Compounds other than ethylene oxide were not quantitated.

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

Sequence ID:	LFAW, 1901070	**Instrument:**	MS1	**Batch:**	19A2306
Cal Curve (Method):	9010002	**Analyst:**	MAA	**Date Analyzed:**	
10% Review Sample IDs:	9012221-04, -09	**Reviewer:**	DST	**Date:**	2/5/19
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	1-29-19	RMB 2/5/19	DST 2/5/19		
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)	1-29-19	RMB 2/5/19	DST 2/5/19		LIGAE
ICV(LCS) Second source calibration verification check - immediately following ICAL	The response factor ≤ ±30% DEV from calibration curve average response factor	1-29-19	RMB 2/5/19	DST 2/5/19		LIGAE
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	1-29-19	RMB 2/5/19	DST 2/5/19		2nd 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	1-29-19	RMB 2/5/19	DST 2/5/19		

Samples 9012221-04, -09 checked for t-2-butene spectra. 9012221-04 had none. 9012221-09 had a small amount of t-2-butene & needs LK flag. DST 2/5/19

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	✓ 1-29-19	RMB 2/5/19	DST 2/5/19		
Canister Cleaning Certification	<3xMDL or 0.2ppbv per VOC targeted compound, whichever is lower	—	RMB 2/5/19	NA		
Preconcentrator Leak Check	≤ ± 0.2 psi/min	✓ 1-29-19	RMB 2/5/19	DST 2/5/19		
Samples/Internal Standard Check	IS area within ±40% and IS RT within ±0.33 min. of most recent initial calibration	— 1-29-19	RMB 2/5/19	DST 2/5/19		
COC Included and filled out	Lab receipt acknowledged, LIMS number added to COC	— 1-29-19	RMB 2/5/19	DST 2/5/19		
Manual Integration and peak deletion	Conforms with ERG-SOP-097 "Procedure for Manual Integration of Chromatographic Peaks"	— 1-29-19	RMB 2/5/19	DST 2/5/19		
Manual Calculation Check	One compound manual check must agree with software generated result		RMB 2/5/19	DST 2/5/19		9011701-09 22937 (4.77 ppbv) / 56108 (0.2464) = 7.914 ppbv
Qualifiers Check	Check to make sure LIMS data flags are correct	✓ 1-29-19	RMB 2/5/19	DST 2/5/19		9012221-09 needs an LK flag for co-elution. DST 2/5/19 flag added DST 2/5/19

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

L19AW002 ethylene oxide

$$\frac{5597 \times 4.77}{61574 \times 0.2464} = 1.85 \text{ ppbv}$$

Compounds other than ethylene oxide were not quantitated.

ANALYSIS SEQUENCE

Instrument: ERGMS#1

Calibration ID: 9010002

1901070

Printed: 2/4/2019 1:07:42PM

Lab Number	Sample Name	Analysis	Container	Order	Position	STD ID	ISTD ID	Comments
1901070-CCV1	Calibration Check	QC		1		9A16012	8L13002	
B9A2306-BLK1	Blank	QC		2			8L13002	
9011701-08	WB Warehouse C1	TO-15 2019	A	3			8L13002	Ethylene Oxide only
9011701-09	WB Warehouse C2	TO-15 2019	A	4			8L13002	Ethylene Oxide only
B9A2306-DUP1	Duplicate	QC		5			8L13002	
B9A2306-DUP2	Duplicate	QC		6			8L13002	
9011701-04	WB Village Hall	TO-15 2019	A	7			8L13002	Ethylene Oxide only
9011701-05	Gower MS	TO-15 2019	A	8			8L13002	Ethylene Oxide only
9011701-06	Willow Pond Park	TO-15 2019	A	9			8L13002	Ethylene Oxide only
9011701-07	Gower ES	TO-15 2019	A	10			8L13002	Ethylene Oxide only
9012221-01	WB Warehouse	TO-15 2019	A	11			8L13002	Ethylene Oxide only
9012221-02	Gower ES	TO-15 2019	A	12			8L13002	Ethylene Oxide only
9012221-03	Water Tower	TO-15 2019	A	13			8L13002	Ethylene Oxide only
9012221-04	Willow Pond Park	TO-15 2019	A	14			8L13002	Ethylene Oxide only
9012221-05	Hinsdale South HS	TO-15 2019	A	15			8L13002	Ethylene Oxide only
9012221-06	Gower MS	TO-15 2019	A	16			8L13002	Ethylene Oxide only
9012221-07	West Neighborhood	TO-15 2019	A	17			8L13002	Ethylene Oxide only
9012221-08	WB Village Hall C1	TO-15 2019	A	18			8L13002	Ethylene Oxide only
9012221-09	WB Village Hall C2	TO-15 2019	A	19			8L13002	Ethylene Oxide only
B9A2306-DUP3	Duplicate	QC		20			8L13002	
B9A2306-DUP4	Duplicate	QC		21			8L13002	

Samples Loaded By Date

Randy Brown 2/4/19

Data Processed By Date

Compounds other than ethylene oxide were not quantitated.

Sequence Name: C:\msdchem\1\sequence\L19AW.s
Comment: ANALYZE 1/23/19,9010002 exp 4/5/19, L19AW
Operator: MAH
Data Path: C:\MSDCHEM\1\DATA\L19AW\
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	L19AW001	BFB	BFB
2)	Sample	2	L19AW002	9010002	1901070-CCV1
3)	Sample	3	L19AW003	9010002	SNMOC-CCV1
4)	Sample	4	L19AW004	9010002	FLUSH
5)	Sample	5	L19AW005	9010002	B9A2306-BLK1
6)	Sample	6	L19AW006	9010002	9011701-08
7)	Sample	7	L19AW007	9010002	9011701-09
8)	Sample	8	L19AW008	9010002	B9A2306-DUP1
9)	Sample	9	L19AW009	9010002	B9A2306-DUP2
10)	Sample	10	L19AW010	9010002	9011701-04
11)	Sample	11	L19AW011	9010002	9011701-05
12)	Sample	12	L19AW012	9010002	9011701-06
13)	Sample	13	L19AW013	9010002	9011701-07
14)	Sample	14	L19AW014	9010002	9012221-01
15)	Sample	15	L19AW015	9010002	9012221-02
16)	Sample	16	L19AW016	9010002	9012221-03
17)	Sample	17	L19AW017	9010002	9012221-04
18)	Sample	18	L19AW018	9010002	9012221-05
19)	Sample	19	L19AW019	9010002	9012221-06
20)	Sample	20	L19AW020	9010002	9012221-07
21)	Sample	21	L19AW021	9010002	9012221-08
22)	Sample	22	L19AW022	9010002	9012221-09
23)	Sample	23	L19AW023	9010002	B9A2306-DUP3
24)	Sample	24	L19AW024	9010002	B9A2306-DUP4
25)	Sample	100	OFF	FIDOFF	OFF

RMB 2/5/19

1-25-19

Compounds other than ethylene oxide were not quantitated.

Sample	1	BFB	BFB	L19AW001	80 ML 8L13001	1
Sample	2	1901070-CCV1	9010002	L19AW002	80 ML 8L13001,9A16012	1
Sample	3	SNMOC-CCV1	9010002	L19AW003	80 ML 8L13001,8L27003	1
Sample	4	FLUSH	9010002	L19AW004	80 ML 8L13001	1
Sample	5	B9A2306-BLK1	9010002	L19AW005	80 ML 8L13001	1
Sample	6	9011701-08	9010002	L19AW006	EPA WB WAREHOUSE C1 1/16/19	1
Sample	7	9011701-09	9010002	L19AW007	EPA WB WAREHOUSE C2 1/16/19	1
Sample	8	B9A2306-DUP1	9010002	L19AW008	EPA WB WAREHOUSE R1 1/16/19	1
Sample	9	B9A2306-DUP2	9010002	L19AW009	EPA WB WAREHOUSE R2 1/16/19	1
Sample	10	9011701-04	9010002	L19AW010	WIB VILLAGE HALL 1/16/19	1
Sample	11	9011701-05	9010002	L19AW011	GOWER MS 1/16/19	1
Sample	12	9011701-06	9010002	L19AW012	WB POND PARK 1/16/19	1
Sample	13	9011701-07	9010002	L19AW013	GOWER ES 1/16/19	1
Sample	14	9012221-01	9010002	L19AW014	EPA WB WAREHOUSE 1/18/19	1
Sample	15	9012221-02	9010002	L19AW015	GOWER ES 1/18/19	1
Sample	16	9012221-03	9010002	L19AW016	WATER TOWER 1/18/19	1
Sample	17	9012221-04	9010002	L19AW017	WILLOW POND PARK 1/18/19	1
Sample	18	9012221-05	9010002	L19AW018	HINSDALE S. HS 1/18/19	1
Sample	19	9012221-06	9010002	L19AW019	GOWER MS 1/18/19	1
Sample	20	9012221-07	9010002	L19AW020	WEST NEIGHBORHOOD 1/18/19	1
Sample	21	9012221-08	9010002	L19AW021	WB VILLAGE HALL C1 1/18/19	1
Sample	22	9012221-09	9010002	L19AW022	WB VILLAGE HALL C2 1/18/19	1
Sample	23	B9A2306-DUP1 3	9010002	L19AW023	WB VILLAGE HALL R1 1/18/19	1
Sample	24	B9A2306-DUP2 4	9010002	L19AW024	WB VILLAGE HALL R2 1/18/19	1
Sample	100	OFF	FIDOFF	OFF	OFF	1

MB 2/5/19

1-25-19

Compounds other than ethylene oxide were not quantitated.

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

Sequence Name: C:\Smart\L19AW.SEQ
Date: 01-24-2019
Time: 09:26:47
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
1901070-CCV1	2	1	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
SNMOC-CCV1	1	1	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
FLUSH	1	2	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B9A2306-BLK1	1	2	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9011701-08	1	1	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9011701-09	1	2	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B9A2306-DUP1	1	1	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B9A2306-DUP2	1	2	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9011701-04	1	3	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9011701-05	1	4	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9011701-06	1	5	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9011701-07	1	6	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9012221-01	1	7	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9012221-02	1	8	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9012221-03	1	9	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9012221-04	1	10	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9012221-05	1	11	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9012221-06	1	12	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9012221-07	1	13	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9012221-08	1	14	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9012221-09	1	15	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B9A2306-DUP3	1	14	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B9A2306-DUP4	1	15	250		0	C:\Smart\TO-15A_MS1.MPT	12:00

Compounds other than ethylene oxide were not quantitated.

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

1/24/2019 9:53:17 AM
Leak Check for C:\Smart\L19AW.SEQ
Report File: C:\Smart\L19AW.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	---	---	1.1	1.2	0.10
1	5	---	---	1.1	1.2	0.10
1	6	---	---	1.2	1.3	0.10
1	7	---	---	1.1	1.2	0.10
1	8	---	---	1.2	1.3	0.10
1	9	---	---	1.2	1.2	0.00
1	10	---	---	1.1	1.2	0.10
1	11	---	---	1.1	1.2	0.10
1	12	---	---	1.2	1.2	0.00
1	13	---	---	1.2	1.3	0.10
1	14	---	---	1.2	1.2	0.00
1	15	---	---	1.2	1.2	0.00

1.24.19

Compounds other than ethylene oxide were not quantitated.

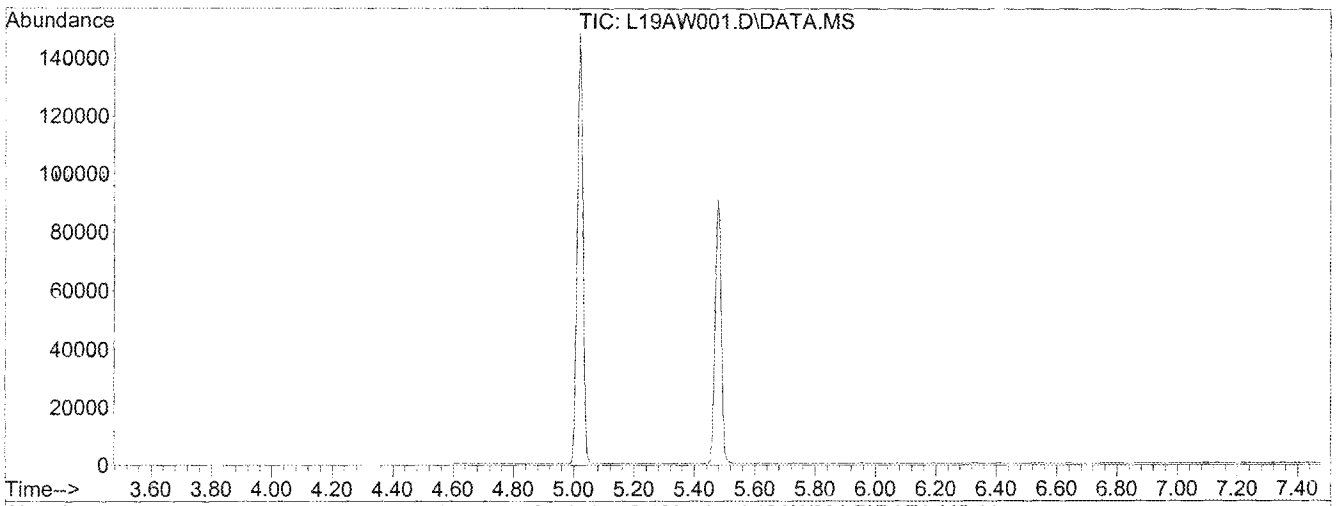
BFB

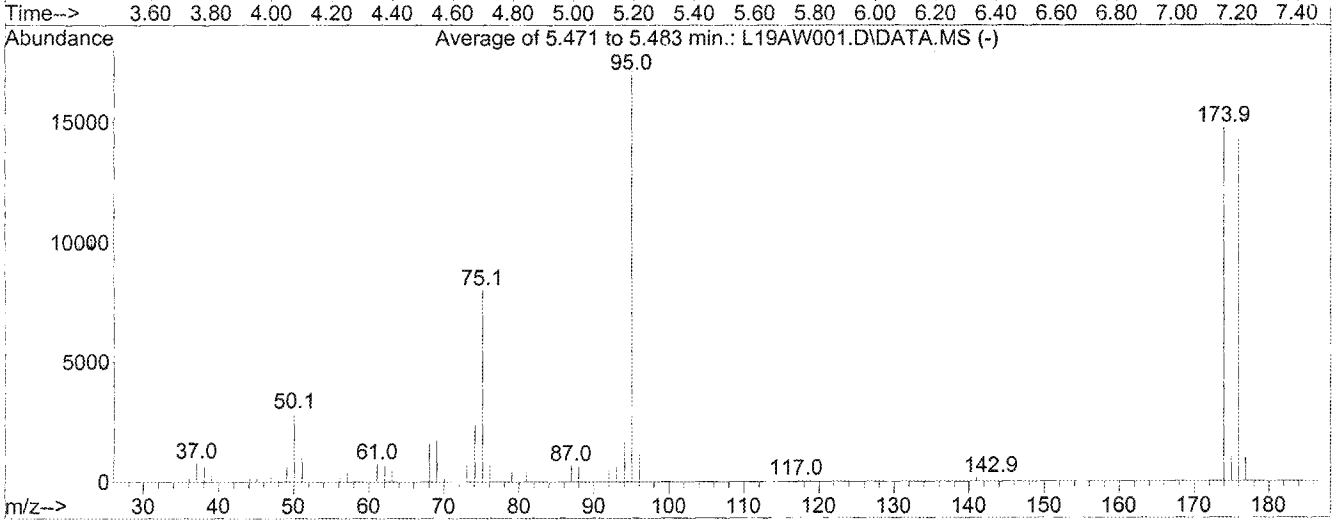
Data Path : C:\msdchem\1\DATA\L19AW\
Data File : L19AW001.D
Acq On : 23 Jan 2019 8:48 am
Operator : MAH
Sample : BFB
Misc : 80 ML 8L13001
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

1-29-19

Method : C:\msdchem\1\METHODS\9010002.M
Title : TO-15 by Selective Ion Analysis
Last Update : Tue Jan 08 07:11:21 2019





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

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	8	40	16.7	2871	PASS
75	95	30	66	46.8	8023	PASS
95	95	100	100	100.0	17152	PASS
96	95	5	9	6.5	1114	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	86.2	14777	PASS
175	174	4	9	6.9	1027	PASS
176	174	93	101	97.1	14351	PASS
177	176	5	9	6.8	973	PASS

Compounds other than ethylene oxide were not quantitated.

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\L19AW\L19AW001.D
Tune Time : 23 Jan 2019 8:48 am

9010002	IS Avg Area	61735	149820	118119
	+40%	86428	209748	165367
	-40%	37041	89892	70872

File	Sample	Internal Standard Responses		
L19AW002.D	1901070-CCV1	61574	155669	121657
L19AW005.D	B9A2306-BLK1	57356	140909	105071
L19AW006.D	9011701-08	59185	144300	110150
L19AW007.D	9011701-09	56108	133429	104311
L19AW008.D	B9A2306-DUP1	53695	132526	99351
L19AW009.D	B9A2306-DUP2	53140	128763	101406
L19AW010.D	9011701-04	54992	140370	106898
L19AW011.D	9011701-05	54620	133779	101163
L19AW012.D	9011701-06	55733	141024	106068
L19AW013.D	9011701-07	52481	124841	98758
L19AW014.D	9012221-01	58761	149511	108222
L19AW015.D	9012221-02	57086	140908	101951
L19AW016.D	9012221-03	50634	119687	93724
L19AW017.D	9012221-04	53605	134541	101998
L19AW018.D	9012221-05	52669	128472	98484
L19AW019.D	9012221-06	55004	135307	103262
L19AW020.D	9012221-07	51036	122164	92076
L19AW021.D	9012221-08	52940	128782	99227
L19AW022.D	9012221-09	52128	124049	92707
L19AW023.D	B9A2306-DUP3	53654	131094	99938
L19AW024.D	B9A2306-DUP4	52671	134277	95632

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

Created: Tue Jan 29 08:15:23 2019 MS1

1-29-19

✓

Compounds other than ethylene oxide were not quantitated.

C:\MSDCHEM

Compound Name			IS-Hexane-d14	IS-Hexane-d14	IS-Difluorobenzene	IS-Difluorobenzene	IS-Chlorobenzene-d5	IS-Chlorobenzene-d5
Labels	Date Acquired	Data File Name	(# 1) Target Response	(# 1) Ret Time	(# 28) Target Response	(# 28) Ret Time	(# 42) Target Response	(# 42) Ret Time
	1/24/2019 8:47	L19AW024.D	52671	19.99	134277	23.15	95632	30.11
Format 1 (Yes/No)								
Format 1 Title								
Format 2 (Yes/No)			YES	YES	YES	YES	YES	YES
Format 2 Title								
Show X Axis Title			YES	YES	YES	YES	YES	YES
Show Y Axis Title								
Lines To Chart								

Start of Data	Format 1 X-axis	Format 2 X-axis	IS-Hexane-d14	% Rec	RT	DEV (min)	IS-Difluorobenzene	% Rec	RT	DEV (min)	IS-Chlorobenzene-d5	% Rec	RT	DEV (min)
		IS AVG / AVG RT	61735 ✓		19.99		149820		23.15		118119		30.12	
	1/23/2019 9:36	L19AW002.D	61574 ✓	100	19.99 ✓	0	155669	104	23.15	0	121657	103	30.10	-0.02
	1/23/2019 12:41	L19AW005.D	57356 ✓	93	19.99 ✓	0	140909	94	23.15	0	105071	89	30.10	-0.02
	1/23/2019 14:30	L19AW006.D	59185	96	19.97	-0.02	144300	96	23.15	0	110150	93	30.10	-0.02
	1/23/2019 15:32	L19AW007.D	56108	91	19.99	0	133429	89	23.15	0	104311	88	30.10	-0.02
	1/23/2019 16:34	L19AW008.D	53695	87	19.97	-0.02	132526	88	23.15	0	99351	84	30.10	-0.02
	1/23/2019 17:36	L19AW009.D	53140	86	19.99	0	128763	86	23.15	0	101406	86	30.10	-0.02
	1/23/2019 18:36	L19AW010.D	54992	89	19.99	0	140370	94	23.15	0	106898	91	30.10	-0.02
	1/23/2019 19:38	L19AW011.D	54620	88	19.97	-0.02	133779	89	23.15	0	101163	86	30.10	-0.02
	1/23/2019 20:38	L19AW012.D	55733	90	19.99	0	141024	94	23.15	0	106068	90	30.09	-0.03
	1/23/2019 21:40	L19AW013.D	52481	85	19.97	-0.02	124841	83	23.15	0	98758	84	30.12	0
	1/23/2019 22:40	L19AW014.D	58761	95	19.99	0	149511	100	23.15	0	108222	92	30.11	-0.01
	1/23/2019 23:42	L19AW015.D	57086	92	19.97	-0.02	140908	94	23.15	0	101951	86	30.12	0
	1/24/2019 12:44	L19AW016.D	50634	82	19.99	0	119687	80	23.15	0	93724	79	30.12	0
	1/24/2019 1:44	L19AW017.D	53605 ✓	87	19.99 ✓	0	134541	90	23.15	0	101998	86	30.10	-0.02
	1/24/2019 2:46	L19AW018.D	52669	85	19.99	0	128472	86	23.15	0	98484	83	30.12	0
	1/24/2019 3:46	L19AW019.D	55004	89	19.99	0	135307	90	23.15	0	103262	87	30.12	0
	1/24/2019 4:49	L19AW020.D	51036	83	19.99	0	122164	82	23.15	0	92076	78	30.11	-0.01
	1/24/2019 5:51	L19AW021.D	52940	86	19.99	0	128782	86	23.15	0	99227	84	30.12	0
	1/24/2019 6:52	L19AW022.D	52128 ✓	84	19.99 ✓	0	124049	83	23.15	0	92707	78	30.12	0
	1/24/2019 7:55	L19AW023.D	53654	87	19.99	0	131094	88	23.15	0	99938	85	30.12	0
	1/24/2019 8:47	L19AW024.D	52671	85	19.99	0	134277	90	23.15	0	95632	81	30.11	-0.01

Trends

✓ DSF 2/5/19

CHEMCUSTOM

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
9A16012

Description:	2.50 ppbv ICV/CCV	Expires:	02/15/19
Standard Type:	Calibration Stan	Prepared:	01/16/19
Solvent:	Scientific Air	Prepared By:	Mitch Howell
Final Volume (mls):	6000	Department:	Air Toxics
Vials:	1	Last Edit:	01/16/19 13:57 by MH

canister# 3222

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

Reviewed By _____ Date _____

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
9A16012

n-Hexane	110-54-3	0.0025	ppmv
Trichlorotrifluoroethane	76-13-1	0.00244	ppmv
Trichlorofluoromethane	75-69-4	0.0025	ppmv
Trichloroethylene	79-01-6	0.00252	ppmv
trans-1,3-Dichloropropene	10061-02-6	0.00246	ppmv
trans-1,2-Dichloroethylene	156-60-5	0.00246	ppmv
Toluene	108-88-3	0.00244	ppmv
Tetrachloroethylene	127-18-4	0.00249	ppmv
tert-Amyl Methyl Ether	994-05-8	0.0026	ppmv
Styrene	100-42-5	0.0025	ppmv
Propylene	115-07-1	0.00245	ppmv
p-Dichlorobenzene	106-46-7	0.00261	ppmv
o-Xylene	95-47-6	0.00244	ppmv
o-Dichlorobenzene	95-50-1	0.0025	ppmv
cis-1,3-Dichloropropene	10061-01-5	0.00254	ppmv
Hexachloro-1,3-butadiene	87-68-3	0.0025	ppmv
Vinyl chloride	75-01-4	0.0025	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
Naphthalene	91-20-3	0.00246	ppmv
Ethylene oxide	75-21-8	0.0025	ppmv
n-Octane	111-65-9	0.00252	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
Dibromochloromethane	124-48-1	0.00254	ppmv
Ethylbenzene	100-41-4	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 S	11/12/18	** Vendor **	11/12/19	11/20/18 12:14 by MH	15

Reviewed By Date

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\L19AW\
Data File : L19AW002.D
Acq On : 23 Jan 2019 9:36 am
Operator : MAH
Sample : 1901070-CCV1
Misc : 80 ML 8L13001,9A16012
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 29 08:05:21 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
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	0.368	0.283	23.1	100	0.00
3	CT	Propylene	0.454	0.493	-8.6	100	0.00
4	CT	Dichlorodifluoromethane	1.966	1.987	-1.1	100	0.00
5	CT	Chloromethane	0.586	0.524	10.6	100	0.00
6	CT	Dichlorotetrafluoroethane	1.864	1.946	-4.4	100	0.00
7	CT	Vinyl Chloride	0.630	0.592	6.0	100	0.00
8	CT	1,3-Butadiene	0.415	0.377	9.2	100	0.00
9	CT	Ethylene oxide	0.246	0.183	25.6	100	0.00
10	CT	Bromomethane	0.634	0.595	6.2	100	0.00
11	CT	Chloroethane	0.279	0.266	4.7	100	0.00
12	CT	Acetonitrile	0.479	0.434	9.4	100	0.00
13	CT	Acrolein	0.236	0.208	11.9	100	0.00
14	CT	Trichlorofluoromethane	1.865	1.596	14.4	100	0.00
15	CT	Acrylonitrile	0.385	0.324	15.8	100	0.00
16	CT	1,1-Dichloroethene	0.856	0.827	3.4	100	0.00
17	CT	Methylene Chloride	0.612	0.555	9.3	100	0.00
18	CT	Carbon Disulfide	1.862	1.744	6.3	100	0.00
19	CT	Trichlorotrifluoroethane	1.345	1.329	1.2	100	0.00
20	CT	trans-1,2-Dichloroethylene	0.483	0.448	7.2	100	0.00
21	CT	1,1-Dichloroethane	0.877	0.833	5.0	100	0.00
22	CT	Methyl tert-Butyl Ether	1.298	1.190	8.3	100	0.00
23	CT	Chloroprene	0.602	0.582	3.3	100	0.00
24	CT	cis-1,2-Dichloroethylene	0.670	0.608	9.3	100	0.00
25	CT	Bromochloromethane	0.368	0.330	10.3	100	0.00
26	CT	Chloroform	1.004	0.976	2.8	100	0.00
27	CT	Ethyl tert-Butyl Ether	1.360	1.276	6.2	100	0.00
28	CT	1,2-Dichloroethane	0.596	0.547	8.2	100	0.00
29	ISS	IS-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
30	CT	1,1,1-Trichloroethane	0.417	0.360	13.7	100	0.00
31	CT	Benzene	0.574	0.576	-0.3	100	0.00
32	CT	Carbon Tetrachloride	0.452	0.442	2.2	100	0.00
33	CT	tert-Amyl Methyl Ether	0.483	0.452	6.4	100	0.00
34	CT	1,2-Dichloropropane	0.241	0.229	5.0	100	0.00
35	CT	Ethyl Acrylate	0.323	0.295	8.7	100	0.00
36	CT	Bromodichloromethane	0.440	0.359	18.4	100	0.00
37	CT	Trichloroethylene	0.276	0.259	6.2	100	0.00
38	CT	Methyl Methacrylate	0.850	0.740	12.9	100	0.00
39	CT	cis-1,3-Dichloropropene	0.221	0.223	-0.9	100	0.00
40	CT	Methyl Isobutyl Ketone	0.465	0.403	13.3	100	0.00
41	CT	trans-1,3-Dichloropropene	0.172	0.156	9.3	100	0.00
42	CT	1,1,2-Trichloroethane	0.214	0.202	5.6	100	0.00
43	ISS	IS-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
44	CT	Toluene	0.762	0.776	-1.8	100	0.00
45	CT	Dibromochloromethane	1.910	1.679	12.1	100	0.00
46	CT	1,2-Dibromoethane	0.346	0.333	3.8	100	0.00
47	CT	n-Octane	0.471	0.451	4.2	100	0.00
48	CT	Tetrachloroethylene	0.387	0.394	-1.8	100	0.00

Compounds other than ethylene oxide were not quantitated.

Data Path : C:\MSDCHEM\1\DATA\L19AW\
Data File : L19AW002.D
Acq On : 23 Jan 2019 9:36 am
Operator : MAH
Sample : 1901070-CCV1
Misc : 80 ML 8L13001,9A16012
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 29 08:05:21 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
Last Update : Tue Jan 08 07:11:21 2019
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	0.538	0.521	3.2	100	0.00
50	CT	Ethylbenzene	0.814	0.797	2.1	100	0.00
51	CT	m,p-Xylene	0.708	0.673	4.9	100	0.00
52	CT	Bromoform	0.414	0.358	13.5	100	0.00
53	CT	Styrene	0.391	0.362	7.4	100	0.00
54	CT	1,1,2,2-Tetrachloroethane	0.517	0.432	16.4	100	0.00
55	CT	o-Xylene	0.683	0.684	-0.1	100	0.00
56	CT	1,3,5-Trimethylbenzene	0.669	0.611	8.7	100	0.00
57	CT	1,2,4-Trimethylbenzene	0.583	0.538	7.7	100	0.00
58	CT	m-Dichlorobenzene	0.401	0.306	23.7	100	0.00
59	CT	p-Dichlorobenzene	0.323	0.262	18.9	100	0.00
60	CT	o-Dichlorobenzene	0.349	0.296	15.2	100	0.00
61	CT	1,2,4-Trichlorobenzene *	0.142	0.083	41.5#	100	0.00
62	CT	Hexachloro-1,3-butadiene	0.360	0.279	22.5	100	0.00

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

*- ETOX only
1-29-19

OK
BS
2/5/19

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\L19AW\
Data File : L19AW002.D
Acq On : 23 Jan 2019 9:36 am
Operator : MAH
Sample : 1901070-CCV1
Misc : 80 ML 8L13001,9A16012
ALS Vial : 2 Sample Multiplier: 1

7-25-19

Quant Time: Jan 29 08:05:21 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	61574	4.7700	ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	155669	4.9900	ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	121657	4.7400	ppbv	-0.02

System Monitoring Compounds

Target Compounds						Qvalue
2) Acetylene	5.416	26	8765	1.8437	ppbv	100
3) Propylene	7.823	41	15601	2.6596	ppbv	99
4) Dichlorodifluoromethane	8.685	85	61037	2.4055	ppbv	100
5) Chloromethane	9.740	50	16762	2.2144	ppbv	100
6) Dichlorotetrafluoroethane	10.864	85	61302	2.5474	ppbv	100
7) Vinyl Chloride	11.119	62	19095	2.3468	ppbv	100
8) 1,3-Butadiene	11.783	54	12035	2.2450	ppbv	96
9) Ethylene oxide	12.395	29	5897	1.8542	ppbv	89
10) Bromomethane	12.590	94	19186	2.3440	ppbv	100
11) Chloroethane	13.282	64	8586	2.3848	ppbv	99
12) Acetonitrile	14.358	41	14175	2.2923	ppbv	98
13) Acrolein	14.613	56	6489	2.1308	ppbv	90
14) Trichlorofluoromethane	15.193	101	51493	2.1390	ppbv	100
15) Acrylonitrile	15.935	53	10443	2.1021	ppbv	99
16) 1,1-Dichloroethene	16.422	61	26049	2.3574	ppbv	98
17) Methylene Chloride	16.747	49	17774	2.2498	ppbv	97
18) Carbon Disulfide	16.932	76	55839	2.3235	ppbv	100
19) Trichlorotrifluoroethane	17.280	101	41855	2.4101	ppbv	99
20) trans-1,2-Dichloroethy...	18.315	96	14235	2.2821	ppbv	99
21) 1,1-Dichloroethane	18.632	63	26121	2.3073	ppbv	100
22) Methyl tert-Butyl Ether	18.791	73	39010	2.3287	ppbv	100
23) Chloroprene	19.539	53	18640	2.3971	ppbv	97
24) cis-1,2-Dichloroethylene	19.947	61	19613	2.2691	ppbv	98
25) Bromochloromethane	20.174	128	10529	2.2135	ppbv	96
26) Chloroform	20.401	83	31506	2.4322	ppbv	99
27) Ethyl tert-Butyl Ether	21.164	59	42321	2.4112	ppbv	100
28) 1,2-Dichloroethane	21.478	62	17575	2.2858	ppbv	99
30) 1,1,1-Trichloroethane	21.869	97	27744	2.1327	ppbv	98
31) Benzene	22.535	78	45070	2.5187	ppbv	100
32) Carbon Tetrachloride	22.770	117	34728	2.4628	ppbv	100
33) tert-Amyl Methyl Ether	23.501	73	36653	2.4325	ppbv	100
34) 1,2-Dichloropropane	23.790	63	18052	2.3990	ppbv	90
35) Ethyl Acrylate	23.872	55	23350	2.3146	ppbv	99
36) Bromodichloromethane	24.078	83	28705	2.0925	ppbv	100
37) Trichloroethylene	24.161	130	20398	2.3668	ppbv	99
38) Methyl Methacrylate	24.532	41	58626	2.2112	ppbv	99
39) cis-1,3-Dichloropropene	25.511	75	17673	2.5604	ppbv	100
40) Methyl Isobutyl Ketone	25.587	43	31830	2.1931	ppbv	99
41) trans-1,3-Dichloropropene	26.350	75	11990	2.2312	ppbv	97
42) 1,1,2-Trichloroethane	26.617	97	15657	2.3458	ppbv	99
44) Toluene	27.075	91	48579	2.4854	ppbv	100
45) Dibromochloromethane	27.734	129	109462	2.2325	ppbv	100
46) 1,2-Dibromoethane	28.138	107	21352	2.4035	ppbv	100
47) n-Octane	28.857	43	29139	2.4104	ppbv	98
48) Tetrachloroethylene	28.980	166	25186	2.5332	ppbv	99
49) Chlorobenzene	30.173	112	32866	2.3818	ppbv	100
50) Ethylbenzene	30.898	91	51156	2.4481	ppbv	99

ED_002475_00000318-00015

Compounds other than ethylene oxide were not quantitated

Quantification Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\L19AW\
Data File : L19AW002.D
Acq On : 23 Jan 2019 9:36 am
Operator : MAH
Sample : 1901070-CCV1
Misc : 80 ML 8L13001,9A16012
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 29 08:05:21 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.223	91	86004	4.7334 ppbv	99
52) Bromoform	31.261	173	23333	2.1953 ppbv	100
53) Styrene	31.910	104	23208	2.3143 ppbv #	98
54) 1,1,2,2-Tetrachloroethane	32.063	83	28020	2.1099 ppbv	100
55) o-Xylene	32.120	91	42862	2.4467 ppbv	99
56) 1,3,5-Trimethylbenzene	34.919	105	39499	2.2994 ppbv	99
57) 1,2,4-Trimethylbenzene	35.828	105	32852	2.1963 ppbv	99
58) m-Dichlorobenzene	36.113	146	18875	1.8353 ppbv	100
59) p-Dichlorobenzene	36.273	146	17579	2.1216 ppbv	100
60) o-Dichlorobenzene	37.093	146	18979	2.1215 ppbv	100
61) 1,2,4-Trichlorobenzene	40.826	180	5293	1.4515 ppbv	99
62) Hexachloro-1,3-butadiene	41.621	225	17916	1.9367 ppbv	100

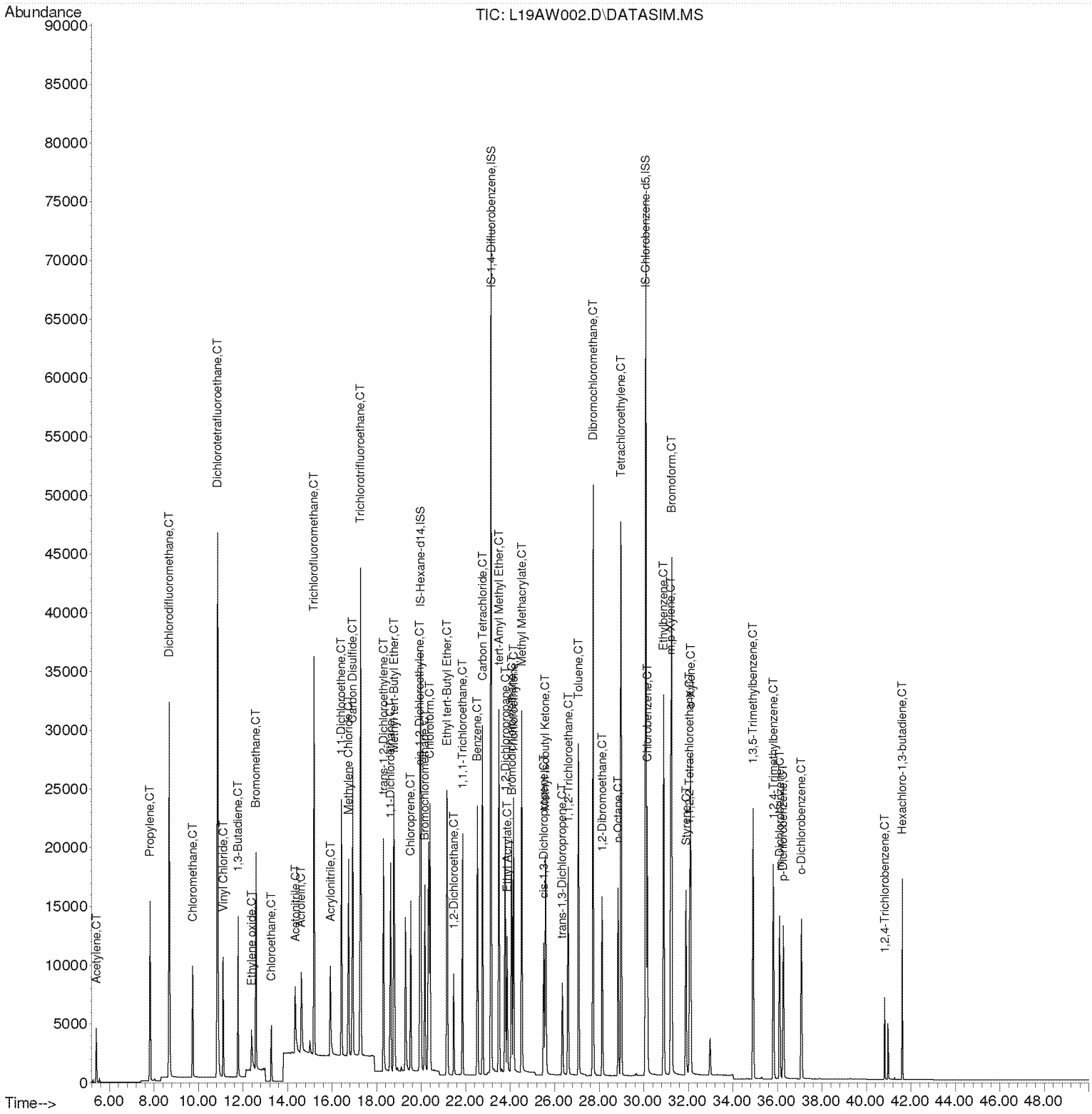
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

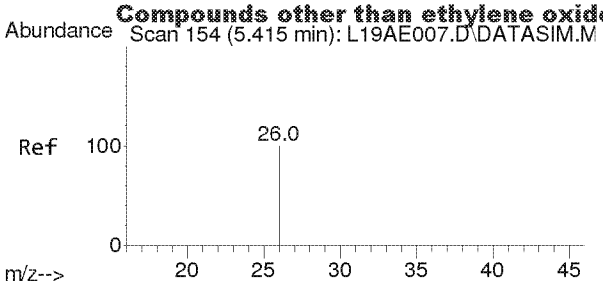
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW002.D
Acq On : 23 Jan 2019 9:36 am
Operator : MAH
Sample : 1901070-CCV1
Misc : 80 ML 8L13001,9A16012
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jan 29 08:05:21 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

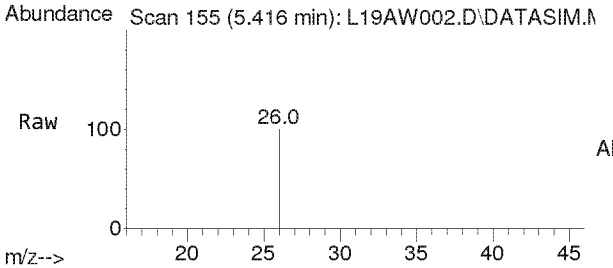


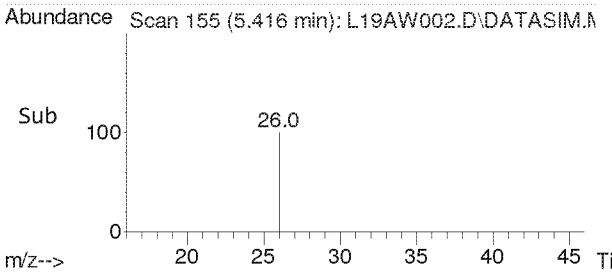
Compounds other than ethylene oxide were not quantitated.

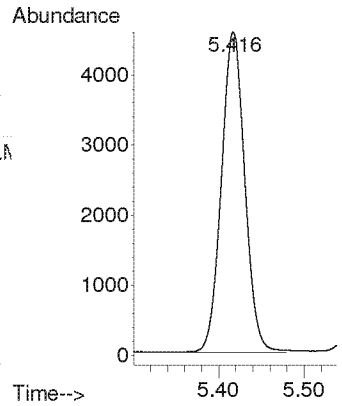


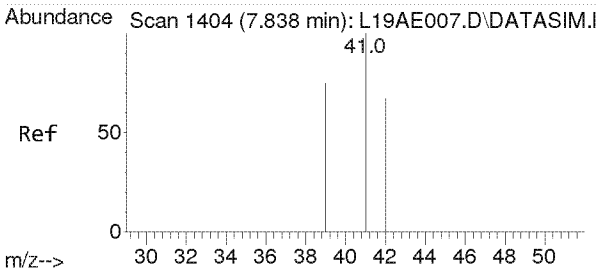
#2
Acetylene
Concen: 1.844 ppbv
RT: 5.416 min Scan# 155
Delta R.T. 0.001 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 26 Resp: 8765





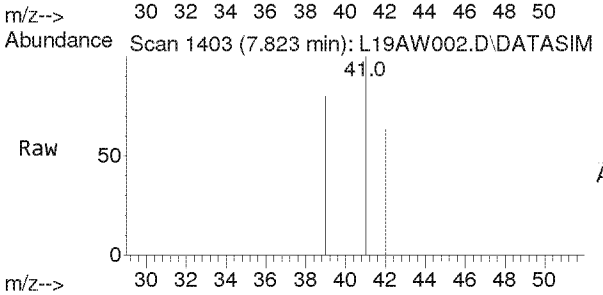


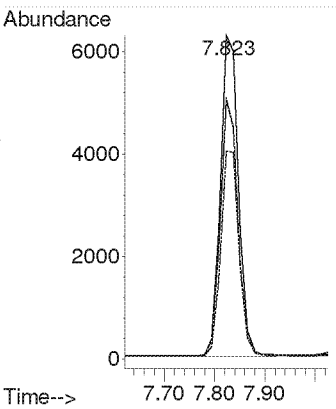


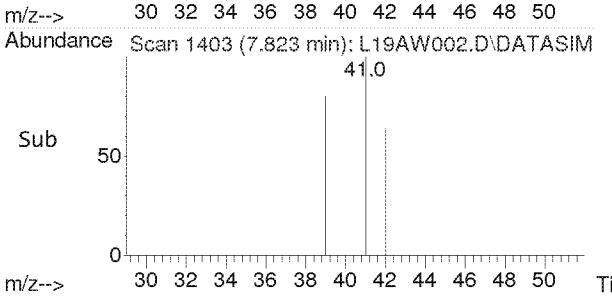
#3
Propylene
Concen: 2.660 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. -0.015 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 41 Resp: 15601

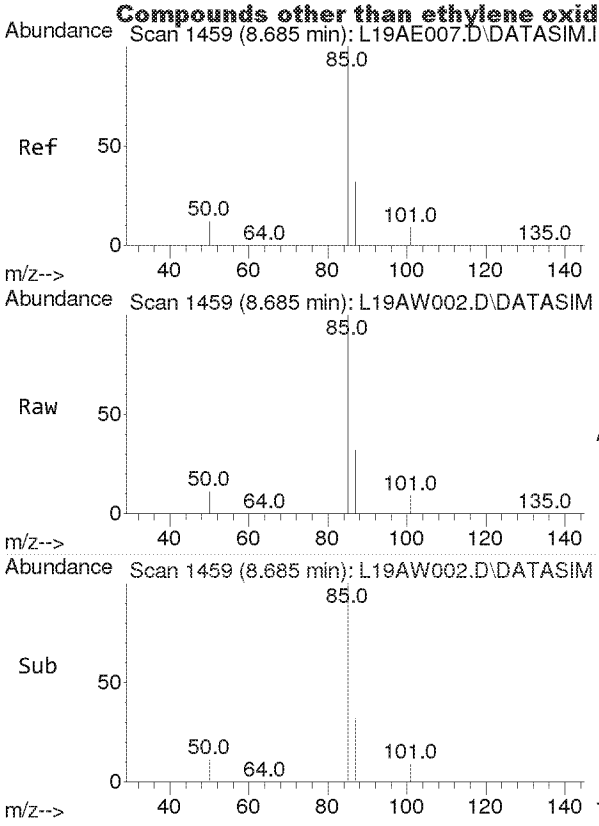
Ion	Ratio	Lower	Upper
41	100		
39	77.8	61.6	92.4
42	65.5	52.6	79.0







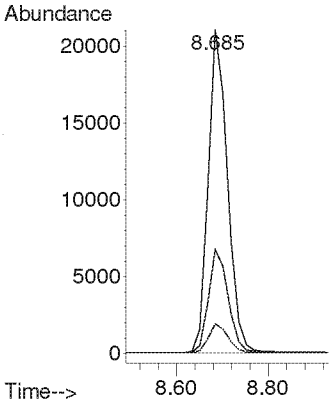
Compounds other than ethylene oxide were not quantitated.

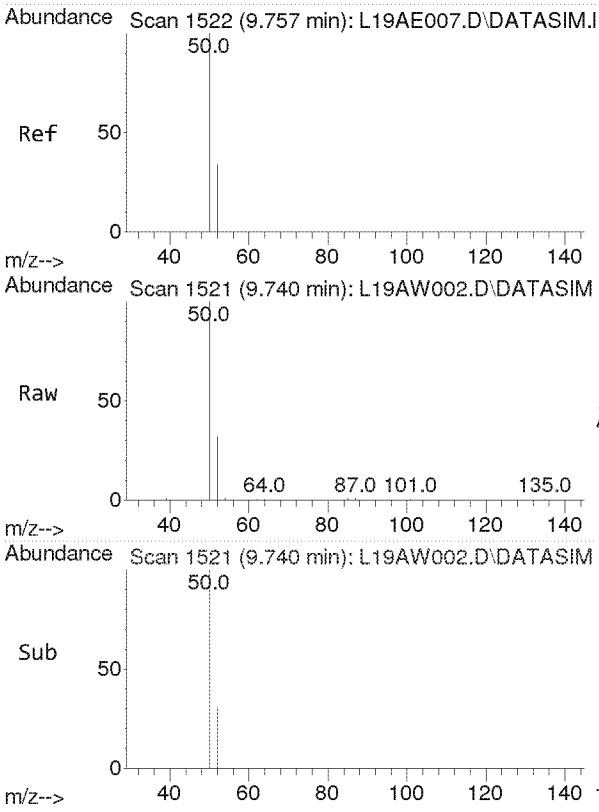


#4
Dichlorodifluoromethane
Concen: 2.405 ppbv
RT: 8.685 min Scan# 1459
Delta R.T. -0.000 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 85 Resp: 61037

Ion	Ratio	Lower	Upper
85	100		
87	32.5	26.0	39.0
101	8.9	7.1	10.7

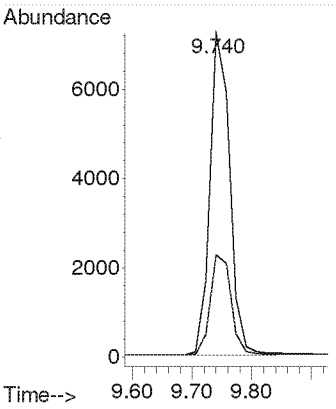




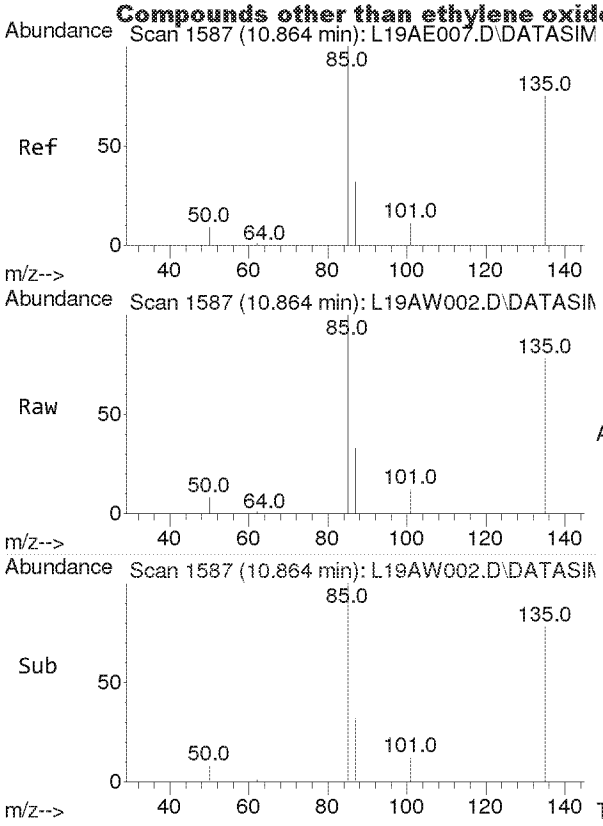
#5
Chloromethane
Concen: 2.214 ppbv
RT: 9.740 min Scan# 1521
Delta R.T. -0.017 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 50 Resp: 16762

Ion	Ratio	Lower	Upper
50	100		
52	32.6	25.9	38.9



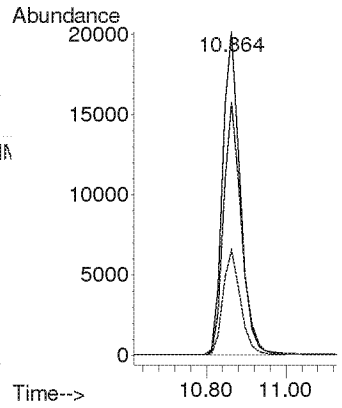
Compounds other than ethylene oxide were not quantitated.

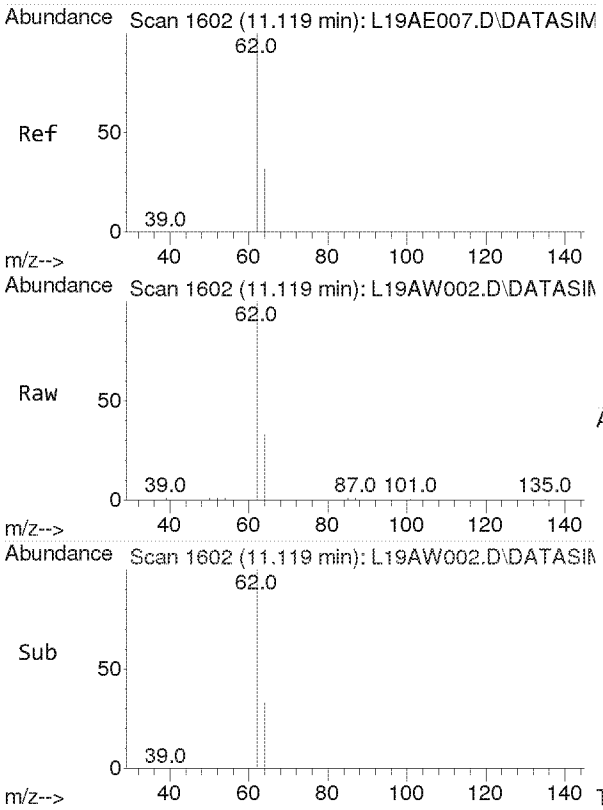


#6
Dichlorotetrafluoroethane
Concen: 2.547 ppbv
RT: 10.864 min Scan# 1587
Delta R.T. -0.000 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 85 Resp: 61302

Ion	Ratio	Lower	Upper
85	100		
135	79.7	63.6	95.4
87	32.3	25.8	38.6

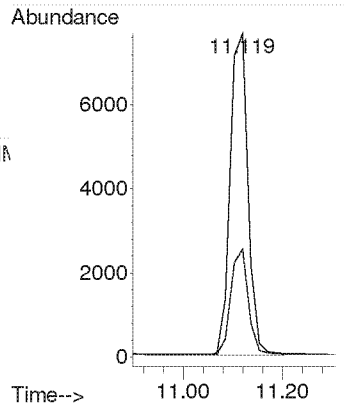




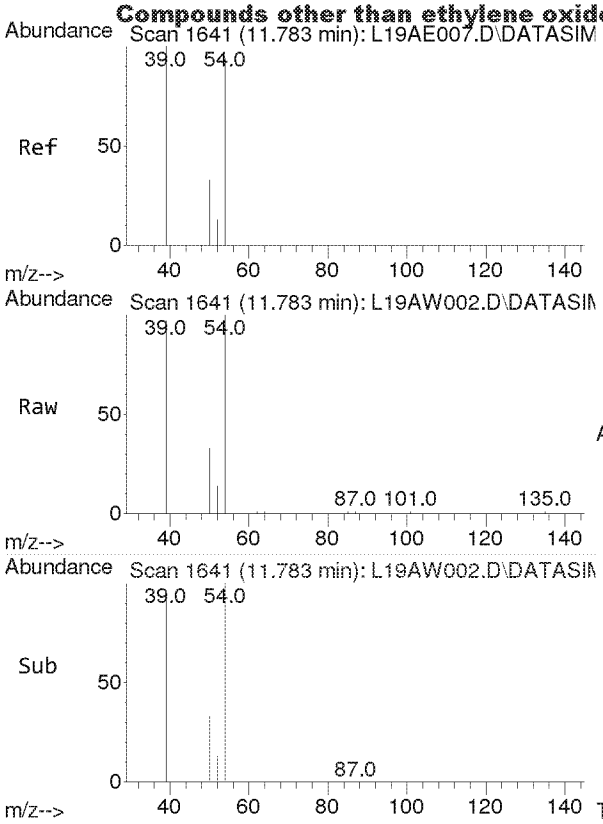
#7
Vinyl Chloride
Concen: 2.347 ppbv
RT: 11.119 min Scan# 1602
Delta R.T. -0.000 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 62 Resp: 19095

Ion	Ratio	Lower	Upper
62	100		
64	32.0	25.7	38.5



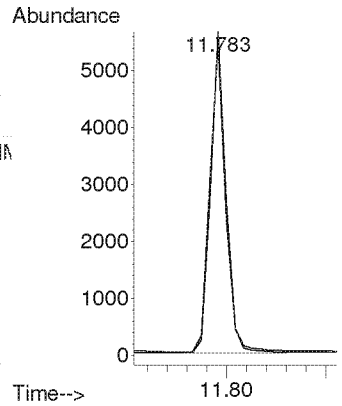
Compounds other than ethylene oxide were not quantitated.

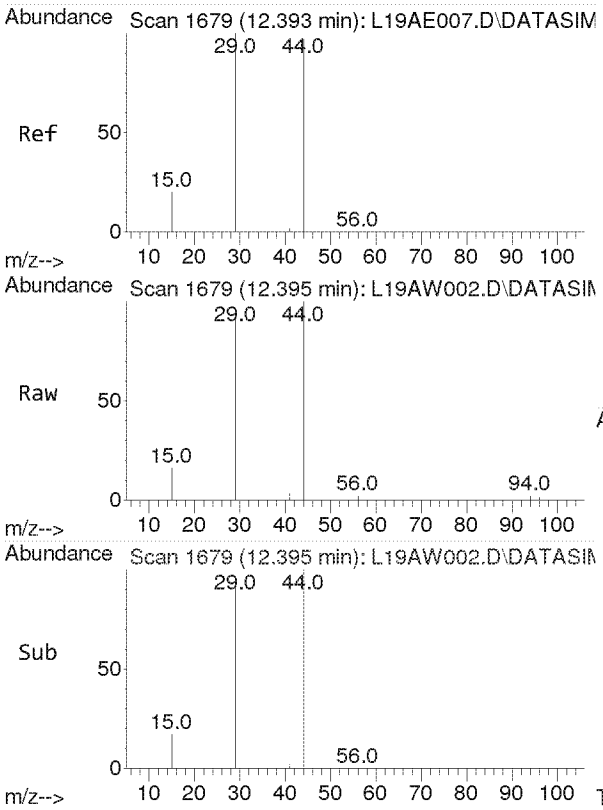


#8
1,3-Butadiene
Concen: 2.245 ppbv
RT: 11.783 min Scan# 1641
Delta R.T. -0.000 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 54 Resp: 12035

Ion	Ratio	Lower	Upper
54	100		
39	99.6	82.6	124.0

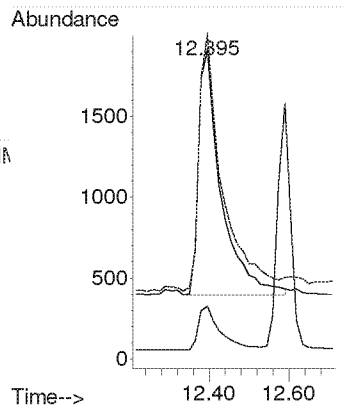




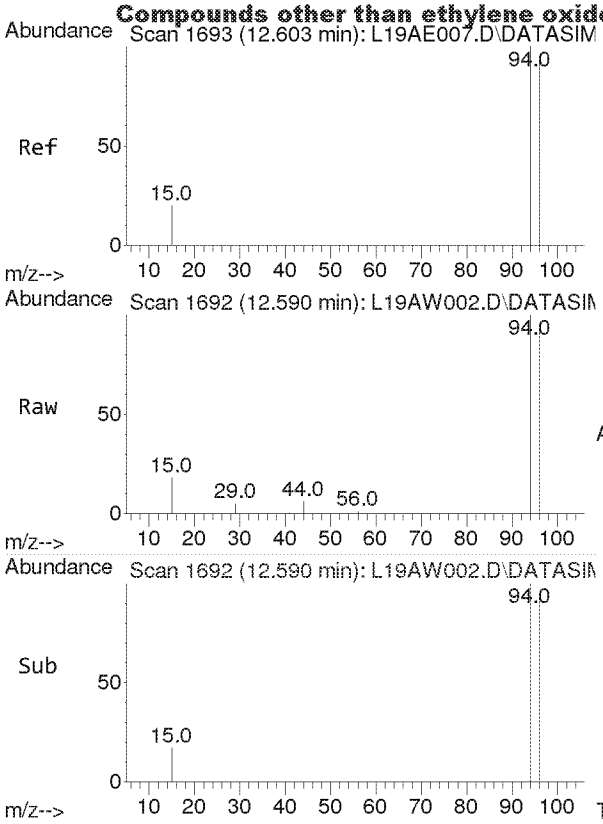
#9
Ethylene oxide
Concen: 1.854 ppbv
RT: 12.395 min Scan# 1679
Delta R.T. 0.002 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 29 Resp: 5897

Ion	Ratio	Lower	Upper
29	100		
15	17.3	15.4	23.0
44	108.9	77.4	116.2



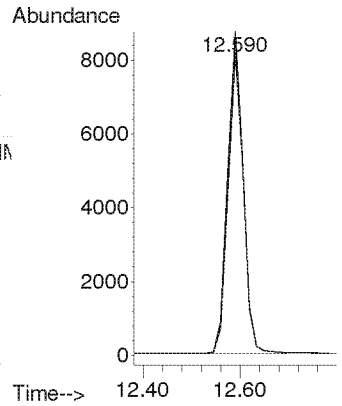
Compounds other than ethylene oxide were not quantitated.

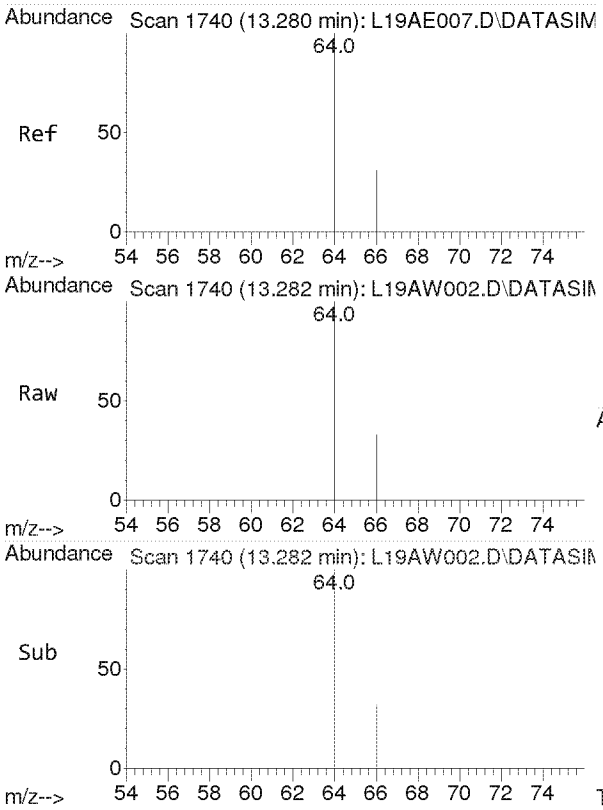


#10
Bromomethane
Concen: 2.344 ppbv
RT: 12.590 min Scan# 1692
Delta R.T. -0.013 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 94 Resp: 19186

Ion	Ratio	Lower	Upper
94	100		
96	94.2	75.4	113.2

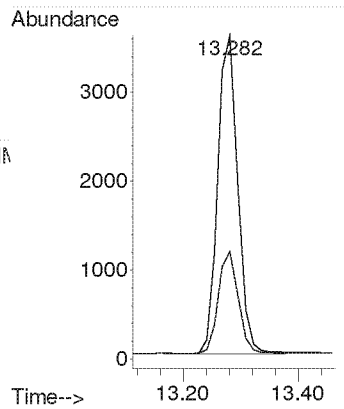




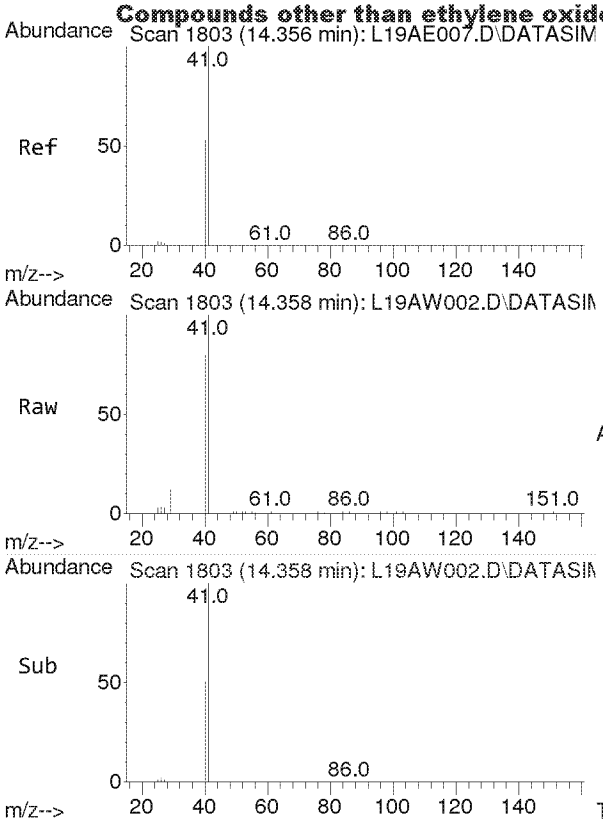
#11
Chloroethane
Concen: 2.385 ppbv
RT: 13.282 min Scan# 1740
Delta R.T. 0.002 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 64 Resp: 8586

Ion	Ratio	Lower	Upper
64	100		
66	31.7	25.9	38.9



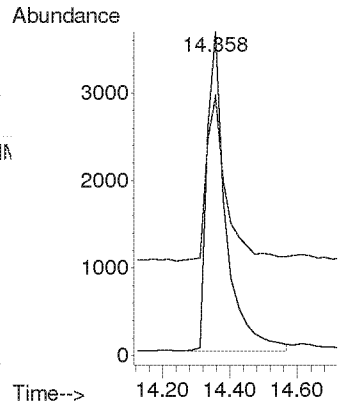
Compounds other than ethylene oxide were not quantitated.

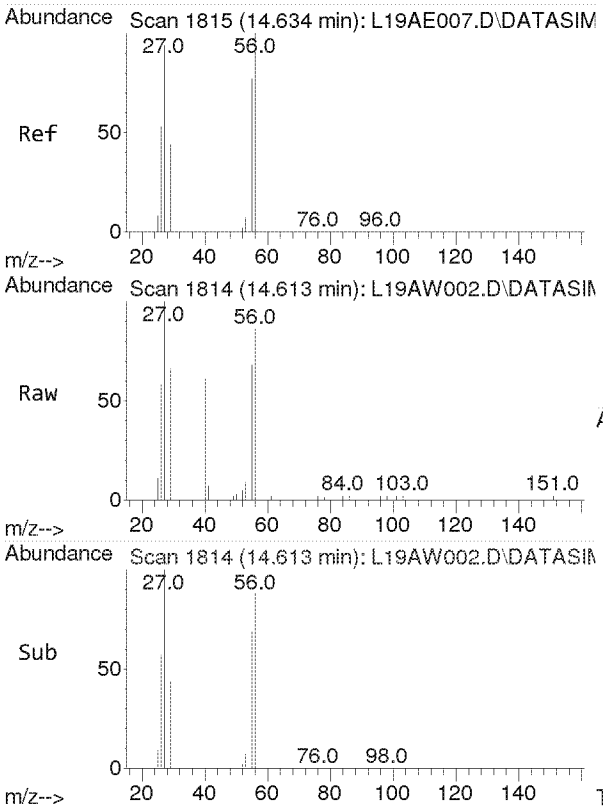


#12
Acetonitrile
Concen: 2.292 ppbv
RT: 14.358 min Scan# 1803
Delta R.T. 0.002 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 41 Resp: 14175

Ion	Ratio	Lower	Upper
41	100		
40	51.6	42.6	63.8

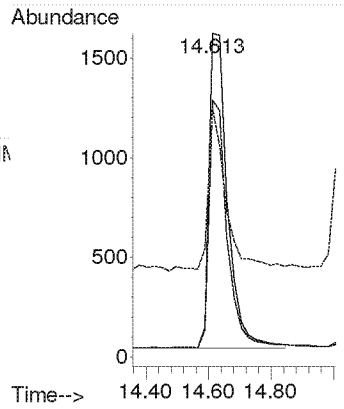




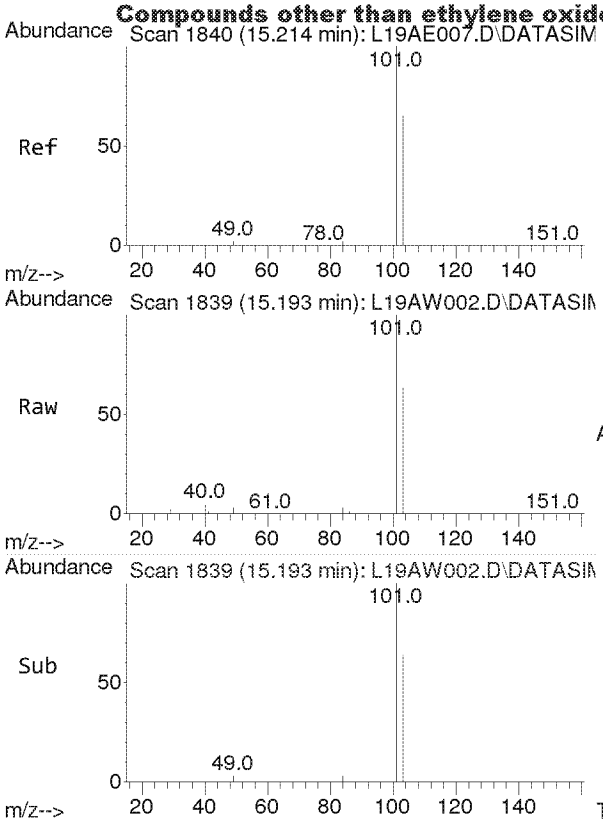
#13
Acrolein
Concen: 2.131 ppbv
RT: 14.613 min Scan# 1814
Delta R.T. -0.021 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 56 Resp: 6489

Ion	Ratio	Lower	Upper
56	100		
55	76.7	61.2	91.8
29	47.4	35.9	53.9



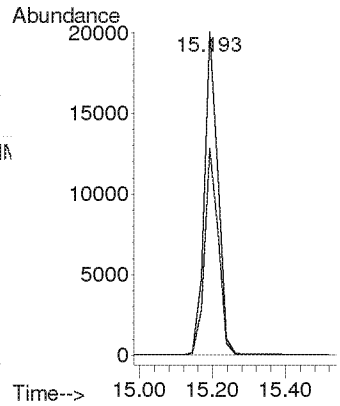
Compounds other than ethylene oxide were not quantitated.

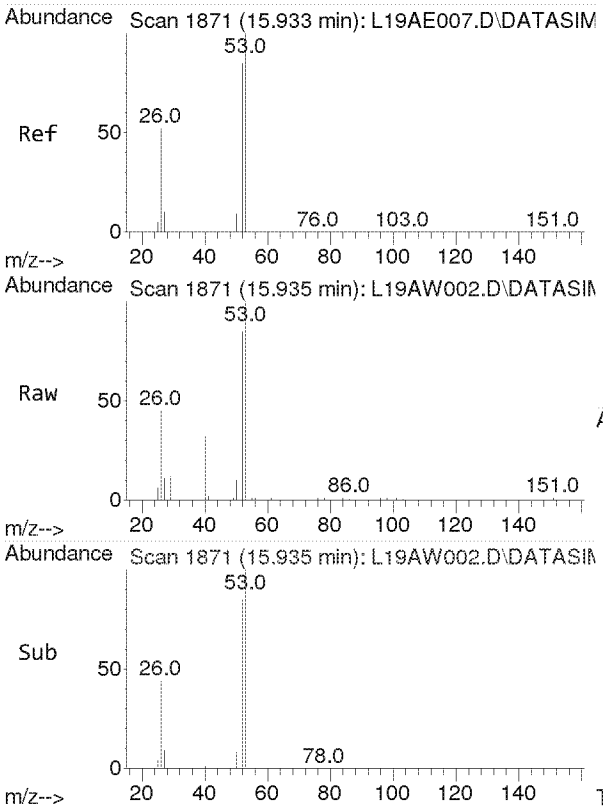


#14
Trichlorofluoromethane
Concen: 2.139 ppbv
RT: 15.193 min Scan# 1839
Delta R.T. -0.021 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion:101 Resp: 51493

Ion	Ratio	Lower	Upper
101	100		
103	64.9	51.7	77.5

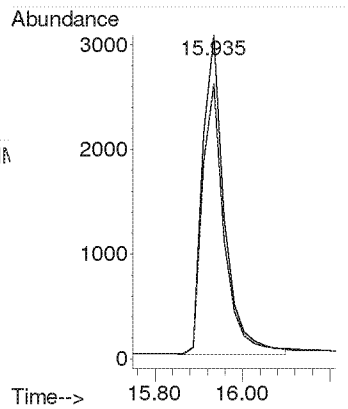




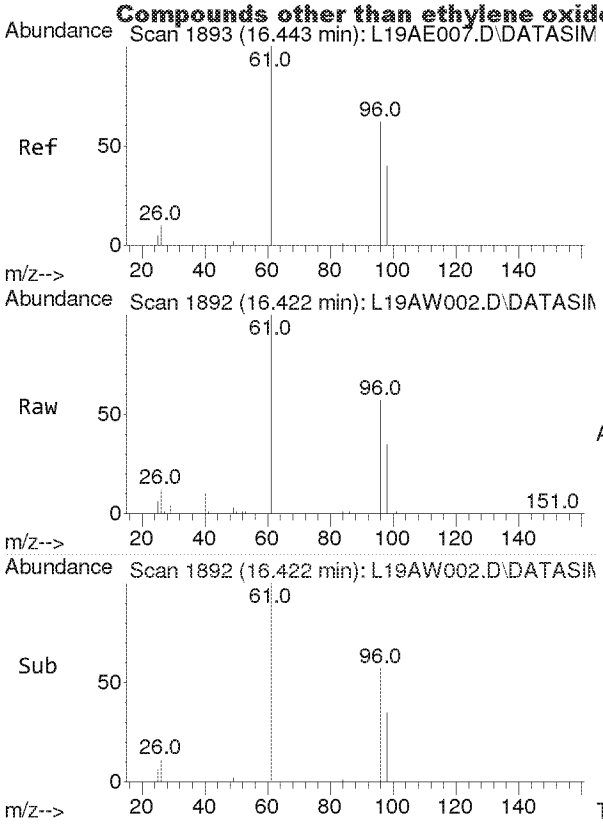
#15
Acrylonitrile
Concen: 2.102 ppbv
RT: 15.935 min Scan# 1871
Delta R.T. 0.002 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 53 Resp: 10443

Ion	Ratio	Lower	Upper
53	100		
52	85.2	67.8	101.6



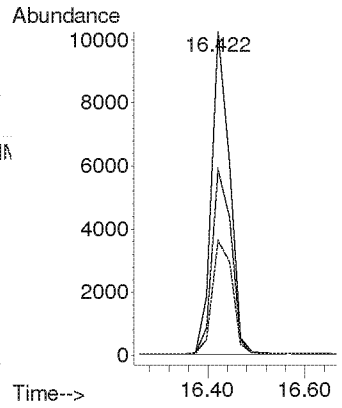
Compounds other than ethylene oxide were not quantitated.

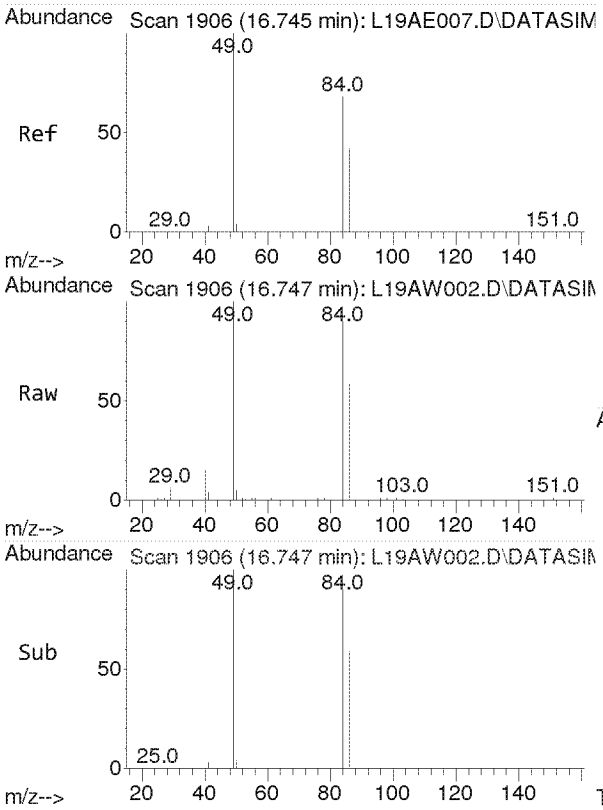


#16
1,1-Dichloroethene
Concen: 2.357 ppbv
RT: 16.422 min Scan# 1892
Delta R.T. -0.021 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 61 Resp: 26049

Ion	Ratio	Lower	Upper
61	100		
96	61.3	47.6	71.4
98	39.1	30.5	45.7

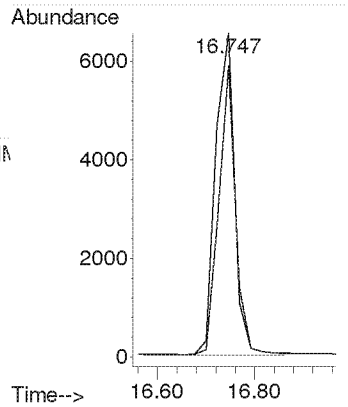




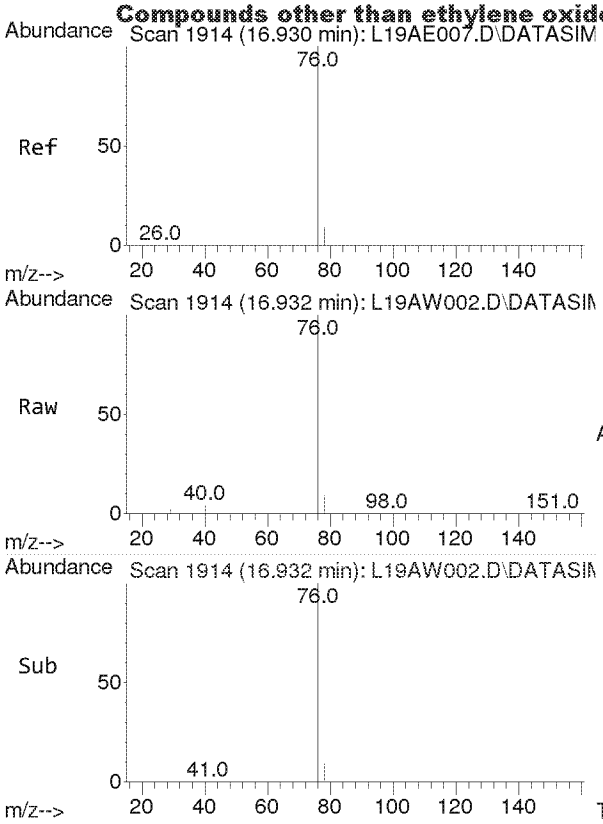
#17
Methylene Chloride
Concen: 2.250 ppbv
RT: 16.747 min Scan# 1906
Delta R.T. 0.002 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 49 Resp: 17774

Ion	Ratio	Lower	Upper
49	100		
84	79.7	54.1	100.5



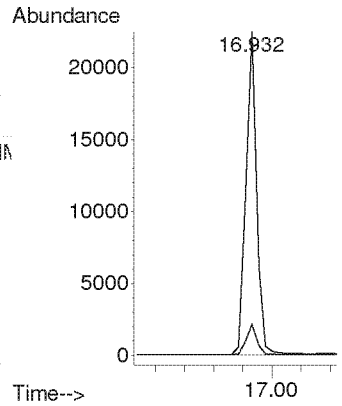
Compounds other than ethylene oxide were not quantitated.

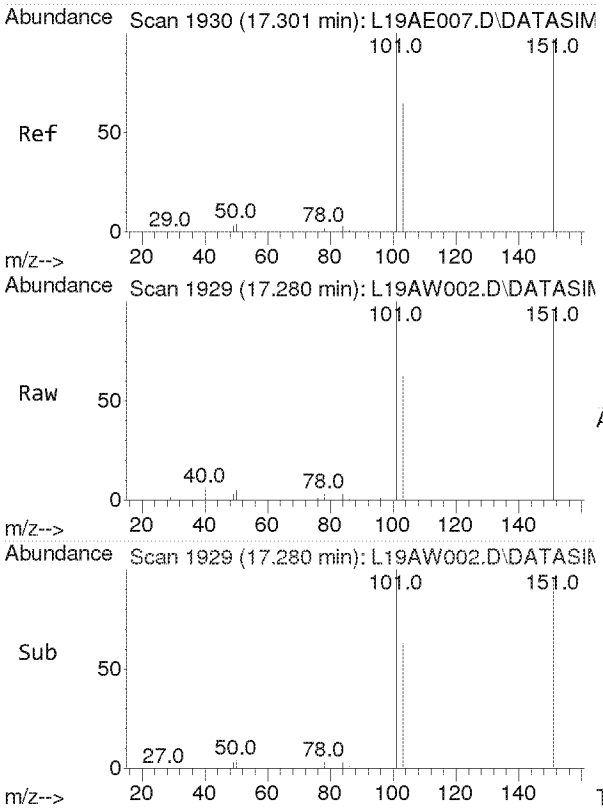


#18
Carbon Disulfide
Concen: 2.323 ppbv
RT: 16.932 min Scan# 1914
Delta R.T. 0.002 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 76 Resp: 55839

Ion	Ratio	Lower	Upper
76	100		
78	9.1	7.2	10.8

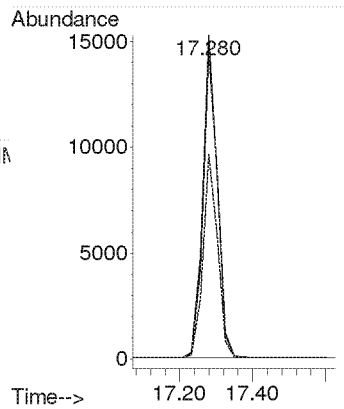




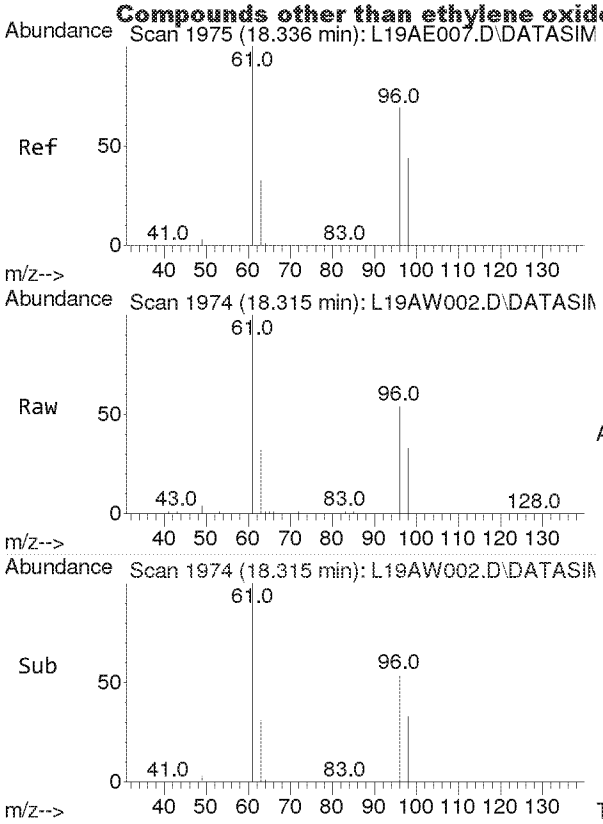
#19
Trichlorotrifluoroethane
Concen: 2.410 ppbv
RT: 17.280 min Scan# 1929
Delta R.T. -0.021 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion:101 Resp: 41855

Ion	Ratio	Lower	Upper
101	100		
151	96.3	76.3	114.5
103	63.8	51.1	76.7



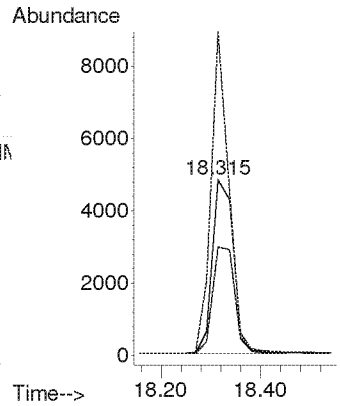
Compounds other than ethylene oxide were not quantitated.

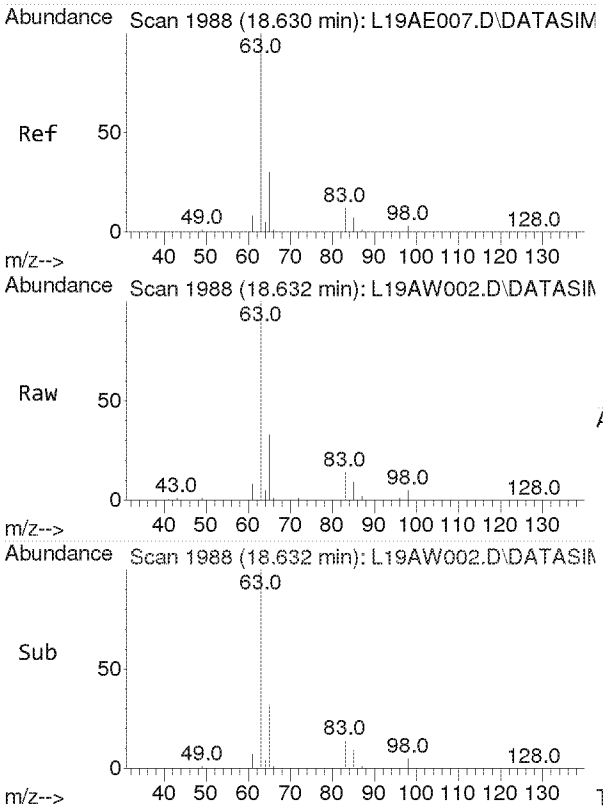


#20
trans-1,2-Dichloroethylene
Concen: 2.282 ppbv
RT: 18.315 min Scan# 1974
Delta R.T. -0.021 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 96 Resp: 14235

Ion	Ratio	Lower	Upper
96	100		
98	64.1	50.9	76.3
61	154.9	125.2	187.8

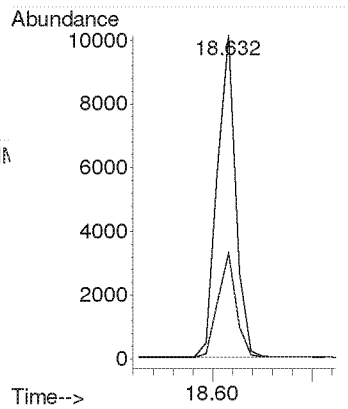




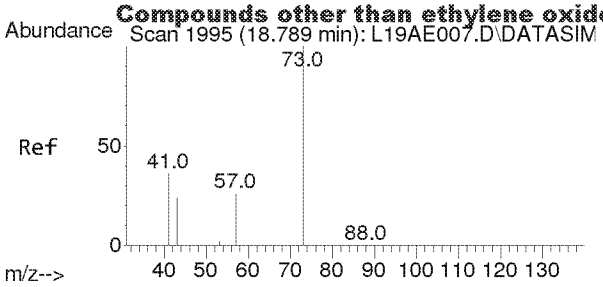
#21
1,1-Dichloroethane
Concen: 2.307 ppbv
RT: 18.632 min Scan# 1988
Delta R.T. 0.002 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 63 Resp: 26121

Ion	Ratio	Lower	Upper
63	100		
65	31.8	25.4	38.0



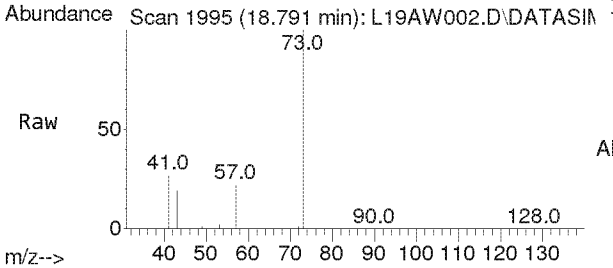
Compounds other than ethylene oxide were not quantitated.

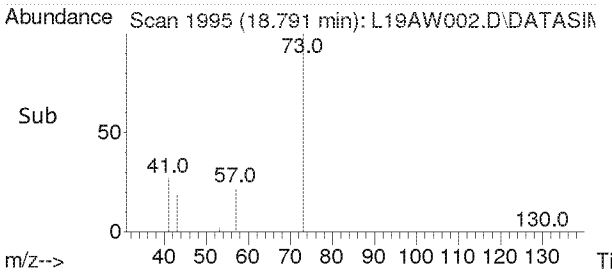


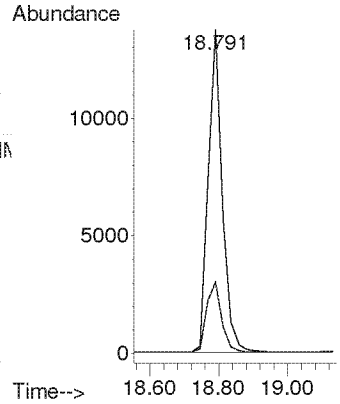
#22
Methyl tert-Butyl Ether
Concen: 2.329 ppbv
RT: 18.791 min Scan# 1995
Delta R.T. 0.002 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

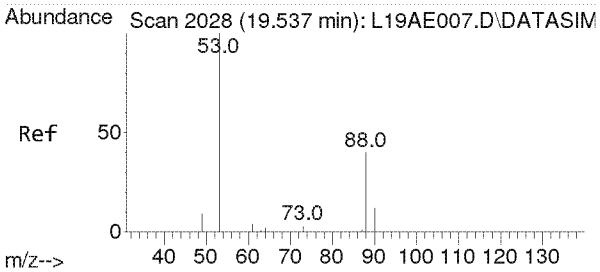
Tgt Ion: 73 Resp: 39010

Ion	Ratio	Lower	Upper
73	100		
57	23.4	18.9	28.3





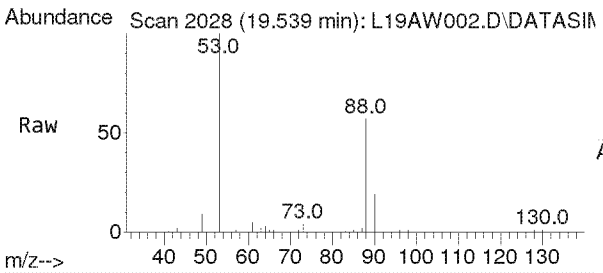


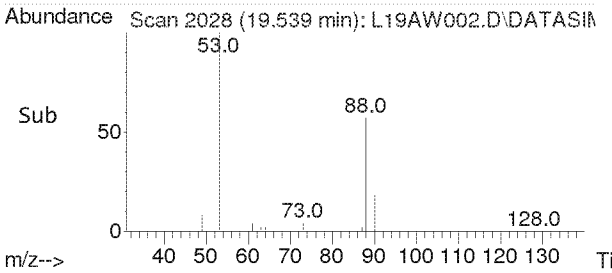


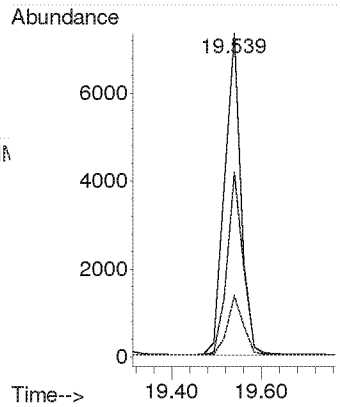
#23
Chloroprene
Concen: 2.397 ppbv
RT: 19.539 min Scan# 2028
Delta R.T. 0.002 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 53 Resp: 18640

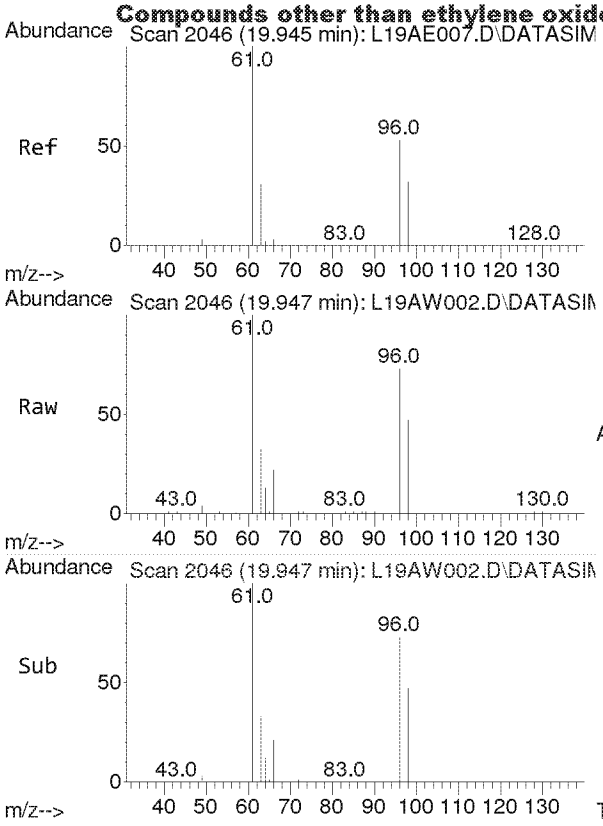
Ion	Ratio	Lower	Upper
53	100		
88	56.0	43.2	64.8
90	18.1	13.8	20.8







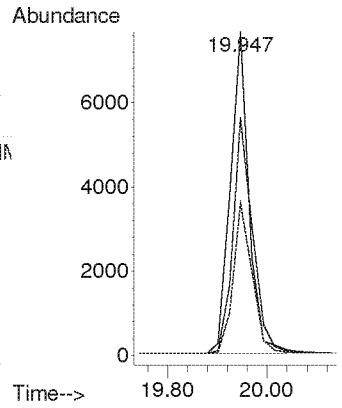
Compounds other than ethylene oxide were not quantitated.

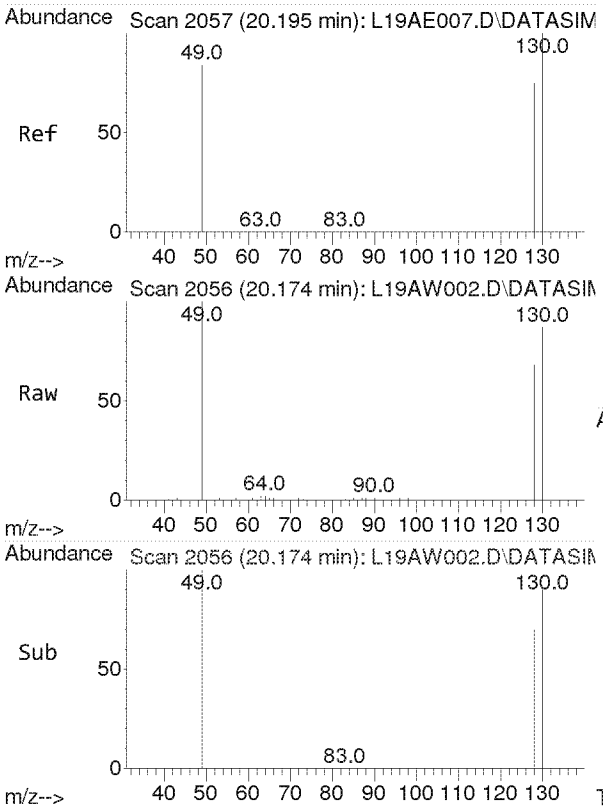


#24
cis-1,2-Dichloroethylene
Concen: 2.269 ppbv
RT: 19.947 min Scan# 2046
Delta R.T. 0.002 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 61 Resp: 19613

Ion	Ratio	Lower	Upper
61	100		
96	77.4	60.6	90.8
98	47.9	37.1	55.7

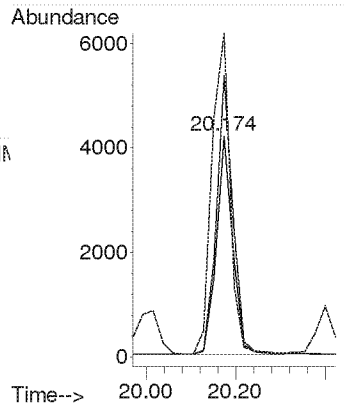




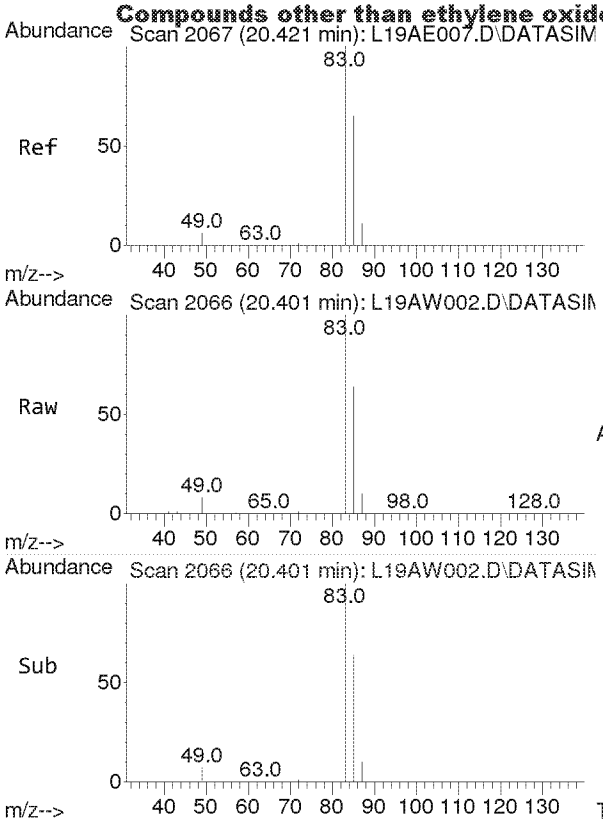
#25
Bromochloromethane
Concen: 2.214 ppbv
RT: 20.174 min Scan# 2056
Delta R.T. -0.021 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion:128 Resp: 10529

Ion	Ratio	Lower	Upper
128	100		
130	128.1	104.3	156.5
49	164.0	136.6	205.0



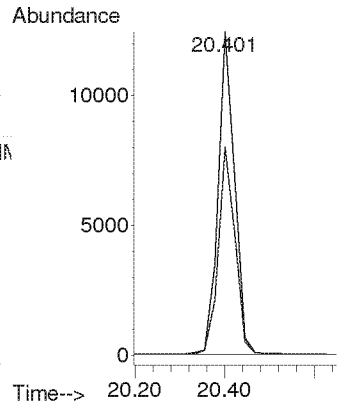
Compounds other than ethylene oxide were not quantitated.

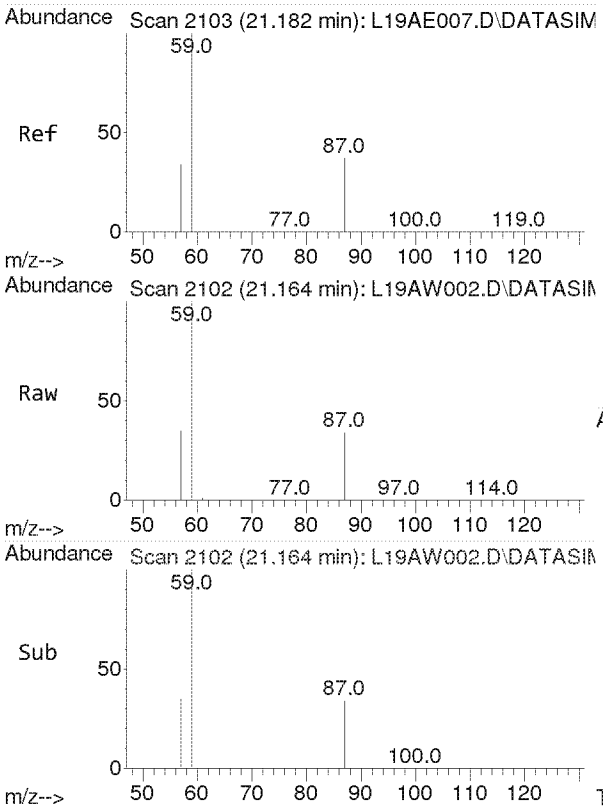


#26
Chloroform
Concen: 2.432 ppbv
RT: 20.401 min Scan# 2066
Delta R.T. -0.021 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 83 Resp: 31506

Ion	Ratio	Lower	Upper
83	100		
85	65.2	51.6	77.4

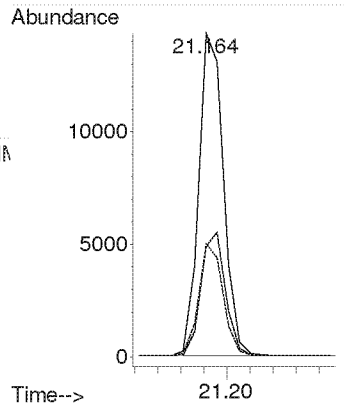




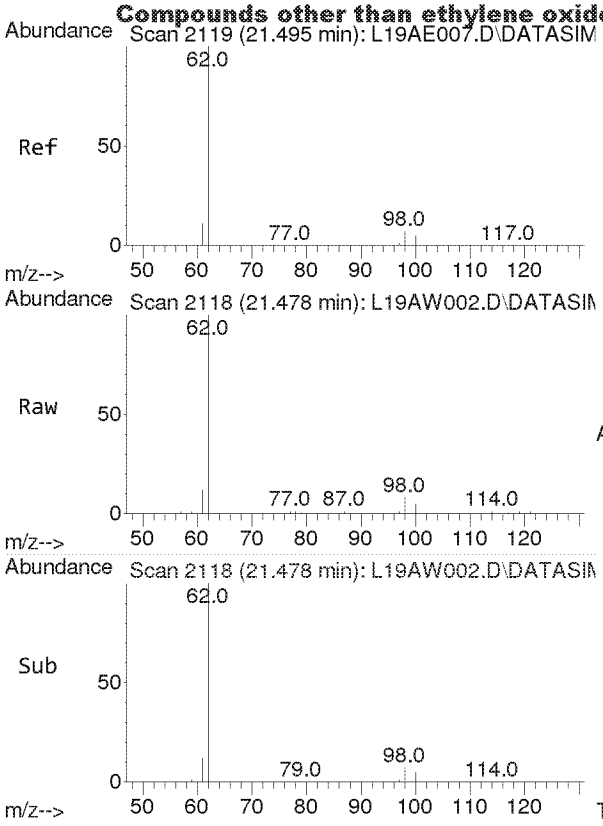
#27
Ethyl tert-Butyl Ether
Concen: 2.411 ppbv
RT: 21.164 min Scan# 2102
Delta R.T. -0.018 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 59 Resp: 42321

Ion	Ratio	Lower	Upper
59	100		
87	38.1	30.2	45.4
57	34.1	27.4	41.2



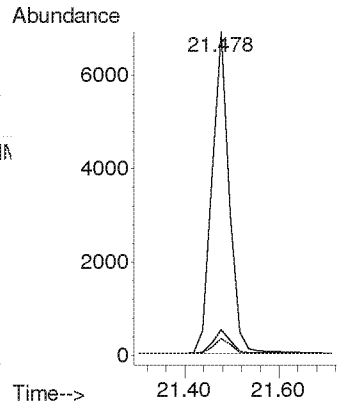
Compounds other than ethylene oxide were not quantitated.

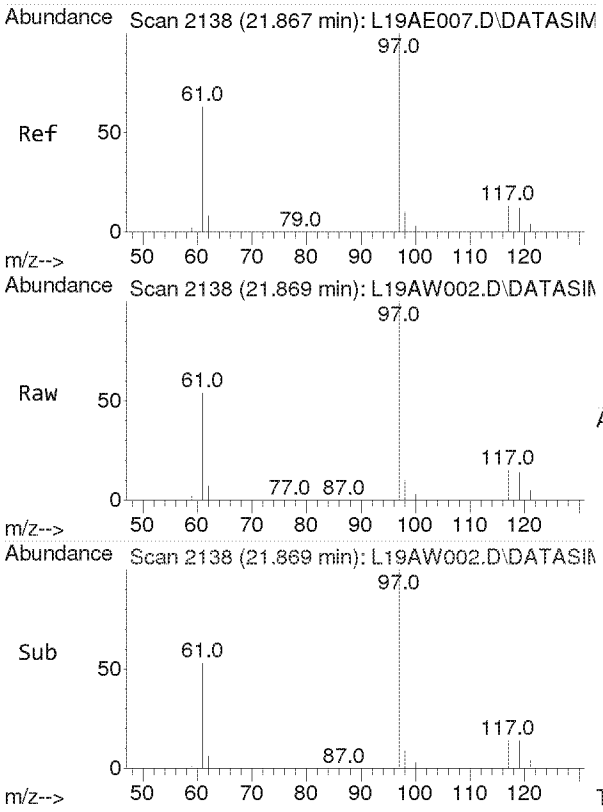


#28
1,2-Dichloroethane
Concen: 2.286 ppbv
RT: 21.478 min Scan# 2118
Delta R.T. -0.018 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 62 Resp: 17575

Ion	Ratio	Lower	Upper
62	100		
98	7.3	5.4	8.2
100	4.6	3.4	5.0

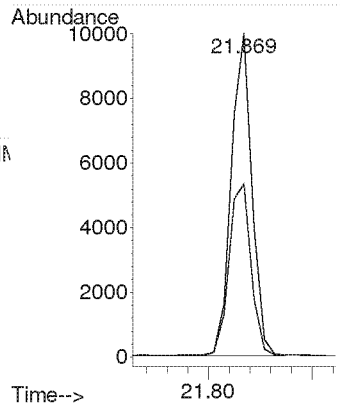




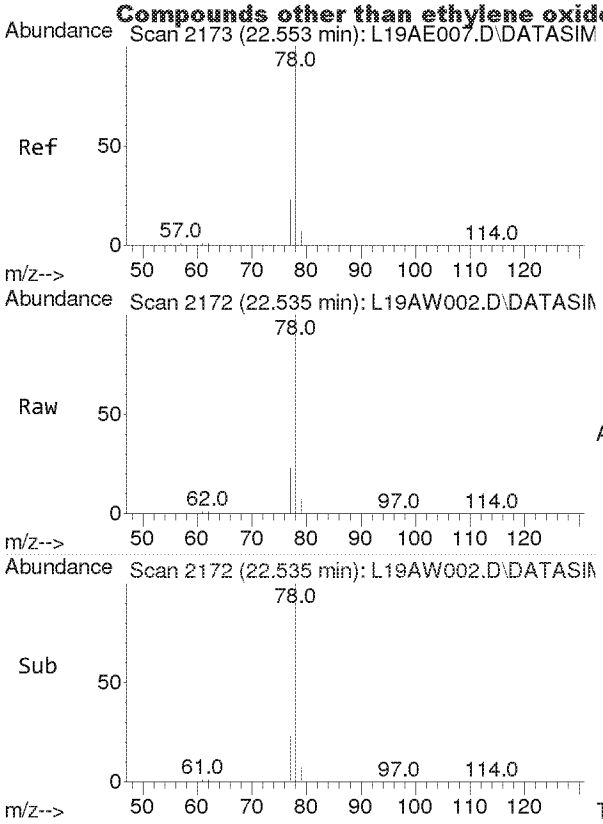
#30
1,1,1-Trichloroethane
Concen: 2.133 ppbv
RT: 21.869 min Scan# 2138
Delta R.T. 0.002 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 97 Resp: 27744

Ion	Ratio	Lower	Upper
97	100		
61	56.8	46.9	70.3



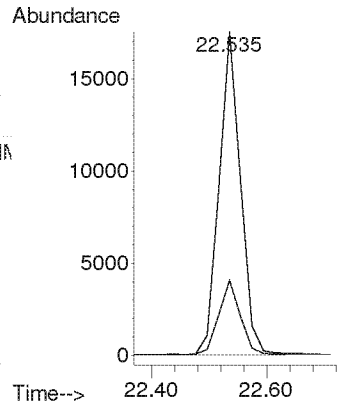
Compounds other than ethylene oxide were not quantitated.

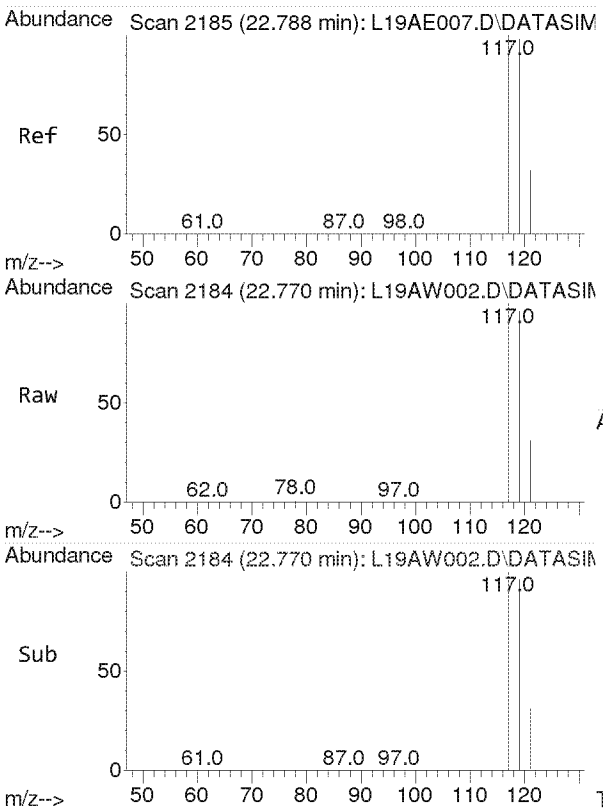


#31
Benzene
Concen: 2.519 ppbv
RT: 22.535 min Scan# 2172
Delta R.T. -0.018 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 78 Resp: 45070

Ion	Ratio	Lower	Upper
78	100		
77	22.9	18.3	27.5

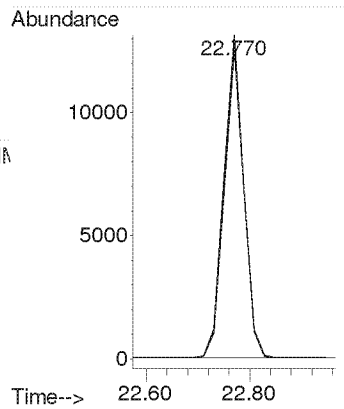




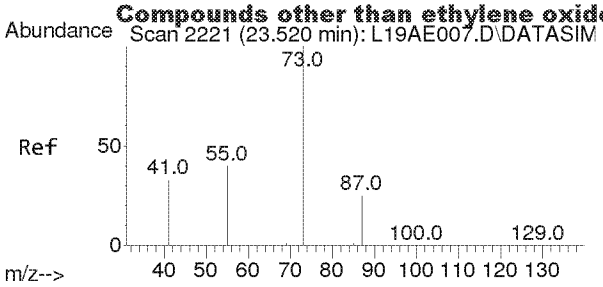
#32
Carbon Tetrachloride
Concen: 2.463 ppbv
RT: 22.770 min Scan# 2184
Delta R.T. -0.018 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion:117 Resp: 34728

Ion	Ratio	Lower	Upper
117	100		
119	96.1	77.2	115.8



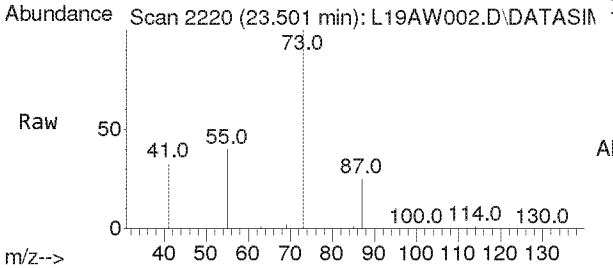
Compounds other than ethylene oxide were not quantitated.

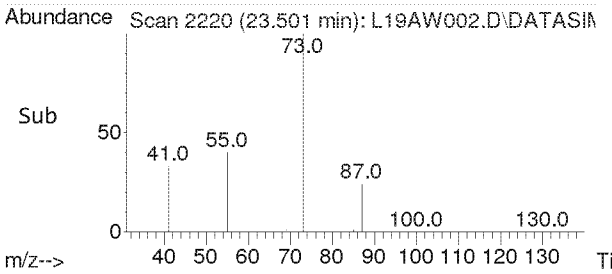


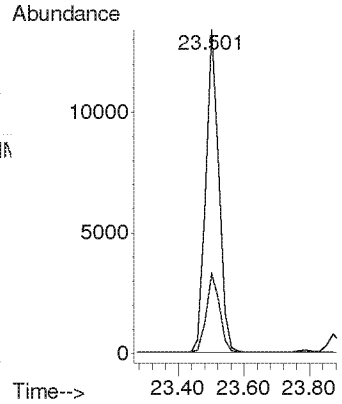
#33
tert-Amyl Methyl Ether
Concen: 2.432 ppbv
RT: 23.501 min Scan# 2220
Delta R.T. -0.019 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

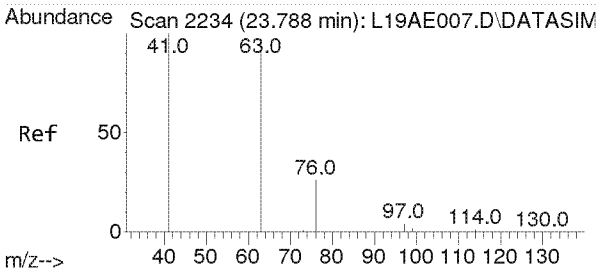
Tgt Ion: 73 Resp: 36653

Ion	Ratio	Lower	Upper
73	100		
87	24.8	19.8	29.8





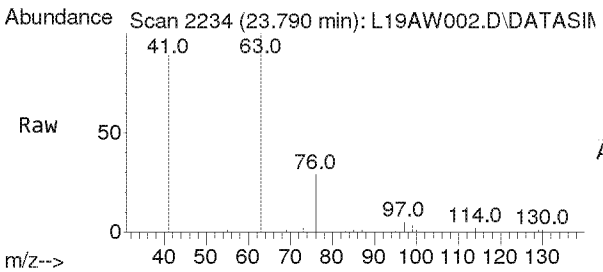


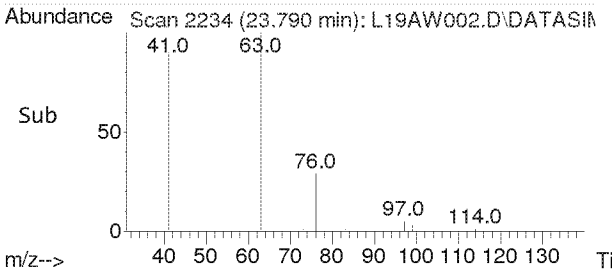


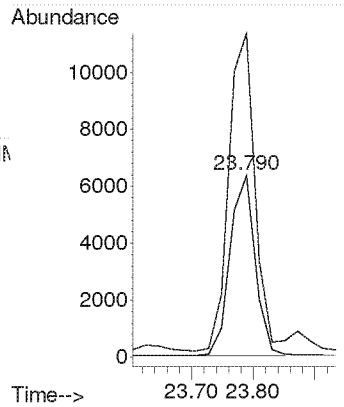
#34
1,2-Dichloropropane
Concen: 2.399 ppbv
RT: 23.790 min Scan# 2234
Delta R.T. 0.002 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 63 Resp: 18052

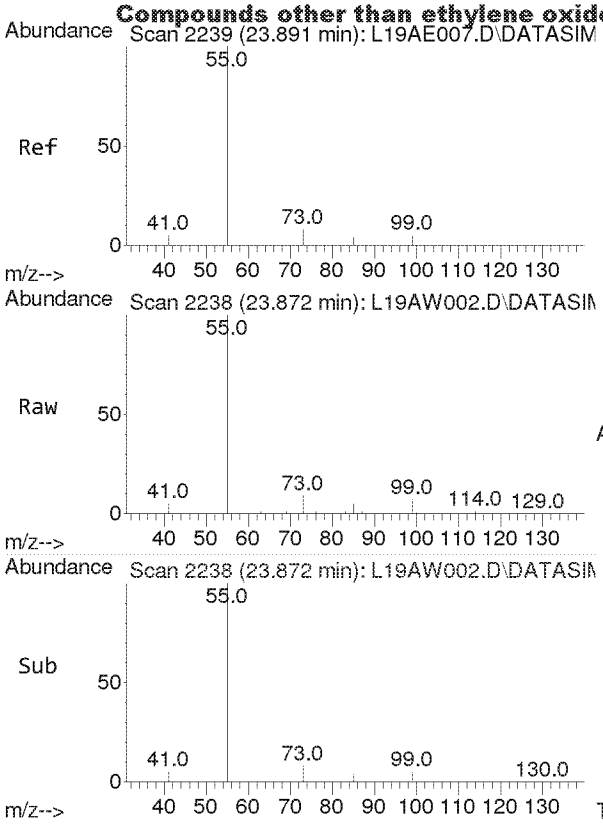
Ion	Ratio	Lower	Upper
63	100		
41	181.6	156.8	235.2







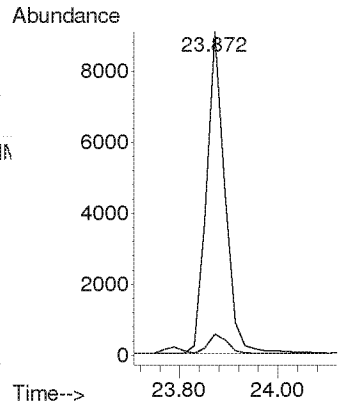
Compounds other than ethylene oxide were not quantitated.

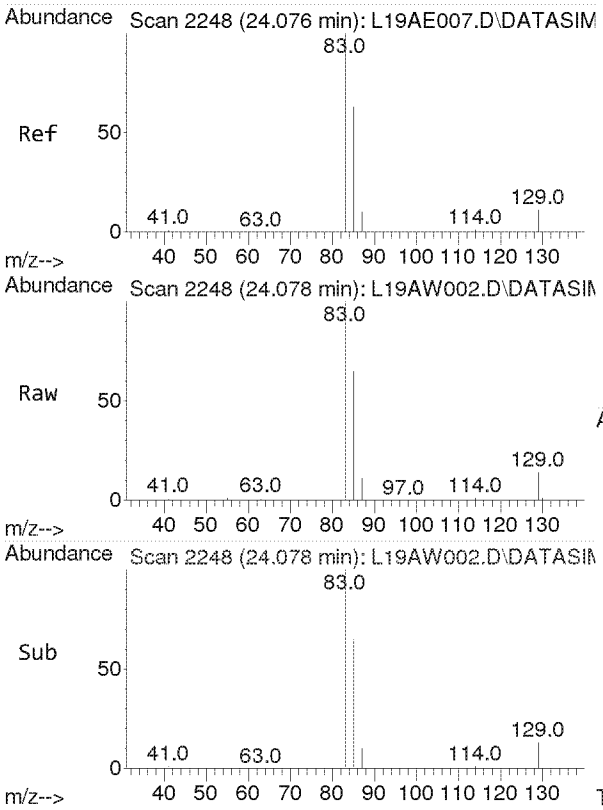


#35
Ethyl Acrylate
Concen: 2.315 ppbv
RT: 23.872 min Scan# 2238
Delta R.T. -0.019 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 55 Resp: 23350

Ion	Ratio	Lower	Upper
55	100		
99	6.3	4.8	7.2

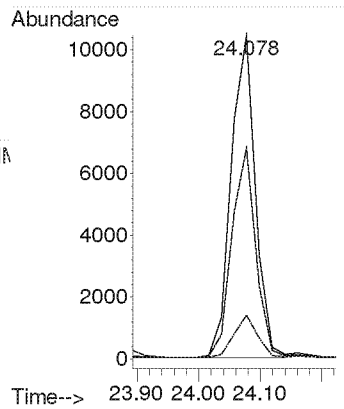




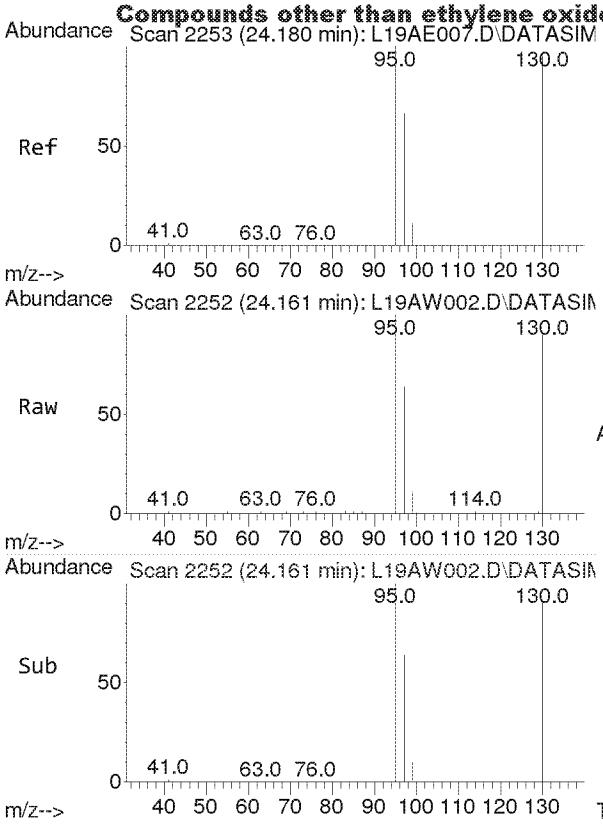
#36
Bromodichloromethane
Concen: 2.093 ppbv
RT: 24.078 min Scan# 2248
Delta R.T. 0.002 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 83 Resp: 28705

Ion	Ratio	Lower	Upper
83	100		
85	64.0	51.1	76.7
129	12.6	10.0	15.0



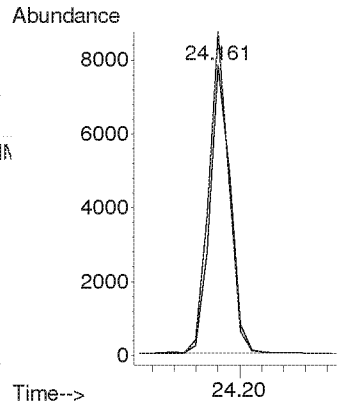
Compounds other than ethylene oxide were not quantitated.

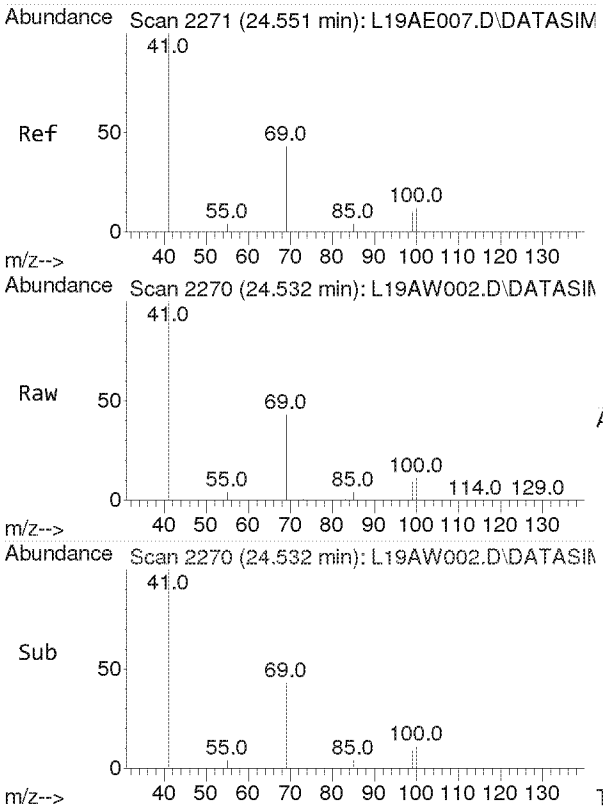


#37
Trichloroethylene
Concen: 2.367 ppbv
RT: 24.161 min Scan# 2252
Delta R.T. -0.019 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion:130 Resp: 20398

Ion	Ratio	Lower	Upper
130	100		
95	109.6	86.9	130.3

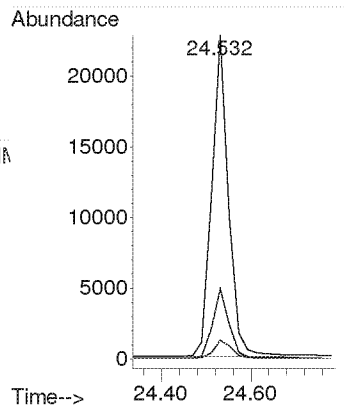




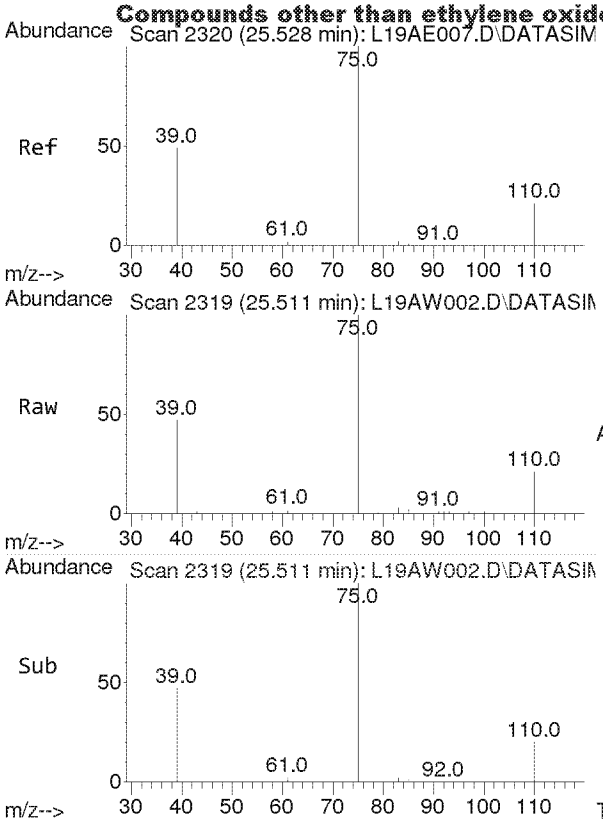
#38
Methyl Methacrylate
Concen: 2.211 ppbv
RT: 24.532 min Scan# 2270
Delta R.T. -0.019 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 41 Resp: 58626

Ion	Ratio	Lower	Upper
41	100		
69	21.4	16.6	24.8
100	5.8	4.2	6.4



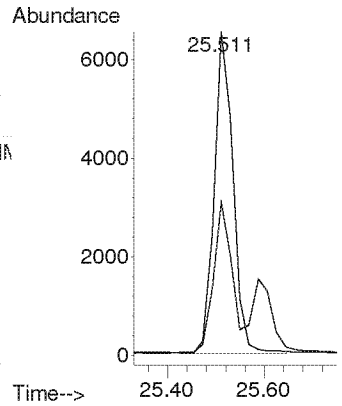
Compounds other than ethylene oxide were not quantitated.

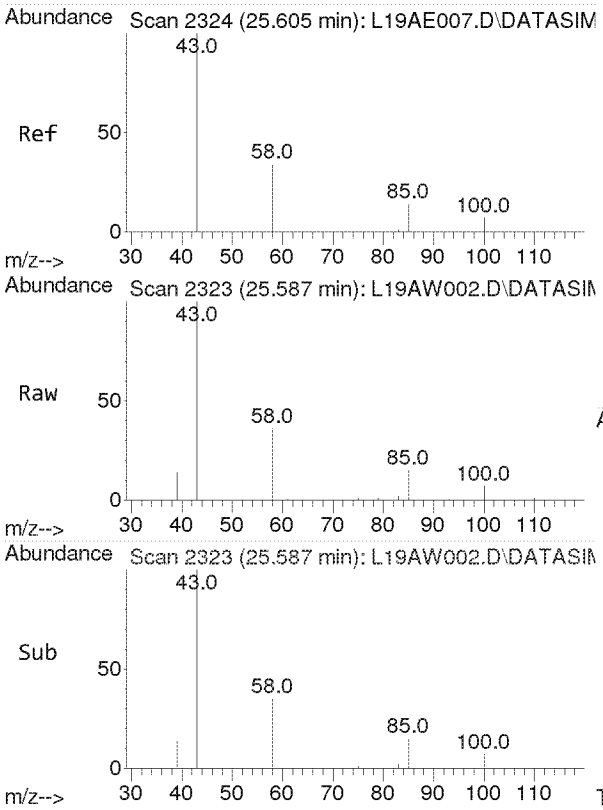


#39
cis-1,3-Dichloropropene
Concen: 2.560 ppbv
RT: 25.511 min Scan# 2319
Delta R.T. -0.017 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 75 Resp: 17673

Ion	Ratio	Lower	Upper
75	100		
39	48.6	38.6	58.0

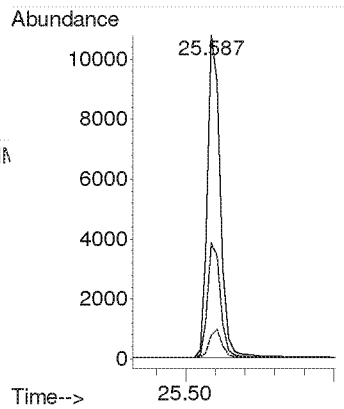




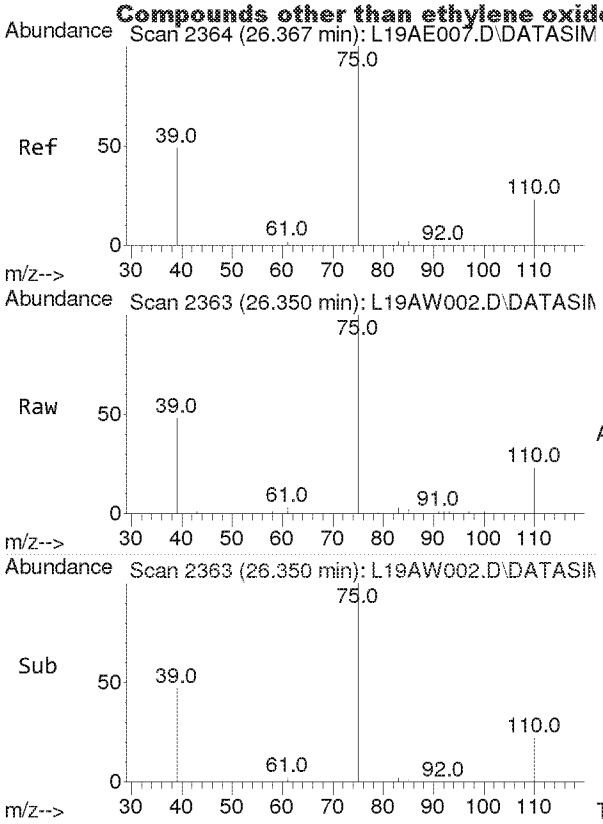
#40
Methyl Isobutyl Ketone
Concen: 2.193 ppbv
RT: 25.587 min Scan# 2323
Delta R.T. -0.017 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 43 Resp: 31830

Ion	Ratio	Lower	Upper
43	100		
58	35.9	27.6	41.4
100	8.5	6.5	9.7



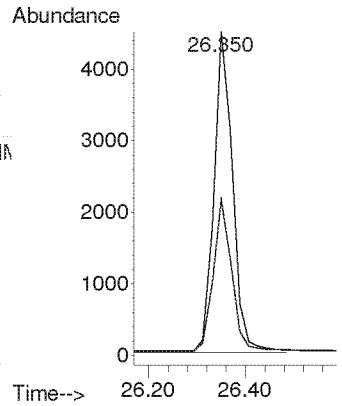
Compounds other than ethylene oxide were not quantitated.

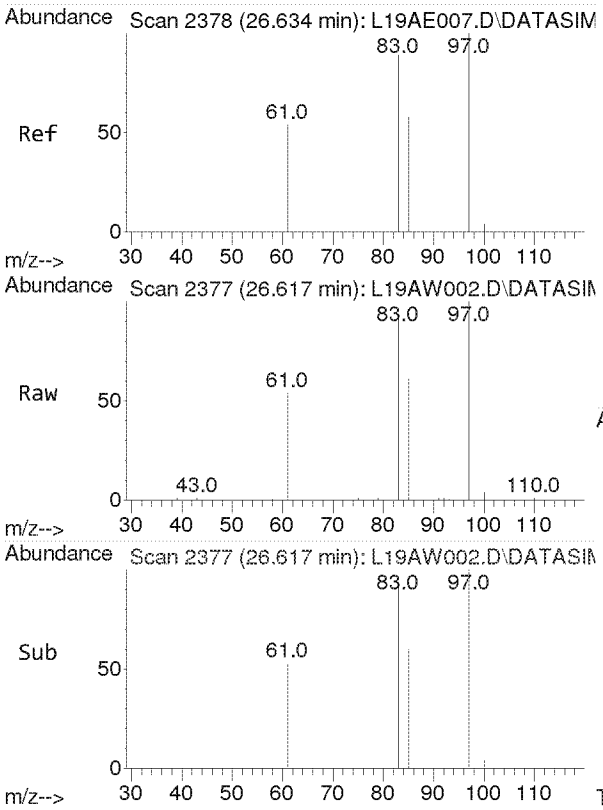


#41
trans-1,3-Dichloropropene
Concen: 2.231 ppbv
RT: 26.350 min Scan# 2363
Delta R.T. -0.017 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 75 Resp: 11990

Ion	Ratio	Lower	Upper
75	100		
39	46.6	39.0	58.6

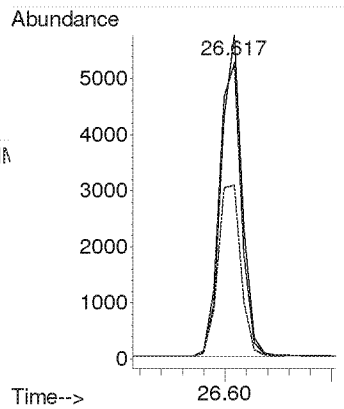




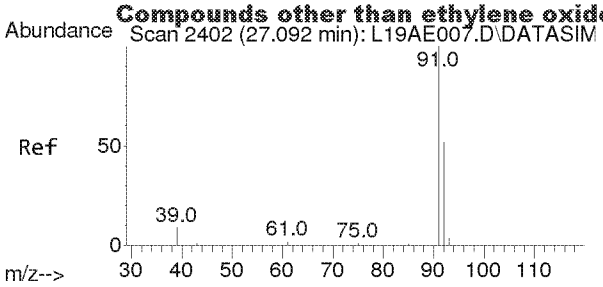
#42
1,1,2-Trichloroethane
Concen: 2.346 ppbv
RT: 26.617 min Scan# 2377
Delta R.T. -0.017 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 97 Resp: 15657

Ion	Ratio	Lower	Upper
97	100		
83	96.7	77.3	115.9
61	59.1	49.1	73.7



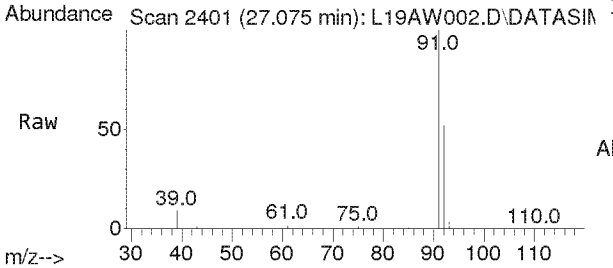
Compounds other than ethylene oxide were not quantitated.

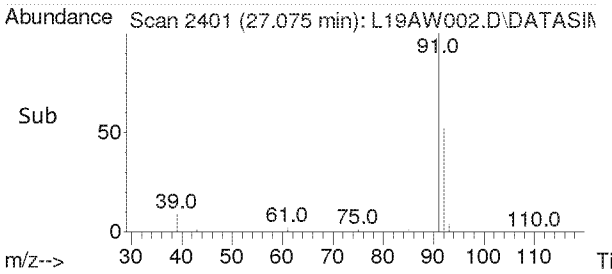


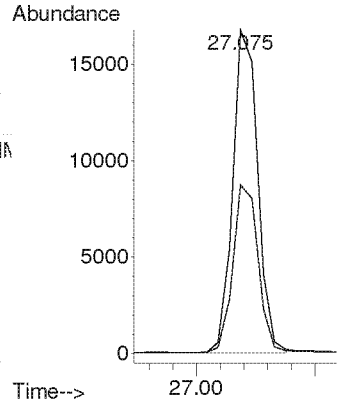
#44
Toluene
Concen: 2.485 ppbv
RT: 27.075 min Scan# 2401
Delta R.T. -0.017 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

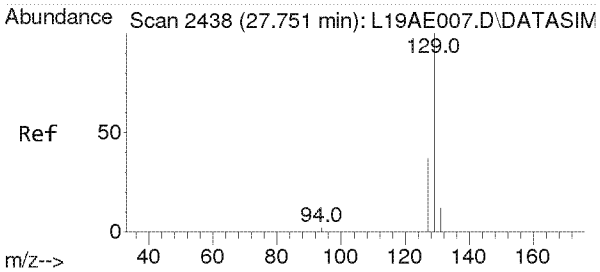
Tgt Ion: 91 Resp: 48579

Ion	Ratio	Lower	Upper
91	100		
92	52.5	42.0	63.0





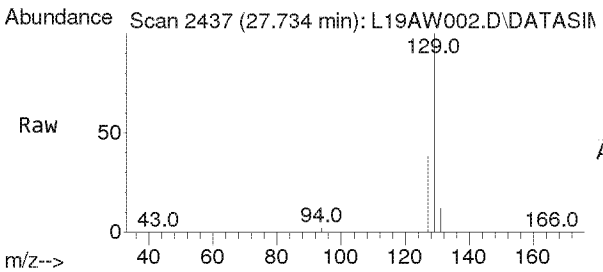


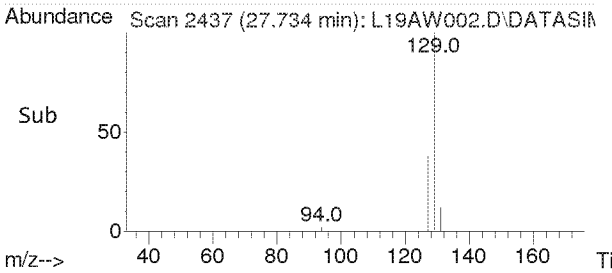


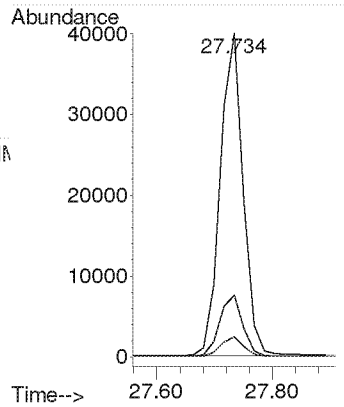
#45
Dibromochloromethane
Concen: 2.233 ppbv
RT: 27.734 min Scan# 2437
Delta R.T. -0.017 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion:129 Resp: 109462

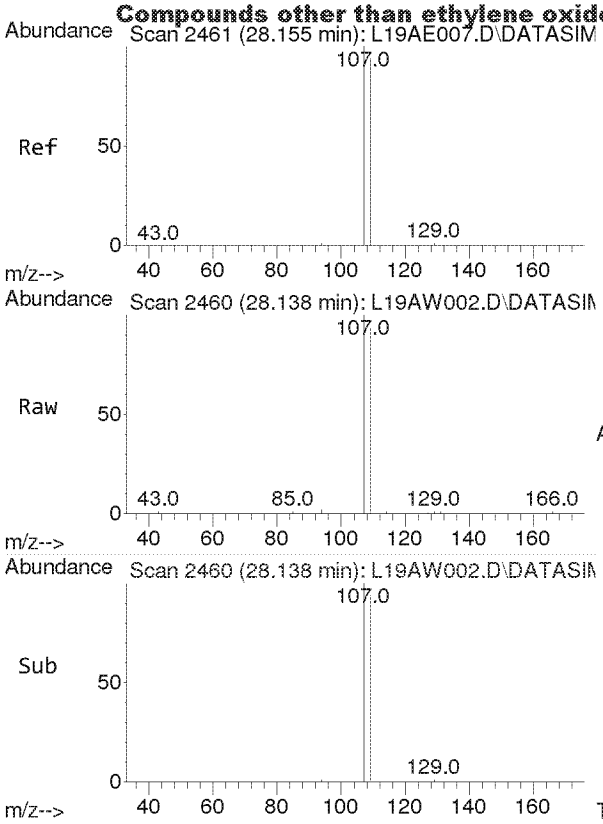
Ion	Ratio	Lower	Upper
129	100		
127	19.4	15.4	23.0
131	6.1	4.8	7.2







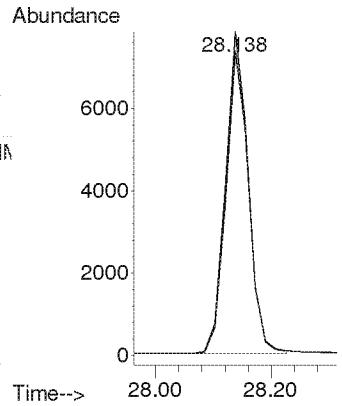
Compounds other than ethylene oxide were not quantitated.

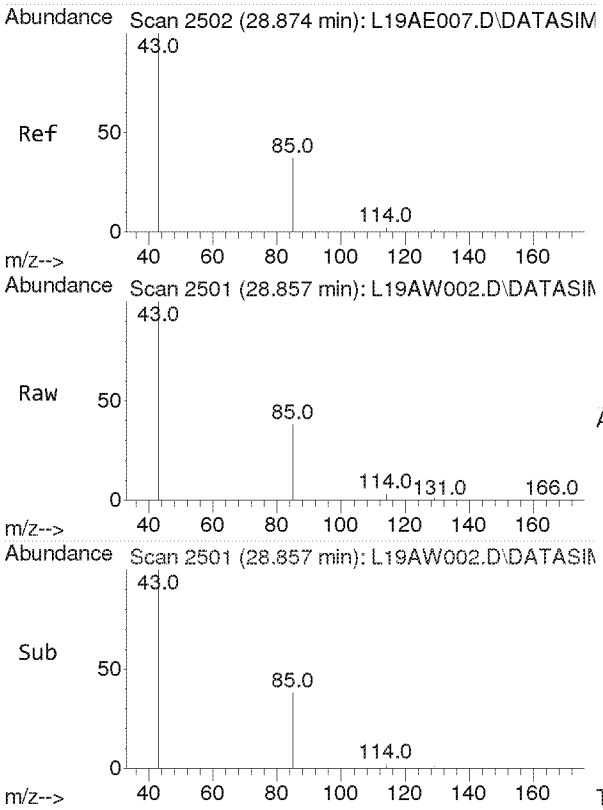


#46
1,2-Dibromoethane
Concen: 2.403 ppbv
RT: 28.138 min Scan# 2460
Delta R.T. -0.017 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion:107 Resp: 21352

Ion	Ratio	Lower	Upper
107	100		
109	94.3	75.4	113.2

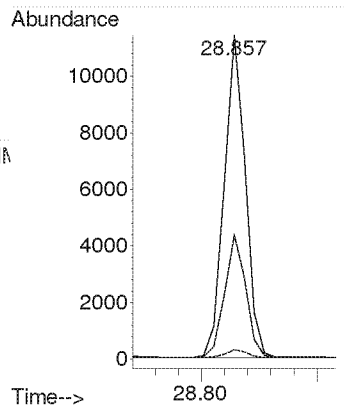




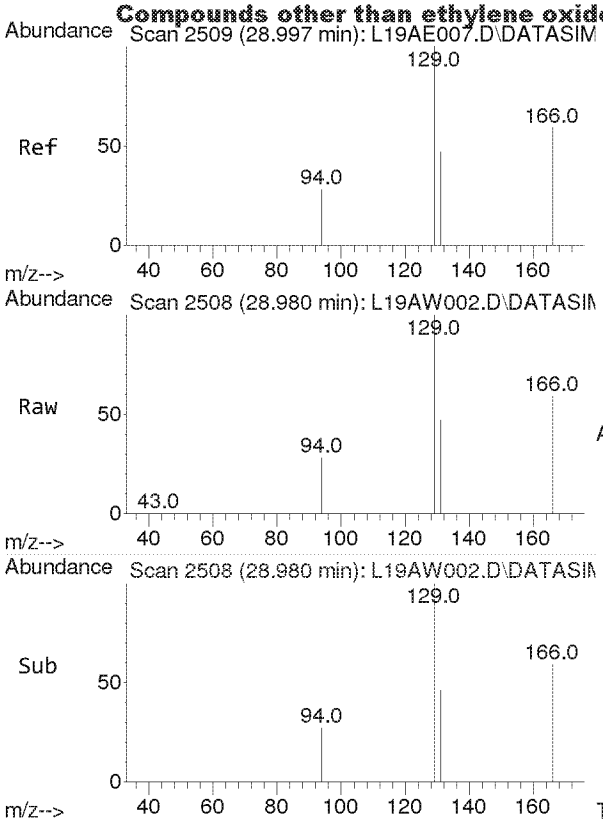
#47
n-Octane
Concen: 2.410 ppbv
RT: 28.857 min Scan# 2501
Delta R.T. -0.017 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 43 Resp: 29139

Ion	Ratio	Lower	Upper
43	100		
85	38.0	29.3	43.9
114	2.4	1.8	2.8



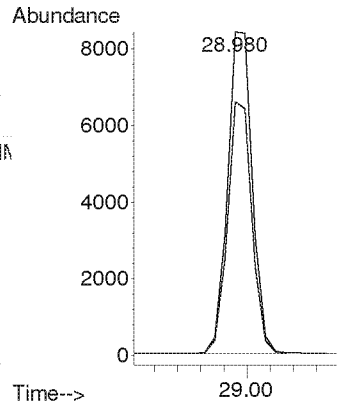
Compounds other than ethylene oxide were not quantitated.

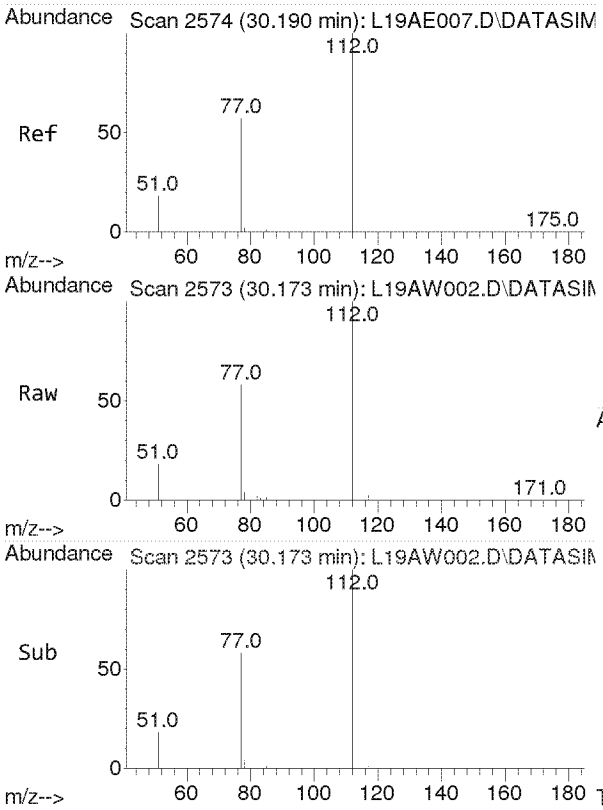


#48
Tetrachloroethylene
Concen: 2.533 ppbv
RT: 28.980 min Scan# 2508
Delta R.T. -0.017 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion:166 Resp: 25186

Ion	Ratio	Lower	Upper
166	100		
131	77.2	62.6	93.8

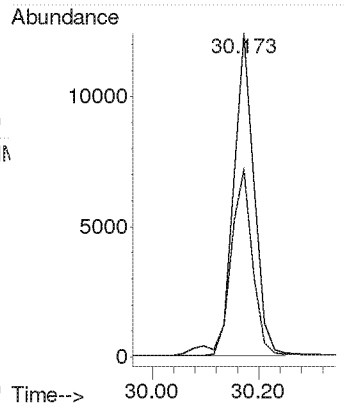




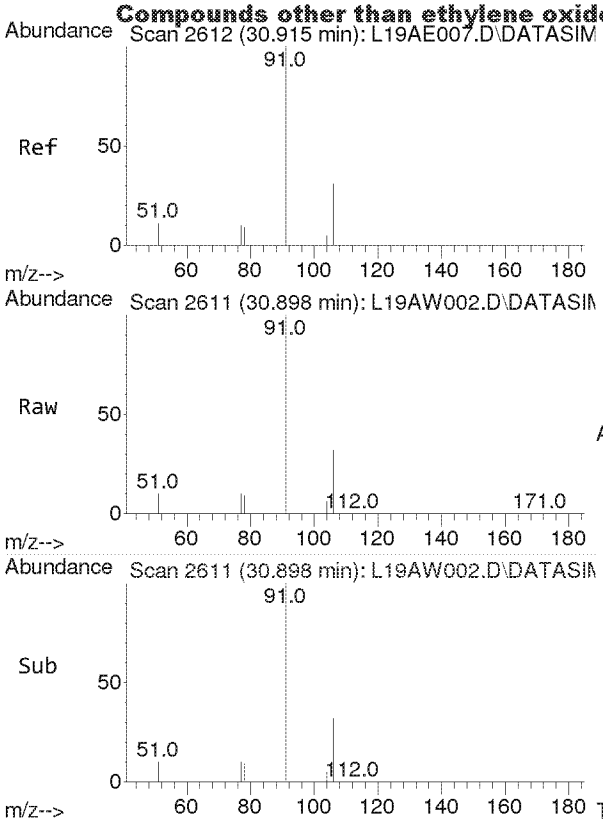
#49
Chlorobenzene
Concen: 2.382 ppbv
RT: 30.173 min Scan# 2573
Delta R.T. -0.017 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion:112 Resp: 32866

Ion	Ratio	Lower	Upper
112	100		
77	60.9	49.0	73.4



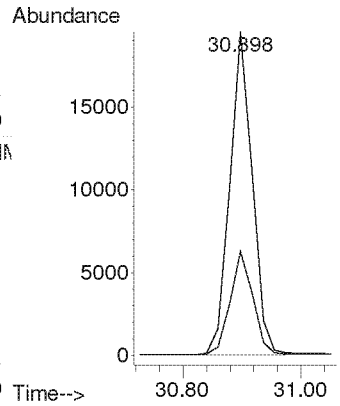
Compounds other than ethylene oxide were not quantitated.

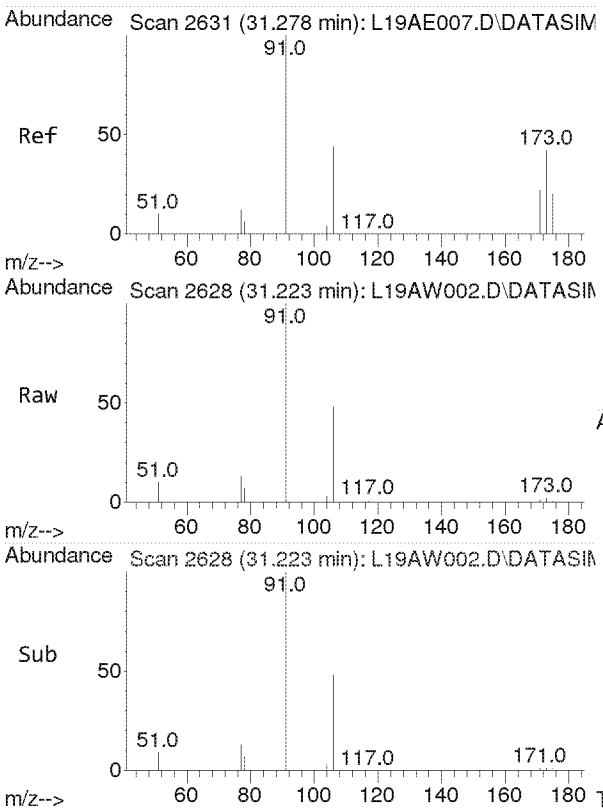


#50
Ethylbenzene
Concen: 2.448 ppbv
RT: 30.898 min Scan# 2611
Delta R.T. -0.017 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 91 Resp: 51156

Ion	Ratio	Lower	Upper
91	100		
106	32.1	25.4	38.0

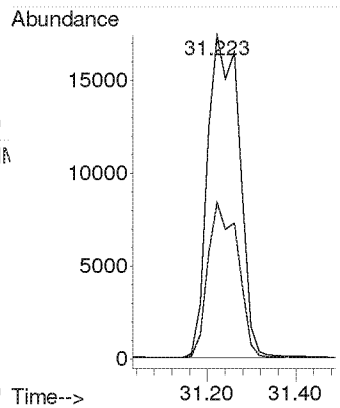




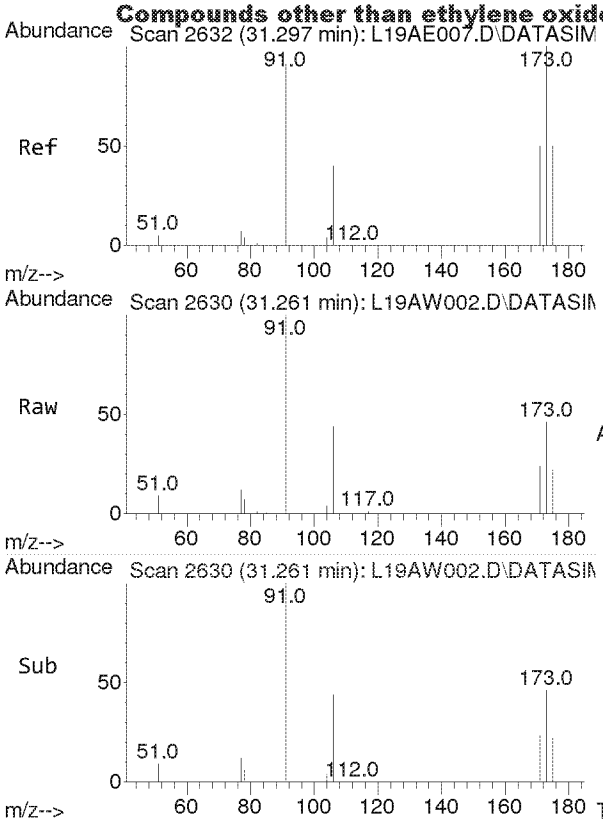
#51
m,p-Xylene
Concen: 4.733 ppbv
RT: 31.223 min Scan# 2628
Delta R.T. -0.055 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 91 Resp: 86004

Ion	Ratio	Lower	Upper
91	100		
106	45.5	35.7	53.5



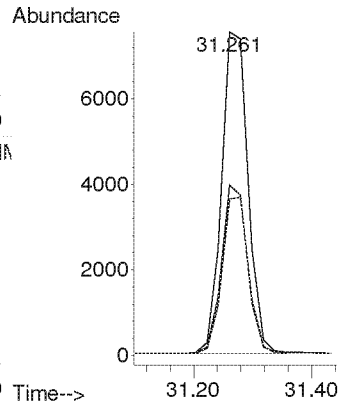
Compounds other than ethylene oxide were not quantitated.

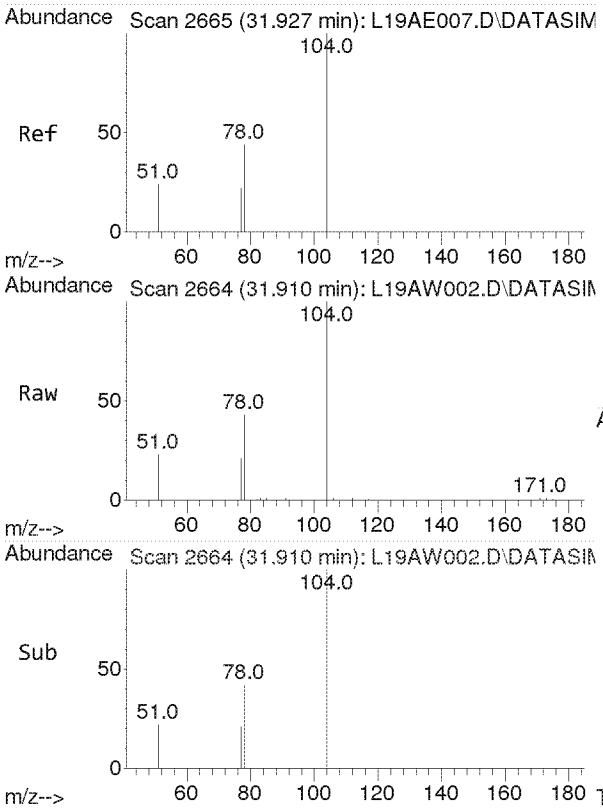


#52
Bromoform
Concen: 2.195 ppbv
RT: 31.261 min Scan# 2630
Delta R.T. -0.036 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion:173 Resp: 23333

Ion	Ratio	Lower	Upper
173	100		
171	51.3	41.1	61.7
175	48.9	39.1	58.7

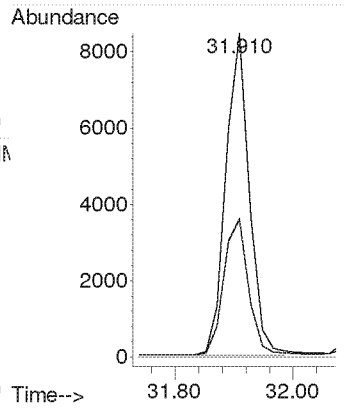




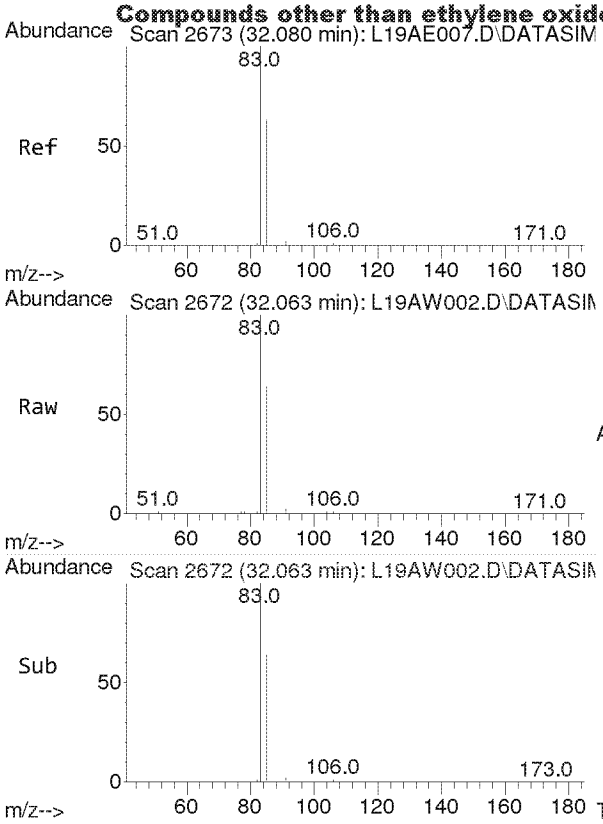
#53
Styrene
Concen: 2.314 ppbv
RT: 31.910 min Scan# 2664
Delta R.T. -0.017 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion:104 Resp: 23208

Ion	Ratio	Lower	Upper
104	100		
78	44.5	36.6	55.0
103	0.0	0.0	0.0



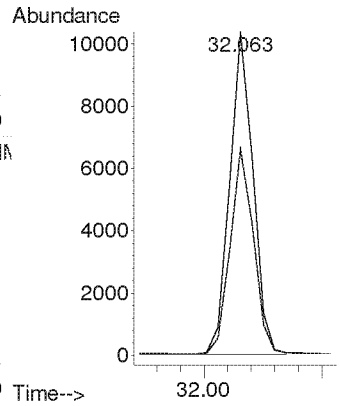
Compounds other than ethylene oxide were not quantitated.

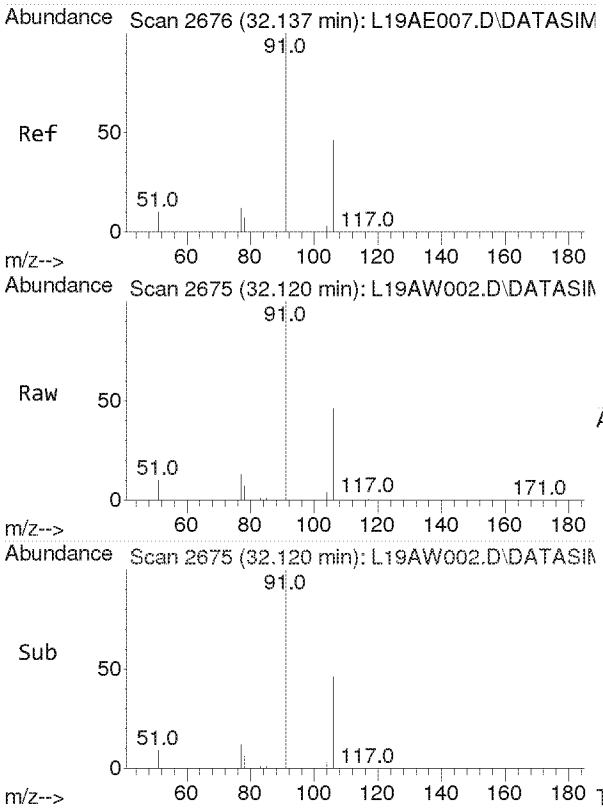


#54
1,1,2,2-Tetrachloroethane
Concen: 2.110 ppbv
RT: 32.063 min Scan# 2672
Delta R.T. -0.017 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 83 Resp: 28020

Ion	Ratio	Lower	Upper
83	100		
85	64.3	51.2	76.8

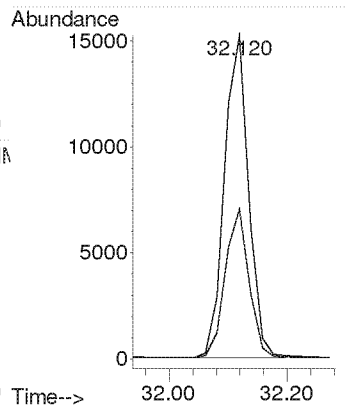




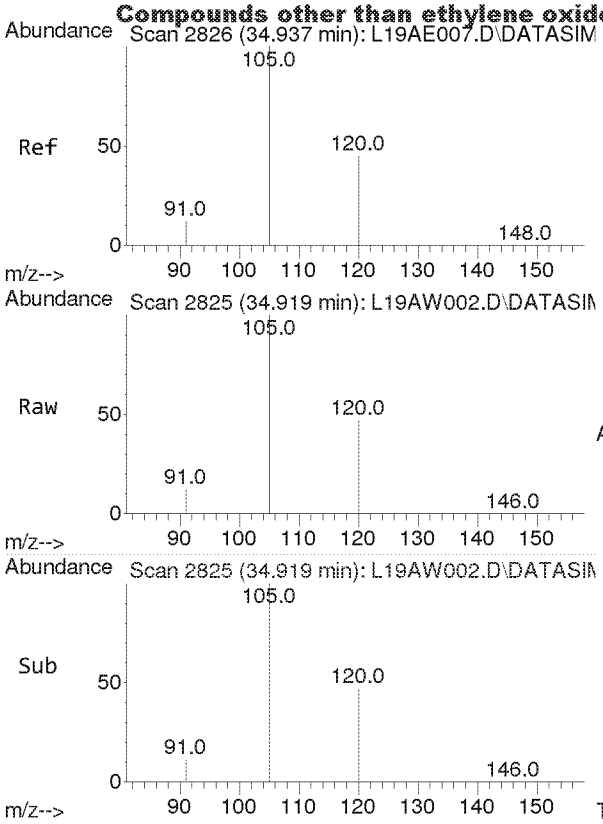
#55
o-Xylene
Concen: 2.447 ppbv
RT: 32.120 min Scan# 2675
Delta R.T. -0.017 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion: 91 Resp: 42862

Ion	Ratio	Lower	Upper
91	100		
106	45.5	35.8	53.8



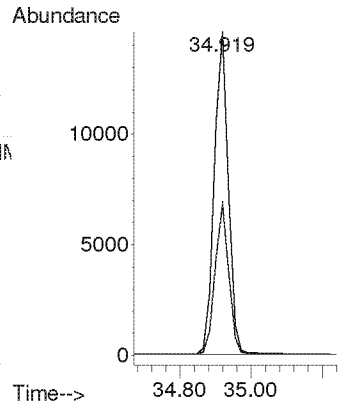
Compounds other than ethylene oxide were not quantitated.

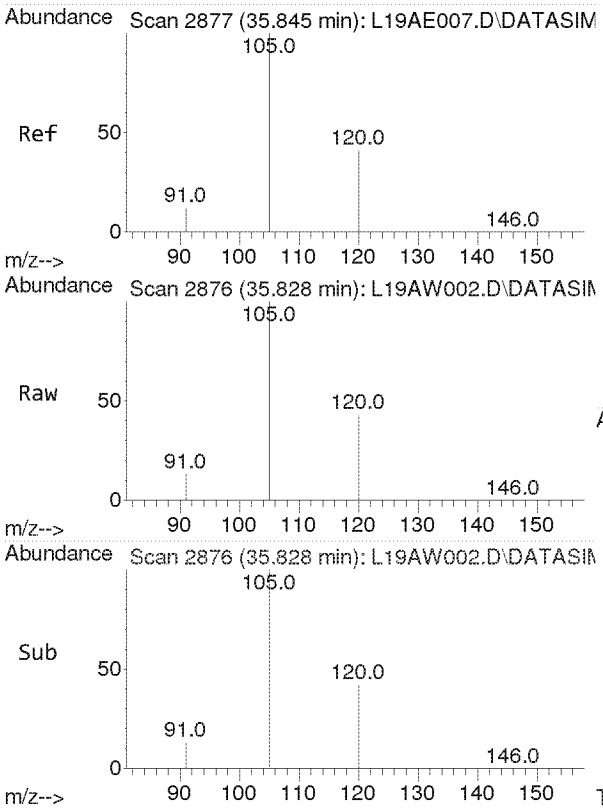


#56
1,3,5-Trimethylbenzene
Concen: 2.299 ppbv
RT: 34.919 min Scan# 2825
Delta R.T. -0.017 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion:105 Resp: 39499

Ion	Ratio	Lower	Upper
105	100		
120	45.6	36.0	54.0

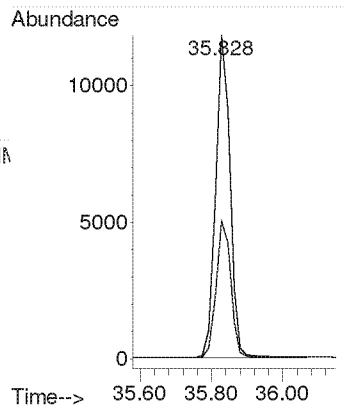




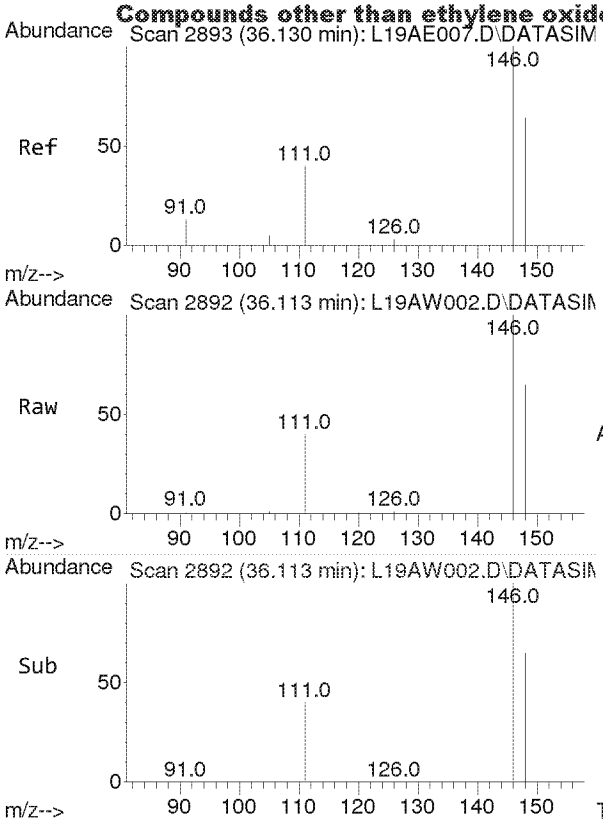
#57
1,2,4-Trimethylbenzene
Concen: 2.196 ppbv
RT: 35.828 min Scan# 2876
Delta R.T. -0.017 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion:105 Resp: 32852

Ion	Ratio	Lower	Upper
105	100		
120	43.3	34.3	51.5



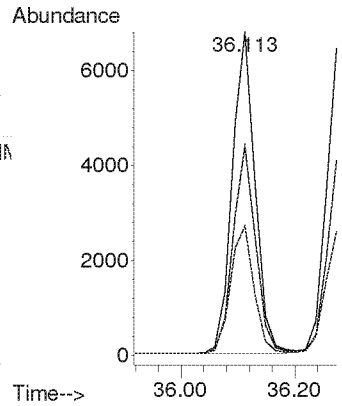
Compounds other than ethylene oxide were not quantitated.

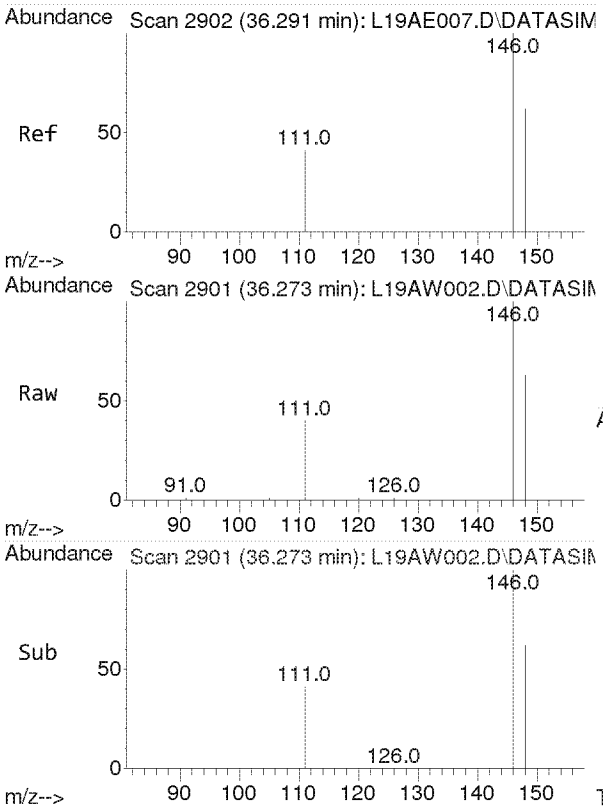


#58
m-Dichlorobenzene
Concen: 1.835 ppbv
RT: 36.113 min Scan# 2892
Delta R.T. -0.017 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion:146 Resp: 18875

Ion	Ratio	Lower	Upper
146	100		
148	63.9	51.3	76.9
111	40.9	32.4	48.6

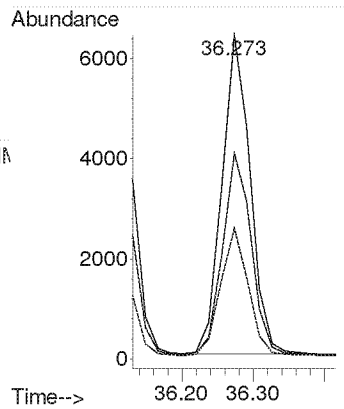




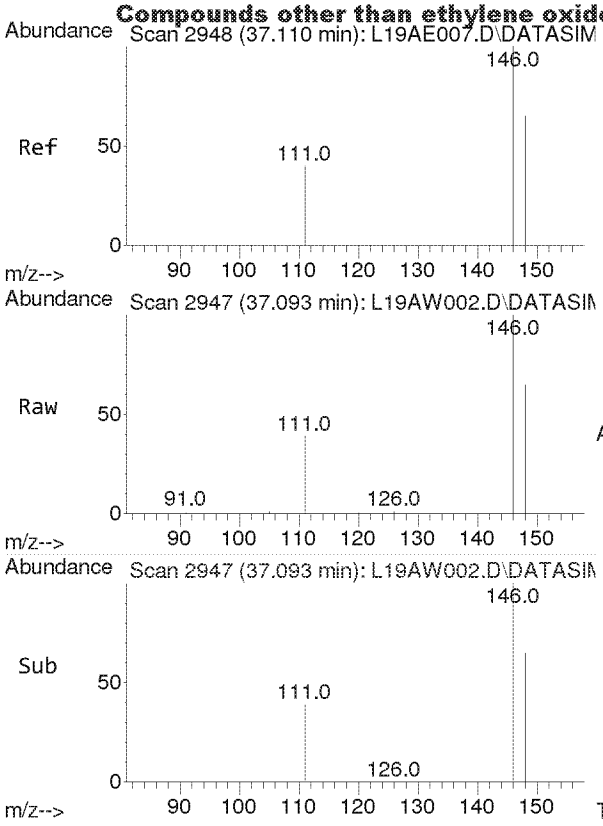
#59
p-Dichlorobenzene
Concen: 2.122 ppbv
RT: 36.273 min Scan# 2901
Delta R.T. -0.017 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion:146 Resp: 17579

Ion	Ratio	Lower	Upper
146	100		
148	64.0	51.1	76.7
111	39.2	31.4	47.2



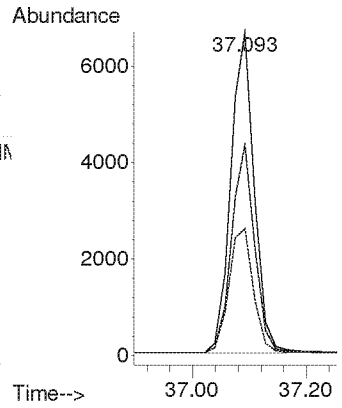
Compounds other than ethylene oxide were not quantitated.

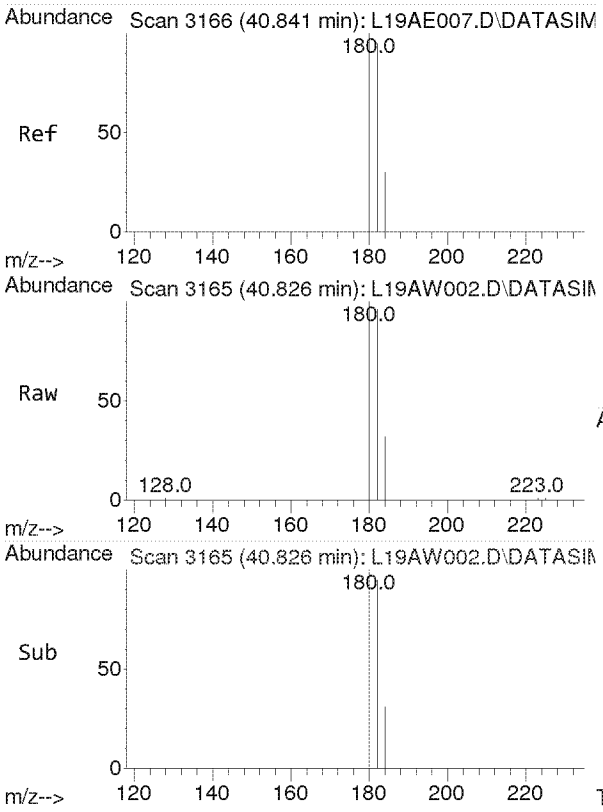


#60
o-Dichlorobenzene
Concen: 2.121 ppbv
RT: 37.093 min Scan# 2947
Delta R.T. -0.017 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion:146 Resp: 18979

Ion	Ratio	Lower	Upper
146	100		
148	64.0	51.2	76.8
111	41.1	32.6	48.8

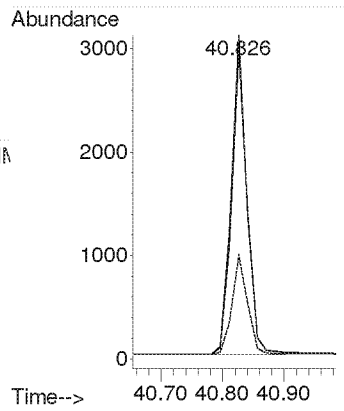




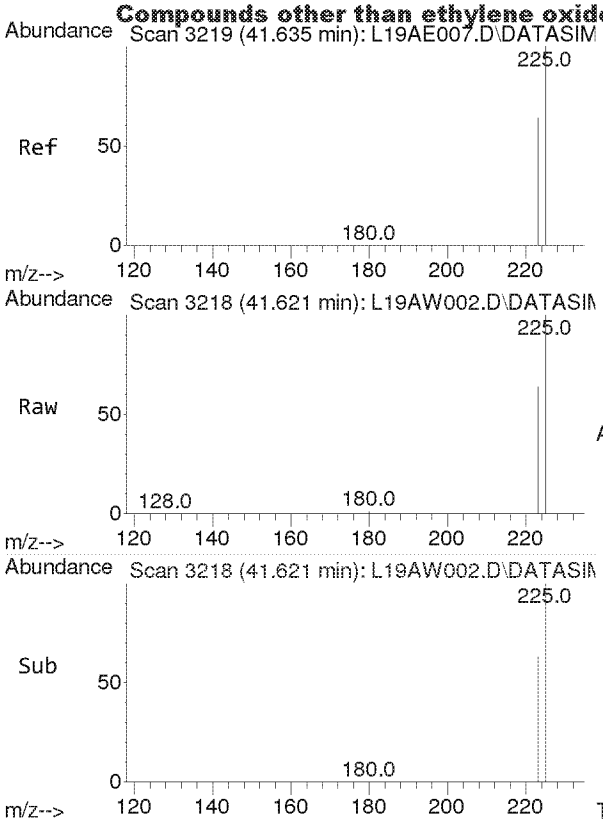
#61
1,2,4-Trichlorobenzene
Concen: 1.451 ppbv
RT: 40.826 min Scan# 3165
Delta R.T. -0.014 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion:180 Resp: 5293

Ion	Ratio	Lower	Upper
180	100		
182	95.7	76.0	114.0
184	31.1	24.4	36.6



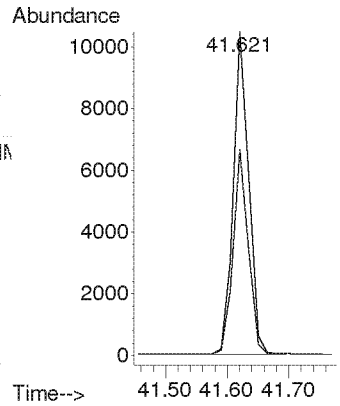
Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: 1.937 ppbv
RT: 41.621 min Scan# 3218
Delta R.T. -0.014 min
Lab File: L19AW002.D
Acq: 23 Jan 2019 9:36 am

Tgt Ion:225 Resp: 17916

Ion	Ratio	Lower	Upper
225	100		
223	62.3	49.9	74.9



Compounds other than ethylene oxide were not quantitated.

TO-15 Method Blank and
Annual Canister Certification Blank

Analyst: [illegible] Date: 1/29/19	Data File Name	L19AW005.D	
	Operator	MAH	
	Acq. Method File	9010002.M	
Reviewer: RHB Date: 2/4/19	Sample Name	B9A2306-BLK1	
	Misc Info	80 ML 8L13001	

#	Name	Target Response	Amount (ppbv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	57356		NA		NA
2)	Acetylene	48	0.011	Y		0.118
3)	Propylene	146	0.027	Y		0.192
4)	Dichlorodifluoromethane	110	0.005	Y		0.082
5)	Chloromethane	140	0.020	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	122	0.043	Y	MAX	0.200
13)	Trichlorofluoromethane	43	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	468	0.021	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	140909		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y		0.041
30)	Benzene	149	0.009	Y		0.043
31)	Carbon Tetrachloride	0	0.000	Y		0.040
32)	tert-Amyl Methyl Ether	0	0.000	Y		0.037
33)	1,2-Dichloropropane	0	0.000	Y		0.061
34)	Ethyl Acrylate	0	0.000	Y		0.070
35)	Bromodichloromethane	0	0.000	Y		0.049
36)	Trichloroethylene	0	0.000	Y		0.045
37)	Methyl Methacrylate	0	0.000	Y		0.200
38)	cis-1,3-dichloropropene	0	0.000	Y		0.059
39)	Methyl Isobutyl Ketone	76	0.006	Y		0.071
40)	trans-1,3-Dichloropropene	0	0.000	Y		0.059
41)	1,1,2-Trichloroethane	0	0.000	Y		0.057
42)	IS-Chlorobenzene-d5	105071		NA		NA
43)	Toluene	120	0.007	Y		0.200
44)	Dibromochloromethane	0	0.000	Y		0.046
45)	1,2-Dibromoethane	0	0.000	Y		0.057
46)	n-Octane	64	0.006	Y		0.097
47)	Tetrachloroethylene	0	0.000	Y		0.044
48)	Chlorobenzene	0	0.000	Y		0.058
49)	Ethylbenzene	99	0.005	Y		0.077
50)	m,p-Xylene	60	0.004	Y		0.108
51)	Bromoform	0	0.000	Y		0.053
52)	Styrene	0	0.000	Y		0.109
53)	1,1,2,2-Tetrachloroethane	0	0.000	Y		0.063
54)	o-Xylene	117	0.008	Y		0.080
55)	1,3,5-Trimethylbenzene	0	0.000	Y		0.102
56)	1,2,4-Trimethylbenzene	45	0.003	Y		0.080
57)	m-Dichlorobenzene	0	0.000	Y		0.055
58)	p-Dichlorobenzene	0	0.000	Y		0.060
59)	o-Dichlorobenzene	0	0.000	Y		0.062
60)	1,2,4-Trichlorobenzene	0	0.000	Y		0.200
61)	Hexachloro-1,3-butadiene	0	0.000	Y		0.082

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

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AW\
Data File : L19AW005.D
Acq On : 23 Jan 2019 12:41 pm
Operator : MAH
Sample : B9A2306-BLK1
Misc : 80 ML 8L13001
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 29 08:20:21 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	57356	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	140909	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	105071	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	5.419	26	48	0.0108 ppbv	100
3) Propylene	7.838	41	146	0.0267 ppbv	97
4) Dichlorodifluoromethane	8.702	85	110	0.0047 ppbv #	88
5) Chloromethane	9.757	50	140	0.0199 ppbv	97
6) Dichlorotetrafluoroethane	0.000	85	0	N.D.	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D.	
9) Ethylene oxide	0.000	29	0	N.D. d	
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D.	
13) Acrolein	14.729	56	122	0.0430 ppbv #	36
14) Trichlorofluoromethane	15.216	101	43	0.0019 ppbv #	18
15) Acrylonitrile	0.000	53	0	N.D.	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D.	
18) Carbon Disulfide	16.932	76	468	0.0209 ppbv	95
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	149	0.0092 ppbv #	84
32) Carbon Tetrachloride	0.000	117	0	N.D.	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	25.626	43	76	0.0058 ppbv #	47
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	27.075	91	120	0.0071 ppbv	94
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	28.857	43	64	0.0061 ppbv #	41
48) Tetrachloroethylene	0.000	166	0	N.D.	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	30.898	91	99	0.0055 ppbv #	43

Compounds other than ethylene oxide were not quantitated

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AW\
Data File : L19AW005.D
Acq On : 23 Jan 2019 12:41 pm
Operator : MAH
Sample : B9A2306-BLK1
Misc : 80 ML 8L13001
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 29 08:20:21 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.223	91	60	0.0038 ppbv #	31
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	32.120	91	117	0.0077 ppbv	99
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene	35.828	105	45	0.0035 ppbv #	33
58) m-Dichlorobenzene	0.000	146	0	N.D.	
59) p-Dichlorobenzene	0.000	146	0	N.D.	
60) o-Dichlorobenzene	0.000	146	0	N.D.	
61) 1,2,4-Trichlorobenzene	0.000	180	0	N.D.	
62) Hexachloro-1,3-butadiene	0.000	225	0	N.D.	

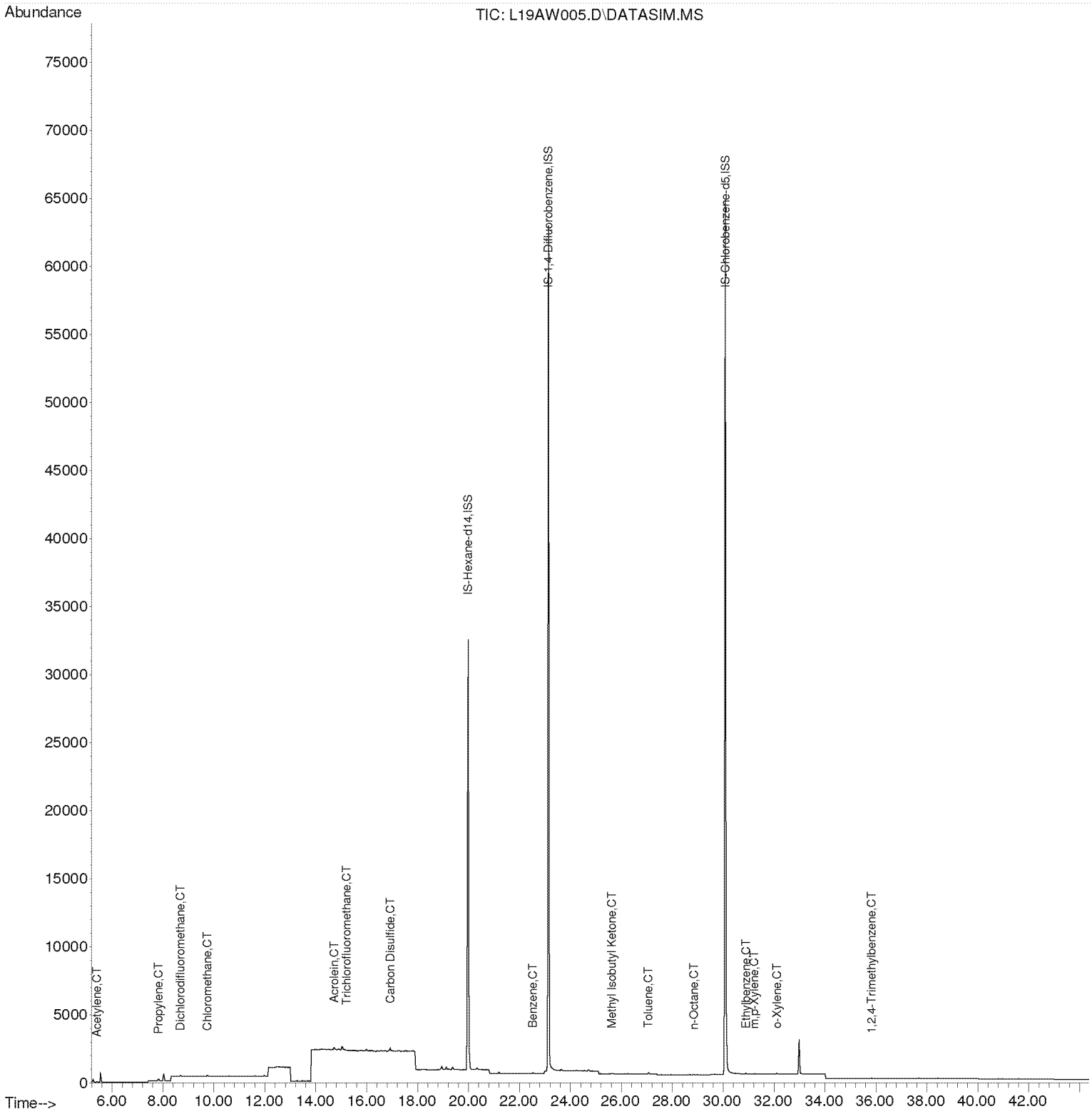
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000318-00050

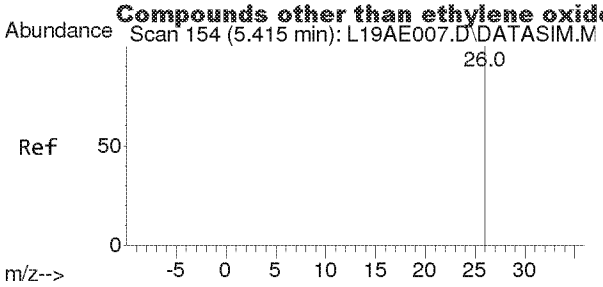
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW005.D
Acq On : 23 Jan 2019 12:41 pm
Operator : MAH
Sample : B9A2306-BLK1
Misc : 80 ML 8L13001
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jan 29 08:05:40 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

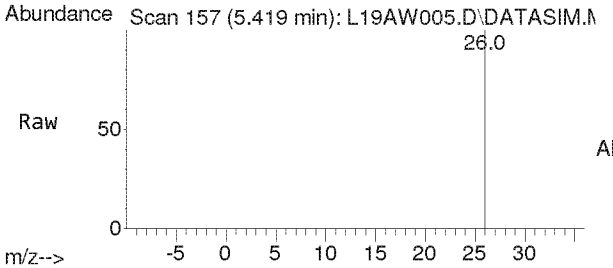


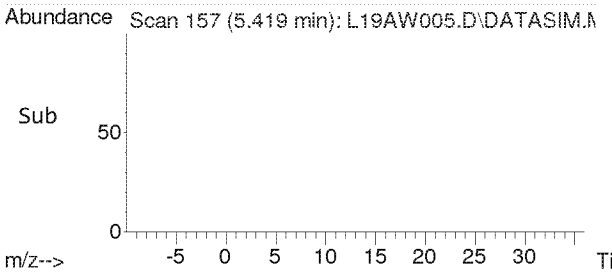
Compounds other than ethylene oxide were not quantitated.

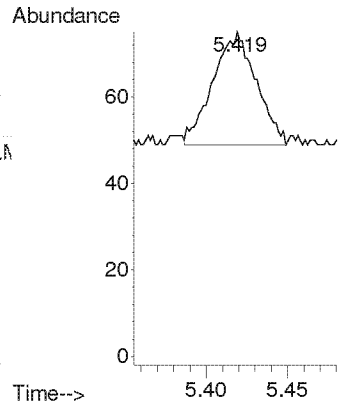


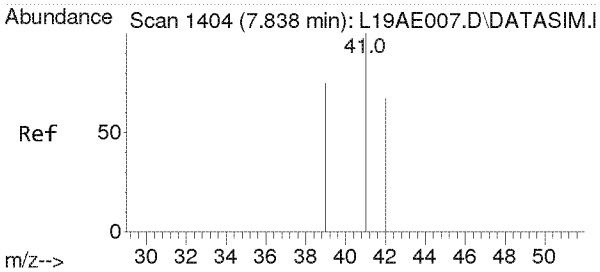
#2
Acetylene
Concen: 0.011 ppbv
RT: 5.419 min Scan# 157
Delta R.T. 0.004 min
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 26 Resp: 48





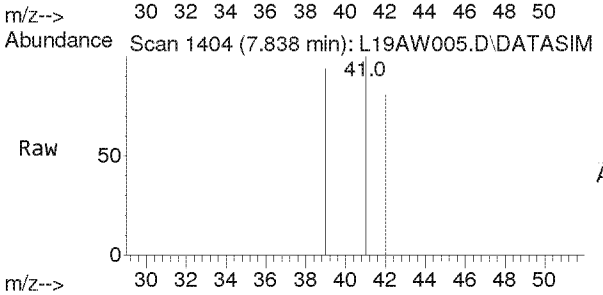


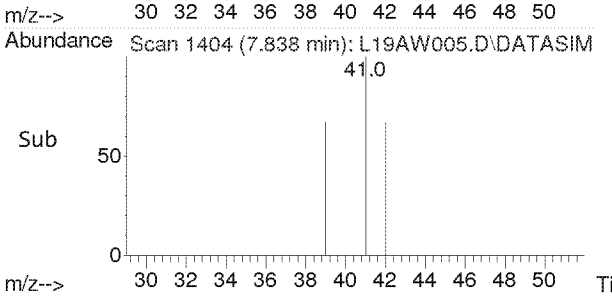


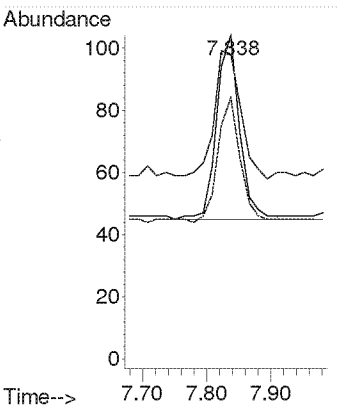
#3
Propylene
Concen: 0.027 ppbv
RT: 7.838 min Scan# 1404
Delta R.T. -0.000 min
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 41 Resp: 146

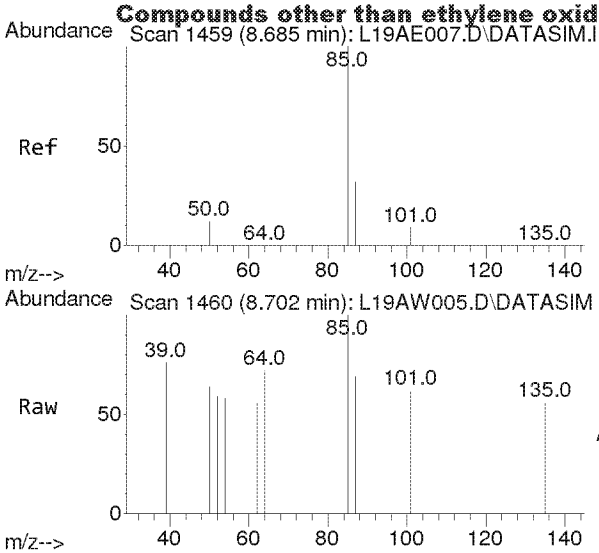
Ion	Ratio	Lower	Upper
41	100		
39	80.8	61.6	92.4
42	67.1	52.6	79.0







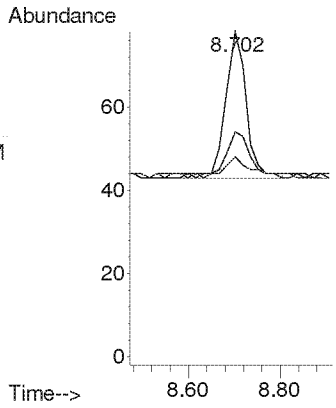
Compounds other than ethylene oxide were not quantitated.

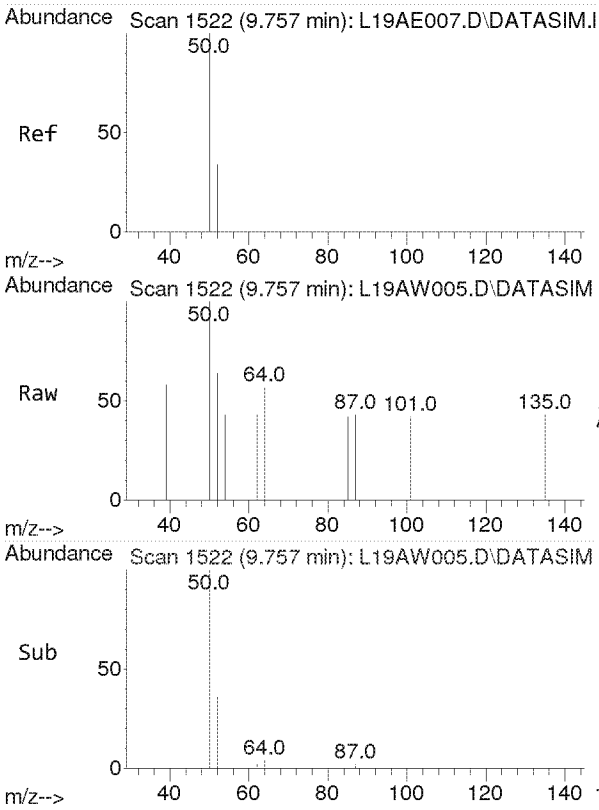


#4
Dichlorodifluoromethane
Concen: 0.005 ppbv
RT: 8.702 min Scan# 1460
Delta R.T. 0.017 min
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 85 Resp: 110

Ion	Ratio	Lower	Upper
85	100		
87	37.3	26.0	39.0
101	0.0	7.1	10.7#

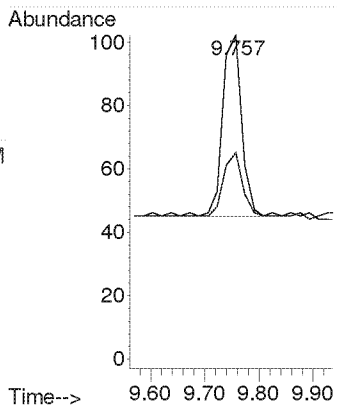




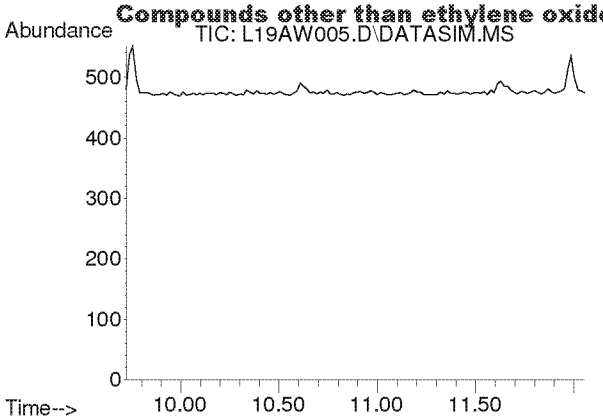
#5
Chloromethane
Concen: 0.020 ppbv
RT: 9.757 min Scan# 1522
Delta R.T. -0.000 min
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 50 Resp: 140

Ion	Ratio	Lower	Upper
50	100		
52	34.3	25.9	38.9



Compounds other than ethylene oxide were not quantitated.

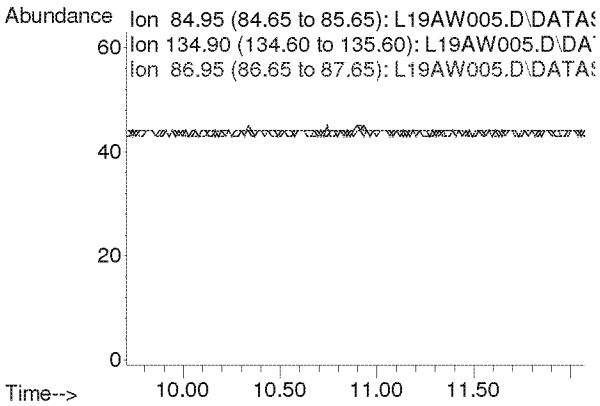


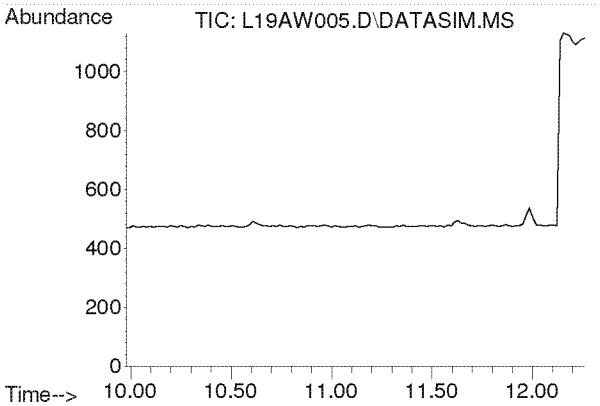
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



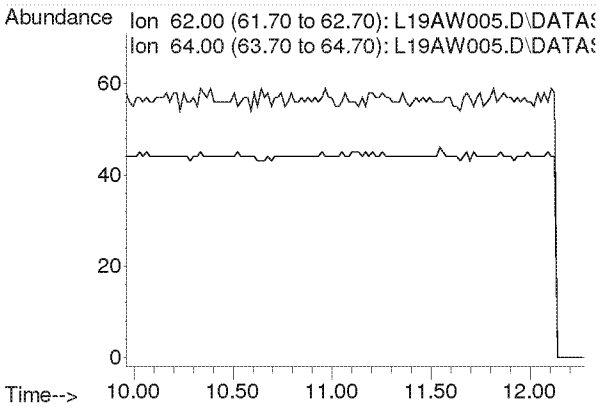


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

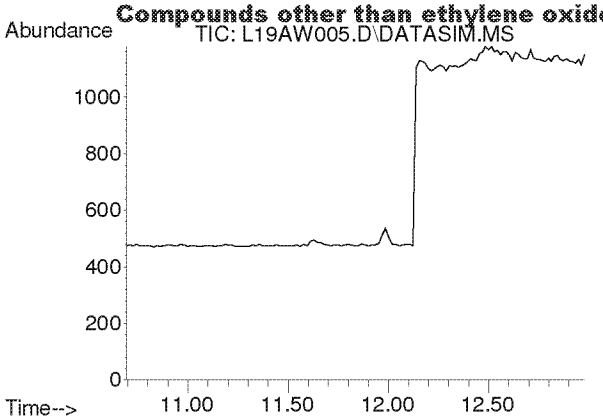
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

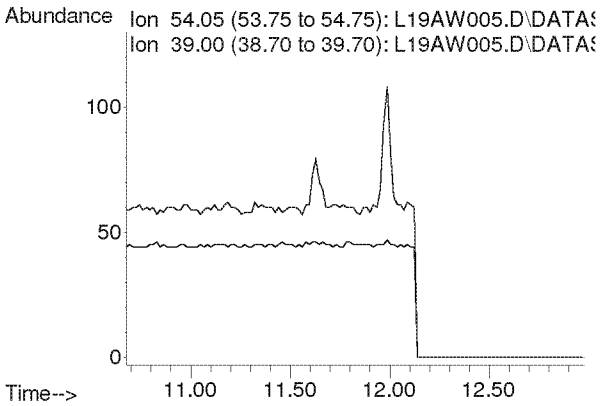


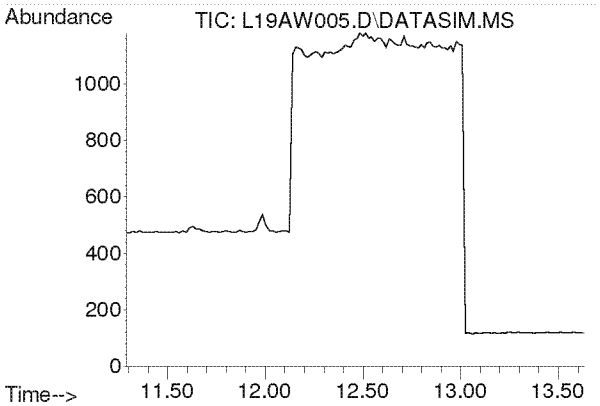
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3



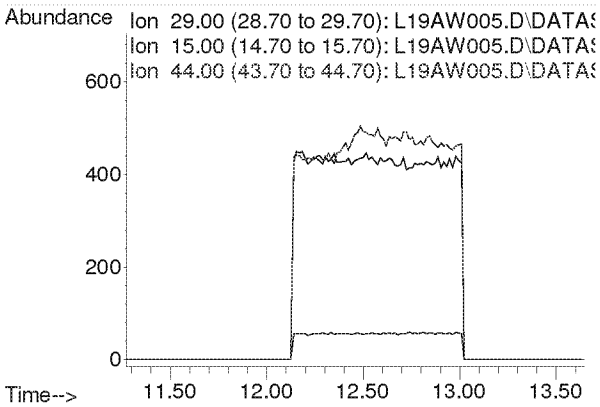


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.39 min

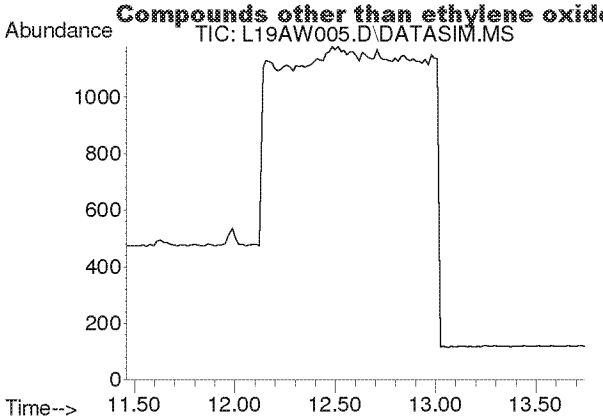
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	19.2
44	96.8



Compounds other than ethylene oxide were not quantitated.

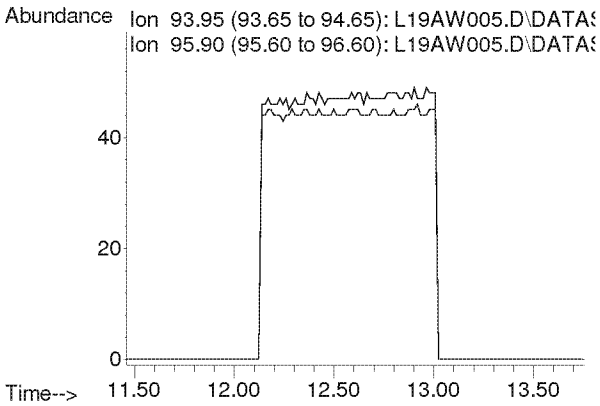


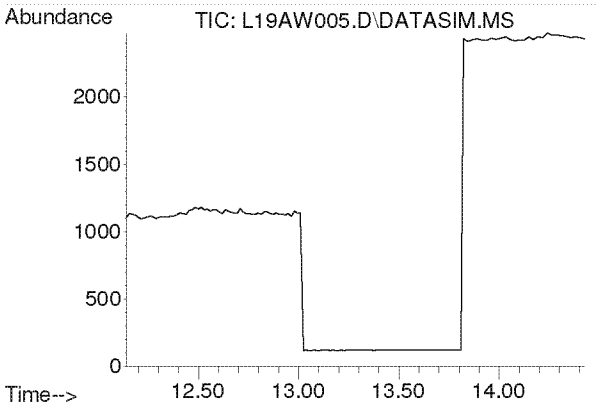
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



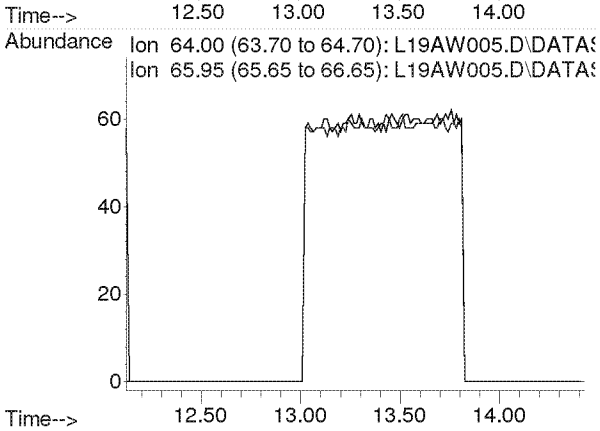


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

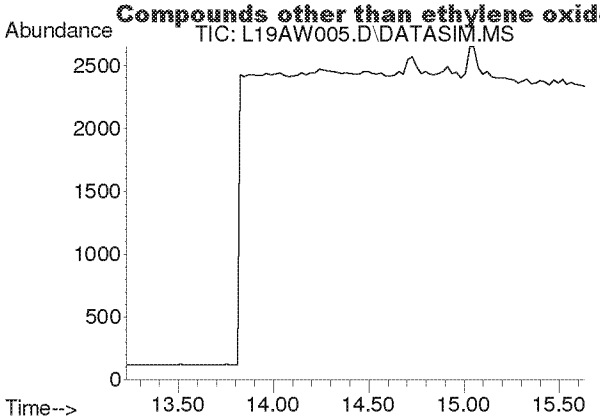
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

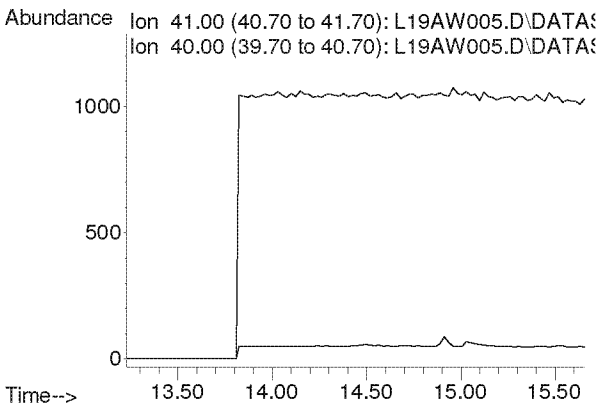


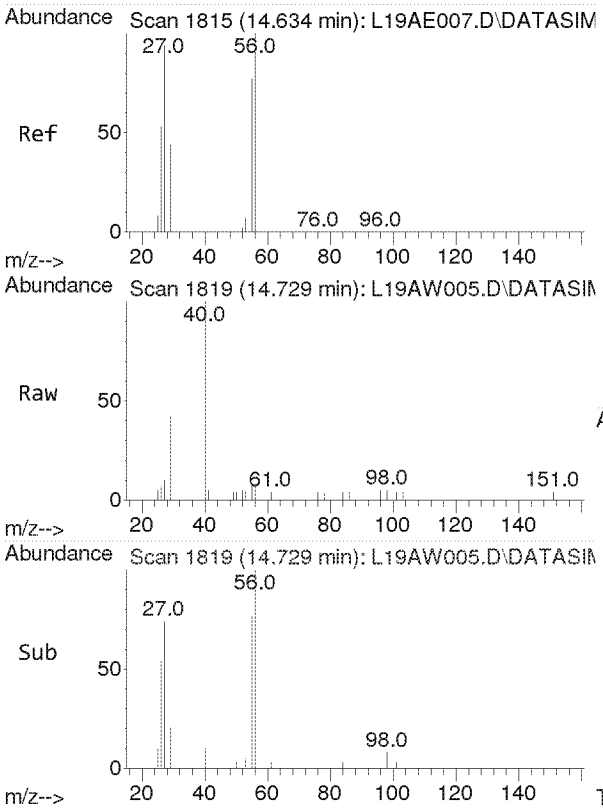
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2

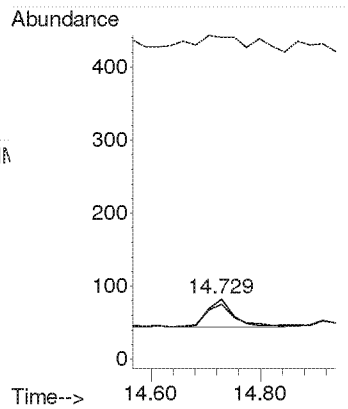




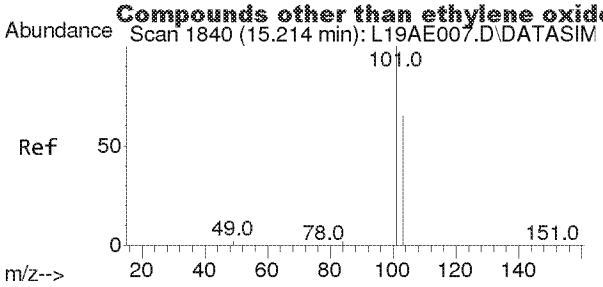
#13
Acrolein
Concen: 0.043 ppbv
RT: 14.729 min Scan# 1819
Delta R.T. 0.095 min
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 56 Resp: 122

Ion	Ratio	Lower	Upper
56	100		
55	92.6	61.2	91.8#
29	137.7	35.9	53.9#



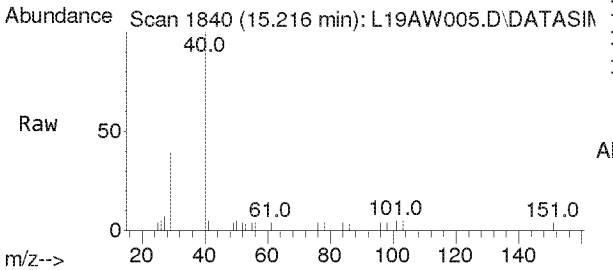
Compounds other than ethylene oxide were not quantitated.

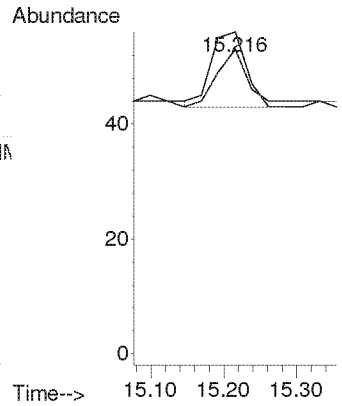


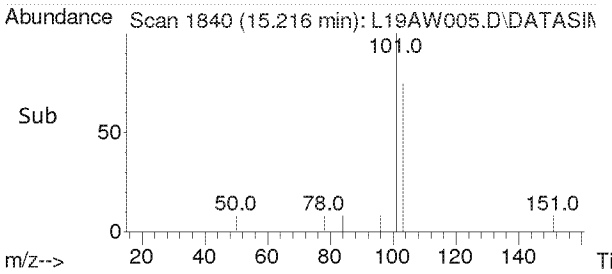
#14
Trichlorofluoromethane
Concen: 0.002 ppbv
RT: 15.216 min Scan# 1840
Delta R.T. 0.002 min
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

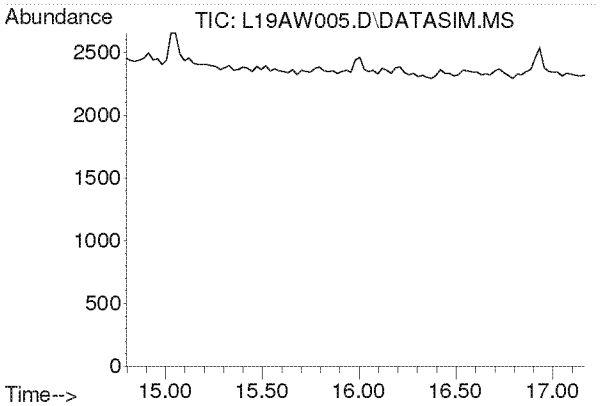
Tgt Ion:101 Resp: 43

Ion	Ratio	Lower	Upper
101	100		
103	0.0	51.7	77.5#







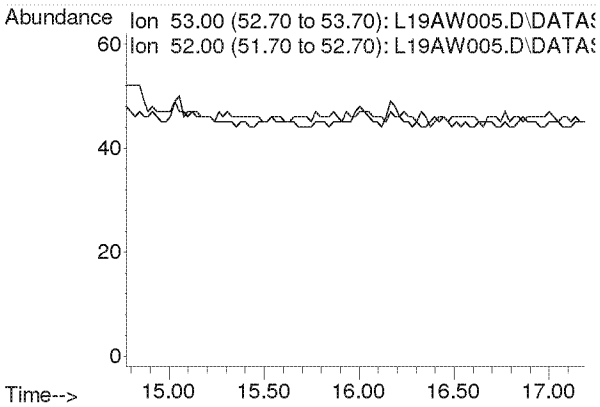


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

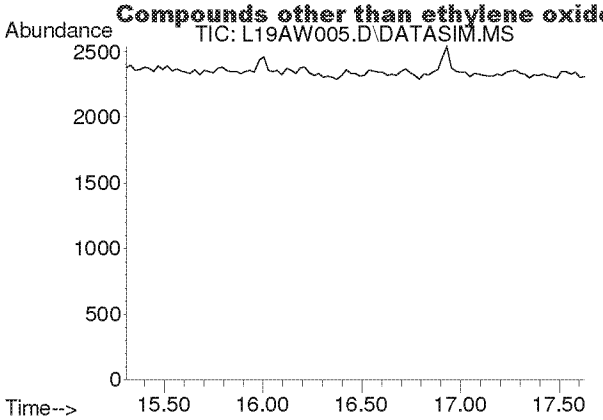
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

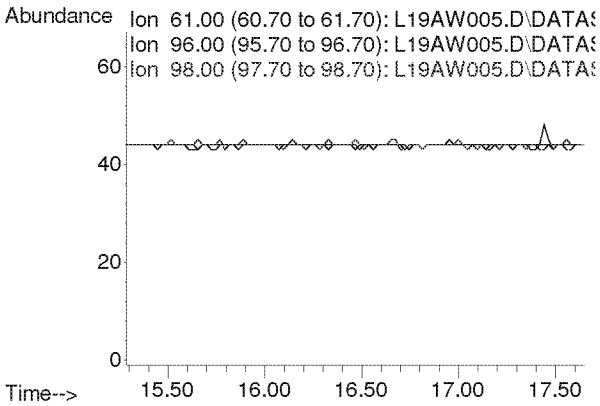


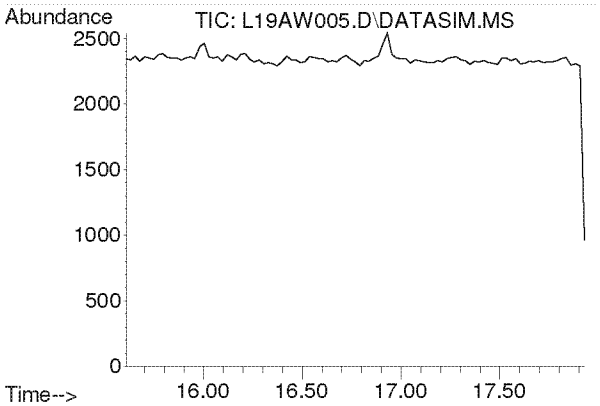
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



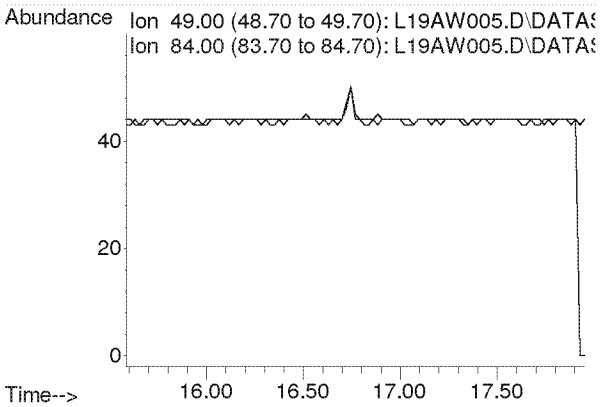


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

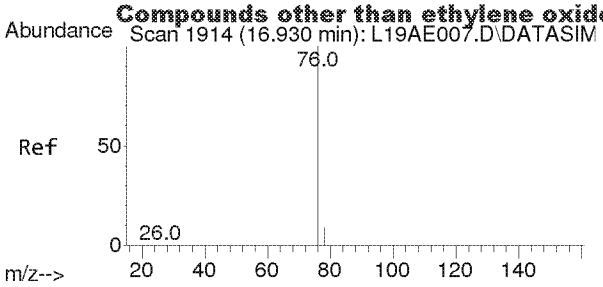
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



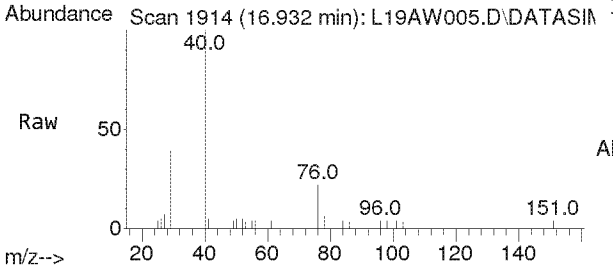
Compounds other than ethylene oxide were not quantitated.

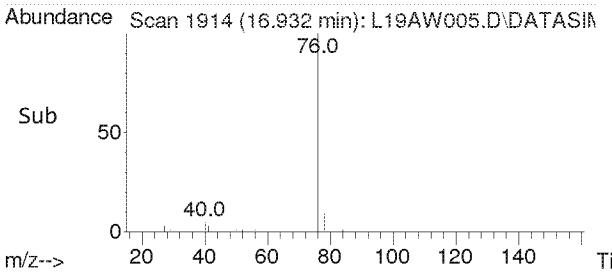


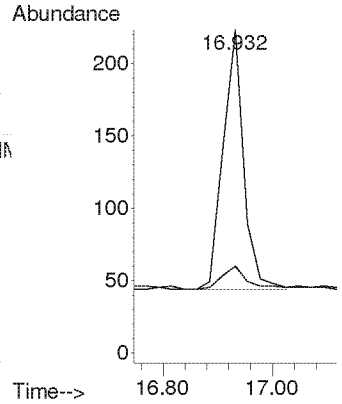
#18
Carbon Disulfide
Concen: 0.021 ppbv
RT: 16.932 min Scan# 1914
Delta R.T. 0.002 min
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

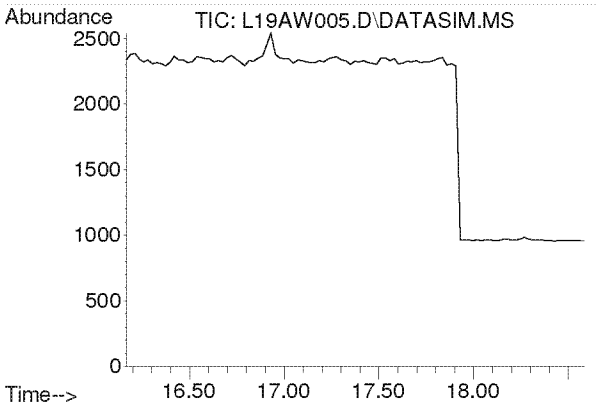
Tgt Ion: 76 Resp: 468

Ion	Ratio	Lower	Upper
76	100		
78	10.7	7.2	10.8







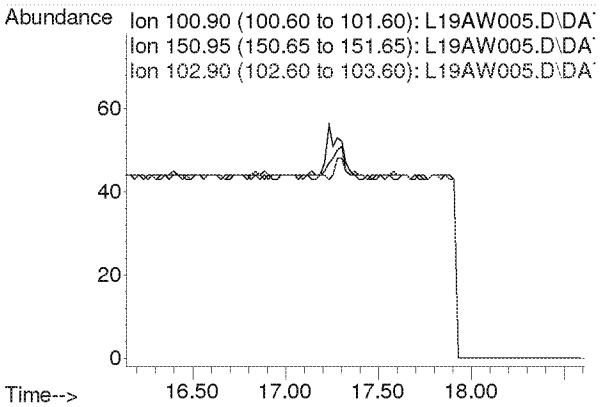


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

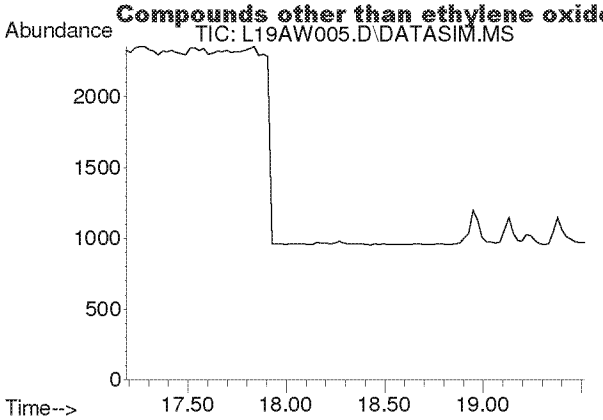
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

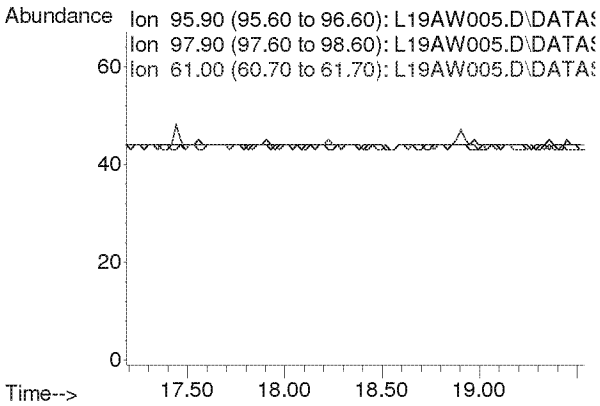


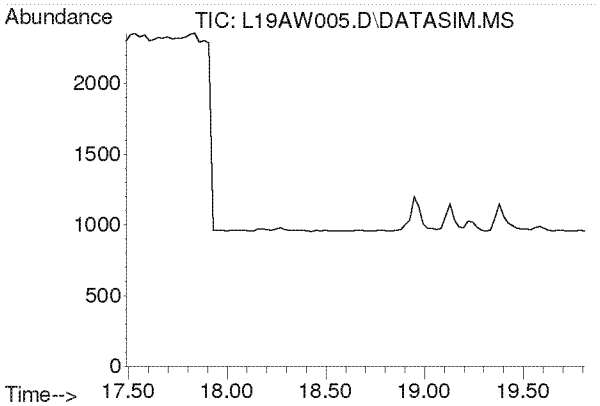
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



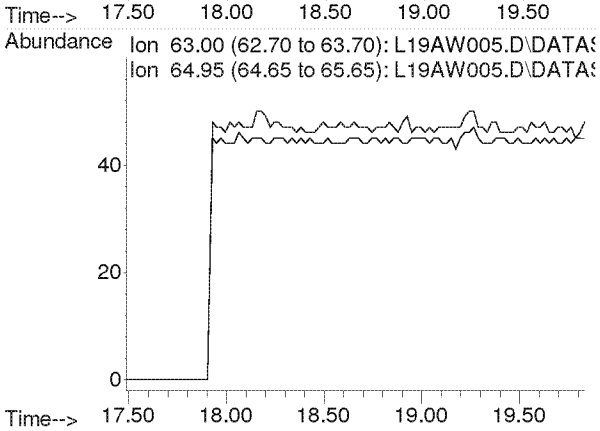


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

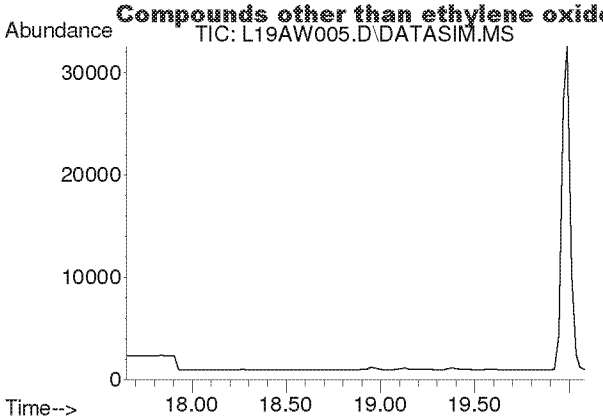
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

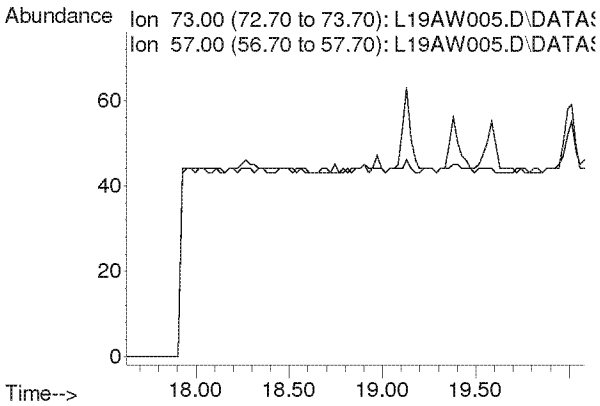


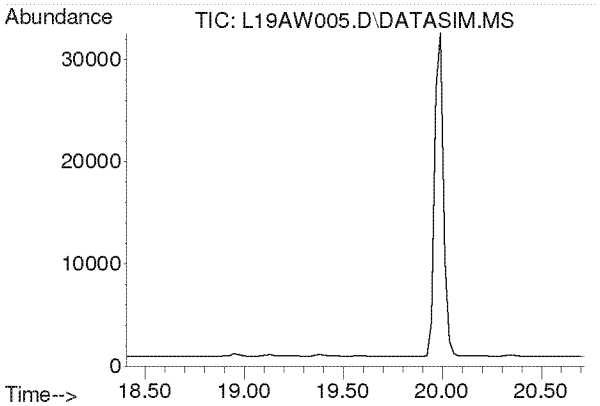
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



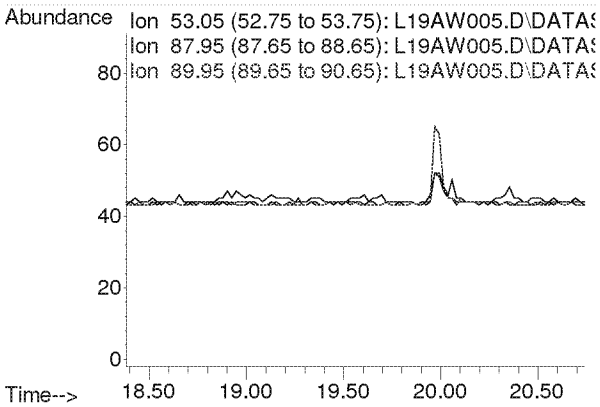


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

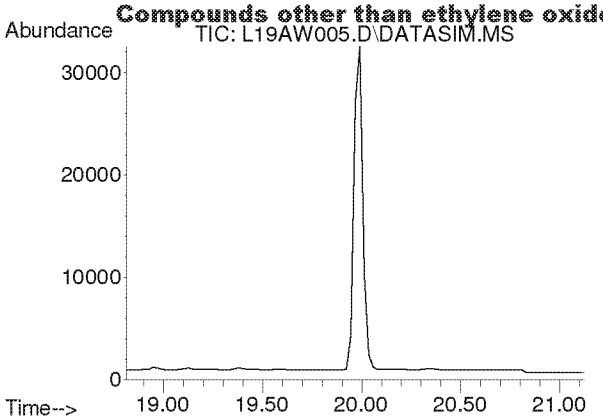
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

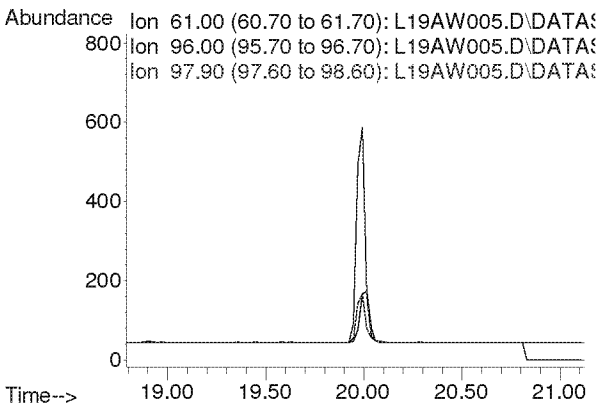


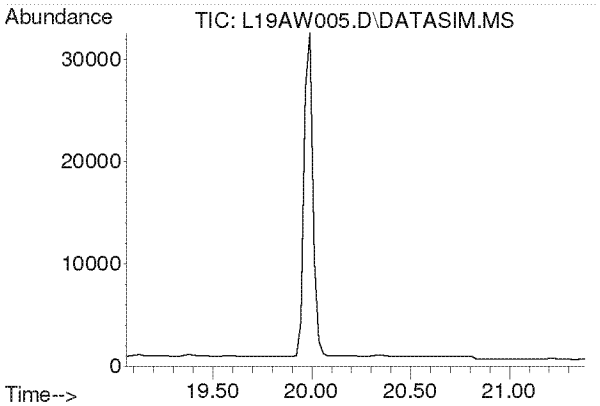
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



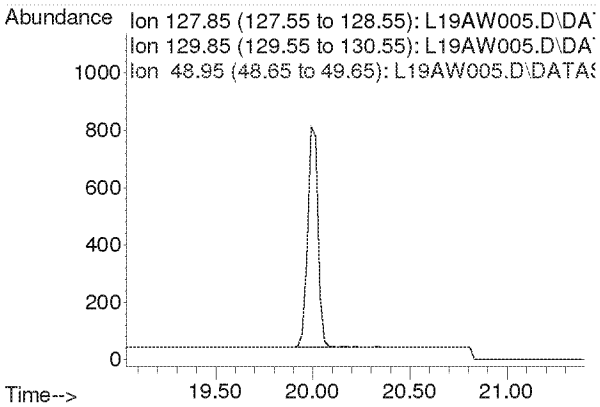


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

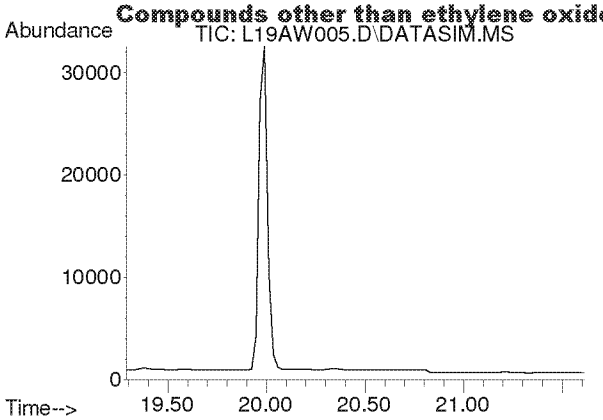
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

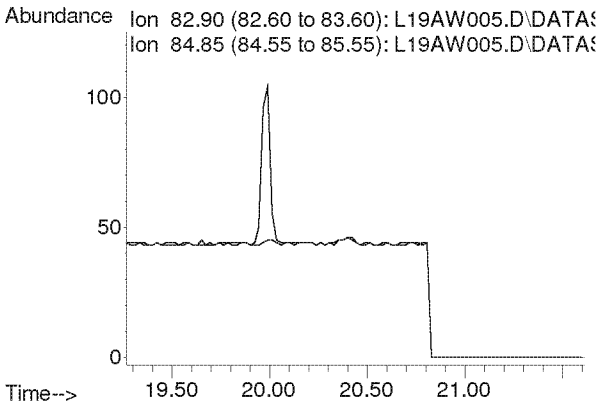


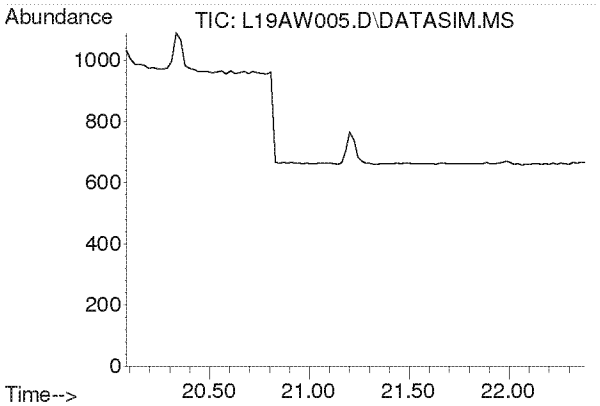
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



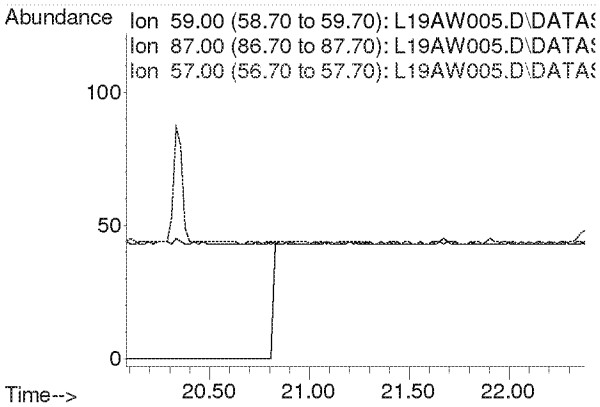


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

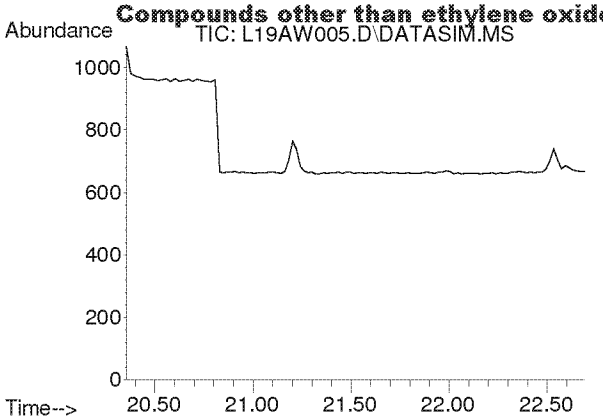
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

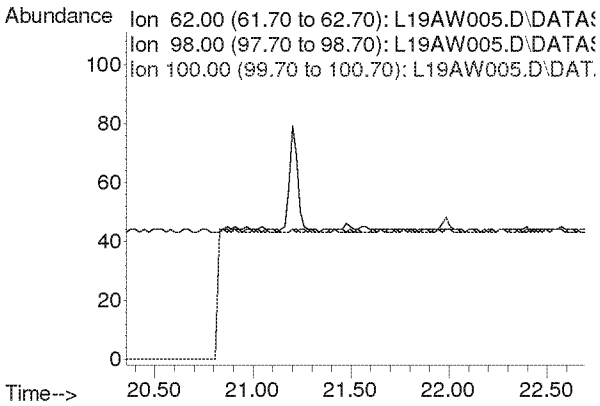


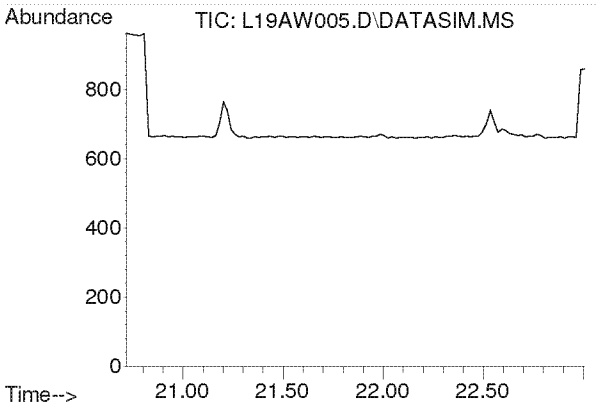
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



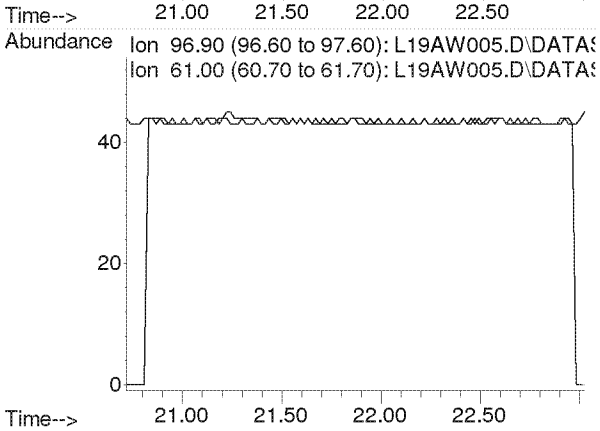


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

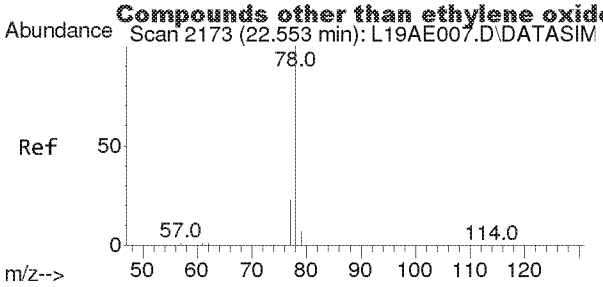
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



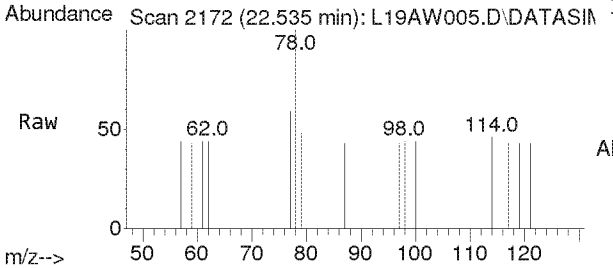
Compounds other than ethylene oxide were not quantitated.

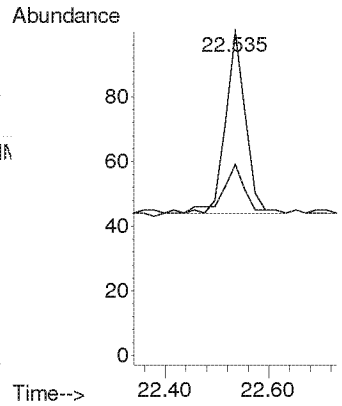


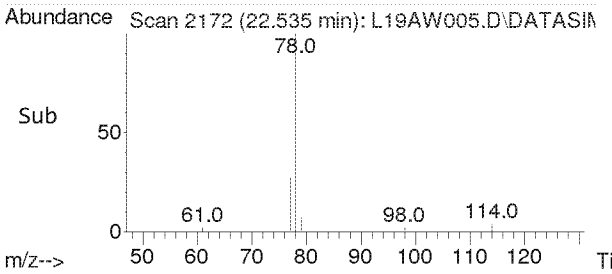
#31
Benzene
Concen: 0.009 ppbv
RT: 22.535 min Scan# 2172
Delta R.T. -0.018 min
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

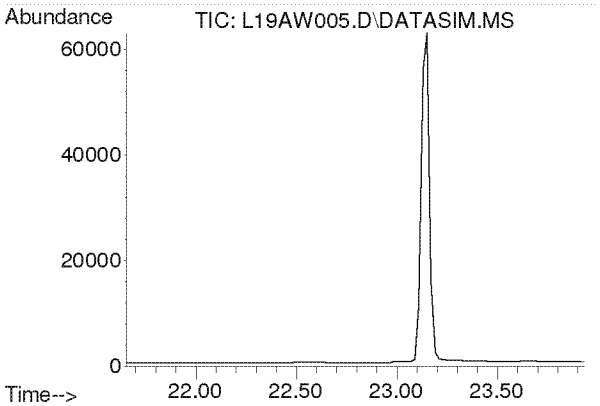
Tgt Ion: 78 Resp: 149

Ion	Ratio	Lower	Upper
78	100		
77	30.9	18.3	27.5#







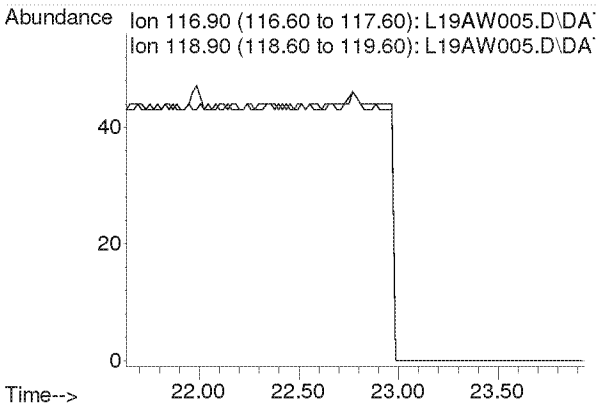


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

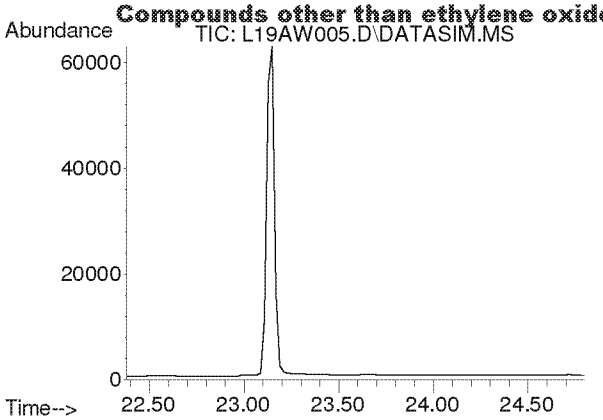
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

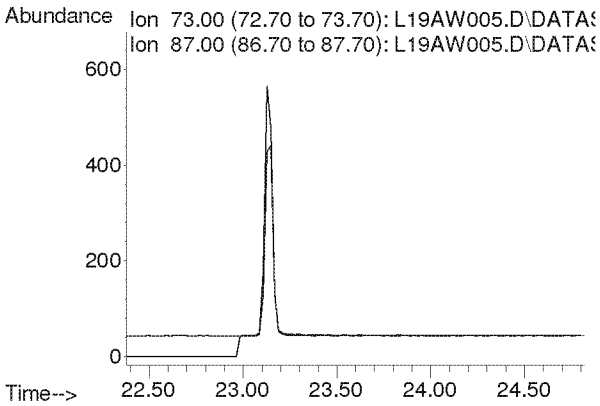


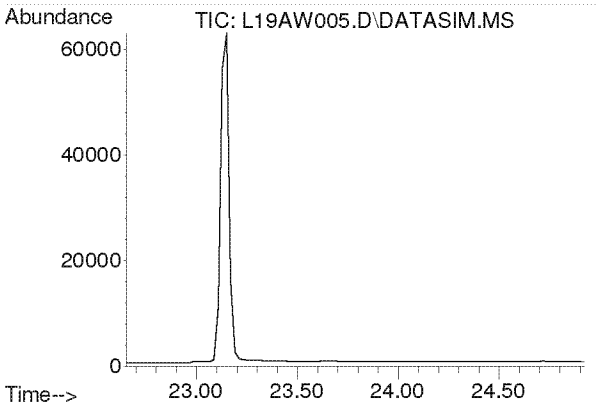
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



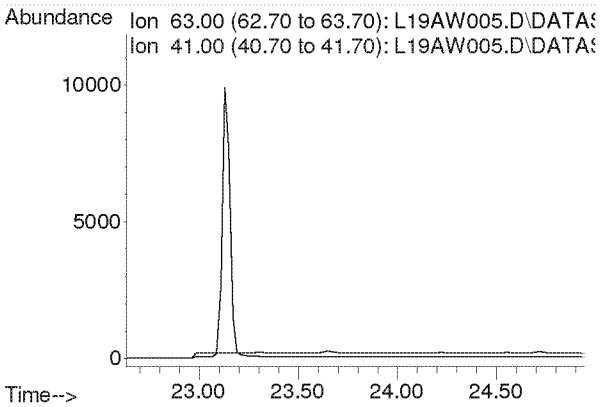


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

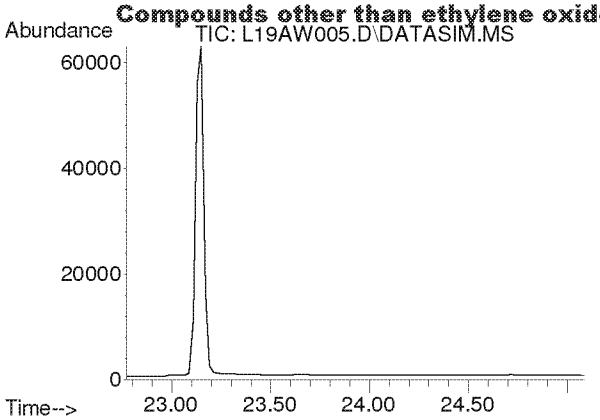
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

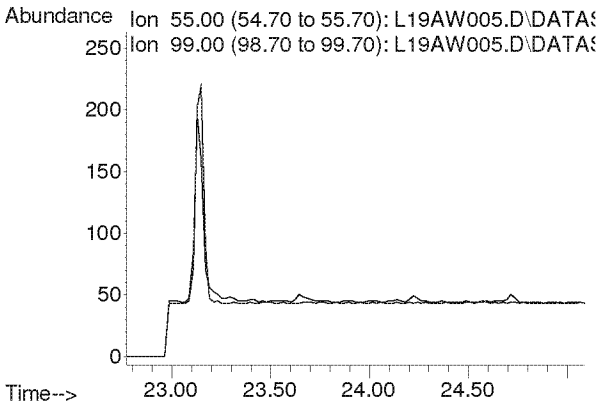


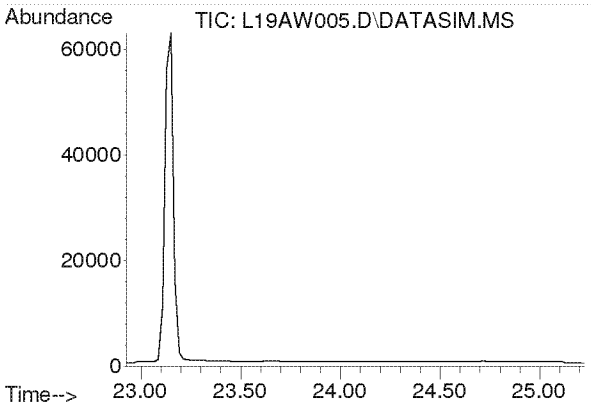
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



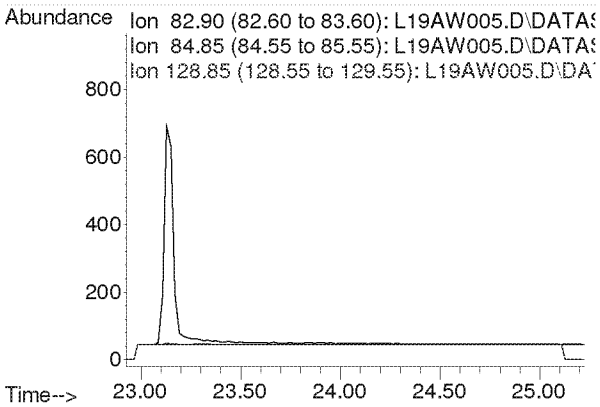


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

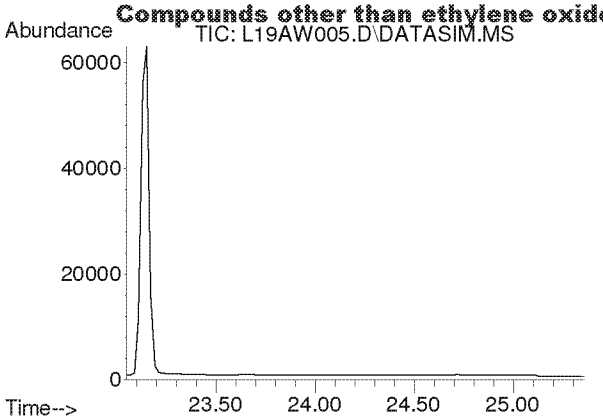
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

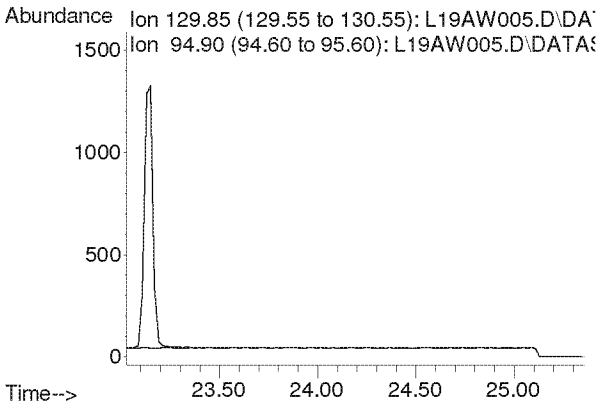


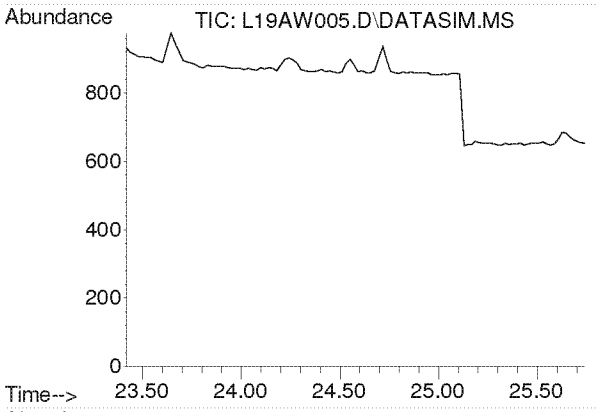
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



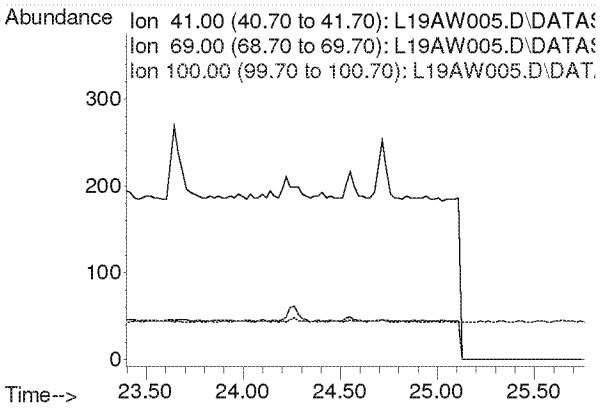


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

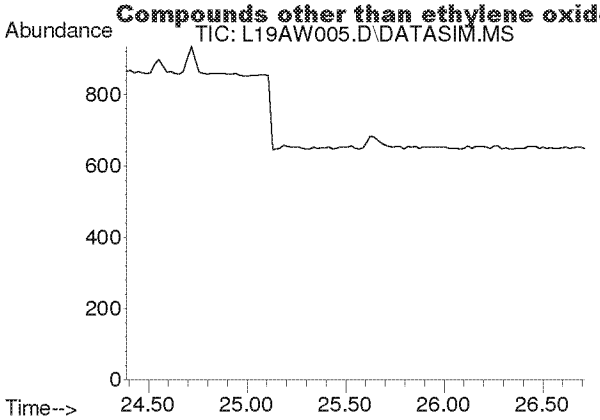
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

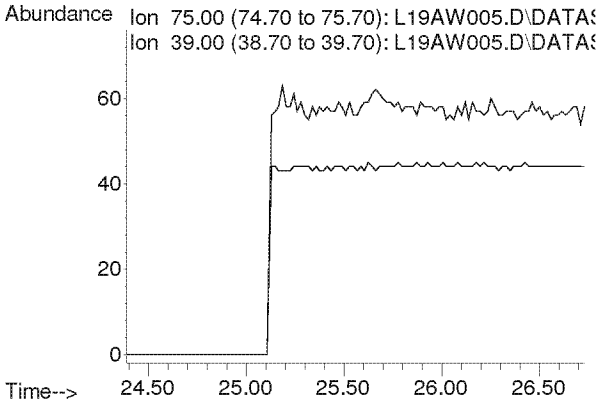


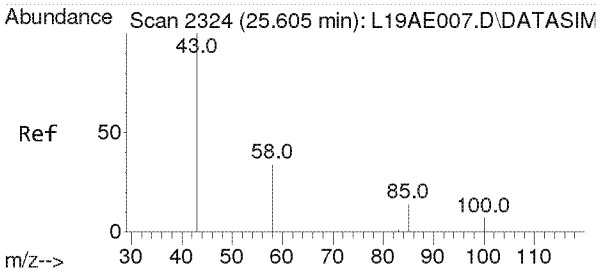
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3

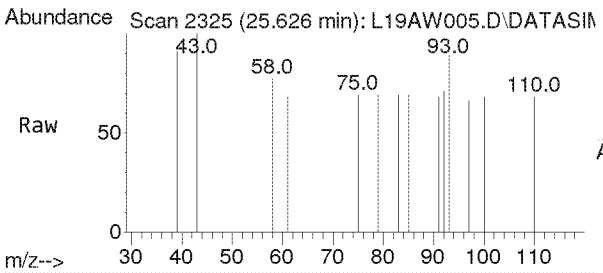


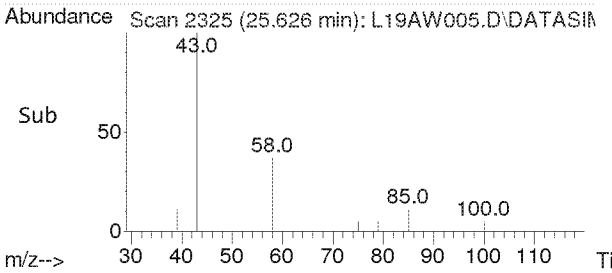


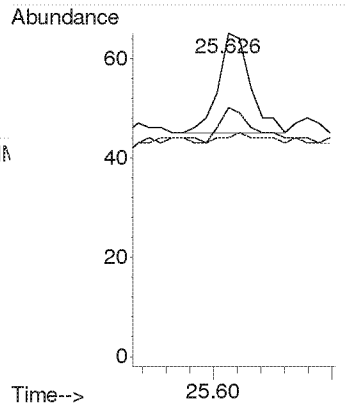
#40
Methyl Isobutyl Ketone
Concen: 0.006 ppbv
RT: 25.626 min Scan# 2325
Delta R.T. 0.021 min
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 43 Resp: 76

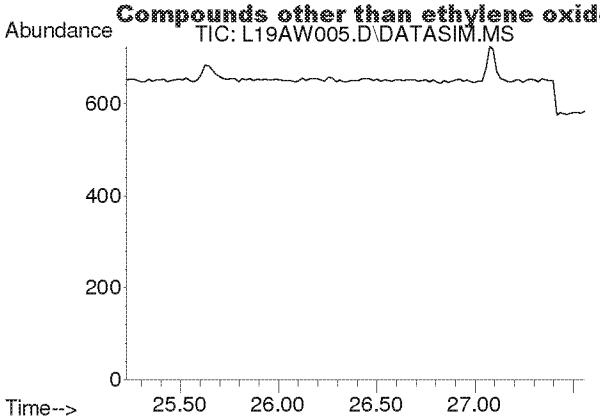
Ion	Ratio	Lower	Upper
43	100		
58	0.0	27.6	41.4#
100	0.0	6.5	9.7#







Compounds other than ethylene oxide were not quantitated.

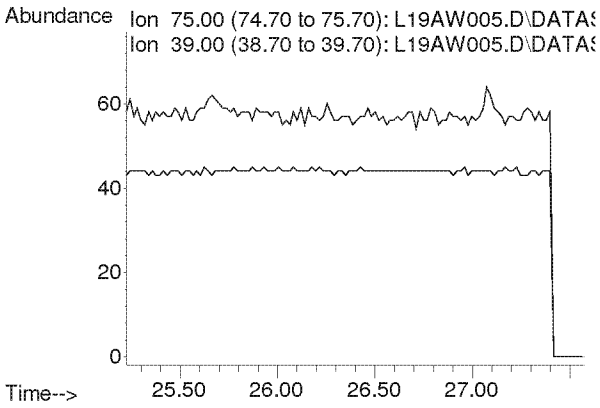


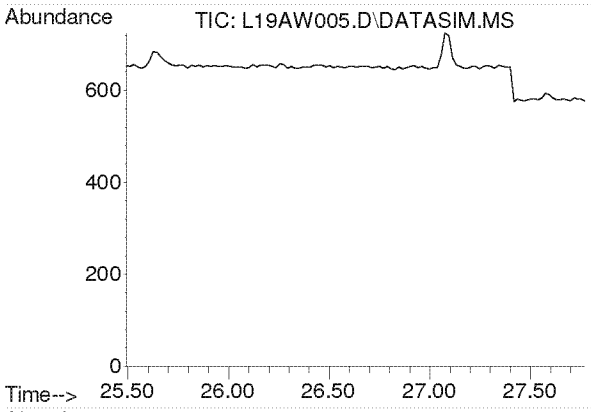
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



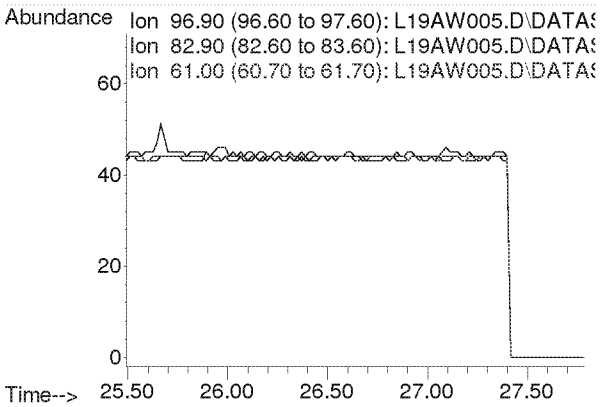


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

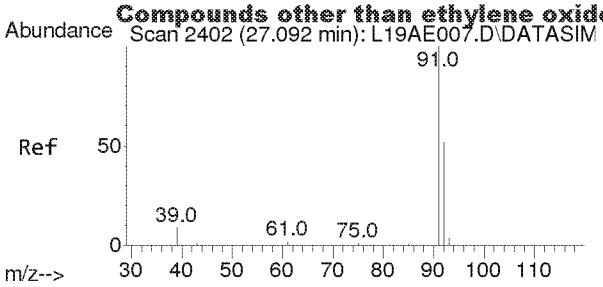
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



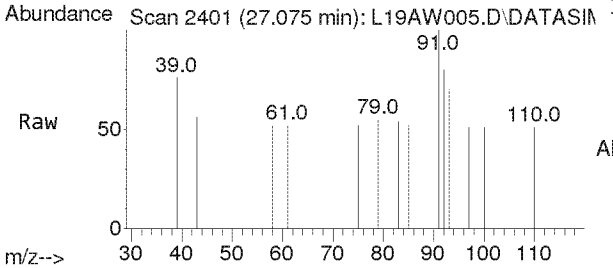
Compounds other than ethylene oxide were not quantitated.

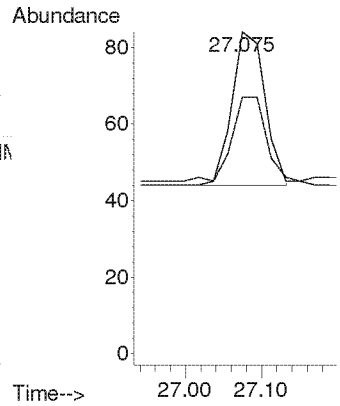


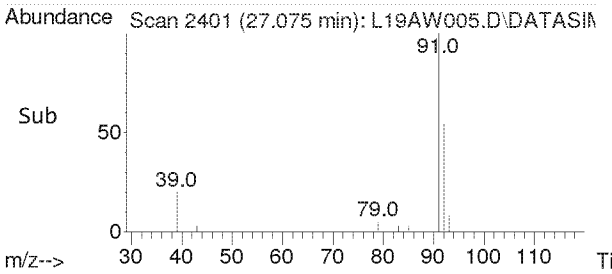
#44
Toluene
Concen: 0.007 ppbv
RT: 27.075 min Scan# 2401
Delta R.T. -0.017 min
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

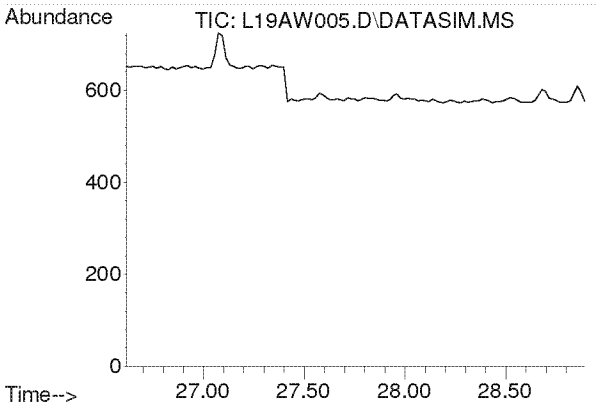
Tgt Ion: 91 Resp: 120

Ion	Ratio	Lower	Upper
91	100		
92	56.7	42.0	63.0







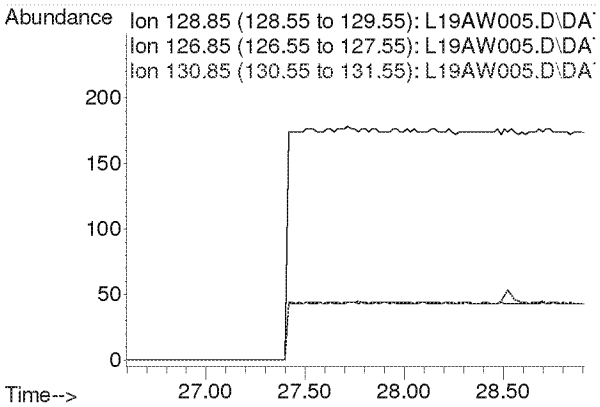


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

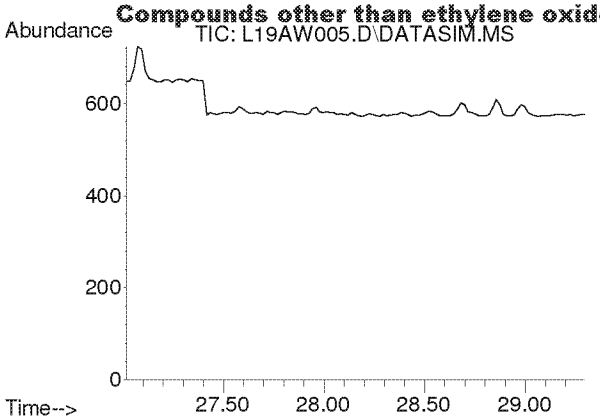
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

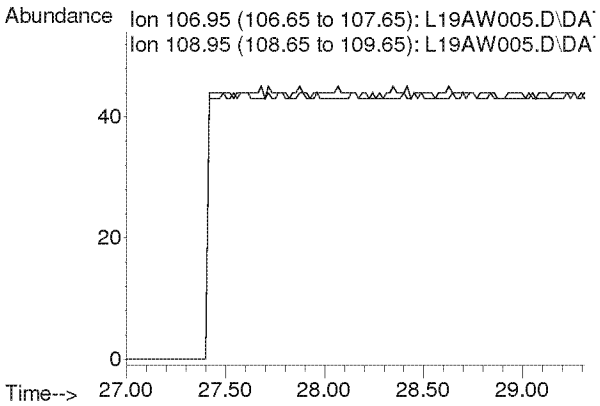


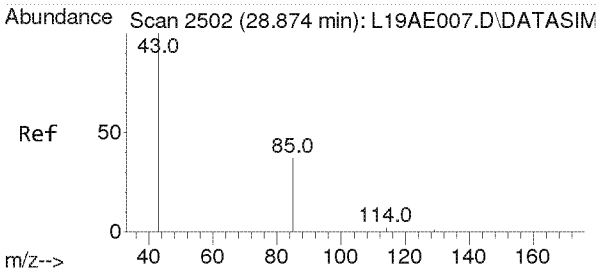
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3

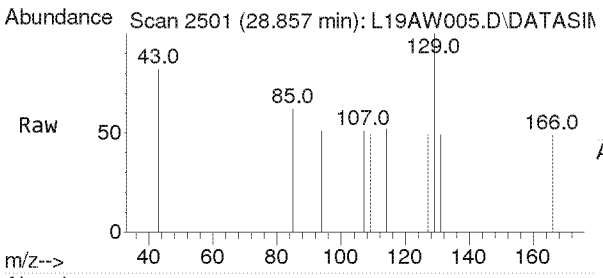


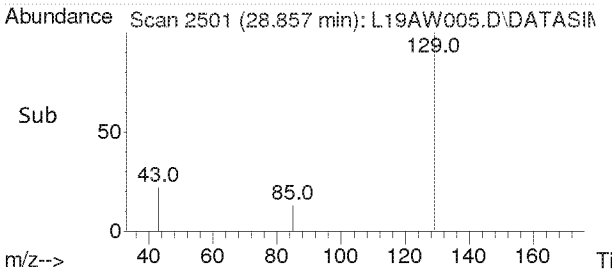


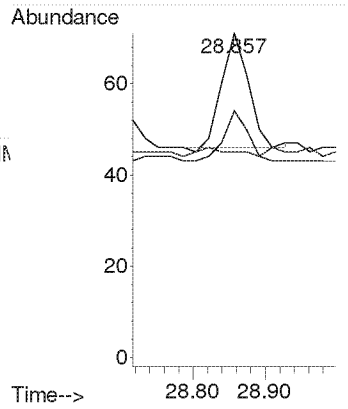
#47
n-Octane
Concen: 0.006 ppbv
RT: 28.857 min Scan# 2501
Delta R.T. -0.017 min
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 43 Resp: 64

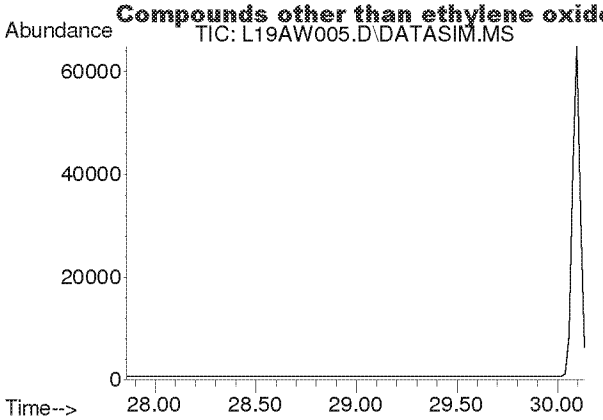
Ion	Ratio	Lower	Upper
43	100		
85	0.0	29.3	43.9#
114	0.0	1.8	2.8#







Compounds other than ethylene oxide were not quantitated.

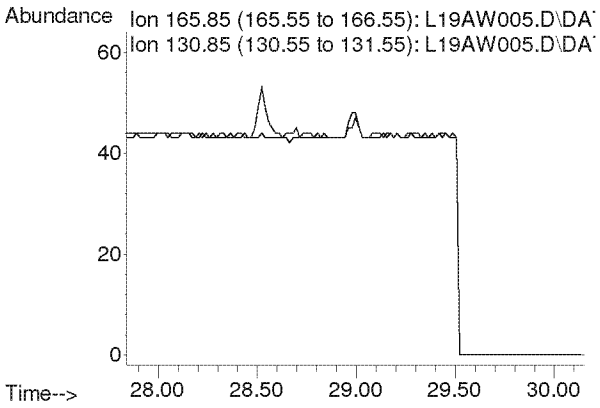


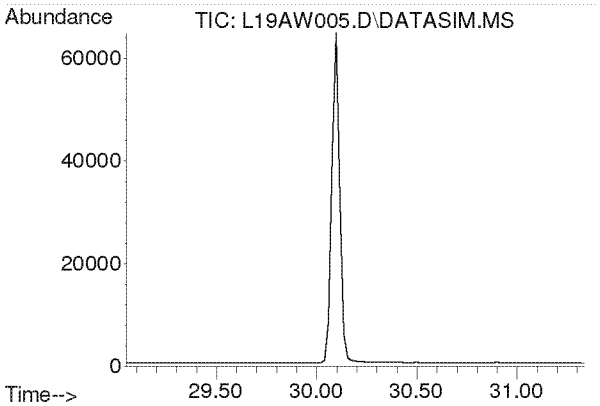
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



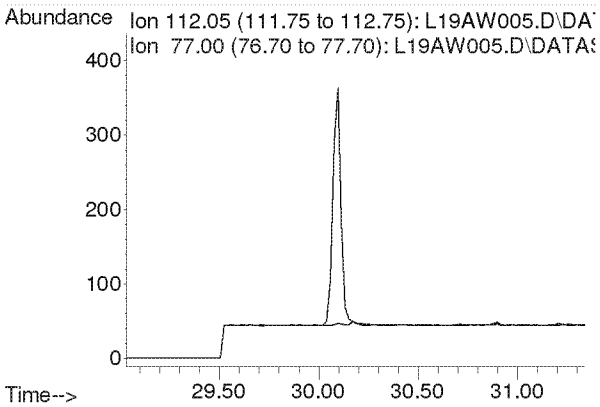


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

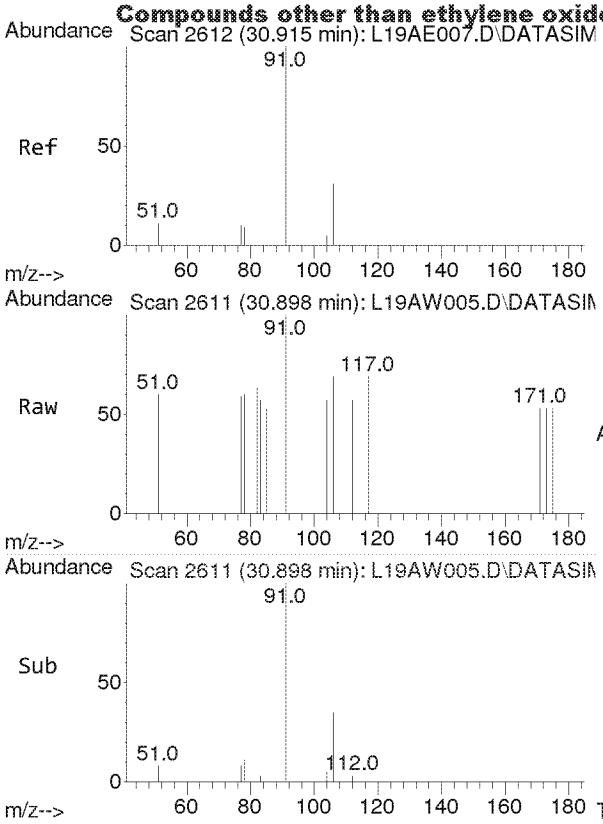
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



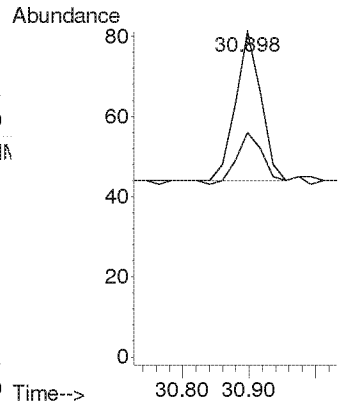
Compounds other than ethylene oxide were not quantitated.

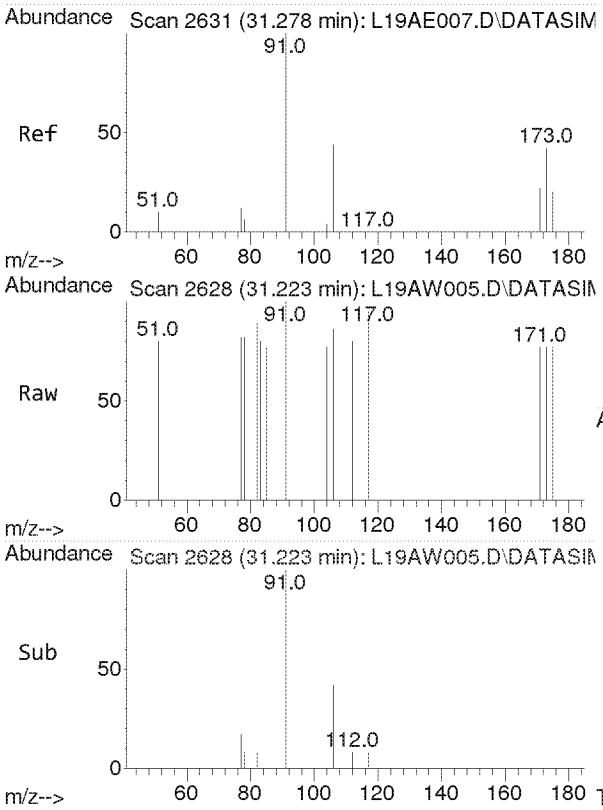


#50
Ethylbenzene
Concen: 0.005 ppbv
RT: 30.898 min Scan# 2611
Delta R.T. -0.017 min
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 91 Resp: 99

Ion	Ratio	Lower	Upper
91	100		
106	0.0	25.4	38.0#

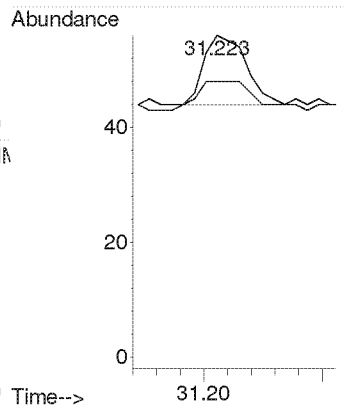




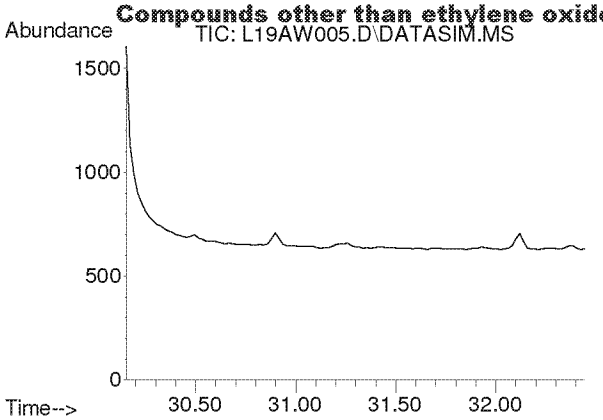
#51
m,p-Xylene
Concen: 0.004 ppbv
RT: 31.223 min Scan# 2628
Delta R.T. -0.055 min
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 91 Resp: 60

Ion	Ratio	Lower	Upper
91	100		
106	0.0	35.7	53.5#



Compounds other than ethylene oxide were not quantitated.

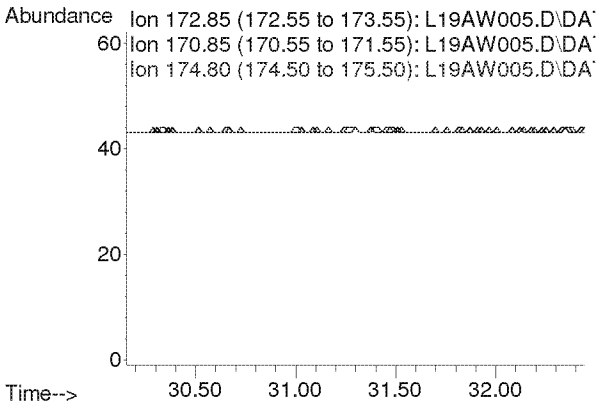


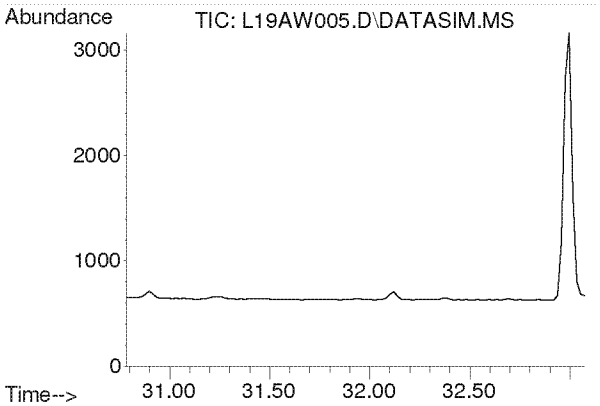
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



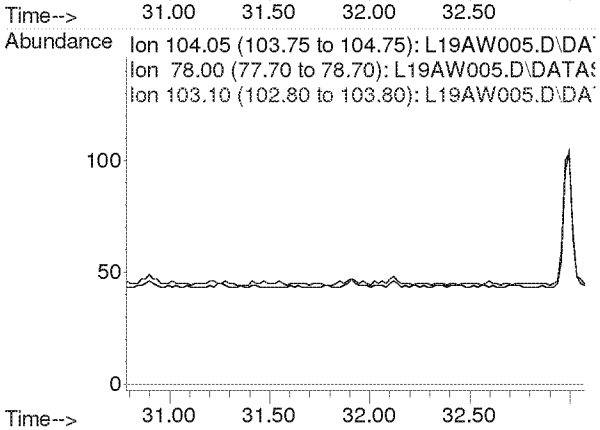


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

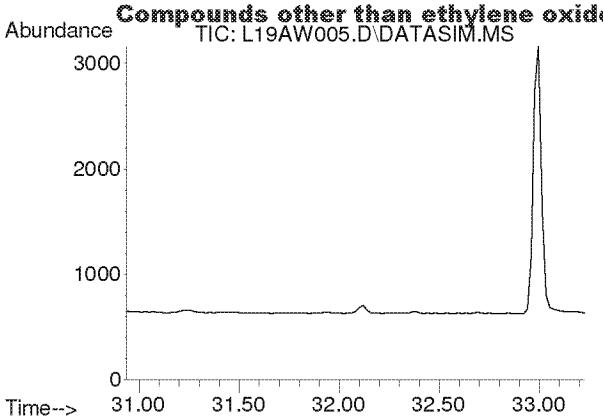
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

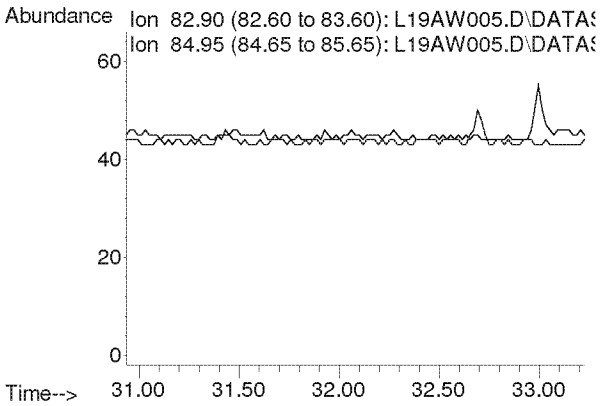


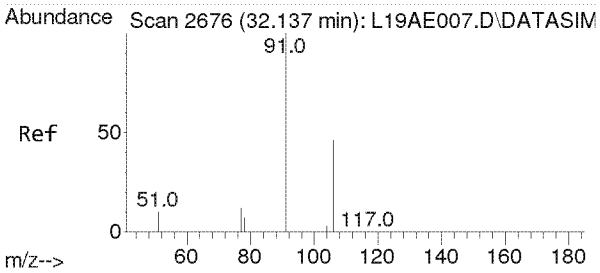
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0

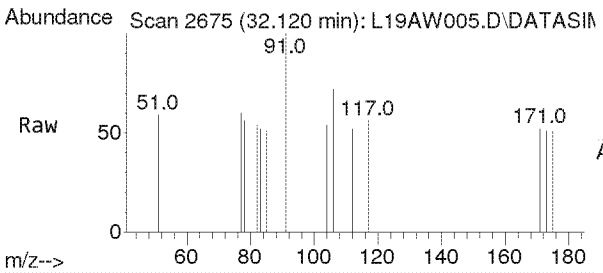


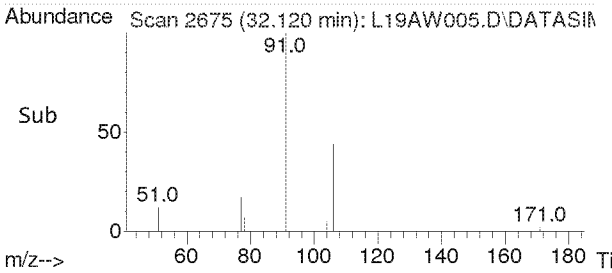


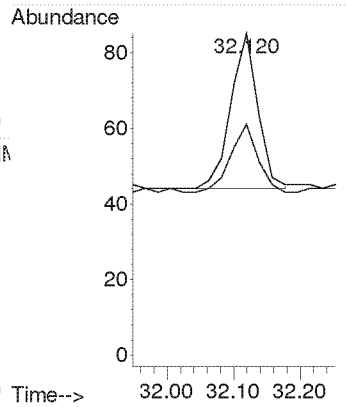
#55
o-Xylene
Concen: 0.008 ppbv
RT: 32.120 min Scan# 2675
Delta R.T. -0.017 min
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 91 Resp: 117

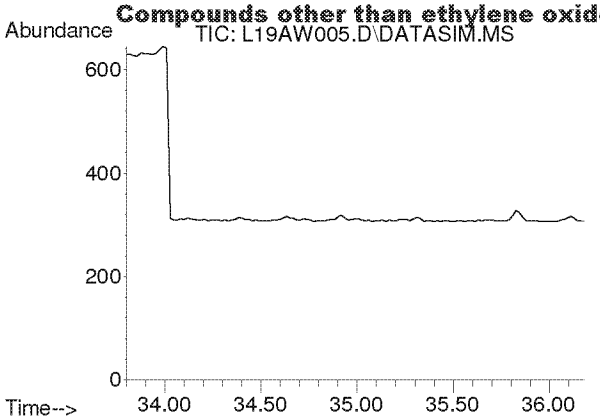
Ion	Ratio	Lower	Upper
91	100		
106	44.4	35.8	53.8







Compounds other than ethylene oxide were not quantitated.

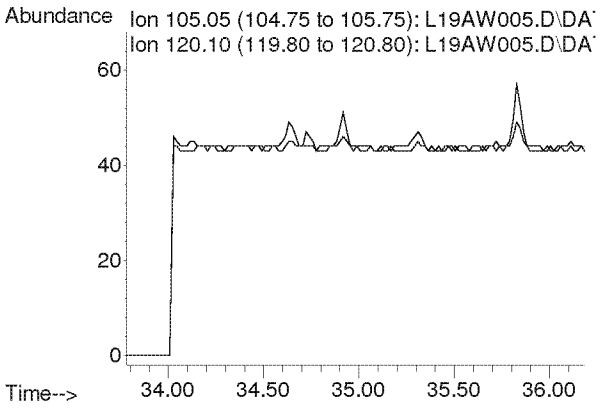


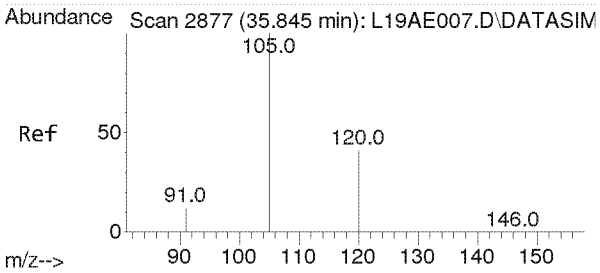
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0

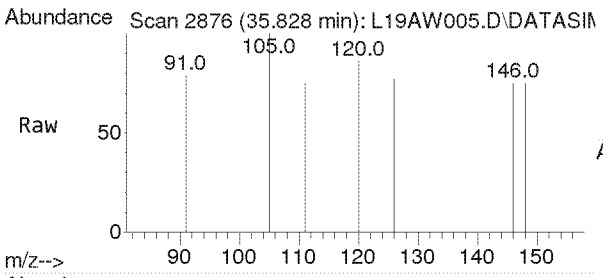


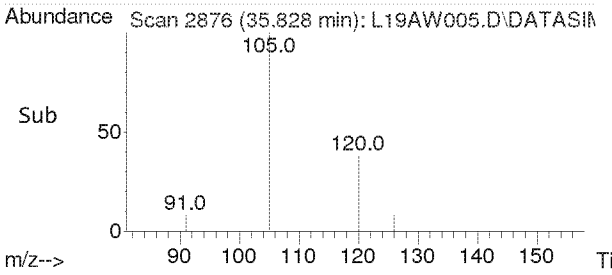


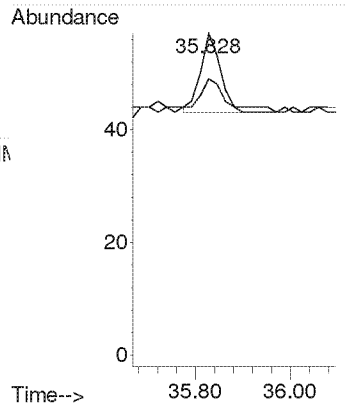
#57
1,2,4-Trimethylbenzene
Concen: 0.003 ppbv
RT: 35.828 min Scan# 2876
Delta R.T. -0.017 min
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion:105 Resp: 45

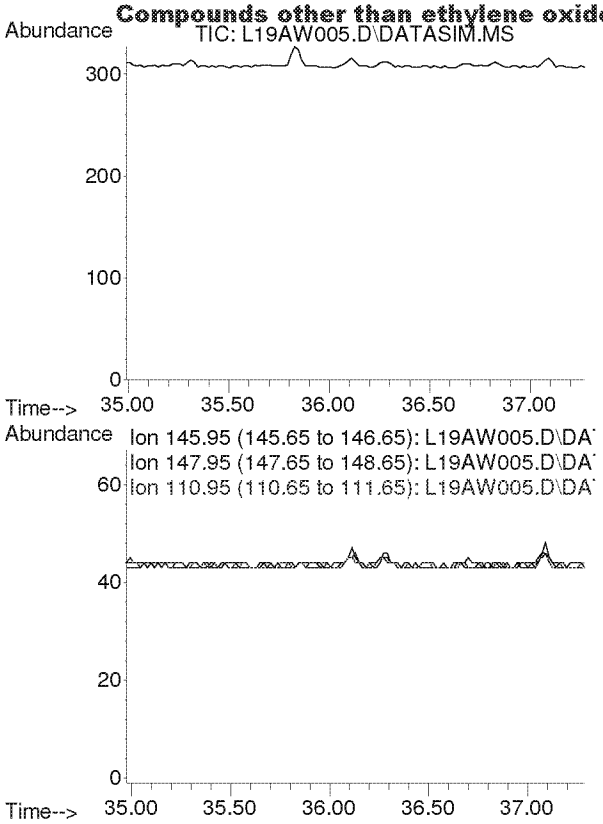
Ion	Ratio	Lower	Upper
105	100		
120	0.0	34.3	51.5#







Compounds other than ethylene oxide were not quantitated.

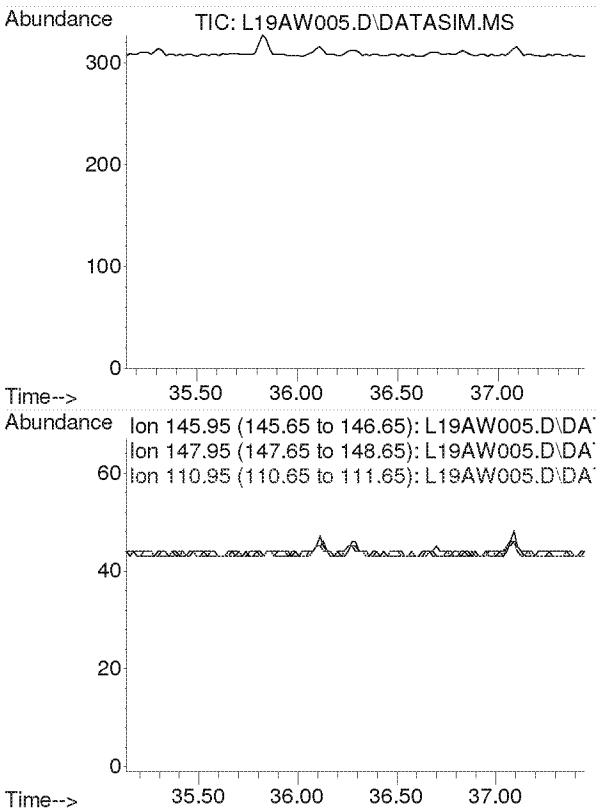


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



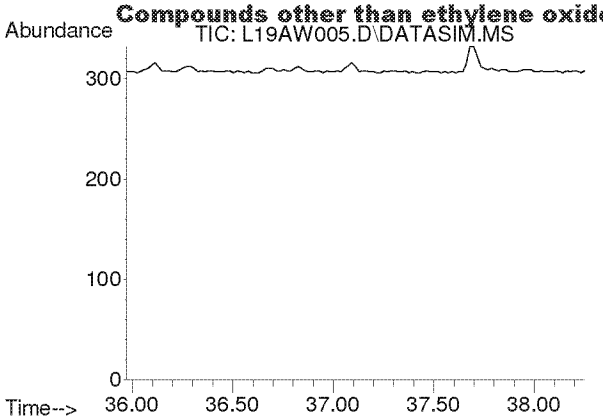
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3

Compounds other than ethylene oxide were not quantitated.

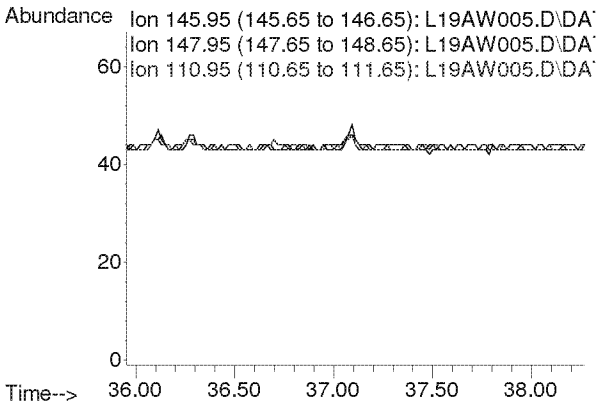


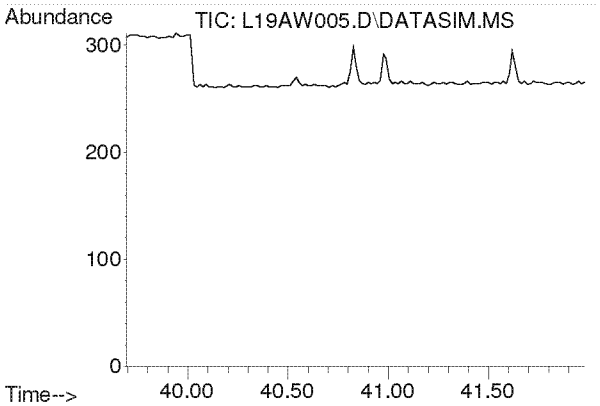
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



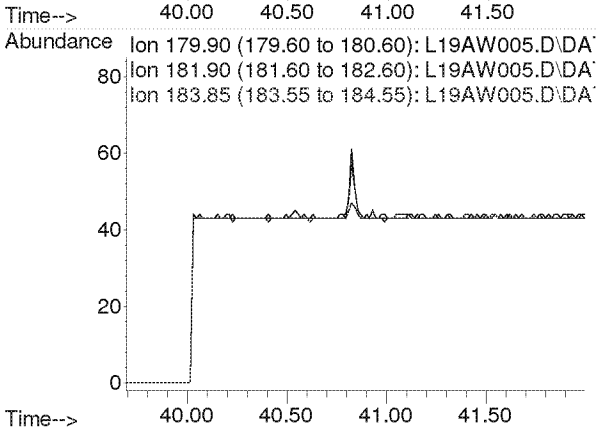


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

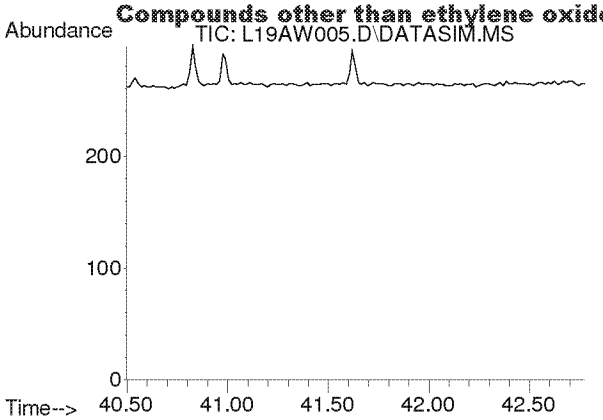
Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.

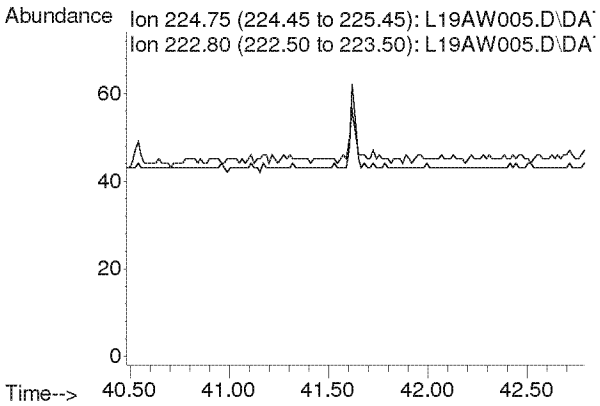


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AW005.D
Acq: 23 Jan 2019 12:41 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		L19AW006.D	L19AW007.D		
Analyst		MAH	MAH		
Method		9010002.M	9010002.M		
Sample ID		9011701-08	9011701-09		
Mics Comments		EPA WB WAREHC	EPA WB WAREHOUSE C2 1/16/19		
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	7.861	7.915	0.68	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	

1-29-19

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		L19AW006.D	L19AW008.D		
Analyst		MAH	MAH		
Method		9010002.M	9010002.M		
Sample ID		9011701-08	B9A2306-DUP1		
Mics Comments		EPA WB WARE	EPA WB WAREHOUSE R1 1/16/19		
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**	7.861	8.021	2.01	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		L19AW007.D	L19AW009.D		
Analyst		MAH	MAH		
Method		9010002.M	9010002.M		
Sample ID		9011701-09	B9A2306-DUP2		
Mics Comments		EPA WB WARE	EPA WB WAREHOUSE R2 1/16/19		
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**	7.915	7.725	2.43	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\L19AW\
Data File : L19AW006.D
Acq On : 23 Jan 2019 2:30 pm
Operator : MAH
Sample : 9011701-08
Misc : EPA WB WAREHOUSE C1 1/16/19
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 29 08:21:30 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	59185	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.150	114	144300	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	110150	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	12.350	29	24030	7.8608 ppbv	88
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.	
35) Ethyl Acrylate	0.000	55	0	N.D. 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\L19AW\
Data File : L19AW006.D
Acq On : 23 Jan 2019 2:30 pm
Operator : MAH
Sample : 9011701-08
Misc : EPA WB WAREHOUSE C1 1/16/19
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 29 08:21:30 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
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.	

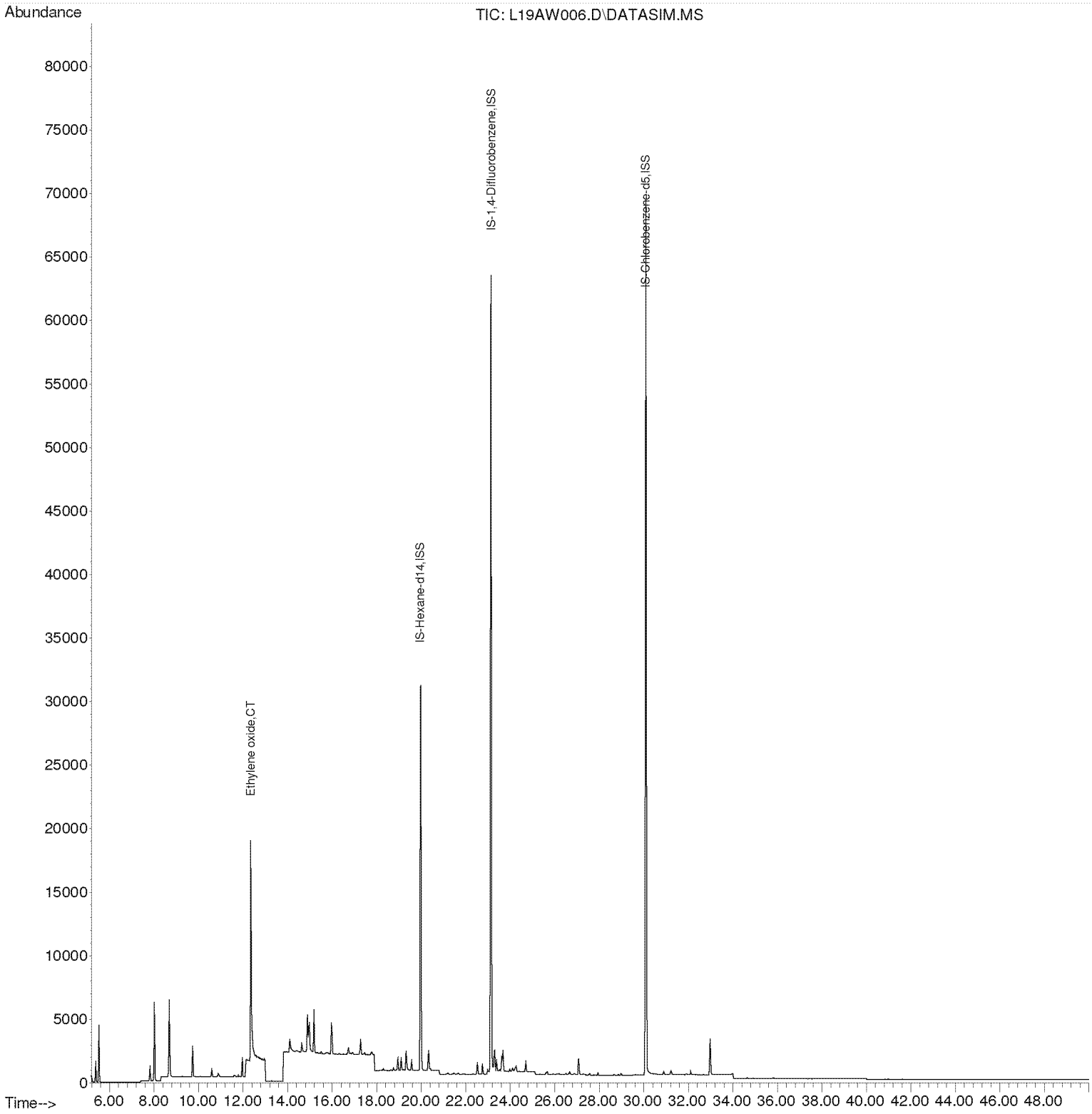
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000318-00085

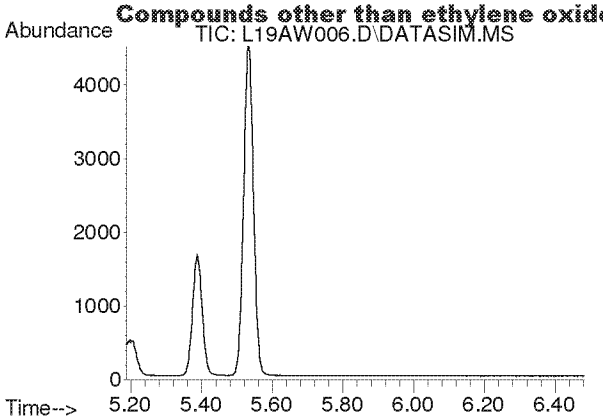
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW006.D
Acq On : 23 Jan 2019 2:30 pm
Operator : MAH
Sample : 9011701-08
Misc : EPA WB WAREHOUSE C1 1/16/19
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jan 29 08:05:51 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



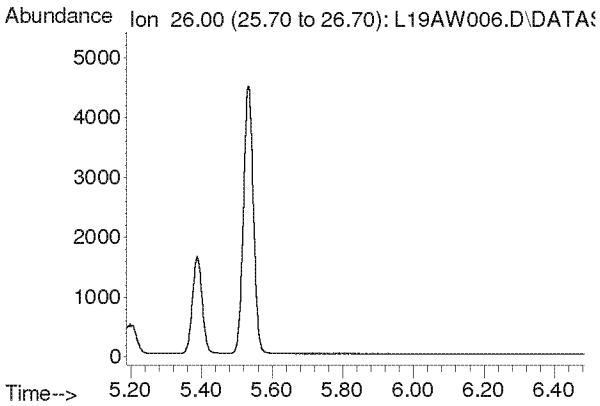
Compounds other than ethylene oxide were not quantitated.

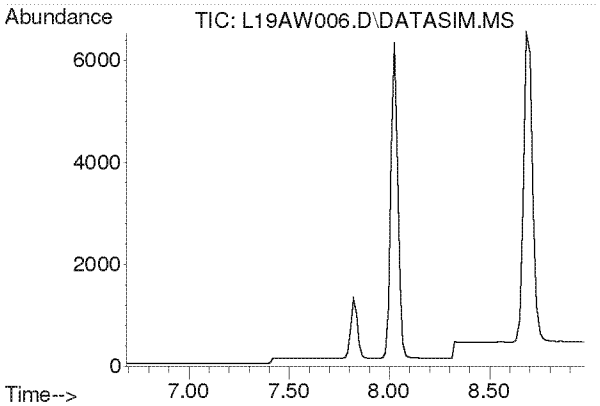


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 26



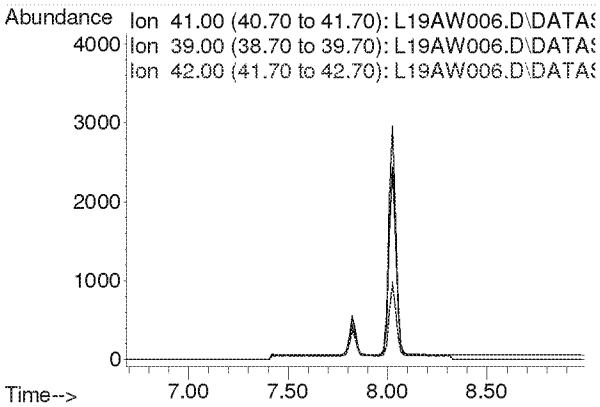


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

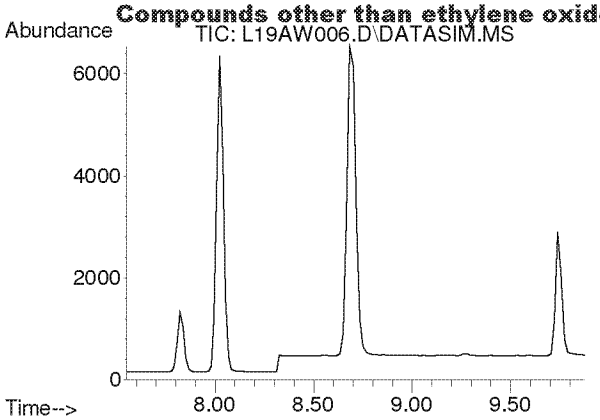
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

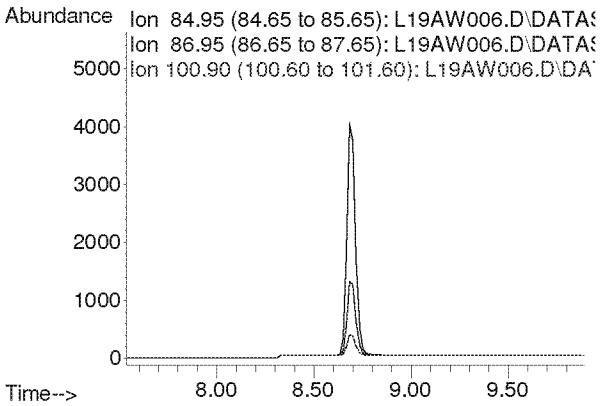


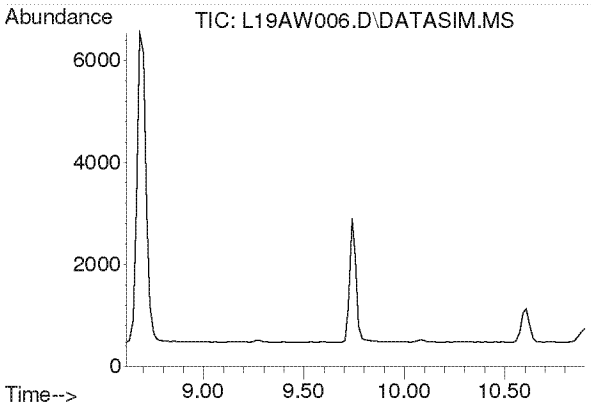
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



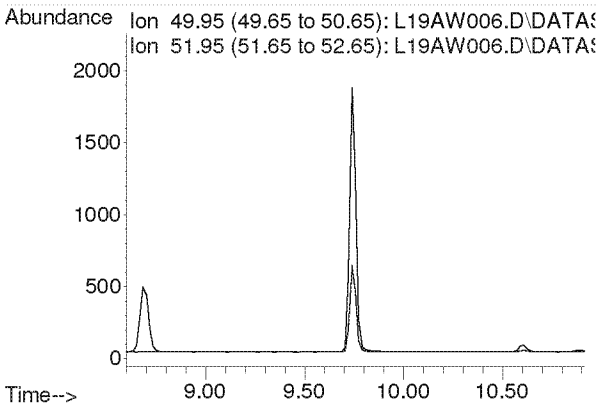


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

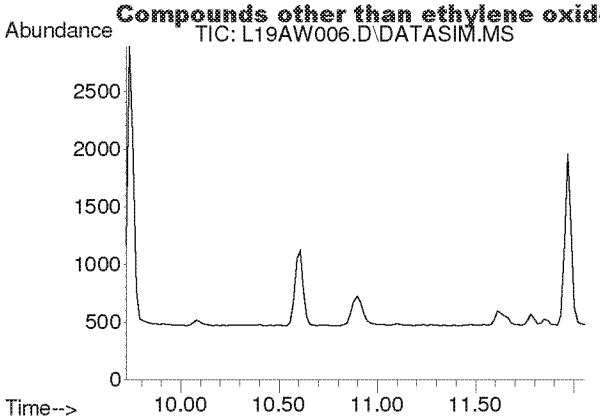
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

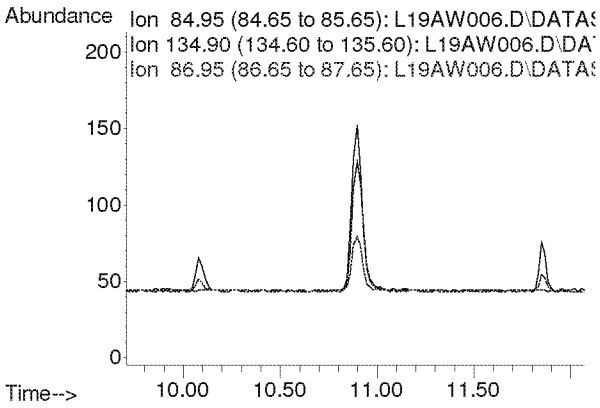


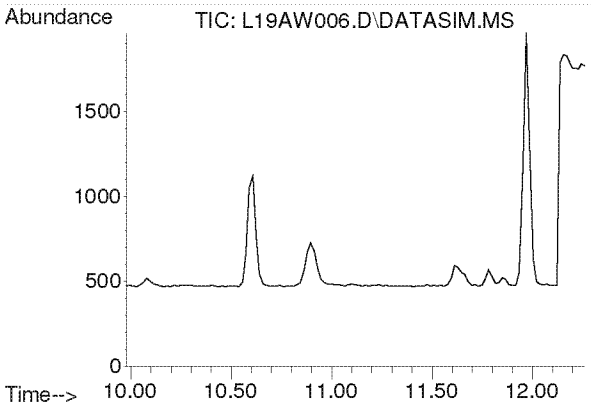
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



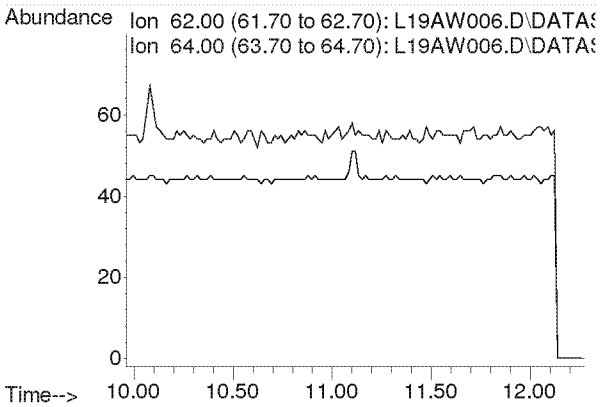


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

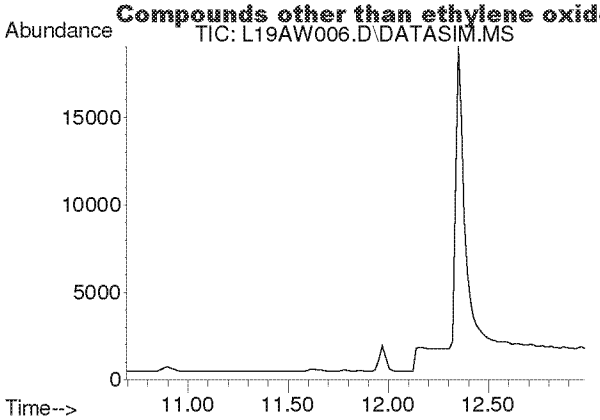
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

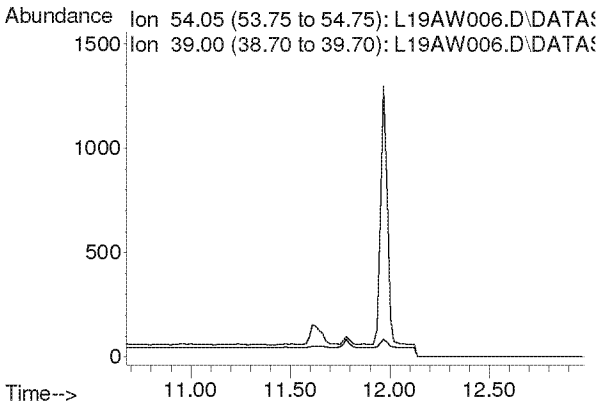


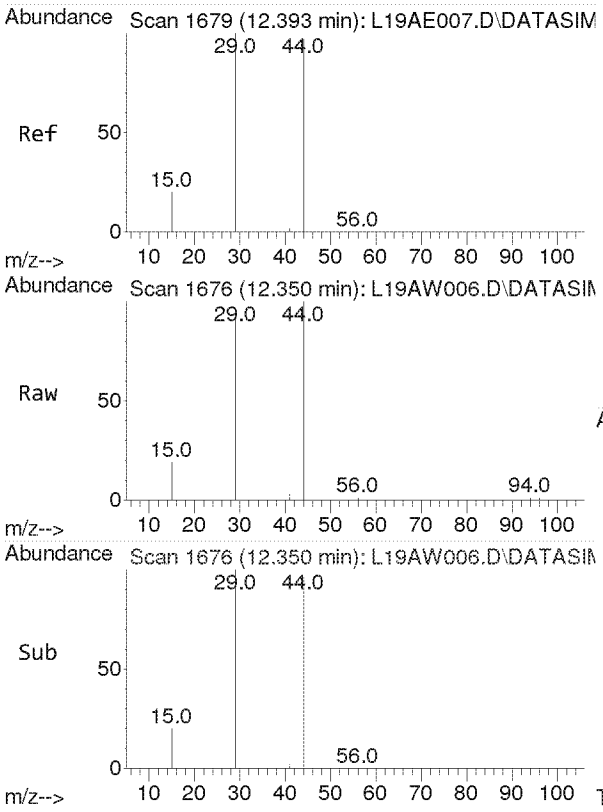
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

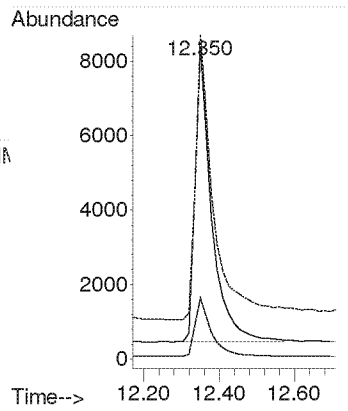




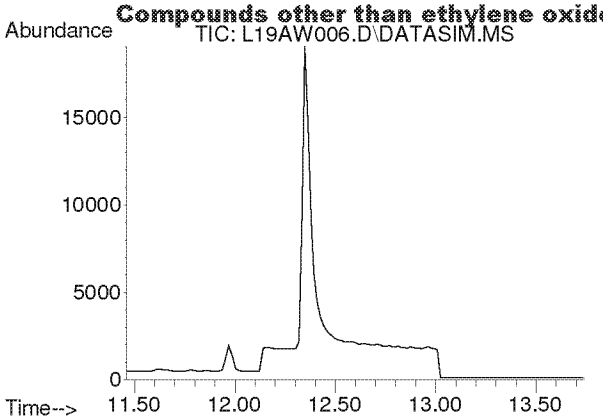
#9
Ethylene oxide
Concen: 7.861 ppbv
RT: 12.350 min Scan# 1676
Delta R.T. -0.043 min
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 29 Resp: 24030

Ion	Ratio	Lower	Upper
29	100		
15	19.8	15.4	23.0
44	110.2	77.4	116.2



Compounds other than ethylene oxide were not quantitated.

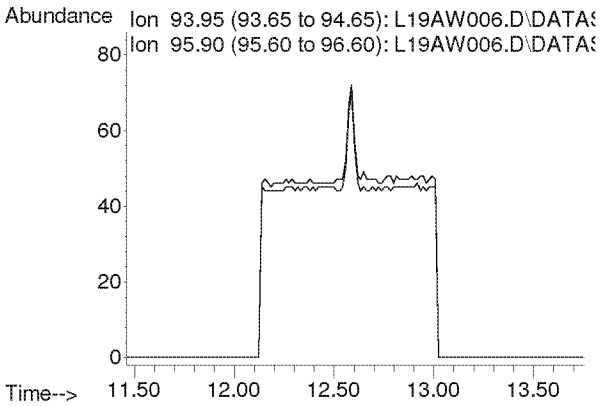


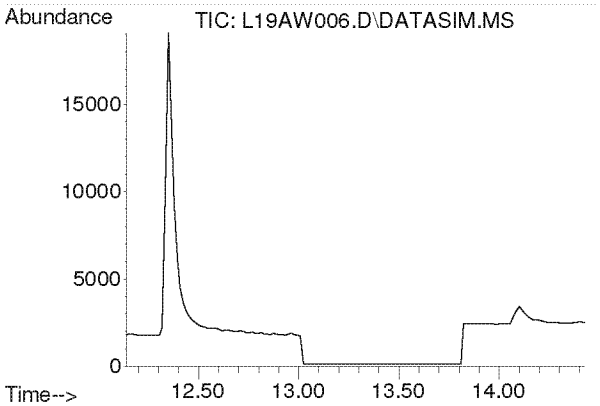
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



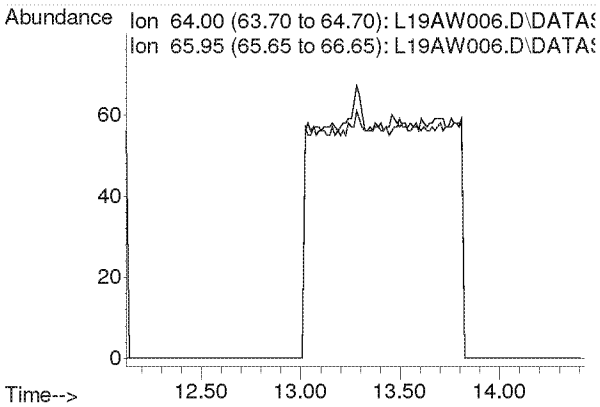


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

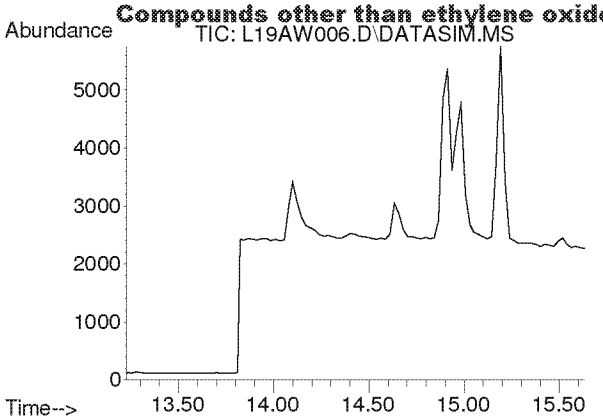
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

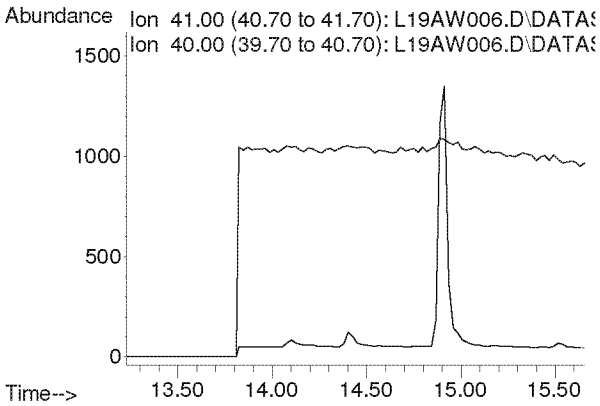


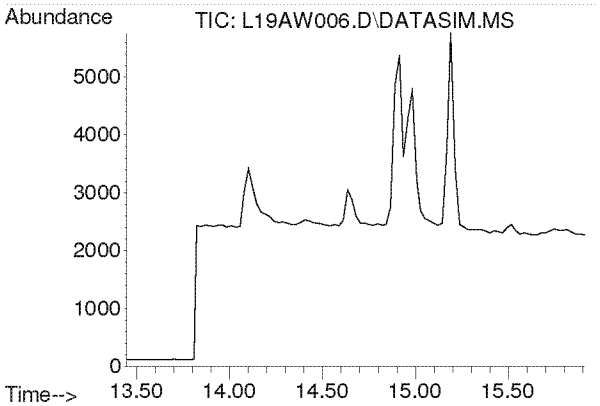
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



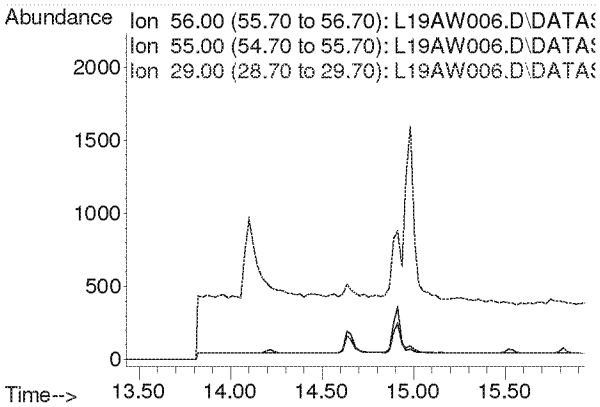


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

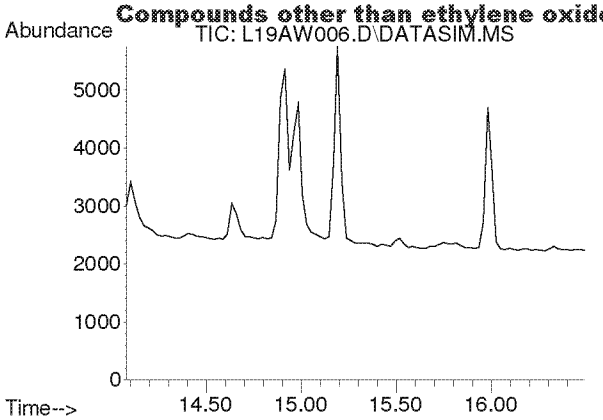
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

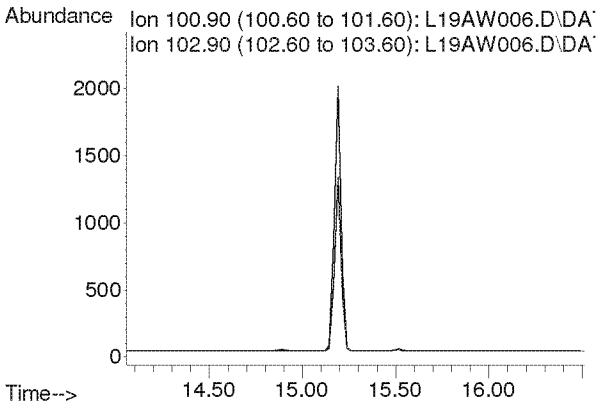


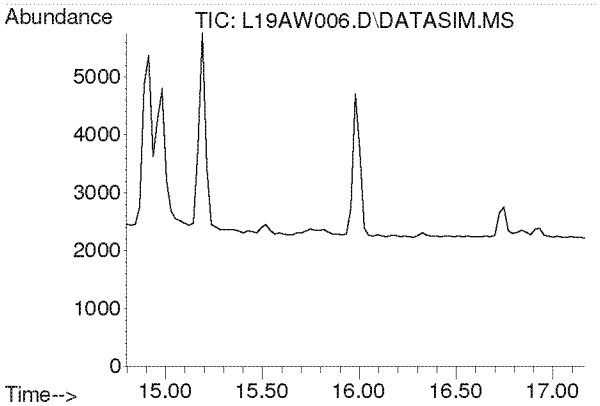
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



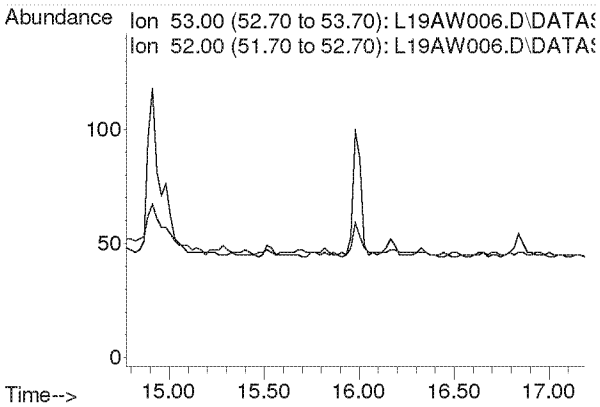


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

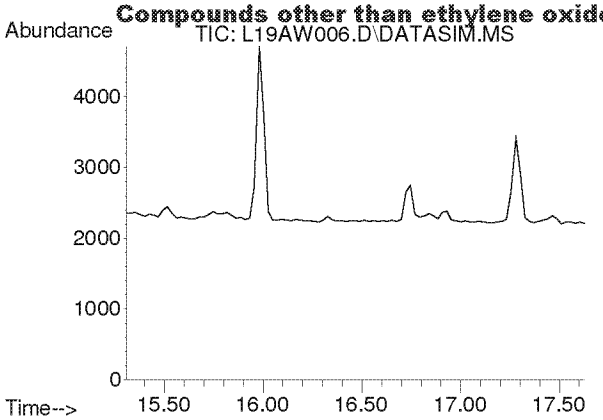
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

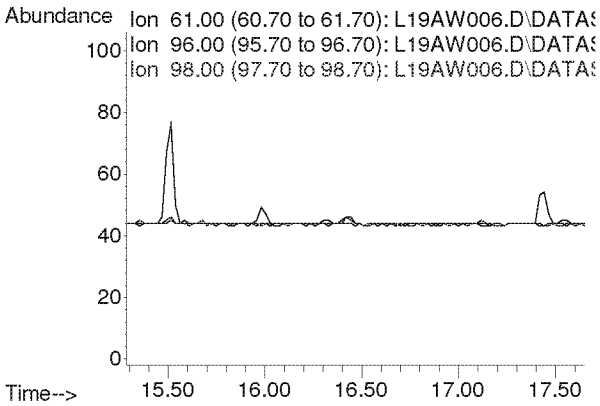


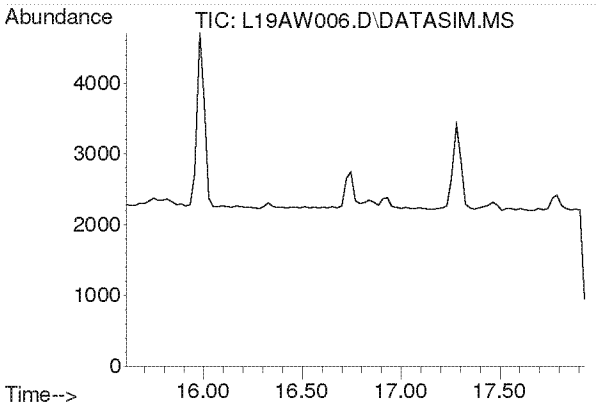
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



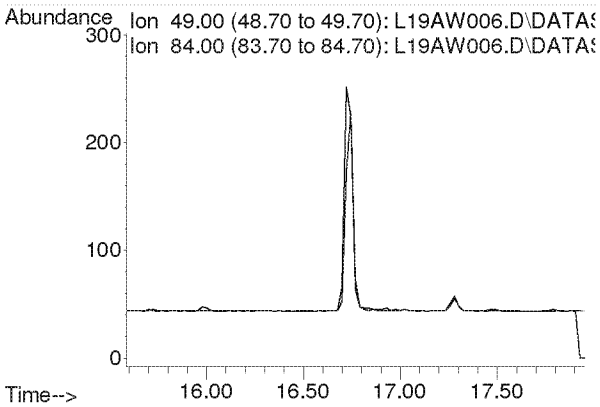


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

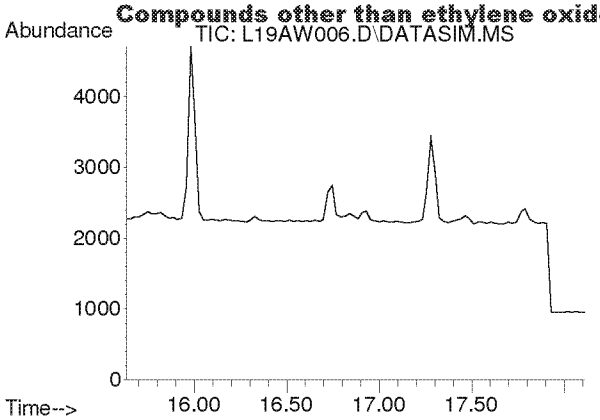
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

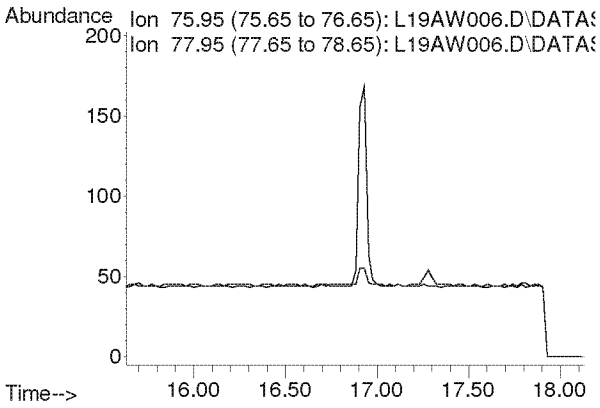


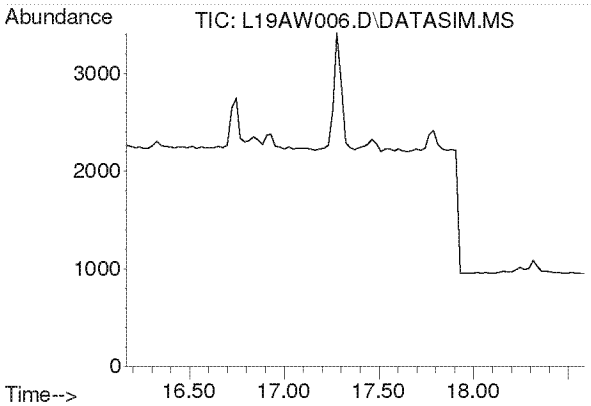
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



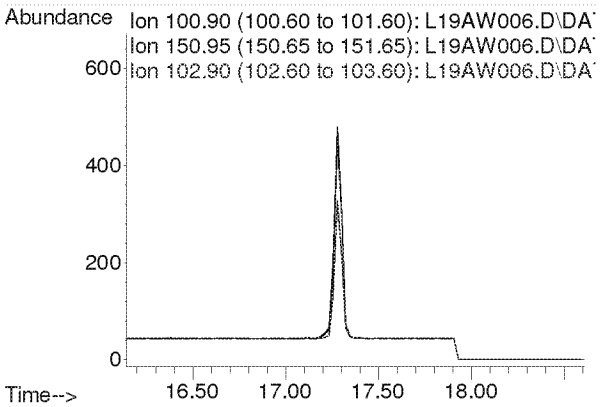


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

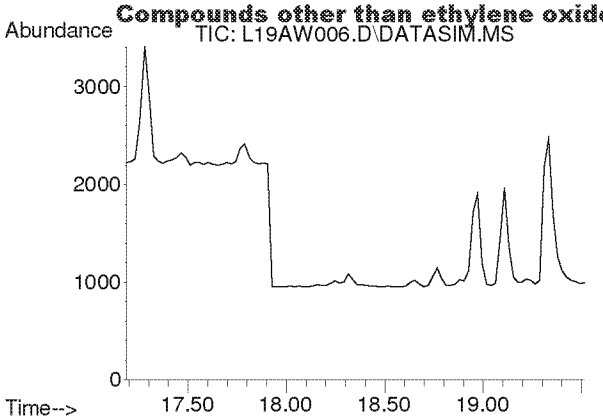
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

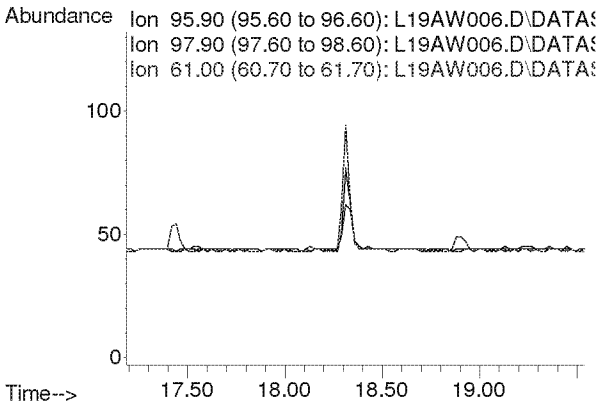


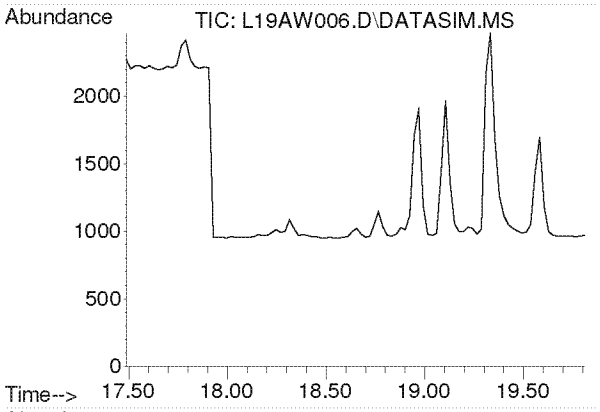
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



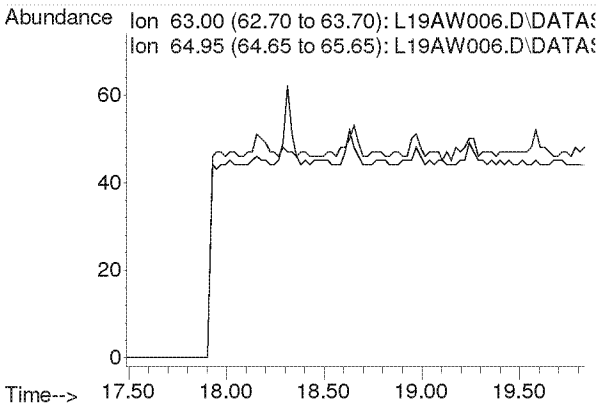


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

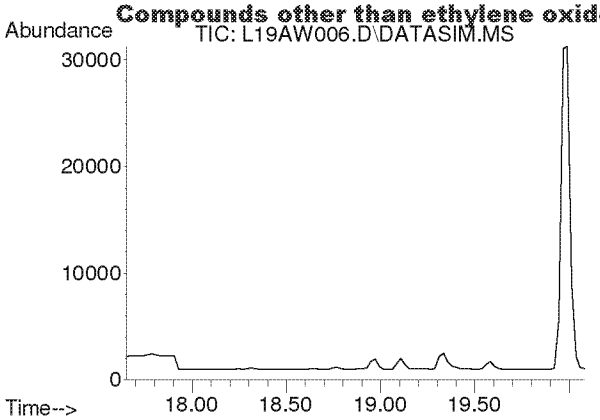
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

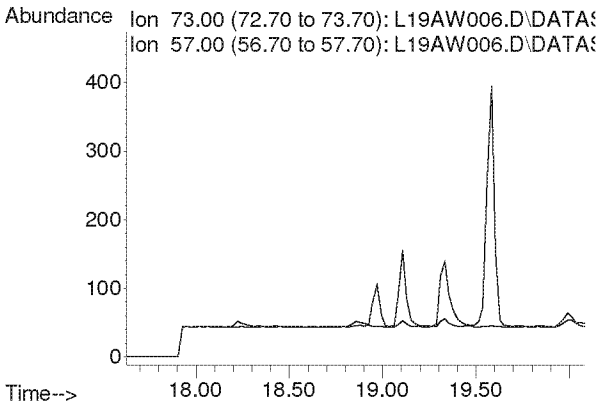


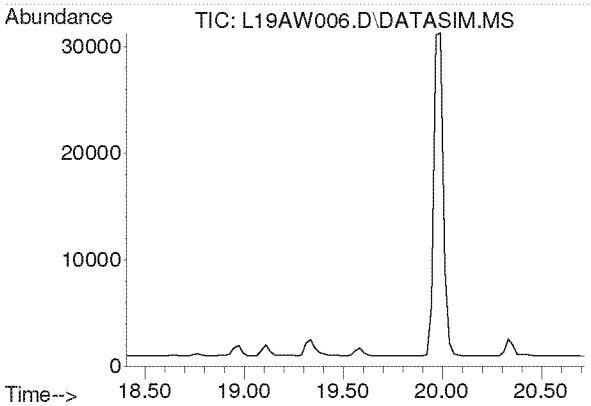
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



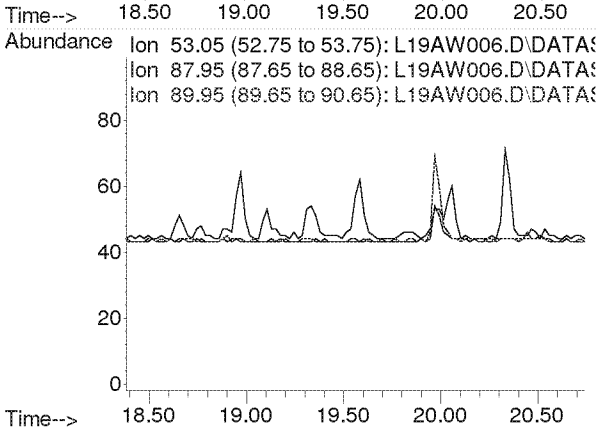


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

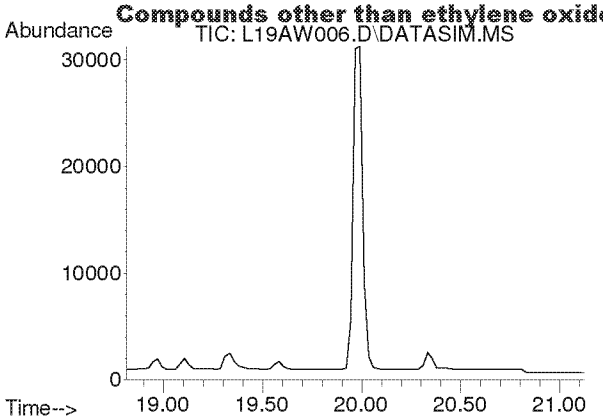
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

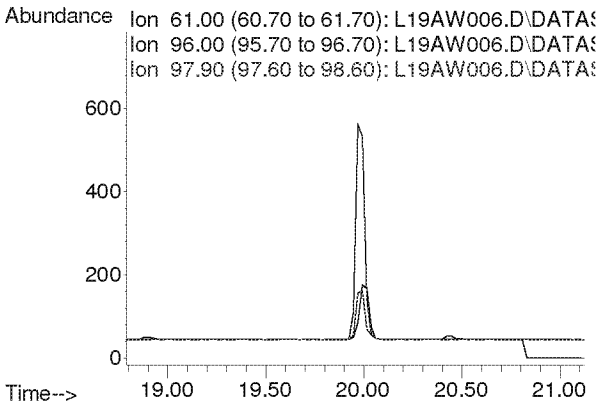


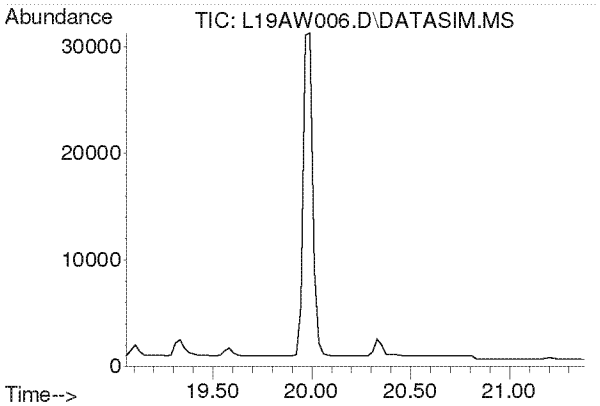
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



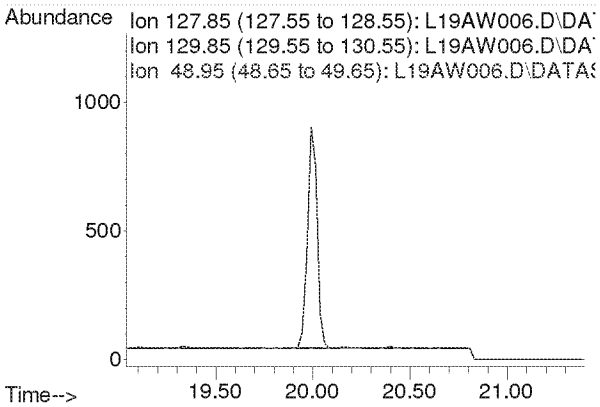


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

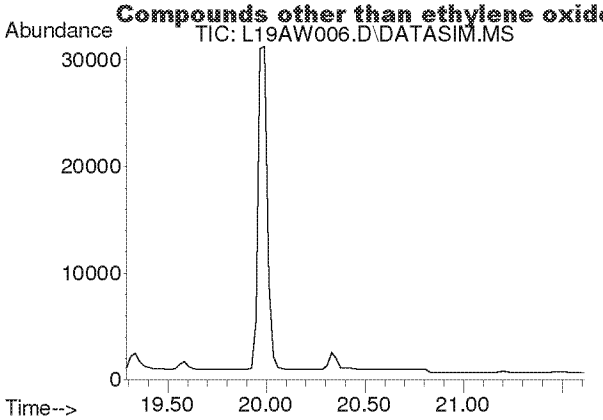
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

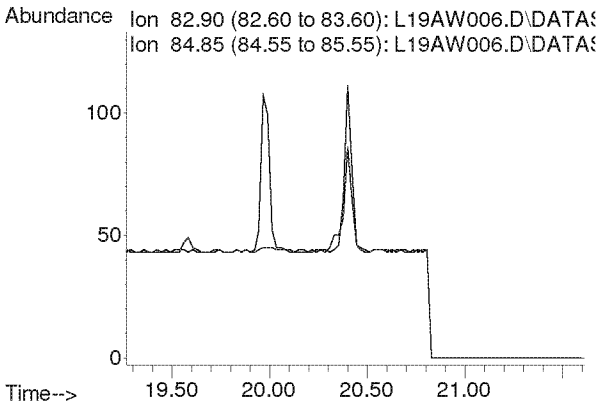


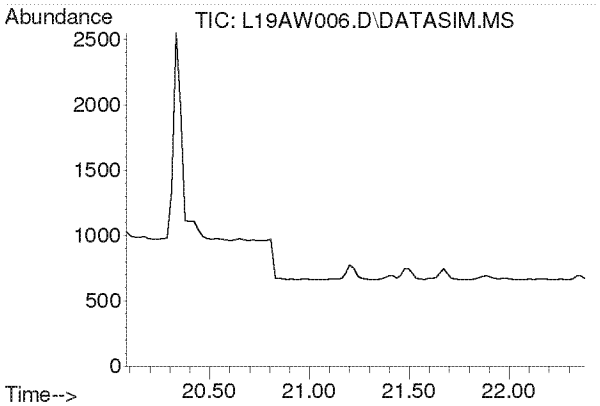
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



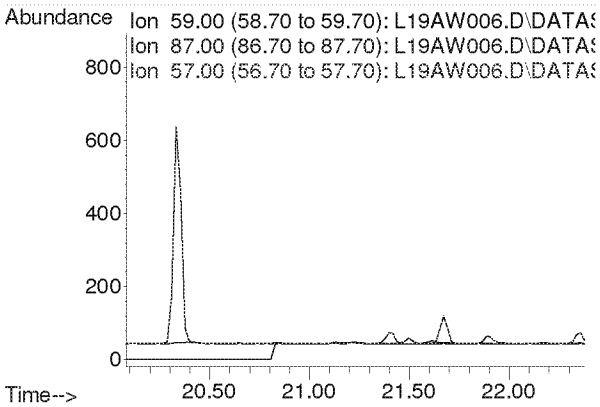


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

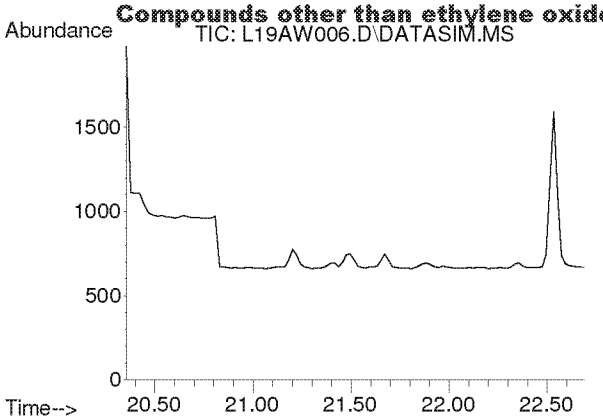
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

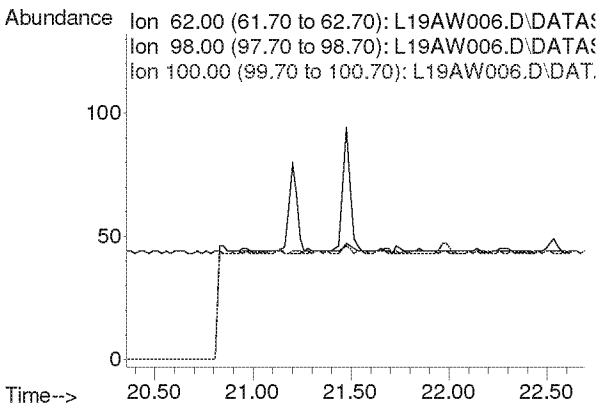


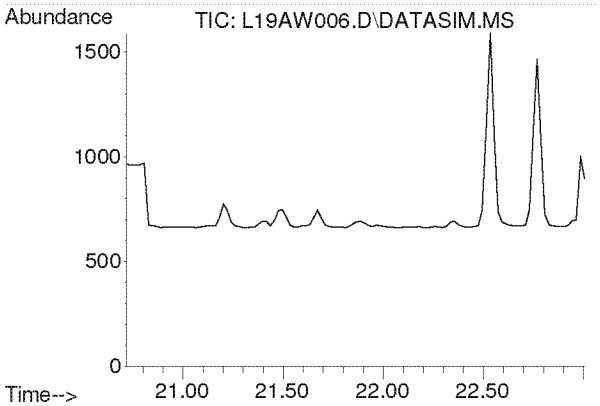
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



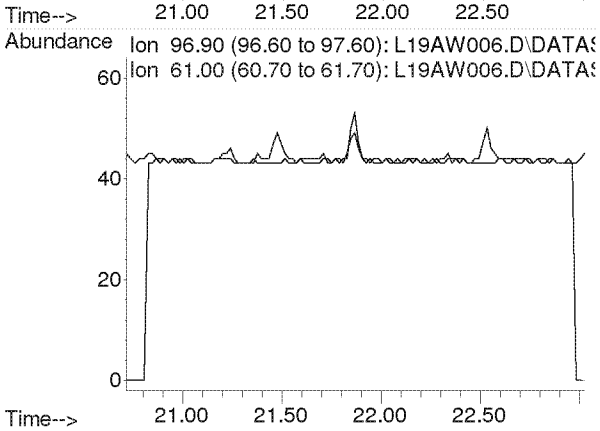


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

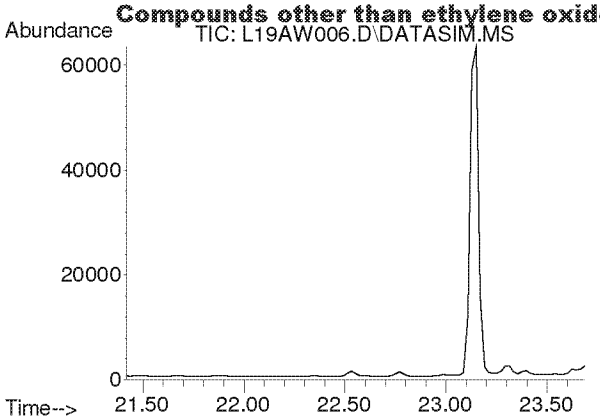
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

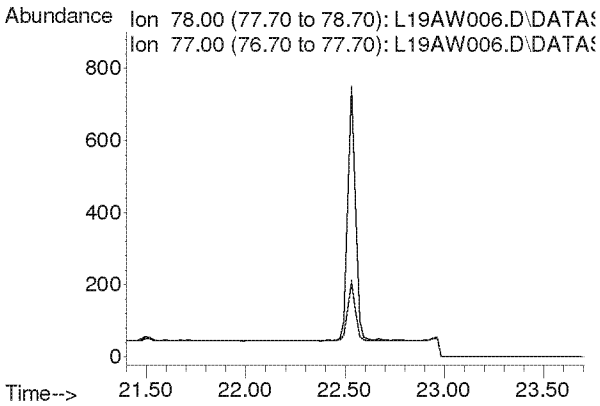


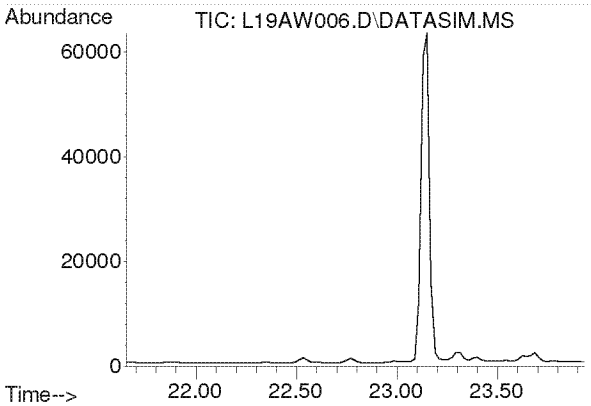
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



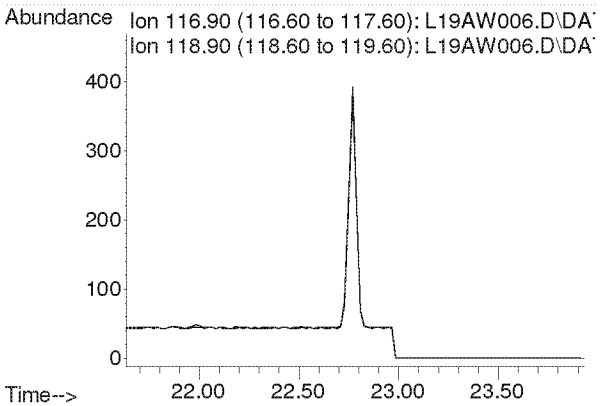


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

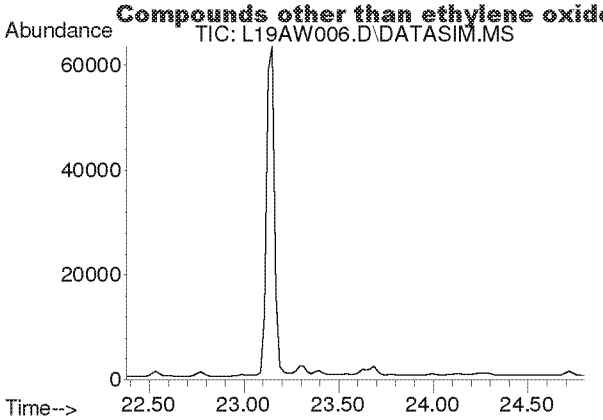
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

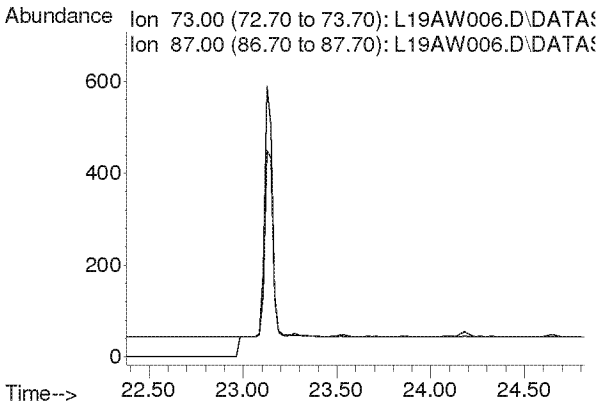


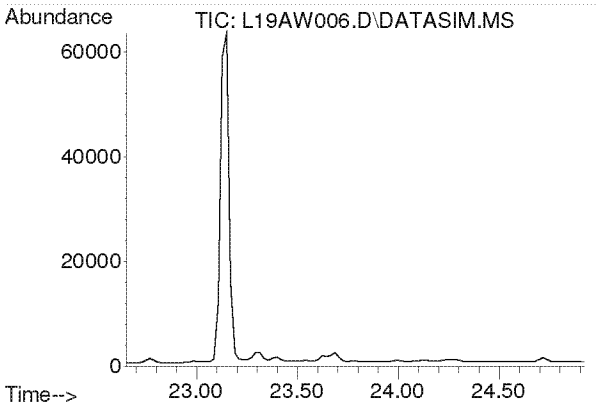
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



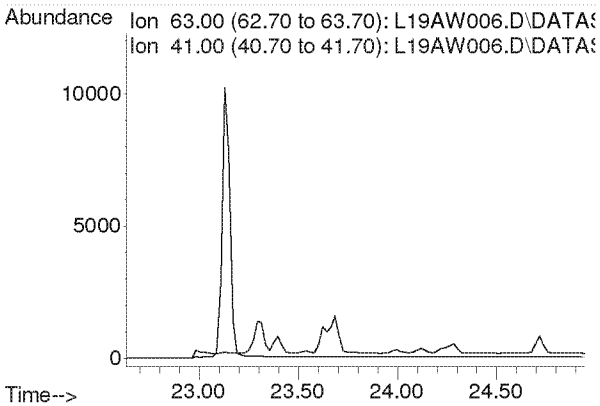


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

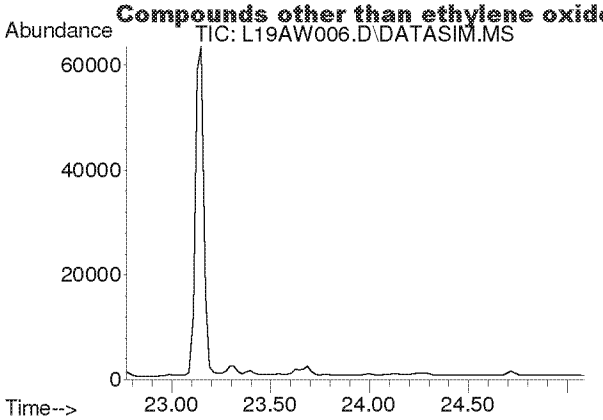
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

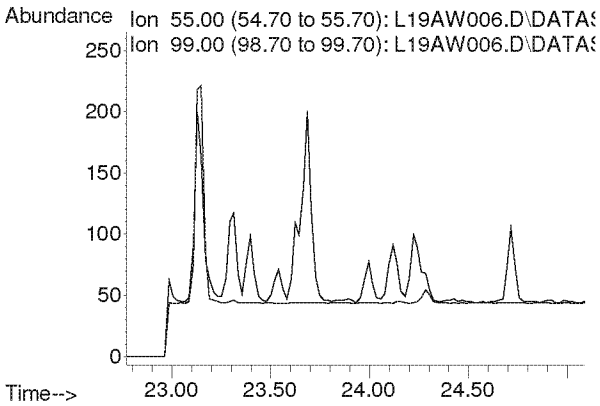


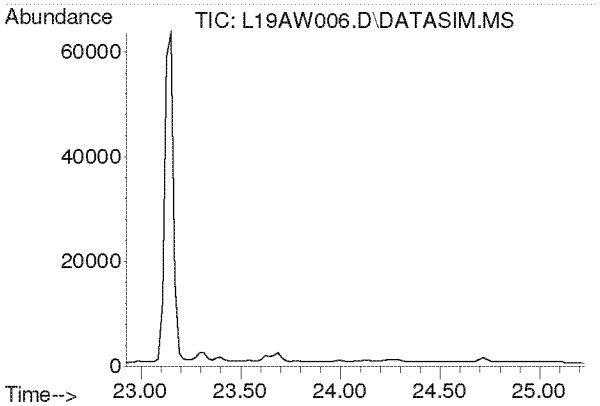
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



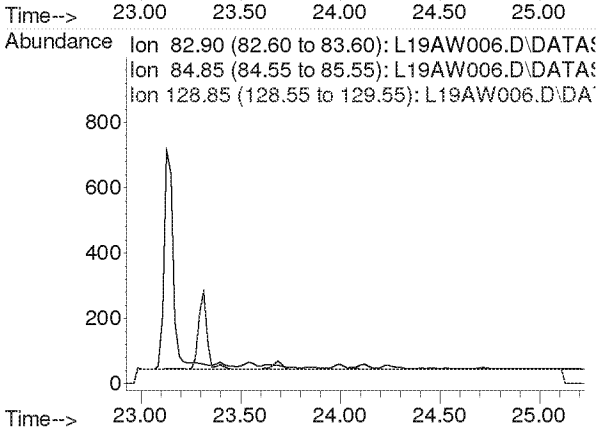


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

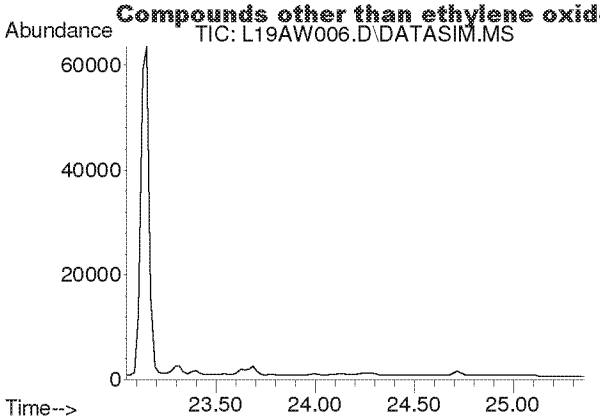
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

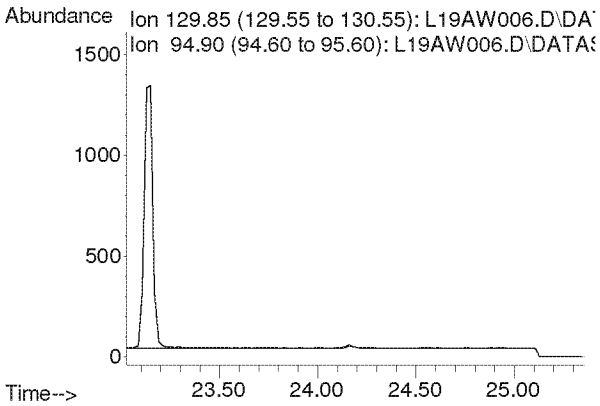


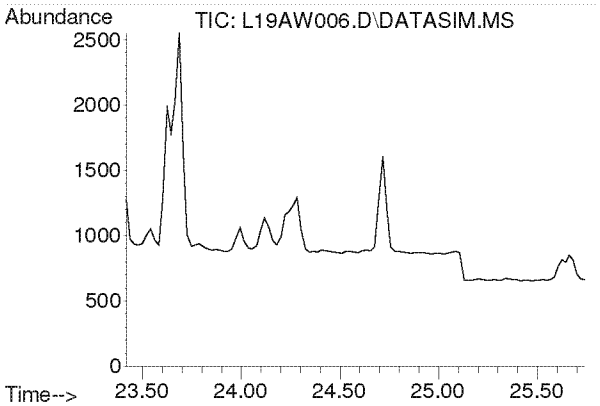
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



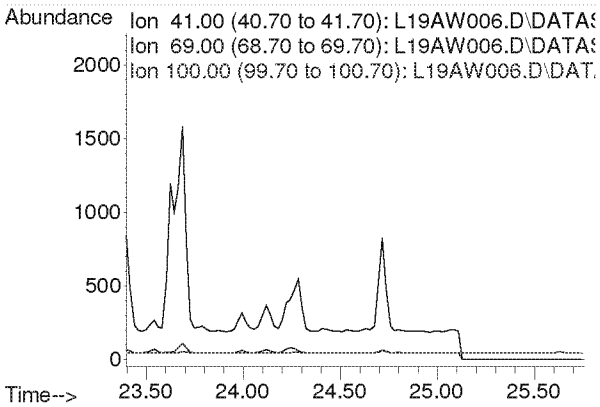


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

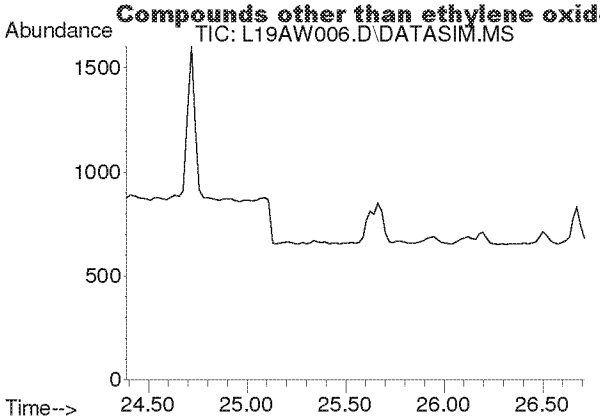
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

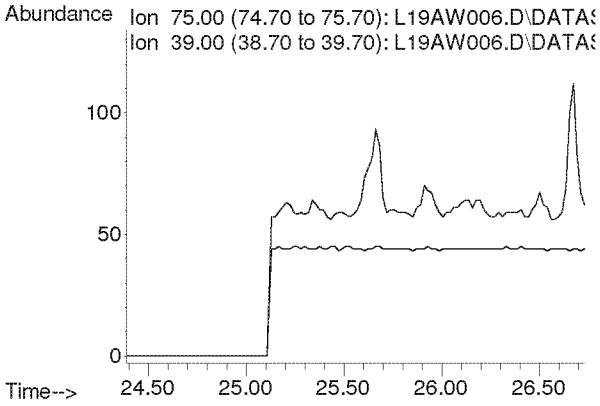


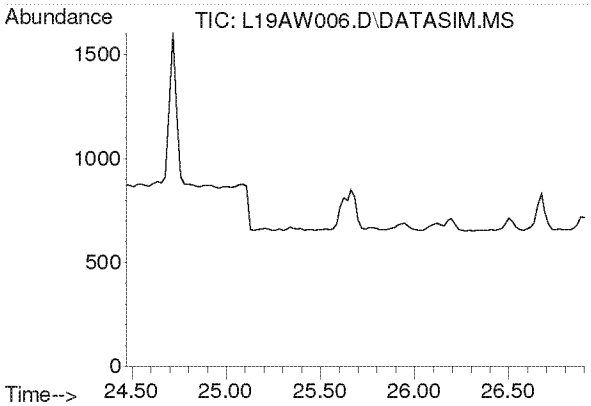
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



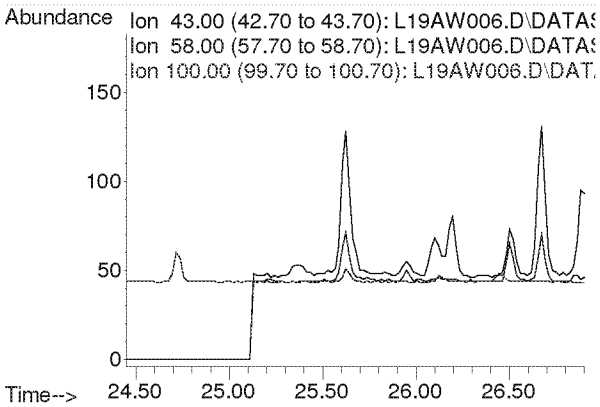


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

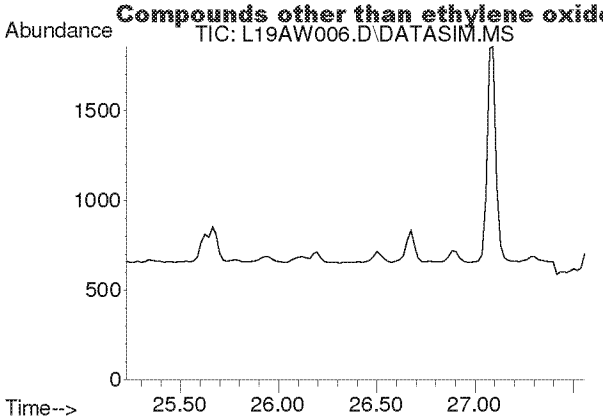
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

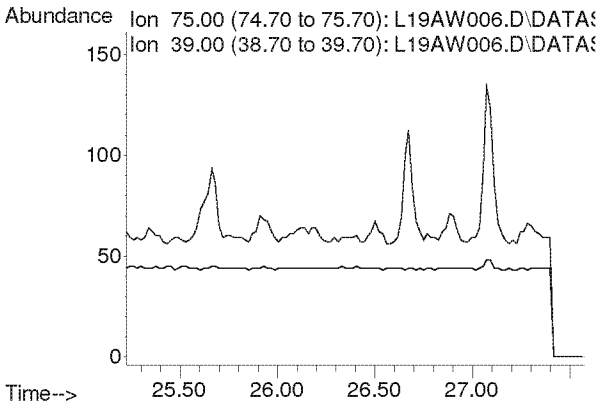


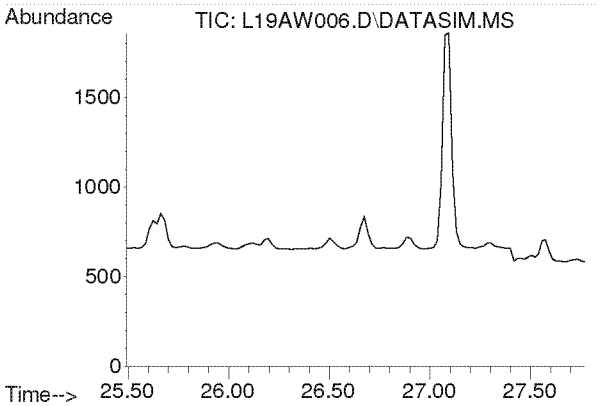
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



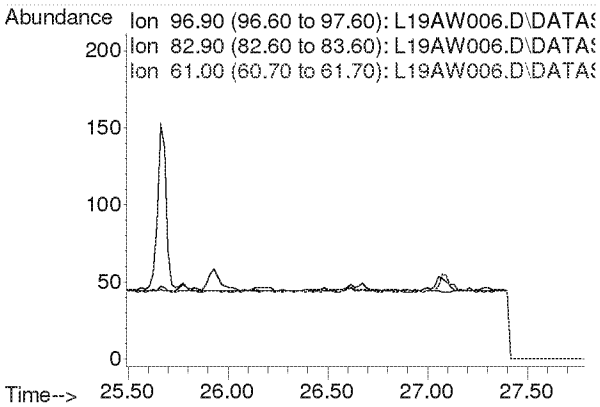


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

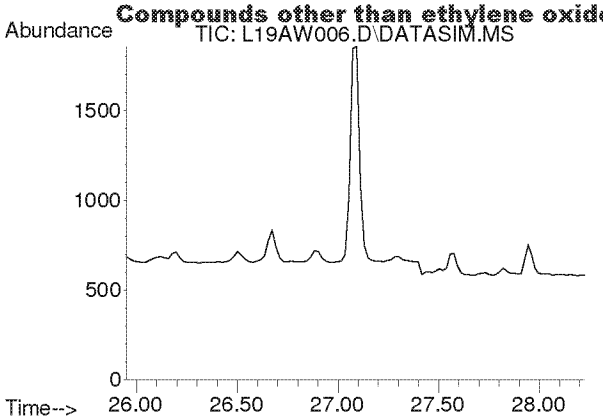
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

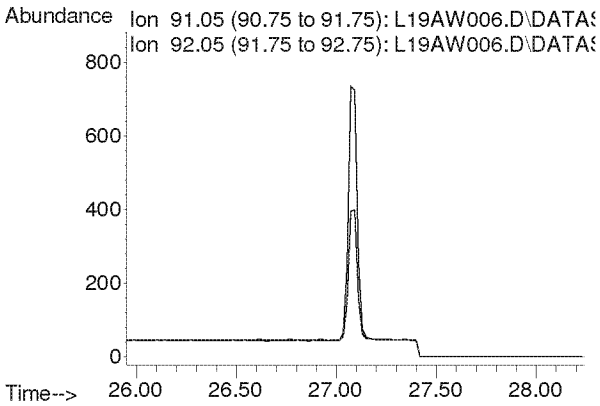


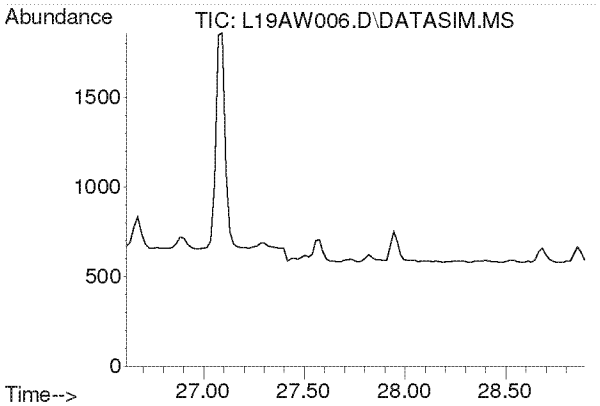
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



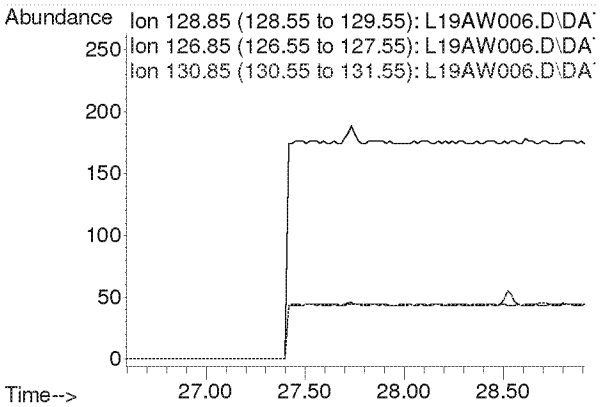


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

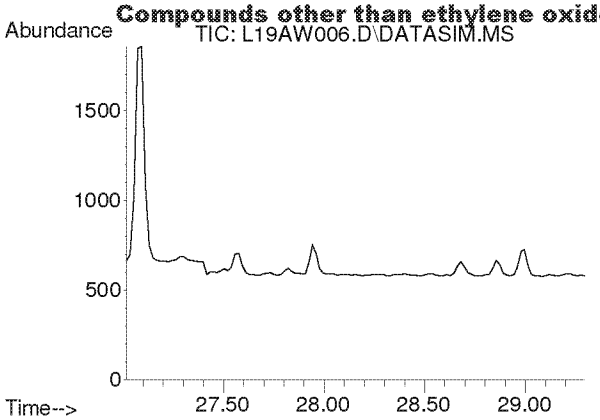
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

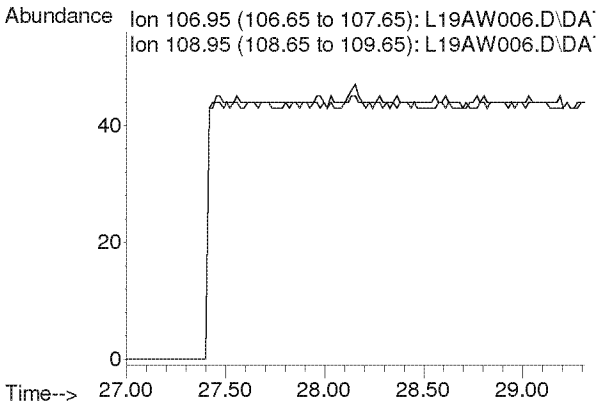


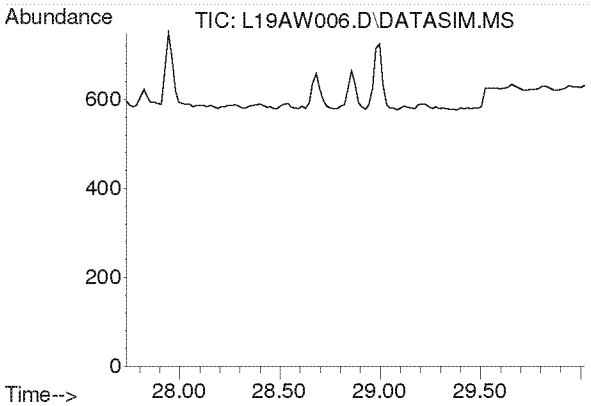
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



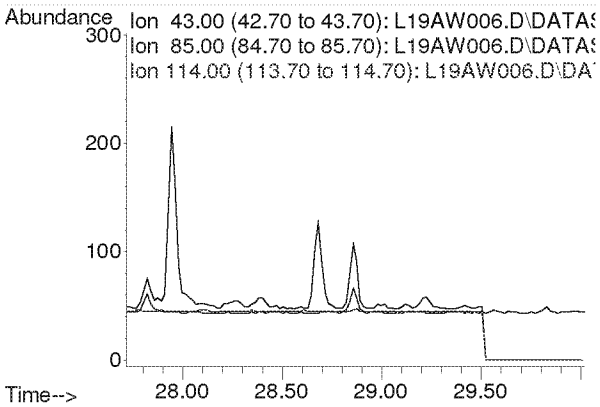


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

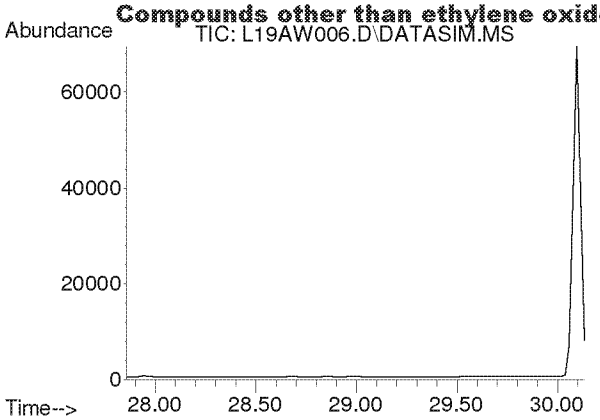
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

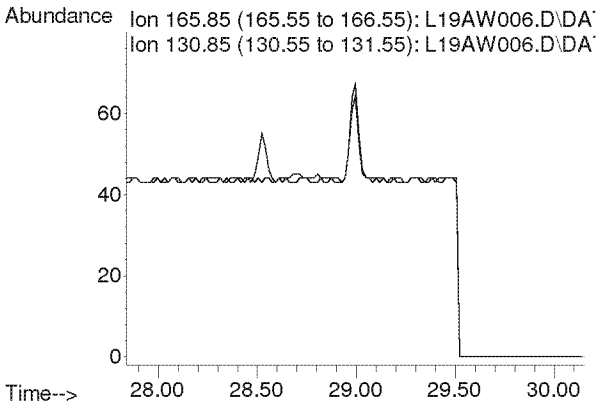


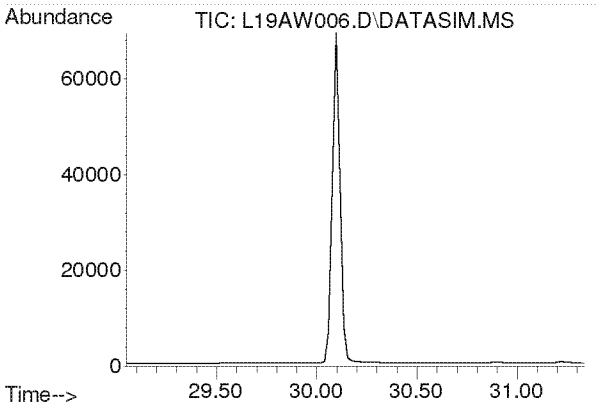
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



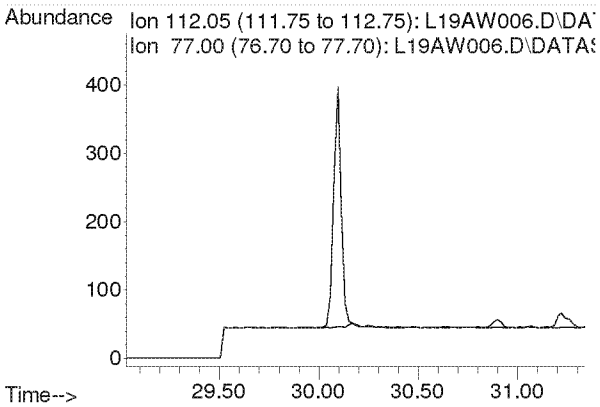


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

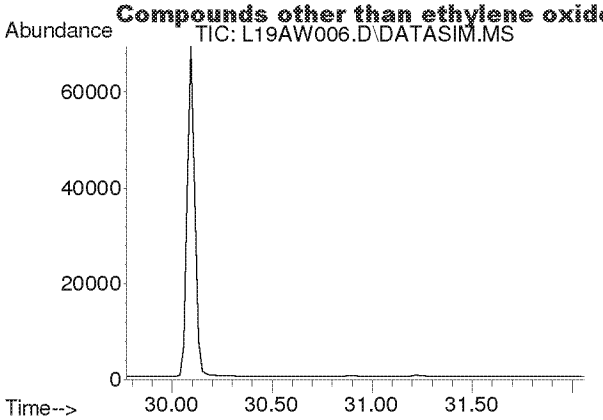
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

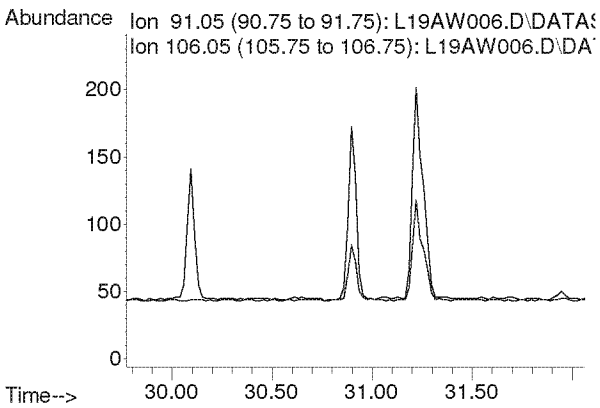


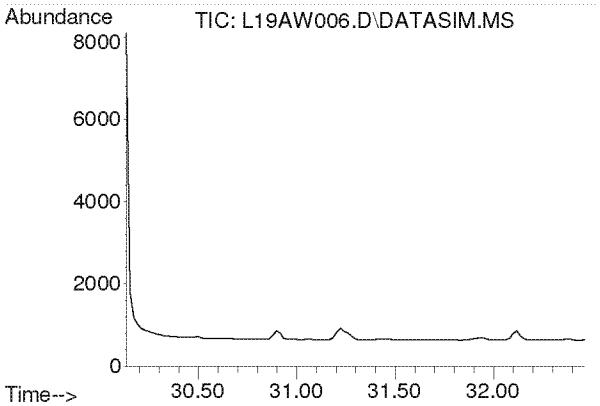
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



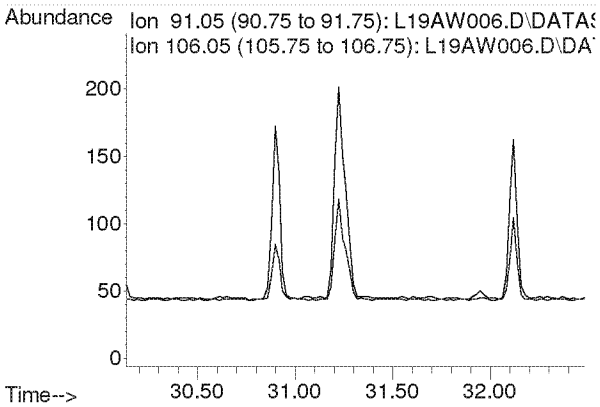


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

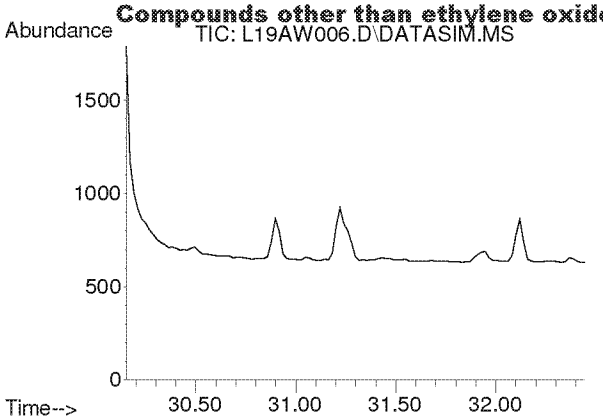
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

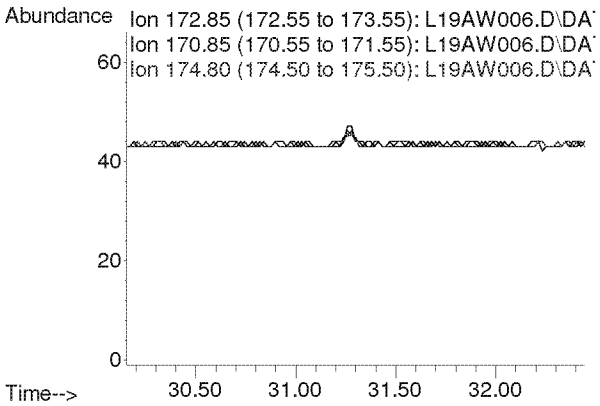


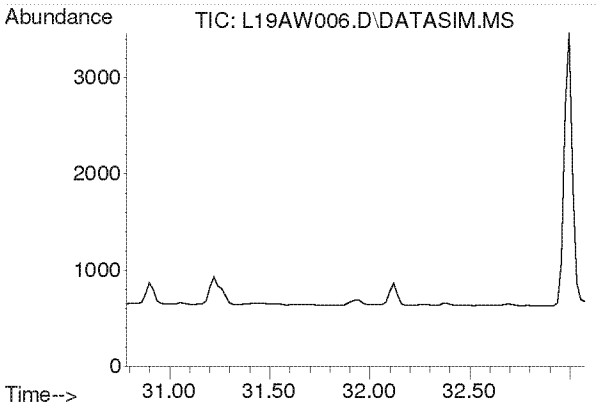
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



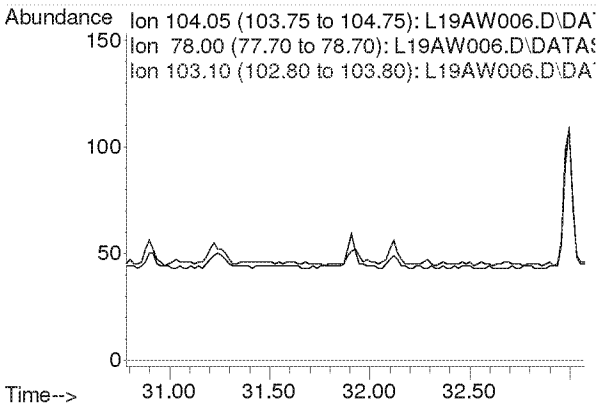


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

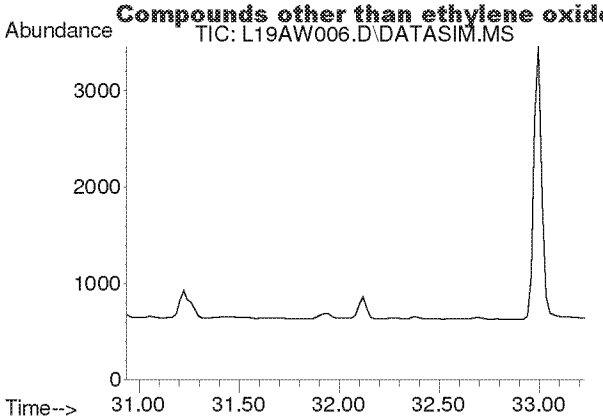
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

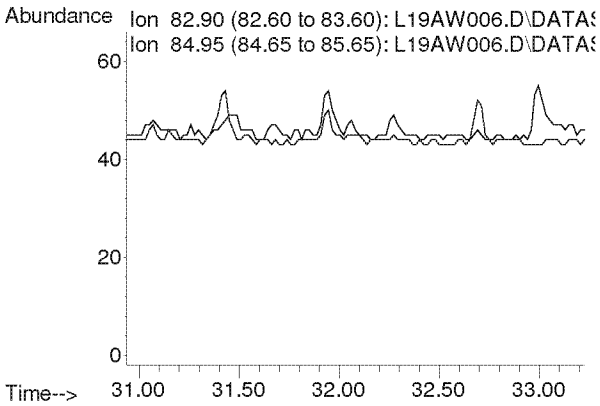


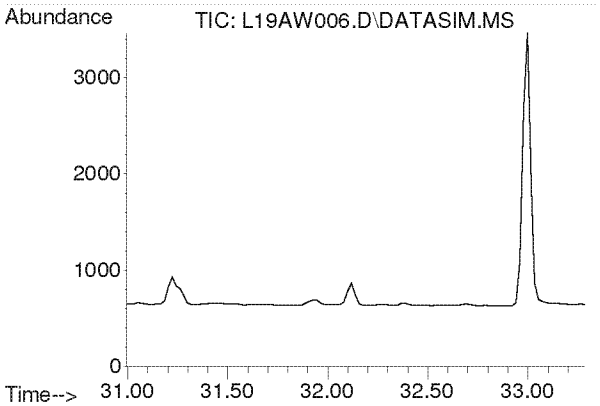
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



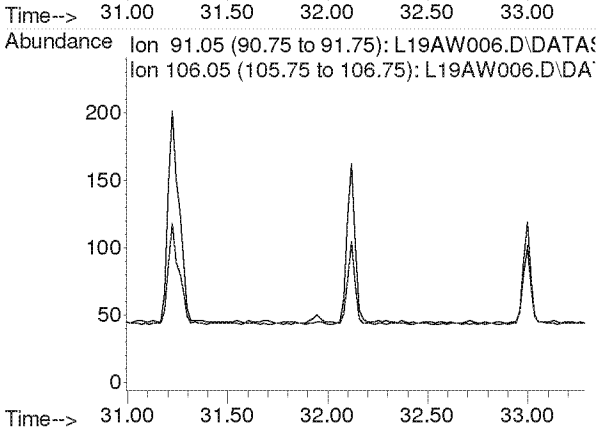


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

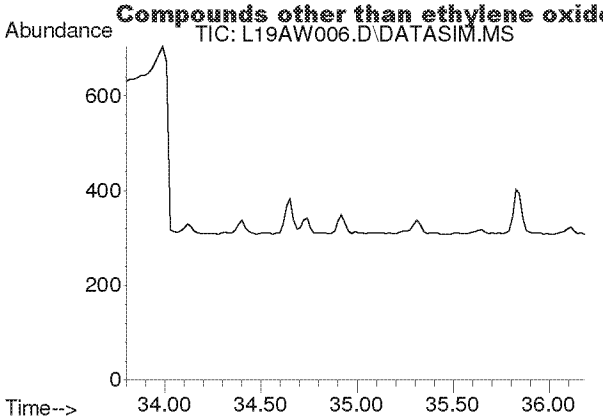
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

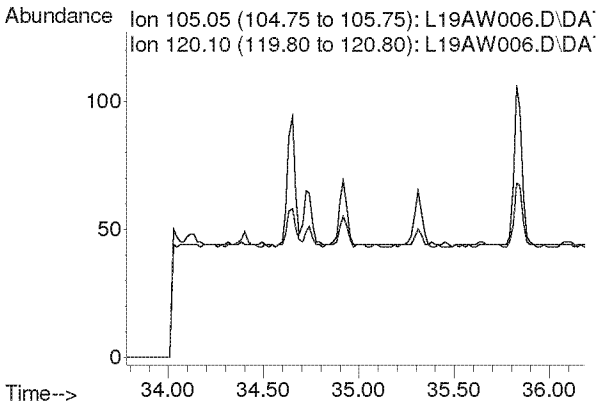


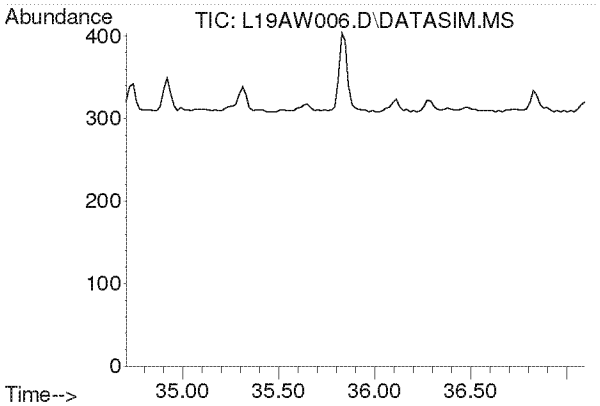
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



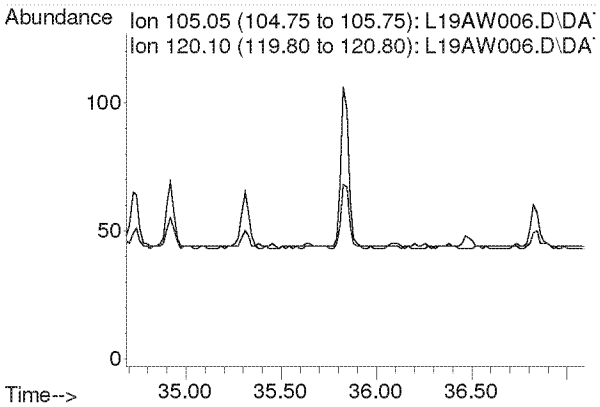


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

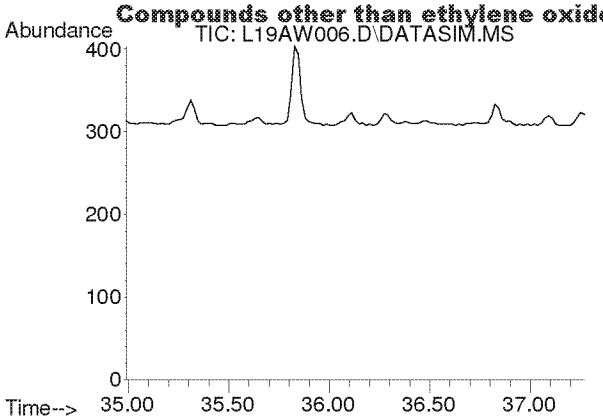
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

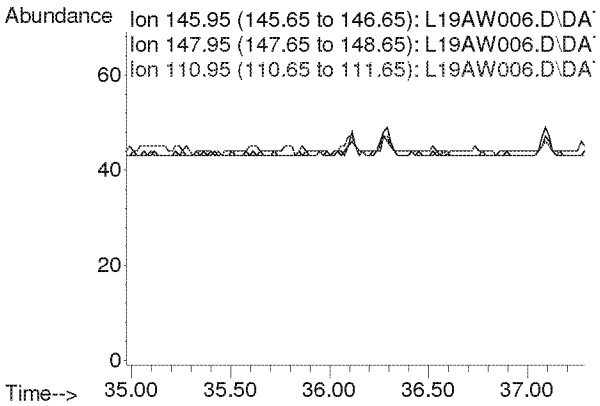


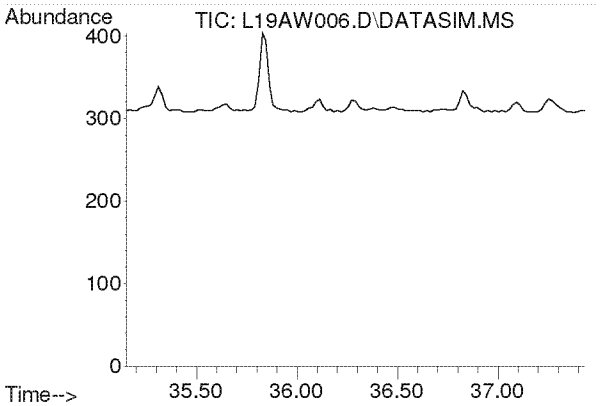
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



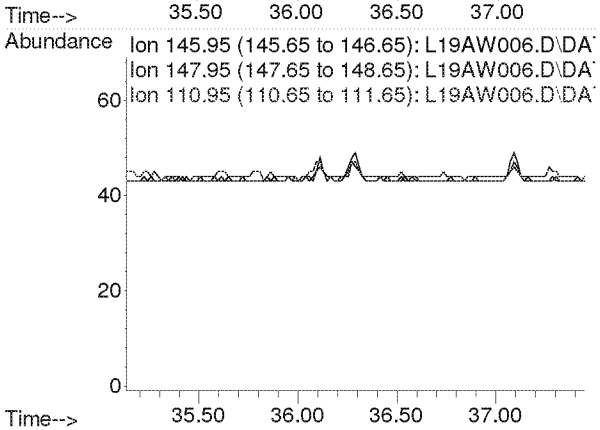


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

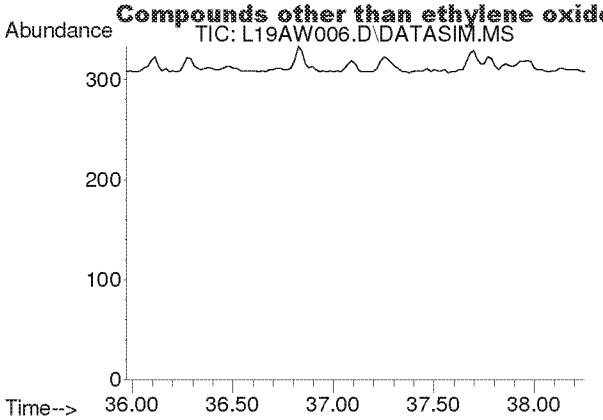
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

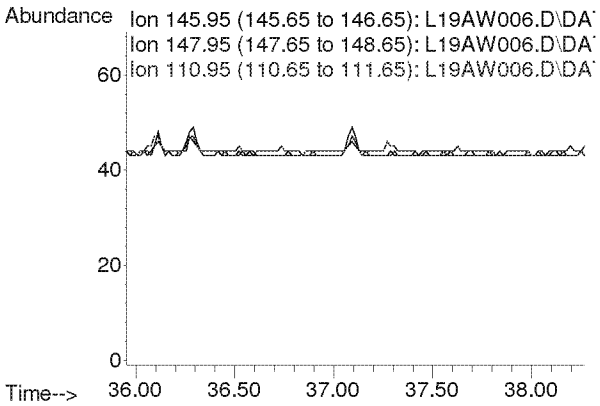


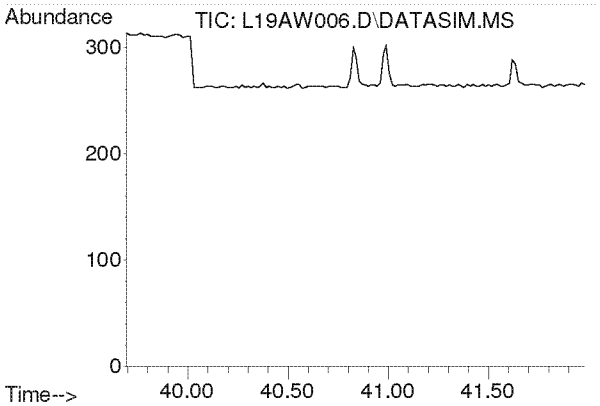
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



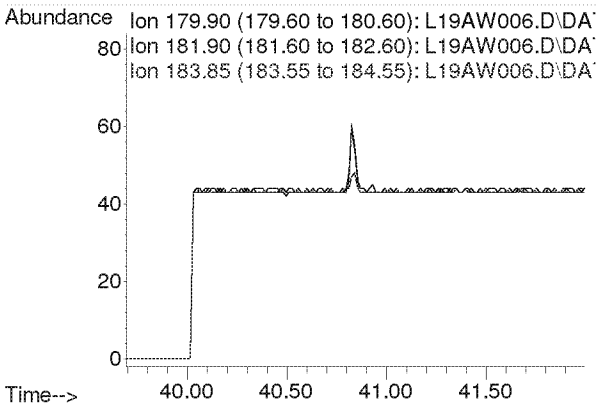


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

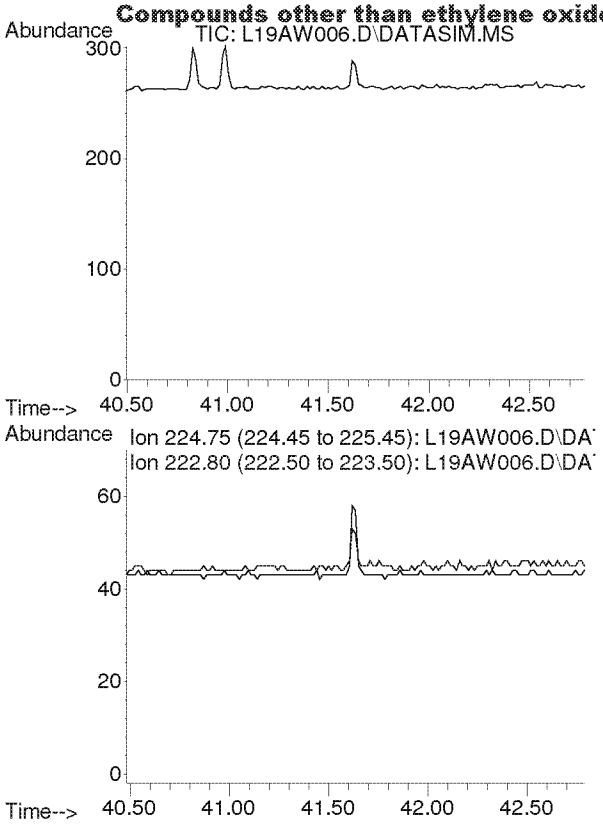
Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AW006.D
Acq: 23 Jan 2019 2:30 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\L19AW\
Data File : L19AW007.D
Acq On : 23 Jan 2019 3:32 pm
Operator : MAH
Sample : 9011701-09
Misc : EPA WB WAREHOUSE C2 1/16/19
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 29 08:21:51 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

d: MK

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	56108	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	133429	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	104311	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	12.348	29	22937	7.9147 ppbv	84
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.	
35) Ethyl Acrylate	0.000	55	0	N.D. 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\L19AW\
Data File : L19AW007.D
Acq On : 23 Jan 2019 3:32 pm
Operator : MAH
Sample : 9011701-09
Misc : EPA WB WAREHOUSE C2 1/16/19
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 29 08:21:51 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

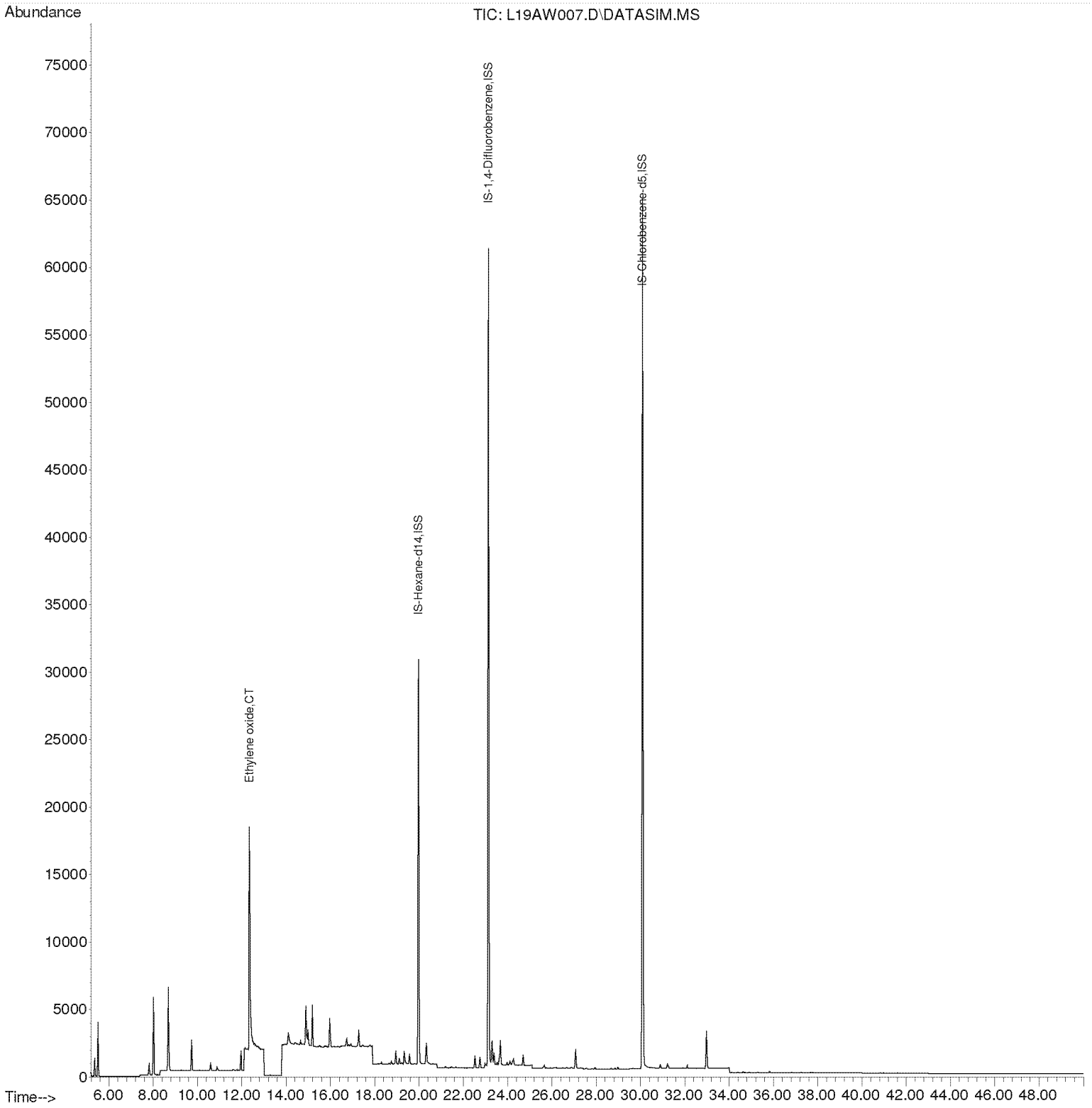
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

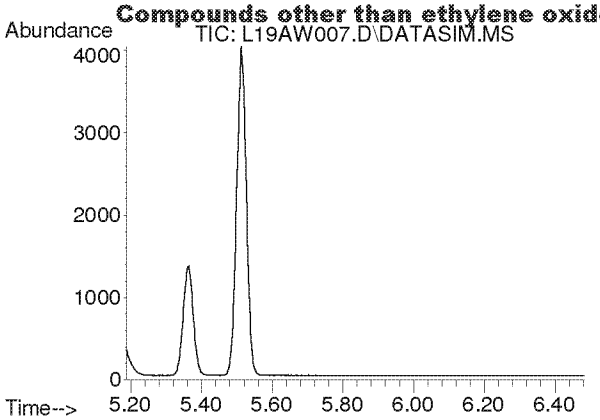
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW007.D
Acq On : 23 Jan 2019 3:32 pm
Operator : MAH
Sample : 9011701-09
Misc : EPA WB WAREHOUSE C2 1/16/19
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jan 29 08:06:06 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



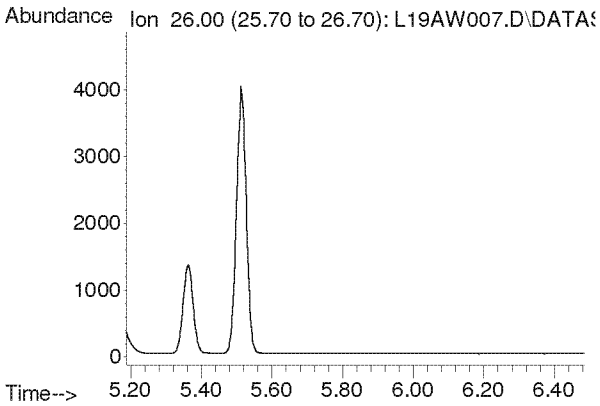
Compounds other than ethylene oxide were not quantitated.

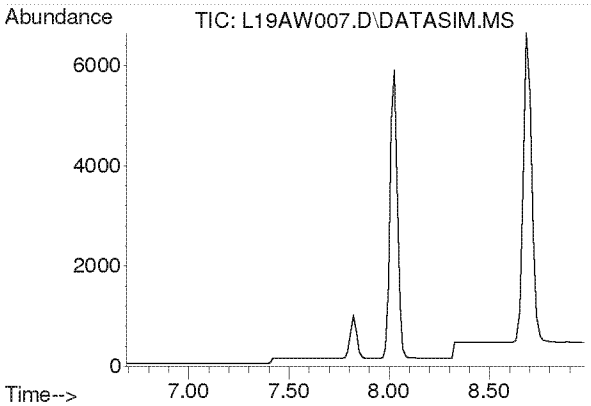


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 26



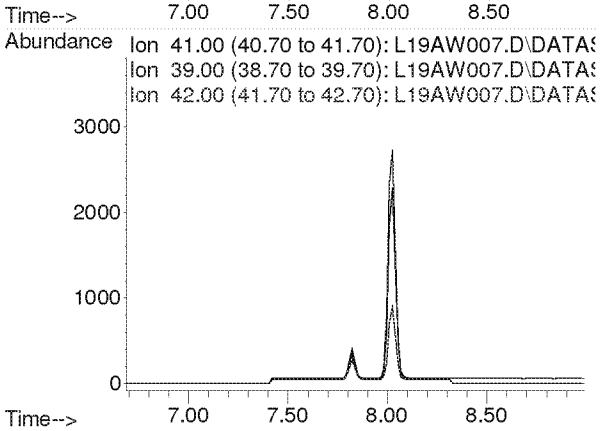


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

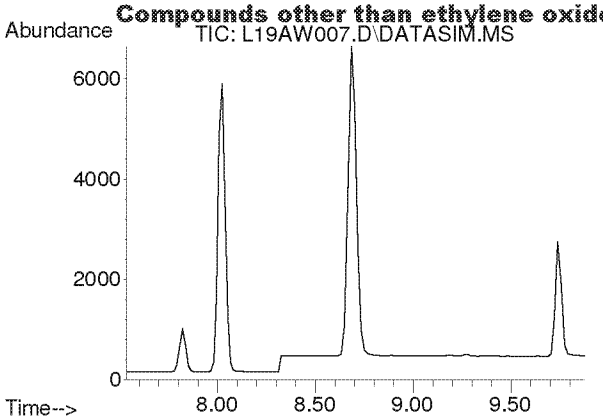
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

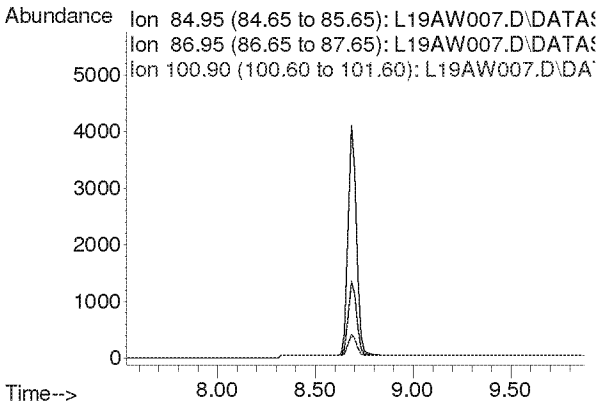


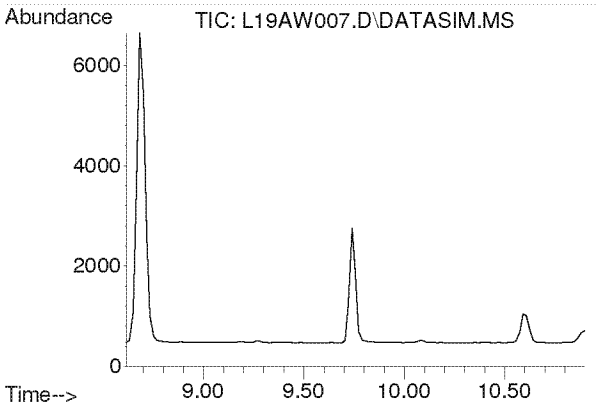
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



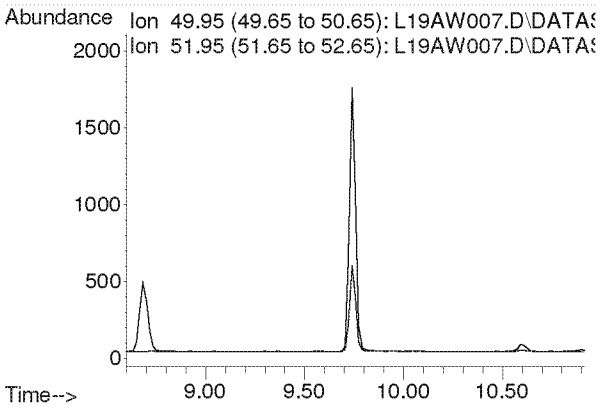


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

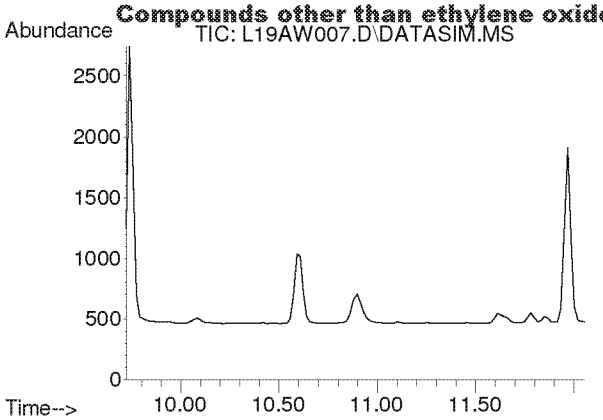
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

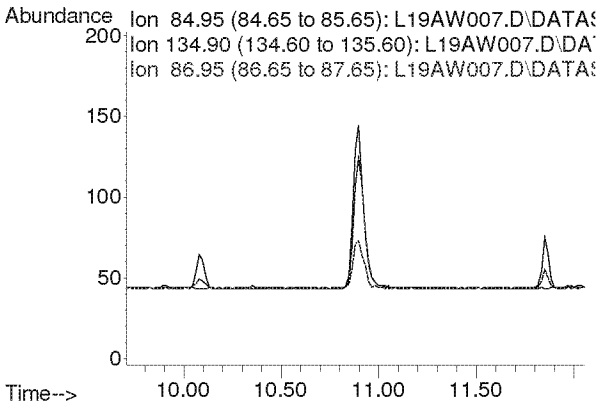


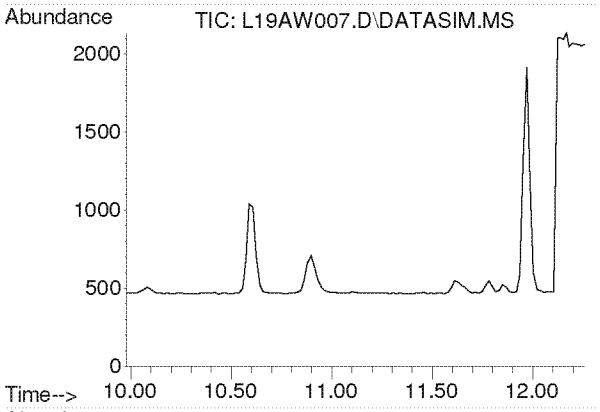
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



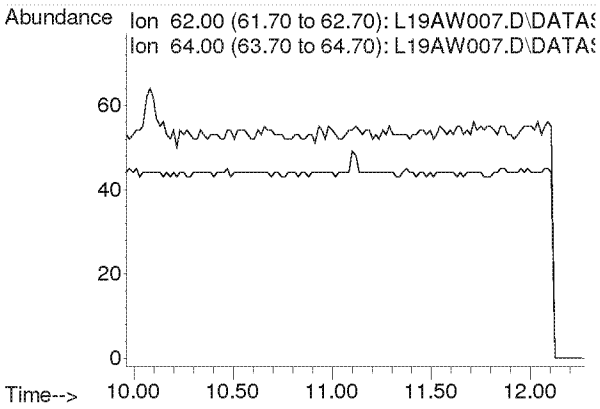


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

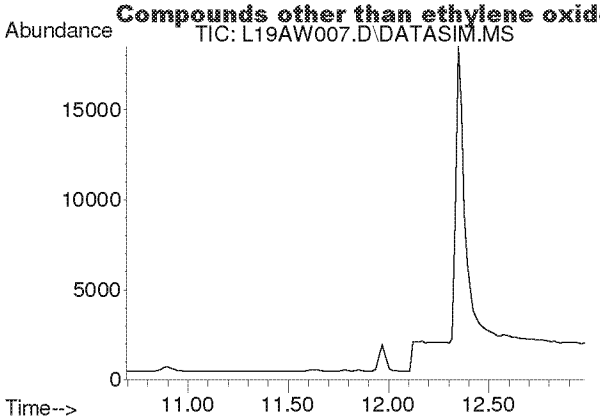
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

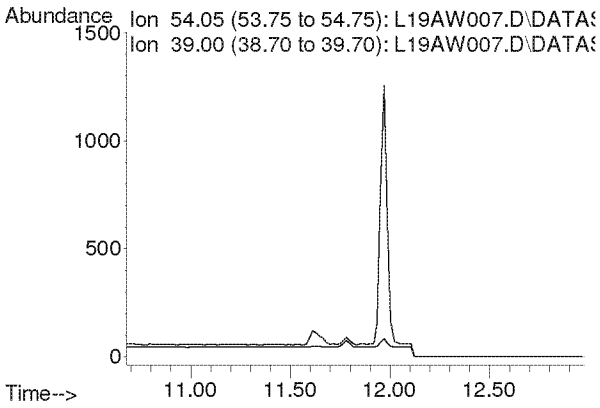


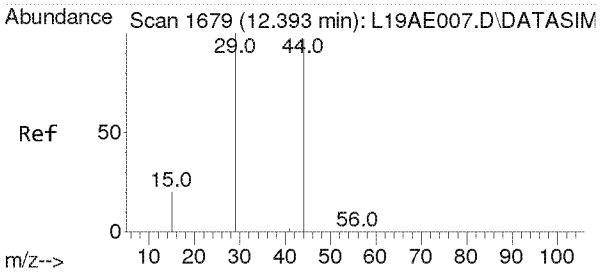
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

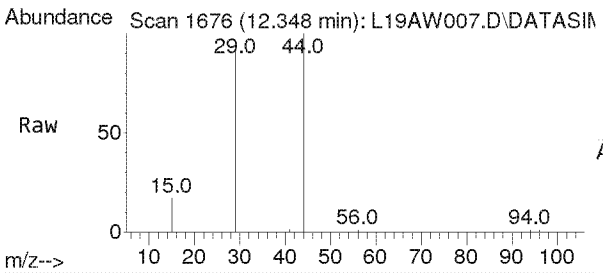


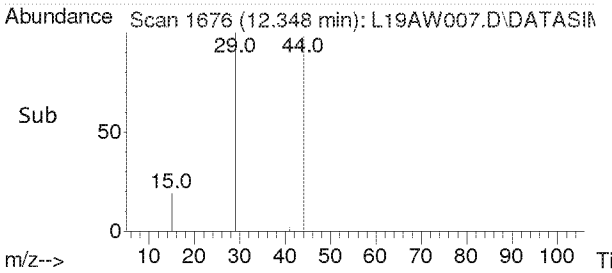


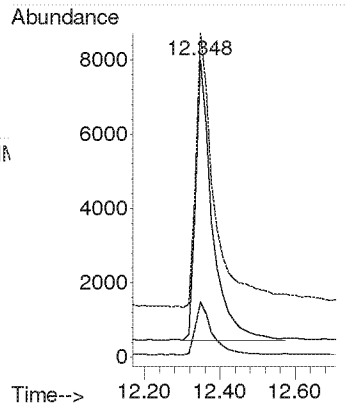
#9
Ethylene oxide
Concen: 7.915 ppbv
RT: 12.348 min Scan# 1676
Delta R.T. -0.045 min
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 29 Resp: 22937

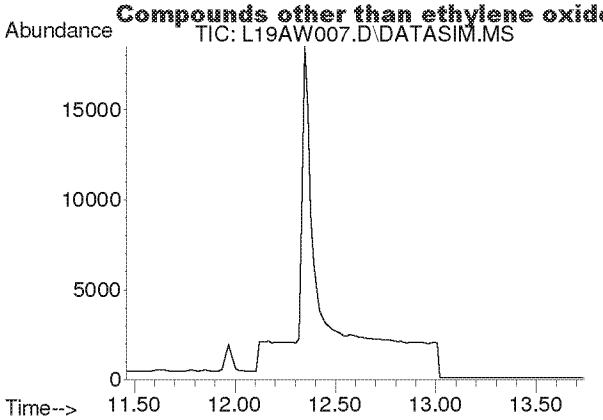
Ion	Ratio	Lower	Upper
29	100		
15	19.2	15.4	23.0
44	115.7	77.4	116.2







Compounds other than ethylene oxide were not quantitated.

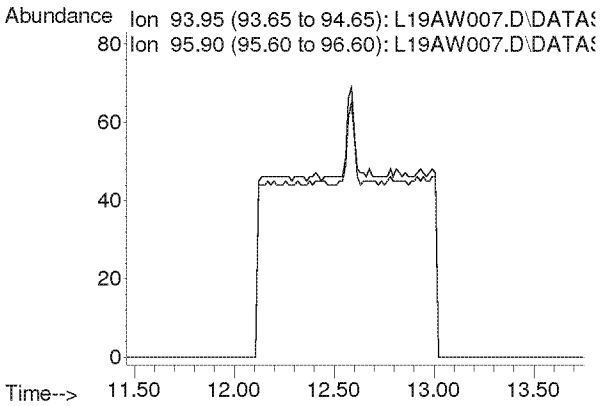


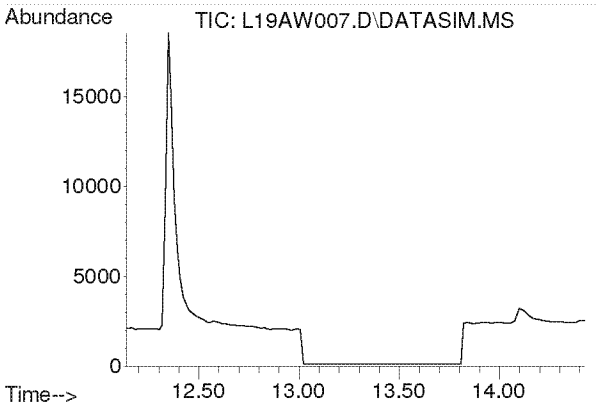
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



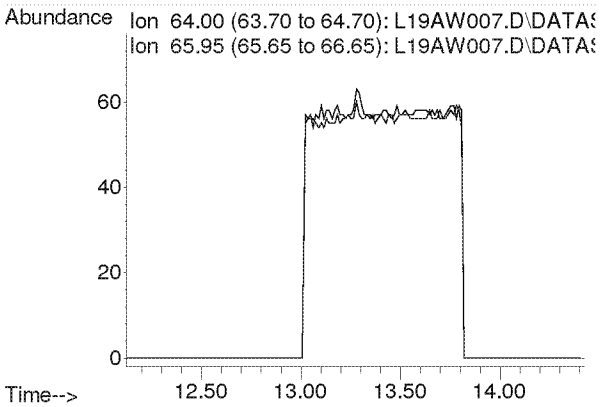


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

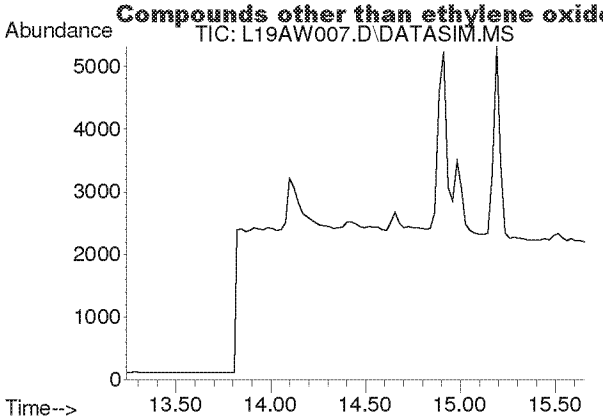
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

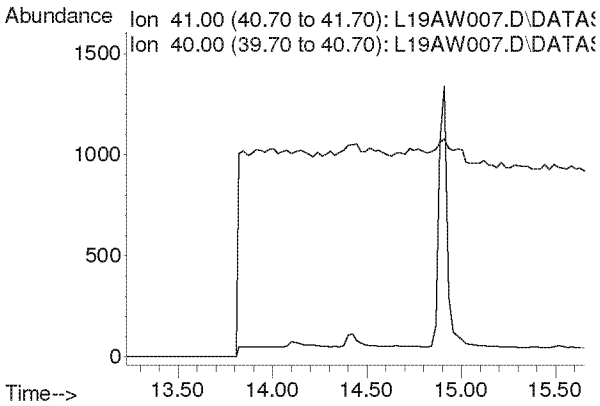


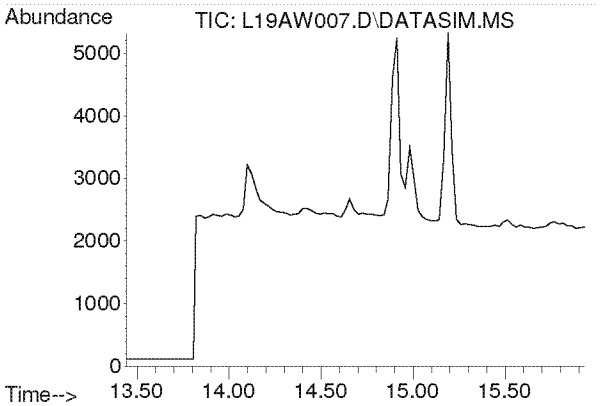
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



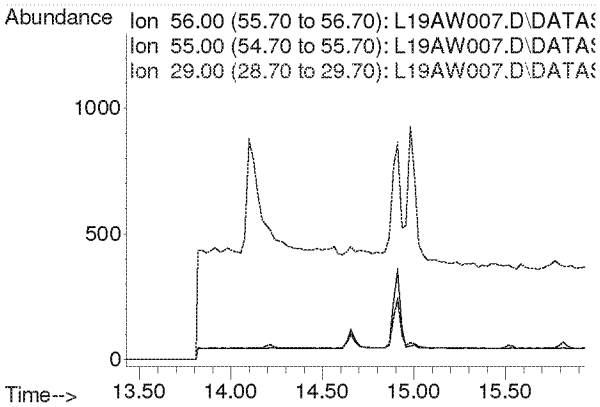


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

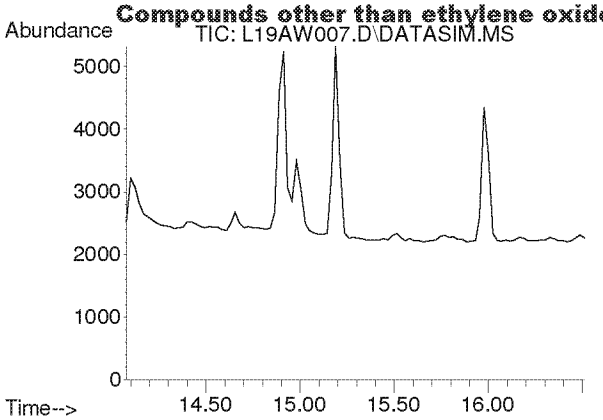
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

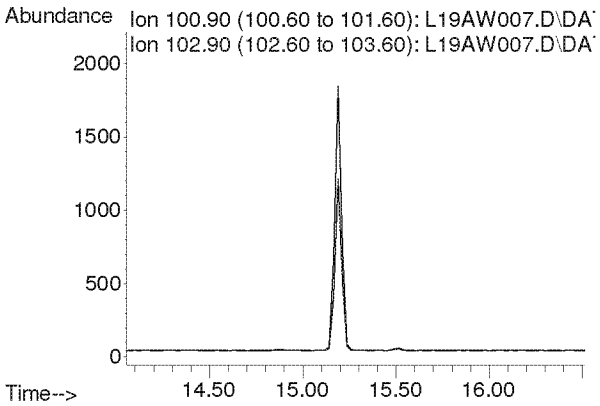


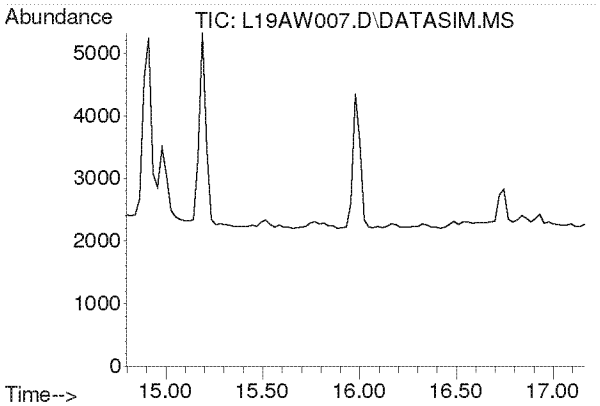
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



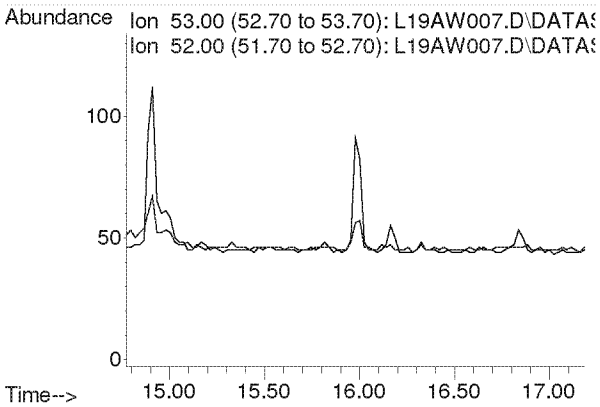


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

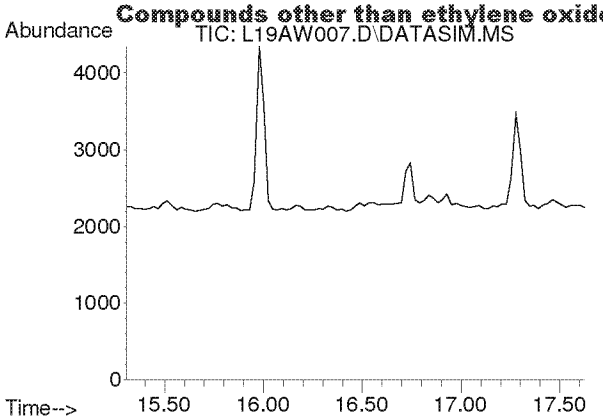
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

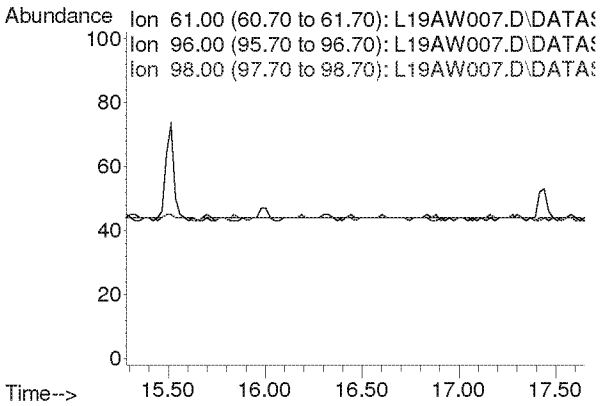


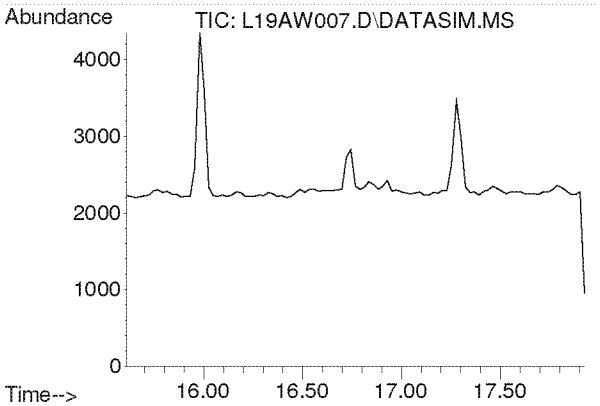
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



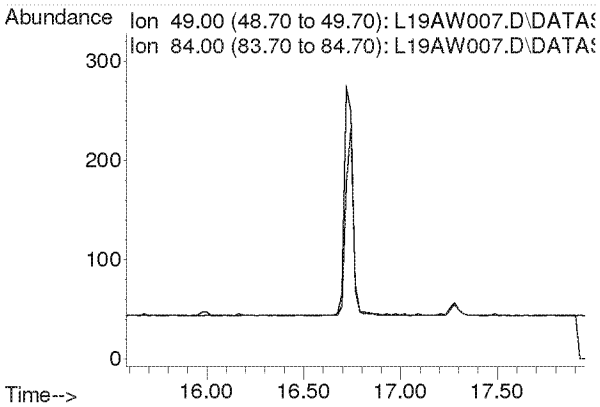


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

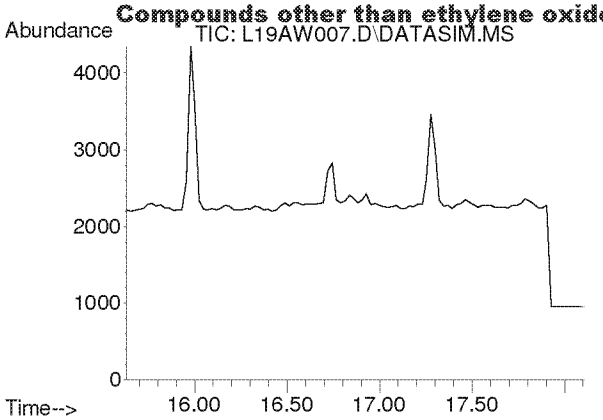
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

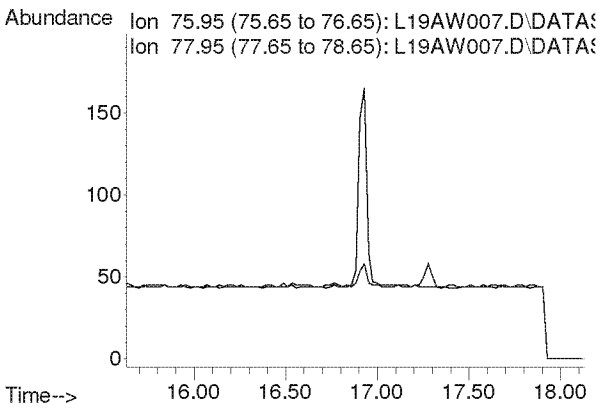


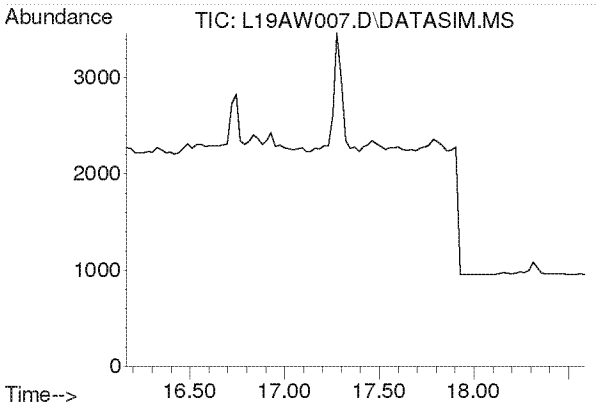
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



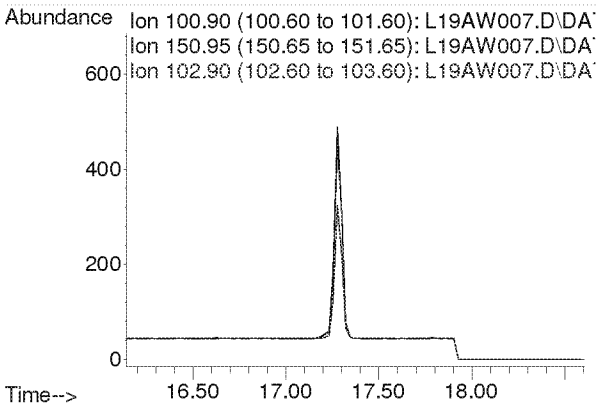


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

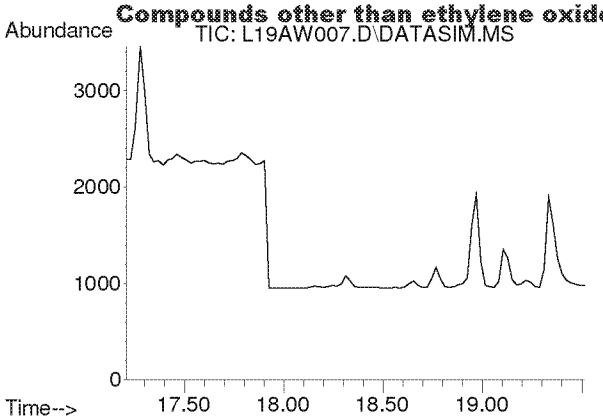
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

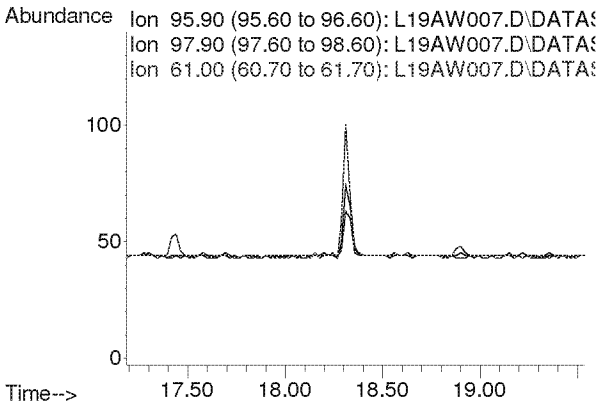


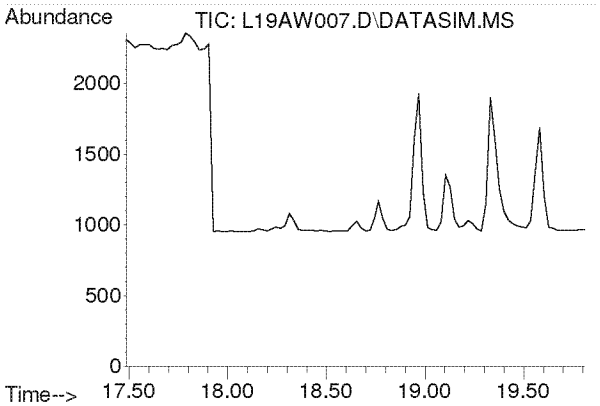
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



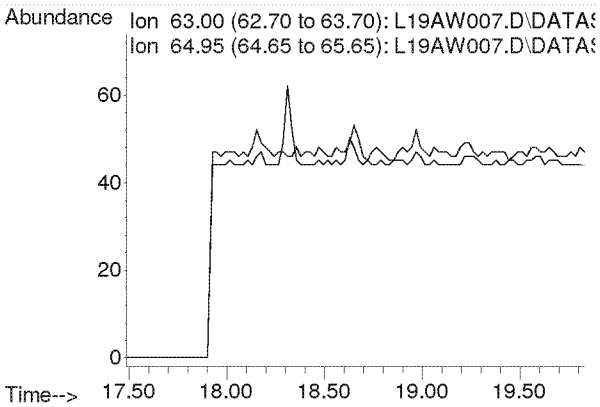


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

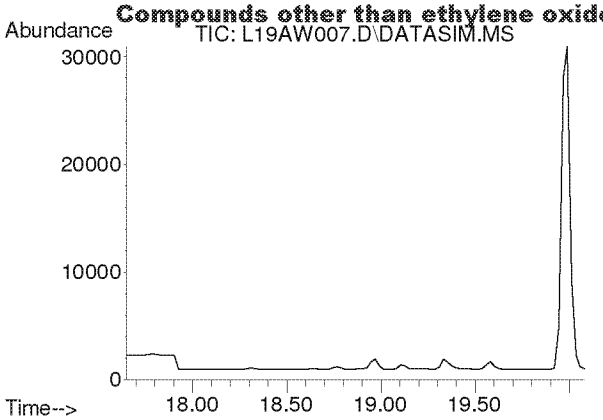
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

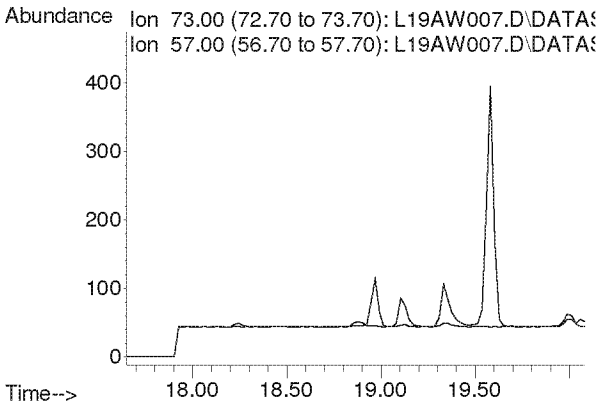


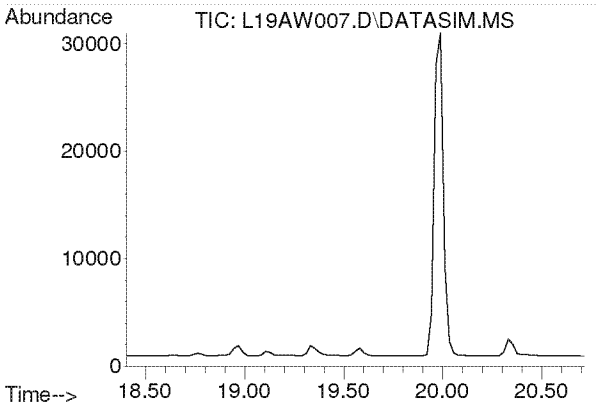
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



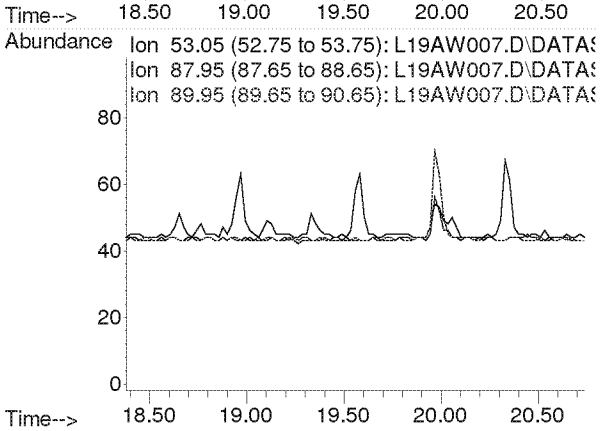


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

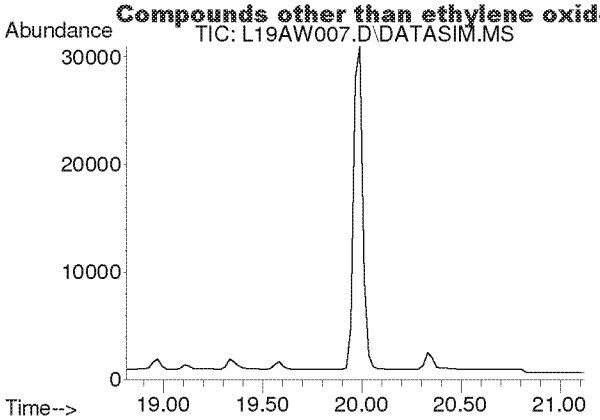
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

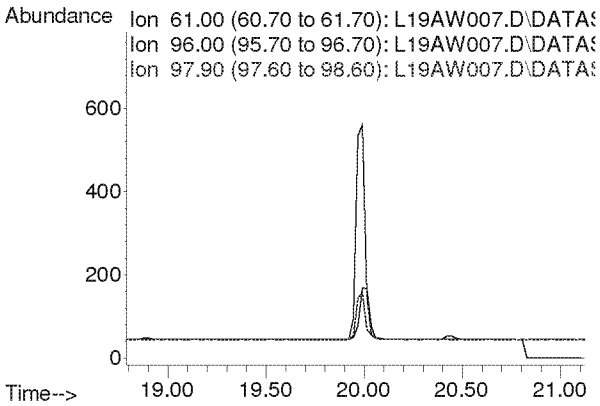


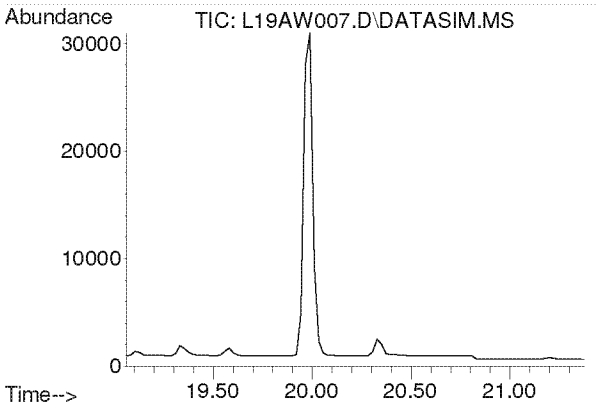
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



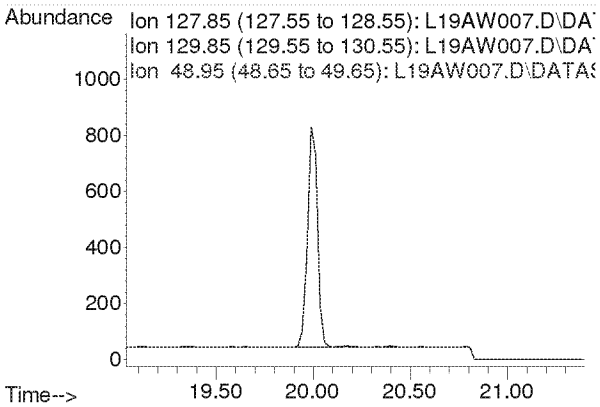


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

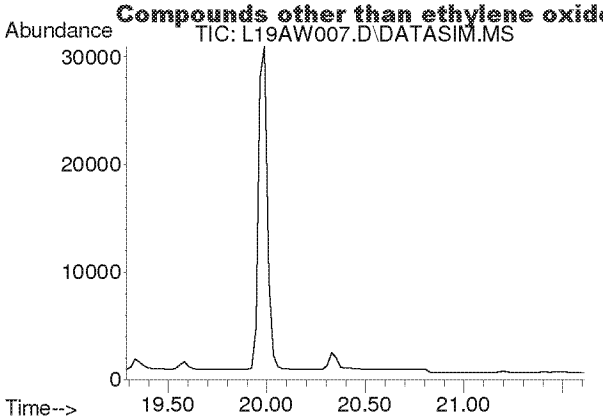
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

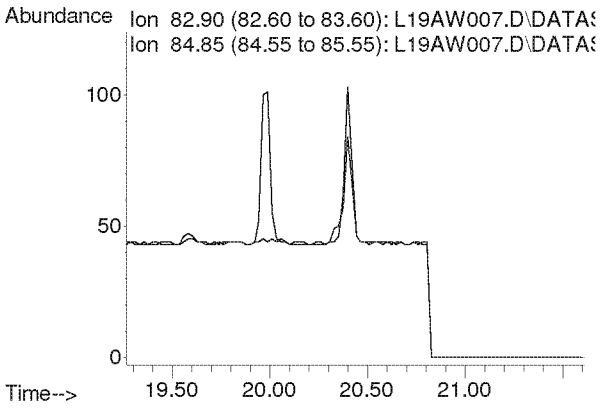


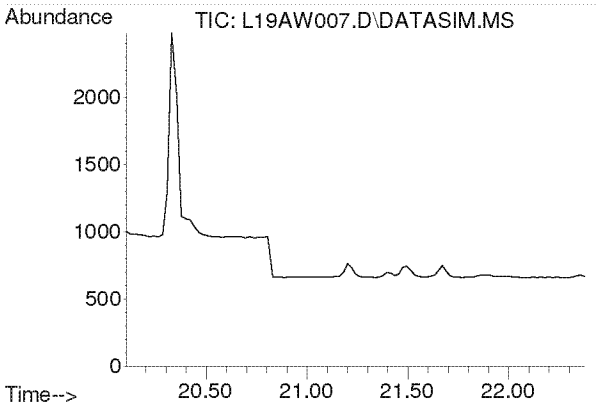
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



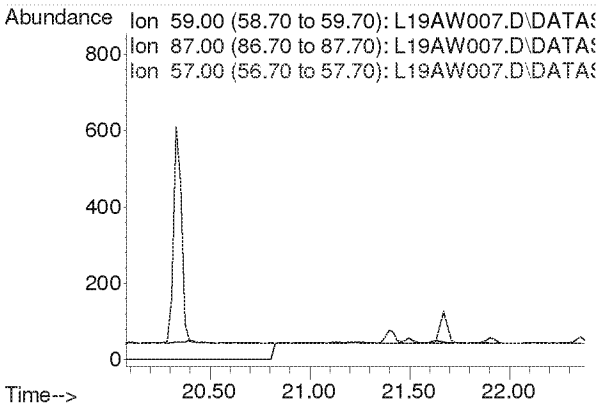


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

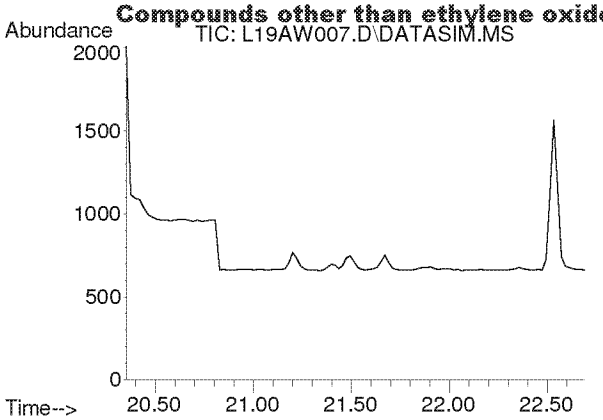
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

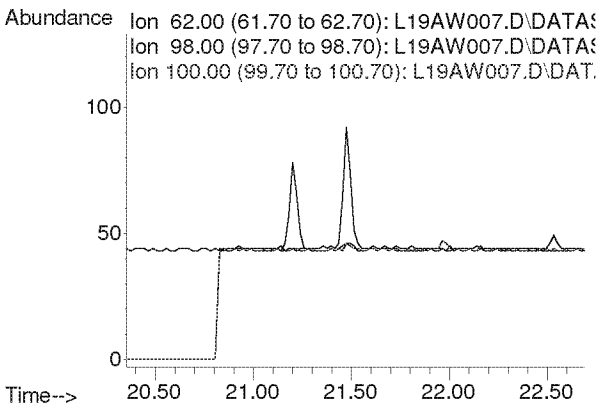


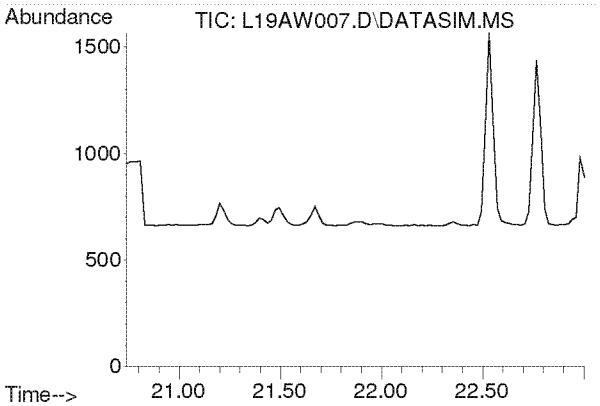
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



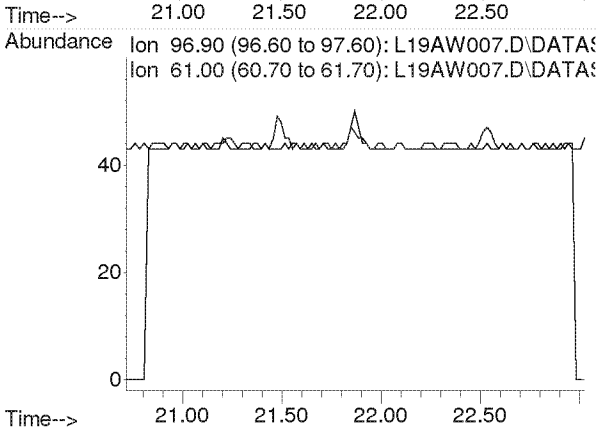


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

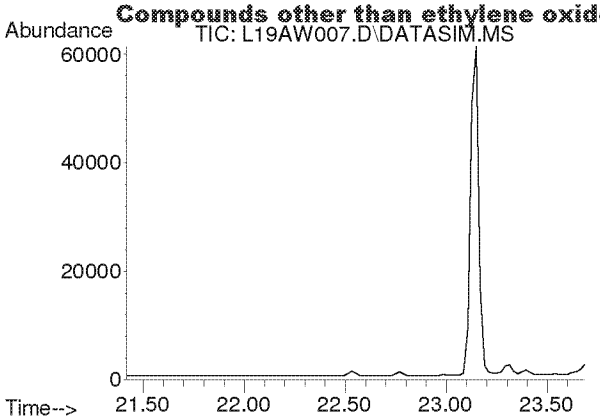
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

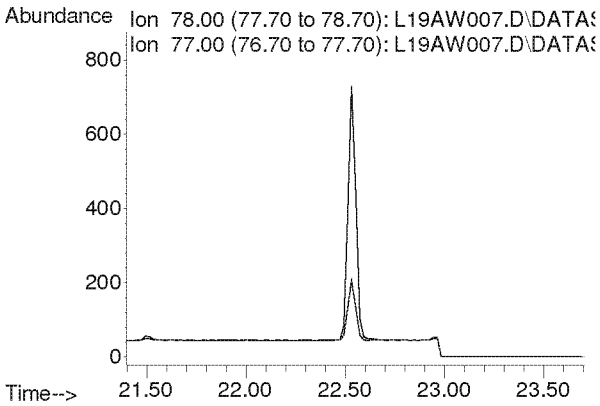


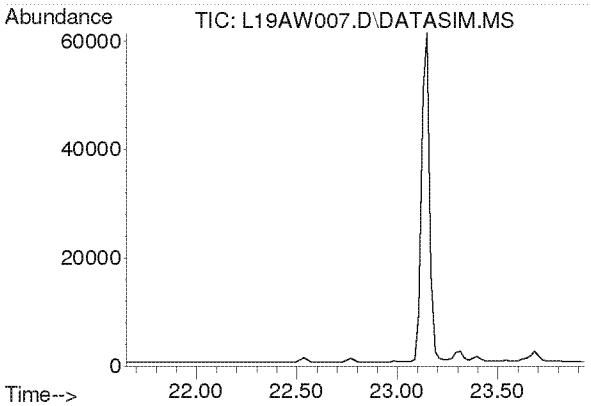
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



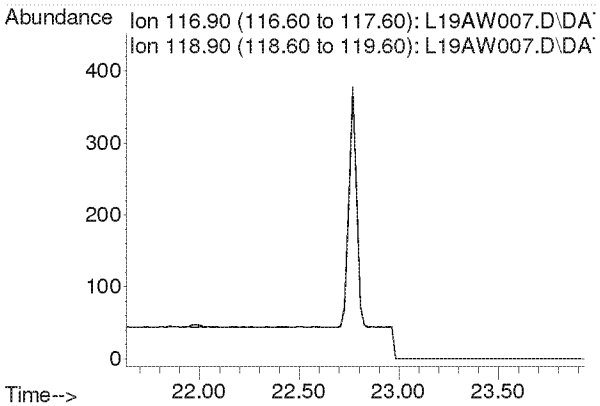


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

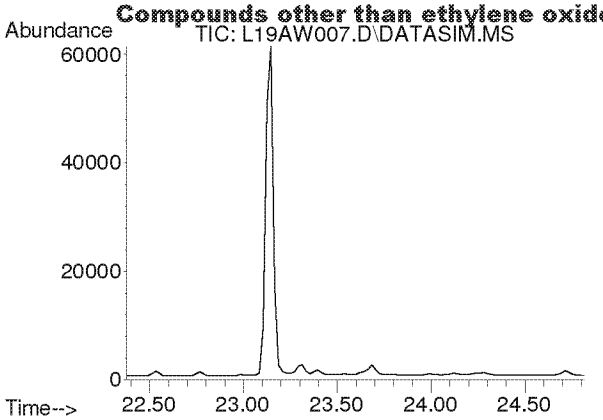
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

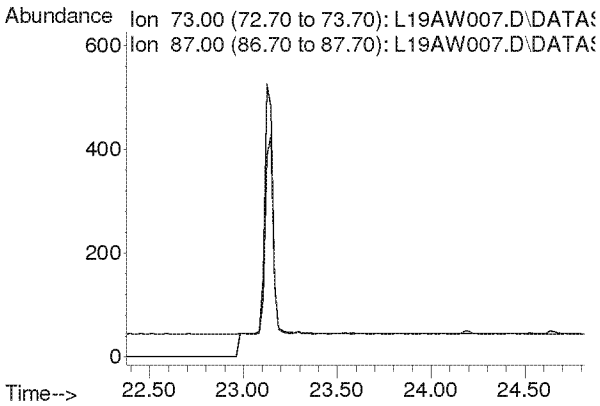


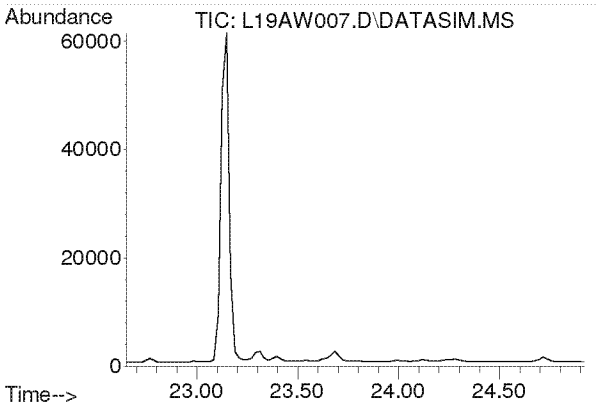
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



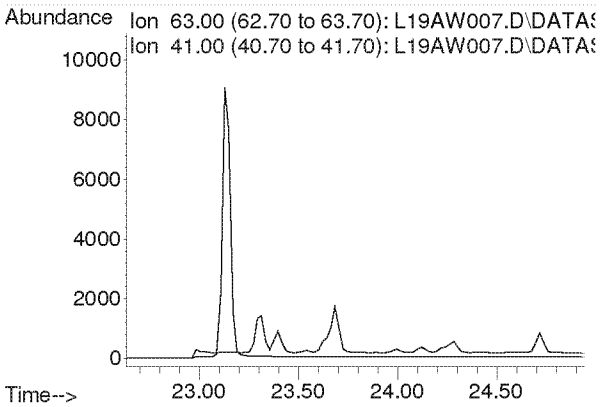


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

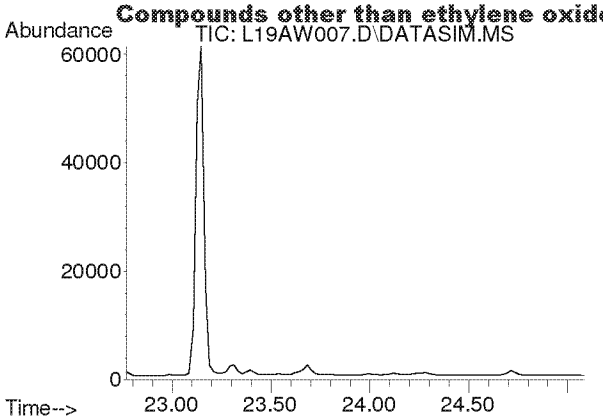
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

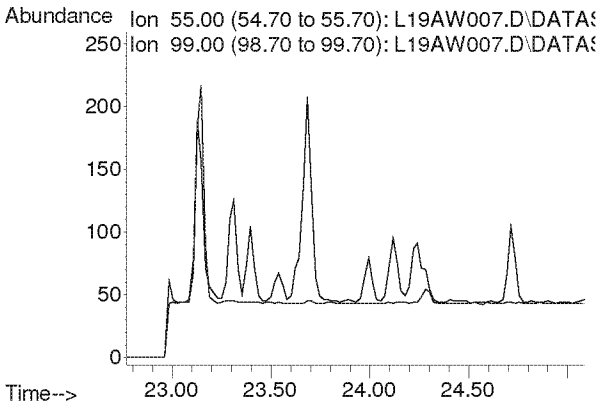


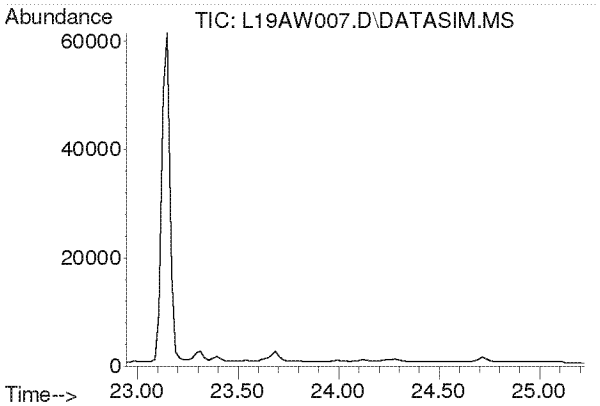
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



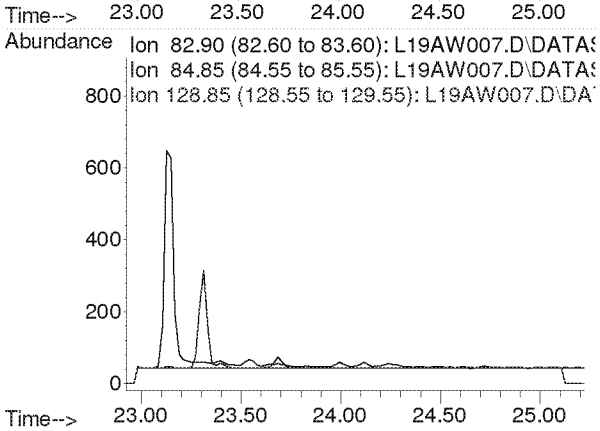


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

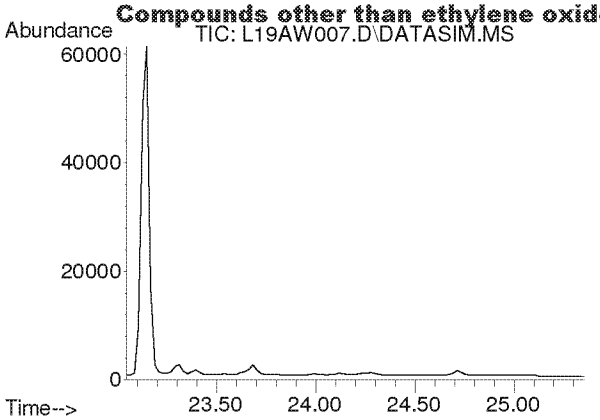
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

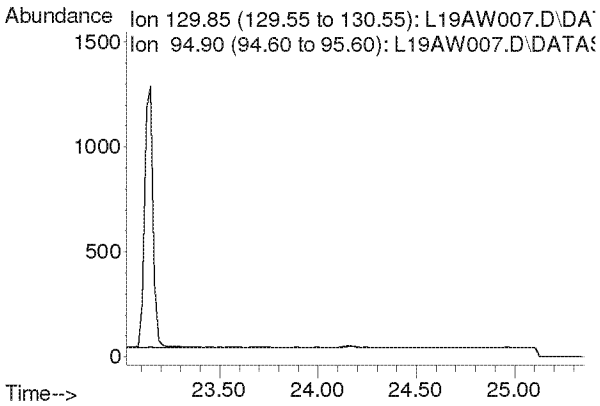


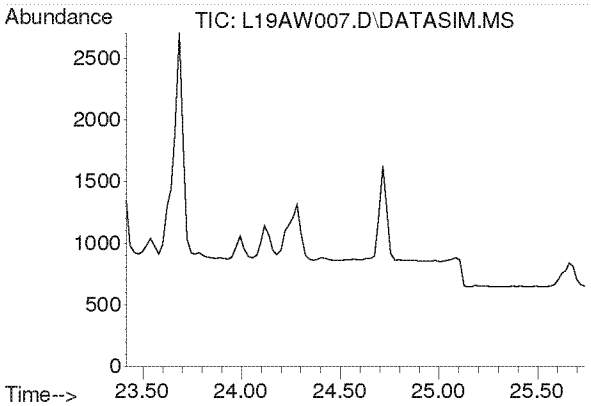
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



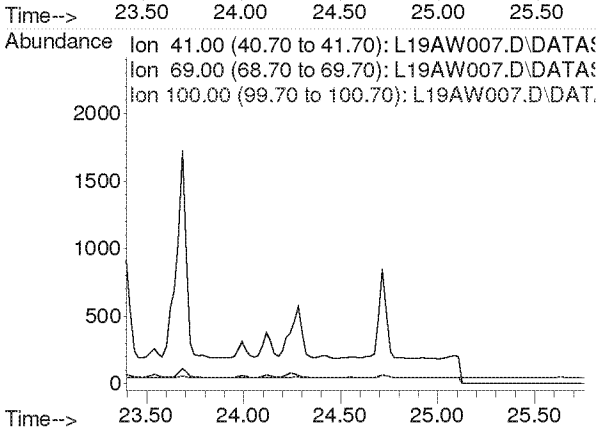


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

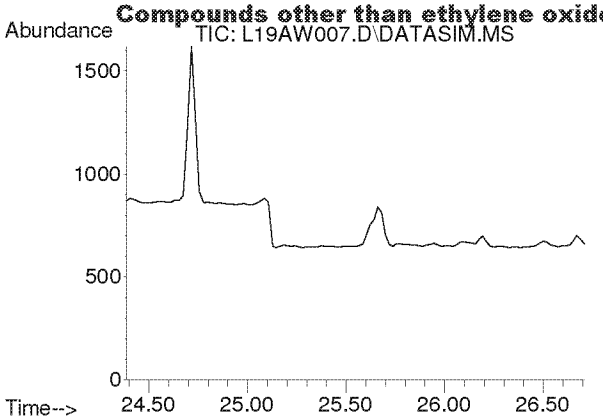
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

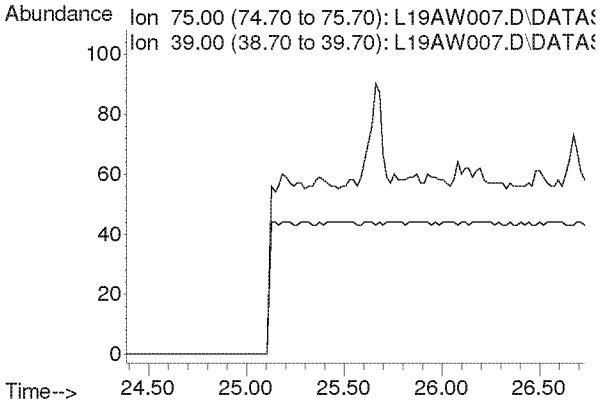


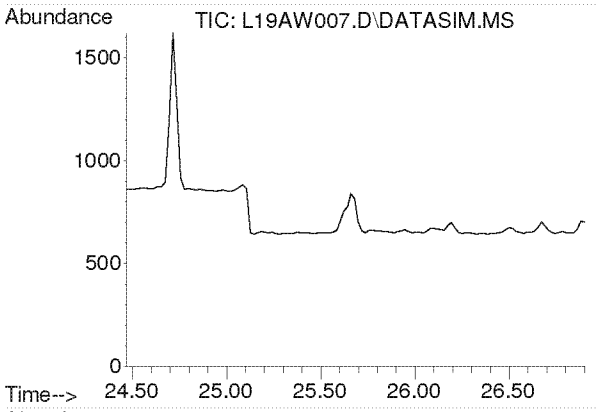
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



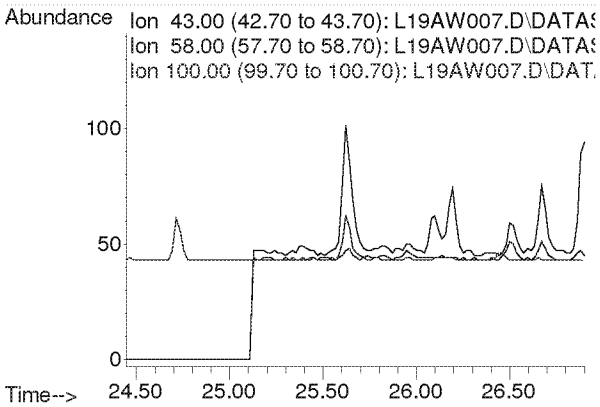


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

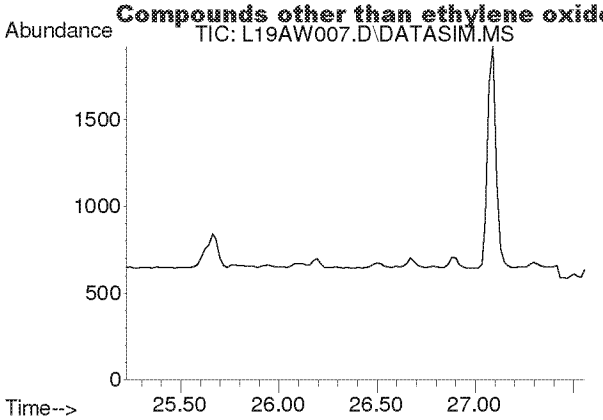
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

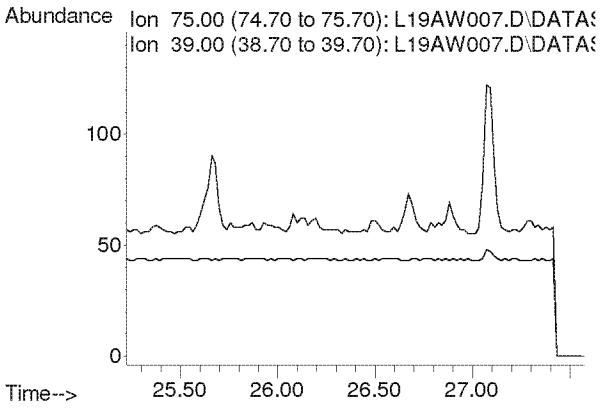


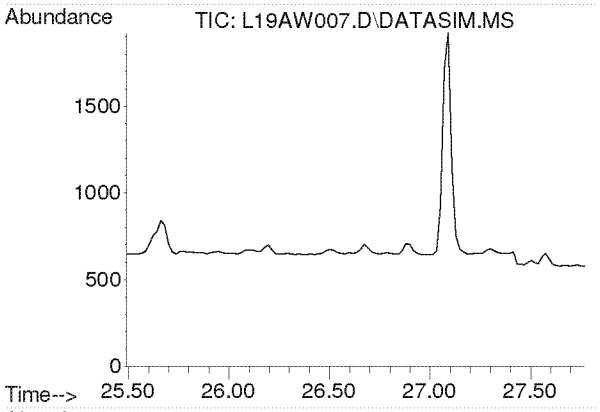
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



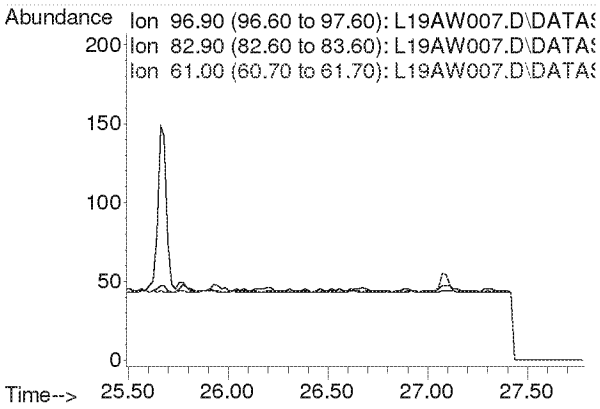


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

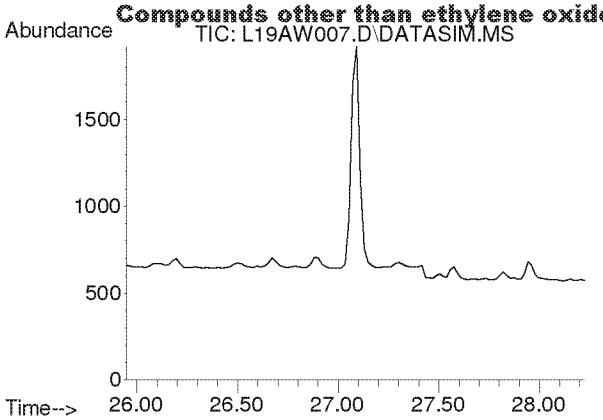
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

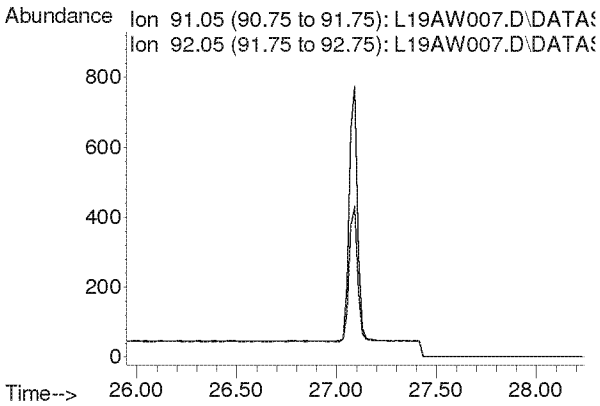


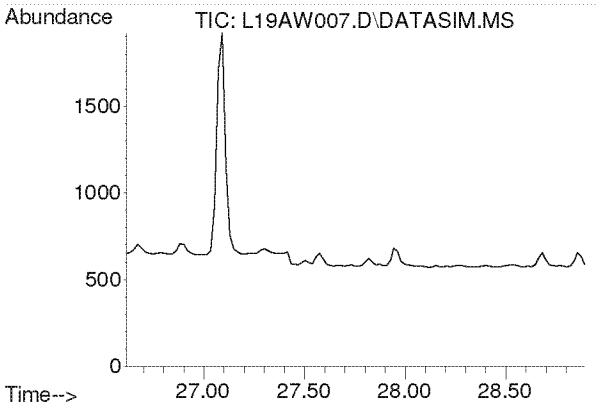
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



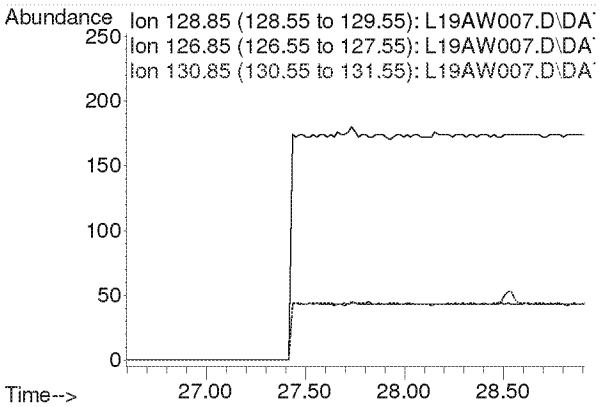


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

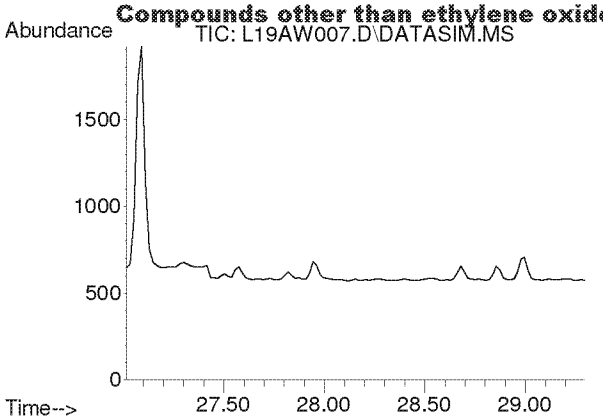
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

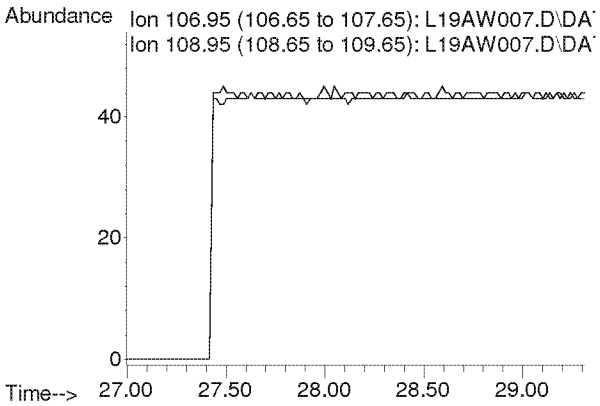


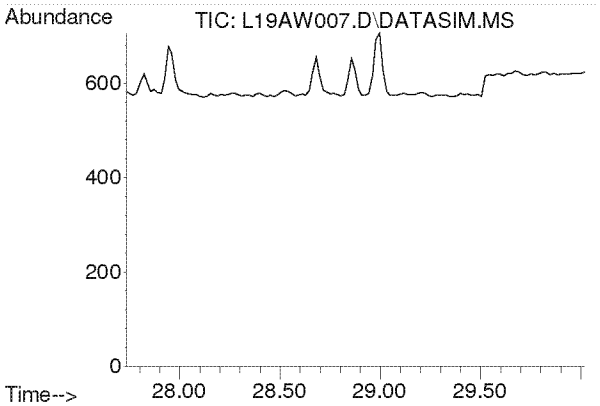
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



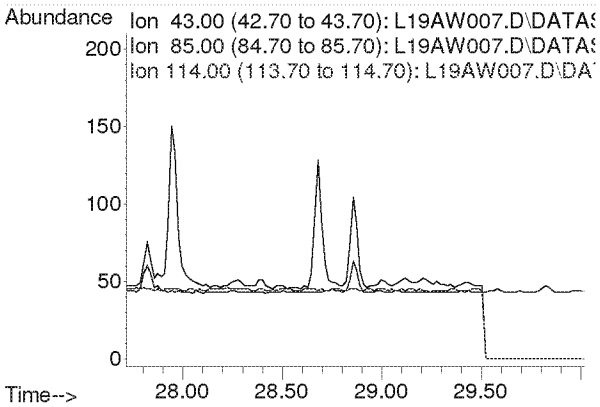


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

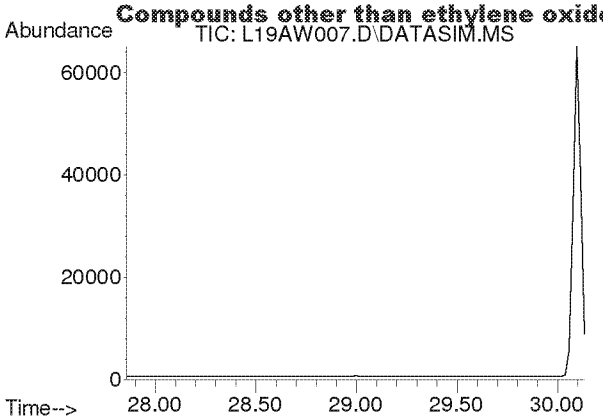
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

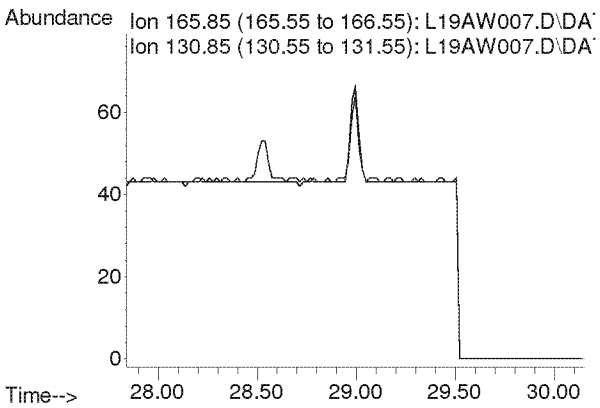


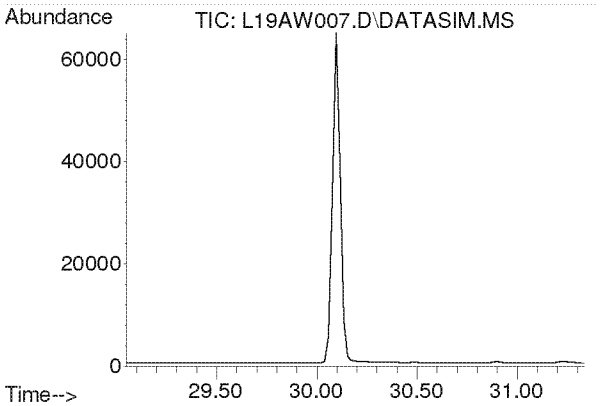
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



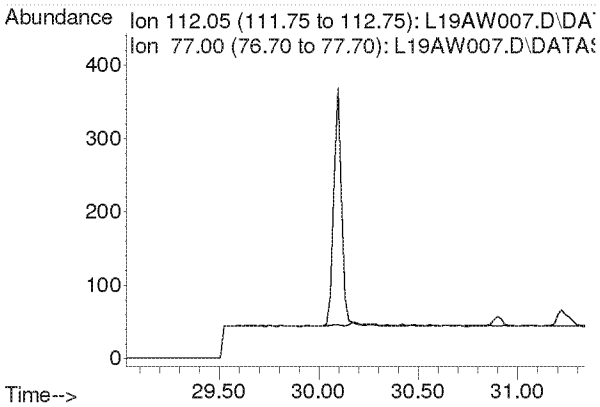


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

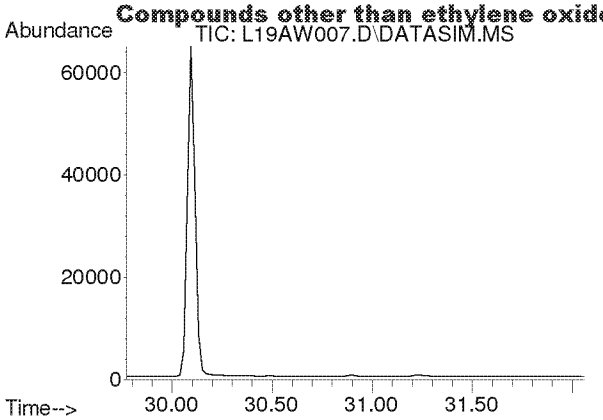
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

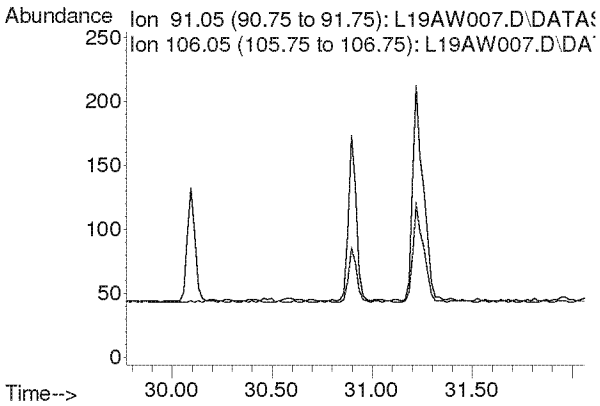


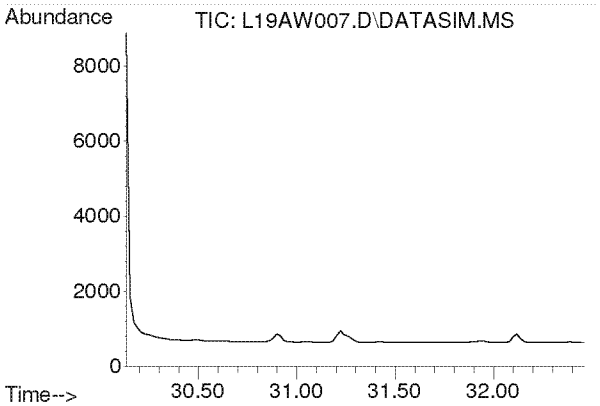
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



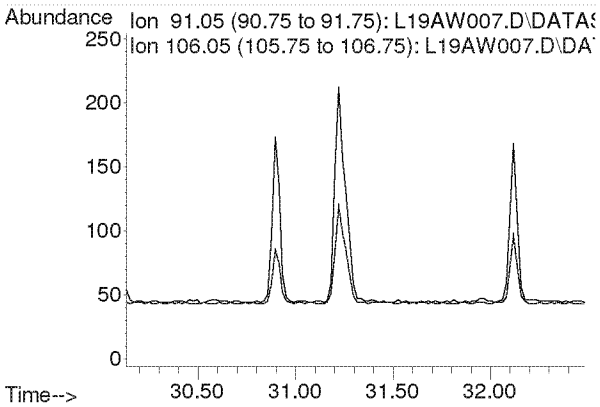


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

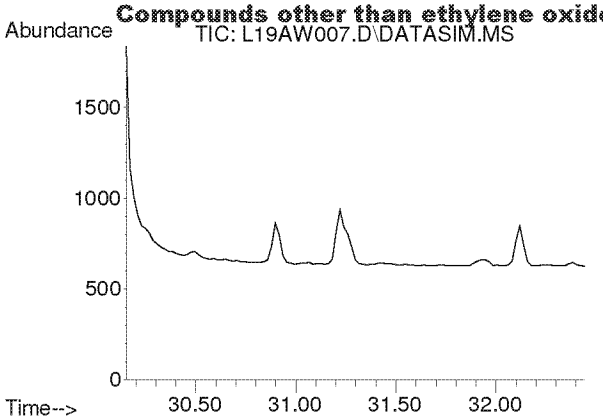
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

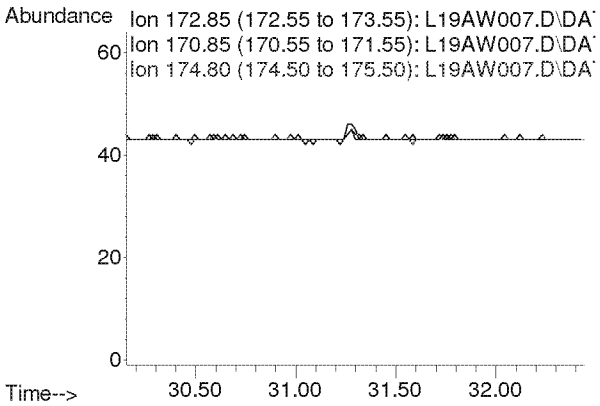


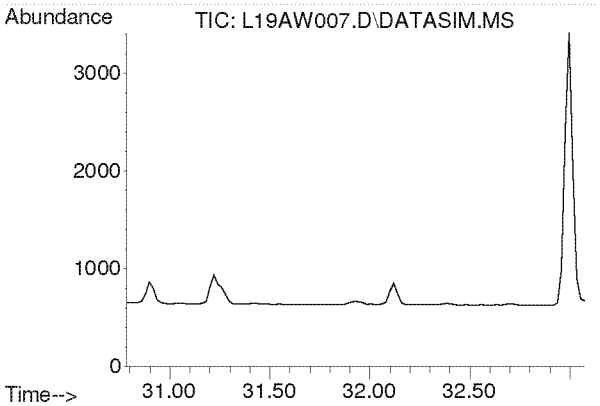
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



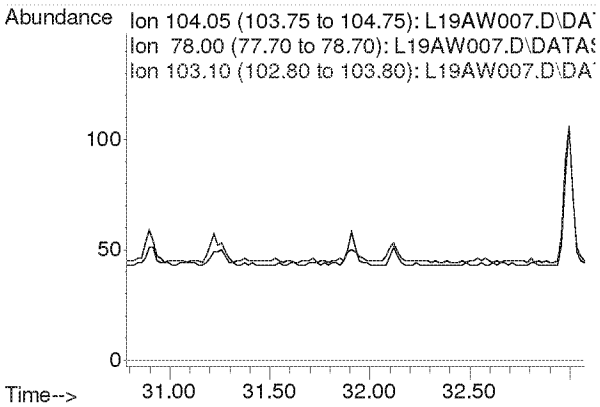


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

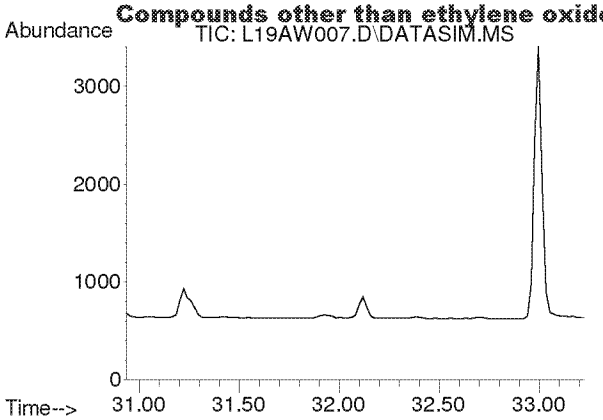
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

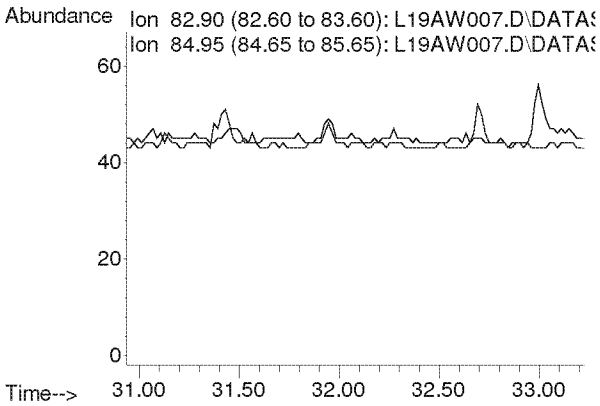


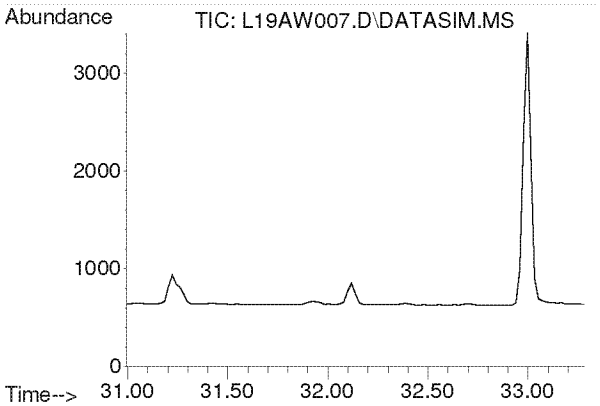
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



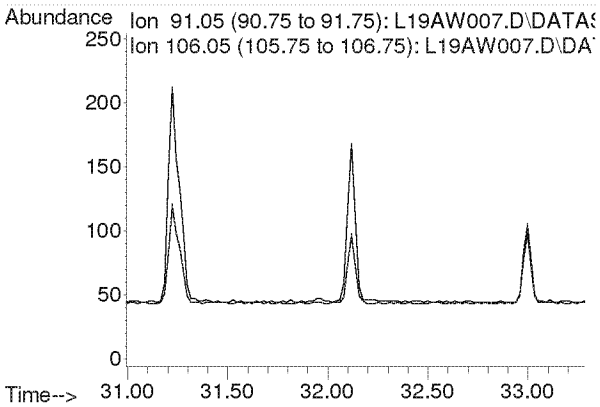


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

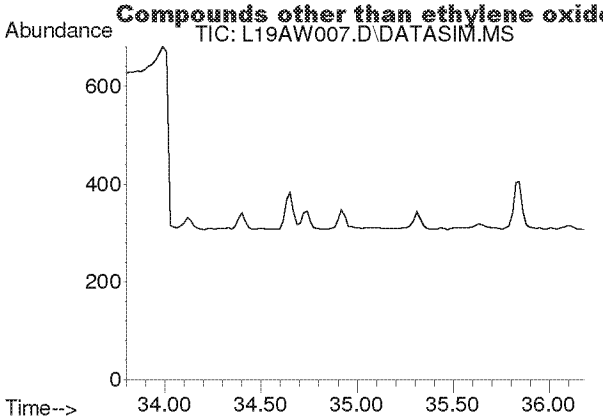
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

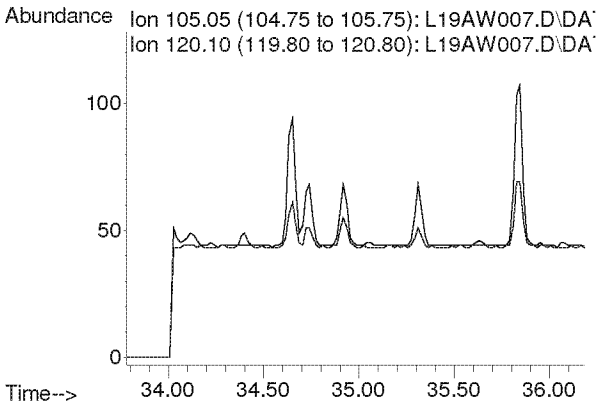


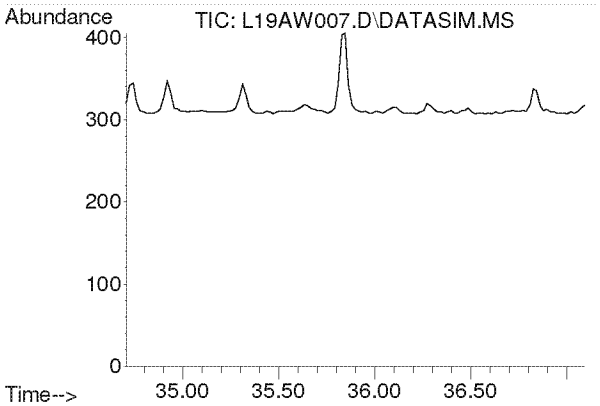
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



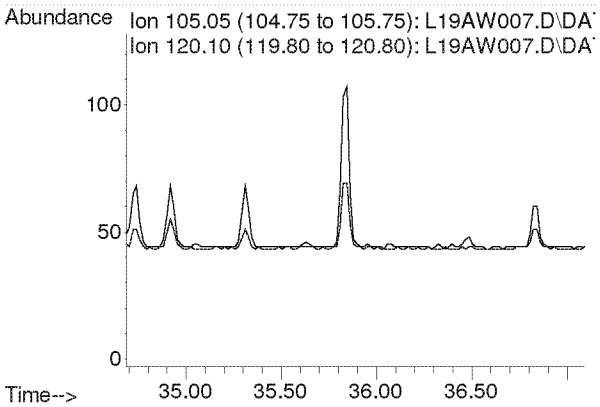


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

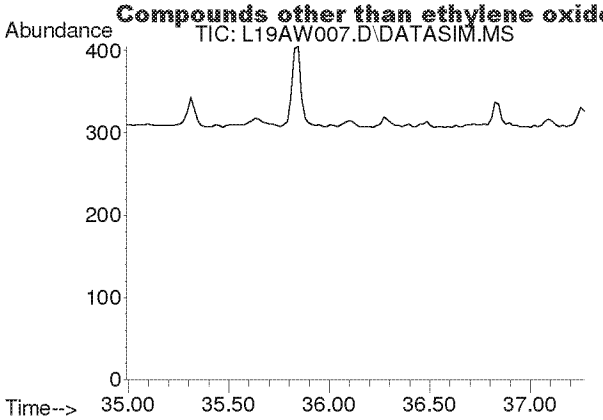
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

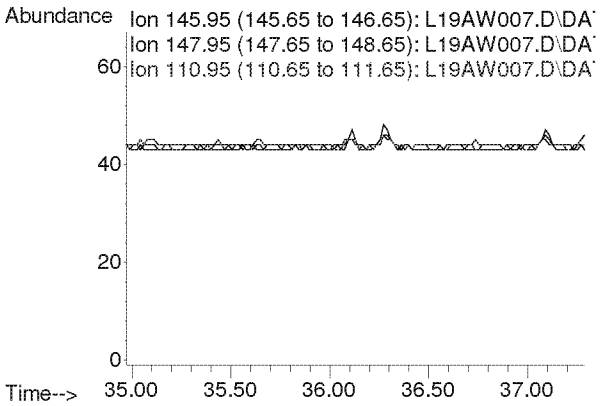


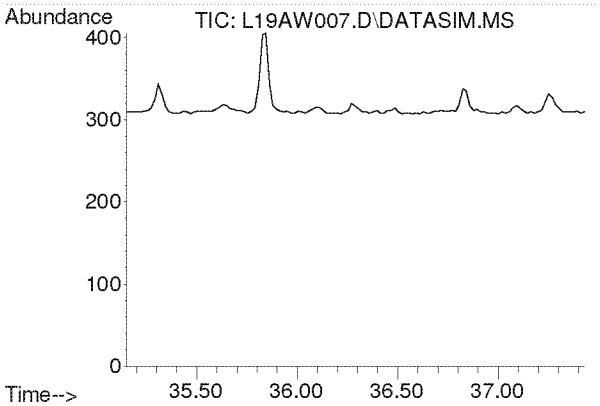
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



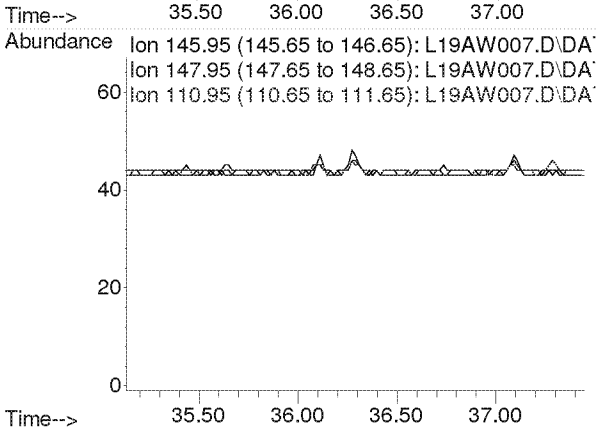


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

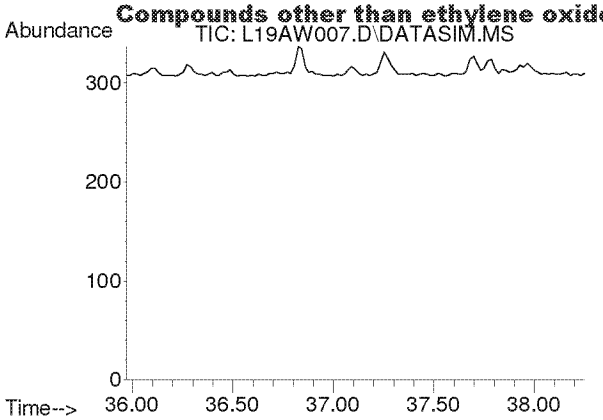
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

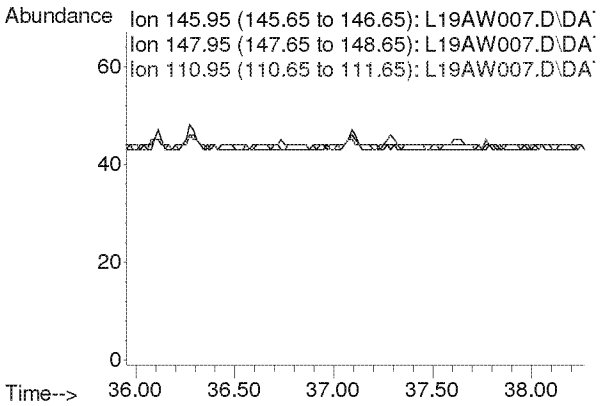


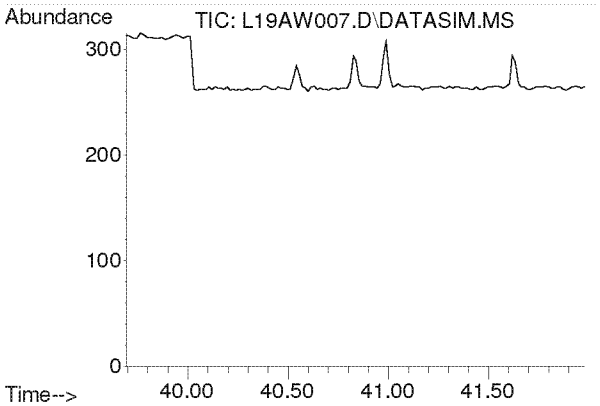
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



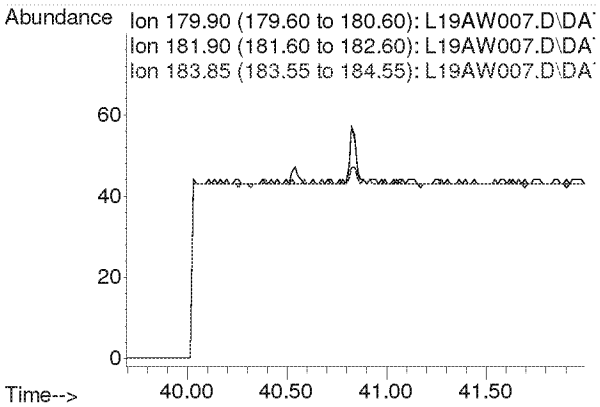


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

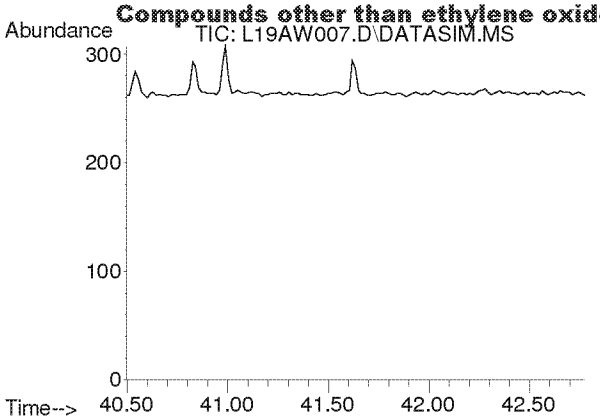
Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.

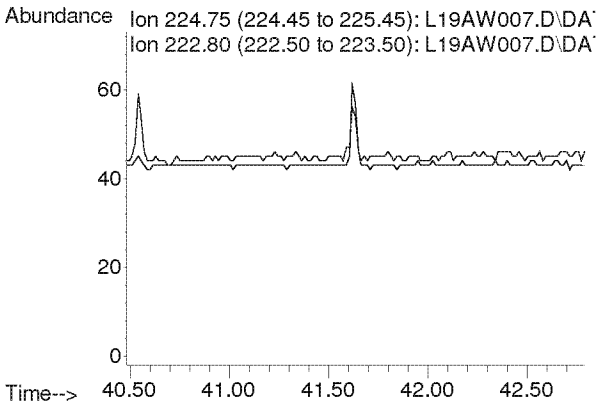


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AW007.D
Acq: 23 Jan 2019 3:32 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\L19AW\
Data File : L19AW008.D
Acq On : 23 Jan 2019 4:34 pm
Operator : MAH
Sample : B9A2306-DUP1
Misc : EPA WB WAREHOUSE R1 1/16/19
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 29 08:22:11 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	53695	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.151	114	132526	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	99351	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	12.350	29	22245	8.0209 ppbv	90
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.	
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	90
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. 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.

Quantification Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AW\
Data File : L19AW008.D
Acq On : 23 Jan 2019 4:34 pm
Operator : MAH
Sample : B9A2306-DUP1
Misc : EPA WB WAREHOUSE R1 1/16/19
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 29 08:22:11 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

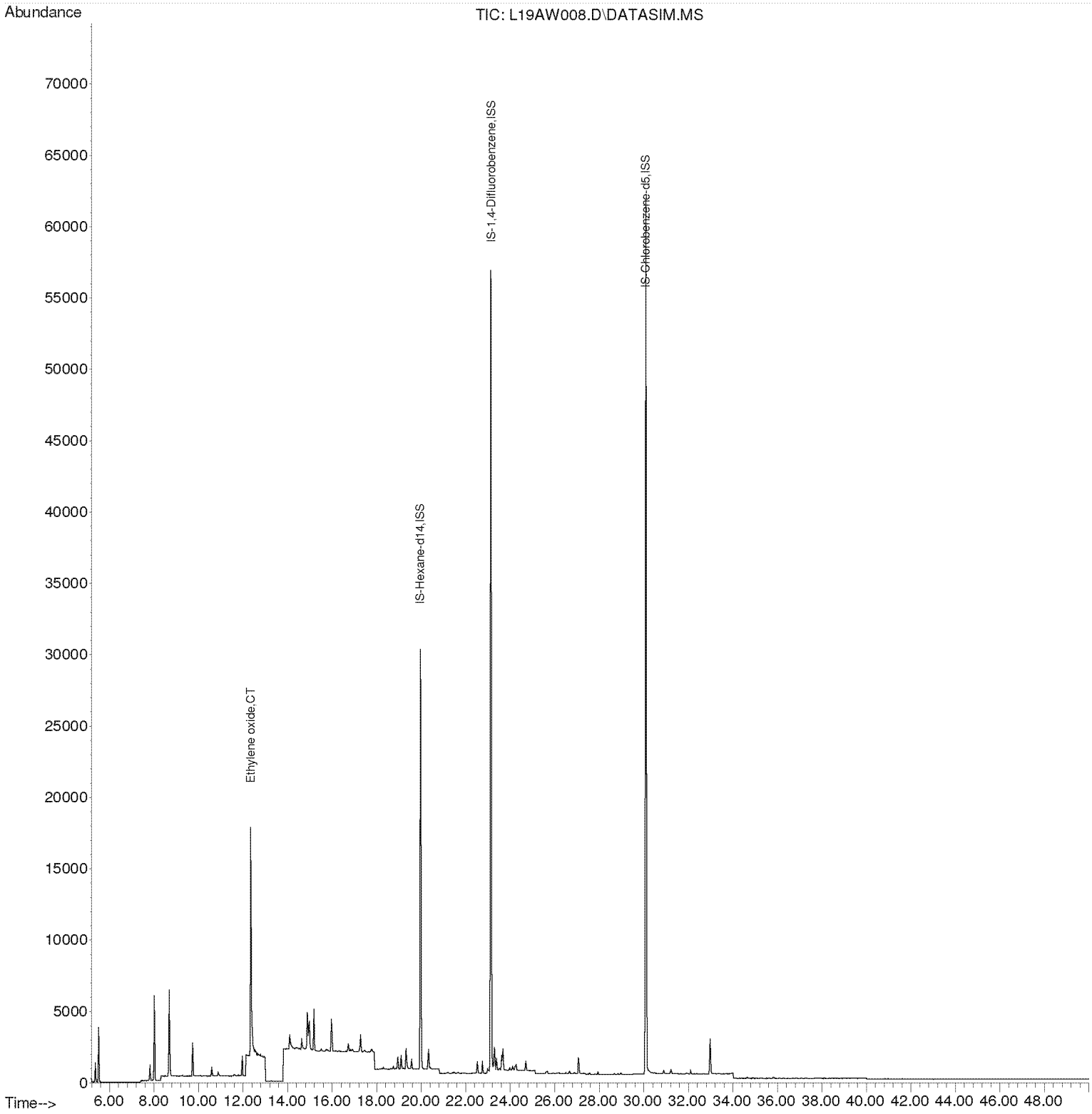
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

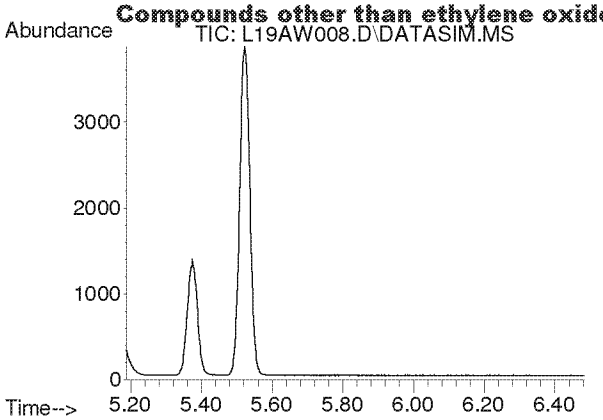
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW008.D
Acq On : 23 Jan 2019 4:34 pm
Operator : MAH
Sample : B9A2306-DUP1
Misc : EPA WB WAREHOUSE R1 1/16/19
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jan 29 08:06:14 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



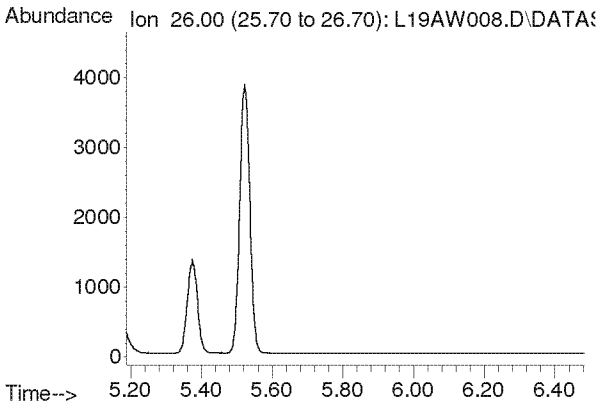
Compounds other than ethylene oxide were not quantitated.

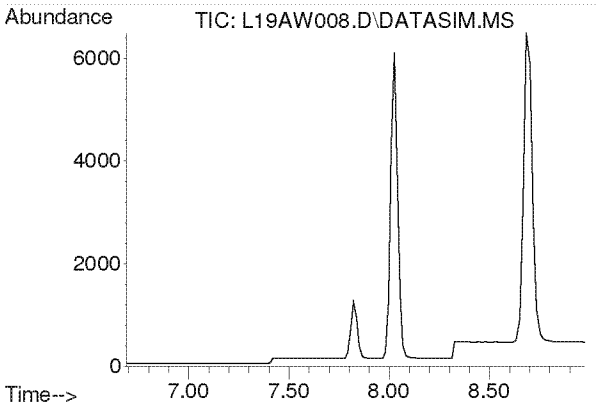


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 26



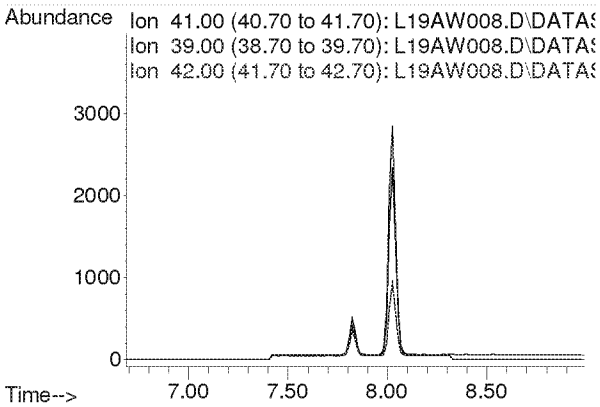


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

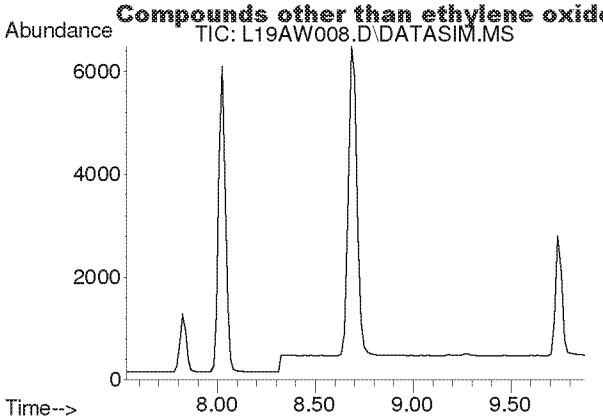
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

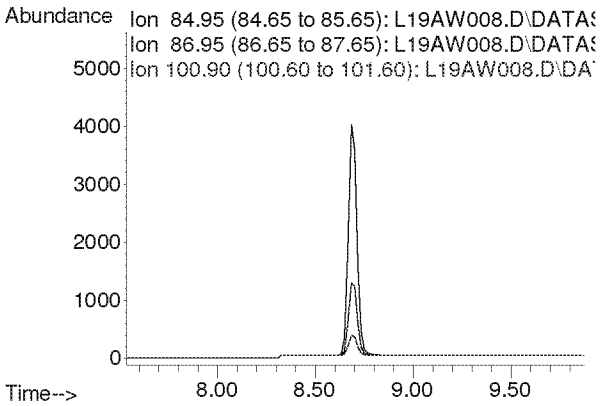


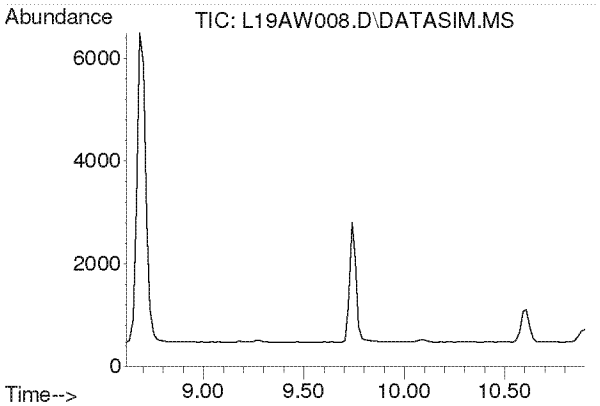
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



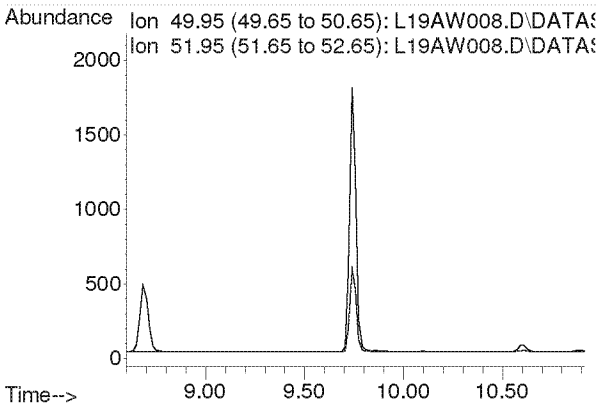


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

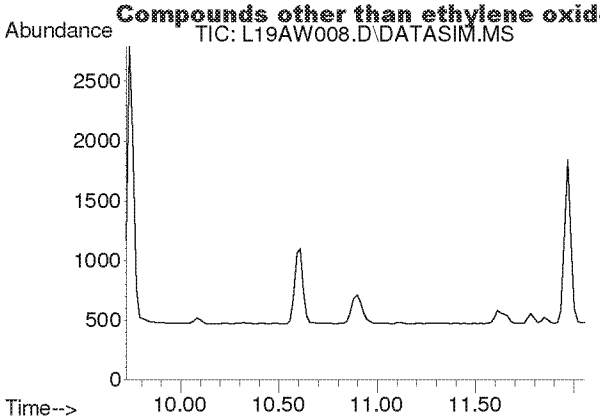
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

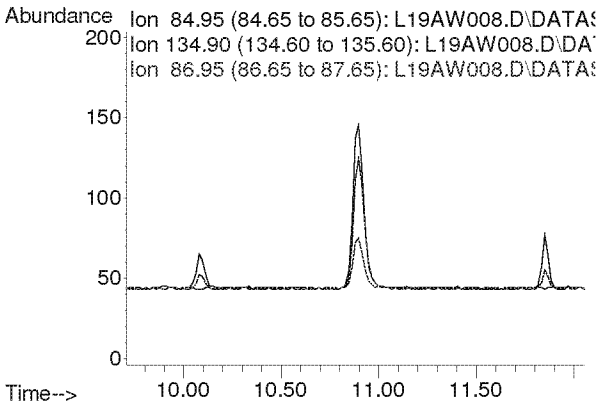


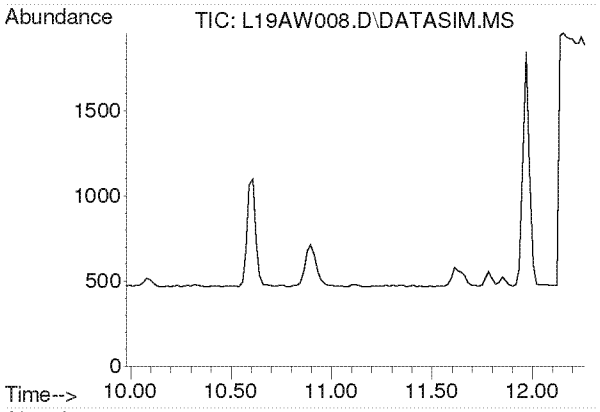
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



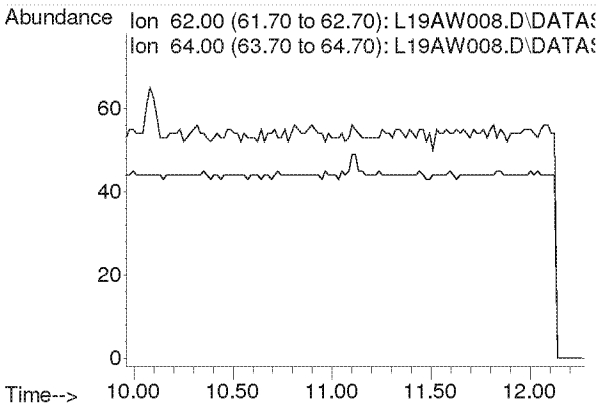


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

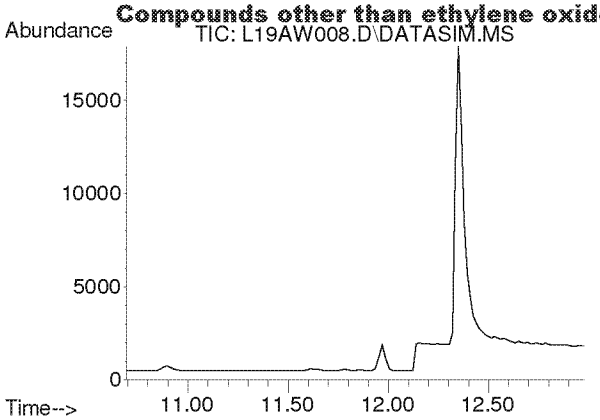
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

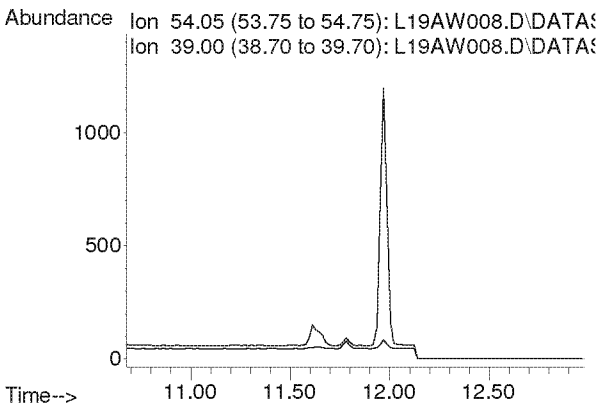


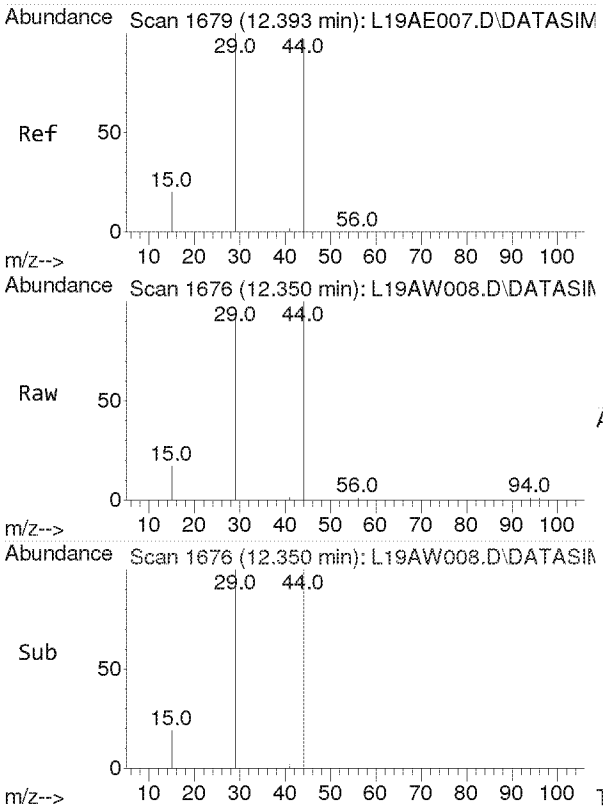
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

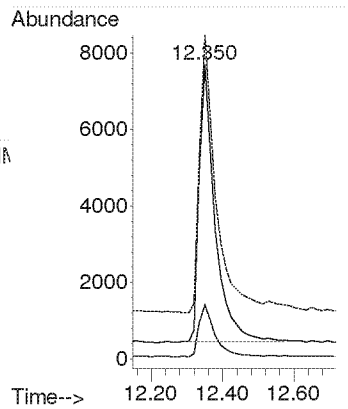




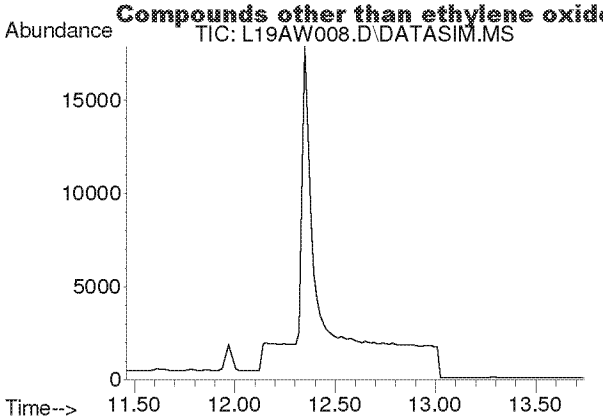
#9
Ethylene oxide
Concen: 8.021 ppbv
RT: 12.350 min Scan# 1676
Delta R.T. -0.043 min
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 29 Resp: 22245

Ion	Ratio	Lower	Upper
29	100		
15	19.0	15.4	23.0
44	108.6	77.4	116.2



Compounds other than ethylene oxide were not quantitated.

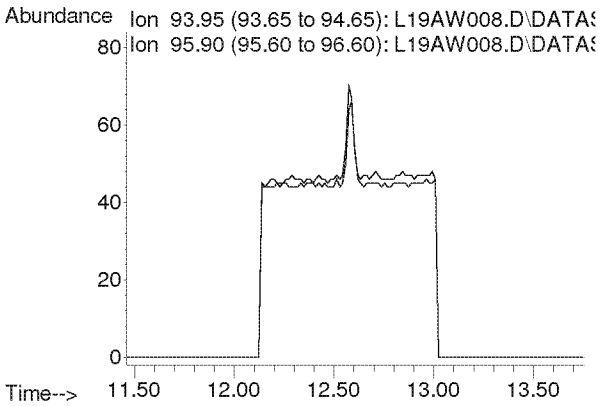


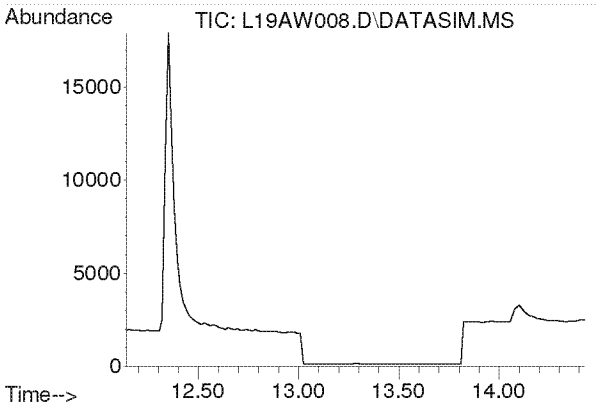
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



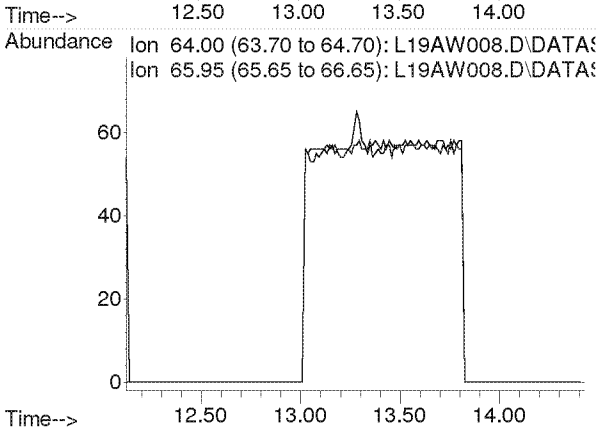


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

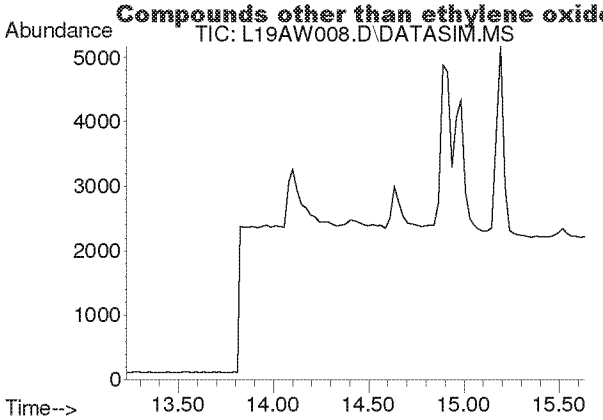
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

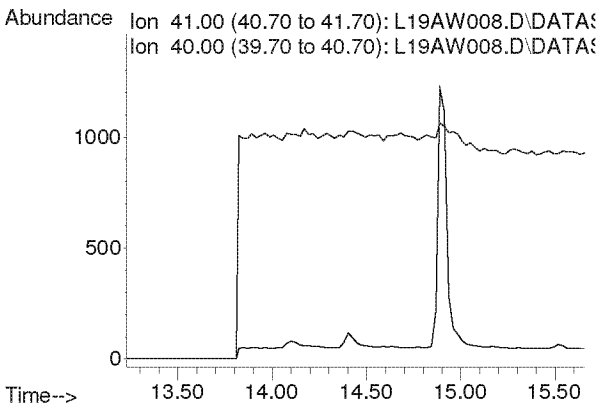


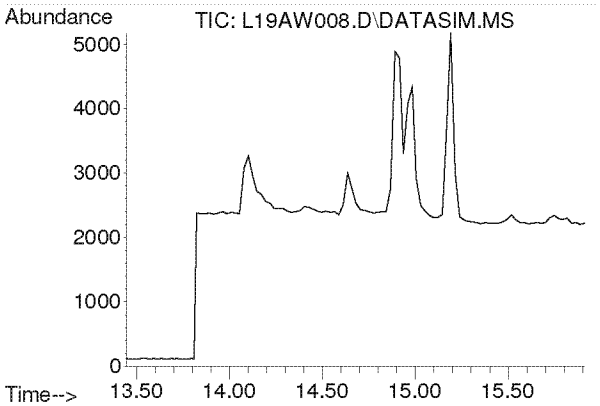
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



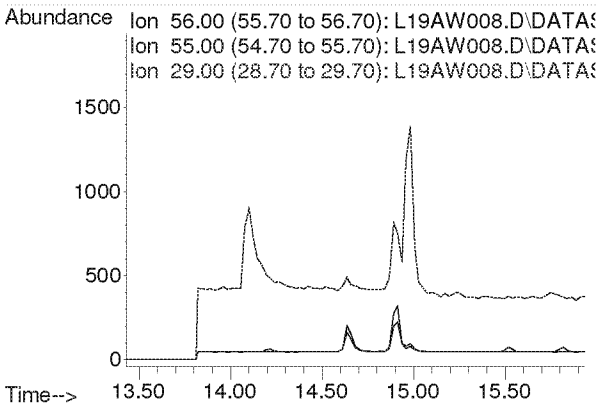


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

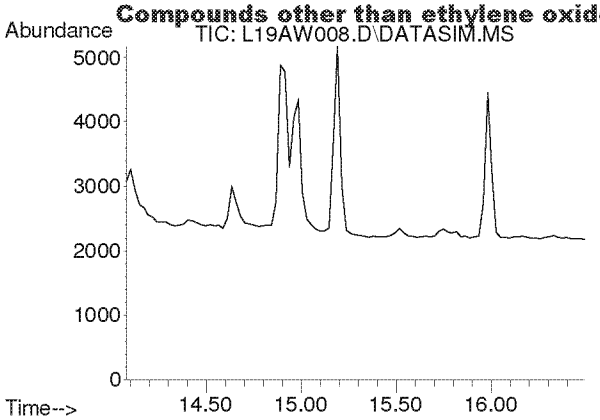
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

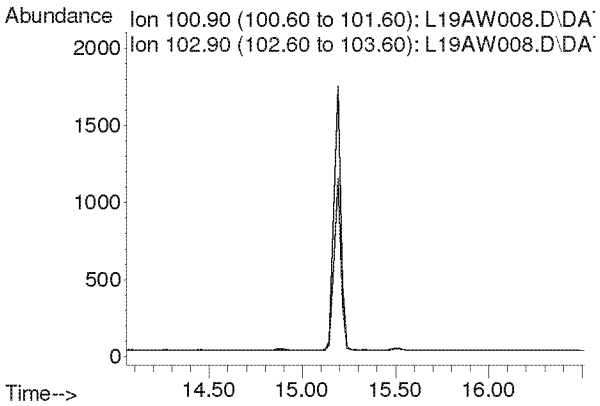


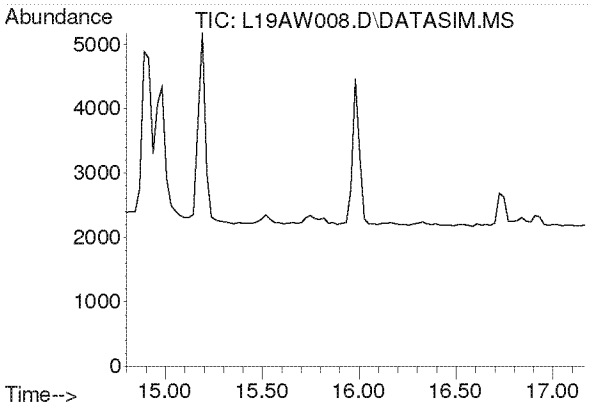
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



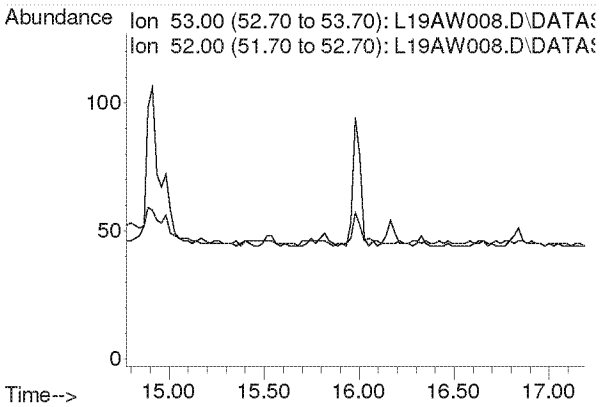


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

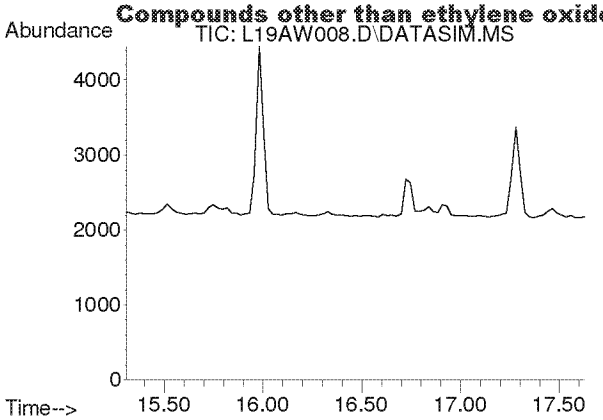
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

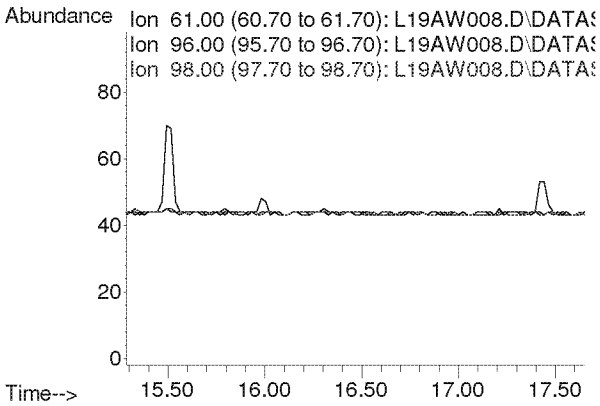


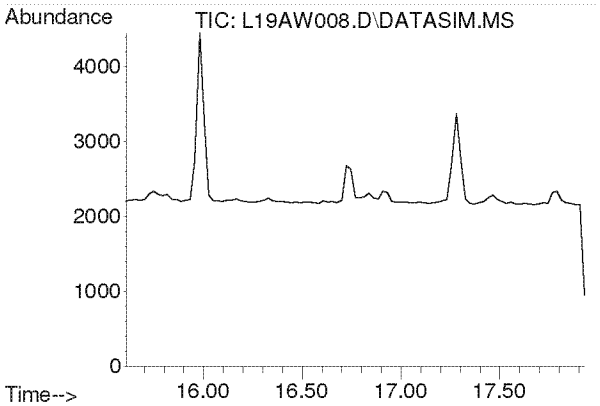
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



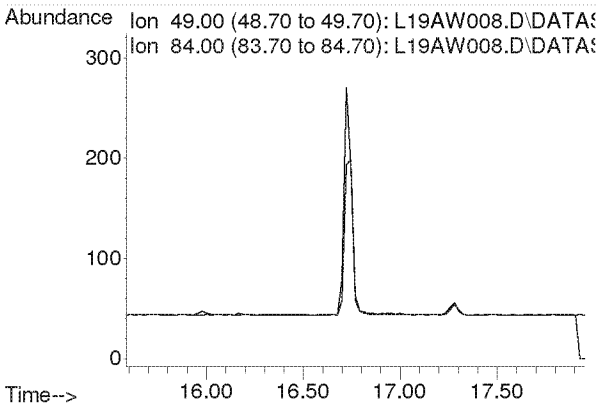


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

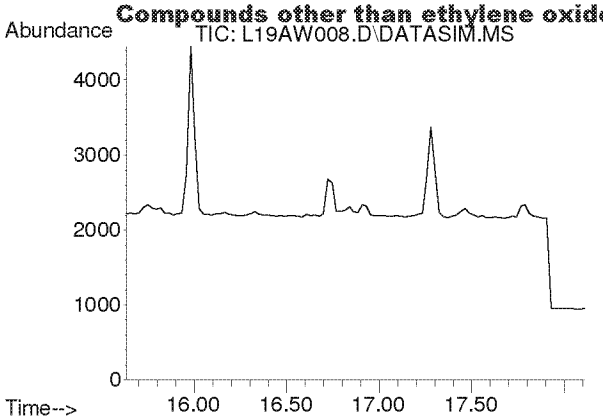
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

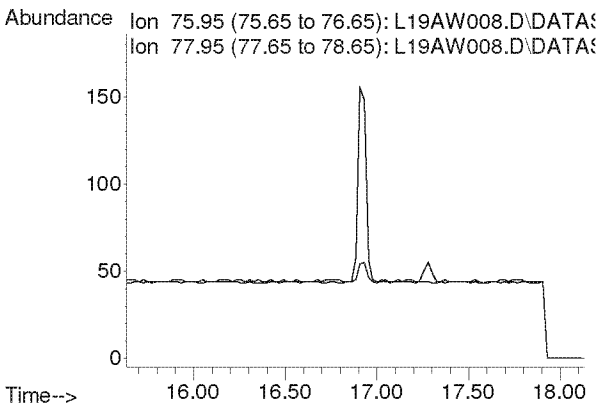


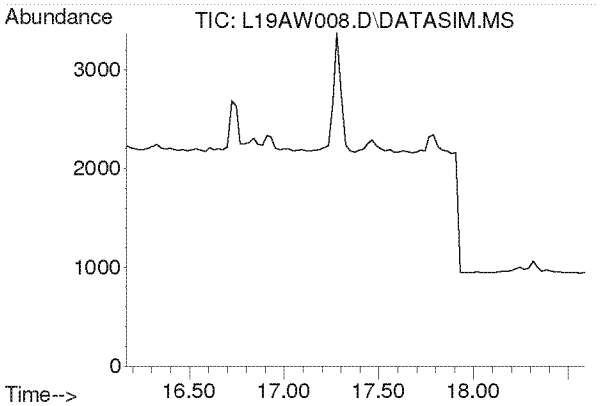
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



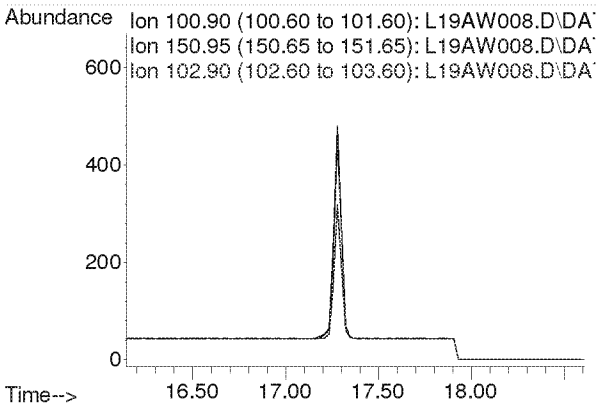


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

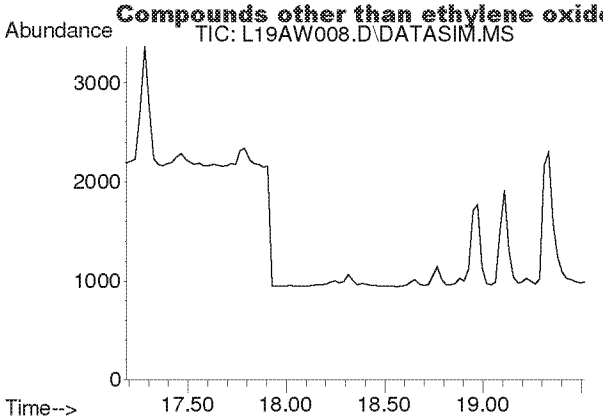
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

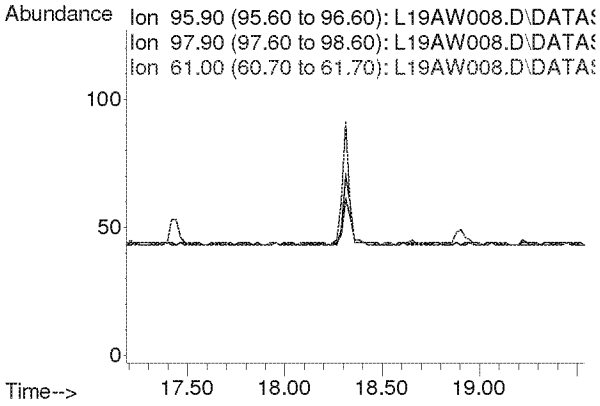


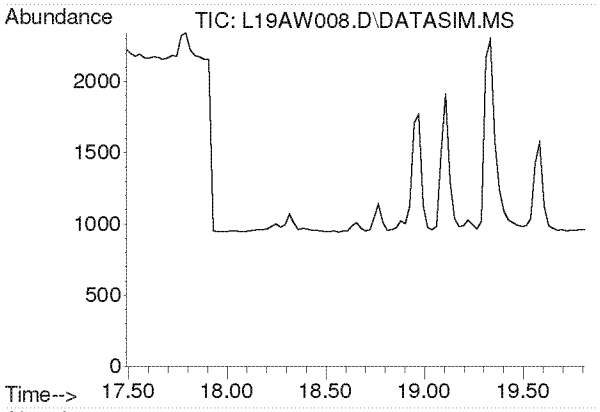
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



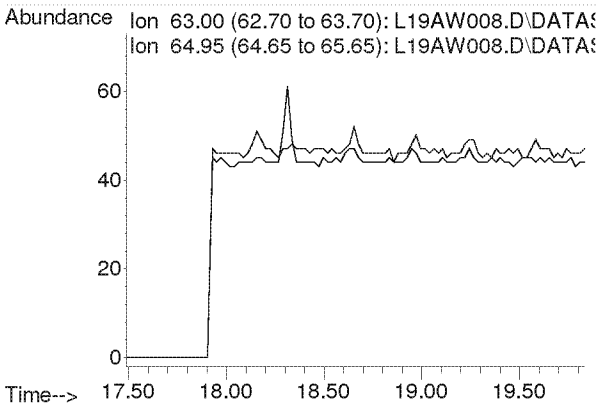


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

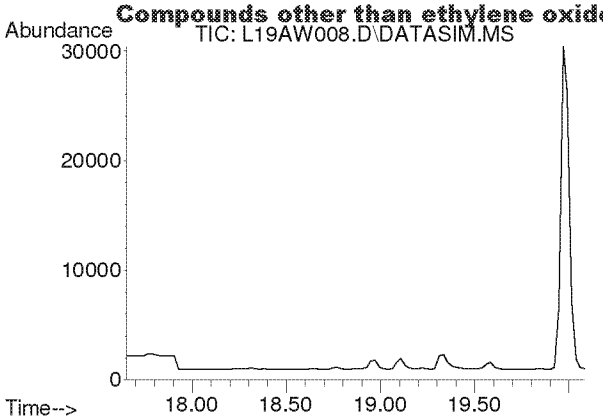
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

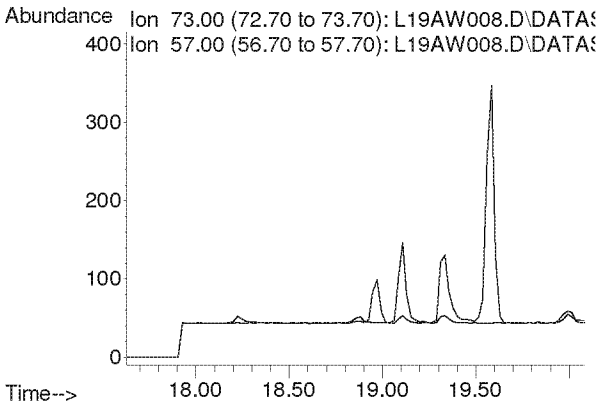


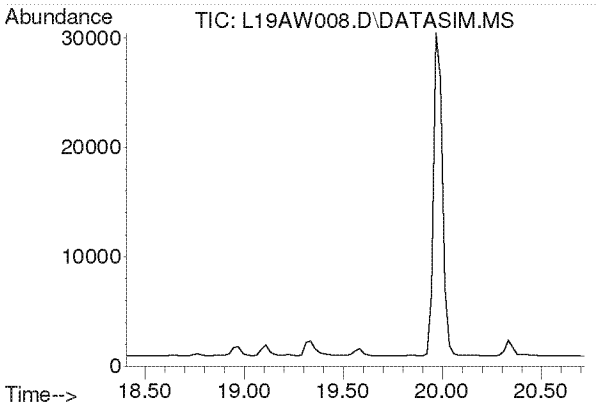
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



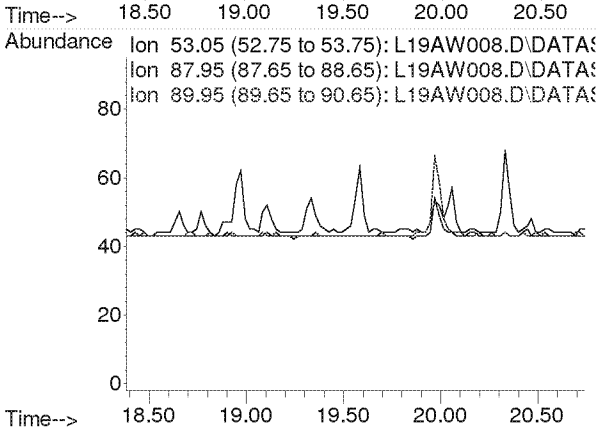


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

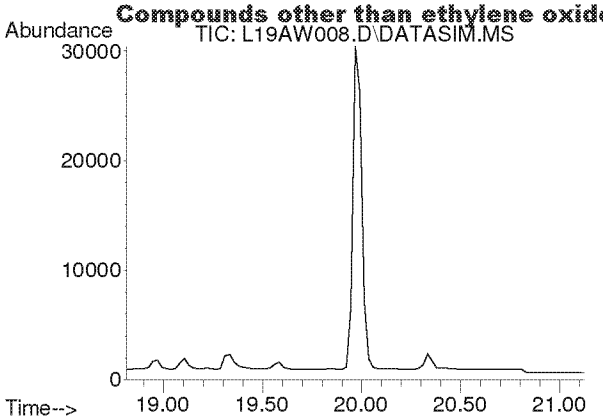
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

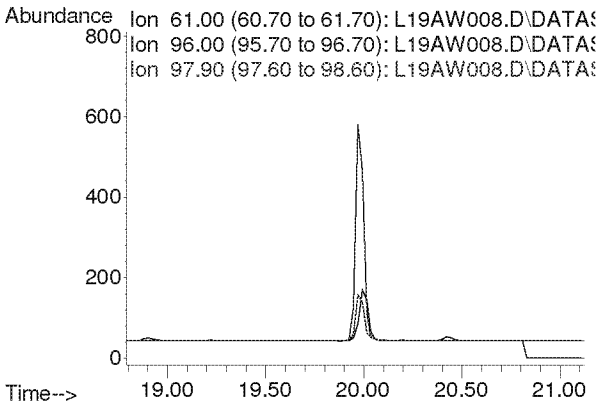


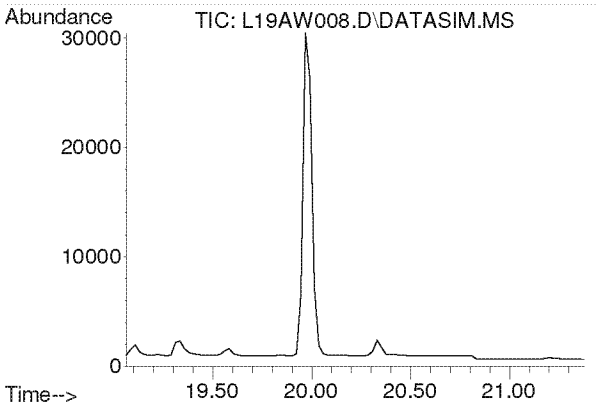
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



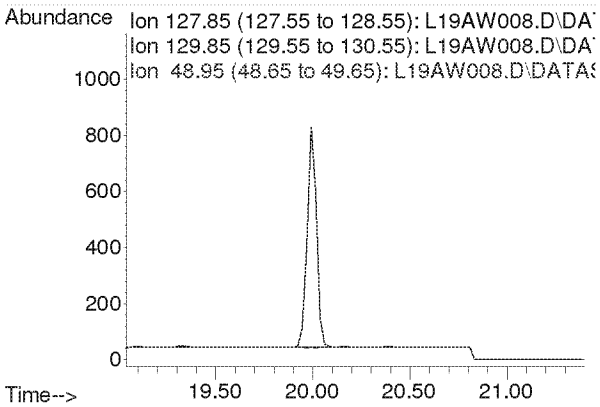


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

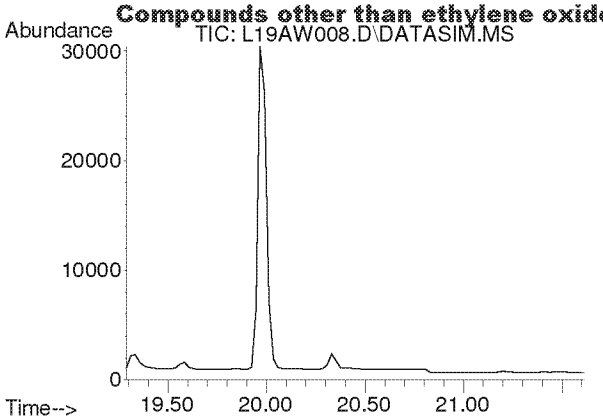
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

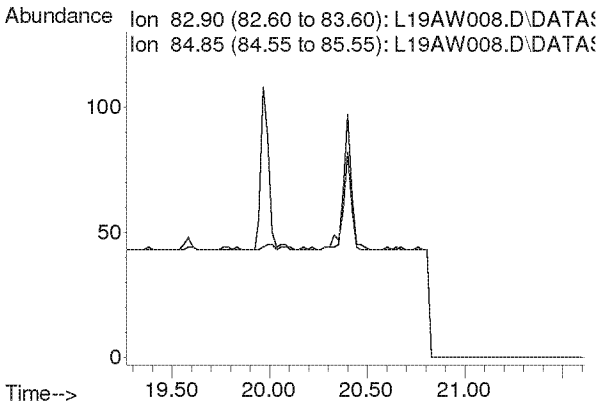


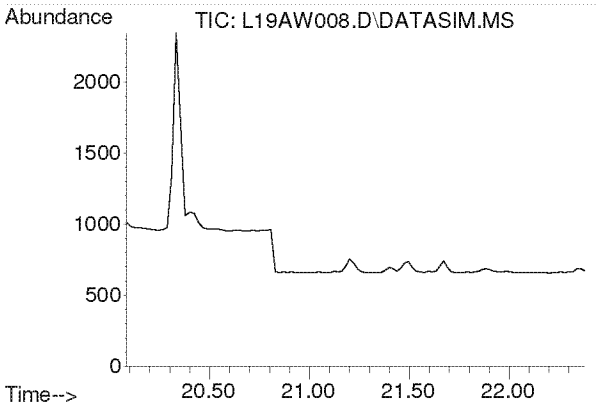
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



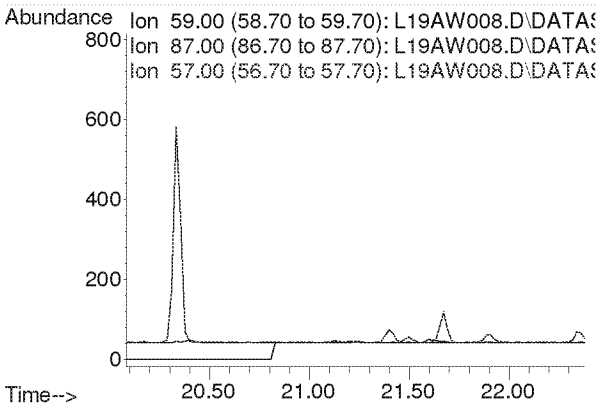


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

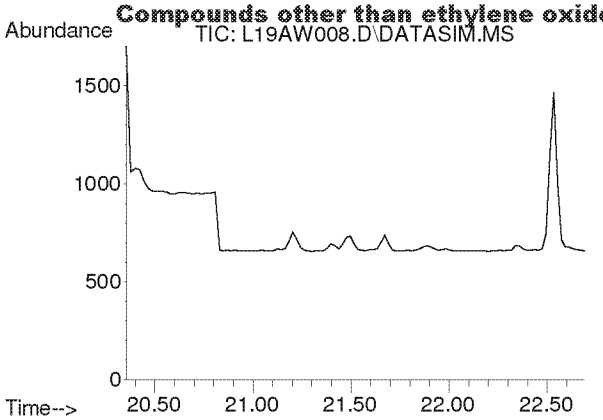
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

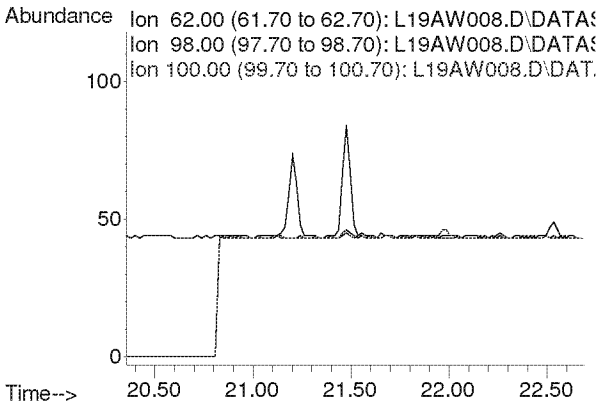


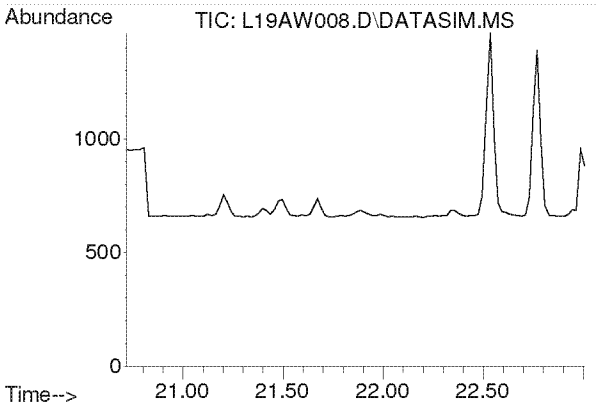
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



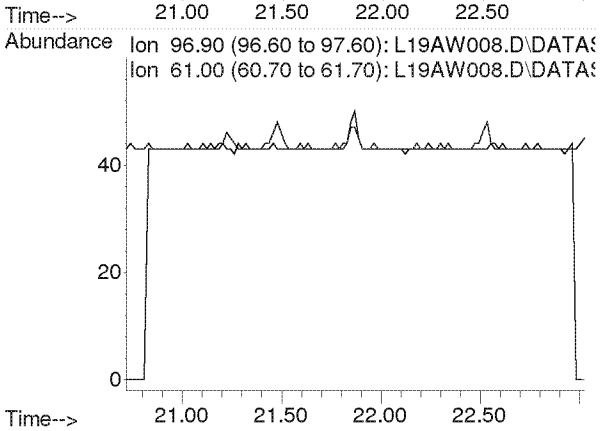


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

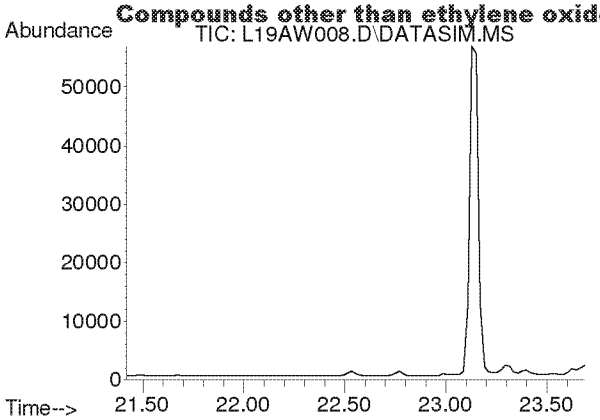
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

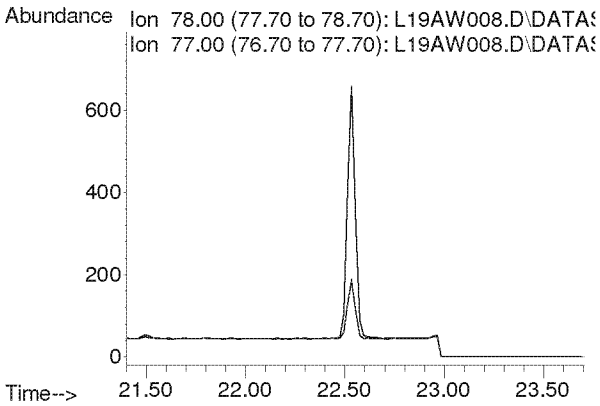


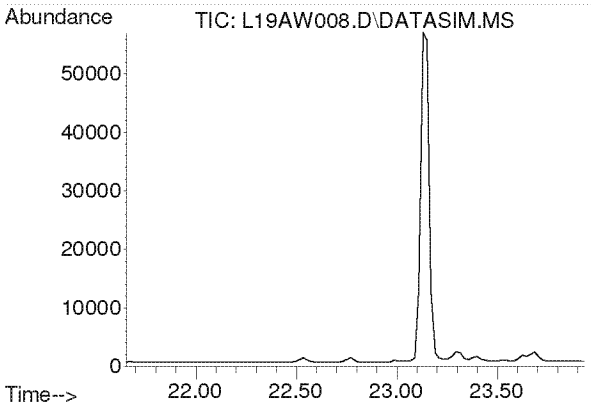
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



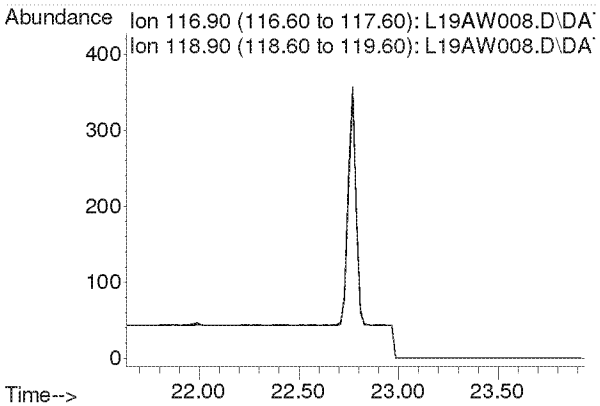


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

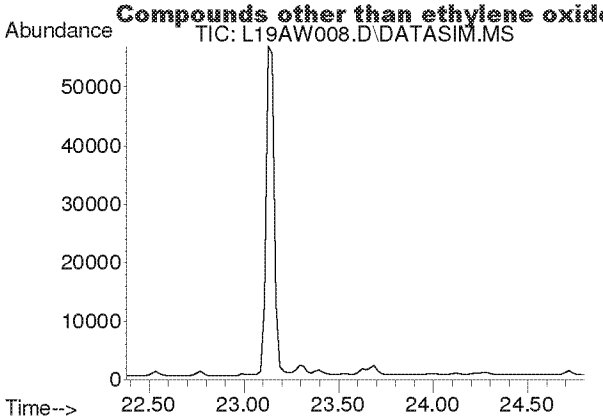
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

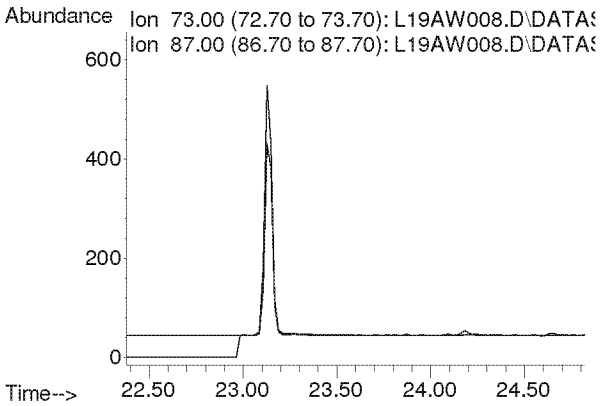


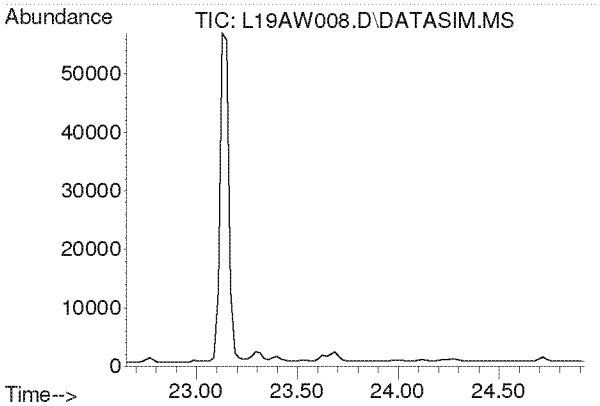
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



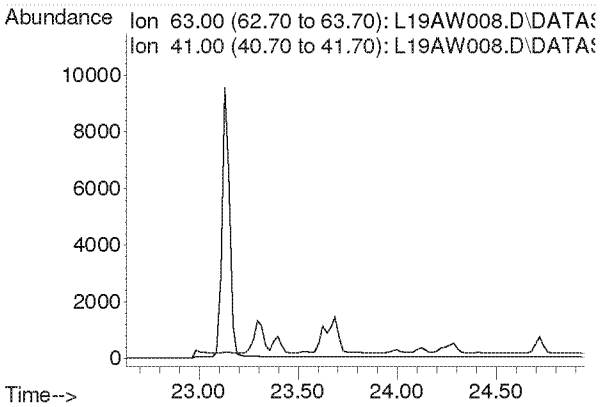


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

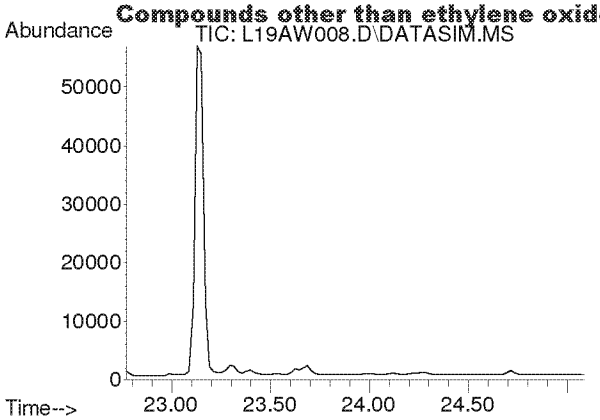
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

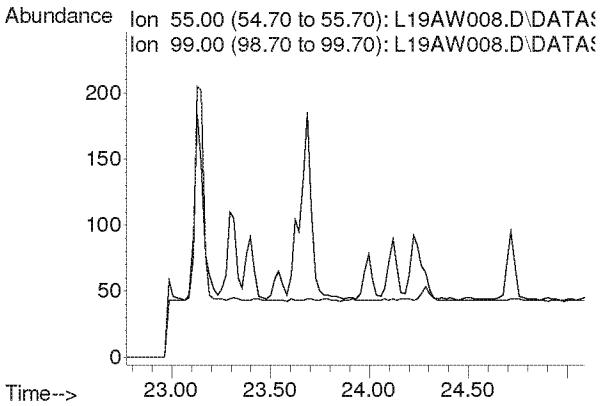


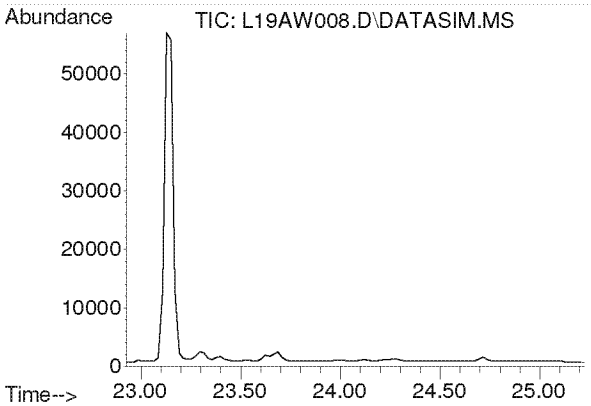
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



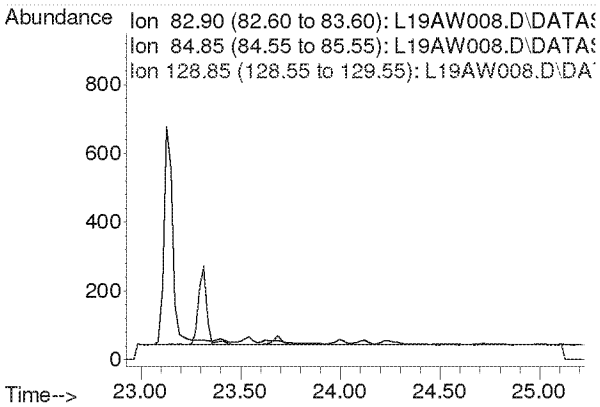


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

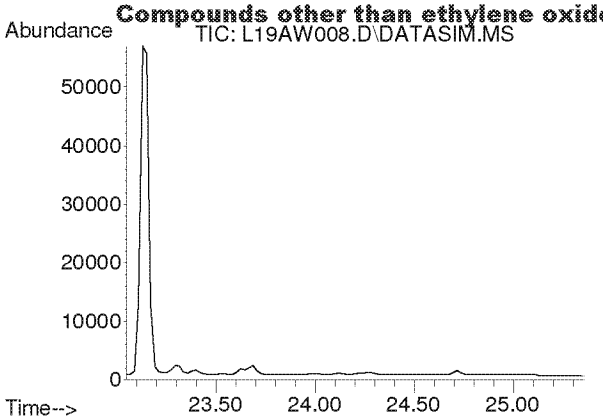
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

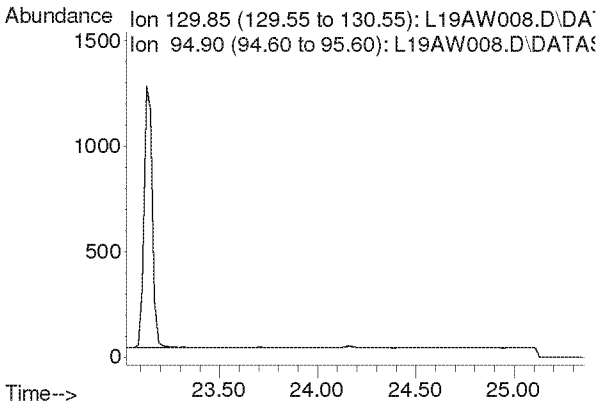


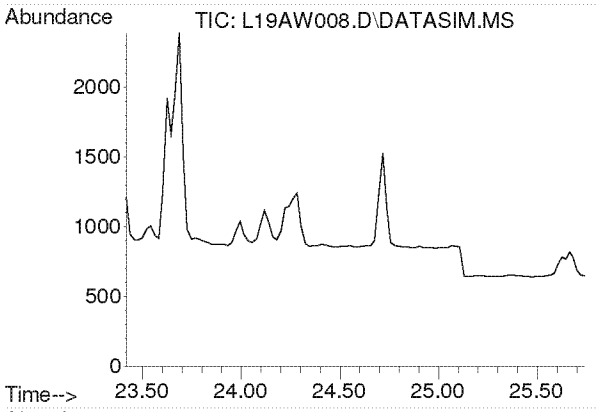
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



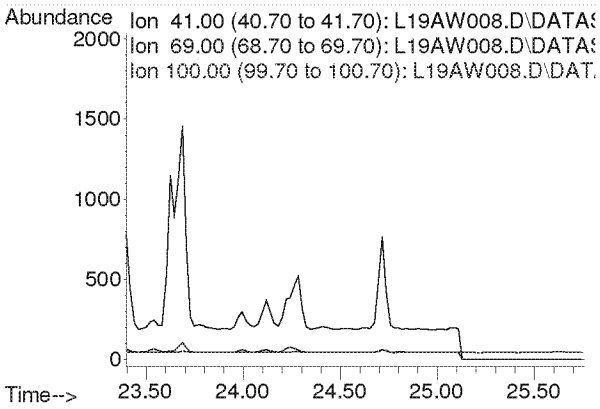


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

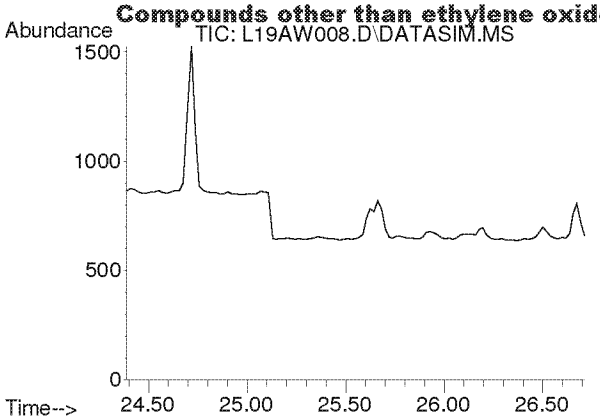
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

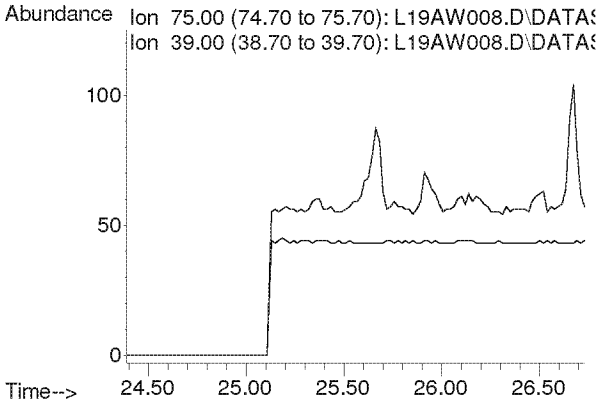


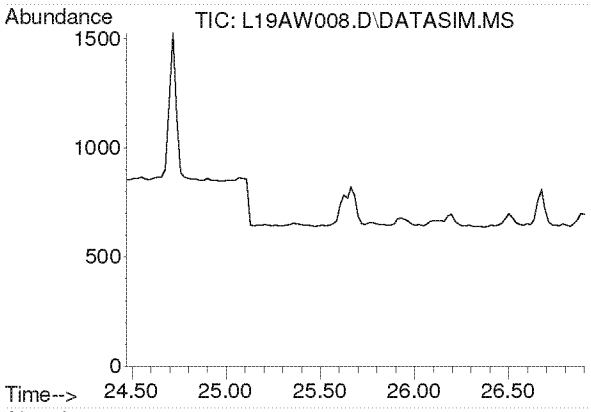
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



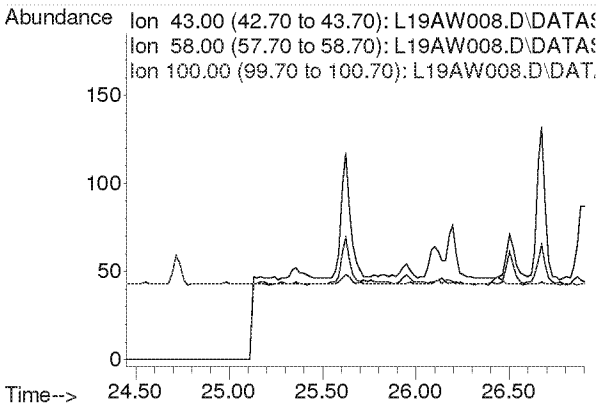


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

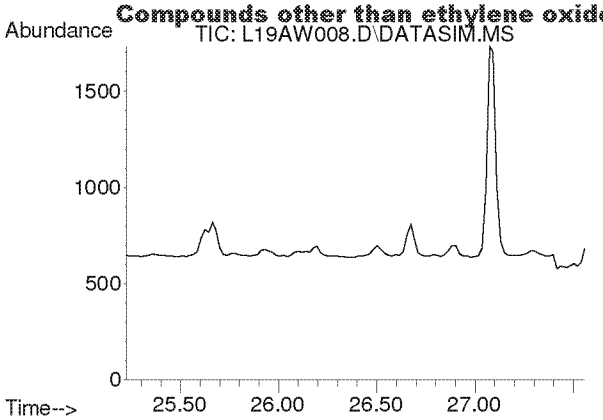
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

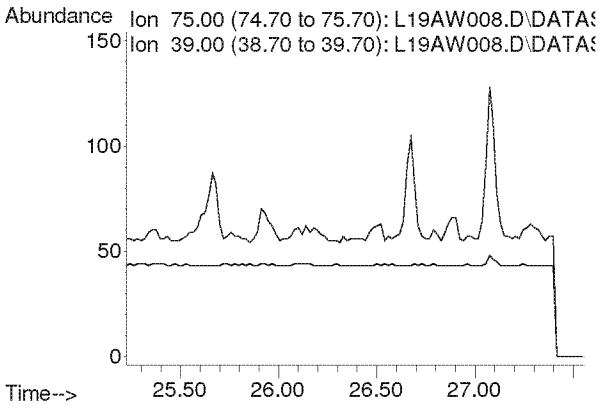


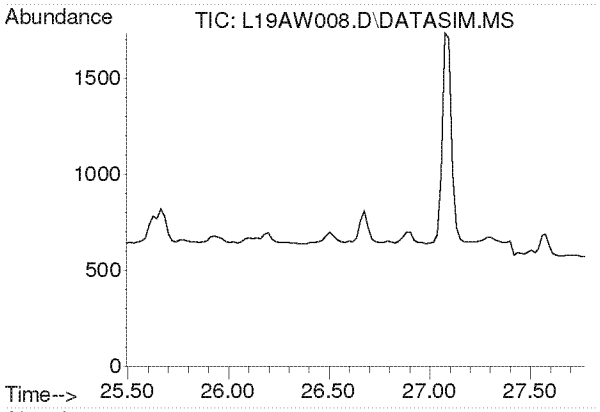
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



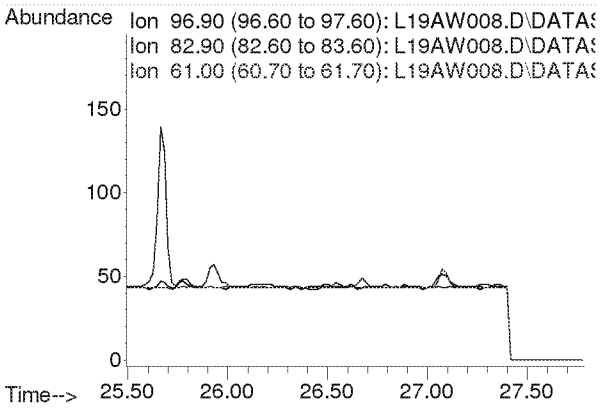


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

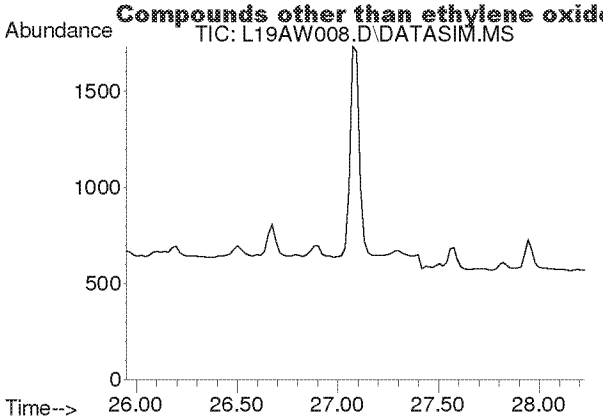
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

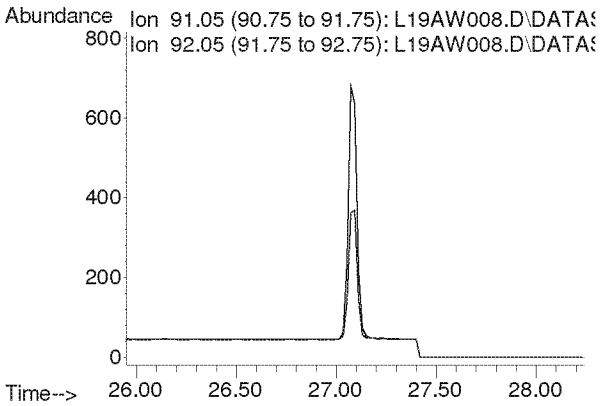


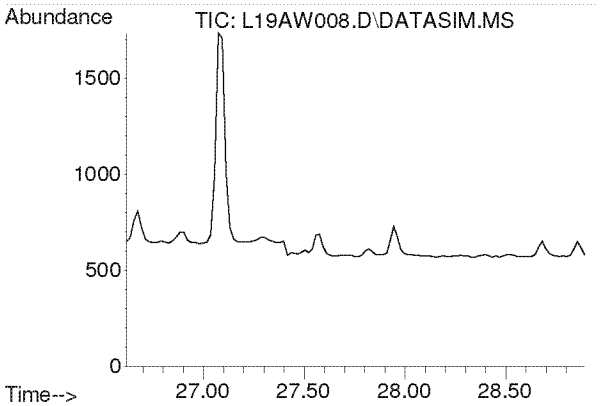
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



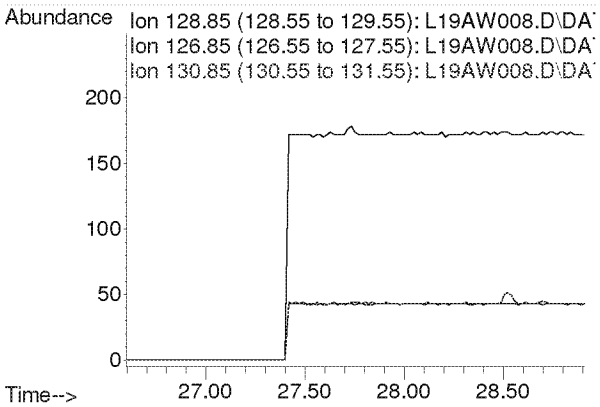


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

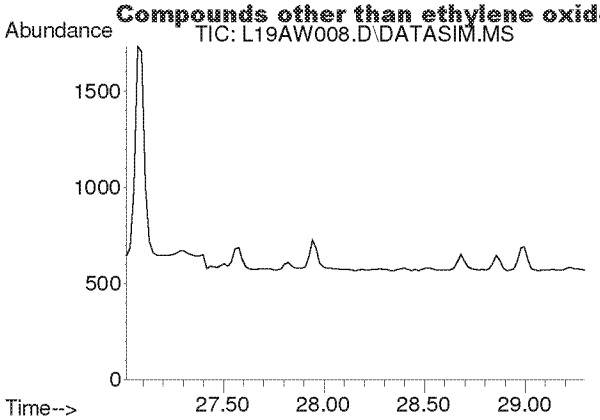
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

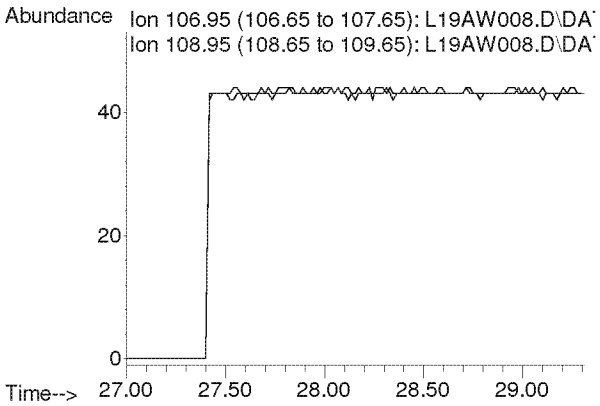


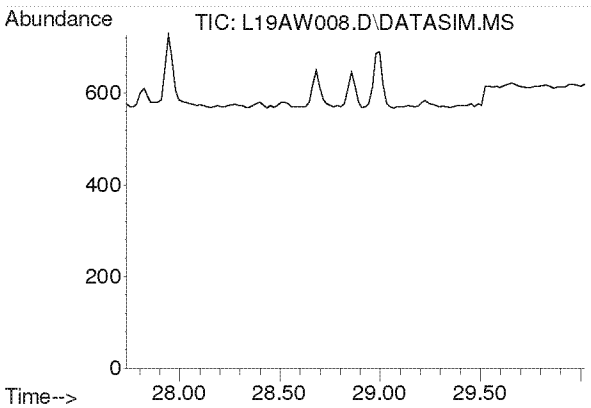
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



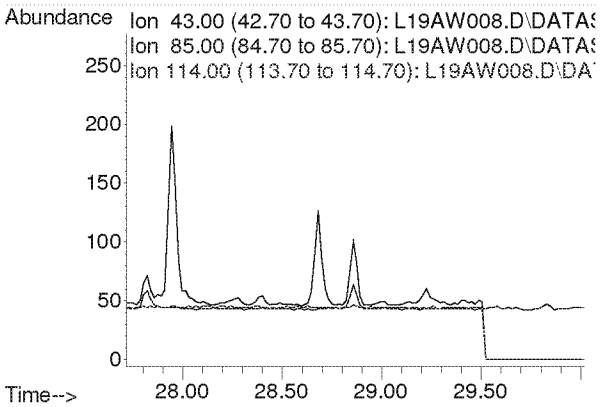


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

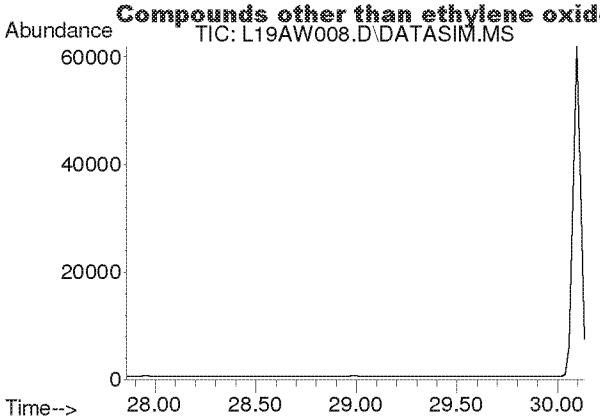
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

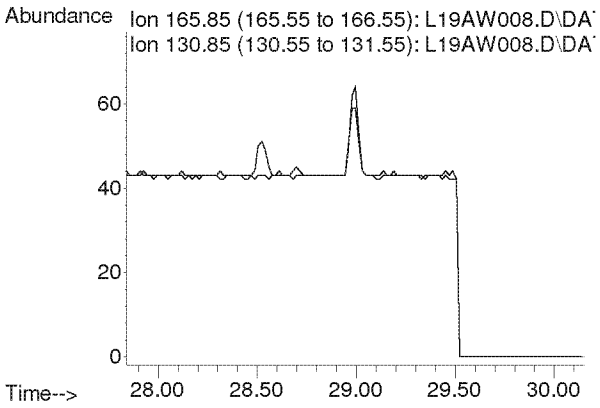


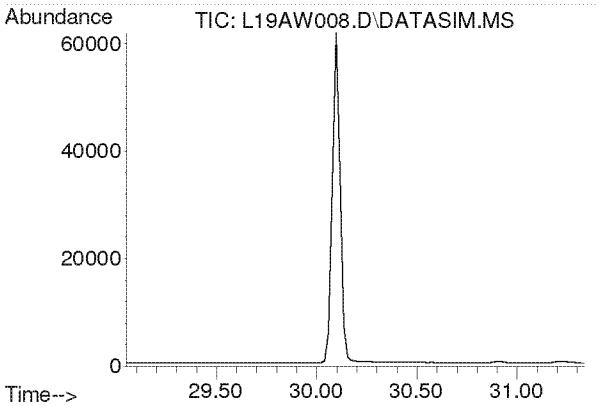
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



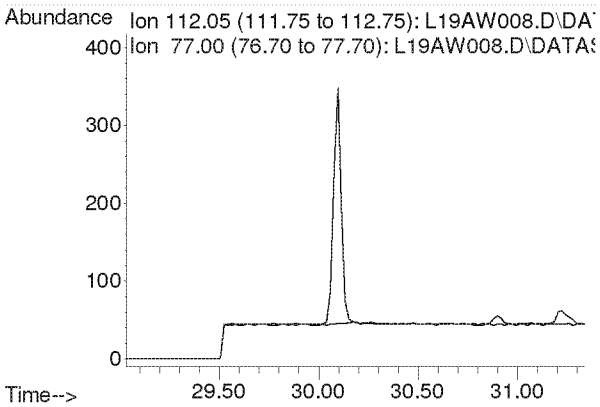


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

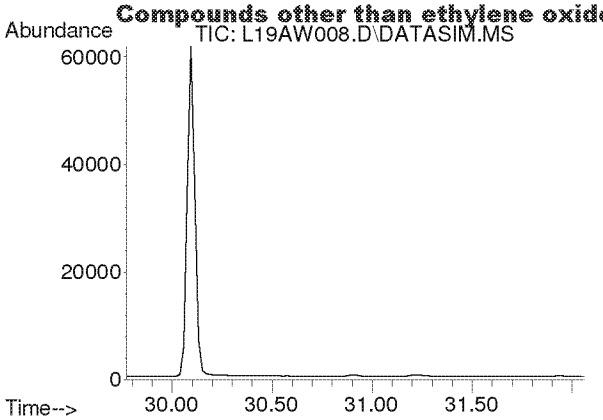
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

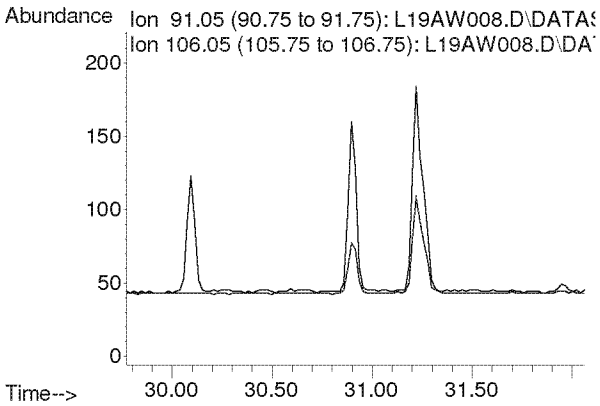


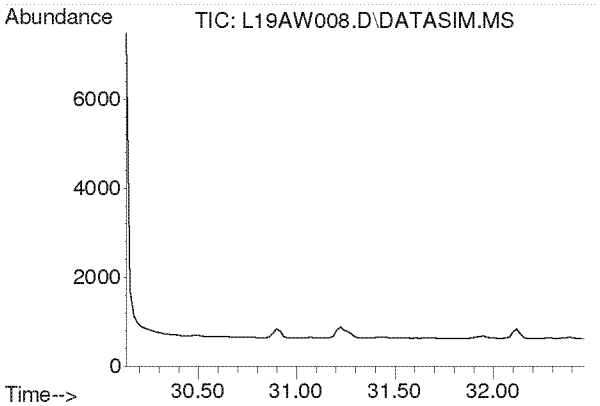
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



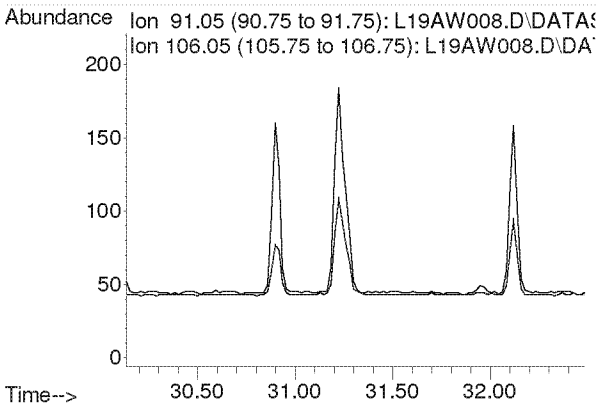


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

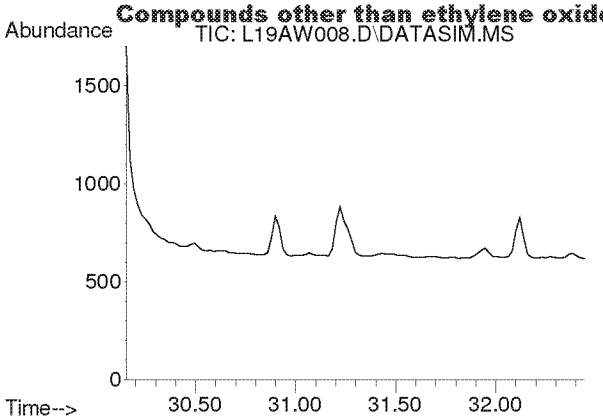
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

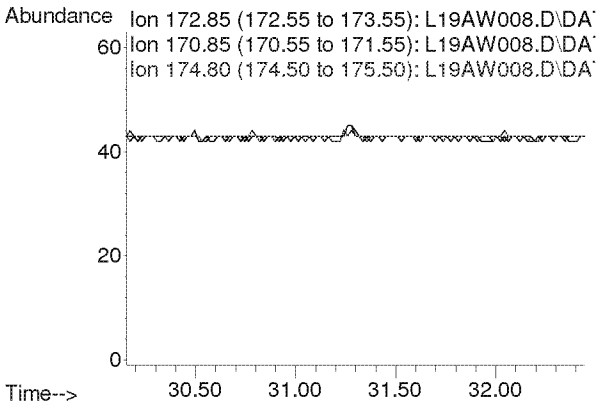


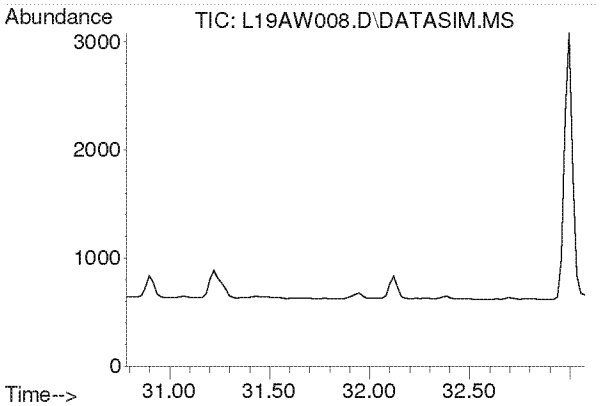
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



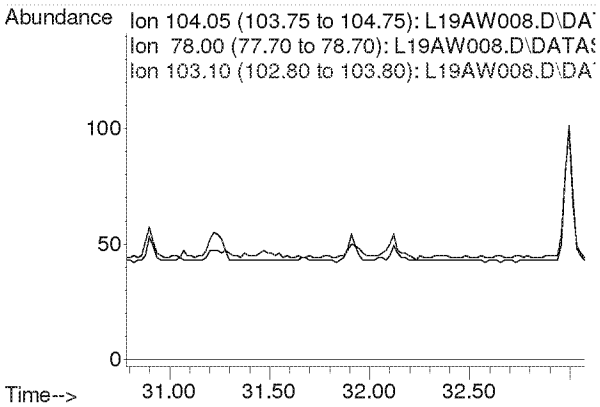


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

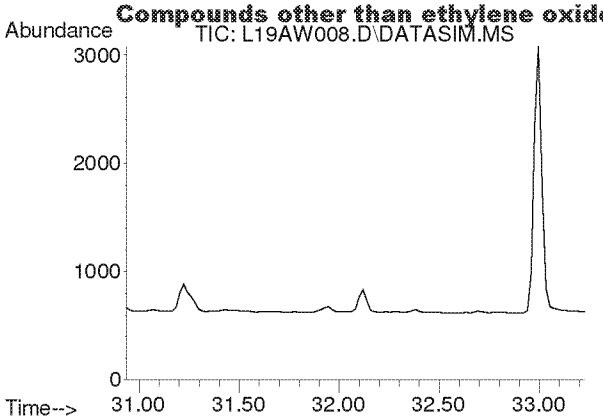
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

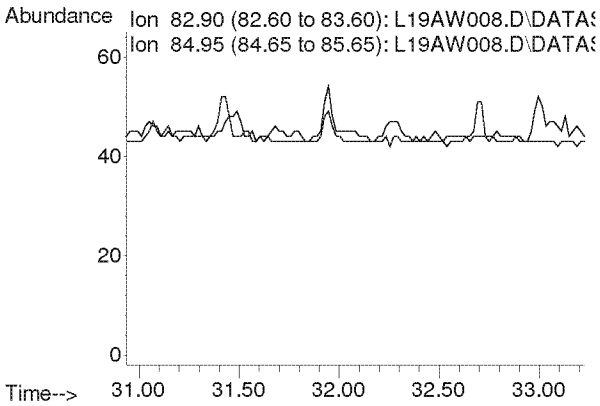


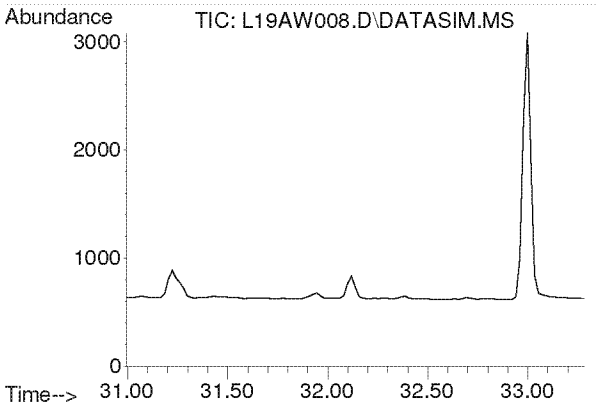
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



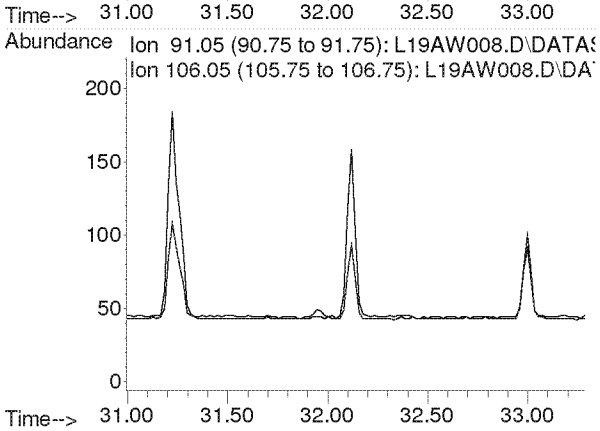


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

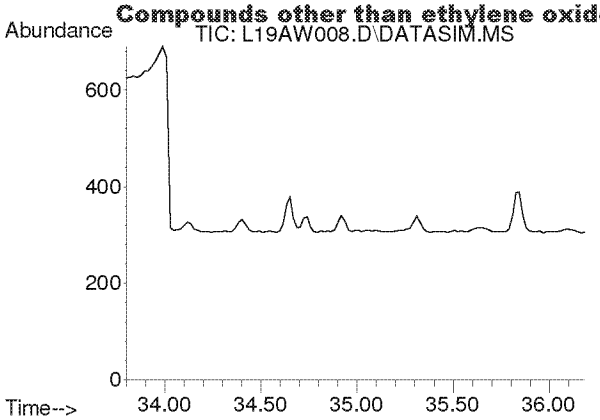
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

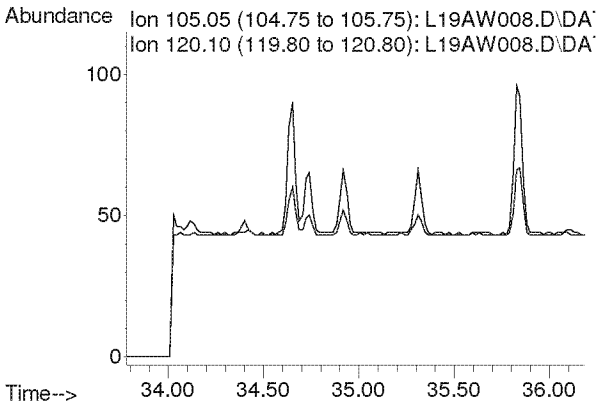


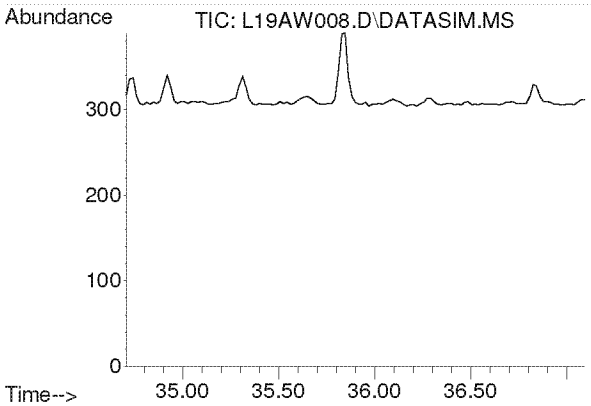
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



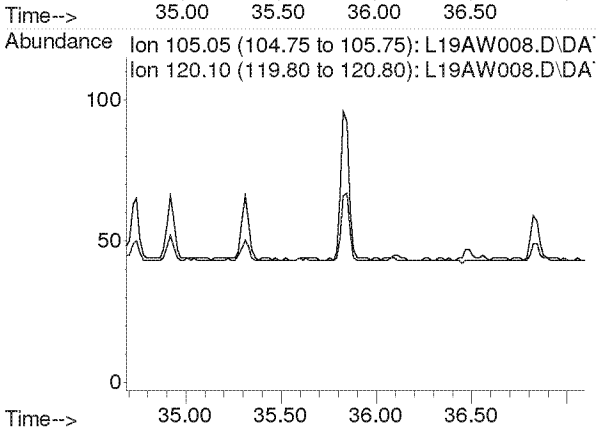


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

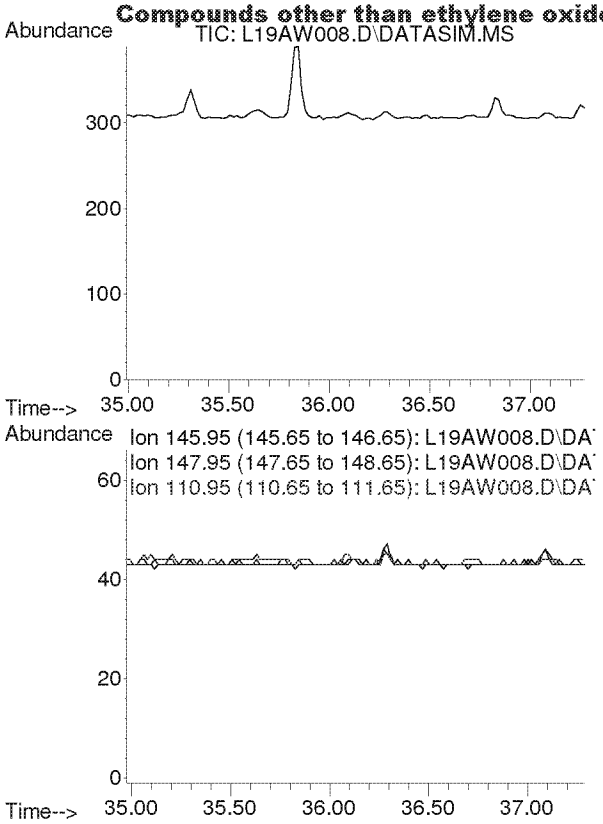
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

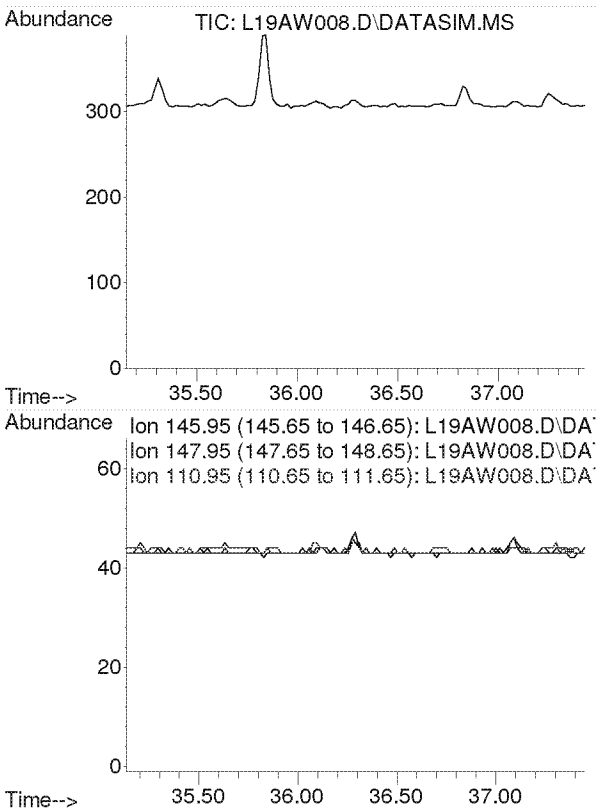


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



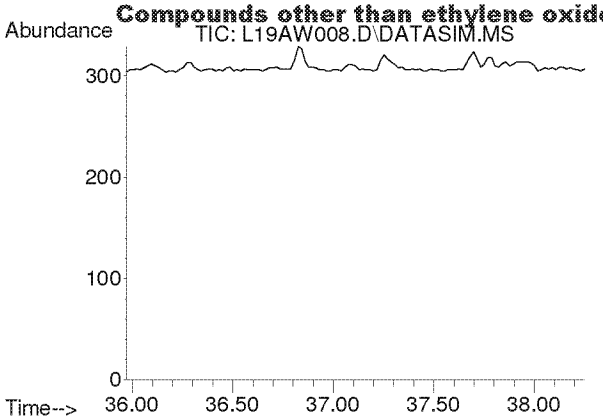
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3

Compounds other than ethylene oxide were not quantitated.

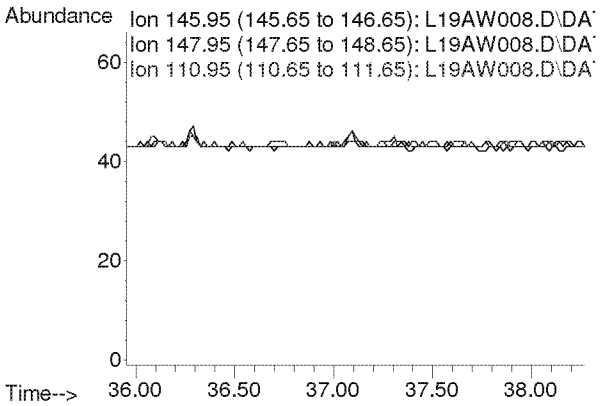


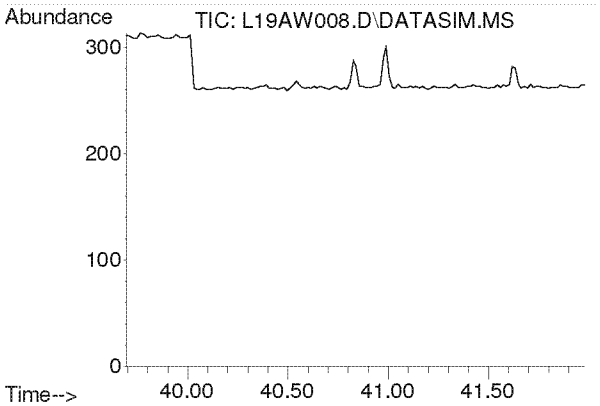
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



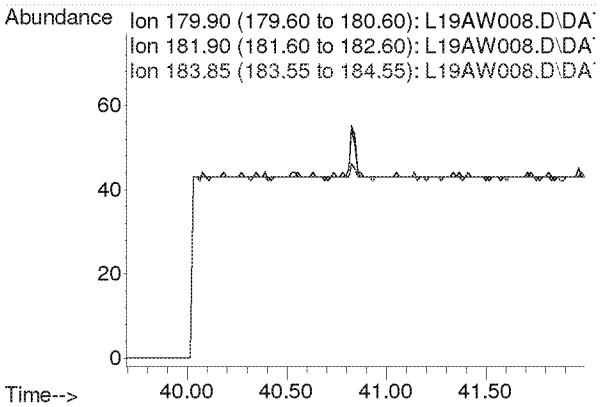


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

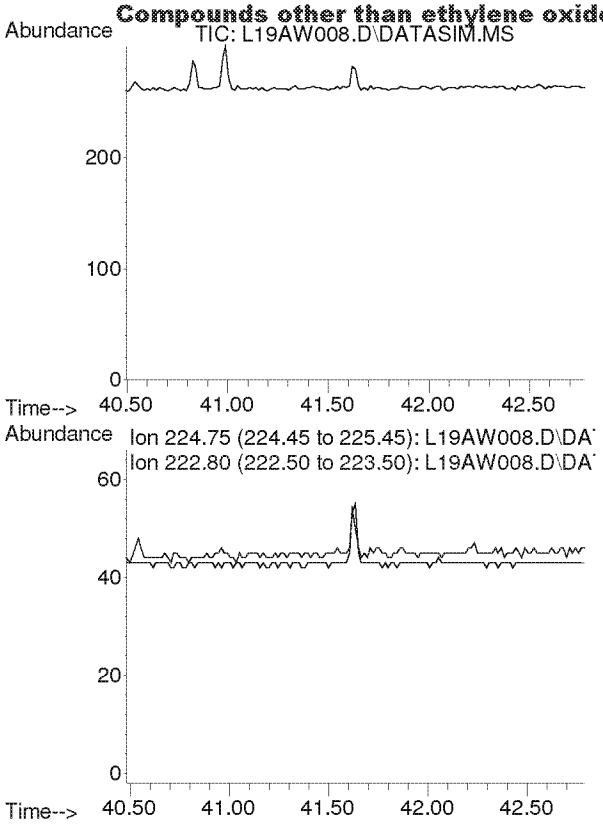
Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AW008.D
Acq: 23 Jan 2019 4:34 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\L19AW\
Data File : L19AW009.D
Acq On : 23 Jan 2019 5:36 pm
Operator : MAH
Sample : B9A2306-DUP2
Misc : EPA WB WAREHOUSE R2 1/16/19
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 29 08:22:30 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	53140	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	128763	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	101406	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	12.350	29	21204	7.7254 ppbv	93
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.	
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. 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\L19AW\
Data File : L19AW009.D
Acq On : 23 Jan 2019 5:36 pm
Operator : MAH
Sample : B9A2306-DUP2
Misc : EPA WB WAREHOUSE R2 1/16/19
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 29 08:22:30 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

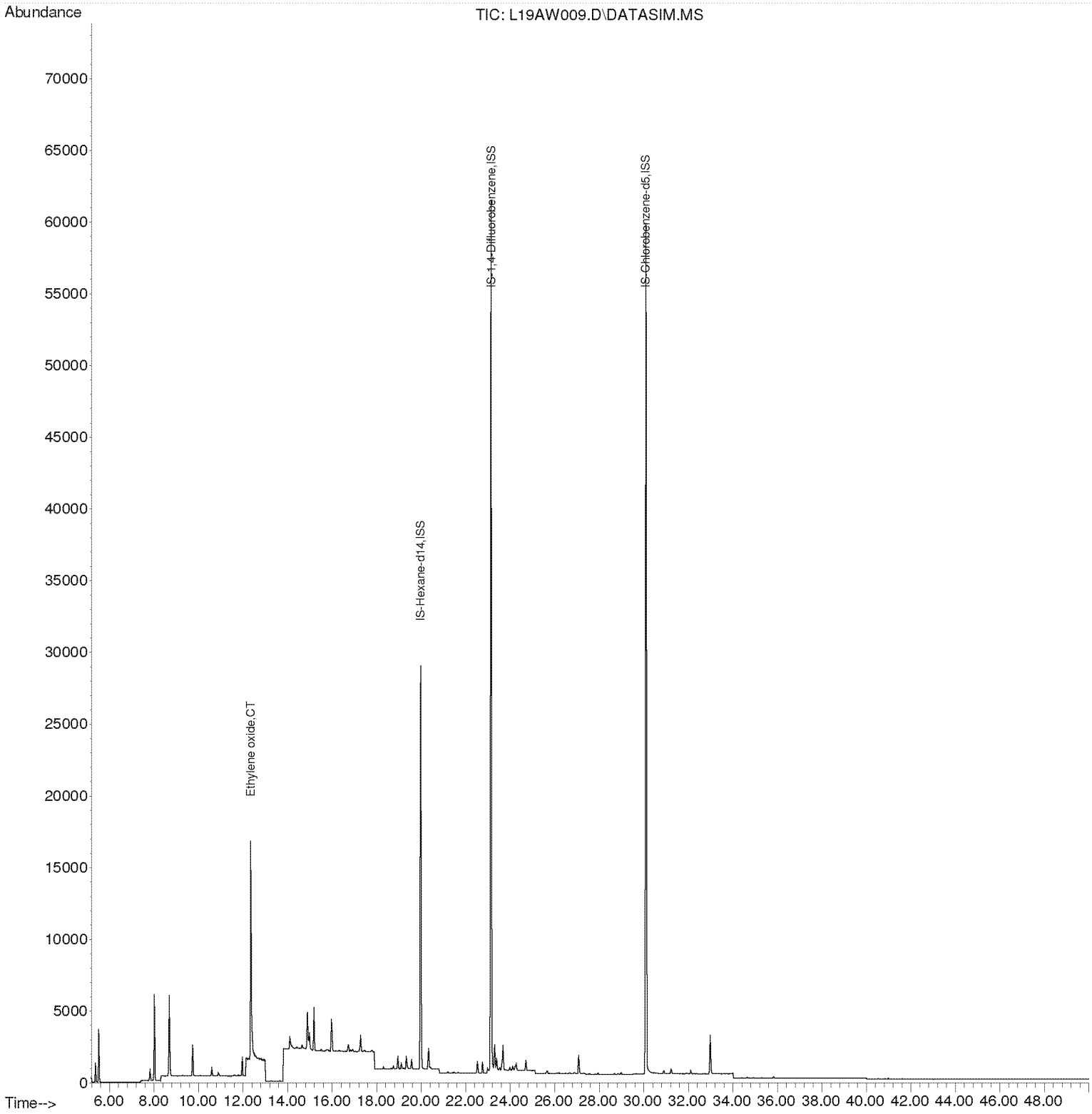
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

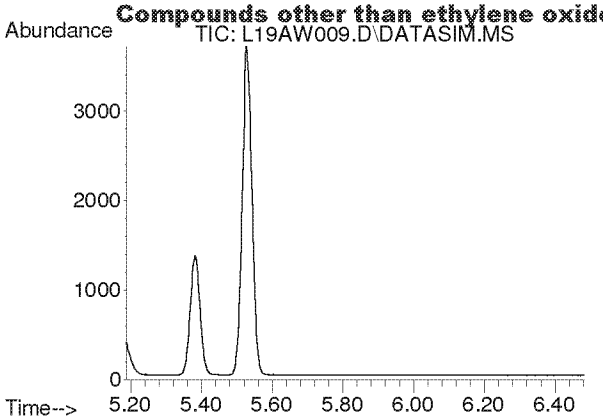
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW009.D
Acq On : 23 Jan 2019 5:36 pm
Operator : MAH
Sample : B9A2306-DUP2
Misc : EPA WB WAREHOUSE R2 1/16/19
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jan 29 08:06:21 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



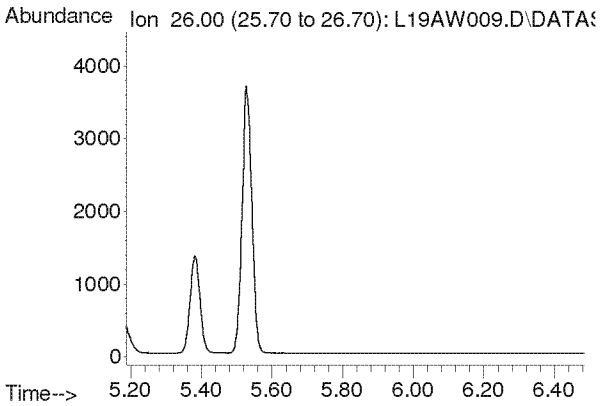
Compounds other than ethylene oxide were not quantitated.

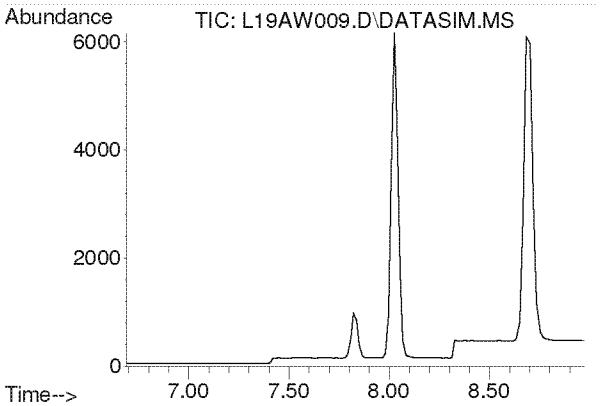


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 26



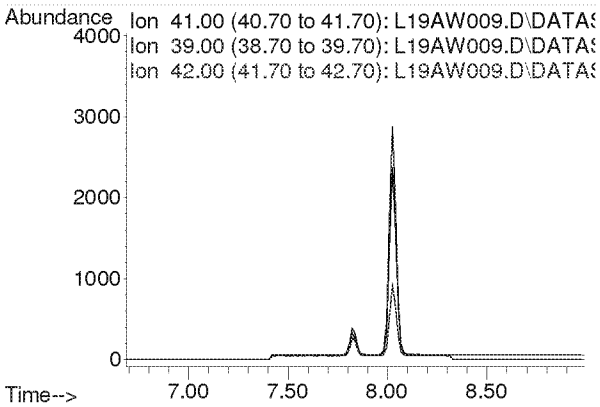


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

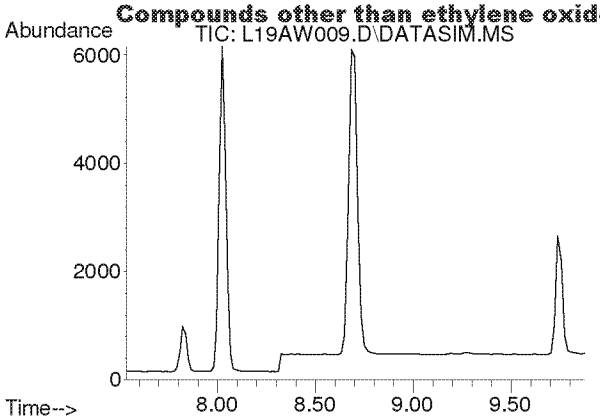
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

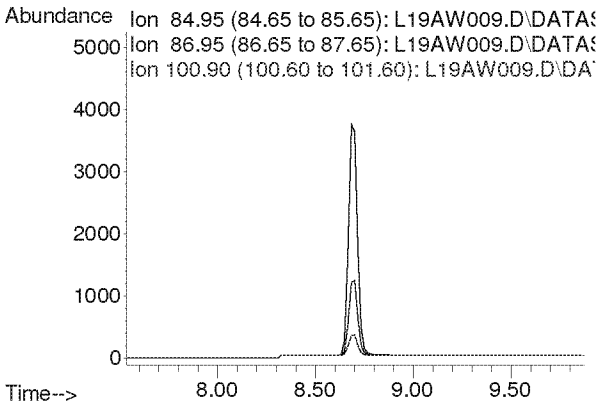


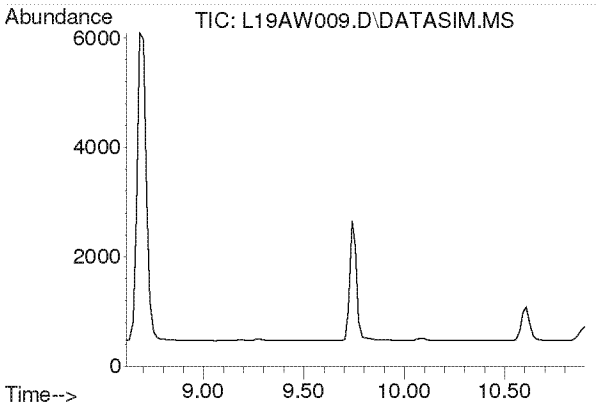
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



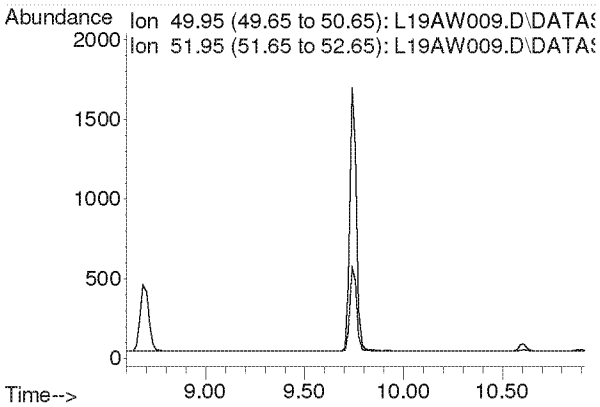


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

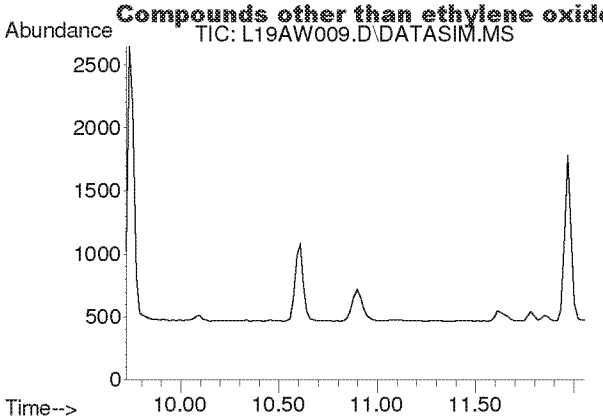
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

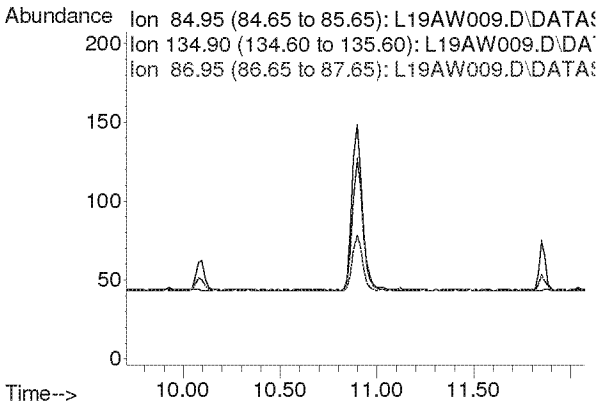


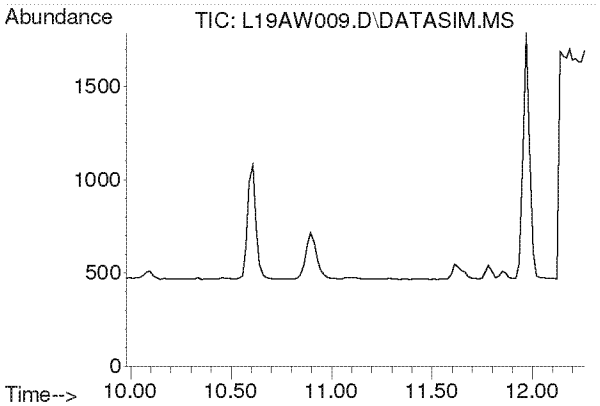
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



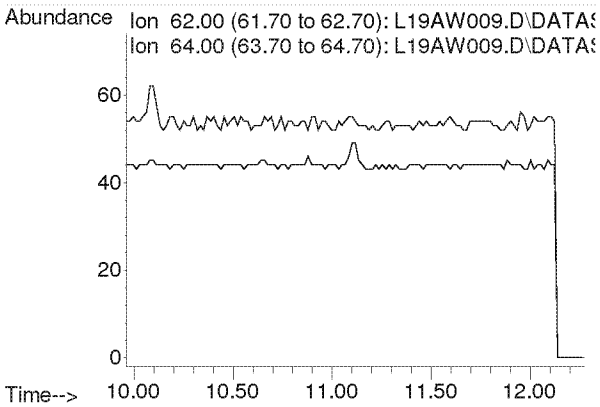


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

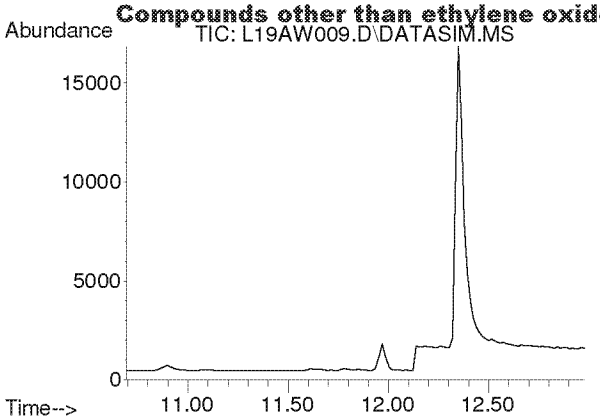
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

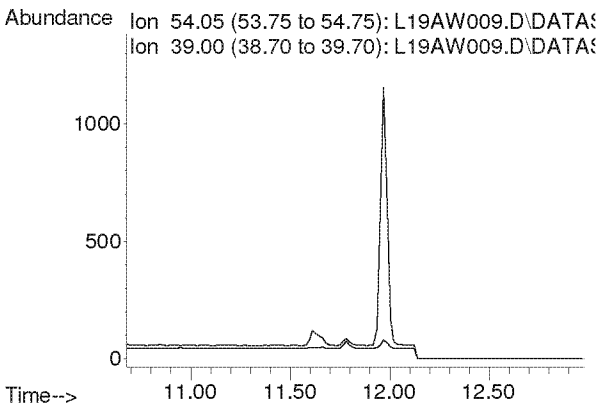


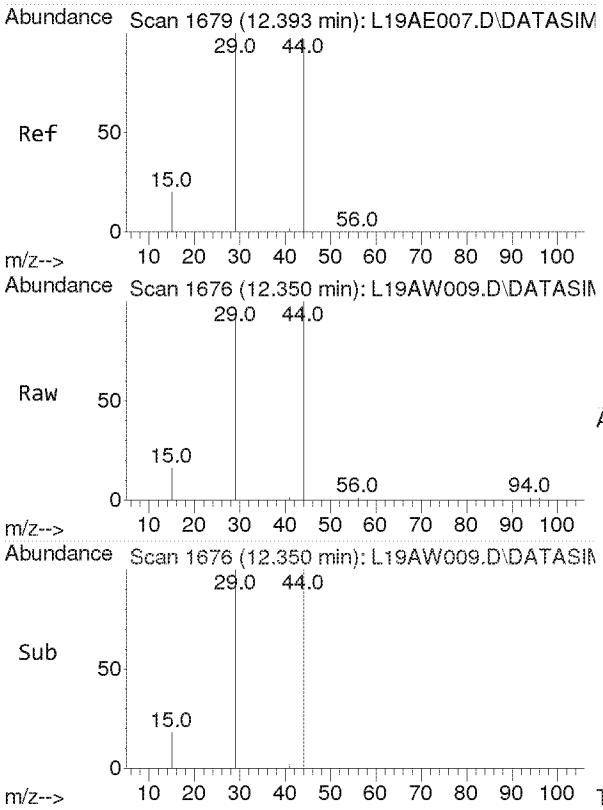
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

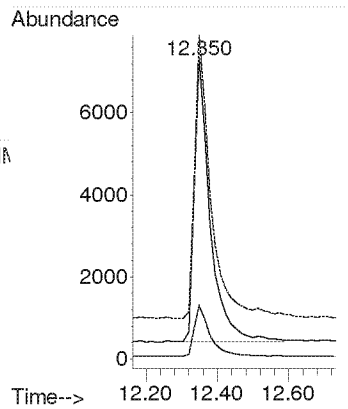




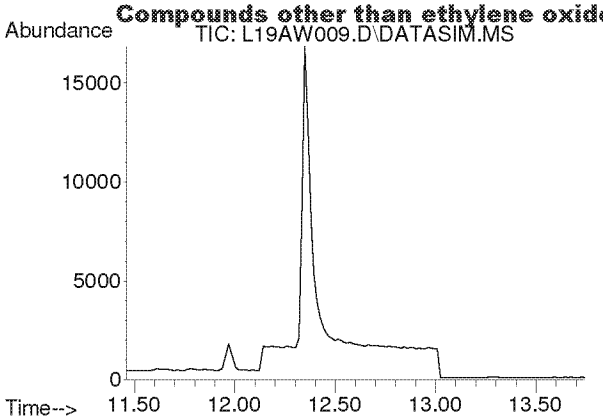
#9
Ethylene oxide
Concen: 7.725 ppbv
RT: 12.350 min Scan# 1676
Delta R.T. -0.043 min
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 29 Resp: 21204

Ion	Ratio	Lower	Upper
29	100		
15	18.1	15.4	23.0
44	104.5	77.4	116.2



Compounds other than ethylene oxide were not quantitated.

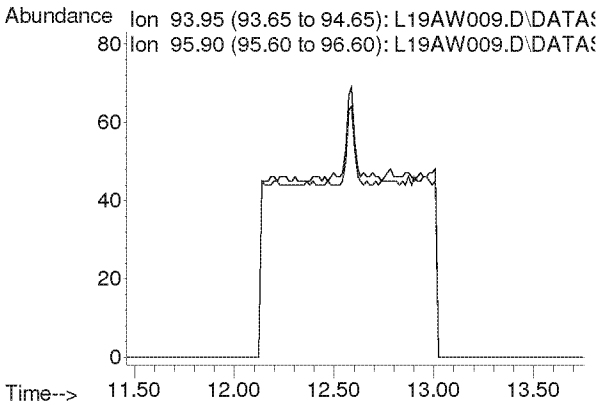


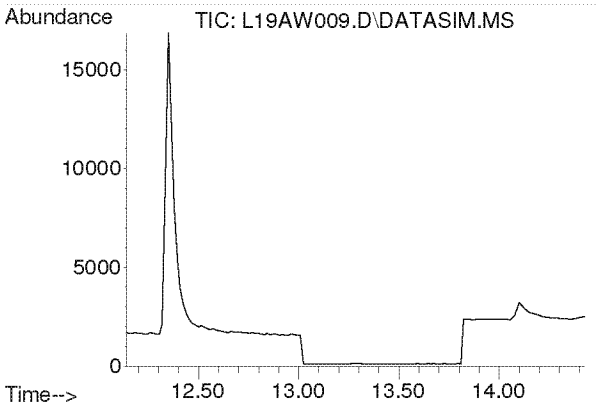
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



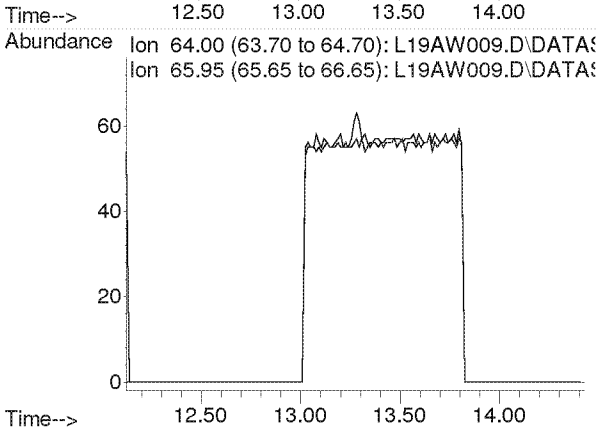


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

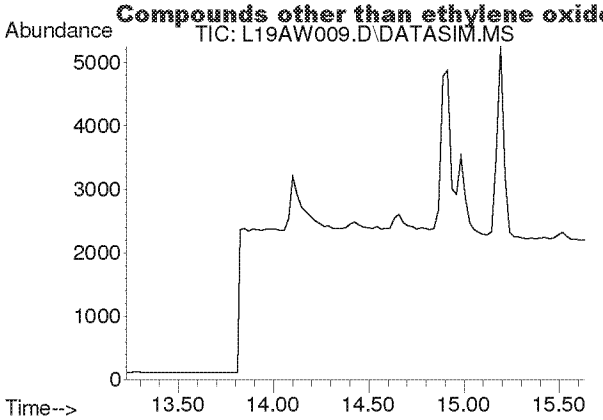
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

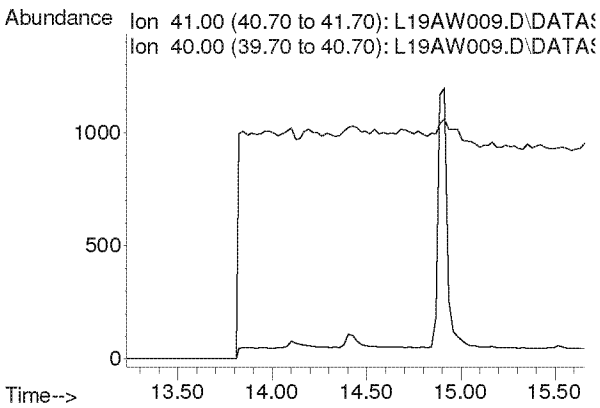


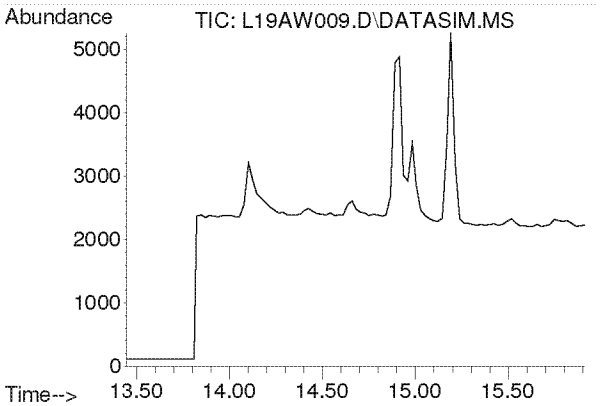
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



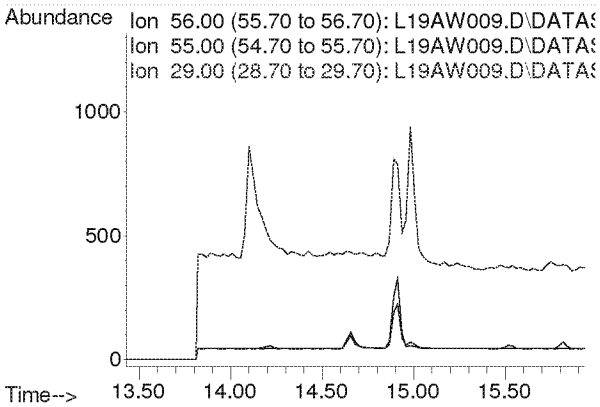


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

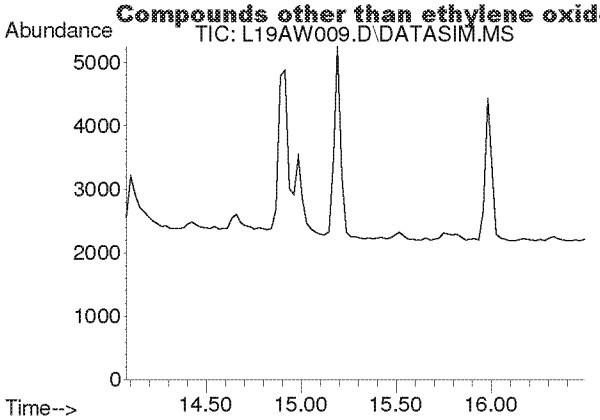
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

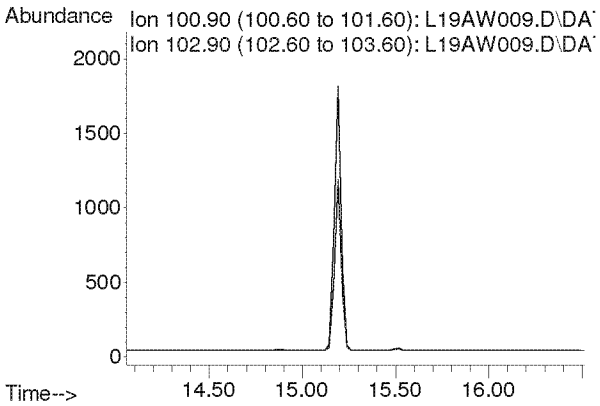


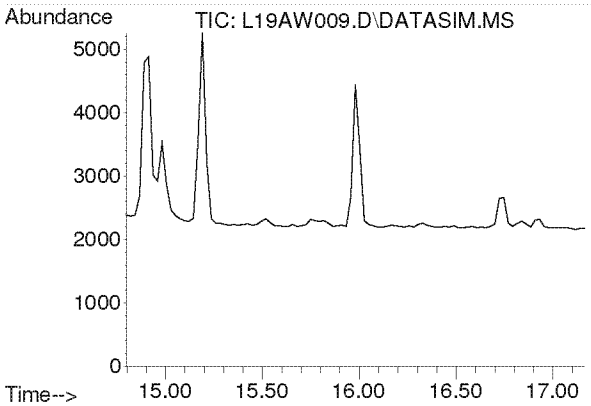
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



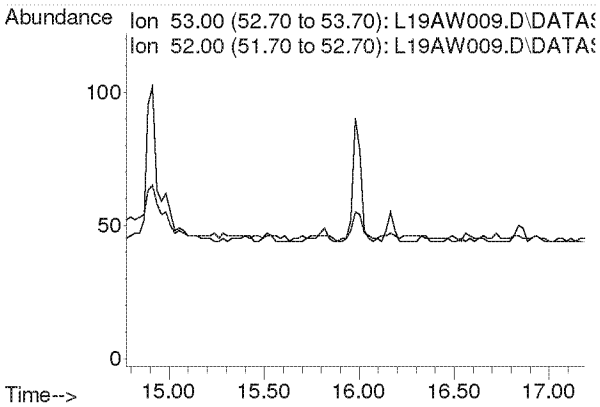


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

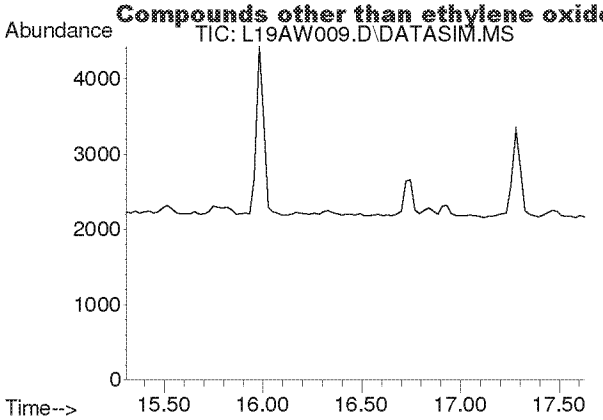
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

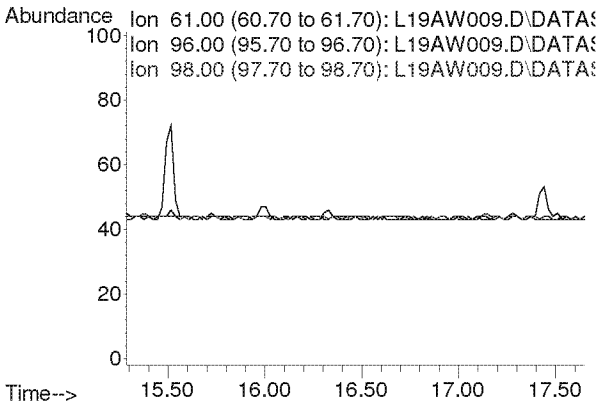


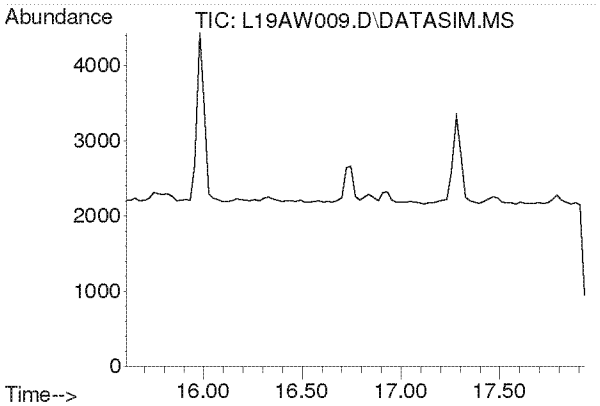
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



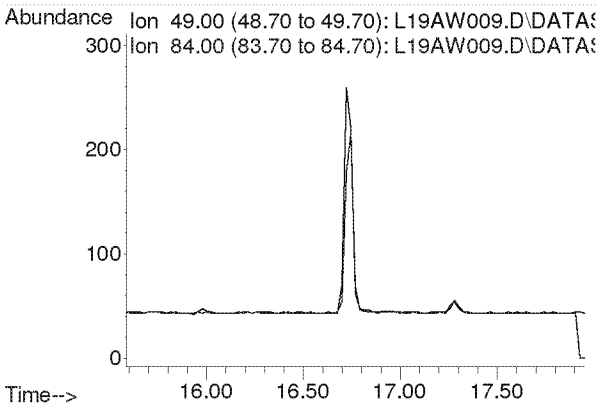


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

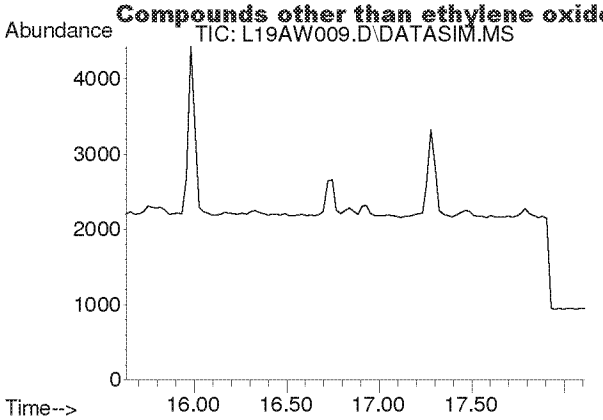
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

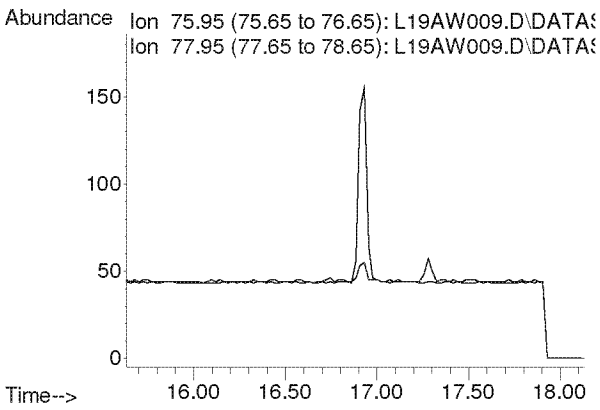


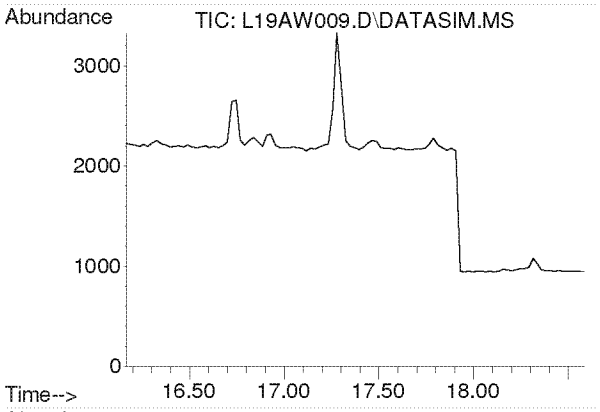
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



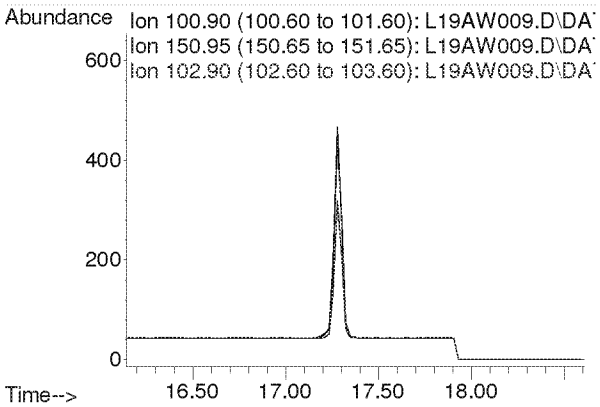


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

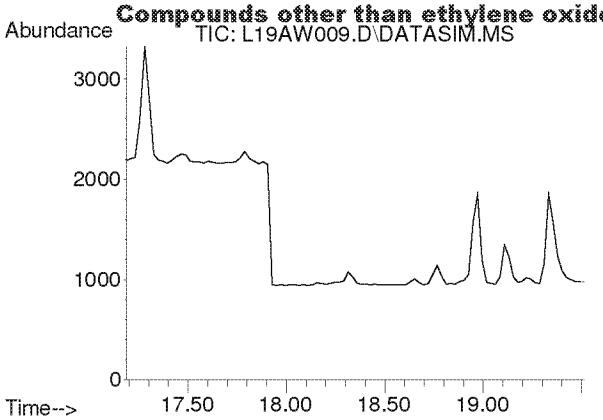
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

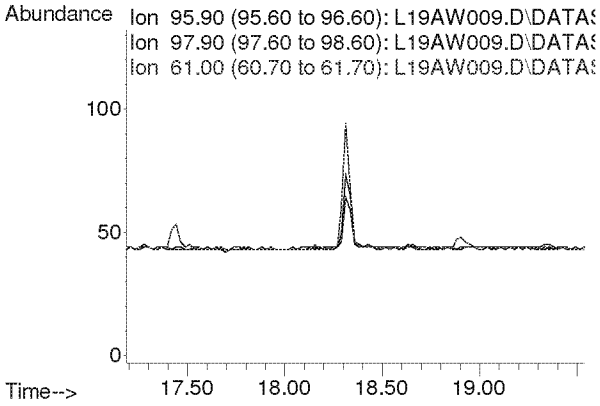


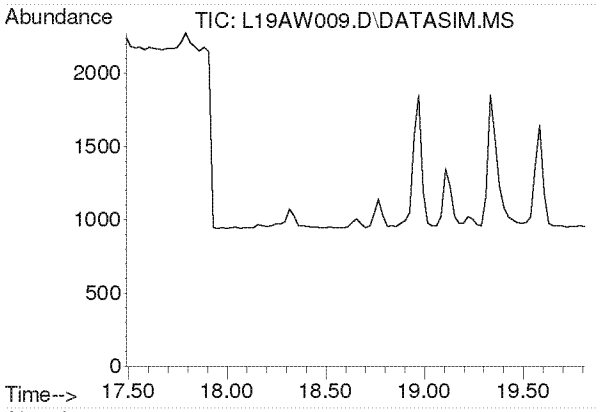
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



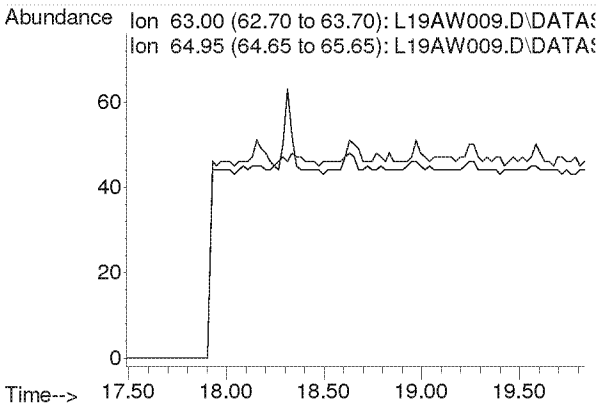


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

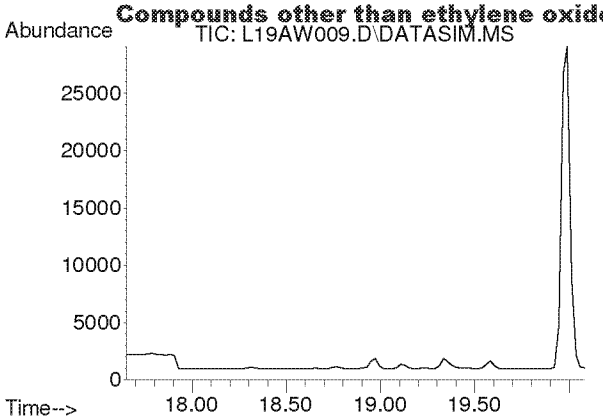
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

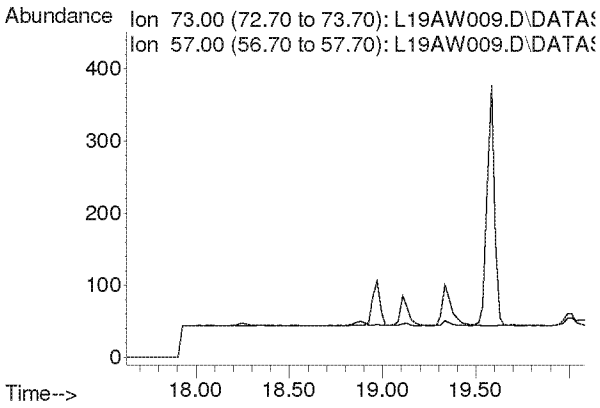


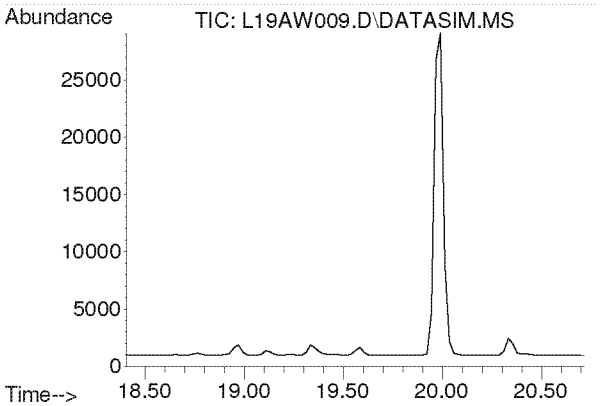
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



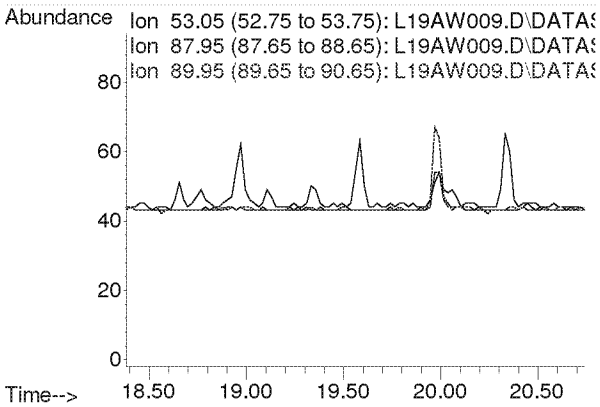


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

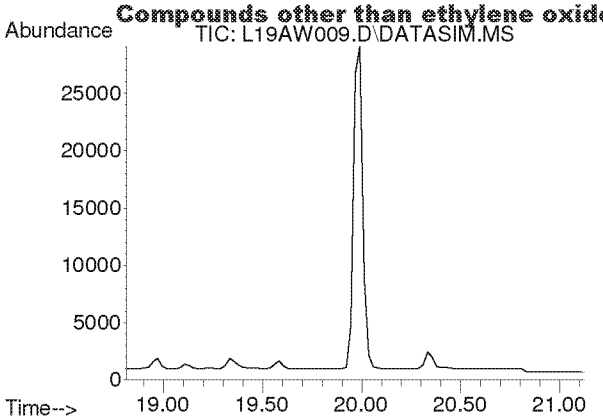
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

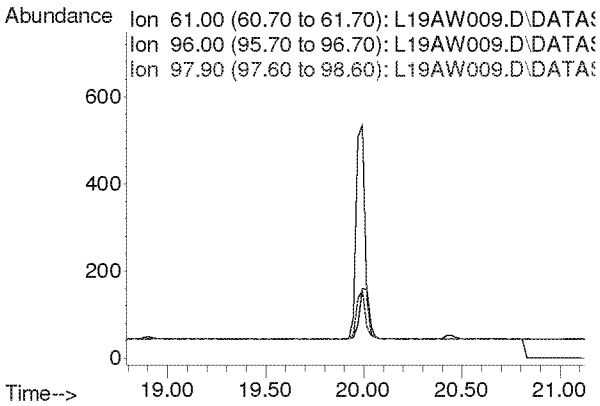


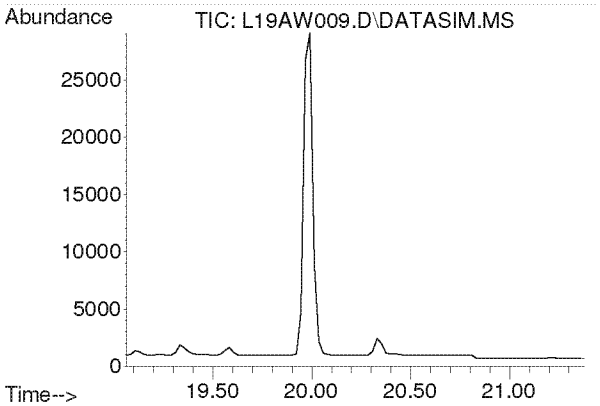
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



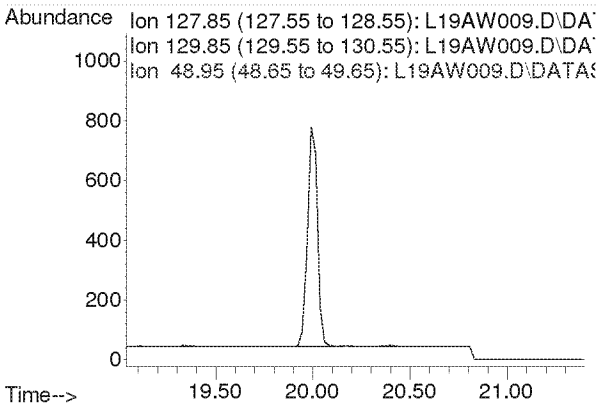


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

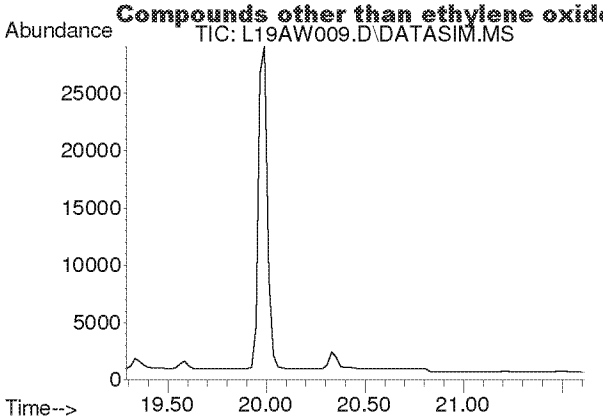
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

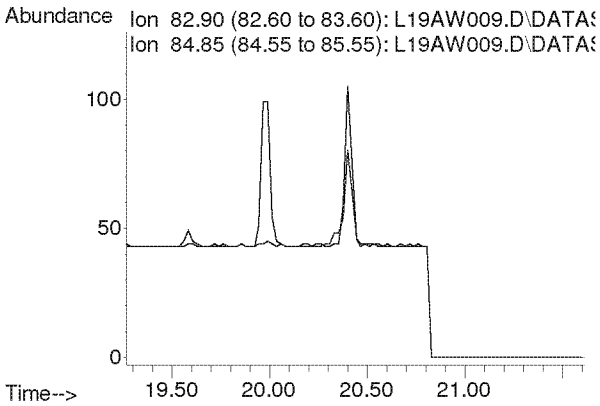


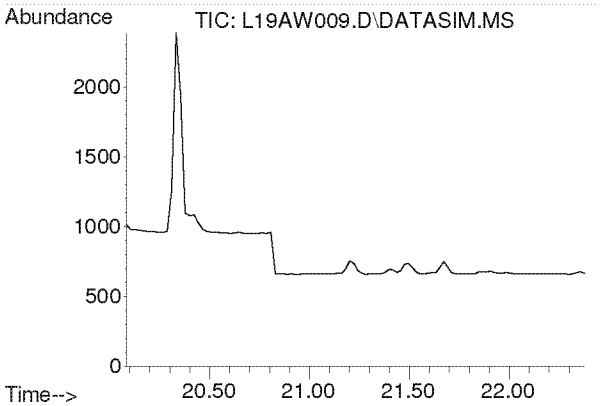
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



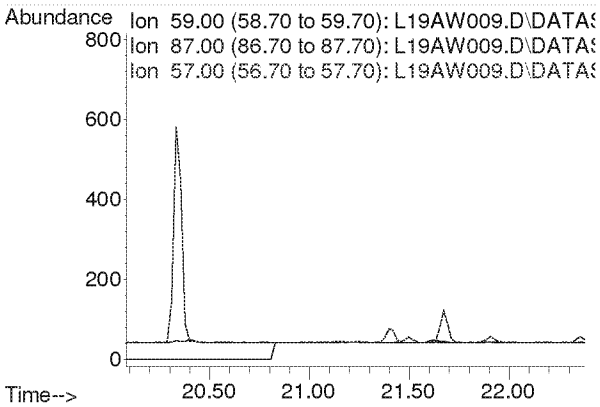


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

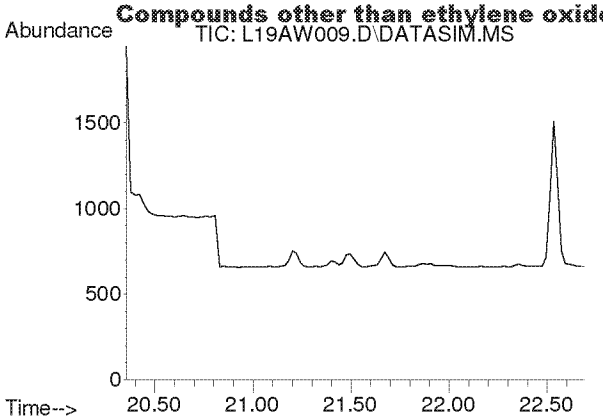
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

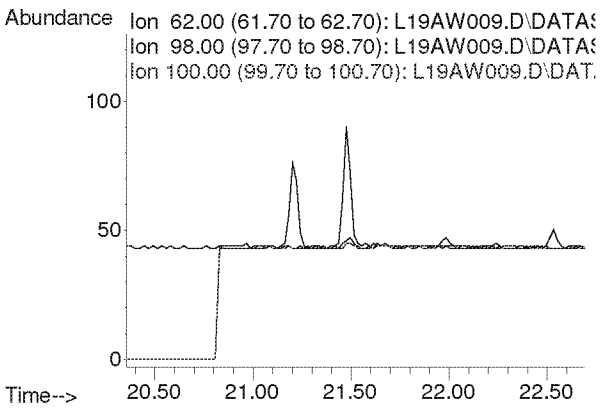


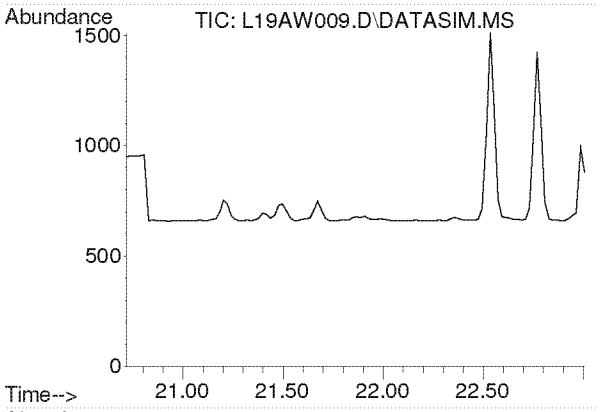
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



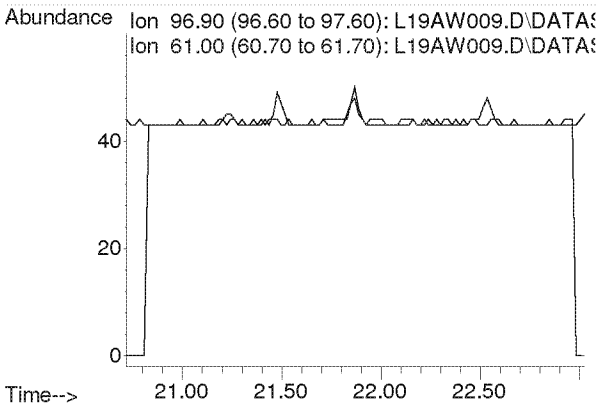


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

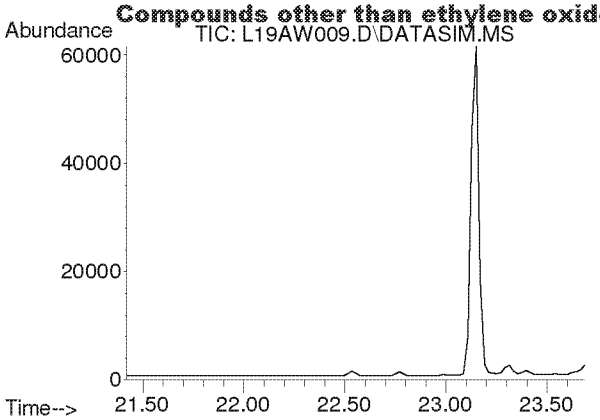
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

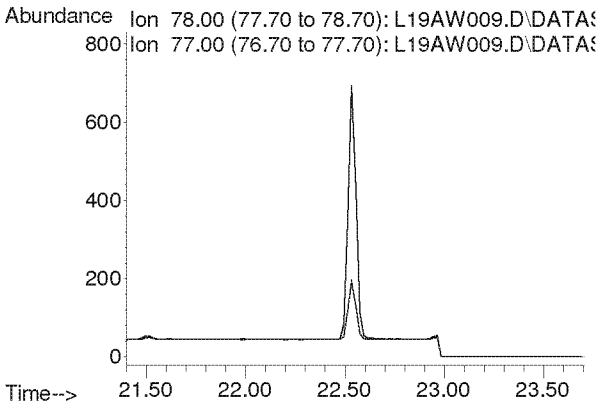


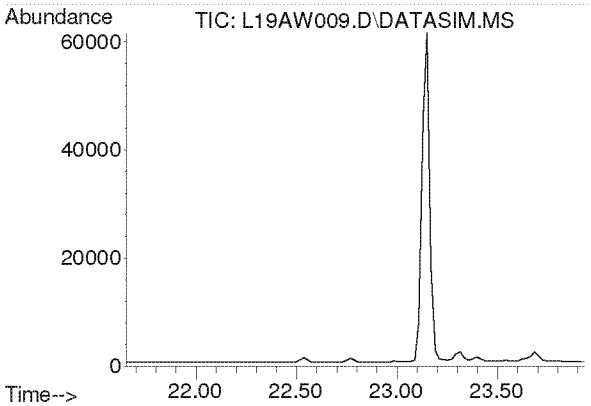
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



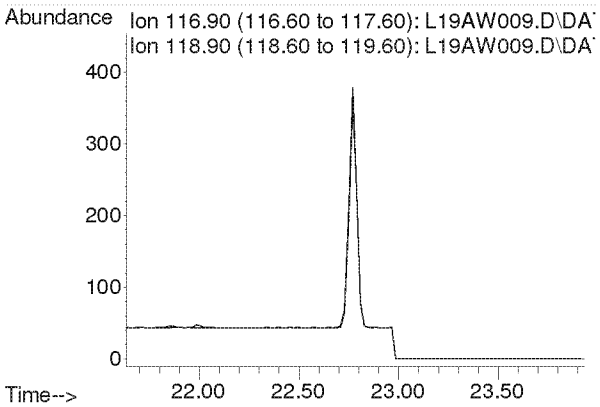


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

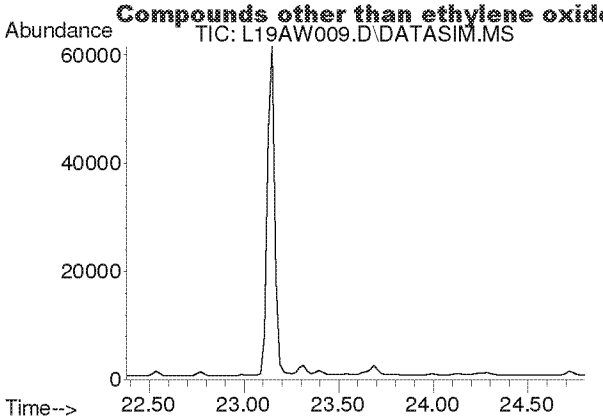
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

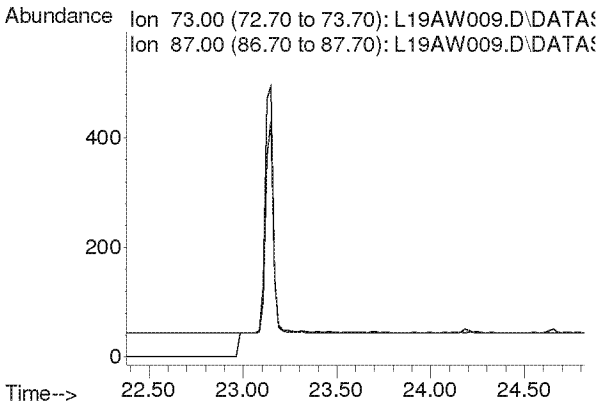


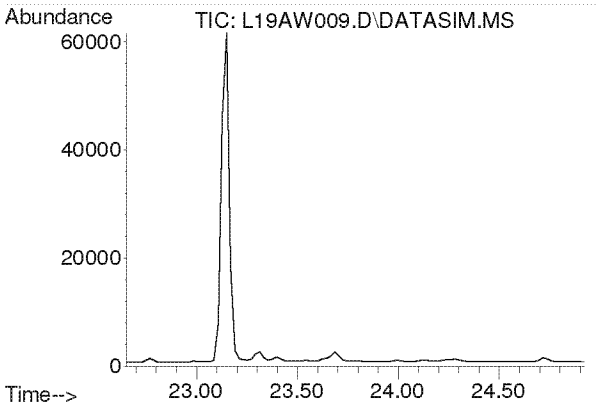
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



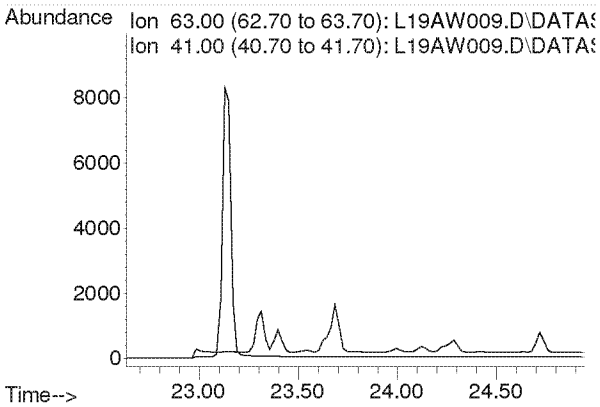


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

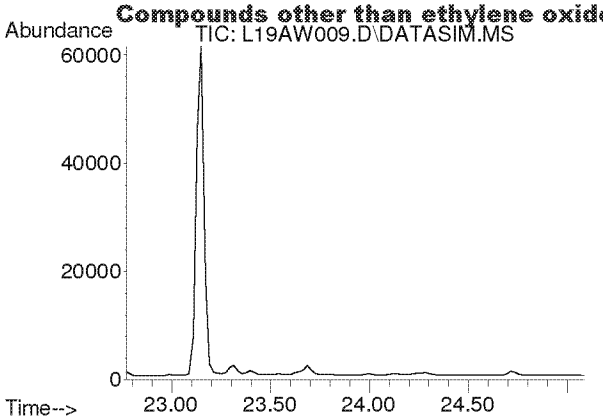
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

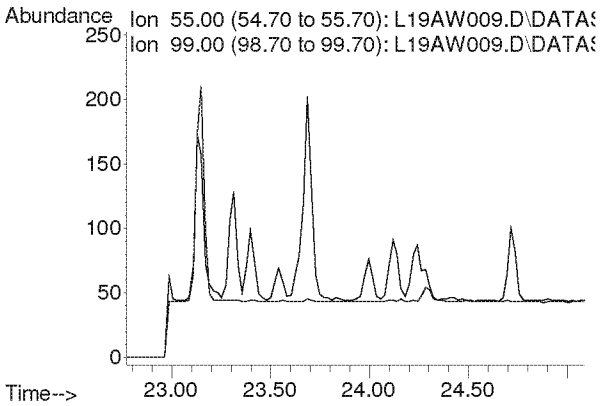


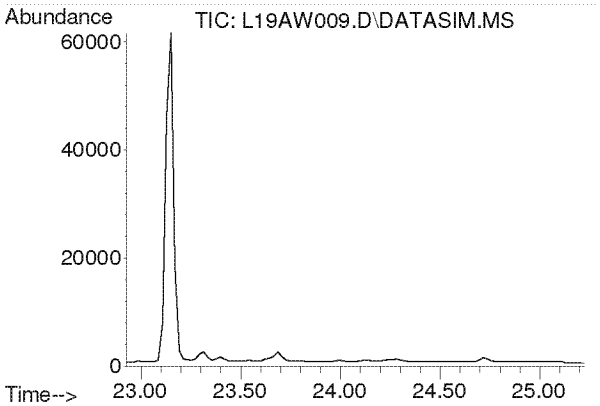
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



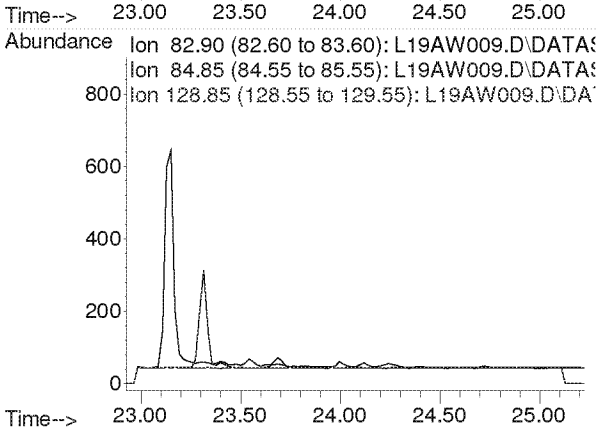


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

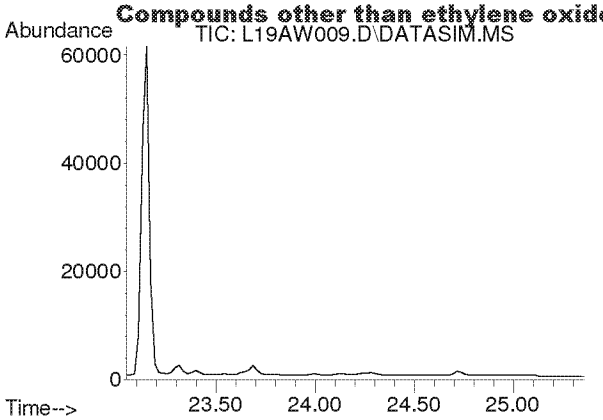
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

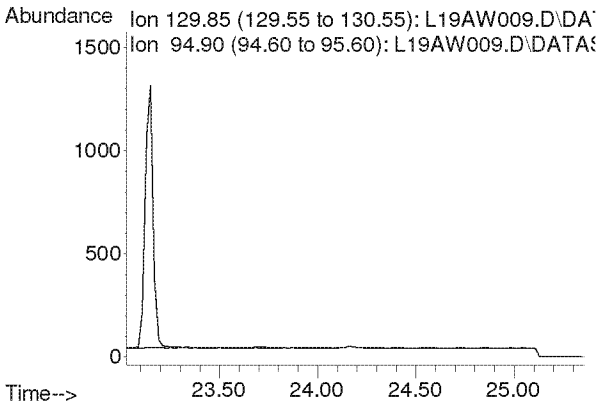


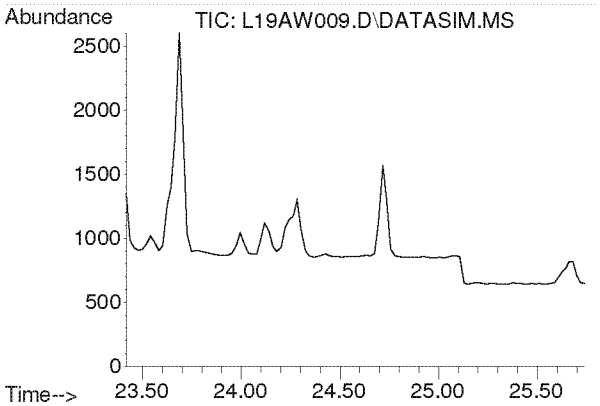
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



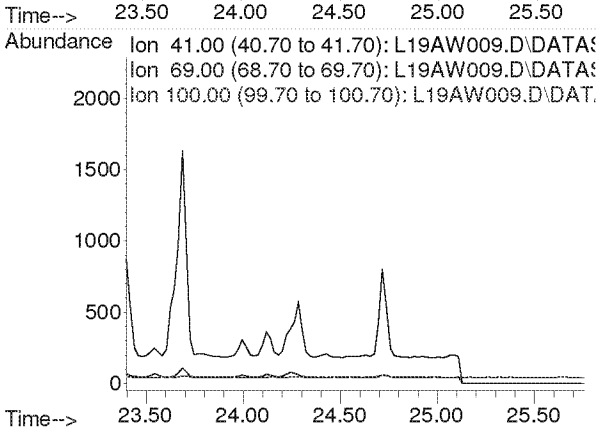


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

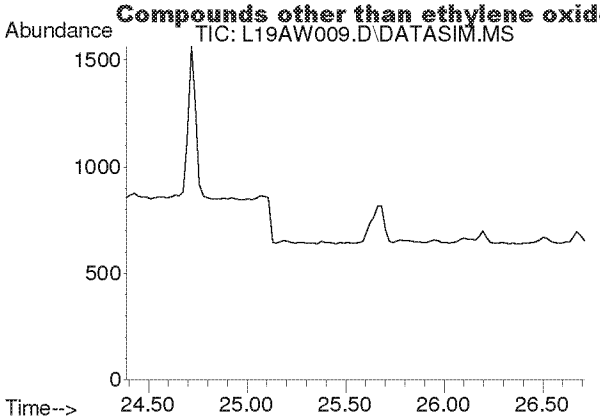
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

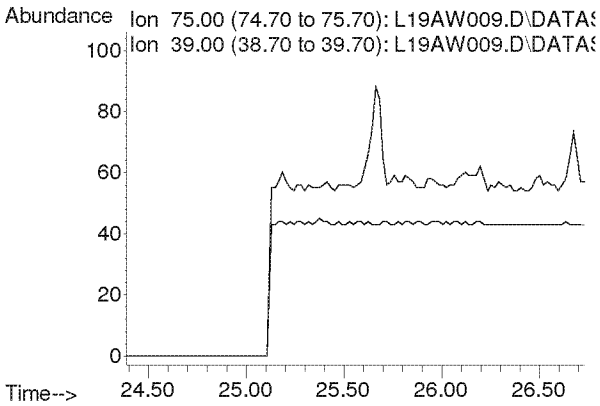


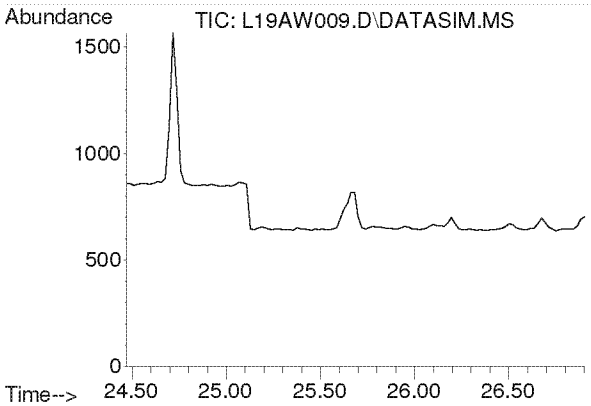
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



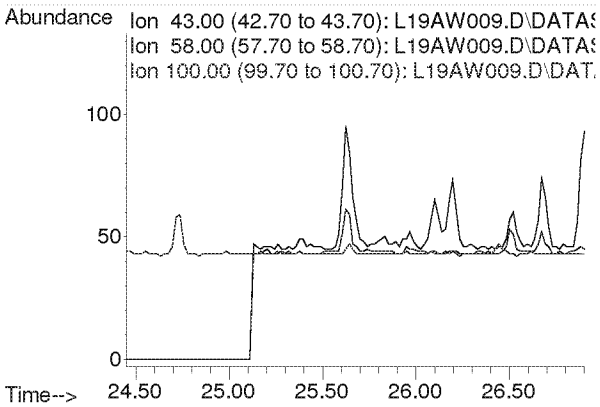


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

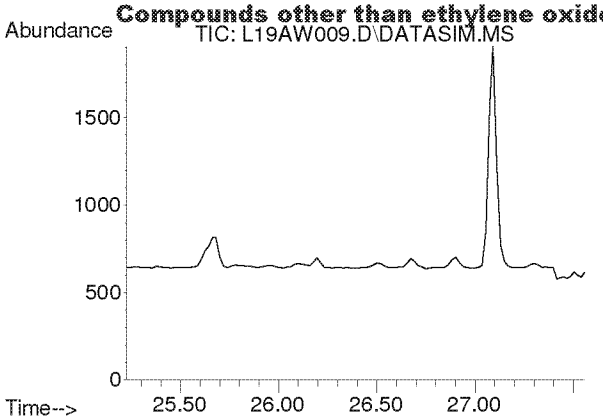
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

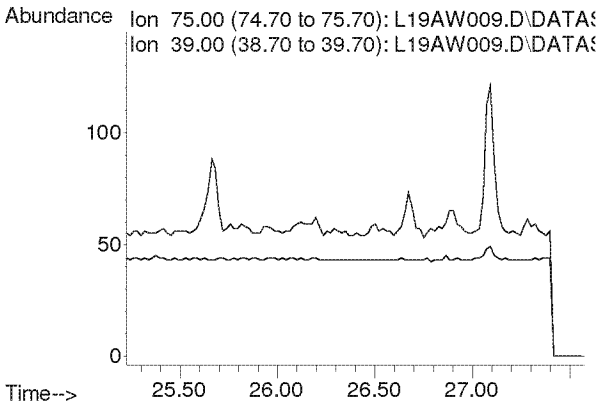


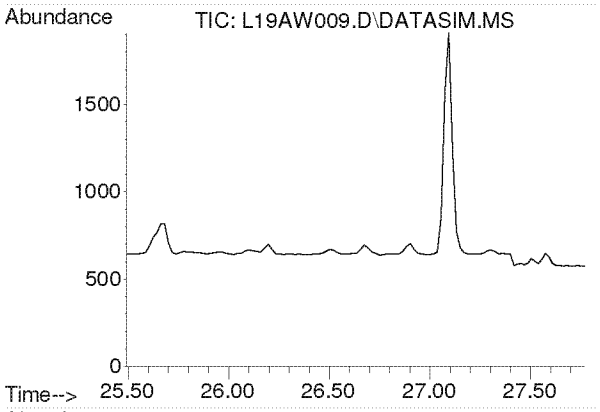
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



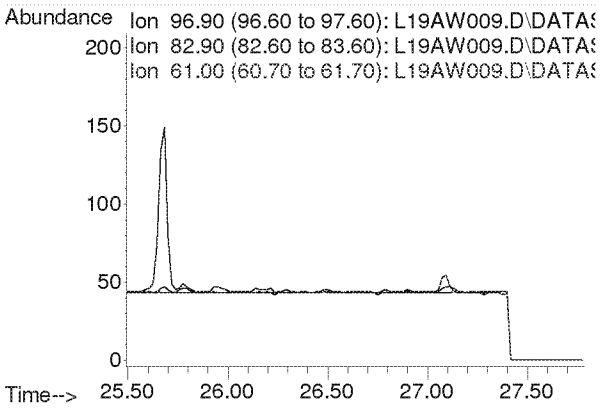


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

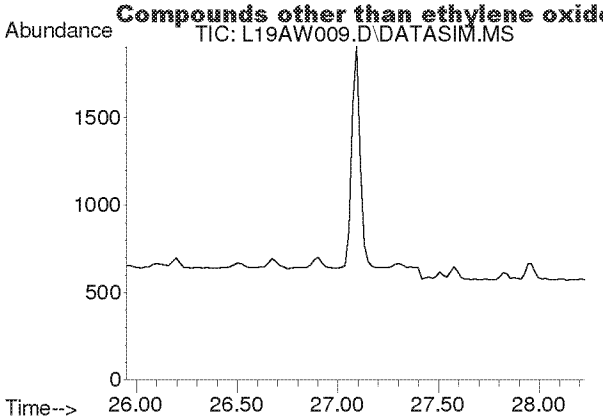
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

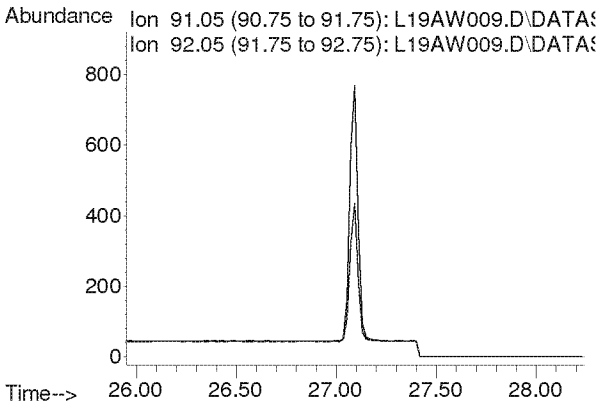


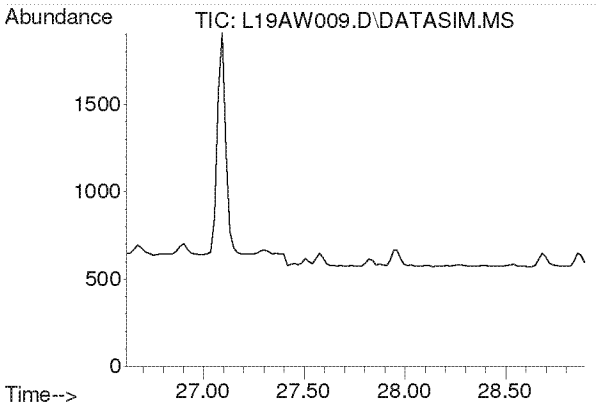
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



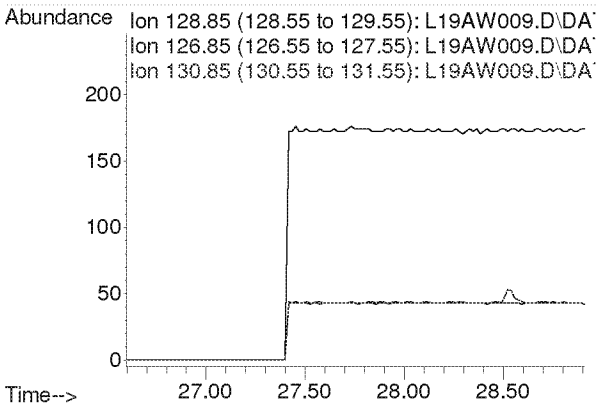


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

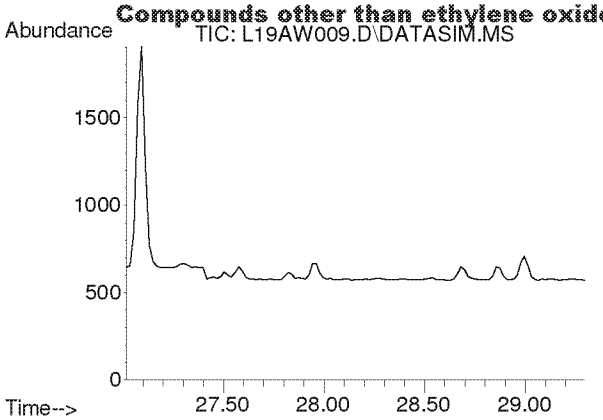
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

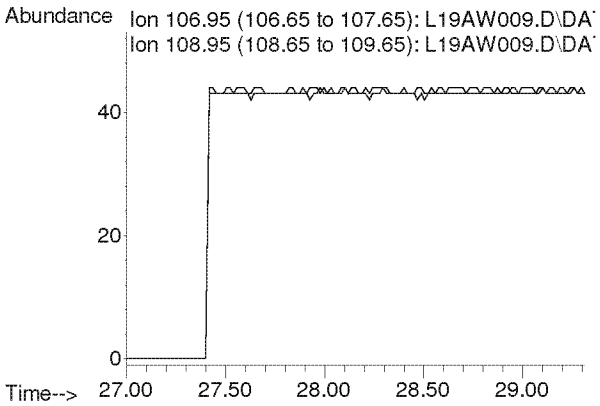


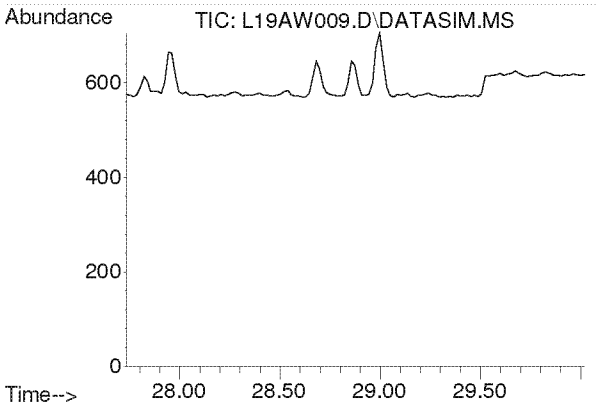
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



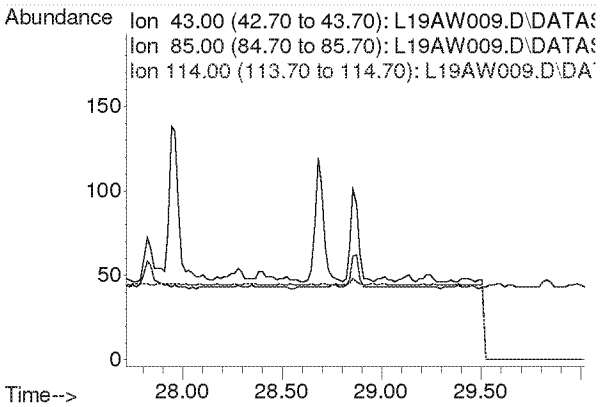


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

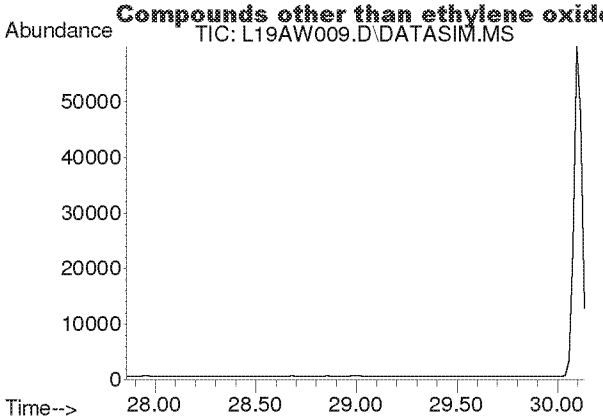
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

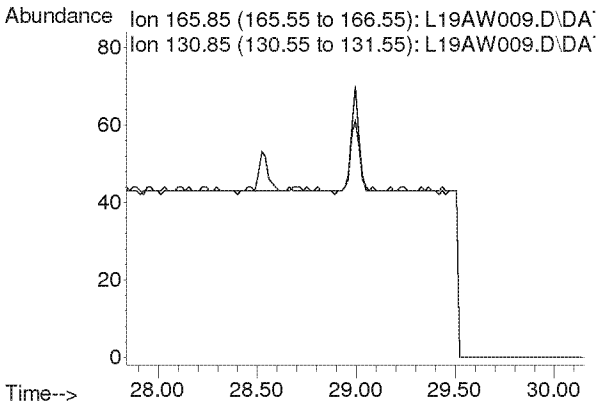


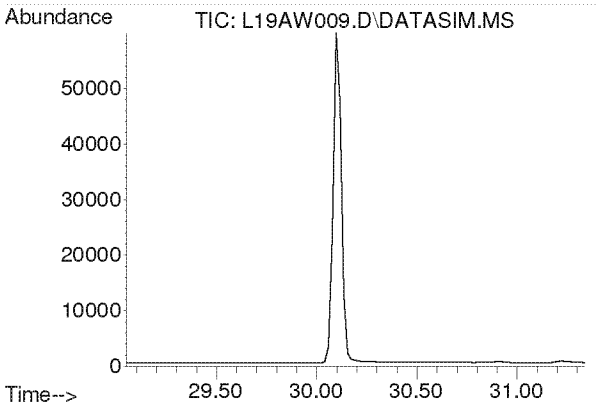
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



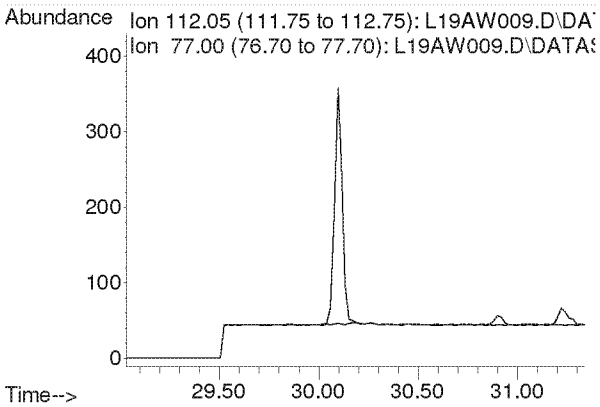


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

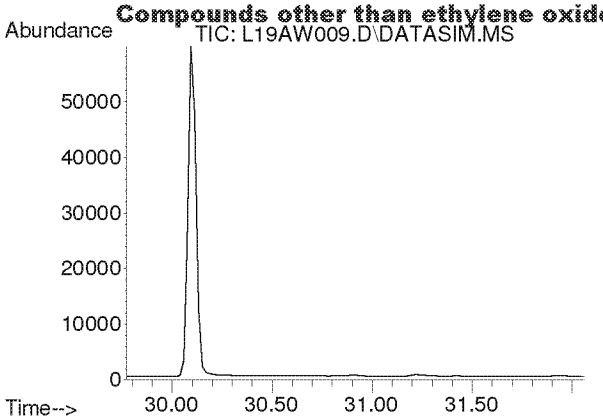
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

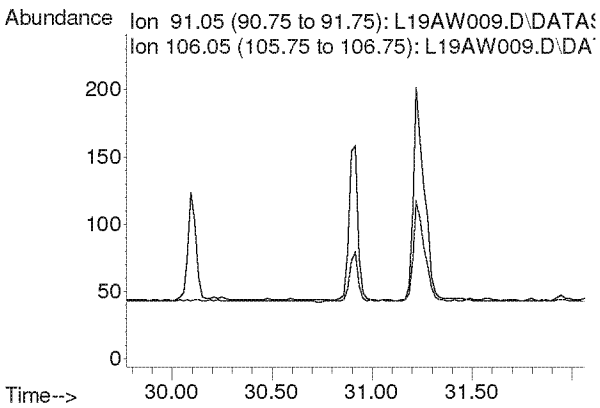


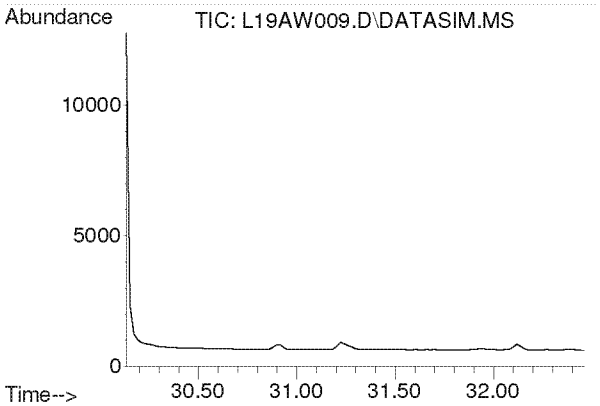
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



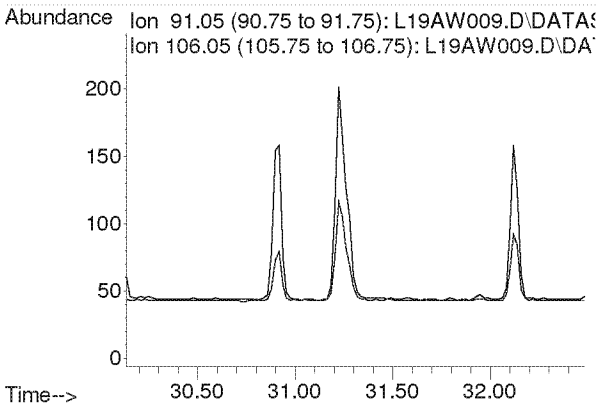


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

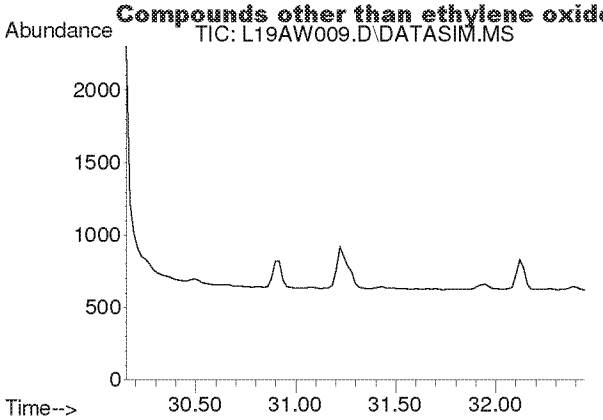
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

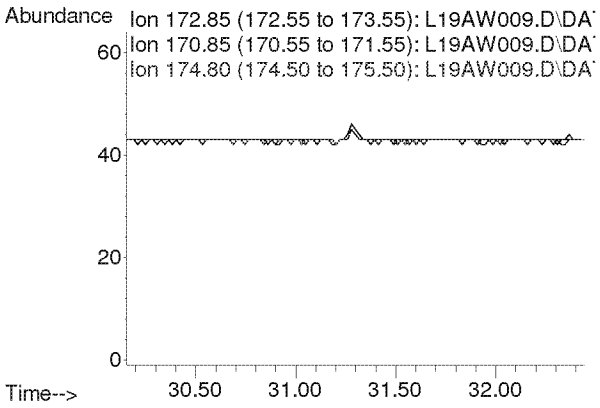


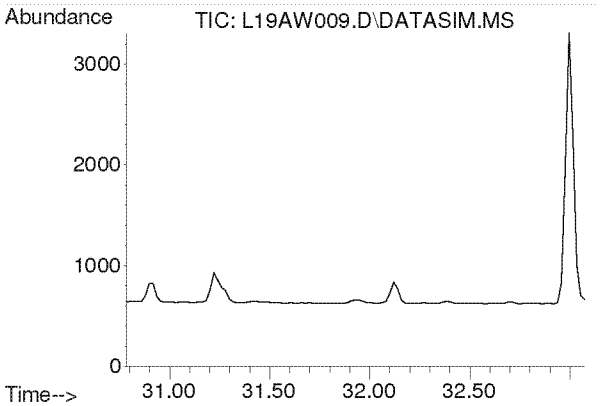
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



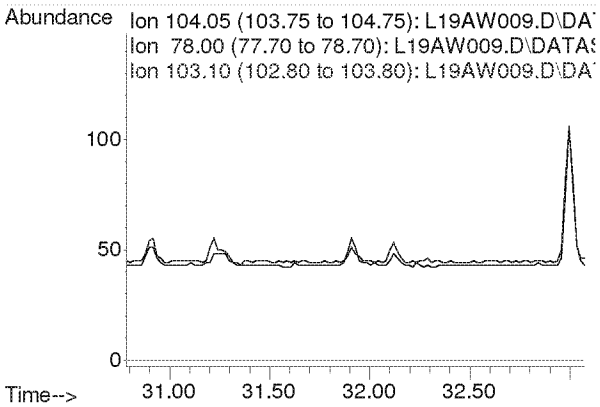


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

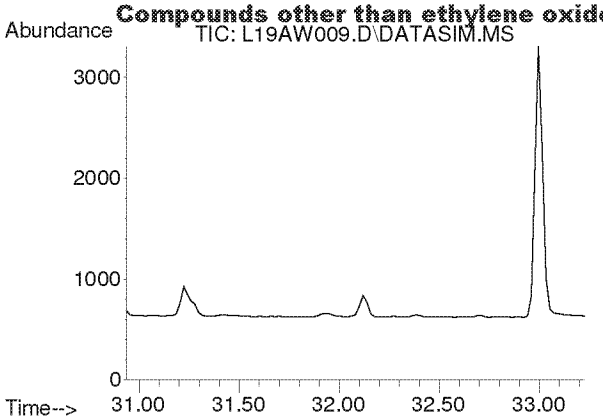
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

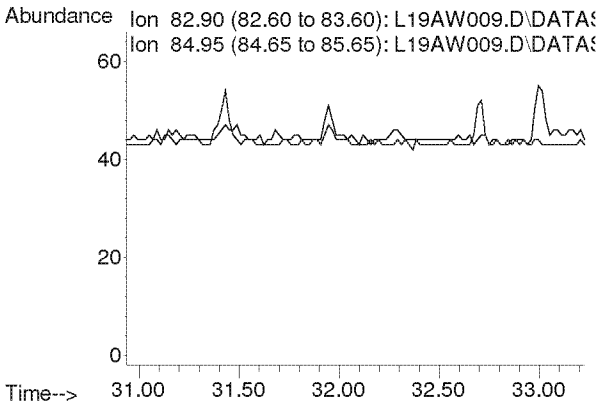


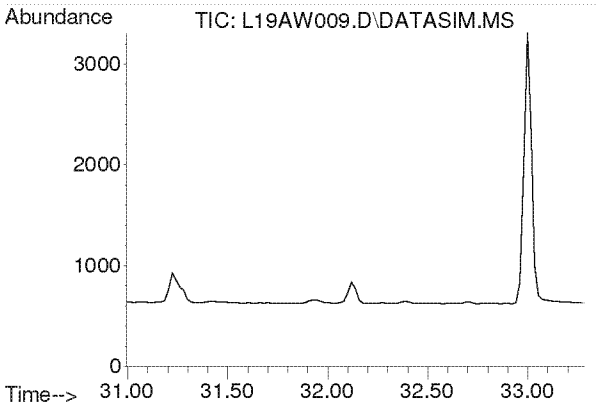
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



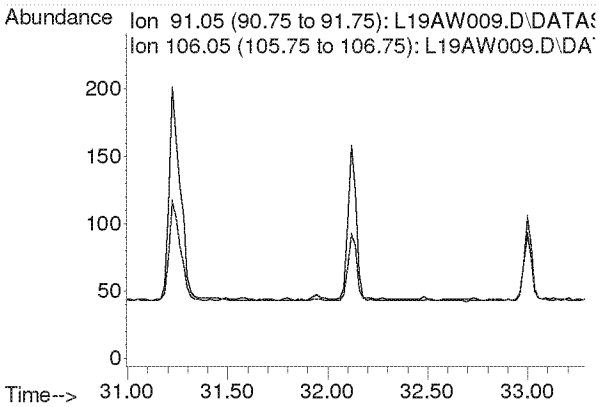


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

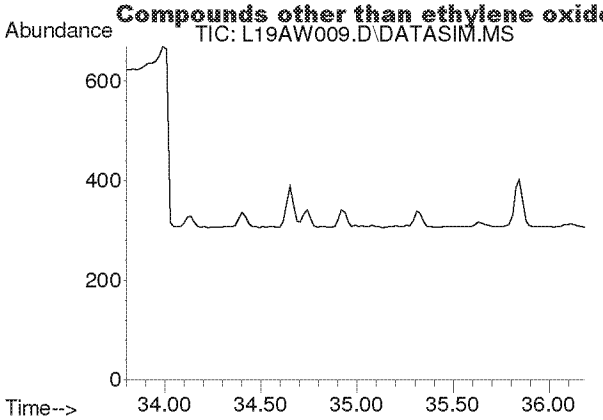
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

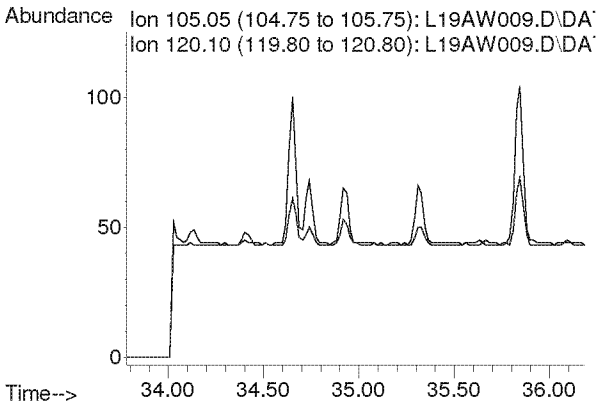


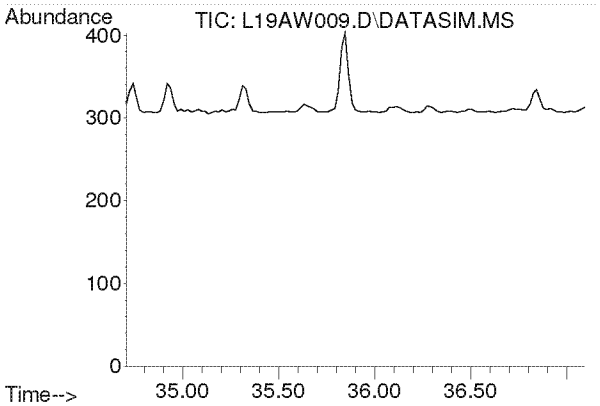
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



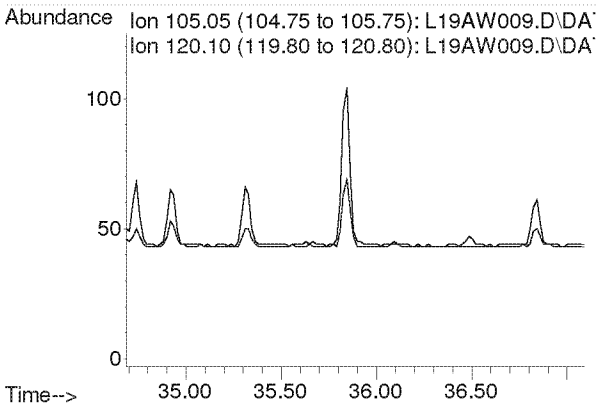


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

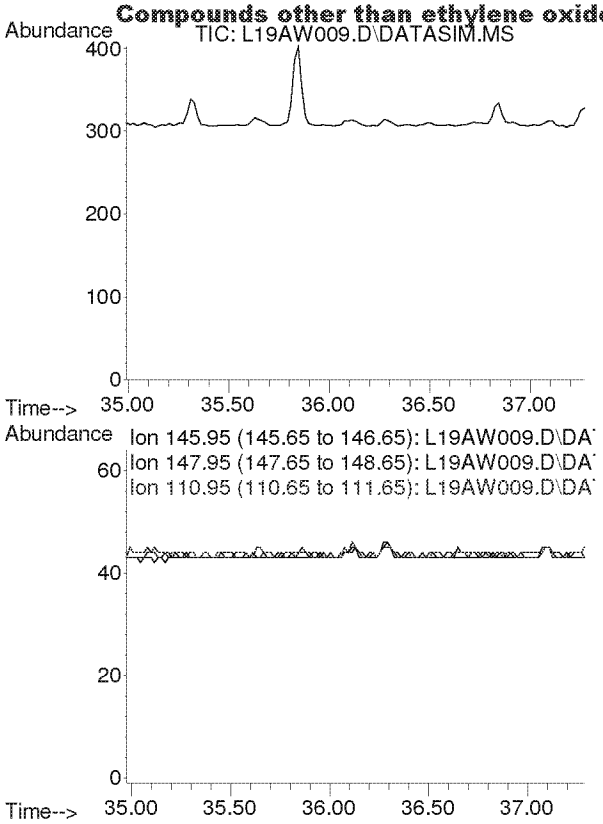
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

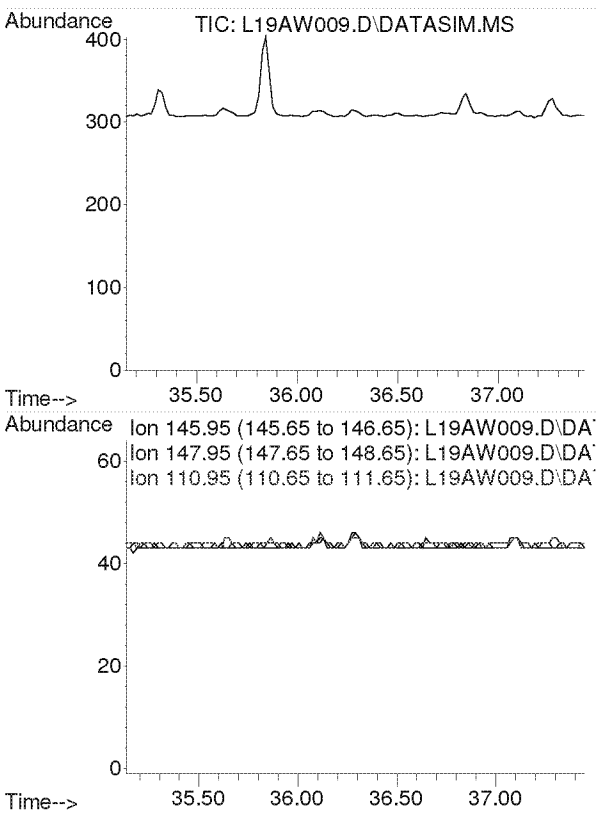


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



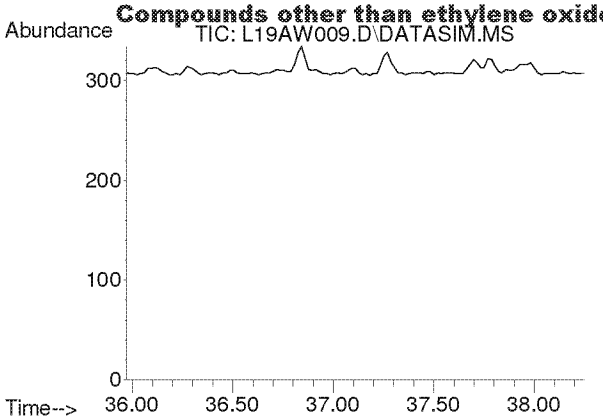
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3

Compounds other than ethylene oxide were not quantitated.

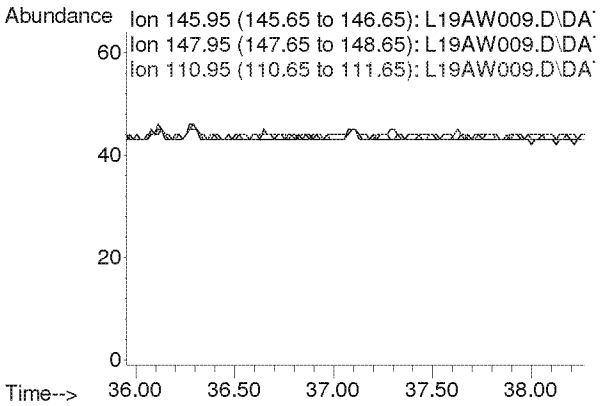


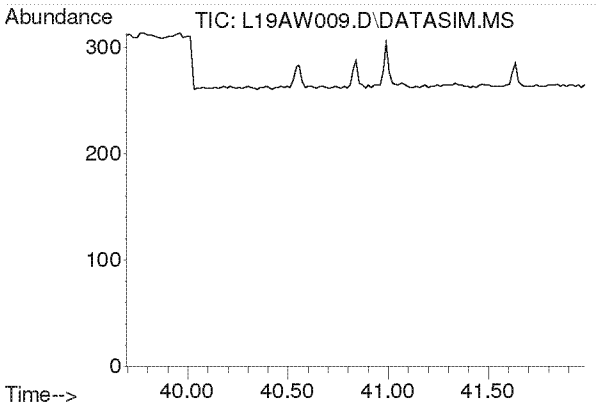
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



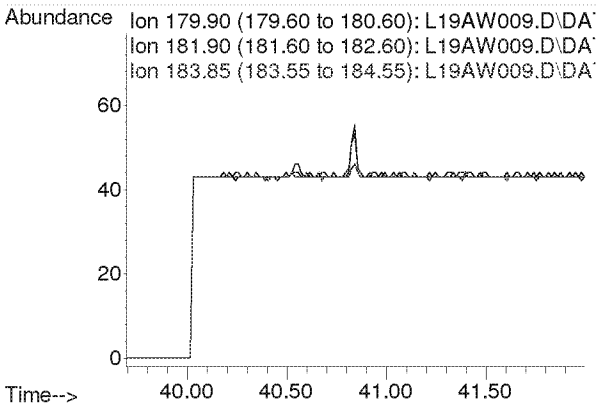


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

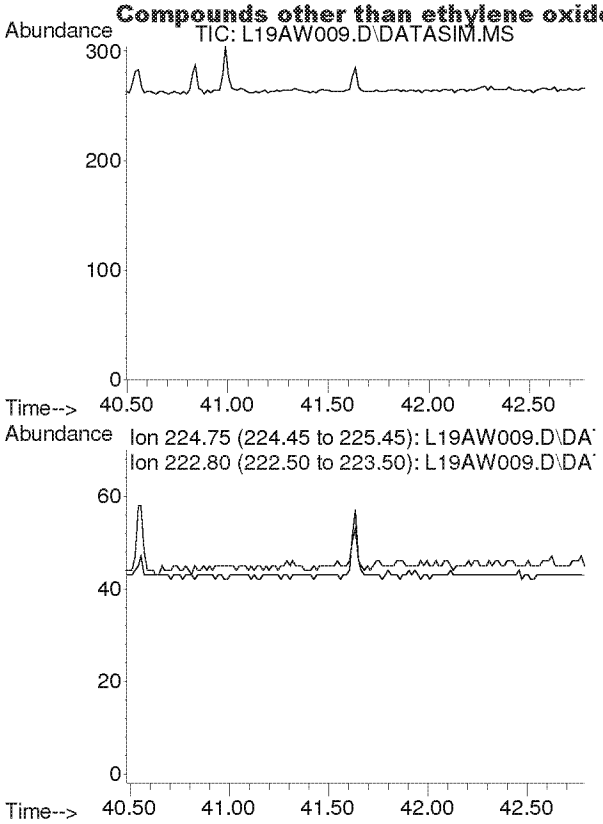
Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AW009.D
Acq: 23 Jan 2019 5:36 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\L19AW\
Data File : L19AW010.D
Acq On : 23 Jan 2019 6:36 pm
Operator : MAH
Sample : 9011701-04
Misc : WB VILLAGE HALL 1/16/19
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 29 08:25:35 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	54992	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	140370	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	106898	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	12.425	29	1057m	0.3721 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.	
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. 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. 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\L19AW\
Data File : L19AW010.D
Acq On : 23 Jan 2019 6:36 pm
Operator : MAH
Sample : 9011701-04
Misc : WB VILLAGE HALL 1/16/19
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 29 08:25:35 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

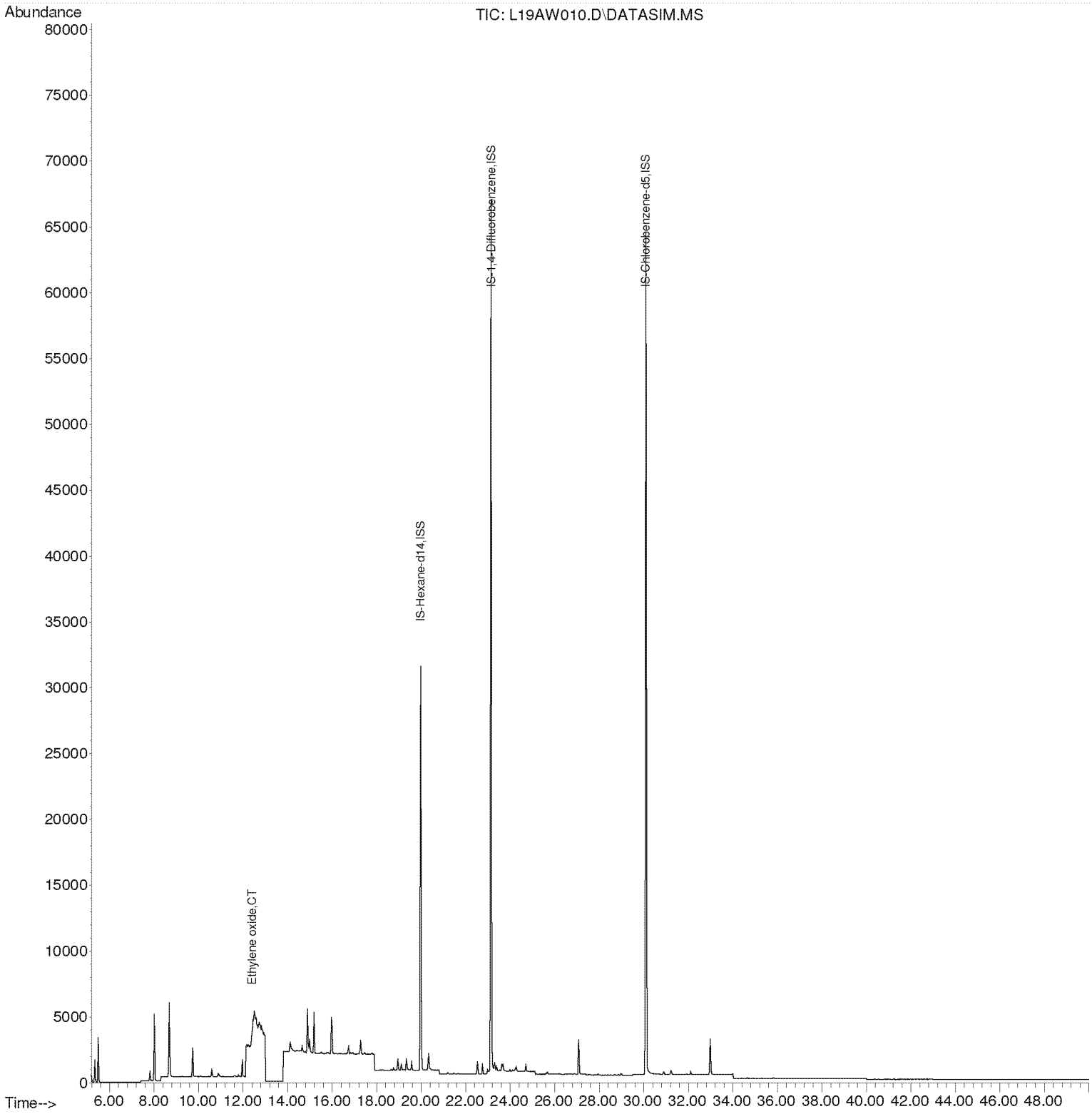
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

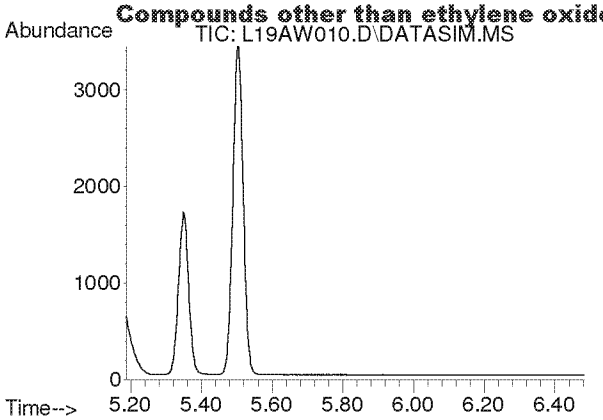
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW010.D
Acq On : 23 Jan 2019 6:36 pm
Operator : MAH
Sample : 9011701-04
Misc : WB VILLAGE HALL 1/16/19
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jan 29 08:06:55 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



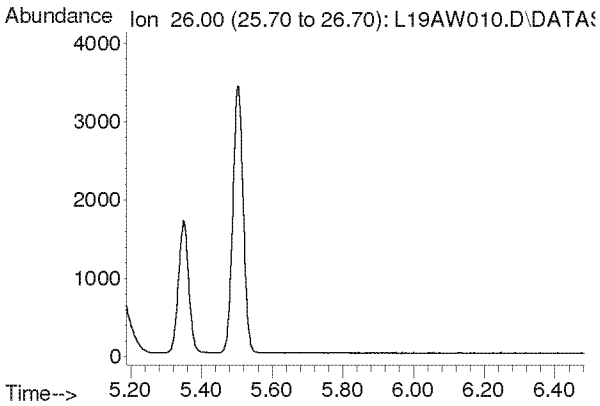
Compounds other than ethylene oxide were not quantitated.

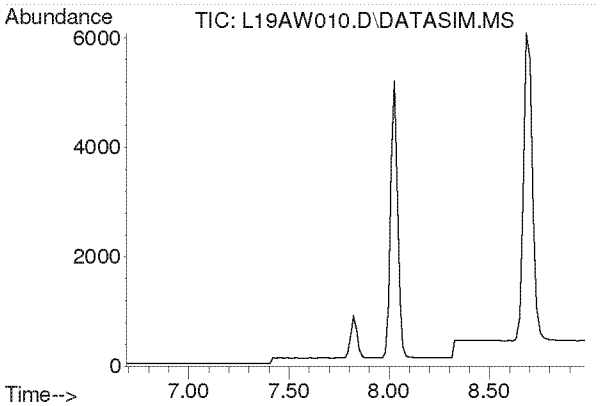


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 26



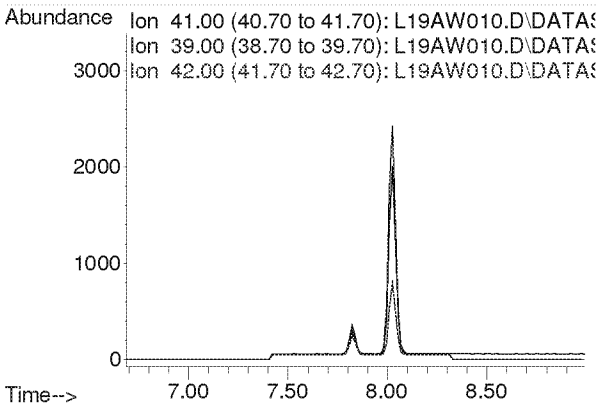


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

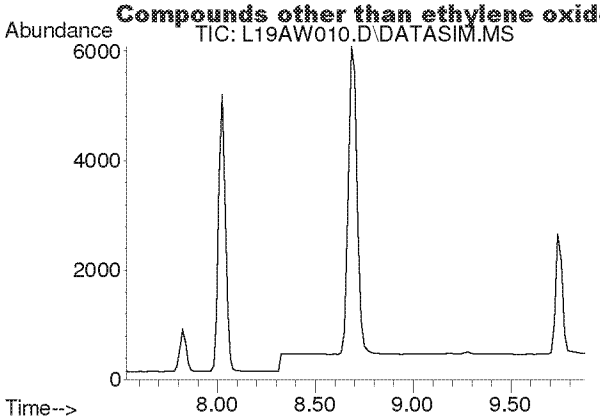
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

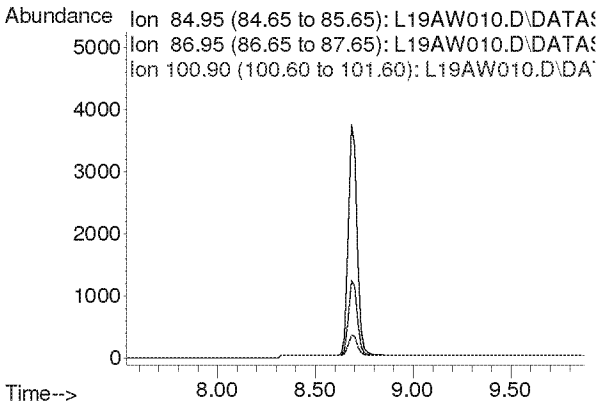


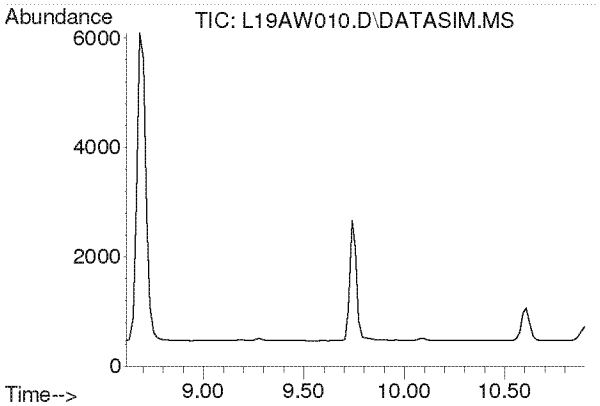
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



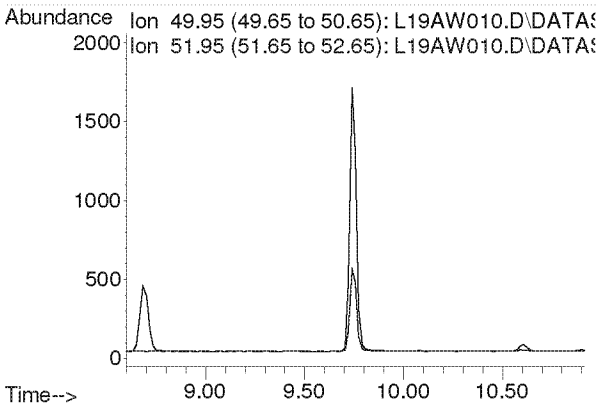


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

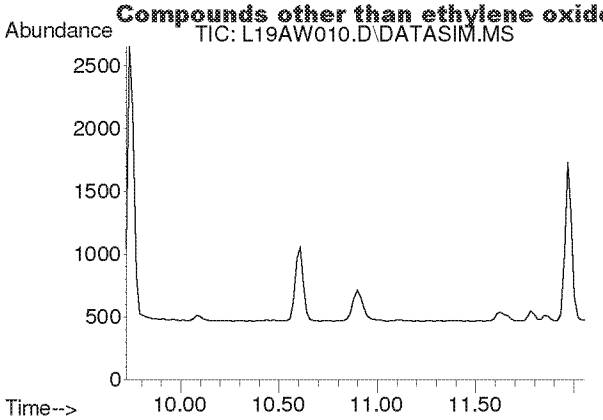
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

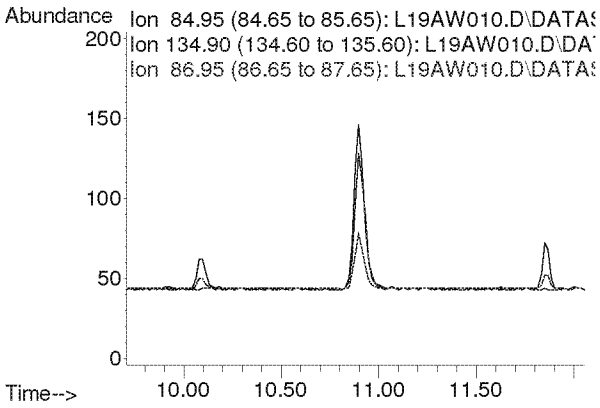


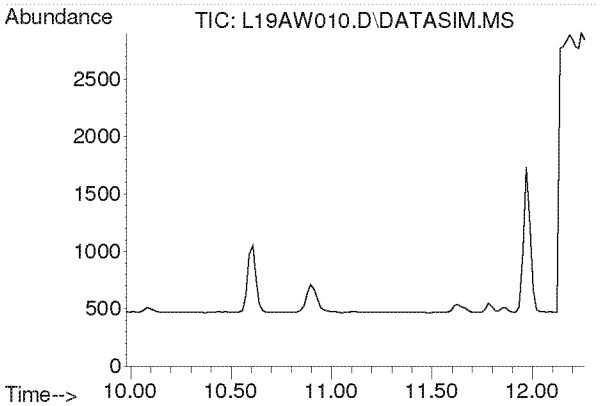
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



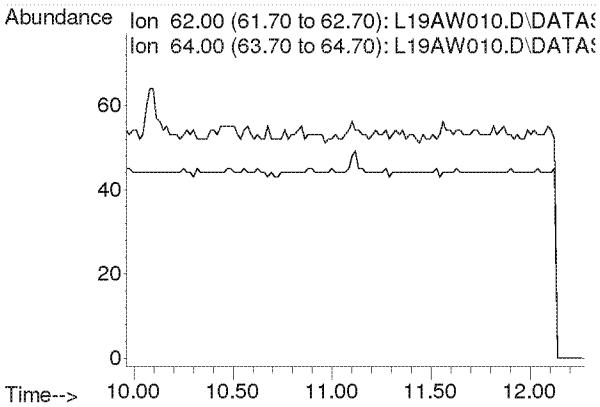


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

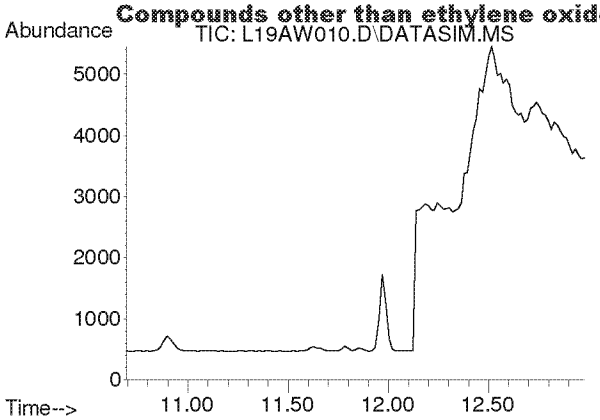
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

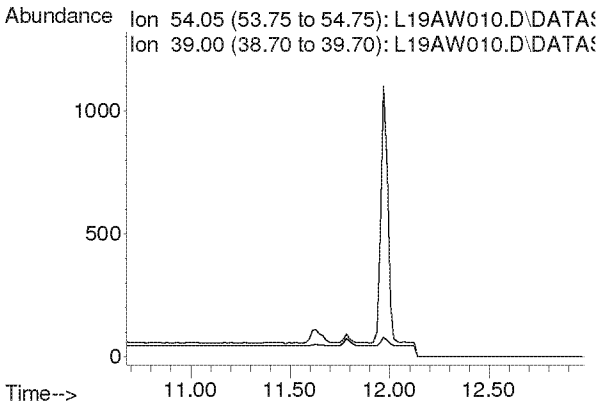


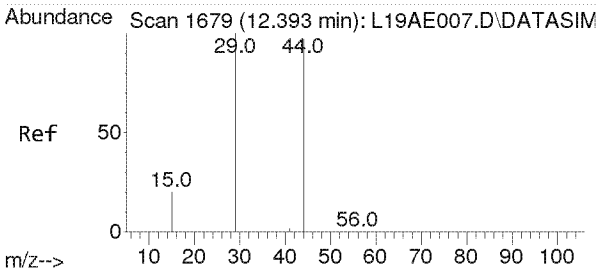
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

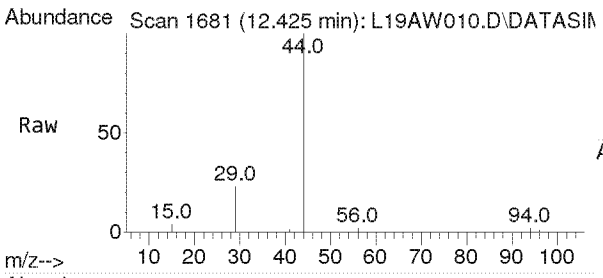


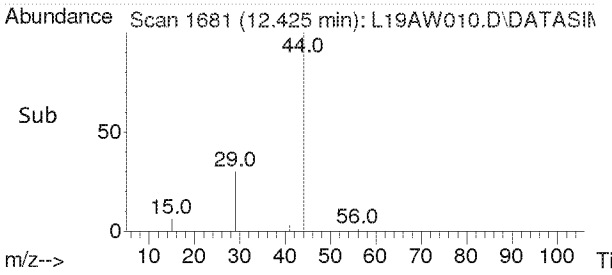


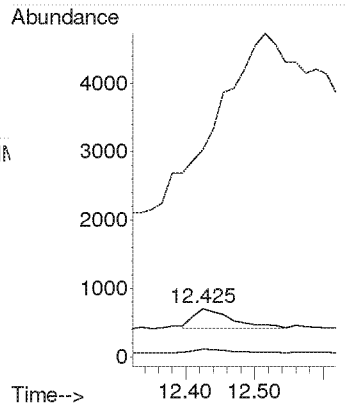
#9
Ethylene oxide
Concen: 0.372 ppbv m
RT: 12.425 min Scan# 1681
Delta R.T. 0.032 min
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 29 Resp: 1057

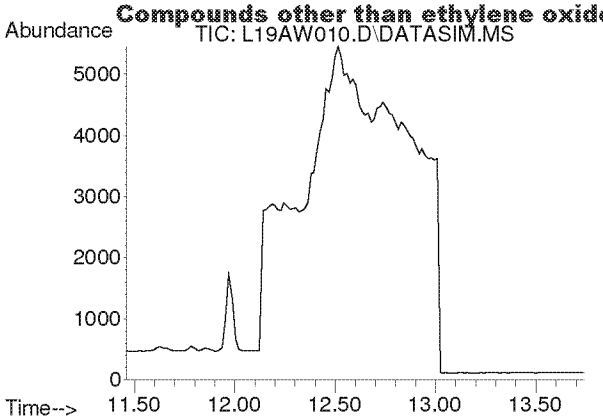
Ion	Ratio	Lower	Upper
29	100		
15	18.6	15.4	23.0
44	0.0	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

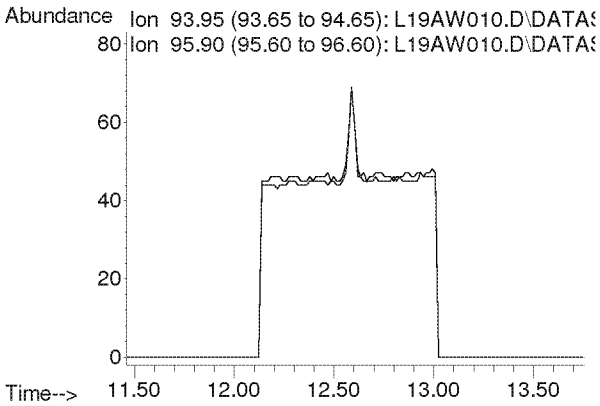


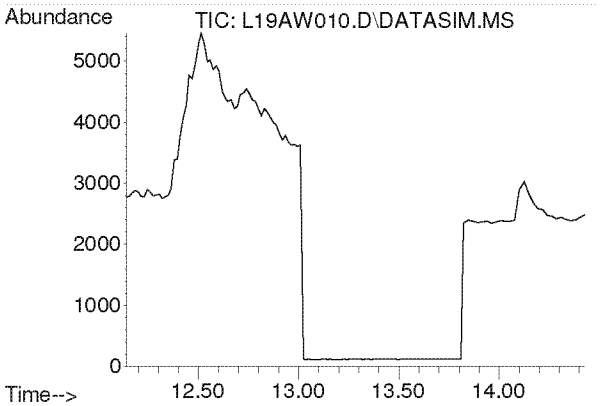
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



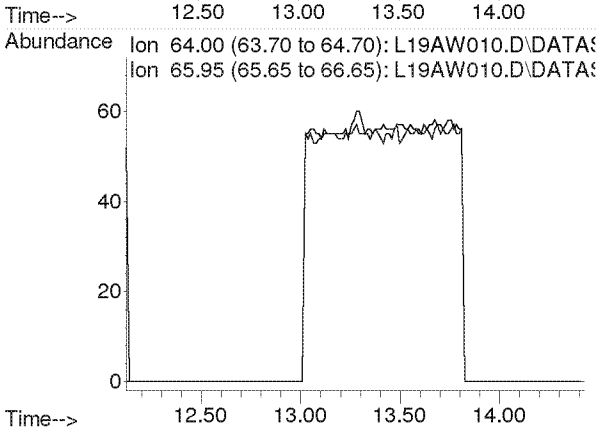


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

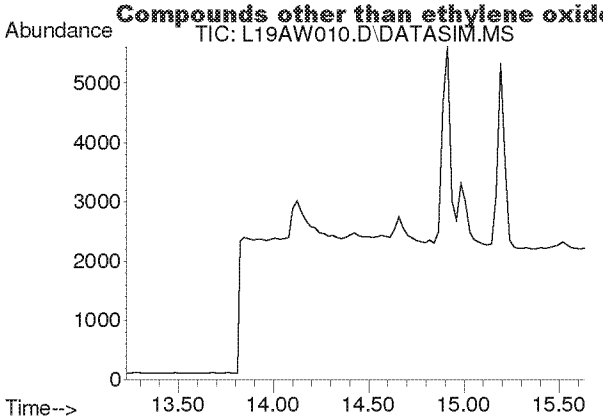
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

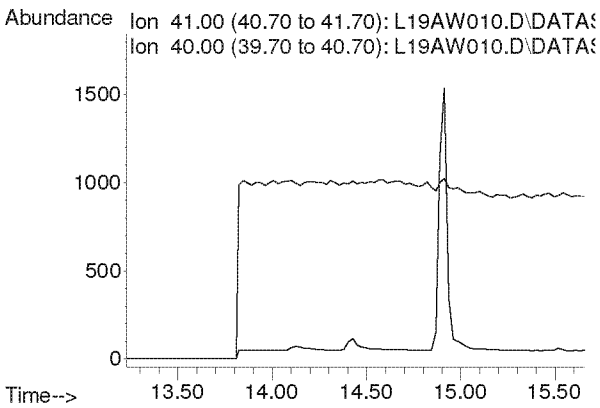


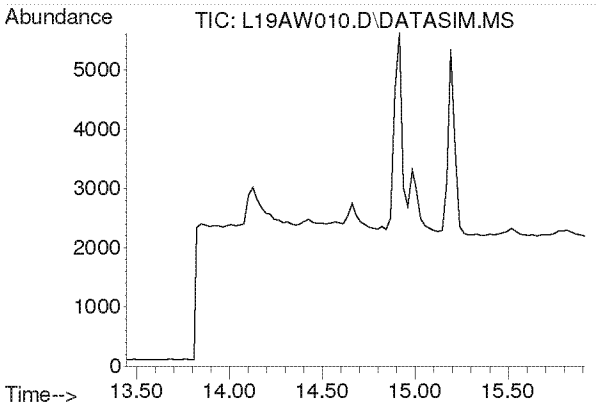
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



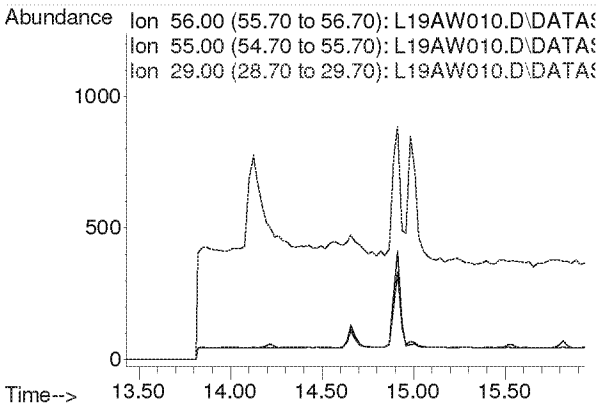


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

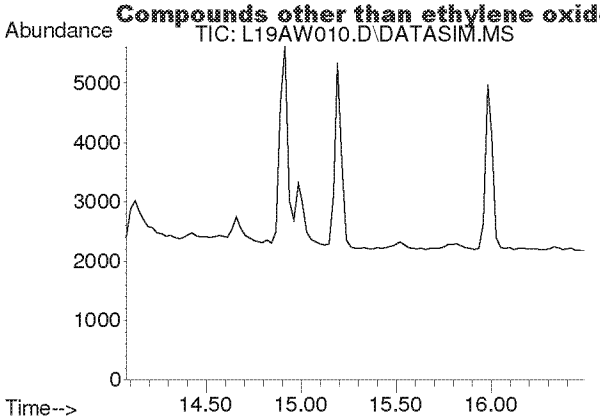
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

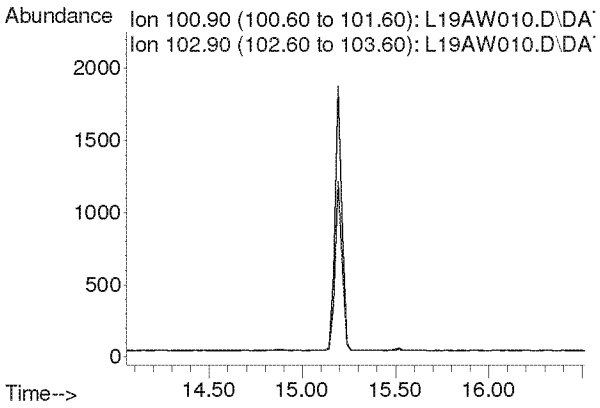


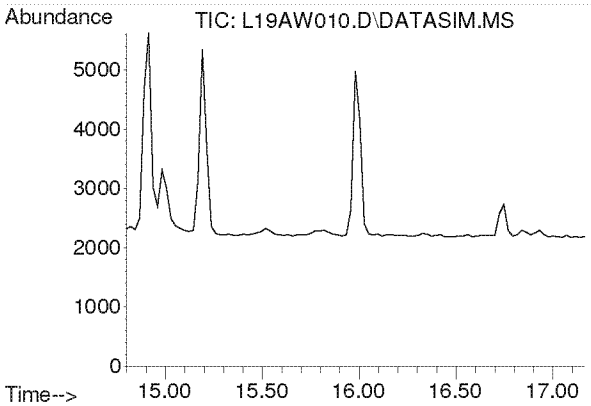
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



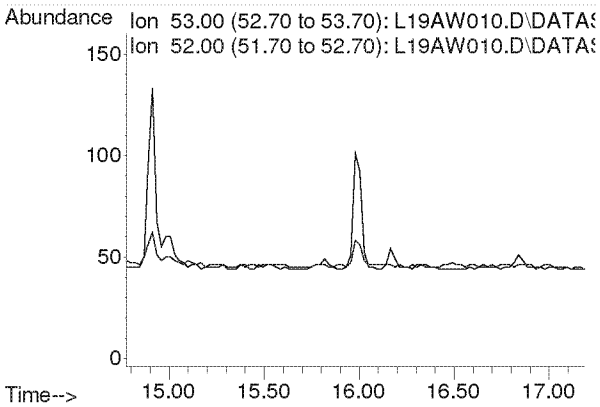


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

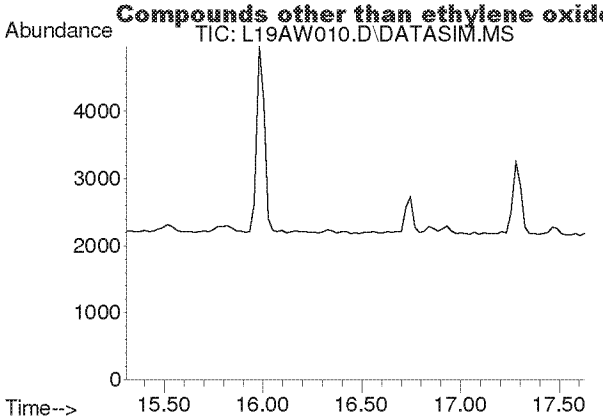
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

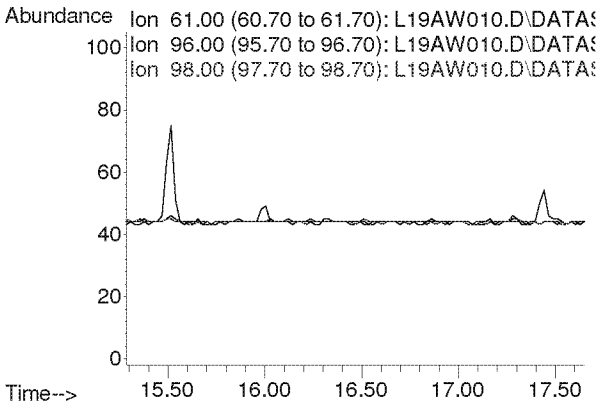


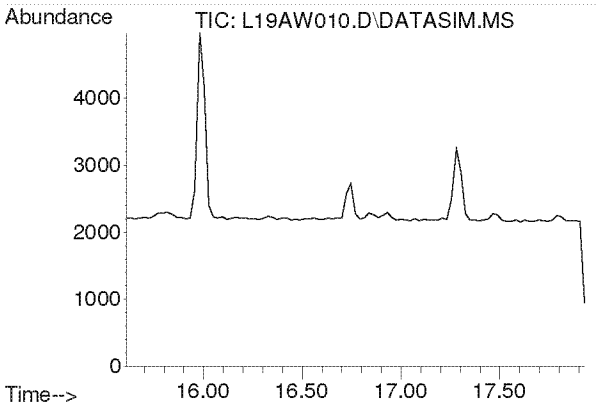
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



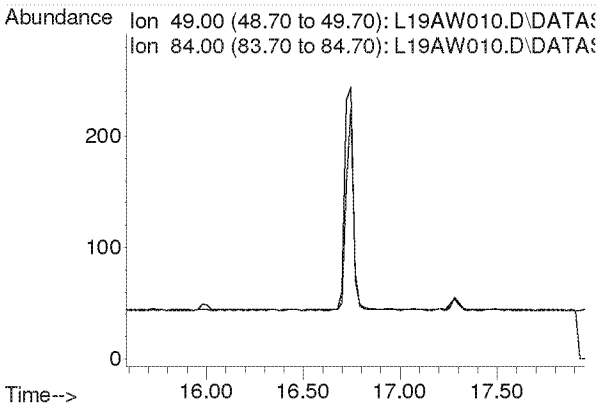


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

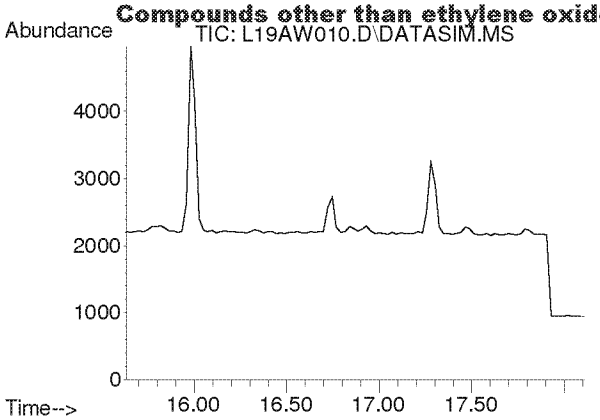
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

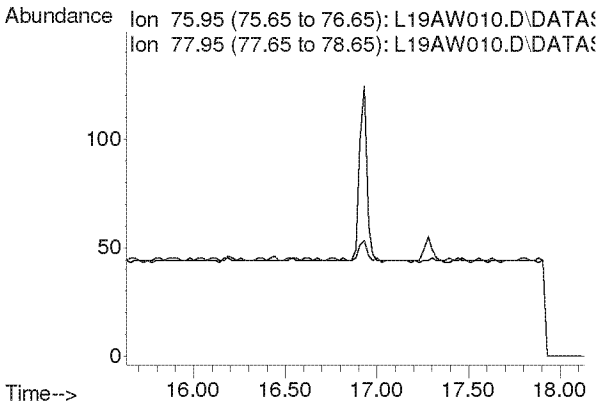


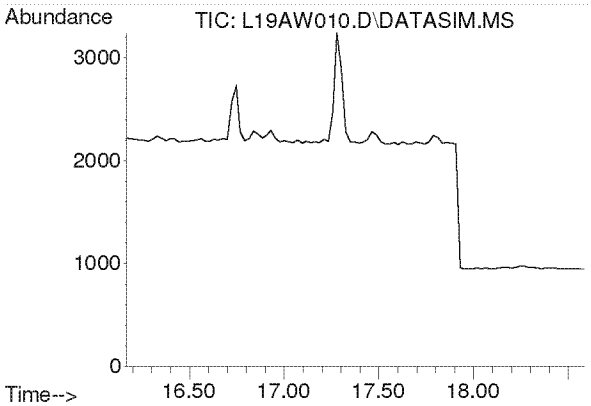
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



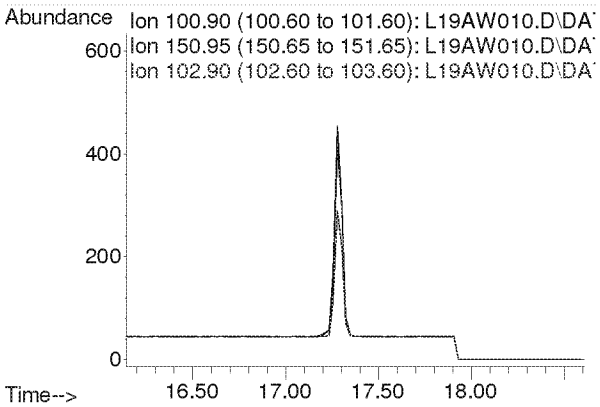


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

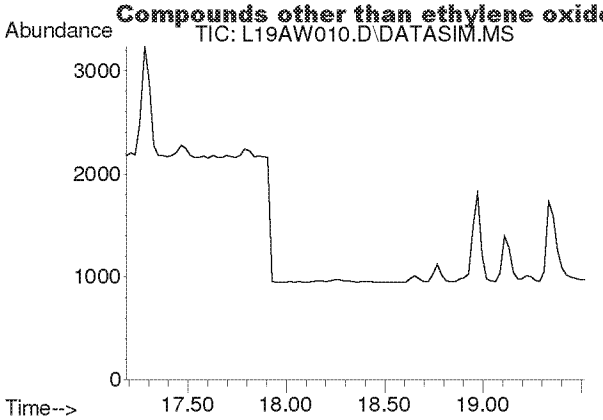
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

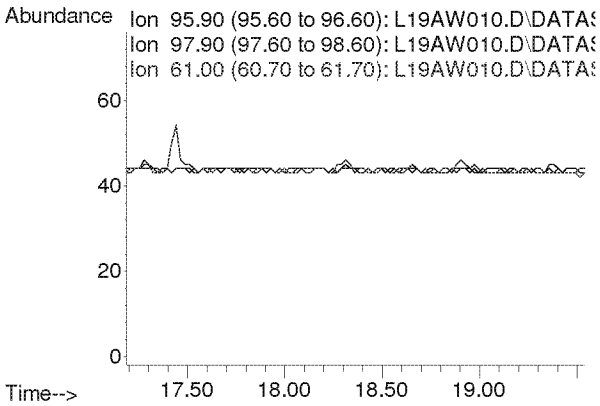


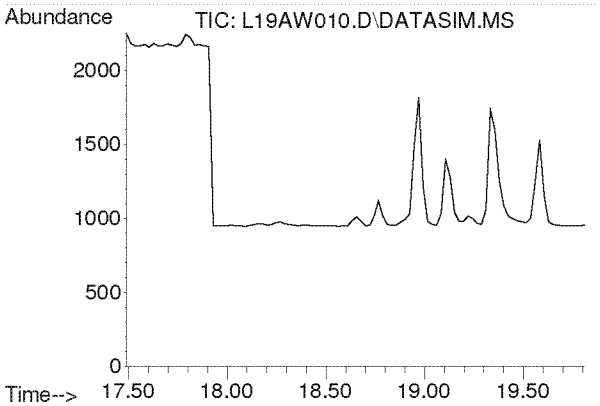
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



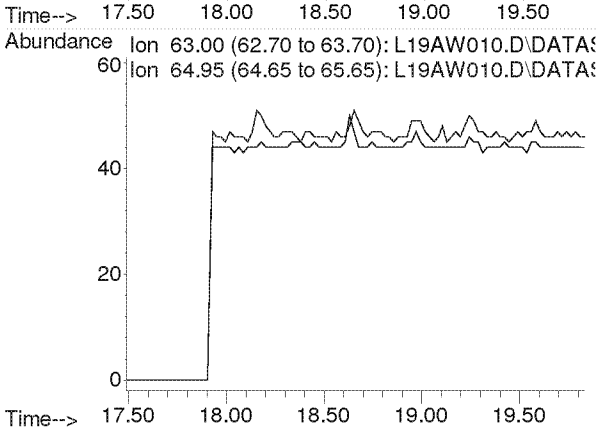


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

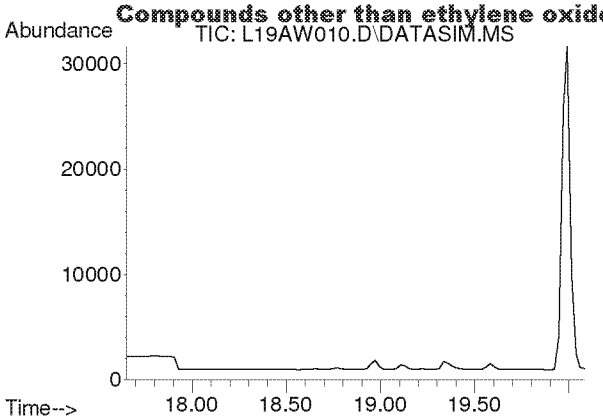
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

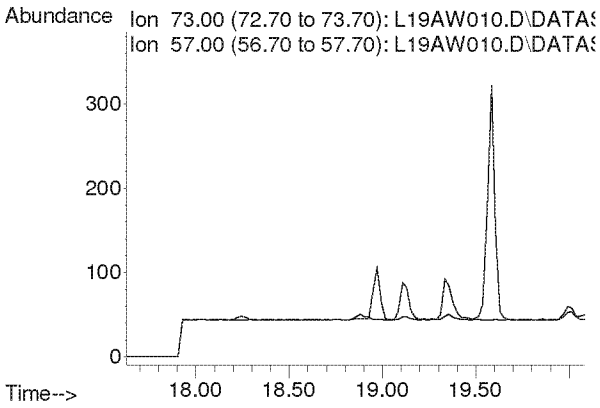


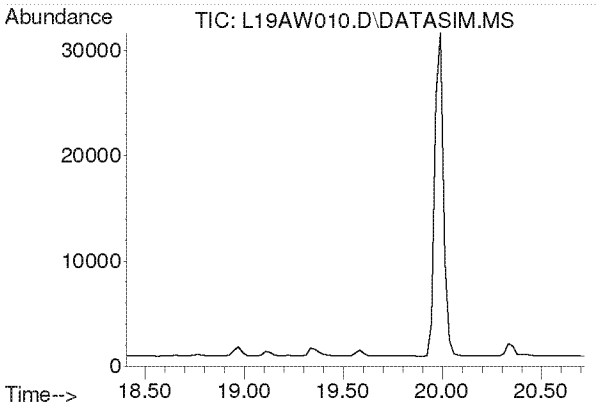
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



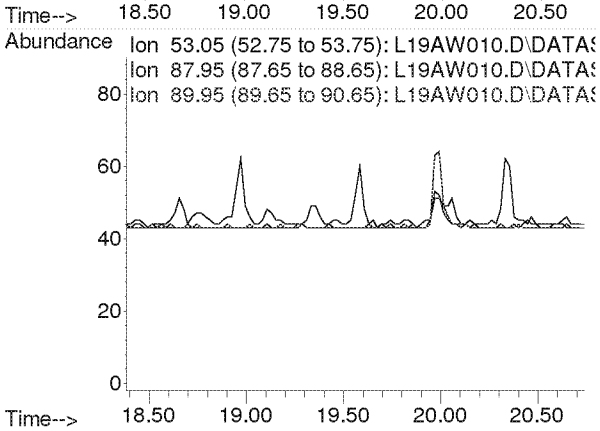


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

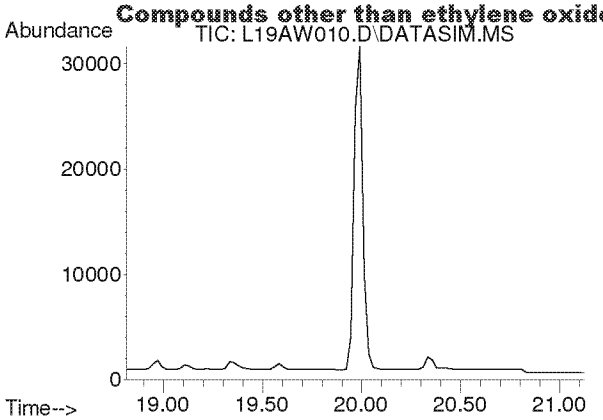
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

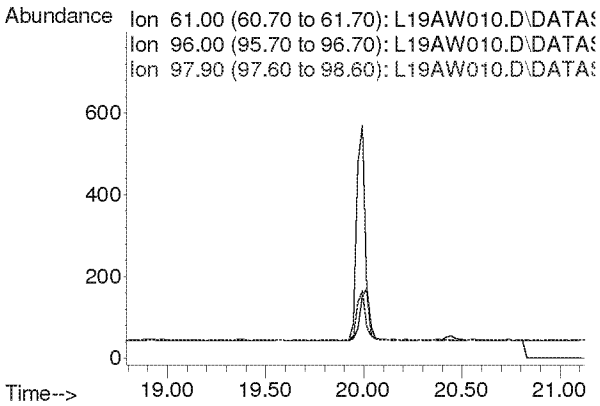


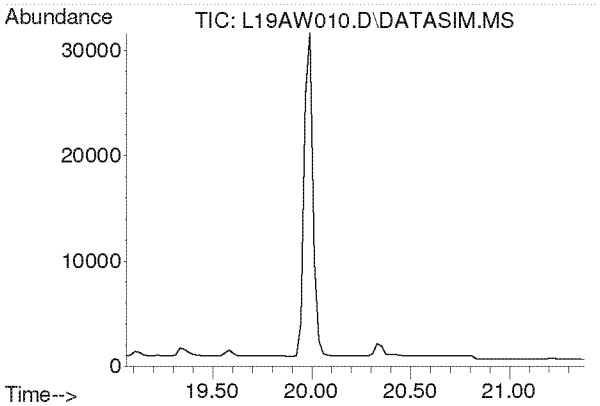
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



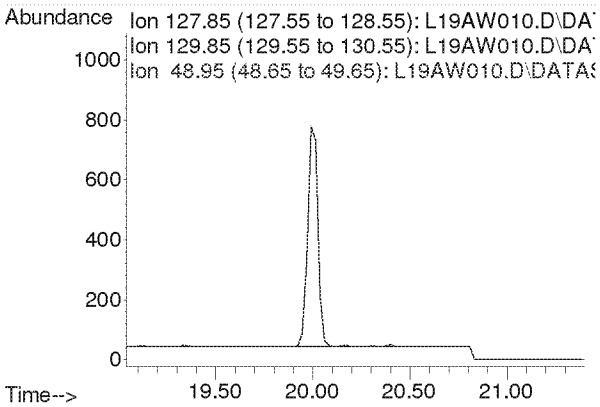


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

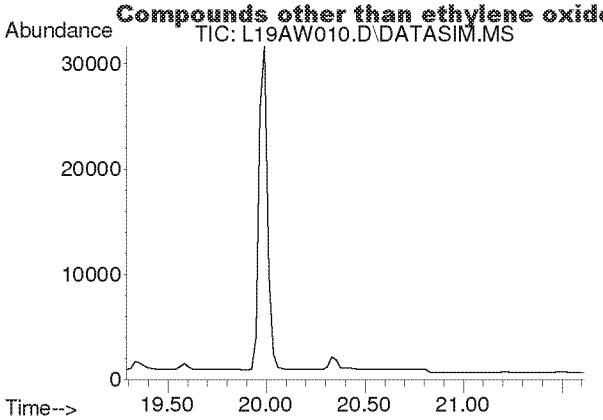
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

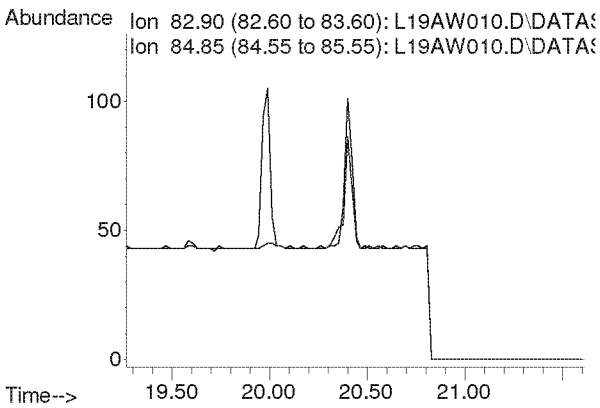


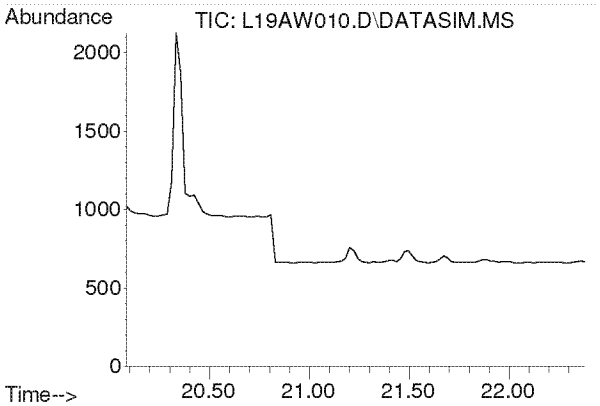
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



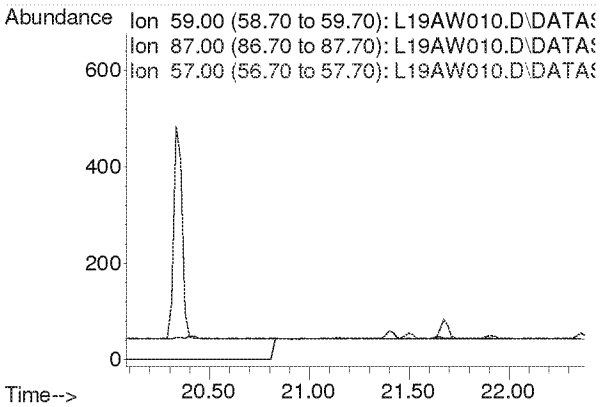


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

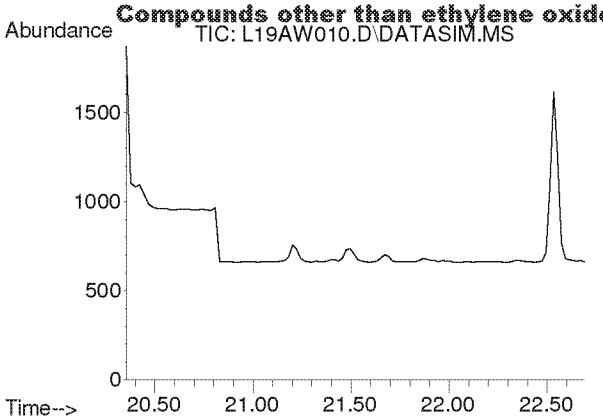
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

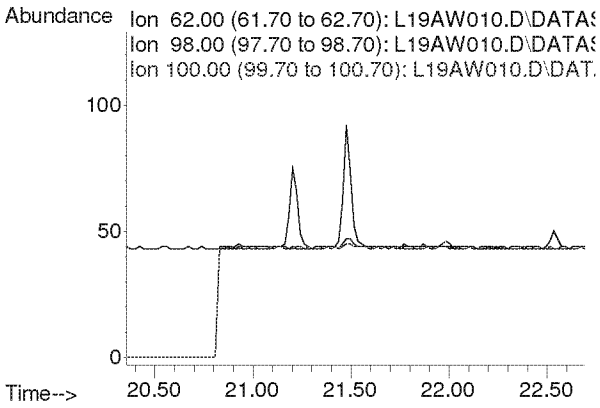


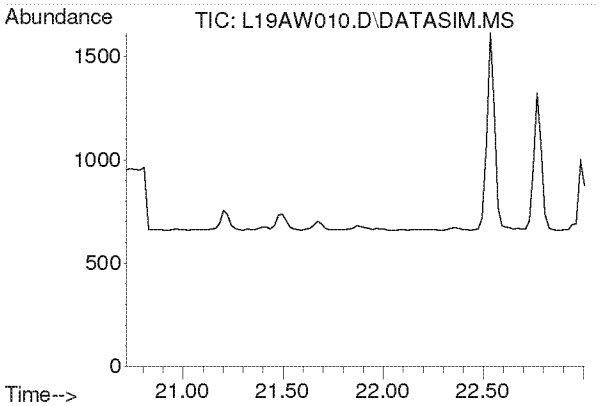
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



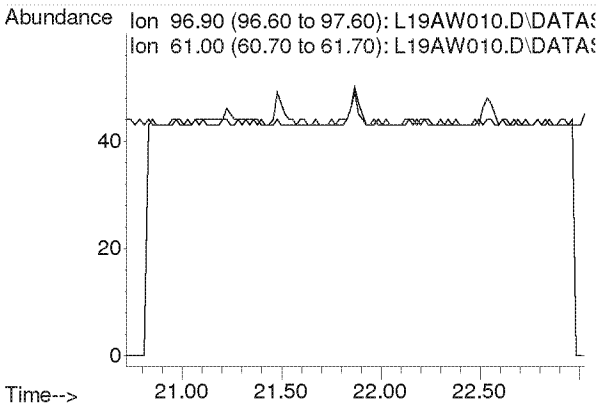


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

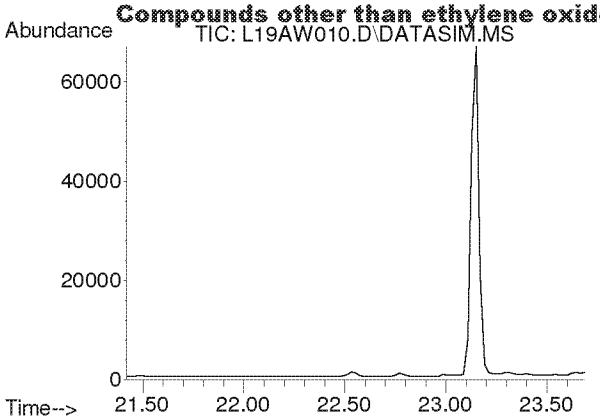
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

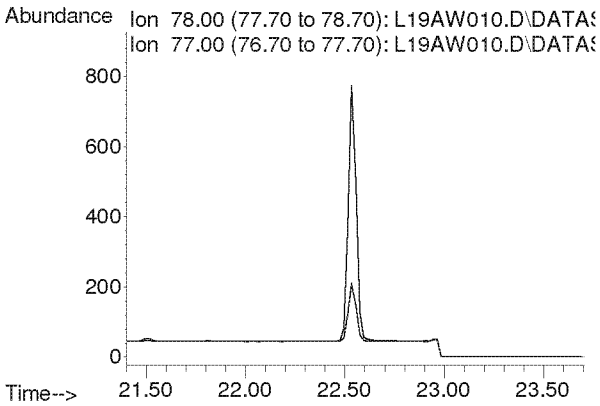


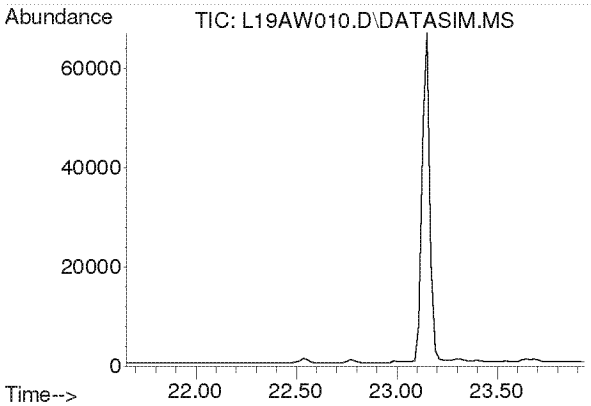
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



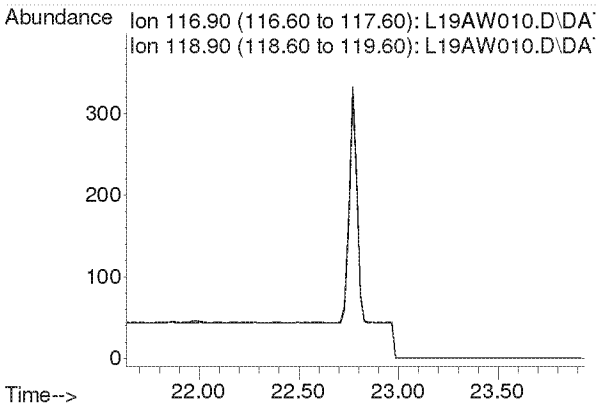


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

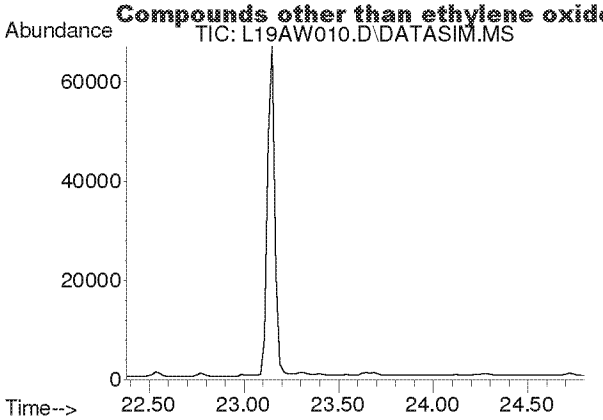
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

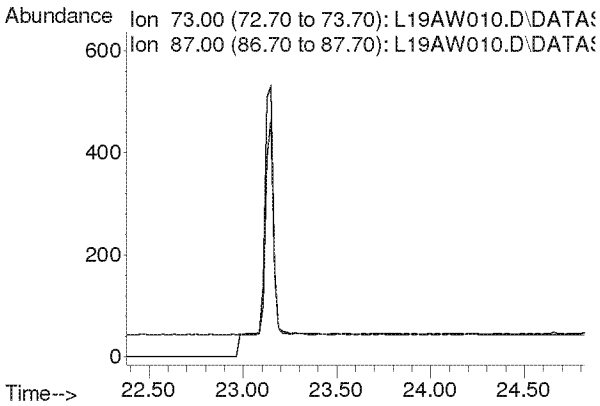


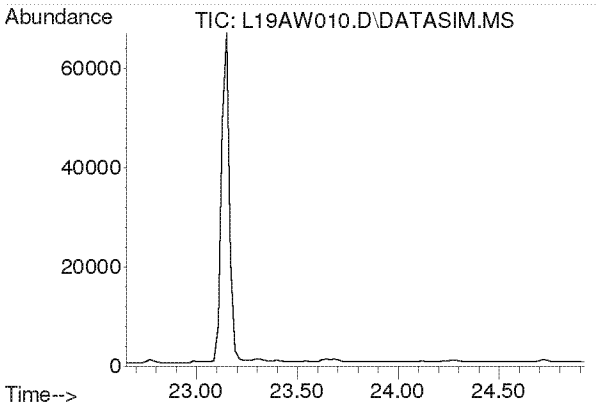
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



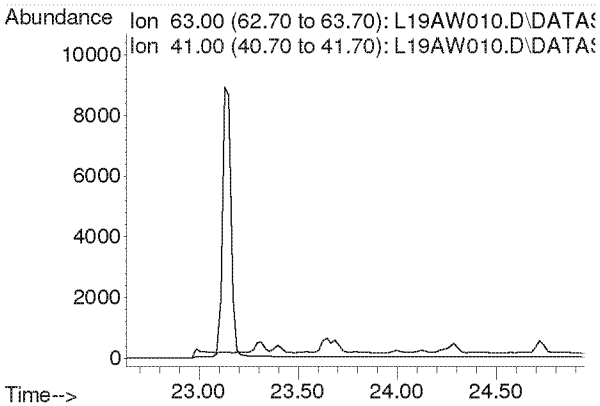


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

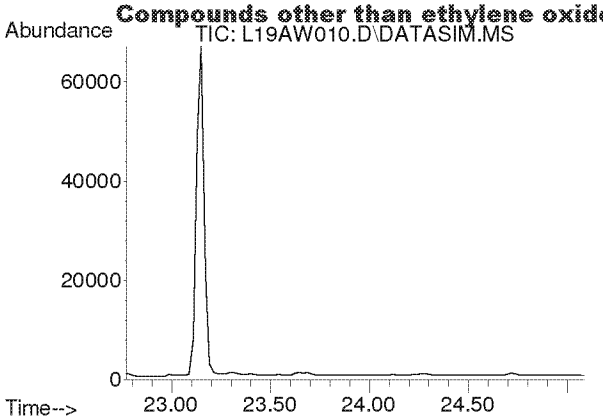
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

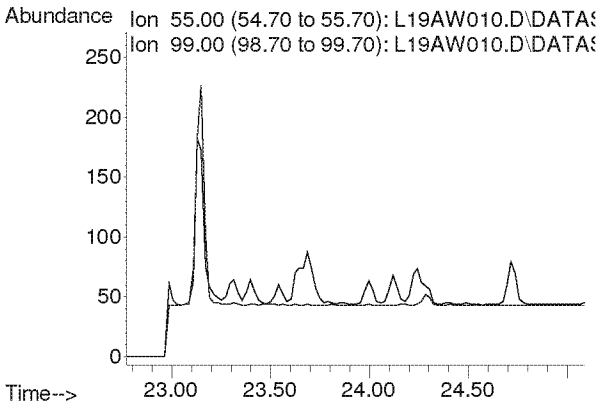


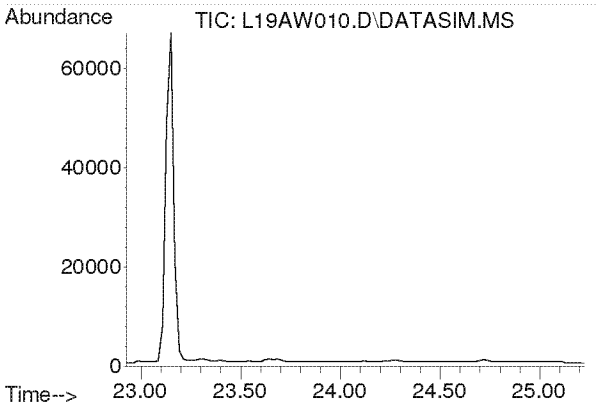
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



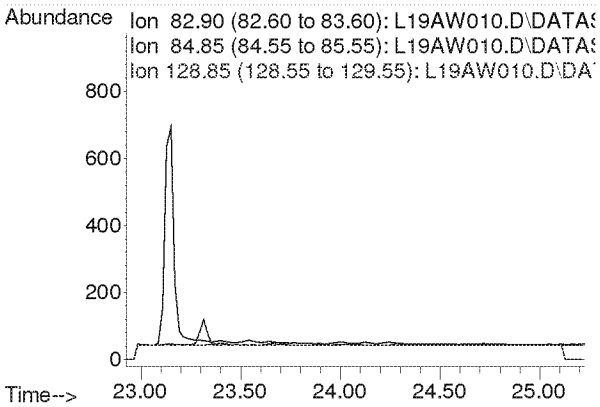


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

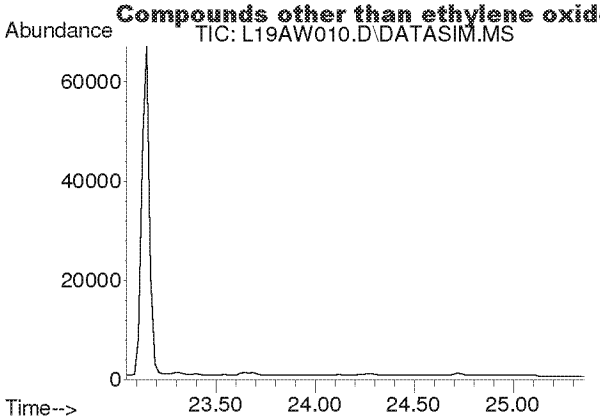
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

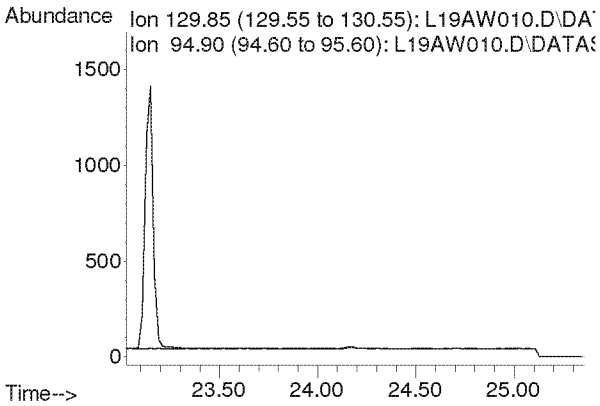


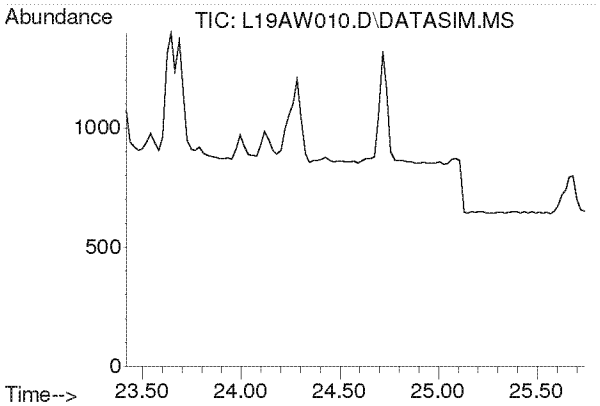
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



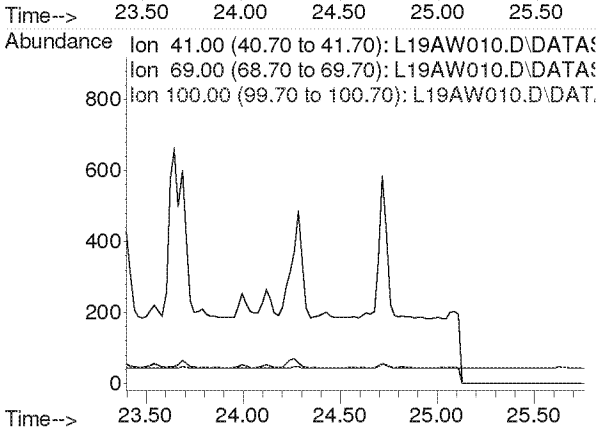


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

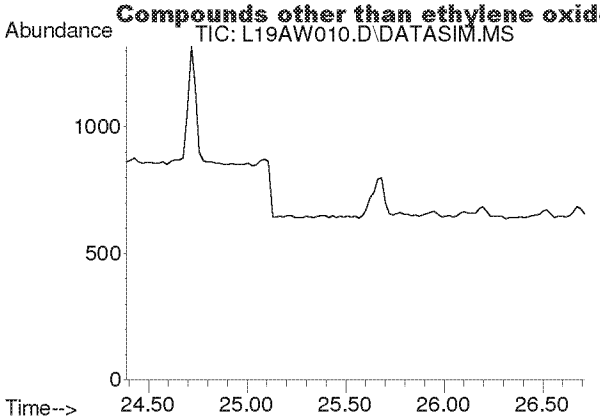
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

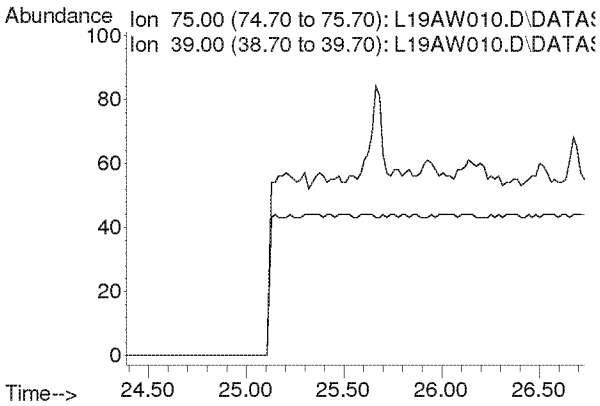


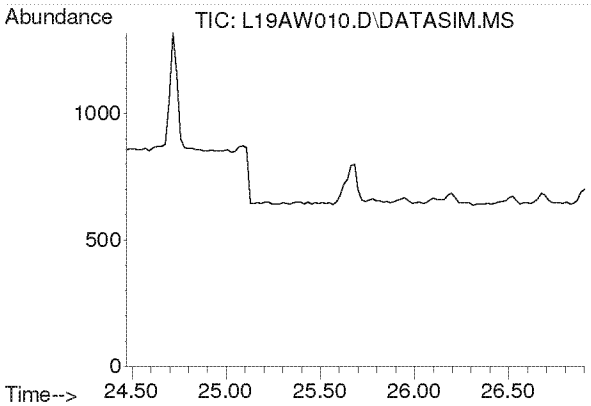
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



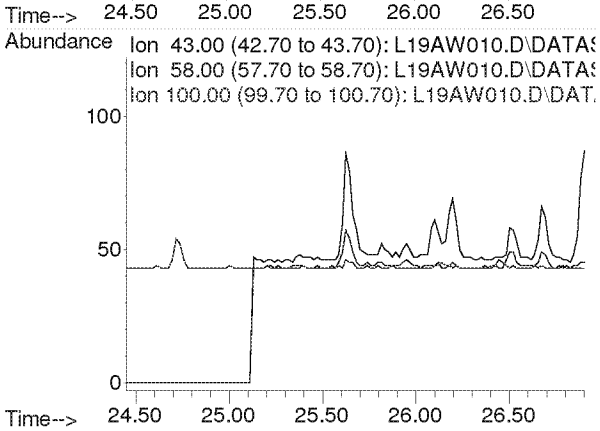


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

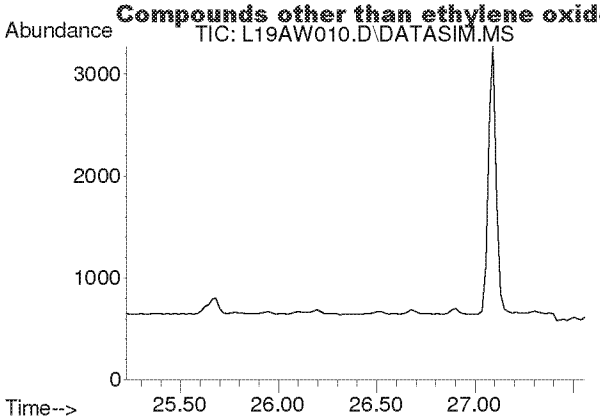
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

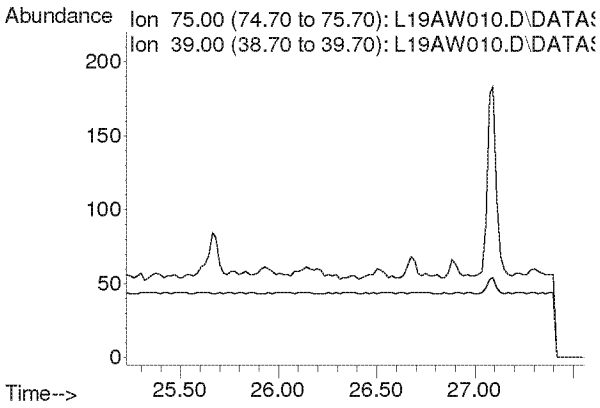


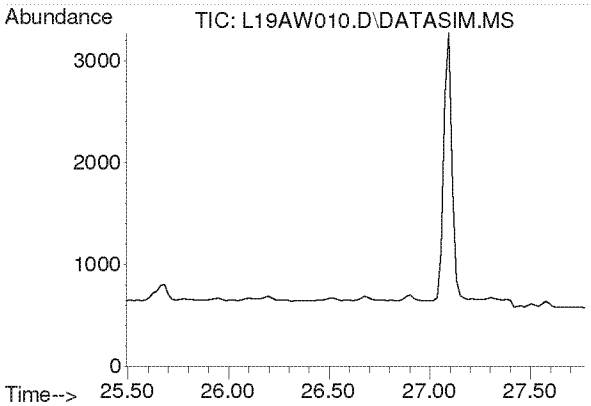
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



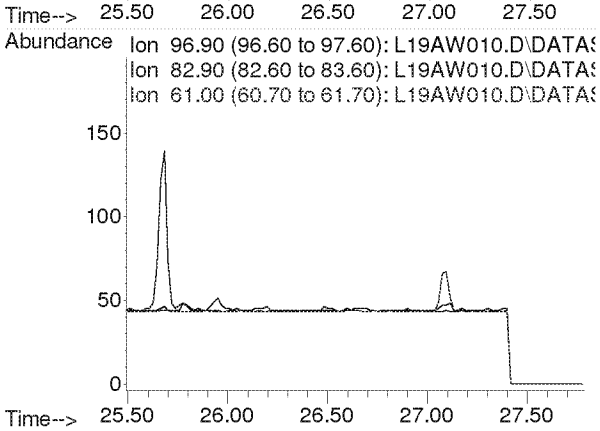


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

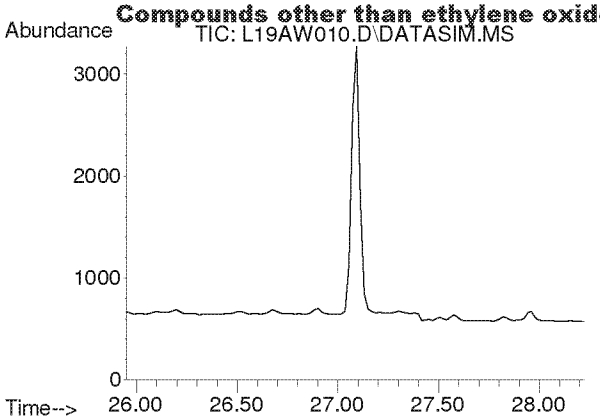
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

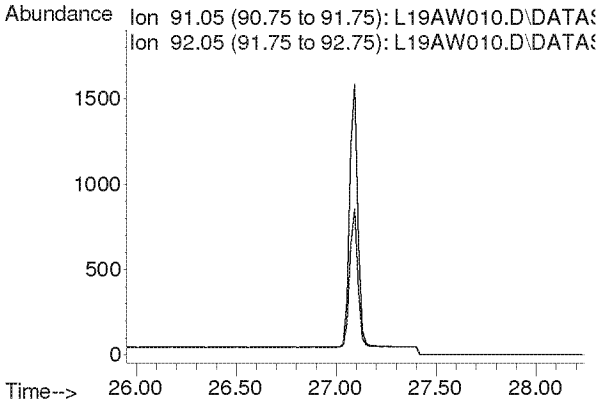


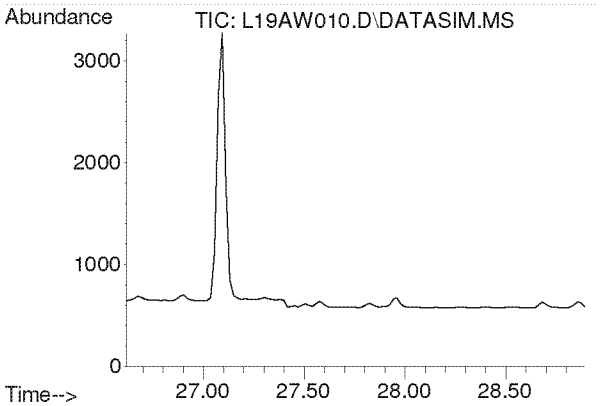
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



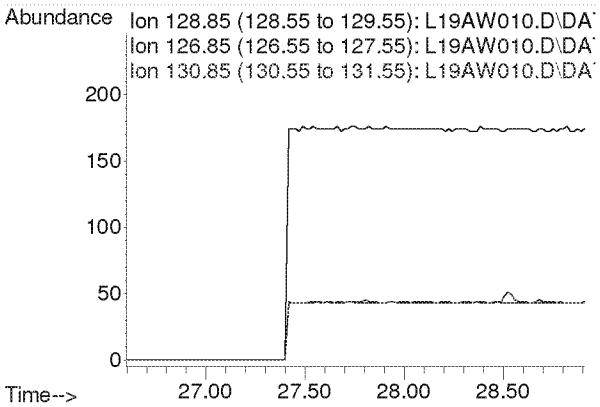


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

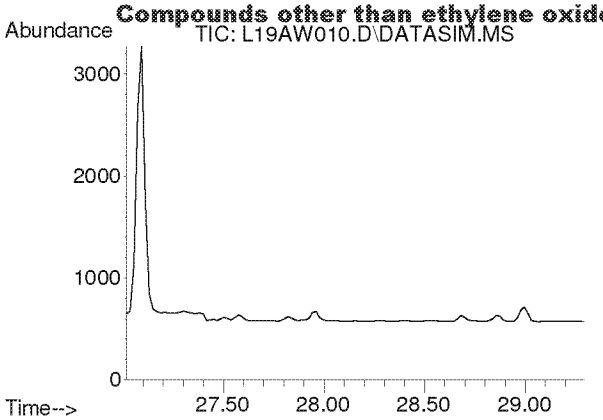
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

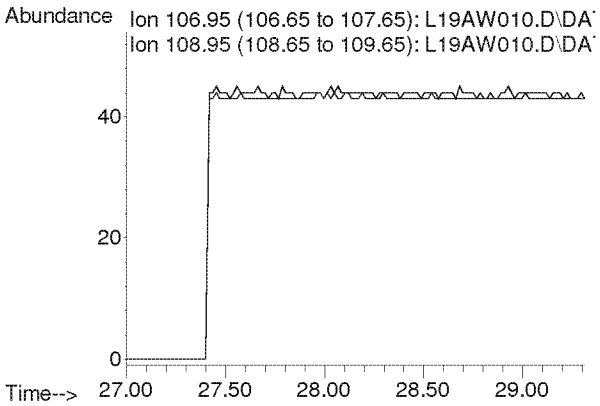


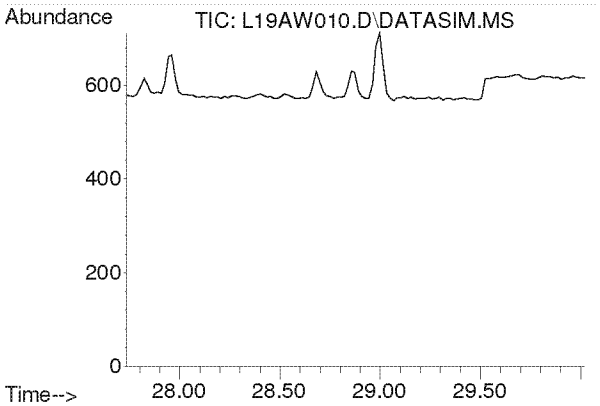
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



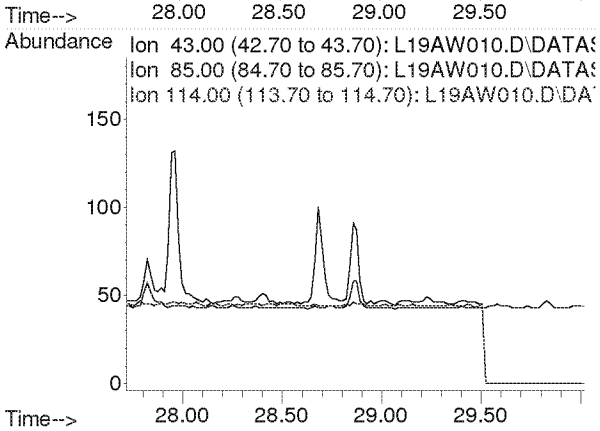


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

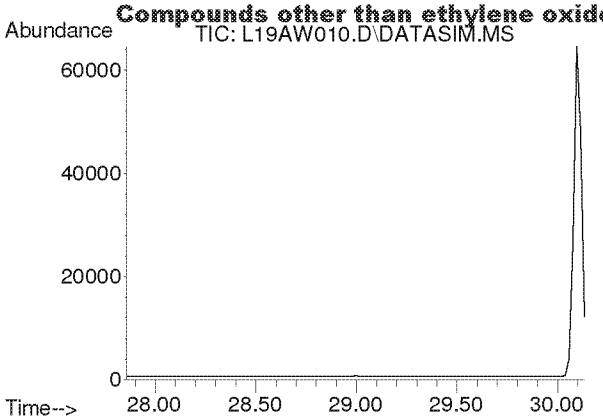
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

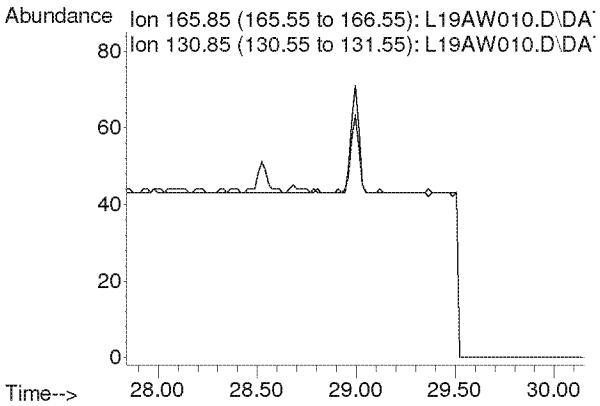


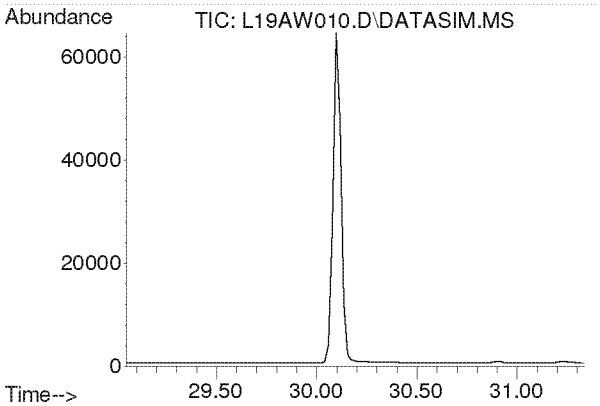
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



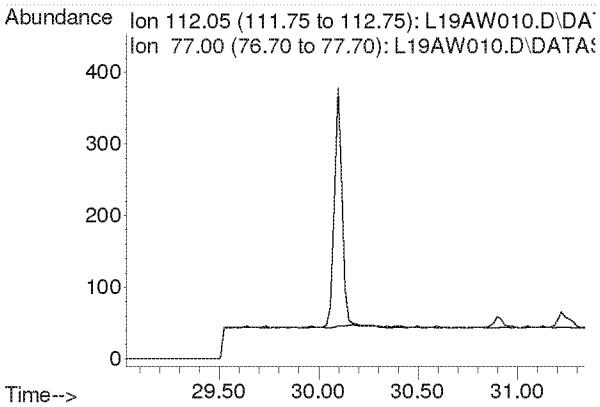


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

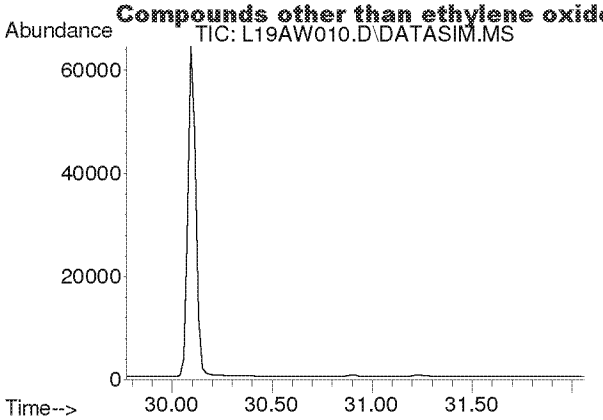
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

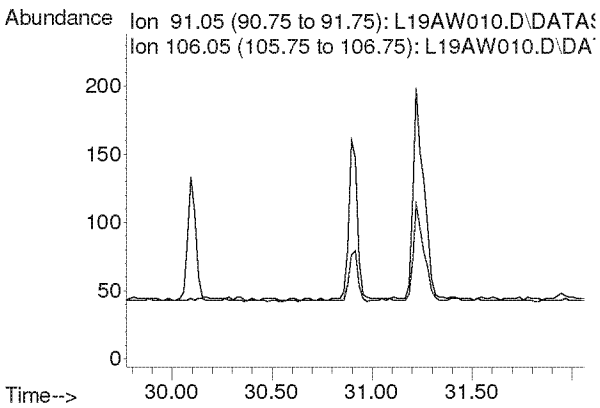


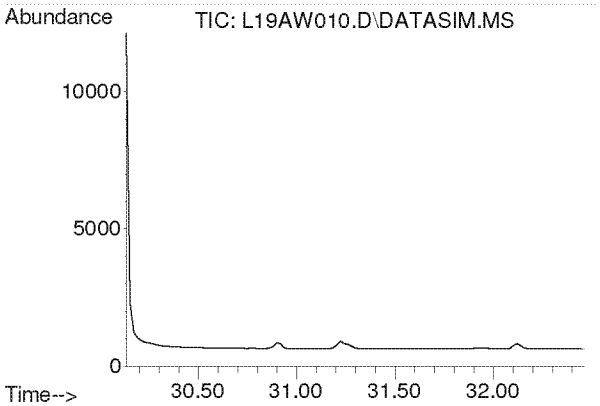
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



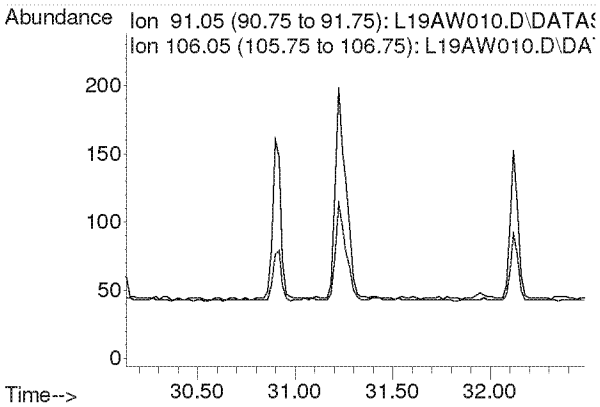


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

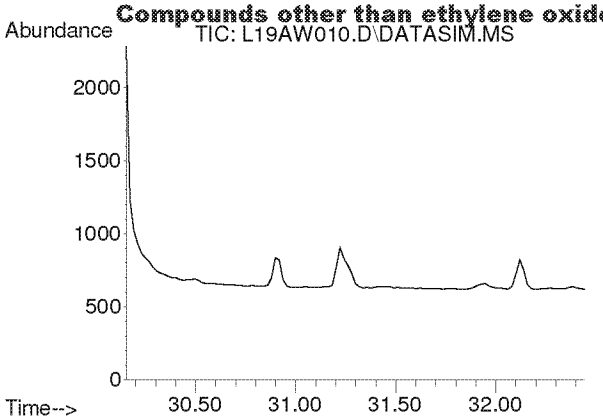
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

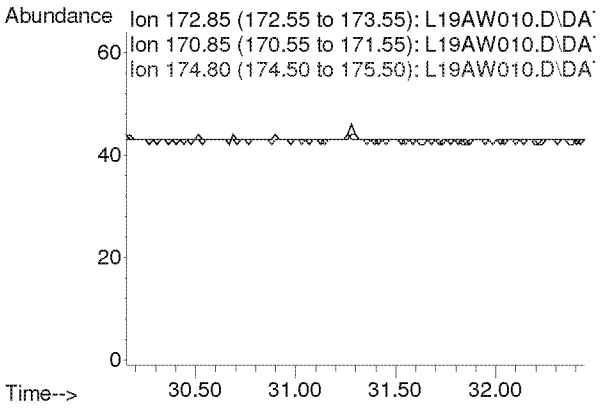


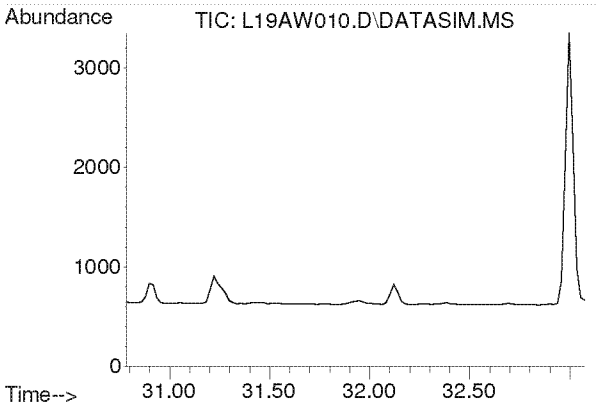
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



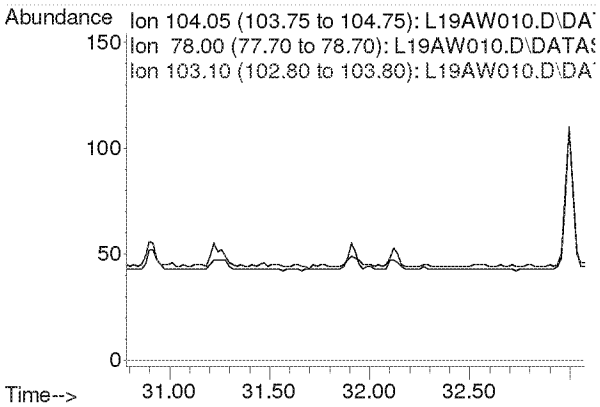


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

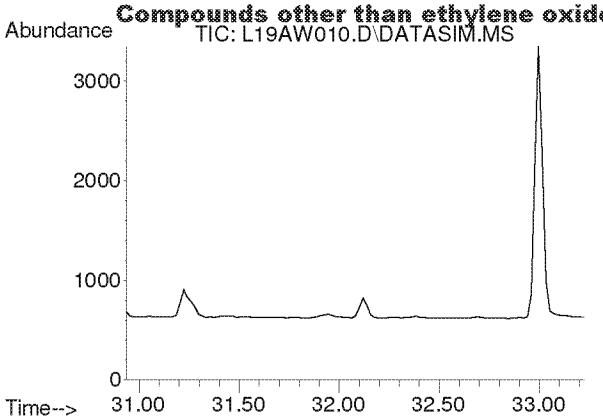
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

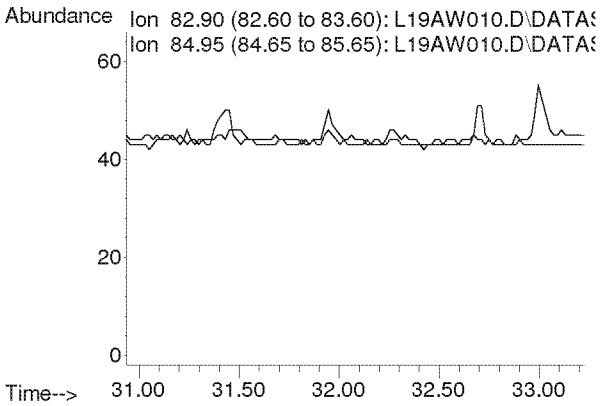


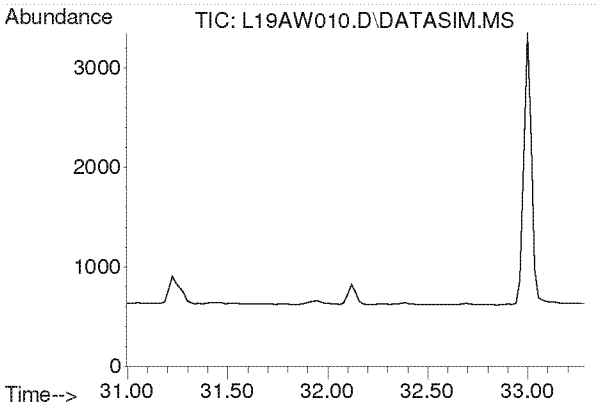
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



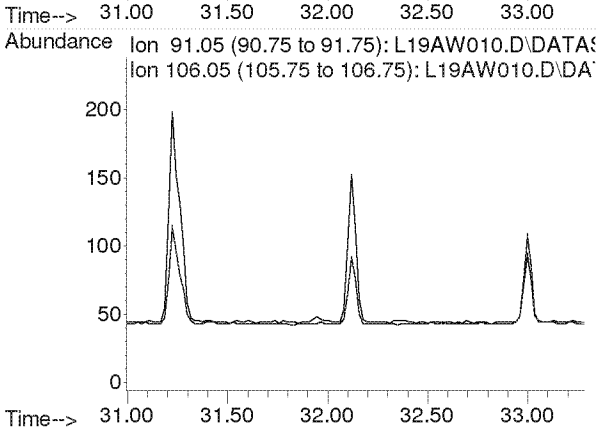


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

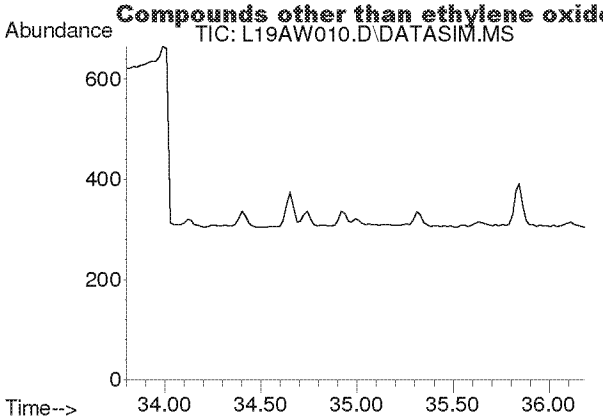
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

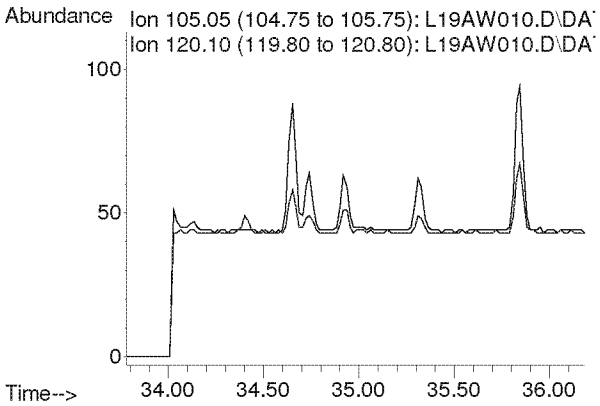


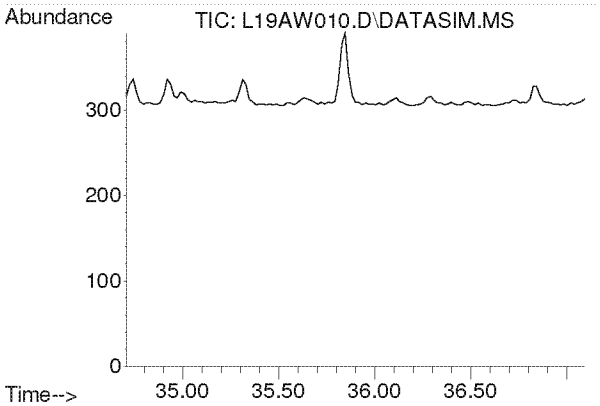
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



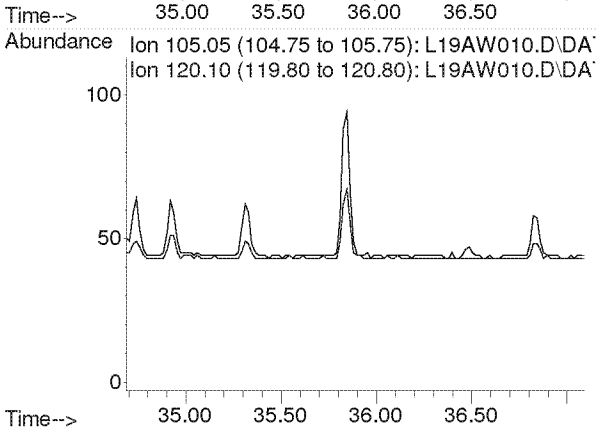


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

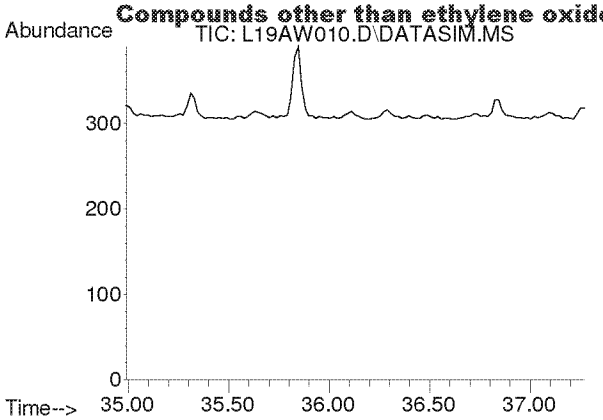
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

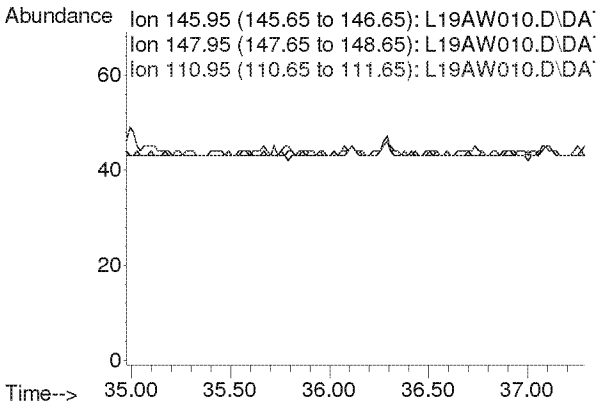


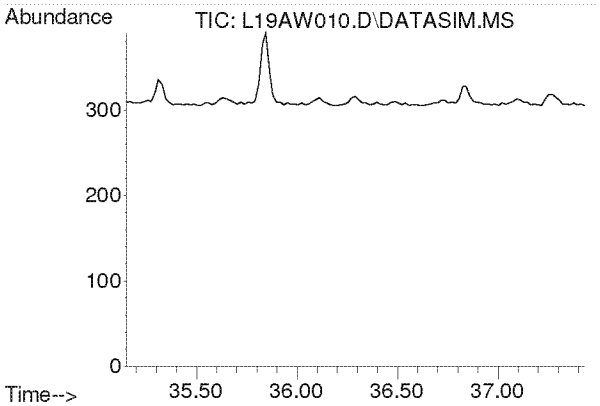
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



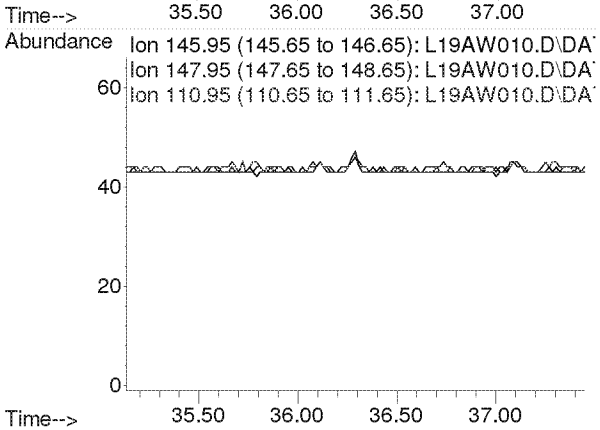


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

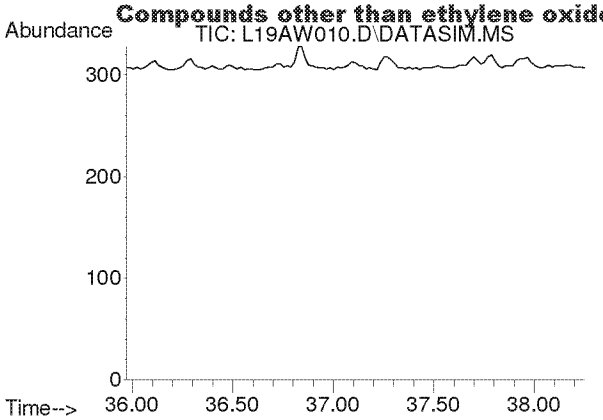
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

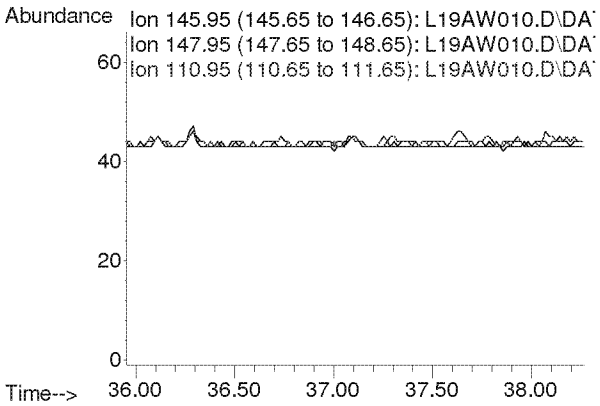


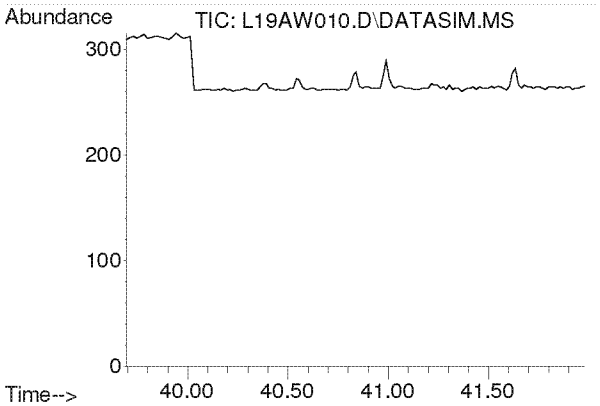
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



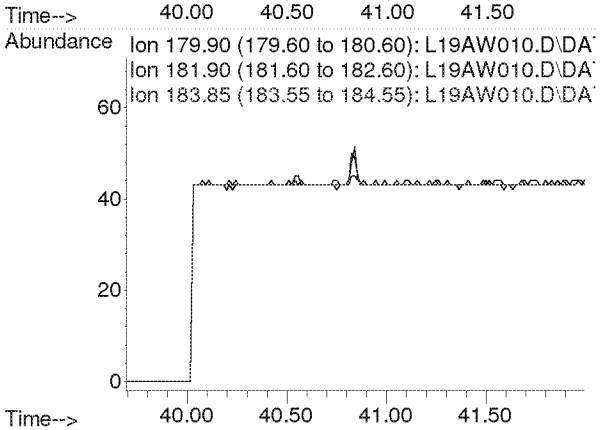


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

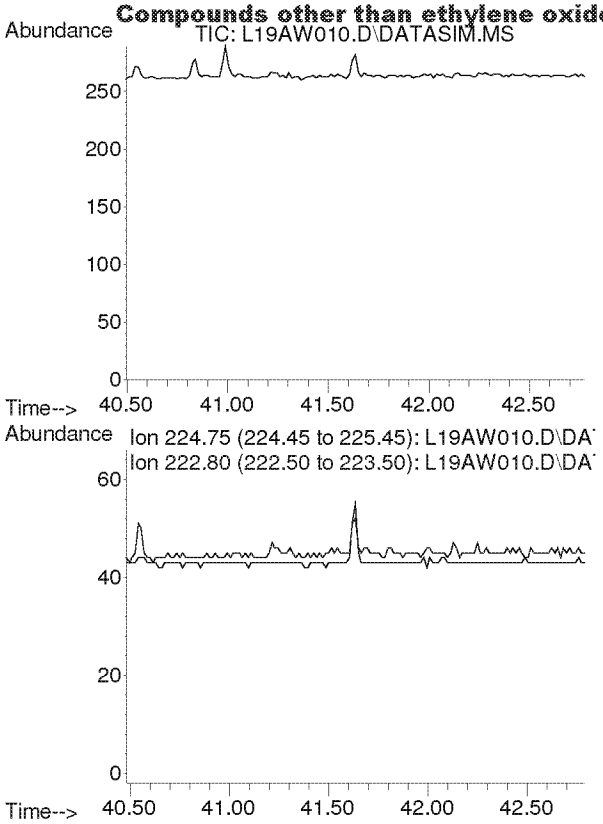
Lab File: L19AW010.D
Acq: 23 Jan 2019 6:36 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AW010.D
Acq: 23 Jan 2019 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\L19AW\
Data File : L19AW011.D
Acq On : 23 Jan 2019 7:38 pm
Operator : MAH
Sample : 9011701-05
Misc : GOWER MS 1/16/19
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 29 08:25:59 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	54620	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.151	114	133779	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	101163	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	12.425	29	1434	0.5083 ppbv #	1
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
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. 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. 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 (Not Reviewed)

Data Path : C:\msdchem\1\DATA\L19AW\
Data File : L19AW011.D
Acq On : 23 Jan 2019 7:38 pm
Operator : MAH
Sample : 9011701-05
Misc : GOWER MS 1/16/19
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 29 08:25:59 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
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.	

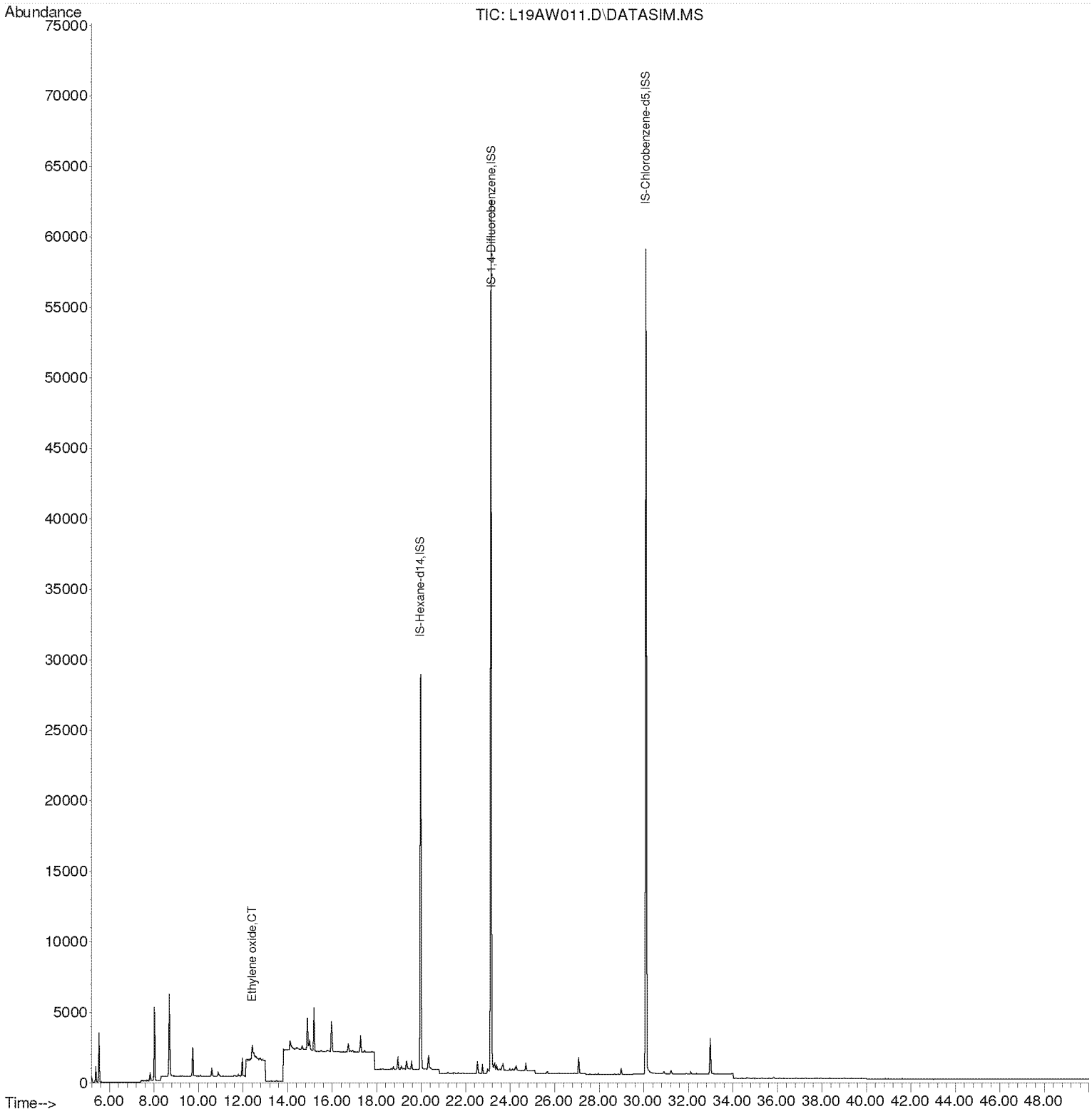
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000318-00250

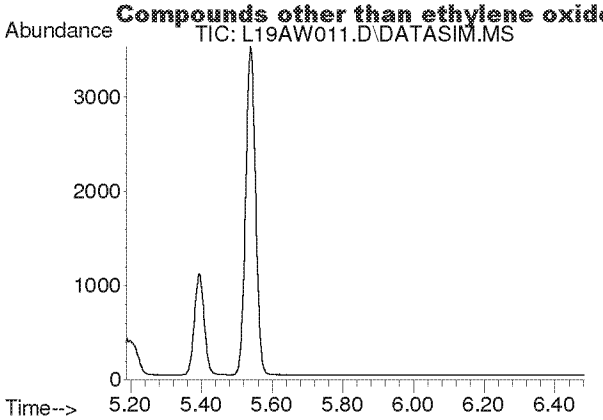
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW011.D
Acq On : 23 Jan 2019 7:38 pm
Operator : MAH
Sample : 9011701-05
Misc : GOWER MS 1/16/19
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jan 29 08:07:19 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



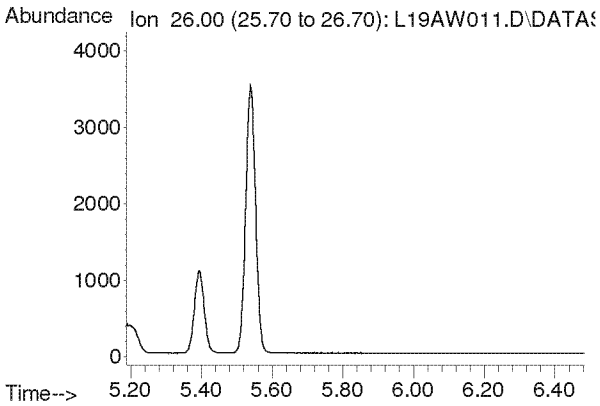
Compounds other than ethylene oxide were not quantitated.

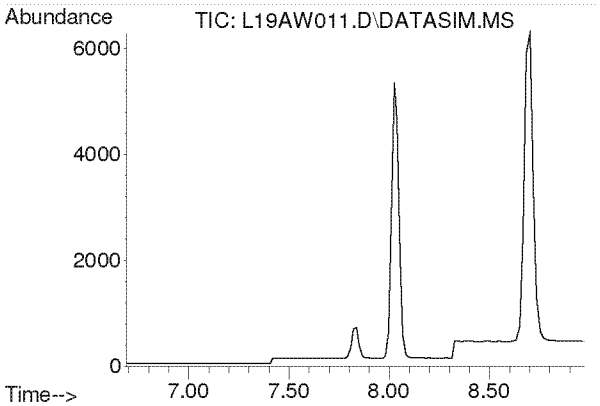


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 26



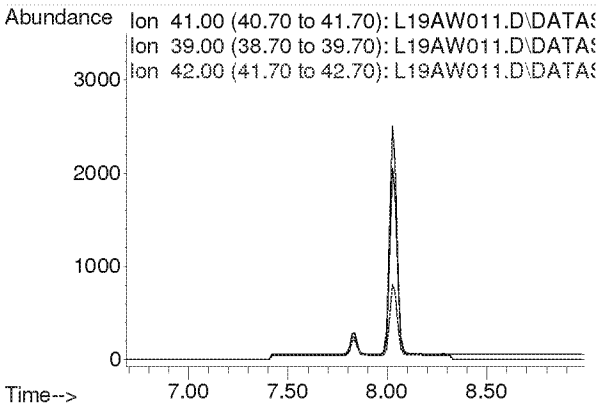


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

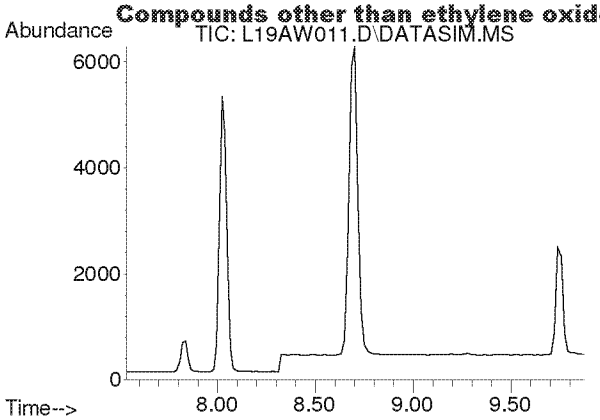
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

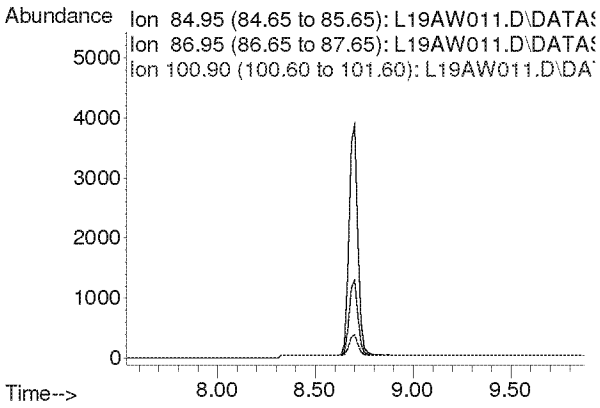


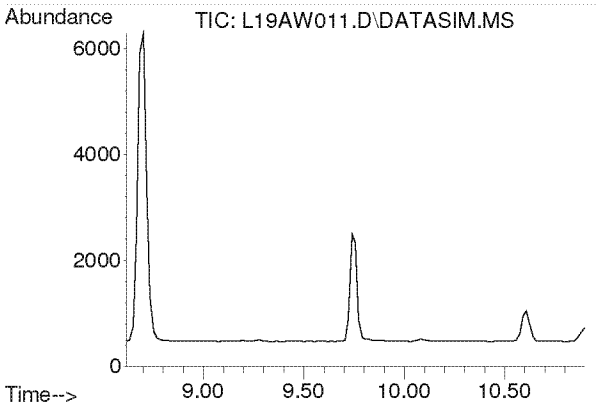
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



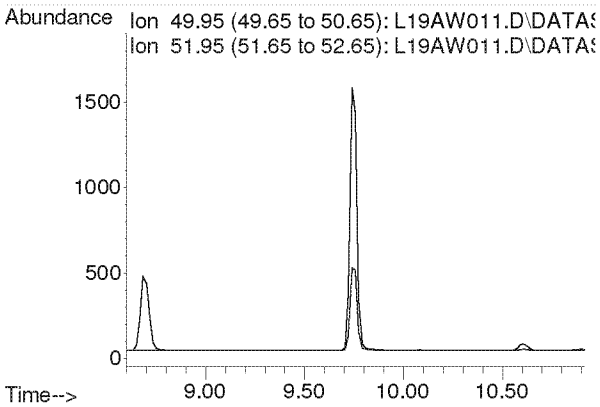


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

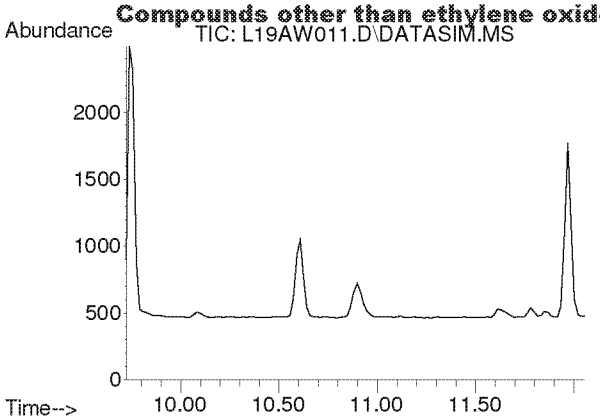
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

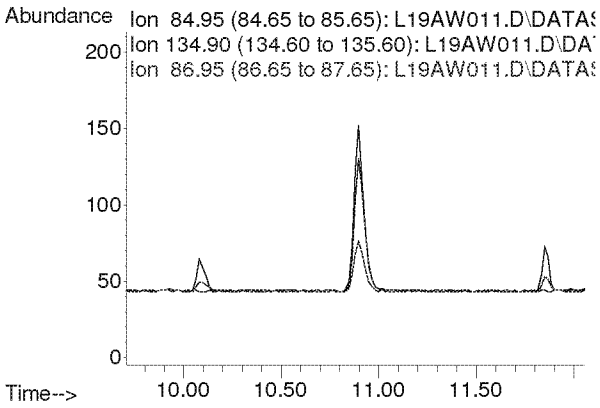


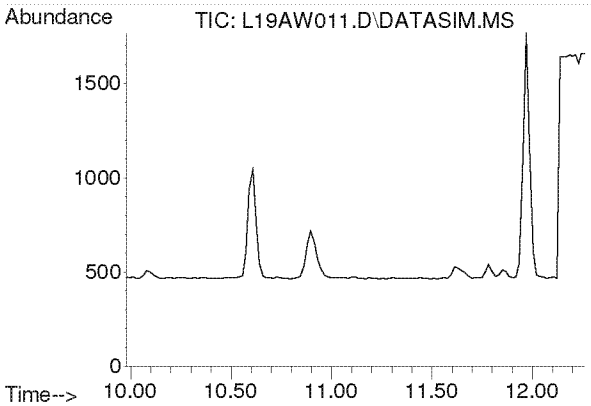
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



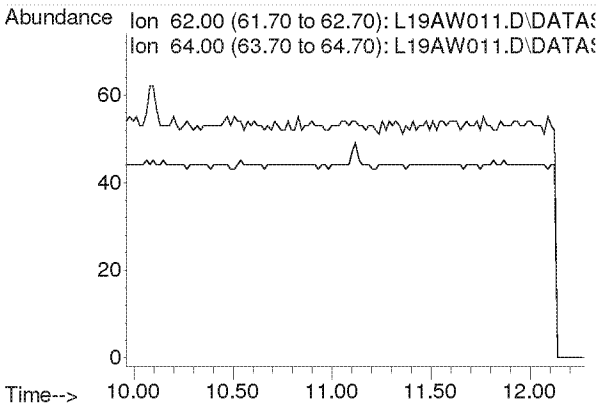


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

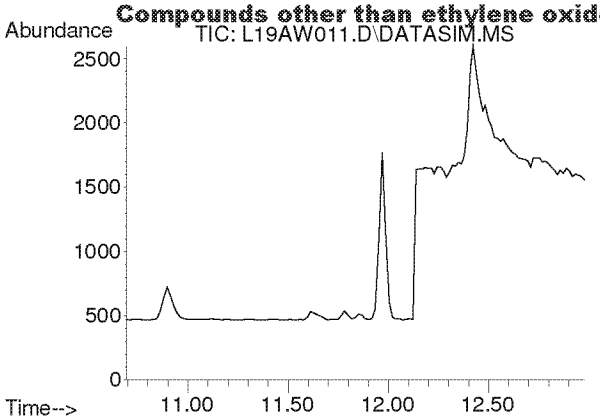
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

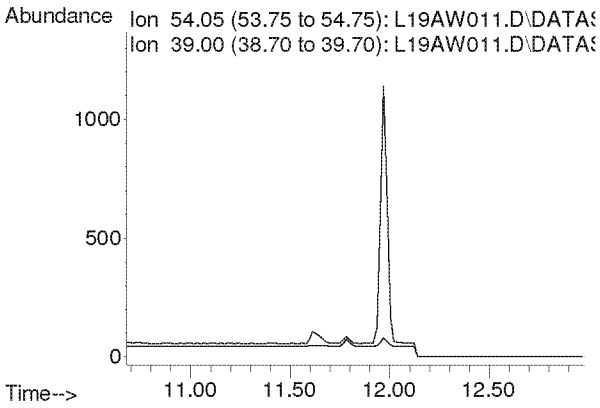


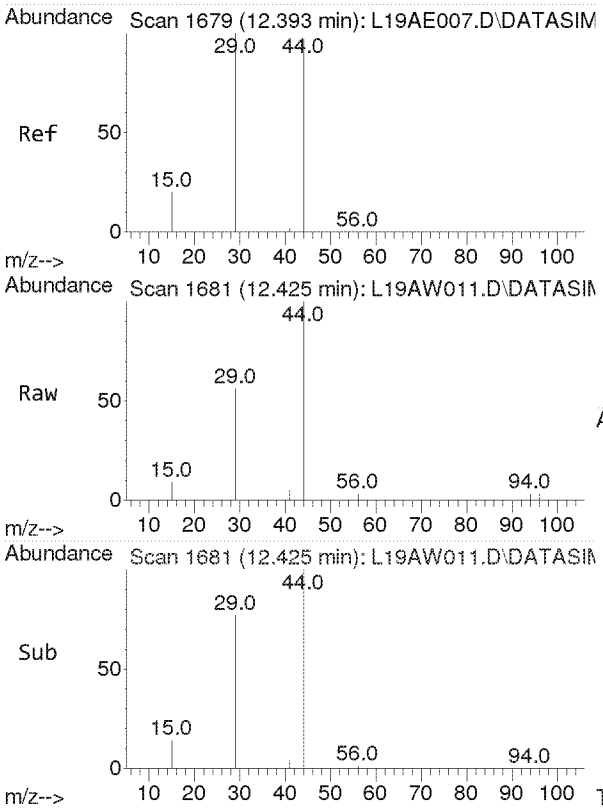
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

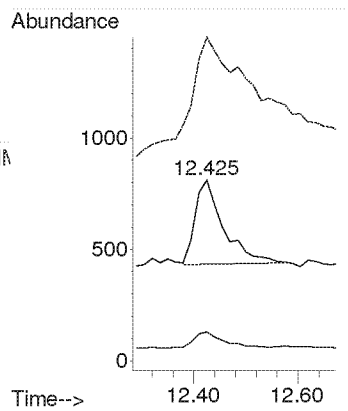




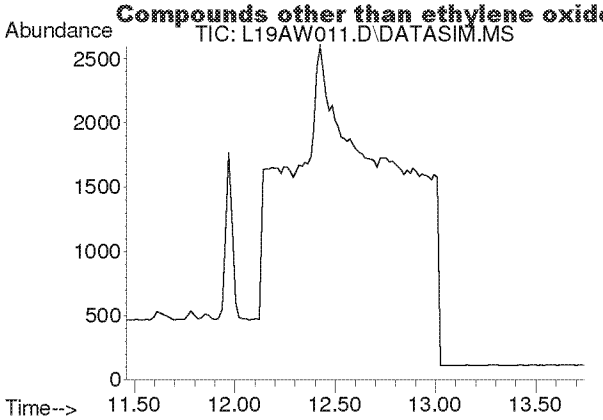
#9
Ethylene oxide
Concen: 0.508 ppbv
RT: 12.425 min Scan# 1681
Delta R.T. 0.032 min
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 29 Resp: 1434

Ion	Ratio	Lower	Upper
29	100		
15	18.7	15.4	23.0
44	311.9	77.4	116.2#



Compounds other than ethylene oxide were not quantitated.

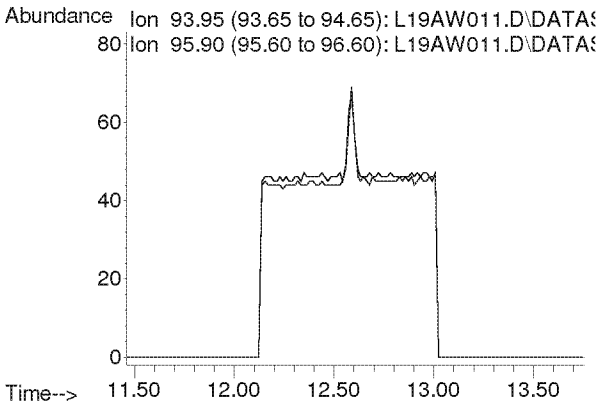


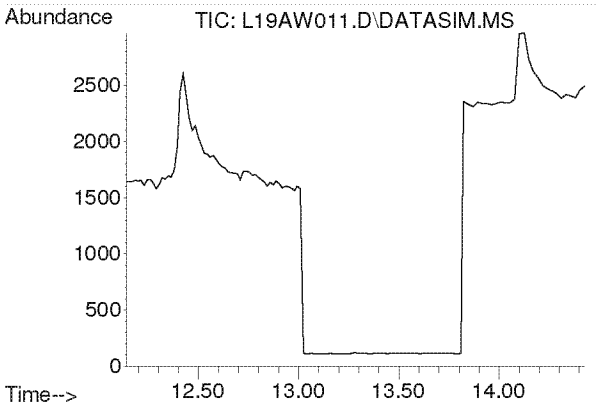
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



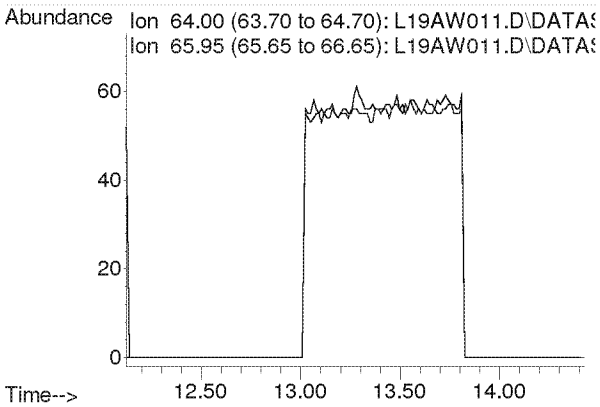


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

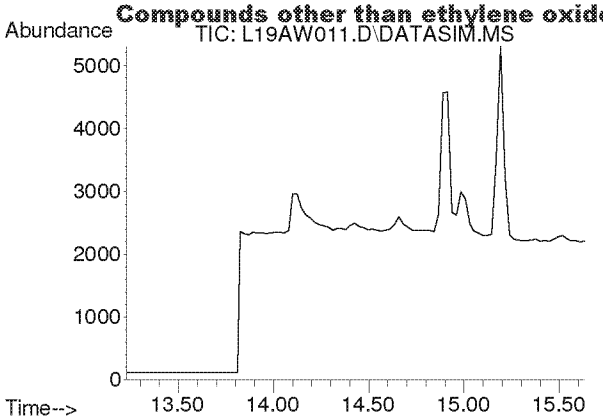
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

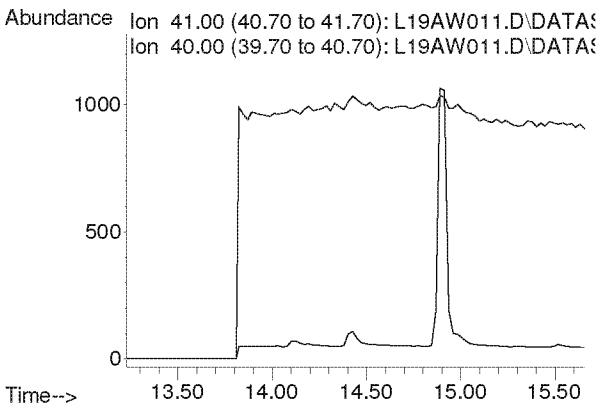


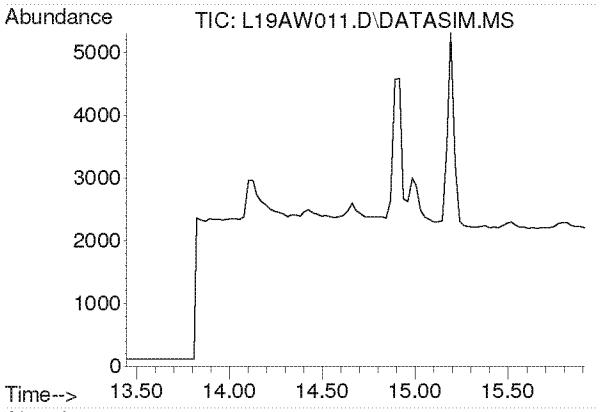
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



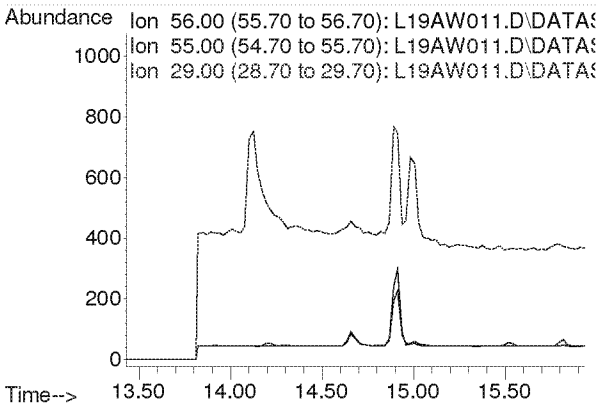


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

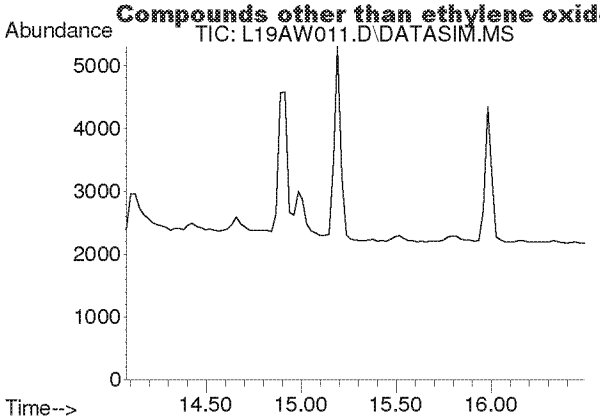
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

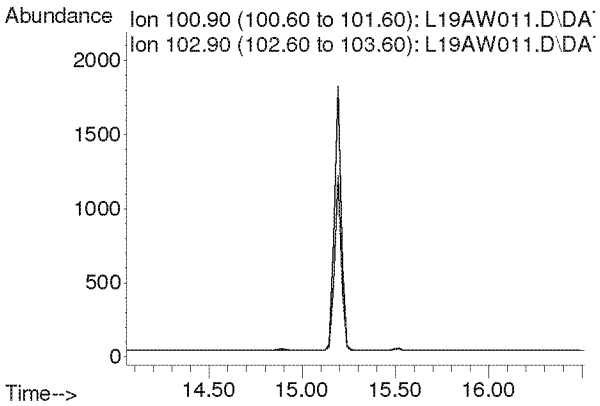


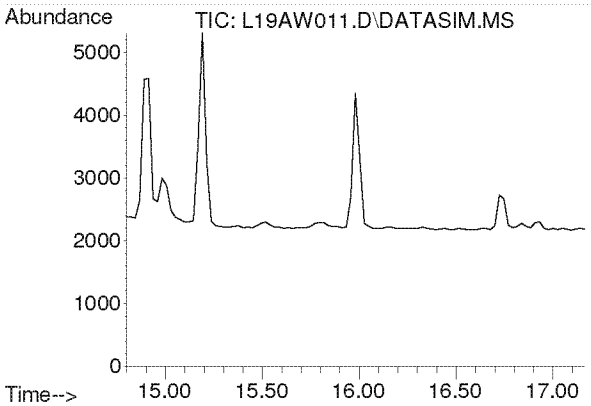
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



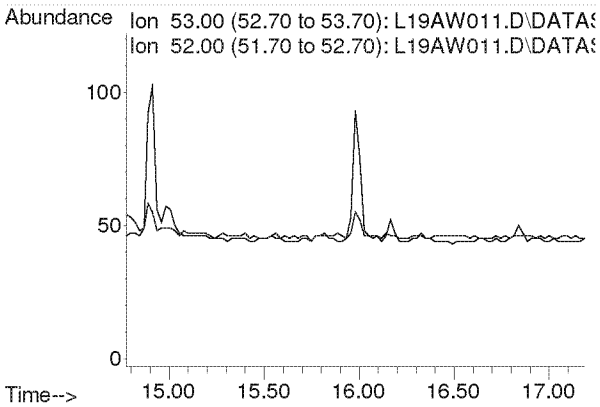


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

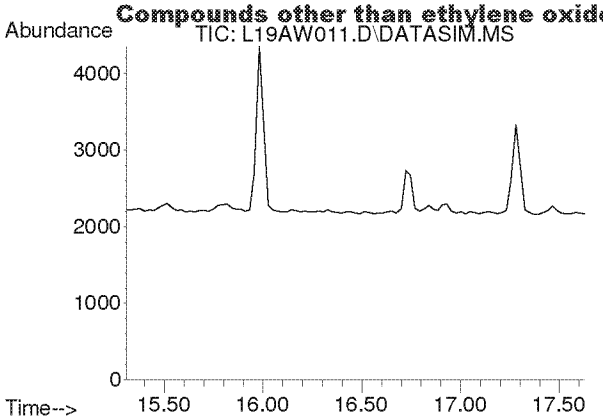
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

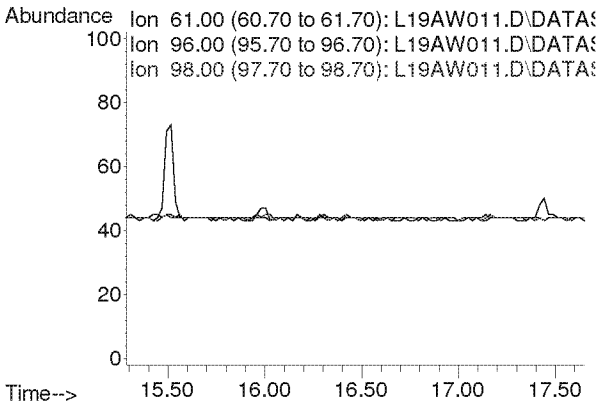


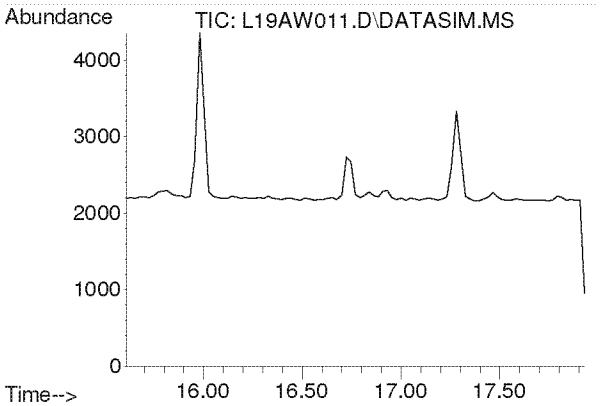
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



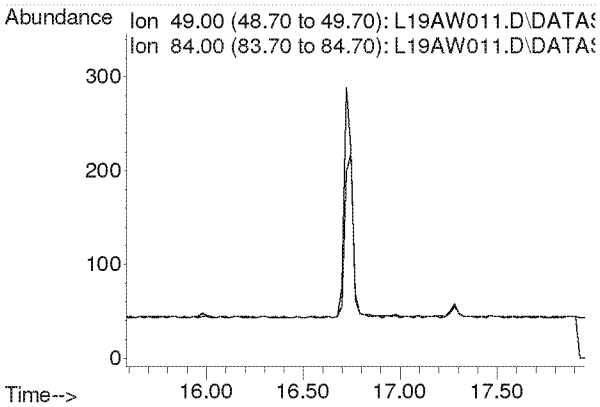


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

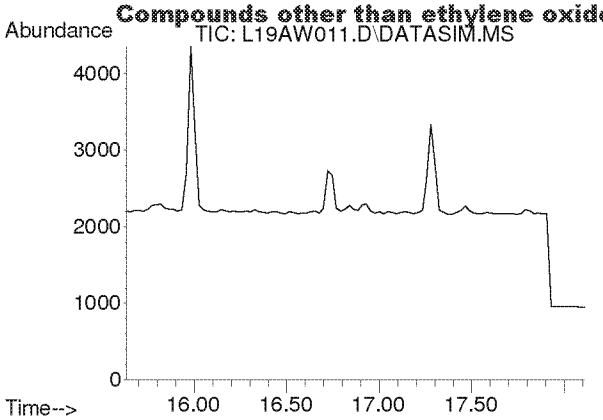
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

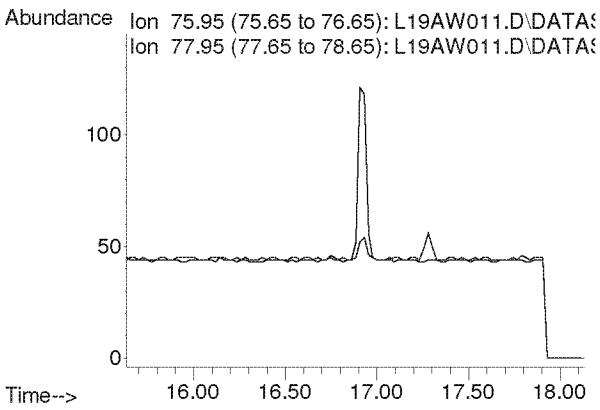


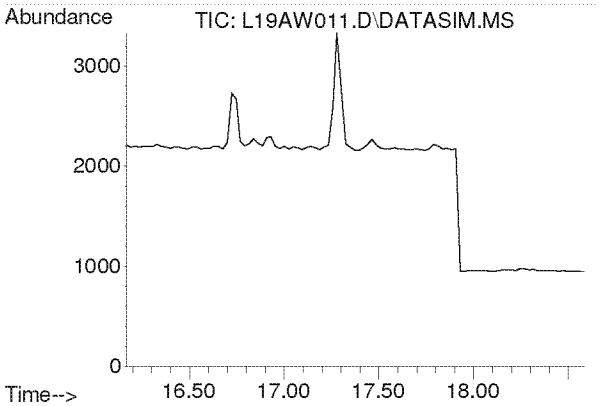
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



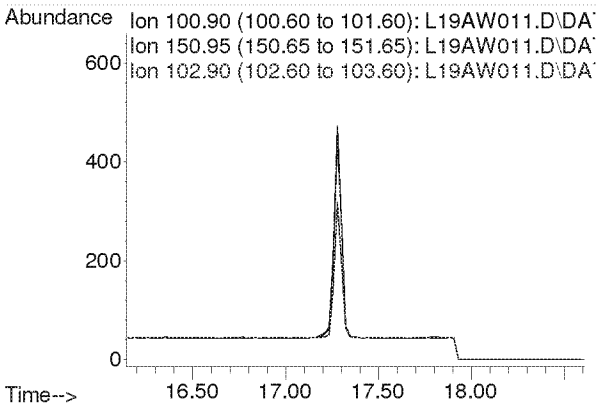


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

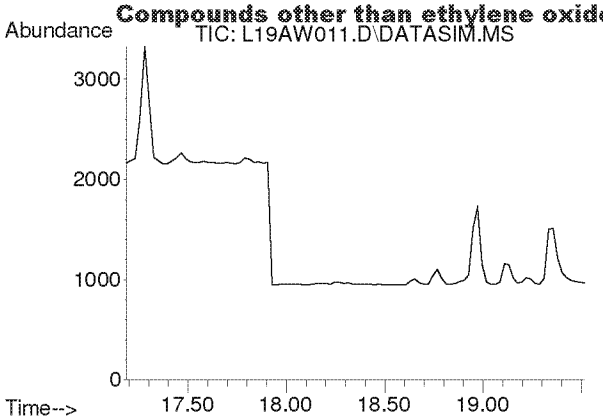
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

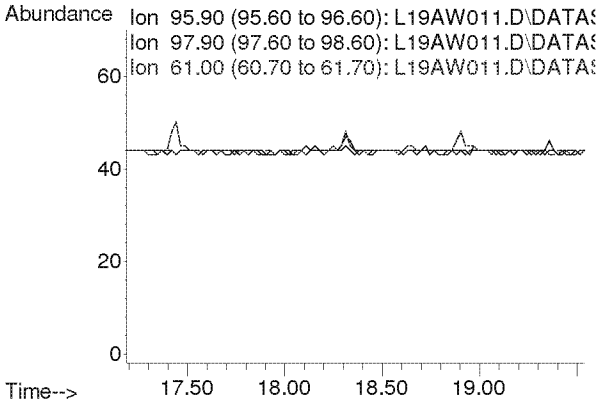


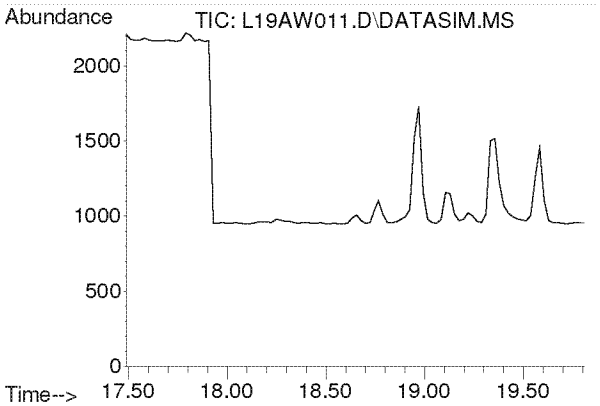
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



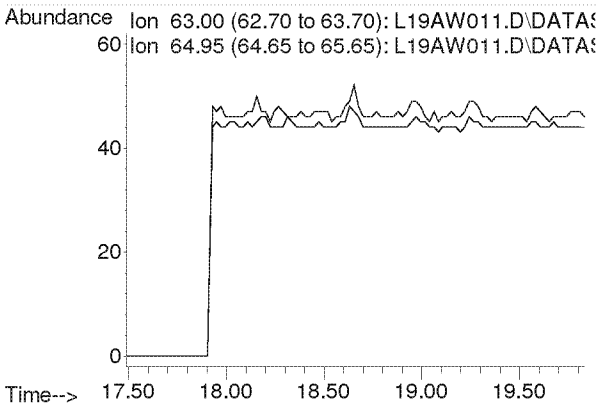


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

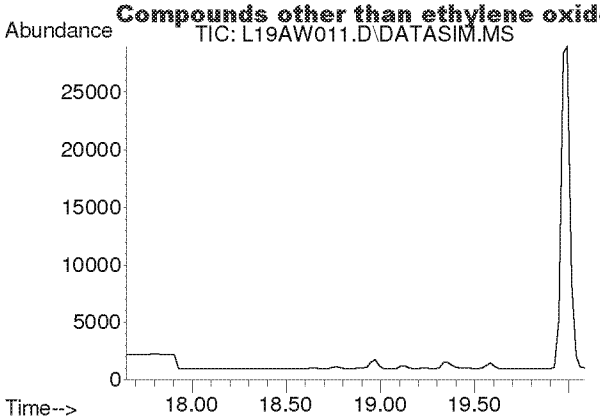
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

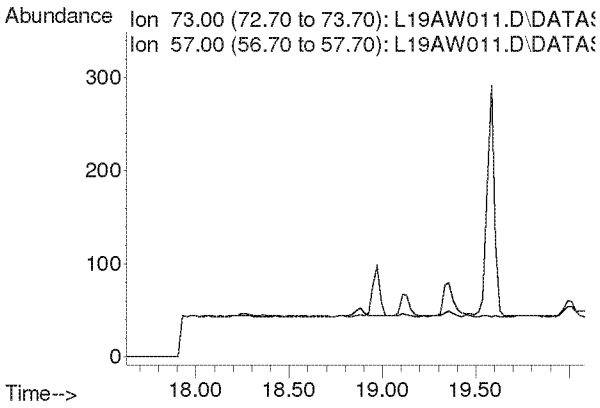


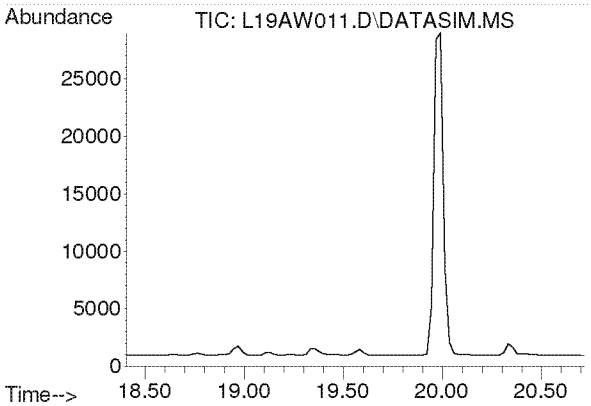
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



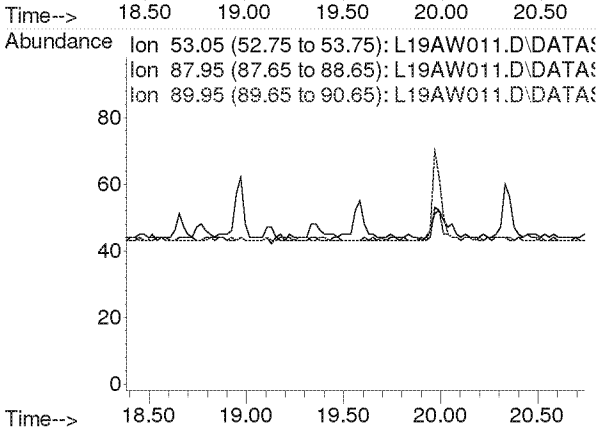


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

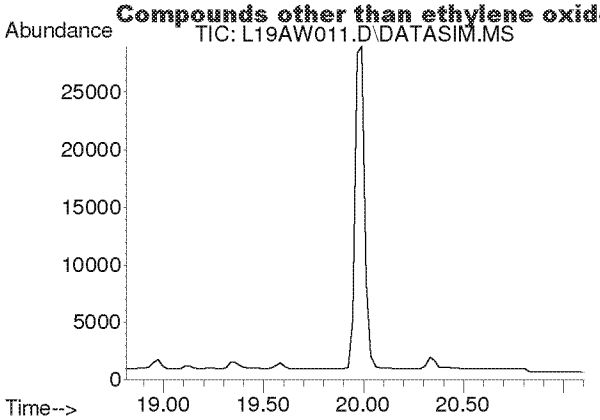
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

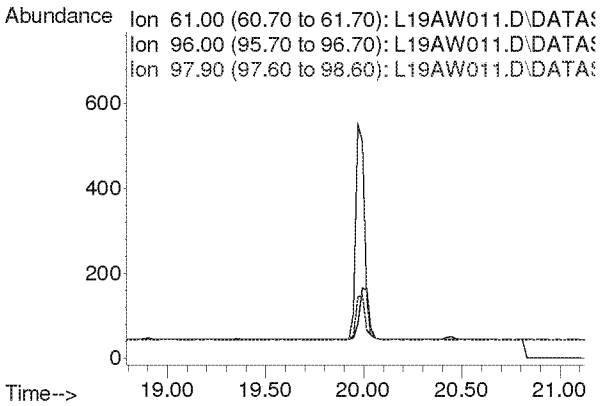


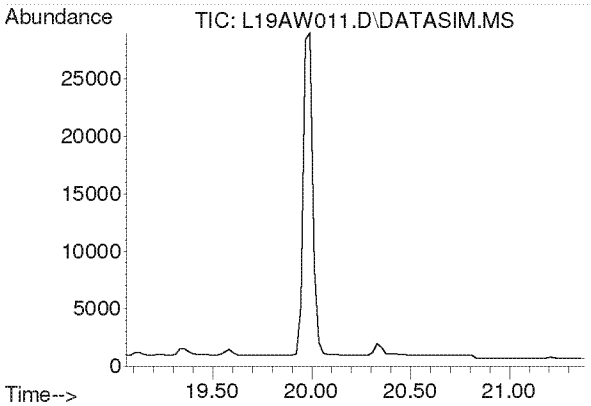
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



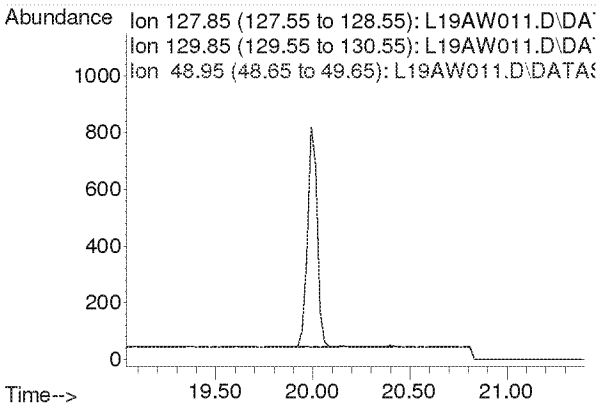


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

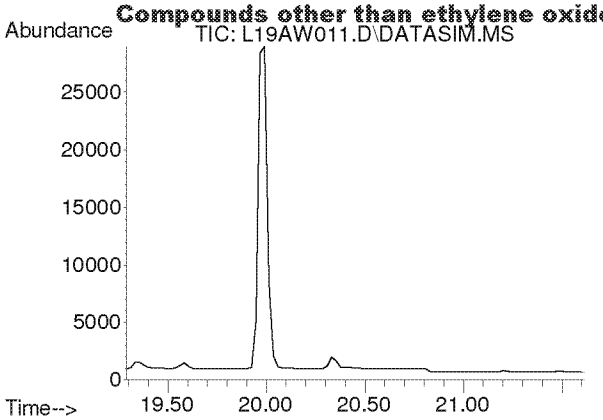
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

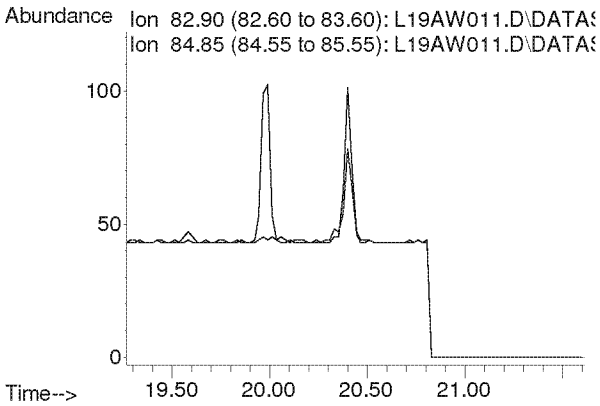


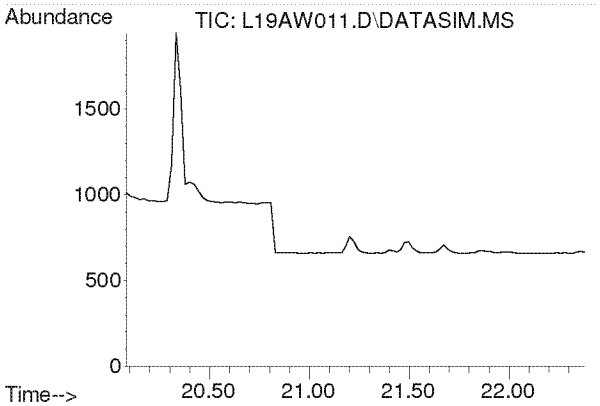
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



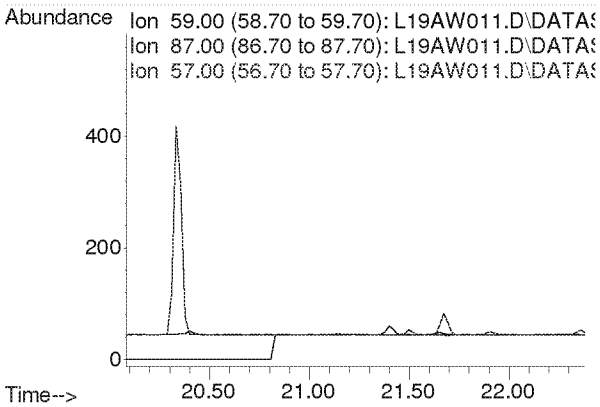


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

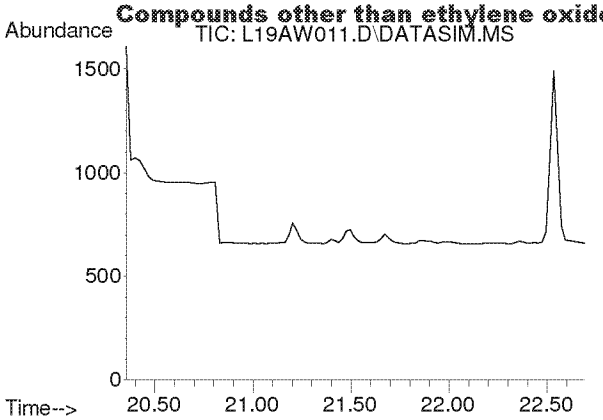
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

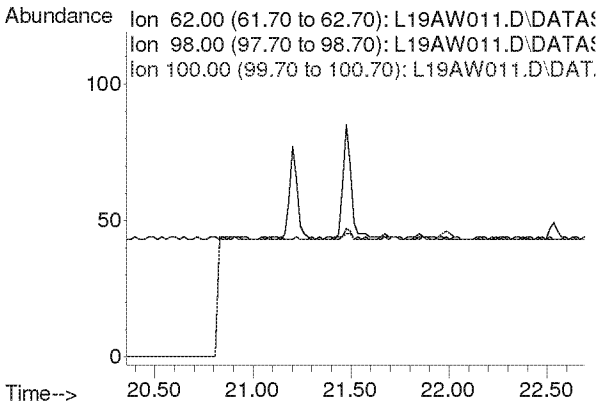


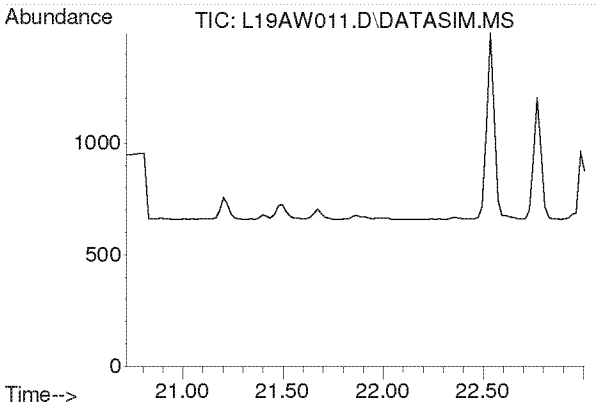
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



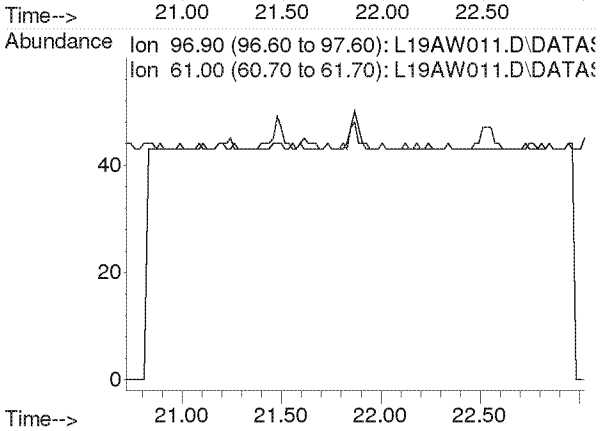


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

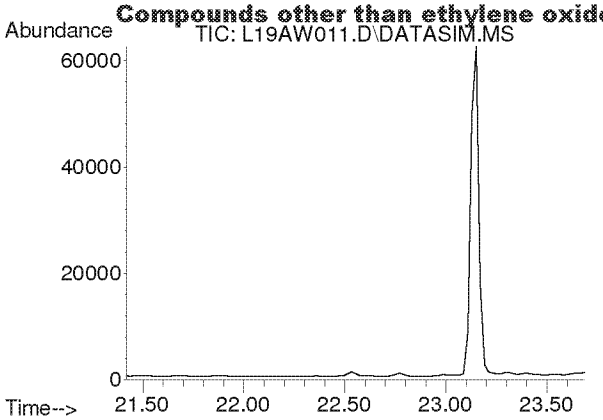
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

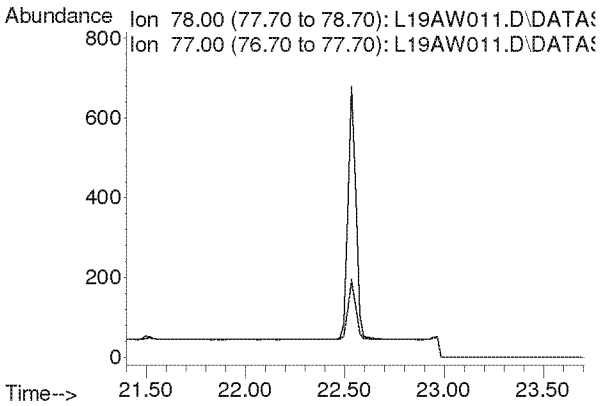


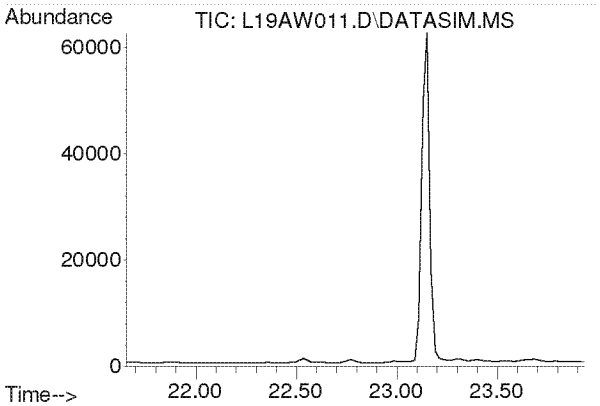
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



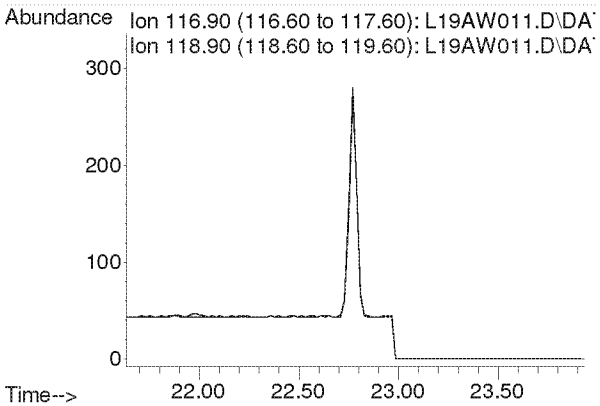


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

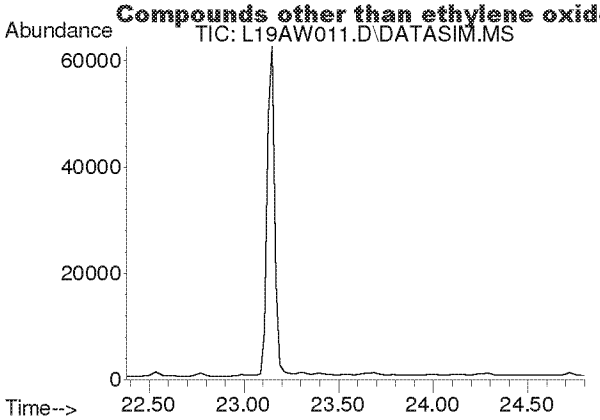
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

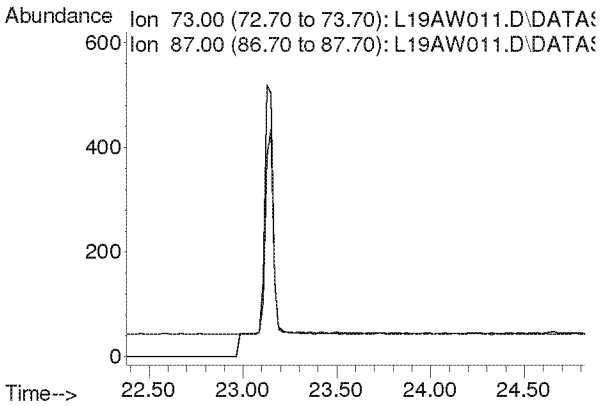


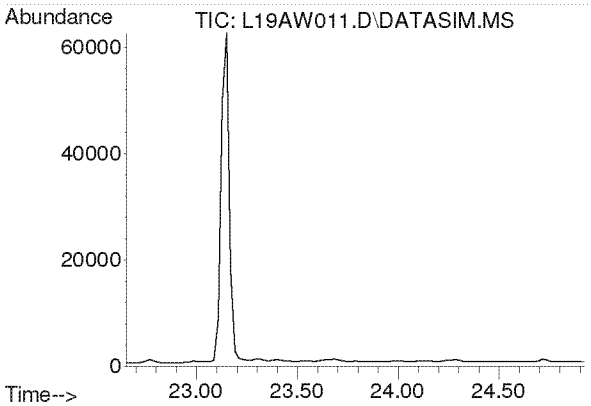
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



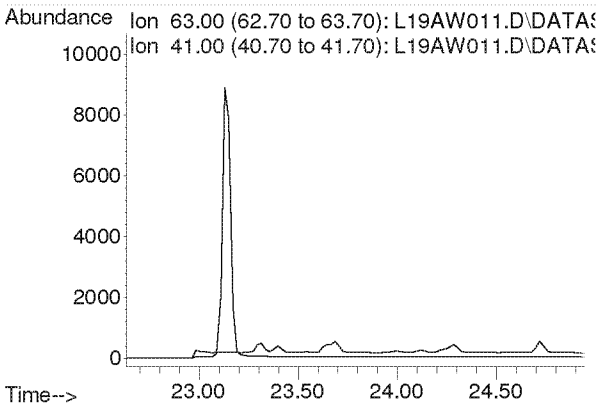


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

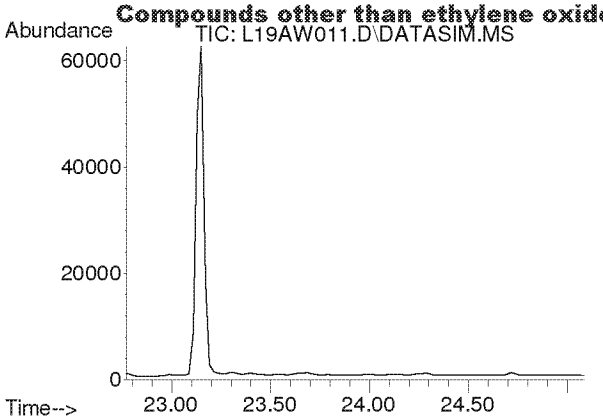
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

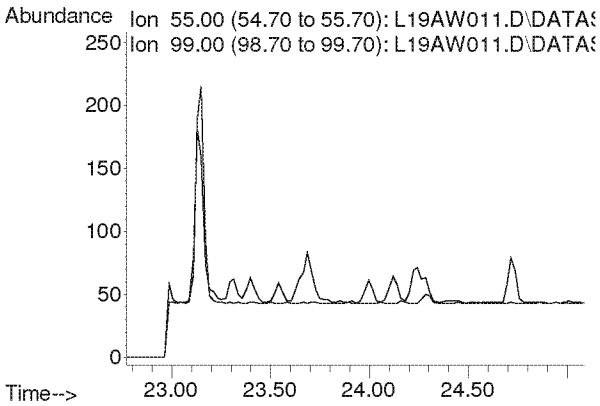


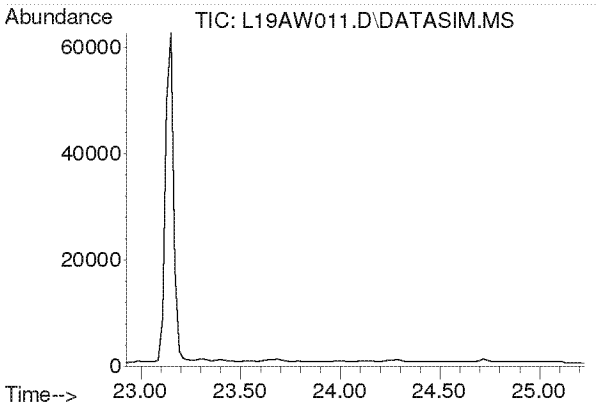
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



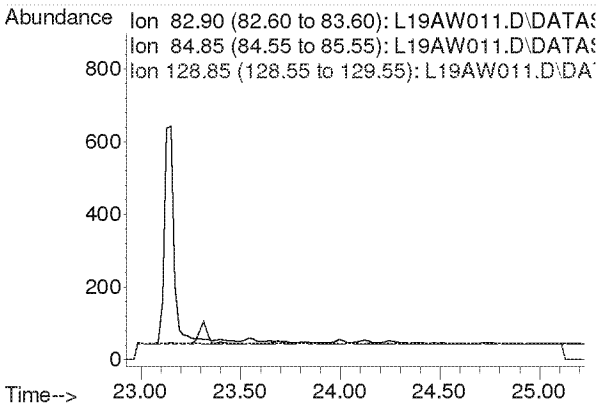


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

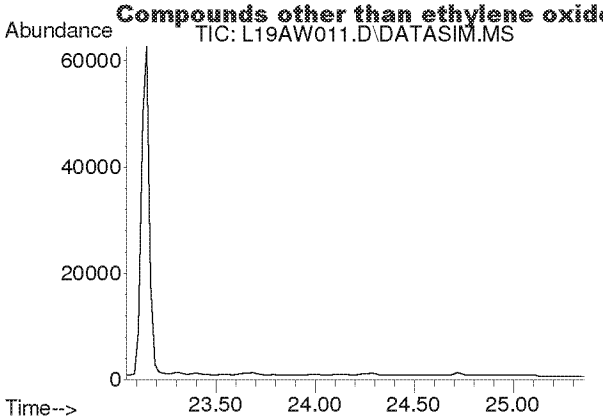
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

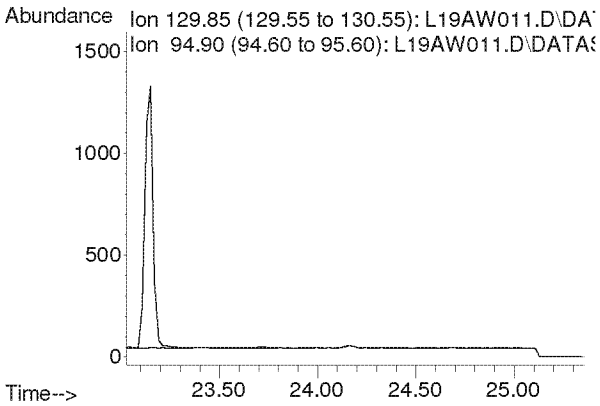


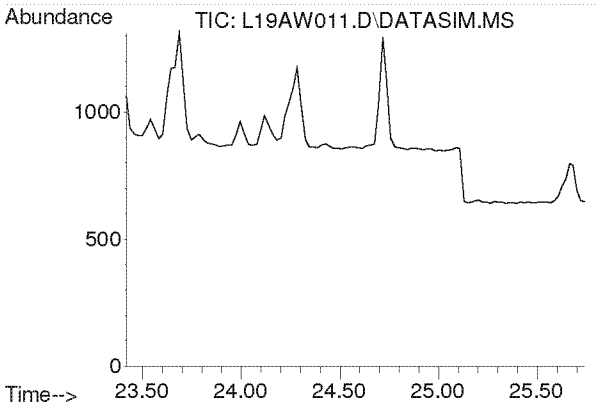
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



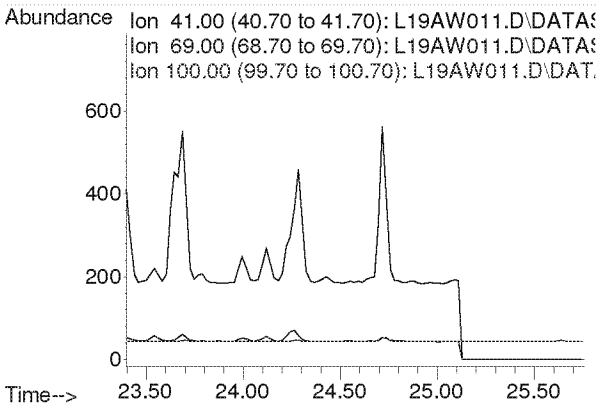


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

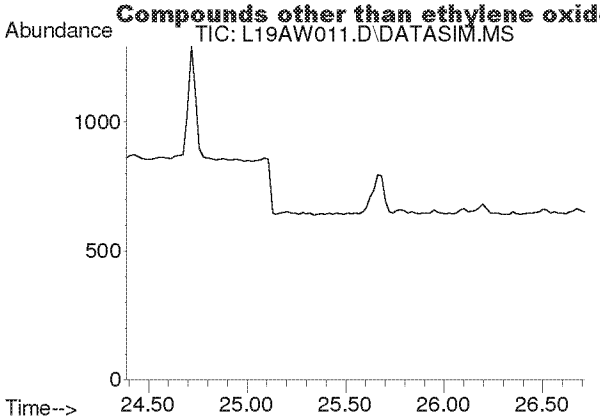
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

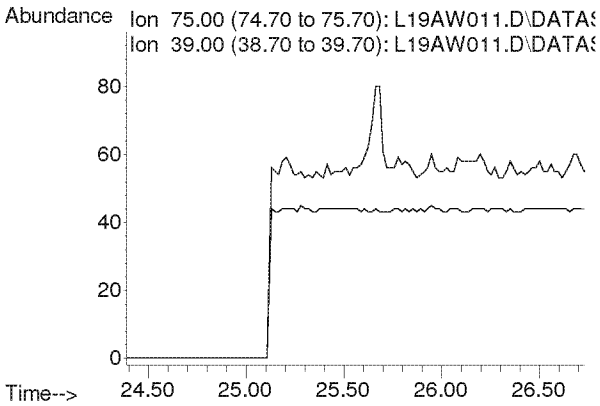


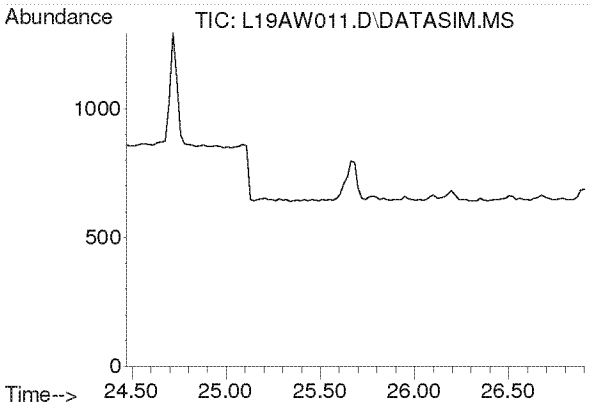
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



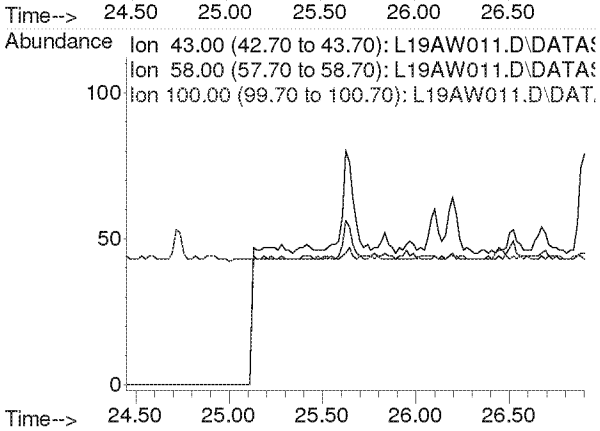


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

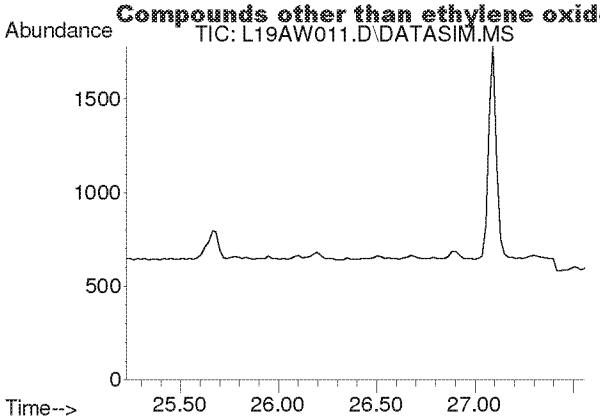
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

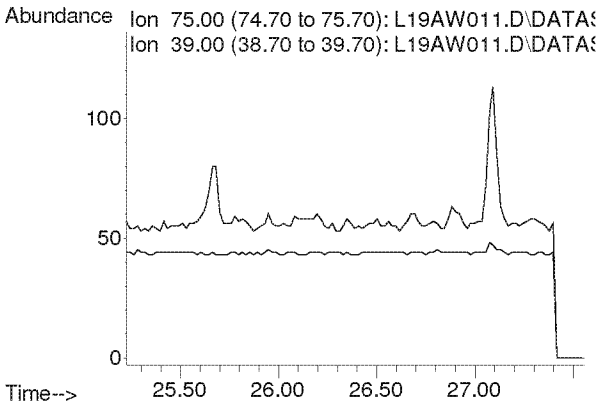


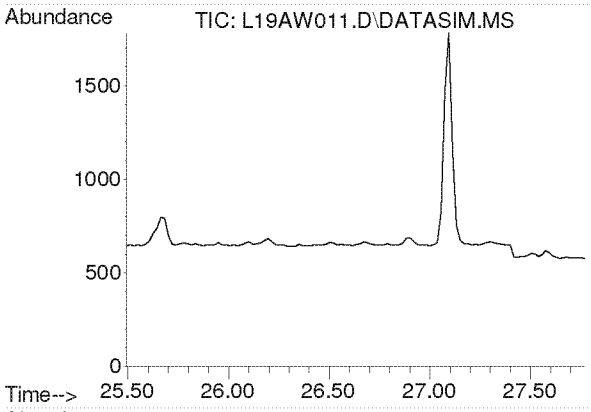
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



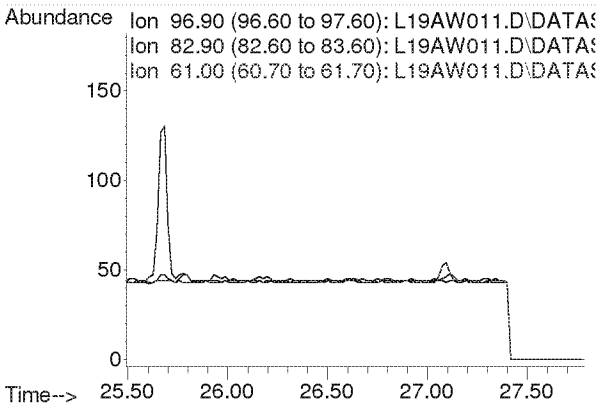


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

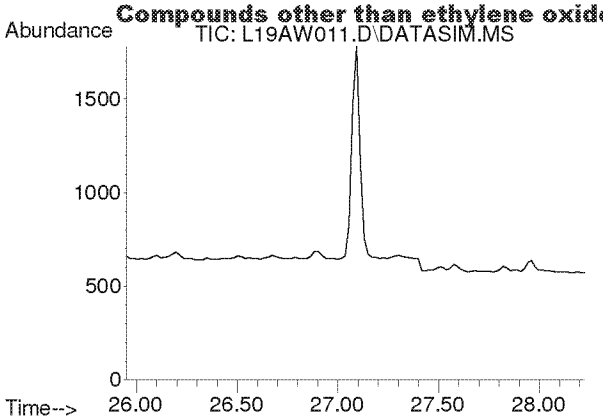
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

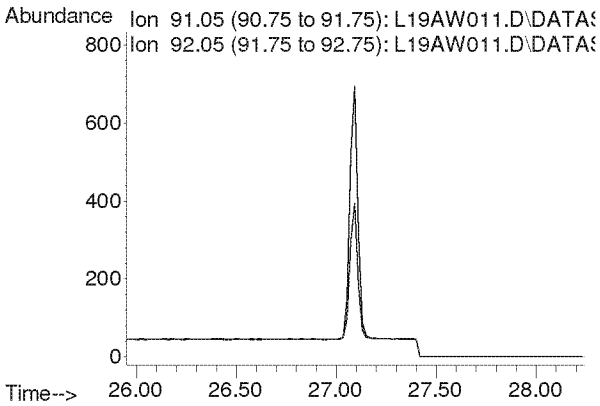


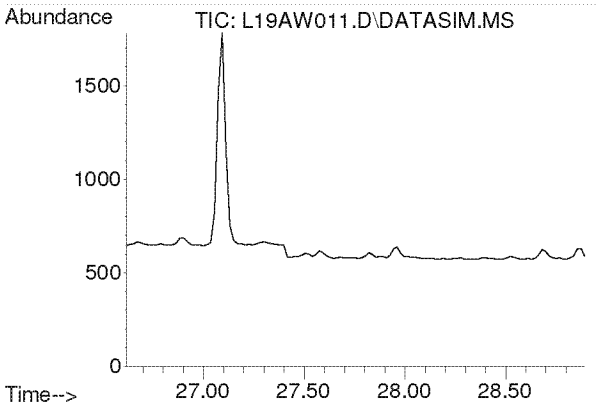
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



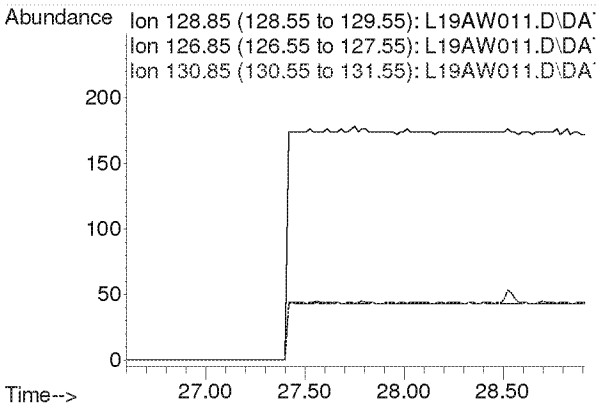


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

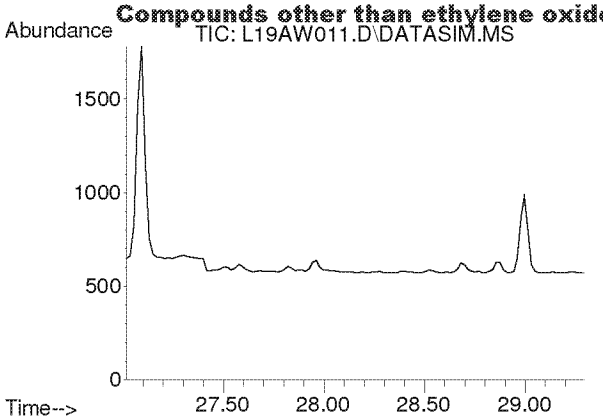
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

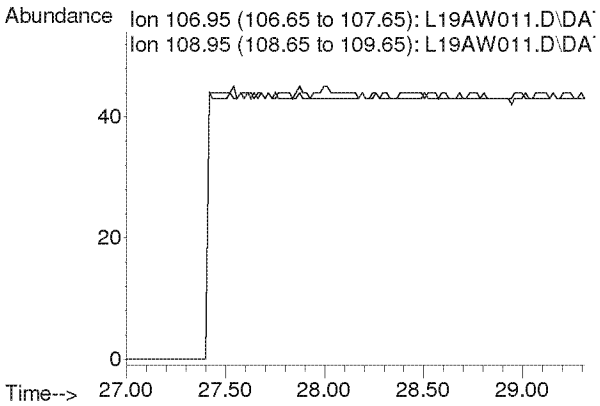


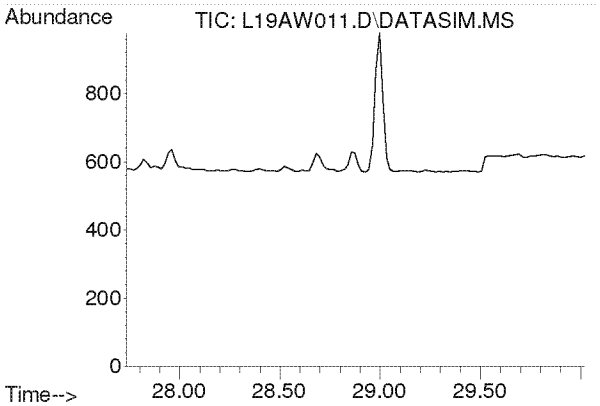
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



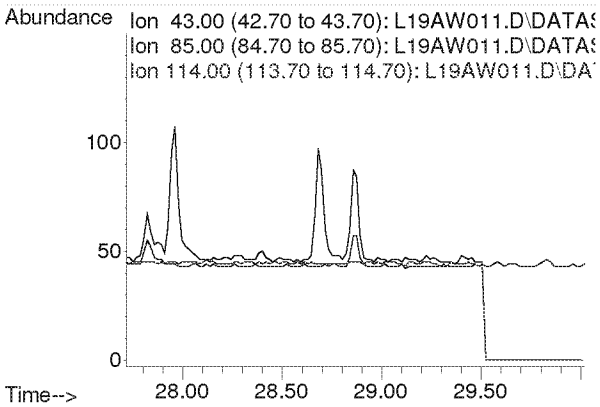


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

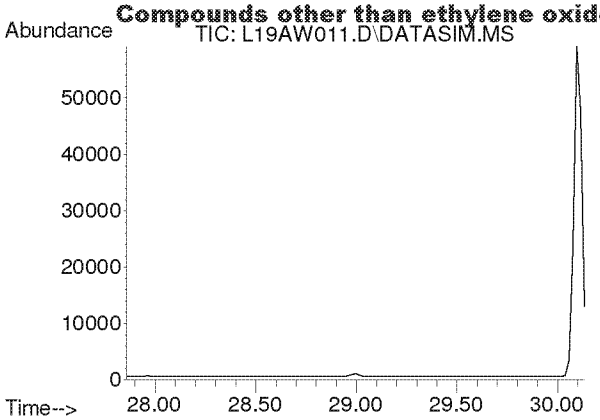
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

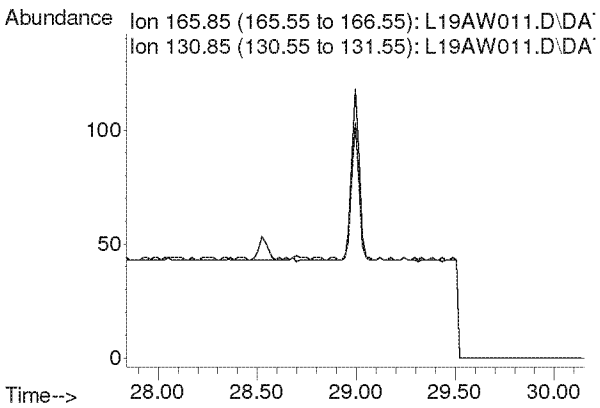


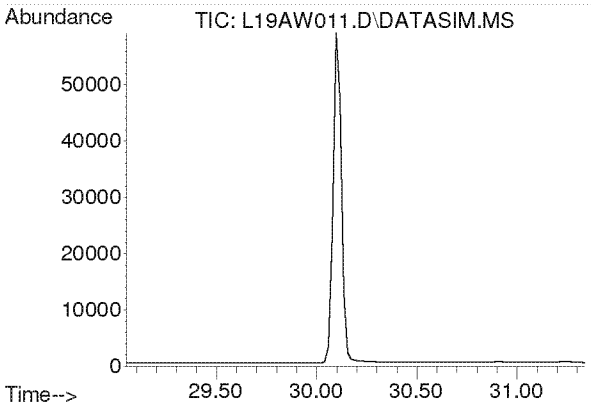
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



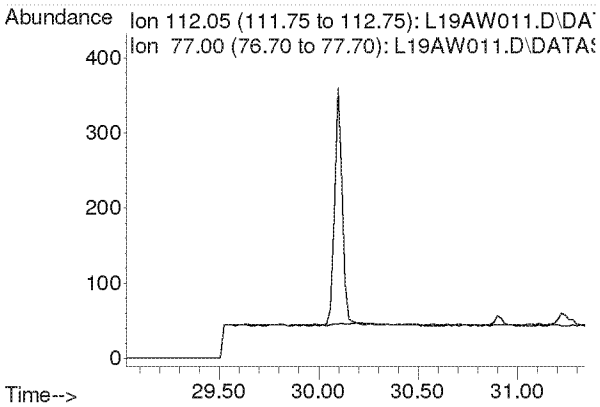


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

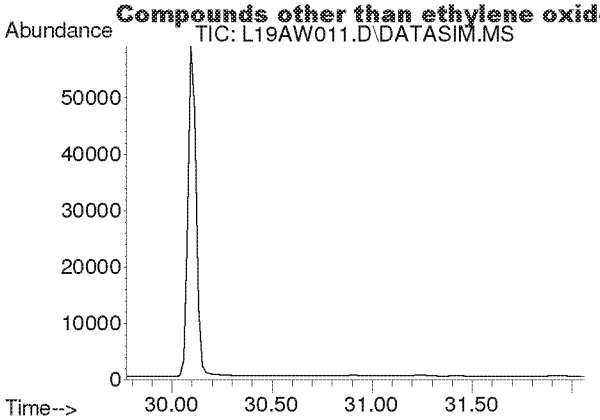
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

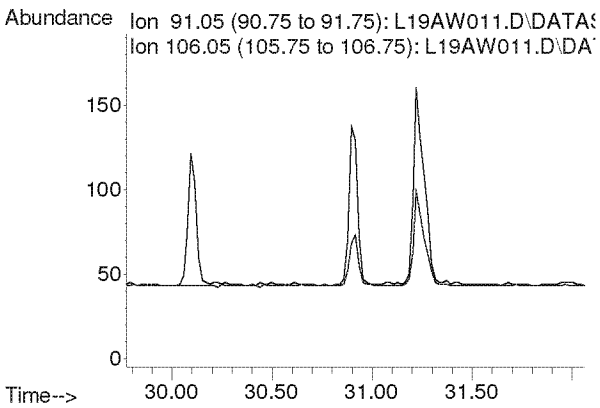


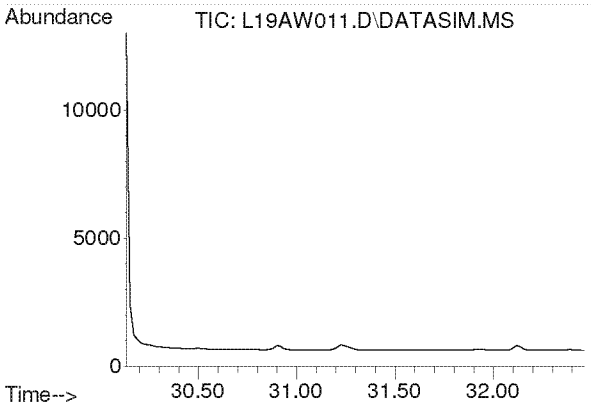
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



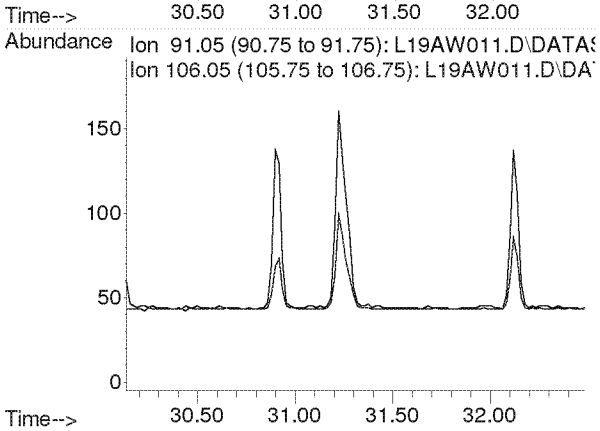


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

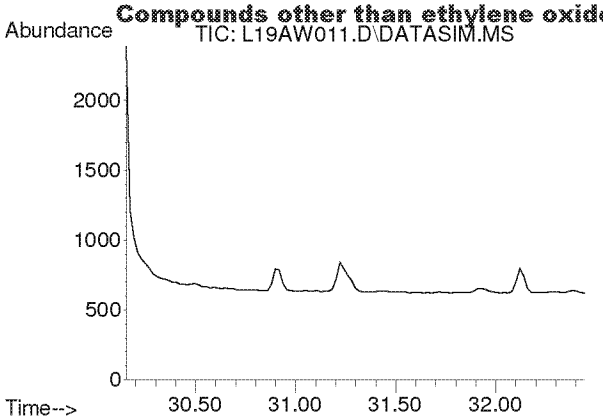
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

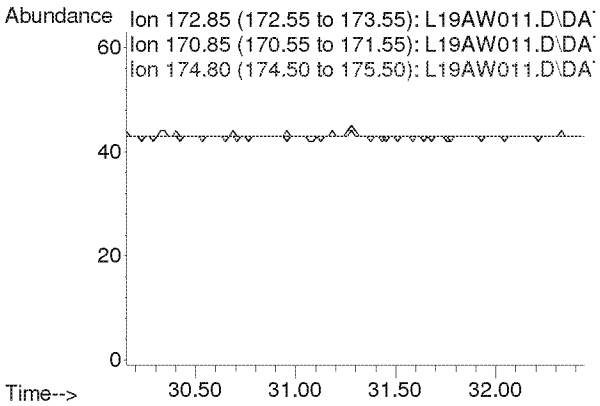


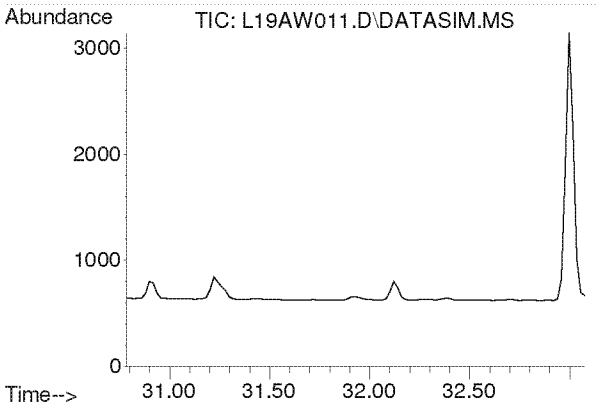
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



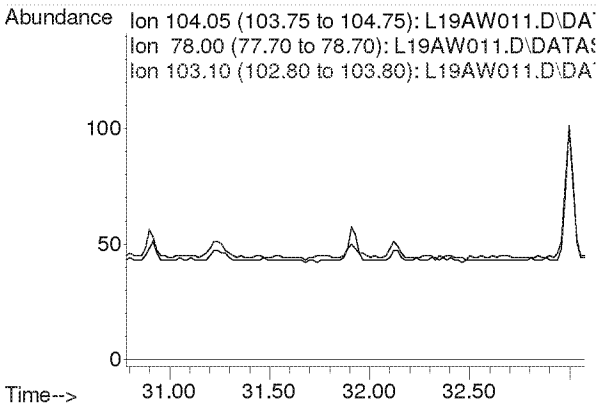


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

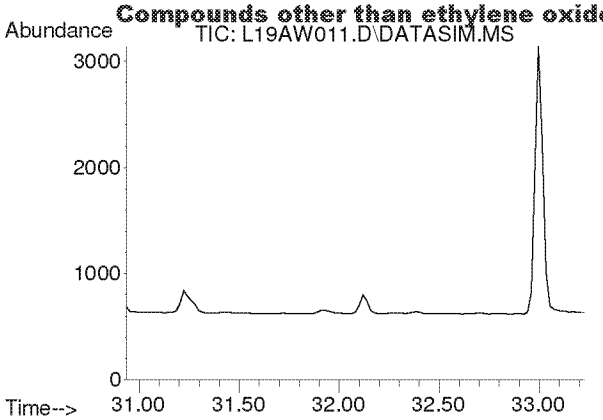
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

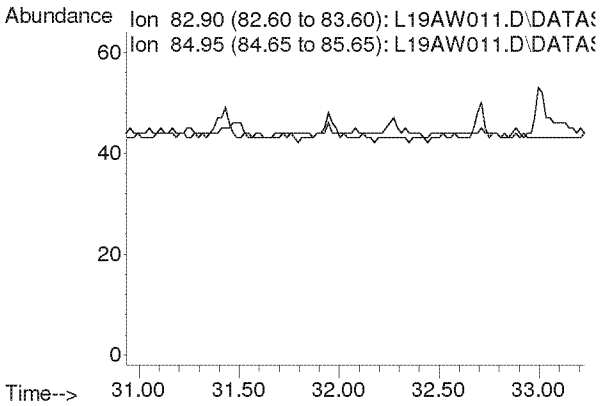


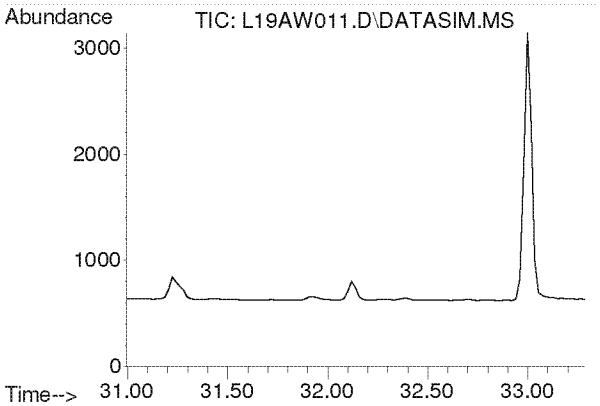
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



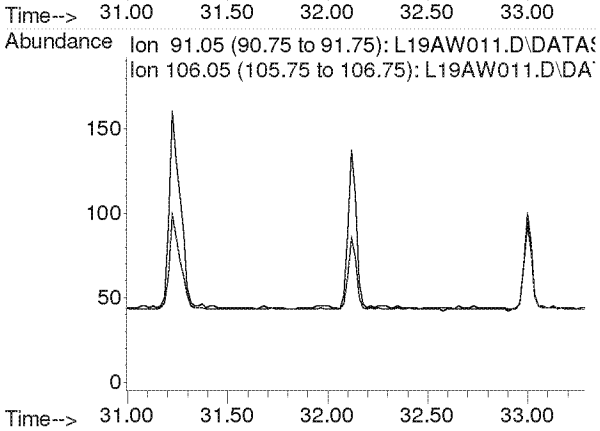


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

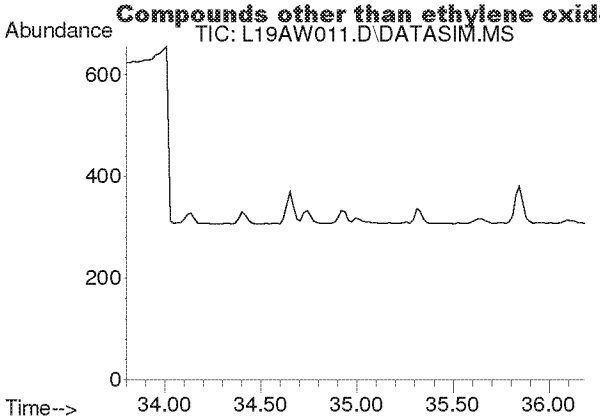
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

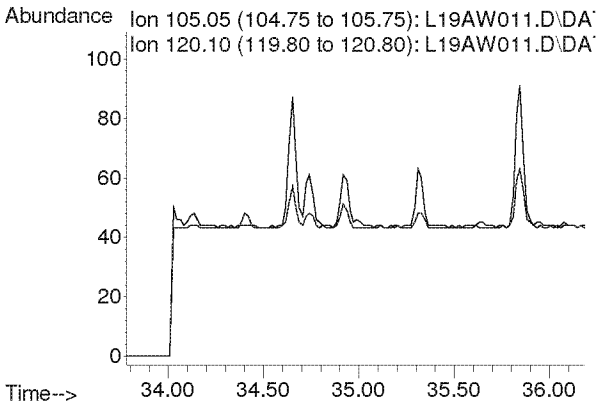


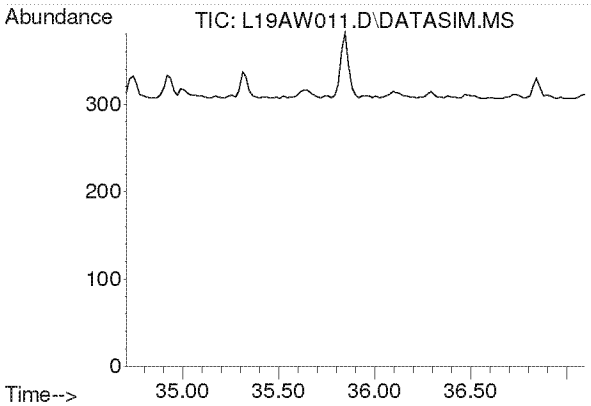
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



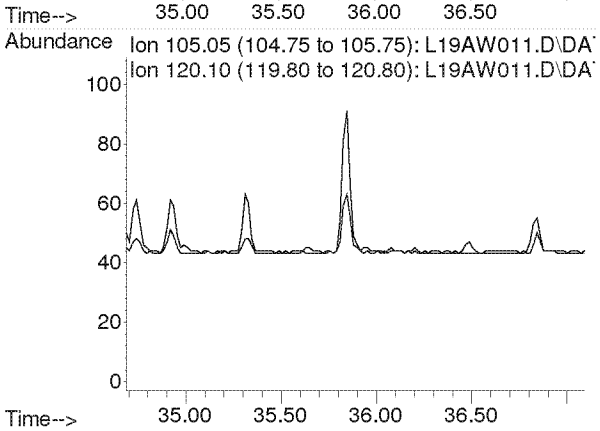


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

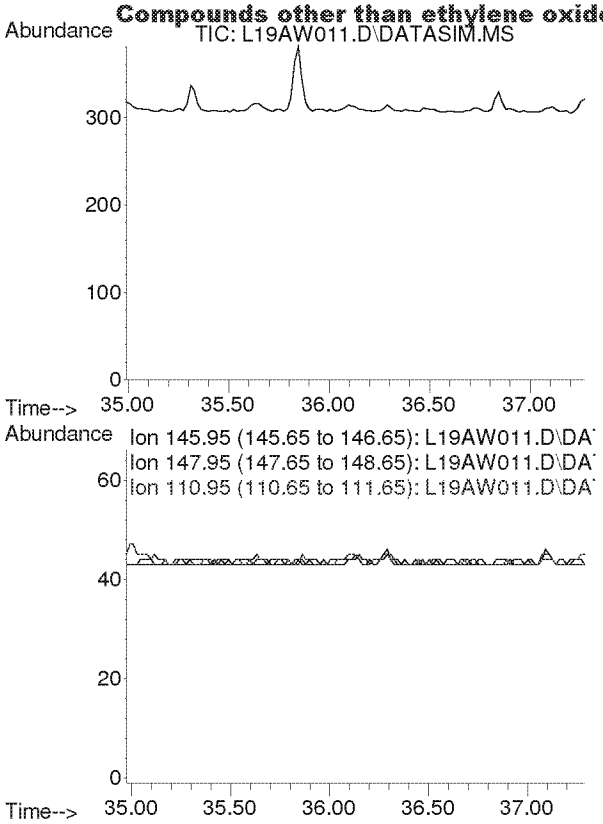
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

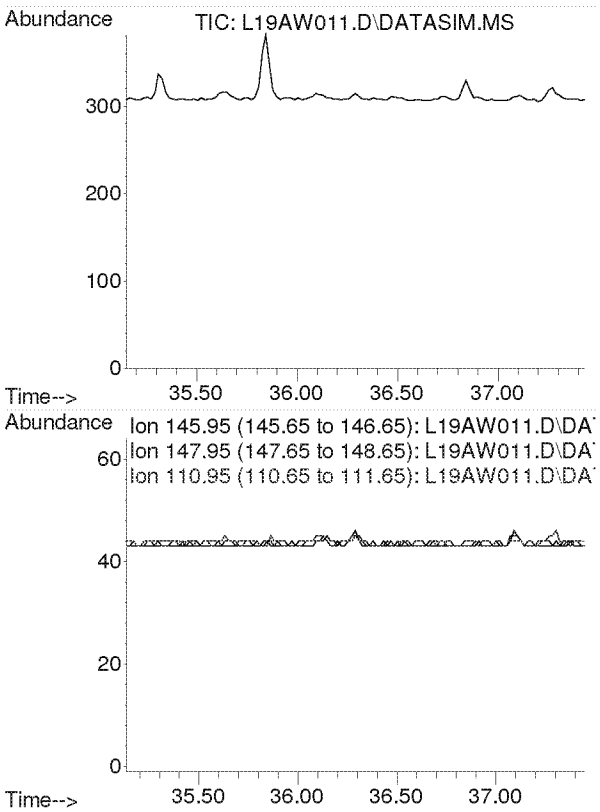


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



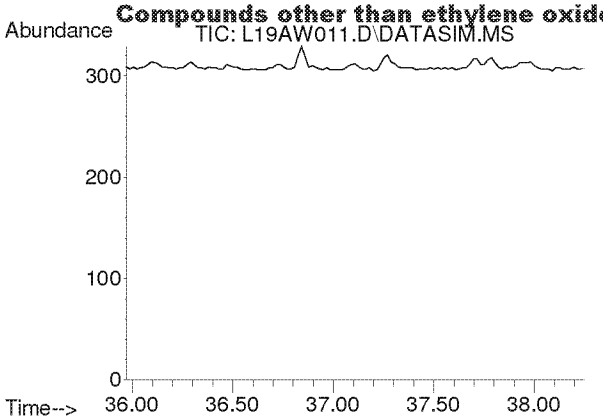
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3

Compounds other than ethylene oxide were not quantitated.

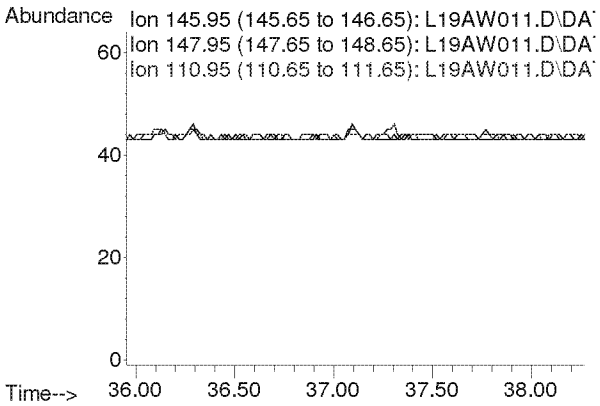


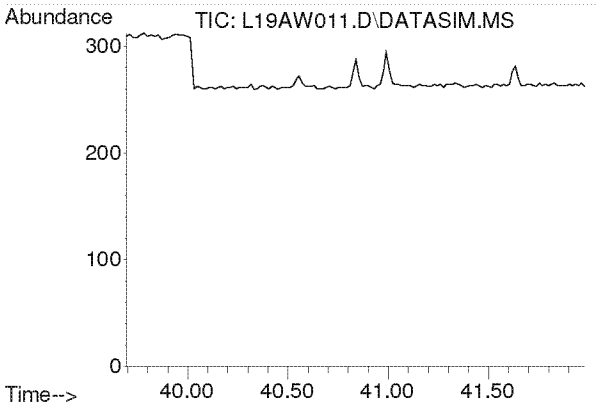
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



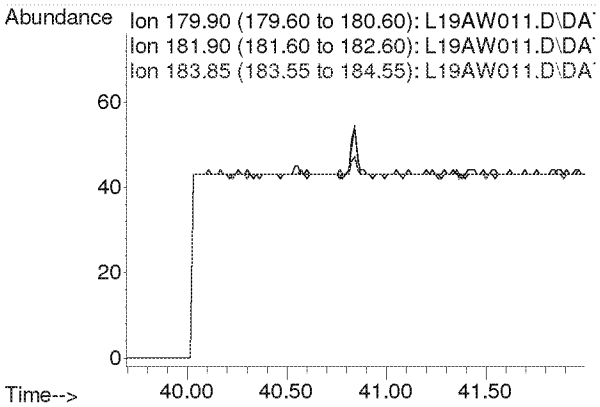


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

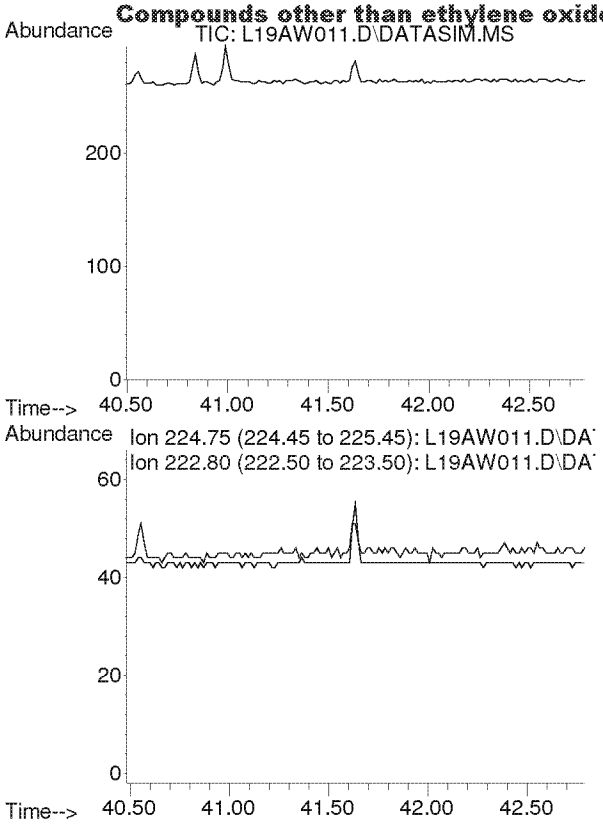
Lab File: L19AW011.D
Acq: 23 Jan 2019 7:38 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AW011.D
Acq: 23 Jan 2019 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\L19AW\
Data File : L19AW012.D
Acq On : 23 Jan 2019 8:38 pm
Operator : MAH
Sample : 9011701-06
Misc : WB POND PARK 1/16/19
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 29 08:26:45 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	55733	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	141024	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	106068	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	12.483	29	171m	0.0594 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.	
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. 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. 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

Quantification Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AW\
Data File : L19AW012.D
Acq On : 23 Jan 2019 8:38 pm
Operator : MAH
Sample : 9011701-06
Misc : WB POND PARK 1/16/19
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 29 08:26:45 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
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.	

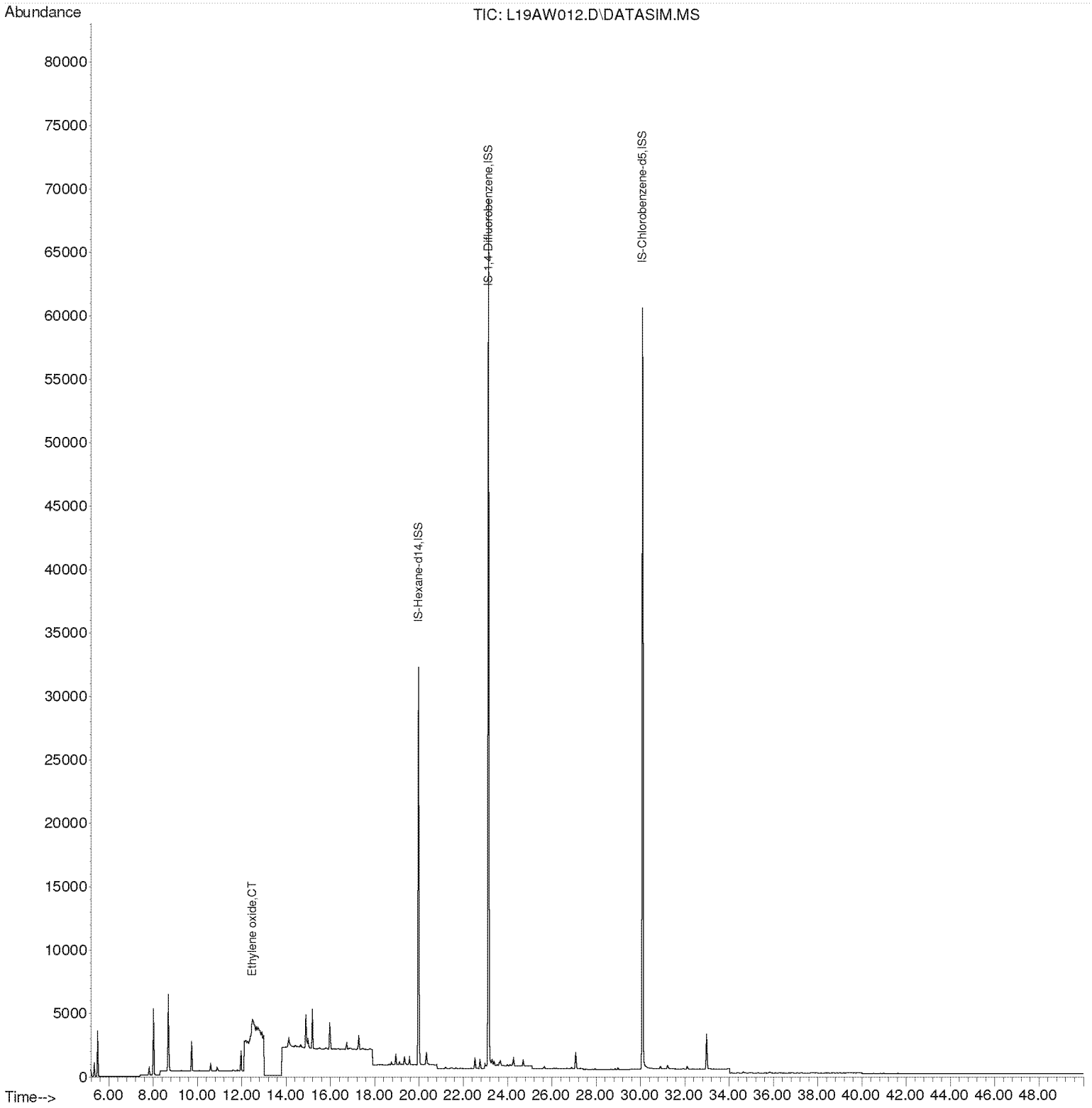
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000318-00283

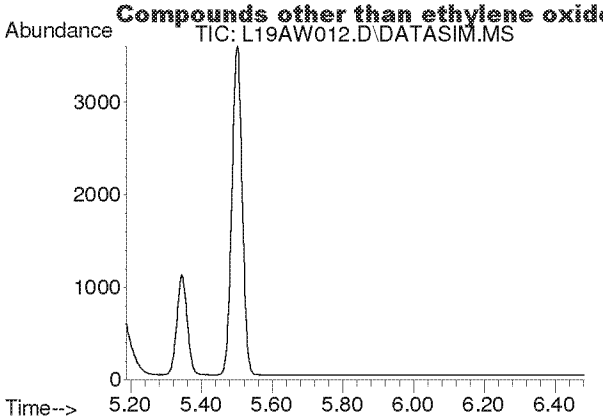
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW012.D
Acq On : 23 Jan 2019 8:38 pm
Operator : MAH
Sample : 9011701-06
Misc : WB POND PARK 1/16/19
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Jan 29 08:07:44 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



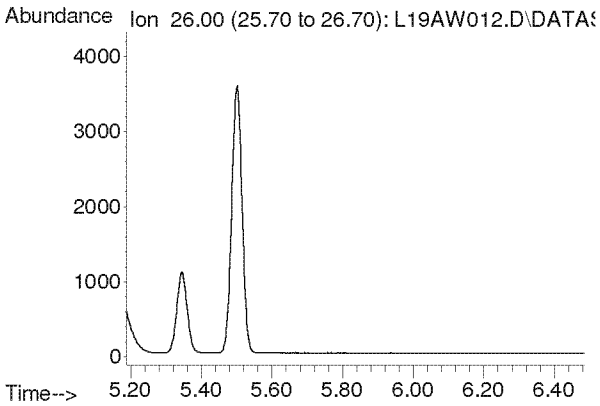
Compounds other than ethylene oxide were not quantitated.

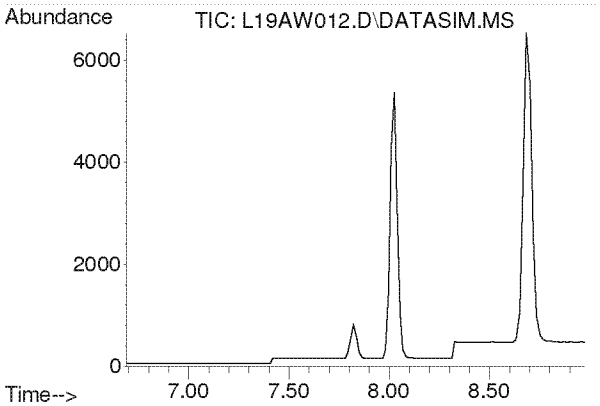


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 26



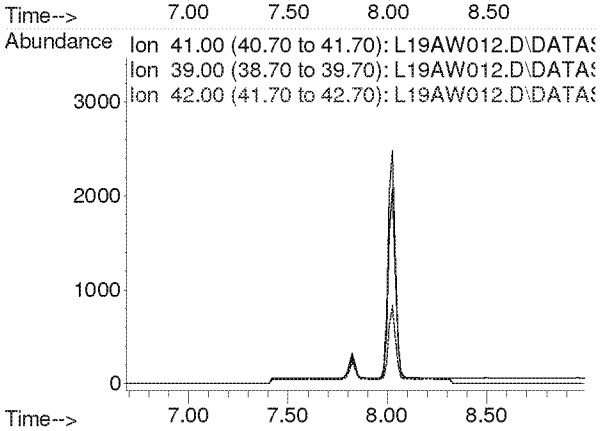


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

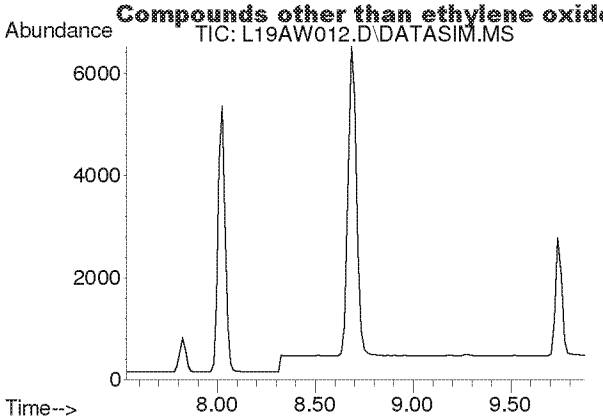
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

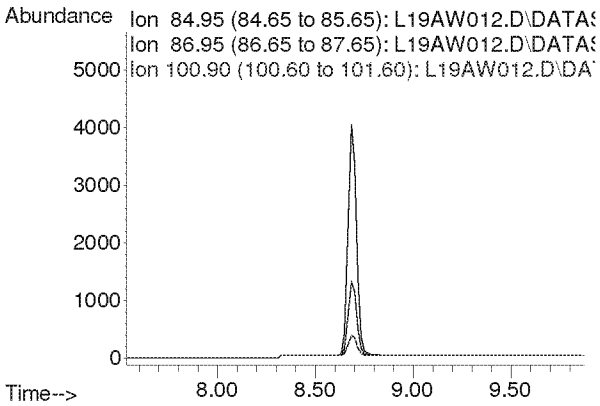


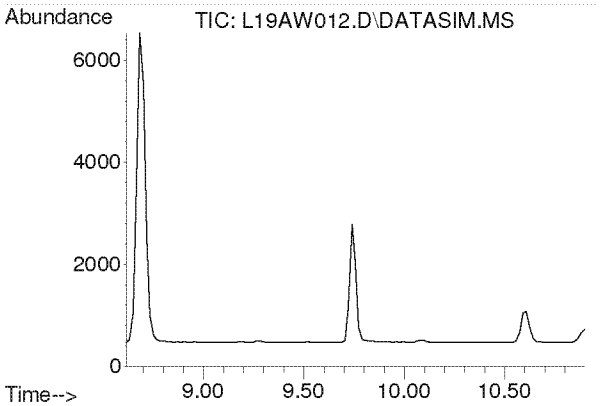
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



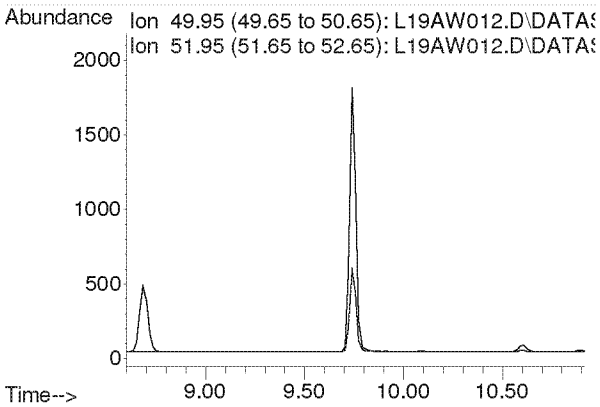


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

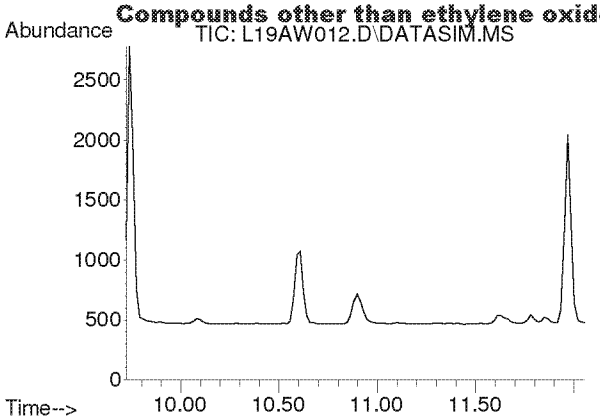
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

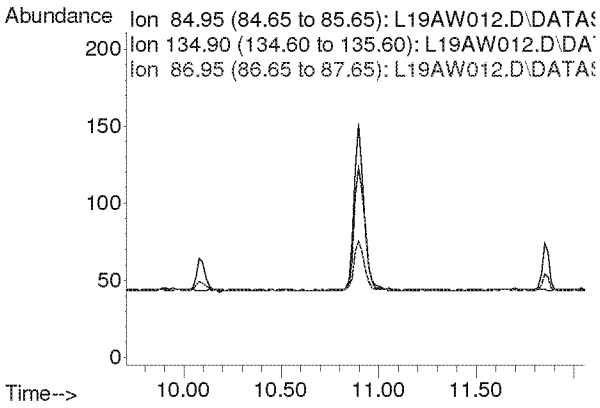


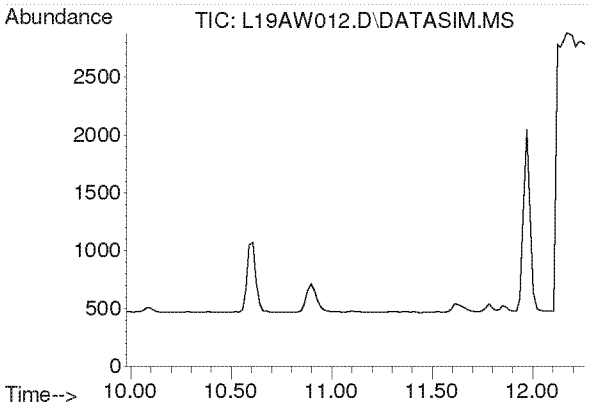
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



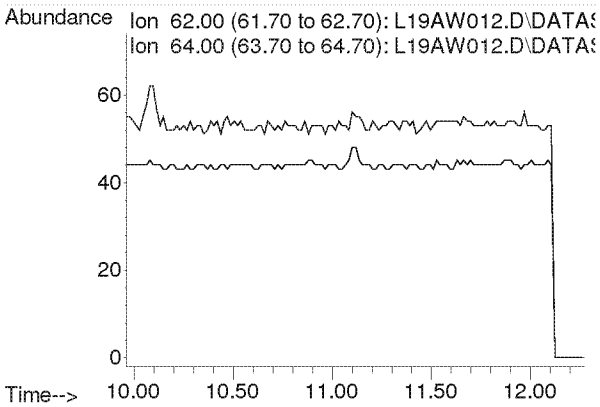


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

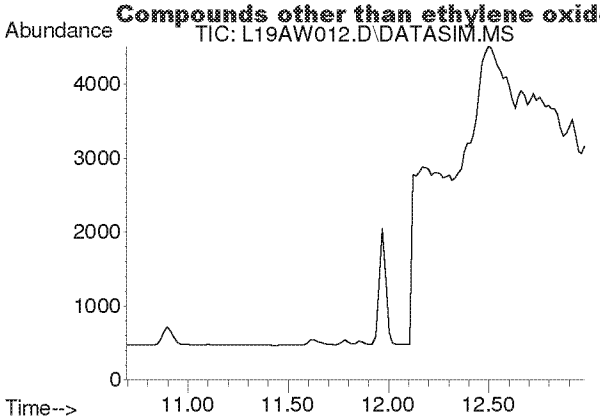
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

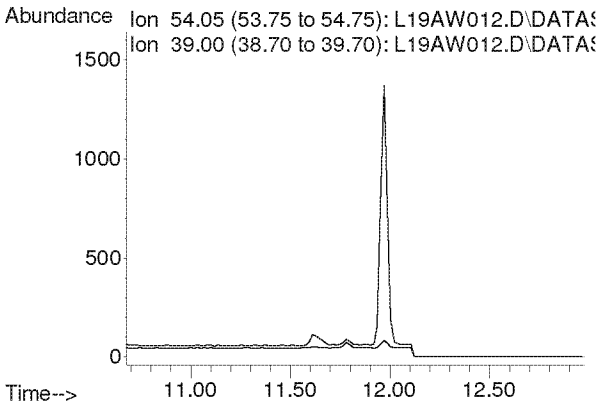


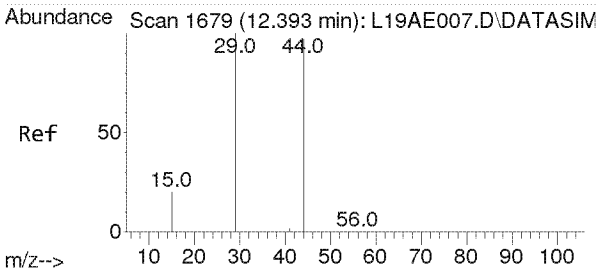
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

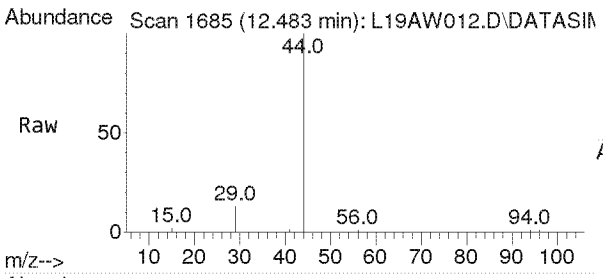


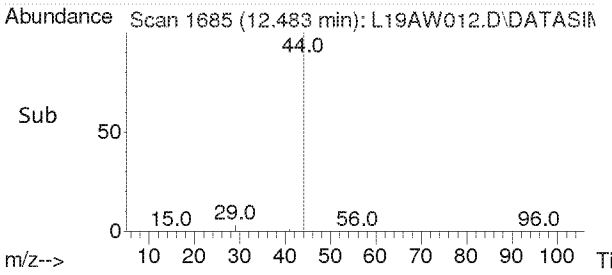


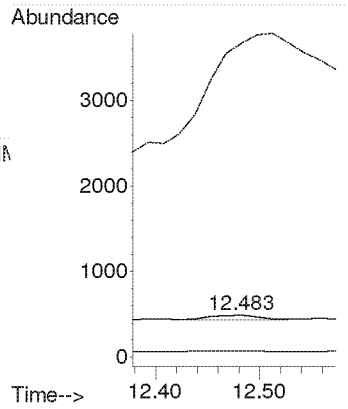
#9
Ethylene oxide
Concen: 0.059 ppbv m
RT: 12.483 min Scan# 1685
Delta R.T. 0.090 min
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 29 Resp: 171

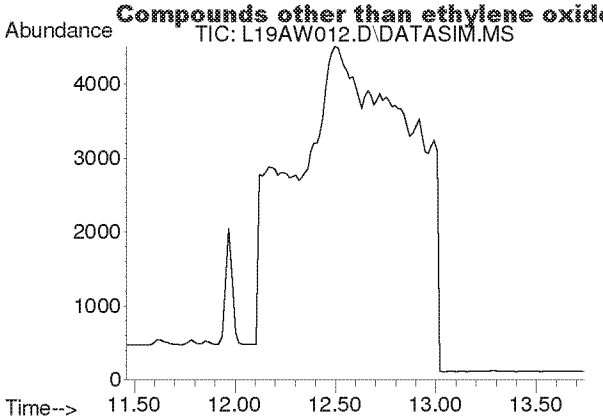
Ion	Ratio	Lower	Upper
29	100		
15	23.4	15.4	23.0#
44	8909.9	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

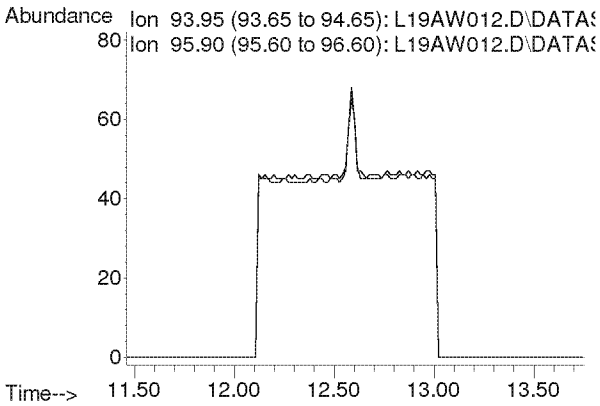


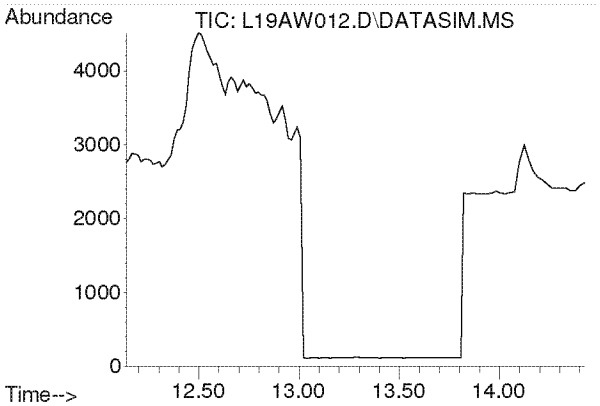
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



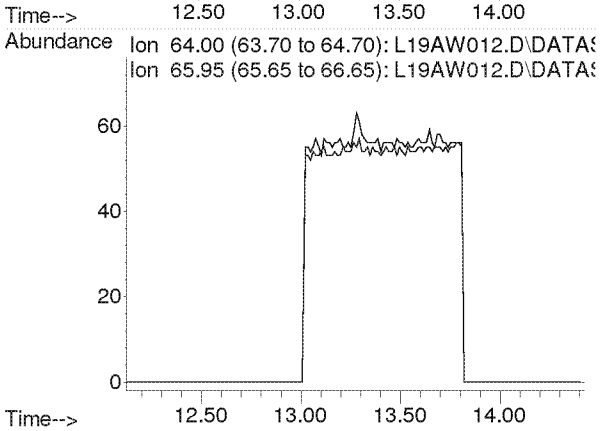


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

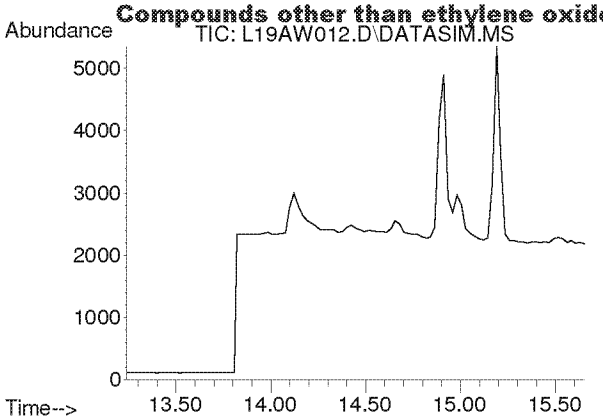
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

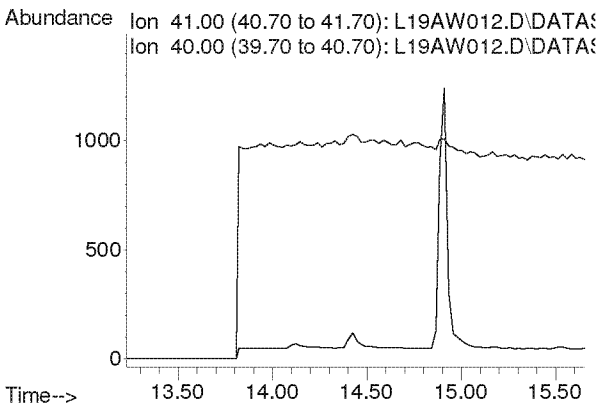


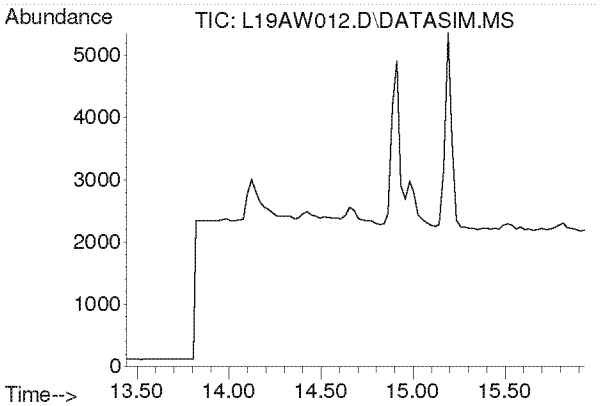
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



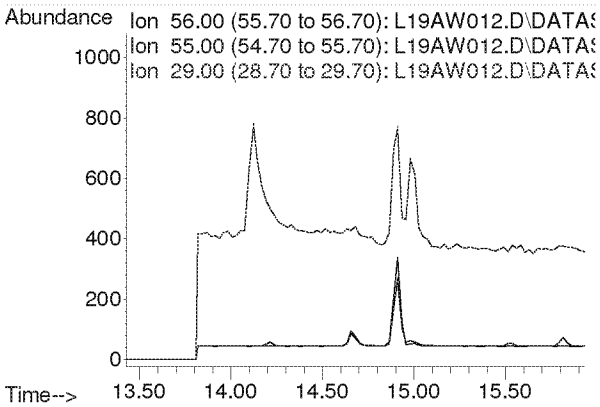


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

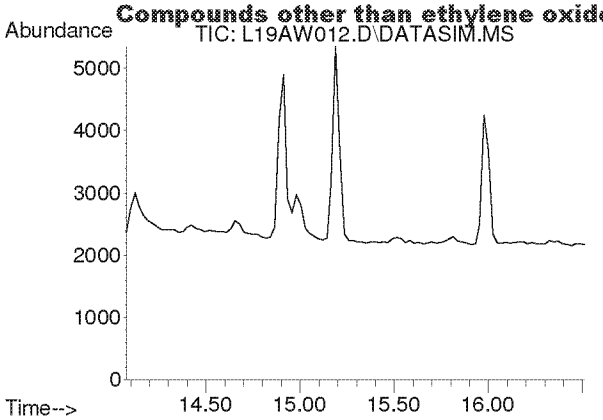
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

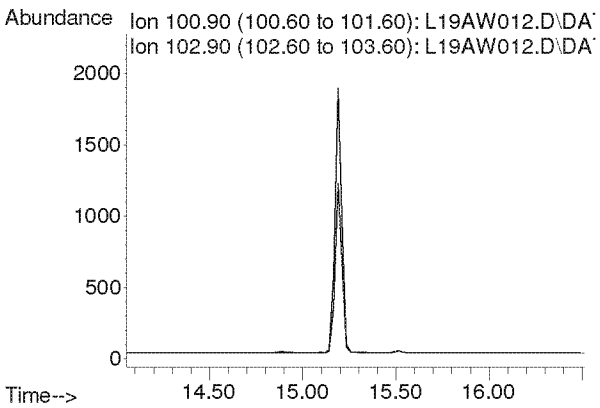


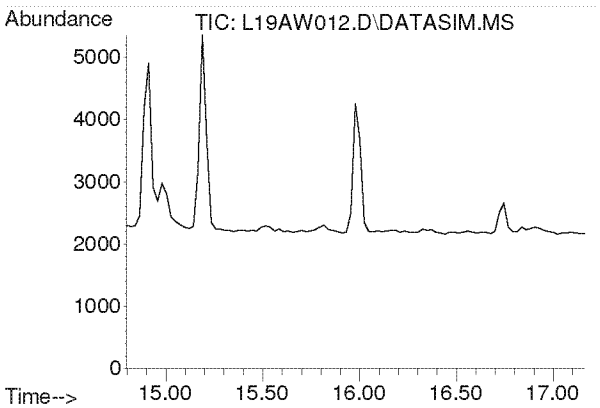
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



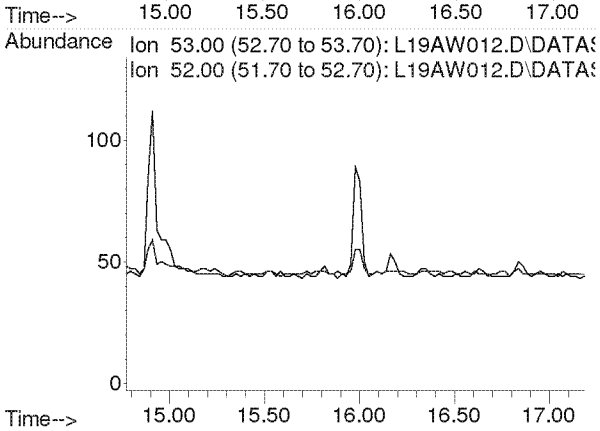


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

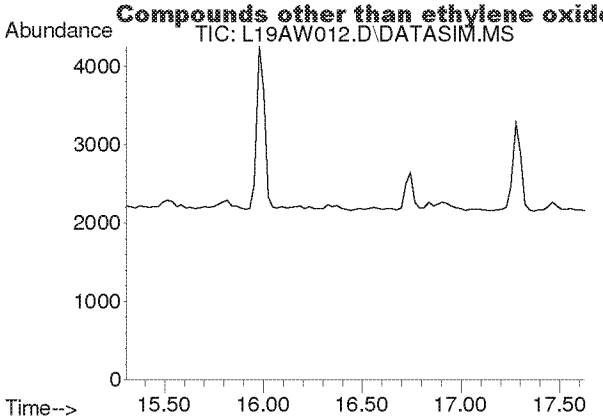
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

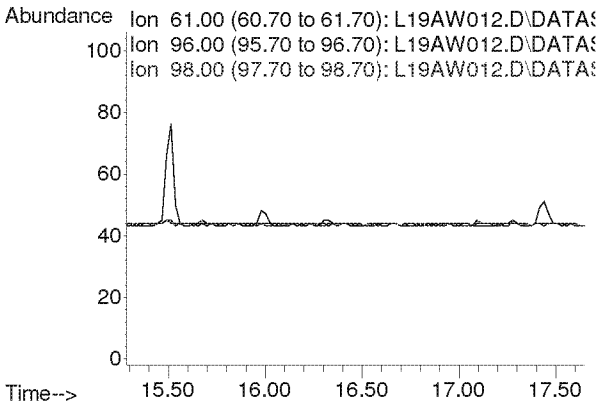


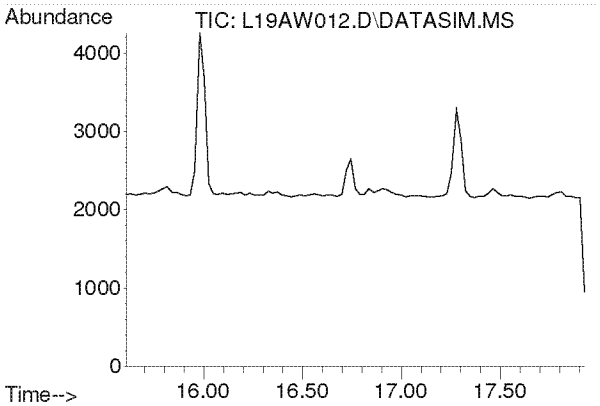
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



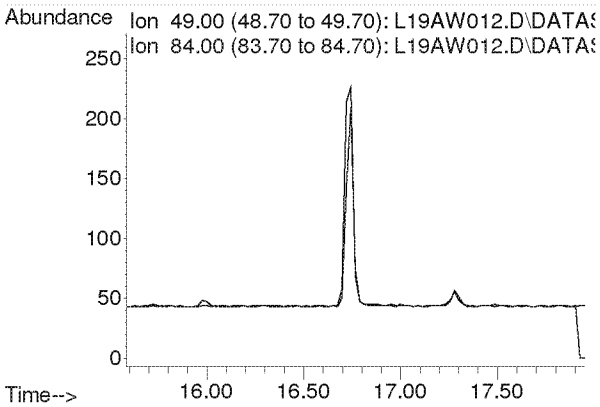


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

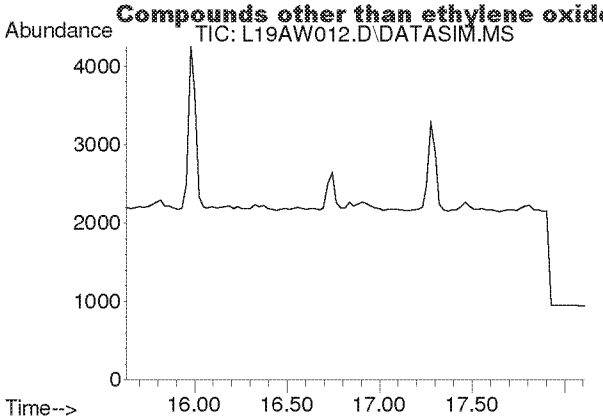
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

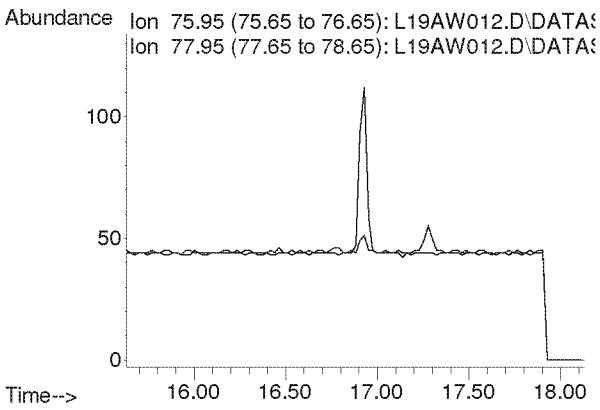


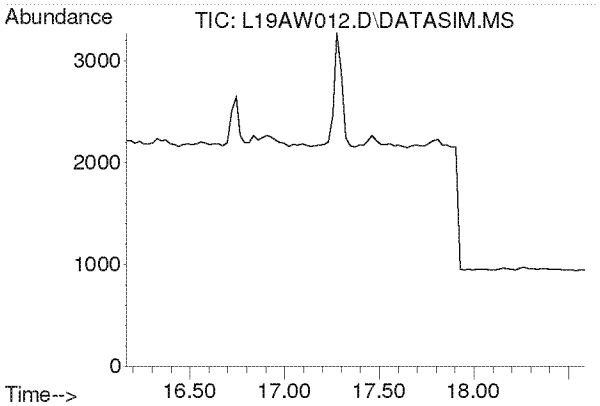
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



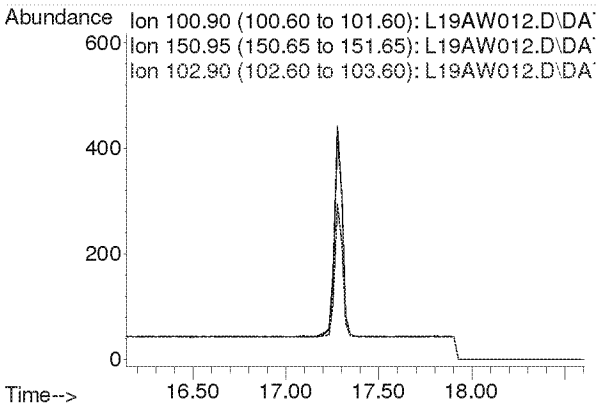


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

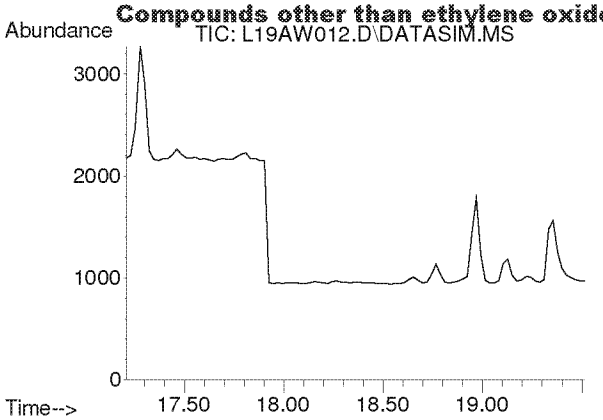
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

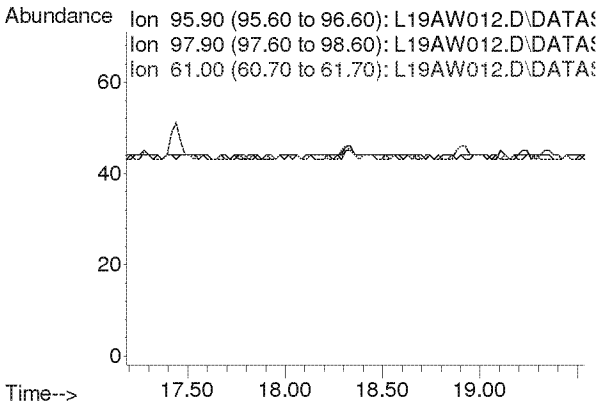


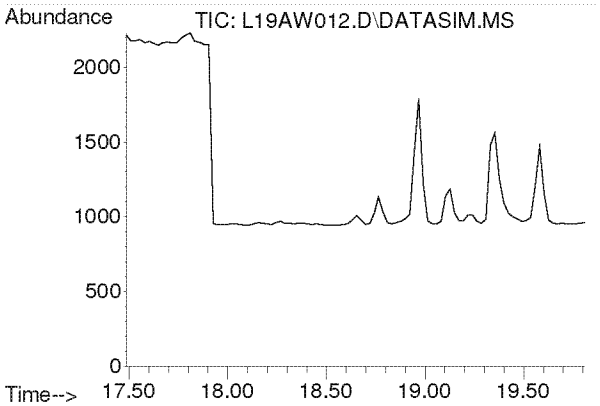
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



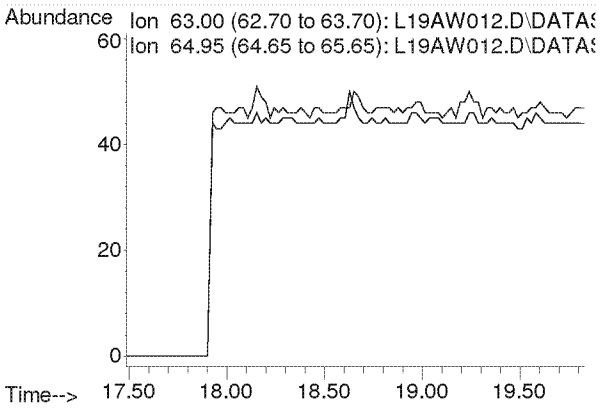


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

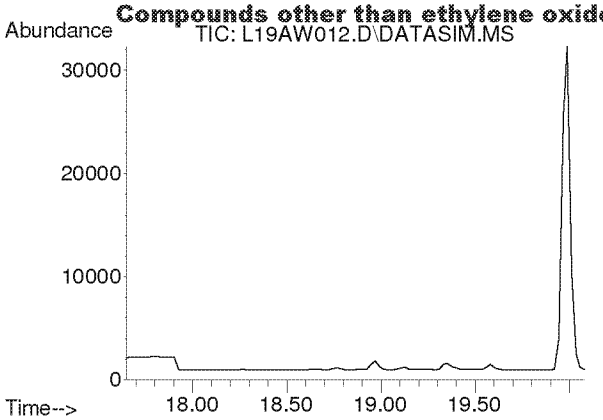
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

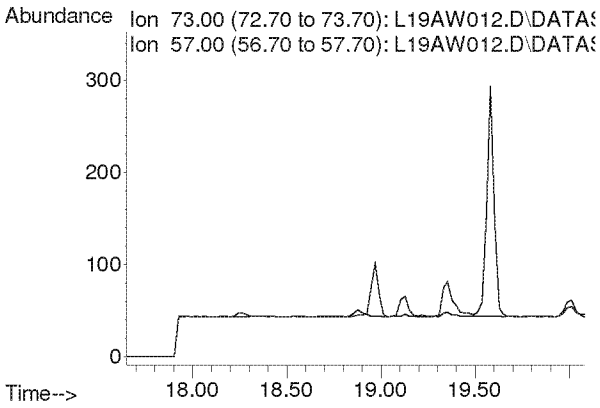


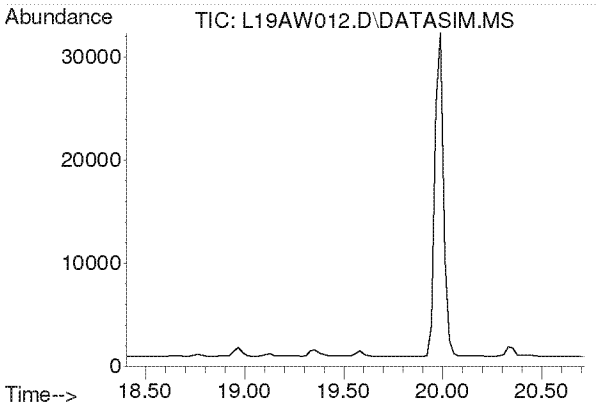
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



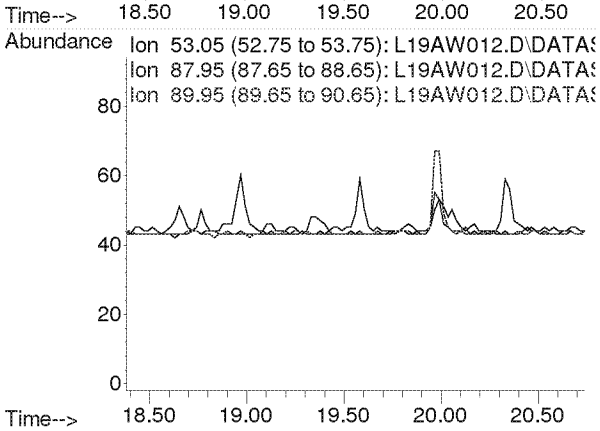


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

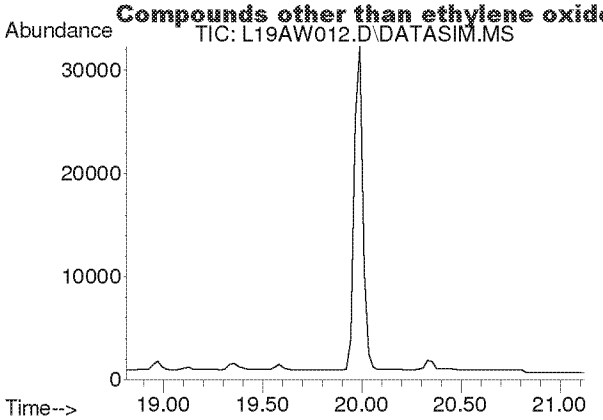
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

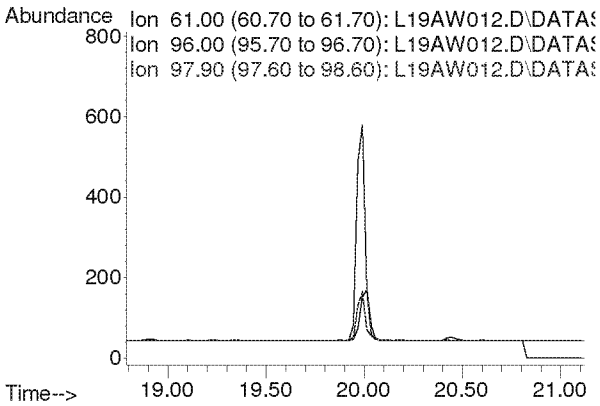


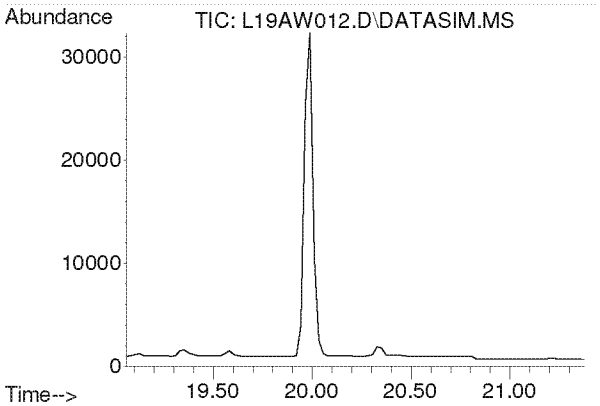
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



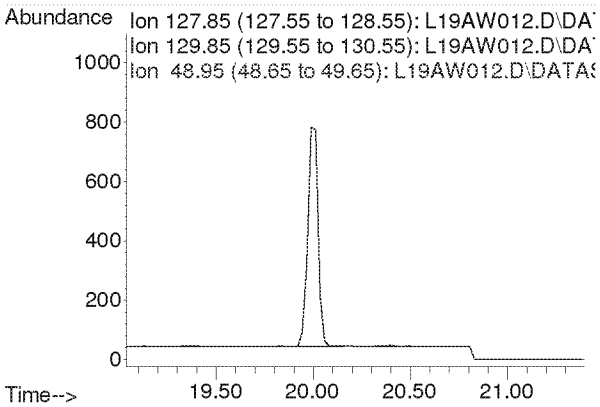


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

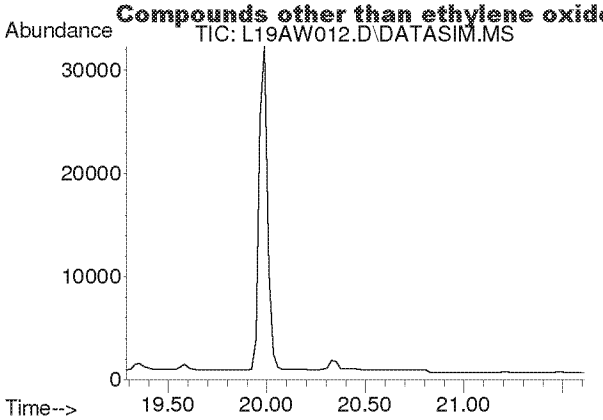
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

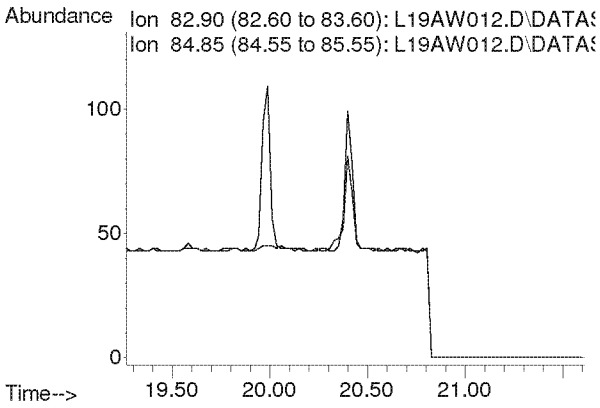


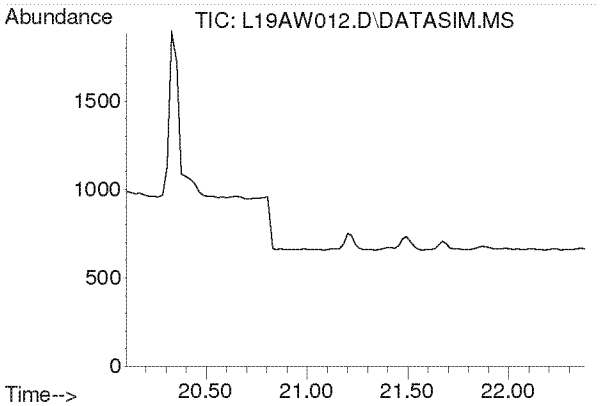
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



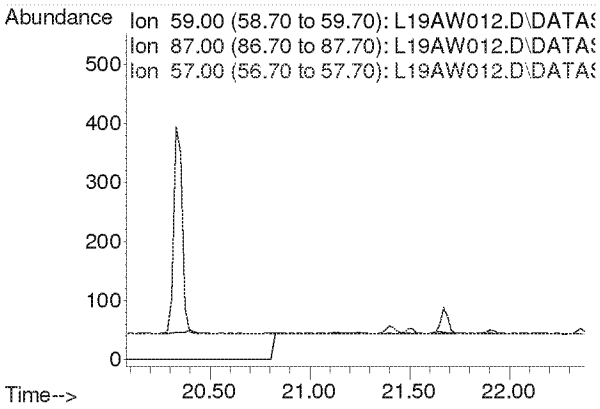


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

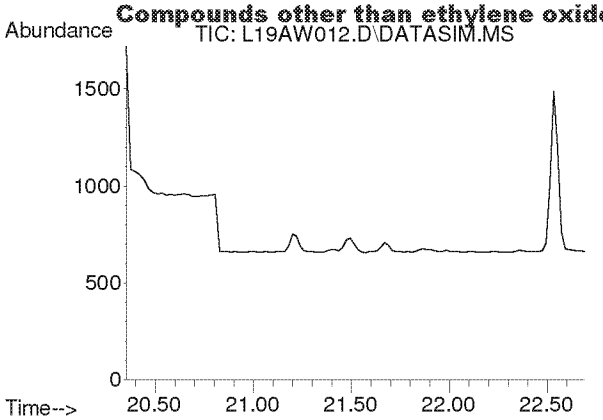
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

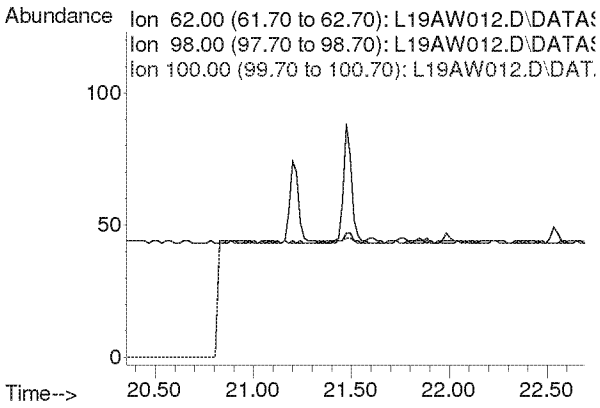


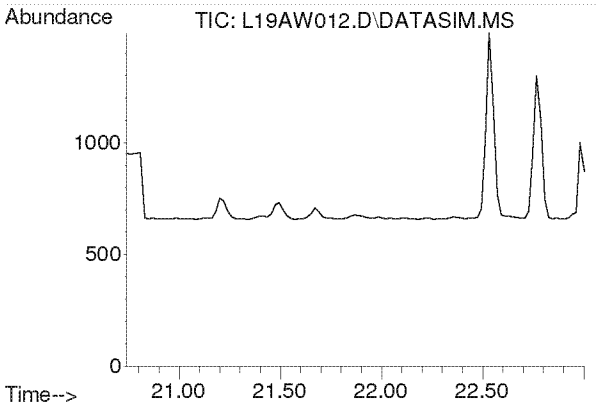
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



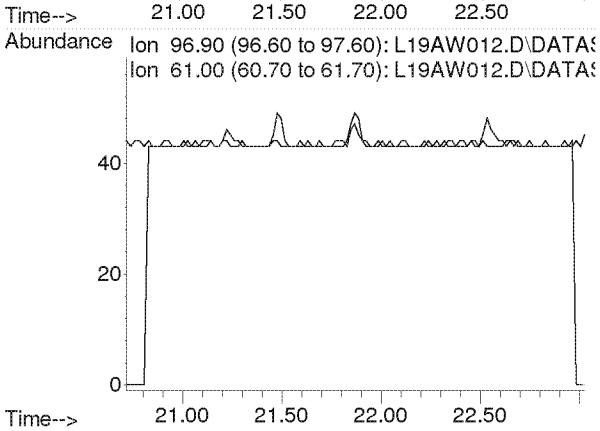


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

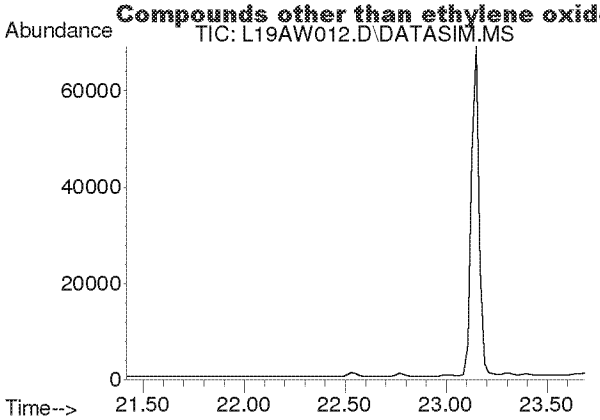
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

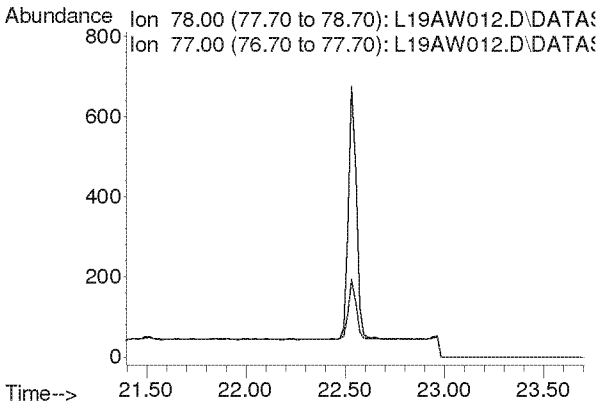


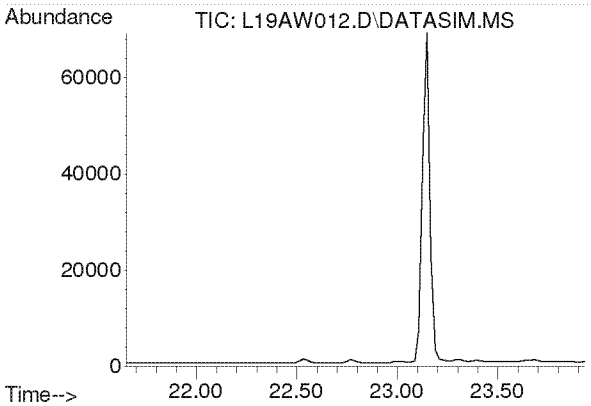
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



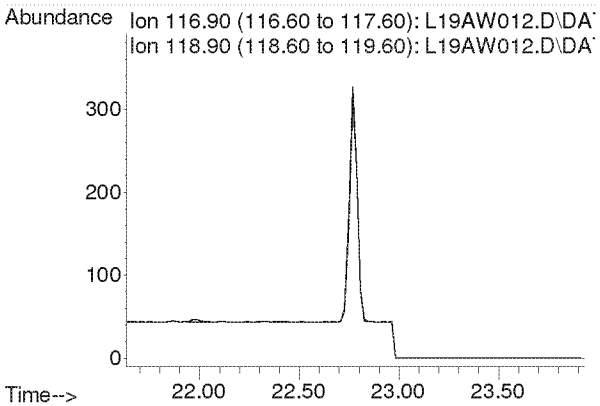


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

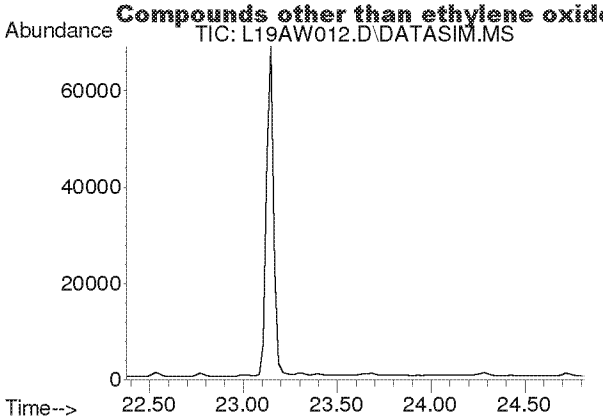
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

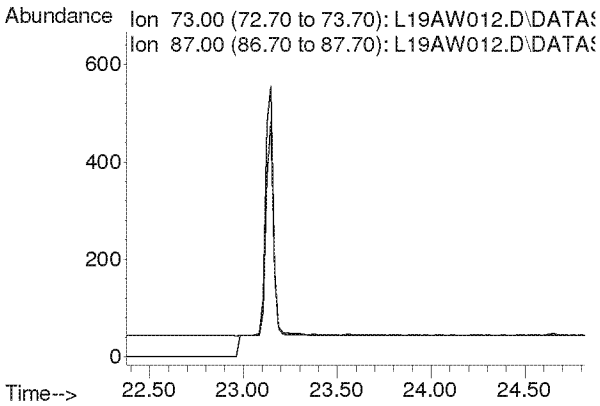


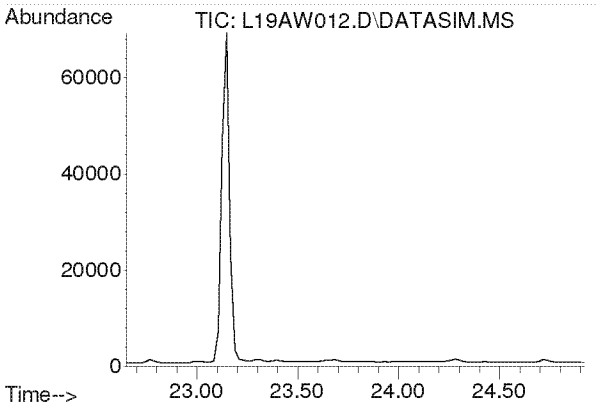
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



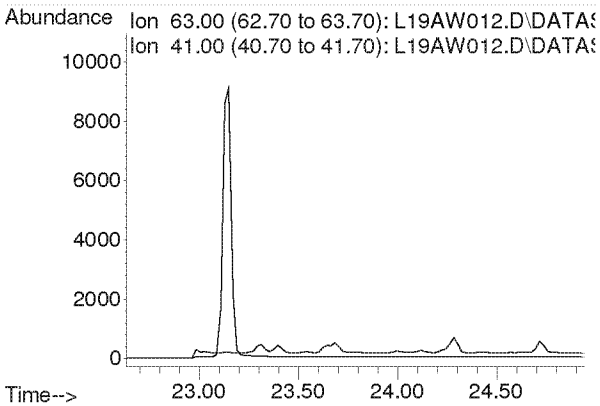


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

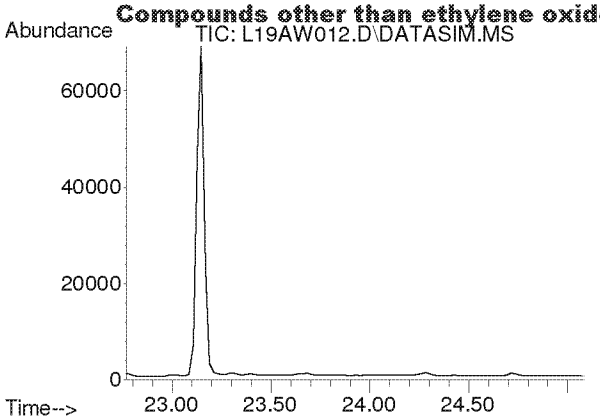
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

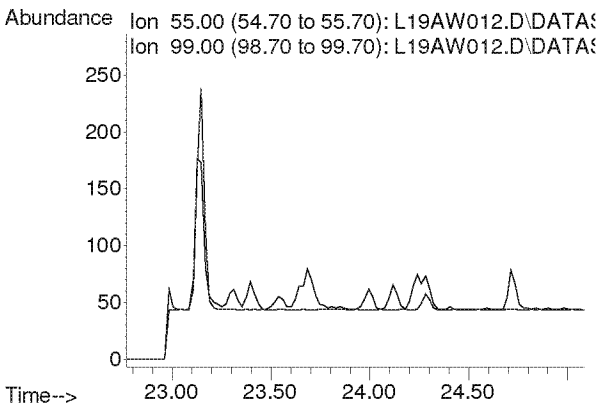


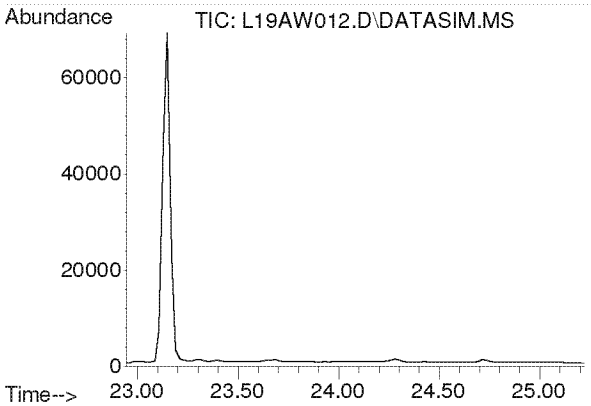
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



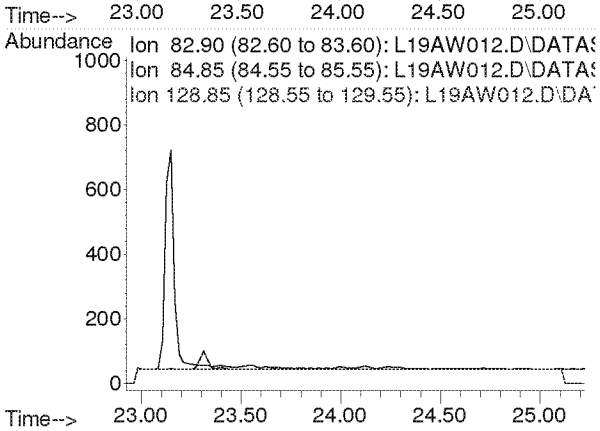


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

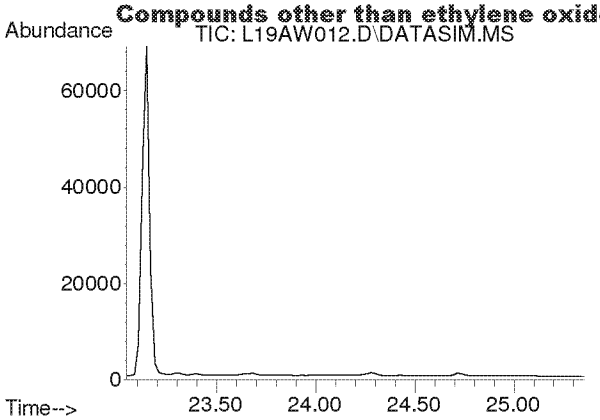
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

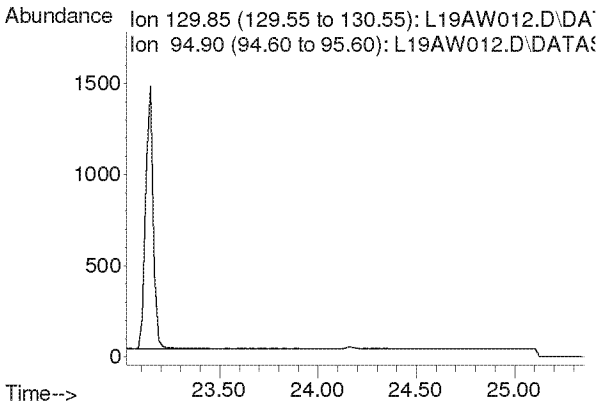


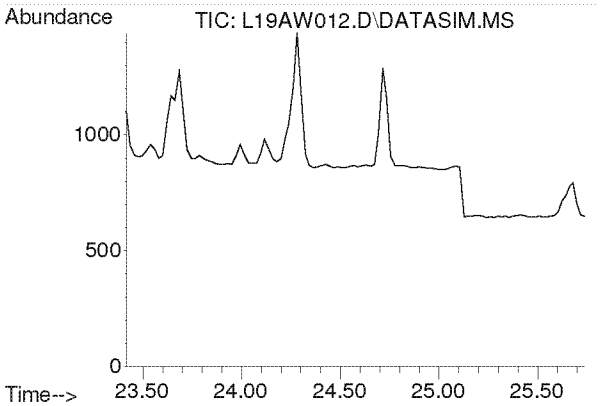
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



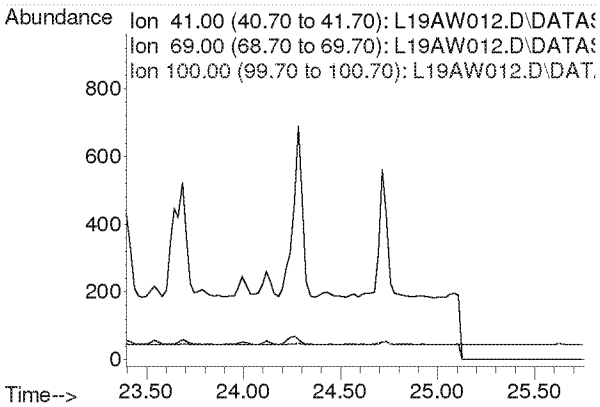


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

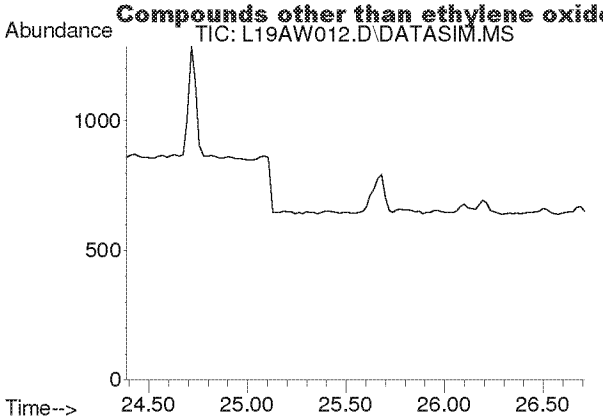
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

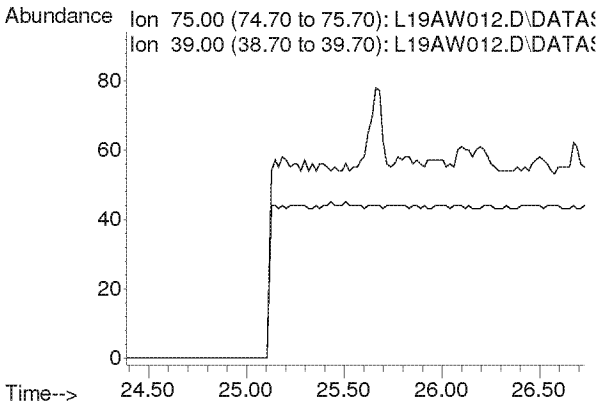


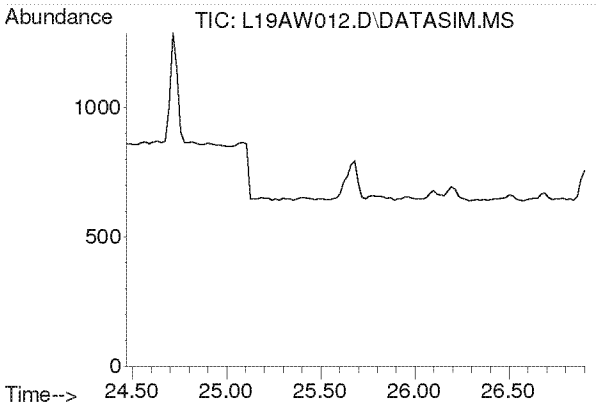
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



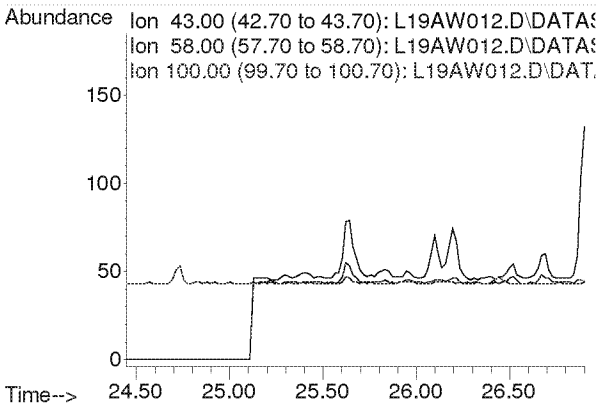


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

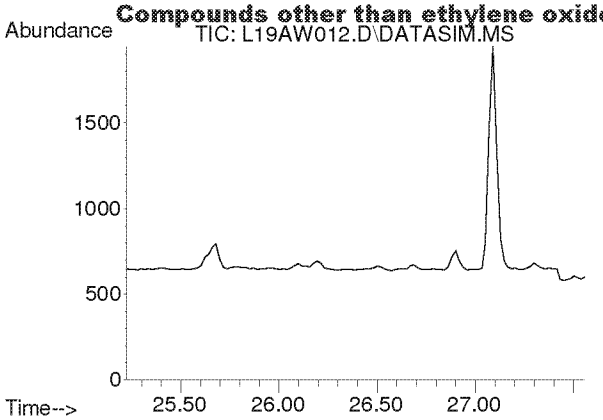
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

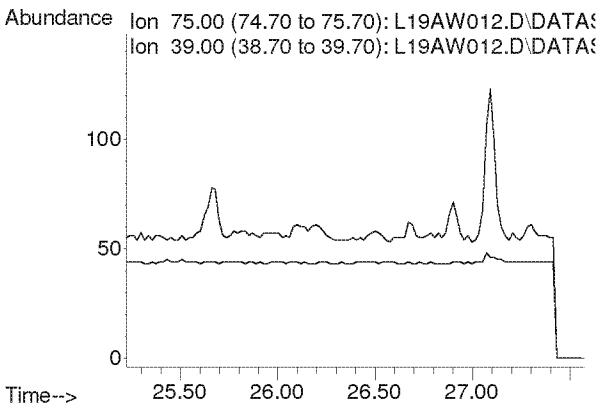


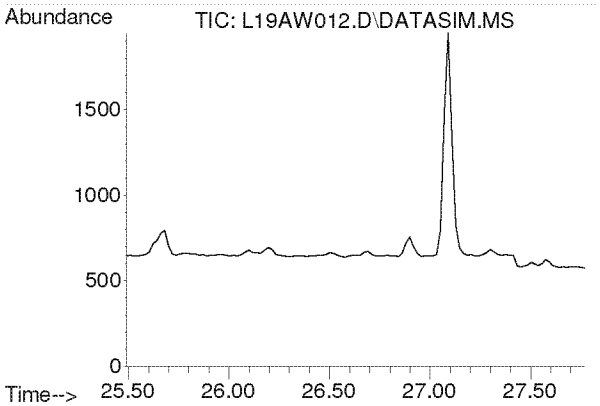
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



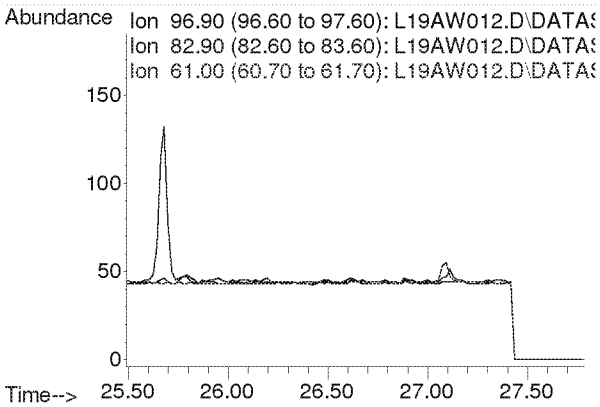


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

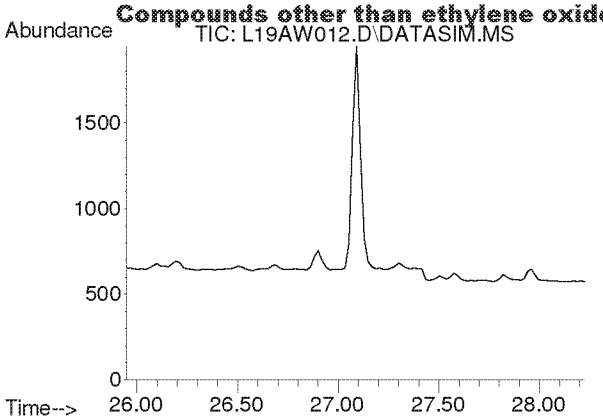
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

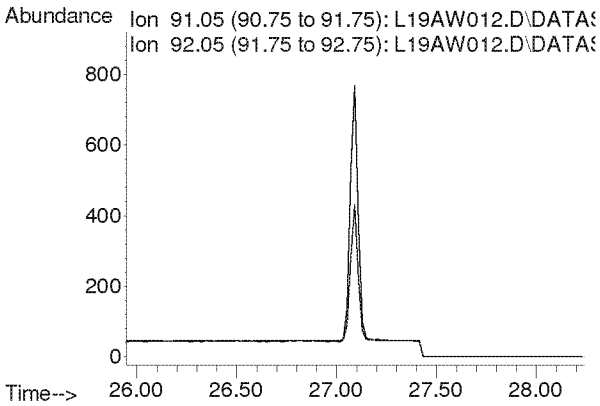


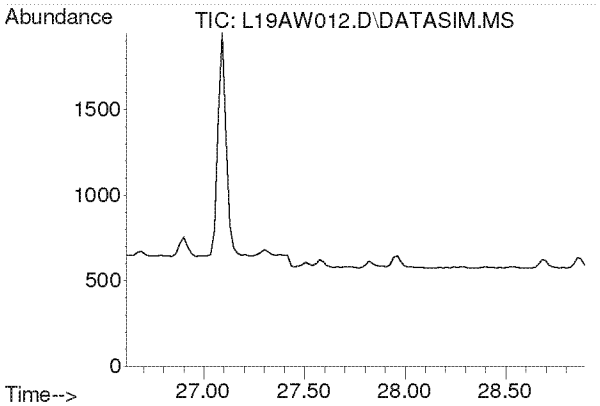
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



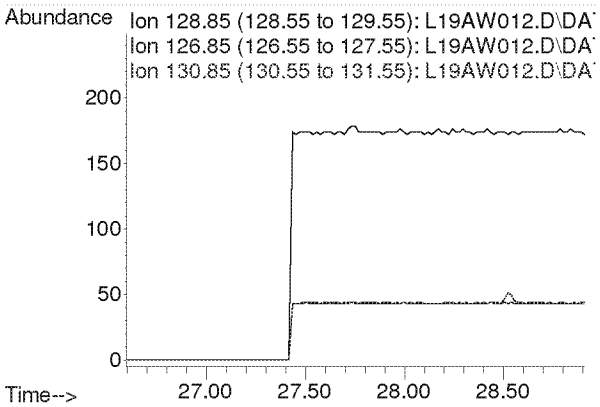


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

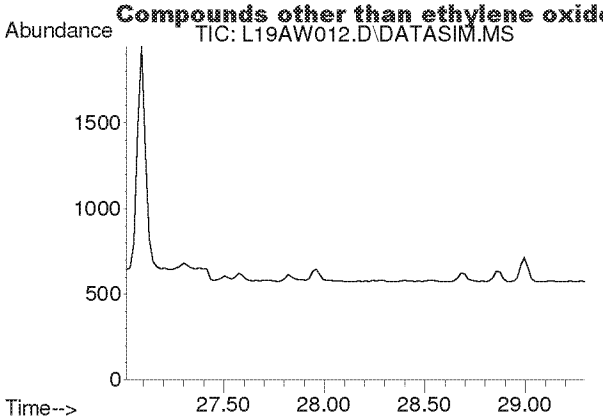
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

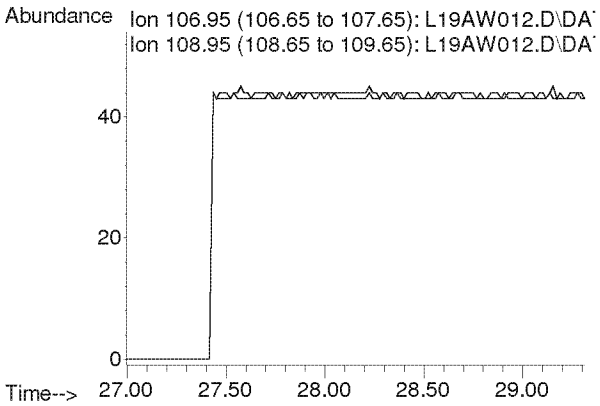


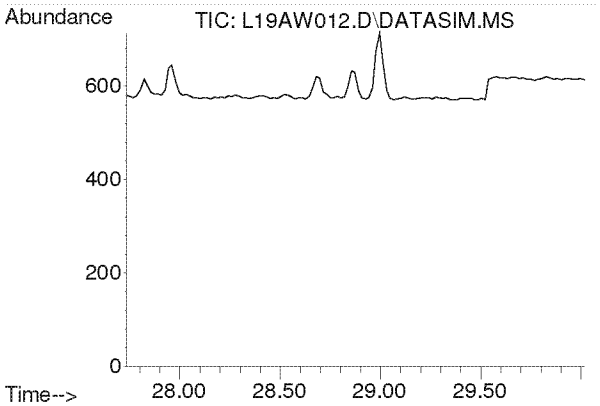
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



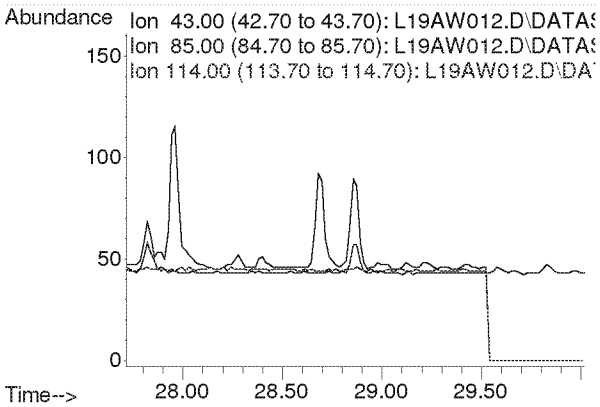


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

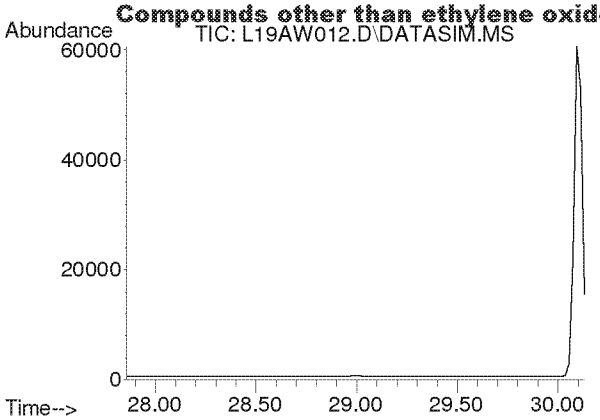
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

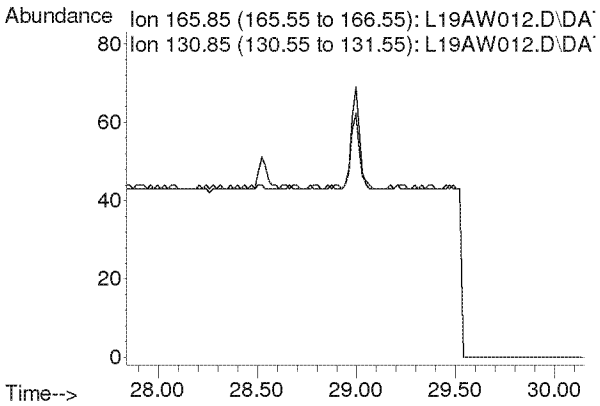


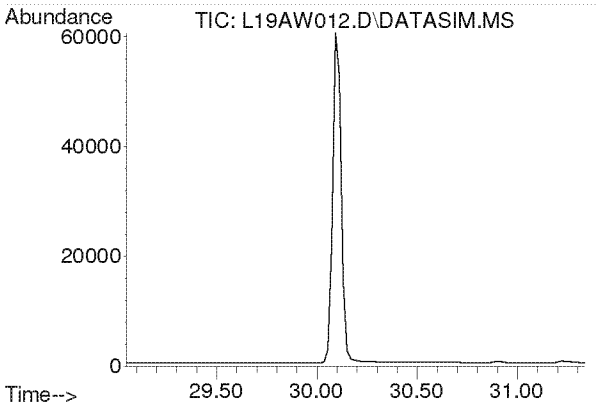
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



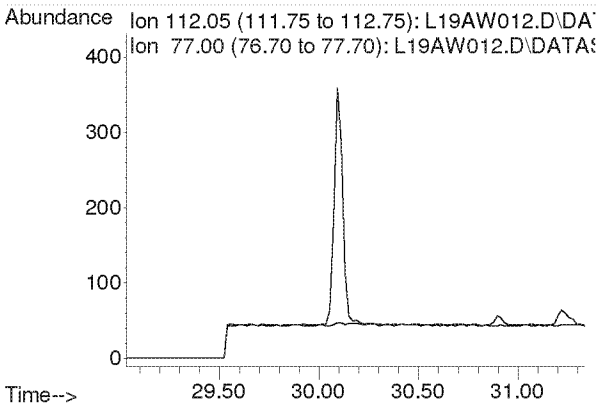


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

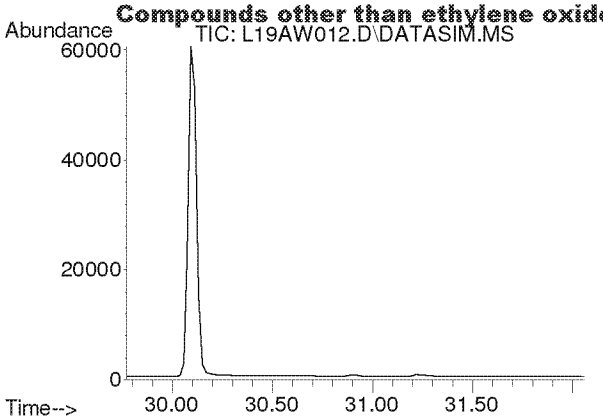
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

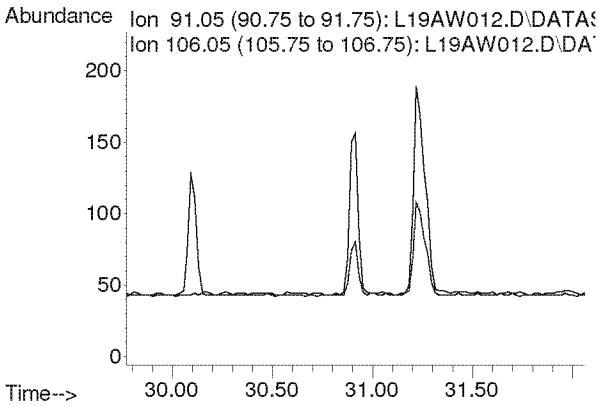


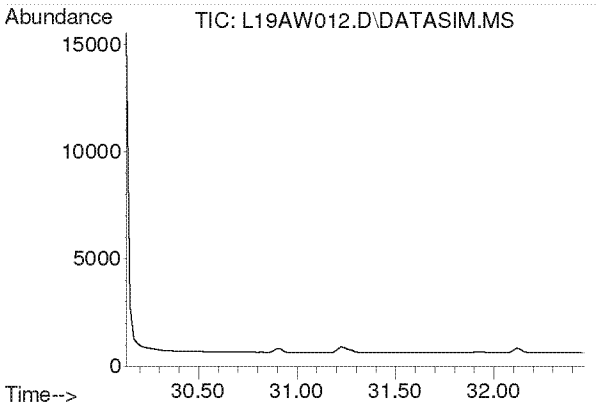
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



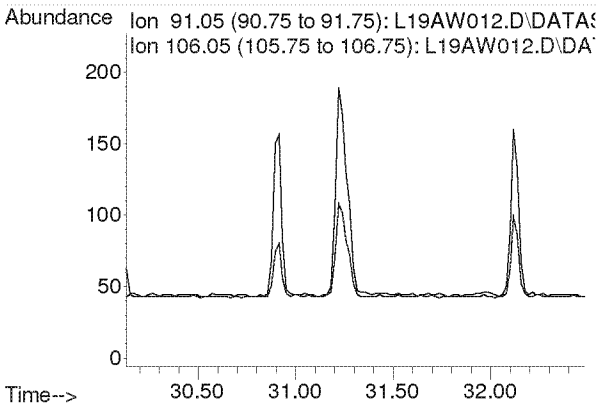


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

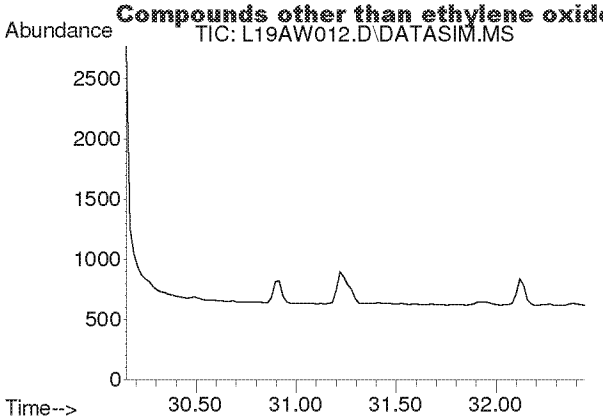
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

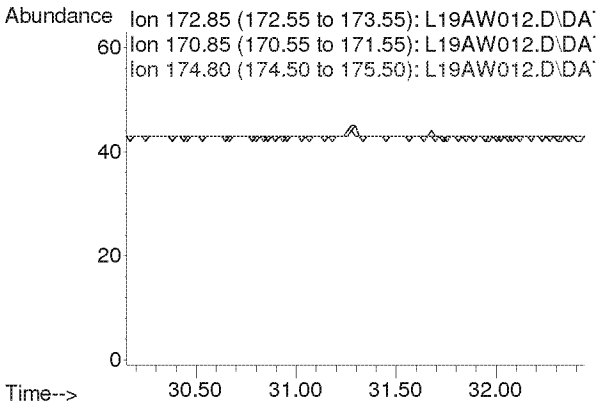


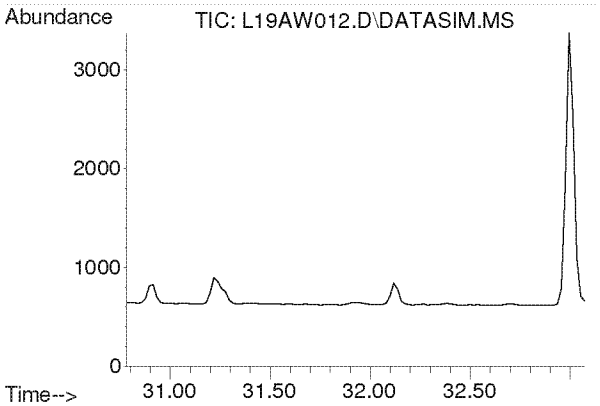
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



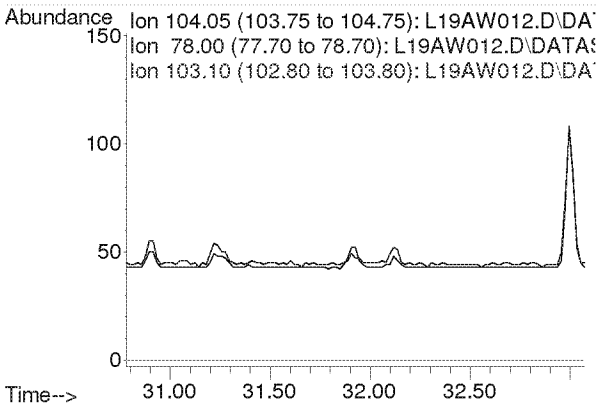


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

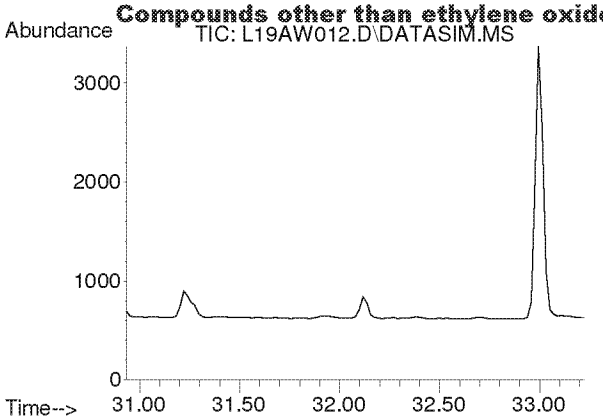
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

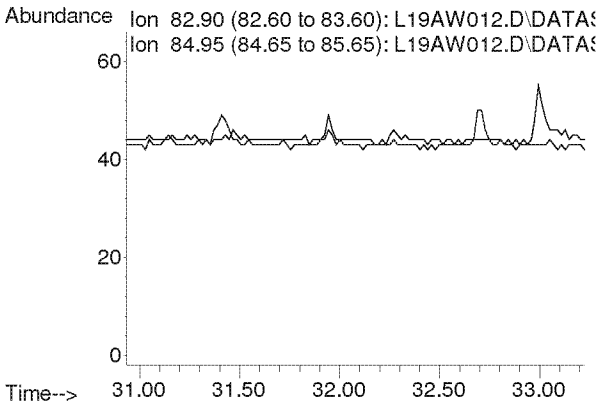


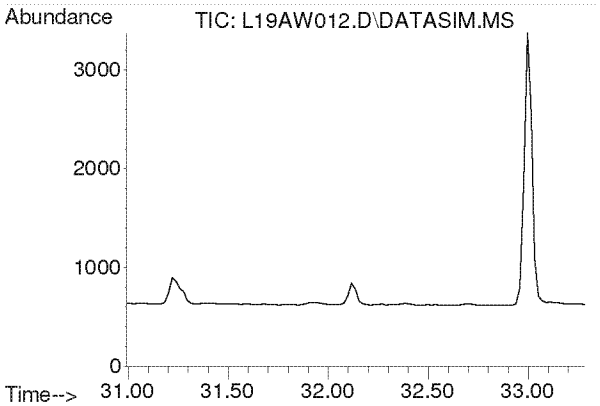
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



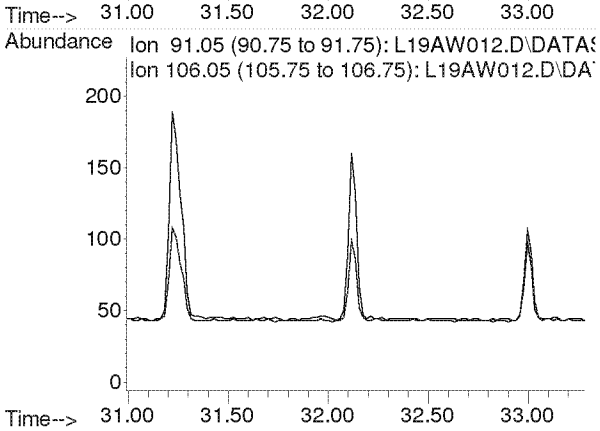


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

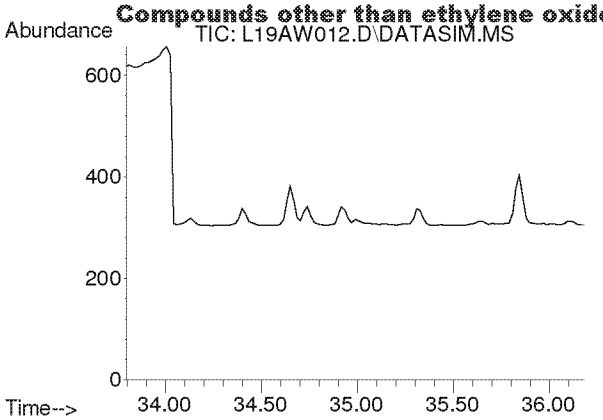
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

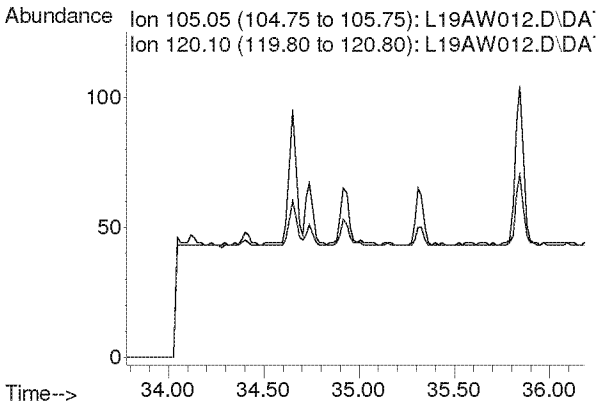


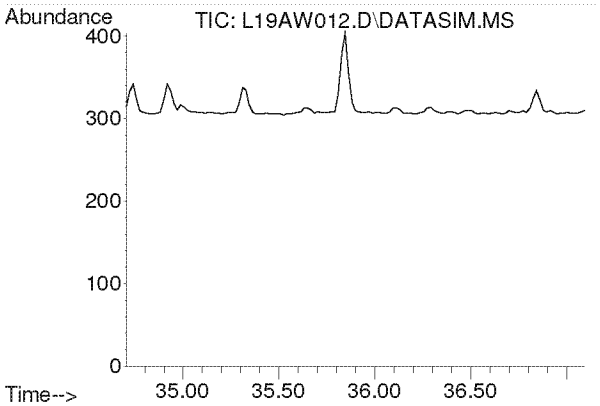
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



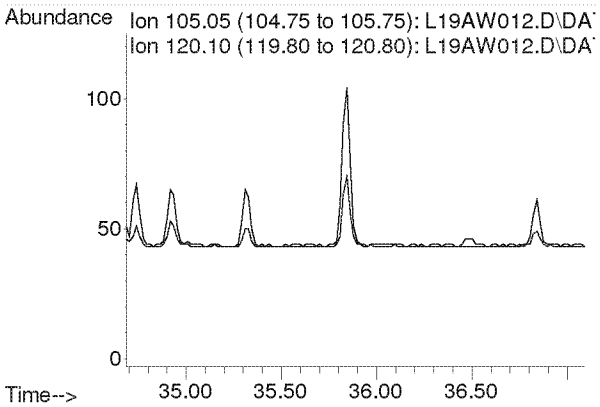


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

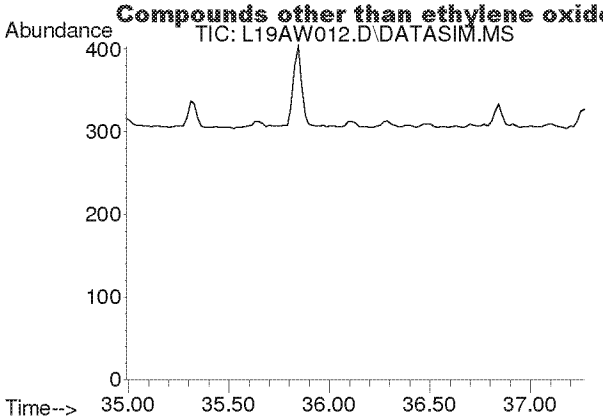
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

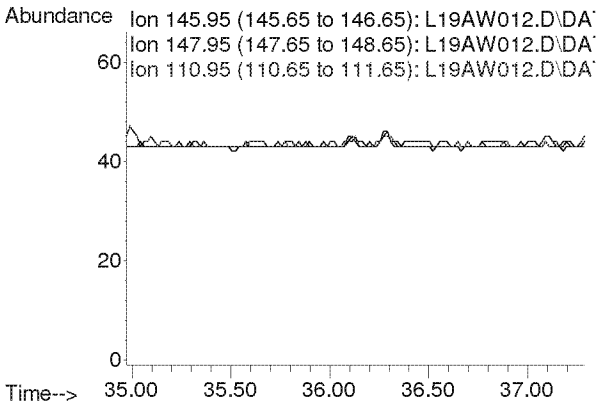


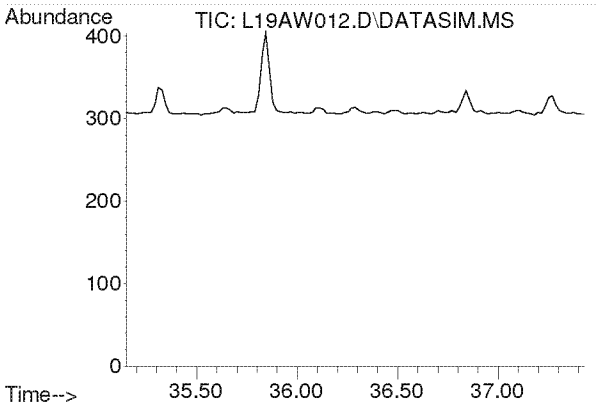
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



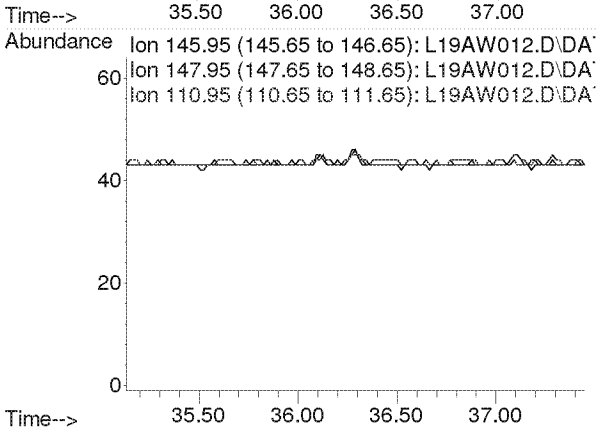


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

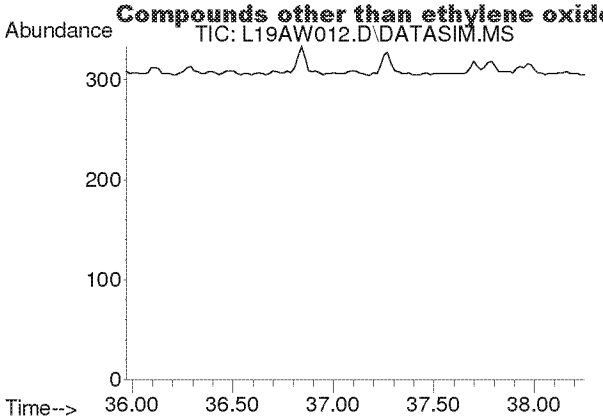
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

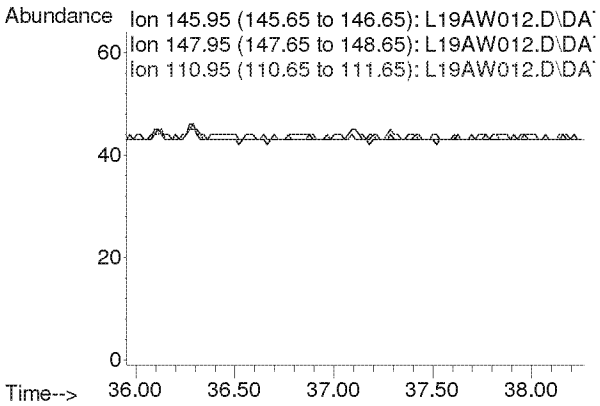


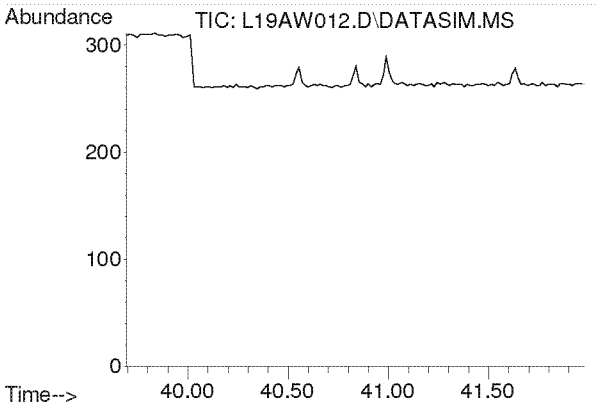
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



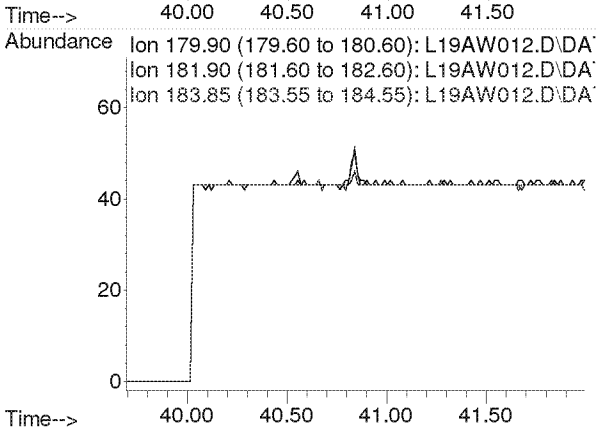


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

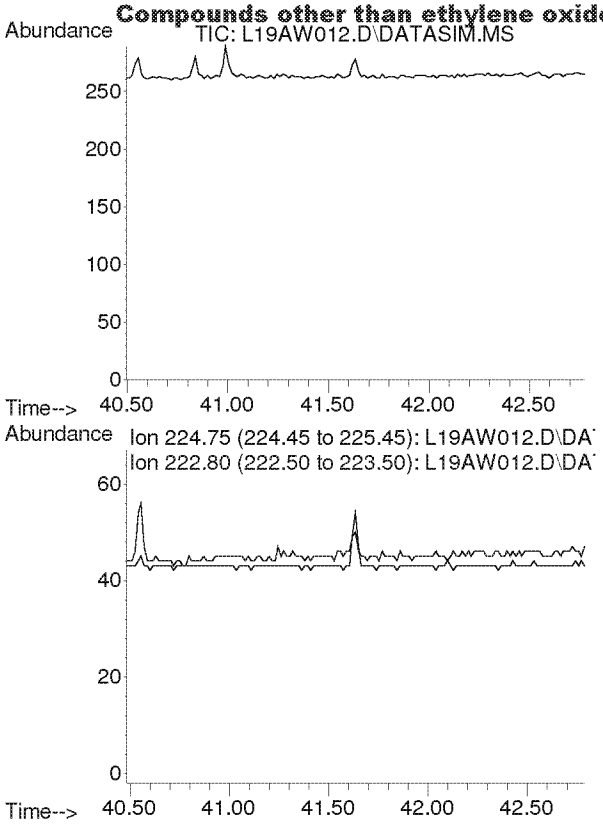
Lab File: L19AW012.D
Acq: 23 Jan 2019 8:38 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AW012.D
Acq: 23 Jan 2019 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\L19AW\
Data File : L19AW013.D
Acq On : 23 Jan 2019 9:40 pm
Operator : MAH
Sample : 9011701-07
Misc : GOWER ES 1/16/19
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 29 08:27:09 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Eight only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	52481	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.151	114	124841	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.116	117	98758	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.	
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. 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. 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\L19AW\
Data File : L19AW013.D
Acq On : 23 Jan 2019 9:40 pm
Operator : MAH
Sample : 9011701-07
Misc : GOWER ES 1/16/19
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 29 08:27:09 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

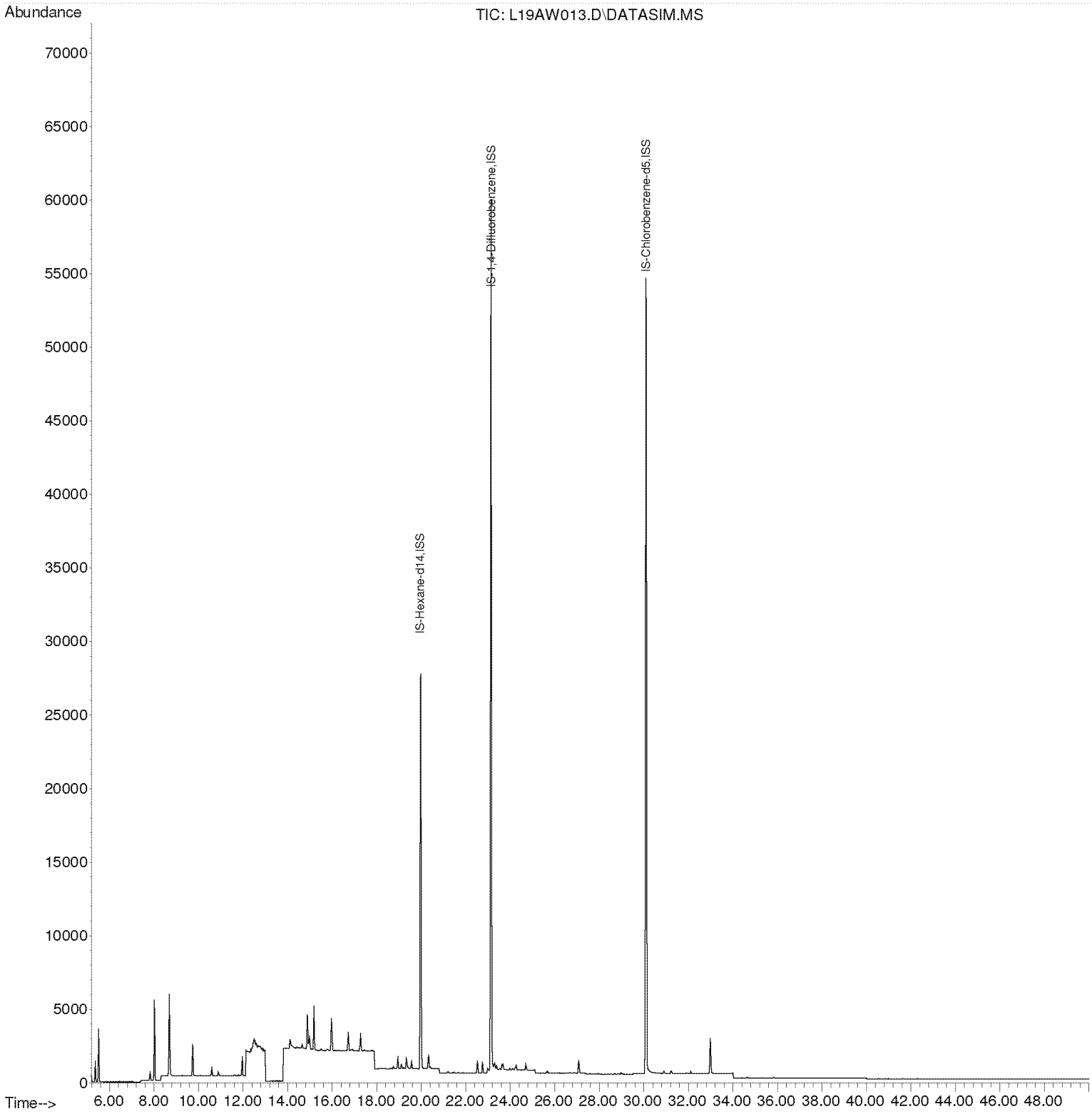
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

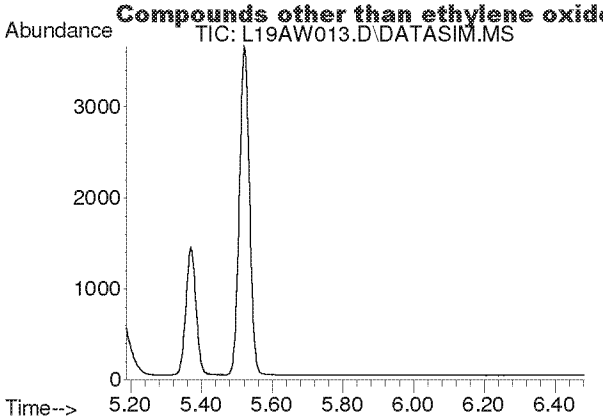
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW013.D
Acq On : 23 Jan 2019 9:40 pm
Operator : MAH
Sample : 9011701-07
Misc : GOWER ES 1/16/19
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jan 29 08:08:15 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



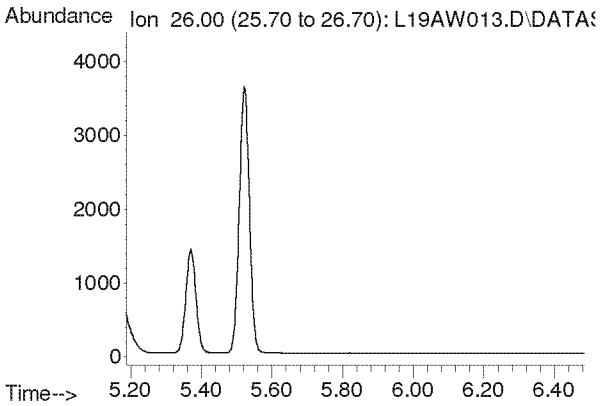
Compounds other than ethylene oxide were not quantitated.

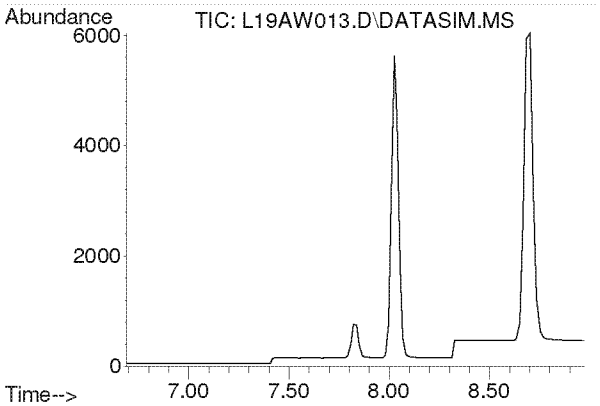


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 26



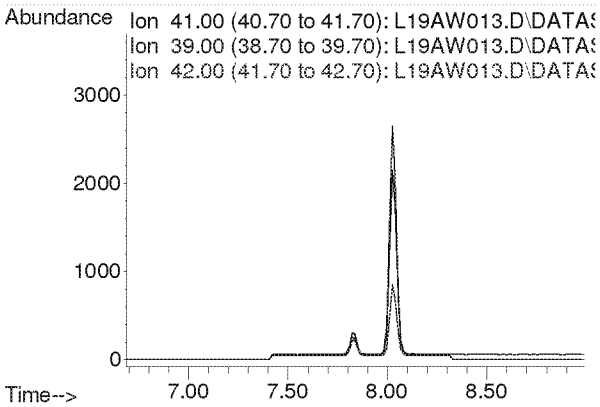


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

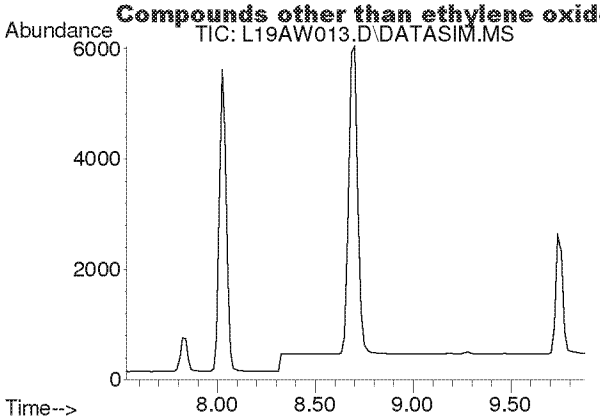
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

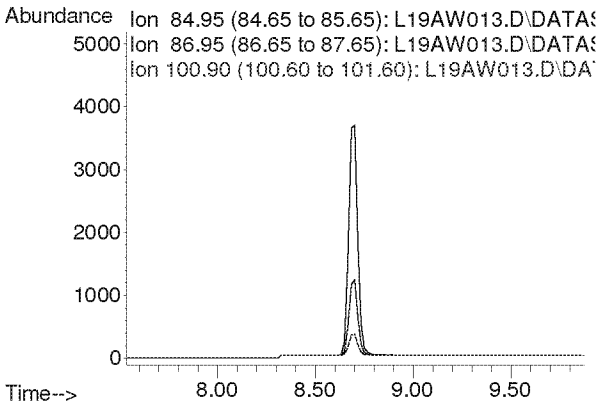


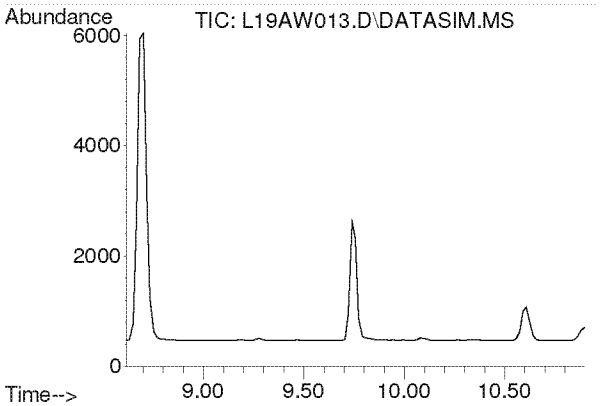
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



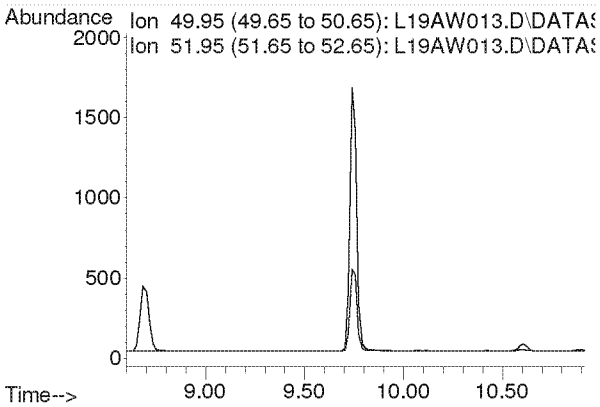


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

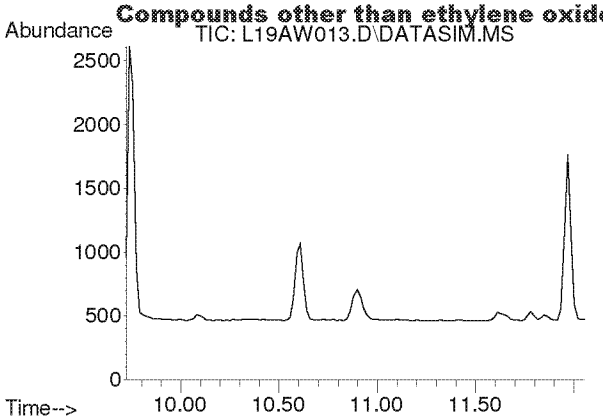
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

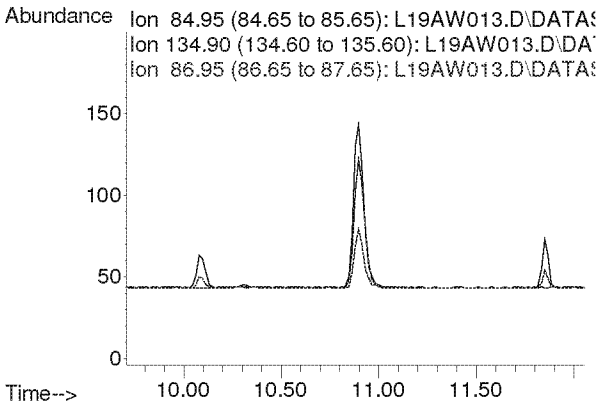


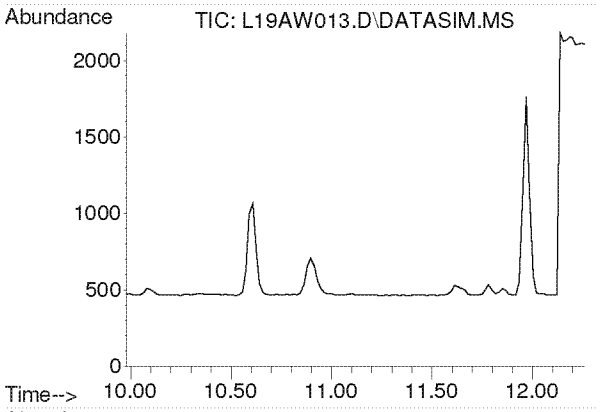
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



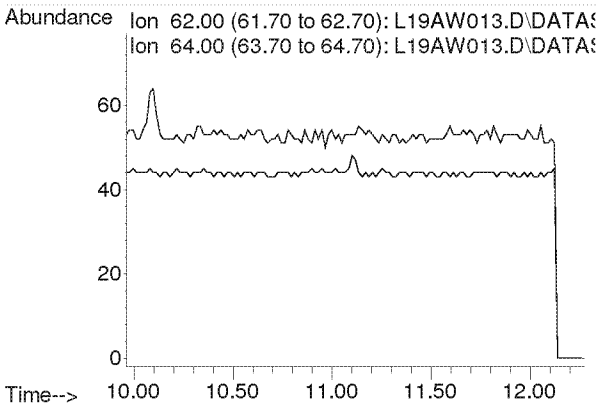


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

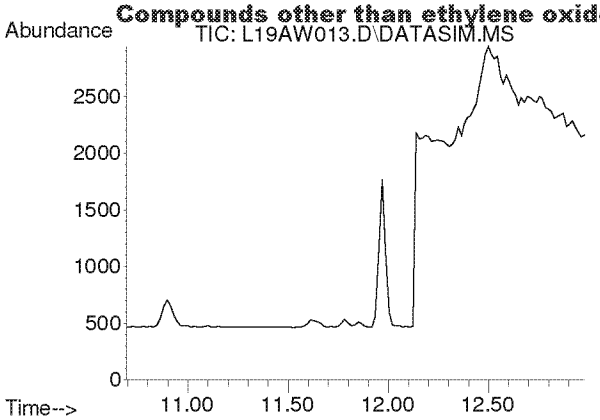
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

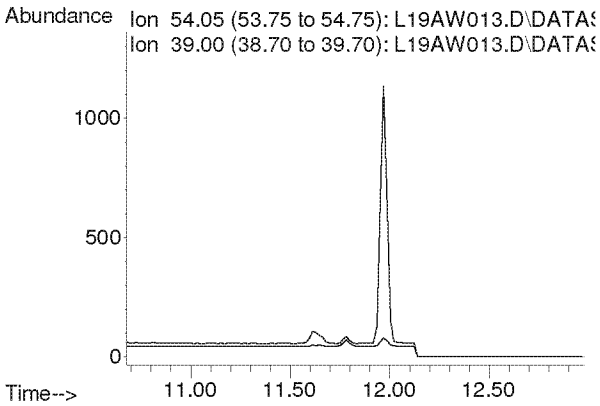


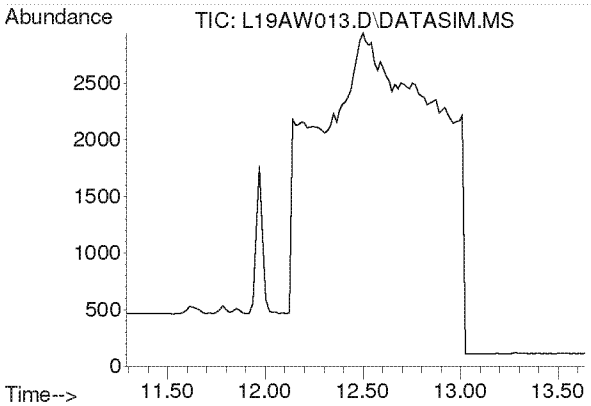
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3



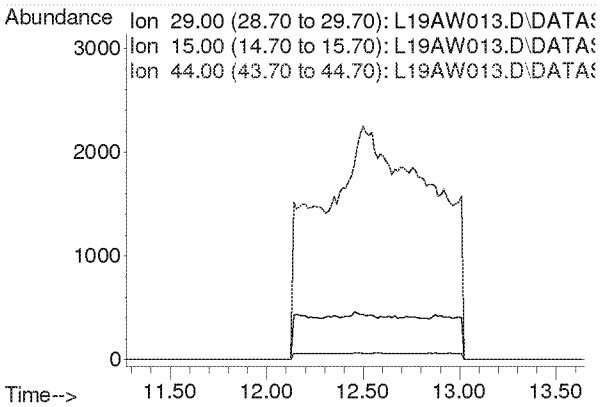


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.39 min

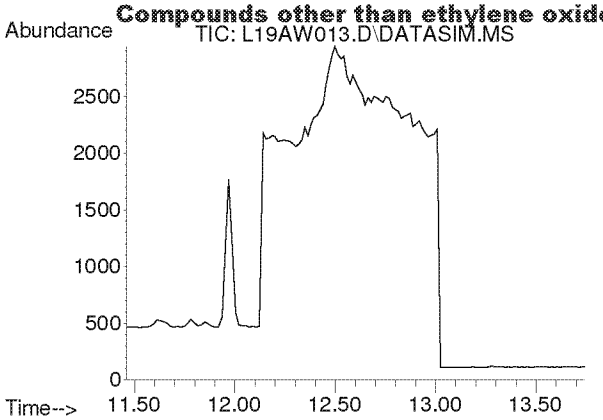
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	19.2
44	96.8



Compounds other than ethylene oxide were not quantitated.

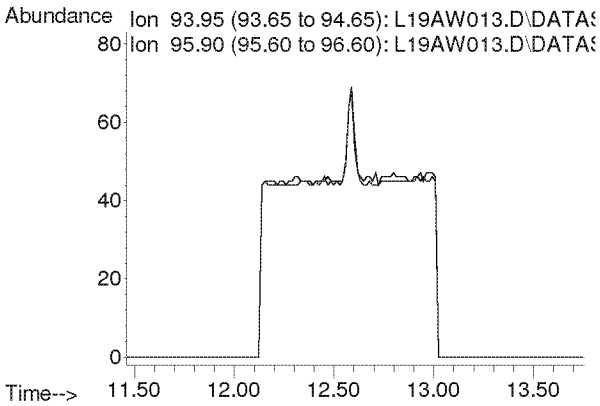


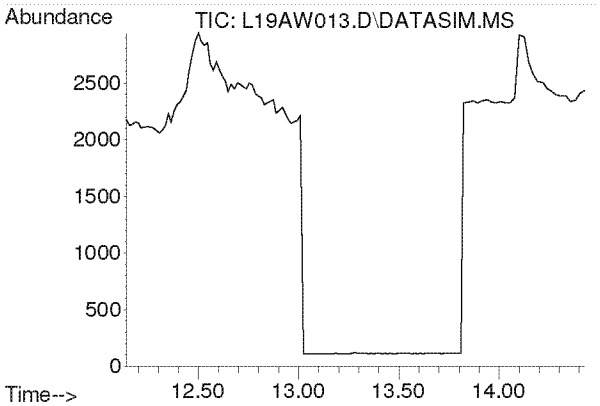
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



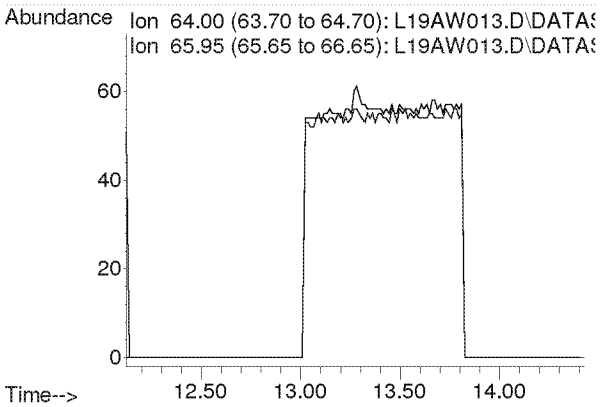


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

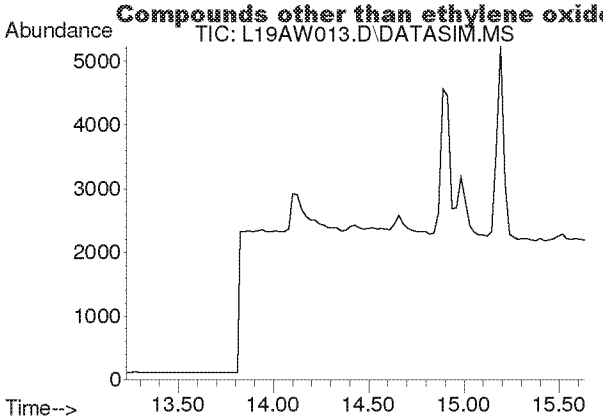
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

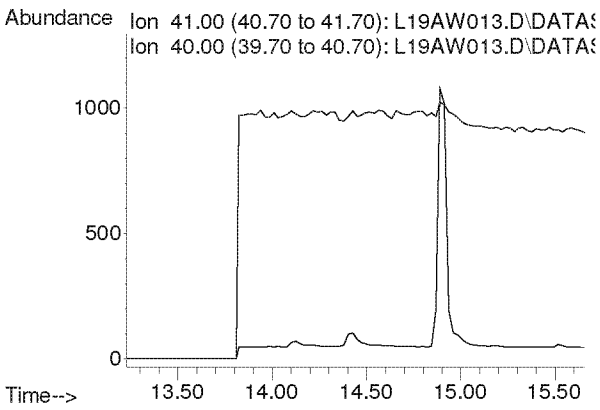


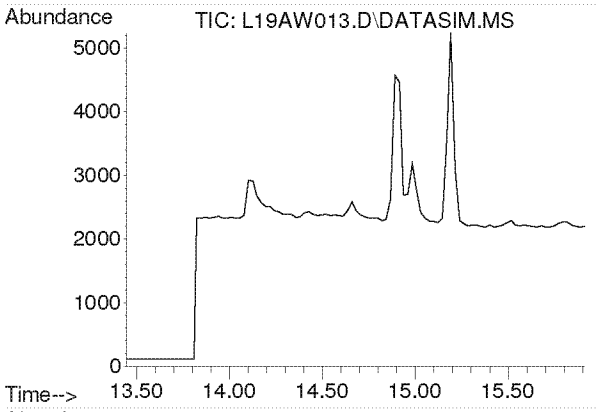
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



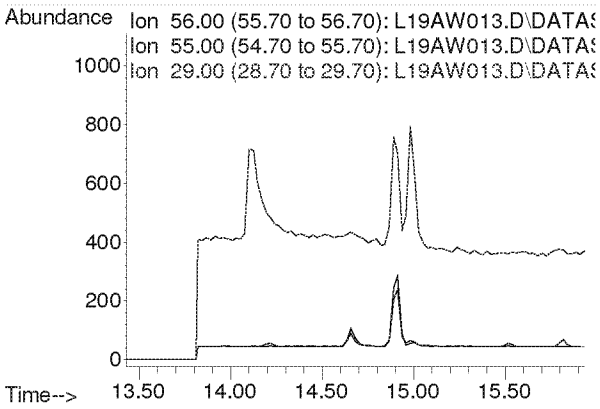


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

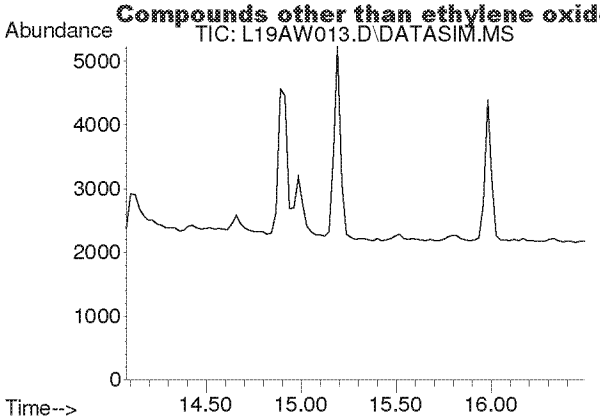
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

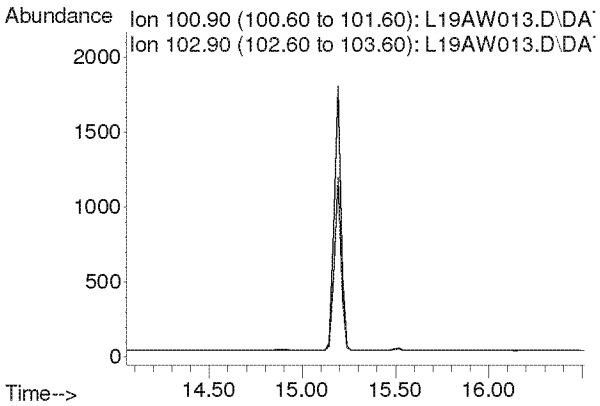


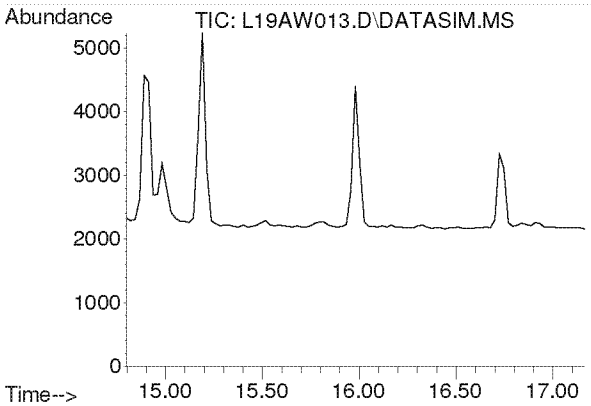
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



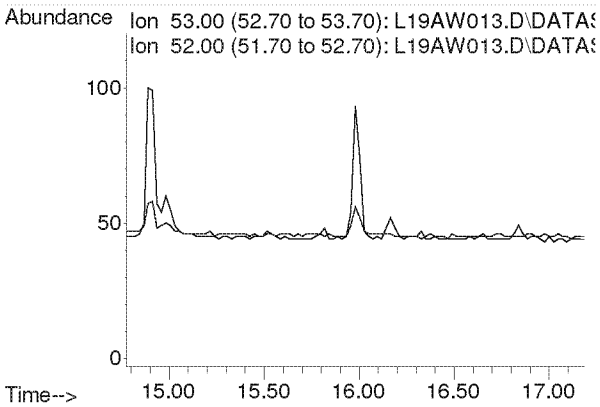


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

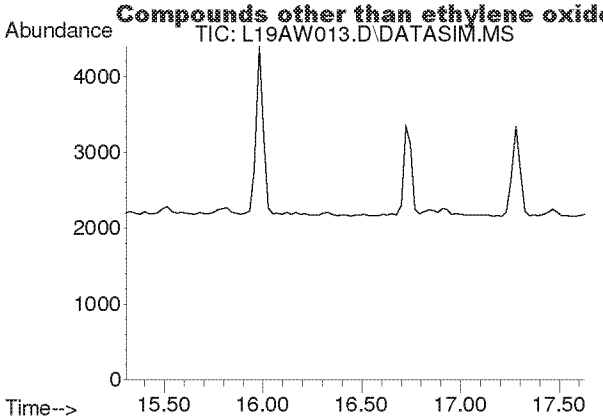
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

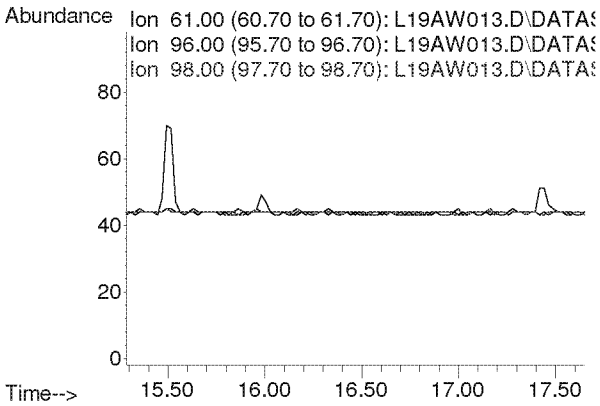


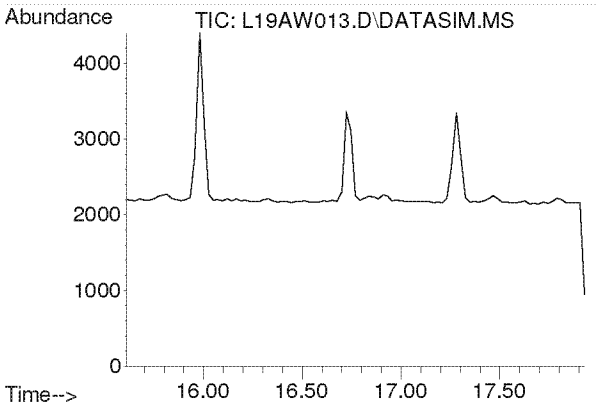
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



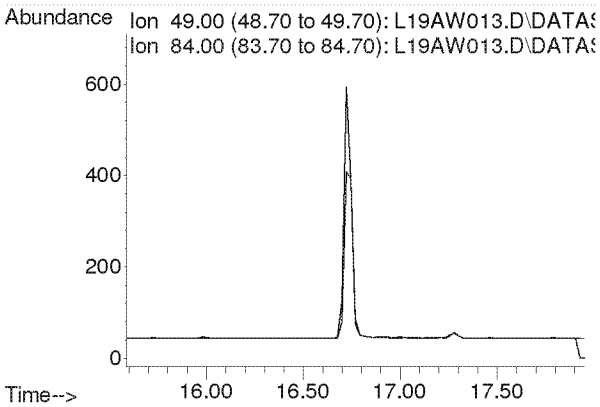


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

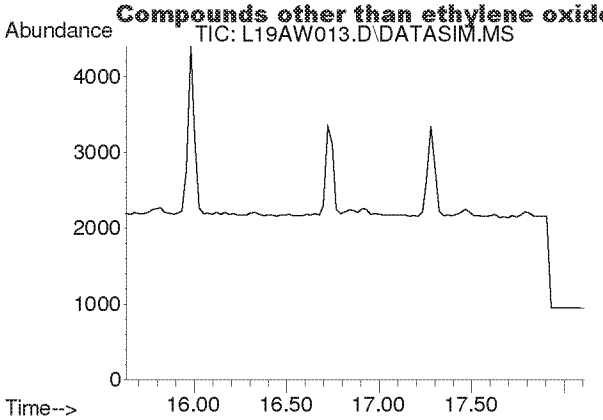
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

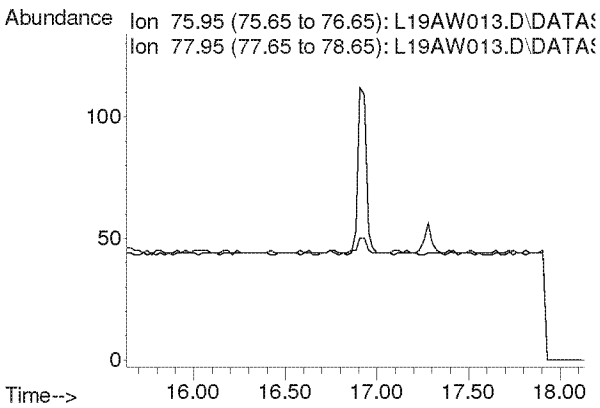


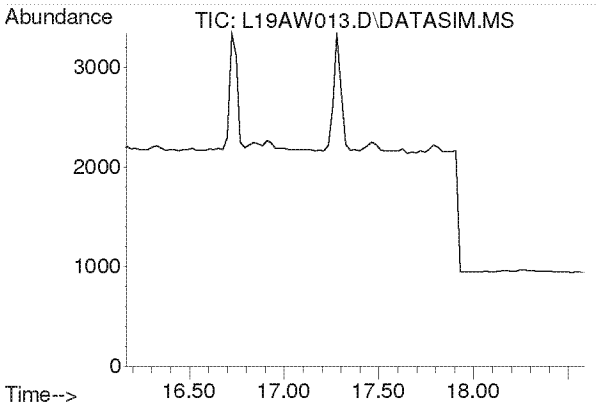
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



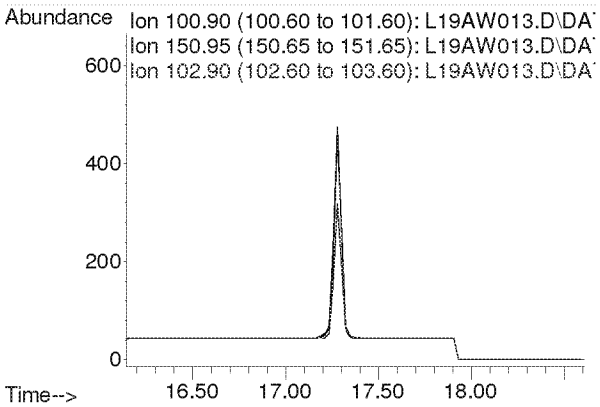


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

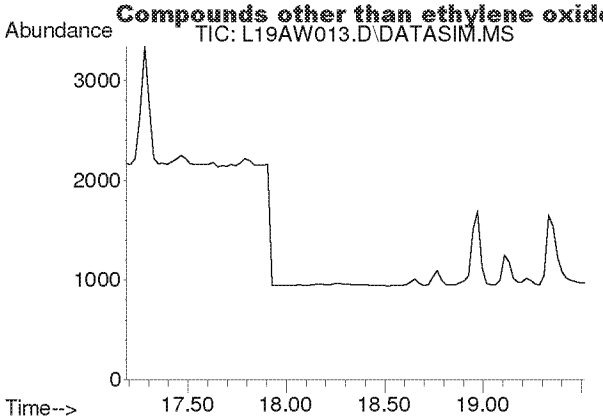
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

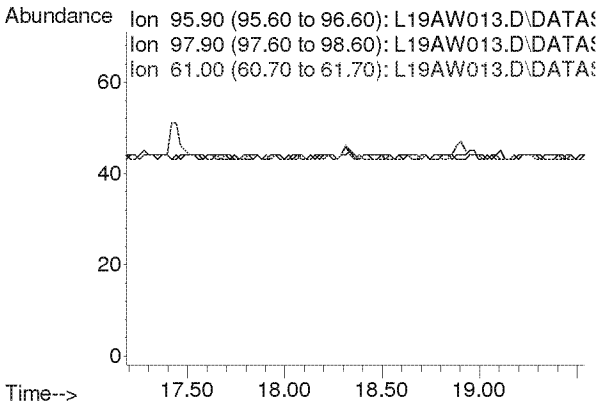


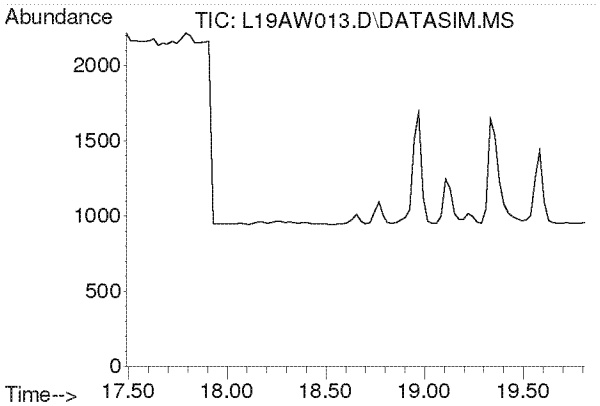
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



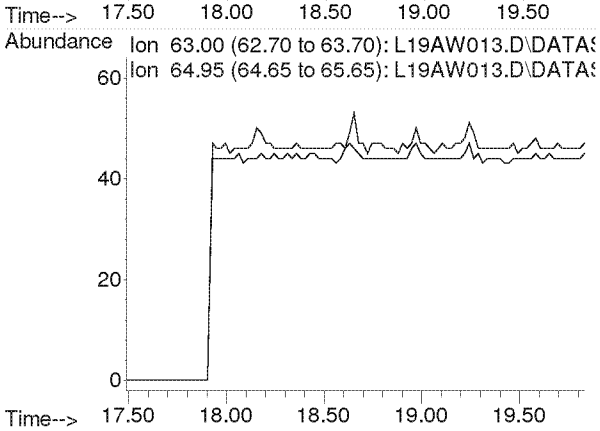


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

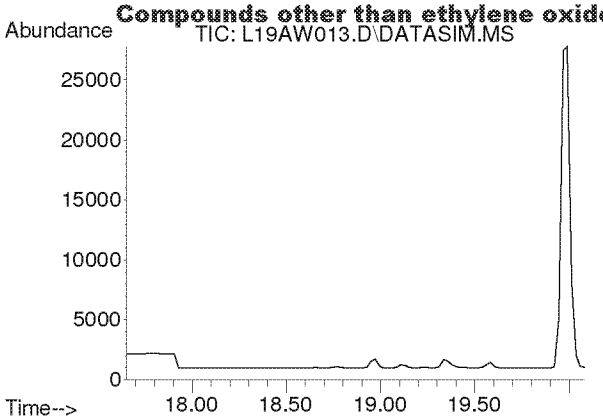
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

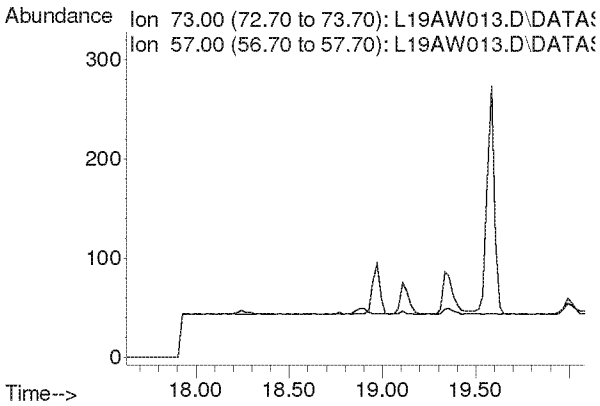


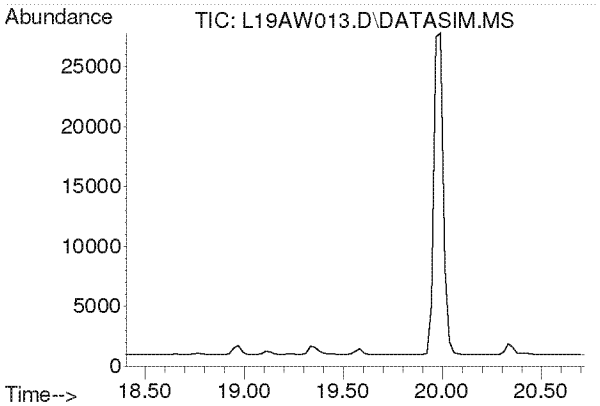
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



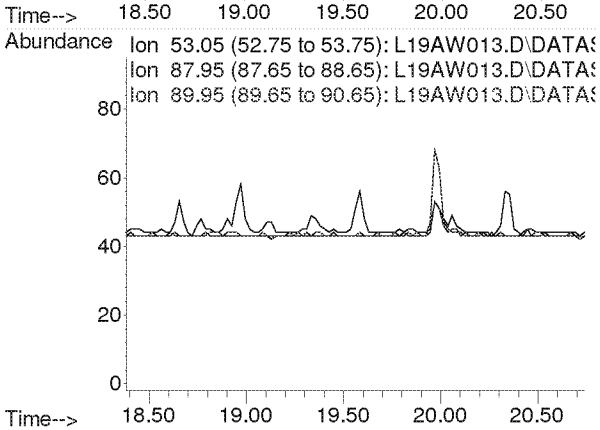


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

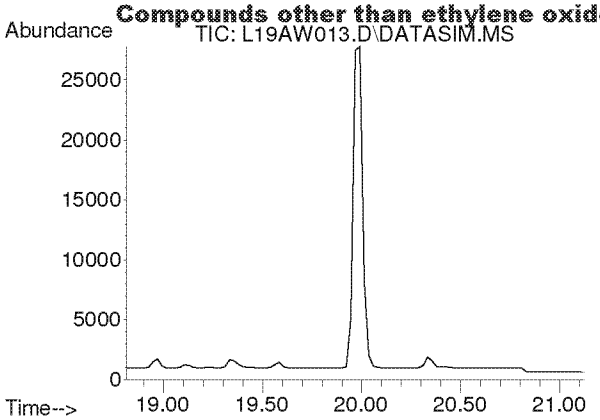
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

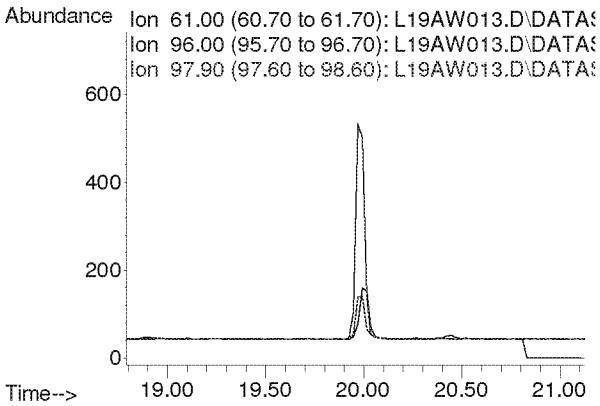


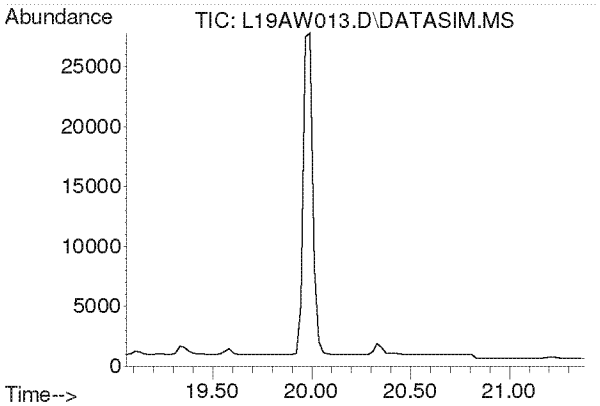
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



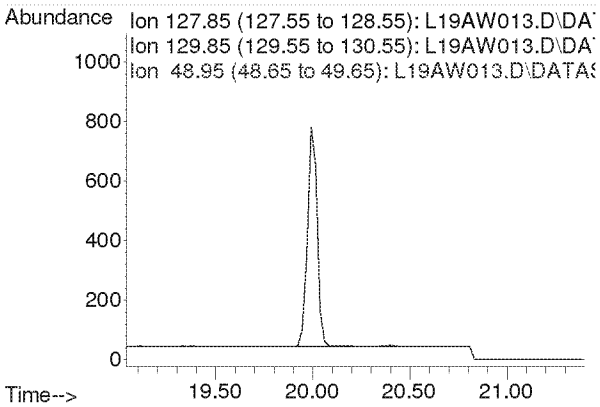


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

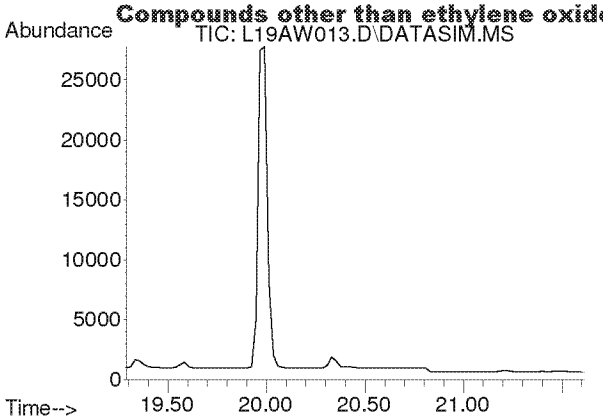
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

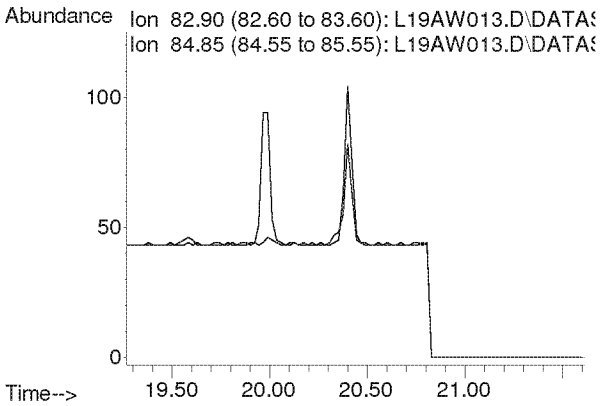


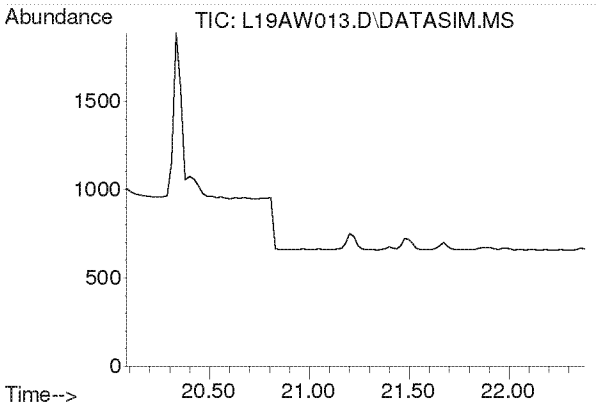
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



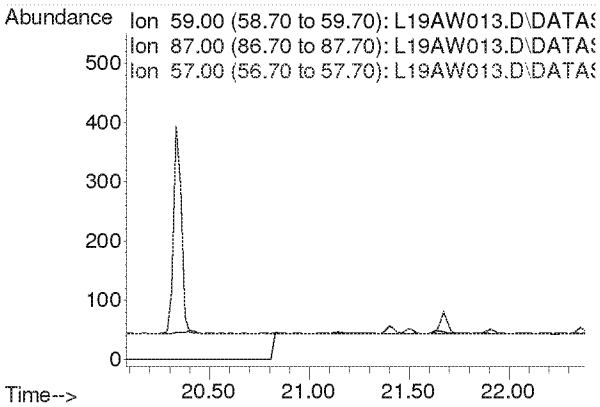


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

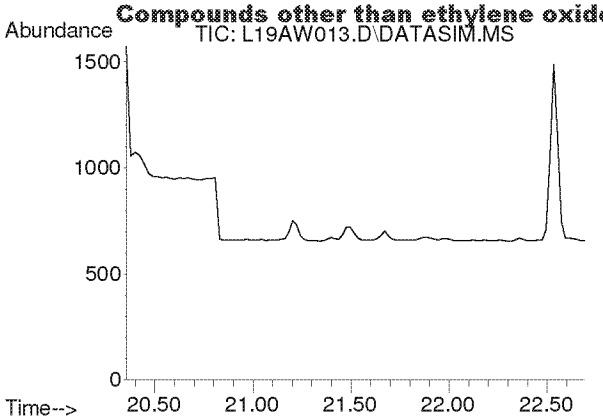
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

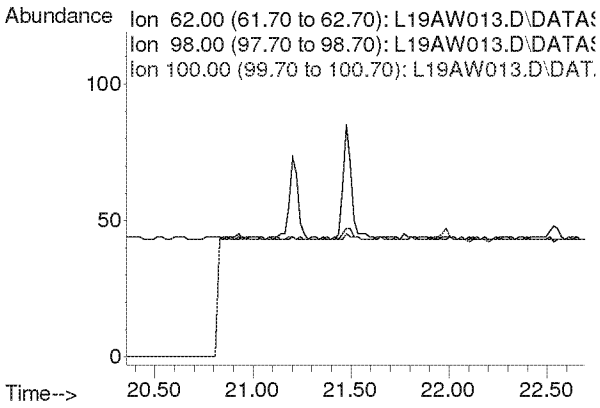


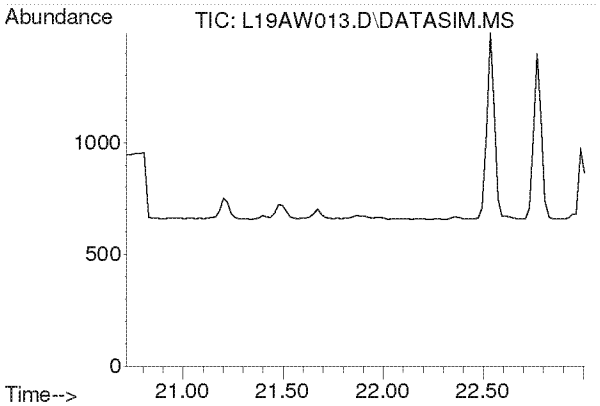
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



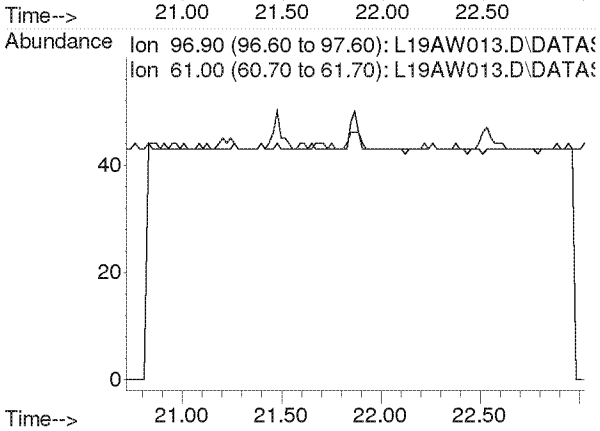


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

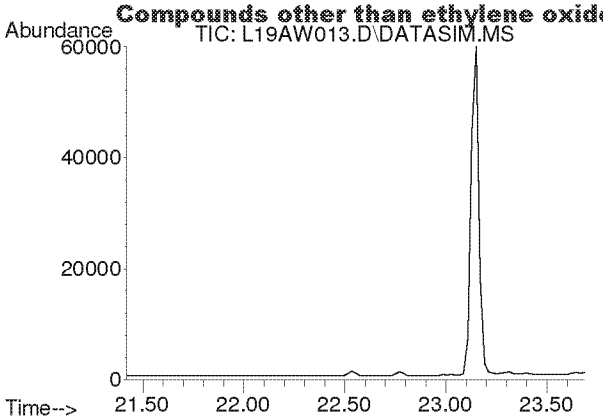
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

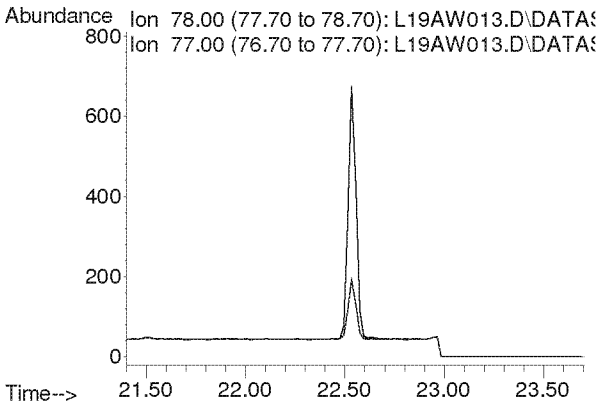


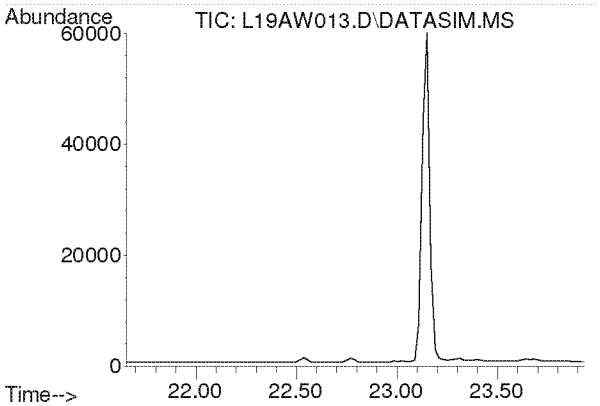
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



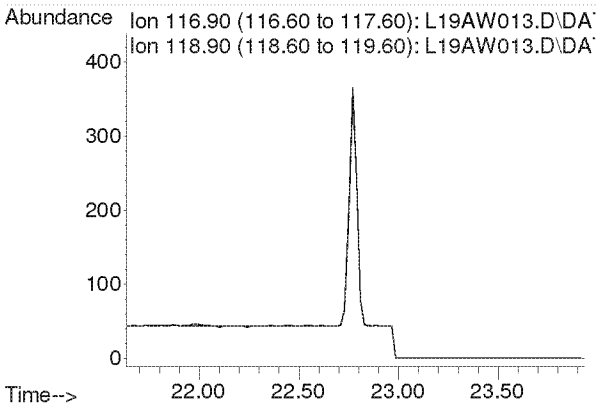


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

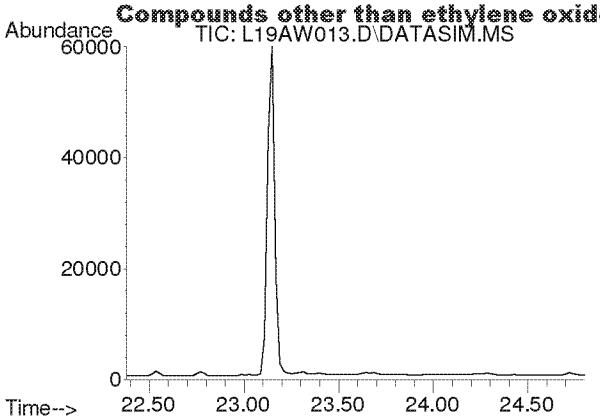
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

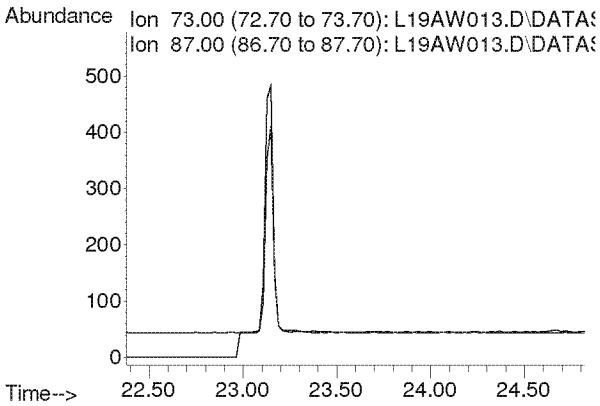


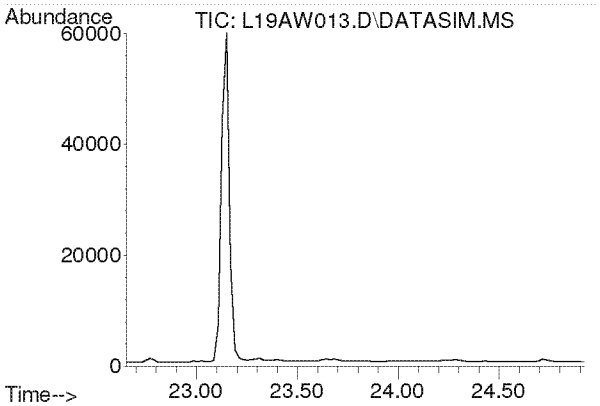
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



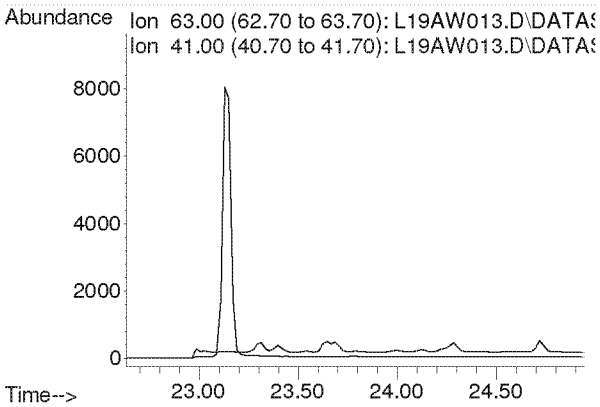


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

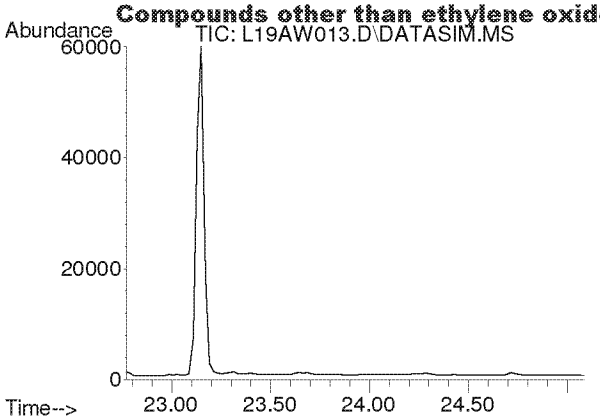
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

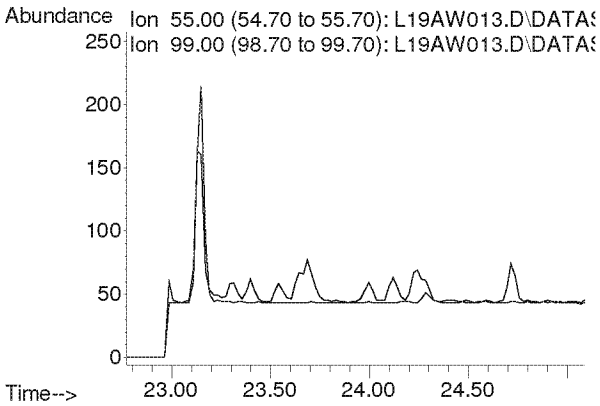


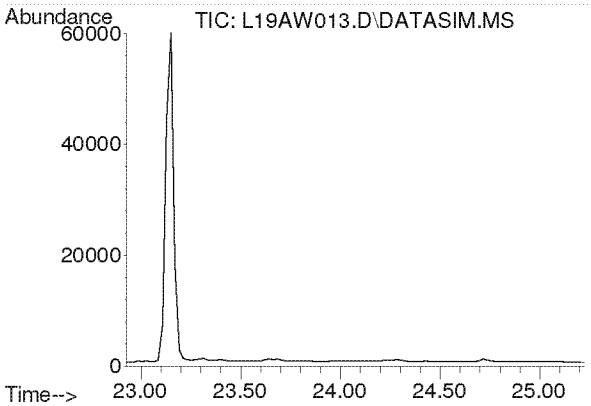
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



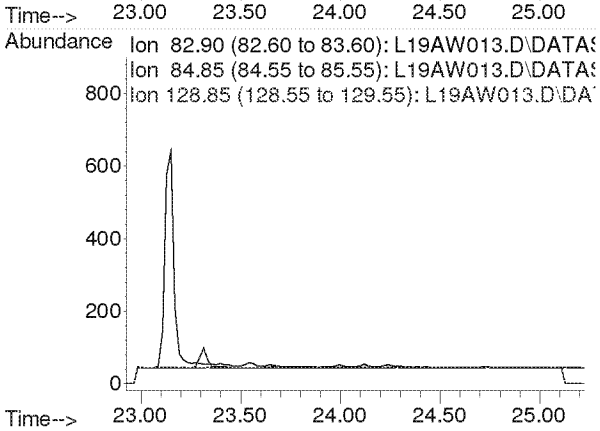


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

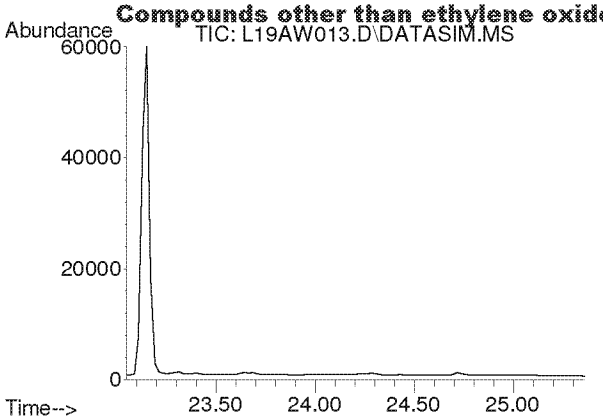
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

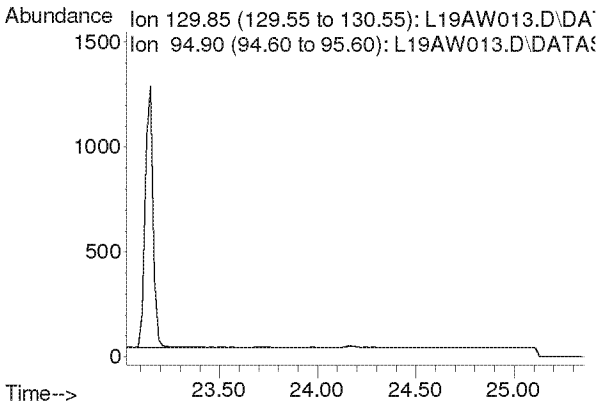


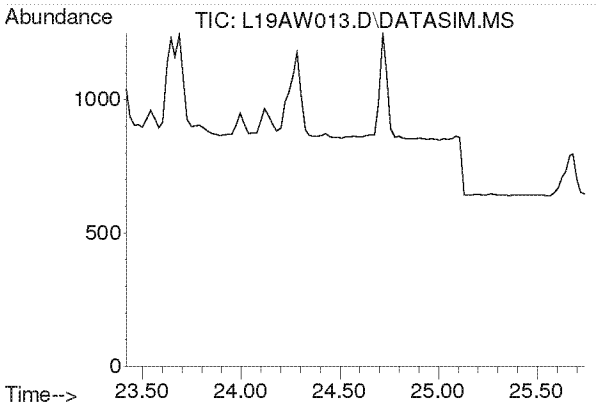
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



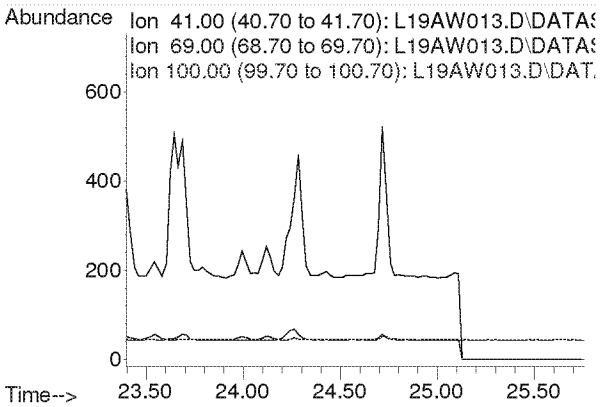


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

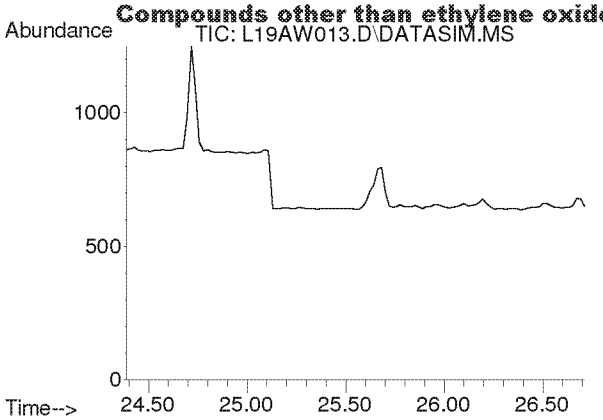
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

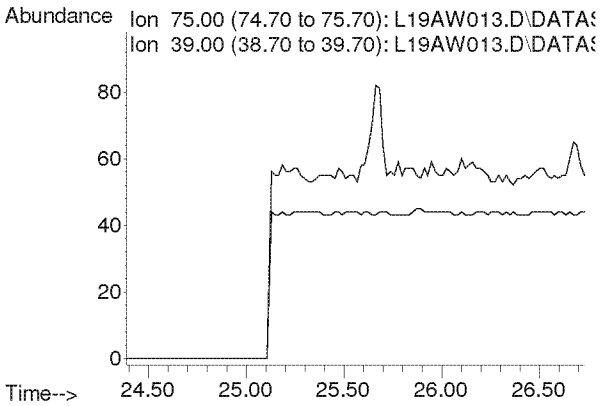


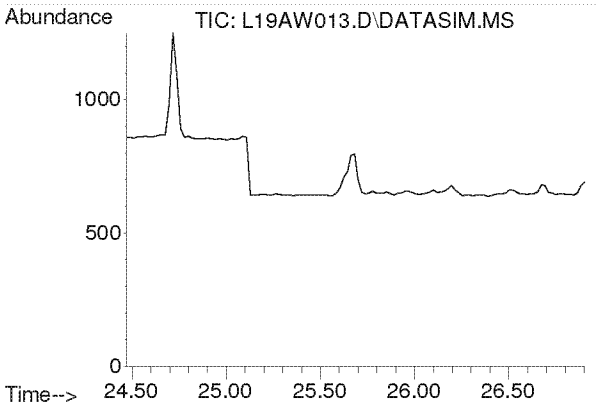
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



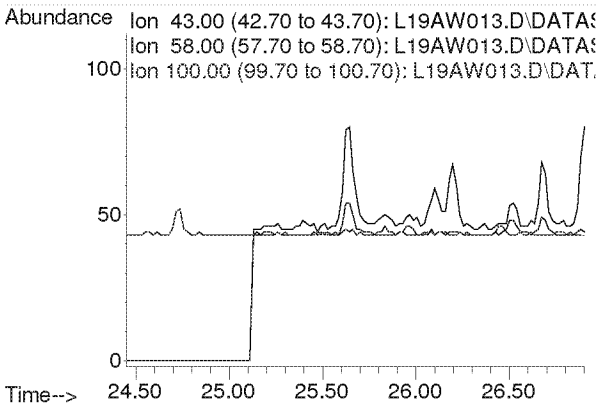


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

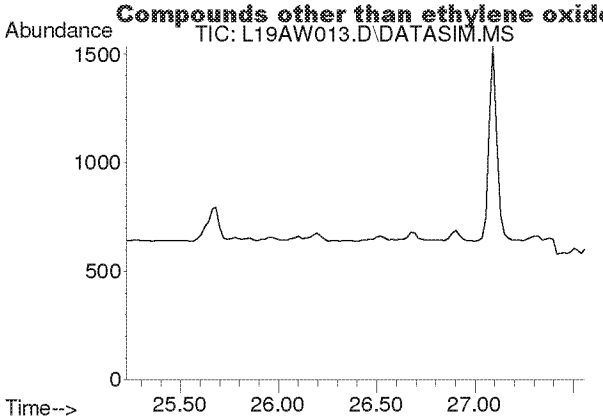
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

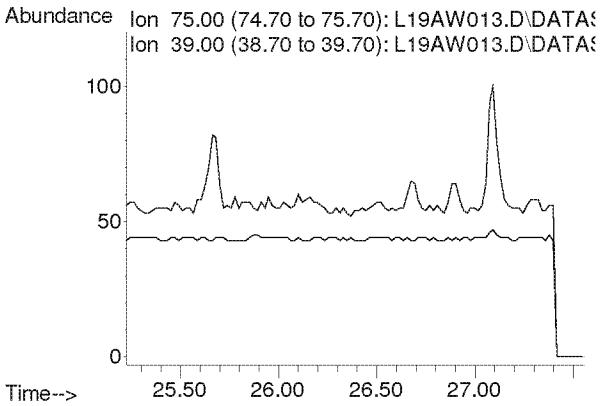


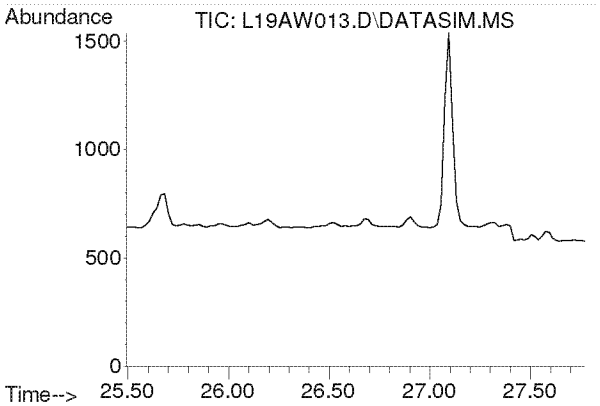
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



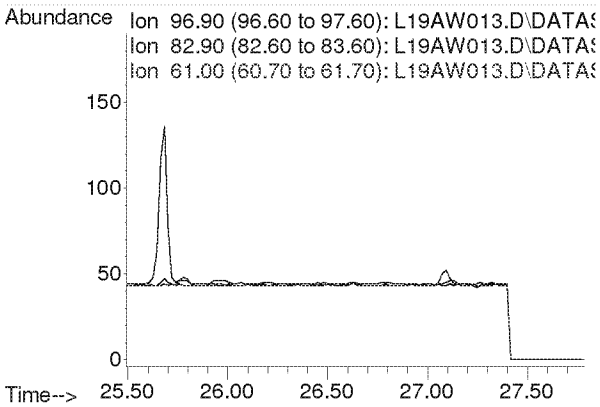


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

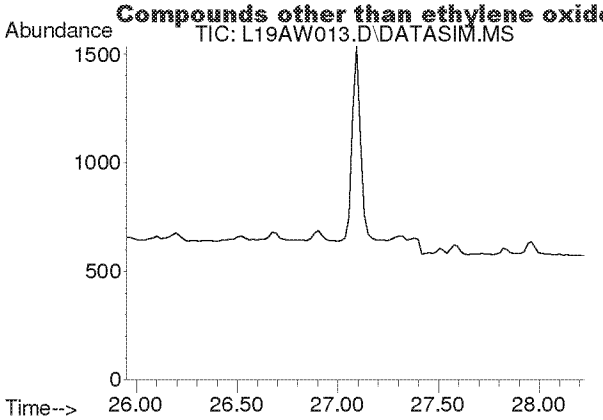
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

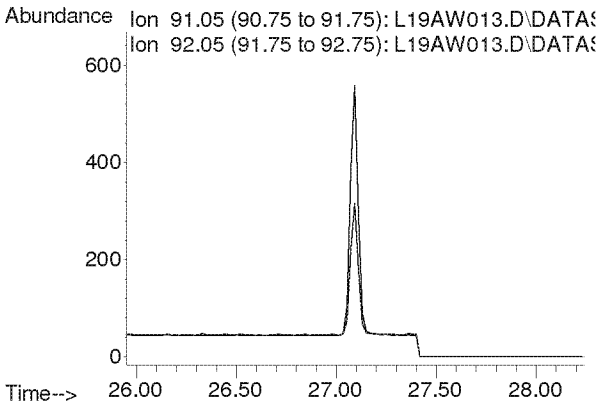


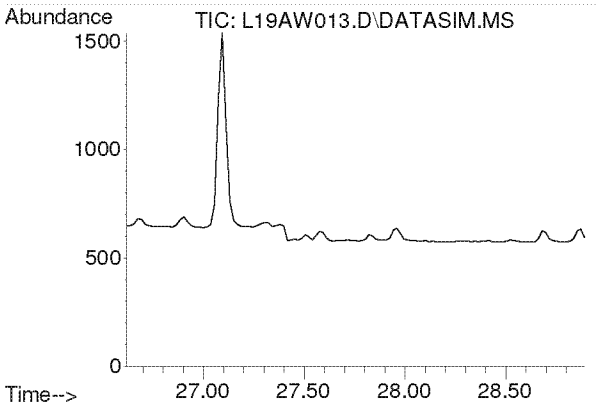
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



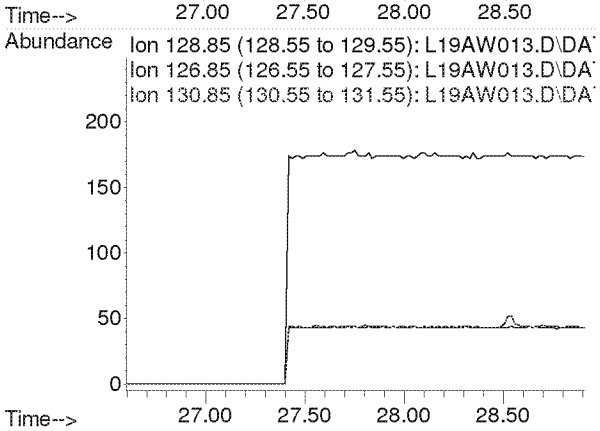


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

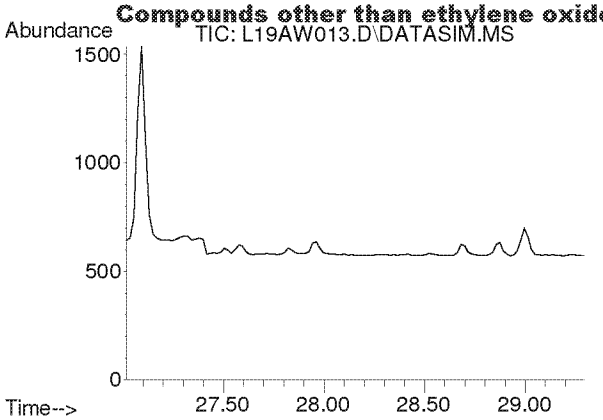
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

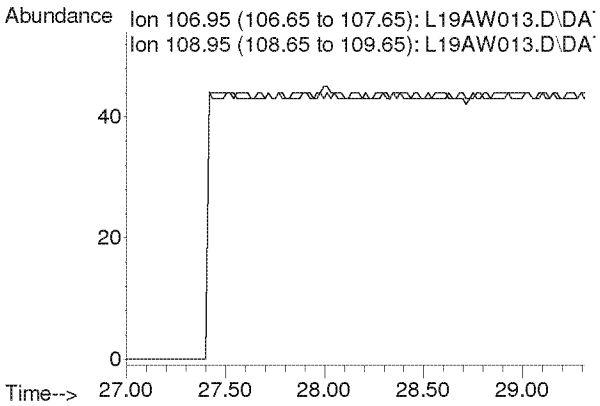


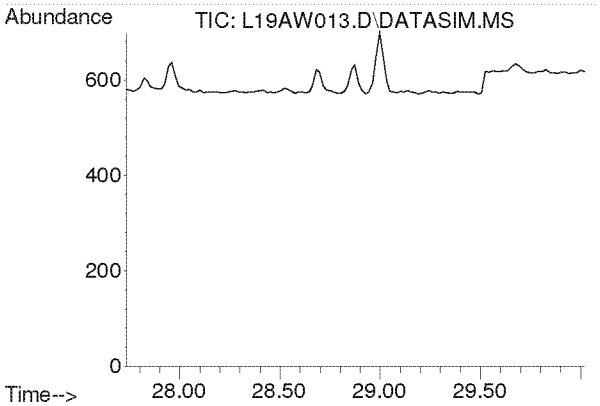
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



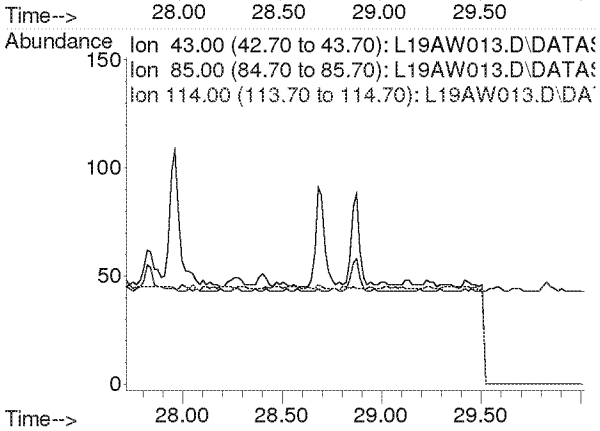


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

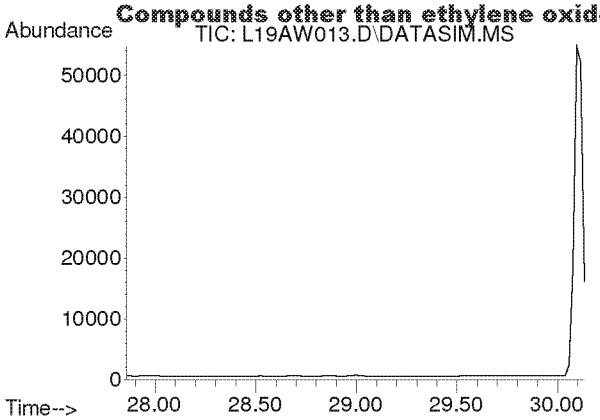
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

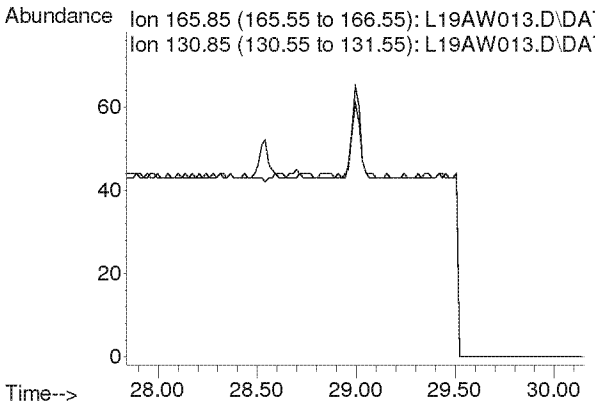


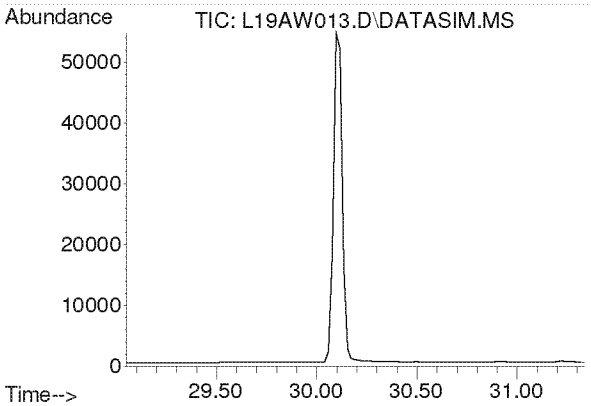
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



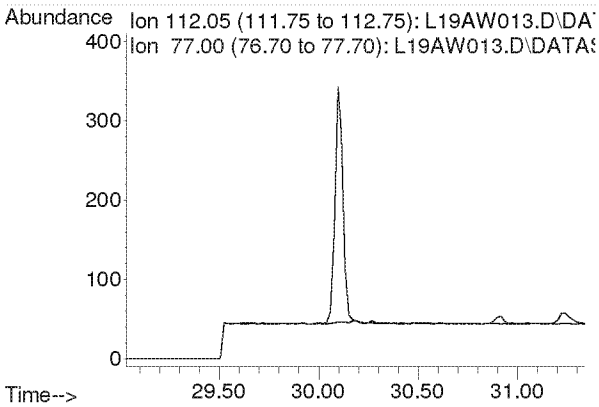


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

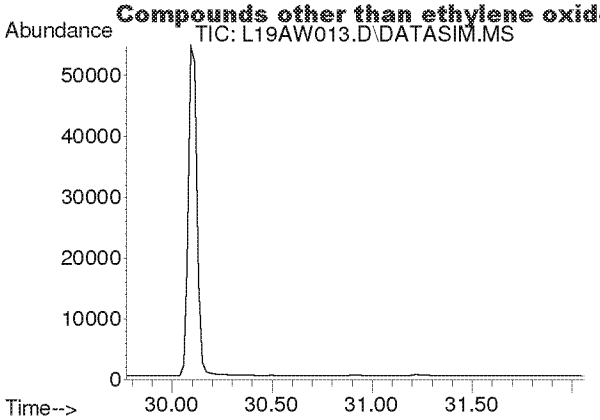
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

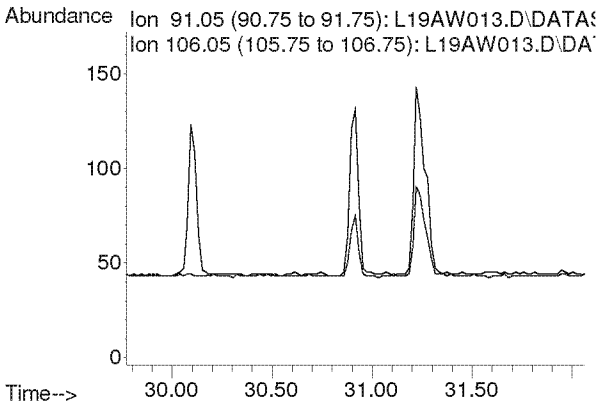


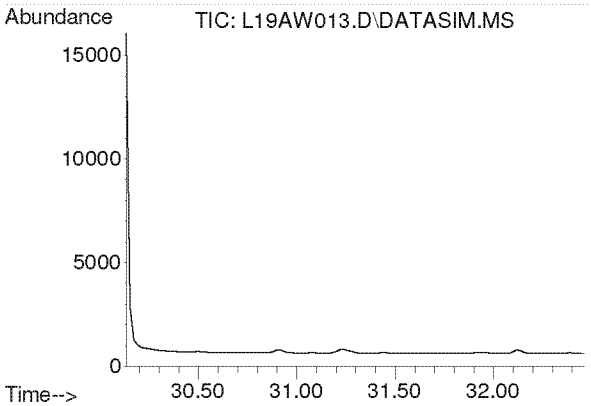
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



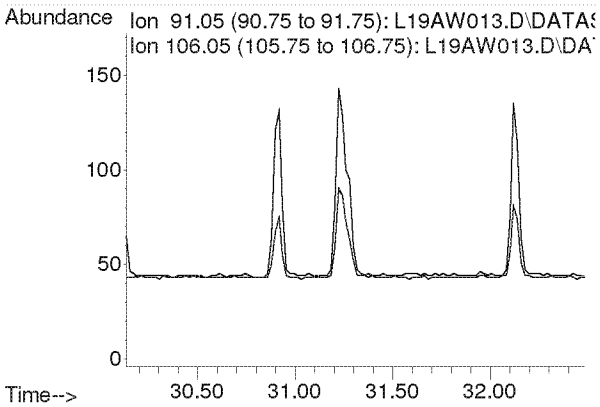


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

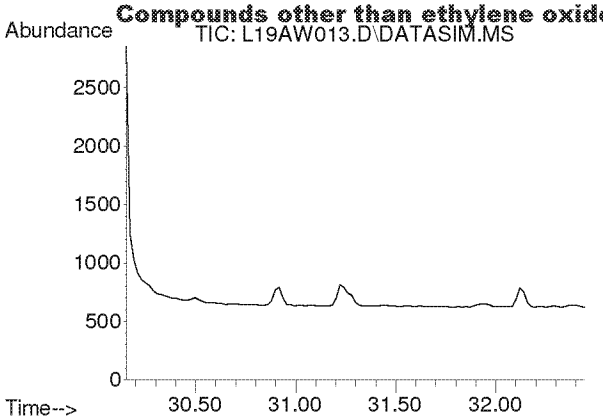
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

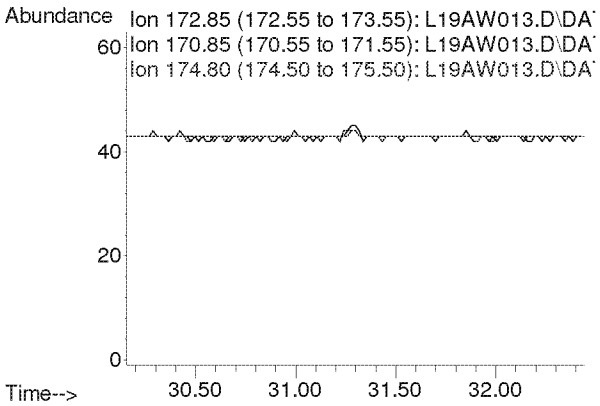


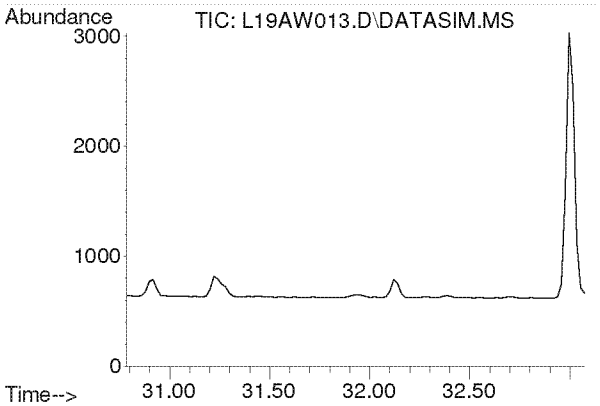
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



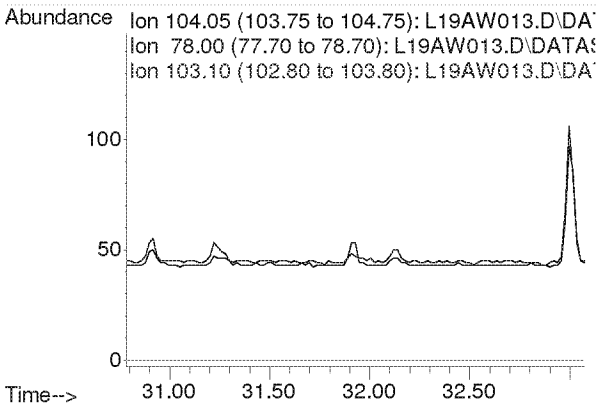


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

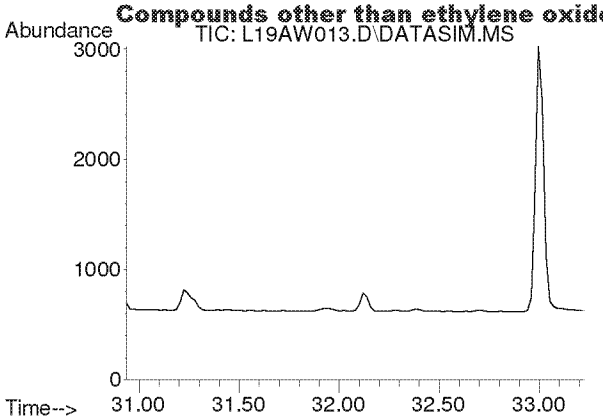
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

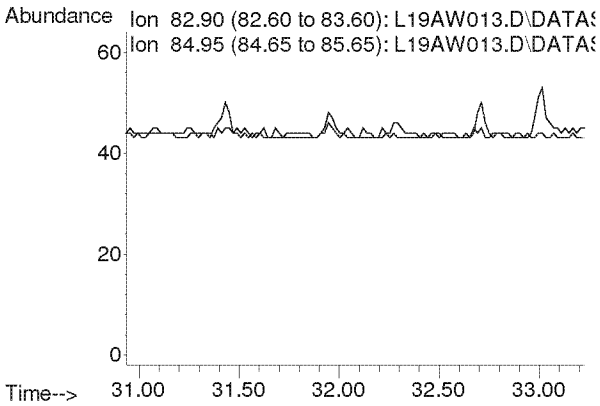


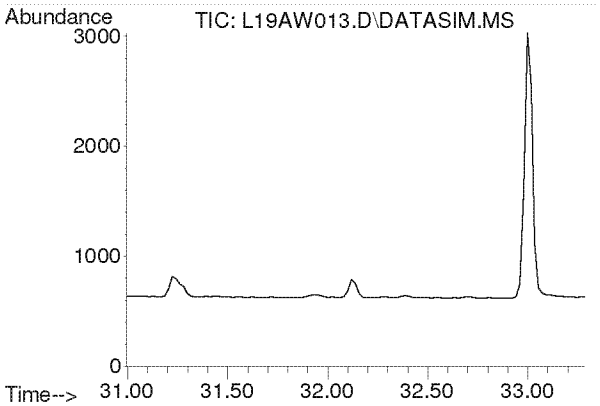
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



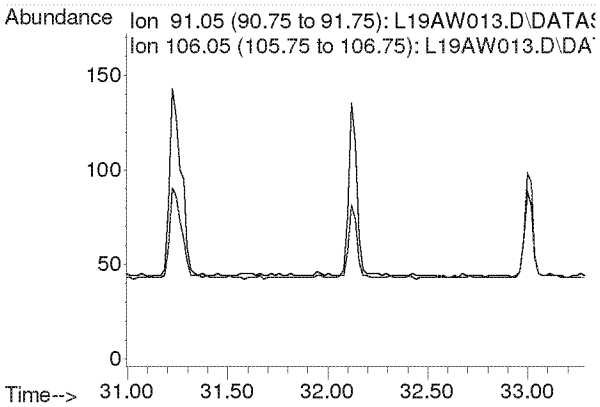


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

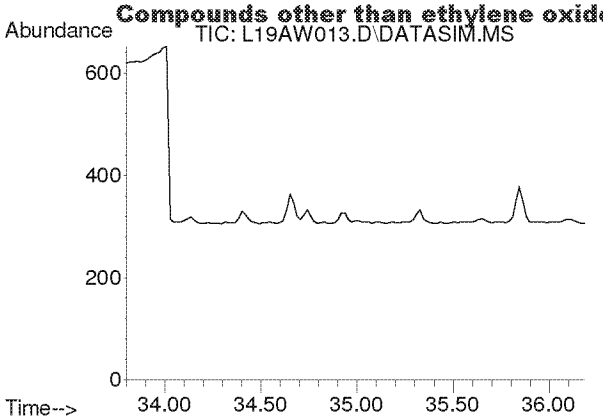
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

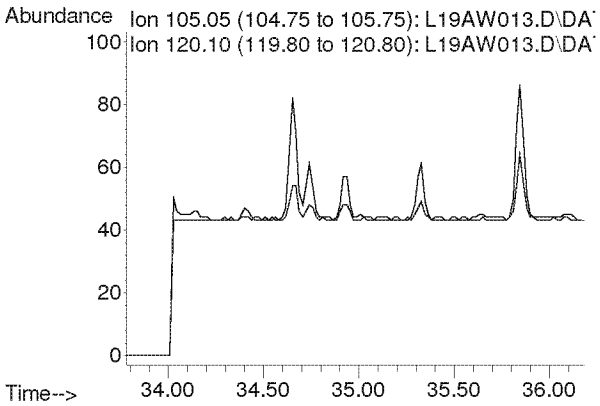


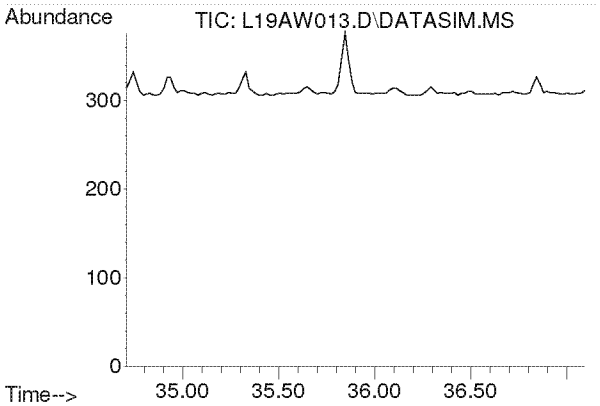
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



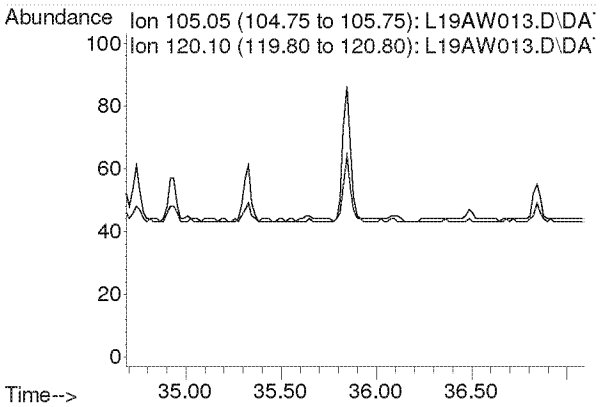


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

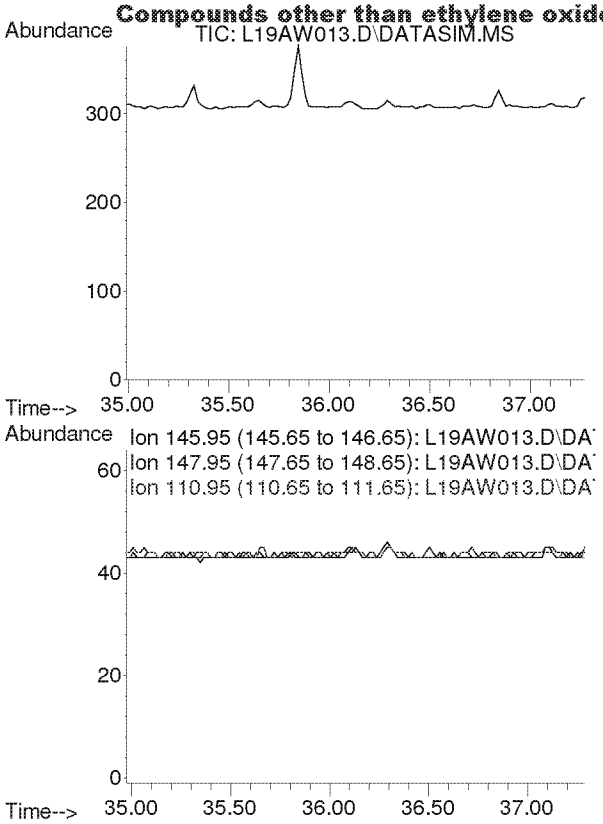
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

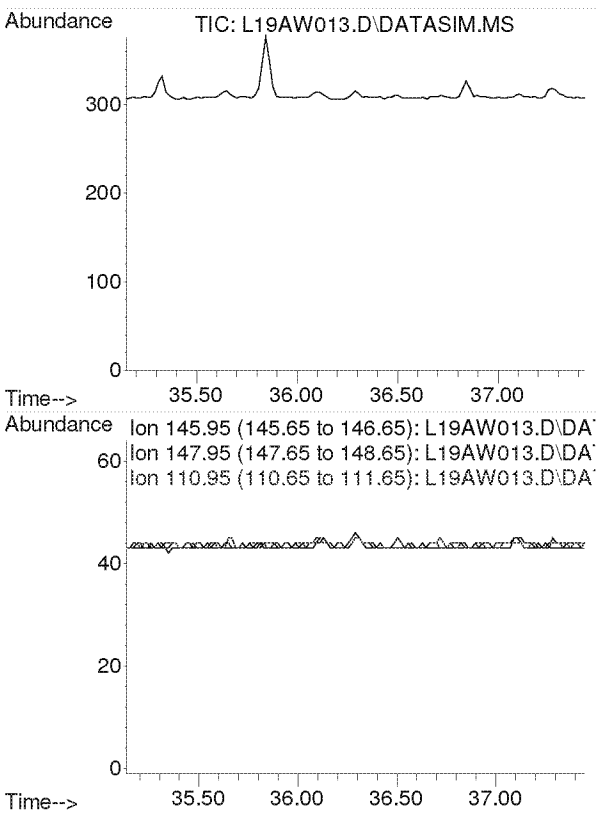


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



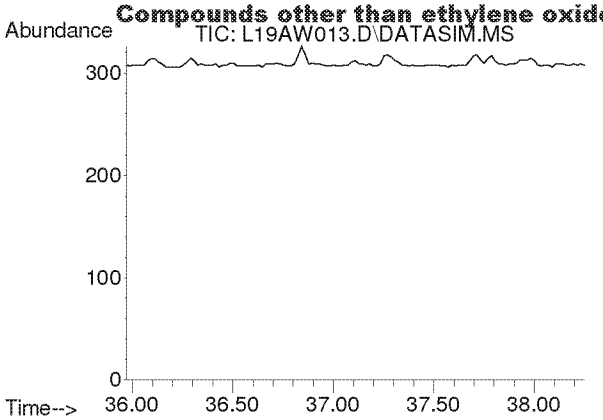
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3

Compounds other than ethylene oxide were not quantitated.

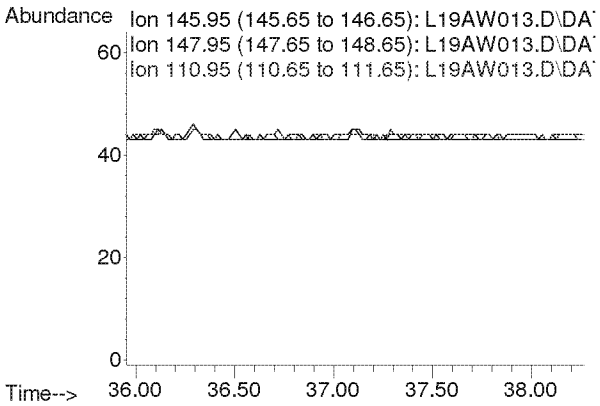


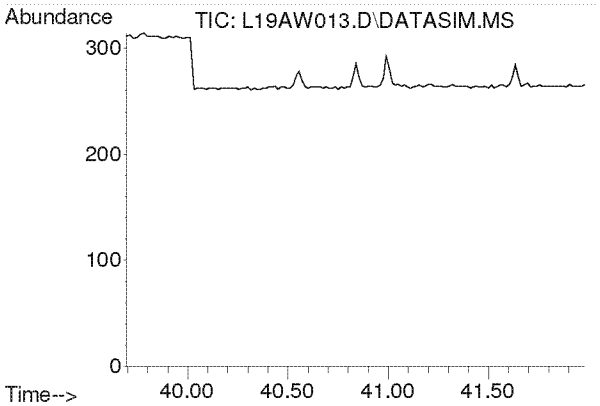
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



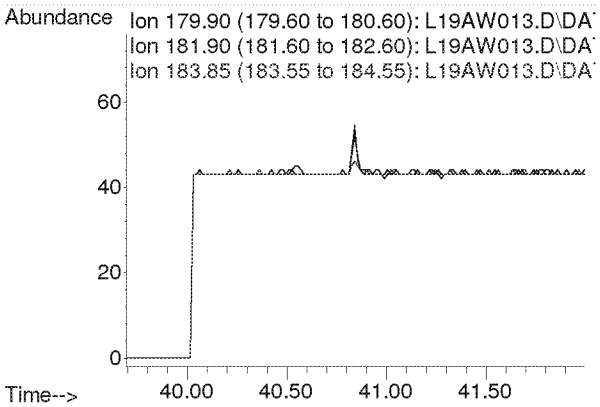


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

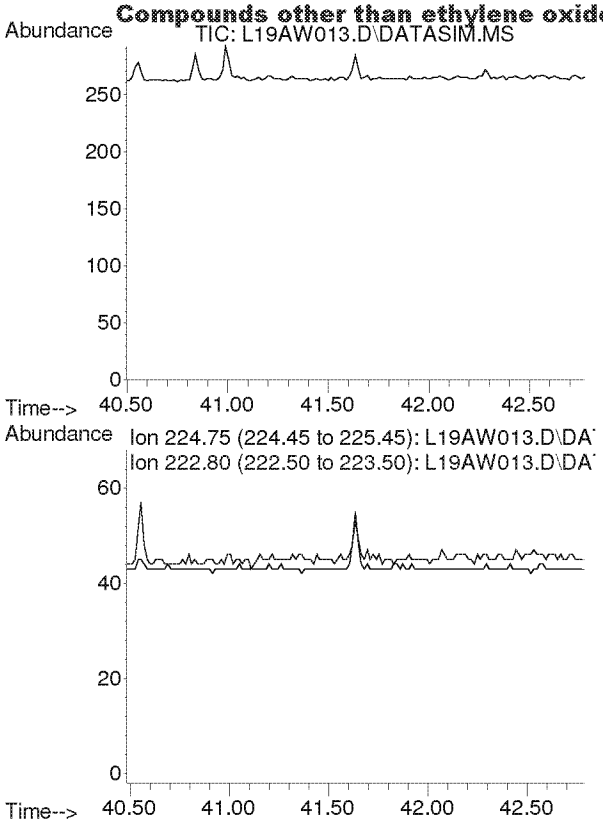
Lab File: L19AW013.D
Acq: 23 Jan 2019 9:40 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AW013.D
Acq: 23 Jan 2019 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\L19AW\
Data File : L19AW014.D
Acq On : 23 Jan 2019 10:40 pm
Operator : MAH
Sample : 9012221-01
Misc : EPA WB WAREHOUSE 1/18/19
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 29 08:27:31 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	58761	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	149511	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.113	117	108222	4.7400 ppbv	0.00

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	5.351	26	4656	1.0263 ppbv	100
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	12.363	29	21932	7.2262 ppbv #	49
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.	
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. 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\L19AW\
Data File : L19AW014.D
Acq On : 23 Jan 2019 10:40 pm
Operator : MAH
Sample : 9012221-01
Misc : EPA WB WAREHOUSE 1/18/19
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 29 08:27:31 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
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.	

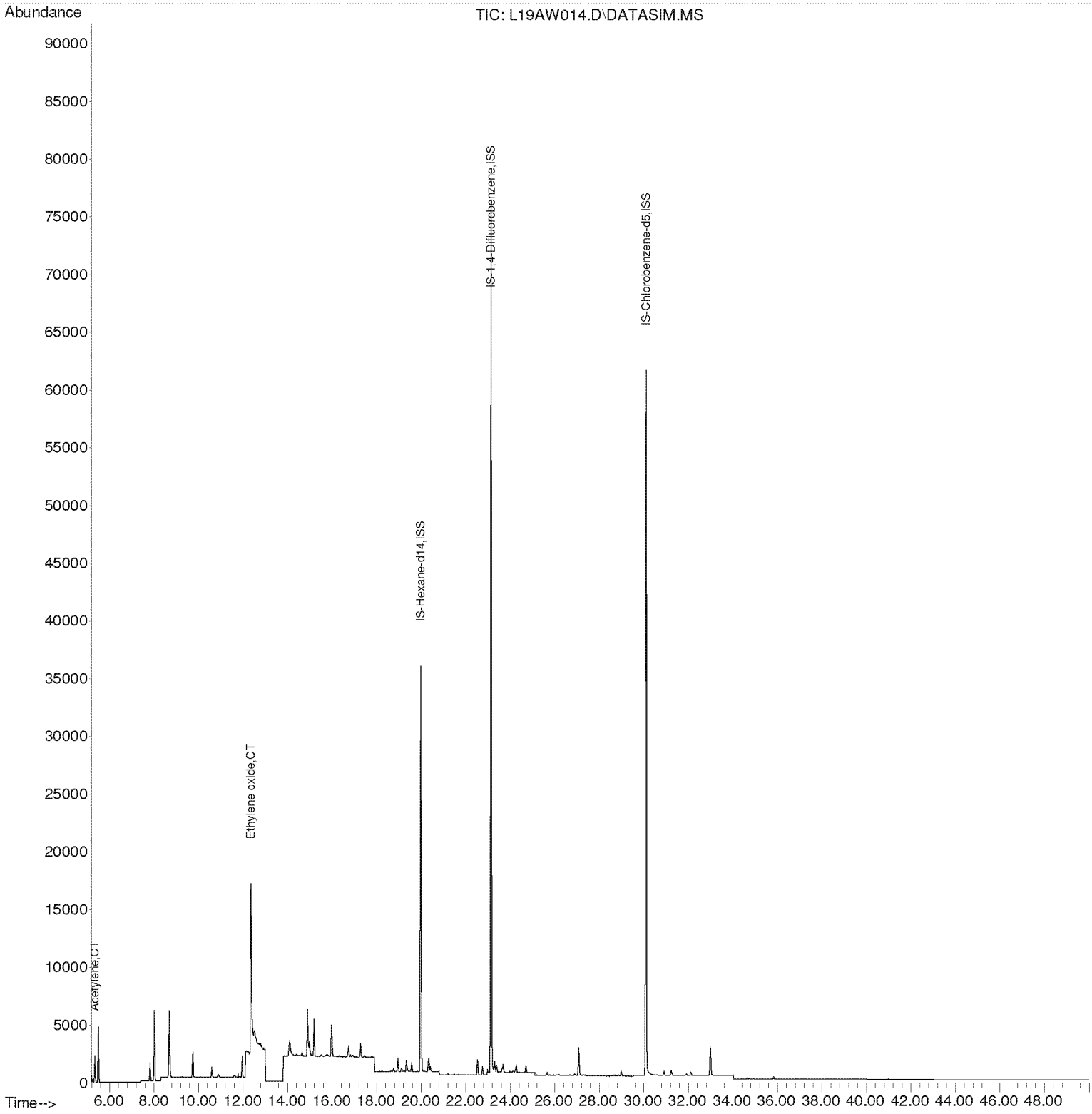
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000318-00349

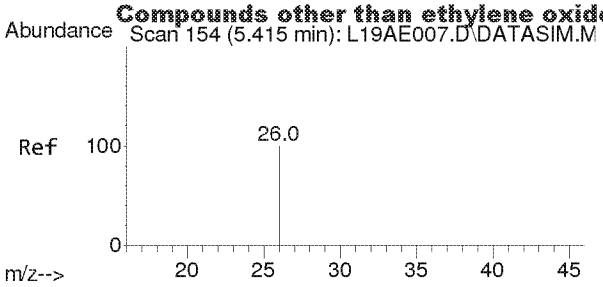
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW014.D
Acq On : 23 Jan 2019 10:40 pm
Operator : MAH
Sample : 9012221-01
Misc : EPA WB WAREHOUSE 1/18/19
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jan 29 08:08:42 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

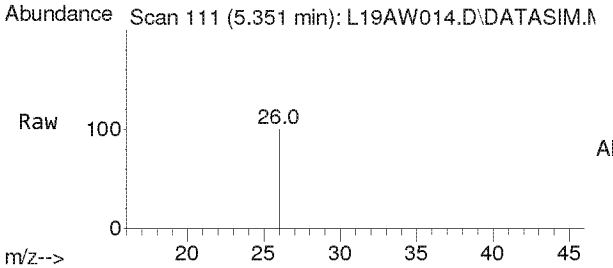


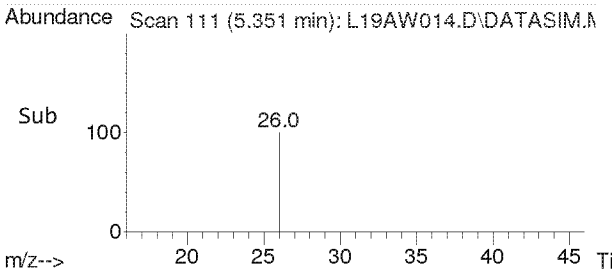
Compounds other than ethylene oxide were not quantitated.

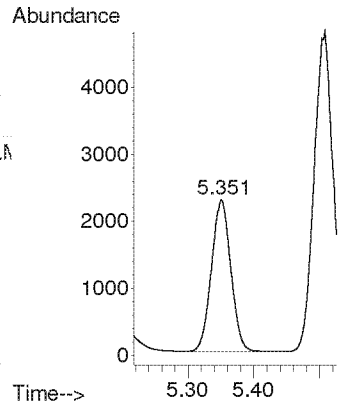


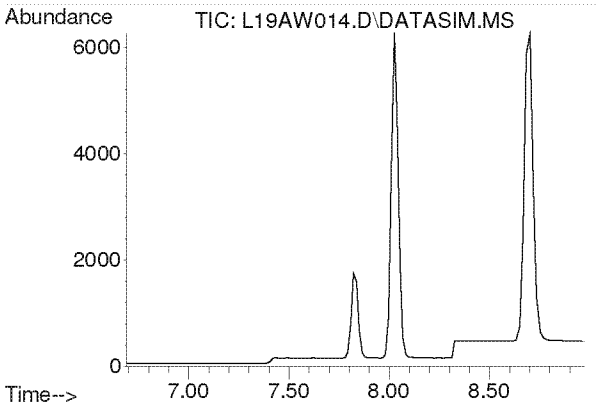
#2
Acetylene
Concen: 1.026 ppbv
RT: 5.351 min Scan# 111
Delta R.T. -0.064 min
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 26 Resp: 4656







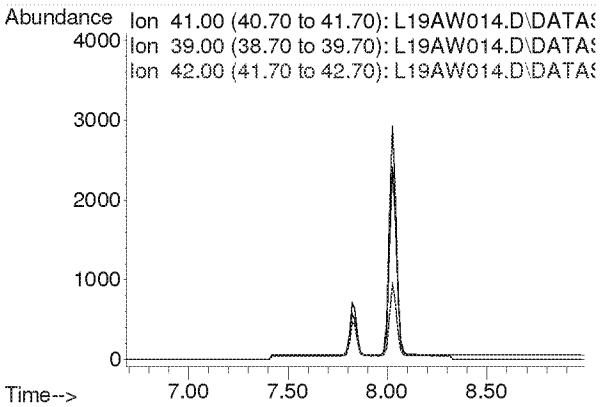


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

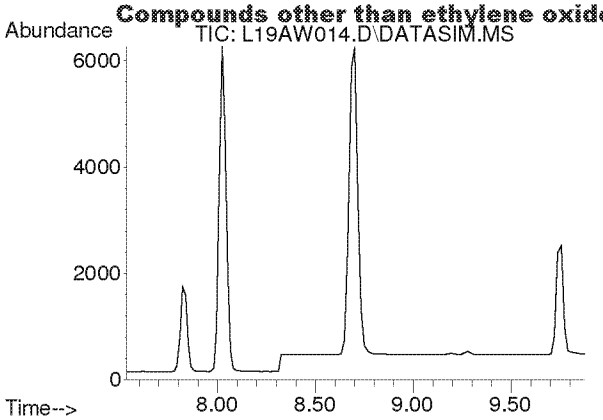
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

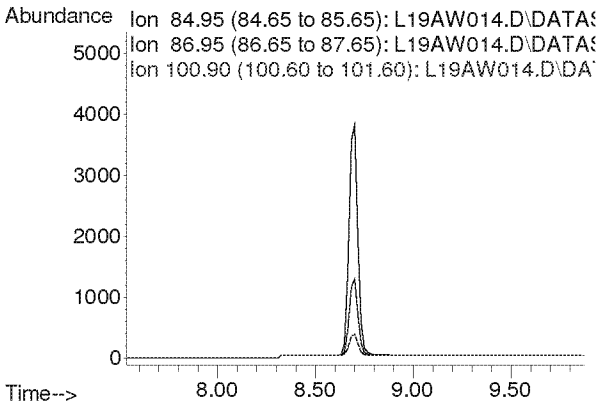


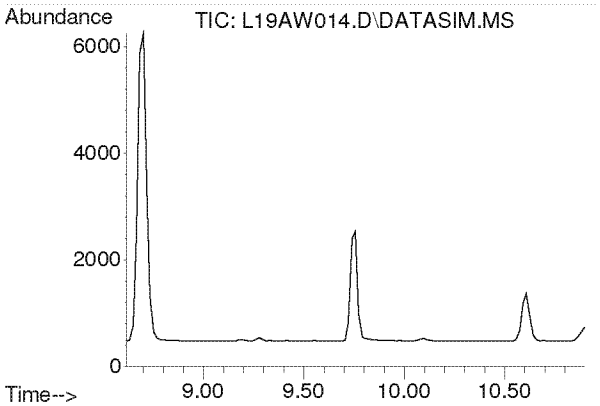
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



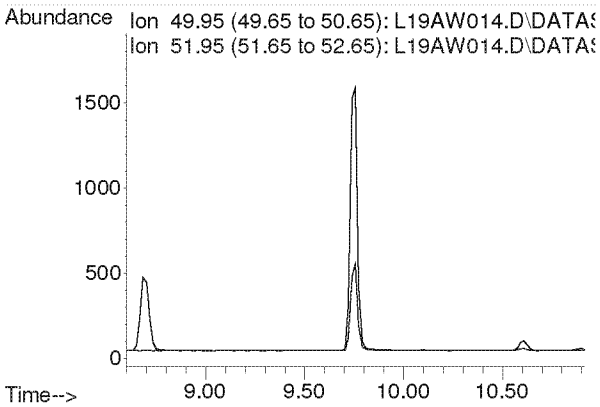


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

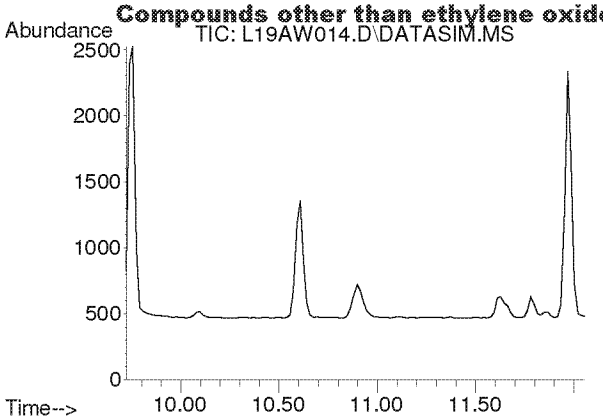
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

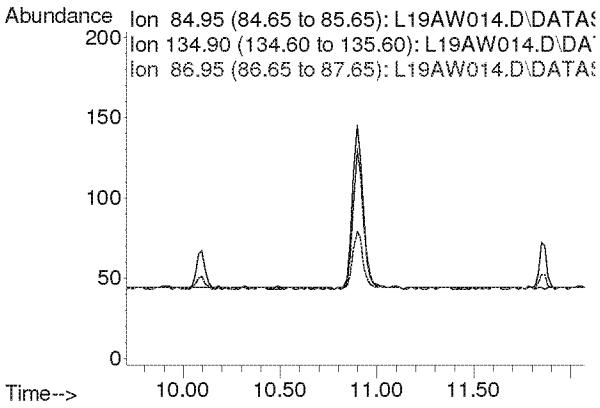


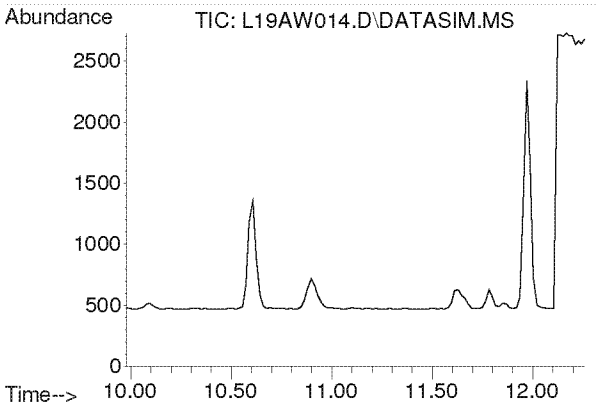
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



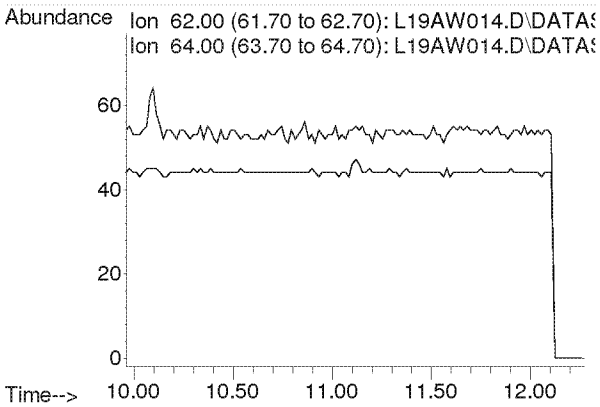


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

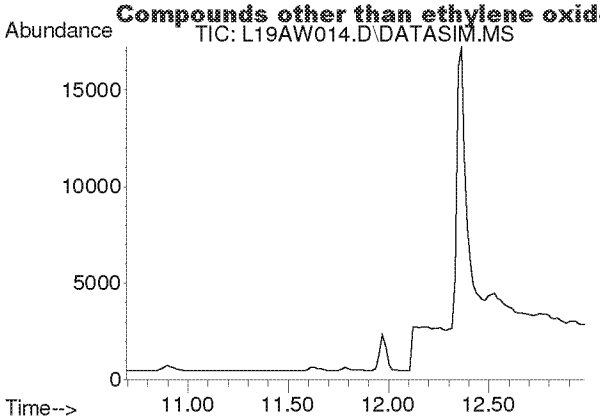
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

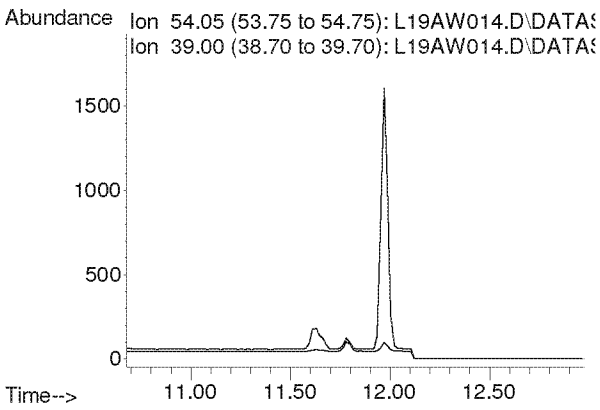


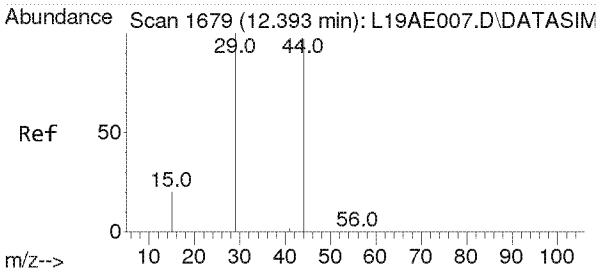
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

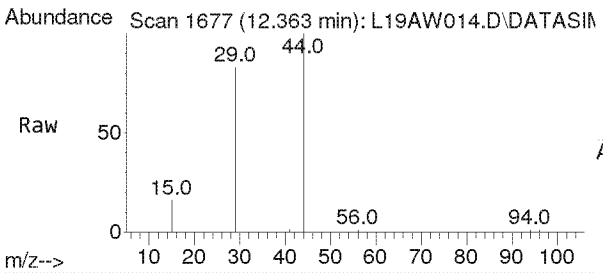


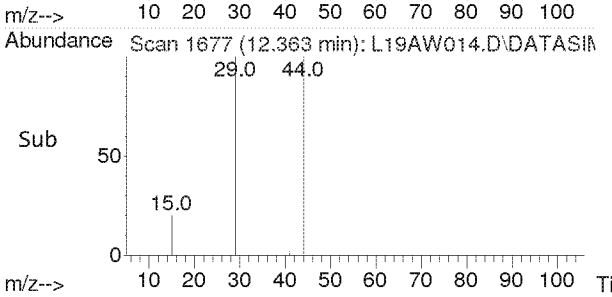


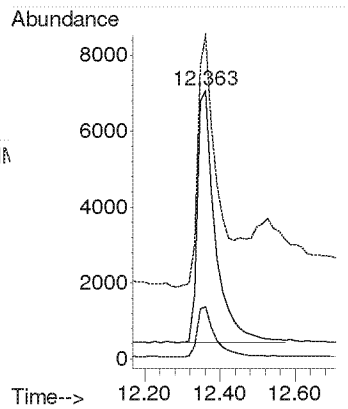
#9
Ethylene oxide
Concen: 7.226 ppbv
RT: 12.363 min Scan# 1677
Delta R.T. -0.030 min
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 29 Resp: 21932

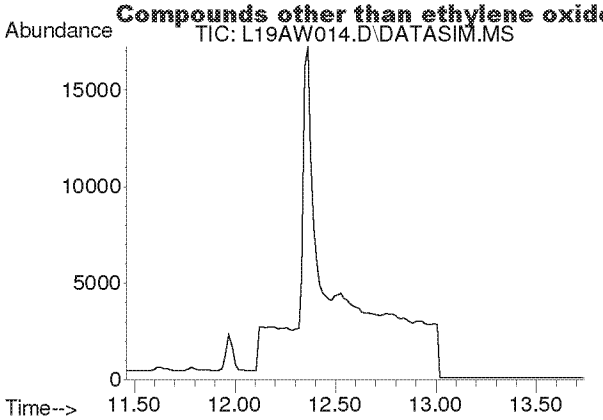
Ion	Ratio	Lower	Upper
29	100		
15	19.8	15.4	23.0
44	156.6	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

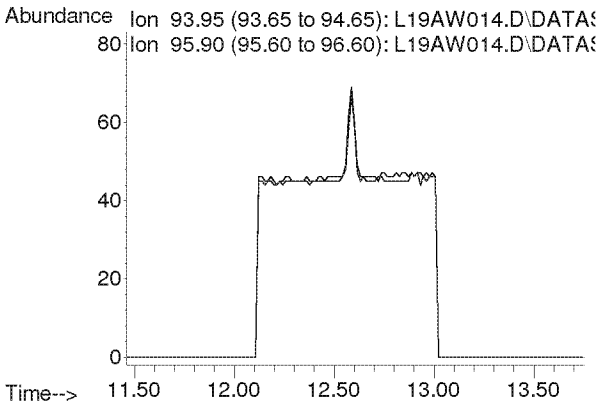


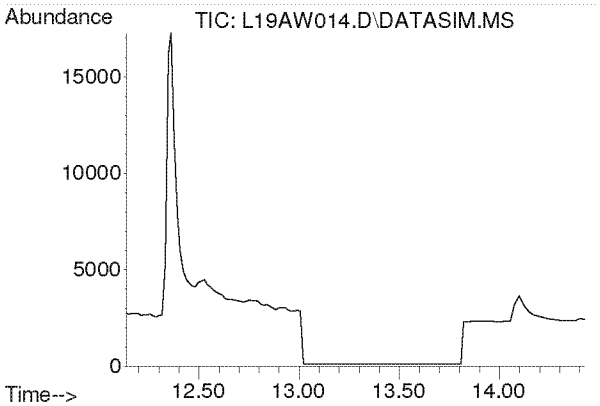
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



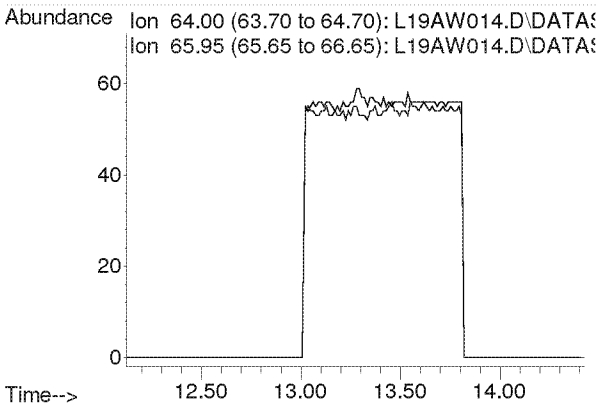


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

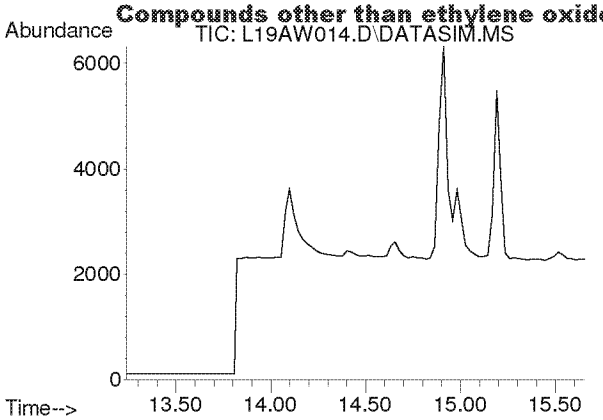
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

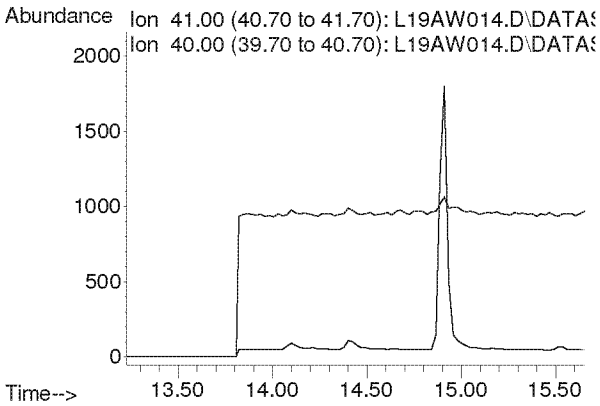


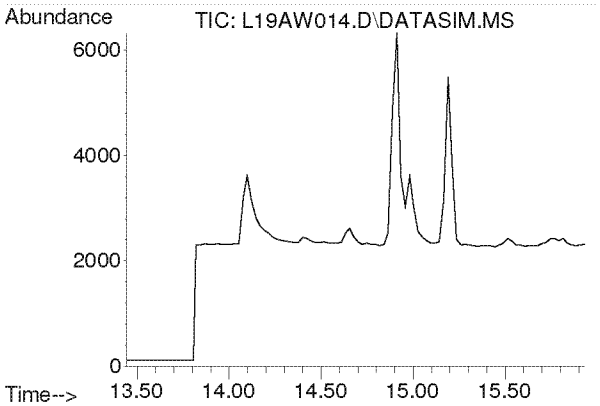
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



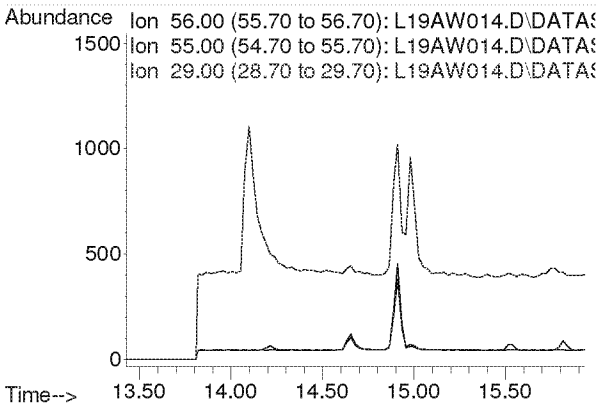


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

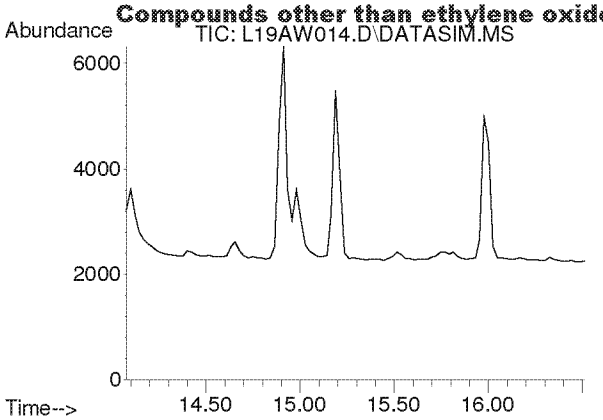
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

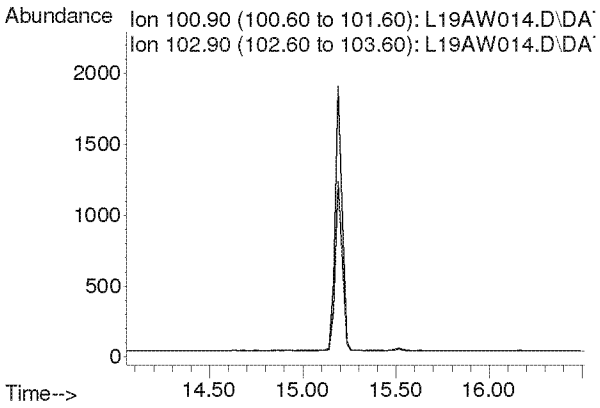


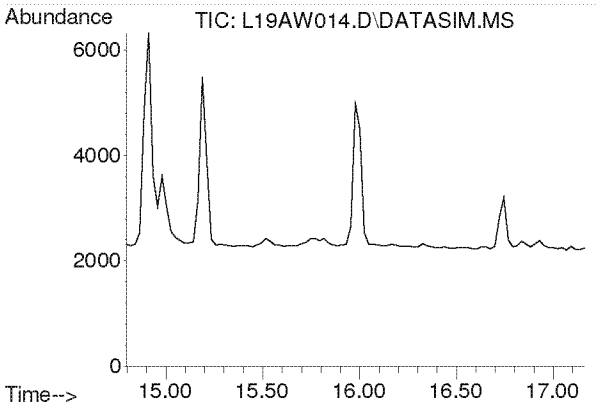
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



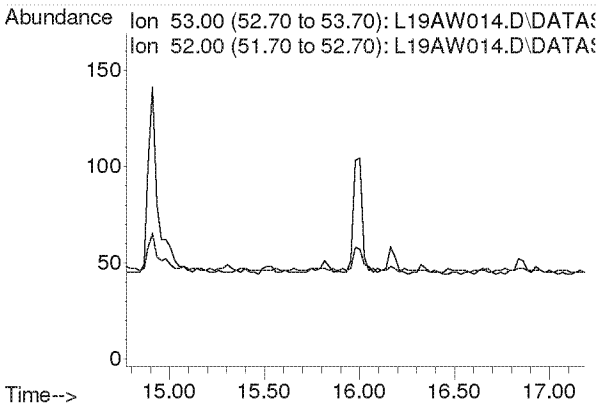


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

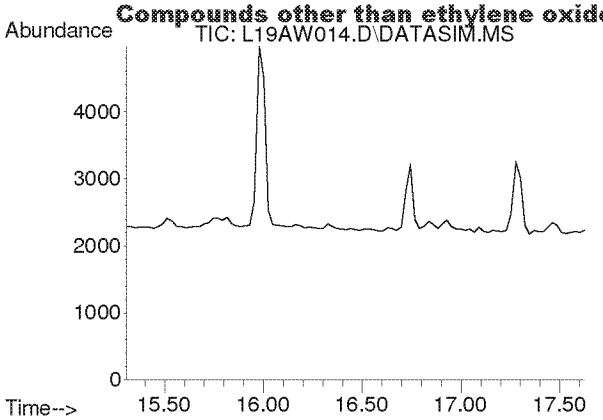
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

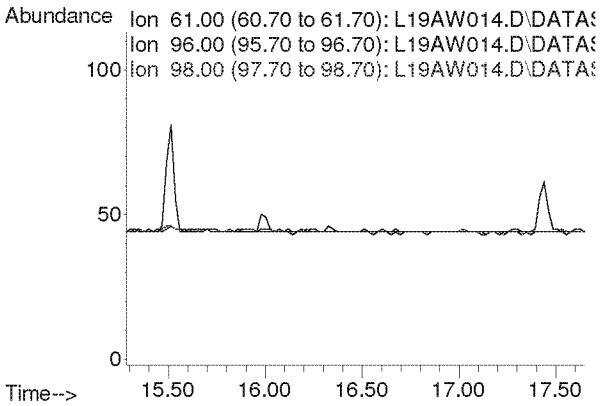


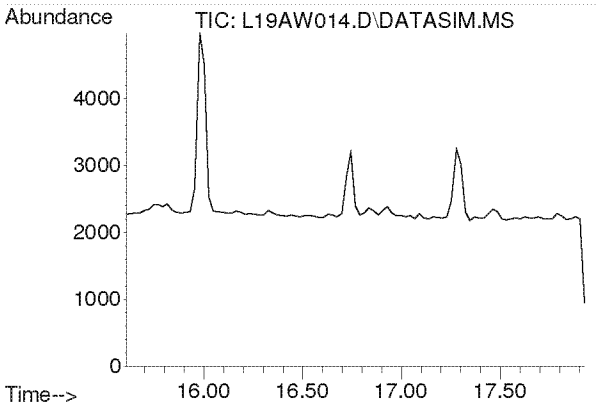
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



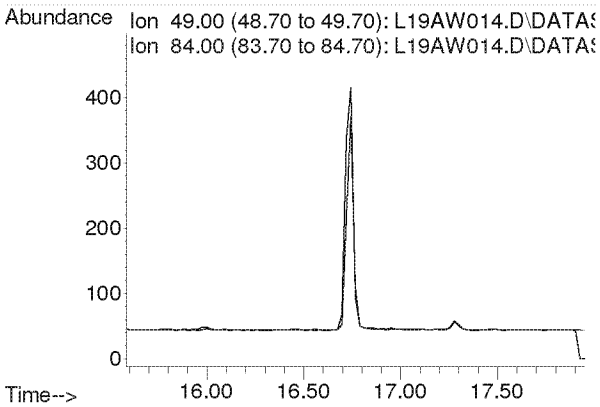


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

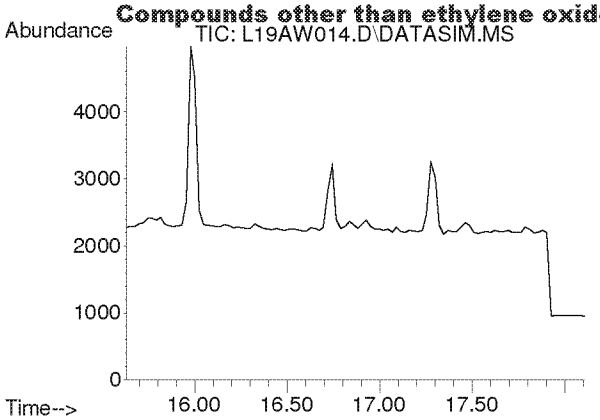
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

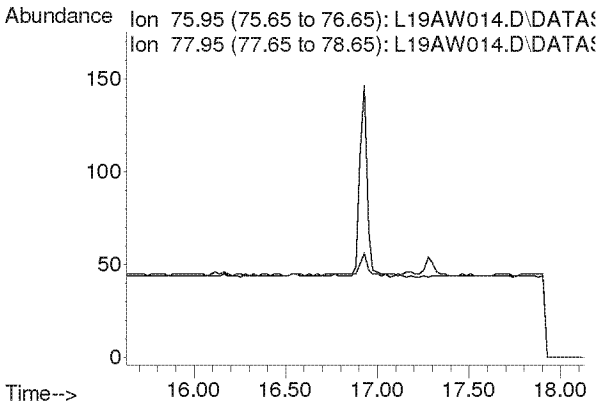


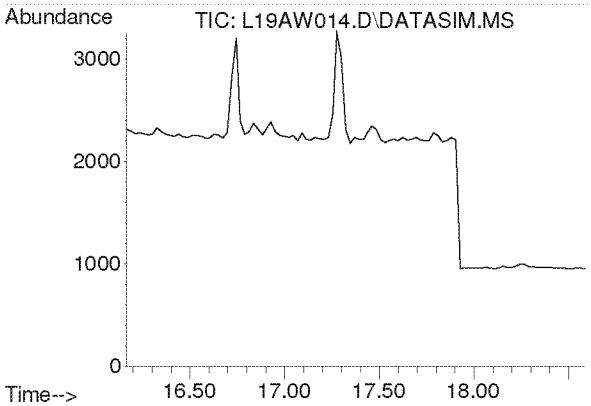
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



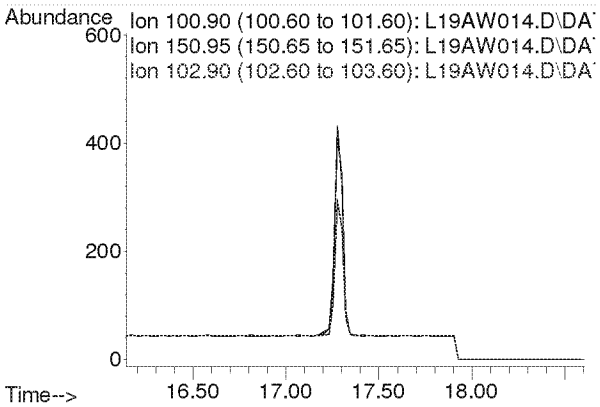


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

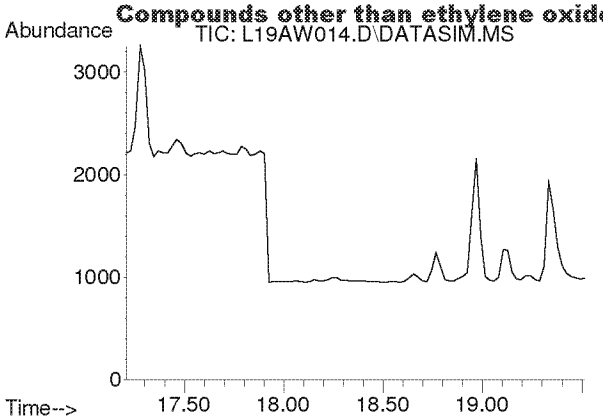
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

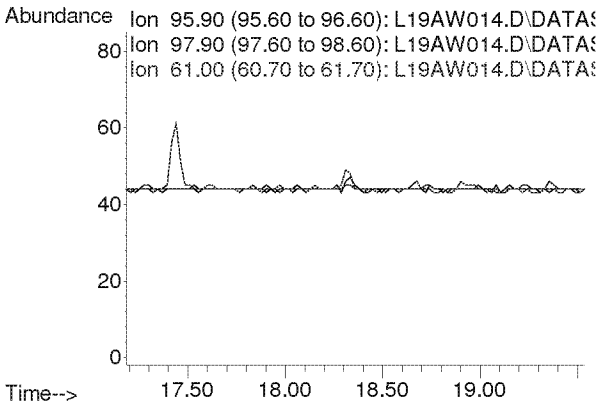


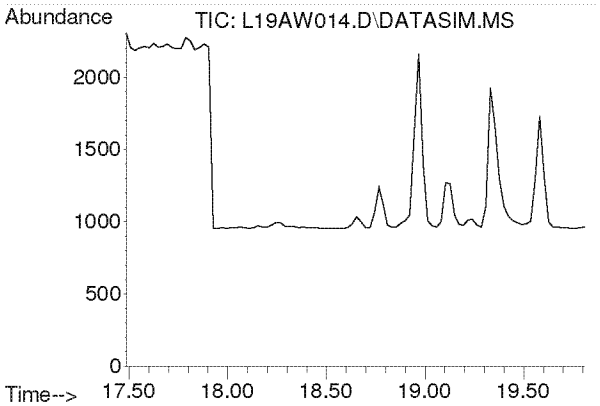
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



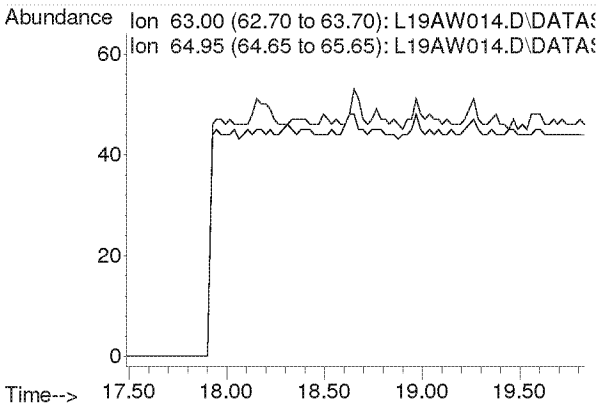


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

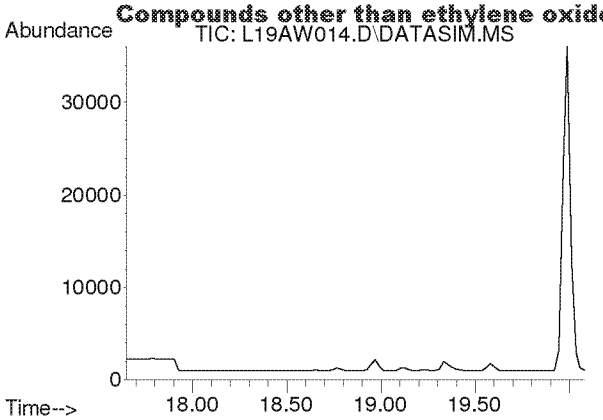
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

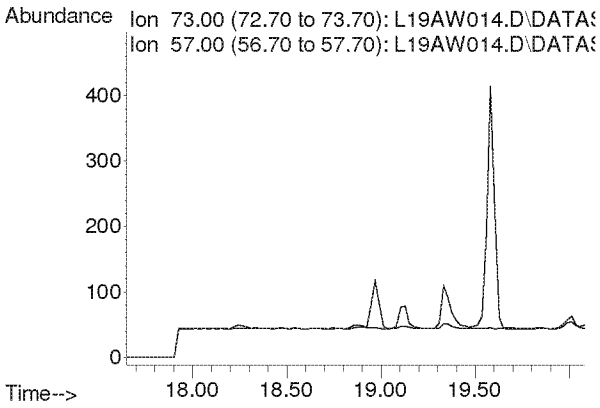


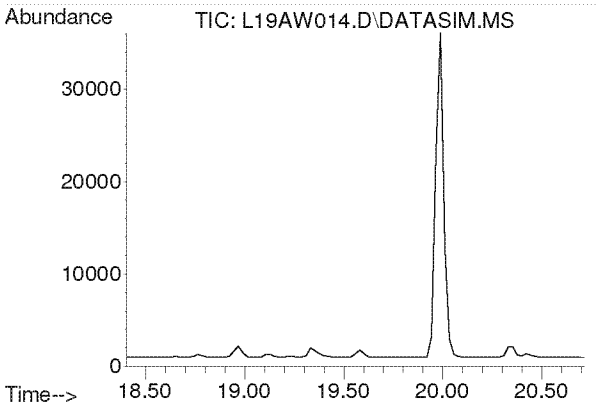
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



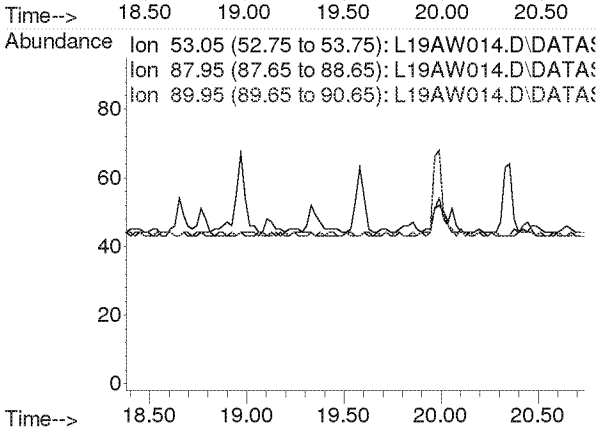


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

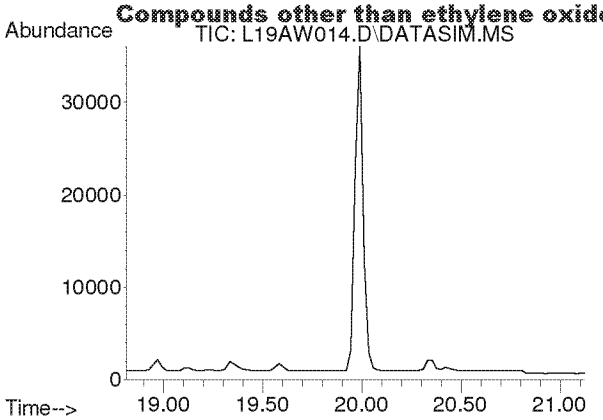
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

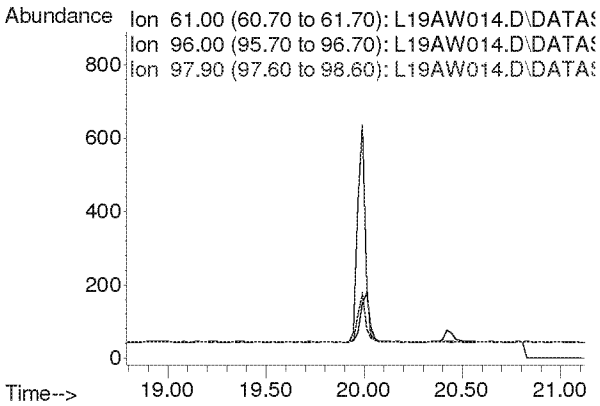


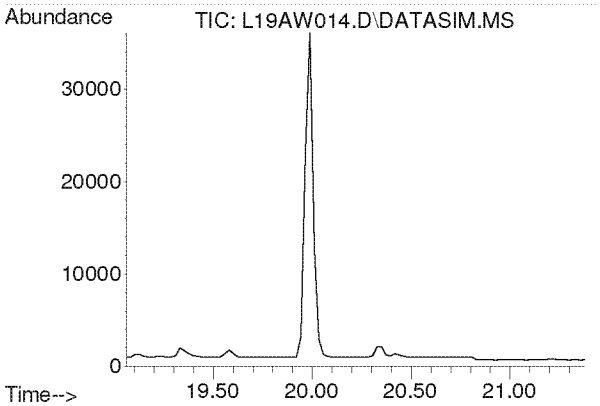
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



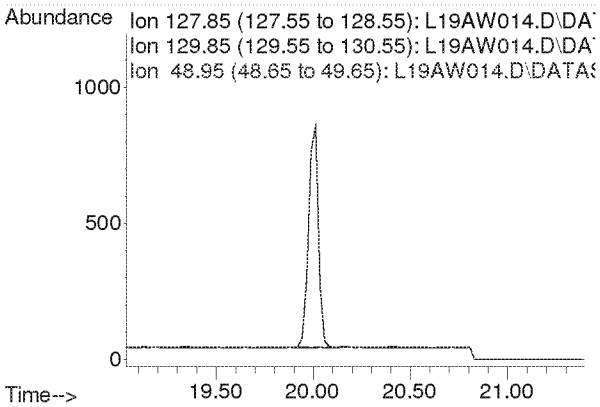


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

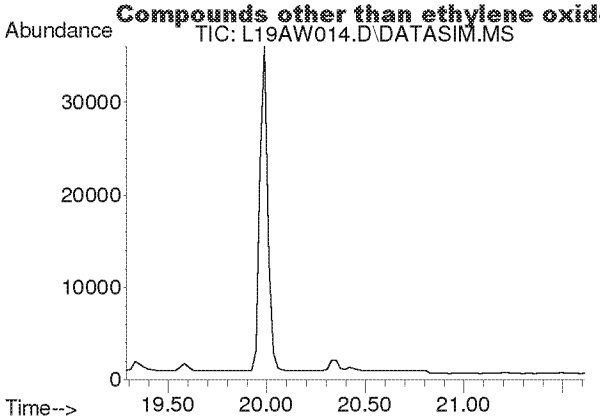
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

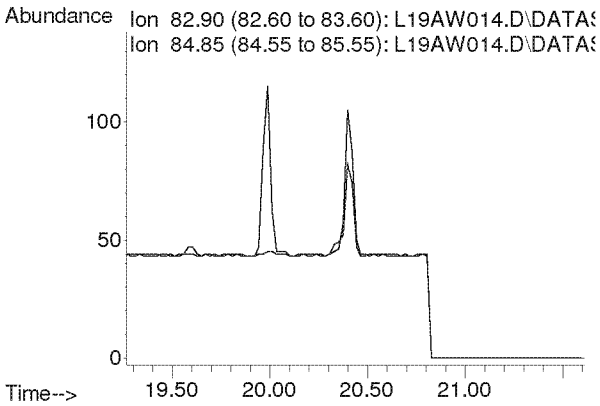


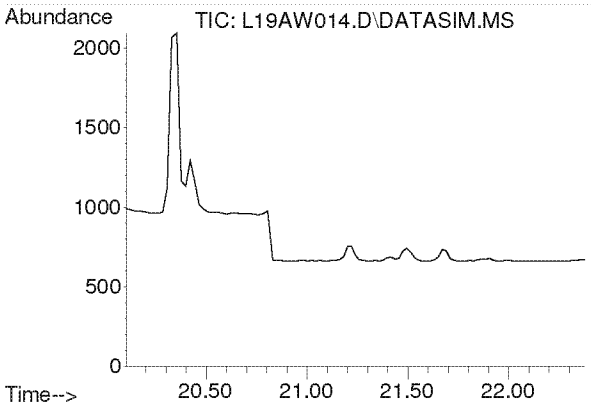
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



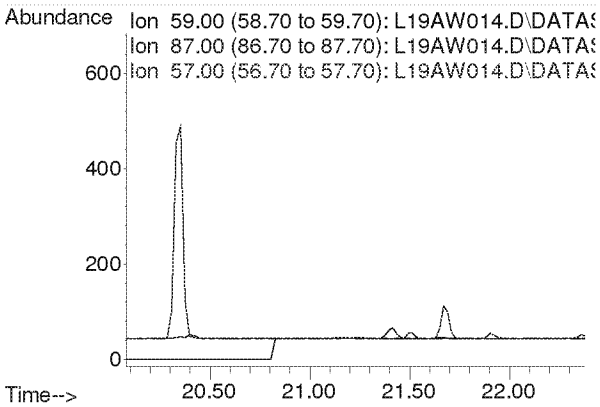


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

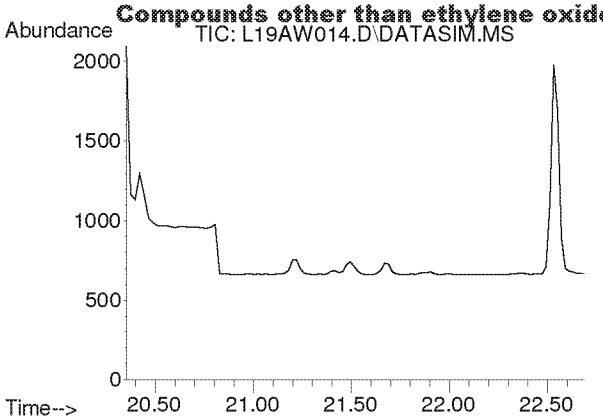
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

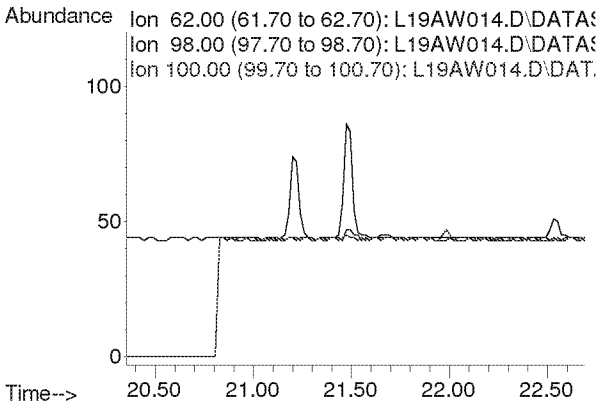


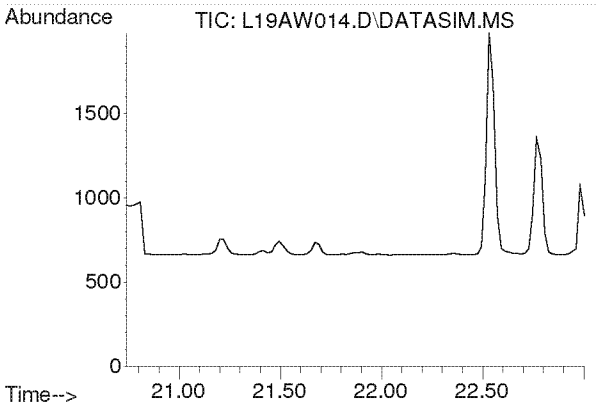
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



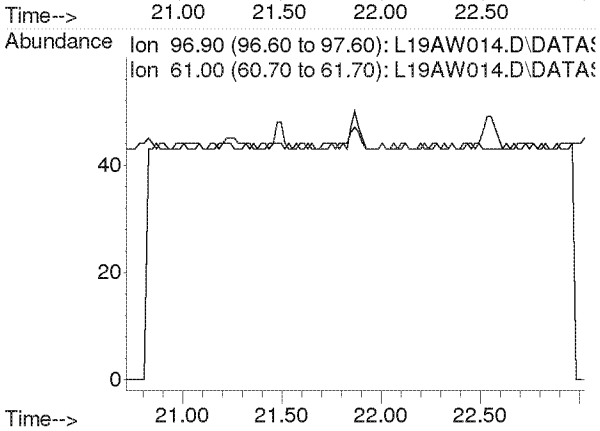


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

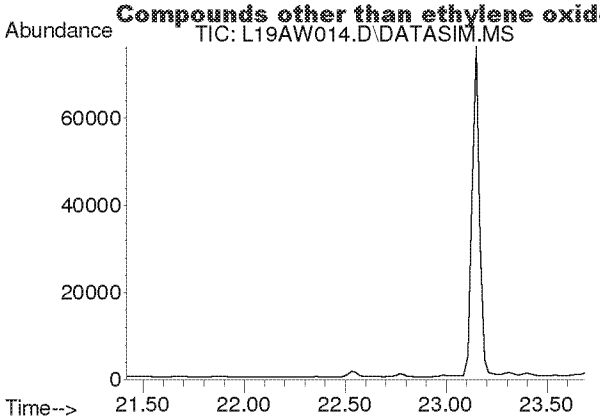
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

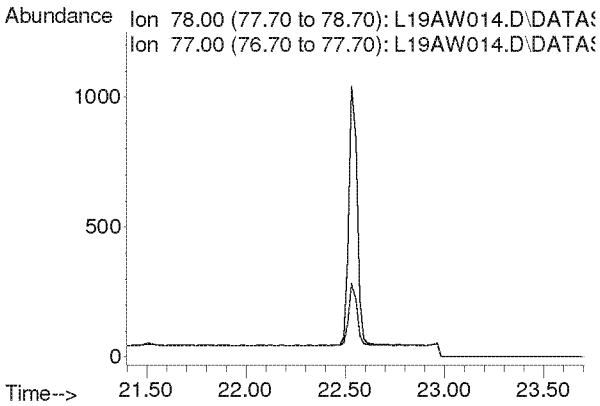


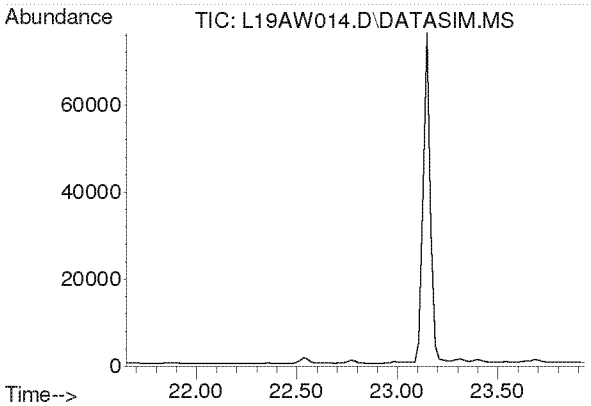
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



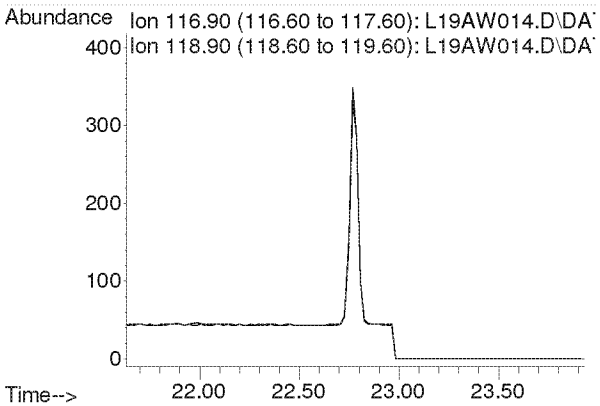


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

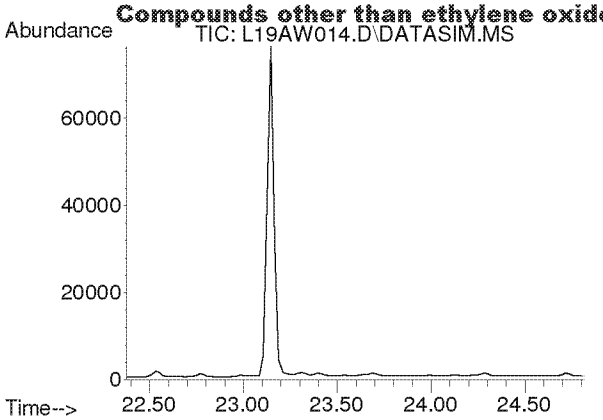
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

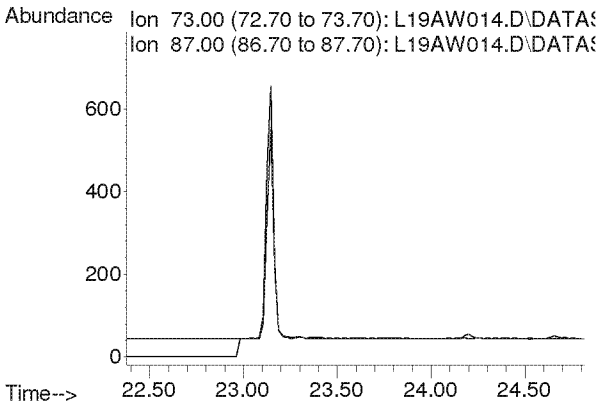


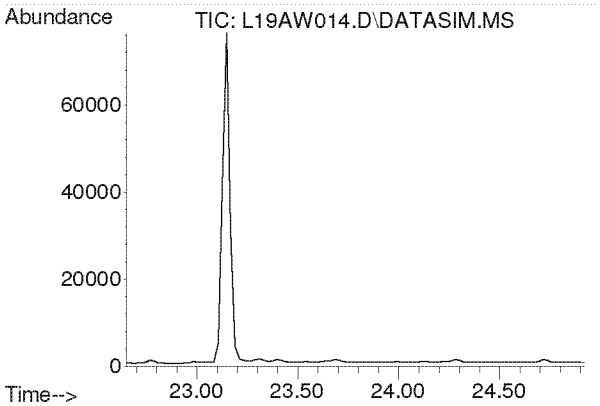
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



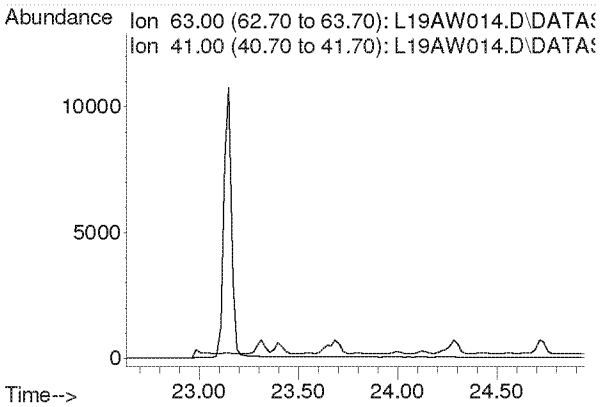


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

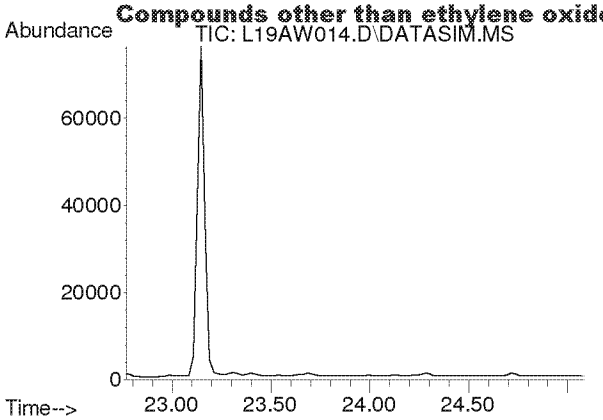
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

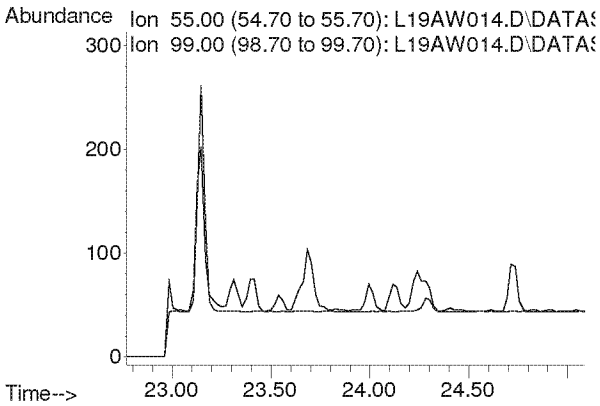


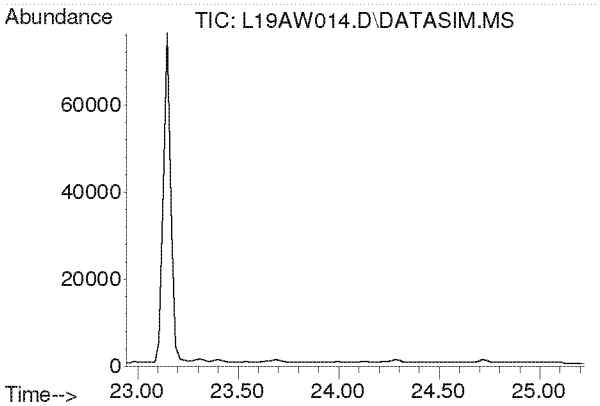
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



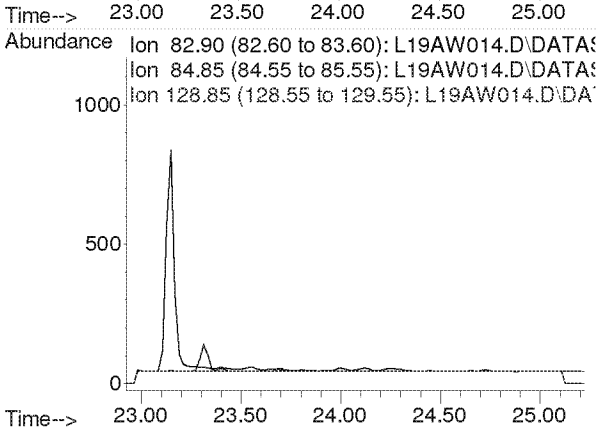


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

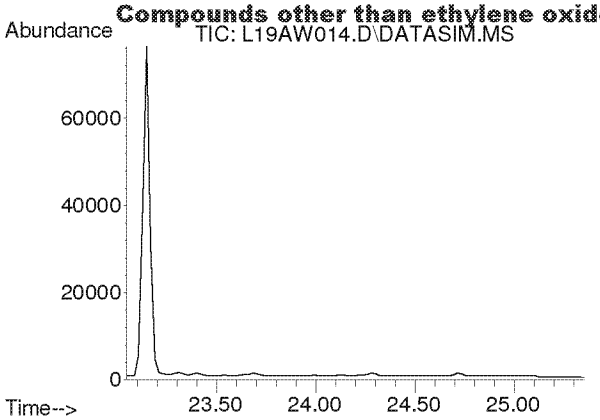
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

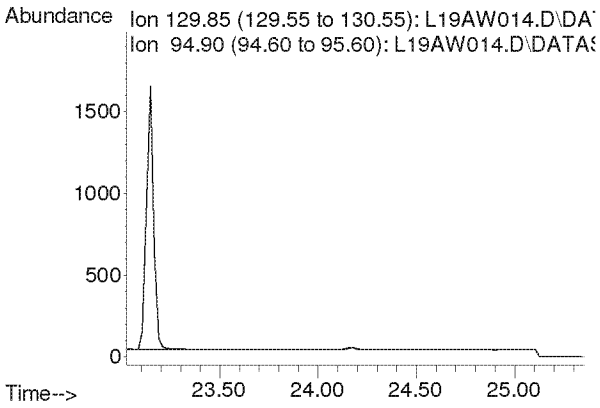


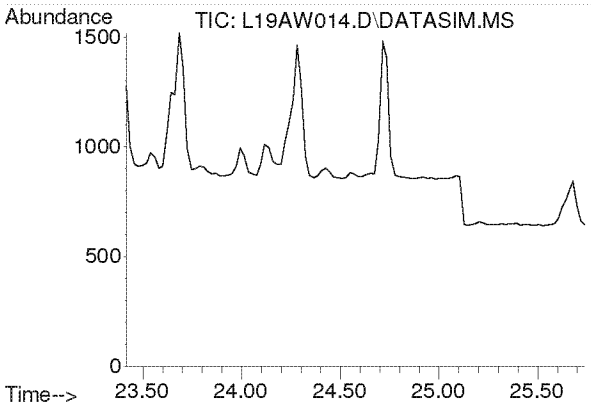
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



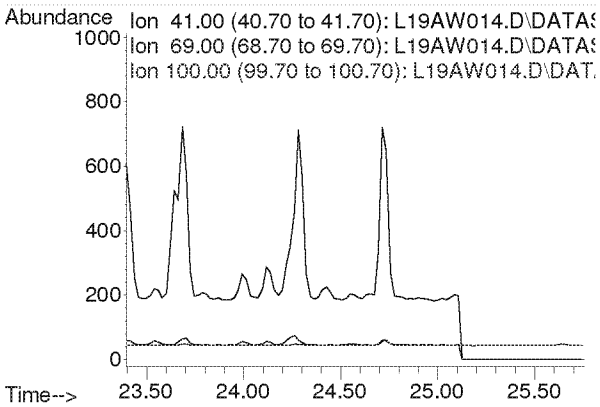


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

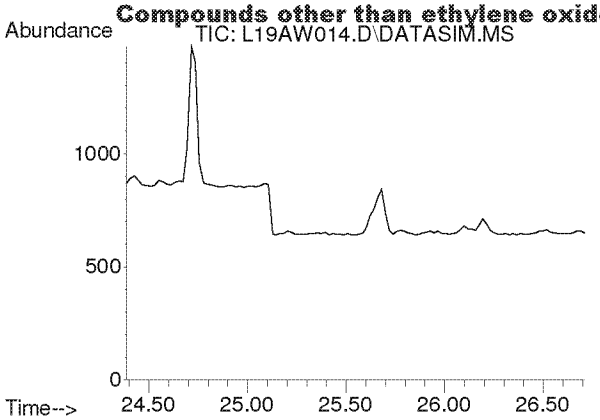
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

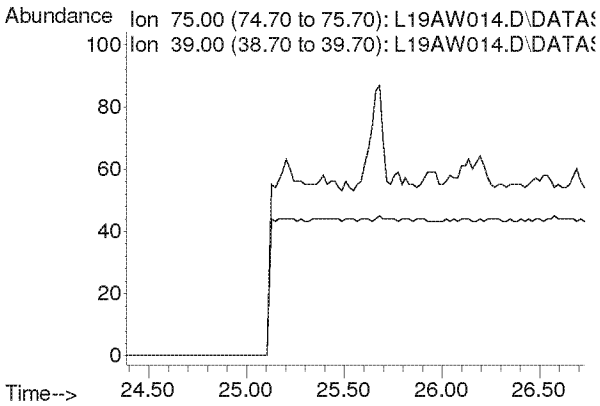


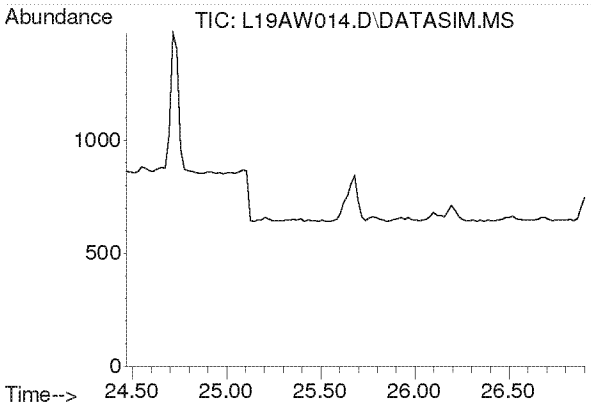
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



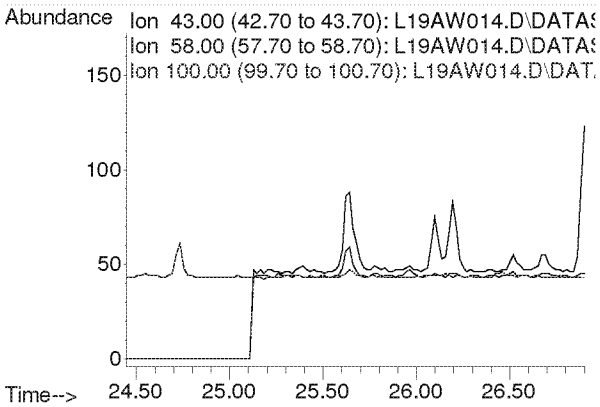


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

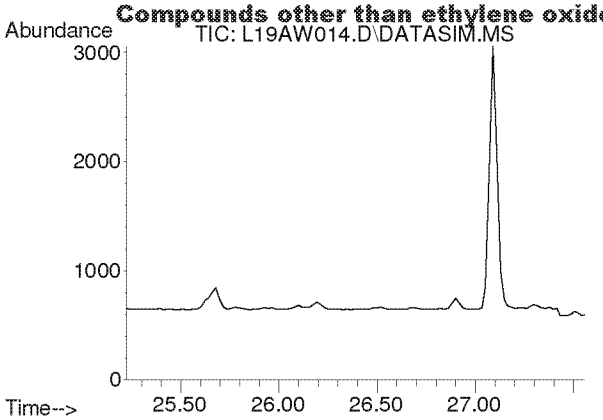
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

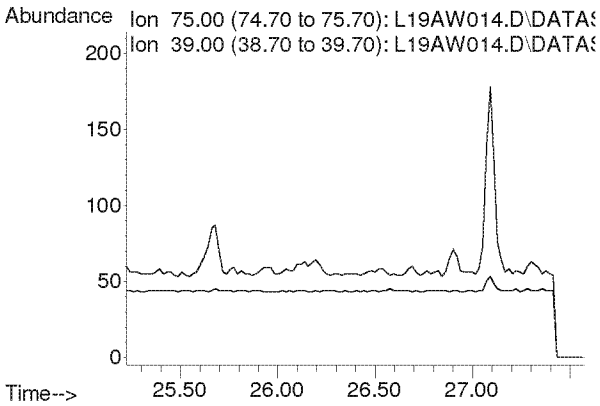


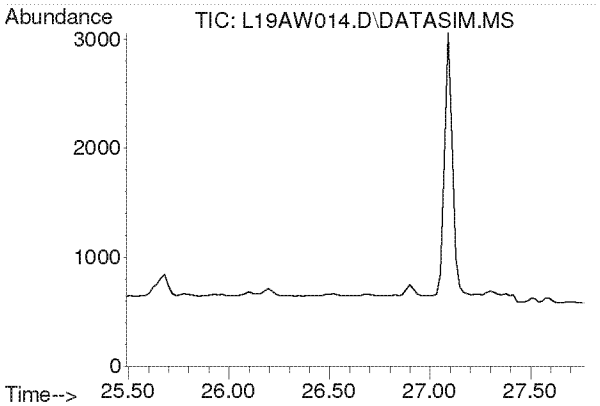
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



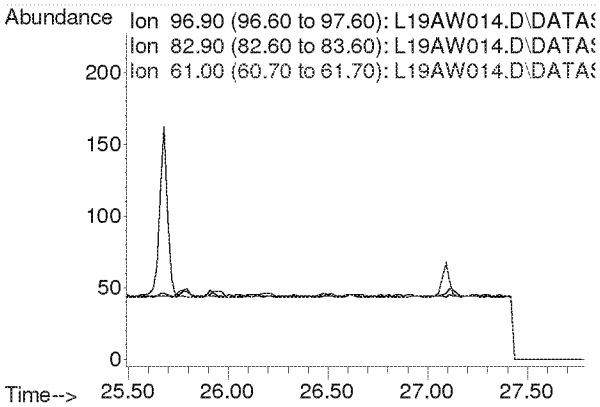


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

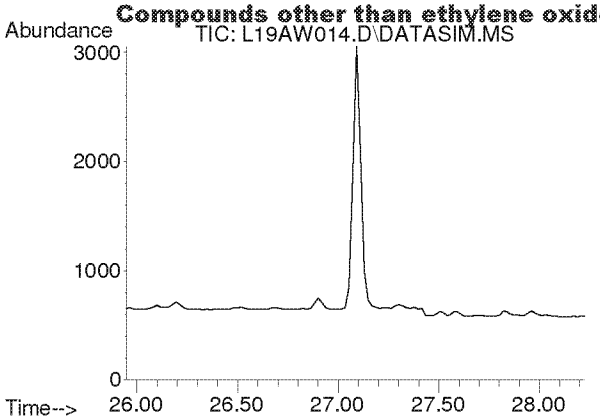
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

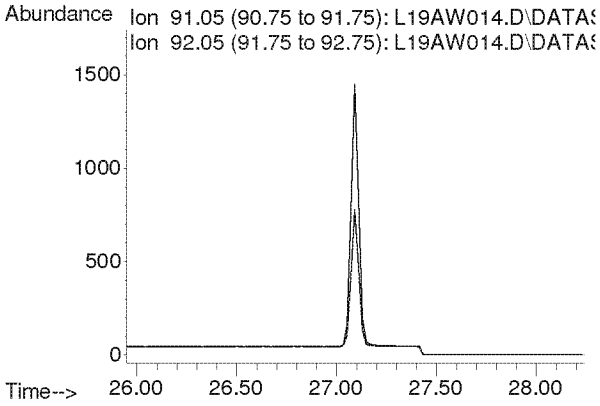


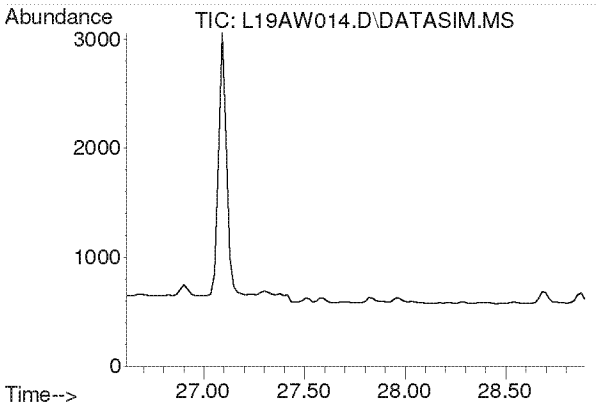
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



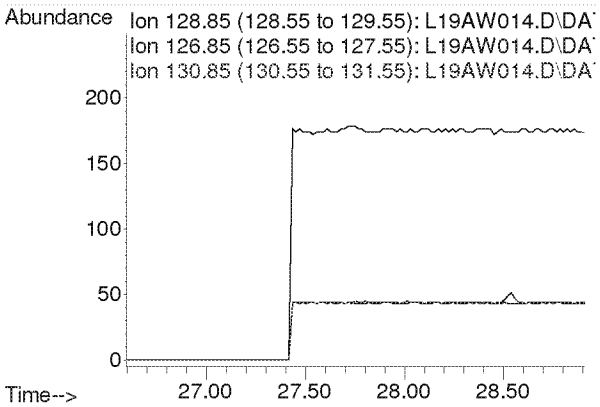


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

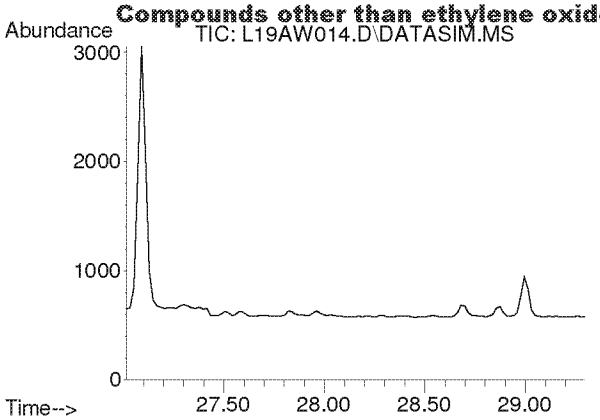
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

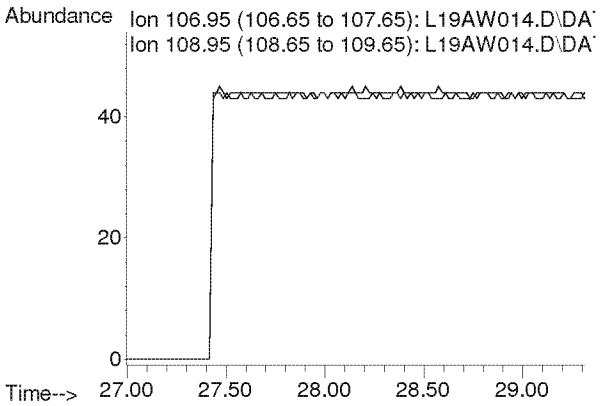


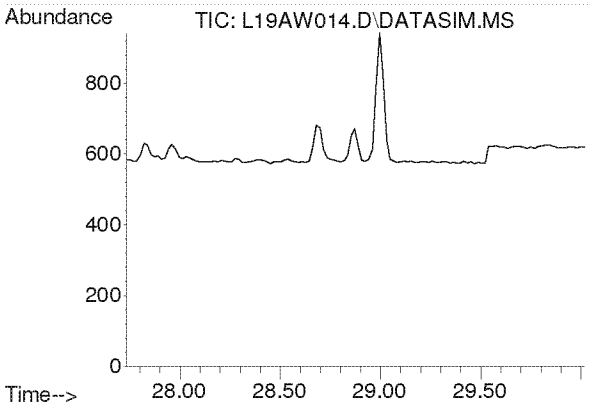
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



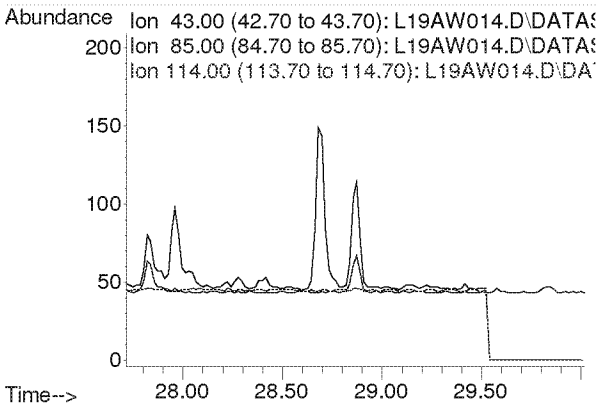


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

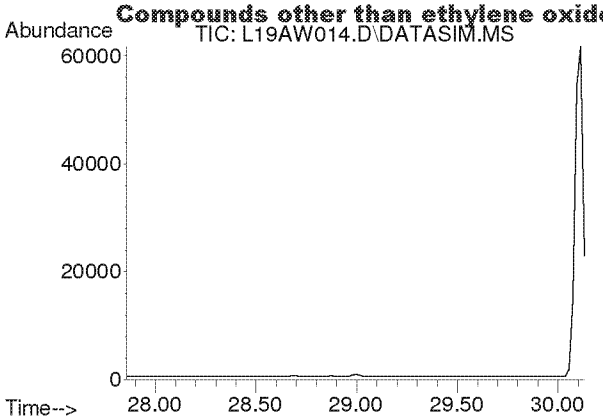
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

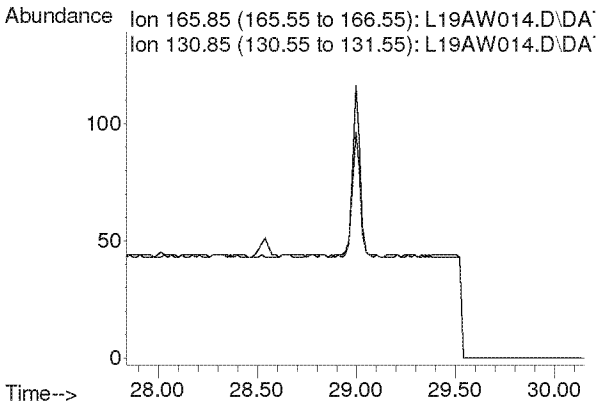


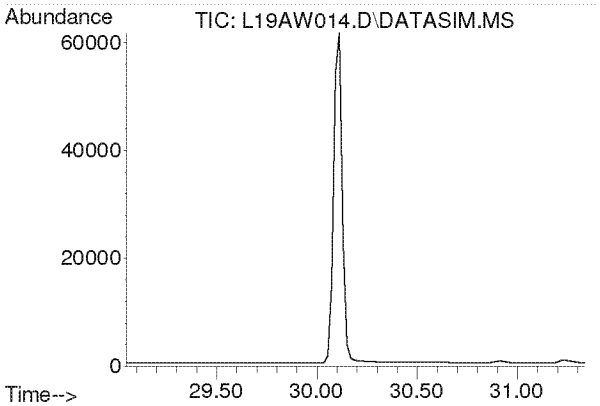
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



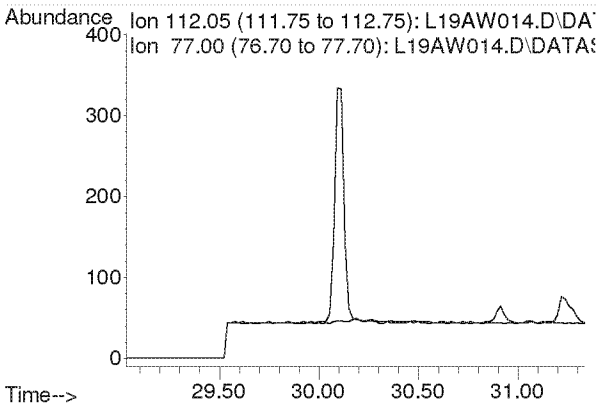


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

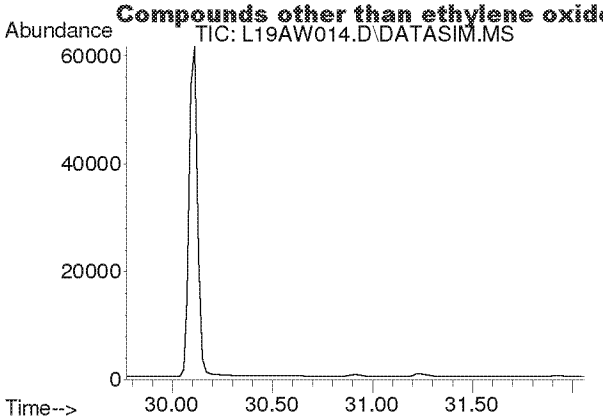
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

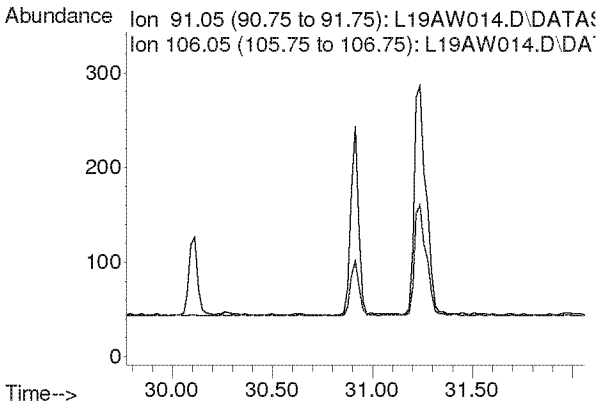


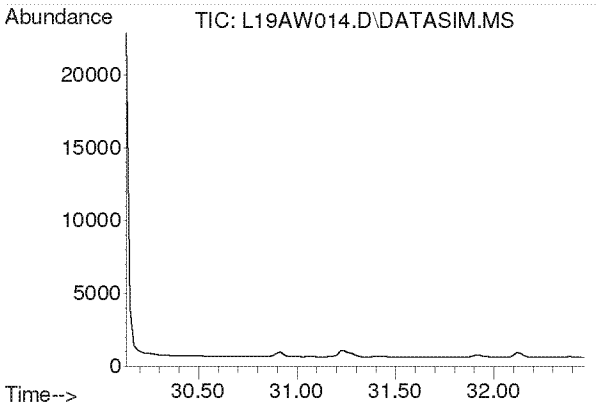
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



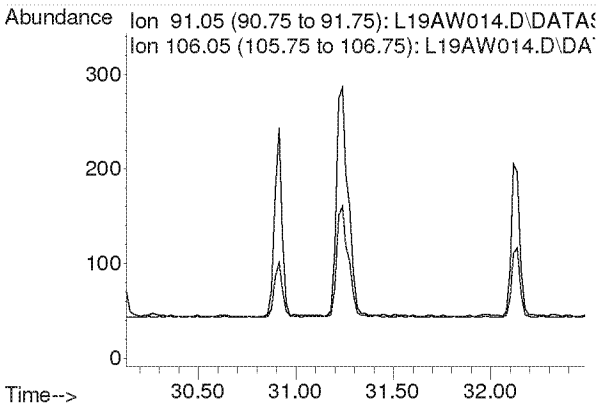


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

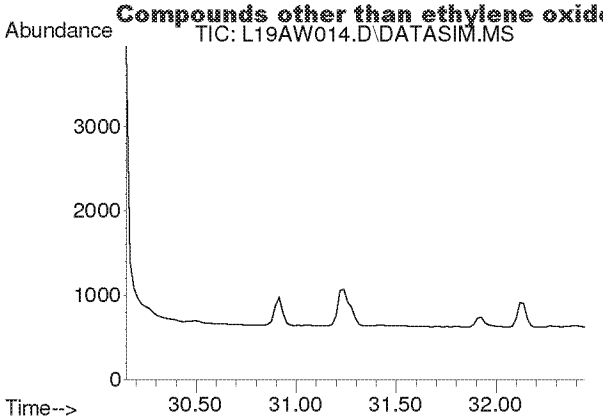
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

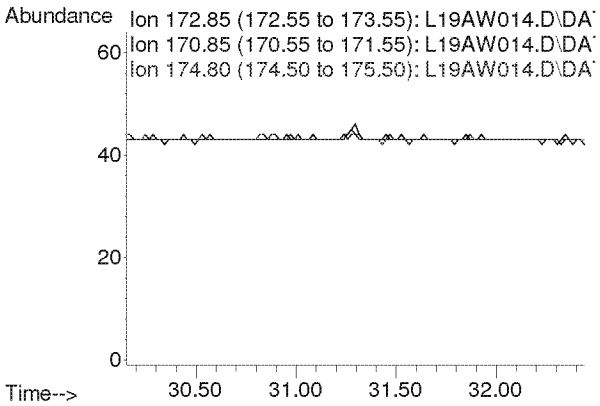


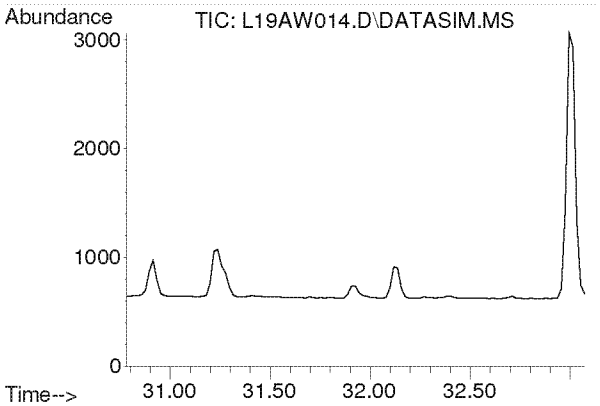
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



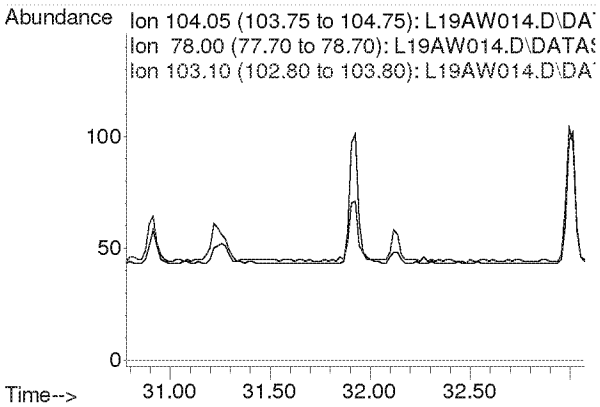


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

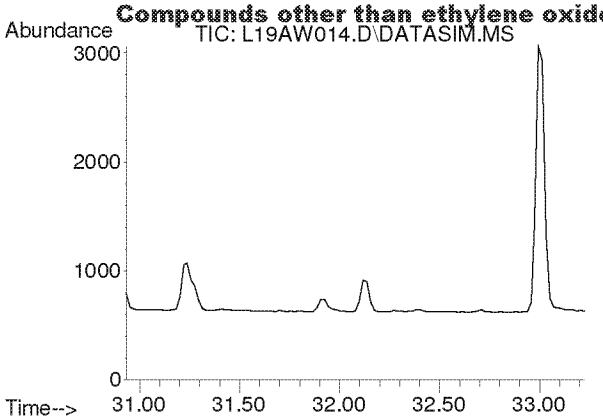
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

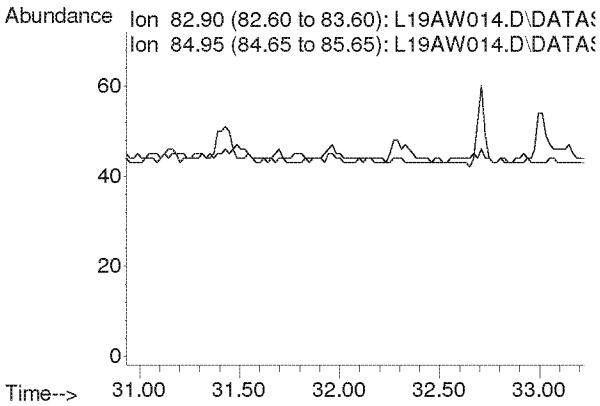


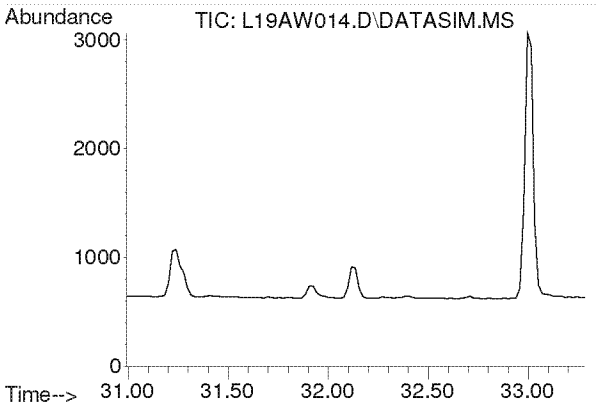
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



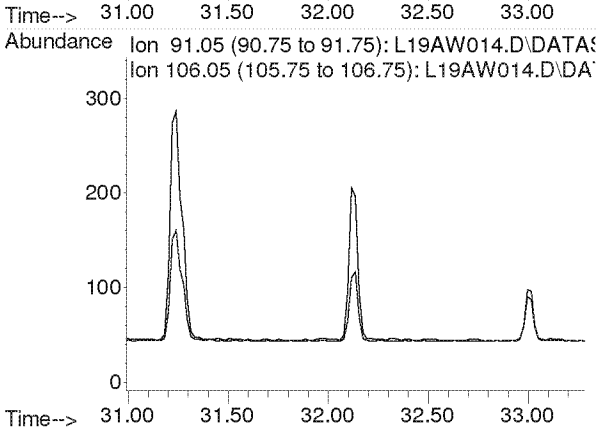


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

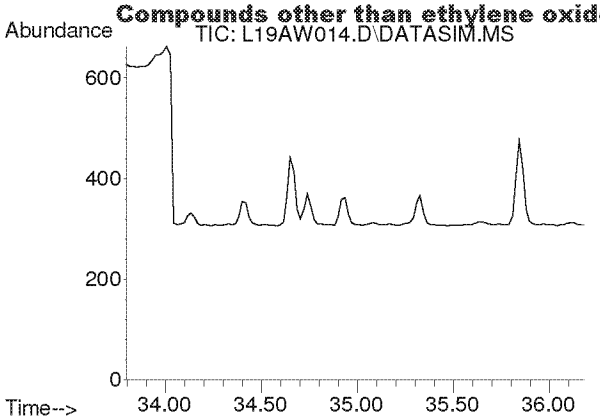
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

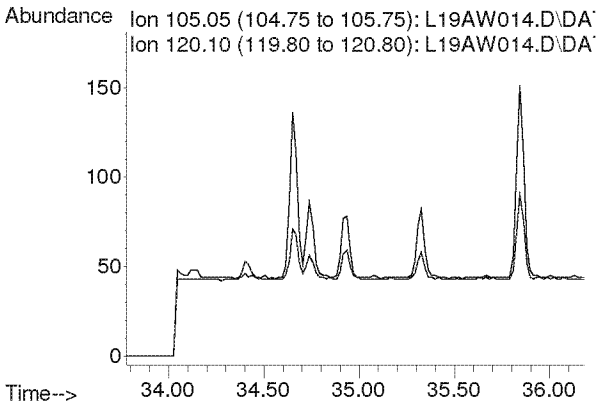


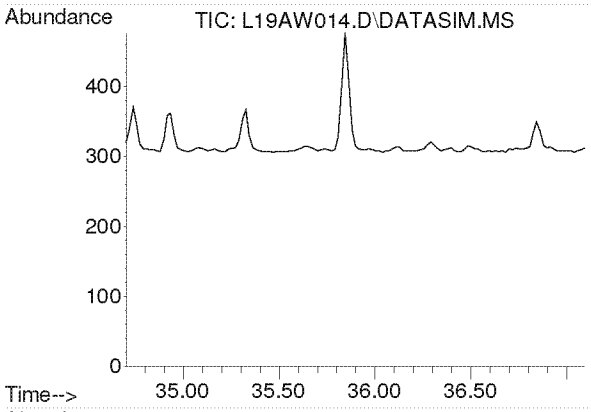
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



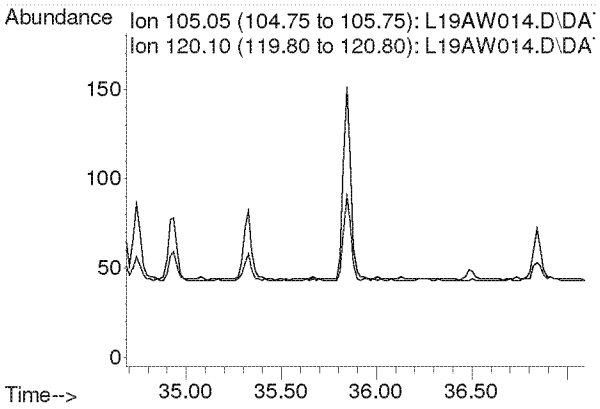


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

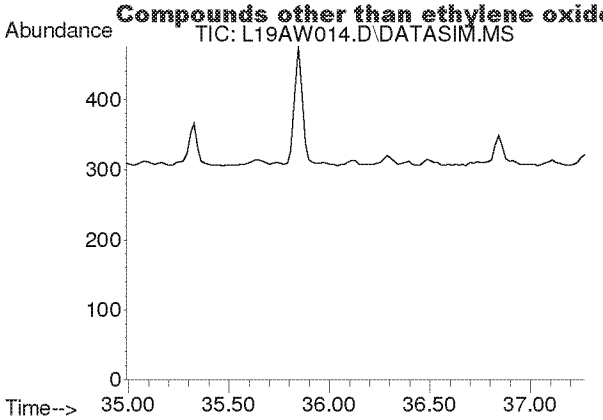
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

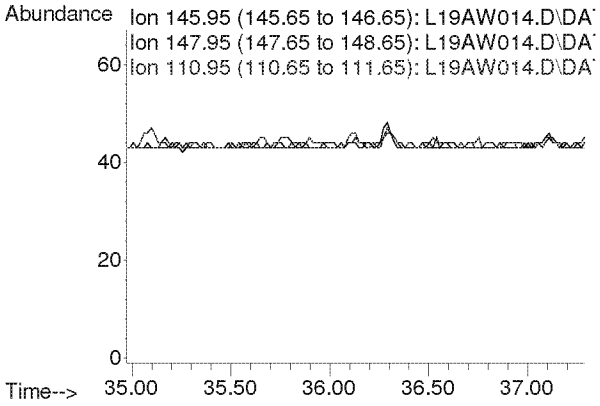


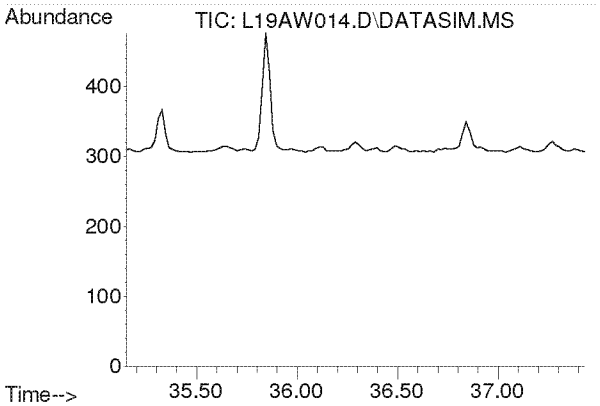
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



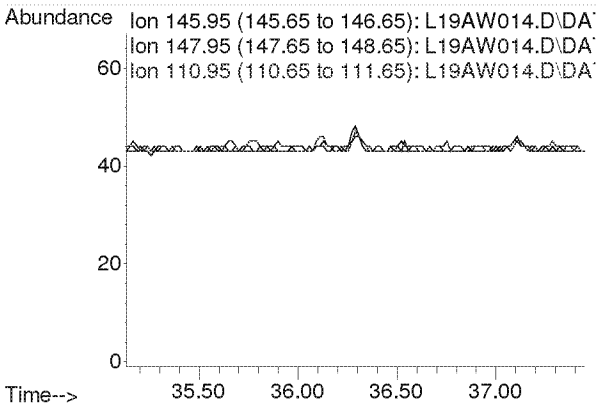


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

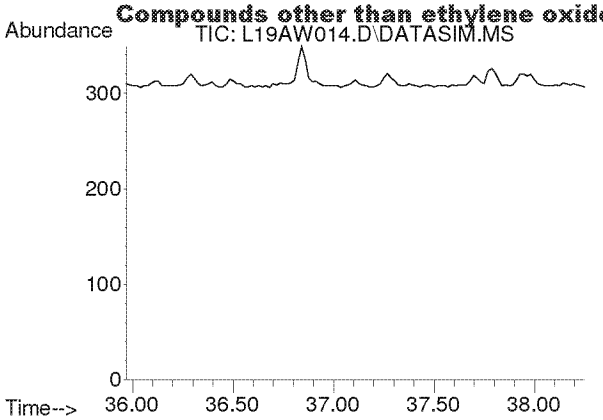
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

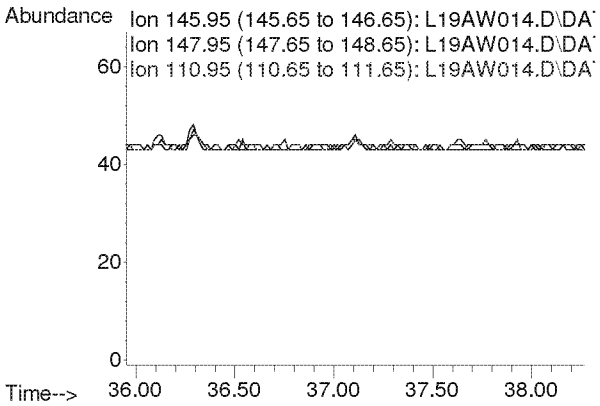


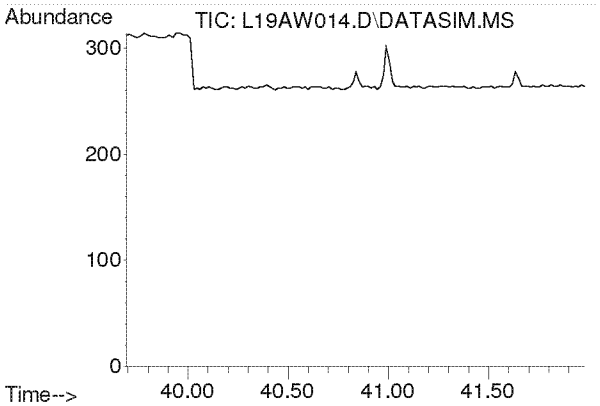
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



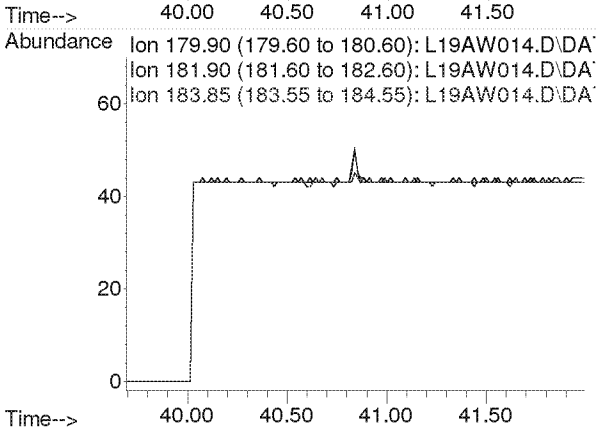


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

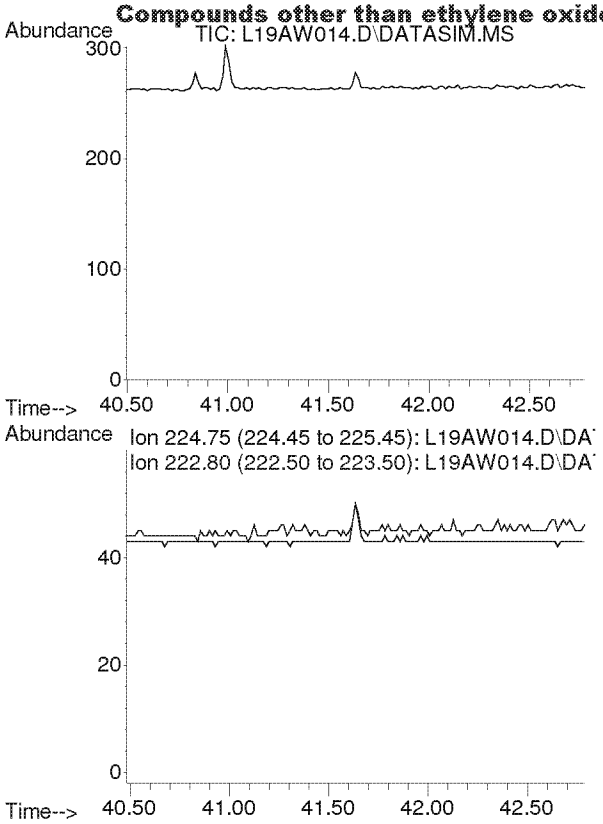
Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AW014.D
Acq: 23 Jan 2019 10:40 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\L19AW\
Data File : L19AW015.D
Acq On : 23 Jan 2019 11:42 pm
Operator : MAH
Sample : 9012221-02
Misc : GOWER ES 1/18/19
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 29 08:27:57 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

EtOH ONLY

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.970	66	57086	4.7700 ppbv	-0.02
29) IS-1,4-Difluorobenzene	23.151	114	140908	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.116	117	101951	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.	
23) Chloroprene	0.000	53	0	N.D. d	
24) cis-1,2-Dichloroethylene	0.000	61	0	N.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. 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\L19AW\
Data File : L19AW015.D
Acq On : 23 Jan 2019 11:42 pm
Operator : MAH
Sample : 9012221-02
Misc : GOWER ES 1/18/19
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 29 08:27:57 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
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.	

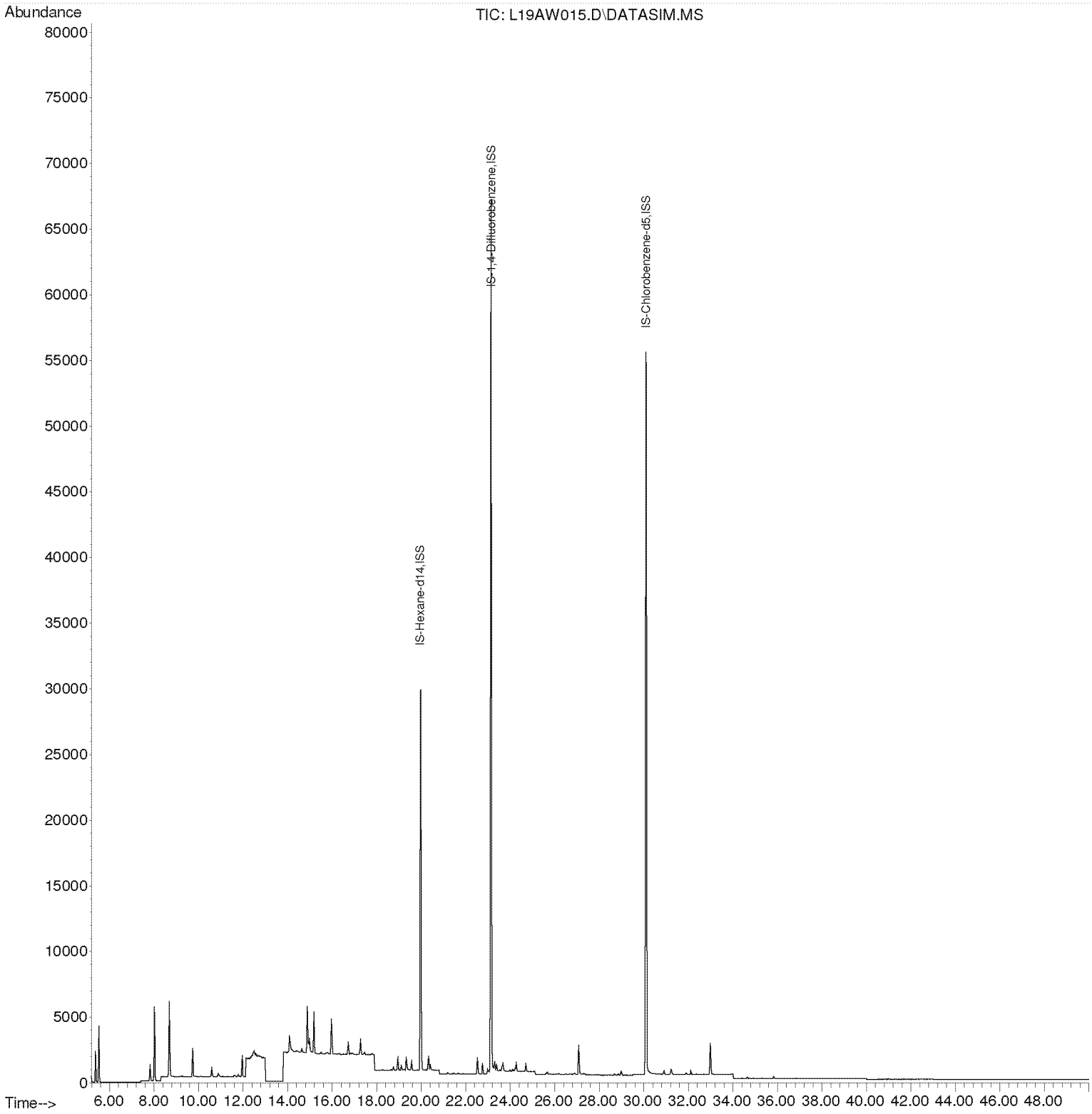
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000318-00382

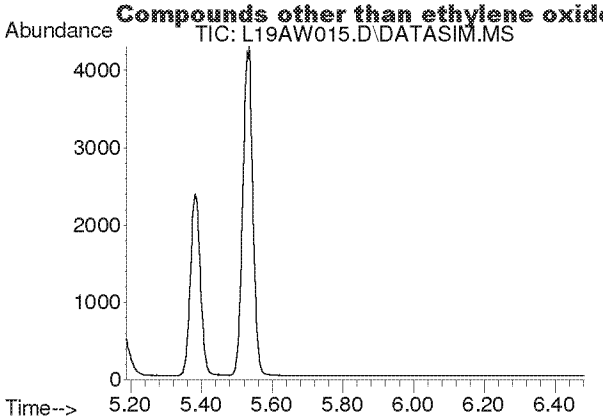
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW015.D
Acq On : 23 Jan 2019 11:42 pm
Operator : MAH
Sample : 9012221-02
Misc : GOWER ES 1/18/19
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jan 29 08:09:13 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



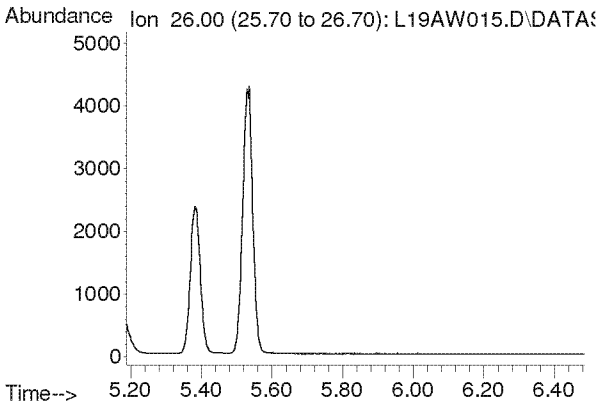
Compounds other than ethylene oxide were not quantitated.

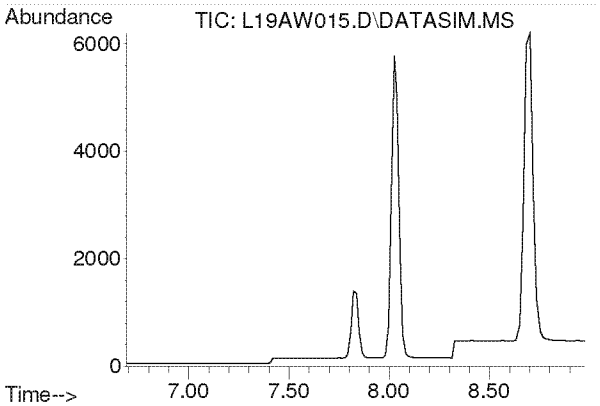


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 26



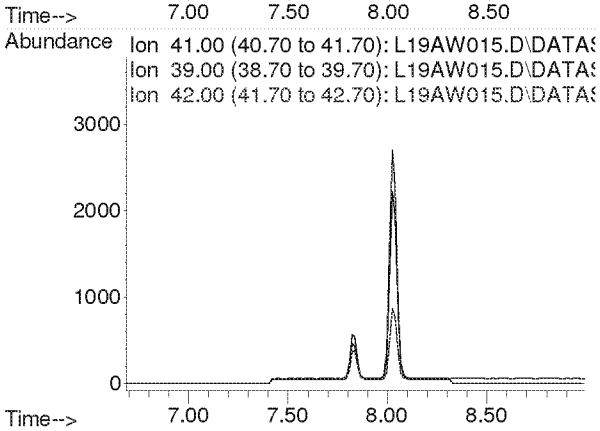


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

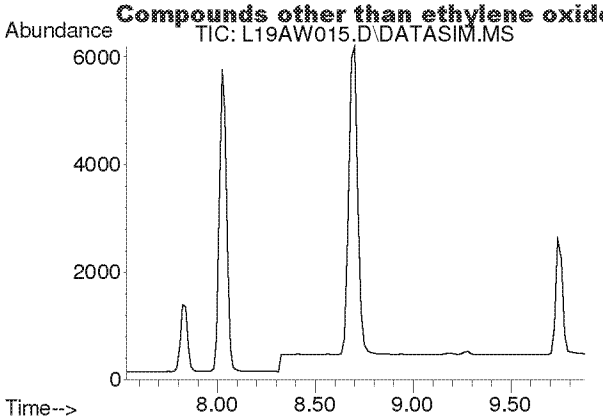
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

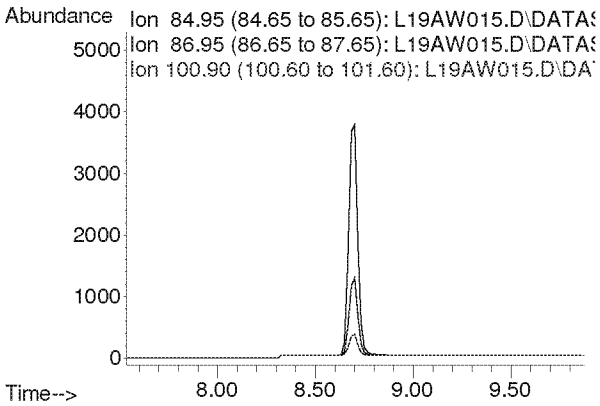


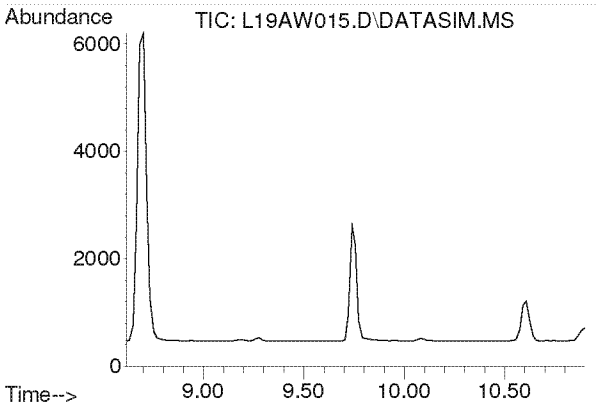
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



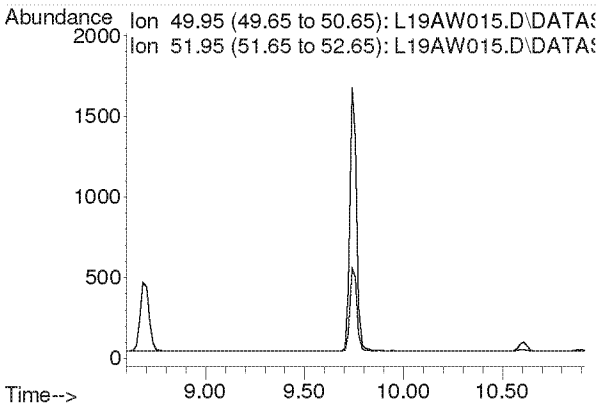


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

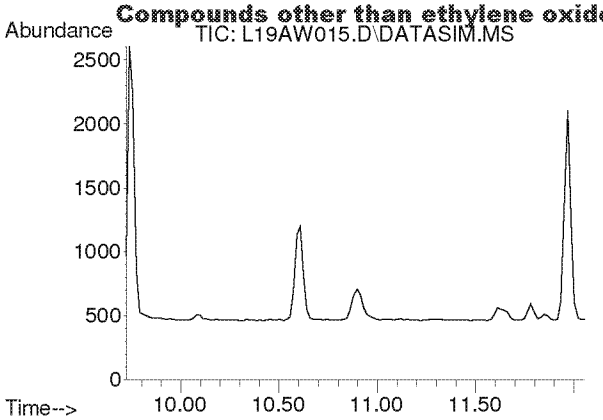
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

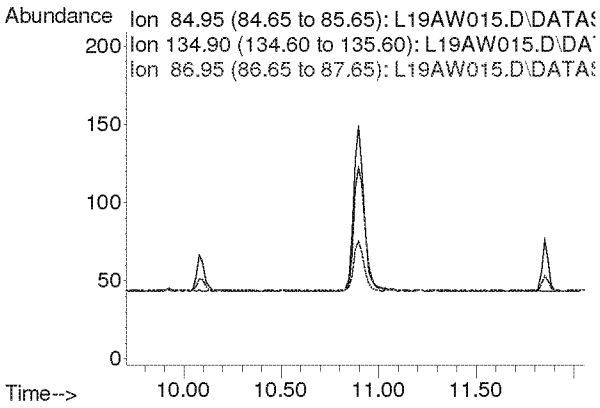


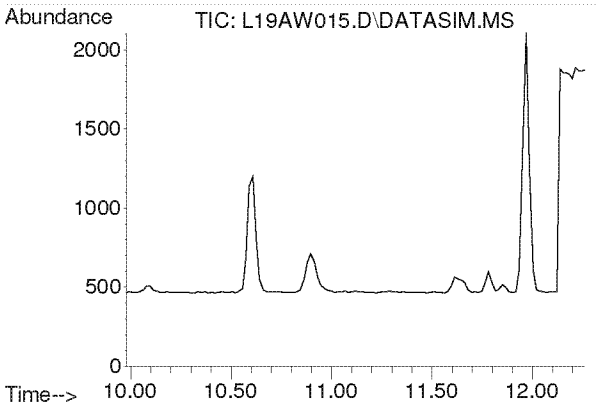
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



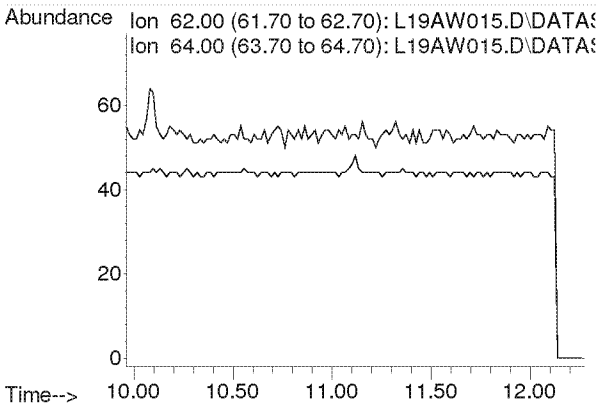


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

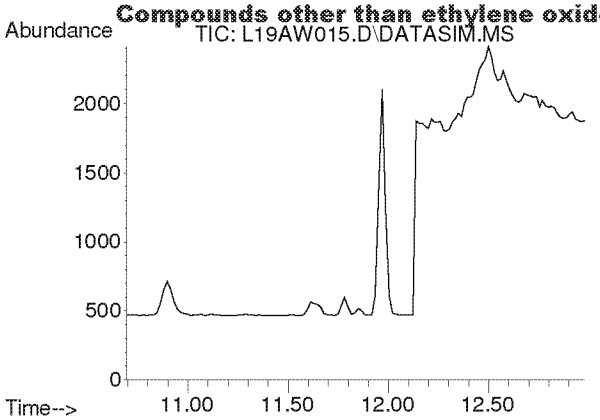
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

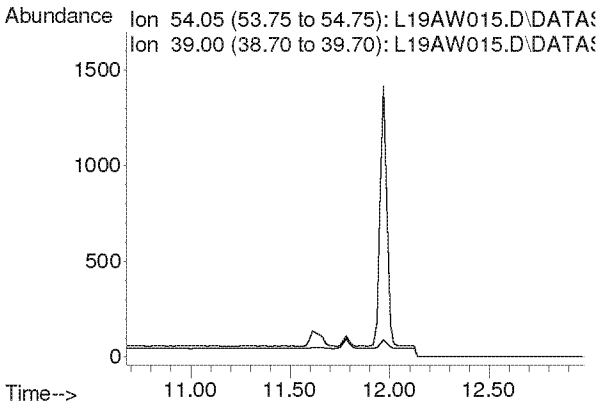


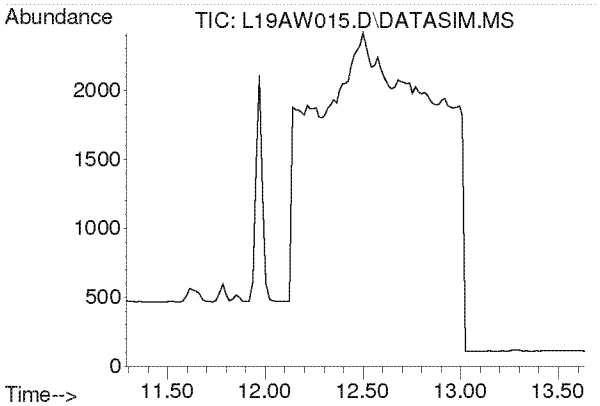
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3



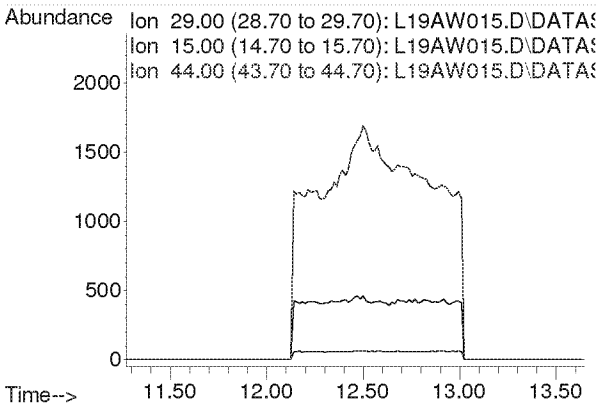


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.39 min

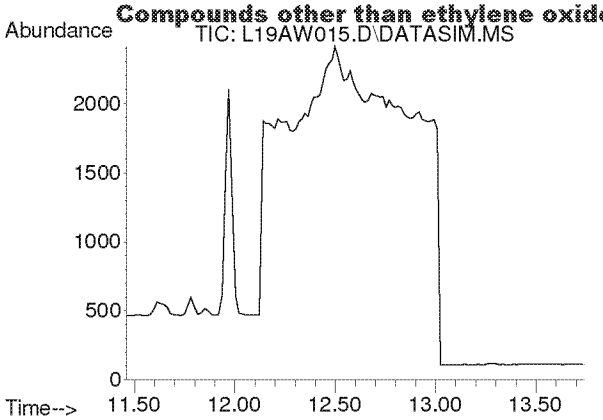
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	19.2
44	96.8



Compounds other than ethylene oxide were not quantitated.

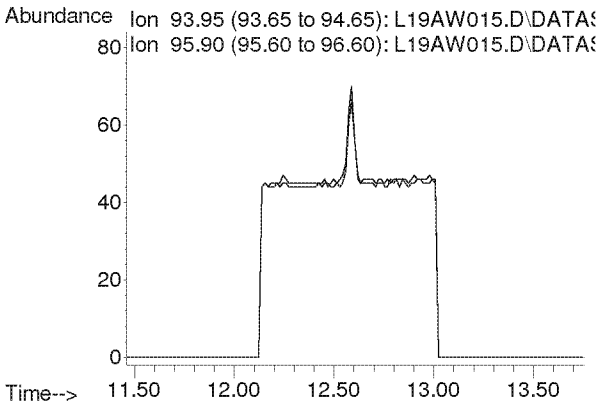


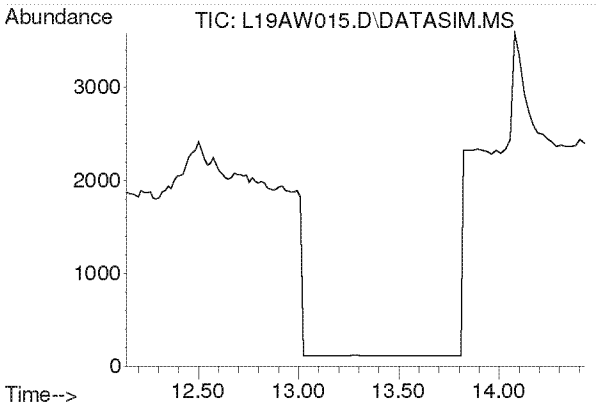
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



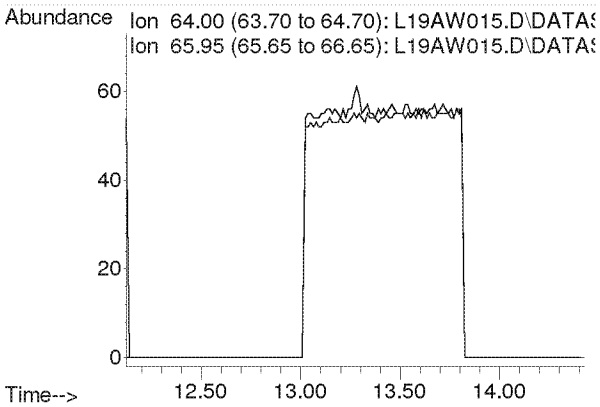


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

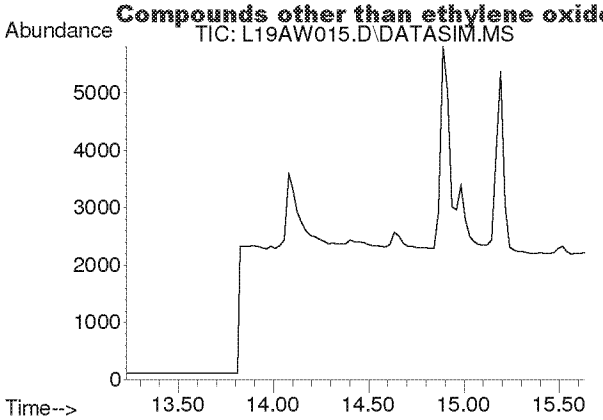
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

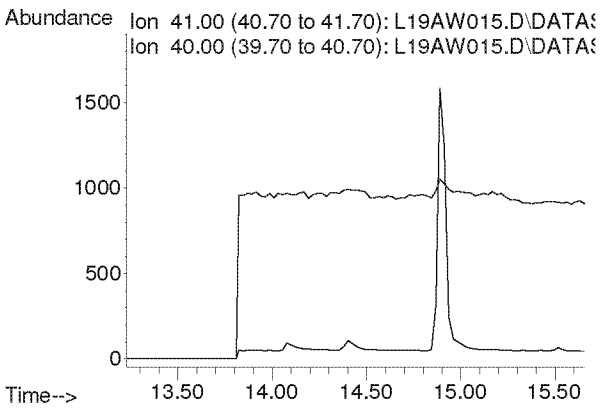


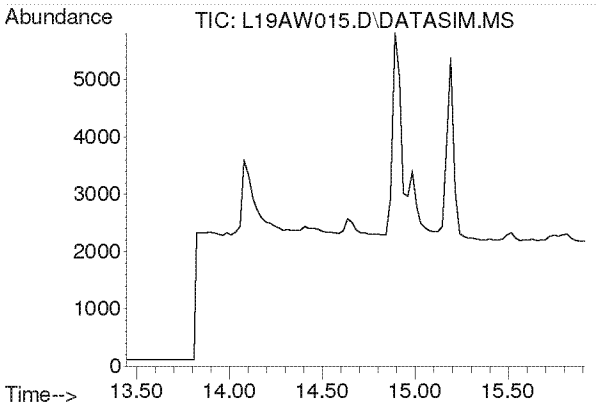
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



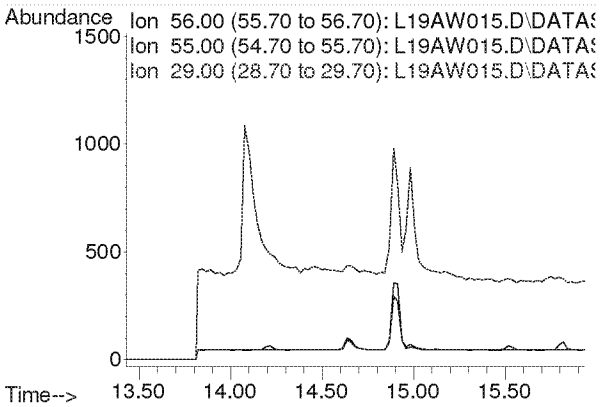


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

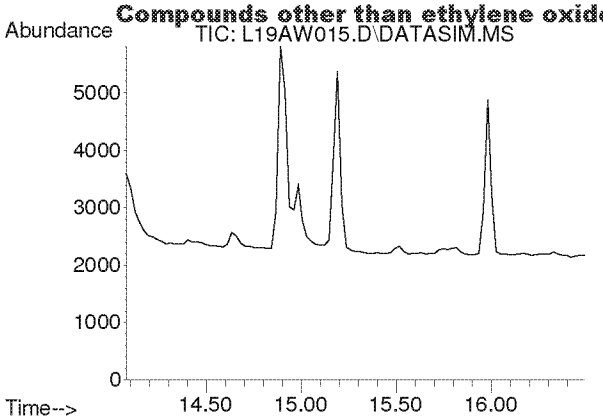
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

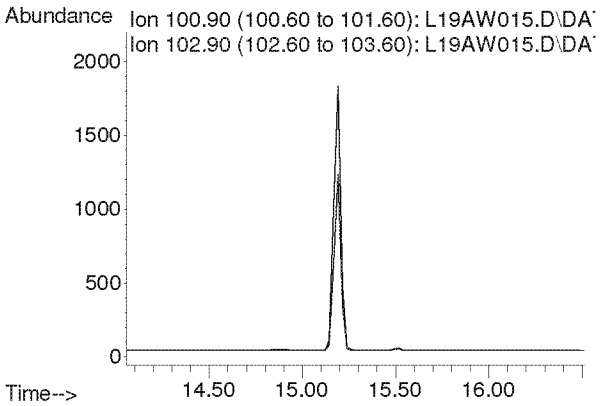


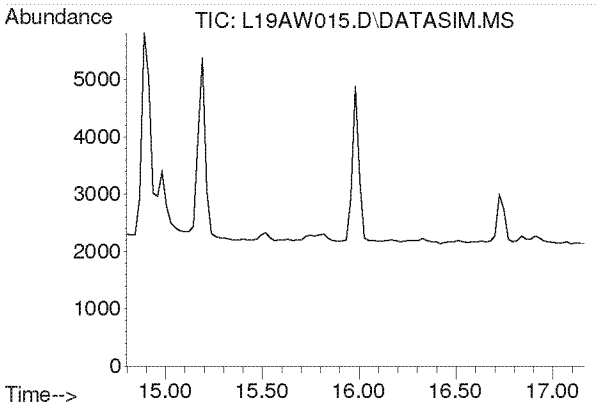
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



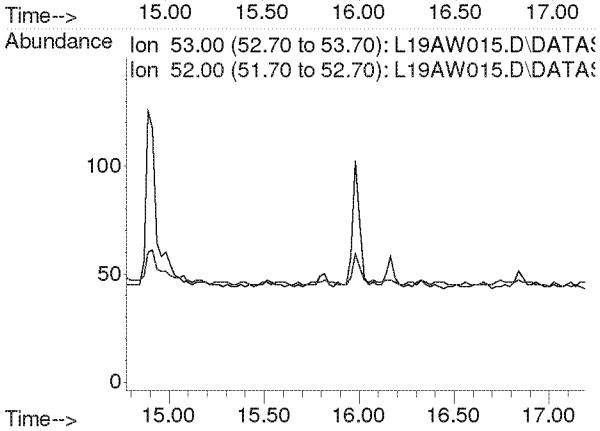


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

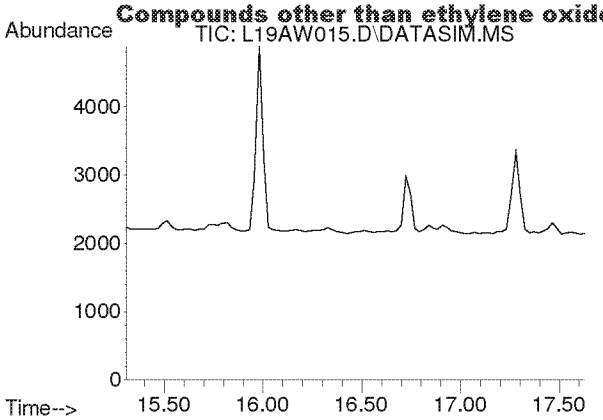
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

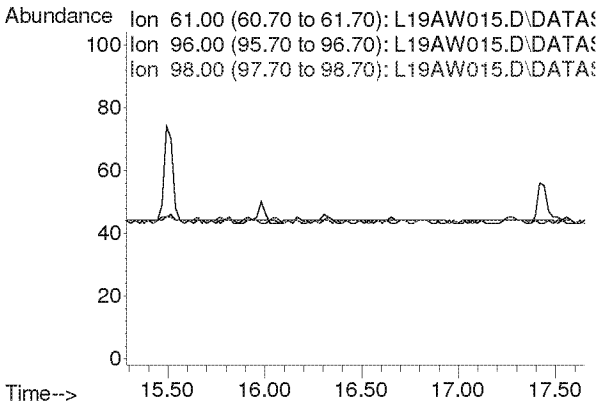


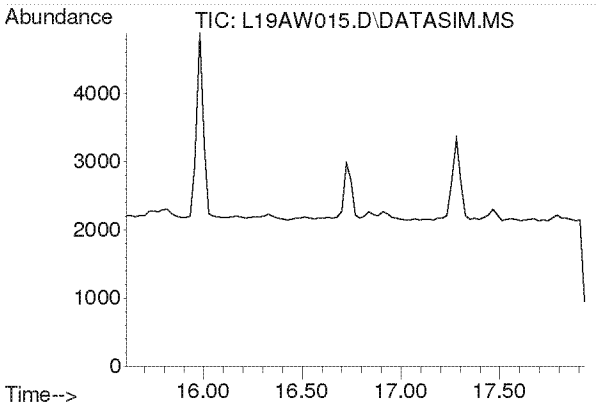
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



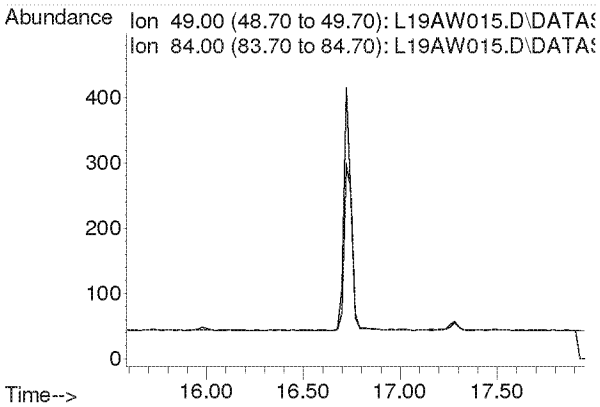


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

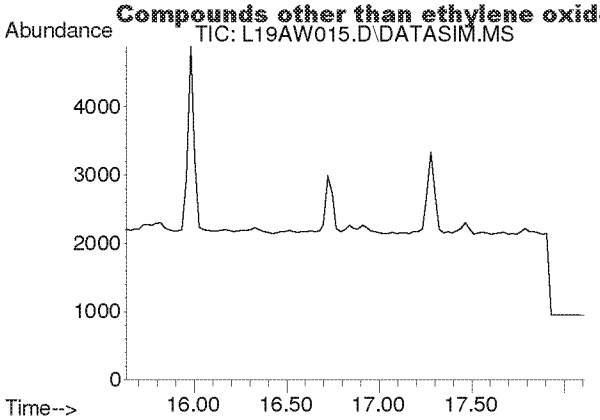
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

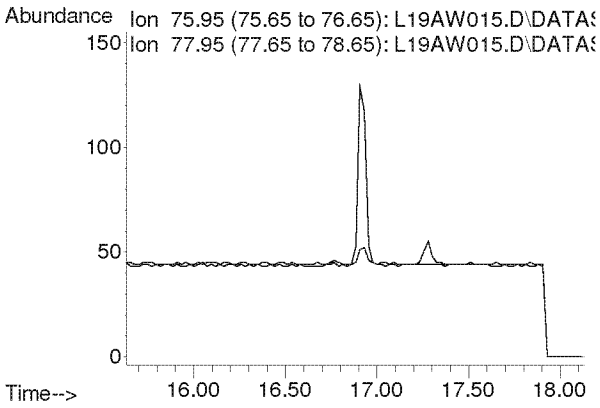


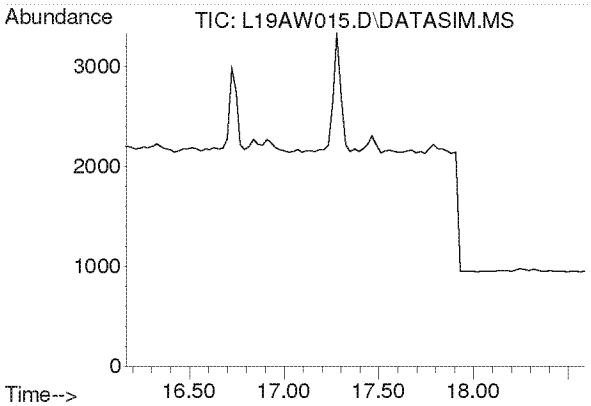
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



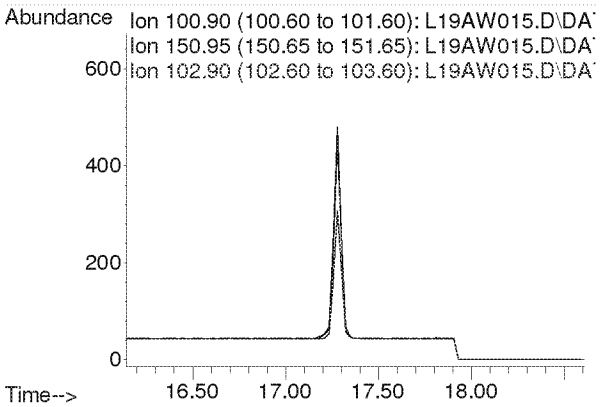


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

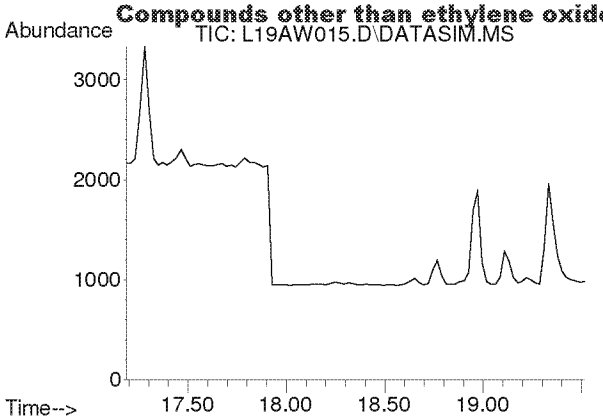
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

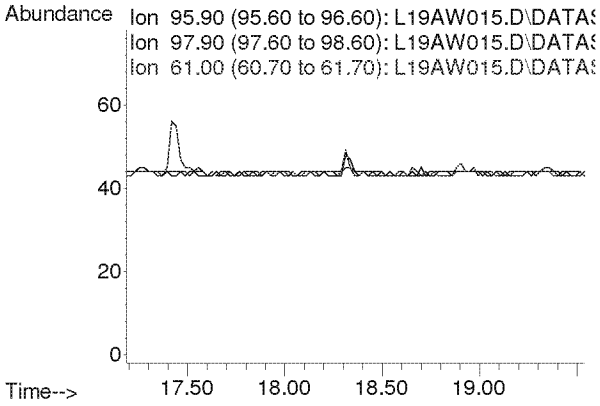


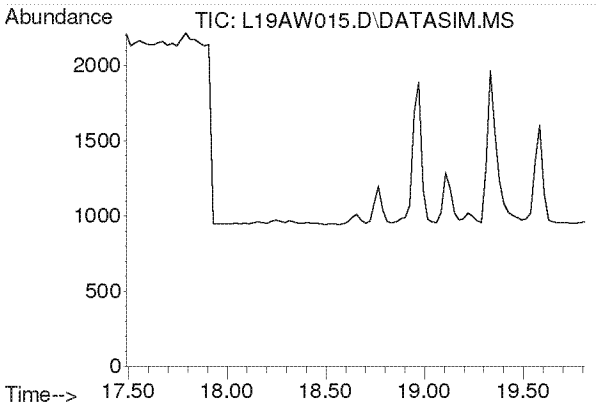
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



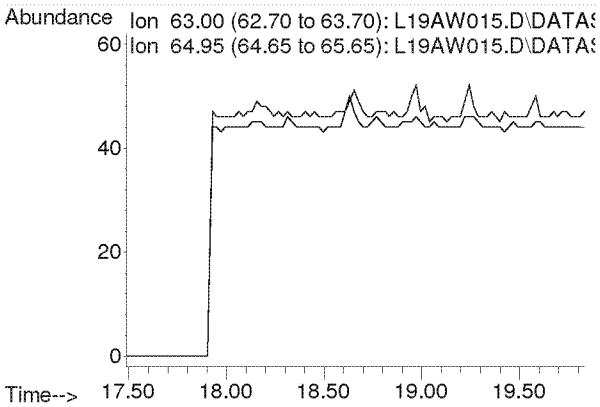


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

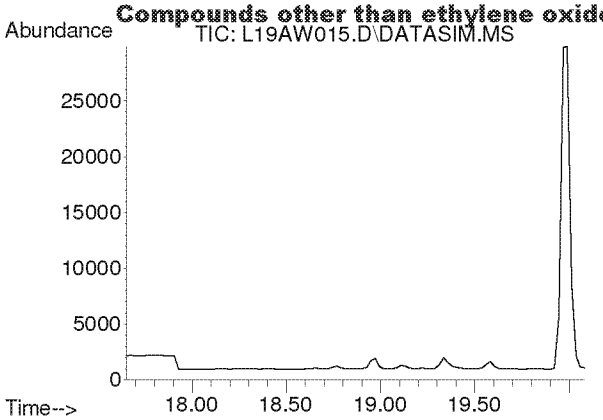
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

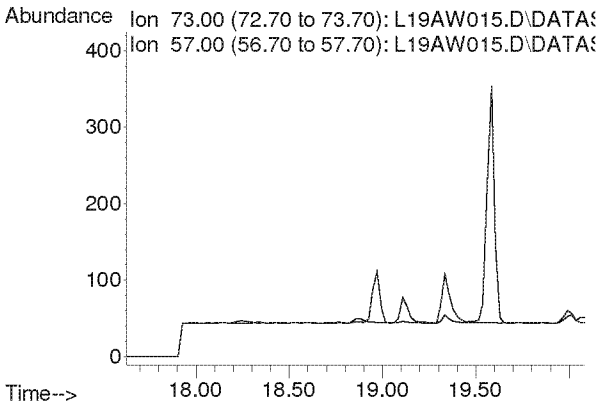


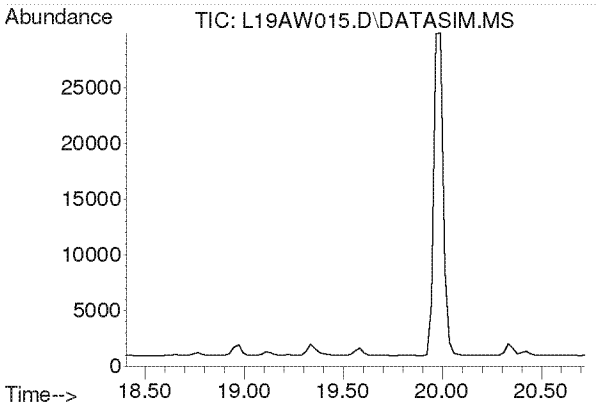
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



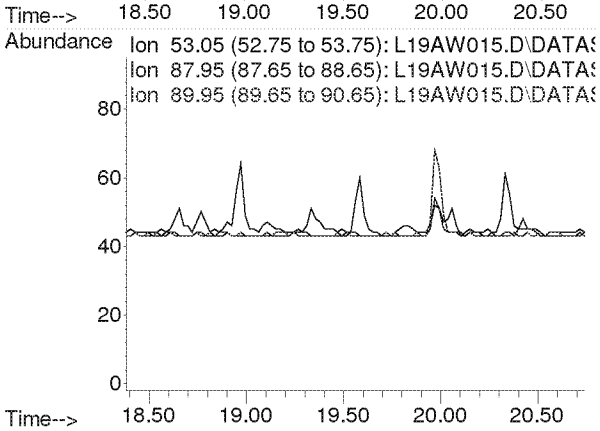


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

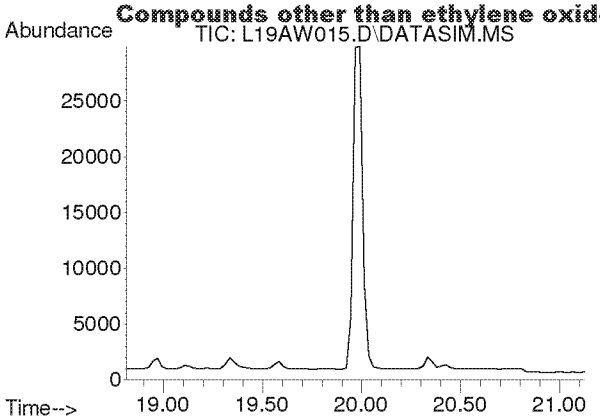
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

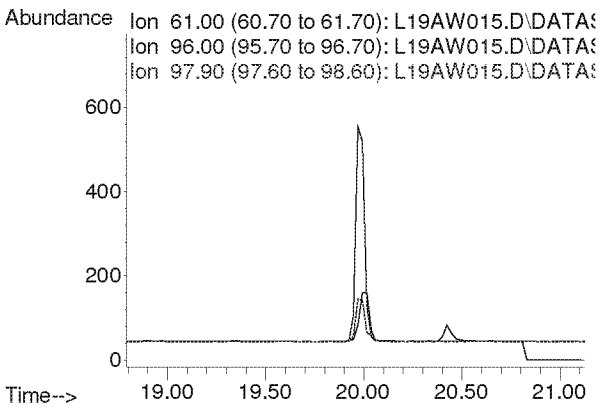


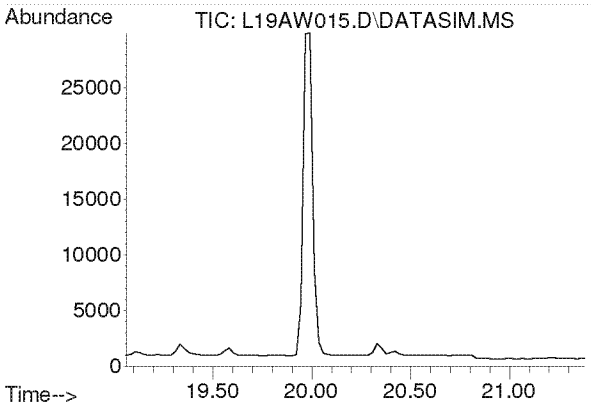
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



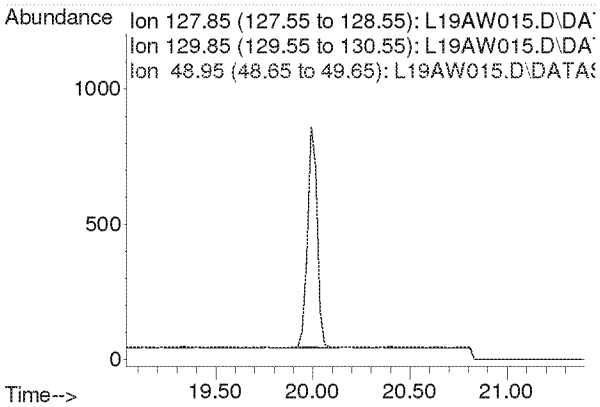


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

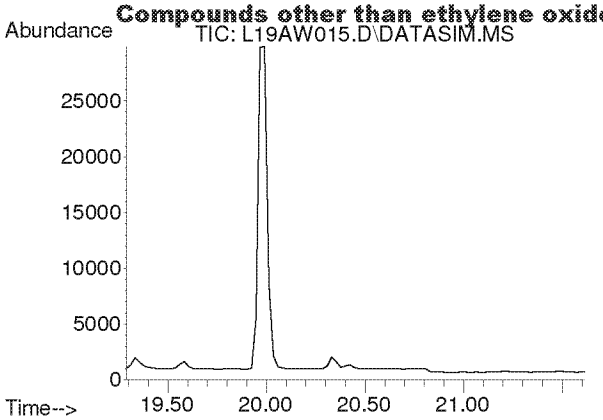
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

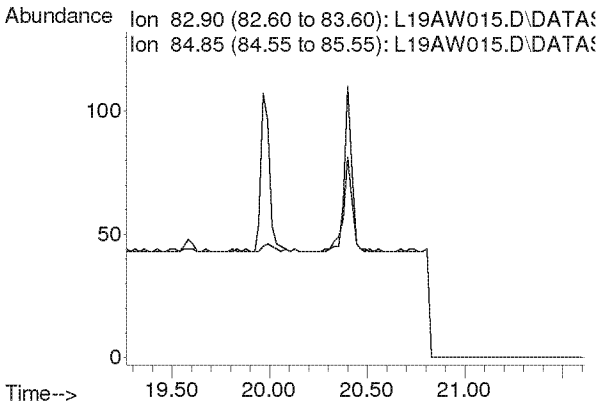


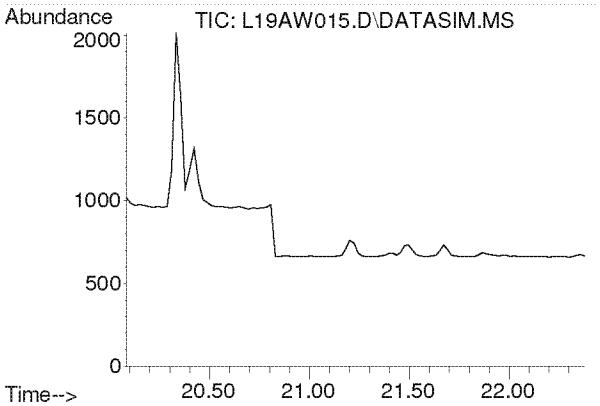
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



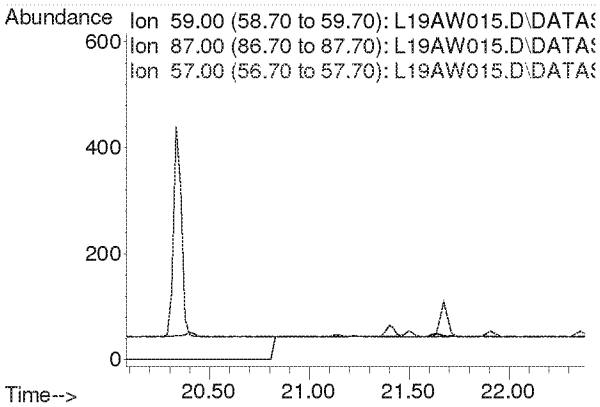


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

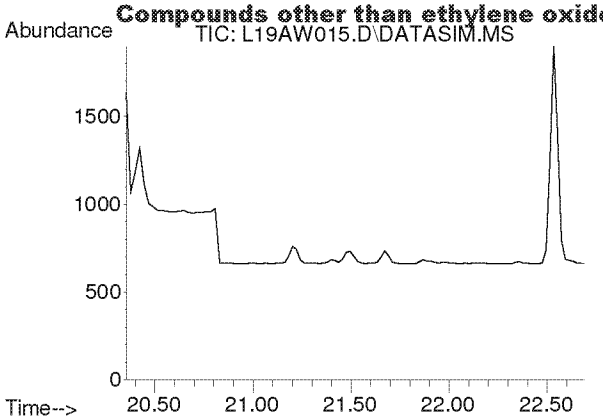
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

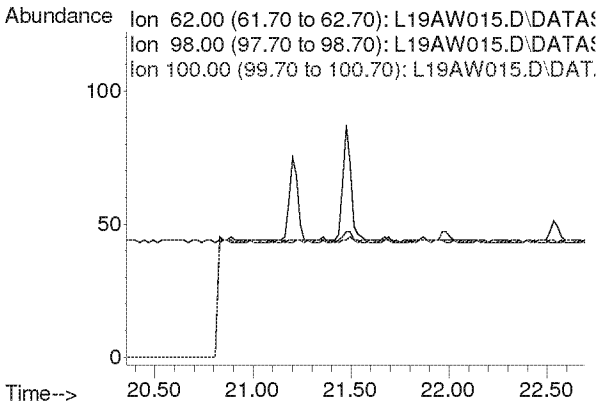


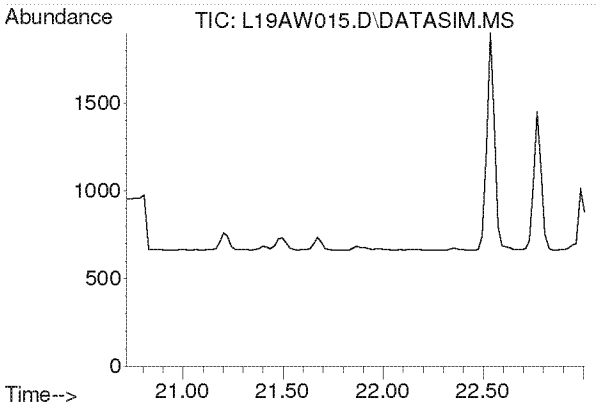
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



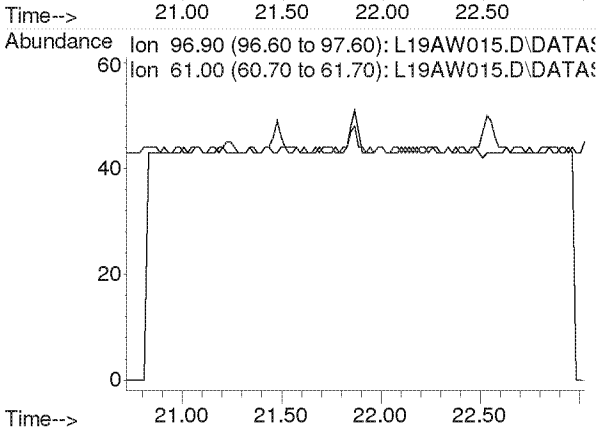


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

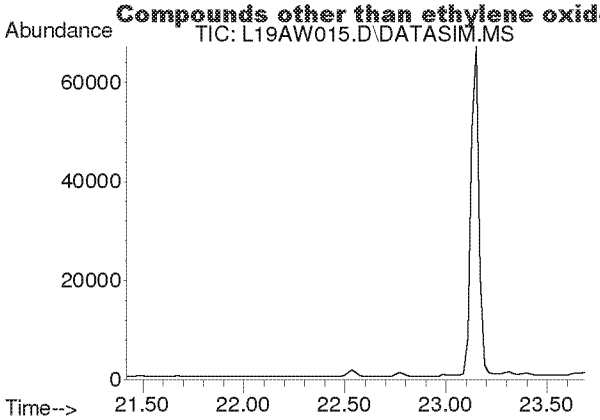
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

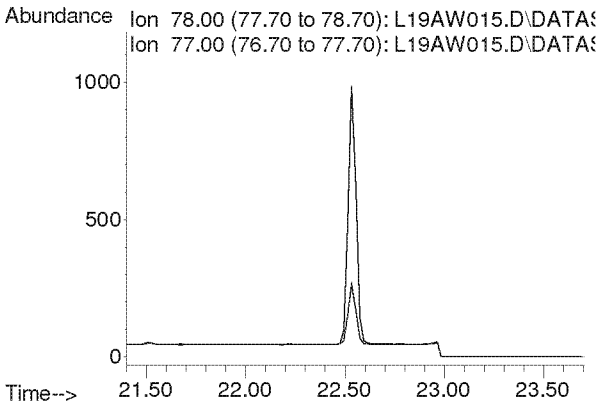


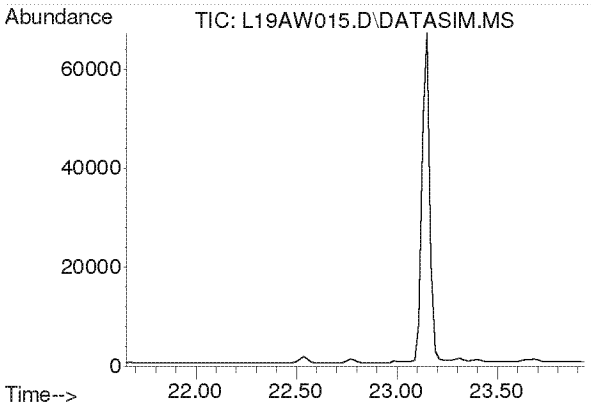
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



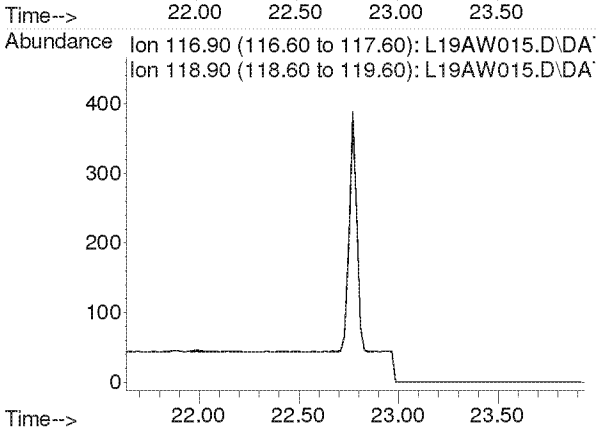


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

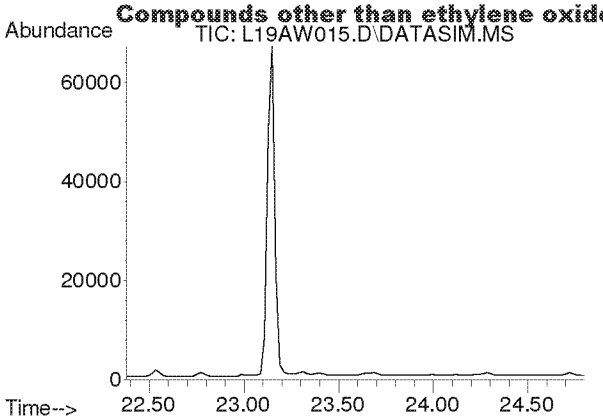
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

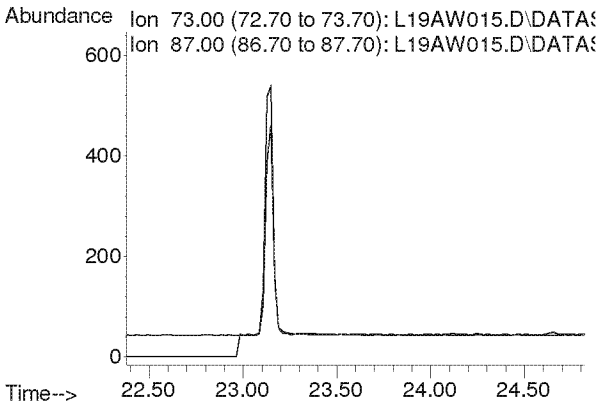


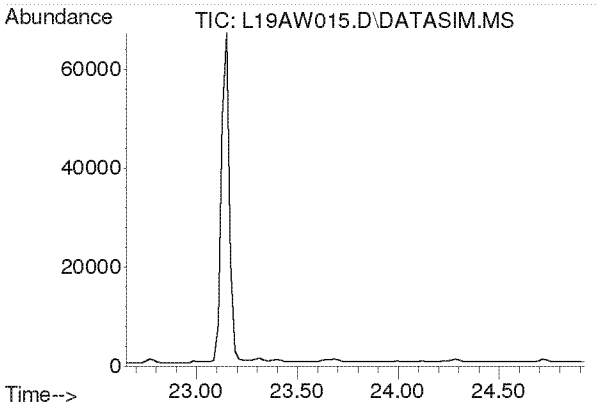
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



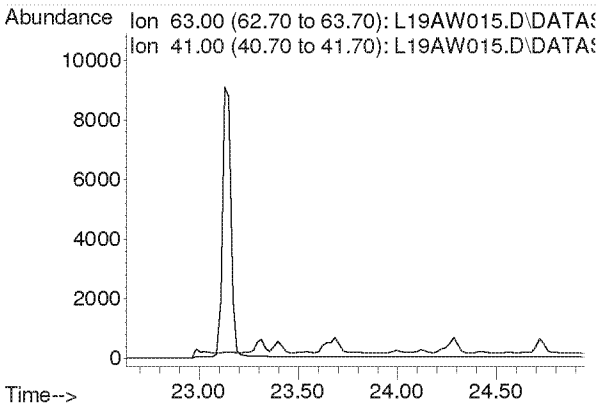


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

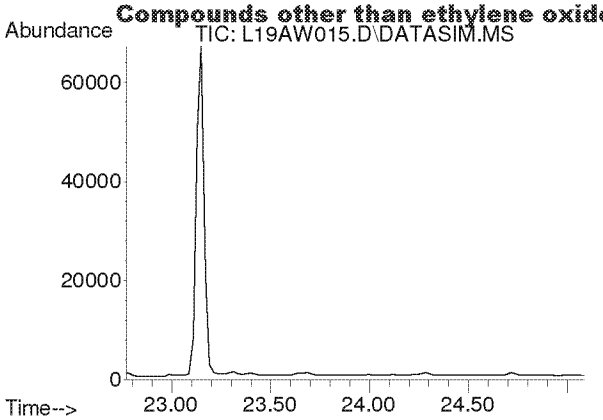
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

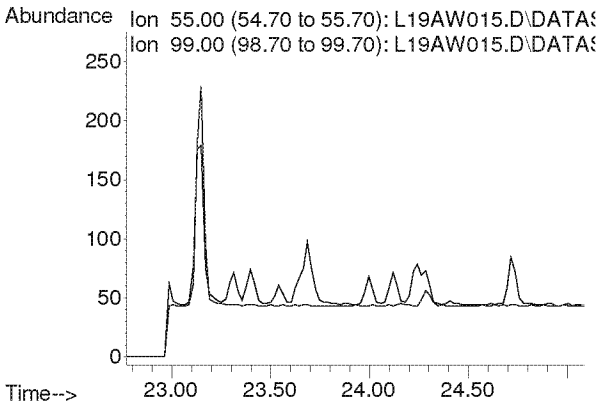


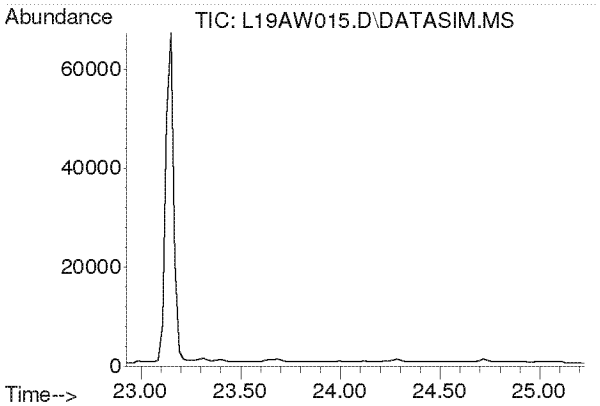
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



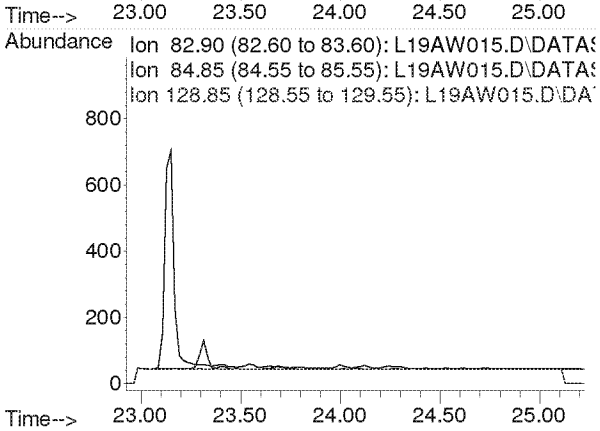


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

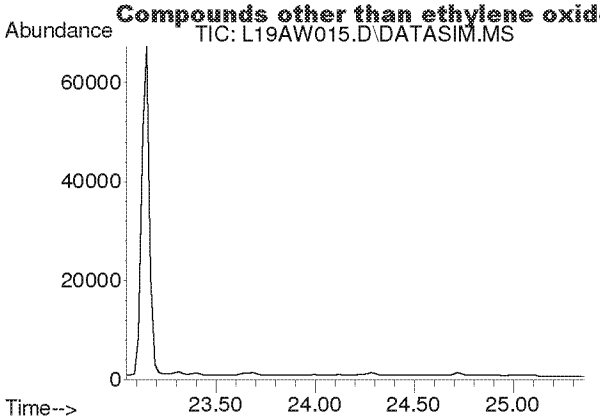
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

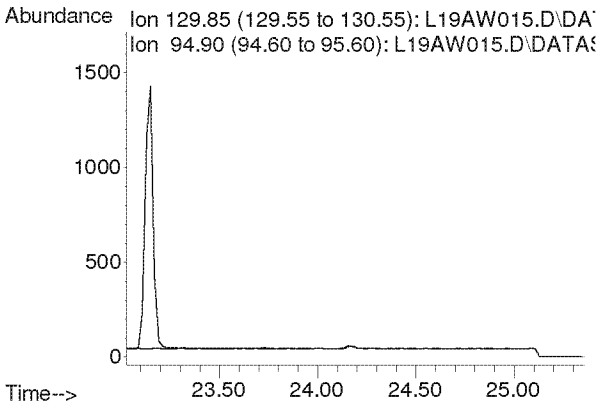


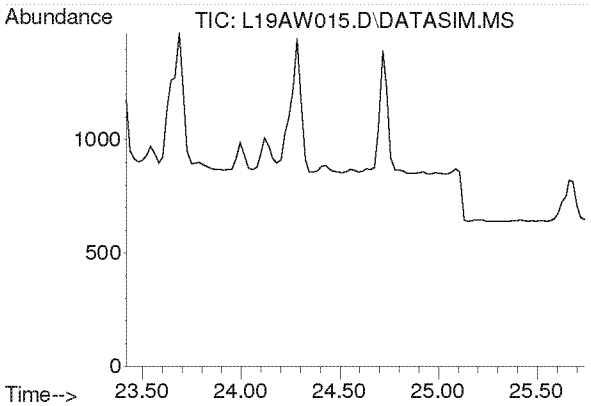
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



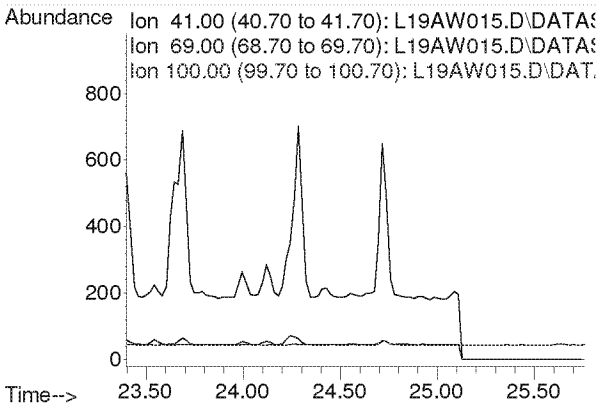


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

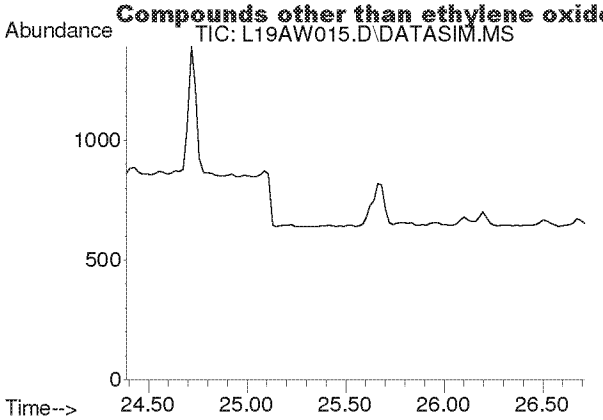
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

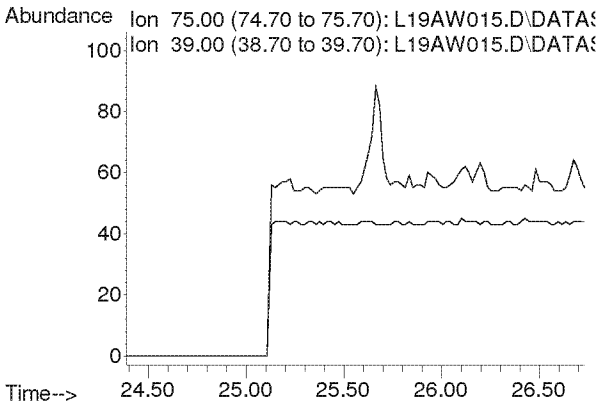


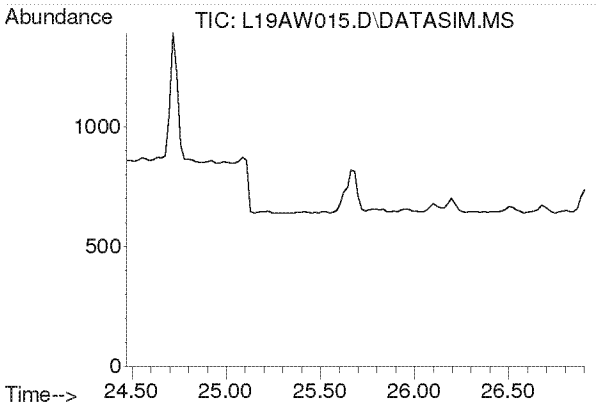
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



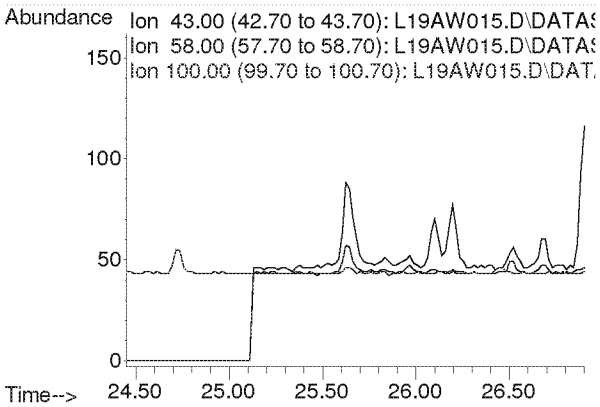


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

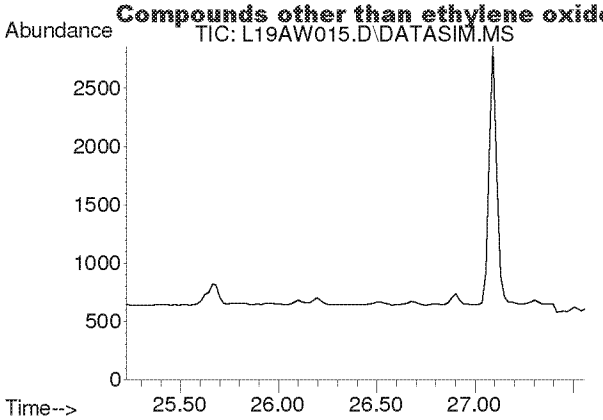
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

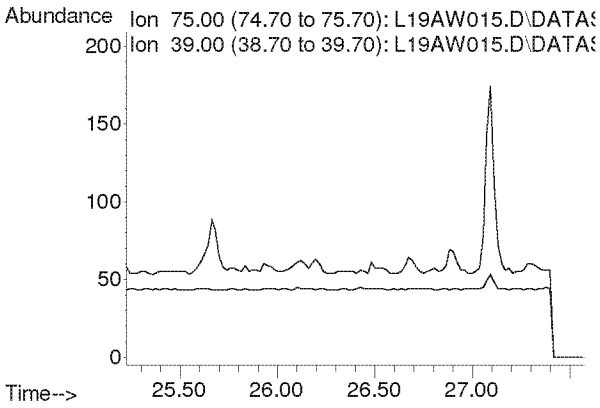


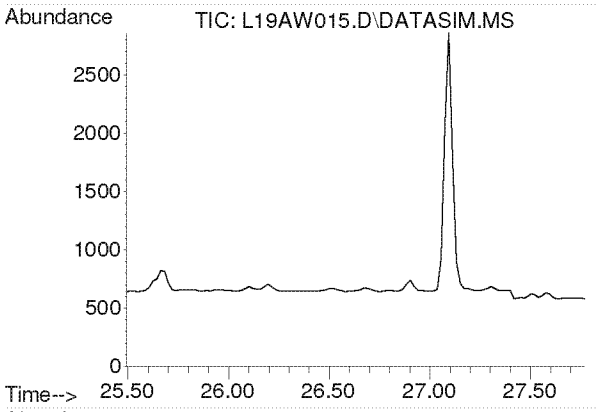
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



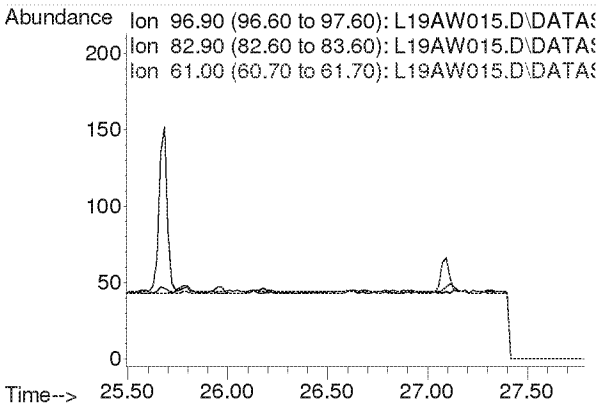


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

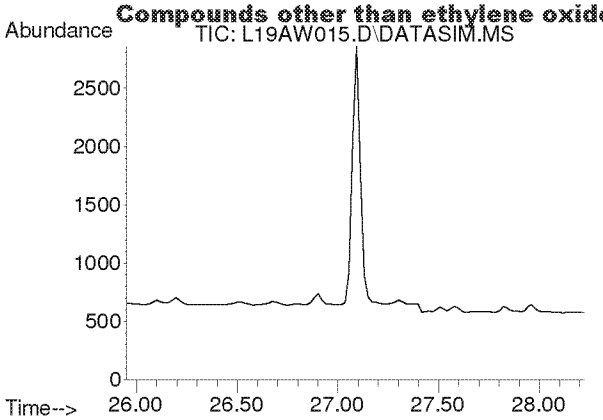
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

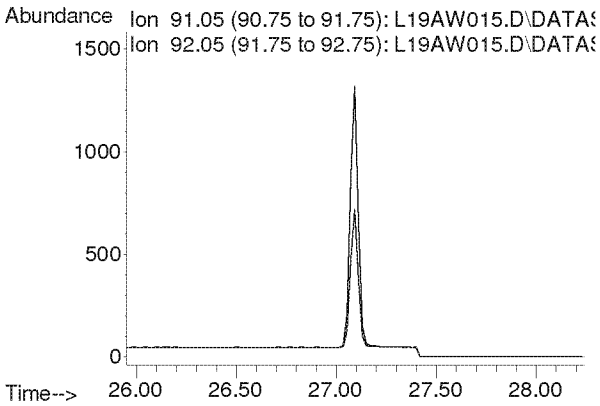


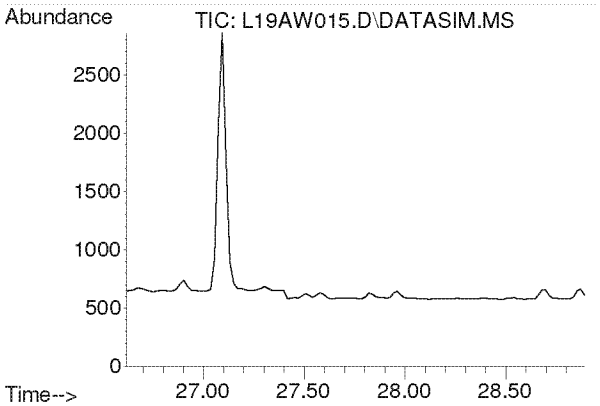
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



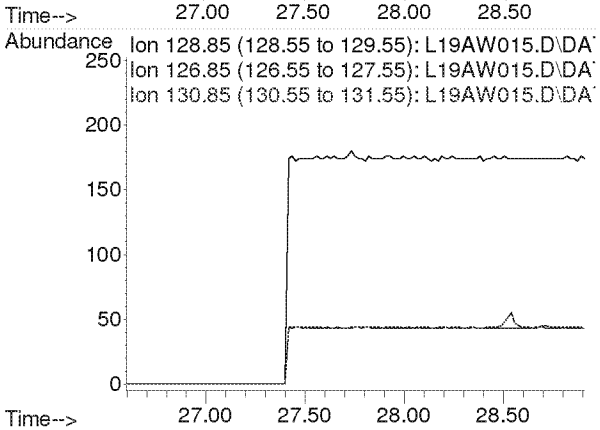


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

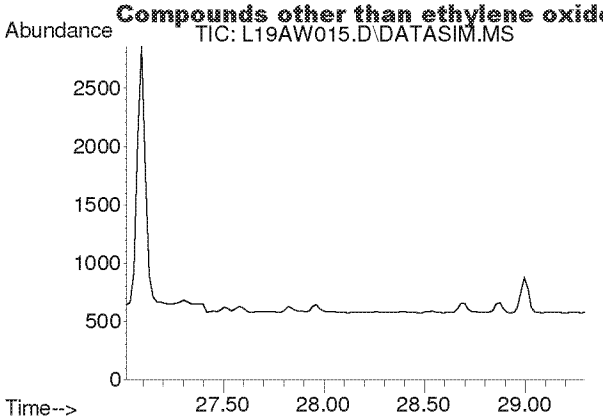
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

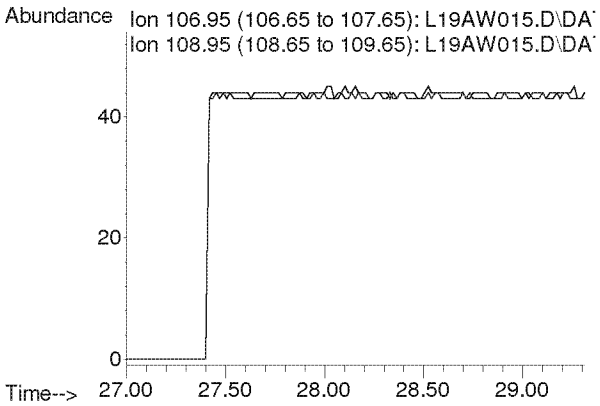


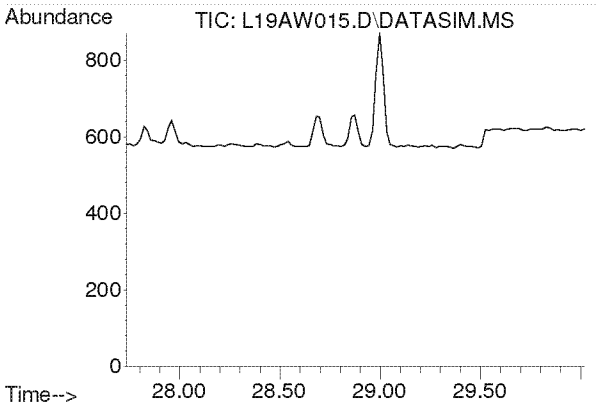
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



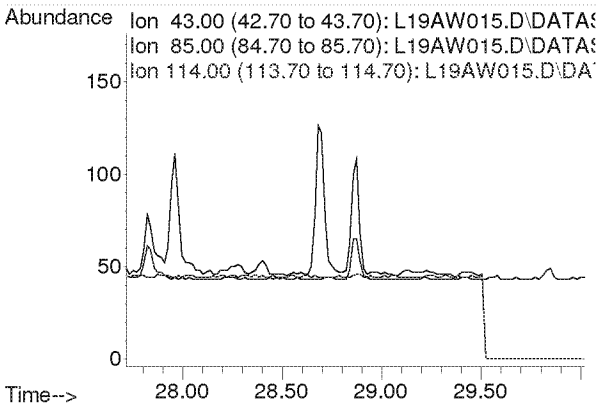


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

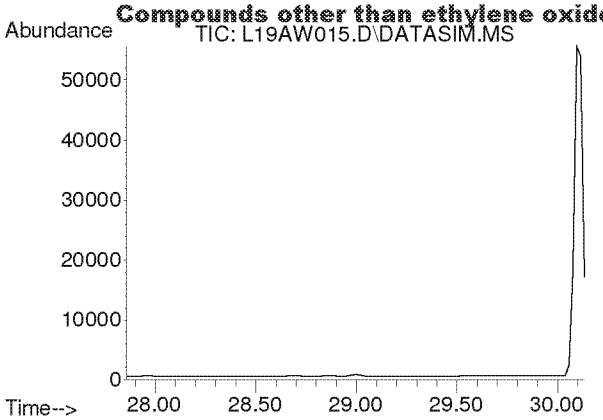
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

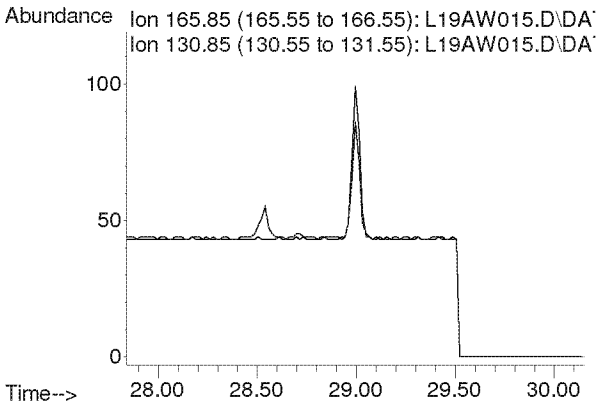


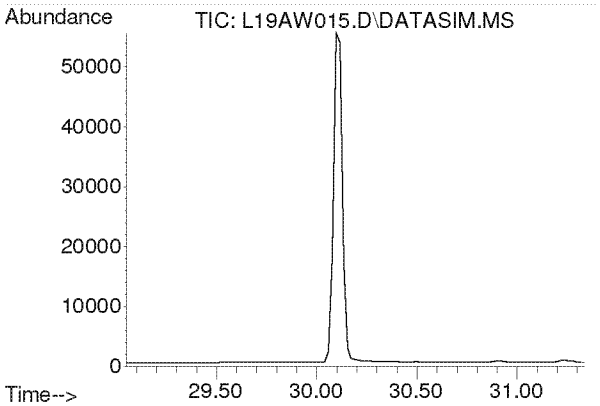
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



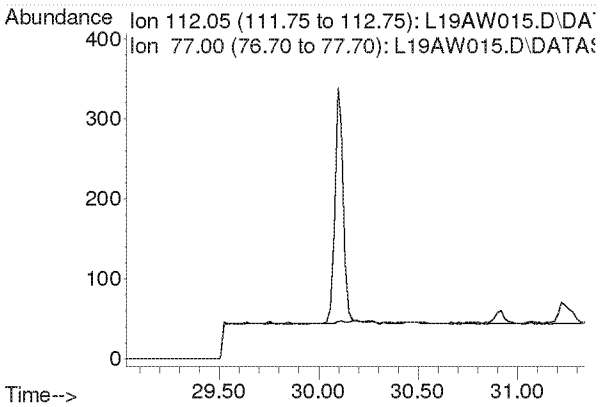


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

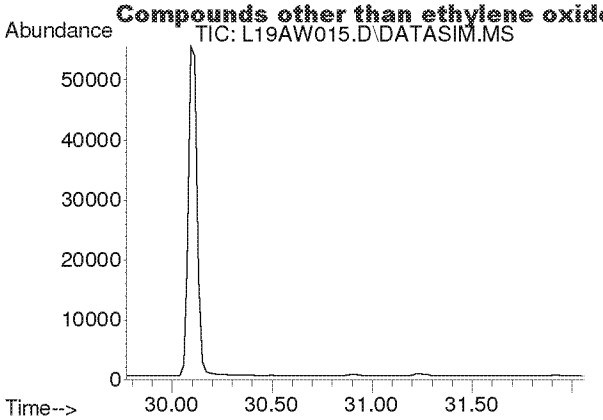
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

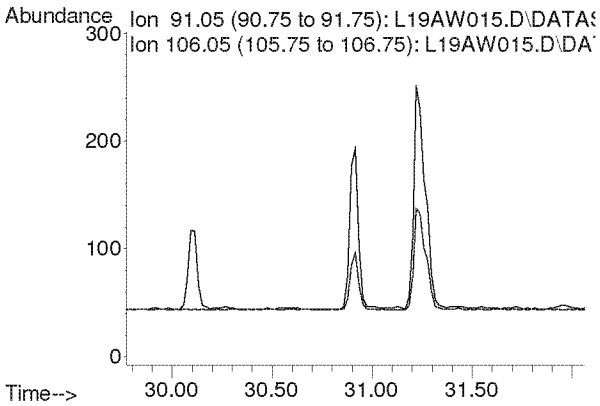


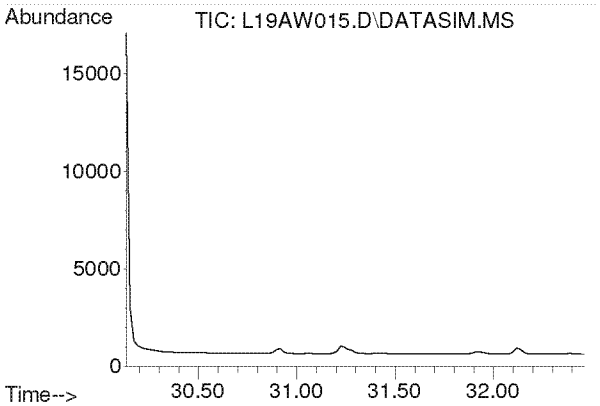
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



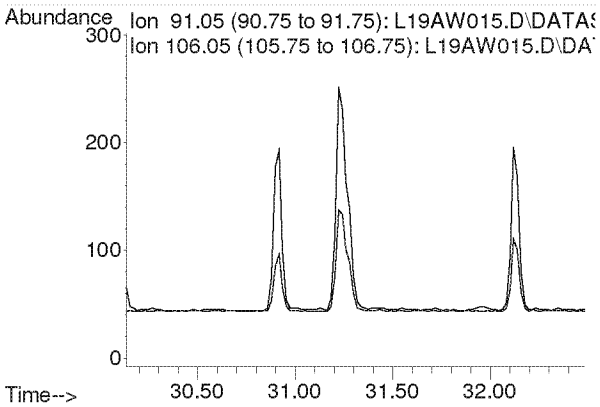


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

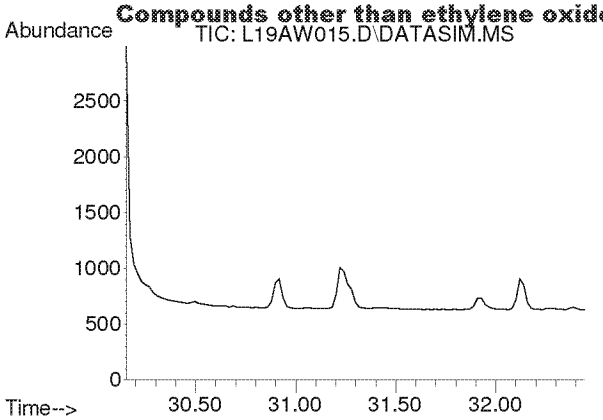
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

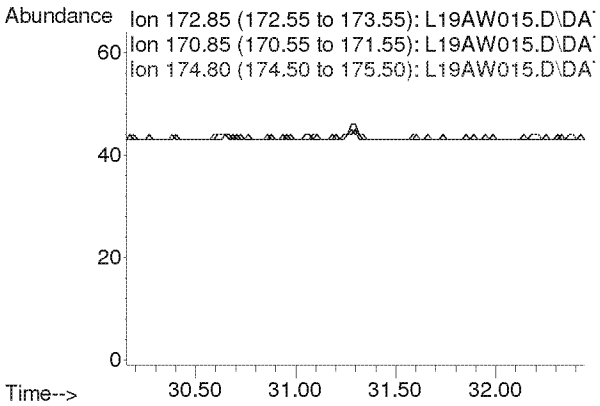


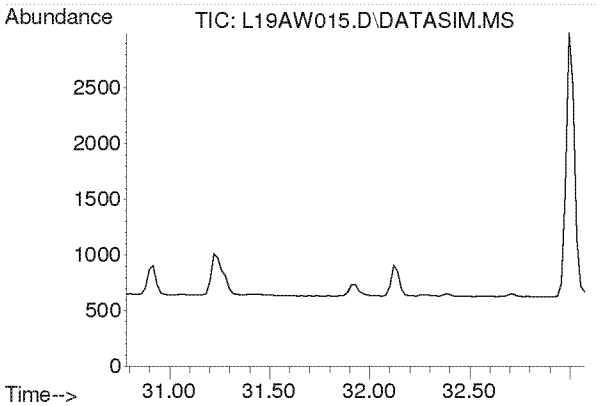
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



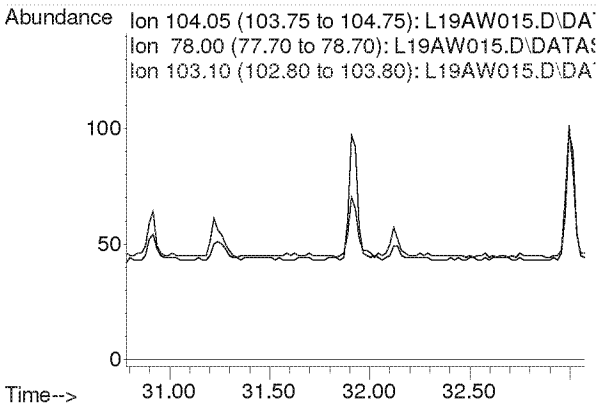


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

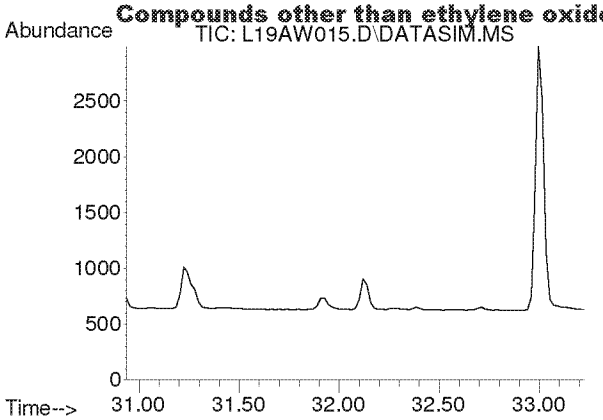
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

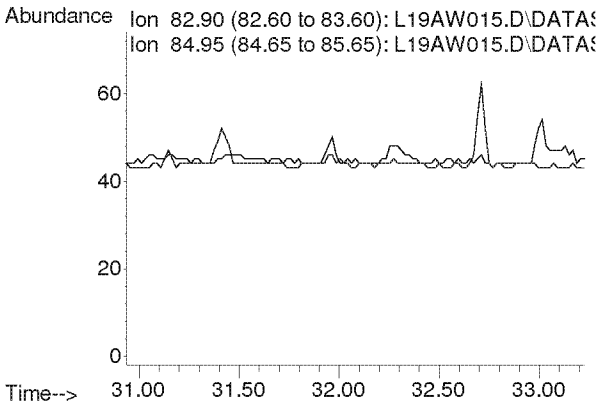


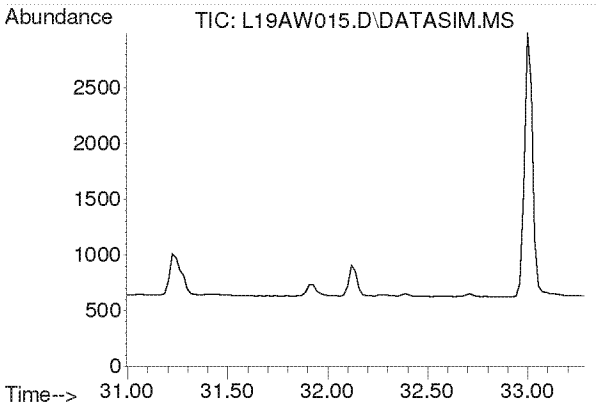
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



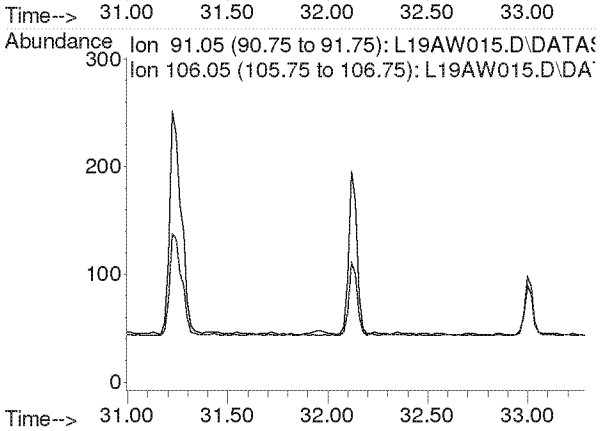


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

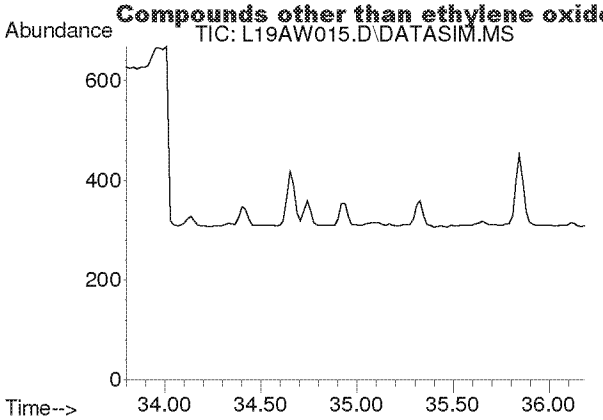
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

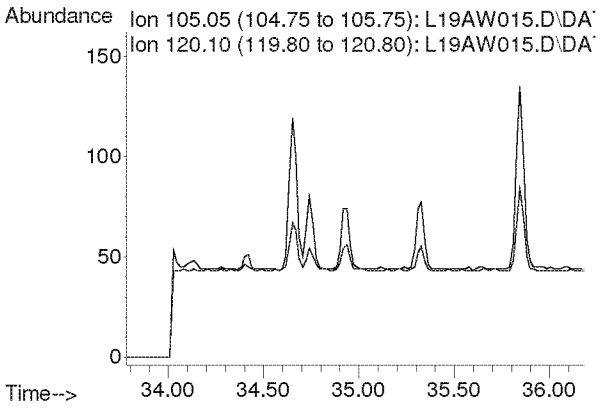


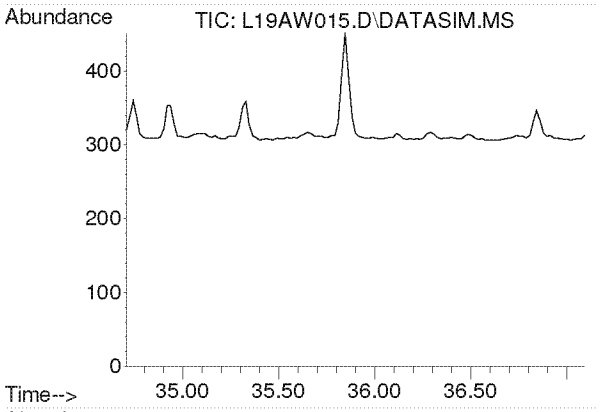
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



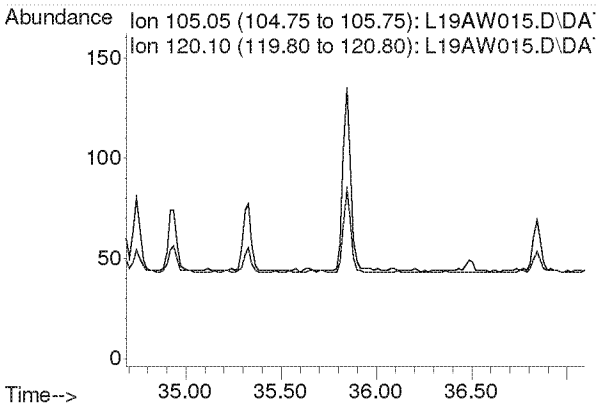


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

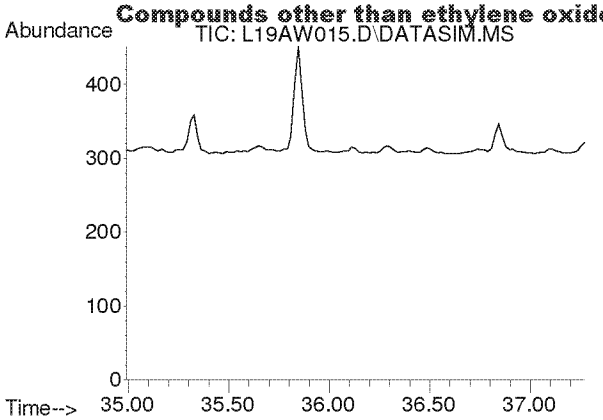
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

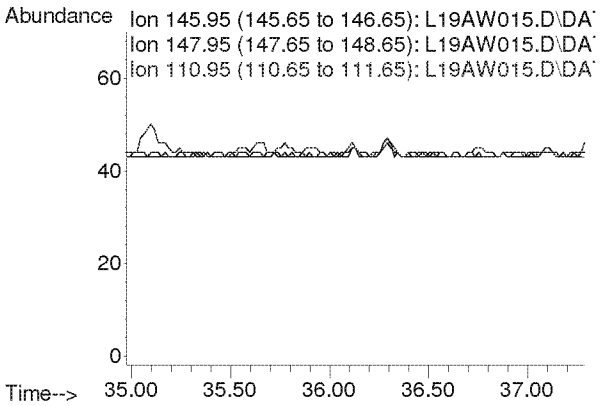


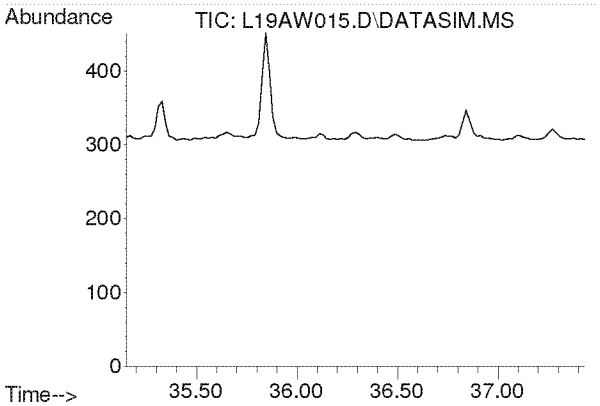
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



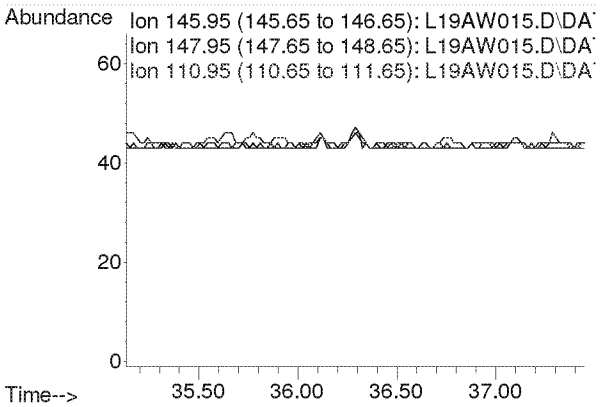


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

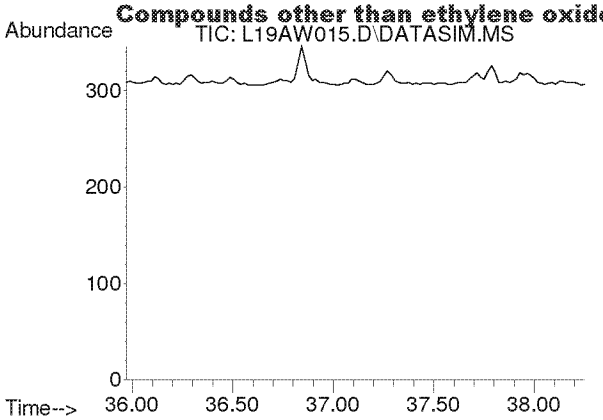
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

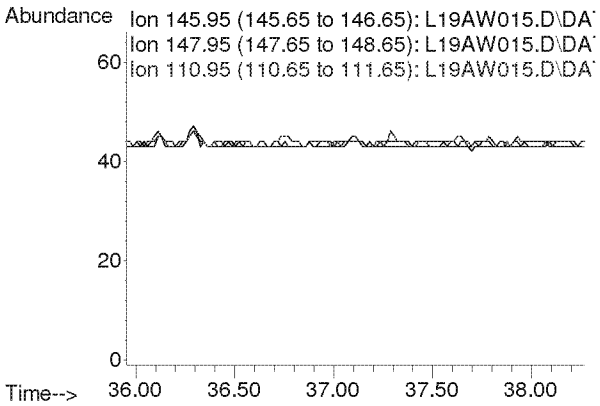


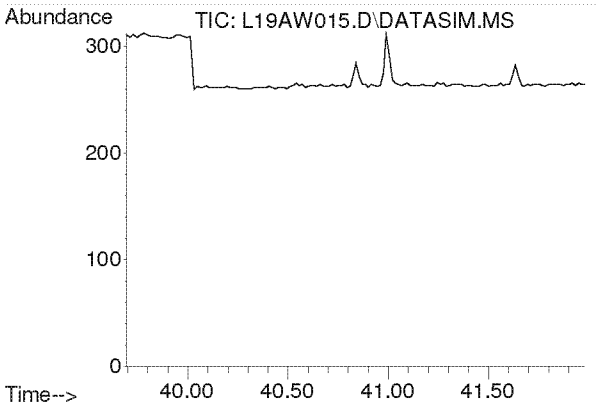
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



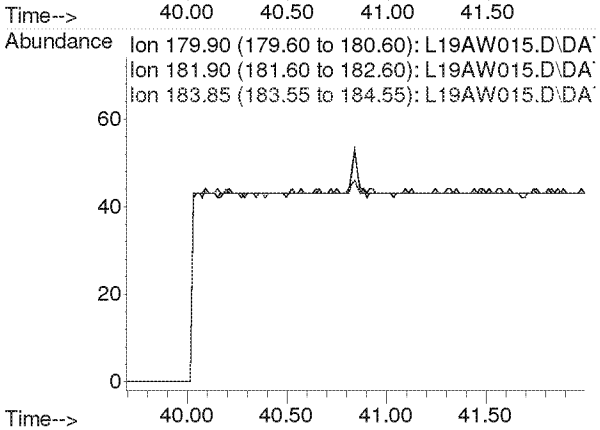


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

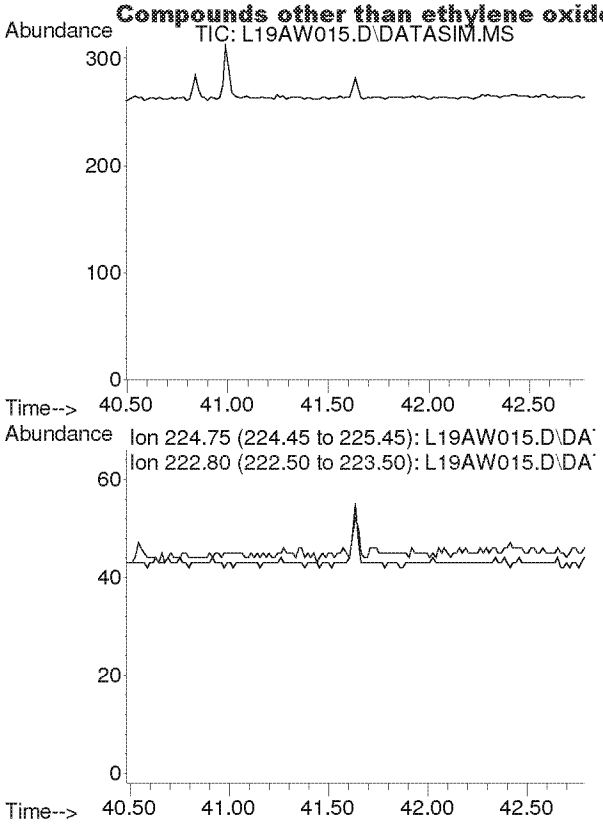
Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AW015.D
Acq: 23 Jan 2019 11:42 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\L19AW\
Data File : L19AW016.D
Acq On : 24 Jan 2019 12:44 am
Operator : MAH
Sample : 9012221-03
Misc : WATER TOWER 1/18/19
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 29 08:28:47 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

d: MA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	50634	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.150	114	119687	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.115	117	93724	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	12.455	29	458m	0.1751 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.	
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. 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\L19AW\
Data File : L19AW016.D
Acq On : 24 Jan 2019 12:44 am
Operator : MAH
Sample : 9012221-03
Misc : WATER TOWER 1/18/19
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 29 08:28:47 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
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.	

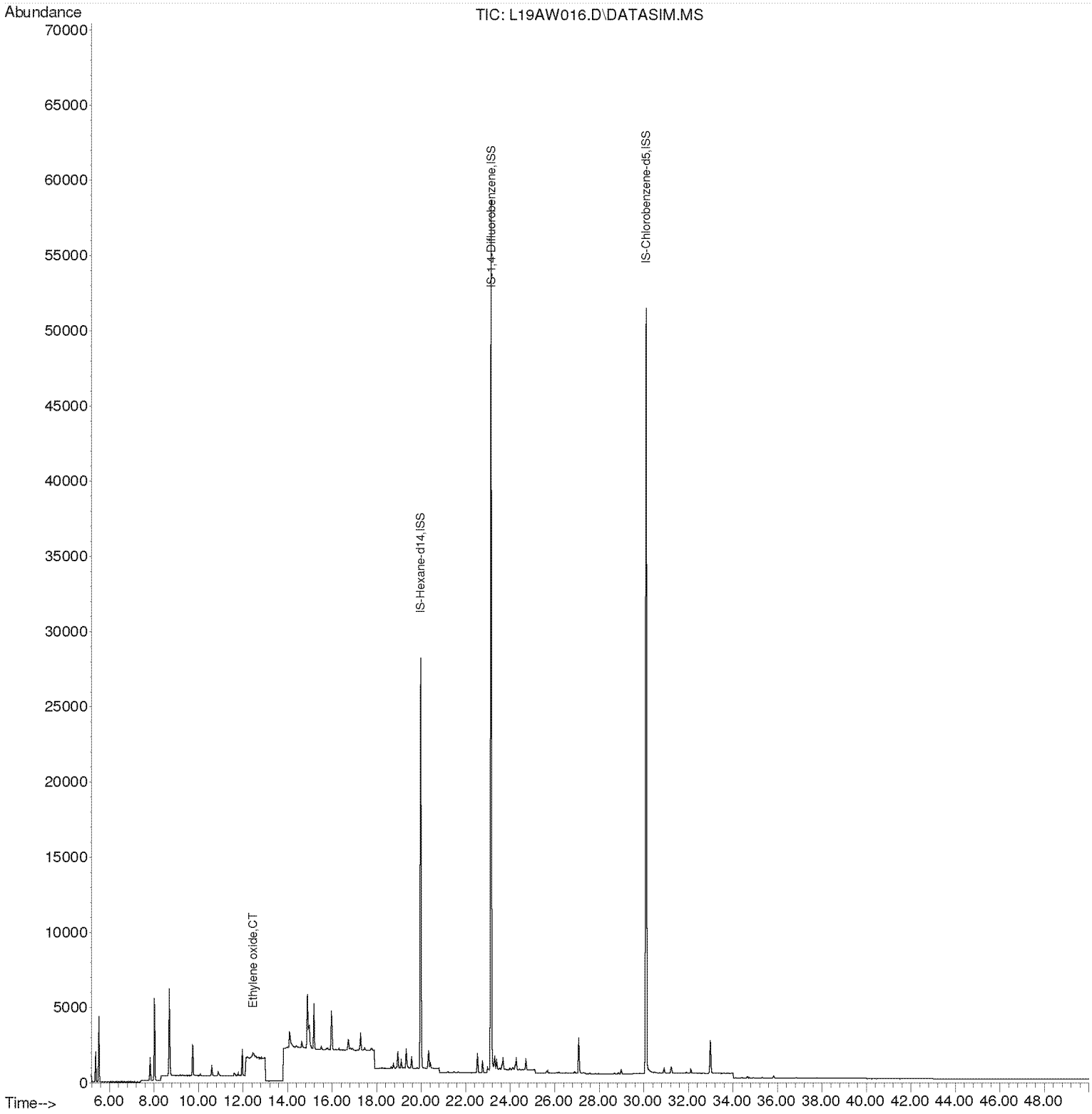
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000318-00415

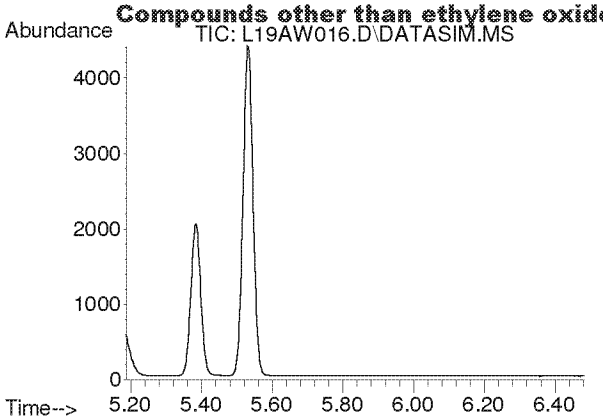
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW016.D
Acq On : 24 Jan 2019 12:44 am
Operator : MAH
Sample : 9012221-03
Misc : WATER TOWER 1/18/19
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jan 29 08:09:37 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



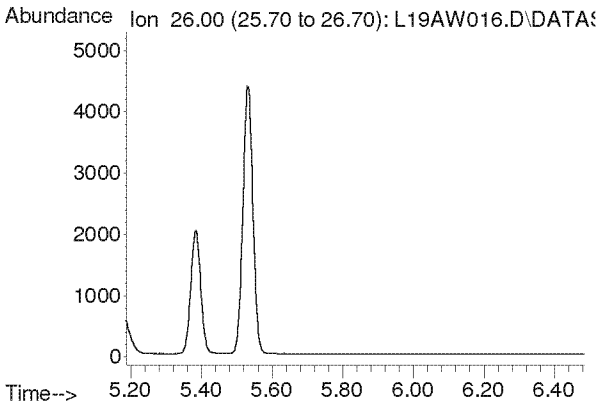
Compounds other than ethylene oxide were not quantitated.

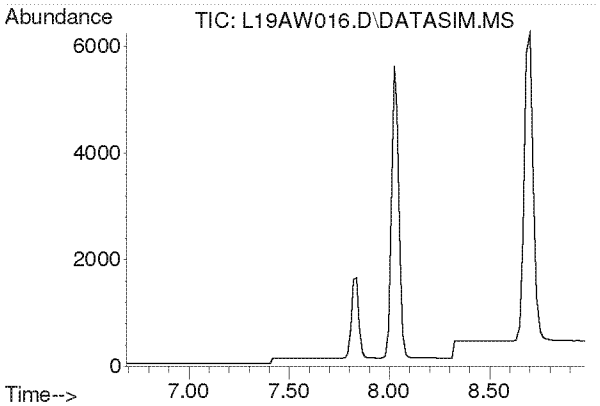


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 26



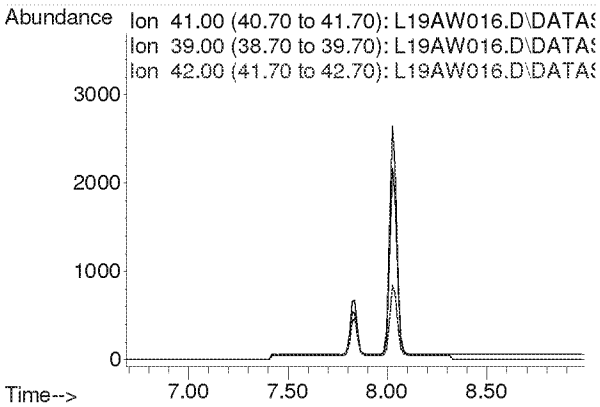


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

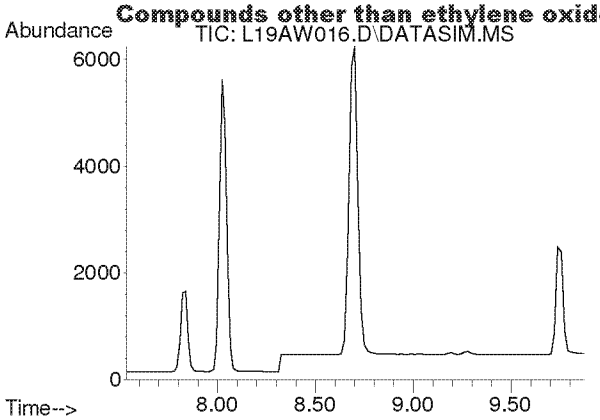
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

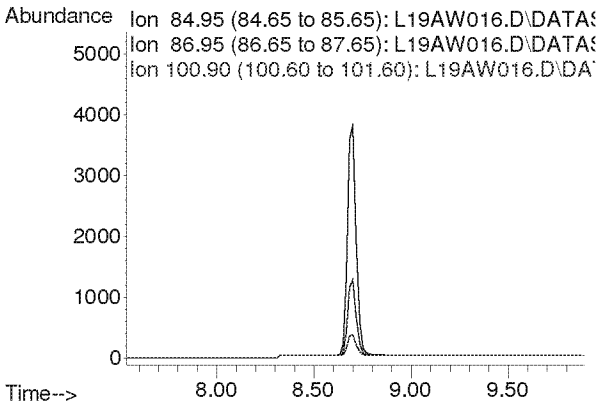


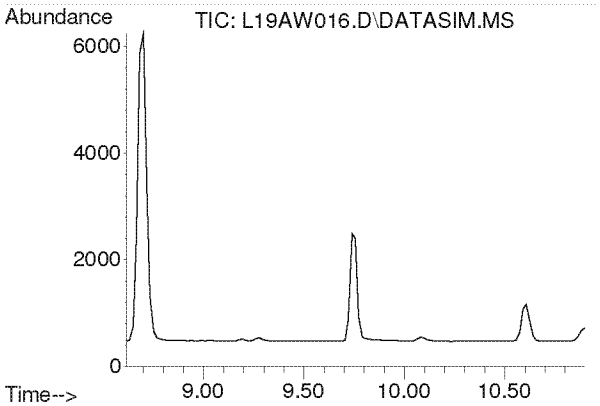
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



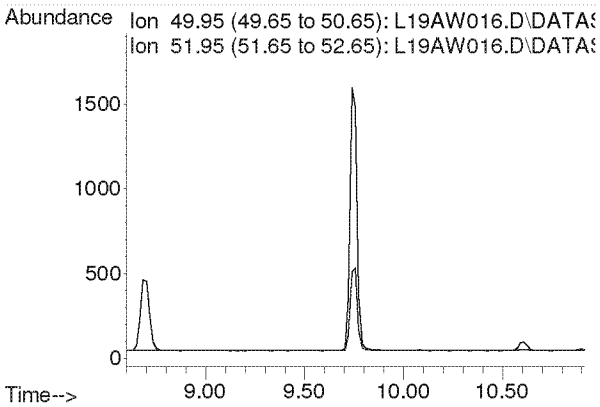


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

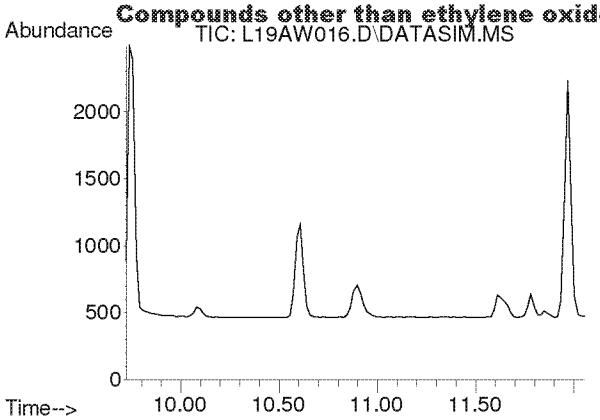
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

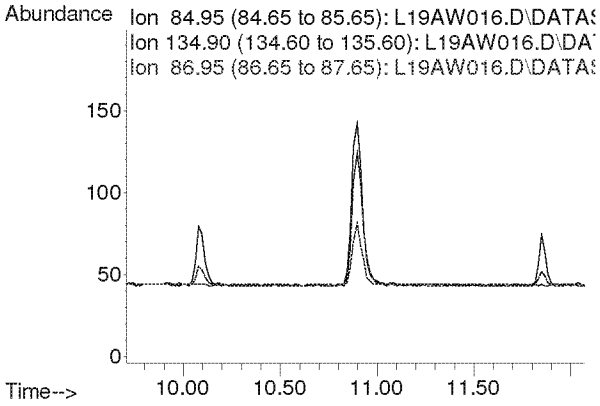


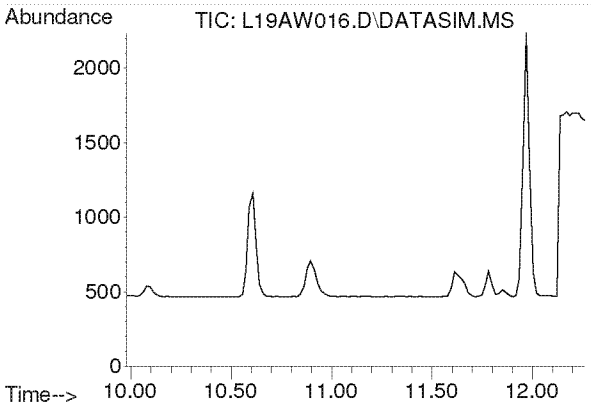
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



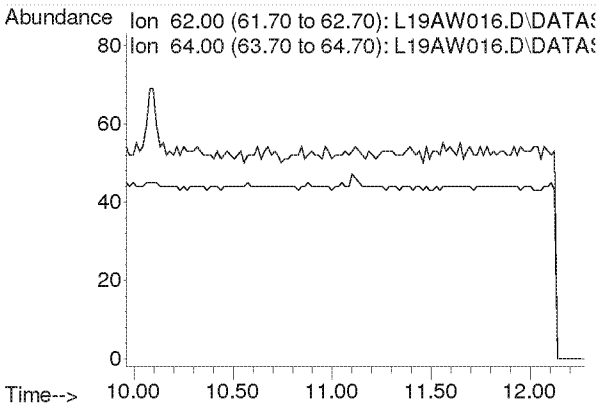


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

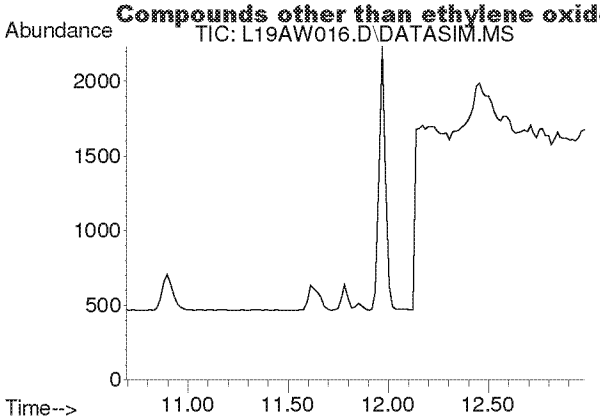
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

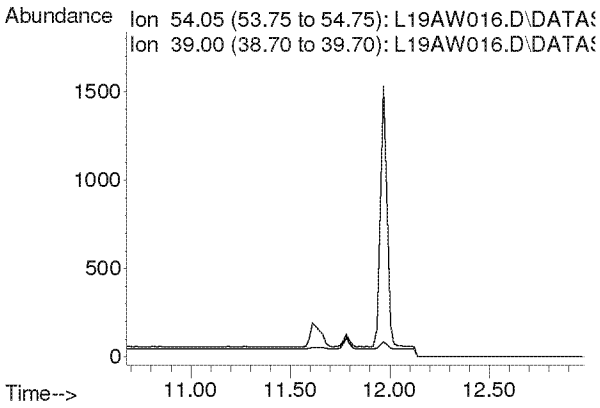


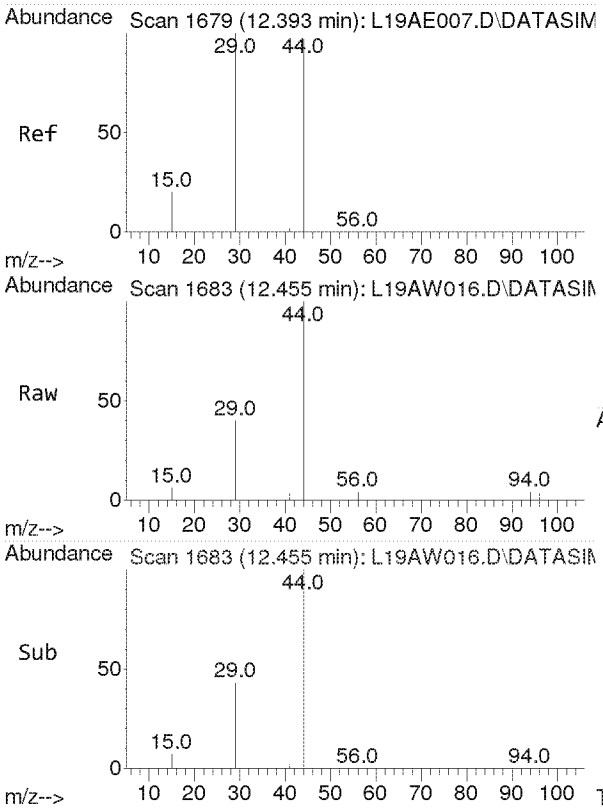
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

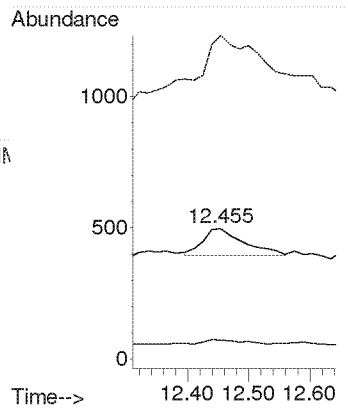




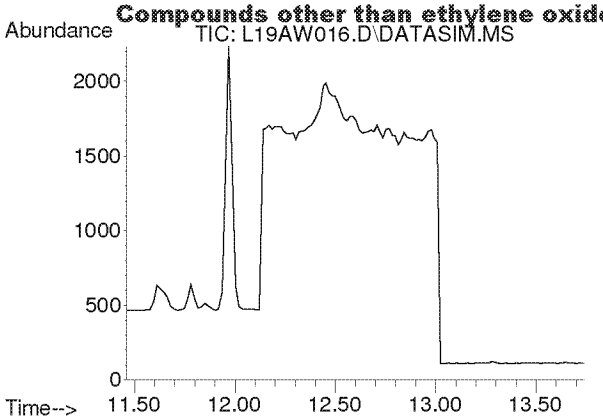
#9
Ethylene oxide
Concen: 0.175 ppbv m
RT: 12.455 min Scan# 1683
Delta R.T. 0.062 min
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 29 Resp: 458

Ion	Ratio	Lower	Upper
29	100		
15	16.8	15.4	23.0
44	443.7	77.4	116.2#



Compounds other than ethylene oxide were not quantitated.

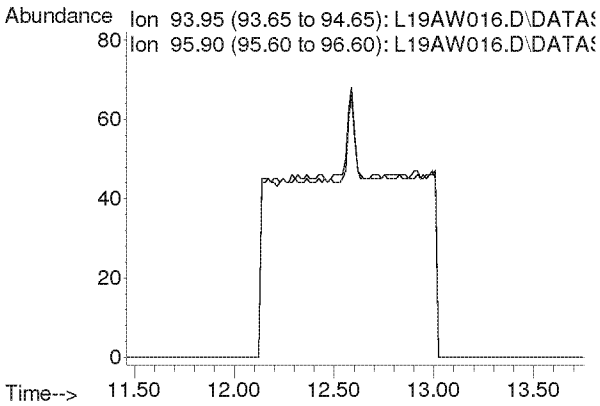


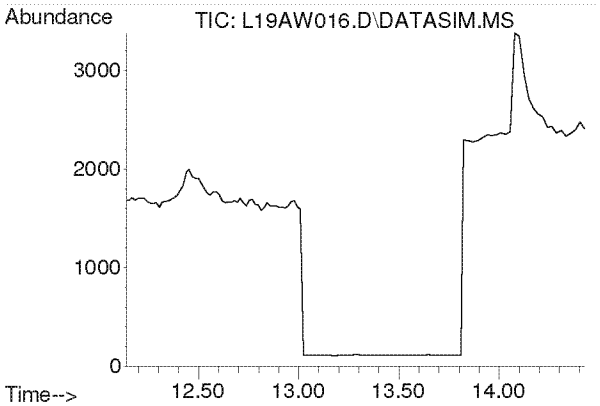
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



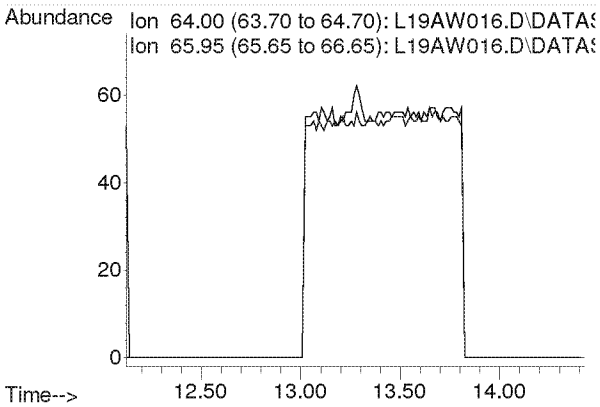


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

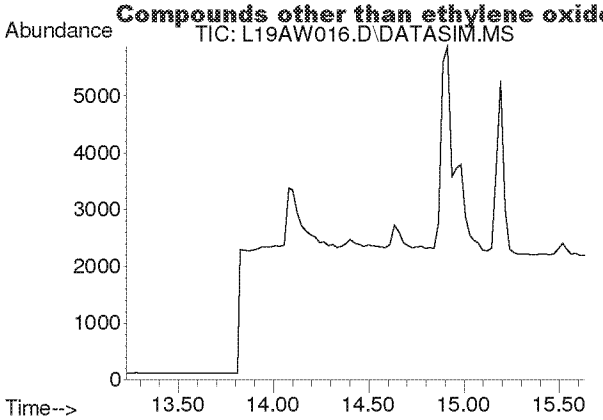
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

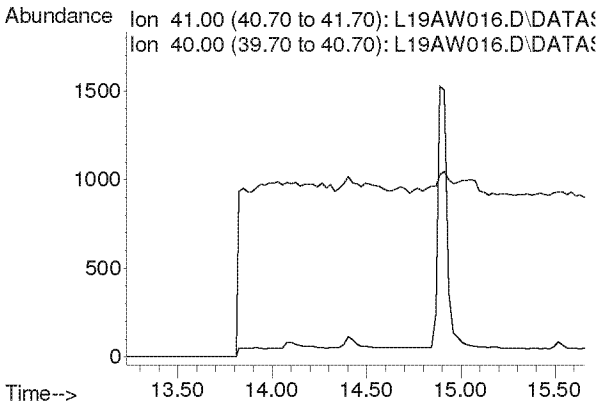


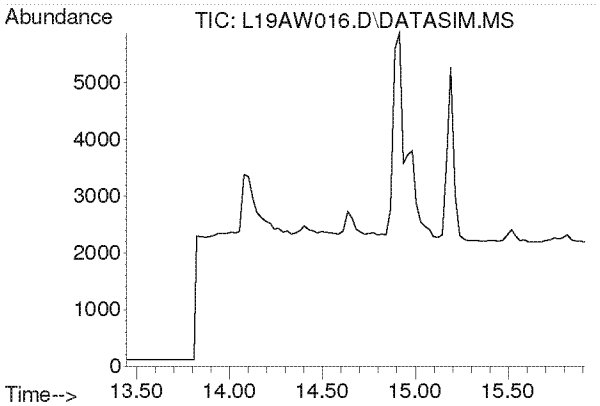
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



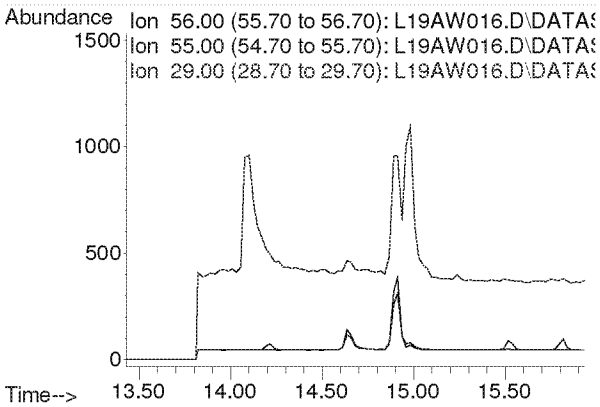


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

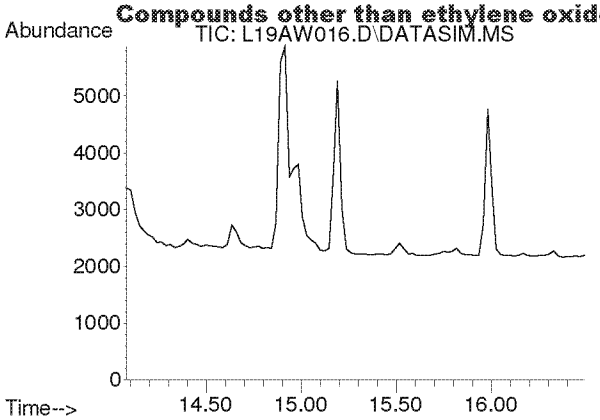
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

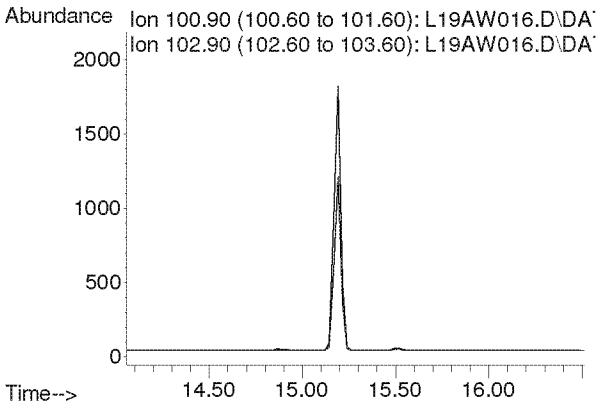


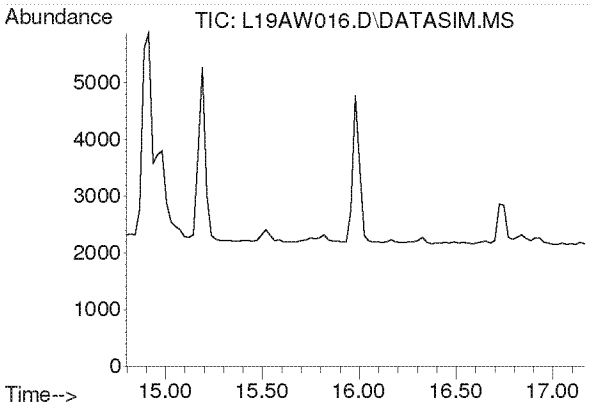
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



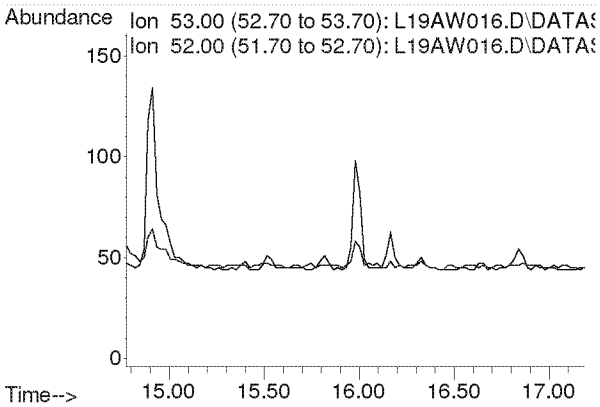


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

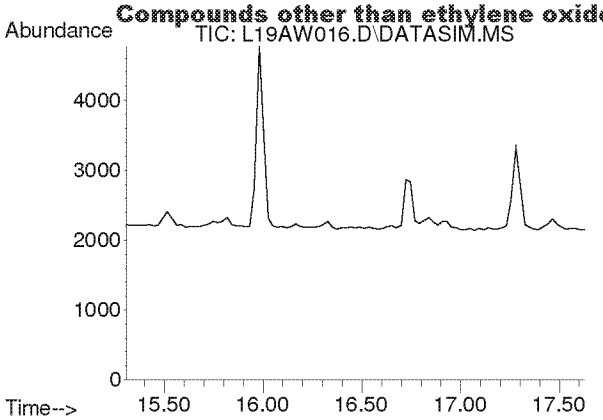
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

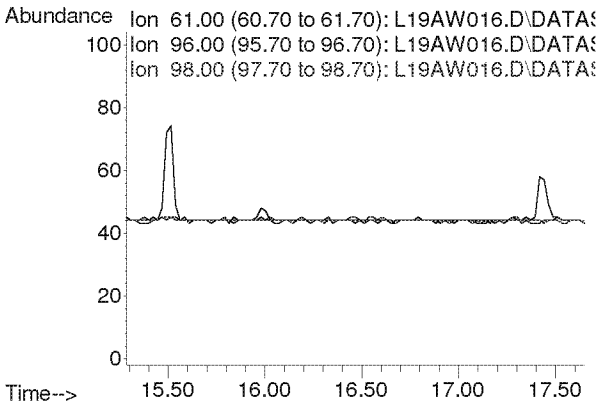


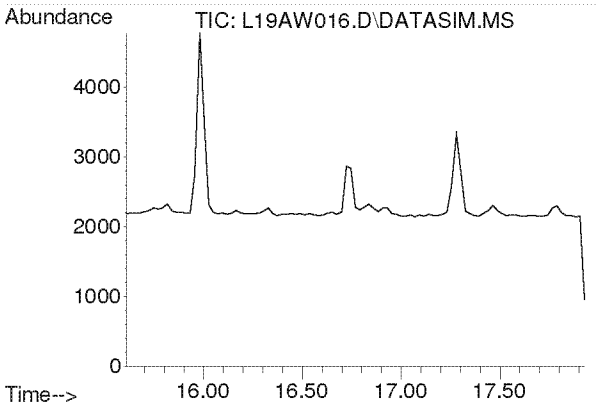
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



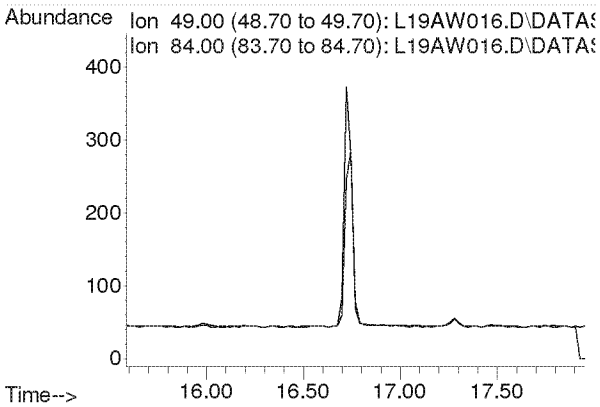


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

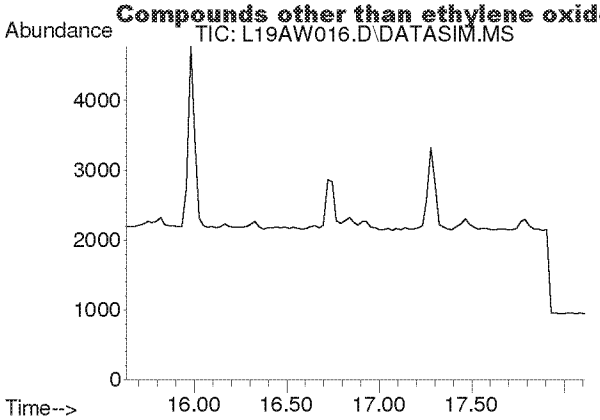
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

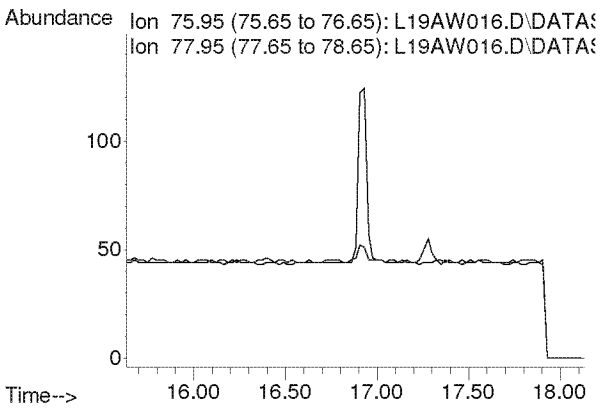


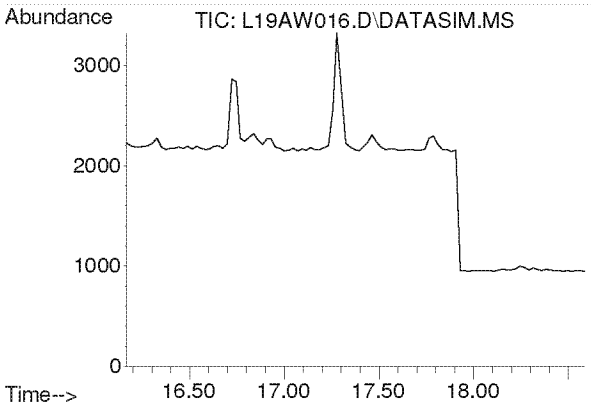
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



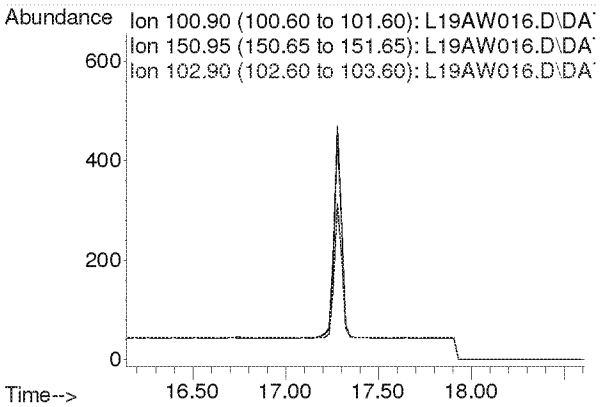


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

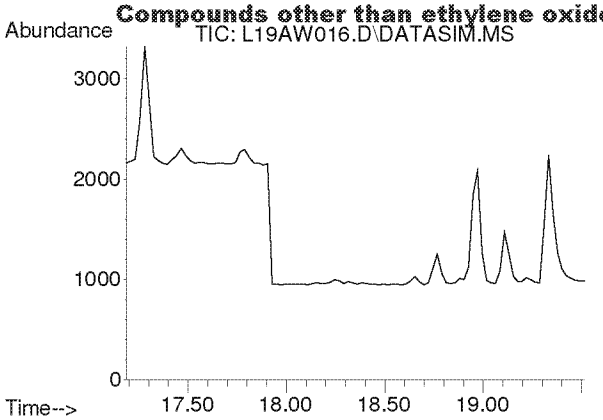
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

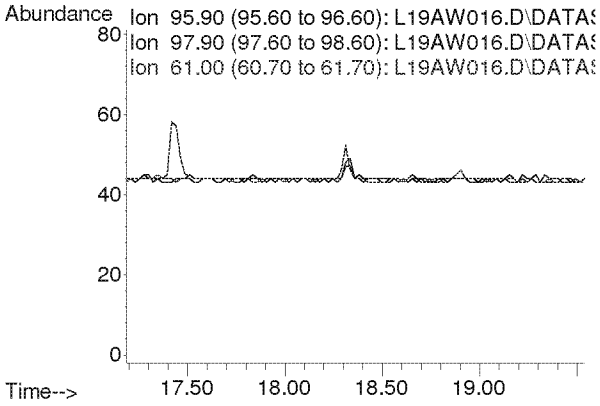


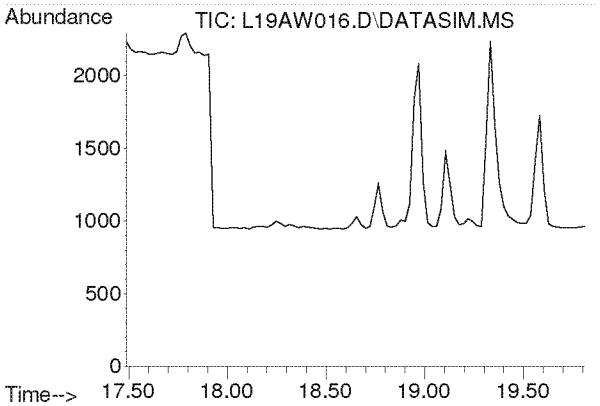
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



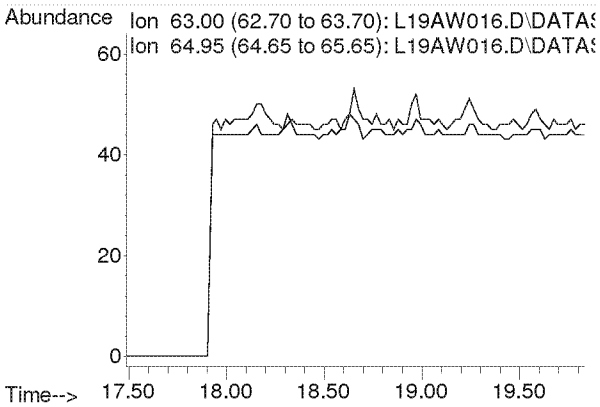


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

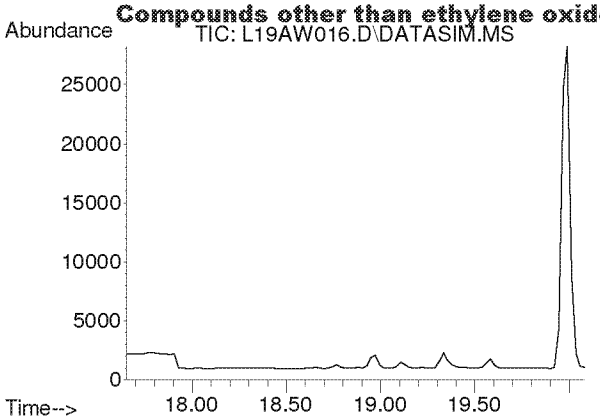
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

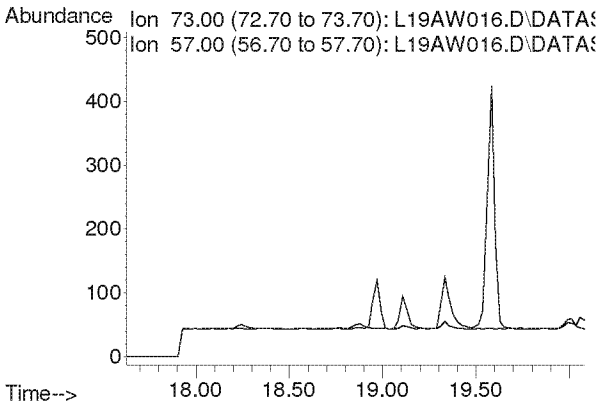


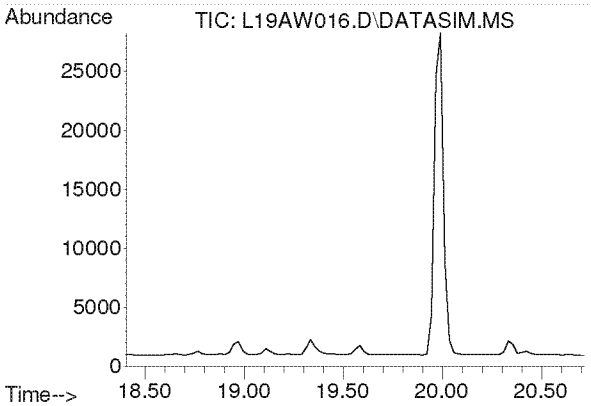
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



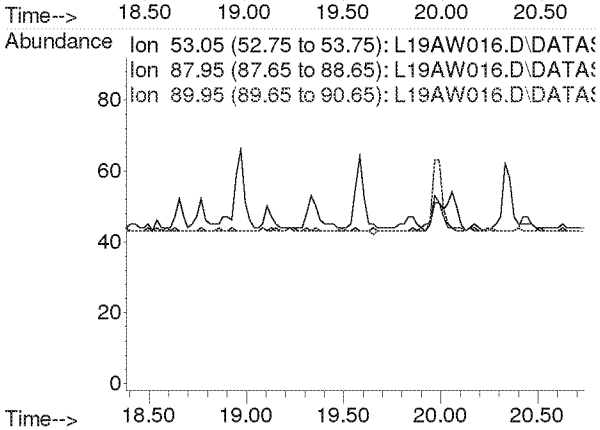


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

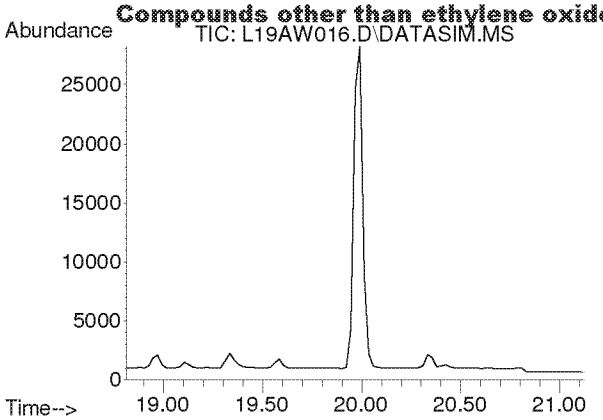
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

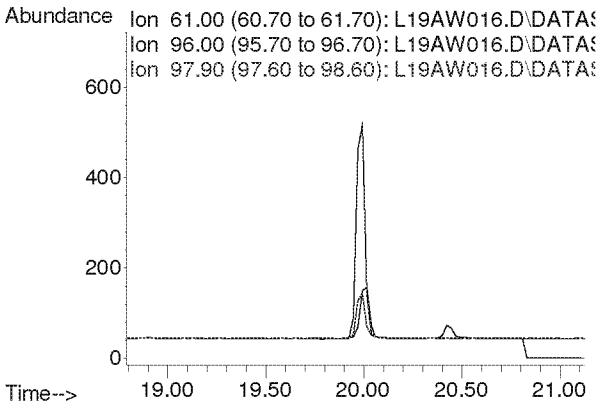


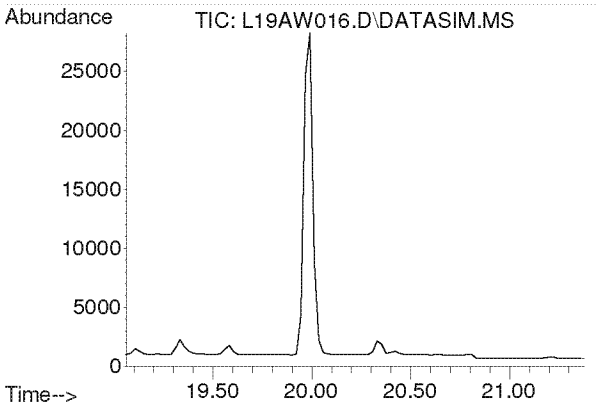
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



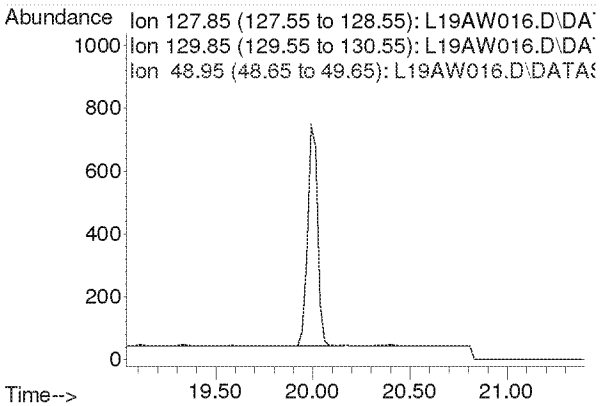


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

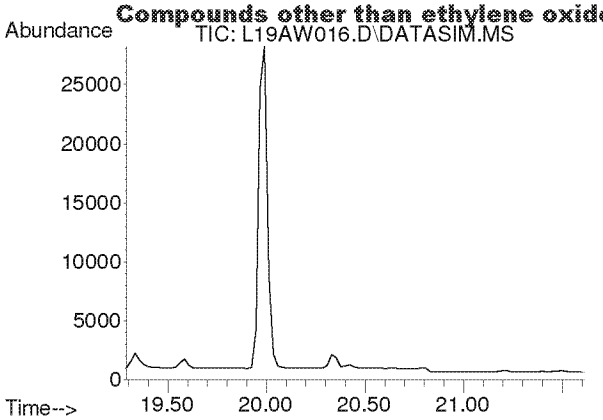
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

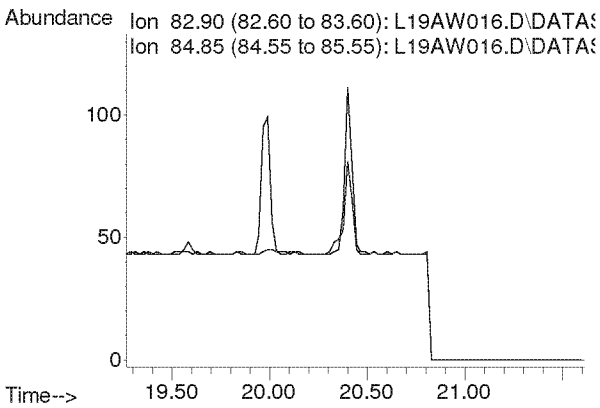


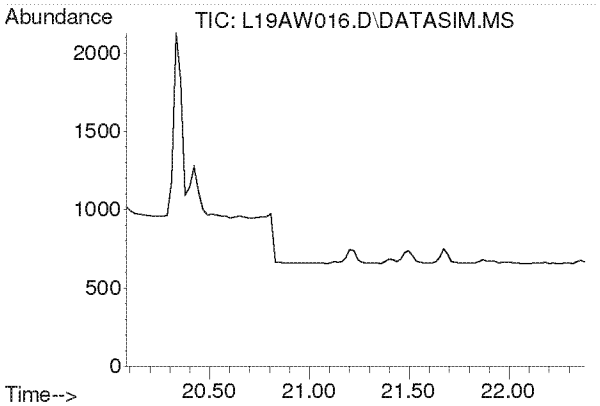
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



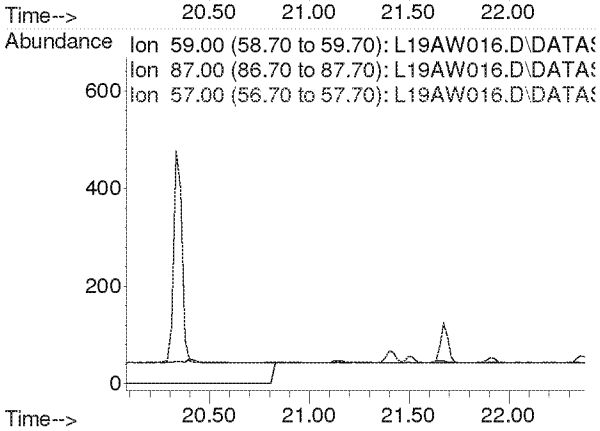


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

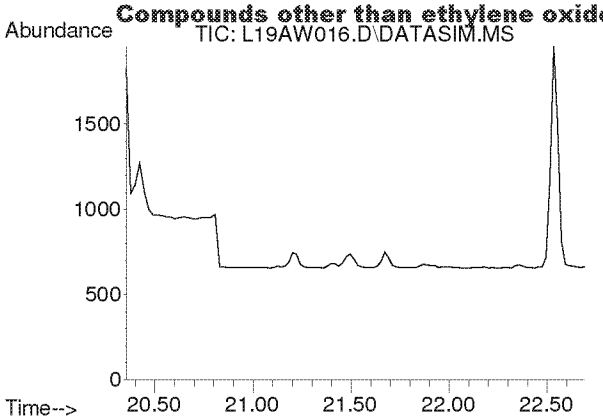
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

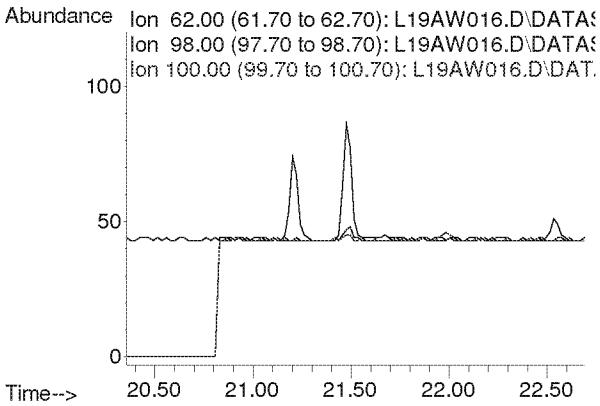


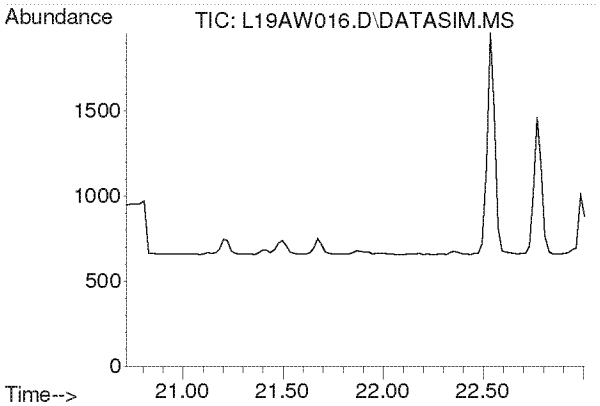
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



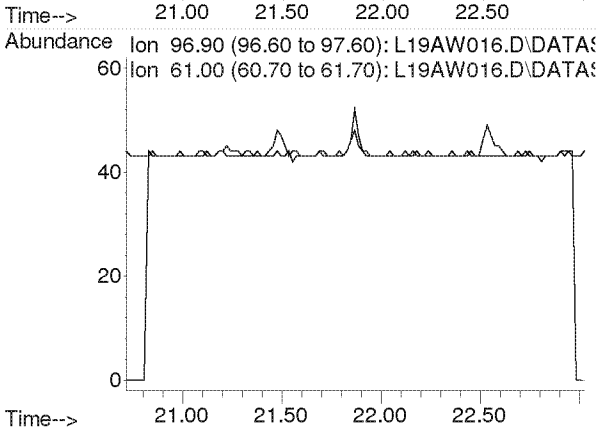


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

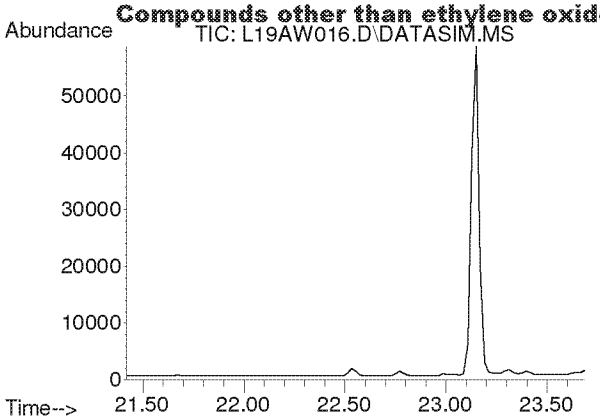
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

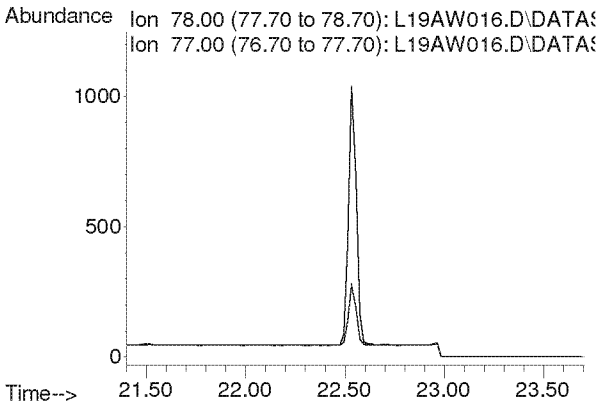


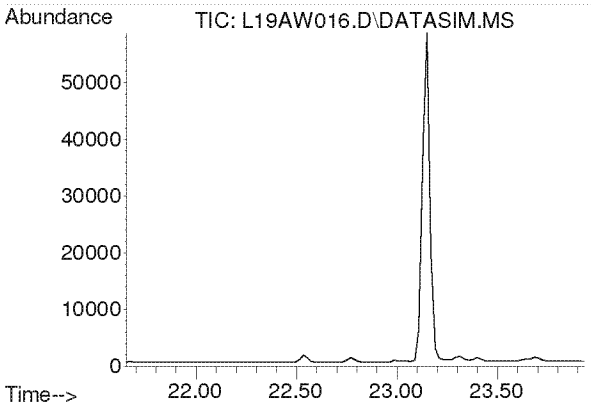
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



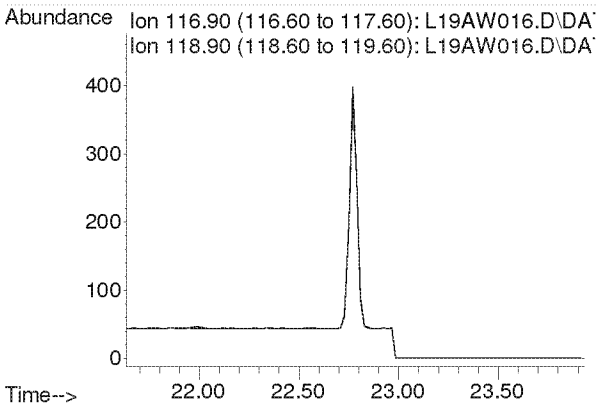


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

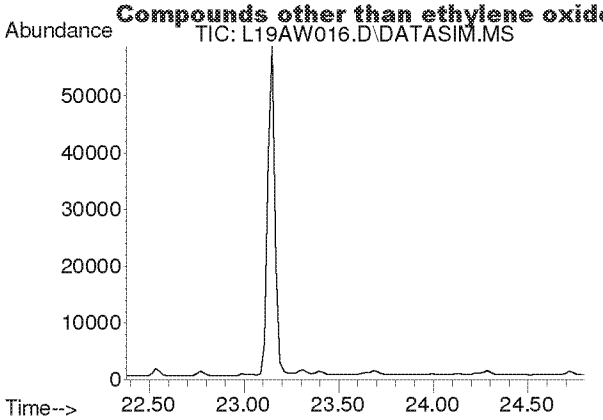
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

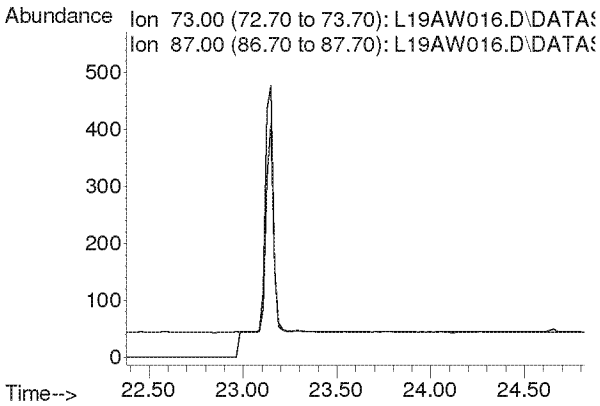


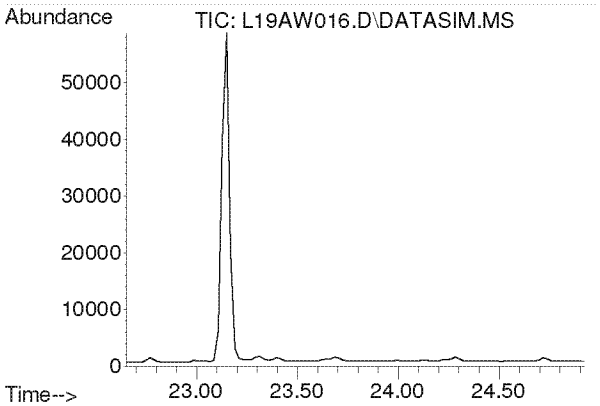
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



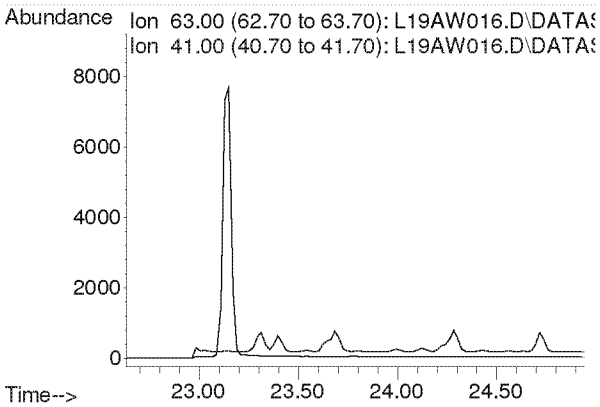


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

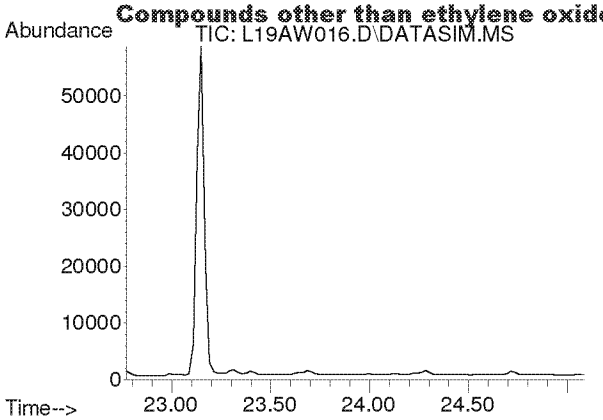
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

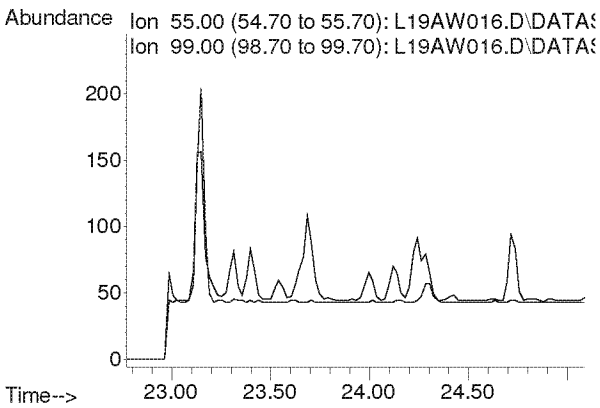


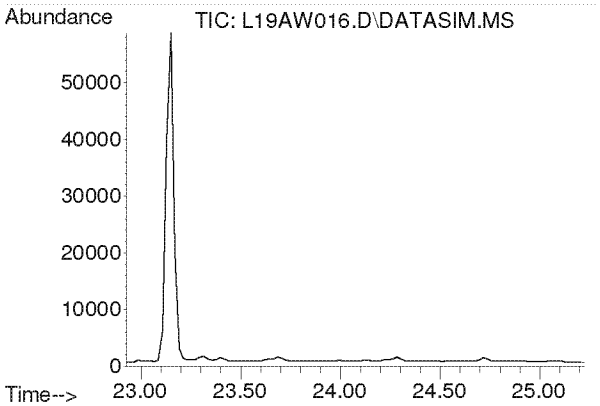
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



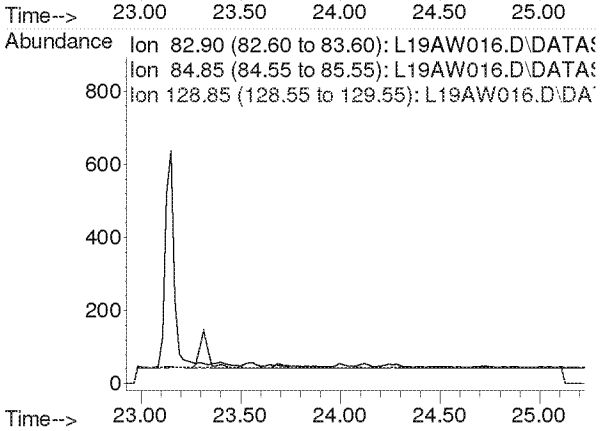


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

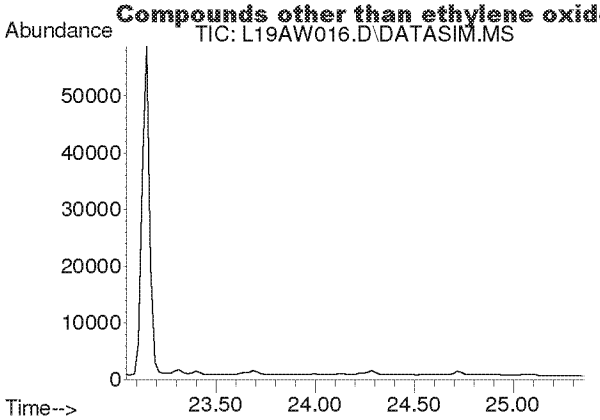
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

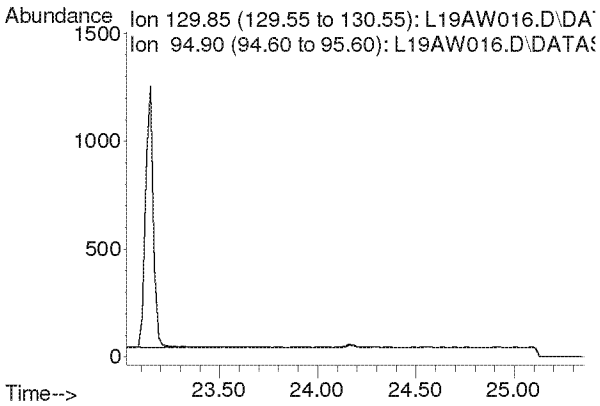


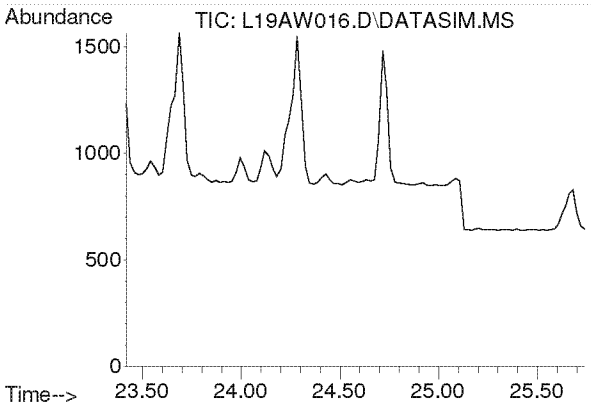
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



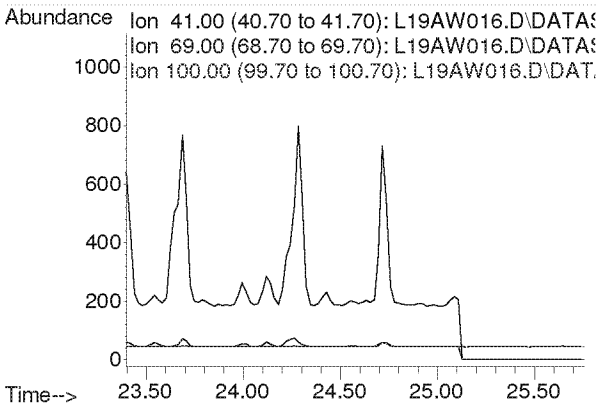


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

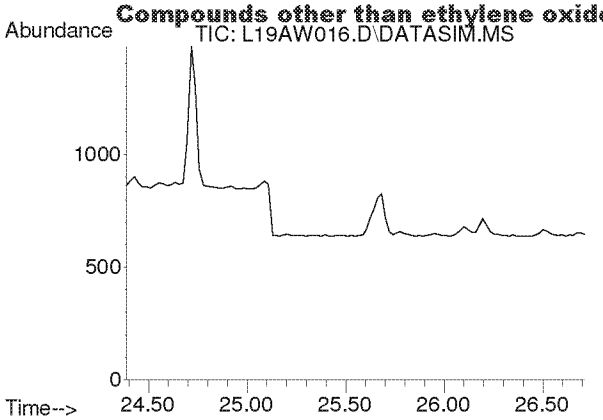
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

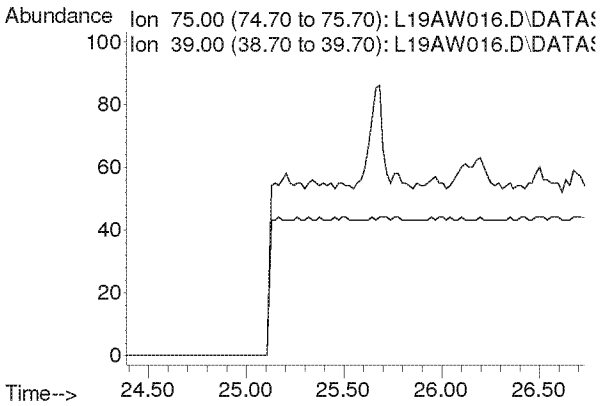


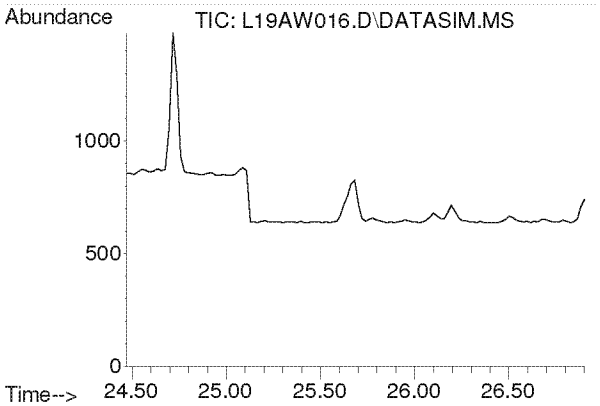
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



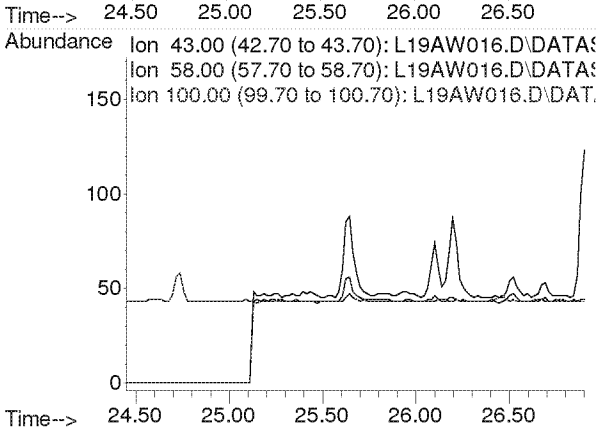


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

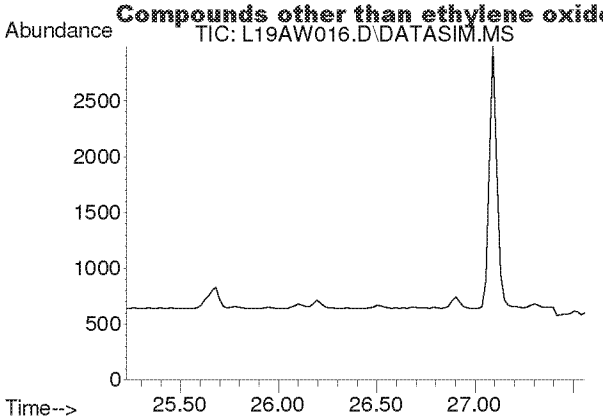
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

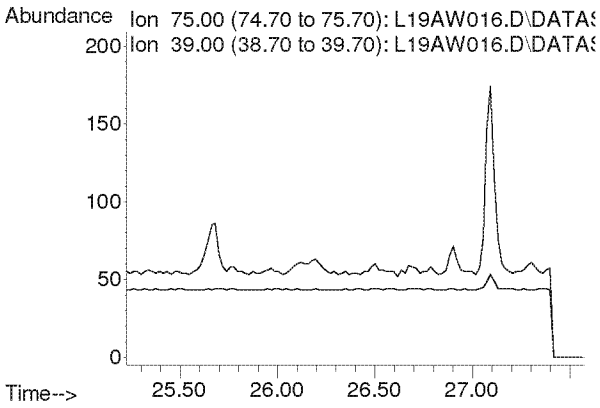


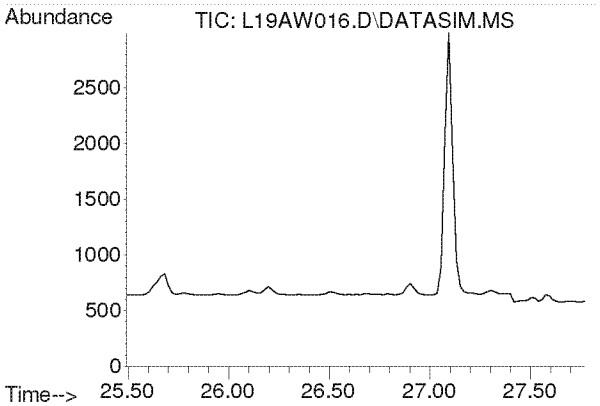
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



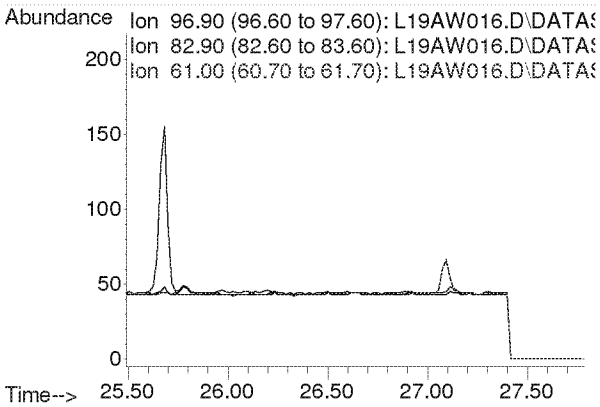


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

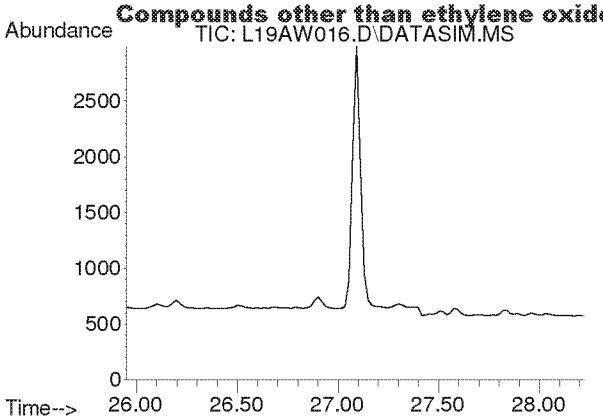
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

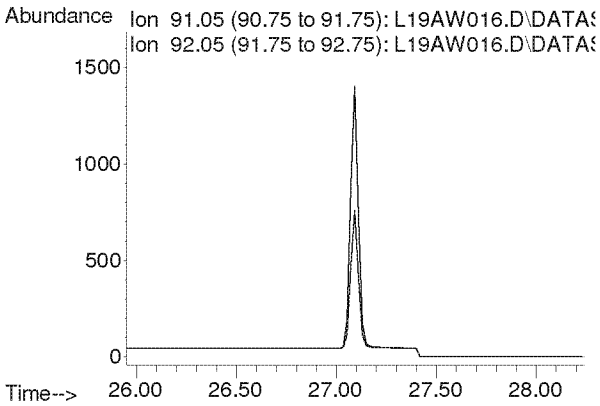


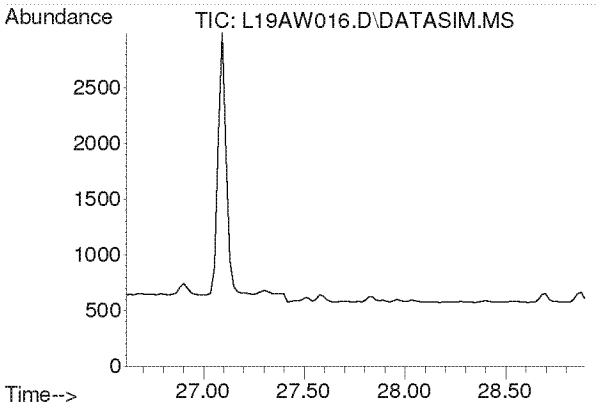
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



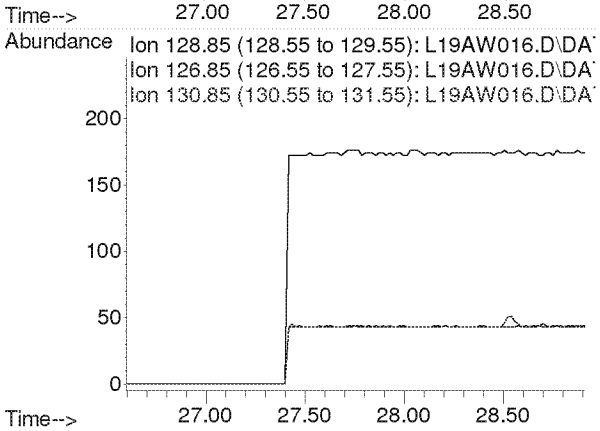


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

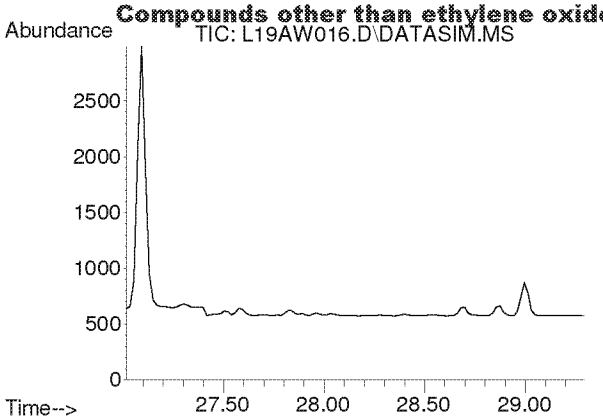
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

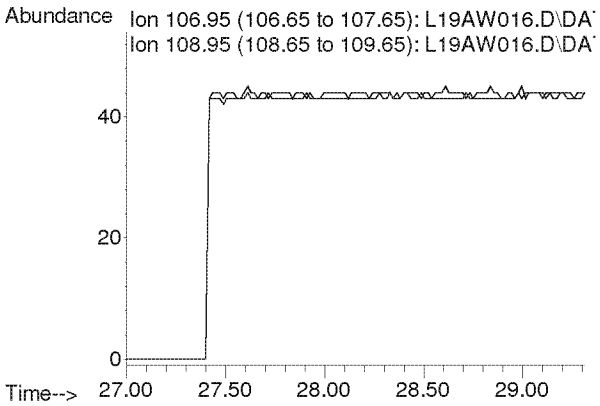


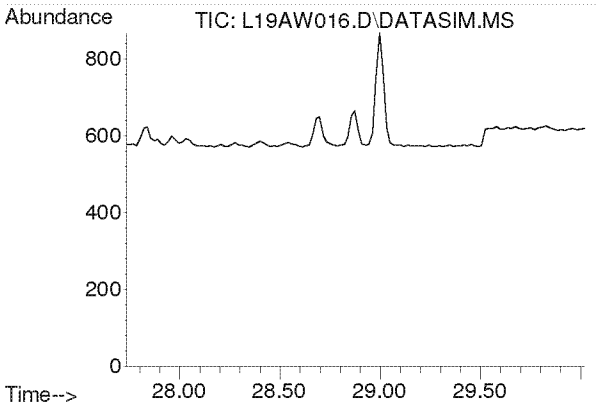
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



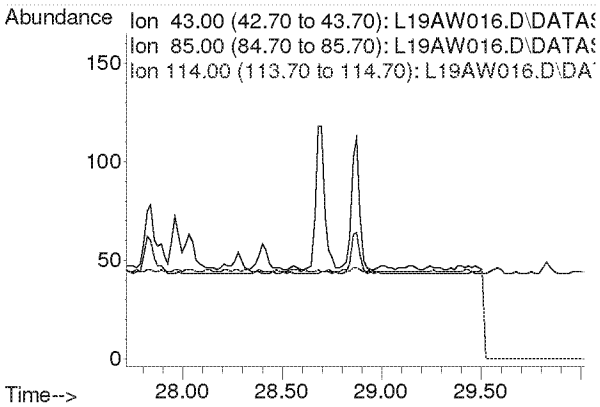


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

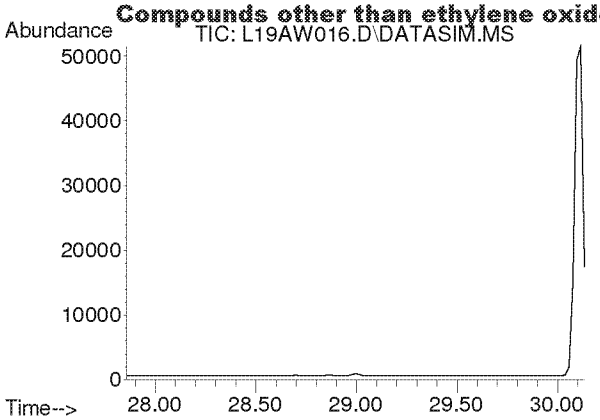
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

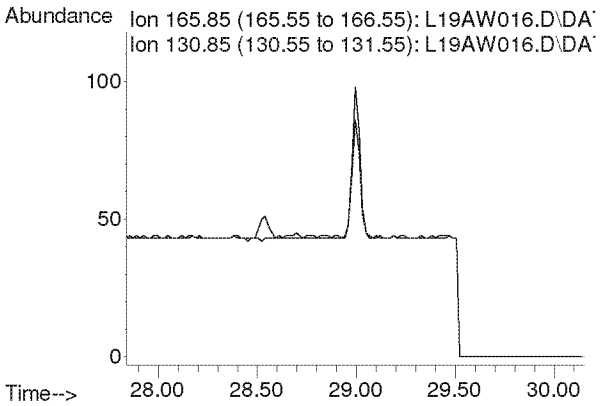


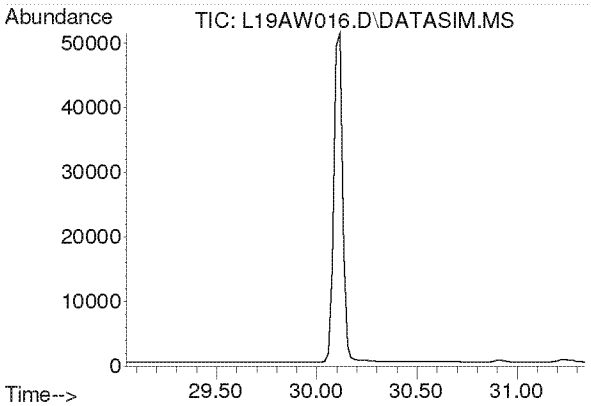
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



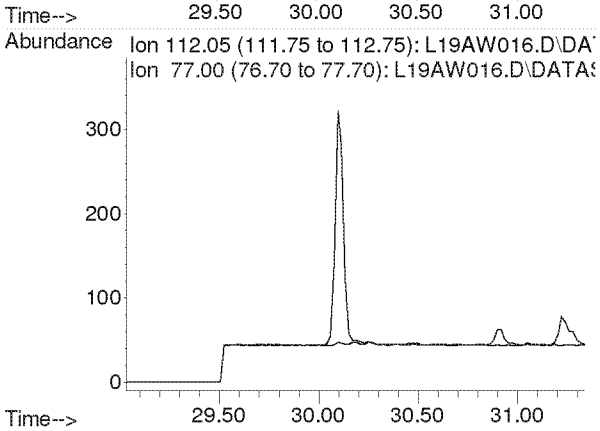


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

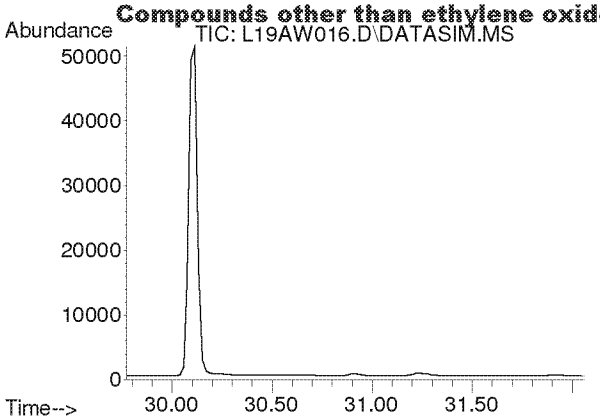
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

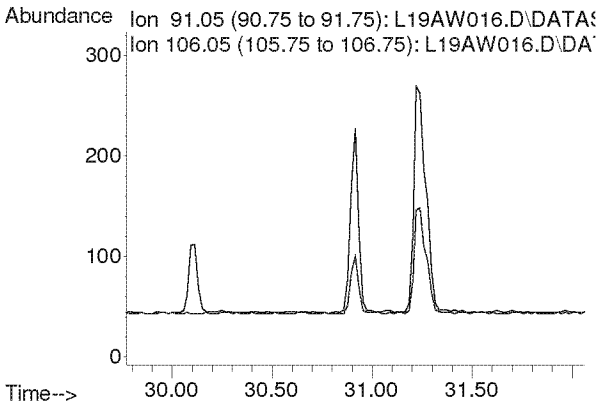


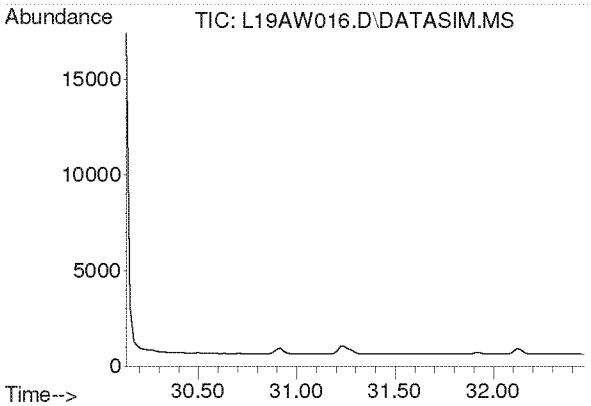
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



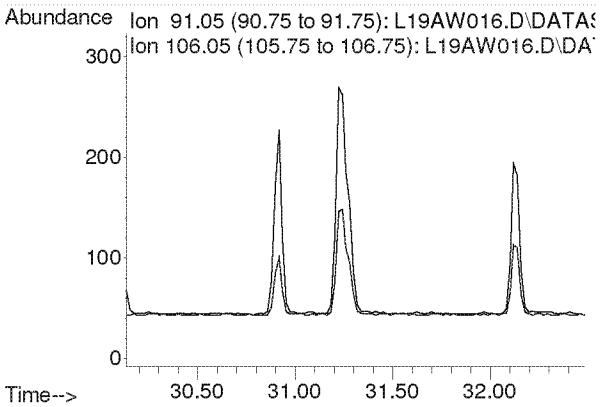


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

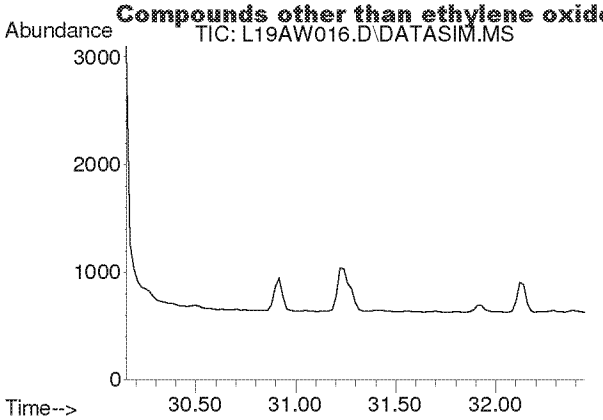
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

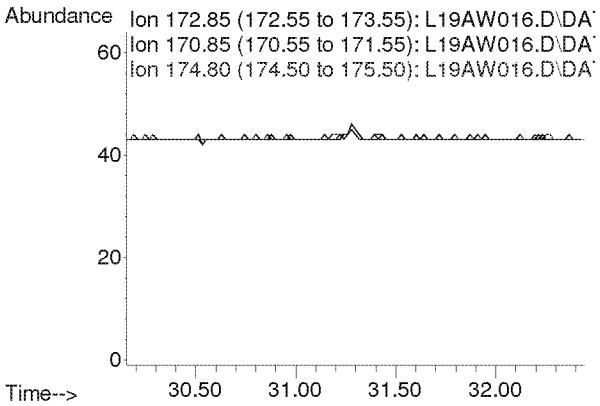


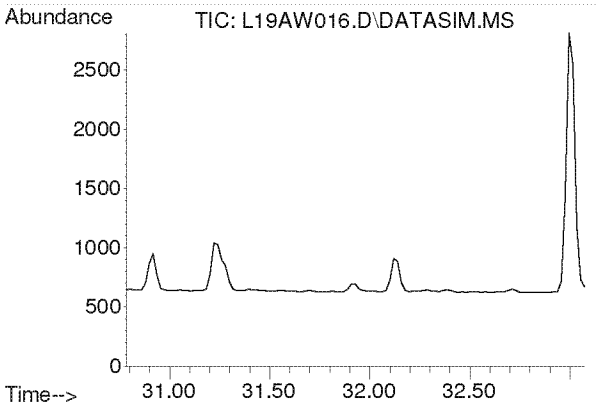
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



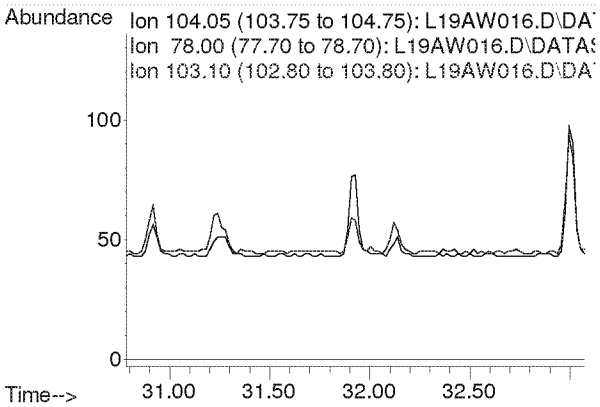


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

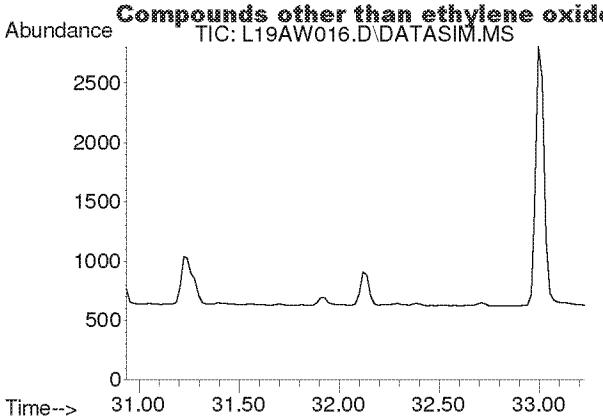
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

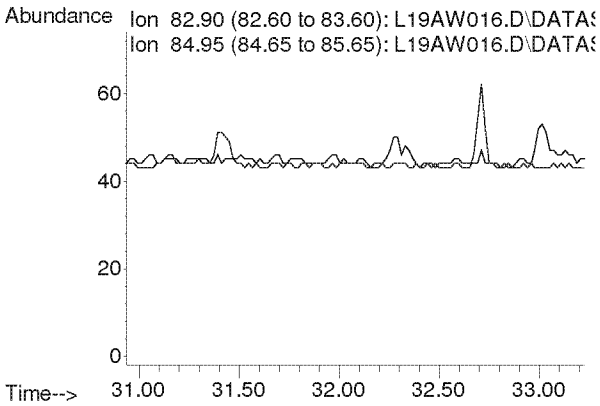


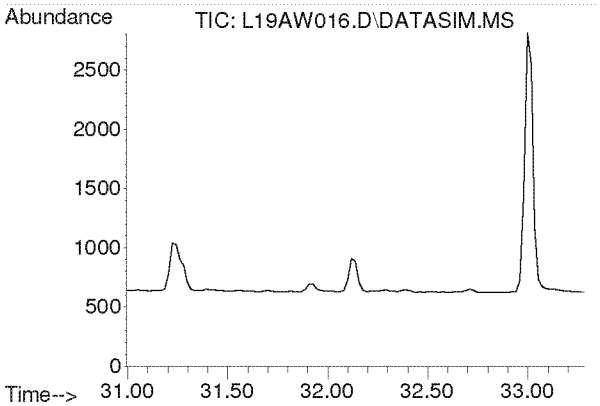
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



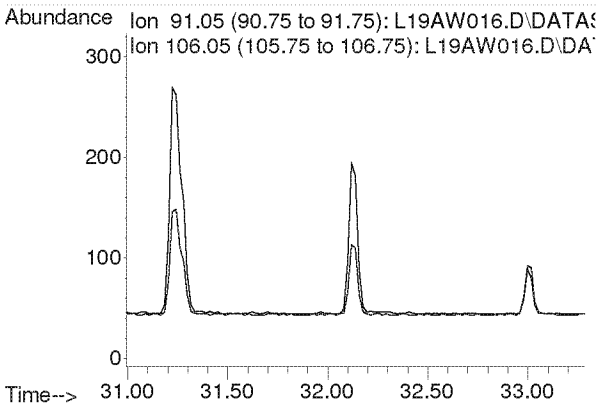


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

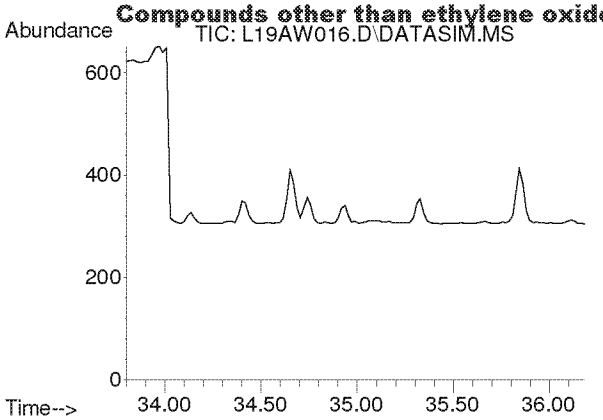
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

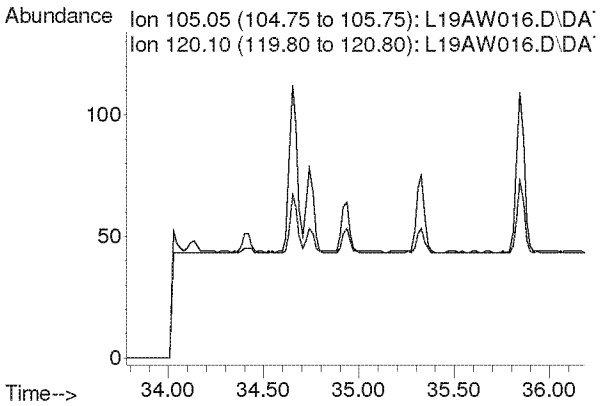


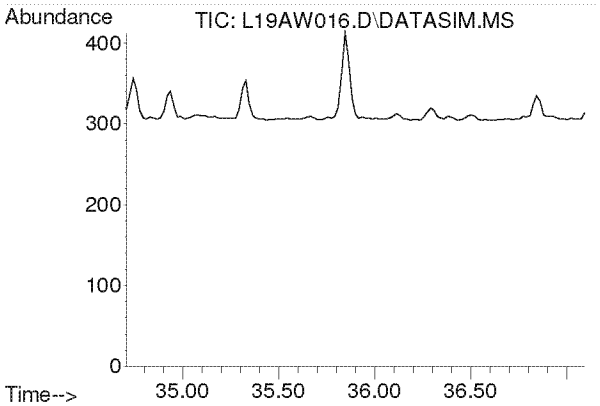
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



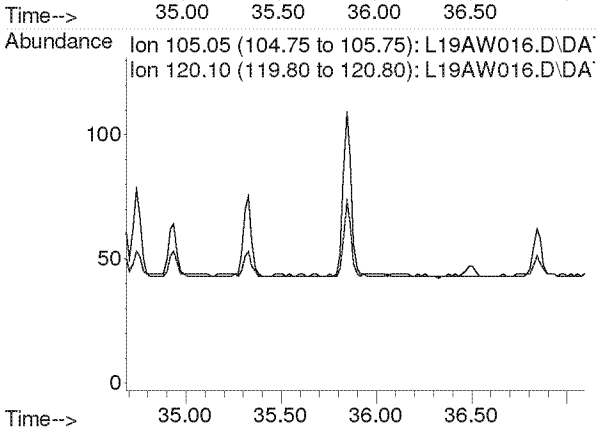


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

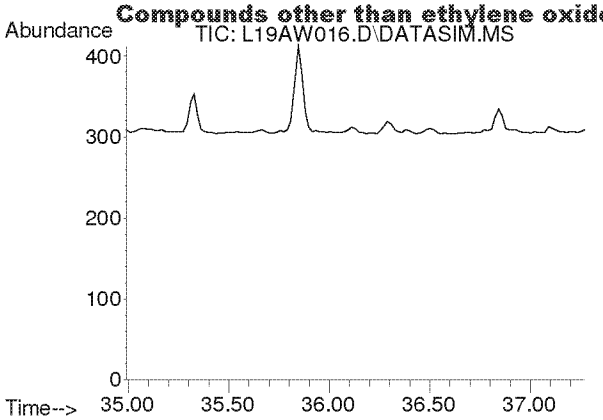
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

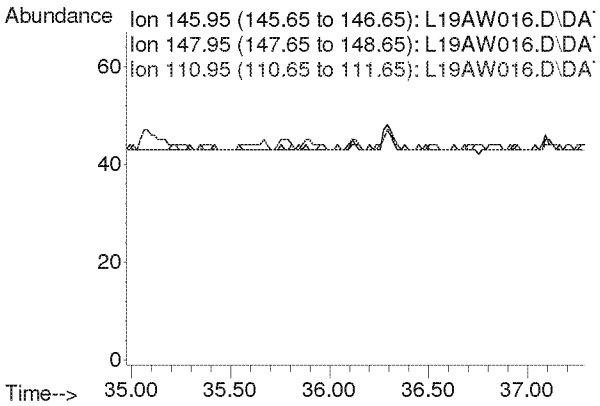


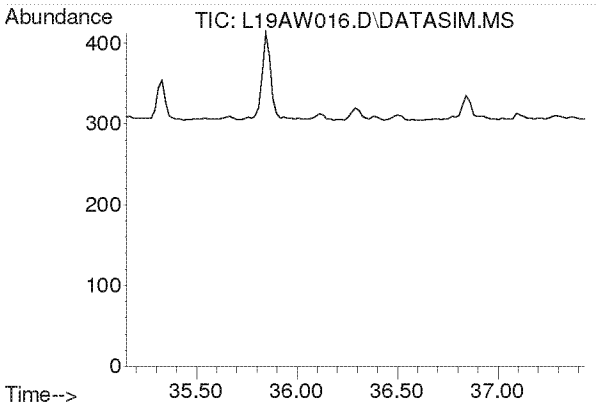
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



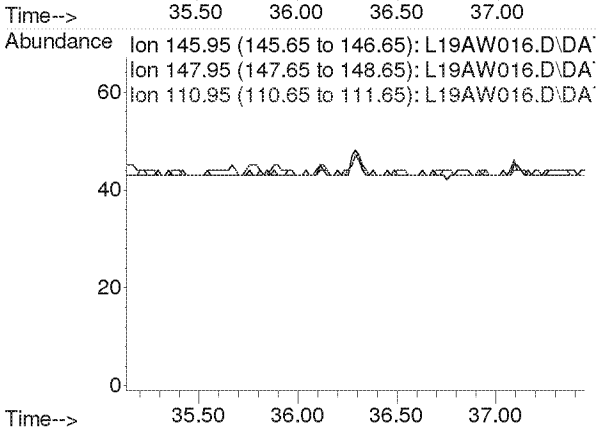


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

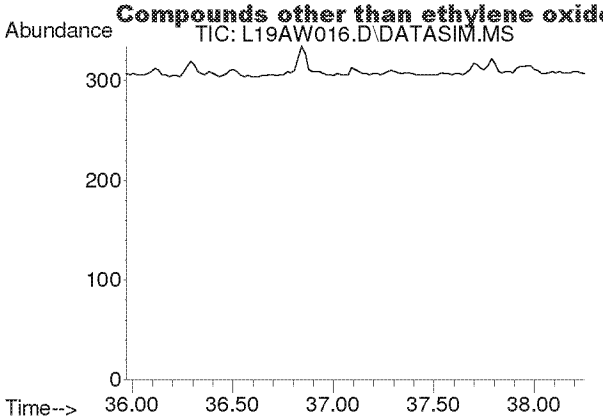
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

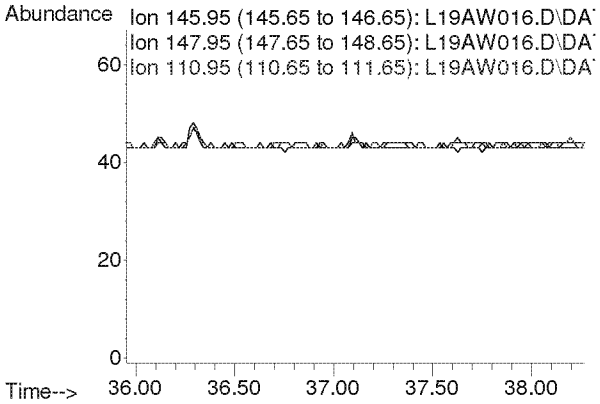


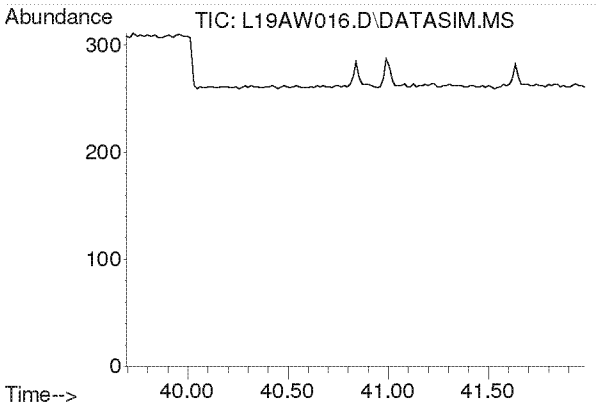
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



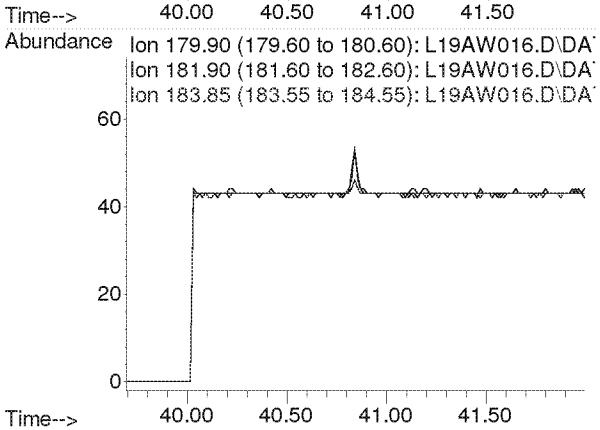


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

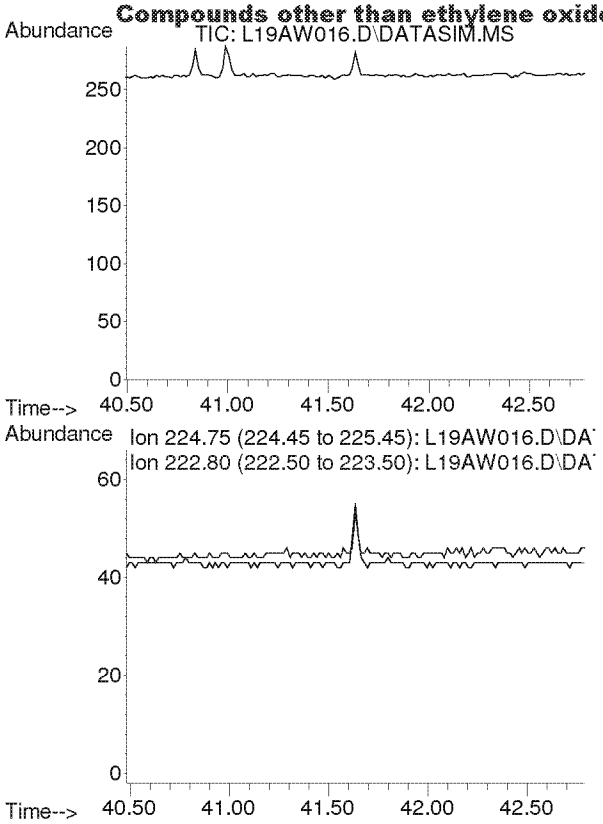
Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AW016.D
Acq: 24 Jan 2019 12:44 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\L19AW\
Data File : L19AW017.D
Acq On : 24 Jan 2019 1:44 am
Operator : MAH
Sample : 9012221-04
Misc : WILLOW POND PARK 1/18/19
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 29 08:29:29 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	53605	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	134541	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	101998	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	12.470	29	220m	0.0795 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. 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\L19AW\
Data File : L19AW017.D
Acq On : 24 Jan 2019 1:44 am
Operator : MAH
Sample : 9012221-04
Misc : WILLOW POND PARK 1/18/19
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 29 08:29:29 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

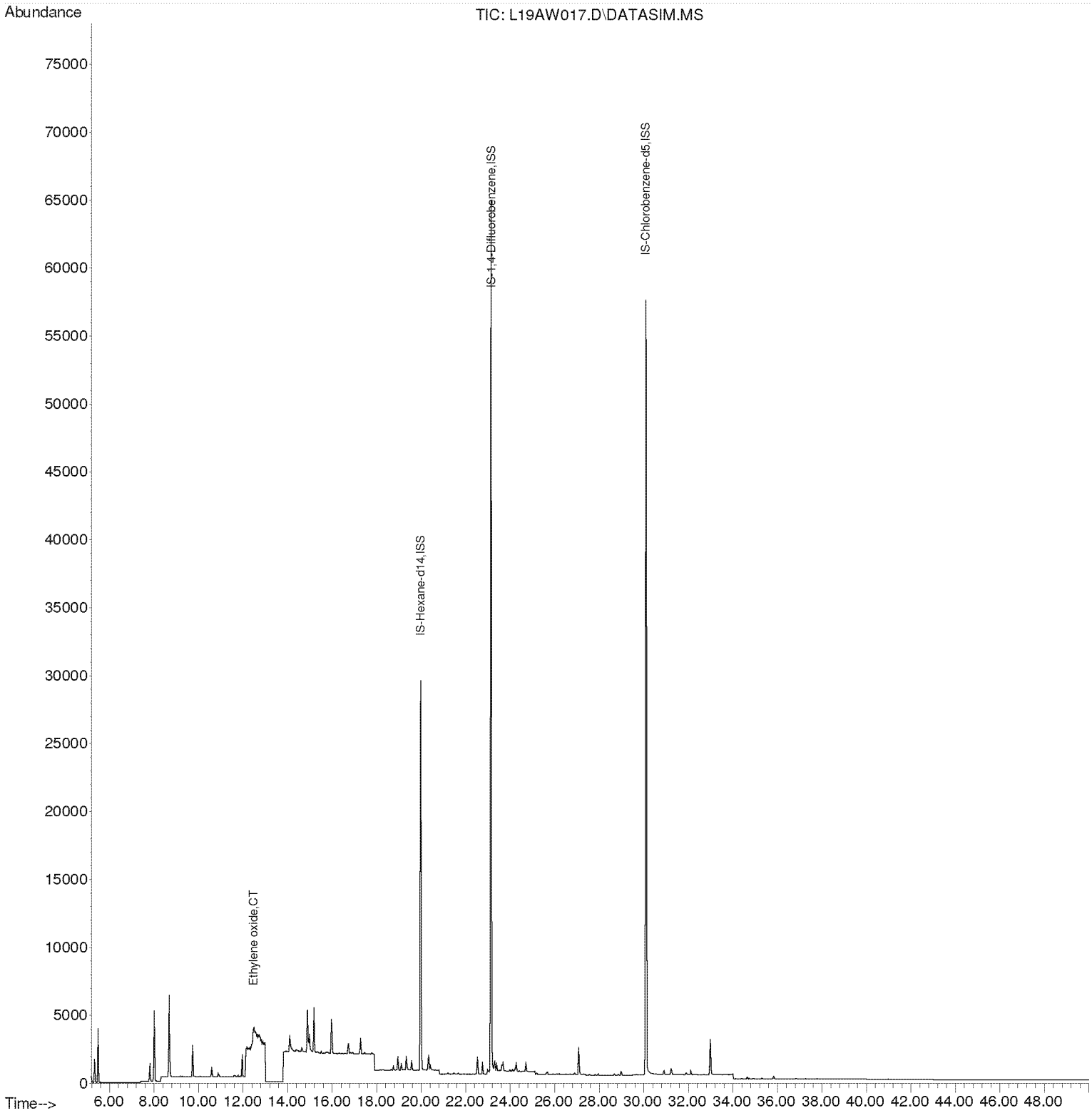
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

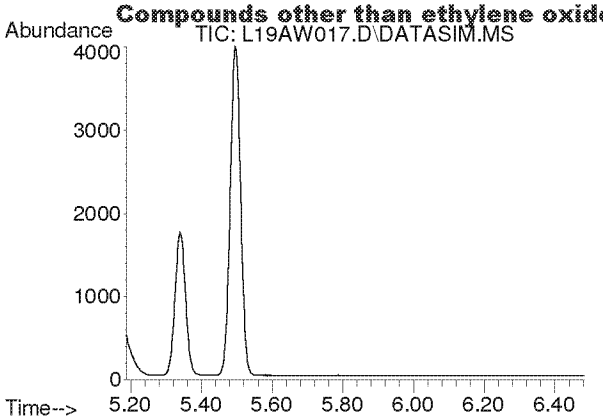
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW017.D
Acq On : 24 Jan 2019 1:44 am
Operator : MAH
Sample : 9012221-04
Misc : WILLOW POND PARK 1/18/19
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jan 29 08:10:09 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



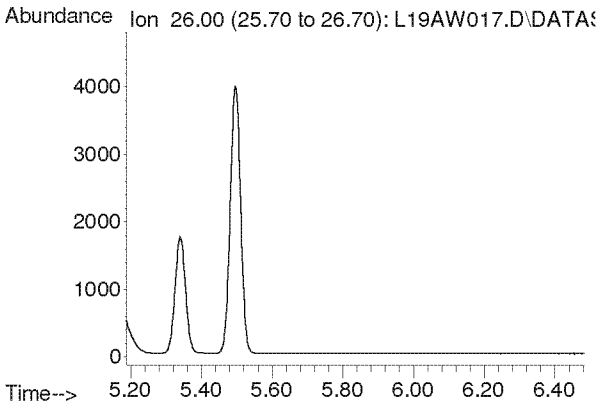
Compounds other than ethylene oxide were not quantitated.

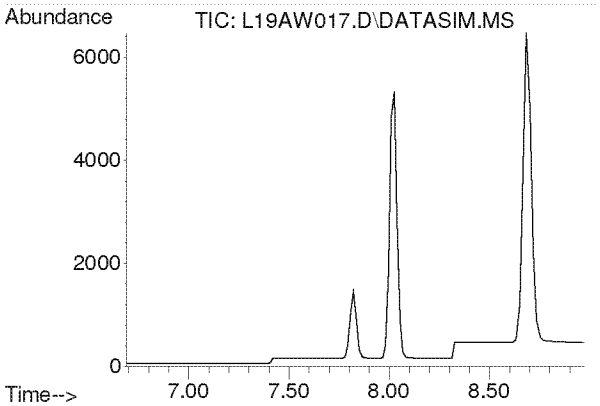


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 26



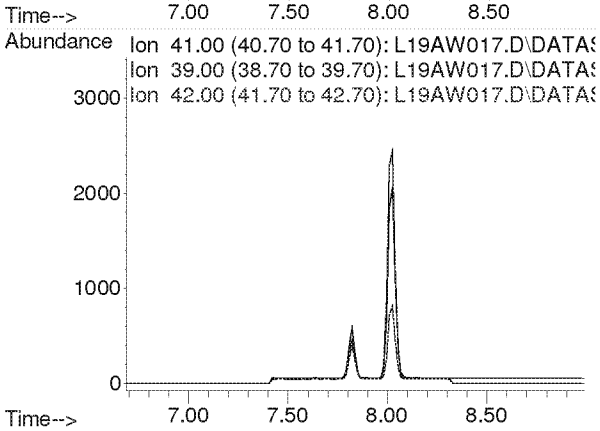


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

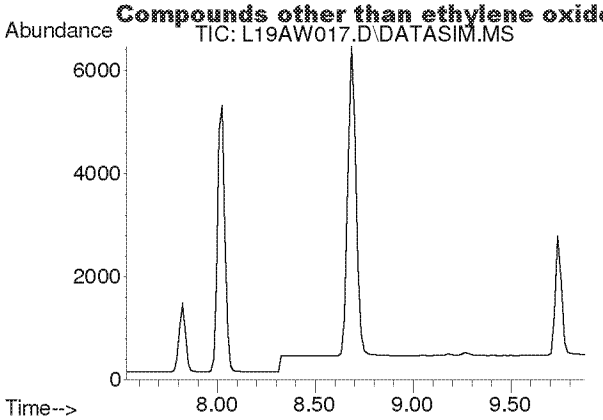
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

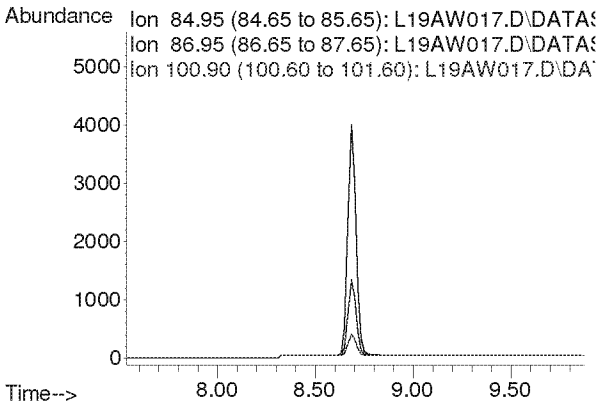


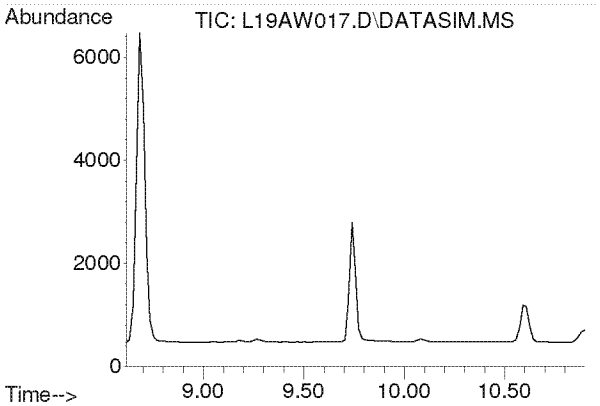
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



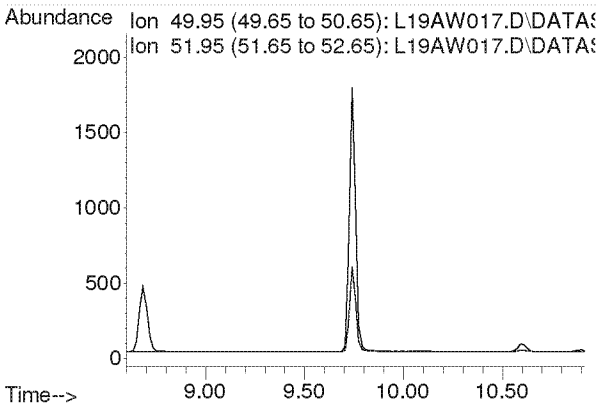


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

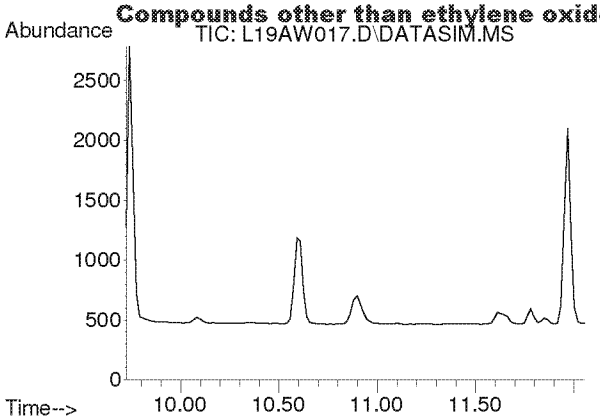
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

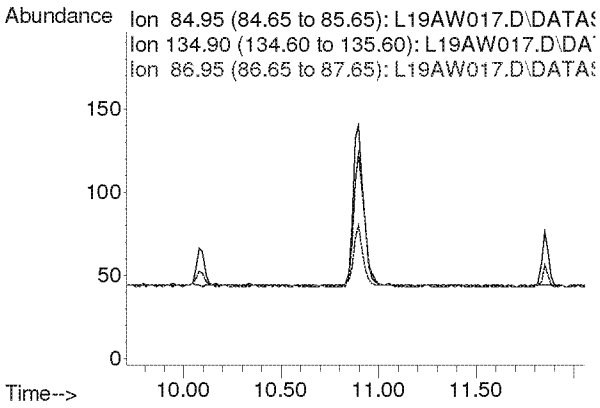


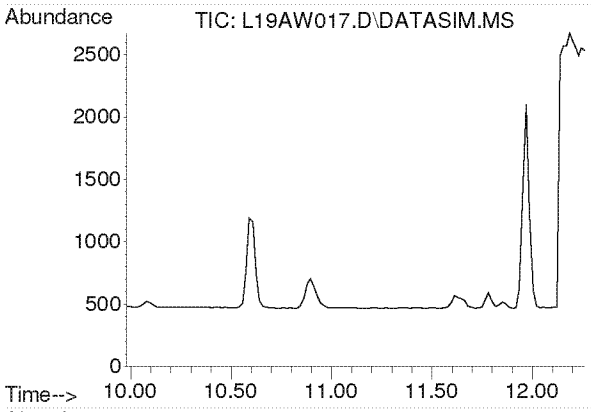
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



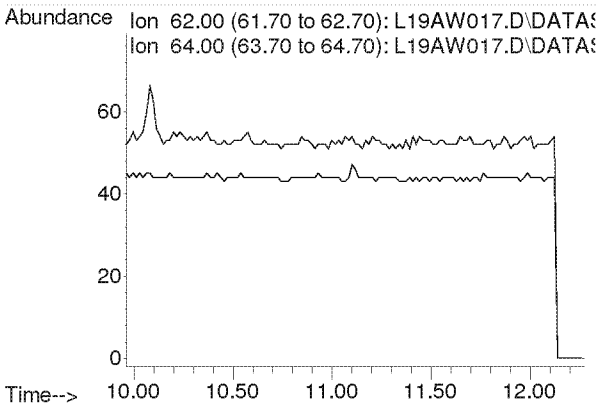


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

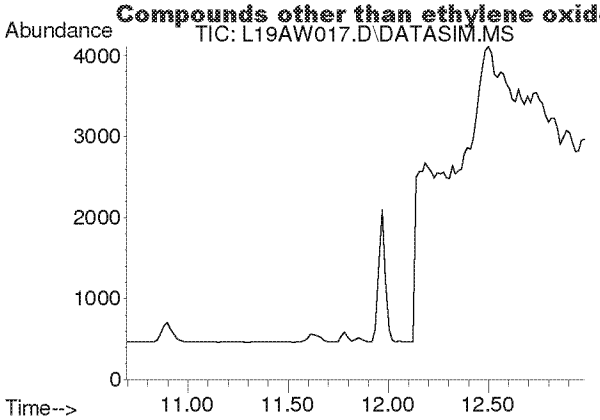
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

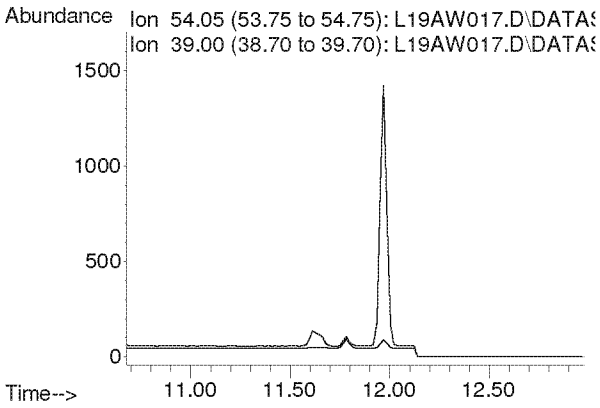


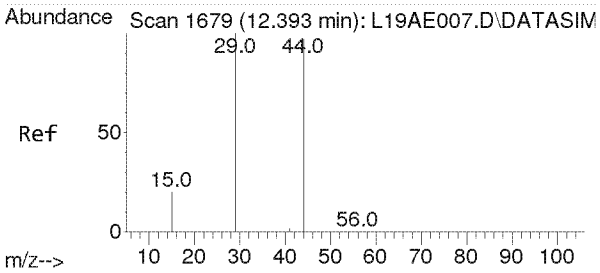
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

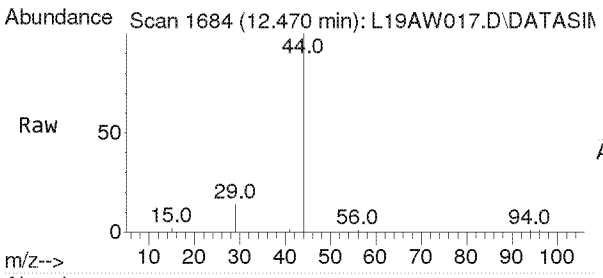


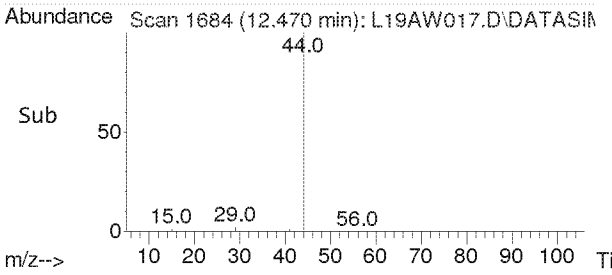


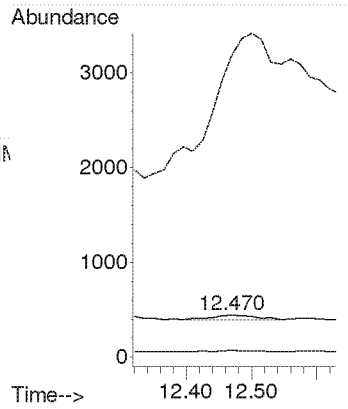
#9
Ethylene oxide
Concen: 0.079 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.077 min
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 29 Resp: 220

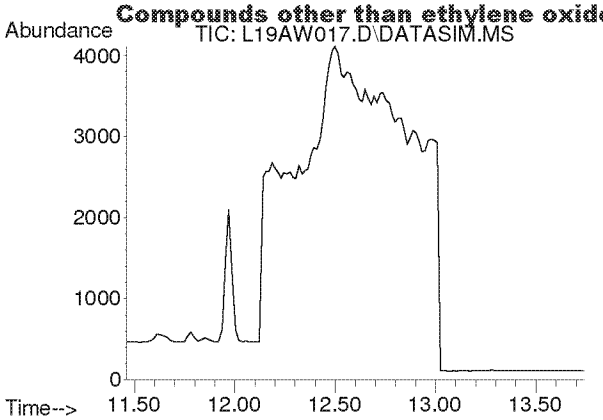
Ion	Ratio	Lower	Upper
29	100		
15	0.0	15.4	23.0#
44	0.0	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

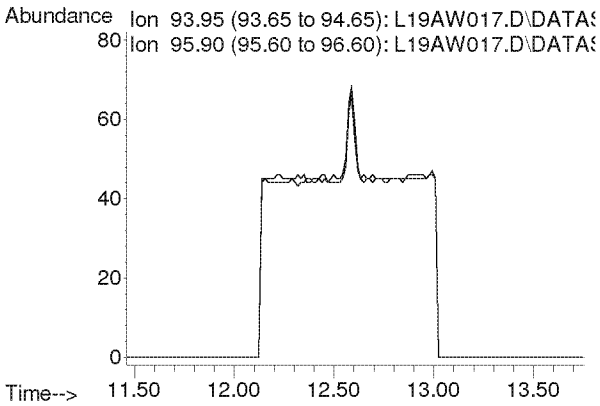


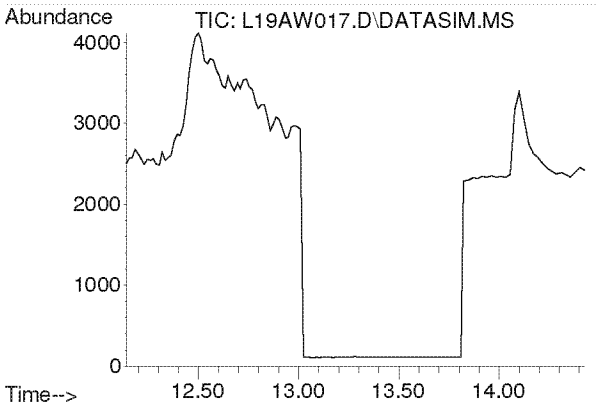
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



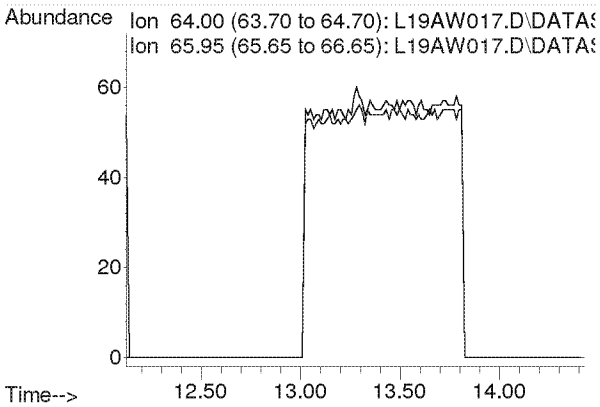


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

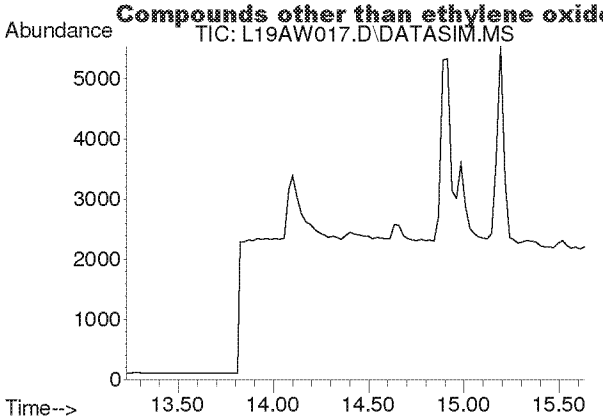
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

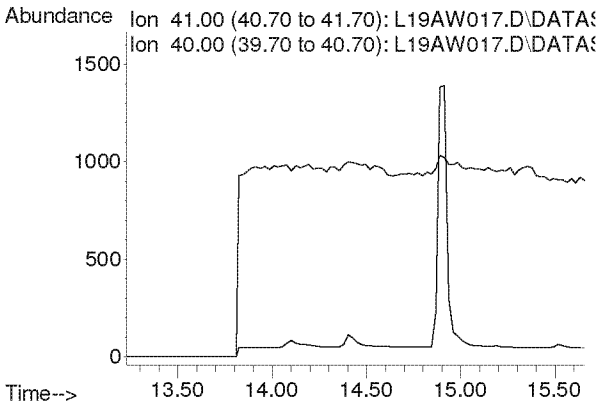


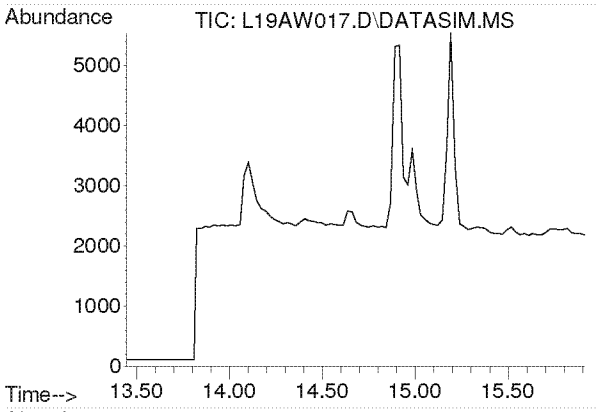
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



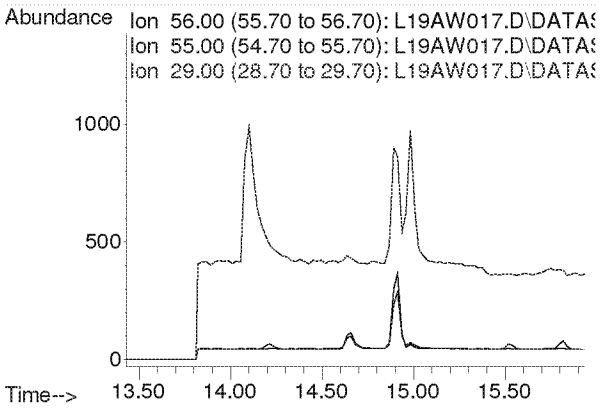


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

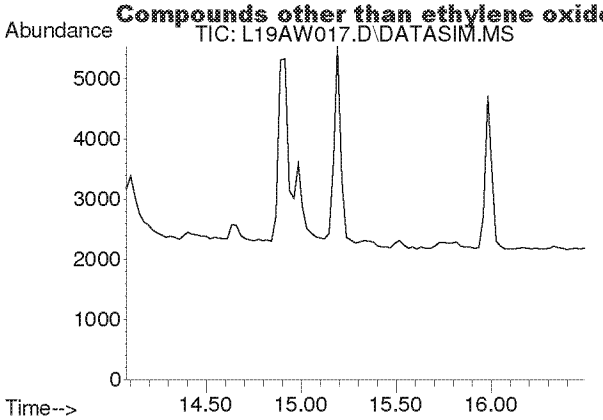
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

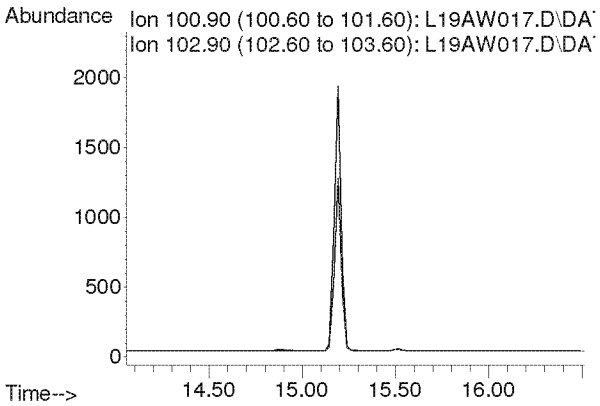


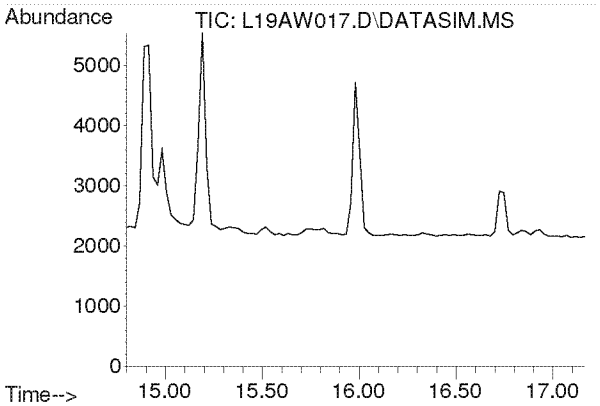
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



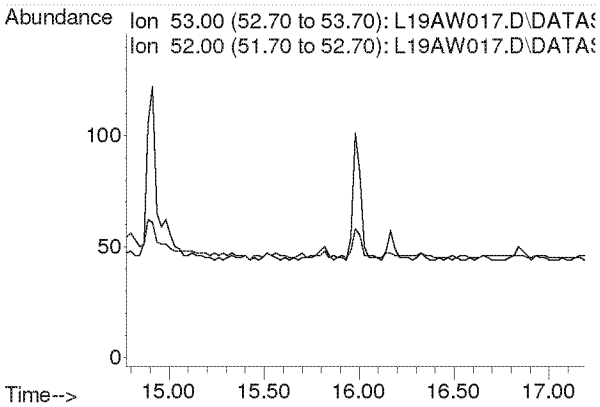


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

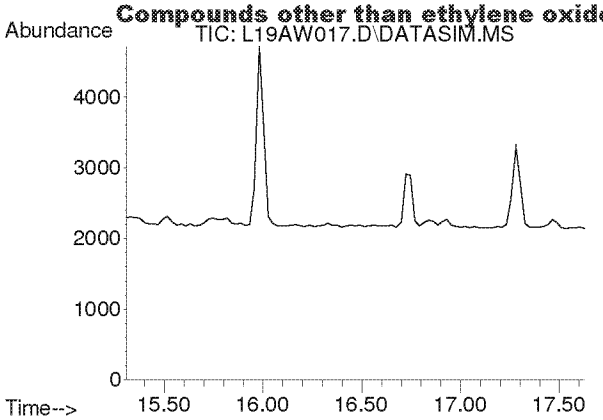
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

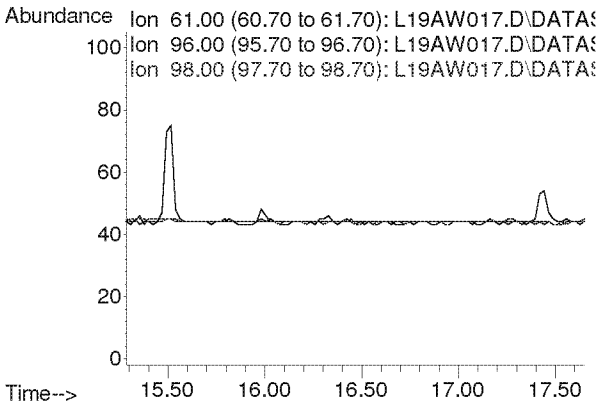


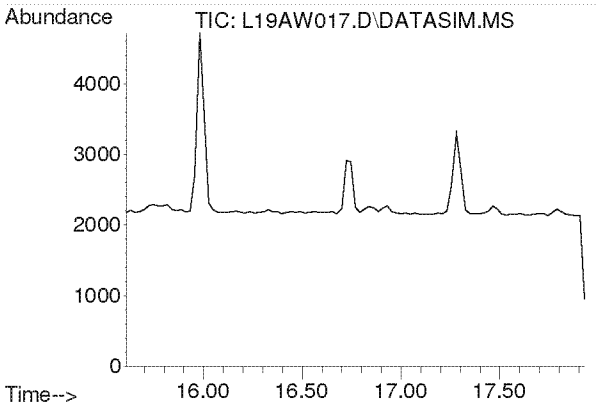
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



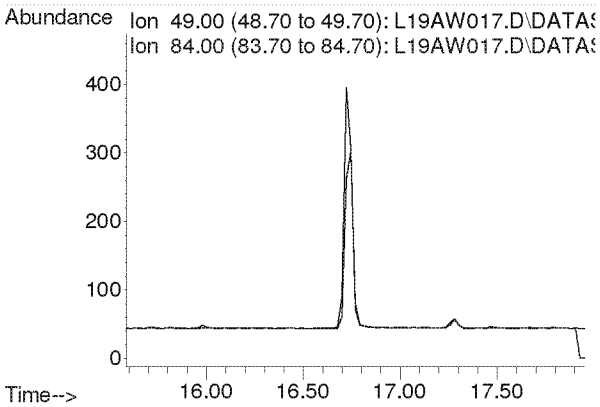


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

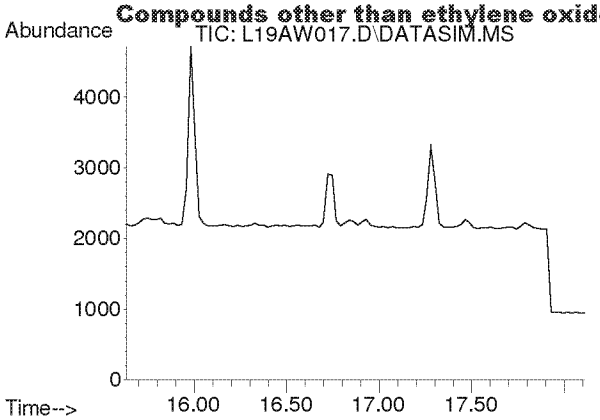
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

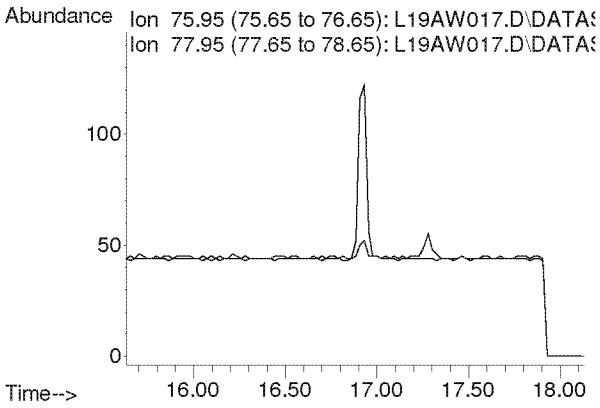


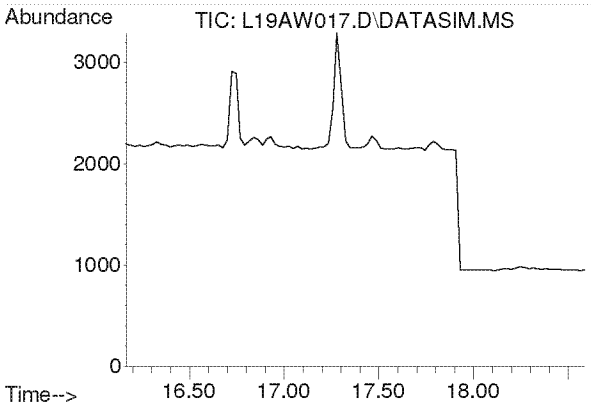
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



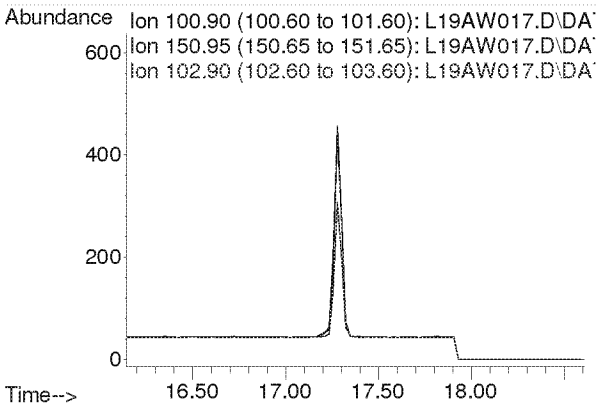


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

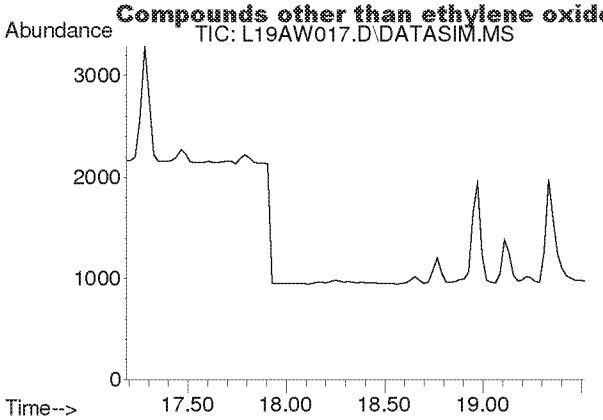
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

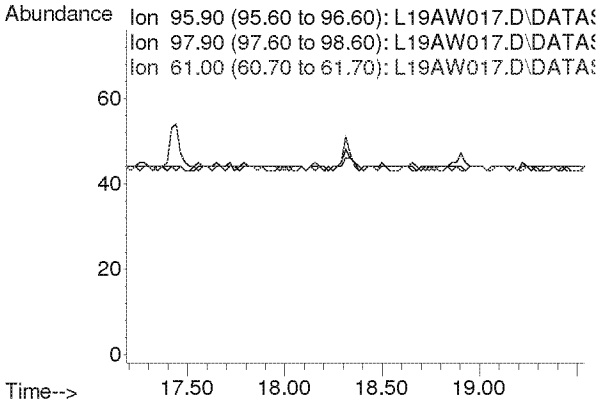


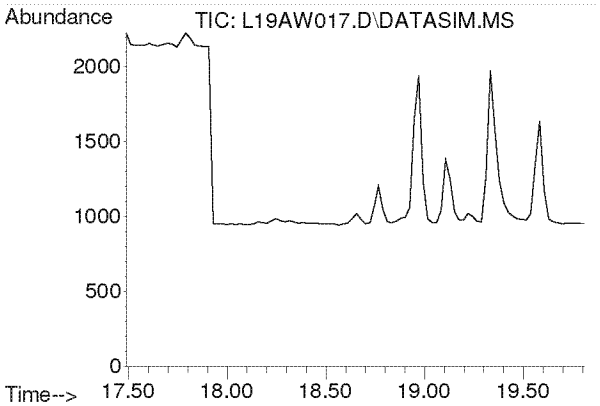
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



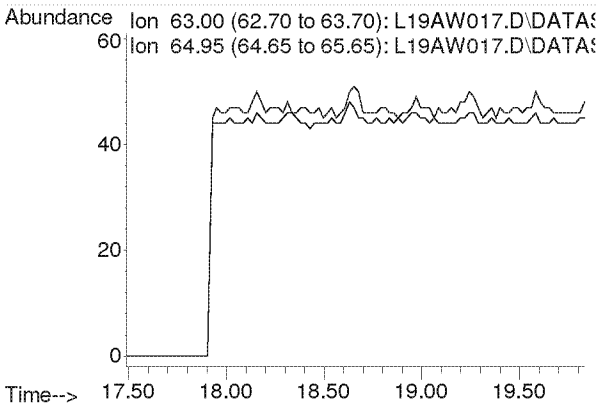


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

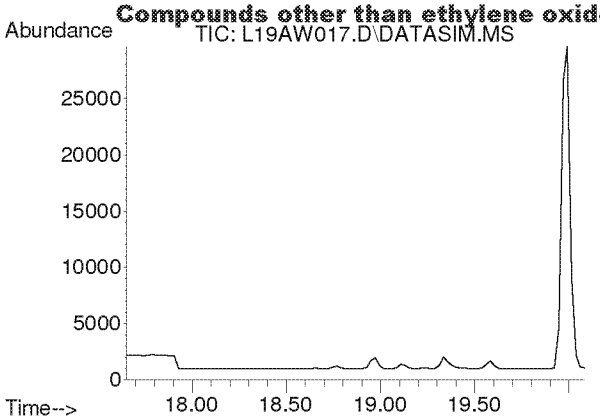
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

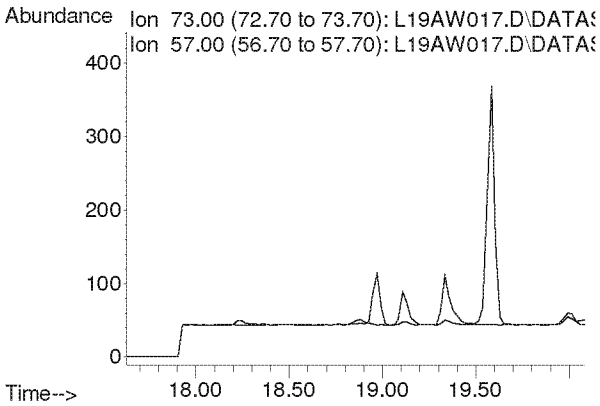


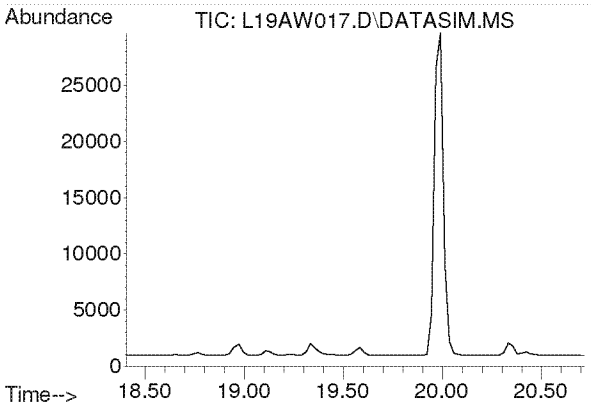
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



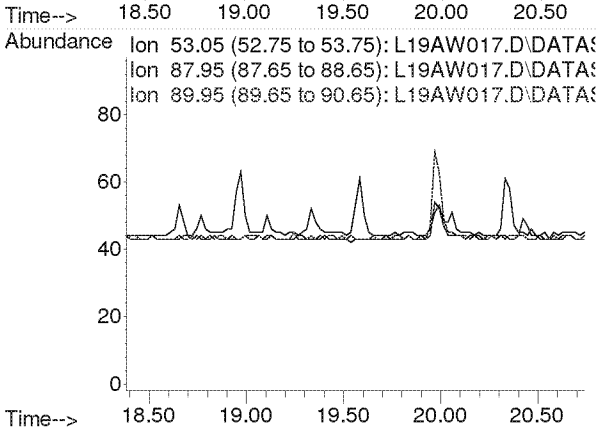


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

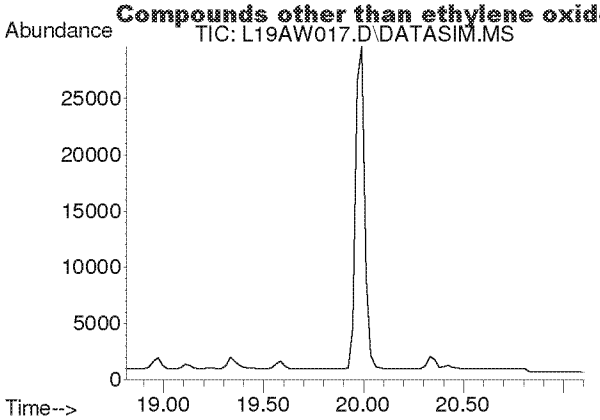
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

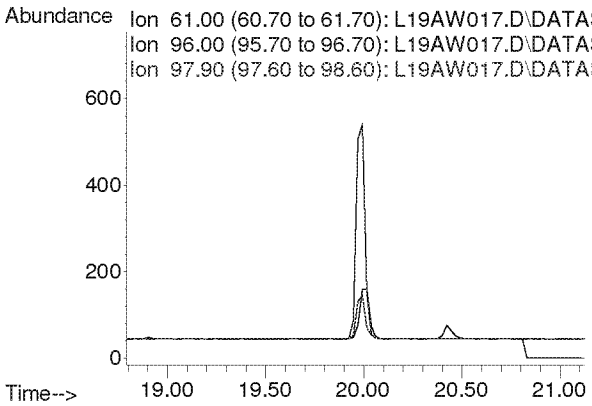


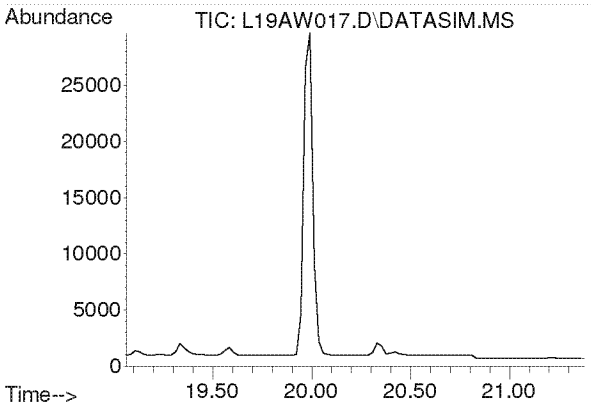
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



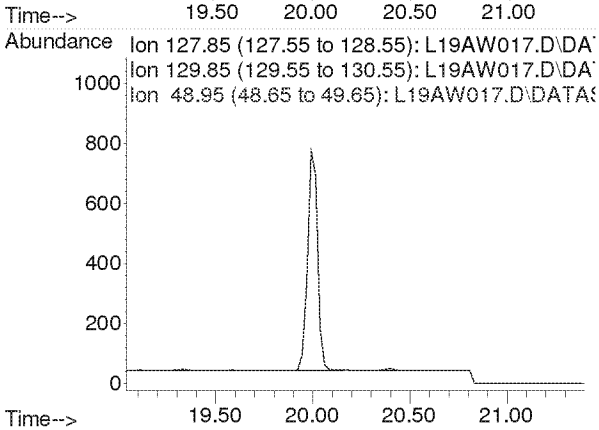


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

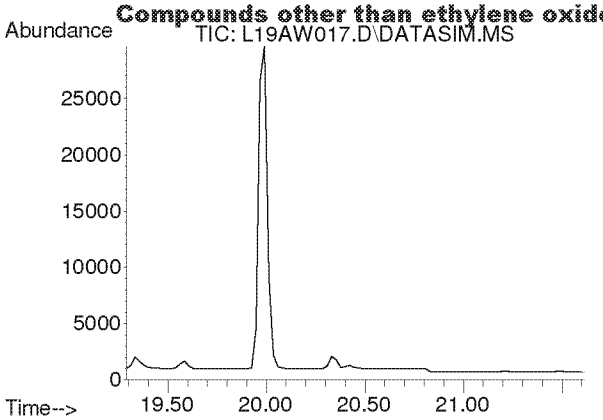
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

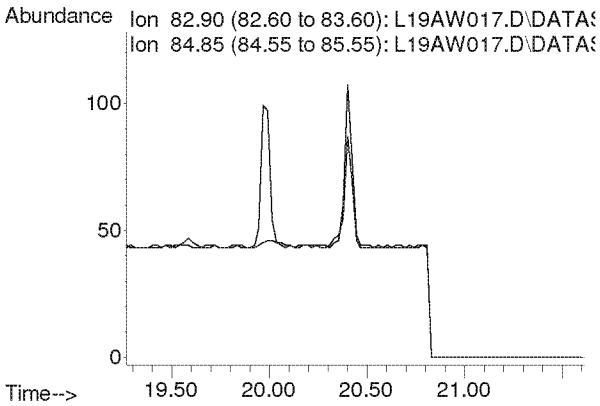


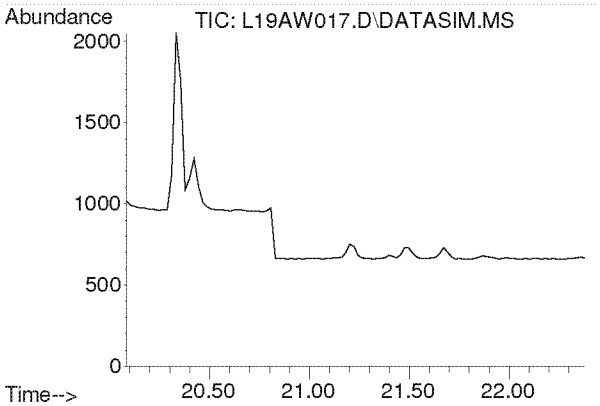
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



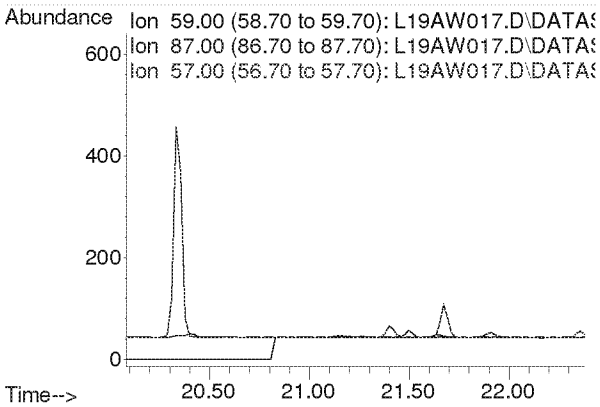


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

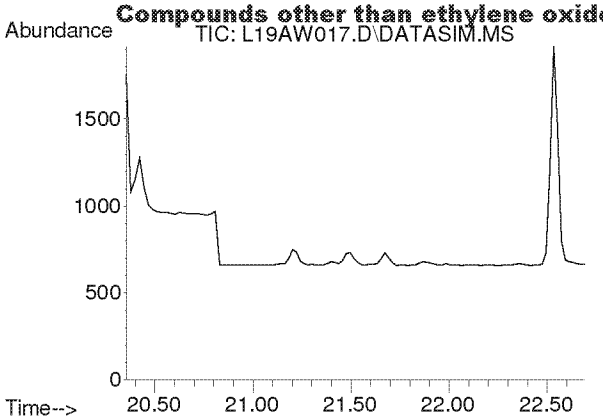
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

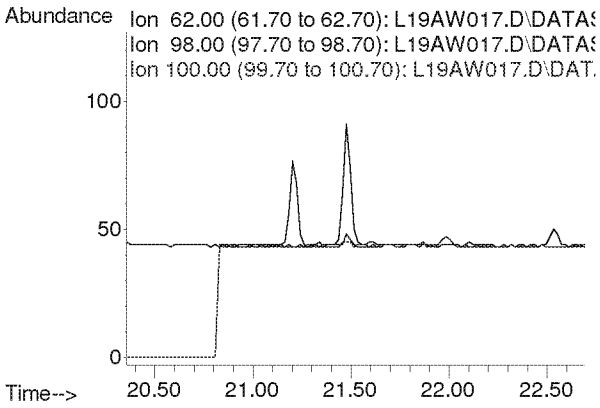


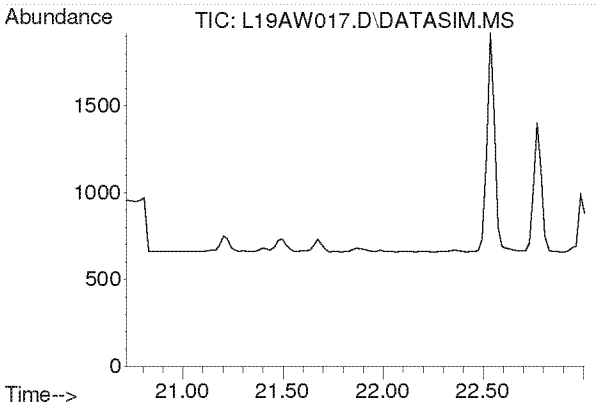
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



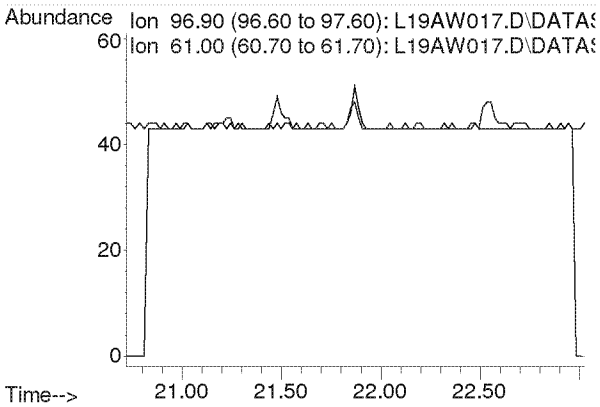


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

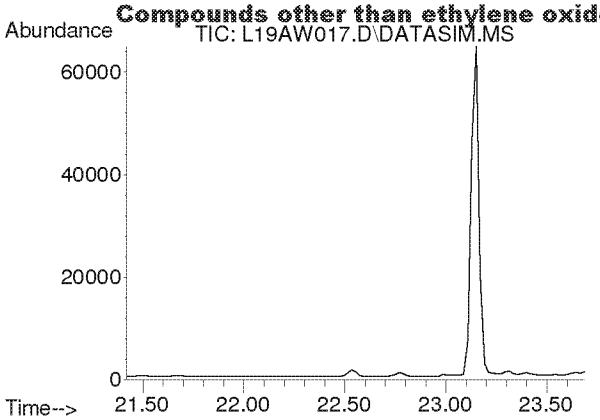
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

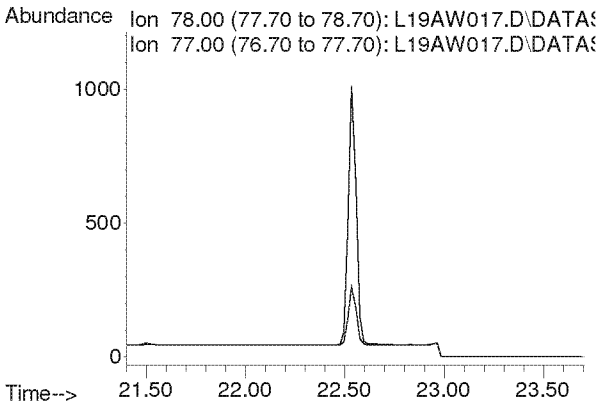


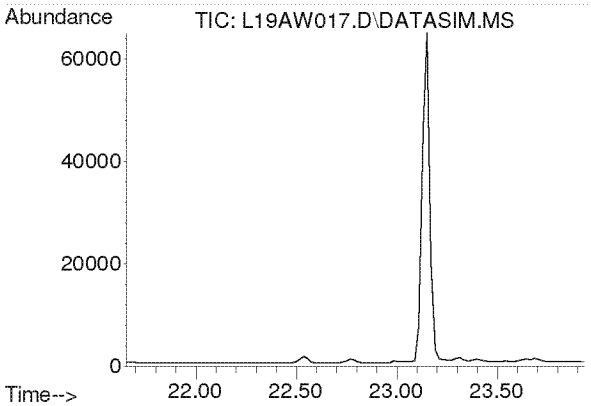
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



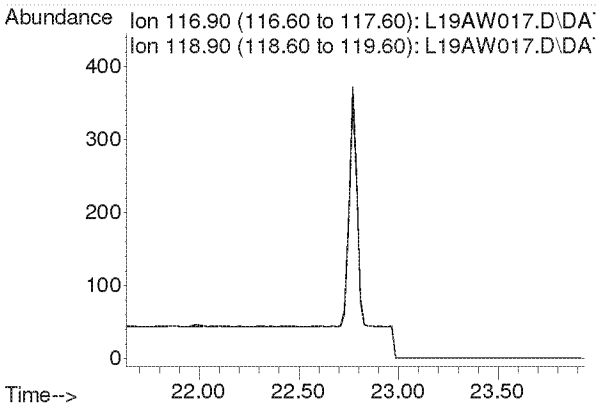


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

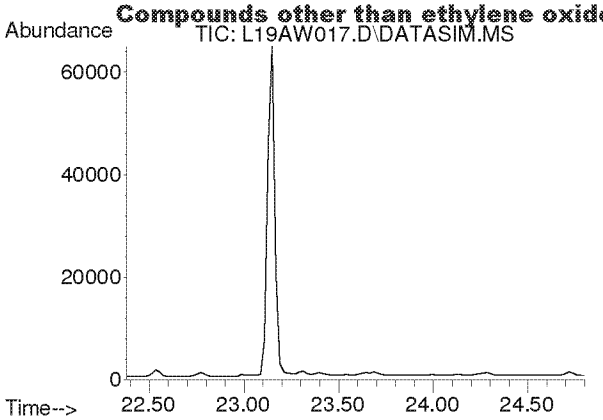
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

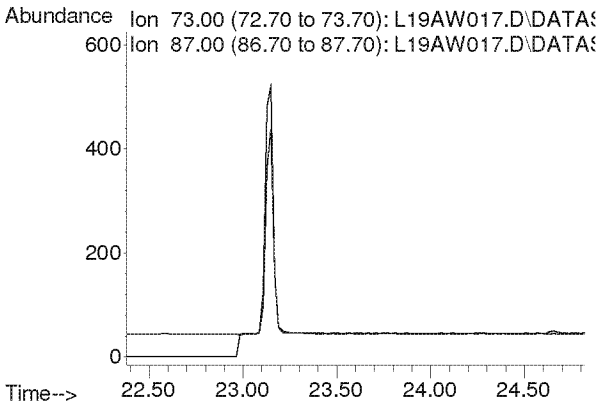


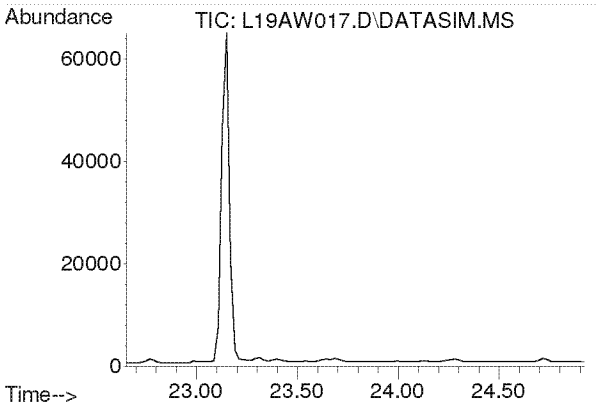
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



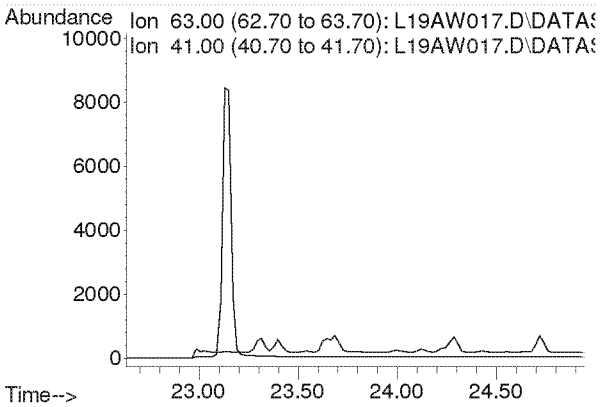


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

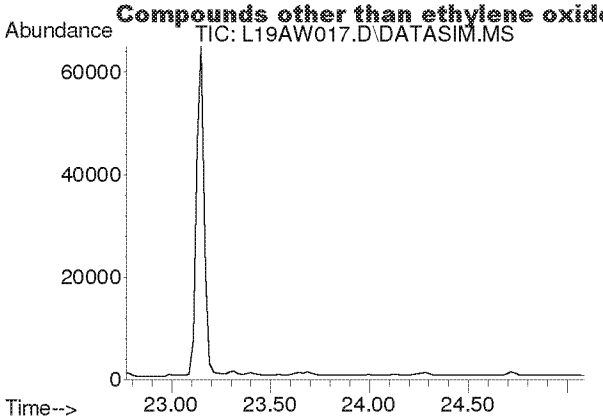
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

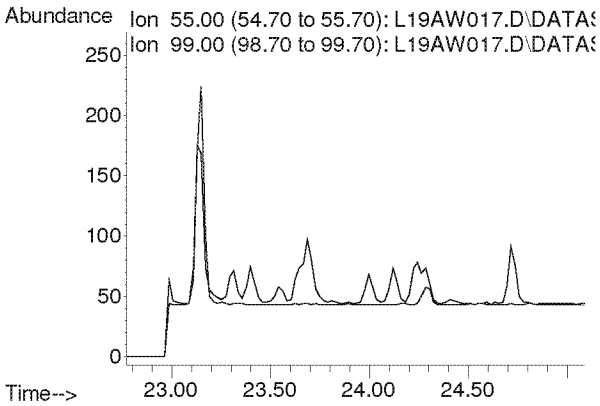


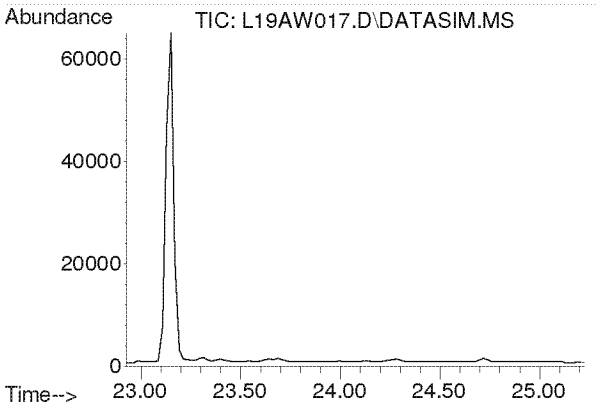
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



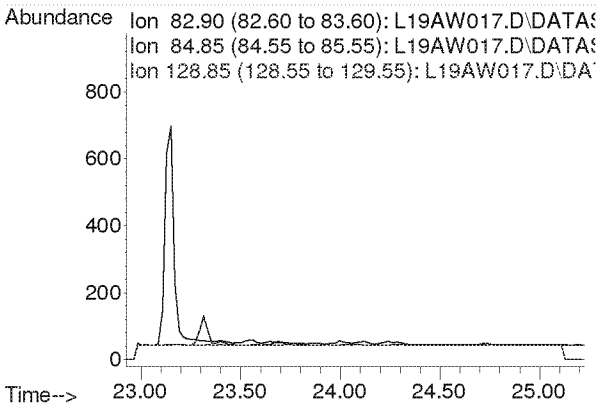


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

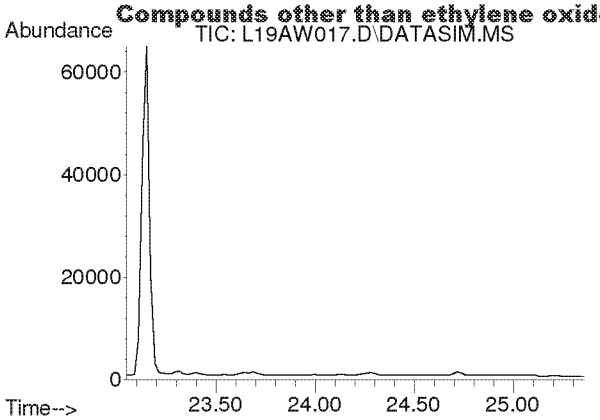
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

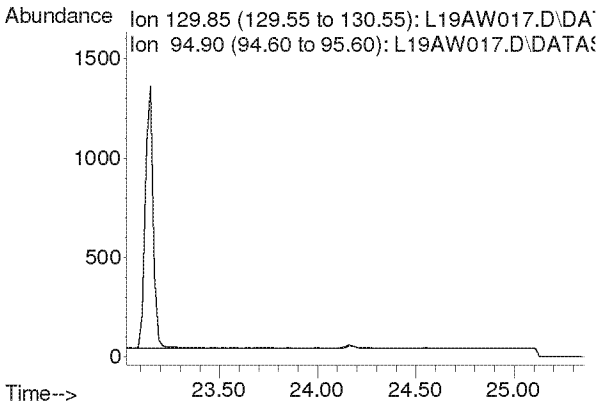


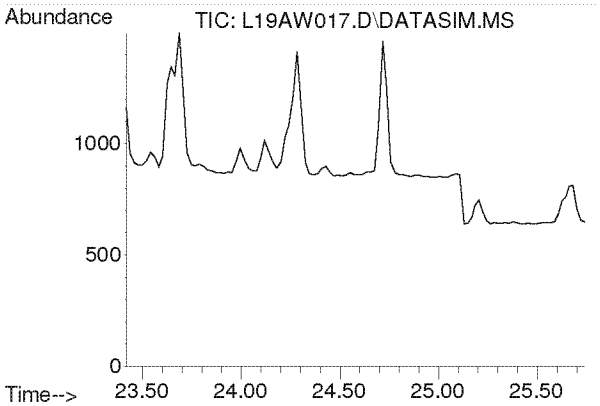
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



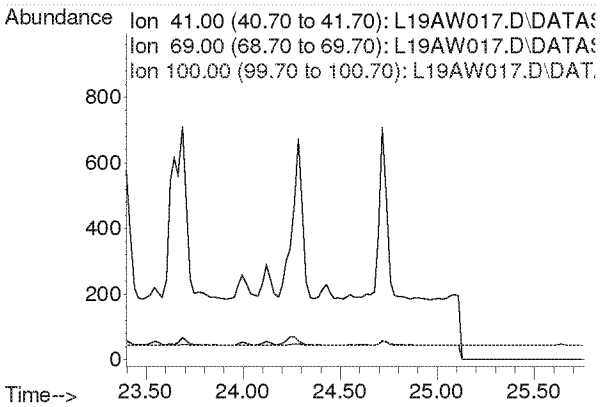


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

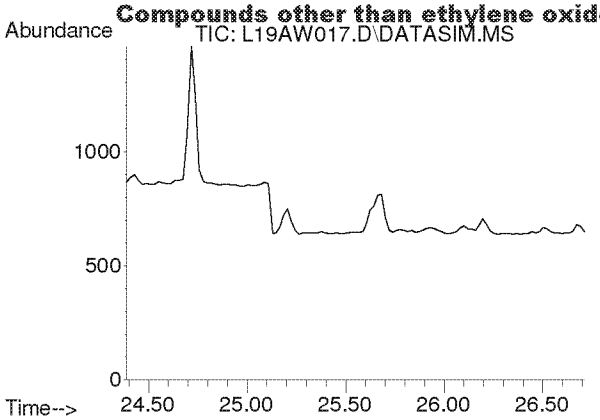
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

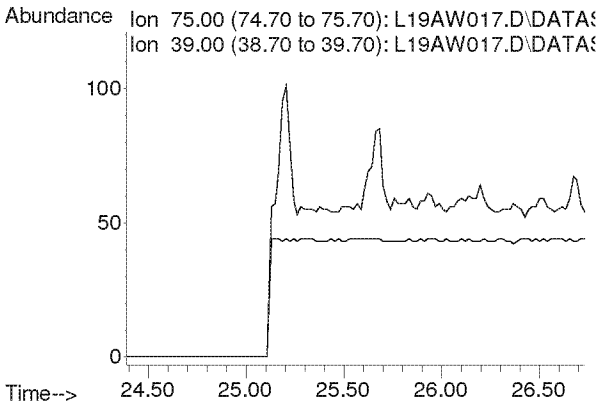


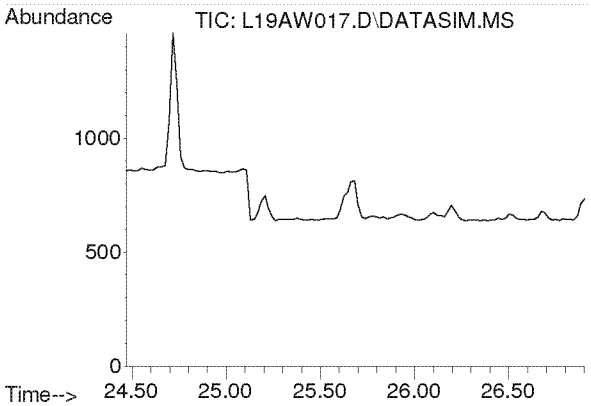
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



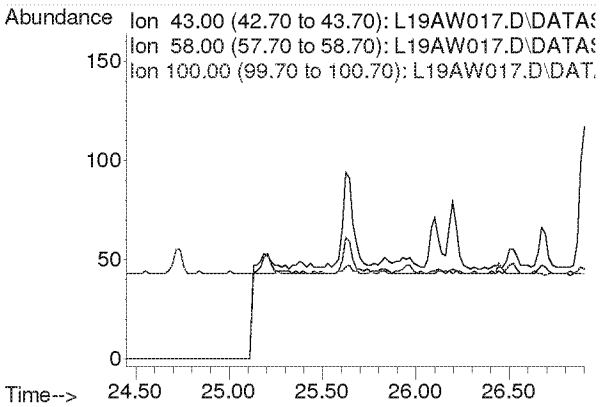


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

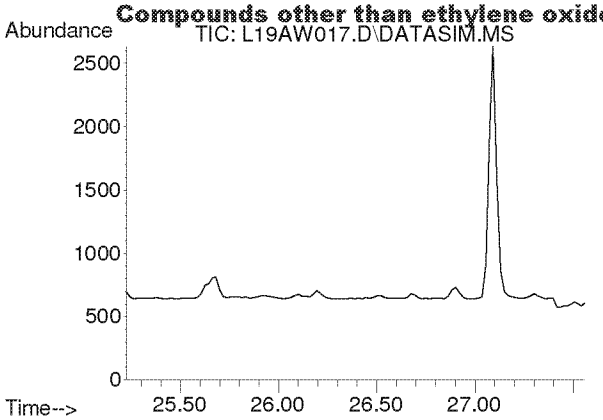
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

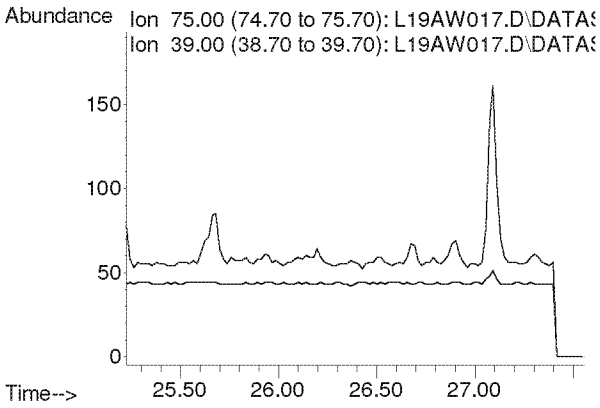


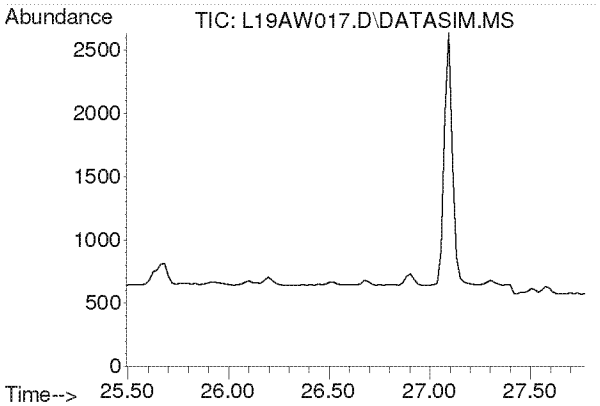
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



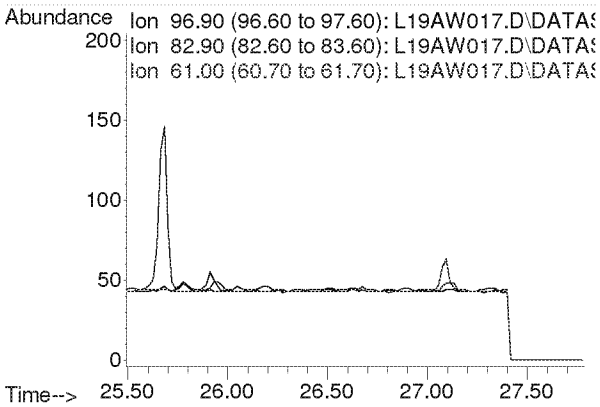


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

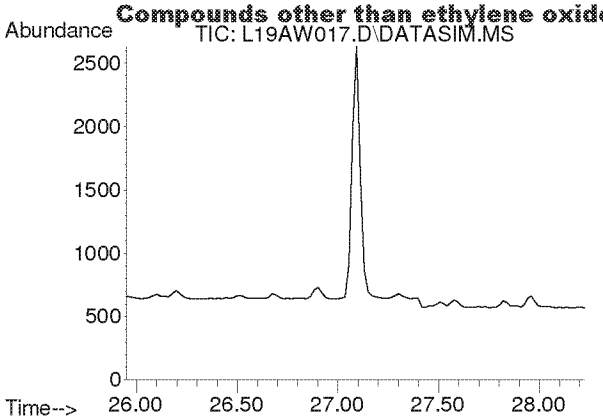
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

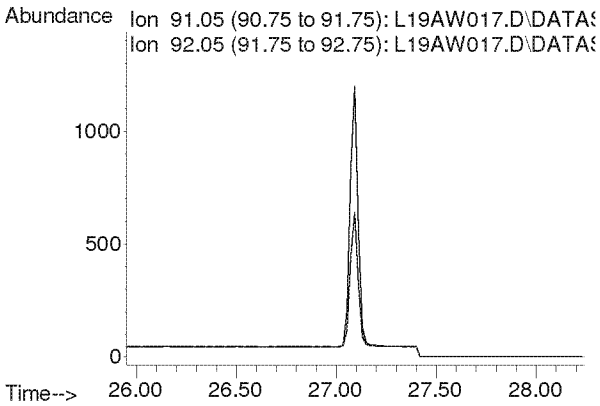


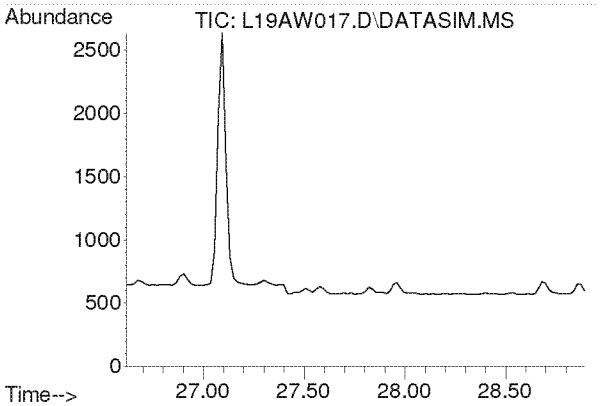
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



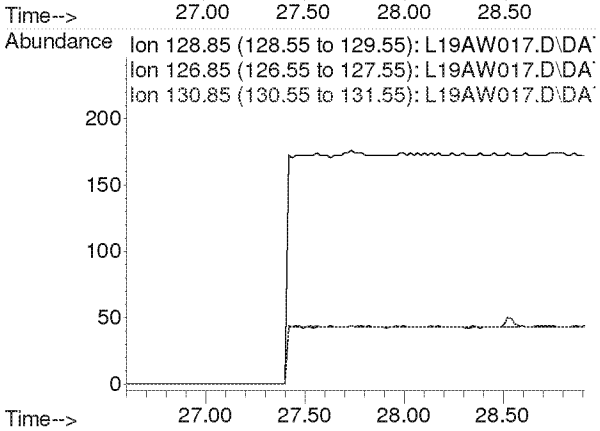


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

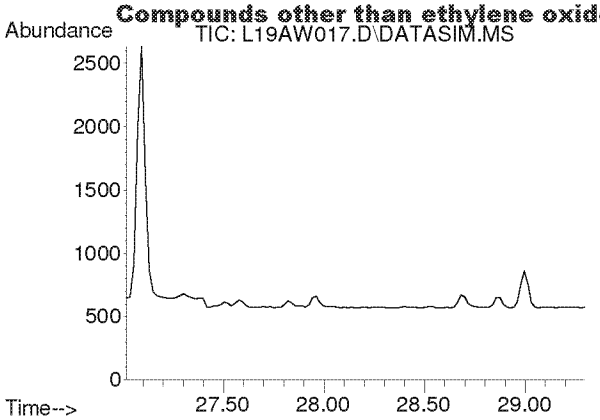
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

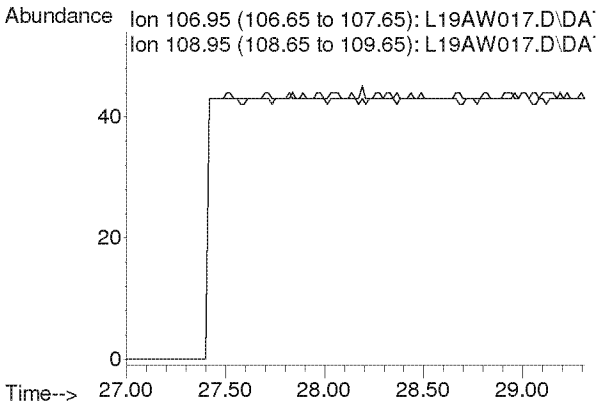


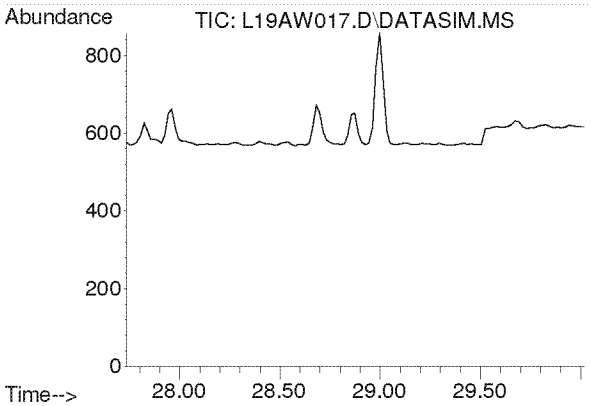
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



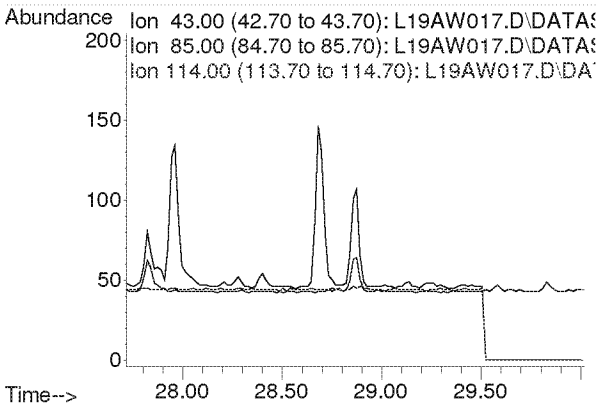


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

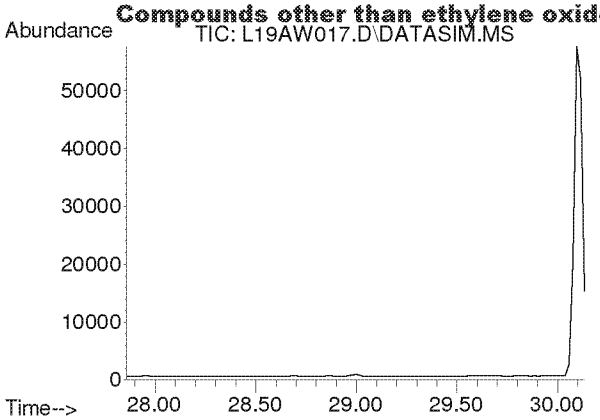
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

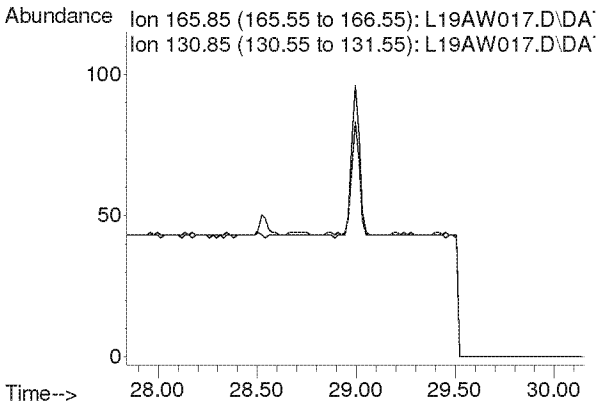


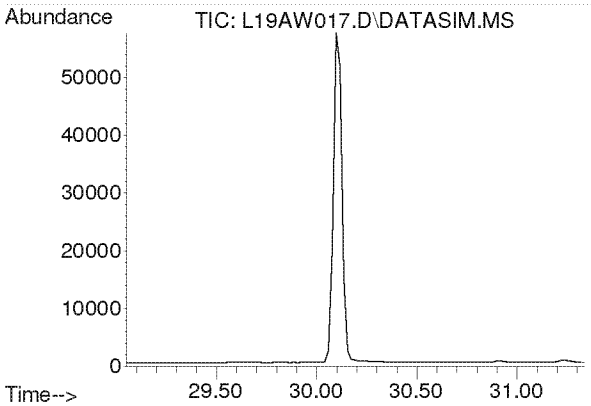
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



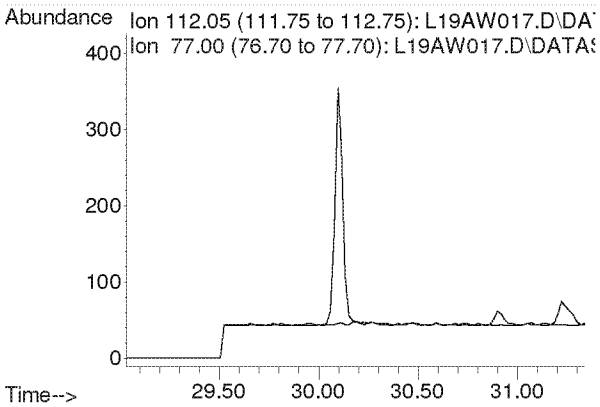


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

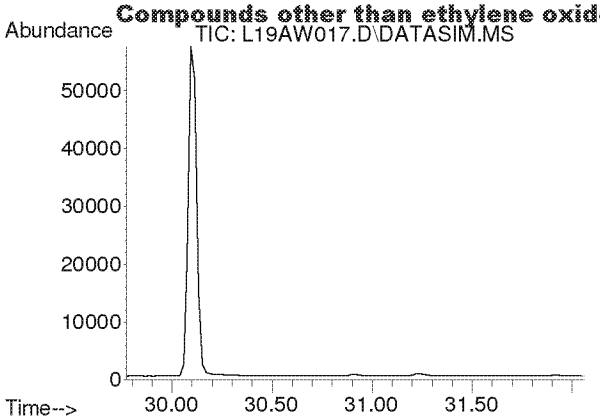
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

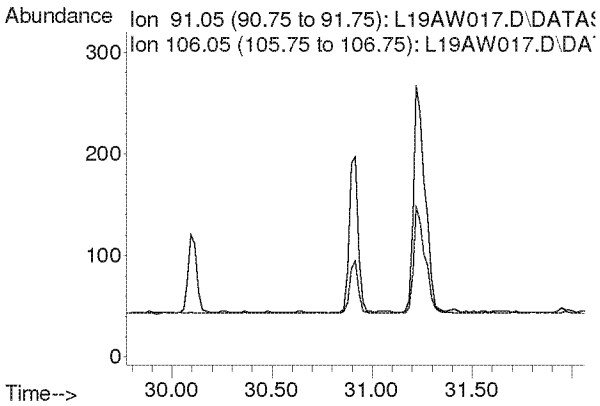


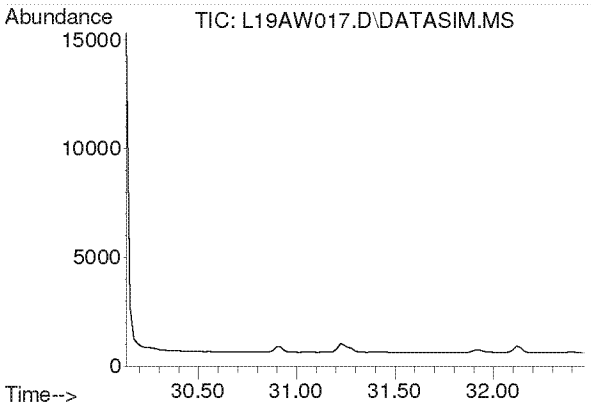
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



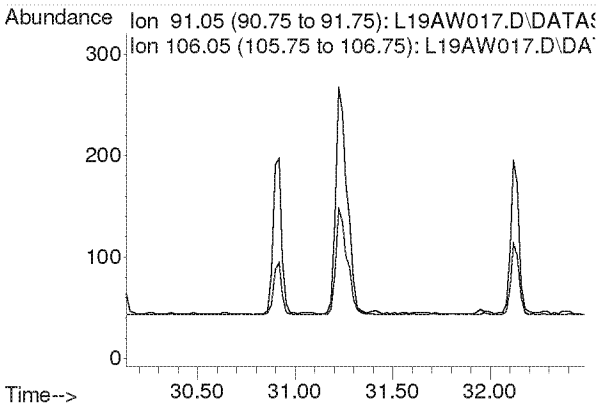


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

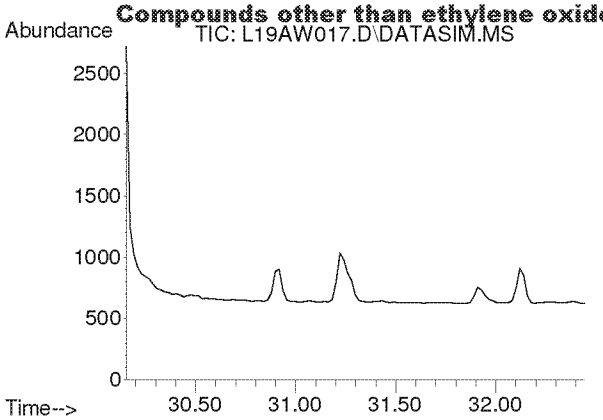
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

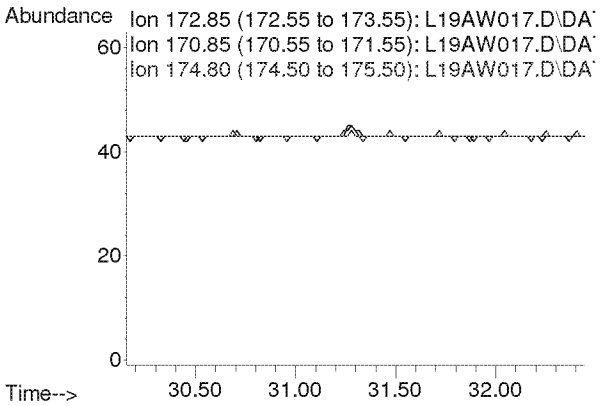


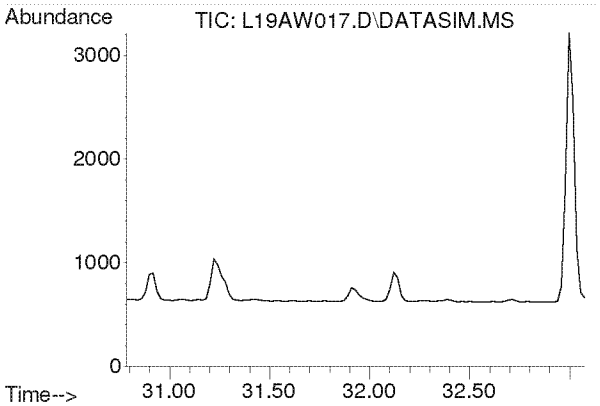
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



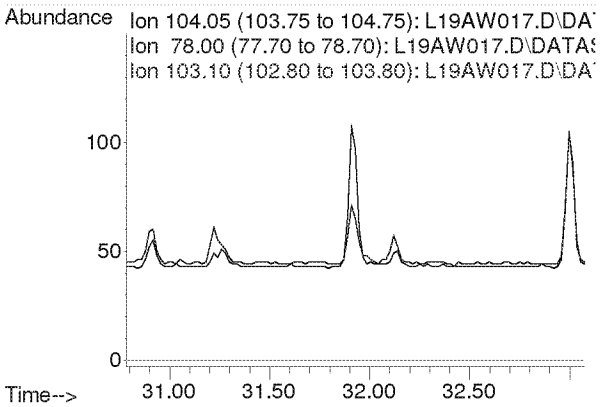


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

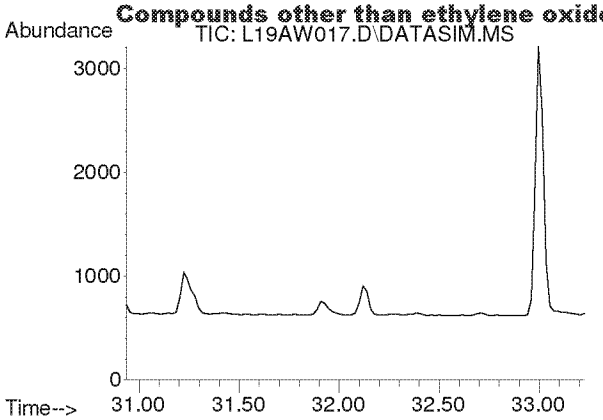
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

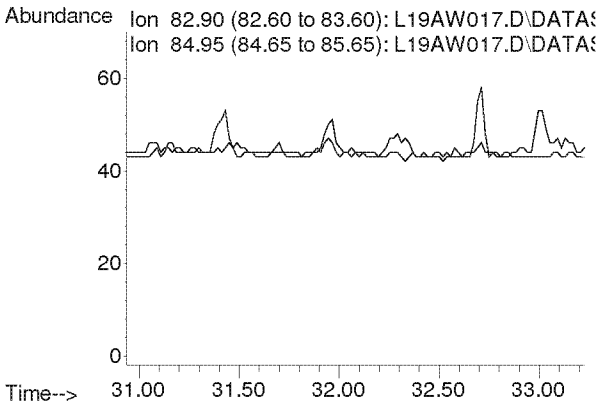


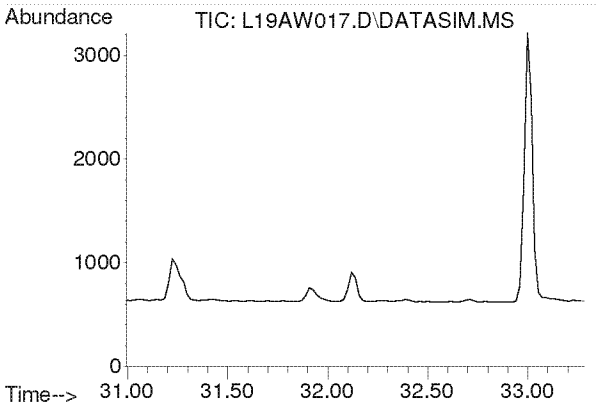
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



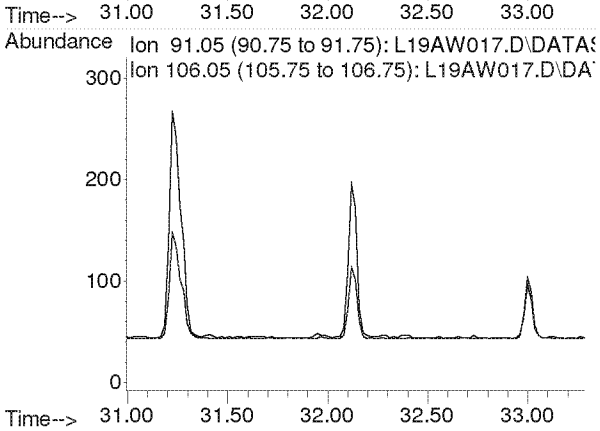


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

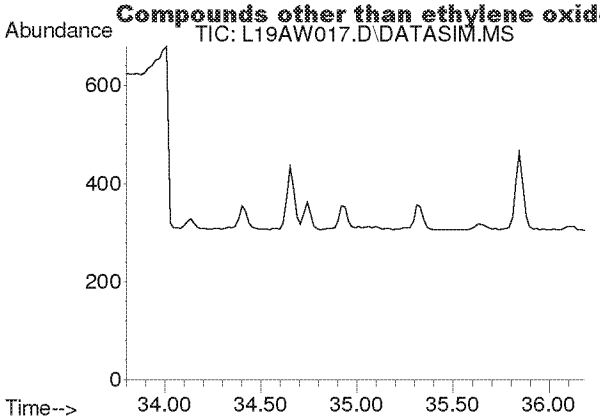
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

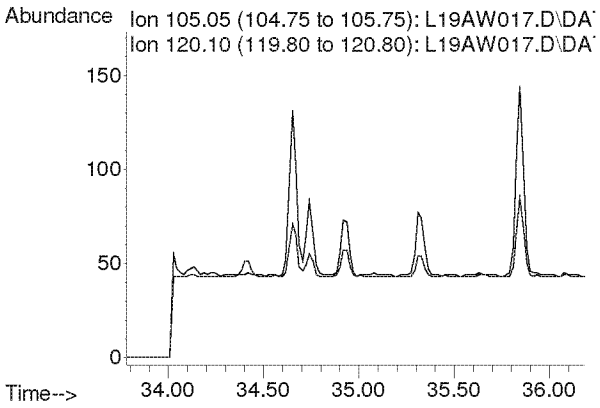


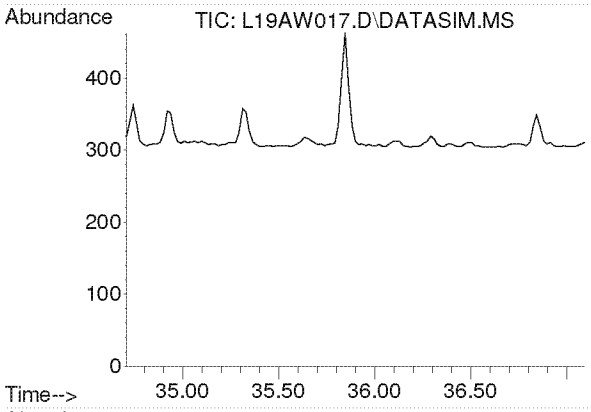
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



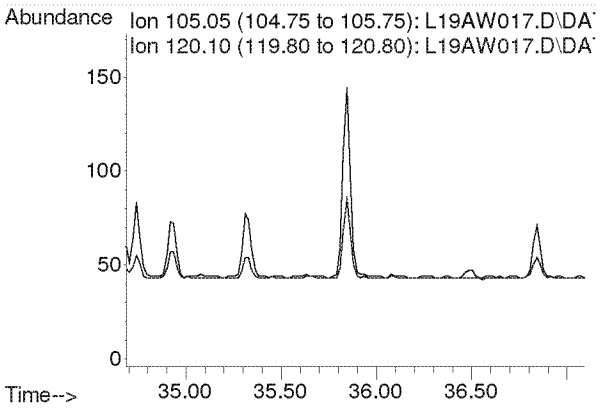


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

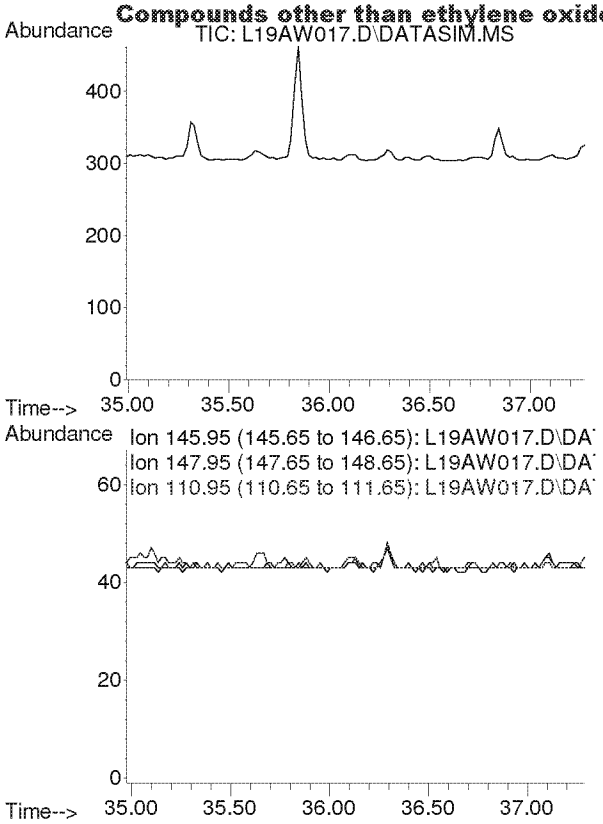
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

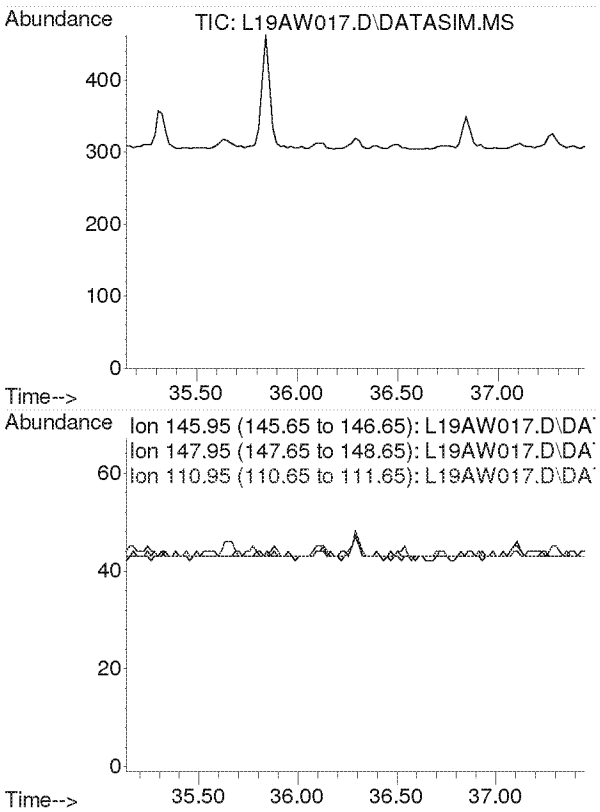


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



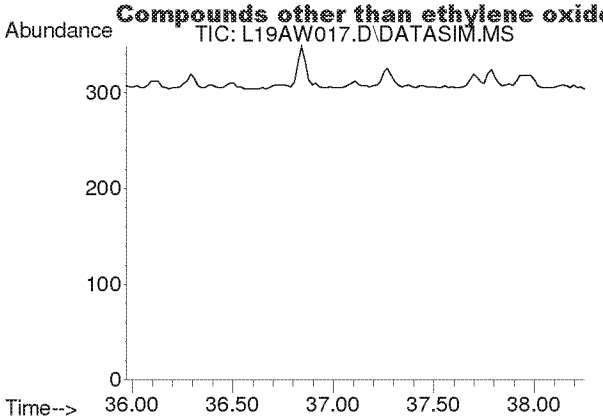
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3

Compounds other than ethylene oxide were not quantitated.

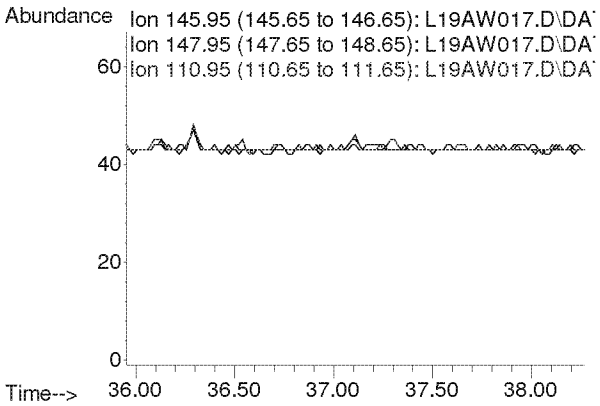


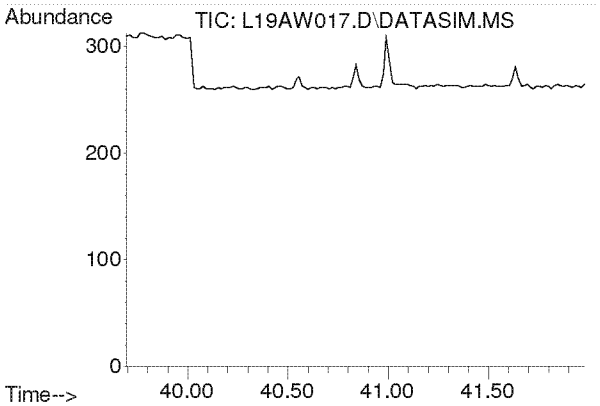
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



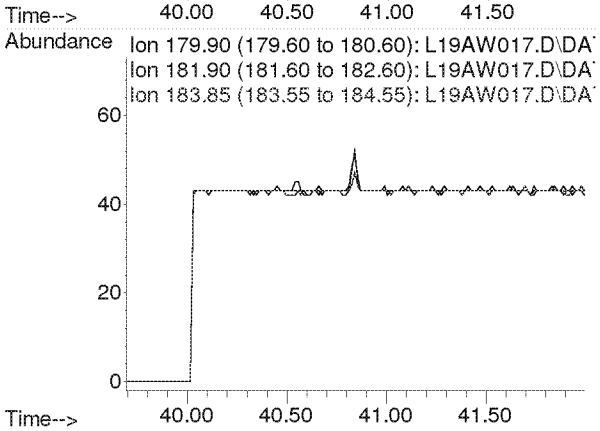


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

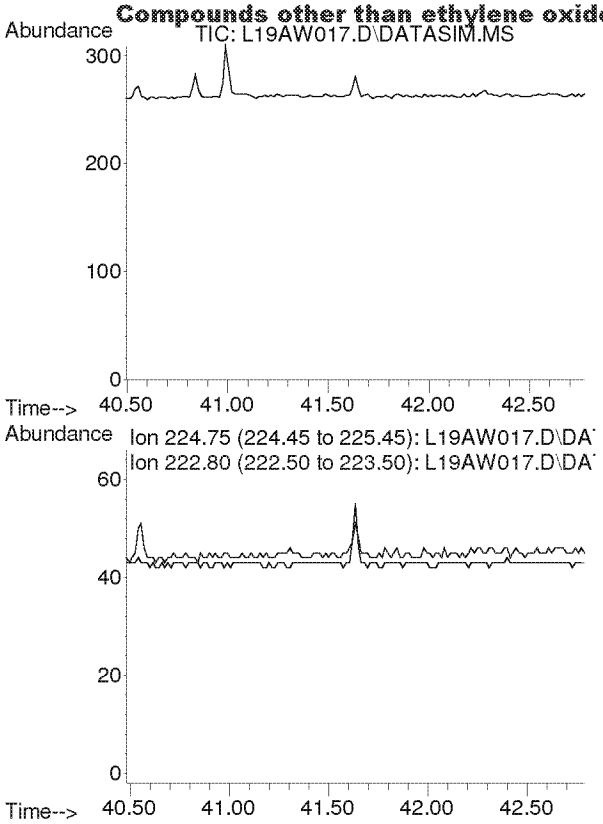
Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AW017.D
Acq: 24 Jan 2019 1:44 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\L19AW\
Data File : L19AW018.D
Acq On : 24 Jan 2019 2:46 am
Operator : MAH
Sample : 9012221-05
Misc : HINSDALE S. HS 1/18/19
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 29 08:30:14 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	52669	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	128472	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.116	117	98484	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	12.470	29	202	0.0743 ppbv #	1
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
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.	
35) Ethyl Acrylate	0.000	55	0	N.D. 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.	
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\L19AW\
Data File : L19AW018.D
Acq On : 24 Jan 2019 2:46 am
Operator : MAH
Sample : 9012221-05
Misc : HINSDALE S. HS 1/18/19
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 29 08:30:14 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

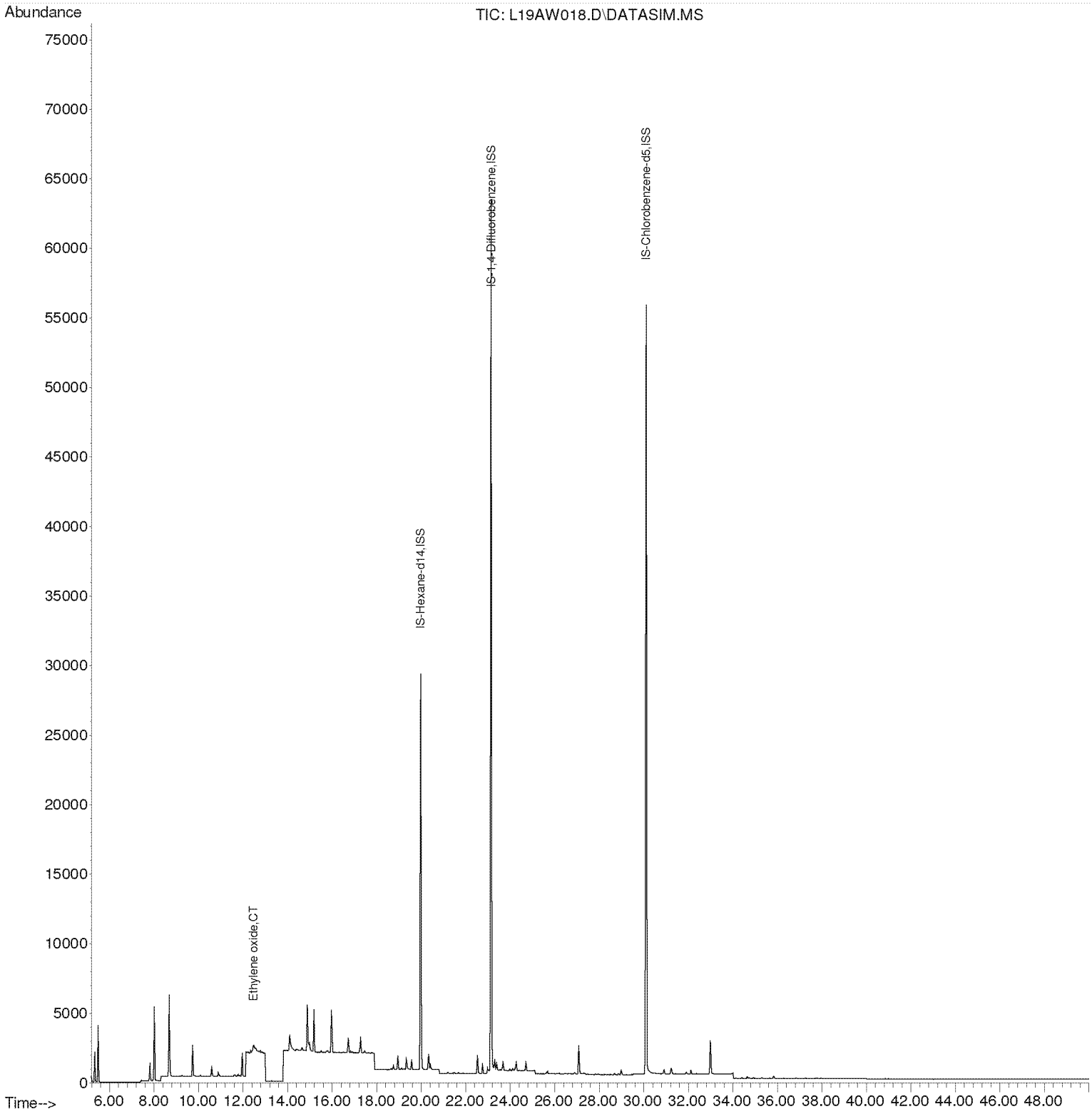
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

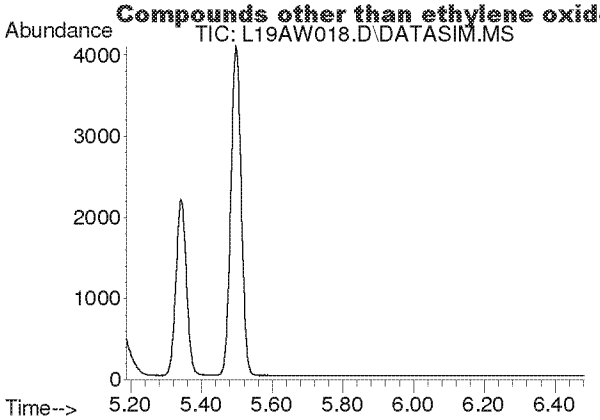
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW018.D
Acq On : 24 Jan 2019 2:46 am
Operator : MAH
Sample : 9012221-05
Misc : HINSDALE S. HS 1/18/19
ALS Vial : 18 Sample Multiplier: 1

Quant Time: Jan 29 08:11:26 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



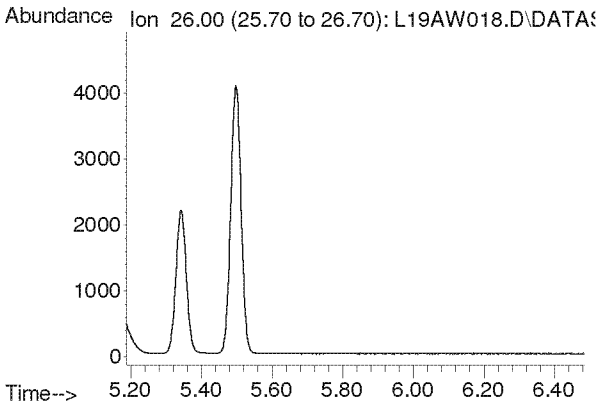
Compounds other than ethylene oxide were not quantitated.

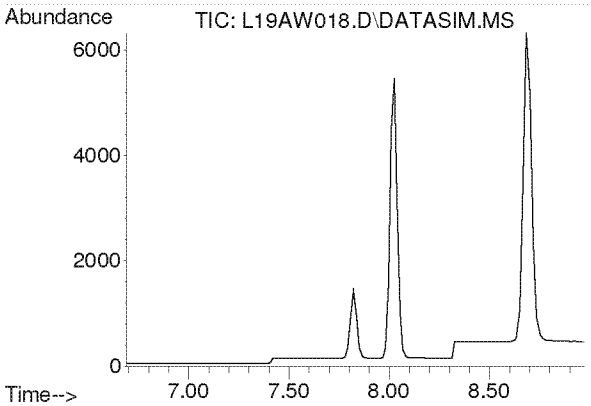


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 26



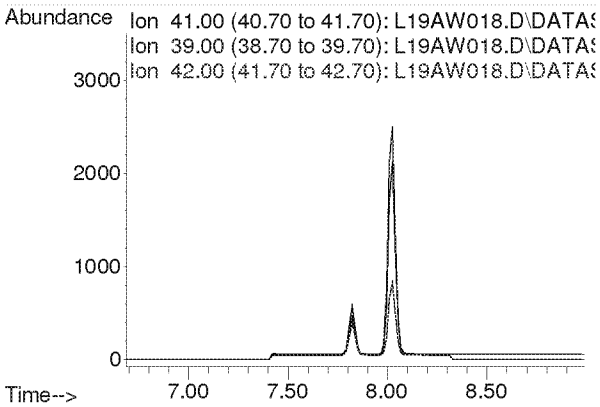


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

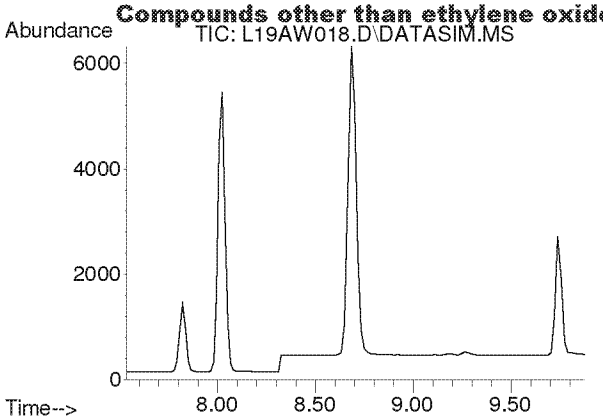
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

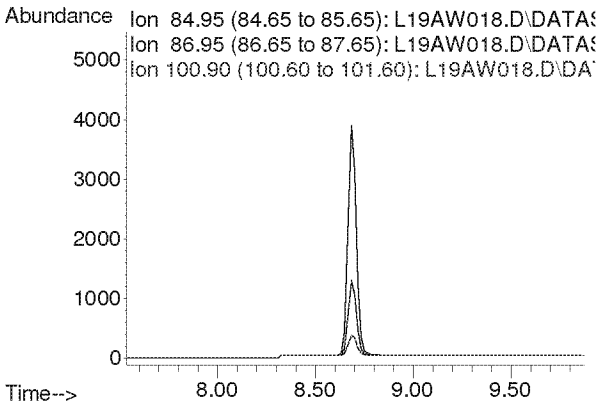


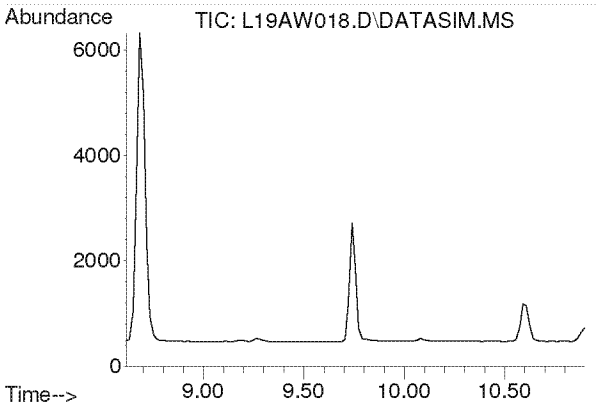
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



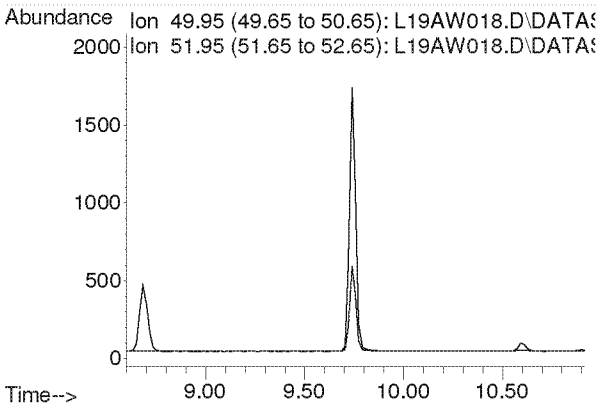


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

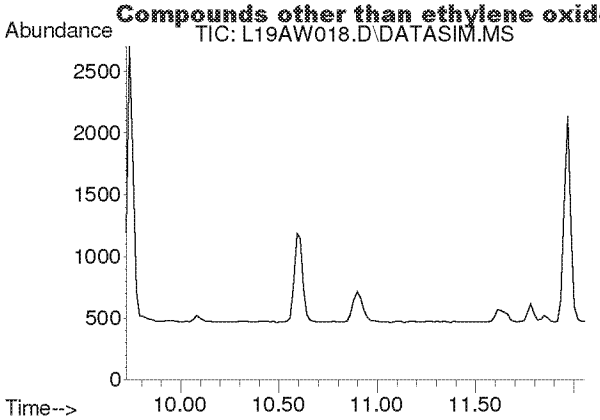
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

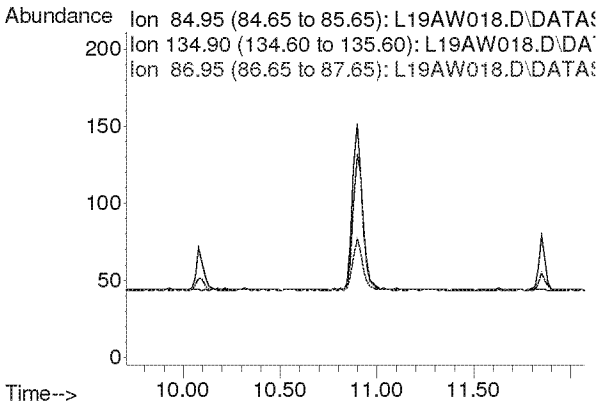


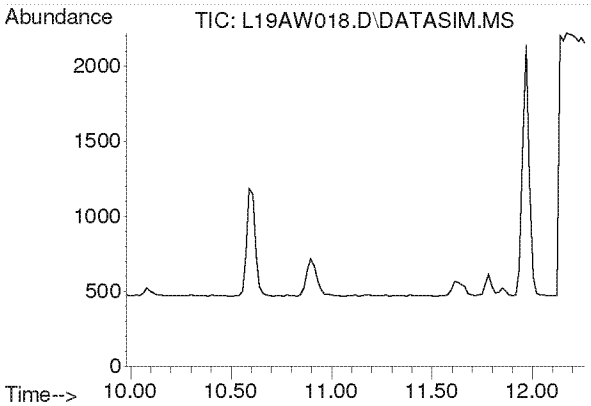
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



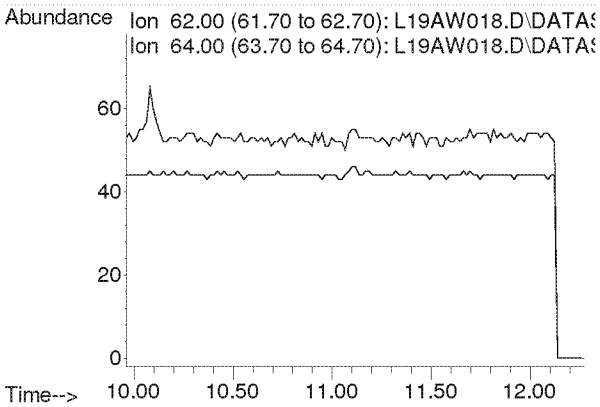


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

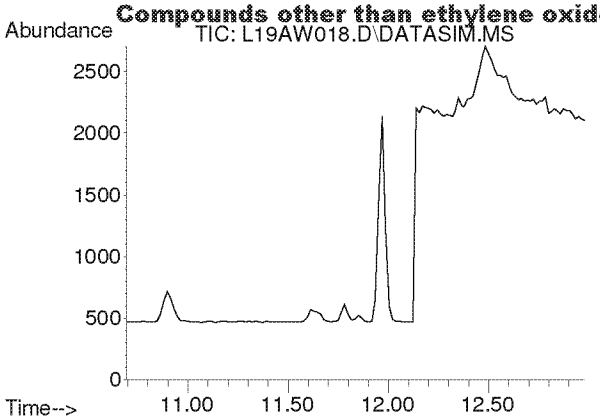
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

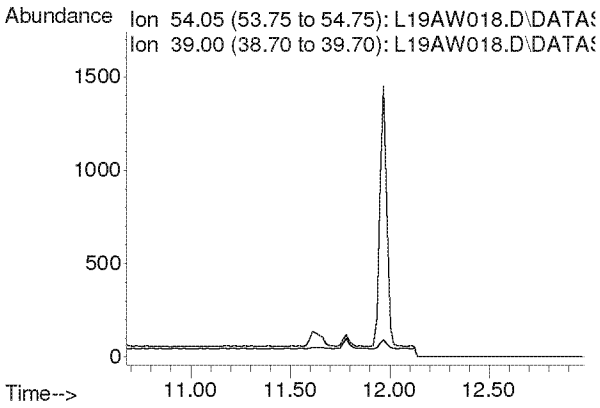


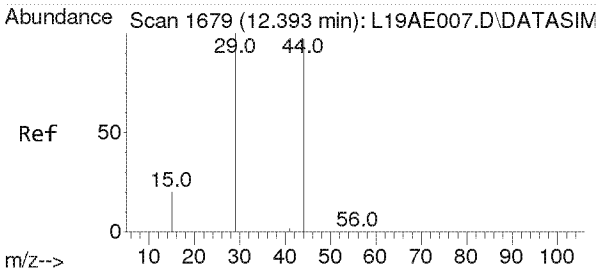
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

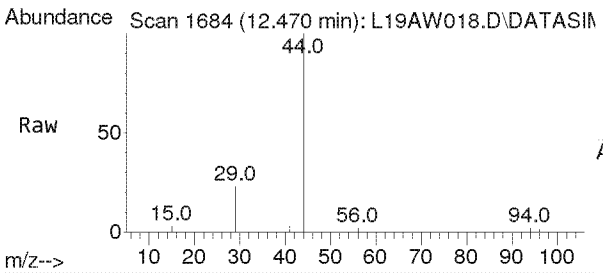


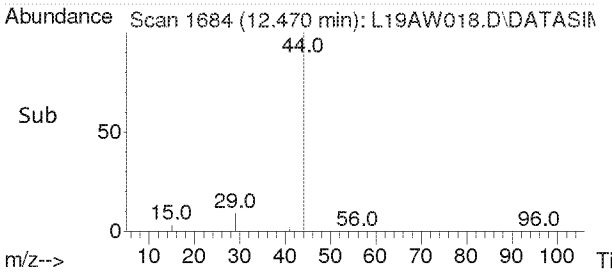


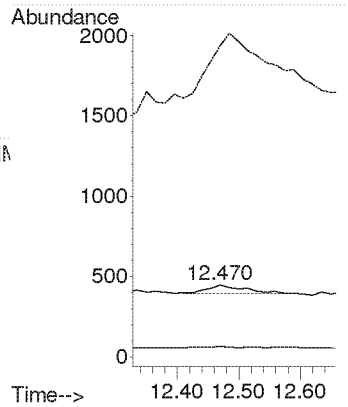
#9
Ethylene oxide
Concen: 0.074 ppbv
RT: 12.470 min Scan# 1684
Delta R.T. 0.077 min
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 29 Resp: 202

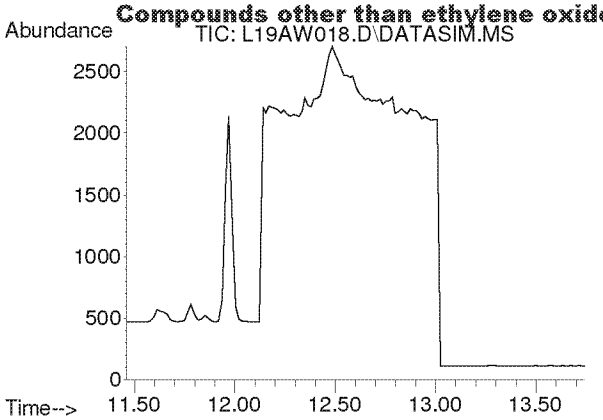
Ion	Ratio	Lower	Upper
29	100		
15	26.2	15.4	23.0#
44	1215.8	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

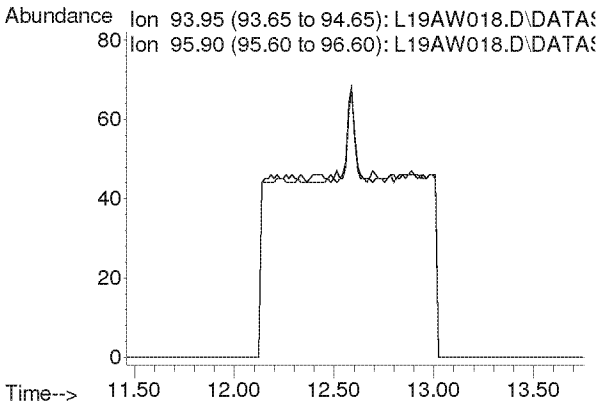


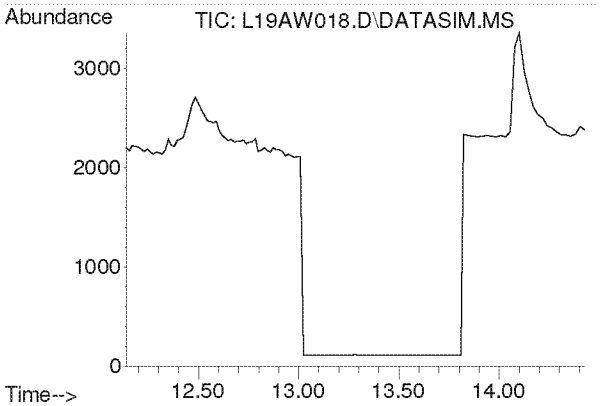
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



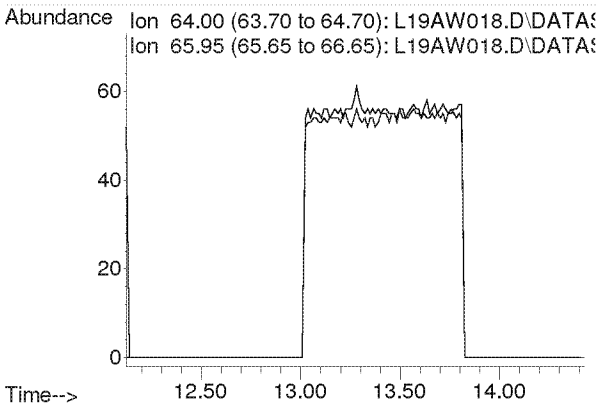


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

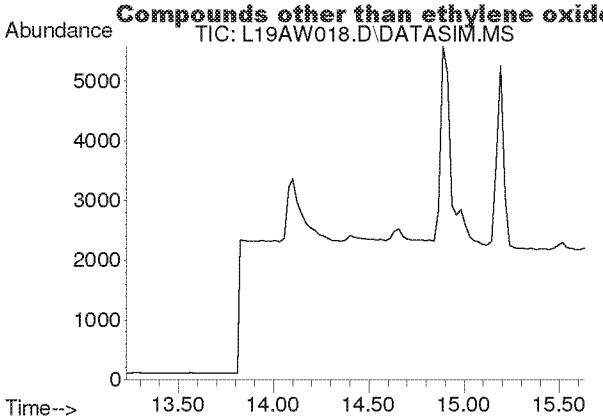
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

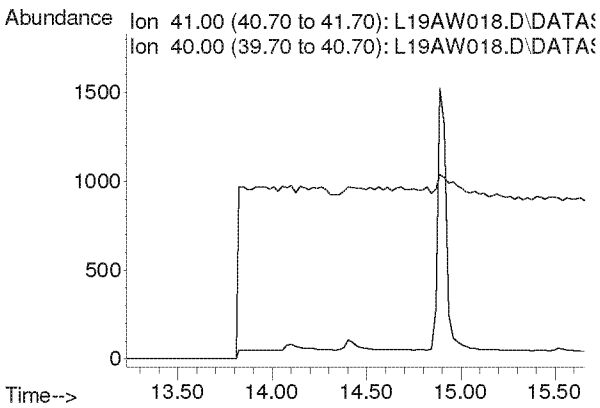


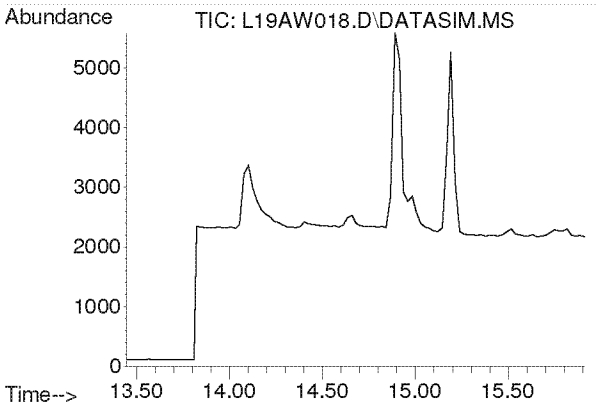
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



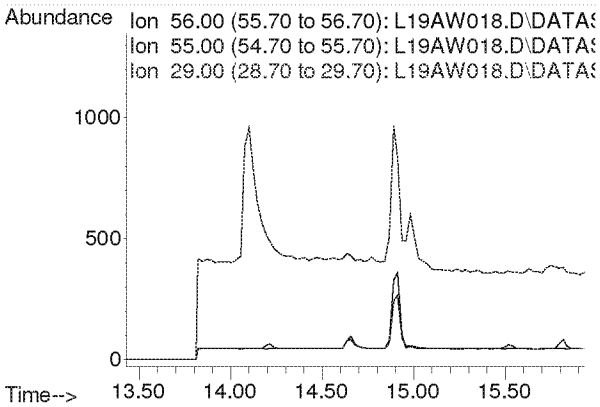


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

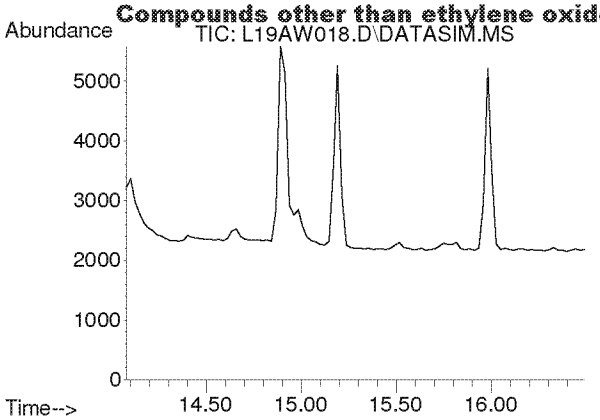
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

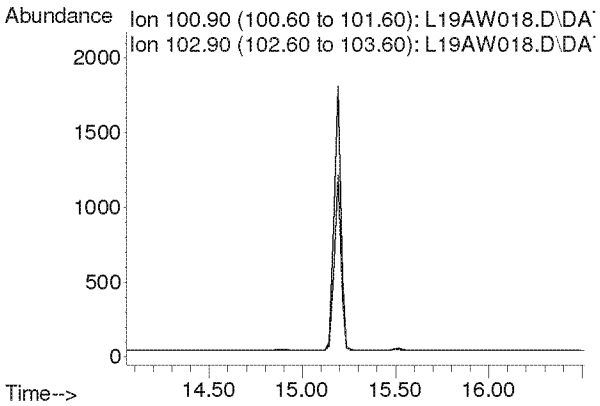


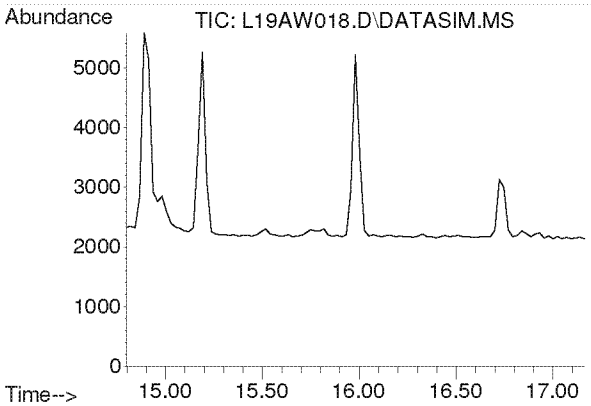
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



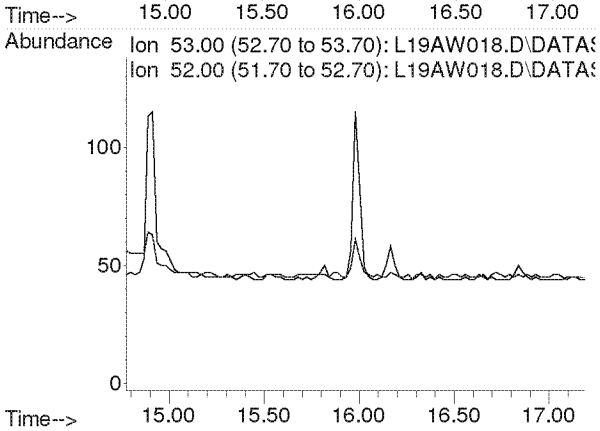


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

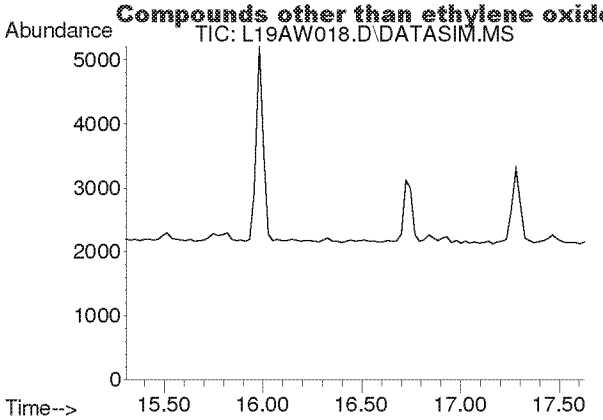
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

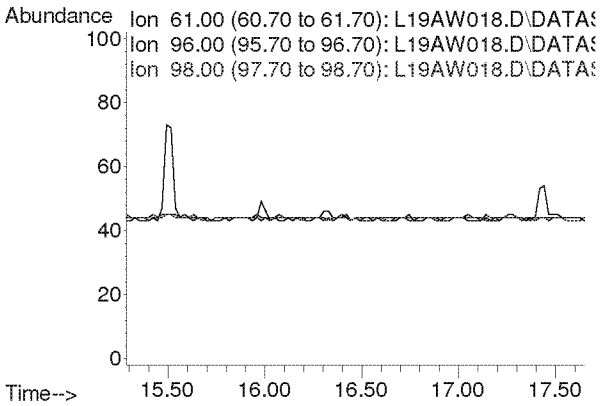


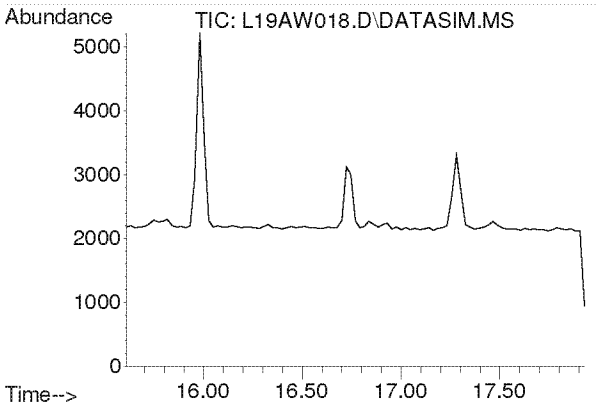
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



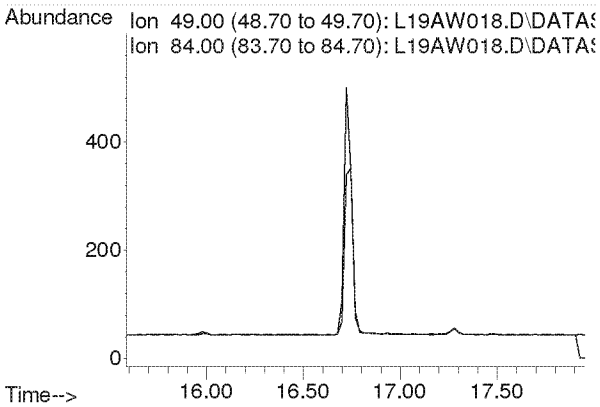


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

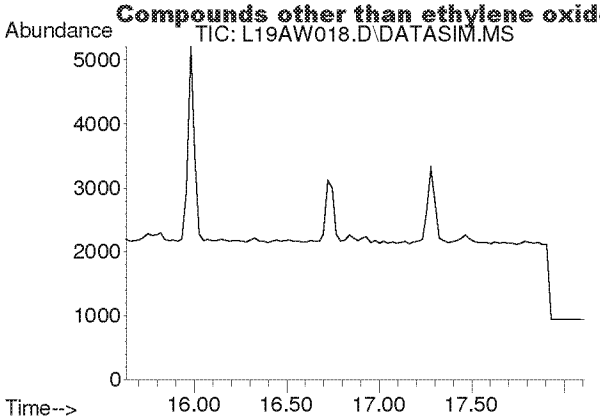
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

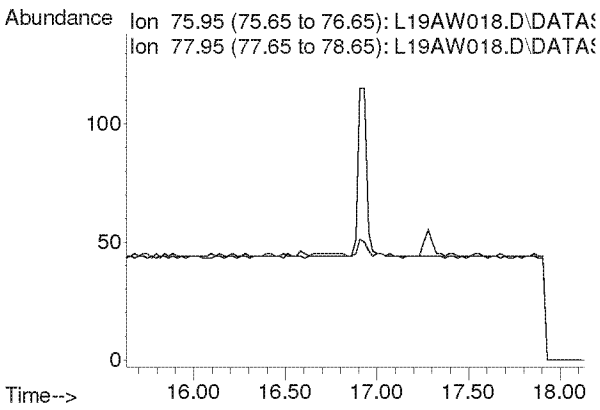


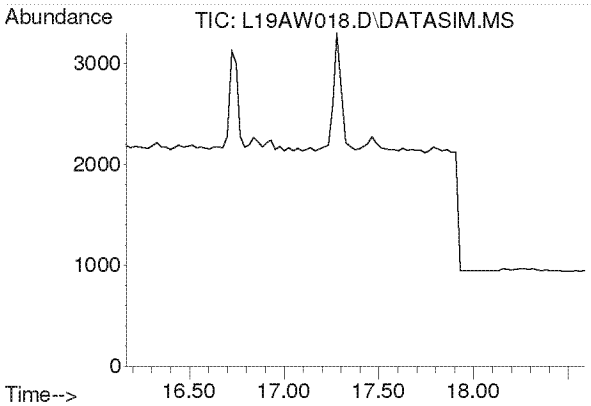
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



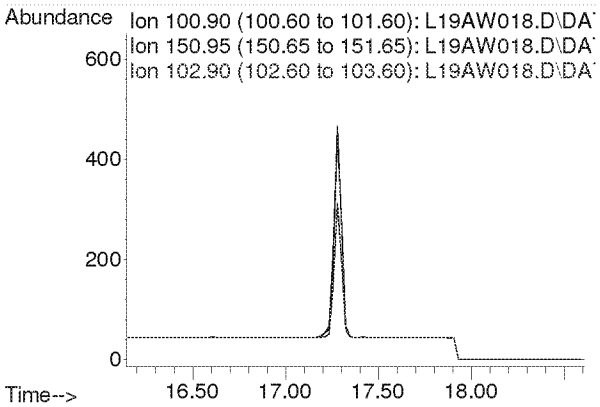


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

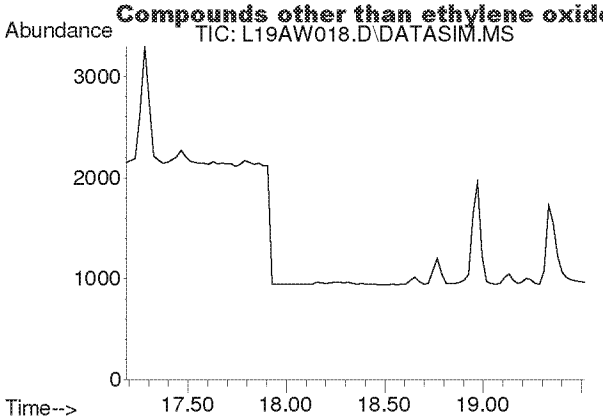
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

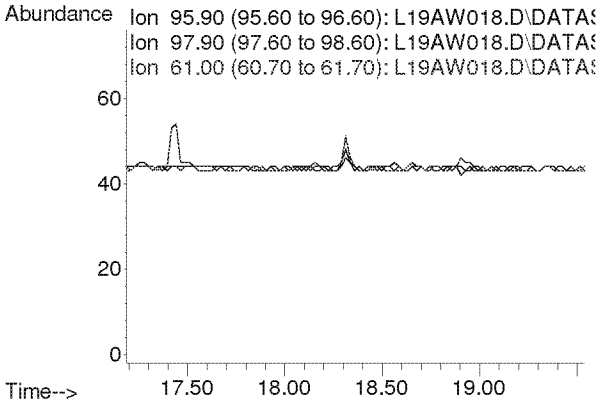


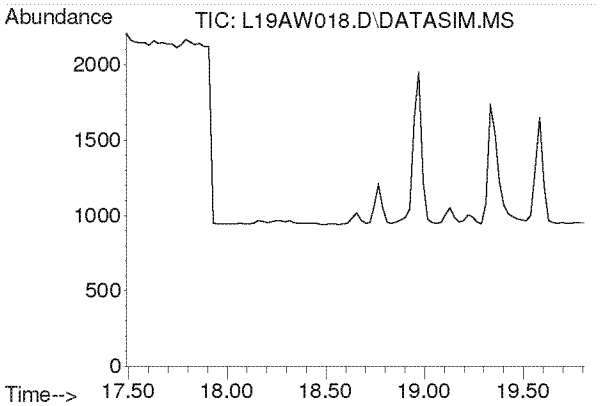
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



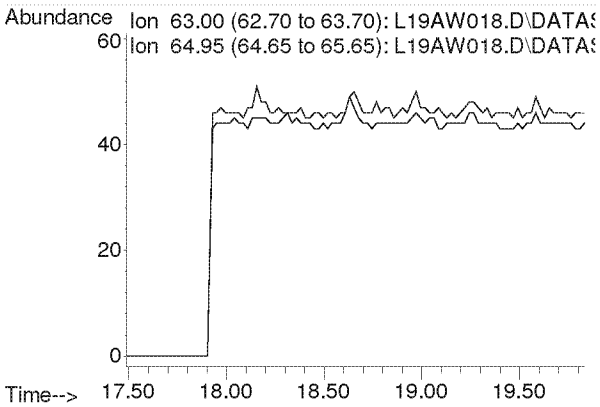


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

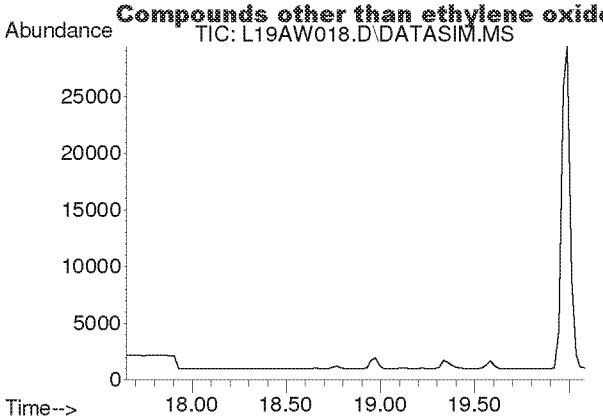
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

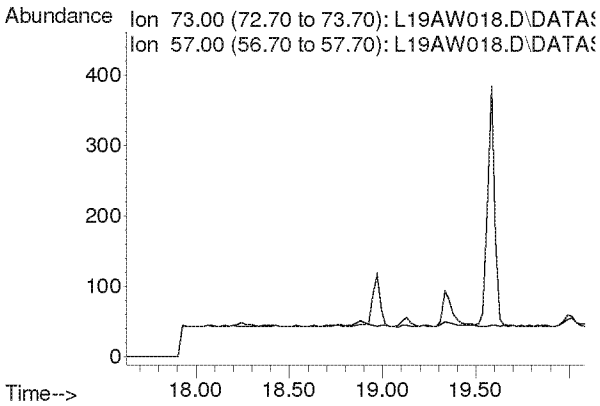


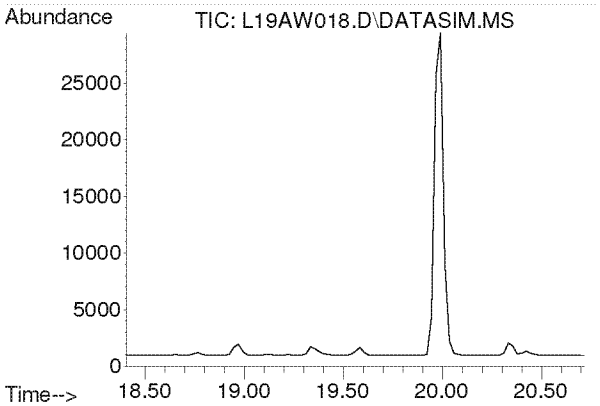
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



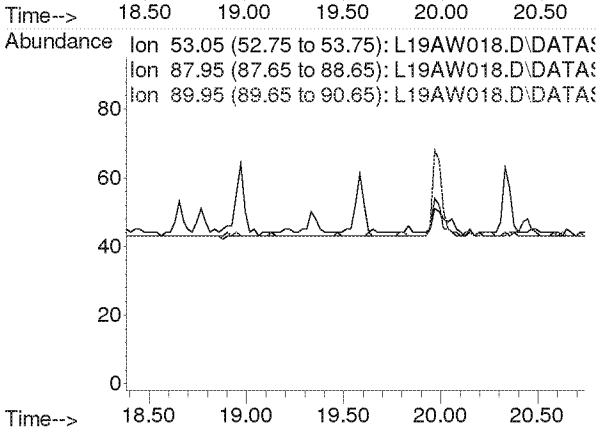


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

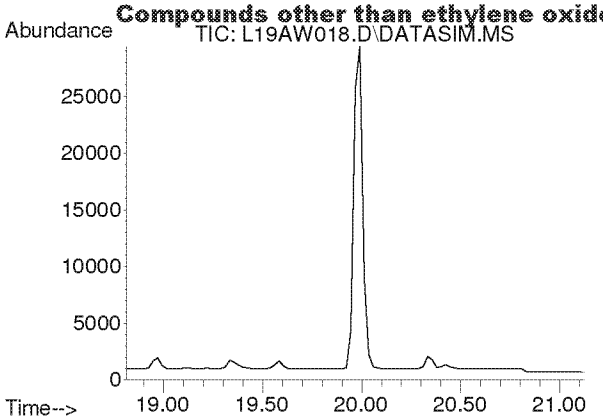
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

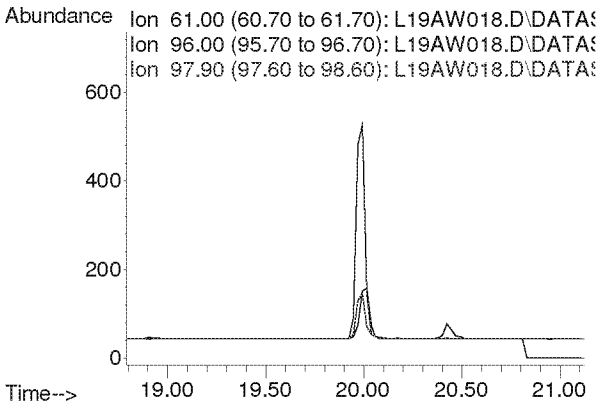


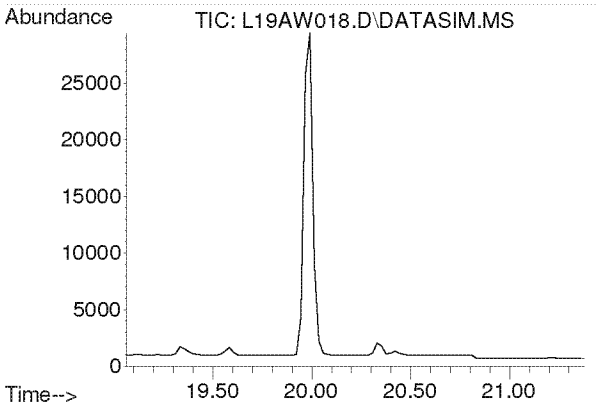
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



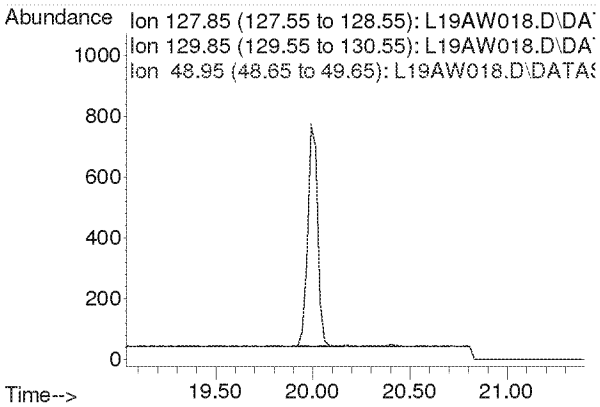


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

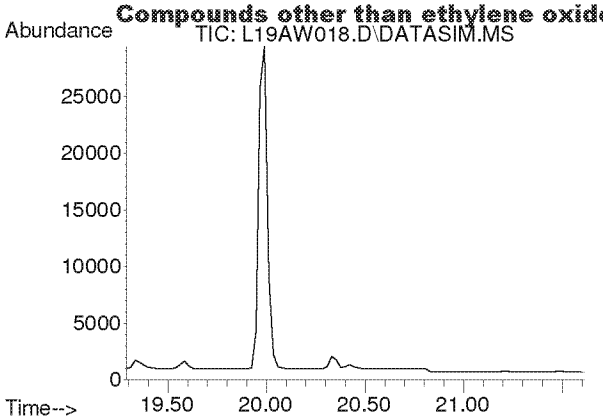
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

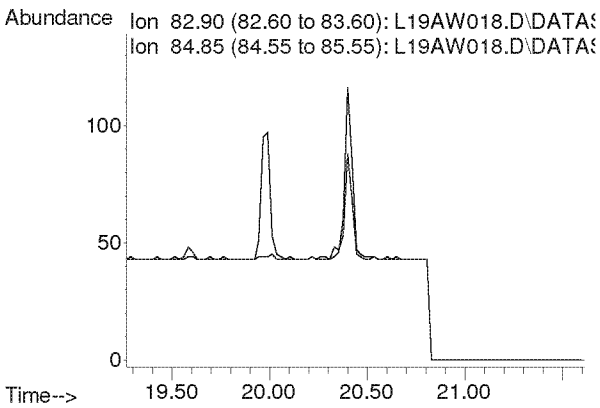


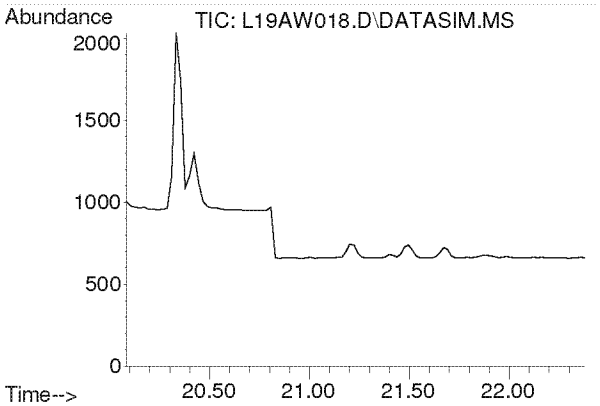
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



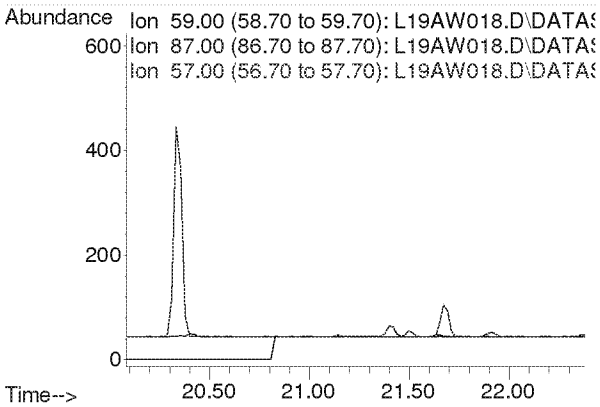


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

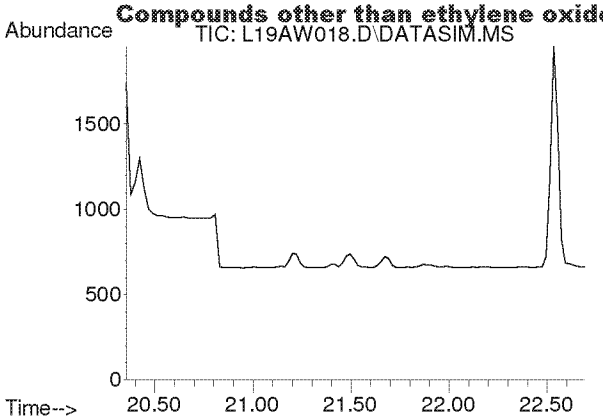
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

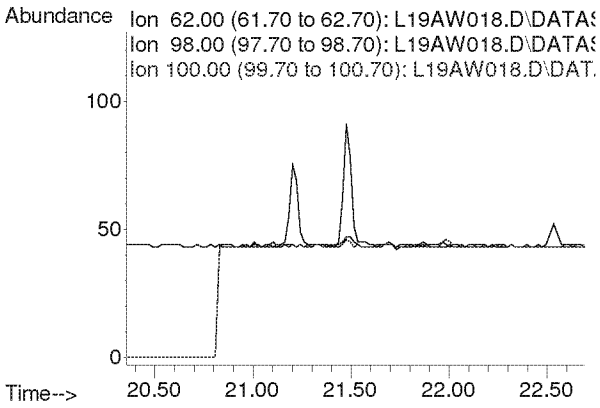


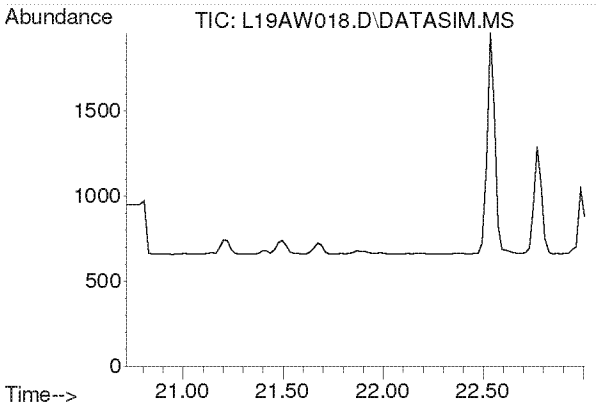
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



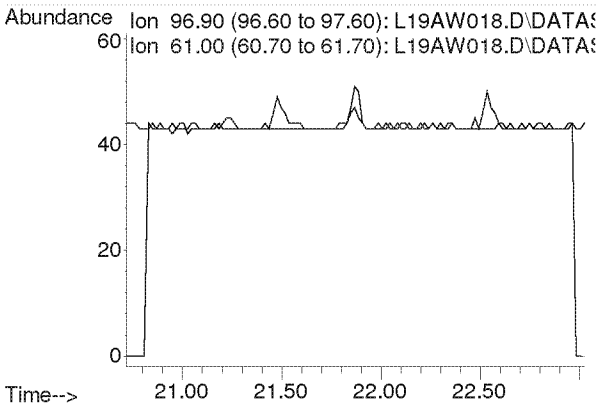


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

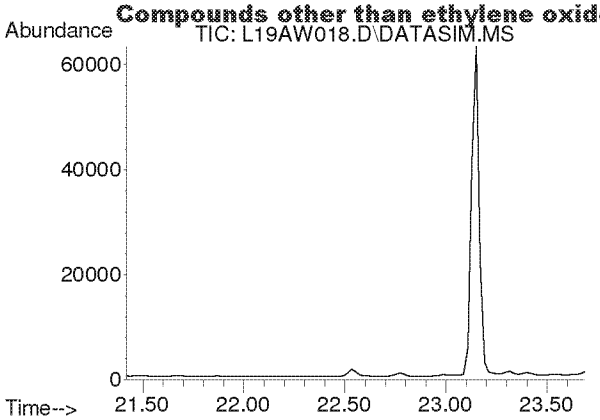
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

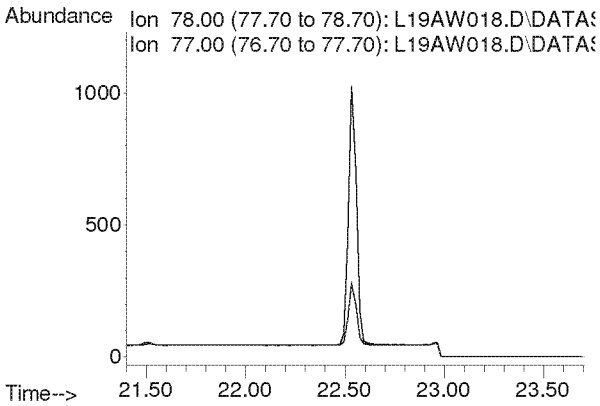


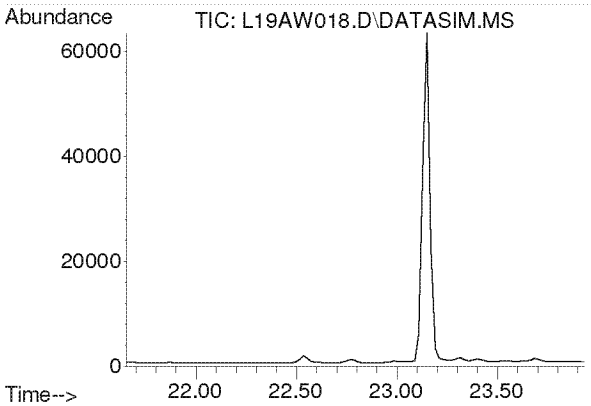
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



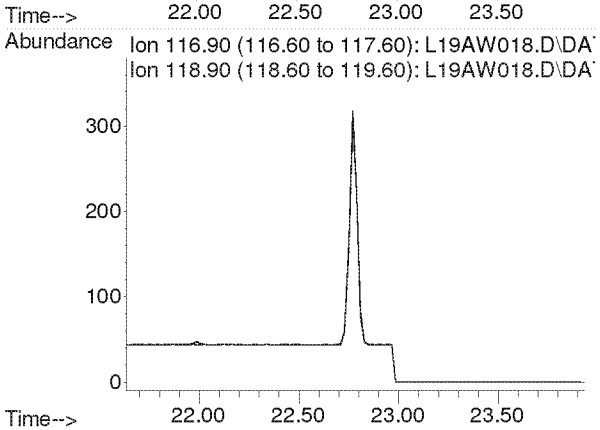


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

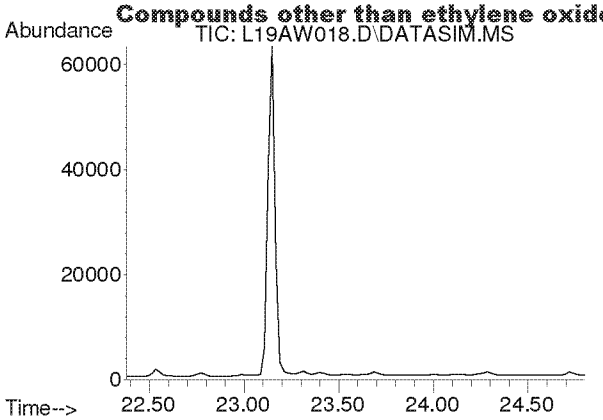
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

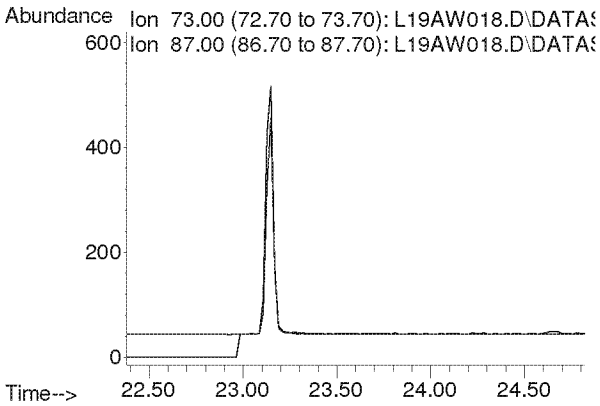


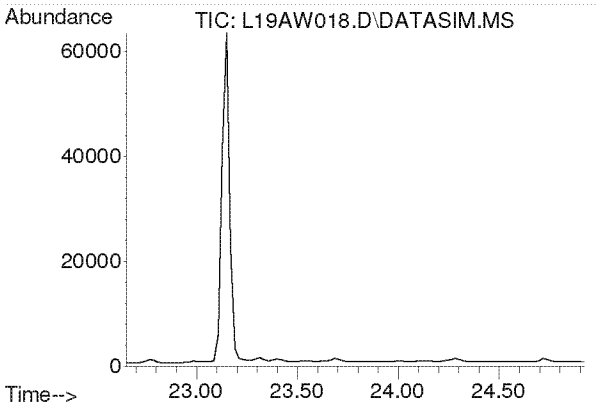
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



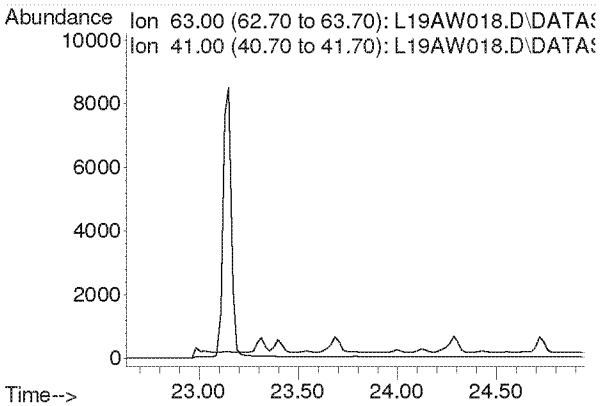


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

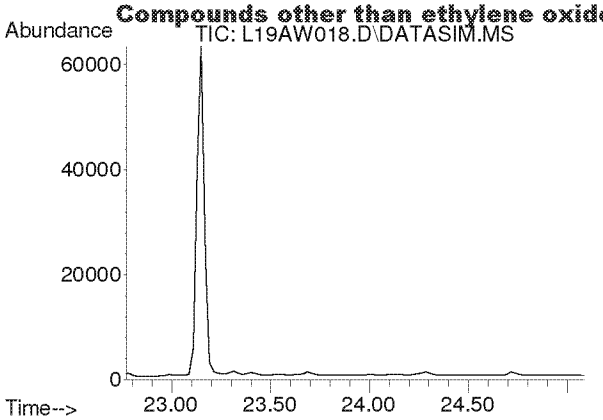
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

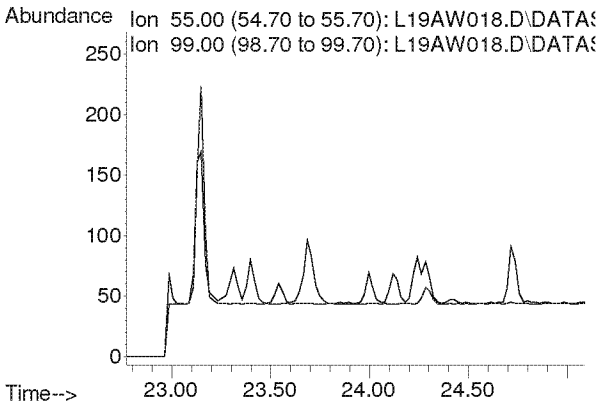


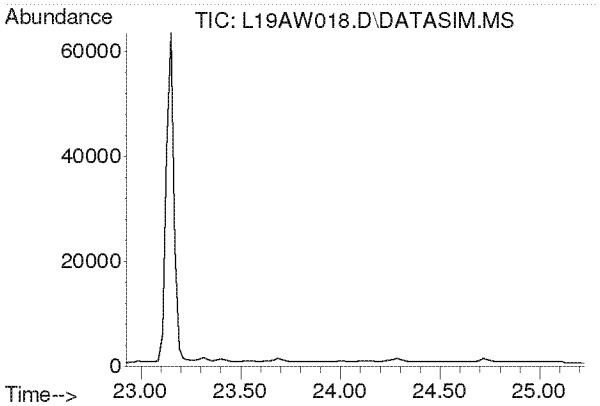
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



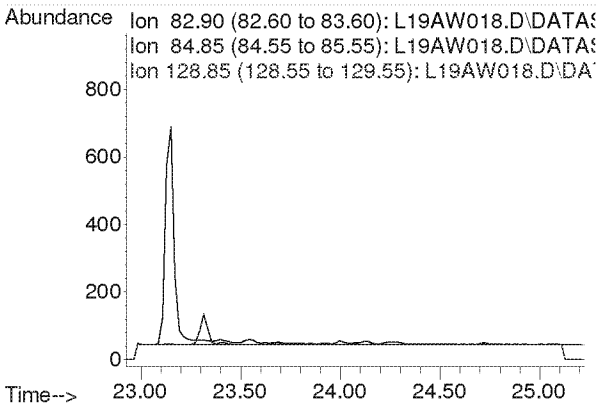


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

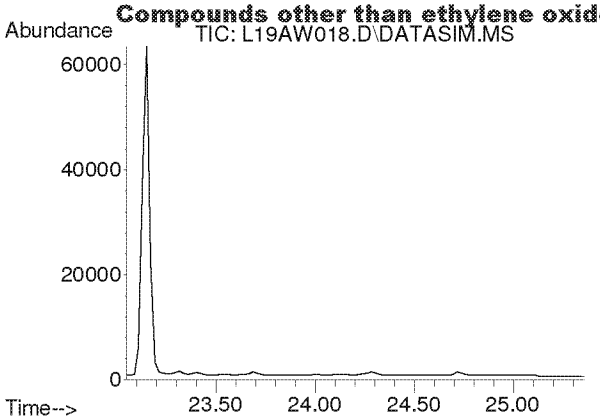
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

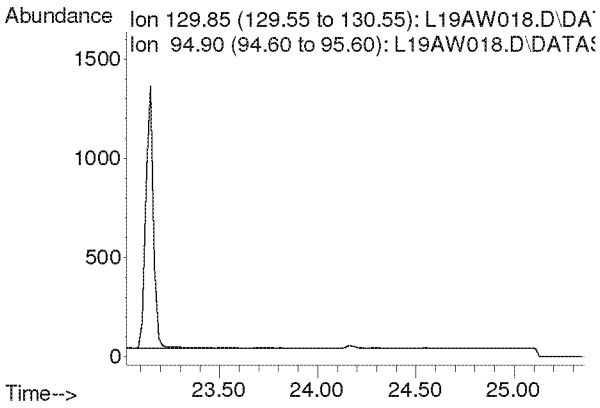


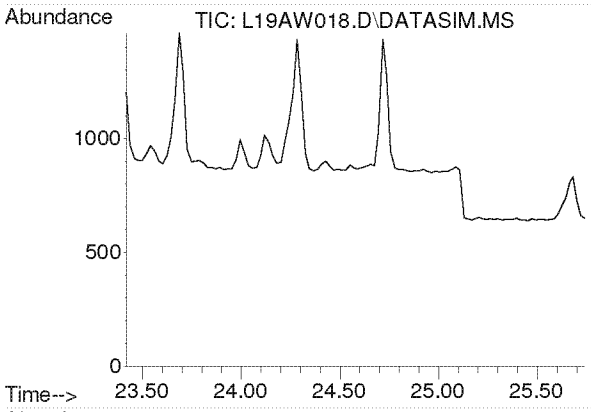
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



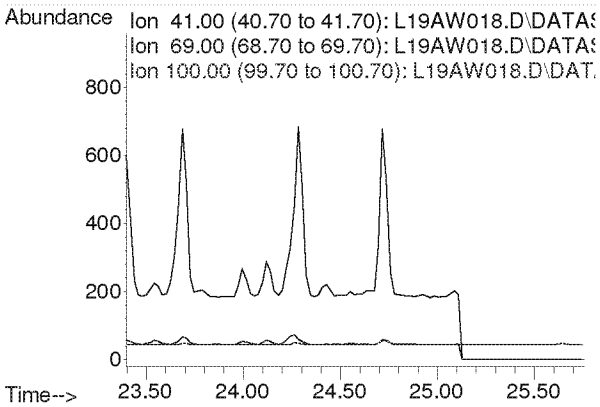


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

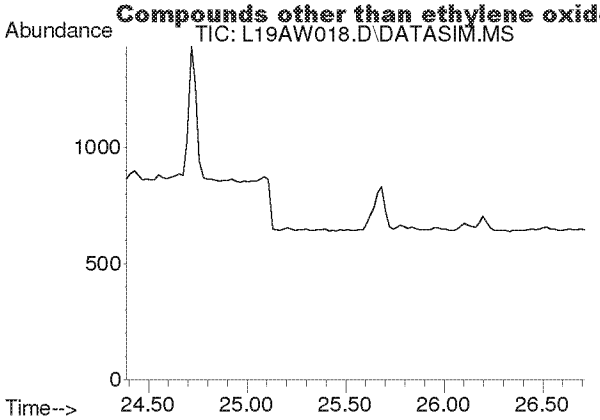
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

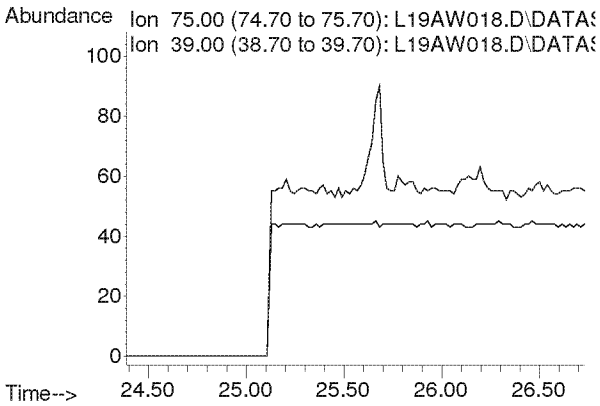


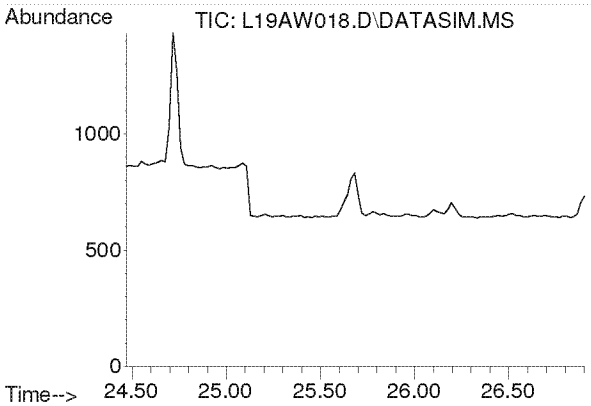
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



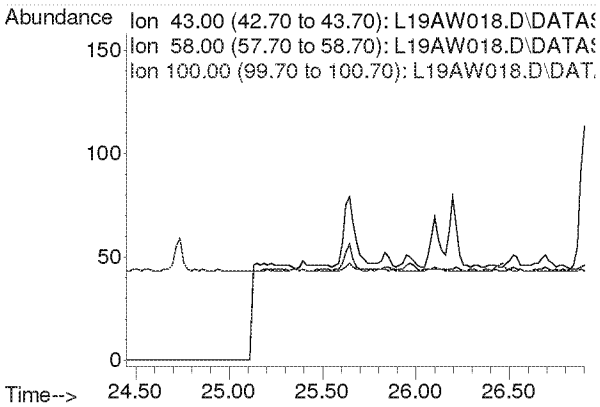


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

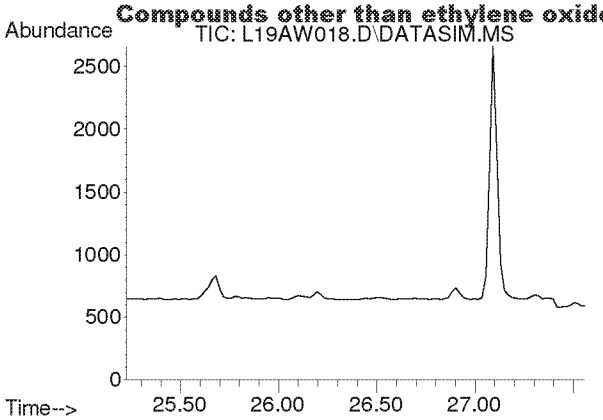
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

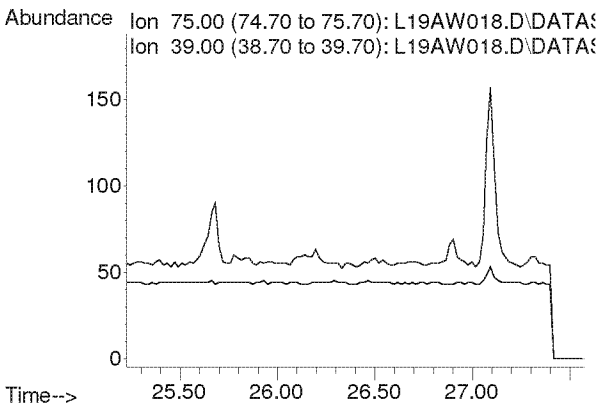


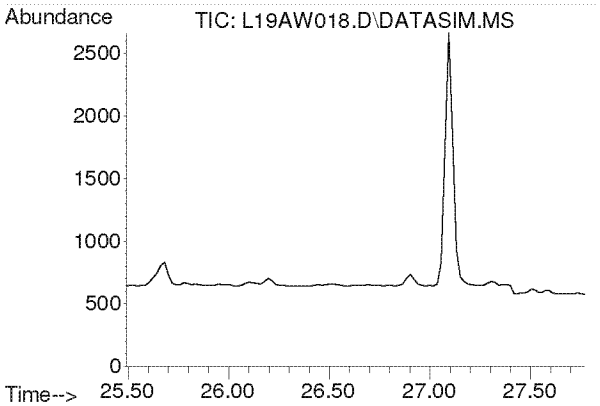
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



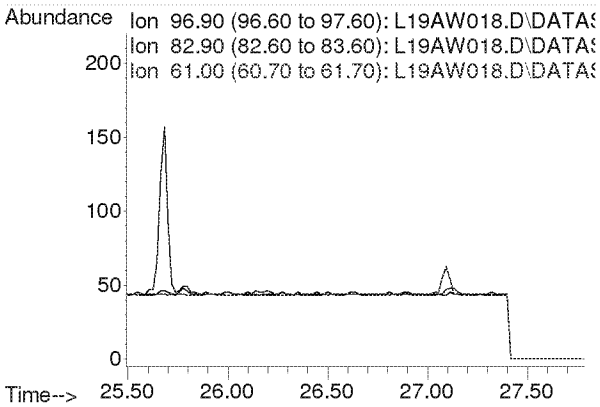


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

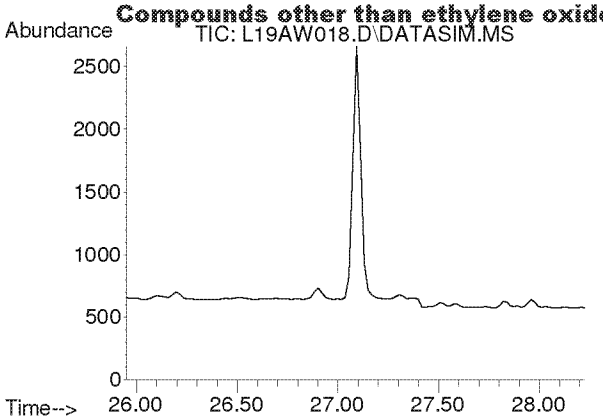
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

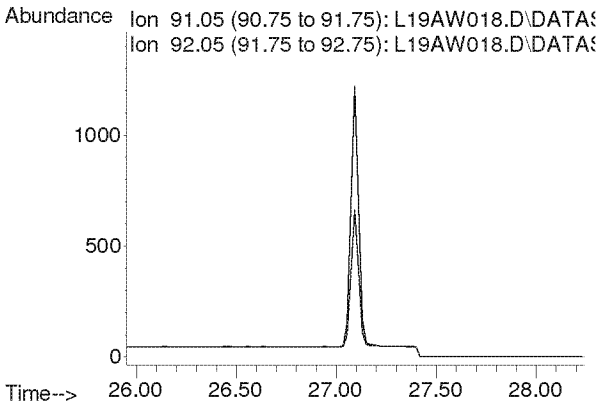


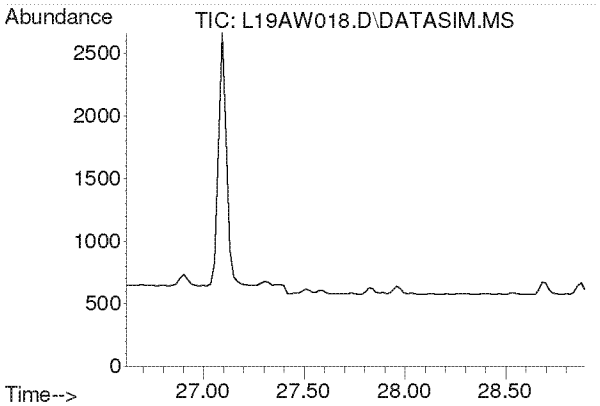
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



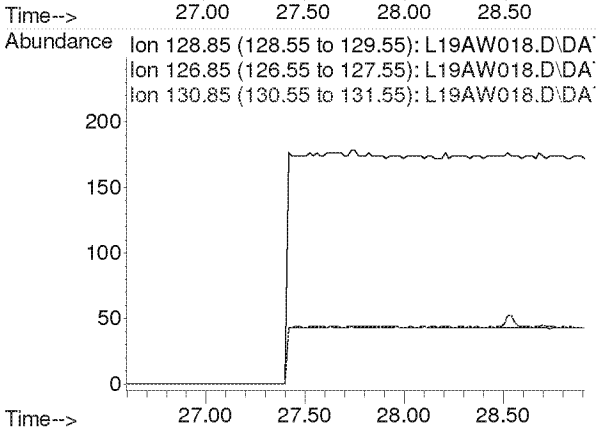


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

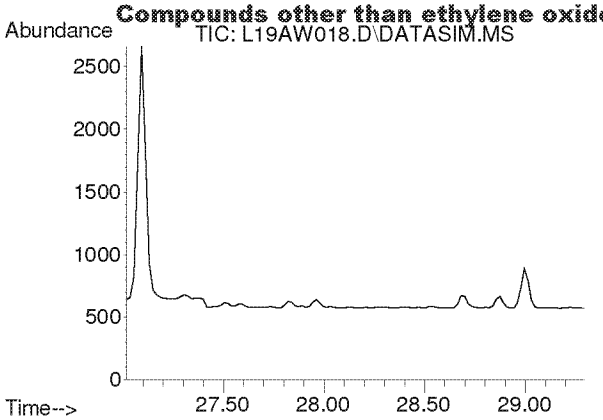
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

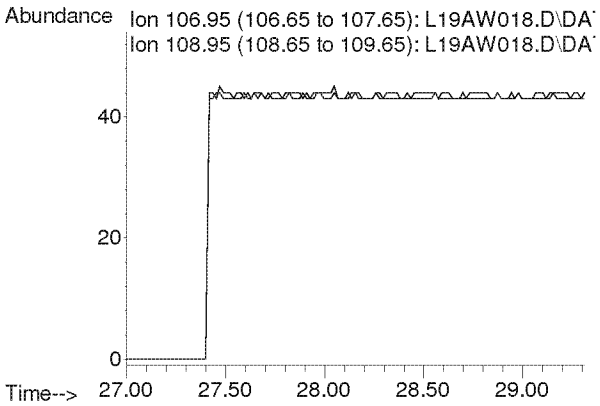


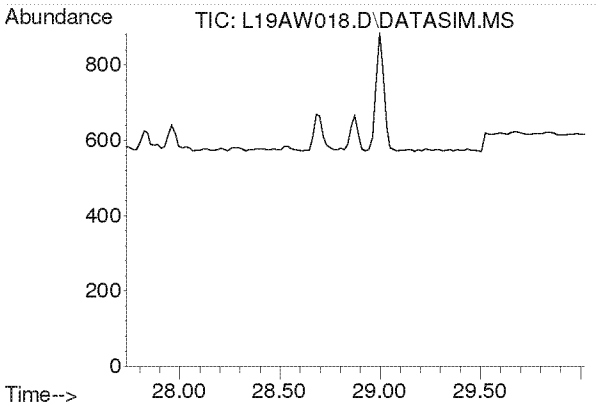
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



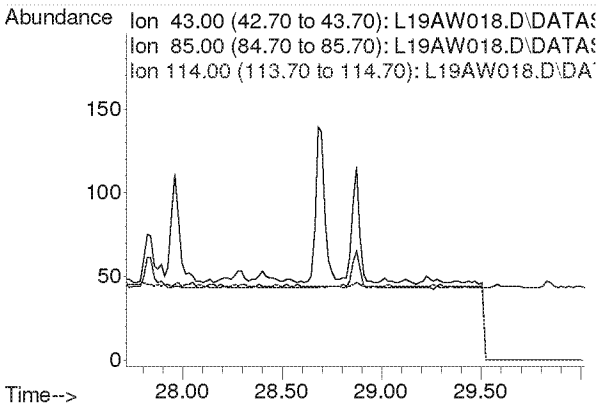


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

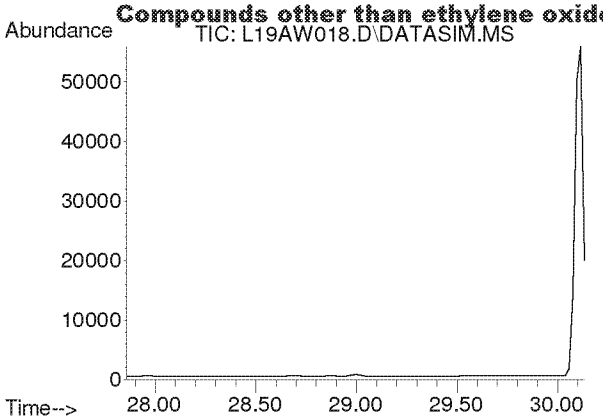
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

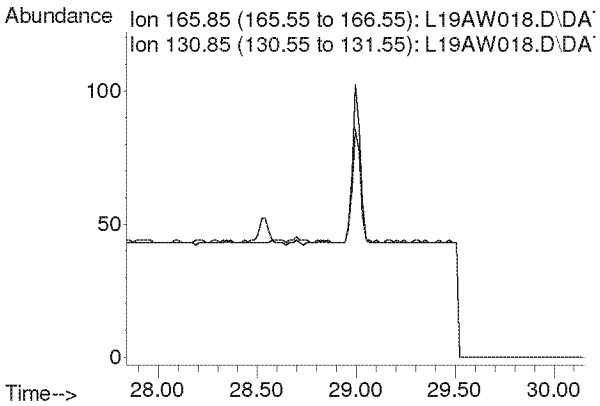


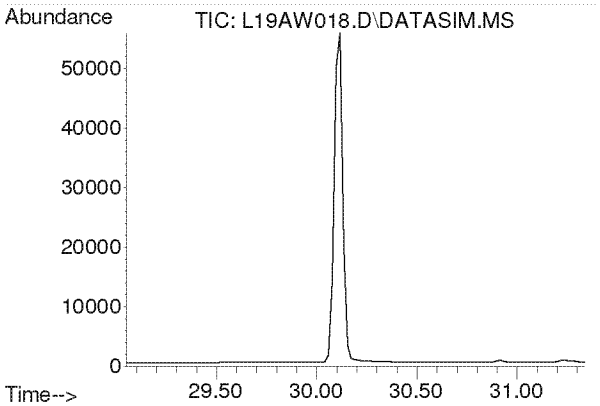
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



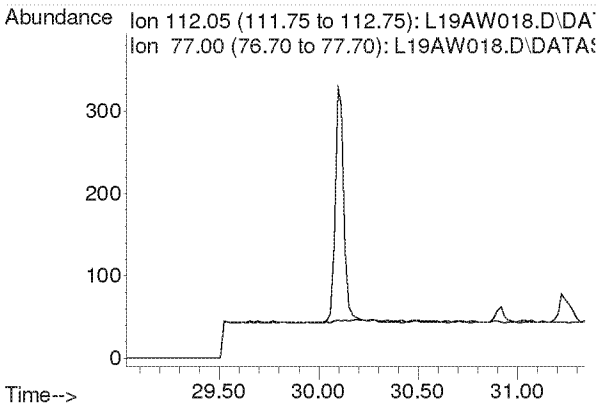


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

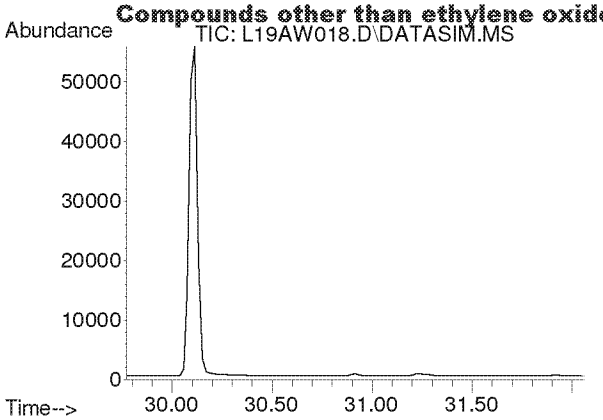
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

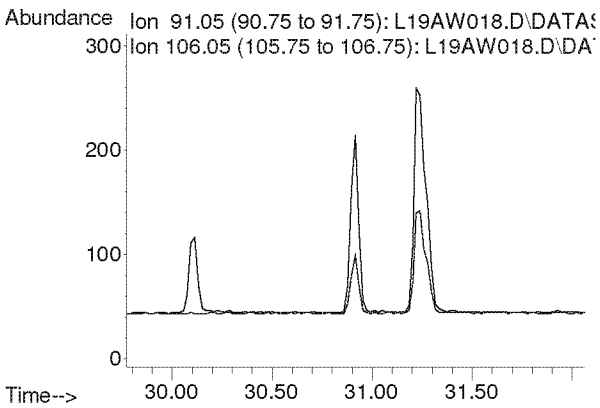


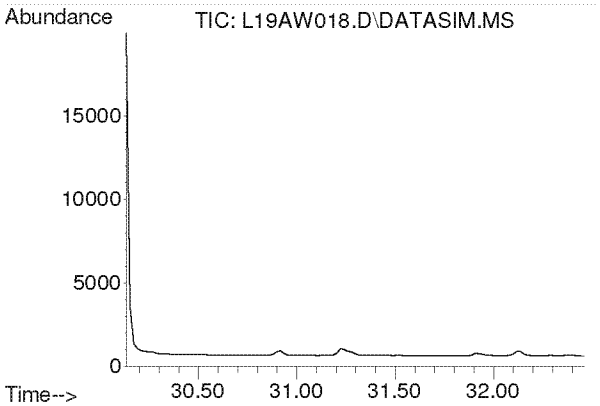
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



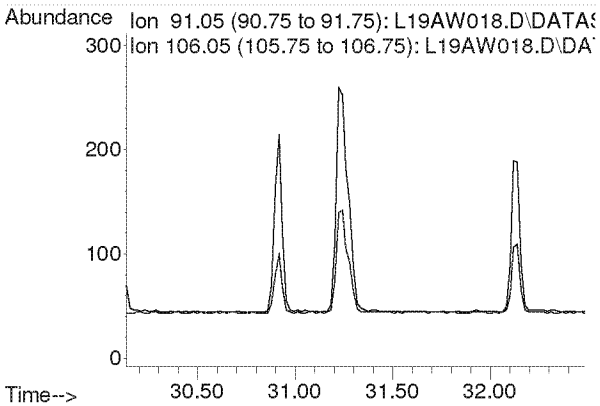


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

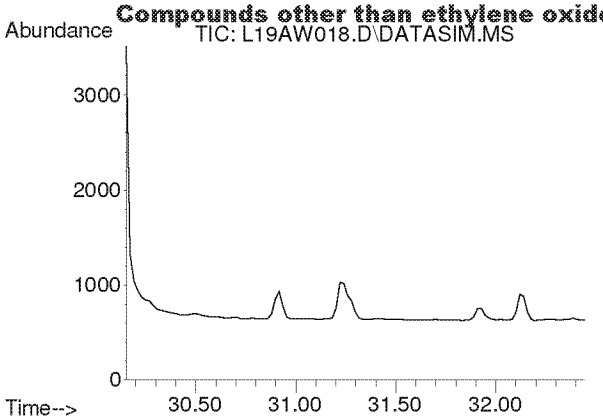
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

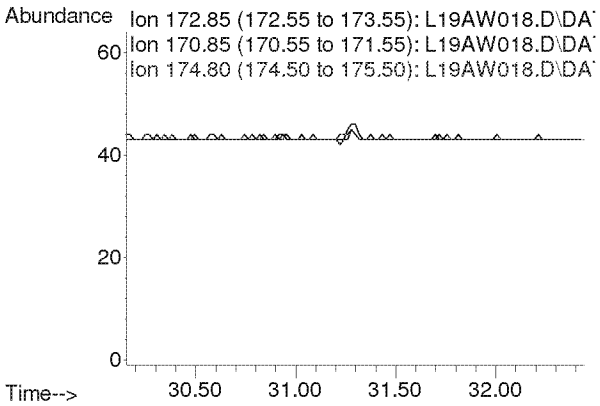


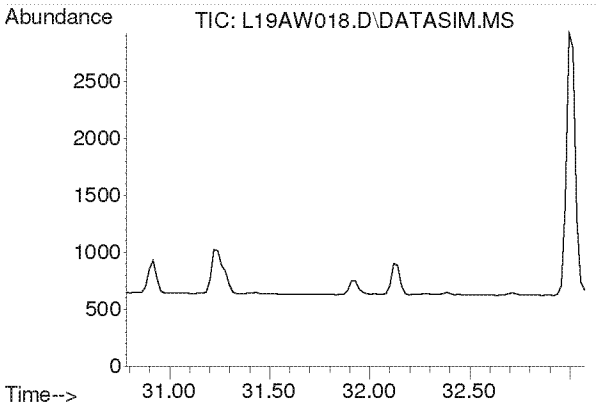
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



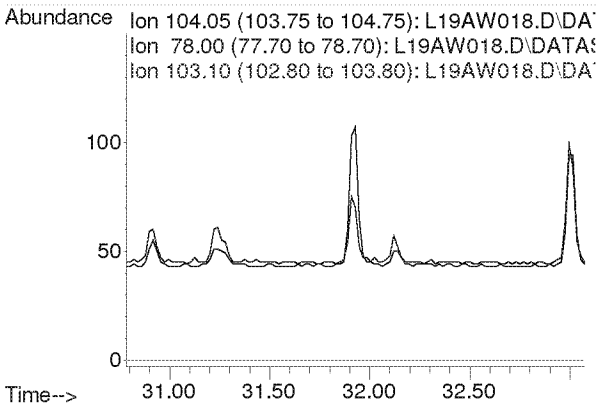


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

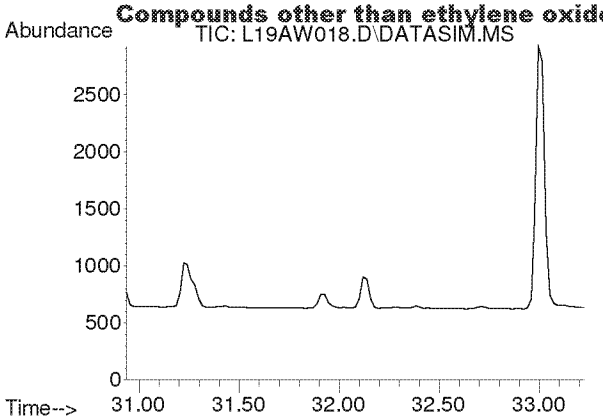
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

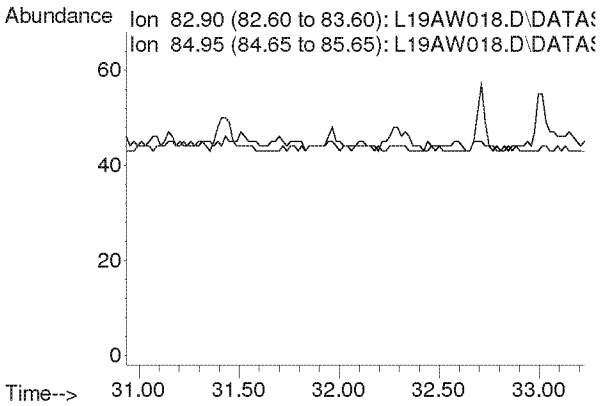


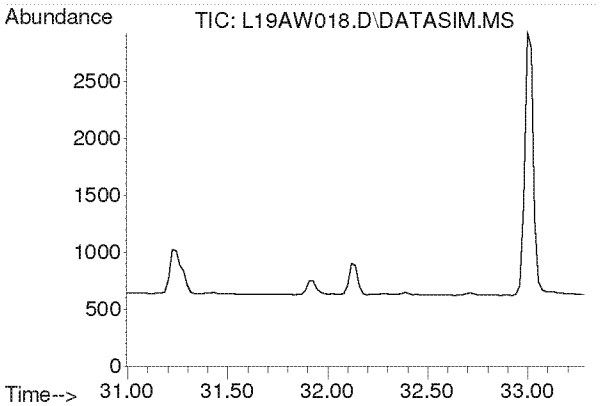
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



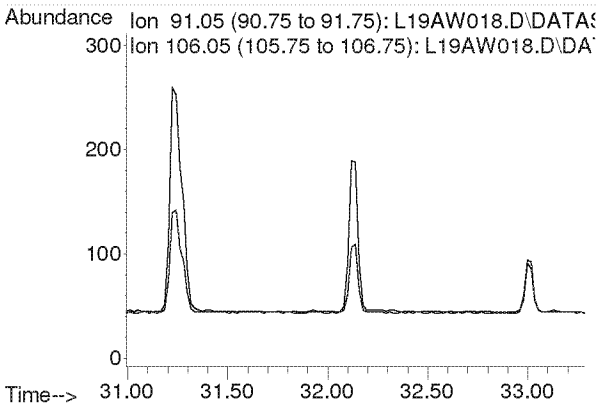


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

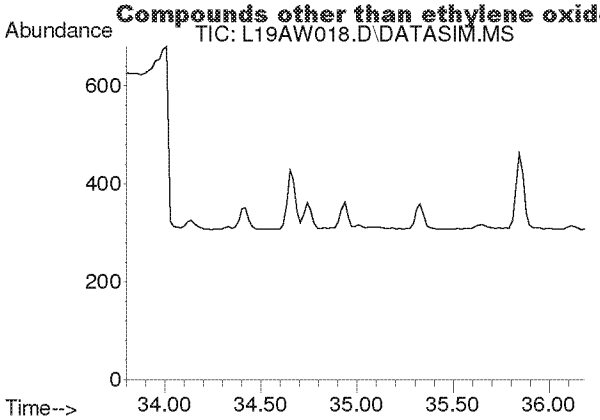
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

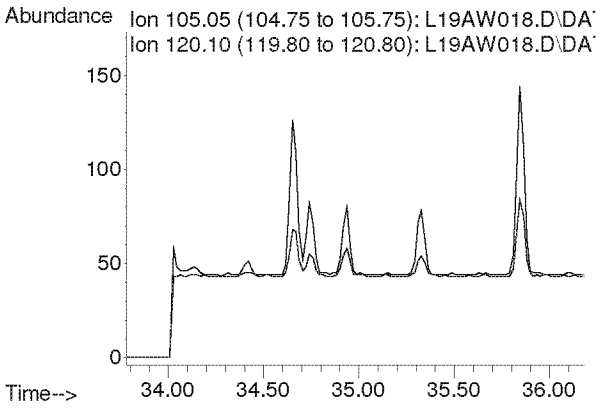


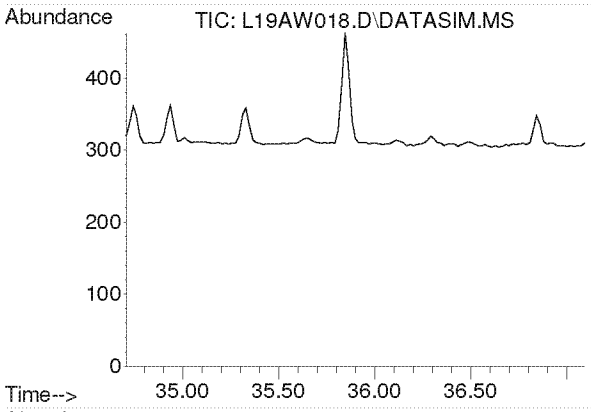
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



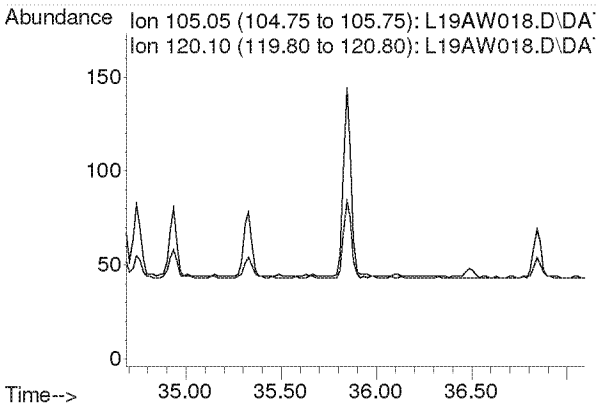


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

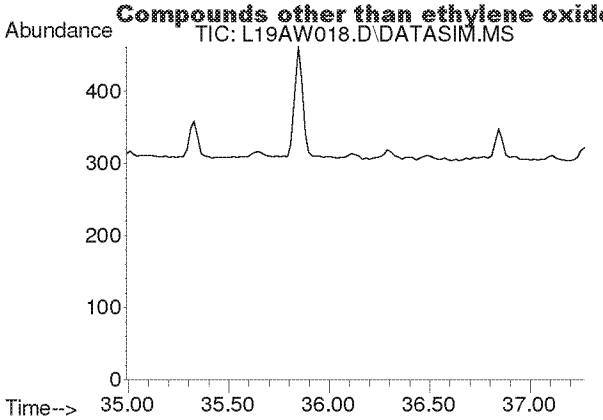
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

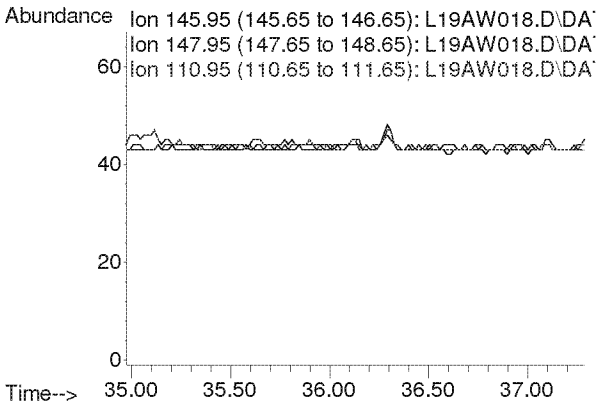


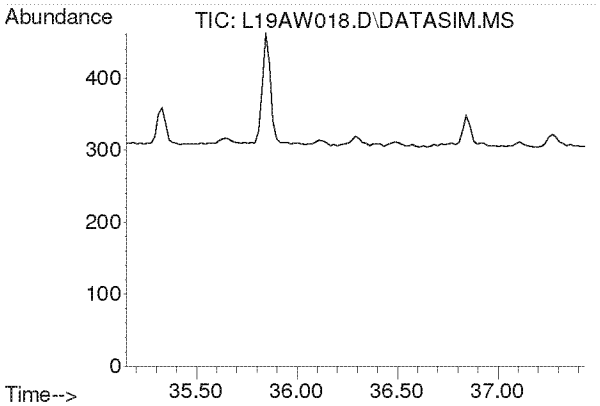
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



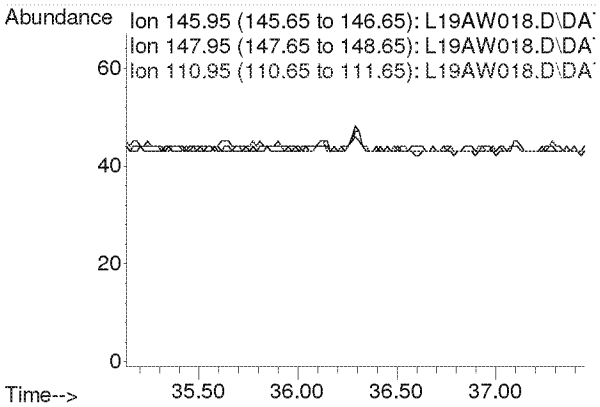


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

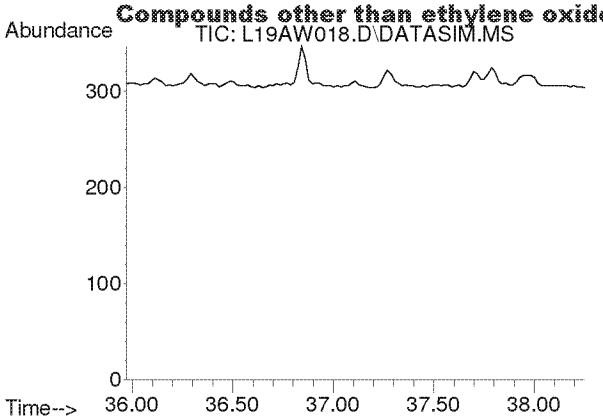
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

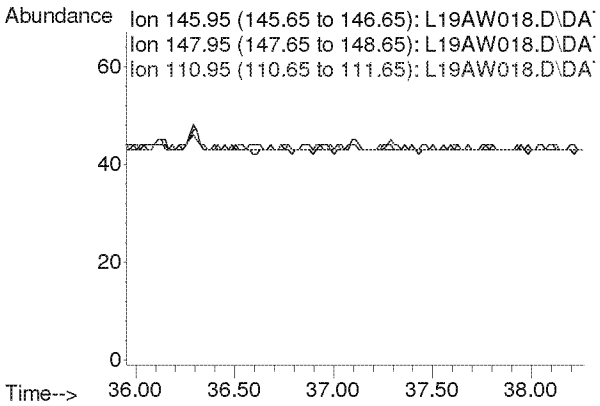


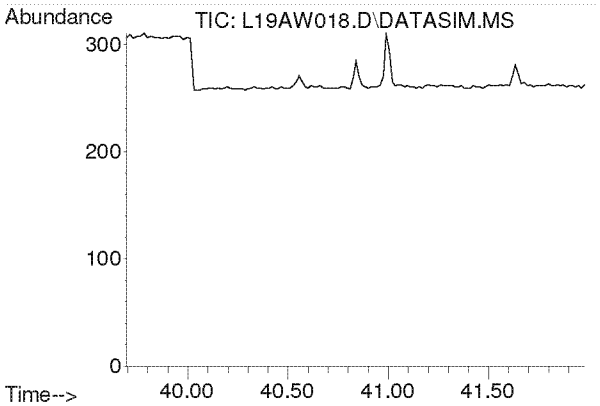
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



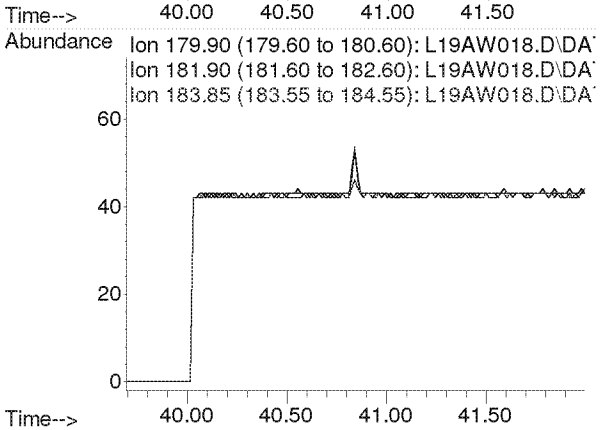


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

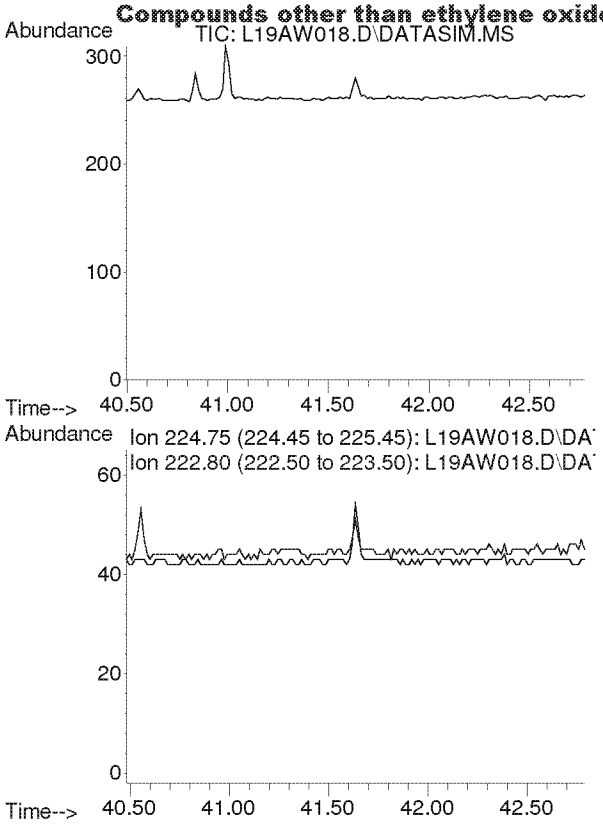
Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AW018.D
Acq: 24 Jan 2019 2:46 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\L19AW\
Data File : L19AW019.D
Acq On : 24 Jan 2019 3:46 am
Operator : MAH
Sample : 9012221-06
Misc : GOWER MS 1/18/19
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 29 08:30:43 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	55004	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	135307	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.116	117	103262	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	12.410	29	2611	0.9190 ppbv #	17
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.	
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. 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	

ED_002475_00000318-00513

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AW\
Data File : L19AW019.D
Acq On : 24 Jan 2019 3:46 am
Operator : MAH
Sample : 9012221-06
Misc : GOWER MS 1/18/19
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 29 08:30:43 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
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

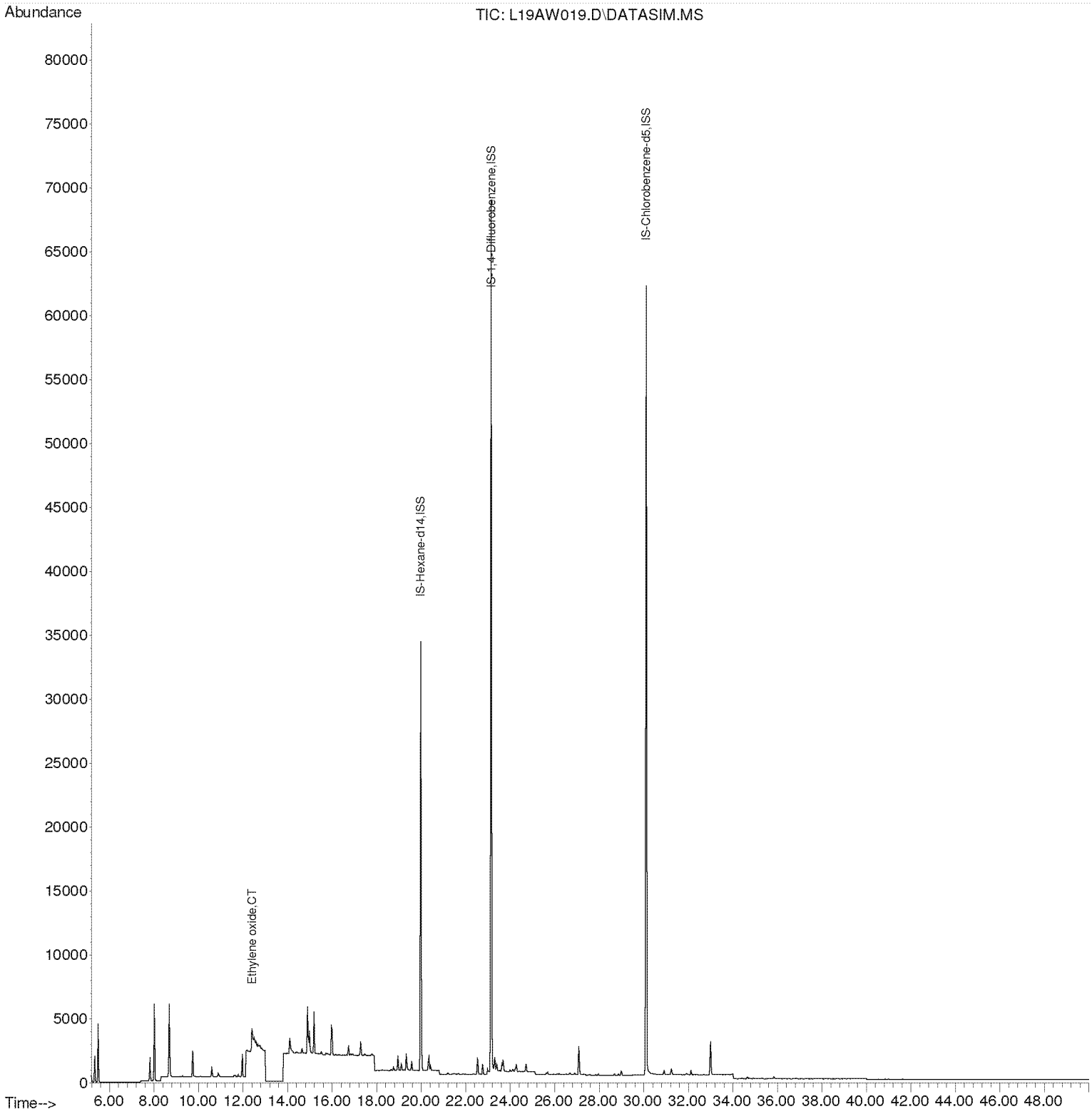
901000

ED_002475_00000318-00514

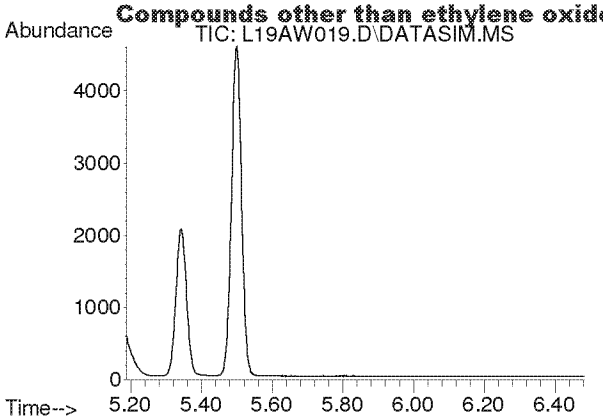
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW019.D
Acq On : 24 Jan 2019 3:46 am
Operator : MAH
Sample : 9012221-06
Misc : GOWER MS 1/18/19
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Jan 29 08:11:53 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



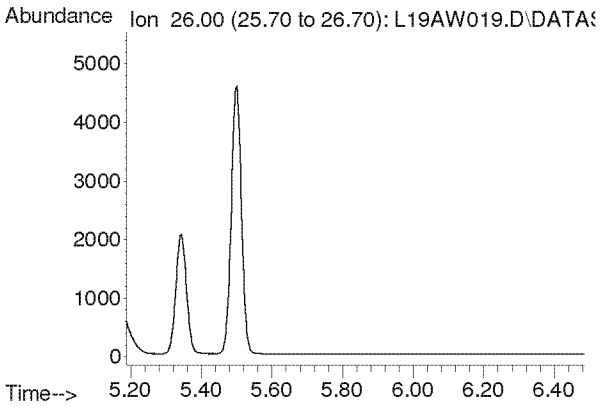
Compounds other than ethylene oxide were not quantitated.

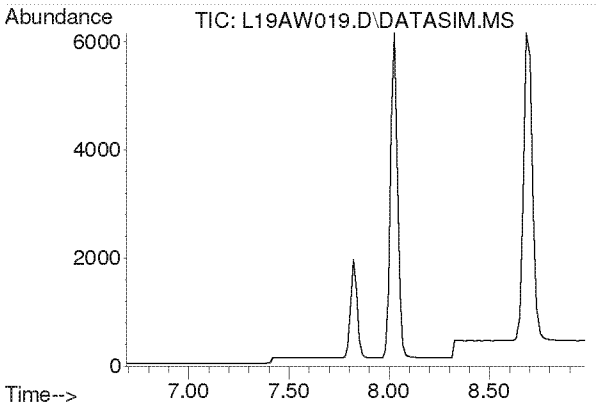


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 26



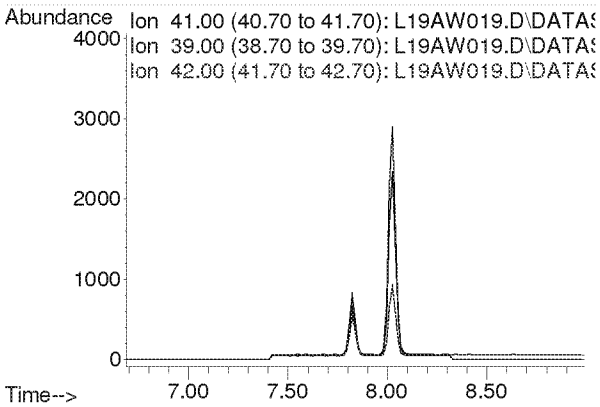


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

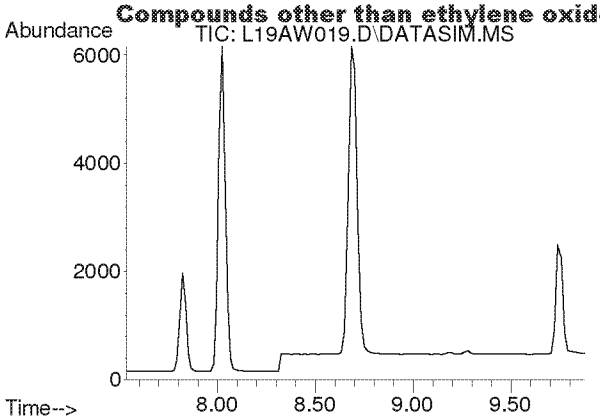
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

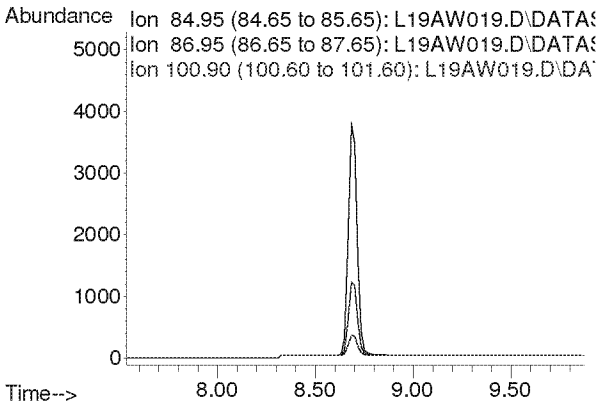


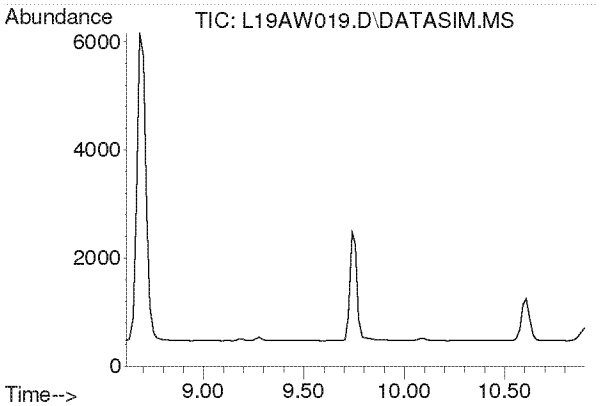
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



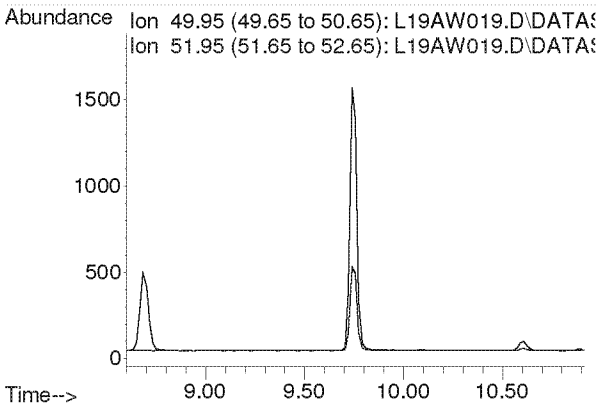


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

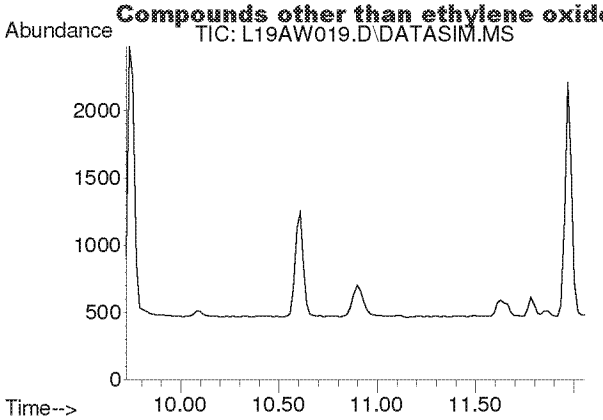
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

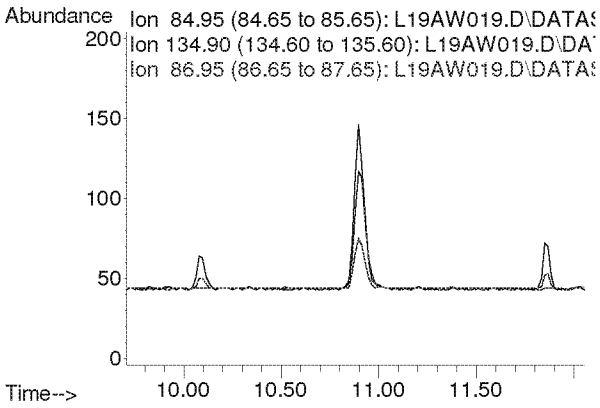


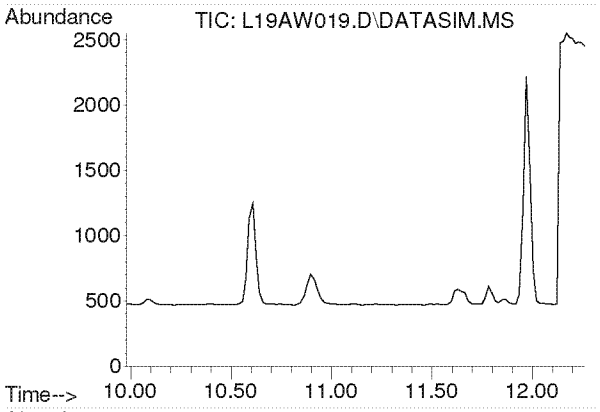
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



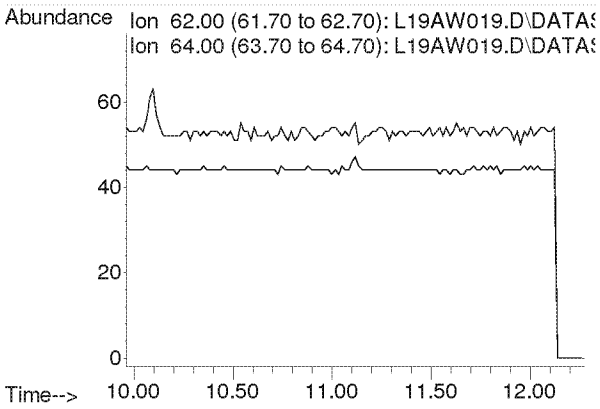


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

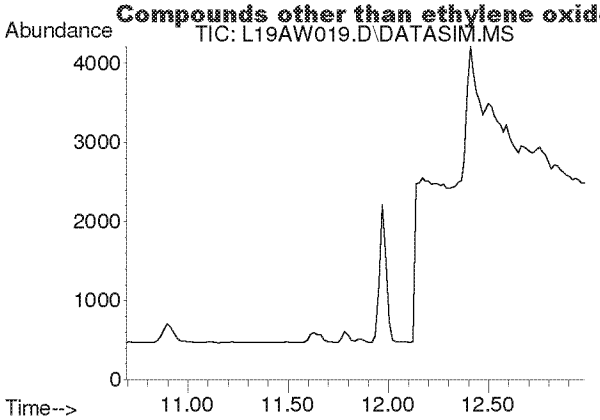
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

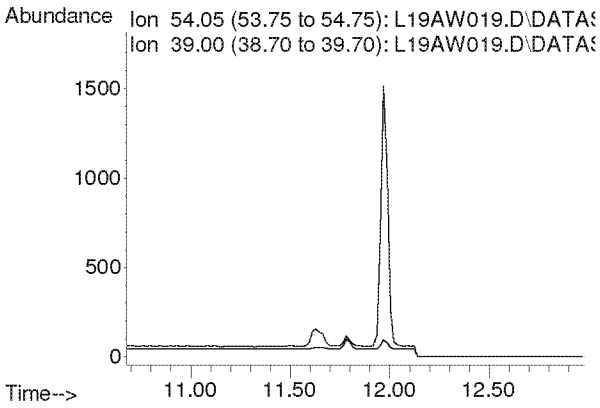


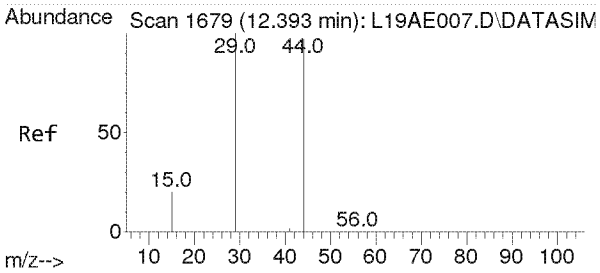
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

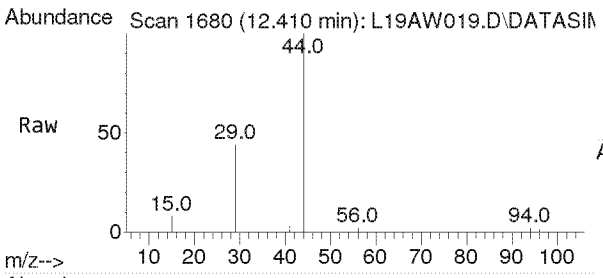


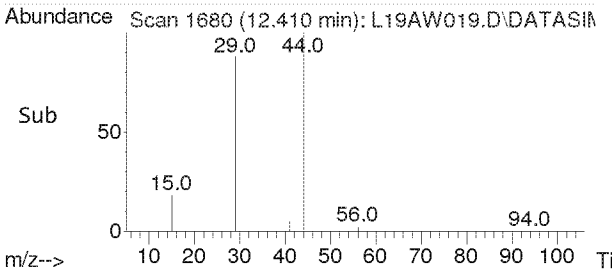


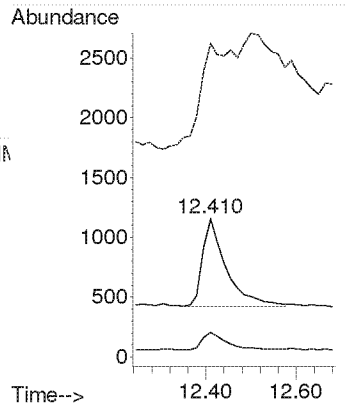
#9
Ethylene oxide
Concen: 0.919 ppbv
RT: 12.410 min Scan# 1680
Delta R.T. 0.017 min
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 29 Resp: 2611

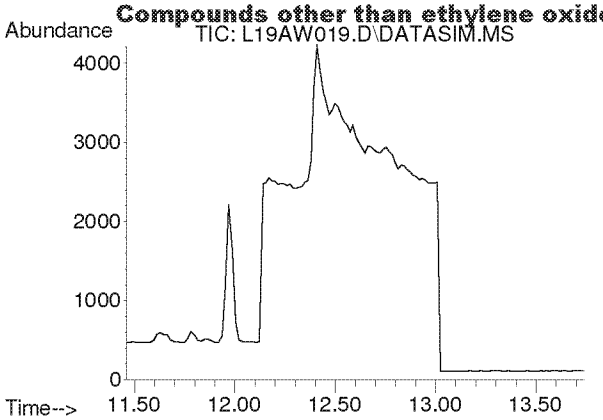
Ion	Ratio	Lower	Upper
29	100		
15	20.0	15.4	23.0
44	0.0	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

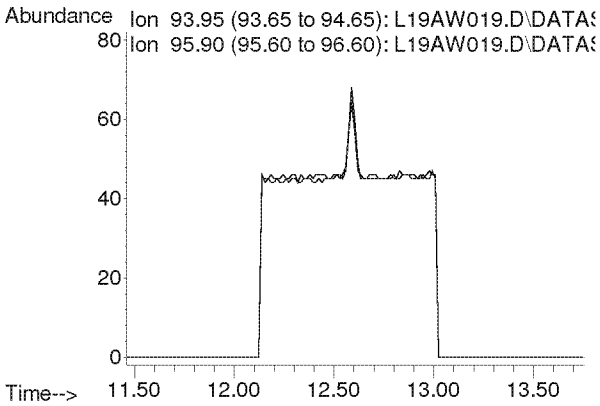


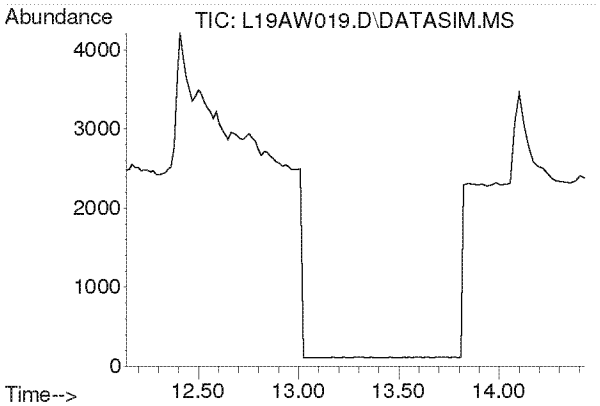
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



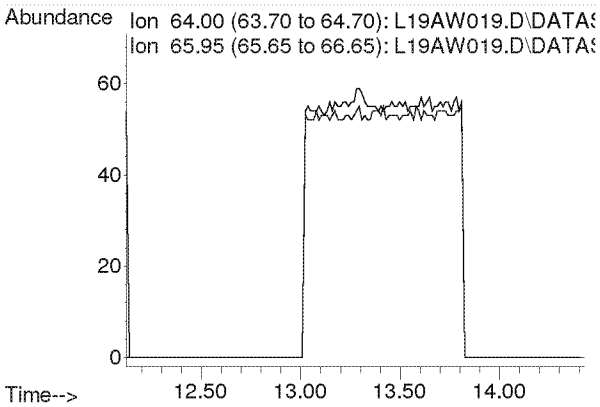


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

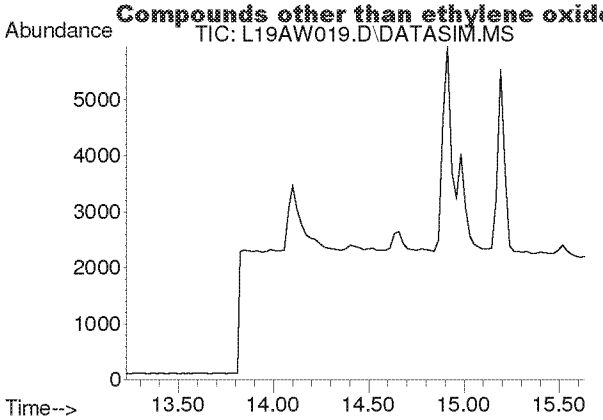
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

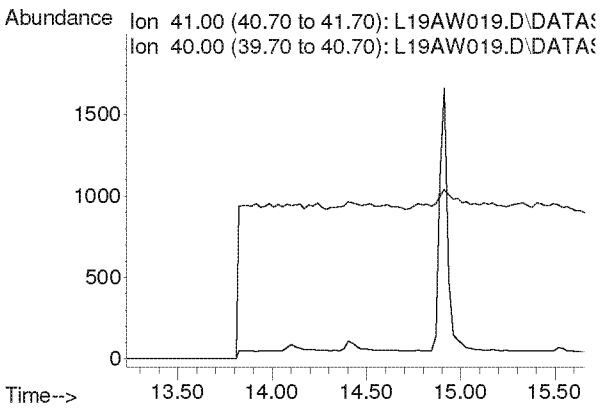


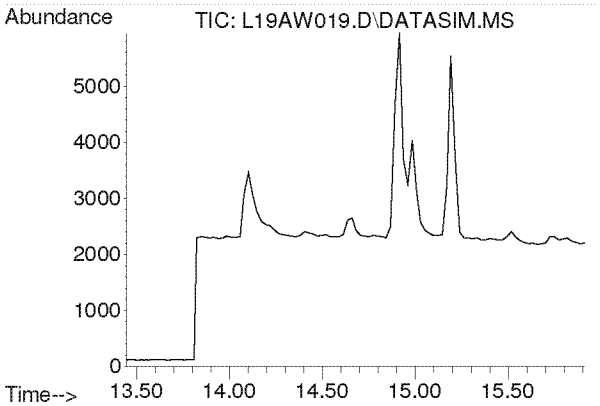
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



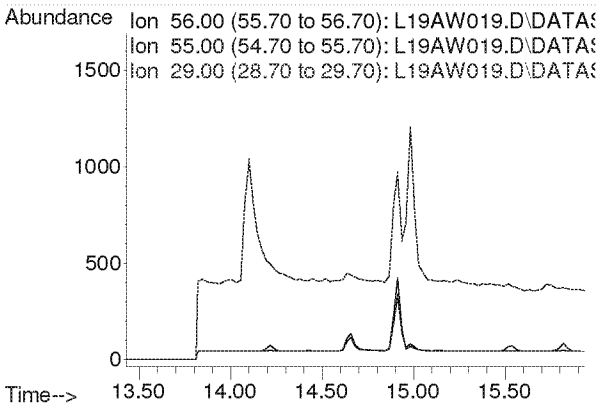


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

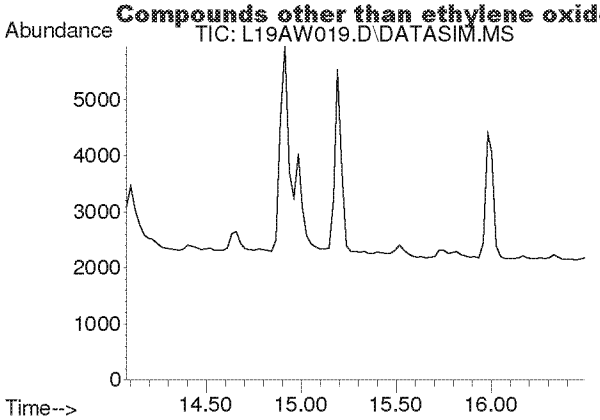
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

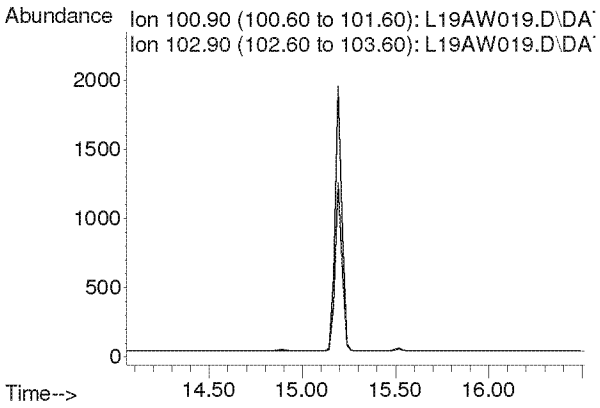


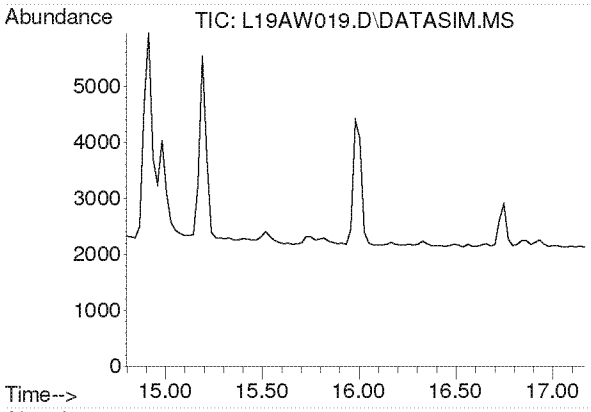
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



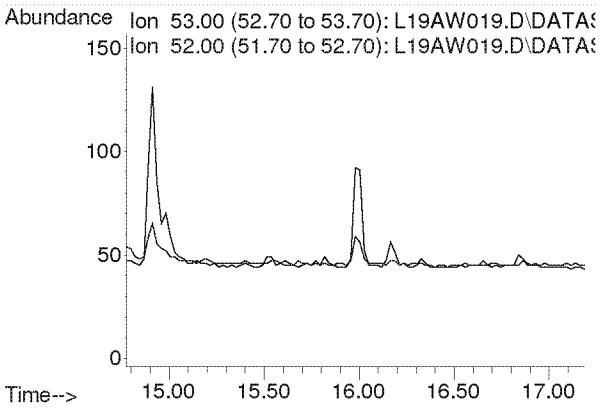


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

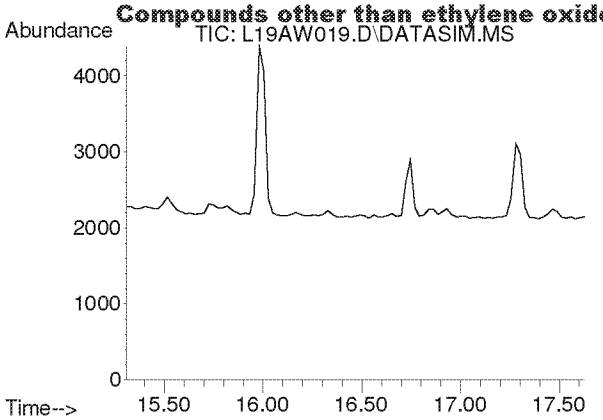
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

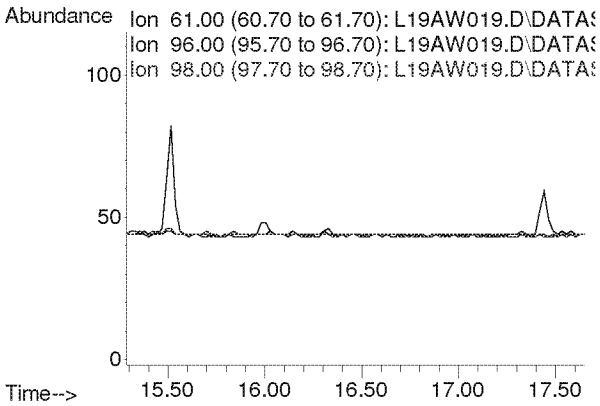


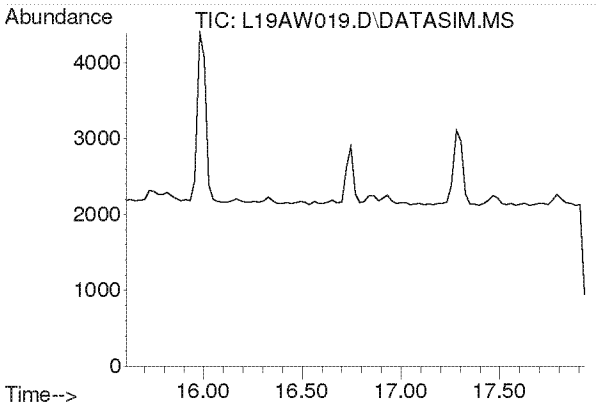
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



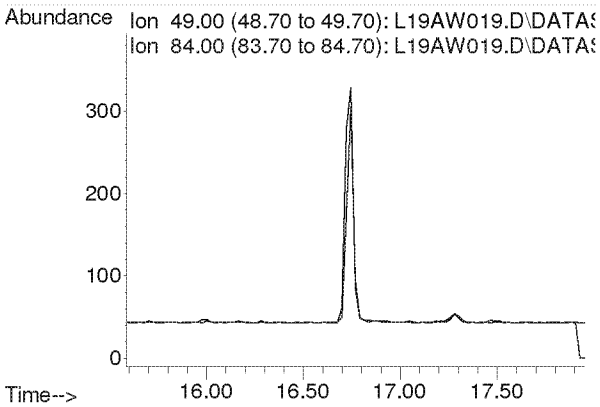


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

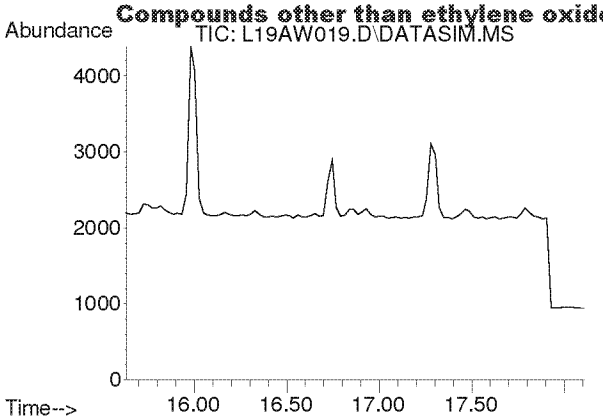
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

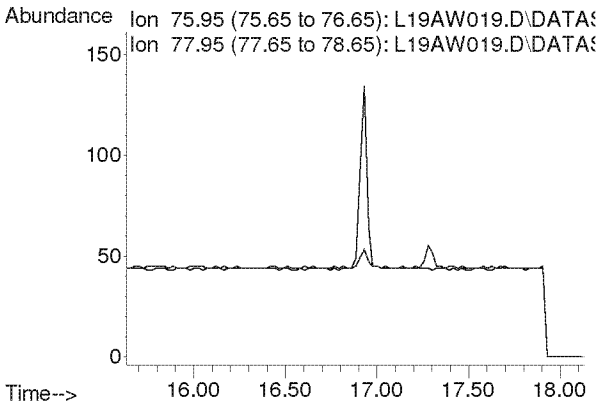


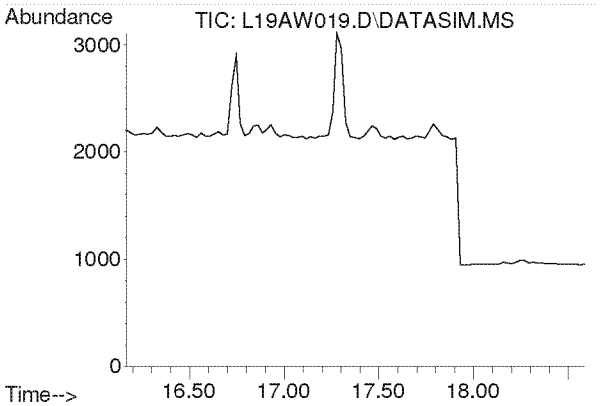
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



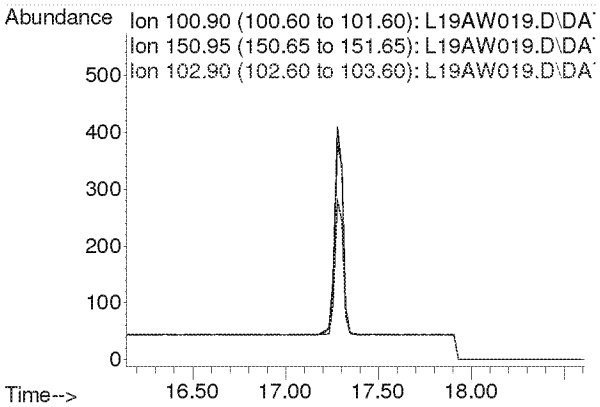


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

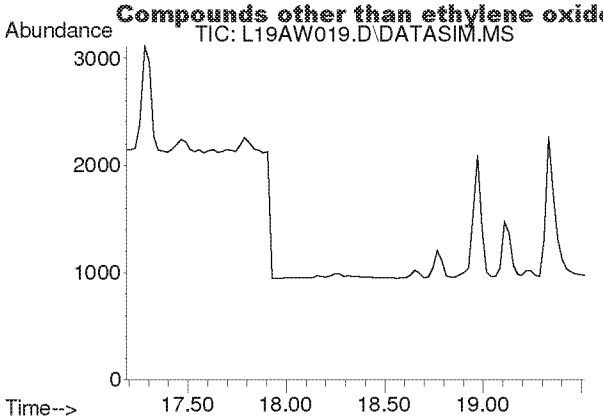
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

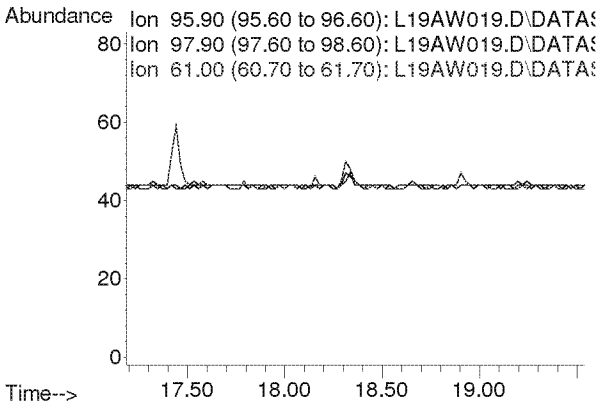


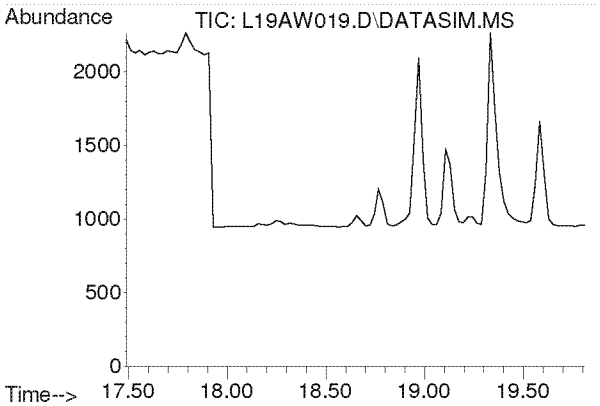
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



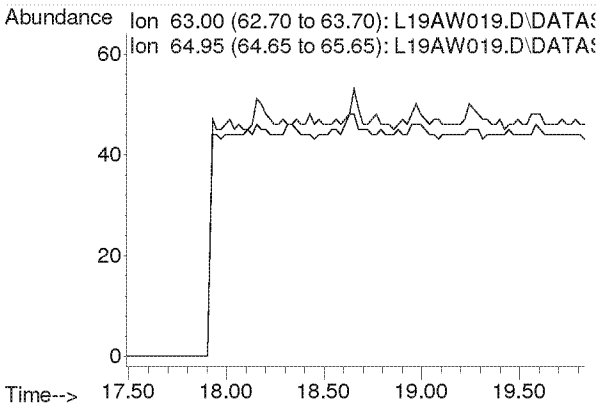


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

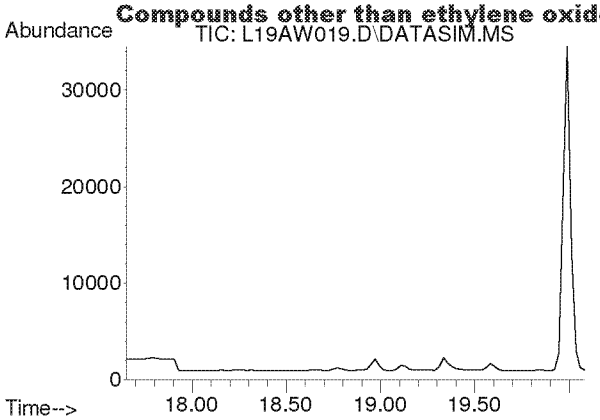
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

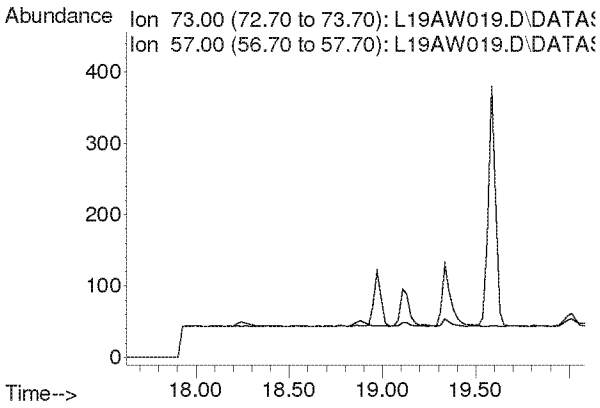


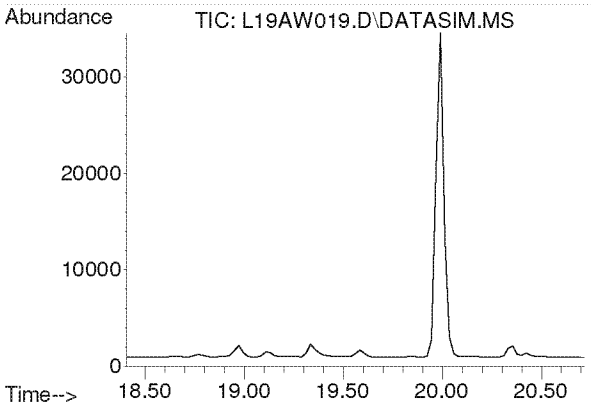
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



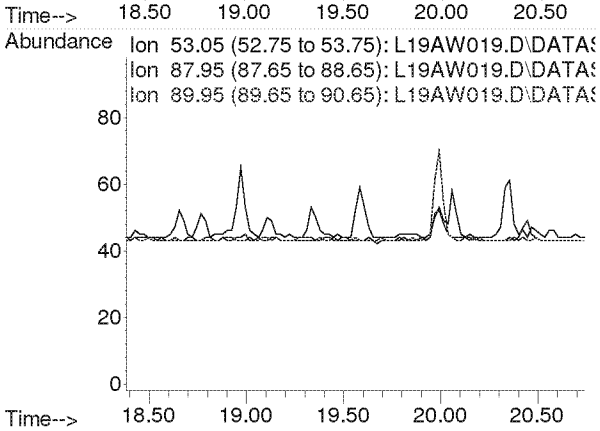


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

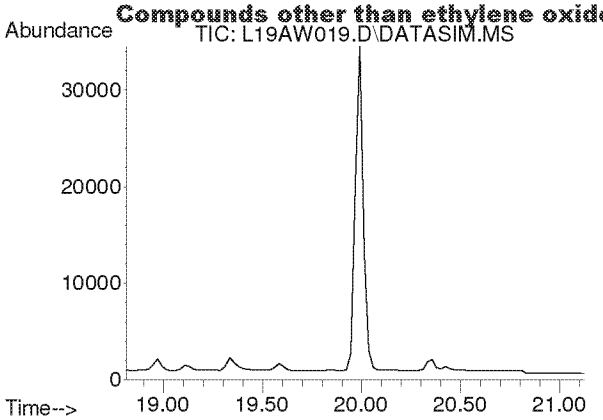
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

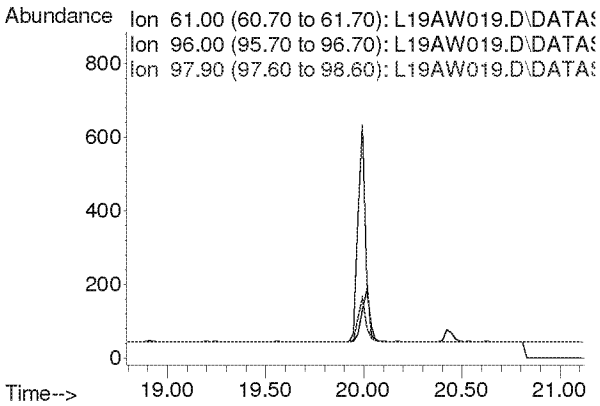


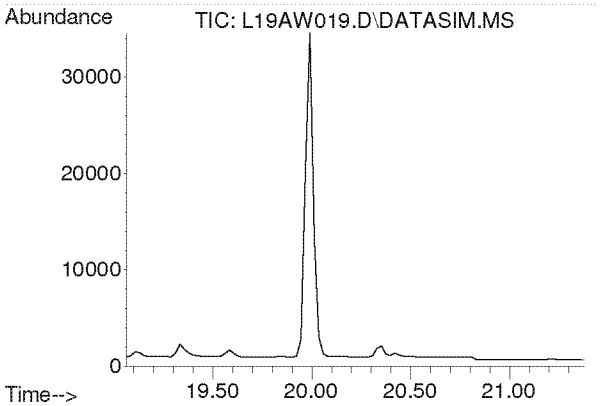
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



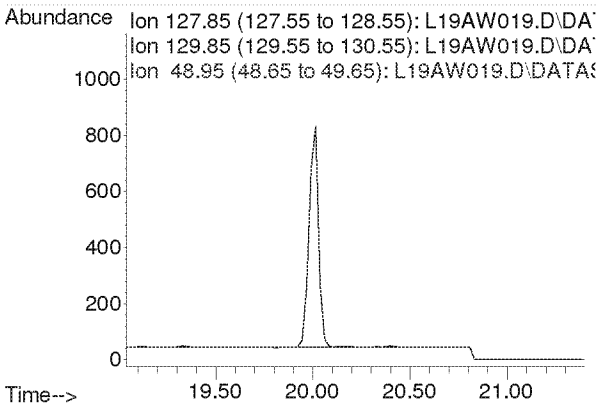


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

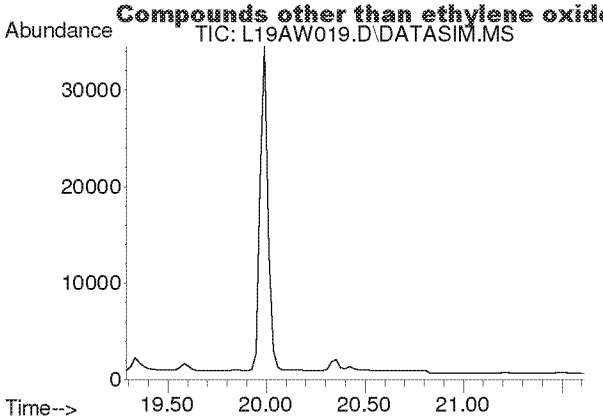
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

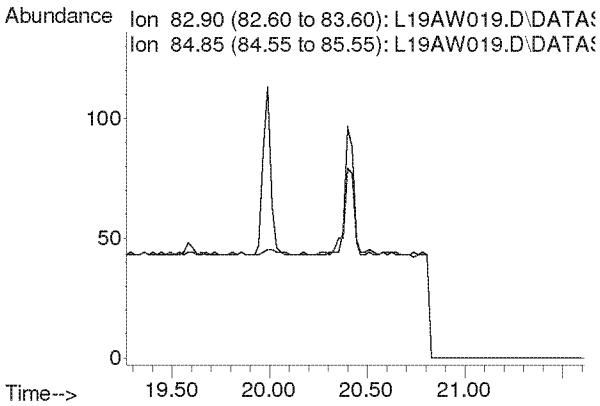


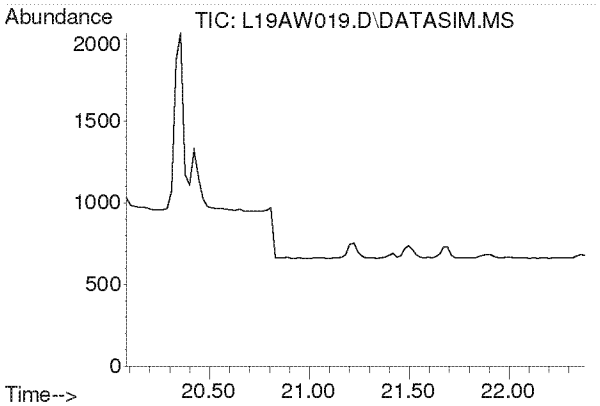
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



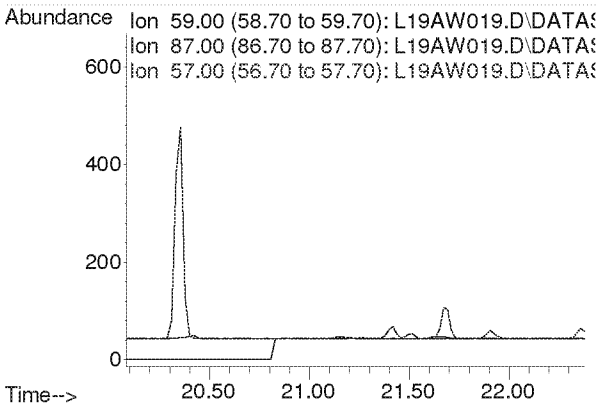


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

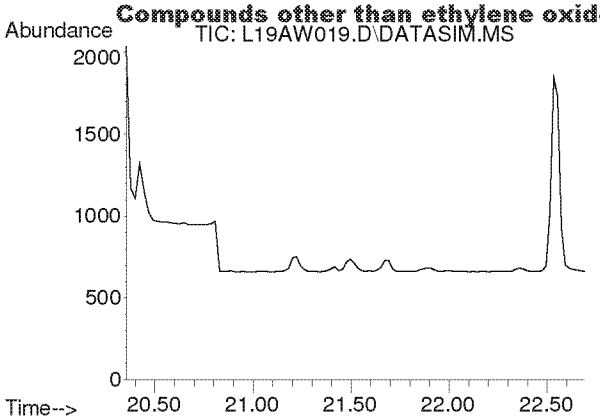
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

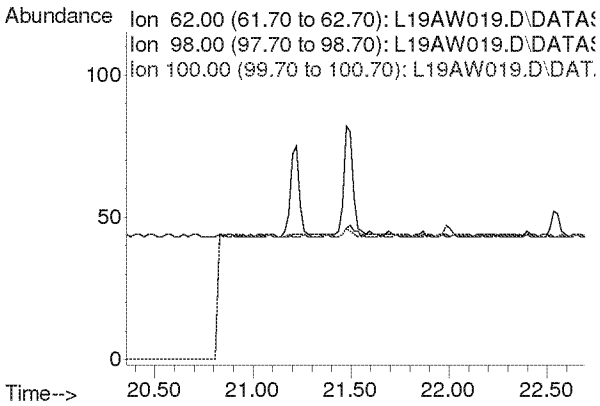


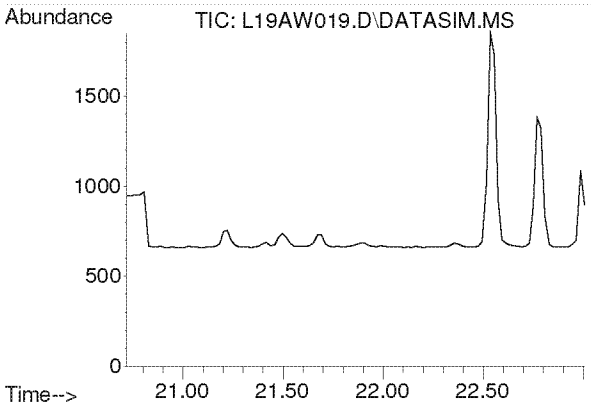
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



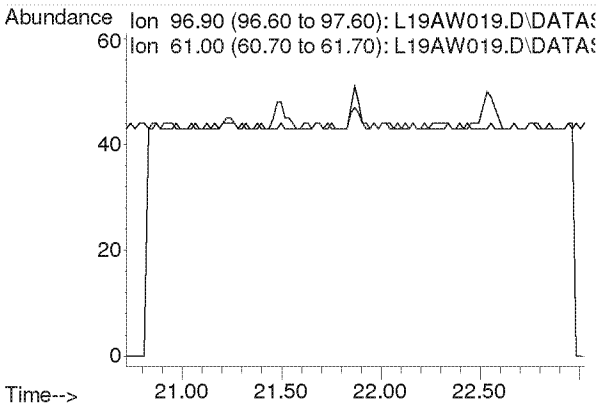


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

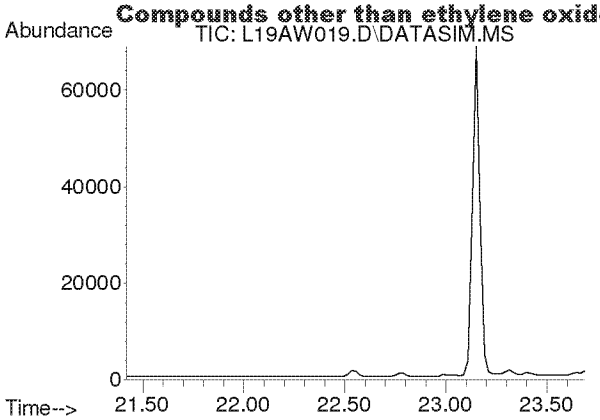
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

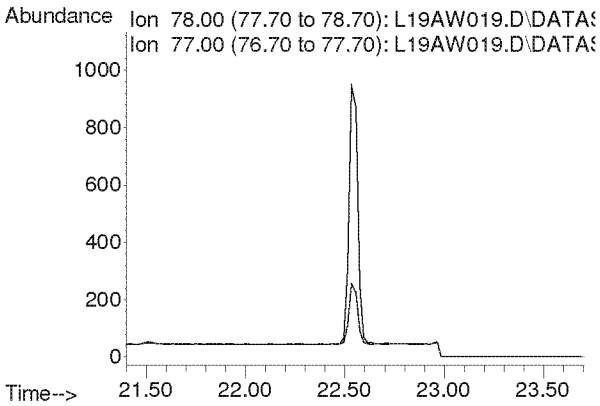


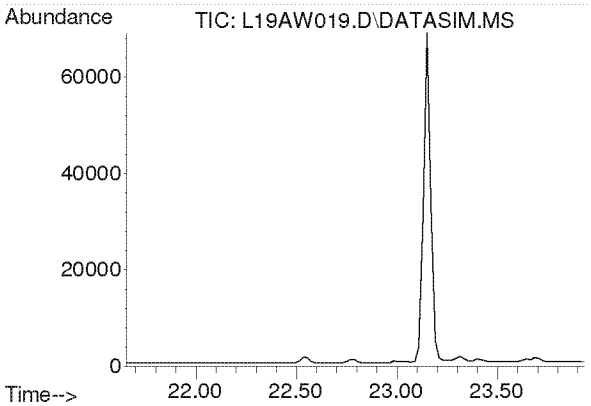
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



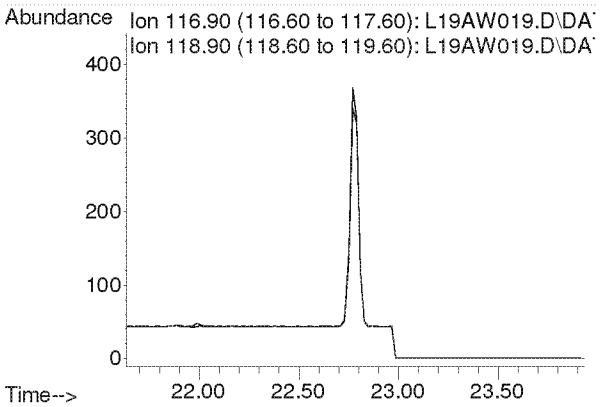


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

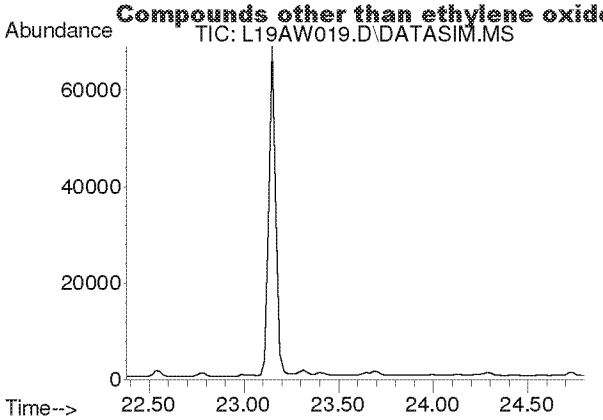
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

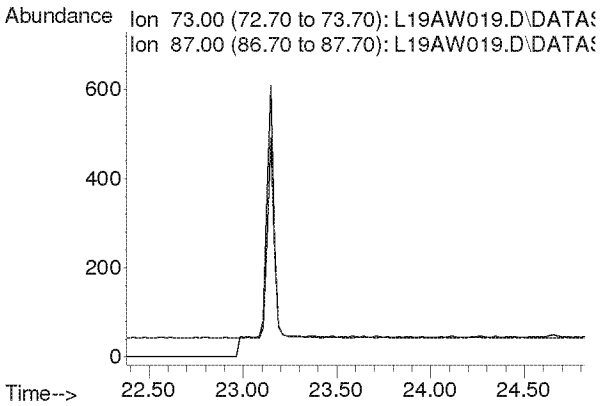


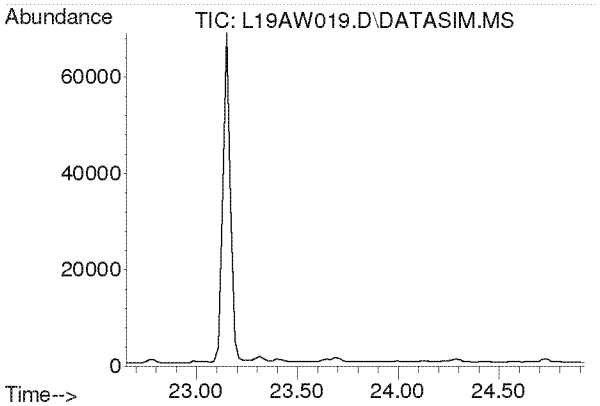
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



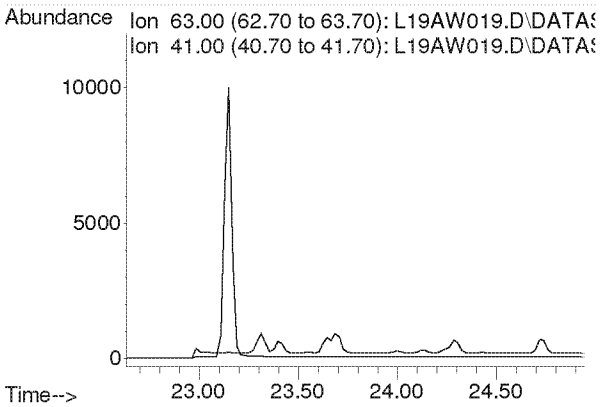


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

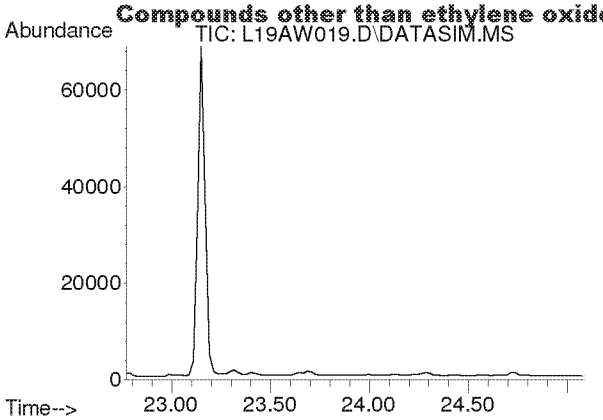
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

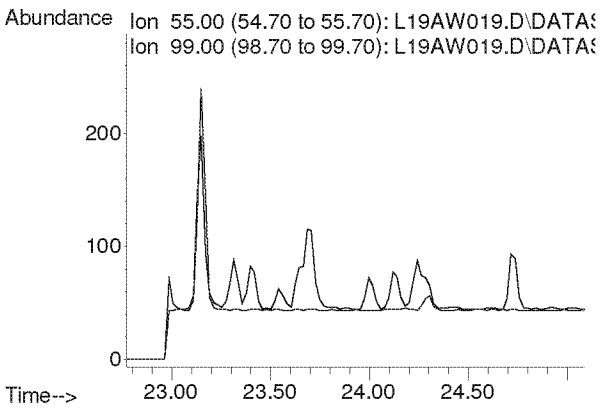


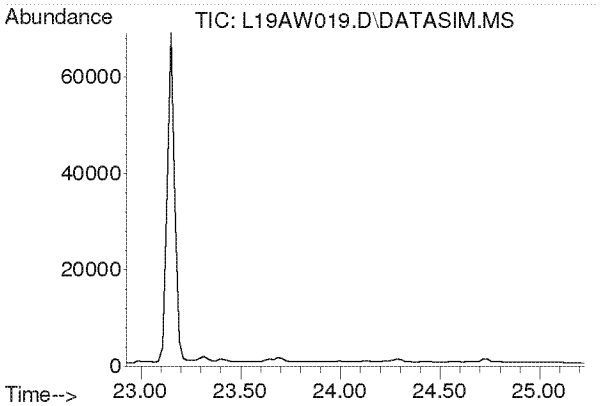
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



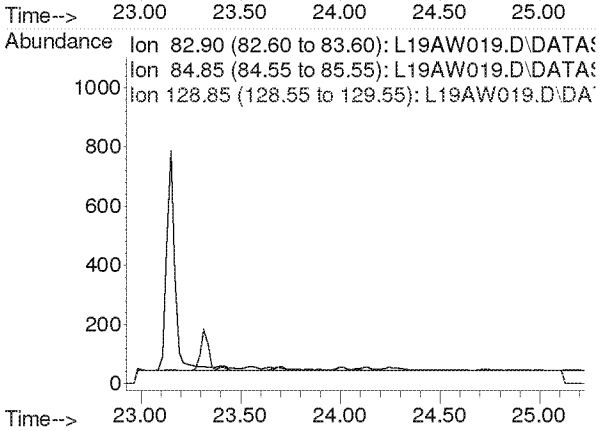


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

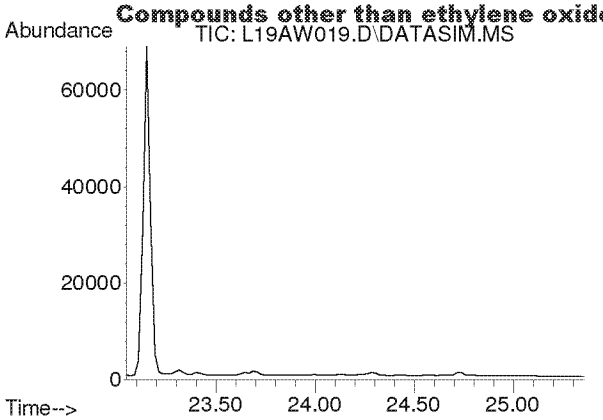
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

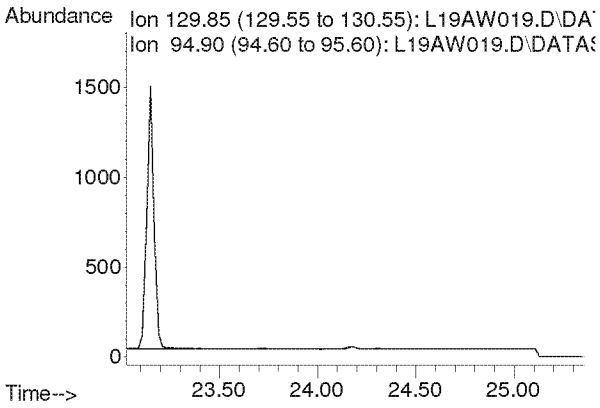


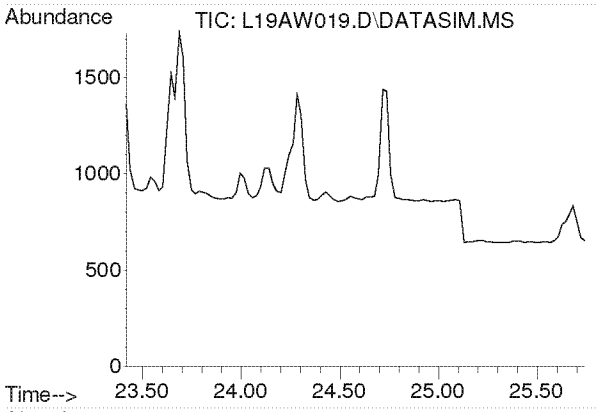
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



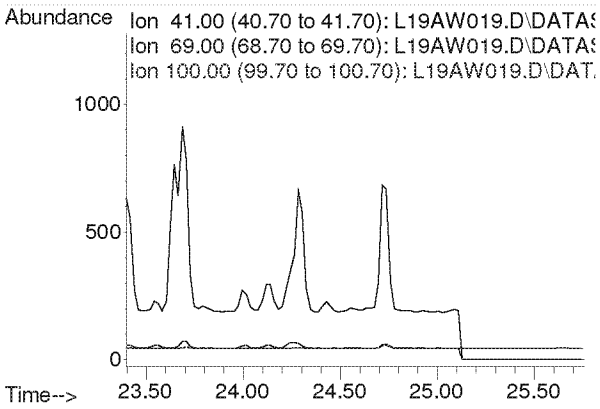


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

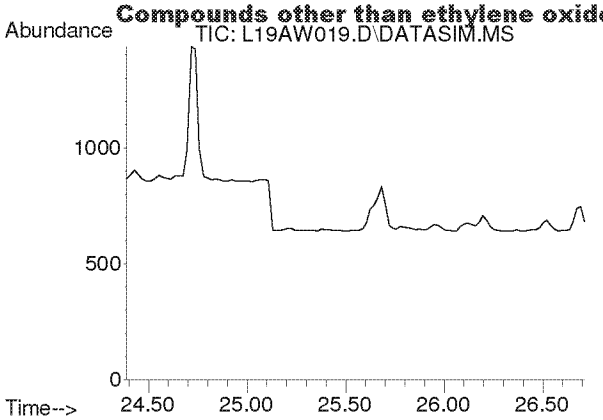
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

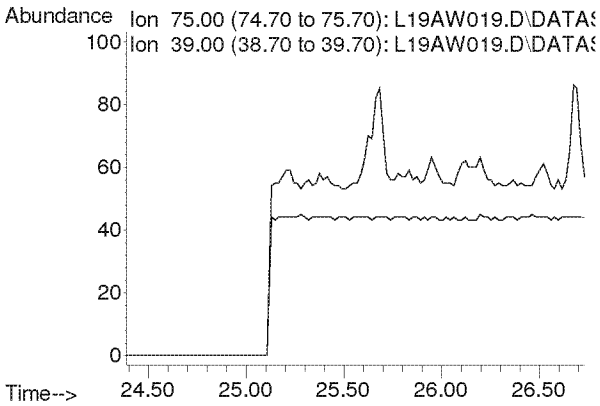


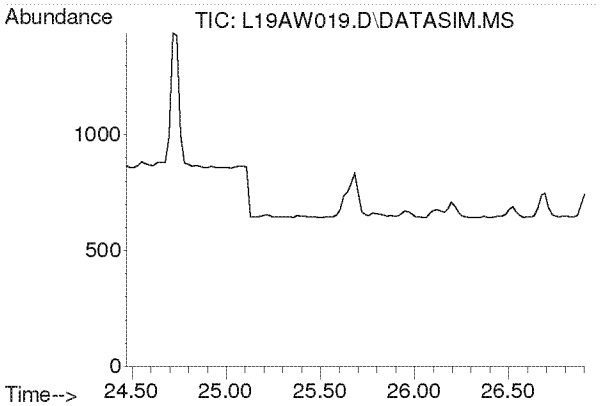
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



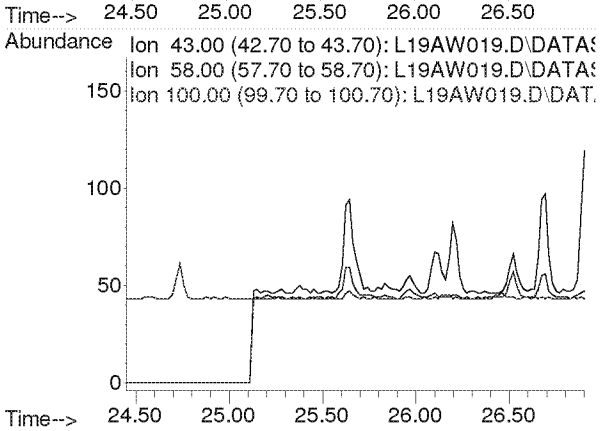


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

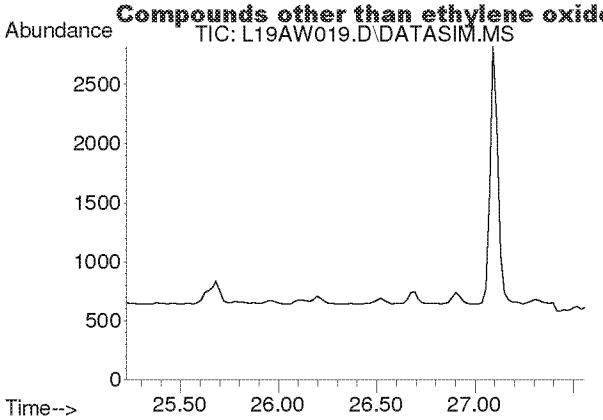
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

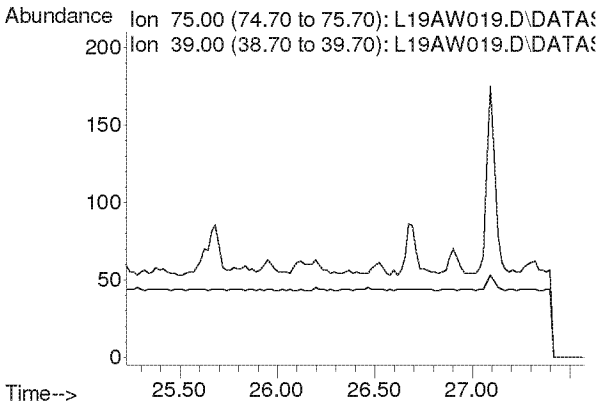


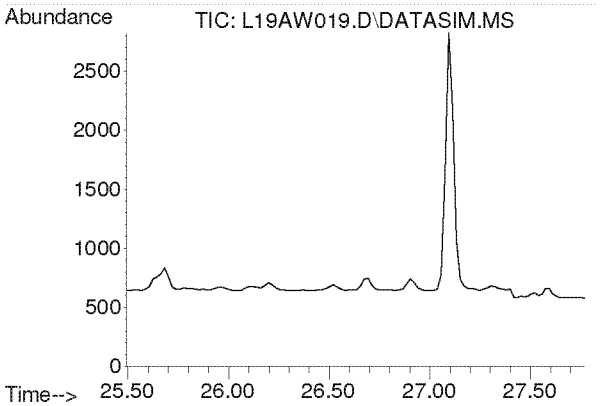
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



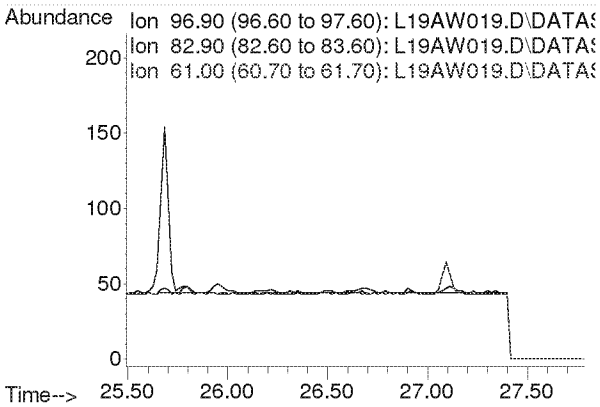


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

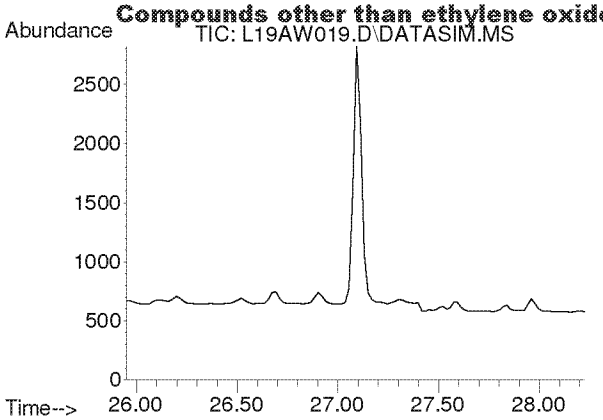
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

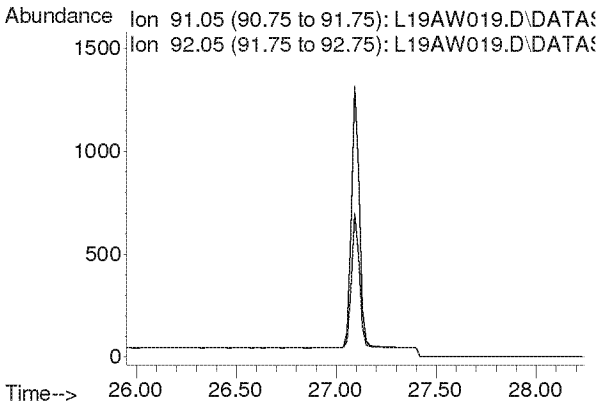


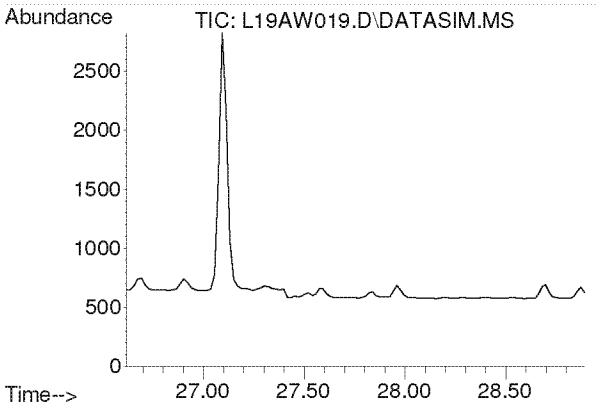
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



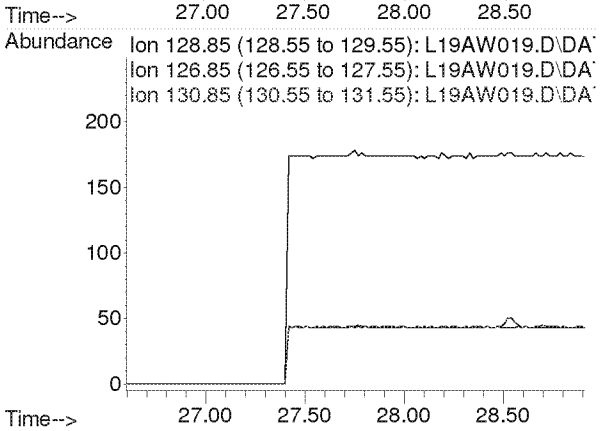


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

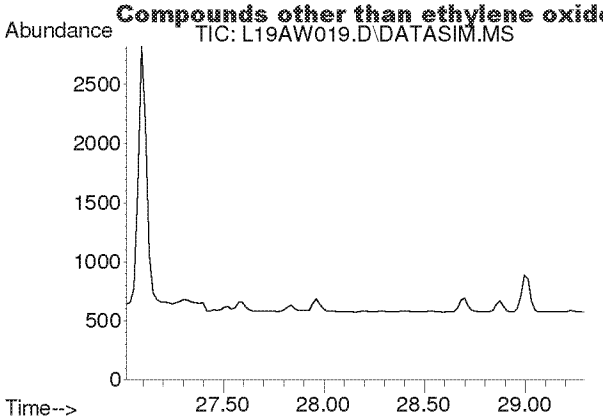
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

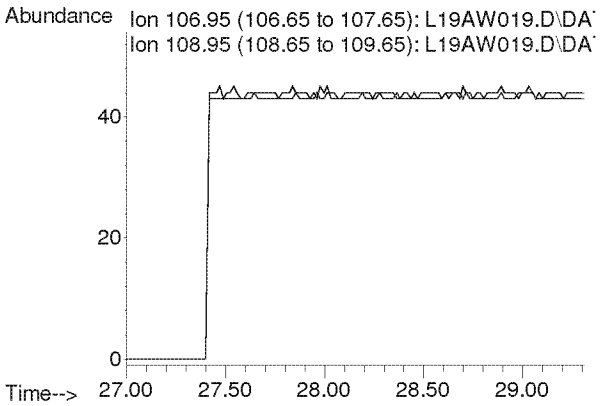


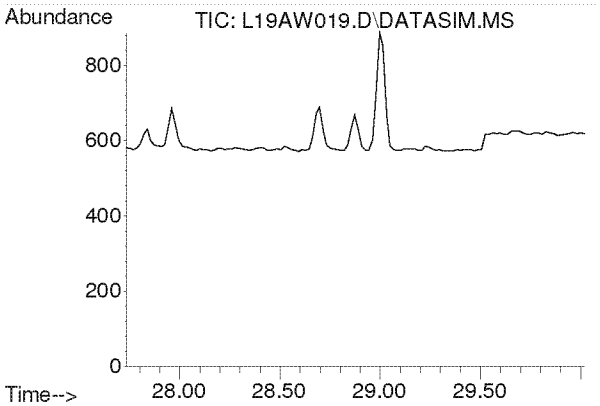
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



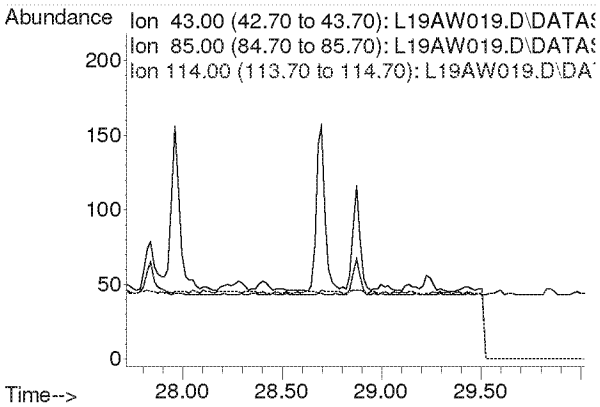


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

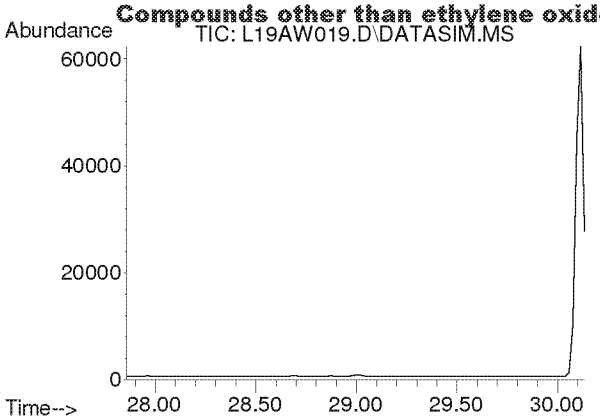
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

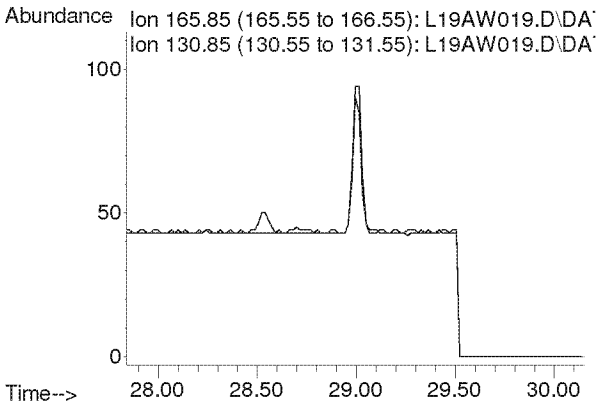


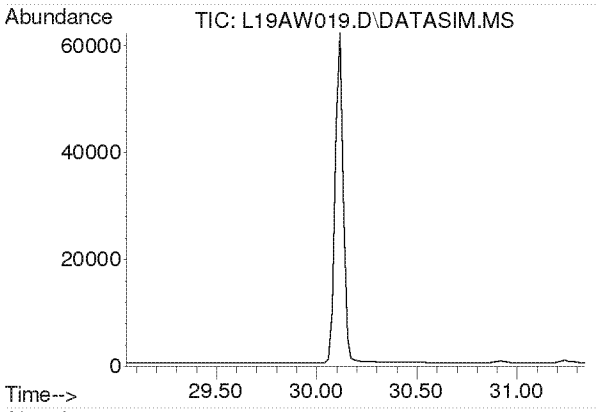
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



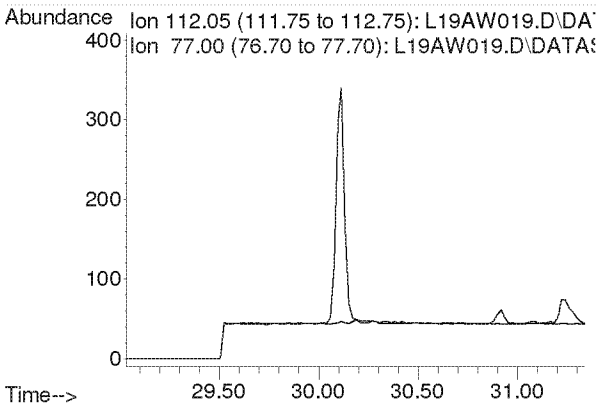


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

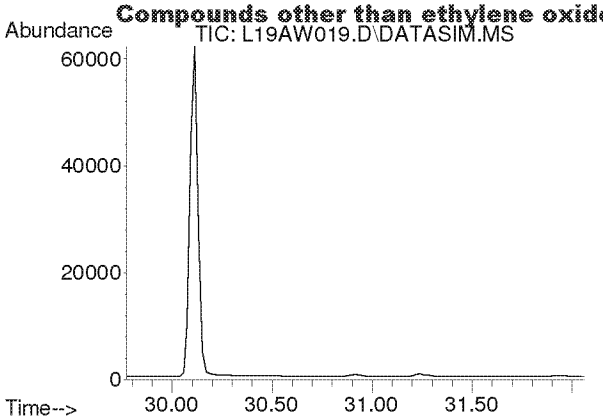
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

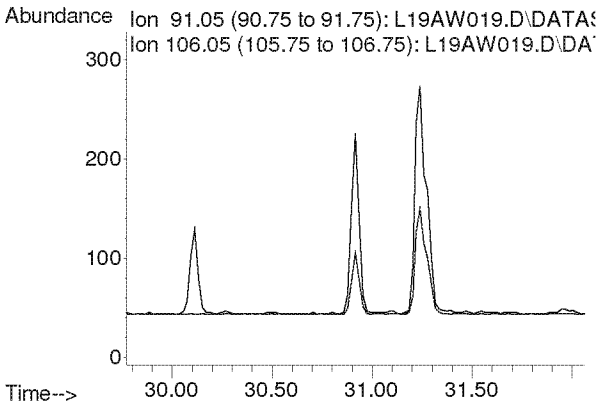


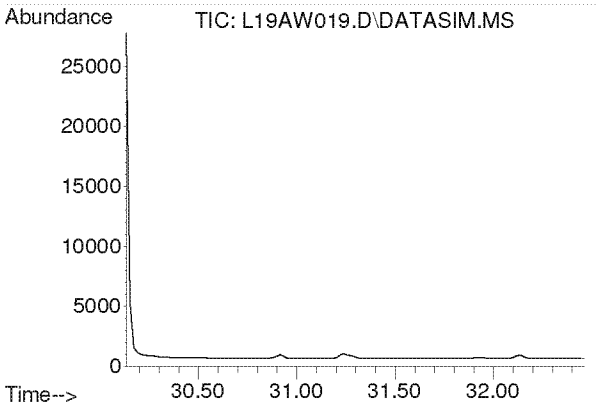
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



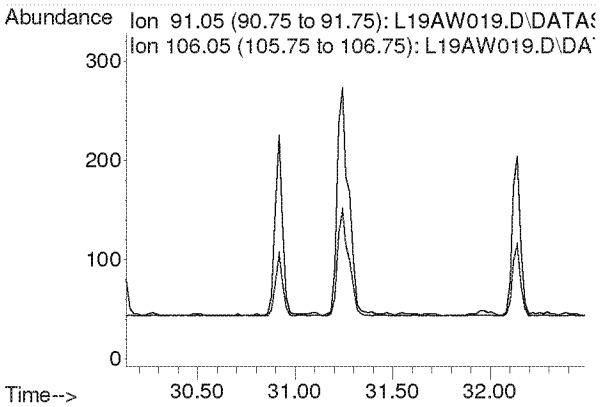


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

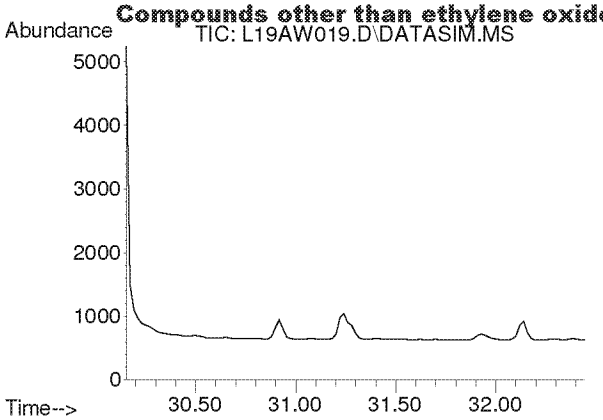
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

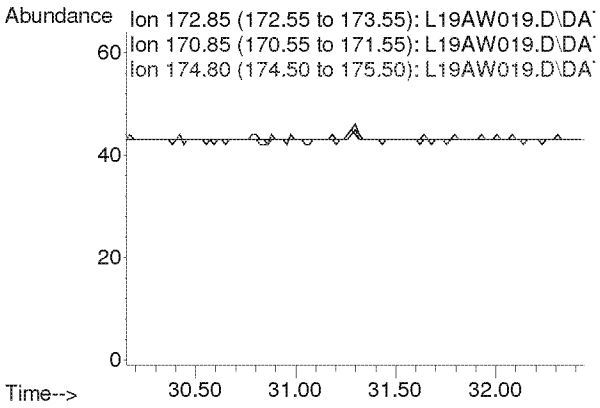


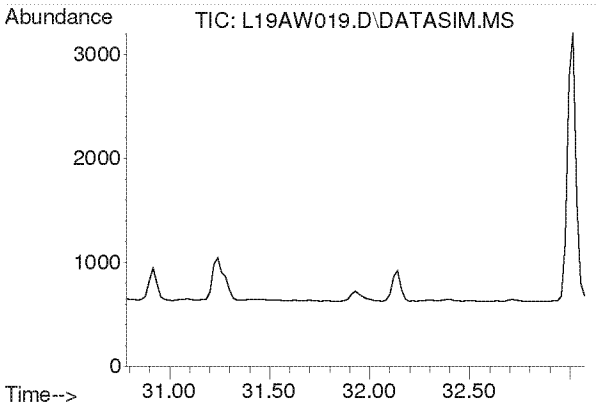
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



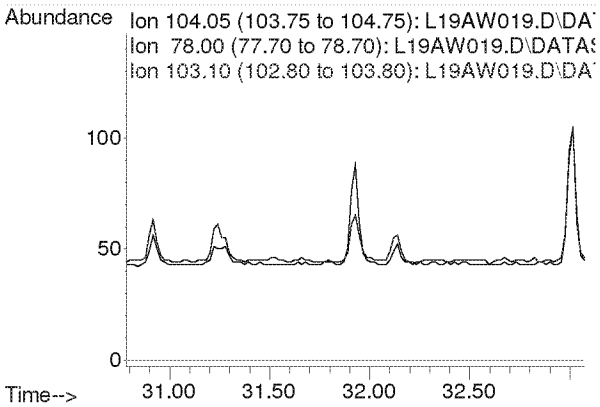


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

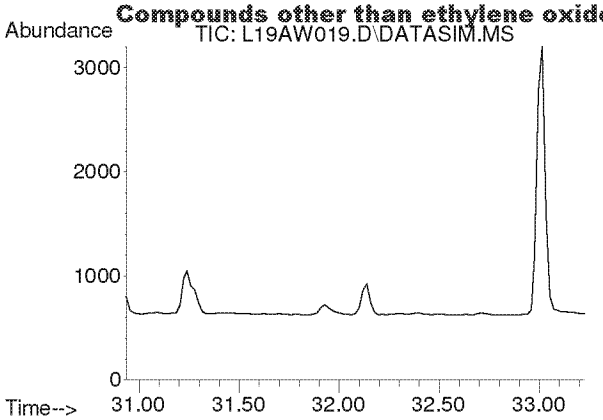
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

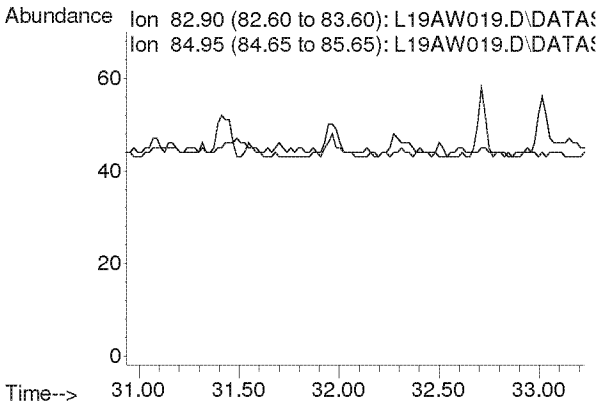


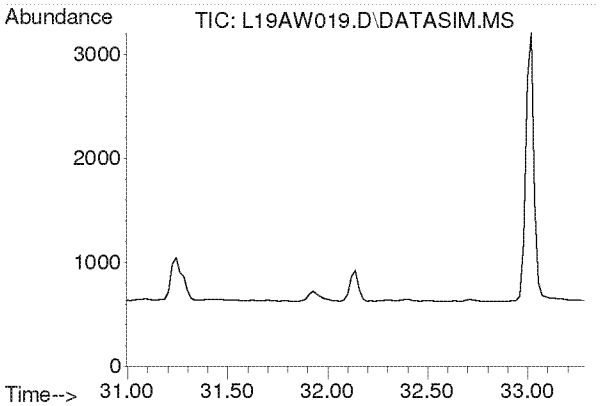
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



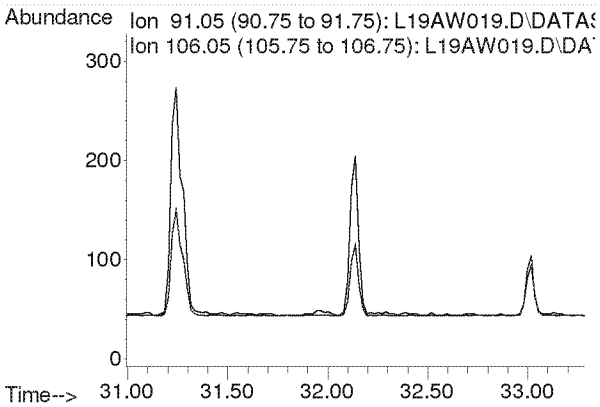


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

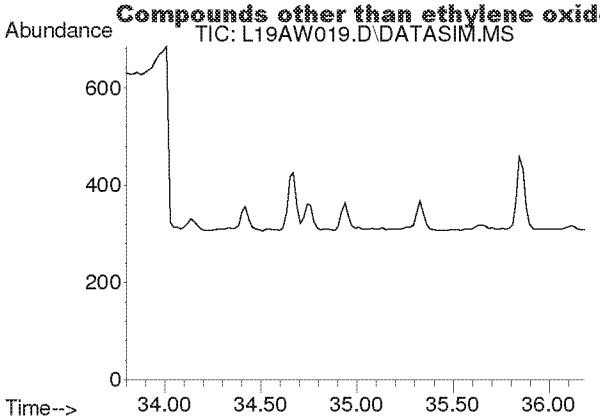
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

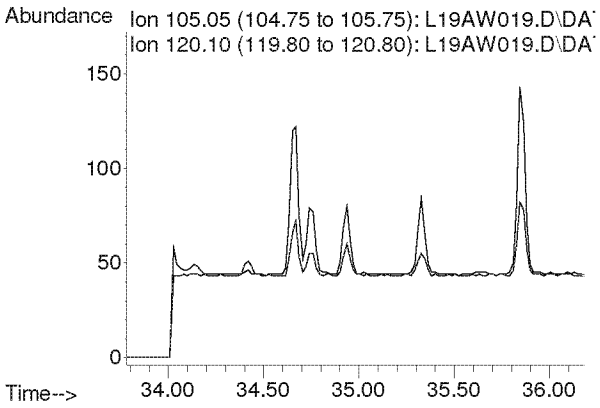


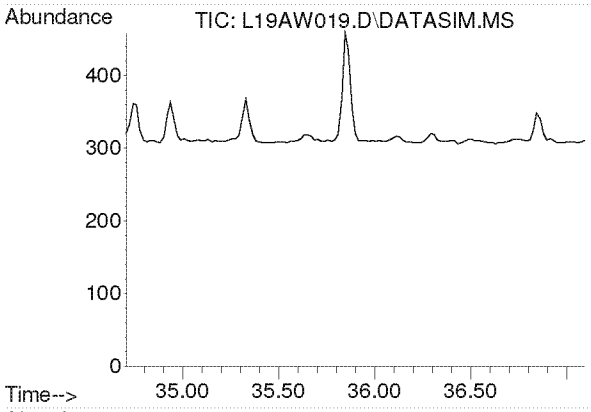
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



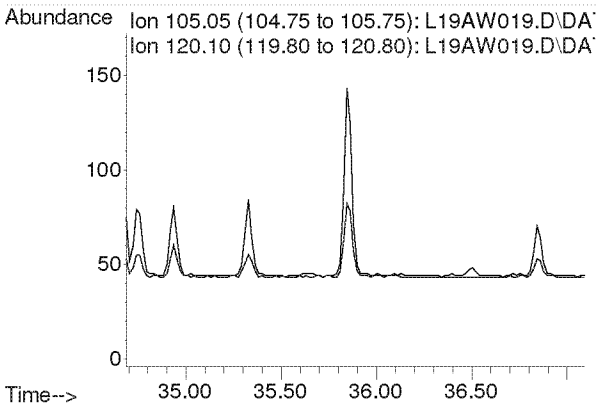


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

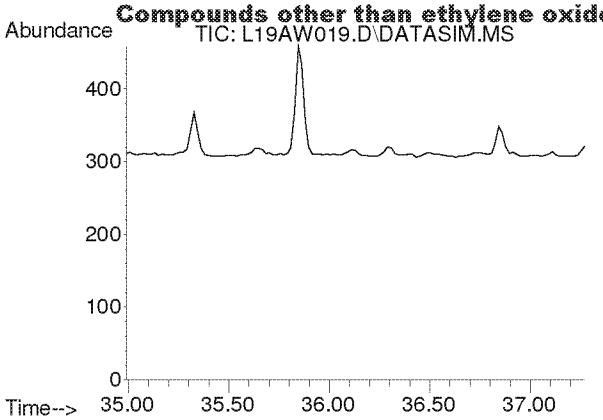
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

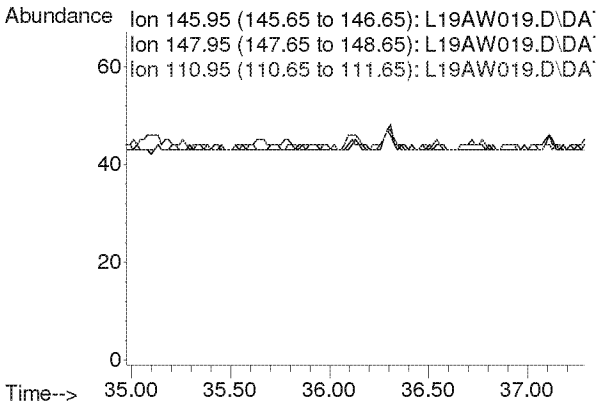


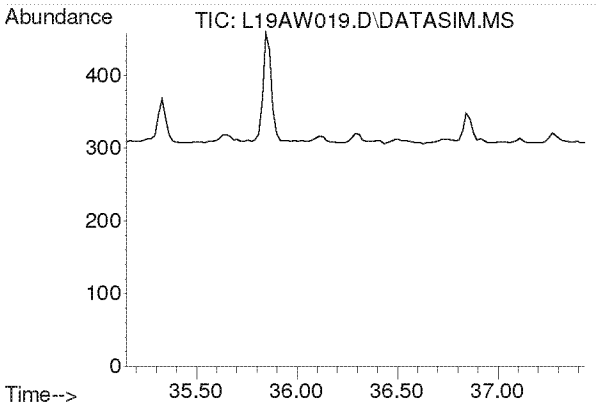
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



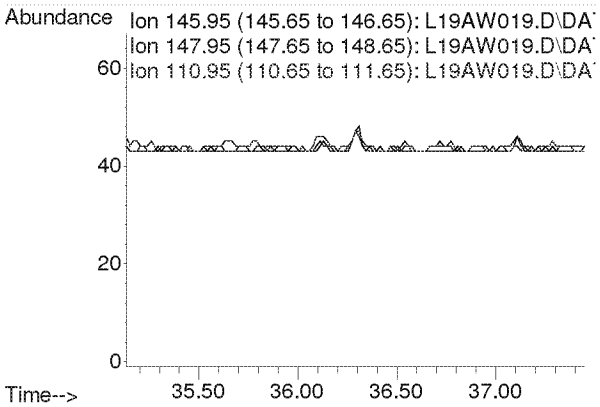


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

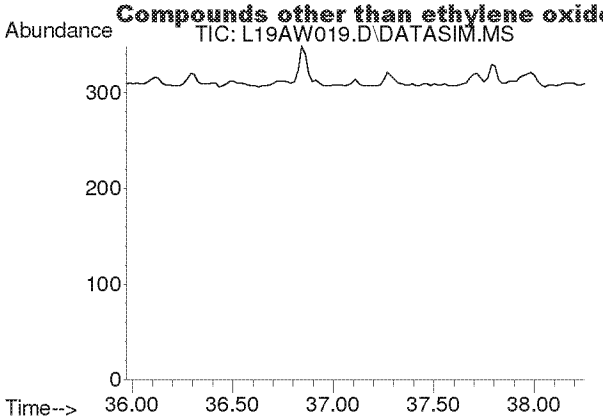
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

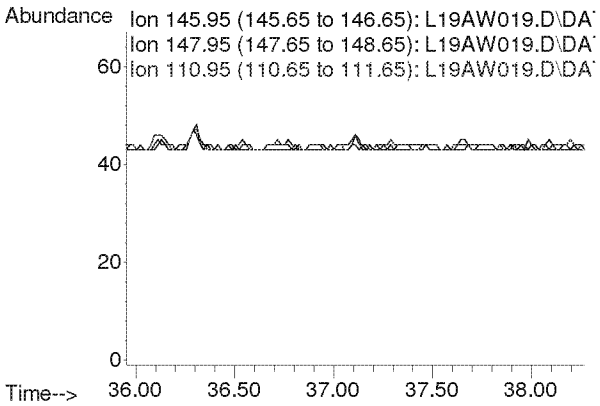


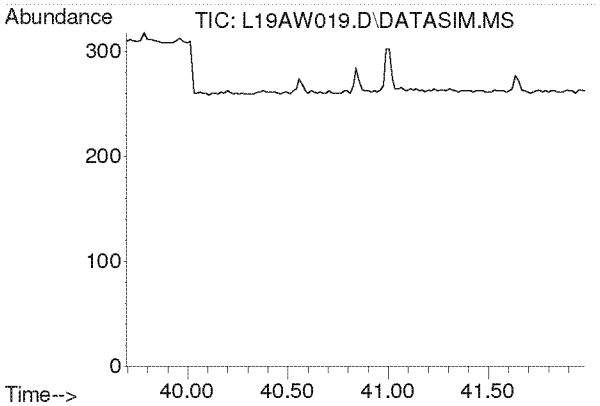
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



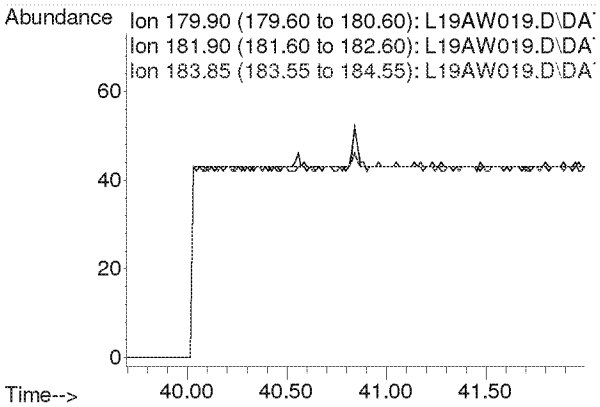


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

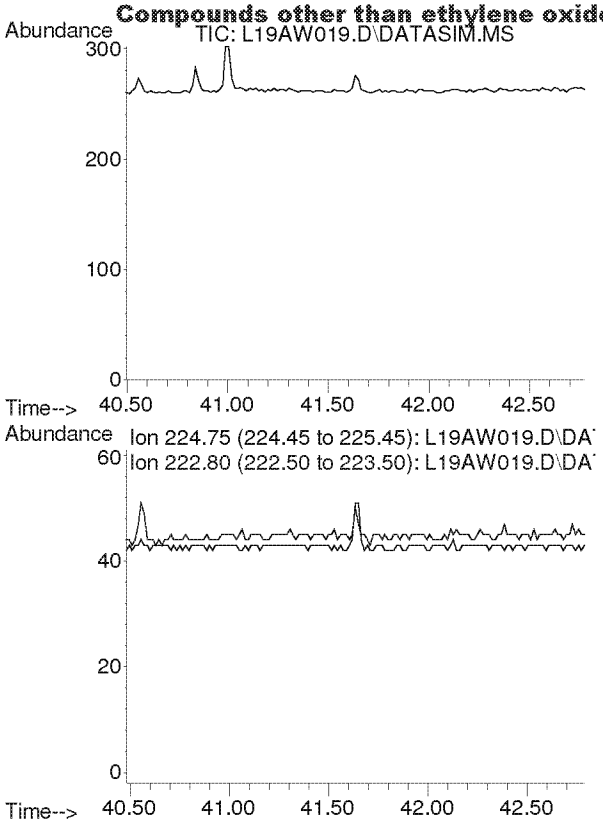
Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AW019.D
Acq: 24 Jan 2019 3:46 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\L19AW\
Data File : L19AW020.D
Acq On : 24 Jan 2019 4:49 am
Operator : MAH
Sample : 9012221-07
Misc : WEST NEIGHBORHOOD 1/18/19
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jan 29 08:31:19 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	51036	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	122164	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.114	117	92076	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	12.468	29	220m	0.0835 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.	
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.	
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\L19AW\
Data File : L19AW020.D
Acq On : 24 Jan 2019 4:49 am
Operator : MAH
Sample : 9012221-07
Misc : WEST NEIGHBORHOOD 1/18/19
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jan 29 08:31:19 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

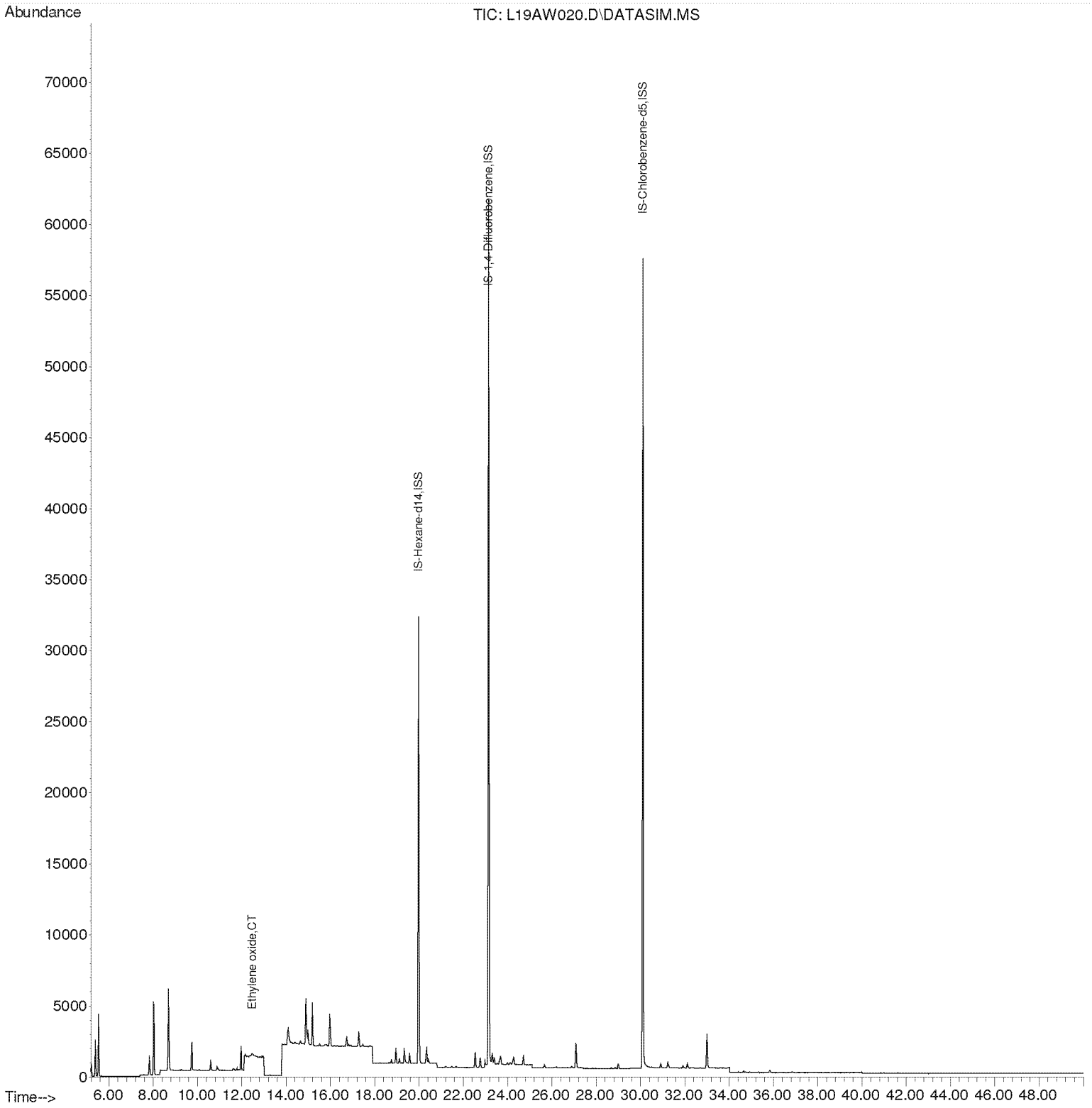
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

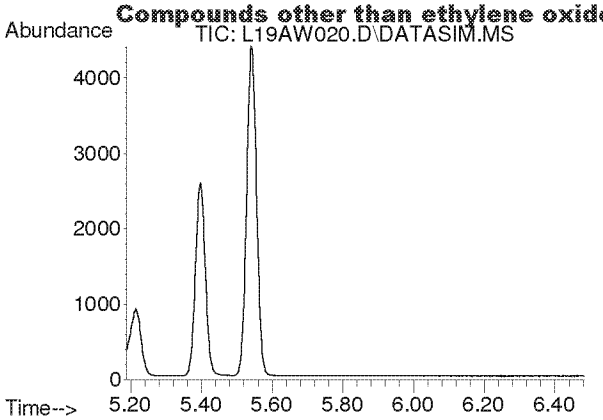
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW020.D
Acq On : 24 Jan 2019 4:49 am
Operator : MAH
Sample : 9012221-07
Misc : WEST NEIGHBORHOOD 1/18/19
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Jan 29 08:12:20 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



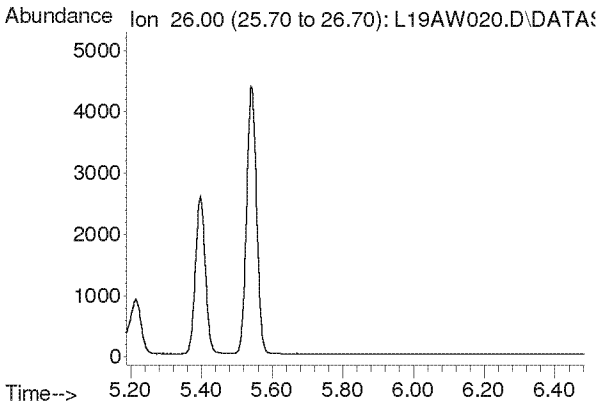
Compounds other than ethylene oxide were not quantitated.

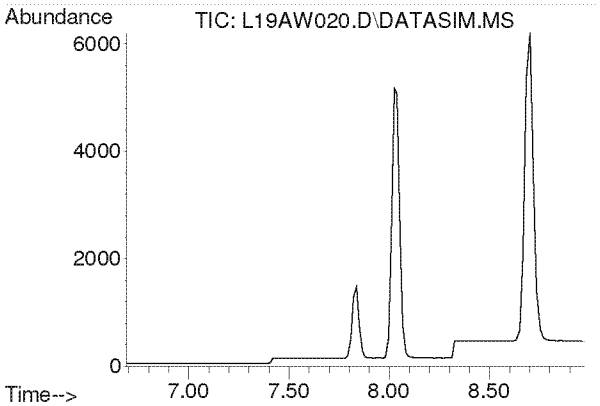


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 26



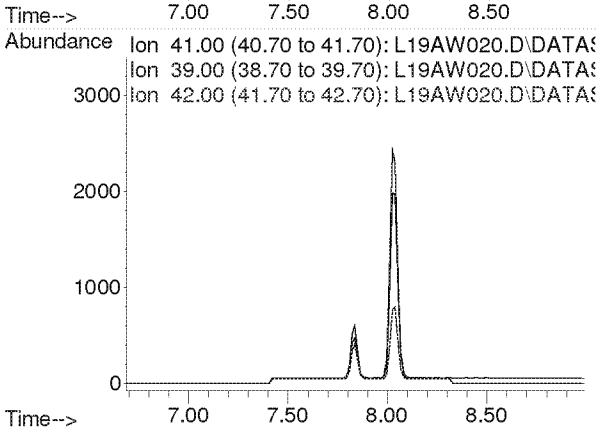


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

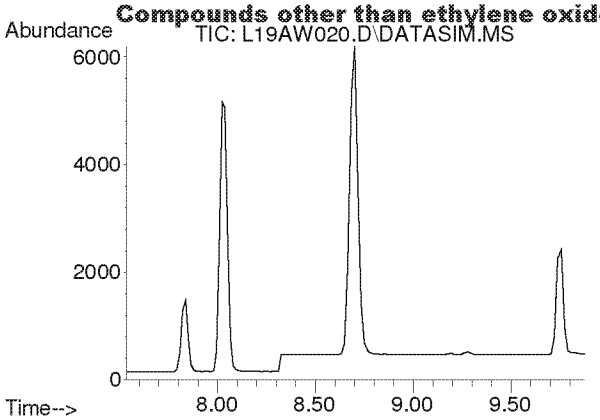
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

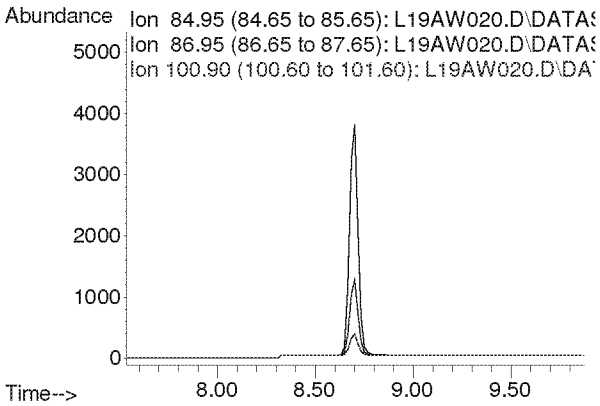


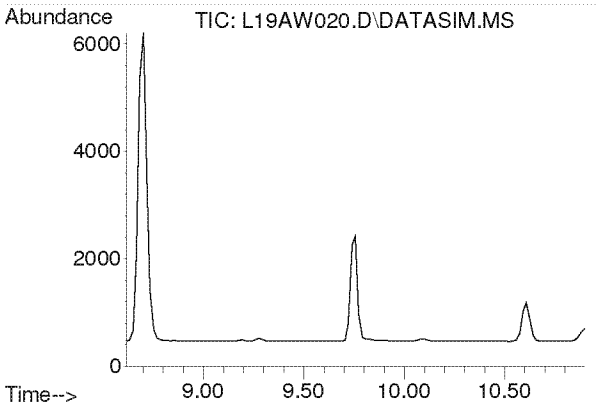
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



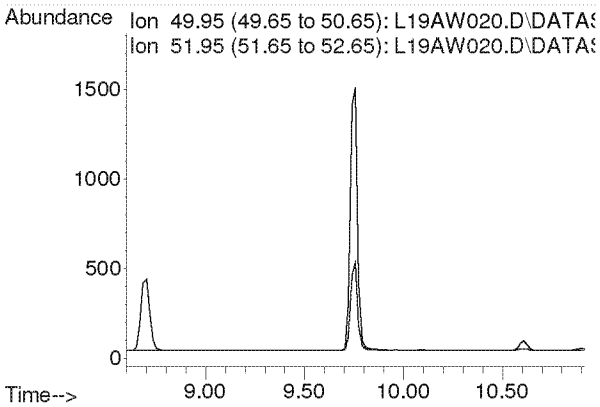


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

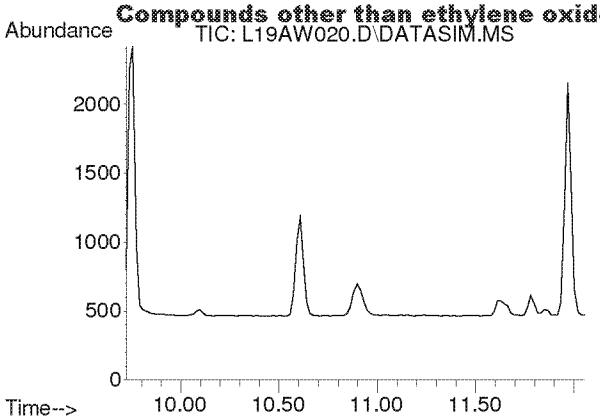
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

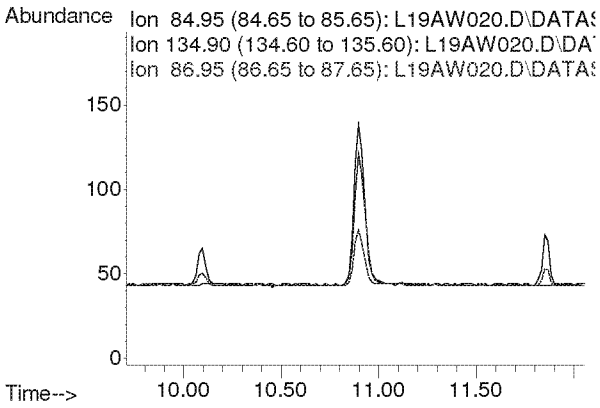


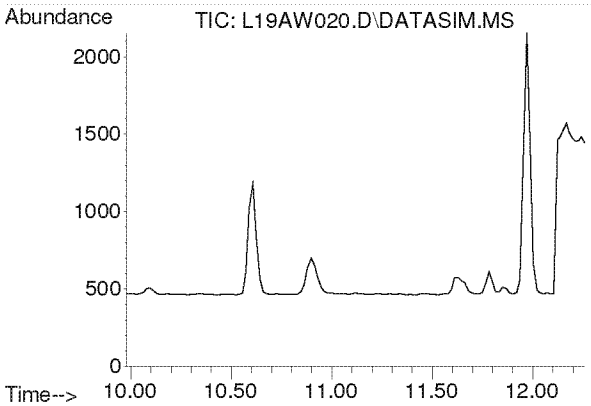
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



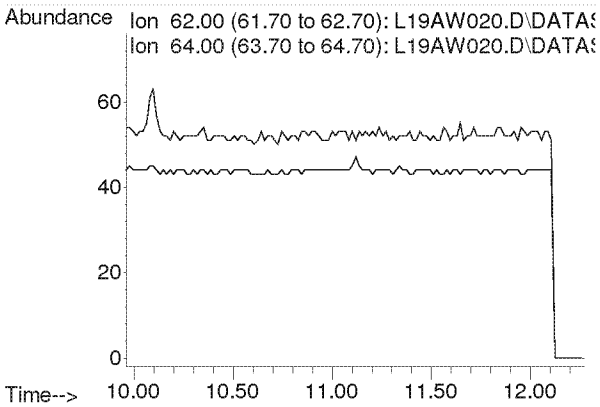


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

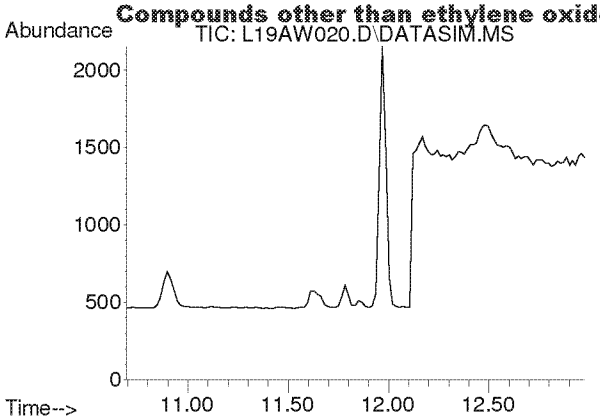
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

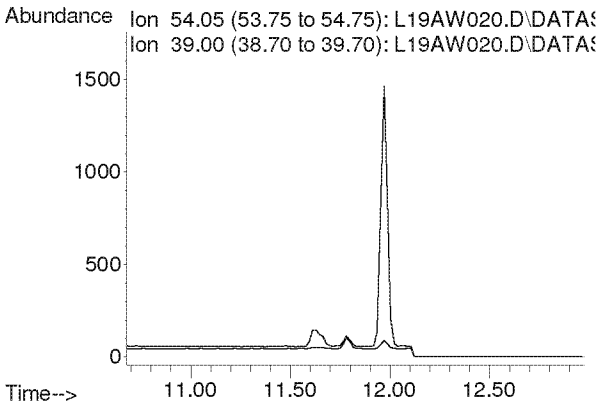


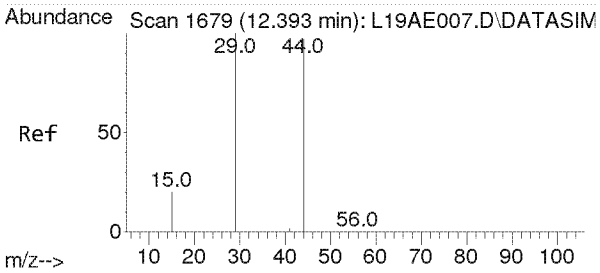
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

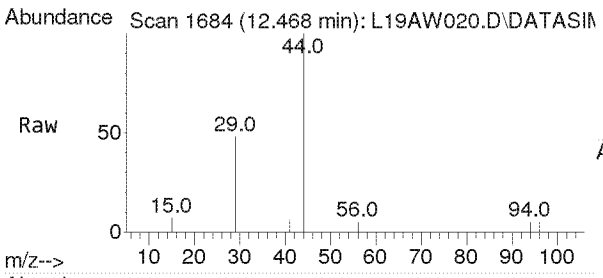


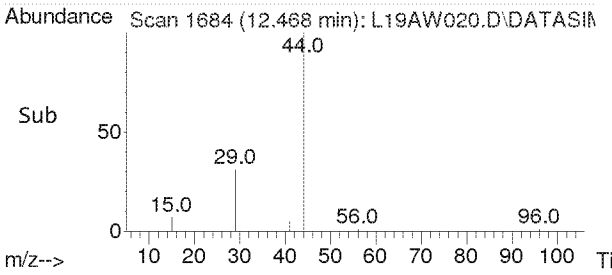


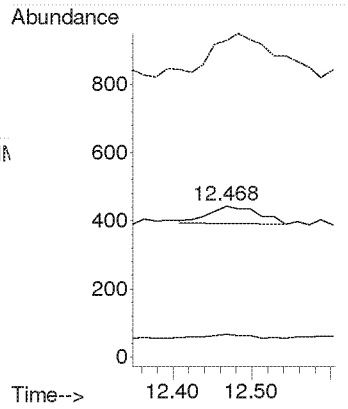
#9
Ethylene oxide
Concen: 0.083 ppbv m
RT: 12.468 min Scan# 1684
Delta R.T. 0.075 min
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 29 Resp: 220

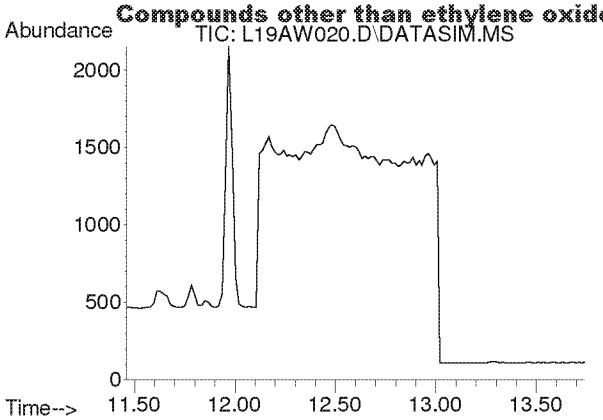
Ion	Ratio	Lower	Upper
29	100		
15	0.0	15.4	23.0#
44	0.0	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

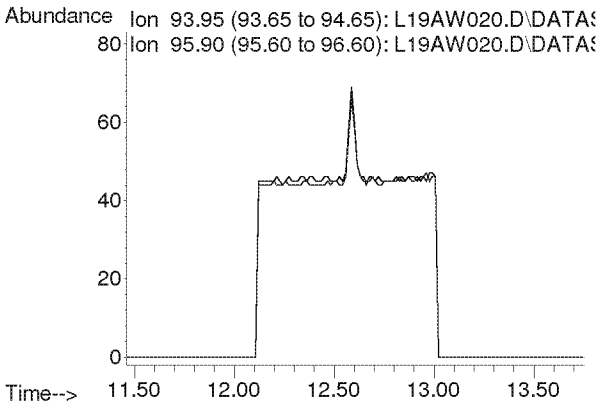


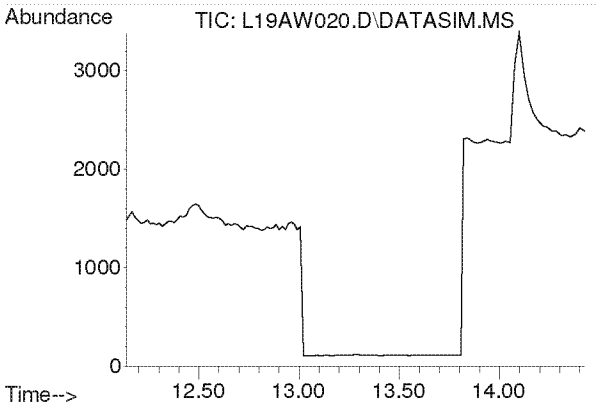
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



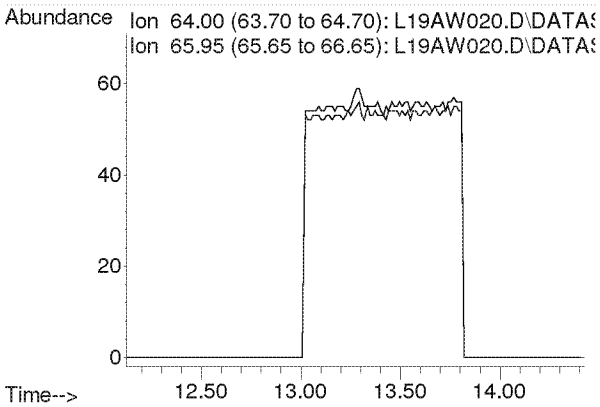


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

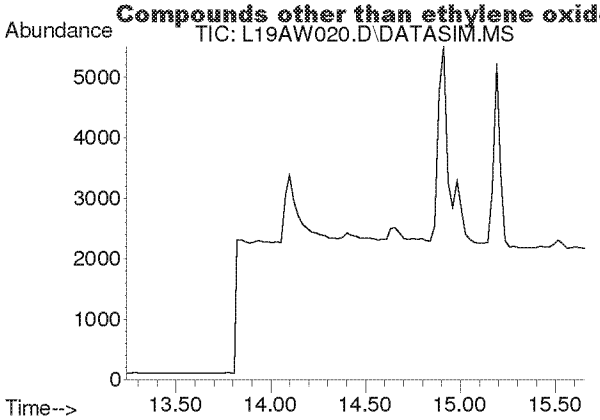
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

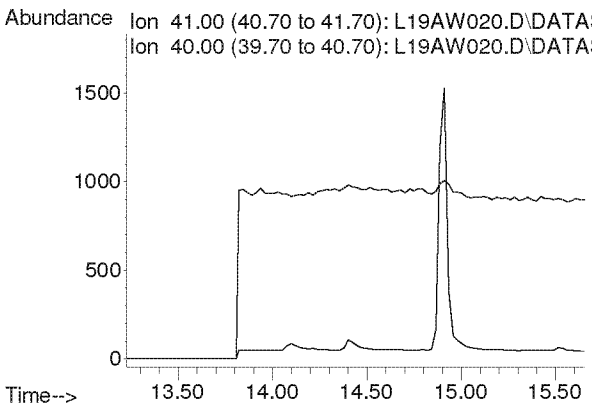


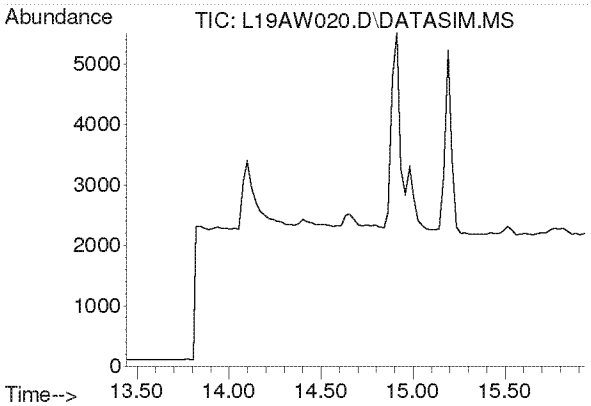
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



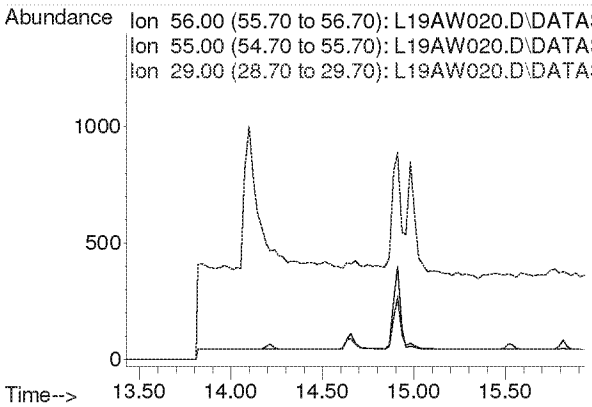


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

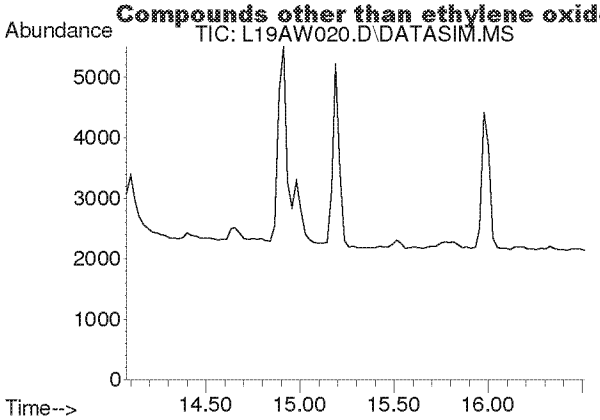
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

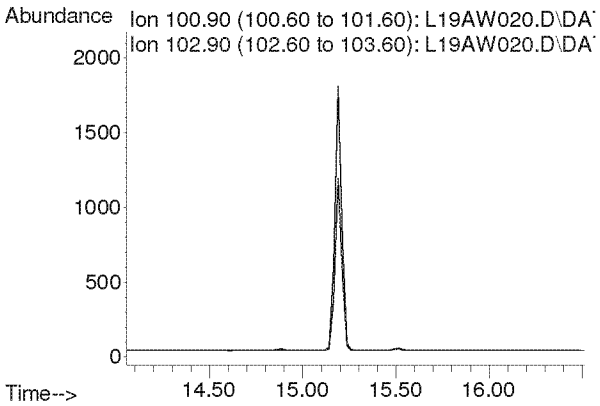


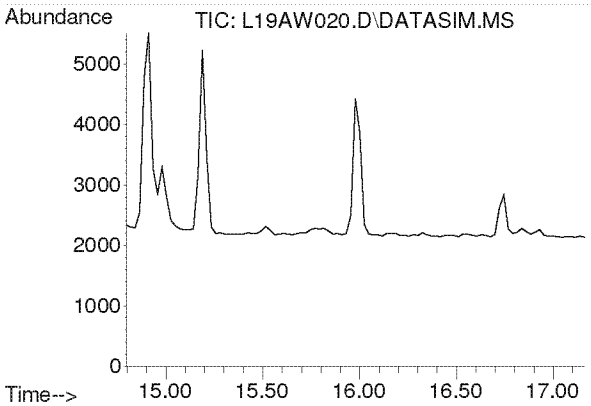
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



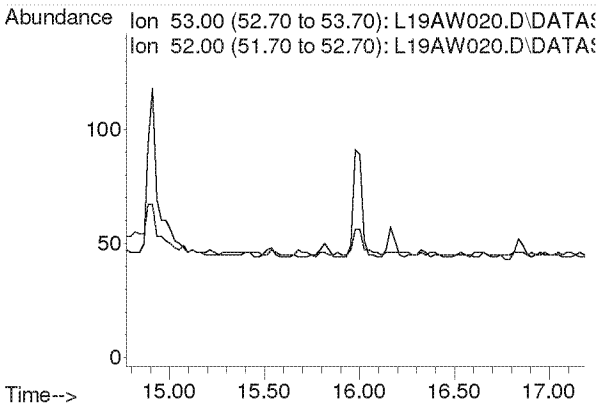


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

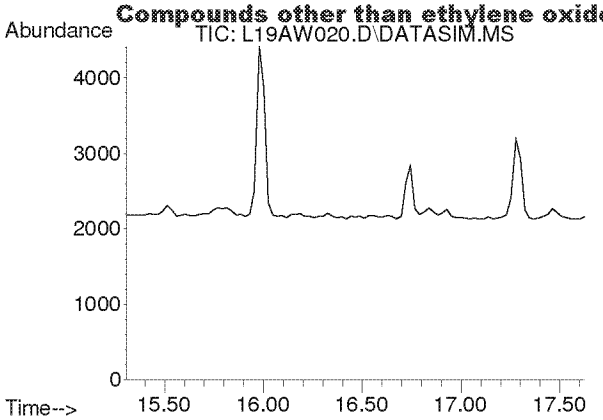
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

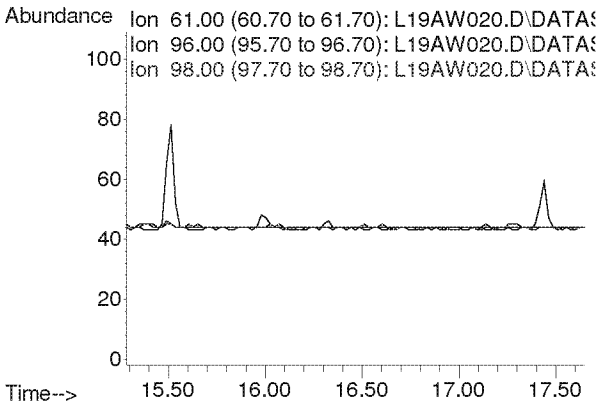


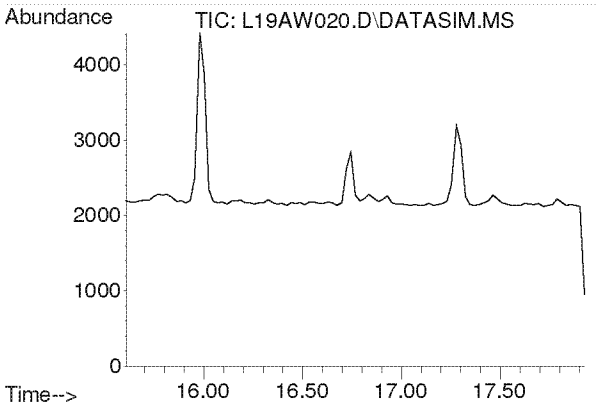
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



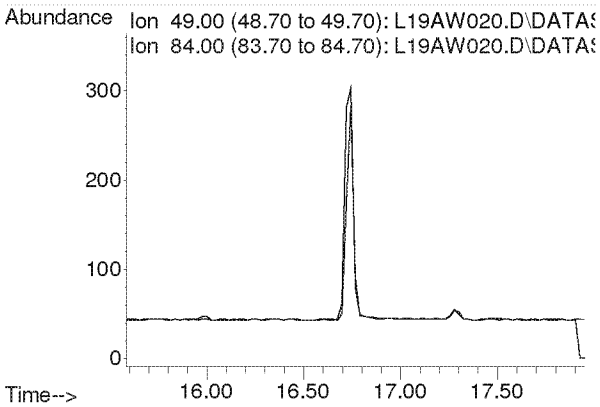


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

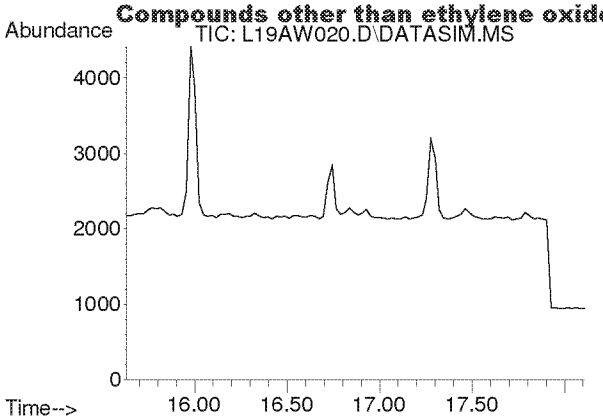
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

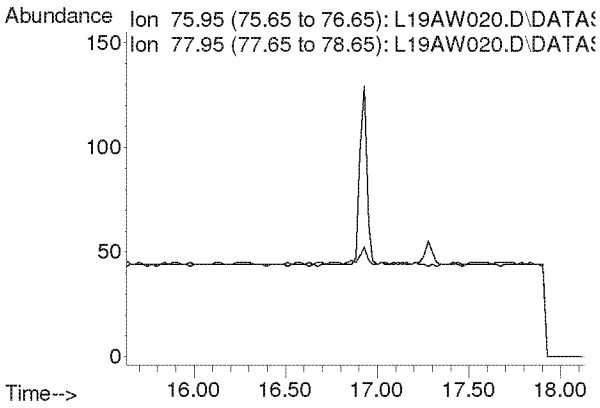


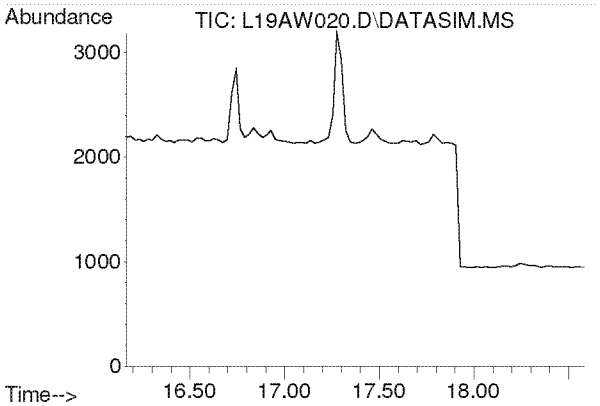
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



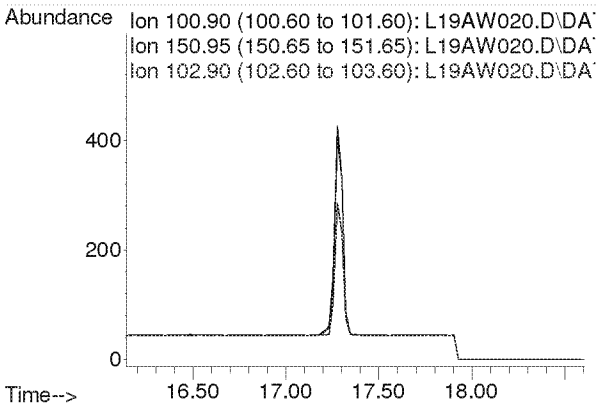


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

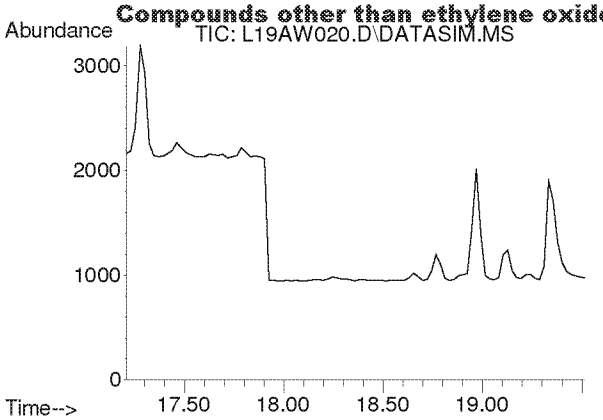
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

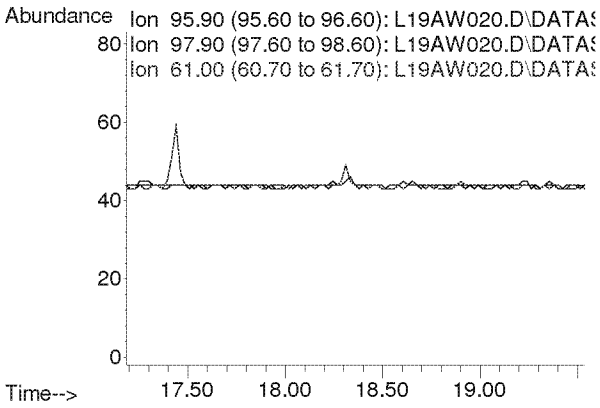


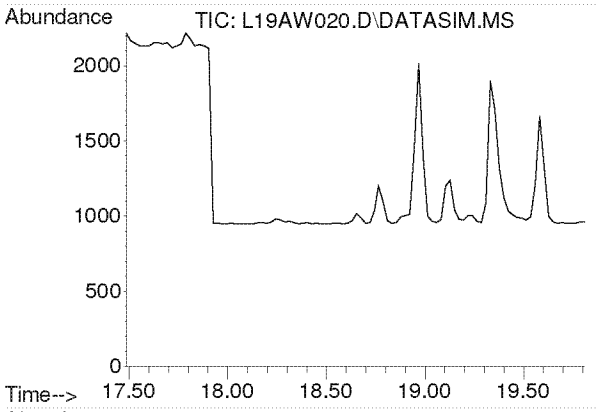
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



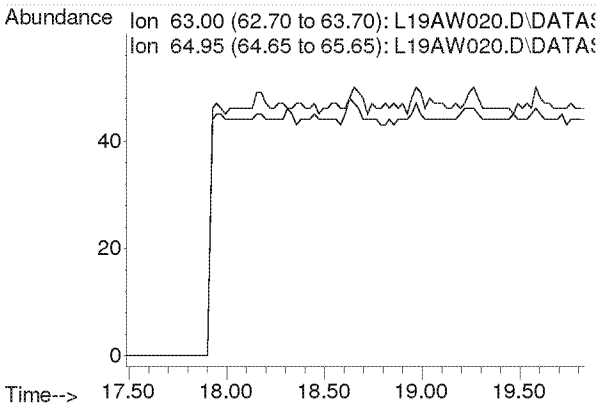


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

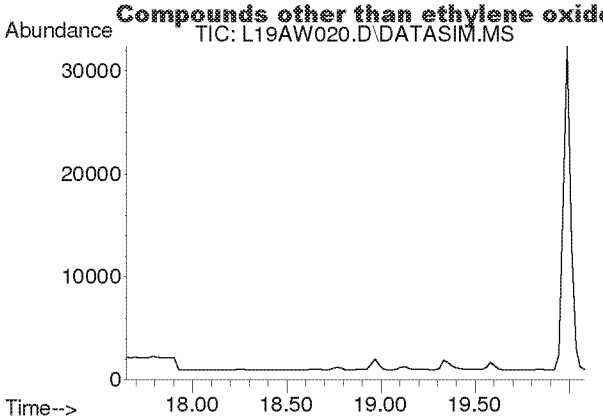
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

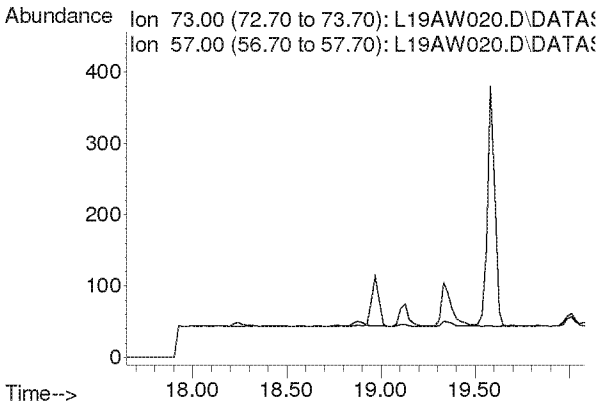


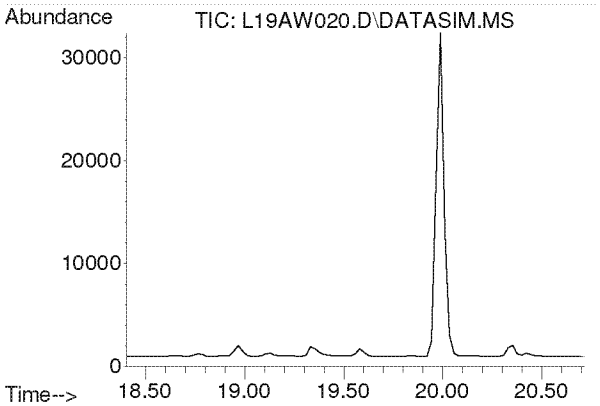
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



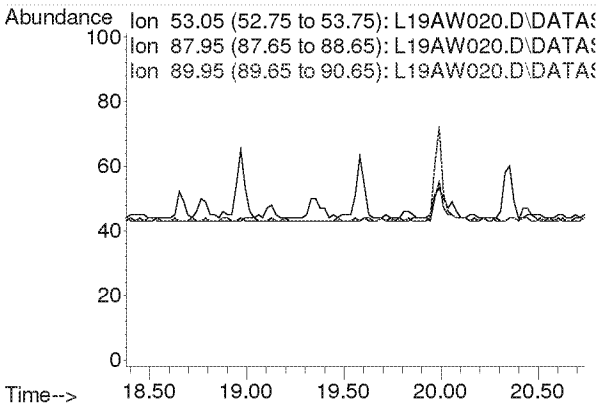


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

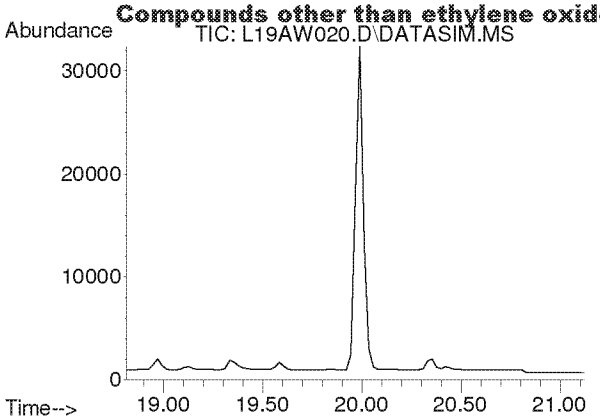
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

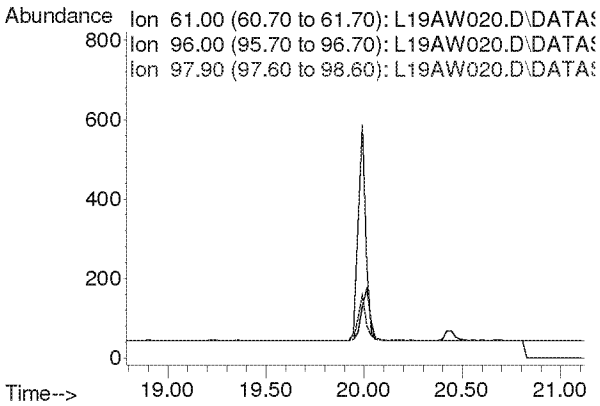


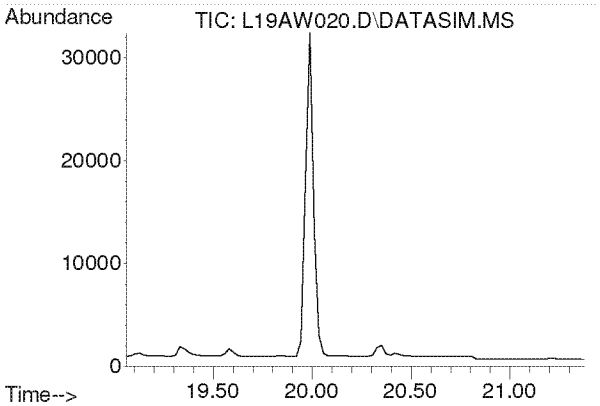
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



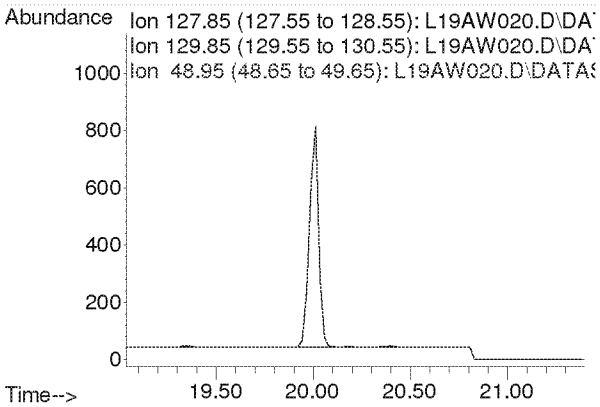


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

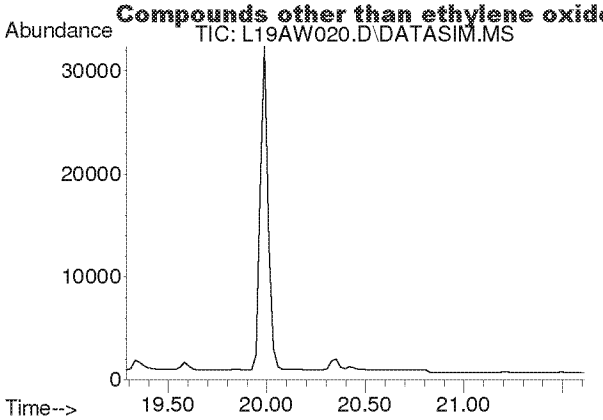
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

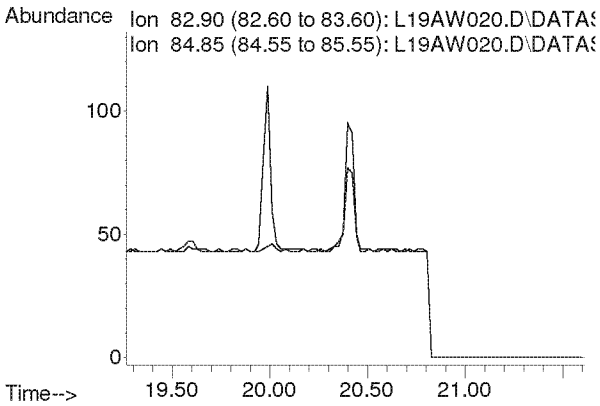


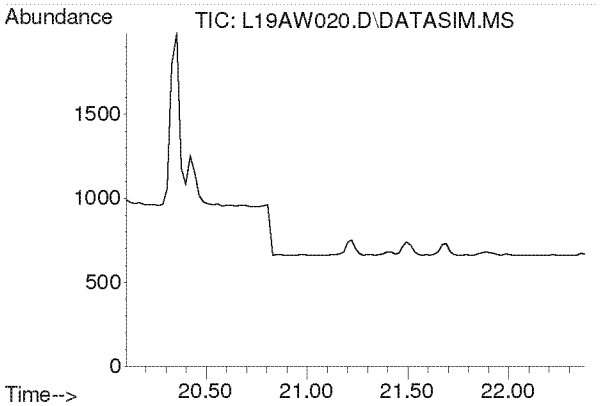
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



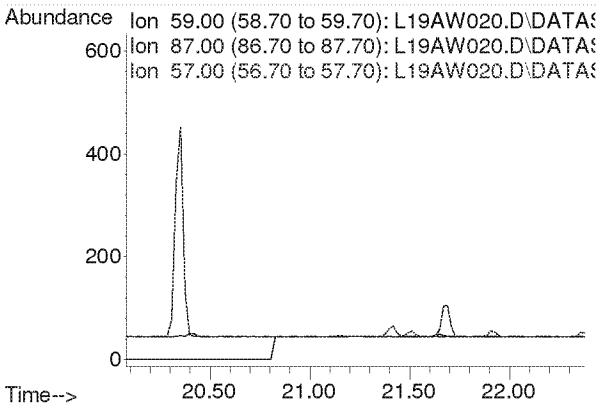


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

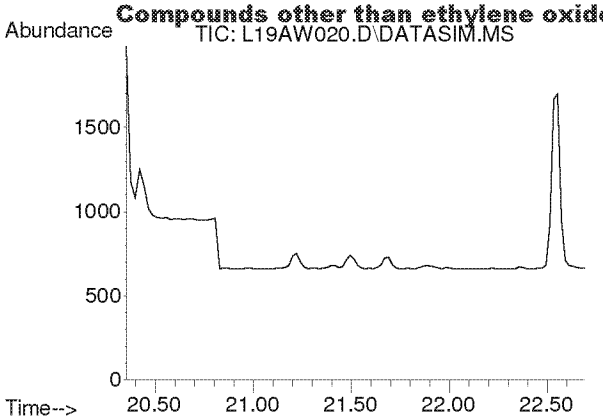
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

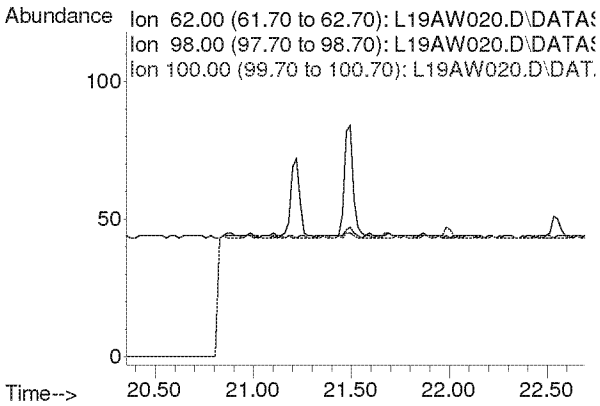


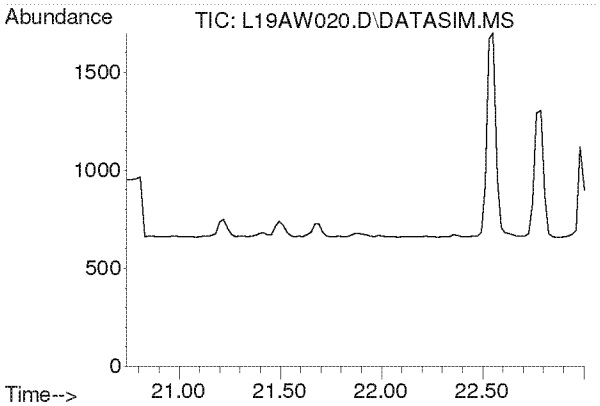
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



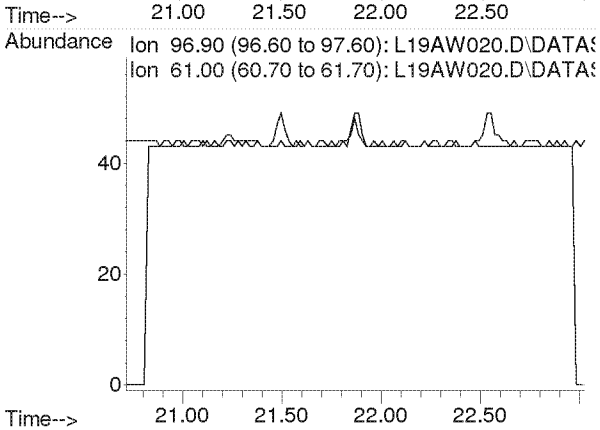


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

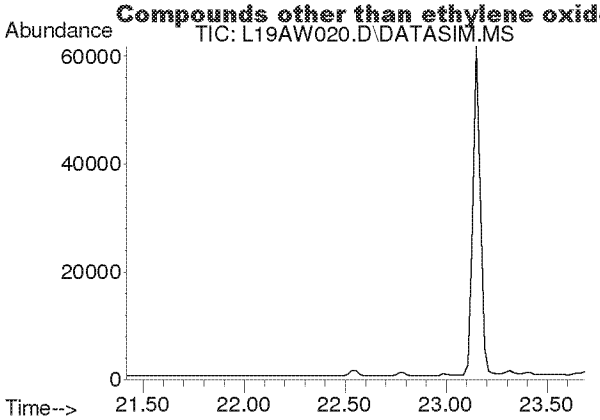
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

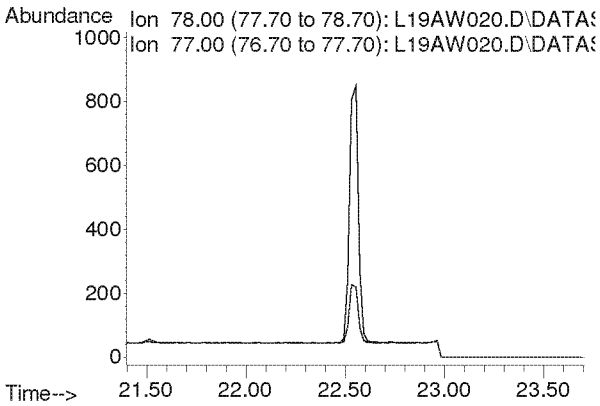


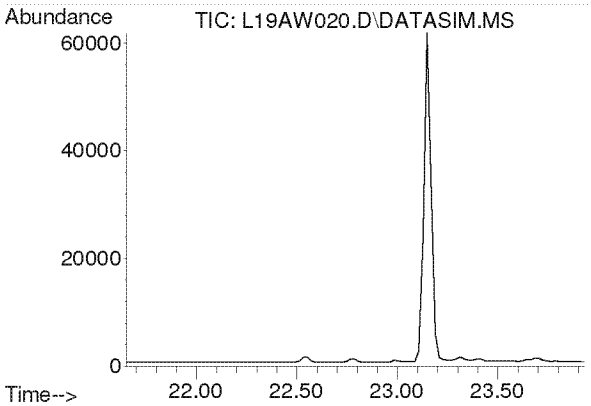
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



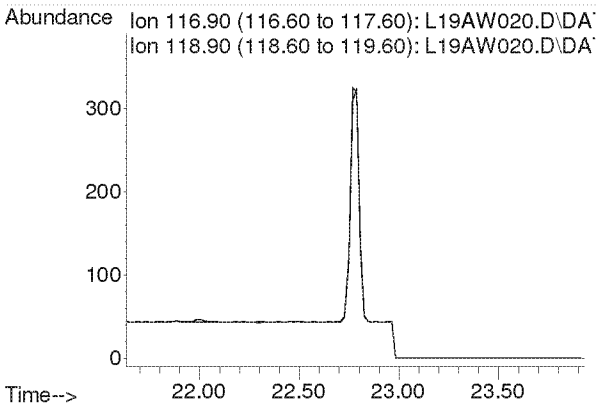


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

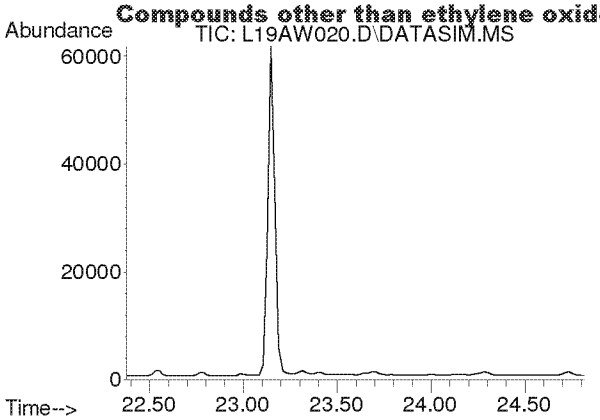
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

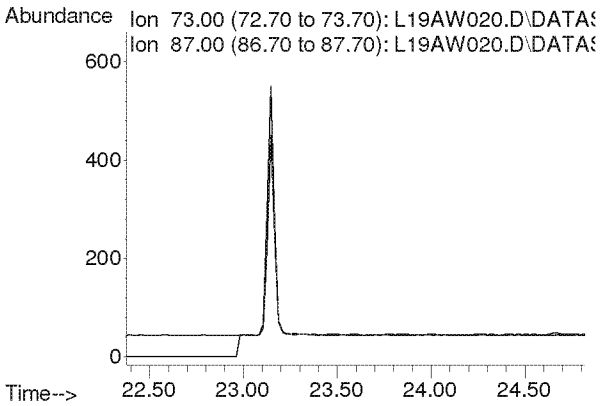


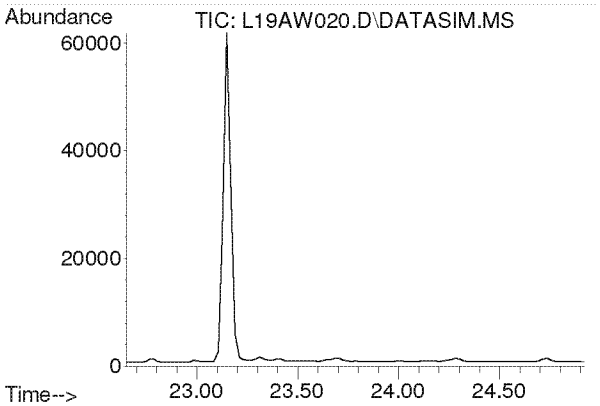
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



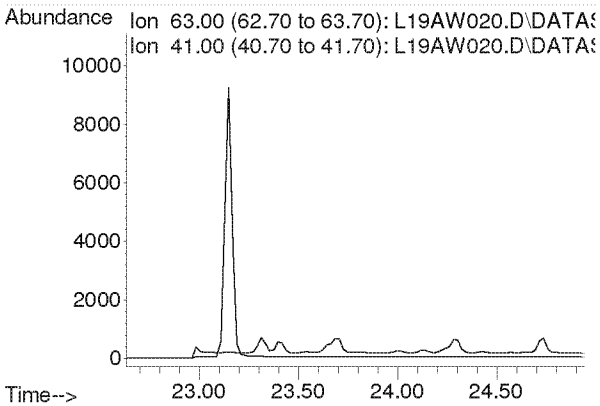


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

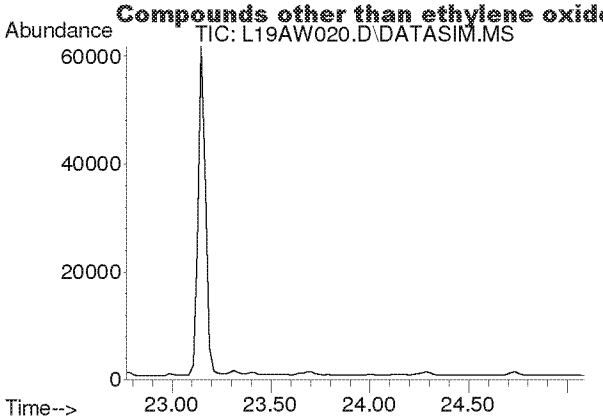
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

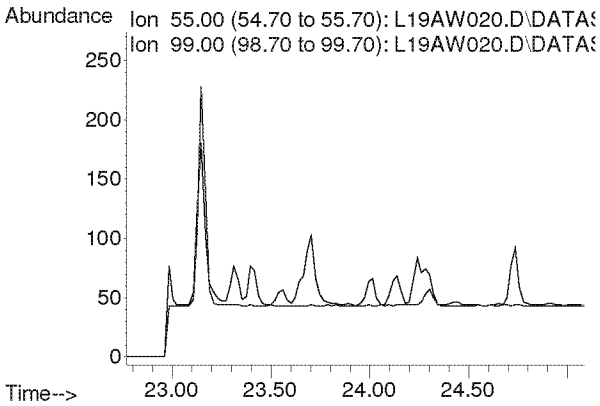


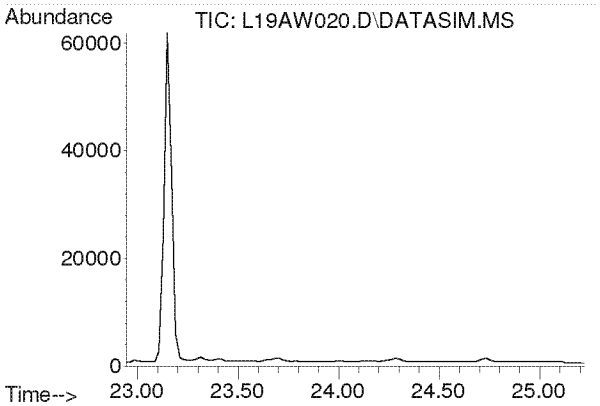
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



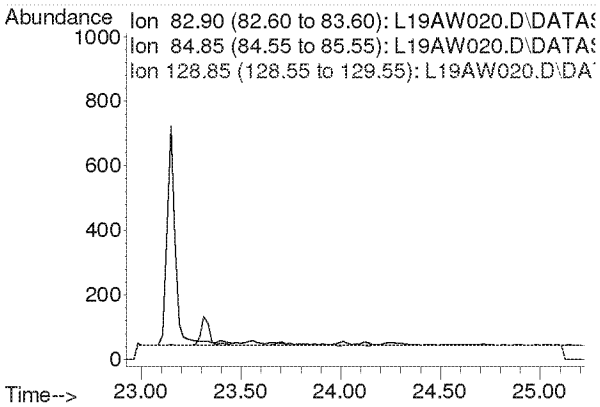


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

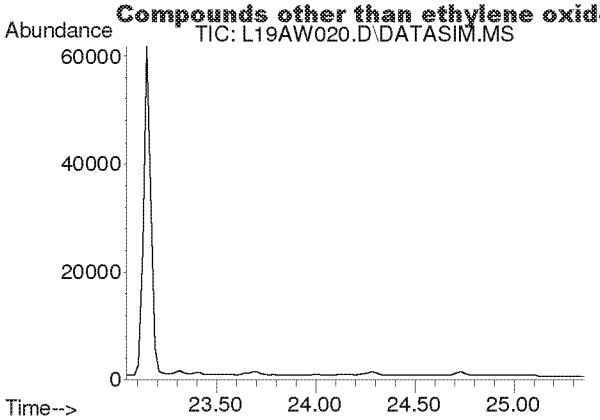
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

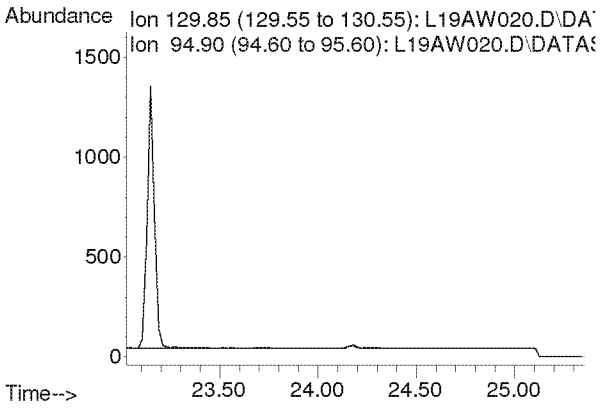


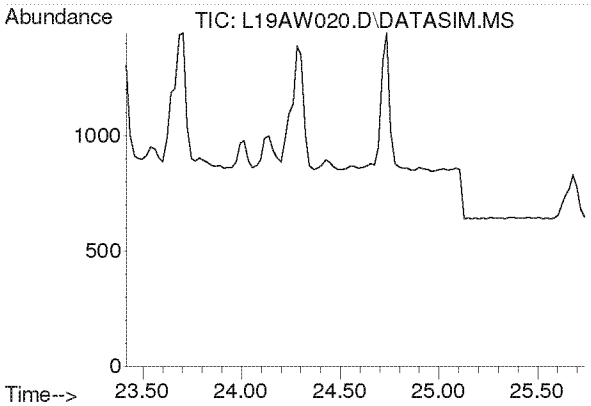
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



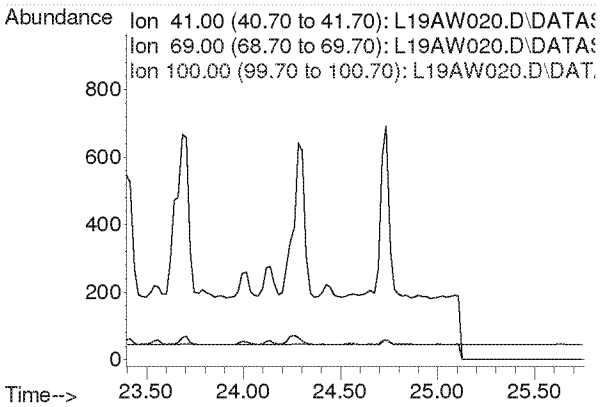


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

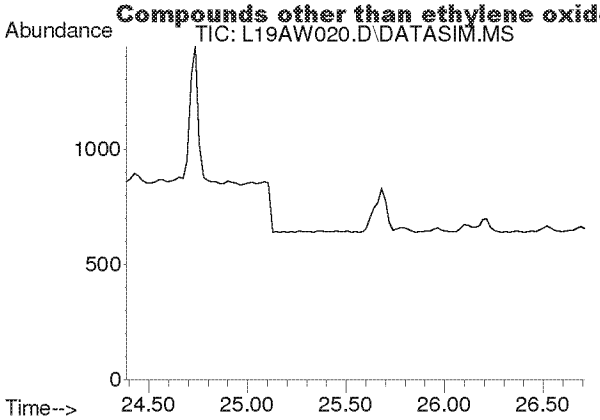
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

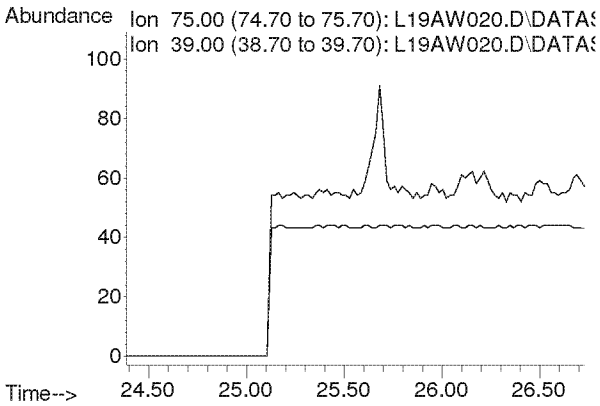


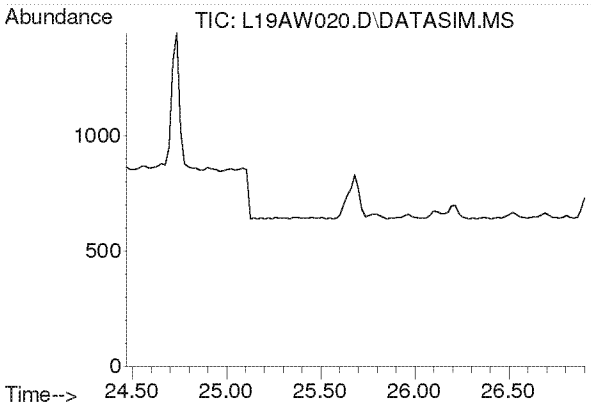
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



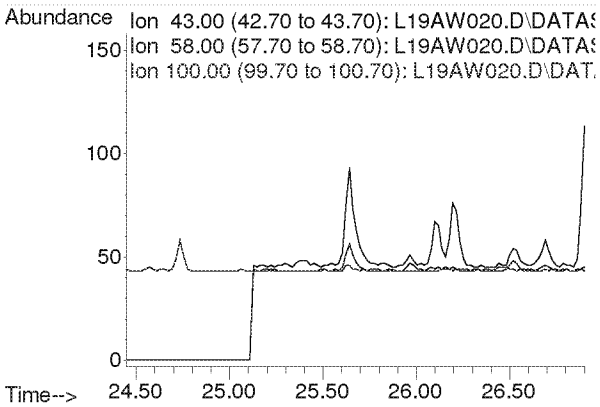


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

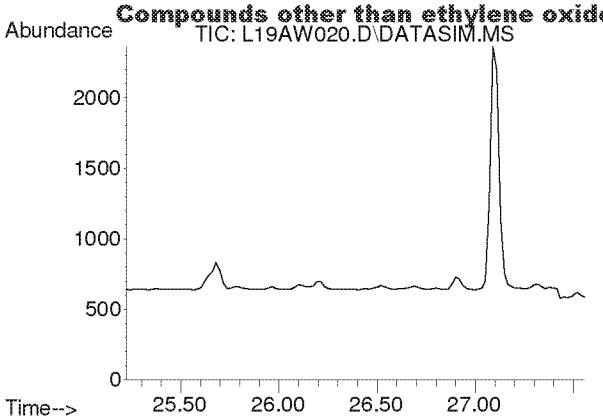
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

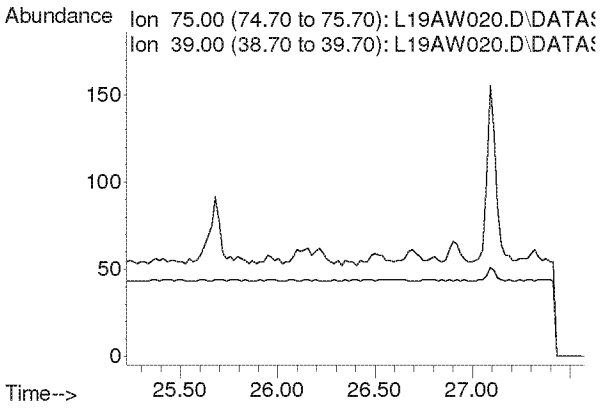


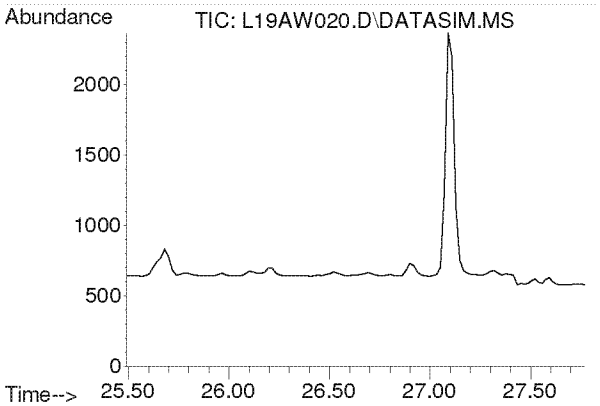
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



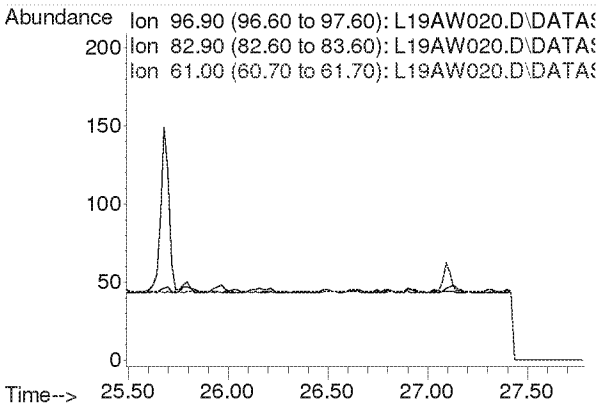


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

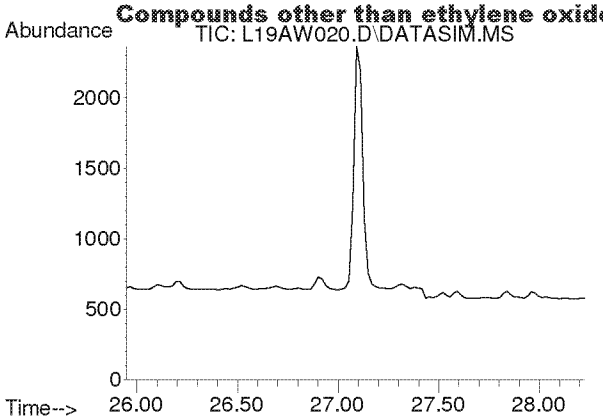
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

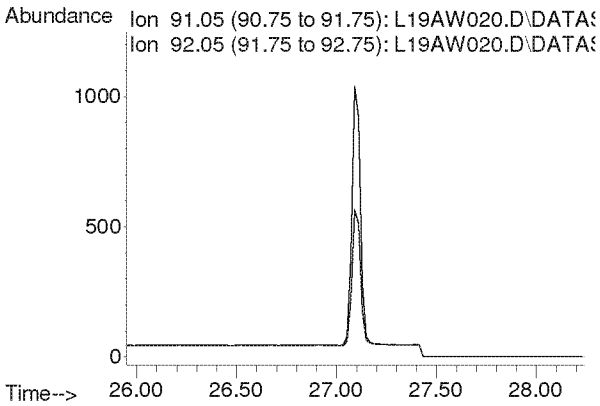


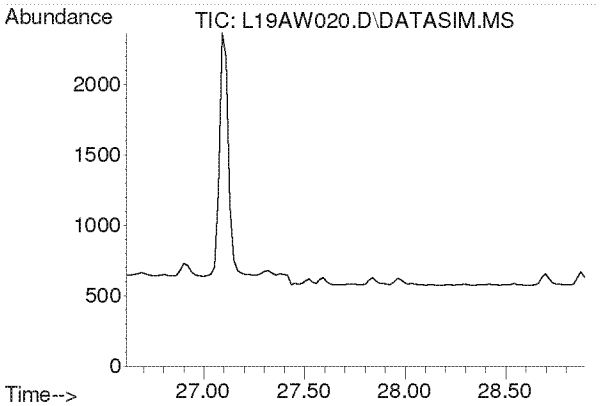
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



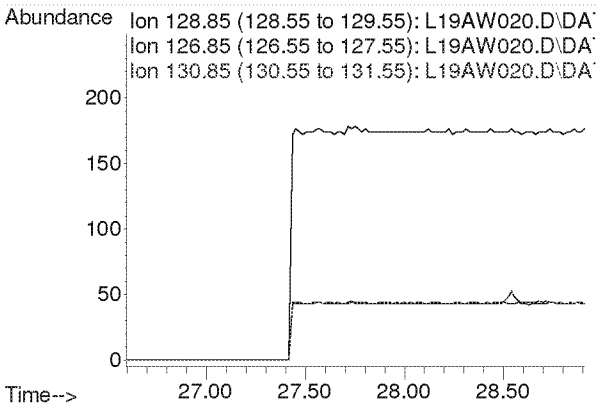


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

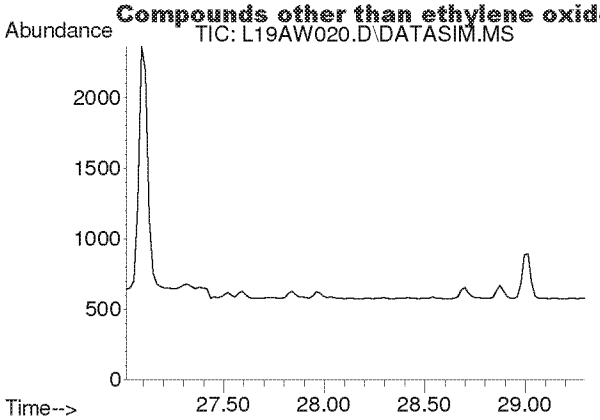
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

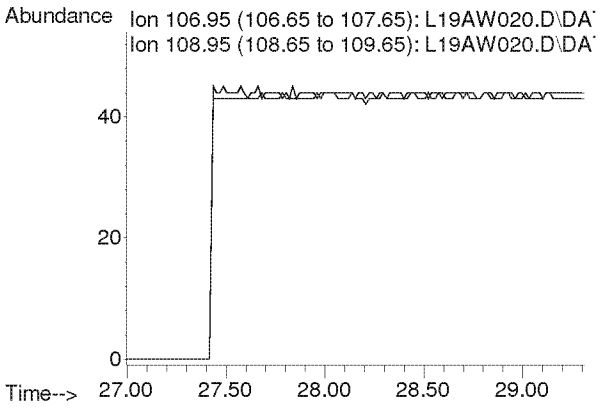


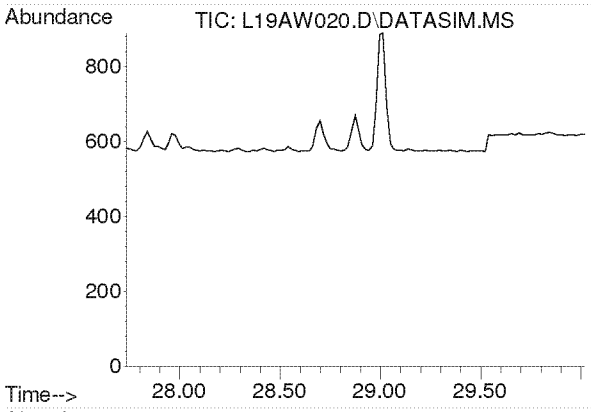
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



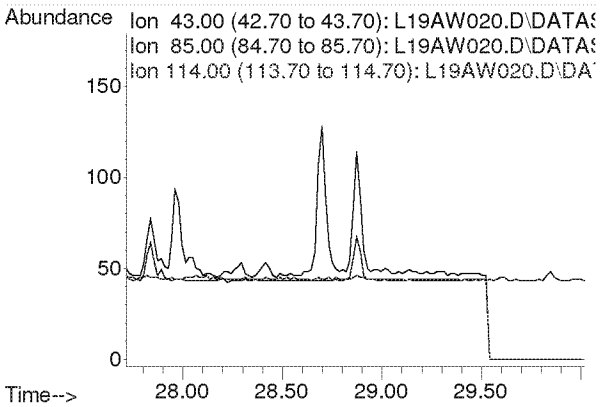


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

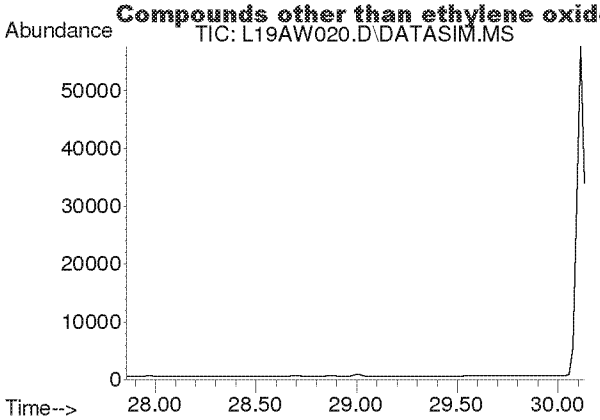
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

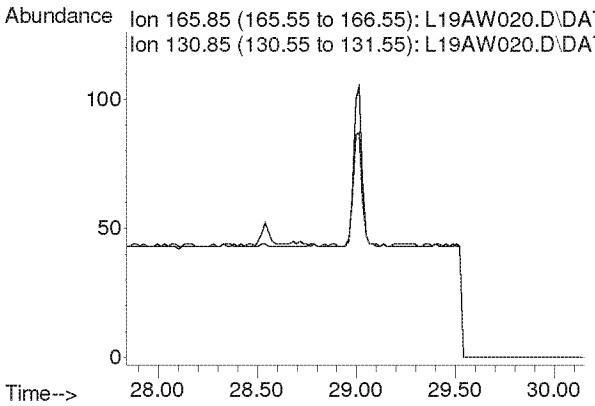


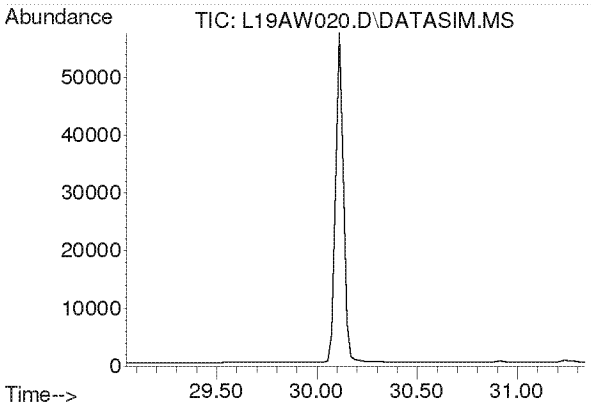
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



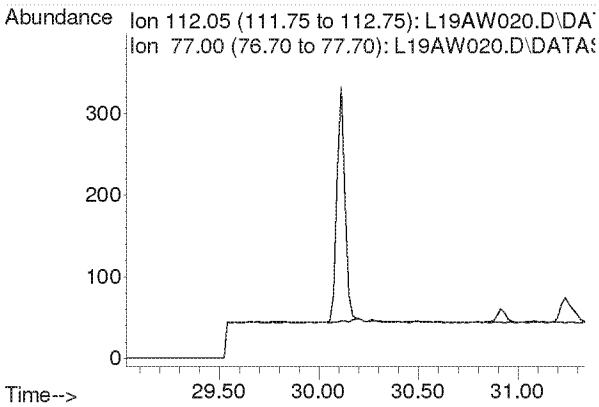


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

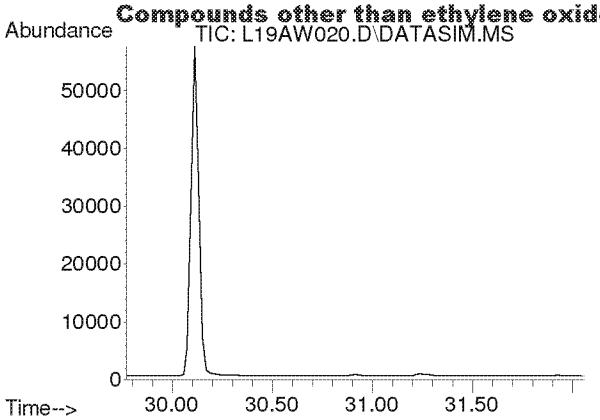
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

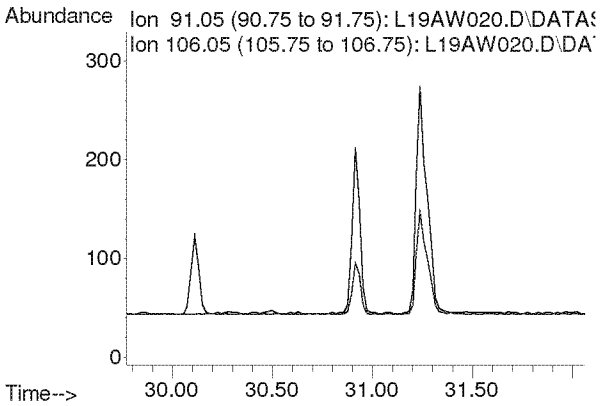


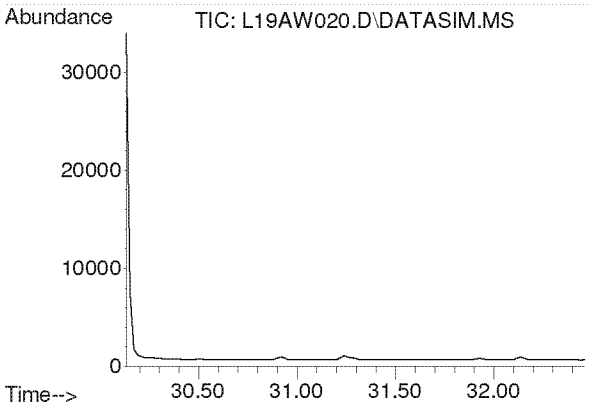
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



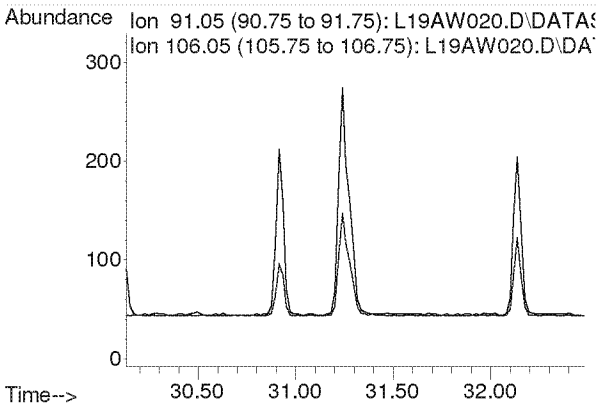


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

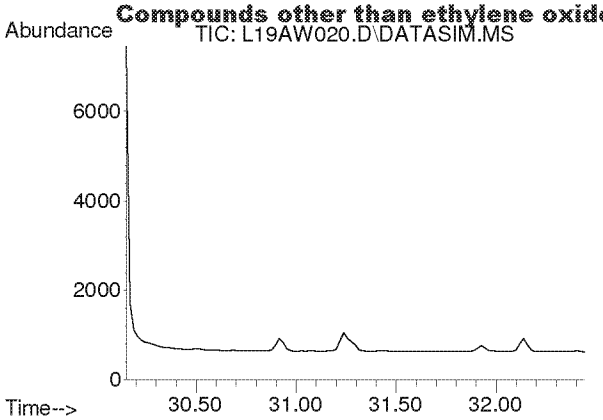
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

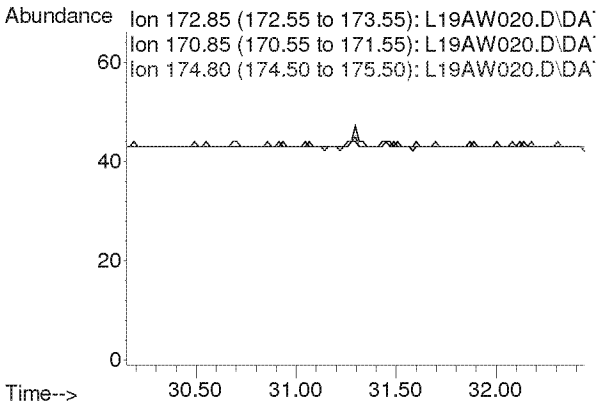


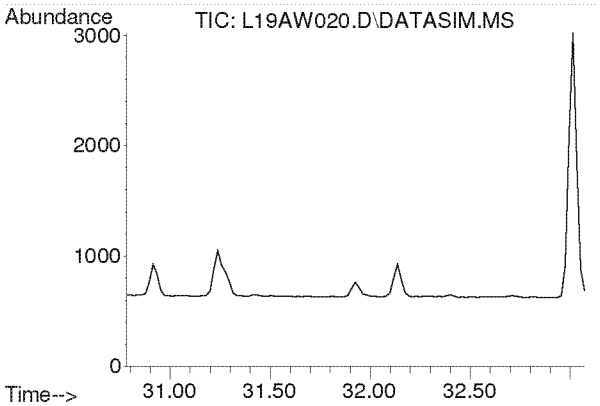
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



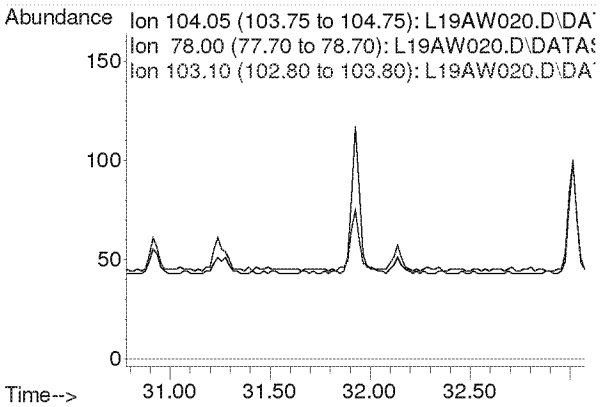


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

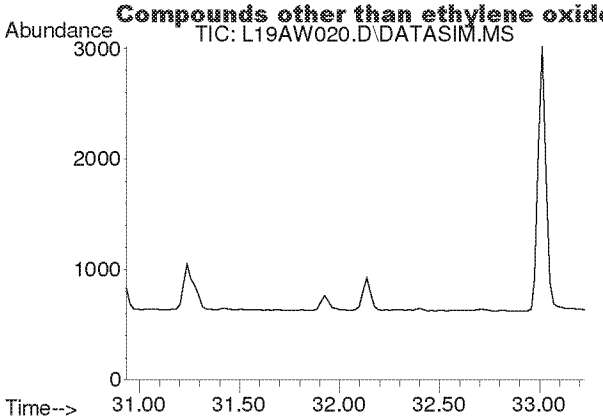
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

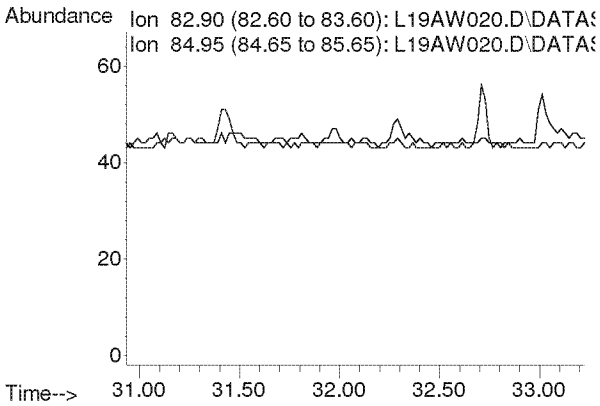


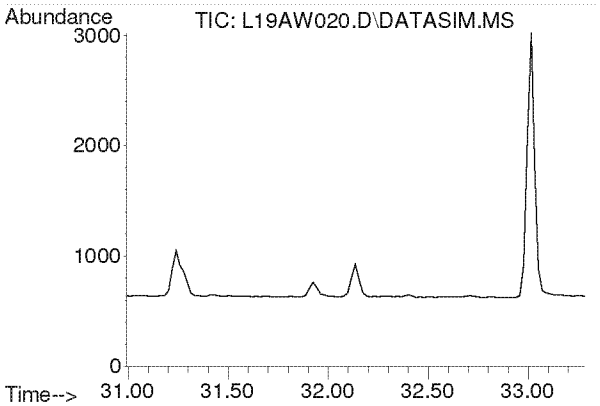
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



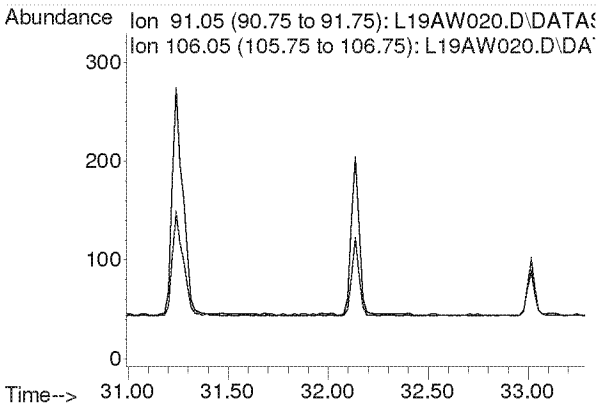


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

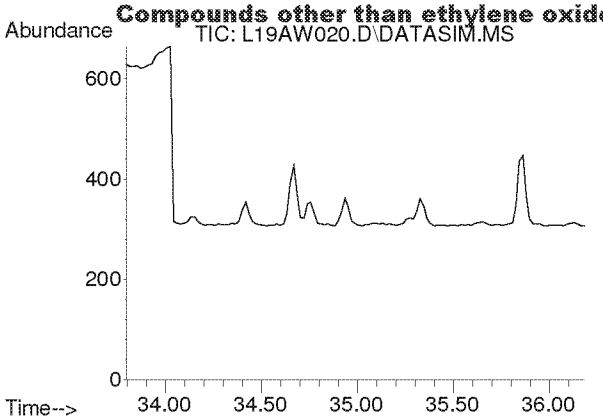
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

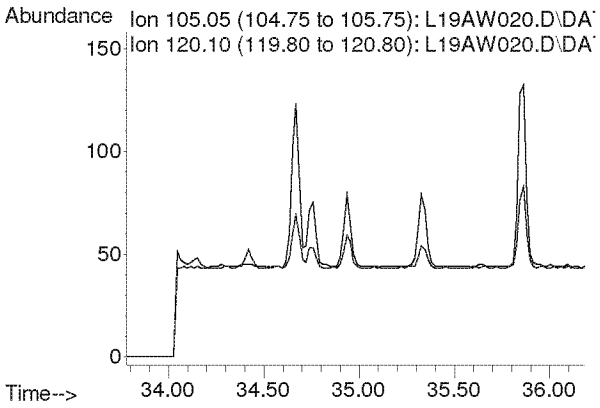


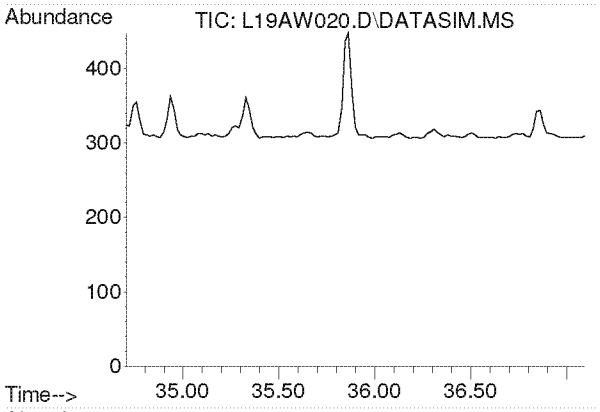
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



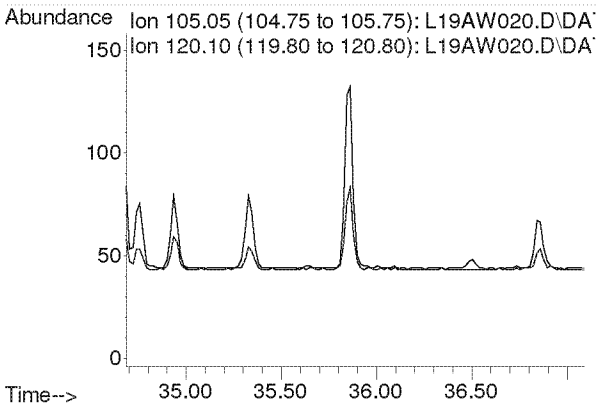


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

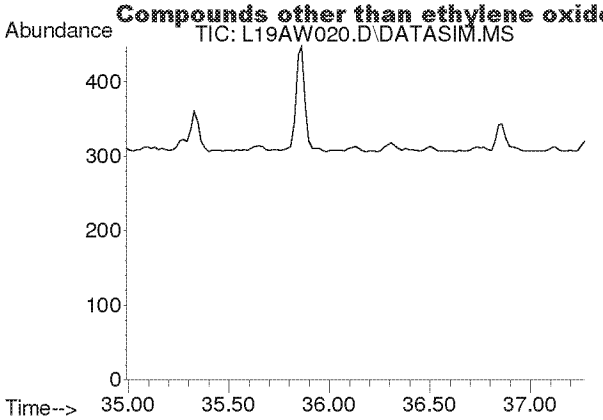
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

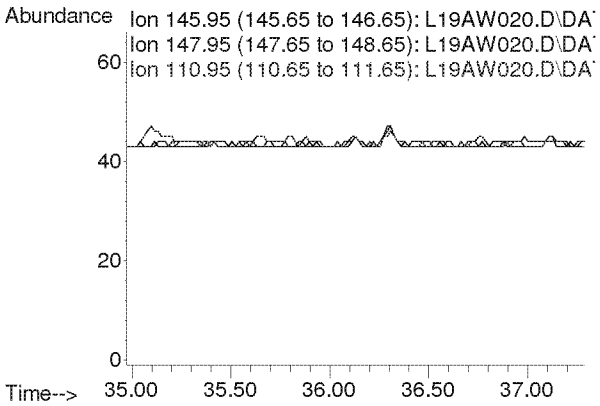


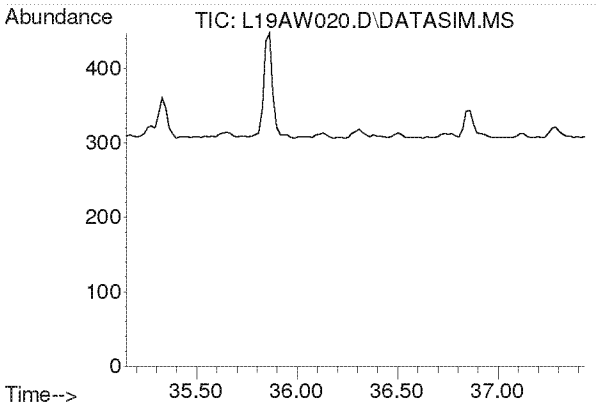
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



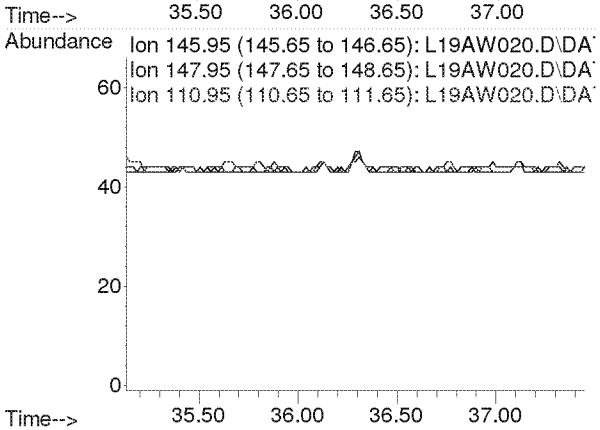


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

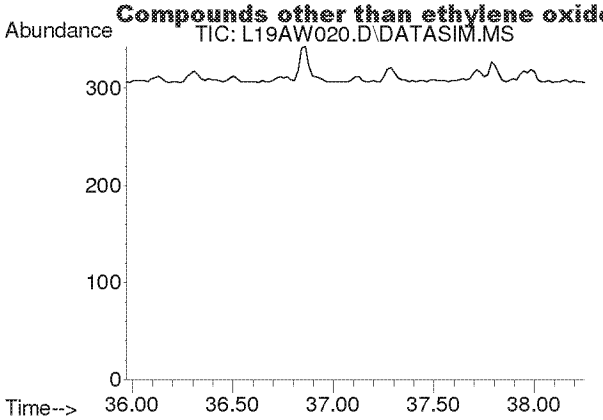
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

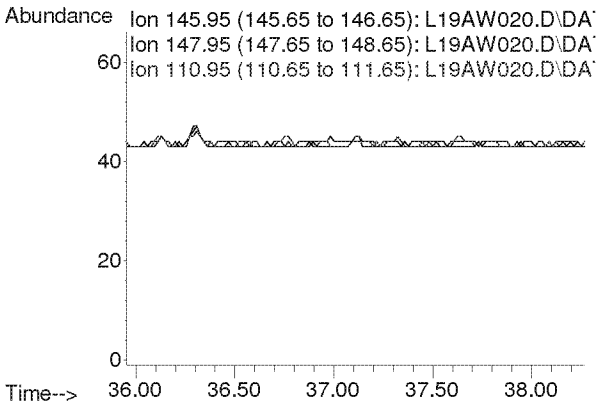


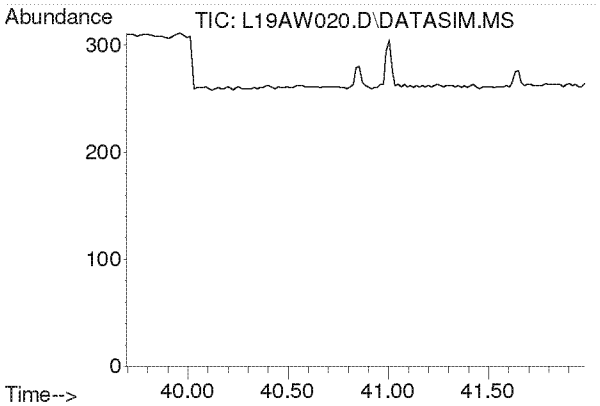
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



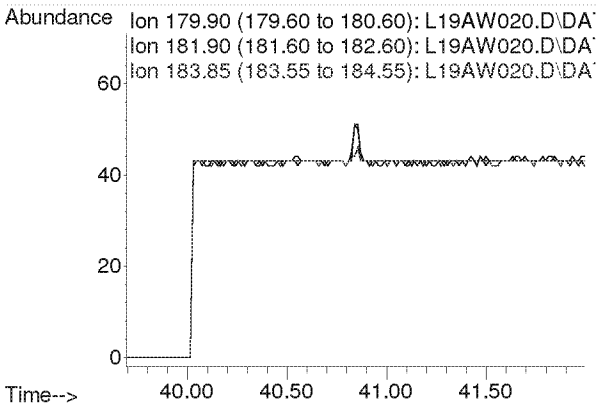


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

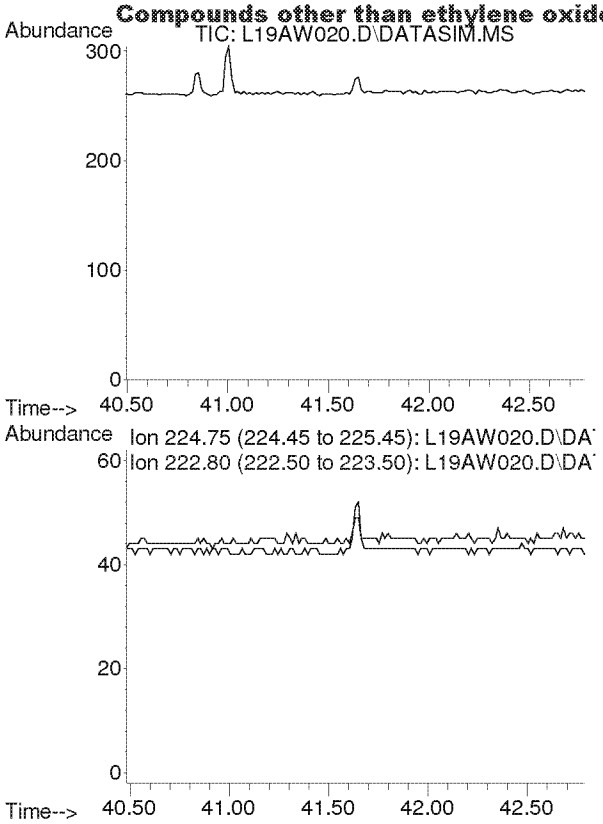
Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AW020.D
Acq: 24 Jan 2019 4:49 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		L19AW021.D	L19AW022.D		
Analyst		MAH	MAH		
Method		9010002.M	9010002.M		
Sample ID		9012221-08	9012221-09		
Mics Comments		WB VILLAGE HALL	WB VILLAGE HALL C2 1/18/19		
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	0.286	0.327	13.38	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	

RMB 2/5/19

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_2019_NATTS\ETOX_2019\WB VILLAGE HALL 1_18_19.xlsx
DUPTEST 2017 TEMPLATE 012517

Compounds other than ethylene oxide were not quantitated.

Duplicate Comparison Check

Comparison of Replicate Analyses

		D1	R1		
File ID		L19AW021.D	L19AW023.D		
Analyst		MAH	MAH		
Method		9010002.M	9010002.M		
Sample ID		9012221-08	BSA2306-DUP1		
Mics Comments		WB VILLAGE H	WB VILLAGE HALL R1 1/18/19		
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	0.286	0.248	15.04	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		L19AW022.D	L19AW024.D		
Analyst		MAH	MAH		
Method		9010002.M	9010002.M		
Sample ID		9012221-09	BSA2306-DUP2		
Mics Comments		WB VILLAGE H	WB VILLAGE HALL R2 1/18/19		
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	0.327	0.321	1.85	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\L19AW\
Data File : L19AW021.D
Acq On : 24 Jan 2019 5:51 am
Operator : MAH
Sample : 9012221-08
Misc : WB VILLAGE HALL C1 1/18/19
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jan 29 08:37:29 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	52940	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.150	114	128782	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.115	117	99227	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	12.425	29	783m 1249	0.2864 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.	
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\L19AW\
Data File : L19AW021.D
Acq On : 24 Jan 2019 5:51 am
Operator : MAH
Sample : 9012221-08
Misc : WB VILLAGE HALL C1 1/18/19
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jan 29 08:37:29 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
Last Update : Tue Jan 08 07:11:21 2019
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.	

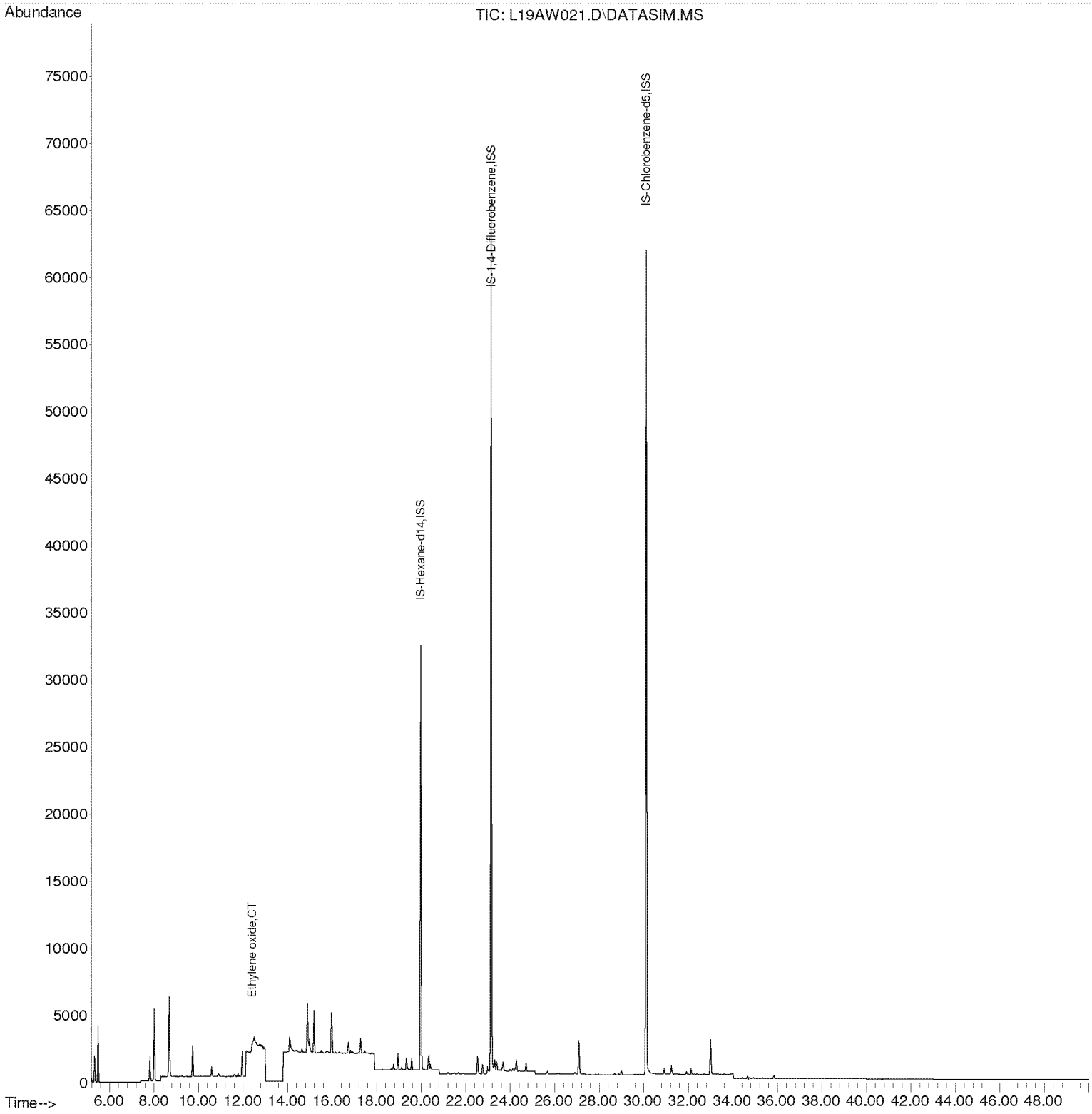
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000318-00582

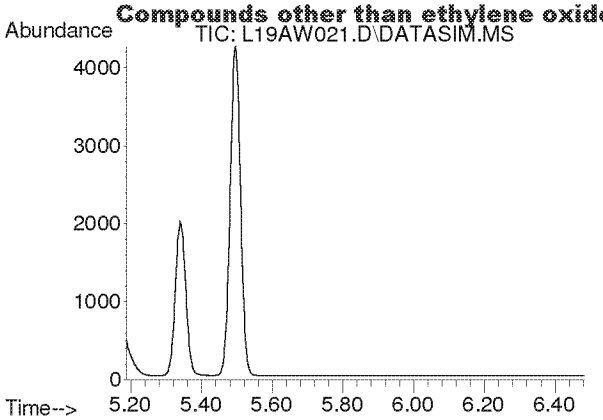
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW021.D
Acq On : 24 Jan 2019 5:51 am
Operator : MAH
Sample : 9012221-08
Misc : WB VILLAGE HALL C1 1/18/19
ALS Vial : 21 Sample Multiplier: 1

Quant Time: Jan 29 08:12:55 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



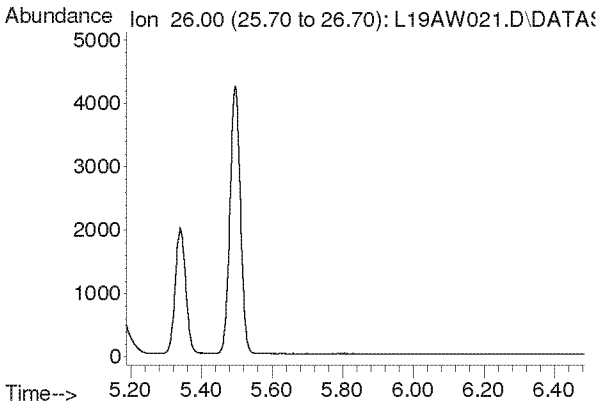
Compounds other than ethylene oxide were not quantitated.

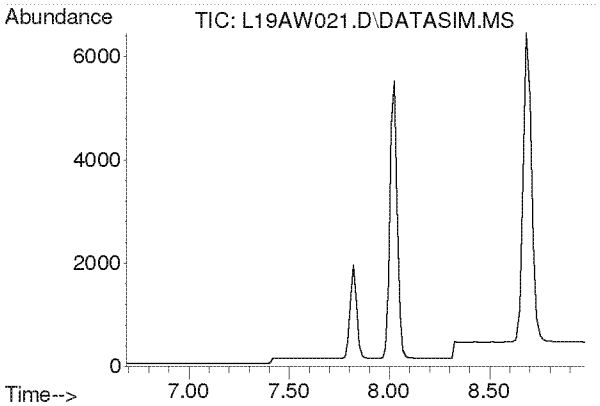


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 26



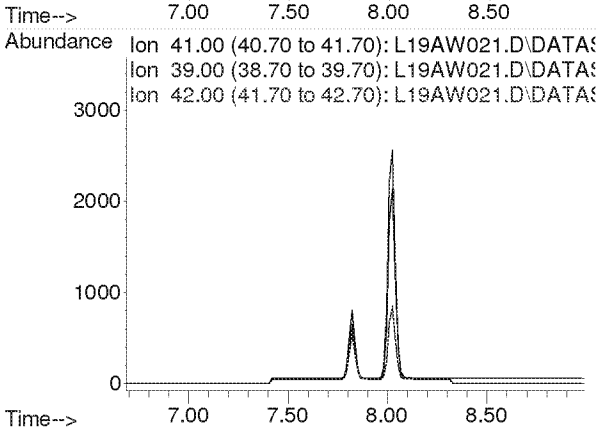


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

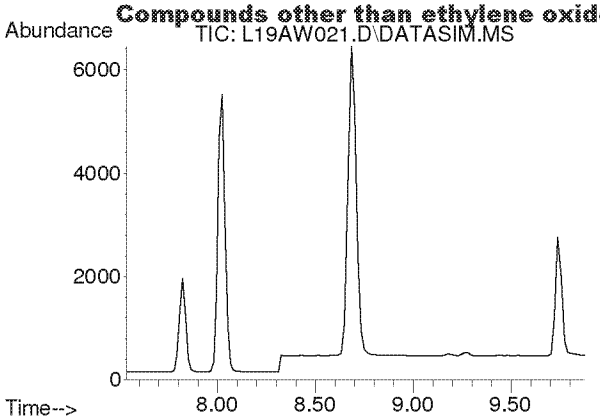
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

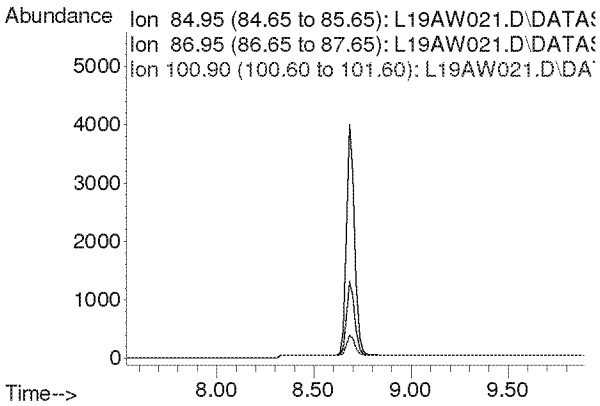


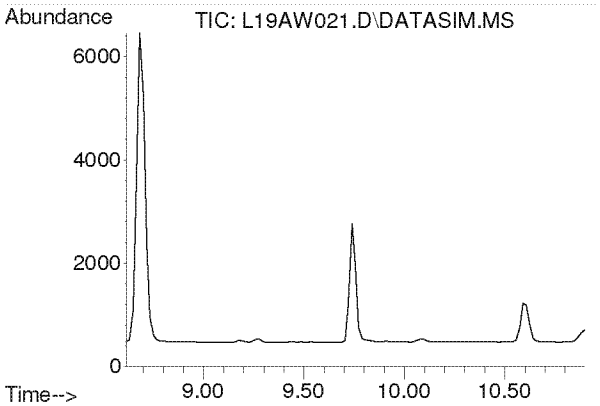
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



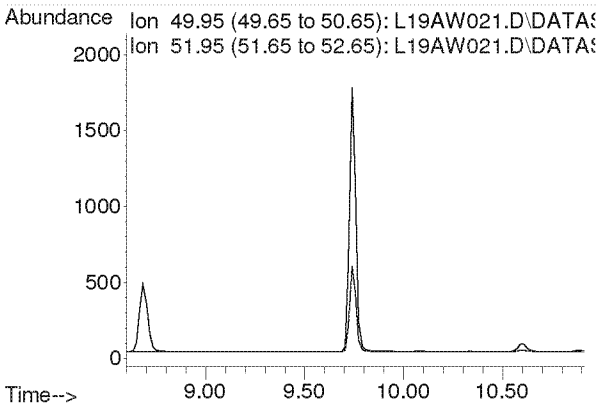


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

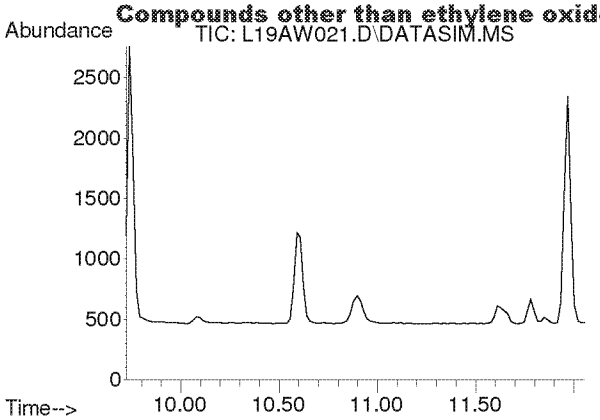
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

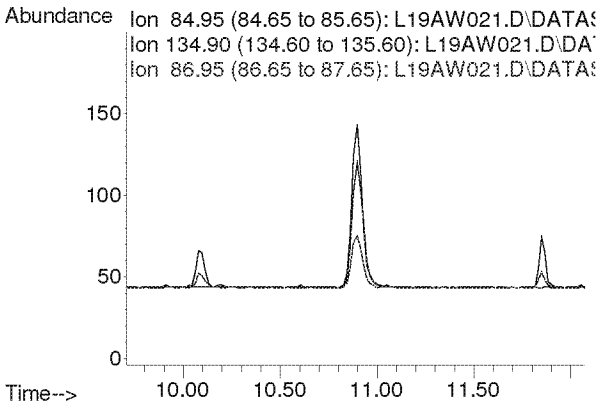


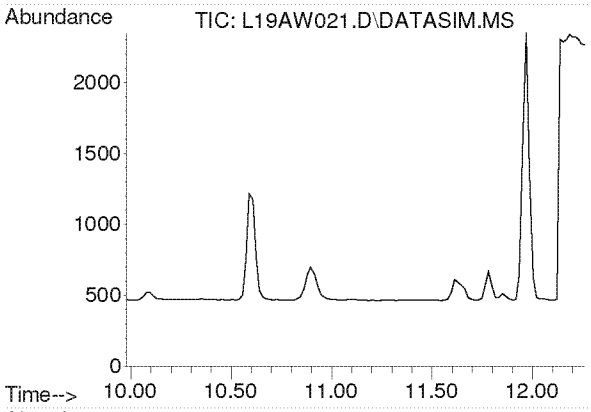
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



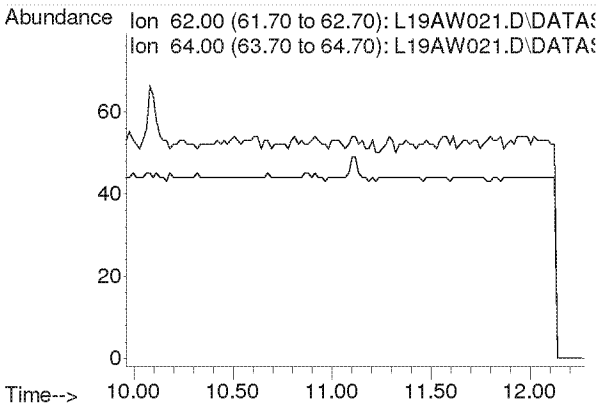


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

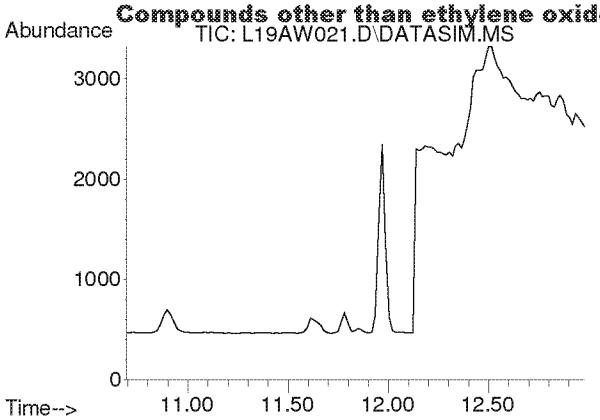
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

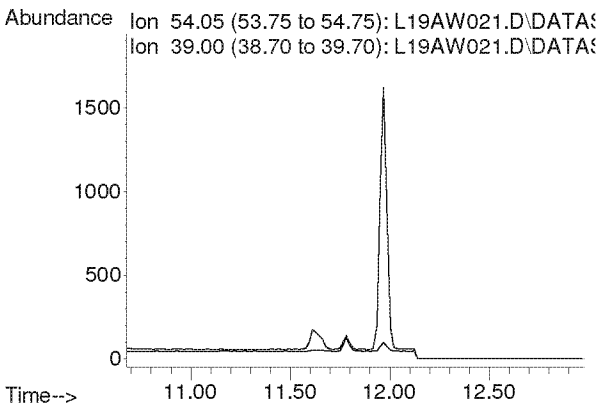


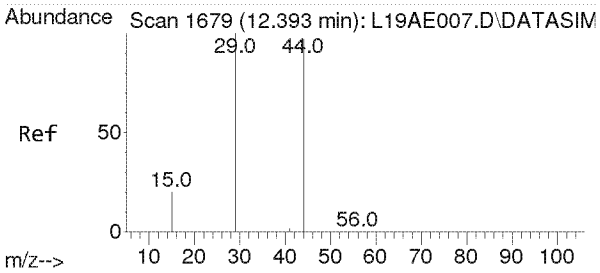
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

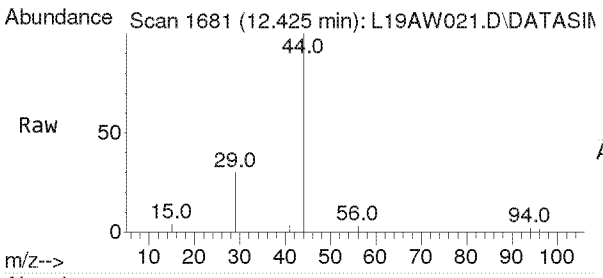


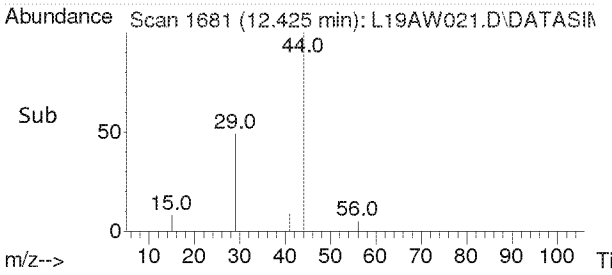


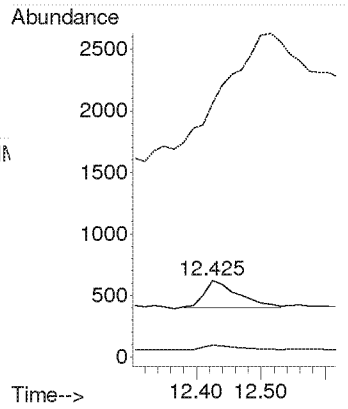
#9
Ethylene oxide
Concen: 0.286 ppbv m
RT: 12.425 min Scan# 1681
Delta R.T. 0.032 min
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 29 Resp: 783

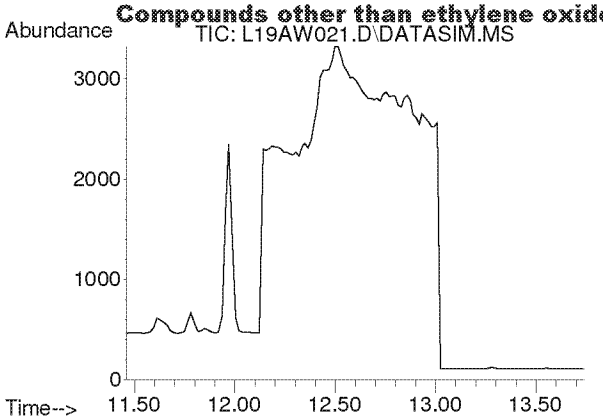
Ion	Ratio	Lower	Upper
29	100		
15	18.6	15.4	23.0
44	0.0	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

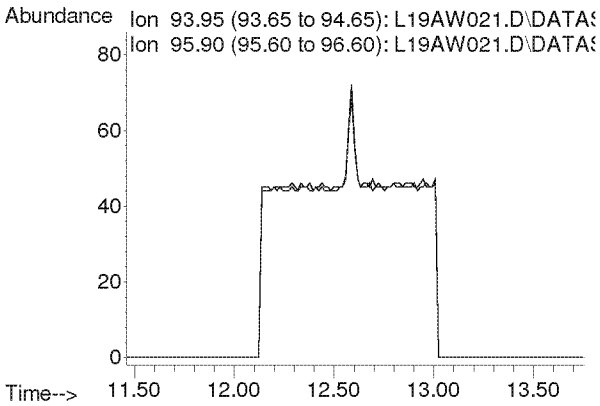


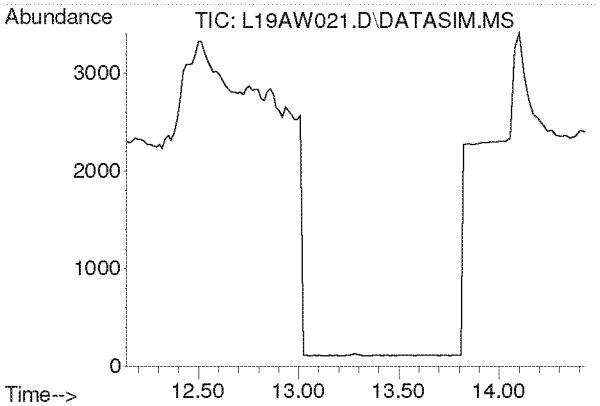
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



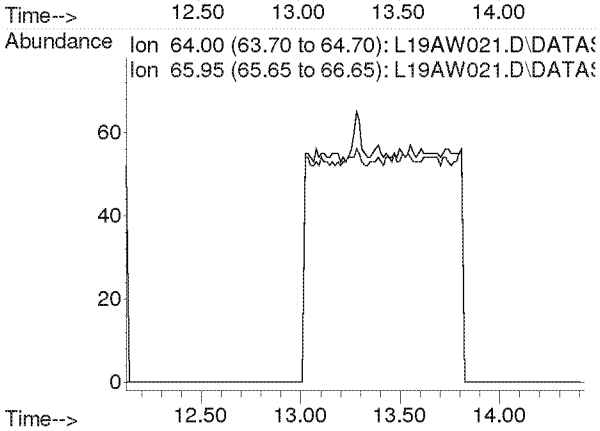


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

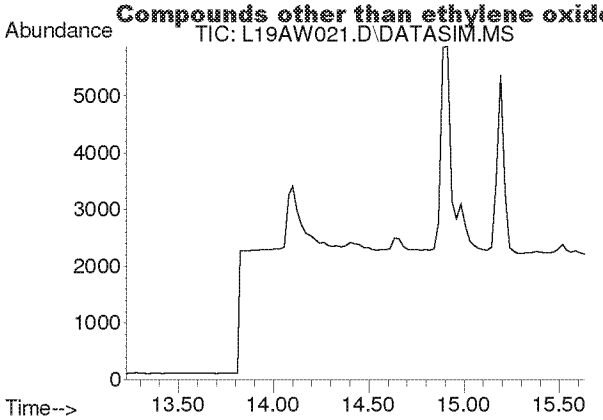
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

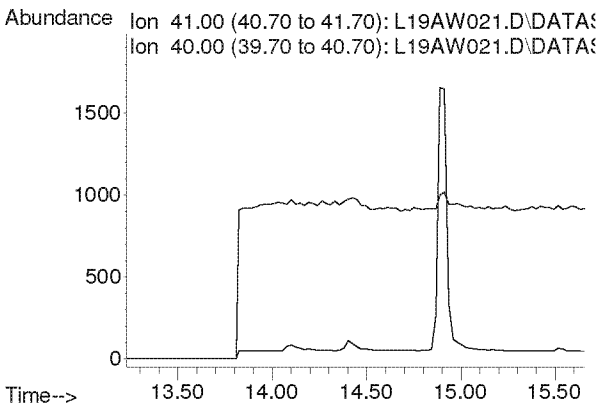


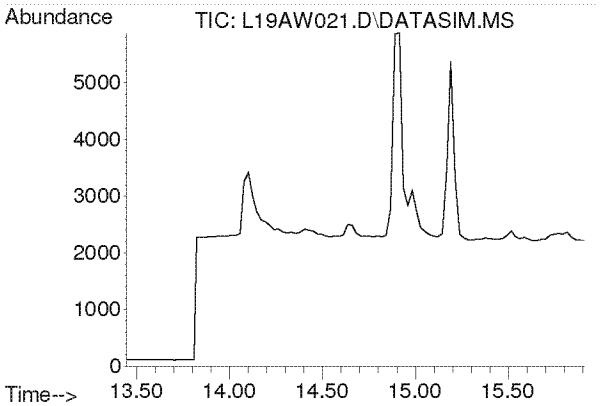
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



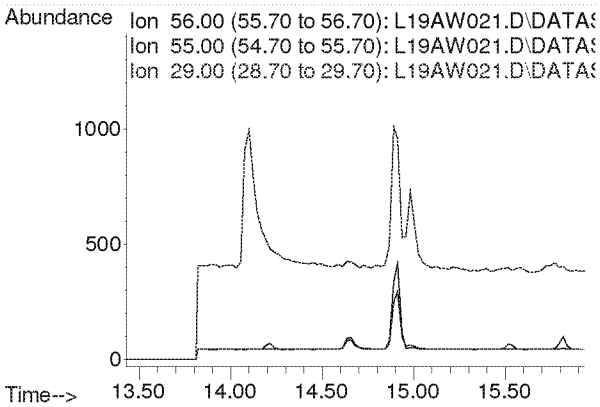


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

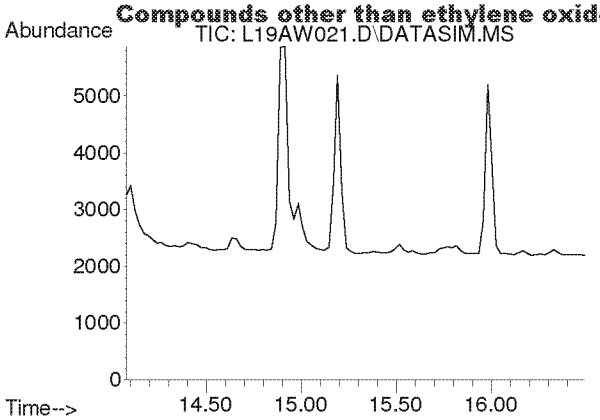
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

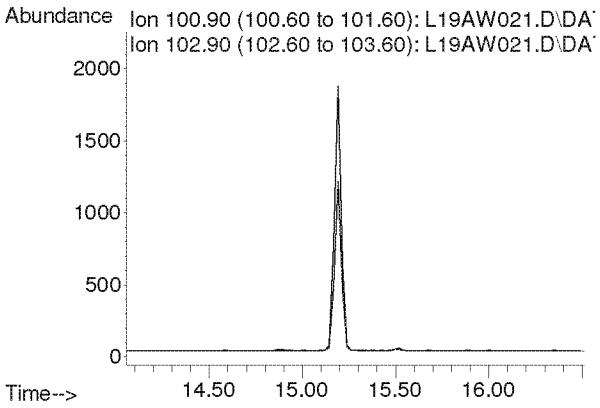


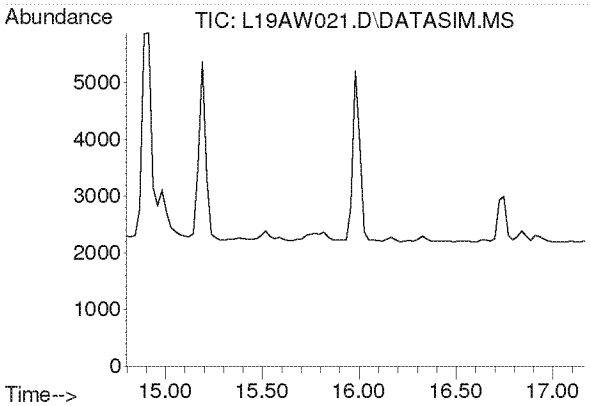
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



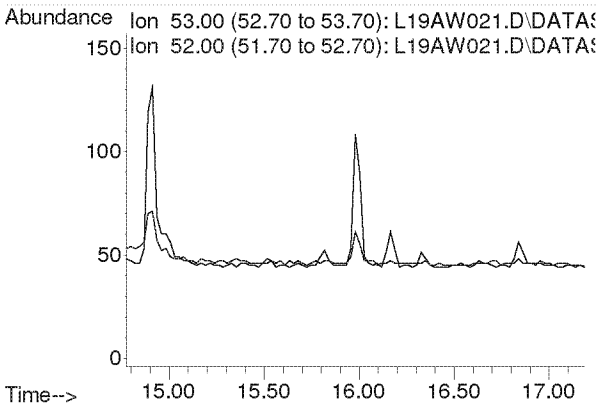


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

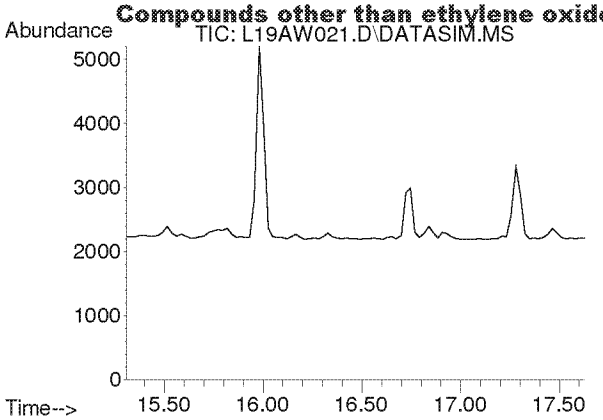
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

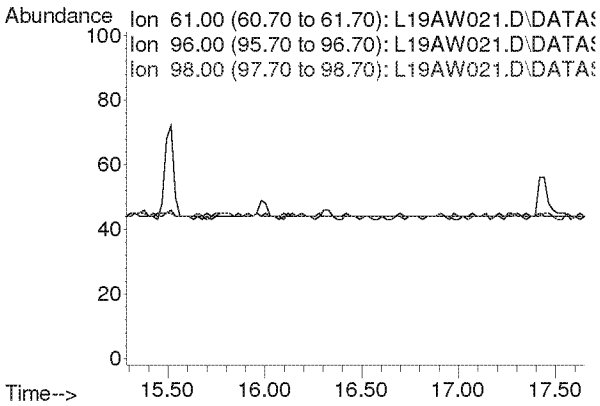


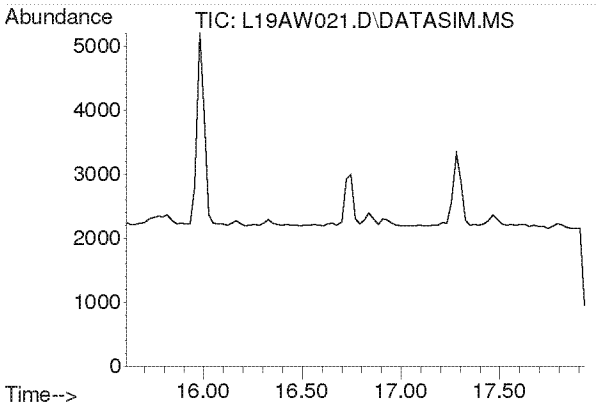
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



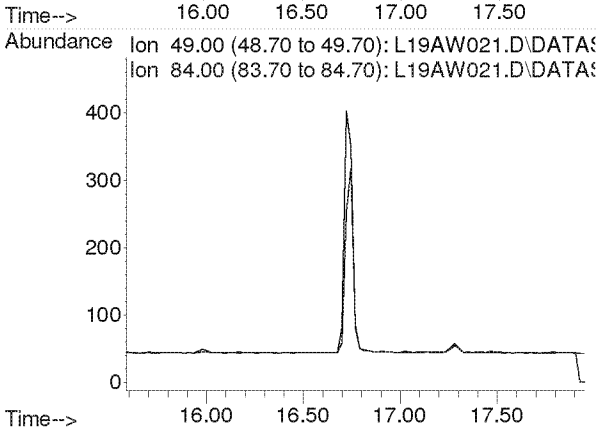


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

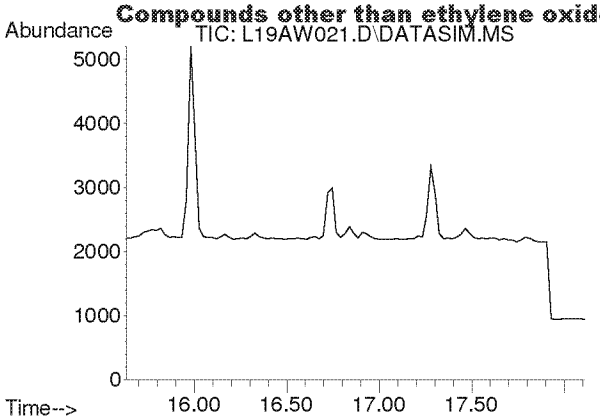
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

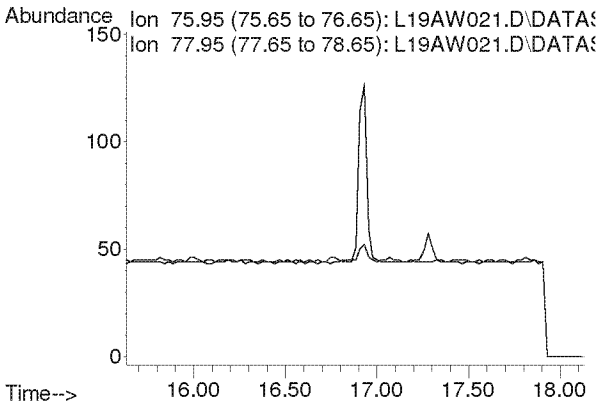


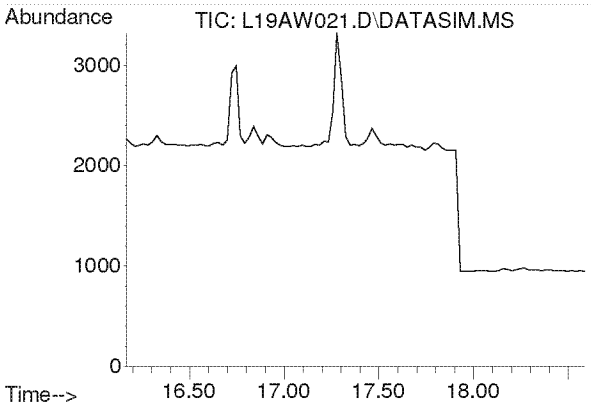
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



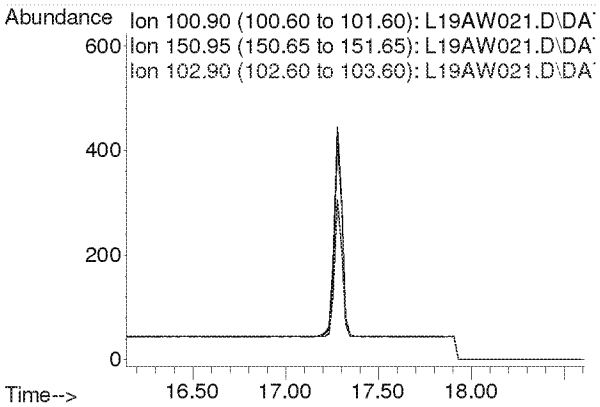


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

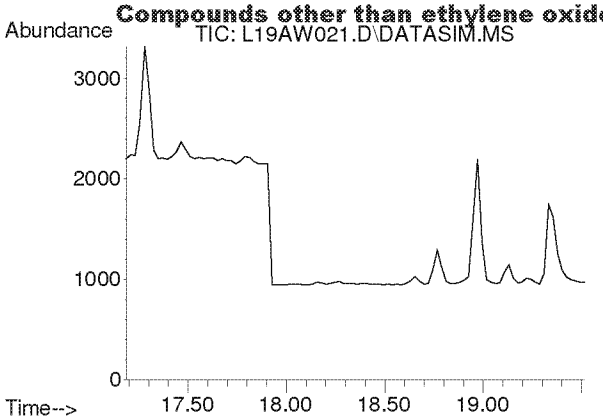
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

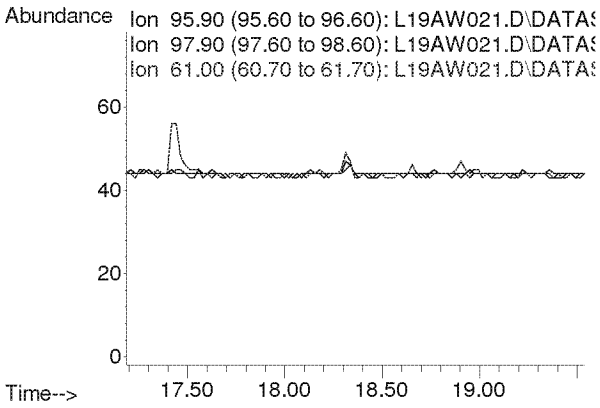


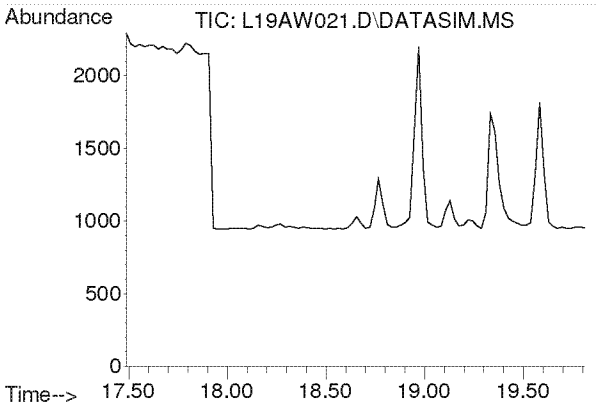
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



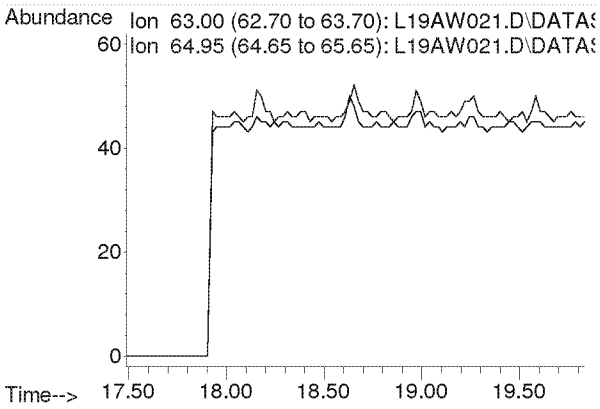


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

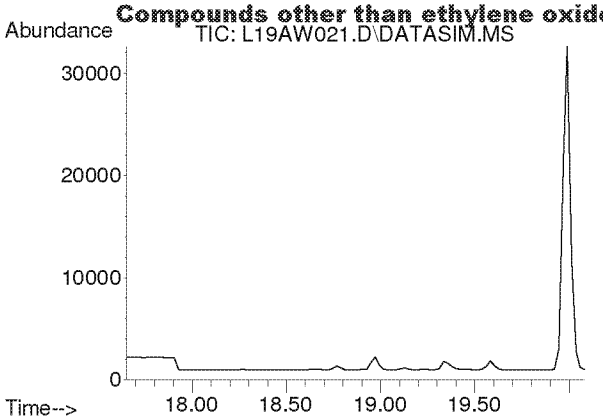
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

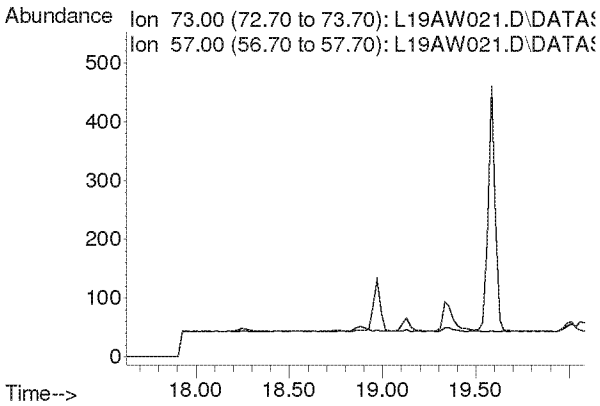


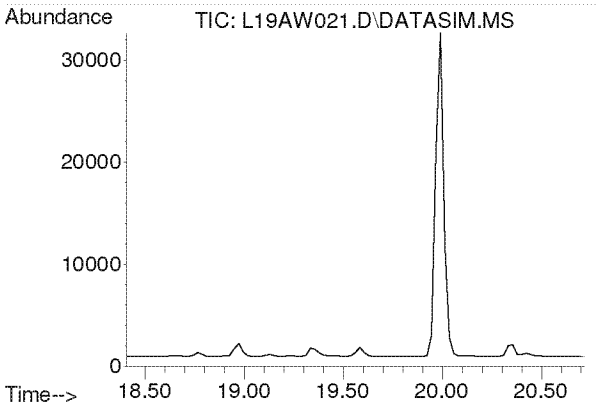
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



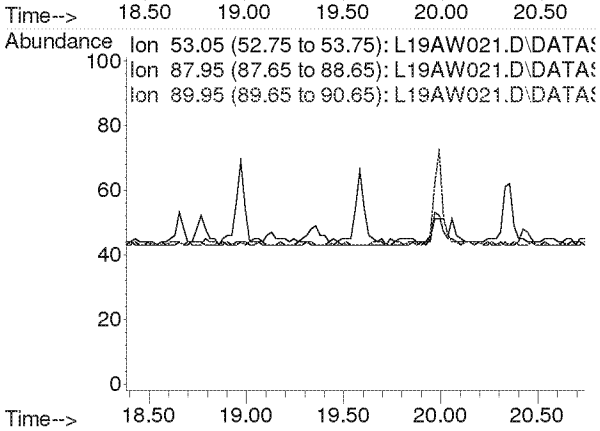


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

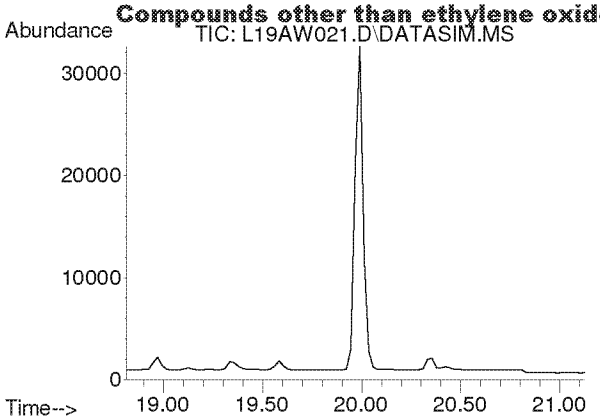
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

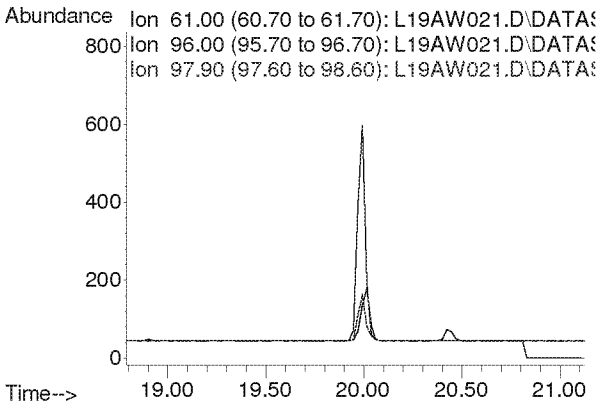


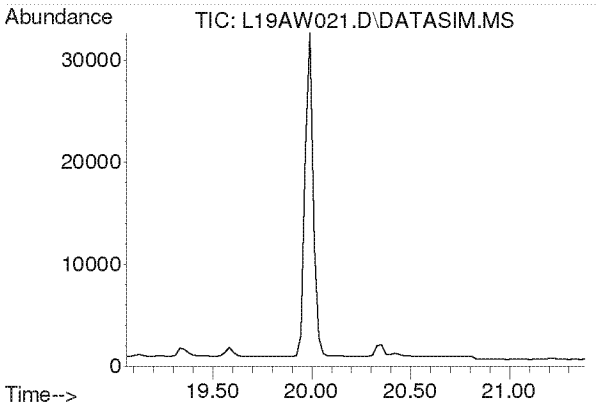
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



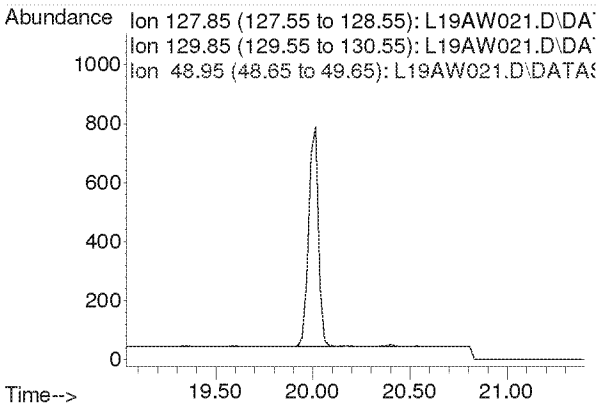


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

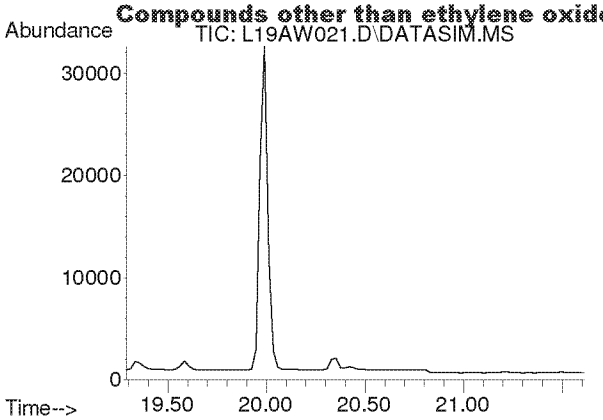
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

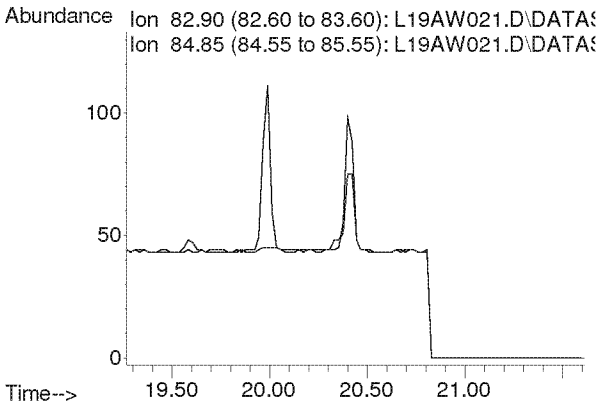


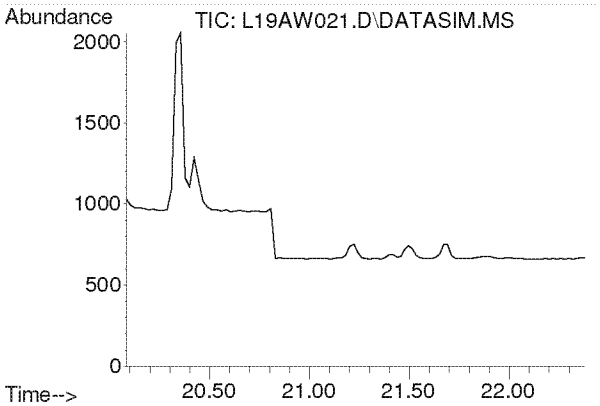
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



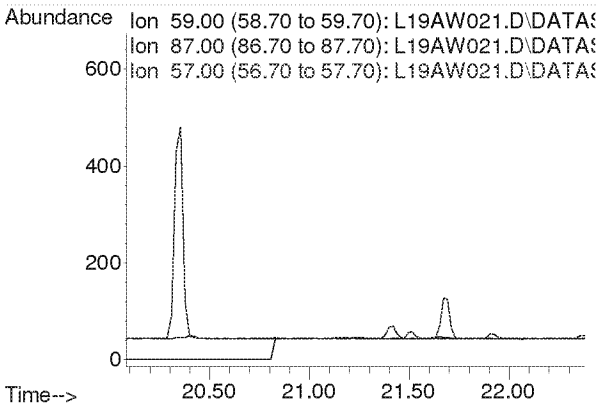


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

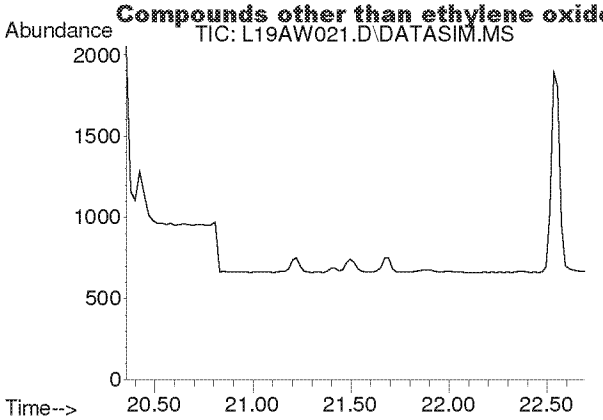
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

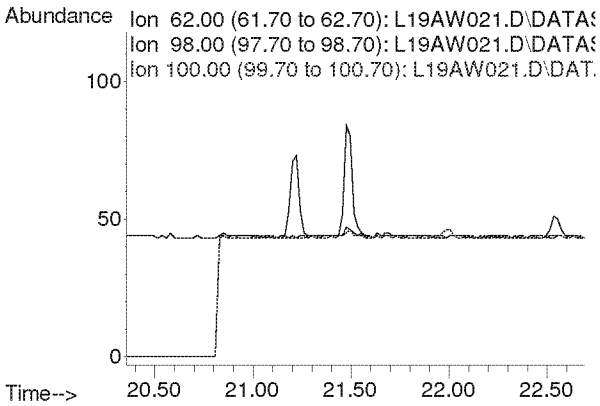


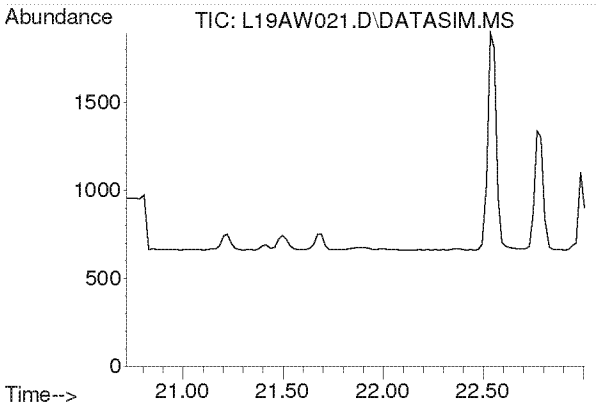
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



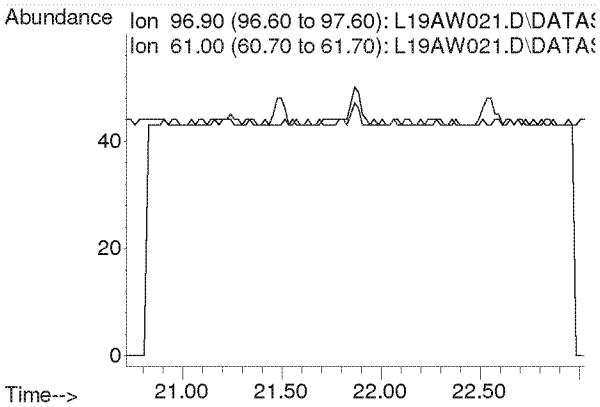


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

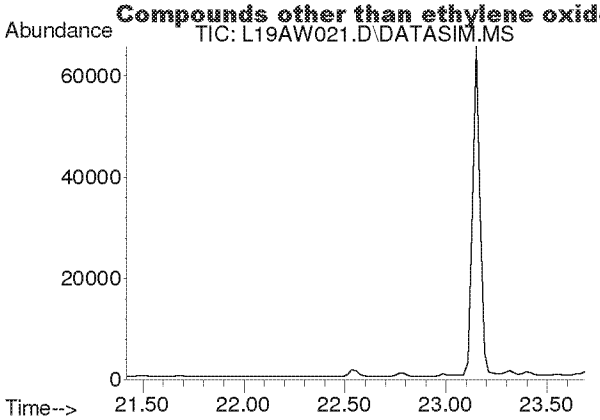
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

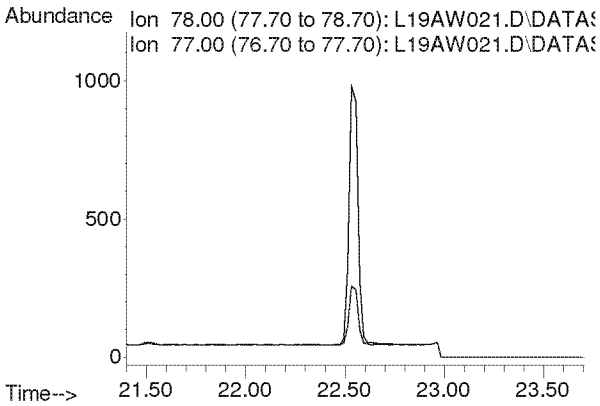


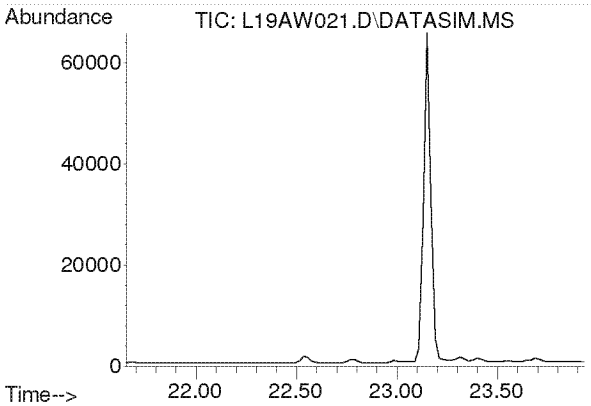
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



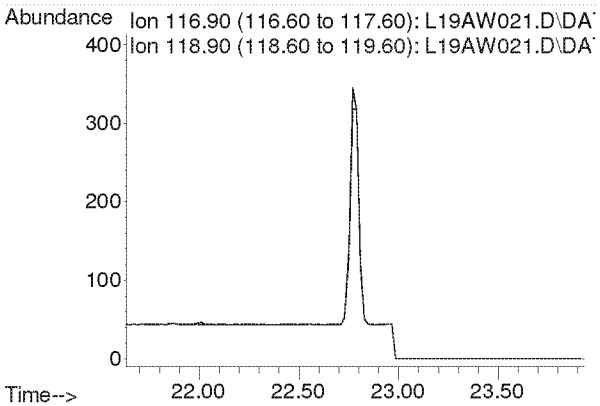


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

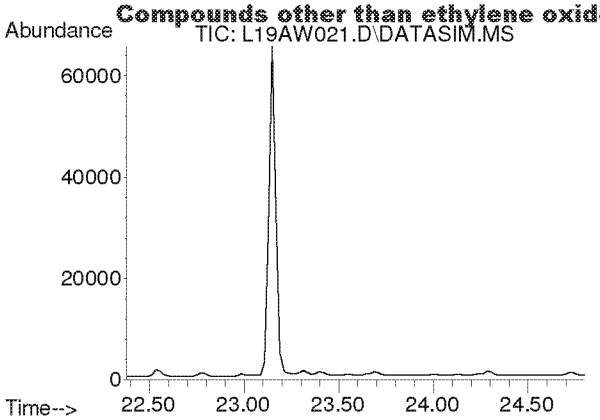
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

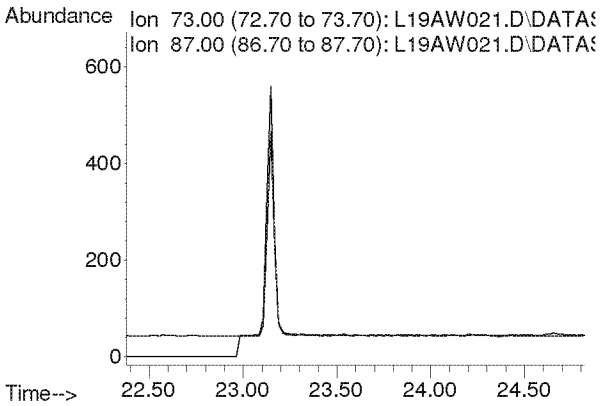


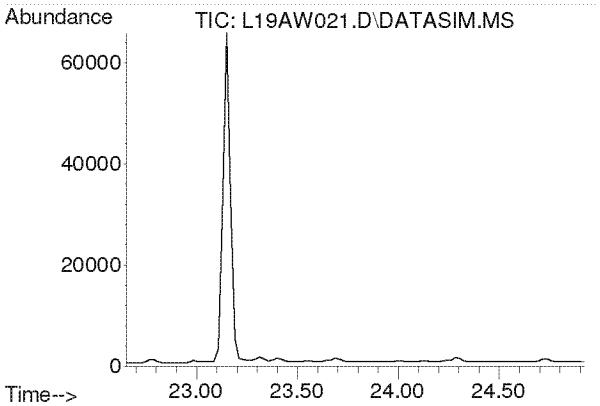
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



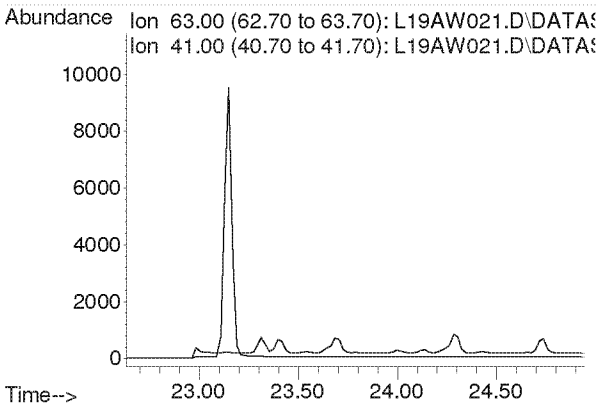


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

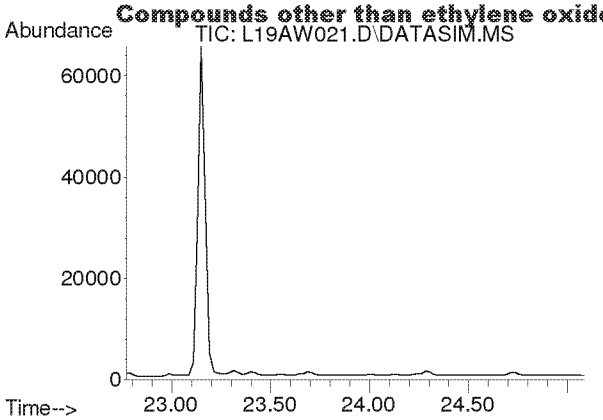
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

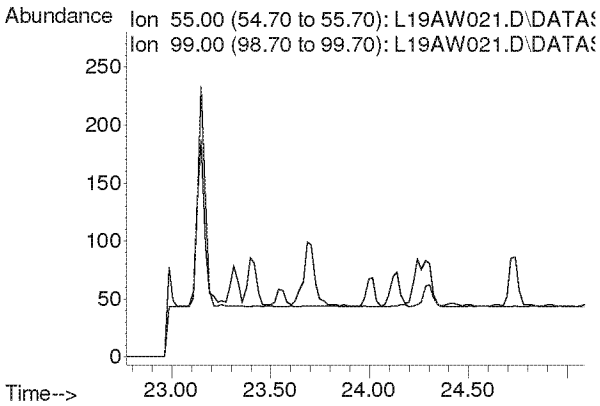


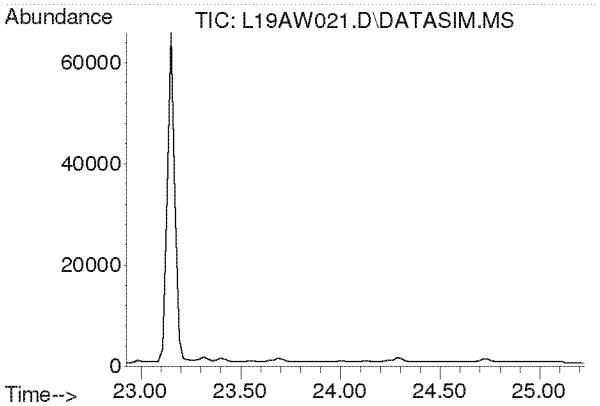
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



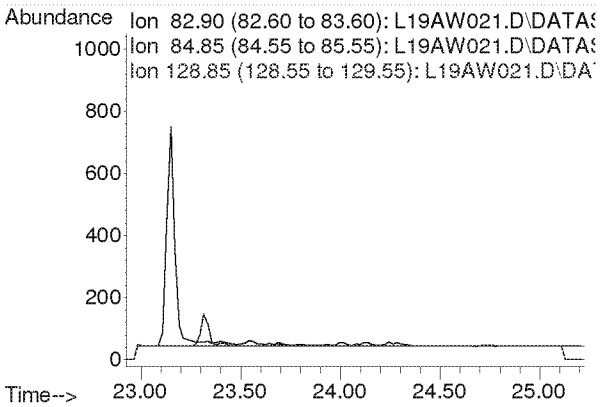


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

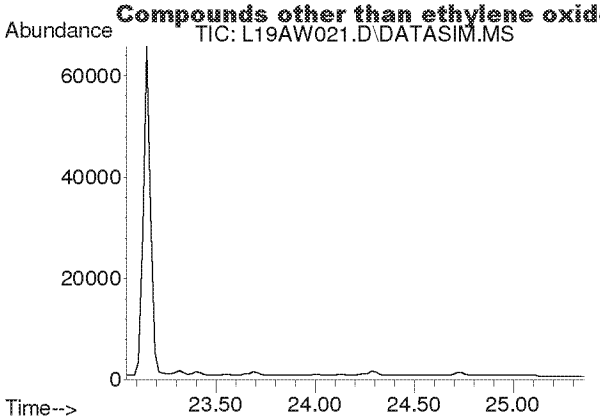
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

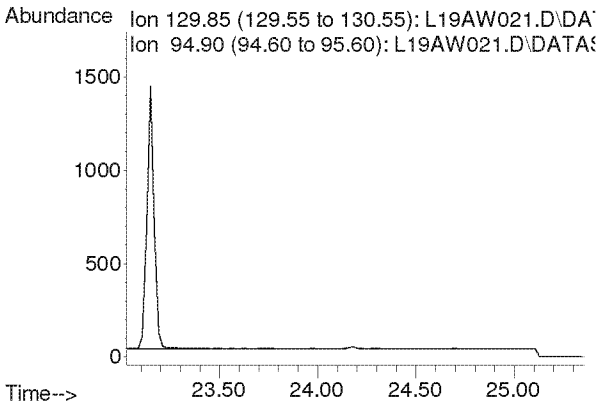


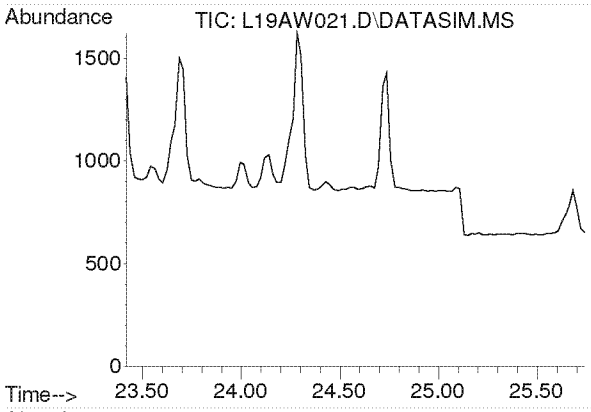
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



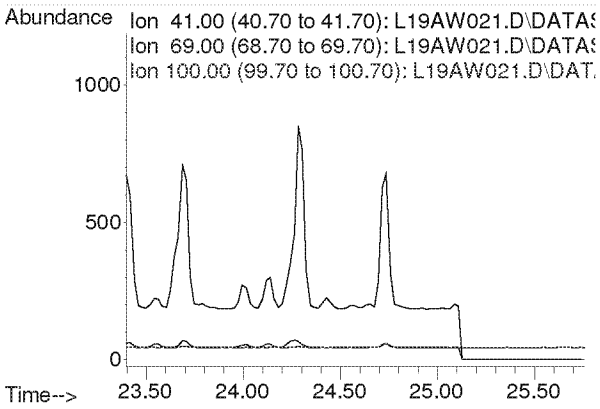


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

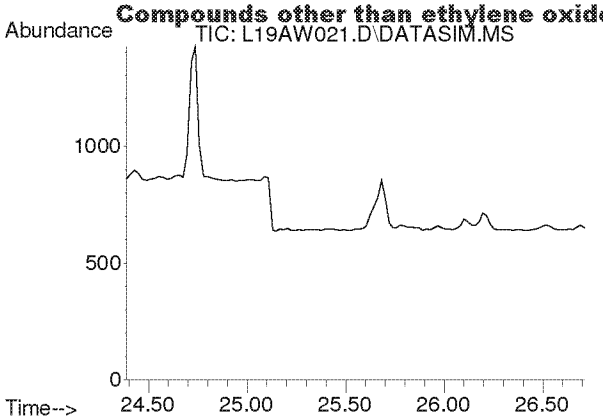
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

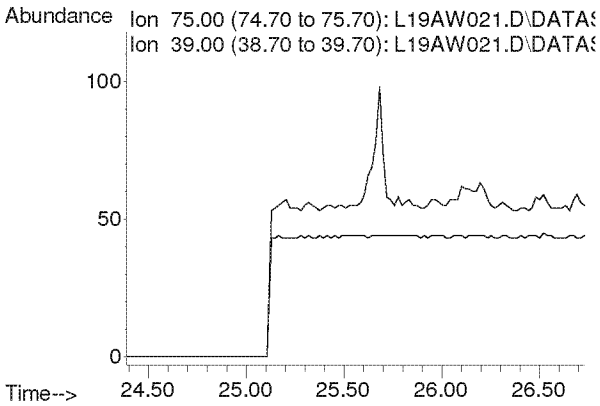


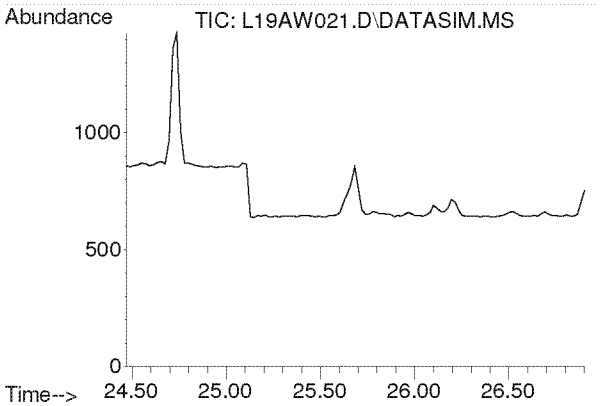
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



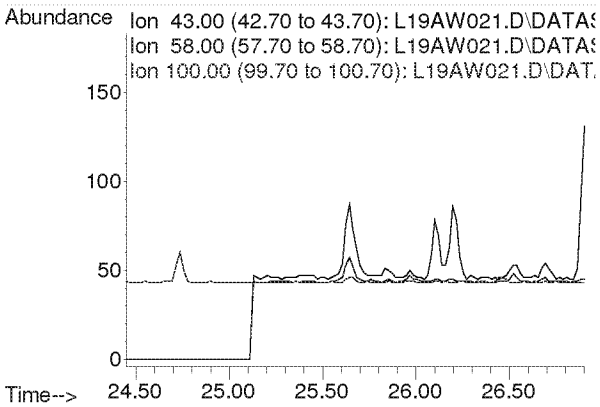


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

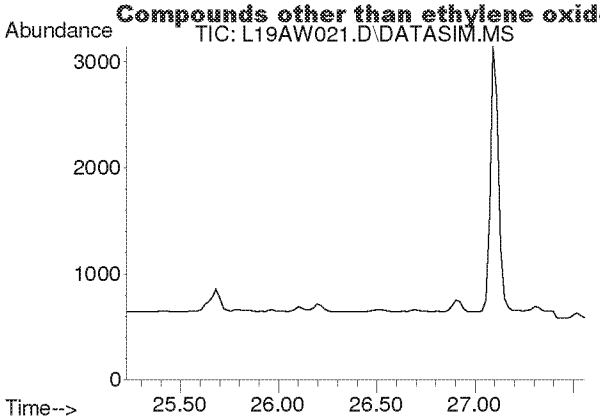
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

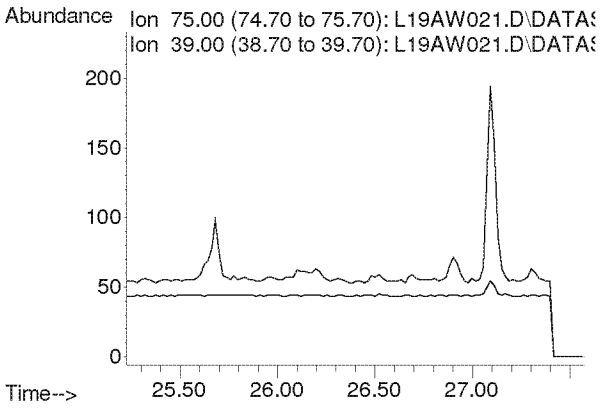


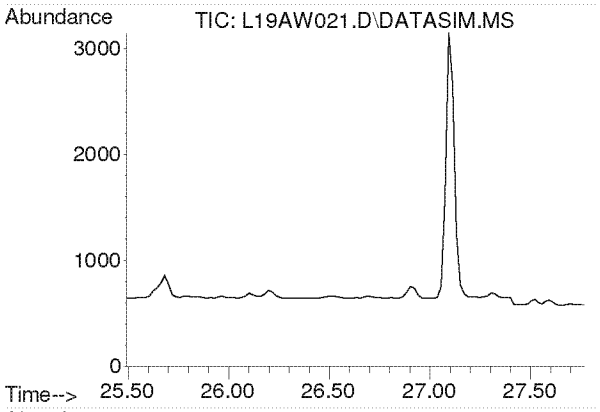
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



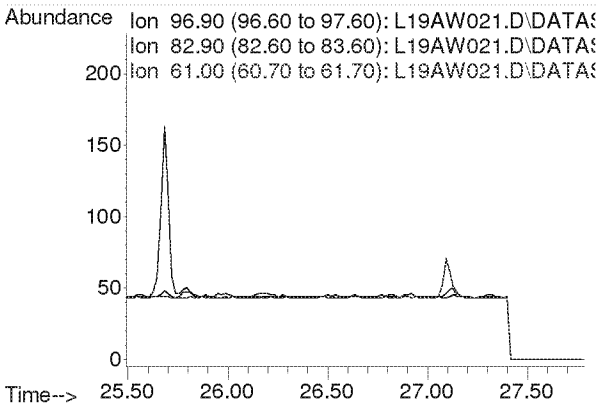


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

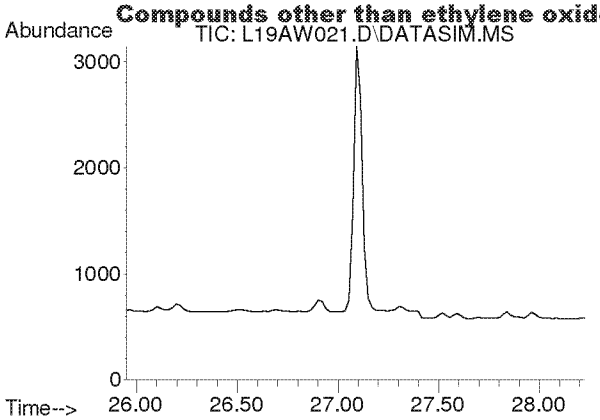
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

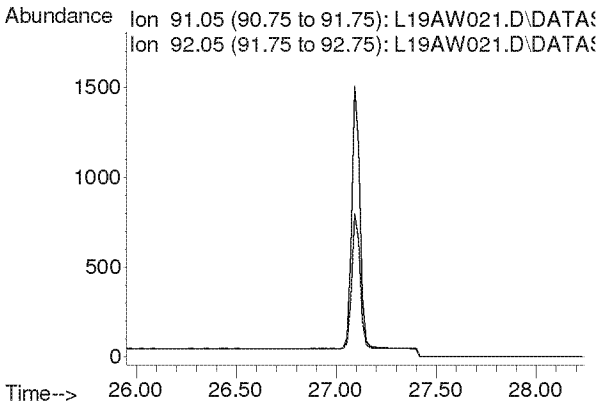


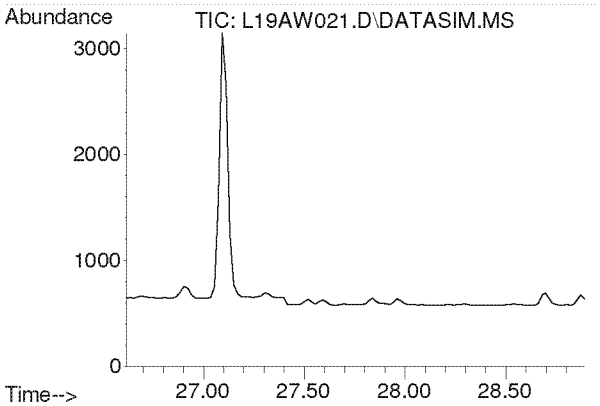
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



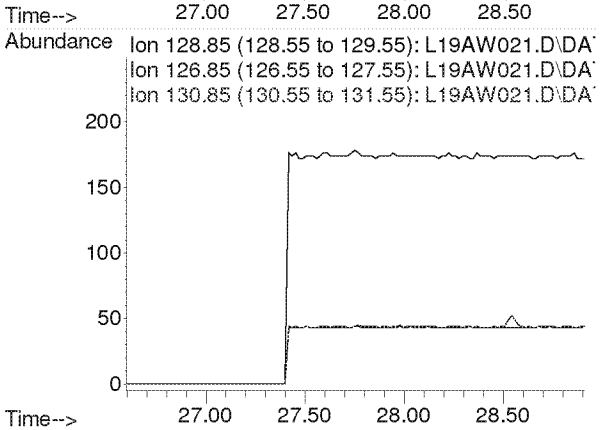


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

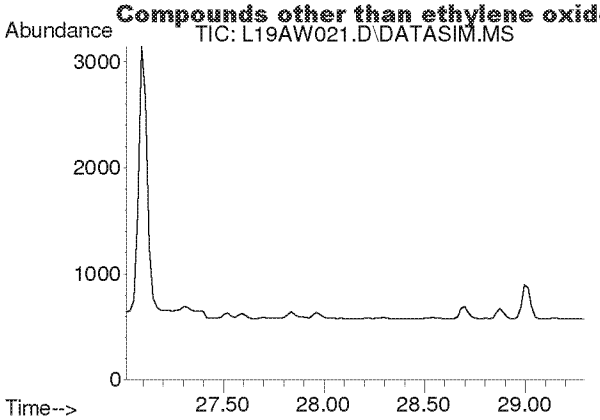
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

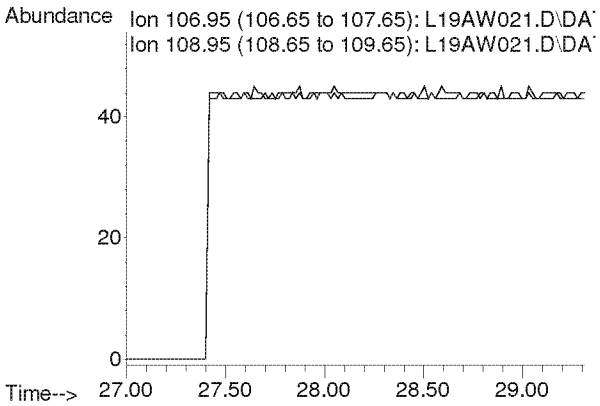


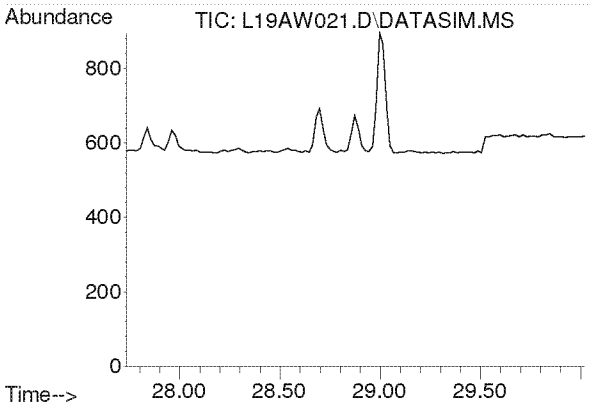
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



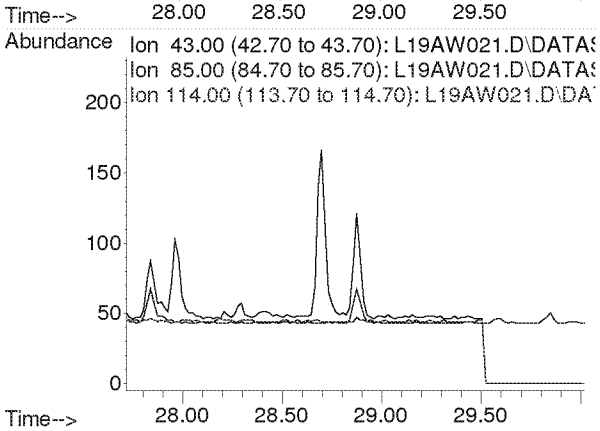


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

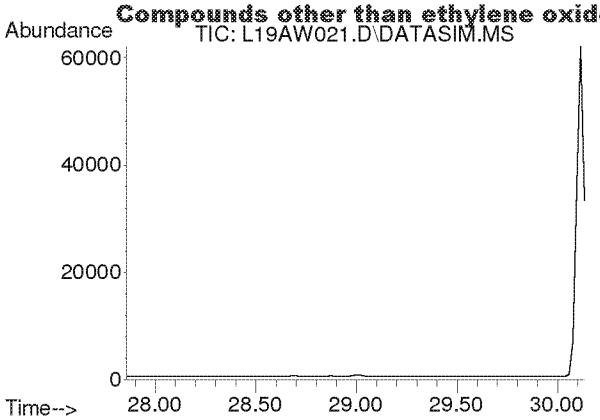
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

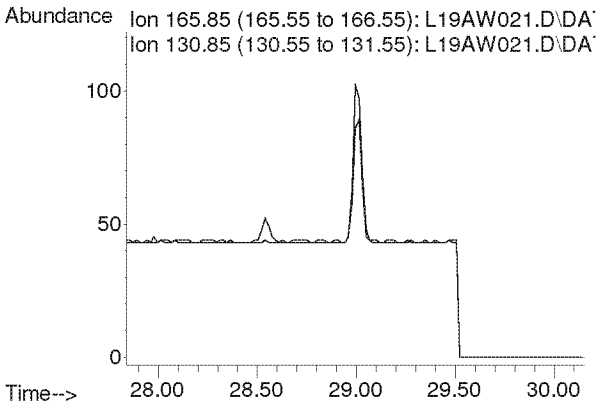


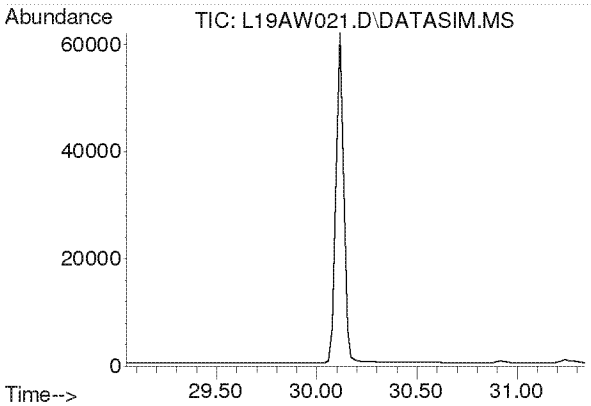
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



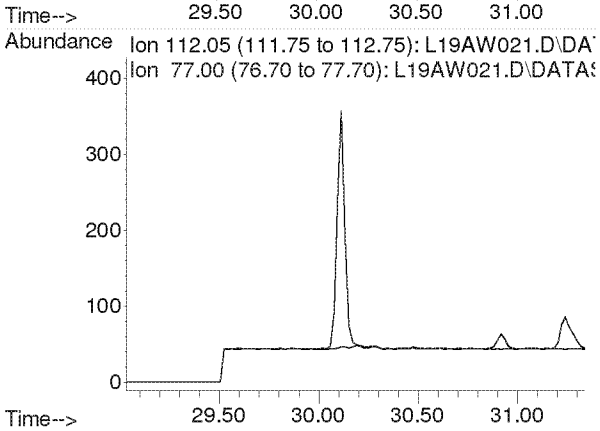


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

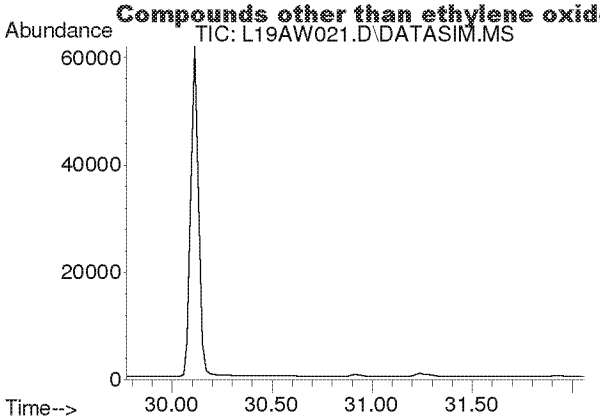
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

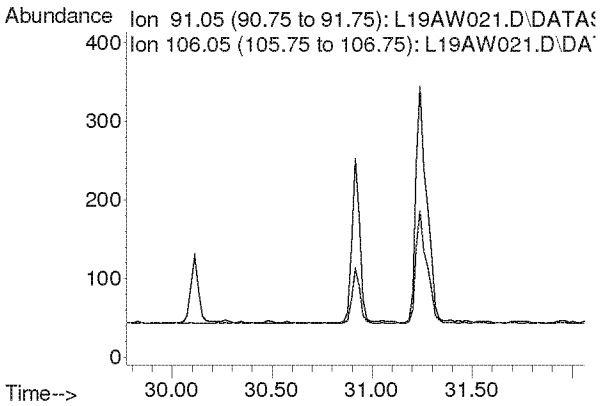


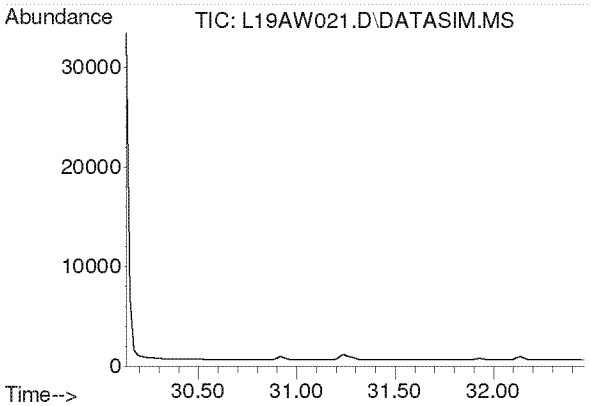
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



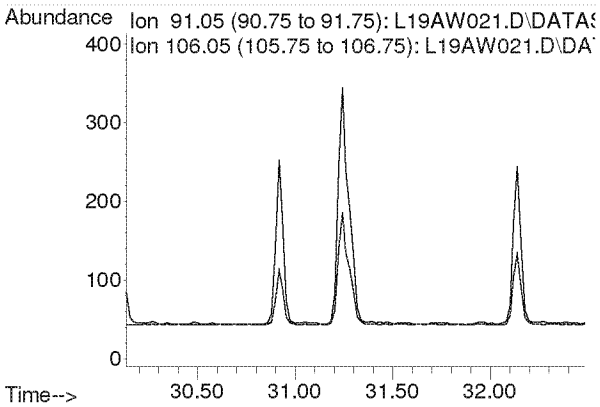


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

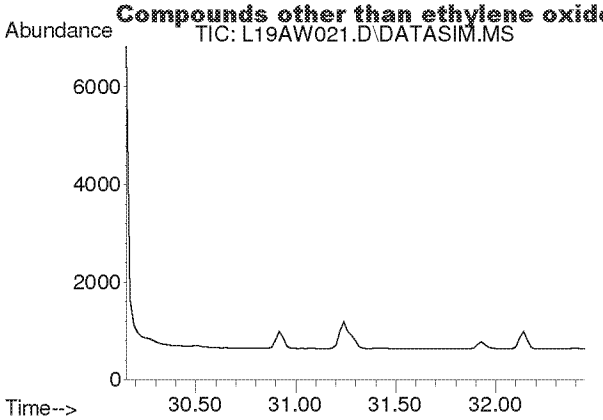
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

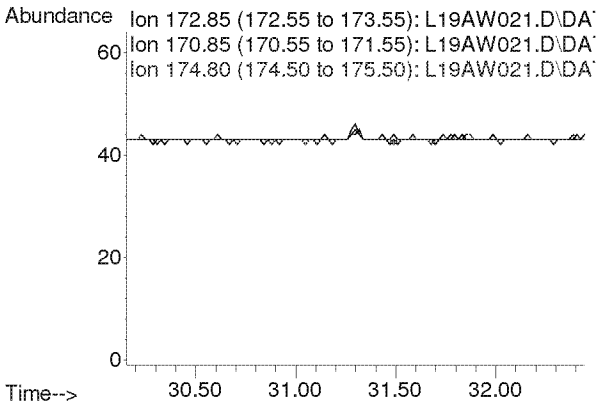


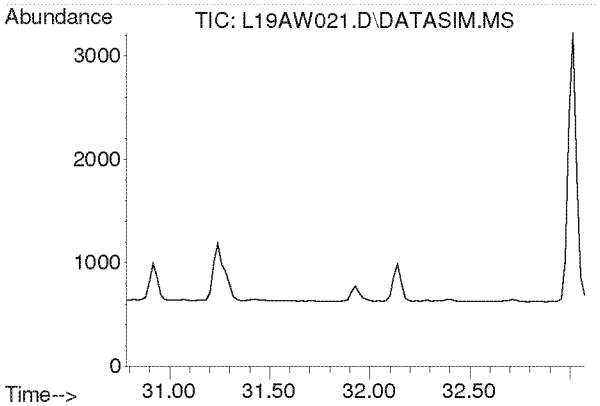
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



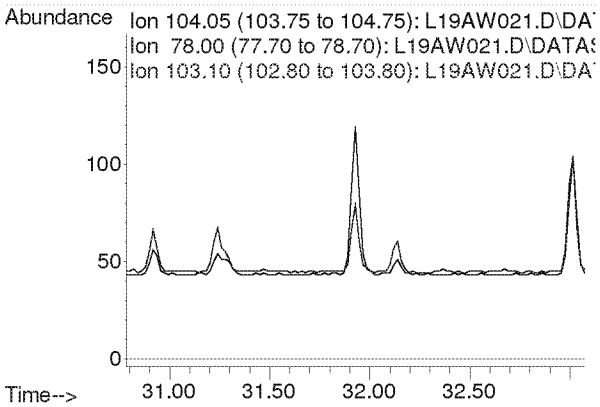


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

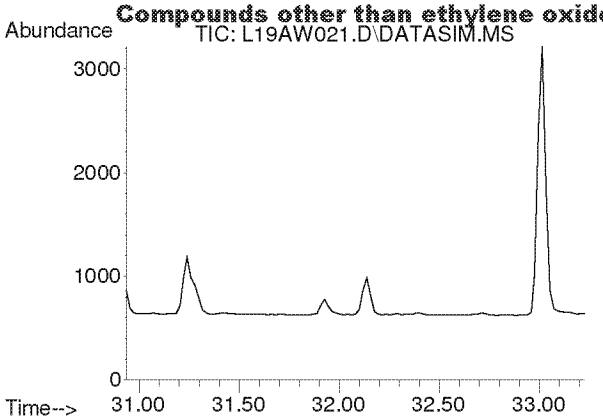
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

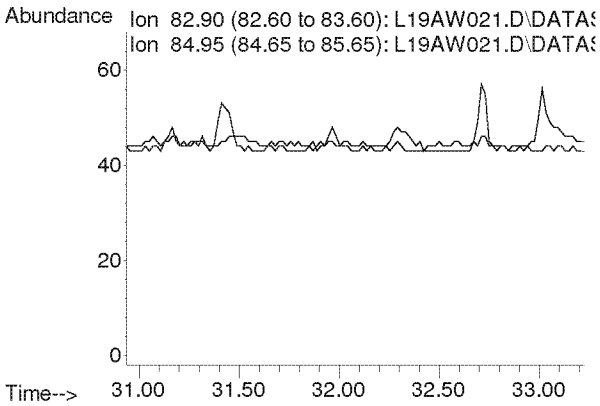


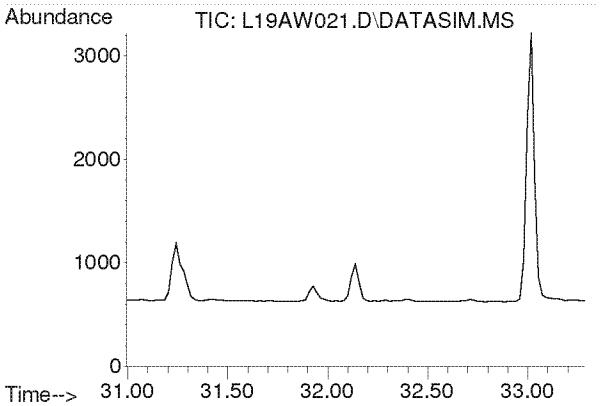
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



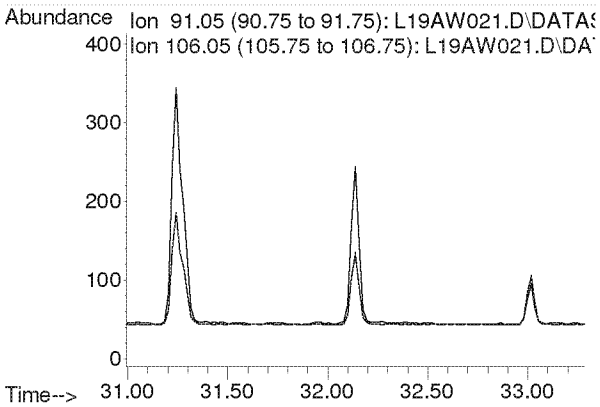


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

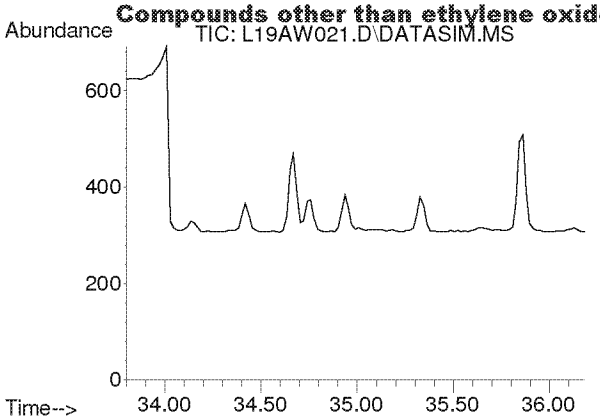
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

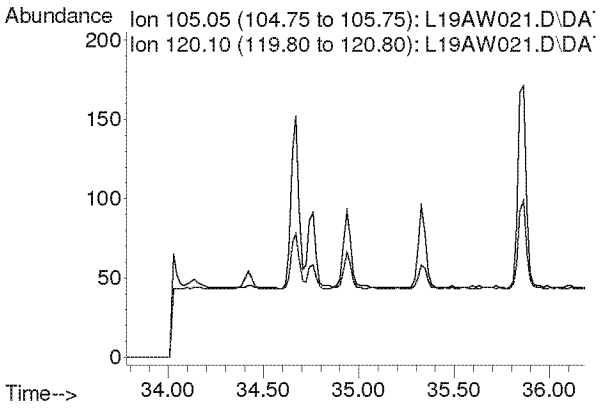


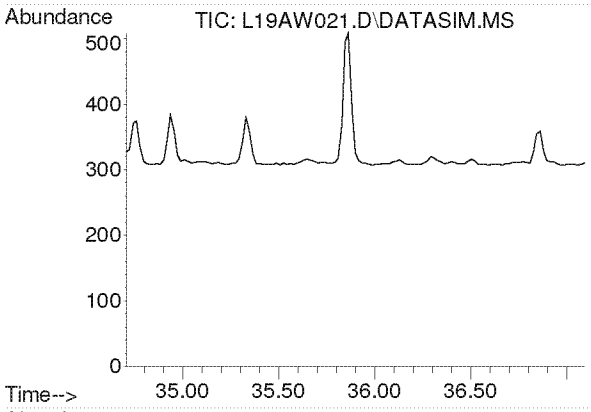
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



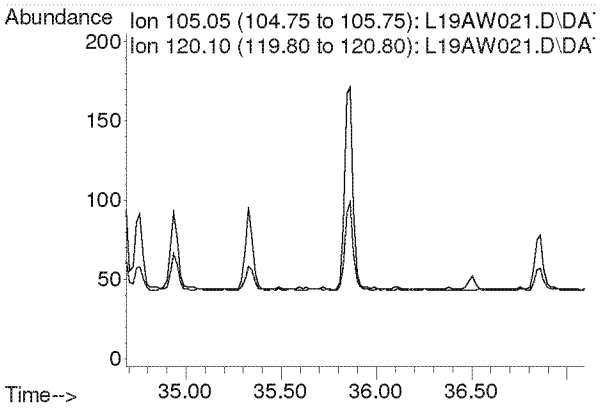


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

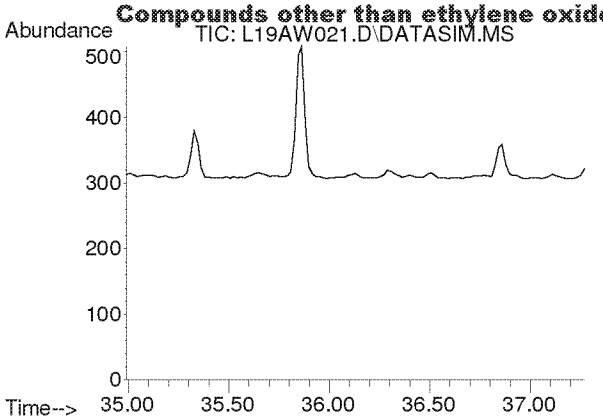
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

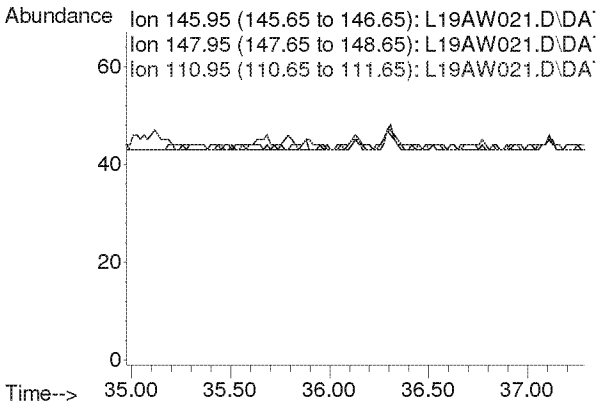


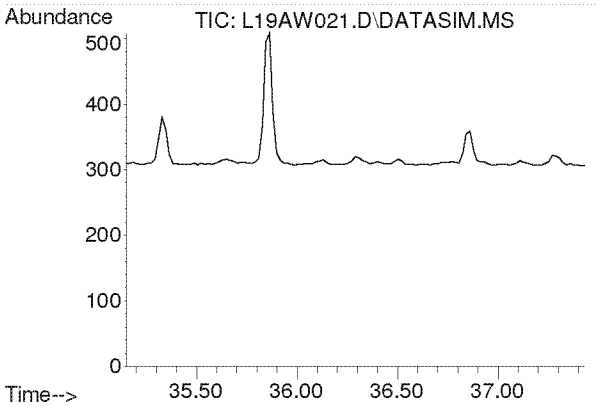
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



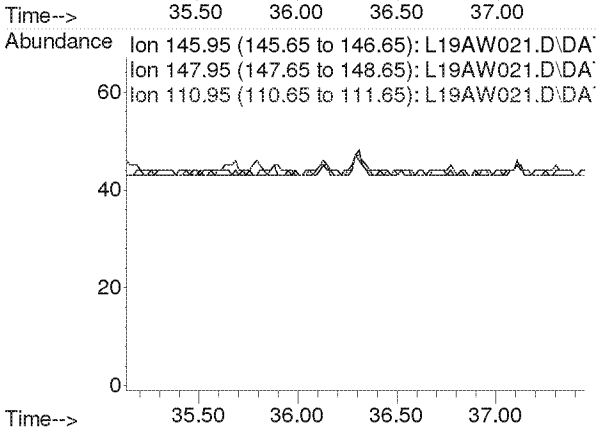


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

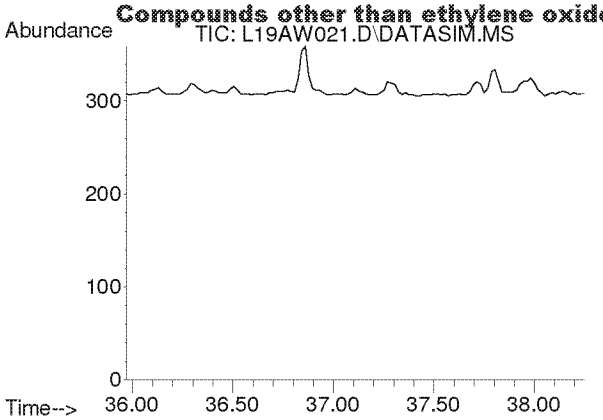
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

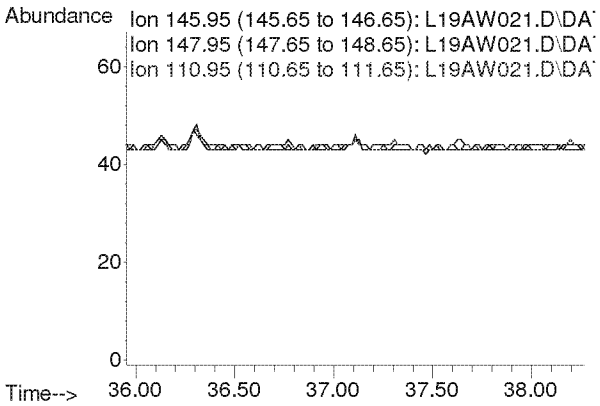


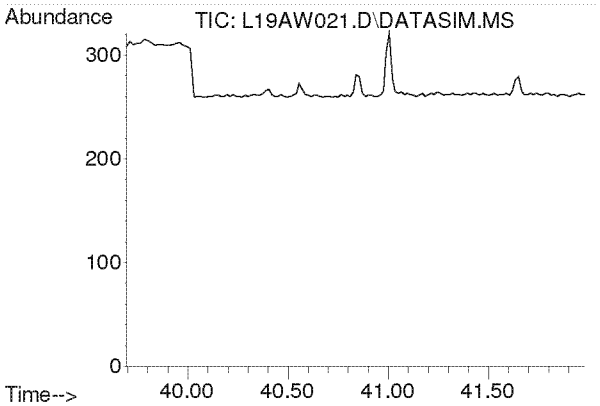
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



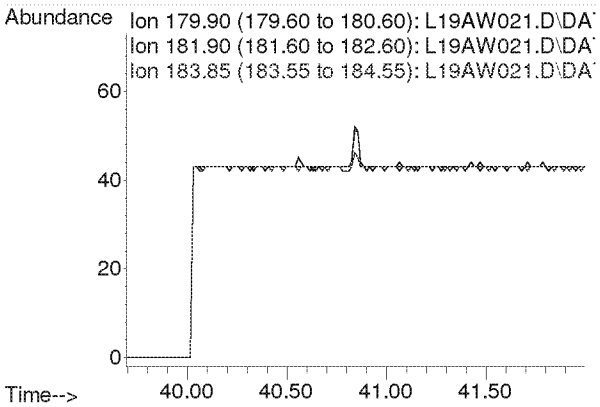


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

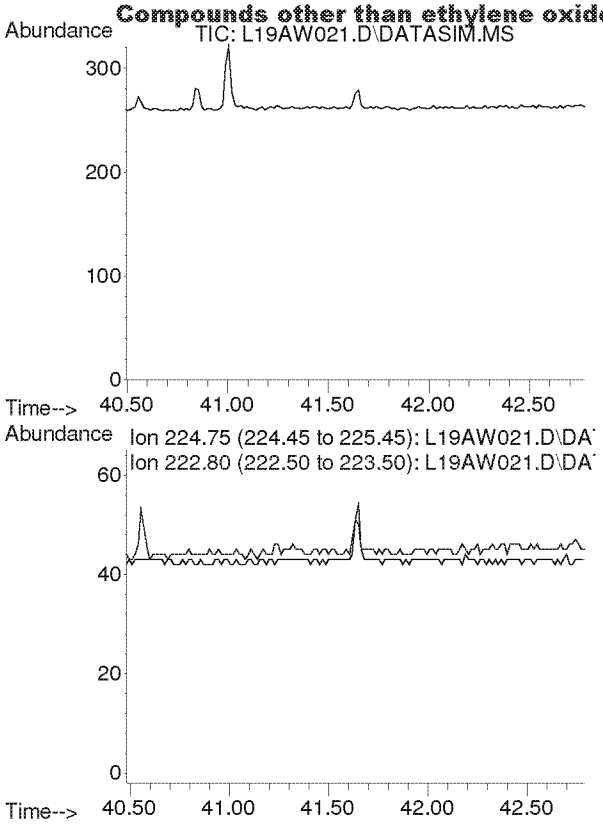
Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AW021.D
Acq: 24 Jan 2019 5:51 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\L19AW\
Data File : L19AW022.D
Acq On : 24 Jan 2019 6:52 am
Operator : MAH
Sample : 9012221-09
Misc : WB VILLAGE HALL C2 1/18/19
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jan 29 08:32:18 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	52128	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	124049	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.116	117	92707	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	12.425	29	881	0.3272 ppbv #	25
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.	
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	

ED_002475_00000318-00614

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19AW\
Data File : L19AW022.D
Acq On : 24 Jan 2019 6:52 am
Operator : MAH
Sample : 9012221-09
Misc : WB VILLAGE HALL C2 1/18/19
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jan 29 08:32:18 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

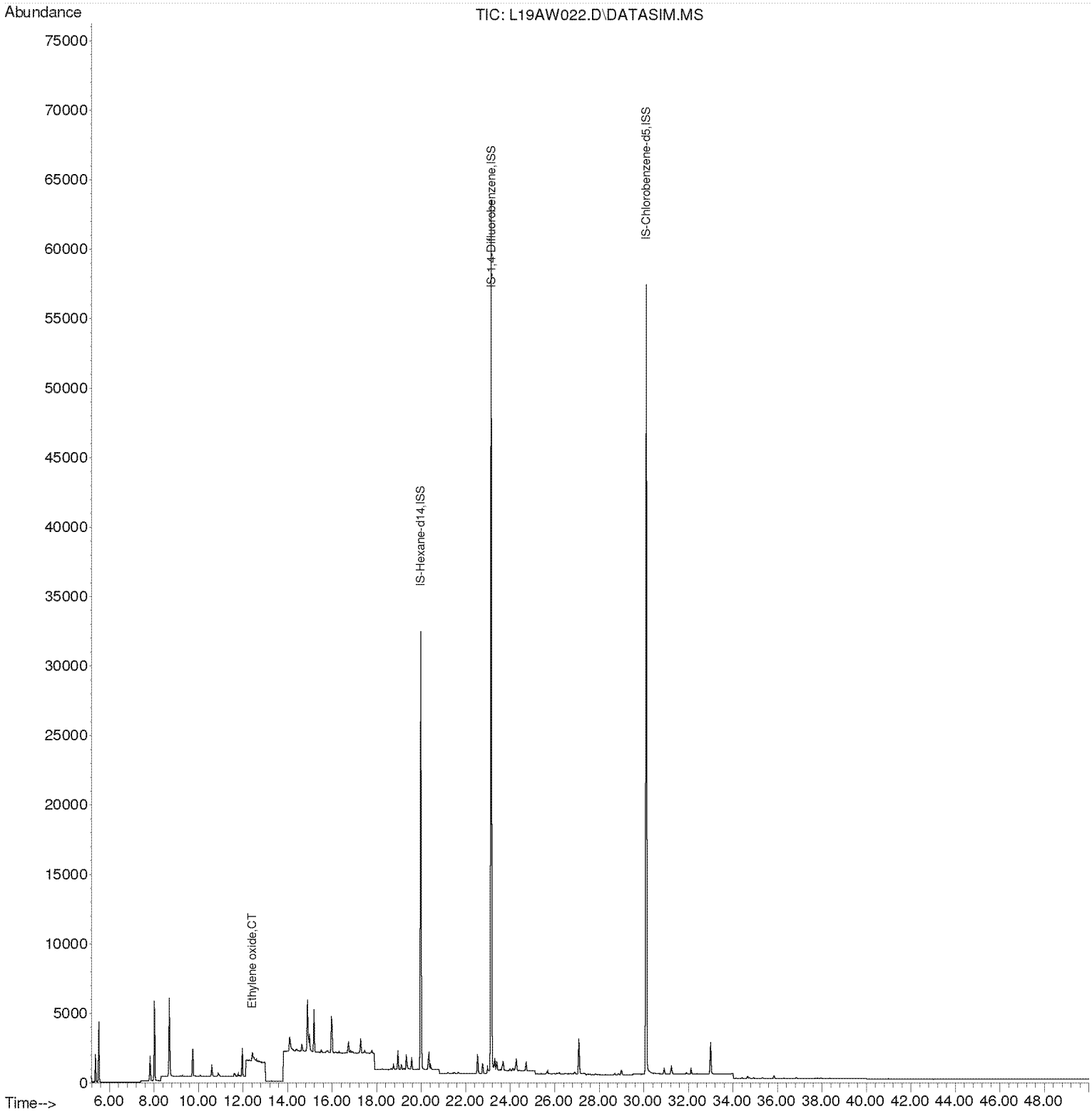
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D. d	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

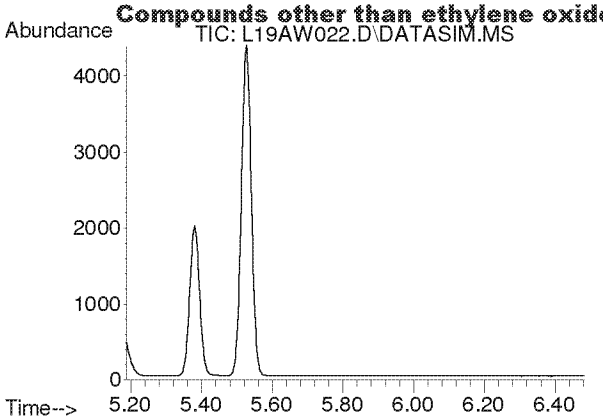
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW022.D
Acq On : 24 Jan 2019 6:52 am
Operator : MAH
Sample : 9012221-09
Misc : WB VILLAGE HALL C2 1/18/19
ALS Vial : 22 Sample Multiplier: 1

Quant Time: Jan 29 08:13:10 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



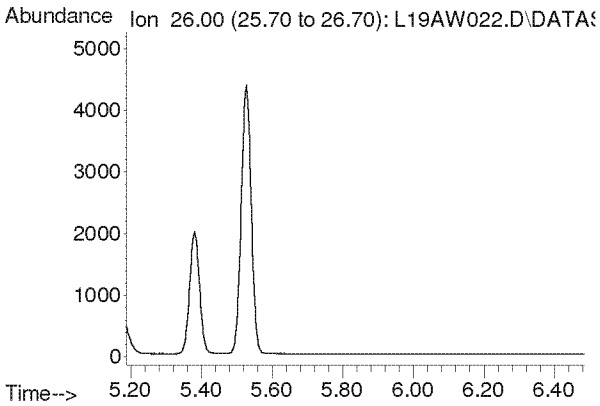
Compounds other than ethylene oxide were not quantitated.

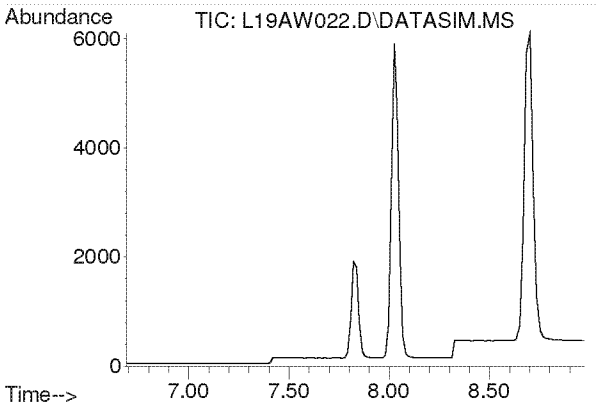


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 26



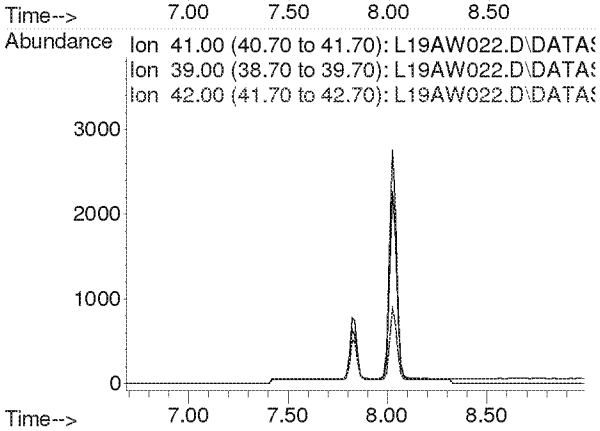


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

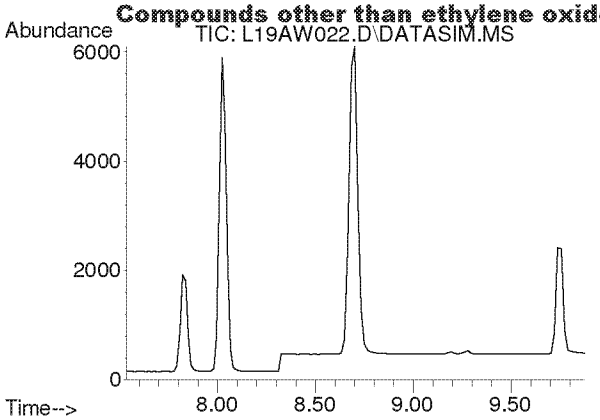
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

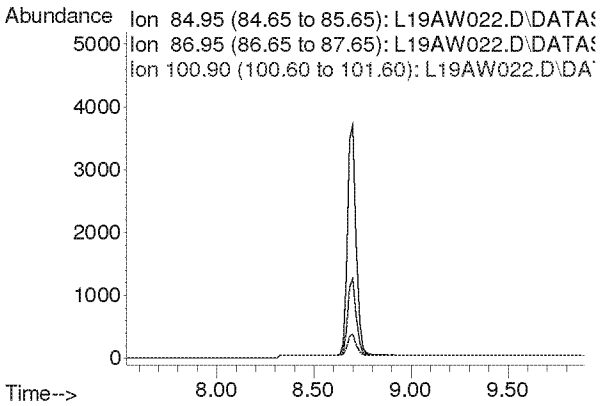


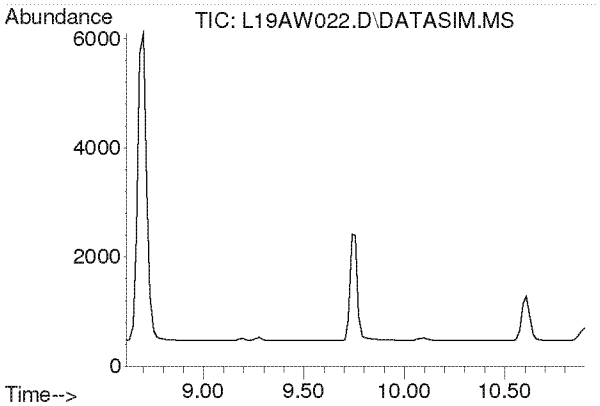
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



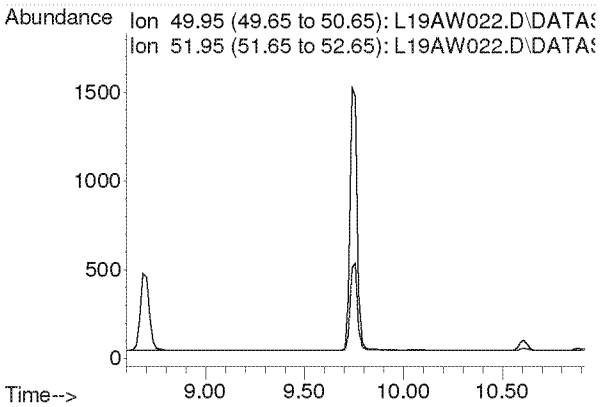


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

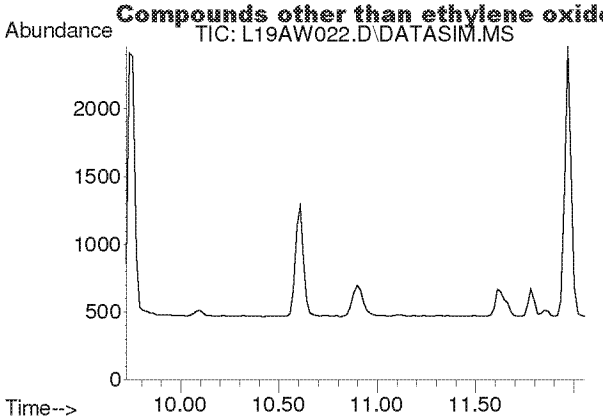
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

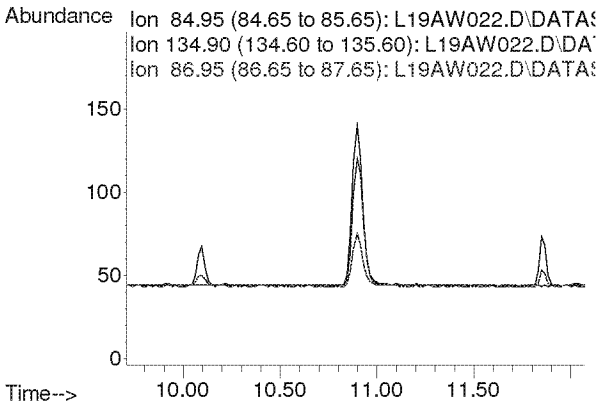


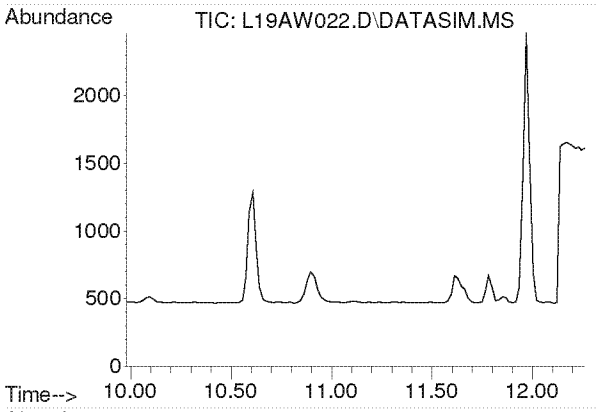
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



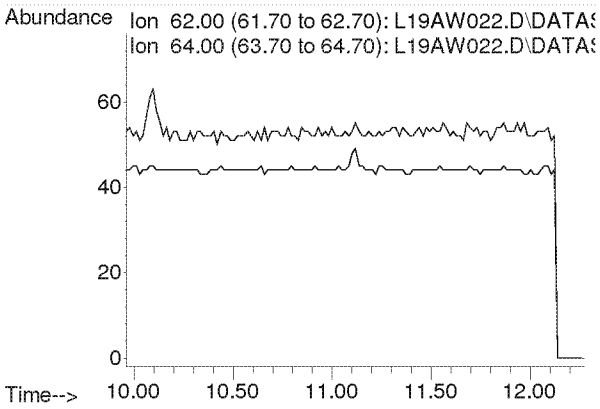


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

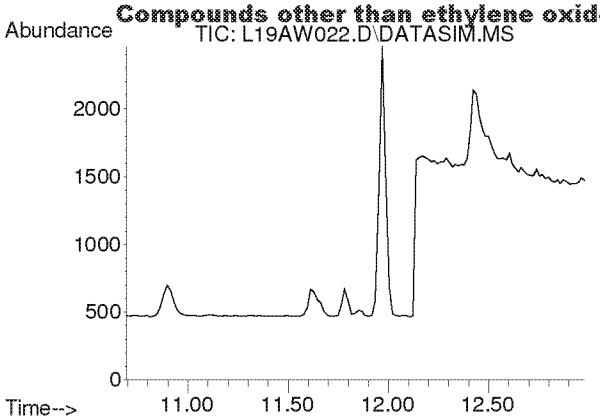
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

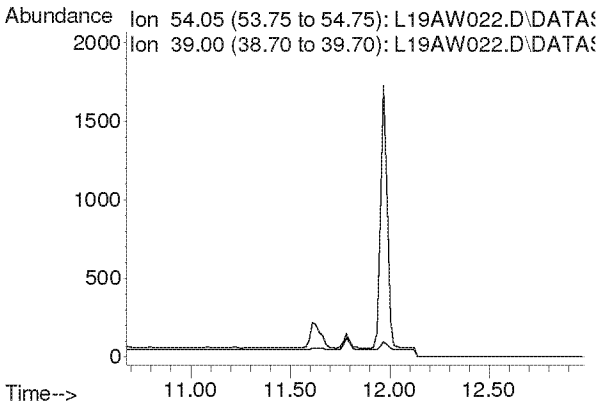


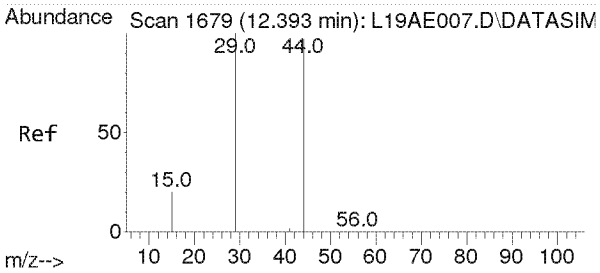
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

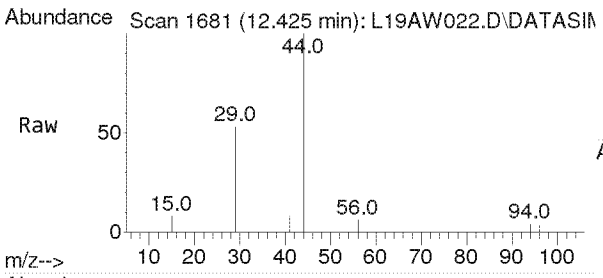


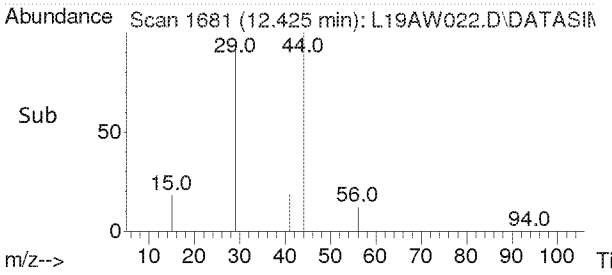


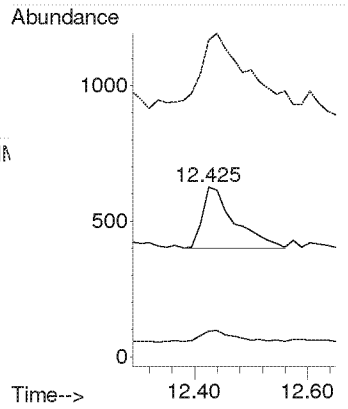
#9
Ethylene oxide
Concen: 0.327 ppbv
RT: 12.425 min Scan# 1681
Delta R.T. 0.032 min
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 29 Resp: 881

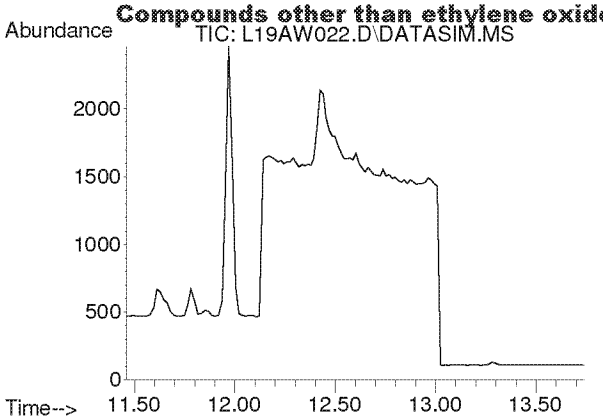
Ion	Ratio	Lower	Upper
29	100		
15	21.3	15.4	23.0
44	183.9	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

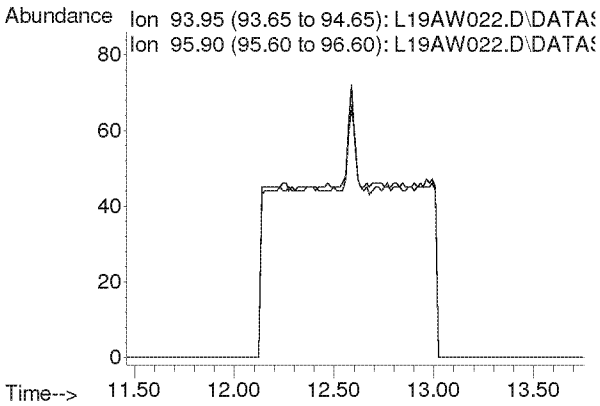


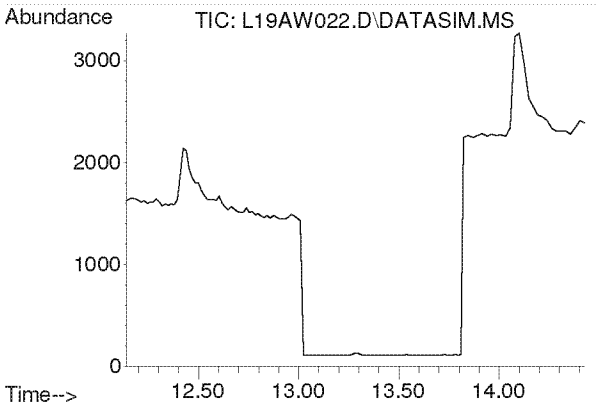
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



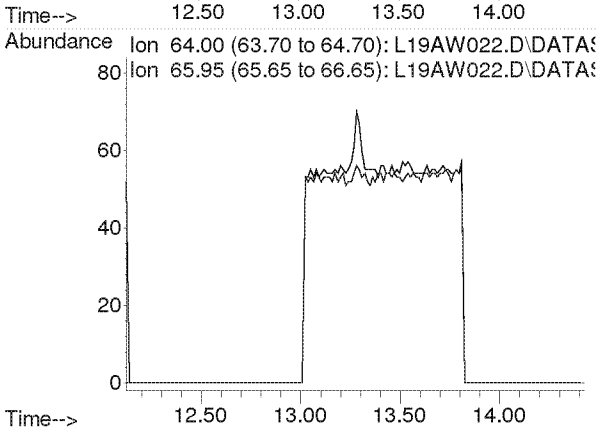


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

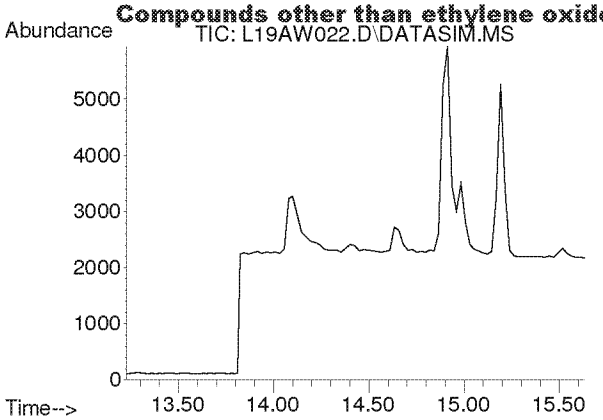
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

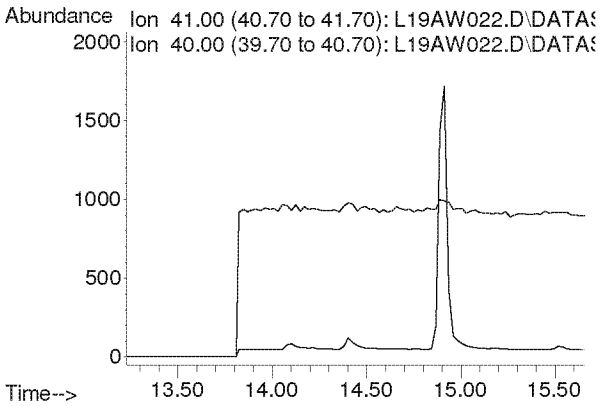


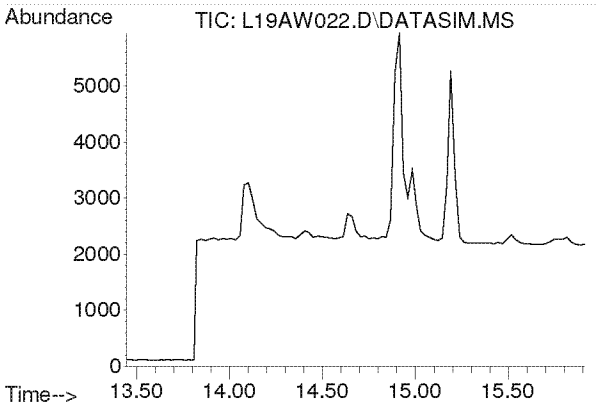
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



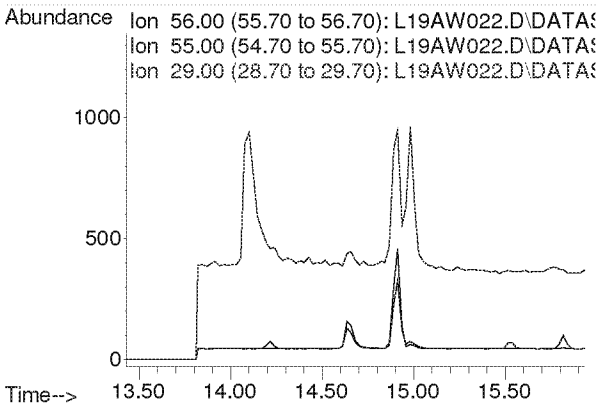


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

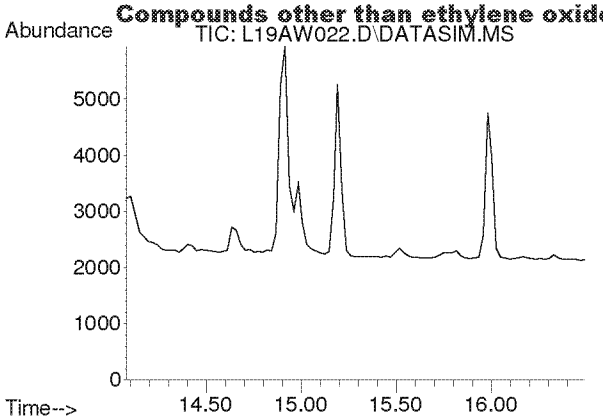
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

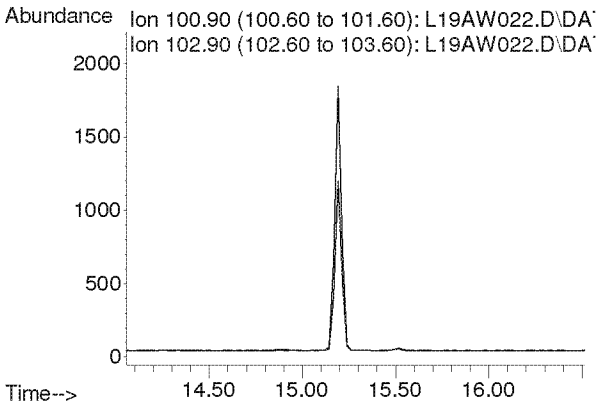


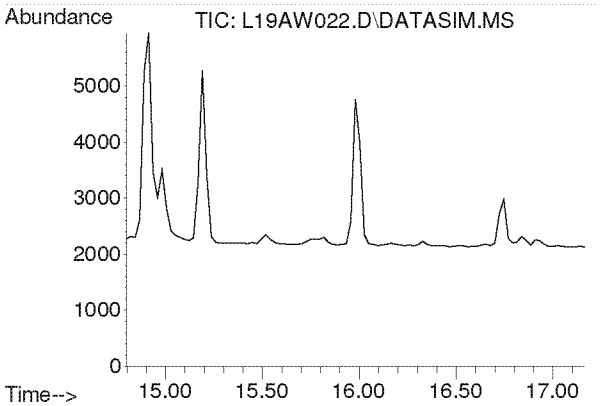
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



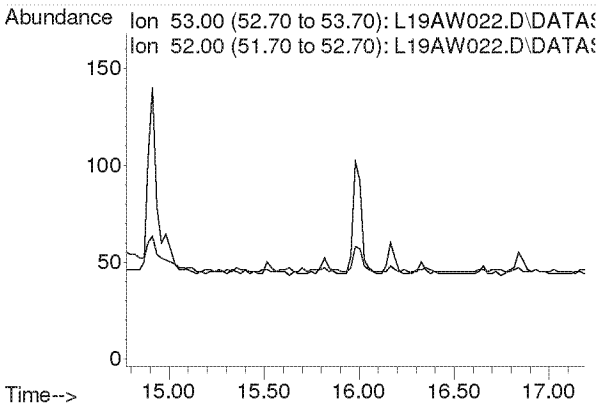


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

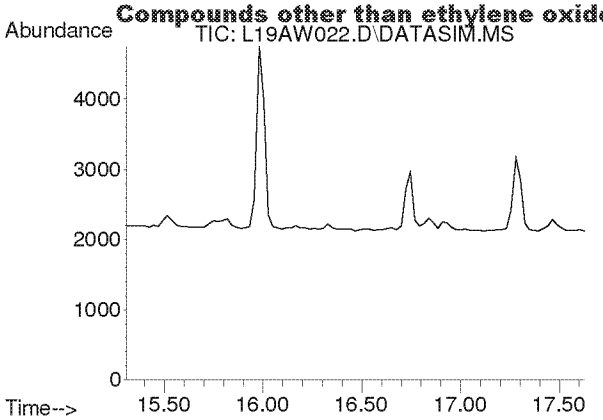
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

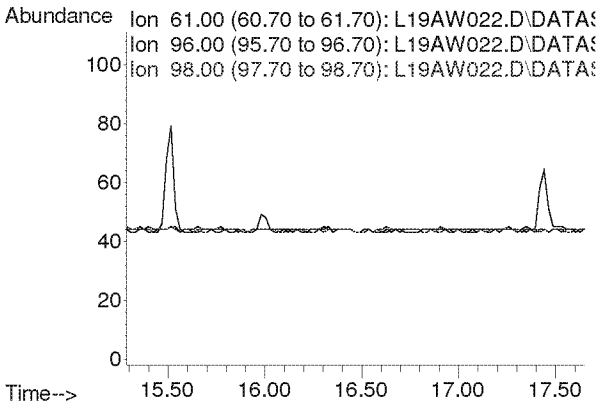


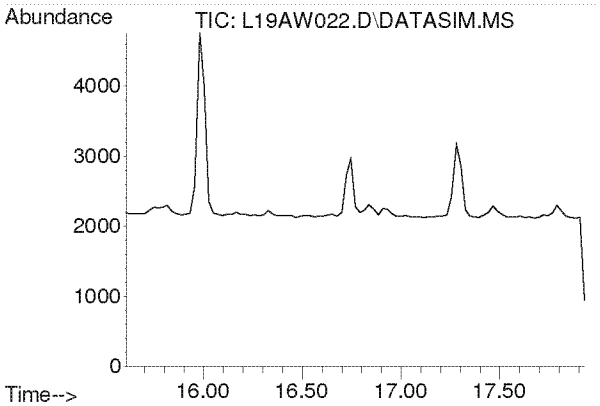
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



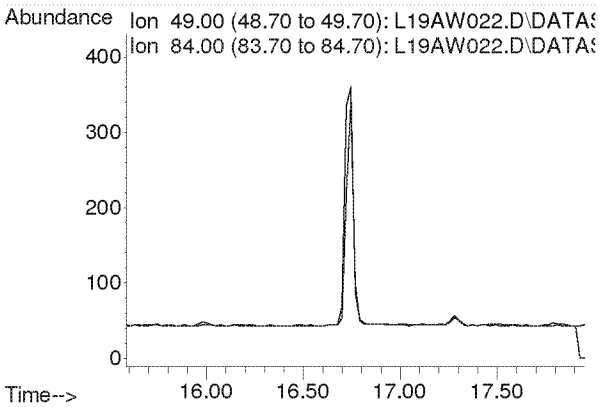


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

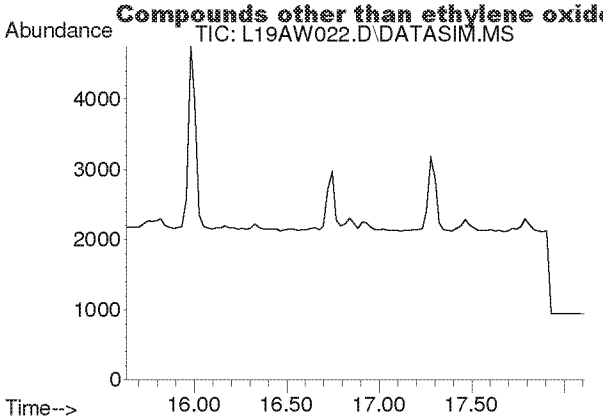
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

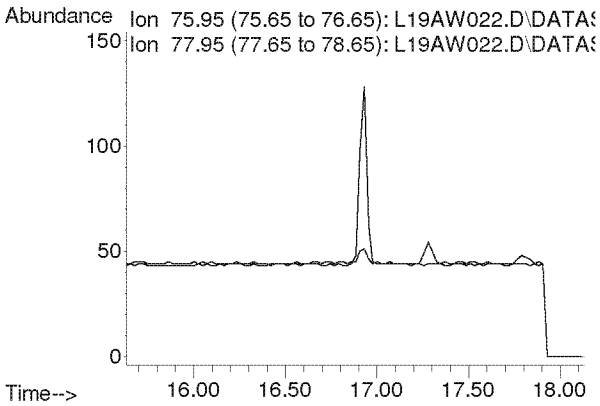


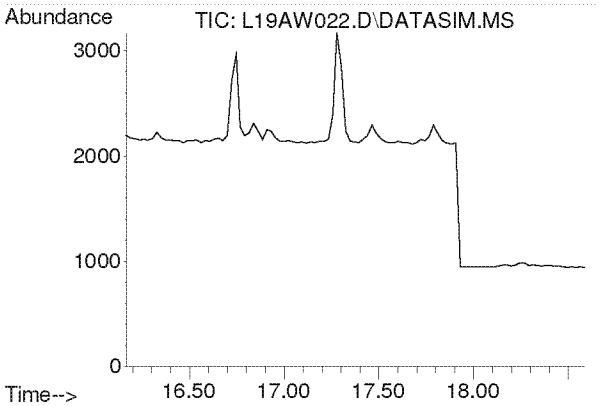
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



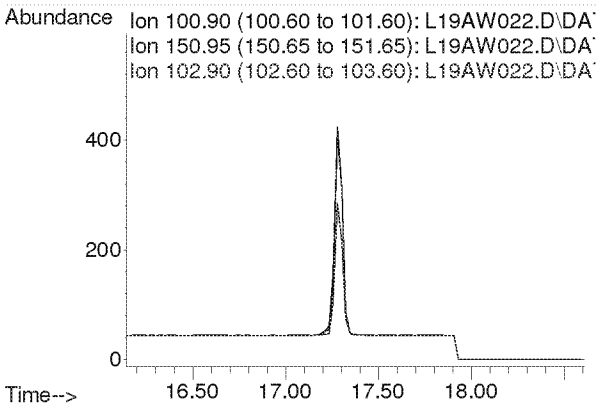


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

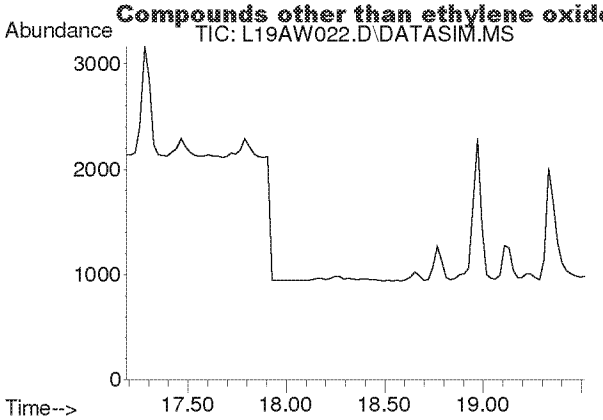
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

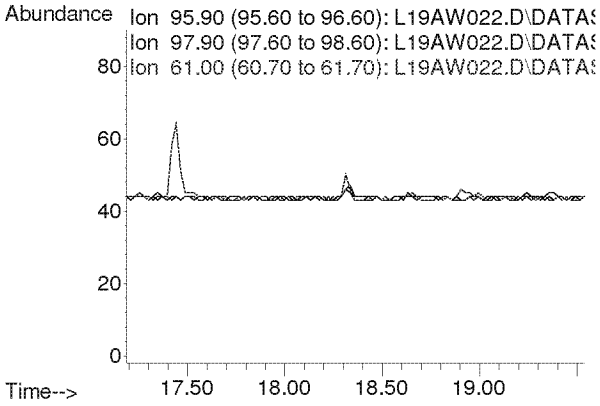


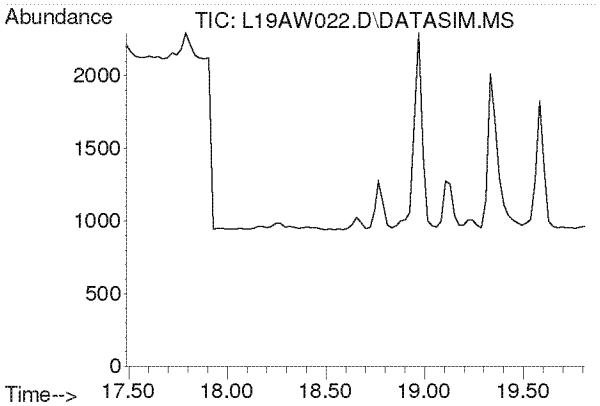
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



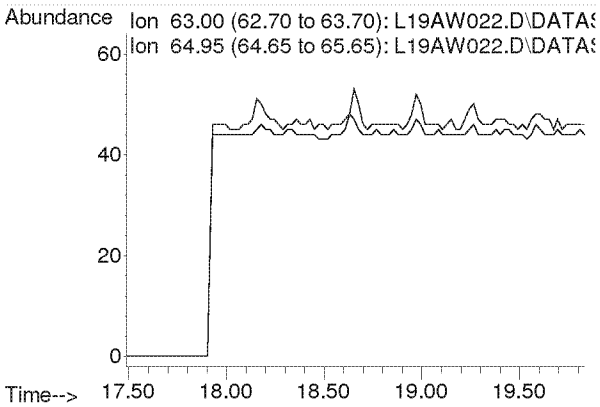


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

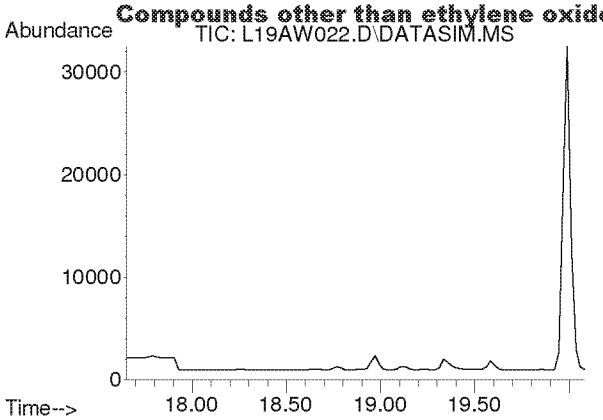
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

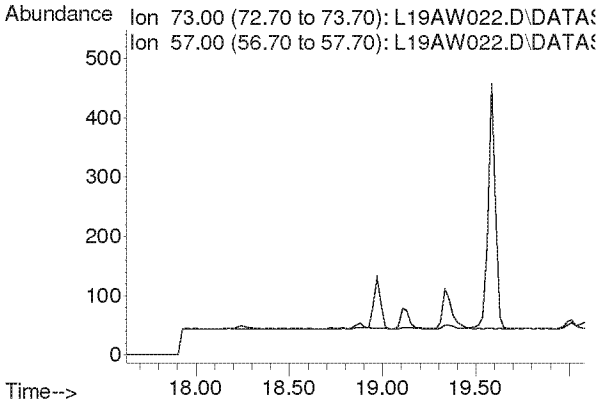


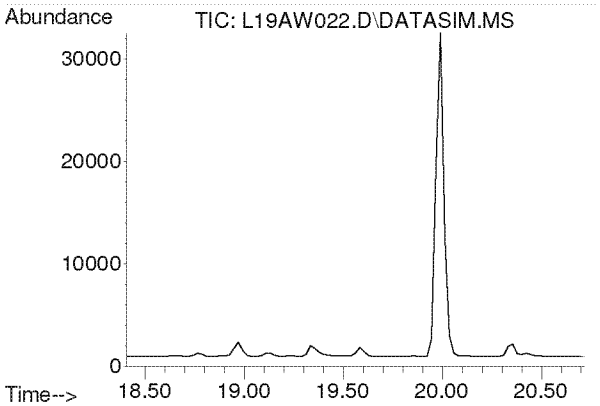
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



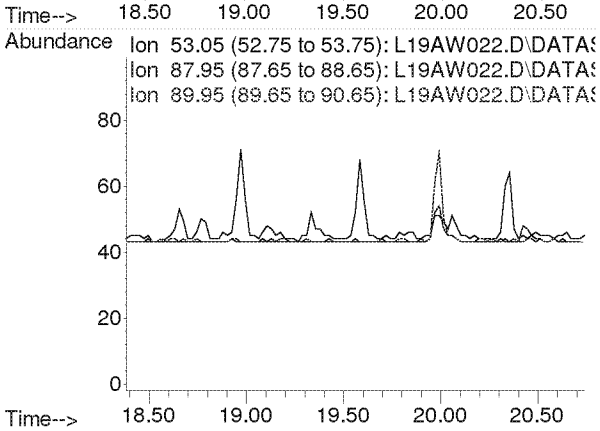


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

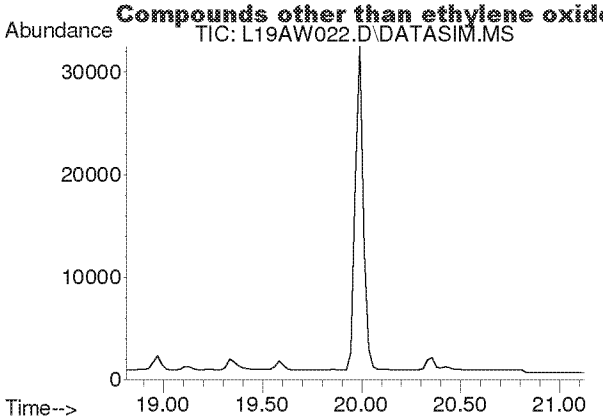
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

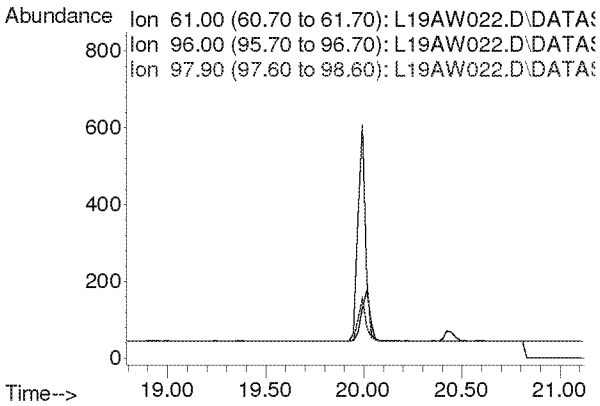


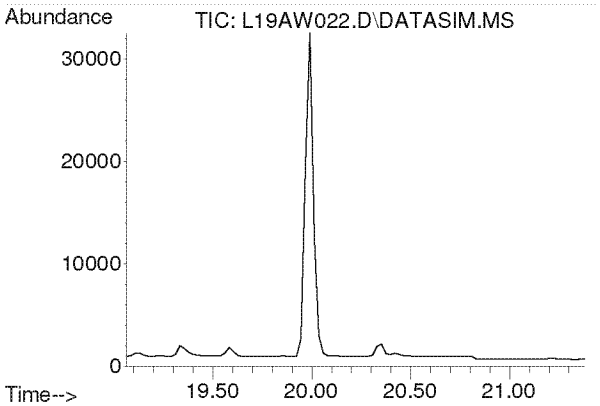
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



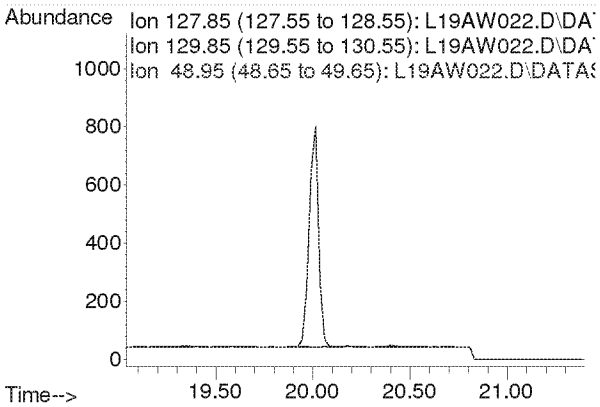


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

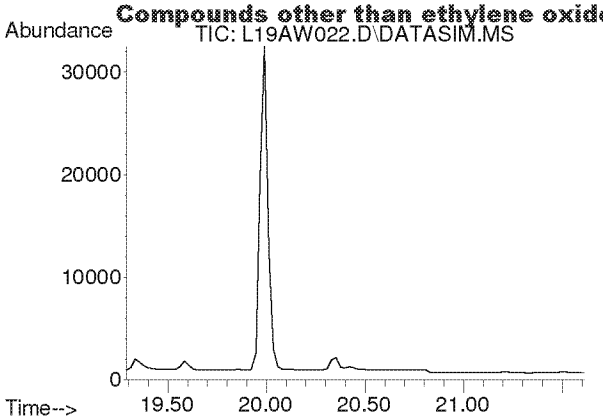
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

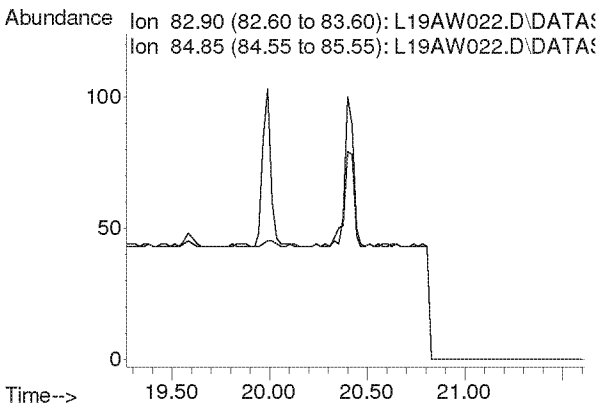


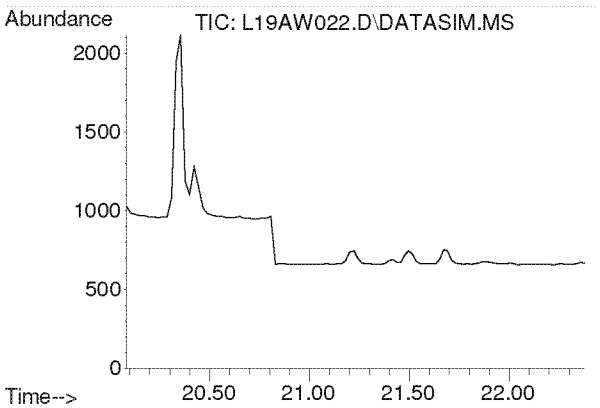
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



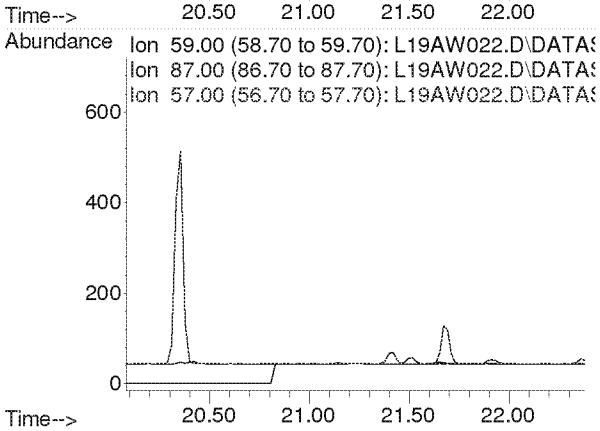


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

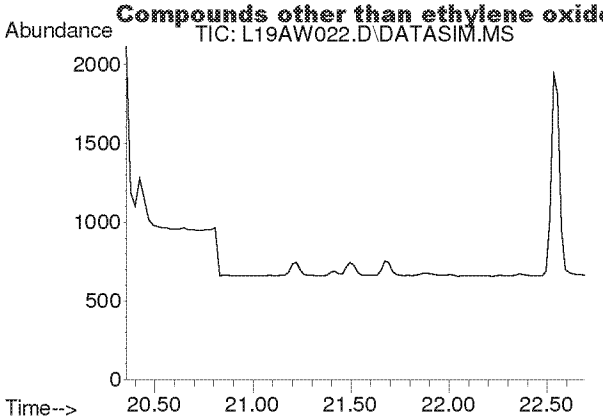
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

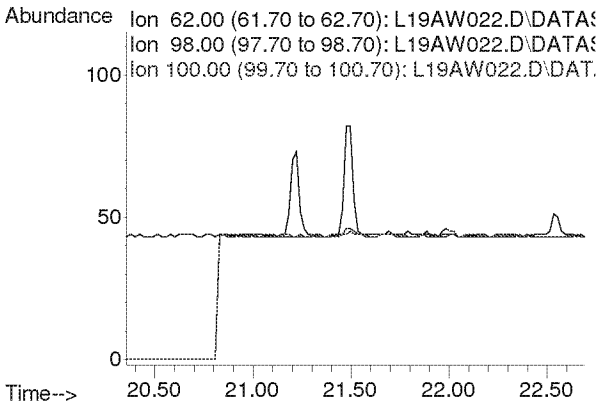


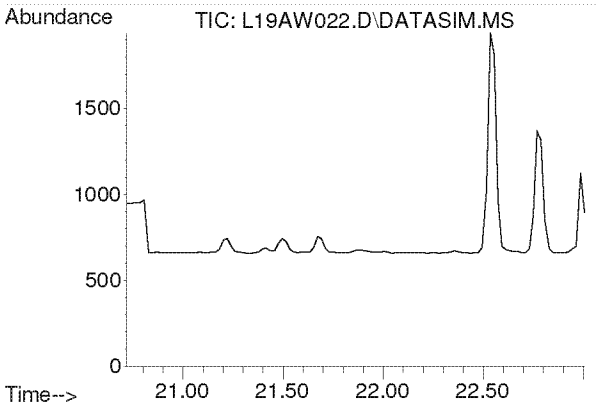
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



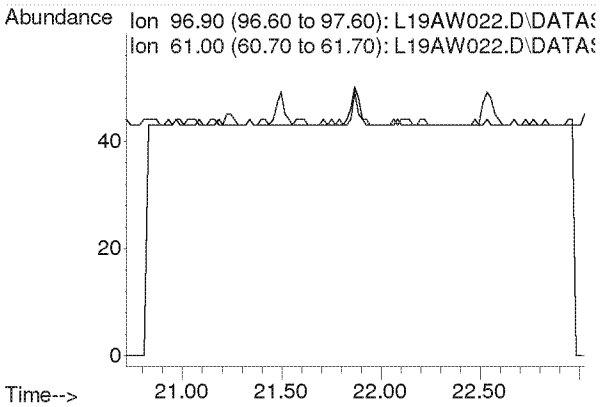


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

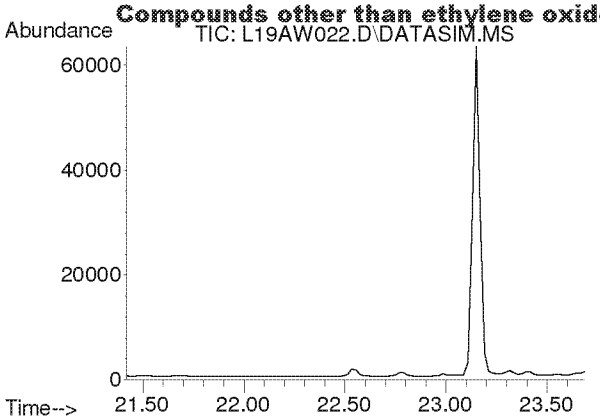
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

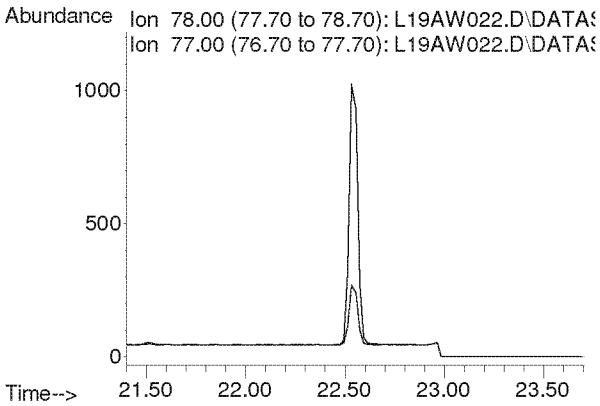


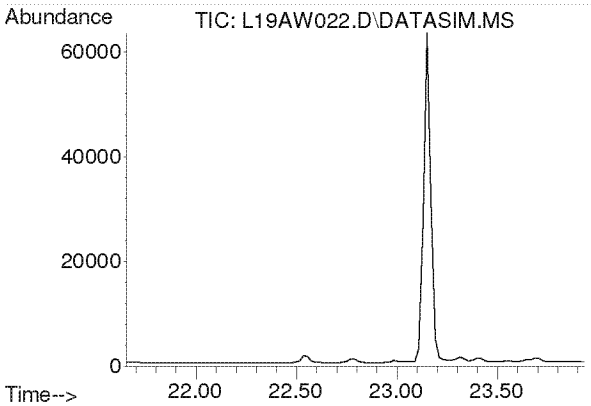
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



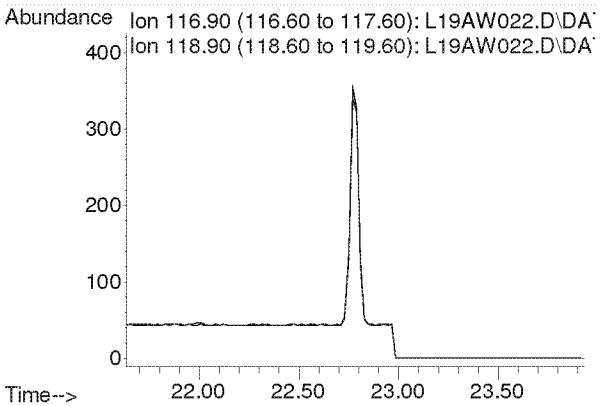


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

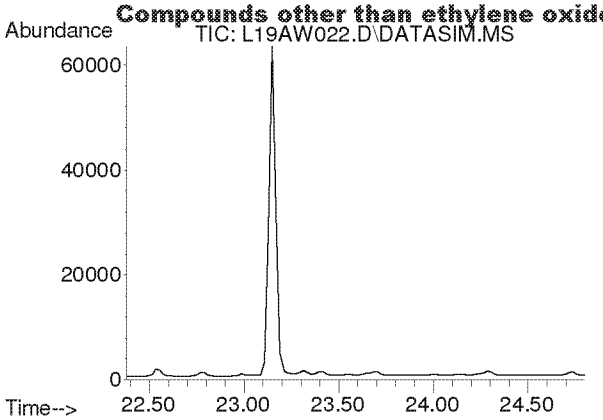
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

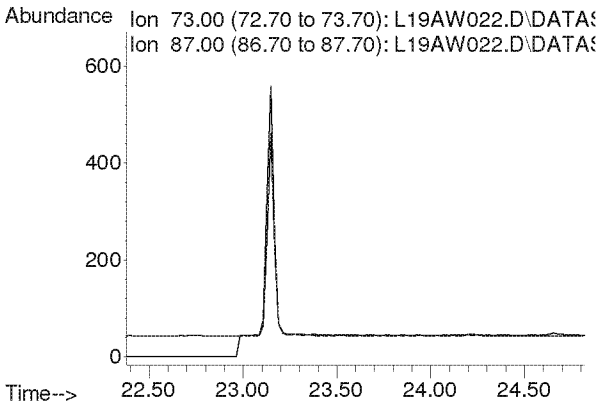


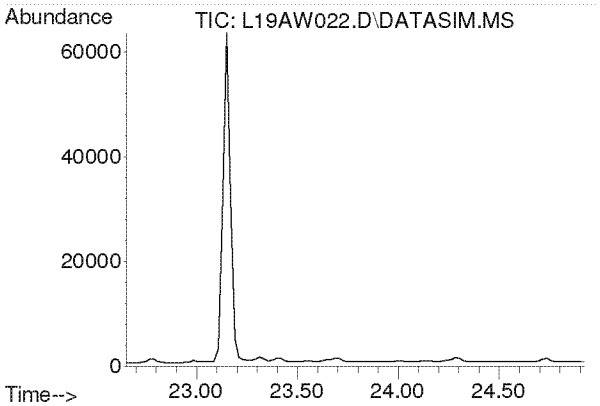
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



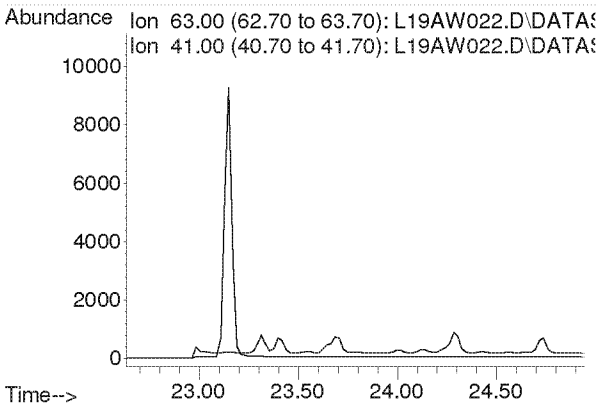


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

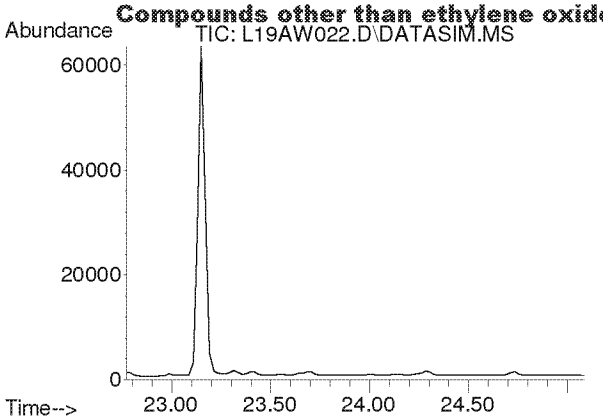
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

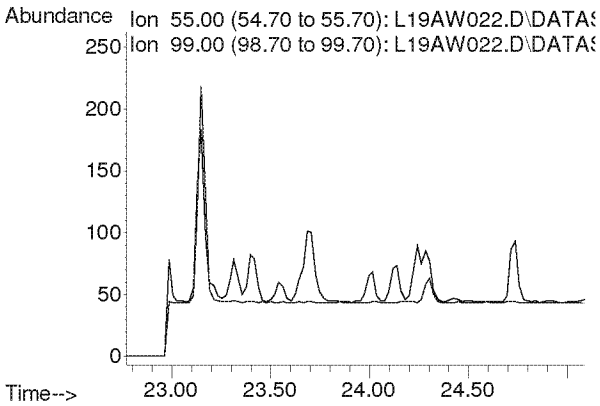


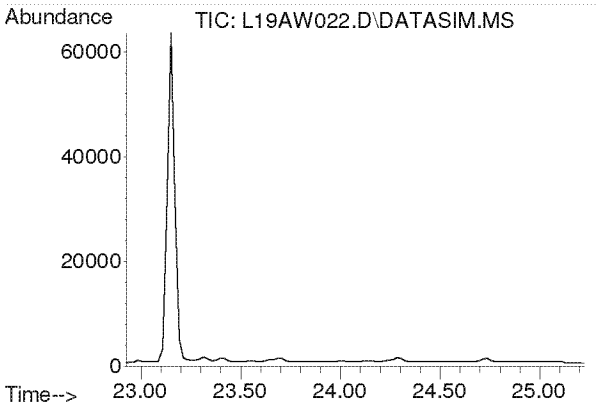
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



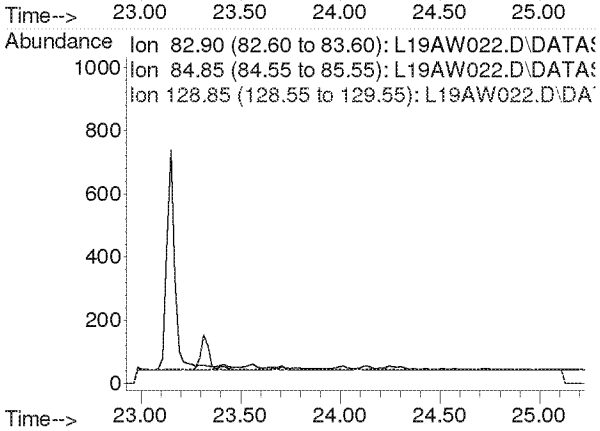


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

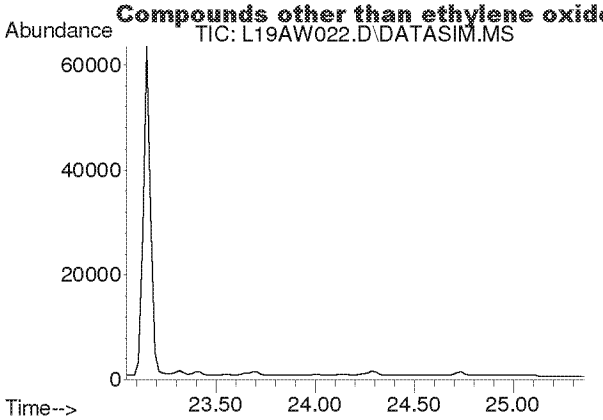
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

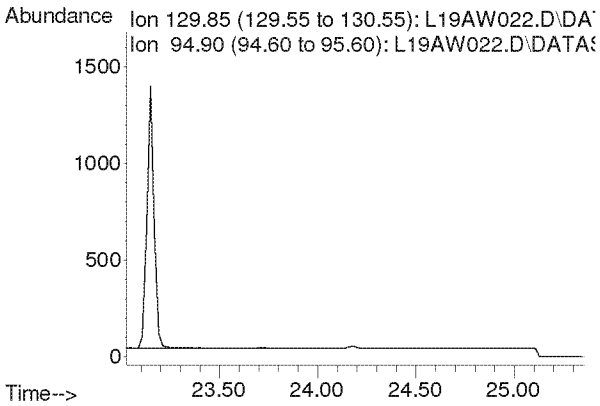


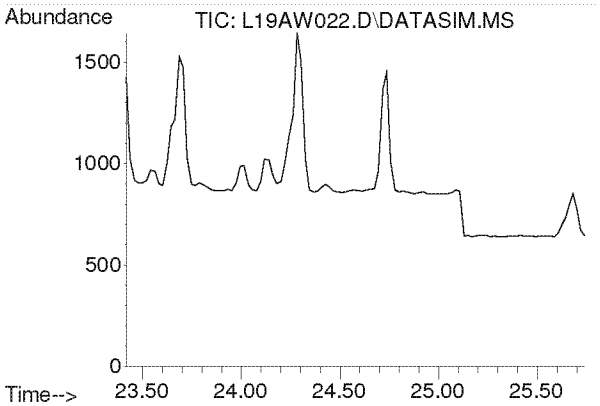
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



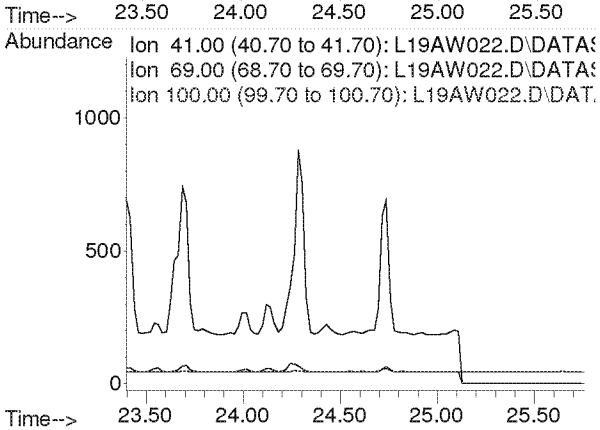


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

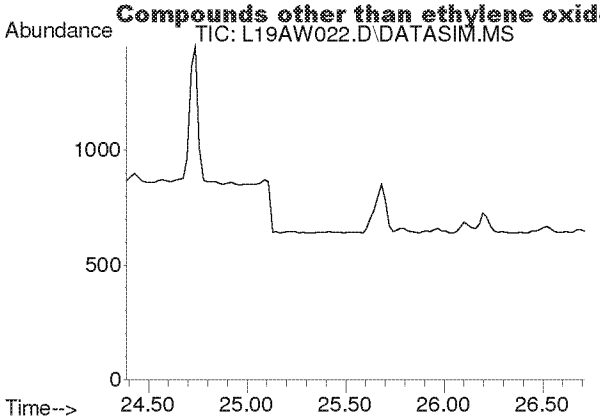
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

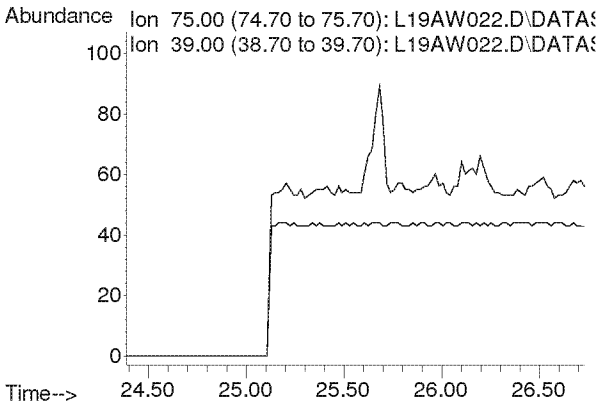


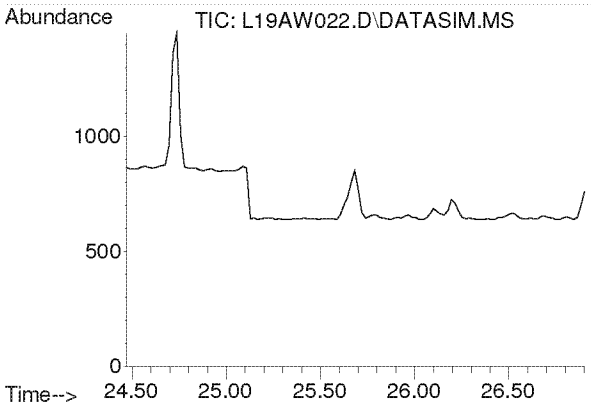
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



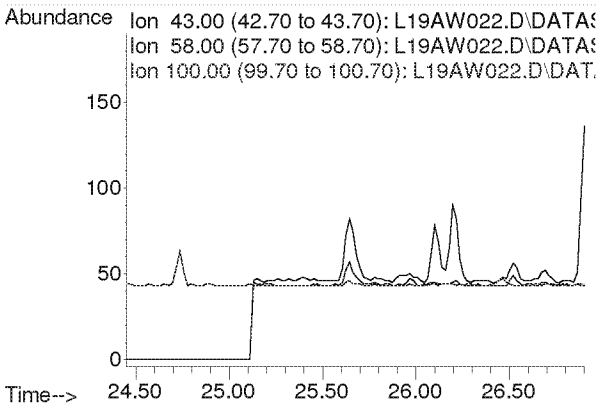


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

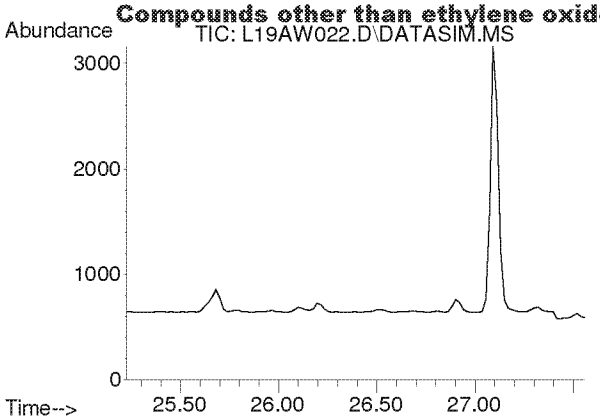
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

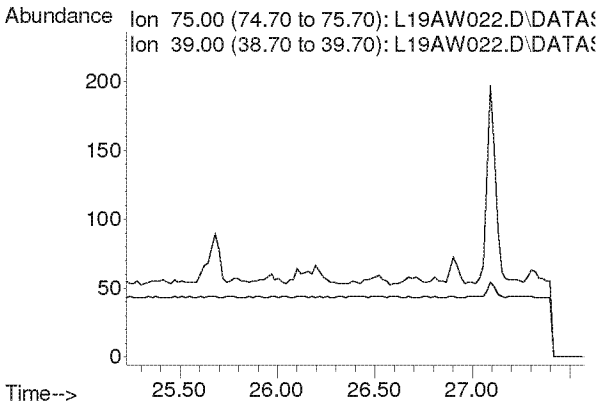


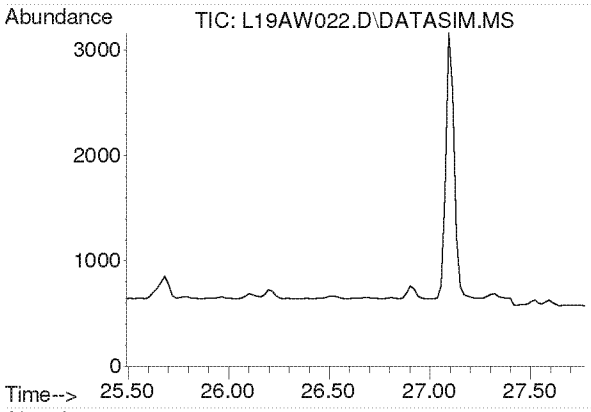
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



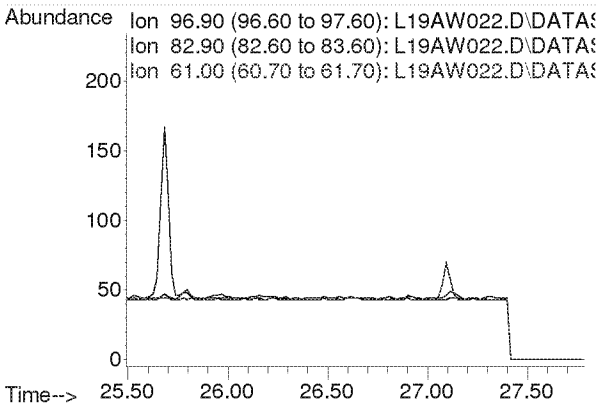


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

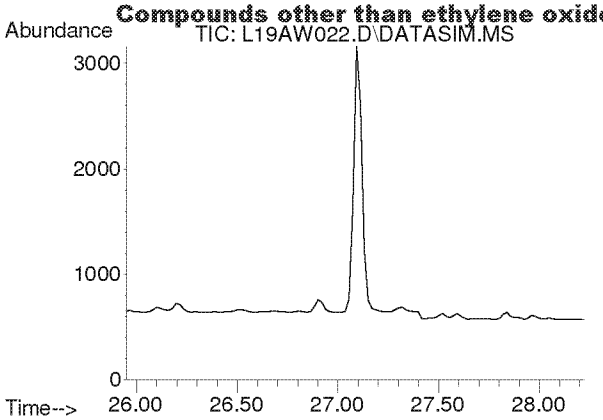
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

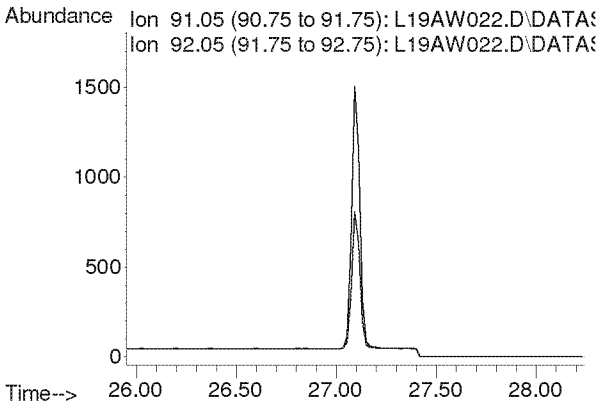


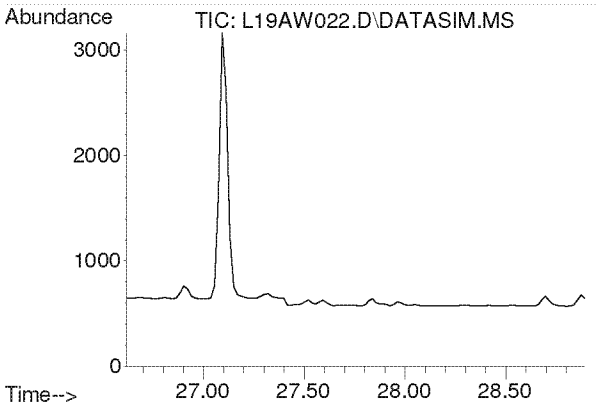
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



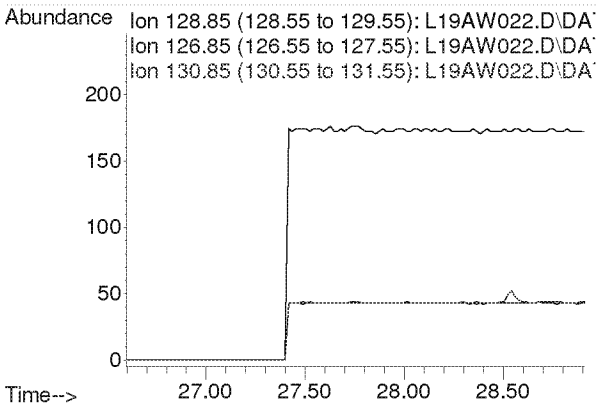


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

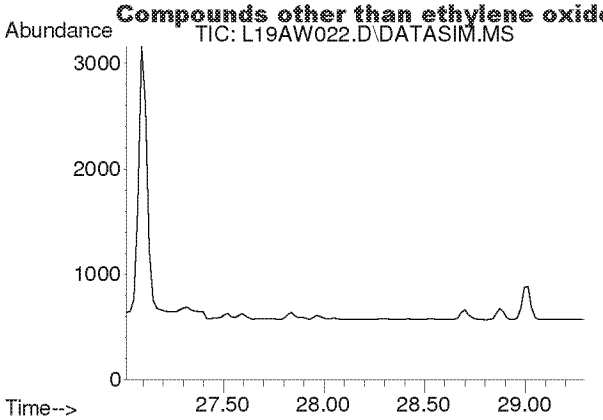
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

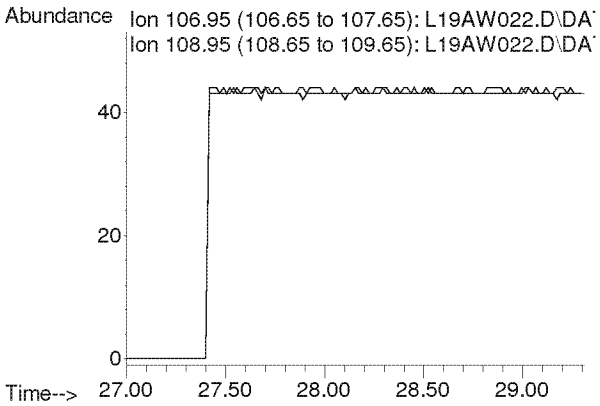


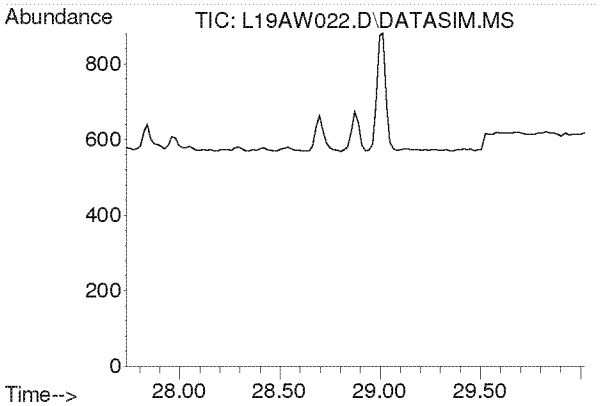
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



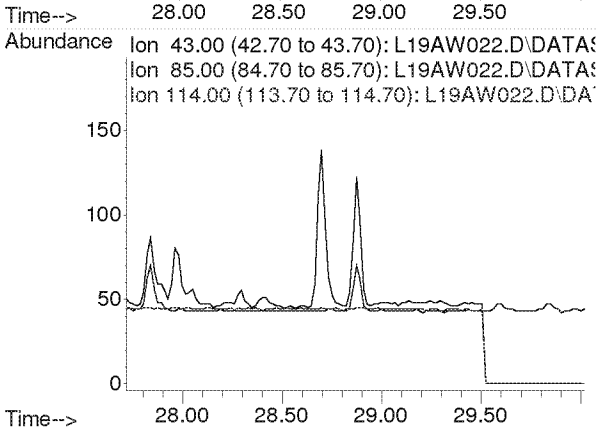


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

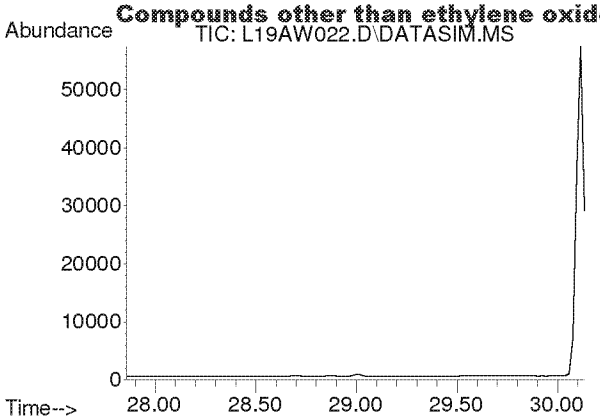
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

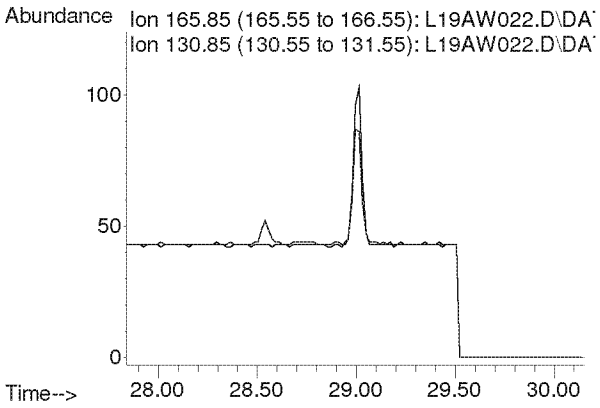


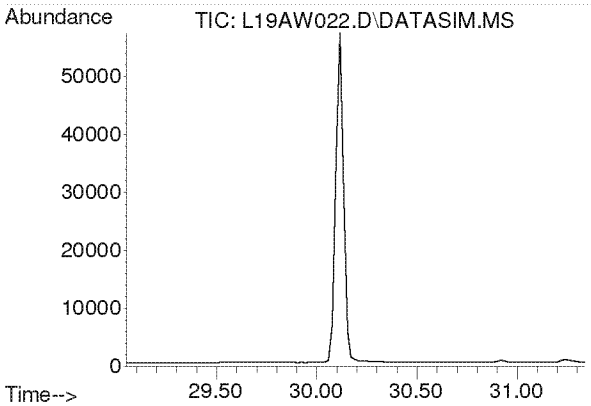
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



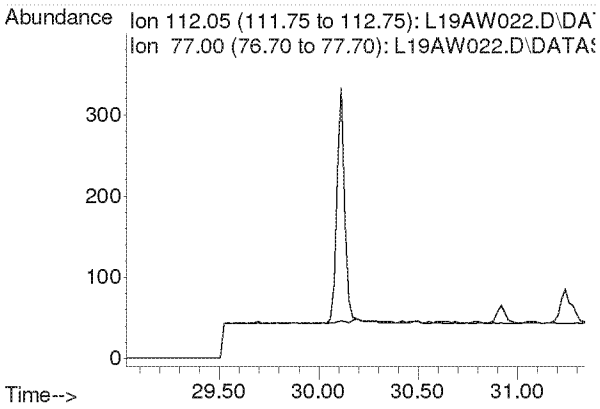


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

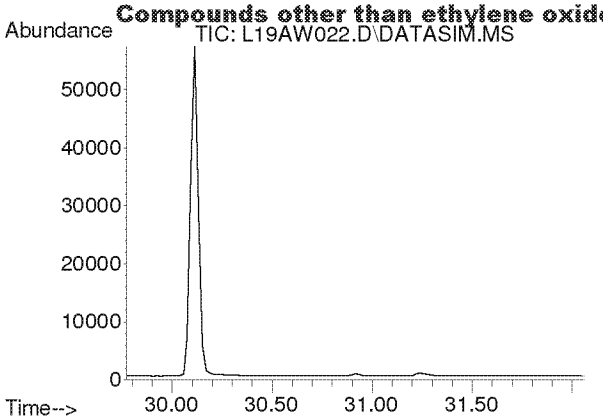
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

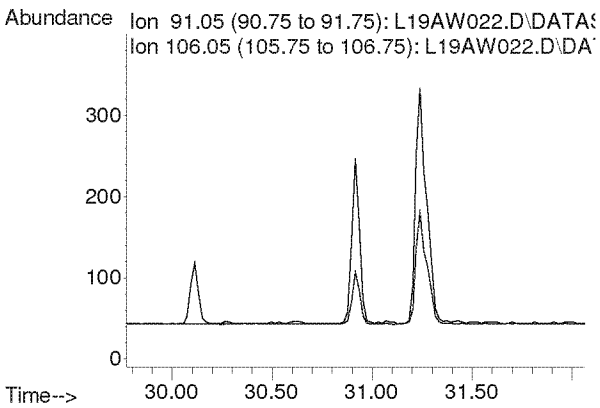


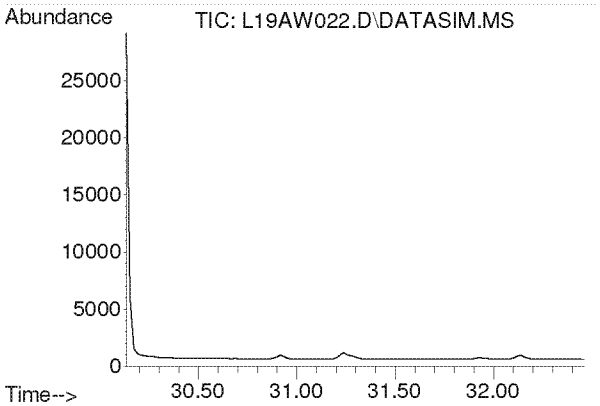
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



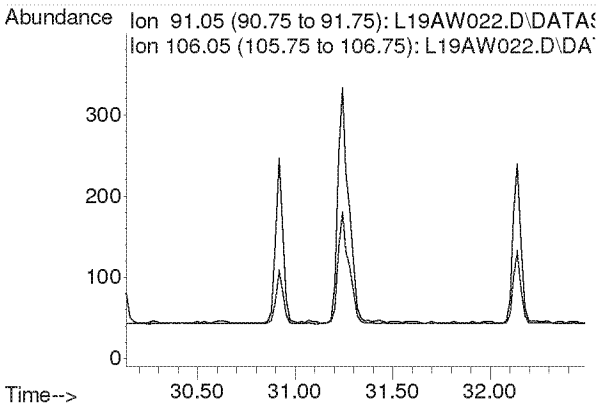


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

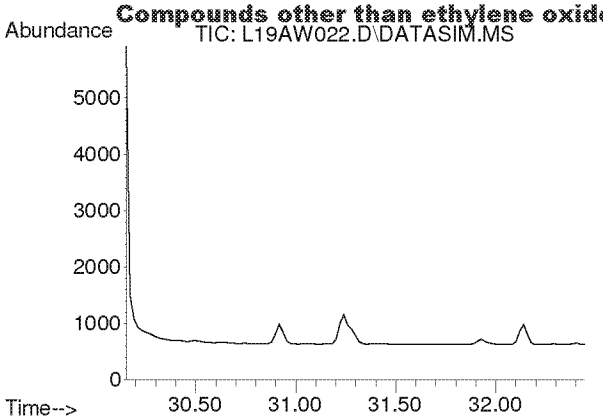
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

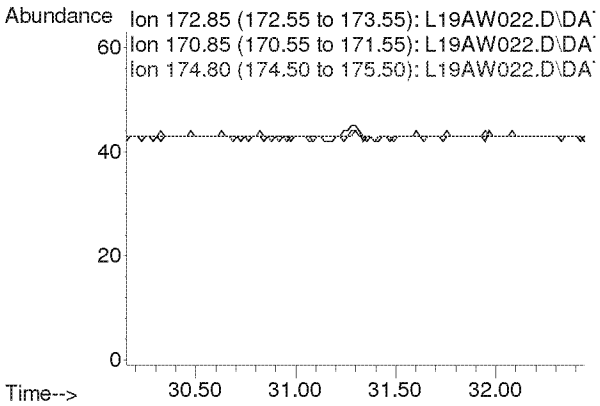


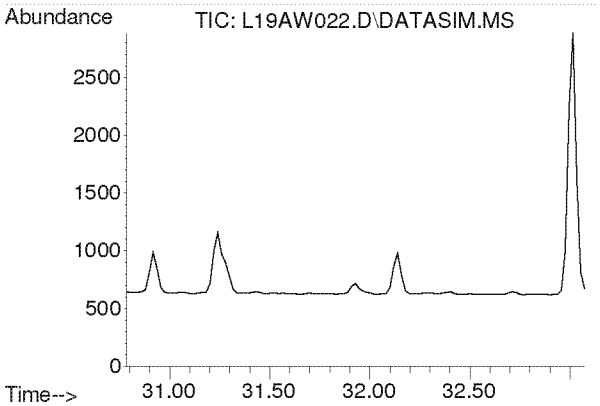
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



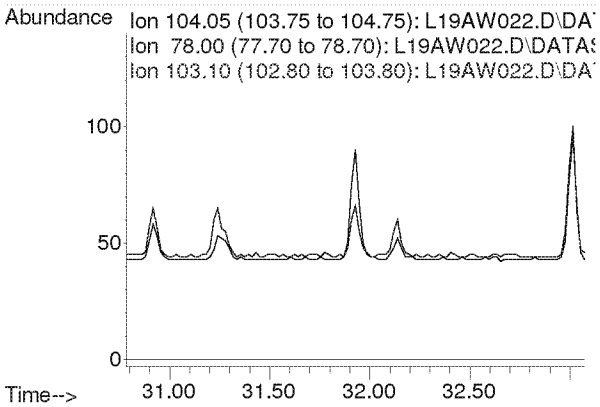


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

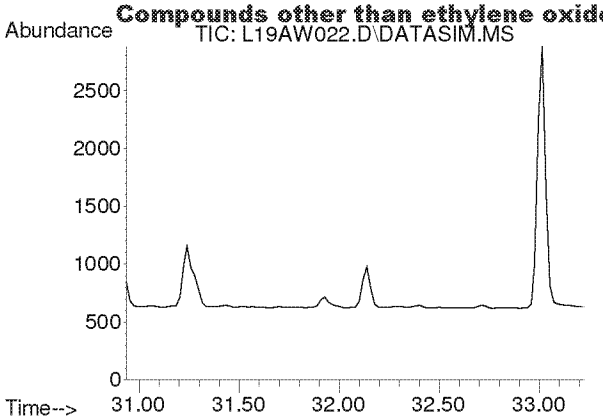
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

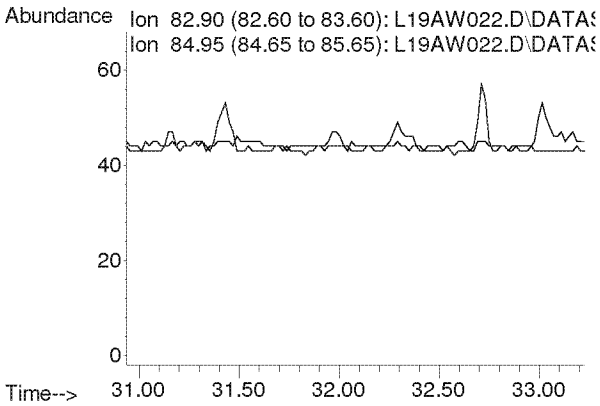


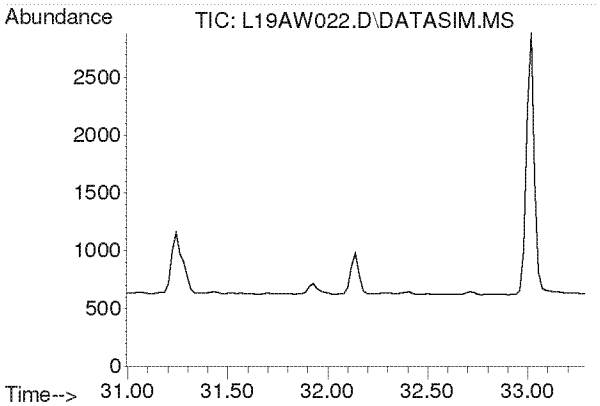
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



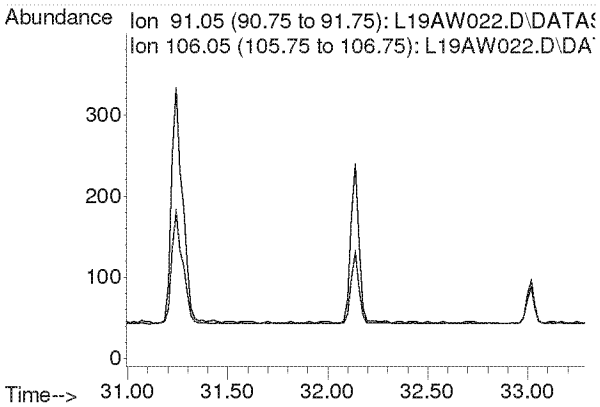


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

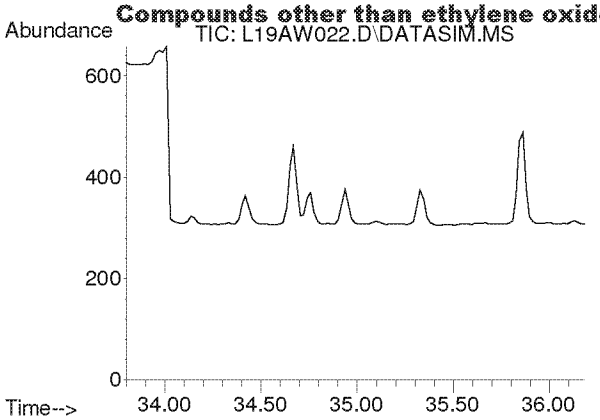
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

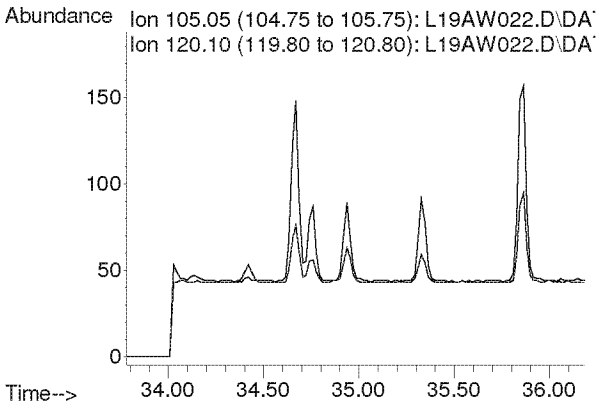


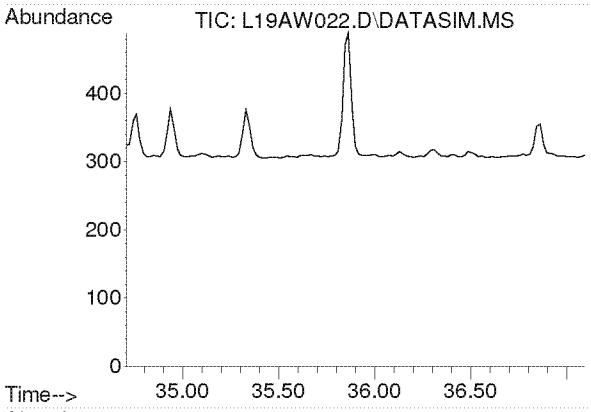
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



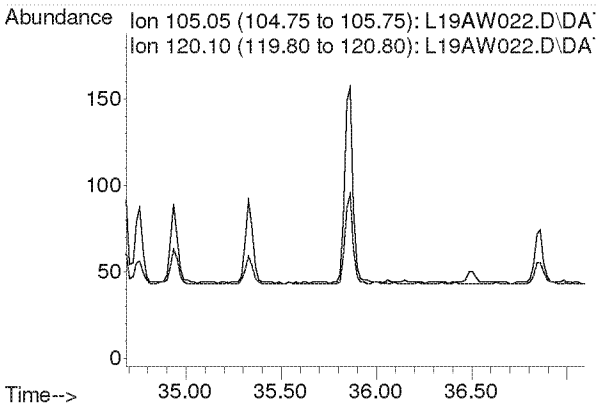


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

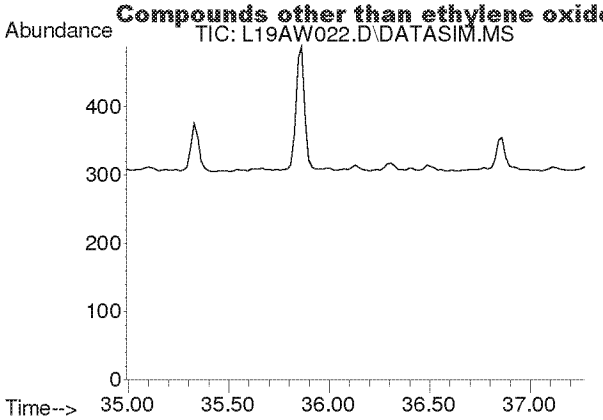
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

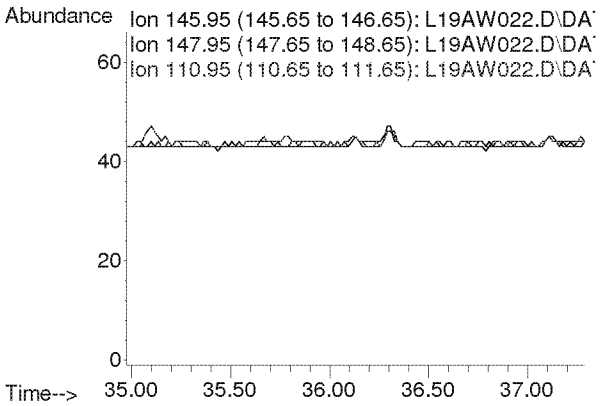


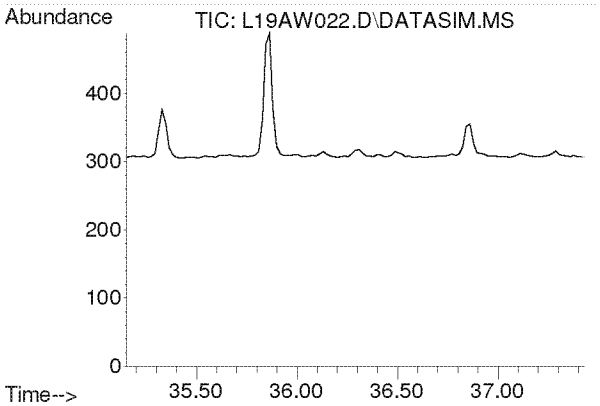
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



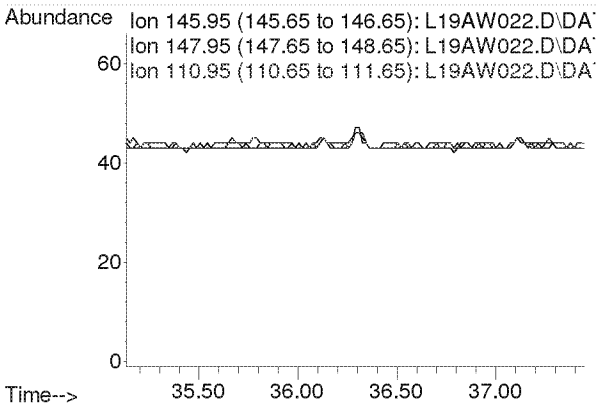


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

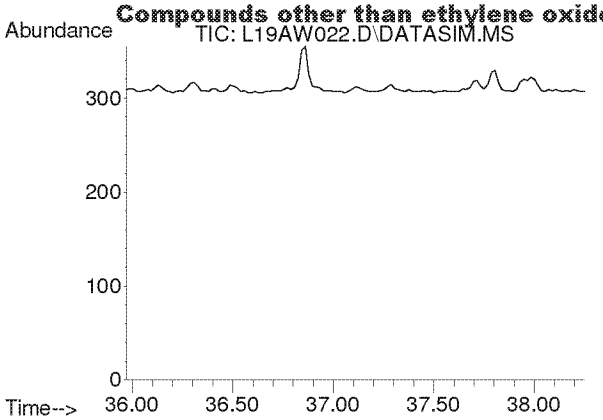
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3



Compounds other than ethylene oxide were not quantitated.

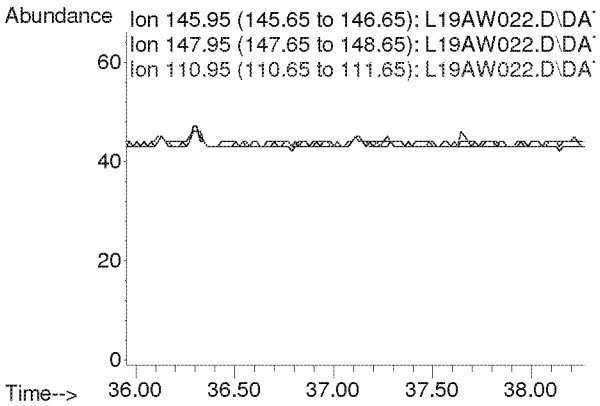


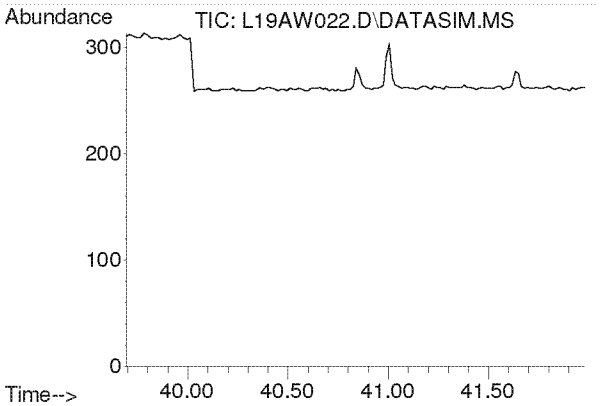
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



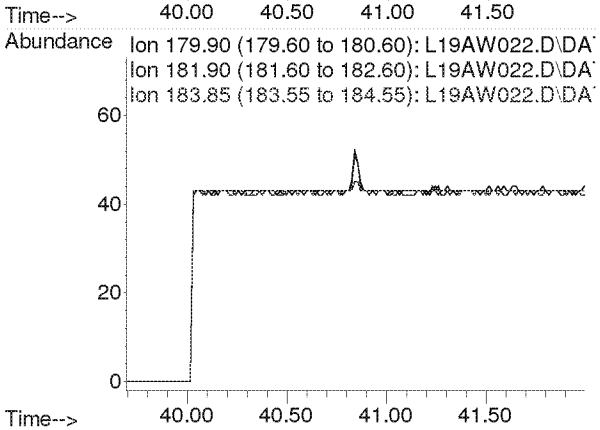


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

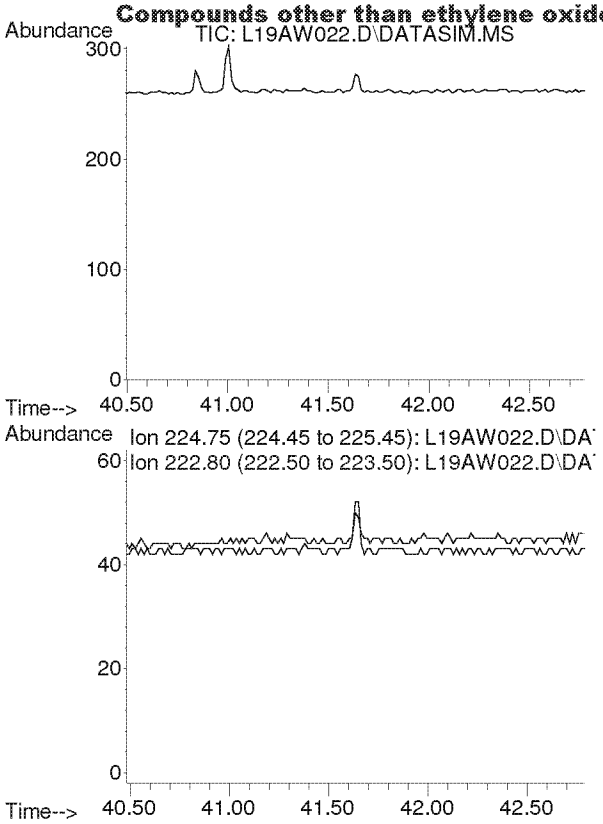
Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AW022.D
Acq: 24 Jan 2019 6:52 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 : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW023.D
Acq On : 24 Jan 2019 7:55 am
Operator : MAH
Sample : B9A2306-DUP3
Misc : WB VILLAGE HALL R1 1/18/19
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 29 08:36:07 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	53654	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	131094	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.116	117	99938	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	12.425	29	682m	0.2461 ppbv	RUB 2/5/19
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
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	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW023.D
Acq On : 24 Jan 2019 7:55 am
Operator : MAH
Sample : B9A2306-DUP3
Misc : WB VILLAGE HALL R1 1/18/19
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 29 08:36:07 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

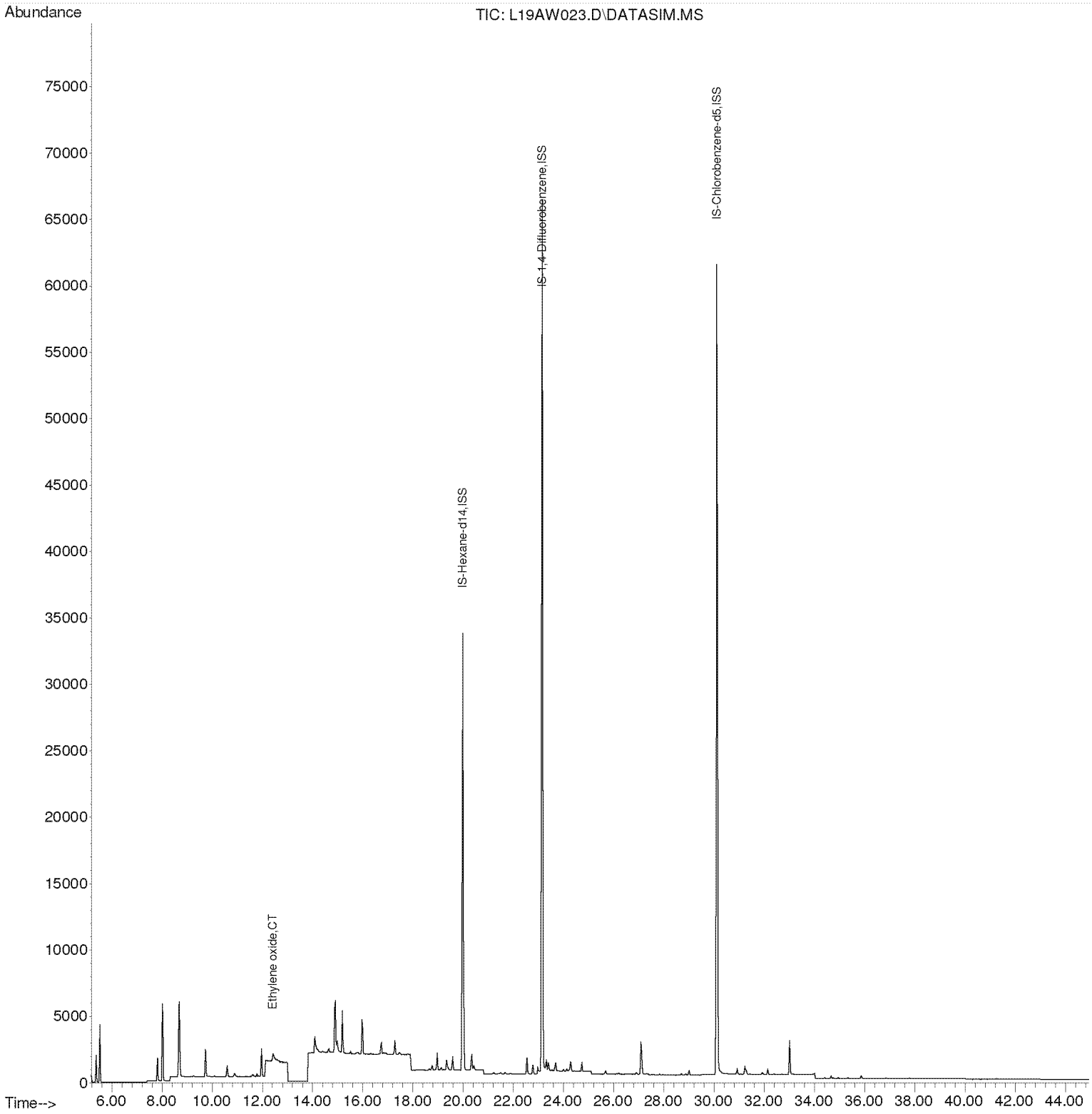
Internal Standards	R.T.	QIon	Response	Conc Units Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.
50) Ethylbenzene	0.000	91	0	N.D. d
51) m,p-Xylene	0.000	91	0	N.D. d
52) Bromoform	0.000	173	0	N.D.
53) Styrene	0.000	104	0	N.D. d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.
55) o-Xylene	0.000	91	0	N.D. d
56)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

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

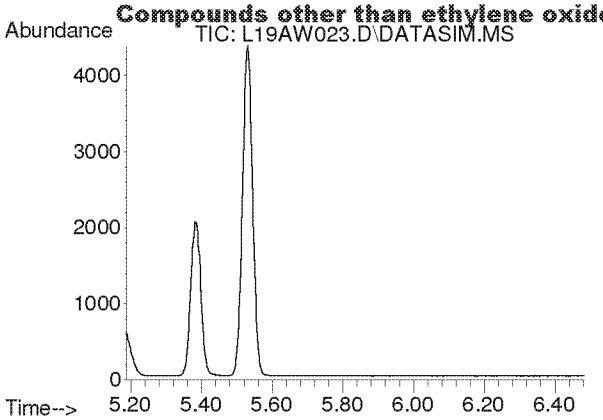
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW023.D
Acq On : 24 Jan 2019 7:55 am
Operator : MAH
Sample : B9A2306-DUP3
Misc : WB VILLAGE HALL R1 1/18/19
ALS Vial : 23 Sample Multiplier: 1

Quant Time: Jan 29 08:36:07 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



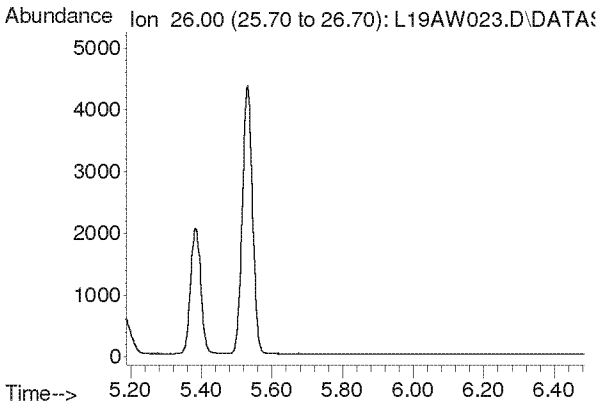
Compounds other than ethylene oxide were not quantitated.

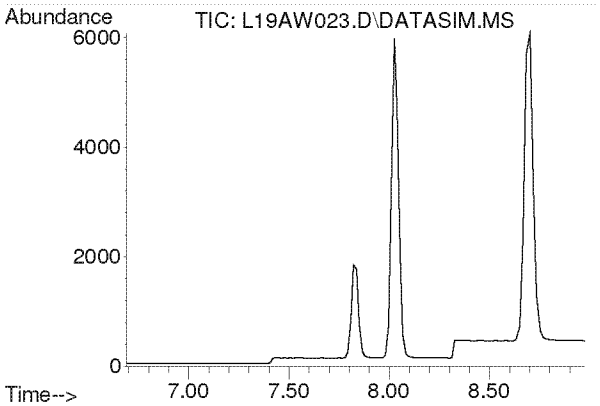


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 26



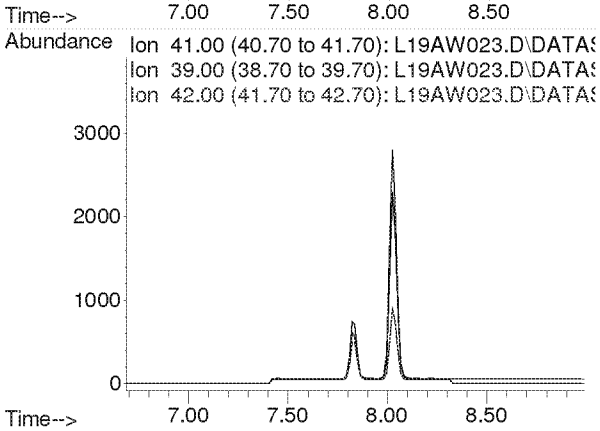


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

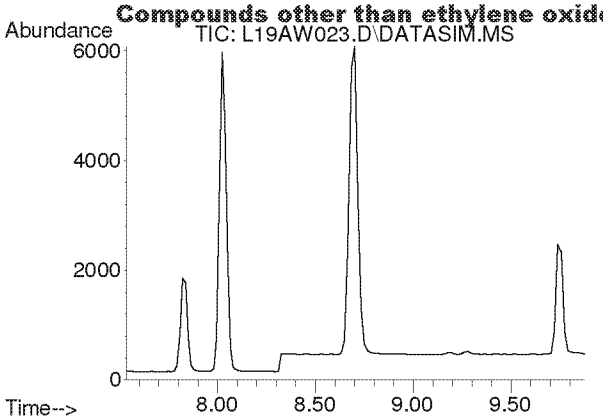
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

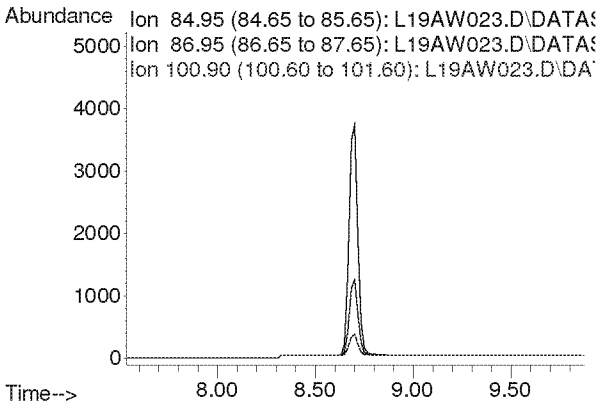


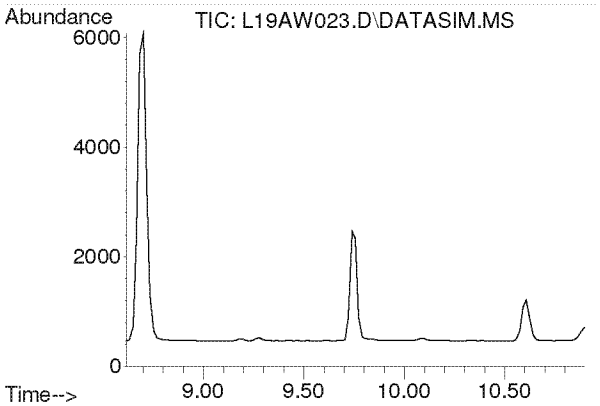
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



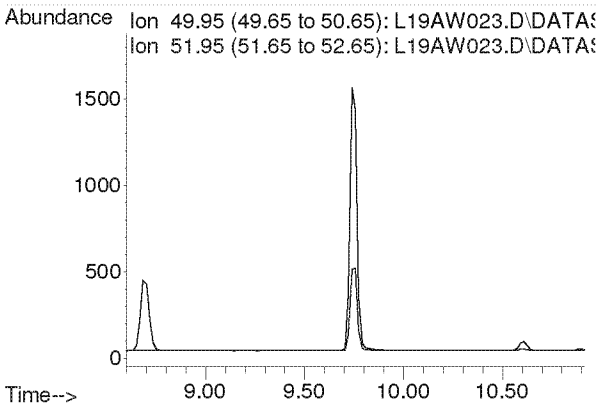


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

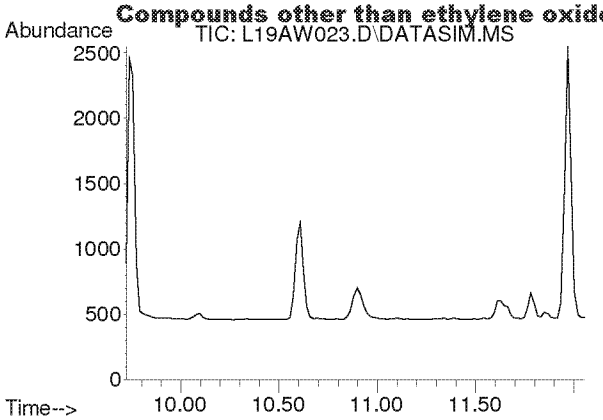
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

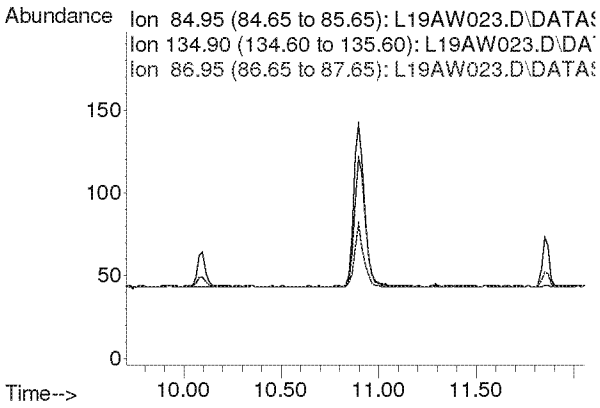


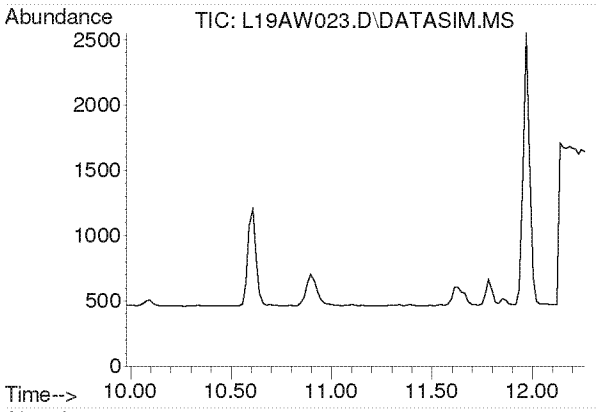
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



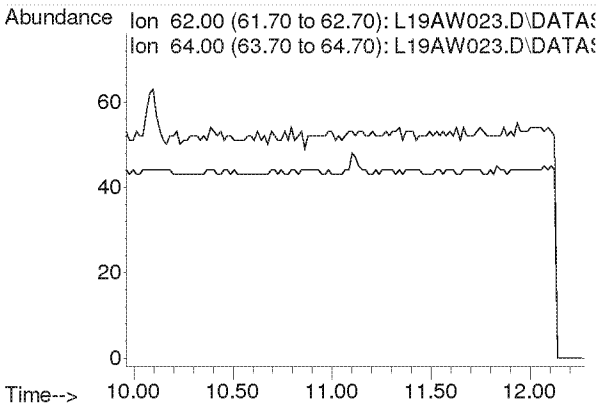


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

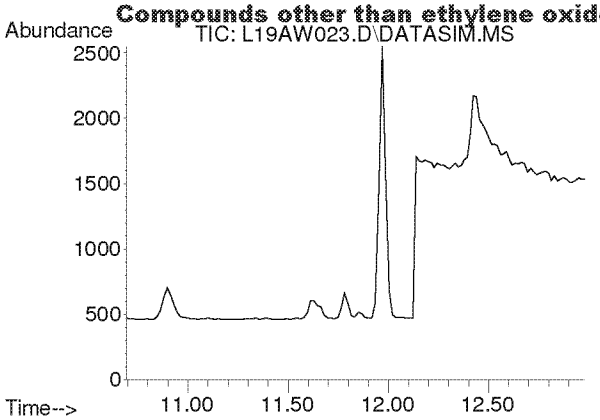
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

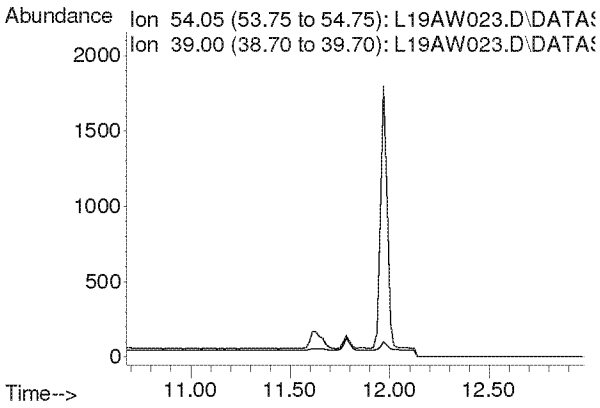


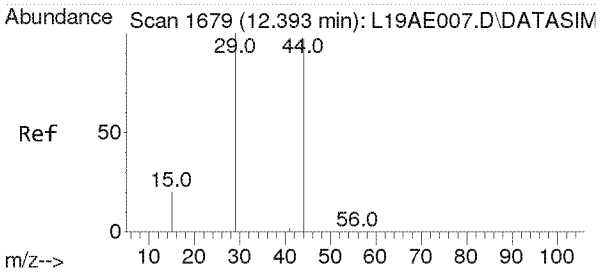
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

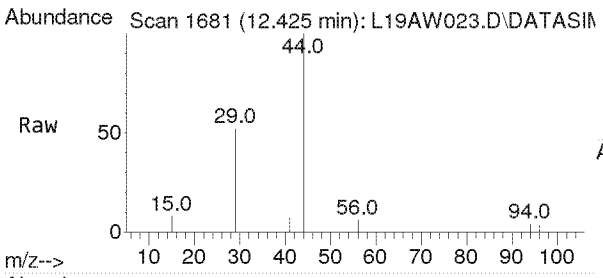


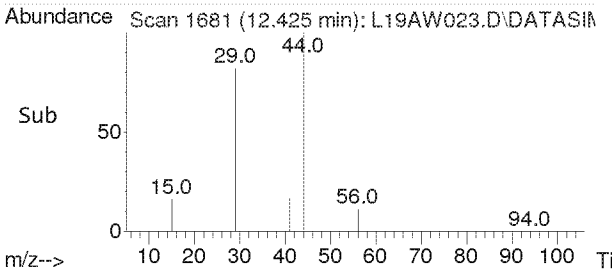


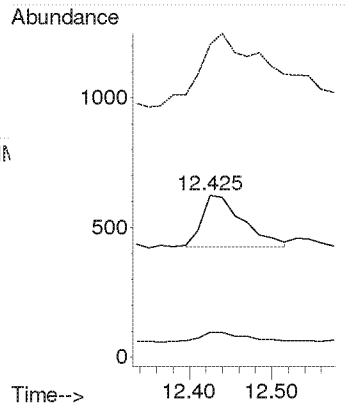
#9
Ethylene oxide
Concen: 0.246 ppbv m
RT: 12.425 min Scan# 1681
Delta R.T. 0.032 min
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 29 Resp: 682

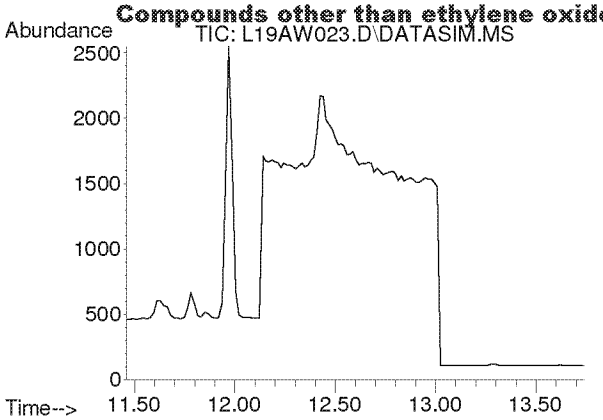
Ion	Ratio	Lower	Upper
29	100		
15	22.7	15.4	23.0
44	275.5	77.4	116.2#







Compounds other than ethylene oxide were not quantitated.

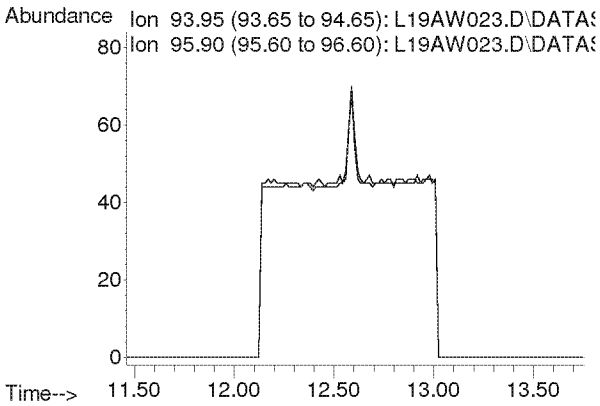


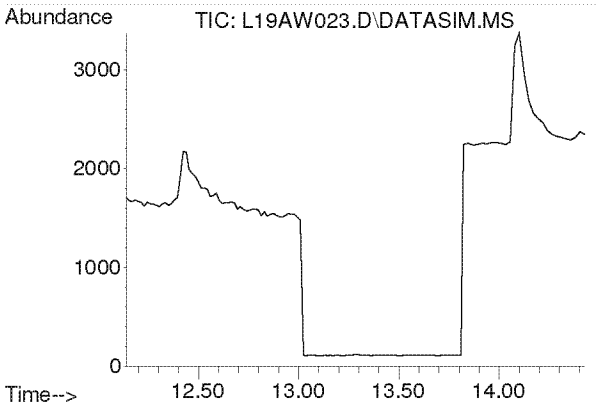
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



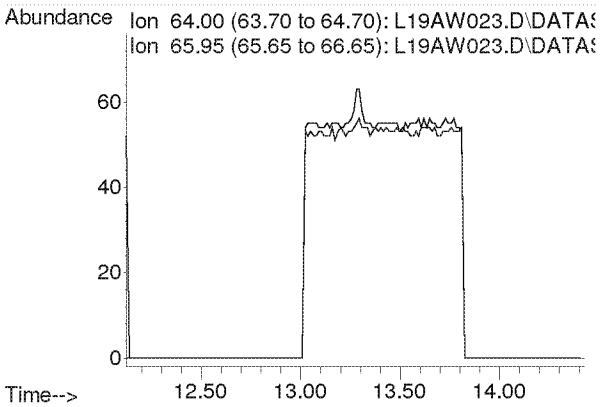


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

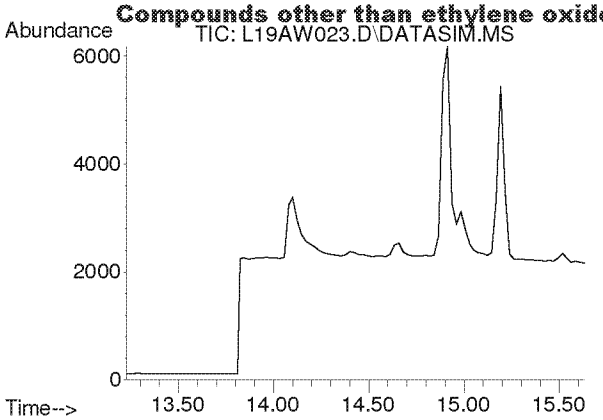
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

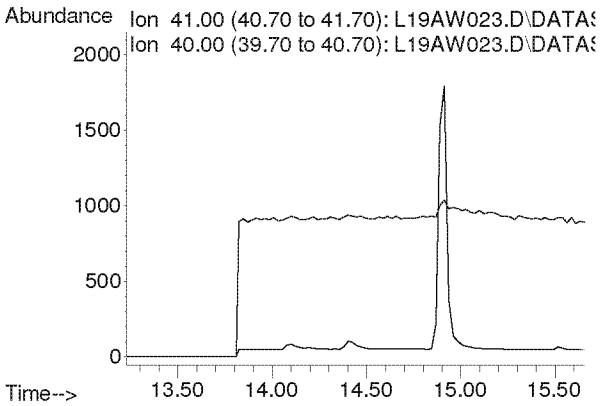


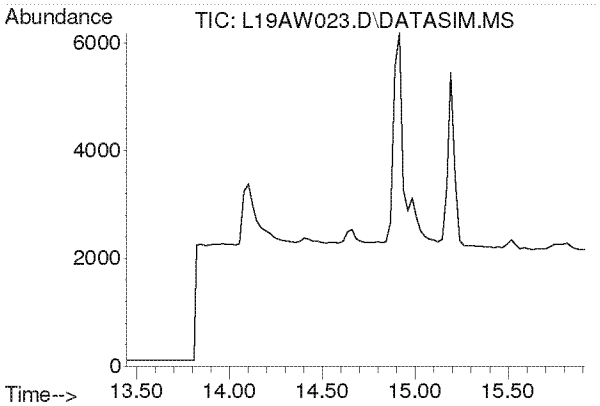
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



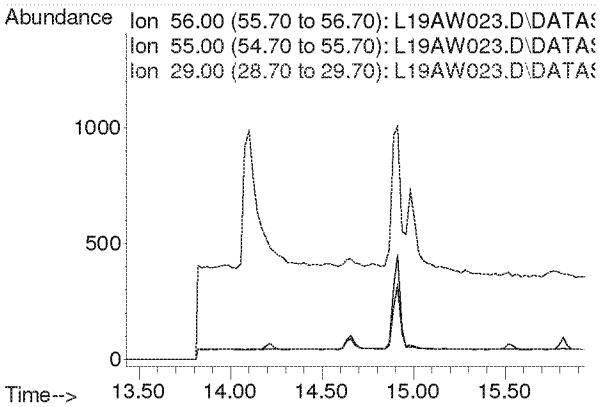


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

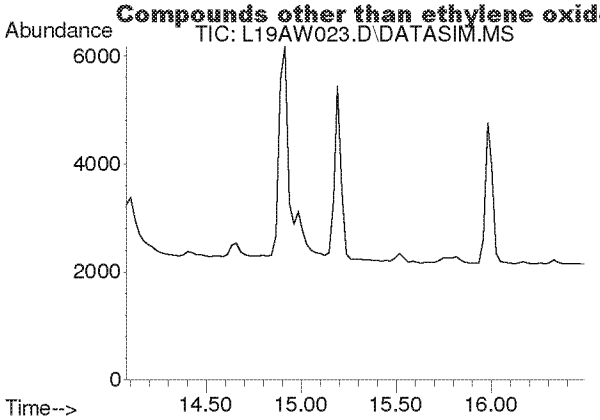
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

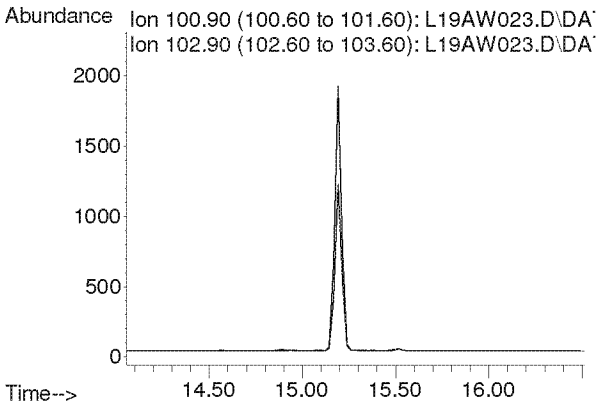


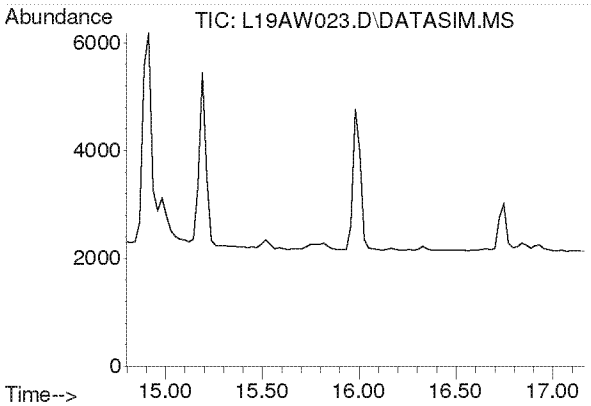
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



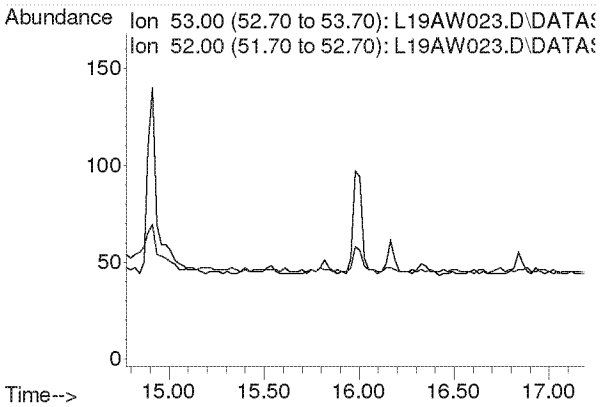


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

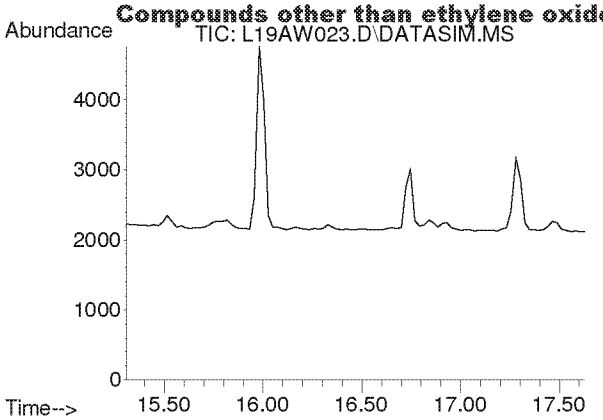
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

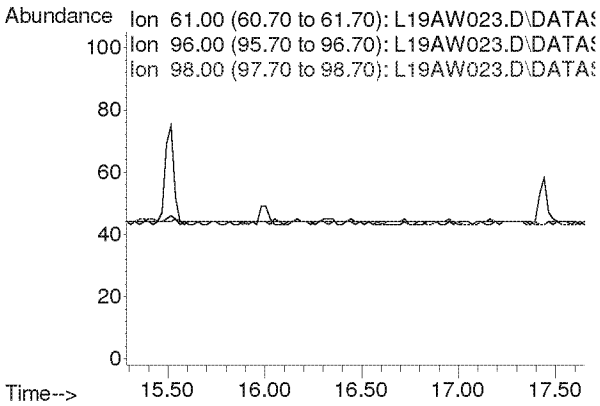


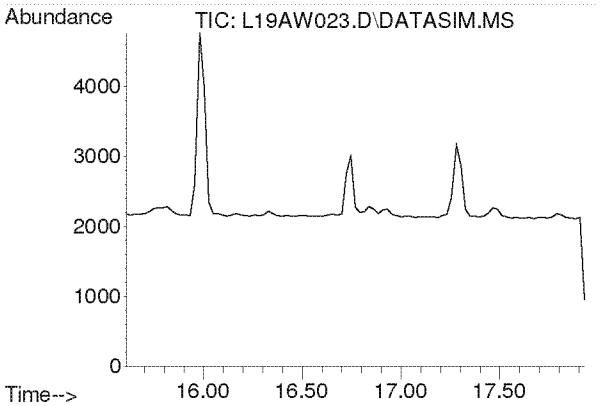
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



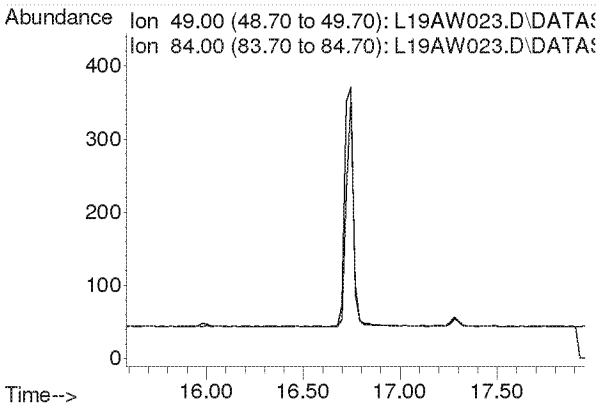


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

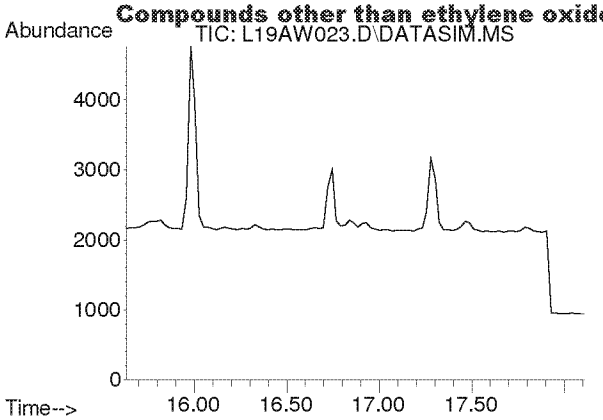
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

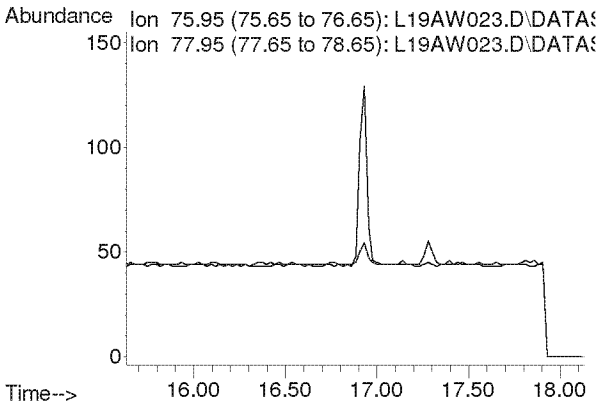


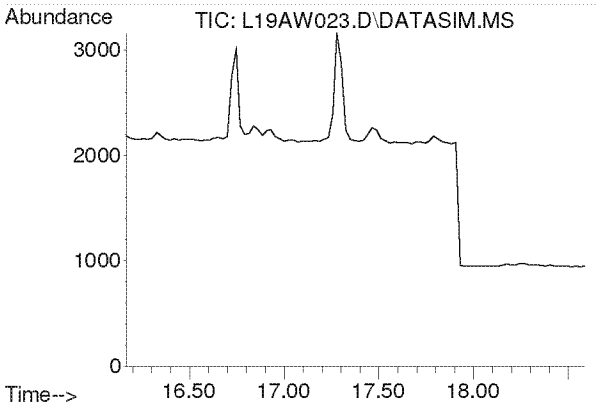
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



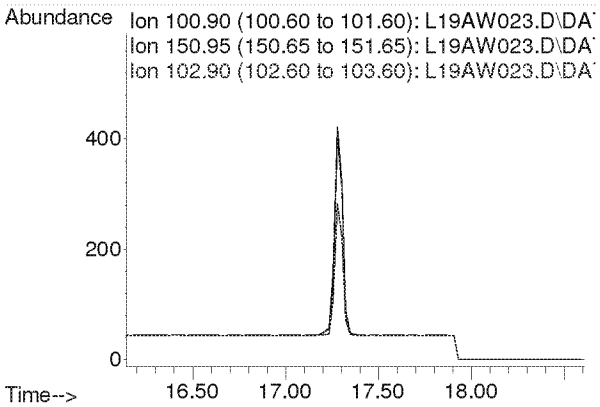


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

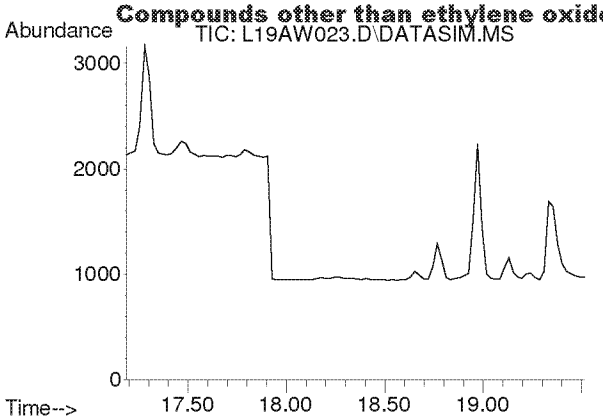
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

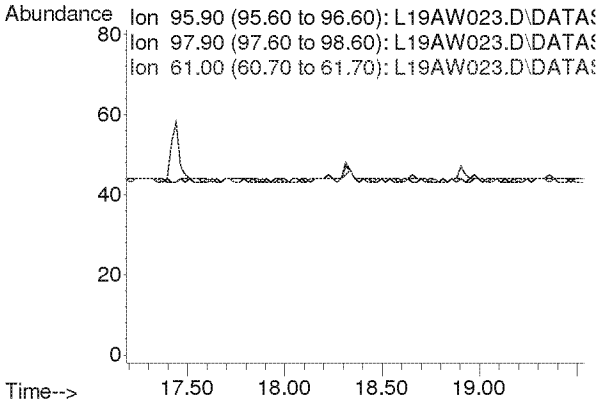


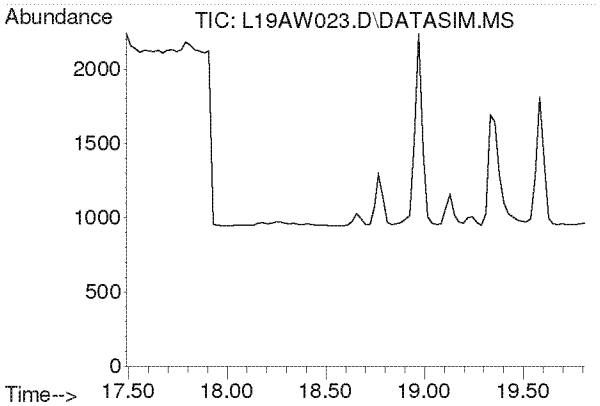
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



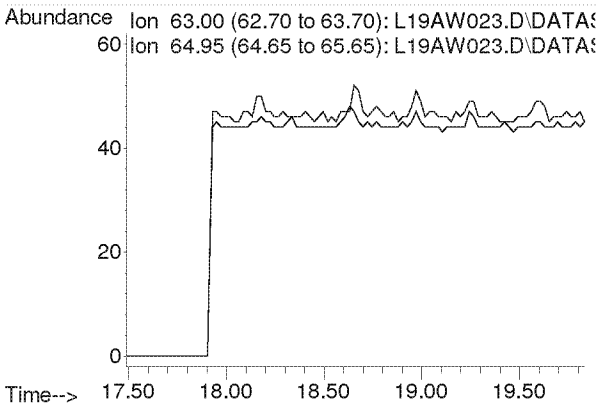


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

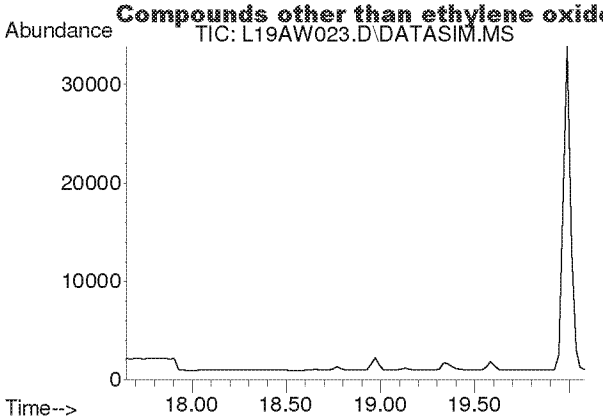
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

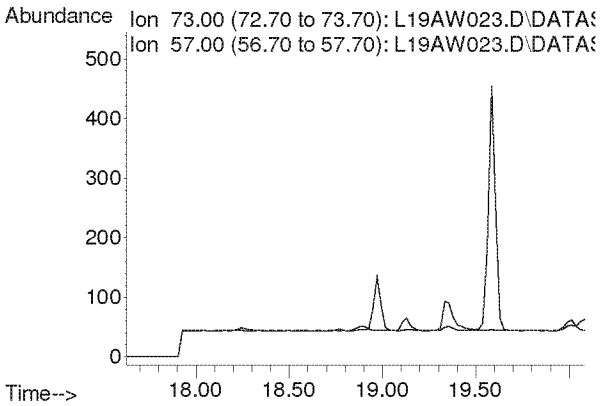


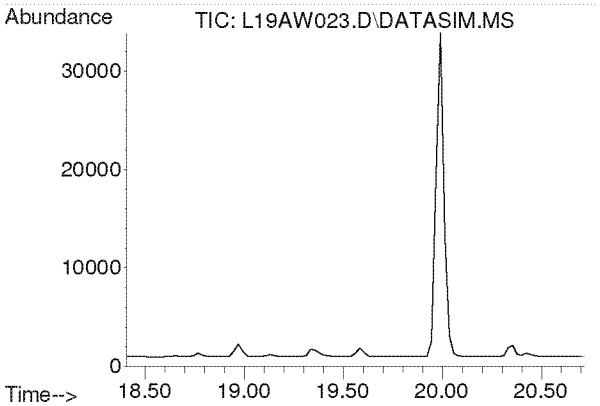
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



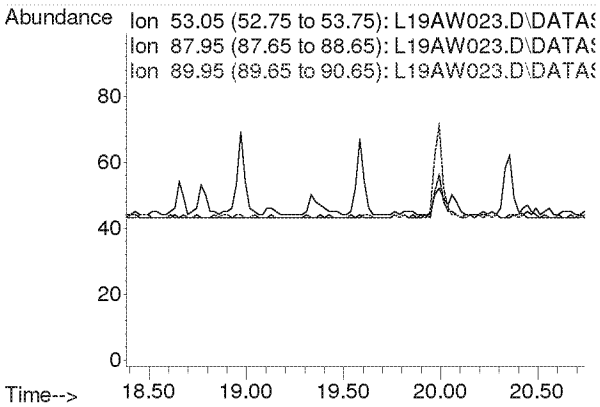


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

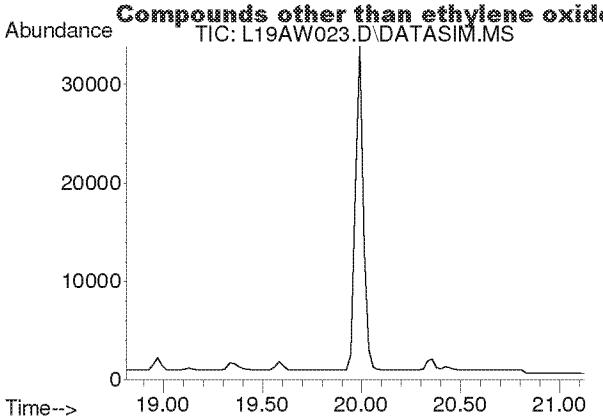
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

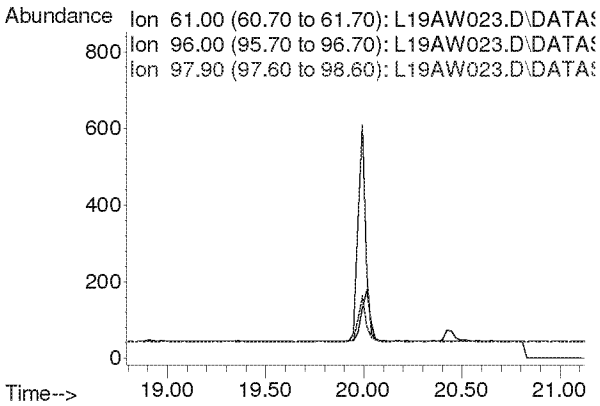


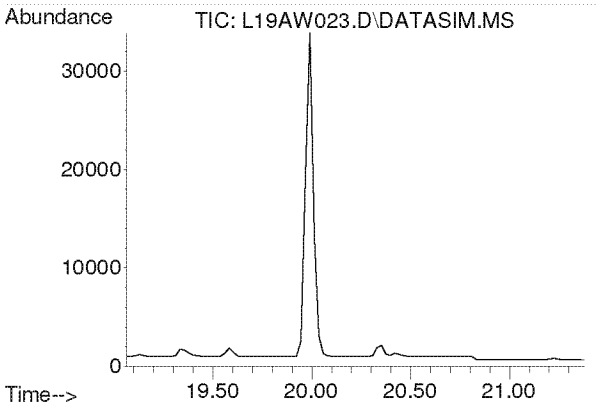
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



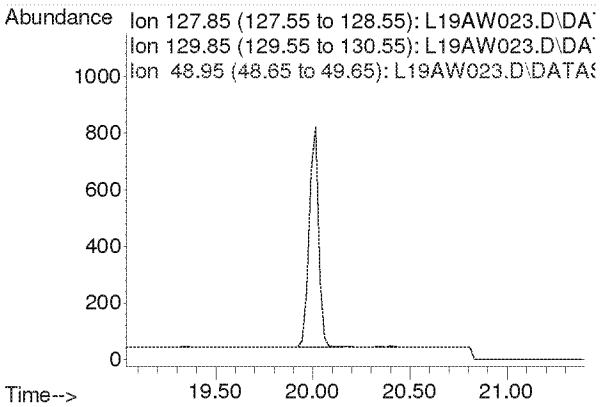


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

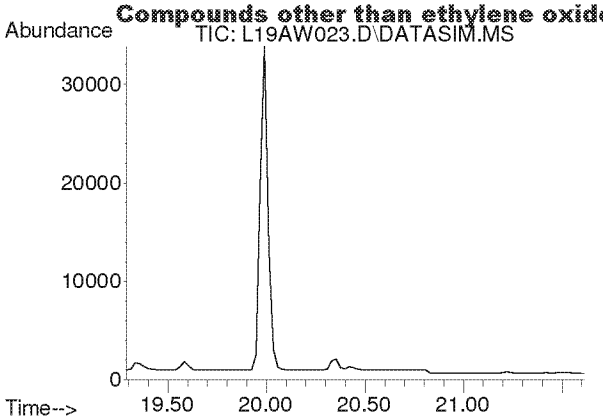
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

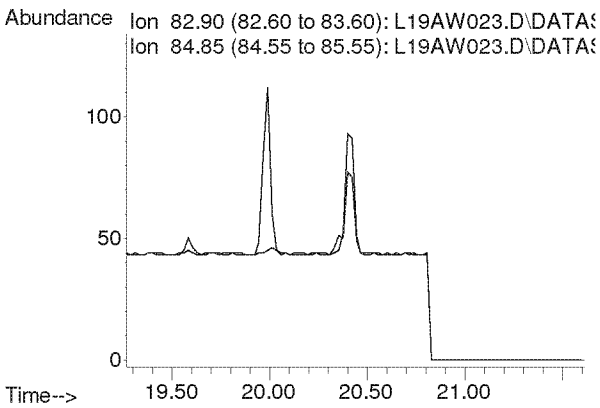


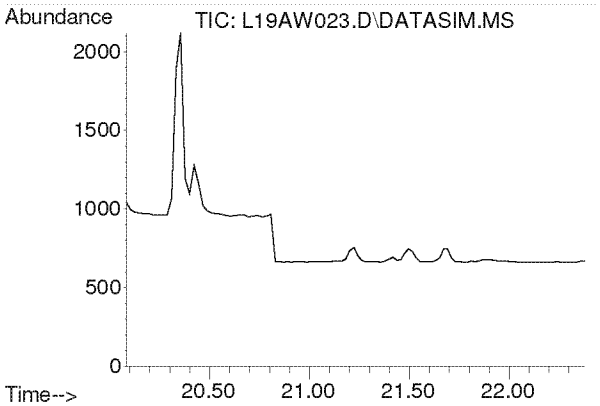
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



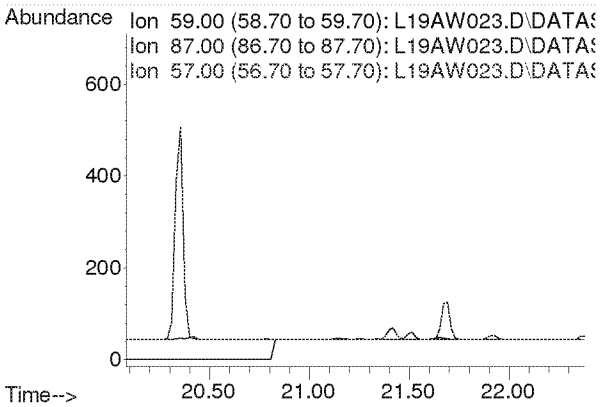


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

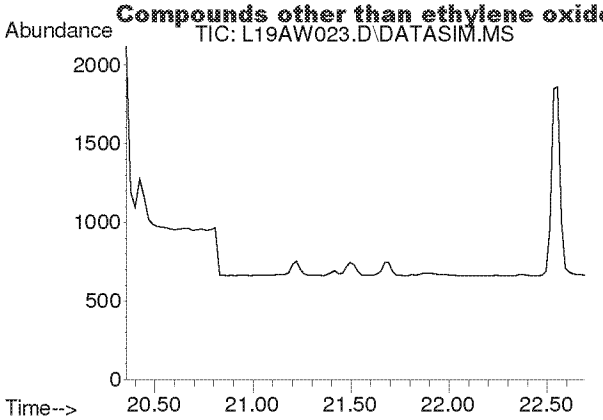
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

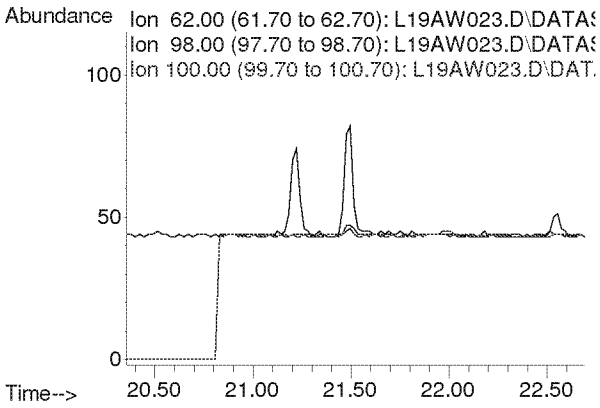


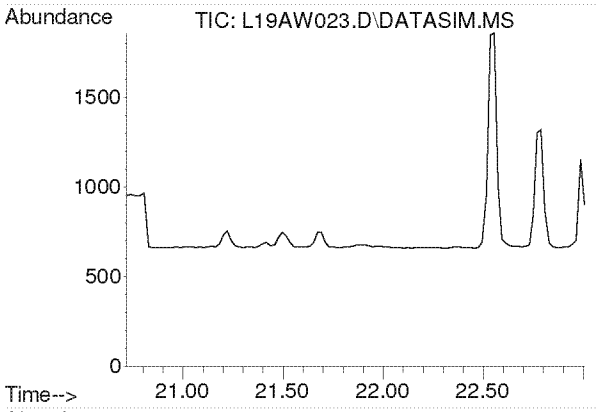
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



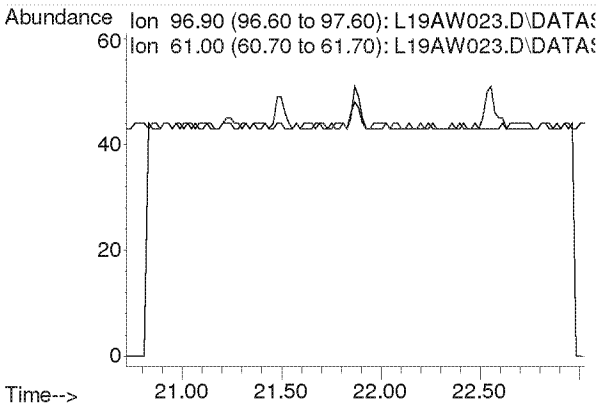


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

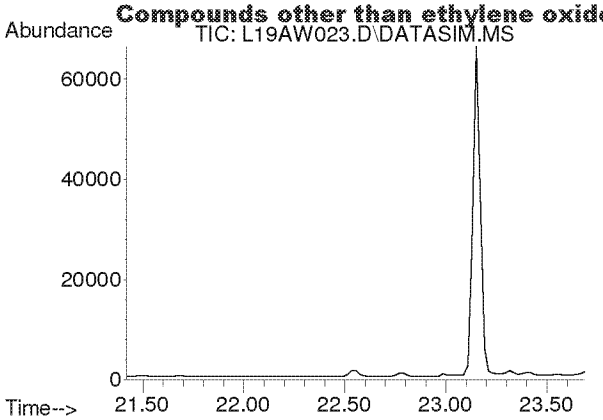
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

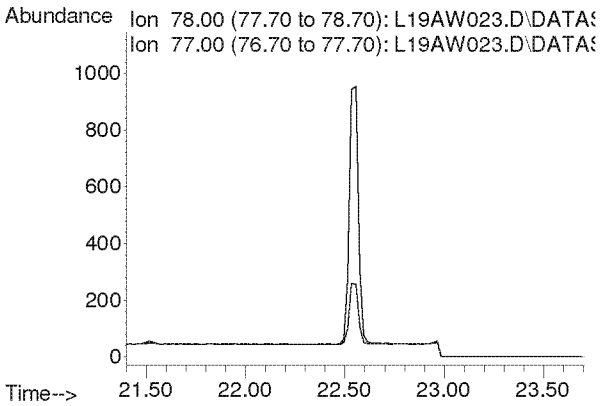


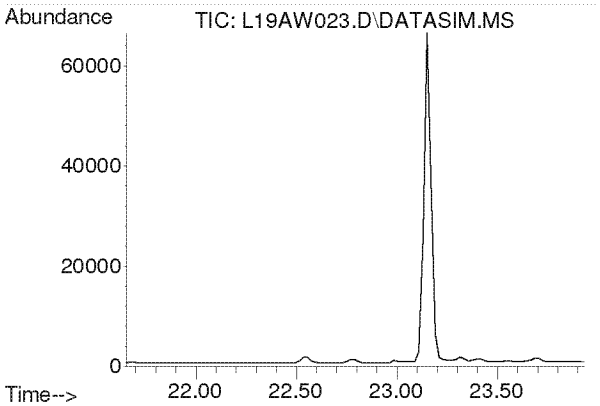
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



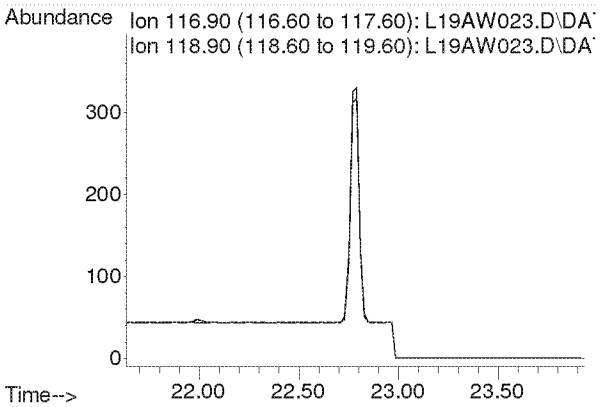


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

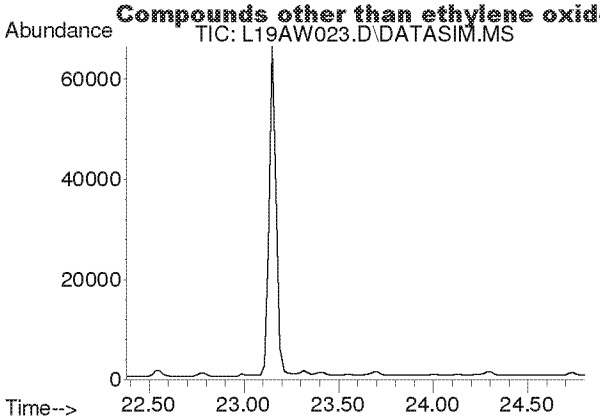
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

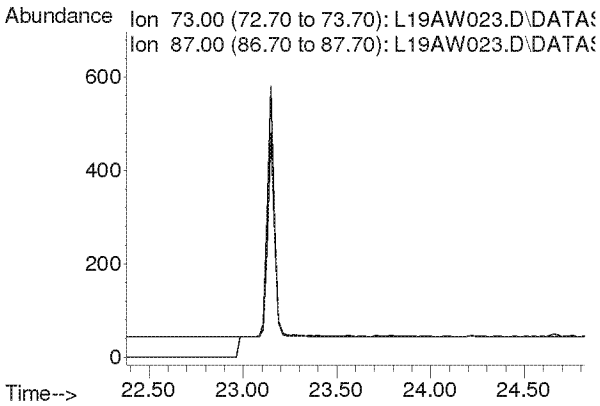


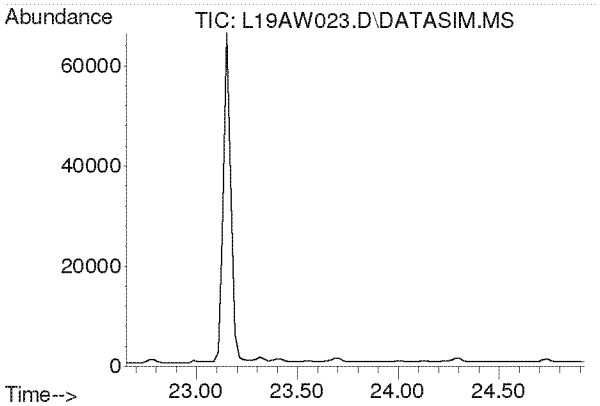
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



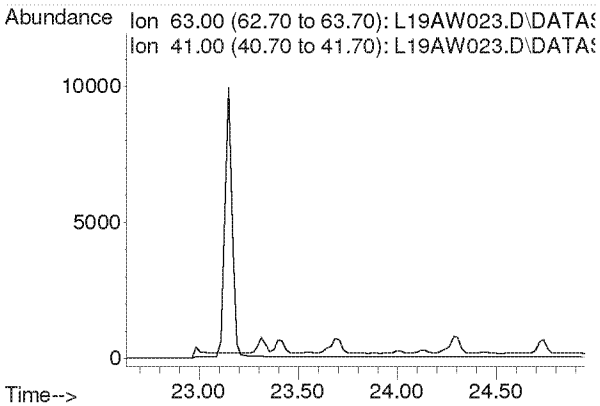


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

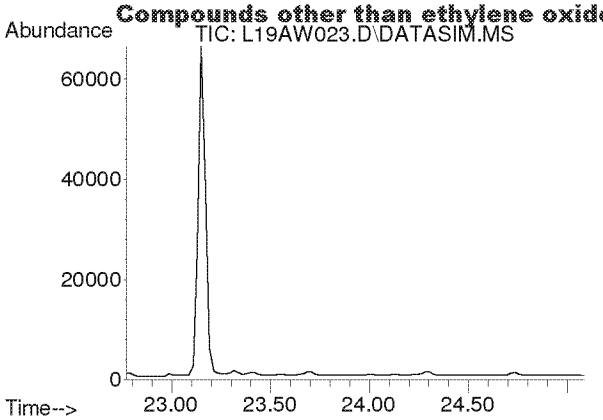
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

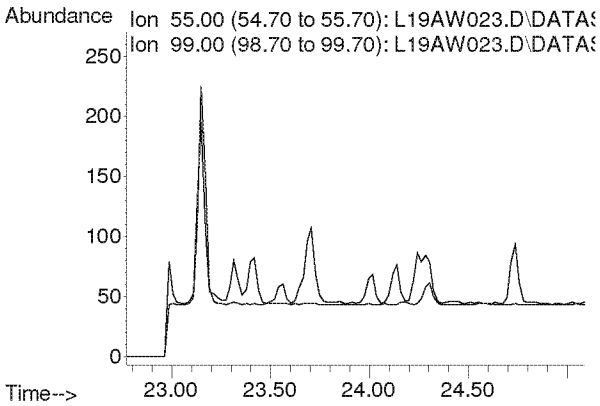


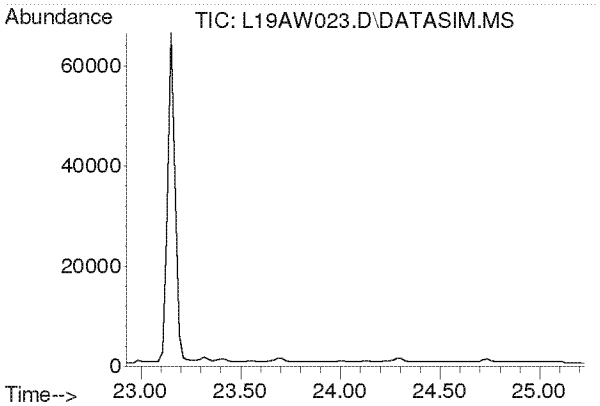
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



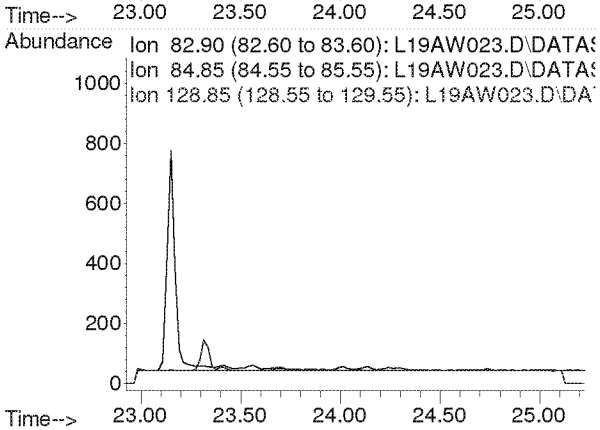


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

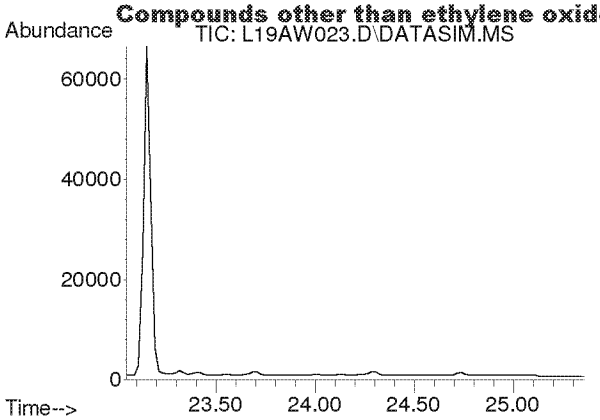
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

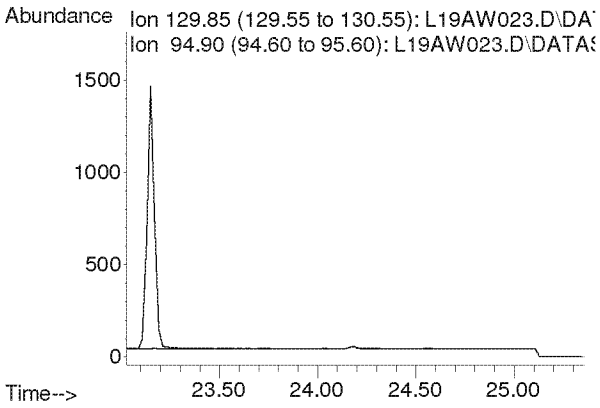


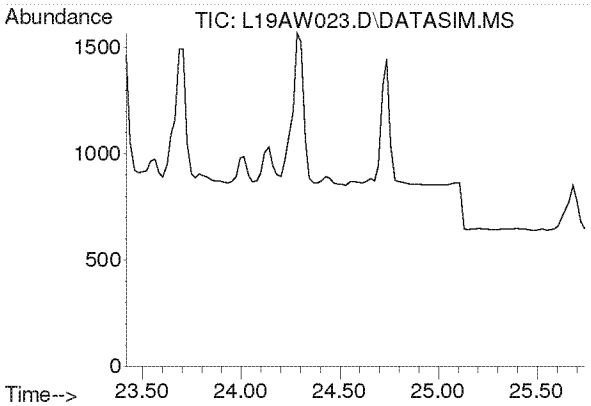
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



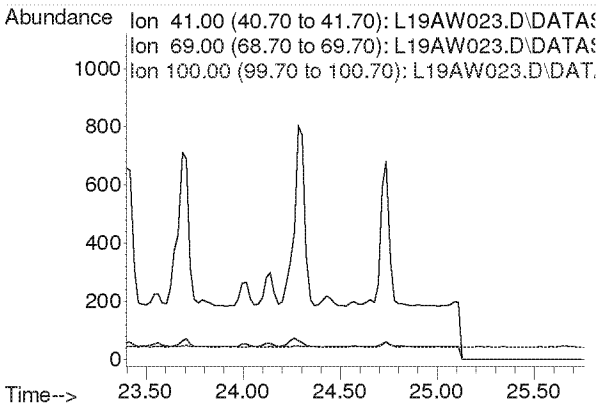


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

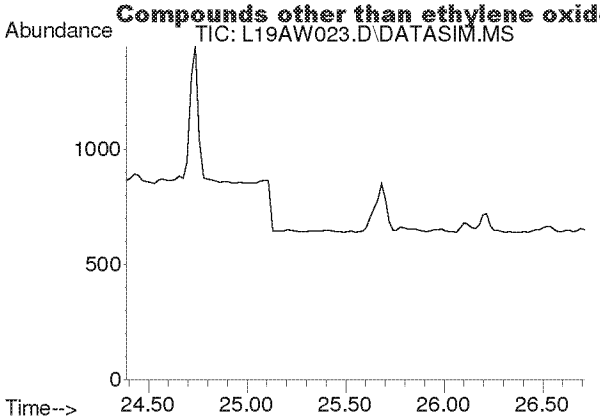
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

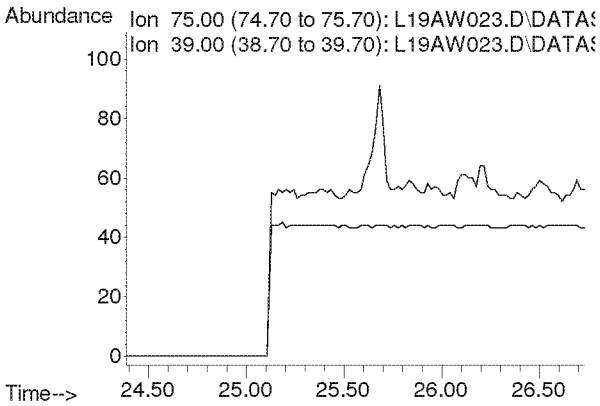


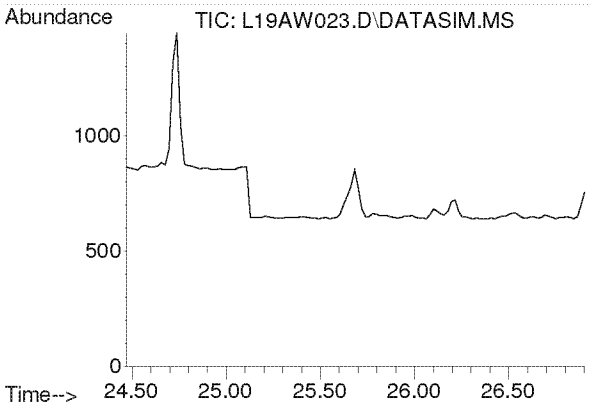
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



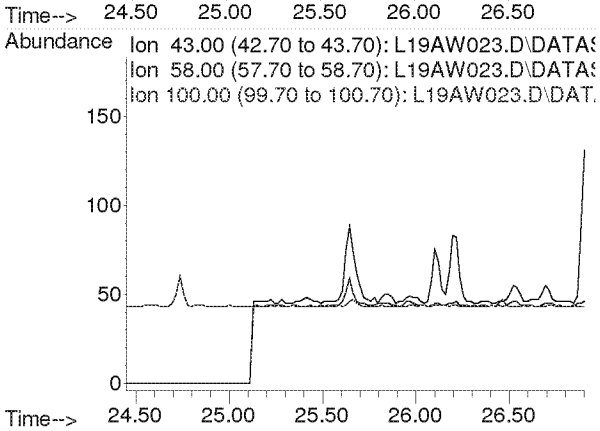


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

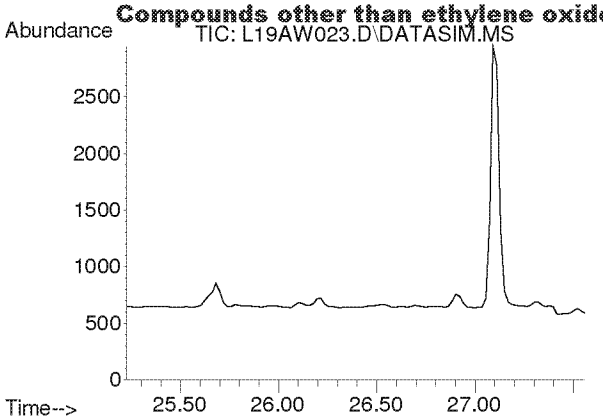
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

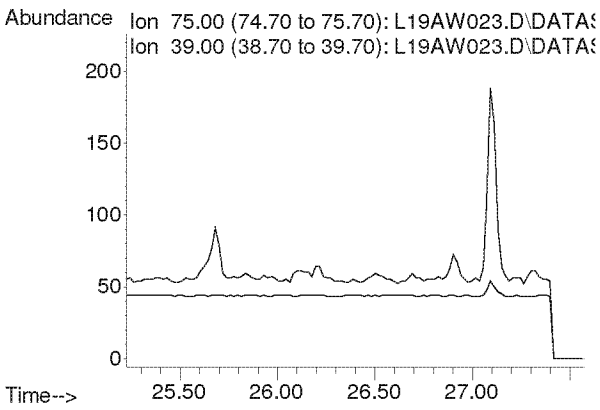


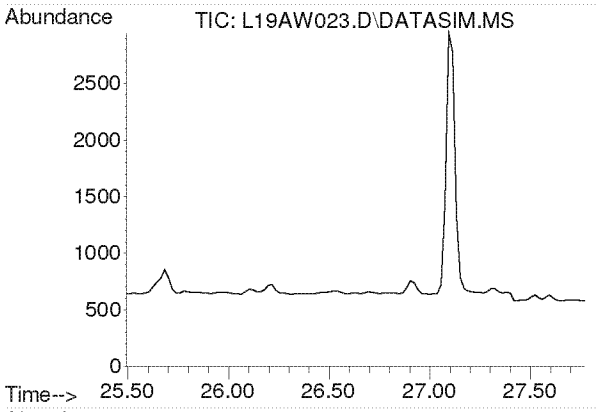
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



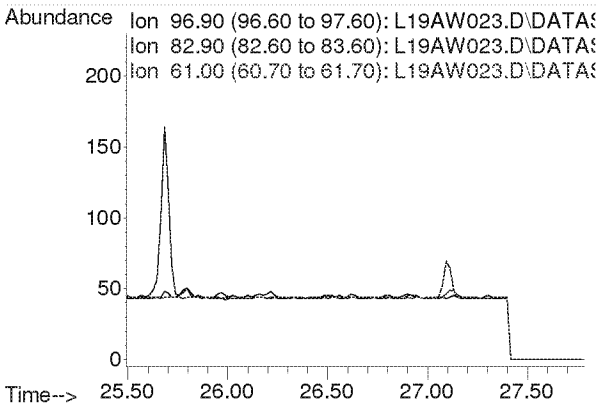


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

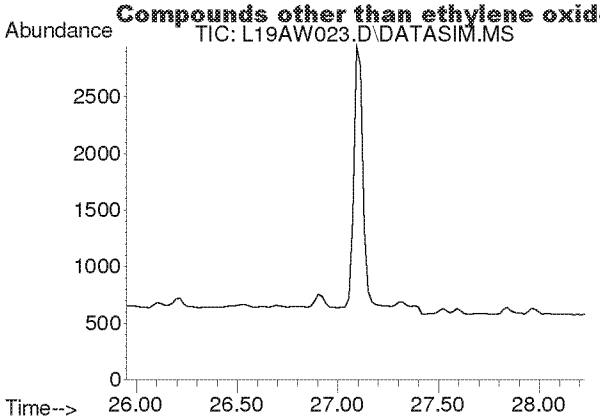
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

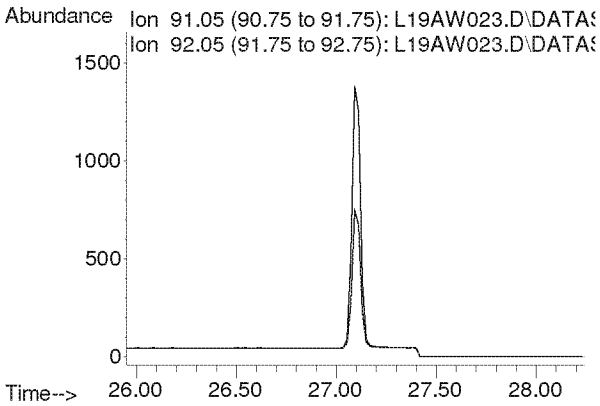


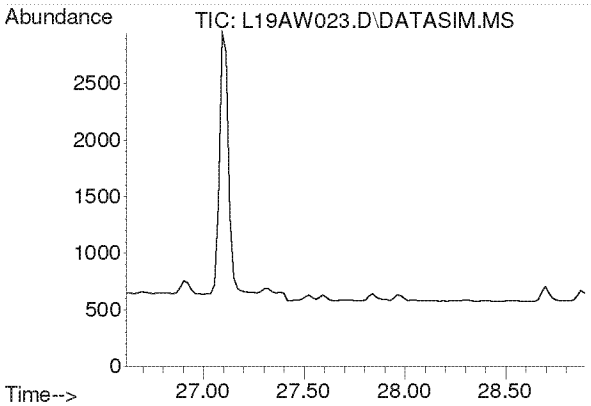
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



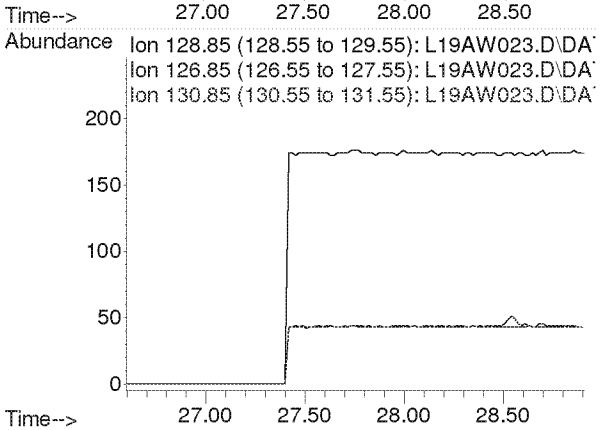


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

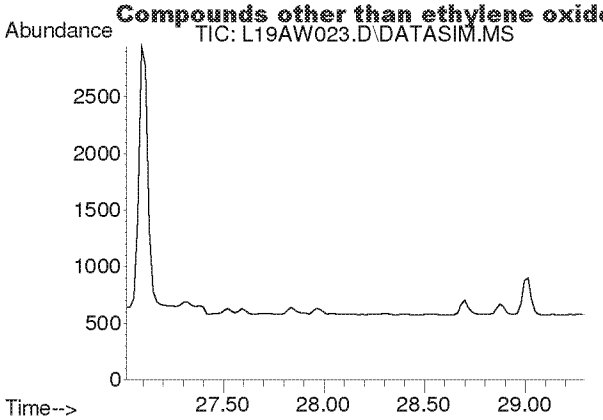
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

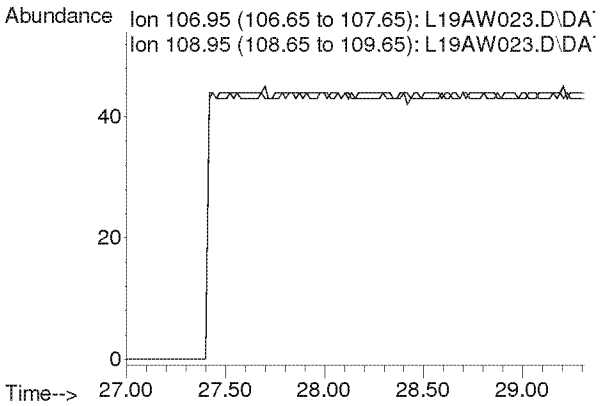


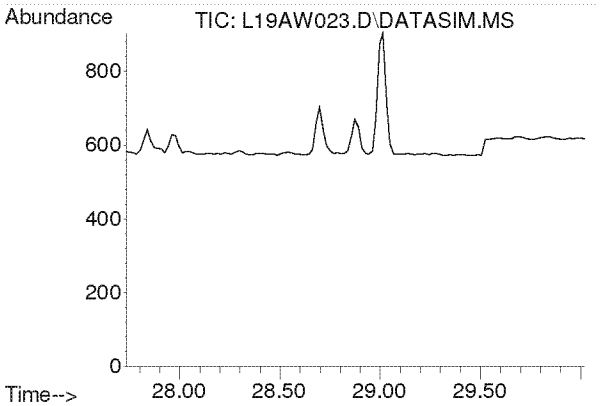
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



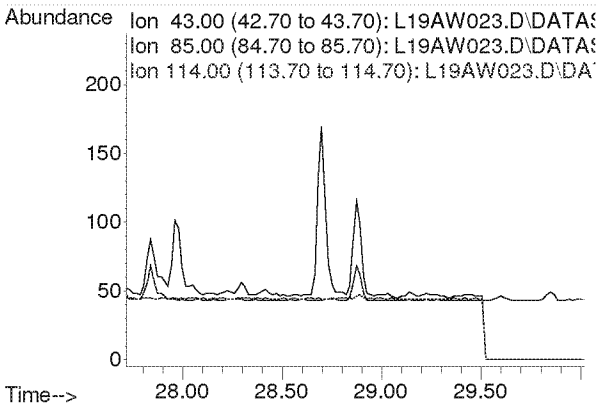


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

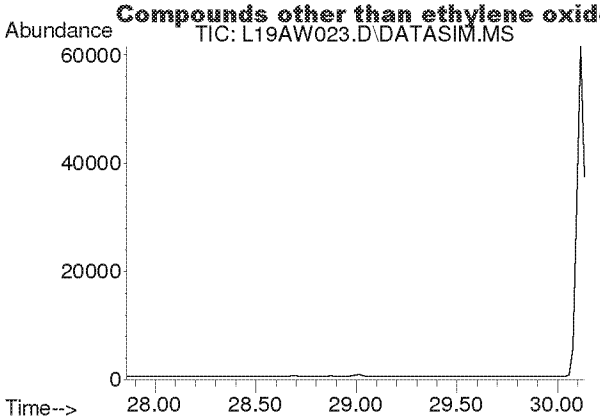
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

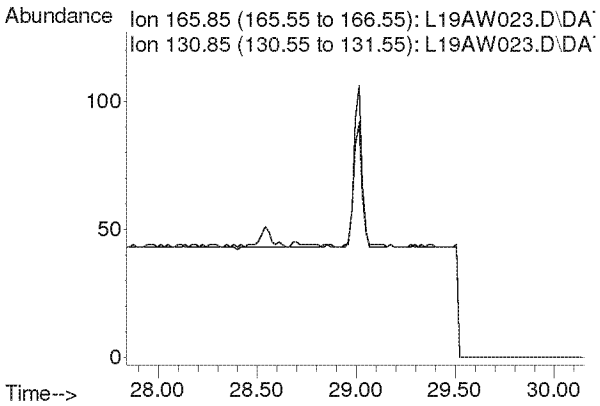


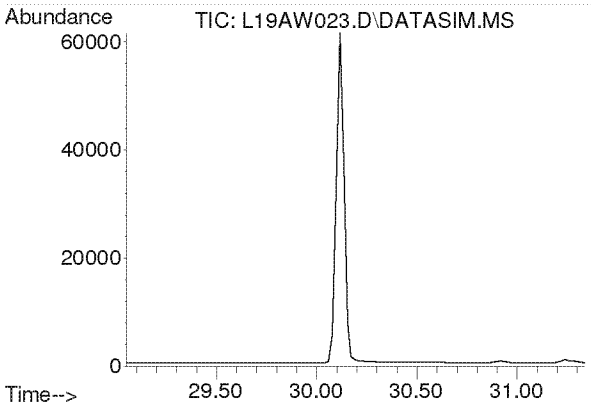
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



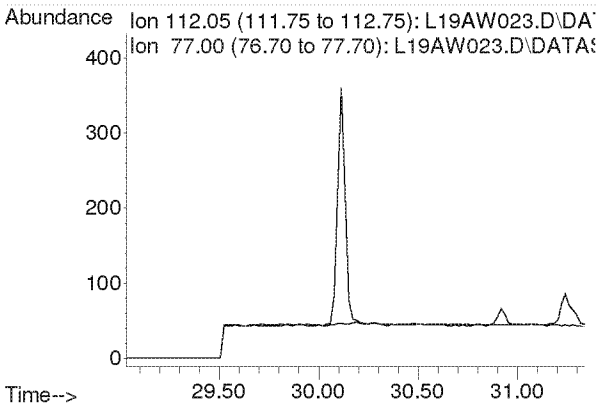


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

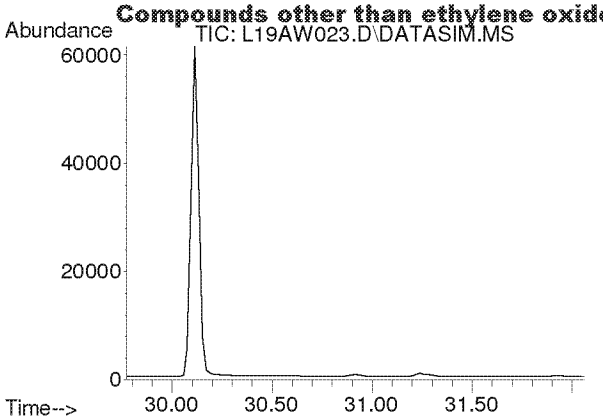
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

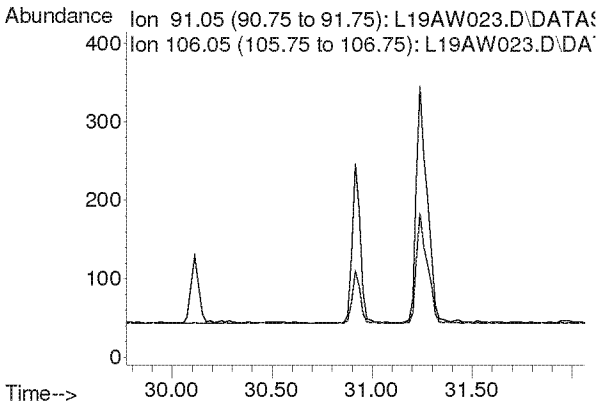


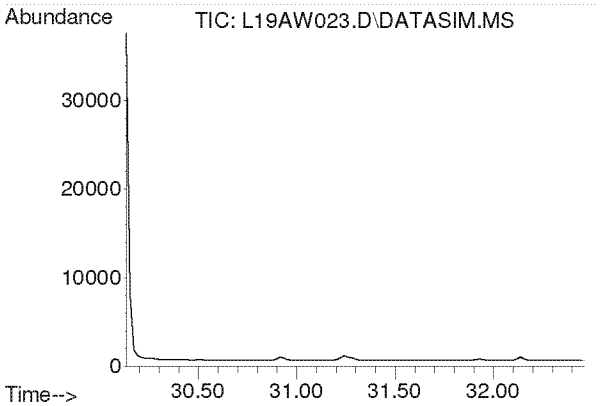
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



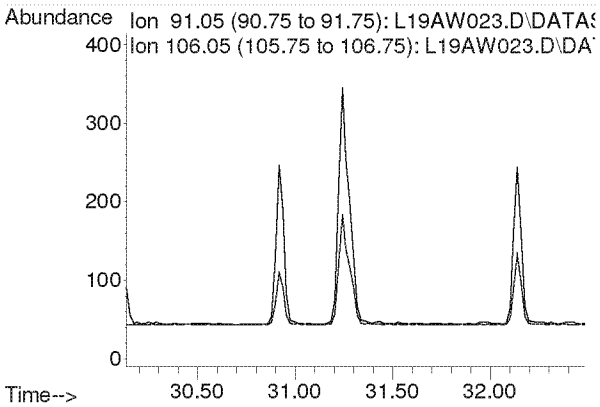


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

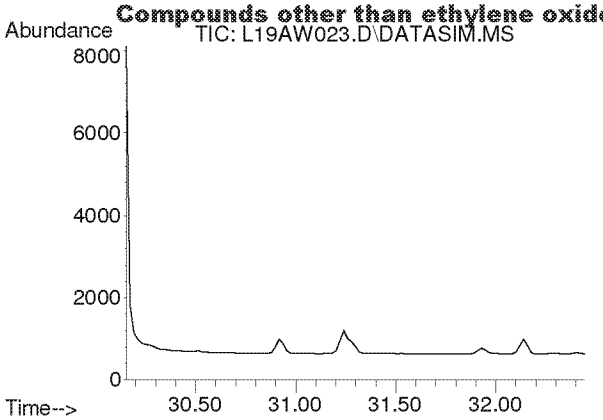
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

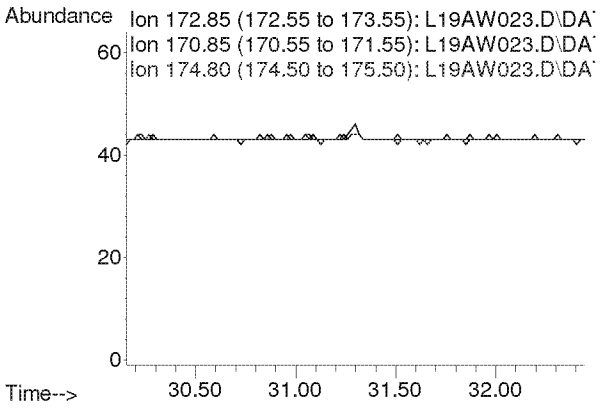


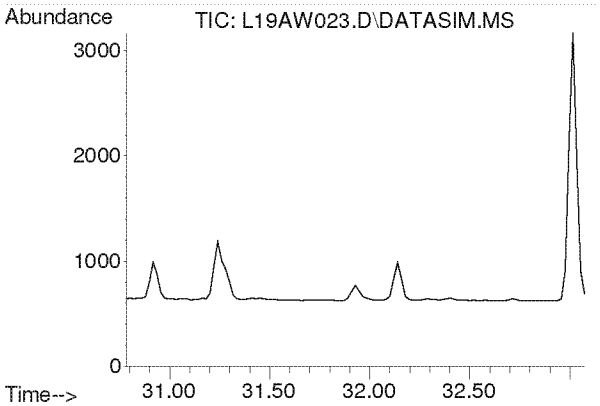
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



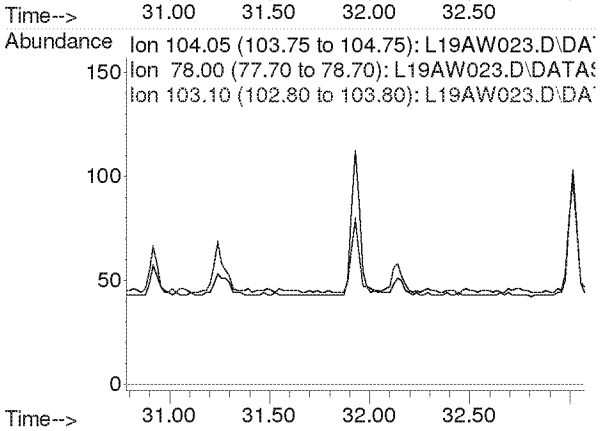


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

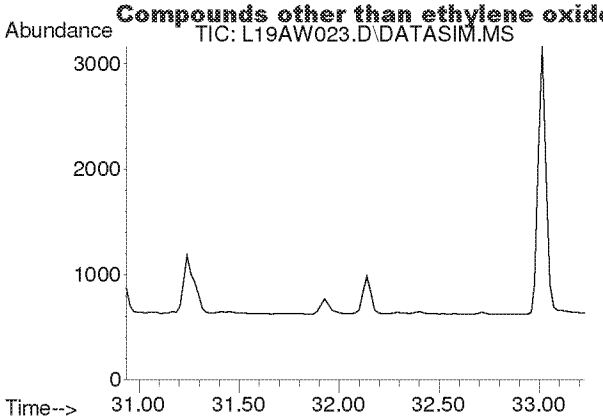
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

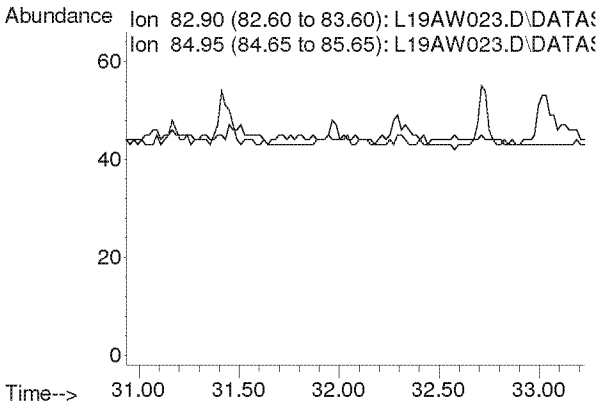


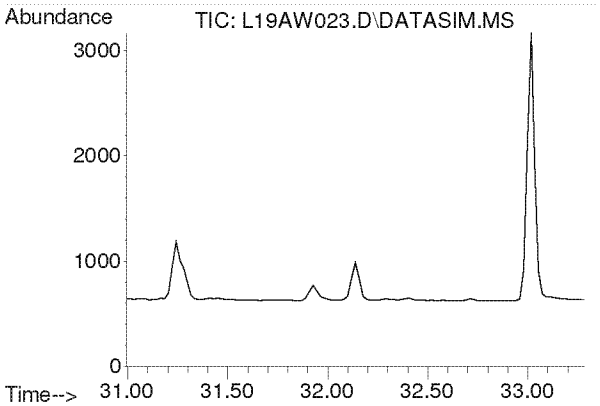
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



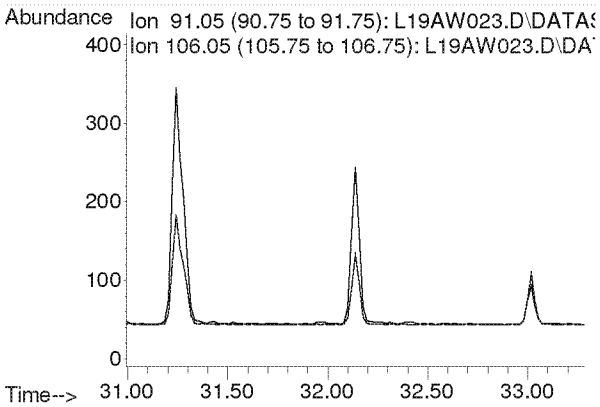


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

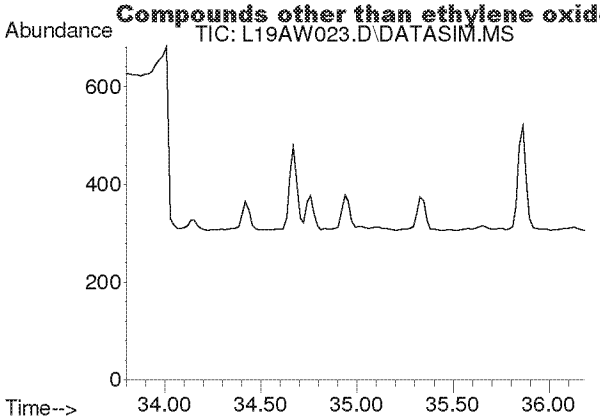
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

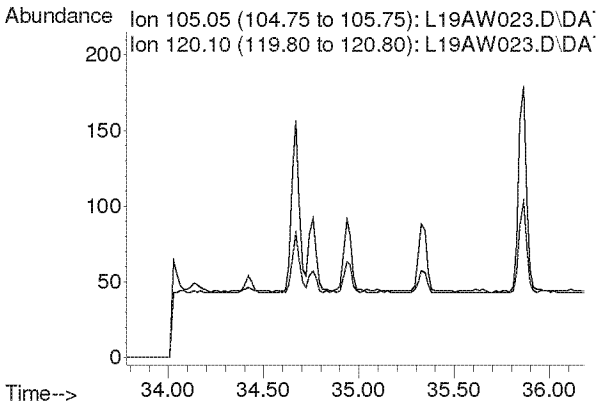


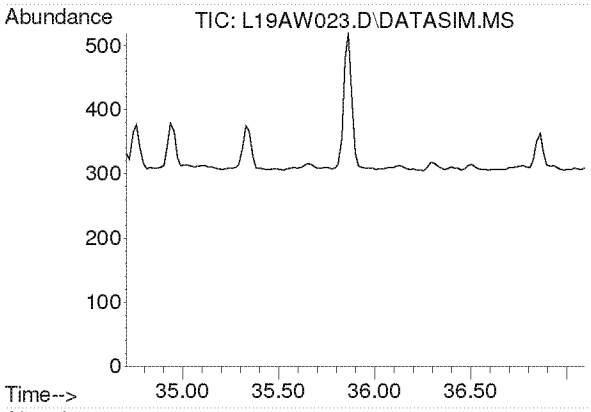
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



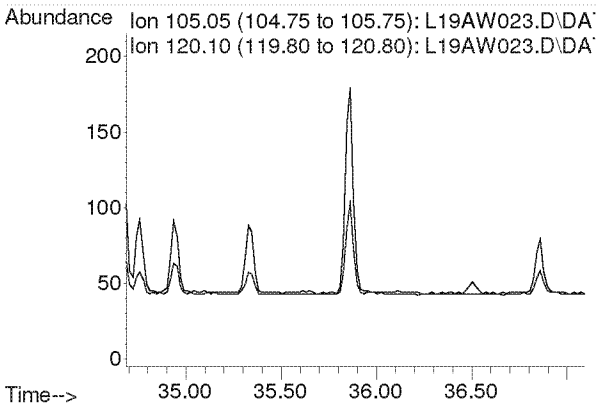


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

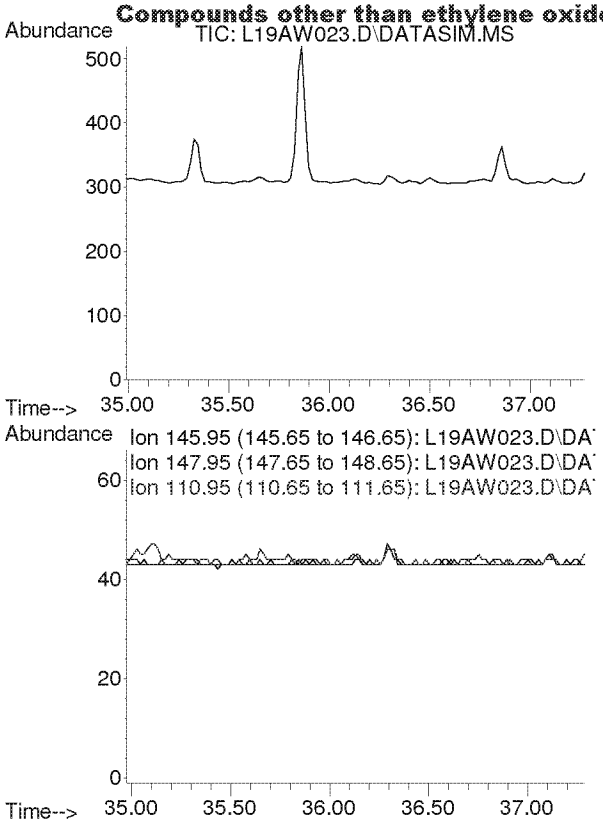
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

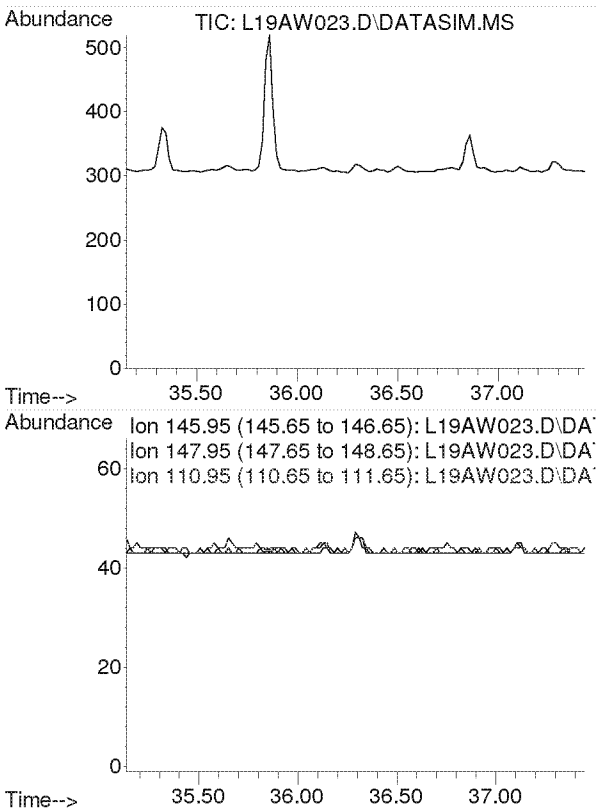


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



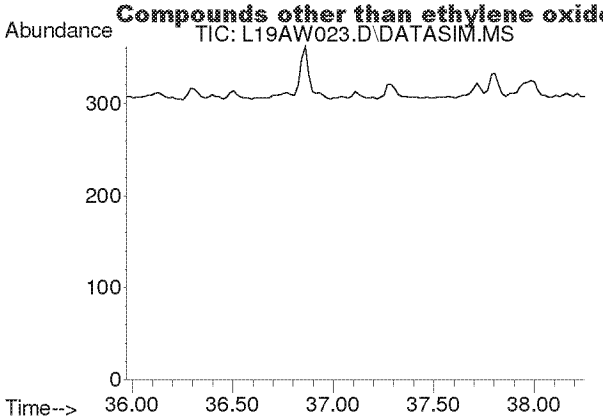
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3

Compounds other than ethylene oxide were not quantitated.

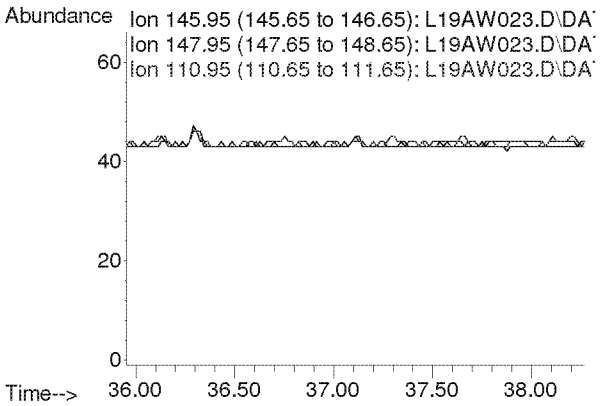


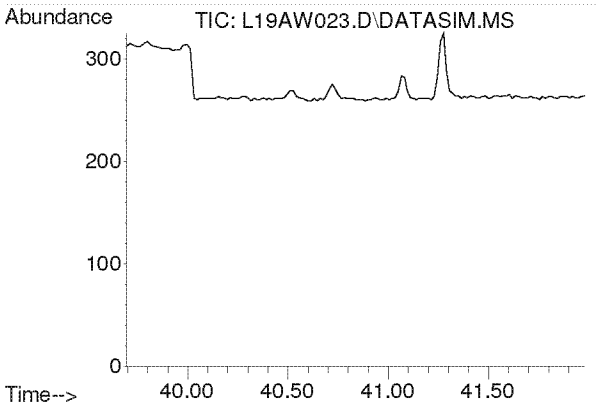
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



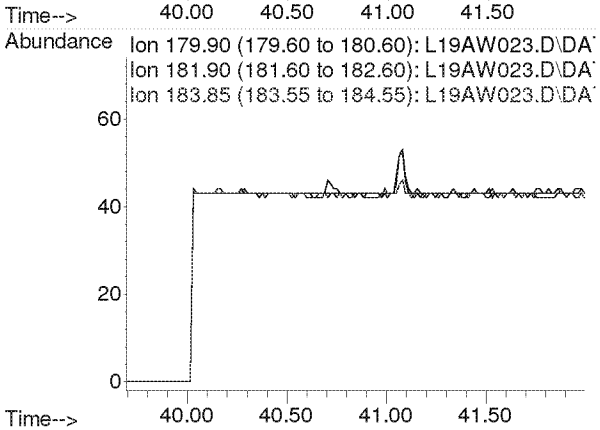


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

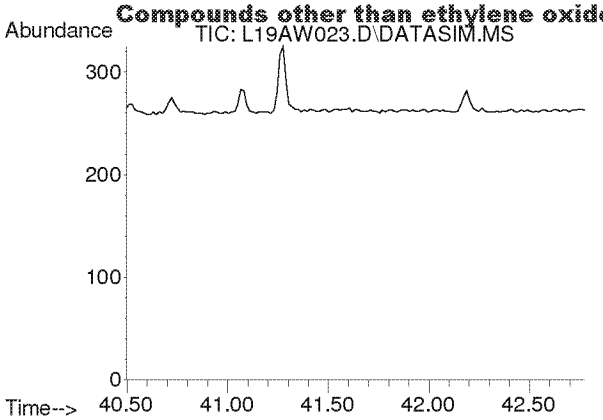
Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.

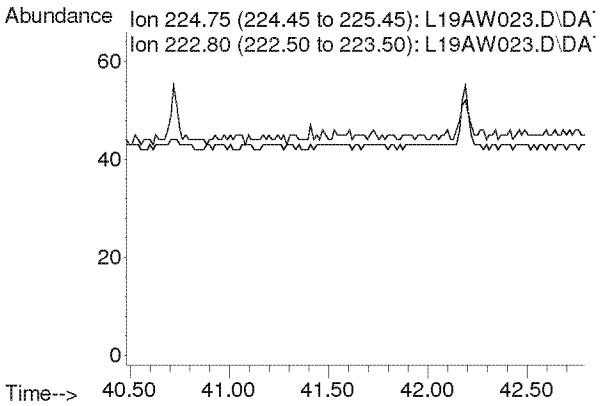


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AW023.D
Acq: 24 Jan 2019 7:55 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 : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW024.D
Acq On : 24 Jan 2019 8:47 am
Operator : MAH
Sample : B9A2306-DUP4
Misc : WB VILLAGE HALL R2 1/18/19
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jan 29 08:14:02 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	52671	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.148	114	134277	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.115	117	95632	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	12.438	29	874m	0.3213 ppbv	RMB 2/5/19
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.	
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	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW024.D
Acq On : 24 Jan 2019 8:47 am
Operator : MAH
Sample : B9A2306-DUP4
Misc : WB VILLAGE HALL R2 1/18/19
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jan 29 08:14:02 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration

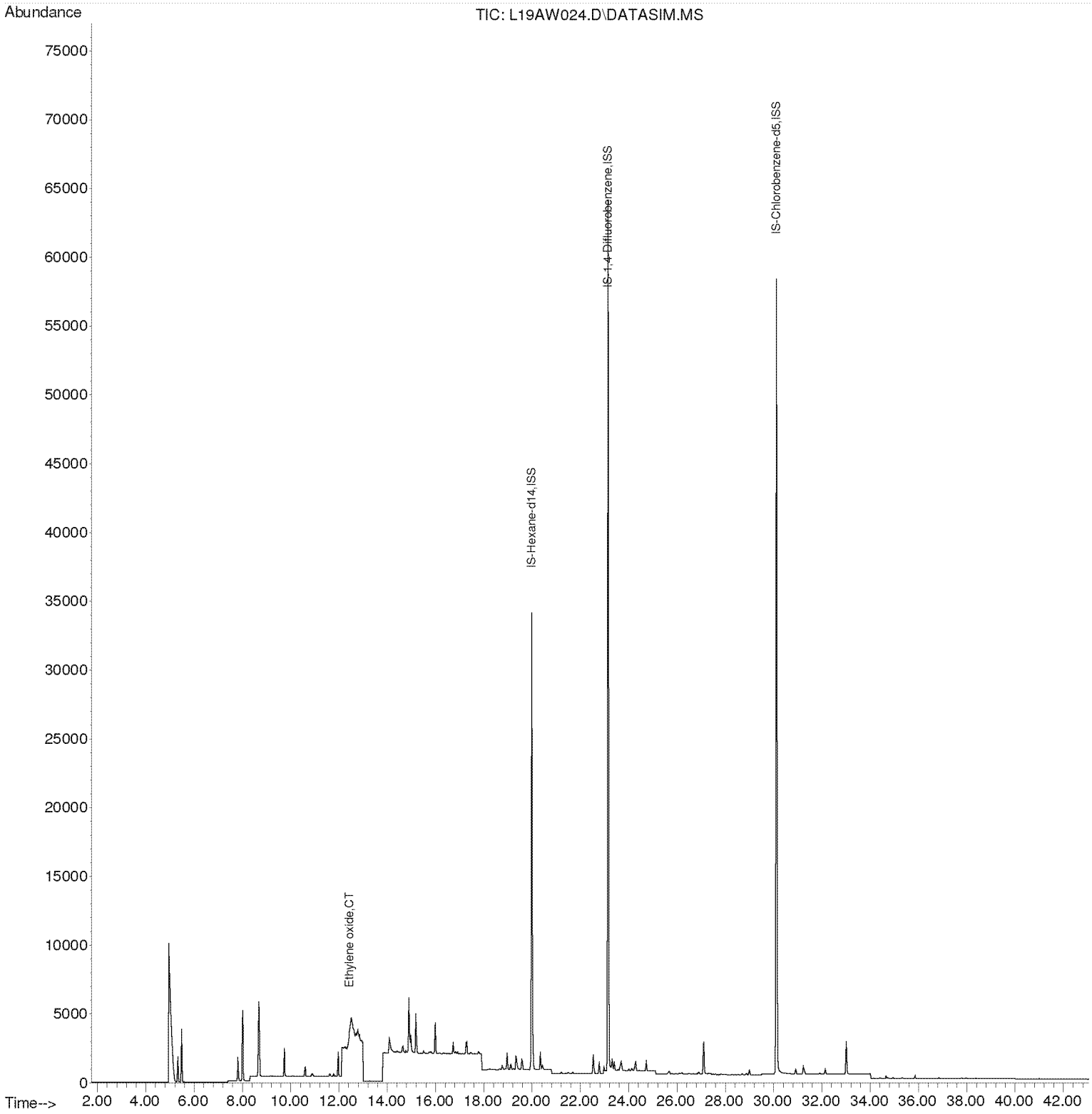
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.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

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

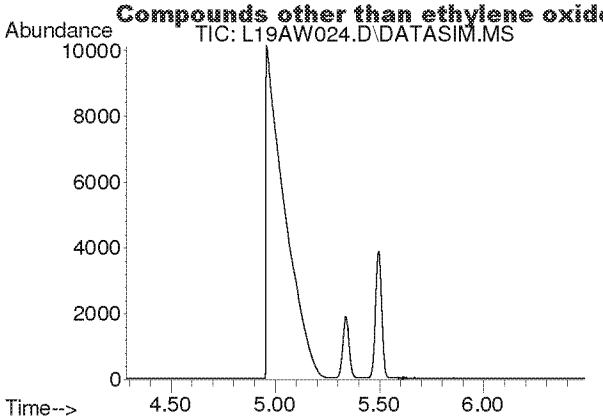
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19AW\
Data File : L19AW024.D
Acq On : 24 Jan 2019 8:47 am
Operator : MAH
Sample : B9A2306-DUP4
Misc : WB VILLAGE HALL R2 1/18/19
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Jan 29 08:14:02 2019
Quant Method : C:\msdchem\1\METHODS\9010002.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Tue Jan 08 07:11:21 2019
Response via : Initial Calibration



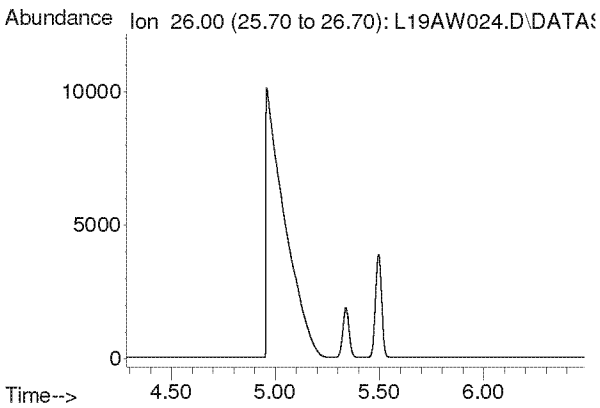
Compounds other than ethylene oxide were not quantitated.

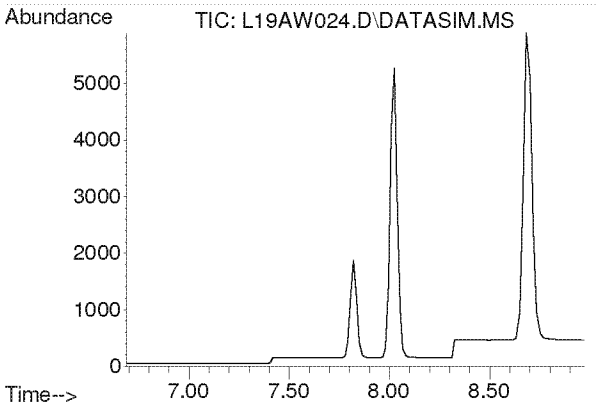


#2
Acetylene
Concen: N.D.
Expected RT: 5.42 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 26



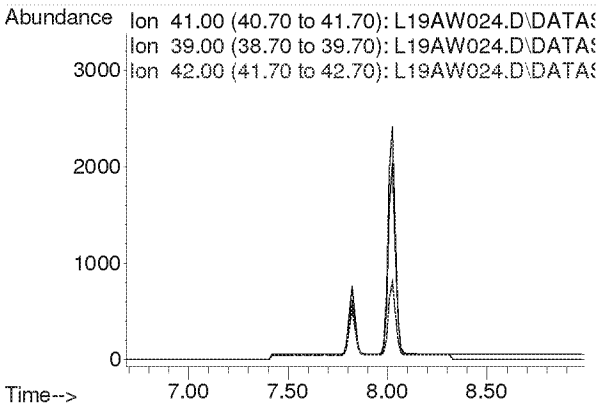


#3
Propylene
Concen: N.D.
Expected RT: 7.84 min

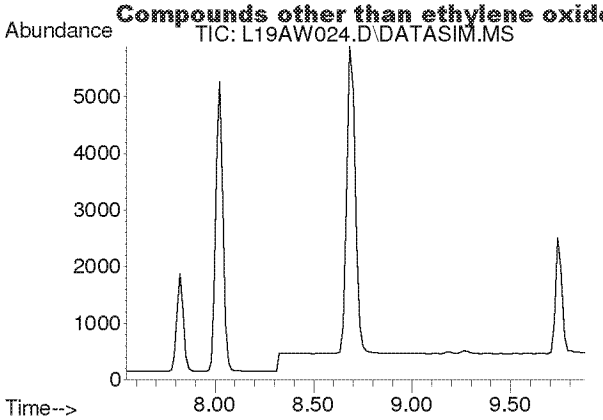
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	77.0
42	65.8



Compounds other than ethylene oxide were not quantitated.

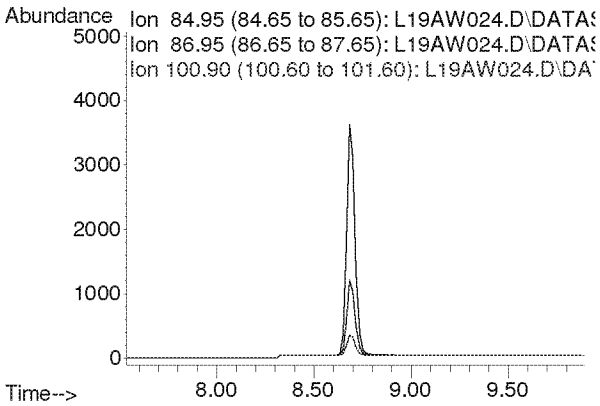


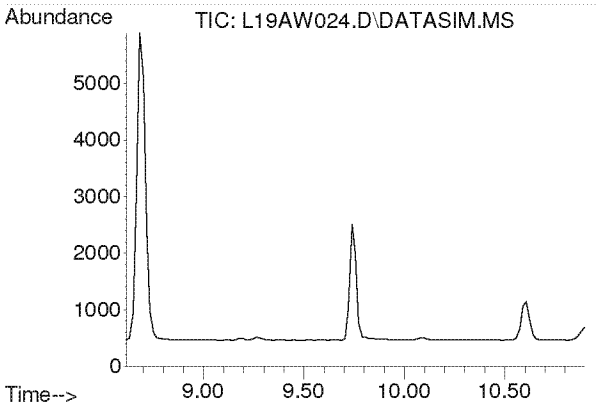
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	8.9



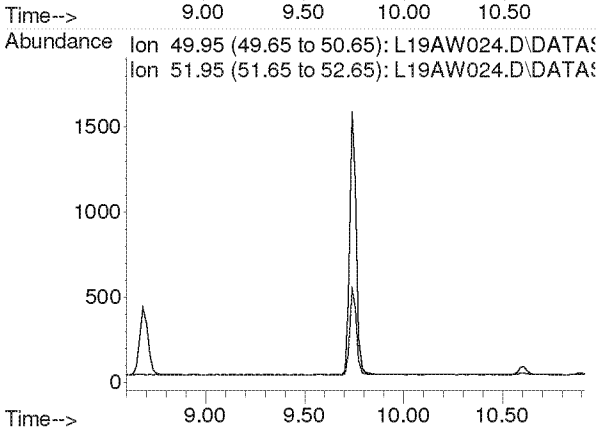


#5
Chloromethane
Concen: N.D.
Expected RT: 9.76 min

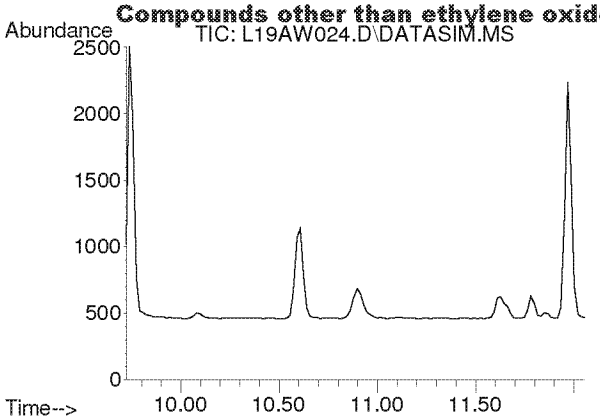
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.4



Compounds other than ethylene oxide were not quantitated.

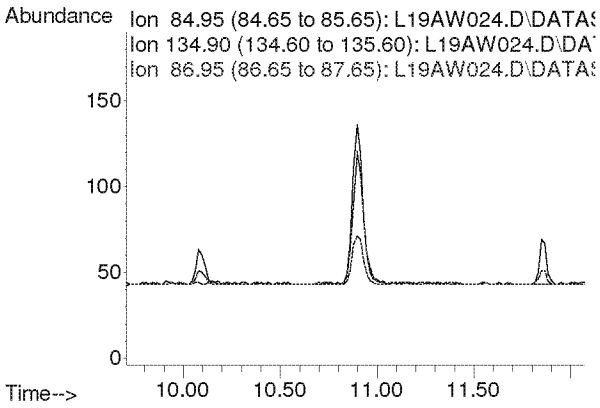


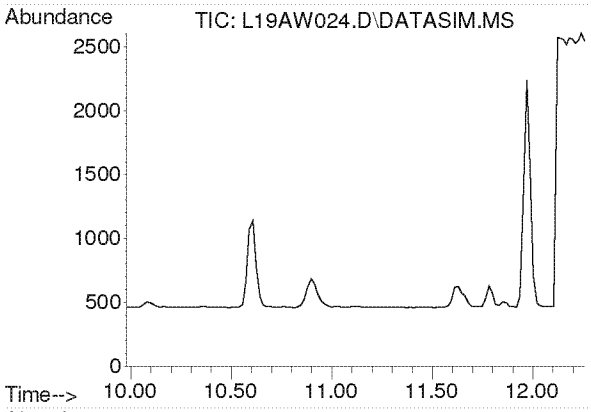
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.5
87	32.2



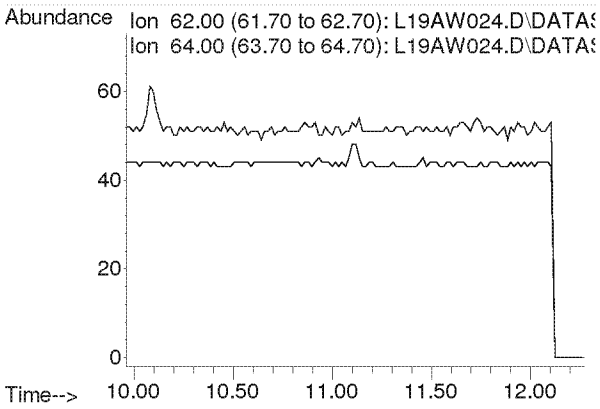


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.12 min

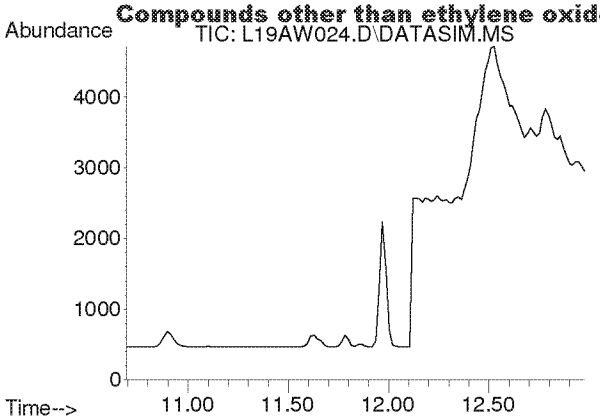
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	32.1



Compounds other than ethylene oxide were not quantitated.

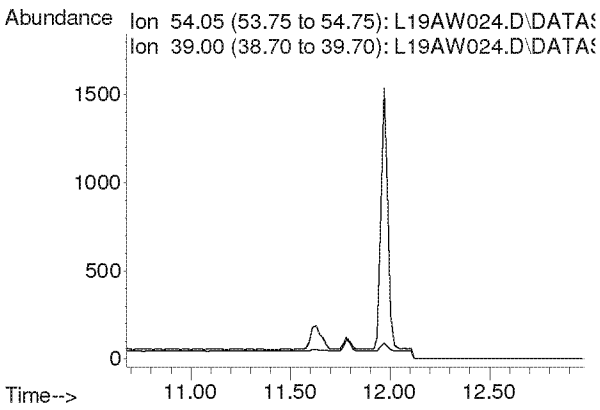


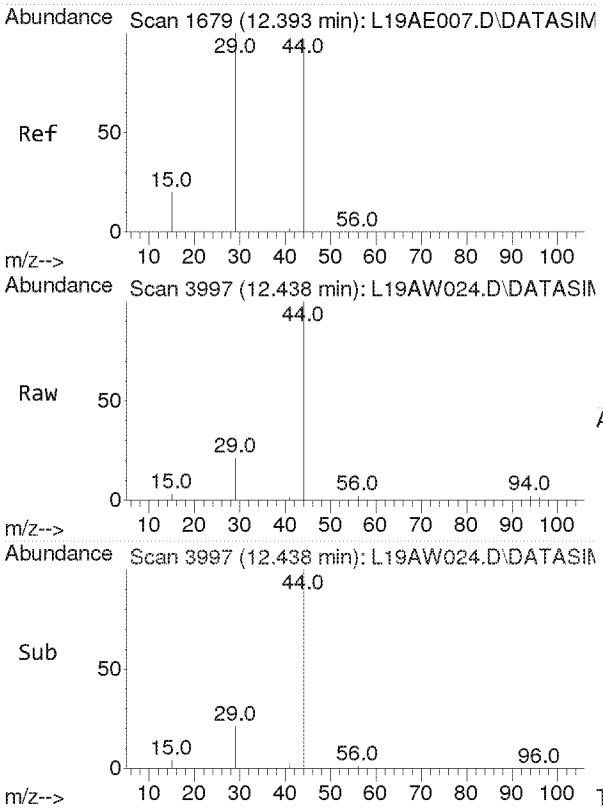
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	103.3

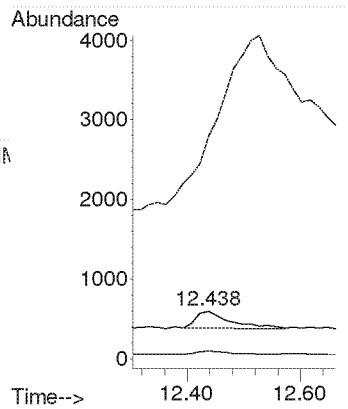




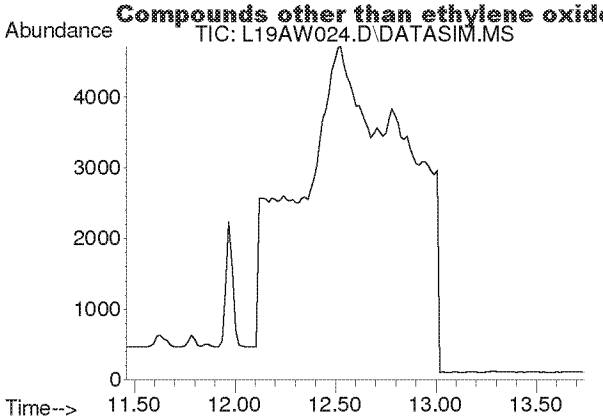
#9
Ethylene oxide
Concen: 0.321 ppbv m
RT: 12.438 min Scan# 3997
Delta R.T. 0.045 min
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 29 Resp: 874

Ion	Ratio	Lower	Upper
29	100		
15	20.1	15.4	23.0
44	0.0	77.4	116.2#



Compounds other than ethylene oxide were not quantitated.

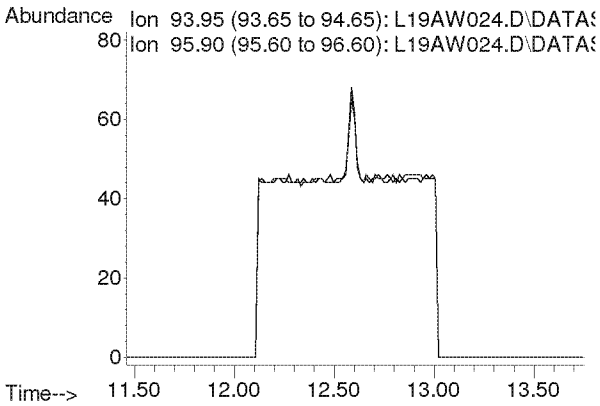


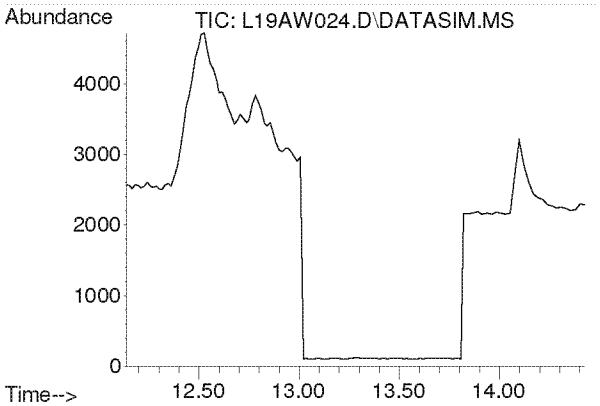
#10
Bromomethane
Concen: N.D.
Expected RT: 12.60 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.3



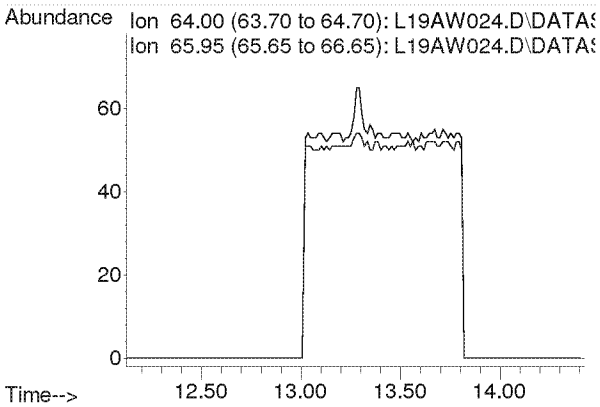


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

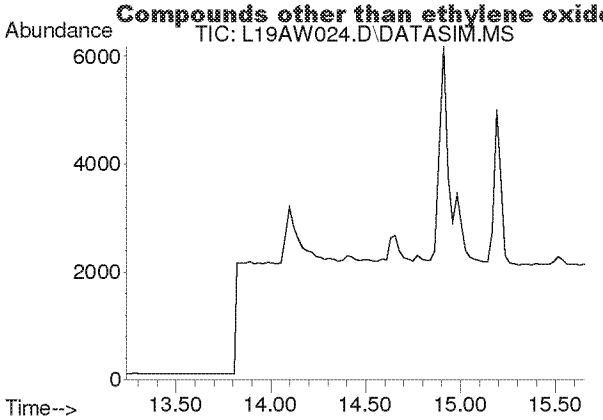
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.4



Compounds other than ethylene oxide were not quantitated.

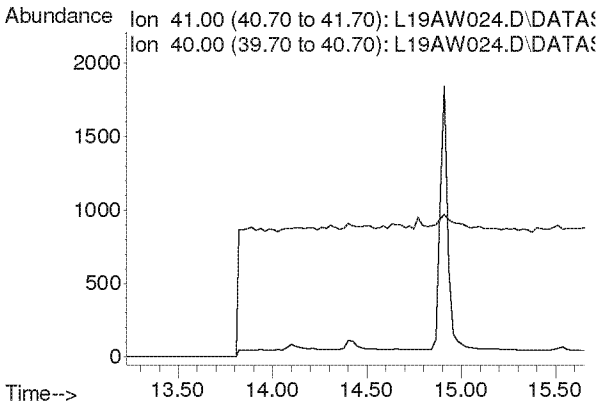


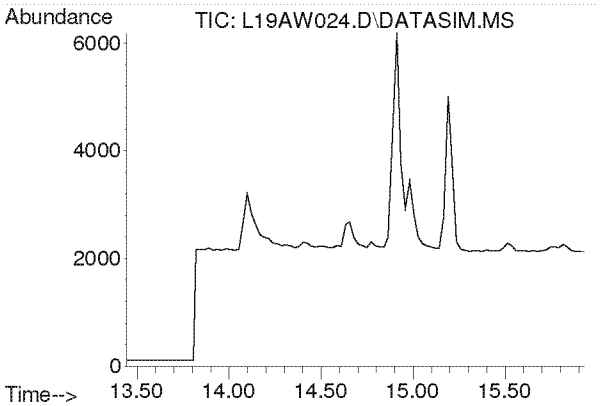
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	53.2



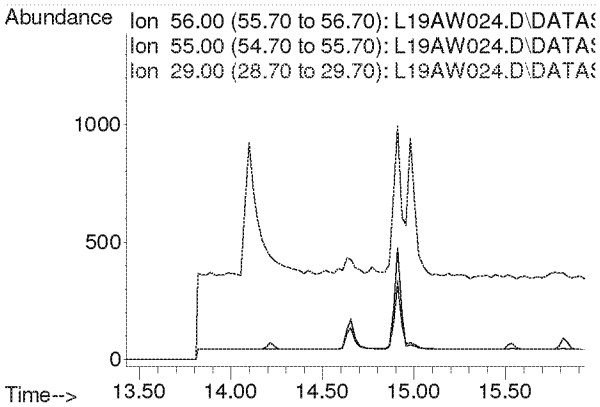


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

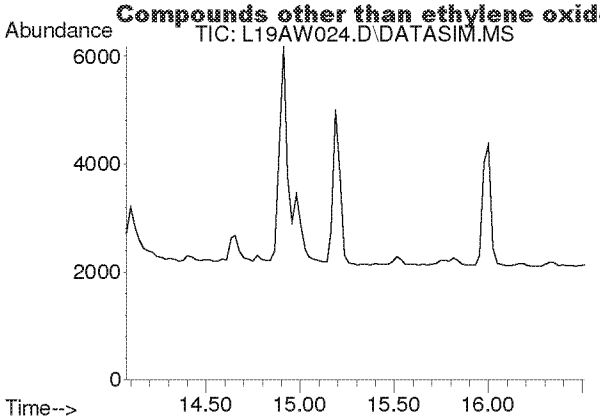
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.5
29	44.9



Compounds other than ethylene oxide were not quantitated.

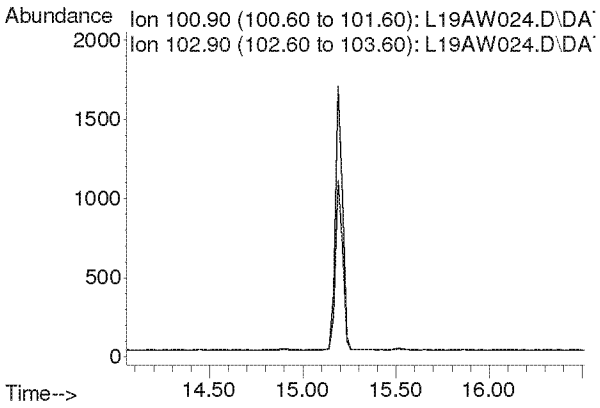


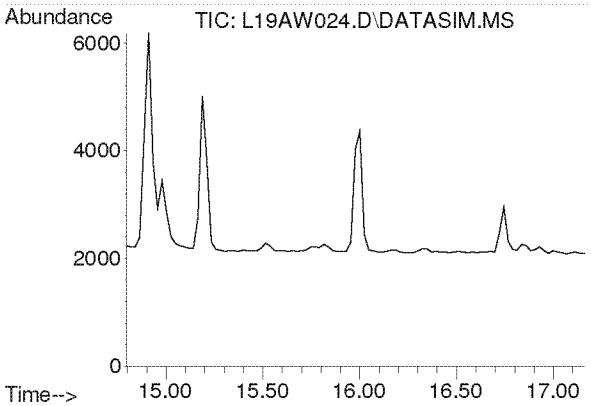
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.21 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



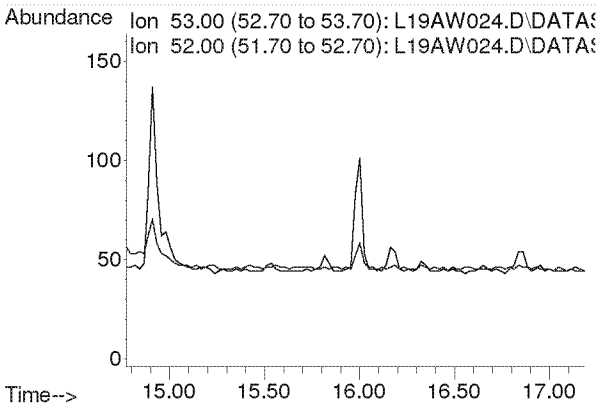


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

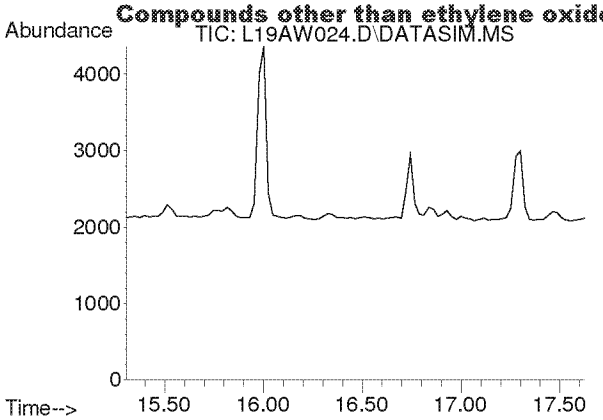
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	84.7



Compounds other than ethylene oxide were not quantitated.

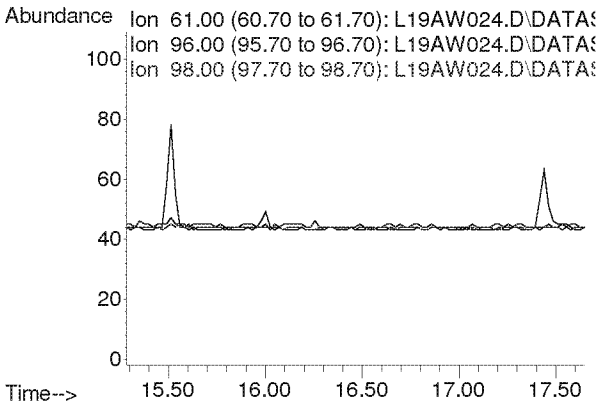


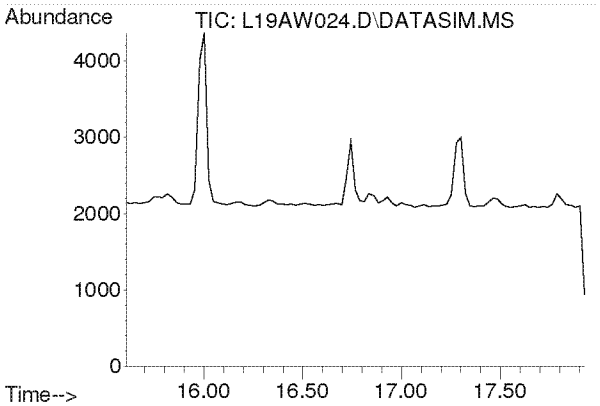
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.44 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.5
98	38.1



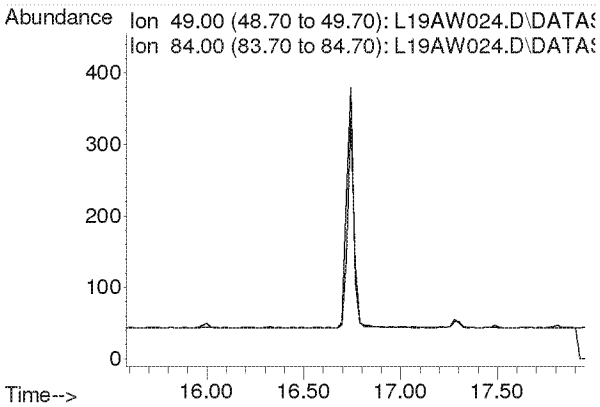


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

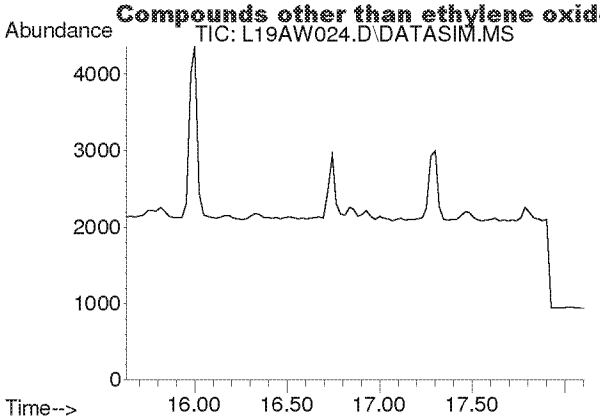
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.3



Compounds other than ethylene oxide were not quantitated.

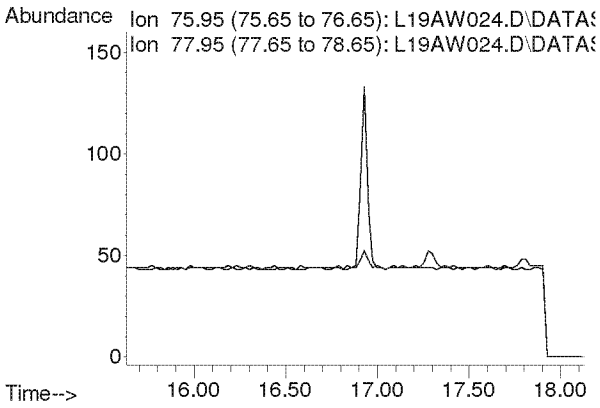


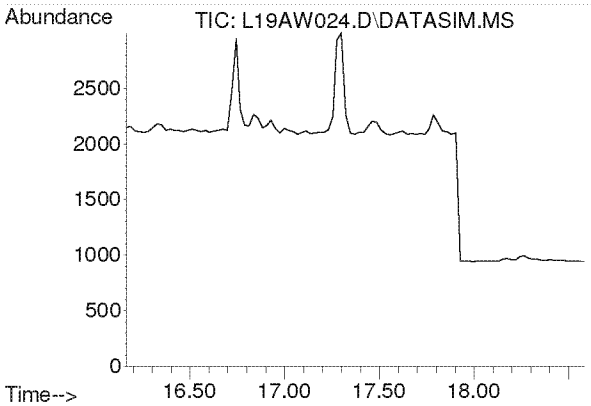
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.0



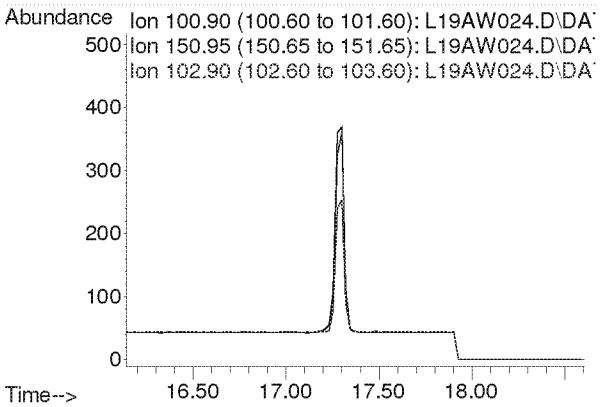


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.30 min

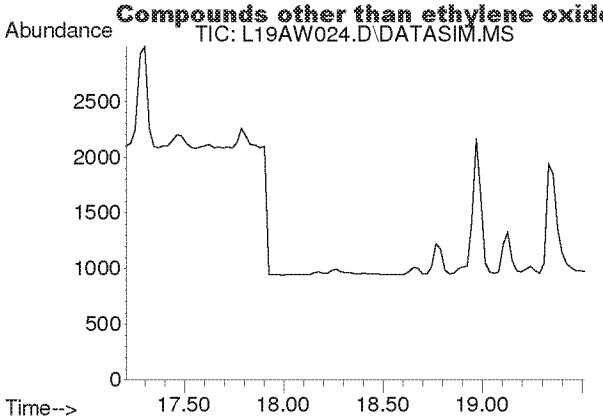
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	95.4
103	63.9



Compounds other than ethylene oxide were not quantitated.

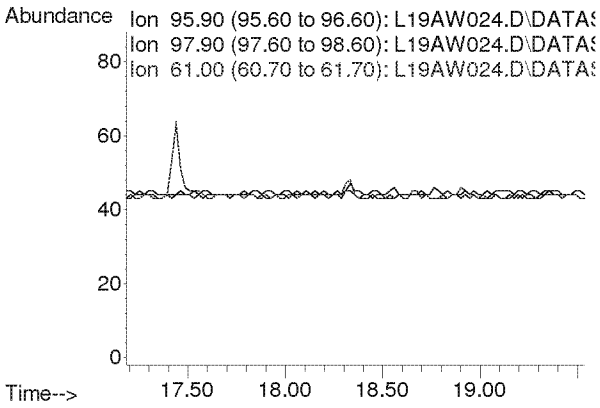


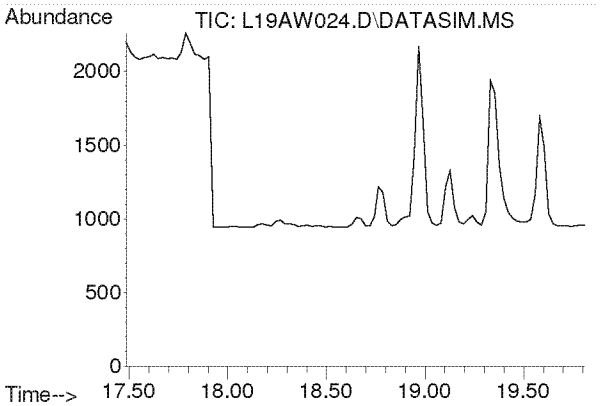
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	63.6
61	156.5



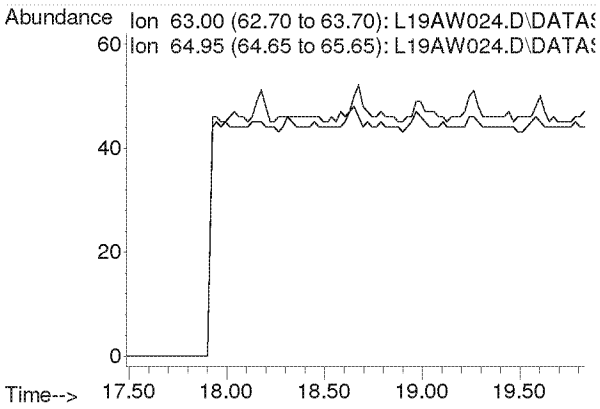


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

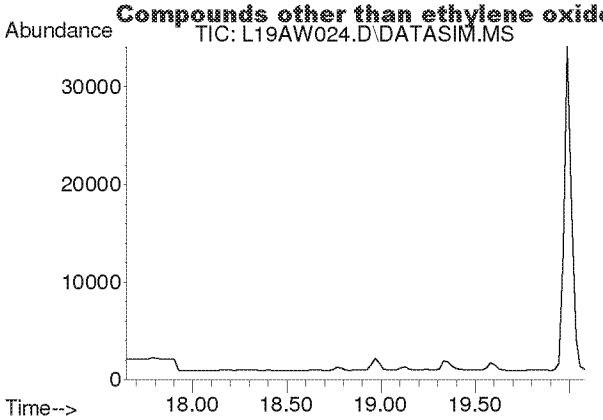
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

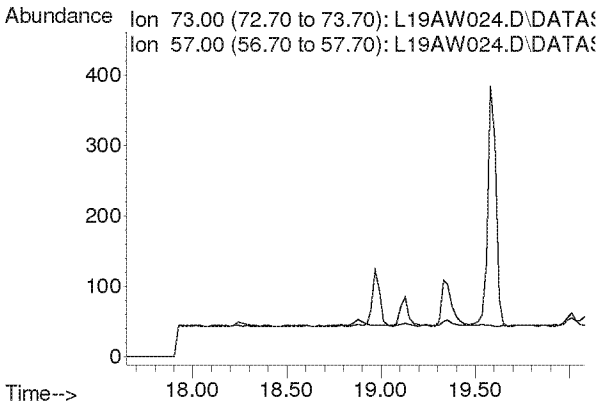


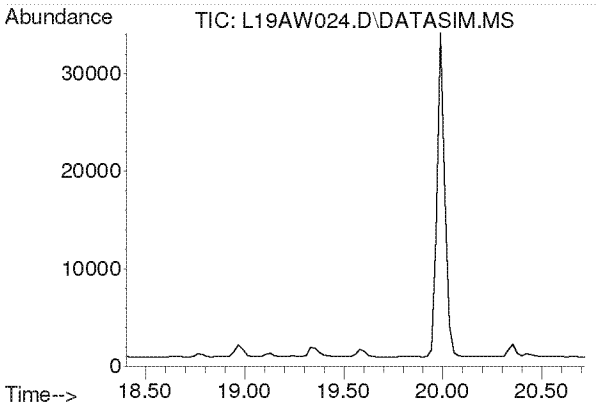
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	23.6



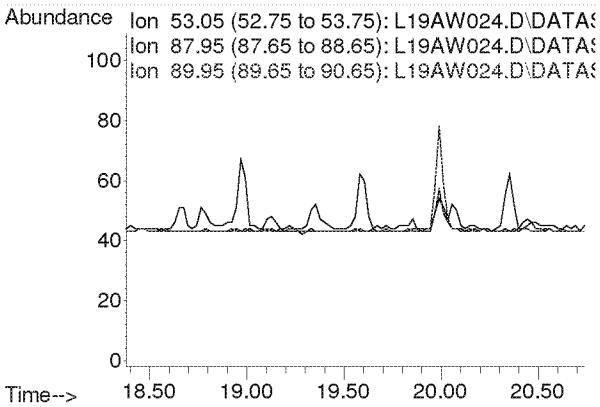


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

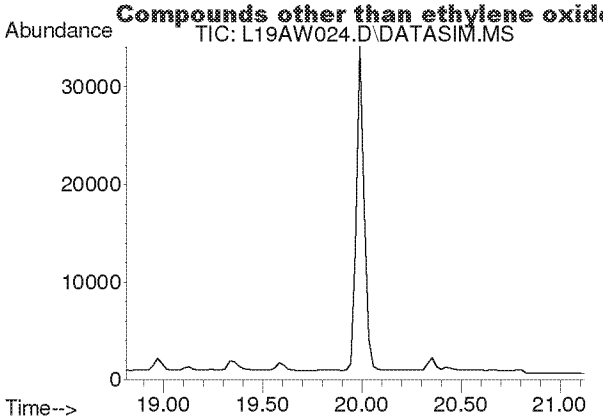
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	54.0
90	17.3



Compounds other than ethylene oxide were not quantitated.

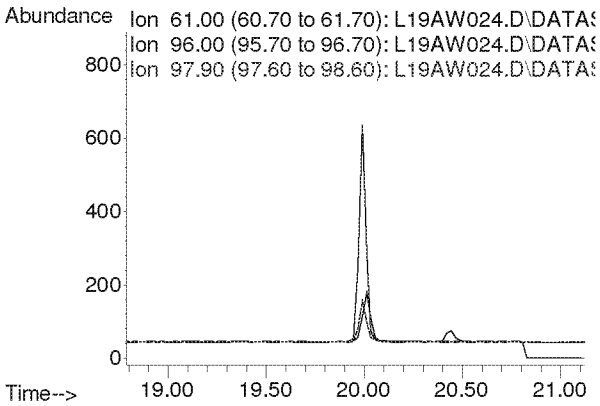


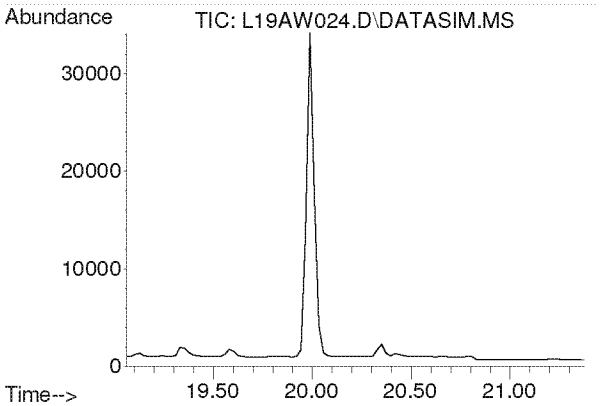
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	75.7
98	46.4



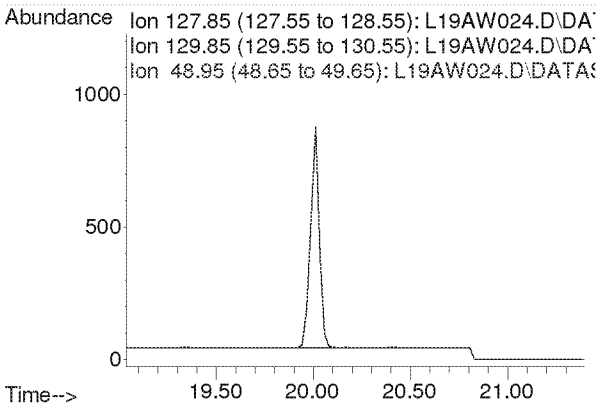


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.19 min

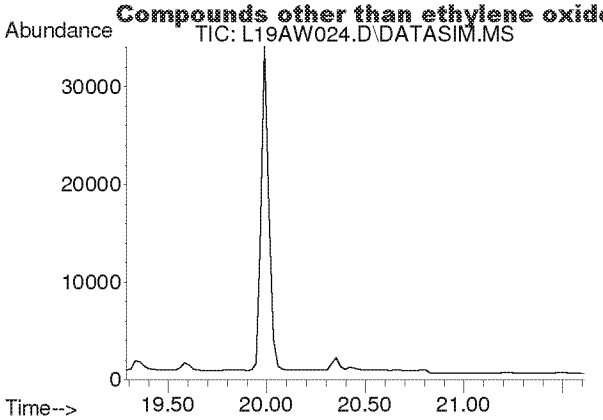
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	130.4
49	170.8



Compounds other than ethylene oxide were not quantitated.

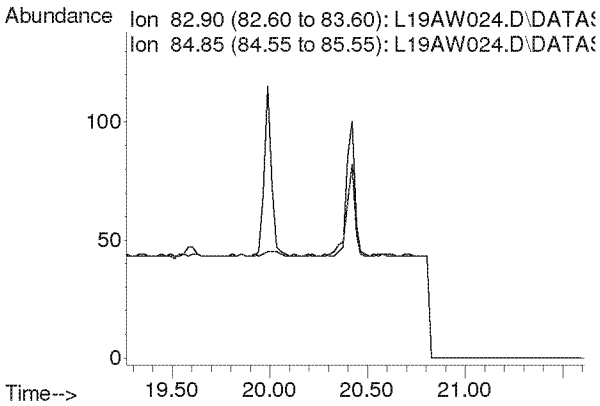


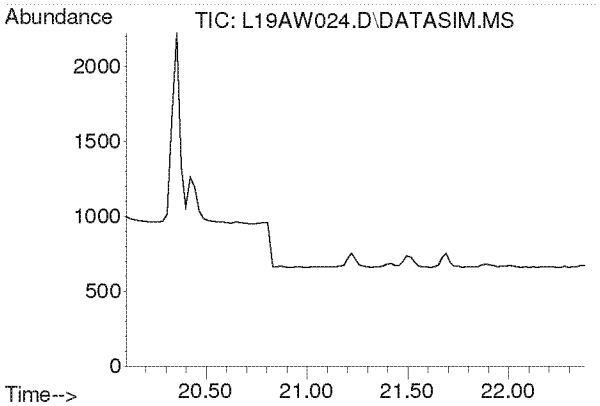
#26
Chloroform
Concen: N.D.
Expected RT: 20.42 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



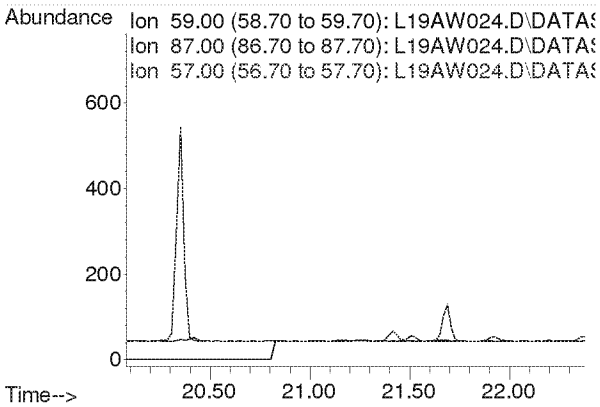


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

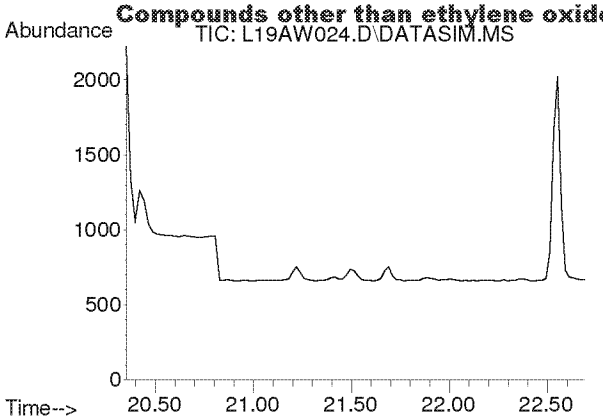
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	37.8
57	34.3



Compounds other than ethylene oxide were not quantitated.

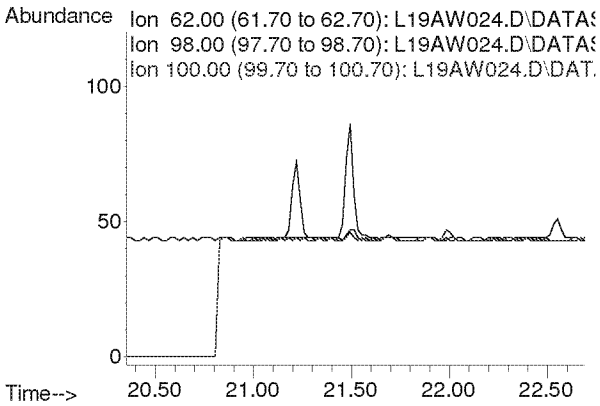


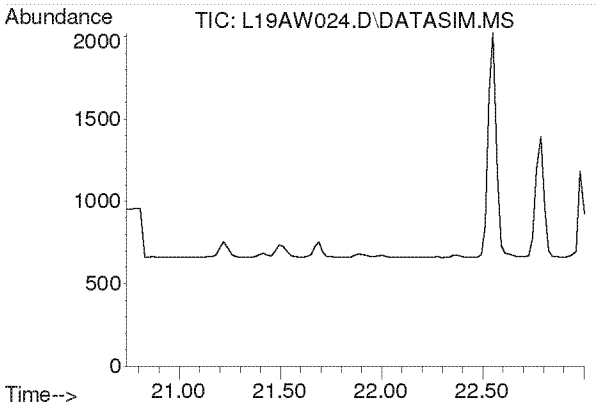
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.50 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.8
100	4.2



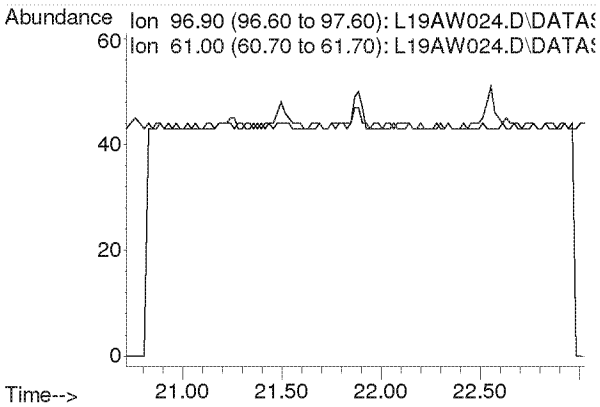


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

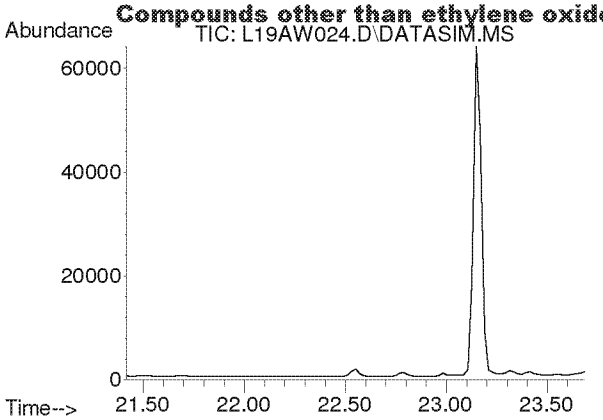
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	58.6



Compounds other than ethylene oxide were not quantitated.

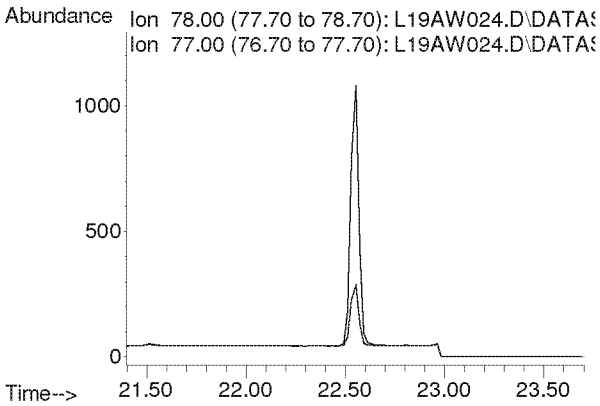


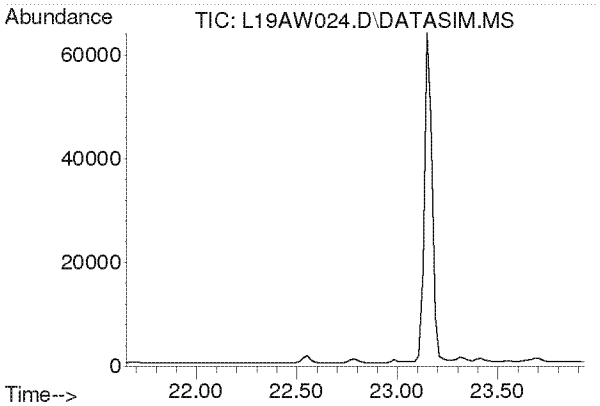
#31
Benzene
Concen: N.D.
Expected RT: 22.55 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.9



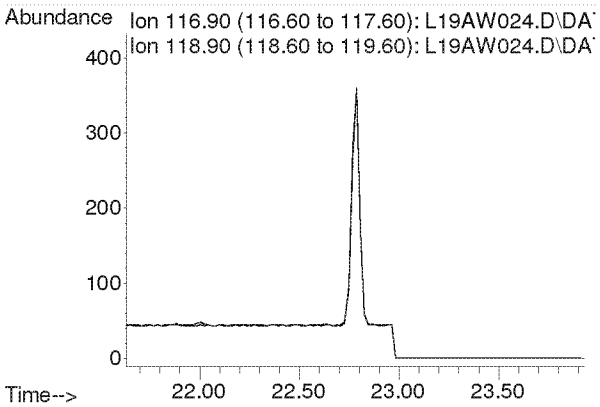


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.79 min

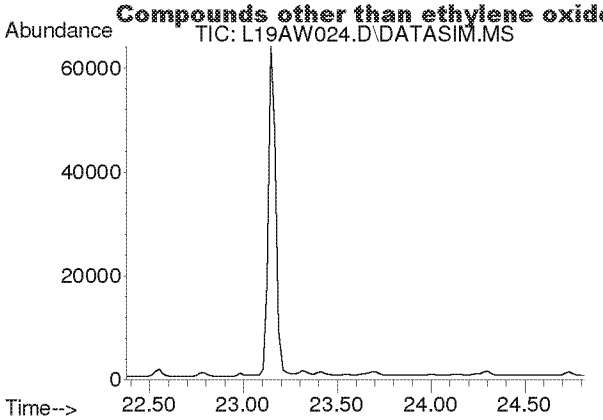
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.5



Compounds other than ethylene oxide were not quantitated.

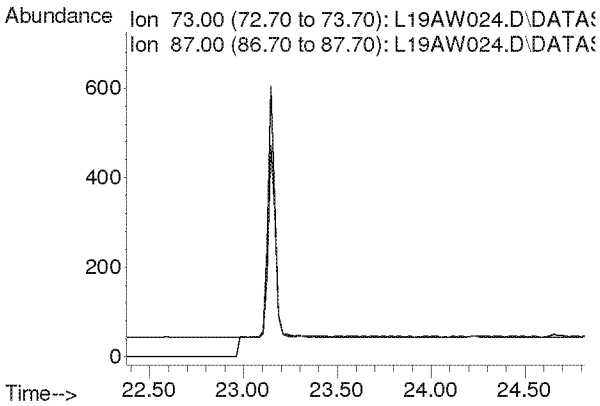


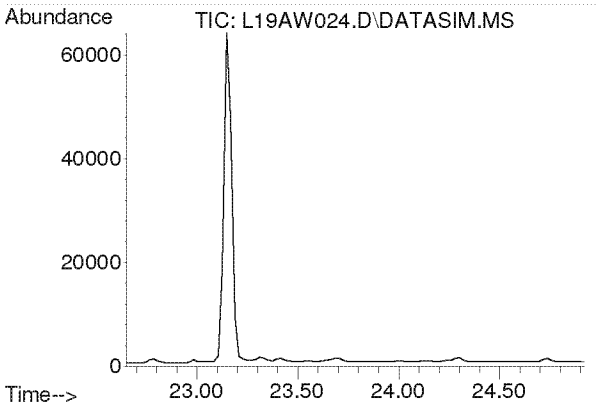
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	24.8



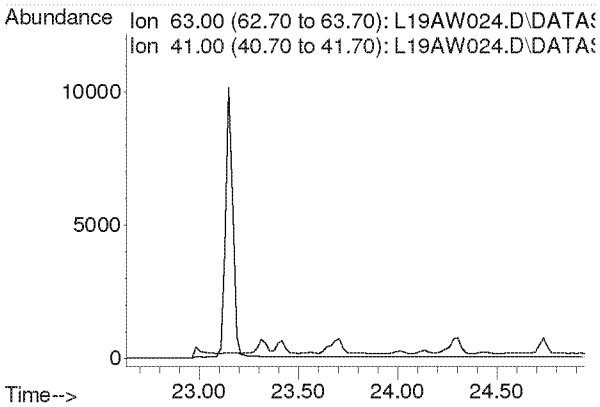


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

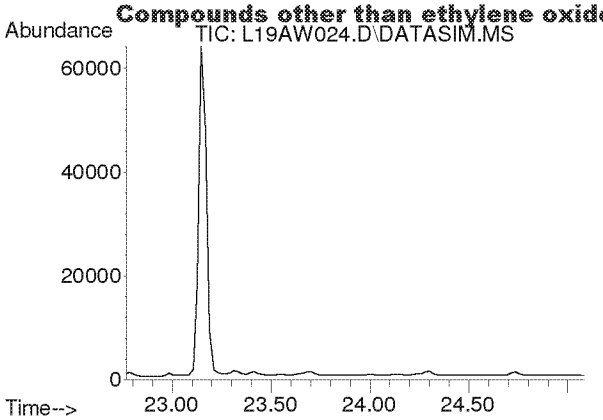
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	196.0



Compounds other than ethylene oxide were not quantitated.

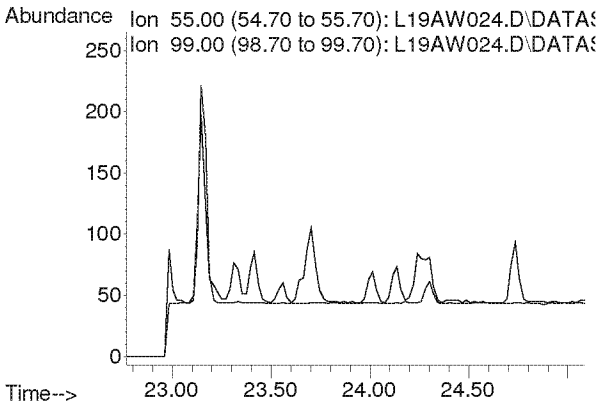


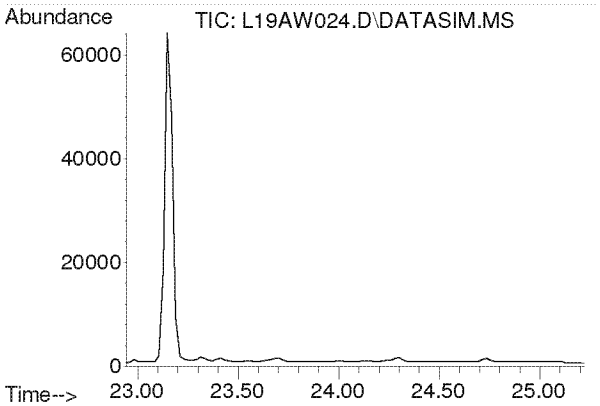
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.0



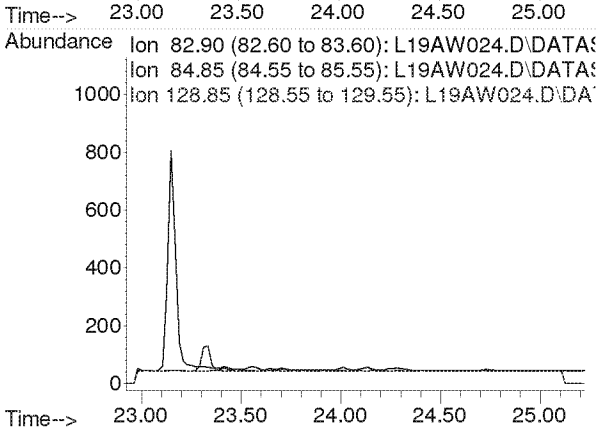


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

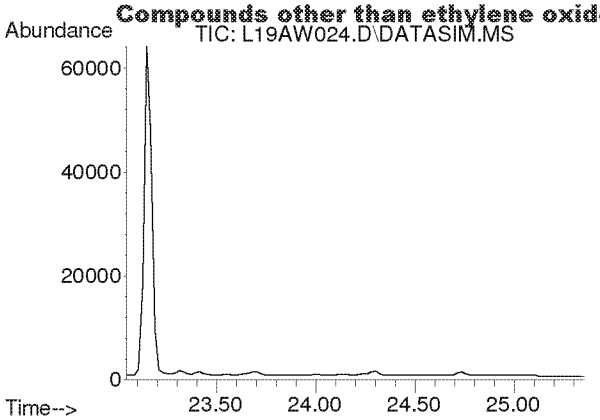
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.9
129	12.5



Compounds other than ethylene oxide were not quantitated.

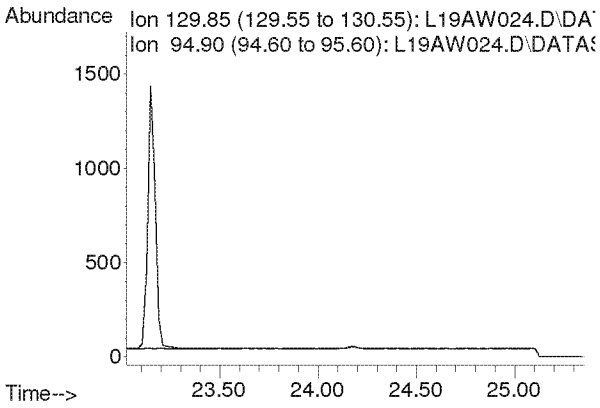


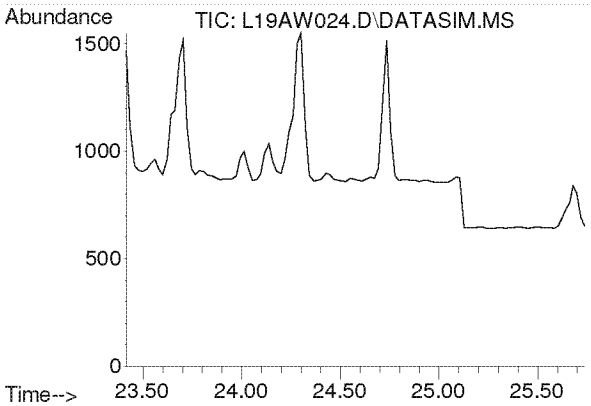
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	108.6



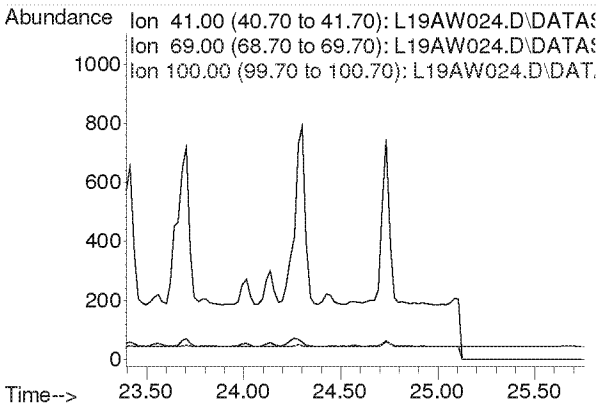


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.55 min

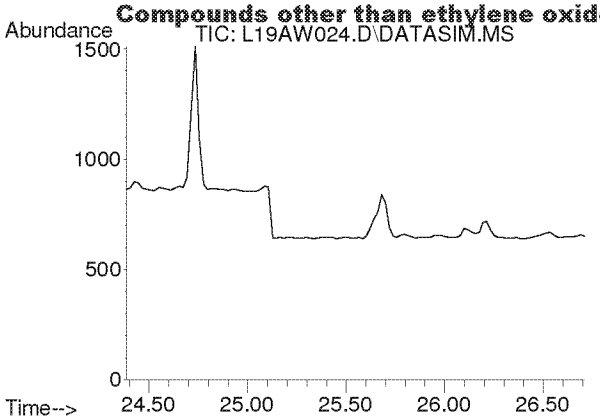
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	20.7
100	5.3



Compounds other than ethylene oxide were not quantitated.

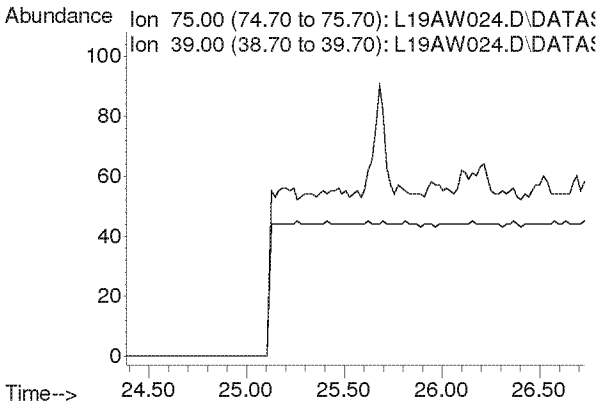


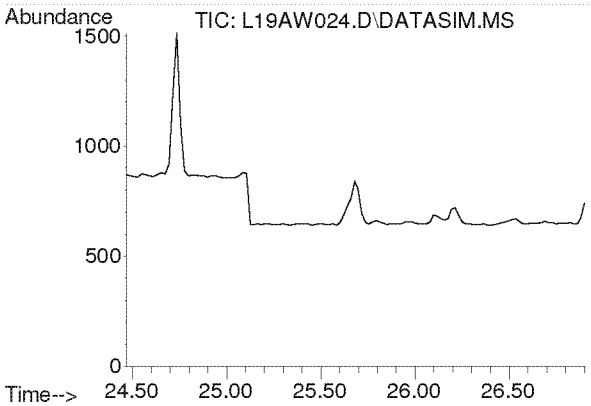
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.3



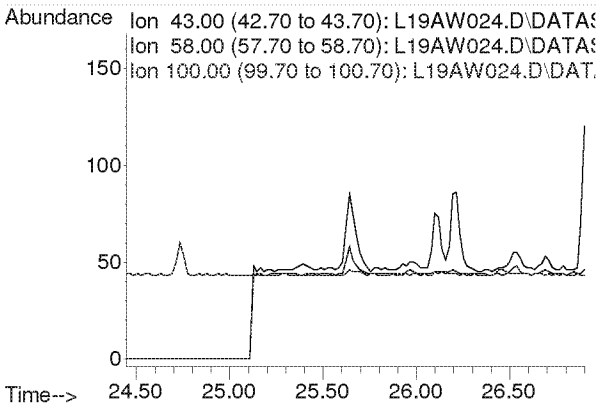


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

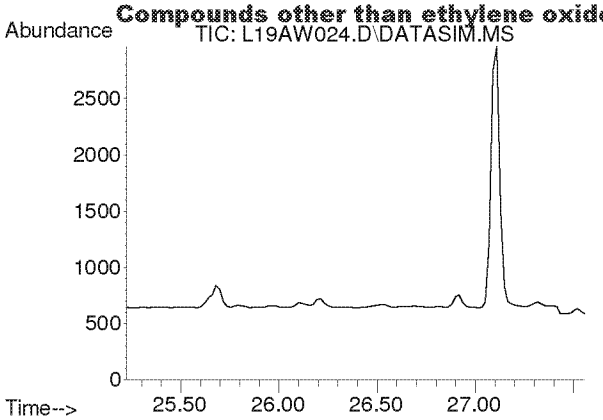
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	34.5
100	8.1



Compounds other than ethylene oxide were not quantitated.

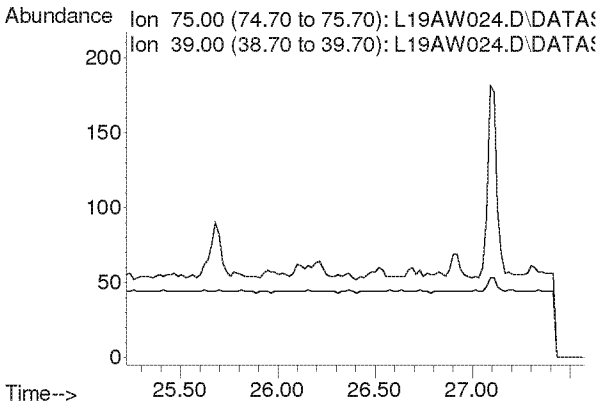


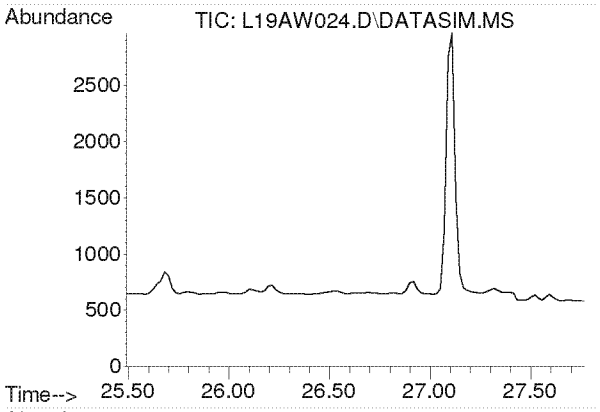
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	48.8



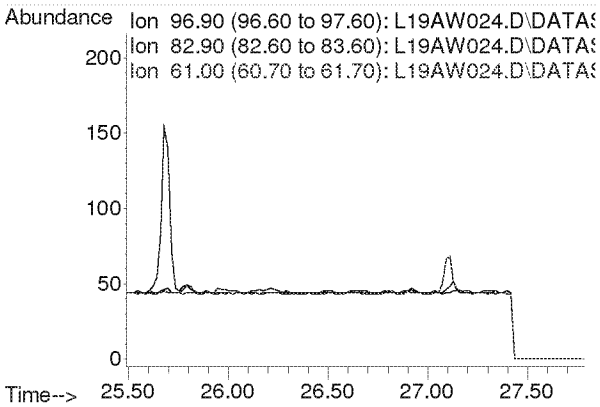


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.63 min

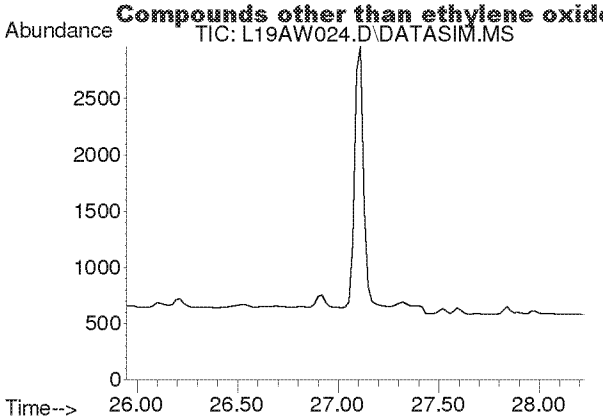
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	96.6
61	61.4



Compounds other than ethylene oxide were not quantitated.

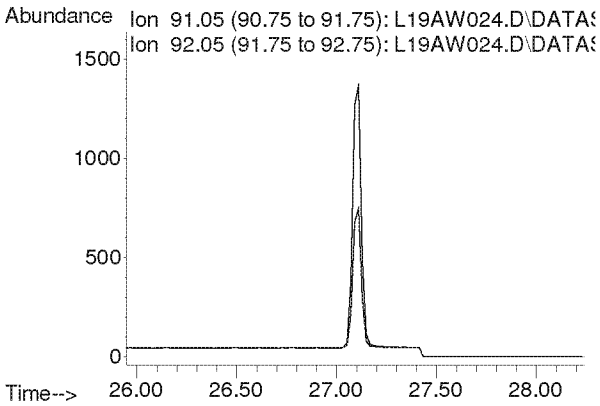


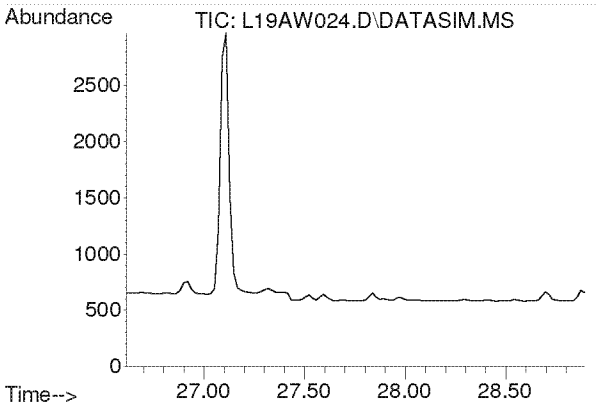
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



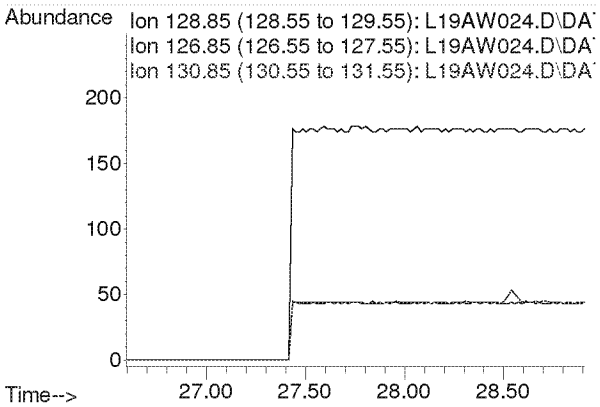


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

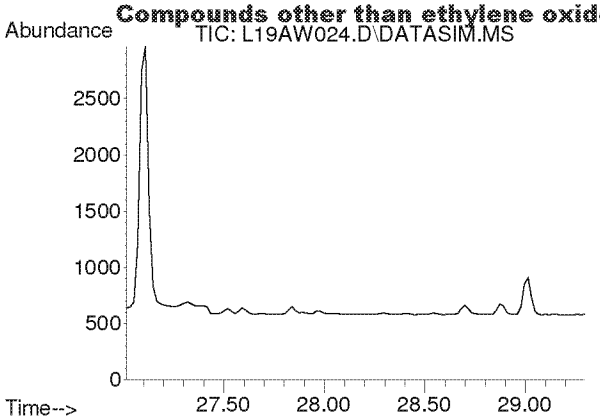
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.2
131	6.0



Compounds other than ethylene oxide were not quantitated.

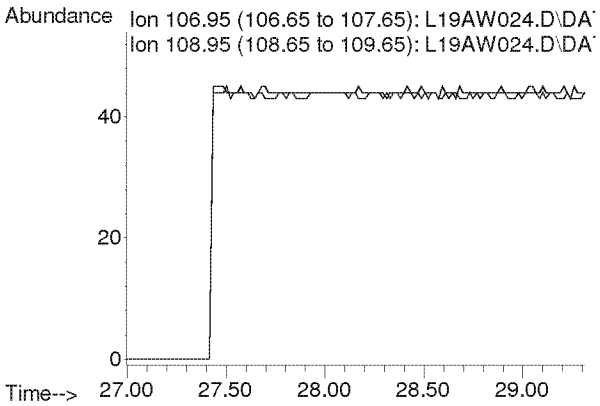


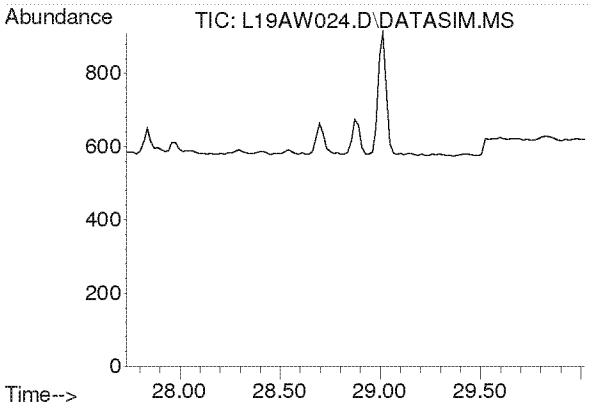
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.3



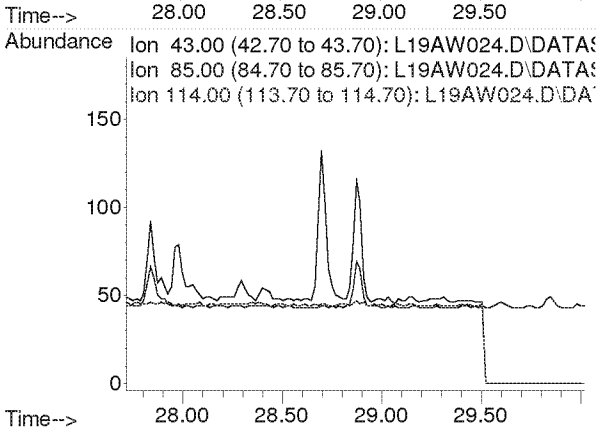


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

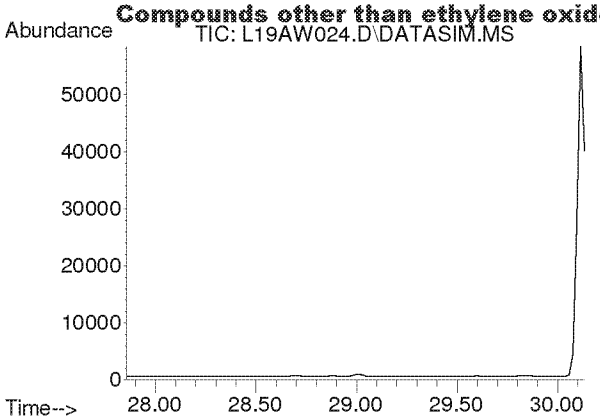
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	36.6
114	2.3



Compounds other than ethylene oxide were not quantitated.

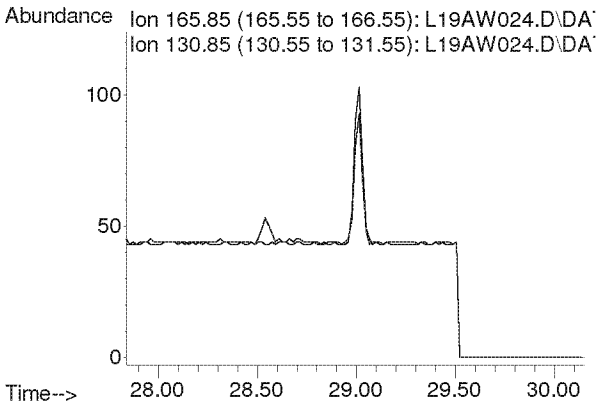


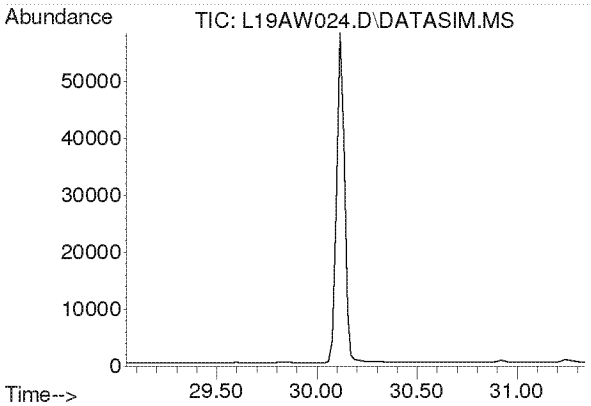
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	78.2



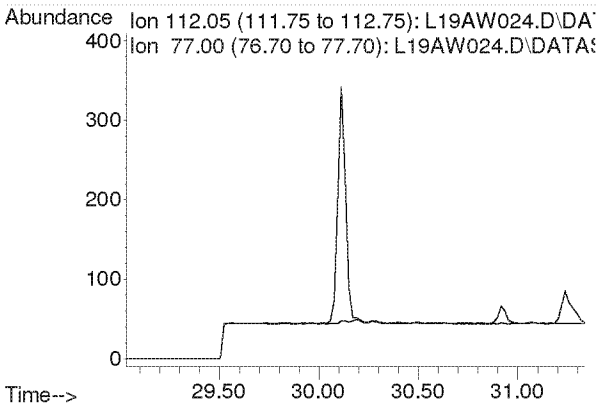


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

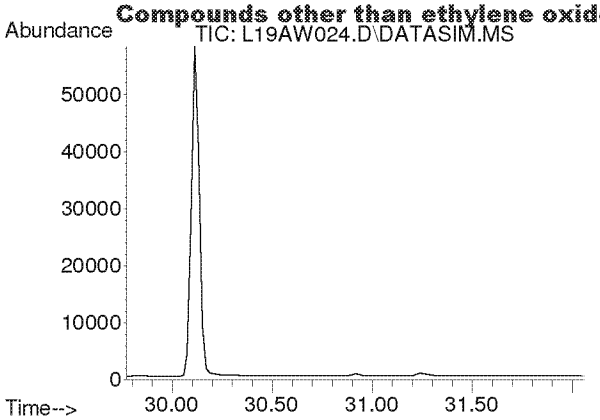
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	61.2



Compounds other than ethylene oxide were not quantitated.

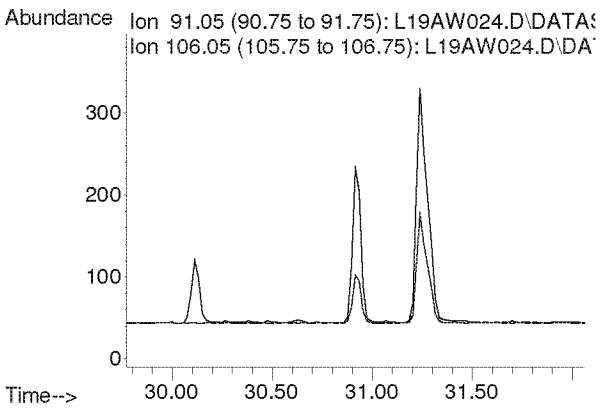


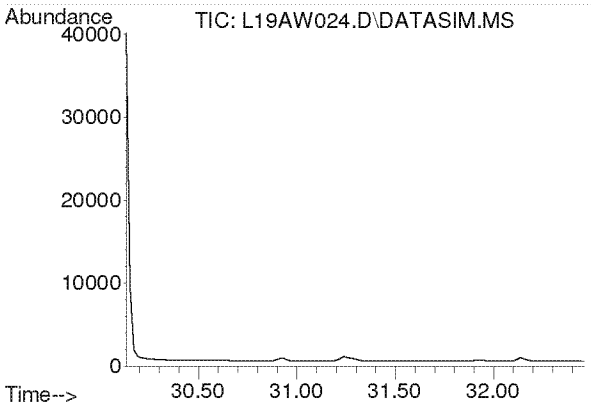
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	31.7



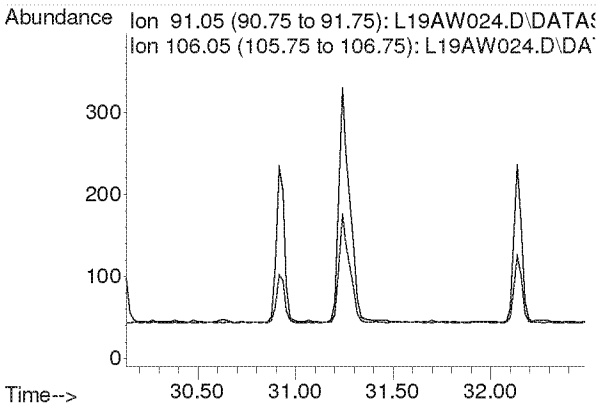


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

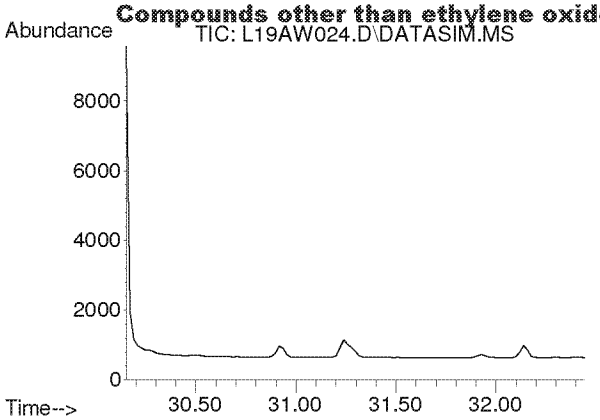
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.6



Compounds other than ethylene oxide were not quantitated.

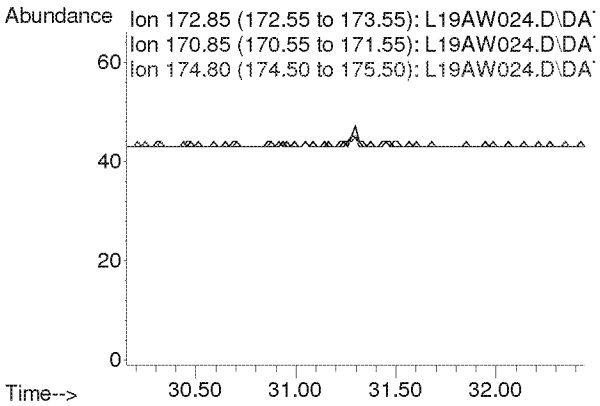


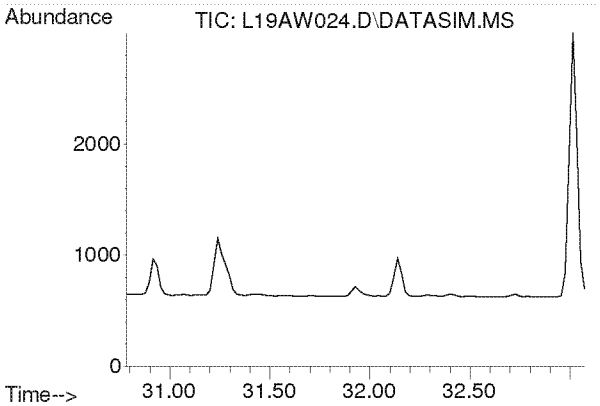
#52
Bromoform
Concen: N.D.
Expected RT: 31.30 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.4
175	48.9



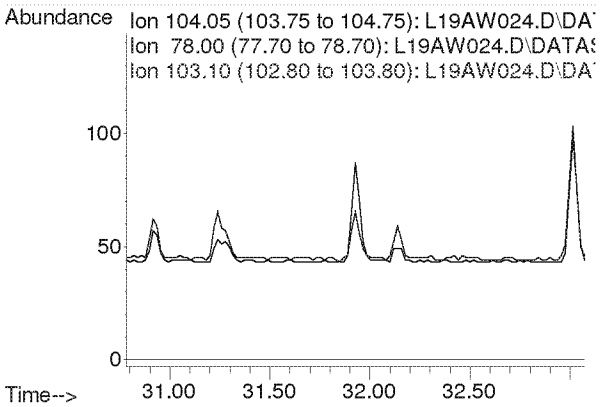


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

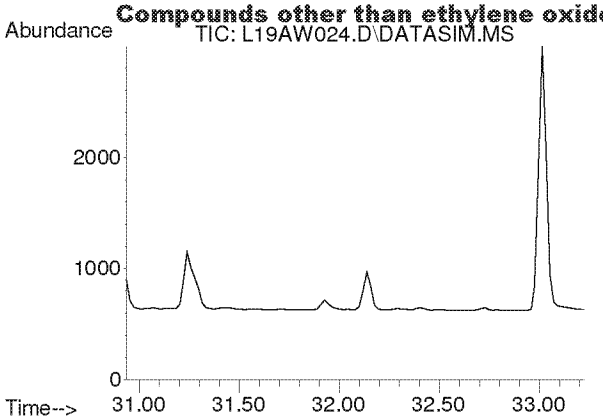
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	45.8
103	0.0



Compounds other than ethylene oxide were not quantitated.

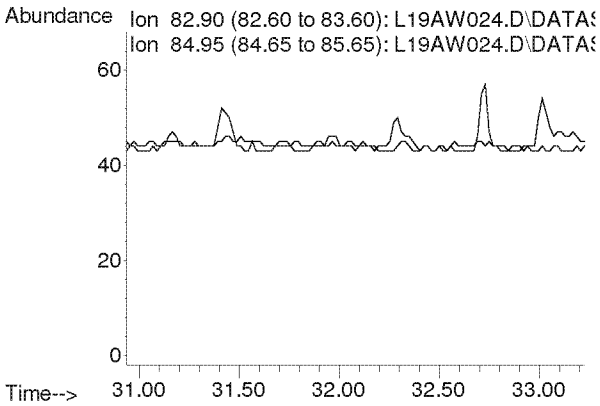


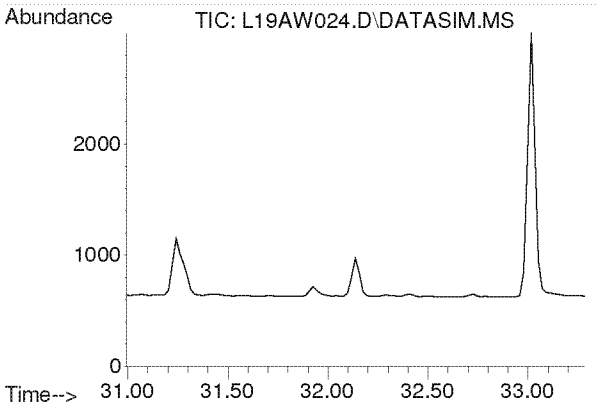
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.0



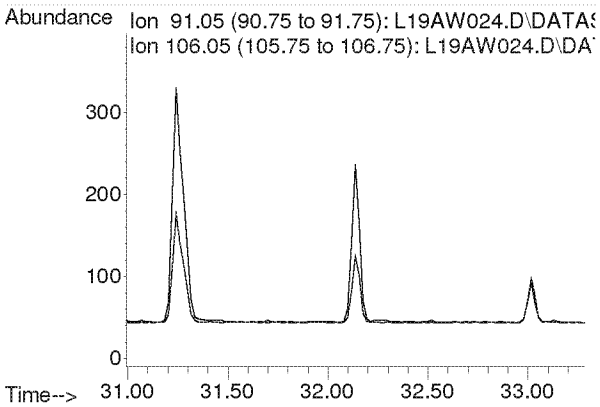


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

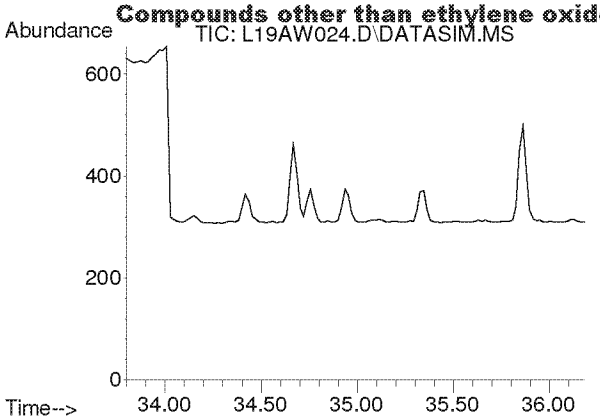
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	44.8



Compounds other than ethylene oxide were not quantitated.

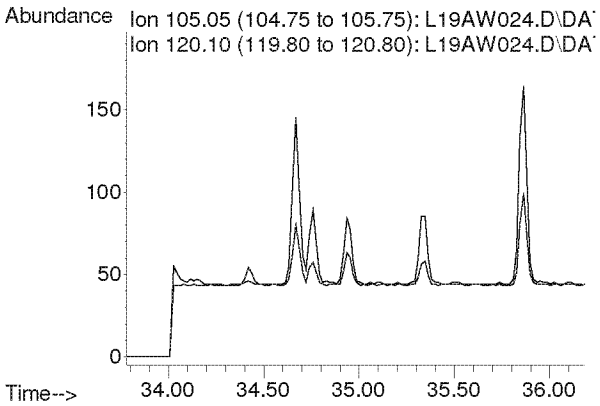


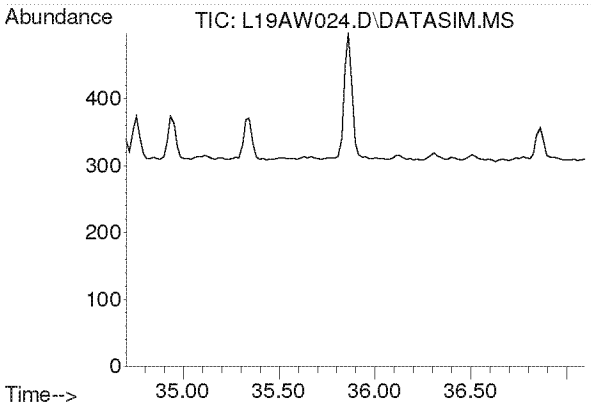
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	45.0



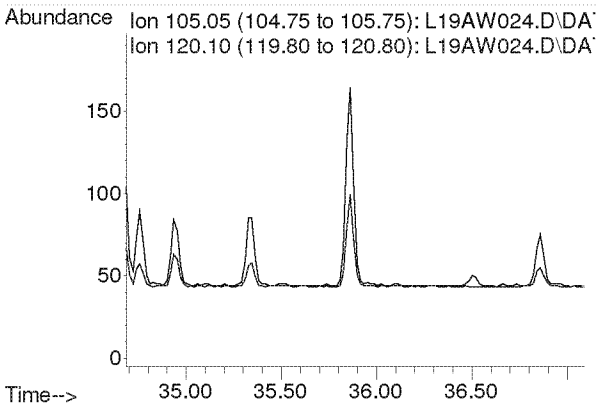


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

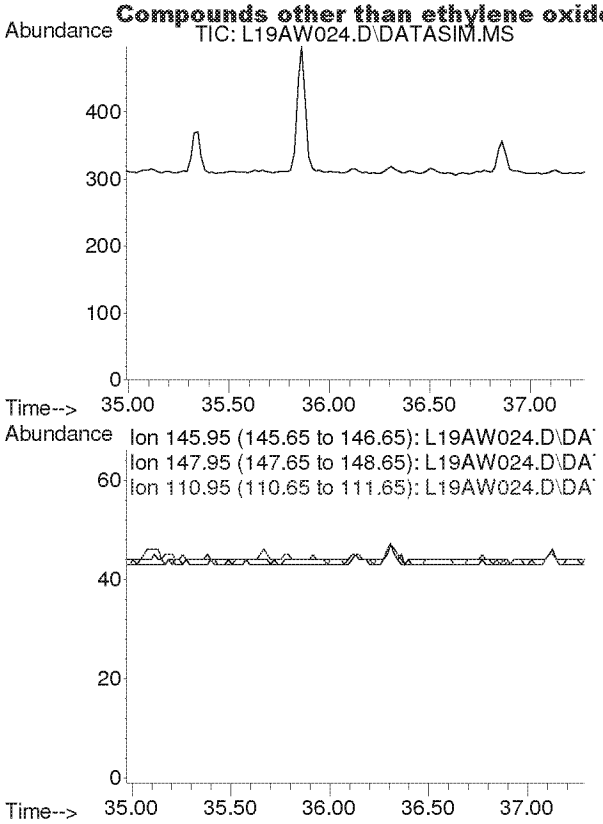
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	42.9



Compounds other than ethylene oxide were not quantitated.

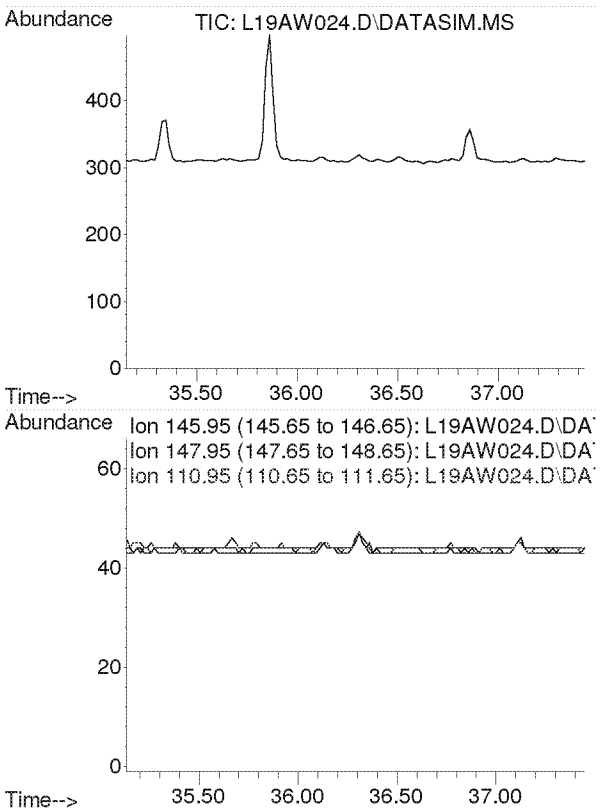


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.5



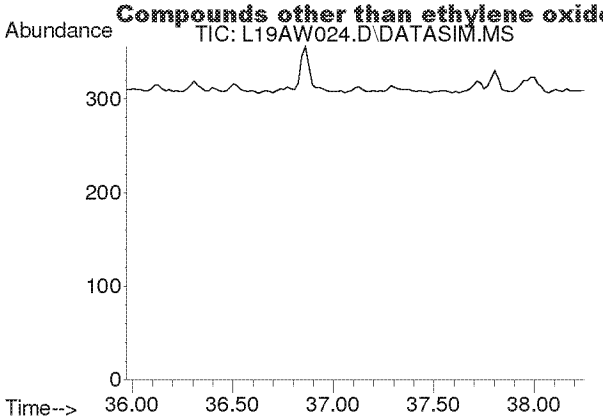
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	63.9
111	39.3

Compounds other than ethylene oxide were not quantitated.

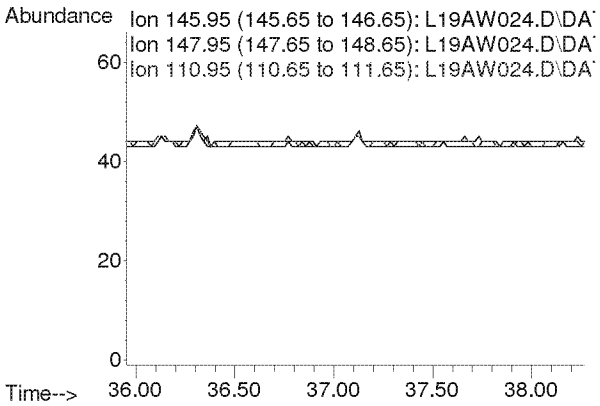


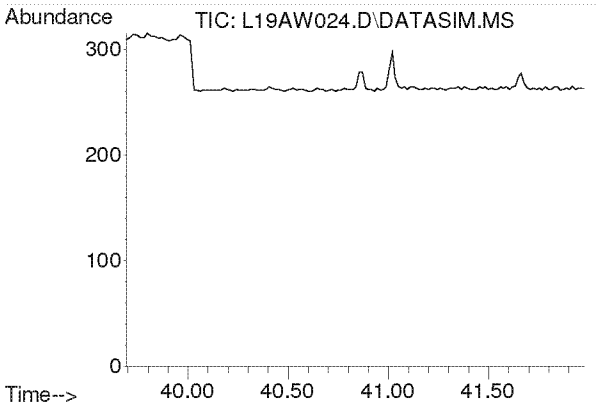
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.7



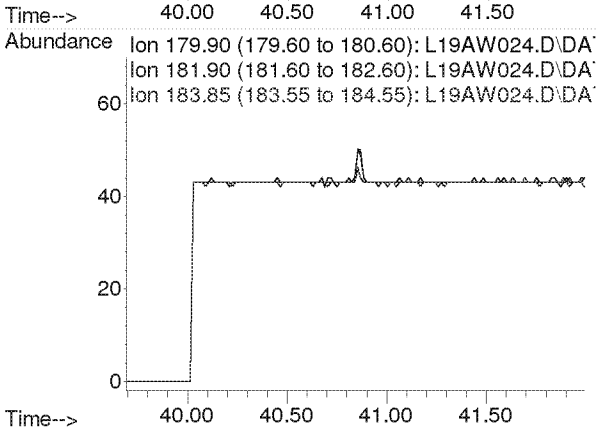


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

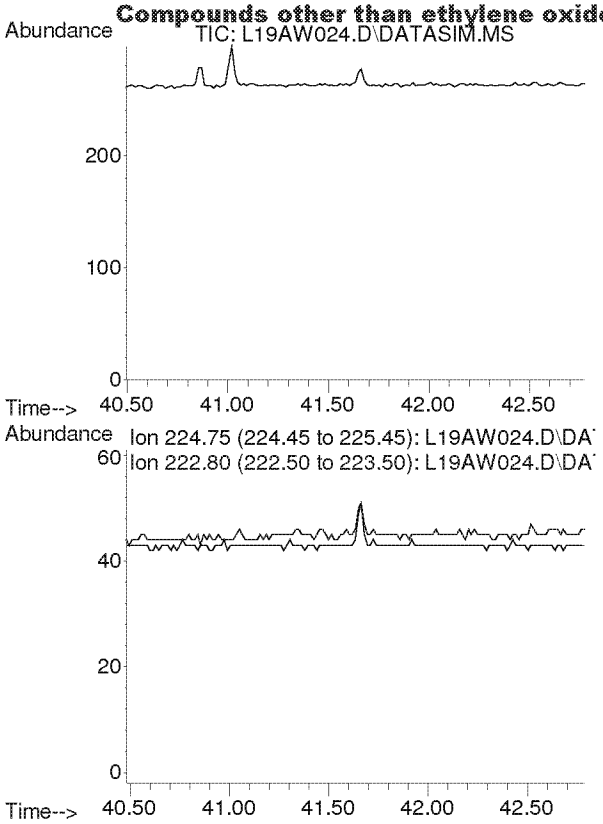
Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	95.0
184	30.5



Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19AW024.D
Acq: 24 Jan 2019 8:47 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B9A2306

Eastern Research Group

Matrix: Air | **Prepared using: Air Toxics - Summa Canister Prep** | **Printed: 2/4/2019 1:02:38PM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
9011701-04 *TO-15 2019*	01/16/19 09:49	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9011701-05 *TO-15 2019*	01/16/19 09:58	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9011701-06 *TO-15 2019*	01/16/19 10:18	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9011701-07 *TO-15 2019*	01/16/19 10:36	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9011701-08 *TO-15 2019*	01/16/19 09:41	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9011701-09 *TO-15 2019*	01/16/19 09:41	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9012221-01 *TO-15 2019*	01/18/19 09:30	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9012221-02 *TO-15 2019*	01/18/19 10:13	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9012221-03 *TO-15 2019*	01/18/19 09:51	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9012221-04 *TO-15 2019*	01/18/19 09:58	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9012221-05 *TO-15 2019*	01/18/19 10:05	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9012221-06 *TO-15 2019*	01/18/19 09:44	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9012221-07 *TO-15 2019*	01/18/19 10:26	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only
9012221-08 *TO-15 2019*	01/18/19 09:37	250	250	U.S. Environmental Protection Agency - OAQPS	Ethylene Oxide only			Ethylene Oxide only

Spiking Witnessed By _____ Date _____

Randy Brown 2/4/19

Preparation Reviewed By _____ Date _____

Extracts Received By _____ Date _____

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B9A2306

Eastern Research Group

Matrix: Air | **Prepared using: Air Toxics - Summa Canister Prep** | **Printed: 2/4/2019 1:02:38PM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
9012221-09 *TO-15 2019*	01/18/19 09:37	250	250	U.S. Environmental Protection Agency - OAQPS Ethylene Oxide only				Ethylene Oxide only
B9A2306-BLK1	01/16/19 08:00	250	250			t-h1-542		
B9A2306-DUP1	01/16/19 09:41	250	250		9011701-08			
B9A2306-DUP2	01/16/19 09:41	250	250		9011701-09			
B9A2306-DUP3	01/18/19 09:37	250	250		9012221-08			
B9A2306-DUP4	01/18/19 09:37	250	250		9012221-09			

Spiking Witnessed By Date

Preparation Reviewed By Date

Extracts Received By Date

Compounds other than ethylene oxide were not quantitated.

TLF 1

ERG Eastern Research Group, Inc.

ERG Lab ID # 9011701-08

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: EPA Willowbrook warehouse

Canister Number: A22228

City/State: Willowbrook, IL

Lab Initial Can. Press. ("Hg): 29.7

AQS Code:

Cleaning Batch # : H2-535

Collection Date: 1/15/19

Date Can. Cleaned: 1/4/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): y

TOXICS (Y/N): y

Duplicate Can # : 183

METHANE (Y/N):

Relinquished by: RMB

Date: 1/9/19

Field Setup

Received by: C. Cummings

Date: 1/15/19

Operator: C Cummings

MFC Setting:

System #: 10314

Elapsed Timer Reset (Y/N):

Setup Date: 1/15/19

Canister Valve Opened (Y/N): yes 09:47

Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/16/19

Sample Duration (3 or 24 hr): 24

Operator: C Cummings

Elapsed Time:

Field Final Can. Press.: -5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): yes 09:41

Relinquished by: C Cummings

Date: 1/16/19

Lab Recovery

Received by: KB

Date: 1/17/19

Lab Final Can. Press.: 5.00 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: -30 @ 09:36, -29.5 @ 09:41, -2 psig 09:47

Field Setup: 28°F

Field Recovery: 32°F

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

CH 2

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 901701-09

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: EPA Warehouse Duplicate
Canister Number: 183
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.7
AQS Code:
Cleaning Batch # : H2-534
Collection Date: 1/15/19
Date Can. Cleaned: 1/3/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): y
TOXICS (Y/N): y
Duplicate Can # : A2222E
METHANE (Y/N):
Relinquished by: RMB
Date: 1/9/19

Field Setup

Received by: C. Cummings
Date: 1/15/19
Operator: C. Cummings
MFC Setting:
System #: 2315
Elapsed Timer Reset (Y/N):
Setup Date: 1/15/19
Canister Valve Opened (Y/N): y @ 09:47
Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/16/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -6 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): y @ 09:49
Relinquished by: C. Cummings
Date: 1/16/19

Lab Recovery

Received by: KB
Date: 1/17/19
Lab Final Can. Press.: 4.00 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2015

Comments: Leak Check -30 @ 09:38, -28.5 @ 09:41 restarted @ 09:42, -29.5 @ 09:47
Field Setup: 28°F
Field Recovery: 32°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

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 # 9011701-04

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Willowbrook Village Hall

Canister Number: 711

City/State: Willowbrook, IL

Lab Initial Can. Press. ("Hg): 29.7

AQS Code:

Cleaning Batch # : H1-535

Collection Date: 1/15/19

Date Can. Cleaned: 1/4/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: RMB

Date: 1/9/19

Field Setup

Received by: C. Cummings

Date: 1/15/19

Operator: C. Cummings

MFC Setting:

System #: 10313

Elapsed Timer Reset (Y/N):

Setup Date: 1/15/19

Canister Valve Opened (Y/N): y @ 09:50

Field Initial Can. Press.: -29.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/16/19

Sample Duration (3 or 24 hr): 24

Operator: C. Cummings

Elapsed Time:

Field Final Can. Press.: -3 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): y @ 09:49

Relinquished by: C. Cummings

Date: 1/16/19

Lab Recovery

Received by: KB

Date: 1/17/19

Lab Final Can. Press.: 19 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why: Heiss Gauge

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -29.5 @ 09:51, -29 1/2 @ 09:56

Field Setup: 28°F

Field Recovery: 32°F

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

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 # 9011701-05

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Gower MS
Canister Number: 555
City/State: Burr Ridge, IL
Lab Initial Can. Press. ("Hg): 29.7
AQS Code:
Cleaning Batch # : H1-535
Collection Date: 1/15/19
Date Can. Cleaned: 1/4/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 1/9/19

Field Setup

Received by: C. Cummings
Date: 1/15/19
Operator: C. Cummings
MFC Setting:
System #: 10311
Elapsed Timer Reset (Y/N):
Setup Date: 1/15/19
Canister Valve Opened (Y/N): y @ 10:06
Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/16/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): y @ 09:58
Relinquished by: C. Cummings
Date: 1/16/19

Lab Recovery

Received by: KB
Date: 1/17/19
Lab Final Can. Press.: 3.50 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -30 @ 10:01 am, -30 @ 10:06 am
Field Setup: 28°F
Field Recovery: 32°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

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 # 9011701-06

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Willowbrook Fire Park
Canister Number: 050
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.7
AQS Code:
Cleaning Batch # : H1-535
Collection Date: 1/15/19
Date Can. Cleaned: 1/4/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 1/9/19

Field Setup

Received by: C. Cummings
Date: 1/15/19
Operator: C. Cummings
MFC Setting:
System #: 10294
Elapsed Timer Reset (Y/N):
Setup Date: 1/15/19
Canister Valve Opened (Y/N): y @ 10:27
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/16/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -4 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): y @ 10:18
Relinquished by: C. Cummings
Date: 1/16/19

Lab Recovery

Received by: KB
Date: 1/17/19
Lab Final Can. Press.: 4.00 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -29.5 "Hg @ 10:22 am, -29 "Hg @ 10:27 am
Field Setup: 28°F
Field Recovery: 32°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

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 # 901701-07

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Gower-ES
Canister Number: 077
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 29.7
AQS Code:
Cleaning Batch # : H2-534
Collection Date: 1/15/19
Date Can. Cleaned: 1/3/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: MB
Date: 1/9/19

Field Setup

Received by: C Cummings
Date: 1/15/19
Operator: C Cummings
MFC Setting:
System #: 10293
Elapsed Timer Reset (Y/N):
Setup Date: 1/15/19
Canister Valve Opened (Y/N): Y @ 10:19 am
Field Initial Can. Press.: -28.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: ~~C Cummings~~ 1/16/19
Sample Duration (3 or 24 hr): 24
Operator: C Cummings
Elapsed Time:
Field Final Can. Press.: psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 10:38 am
Relinquished by: C Cummings
Date: 1/16/19

Lab Recovery

Received by: KB
Date: 1/17/19
Lab Final Can. Press.: 4.00 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak Check: -28.5 "Hg @ 10:44am, -28.5 @ 10:49
Field Setup: 28°F
Field Recovery: 32°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

4

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9012221-01

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: EPA Willowbrook Warehouse
Canister Number: SAT158
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code: ~~10314~~ 66
Cleaning Batch # : H1-538
Collection Date: 1/17/19
Date Can. Cleaned: 1/9/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: [illegible]
Date: 1/14/19

Field Setup

Received by: C. Cummings
Date: 1/19/19
Operator: C. Cummings
MFC Setting:
System #: 10314
Elapsed Timer Reset (Y/N):
Setup Date: 1/17/19
Canister Valve Opened (Y/N): Y @ 09:21
Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/18/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 09:50
Relinquished by: C. Cummings
Date: 1/18/19

Lab Recovery

Received by: MR
Date: 1/22/19
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: Leak Check -30"Hg @ 09:15am, -30"Hg @ 09:21am
Field Setup 30°F, Sample date advanced from (1/18/19) to accomodate schedules.
Field Retrieval 30°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

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 # 9012221-02

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Gower ES
Canister Number: A21034
City/State: W. Hawbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : H1-538
Collection Date: 1/17/19
Date Can. Cleaned: 1/9/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: [illegible]
Date: 1/14/19

Field Setup

Received by: C. Cummings
Date: 1/17/19
Operator: C. Cummings
MFC Setting:
System #: 10293
Elapsed Timer Reset (Y/N):
Setup Date: 1/17/19
Canister Valve Opened (Y/N): y @ 10:30am
Field Initial Can. Press.: -28 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/18/19
Sample Duration (3 or 24 hr): 24 hr
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): y @ 10:13
Relinquished by: C. Cummings
Date: 1/18/19

Lab Recovery

Received by: EC
Date: 1/22/19
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: -28 "Hg @ 10:24, -28" Hg @ 10:30am
Field Setup: 30°F, Sampling run advanced a day from (1/18/19) to accomodate schedules.
Field Recovery: 30°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 901222103

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: Water Tower
Canister Number: 5026
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : H1-538
Collection Date: 1/17/19
Date Can. Cleaned: 1/9/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by:
Date: 1/14/19

Field Setup

Received by: C. Cummings
Date: 1/17/19
Operator: C. Cummings
MFC Setting:
System #: 10312
Elapsed Timer Reset (Y/N):
Setup Date: 1/17/19
Canister Valve Opened (Y/N): Y @ 09:54
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/18/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 09:51
Relinquished by: C. Cummings
Date: 1/18/19

Lab Recovery

Received by: LR
Date: 1/22/19
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: -29"Hg @ 09:49, -29"Hg @ 09:54
Field Setup: 30°F, Sampling run advanced a day from (1/18/19) to accomodate schedules.
Field Recovery: 30°F

MJC

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 9012221-04

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: A21109

City/State: Willowbrook, IL

Lab Initial Can. Press. ("Hg): 30

AQS Code:

Cleaning Batch # : H1-538

Collection Date: 1/17/~~20~~19

Date Can. Cleaned: 1/9/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: [illegible]

Date: 1/14/19

Field Setup

Received by: C. Cummings

Date: 1/17/19

Operator: C. Cummings

MFC Setting:

System #: 10294

Elapsed Timer Reset (Y/N):

Setup Date: 1/17/19

Canister Valve Opened (Y/N): Y @ 10:00

Field Initial Can. Press.: -29 "Hg psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/18/19

Sample Duration (3 or 24 hr): 24

Operator: C. Cummings

Elapsed Time:

Field Final Can. Press.: [illegible] psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): Y @ 9:58

Relinquished by: C. Cummings

Date: 1/18/19

Lab Recovery

Received by: KZ

Date: 1/22/19

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: -29"Hg @ 10:01am -29"Hg @ 10:06am

Field Setup: 30°F; Sampling was advanced a day from 01/19/19 to accommodate schedules.

Field Recovery: 30°F

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 901222105

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 S High School
Canister Number: 096
City/State: Darien, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : H1-536
Collection Date: 1/17/19
Date Can. Cleaned: 1/7/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: JK
Date: 1/14/19

Field Setup

Received by: C. Cummings
Date: 1/17/19
Operator: C. Cummings
MFC Setting:
System #: ~~10243~~ CEC 10076
Elapsed Timer Reset (Y/N):
Setup Date: 1/17/19
Canister Valve Opened (Y/N): Y @ 10:17am
Field Initial Can. Press.: -28.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/18/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -5 psig psia "Hg (Circle one)
Status: **VALID** **VOID** (Circle one)
Canister Valve Closed (Y/N): Y @ 2:05
Relinquished by: C. Cummings
Date: 1/18/19

Lab Recovery

Received by: NR
Date: 1/22/19
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: -29" Hg @ 10:12am, -29" Hg @ 10:17am
Field Setup: 30°F, Sampling run overnight a day from (1/18/19) to accommodate schedules
Field Recovery: 30°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

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 # 901222I-06

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Gower Middle School
Canister Number: SAT151
City/State: Burr Ridge, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : H1-538
Collection Date: 1/17/19
Date Can. Cleaned: 1/9/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: JC
Date: 1/14/19

Field Setup

Received by: C. Cummings
Date: 1/17/19
Operator: C. Cummings
MFC Setting:
System #: 10311
Elapsed Timer Reset (Y/N):
Setup Date: 1/17/19
Canister Valve Opened (Y/N): Y @ 09:43
Field Initial Can. Press.: -30 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/18/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -6 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): Y @ 09:44
Relinquished by: C. Cummings
Date: 1/18/19

Lab Recovery

Received by: WC
Date: 1/22/19
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: -30 "Hg @ 07:38am, -30 "Hg @ 09:43am
Field Setup: 30°F, Sampling run advanced a day from (1/18/19) to accomodate schedules.
Field Recovery: 30°F

MSC

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

ERG Lab ID # 9012221-07

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: West Neighborhood
Canister Number: SAT029
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : H1538
Collection Date: 1/17/19
Date Can. Cleaned: 1/9/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: [illegible]
Date: 1/14/19

Field Setup

Received by: C. Cummings
Date: 1/17/19
Operator: C. Cummings
MFC Setting:
System #: 10310
Elapsed Timer Reset (Y/N):
Setup Date: 1/17/19
Canister Valve Opened (Y/N): yes 10:44 am
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/18/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -4.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): yes 10:2[illegible]
Relinquished by: C. Cummings
Date: 1/18/19

Lab Recovery

Received by: KR
Date: 1/22/19
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: -29 "Hg @ 10:36am, ~~-30~~ -28.0 "Hg @ 10:44 am
Field Setup: 30°F, sampling can advanced a day from (1/18/19) to accommodate schedules.
Field Recovery: 30°F

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

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 # 9012221-08

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Willowbrook Village Hall
Canister Number: 775
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : H2535
Collection Date: 1/17/19
Date Can. Cleaned: 1/4/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): Y
TOXICS (Y/N):
Duplicate Can # : 5810
METHANE (Y/N):
Relinquished by: [illegible]
Date: 1/14/19

Field Setup

Received by: C. Cummings
Date: 1/17/19
Operator: C. Cummings
MFC Setting:
System #: 10313
Elapsed Timer Reset (Y/N):
Setup Date: 1/17/19
Canister Valve Opened (Y/N): yes 09:31
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/18/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: -2.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): yes 09:37
Relinquished by: C. Cummings
Date: 1/18/19

Lab Recovery

Received by: RR
Date: 1/22/19
Lab Final Can. Press.: 2.3 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 @ 09:25am, -28.5 @ 09:31
Field Setup: 28°F, Sampling was advanced from (1/18/19) to accomodate schedules
Field Recovery: 30°F
MX

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

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 # 9012221-09

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Willowbrook Village Hall Duplicate
Canister Number: 5010
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : H1-538
Collection Date: 1/17/19
Date Can. Cleaned: 1/9/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): y
TOXICS (Y/N): y
Duplicate Can # : 775
METHANE (Y/N):
Relinquished by: JC
Date: 1/14/19

Field Setup

Received by: C. Cummings
Date: 1/17/19
Operator: C. Cummings
MFC Setting:
System #: 10315
Elapsed Timer Reset (Y/N):
Setup Date: 1/17/19
Canister Valve Opened (Y/N): y @ 09:31
Field Initial Can. Press.: -29.5 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 1/18/19
Sample Duration (3 or 24 hr): 24
Operator: C. Cummings
Elapsed Time:
Field Final Can. Press.: 7 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): y @ 09:37
Relinquished by: C. Cummings
Date: 1/18/19

Lab Recovery

Received by: LC
Date: 1/22/19
Lab Final Can. Press.: 5.5 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: Field Setup: 30°F, sample run advanced from (1/18/19) to accomodate schedules.
Leak Check: -29.5"Hg @ 09:25 am, -28.5 @ 09:31 am
Field Recovery: 30°F
JSC

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy