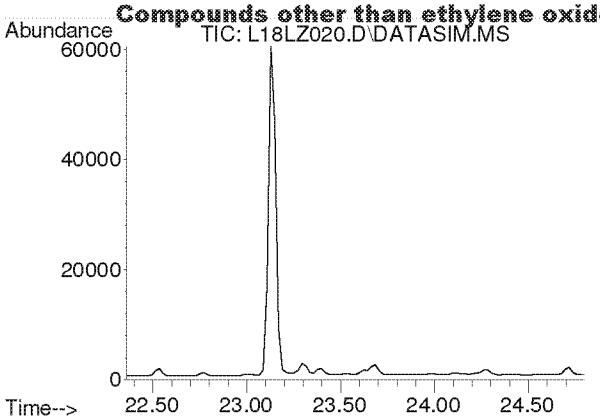
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

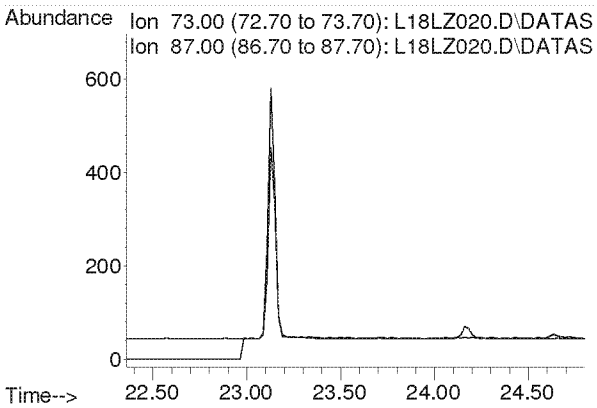


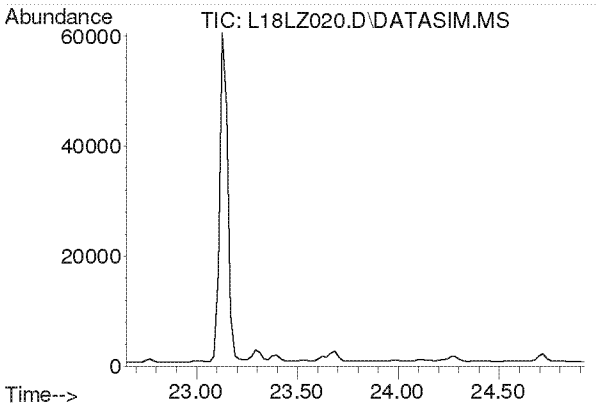
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



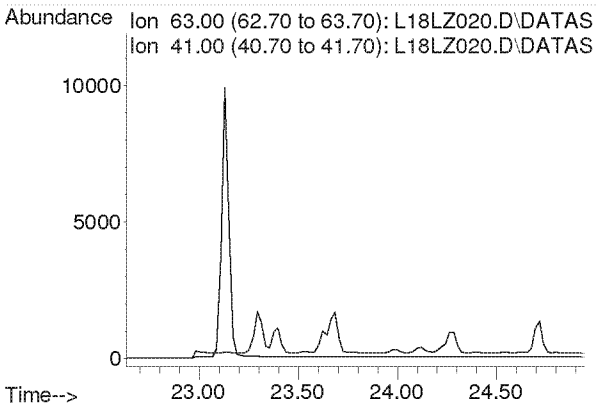


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

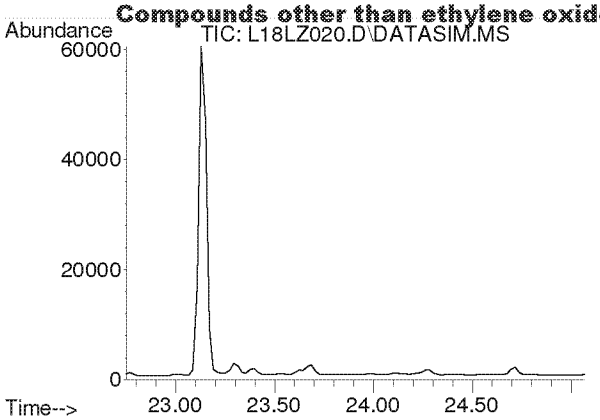
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

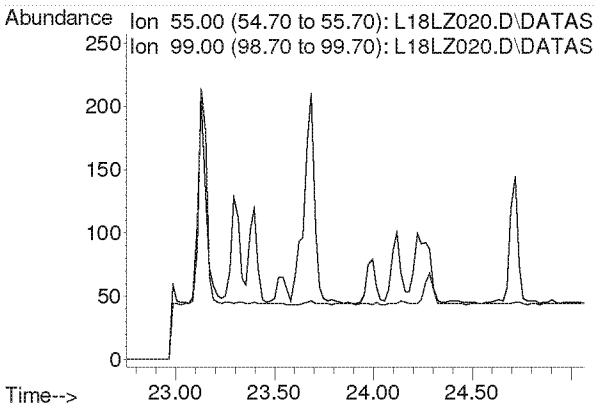


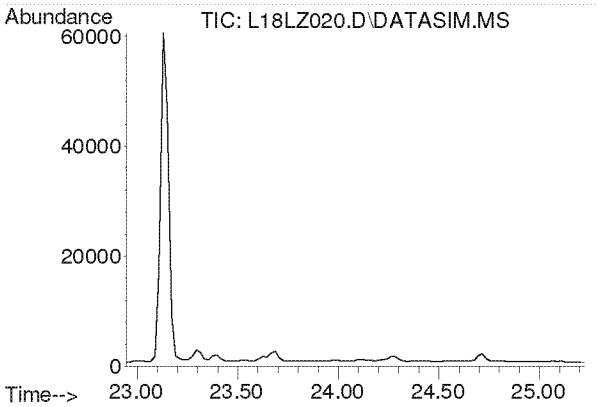
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



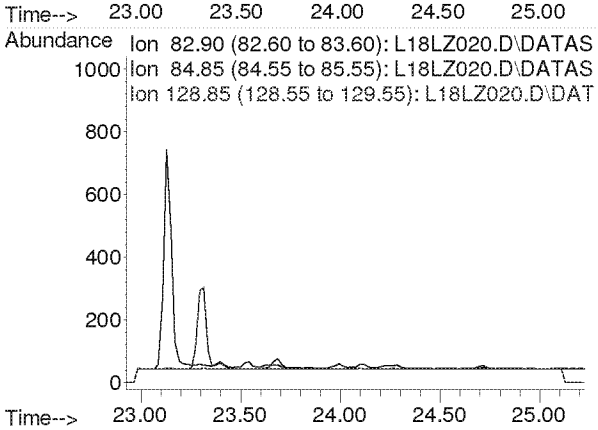


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

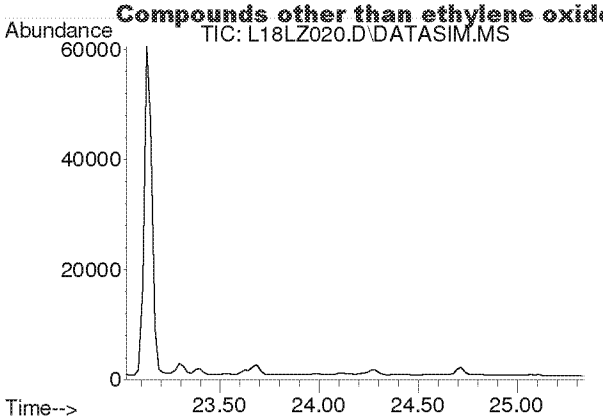
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

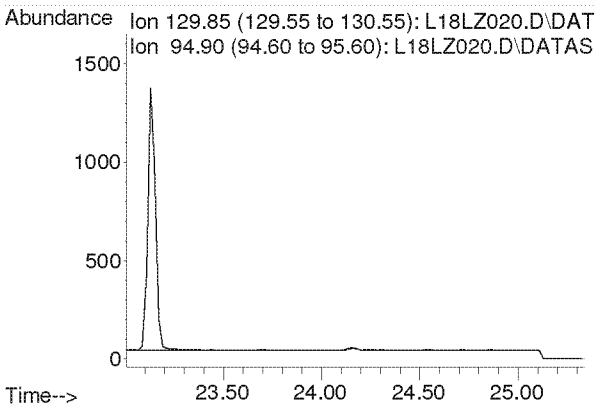


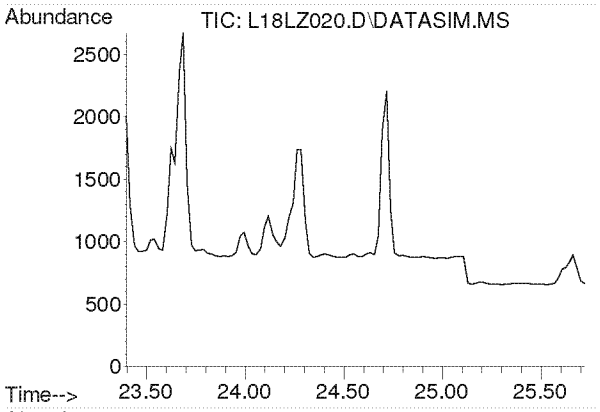
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



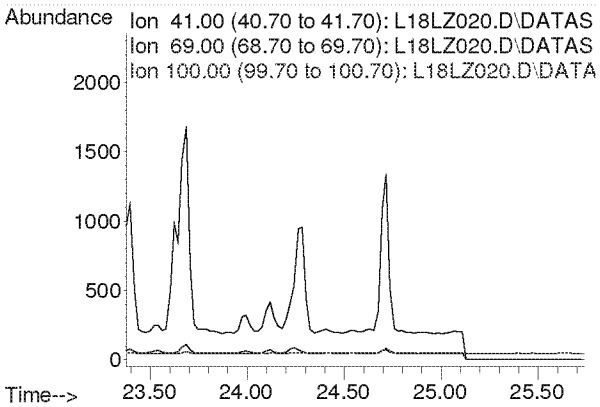


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

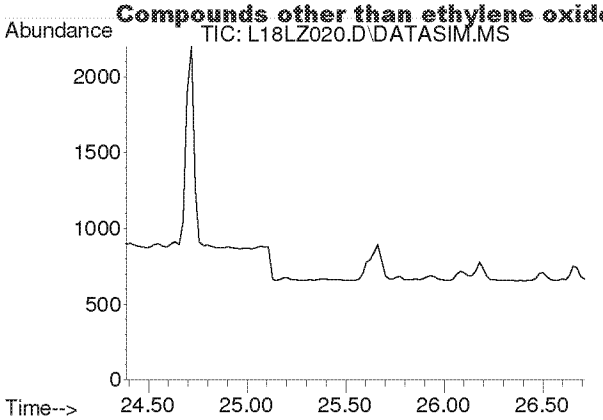
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

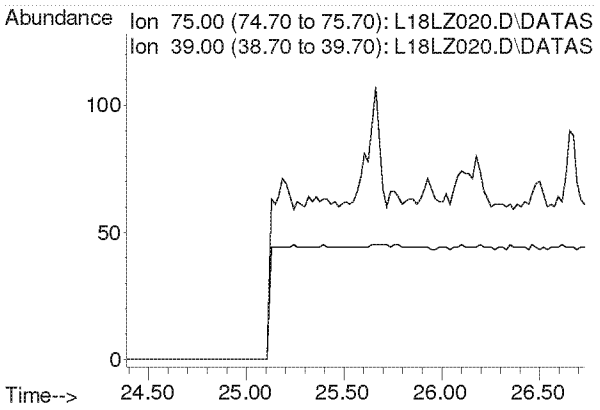


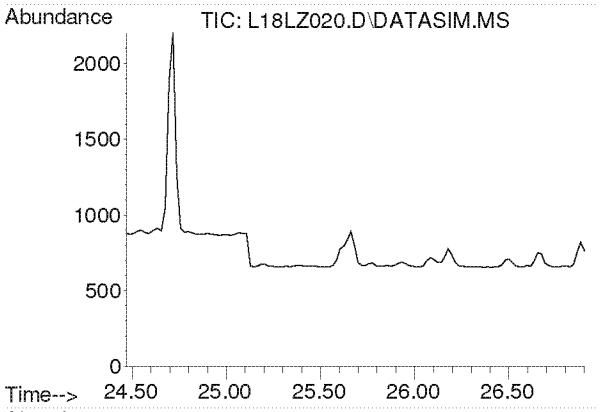
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



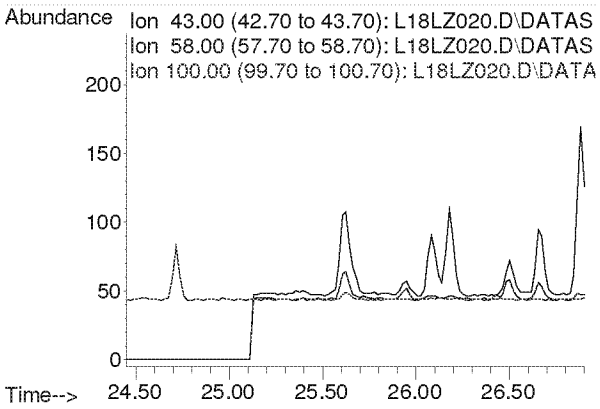


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

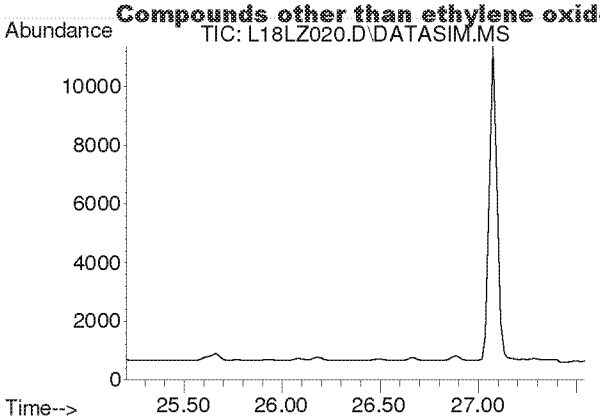
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

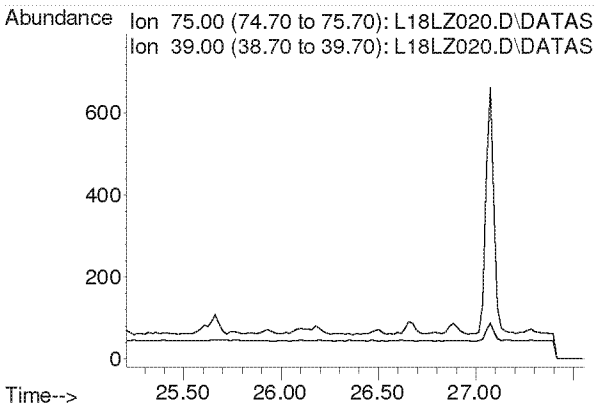


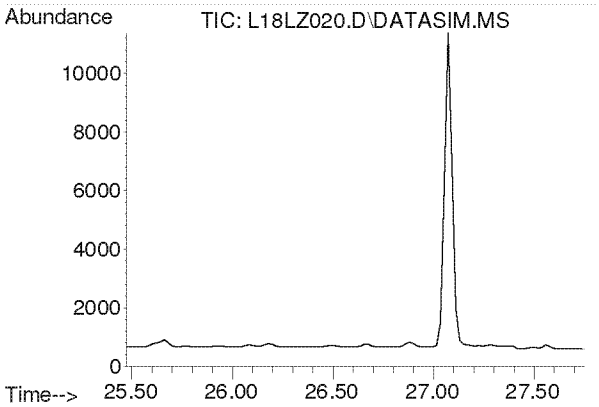
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



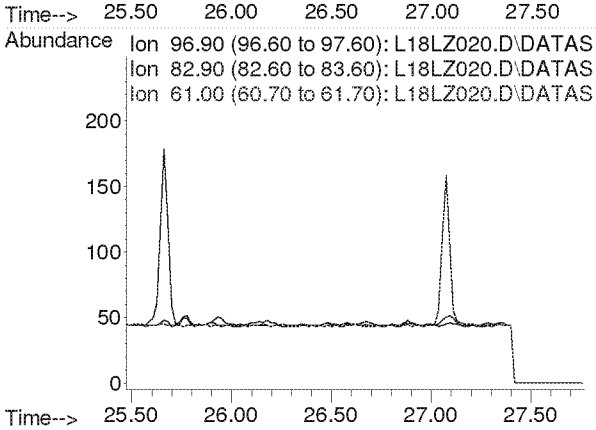


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

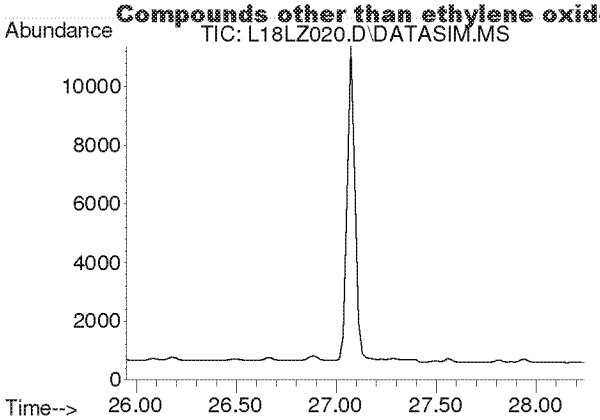
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

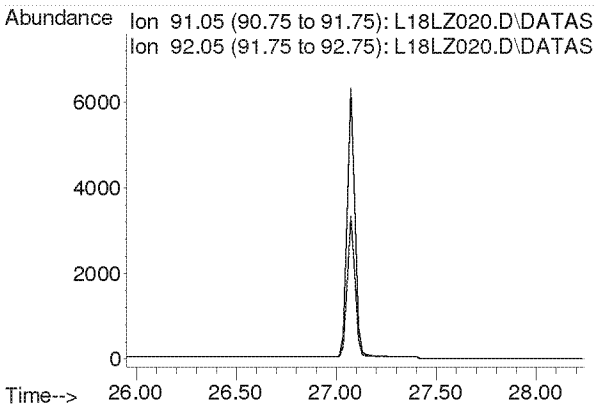


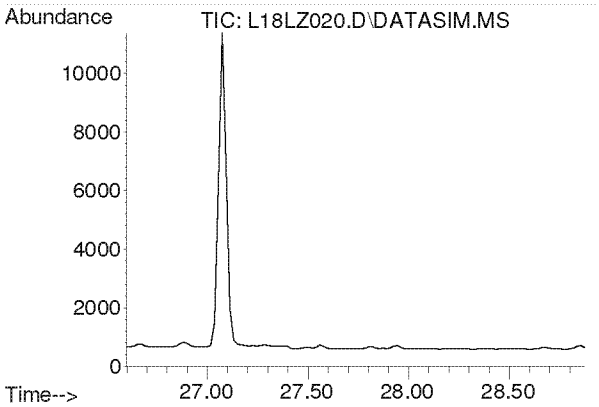
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



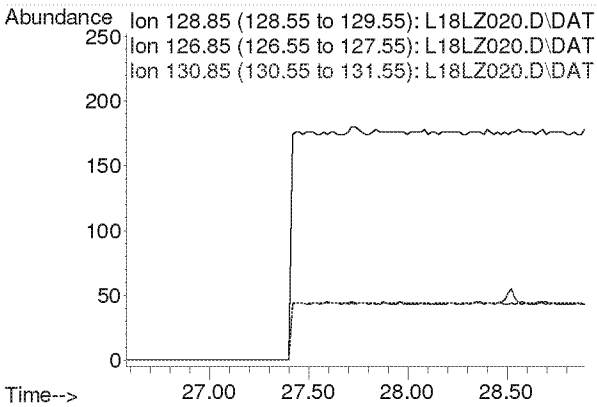


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

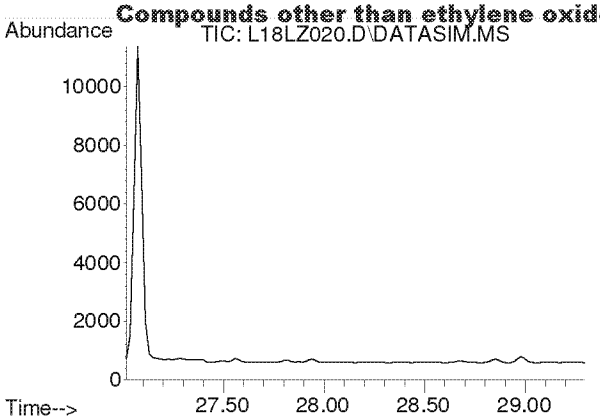
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

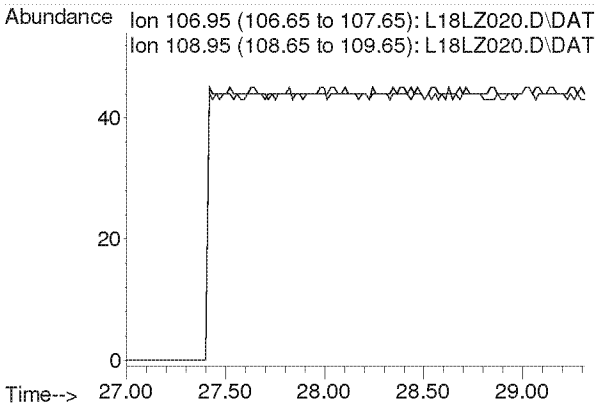


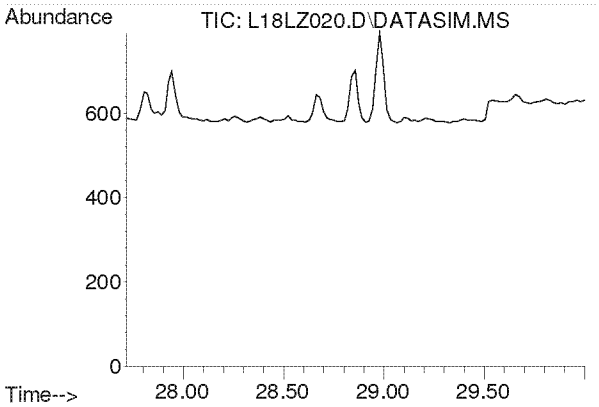
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



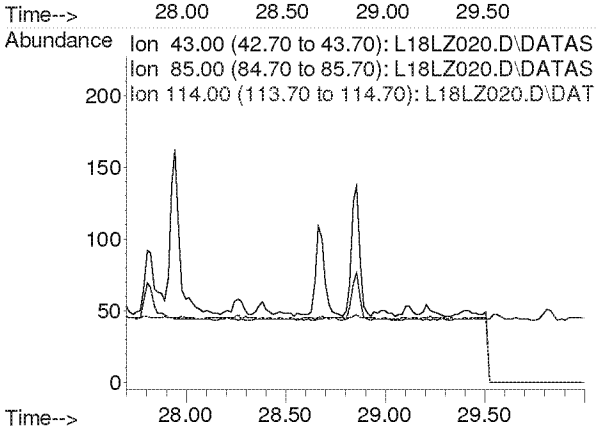


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

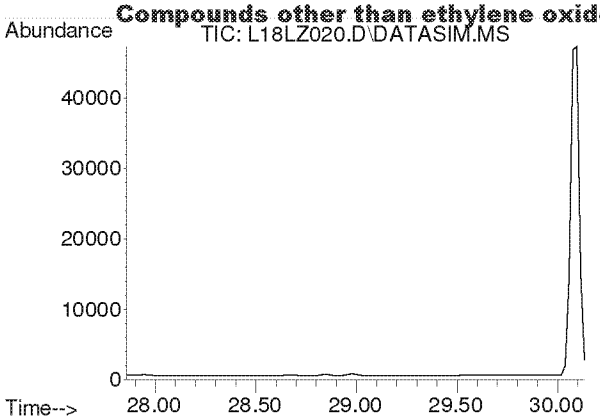
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

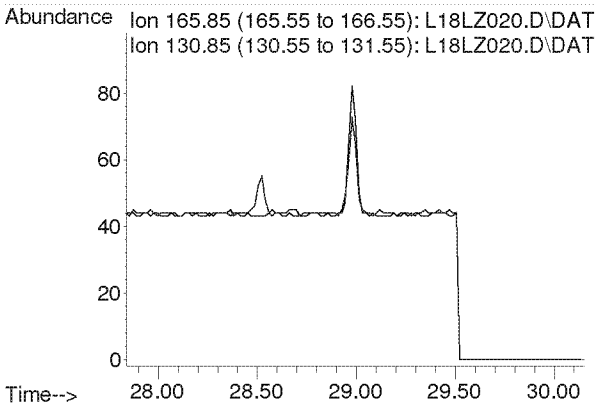


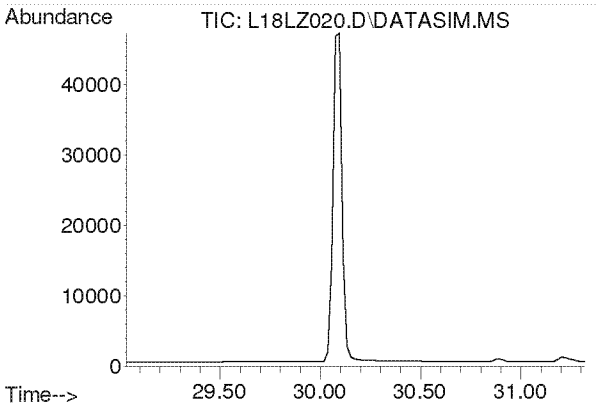
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



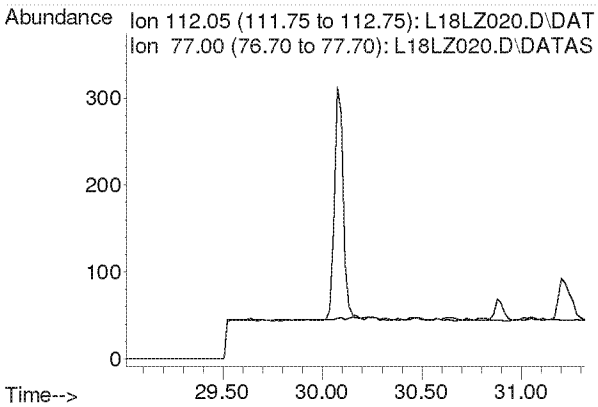


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

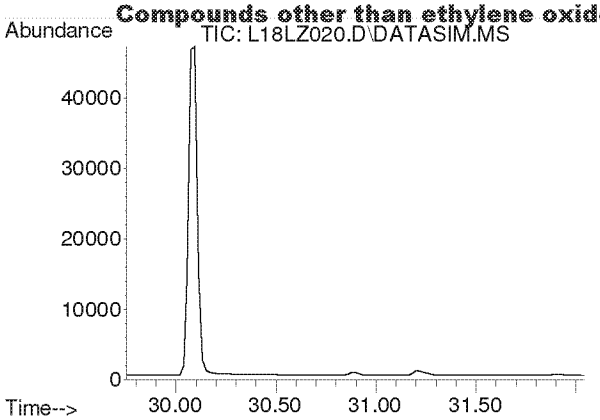
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

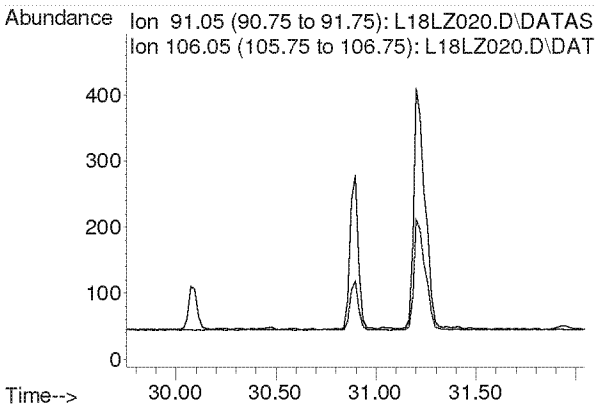


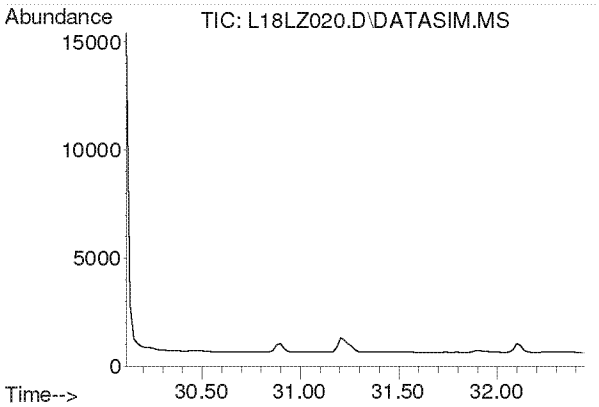
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



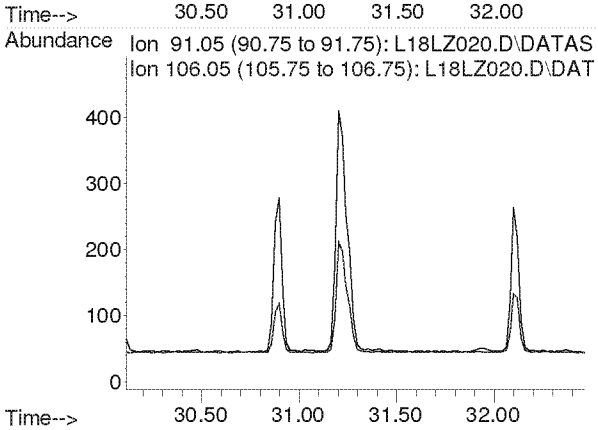


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

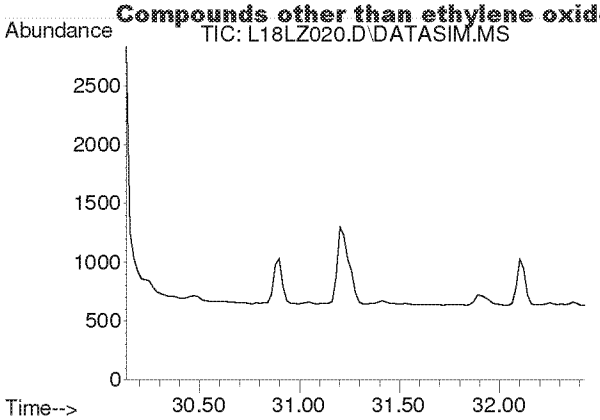
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

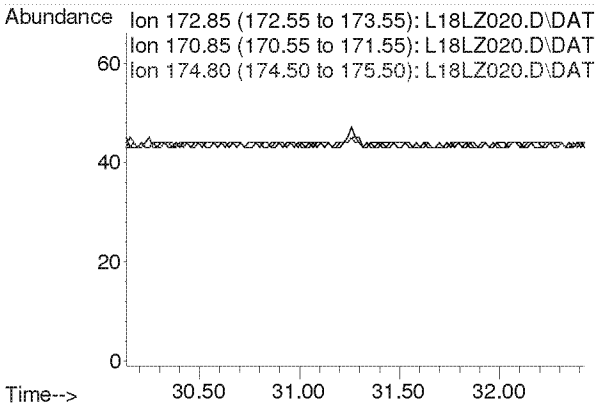


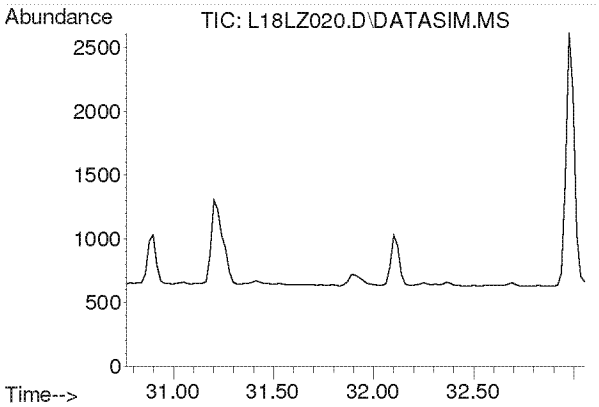
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



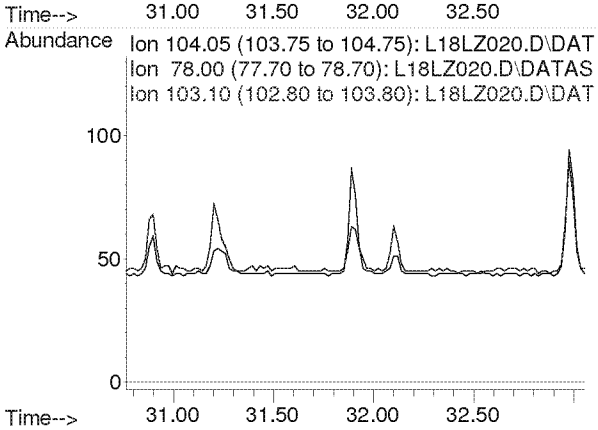


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

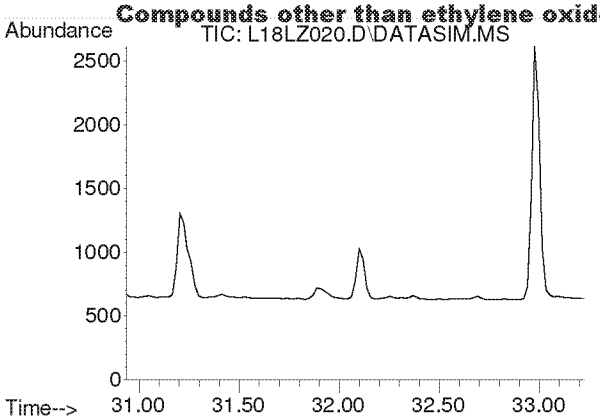
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

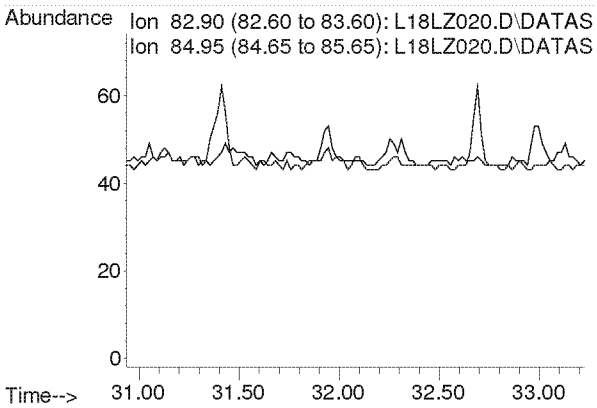


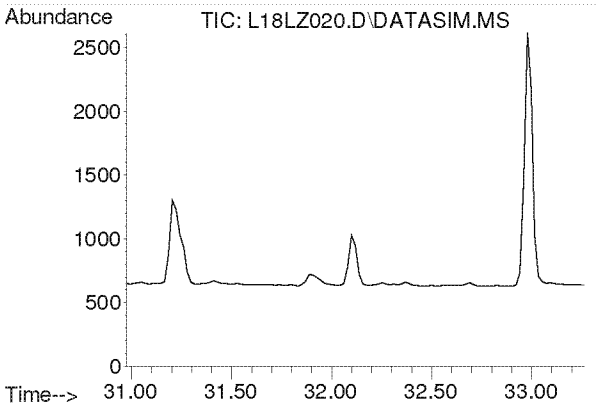
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



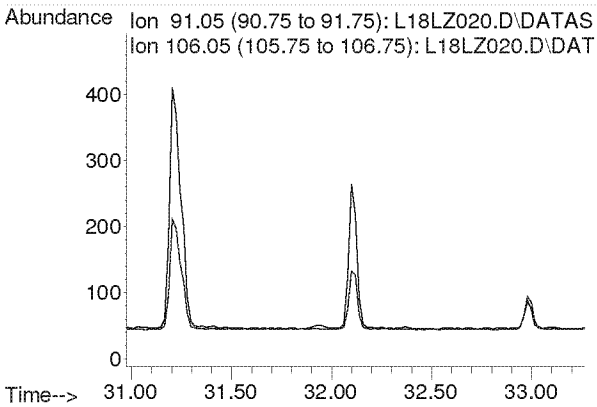


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

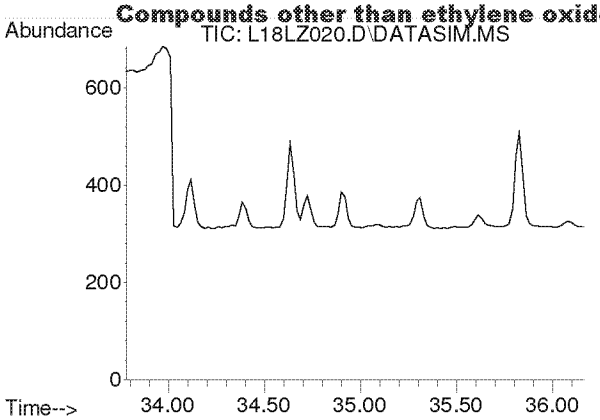
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

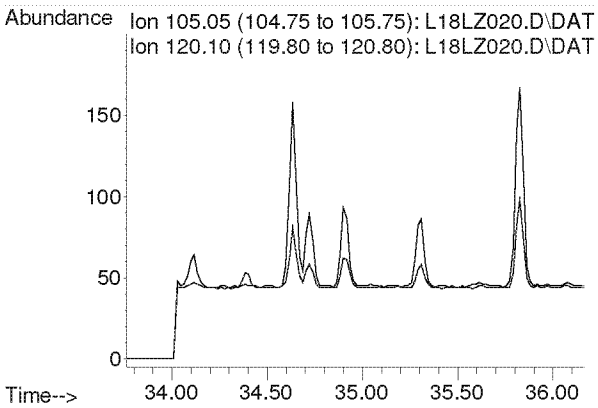


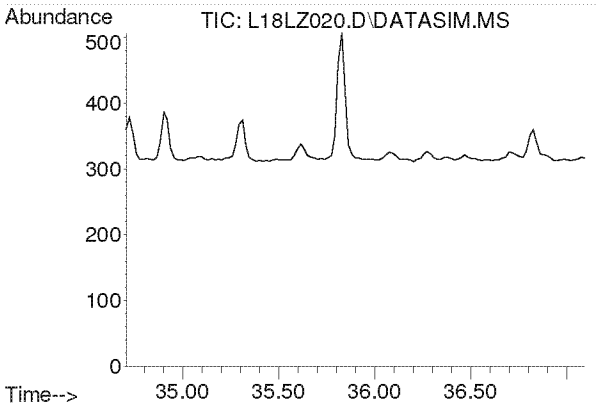
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



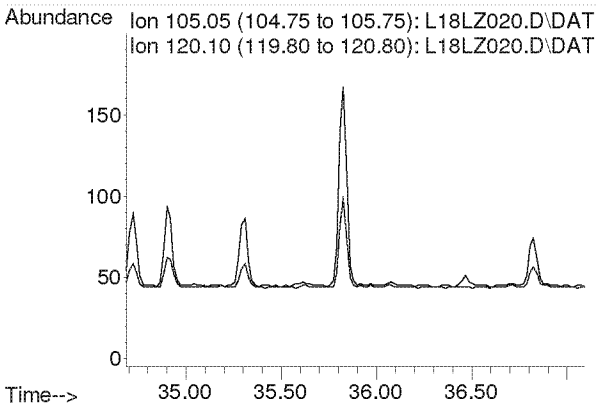


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

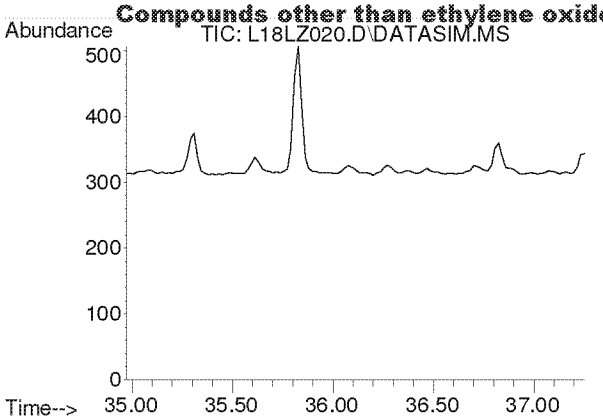
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

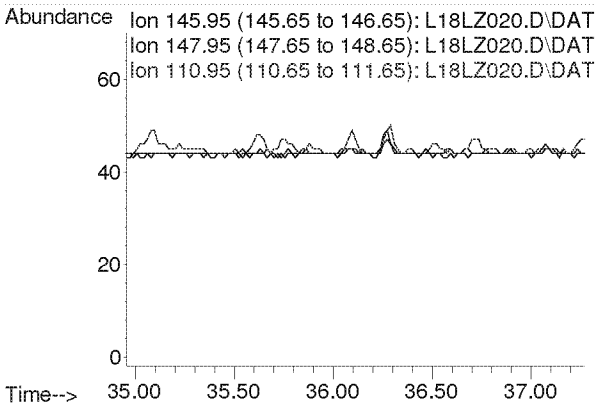


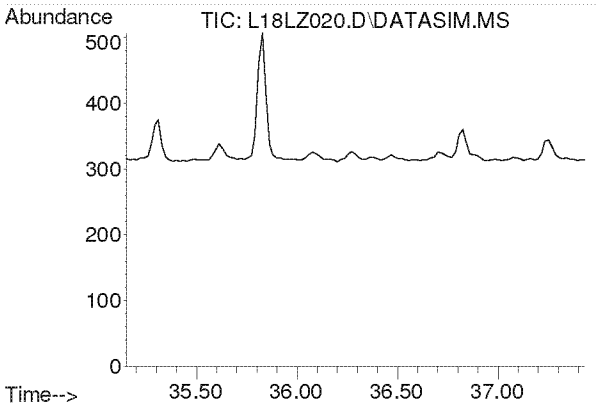
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



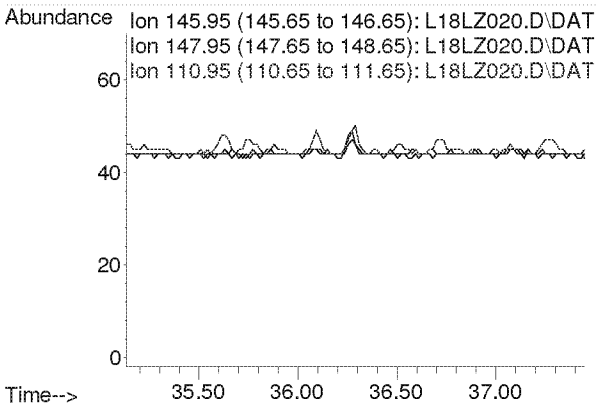


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

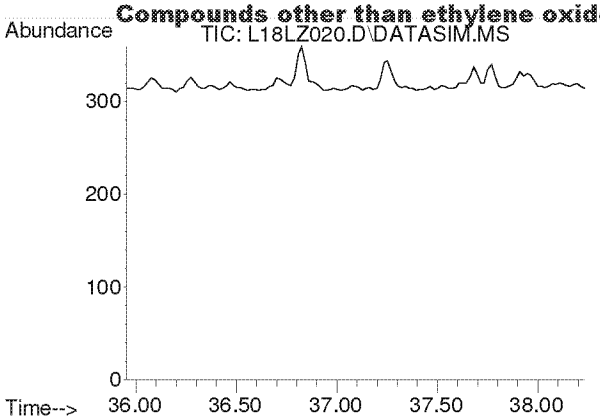
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

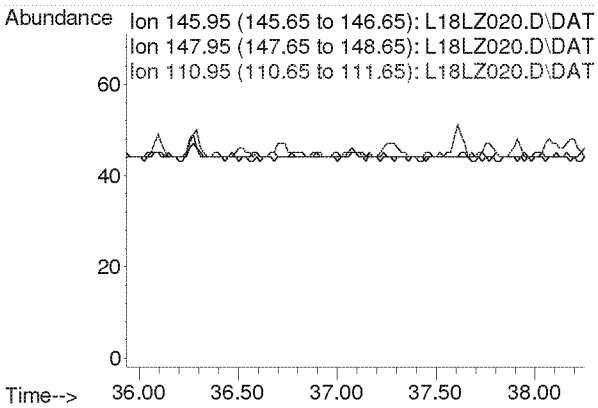


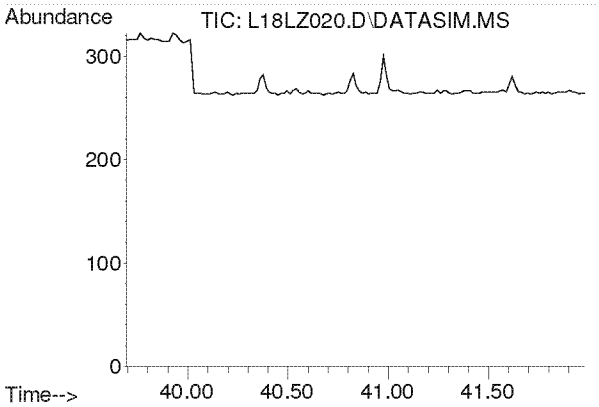
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



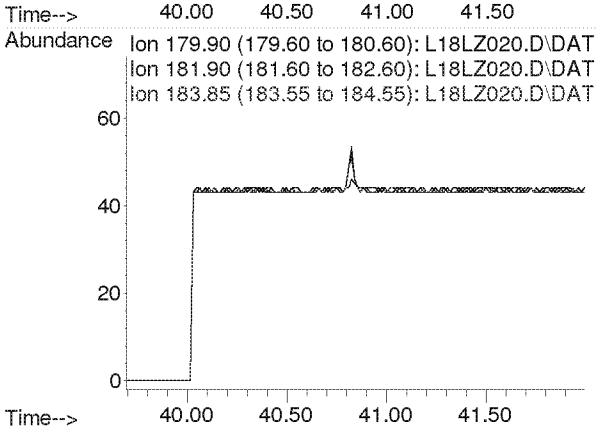


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

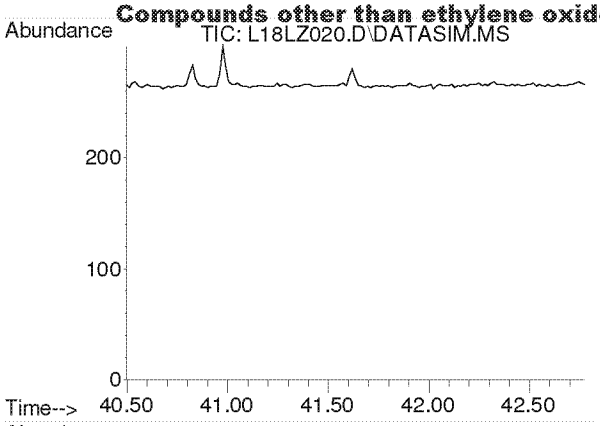
Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.1
184	30.7



Compounds other than ethylene oxide were not quantitated.

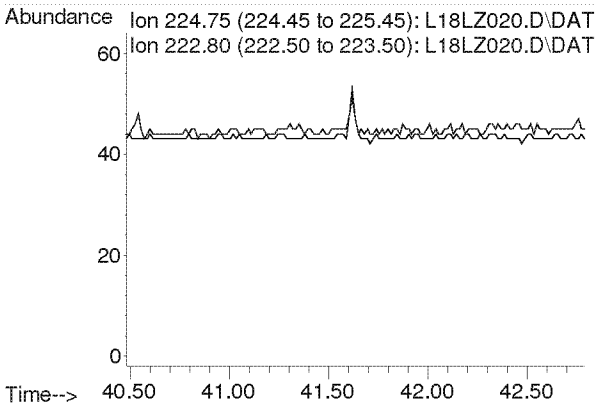


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.64 min

Lab File: L18LZ020.D
Acq: 27 Dec 2018 7:01 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\L18LZ\
Data File : L18LZ021.D
Acq On : 27 Dec 2018 8:03 am
Operator : MAH
Sample : B8L2603-DUP4
Misc : WILLOWBROOK HS R2 12/7/18
ALS Vial : 21 Sample Multiplier: 1

cl = MR

Quant Time: Jan 03 11:19:01 2019
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	54208	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.130	114	129824	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.096	117	88665	4.7400 ppbv	0.00

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	12.365	29	20078	6.1967 ppbv	95
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.	
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.	
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\L18LZ\
Data File : L18LZ021.D
Acq On : 27 Dec 2018 8:03 am
Operator : MAH
Sample : B8L2603-DUP4
Misc : WILLOWBROOK HS R2 12/7/18
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jan 03 11:19:01 2019
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

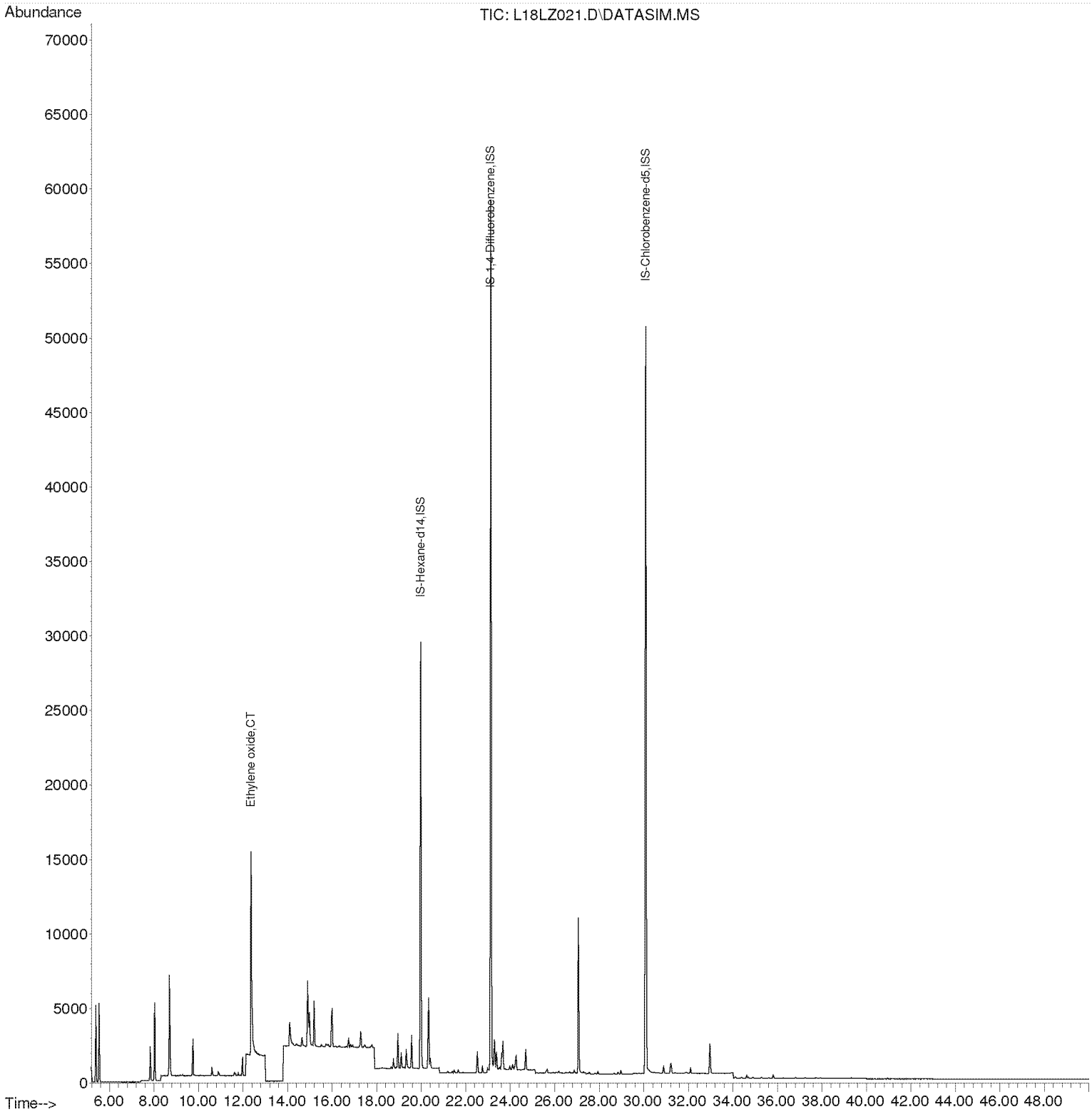
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	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

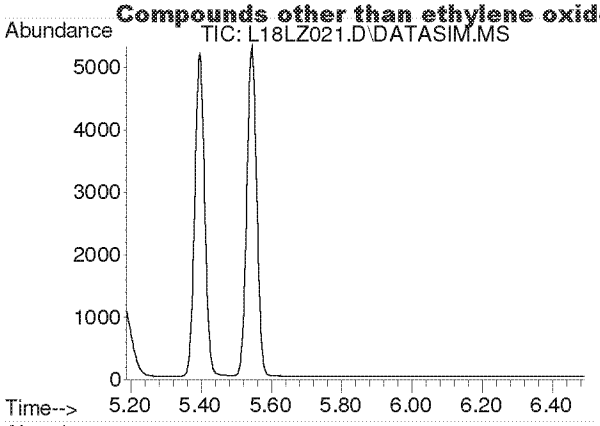
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ021.D
Acq On : 27 Dec 2018 8:03 am
Operator : MAH
Sample : B8L2603-DUP4
Misc : WILLOWBROOK HS R2 12/7/18
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jan 03 10:37:53 2019
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



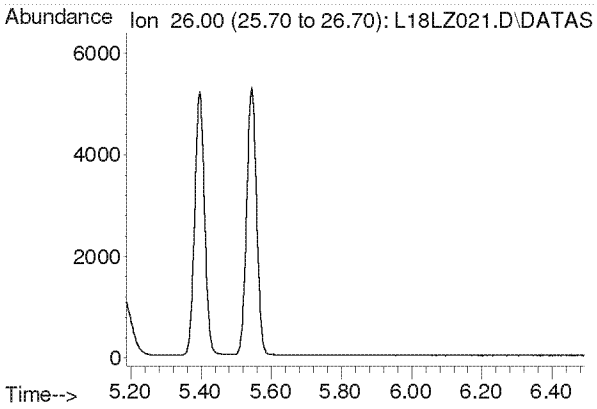
Compounds other than ethylene oxide were not quantitated.

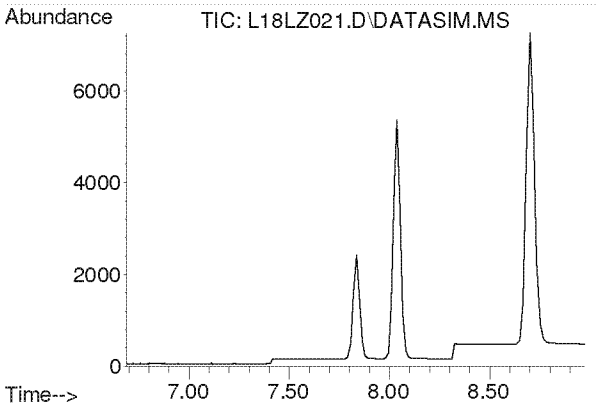


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 26



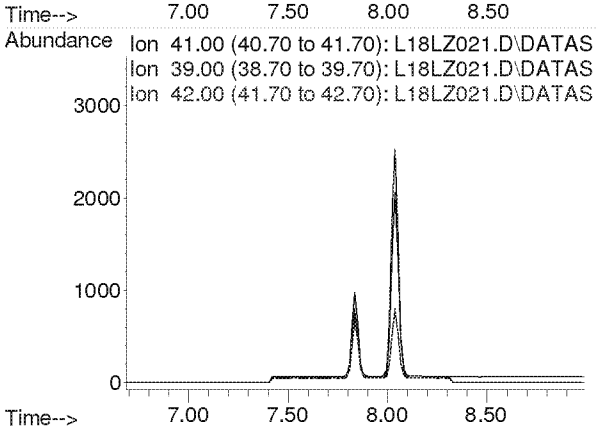


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

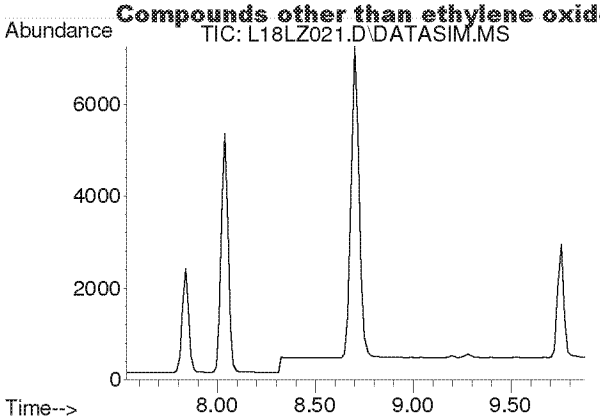
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

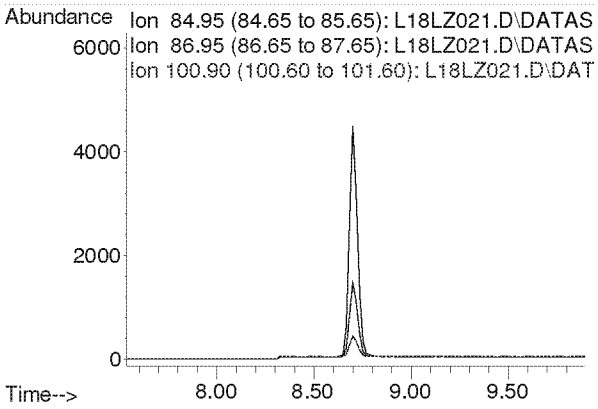


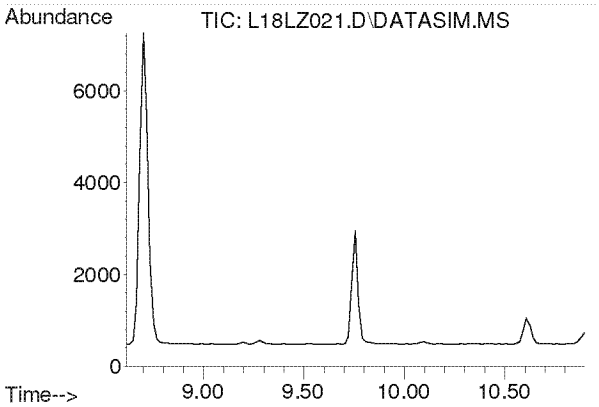
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



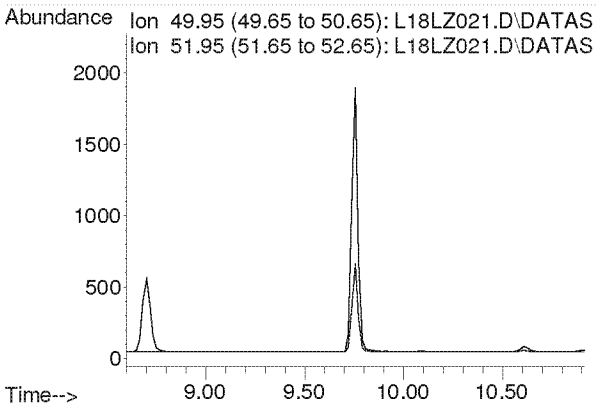


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

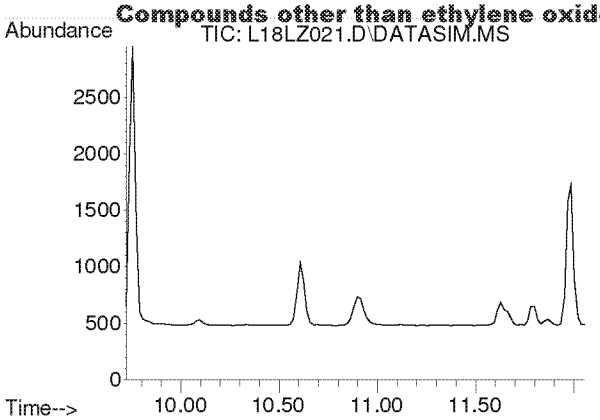
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

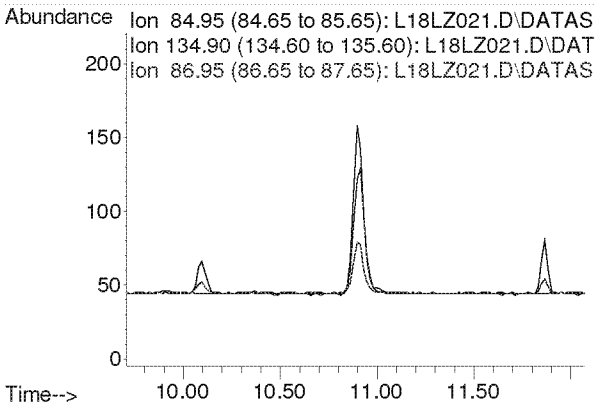


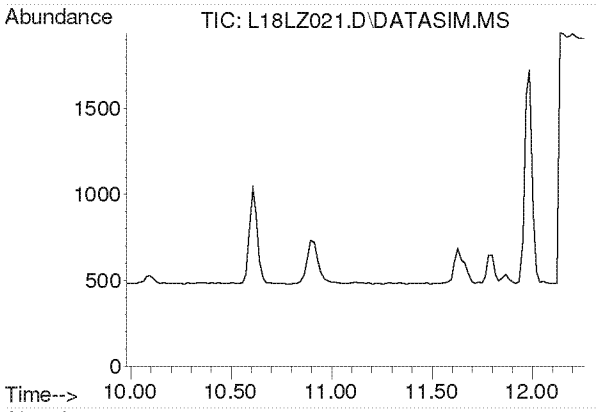
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



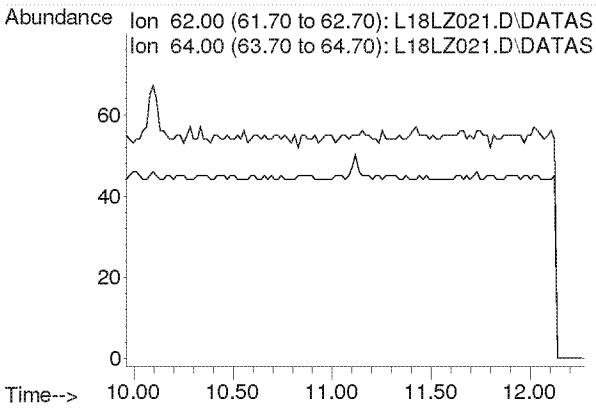


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

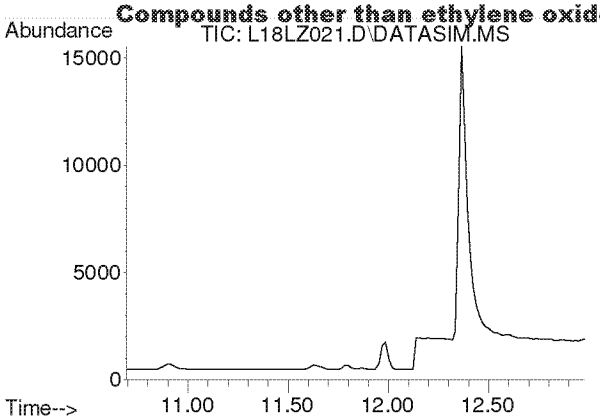
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

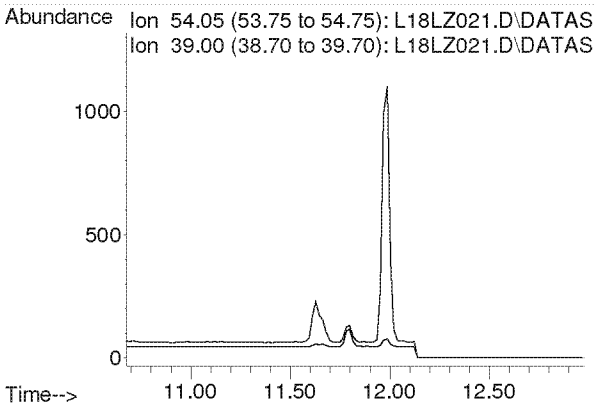


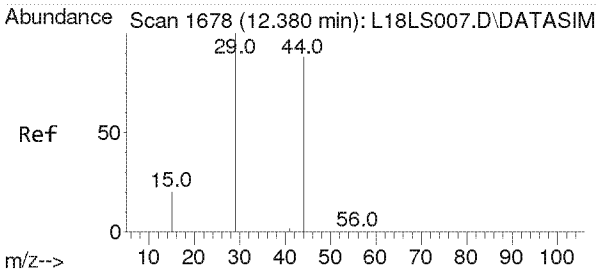
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

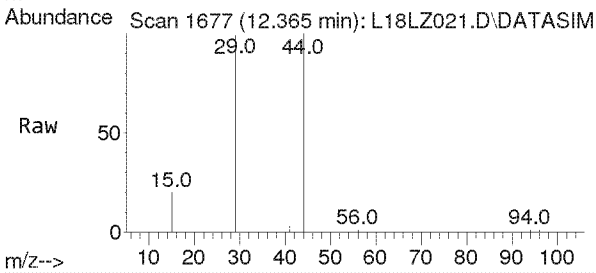


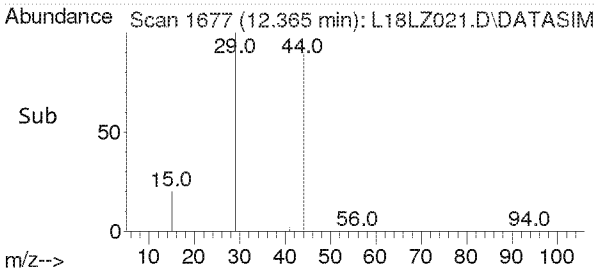


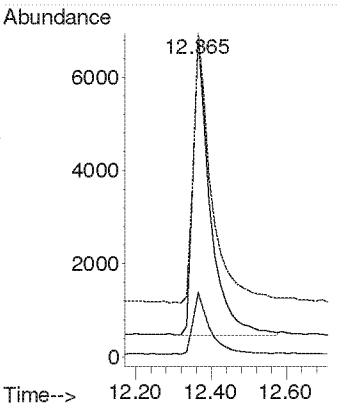
#9
Ethylene oxide
Concen: 6.197 ppbv
RT: 12.365 min Scan# 1677
Delta R.T. -0.015 min
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 29 Resp: 20078

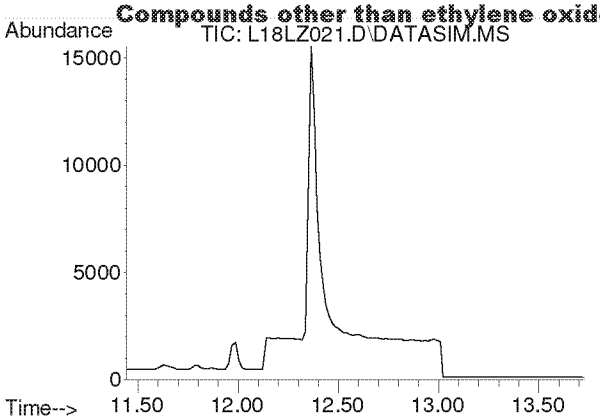
Ion	Ratio	Lower	Upper
29	100		
15	20.2	16.2	24.4
44	96.0	72.0	108.0







Compounds other than ethylene oxide were not quantitated.

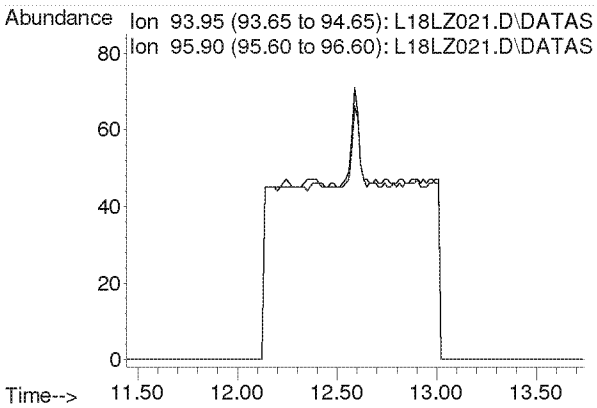


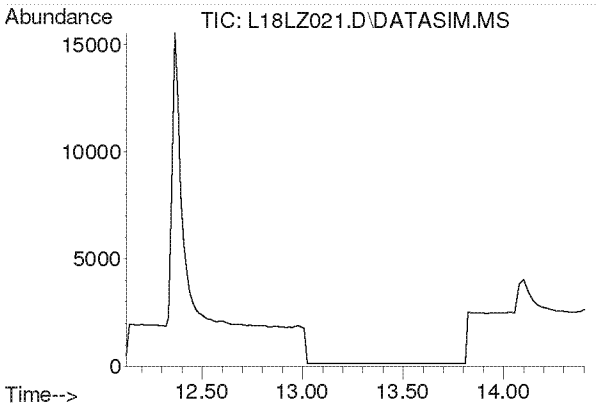
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



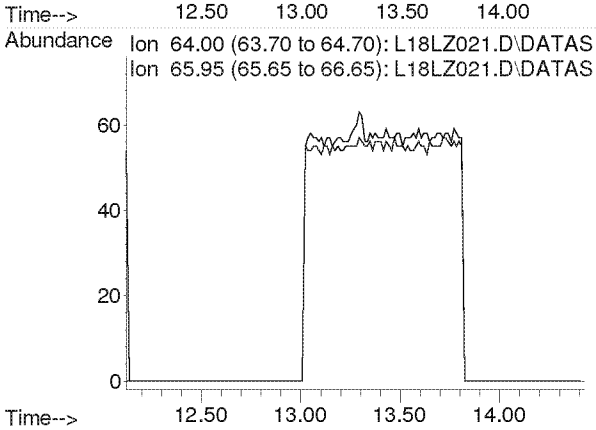


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

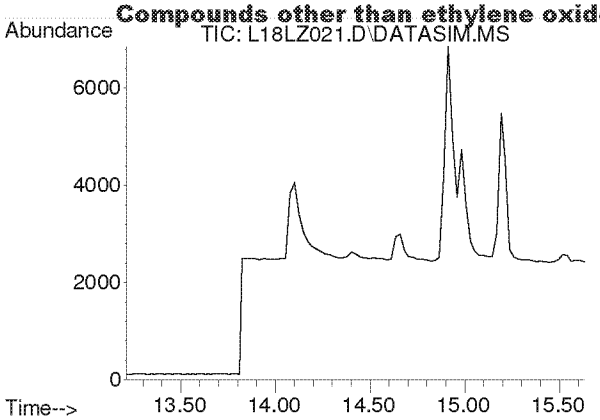
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

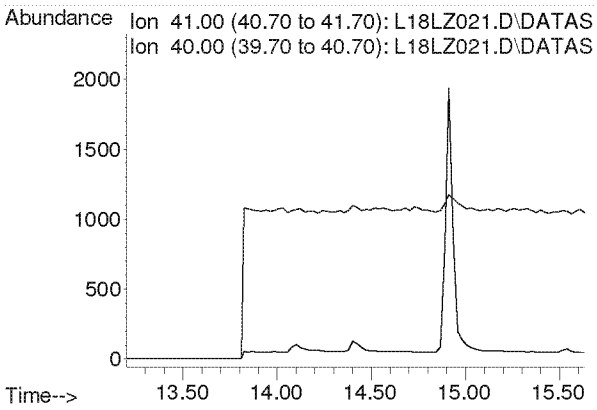


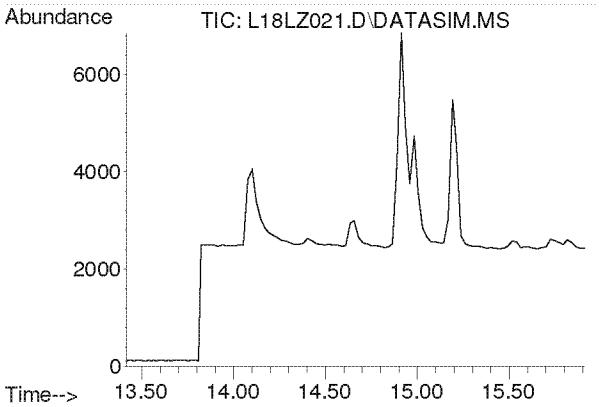
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



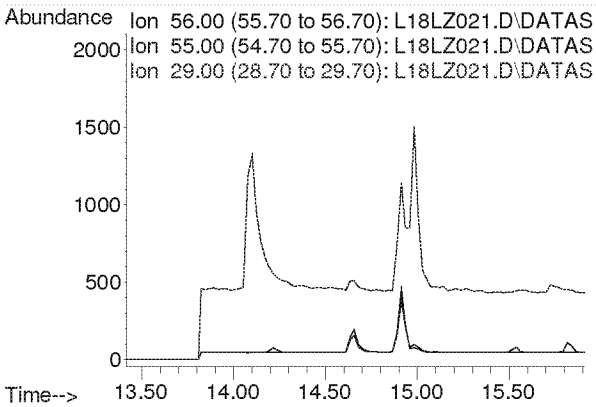


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

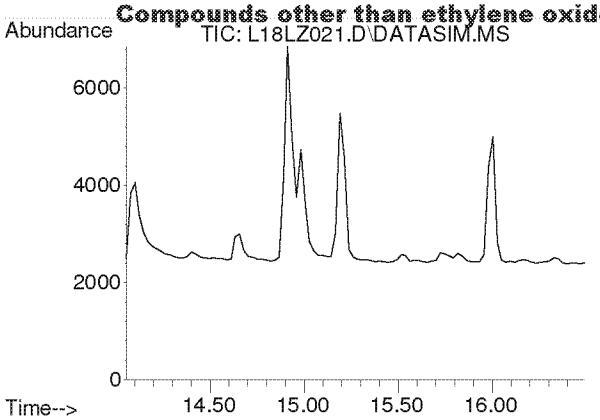
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

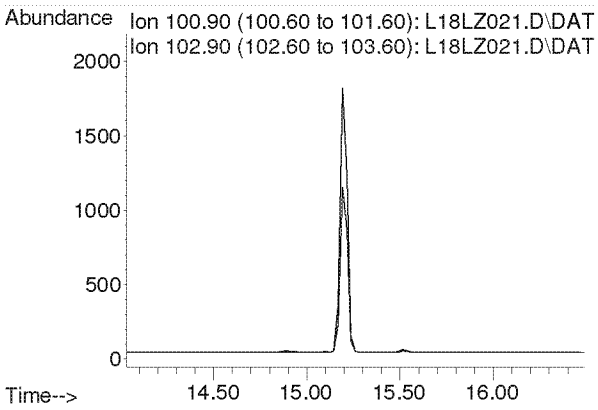


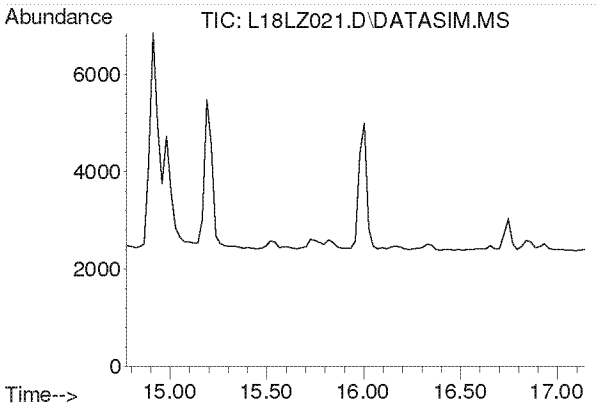
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



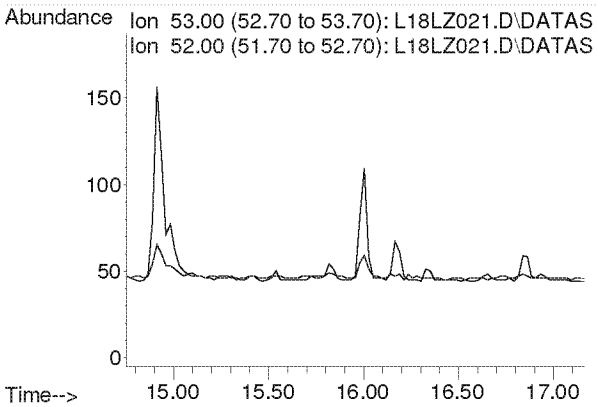


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

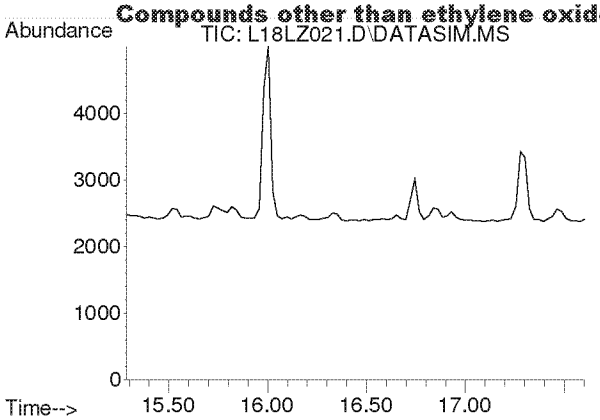
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

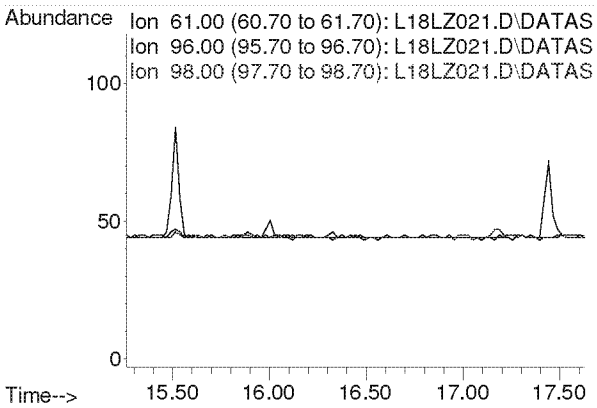


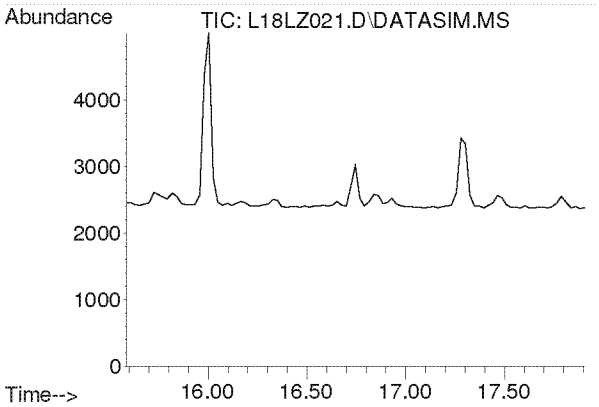
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



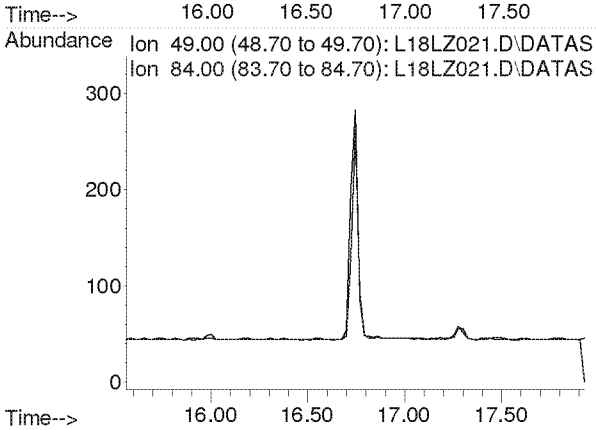


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

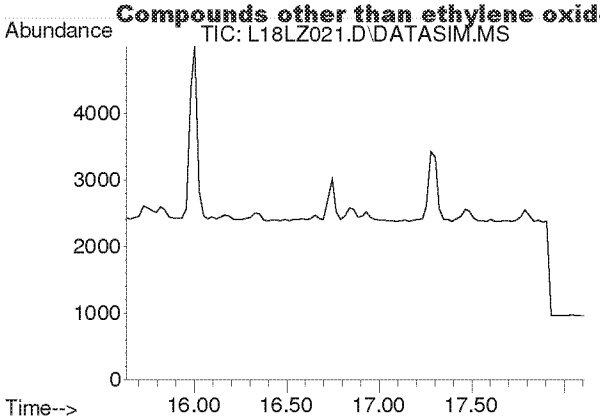
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

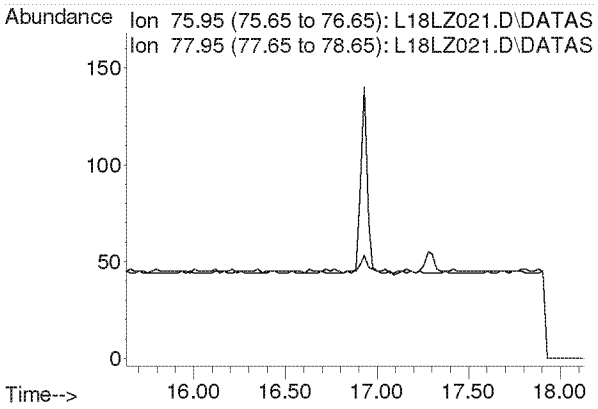


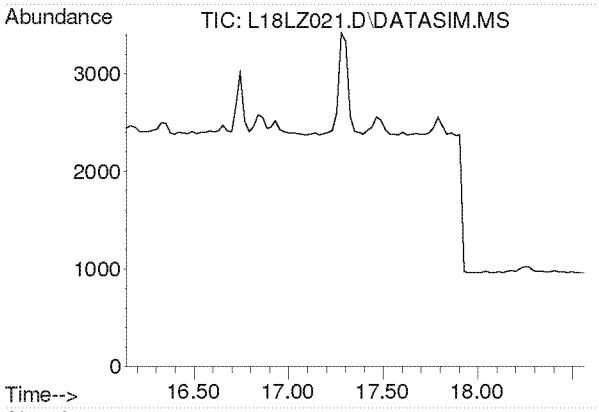
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



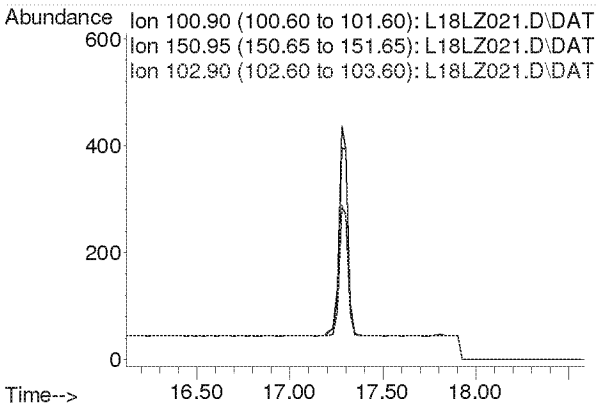


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

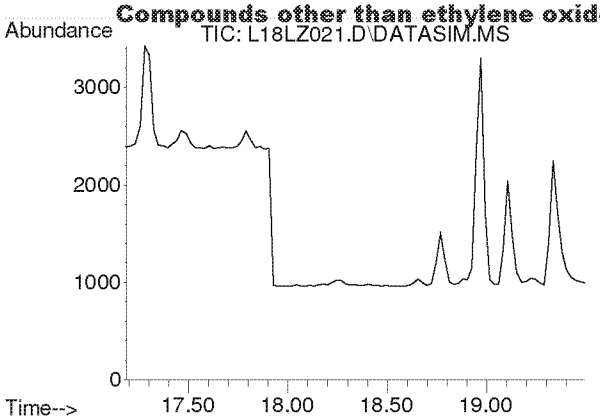
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

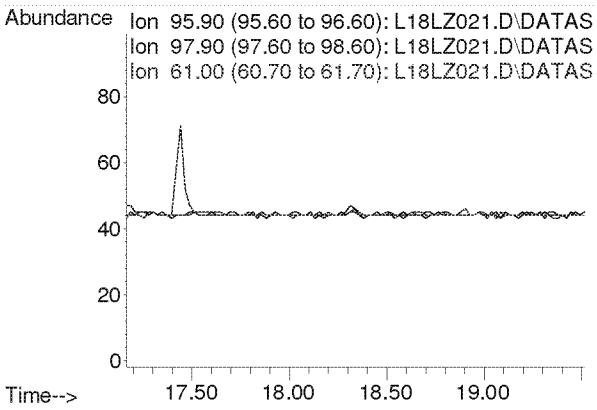


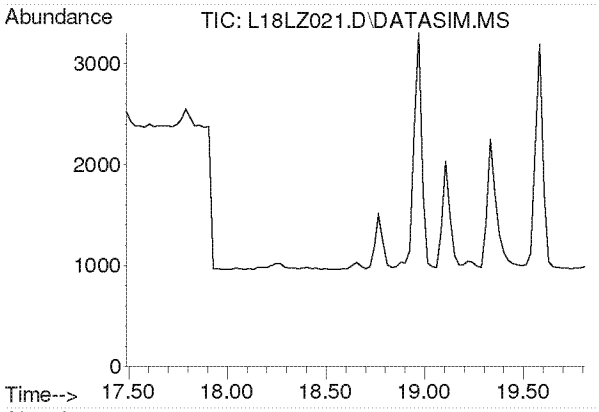
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



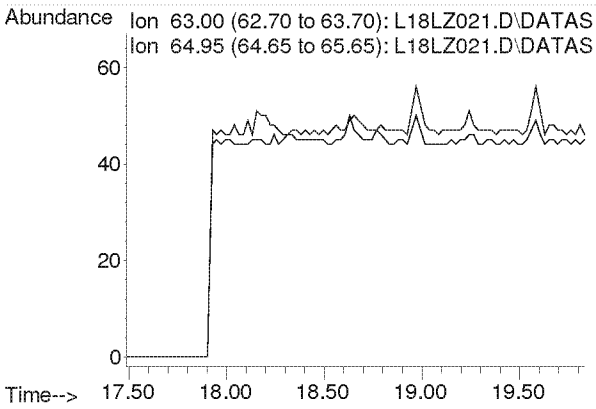


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

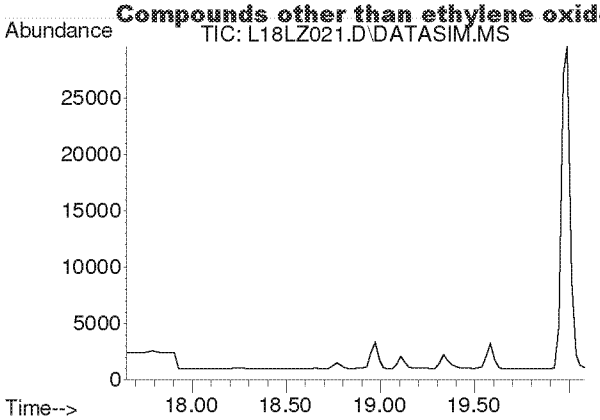
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

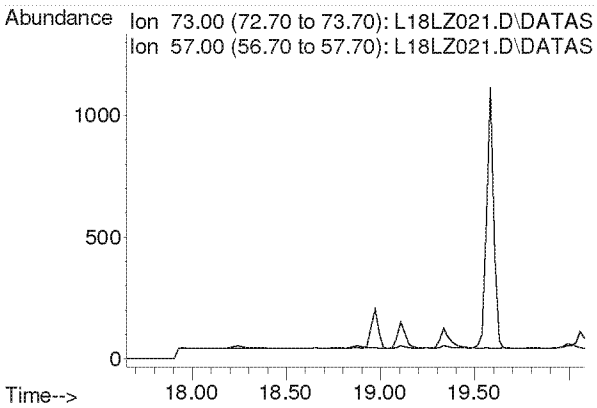


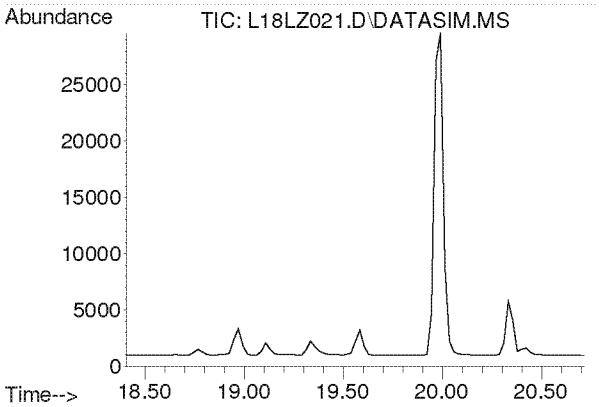
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



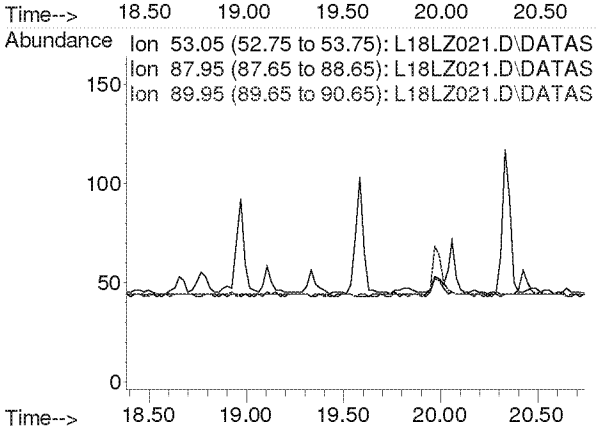


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

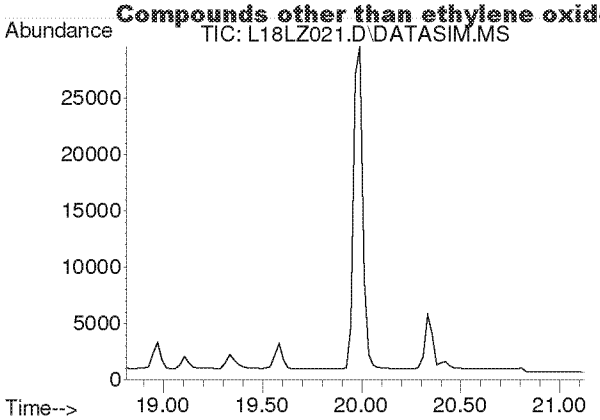
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

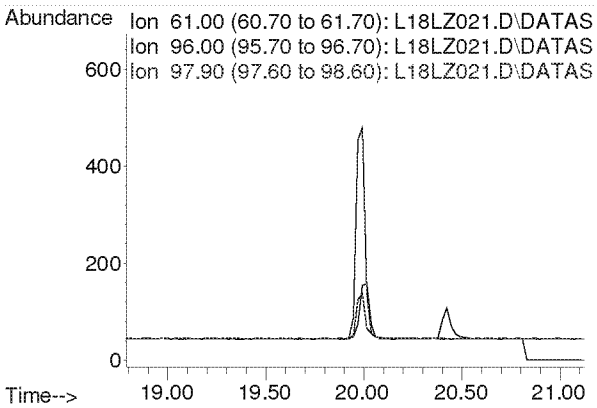


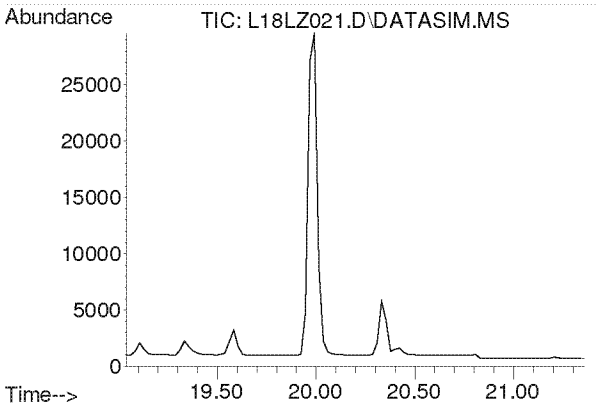
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



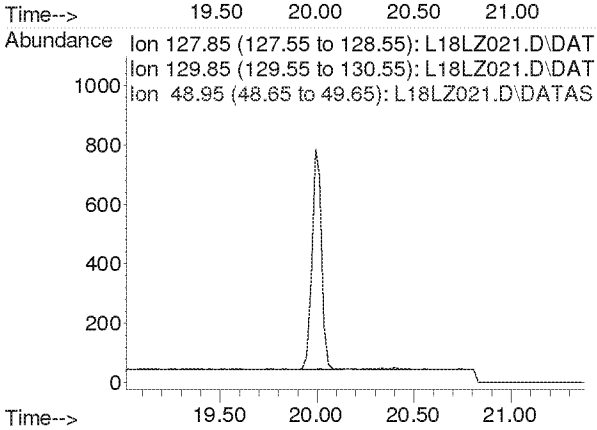


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

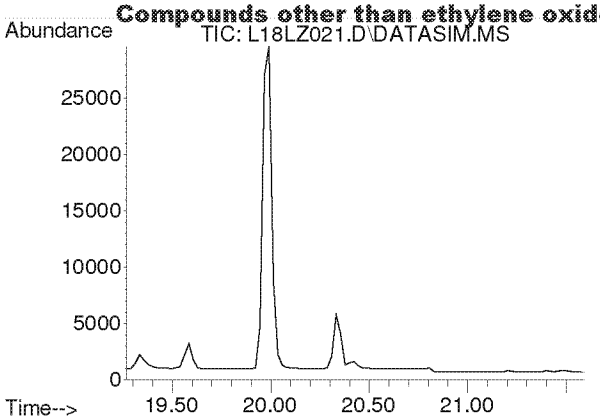
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

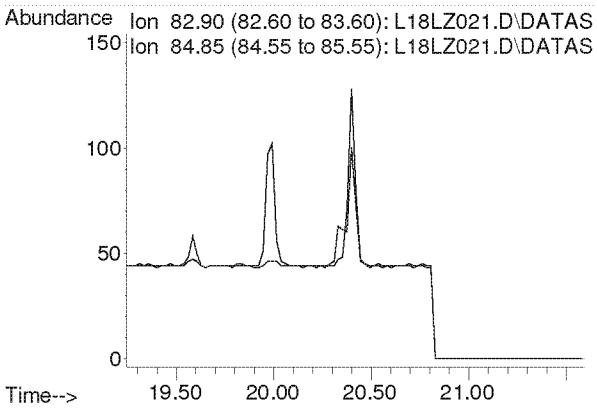


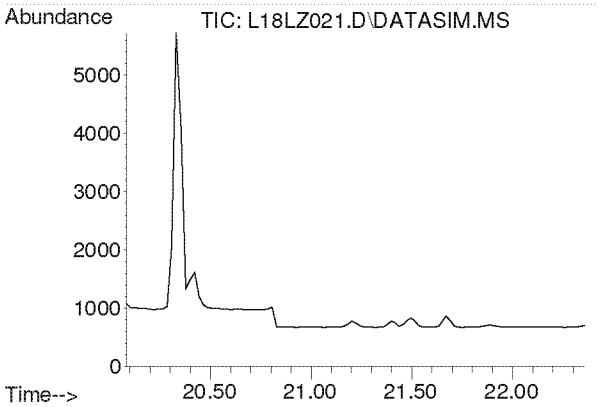
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



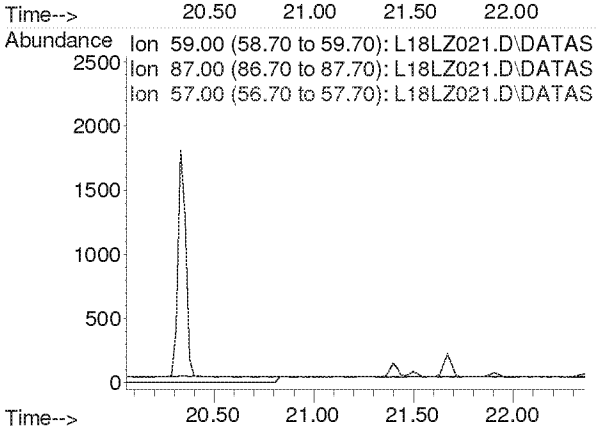


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

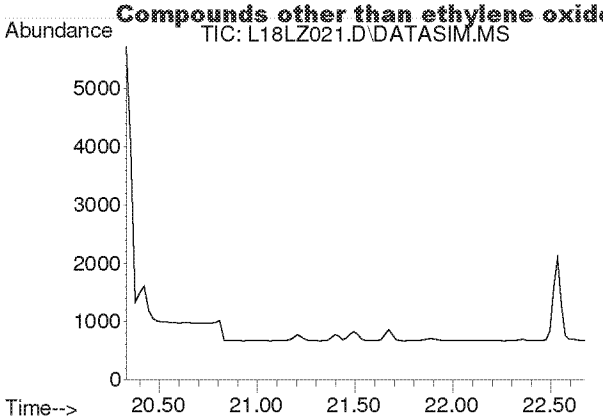
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

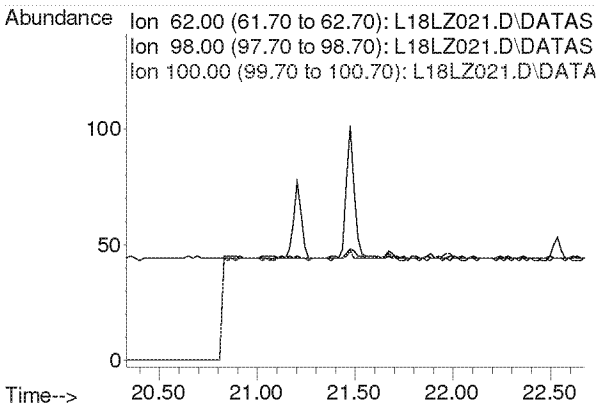


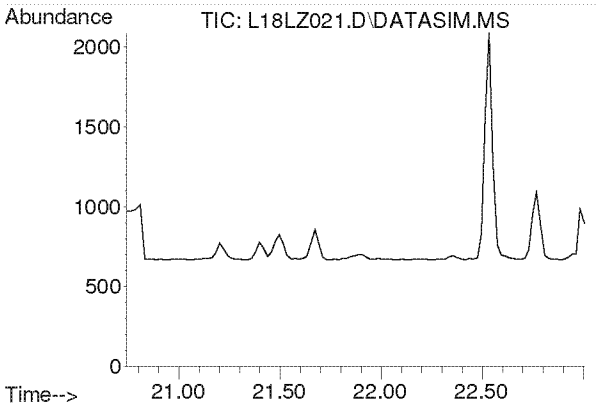
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



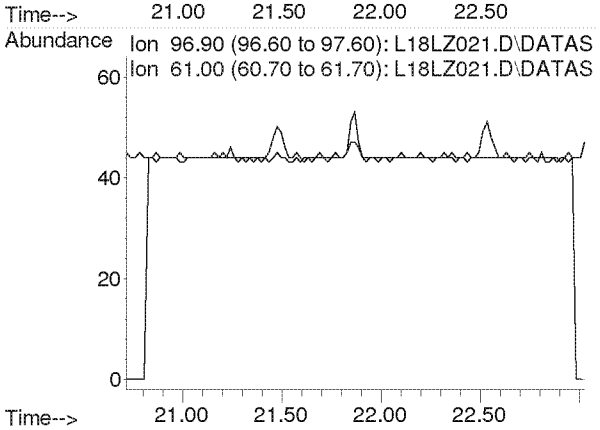


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

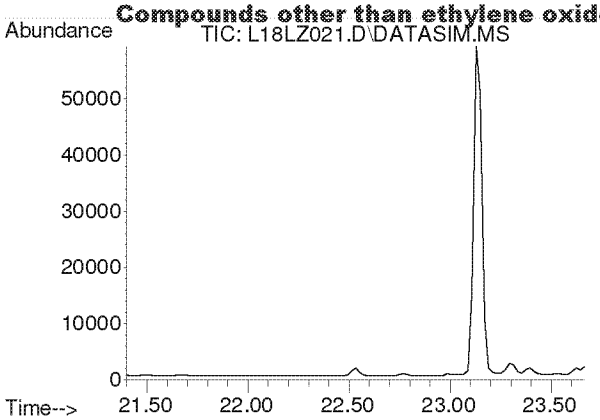
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

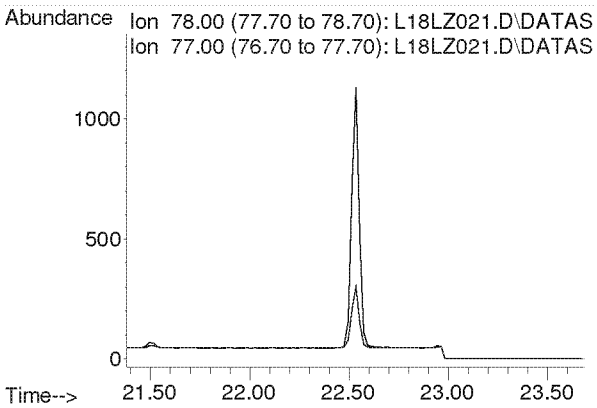


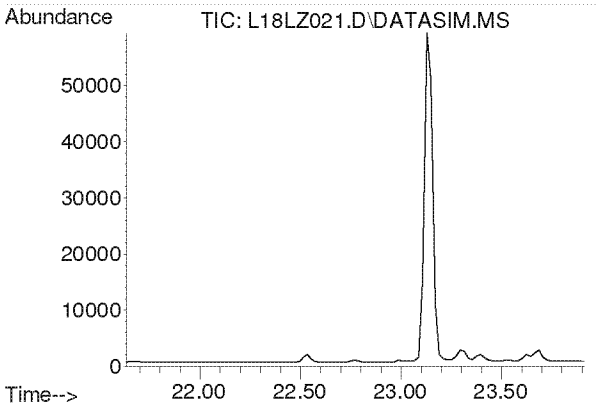
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



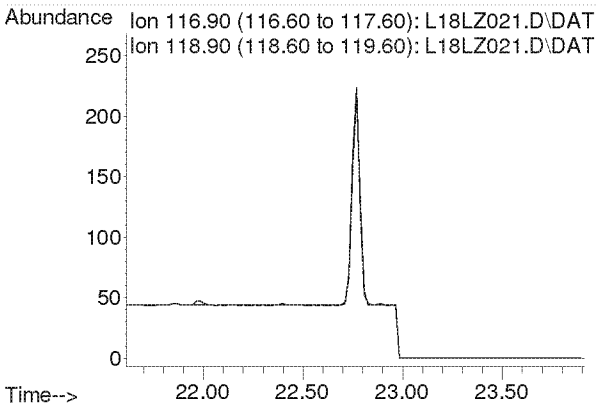


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

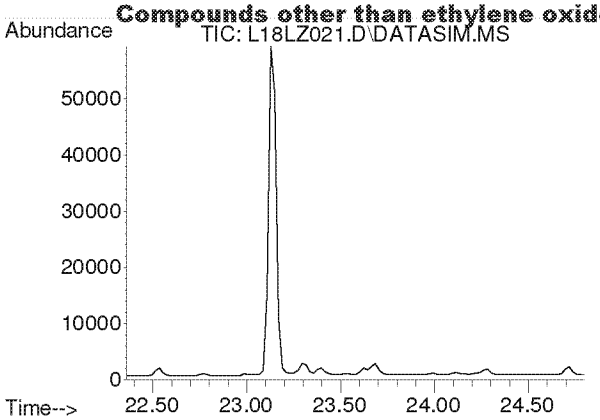
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

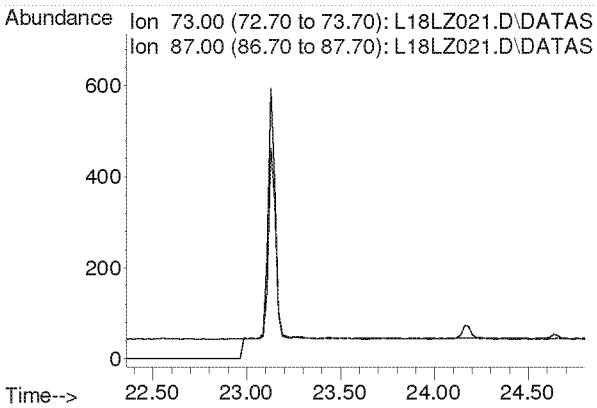


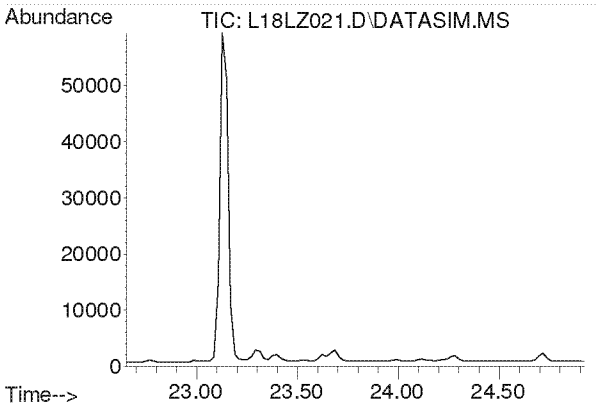
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



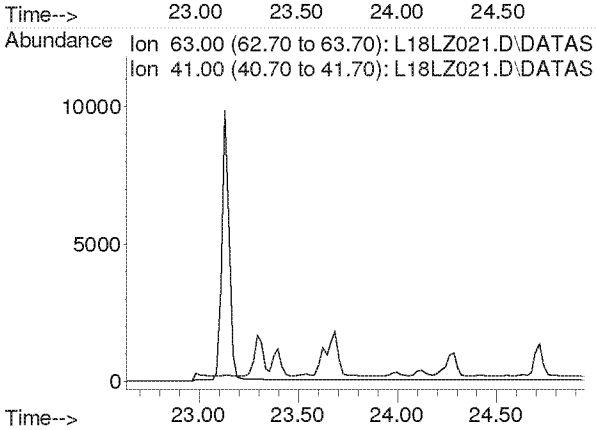


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

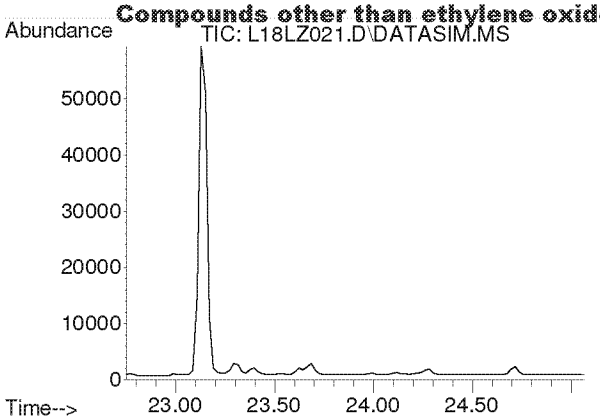
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

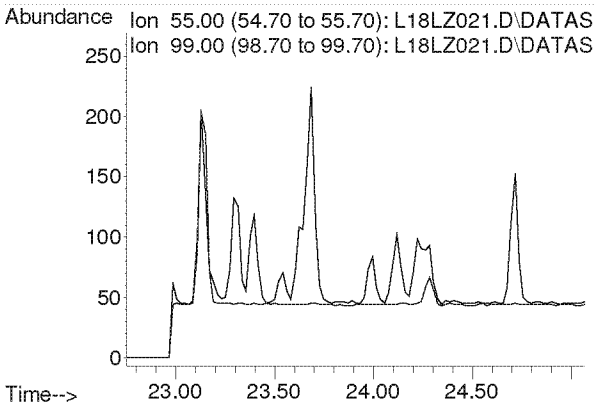


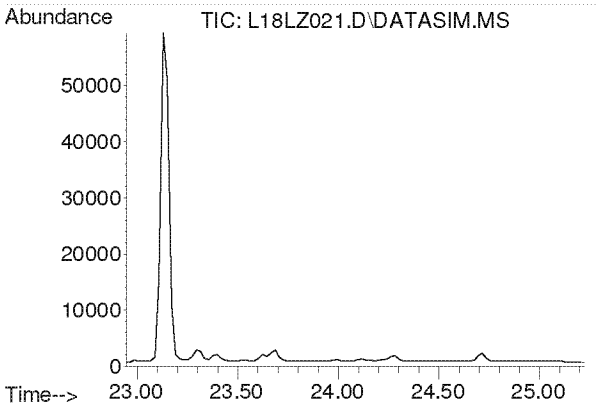
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



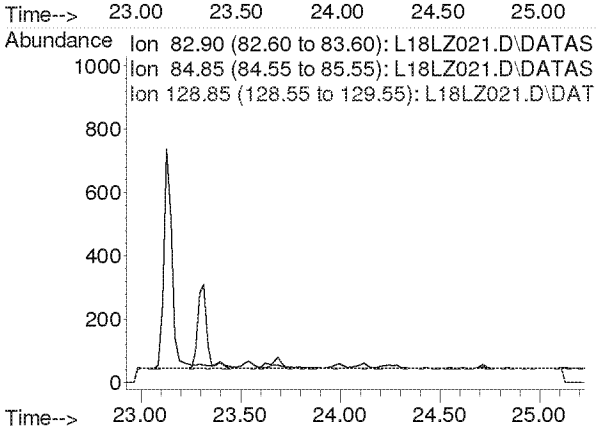


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

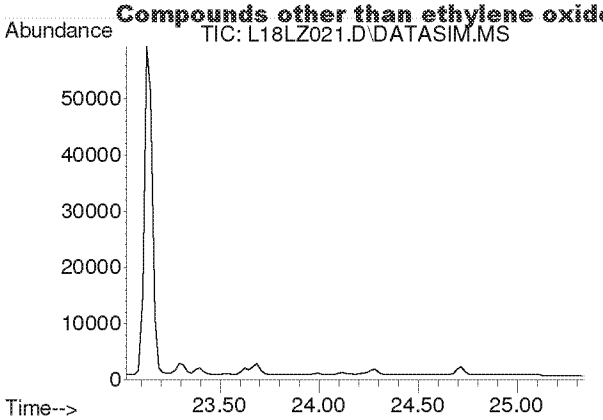
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

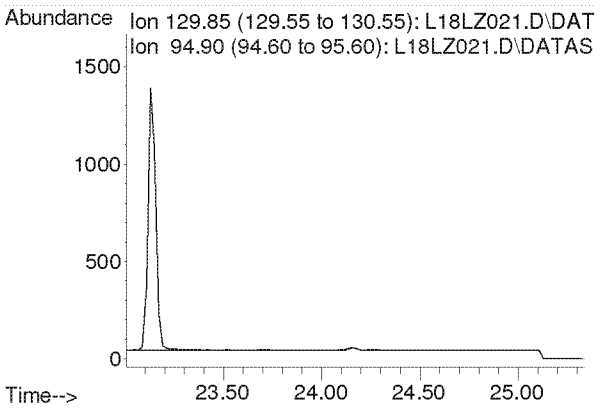


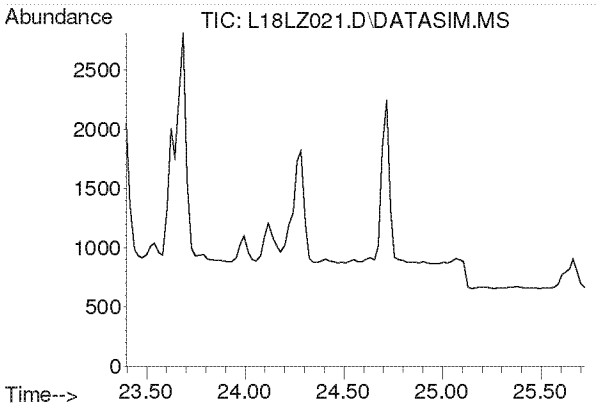
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



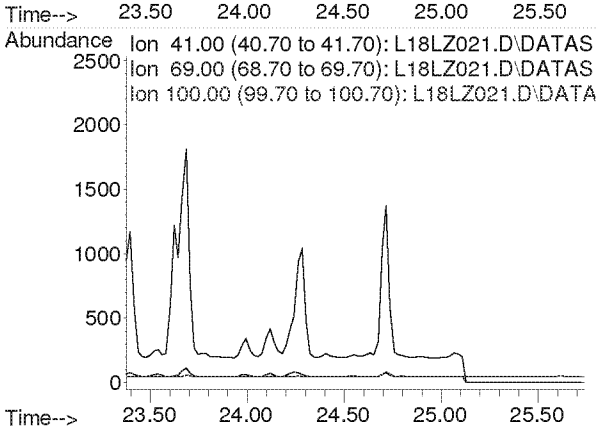


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

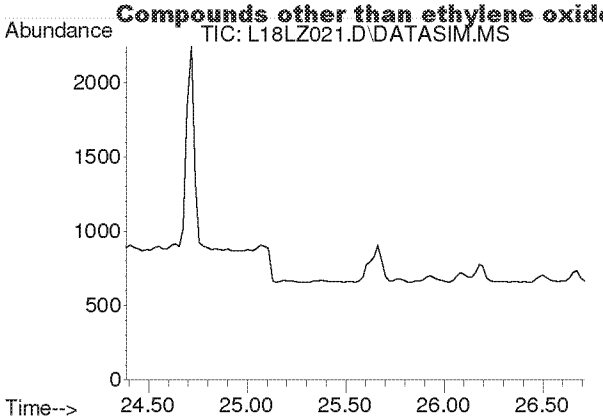
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

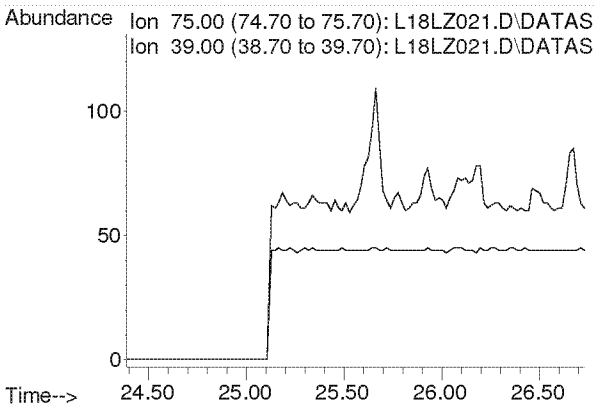


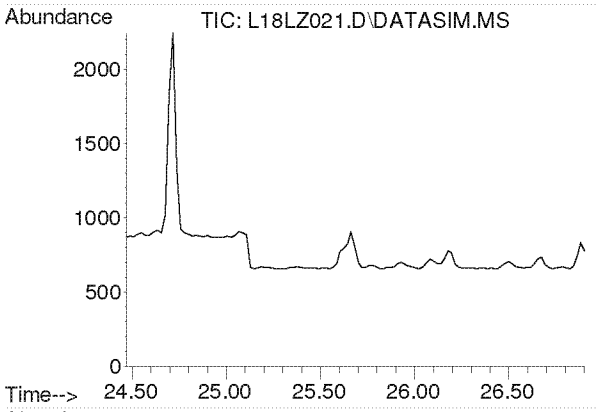
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



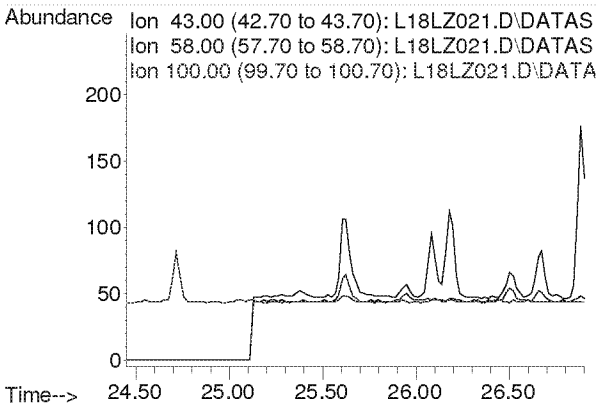


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

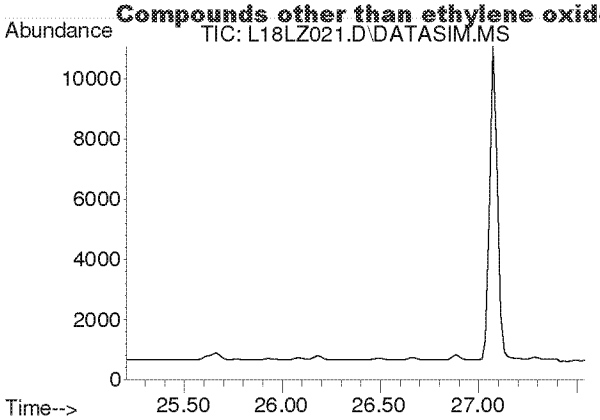
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

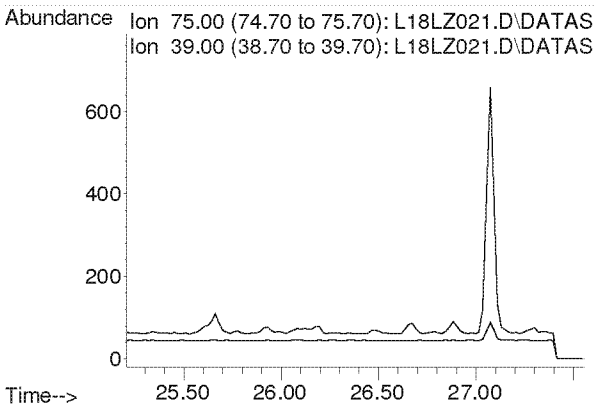


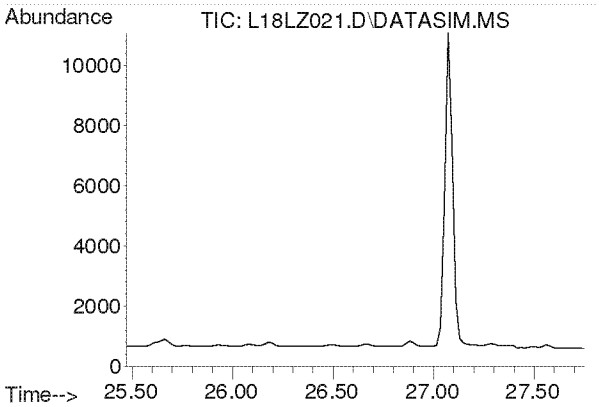
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



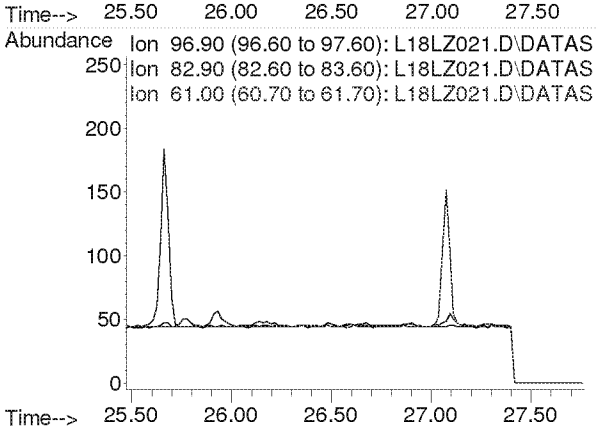


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

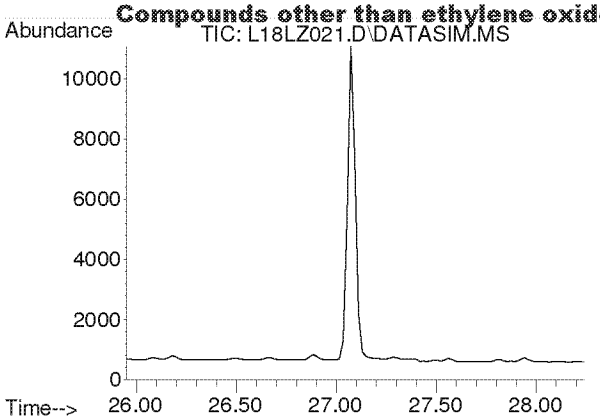
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

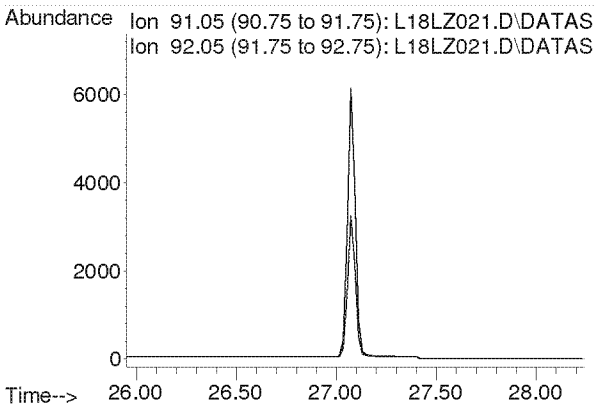


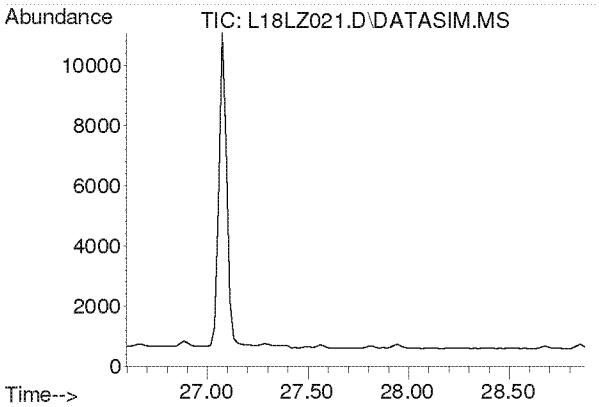
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



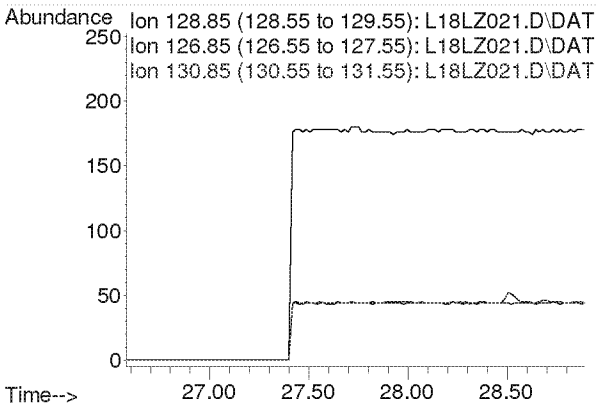


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

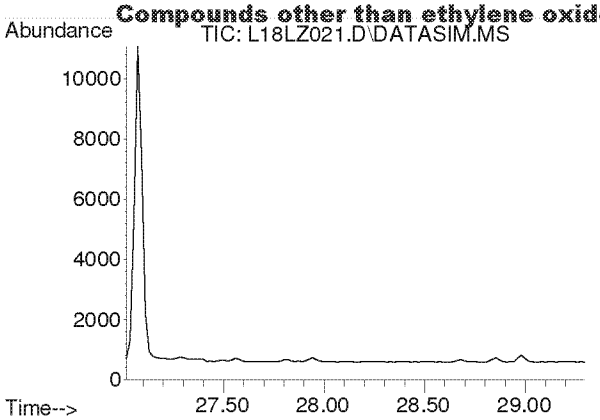
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

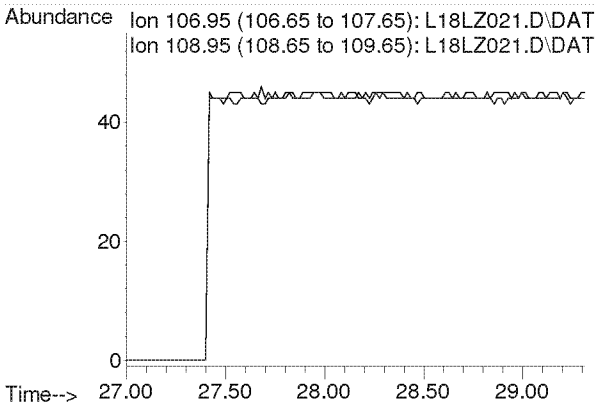


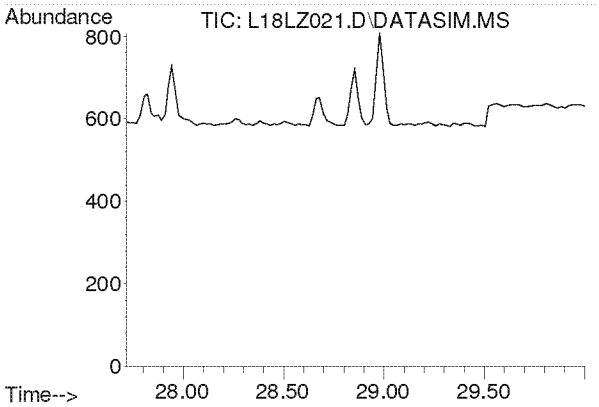
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



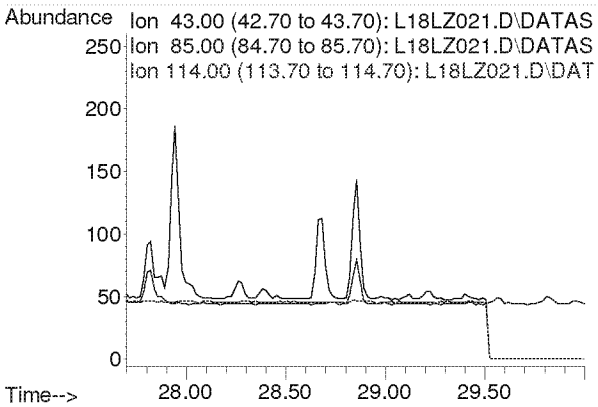


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

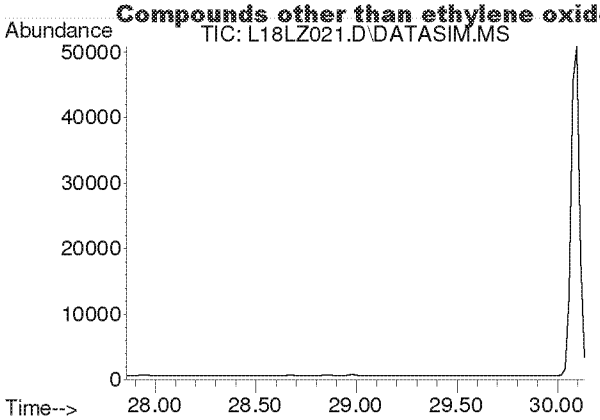
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

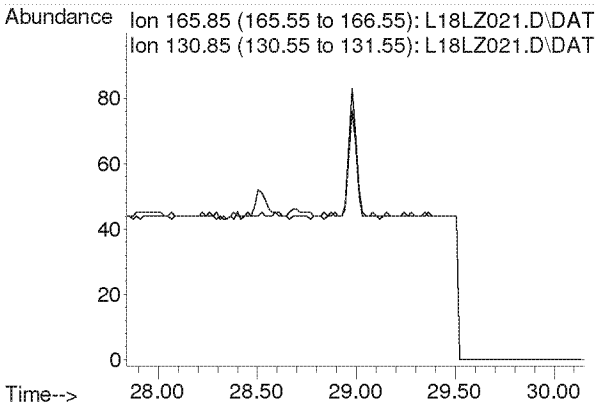


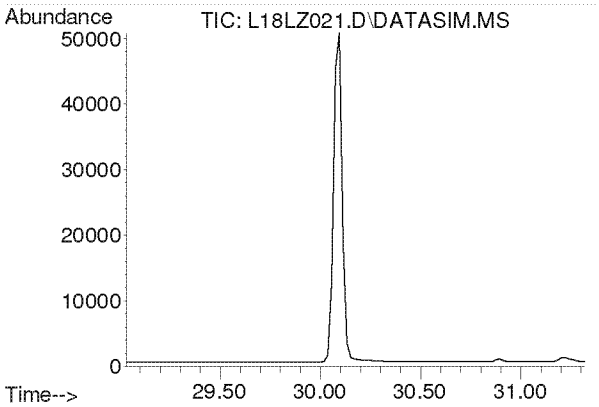
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



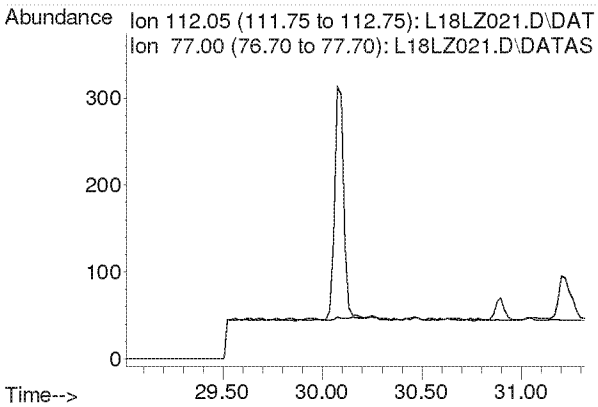


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

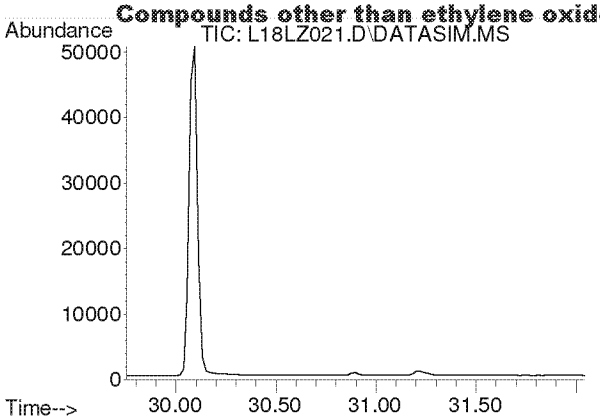
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

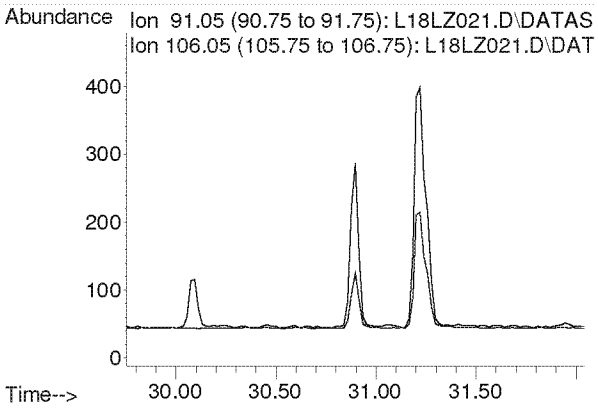


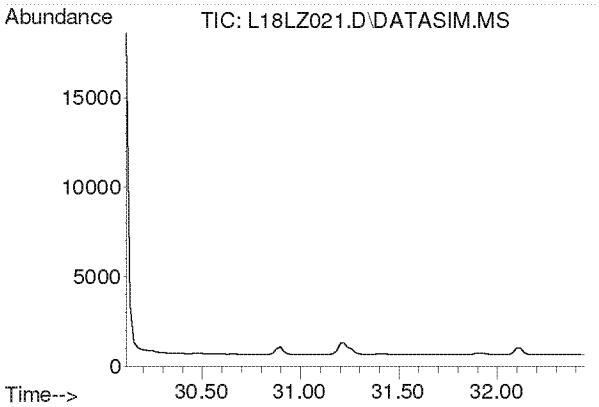
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



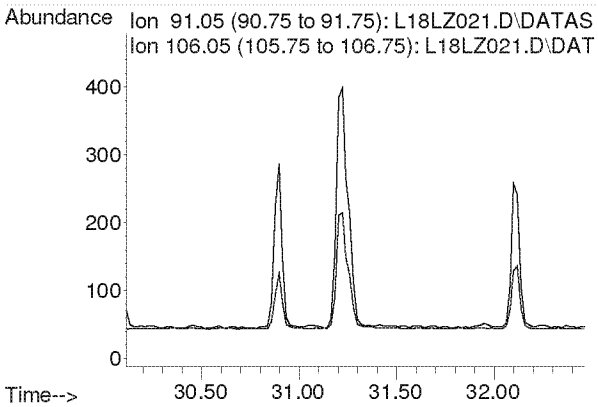


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

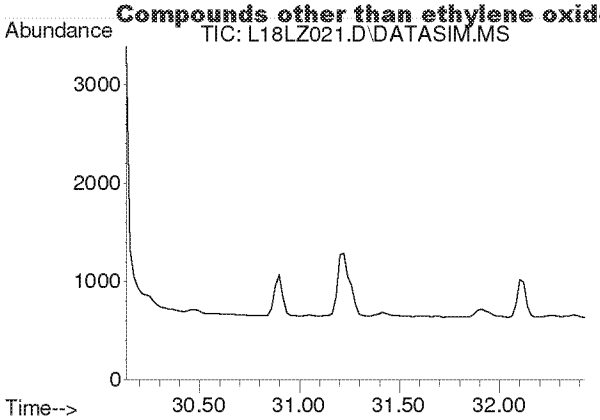
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

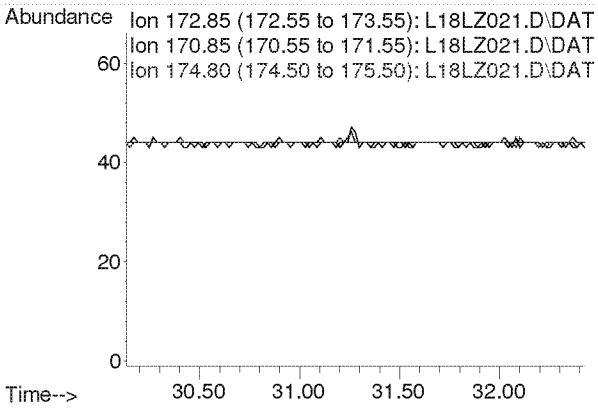


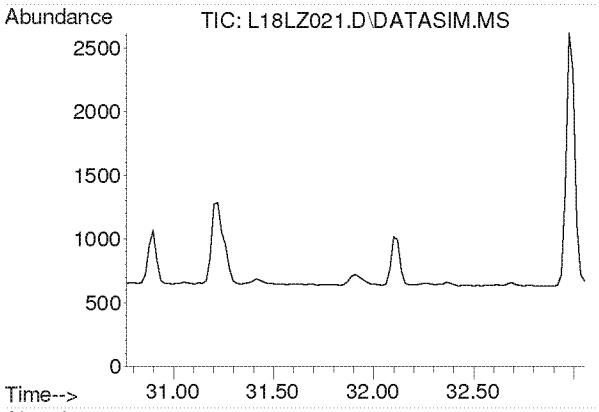
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



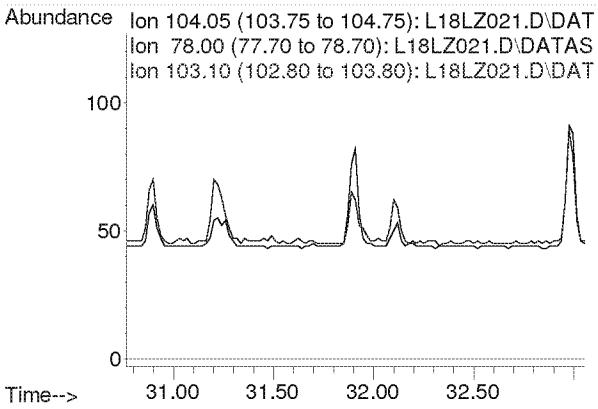


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

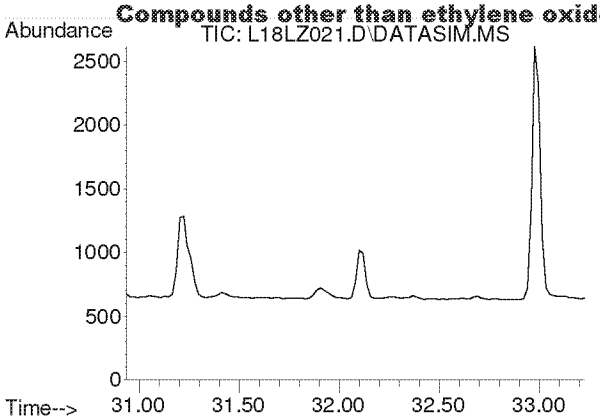
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

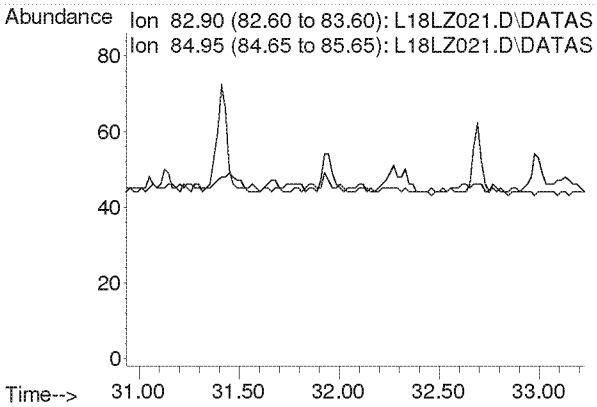


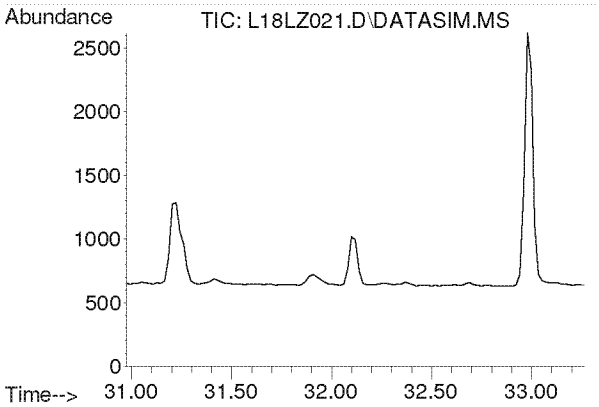
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



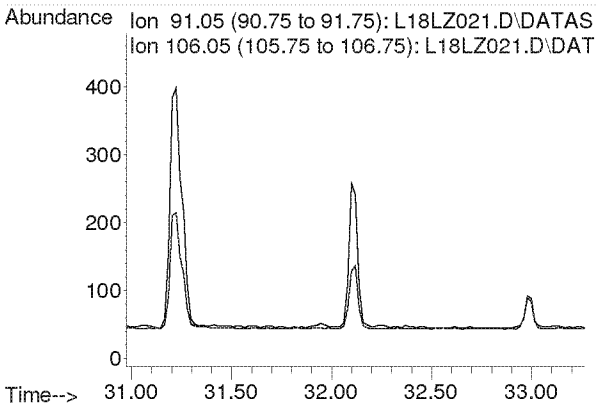


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

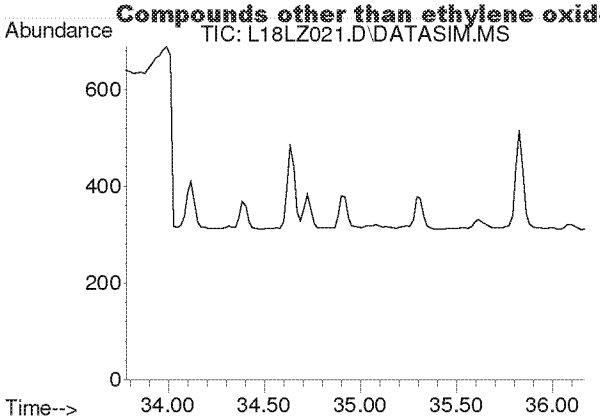
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

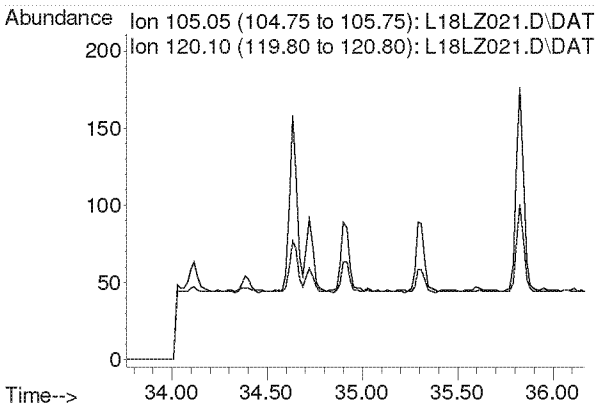


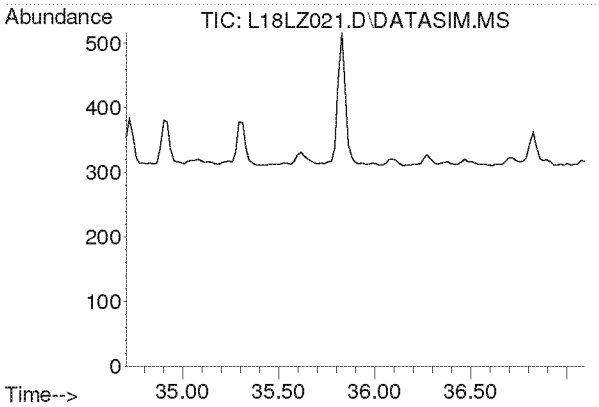
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



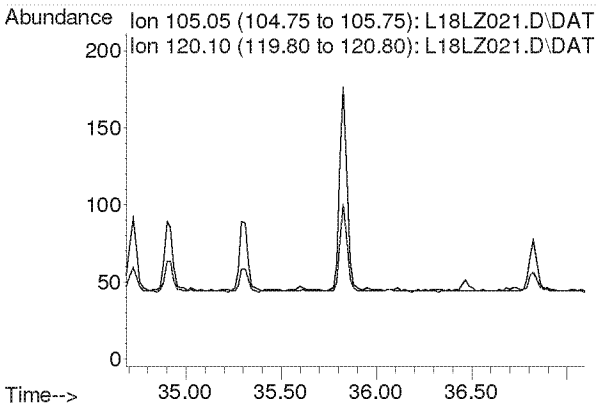


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

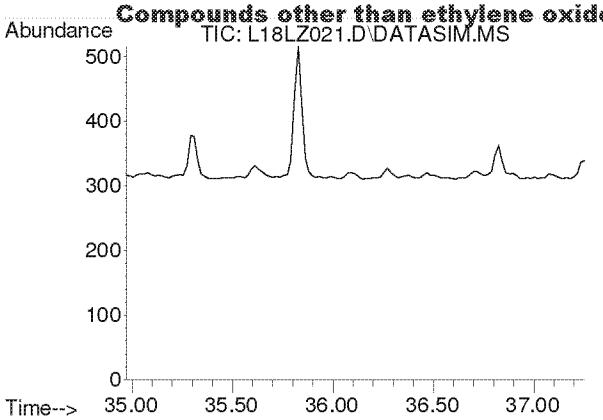
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

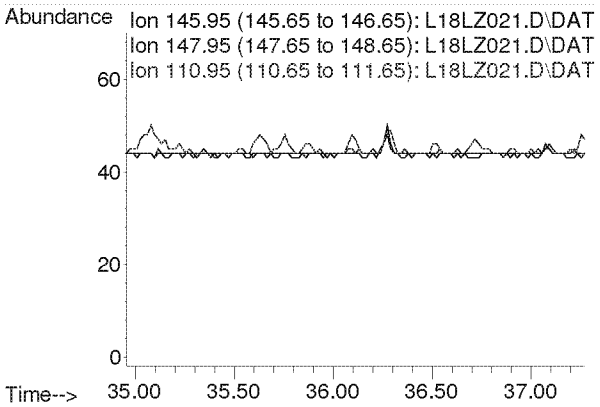


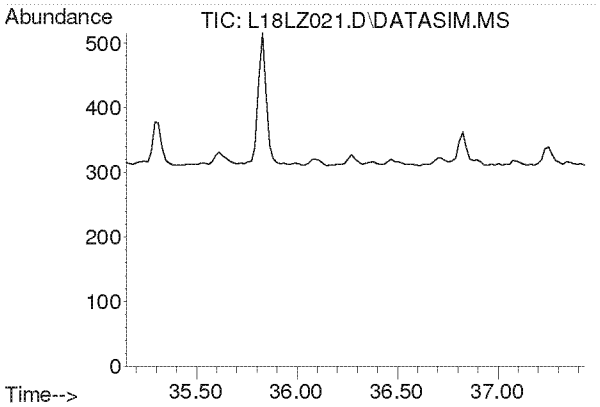
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



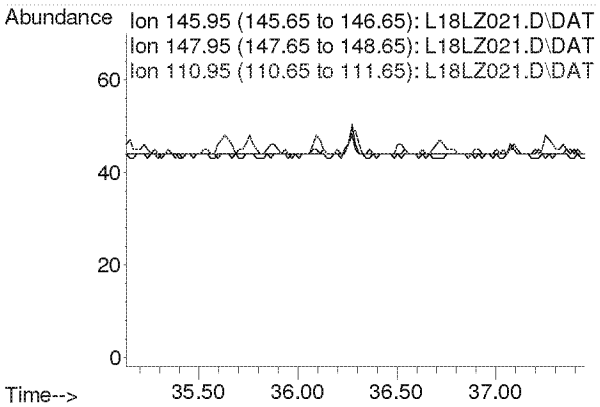


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

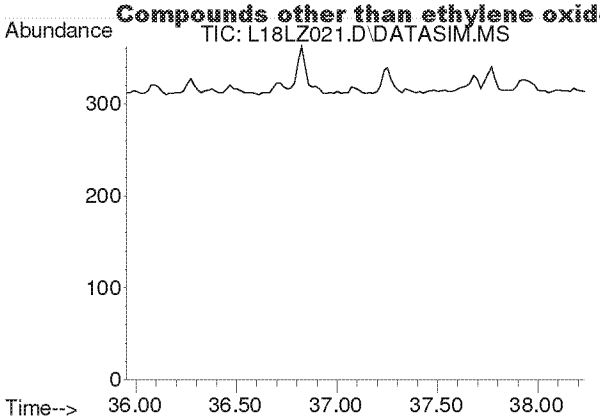
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

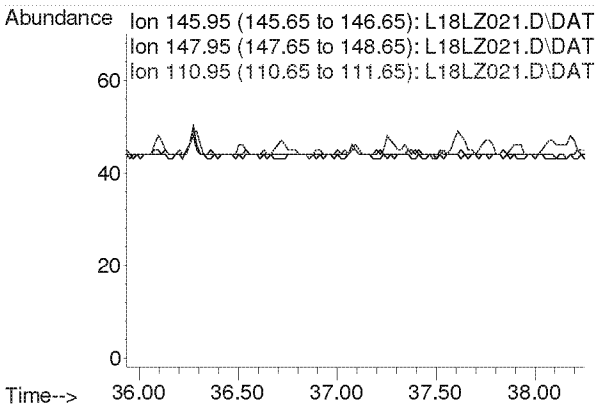


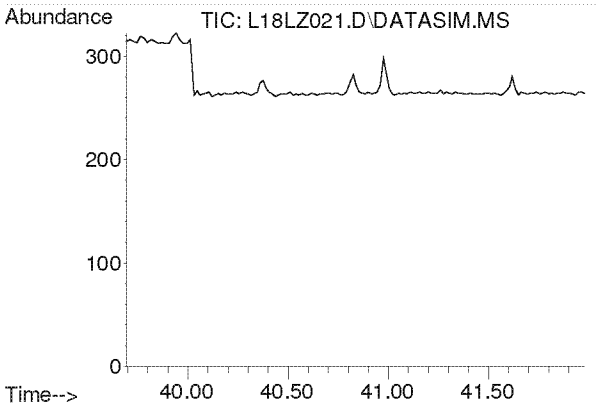
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



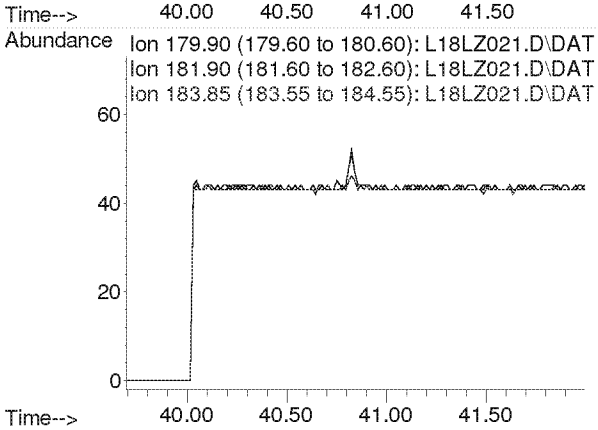


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

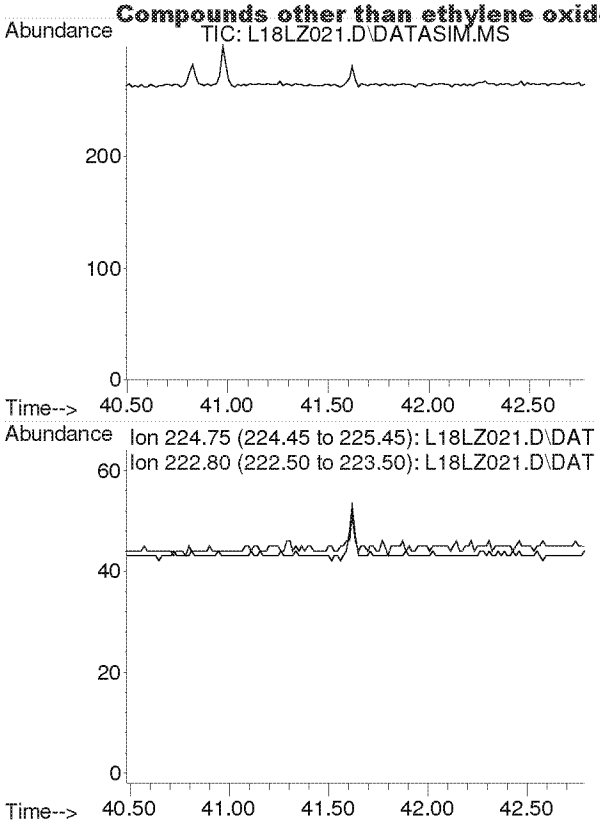
Lab File: L18LZ021.D
Acq: 27 Dec 2018 8:03 am

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: L18LZ021.D
Acq: 27 Dec 2018 8:03 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\L18LZ\
Data File : L18LZ022.D
Acq On : 27 Dec 2018 9:05 am
Operator : MAH
Sample : 8121130-03
Misc : WILLOW POND PARK 12/7/18
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jan 03 11:26:08 2019
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

EDT only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	54324	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	128260	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	86851	4.7400 ppbv	0.00

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 JV	
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.	
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.	
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\L18LZ\
Data File : L18LZ022.D
Acq On : 27 Dec 2018 9:05 am
Operator : MAH
Sample : 8121130-03
Misc : WILLOW POND PARK 12/7/18
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jan 03 11:26:08 2019
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

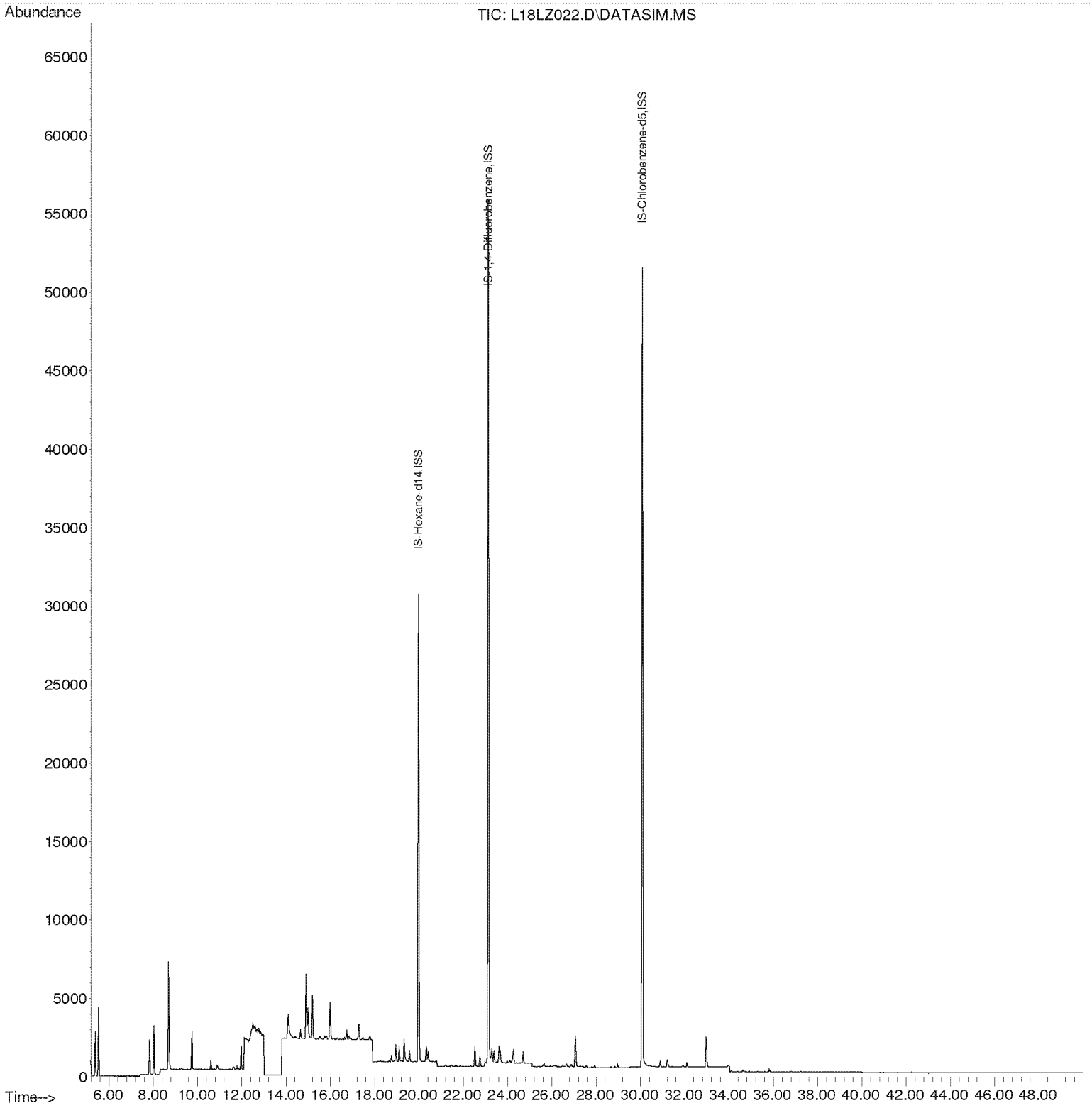
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene	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

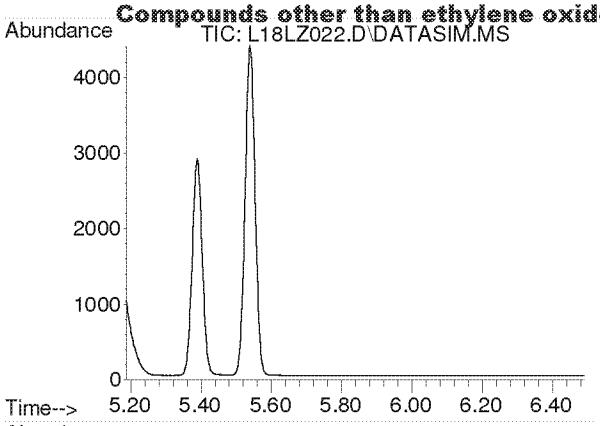
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ022.D
Acq On : 27 Dec 2018 9:05 am
Operator : MAH
Sample : 8121130-03
Misc : WILLOW POND PARK 12/7/18
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jan 03 10:39:12 2019
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



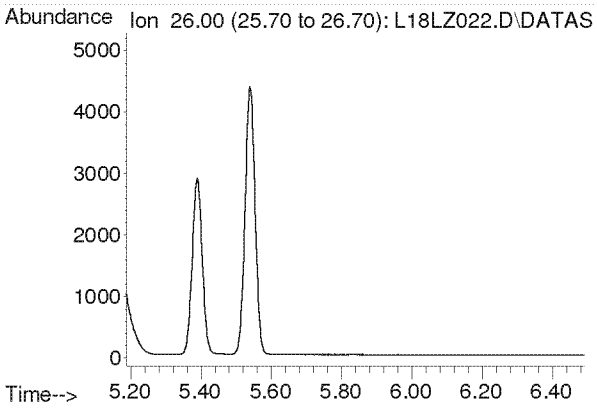
Compounds other than ethylene oxide were not quantitated.

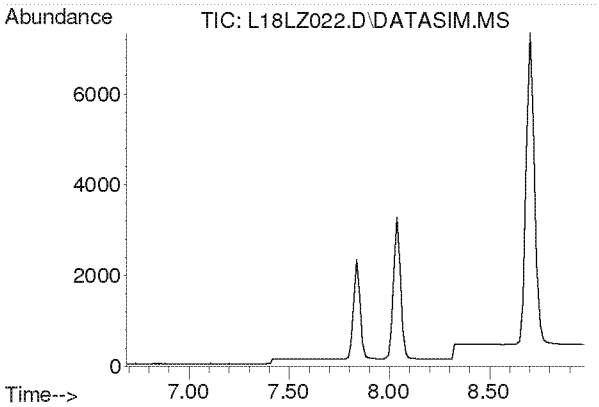


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 26



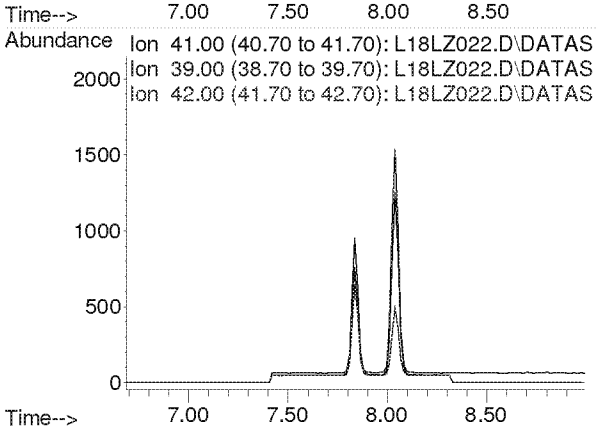


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

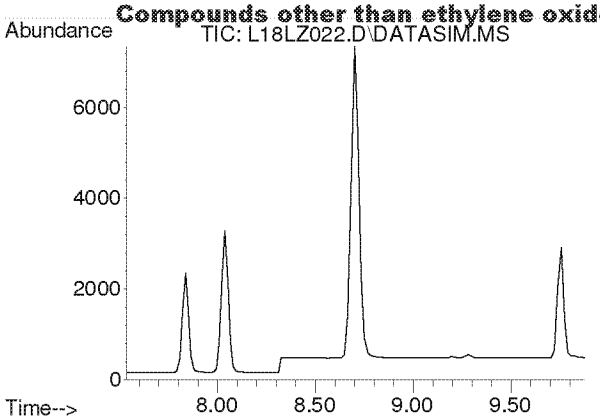
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

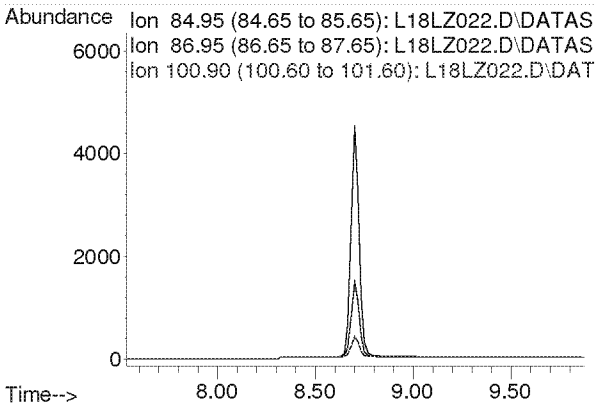


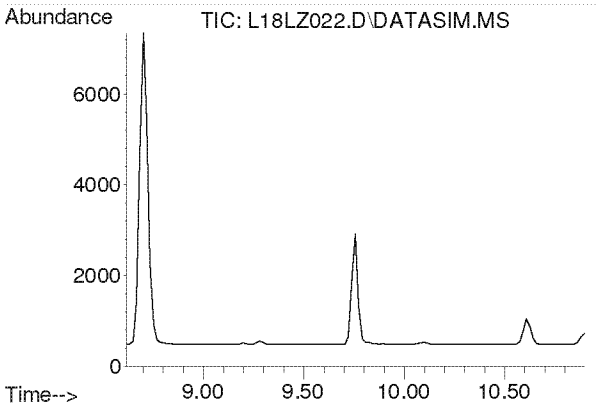
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



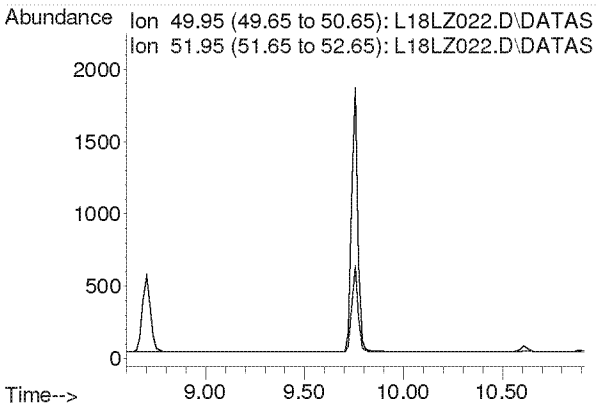


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

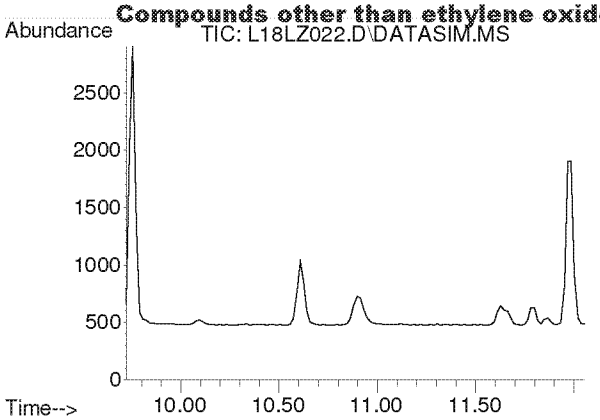
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

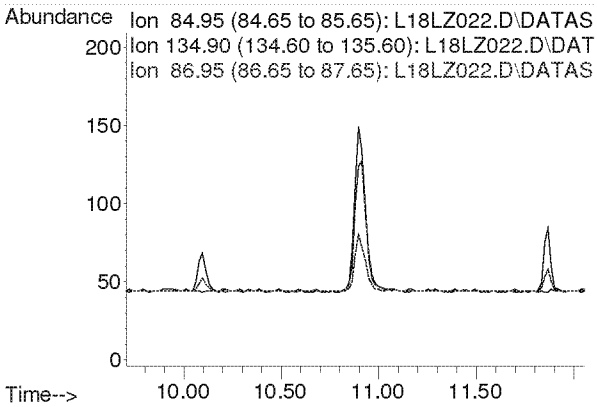


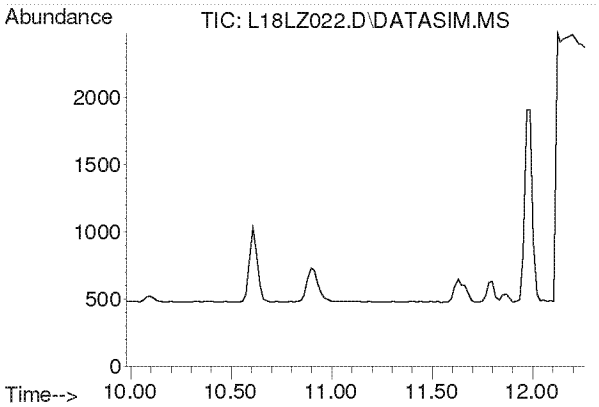
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



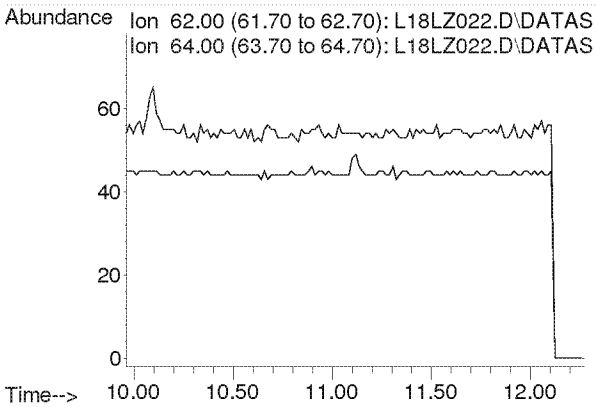


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

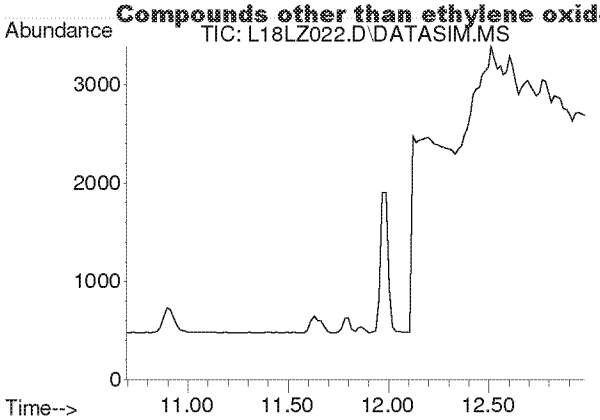
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

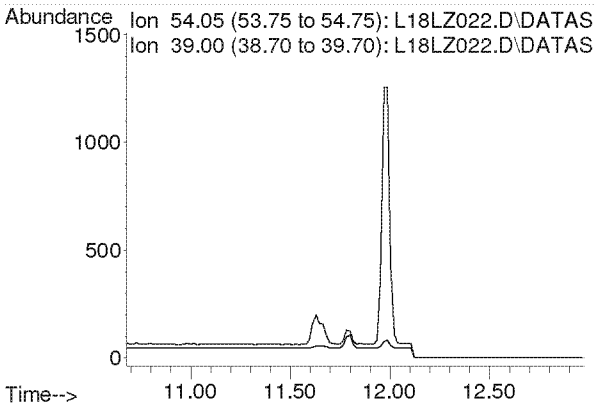


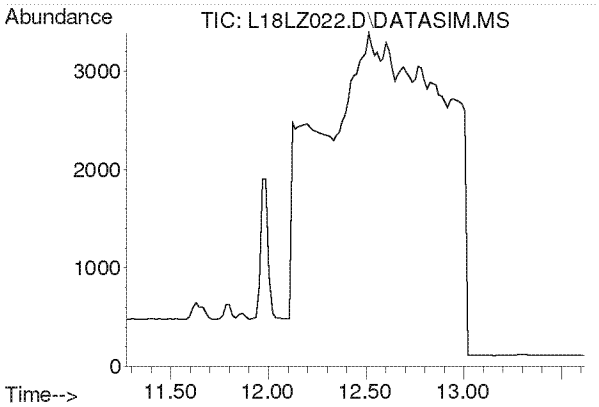
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4



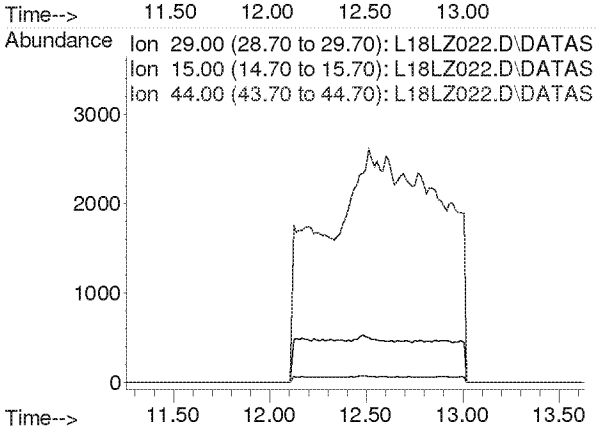


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

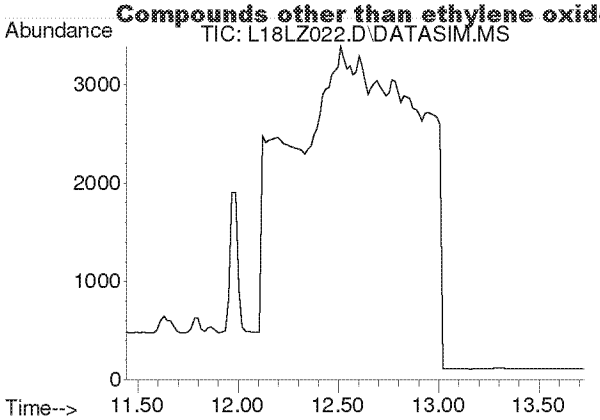
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.3
44	90.0



Compounds other than ethylene oxide were not quantitated.

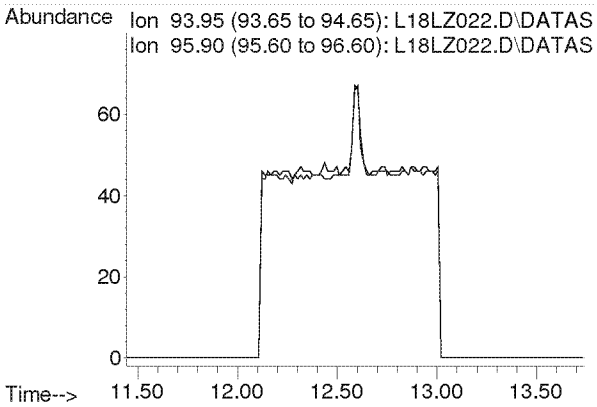


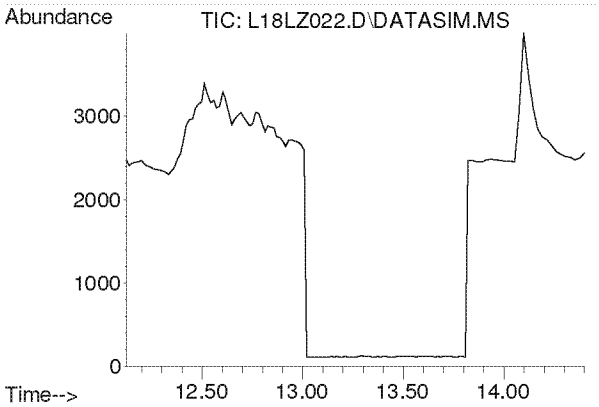
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



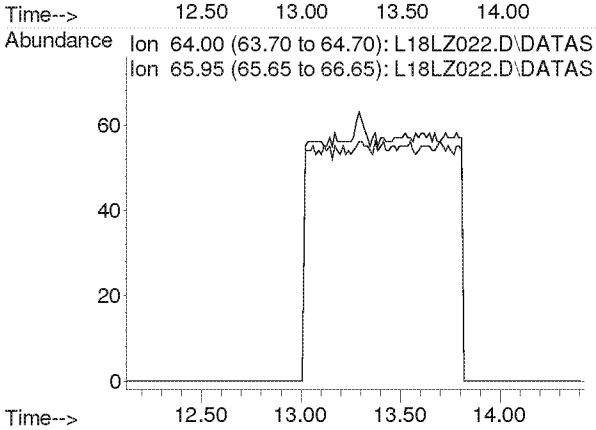


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

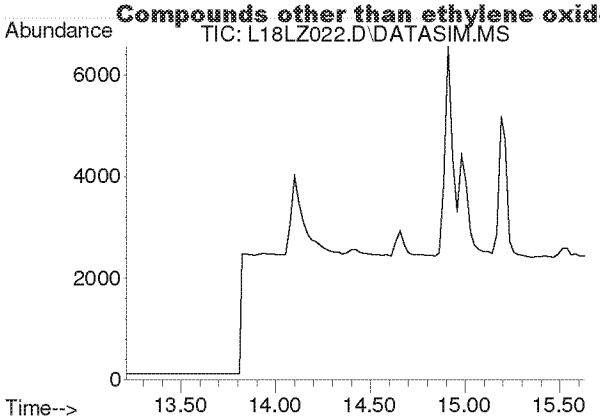
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

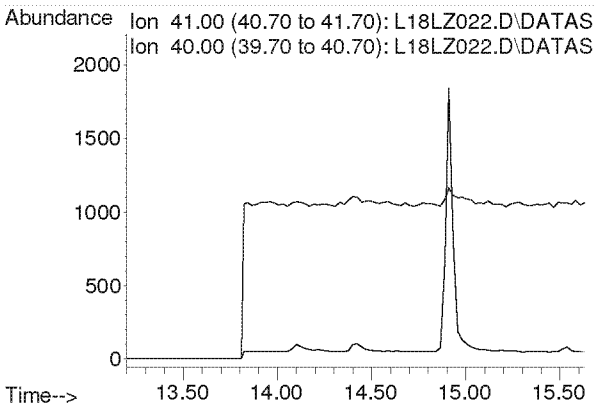


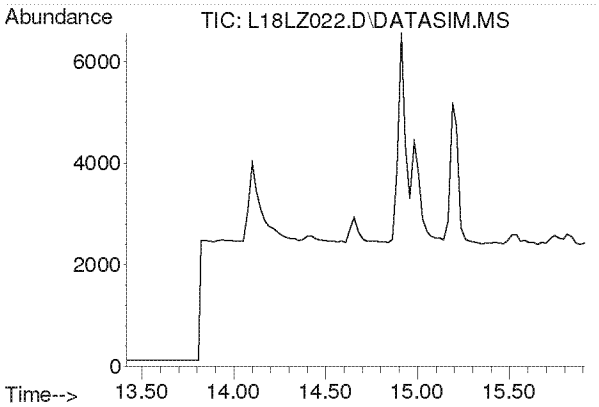
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



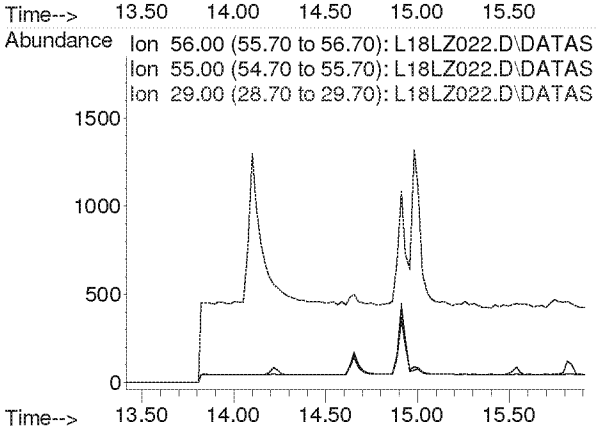


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

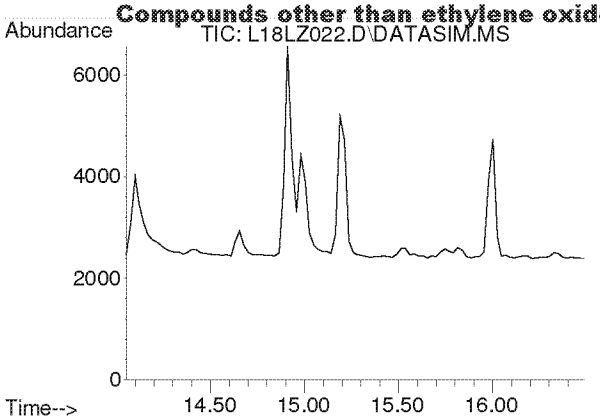
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

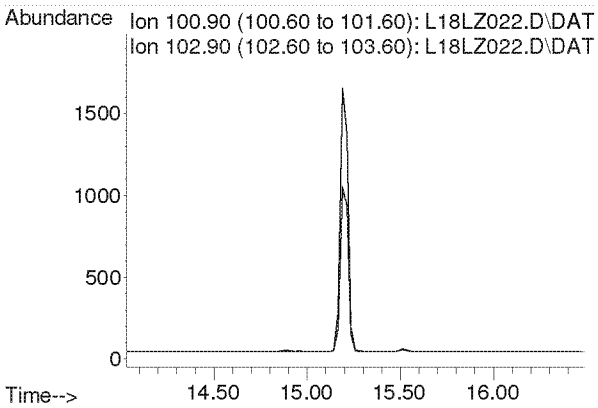


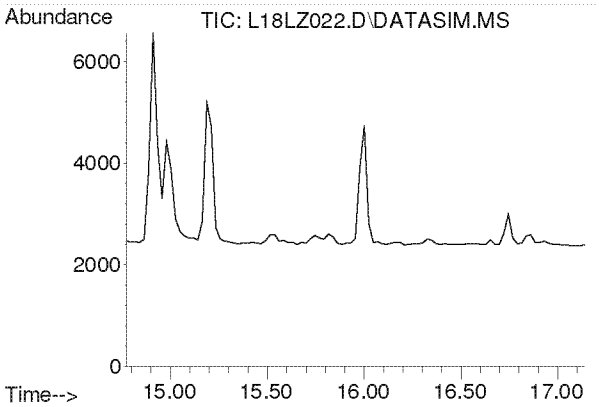
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



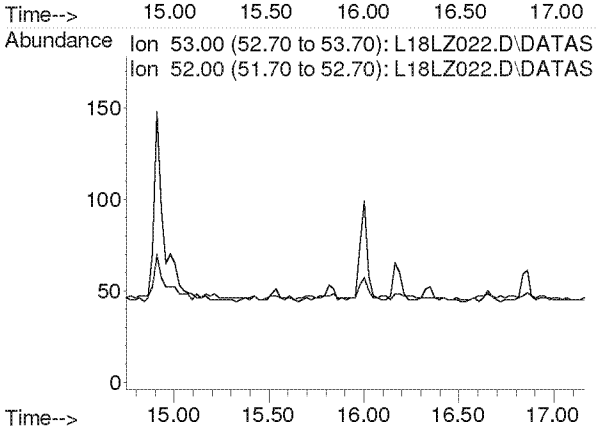


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

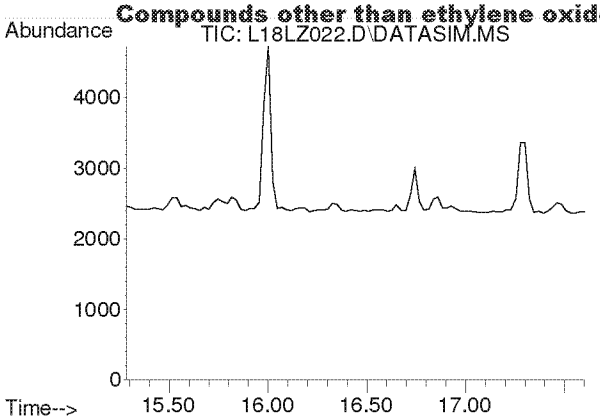
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

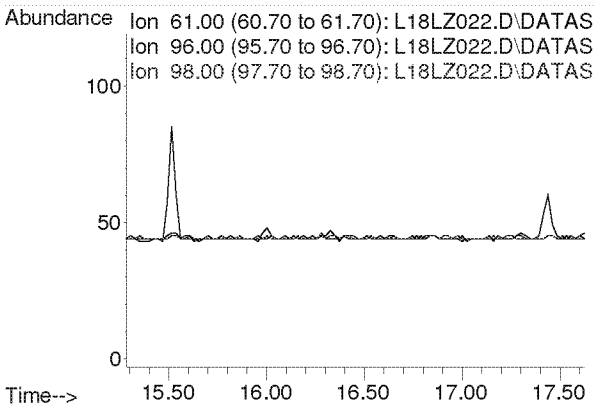


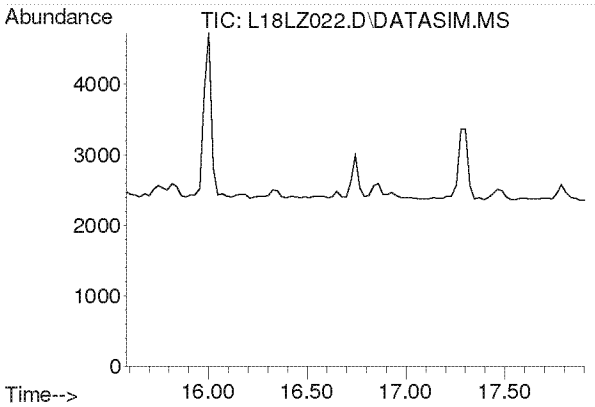
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



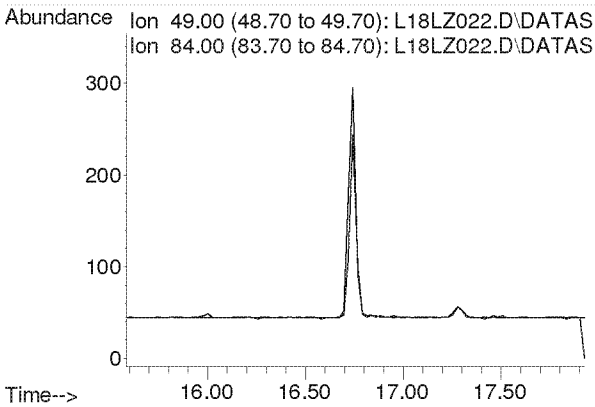


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

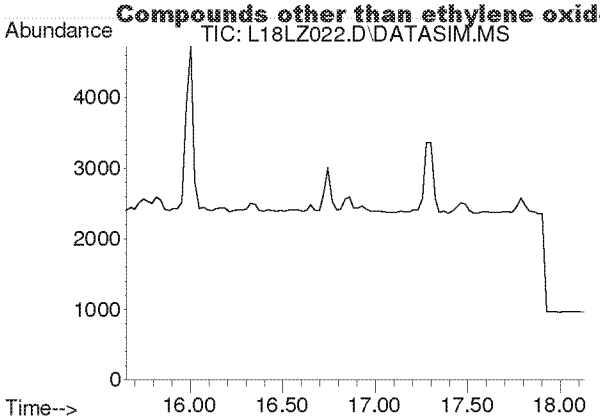
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

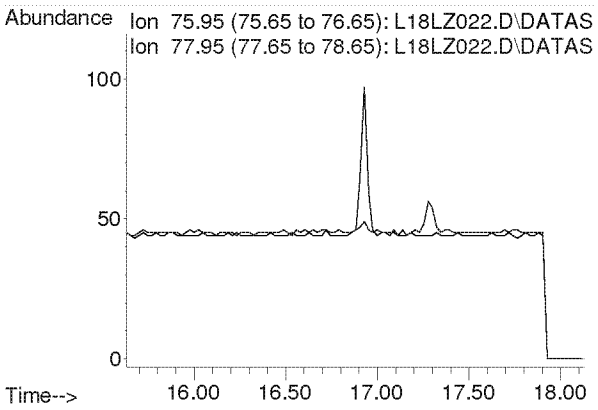


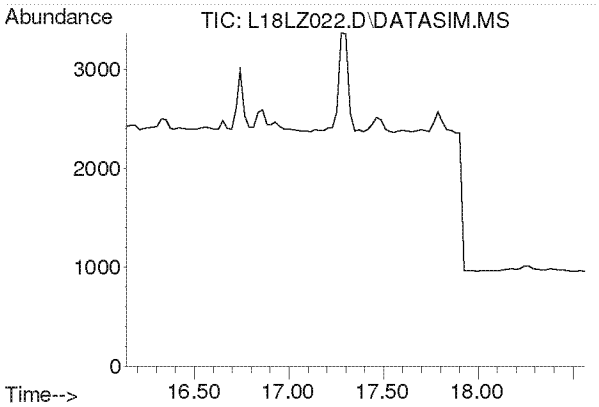
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



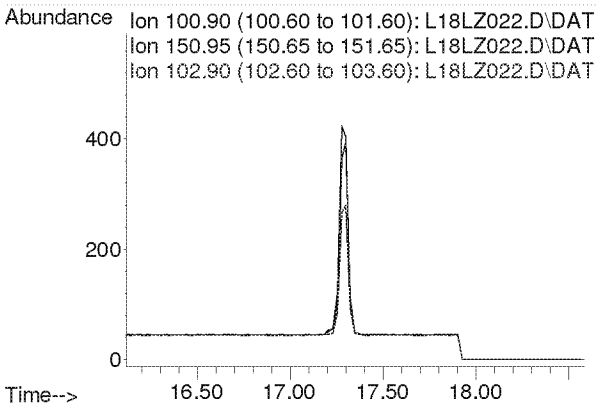


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

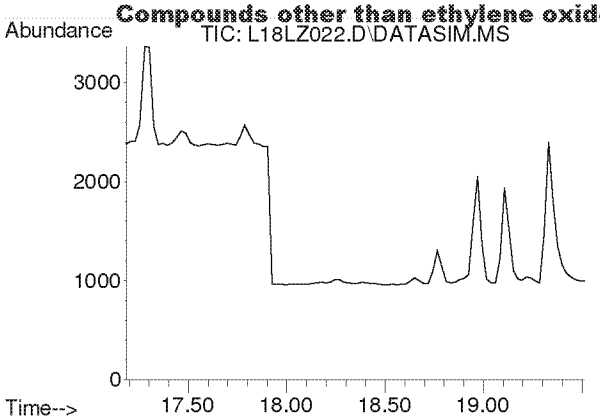
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

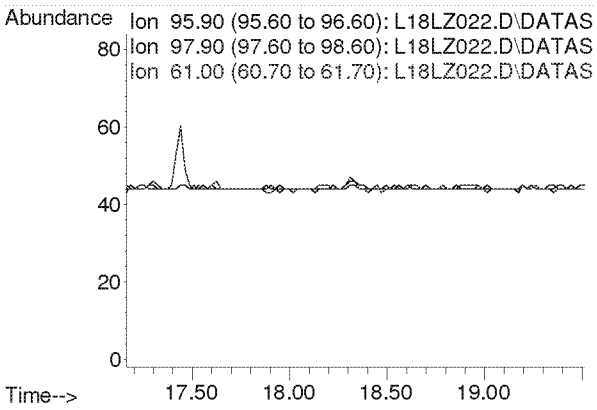


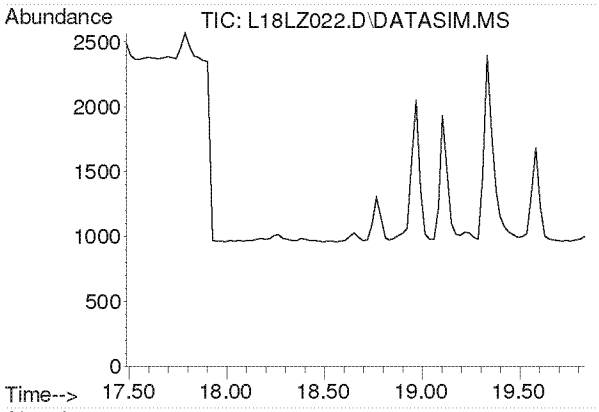
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



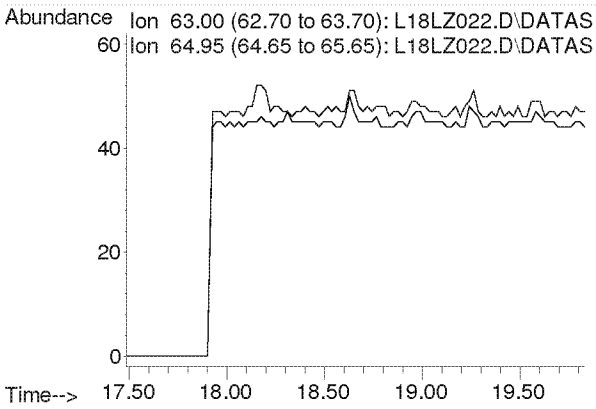


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

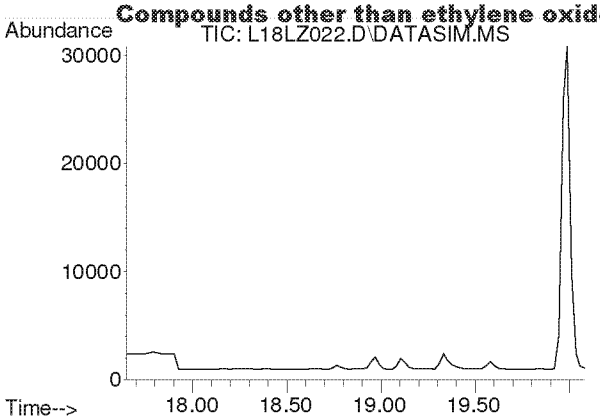
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

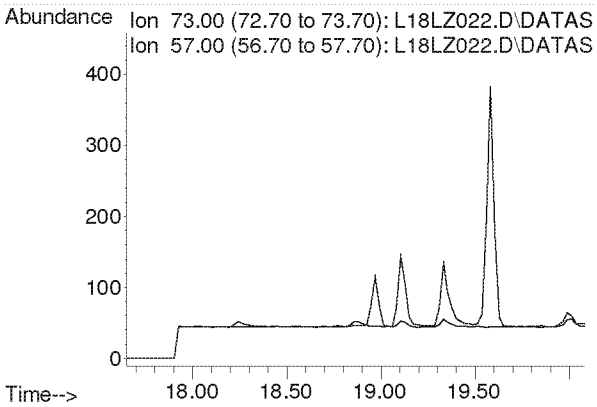


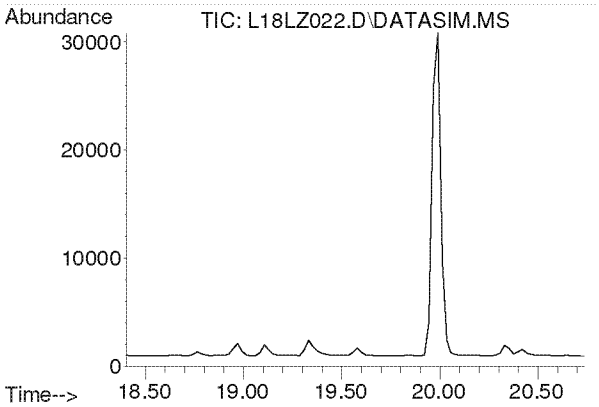
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



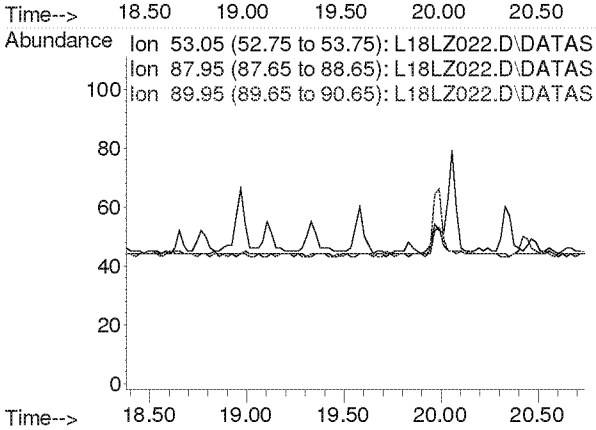


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

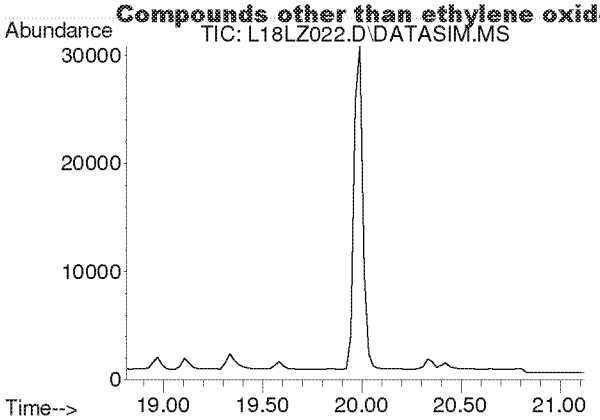
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

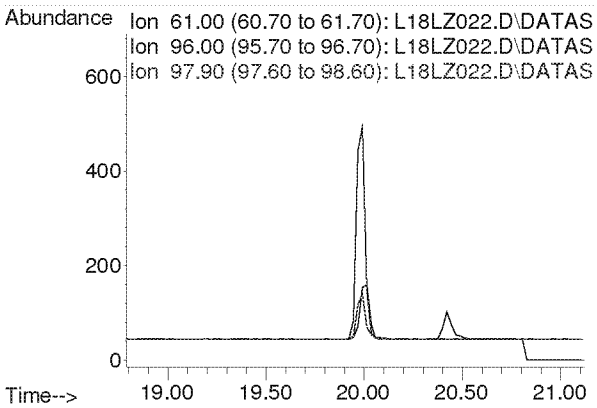


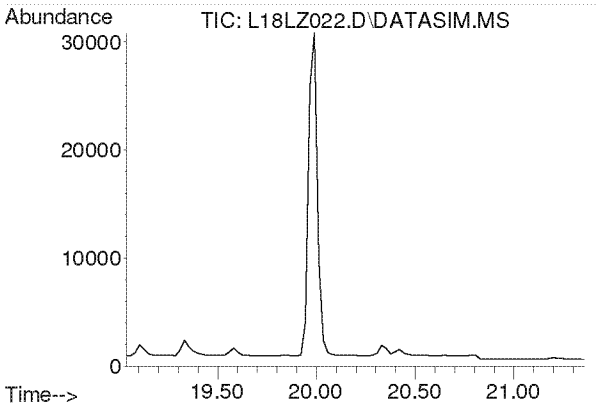
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



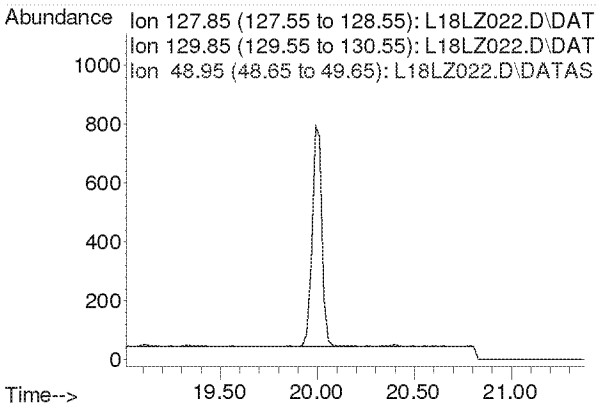


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

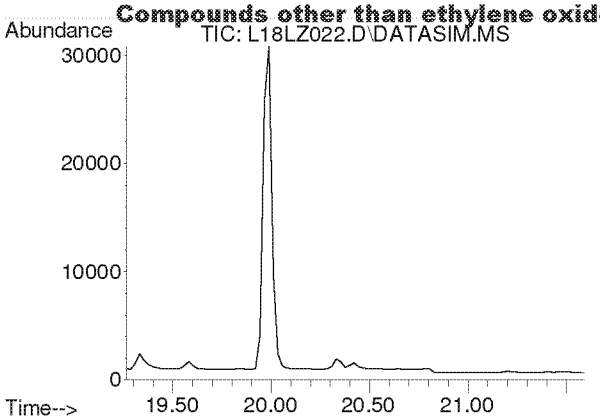
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

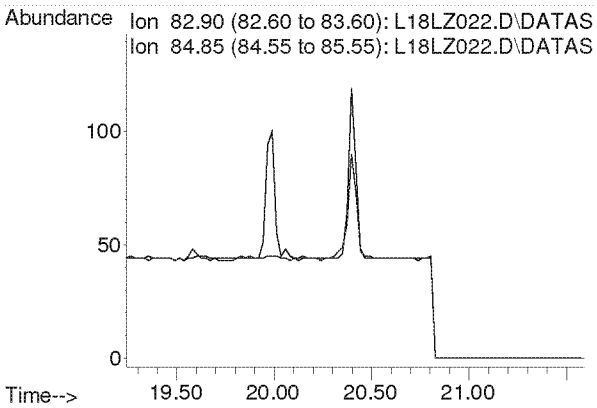


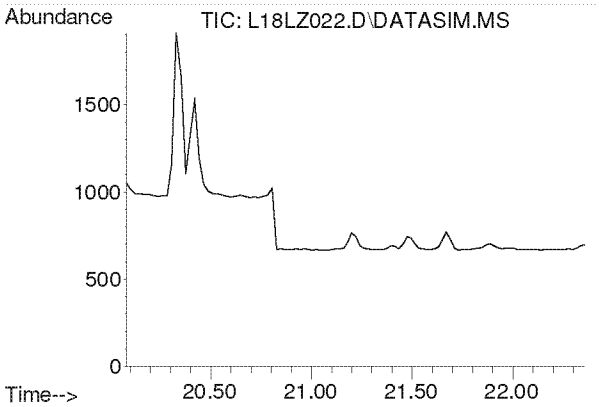
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



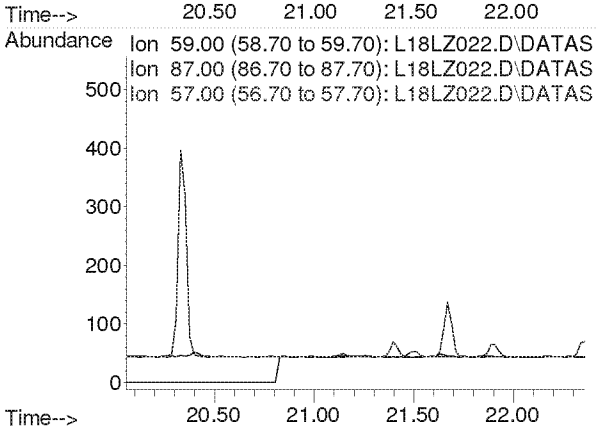


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

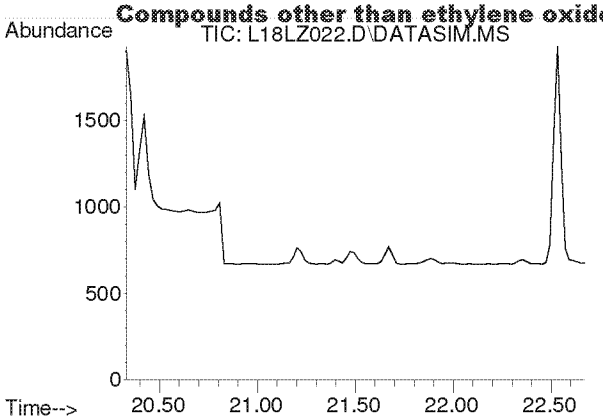
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

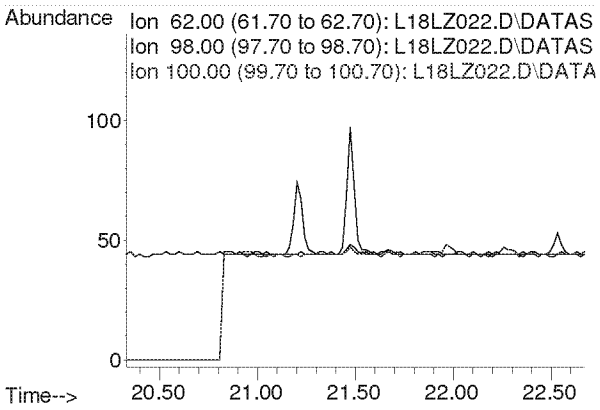


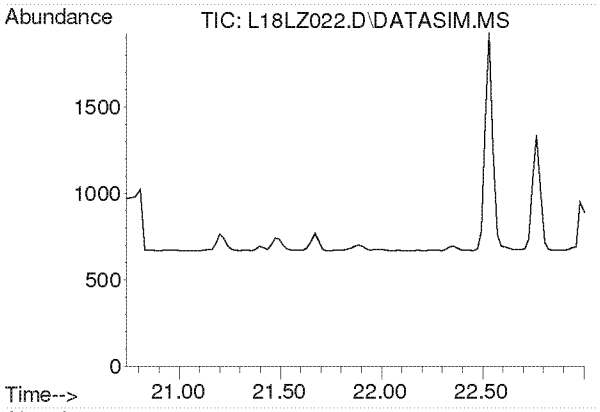
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



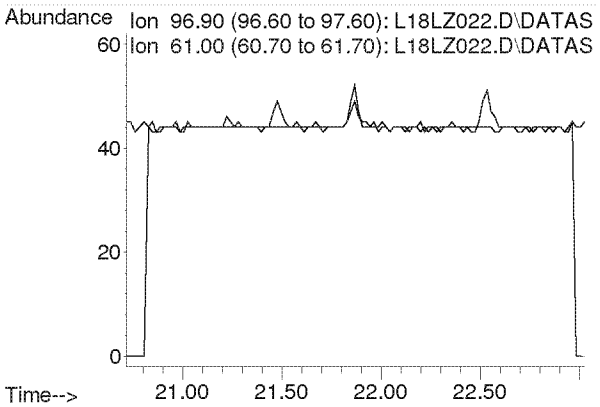


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

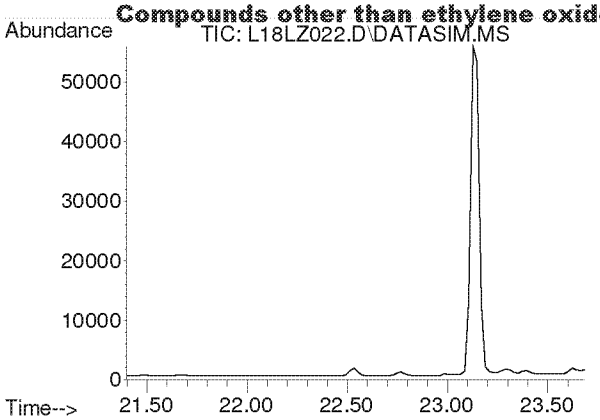
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

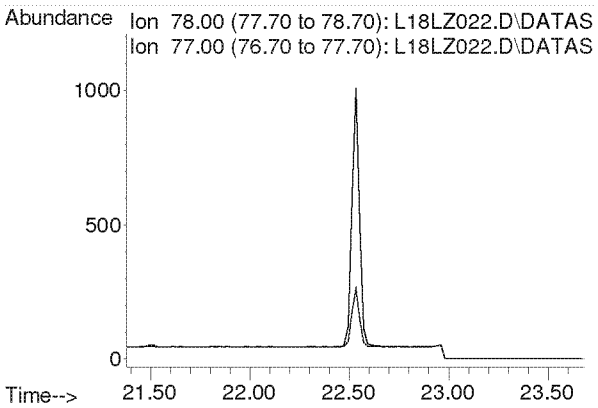


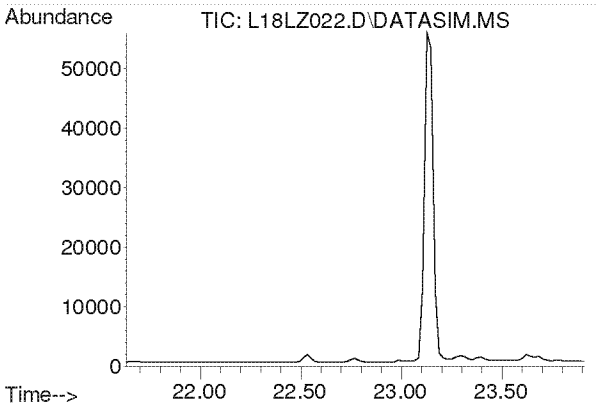
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



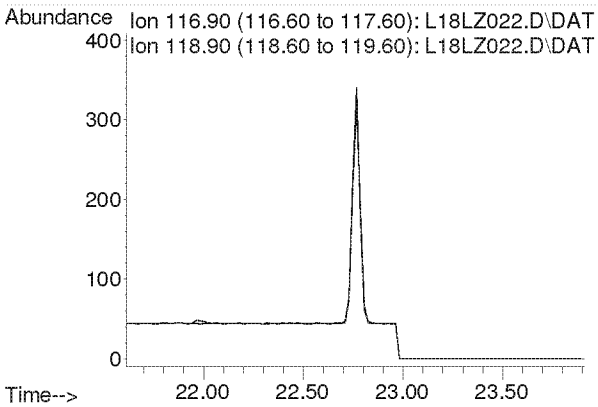


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

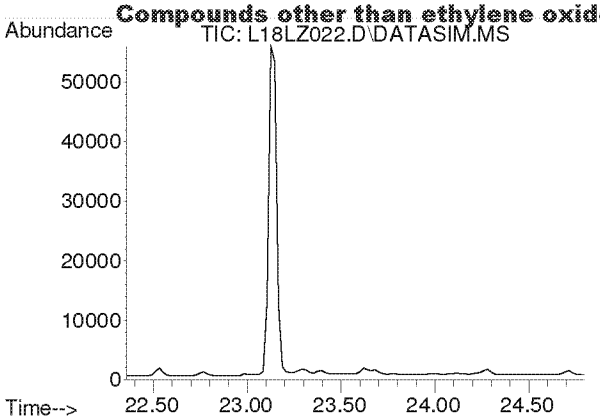
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

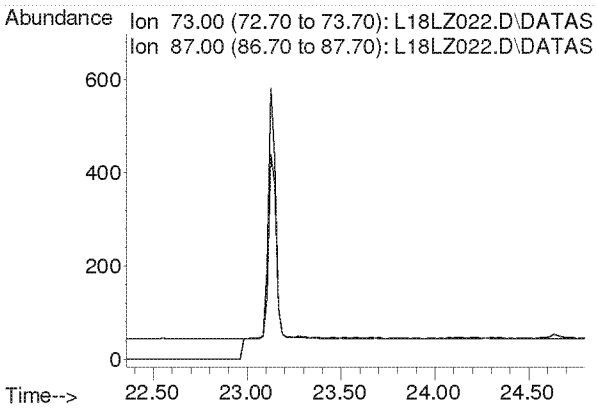


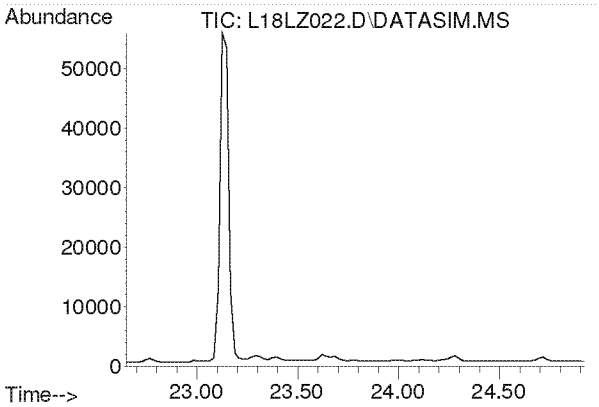
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



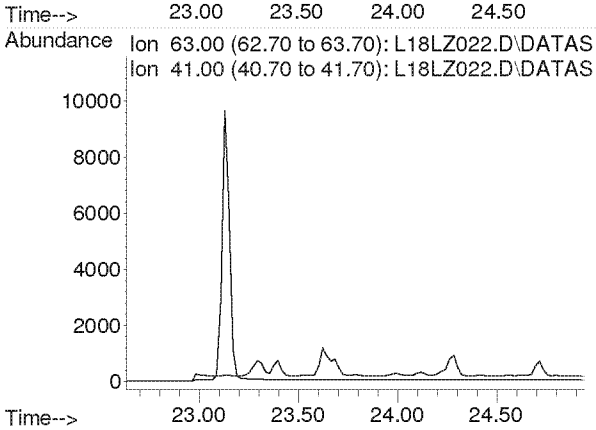


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

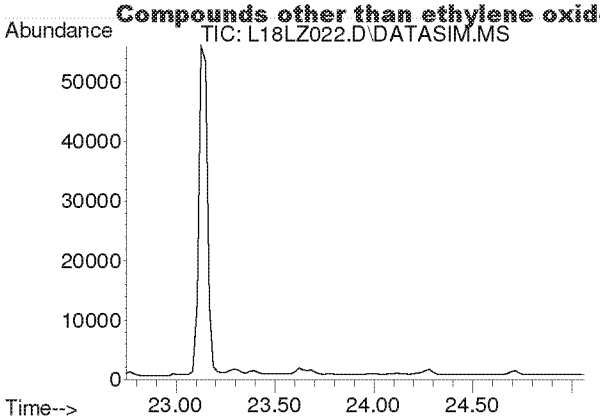
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

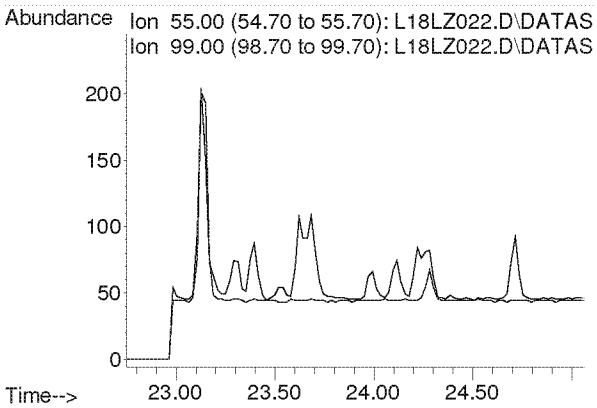


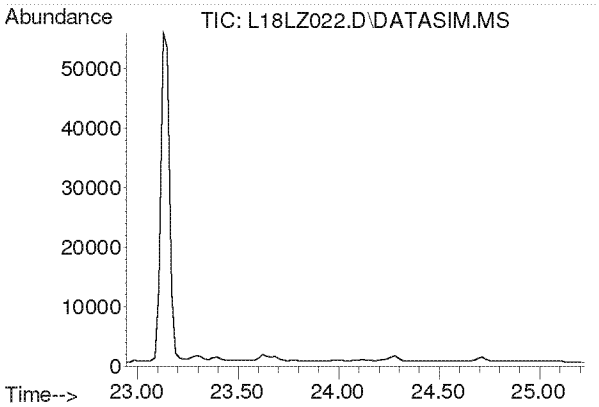
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



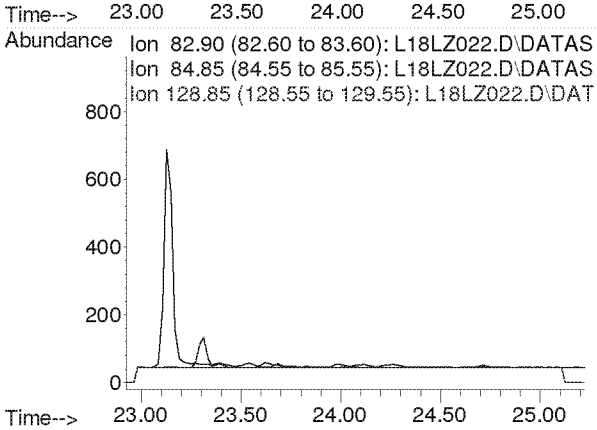


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

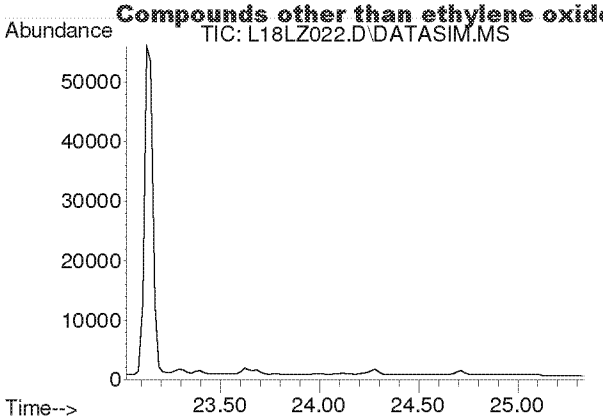
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

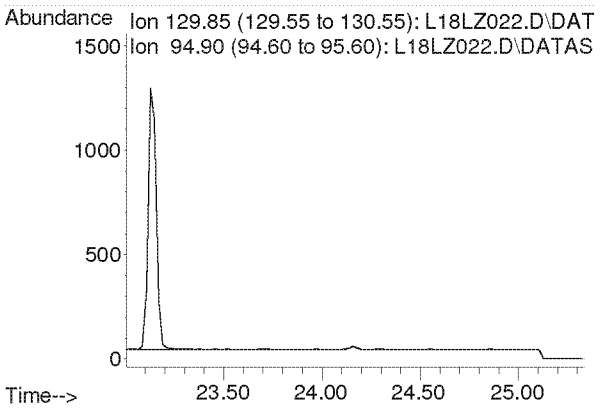


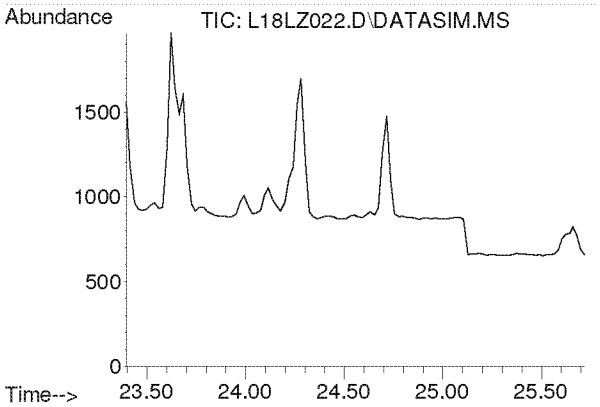
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



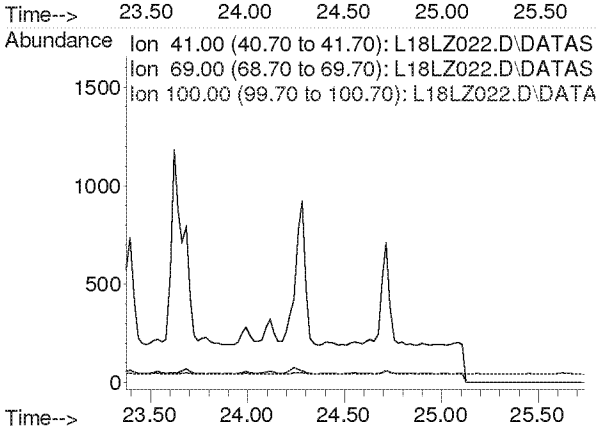


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

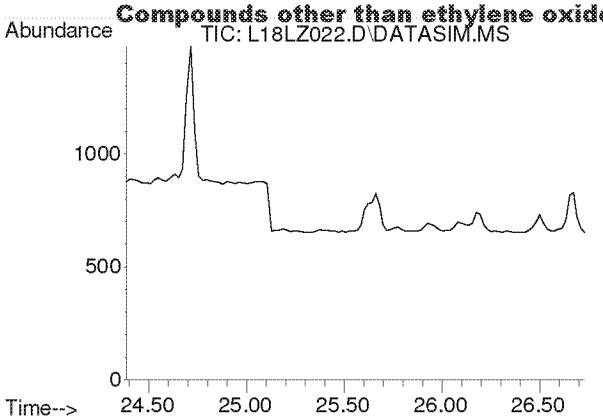
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

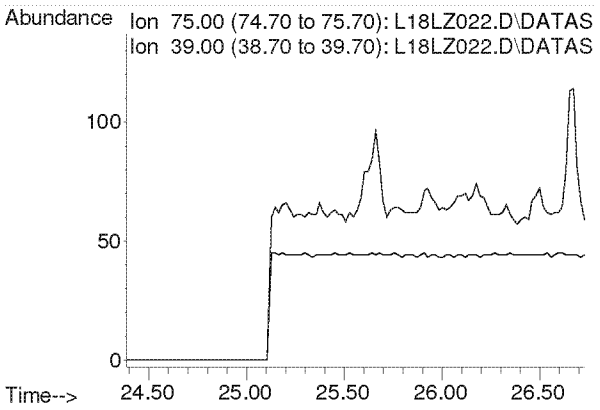


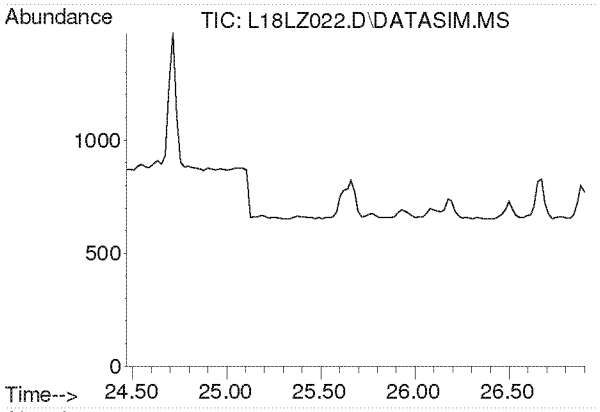
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



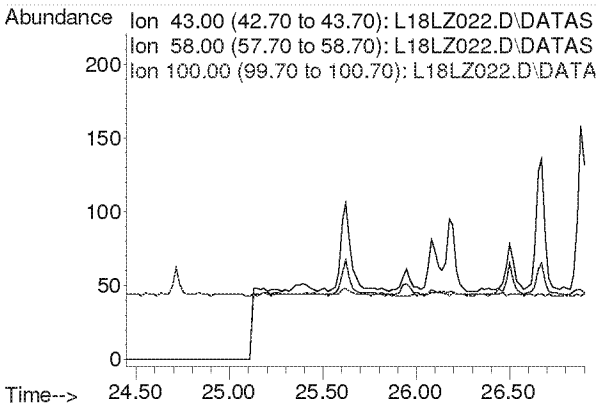


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

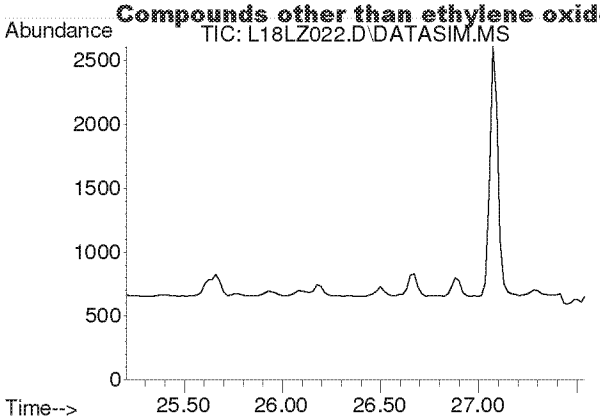
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

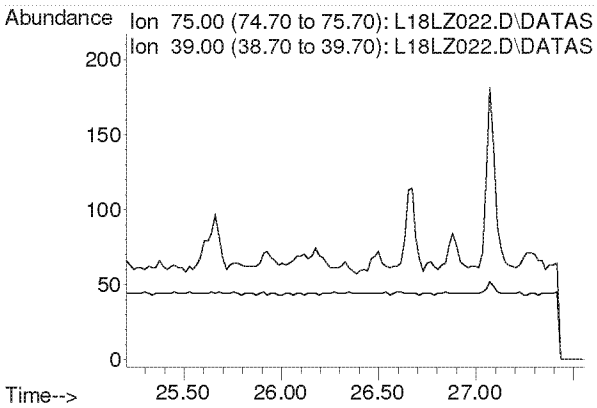


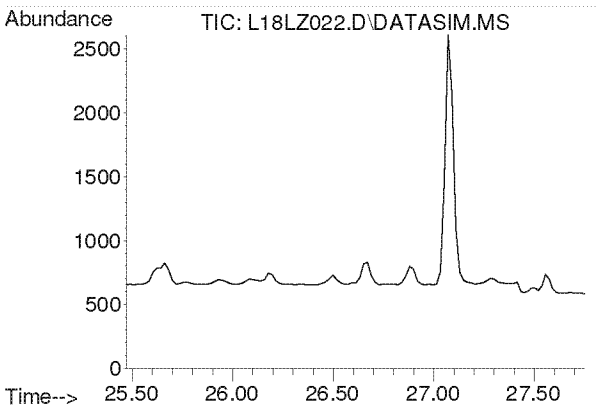
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



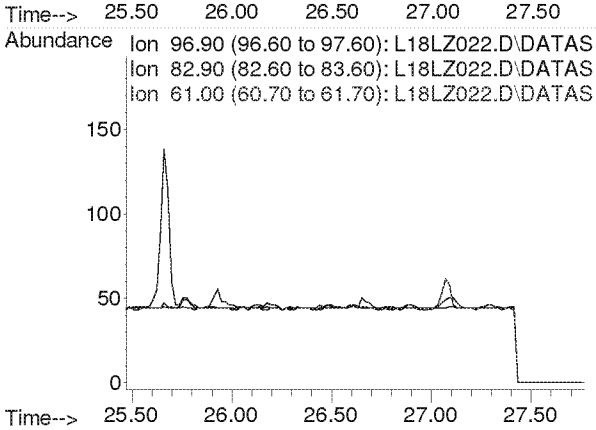


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

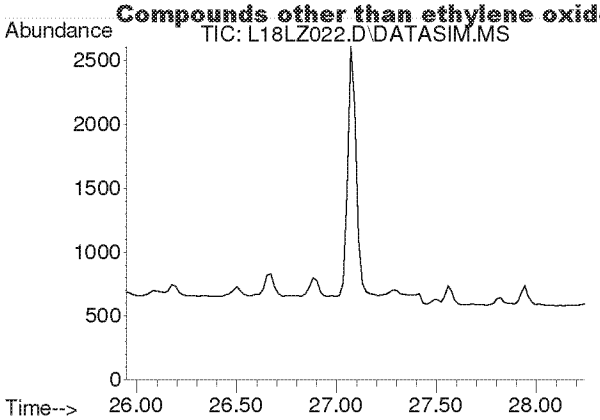
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

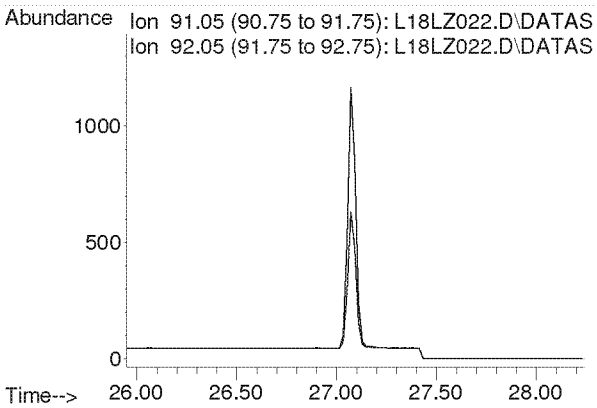


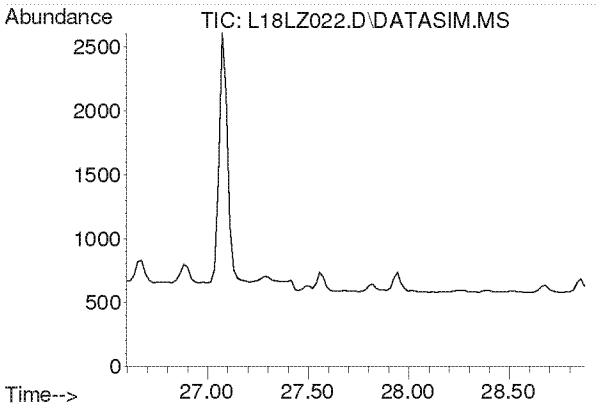
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



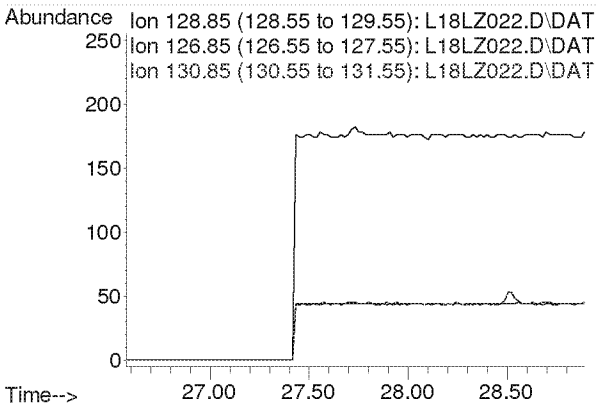


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

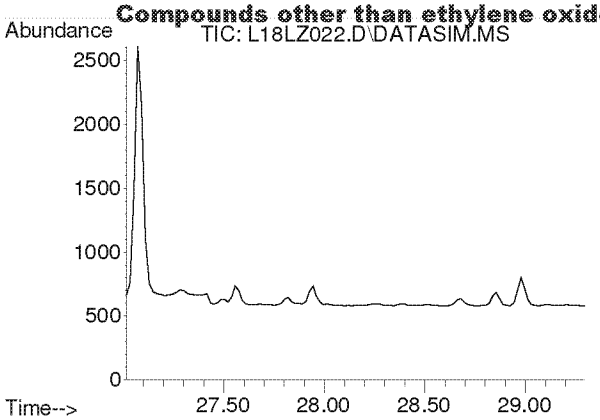
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

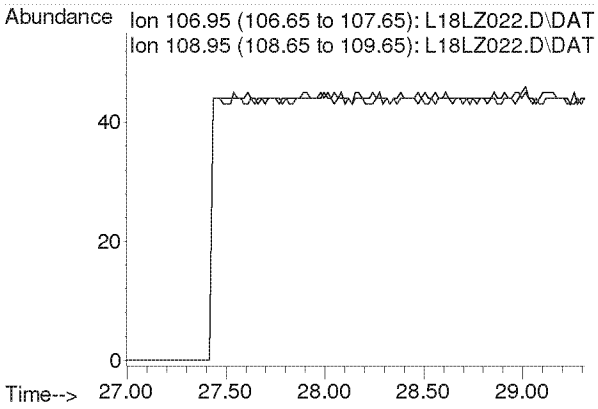


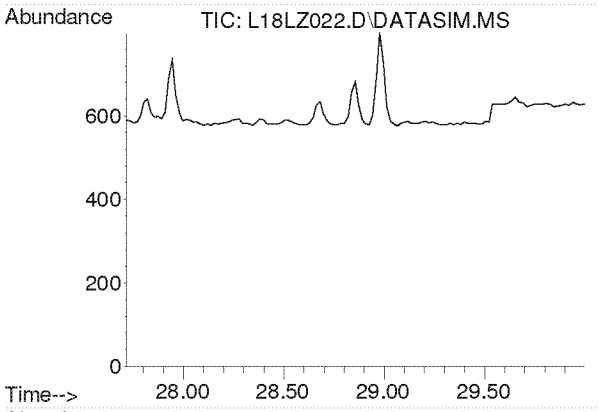
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



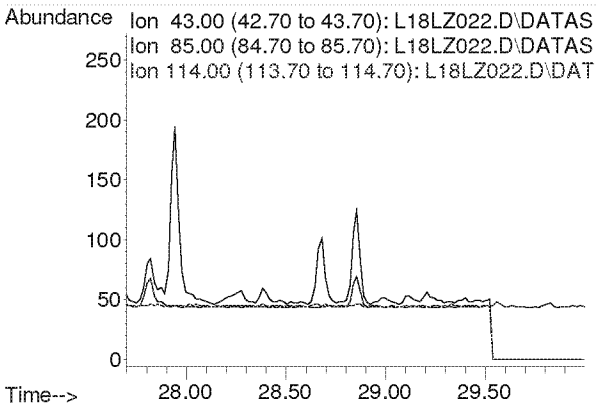


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

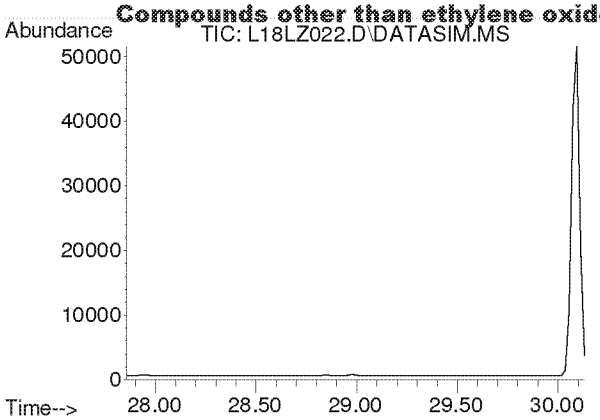
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

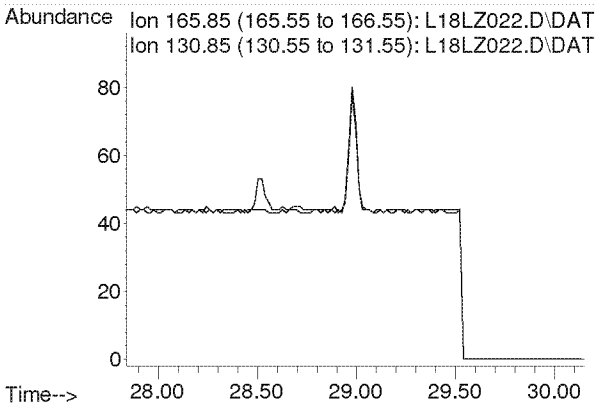


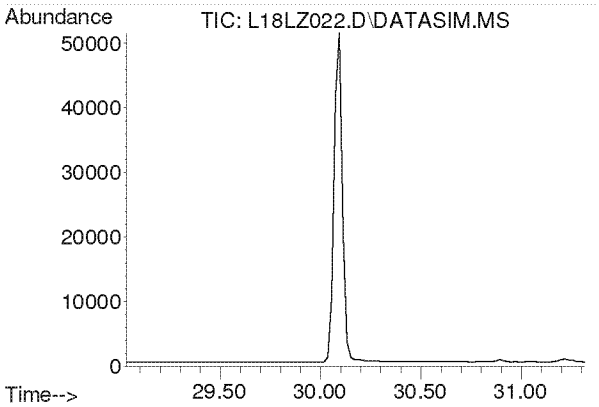
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



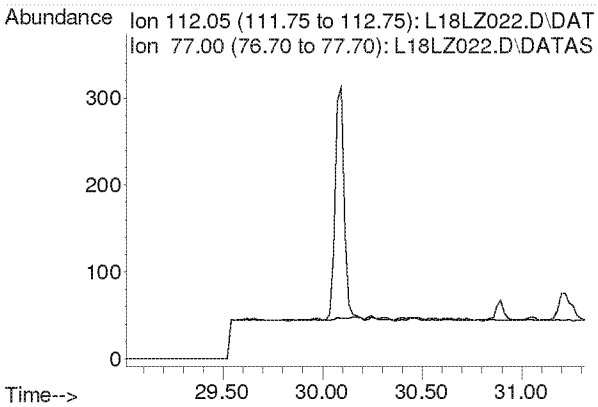


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

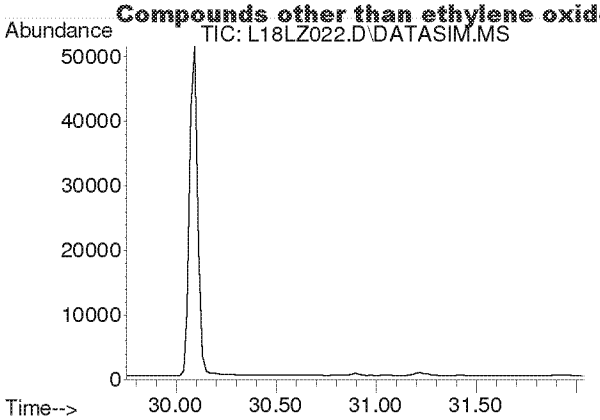
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

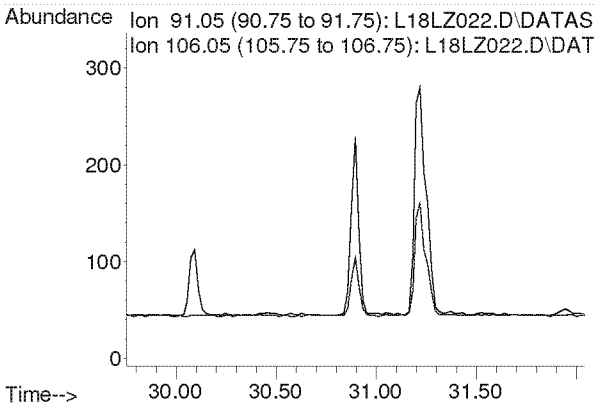


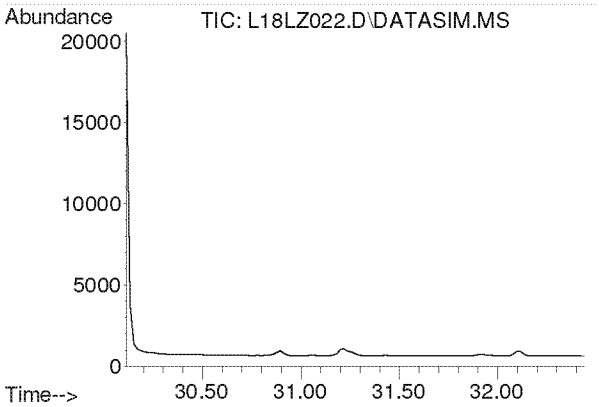
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



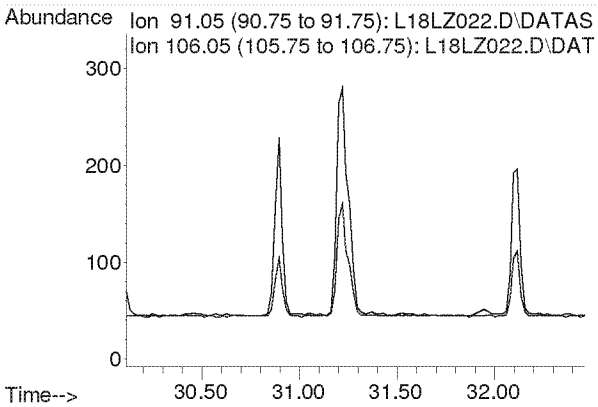


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

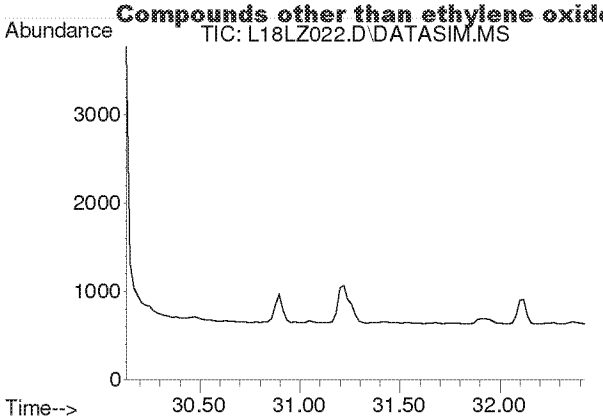
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

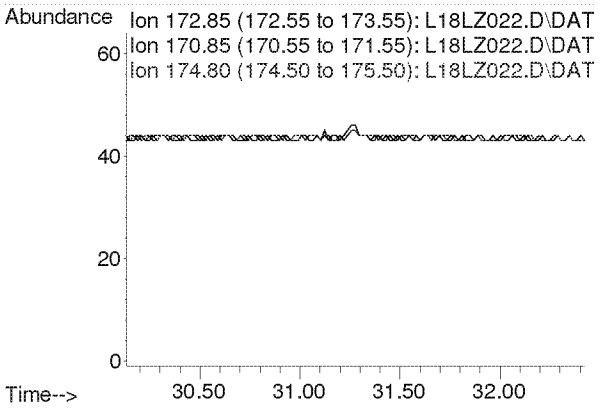


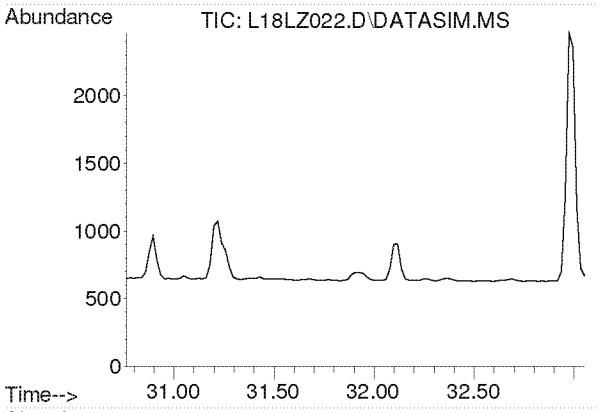
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



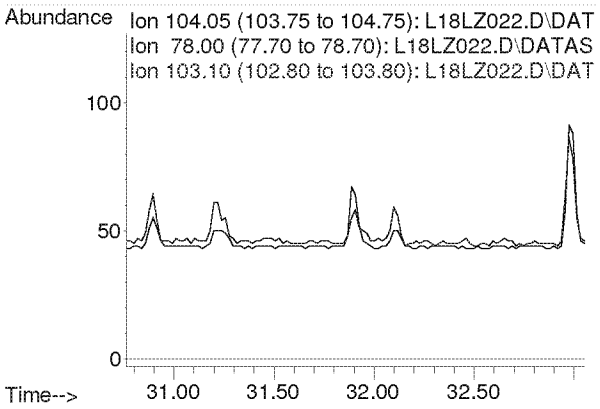


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

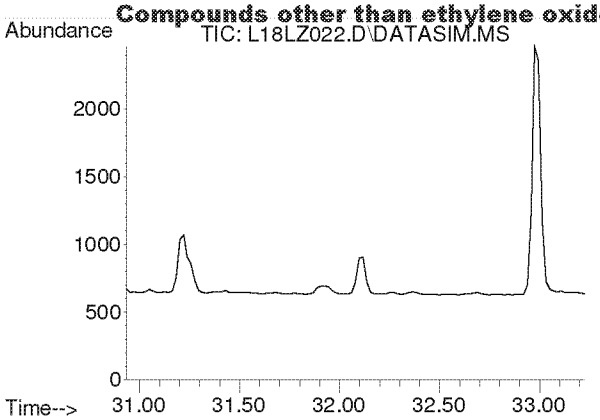
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

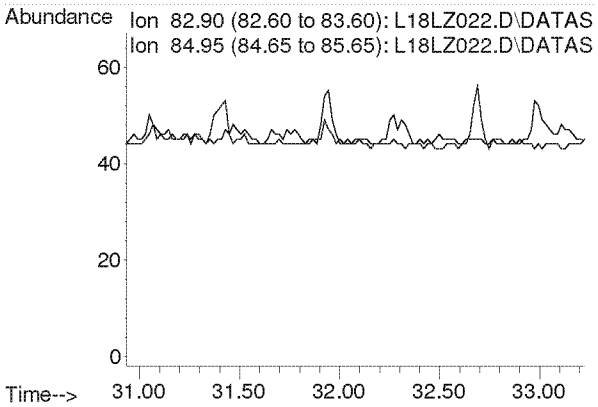


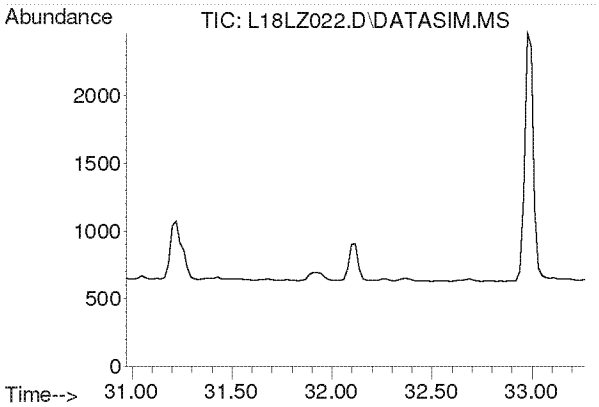
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



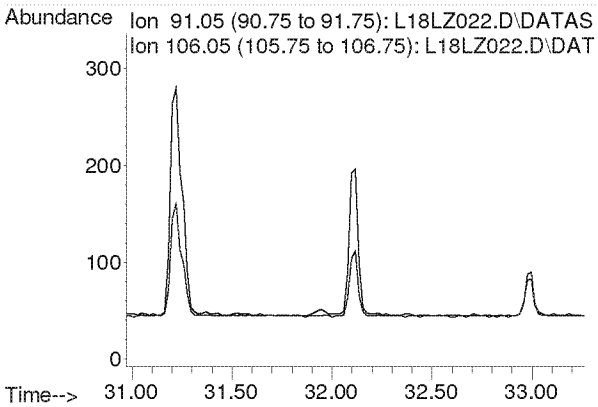


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

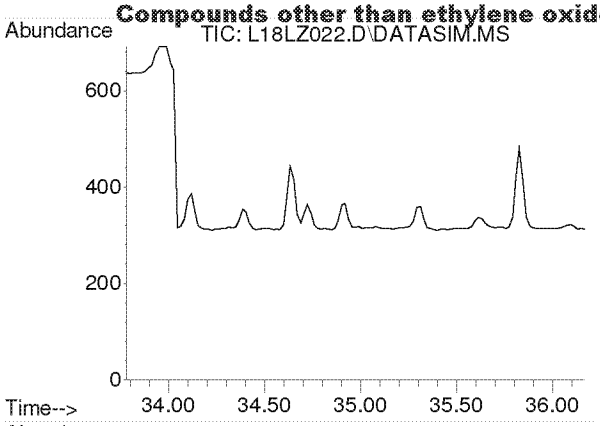
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

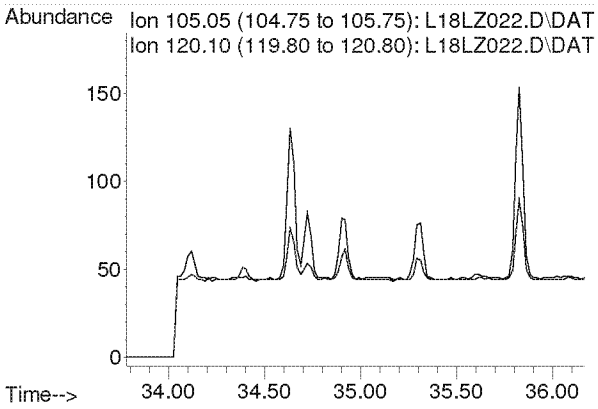


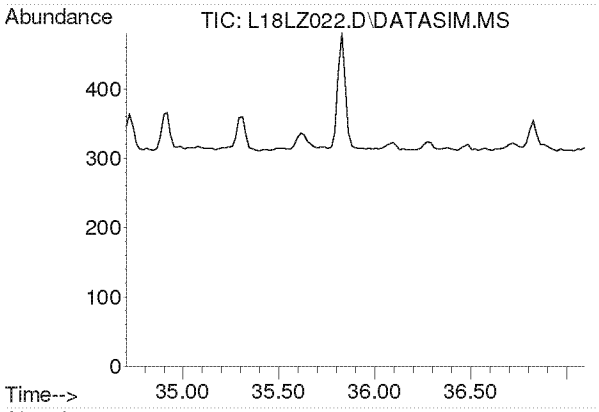
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



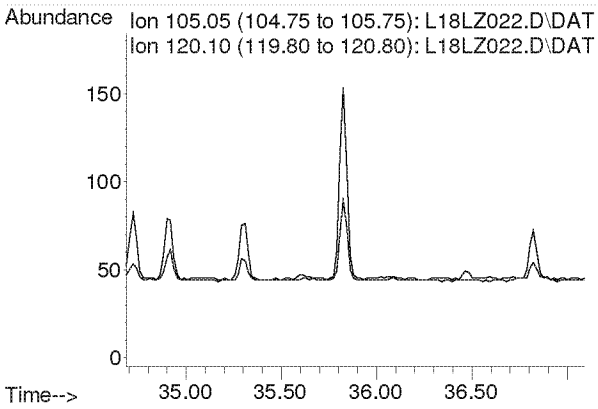


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

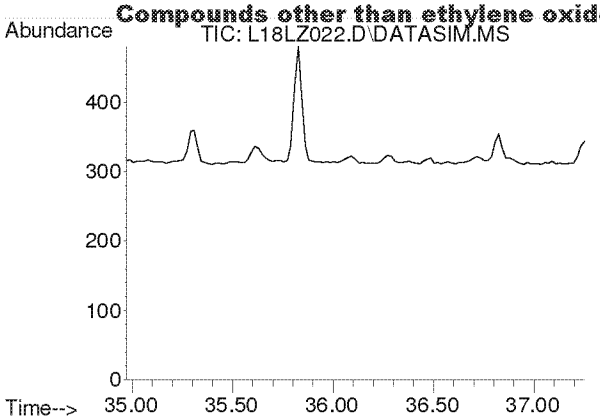
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

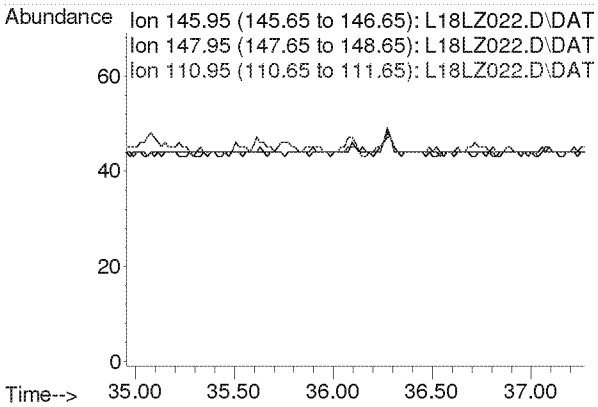


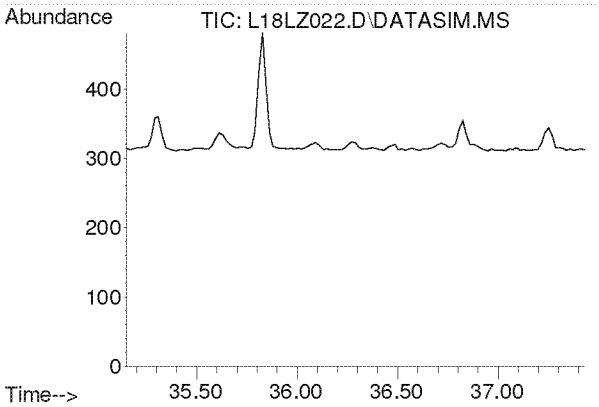
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



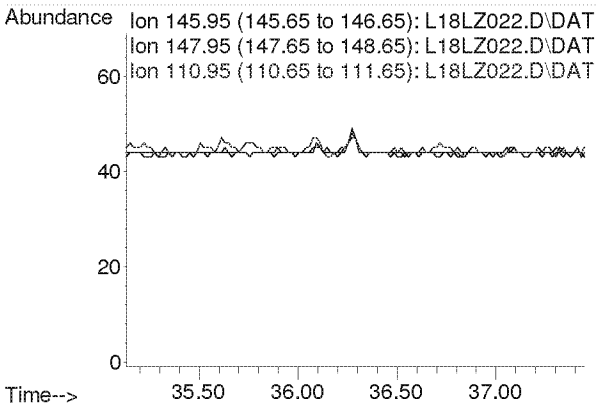


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

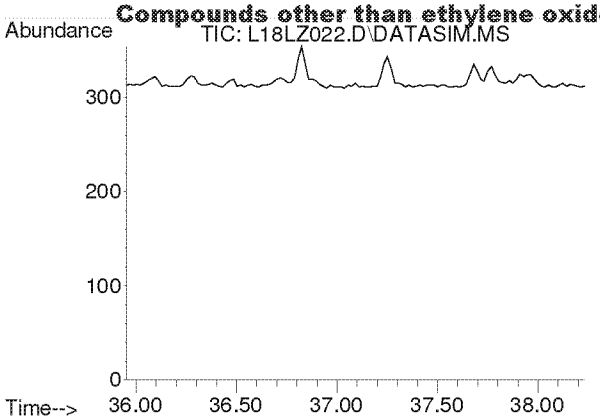
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

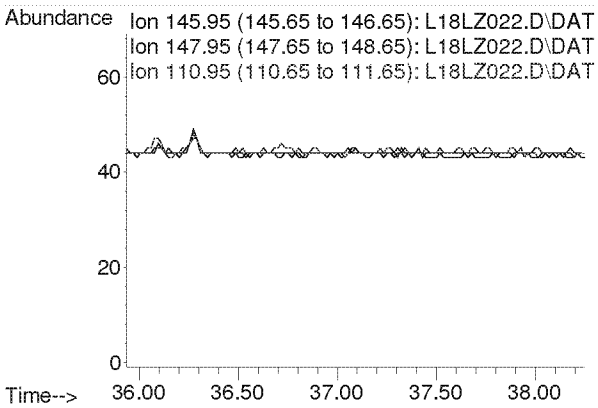


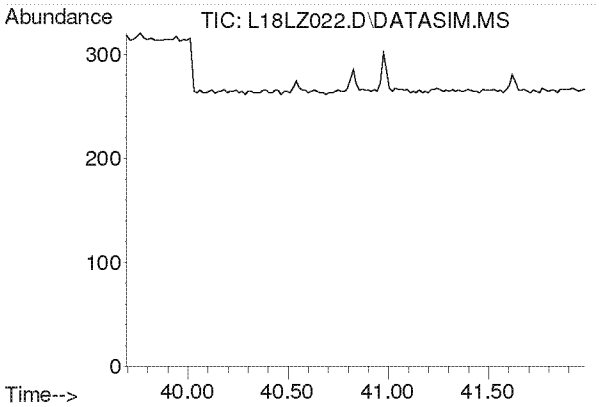
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



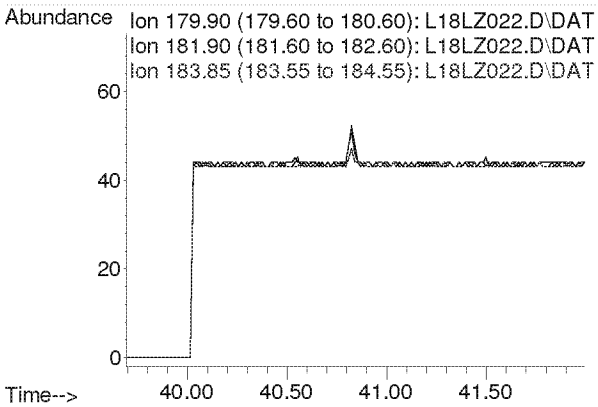


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

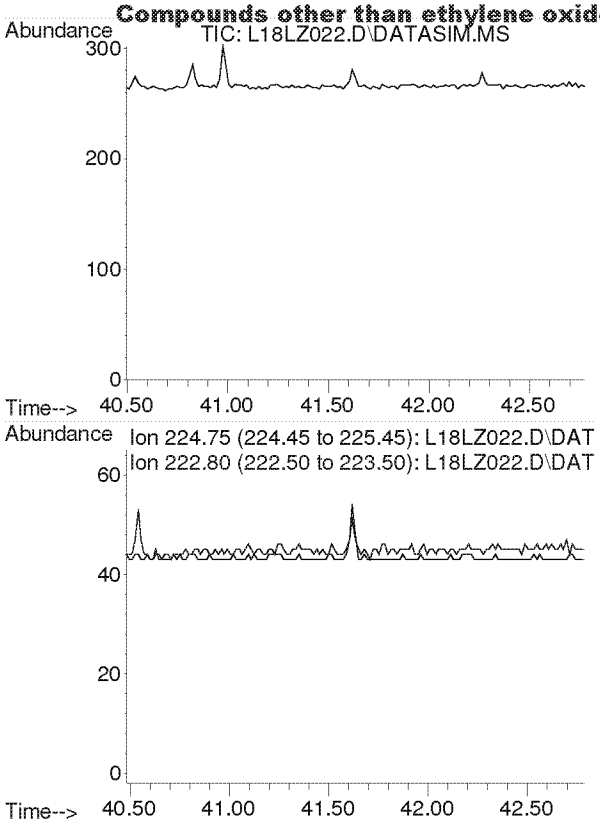
Lab File: L18LZ022.D
Acq: 27 Dec 2018 9:05 am

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: L18LZ022.D
Acq: 27 Dec 2018 9:05 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\L18LZ\
Data File : L18LZ023.D
Acq On : 27 Dec 2018 10:07 am
Operator : MAH
Sample : 8121130-04
Misc : WB NILLAGE HALL 12/7/18
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 03 11:26:35 2019
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

d-NR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	54207	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.130	114	128653	4.9900 ppbv	-0.02
43) IS-Chlorobenzene-d5	30.078	117	87744	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	12.380	29	9653	2.9793 ppbv #	75
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. 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\L18LZ\
Data File : L18LZ023.D
Acq On : 27 Dec 2018 10:07 am
Operator : MAH
Sample : 8121130-04
Misc : WB NILLAGE HALL 12/7/18
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 03 11:26:35 2019
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

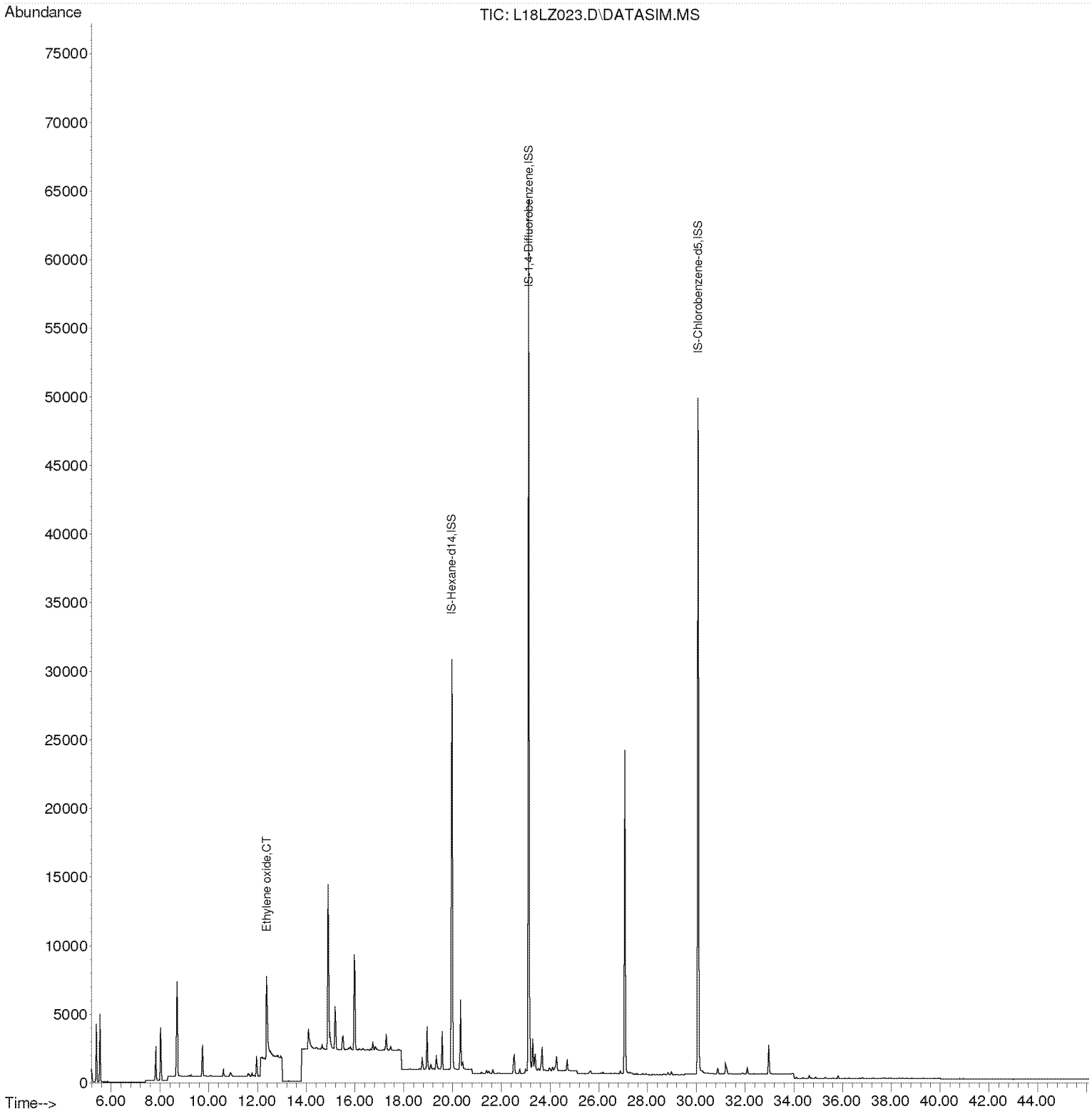
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene	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

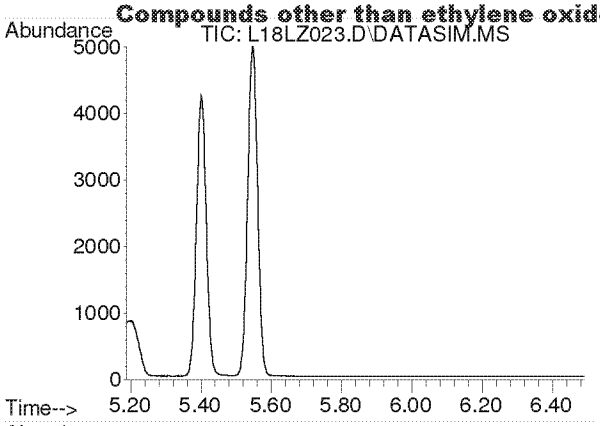
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L18LZ\
Data File : L18LZ023.D
Acq On : 27 Dec 2018 10:07 am
Operator : MAH
Sample : 8121130-04
Misc : WB NILLAGE HALL 12/7/18
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 03 10:39:42 2019
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



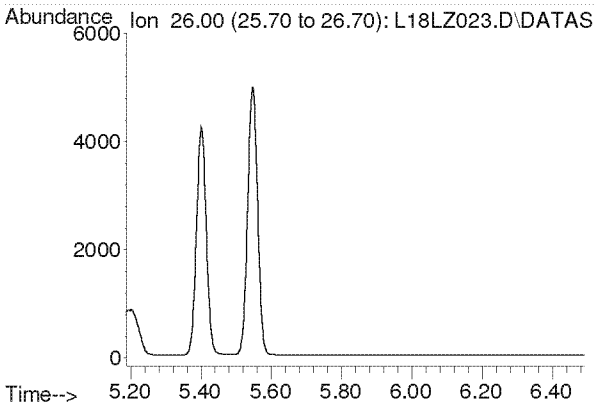
Compounds other than ethylene oxide were not quantitated.

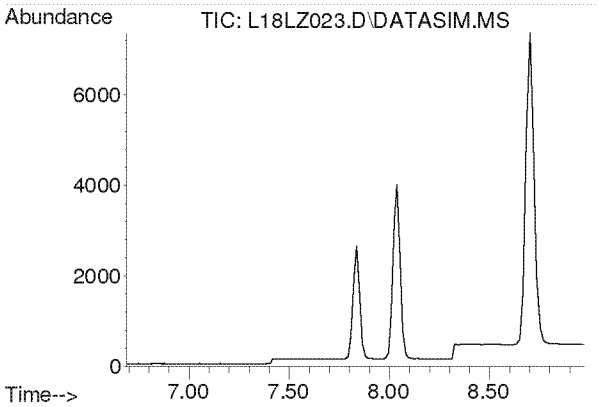


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 26



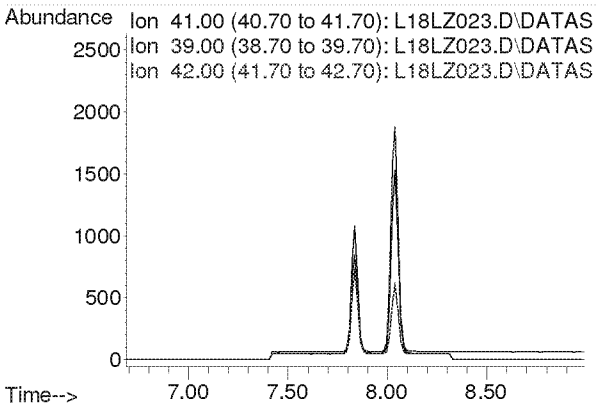


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

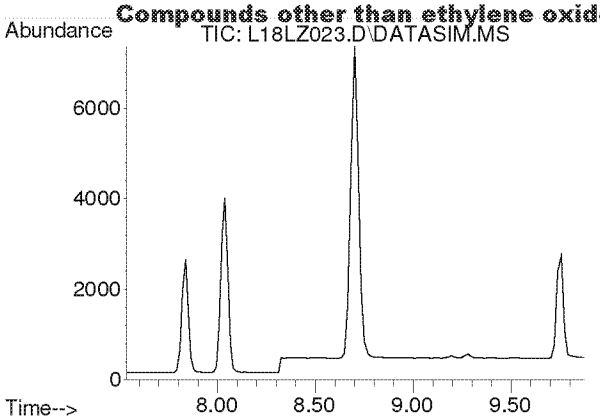
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	78.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

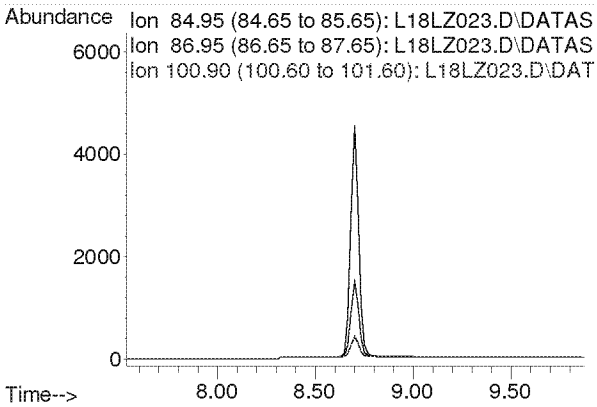


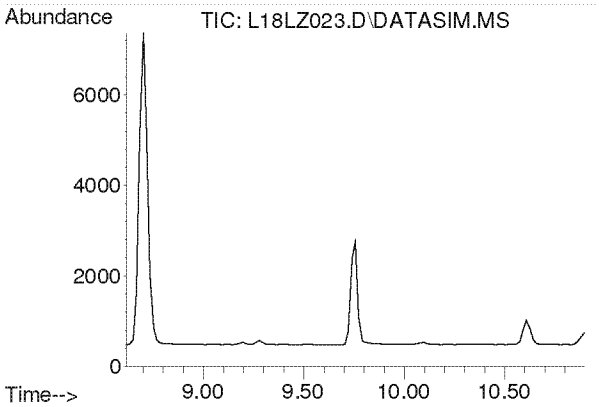
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



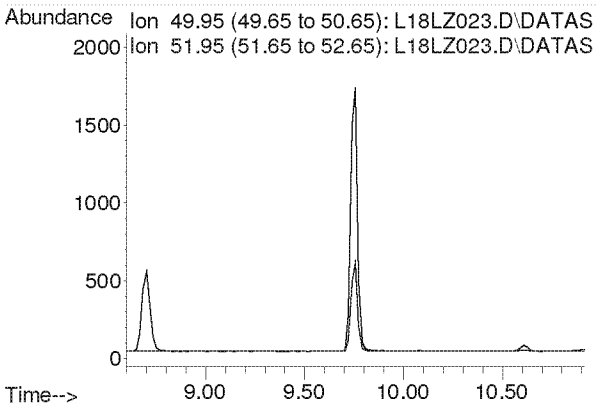


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

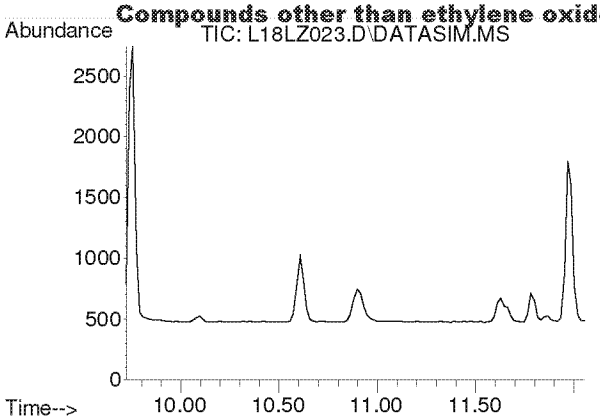
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

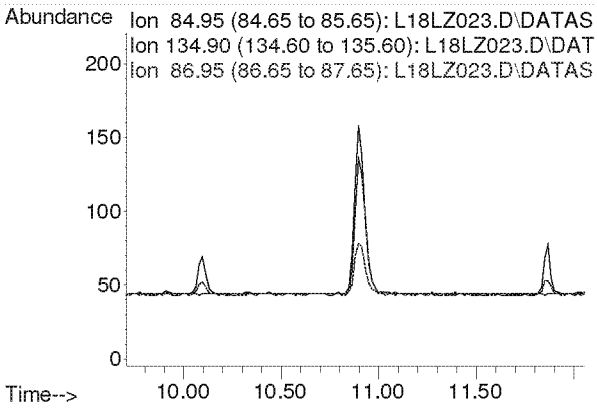


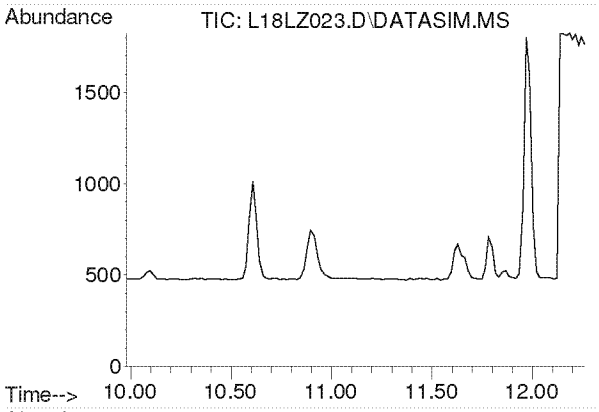
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.1
87	32.1



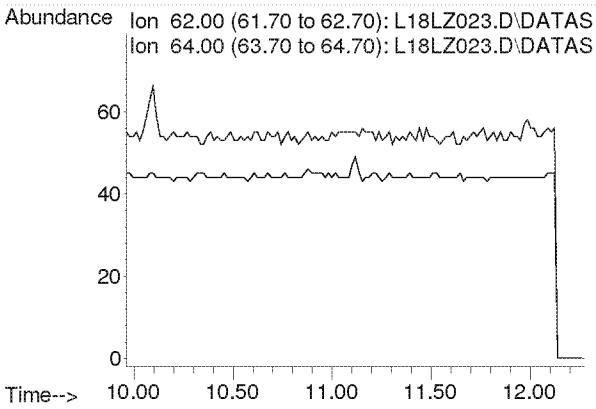


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

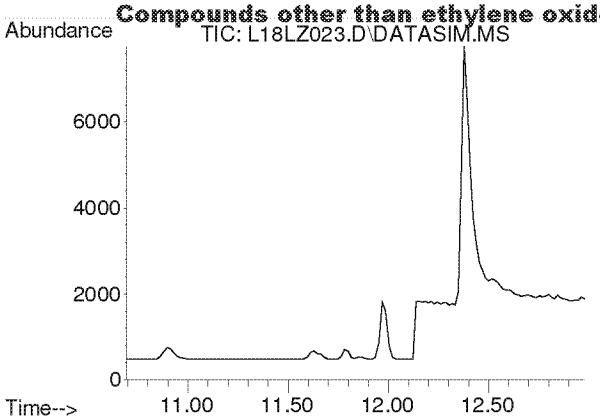
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.8



Compounds other than ethylene oxide were not quantitated.

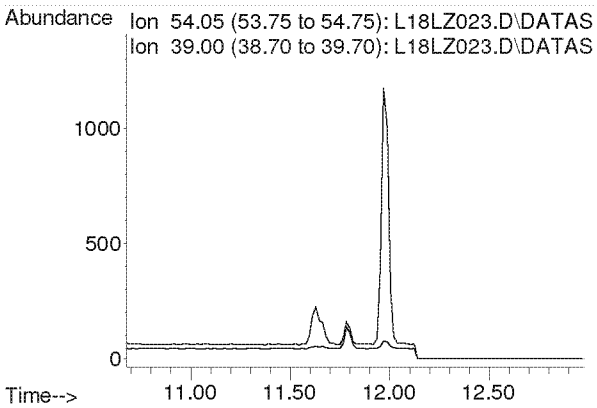


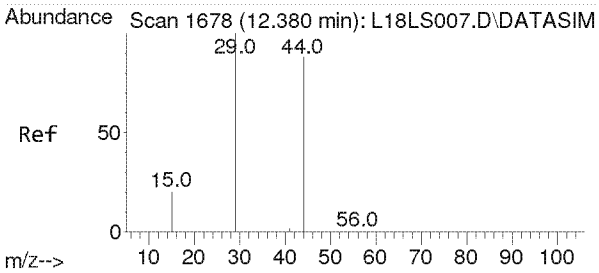
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	105.4

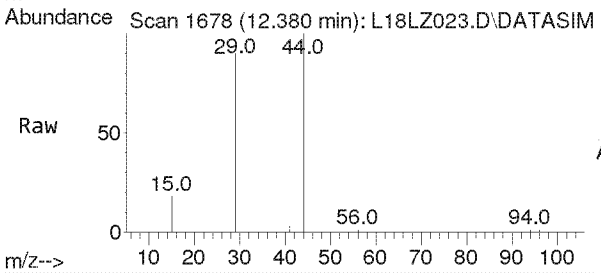


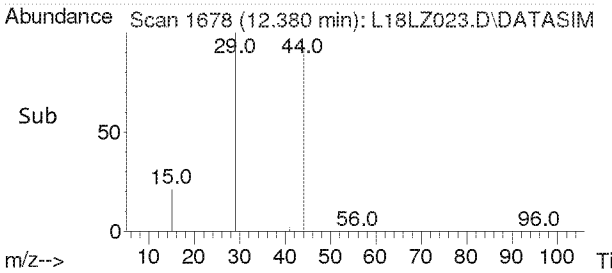


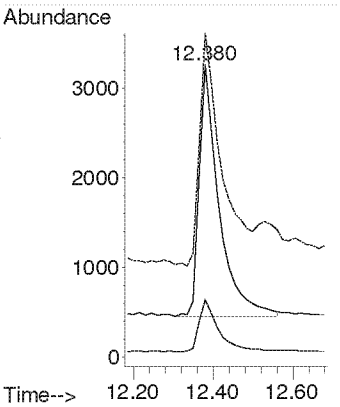
#9
Ethylene oxide
Concen: 2.979 ppbv
RT: 12.380 min Scan# 1678
Delta R.T. 0.000 min
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 29 Resp: 9653

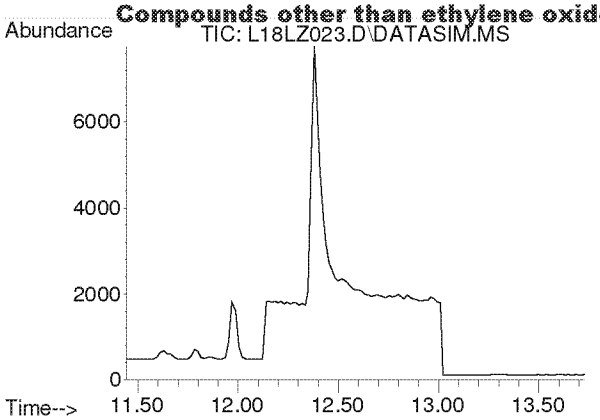
Ion	Ratio	Lower	Upper
29	100		
15	20.2	16.2	24.4
44	119.1	72.0	108.0#







Compounds other than ethylene oxide were not quantitated.

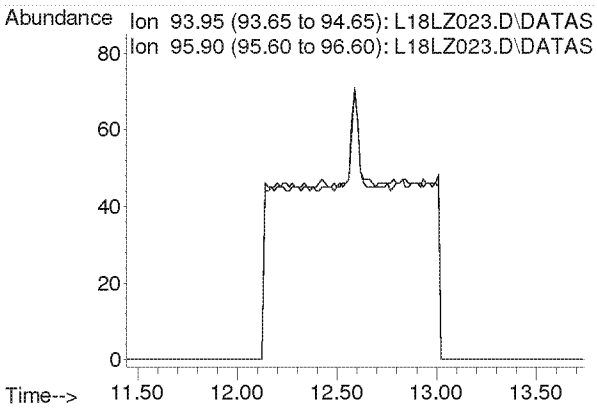


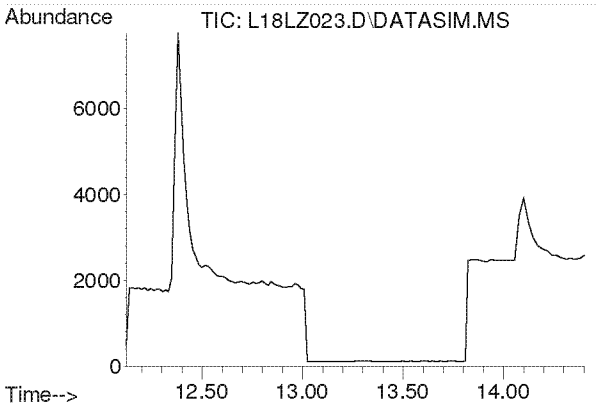
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	93.9



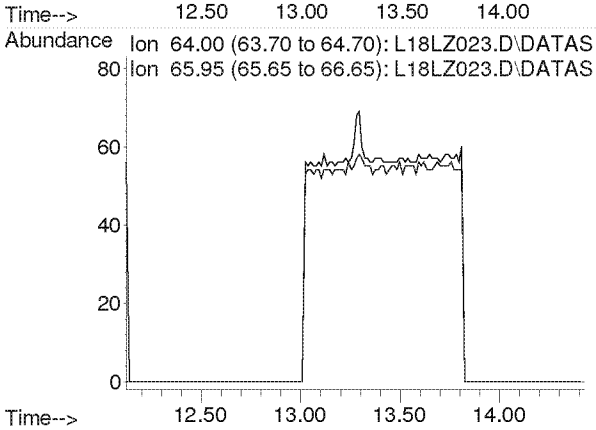


#11
Chloroethane
Concen: N.D.
Expected RT: 13.27 min

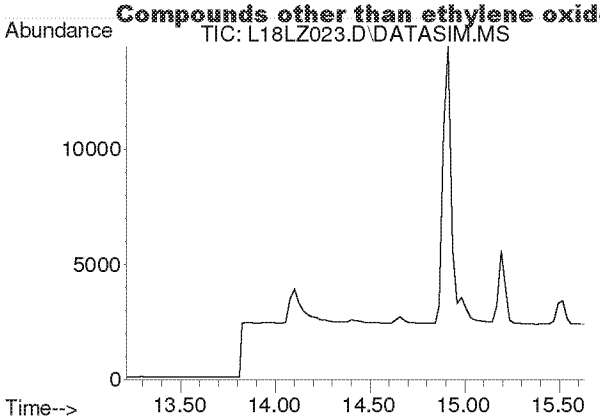
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.0



Compounds other than ethylene oxide were not quantitated.

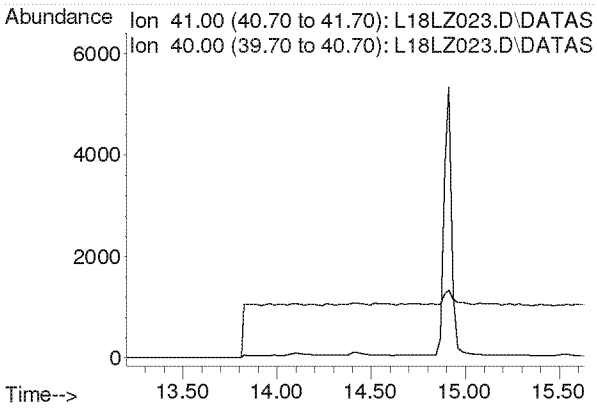


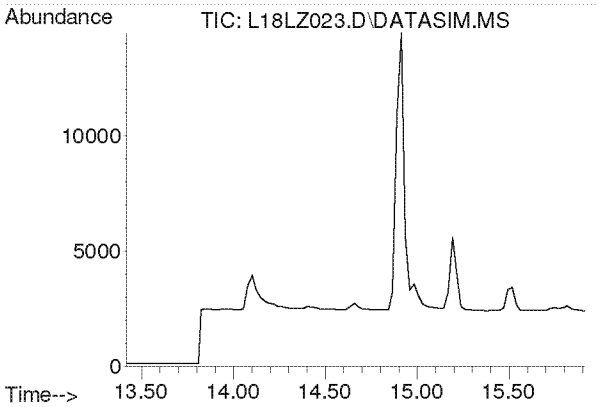
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.33 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	50.9



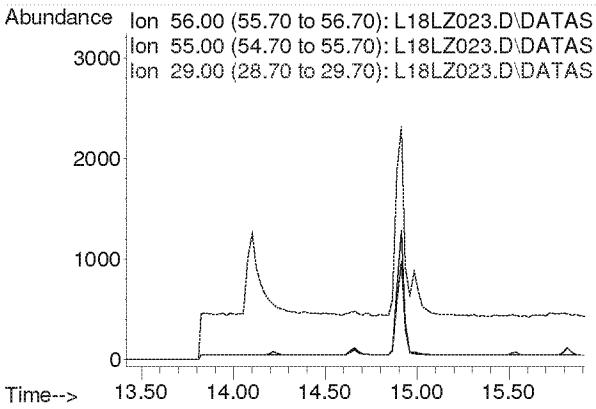


#13
Acrolein
Concen: N.D.
Expected RT: 14.61 min

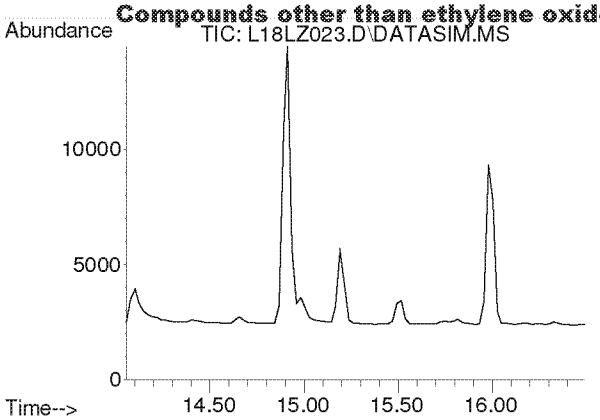
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	75.4
29	52.9



Compounds other than ethylene oxide were not quantitated.

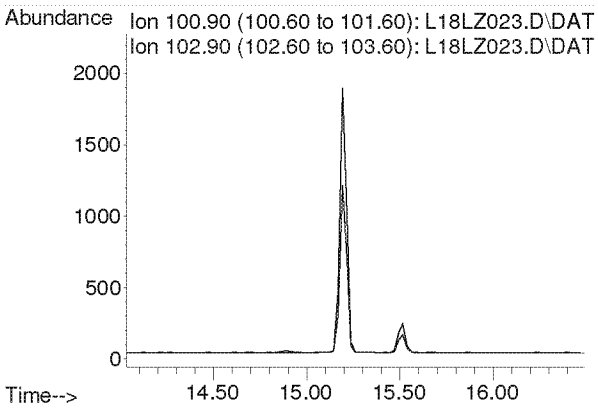


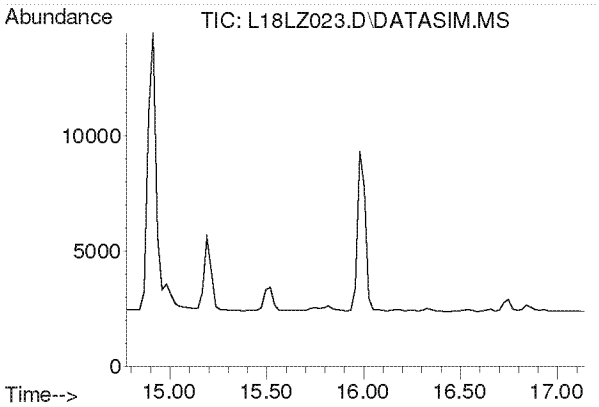
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



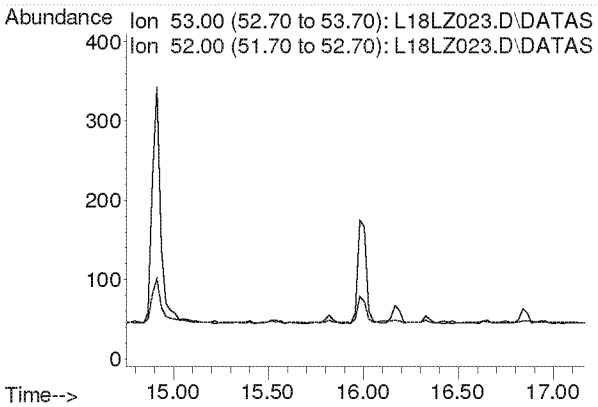


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.91 min

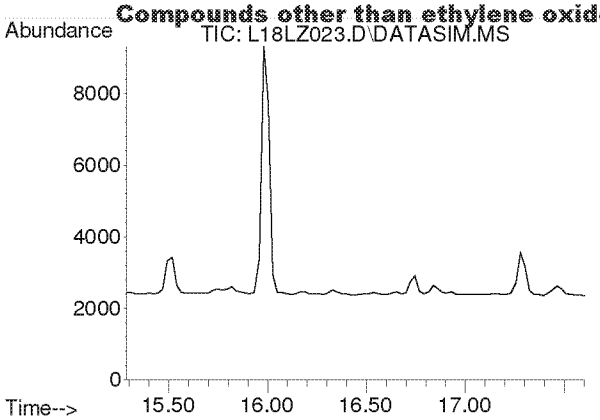
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	85.4



Compounds other than ethylene oxide were not quantitated.

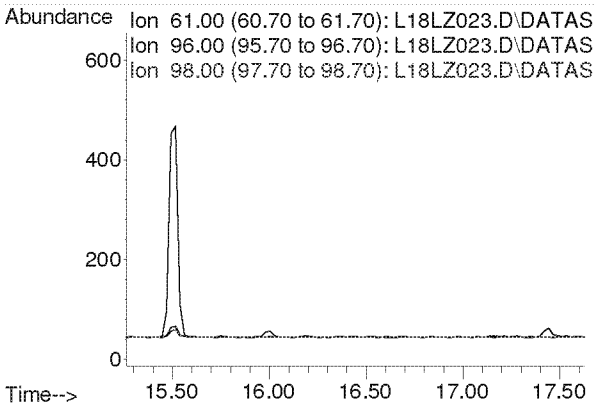


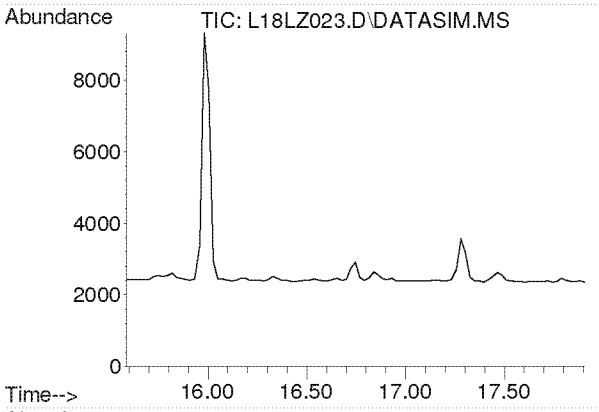
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	58.3
98	37.4



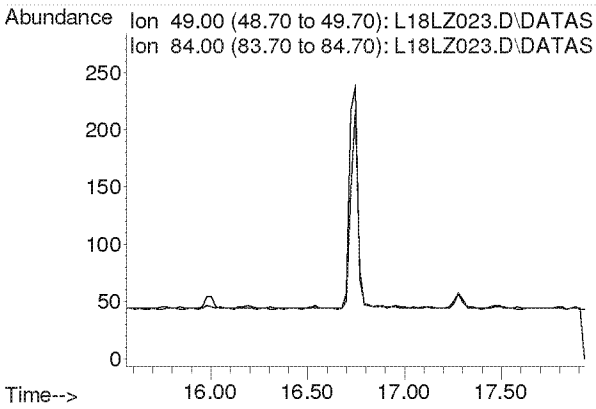


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.72 min

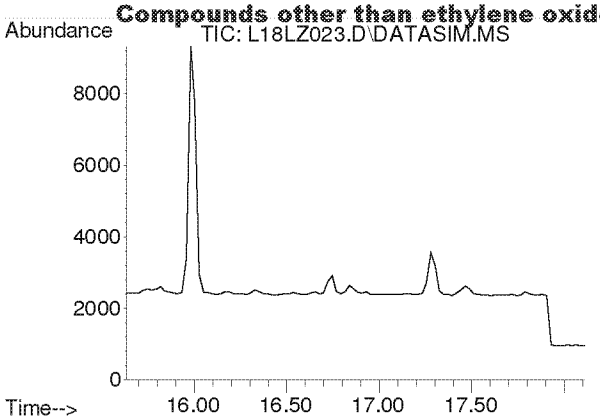
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	76.4



Compounds other than ethylene oxide were not quantitated.

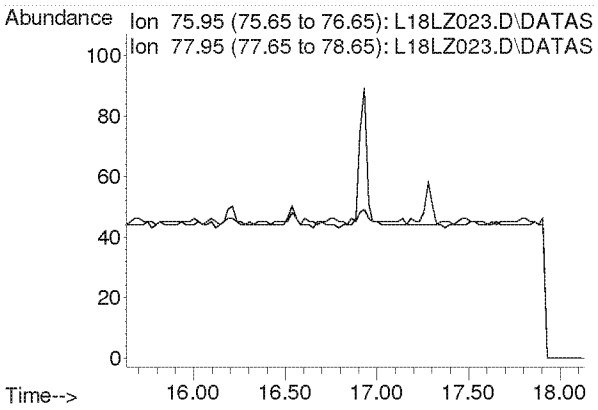


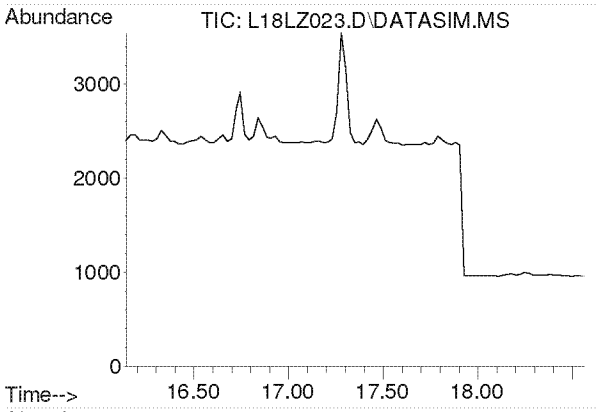
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.1



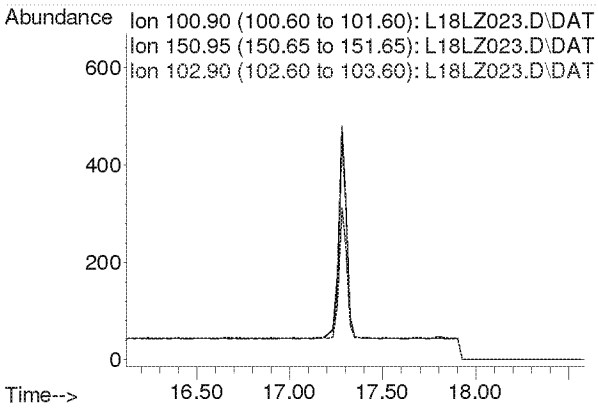


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

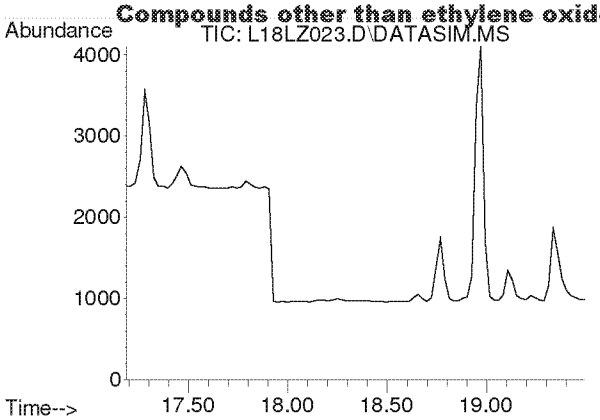
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.3
103	64.1



Compounds other than ethylene oxide were not quantitated.

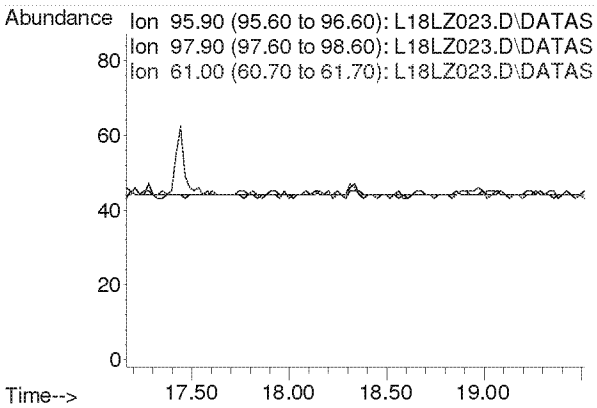


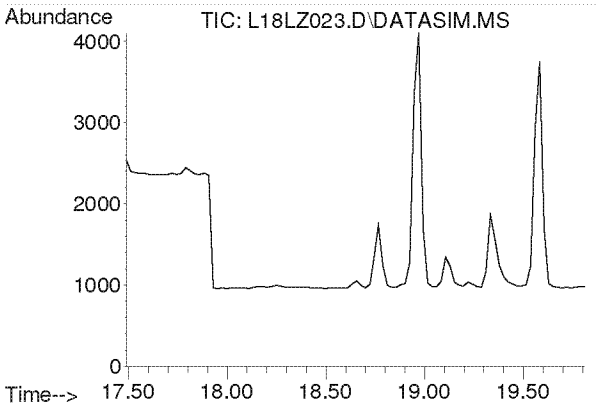
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.31 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.7
61	159.2



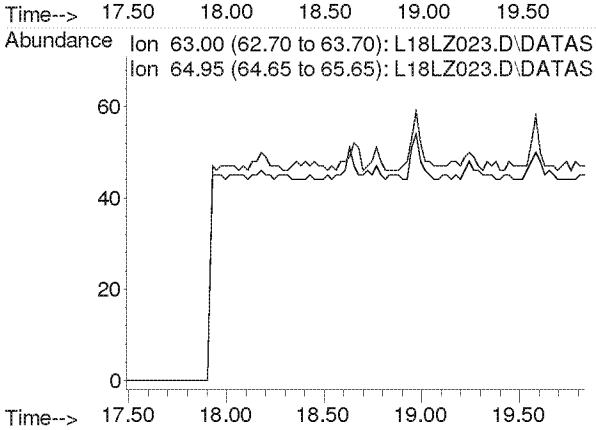


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

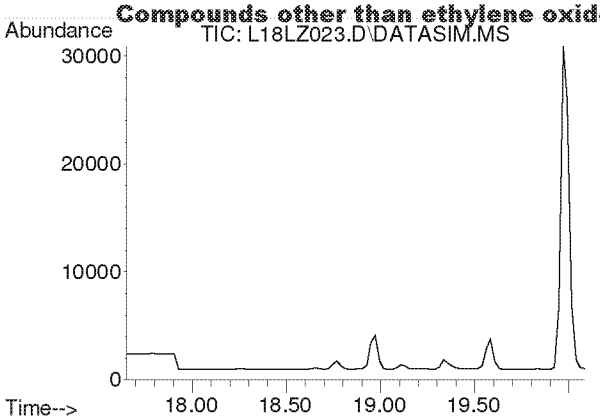
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

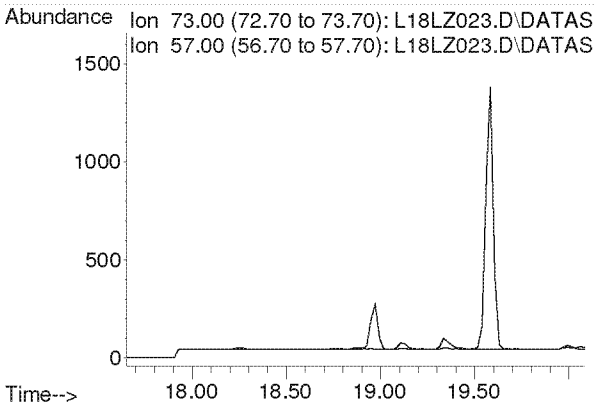


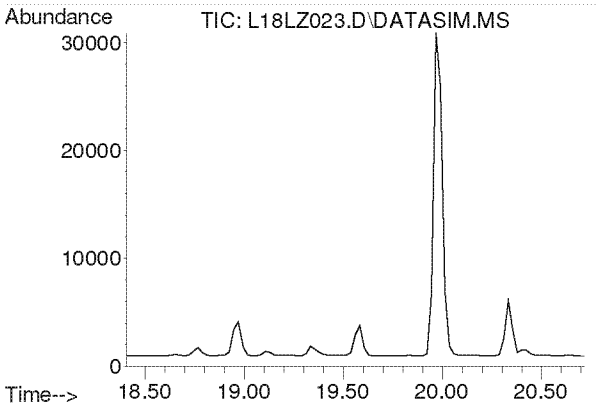
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.4



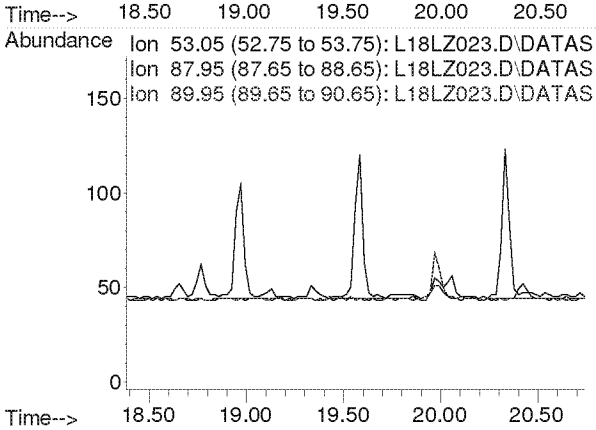


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

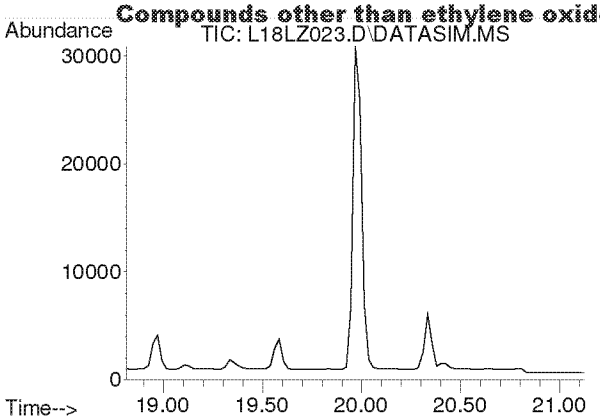
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	51.8
90	16.8



Compounds other than ethylene oxide were not quantitated.

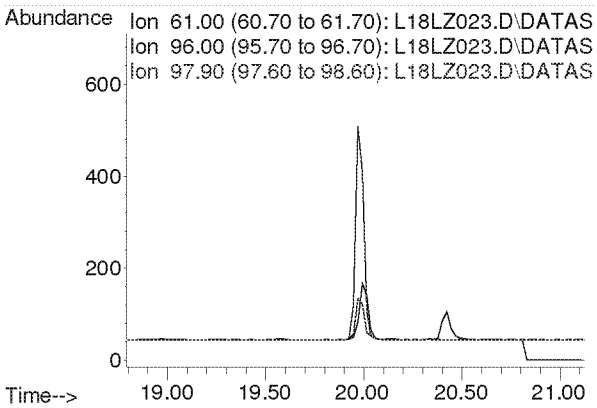


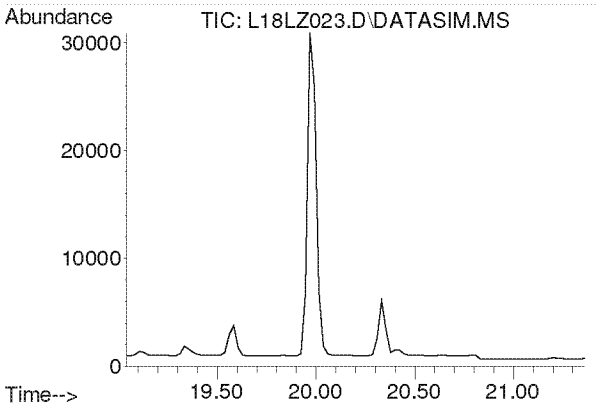
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.7
98	45.2



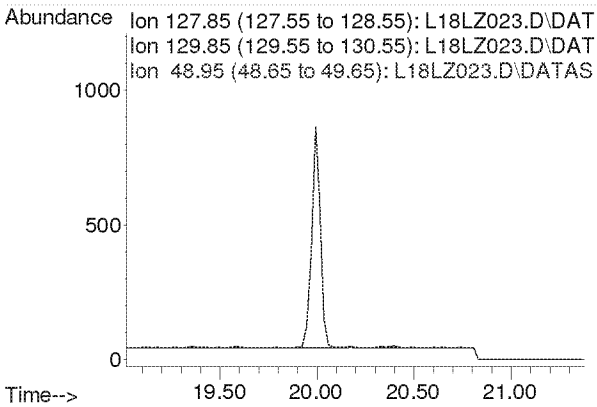


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

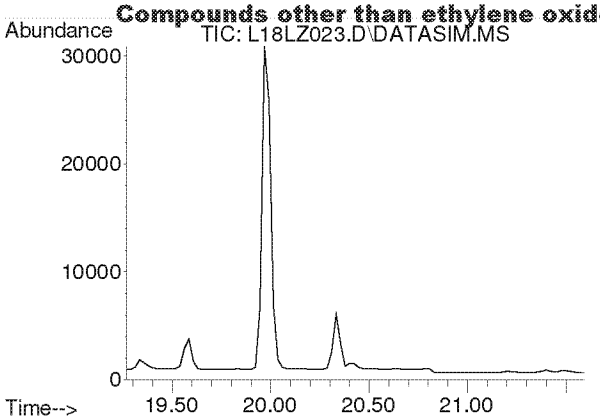
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	171.2



Compounds other than ethylene oxide were not quantitated.

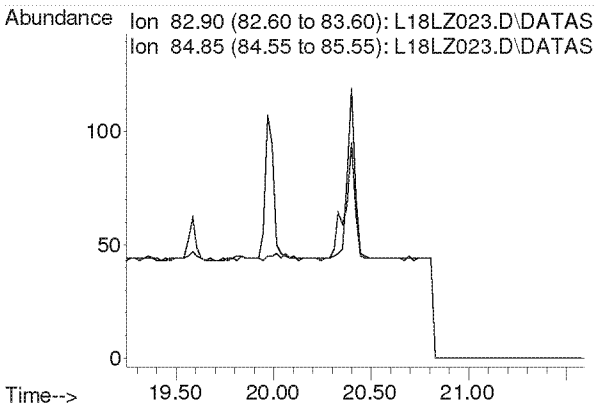


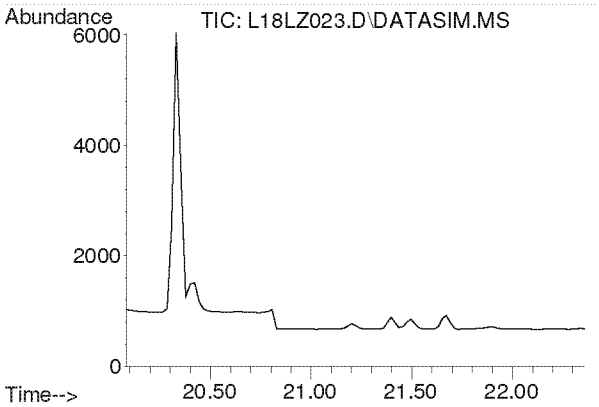
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



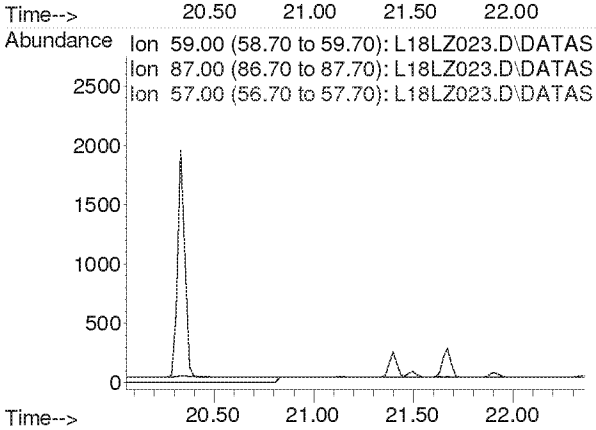


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.16 min

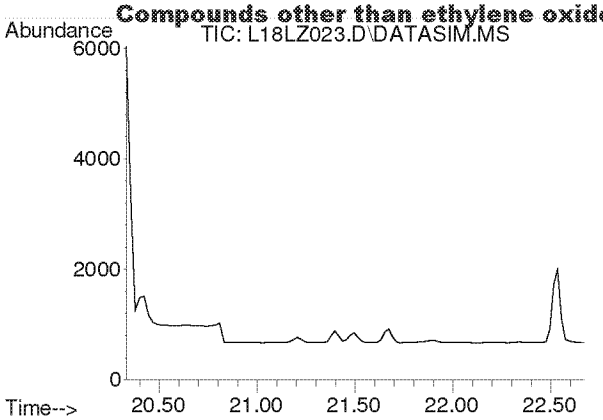
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.5
57	33.8



Compounds other than ethylene oxide were not quantitated.

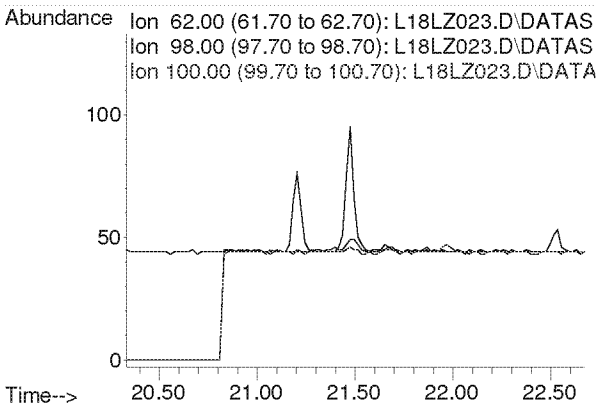


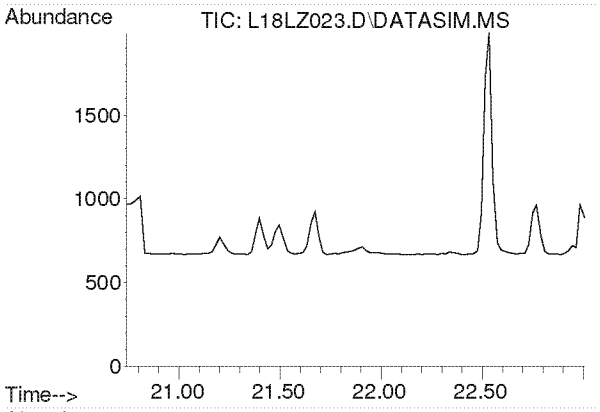
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.4
100	4.0



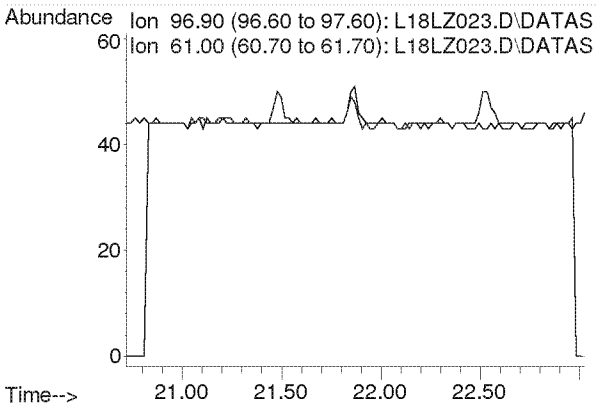


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

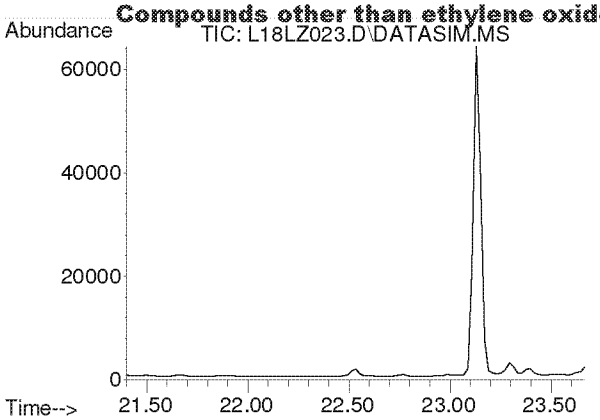
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	60.5



Compounds other than ethylene oxide were not quantitated.

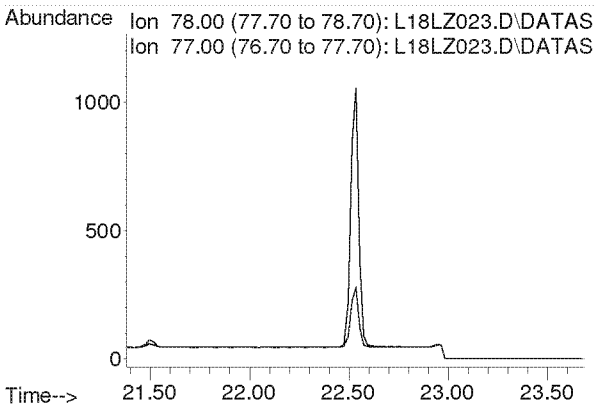


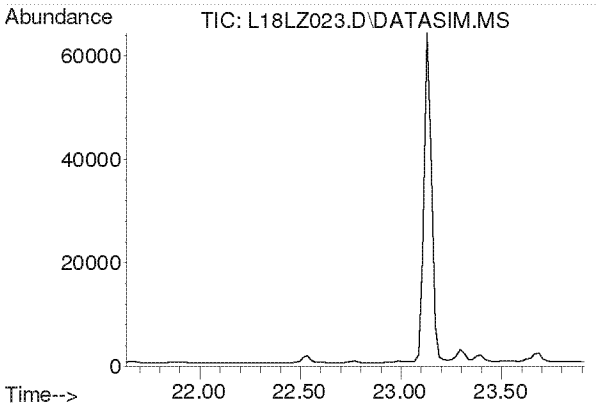
#31
Benzene
Concen: N.D.
Expected RT: 22.54 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.7



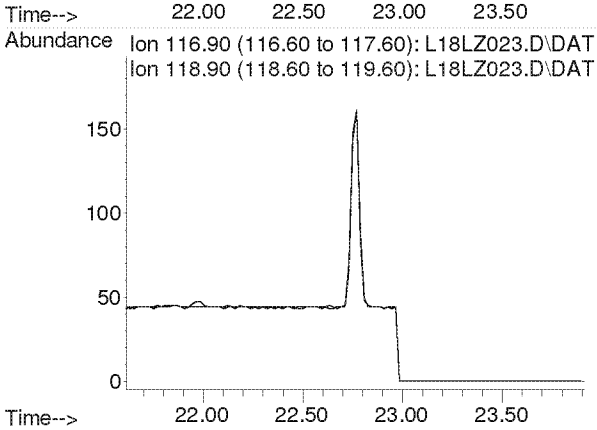


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

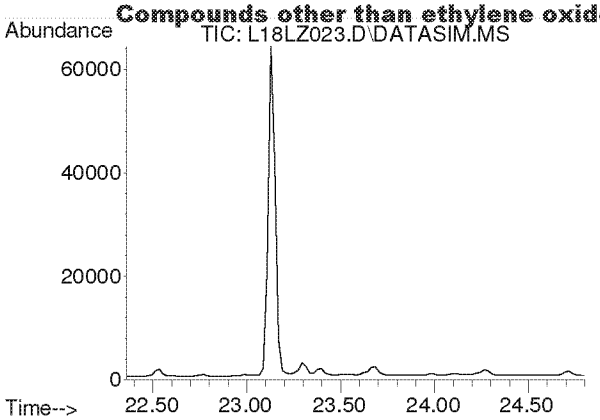
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

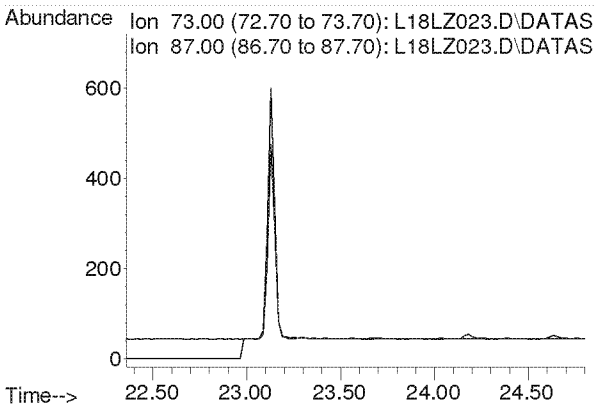


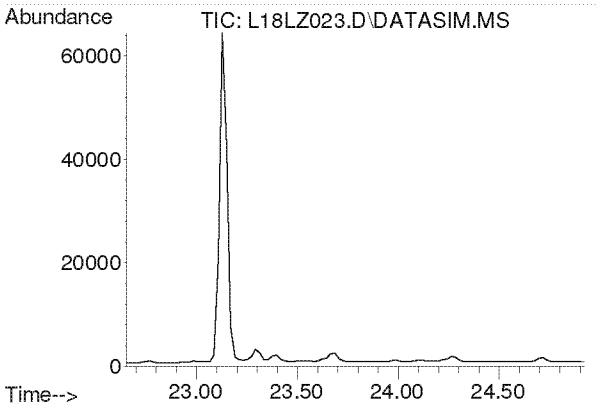
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.50 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.9



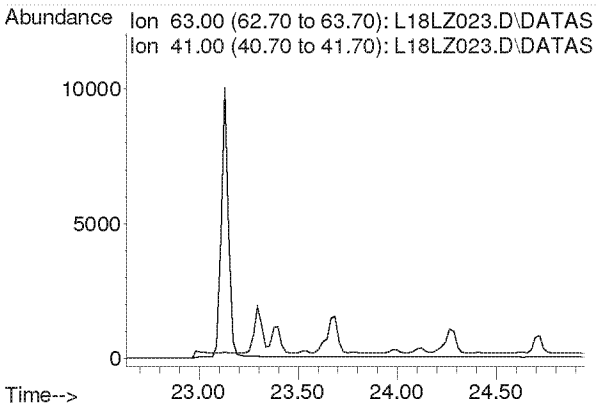


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

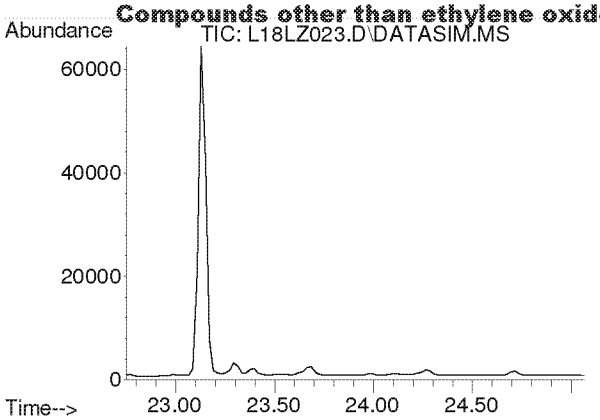
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	212.8



Compounds other than ethylene oxide were not quantitated.

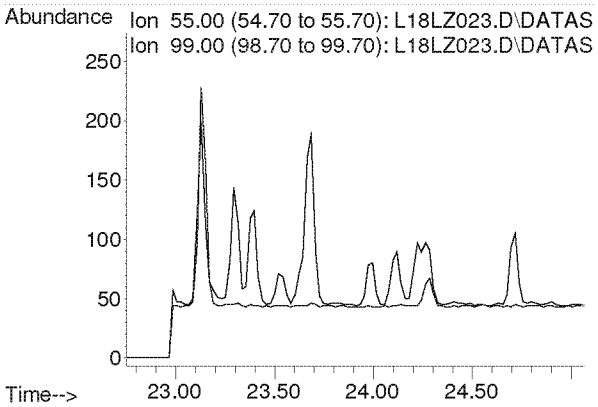


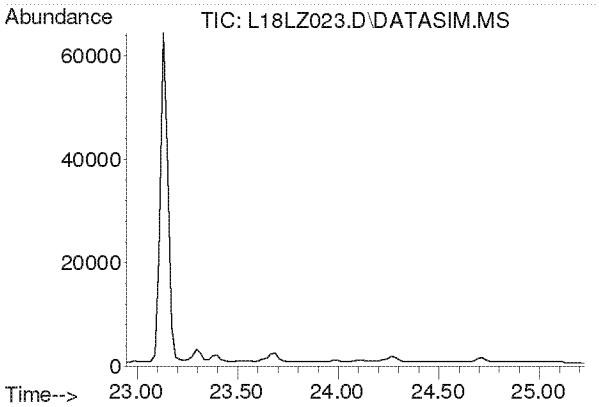
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.87 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.1



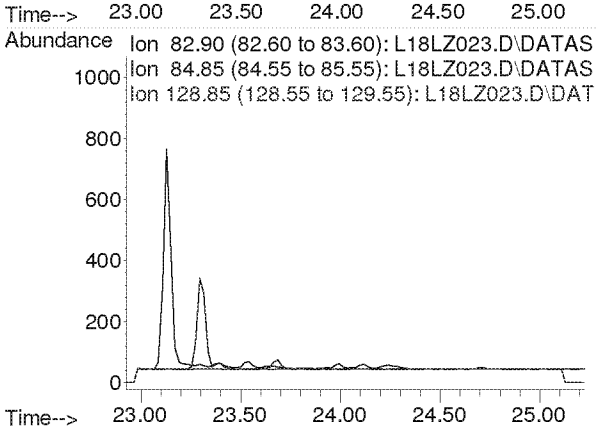


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

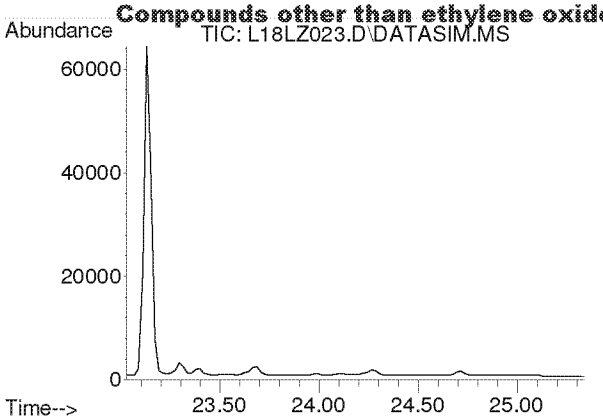
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0
129	12.4



Compounds other than ethylene oxide were not quantitated.

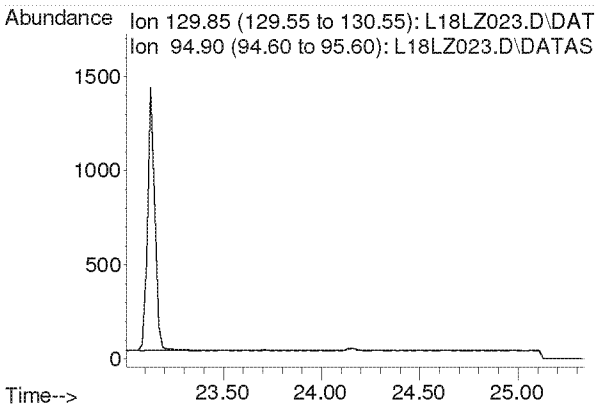


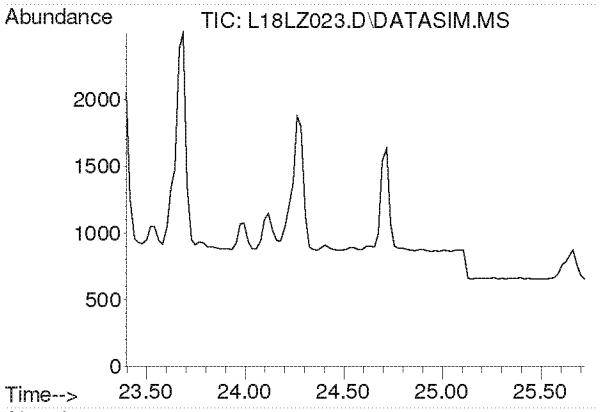
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.16 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	110.3



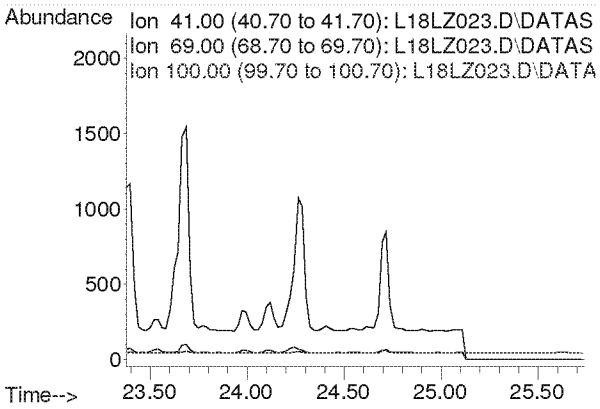


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

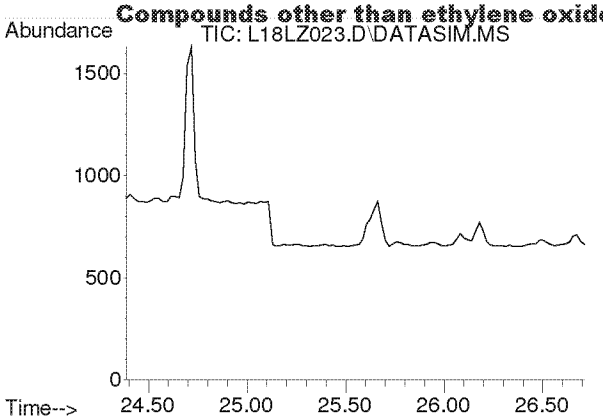
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	19.9
100	5.2



Compounds other than ethylene oxide were not quantitated.

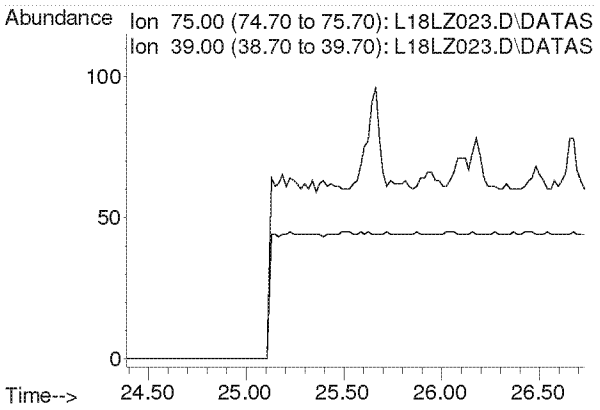


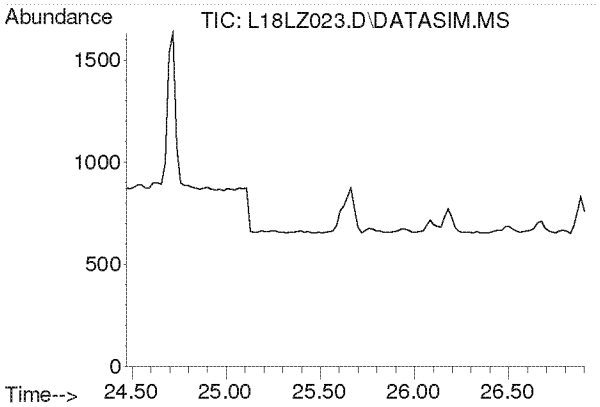
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.4



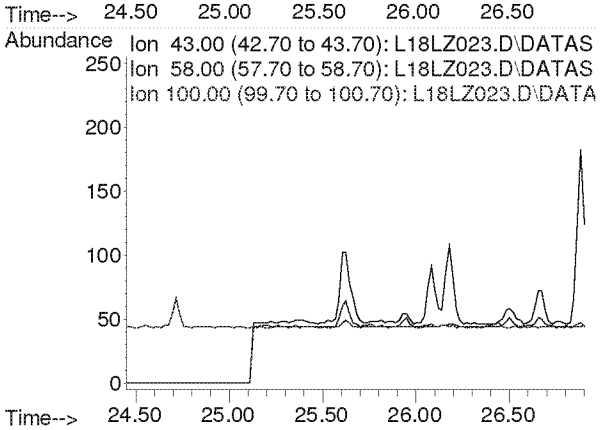


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.61 min

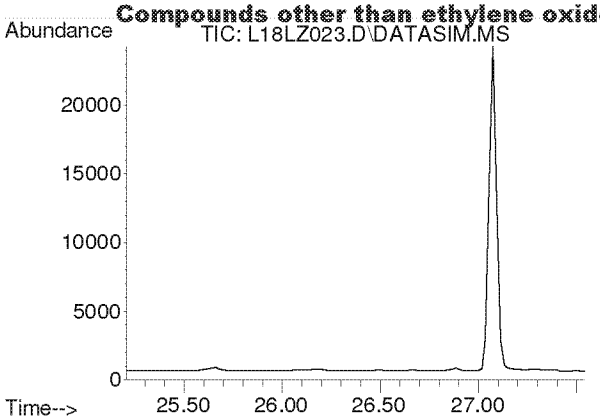
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.2
100	7.9



Compounds other than ethylene oxide were not quantitated.

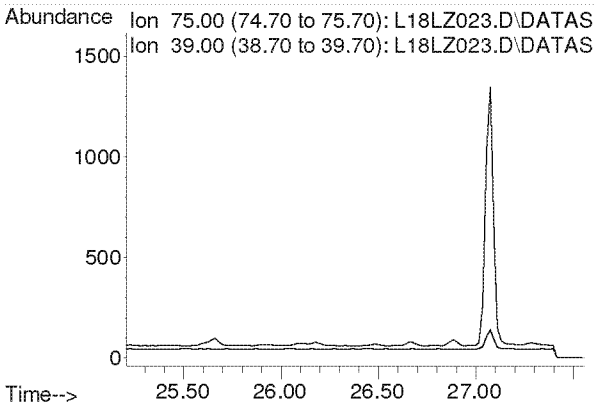


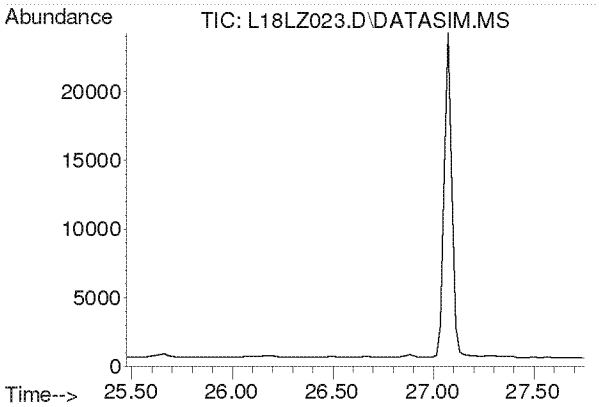
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.35 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	50.9



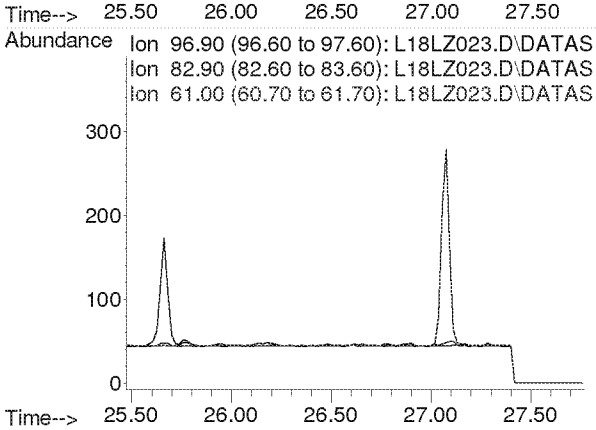


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

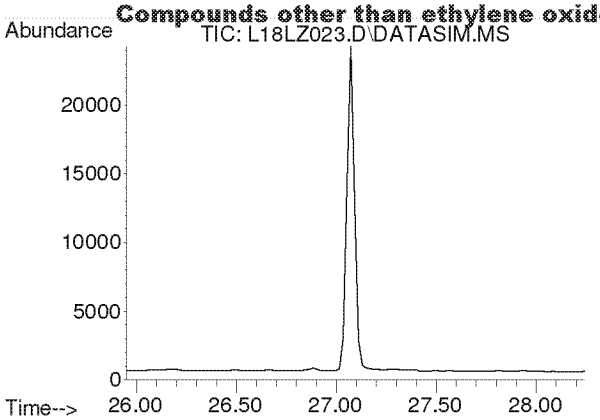
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.1
61	63.5



Compounds other than ethylene oxide were not quantitated.

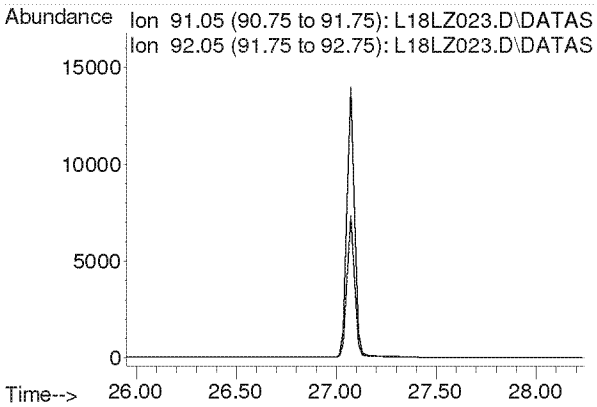


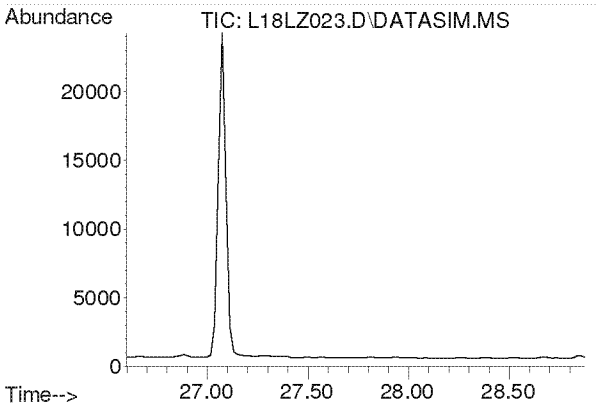
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.6



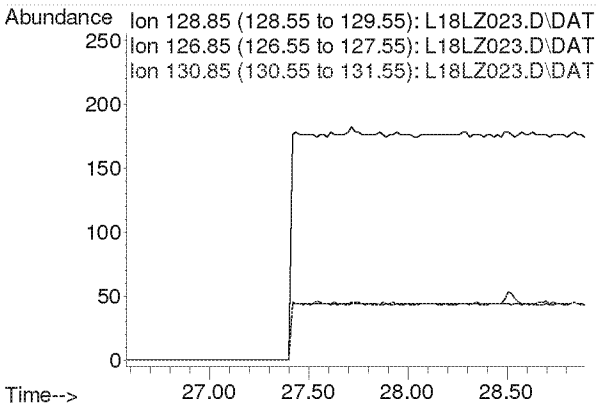


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.73 min

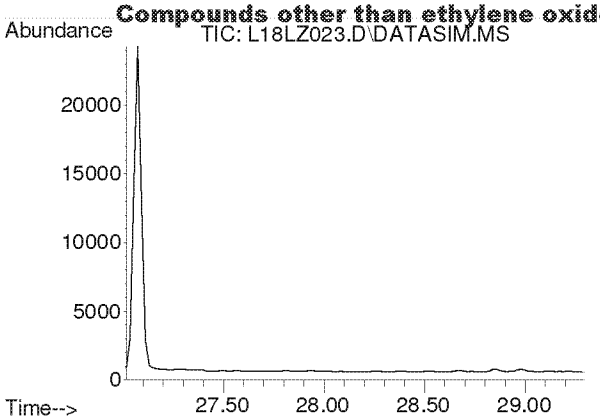
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

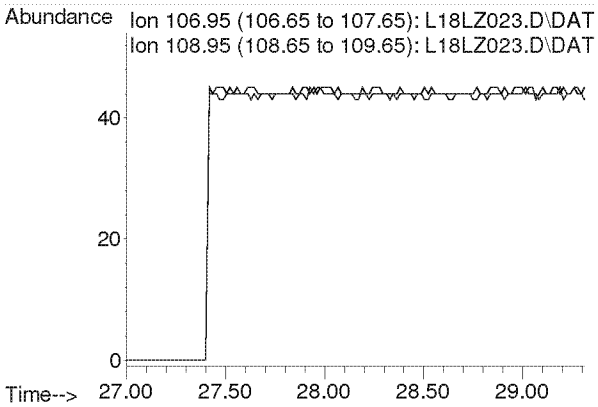


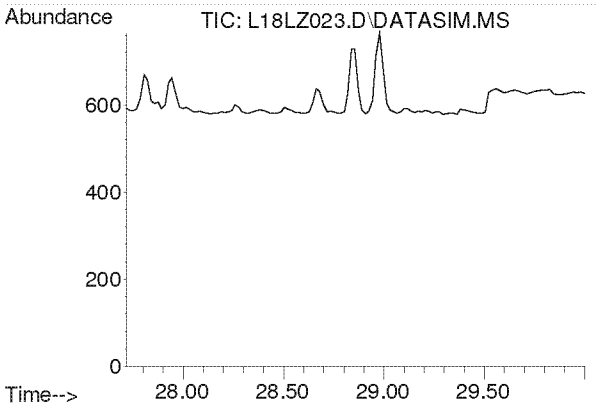
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.16 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.5



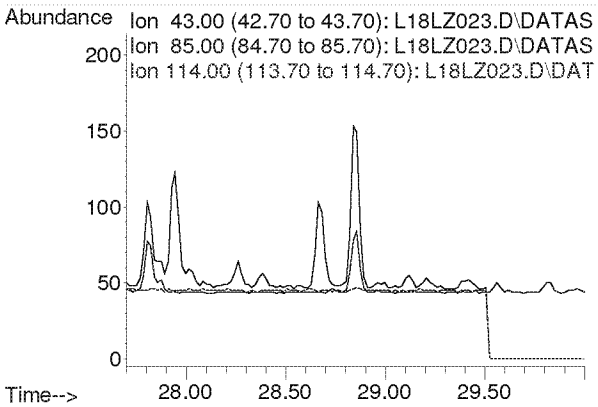


#47
n-Octane
Concen: N.D.
Expected RT: 28.86 min

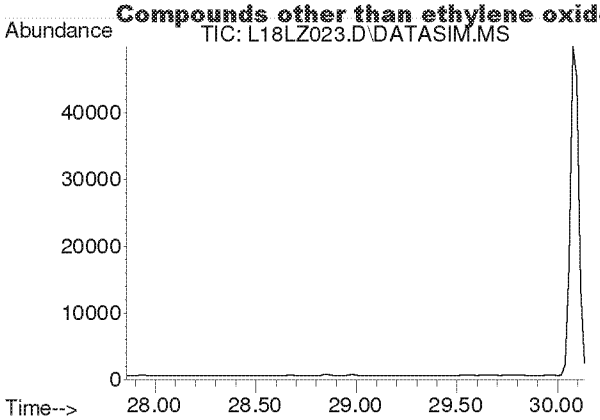
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.0
114	2.2



Compounds other than ethylene oxide were not quantitated.

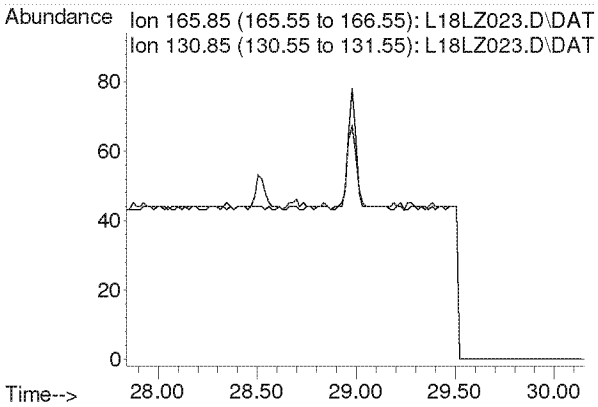


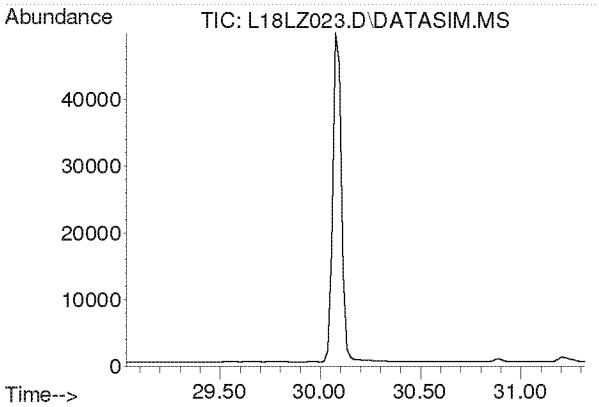
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



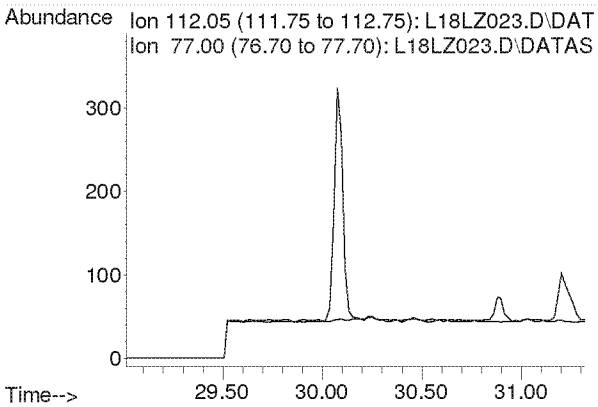


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.17 min

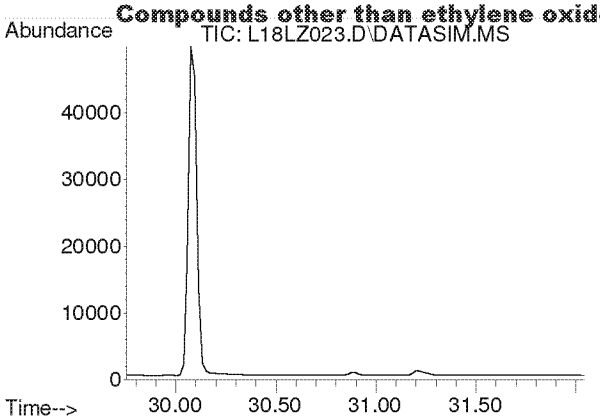
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	63.0



Compounds other than ethylene oxide were not quantitated.

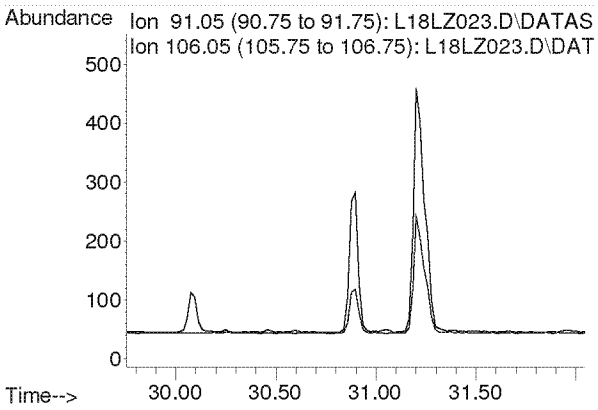


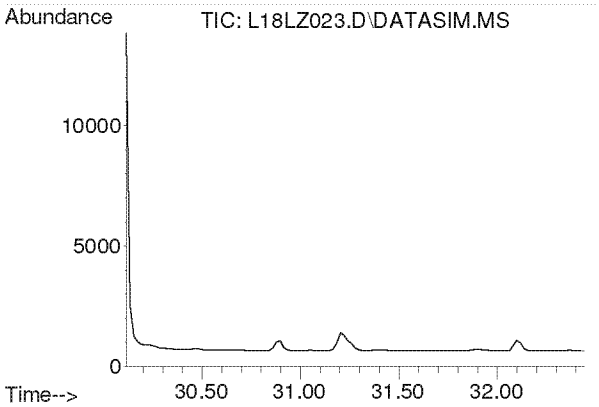
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.90 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.8



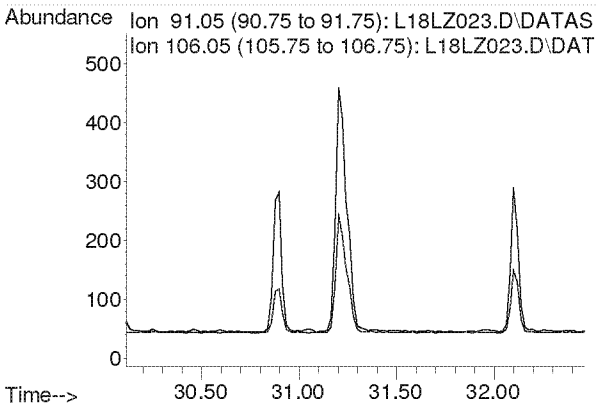


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.26 min

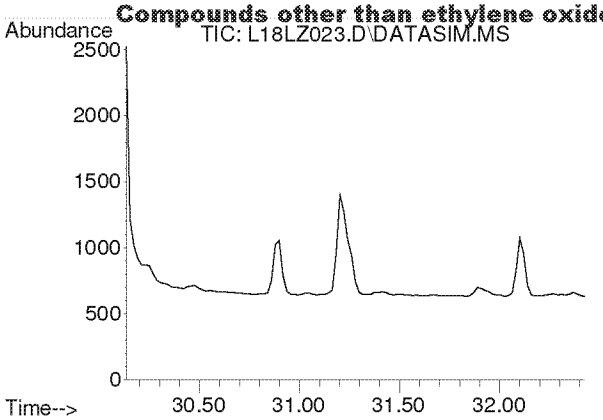
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.4



Compounds other than ethylene oxide were not quantitated.

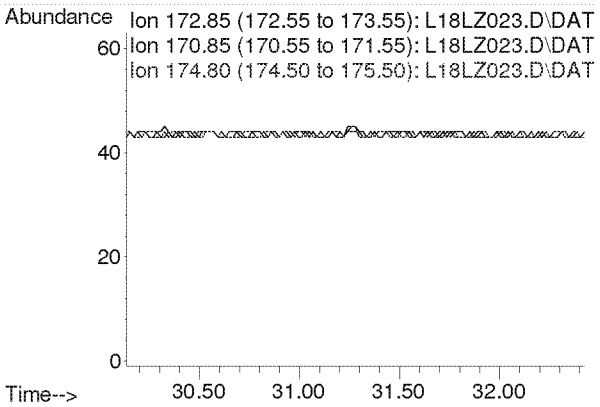


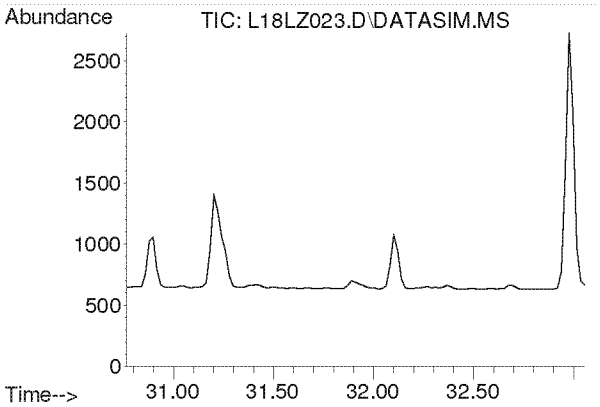
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	49.0



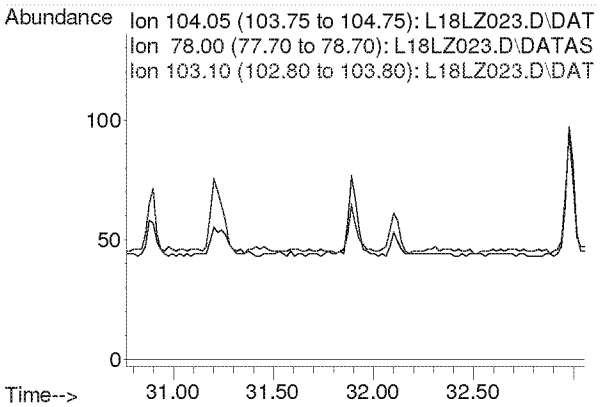


#53
Styrene
Concen: N.D.
Expected RT: 31.91 min

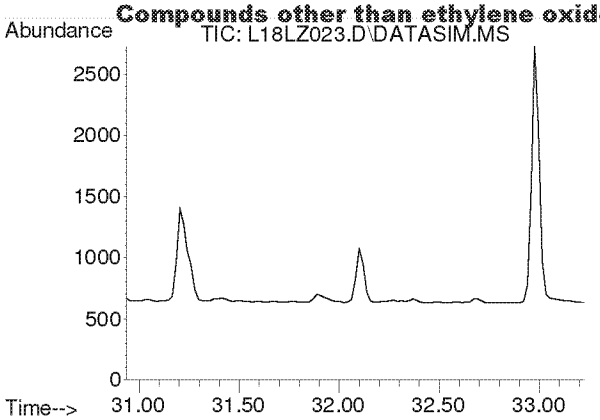
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.6
103	0.0



Compounds other than ethylene oxide were not quantitated.

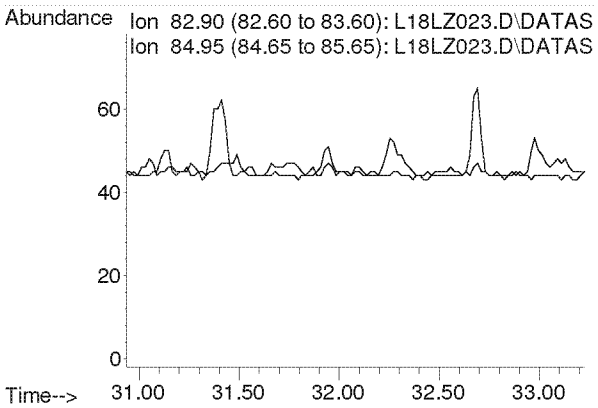


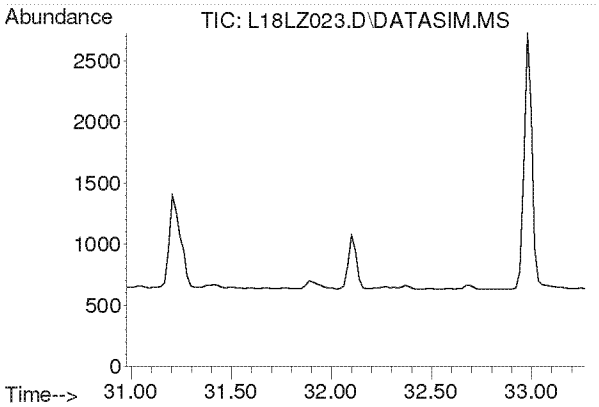
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9



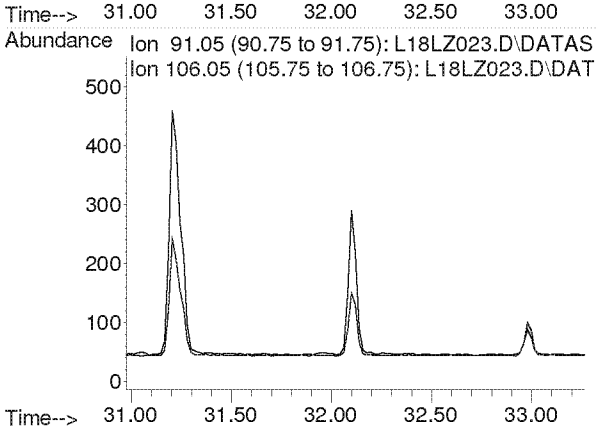


#55
o-Xylene
Concen: N.D.
Expected RT: 32.12 min

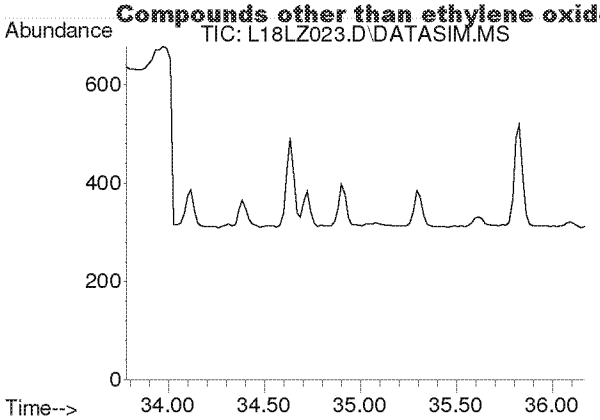
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.2



Compounds other than ethylene oxide were not quantitated.

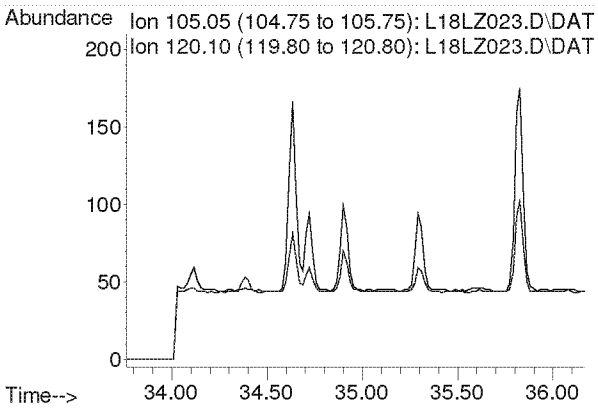


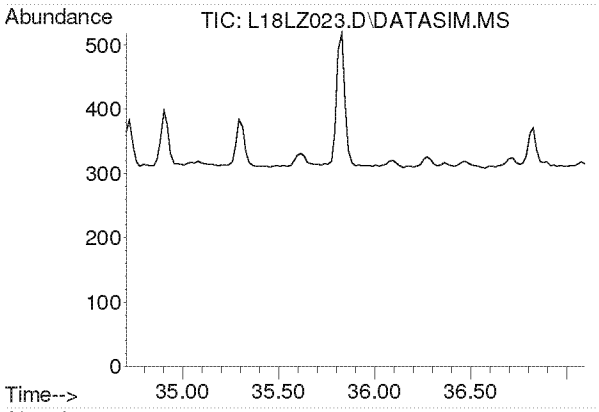
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.92 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



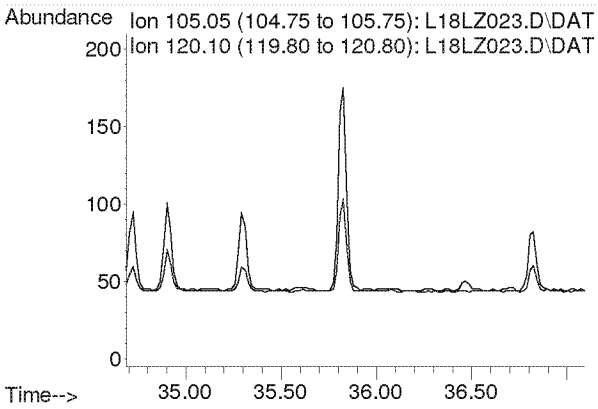


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

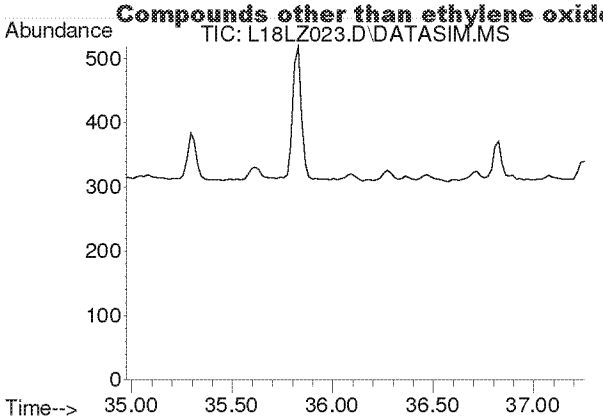
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.8



Compounds other than ethylene oxide were not quantitated.

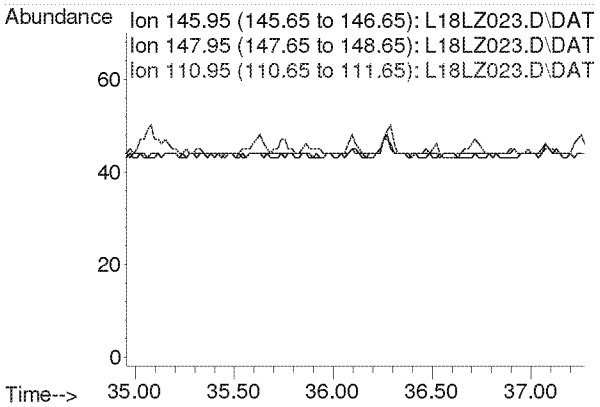


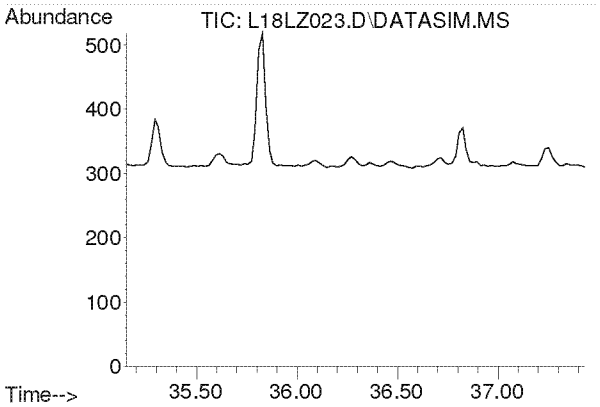
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.11 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.5



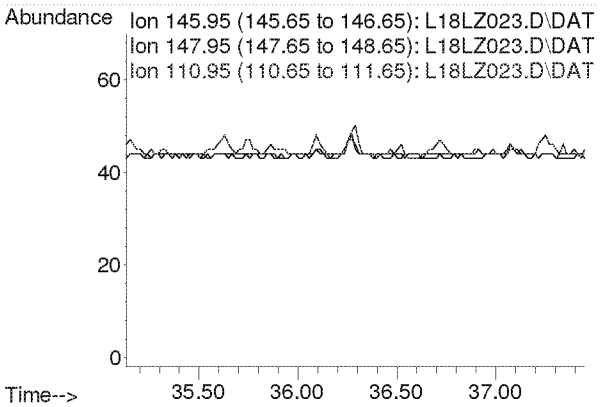


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

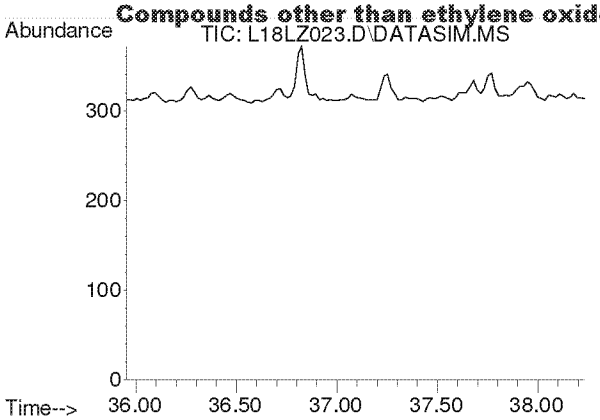
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	39.5



Compounds other than ethylene oxide were not quantitated.

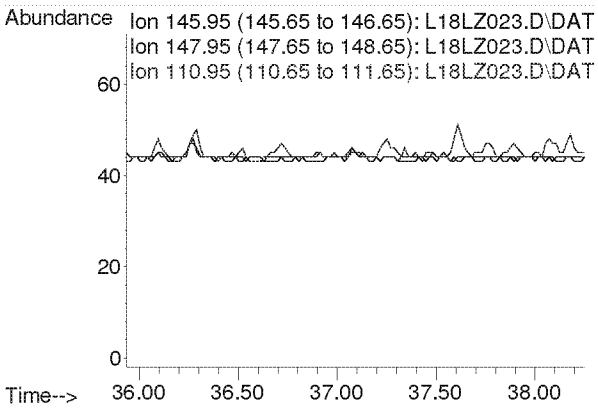


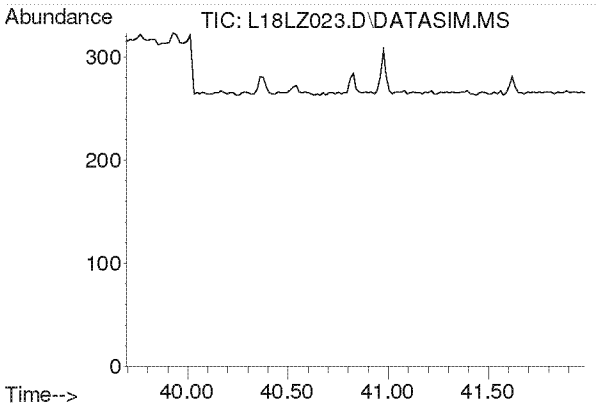
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.09 min

Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	41.4



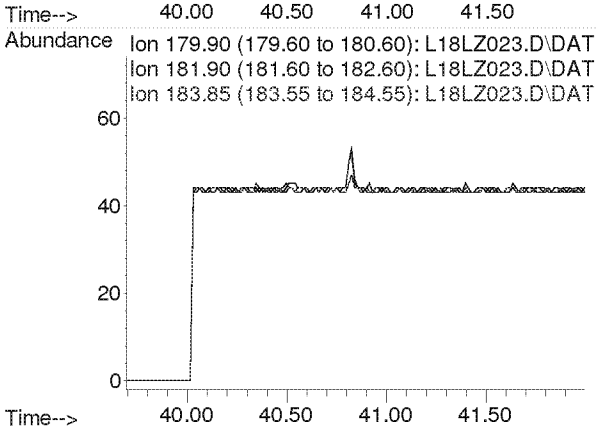


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

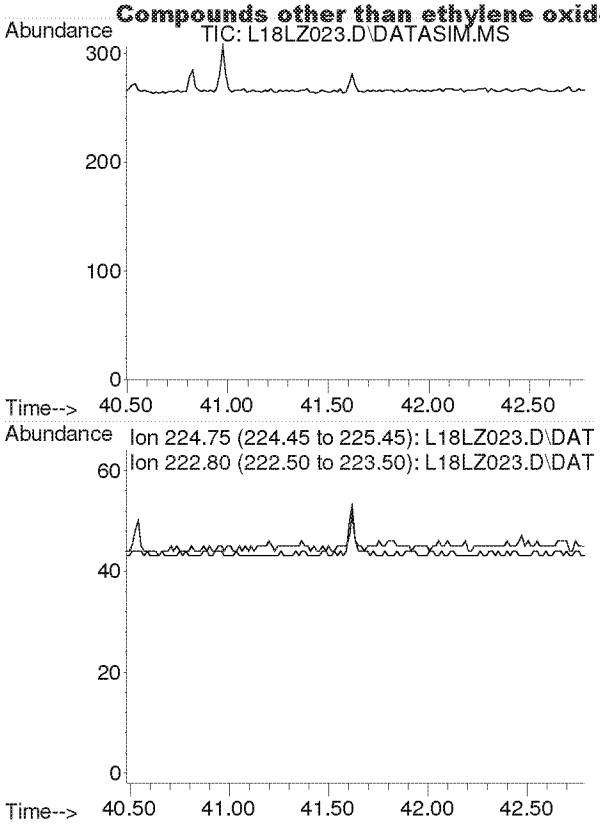
Lab File: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

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: L18LZ023.D
Acq: 27 Dec 2018 10:07 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B8L2603

Eastern Research Group

Matrix: Air | **Prepared using: Air Toxics - Summa Canister Prep** | **inted: 12/26/2018 1:59:04PM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
8121130-01 *TO-15 2018*	12/07/18 09:15	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
8121130-02 *TO-15 2018*	12/07/18 09:19	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
8121130-03 *TO-15 2018*	12/07/18 10:21	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
8121130-04 *TO-15 2018*	12/07/18 09:33	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
8121130-14 *TO-15 2018*	12/08/18 09:55	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
8121130-15 *TO-15 2018*	12/08/18 09:20	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
8121130-16 *TO-15 2018*	12/08/18 10:38	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
8121130-17 *TO-15 2018*	12/08/18 10:26	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
8121130-18 *TO-15 2018*	12/08/18 09:39	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
8121130-19 *TO-15 2018*	12/08/18 10:09	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
8121220-04 *TO-15 2018*	12/11/18 09:22	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
8121220-05 *TO-15 2018*	12/11/18 09:14	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
8121220-06 *TO-15 2018*	12/11/18 09:46	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
8121220-07 *TO-15 2018*	12/11/18 09:05	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only

Spiking Witnessed By _____ Date _____ Preparation Reviewed By 1-3-19 Date _____ Extracts Received By _____ Date _____

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B8L2603

Eastern Research Group

Matrix: Air **Prepared using: Air Toxics - Summa Canister Prep** **inted: 12/26/2018 1:59:04PM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
8121220-08 *TO-15 2018*	12/11/18 08:52	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
8121220-09 *TO-15 2018*	12/11/18 08:50	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
B8L2603-BLK1	12/18/18 08:00	250	250				h2-525	
B8L2603-DUP1	12/11/18 08:52	250	250		8121220-08			
B8L2603-DUP2	12/11/18 08:50	250	250		8121220-09			
B8L2603-DUP3	12/07/18 09:15	250	250		8121130-01			
B8L2603-DUP4	12/07/18 09:19	250	250		8121130-02			

Spiking Witnessed By Date

Preparation Reviewed By 1-3-19 Date

Extracts Received By Date

Compounds other than ethylene oxide were not quantitated.

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 8121130-14

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Willow Pond Park
Canister Number: A21033
City/State: Willowbrook, SC
Lab Initial Can. Press. ("Hg): 29.4
AQS Code: ~~—~~
Cleaning Batch # : H1-511
Collection Date: 12/7/18
Date Can. Cleaned: 11/26/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: MB
Date: 12/3/18

Field Setup

Received by: Qazzaz
Date: 12/7/18
Operator: Qazzaz
MFC Setting:
System #: 10294
Elapsed Timer Reset (Y/N):
Setup Date: 12/7/18
Canister Valve Opened (Y/N): Y @ 10:23am
Field Initial Can. Press.: -29.2 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/8/17
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 @ 9:55am
Relinquished by: [signature]
Date: 12/8/18

Lab Recovery

Received by: NR
Date: 12/11/18
Lab Final Can. Press.: 3 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 = -29.2 @ 10:28am
Ambient Temp @ deployment = 20°F
" " @ collection = 25°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 8121130-15

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: 18870
City/State: BURR RIDGE IL
Lab Initial Can. Press. ("Hg): 29.4
AQS Code: —
Cleaning Batch # : H1-511
Collection Date: 12/07 - 12/08/18
Date Can. Cleaned: 11/26/18
Options:
SNMOC (Y/N): —
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # : —
METHANE (Y/N):
Relinquished by: RMB
Date: 12/3/18

Field Setup

Received by: M FLORES
Date: 12/07/18
Operator: M FLORES
MFC Setting:
System #: REG # 10311
Elapsed Timer Reset (Y/N): —
Setup Date: 12/07/18
Canister Valve Opened (Y/N): Y @
Field Initial Can. Press.: 30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/08/18
Sample Duration (3 or 24 hr): 24H
Operator: M FLORES
Elapsed Time:
Field Final Can. Press.: -5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 9:20
Relinquished by: M. FLORES
Date: 12/08/18

Lab Recovery

Received by: NR
Date: 12/11/18
Lab Final Can. Press.: 2.1 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
Vacuum gauge
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: 12/07: SUNNY, AMBIENT TEMP 20°F
LEAK CHECK: -30 "Hg @ 9:57 AM
12/08: SUNNY, AMB TEMP 25°F, LIGHT TRAFFIC

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

3

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 8121130-16

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WEST NEIGHBORHOOD
Canister Number: 19661
City/State: WILLOW BROOK, IL
Lab Initial Can. Press. ("Hg): 29.4
AQS Code: —
Cleaning Batch # : H2-508
Collection Date: 12/07 - 12/08/18
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: RMB
Date: 12/3/18

Field Setup

Received by: M Fuco
Date: 12/07/18
Operator: M Fuco
MFC Setting: —
System #: REG # 10310
Elapsed Timer Reset (Y/N): —
Setup Date: 12/07/18
Canister Valve Opened (Y/N): Y @ 1106
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/08/18
Sample Duration (3 or 24 hr): 24H
Operator: M. Fuco
Elapsed Time:
Field Final Can. Press.: -4 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:38
Relinquished by: M. Fuco
Date: 12/08/18

Lab Recovery

Received by: KR
Date: 12/11/18
Lab Final Can. Press.: 3 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: 12/07 TEMP: 20°F 11:09 AM
LEAK CHECK: -29 "Hg @ ~~9:11~~ AM
12/08: TEMP: 25°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

4

ERG Eastern Research Group, Inc.

ERG Lab ID # 8121130-17

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: GOWER ES

Canister Number: 0044

City/State: CLARENDON HILLS, IL

Lab Initial Can. Press. ("Hg): 29.4

AQS Code: —

Cleaning Batch # : H2-508

Collection Date: 12/07 - 12/08/18

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: RMB

Date: 12/3/18

Field Setup

Received by: M. Fuoco

Date: 12/07/18

Operator: M Fuoco

MFC Setting: —

System #: REG # 10293

Elapsed Timer Reset (Y/N): —

Setup Date: 12/07/18

Canister Valve Opened (Y/N): Y @ 10:5[illegible]

Field Initial Can. Press.: — psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/08/18

Sample Duration (3 or 24 hr): 24-H

Operator: M Fuoco

Elapsed Time:

Field Final Can. Press.: -4.5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 10:26

Relinquished by: M. Fuoco

Date: 12/08/18

Lab Recovery

Received by: LR

Date: 12/11/18

Lab Final Can. Press.: 3 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: 12/07/18 : 20°F TEMP (AMBIENT)
LEAK CHECK: -29 "Hg @ 1058 AM
12/08/18: ~~-20~~ 25°F

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

5

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 8121130-18

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WATER TOWER
Canister Number: 5067
City/State: WILLOWBROOK, IL
Lab Initial Can. Press. ("Hg): 29.4
AQS Code: —
Cleaning Batch # : H1-511
Collection Date: 12/07 - 12/08/18
Date Can. Cleaned: 11/26/18
Options:
SNMOC (Y/N): —
Duplicate Event (Y/N): — N —
TOXICS (Y/N): Y
Duplicate Can # : —
METHANE (Y/N): —
Relinquished by: RMB
Date: 12/3/18

Field Setup

Received by: M Fuoco
Date: 12/07/18
Operator: M Fuoco
MFC Setting: —
System #: REG # 10312
Elapsed Timer Reset (Y/N): —
Setup Date: 12/07/18
Canister Valve Opened (Y/N): Y @ ~~10:00~~ 10:30 AM
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/08/18
Sample Duration (3 or 24 hr): 24H
Operator: M Fuoco
Elapsed Time:
Field Final Can. Press.: -5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 9:39
Relinquished by: M. Fuoco
Date: 12/08/18

Lab Recovery

Received by: KR
Date: 12/11/18
Lab Final Can. Press.: 3.5 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: 12/07: TEMP 20°F
LEAK CHECK: -29 "Hg @ 10:14 AM
12/08: AMBIENT TEMP: 25°F
SUNNY, LIGHT TRAFFIC

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

6

ERG Lab ID # 8121130-19

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: Hinckley H.S.
Canister Number: 19283
City/State: Darien, IL
Lab Initial Can. Press. ("Hg): 29.4
AQS Code: —
Cleaning Batch # : H2-509
Collection Date: 12/7/18
Date Can. Cleaned: 11/20/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N):
TOXICS (Y/N): Y
Duplicate Can # : N
METHANE (Y/N):
Relinquished by: RMB
Date: 12/3/18

Field Setup

Received by: Qazzar
Date: 12/7/18
Operator: Qazzar
MFC Setting:
System #: 10076
Elapsed Timer Reset (Y/N):
Setup Date: 12/7/18
Canister Valve Opened (Y/N): Y @ 10:38 am
Field Initial Can. Press.: -28.8 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/8/18
Sample Duration (3 or 24 hr): 24
Operator: Qazzar
Elapsed Time:
Field Final Can. Press.: -6.0 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:09
Relinquished by:
Date: 12/8/18

Lab Recovery

Received by: NR
Date: 12/11/18
Lab Final Can. Press.: 4.5 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 @ 10:43 am
Ambient Temp @ deployment = 20°F
" " @ collection = 25°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

r 7 0 7

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 8121220-04

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WILLOWBROOK POND PARK
Canister Number: SSS
City/State: WILLOWBROOK, IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code: —
Cleaning Batch # : 42-512
Collection Date: 12/10/18
Date Can. Cleaned: 11/28/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: [signature]
Date: 12/5/18

Field Setup

Received by: J.N.W.A
Date: 12/10/18
Operator: J.N.W.A
MFC Setting:
System #: 10294
Elapsed Timer Reset (Y/N):
Setup Date: 12/10/18
Canister Valve Opened (Y/N): Y @ 1018
Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/11/18
Sample Duration (3 or 24 hr): 24 hr
Operator: E. Delsie
Elapsed Time:
Field Final Can. Press.: -5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 0922
Relinquished by: E Delsie
Date: 12/11/18

Lab Recovery

Received by: [signature]
Date: 12/12/18
Lab Final Can. Press.: 4 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 @ 1023 - 29" HG
Ambient temp @ deployment = 16°F
" " " Collection = 28°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 8121220-05

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: Watertower
Canister Number: SAT 137
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code:
Cleaning Batch # : HZ-515
Collection Date: 12/10/18
Date Can. Cleaned: 11/30/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by:
Date: 12/5/18

Field Setup

Received by: M. Compher
Date: 12/10/18
Operator: M. Compher
MFC Setting:
System #: 10312
Elapsed Timer Reset (Y/N):
Setup Date: 12/10/18
Canister Valve Opened (Y/N): Y @ 1007
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/11/18
Sample Duration (3 or 24 hr): 24 hr
Operator: E. Delsio
Elapsed Time:
Field Final Can. Press.: -4.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 09:14
Relinquished by: E. Delsio
Date: 12/11/18

Lab Recovery

Received by: NC
Date: 12/12/18
Lab Final Can. Press.: 3.5 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: 5-min leak check @ 1012 -29" HG
Ambient temperature @ deployment =
" " @ collection = 25°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

9

ERG Lab ID # 8121220-06

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: Hinsdale South HS
Canister Number: SAT020
City/State: Darrien
Lab Initial Can. Press. ("Hg): 29.8
AQS Code: —
Cleaning Batch # : HZ-515
Collection Date: 12/10/18
Date Can. Cleaned: 11/30/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: [illegible]
Date: 12/5/18

Field Setup

Received by: E. Delisio
Date: 12/10/18
Operator: E. Delisio
MFC Setting:
System #: 10076
Elapsed Timer Reset (Y/N):
Setup Date: 12/10/18
Canister Valve Opened (Y/N): Y @ 1030
Field Initial Can. Press.: -28.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/11/18
Sample Duration (3 or 24 hr): 24 hr
Operator: E. Delisio
Elapsed Time:
Field Final Can. Press.: -6 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 0946
Relinquished by: E. Delisio
Date: 12/11/18

Lab Recovery

Received by: BR
Date: 12/12/18
Lab Final Can. Press.: 5 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 @ 1035 29.5 "Hg
Ambient temp @ deployment = 16°F
" " " collection = 28°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

C2 10

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 8121220-07

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Gower ~~HS~~ MS JLC 12/11/18
Canister Number: 050
City/State: Willowbrook
Lab Initial Can. Press. ("Hg): 29.8
AQS Code: —
Cleaning Batch # : H2-512
Collection Date: 12/10/18
Date Can. Cleaned: 11/28/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N):
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: [illegible]
Date: 12/5/18

Field Setup

Received by: Ed Delisio
Date: 12/10/18
Operator: E. Delisio
MFC Setting:
System #: 10311
Elapsed Timer Reset (Y/N):
Setup Date: 12/10/18
Canister Valve Opened (Y/N): Y @ 955
Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/11/18
Sample Duration (3 or 24 hr): 24 hr
Operator: E. Delisio
Elapsed Time:
Field Final Can. Press.: -5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 905
Relinquished by: E. Delisio
Date: 12/11/18

Lab Recovery

Received by: KC
Date: 12/12/18
Lab Final Can. Press.: 3 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 @ 1000 -30" Hg
Ambient Temp @ deployment = 16°F
" " @ collection = 28°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 8121220-08

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: 5045
City/State: Willowbrook
Lab Initial Can. Press. ("Hg): 29.8
AQS Code: —
Cleaning Batch # : HZ-515
Collection Date: 12/10/18
Date Can. Cleaned: 11/30/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): Y
TOXICS (Y/N): Y
Duplicate Can # : SAT 084
METHANE (Y/N):
Relinquished by:
Date: 12/5/18

Field Setup

Received by: E. Delisio
Date: 12/10/18
Operator: E. Delisio
MFC Setting:
System #: 10314
Elapsed Timer Reset (Y/N):
Setup Date: 12/10/18
Canister Valve Opened (Y/N): Y @ 932
Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/11/2018
Sample Duration (3 or 24 hr): 24 hr
Operator: E. Delisio
Elapsed Time:
Field Final Can. Press.: -6 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 0852
Relinquished by: E. Delisio
Date: 12/11/2018

Lab Recovery

Received by: KK
Date: 12/12/18
Lab Final Can. Press.: 4 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 @ 937 -30" Hg
Ambient temp @ deployment = 16°F
" " " collection = 28°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 8121220-09

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 Willowbrook Warehouse - DUPLICATE
Canister Number: SAT084
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code:
Cleaning Batch # : HZ-515
Collection Date: 12/10/18
Date Can. Cleaned: 11/30/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): Y
TOXICS (Y/N): Y
Duplicate Can # : 5042
METHANE (Y/N):
Relinquished by: [signature]
Date: 12/5/18

Field Setup

Received by: M. Compher
Date: 12/10/18
Operator: M. Compher
MFC Setting:
System #: 10315
Elapsed Timer Reset (Y/N):
Setup Date: 12/10/18
Canister Valve Opened (Y/N): Y @0932
Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/11/2018
Sample Duration (3 or 24 hr): 24 hr
Operator: E. Delisio
Elapsed Time:
Field Final Can. Press.: -6.1 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @0850
Relinquished by: E. Delisio
Date: 12/11/2018

Lab Recovery

Received by: LR
Date: 12/12/18
Lab Final Can. Press.: 4 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: 5-min leak check @ 9:32 am -30" Hg
Ambient temperature @ deployment = 16°F
Ambient temperature @ collection = 28°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

13

ERG Lab ID # 8121130-01

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: Willowbrook W.H.
Canister Number: 183
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code:
Cleaning Batch # : H1-509
Collection Date: 12/6/18
Date Can. Cleaned: 11/20/18
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): Y
TOXICS (Y/N): Y
Duplicate Can # : 711
METHANE (Y/N):
Relinquished by: WR
Date: 11/29/18

Field Setup

Received by: Qazzaz
Date: 12/6/18
Operator: Qazzaz
MFC Setting:
System #: 10314
Elapsed Timer Reset (Y/N):
Setup Date: 12/6/18
Canister Valve Opened (Y/N): Y 9:20 a.m.
Field Initial Can. Press.: -30.0 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/7/18
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 9:15 a.m.
Relinquished by:
Date: 12/7/18

Lab Recovery

Received by: WR
Date: 12/11/18
Lab Final Can. Press.: 2 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
vacuum gauge
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check = -31.2 @ 9:25 am
Ambient temp during leak check = 30°F
" " " @ initial leak check = 30°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

14

ERG Eastern Research Group, Inc.

ERG Lab ID # 8121130-02

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Willowbrook WH Dup.

City/State: Willowbrook, PC

AQS Code: ——

Collection Date: 12/6/18

Options:

SNMOC (Y/N):

TOXICS (Y/N): J

METHANE (Y/N):

Relinquished by: HR

Canister Number: 711

Lab Initial Can. Press. ("Hg): 29.8

Cleaning Batch # : H2-509

Date Can. Cleaned: 11/20/18

Duplicate Event (Y/N): Y

Duplicate Can # : 183

Date: 11/29/18

Field Setup

Received by: Qazzaz

Date: 12/6/18

Operator: Qazzaz

MFC Setting:

System #: 10315

Elapsed Timer Reset (Y/N):

Setup Date: 12/6/18

Canister Valve Opened (Y/N): Y 1:21 pm

Field Initial Can. Press.: -31.8 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/7/18

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 1:21 pm

Relinquished by: Qazzaz

Date: 12/7/18

Lab Recovery

Received by: KR

Date: 12/10/18

Lab Final Can. Press.: 2 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 = -31.2 @ 1:26 pm
Ambient temp @ deployment = 30°F
" " @ collection = 30°F

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

15

ERG Lab ID # 812130-03

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: Willow Pond Park
Canister Number: 707
City/State: Willowbrook, FL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code: —
Cleaning Batch # : H2-509
Collection Date: 12/6/18
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: 11/20/18

Field Setup

Received by: Qazzaz
Date: 12/6/18
Operator: Qazzaz
MFC Setting:
System #: 10294
Elapsed Timer Reset (Y/N):
Setup Date: 12/6/18
Canister Valve Opened (Y/N): Y @ 10:05 am
Field Initial Can. Press.: -29.0 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/7/18
Sample Duration (3 or 24 hr): 24
Operator: Qazzaz
Elapsed Time:
Field Final Can. Press.: -2.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:21 am
Relinquished by:
Date: 12/7/18

Lab Recovery

Received by: KR
Date: 12/11/18
Lab Final Can. Press.: 1.4 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
vacuum gauge
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: leak check - 29.0 @ 10:10 am
Ambient Temp @ deployment = 30°F
collection = 20°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

16

ERG Lab ID # 8121130-04

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: WBVILLAGE HALL
Canister Number: 171
City/State: WILLOWBROOK, IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code:
Cleaning Batch # : HI-509
Collection Date: 12/4/18
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: 11/29/18

Field Setup

Received by: J. NWIA
Date: 12/4/18
Operator: J. NWIA
MFC Setting:
System #: 1031 3
Elapsed Timer Reset (Y/N):
Setup Date: 12/4/18
Canister Valve Opened (Y/N): Y @ 9:31 am
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 12/7/18
Sample Duration (3 or 24 hr): 24
Operator: Qazzaz
Elapsed Time:
Field Final Can. Press.: -2.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Yes 9:33 am
Relinquished by:
Date: 12/7/18

Lab Recovery

Received by: KR
Date: 12/11/18
Lab Final Can. Press.: 1.5 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why: Vacuum gauge

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check @ 9:36am -29" Hg
Ambient temp @ deployment = 30°F
" " " collection = 20°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy