Compounds other than ethylene oxide were not quantitated.

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

Sequence ID:	L19CF 1903018	**Instrument:**	ASI	**Batch:**	19C0605
Cal Curve (Method):	9020003	**Analyst:**	MAK	**Date Analyzed:**	3-6-19
10% Review Sample IDs:	9030618-01, -09	**Reviewer:**	DST	**Date:**	3/18/19
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	3-7-19	RUB 3/18/19	DST 3/18/19		
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)	3-7-19	RUB 3/18/19	DST 3/18/19		L19DL
ICV(LCS) Second source calibration verification check - immediately following ICAL	The response factor ≤ ±30% DEV from calibration curve average response factor	3-7-19	RUB 3/18/19	DST 3/18/19		L19DL
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	3-7-19	RUB 3/18/19	DST 3/18/19		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	3-7-19	RUB 3/18/19	DST 3/18/19		

3/18/19 Checked spectra for samples 9030618-01 + 09 for t-2-Butene. None found. DST 3/18/19

Compounds other than ethylene oxide were not quantitated.

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	✓ 3-7-19	RMB 3/18/19	DST 3/18/19		
Canister Cleaning Certification	<3xMDL or 0.2ppbv per VOC targeted compound, whichever is lower	✓ 3-7-19	RMB 3/18/19	NA		
Preconcentrator Leak Check	≤ ± 0.2 psi/min	✓ 3-7-19	RMB 3/18/19	DST 3/18/19		
Samples/Internal Standard Check	IS area within ±40% and IS RT within ±0.33 min. of most recent initial calibration	✓ 3-7-19	RMB 3/18/19	DST 3/18/19		
COC Included and filled out	Lab receipt acknowledged, LIMS number added to COC	✓ 3-7-19	RMB 3/18/19	DST 3/18/19		
Manual Integration and peak deletion	Conforms with ERG-SOP-097 "Procedure for Manual Integration of Chromatographic Peaks"	✓ 3-7-19	RMB 3/18/19	DST 3/18/19		
Manual Calculation Check	One compound manual check must agree with software generated result		RMB 3/18/19	DST 3/18/19		9030618-01 164 (4.77 ppbv) / 47865 (0.2728) = 0.0599 ppbv
Qualifiers Check	Check to make sure LIMS data flags are correct	✓ 3-7-19	RMB 3/18/19	DST 3/18/19		

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

L19CF002 ethylene oxide $\frac{5328 \times 4.77}{50293 \times 0.2728} = 1.85$ ppbv

Compounds other than ethylene oxide were not quantitated.

ANALYSIS SEQUENCE

1903018

Instrument: ERGMS#1

Calibnration ID: 9020003

Printed: 3/6/2019 3:24:09PM

Lab Number	Analysis	Container	Order	Position	STD ID	ISTD ID	Client	Comments
1903018-CCV1	QC		1		9B27007	8L13002		
B9C0605-BLK1	QC		2			8L13002		
9030101-10	TO-15 2019	A	3			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030618-01	TO-15 2019	A	4			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030618-02	TO-15 2019	A	5			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030618-03	TO-15 2019	A	6			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030618-04	TO-15 2019	A	7			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030618-05	TO-15 2019	A	8			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
B9C0605-DUP1	QC		9			8L13002		
B9C0605-DUP2	QC		10			8L13002		
9030618-06	TO-15 2019	A	11			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030618-07	TO-15 2019	A	12			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030618-08	TO-15 2019	A	13			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only
9030618-09	TO-15 2019	A	14			8L13002	U.S. Environmental Protection Agency - OAQ	Ethylene Oxide only

Samples Loaded By: 3-6-19 Date

Data Processed By: 3-7-19 Date

Compounds other than ethylene oxide were not quantitated.

Sequence Name: C:\msdchem\1\sequence\L19CF.s
Comment: ANALYZE 3/6/19,9020003 exp 5/13/19, L19CF
Operator: MAH
Data Path: C:\MSDCHEM\1\DATA\L19CF\
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	L19CF001	BFB	BFB
2)	Sample	2	L19CF002	9020003	1903018-CCV1
3)	Sample	3	L19CF003	9020003	SNMOC-CCV1
4)	Sample	4	L19CF004	9020003	B9C0605-BLK1
5)	Sample	5	L19CF005	9020003	9030101-10
6)	Sample	6	L19CF006	9020003	9030618-01
7)	Sample	7	L19CF007	9020003	9030618-02
8)	Sample	8	L19CF008	9020003	9030618-03
9)	Sample	9	L19CF009	9020003	9030618-04
10)	Sample	10	L19CF010	9020003	9030618-05
11)	Sample	11	L19CF011	9020003	B9C0605-DUP1
12)	Sample	12	L19CF012	9020003	B9C0605-DUP2
13)	Sample	13	L19CF013	9020003	9030618-06
14)	Sample	14	L19CF014	9020003	9030618-07
15)	Sample	15	L19CF015	9020003	9030618-08
16)	Sample	16	L19CF016	9020003	9030618-09
17)	Sample	100	OFF	FIDOFF	OFF

3-7-19

Compounds other than ethylene oxide were not quantitated.

Sample	1	BFB	BFB	L19CF001	80 ML 8L13001	1
Sample	2	1903018-CCV1	9020003	L19CF002	80 ML 8L13001,9B27007	1
Sample	3	SNMOC-CCV1	9020003	L19CF003	80 ML 8L13001,9B28003	1
Sample	4	B9C0605-BLK1	9020003	L19CF004	80 ML 8L13001	1
Sample	5	9030101-10	9020003	L19CF005	TRIP BLANK 2/27/19	1
Sample	6	9030618-01	9020003	L19CF006	WILLOW POND PARK 3/5/19	1
Sample	7	9030618-02	9020003	L19CF007	WEST NEIGHBORHOOD 3/5/19	1
Sample	8	9030618-03	9020003	L19CF008	WATER TOWER 3/5/19	1
Sample	9	9030618-04	9020003	L19CF009	WB VILLAGE C1 HALL 3/5/19	1
Sample	10	9030618-05	9020003	L19CF010	WB VILLAGE C2 HALL 3/5/19	1
Sample	11	B9C0605-DUP1	9020003	L19CF011	WB VILLAGE R1 HALL 3/5/19	1
Sample	12	B9C0605-DUP2	9020003	L19CF012	WB VILLAGE R2 HALL 3/5/19	1
Sample	13	9030618-06	9020003	L19CF013	GOWER MS 3/5/19	1
Sample	14	9030618-07	9020003	L19CF014	EPA WB WAREHOUSE 3/5/19	1
Sample	15	9030618-08	9020003	L19CF015	GOWER ES 3/5/19	1
Sample	16	9030618-09	9020003	L19CF016	HINSDALE S. HS 3/5/19	1
Sample	100	OFF	FIDOFF	OFF	OFF	1

3-7-19

Compounds other than ethylene oxide were not quantitated.

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

Sequence Name: C:\Smart\L19CF.SEQ
Date: 03-07-2019
Time: 06:21:26
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
1903018-CCV1	2	1	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
FLUSH	1	2	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B9C0605-BLK1	1	2	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9030101-10	1	3	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9030618-01	1	4	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9030618-02	1	5	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9030618-03	1	6	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9030618-04	1	7	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9030618-05	1	8	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B9C0605-DUP1	1	7	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
B9C0605-DUP2	1	8	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9030618-06	1	9	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9030618-07	1	10	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9030618-08	1	11	250		0	C:\Smart\TO-15A_MS1.MPT	12:00
9030618-09	1	12	250		0	C:\Smart\TO-15A_MS1.MPT	12:00

3-7-19

Compounds other than ethylene oxide were not quantitated.

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

3/7/2019 6:58:11 AM
Leak Check for C:\Smart\L19CF.SEQ
Report File: C:\Smart\L19CF.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	3	---	---	1.2	1.3	0.10
1	4	---	---	1.2	1.2	0.00
1	5	---	---	1.1	1.2	0.10
1	6	---	---	1.1	1.2	0.10
1	7	---	---	1.2	1.2	0.00
1	8	---	---	1.1	1.2	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	---	---	1.1	1.2	0.10

3-7-19

Compounds other than ethylene oxide were not quantitated.

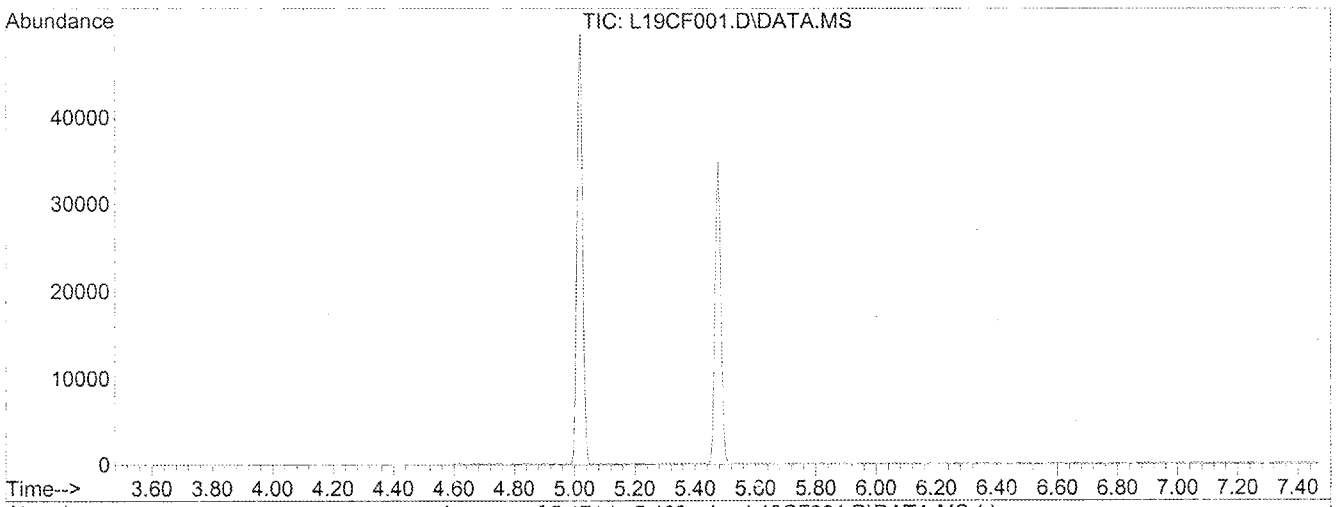
BFB

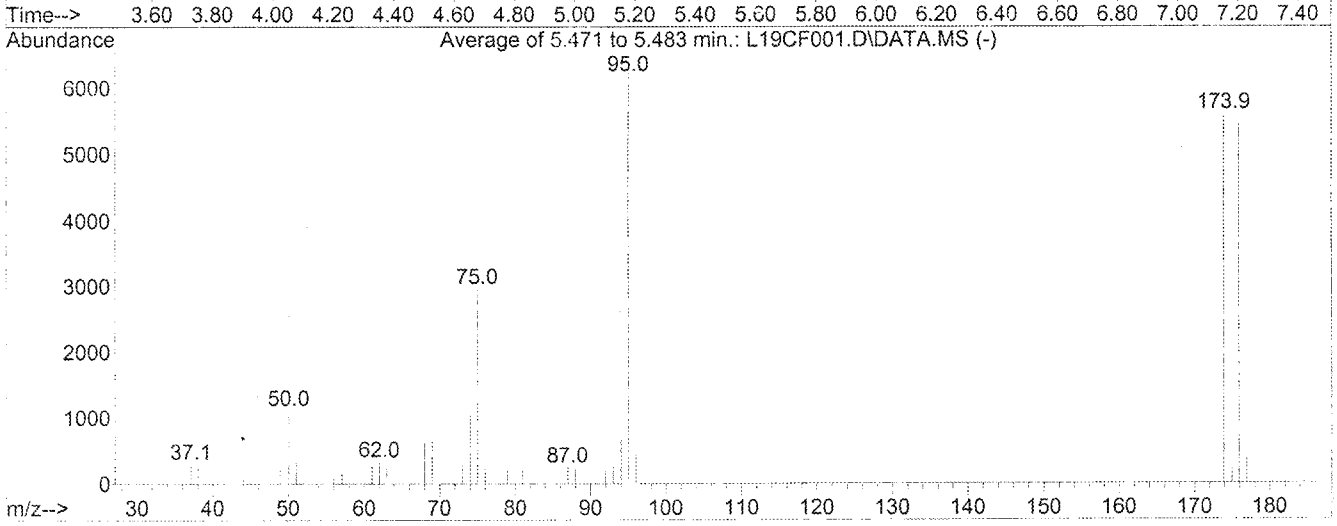
Data Path : C:\msdchem\1\DATA\L19CF\
Data File : L19CF001.D
Acq On : 6 Mar 2019 1:24 pm
Operator : MAH
Sample : BFB
Misc : 80 ML 8L13001
ALS Vial : 1 Sample Multiplier: 1

Integration File: RTEINT.P

3-7-19

Method : C:\msdchem\1\METHODS\9020003.M
Title : TO-15 by Selective Ion Analysis
Last Update : Wed Feb 13 06:44:42 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	17.9	1118	PASS
75	95	30	66	47.6	2967	PASS
95	95	100	100	100.0	6238	PASS
96	95	5	9	7.1	440	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	89.7	5594	PASS
175	174	4	9	6.6	371	PASS
176	174	93	101	97.6	5458	PASS
177	176	5	9	7.0	382	PASS

Compounds other than ethylene oxide were not quantitated.

GC/MS QA-QC Check Report

Tune File : C:\msdchem\1\DATA\L19CF\L19CF001.D
Tune Time : 6 Mar 2019 1:24 pm

9020003	IS Avg Area	48611	118146	86564
	+40%	68055	165404	121190
	-40%	29167	70888	51939

File	Sample	Internal Standard Responses		
L19CF002.D	1903018-CCV1	50293	128378	93544
L19CF004.D	B9C0605-BLK1	48602	125788	85832
L19CF005.D	9030101-10	48891	127087	88365
L19CF006.D	9030618-01	47865	123218	85760
L19CF007.D	9030618-02	46557	118621	81316
L19CF008.D	9030618-03	47255	121177	84292
L19CF009.D	9030618-04	44865	112228	78641
L19CF010.D	9030618-05	46435	118866	83787
L19CF011.D	B9C0605-DUP1	45726	118829	83478
L19CF012.D	B9C0605-DUP2	45547	116785	80816
L19CF013.D	9030618-06	46725	121721	85475
L19CF014.D	9030618-07	45610	117698	81389
L19CF015.D	9030618-08	41948	105337	72774
L19CF016.D	9030618-09	44902	117435	81907

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

Created: Thu Mar 07 06:26:02 2019 MS1

3-7-19

Compounds other than ethylene oxide were not quantitated.

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
	3/7/2019 4:36	L19CF016.D	44902	19.99	117435	23.15	81907	30.10
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	48611		19.99		118146		23.15		86564		30.11	
	3/6/2019 14:12	L19CF002.D	50293	103	19.99	0	128378	109	23.15	0	93544	108	30.09	-0.02
	3/6/2019 16:31	L19CF004.D	48602	100	19.99	0	125788	106	23.15	0	85832	99	30.10	-0.01
	3/6/2019 17:31	L19CF005.D	48891	101	19.99	0	127087	108	23.15	0	88365	102	30.09	-0.02
	3/6/2019 18:31	L19CF006.D	47865	98	19.99	0	123218	104	23.15	0	85760	99	30.09	-0.02
	3/6/2019 19:31	L19CF007.D	46557	96	19.99	0	118621	100	23.15	0	81316	94	30.09	-0.02
	3/6/2019 20:31	L19CF008.D	47255	97	19.99	0	121177	103	23.15	0	84292	97	30.09	-0.02
	3/6/2019 21:33	L19CF009.D	44865	92	19.99	0	112228	95	23.15	0	78641	91	30.10	-0.01
	3/6/2019 22:33	L19CF010.D	46435	96	19.99	0	118866	101	23.15	0	83787	97	30.10	-0.01
	3/6/2019 23:33	L19CF011.D	45726	94	19.99	0	118829	101	23.15	0	83478	96	30.10	-0.01
	3/7/2019 12:33	L19CF012.D	45547	94	19.99	0	116785	99	23.15	0	80816	93	30.09	-0.02
	3/7/2019 1:33	L19CF013.D	46725	96	19.99	0	121721	103	23.15	0	85475	99	30.10	-0.01
	3/7/2019 2:33	L19CF014.D	45610	94	19.99	0	117698	100	23.15	0	81389	94	30.09	-0.02
	3/7/2019 3:36	L19CF015.D	41948	86	19.99	0	105337	89	23.15	0	72774	84	30.10	-0.01
	3/7/2019 4:36	L19CF016.D	44902	92	19.99	0	117435	99	23.15	0	81907	95	30.10	-0.01

3-7-19

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
9B27007

Description:	2.50 ppbv ICV/CCV	Expires:	03/29/19 ✓
Standard Type:	Calibration Stan	Prepared:	02/27/19
Solvent:	Scientific Air	Prepared By:	Kameron Singer
Final Volume (mls):	6000	Department:	Air Toxics
Vials:	1	Last Edit:	02/27/19 09:15 by KSS

canister# SAT028

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

Reviewed By — Date: 3-7-19

Compounds other than ethylene oxide were not quantitated.

Analytical Standard Record
Eastern Research Group
9B27007

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

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
SJ25001	TO-15 Secondary Stock Standard	10/25/18	** Vendor **	10/04/19	11/20/18 11:30 by RMB	30
SE20015	Ethylene Oxide Secondary Stock S	11/12/18	** Vendor **	11/12/19	11/20/18 12:14 by MH	15

Reviewed By _____ Date 2-7-19

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\L19CF\
Data File : L19CF002.D
Acq On : 6 Mar 2019 2:12 pm
Operator : MAH
Sample : 1903018-CCV1
Misc : 80 ML 8L13001,9B27007
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 07 06:23:22 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 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	0.391	0.363	7.2	100	0.00
3	CT	Propylene	0.487	0.480	1.4	100	0.00
4	CT	Dichlorodifluoromethane	2.300	2.288	0.5	100	0.00
5	CT	Chloromethane	0.592	0.543	8.3	100	0.00
6	CT	Dichlorotetrafluoroethane	2.013	2.183	-8.4	100	0.00
7	CT	Vinyl Chloride	0.662	0.629	5.0	100	0.00
8	CT	1,3-Butadiene	0.450	0.415	7.8	100	0.00
9	CT	Ethylene oxide	0.273	0.202	26.0	100	0.00
10	CT	Bromomethane	0.627	0.614	2.1	100	0.00
11	CT	Chloroethane	0.263	0.243	7.6	100	0.00
12	CT	Acetonitrile	0.414	0.342	17.4	100	0.00
13	CT	Acrolein	0.209	0.174	16.7	100	0.00
14	CT	Trichlorofluoromethane	1.944	1.678	13.7	100	0.00
15	CT	Acrylonitrile	0.330	0.285	13.6	100	0.00
16	CT	1,1-Dichloroethene	0.843	0.840	0.4	100	0.00
17	CT	Methylene Chloride	0.557	0.524	5.9	100	0.00
18	CT	Carbon Disulfide	1.716	1.639	4.5	100	0.00
19	CT	Trichlorotrifluoroethane	1.307	1.329	-1.7	100	0.00
20	CT	trans-1,2-Dichloroethylene	0.467	0.442	5.4	100	0.00
21	CT	1,1-Dichloroethane	0.786	0.751	4.5	100	0.00
22	CT	Methyl tert-Butyl Ether	1.318	1.215	7.8	100	0.00
23	CT	Chloroprene	0.639	0.588	8.0	100	0.00
24	CT	cis-1,2-Dichloroethylene	0.620	0.563	9.2	100	0.00
25	CT	Bromochloromethane	0.335	0.311	7.2	100	0.00
26	CT	Chloroform	0.912	0.907	0.5	100	0.00
27	CT	Ethyl tert-Butyl Ether	1.260	1.170	7.1	100	0.00
28	CT	1,2-Dichloroethane	0.560	0.545	2.7	100	0.00
29	ISS	IS-1,4-Difluorobenzene	1.000	1.000	0.0	100	0.00
30	CT	1,1,1-Trichloroethane	0.370	0.350	5.4	100	0.00
31	CT	Benzene	0.529	0.507	4.2	100	0.00
32	CT	Carbon Tetrachloride	0.396	0.422	-6.6	100	0.00
33	CT	tert-Amyl Methyl Ether	0.449	0.400	10.9	100	0.00
34	CT	1,2-Dichloropropane	0.201	0.182	9.5	100	0.00
35	CT	Ethyl Acrylate	0.171	0.219	-28.1	100	0.00
36	CT	Bromodichloromethane	0.356	0.307	13.8	100	0.00
37	CT	Trichloroethylene	0.252	0.221	12.3	100	0.00
38	CT	Methyl Methacrylate	0.513	0.578	-12.7	100	0.00
39	CT	cis-1,3-Dichloropropene	0.175	0.193	-10.3	100	0.00
40	CT	Methyl Isobutyl Ketone	0.377	0.334	11.4	100	0.00
41	CT	trans-1,3-Dichloropropene	0.117	0.133	-13.7	100	0.00
42	CT	1,1,2-Trichloroethane	0.184	0.172	6.5	100	0.00
43	ISS	IS-Chlorobenzene-d5	1.000	1.000	0.0	100	0.00
44	CT	Toluene	0.779	0.741	4.9	100	0.00
45	CT	Dibromochloromethane	1.529	1.502	1.8	100	0.00
46	CT	1,2-Dibromoethane	0.292	0.306	-4.8	100	0.00
47	CT	n-Octane	0.469	0.400	14.7	100	0.00
48	CT	Tetrachloroethylene	0.375	0.351	6.4	100	0.00

Compounds other than ethylene oxide were not quantitated.

Evaluate Continuing Calibration Report

Data Path : C:\MSDCHEM\1\DATA\L19CF\
Data File : L19CF002.D
Acq On : 6 Mar 2019 2:12 pm
Operator : MAH
Sample : 1903018-CCV1
Misc : 80 ML 8L13001,9B27007
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 07 06:23:22 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 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	0.497	0.474	4.6	100	0.00
50 CT	Ethylbenzene	0.819	0.773	5.6	100	0.00
51 CT	m,p-Xylene	0.691	0.644	6.8	100	0.00
52 CT	Bromoform	0.296	0.304	-2.7	100	0.00
53 CT	Styrene	0.392	0.354	9.7	100	0.00
54 CT	1,1,2,2-Tetrachloroethane	0.446	0.407	8.7	100	0.00
55 CT	o-Xylene	0.682	0.647	5.1	100	0.00
56 CT	1,3,5-Trimethylbenzene	0.732	0.609	16.8	100	0.00
57 CT	1,2,4-Trimethylbenzene	0.633	0.530	16.3	100	0.00
58 CT	m-Dichlorobenzene	0.333	0.278	16.5	100	0.00
59 CT	p-Dichlorobenzene	0.271	0.247	8.9	100	0.00
60 CT	o-Dichlorobenzene	0.305	0.262	14.1	100	0.00
61 CT	1,2,4-Trichlorobenzene	0.103	0.100	2.9	100	0.00
62 CT	Hexachloro-1,3-butadiene	0.264	0.234	11.4	100	0.00

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

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\L19CF\
Data File : L19CF002.D
Acq On : 6 Mar 2019 2:12 pm
Operator : MAH
Sample : 1903018-CCV1
Misc : 80 ML 8L13001,9B27007
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 07 06:23:22 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

3-7-19

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	50293	4.7700	ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	128378	4.9900	ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	93544	4.7400	ppbv	-0.02

System Monitoring Compounds

Target Compounds						Qvalue
2) Acetylene	5.414	26	9194	2.2323	ppbv	100
3) Propylene	7.823	41	12393	2.4122	ppbv	100
4) Dichlorodifluoromethane	8.685	85	57408	2.3669	ppbv	100
5) Chloromethane	9.740	50	14194	2.2729	ppbv	100
6) Dichlorotetrafluoroethane	10.864	85	56149	2.6449	ppbv	99
7) Vinyl Chloride	11.119	62	16577	2.3733	ppbv	99
8) 1,3-Butadiene	11.783	54	10800	2.2745	ppbv	99
9) Ethylene oxide	12.393	29	5328	1.8522	ppbv	98
10) Bromomethane	12.603	94	16181	2.4480	ppbv	100
11) Chloroethane	13.280	64	6415	2.3118	ppbv	99
12) Acetonitrile	14.356	41	9129	2.0915	ppbv	100
13) Acrolein	14.634	56	4428	2.0133	ppbv	97
14) Trichlorofluoromethane	15.214	101	44229	2.1582	ppbv	100
15) Acrylonitrile	15.933	53	7519	2.1590	ppbv	99
16) 1,1-Dichloroethene	16.443	61	21616	2.4312	ppbv	98
17) Methylene Chloride	16.745	49	13707	2.3334	ppbv	96
18) Carbon Disulfide	16.930	76	42865	2.3692	ppbv	100
19) Trichlorotrifluoroethane	17.301	101	34193	2.4808	ppbv	100
20) trans-1,2-Dichloroethy...	18.336	96	11475	2.3284	ppbv	97
21) 1,1-Dichloroethane	18.630	63	19241	2.3226	ppbv	99
22) Methyl tert-Butyl Ether	18.789	73	32540	2.3420	ppbv	99
23) Chloroprene	19.537	53	15386	2.2833	ppbv	98
24) cis-1,2-Dichloroethylene	19.945	61	14839	2.2688	ppbv	98
25) Bromochloromethane	20.172	128	8110	2.2939	ppbv	100
26) Chloroform	20.399	83	23905	2.4870	ppbv	100
27) Ethyl tert-Butyl Ether	21.182	59	31710	2.3863	ppbv	99
28) 1,2-Dichloroethane	21.476	62	14310	2.4255	ppbv	100
30) 1,1,1-Trichloroethane	21.867	97	22238	2.3368	ppbv	99
31) Benzene	22.533	78	32762	2.4074	ppbv	100
32) Carbon Tetrachloride	22.768	117	27375	2.6858	ppbv	100
33) tert-Amyl Methyl Ether	23.499	73	26785	2.3176	ppbv	100
34) 1,2-Dichloropropane	23.788	63	11846	2.2897	ppbv	96
35) Ethyl Acrylate	23.870	55	14310	3.2556	ppbv	99
36) Bromodichloromethane	24.076	83	20246	2.2112	ppbv	99
37) Trichloroethylene	24.159	130	14331	2.2107	ppbv	100
38) Methyl Methacrylate	24.530	41	37803	2.8655	ppbv	99
39) cis-1,3-Dichloropropene	25.528	75	12611	2.8070	ppbv	98
40) Methyl Isobutyl Ketone	25.605	43	21771	2.2448	ppbv	99
41) trans-1,3-Dichloropropene	26.348	75	8398	2.7901	ppbv	96
42) 1,1,2-Trichloroethane	26.615	97	10958	2.3149	ppbv	100
44) Toluene	27.092	91	35683	2.3214	ppbv	100
45) Dibromochloromethane	27.732	129	75289	2.4951	ppbv	100
46) 1,2-Dibromoethane	28.153	107	15111	2.6217	ppbv	100
47) n-Octane	28.855	43	19897	2.1490	ppbv	98
48) Tetrachloroethylene	28.995	166	17236	2.3297	ppbv	99
49) Chlorobenzene	30.171	112	23013	2.3457	ppbv	100
50) Ethylbenzene	30.896	91	38135	2.3596	ppbv	100

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\L19CF\
Data File : L19CF002.D
Acq On : 6 Mar 2019 2:12 pm
Operator : MAH
Sample : 1903018-CCV1
Misc : 80 ML 8L13001,9B27007
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 07 06:23:22 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
51) m,p-Xylene	31.221	91	63265	4.6414	ppbv	99
52) Bromoform	31.278	173	15244	2.6128	ppbv	100
53) Styrene	31.908	104	17483	2.2623	ppbv #	99
54) 1,1,2,2-Tetrachloroethane	32.061	83	20337	2.3117	ppbv	100
55) o-Xylene	32.118	91	31143	2.3151	ppbv	100
56) 1,3,5-Trimethylbenzene	34.917	105	30307	2.0970	ppbv	100
57) 1,2,4-Trimethylbenzene	35.844	105	24895	1.9917	ppbv	99
58) m-Dichlorobenzene	36.111	146	13167	2.0036	ppbv	100
59) p-Dichlorobenzene	36.289	146	12697	2.3718	ppbv	99
60) o-Dichlorobenzene	37.091	146	12940	2.1529	ppbv	100
61) 1,2,4-Trichlorobenzene	40.824	180	4915	2.4110	ppbv	99
62) Hexachloro-1,3-butadiene	41.634	225	11547	2.2180	ppbv	100

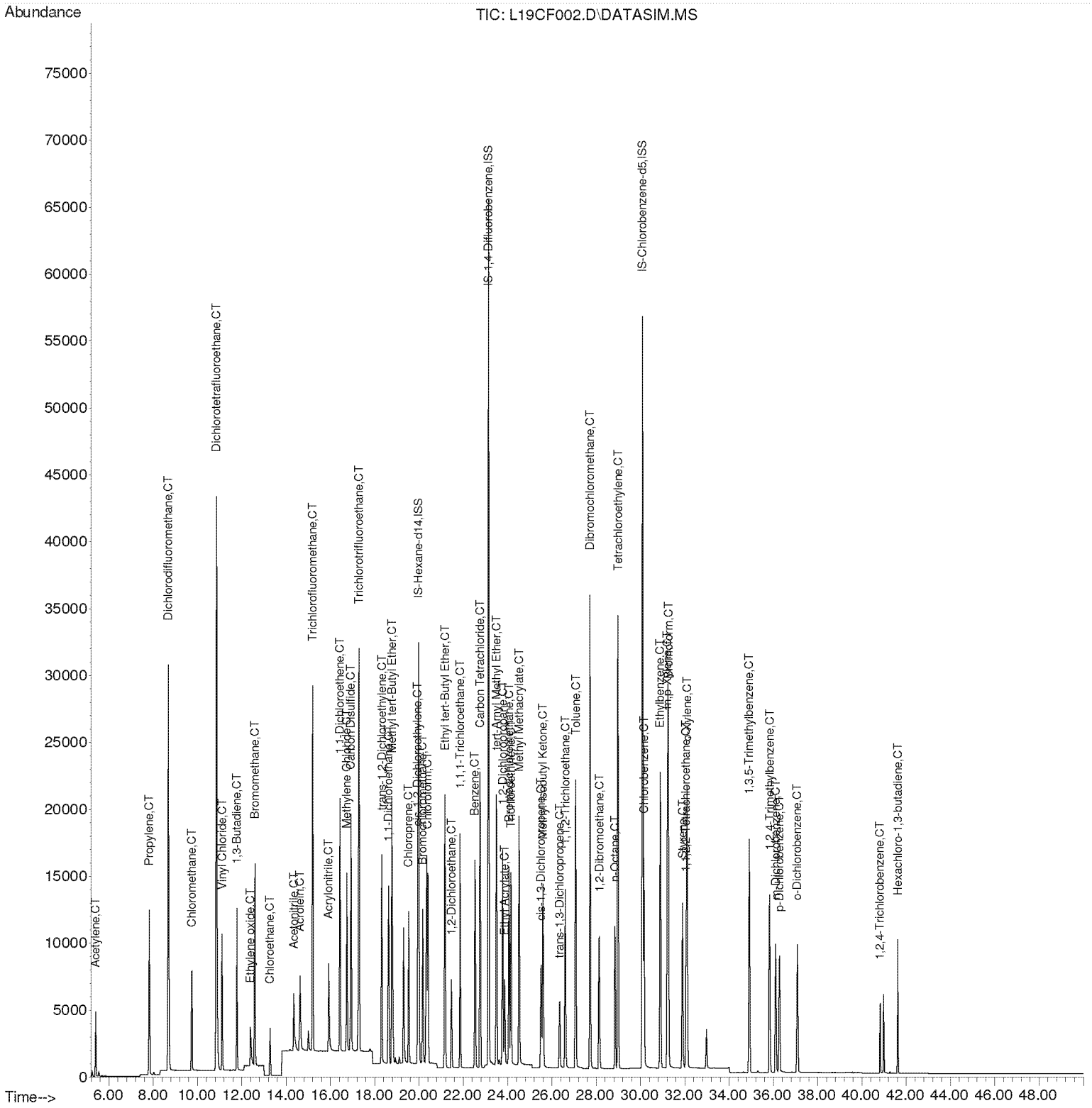
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

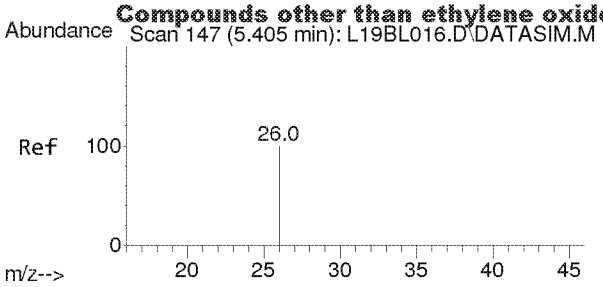
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19CF\
Data File : L19CF002.D
Acq On : 6 Mar 2019 2:12 pm
Operator : MAH
Sample : 1903018-CCV1
Misc : 80 ML 8L13001,9B27007
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Mar 07 06:23:22 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

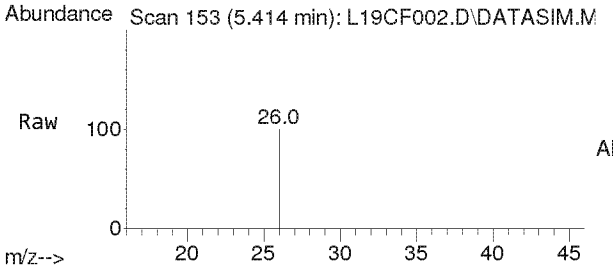


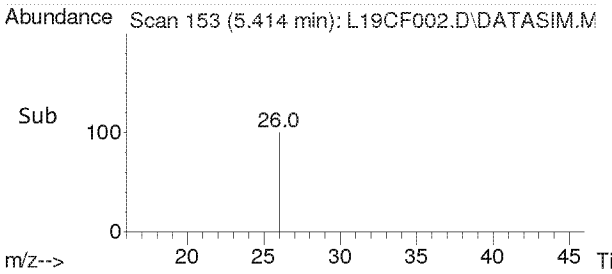
Compounds other than ethylene oxide were not quantitated.

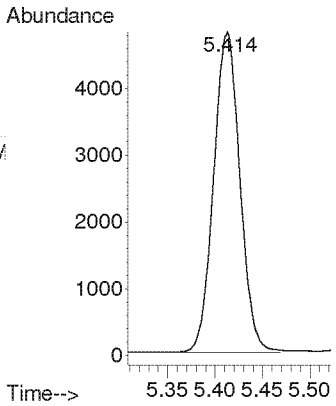


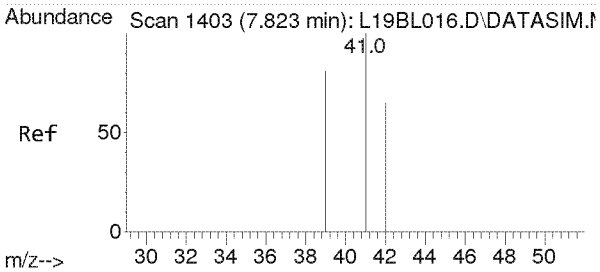
#2
Acetylene
Concen: 2.232 ppbv
RT: 5.414 min Scan# 153
Delta R.T. 0.009 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 26 Resp: 9194





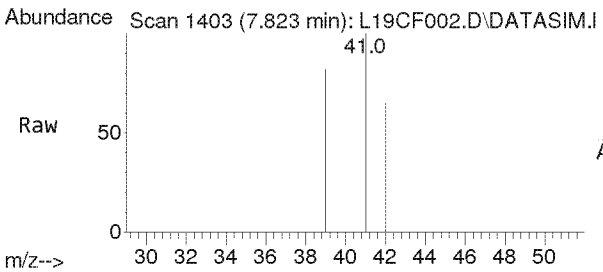


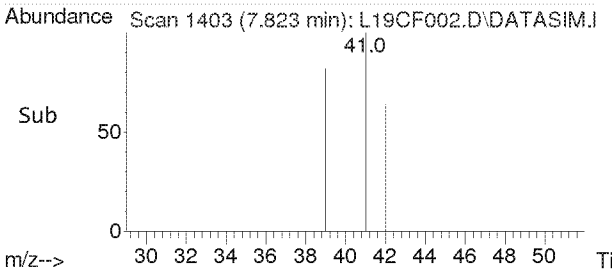


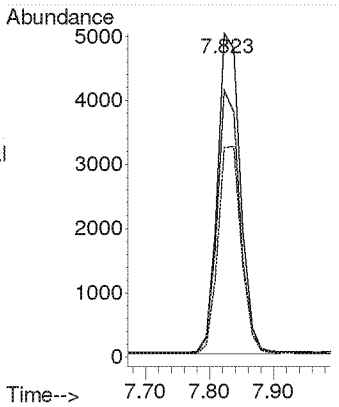
#3
Propylene
Concen: 2.412 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 41 Resp: 12393

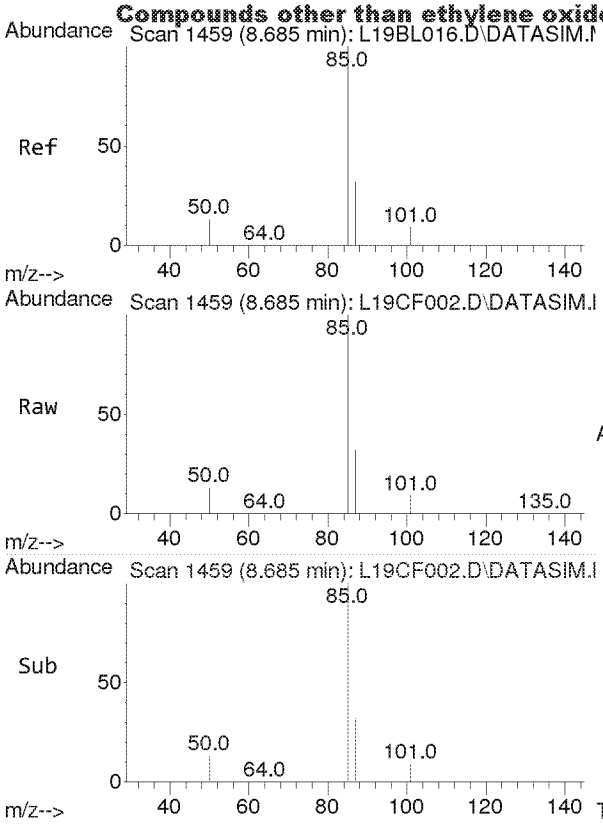
Ion	Ratio	Lower	Upper
41	100		
39	80.4	64.2	96.2
42	66.4	52.6	79.0







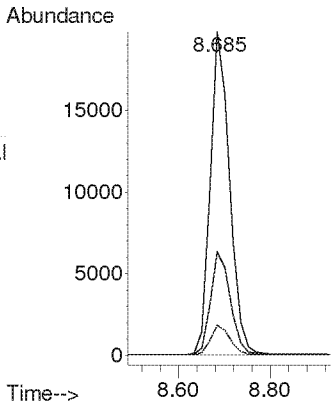
Compounds other than ethylene oxide were not quantitated.

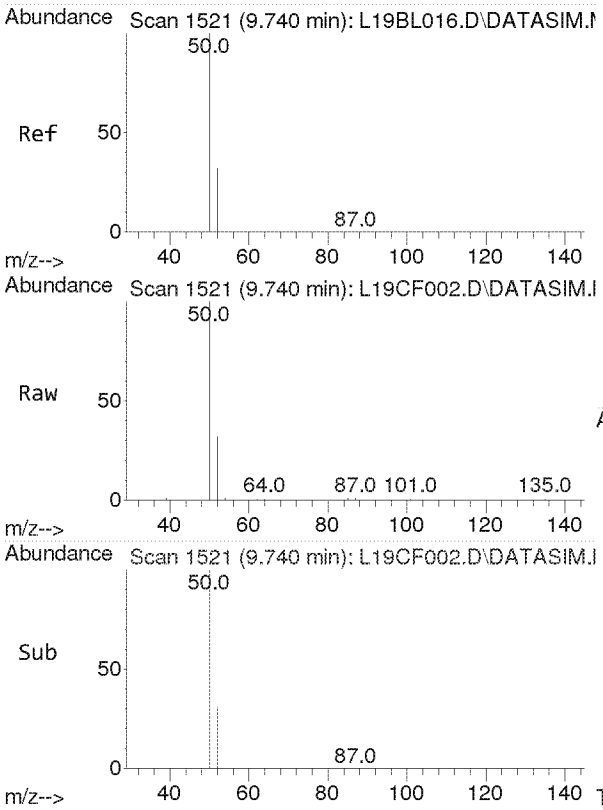


#4
Dichlorodifluoromethane
Concen: 2.367 ppbv
RT: 8.685 min Scan# 1459
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 85 Resp: 57408

Ion	Ratio	Lower	Upper
85	100		
87	32.4	26.0	39.0
101	9.1	7.3	10.9

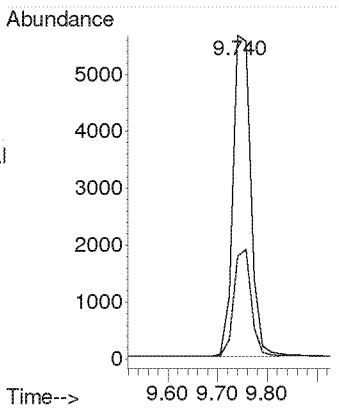




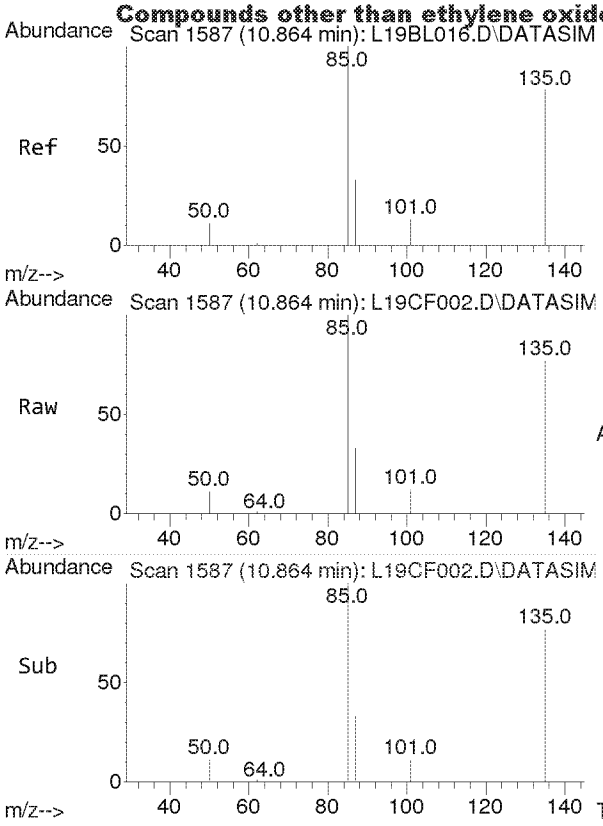
#5
Chloromethane
Concen: 2.273 ppbv
RT: 9.740 min Scan# 1521
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 50 Resp: 14194

Ion	Ratio	Lower	Upper
50	100		
52	32.7	26.1	39.1



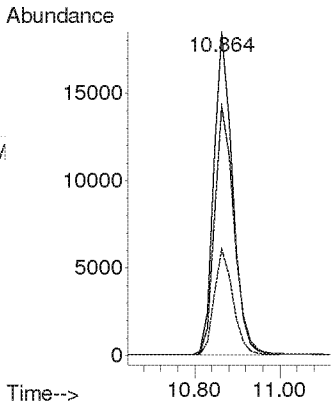
Compounds other than ethylene oxide were not quantitated.

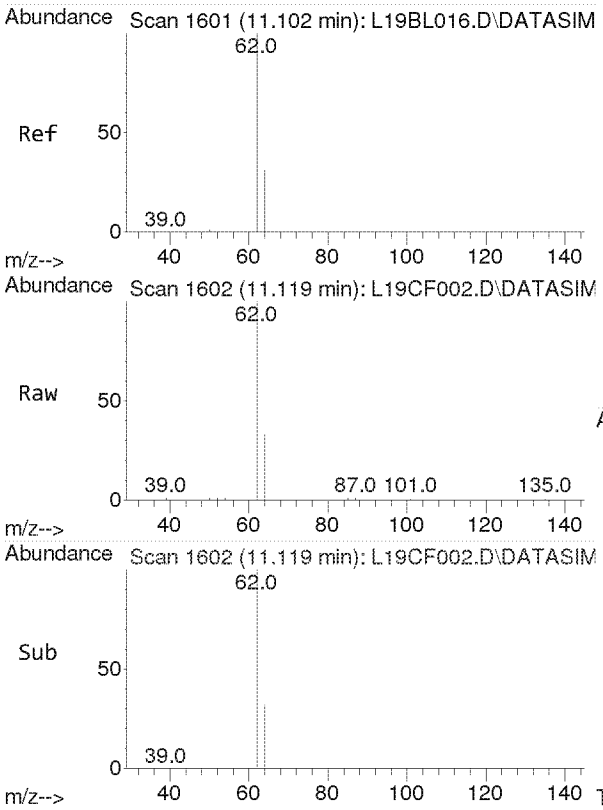


#6
Dichlorotetrafluoroethane
Concen: 2.645 ppbv
RT: 10.864 min Scan# 1587
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 85 Resp: 56149

Ion	Ratio	Lower	Upper
85	100		
135	80.3	63.2	94.8
87	32.6	25.9	38.9

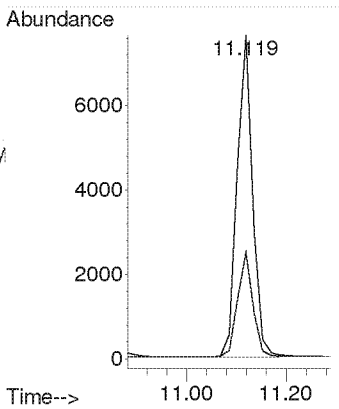




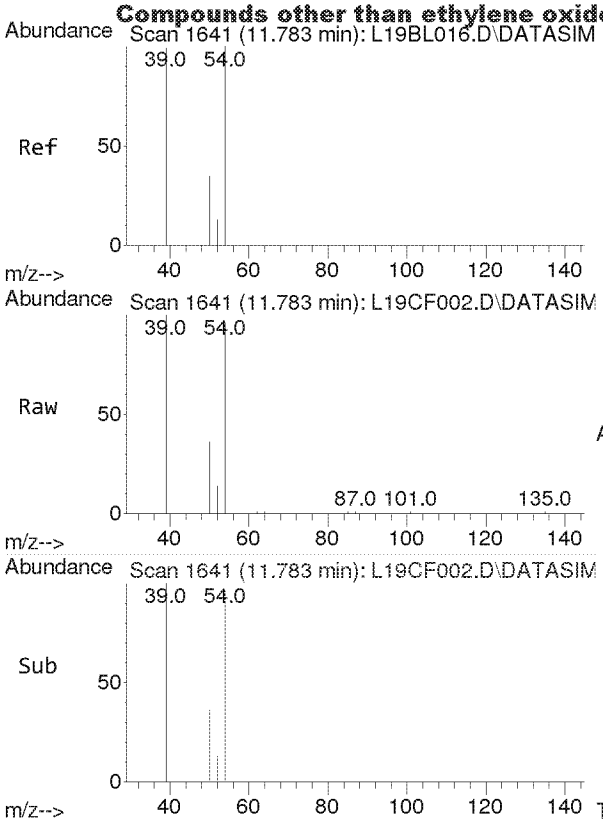
#7
Vinyl Chloride
Concen: 2.373 ppbv
RT: 11.119 min Scan# 1602
Delta R.T. 0.017 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 62 Resp: 16577

Ion	Ratio	Lower	Upper
62	100		
64	32.0	25.4	38.0



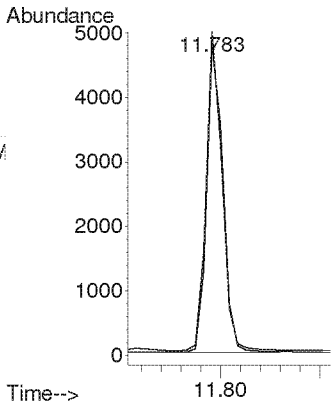
Compounds other than ethylene oxide were not quantitated.

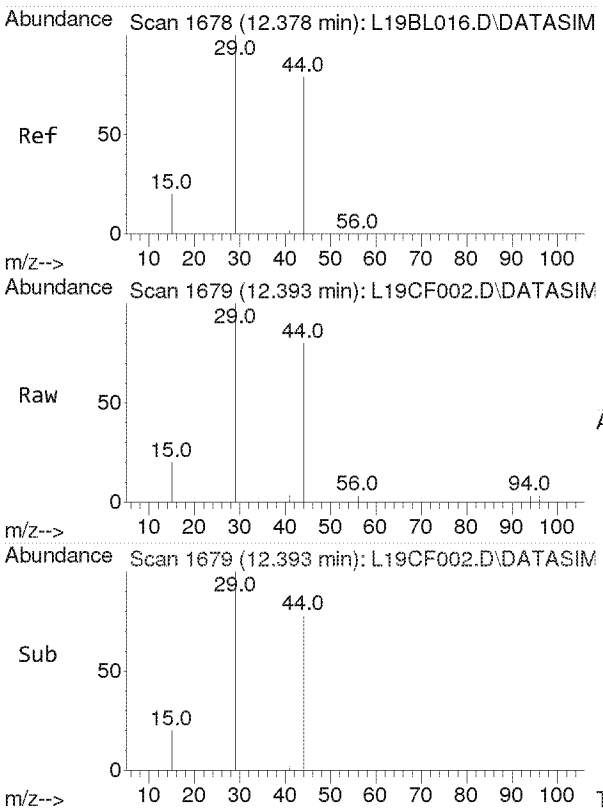


#8
1,3-Butadiene
Concen: 2.275 ppbv
RT: 11.783 min Scan# 1641
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 54 Resp: 10800

Ion	Ratio	Lower	Upper
54	100		
39	100.8	81.6	122.4

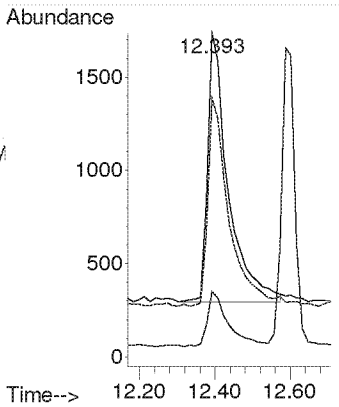




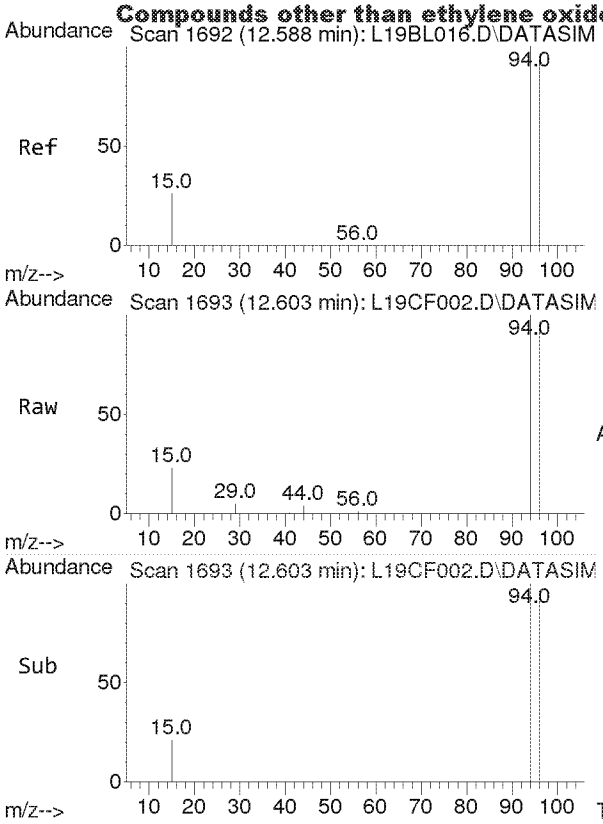
#9
Ethylene oxide
Concen: 1.852 ppbv
RT: 12.393 min Scan# 1679
Delta R.T. 0.015 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 29 Resp: 5328

Ion	Ratio	Lower	Upper
29	100		
15	20.7	16.0	24.0
44	79.4	65.4	98.2



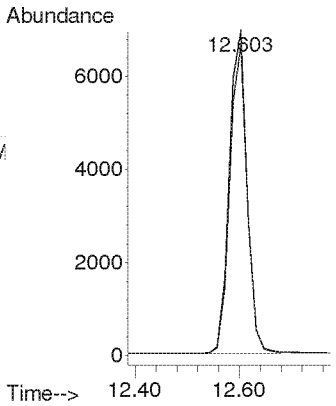
Compounds other than ethylene oxide were not quantitated.

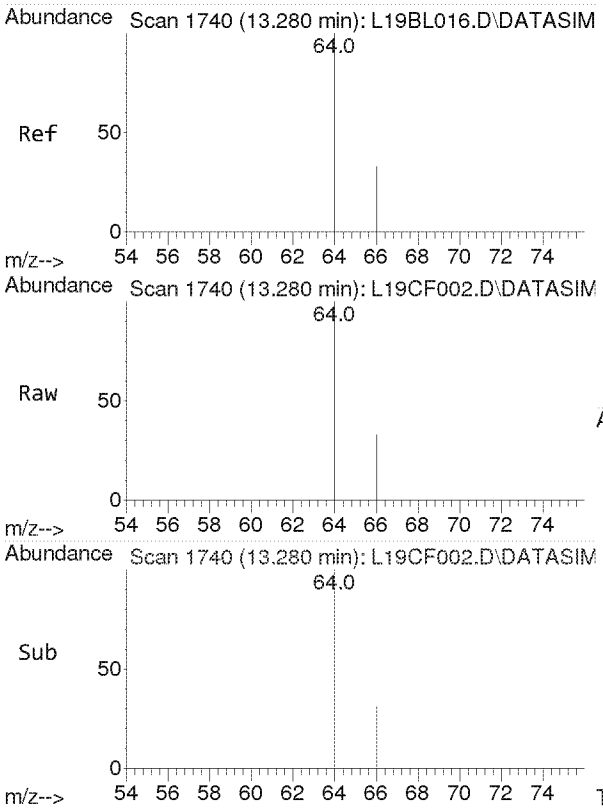


#10
Bromomethane
Concen: 2.448 ppbv
RT: 12.603 min Scan# 1693
Delta R.T. 0.015 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 94 Resp: 16181

Ion	Ratio	Lower	Upper
94	100		
96	94.5	75.5	113.3

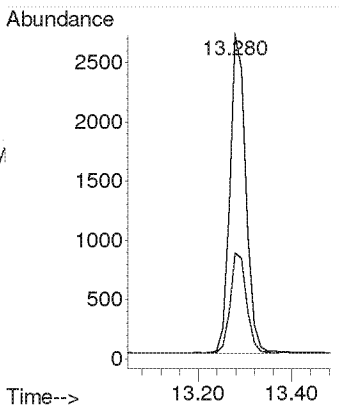




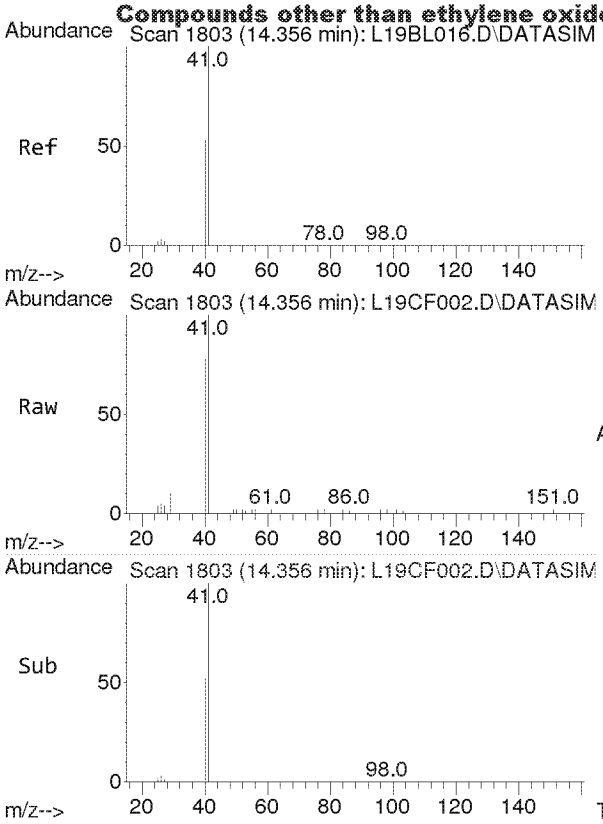
#11
Chloroethane
Concen: 2.312 ppbv
RT: 13.280 min Scan# 1740
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 64 Resp: 6415

Ion	Ratio	Lower	Upper
64	100		
66	31.9	25.8	38.6



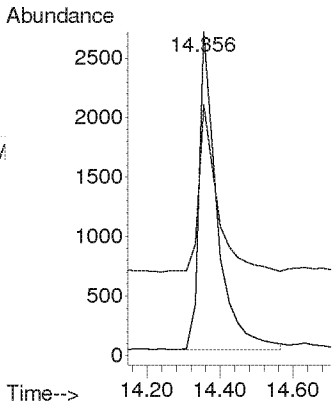
Compounds other than ethylene oxide were not quantitated.

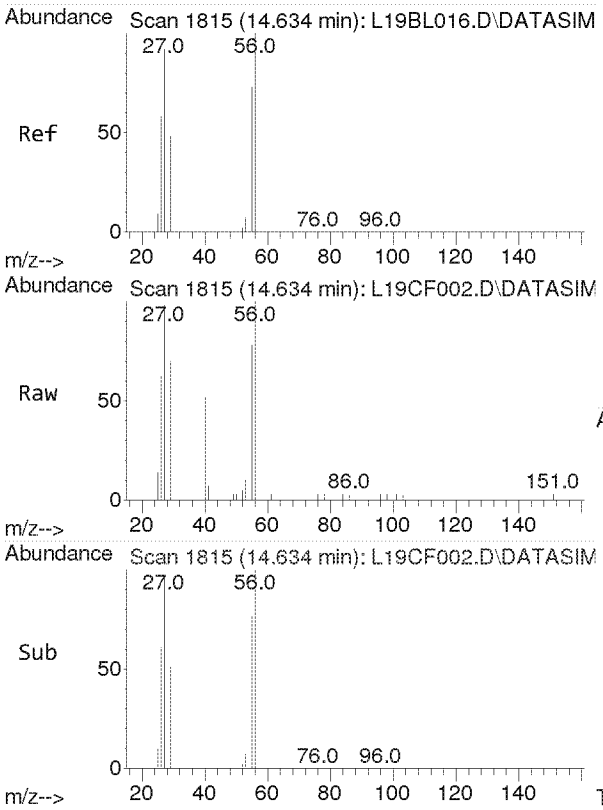


#12
Acetonitrile
Concen: 2.091 ppbv
RT: 14.356 min Scan# 1803
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 41 Resp: 9129

Ion	Ratio	Lower	Upper
41	100		
40	52.5	42.2	63.4

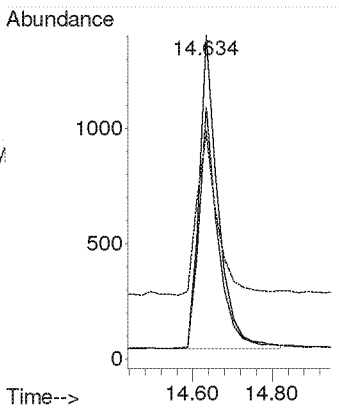




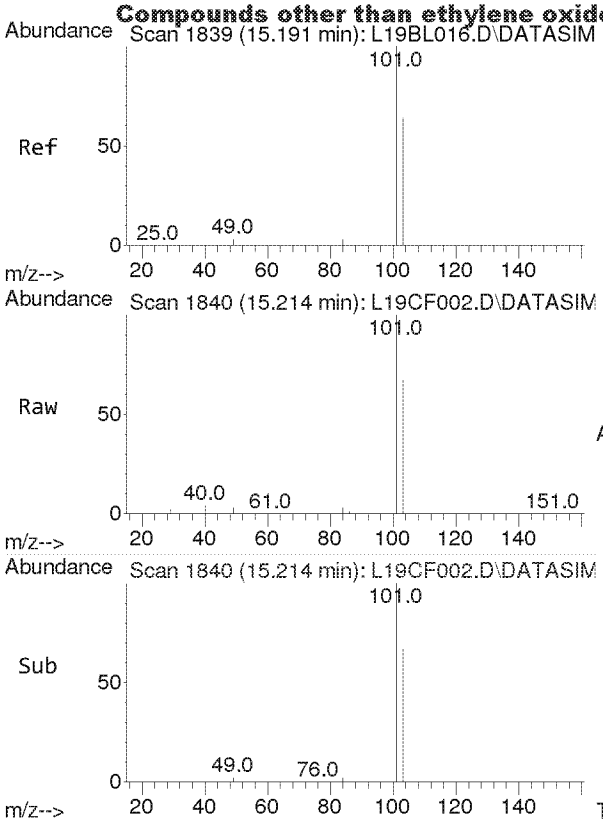
#13
Acrolein
Concen: 2.013 ppbv
RT: 14.634 min Scan# 1815
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 56 Resp: 4428

Ion	Ratio	Lower	Upper
56	100		
55	78.5	60.8	91.2
29	57.3	43.8	65.6



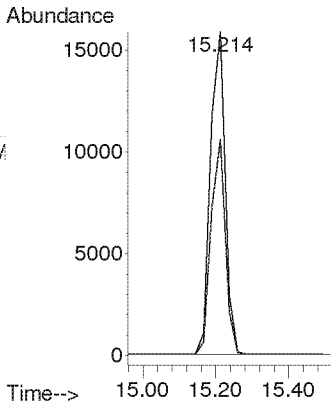
Compounds other than ethylene oxide were not quantitated.

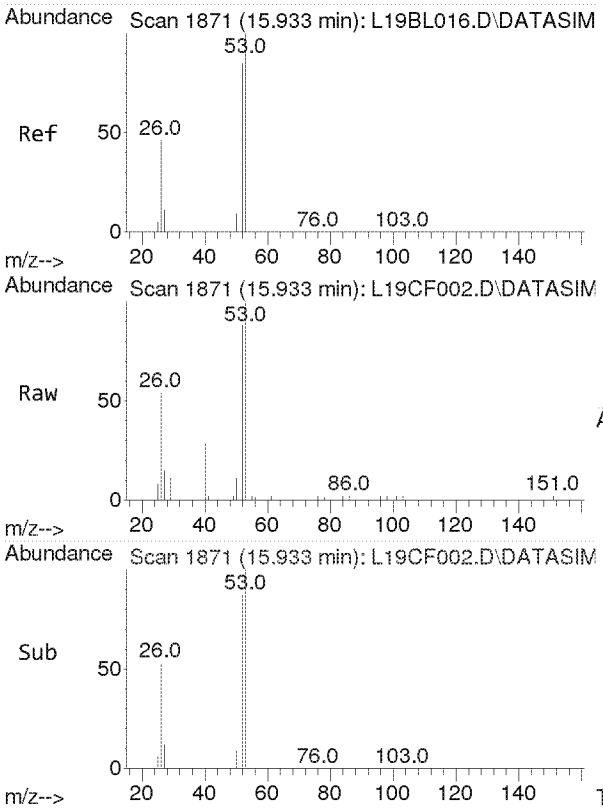


#14
Trichlorofluoromethane
Concen: 2.158 ppbv
RT: 15.214 min Scan# 1840
Delta R.T. 0.023 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion:101 Resp: 44229

Ion	Ratio	Lower	Upper
101	100		
103	64.9	51.7	77.5

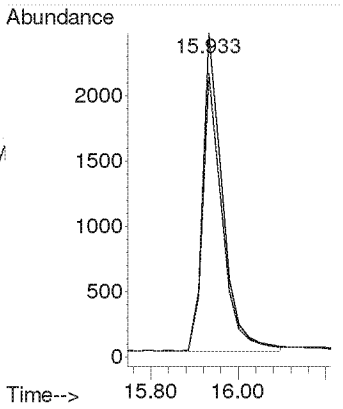




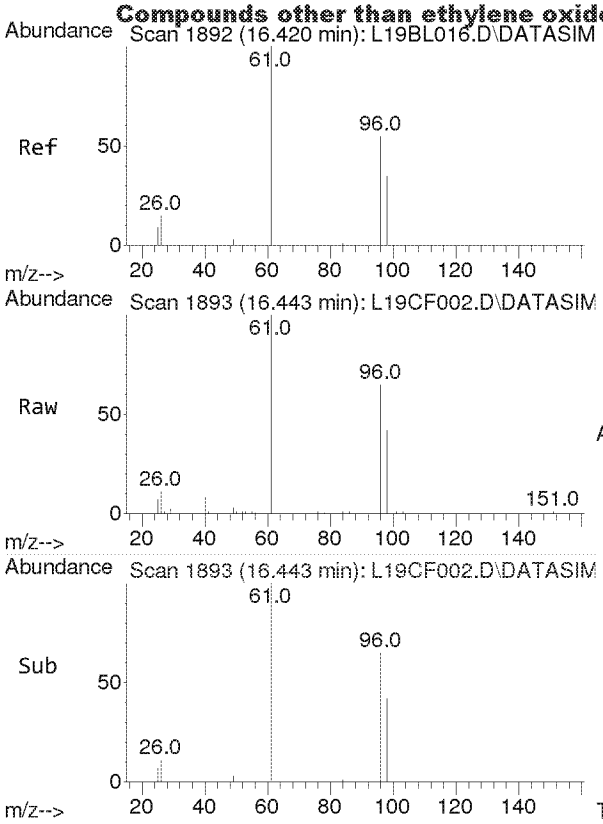
#15
Acrylonitrile
Concen: 2.159 ppbv
RT: 15.933 min Scan# 1871
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 53 Resp: 7519

Ion	Ratio	Lower	Upper
53	100		
52	86.2	69.5	104.3



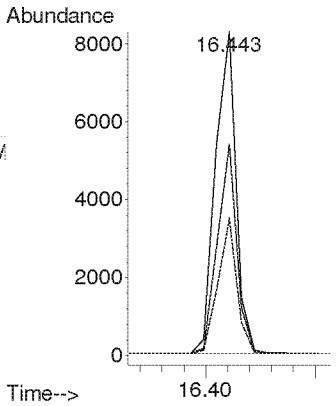
Compounds other than ethylene oxide were not quantitated.

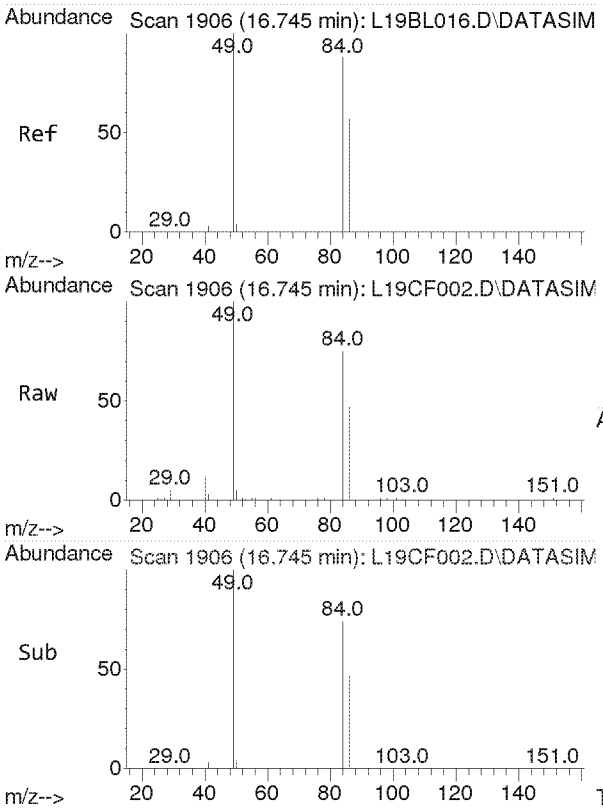


#16
1,1-Dichloroethene
Concen: 2.431 ppbv
RT: 16.443 min Scan# 1893
Delta R.T. 0.023 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 61 Resp: 21616

Ion	Ratio	Lower	Upper
61	100		
96	61.1	47.3	70.9
98	38.8	30.6	45.8

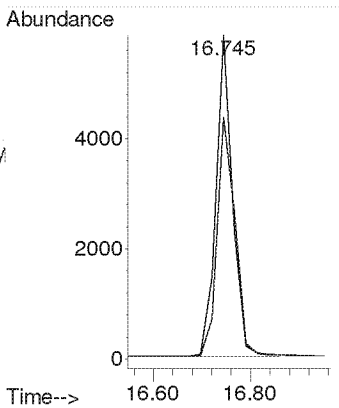




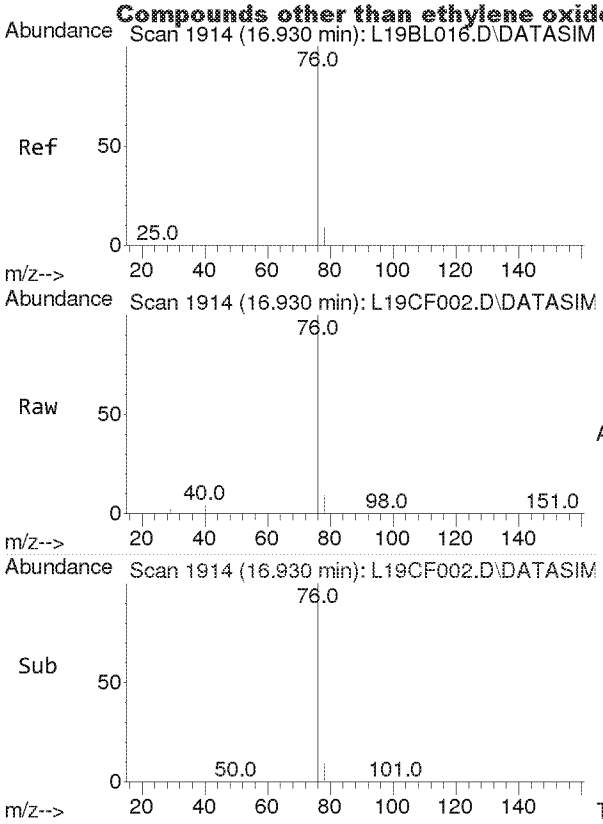
#17
Methylene Chloride
Concen: 2.333 ppbv
RT: 16.745 min Scan# 1906
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 49 Resp: 13707

Ion	Ratio	Lower	Upper
49	100		
84	80.7	54.0	100.4



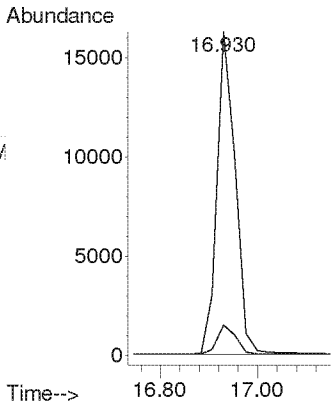
Compounds other than ethylene oxide were not quantitated.

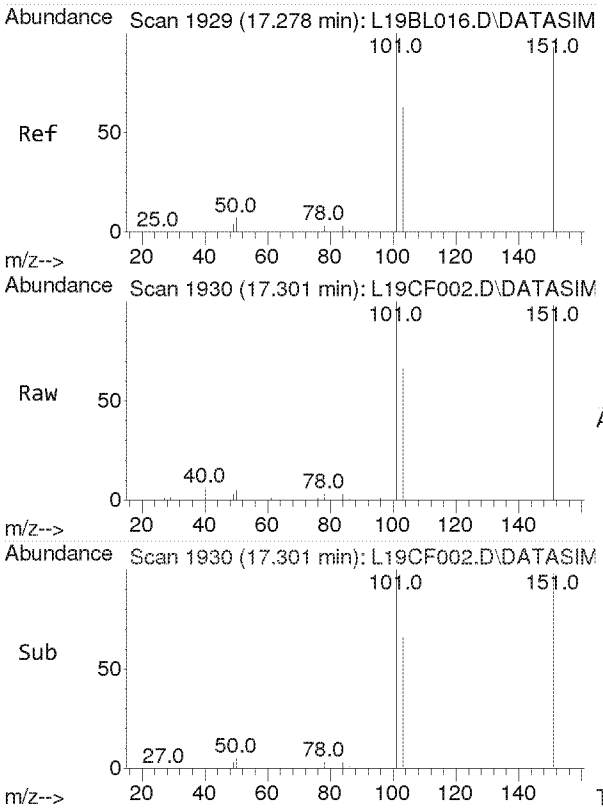


#18
Carbon Disulfide
Concen: 2.369 ppbv
RT: 16.930 min Scan# 1914
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 76 Resp: 42865

Ion	Ratio	Lower	Upper
76	100		
78	9.2	7.4	11.0

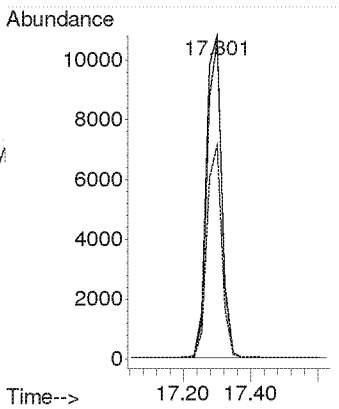




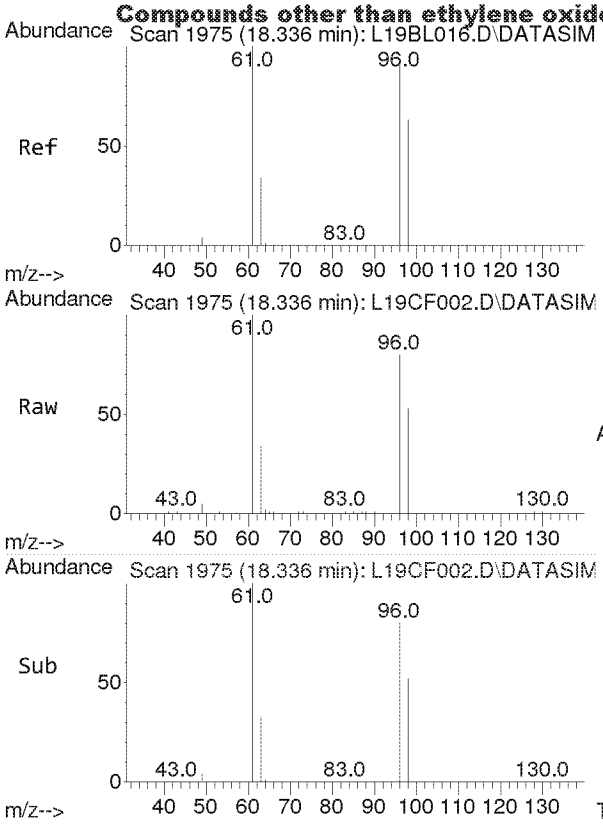
#19
Trichlorotrifluoroethane
Concen: 2.481 ppbv
RT: 17.301 min Scan# 1930
Delta R.T. 0.023 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion:101 Resp: 34193

Ion	Ratio	Lower	Upper
101	100		
151	94.3	75.8	113.8
103	64.1	51.1	76.7



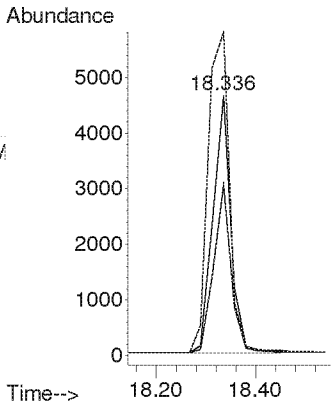
Compounds other than ethylene oxide were not quantitated.

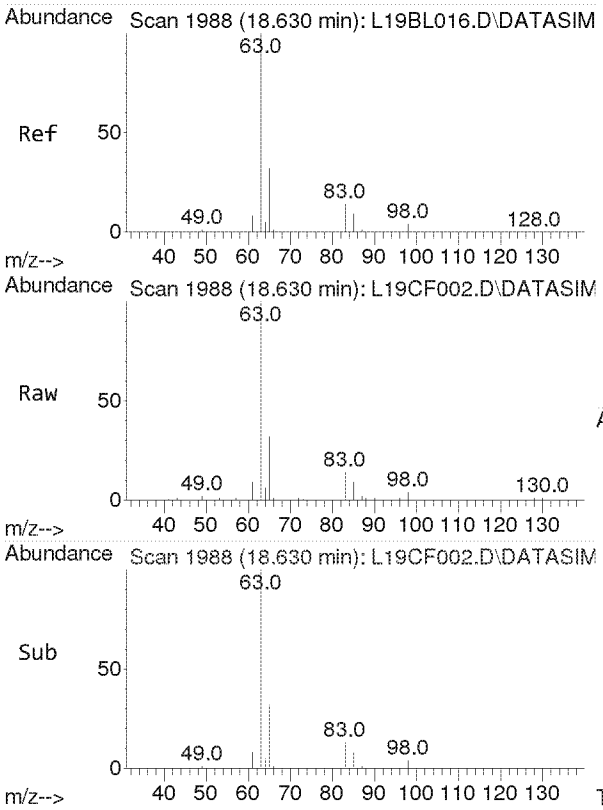


#20
trans-1,2-Dichloroethylene
Concen: 2.328 ppbv
RT: 18.336 min Scan# 1975
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 96 Resp: 11475

Ion	Ratio	Lower	Upper
96	100		
98	64.0	51.5	77.3
61	149.0	122.9	184.3

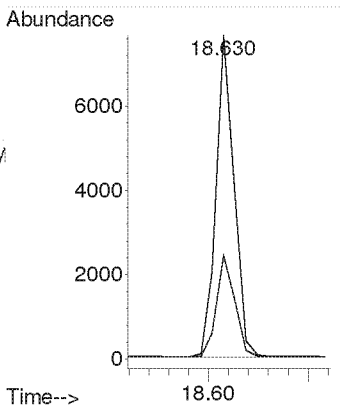




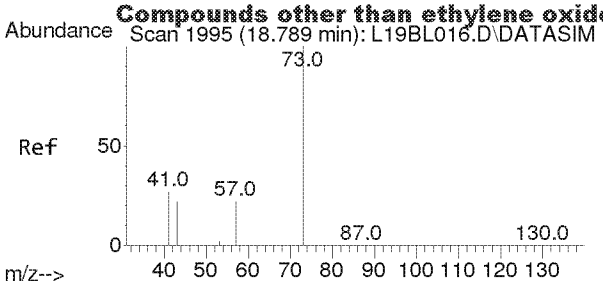
#21
1,1-Dichloroethane
Concen: 2.323 ppbv
RT: 18.630 min Scan# 1988
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 63 Resp: 19241

Ion	Ratio	Lower	Upper
63	100		
65	32.1	25.4	38.0



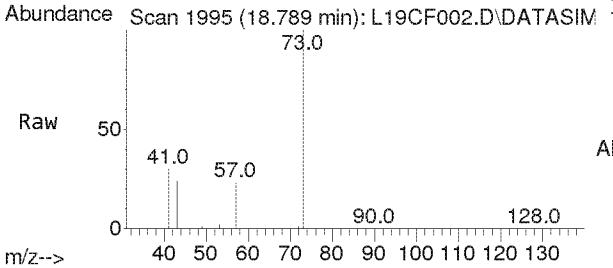
Compounds other than ethylene oxide were not quantitated.

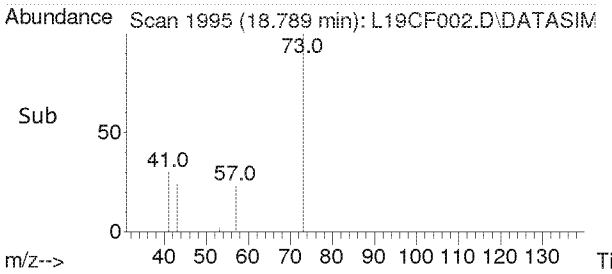


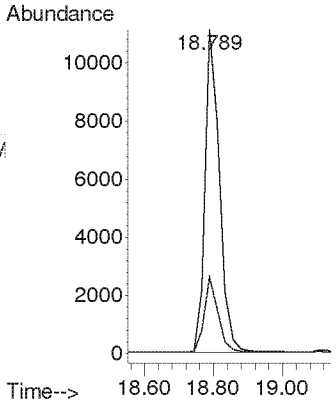
#22
Methyl tert-Butyl Ether
Concen: 2.342 ppbv
RT: 18.789 min Scan# 1995
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

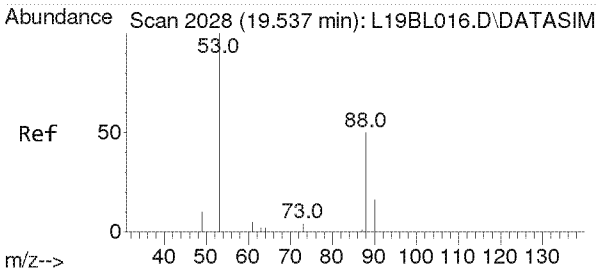
Tgt Ion: 73 Resp: 32540

Ion	Ratio	Lower	Upper
73	100		
57	22.0	18.0	27.0





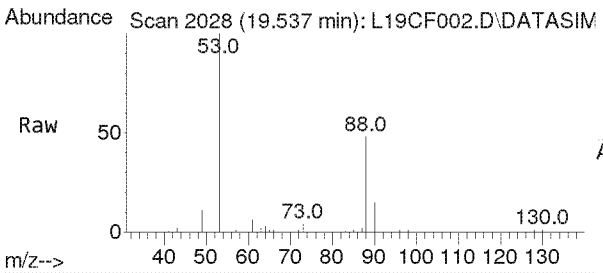


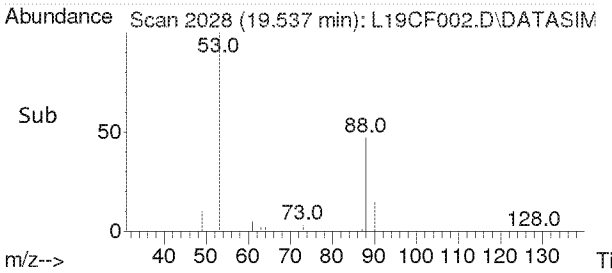


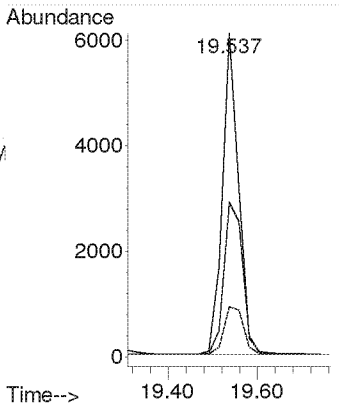
#23
Chloroprene
Concen: 2.283 ppbv
RT: 19.537 min Scan# 2028
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 53 Resp: 15386

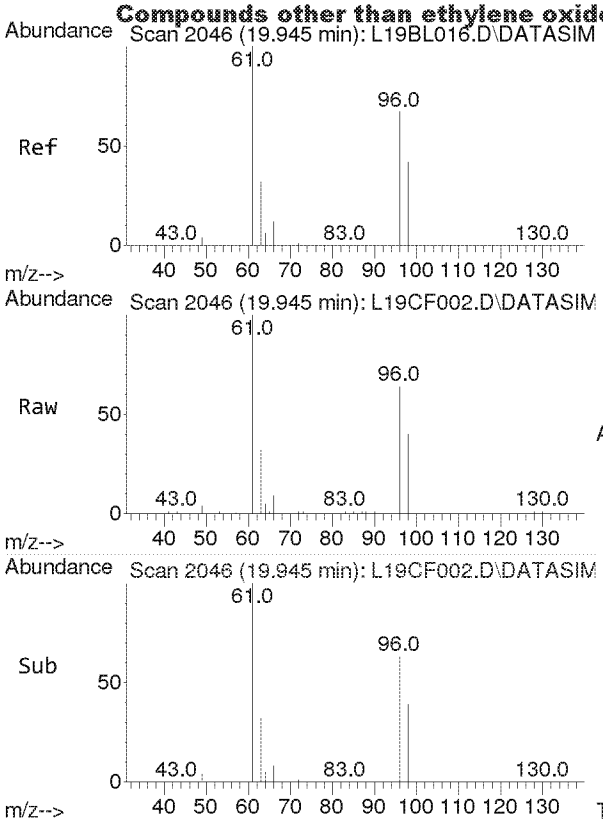
Ion	Ratio	Lower	Upper
53	100		
88	55.3	42.6	64.0
90	17.8	13.9	20.9







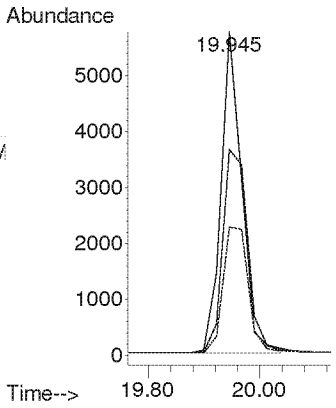
Compounds other than ethylene oxide were not quantitated.

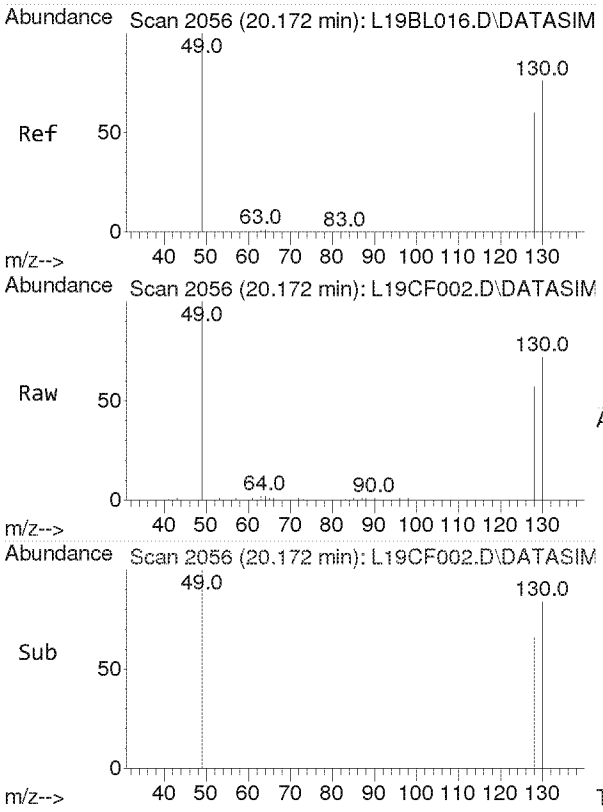


#24
cis-1,2-Dichloroethylene
Concen: 2.269 ppbv
RT: 19.945 min Scan# 2046
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 61 Resp: 14839

Ion	Ratio	Lower	Upper
61	100		
96	76.4	59.0	88.6
98	47.9	37.6	56.4

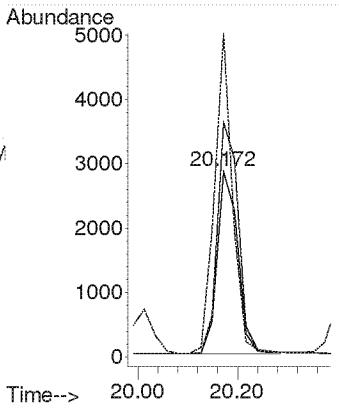




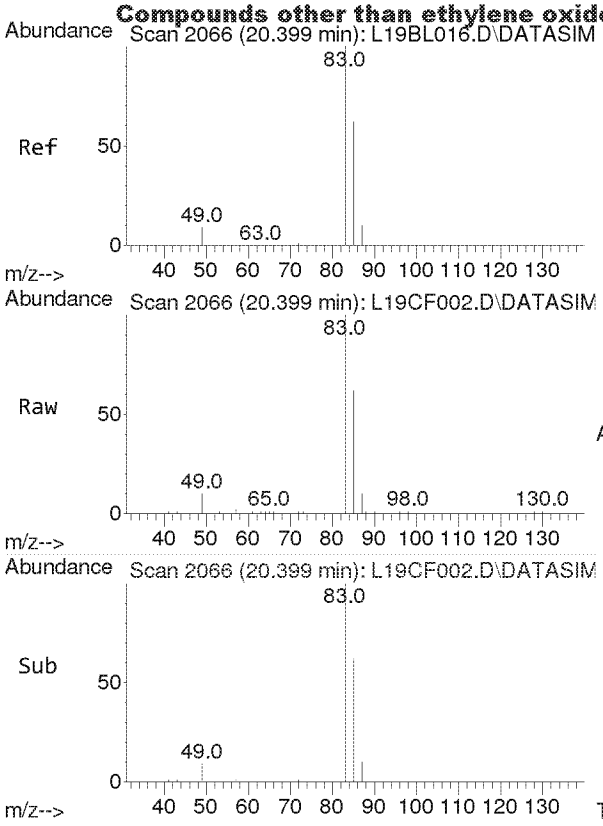
#25
Bromochloromethane
Concen: 2.294 ppbv
RT: 20.172 min Scan# 2056
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion:128 Resp: 8110

Ion	Ratio	Lower	Upper
128	100		
130	130.3	103.3	154.9
49	154.1	128.3	192.5



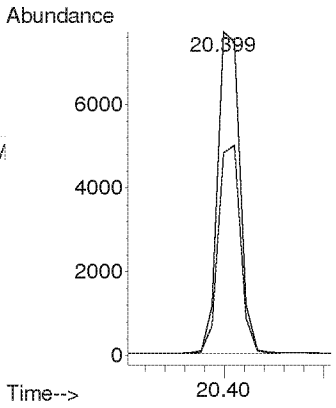
Compounds other than ethylene oxide were not quantitated.

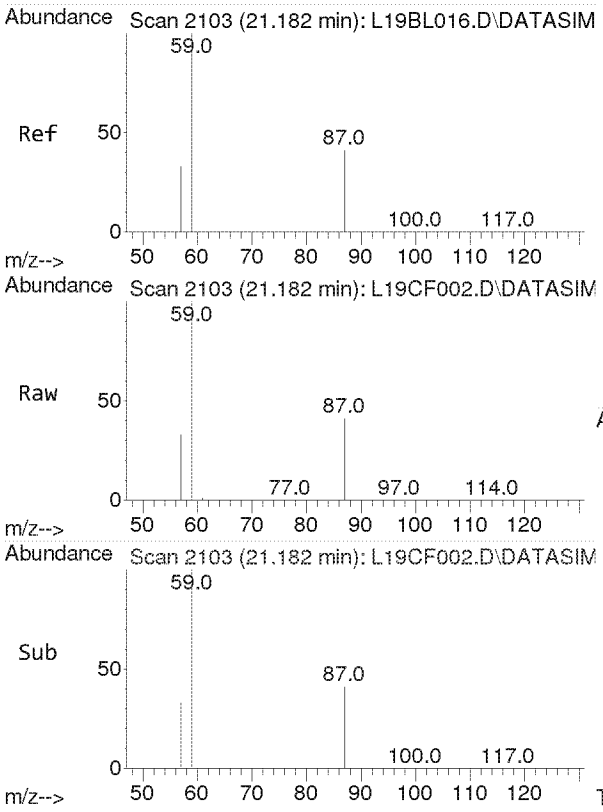


#26
Chloroform
Concen: 2.487 ppbv
RT: 20.399 min Scan# 2066
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 83 Resp: 23905

Ion	Ratio	Lower	Upper
83	100		
85	65.0	51.5	77.3

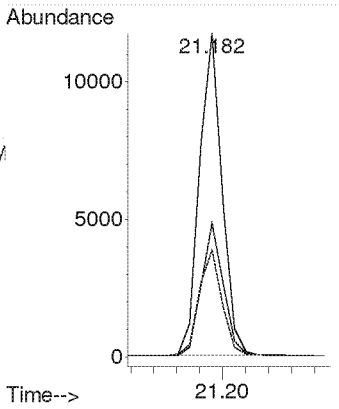




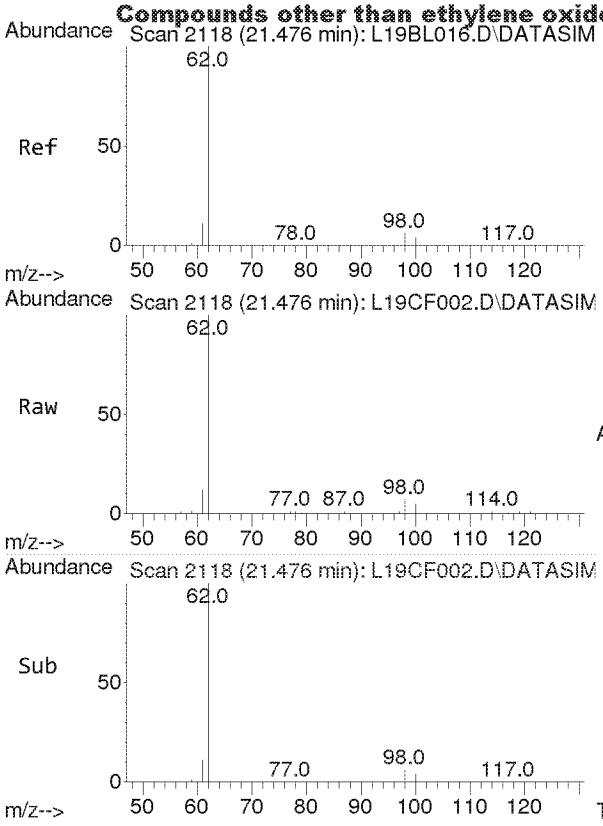
#27
Ethyl tert-Butyl Ether
Concen: 2.386 ppbv
RT: 21.182 min Scan# 2103
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 59 Resp: 31710

Ion	Ratio	Lower	Upper
59	100		
87	40.0	31.5	47.3
57	33.1	26.6	39.8



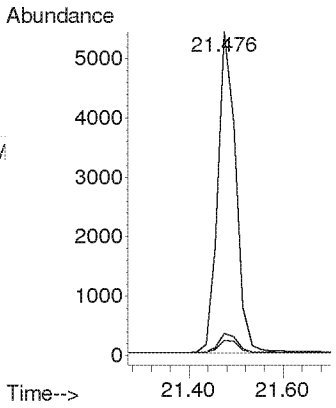
Compounds other than ethylene oxide were not quantitated.

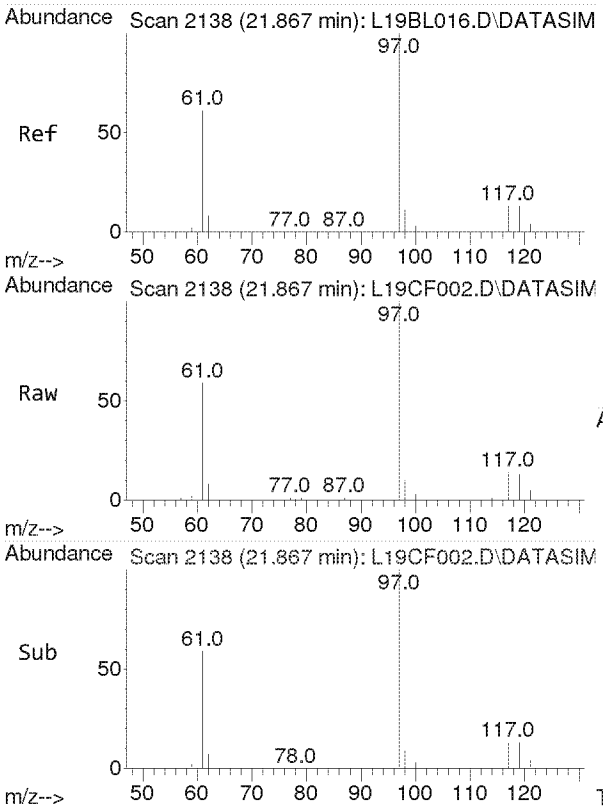


#28
1,2-Dichloroethane
Concen: 2.426 ppbv
RT: 21.476 min Scan# 2118
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 62 Resp: 14310

Ion	Ratio	Lower	Upper
62	100		
98	6.4	5.0	7.6
100	4.1	3.2	4.8

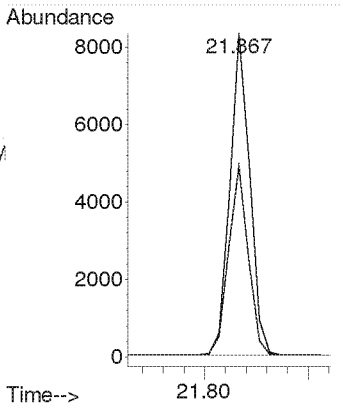




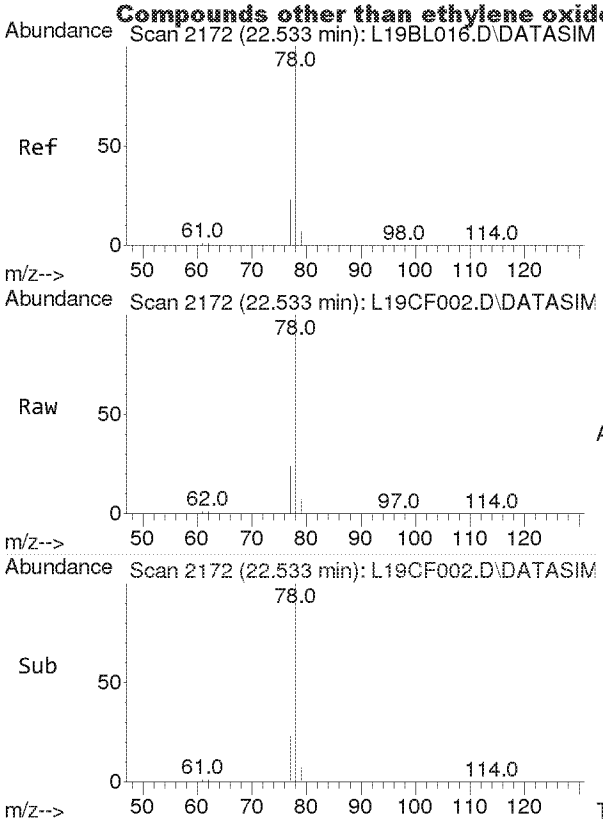
#30
1,1,1-Trichloroethane
Concen: 2.337 ppbv
RT: 21.867 min Scan# 2138
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 97 Resp: 22238

Ion	Ratio	Lower	Upper
97	100		
61	58.2	49.7	74.5



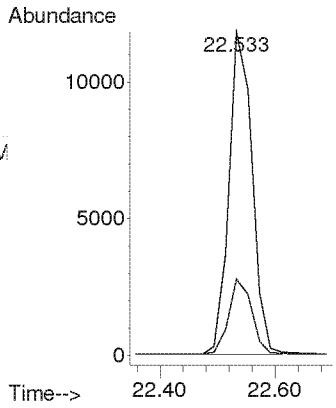
Compounds other than ethylene oxide were not quantitated.

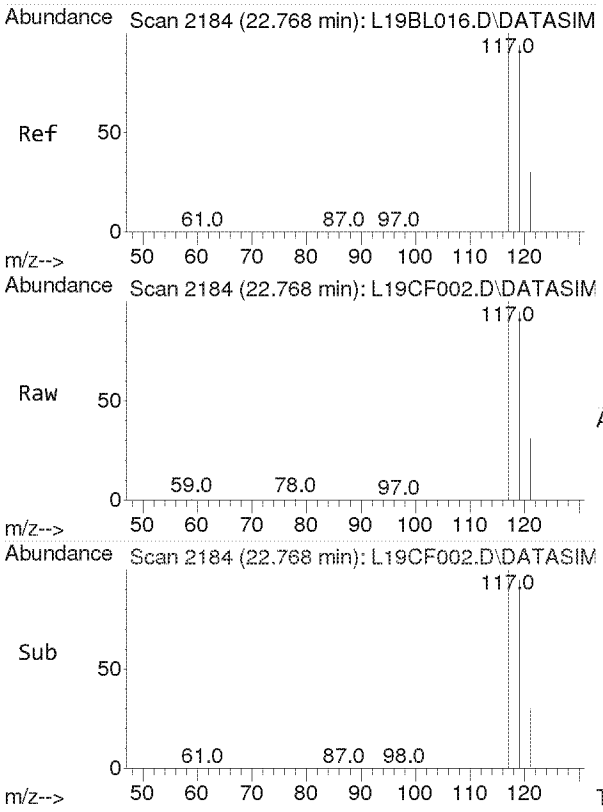


#31
Benzene
Concen: 2.407 ppbv
RT: 22.533 min Scan# 2172
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 78 Resp: 32762

Ion	Ratio	Lower	Upper
78	100		
77	22.9	18.2	27.4

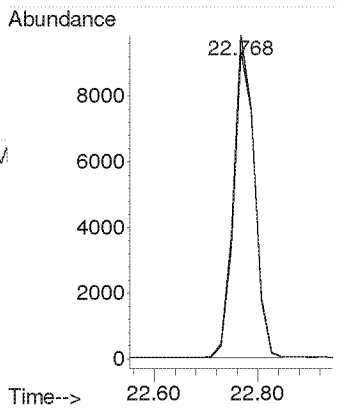




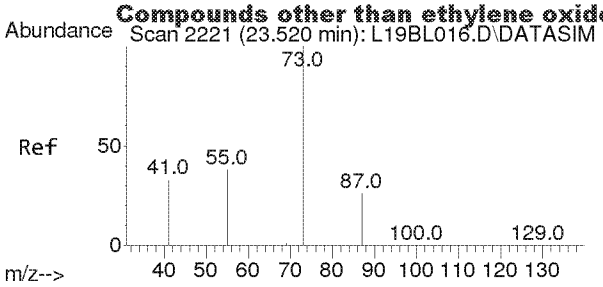
#32
Carbon Tetrachloride
Concen: 2.686 ppbv
RT: 22.768 min Scan# 2184
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion:117 Resp: 27375

Ion	Ratio	Lower	Upper
117	100		
119	96.6	77.0	115.6



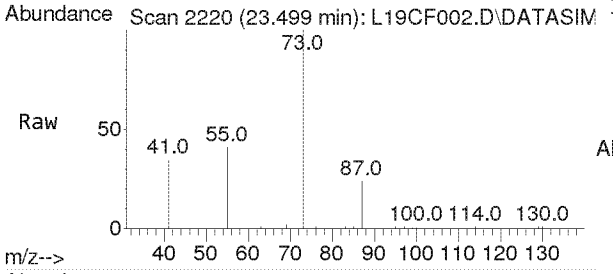
Compounds other than ethylene oxide were not quantitated.

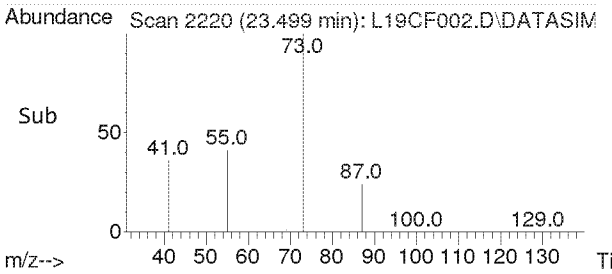


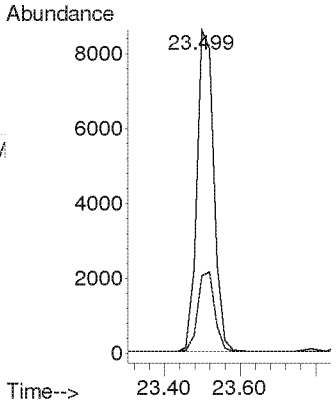
#33
tert-Amyl Methyl Ether
Concen: 2.318 ppbv
RT: 23.499 min Scan# 2220
Delta R.T. -0.021 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

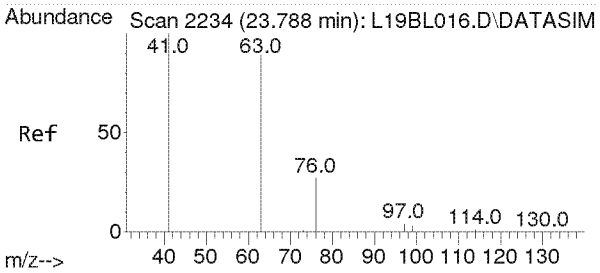
Tgt Ion: 73 Resp: 26785

Ion	Ratio	Lower	Upper
73	100		
87	25.0	20.1	30.1





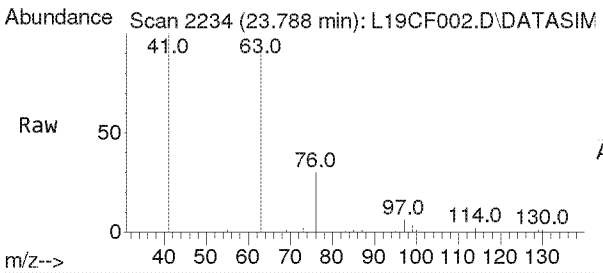


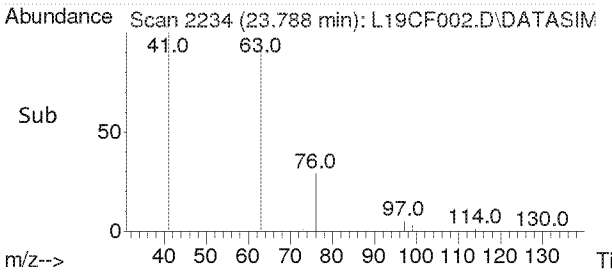


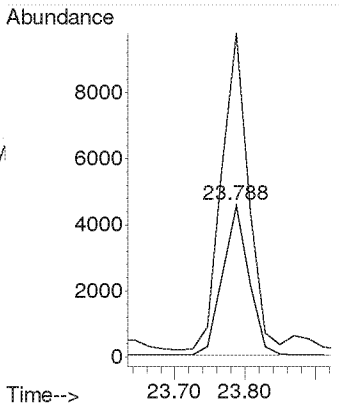
#34
1,2-Dichloropropane
Concen: 2.290 ppbv
RT: 23.788 min Scan# 2234
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 63 Resp: 11846

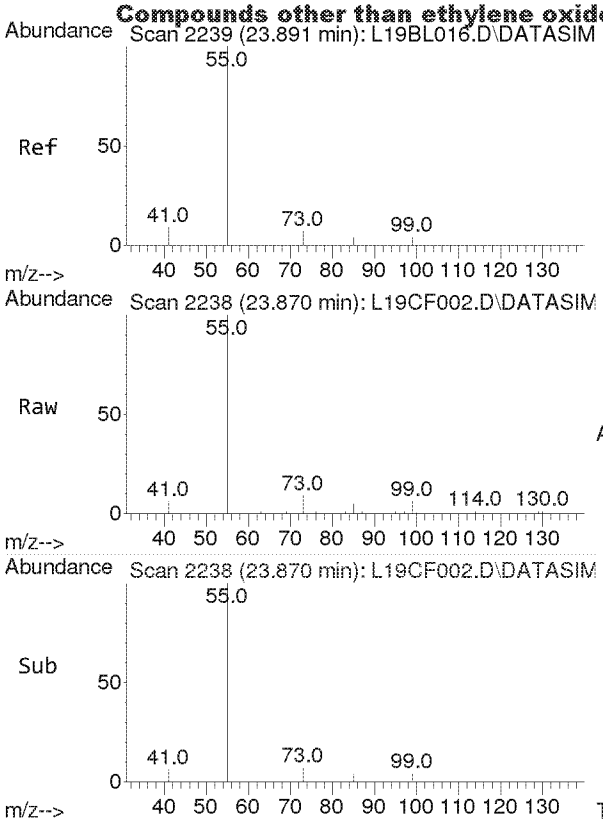
Ion	Ratio	Lower	Upper
63	100		
41	214.0	175.9	263.9







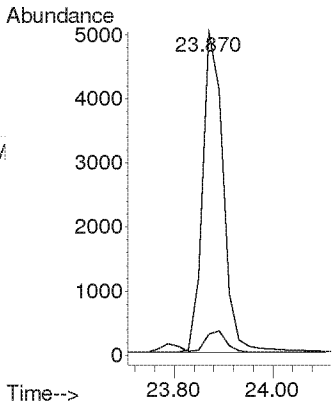
Compounds other than ethylene oxide were not quantitated.

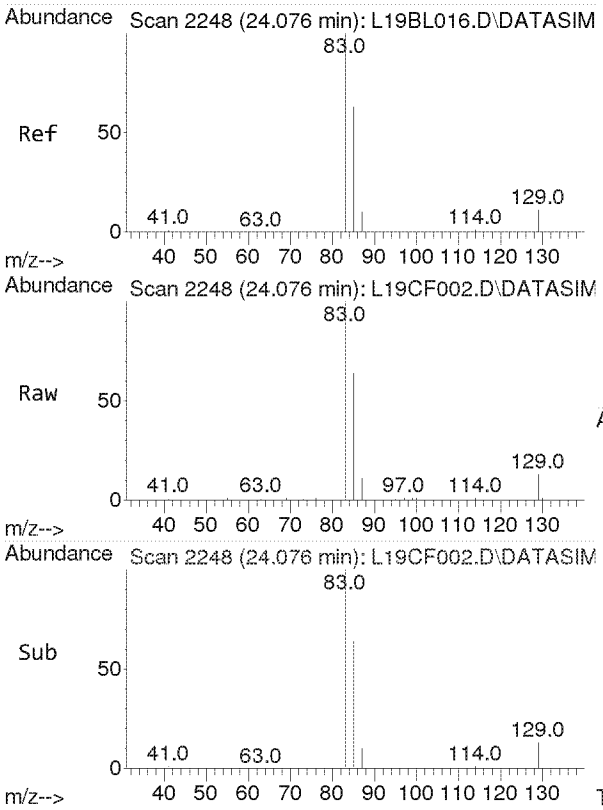


#35
Ethyl Acrylate
Concen: 3.256 ppbv
RT: 23.870 min Scan# 2238
Delta R.T. -0.021 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 55 Resp: 14310

Ion	Ratio	Lower	Upper
55	100		
99	6.7	5.0	7.6

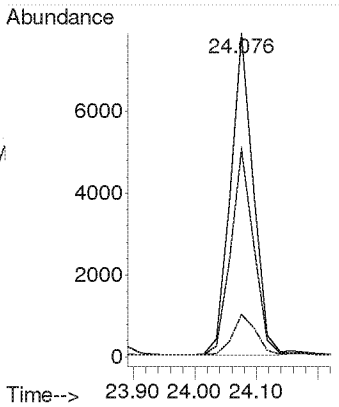




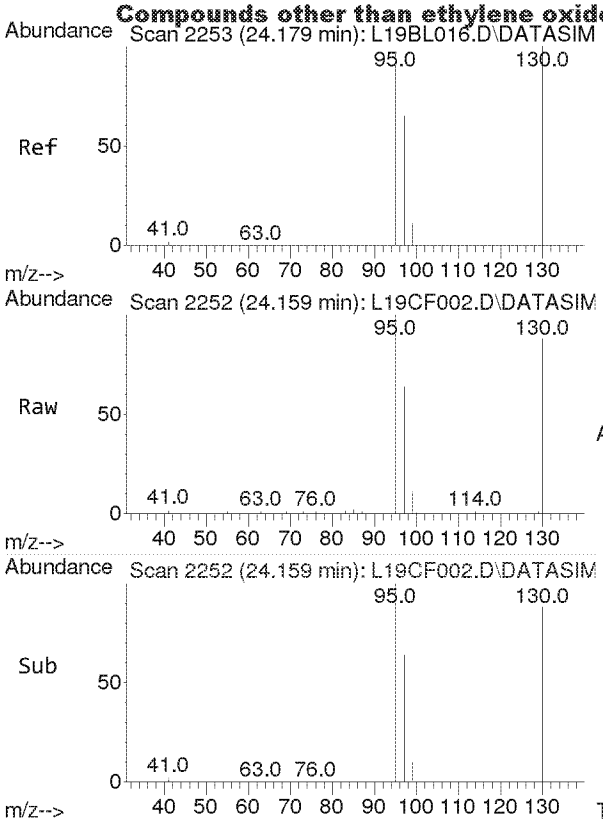
#36
Bromodichloromethane
Concen: 2.211 ppbv
RT: 24.076 min Scan# 2248
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 83 Resp: 20246

Ion	Ratio	Lower	Upper
83	100		
85	64.3	51.0	76.4
129	12.9	9.9	14.9



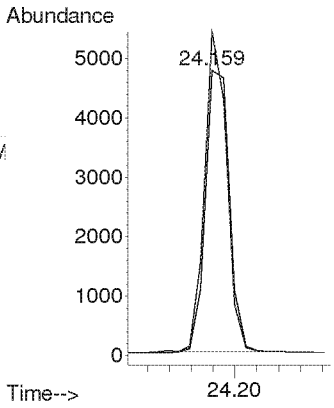
Compounds other than ethylene oxide were not quantitated.

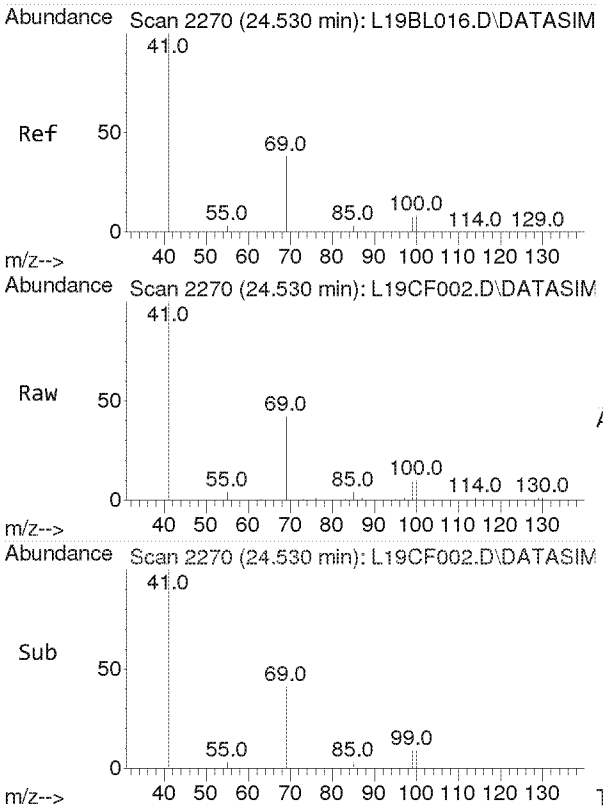


#37
Trichloroethylene
Concen: 2.211 ppbv
RT: 24.159 min Scan# 2252
Delta R.T. -0.021 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion:130 Resp: 14331

Ion	Ratio	Lower	Upper
130	100		
95	105.8	84.9	127.3

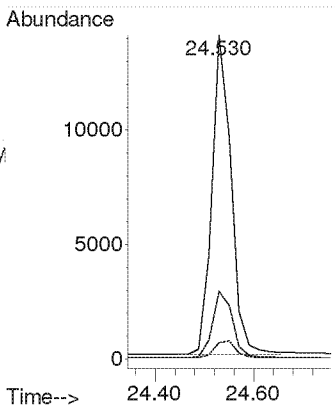




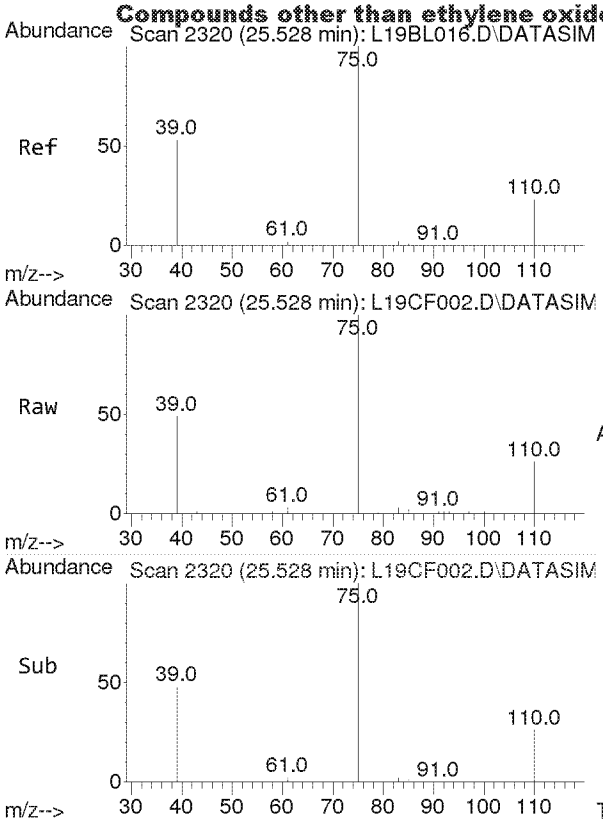
#38
Methyl Methacrylate
Concen: 2.866 ppbv
RT: 24.530 min Scan# 2270
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 41 Resp: 37803

Ion	Ratio	Lower	Upper
41	100		
69	21.7	16.8	25.2
100	5.8	4.5	6.7



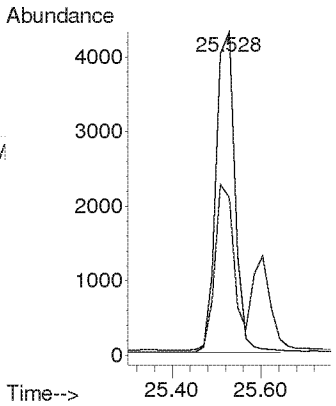
Compounds other than ethylene oxide were not quantitated.

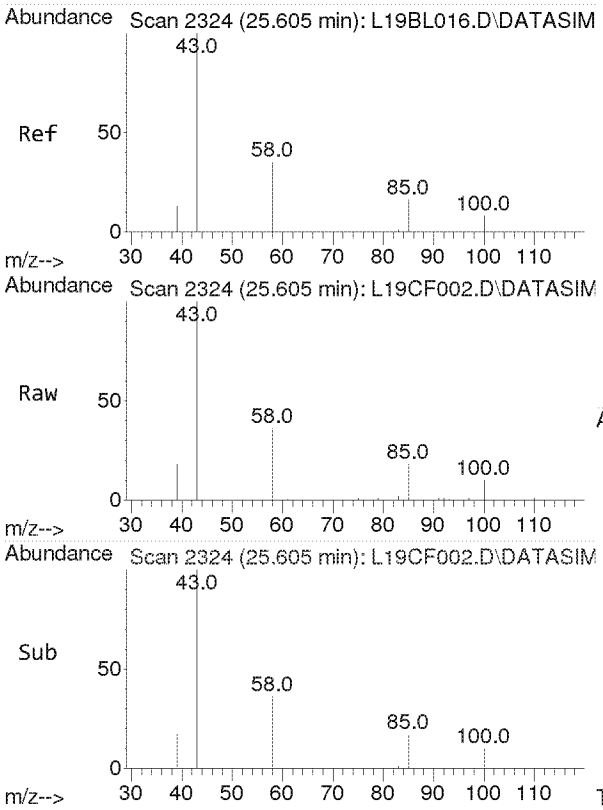


#39
cis-1,3-Dichloropropene
Concen: 2.807 ppbv
RT: 25.528 min Scan# 2320
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 75 Resp: 12611

Ion	Ratio	Lower	Upper
75	100		
39	53.0	43.4	65.0

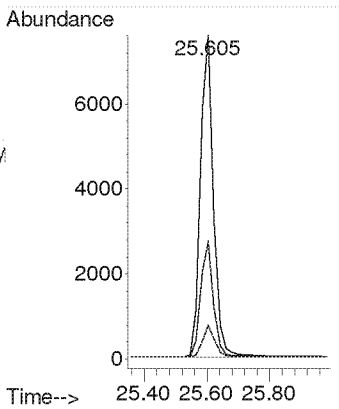




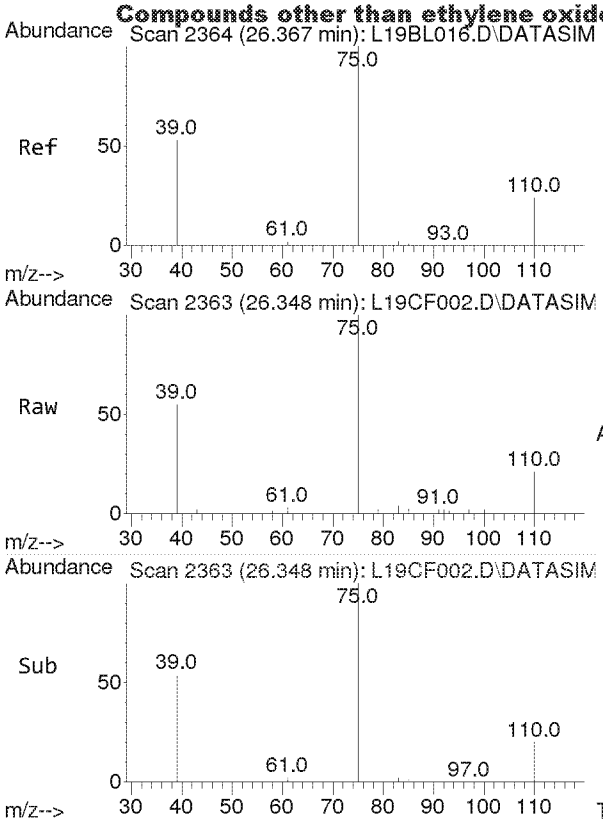
#40
Methyl Isobutyl Ketone
Concen: 2.245 ppbv
RT: 25.605 min Scan# 2324
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 43 Resp: 21771

Ion	Ratio	Lower	Upper
43	100		
58	35.4	28.0	42.0
100	9.2	7.0	10.4



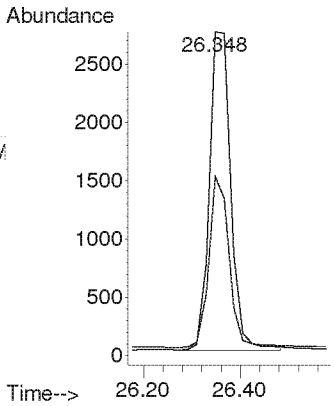
Compounds other than ethylene oxide were not quantitated.

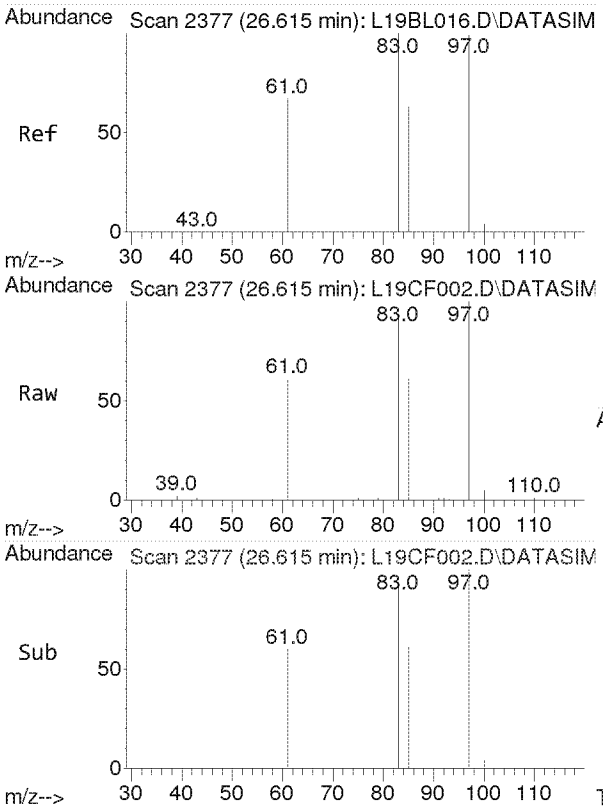


#41
trans-1,3-Dichloropropene
Concen: 2.790 ppbv
RT: 26.348 min Scan# 2363
Delta R.T. -0.019 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 75 Resp: 8398

Ion	Ratio	Lower	Upper
75	100		
39	51.0	42.9	64.3

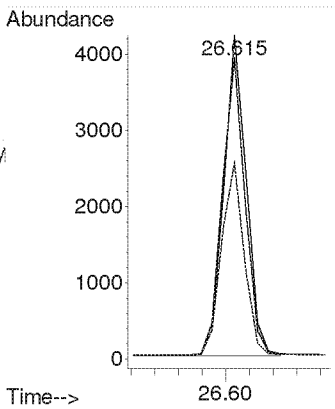




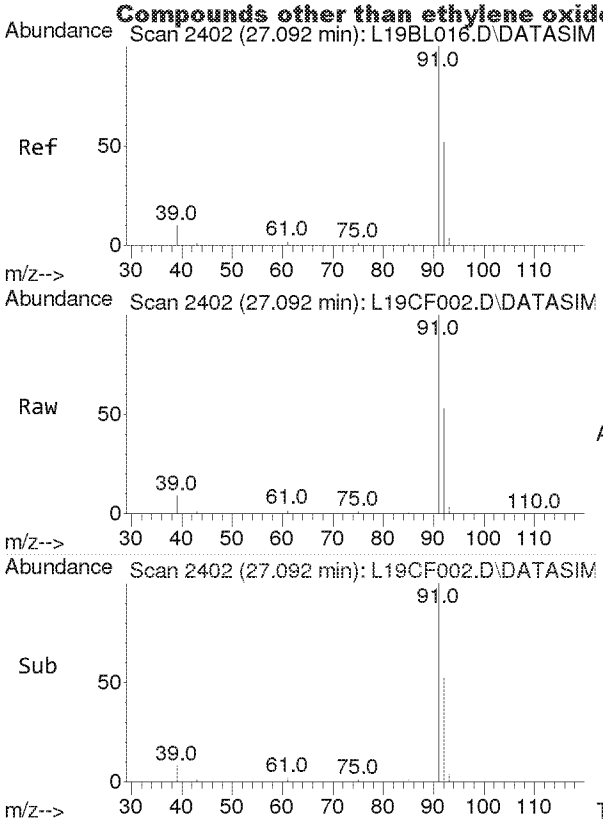
#42
1,1,2-Trichloroethane
Concen: 2.315 ppbv
RT: 26.615 min Scan# 2377
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 97 Resp: 10958

Ion	Ratio	Lower	Upper
97	100		
83	94.2	75.4	113.0
61	61.4	49.8	74.6



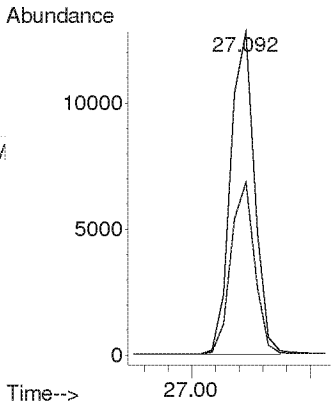
Compounds other than ethylene oxide were not quantitated.

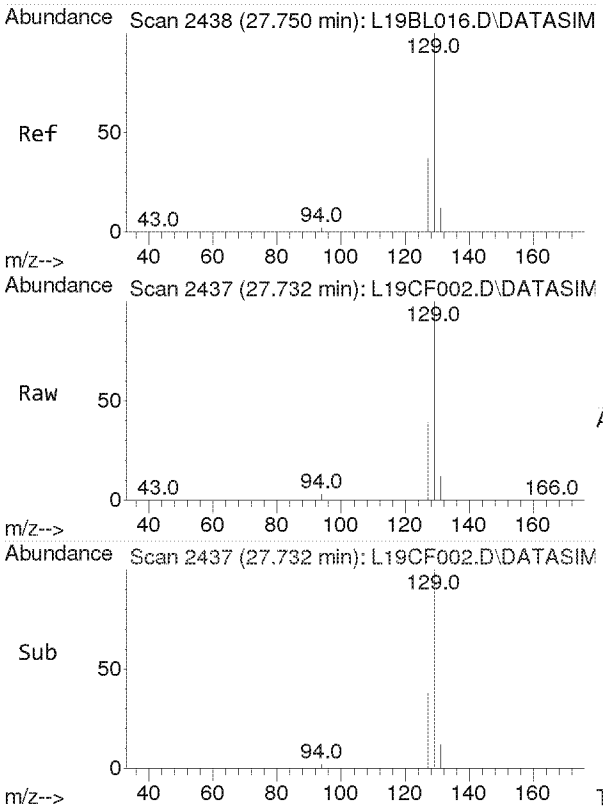


#44
Toluene
Concen: 2.321 ppbv
RT: 27.092 min Scan# 2402
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 91 Resp: 35683

Ion	Ratio	Lower	Upper
91	100		
92	52.8	42.0	63.0

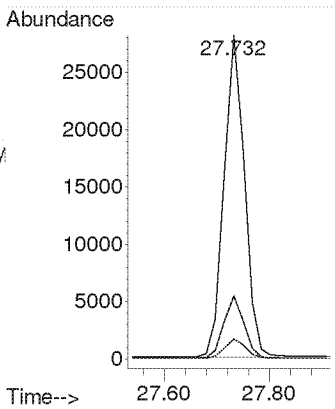




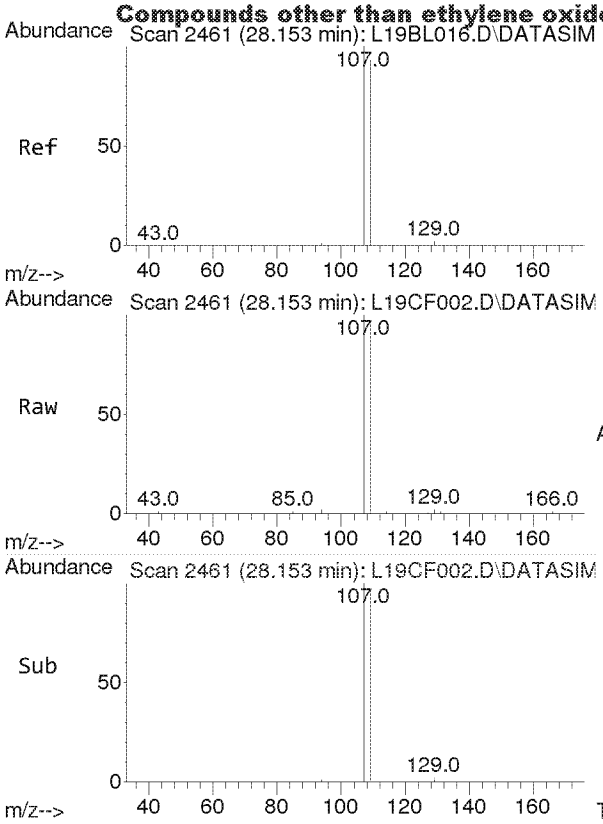
#45
Dibromochloromethane
Concen: 2.495 ppbv
RT: 27.732 min Scan# 2437
Delta R.T. -0.018 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion:129 Resp: 75289

Ion	Ratio	Lower	Upper
129	100		
127	19.2	15.4	23.2
131	6.0	4.8	7.2



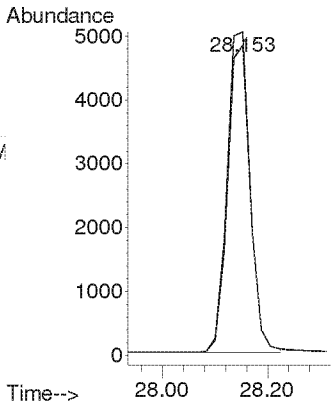
Compounds other than ethylene oxide were not quantitated.

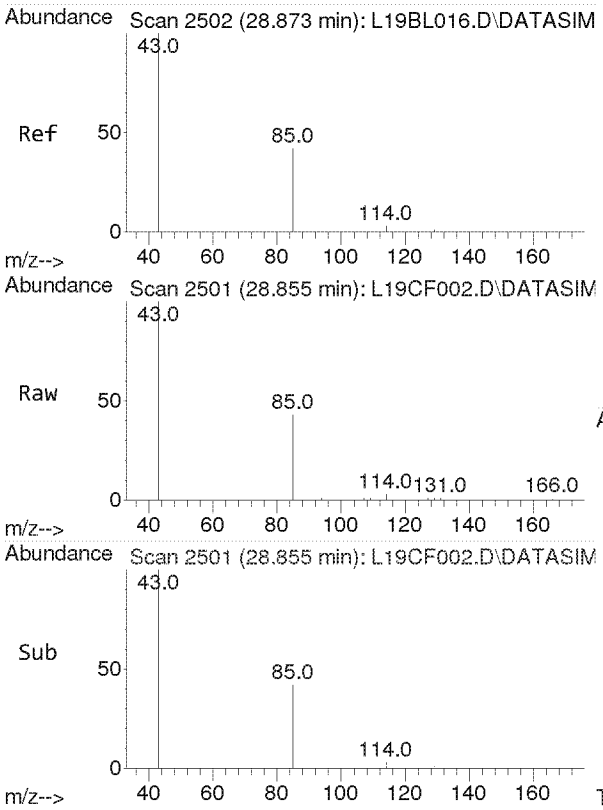


#46
1,2-Dibromoethane
Concen: 2.622 ppbv
RT: 28.153 min Scan# 2461
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion:107 Resp: 15111

Ion	Ratio	Lower	Upper
107	100		
109	94.6	75.4	113.0

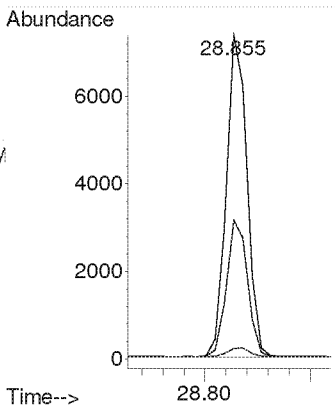




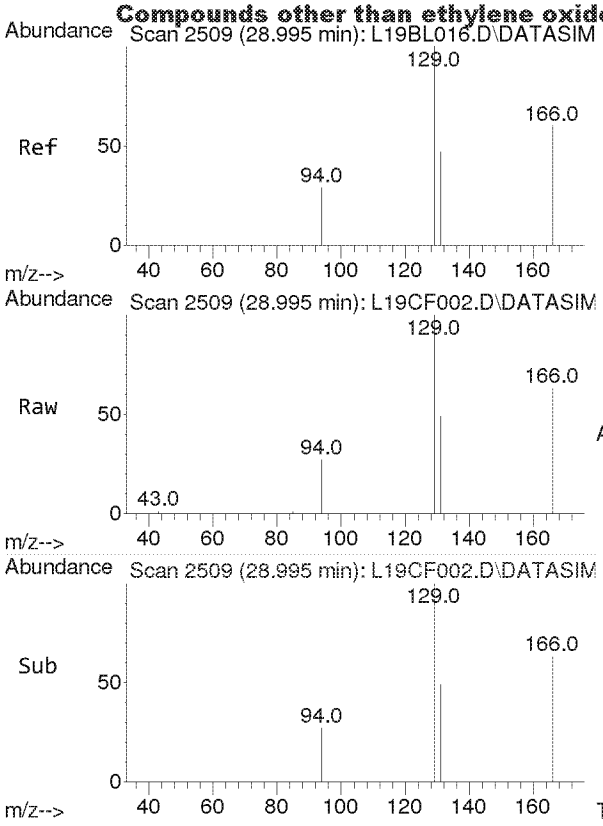
#47
n-Octane
Concen: 2.149 ppbv
RT: 28.855 min Scan# 2501
Delta R.T. -0.018 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 43 Resp: 19897

Ion	Ratio	Lower	Upper
43	100		
85	42.9	33.0	49.6
114	2.8	2.2	3.4



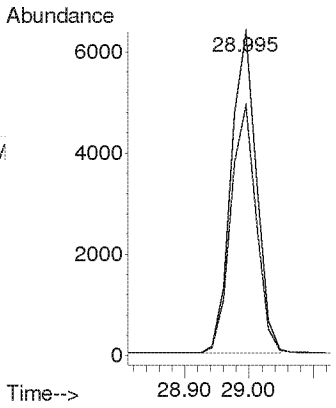
Compounds other than ethylene oxide were not quantitated.

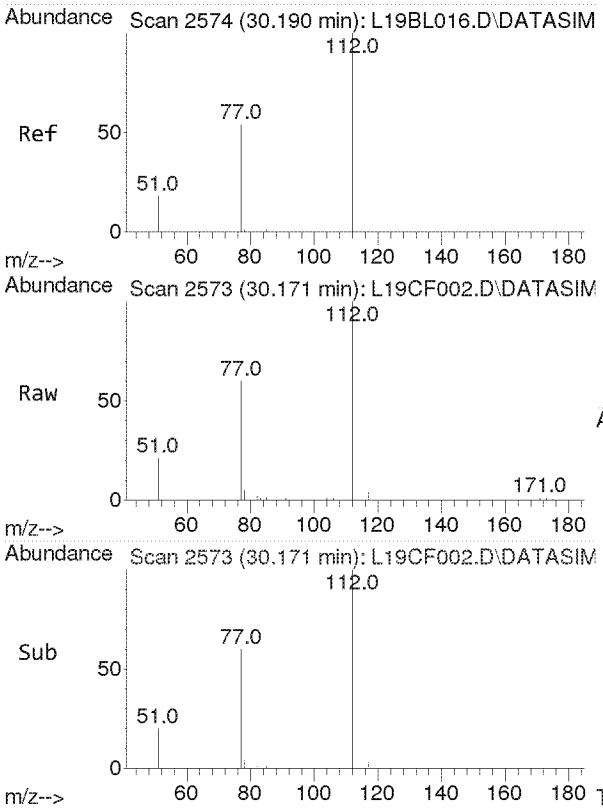


#48
Tetrachloroethylene
Concen: 2.330 ppbv
RT: 28.995 min Scan# 2509
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion:166 Resp: 17236

Ion	Ratio	Lower	Upper
166	100		
131	77.8	61.5	92.3

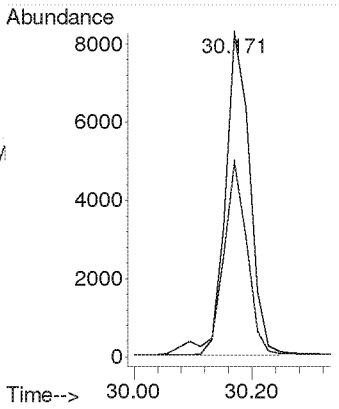




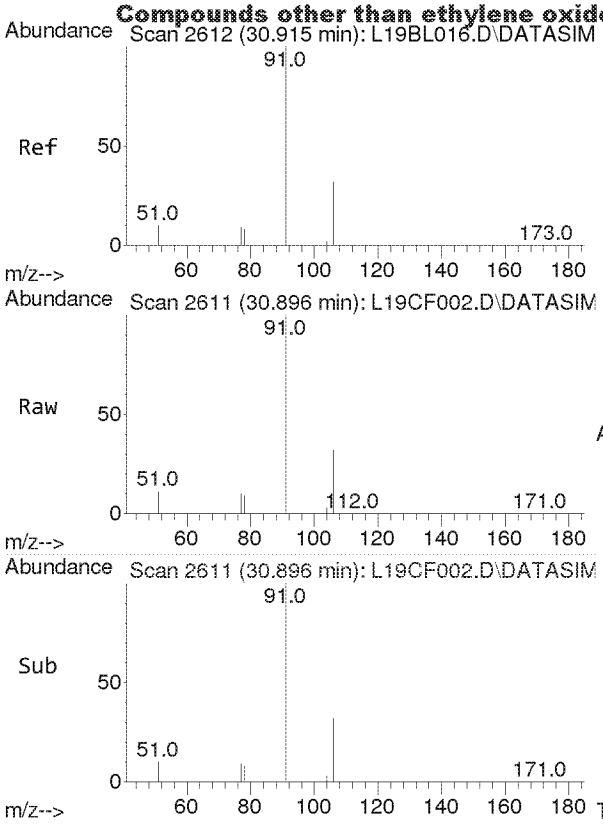
#49
Chlorobenzene
Concen: 2.346 ppbv
RT: 30.171 min Scan# 2573
Delta R.T. -0.019 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion:112 Resp: 23013

Ion	Ratio	Lower	Upper
112	100		
77	59.8	47.8	71.6



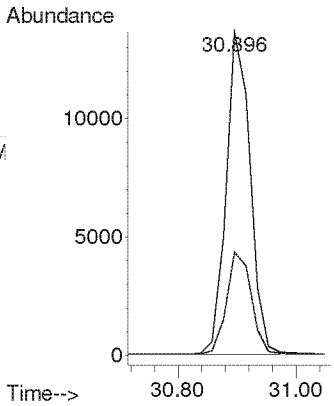
Compounds other than ethylene oxide were not quantitated.

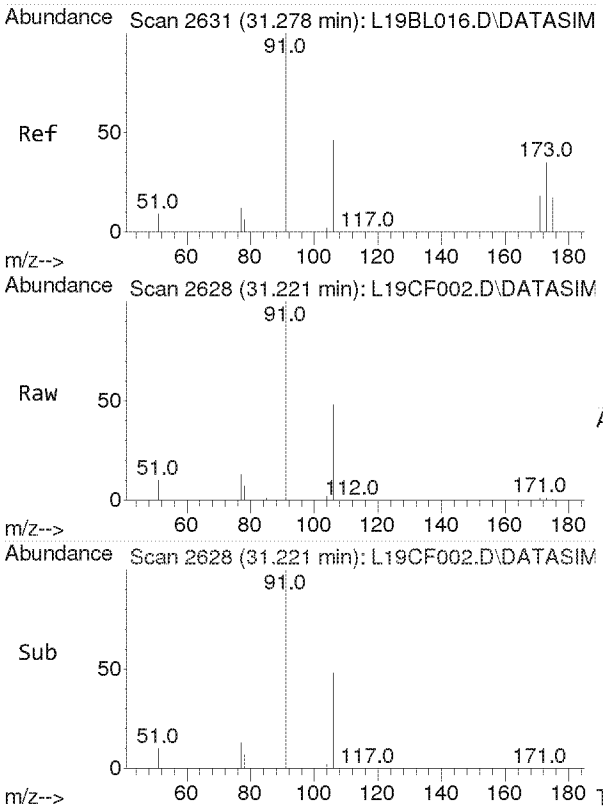


#50
Ethylbenzene
Concen: 2.360 ppbv
RT: 30.896 min Scan# 2611
Delta R.T. -0.019 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 91 Resp: 38135

Ion	Ratio	Lower	Upper
91	100		
106	32.5	26.0	39.0

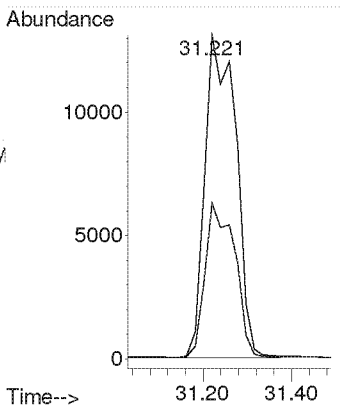




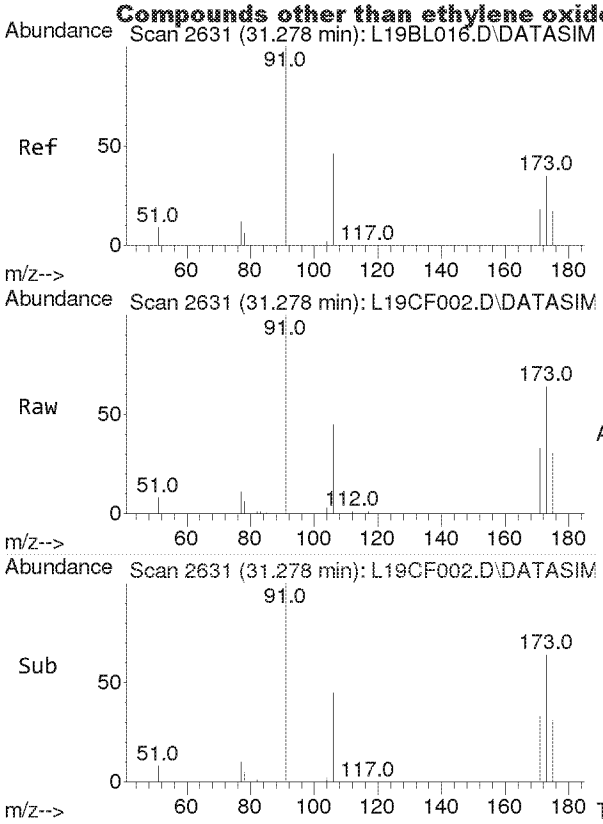
#51
m,p-Xylene
Concen: 4.641 ppbv
RT: 31.221 min Scan# 2628
Delta R.T. -0.057 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 91 Resp: 63265

Ion	Ratio	Lower	Upper
91	100		
106	45.9	37.3	55.9



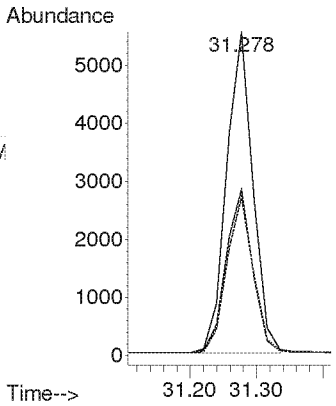
Compounds other than ethylene oxide were not quantitated.

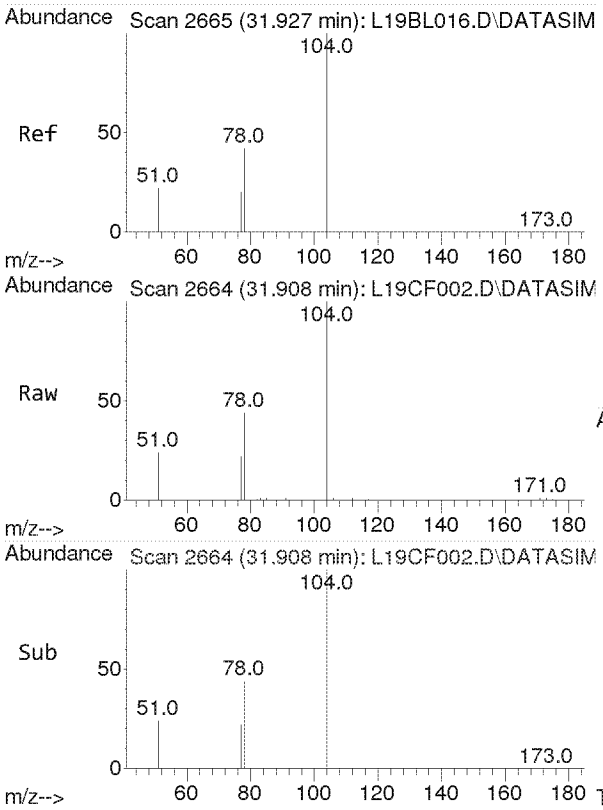


#52
Bromoform
Concen: 2.613 ppbv
RT: 31.278 min Scan# 2631
Delta R.T. 0.000 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion:173 Resp: 15244

Ion	Ratio	Lower	Upper
173	100		
171	51.5	41.0	61.6
175	48.7	39.1	58.7

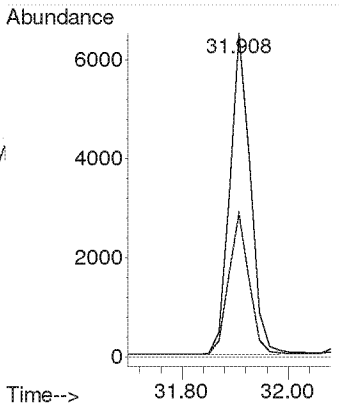




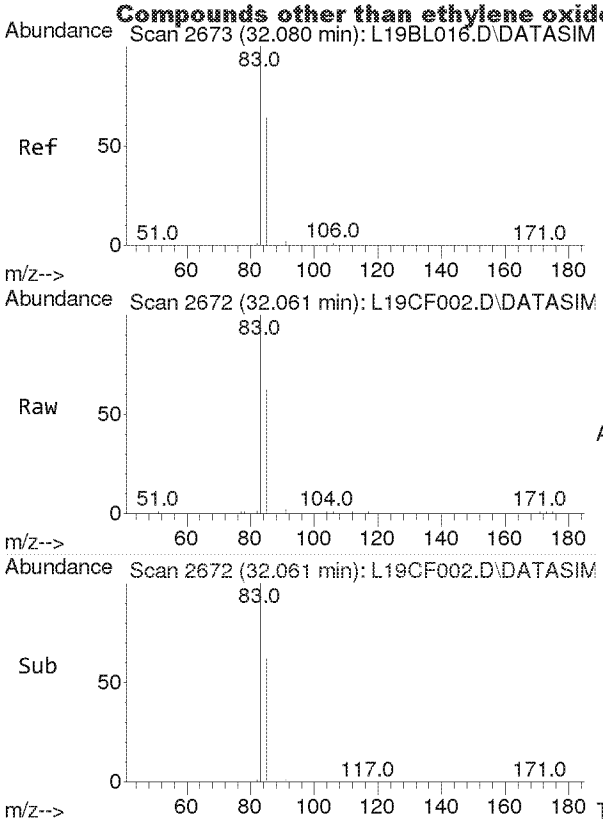
#53
Styrene
Concen: 2.262 ppbv
RT: 31.908 min Scan# 2664
Delta R.T. -0.019 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion:104 Resp: 17483

Ion	Ratio	Lower	Upper
104	100		
78	43.6	35.4	53.2
103	0.0	0.0	0.0



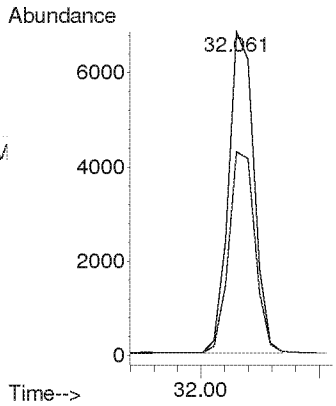
Compounds other than ethylene oxide were not quantitated.

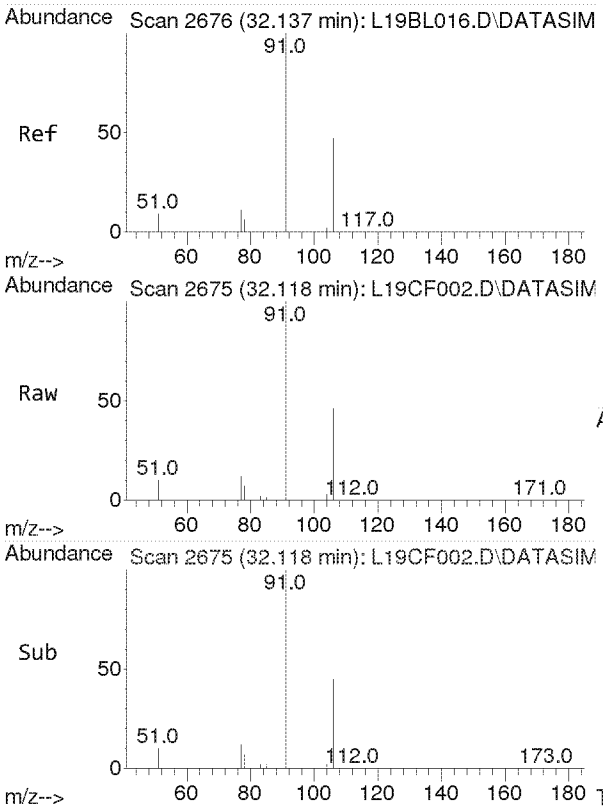


#54
1,1,2,2-Tetrachloroethane
Concen: 2.312 ppbv
RT: 32.061 min Scan# 2672
Delta R.T. -0.019 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 83 Resp: 20337

Ion	Ratio	Lower	Upper
83	100		
85	64.7	51.6	77.4

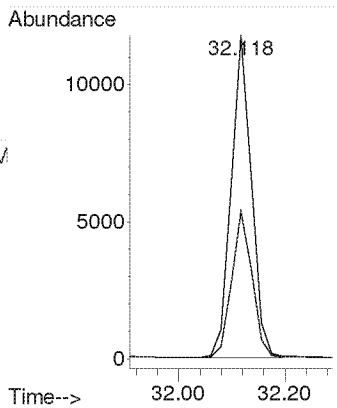




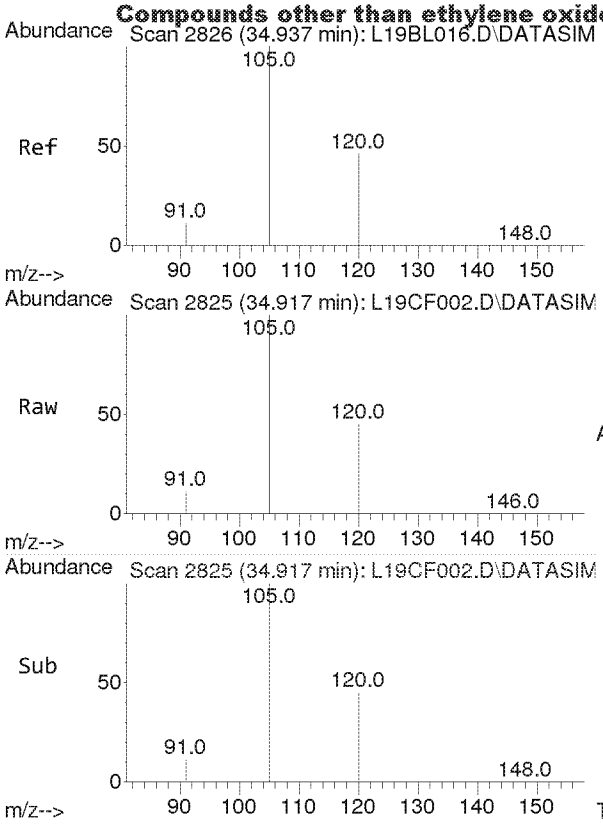
#55
o-Xylene
Concen: 2.315 ppbv
RT: 32.118 min Scan# 2675
Delta R.T. -0.019 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion: 91 Resp: 31143

Ion	Ratio	Lower	Upper
91	100		
106	45.6	36.6	55.0



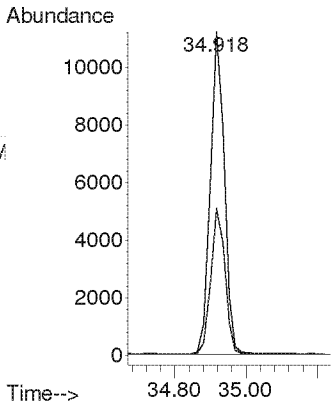
Compounds other than ethylene oxide were not quantitated.

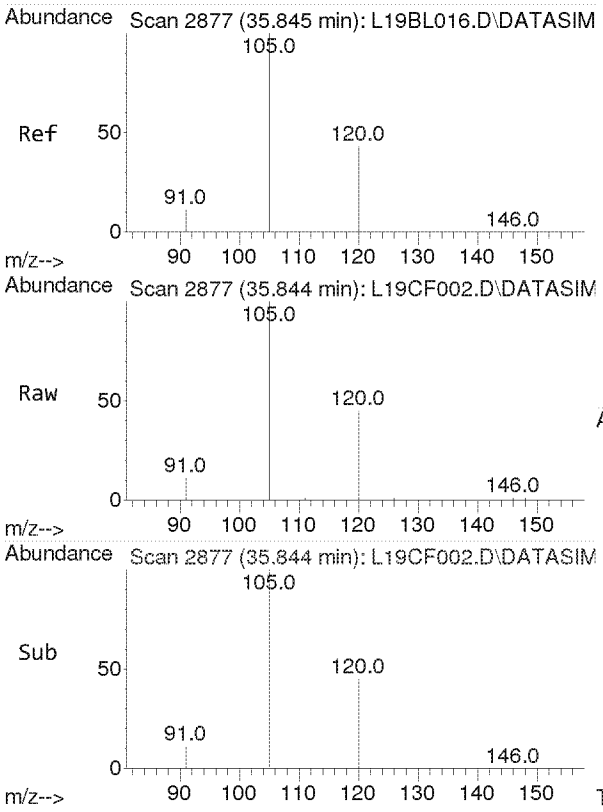


#56
1,3,5-Trimethylbenzene
Concen: 2.097 ppbv
RT: 34.917 min Scan# 2825
Delta R.T. -0.019 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion:105 Resp: 30307

Ion	Ratio	Lower	Upper
105	100		
120	45.7	36.8	55.2

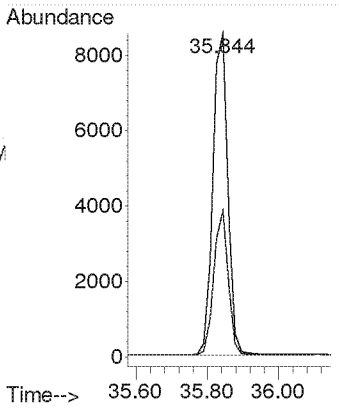




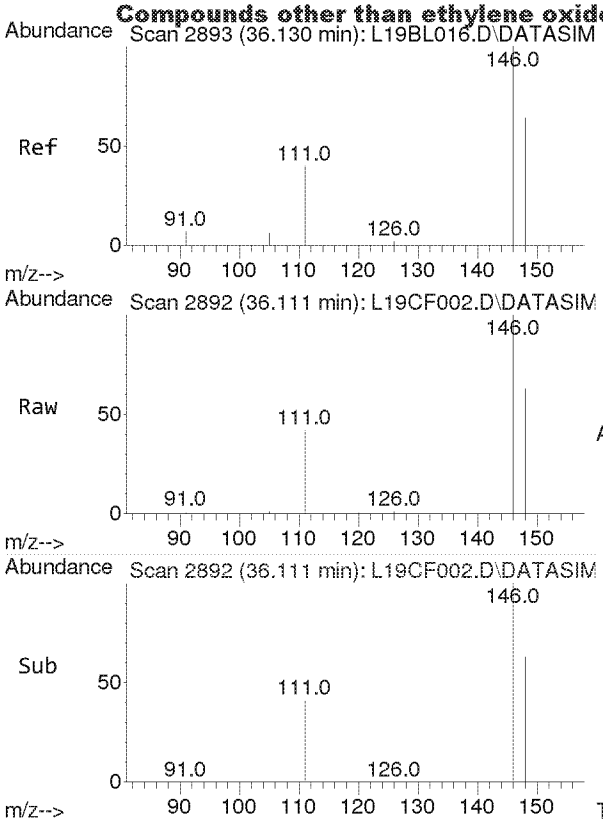
#57
1,2,4-Trimethylbenzene
Concen: 1.992 ppbv
RT: 35.844 min Scan# 2877
Delta R.T. -0.001 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion:105 Resp: 24895

Ion	Ratio	Lower	Upper
105	100		
120	43.3	35.2	52.8



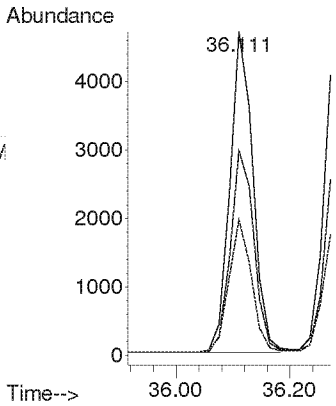
Compounds other than ethylene oxide were not quantitated.

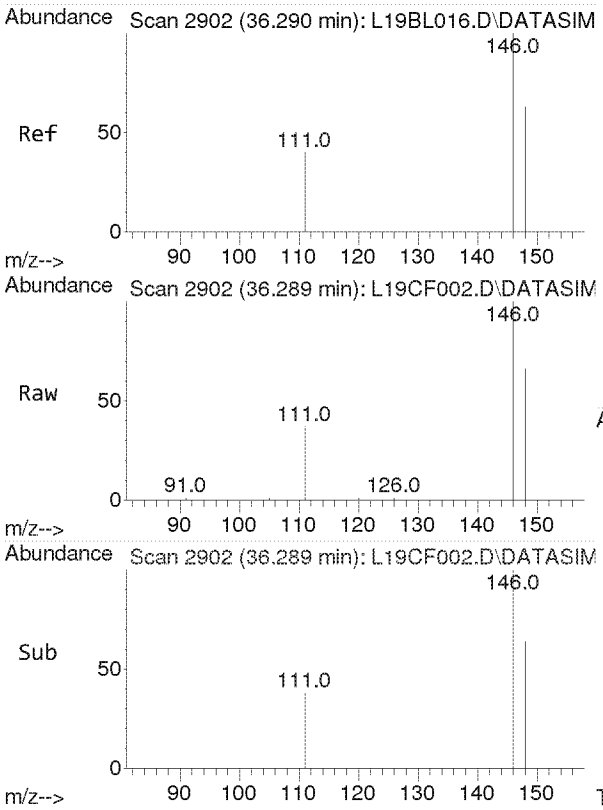


#58
m-Dichlorobenzene
Concen: 2.004 ppbv
RT: 36.111 min Scan# 2892
Delta R.T. -0.019 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion:146 Resp: 13167

Ion	Ratio	Lower	Upper
146	100		
148	64.3	51.3	76.9
111	40.7	32.1	48.1

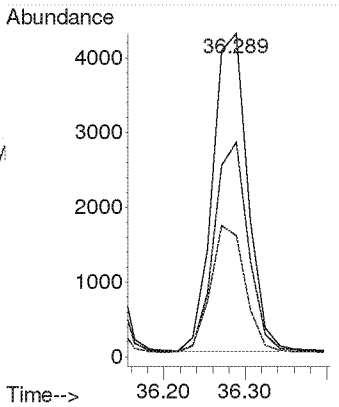




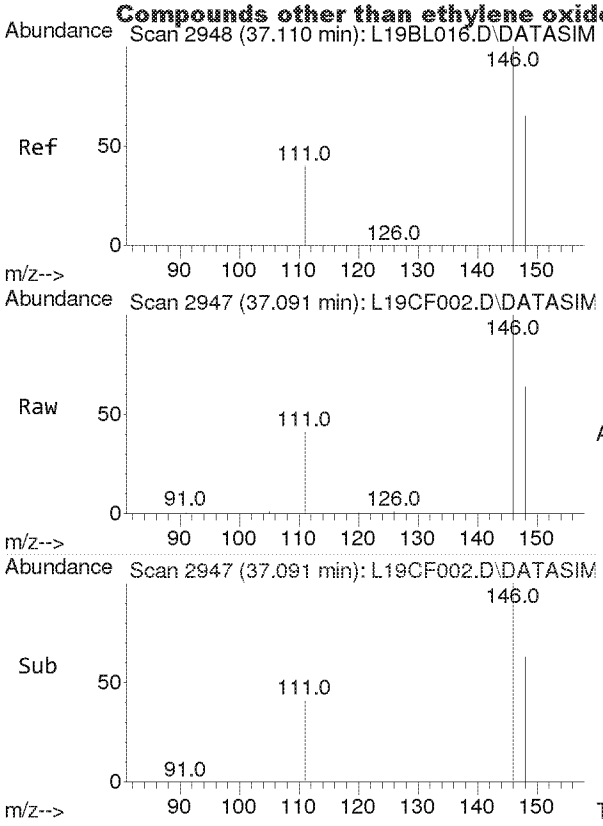
#59
p-Dichlorobenzene
Concen: 2.372 ppbv
RT: 36.289 min Scan# 2902
Delta R.T. -0.001 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion:146 Resp: 12697

Ion	Ratio	Lower	Upper
146	100		
148	64.3	51.4	77.2
111	39.6	31.0	46.4



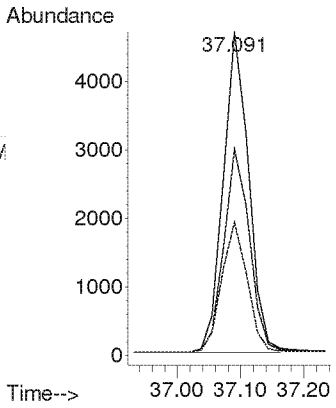
Compounds other than ethylene oxide were not quantitated.

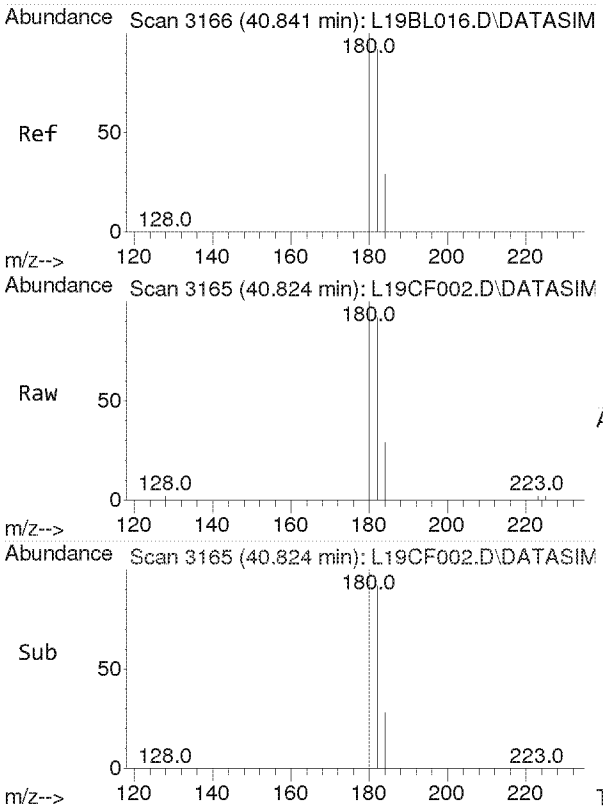


#60
o-Dichlorobenzene
Concen: 2.153 ppbv
RT: 37.091 min Scan# 2947
Delta R.T. -0.019 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion:146 Resp: 12940

Ion	Ratio	Lower	Upper
146	100		
148	64.2	51.2	76.8
111	41.2	32.6	49.0

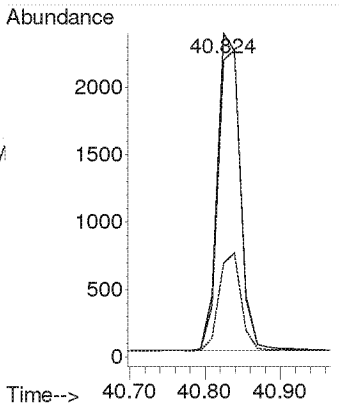




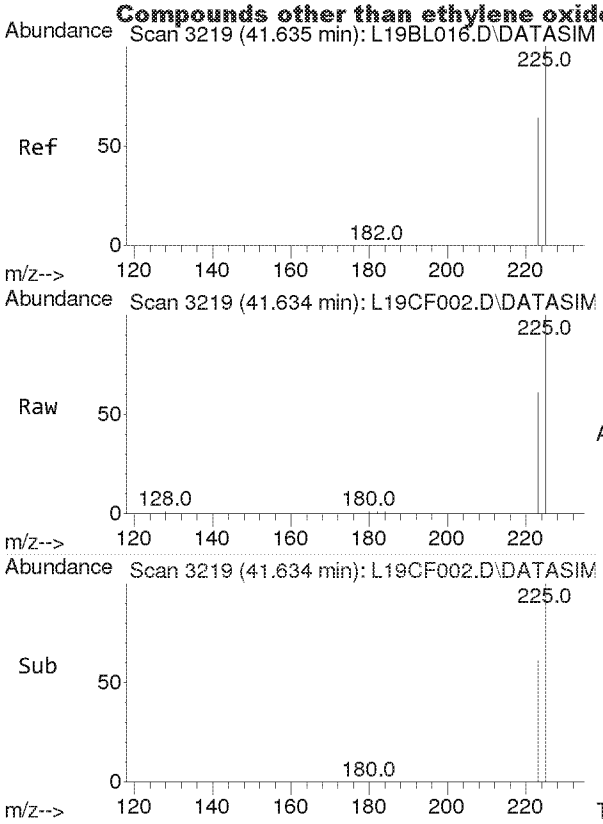
#61
1,2,4-Trichlorobenzene
Concen: 2.411 ppbv
RT: 40.824 min Scan# 3165
Delta R.T. -0.016 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion:180 Resp: 4915

Ion	Ratio	Lower	Upper
180	100		
182	95.5	75.7	113.5
184	30.3	24.2	36.2



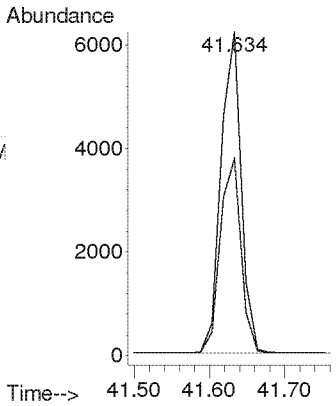
Compounds other than ethylene oxide were not quantitated.



#62
Hexachloro-1,3-butadiene
Concen: 2.218 ppbv
RT: 41.634 min Scan# 3219
Delta R.T. -0.001 min
Lab File: L19CF002.D
Acq: 6 Mar 2019 2:12 pm

Tgt Ion:225 Resp: 11547

Ion	Ratio	Lower	Upper
225	100		
223	62.4	49.9	74.9



Compounds other than ethylene oxide were not quantitated.

TO-15 Method Blank and
Annual Canister Certification Blank

Analyst: K Date: 3-7-19
Reviewer: RMB Date: 3/8/19

Data File Name	L19CF004.D
Operator	MAH
Acq. Method File	9020003.M
Sample Name	B9C0605-BLK1
Misc Info	80 ML 8L13001

#	Name	Target Response	Amount (ppbv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	48602		NA		NA
2)	Acetylene	0	0.000	Y		0.118
3)	Propylene	67	0.013	Y		0.192
4)	Dichlorodifluoromethane	0	0.000	Y		0.082
5)	Chloromethane	45	0.007	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	68	0.032	Y		0.200
13)	Trichlorofluoromethane	0	0.000	Y		0.030
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	68	0.004	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	125788		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y		0.041
30)	Benzene	62	0.005	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	453	0.035	Y	MAX	0.200
38)	cis-1,3-dichloropropene	0	0.000	Y		0.059
39)	Methyl Isobutyl Ketone	0	0.000	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	85832		NA		NA
43)	Toluene	57	0.004	Y		0.200
44)	Dibromochloromethane	0	0.000	Y		0.046
45)	1,2-Dibromoethane	0	0.000	Y		0.057
46)	n-Octane	0	0.000	Y		0.097
47)	Tetrachloroethylene	0	0.000	Y		0.044
48)	Chlorobenzene	0	0.000	Y		0.058
49)	Ethylbenzene	79	0.005	Y		0.077
50)	m,p-Xylene	48	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	84	0.007	Y		0.080
55)	1,3,5-Trimethylbenzene	0	0.000	Y		0.102
56)	1,2,4-Trimethylbenzene	0	0.000	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\L19CF\
Data File : L19CF004.D
Acq On : 6 Mar 2019 4:31 pm
Operator : MAH
Sample : B9C0605-BLK1
Misc : 80 ML 8L13001
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 07 06:29:59 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	48602	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	125788	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	85832	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	
3) Propylene	7.838	41	67	0.0135 ppbv #	77
4) Dichlorodifluoromethane	0.000	85	0	N.D.	
5) Chloromethane	9.757	50	45	0.0075 ppbv #	42
6) Dichlorotetrafluoroethane	0.000	85	0	N.D.	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D.	
9) Ethylene oxide	0.000	29	0	N.D. d	
10) Bromomethane	0.000	94	0	N.D.	
11) Chloroethane	0.000	64	0	N.D.	
12) Acetonitrile	0.000	41	0	N.D.	
13) Acrolein	14.752	56	68	0.0320 ppbv #	36
14) Trichlorofluoromethane	0.000	101	0	N.D.	
15) Acrylonitrile	0.000	53	0	N.D.	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D.	
18) Carbon Disulfide	16.932	76	68	0.0039 ppbv #	75
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	62	0.0046 ppbv #	53
32) Carbon Tetrachloride	0.000	117	0	N.D.	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	24.553	41	453	0.0350 ppbv #	94
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.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	27.094	91	57	0.0040 ppbv #	26
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D.	
48) Tetrachloroethylene	0.000	166	0	N.D.	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	30.898	91	79	0.0053 ppbv #	42

Compounds other than ethylene oxide were not quantitated.

Quantification Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CF\
Data File : L19CF004.D
Acq On : 6 Mar 2019 4:31 pm
Operator : MAH
Sample : B9C0605-BLK1
Misc : 80 ML 8L13001
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 07 06:29:59 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.223	91	48	0.0038 ppbv #	30
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	84	0.0068 ppbv #	31
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene	0.000	105	0	N.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.	

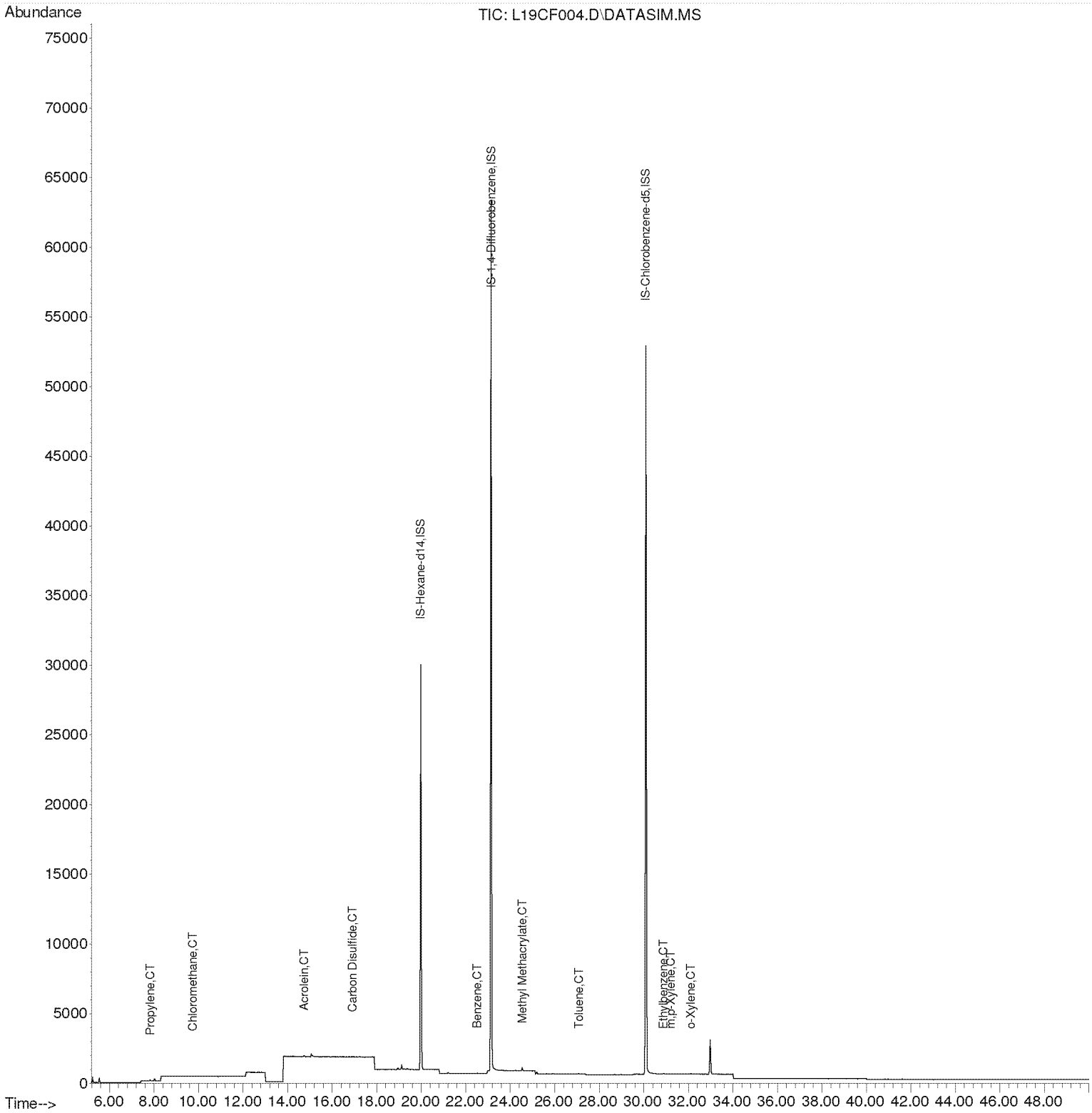
(#) = qualifier out of range (m) = manual integration (+) = signals summed

ED_002475_00000356-00050

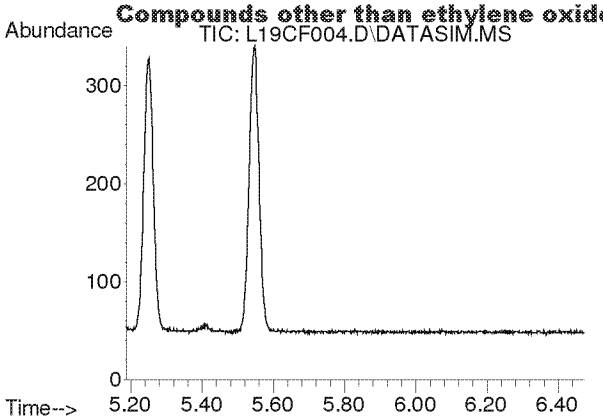
Compounds other than ethylene oxide were not quantitated.

Data Path : Y:\MASS SPEC 1 DATA\L19CF\
Data File : L19CF004.D
Acq On : 6 Mar 2019 4:31 pm
Operator : MAH
Sample : B9C0605-BLK1
Misc : 80 ML 8L13001
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Mar 07 06:23:33 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration



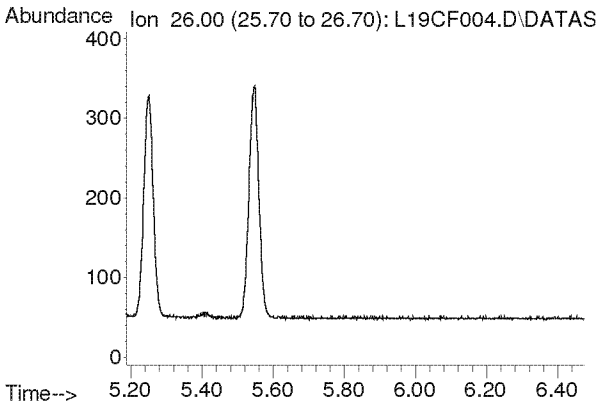
Compounds other than ethylene oxide were not quantitated.

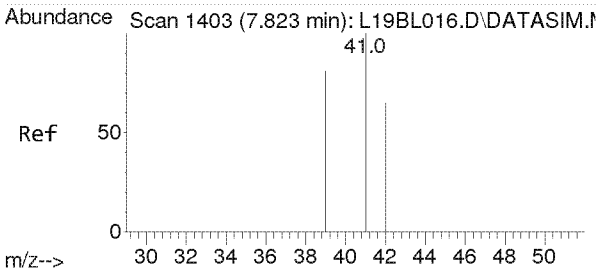


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 26

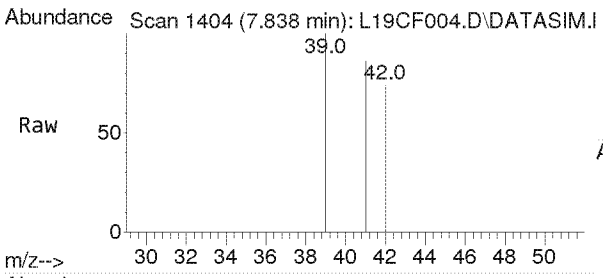


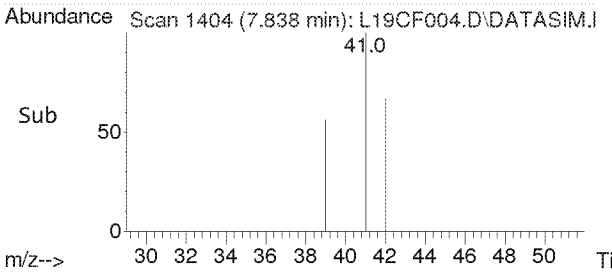


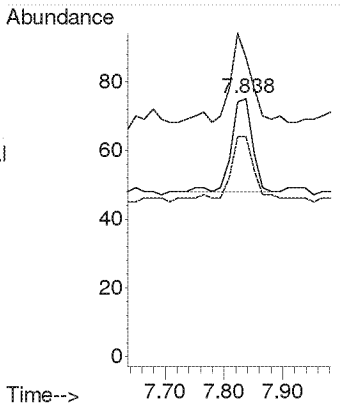
#3
Propylene
Concen: 0.013 ppbv
RT: 7.838 min Scan# 1404
Delta R.T. 0.014 min
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 41 Resp: 67

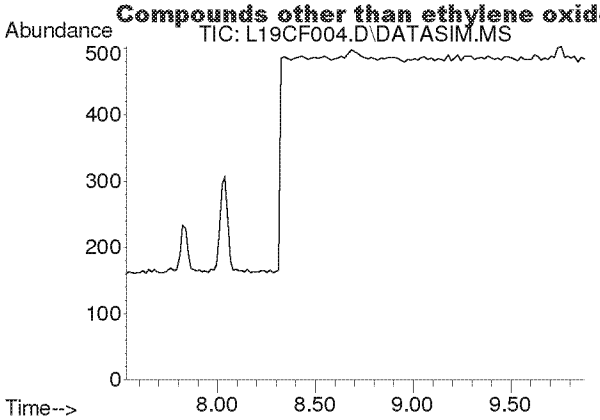
Ion	Ratio	Lower	Upper
41	100		
39	100.0	64.2	96.2#
42	85.1	52.6	79.0#







Compounds other than ethylene oxide were not quantitated.

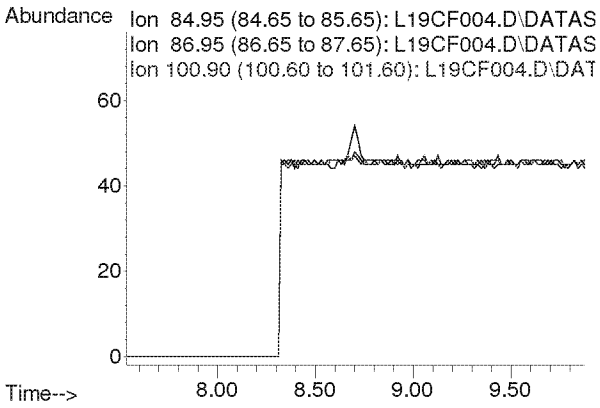


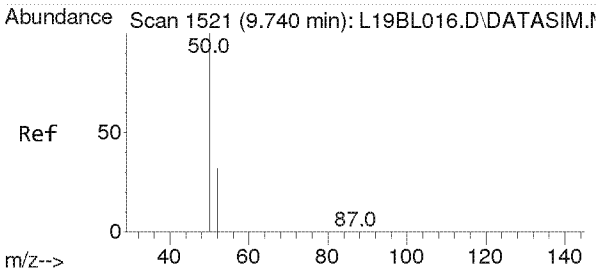
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1

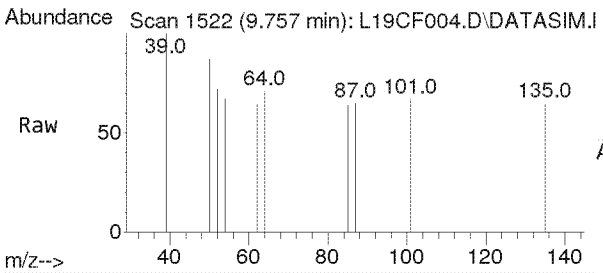


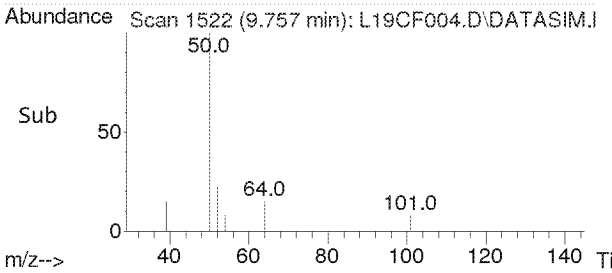


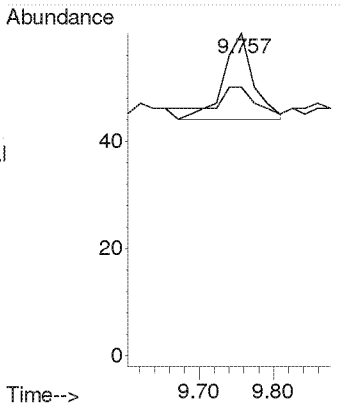
#5
Chloromethane
Concen: 0.007 ppbv
RT: 9.757 min Scan# 1522
Delta R.T. 0.017 min
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 50 Resp: 45

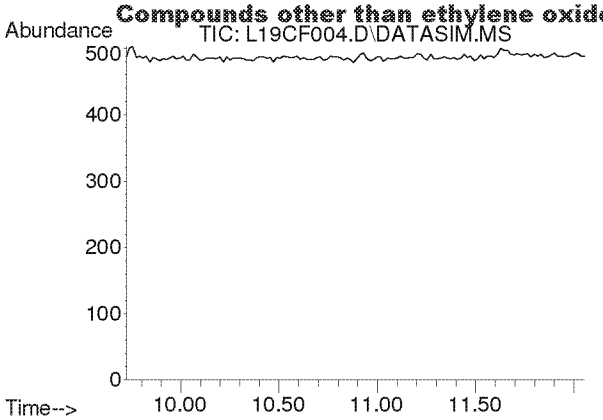
Ion	Ratio	Lower	Upper
50	100		
52	0.0	26.1	39.1#







Compounds other than ethylene oxide were not quantitated.

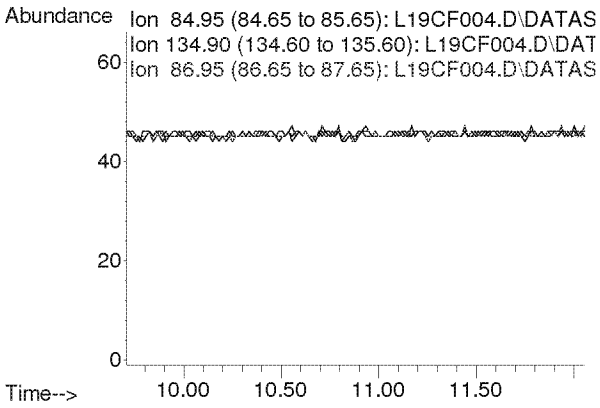


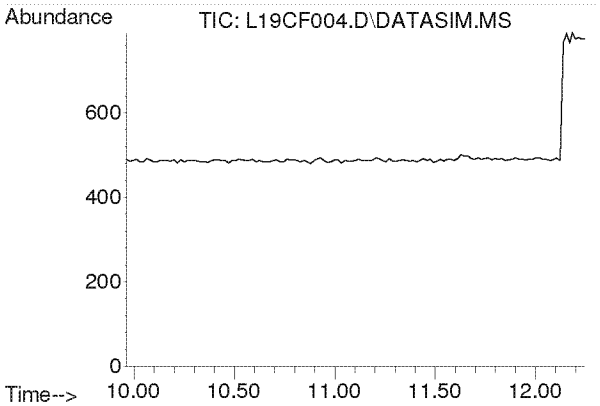
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



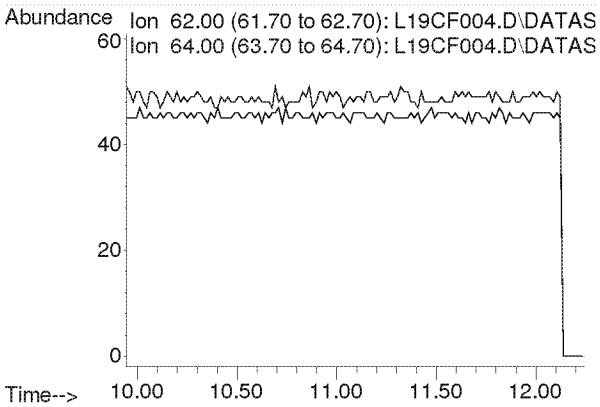


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

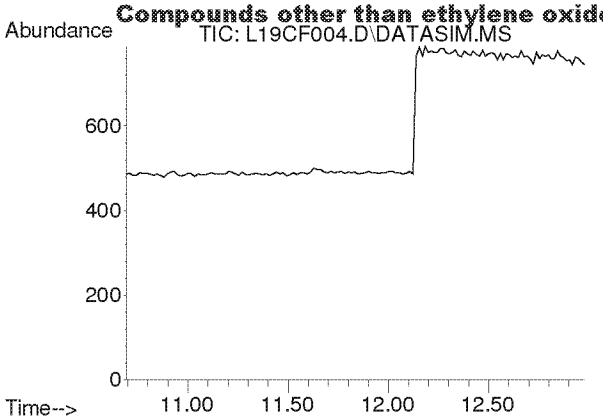
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

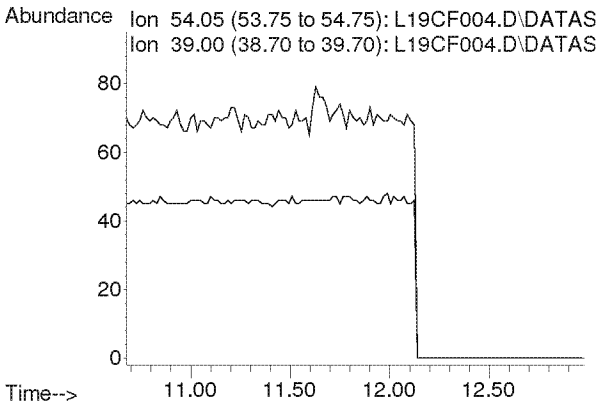


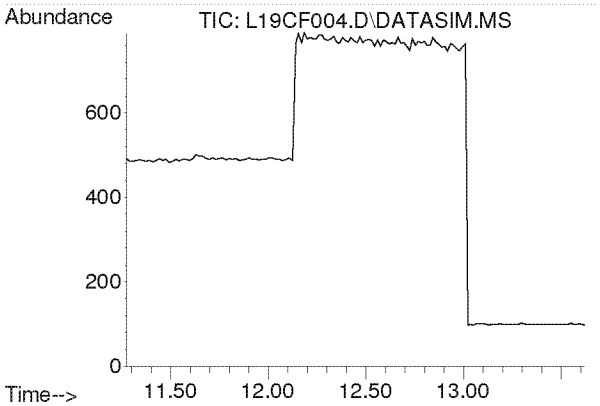
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



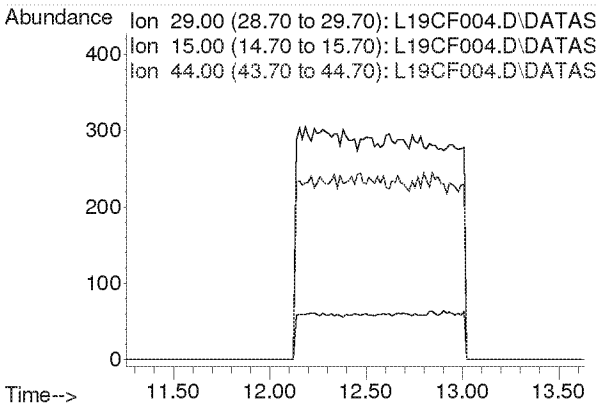


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

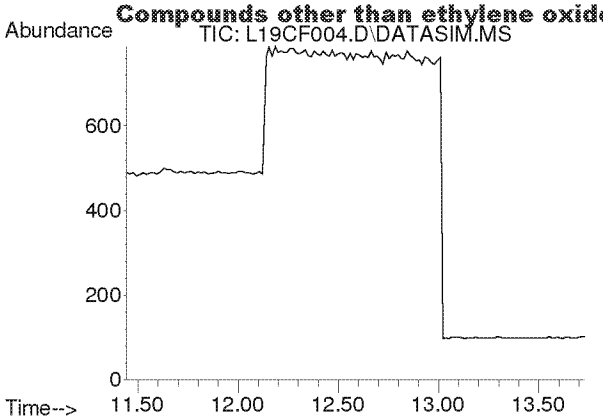
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

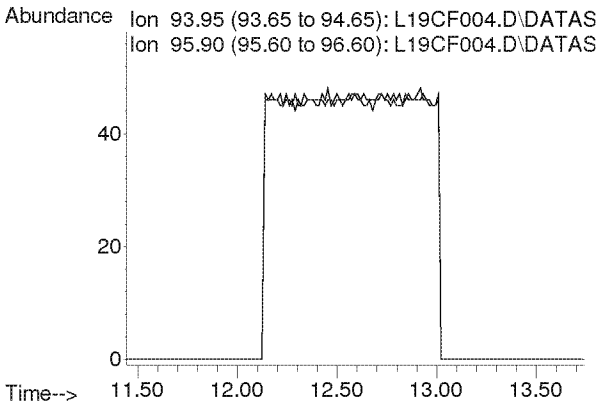


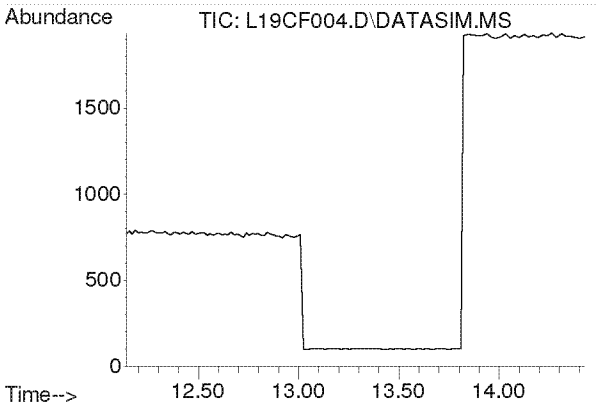
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



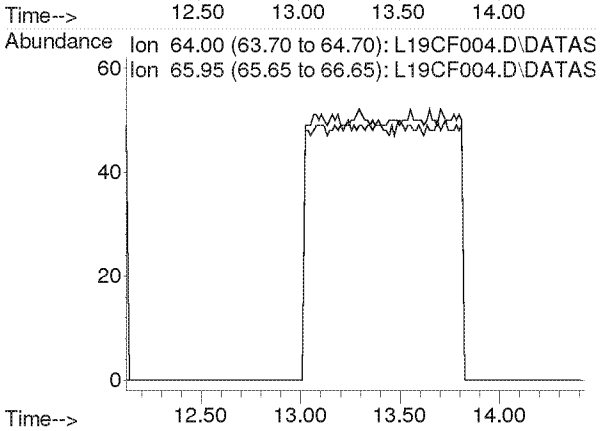


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

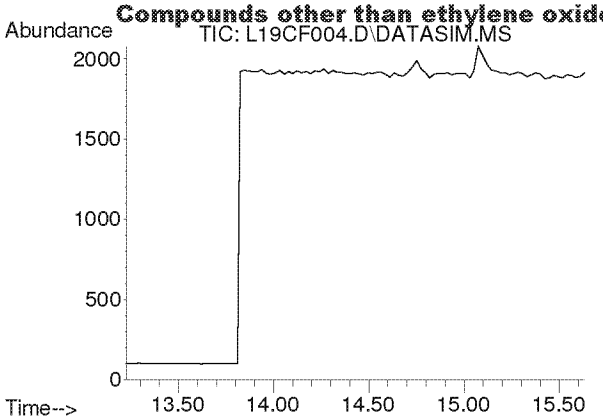
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

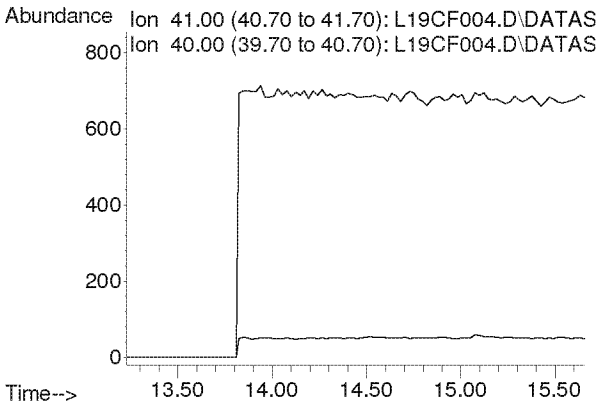


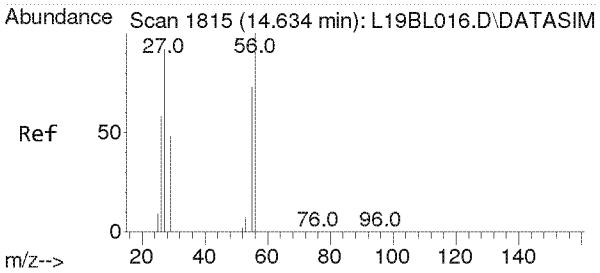
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8

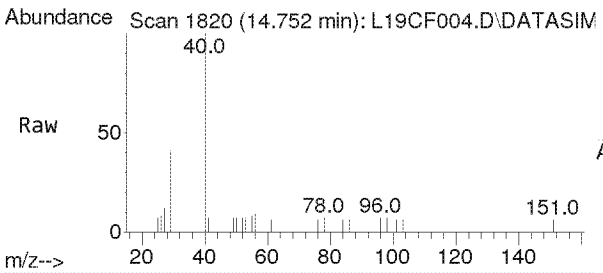


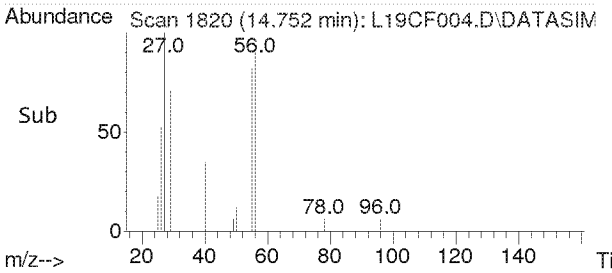


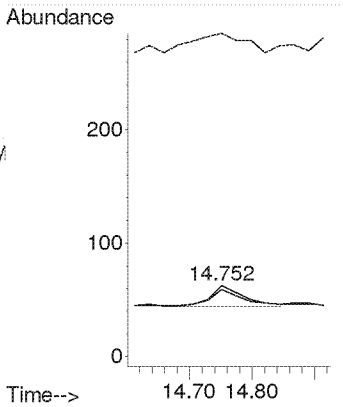
#13
Acrolein
Concen: 0.032 ppbv
RT: 14.752 min Scan# 1820
Delta R.T. 0.118 min
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 56 Resp: 68

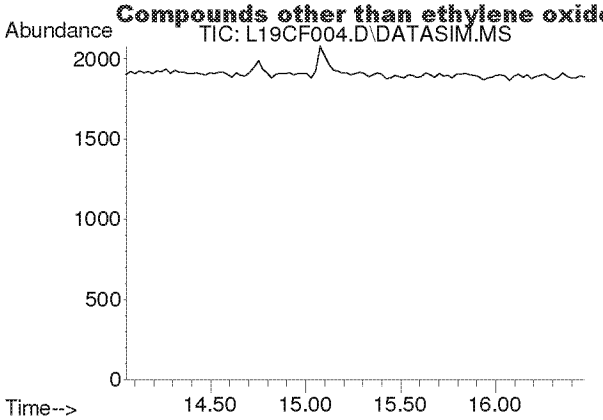
Ion	Ratio	Lower	Upper
56	100		
55	67.6	60.8	91.2
29	155.9	43.8	65.6#







Compounds other than ethylene oxide were not quantitated.

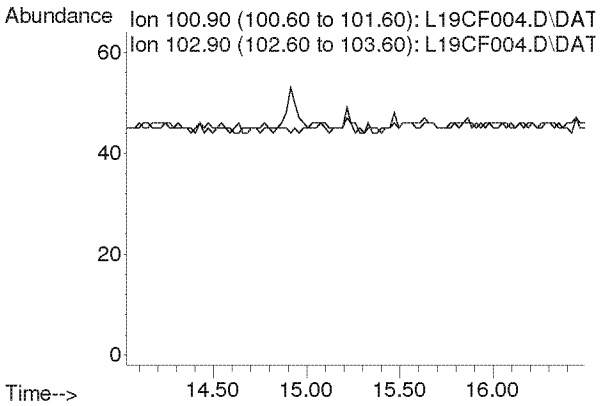


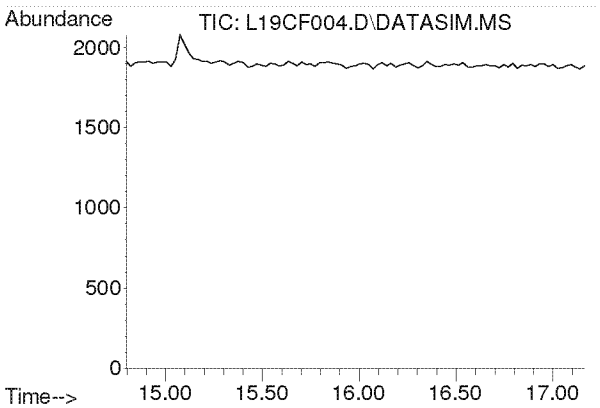
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



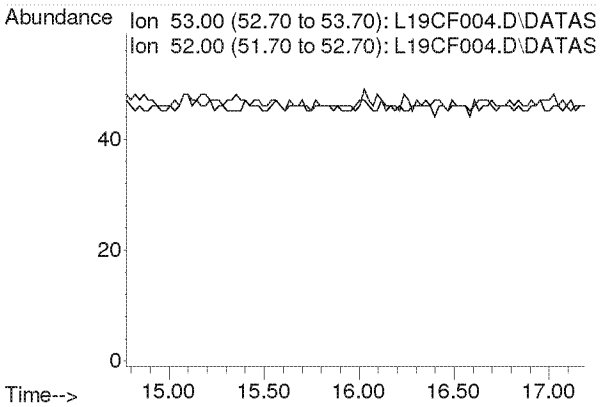


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

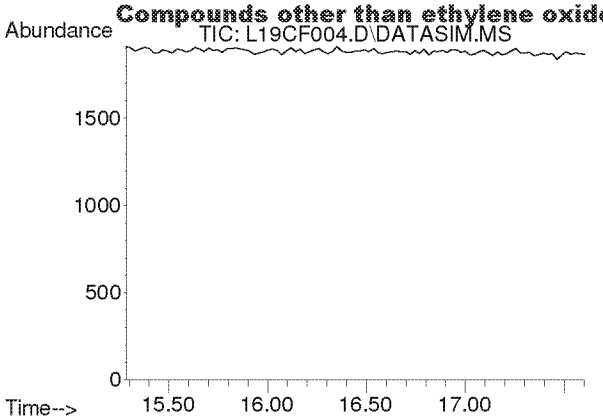
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

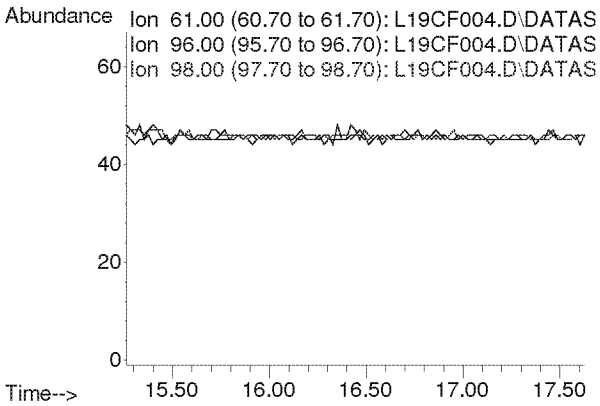


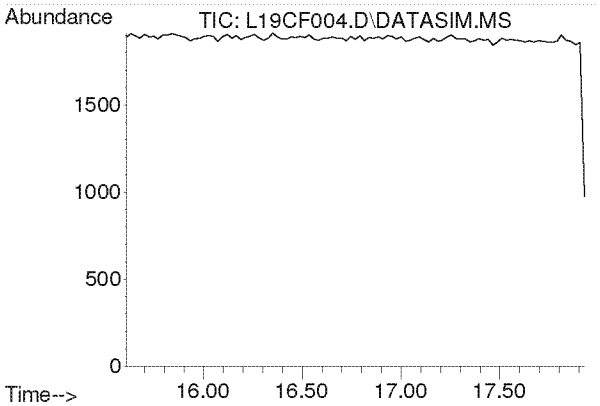
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



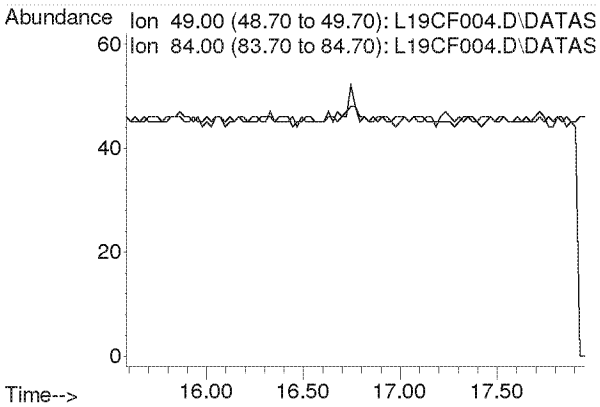


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

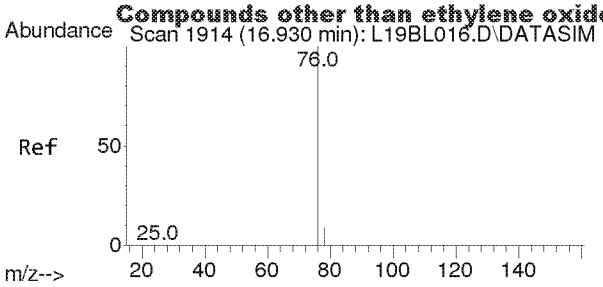
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



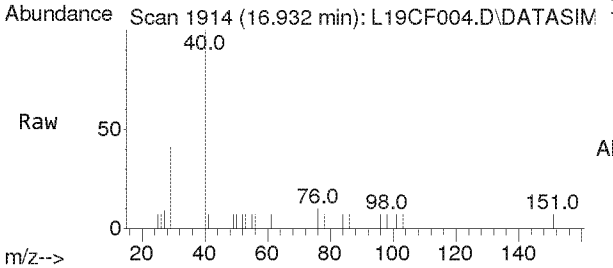
Compounds other than ethylene oxide were not quantitated.

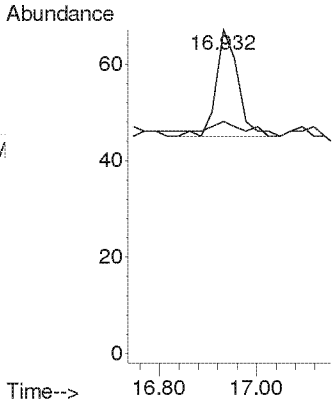


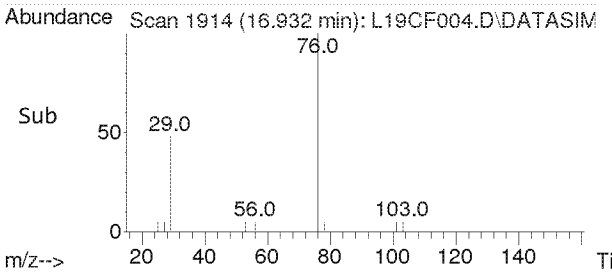
#18
Carbon Disulfide
Concen: 0.004 ppbv
RT: 16.932 min Scan# 1914
Delta R.T. 0.002 min
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

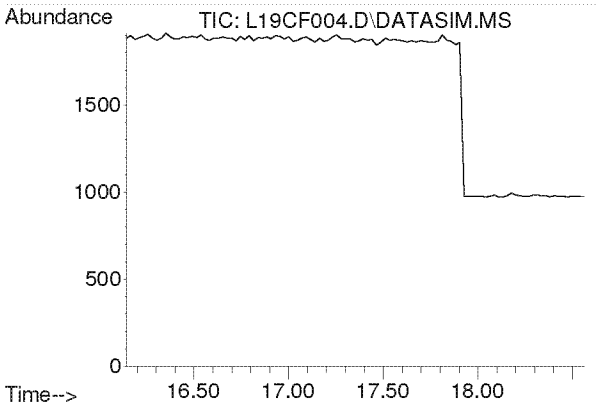
Tgt Ion: 76 Resp: 68

Ion	Ratio	Lower	Upper
76	100		
78	0.0	7.4	11.0#







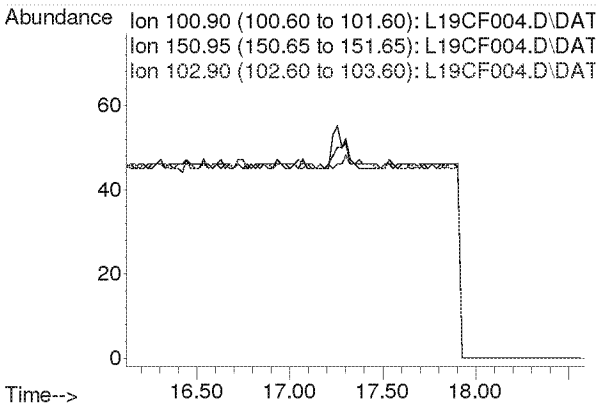


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

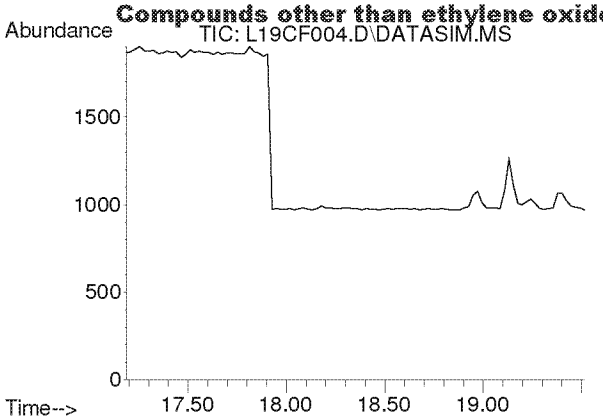
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

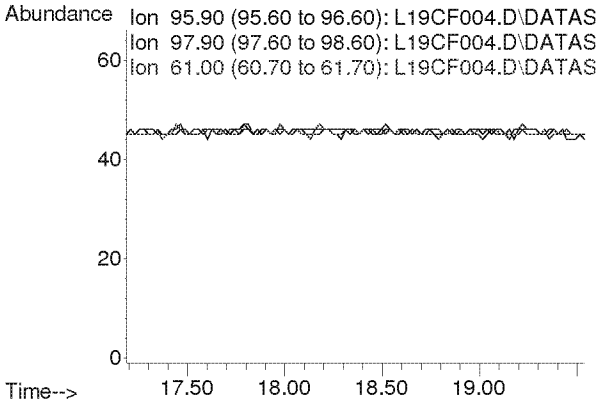


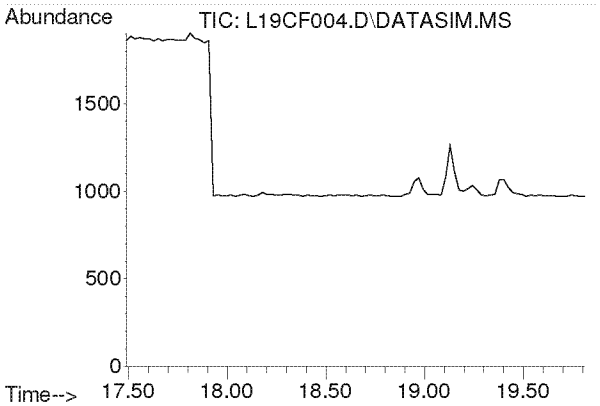
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



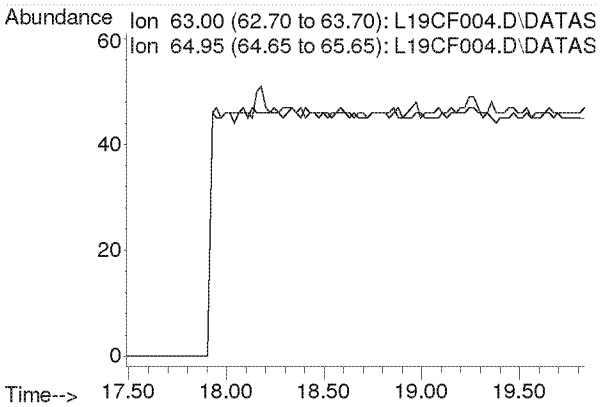


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

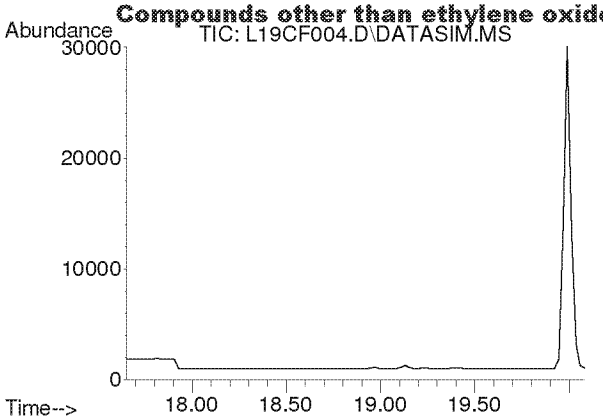
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

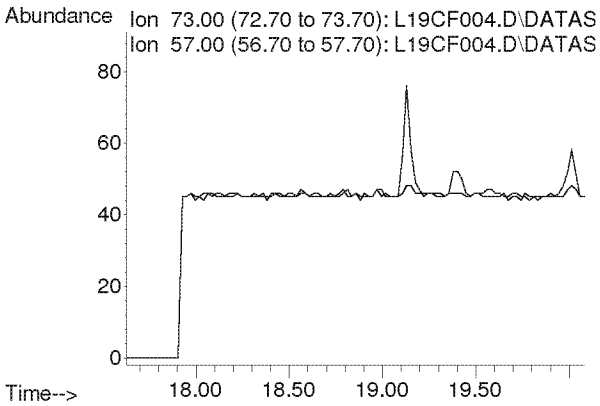


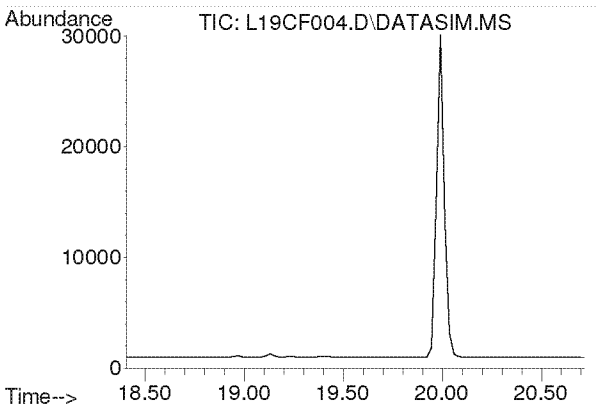
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



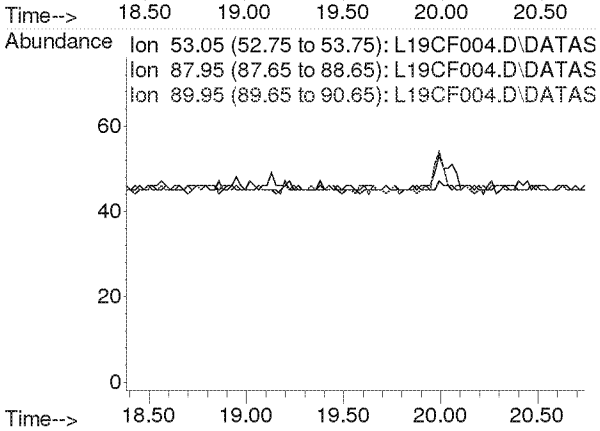


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

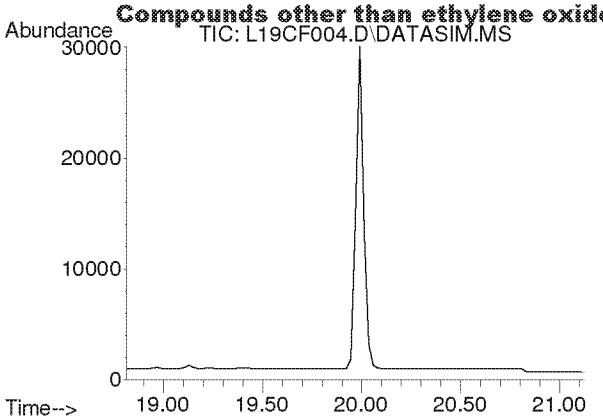
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

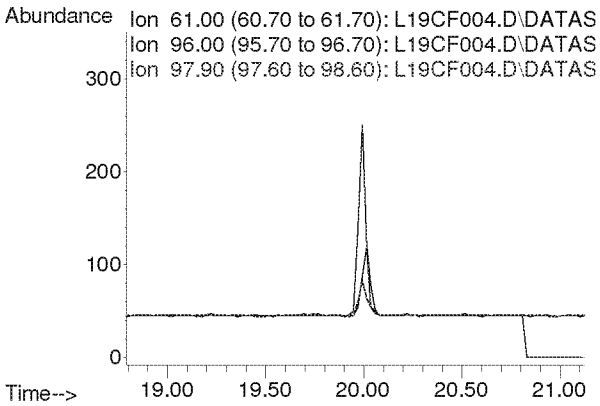


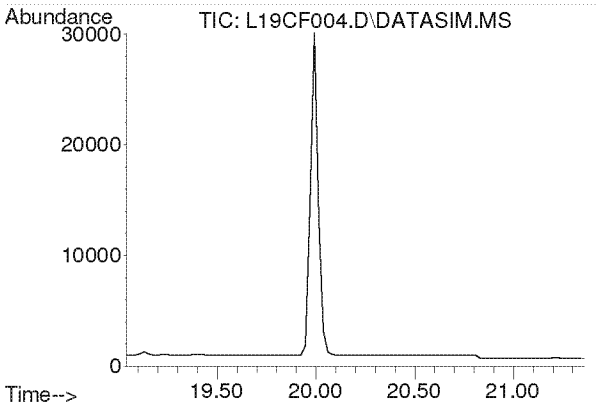
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



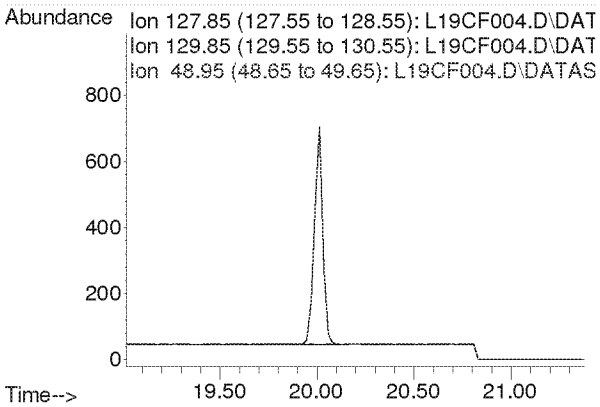


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

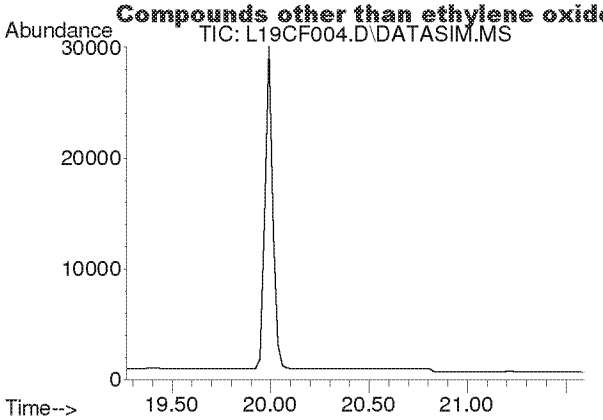
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

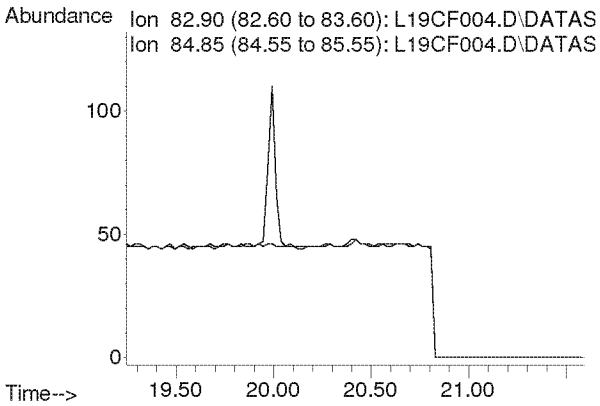


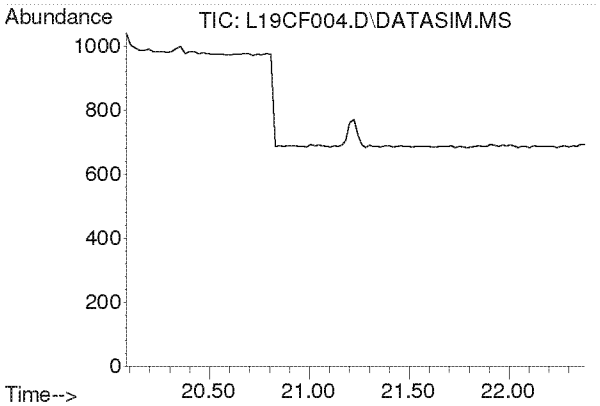
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



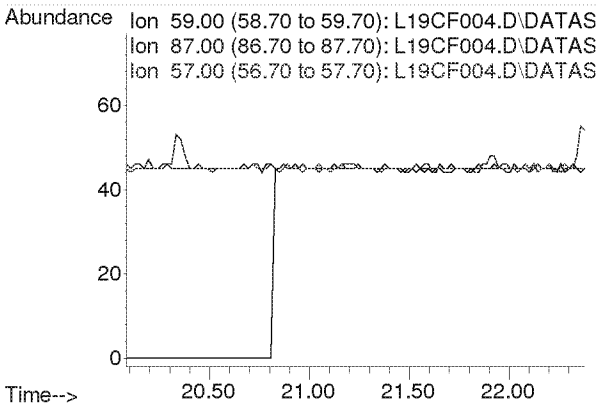


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

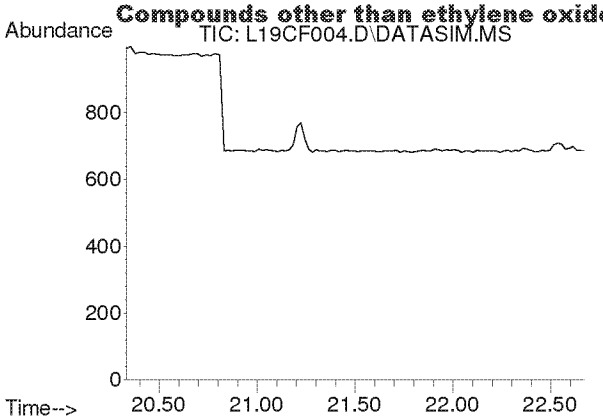
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

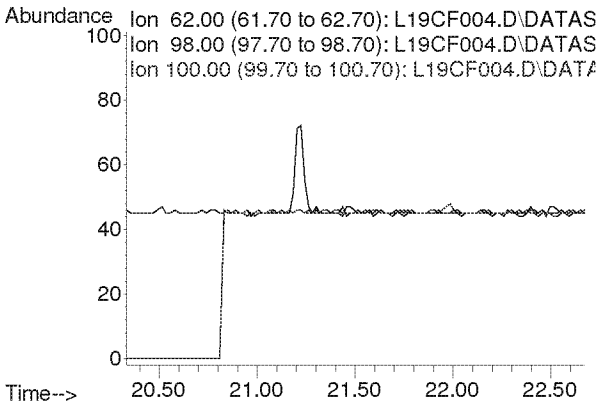


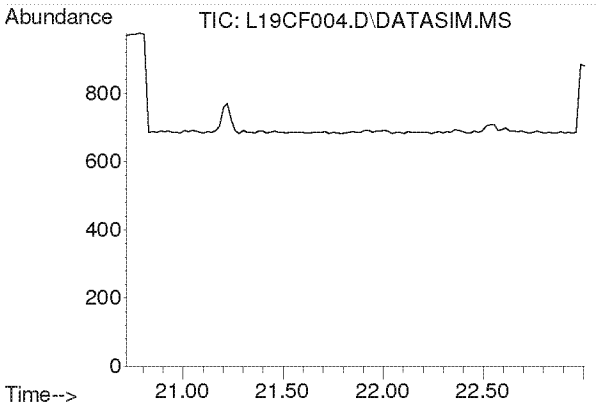
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



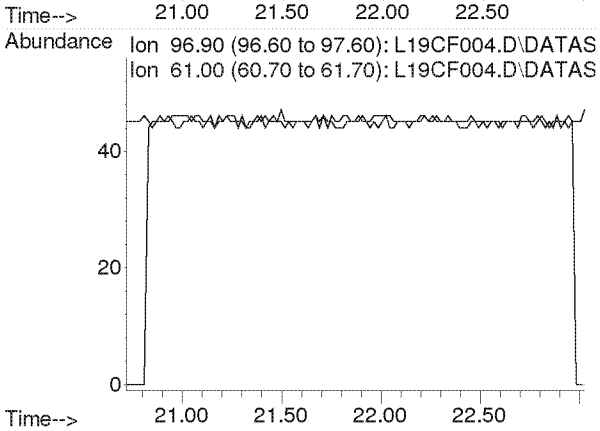


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

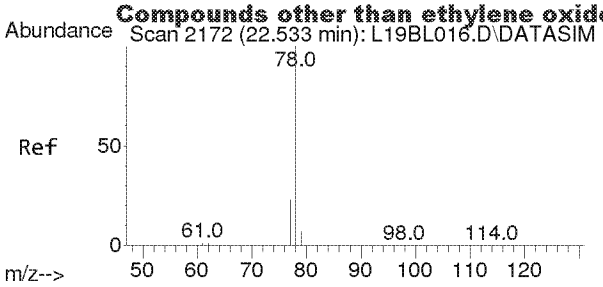
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



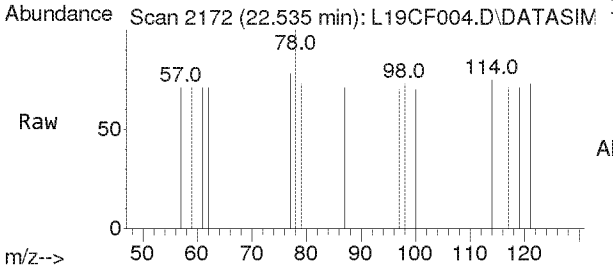
Compounds other than ethylene oxide were not quantitated.

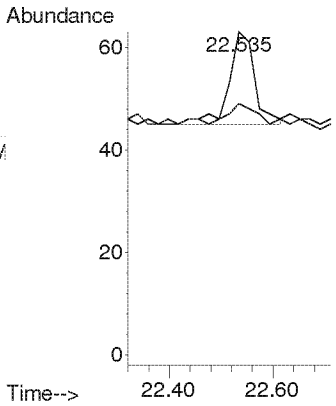


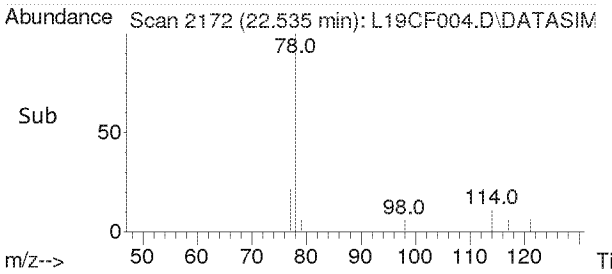
#31
Benzene
Concen: 0.005 ppbv
RT: 22.535 min Scan# 2172
Delta R.T. 0.002 min
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

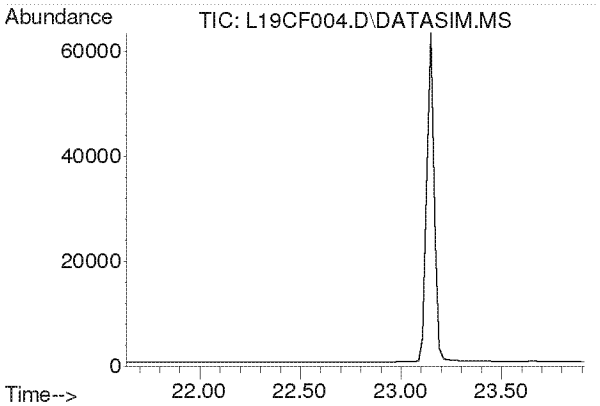
Tgt Ion: 78 Resp: 62

Ion	Ratio	Lower	Upper
78	100		
77	0.0	18.2	27.4#







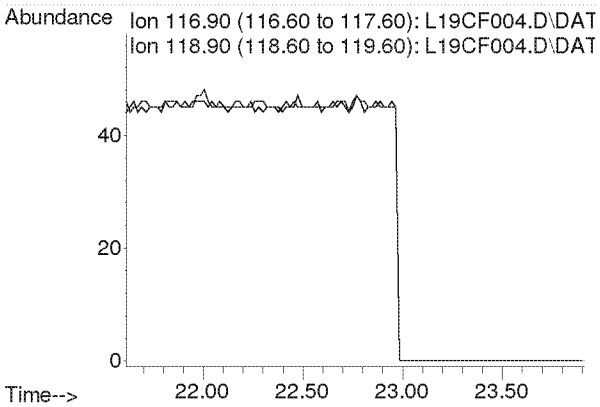


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

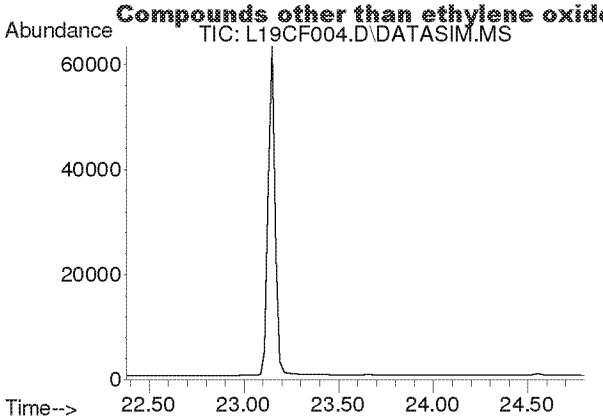
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

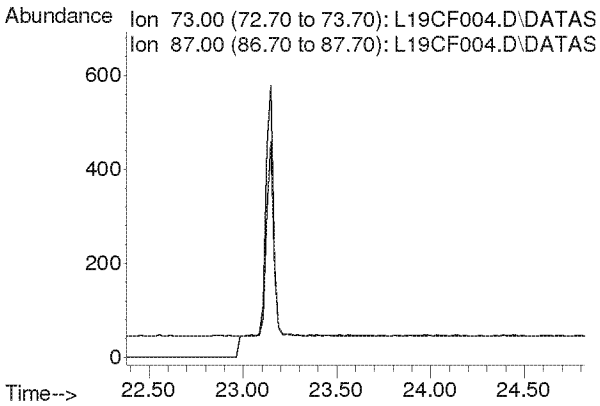


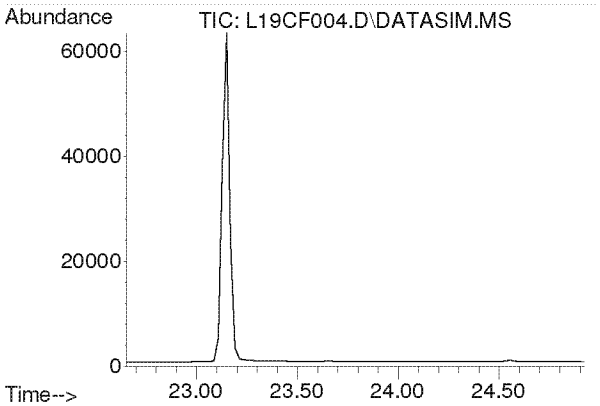
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



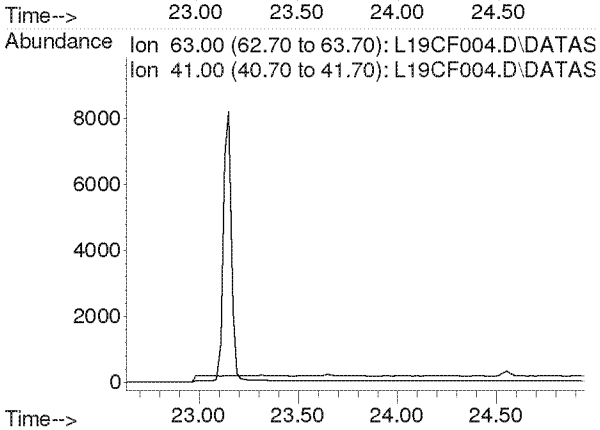


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

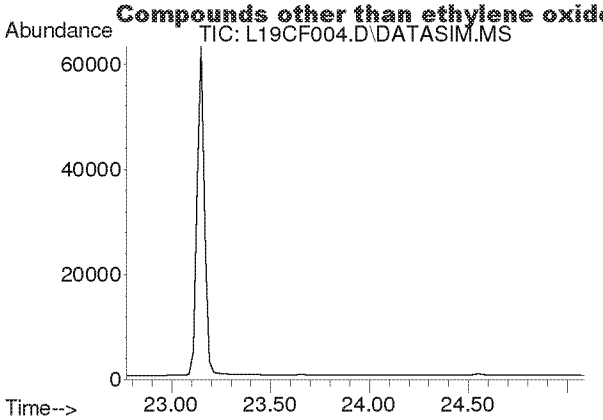
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

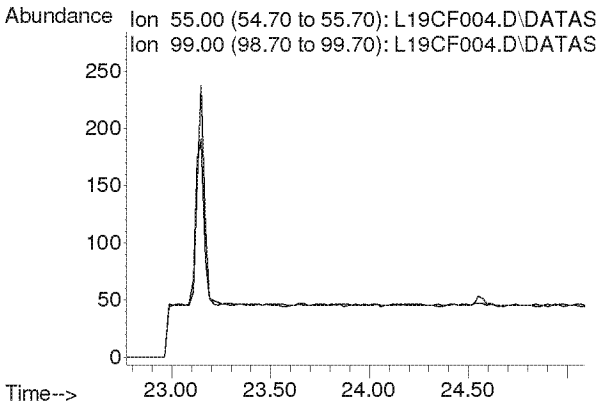


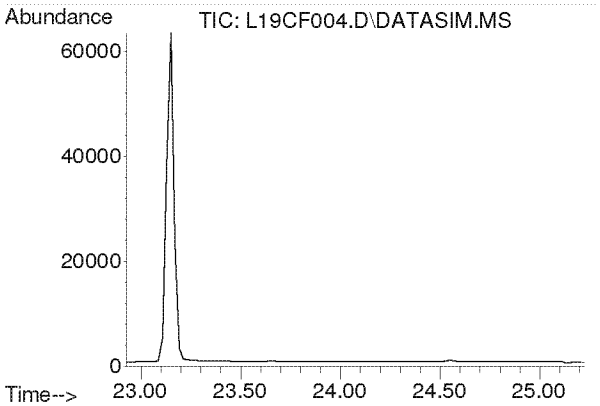
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



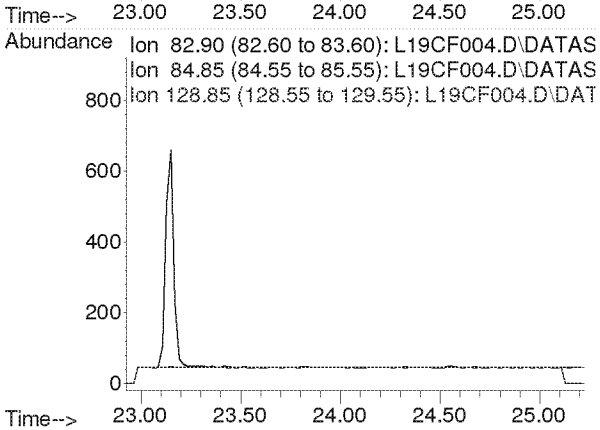


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

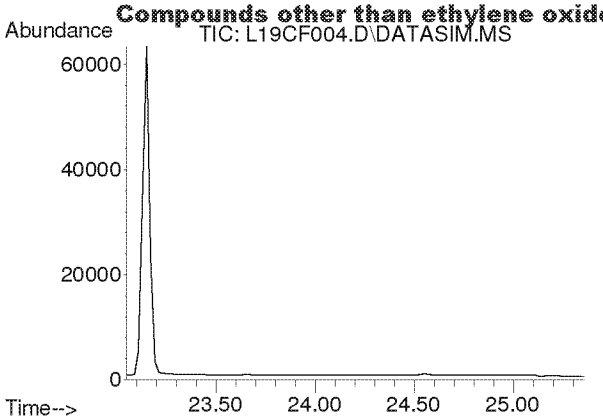
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

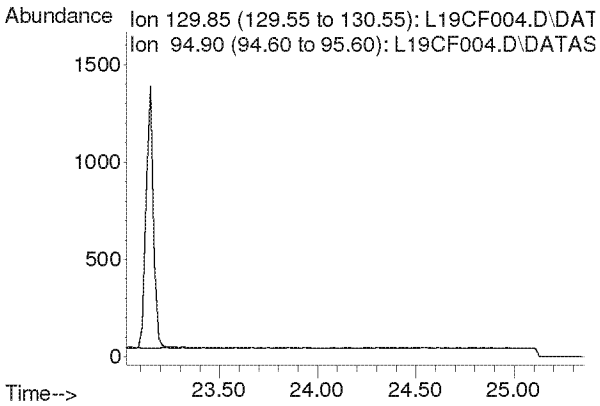


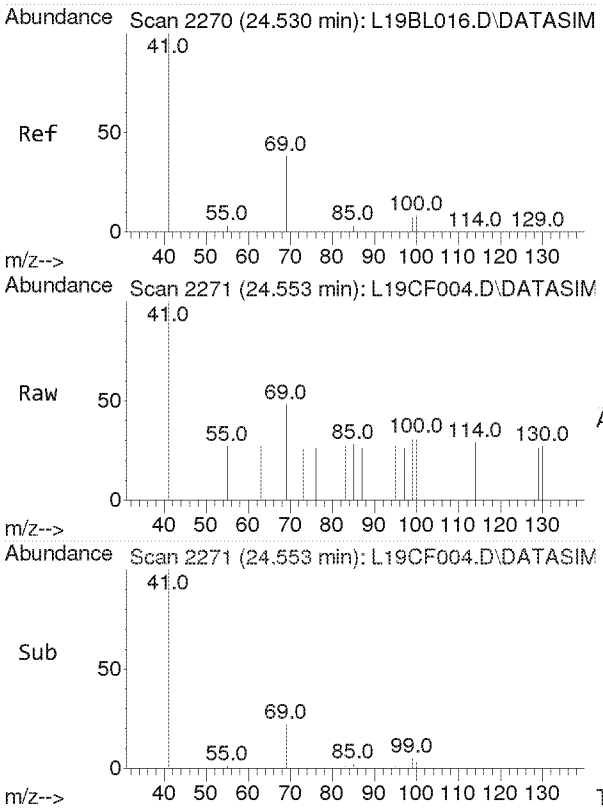
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1

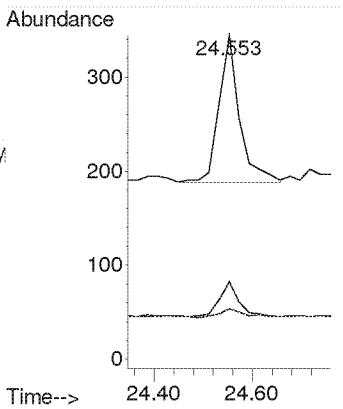




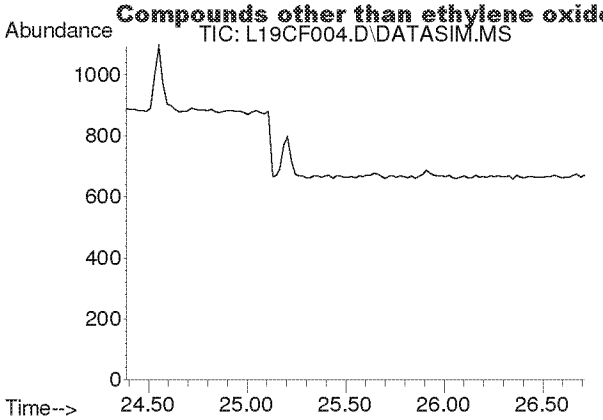
#38
Methyl Methacrylate
Concen: 0.035 ppbv
RT: 24.553 min Scan# 2271
Delta R.T. 0.023 min
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 41 Resp: 453

Ion	Ratio	Lower	Upper
41	100		
69	22.7	16.8	25.2
100	0.0	4.5	6.7#



Compounds other than ethylene oxide were not quantitated.

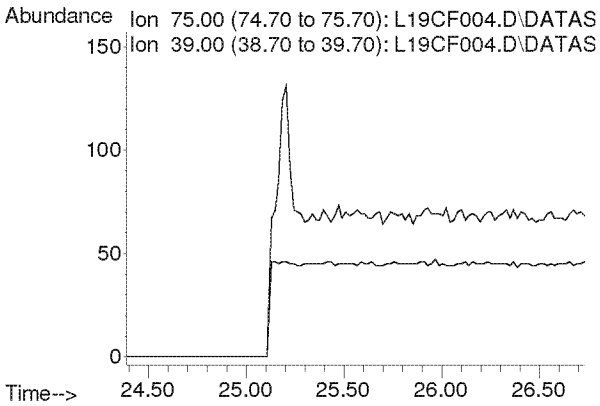


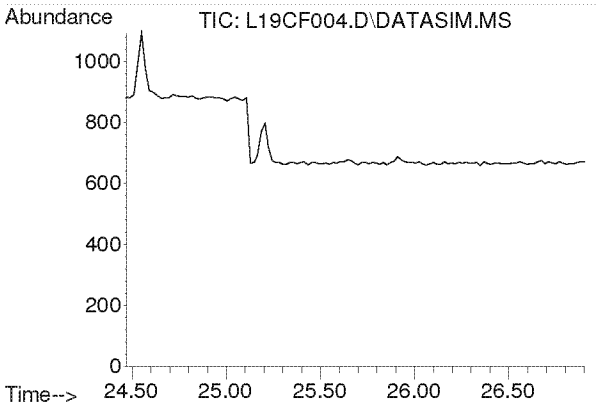
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



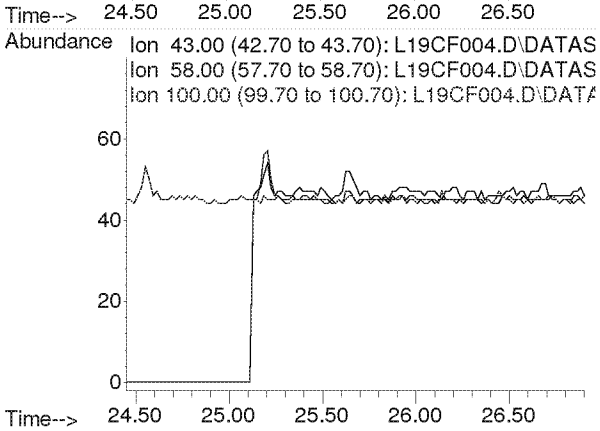


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

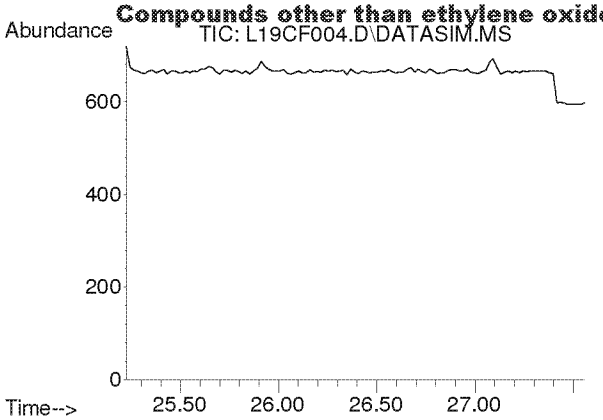
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

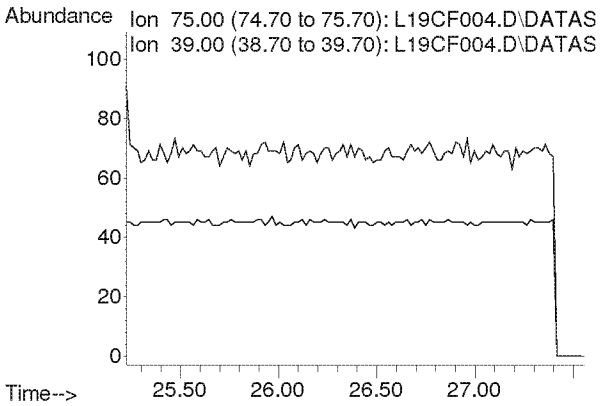


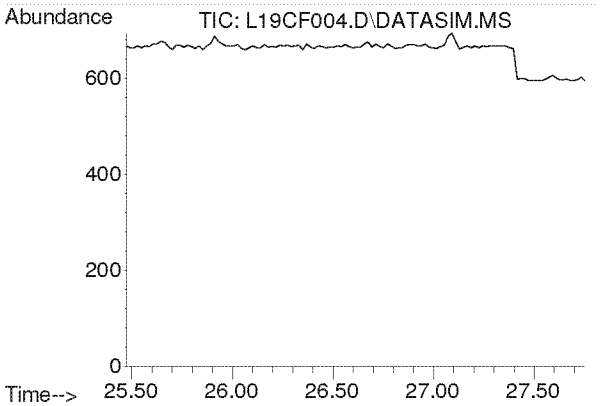
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



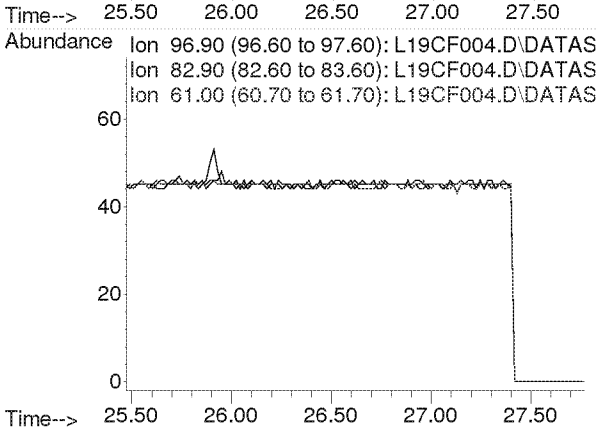


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

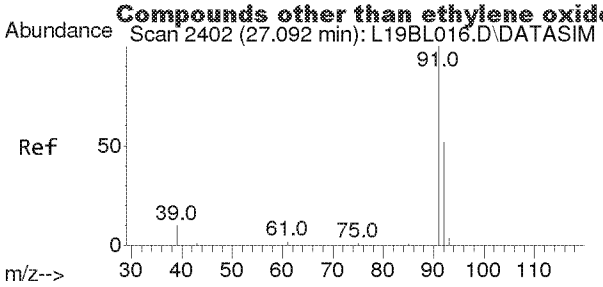
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



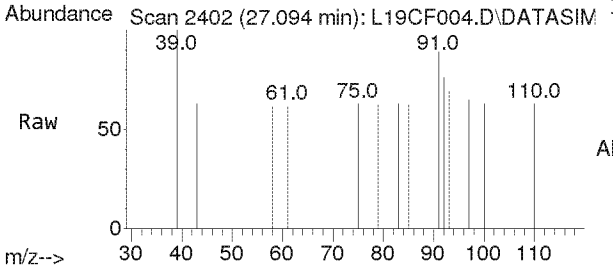
Compounds other than ethylene oxide were not quantitated.

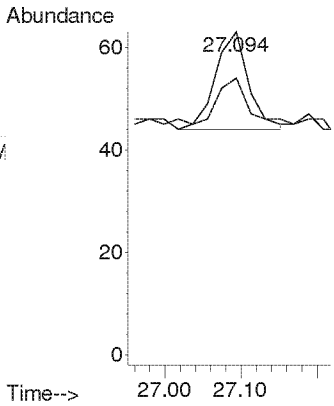


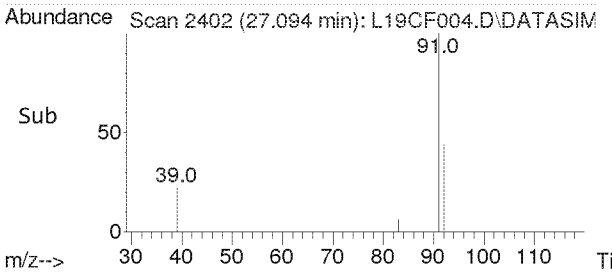
#44
Toluene
Concen: 0.004 ppbv
RT: 27.094 min Scan# 2402
Delta R.T. 0.002 min
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

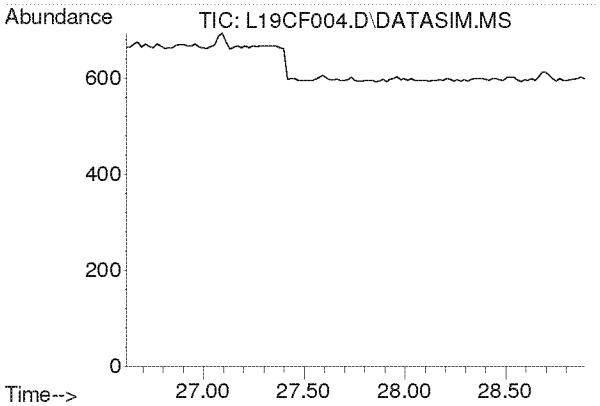
Tgt Ion: 91 Resp: 57

Ion	Ratio	Lower	Upper
91	100		
92	0.0	42.0	63.0#







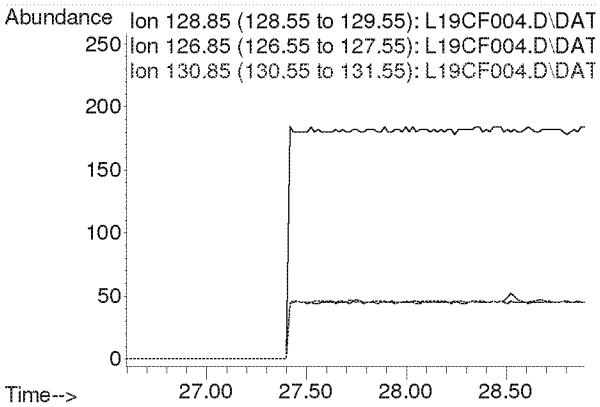


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

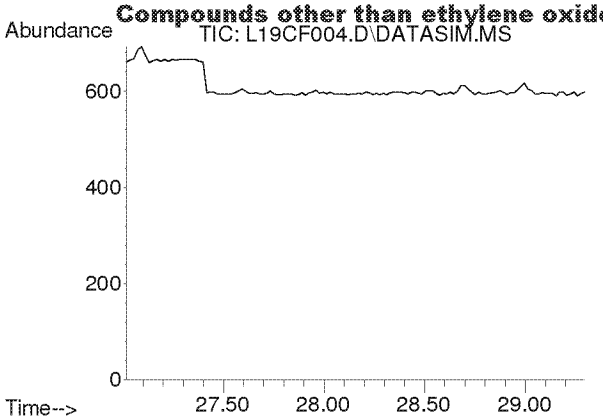
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

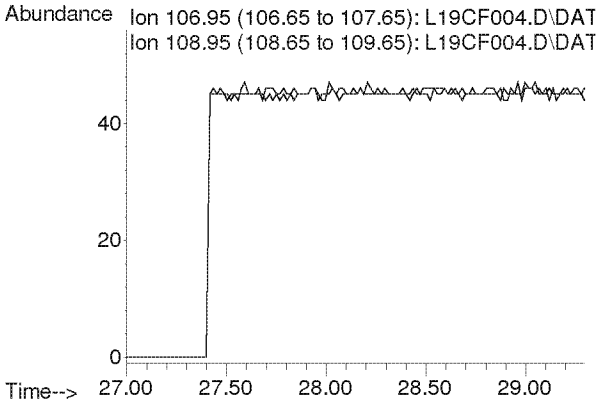


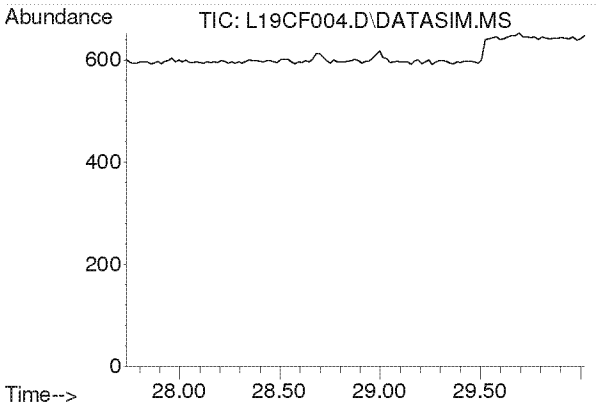
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



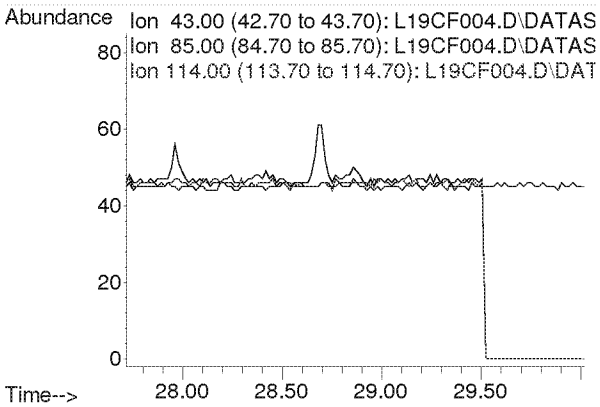


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

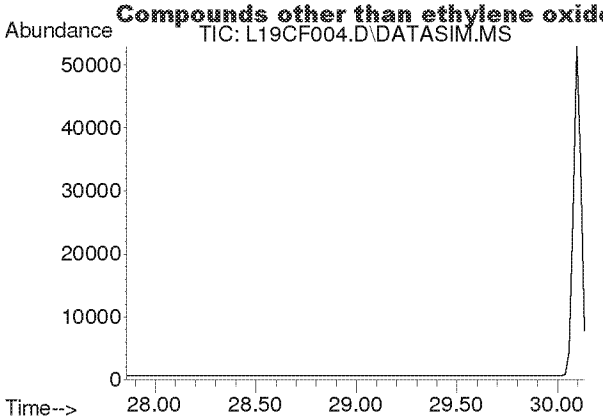
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

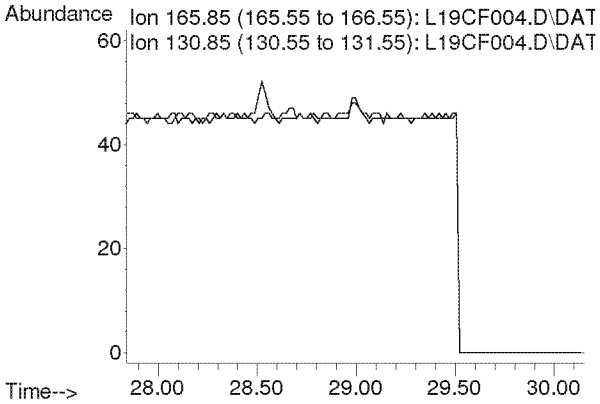


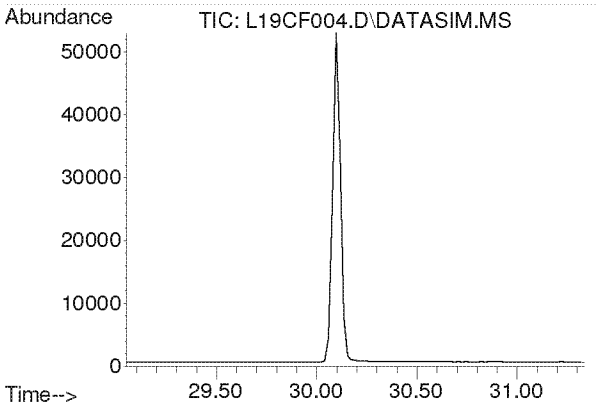
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



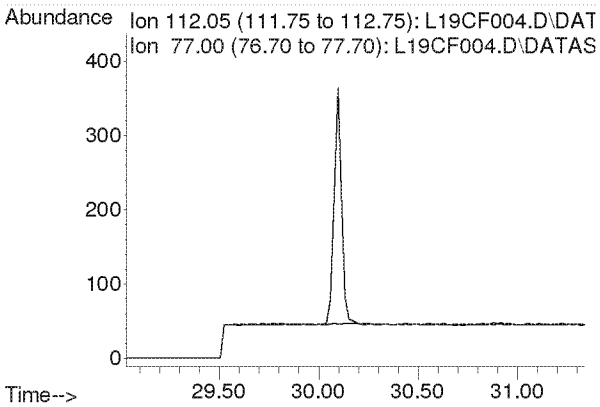


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

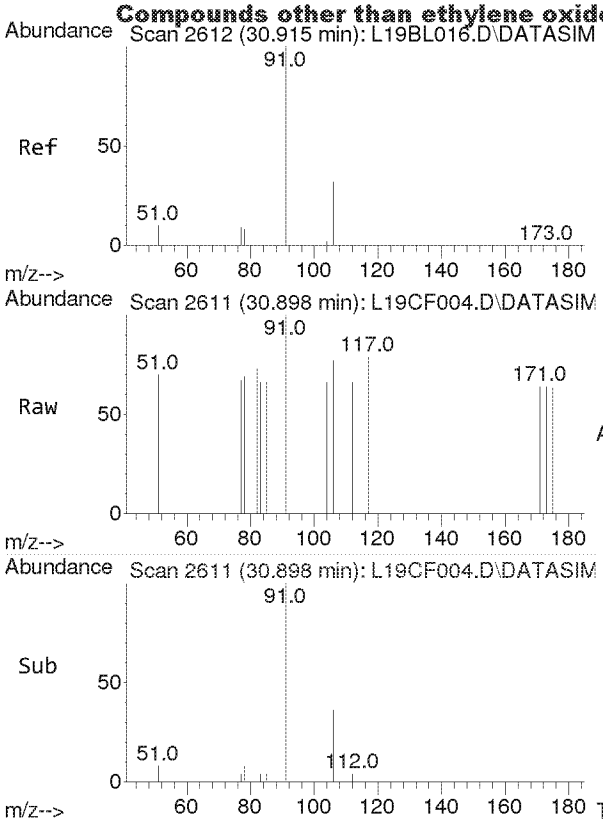
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



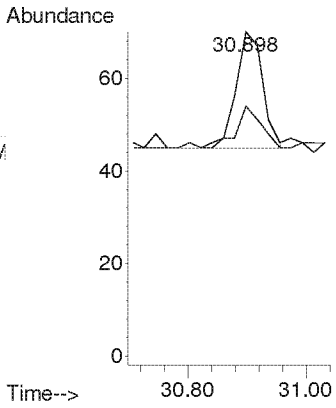
Compounds other than ethylene oxide were not quantitated.

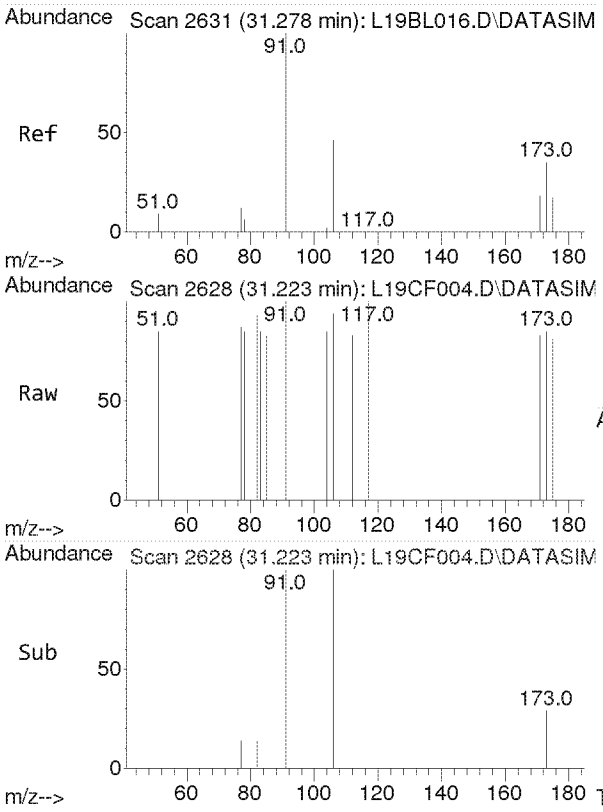


#50
Ethylbenzene
Concen: 0.005 ppbv
RT: 30.898 min Scan# 2611
Delta R.T. -0.017 min
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 91 Resp: 79

Ion	Ratio	Lower	Upper
91	100		
106	0.0	26.0	39.0#

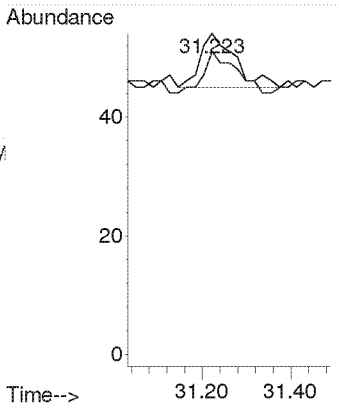




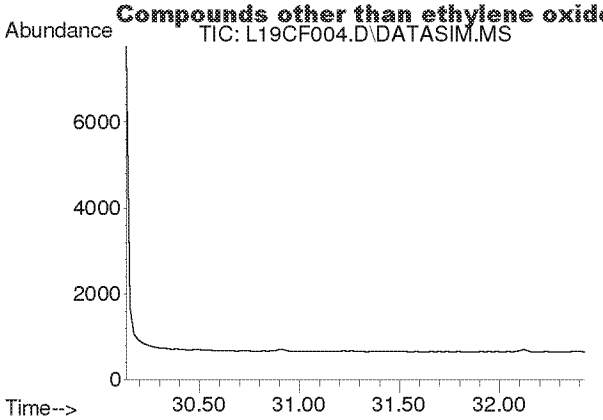
#51
m,p-Xylene
Concen: 0.004 ppbv
RT: 31.223 min Scan# 2628
Delta R.T. -0.055 min
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 91 Resp: 48

Ion	Ratio	Lower	Upper
91	100		
106	0.0	37.3	55.9#



Compounds other than ethylene oxide were not quantitated.

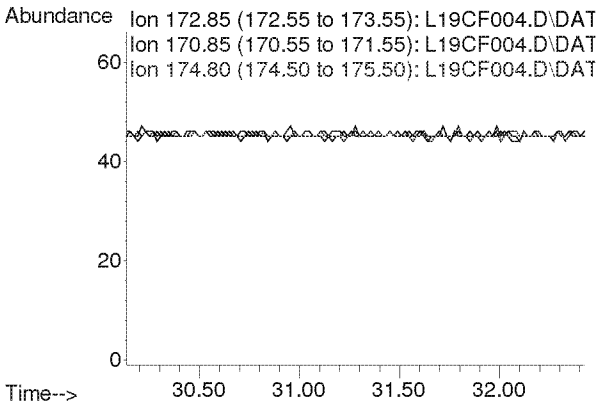


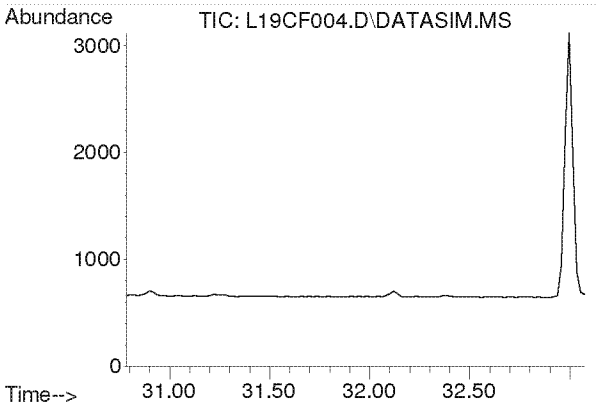
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



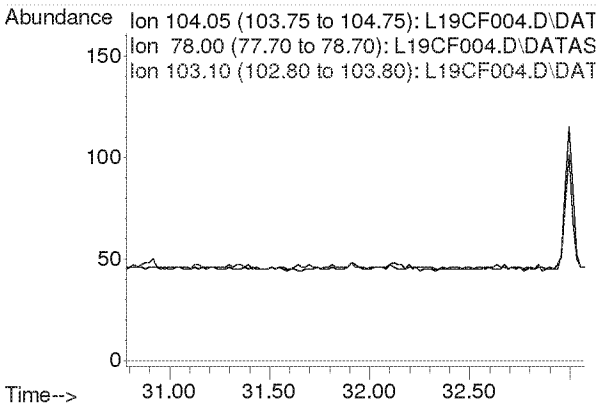


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

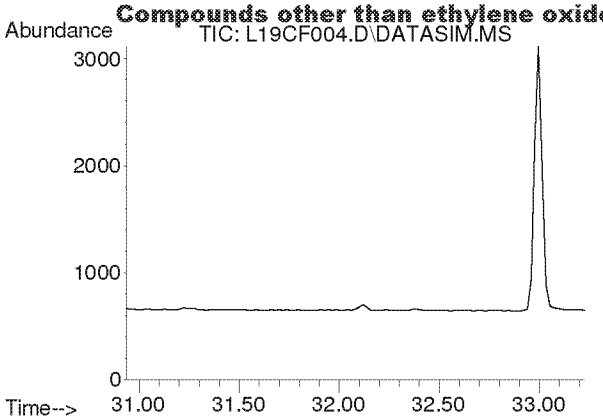
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

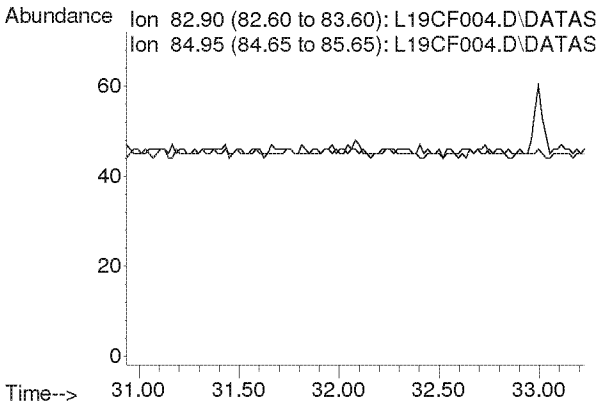


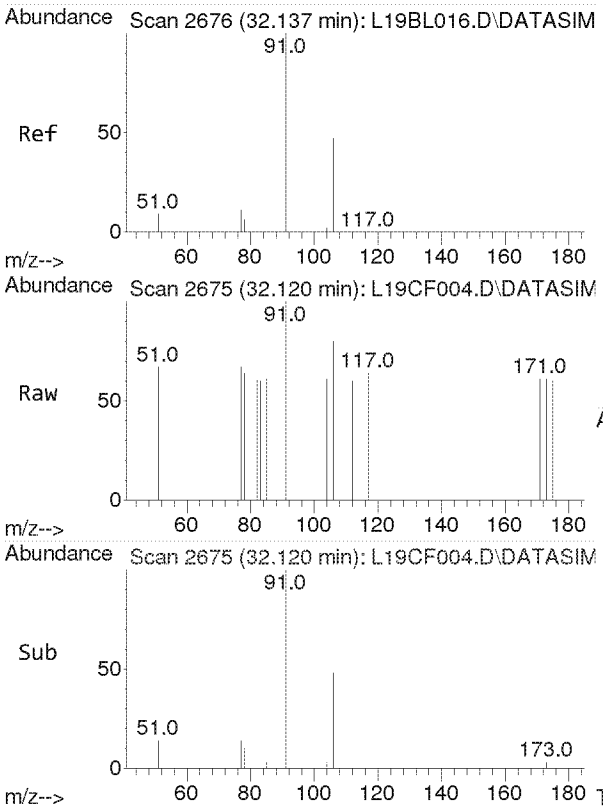
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5

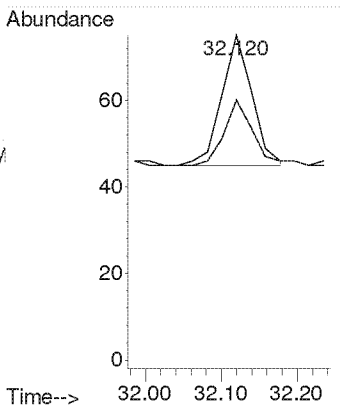




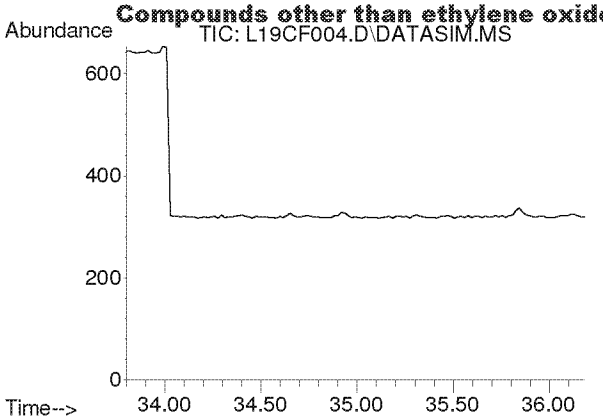
#55
o-Xylene
Concen: 0.007 ppbv
RT: 32.120 min Scan# 2675
Delta R.T. -0.017 min
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 91 Resp: 84

Ion	Ratio	Lower	Upper
91	100		
106	0.0	36.6	55.0#



Compounds other than ethylene oxide were not quantitated.

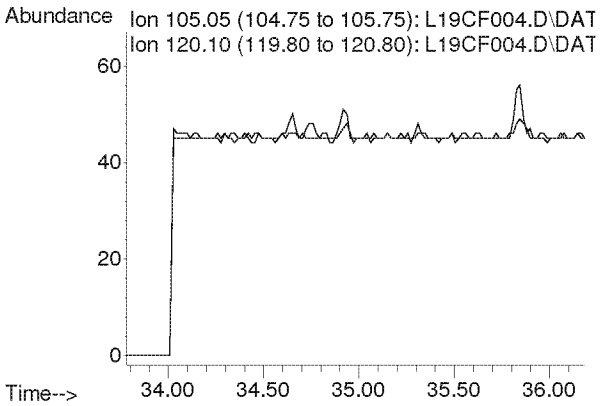


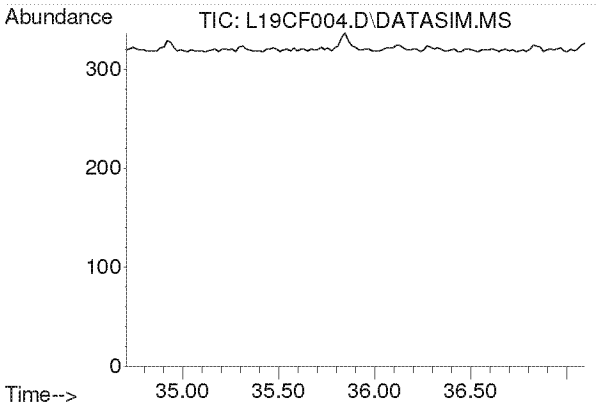
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



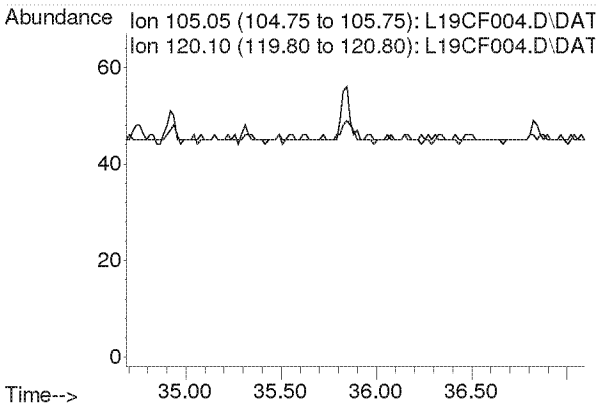


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

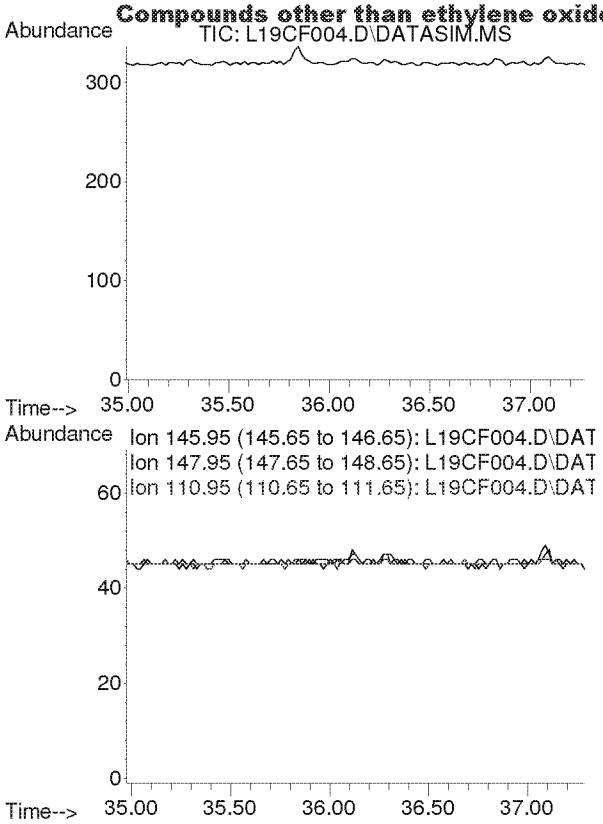
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

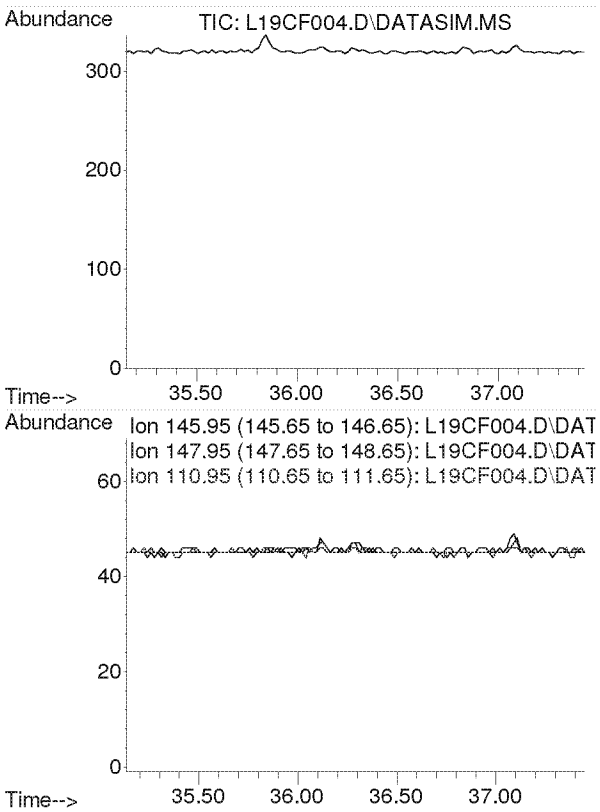


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



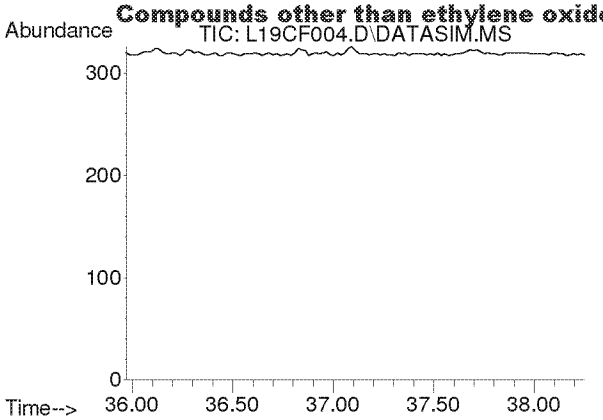
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

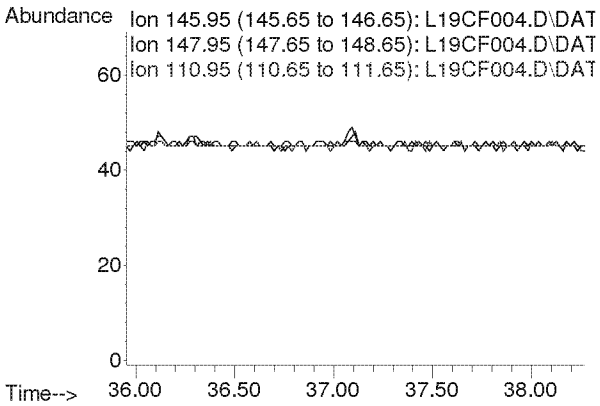


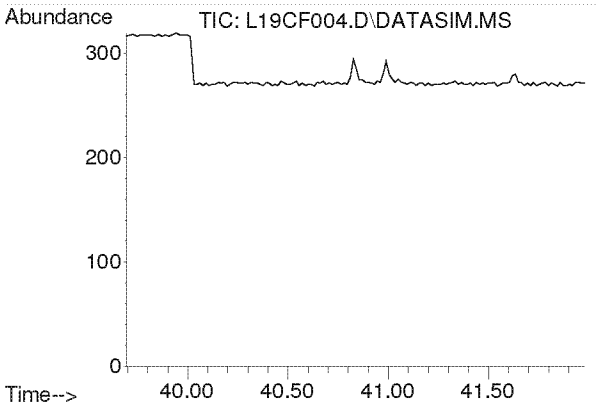
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



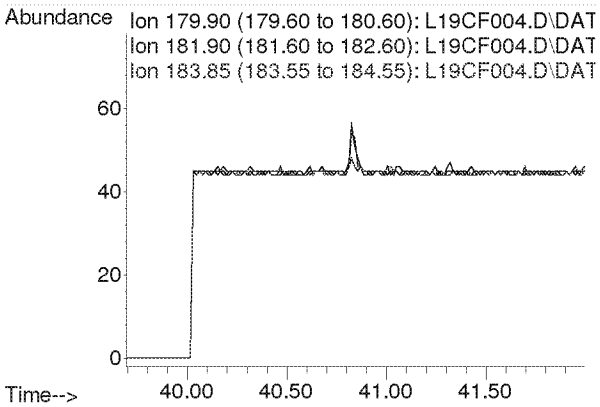


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

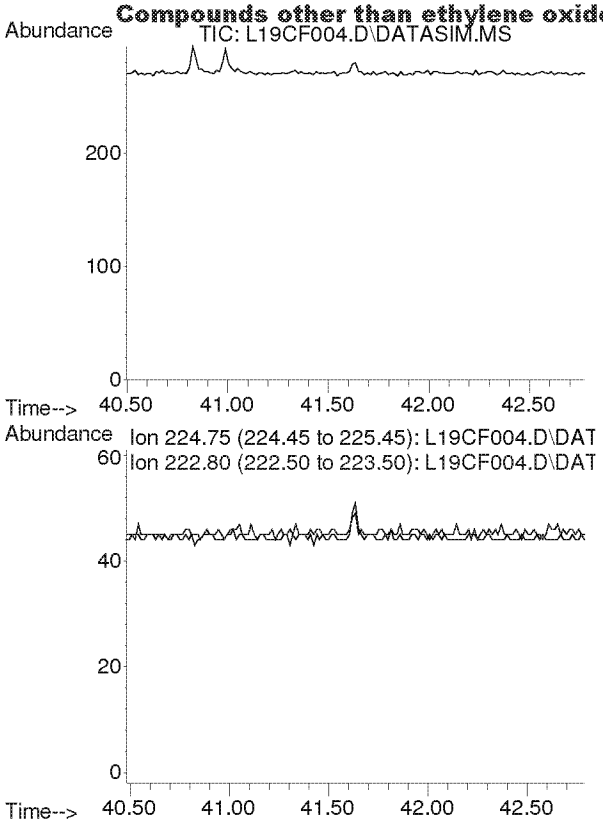
Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CF004.D
Acq: 6 Mar 2019 4:31 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

TO-15 Method Blank and
Annual Canister Certification Blank

Analyst: / Date: 2-7-19
Reviewer: RMB Date: 3/18/19

Data File Name	L19CF005.D
Operator	MAH
Acq. Method File	9020003.M
Sample Name	9030101-10
Misc Info	TRIP BLANK 2/27/19

#	Name	Target Response	Amount (ppbv)	PASS*		Blank Criteria
1)	IS-Hexane-d14	48891		NA		NA
2)	Acetylene	0	0.000	Y		0.118
3)	Propylene	310	0.062	Y		0.192
4)	Dichlorodifluoromethane	145	0.006	Y		0.082
5)	Chloromethane	116	0.019	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	188	0.088	Y		0.200
13)	Trichlorofluoromethane	53	0.003	Y		0.035
14)	Acrylonitrile	0	0.000	Y		0.032
15)	1,1-Dichloroethene	0	0.000	Y		0.036
16)	Methylene Chloride	1148	0.201	NO	MAX	0.043
17)	Carbon Disulfide	43	0.002	Y		0.200
18)	Trichlorotrifluoroethane	67	0.005	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	127087		NA		NA
29)	1,1,1-Trichloroethane	0	0.000	Y		0.041
30)	Benzene	137	0.010	Y		0.043
31)	Carbon Tetrachloride	0	0.000	Y		0.040
32)	tert-Amyl Methyl Ether	0	0.000	Y		0.037
33)	1,2-Dichloropropane	0	0.000	Y		0.061
34)	Ethyl Acrylate	0	0.000	Y		0.070
35)	Bromodichloromethane	0	0.000	Y		0.049
36)	Trichloroethylene	0	0.000	Y		0.045
37)	Methyl Methacrylate	270	0.021	Y		0.200
38)	cis-1,3-dichloropropene	0	0.000	Y		0.059
39)	Methyl Isobutyl Ketone	98	0.010	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	88365		NA		NA
43)	Toluene	322	0.022	Y		0.200
44)	Dibromochloromethane	0	0.000	Y		0.046
45)	1,2-Dibromoethane	0	0.000	Y		0.057
46)	n-Octane	47	0.005	Y		0.097
47)	Tetrachloroethylene	0	0.000	Y		0.044
48)	Chlorobenzene	0	0.000	Y		0.058
49)	Ethylbenzene	105	0.007	Y		0.077
50)	m,p-Xylene	64	0.005	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	108	0.008	Y		0.080
55)	1,3,5-Trimethylbenzene	0	0.000	Y		0.102
56)	1,2,4-Trimethylbenzene	40	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

ETO4 only

*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\L19CF\
Data File : L19CF005.D
Acq On : 6 Mar 2019 5:31 pm (#1); 06-Mar-19, 17:26:11 (#2)
Operator : MAH
Sample : 9030101-10
Misc : TRIP BLANK 2/27/19
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 07 06:30:49 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	48891	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	127087	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	88365	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D.	
3) Propylene	7.823	41	310	0.0621 ppbv	98
4) Dichlorodifluoromethane	8.702	85	145	0.0061 ppbv #	84
5) Chloromethane	9.758	50	116	0.0191 ppbv #	12
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 SL	
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	14.704	56	188	0.0879 ppbv #	76
14) Trichlorofluoromethane	15.214	101	53	0.0027 ppbv #	18
15) Acrylonitrile	0.000	53	0	N.D.	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	16.745	49	1148	0.2010 ppbv	97
18) Carbon Disulfide	16.930	76	43	0.0024 ppbv #	75
19) Trichlorotrifluoroethane	17.255	101	67	0.0050 ppbv #	45
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 JO	
25) Bromochloromethane	0.000	128	0	N.D.	
26) Chloroform	0.000	83	0	N.D.	42
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	22.533	78	137	0.0102 ppbv #	53
32) Carbon Tetrachloride	0.000	117	0	N.D.	
33) tert-Amyl Methyl Ether	0.000	73	0	N.D.	
34) 1,2-Dichloropropane	0.000	63	0	N.D.	
35) Ethyl Acrylate	0.000	55	0	N.D.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	24.551	41	270	0.0207 ppbv #	93
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	25.624	43	98	0.0102 ppbv #	84
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	27.092	91	322	0.0222 ppbv	98
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	28.855	43	47	0.0054 ppbv #	38
48) Tetrachloroethylene	0.000	166	0	N.D.	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	30.896	91	105	0.0069 ppbv #	42

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CF\
Data File : L19CF005.D
Acq On : 6 Mar 2019 5:31 pm (#1); 06-Mar-19, 17:26:11 (#2)
Operator : MAH
Sample : 9030101-10
Misc : TRIP BLANK 2/27/19
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 07 06:30:49 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

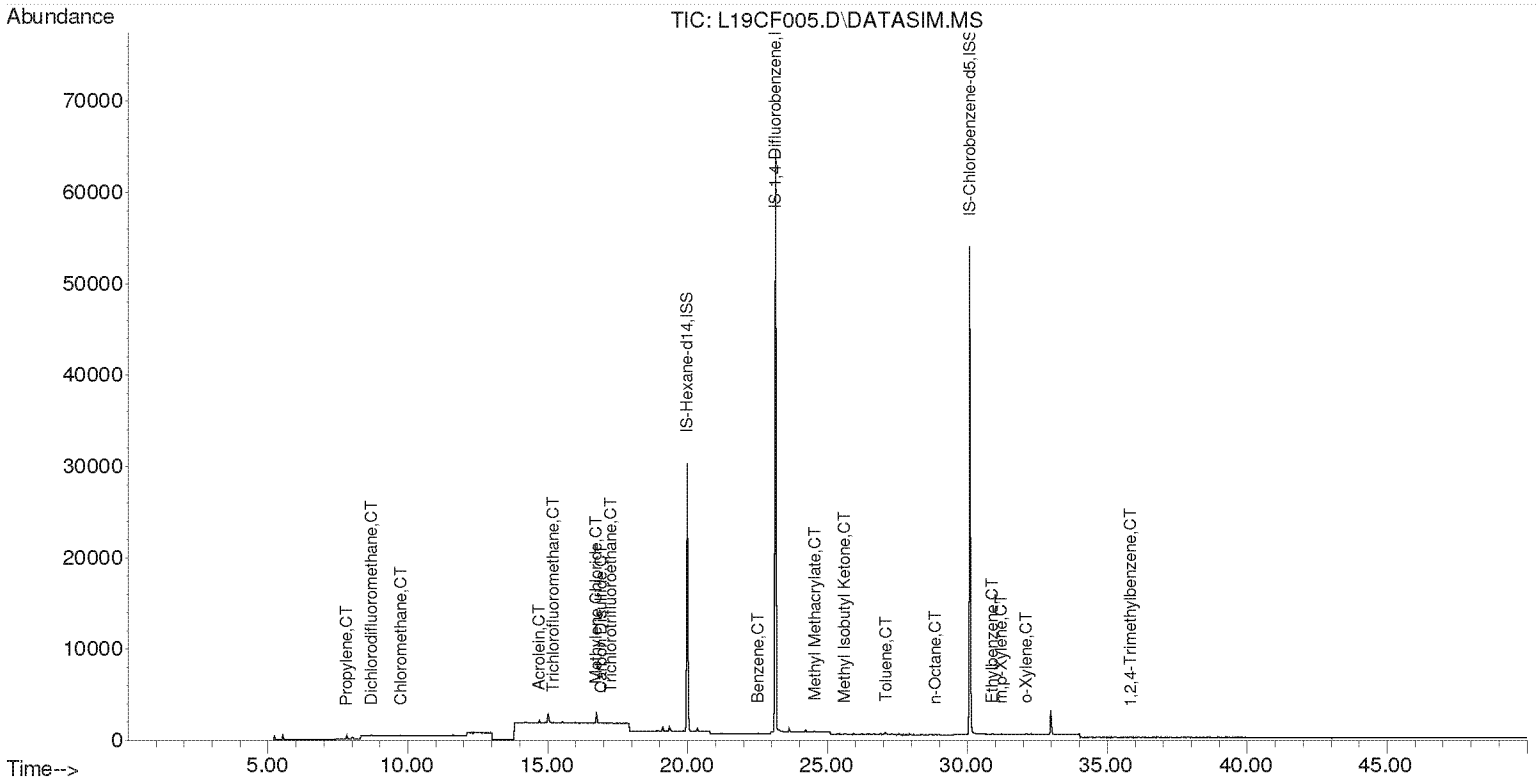
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	31.221	91	64	0.0050 ppbv #	30
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	32.118	91	108	0.0085 ppbv	92
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene	35.845	105	40	0.0034 ppbv #	32
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.	

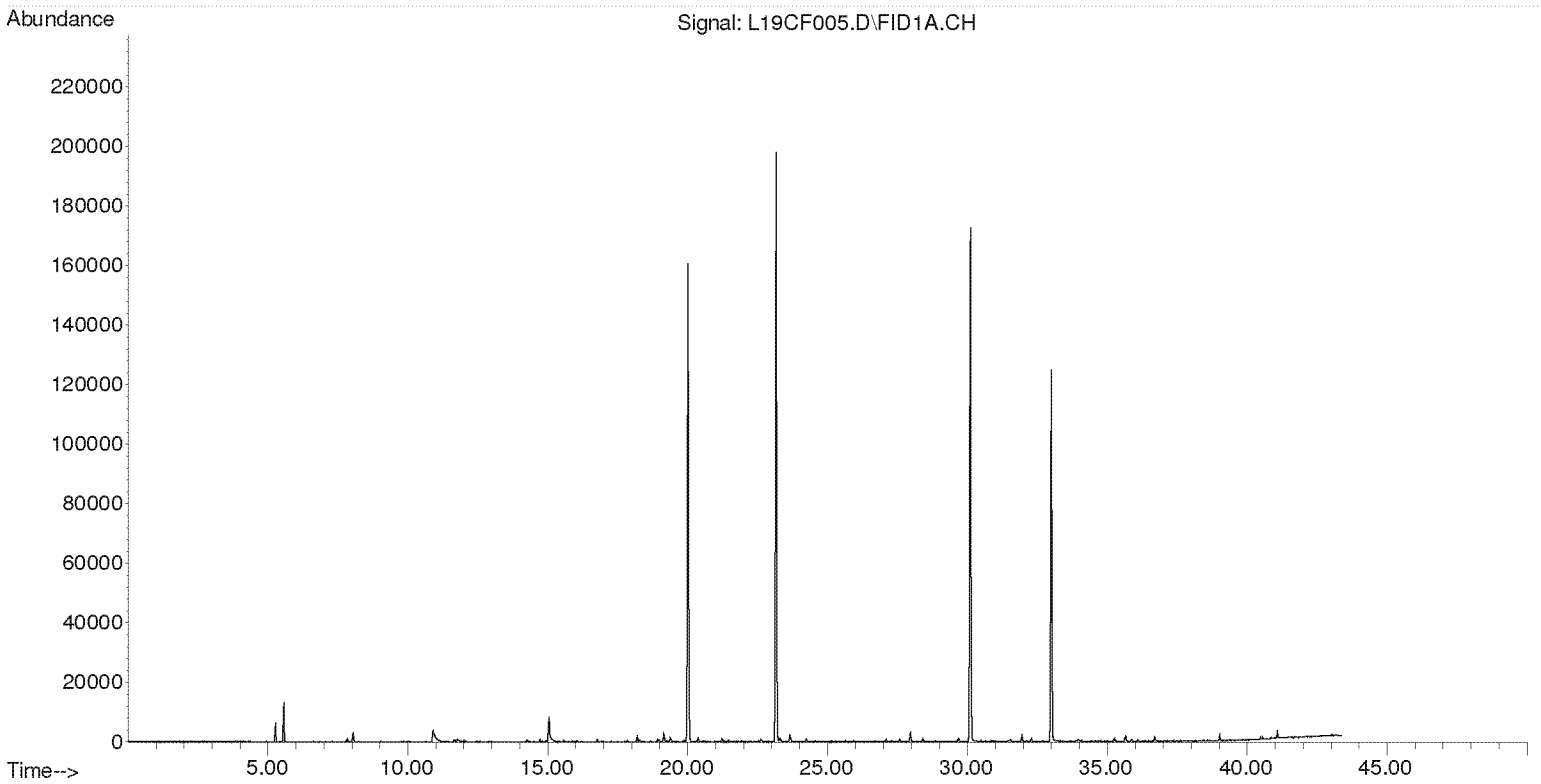
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

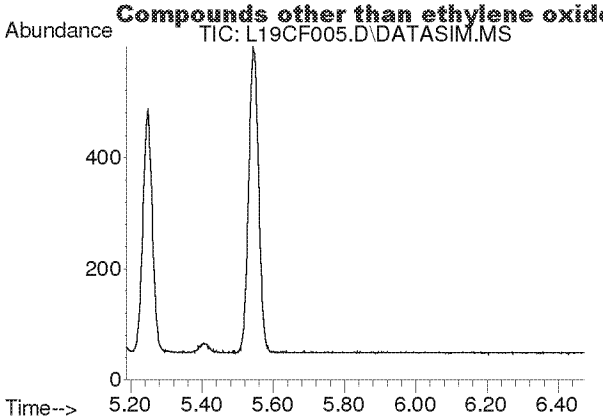
Data Path : Y:\MASS SPEC 1 DATA\L19CF\
Data File : L19CF005.D
Acq On : 6 Mar 2019 5:31 pm (#1); 06 Mar 2019 5:26 pm (#2)
Operator : MAH
Sample : 9030101-10
Misc : TRIP BLANK 2/27/19
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Mar 07 06:23:46 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





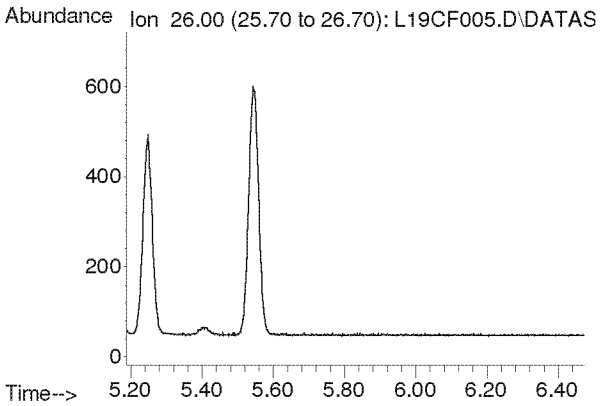
Compounds other than ethylene oxide were not quantitated.

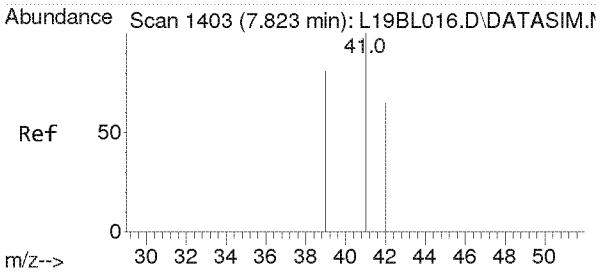


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 26

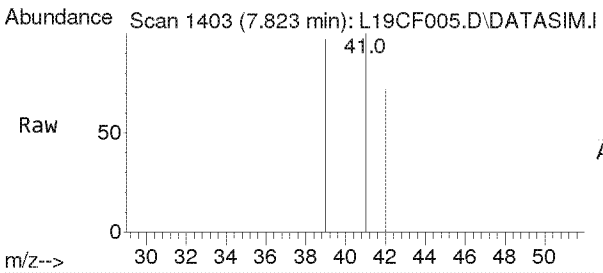


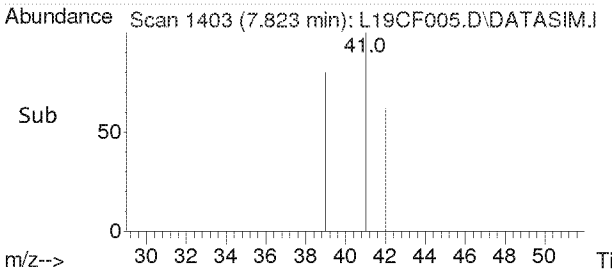


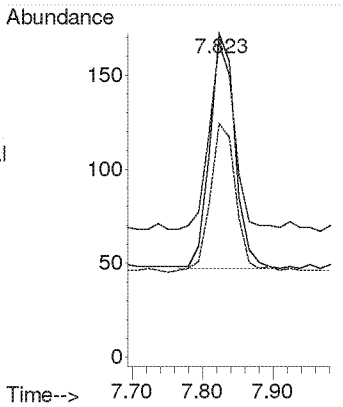
#3
Propylene
Concen: 0.062 ppbv
RT: 7.823 min Scan# 1403
Delta R.T. 0.000 min
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 41 Resp: 310

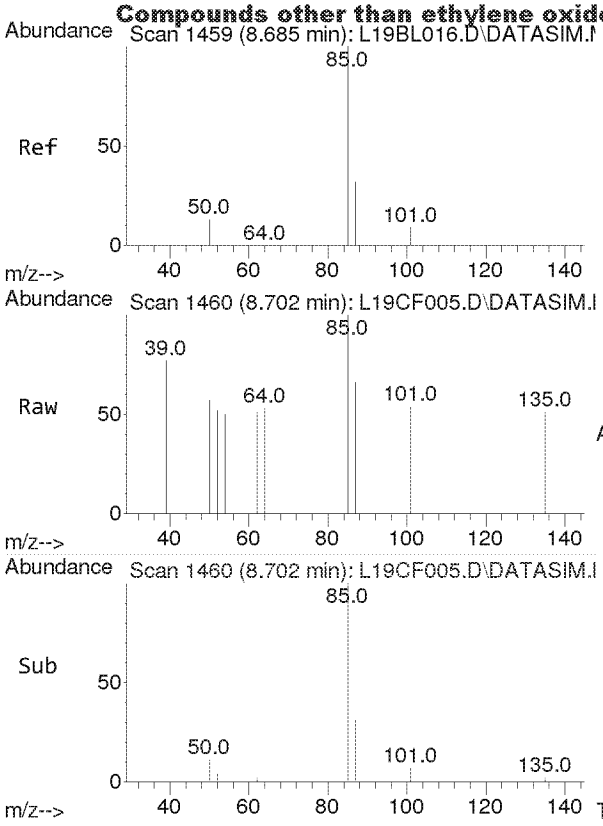
Ion	Ratio	Lower	Upper
41	100		
39	78.1	64.2	96.2
42	65.5	52.6	79.0







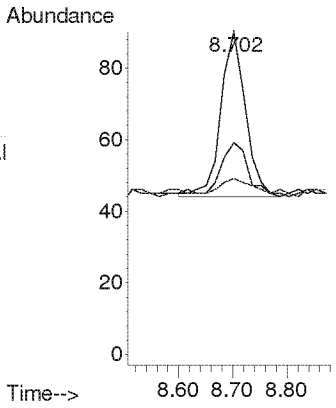
Compounds other than ethylene oxide were not quantitated.

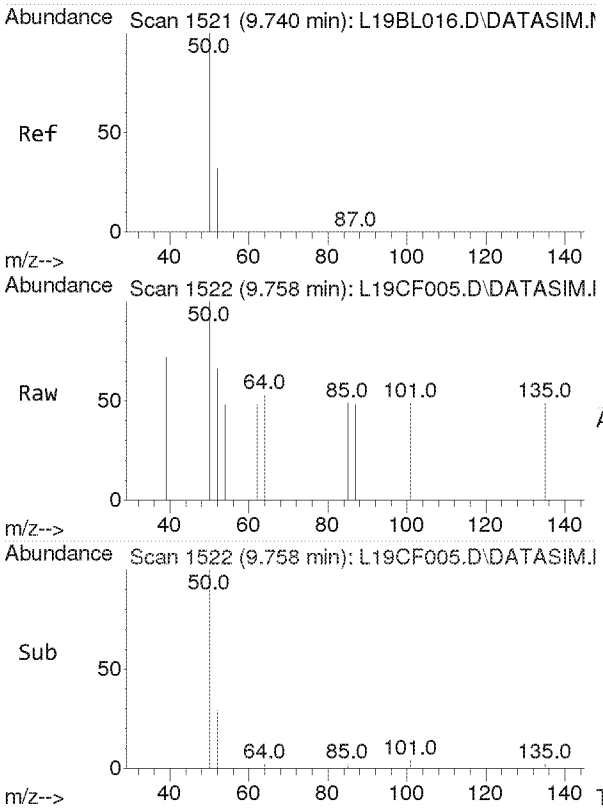


#4
Dichlorodifluoromethane
Concen: 0.006 ppbv
RT: 8.702 min Scan# 1460
Delta R.T. 0.017 min
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 85 Resp: 145

Ion	Ratio	Lower	Upper
85	100		
87	40.0	26.0	39.0#
101	0.0	7.3	10.9#

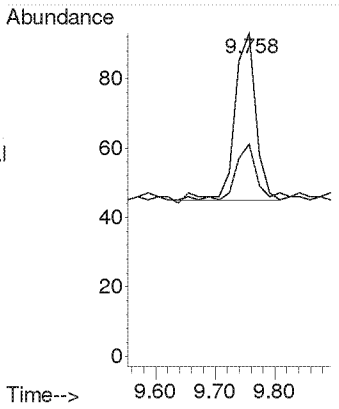




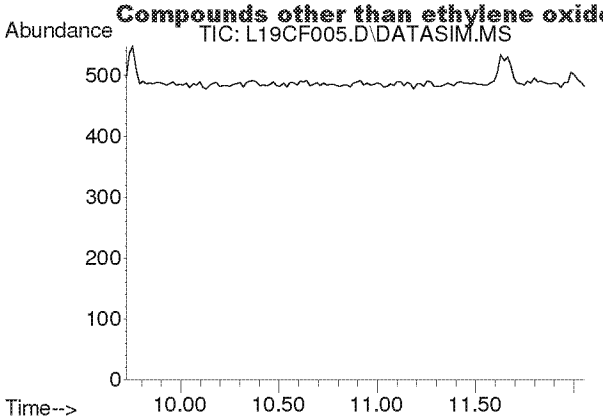
#5
Chloromethane
Concen: 0.019 ppbv
RT: 9.758 min Scan# 1522
Delta R.T. 0.017 min
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 50 Resp: 116

Ion	Ratio	Lower	Upper
50	100		
52	0.0	26.1	39.1#



Compounds other than ethylene oxide were not quantitated.

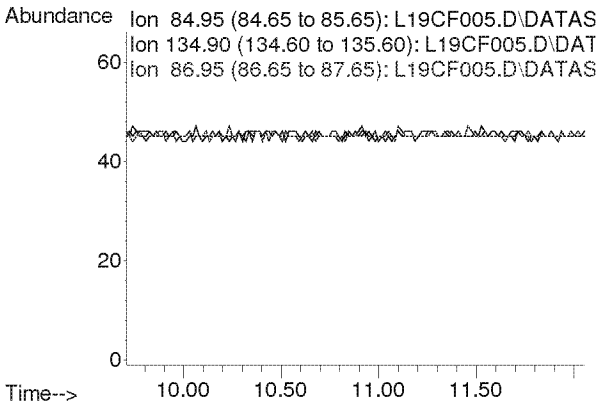


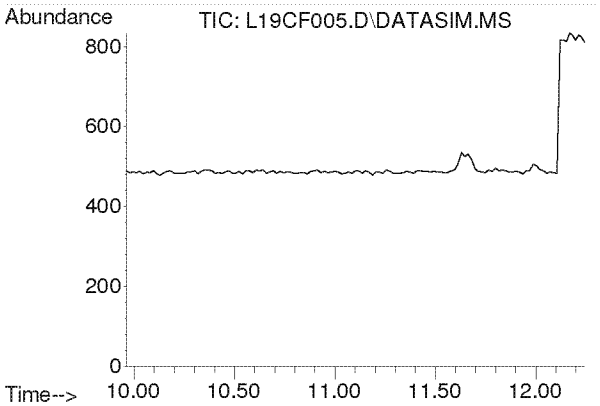
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



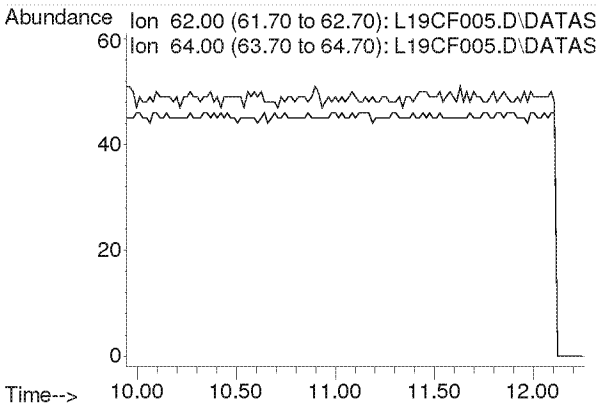


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

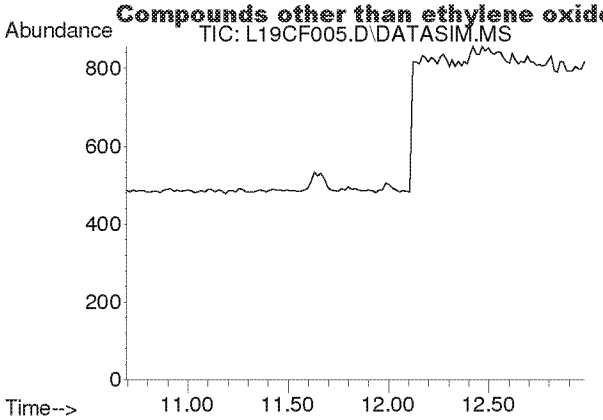
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

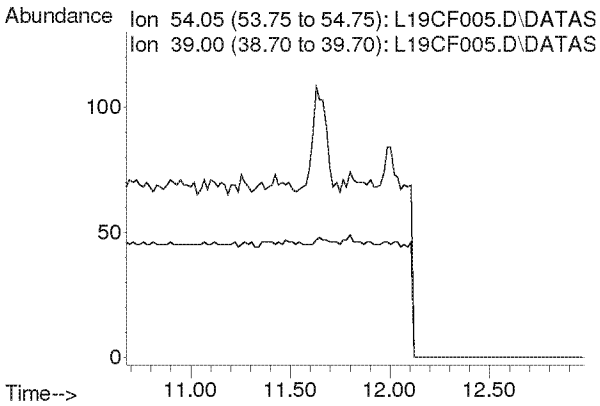


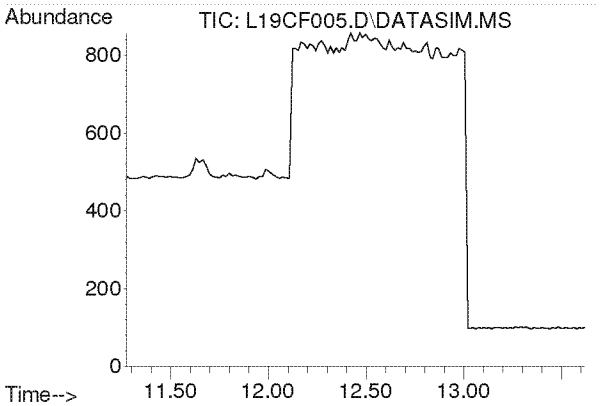
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



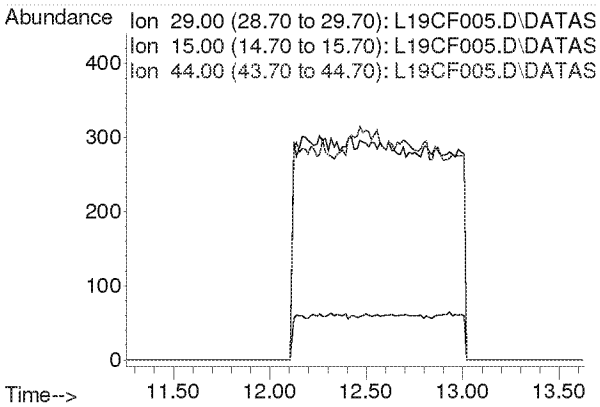


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.38 min

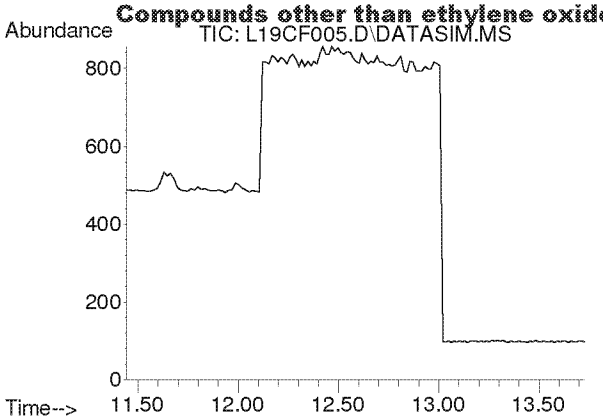
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

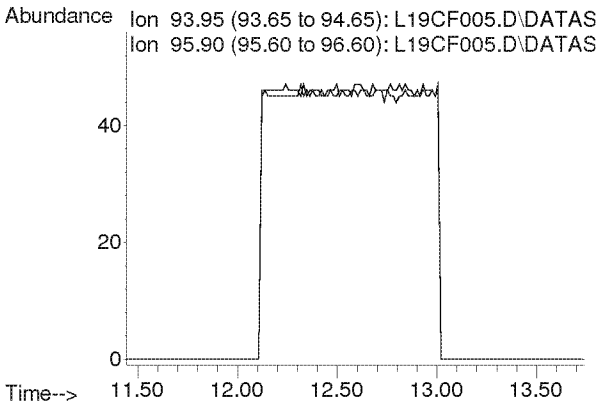


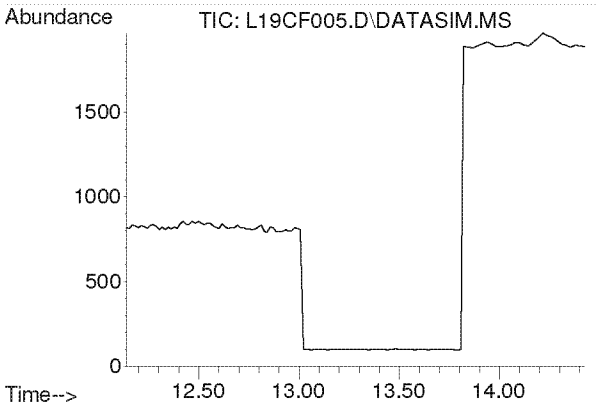
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



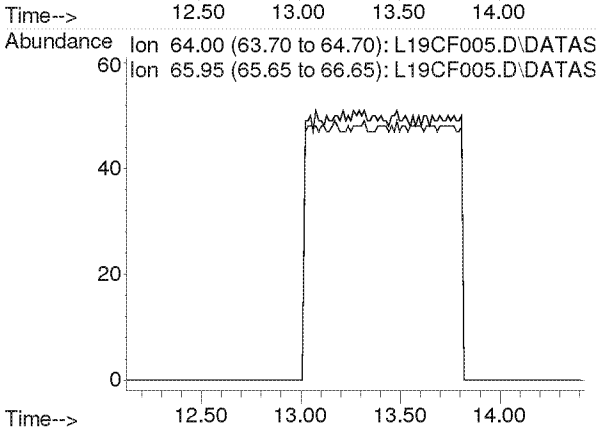


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

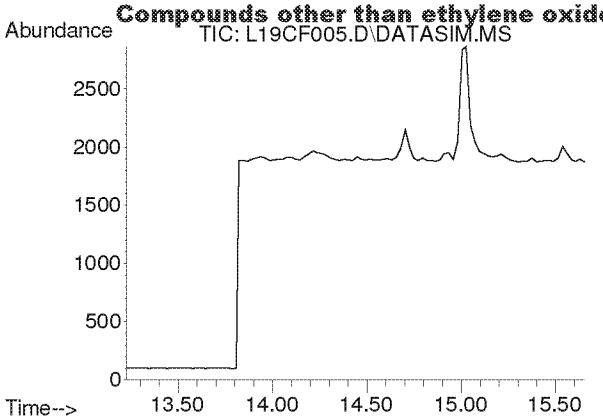
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

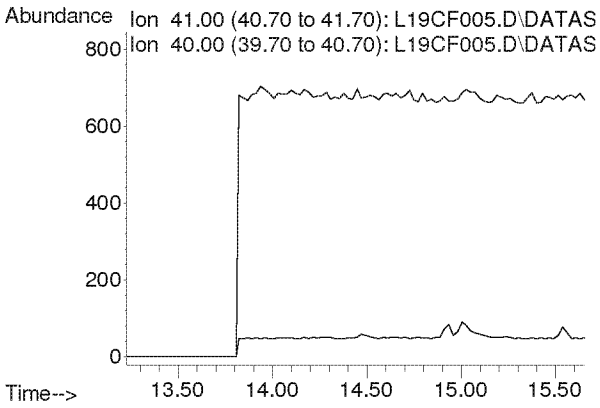


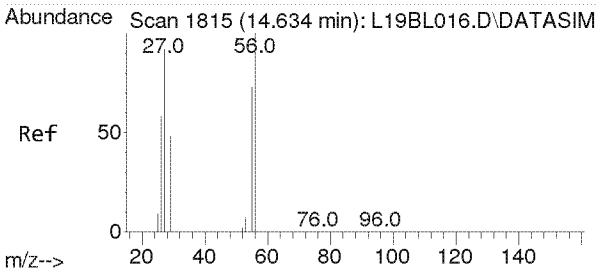
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8

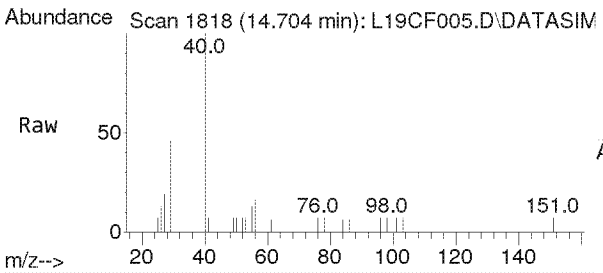


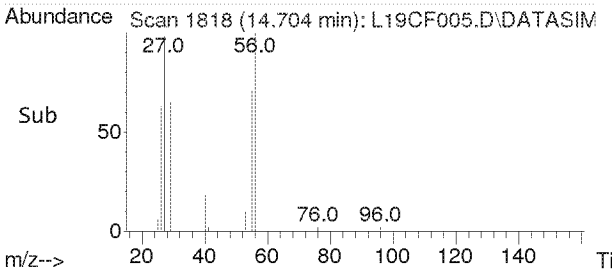


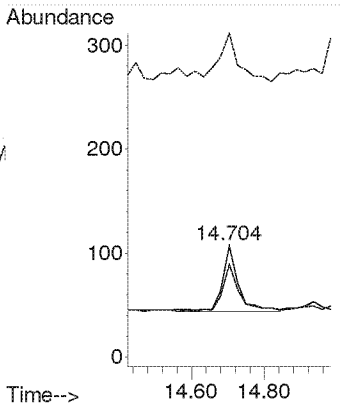
#13
Acrolein
Concen: 0.088 ppbv
RT: 14.704 min Scan# 1818
Delta R.T. 0.070 min
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 56 Resp: 188

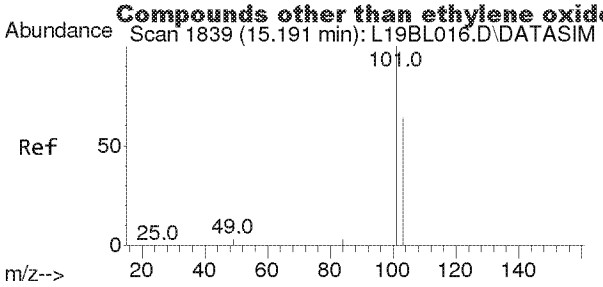
Ion	Ratio	Lower	Upper
56	100		
55	68.1	60.8	91.2
29	87.2	43.8	65.6#







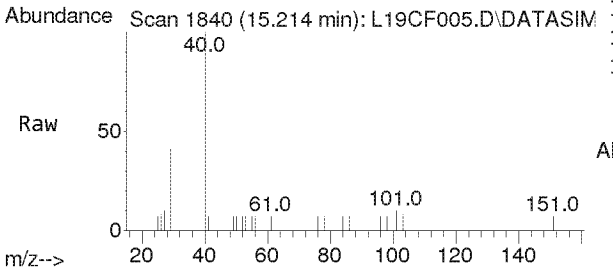
Compounds other than ethylene oxide were not quantitated.

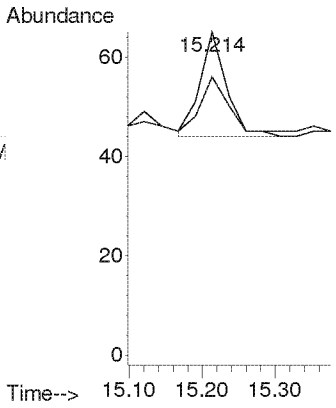


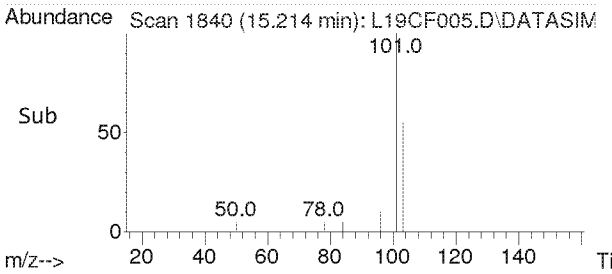
#14
Trichlorofluoromethane
Concen: 0.003 ppbv
RT: 15.214 min Scan# 1840
Delta R.T. 0.023 min
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

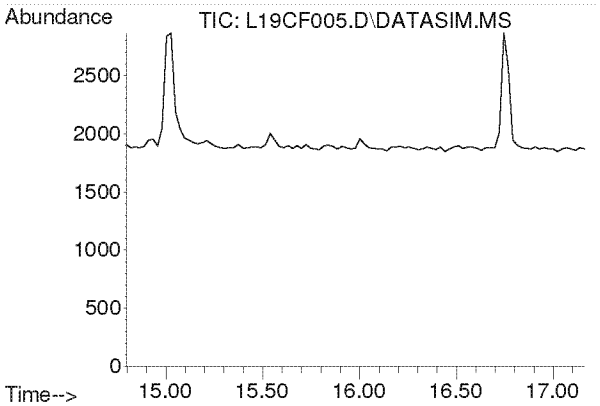
Tgt Ion:101 Resp: 53

Ion	Ratio	Lower	Upper
101	100		
103	0.0	51.7	77.5#







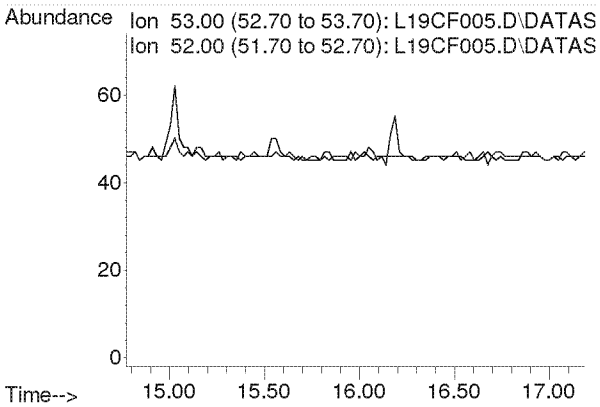


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

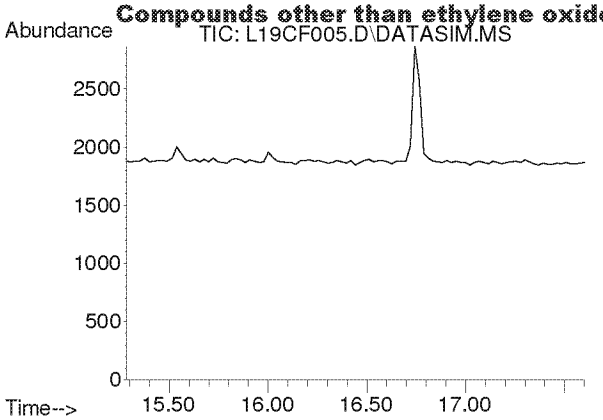
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

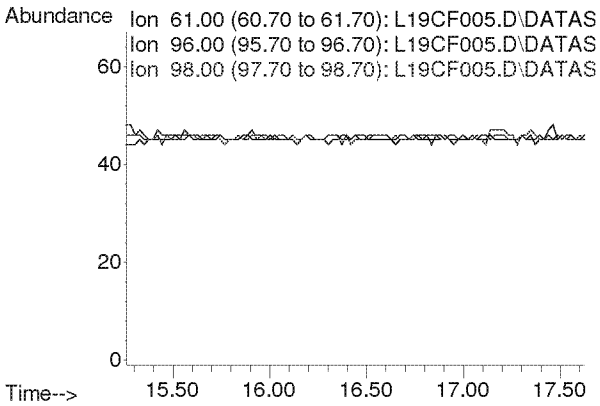


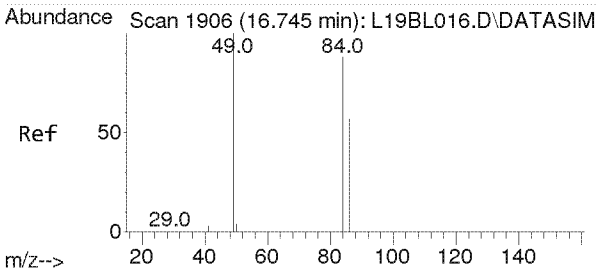
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2

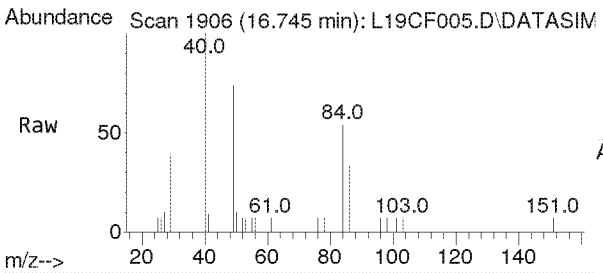


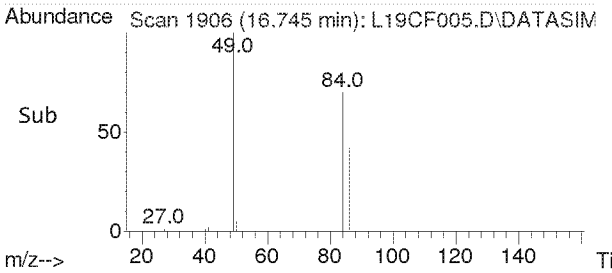


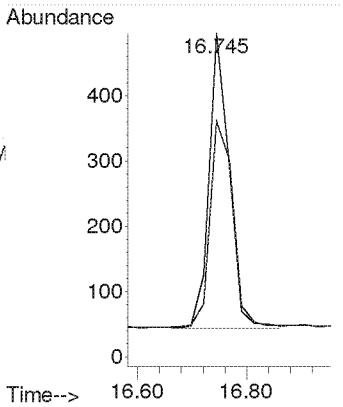
#17
Methylene Chloride
Concen: 0.201 ppbv
RT: 16.745 min Scan# 1906
Delta R.T. 0.000 min
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 49 Resp: 1148

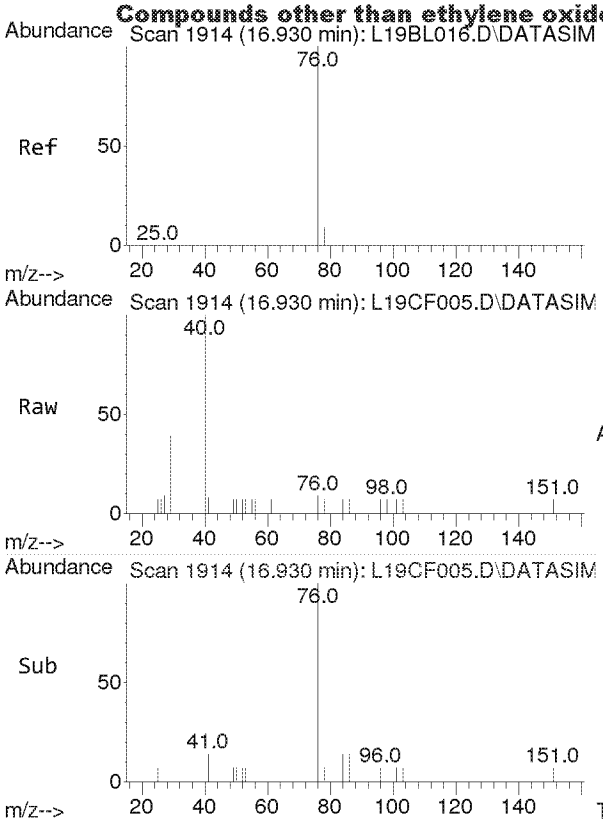
Ion	Ratio	Lower	Upper
49	100		
84	79.6	54.0	100.4







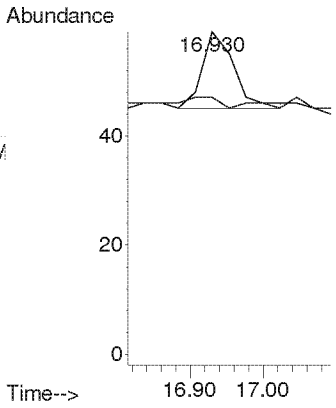
Compounds other than ethylene oxide were not quantitated.

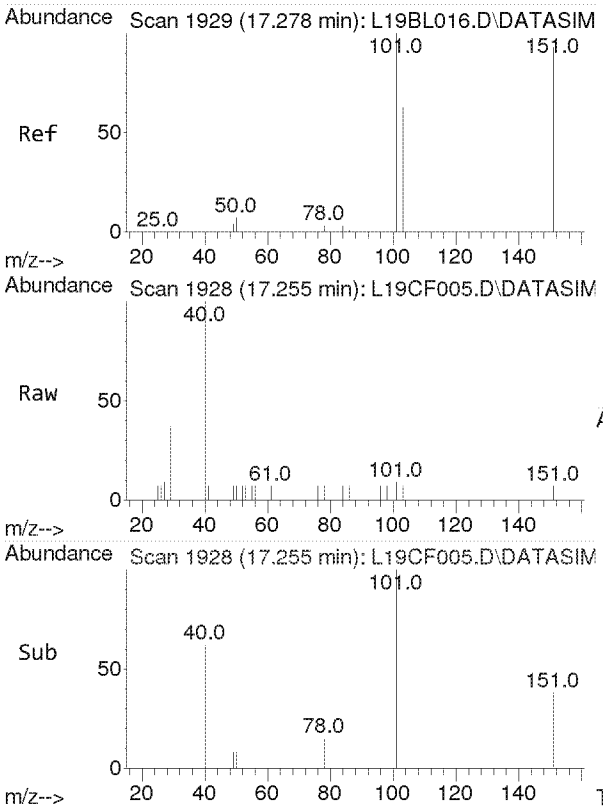


#18
Carbon Disulfide
Concen: 0.002 ppbv
RT: 16.930 min Scan# 1914
Delta R.T. 0.000 min
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 76 Resp: 43

Ion	Ratio	Lower	Upper
76	100		
78	0.0	7.4	11.0#

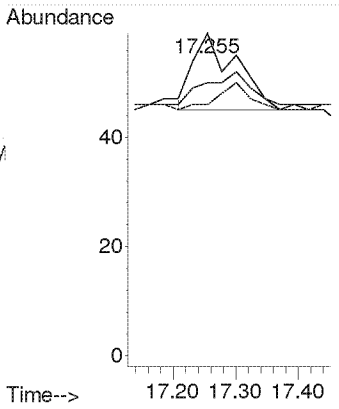




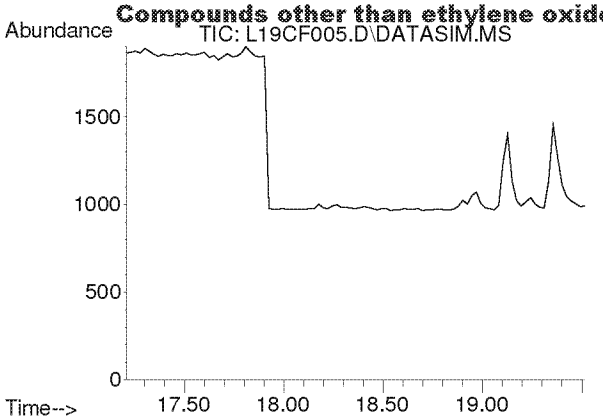
#19
Trichlorotrifluoroethane
Concen: 0.005 ppbv
RT: 17.255 min Scan# 1928
Delta R.T. -0.023 min
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion:101 Resp: 67

Ion	Ratio	Lower	Upper
101	100		
151	59.7	75.8	113.8#
103	0.0	51.1	76.7#



Compounds other than ethylene oxide were not quantitated.

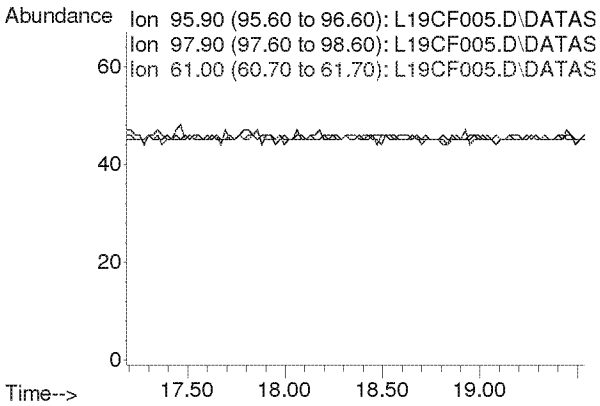


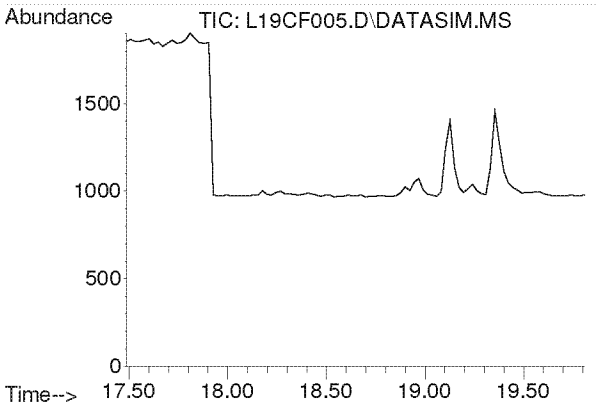
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



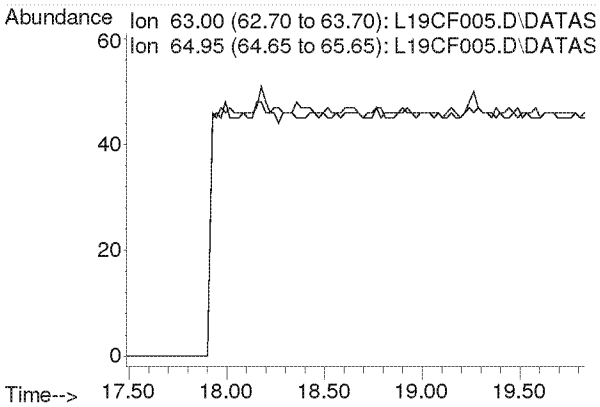


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

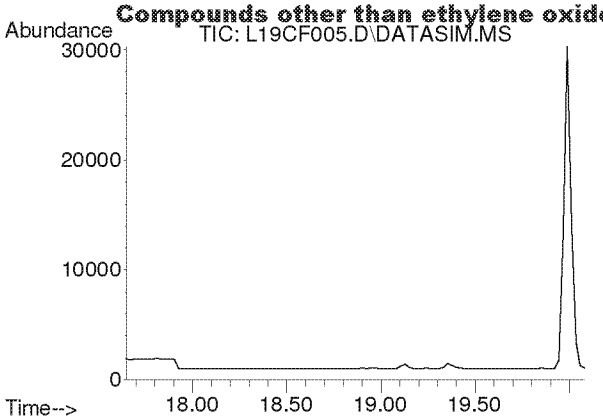
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

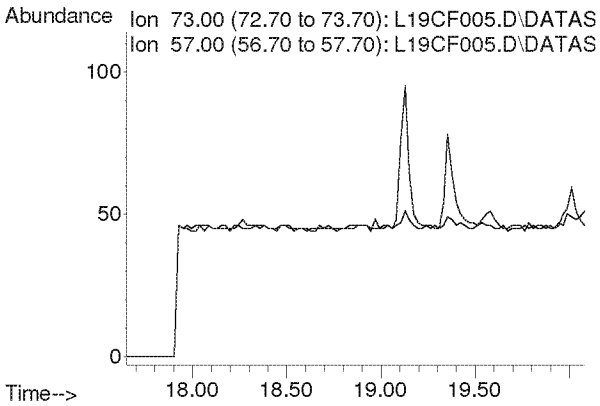


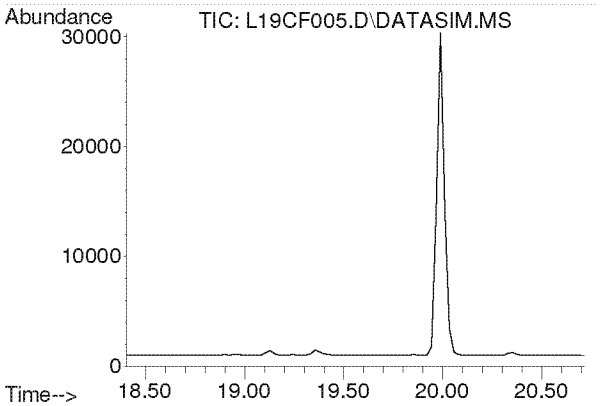
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



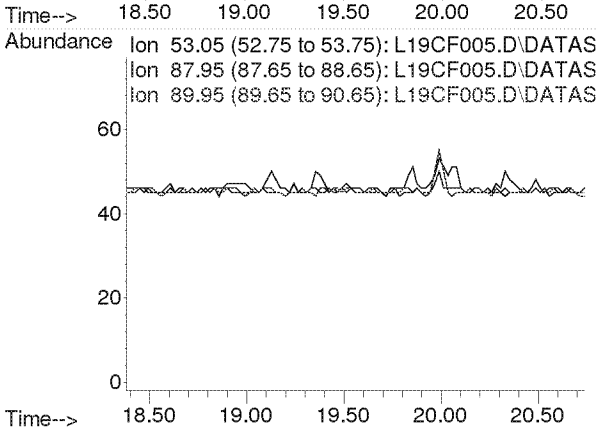


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

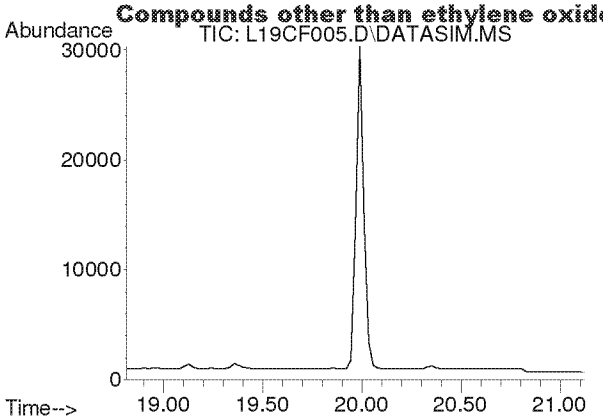
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

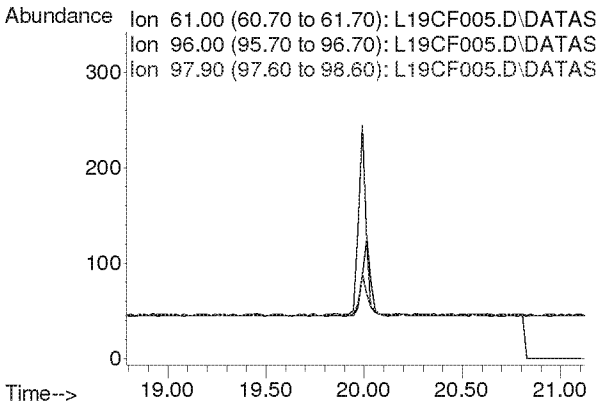


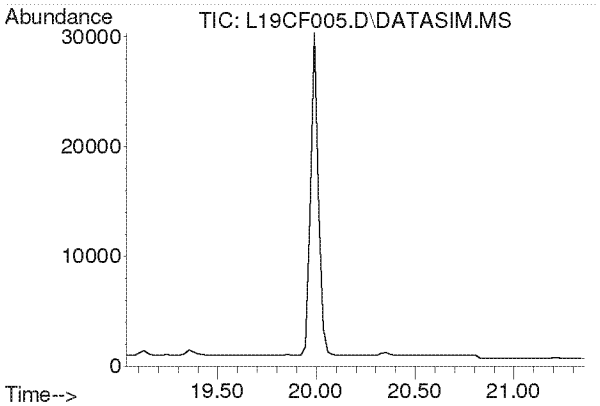
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



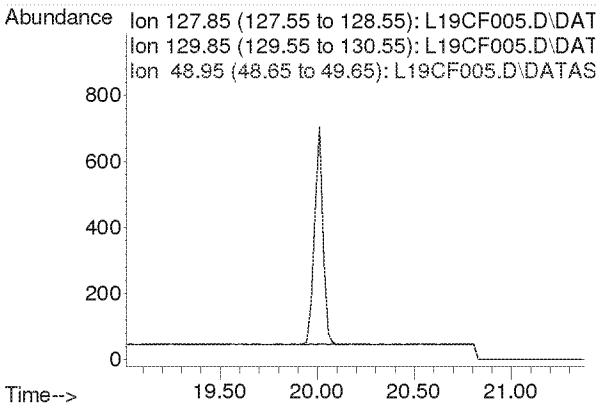


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

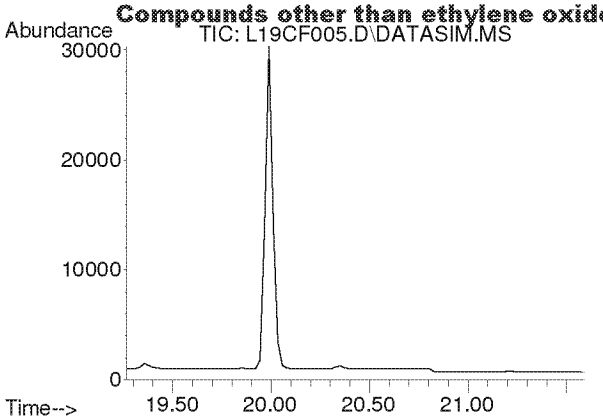
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

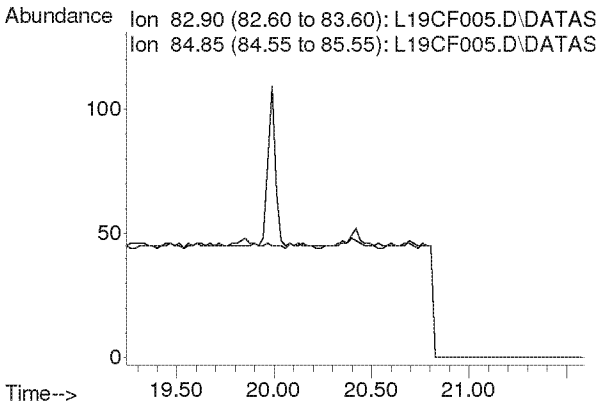


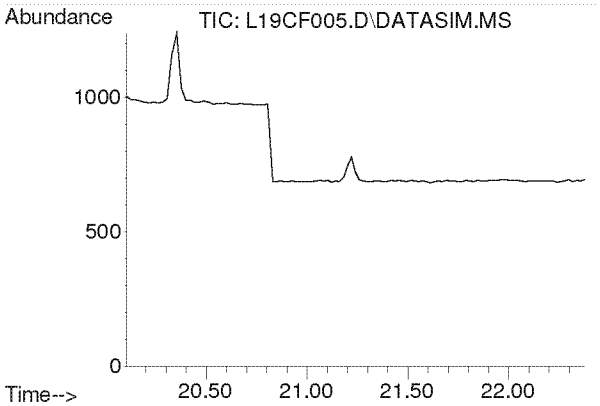
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



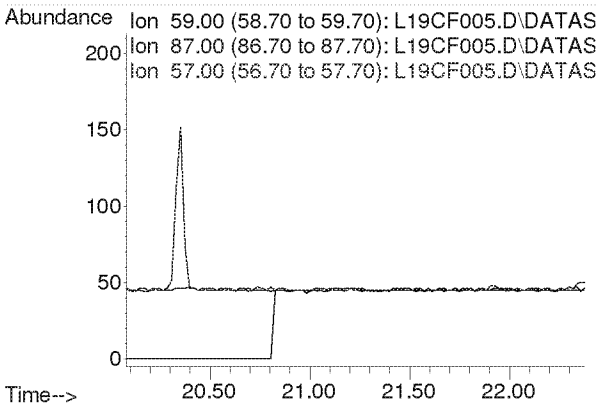


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

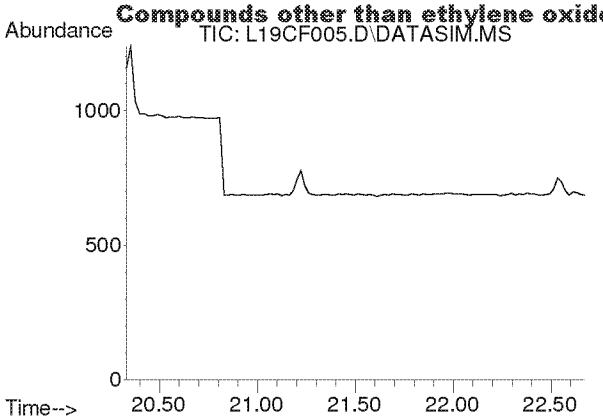
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

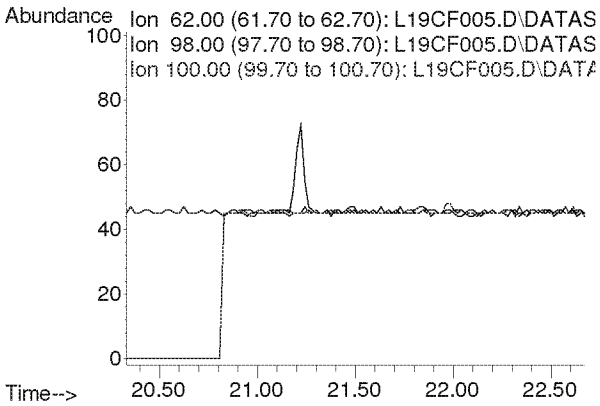


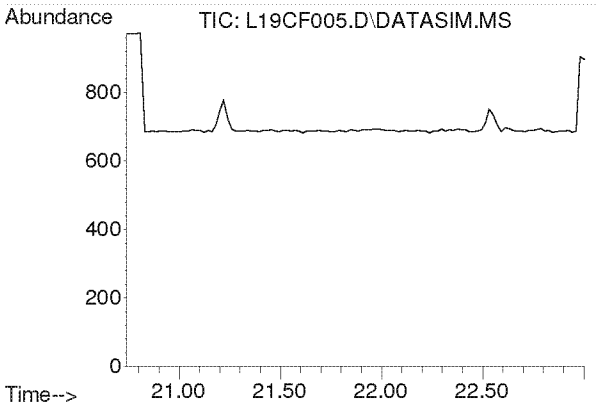
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



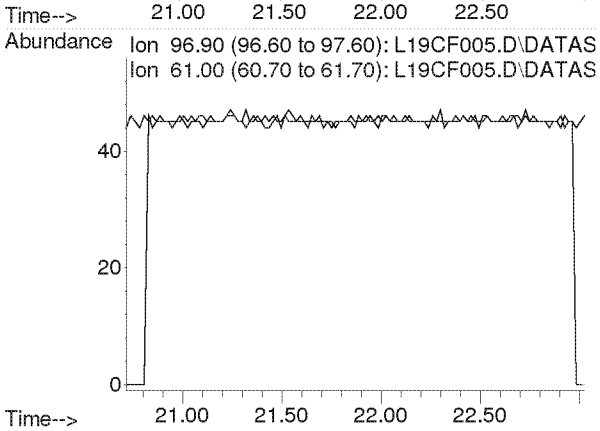


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

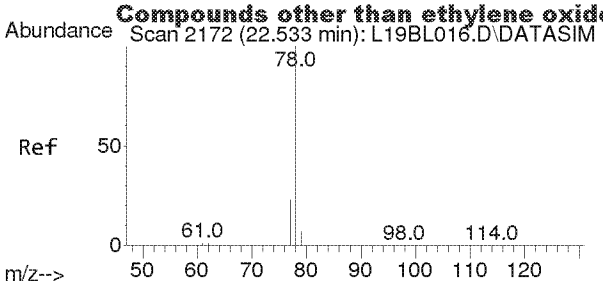
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



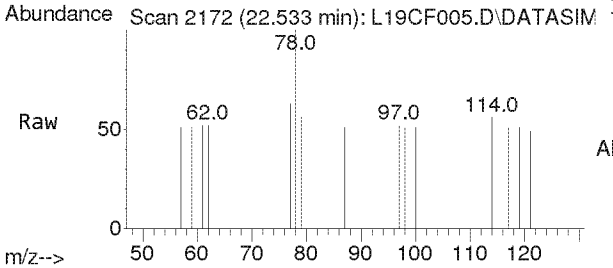
Compounds other than ethylene oxide were not quantitated.

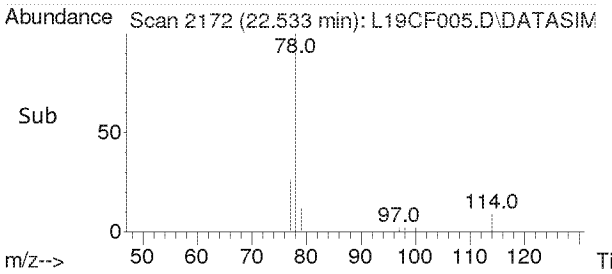


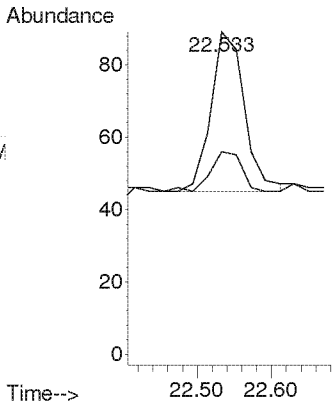
#31
Benzene
Concen: 0.010 ppbv
RT: 22.533 min Scan# 2172
Delta R.T. 0.000 min
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

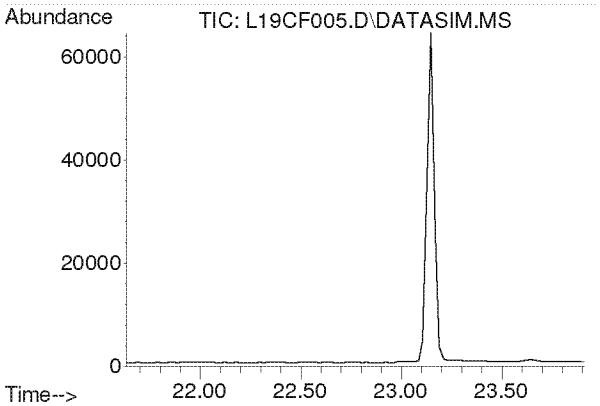
Tgt Ion: 78 Resp: 137

Ion	Ratio	Lower	Upper
78	100		
77	0.0	18.2	27.4#







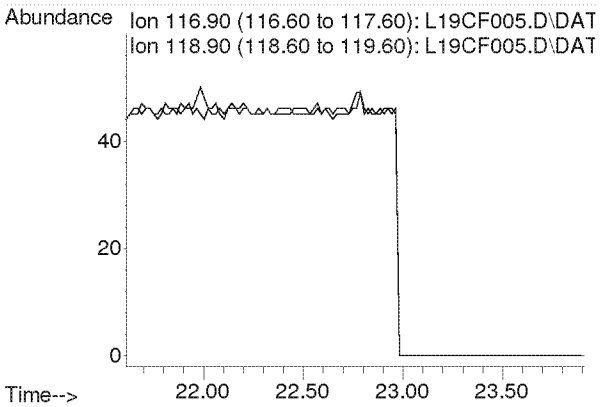


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

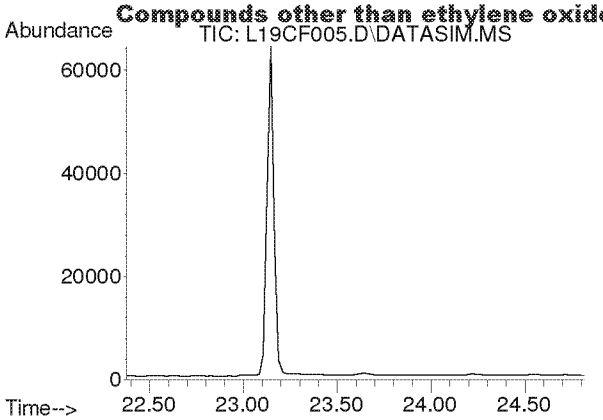
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

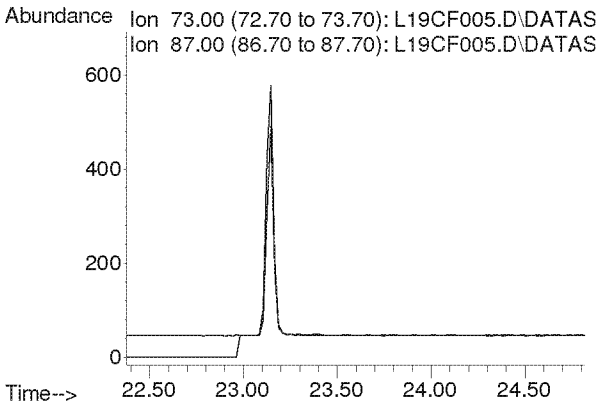


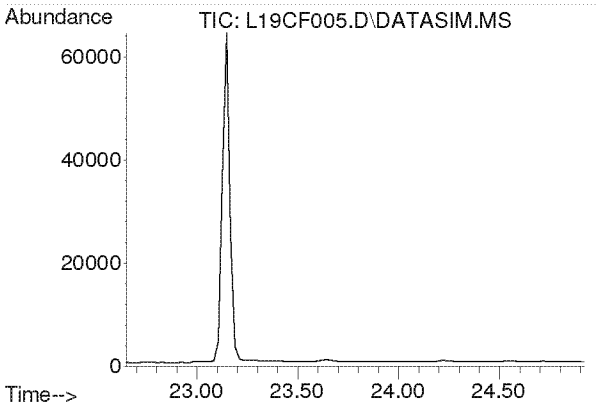
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



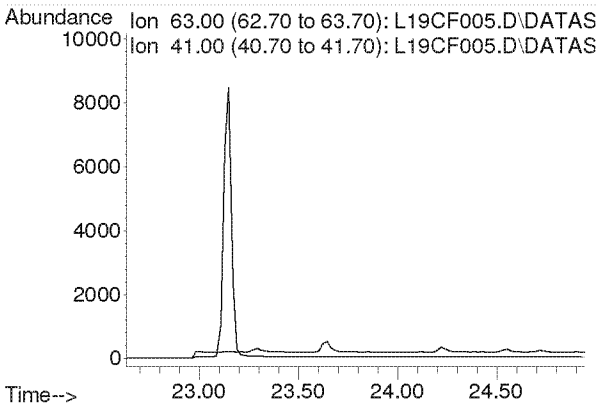


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

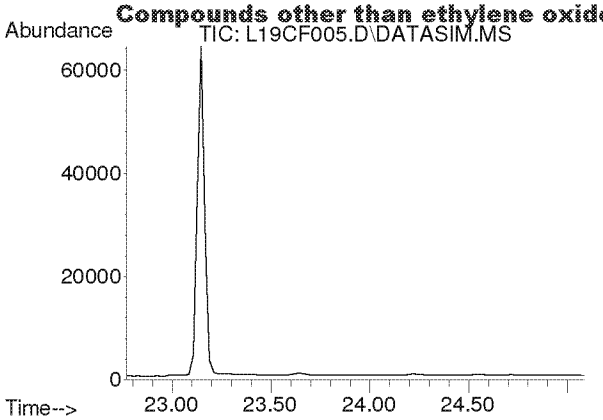
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

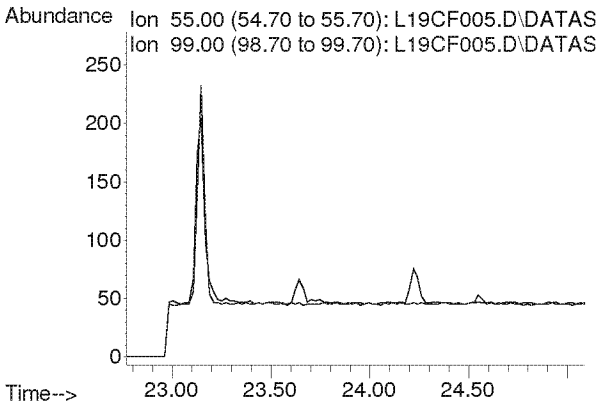


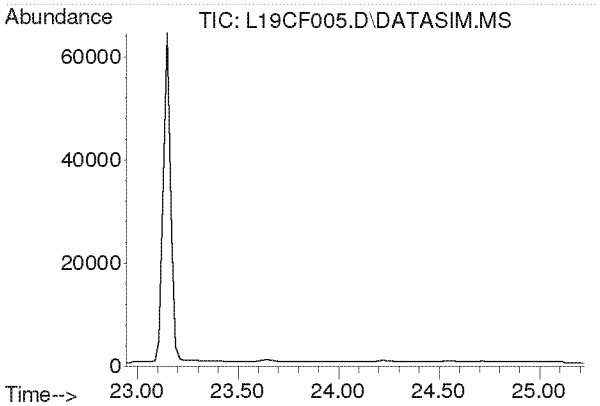
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



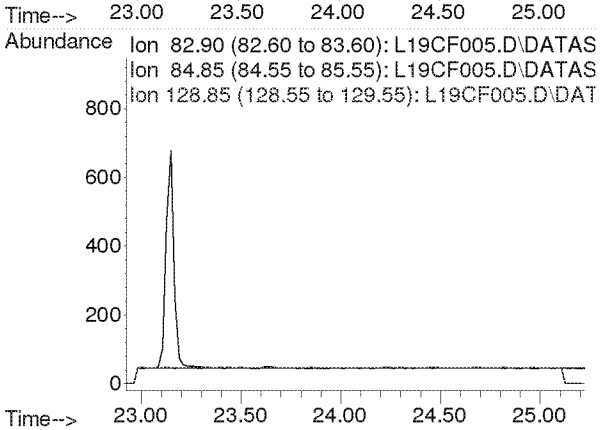


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

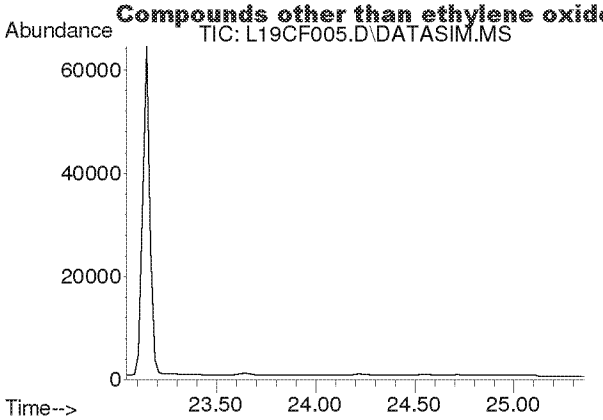
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

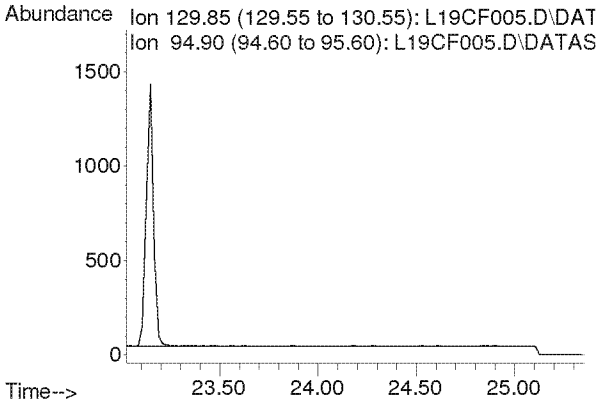


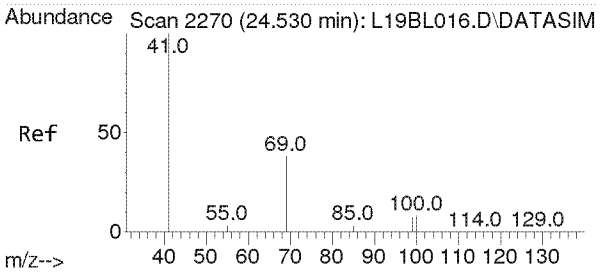
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1

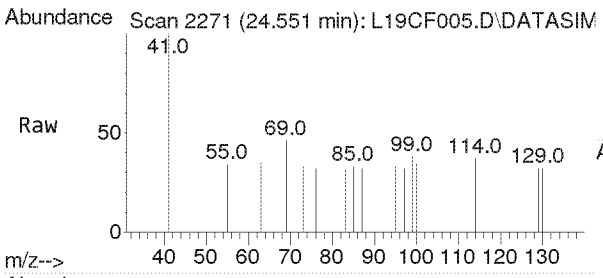


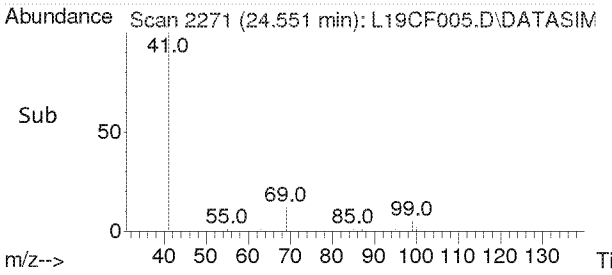


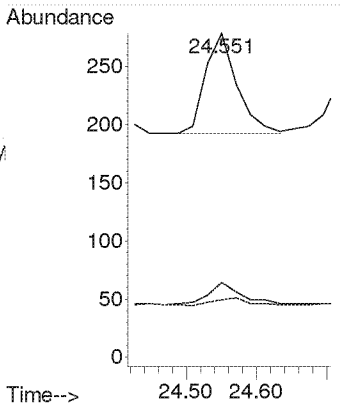
#38
Methyl Methacrylate
Concen: 0.021 ppbv
RT: 24.551 min Scan# 2271
Delta R.T. 0.021 min
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 41 Resp: 270

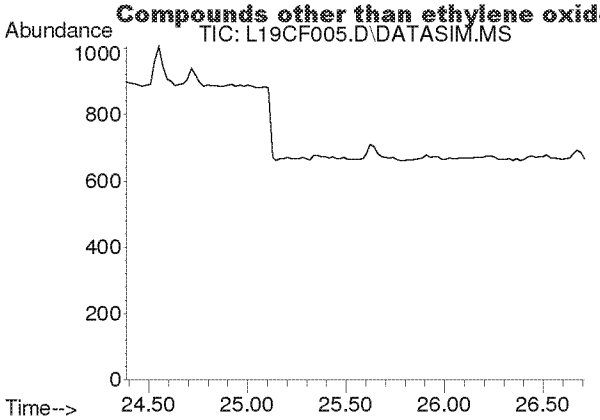
Ion	Ratio	Lower	Upper
41	100		
69	23.0	16.8	25.2
100	0.0	4.5	6.7#







Compounds other than ethylene oxide were not quantitated.

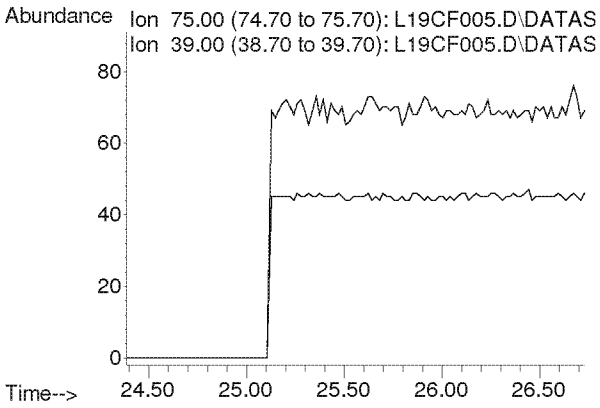


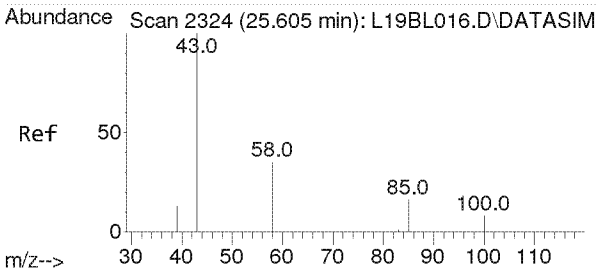
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2

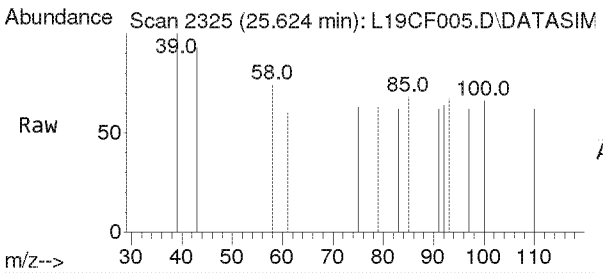


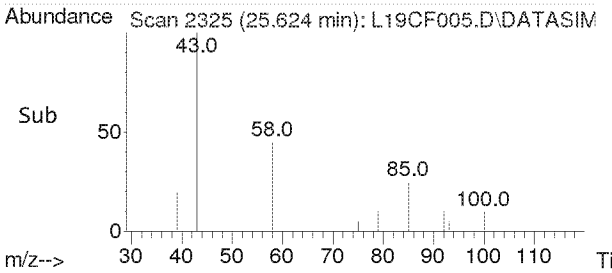


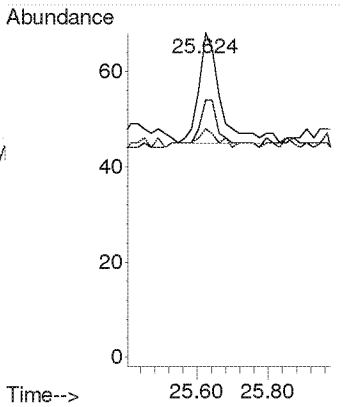
#40
Methyl Isobutyl Ketone
Concen: 0.010 ppbv
RT: 25.624 min Scan# 2325
Delta R.T. 0.019 min
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 43 Resp: 98

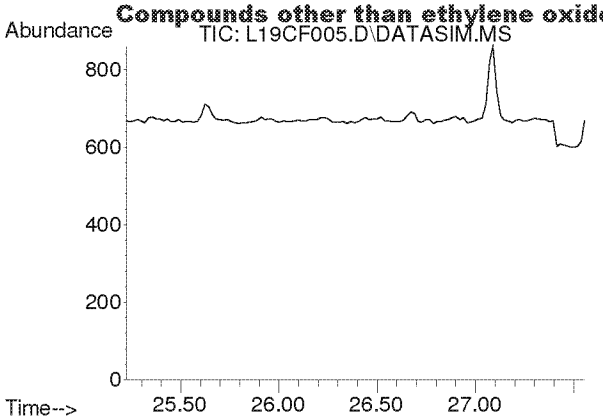
Ion	Ratio	Lower	Upper
43	100		
58	42.9	28.0	42.0#
100	0.0	7.0	10.4#







Compounds other than ethylene oxide were not quantitated.

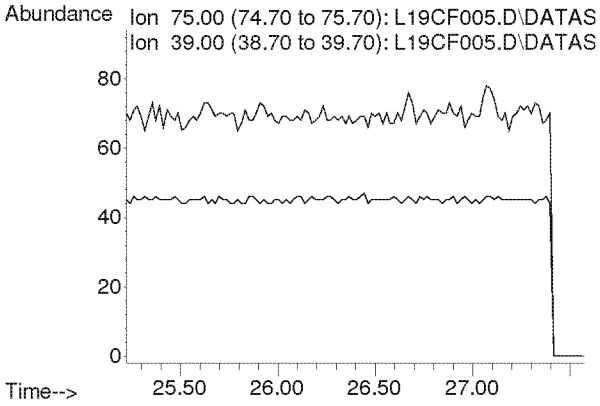


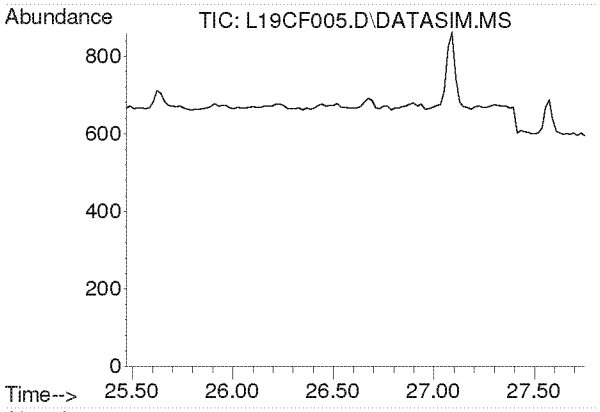
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



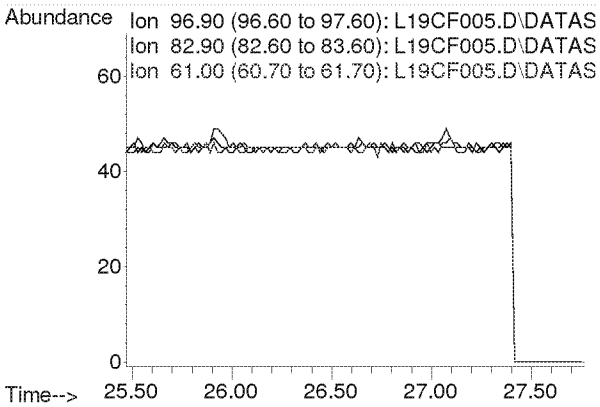


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

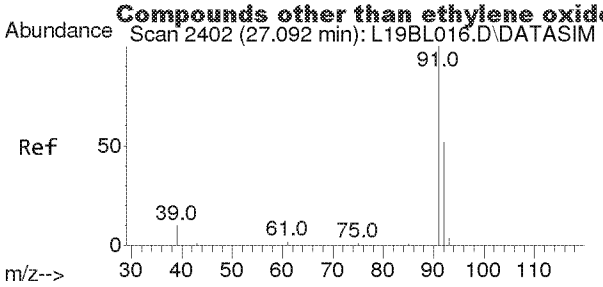
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



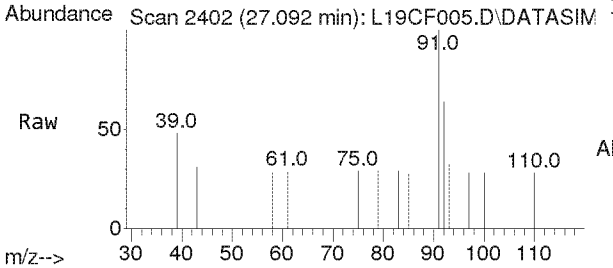
Compounds other than ethylene oxide were not quantitated.

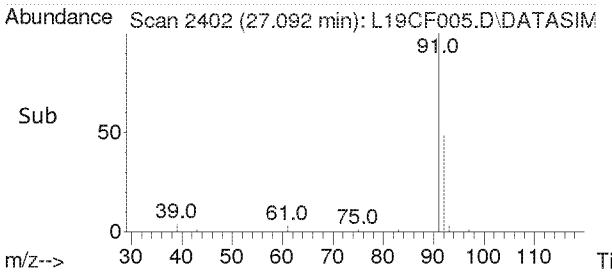


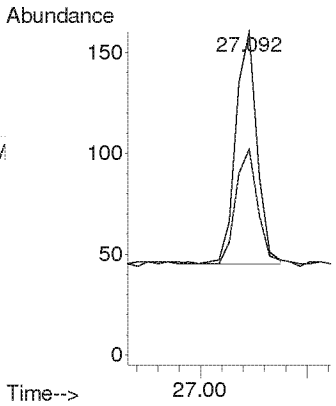
#44
Toluene
Concen: 0.022 ppbv
RT: 27.092 min Scan# 2402
Delta R.T. 0.000 min
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

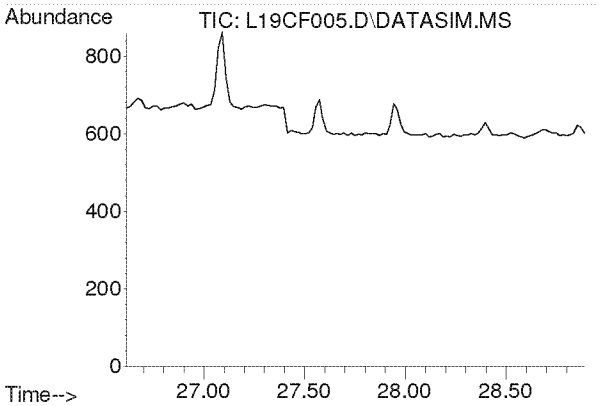
Tgt Ion: 91 Resp: 322

Ion	Ratio	Lower	Upper
91	100		
92	50.9	42.0	63.0







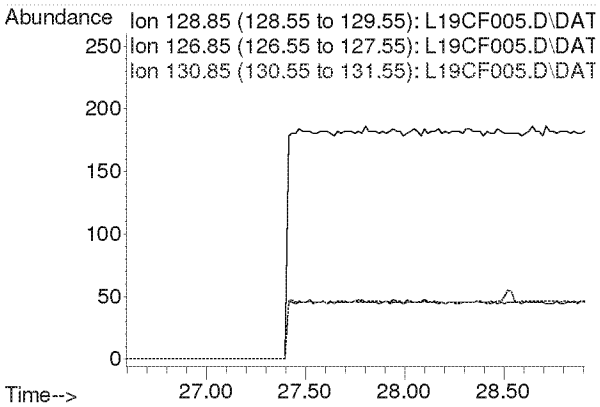


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

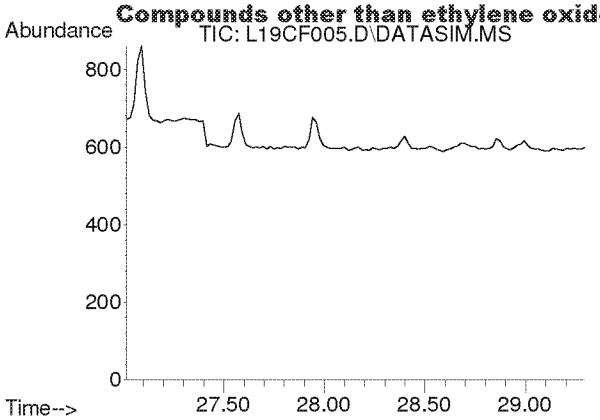
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

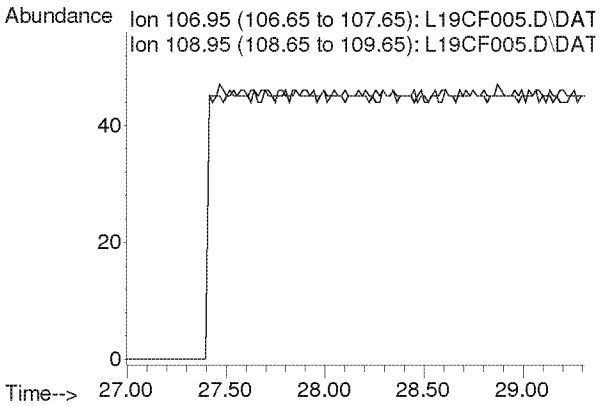


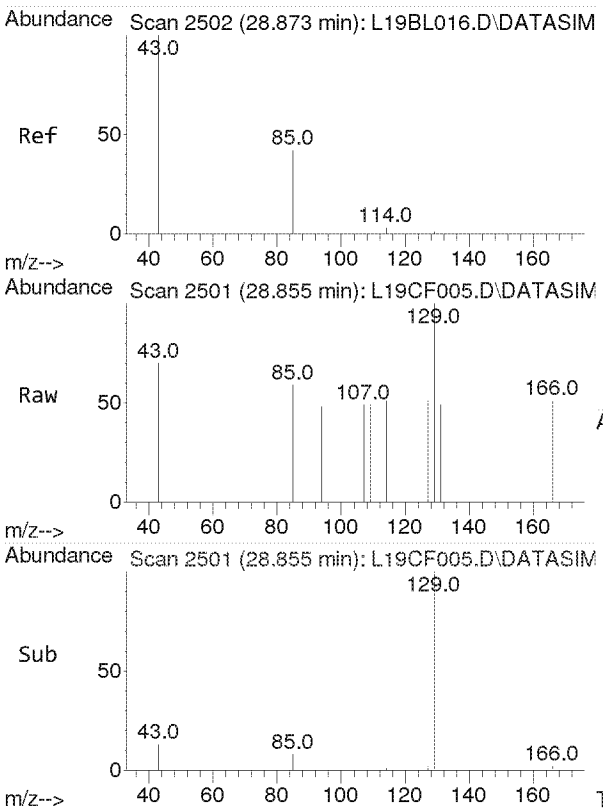
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2

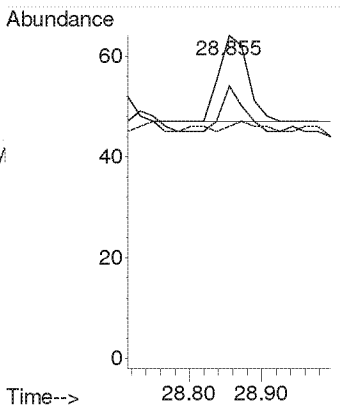




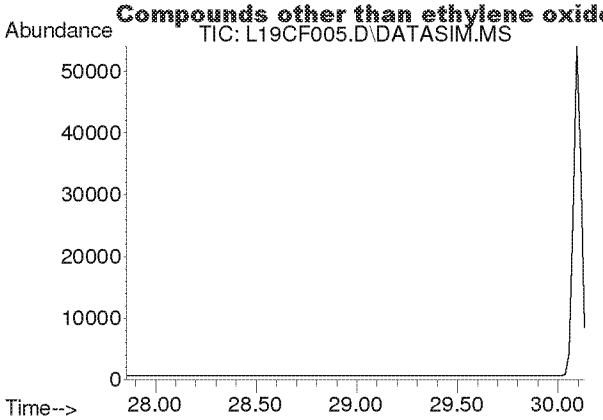
#47
n-Octane
Concen: 0.005 ppbv
RT: 28.855 min Scan# 2501
Delta R.T. -0.017 min
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 43 Resp: 47

Ion	Ratio	Lower	Upper
43	100		
85	0.0	33.0	49.6#
114	0.0	2.2	3.4#



Compounds other than ethylene oxide were not quantitated.

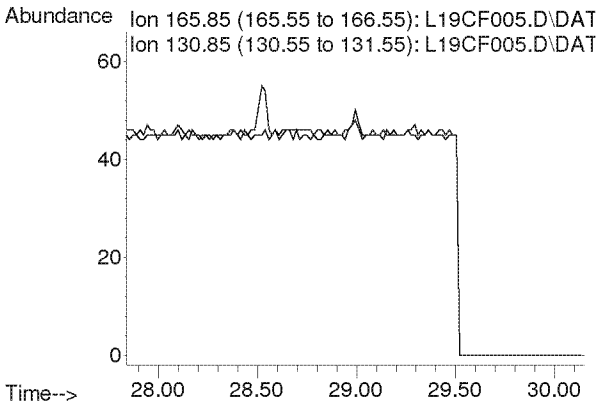


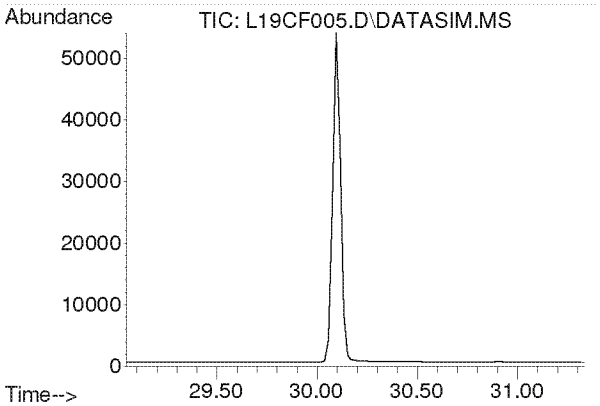
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



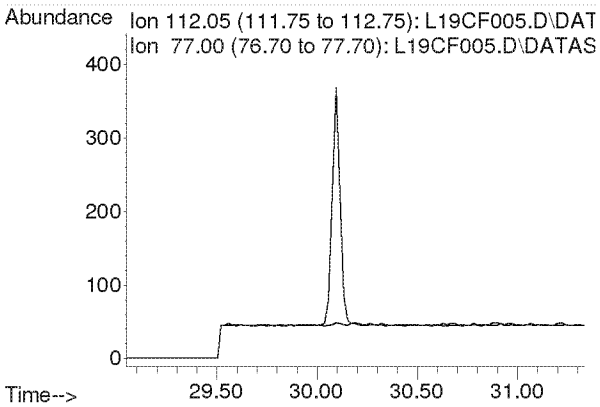


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

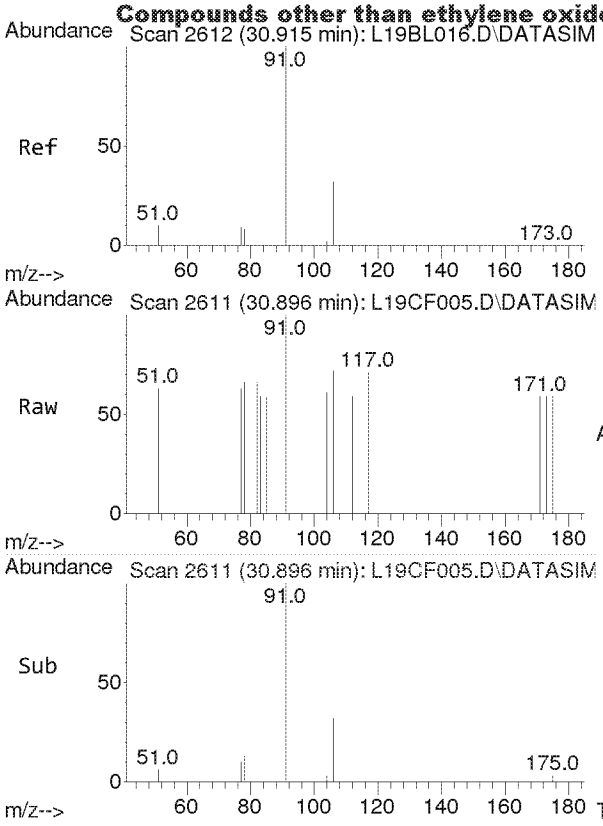
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



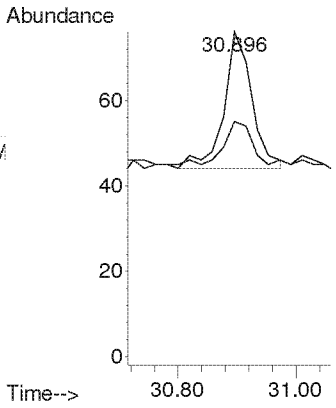
Compounds other than ethylene oxide were not quantitated.

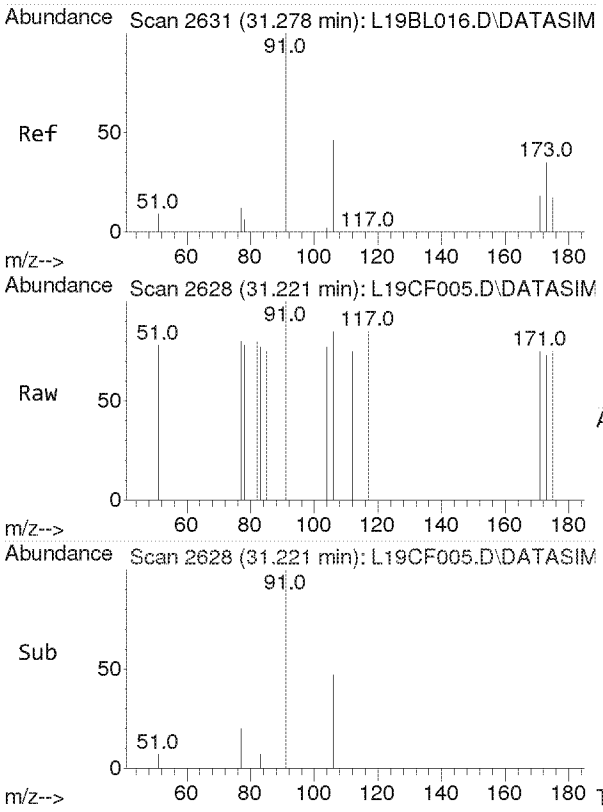


#50
Ethylbenzene
Concen: 0.007 ppbv
RT: 30.896 min Scan# 2611
Delta R.T. -0.019 min
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 91 Resp: 105

Ion	Ratio	Lower	Upper
91	100		
106	0.0	26.0	39.0#

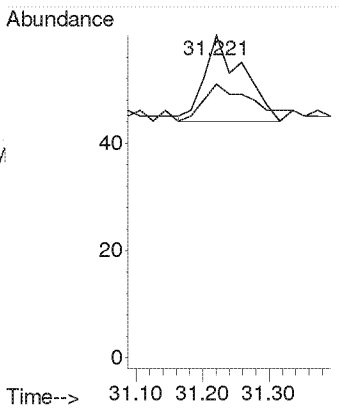




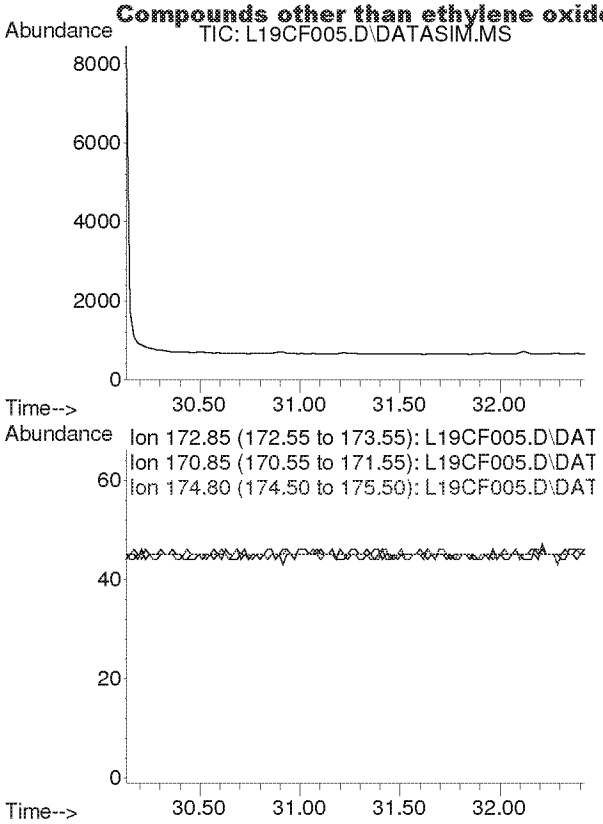
#51
m,p-Xylene
Concen: 0.005 ppbv
RT: 31.221 min Scan# 2628
Delta R.T. -0.057 min
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 91 Resp: 64

Ion	Ratio	Lower	Upper
91	100		
106	0.0	37.3	55.9#



Compounds other than ethylene oxide were not quantitated.

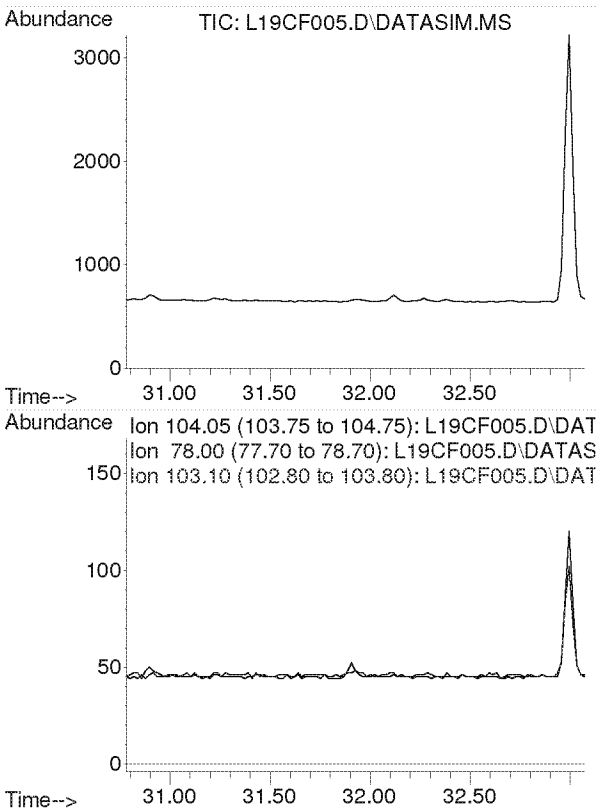


#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



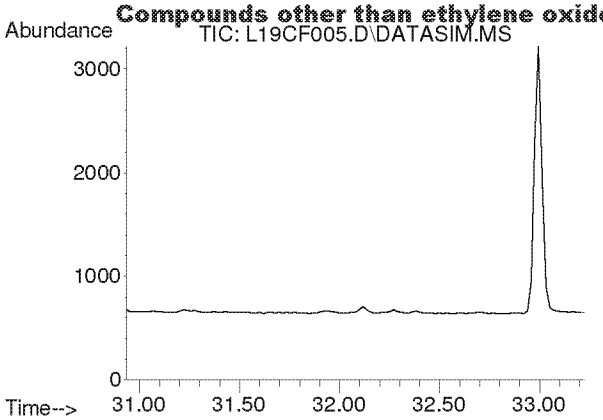
#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0

Compounds other than ethylene oxide were not quantitated.

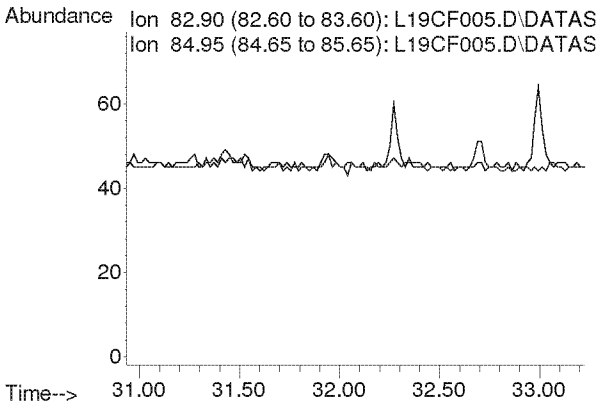


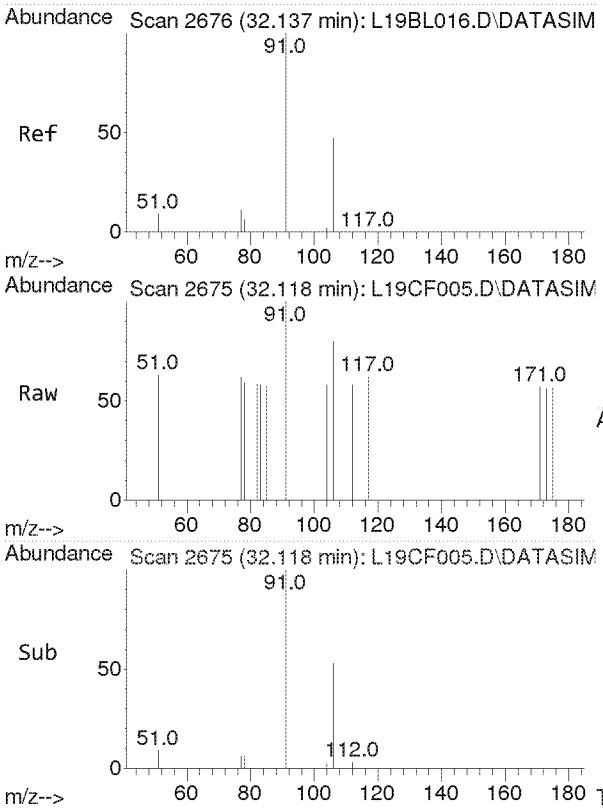
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5

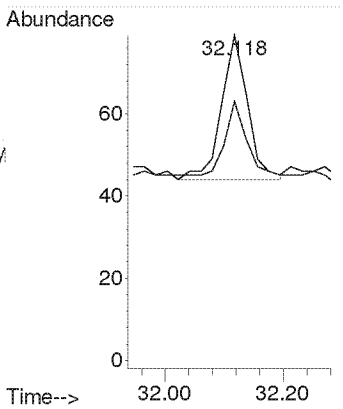




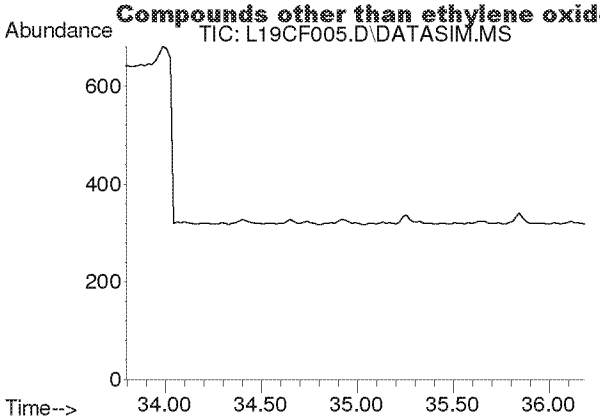
#55
o-Xylene
Concen: 0.008 ppbv
RT: 32.118 min Scan# 2675
Delta R.T. -0.019 min
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 91 Resp: 108

Ion	Ratio	Lower	Upper
91	100		
106	40.7	36.6	55.0



Compounds other than ethylene oxide were not quantitated.

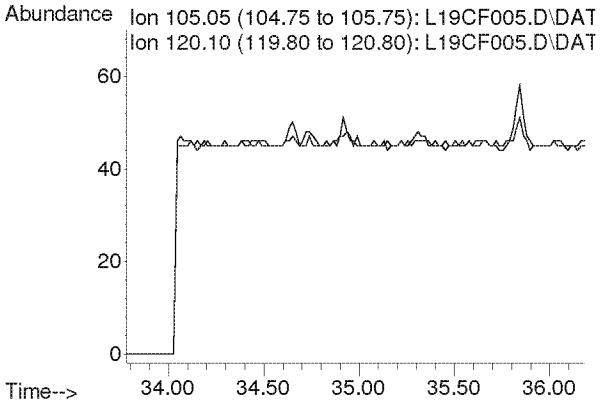


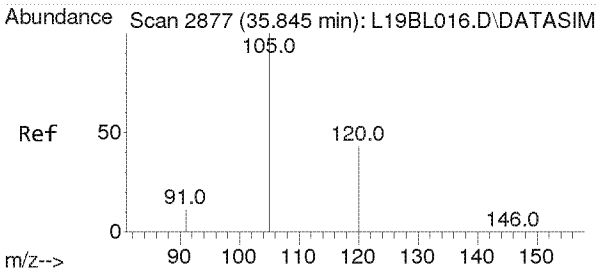
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0

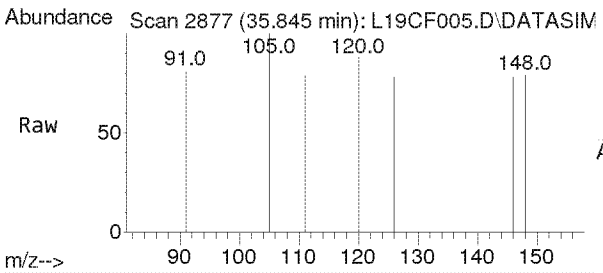


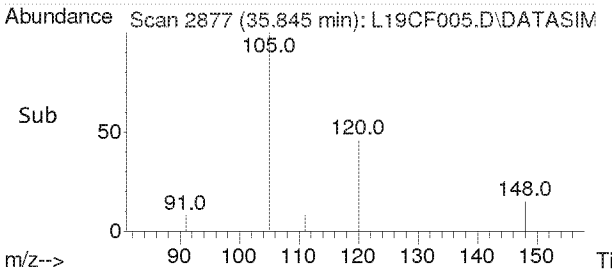


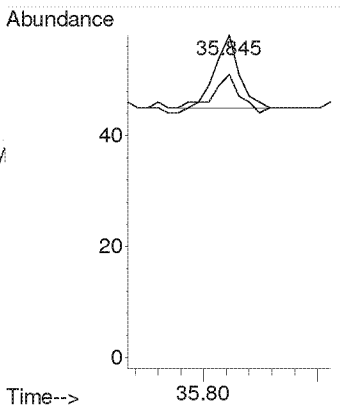
#57
1,2,4-Trimethylbenzene
Concen: 0.003 ppbv
RT: 35.845 min Scan# 2877
Delta R.T. 0.000 min
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion:105 Resp: 40

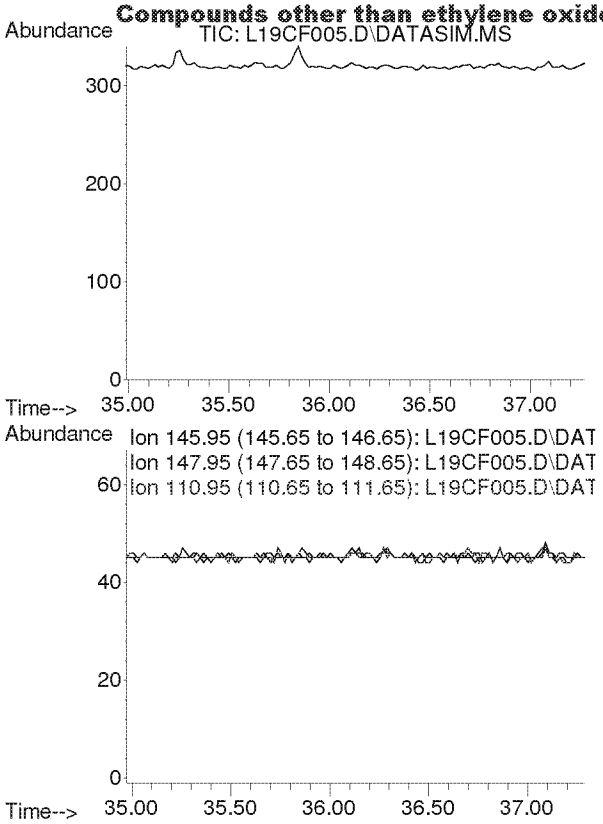
Ion	Ratio	Lower	Upper
105	100		
120	0.0	35.2	52.8#







Compounds other than ethylene oxide were not quantitated.

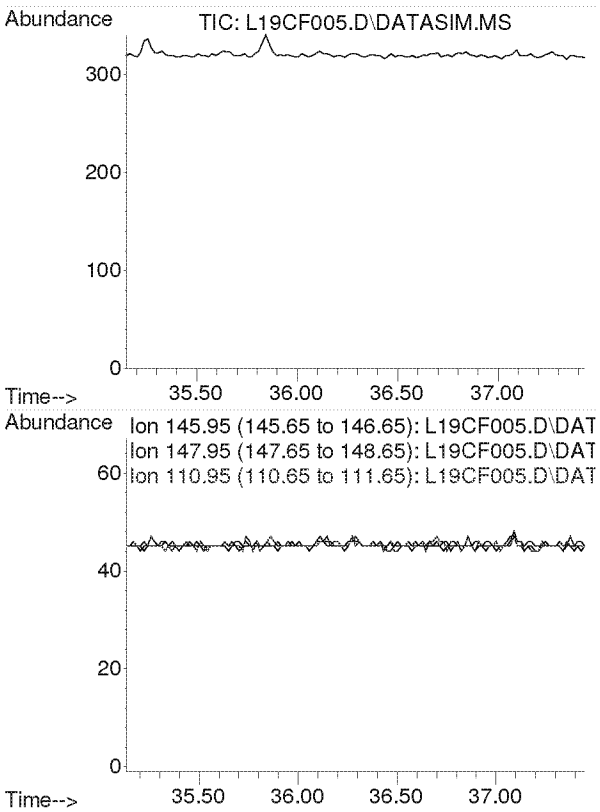


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



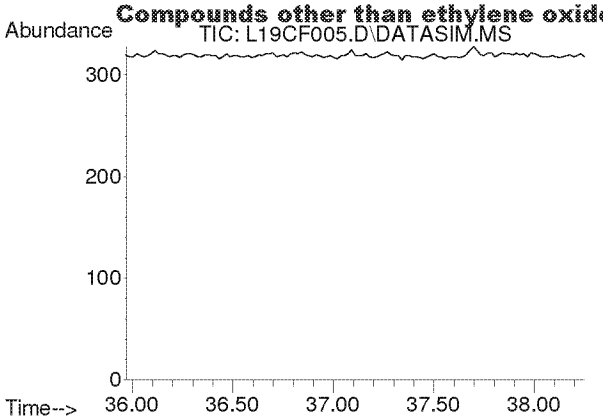
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

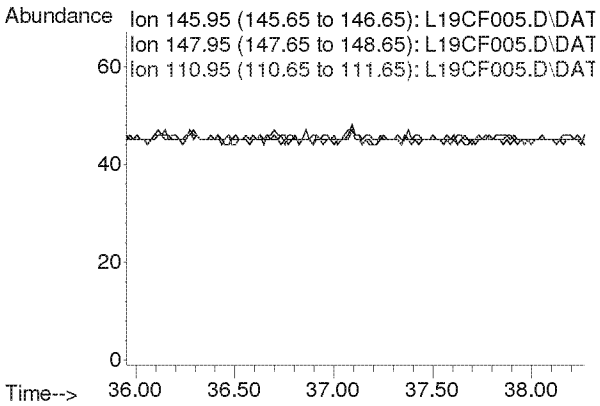


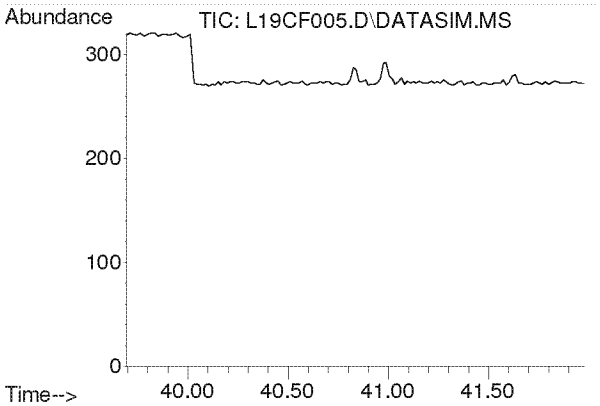
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



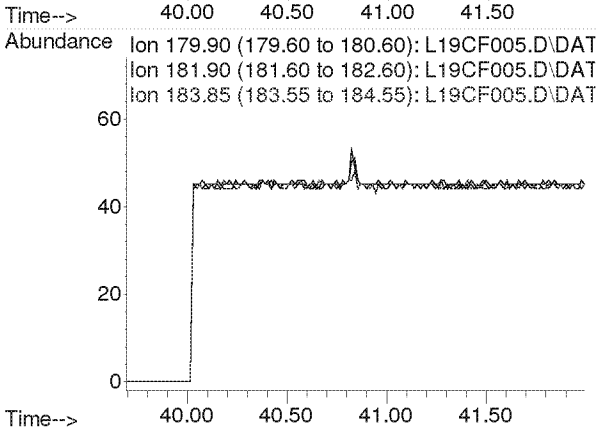


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

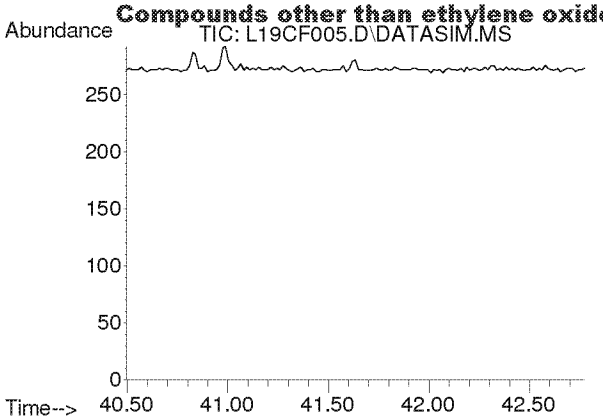
Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

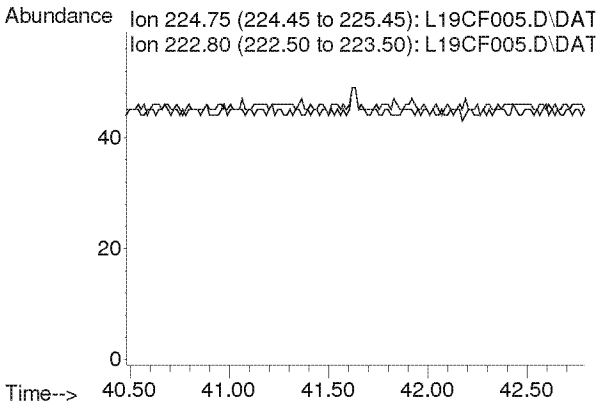


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19CF005.D
Acq: 6 Mar 2019 5:31 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : Y:\MASS SPEC 1 DATA\L19CF\
Data File : L19CF006.D
Acq On : 6 Mar 2019 6:31 pm (#1); 06 Mar 2019 6:26 pm (#2)
Operator : MAH
Sample : 9030618-01
Misc : WILLOW POND PARK 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 07 06:24:03 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	47865	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	123218	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.094	117	85760	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.	
9) Ethylene oxide	12.513	29	164m	0.0599 ppbv	RLD 3/18/19
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.	
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\L19CF\
Data File : L19CF006.D
Acq On : 6 Mar 2019 6:31 pm (#1); 06 Mar 2019 6:26 pm (#2)
Operator : MAH
Sample : 9030618-01
Misc : WILLOW POND PARK 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 07 06:24:03 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

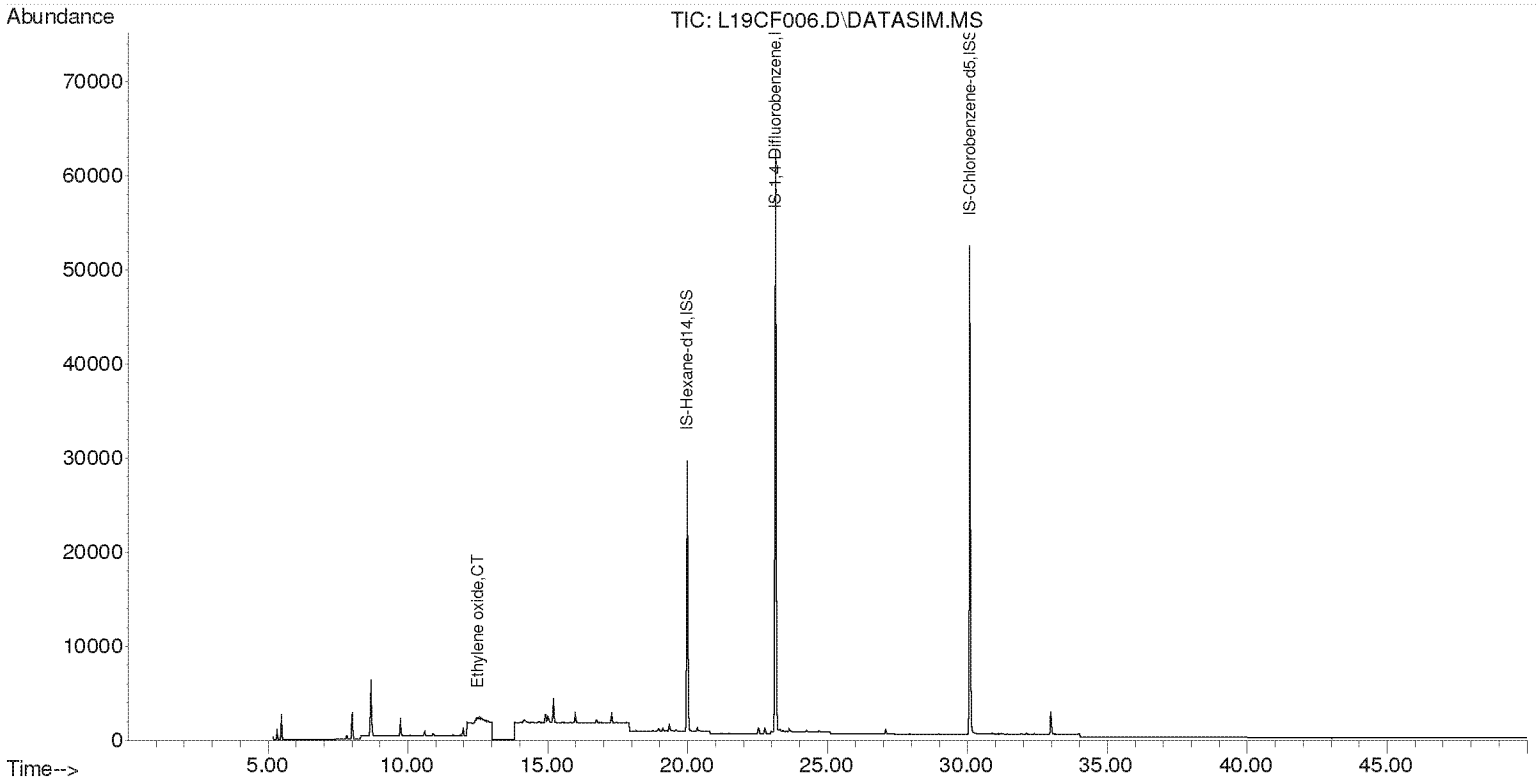
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D.	d
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
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.	

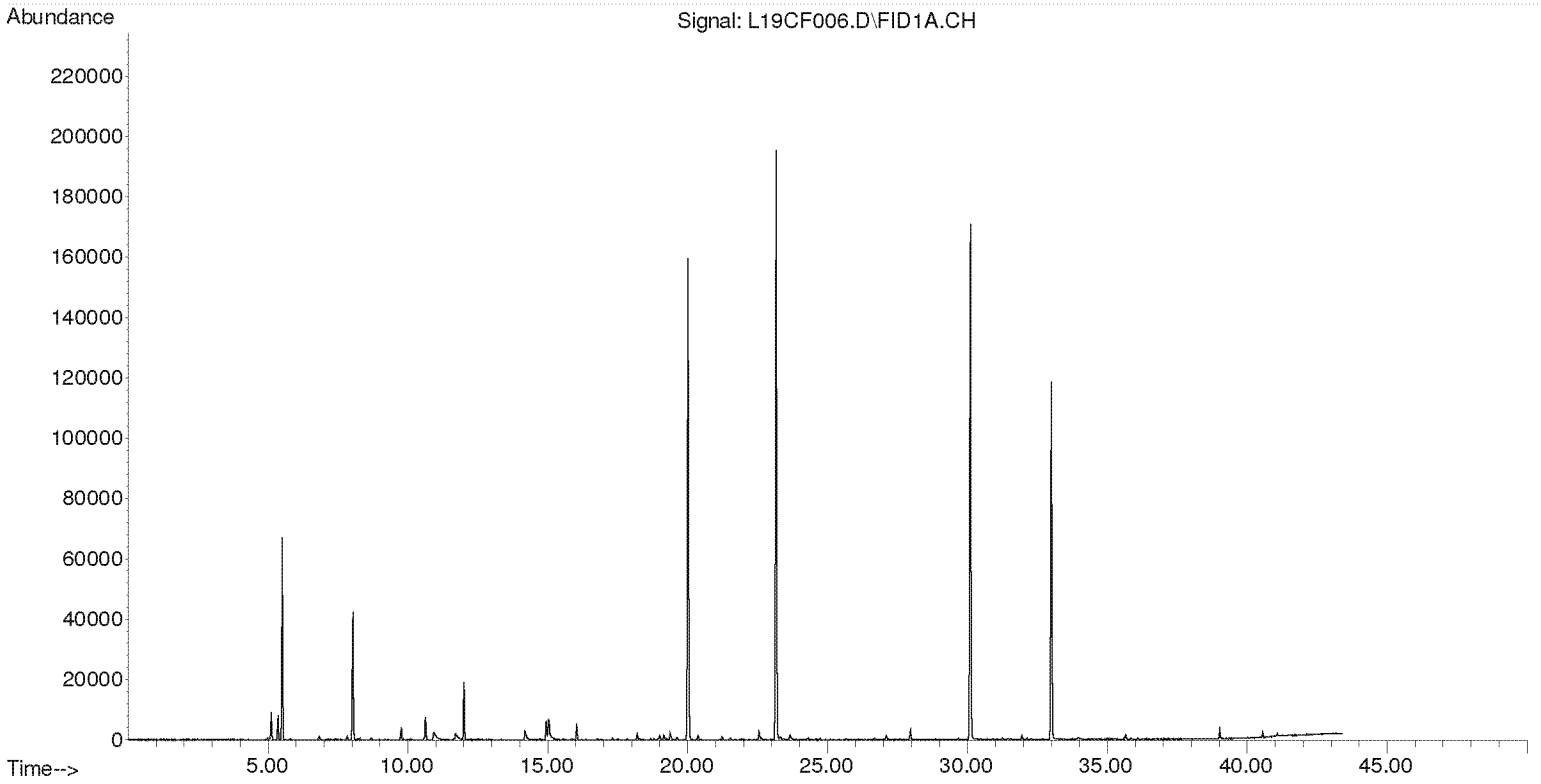
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

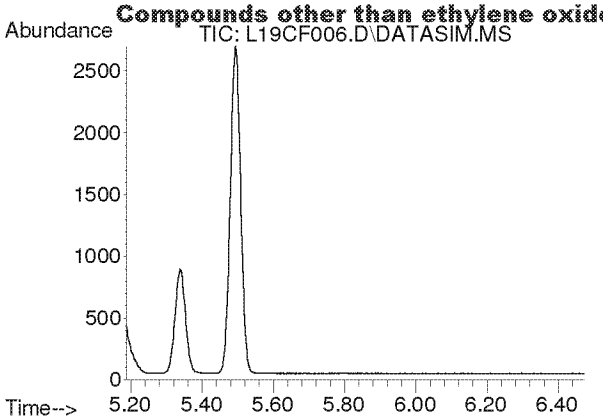
Data Path : Y:\MASS SPEC 1 DATA\L19CF\
Data File : L19CF006.D
Acq On : 6 Mar 2019 6:31 pm (#1); 06 Mar 2019 6:26 pm (#2)
Operator : MAH
Sample : 9030618-01
Misc : WILLOW POND PARK 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Mar 07 06:24:03 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





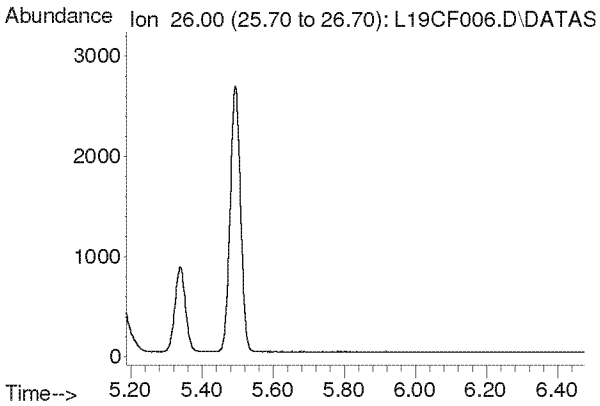
Compounds other than ethylene oxide were not quantitated.

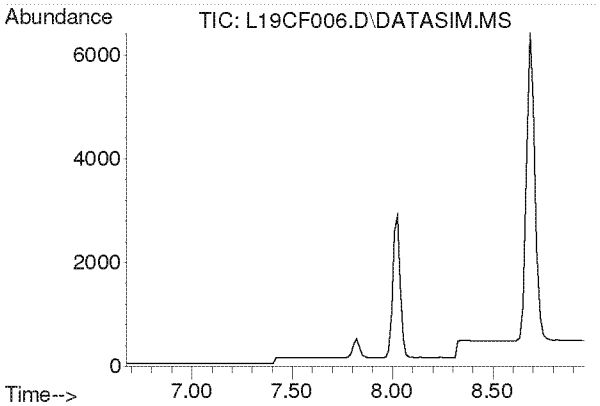


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 26



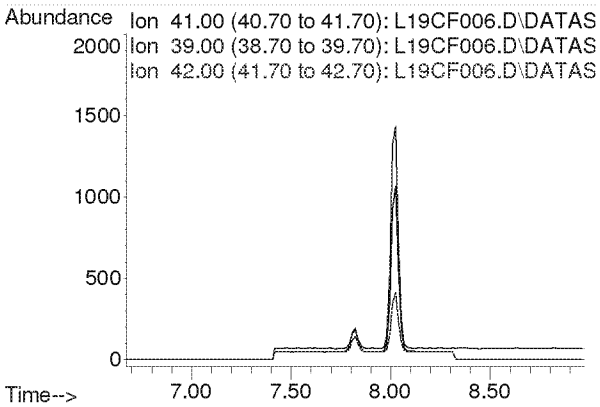


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

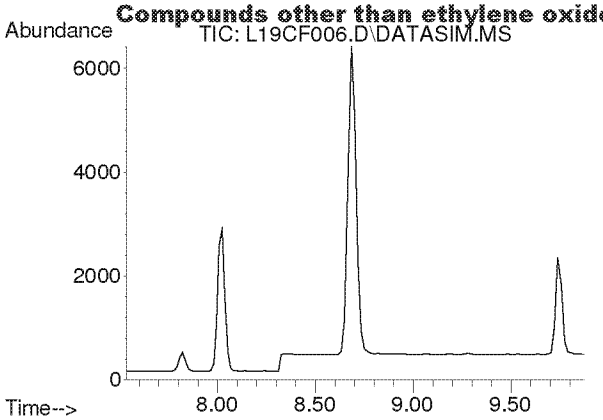
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

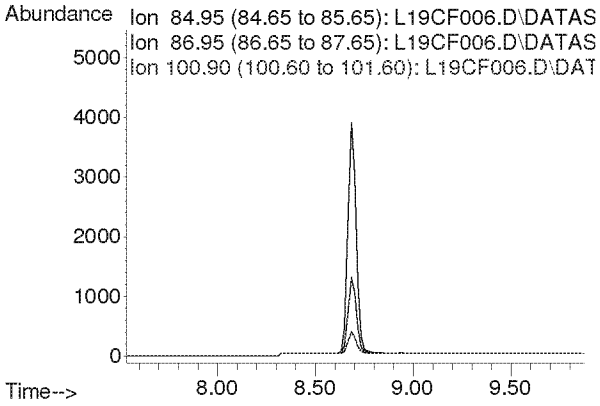


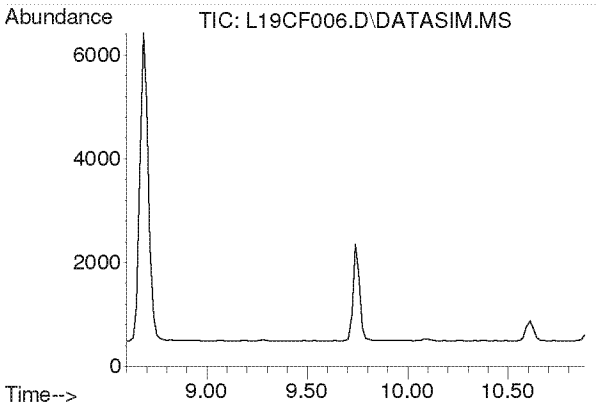
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



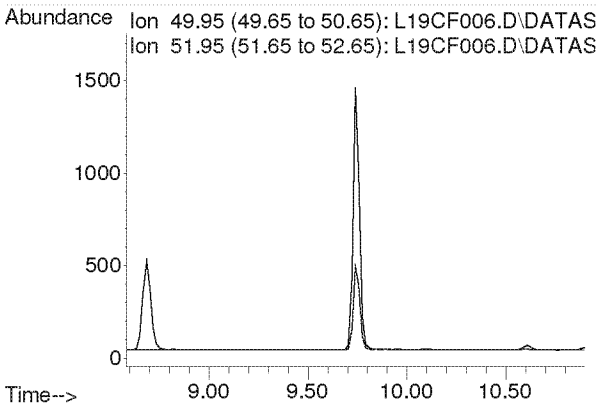


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

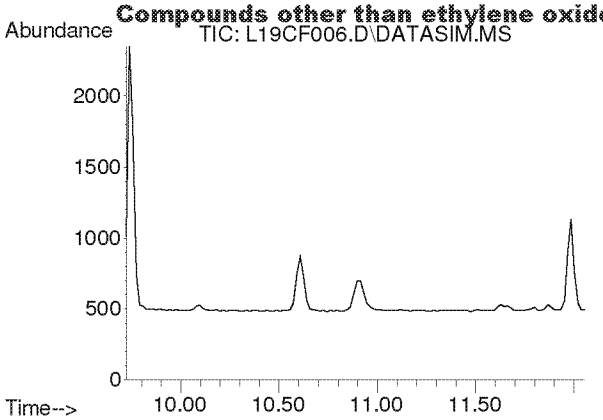
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

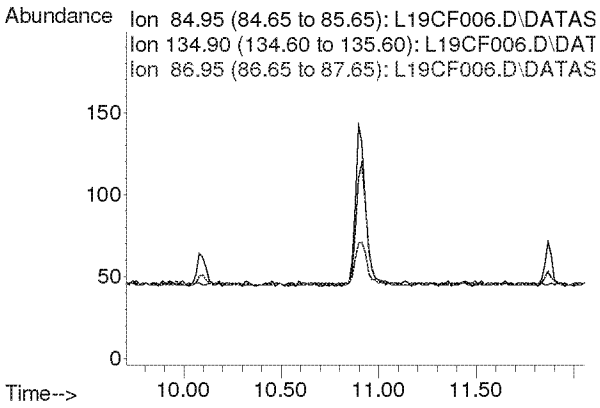


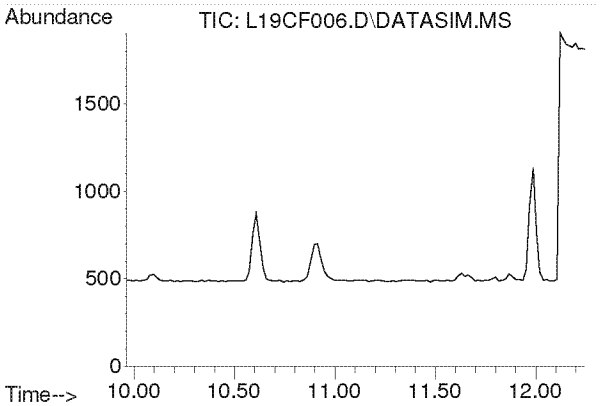
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



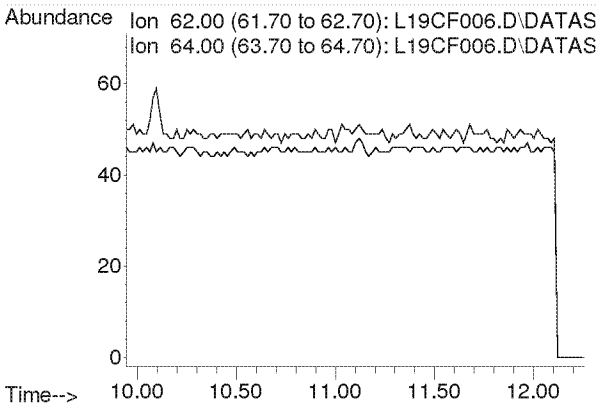


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

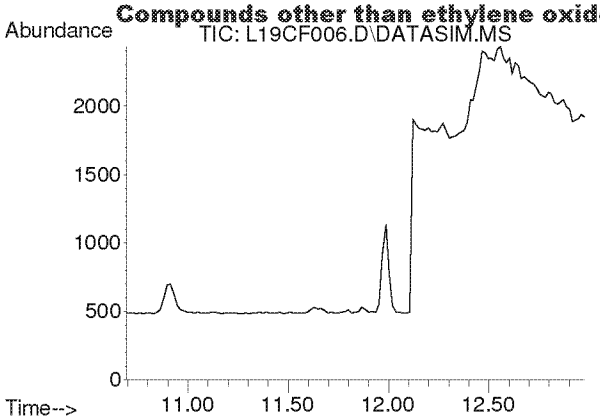
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

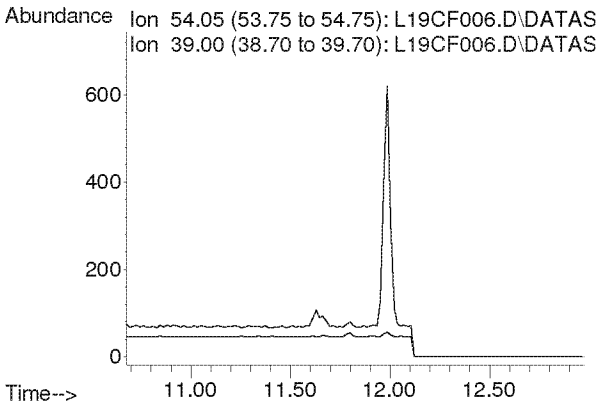


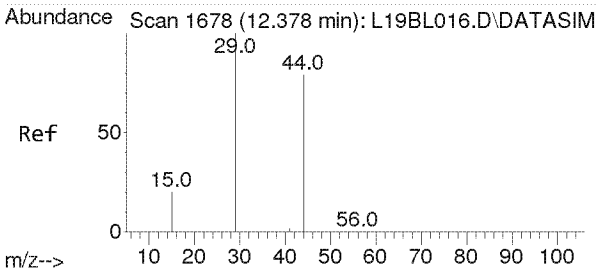
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

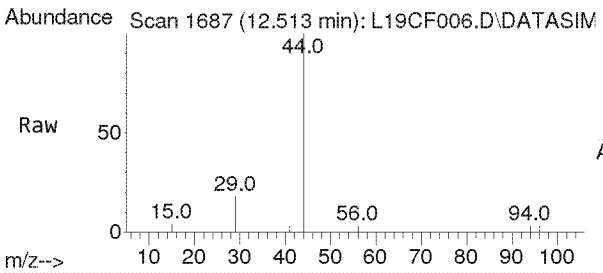


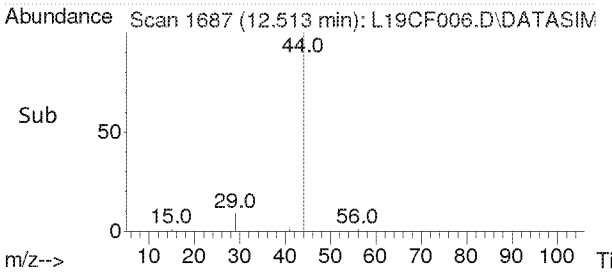


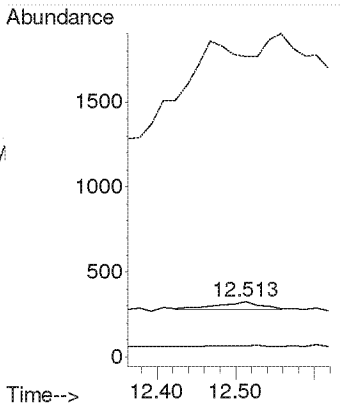
#9
Ethylene oxide
Concen: 0.060 ppbv m
RT: 12.513 min Scan# 1687
Delta R.T. 0.063 min
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 29 Resp: 164

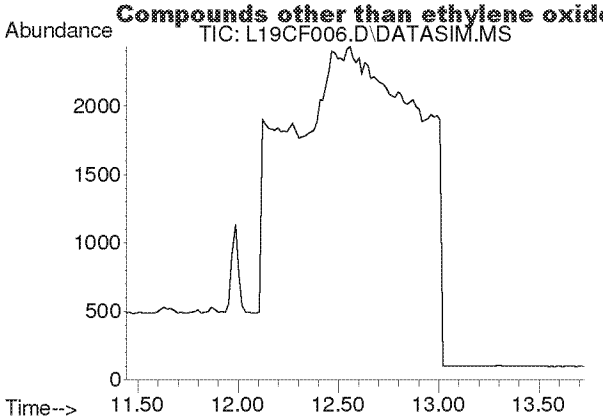
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.0	24.0#
44	3811.6	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

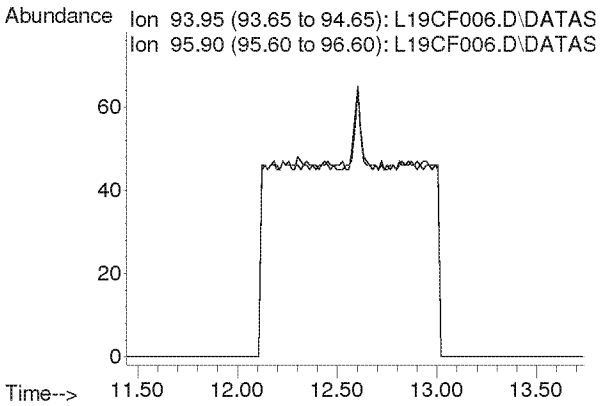


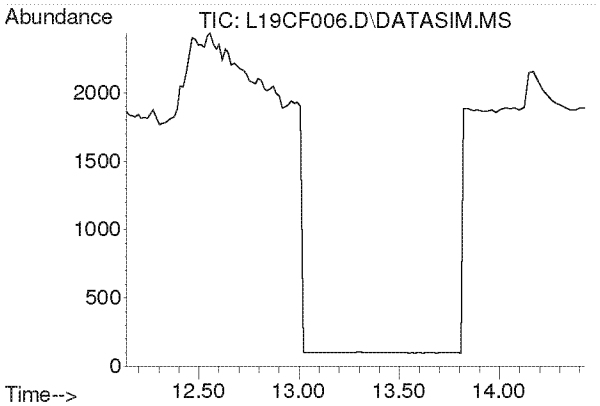
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



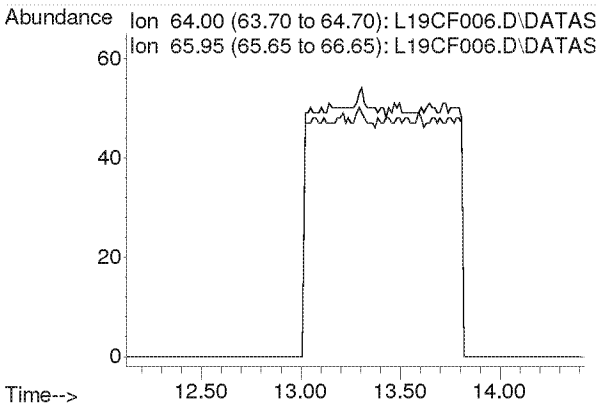


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

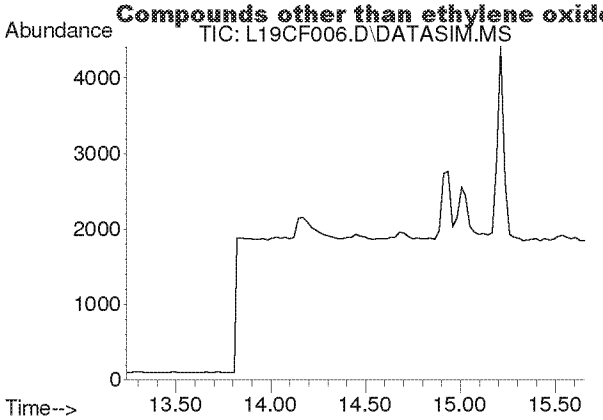
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

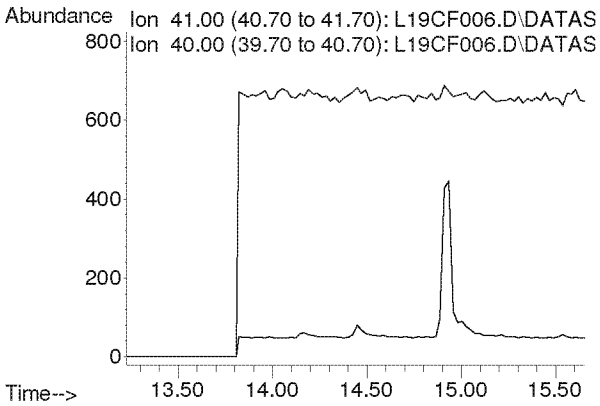


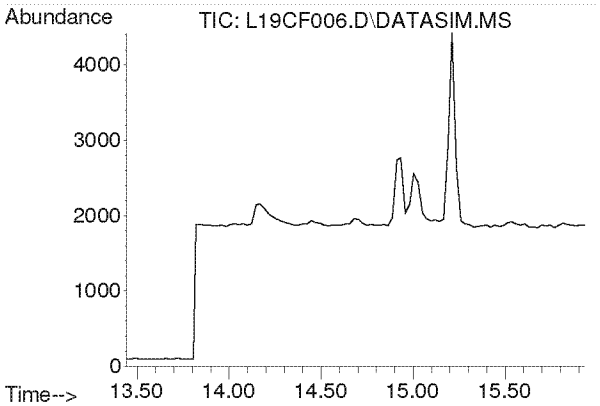
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



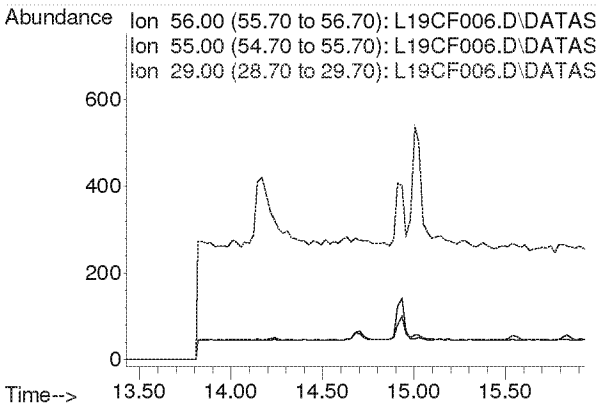


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

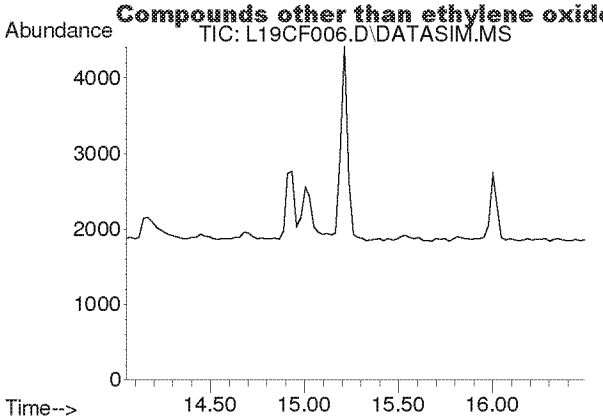
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

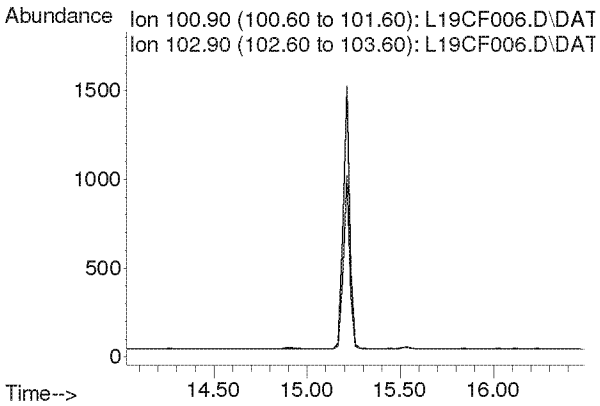


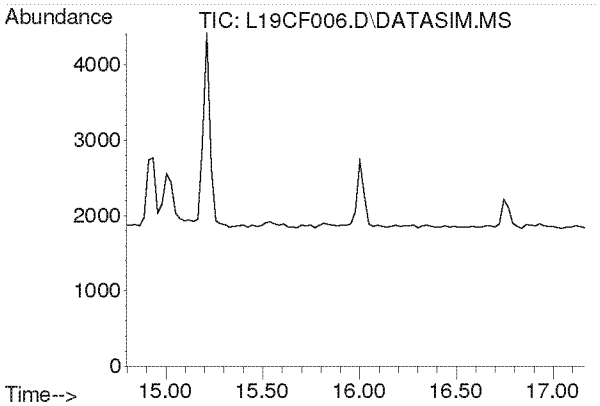
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



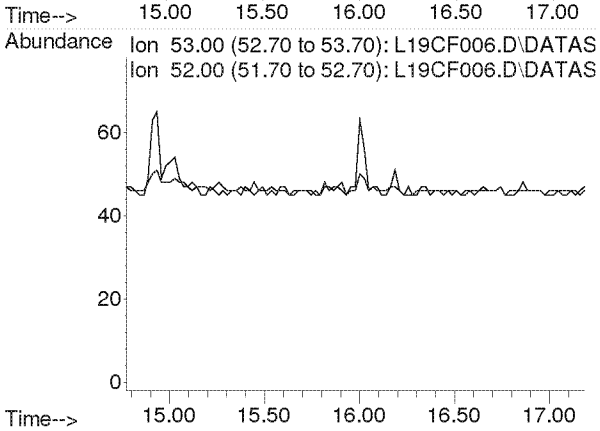


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

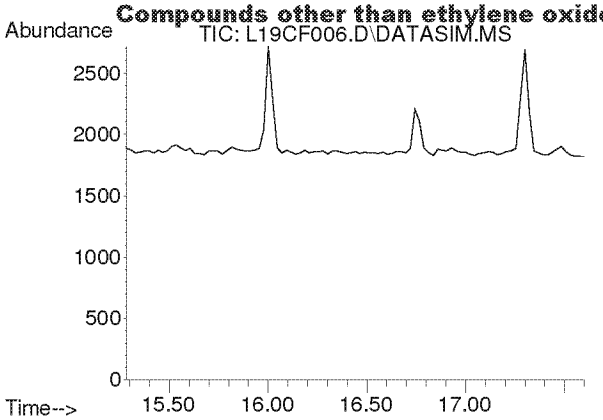
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

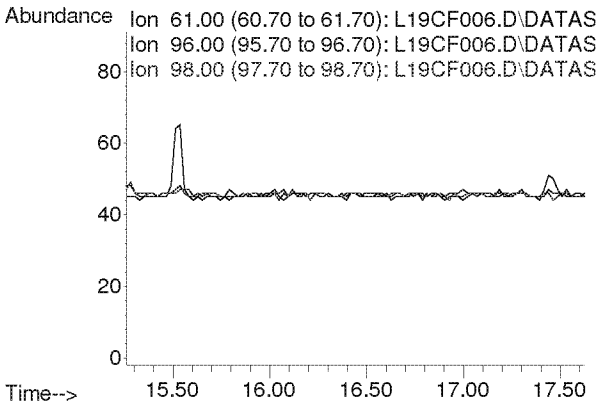


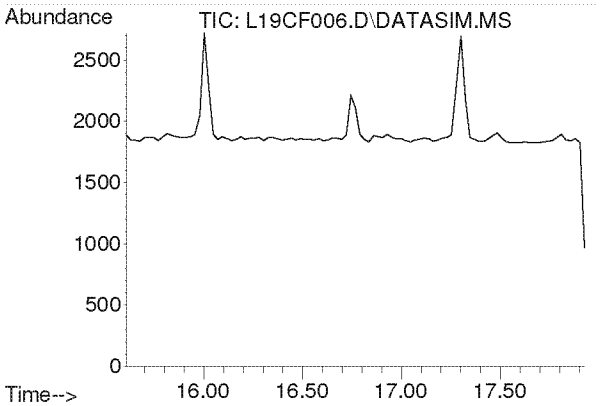
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



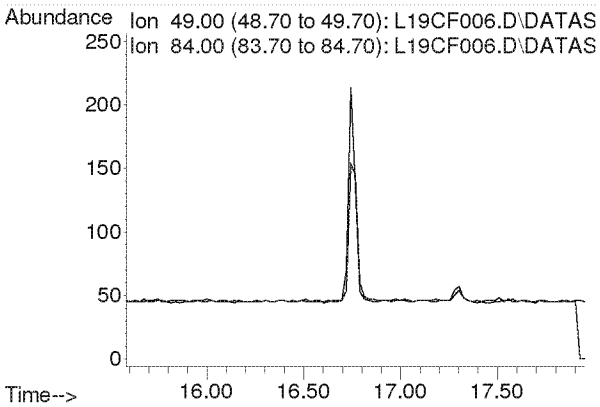


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

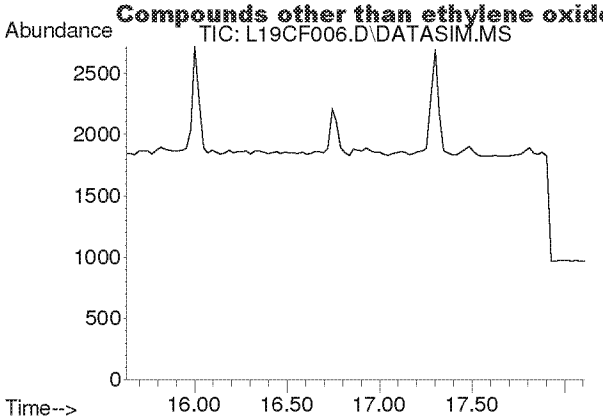
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

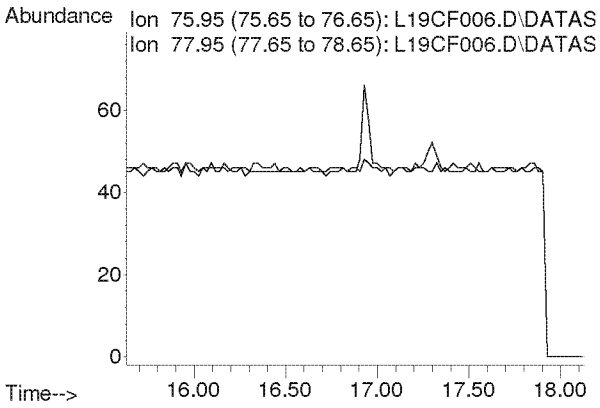


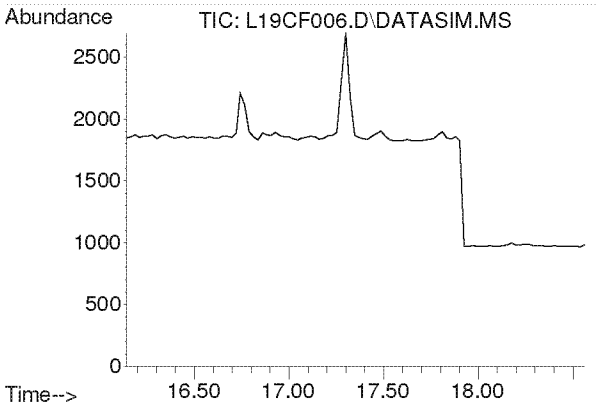
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



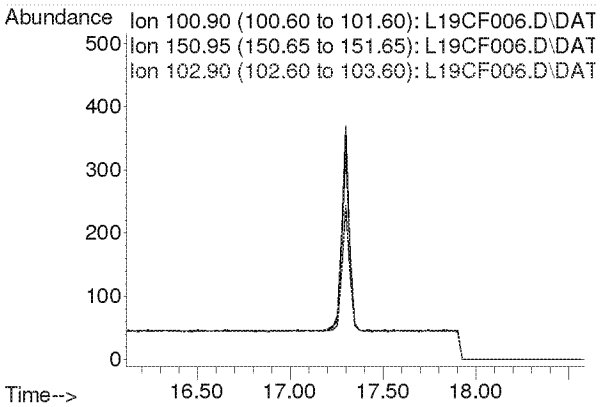


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

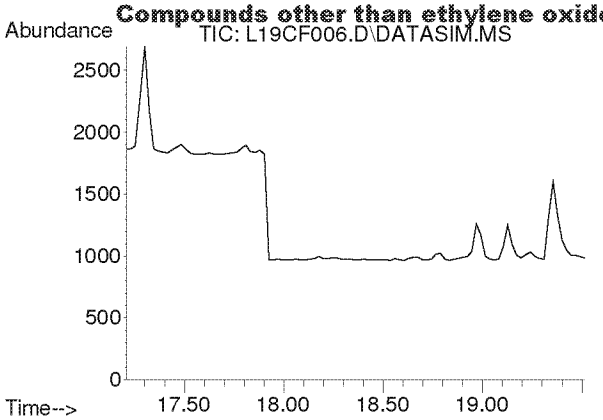
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

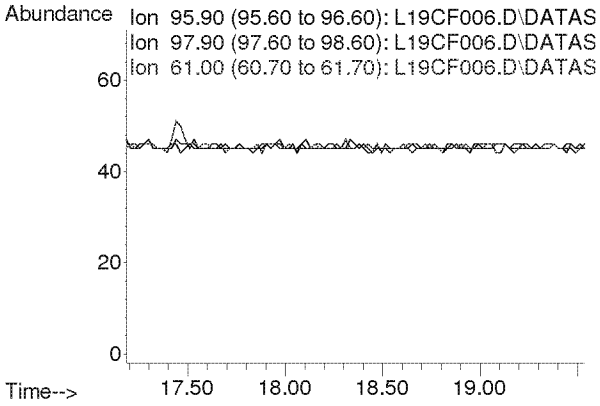


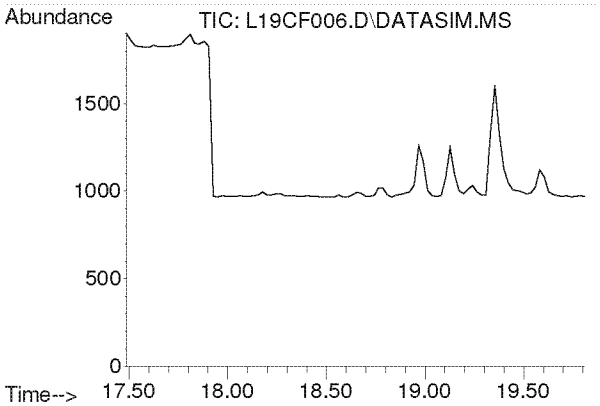
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



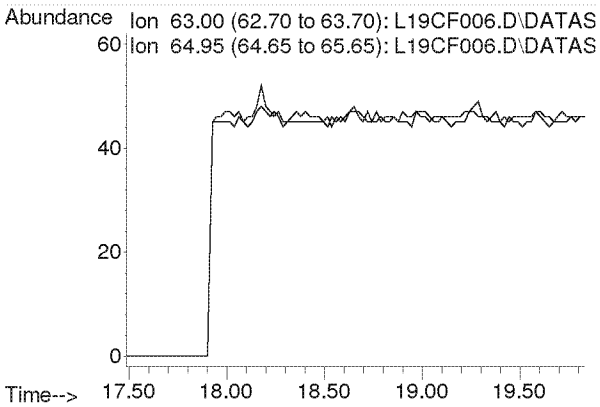


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

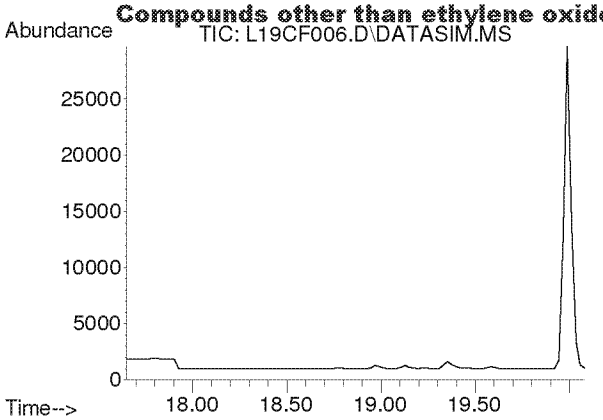
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

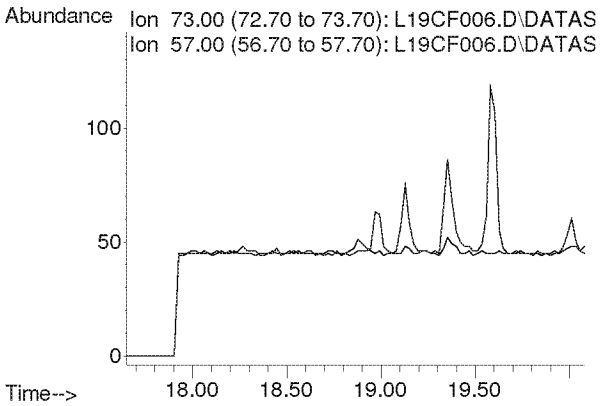


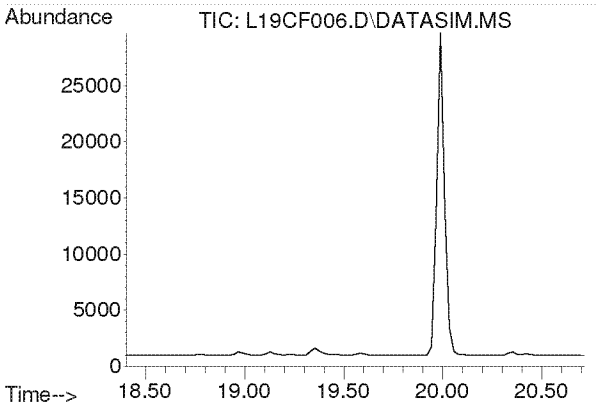
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



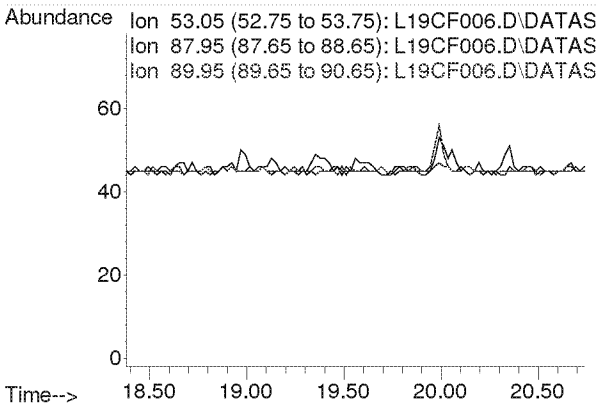


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

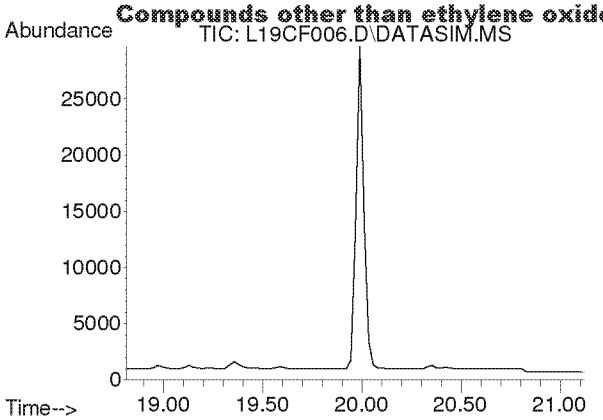
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

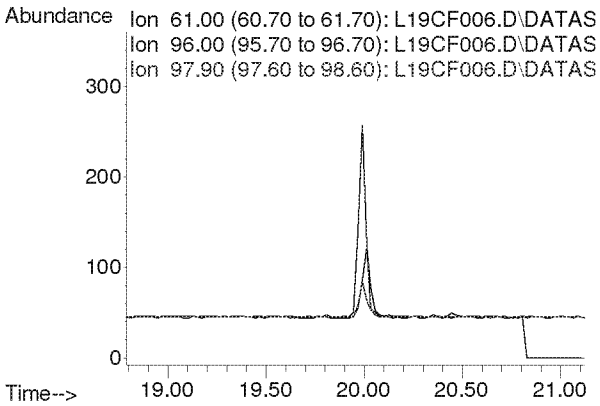


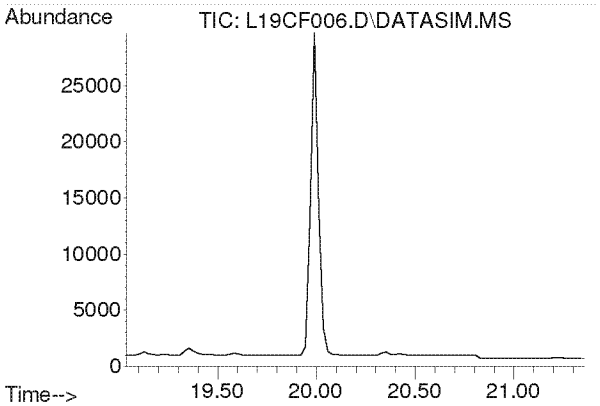
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



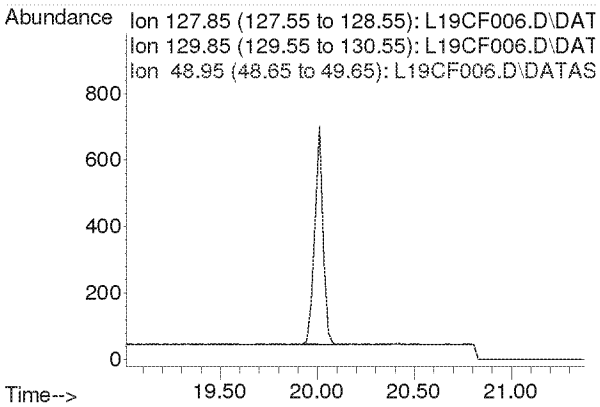


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

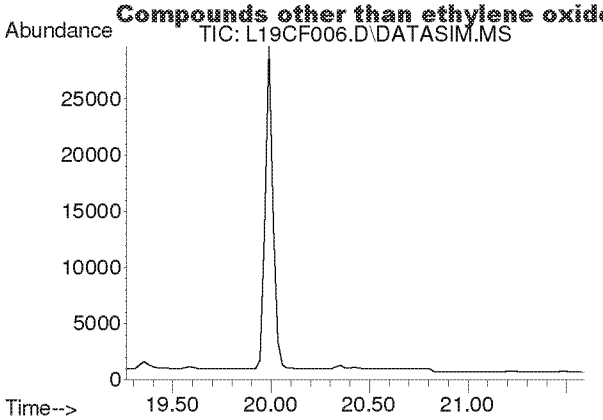
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

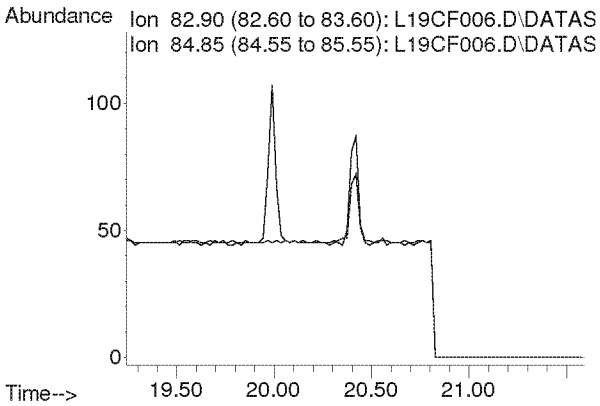


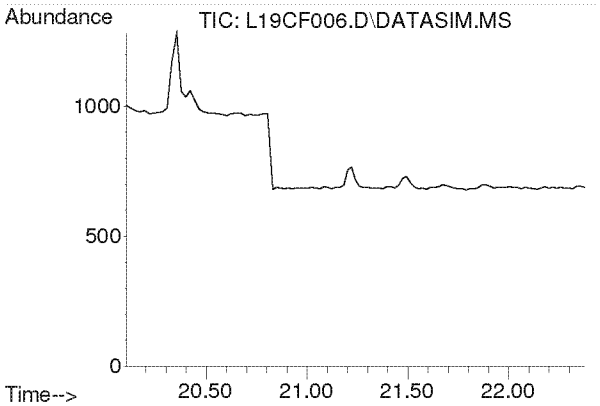
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



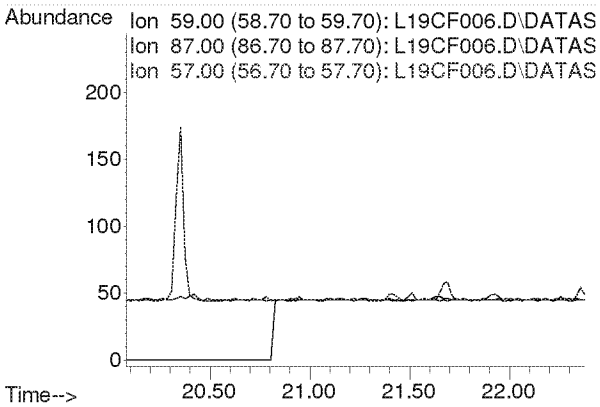


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

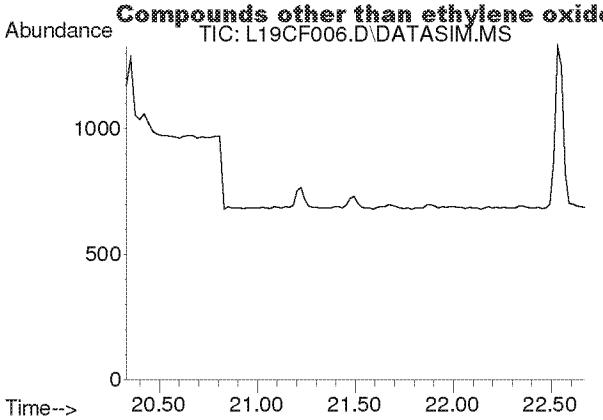
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

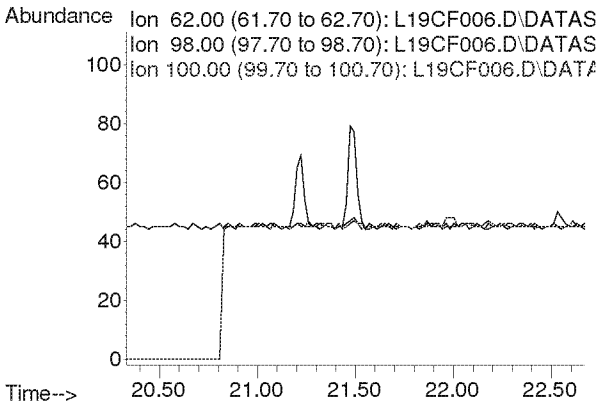


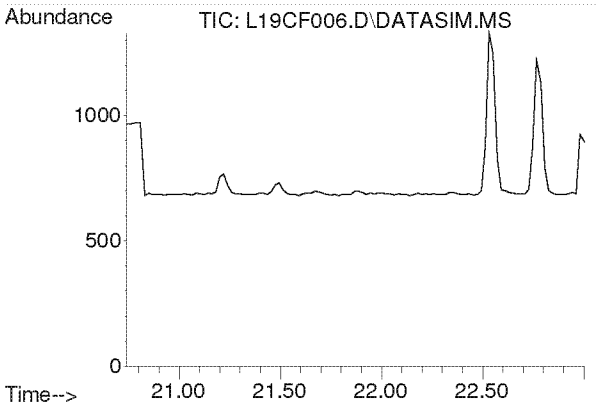
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



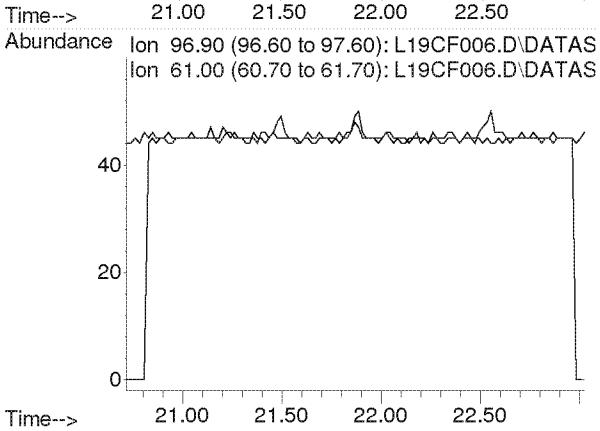


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

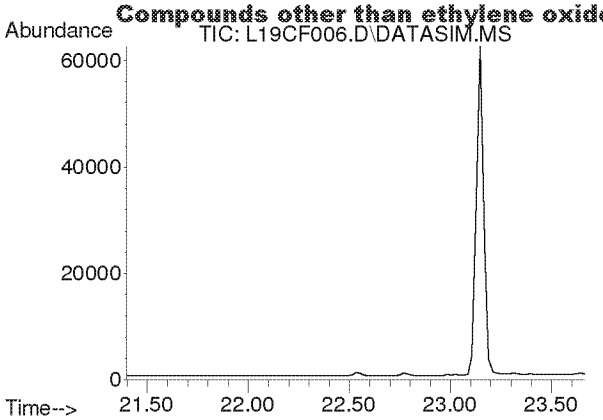
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

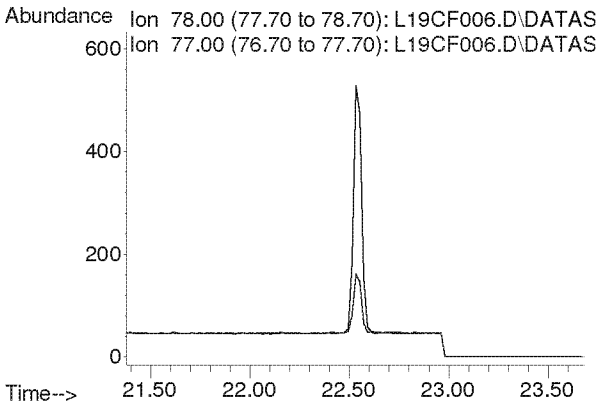


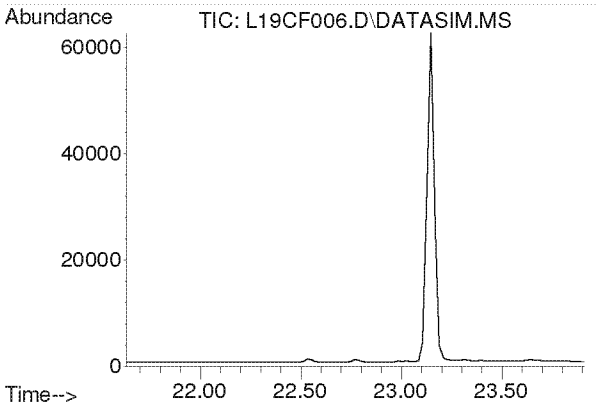
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



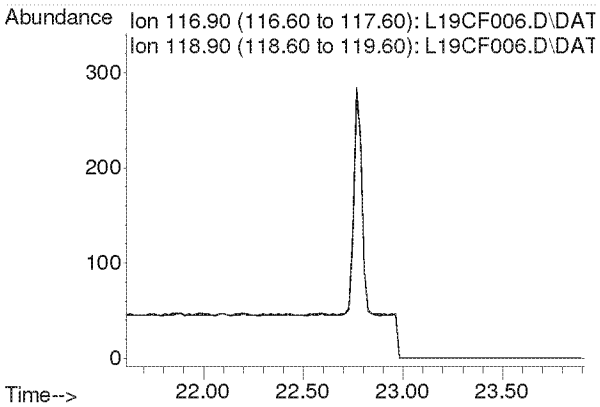


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

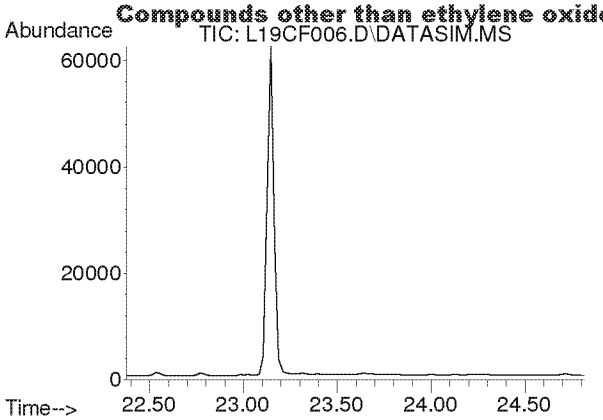
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

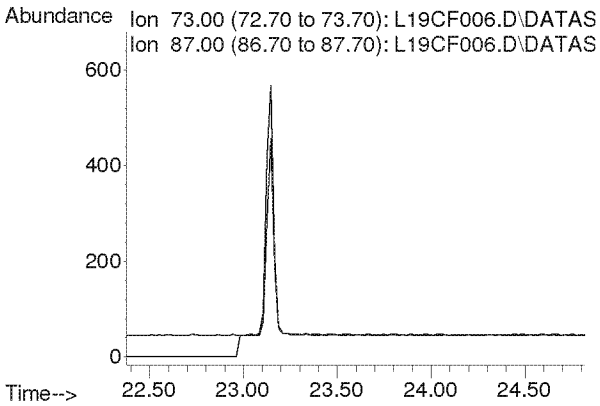


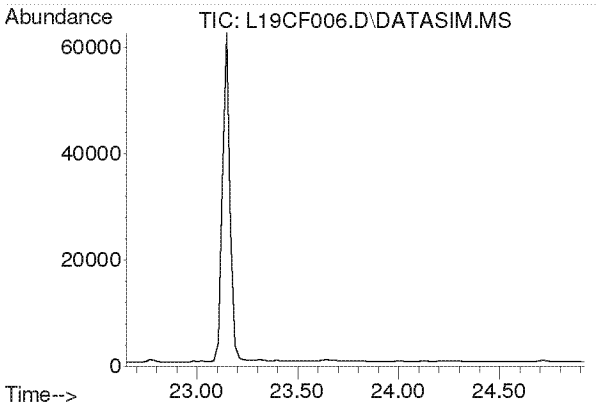
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



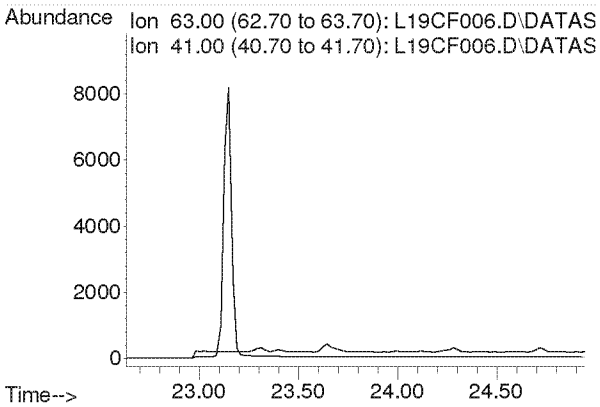


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

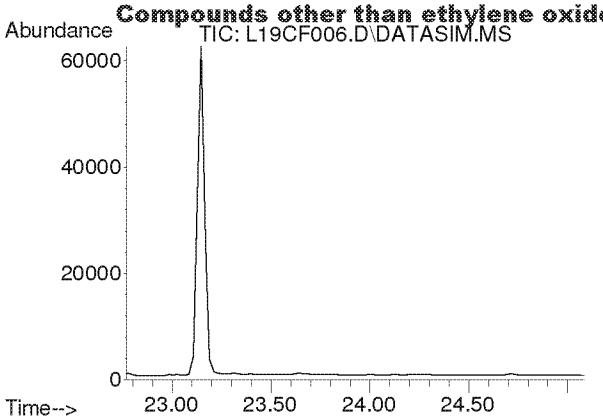
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

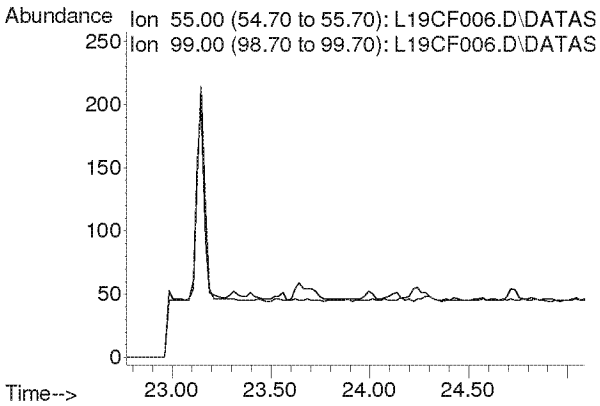


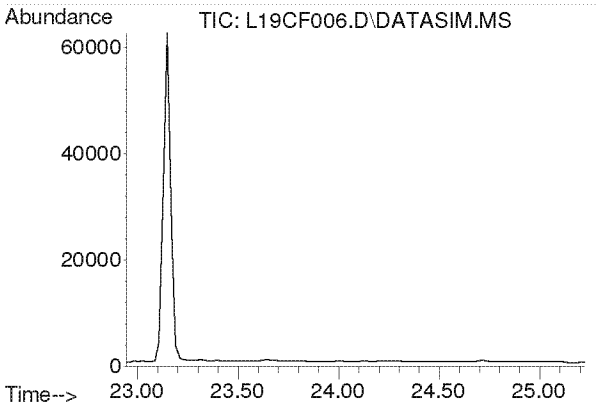
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



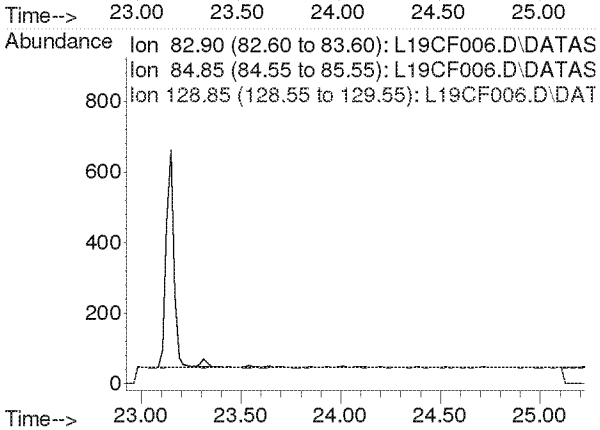


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

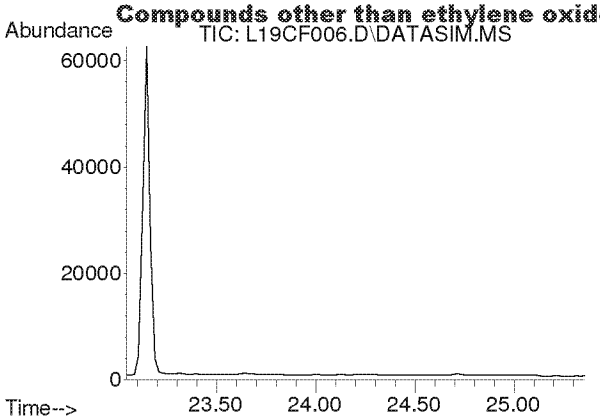
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

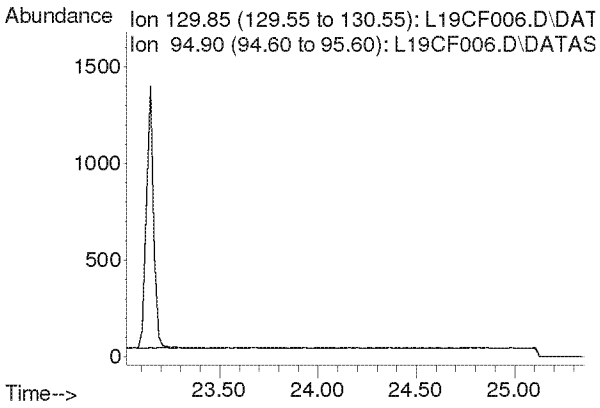


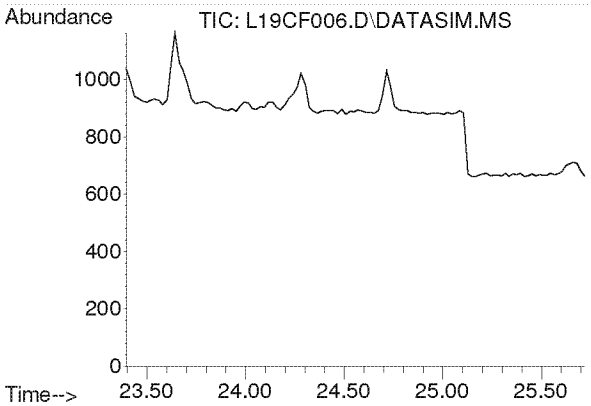
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



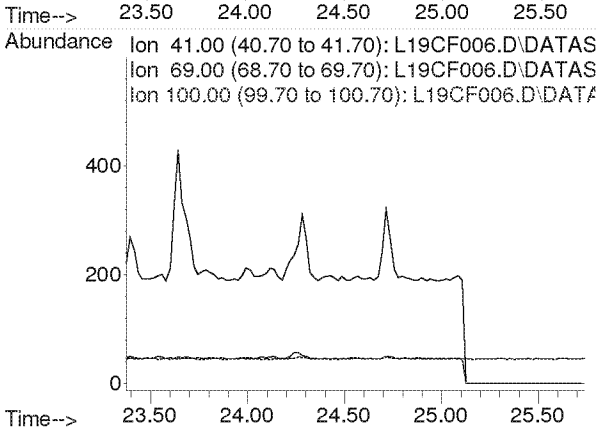


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

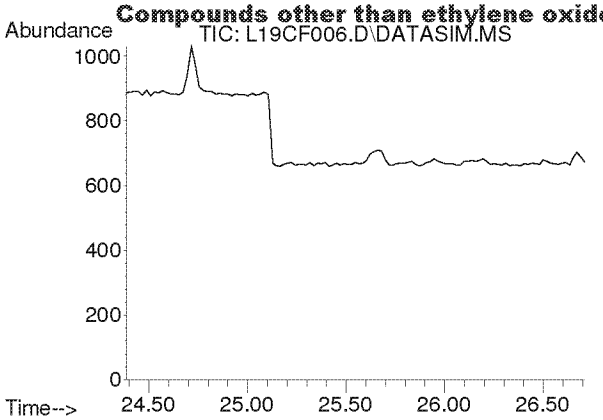
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

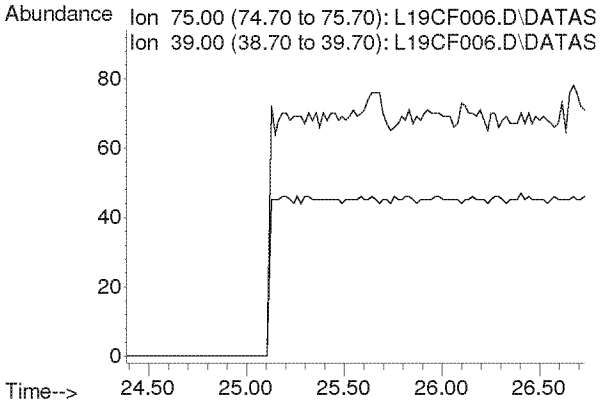


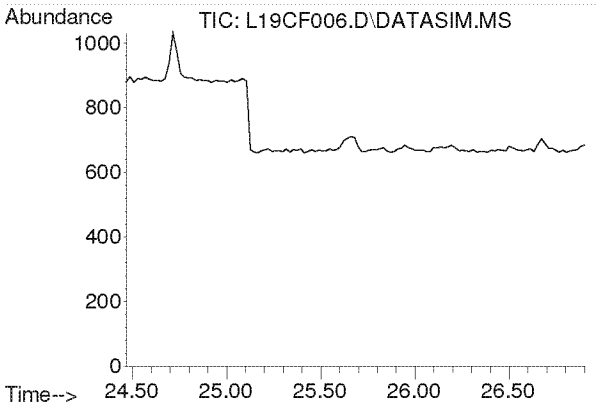
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



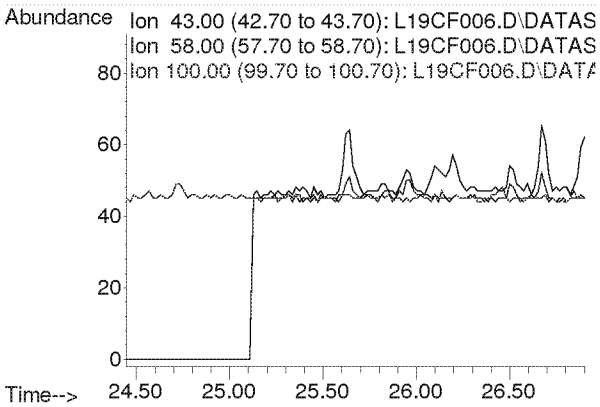


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

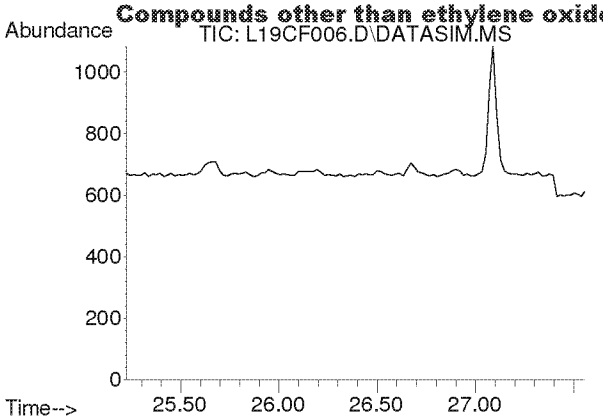
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

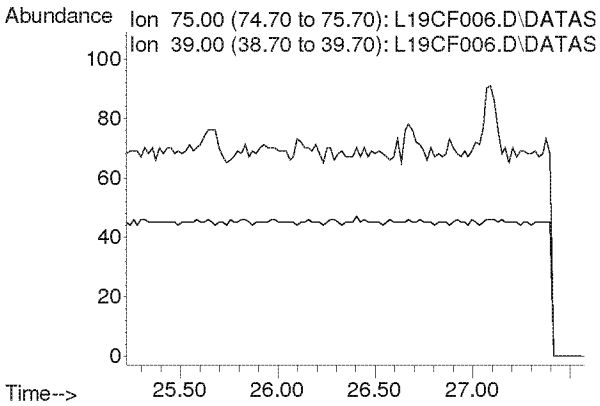


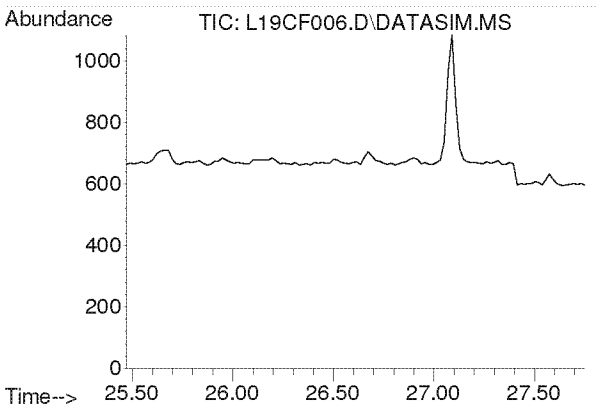
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



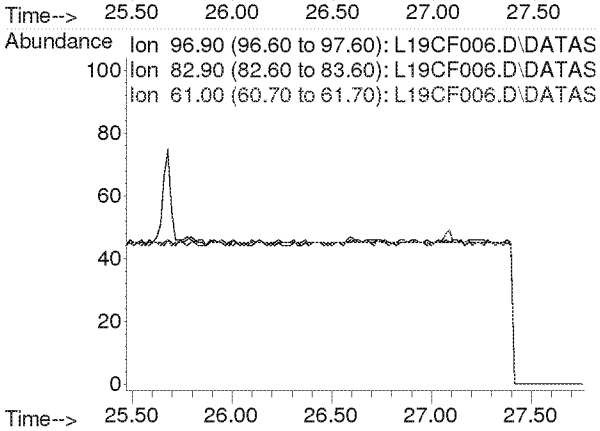


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

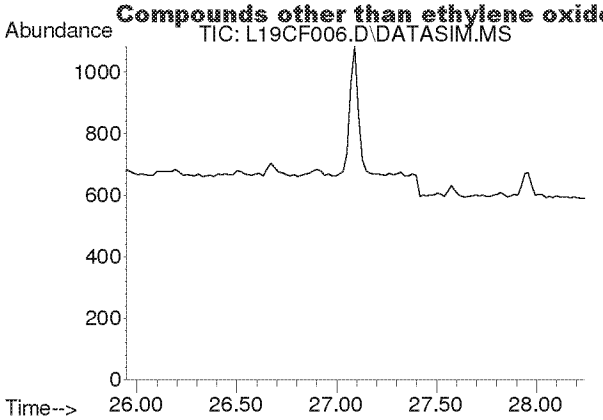
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

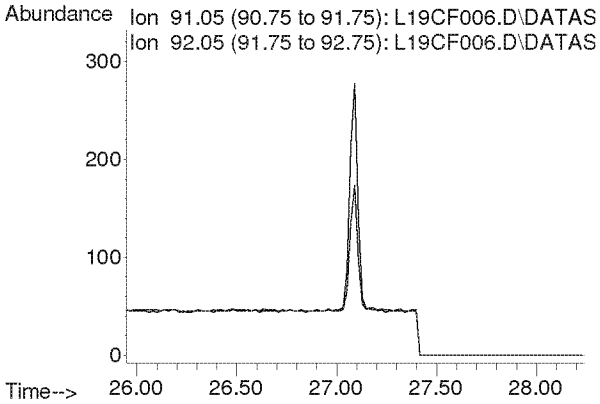


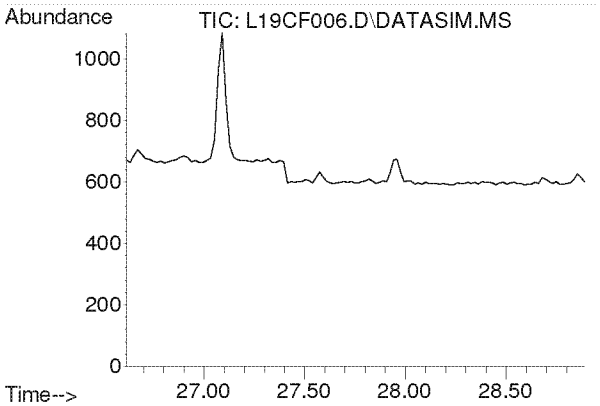
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



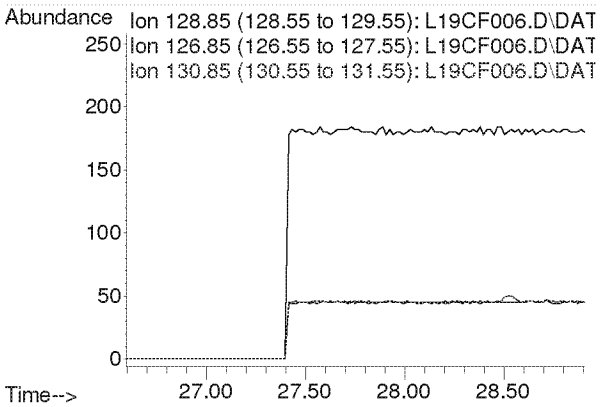


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

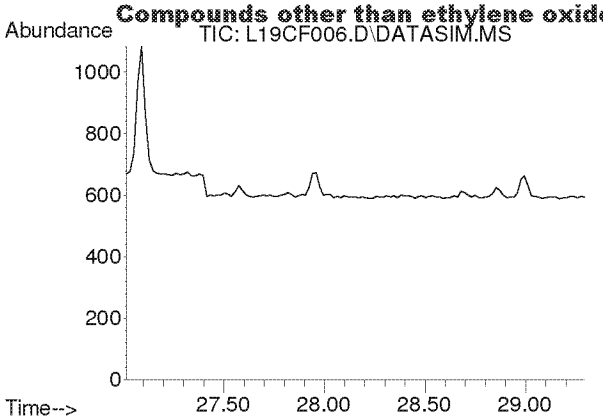
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

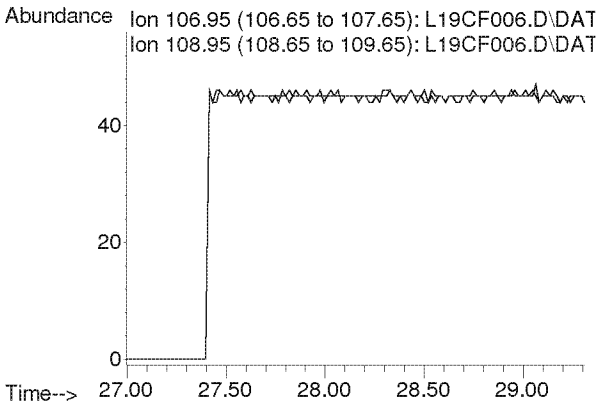


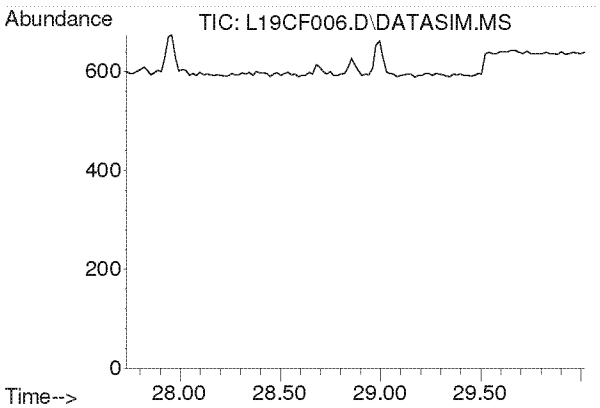
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



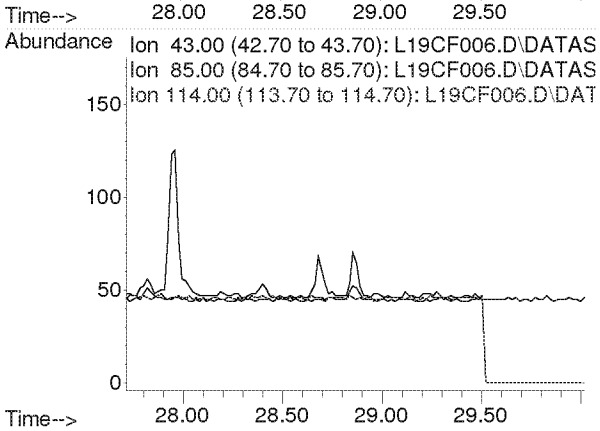


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

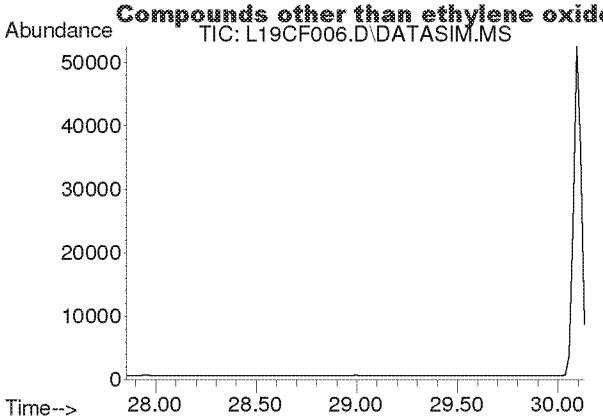
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

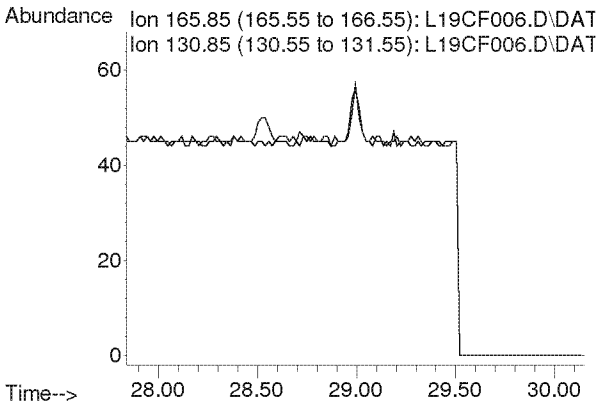


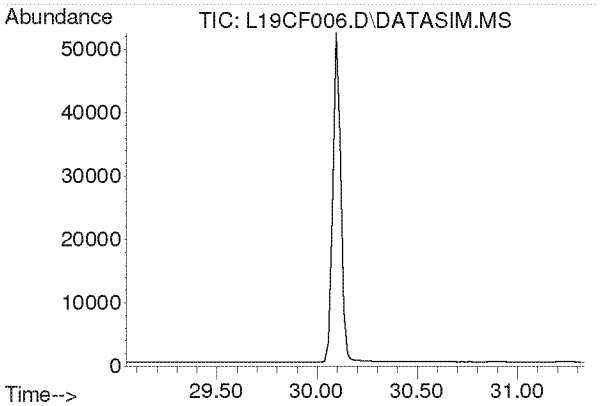
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



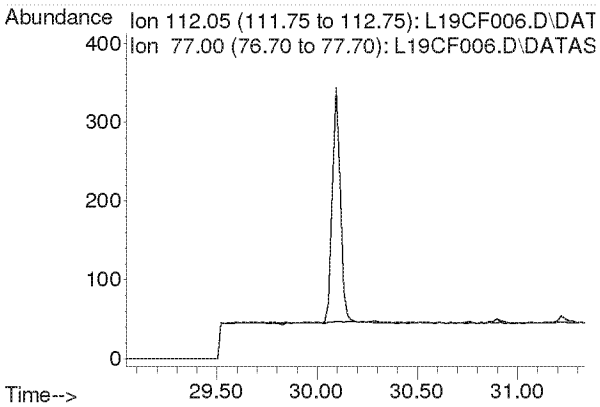


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

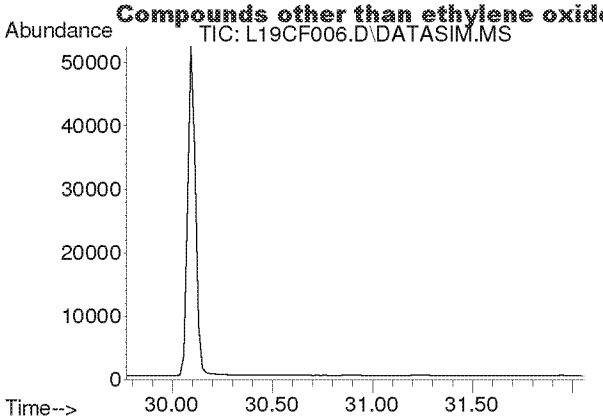
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

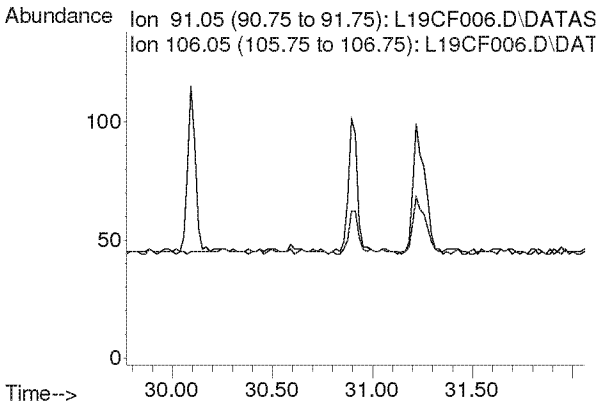


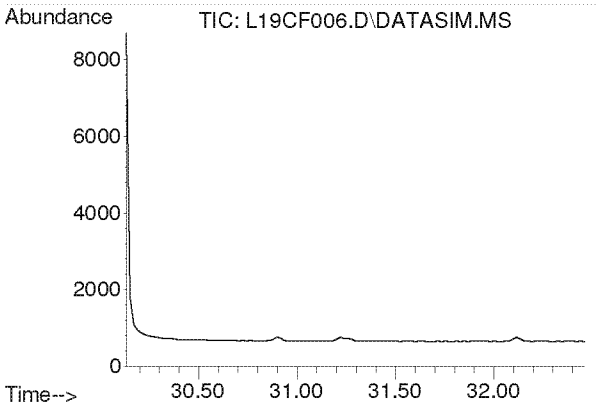
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



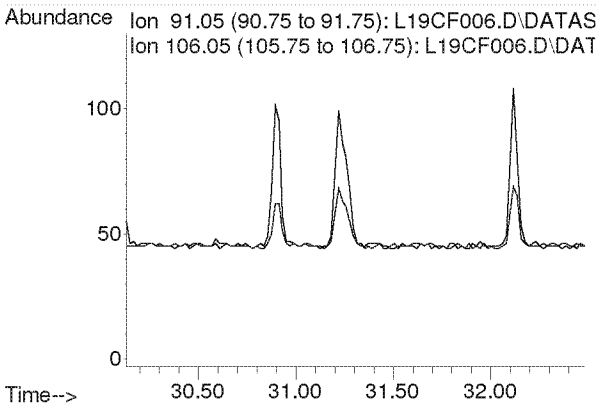


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

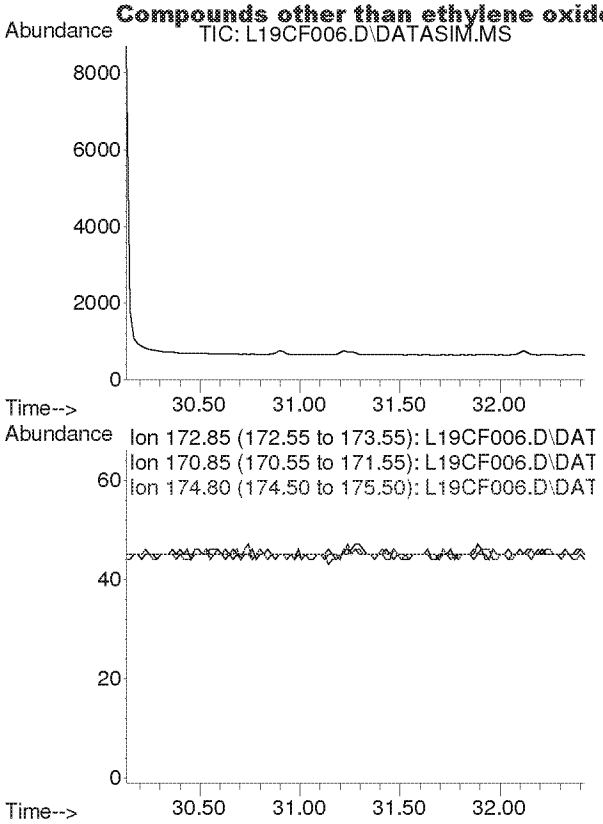
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

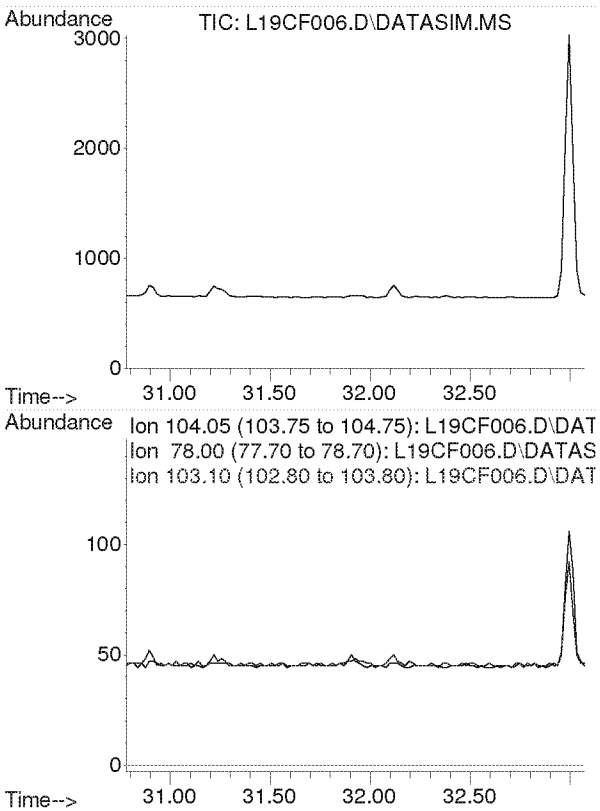


#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



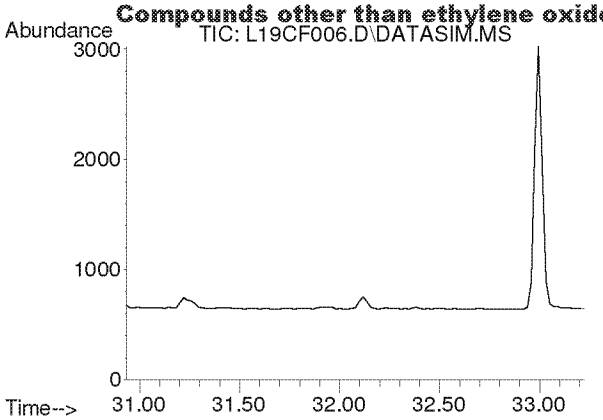
#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0

Compounds other than ethylene oxide were not quantitated.

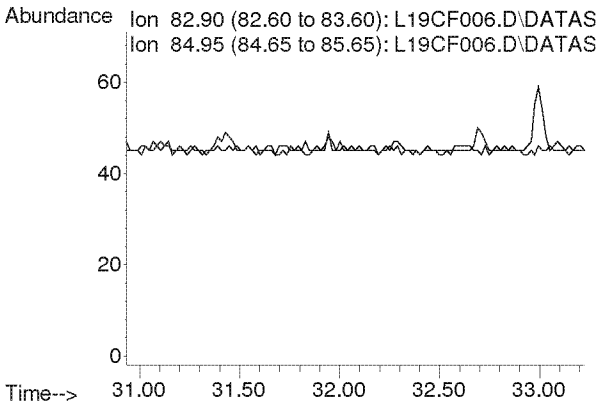


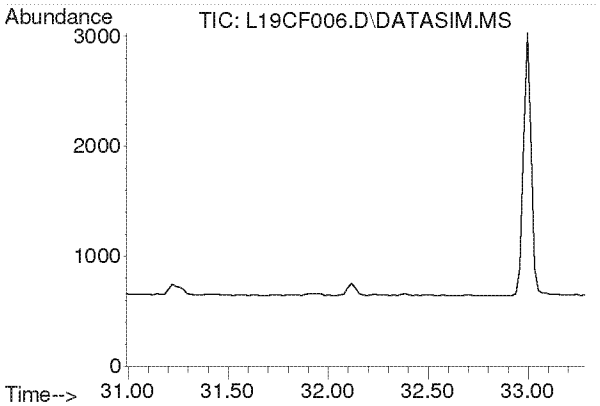
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



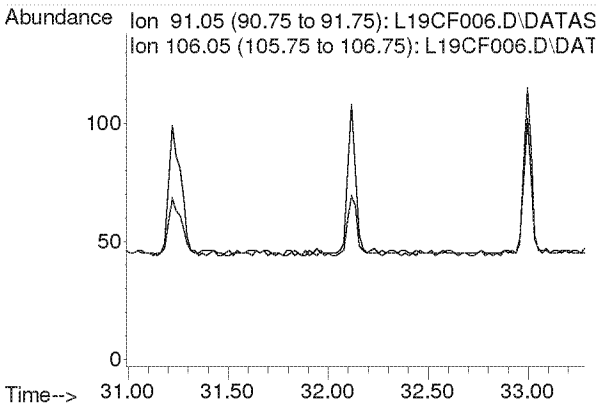


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

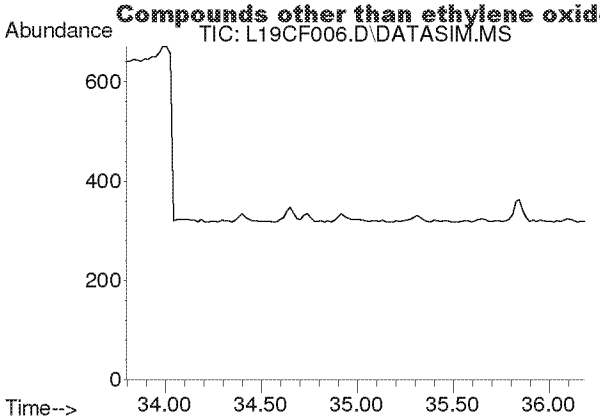
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

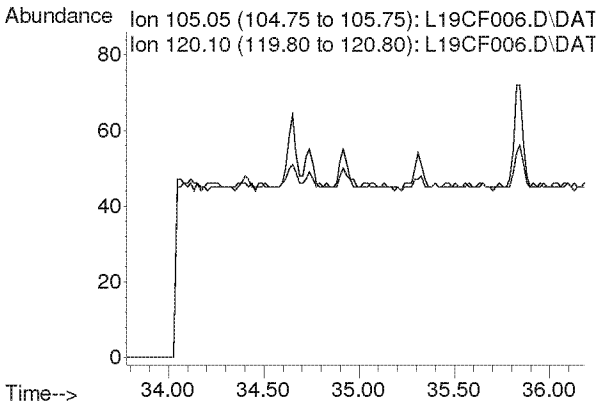


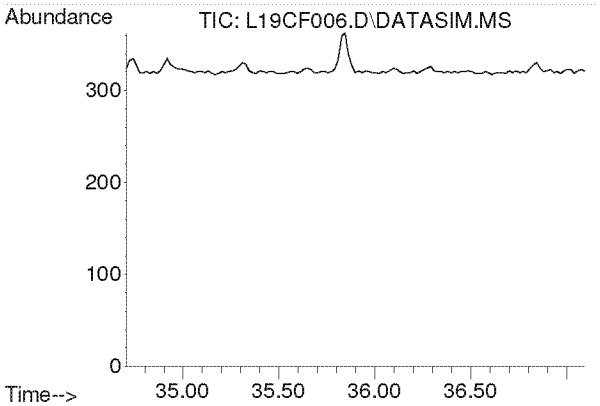
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



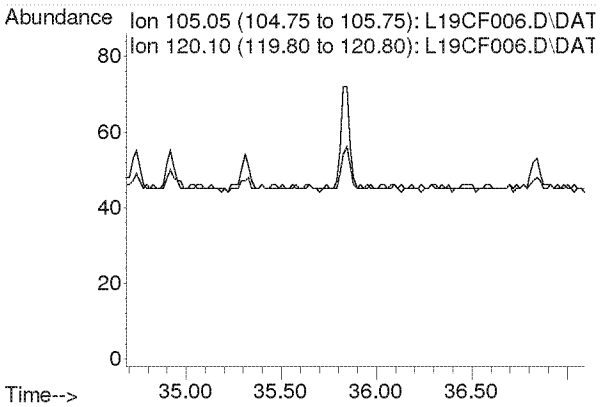


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

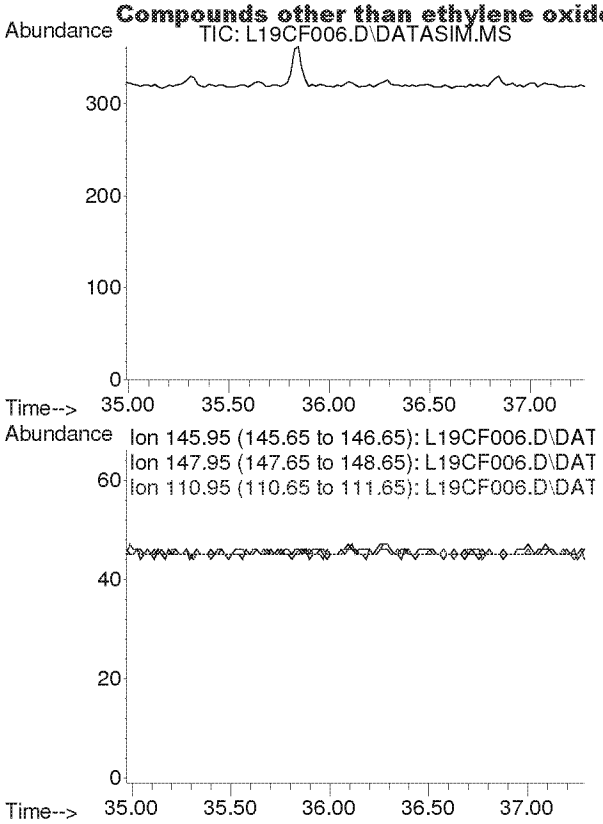
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

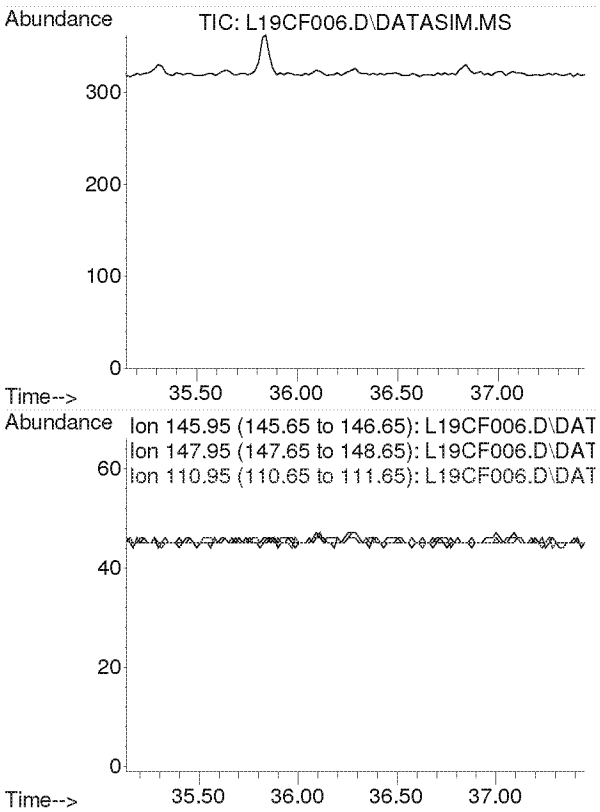


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



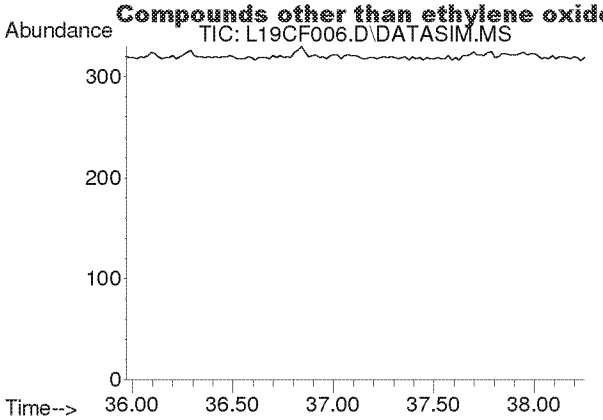
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

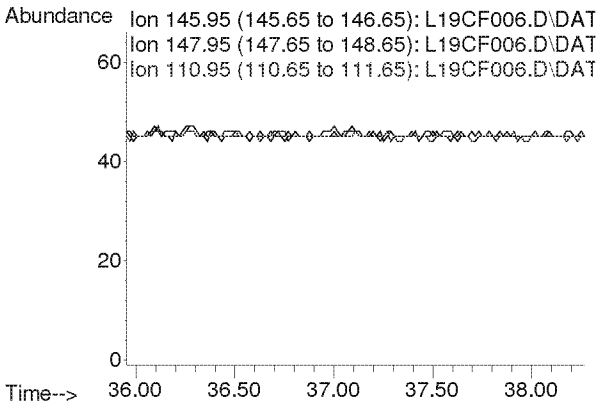


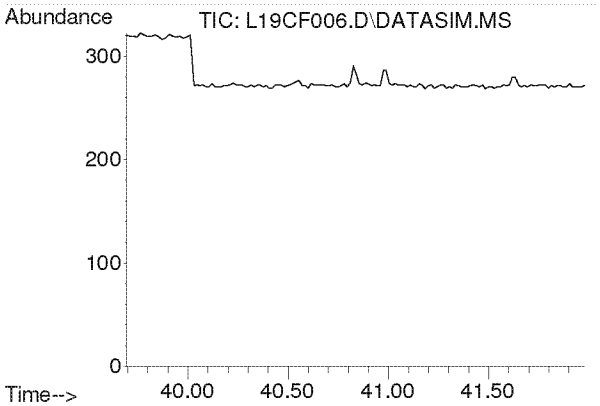
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



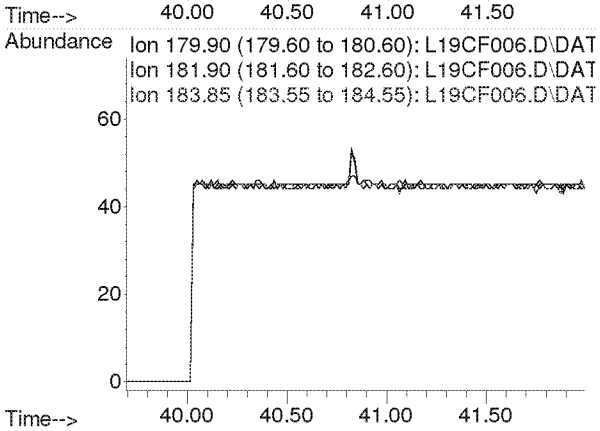


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

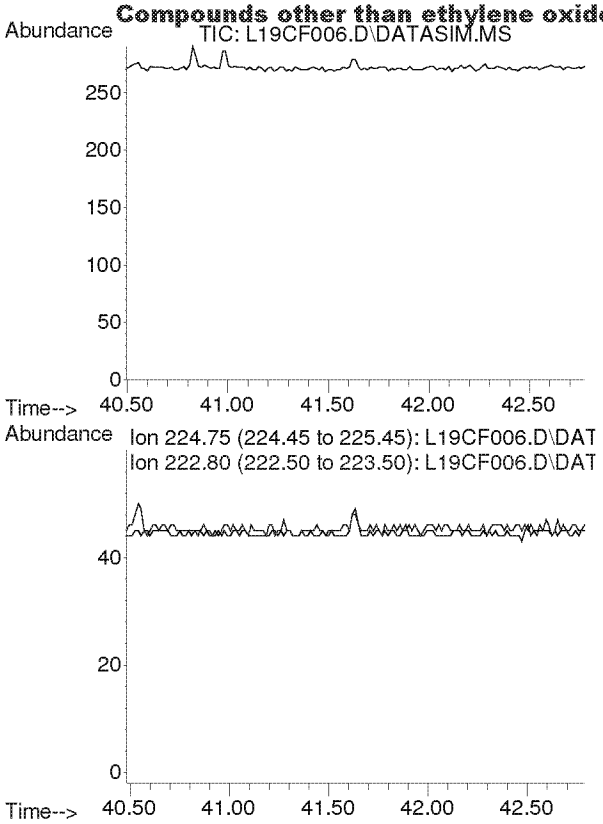
Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CF006.D
Acq: 6 Mar 2019 6:31 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CF\
Data File : L19CF007.D
Acq On : 6 Mar 2019 7:31 pm (#1); 06-Mar-19, 19:26:13 (#2)
Operator : MAH
Sample : 9030618-02
Misc : WEST NEIGHBORHOOD 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 07 06:33:17 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	46557	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	118621	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	81316	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.	
9) Ethylene oxide	12.498	29	166m	0.0623 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.	
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.	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D. d	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CF\
Data File : L19CF007.D
Acq On : 6 Mar 2019 7:31 pm (#1); 06-Mar-19, 19:26:13 (#2)
Operator : MAH
Sample : 9030618-02
Misc : WEST NEIGHBORHOOD 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 07 06:33:17 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

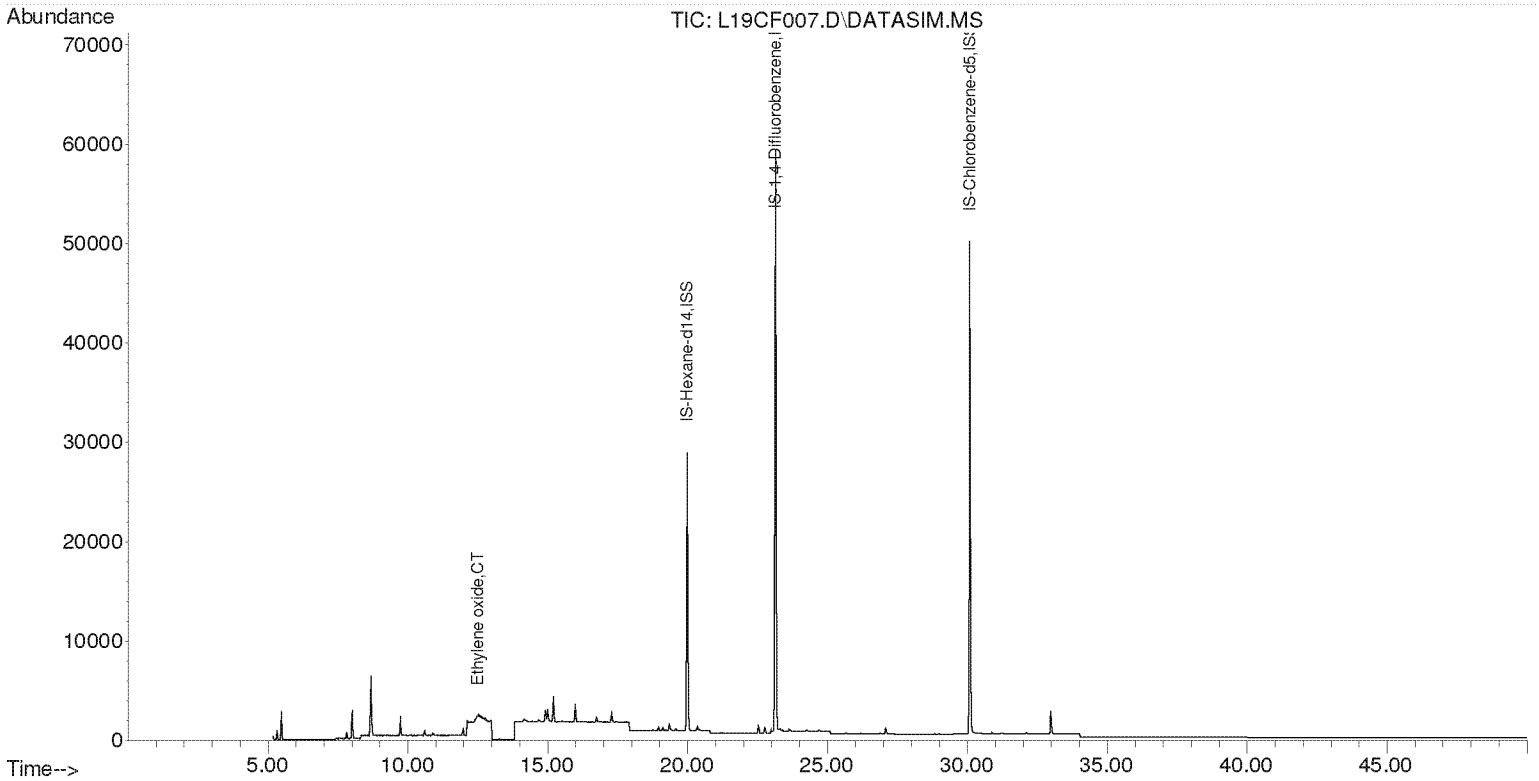
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene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

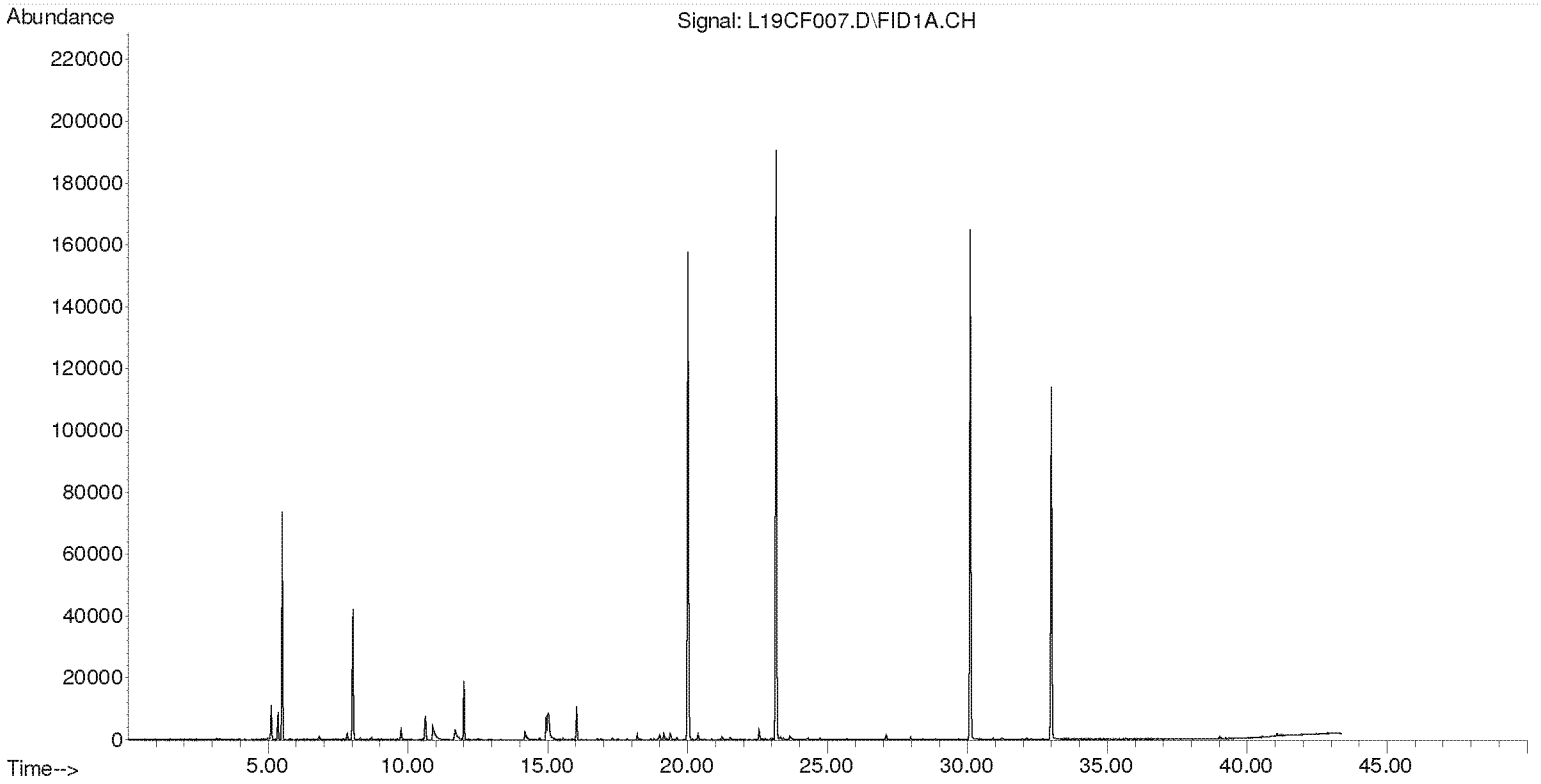
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

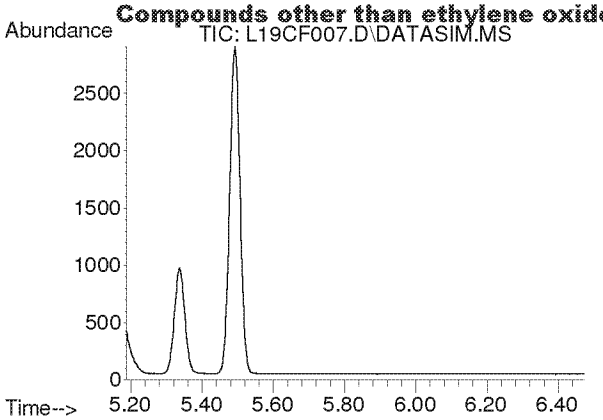
Data Path : Y:\MASS SPEC 1 DATA\L19CF\
Data File : L19CF007.D
Acq On : 6 Mar 2019 7:31 pm (#1); 06 Mar 2019 7:26 pm (#2)
Operator : MAH
Sample : 9030618-02
Misc : WEST NEIGHBORHOOD 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Mar 07 06:24:08 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





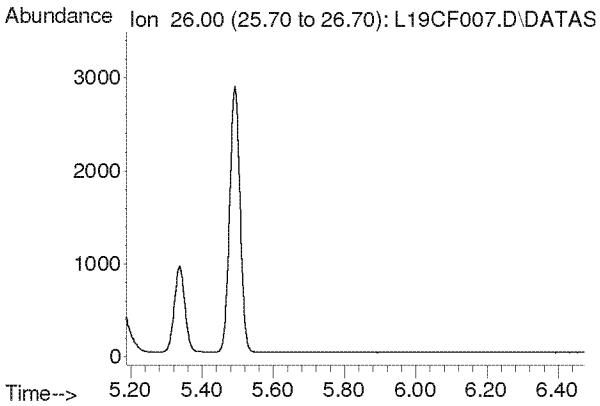
Compounds other than ethylene oxide were not quantitated.

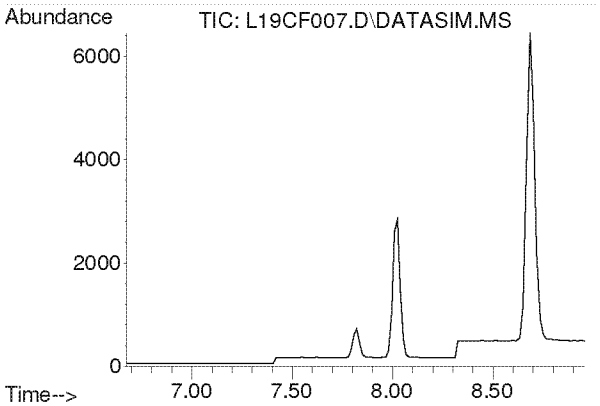


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 26



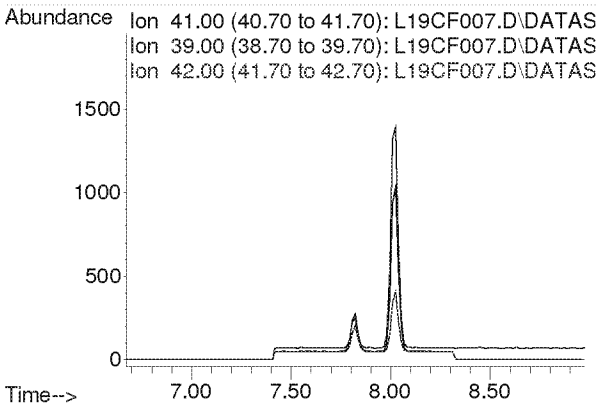


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

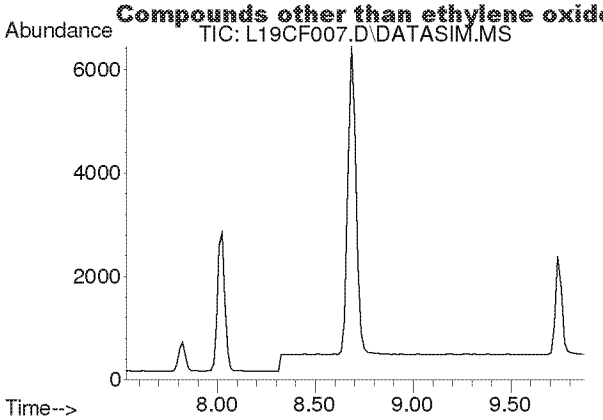
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

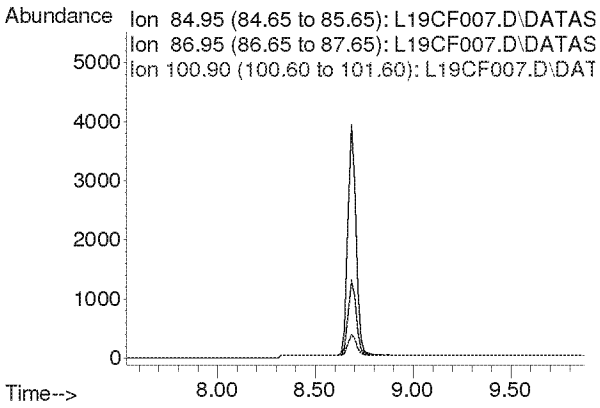


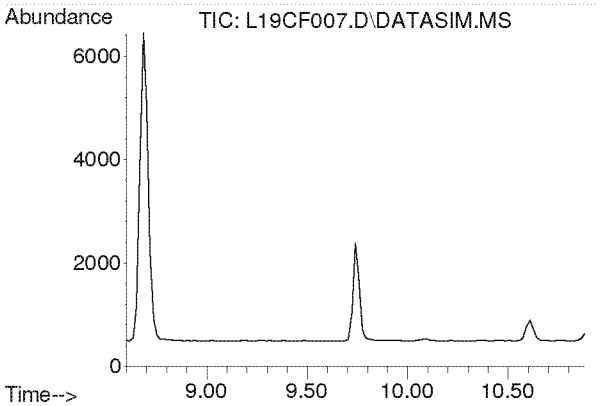
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



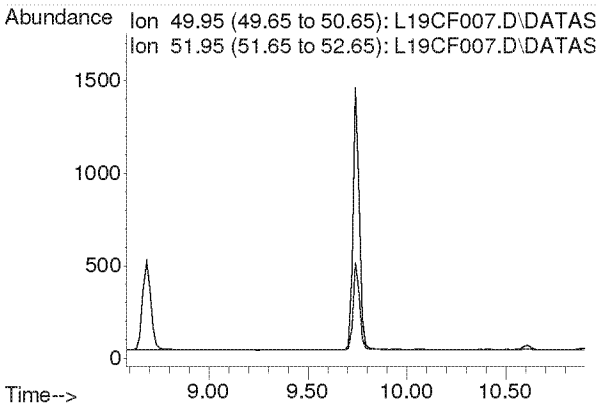


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

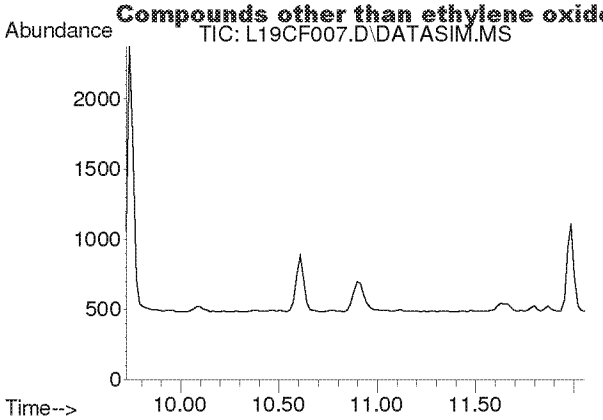
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

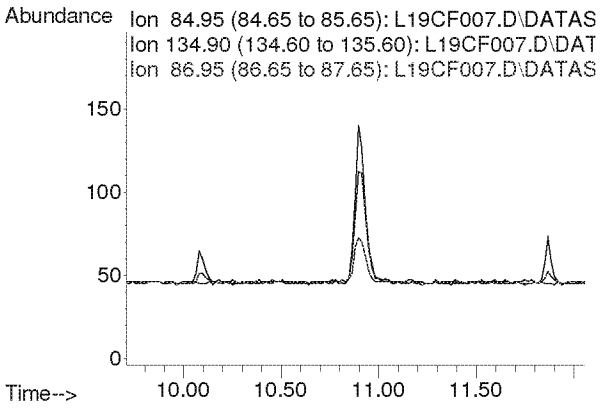


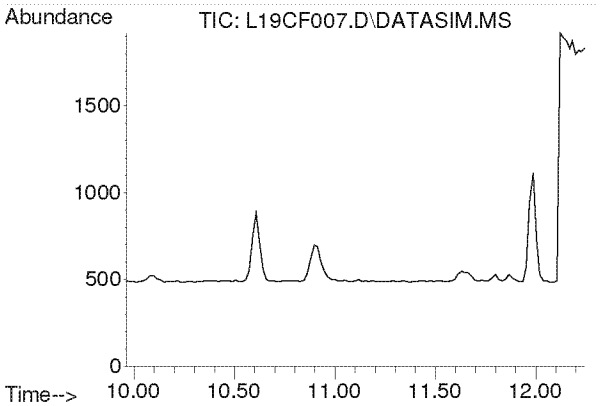
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



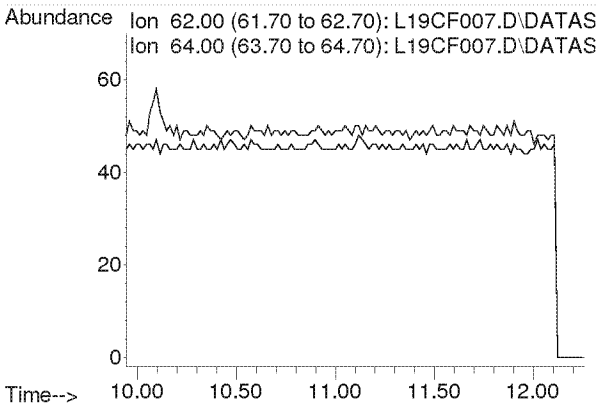


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

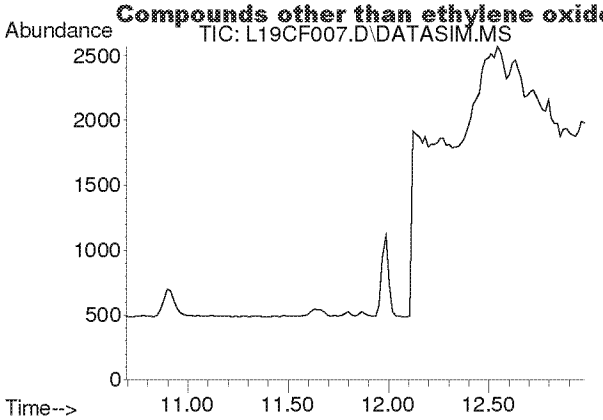
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

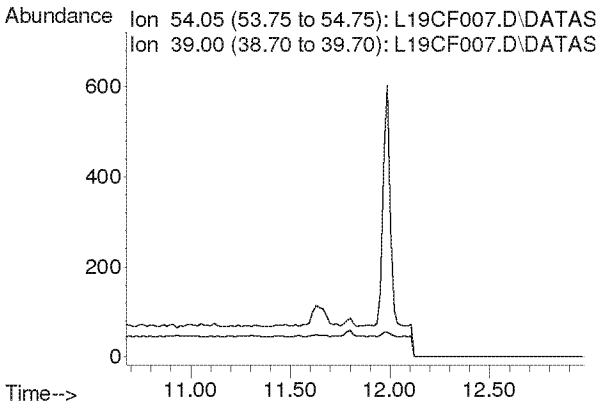


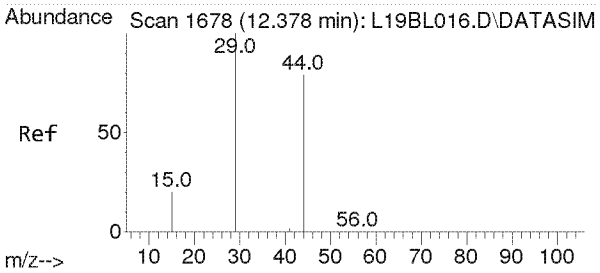
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

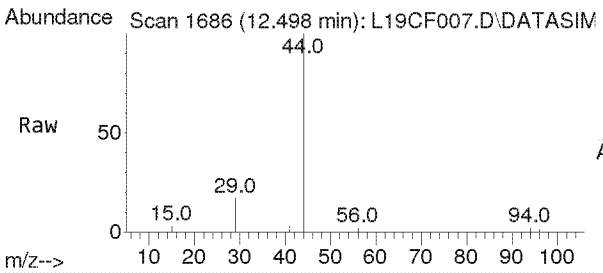


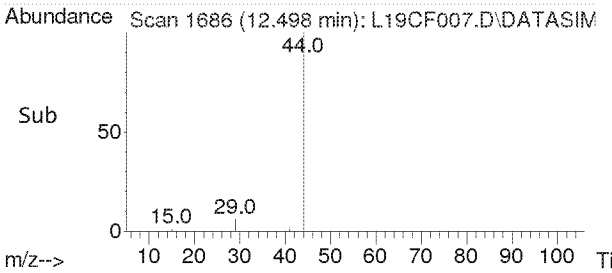


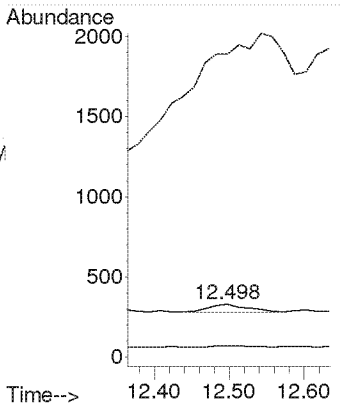
#9
Ethylene oxide
Concen: 0.062 ppbv m
RT: 12.498 min Scan# 1686
Delta R.T. 0.048 min
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 29 Resp: 166

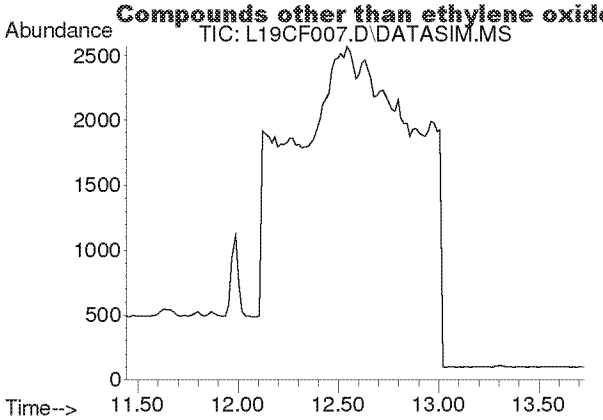
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.0	24.0#
44	4369.9	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

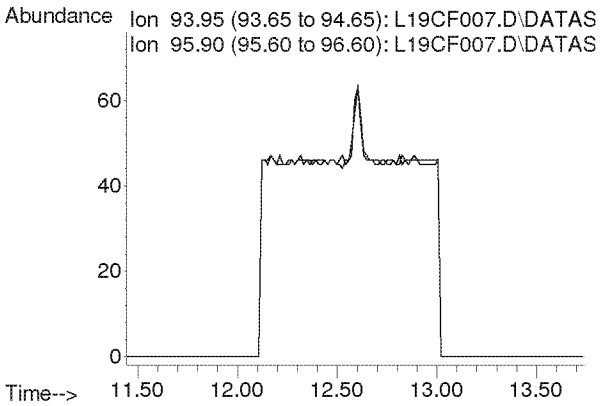


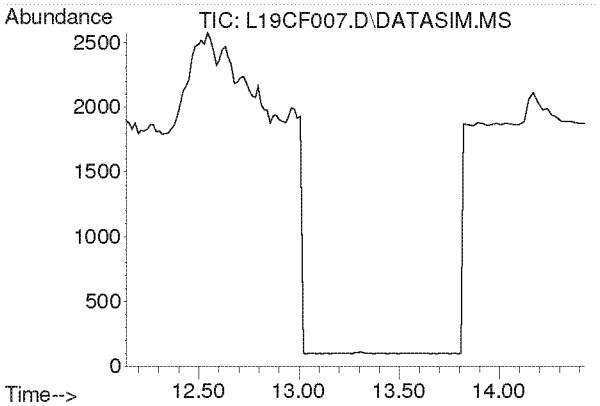
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



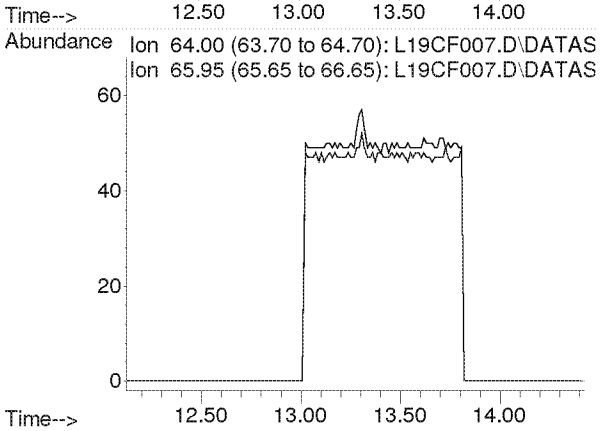


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

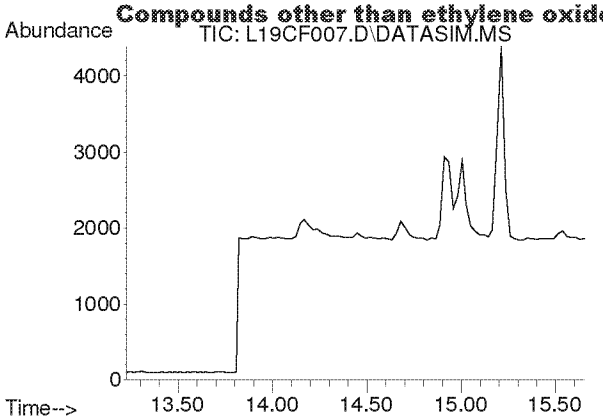
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

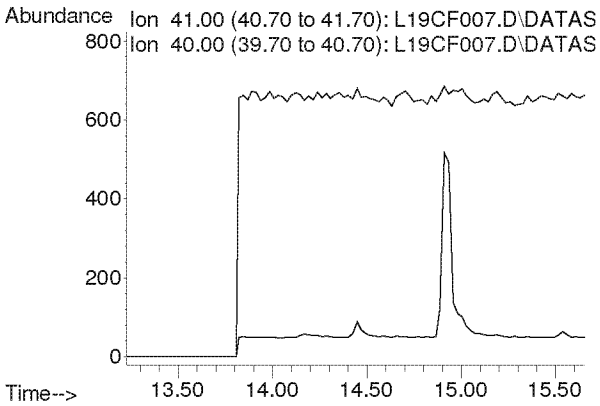


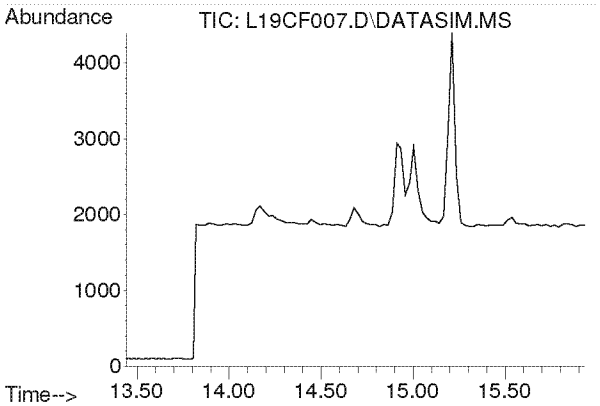
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



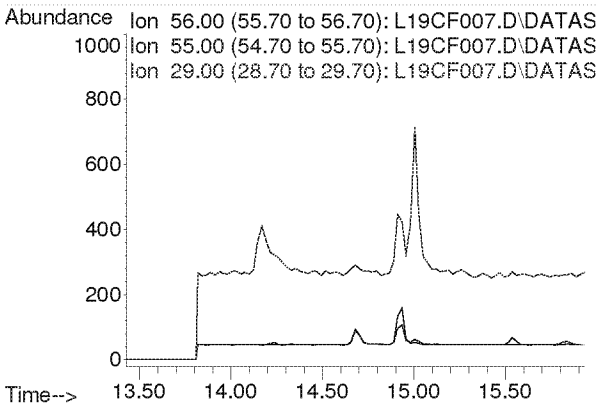


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

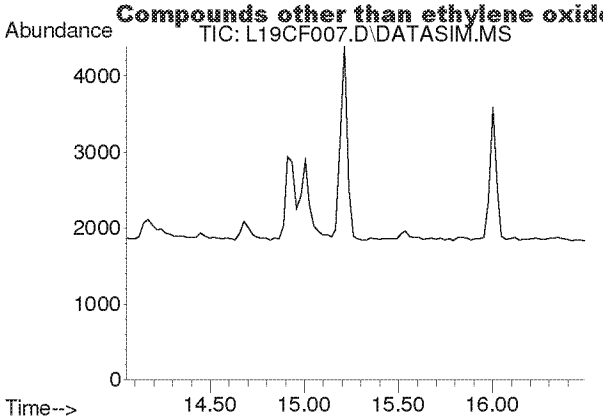
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

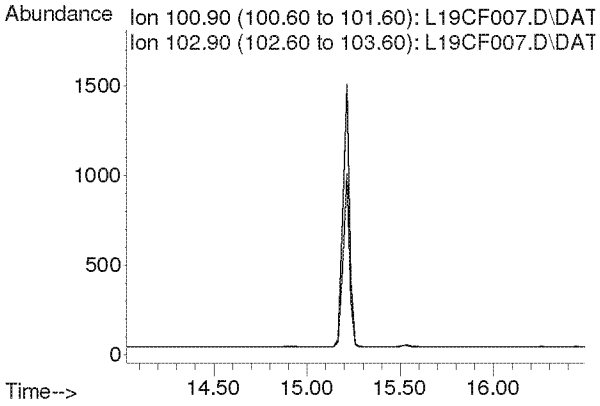


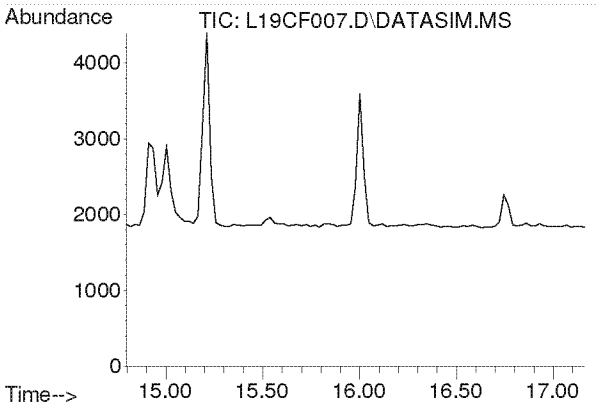
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



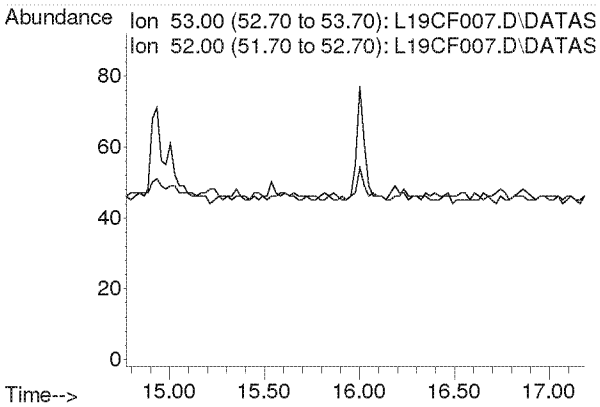


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

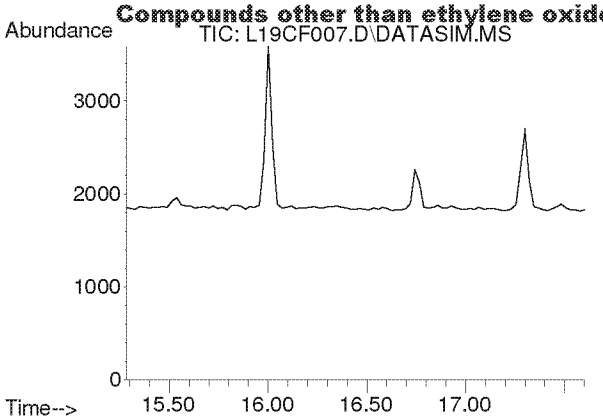
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

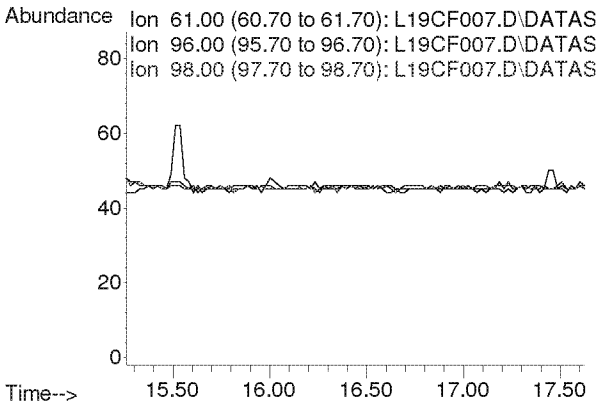


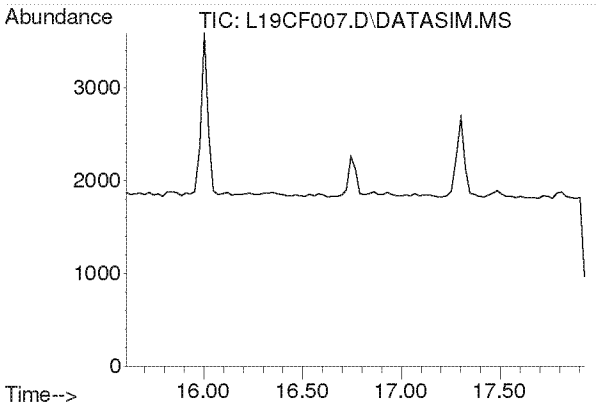
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



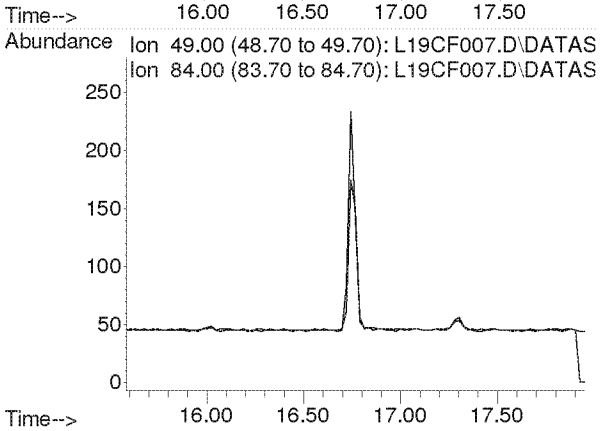


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

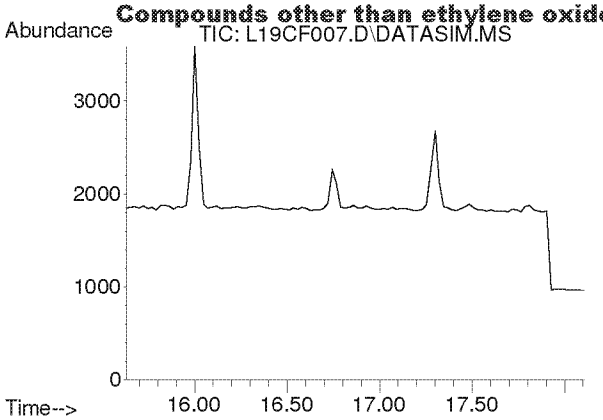
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

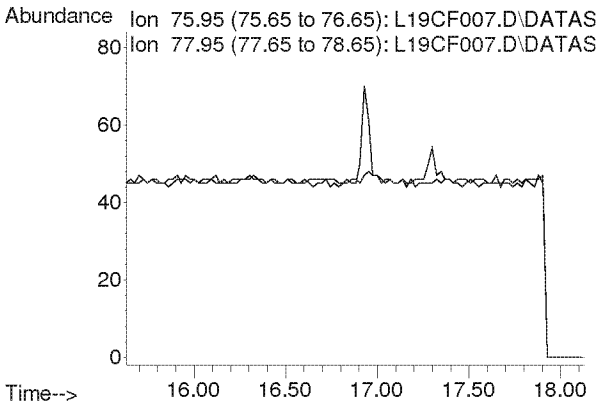


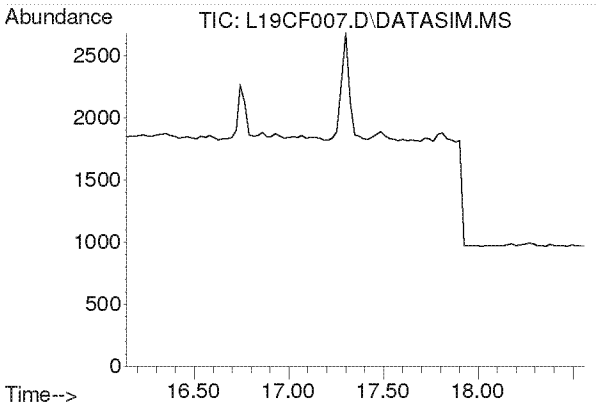
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



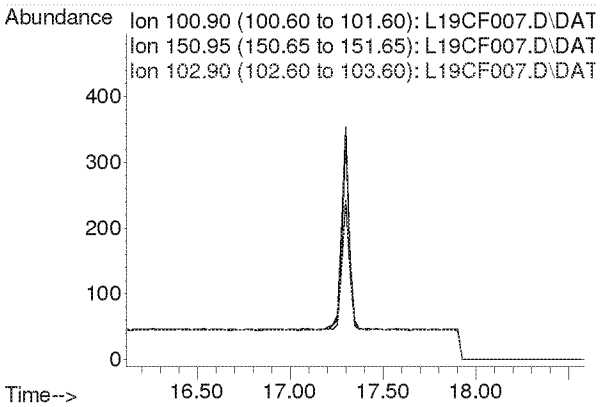


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

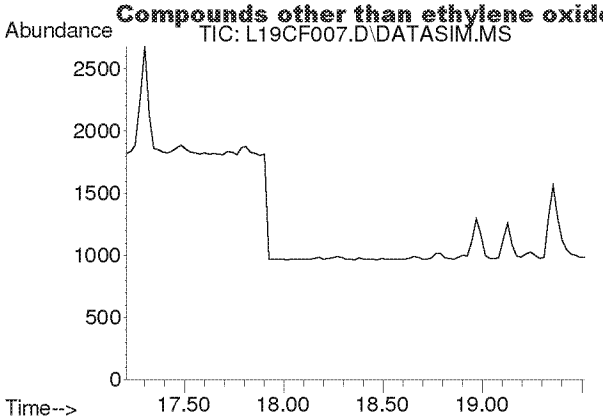
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

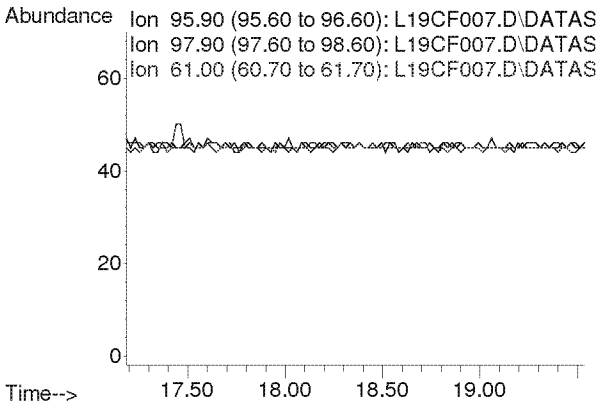


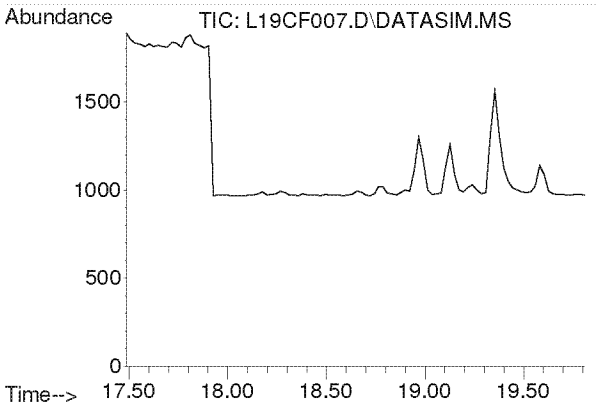
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



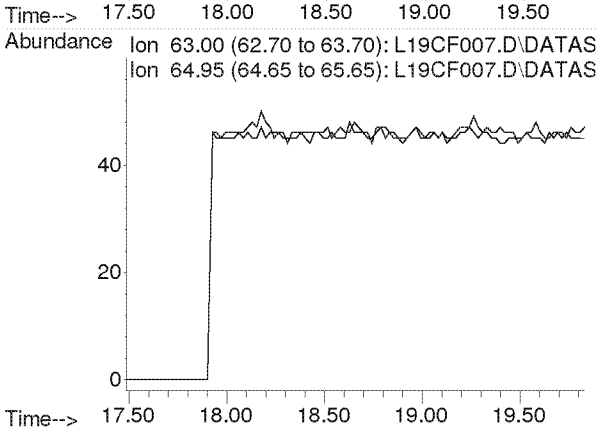


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

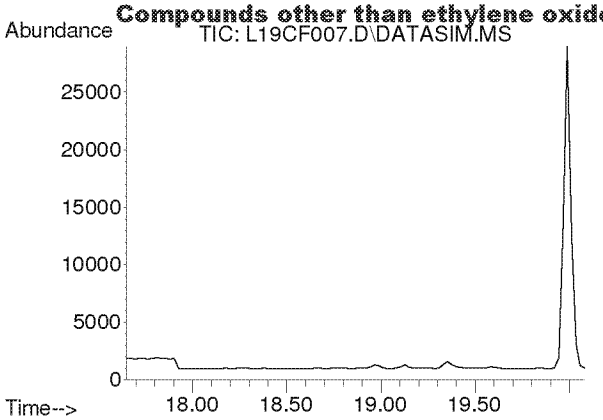
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

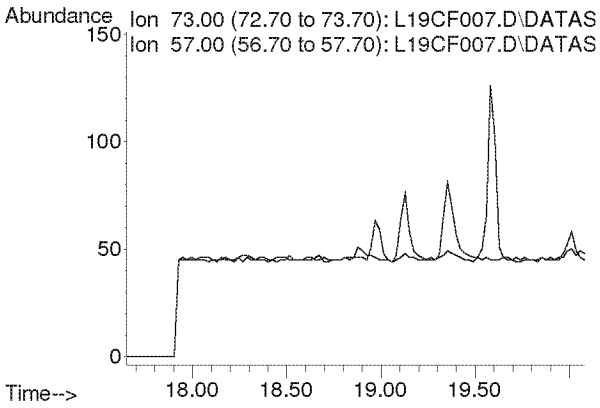


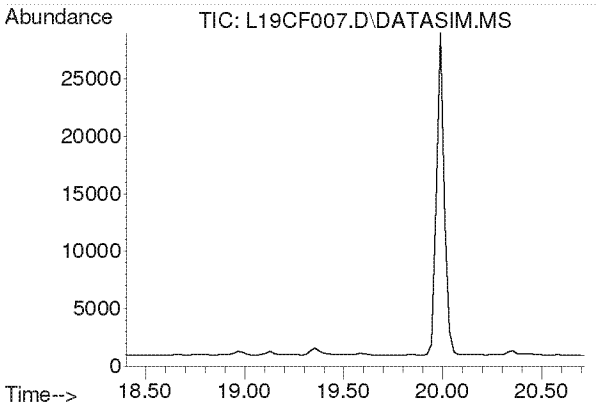
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



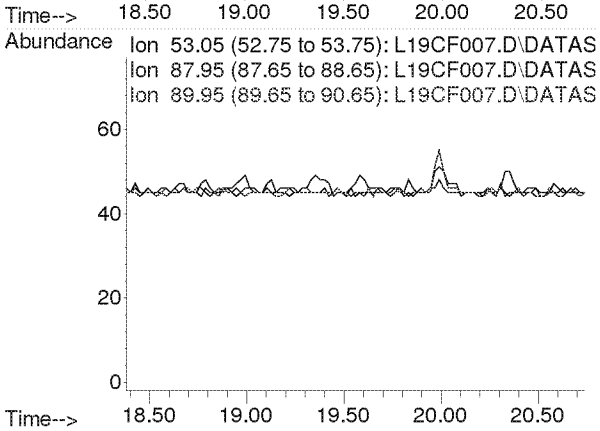


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

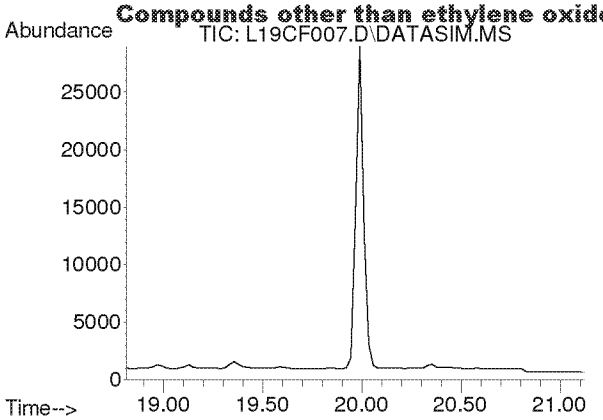
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

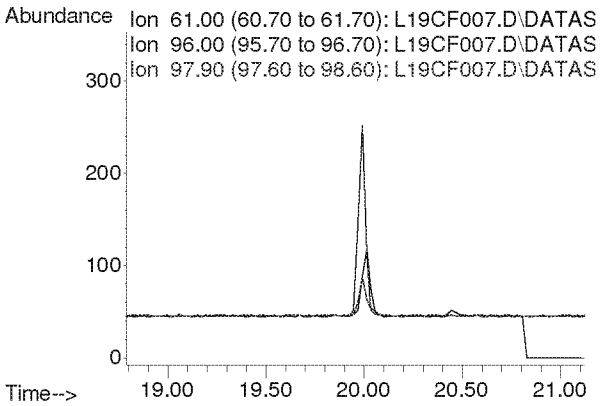


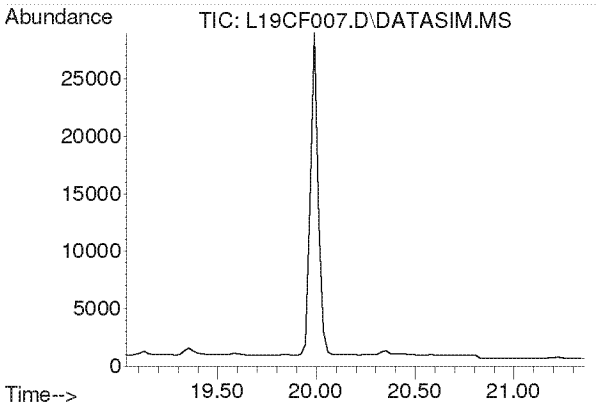
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



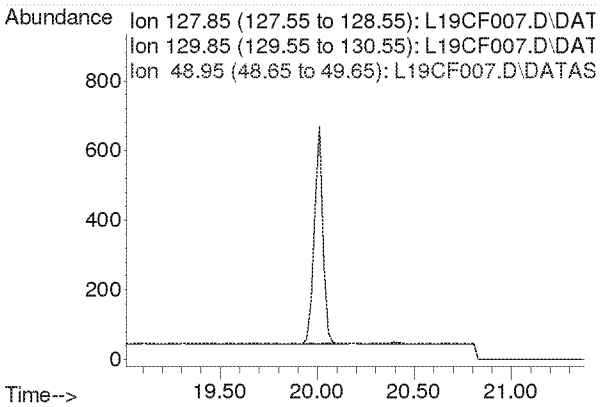


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

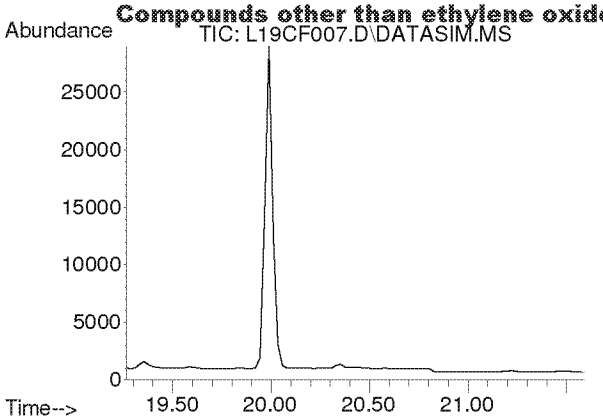
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

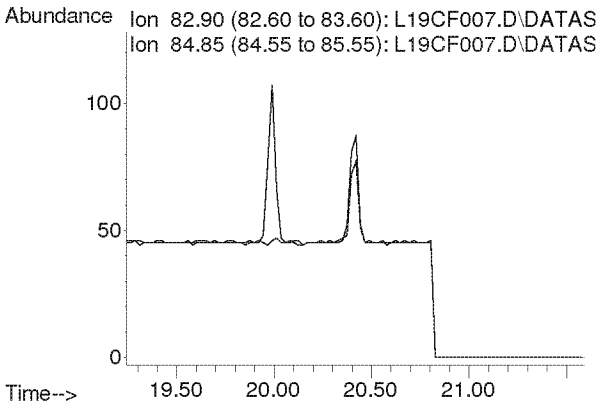


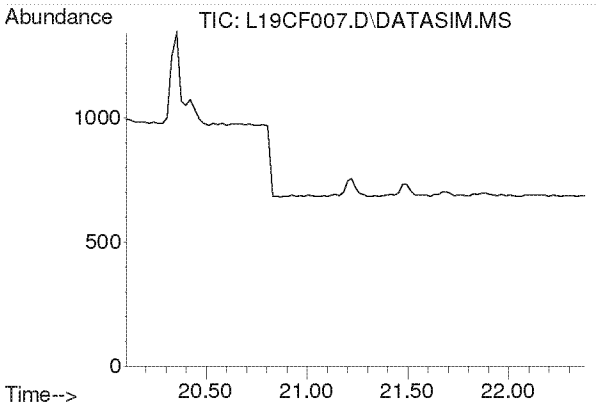
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



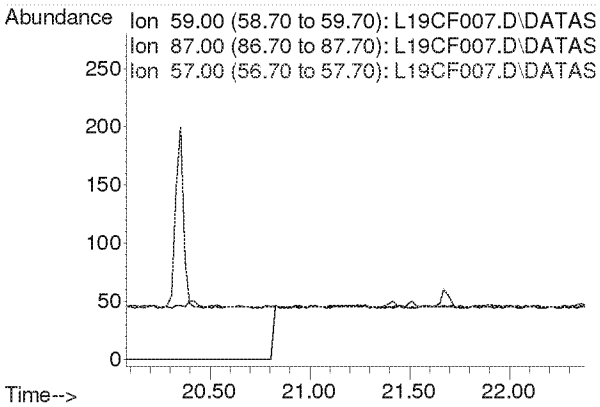


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

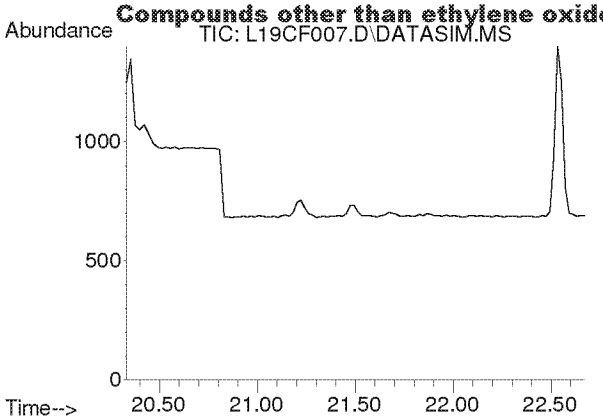
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

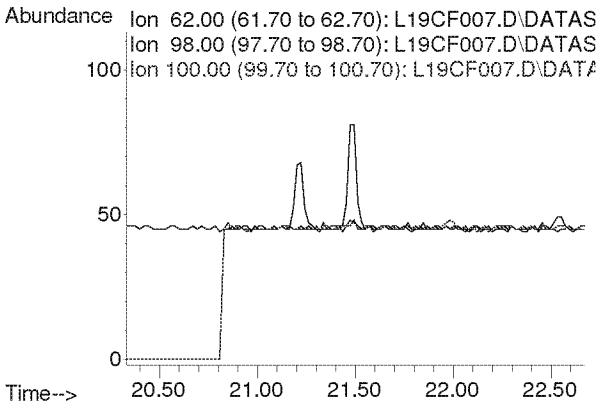


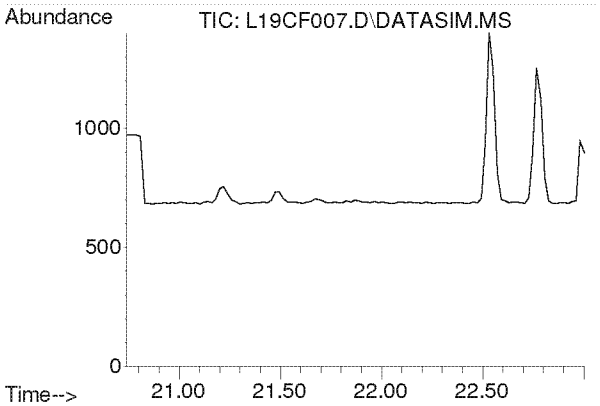
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



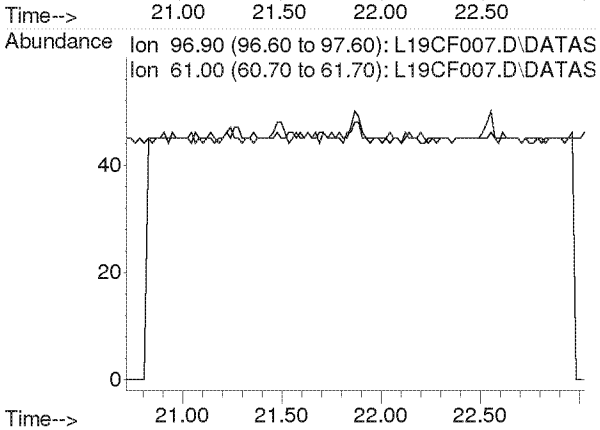


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

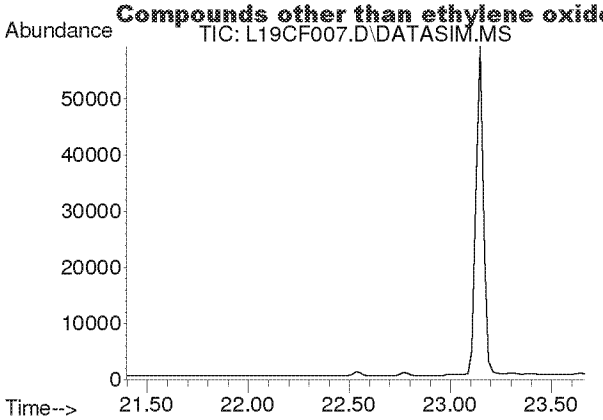
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

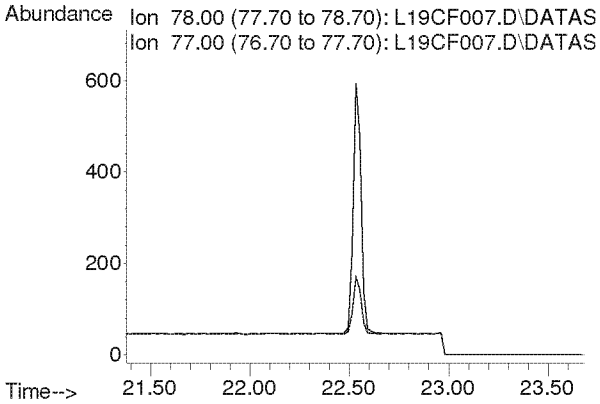


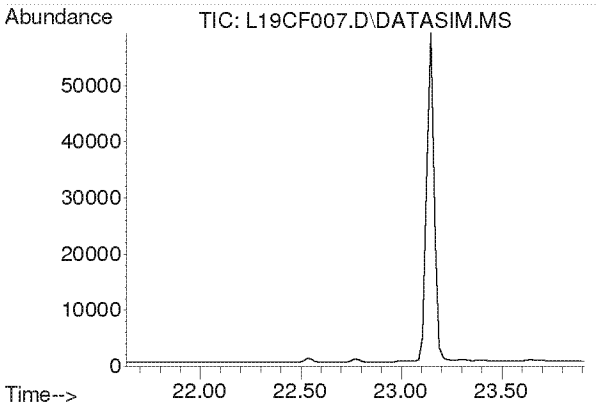
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



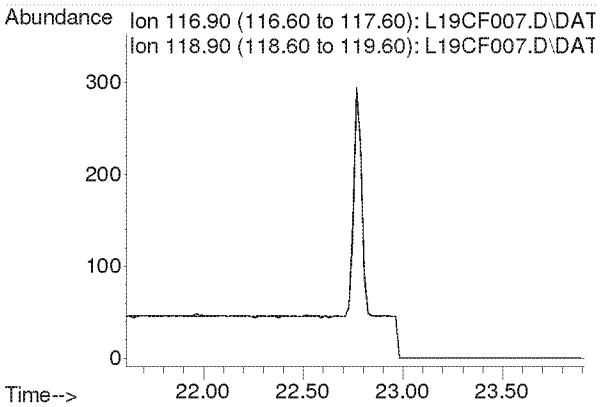


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

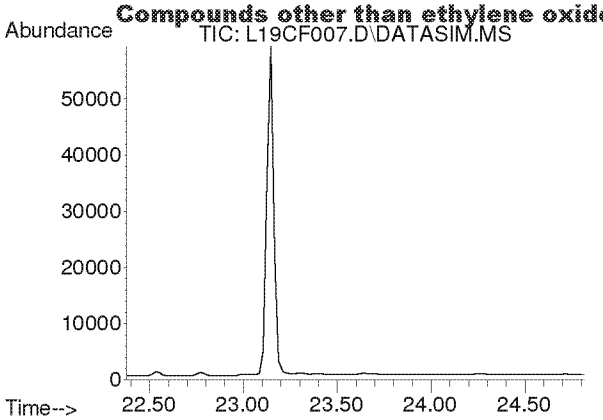
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

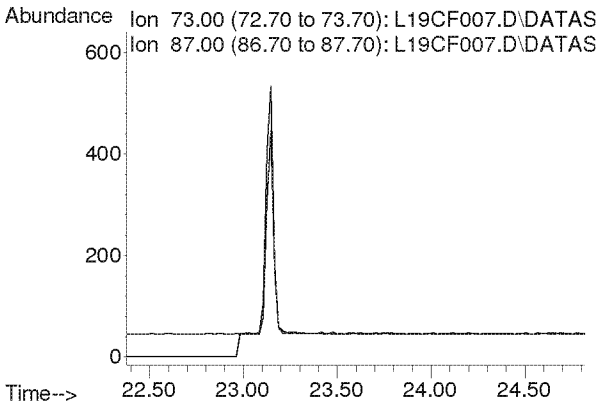


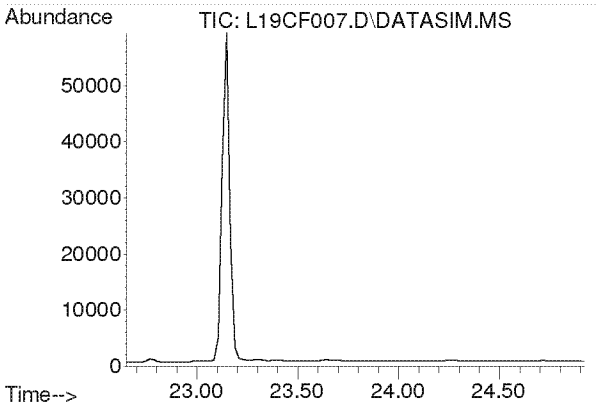
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



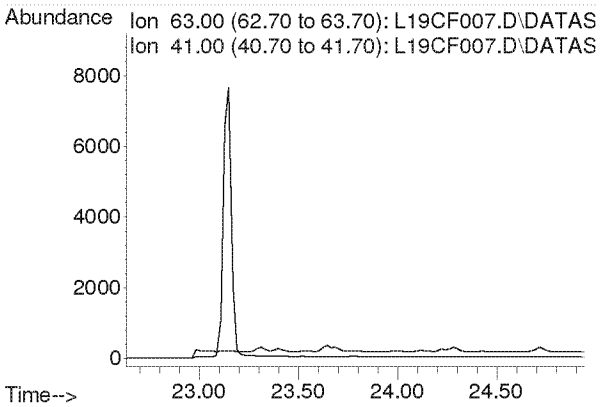


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

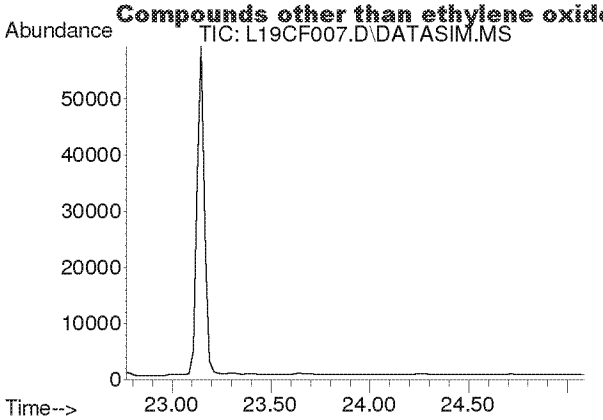
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

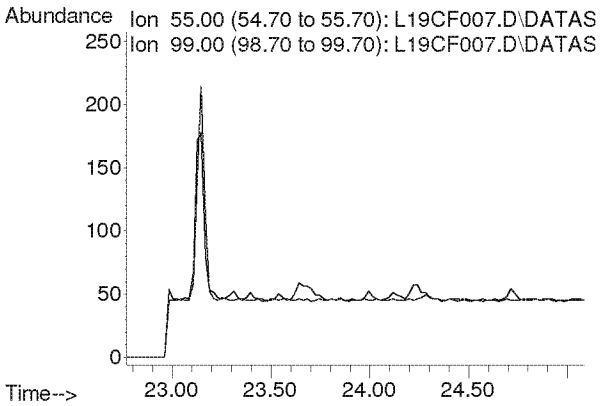


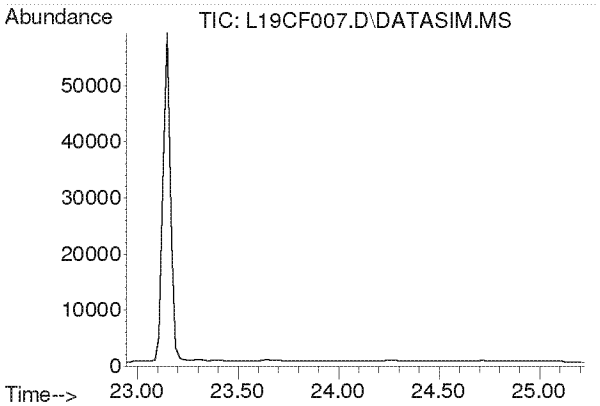
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



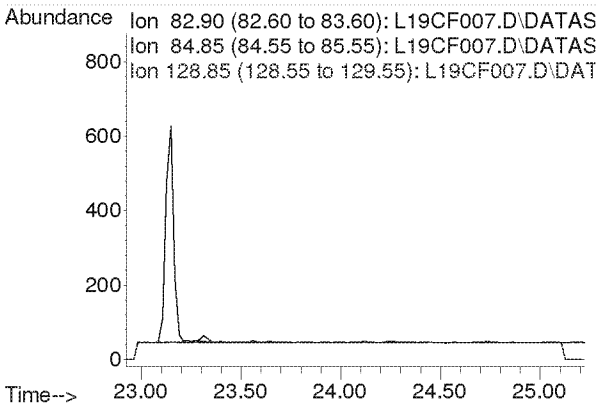


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

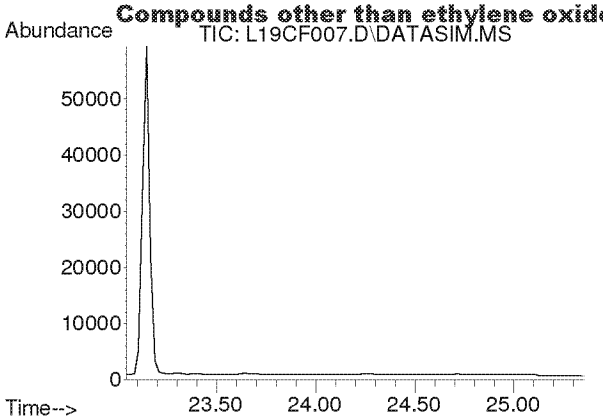
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

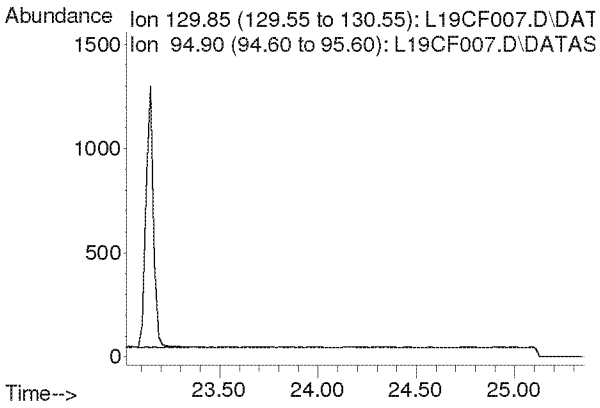


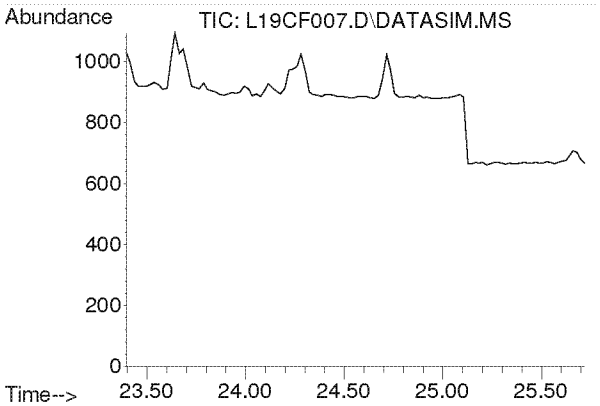
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



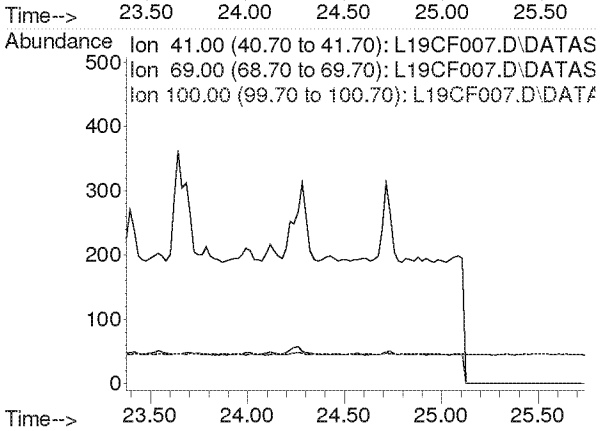


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

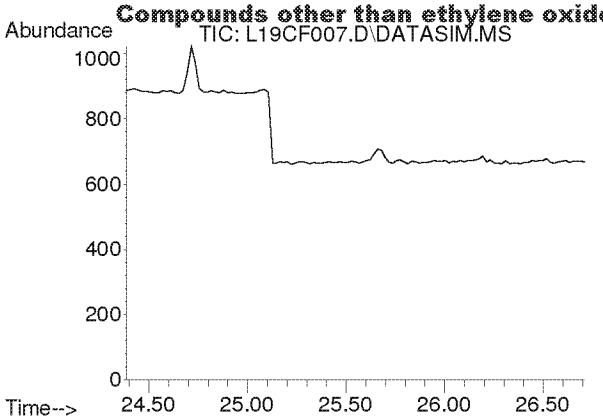
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

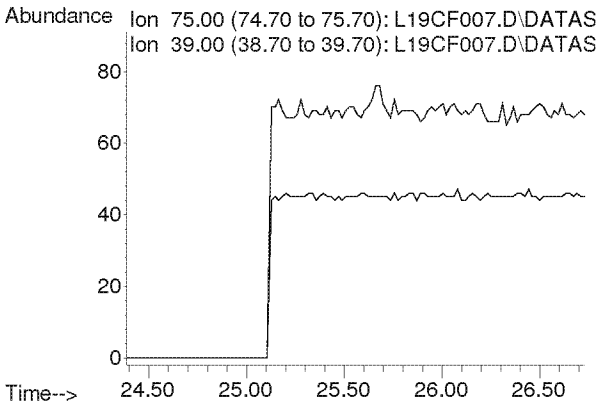


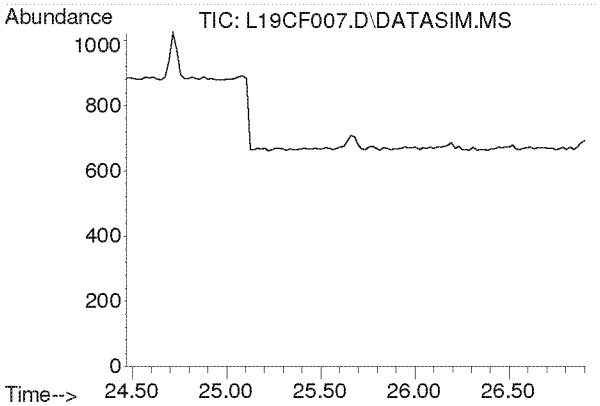
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



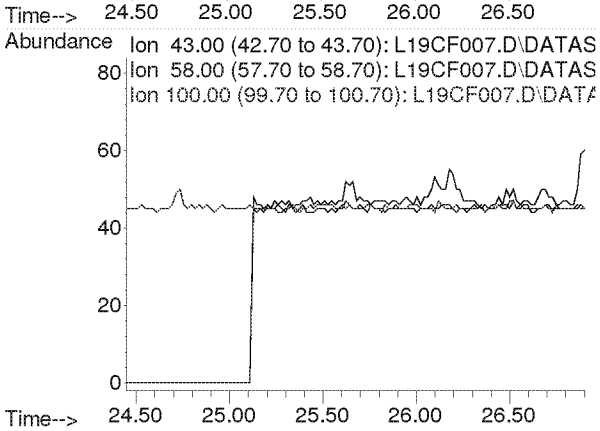


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

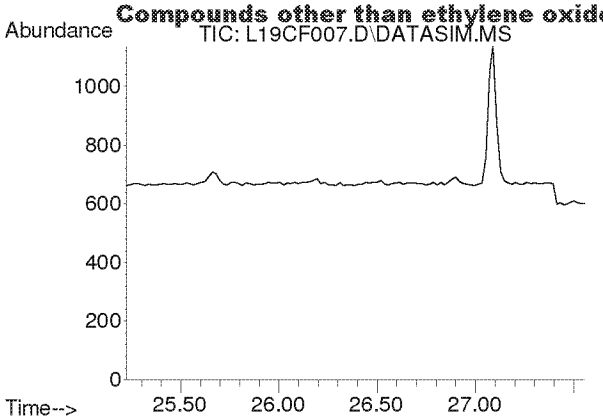
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

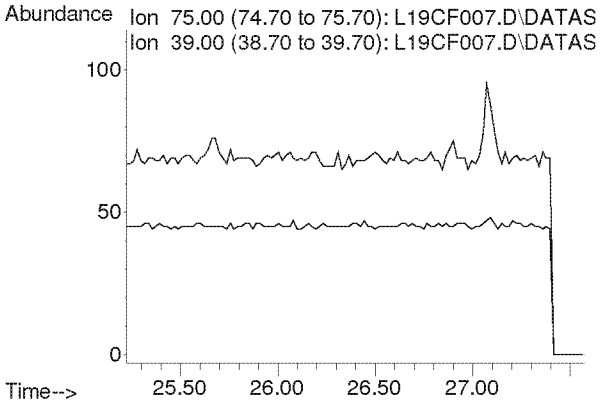


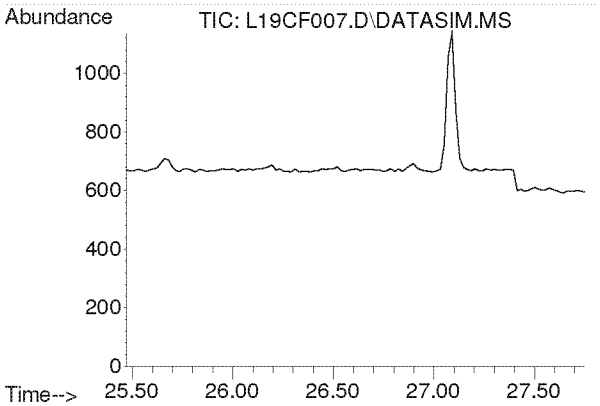
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



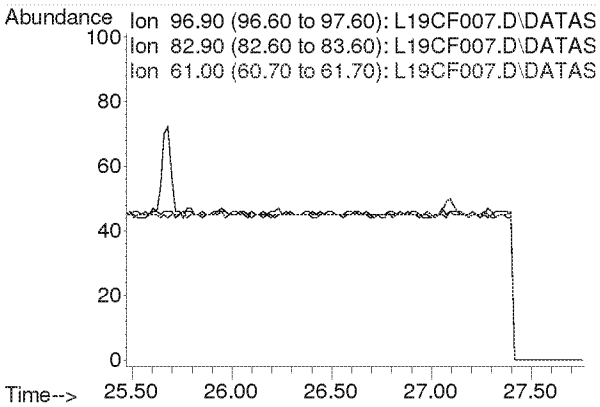


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

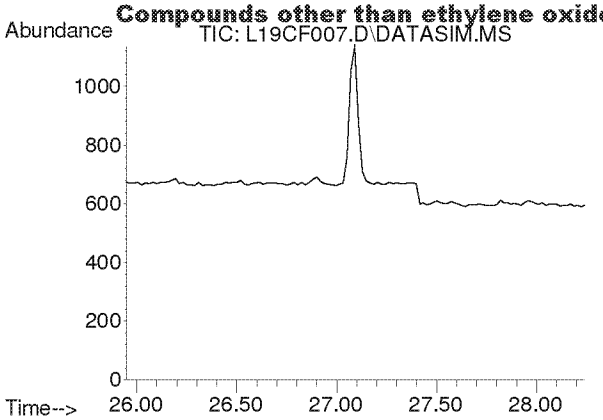
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

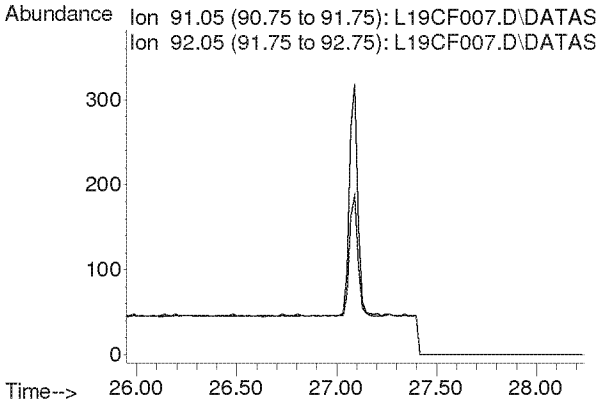


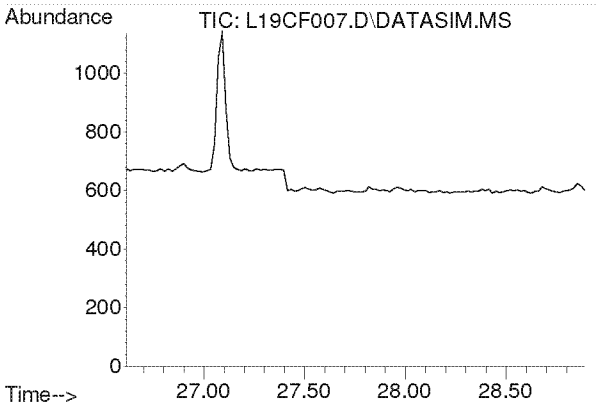
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



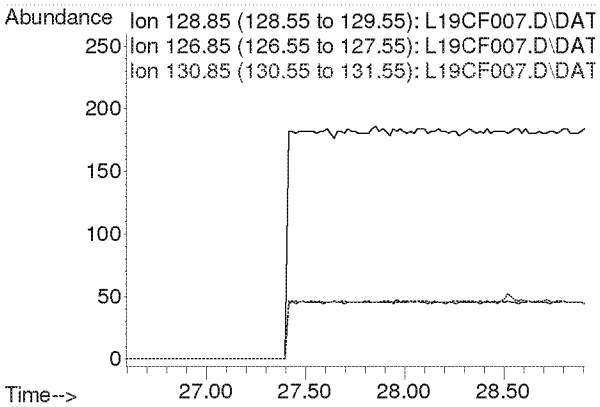


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

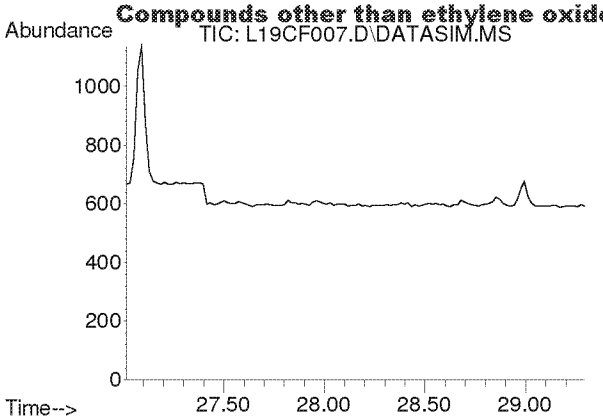
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

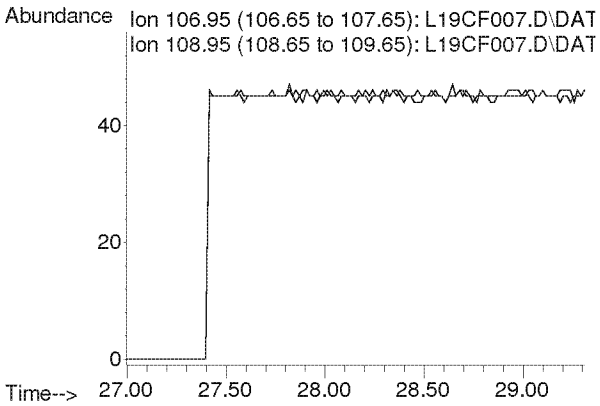


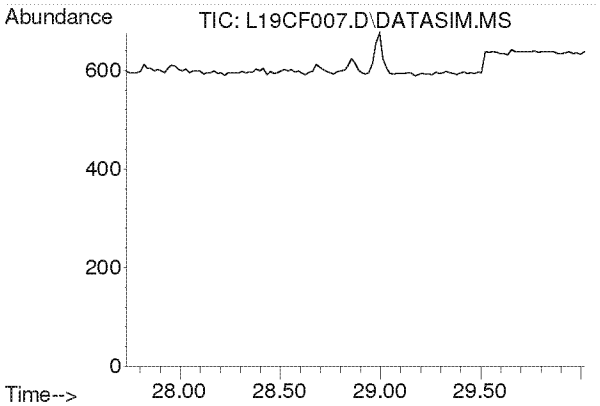
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



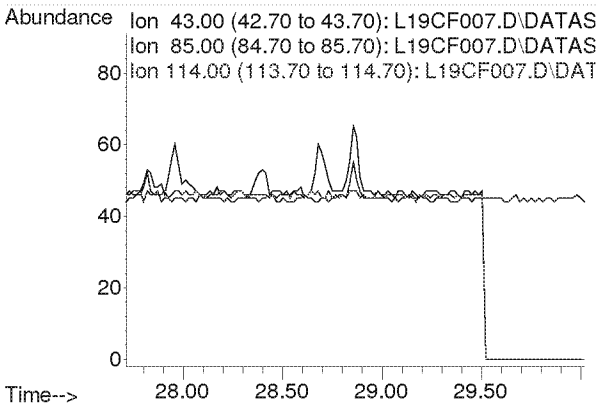


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

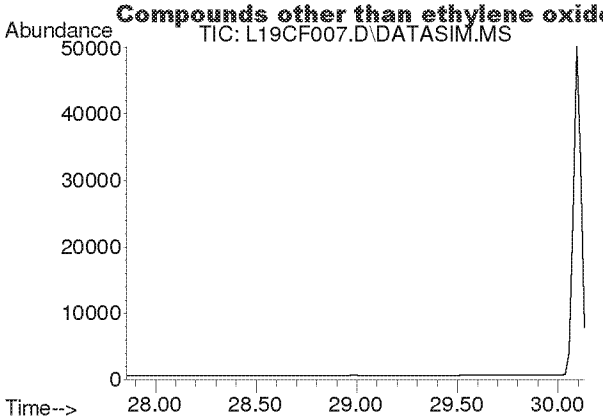
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

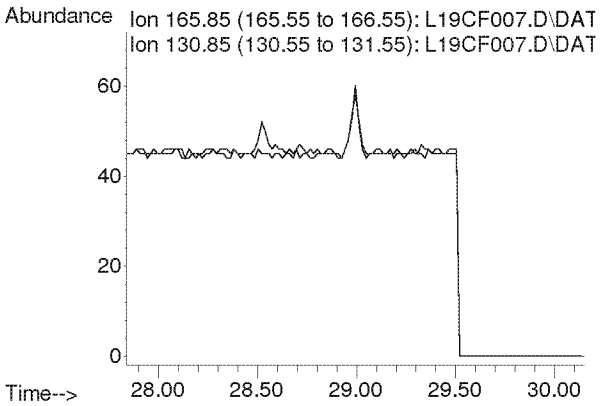


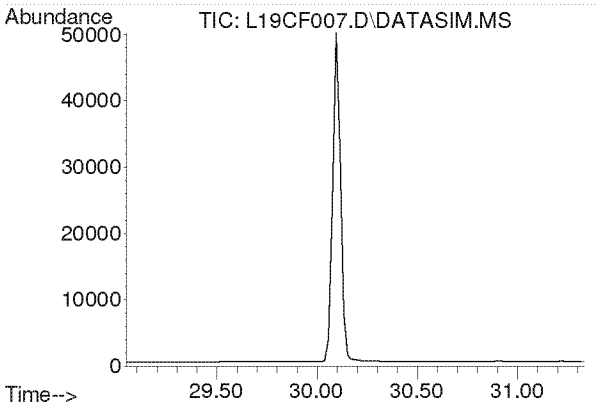
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



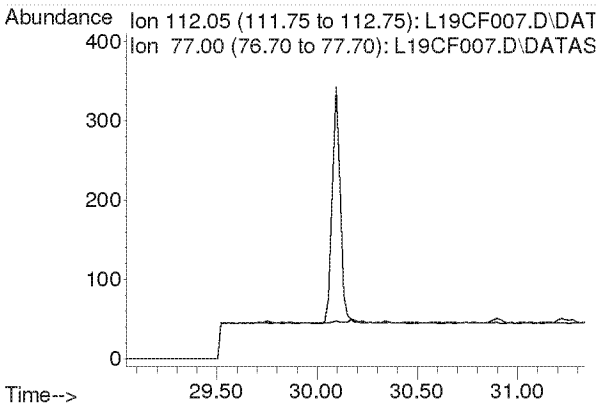


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

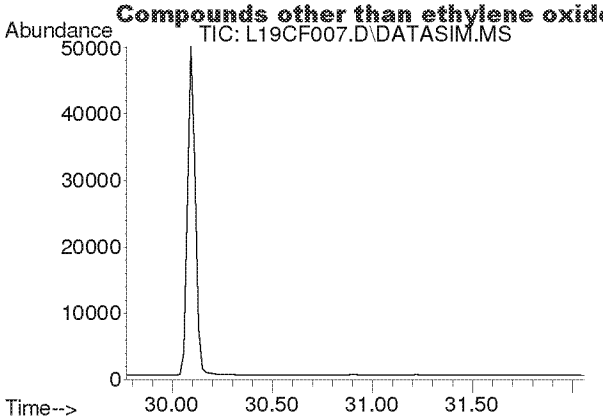
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

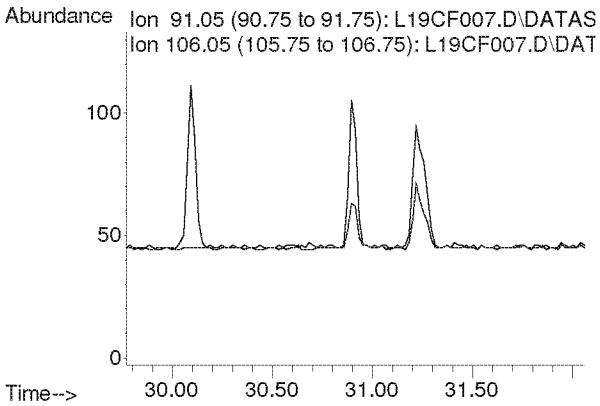


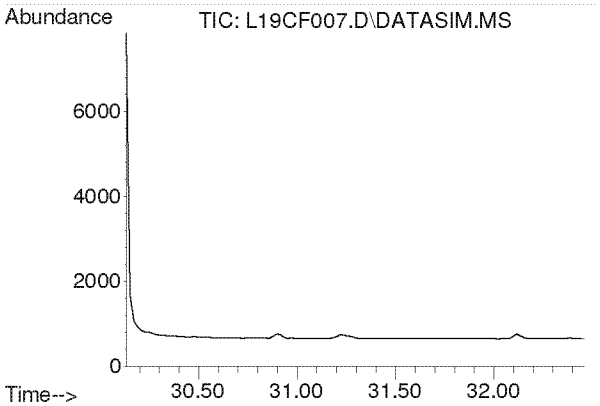
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



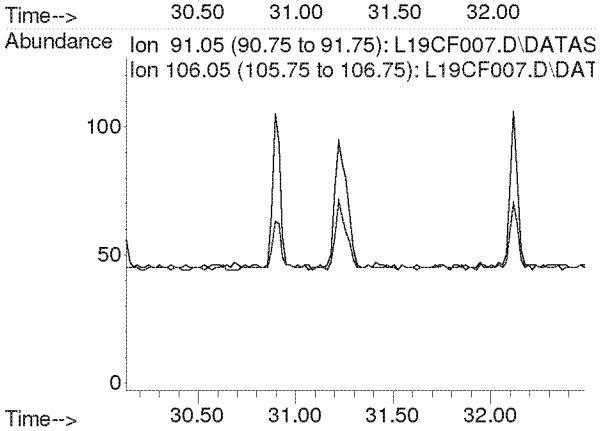


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

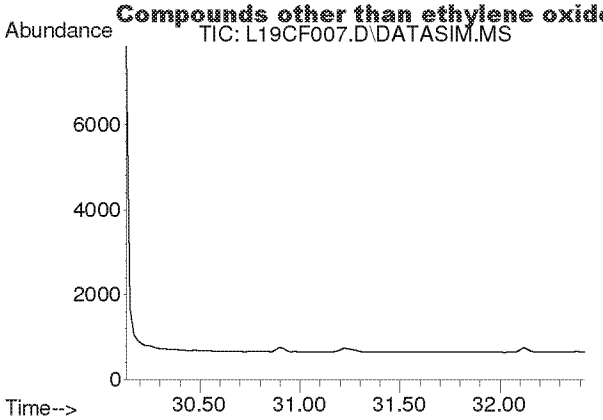
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

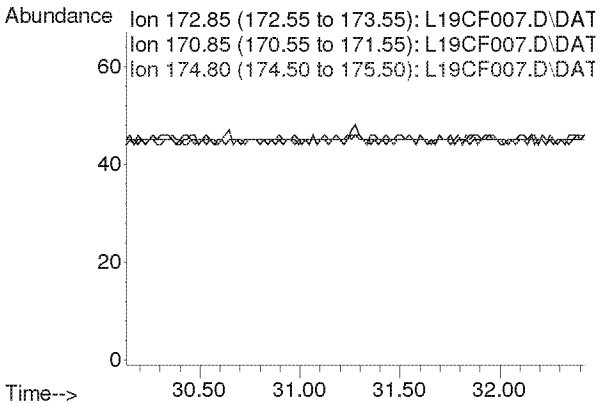


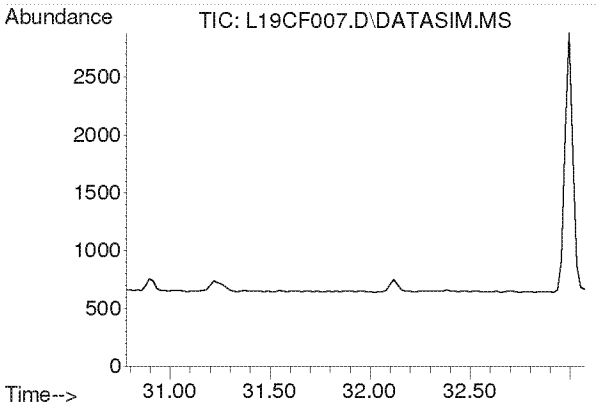
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



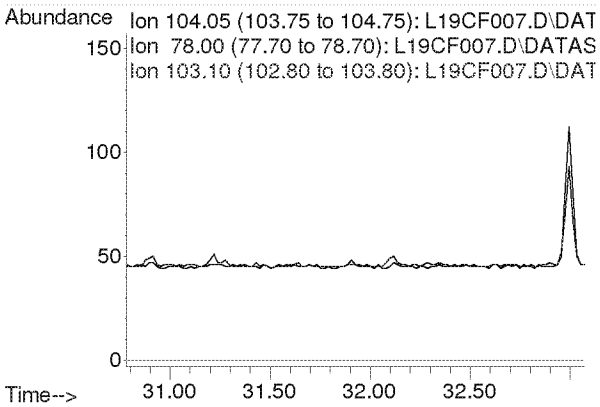


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

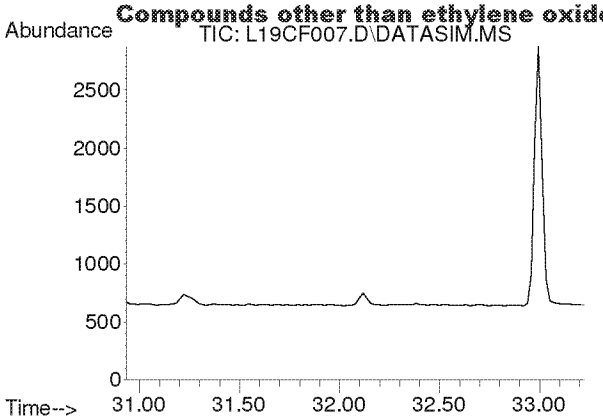
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

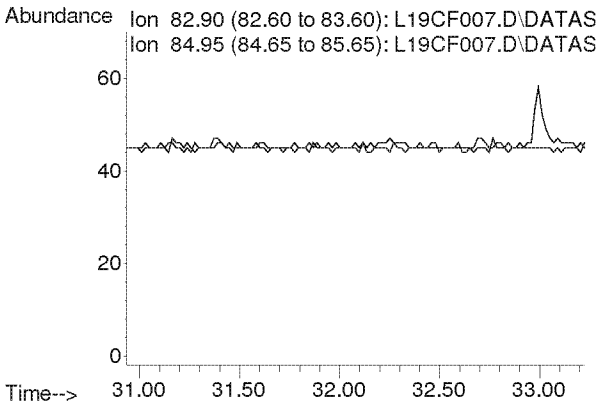


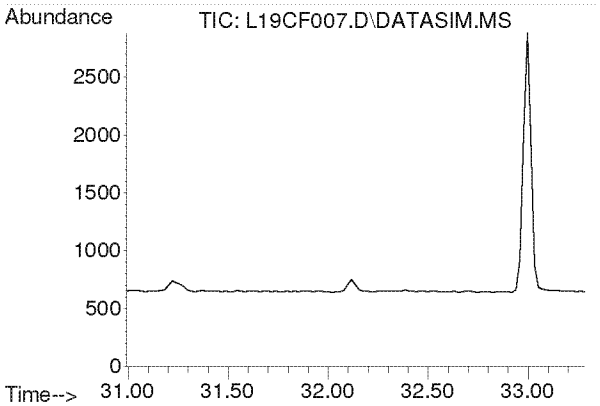
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



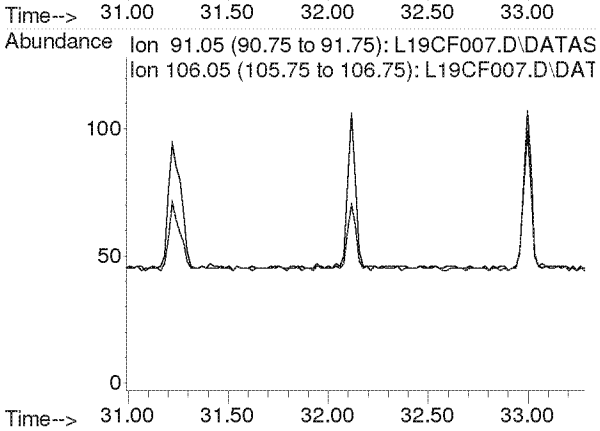


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

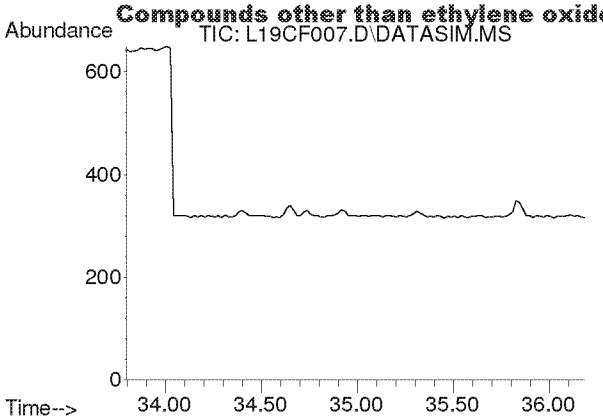
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

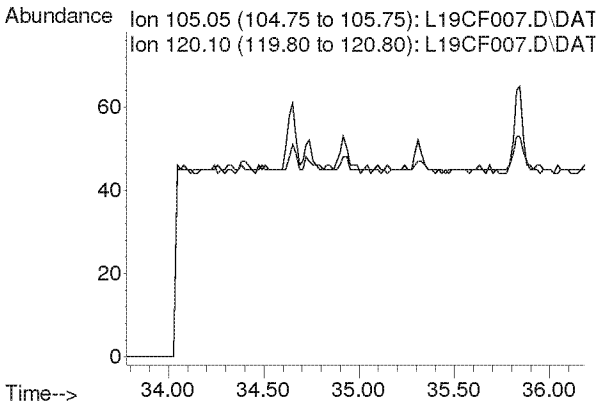


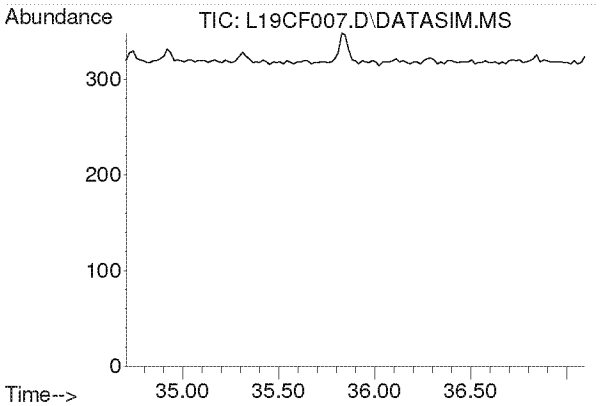
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



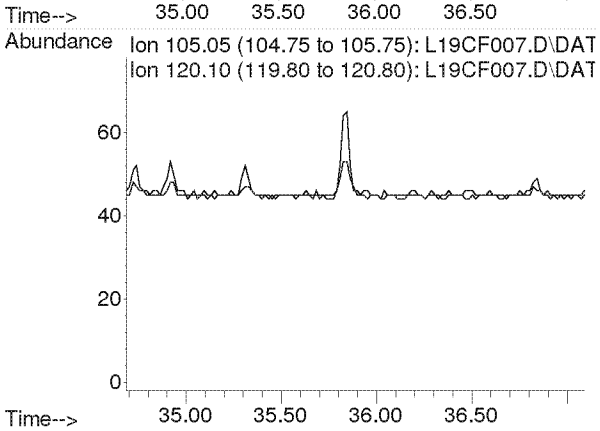


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

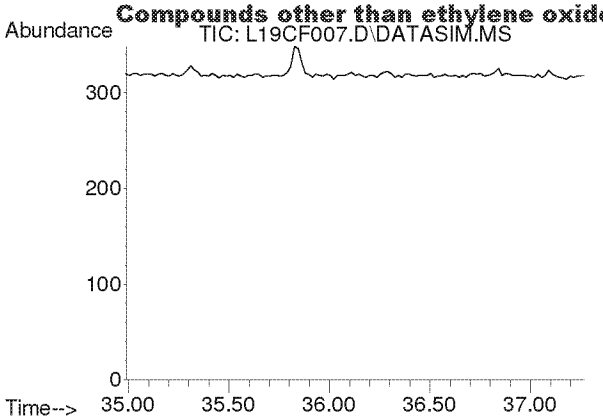
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

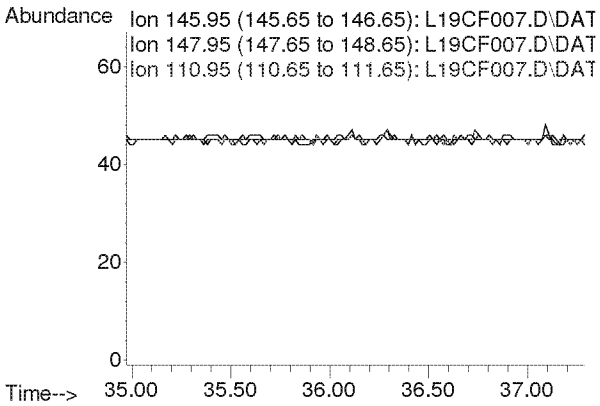


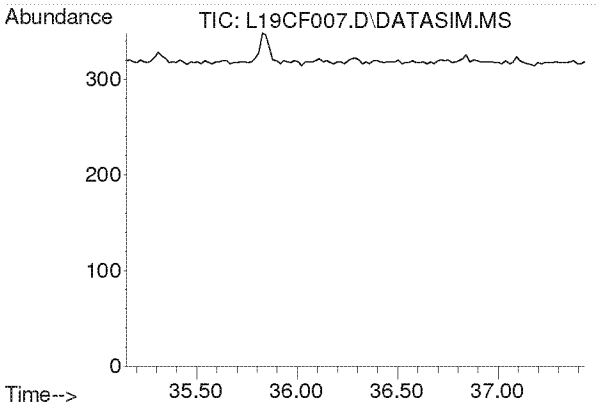
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



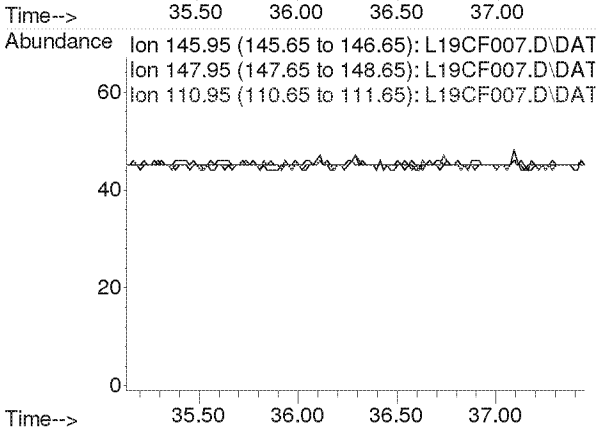


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

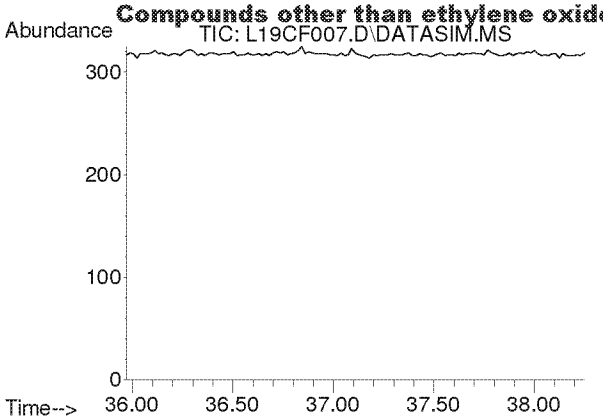
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

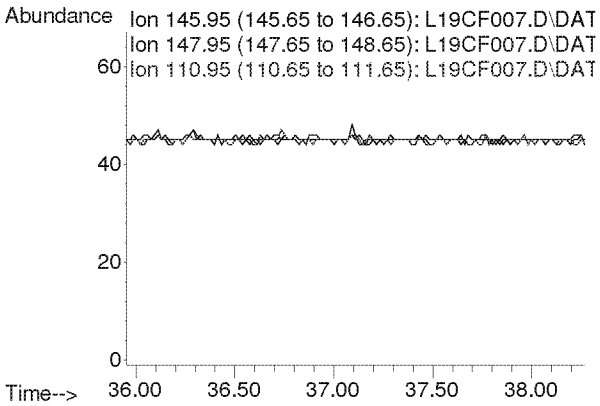


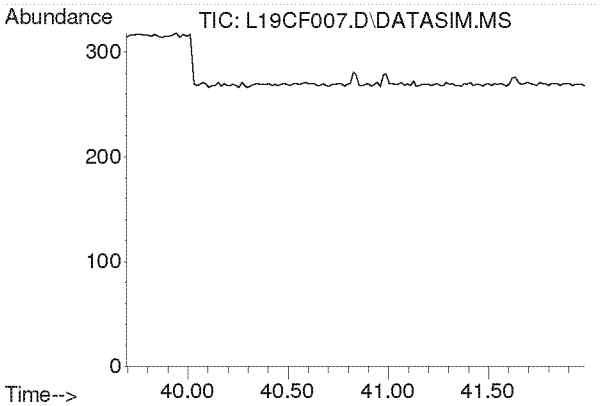
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



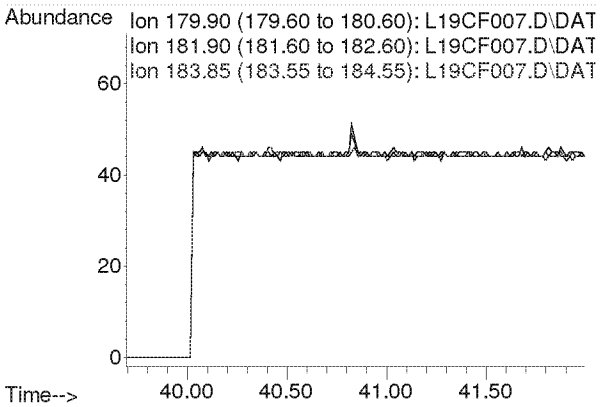


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

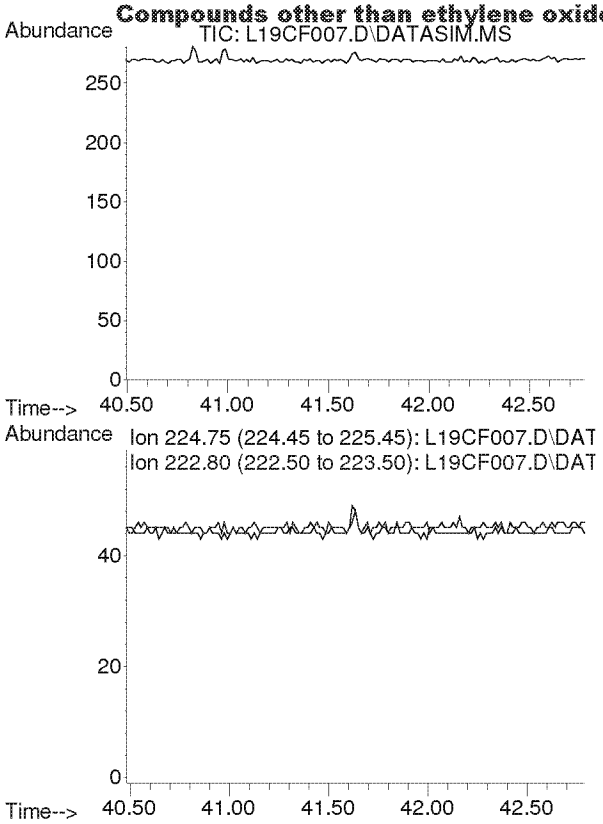
Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CF007.D
Acq: 6 Mar 2019 7:31 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CF\
Data File : L19CF008.D
Acq On : 6 Mar 2019 8:31 pm (#1); 06-Mar-19, 20:26:13 (#2)
Operator : MAH
Sample : 9030618-03
Misc : WATER TOWER 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 07 06:33:48 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

ETOX only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	47255	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	121177	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.094	117	84292	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	0.000	29	0	N.D. d SR	
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.	
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\L19CF\
Data File : L19CF008.D
Acq On : 6 Mar 2019 8:31 pm (#1); 06-Mar-19, 20:26:13 (#2)
Operator : MAH
Sample : 9030618-03
Misc : WATER TOWER 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 07 06:33:48 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

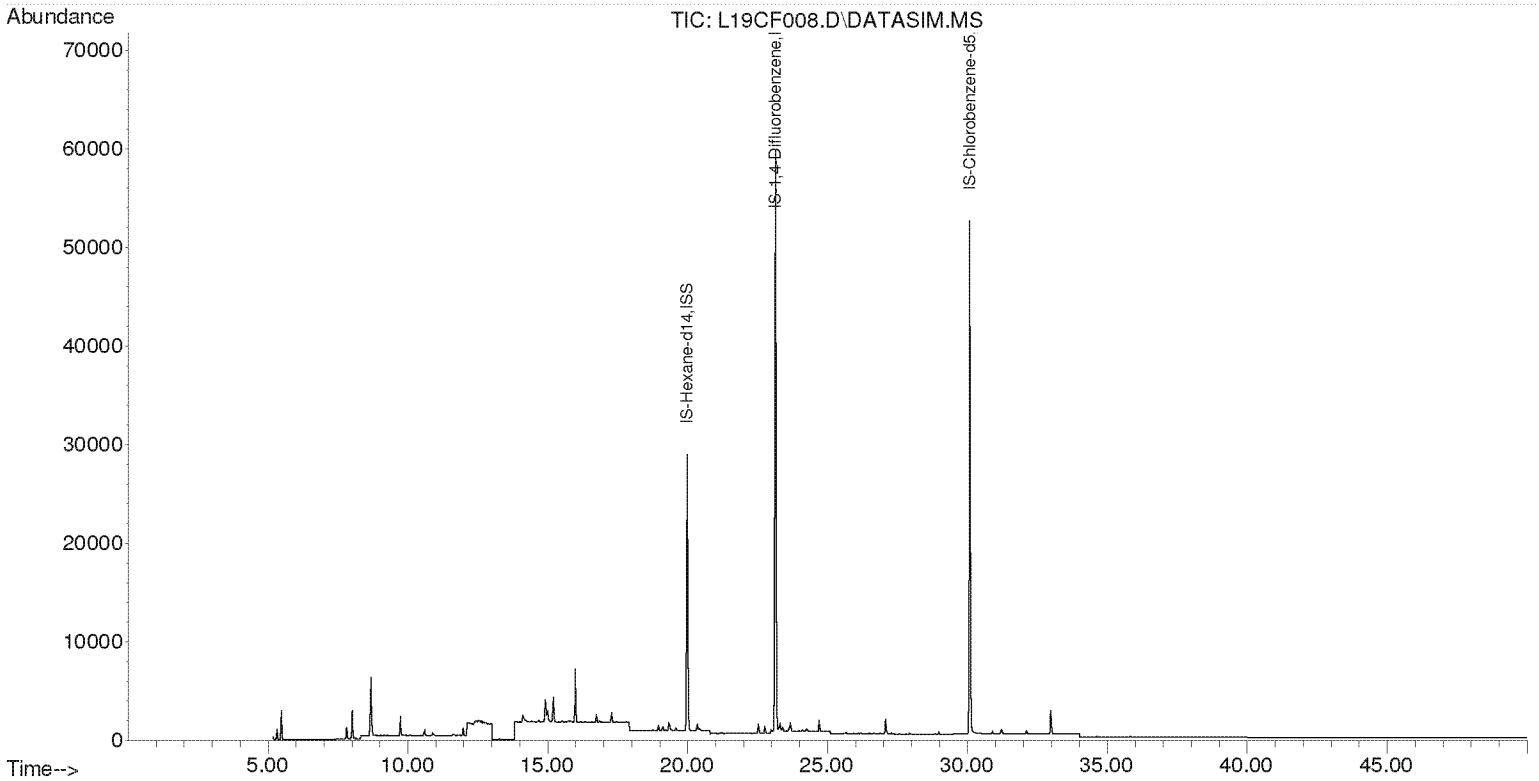
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

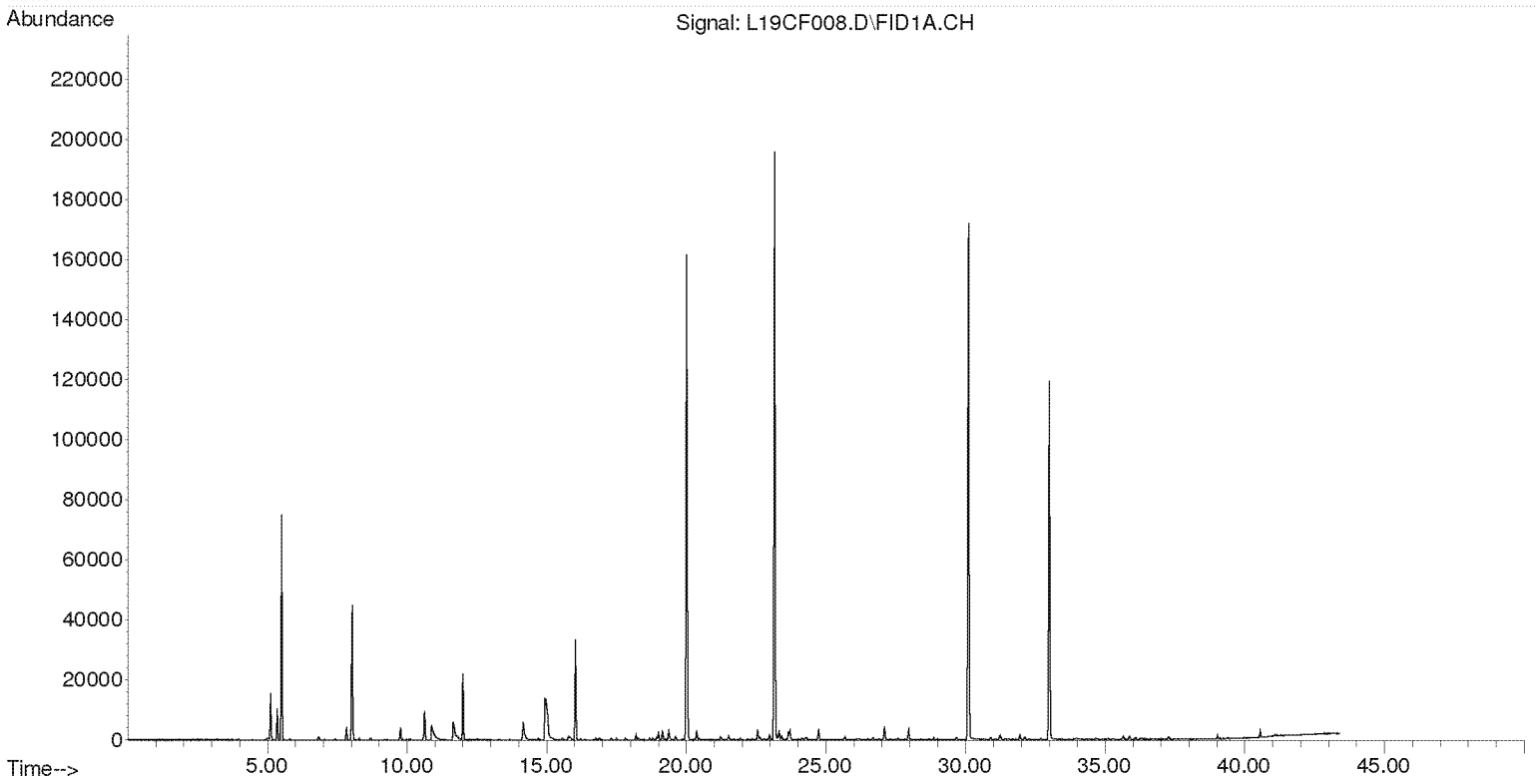
(*) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

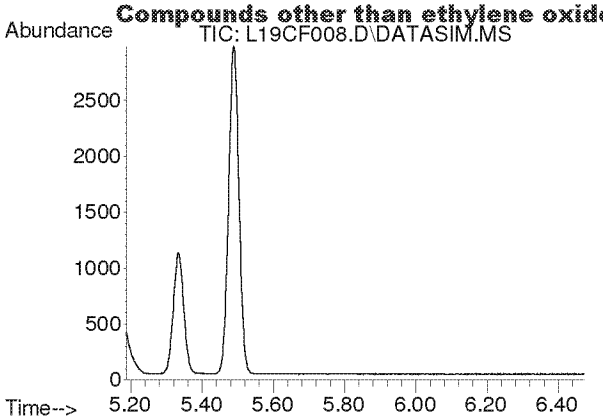
Data Path : Y:\MASS SPEC 1 DATA\L19CF\
Data File : L19CF008.D
Acq On : 6 Mar 2019 8:31 pm (#1); 06 Mar 2019 8:26 pm (#2)
Operator : MAH
Sample : 9030618-03
Misc : WATER TOWER 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Mar 07 06:24:13 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





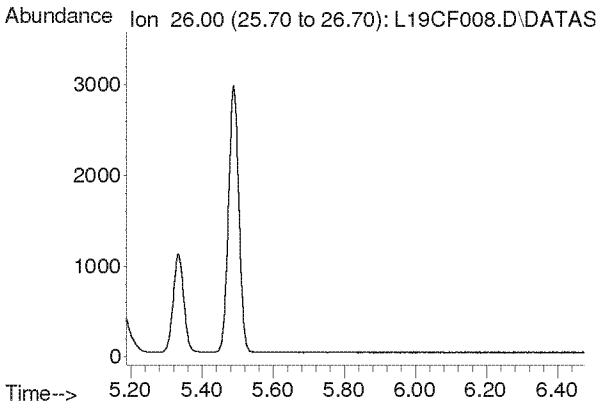
Compounds other than ethylene oxide were not quantitated.

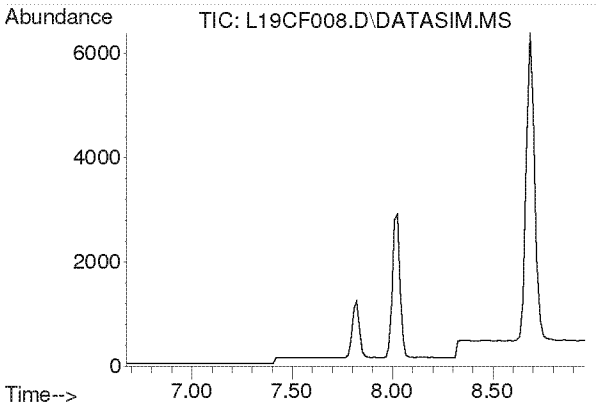


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 26



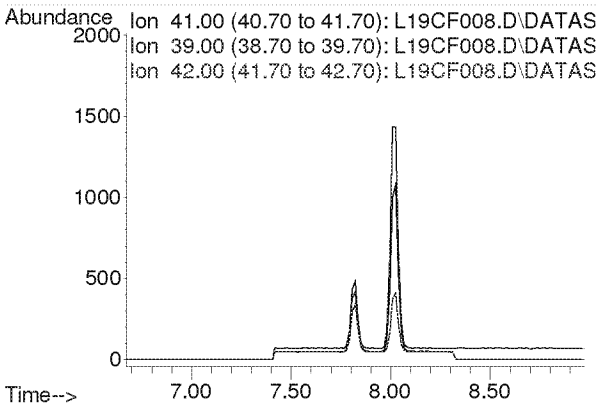


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

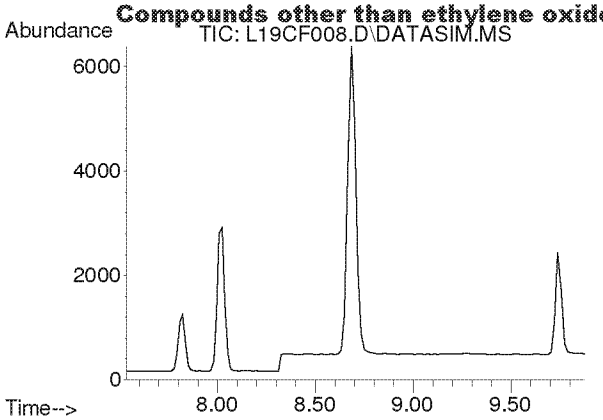
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

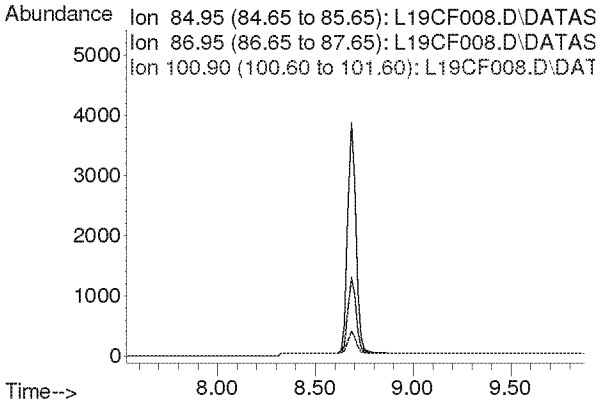


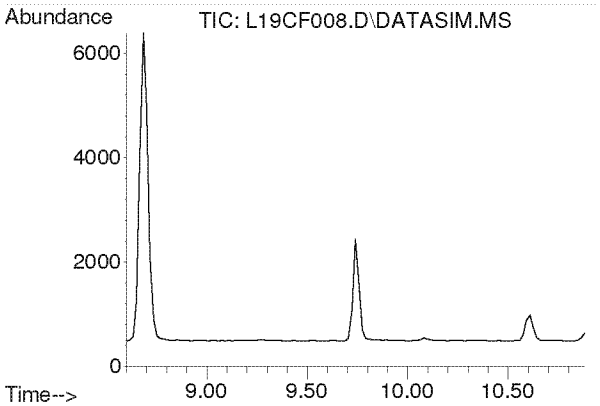
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



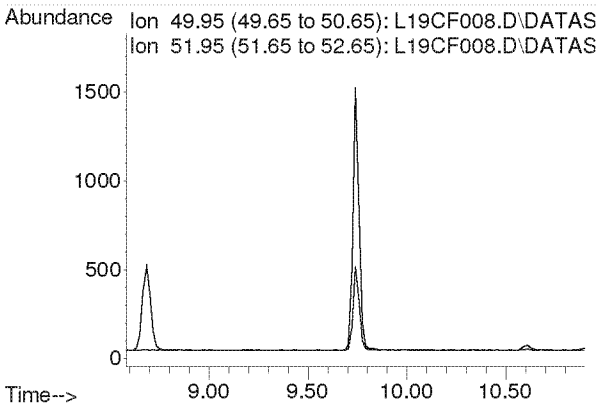


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

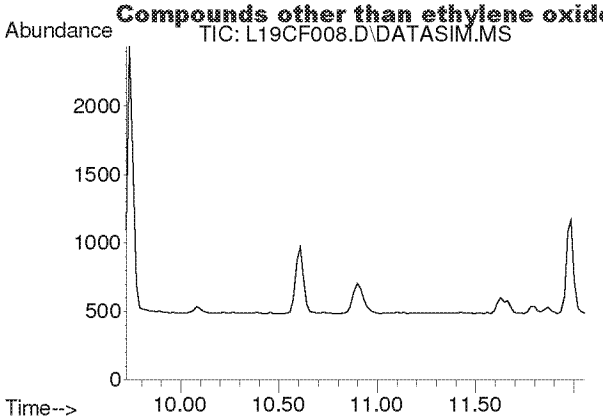
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

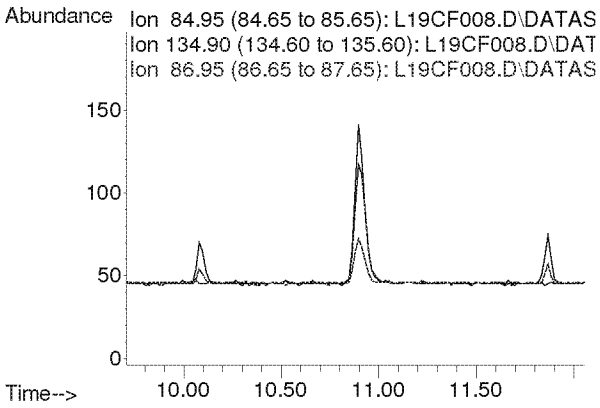


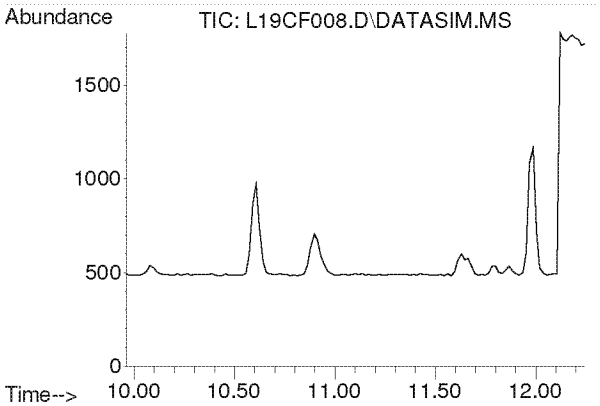
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



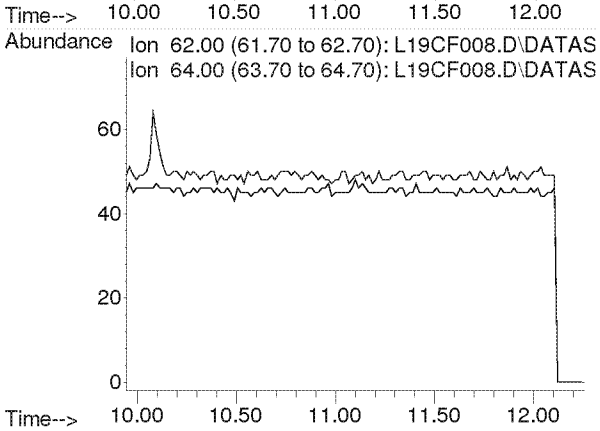


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

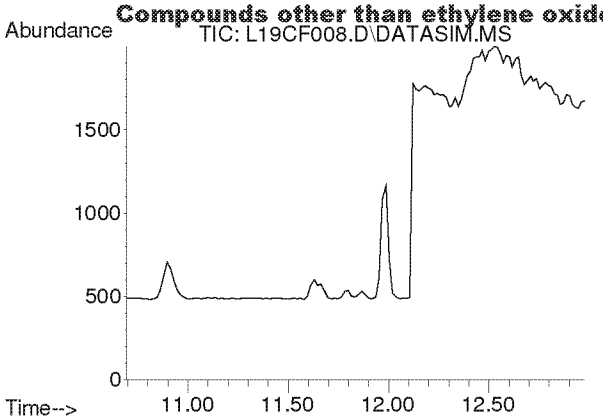
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

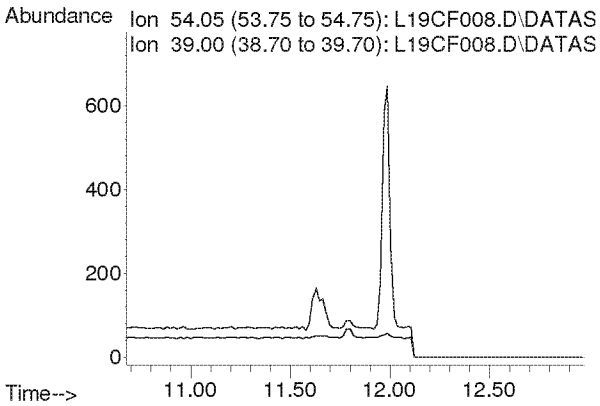


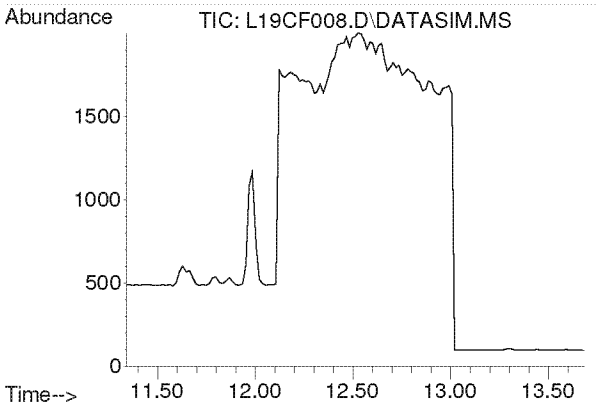
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



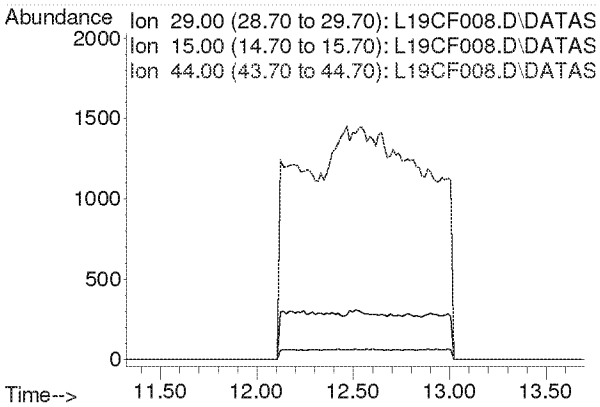


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

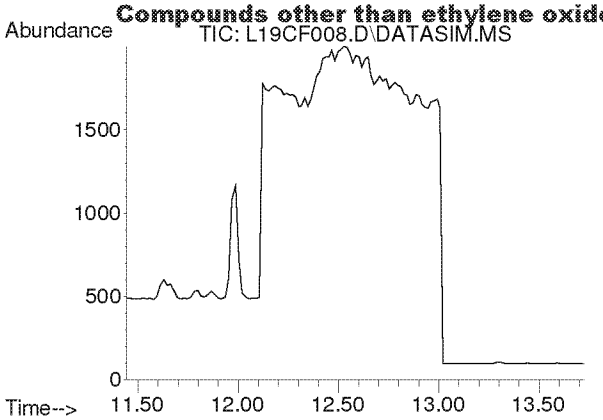
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

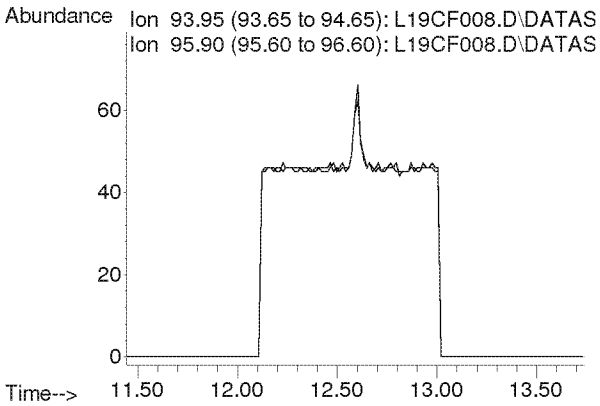


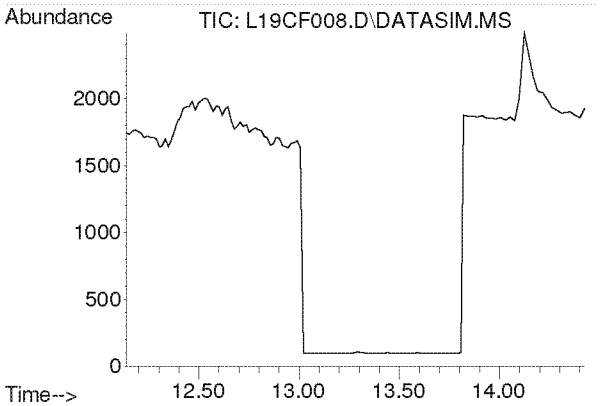
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



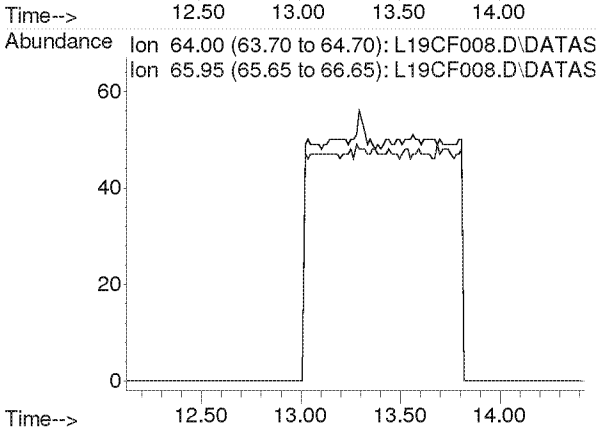


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

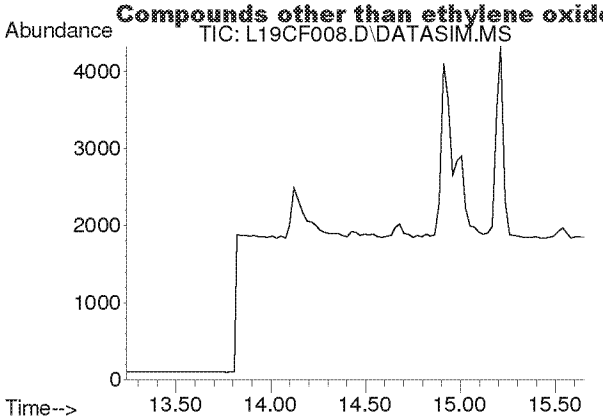
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

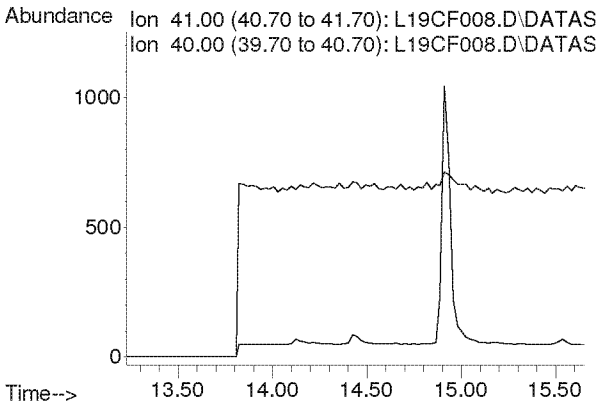


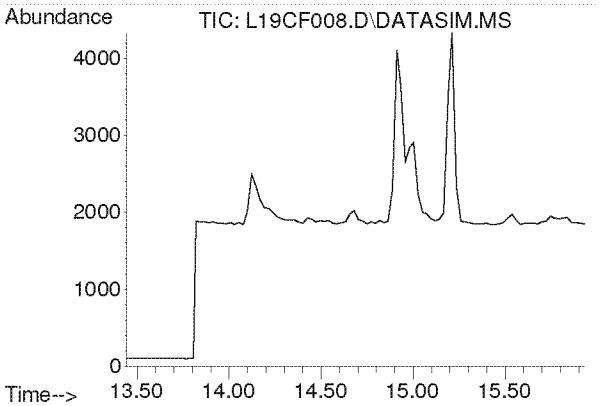
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



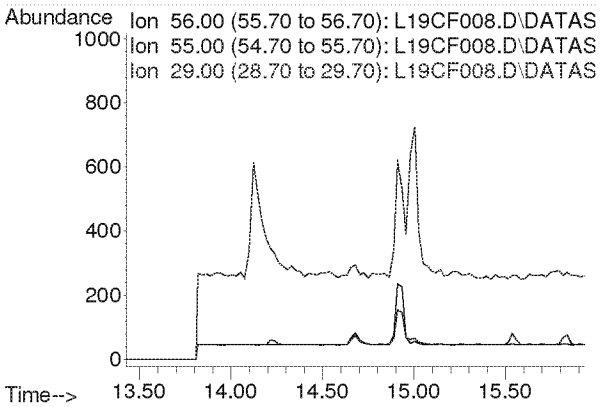


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

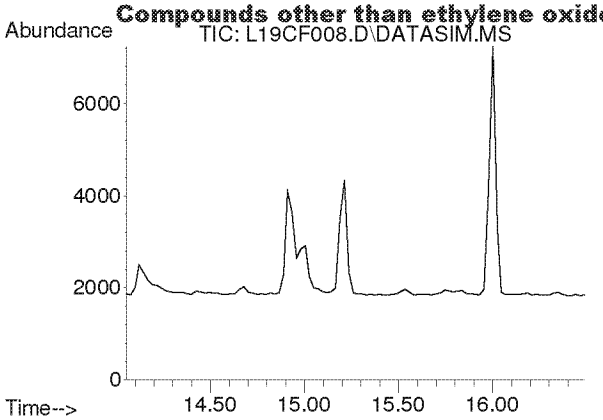
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

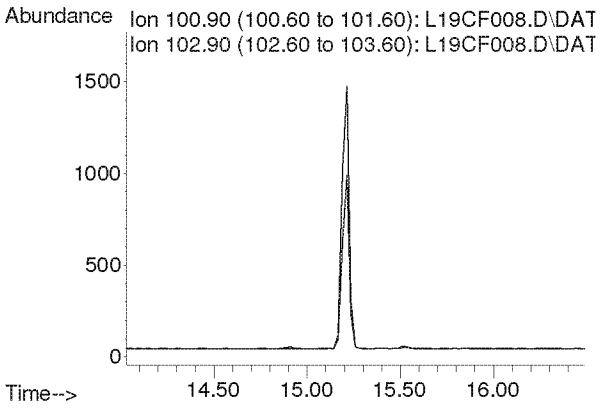


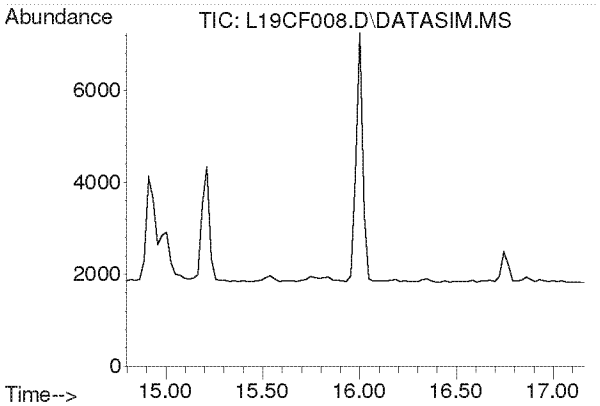
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



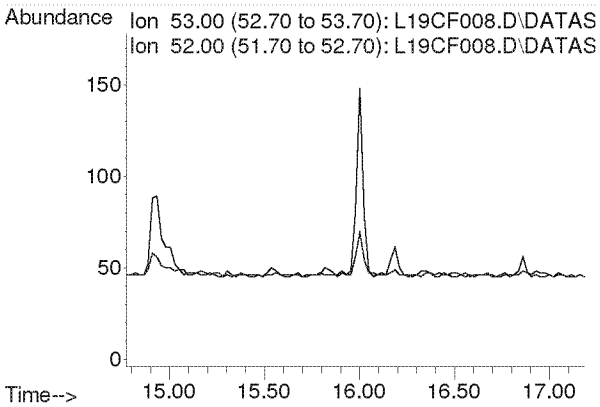


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

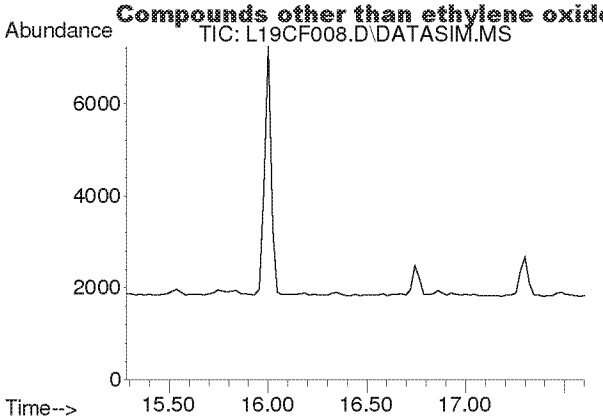
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

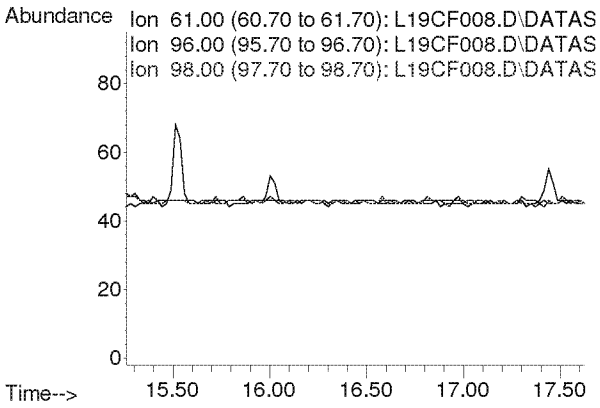


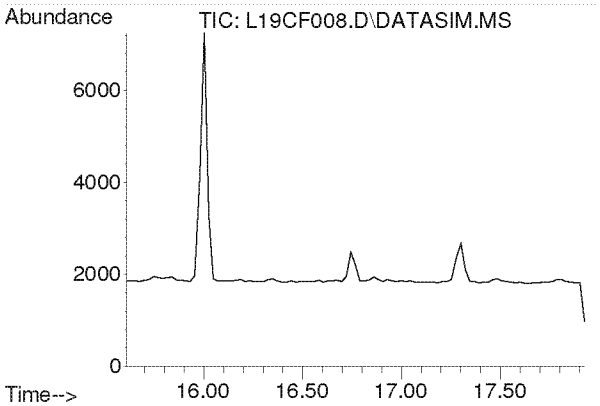
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



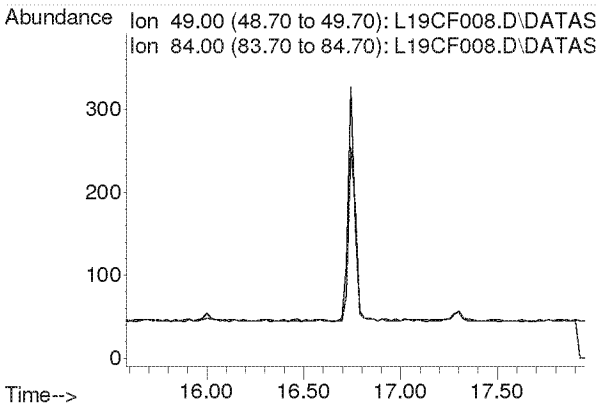


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

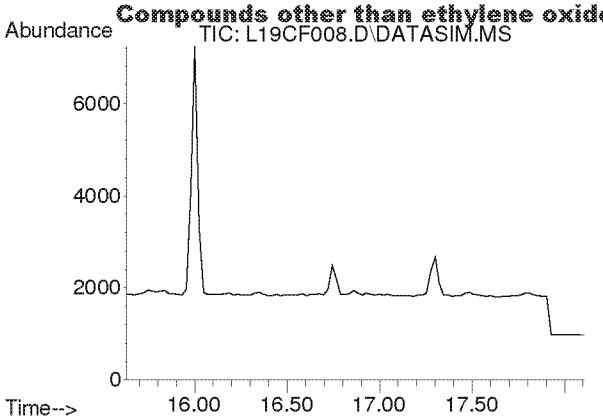
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

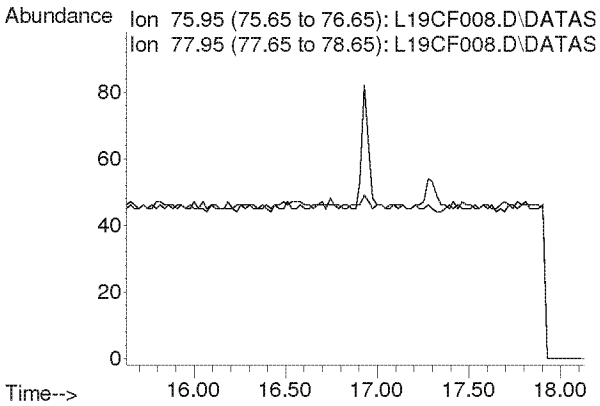


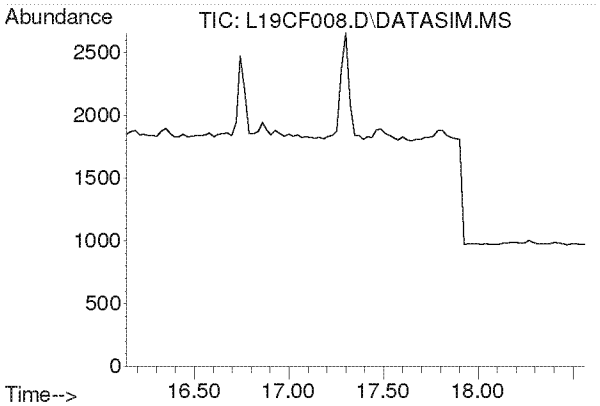
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



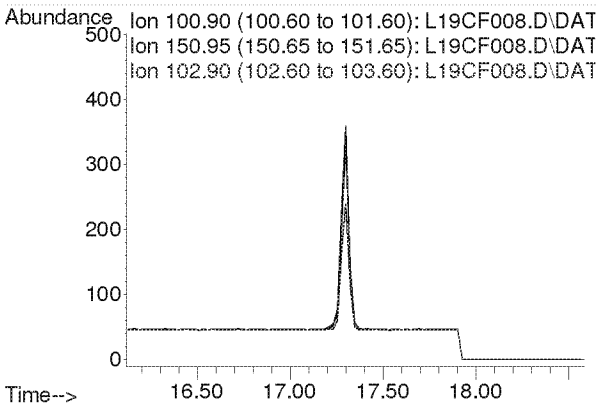


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

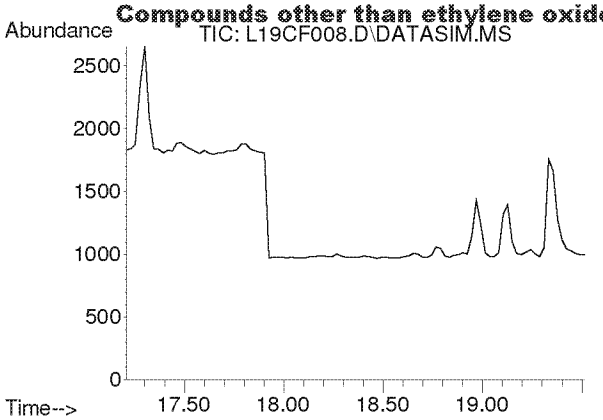
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

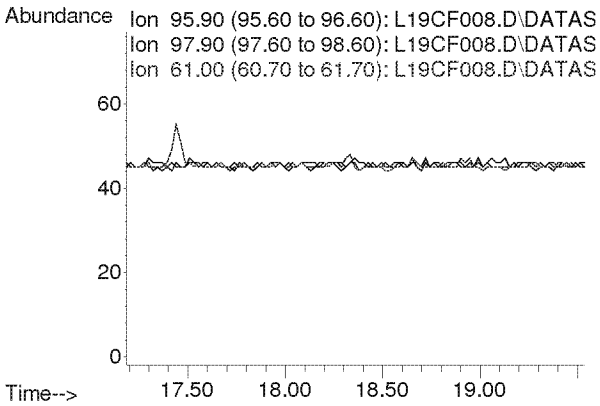


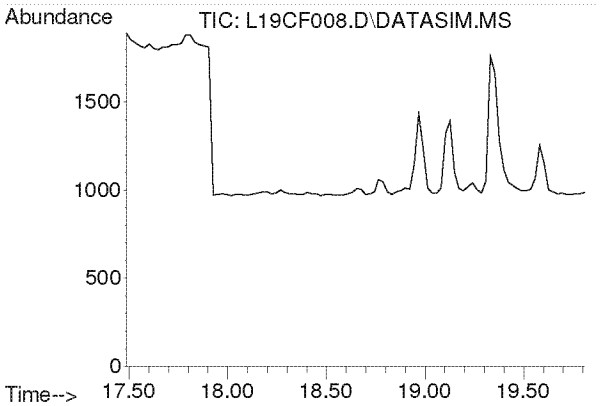
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



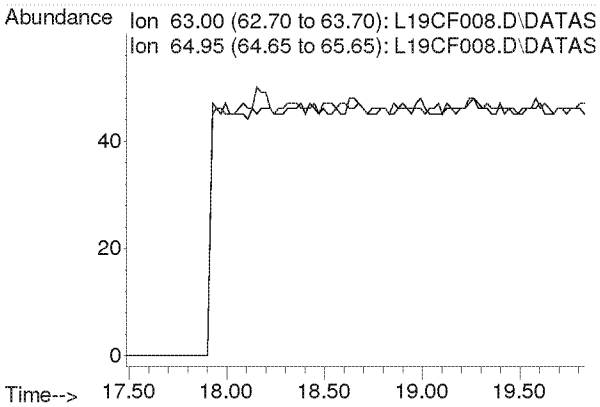


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

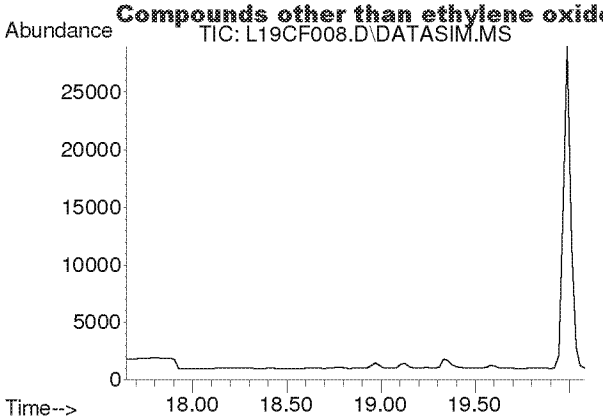
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

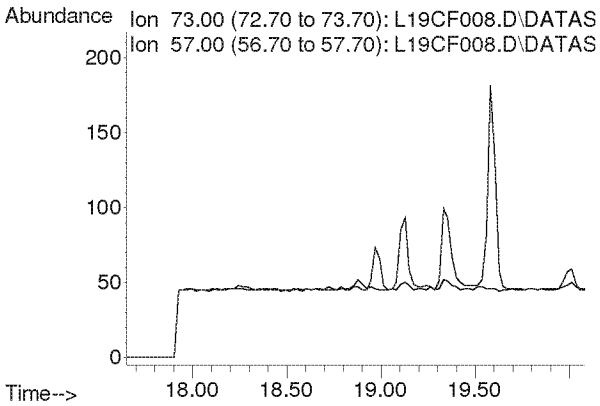


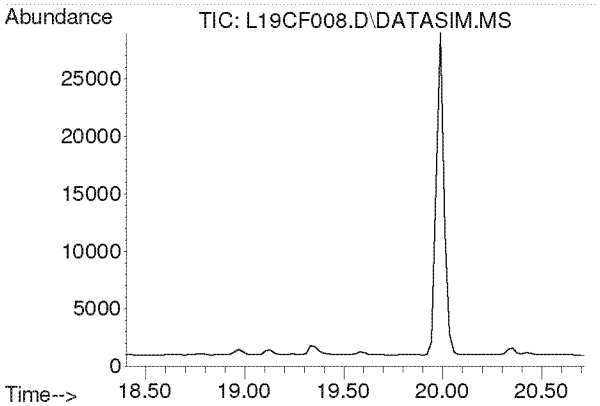
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



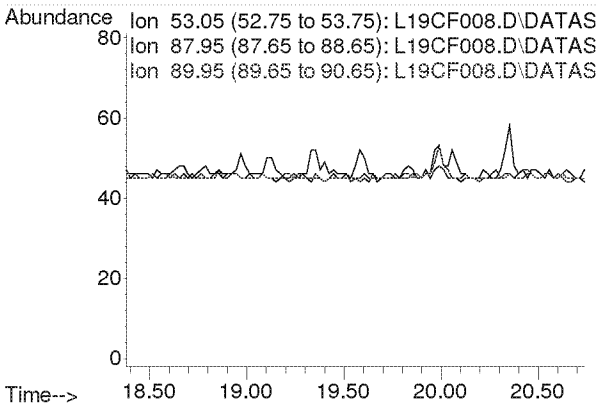


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

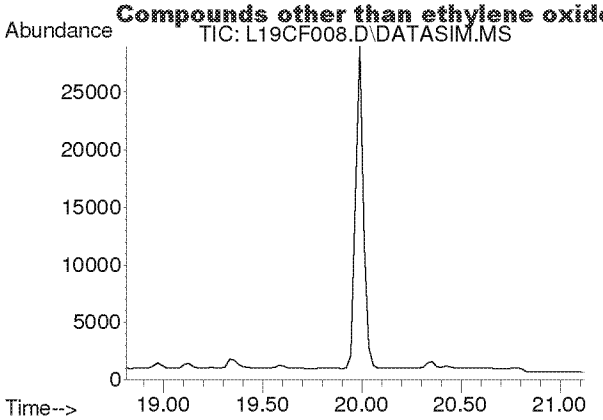
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

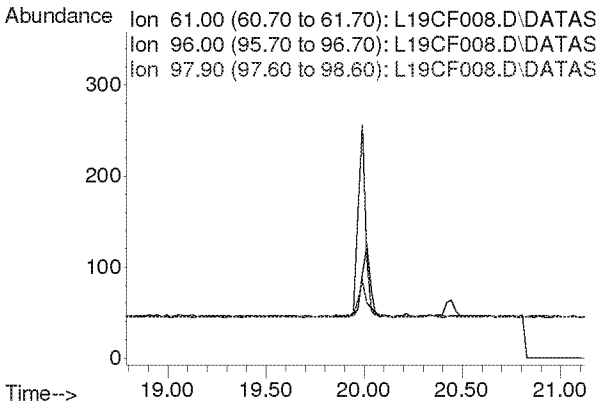


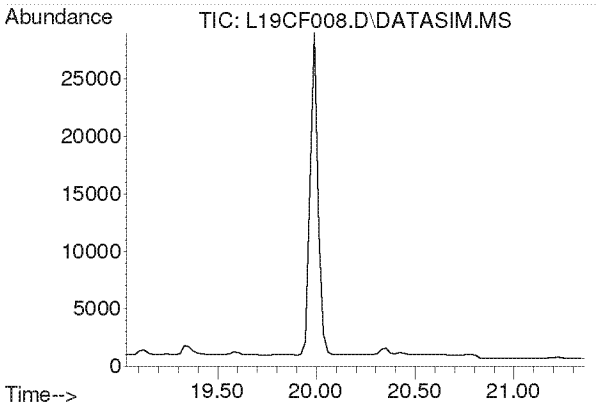
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



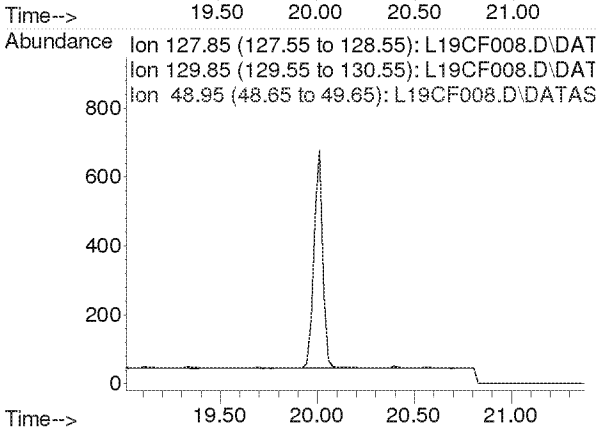


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

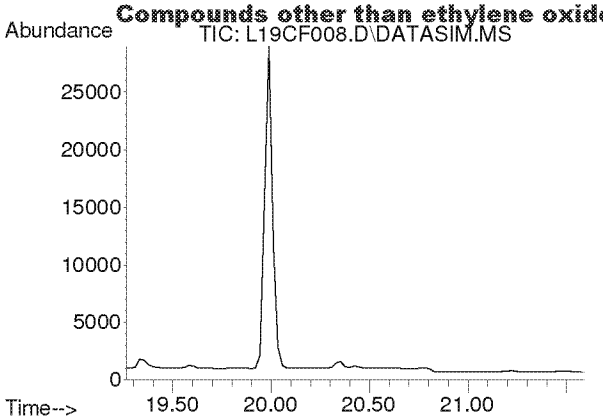
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

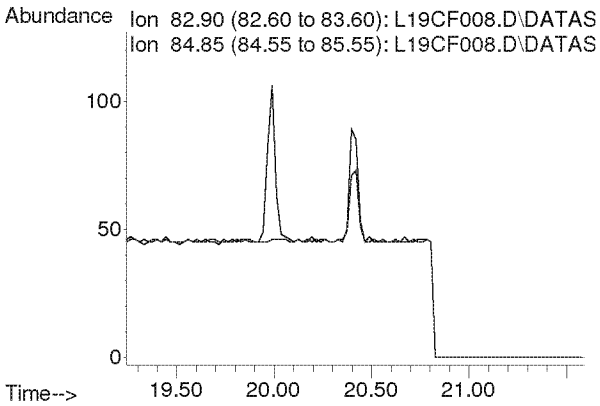


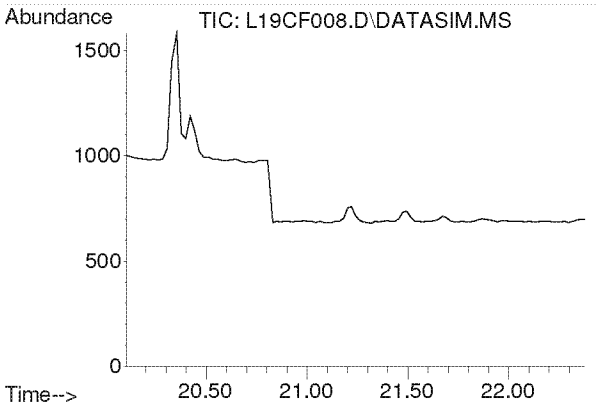
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



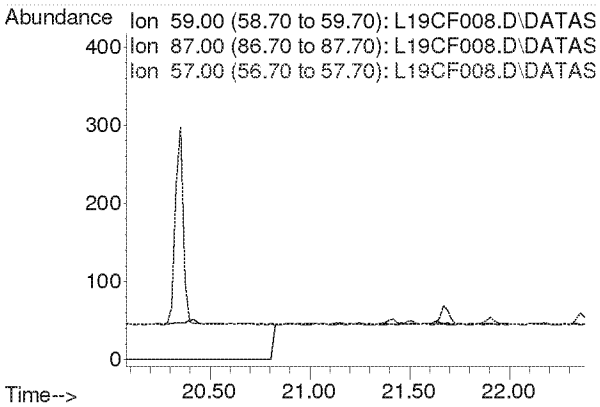


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

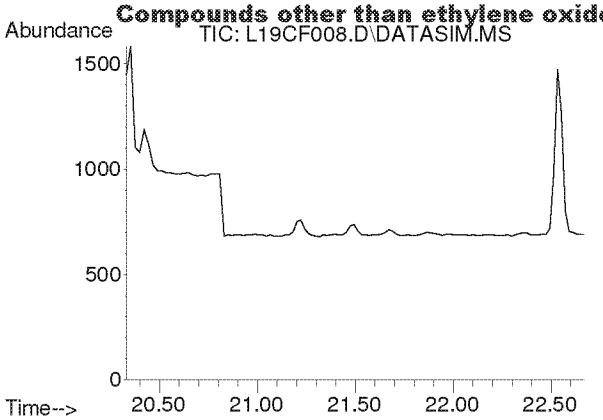
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

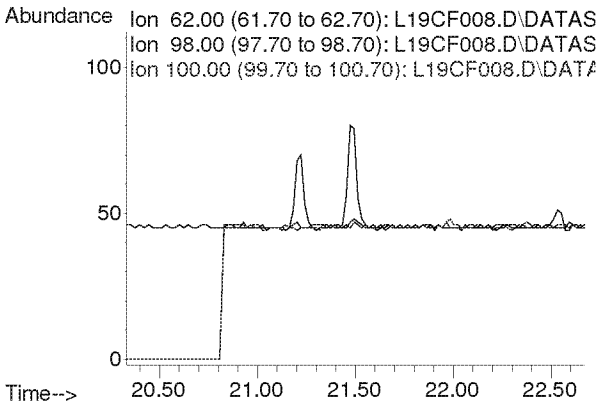


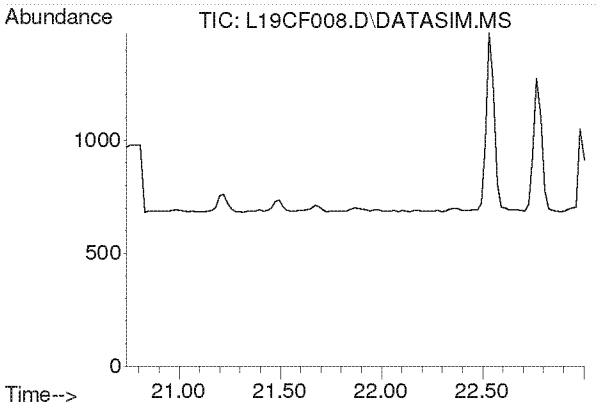
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



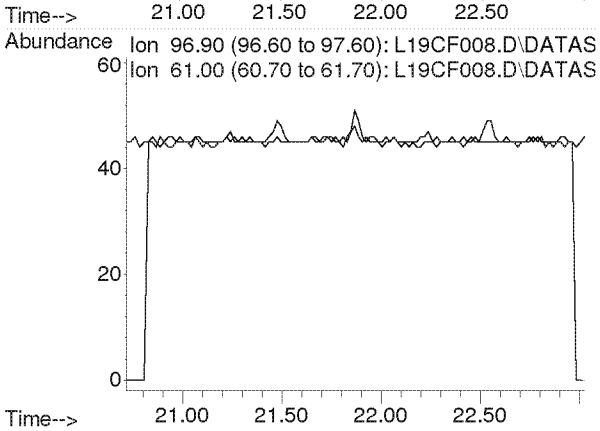


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

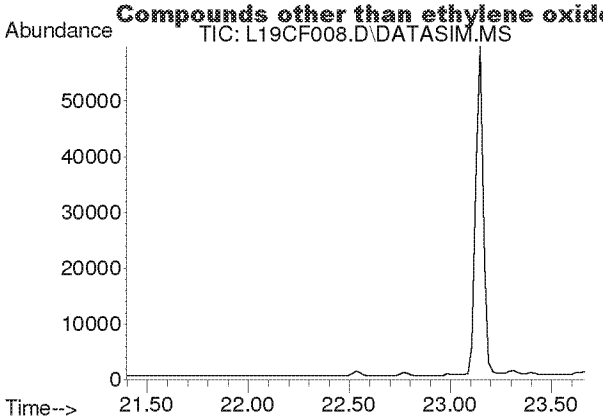
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

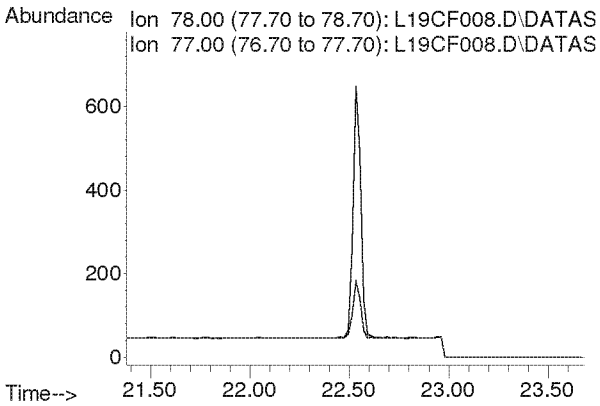


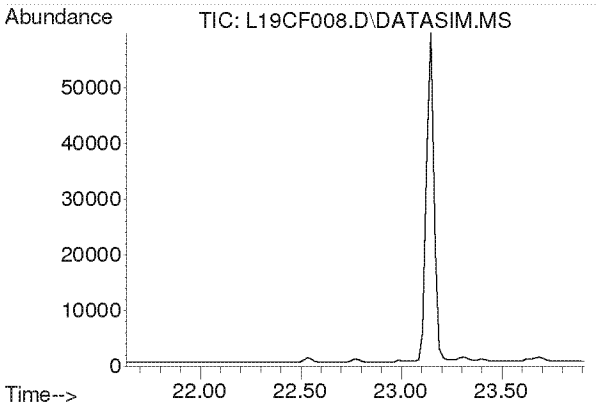
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



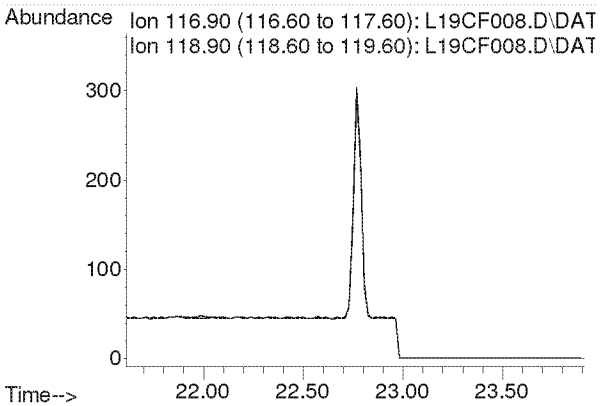


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

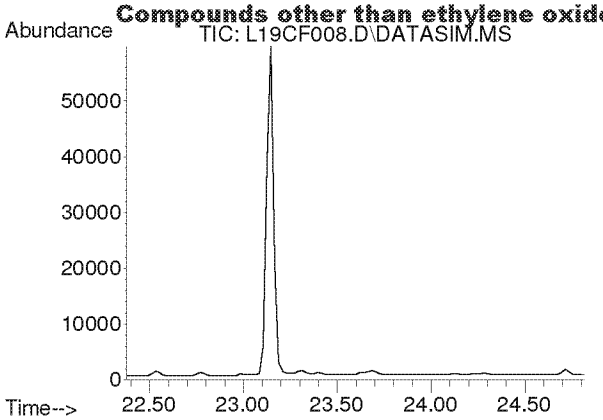
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

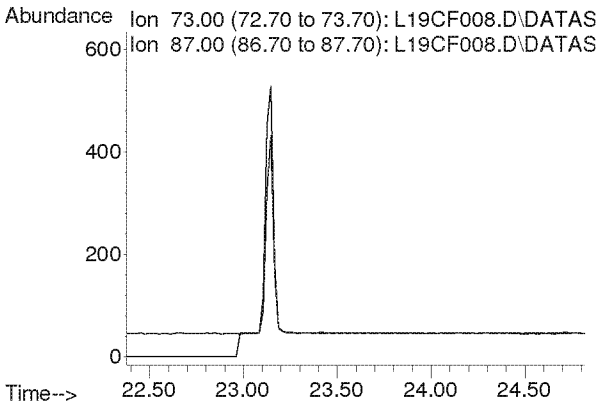


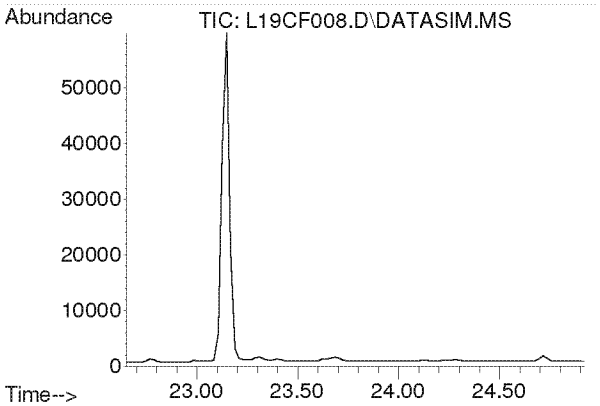
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



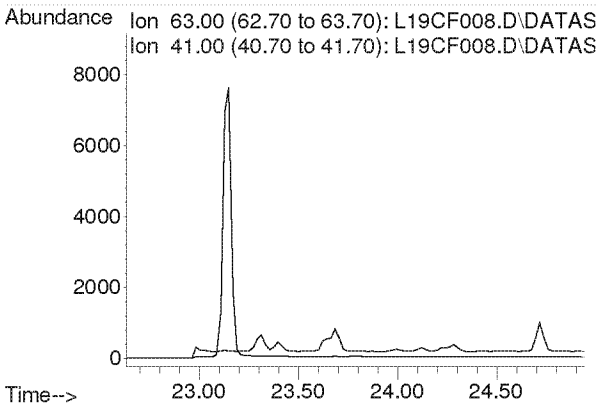


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

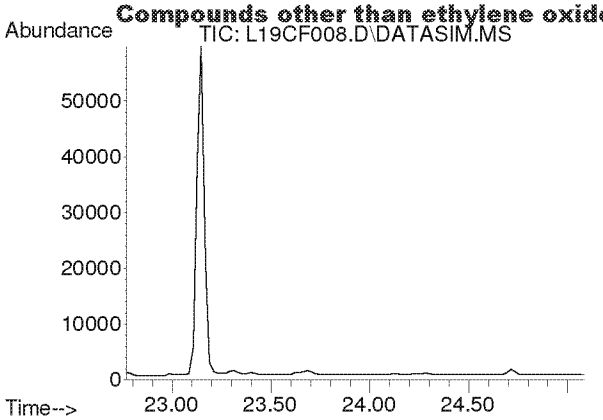
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

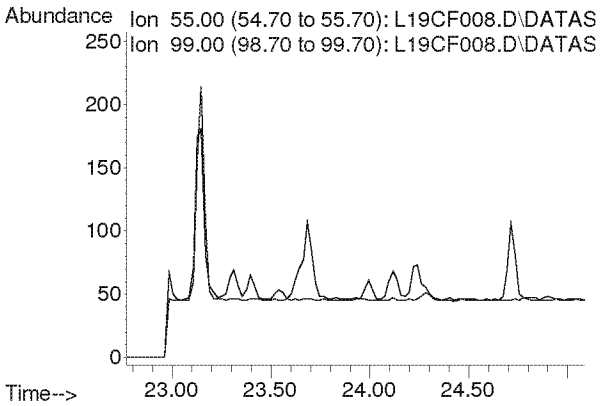


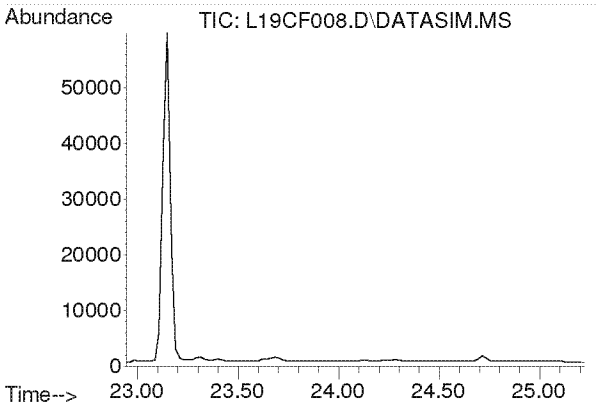
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



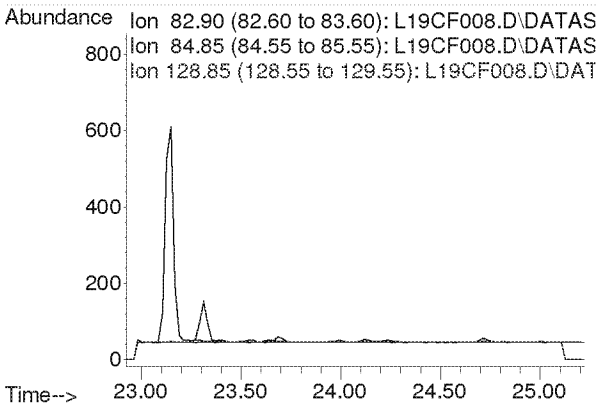


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

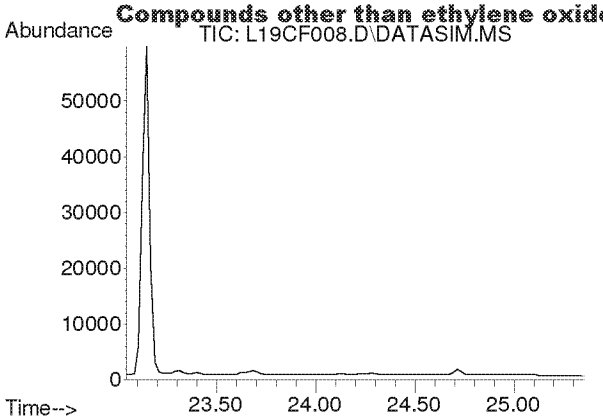
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

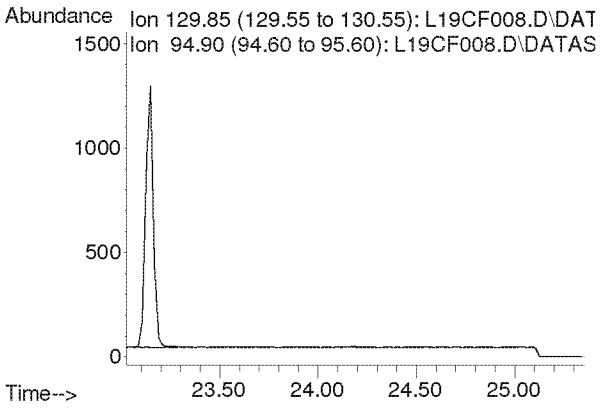


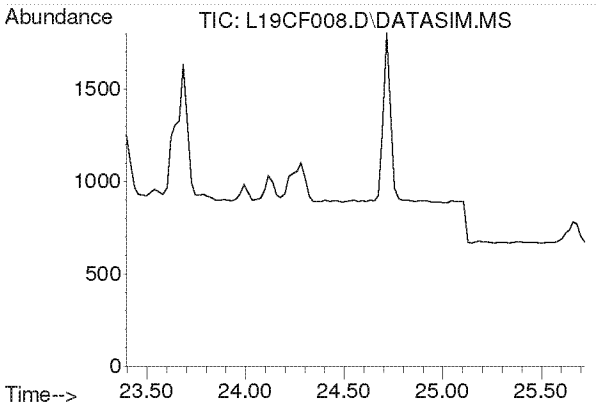
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



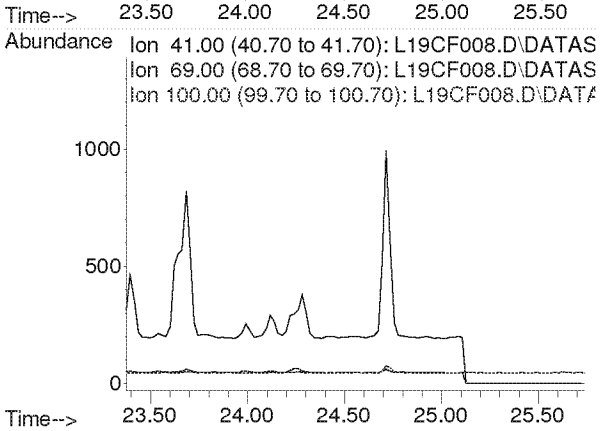


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

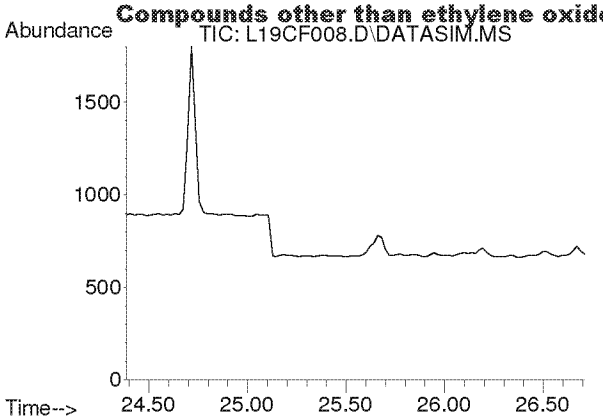
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

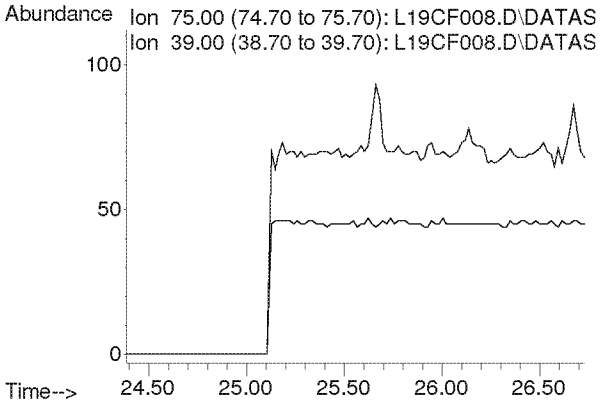


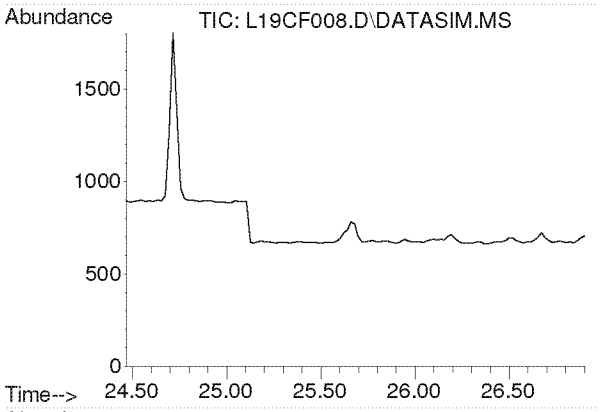
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



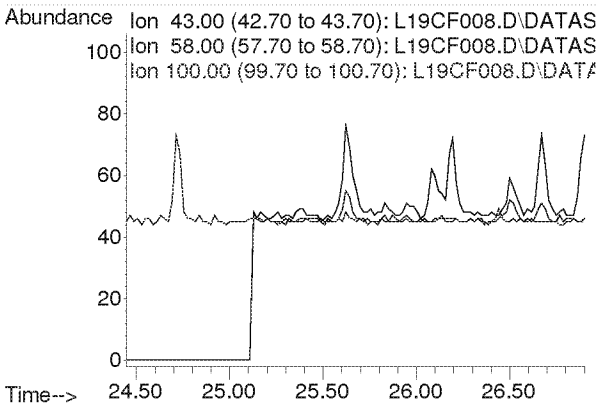


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

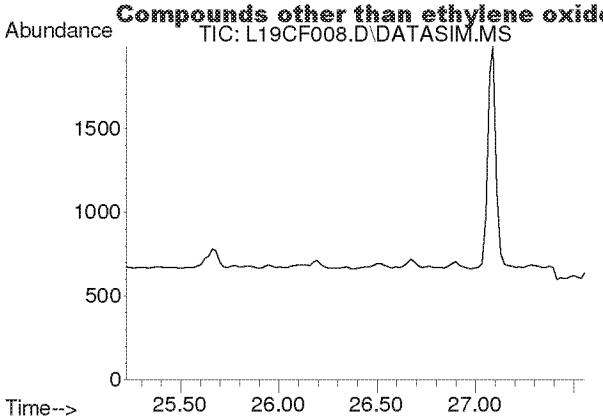
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

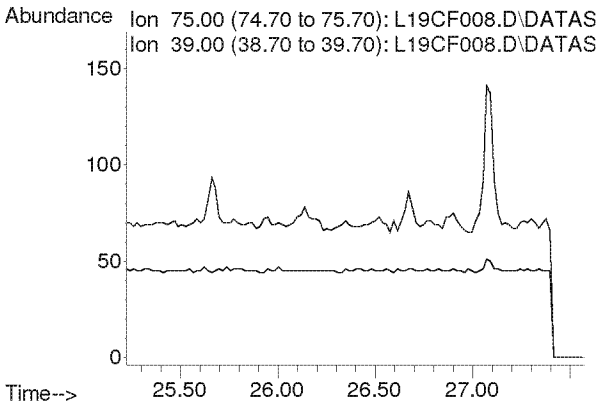


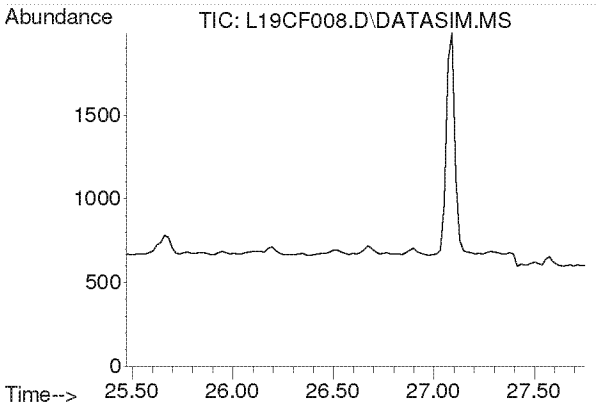
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



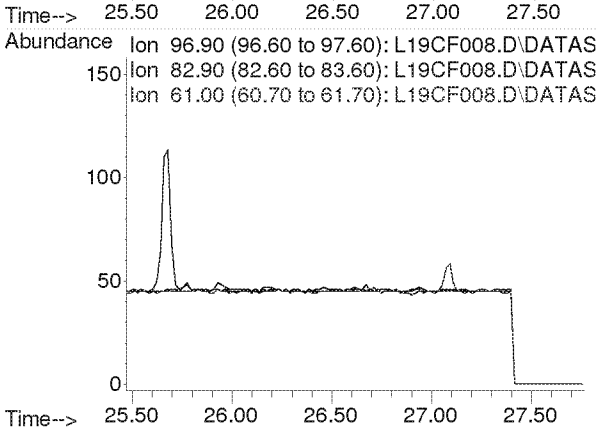


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

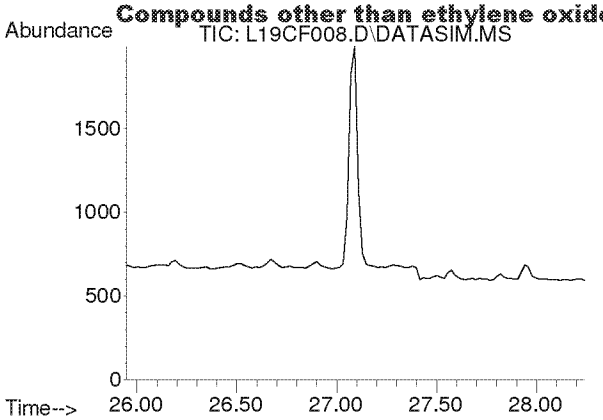
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

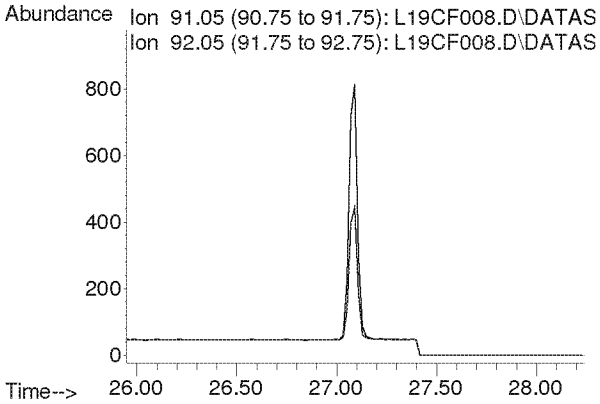


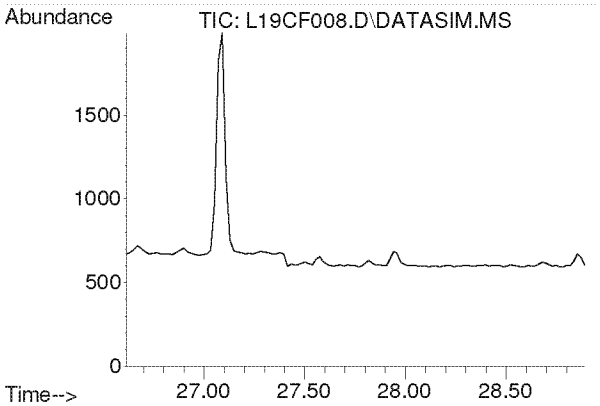
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



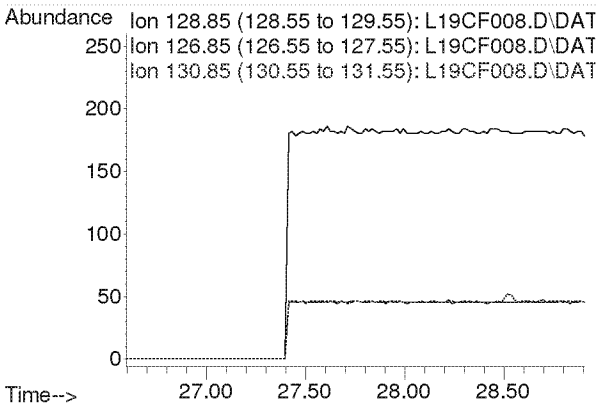


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

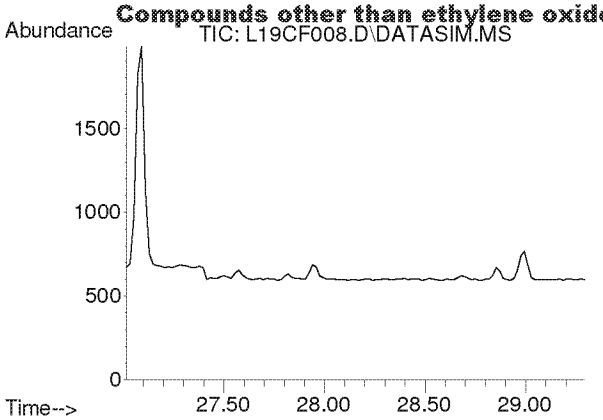
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

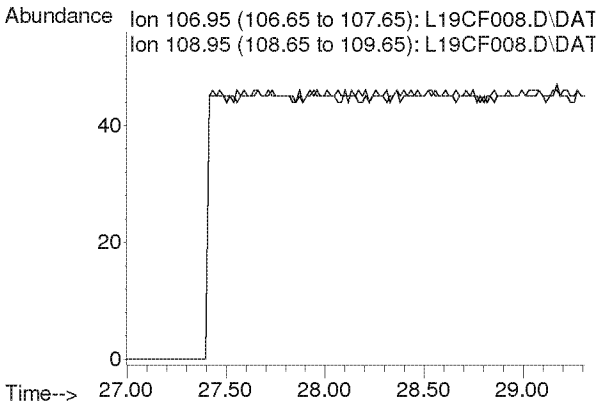


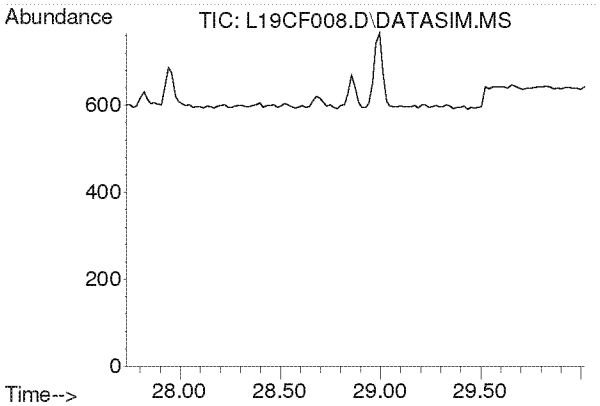
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



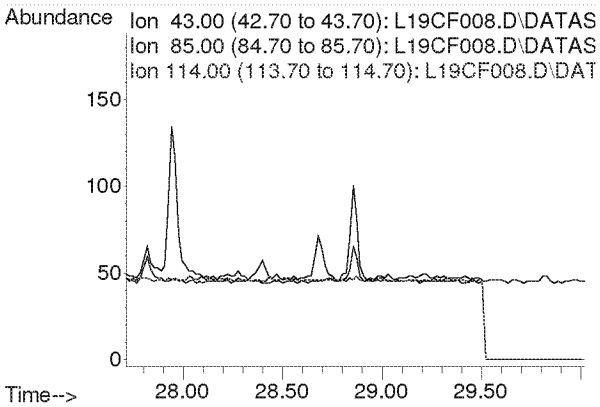


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

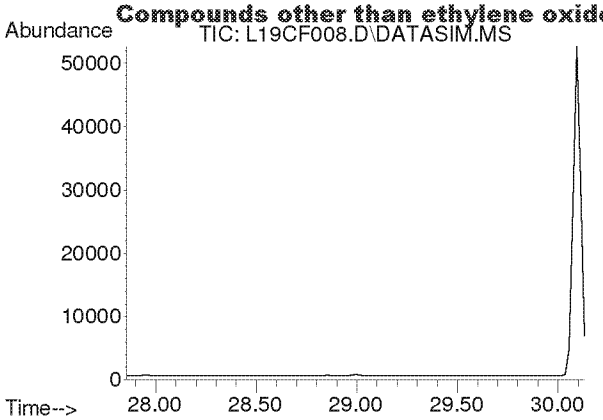
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

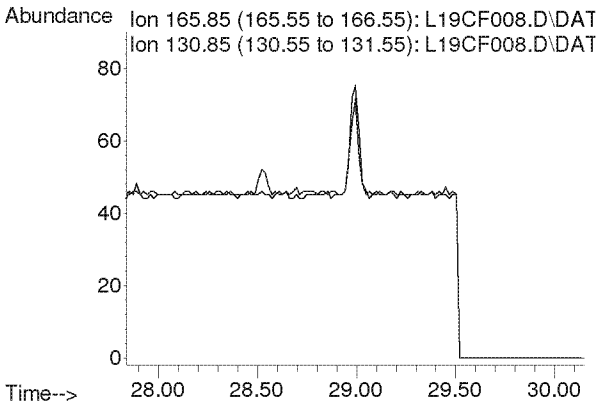


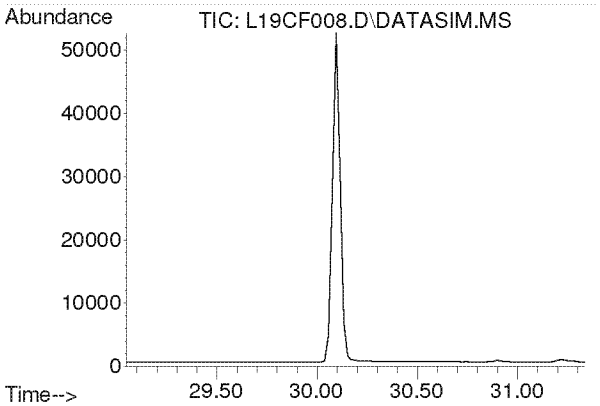
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



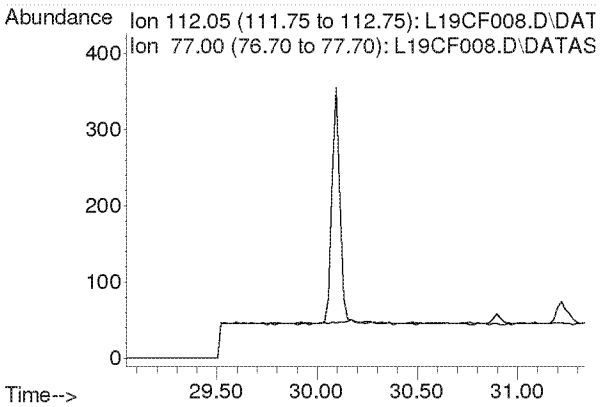


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

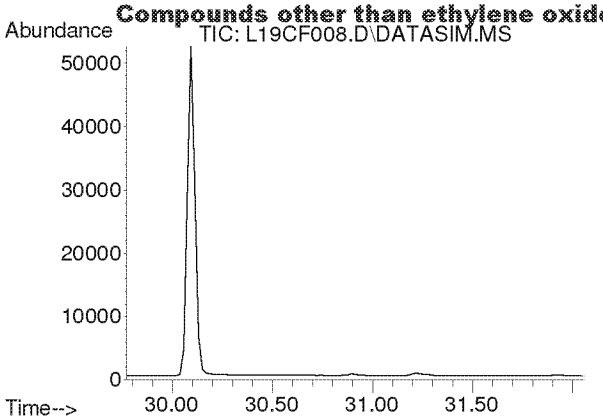
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

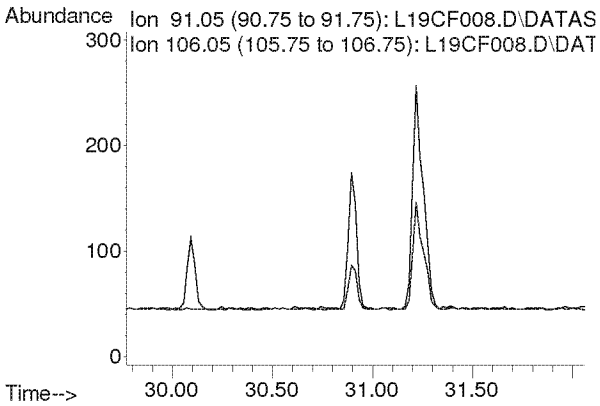


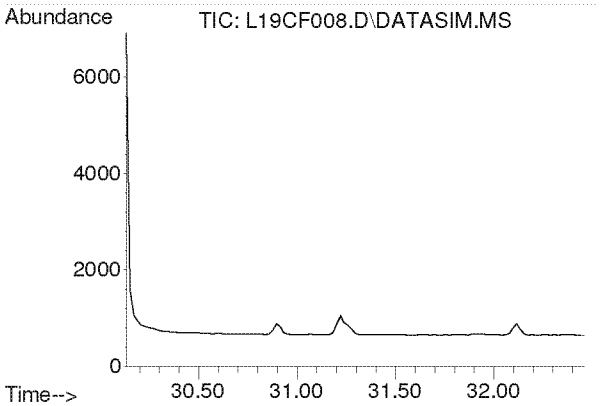
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



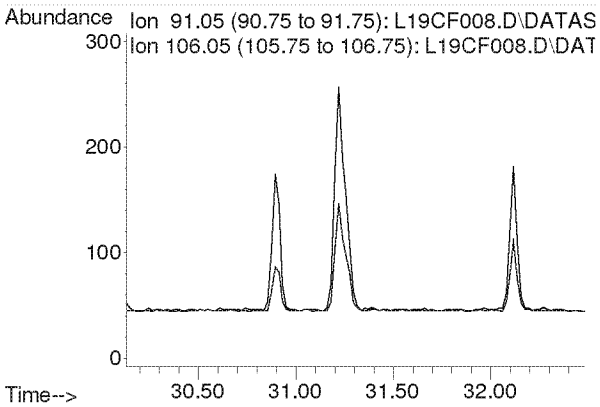


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

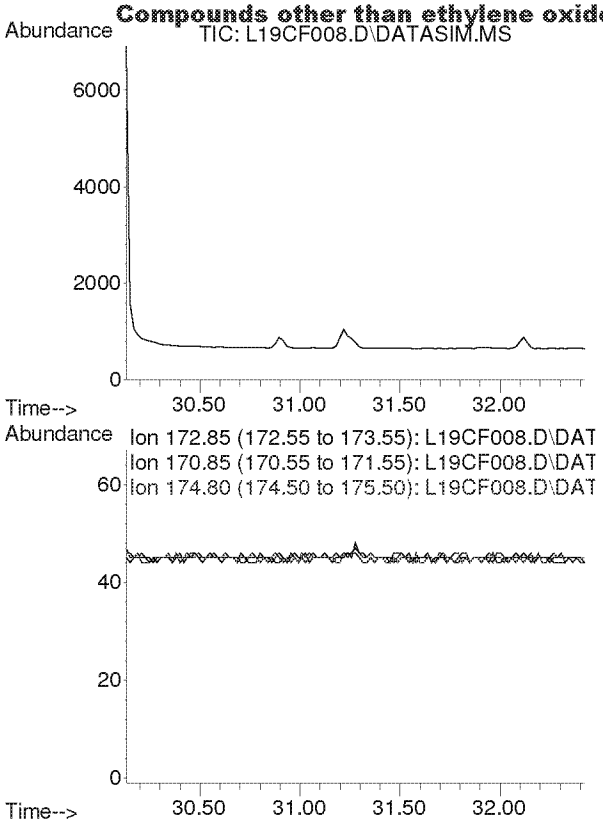
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

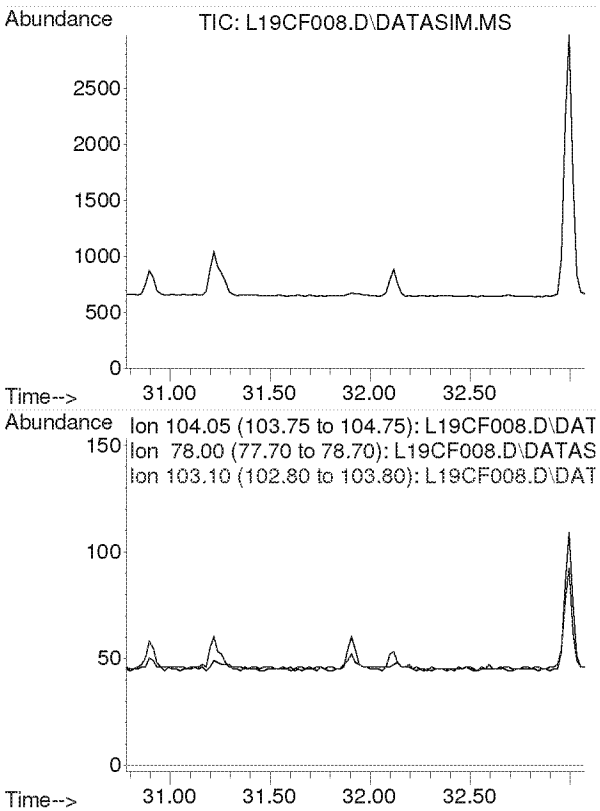


#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



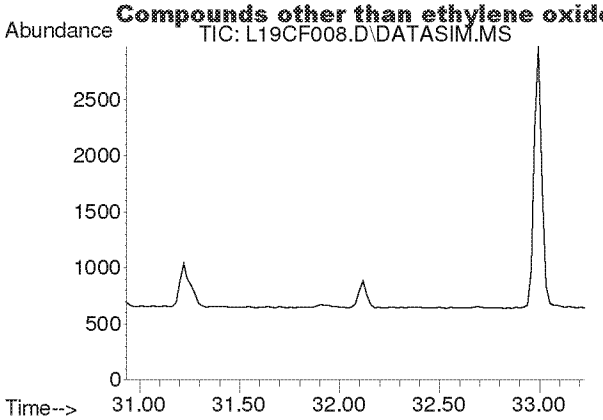
#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0

Compounds other than ethylene oxide were not quantitated.

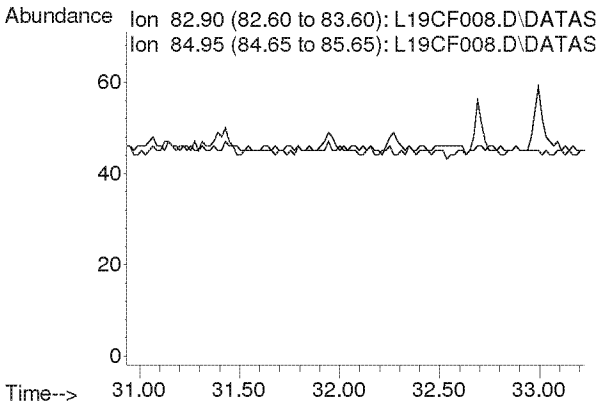


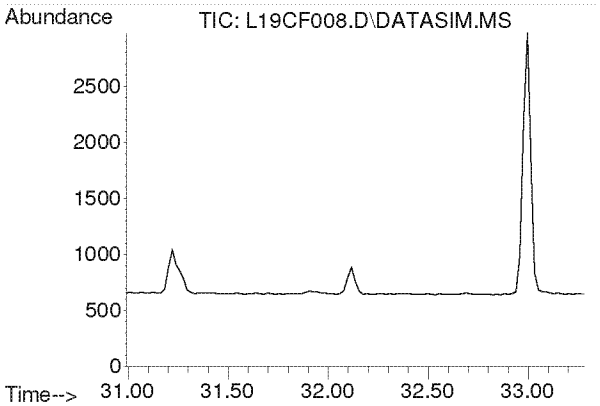
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



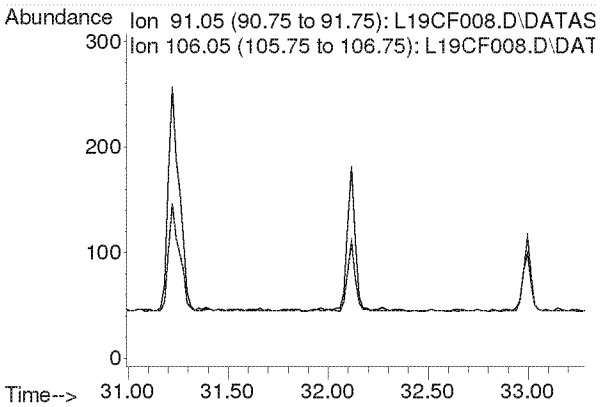


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

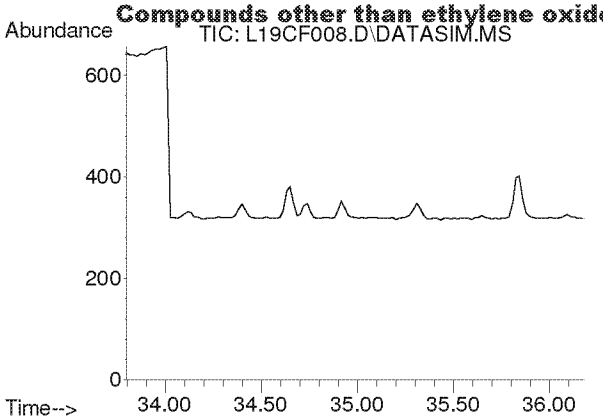
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

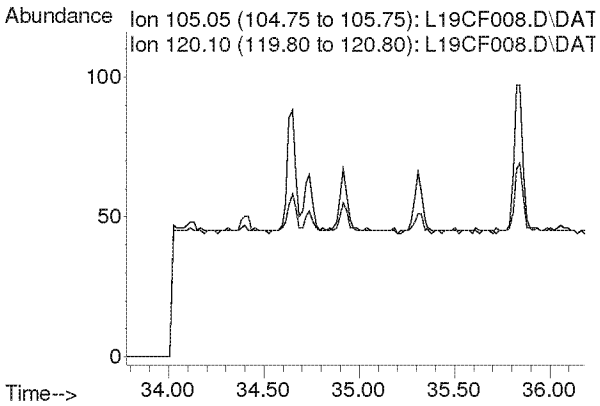


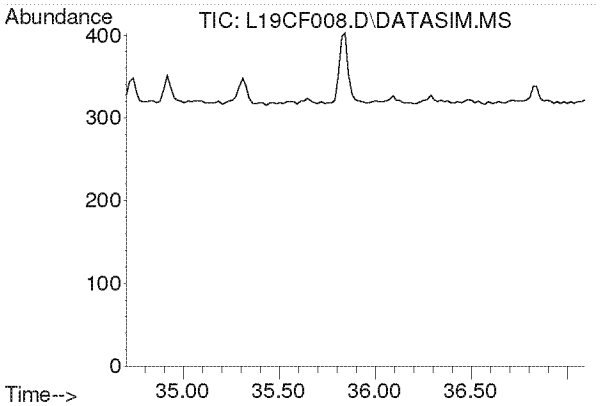
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



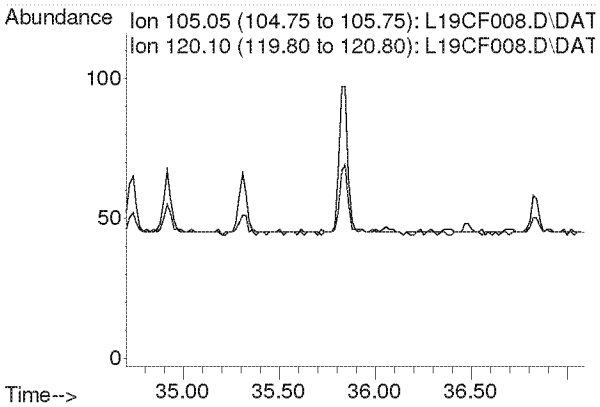


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

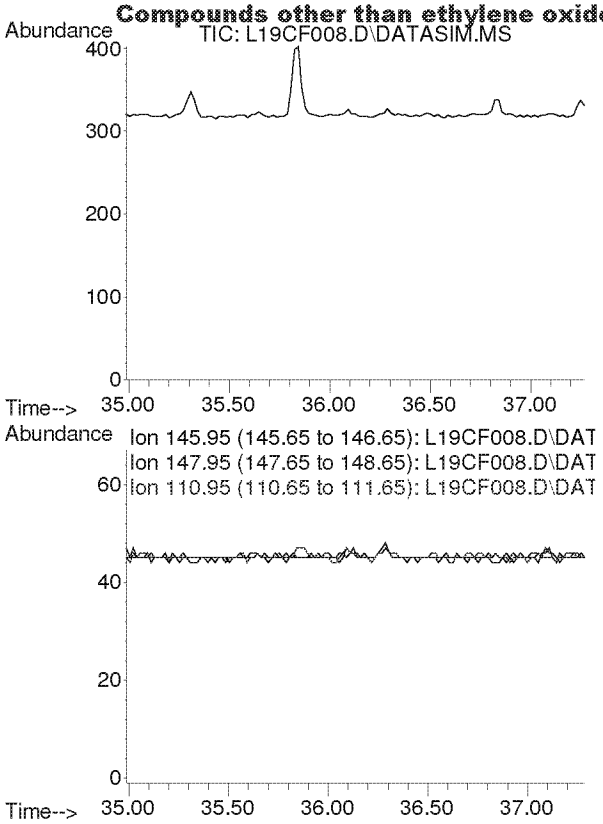
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

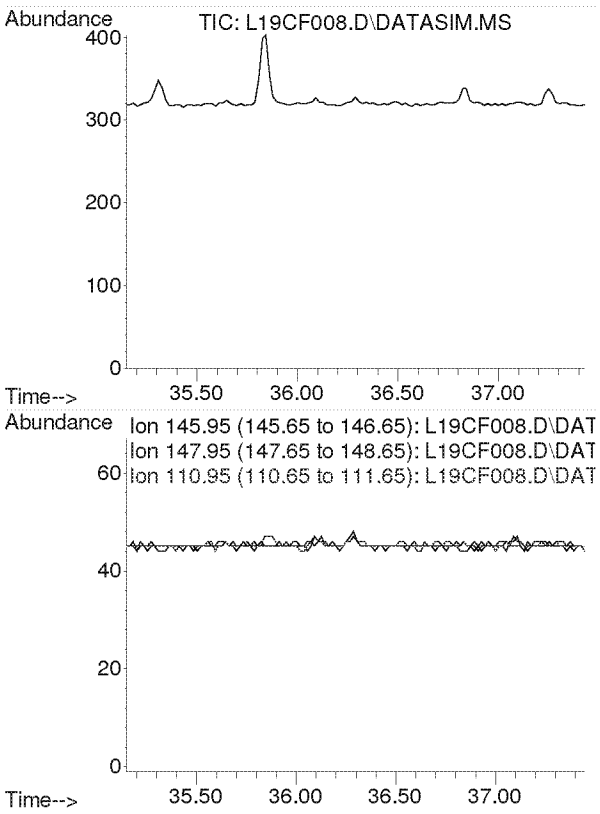


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



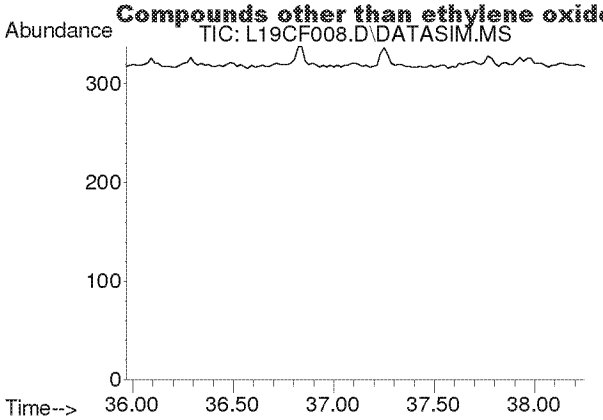
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

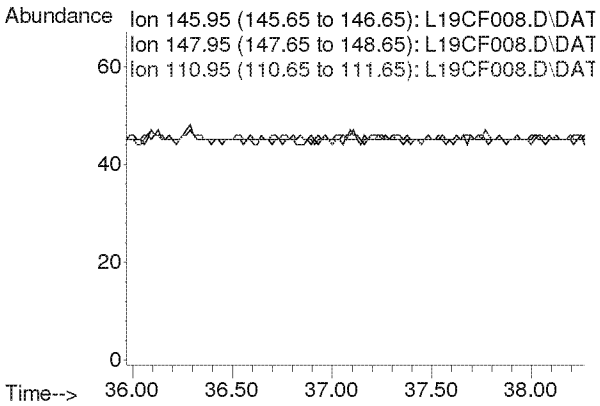


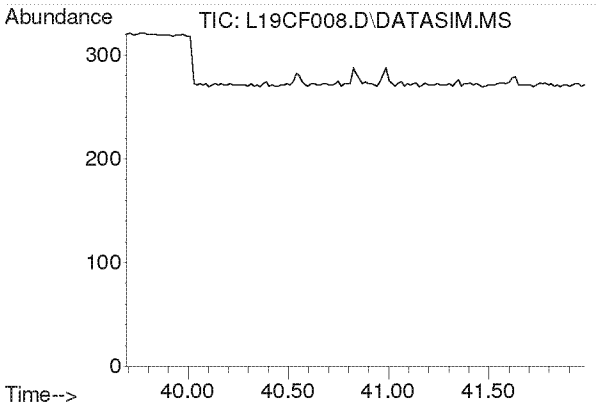
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



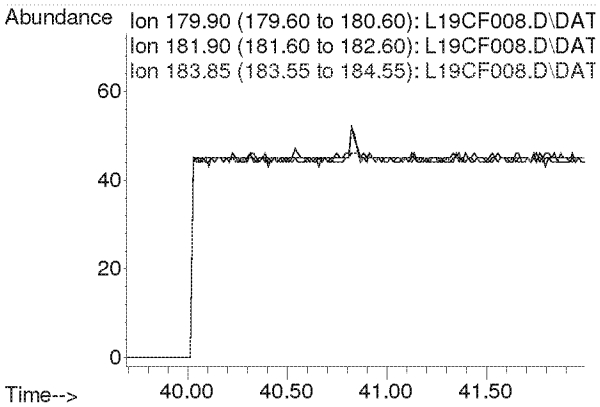


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

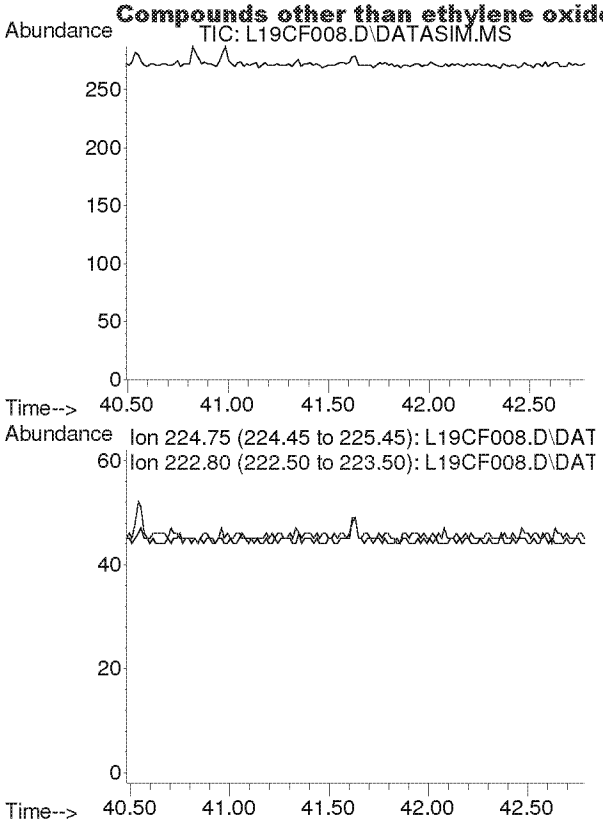
Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CF008.D
Acq: 6 Mar 2019 8:31 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		L19CF009.D	L19CF010.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9030618-04	9030618-05		
Mics Comments		WB VILLAGE C1 H	WB VILLAGE C2 HALL 3/5/19		
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	0.089	0.038	NA	
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

5-7-19

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 3_5_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		L19CF009.D	L19CF011.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9030618-04	B9C0605-DUP1		
Mics Comments		WB VILLAGE C	WB VILLAGE R1 HALL 3/5/19		
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	0.089	0.063	NA	
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

Comparison of Replicate Analyses

		D2	R2		
File ID		L19CF010.D	L19CF012.D		
Analyst		MAH	MAH		
Method		9020003.M	9020003.M		
Sample ID		9030618-05	B9C0605-DUP2		
Mics Comments		WB VILLAGE C	WB VILLAGE R2 HALL 3/5/19		
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	0.038	0.033	NA	
Bromomethane	0.0115	0	0	NA	
Chloroethane	0.0249	0	0	NA	
Acetonitrile	0.0163	0	0	NA	
Acrolein	0.2250	0	0	NA	
Trichlorofluoromethane	0.0116	0	0	NA	
Acrylonitrile	0.0106	0	0	NA	
1,1-Dichloroethene	0.0119	0	0	NA	
Dichloromethane	0.0144	0	0	NA	
Carbon Disulfide	0.0768	0	0	NA	
Trichlorotrifluoroethane	0.0098	0	0	NA	
trans-1,2-Dichloroethylene	0.0134	0	0	NA	
1,1-Dichloroethane	0.0143	0	0	NA	
Methyl tert-Butyl Ether	0.0103	0	0	NA	
Chloroprene	0.0129	0	0	NA	
cis-1,2-Dichloroethylene	0.0186	0	0	NA	
Bromochloromethane	0.0133	0	0	NA	
Chloroform	0.0129	0	0	NA	
Ethyl tert-Butyl Ether	0.0109	0	0	NA	
1,2-Dichloroethane	0.0139	0	0	NA	
IS-1,4-Difluorobenzene	NA			NA	
1,1,1-Trichloroethane	0.0137	0	0	NA	
Benzene	0.0145	0	0	NA	
Carbon Tetrachloride	0.0133	0	0	NA	
tert-Amyl Methyl Ether	0.0124	0	0	NA	
1,2-Dichloropropane	0.0203	0	0	NA	
Ethyl Acrylate	0.0235	0	0	NA	
Bromodichloromethane	0.0165	0	0	NA	
Trichloroethylene	0.0150	0	0	NA	
Methyl Methacrylate	0.1000	0	0	NA	
cis-1,3-Dichloropropene	0.0197	0	0	NA	
Methyl Isobutyl Ketone	0.0237	0	0	NA	
trans-1,3-Dichloropropene	0.0195	0	0	NA	
1,1,2-Trichloroethane	0.0190	0	0	NA	
IS-Chlorobenzene-d5	NA			NA	
Toluene	0.1300	0	0	NA	
Dibromochloromethane	0.0154	0	0	NA	
1,2-Dibromoethane	0.0189	0	0	NA	
n-Octane	0.0323	0	0	NA	
Tetrachloroethylene	0.0146	0	0	NA	
Chlorobenzene	0.0192	0	0	NA	
Ethylbenzene	0.0258	0	0	NA	
m,p-Xylene	0.0360	0	0	NA	
Bromoform	0.0177	0	0	NA	
Styrene	0.0363	0	0	NA	
1,1,2,2-Tetrachloroethane	0.0209	0	0	NA	
o-Xylene	0.0268	0	0	NA	
1,3,5-Trimethylbenzene	0.0340	0	0	NA	
1,2,4-Trimethylbenzene	0.0268	0	0	NA	
m-Dichlorobenzene	0.0182	0	0	NA	
p-Dichlorobenzene	0.0200	0	0	NA	
o-Dichlorobenzene	0.0206	0	0	NA	
1,2,4-Trichlorobenzene	0.2490	0	0	NA	
Hexachloro-1,3-butadiene	0.0274	0	0	NA	

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\L19CF\
Data File : L19CF009.D
Acq On : 6 Mar 2019 9:33 pm (#1); 06-Mar-19, 21:28:06 (#2)
Operator : MAH
Sample : 9030618-04
Misc : WB VILLAGE C1 HALL 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 07 06:34:21 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

d= nA

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	44865	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	112228	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	78641	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	12.485	29	229m 7/15	0.0892 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.	
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.	
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\L19CF\
Data File : L19CF009.D
Acq On : 6 Mar 2019 9:33 pm (#1); 06-Mar-19, 21:28:06 (#2)
Operator : MAH
Sample : 9030618-04
Misc : WB VILLAGE C1 HALL 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 07 06:34:21 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
Qlast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

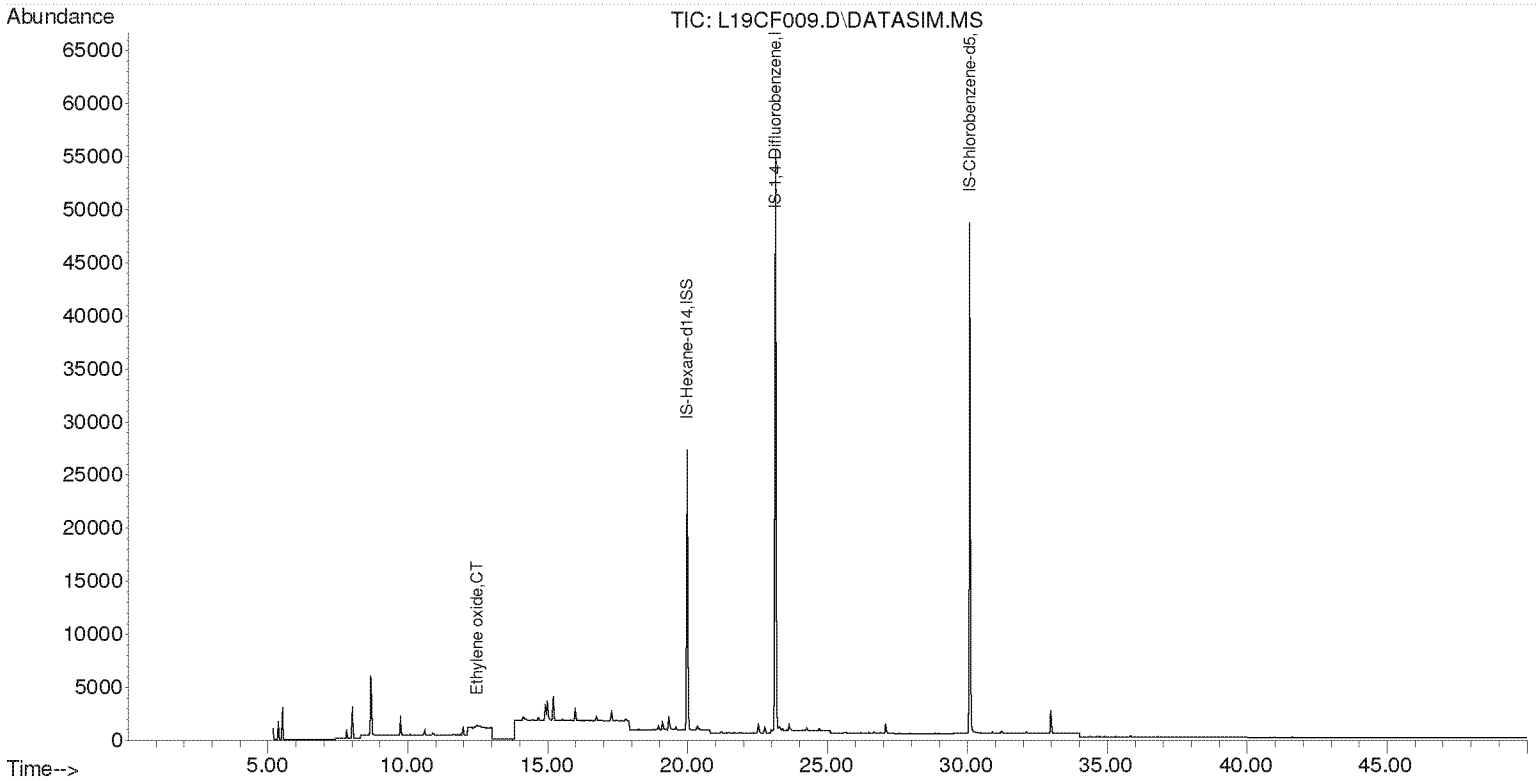
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D. d	
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D. d	
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D. d	
57) 1,2,4-Trimethylbenzene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

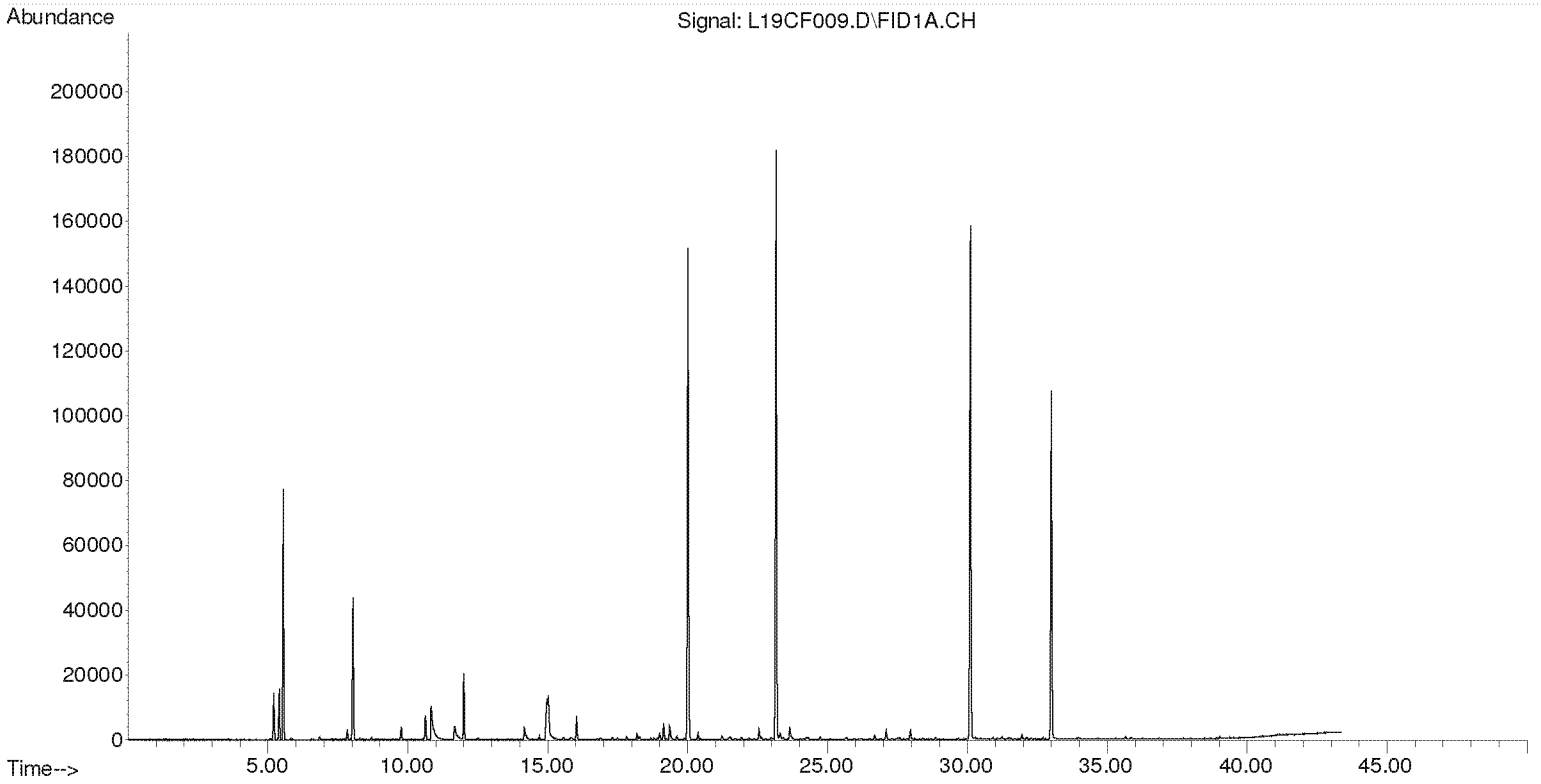
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

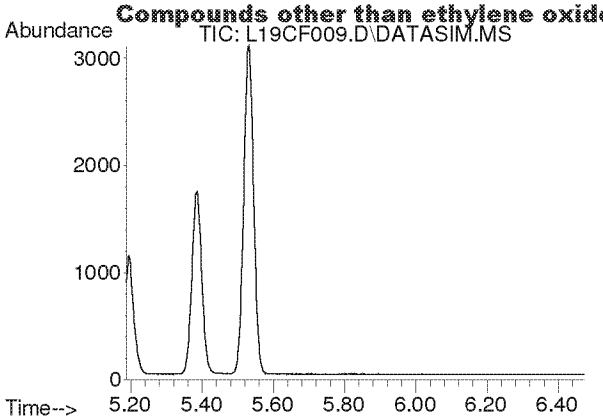
Data Path : Y:\MASS SPEC 1 DATA\L19CF\
Data File : L19CF009.D
Acq On : 6 Mar 2019 9:33 pm (#1); 06 Mar 2019 9:28 pm (#2)
Operator : MAH
Sample : 9030618-04
Misc : WB VILLAGE C1 HALL 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Mar 07 06:24:19 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





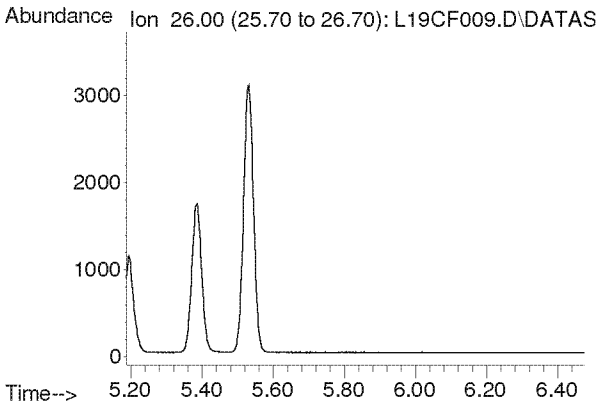
Compounds other than ethylene oxide were not quantitated.

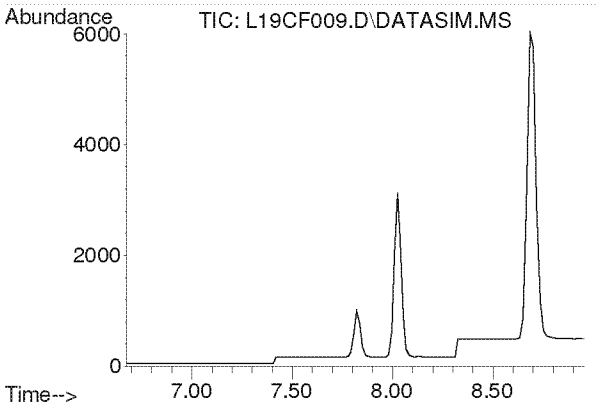


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 26



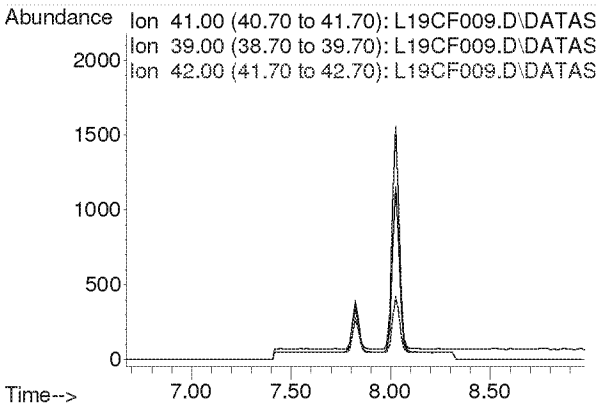


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

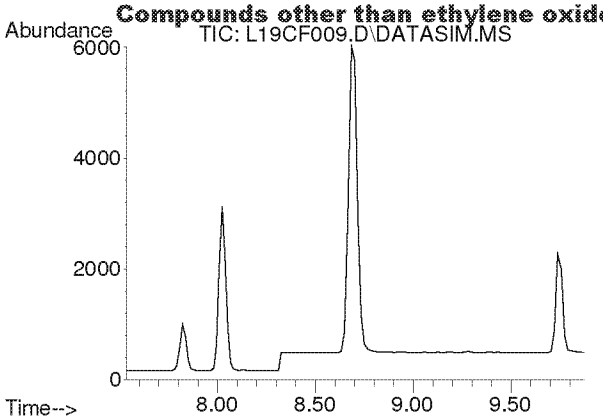
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

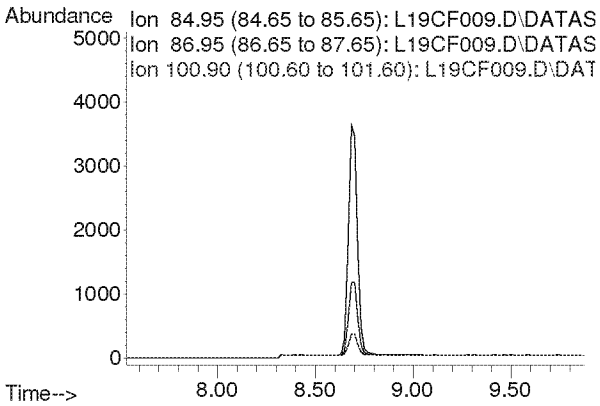


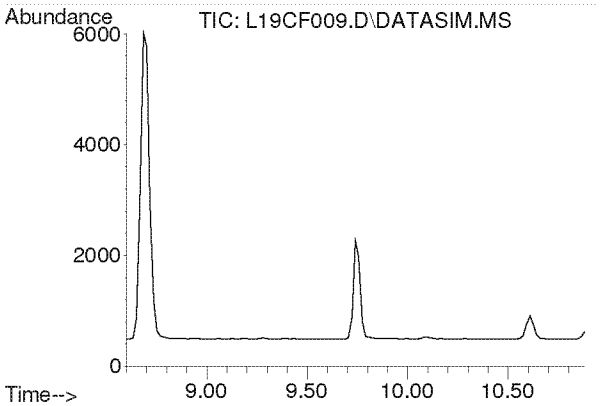
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



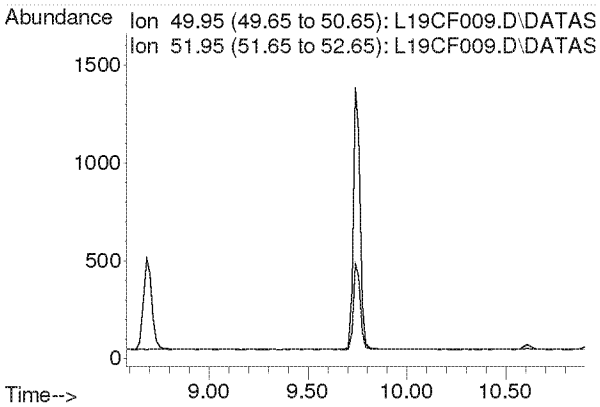


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

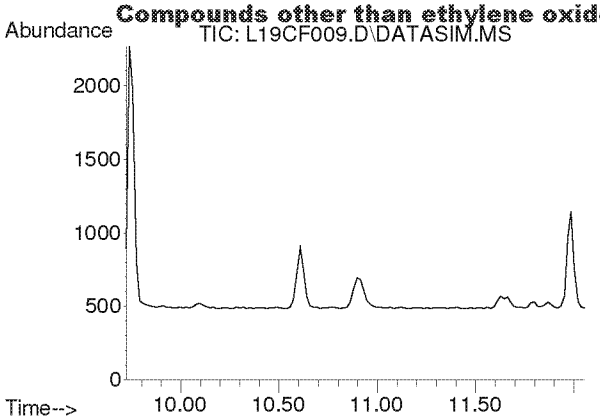
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

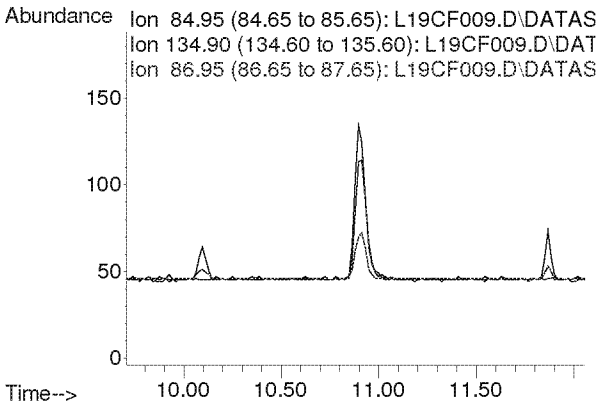


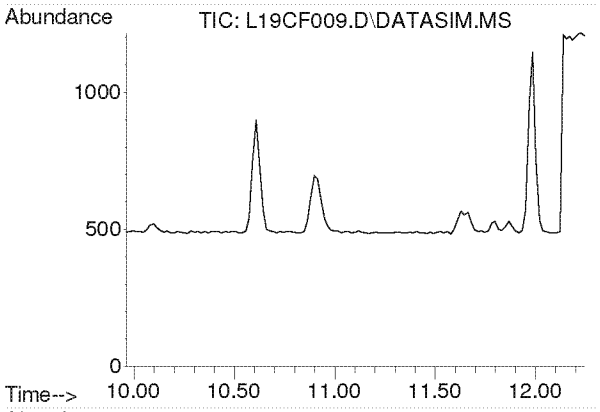
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



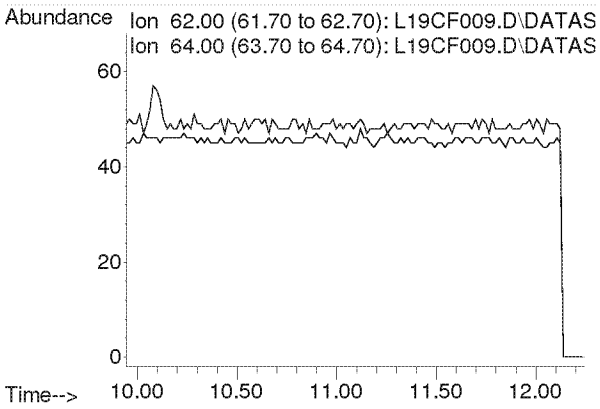


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

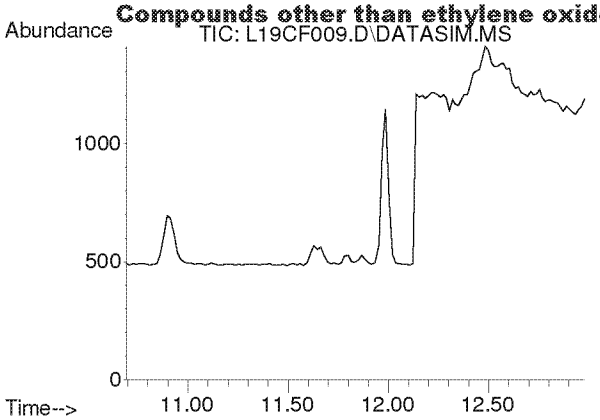
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

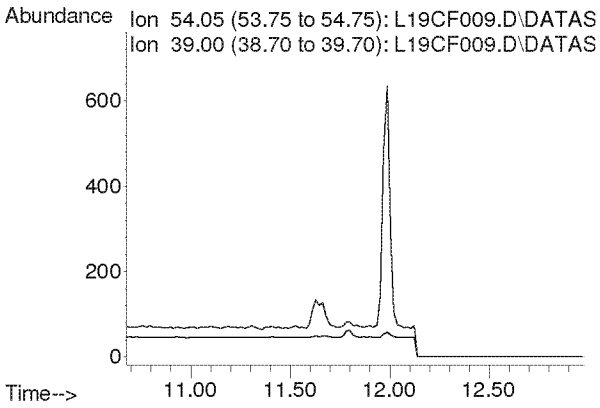


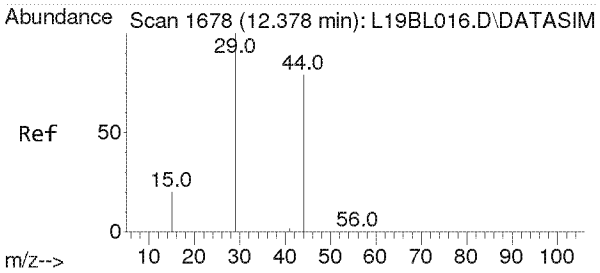
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

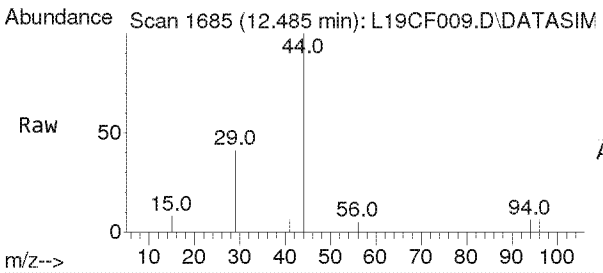


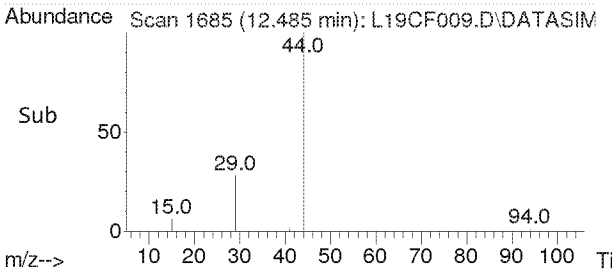


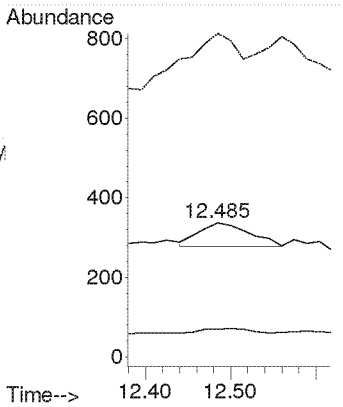
#9
Ethylene oxide
Concen: 0.089 ppbv m
RT: 12.485 min Scan# 1685
Delta R.T. 0.035 min
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 29 Resp: 229

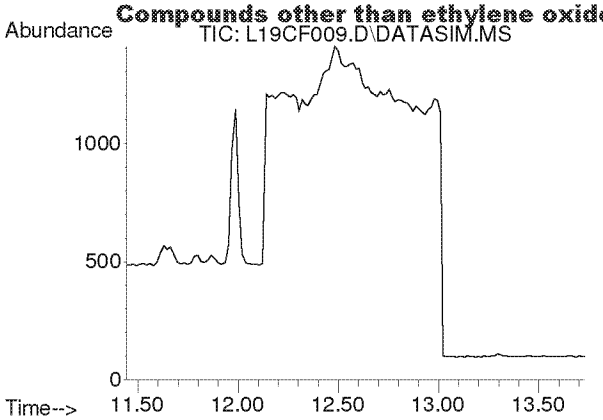
Ion	Ratio	Lower	Upper
29	100		
15	25.8	16.0	24.0#
44	704.4	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

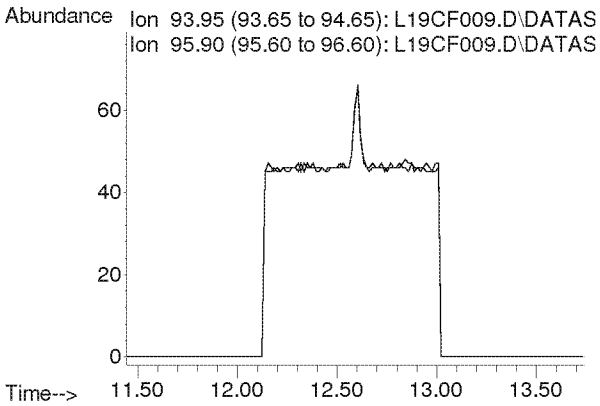


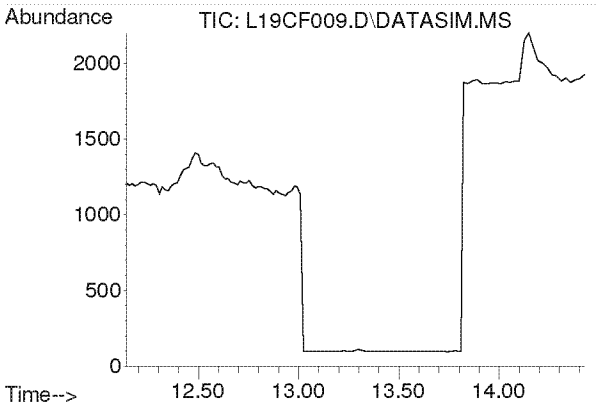
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



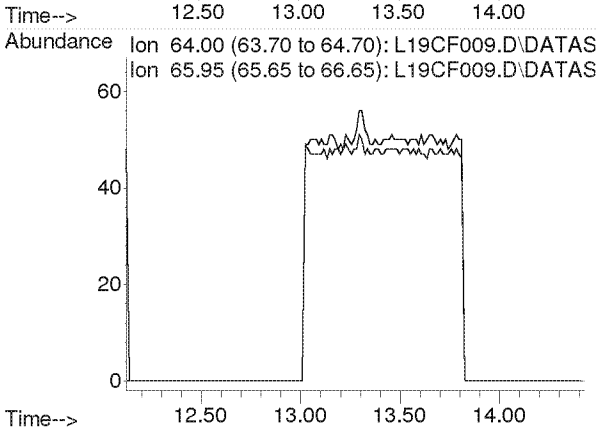


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

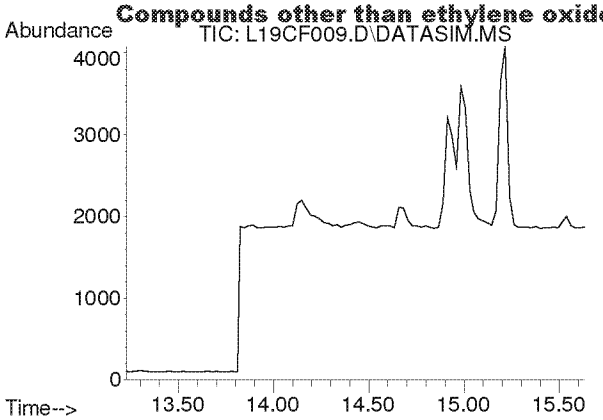
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

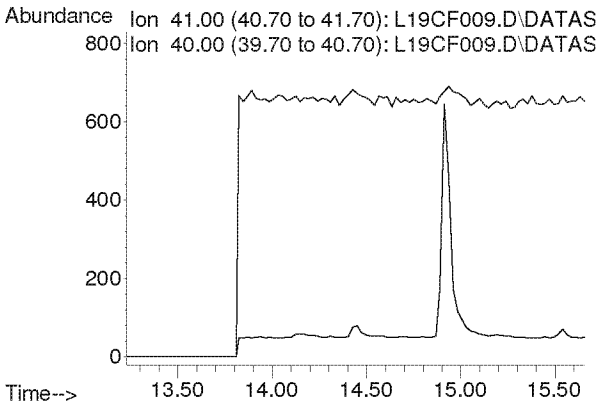


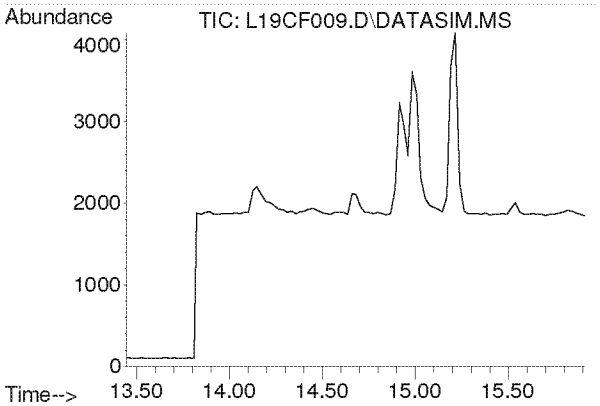
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



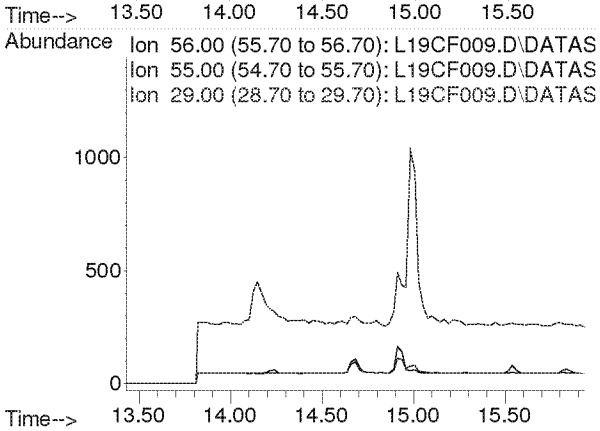


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

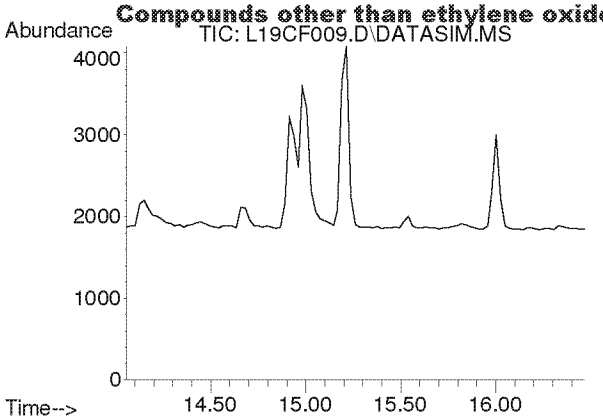
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

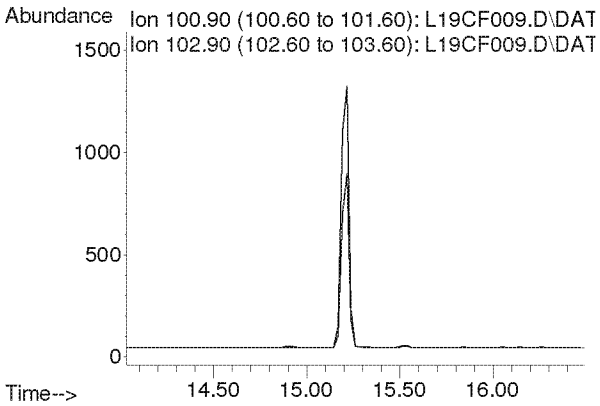


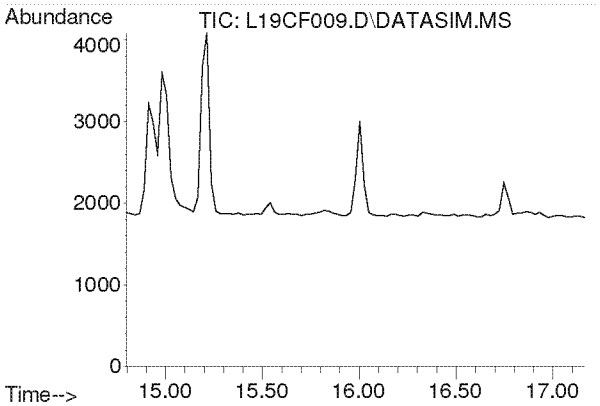
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



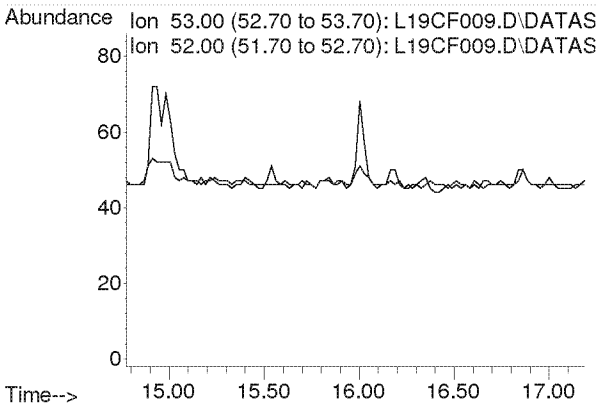


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

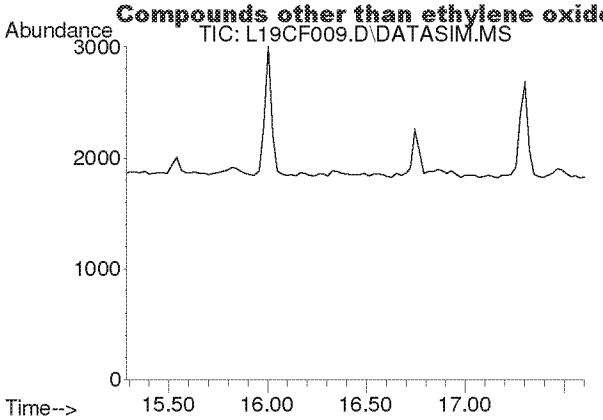
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

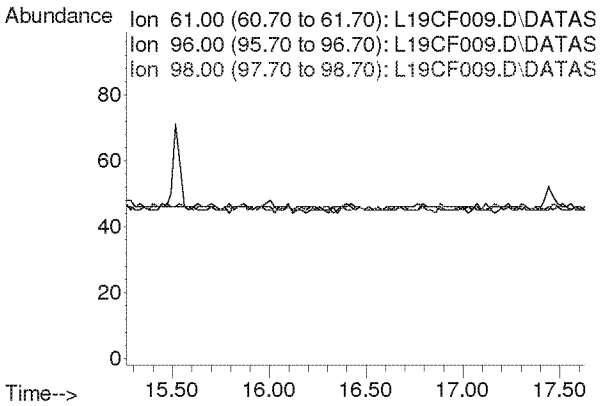


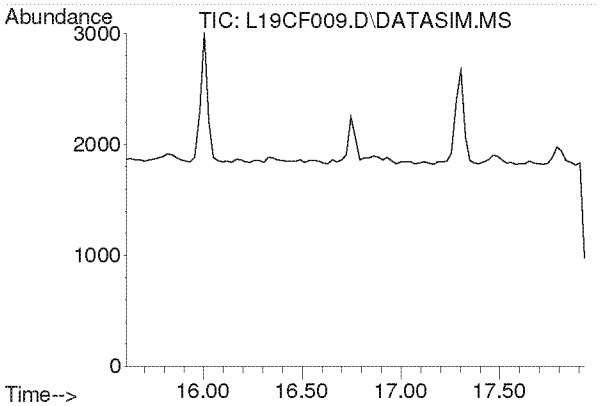
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



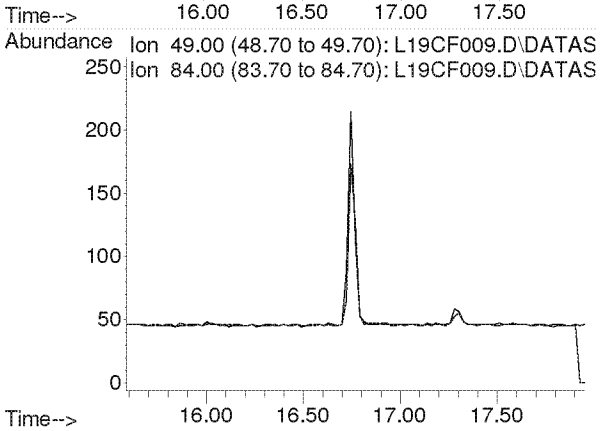


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

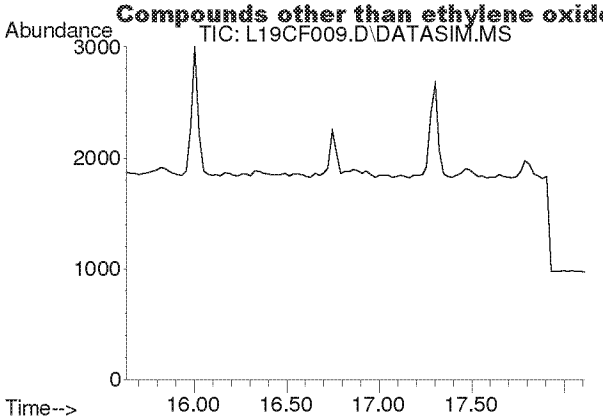
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

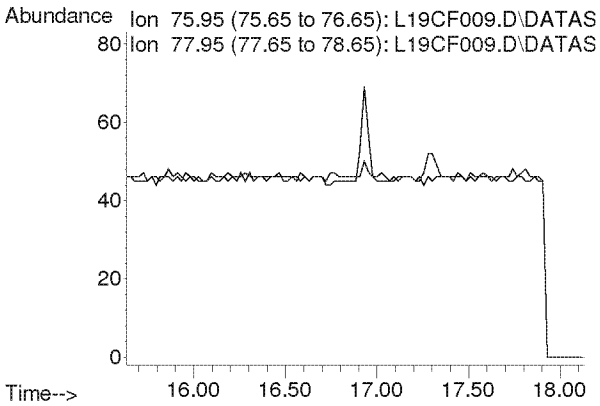


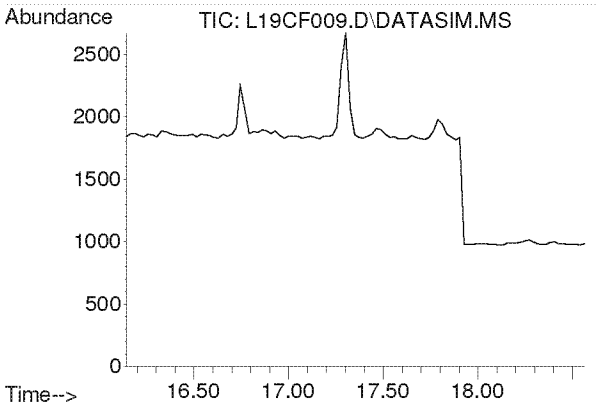
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



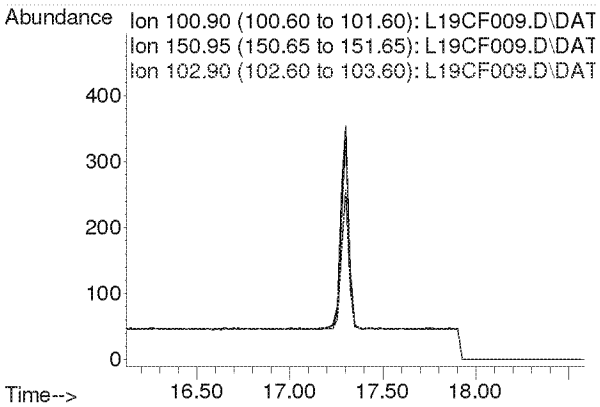


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

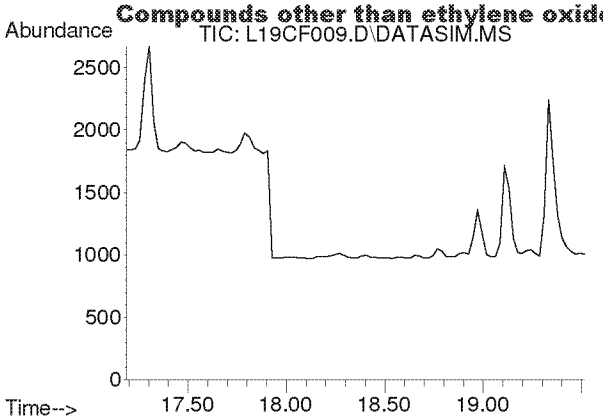
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

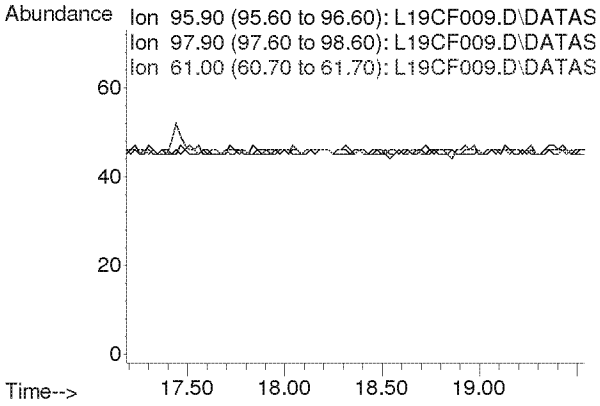


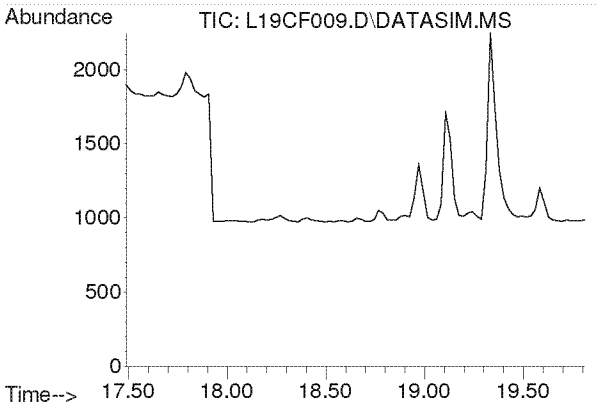
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



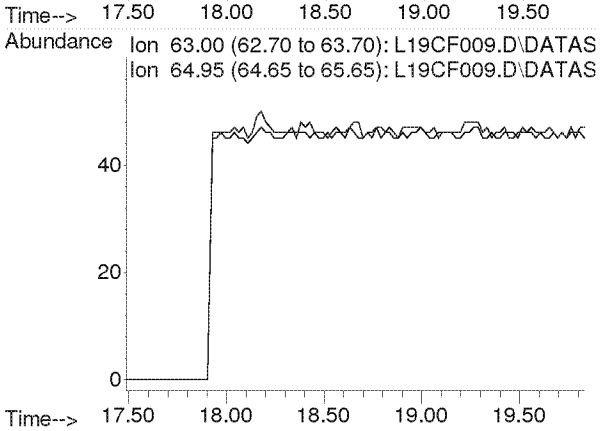


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

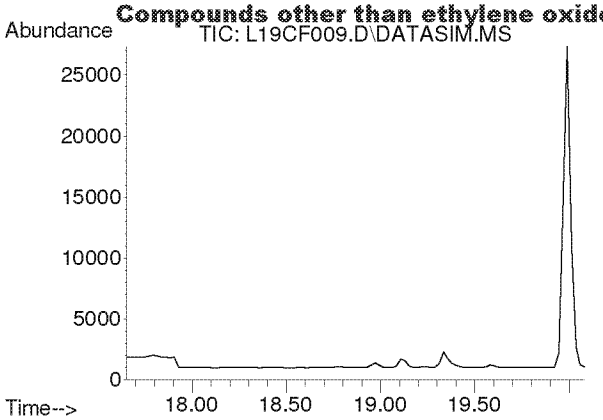
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

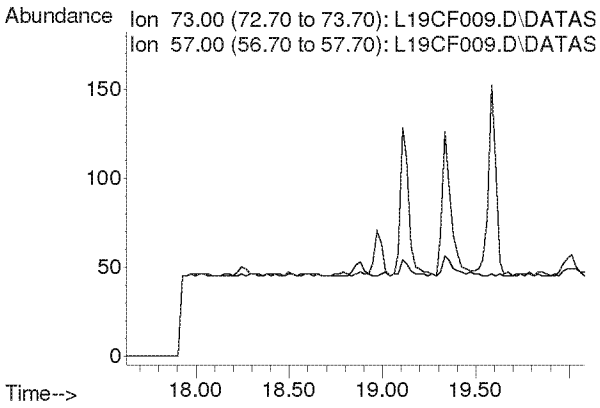


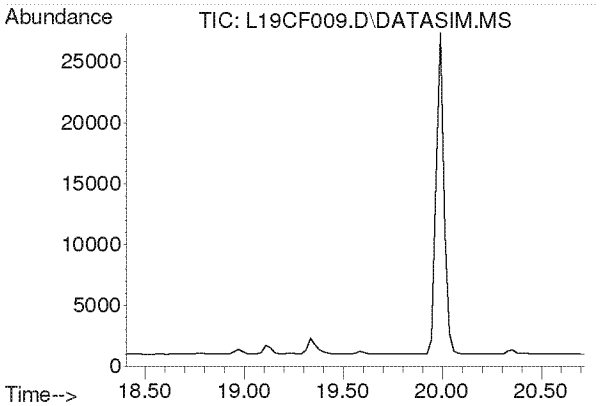
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



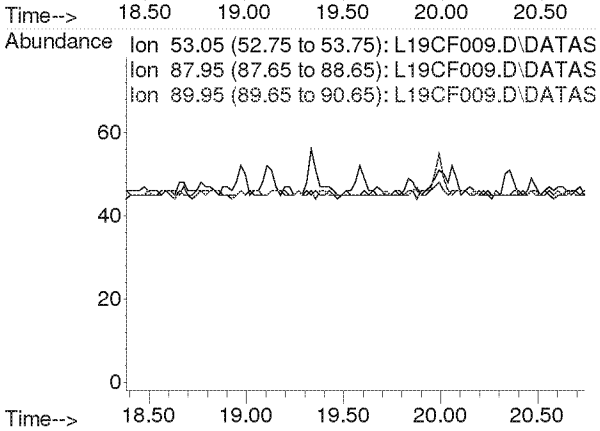


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

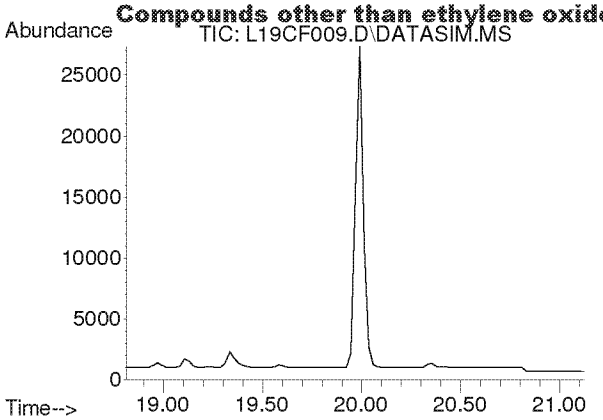
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

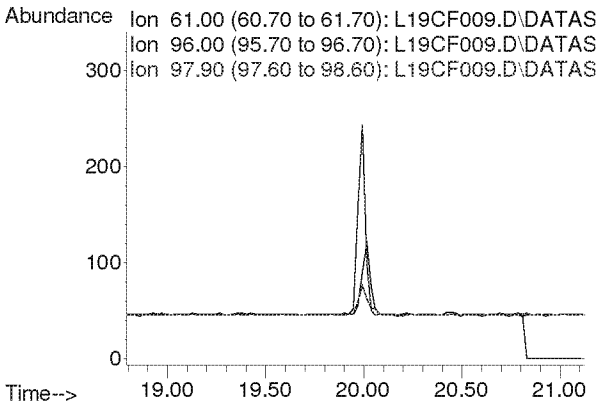


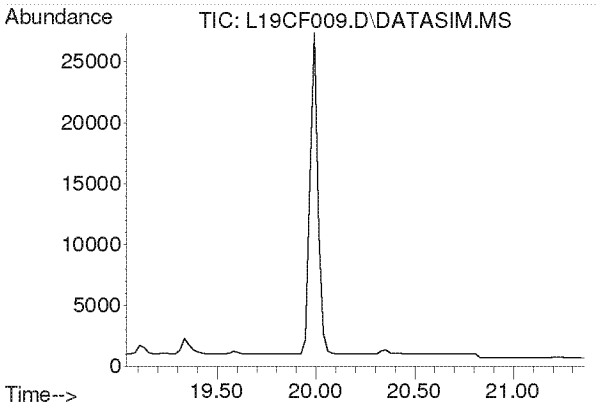
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



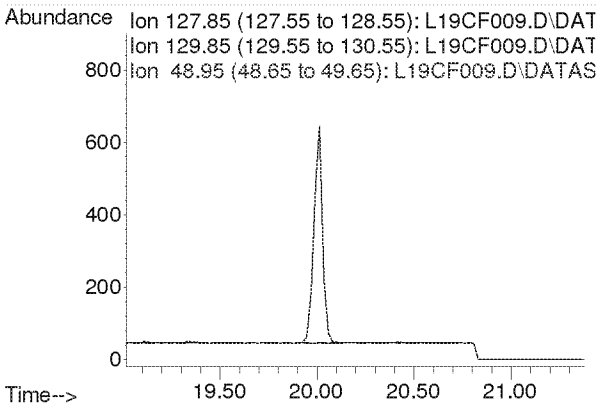


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

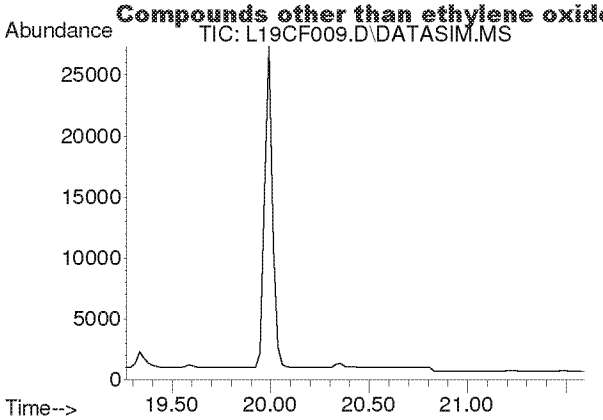
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

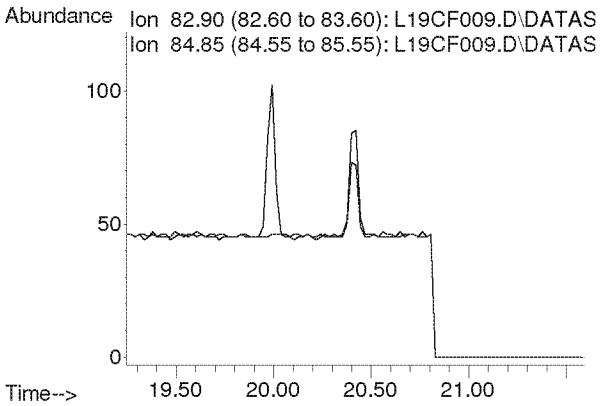


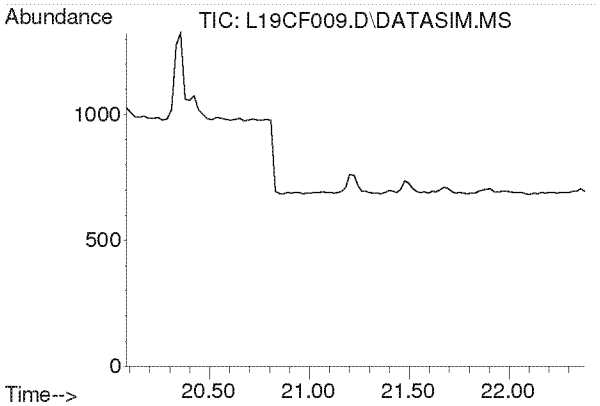
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



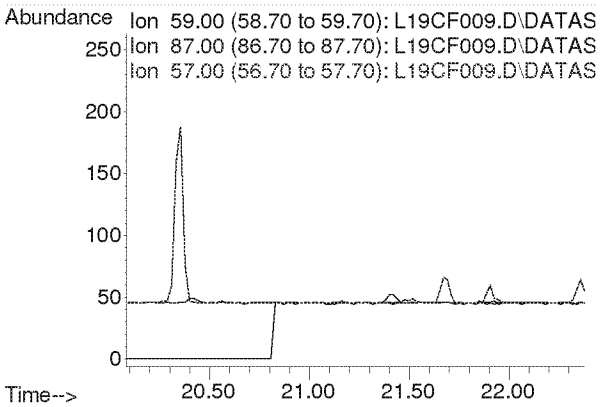


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

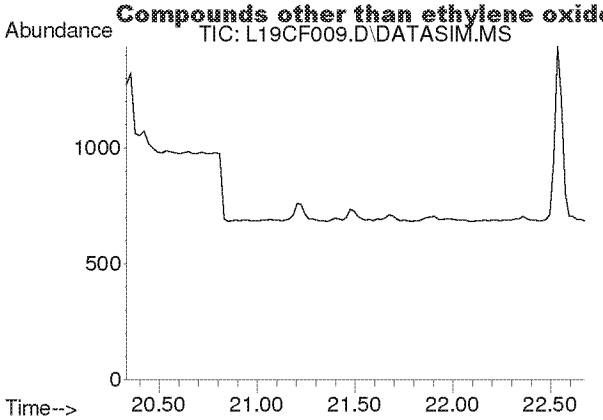
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

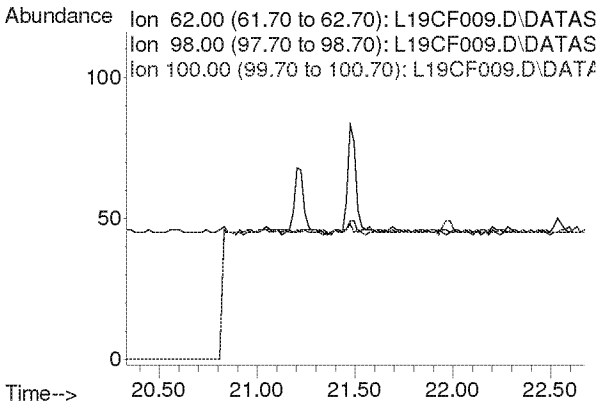


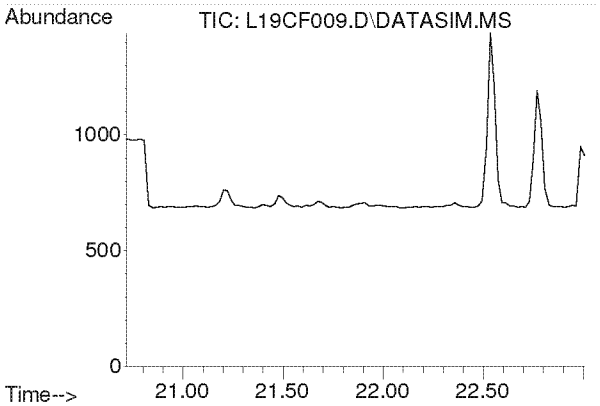
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



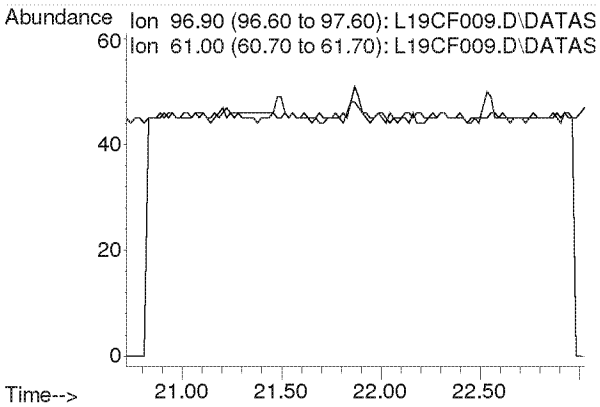


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

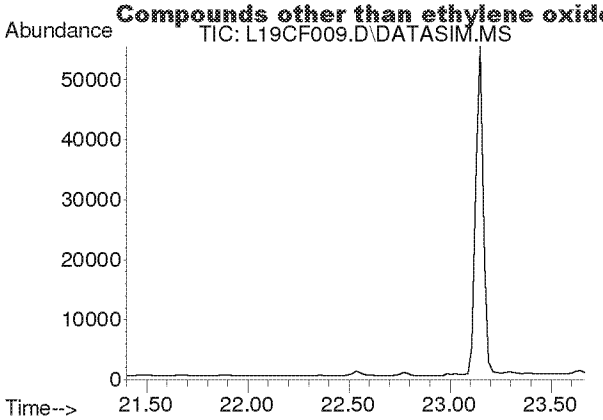
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

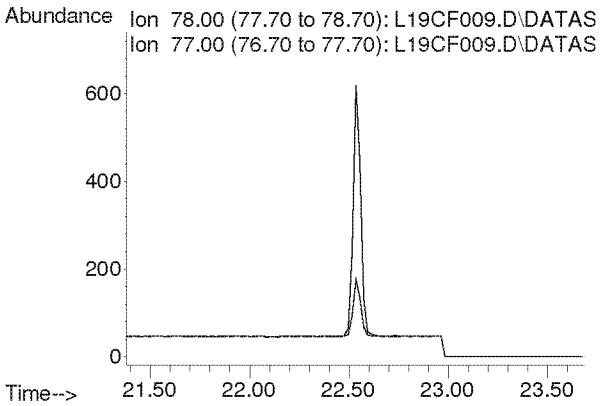


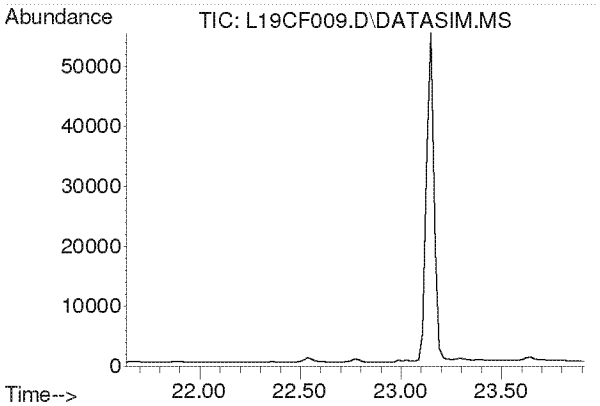
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



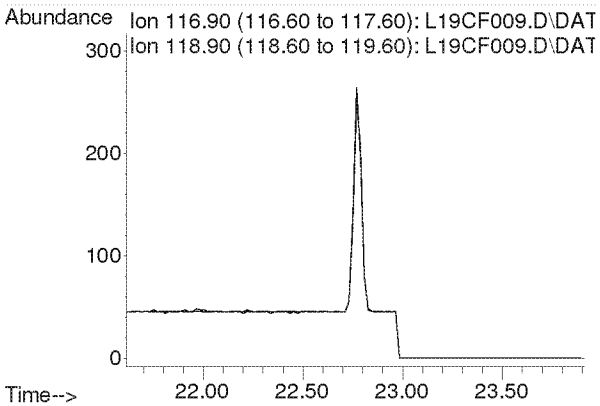


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

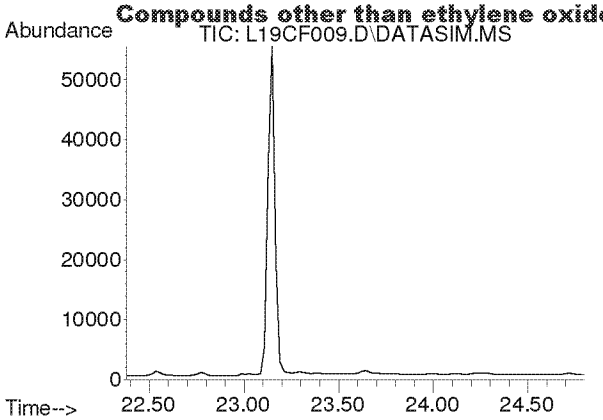
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

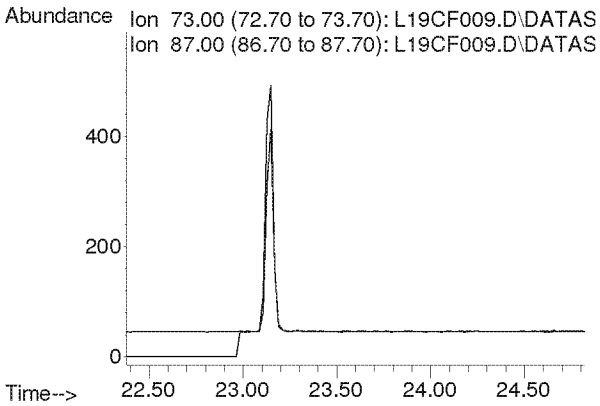


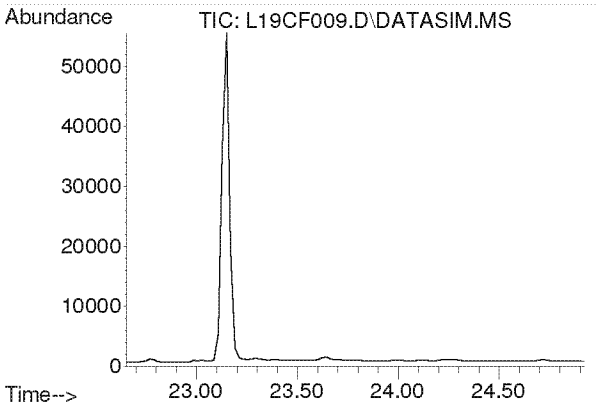
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



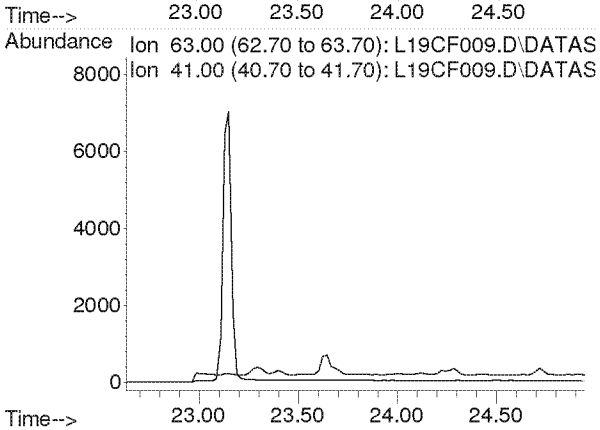


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

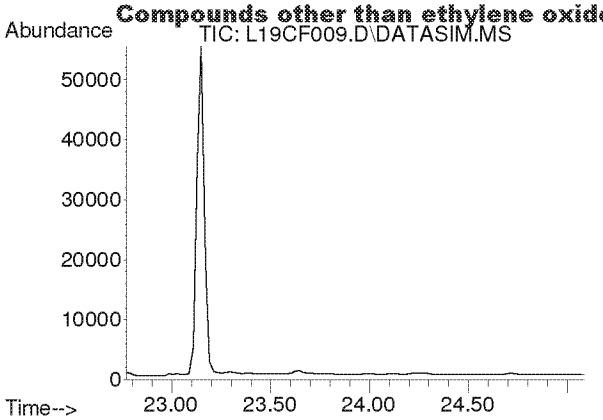
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

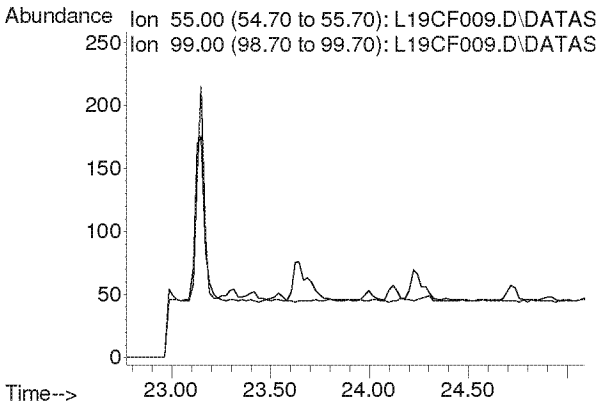


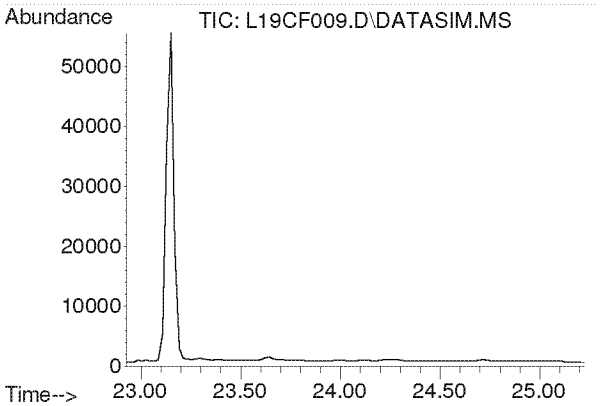
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



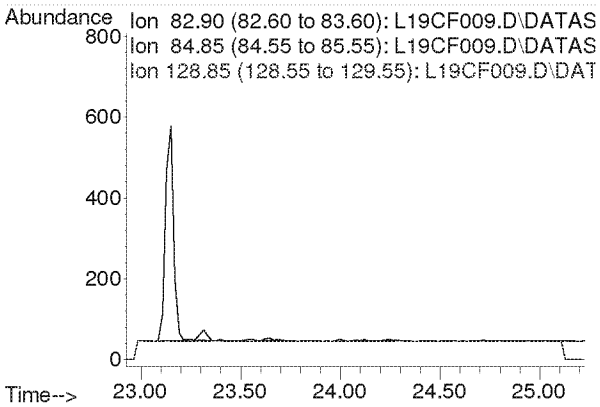


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

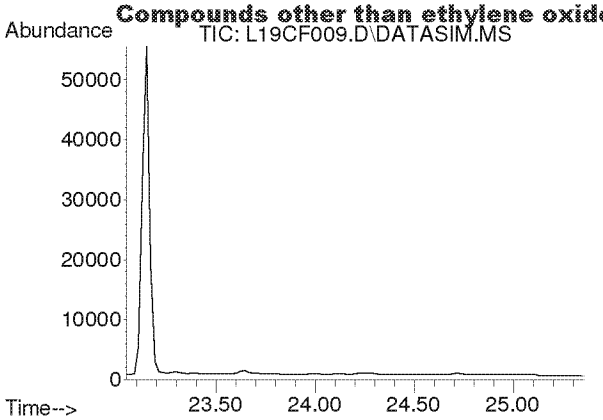
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

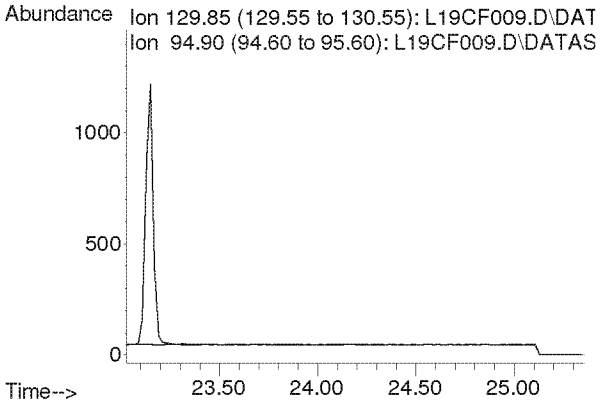


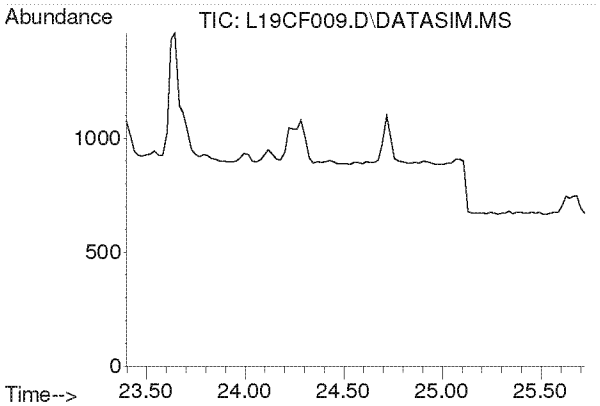
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



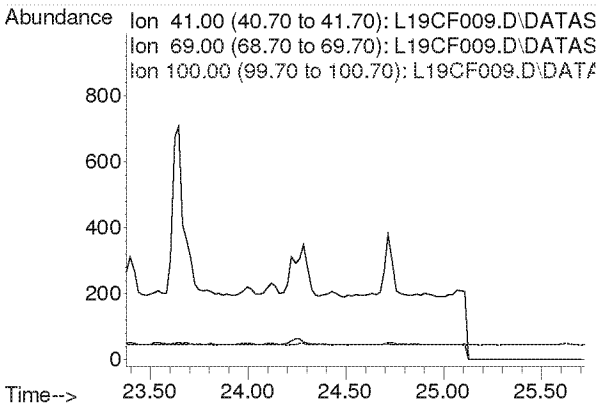


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

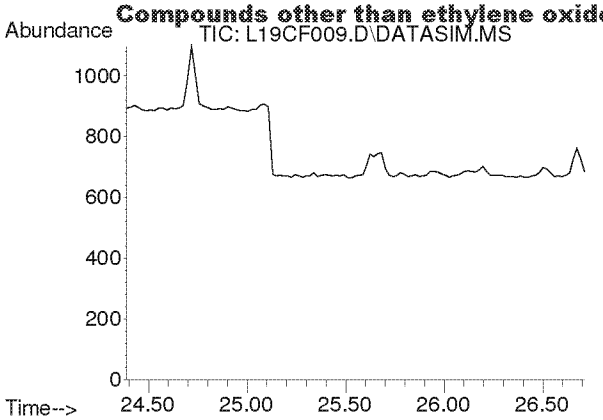
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

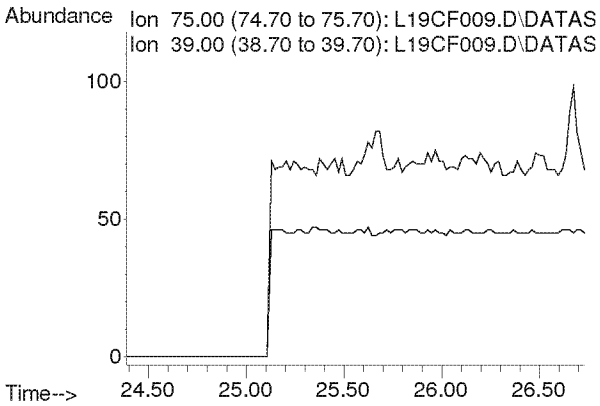


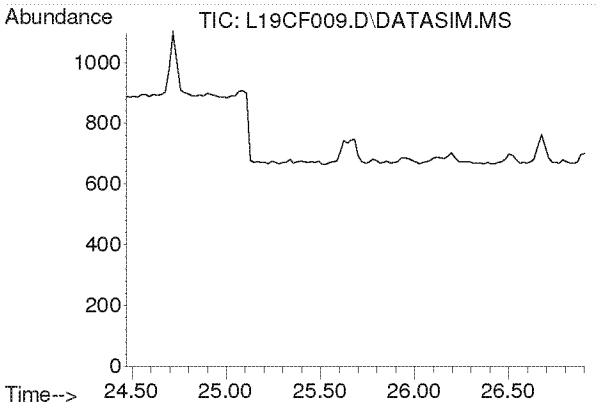
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



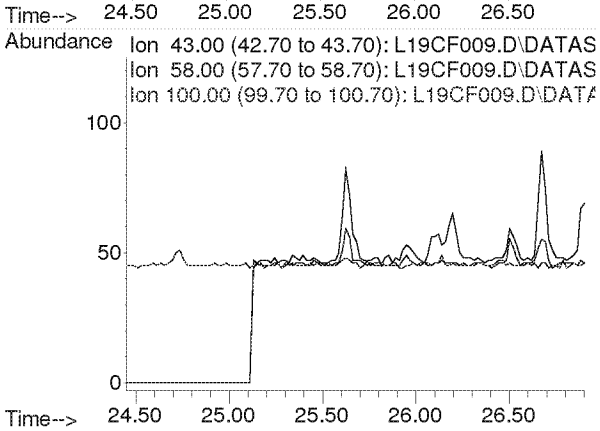


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

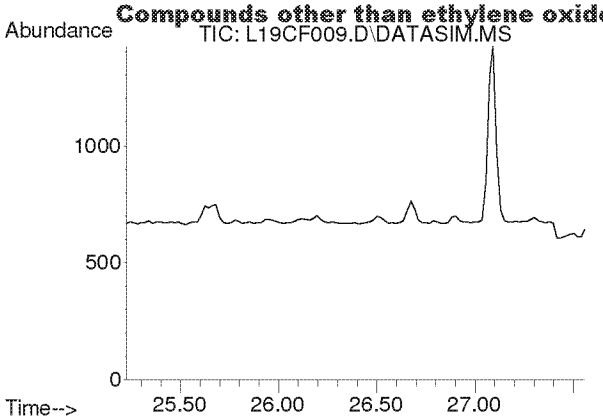
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

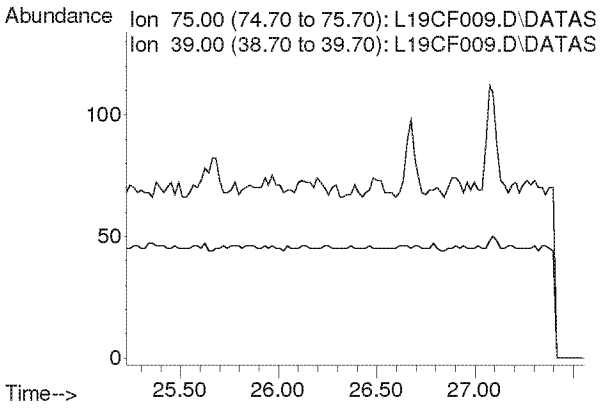


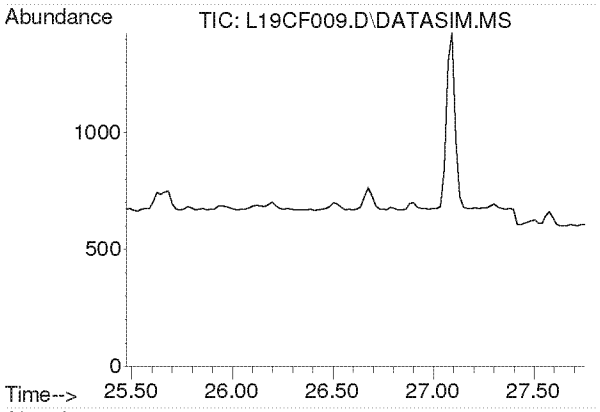
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



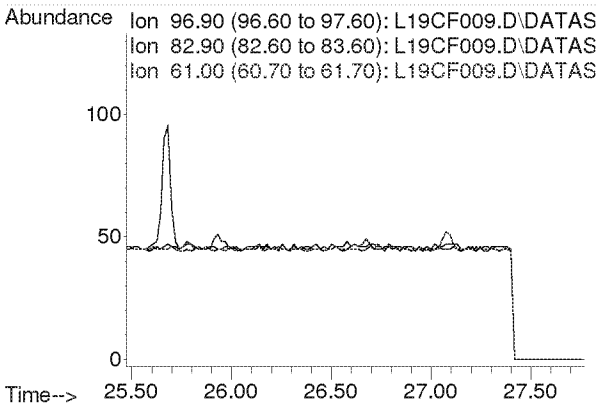


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

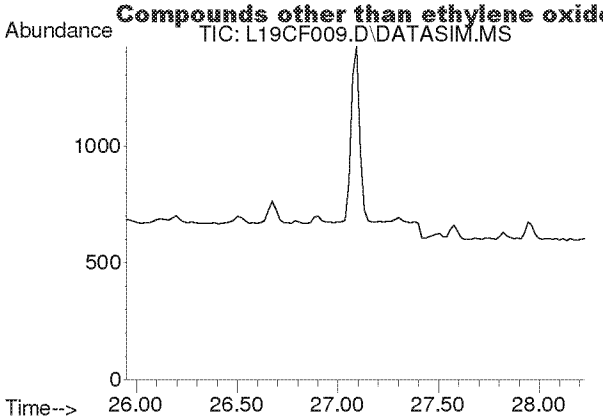
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

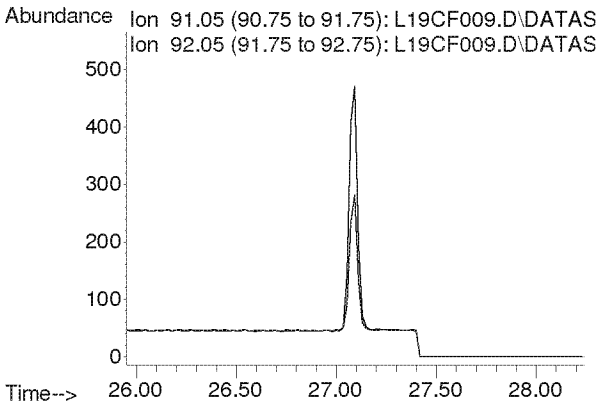


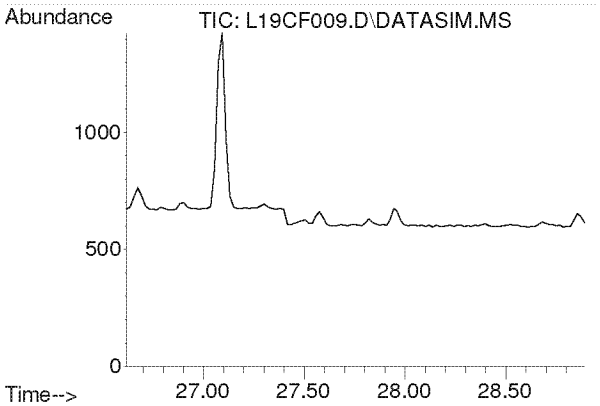
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



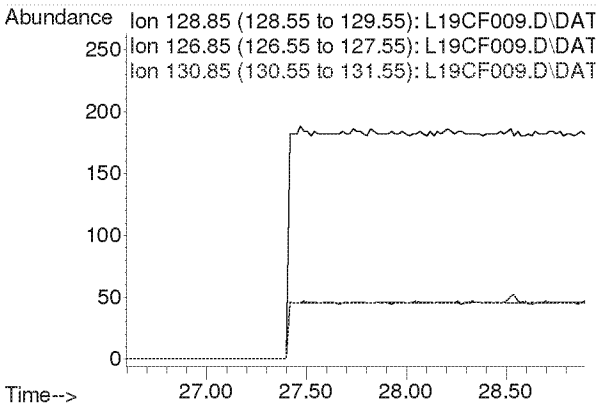


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

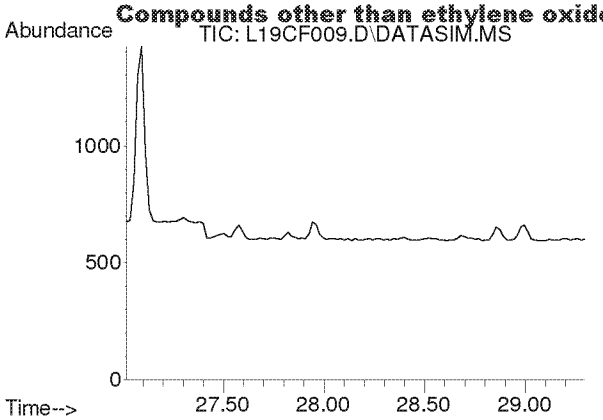
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

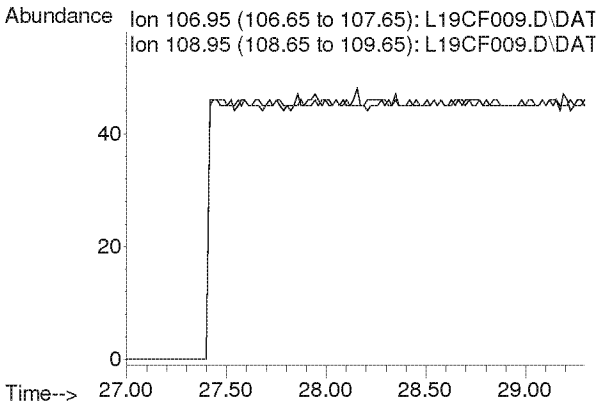


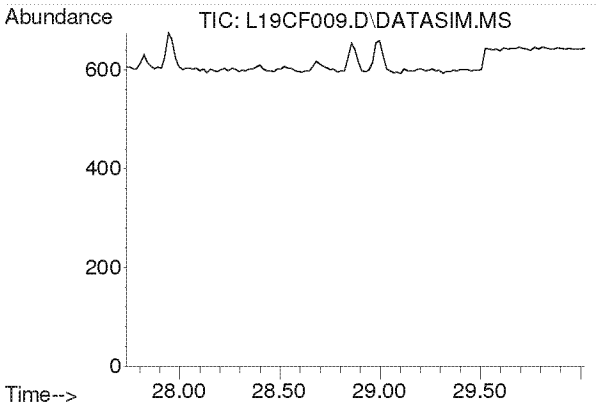
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



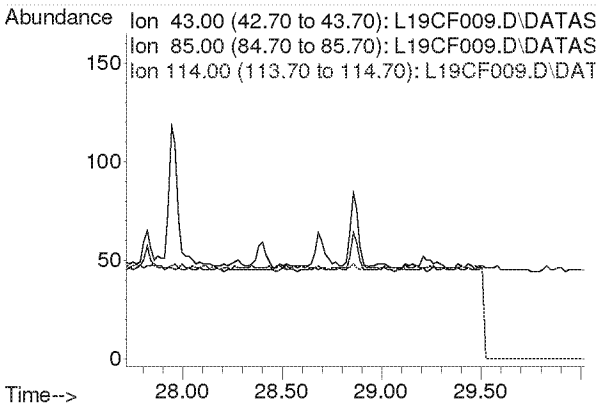


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

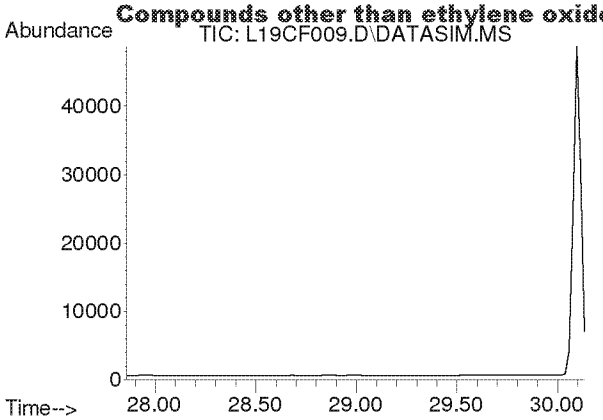
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

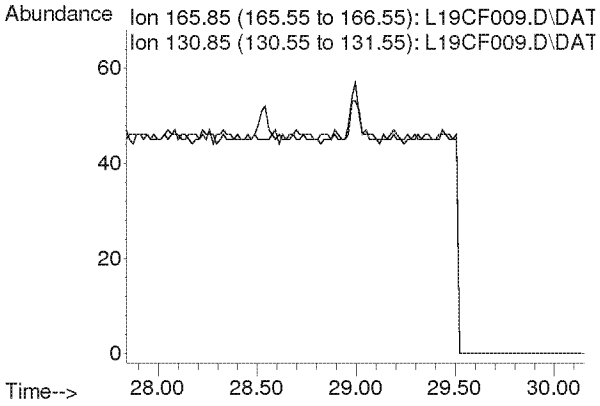


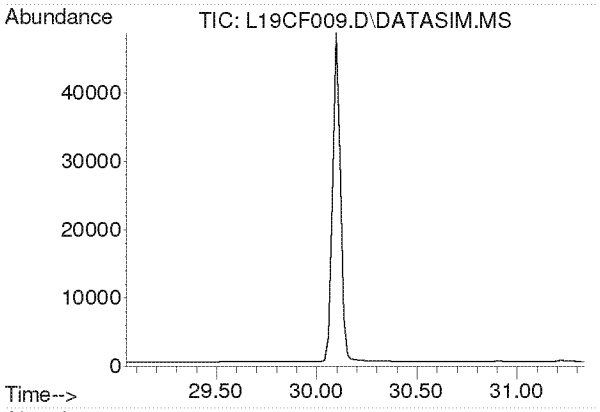
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



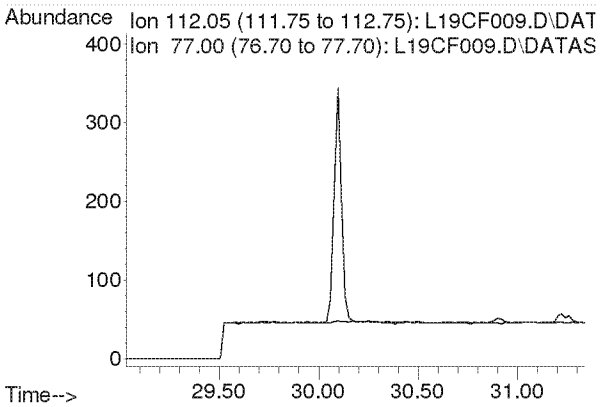


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

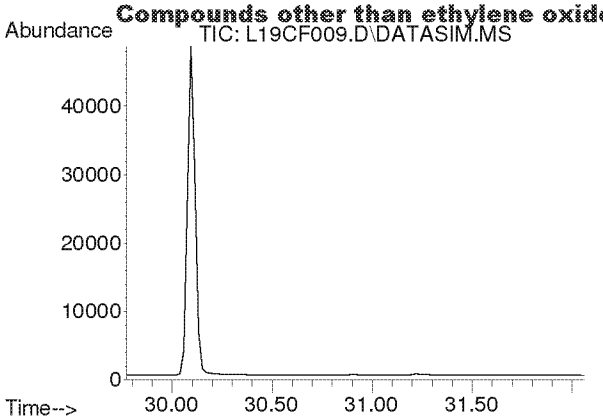
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

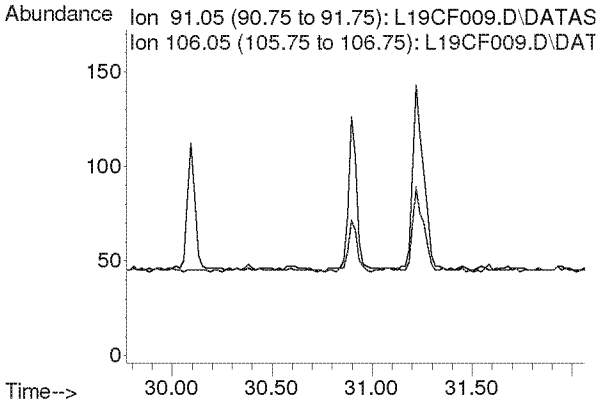


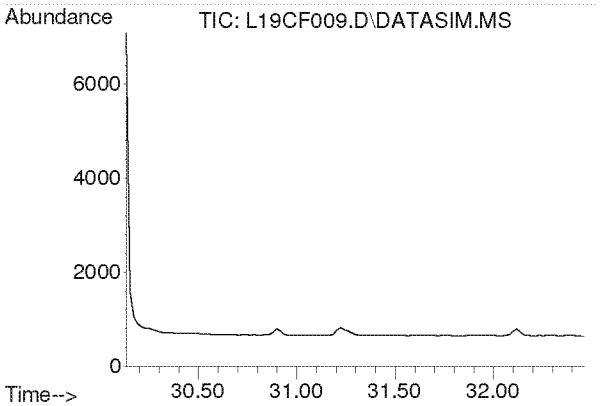
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



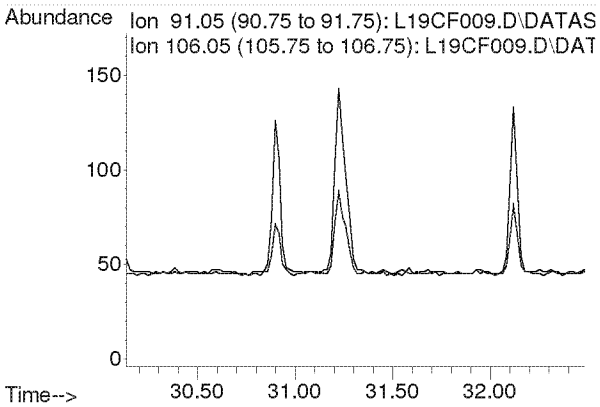


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

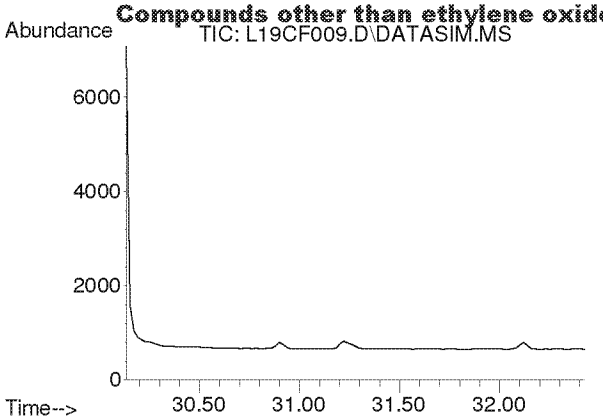
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

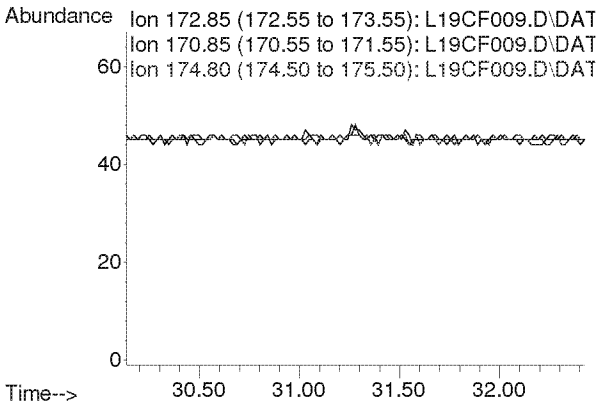


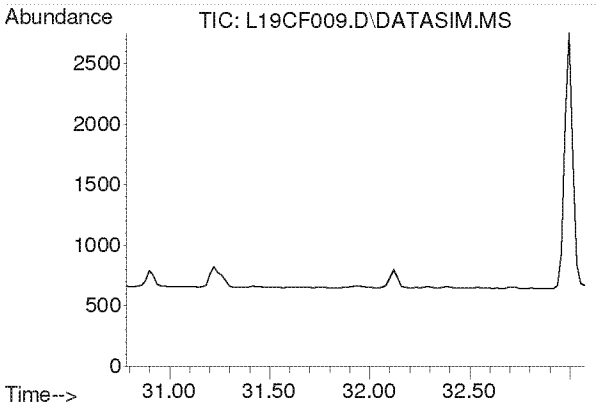
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



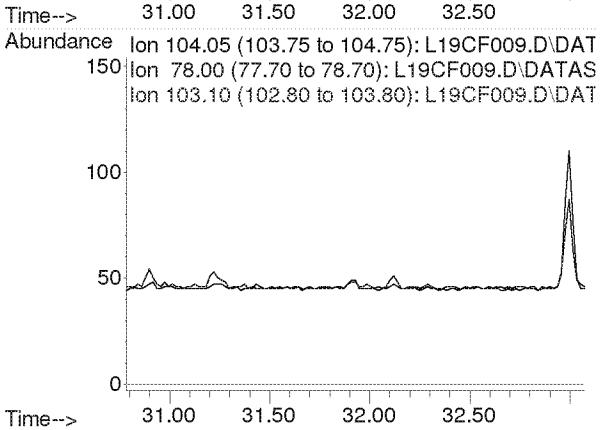


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

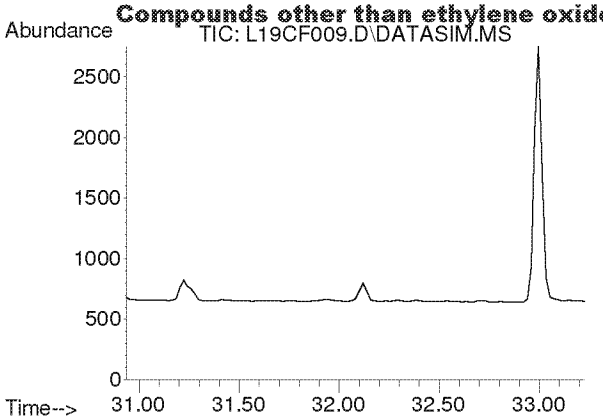
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

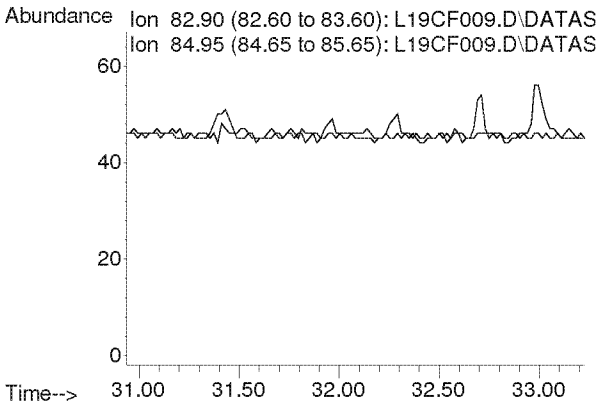


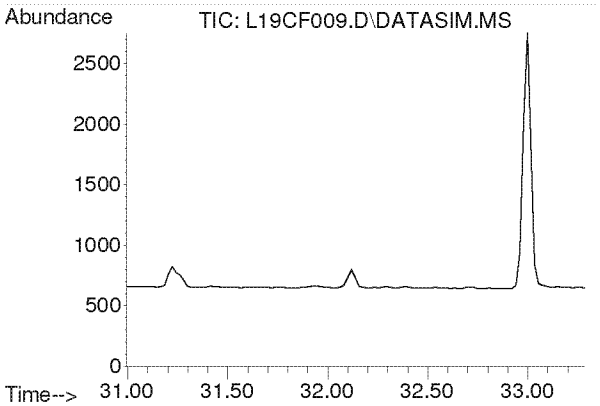
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



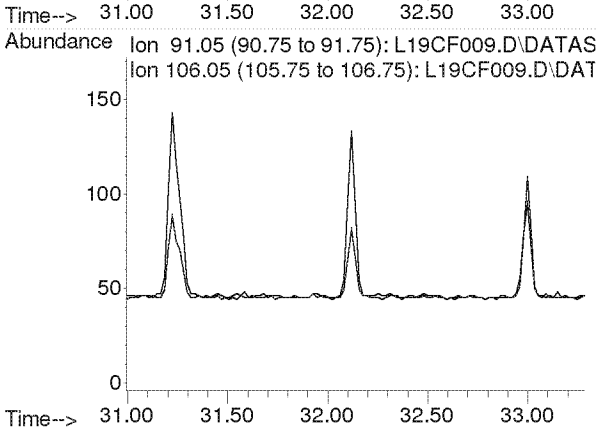


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

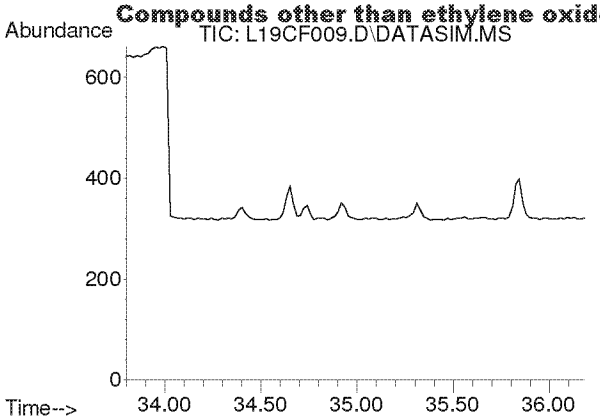
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

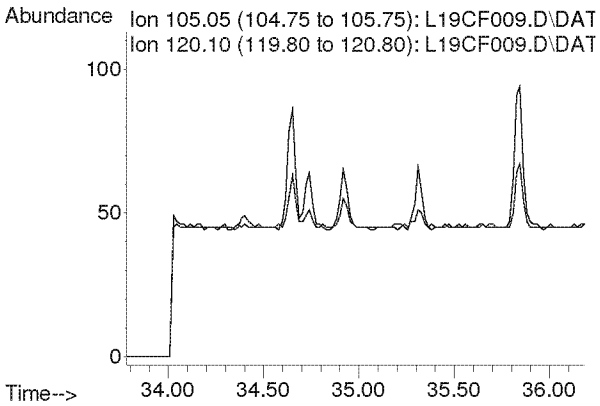


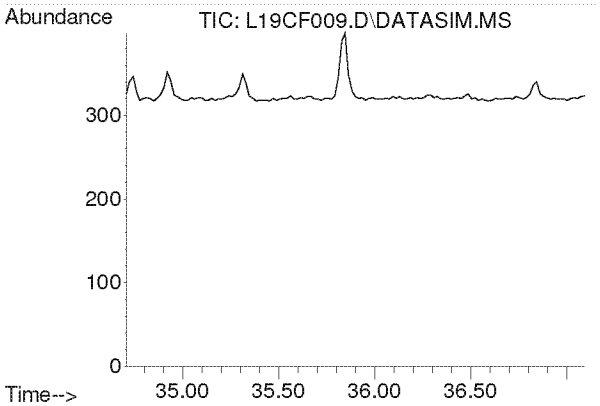
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



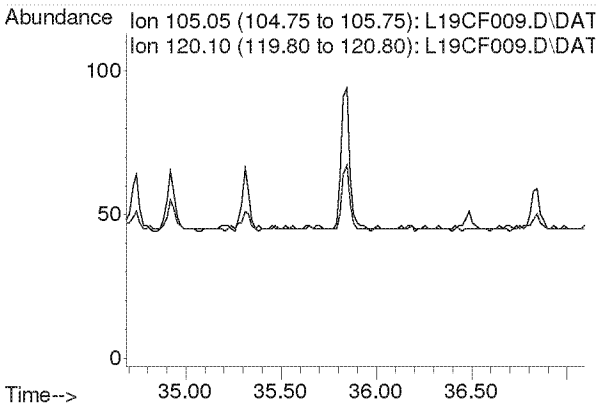


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

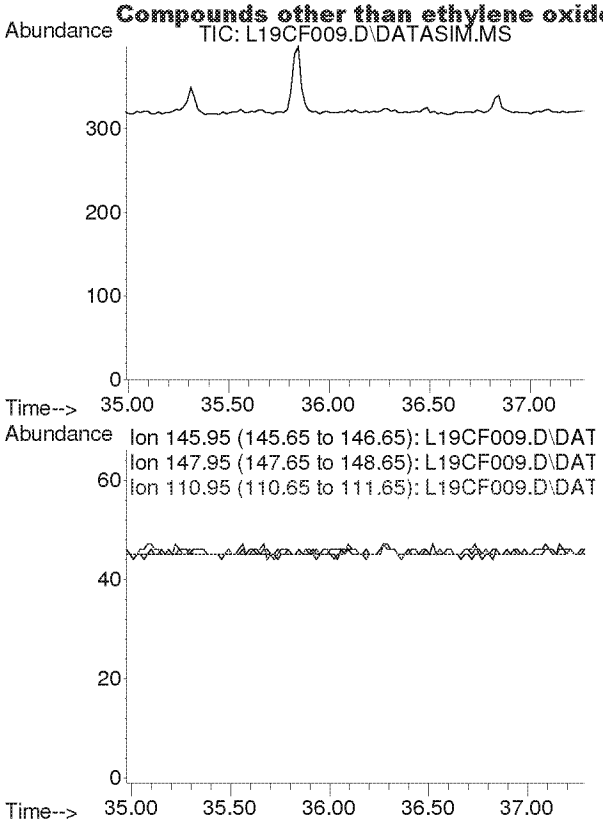
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

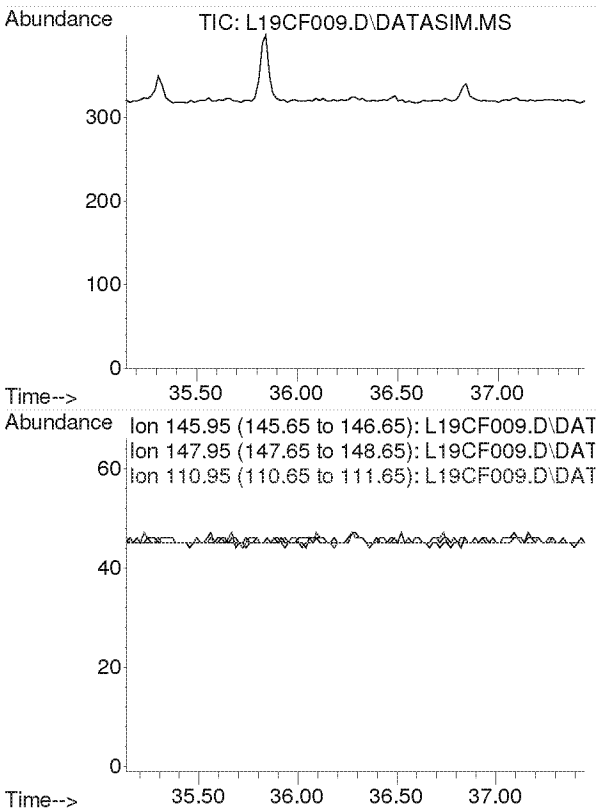


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



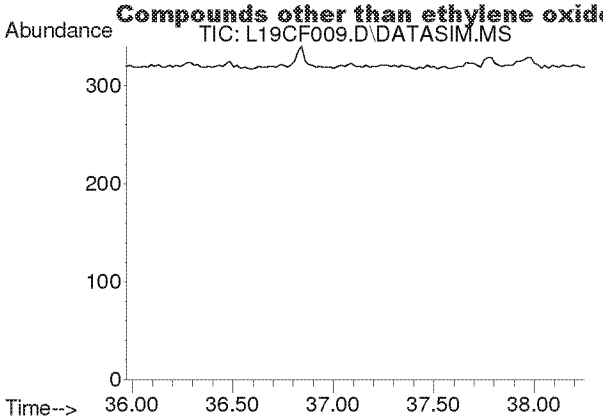
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

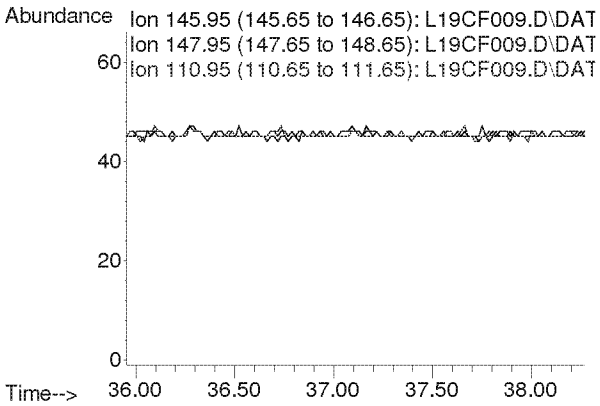


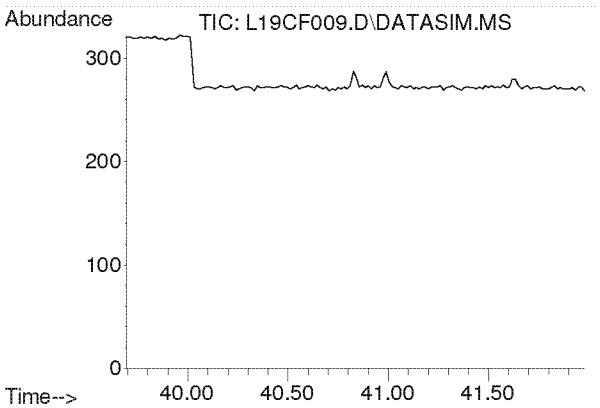
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



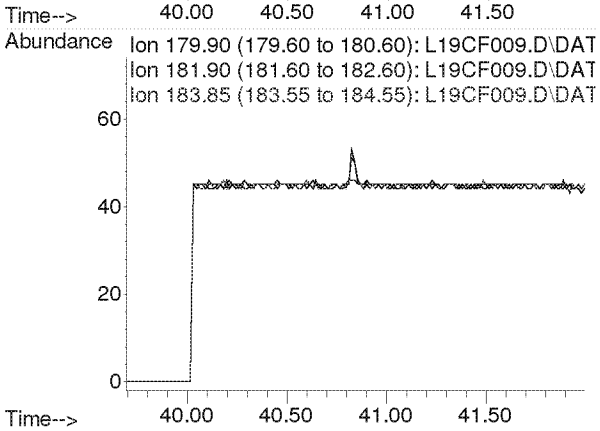


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

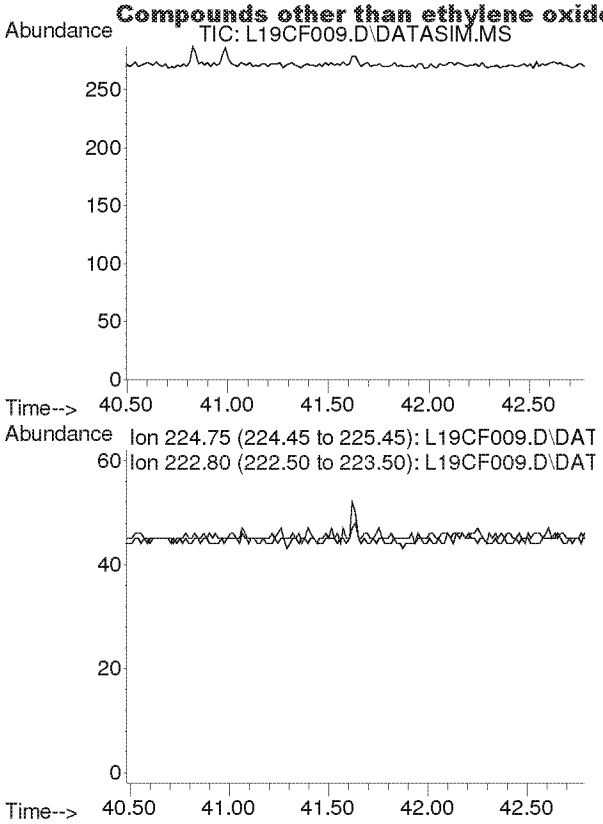
Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CF009.D
Acq: 6 Mar 2019 9:33 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CF\
Data File : L19CF010.D
Acq On : 6 Mar 2019 10:33 pm (#1); 06-Mar-19, 22:28:07 (#2)
Operator : MAH
Sample : 9030618-05
Misc : WB VILLAGE C2 HALL 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 07 06:34:56 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.992	66	46435	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.150	114	118866	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	83787	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.	
9) Ethylene oxide	12.485	29	100m	0.0377 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D. d	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D.	
23) Chloroprene	0.000	53	0	N.D.	
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\L19CF\
Data File : L19CF010.D
Acq On : 6 Mar 2019 10:33 pm (#1); 06-Mar-19, 22:28:07 (#2)
Operator : MAH
Sample : 9030618-05
Misc : WB VILLAGE C2 HALL 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 07 06:34:56 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

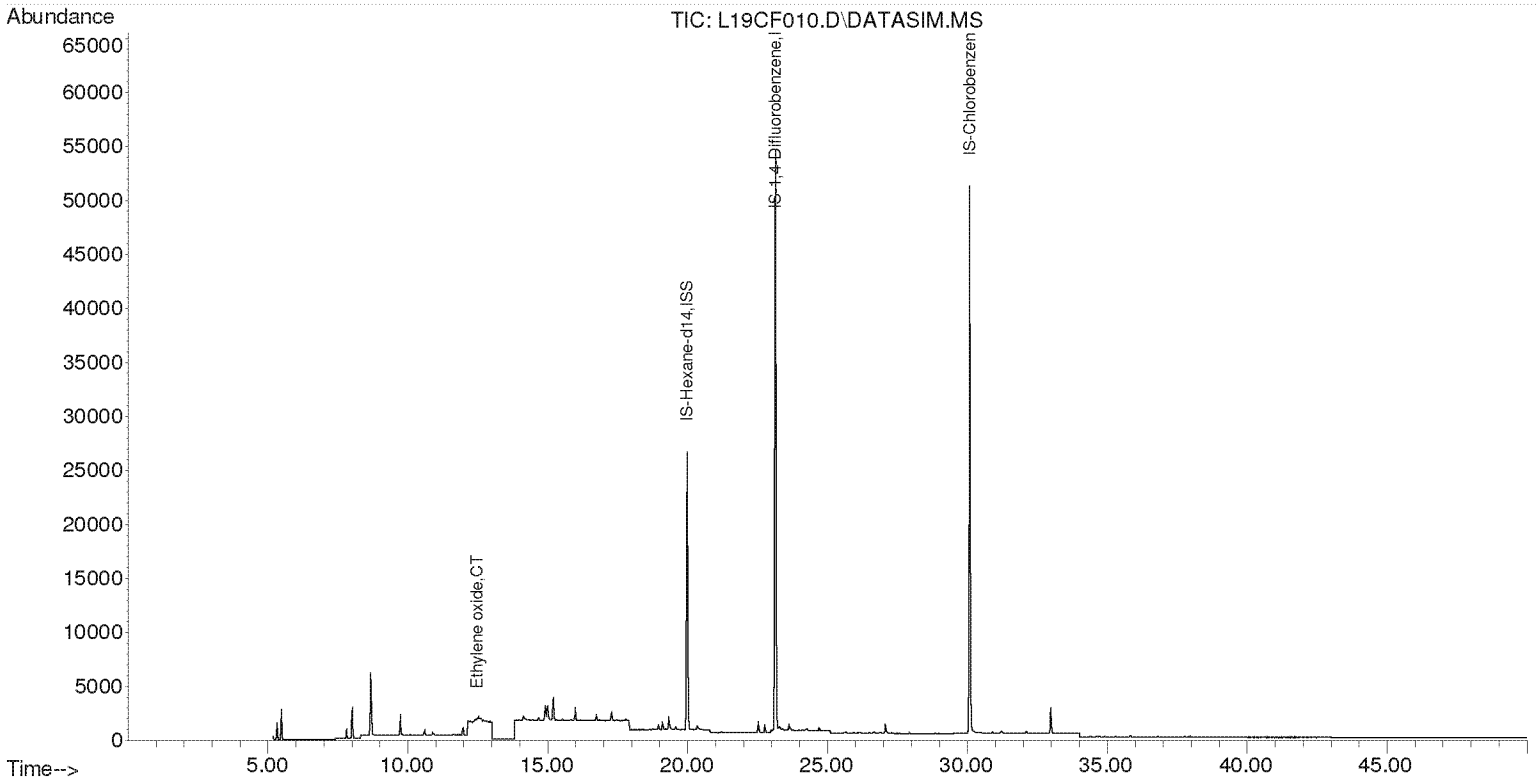
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

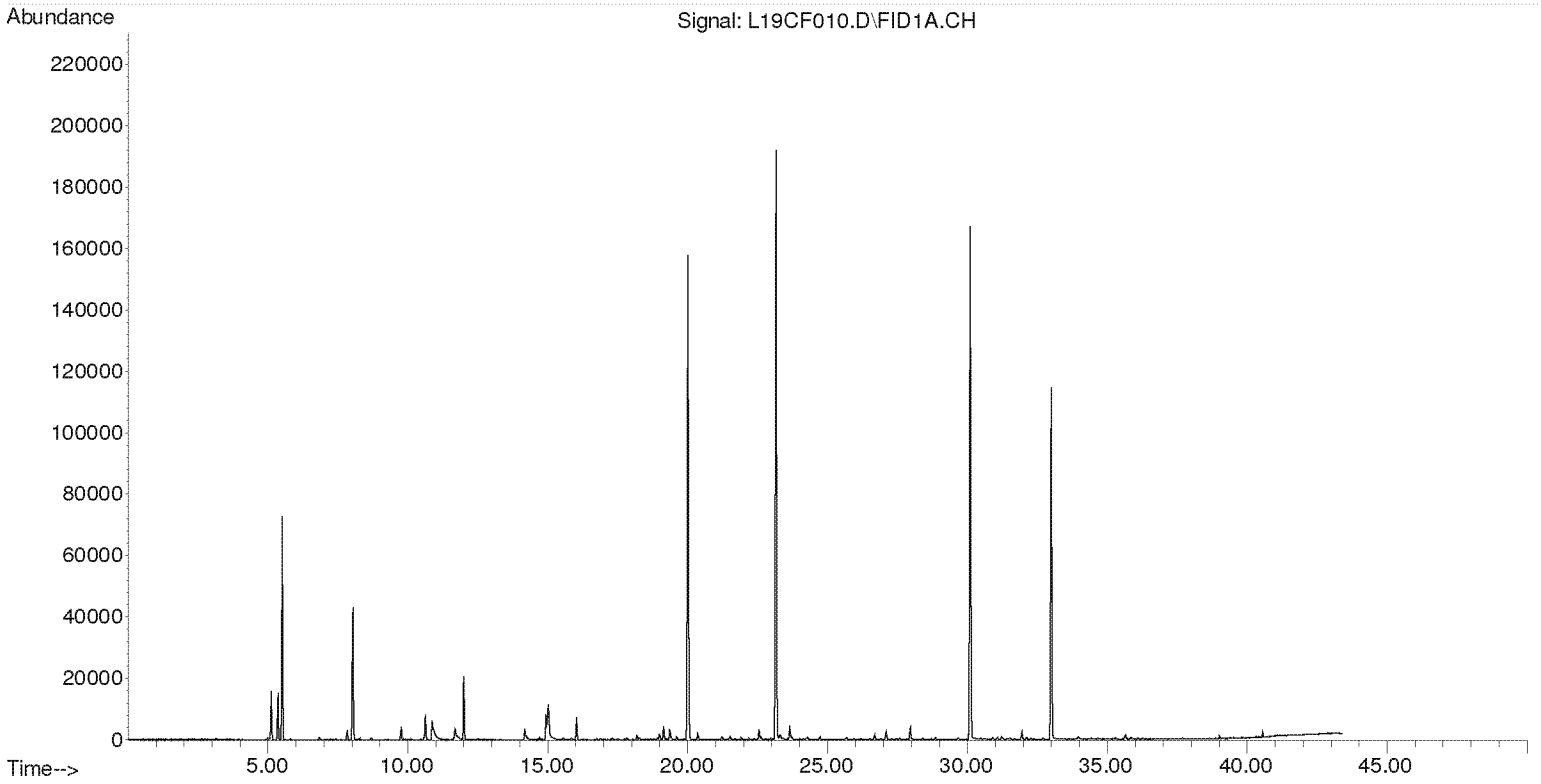
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

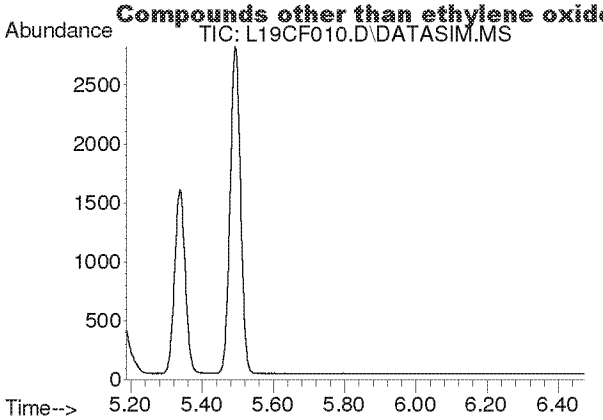
Data Path : Y:\MASS SPEC 1 DATA\L19CF\
Data File : L19CF010.D
Acq On : 6 Mar 2019 10:33 pm (#1); 06 Mar 2019 10:28 pm (#2)
Operator : MAH
Sample : 9030618-05
Misc : WB VILLAGE C2 HALL 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Mar 07 06:24:25 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





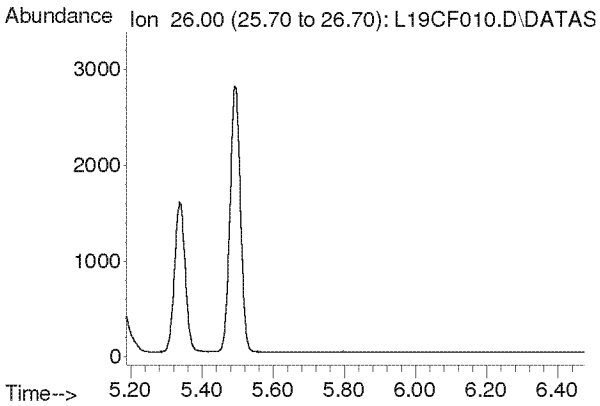
Compounds other than ethylene oxide were not quantitated.

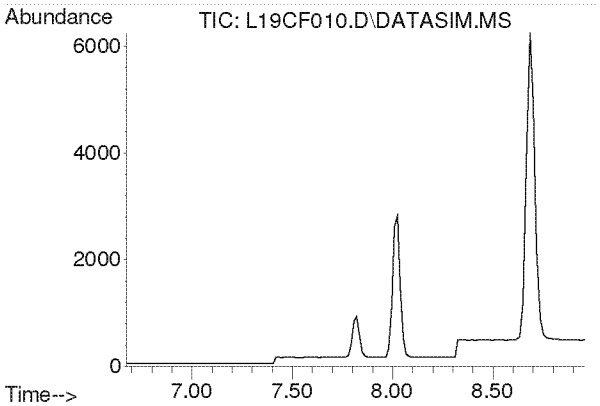


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 26



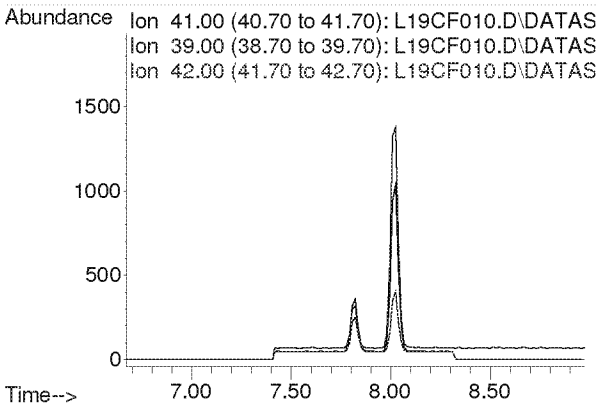


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

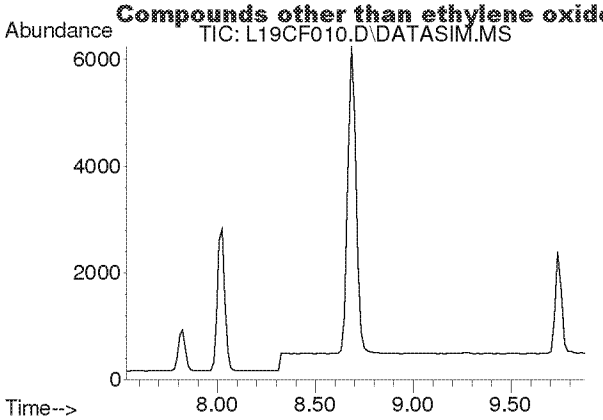
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

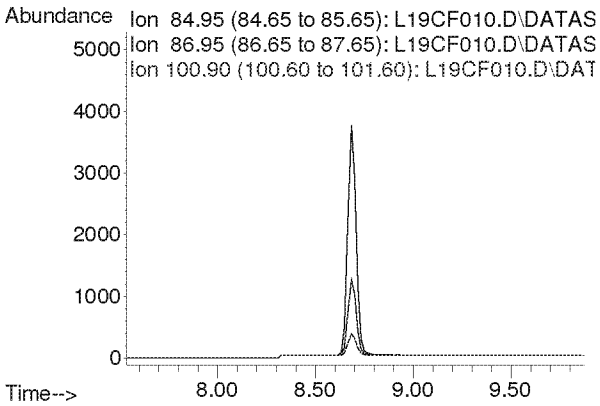


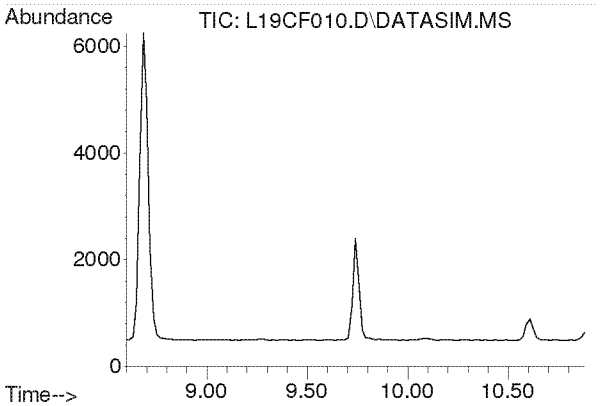
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



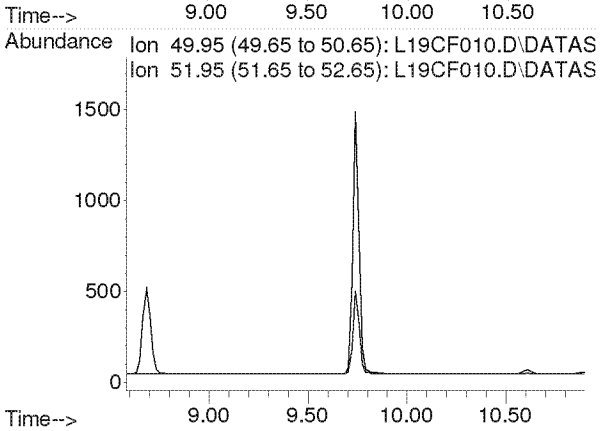


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

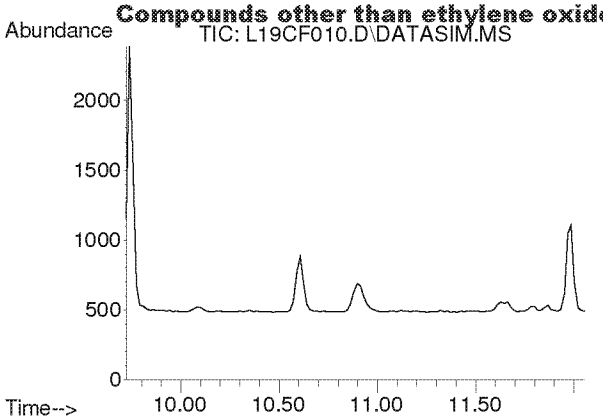
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

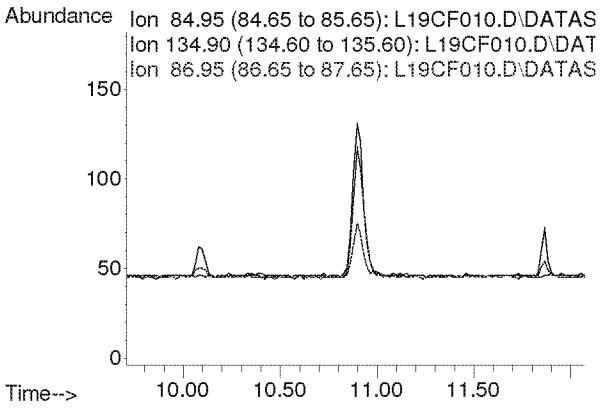


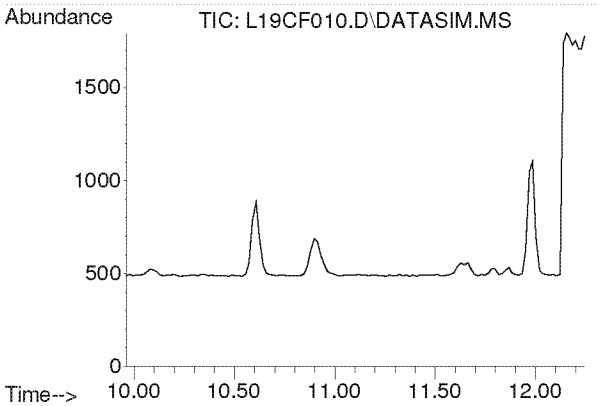
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



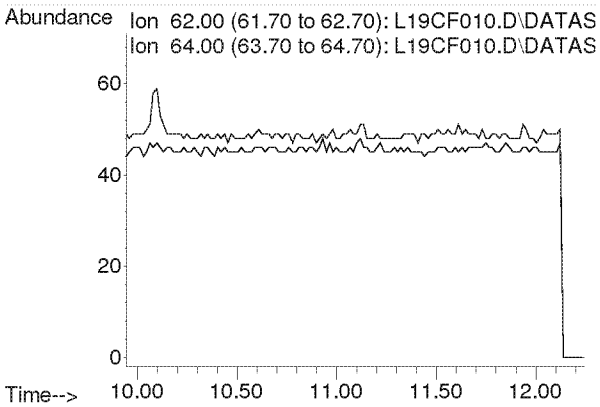


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

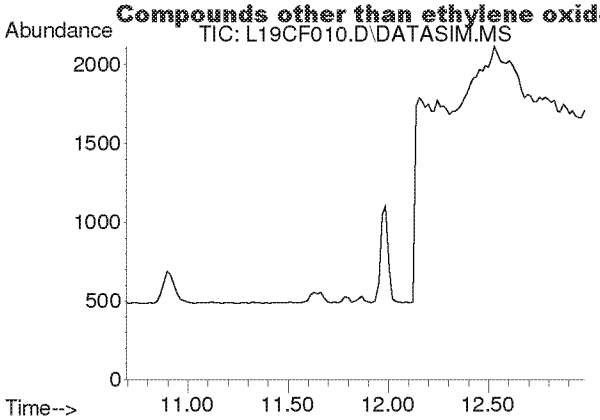
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

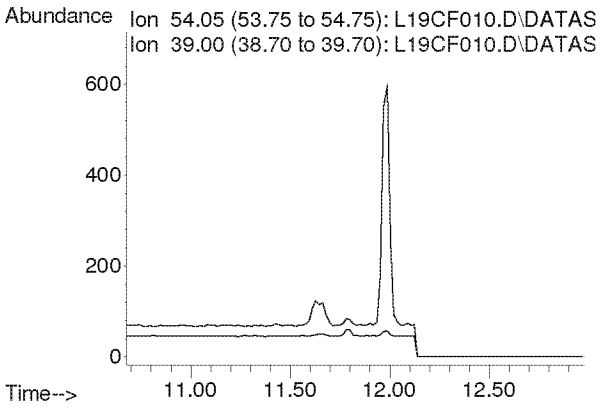


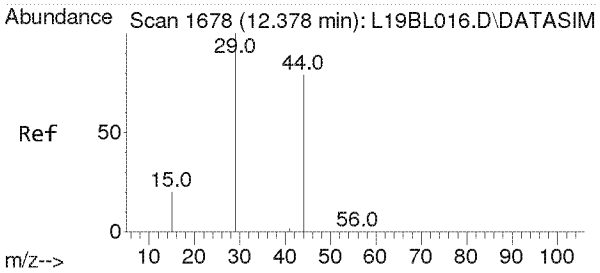
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

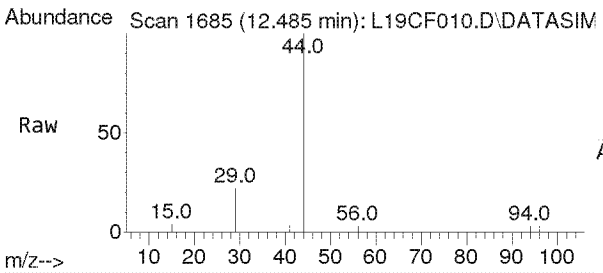


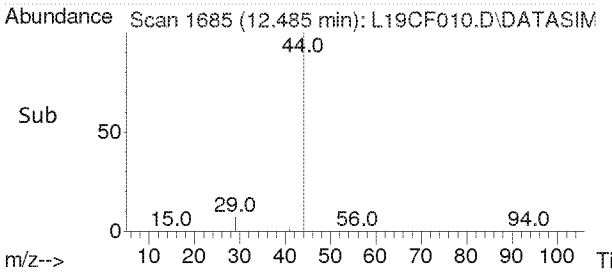


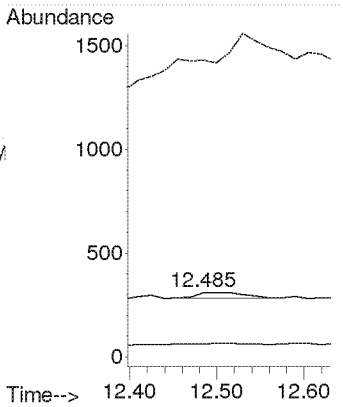
#9
Ethylene oxide
Concen: 0.038 ppbv m
RT: 12.485 min Scan# 1685
Delta R.T. 0.035 min
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 29 Resp: 100

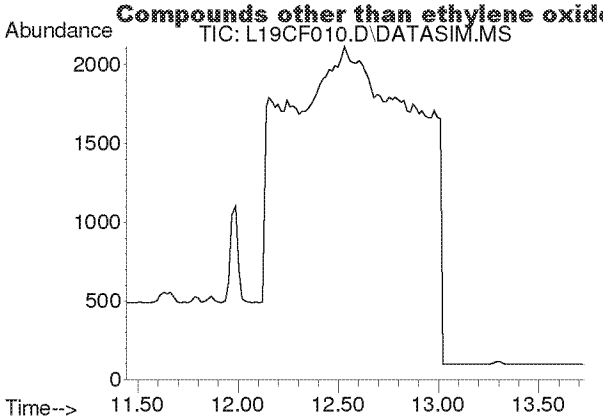
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.0	24.0#
44	3343.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

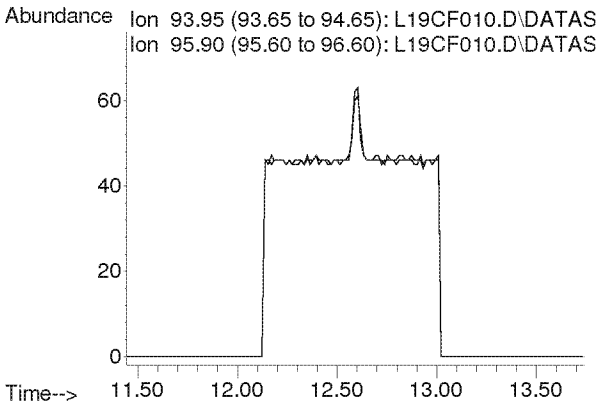


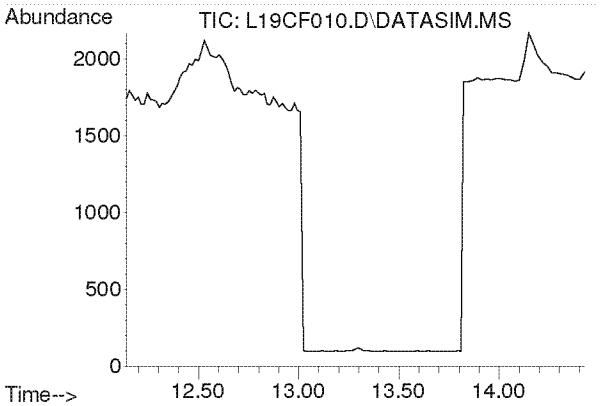
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



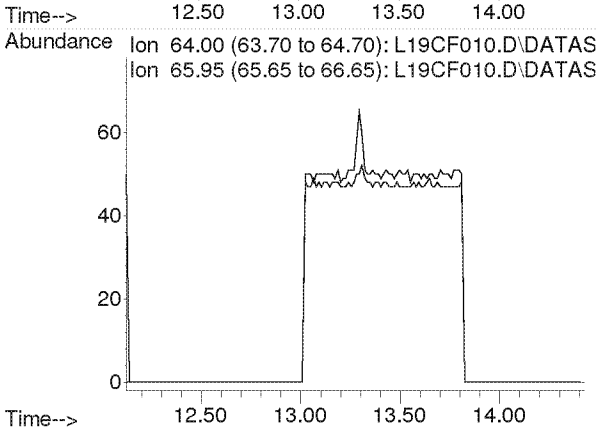


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

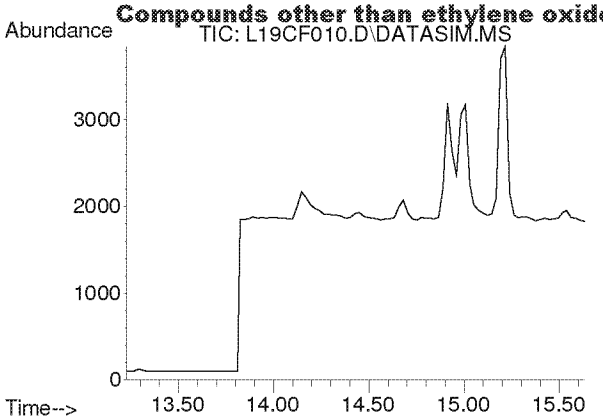
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

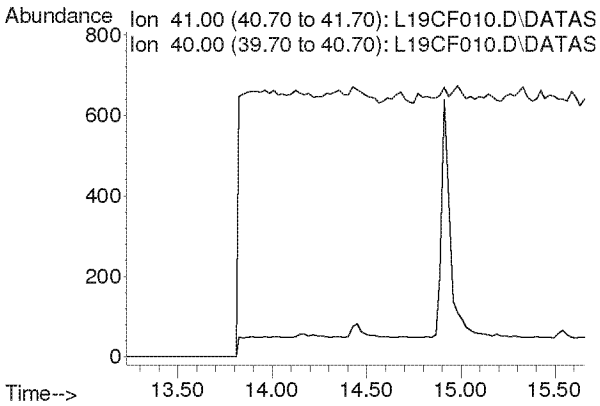


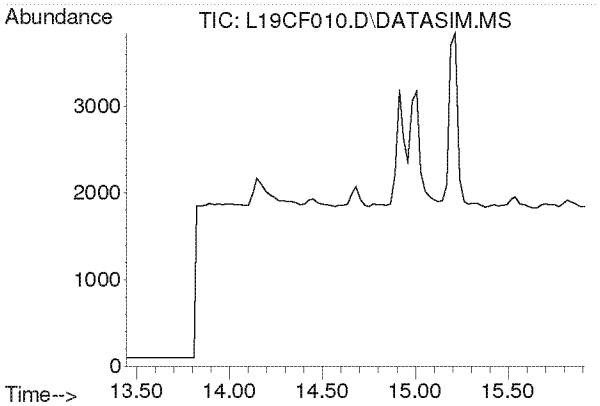
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



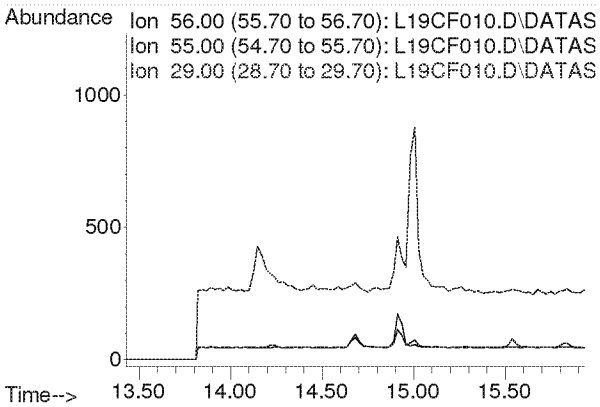


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

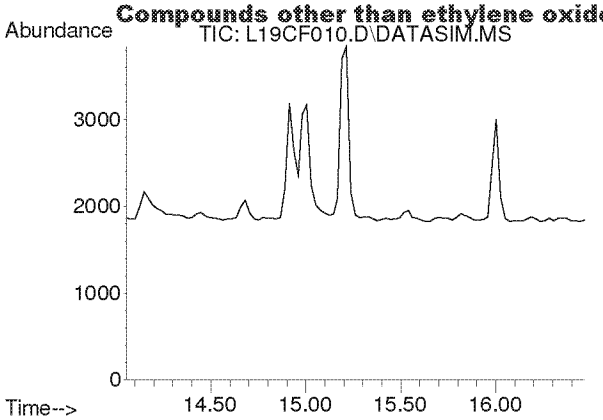
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

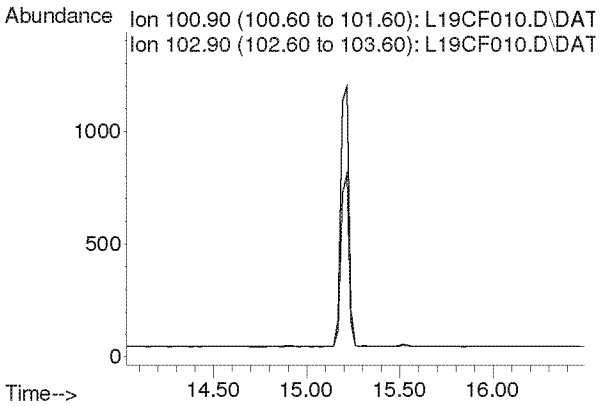


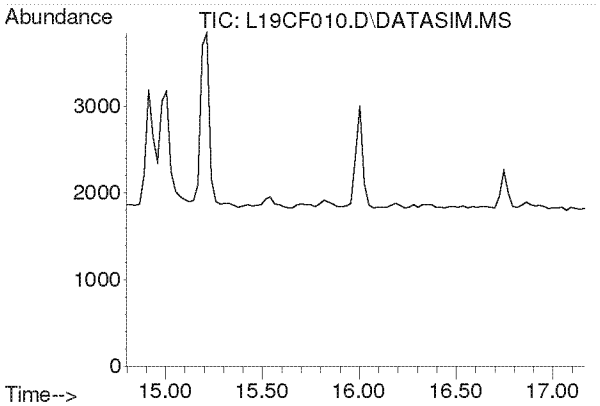
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



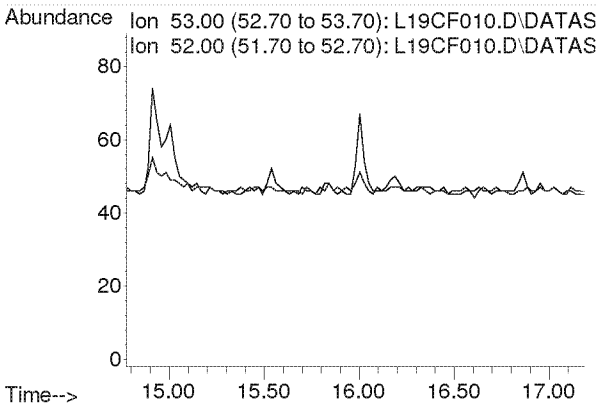


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

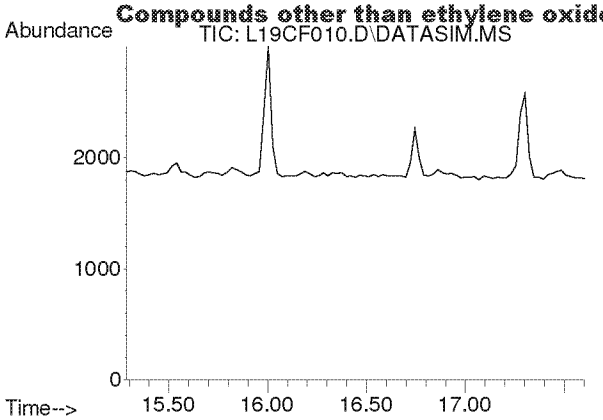
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

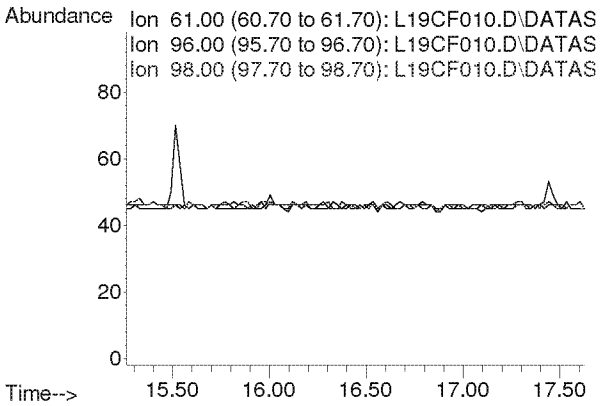


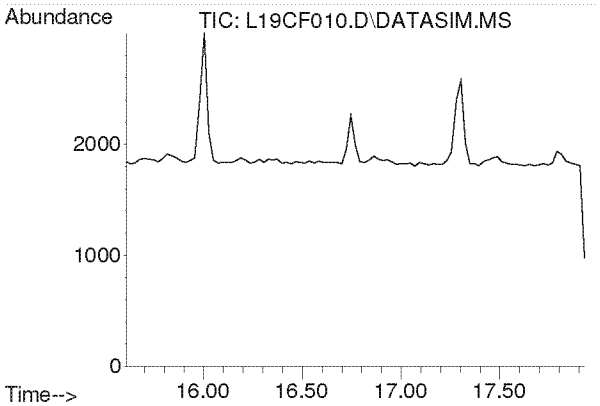
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



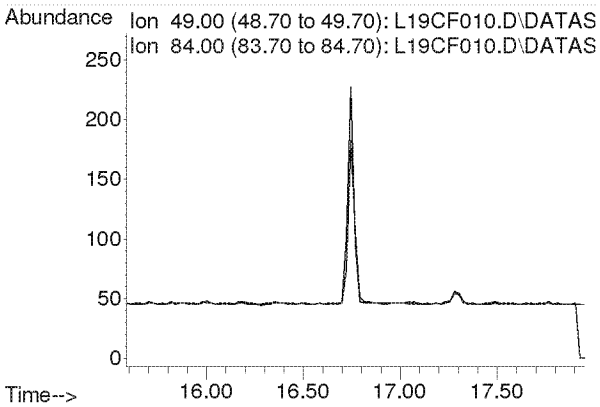


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

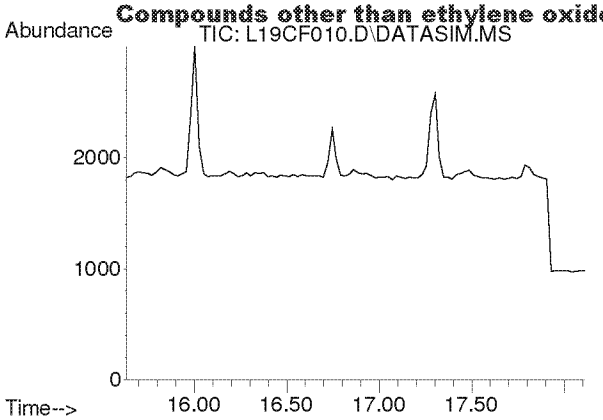
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

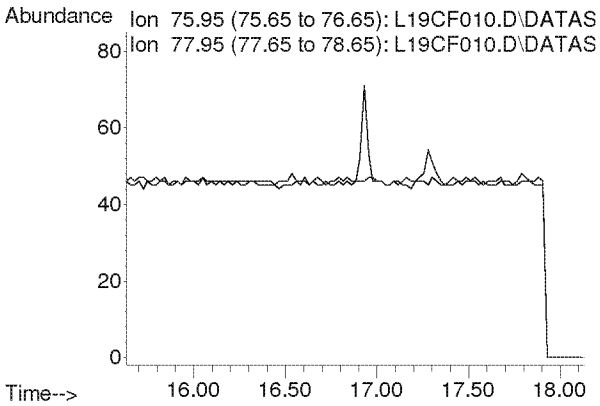


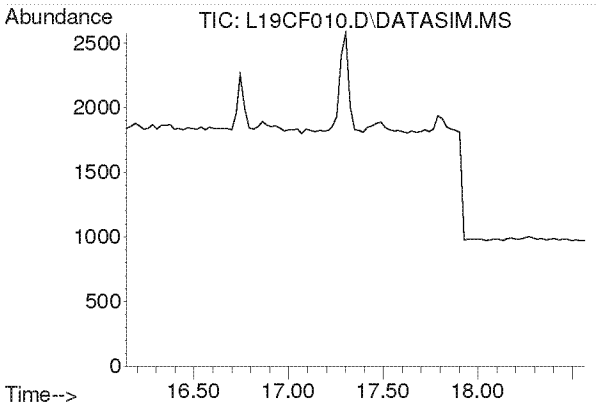
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



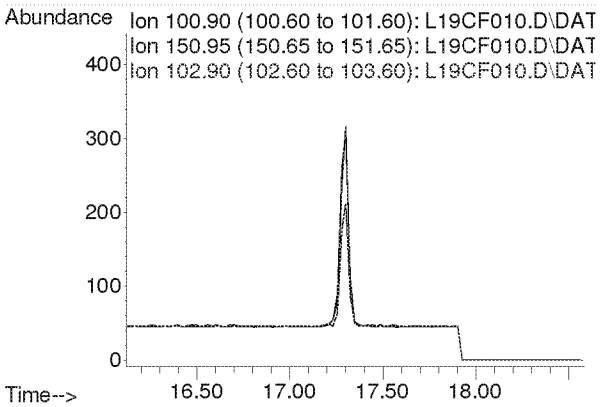


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

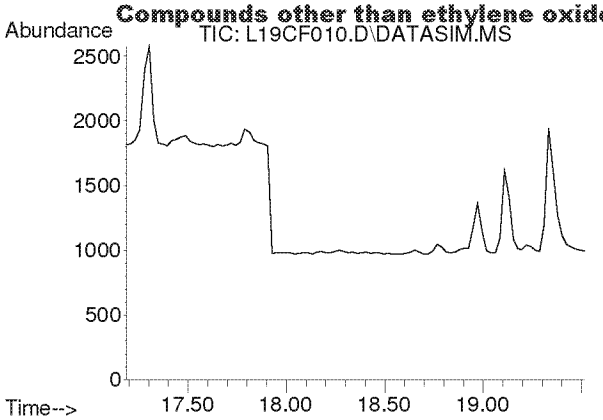
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

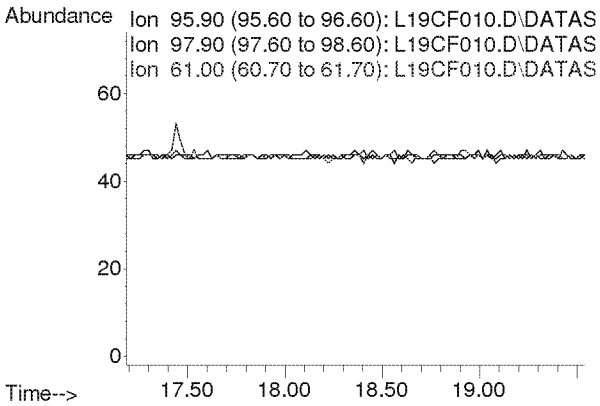


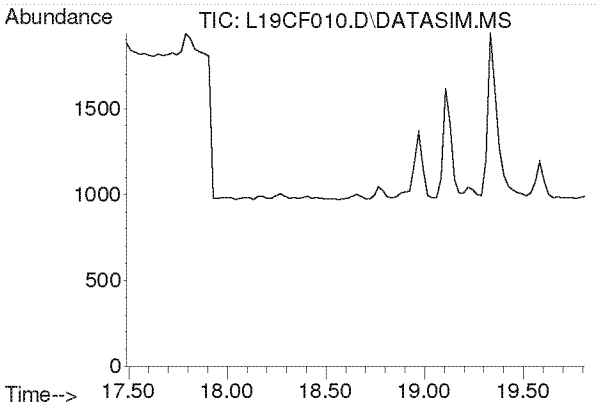
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



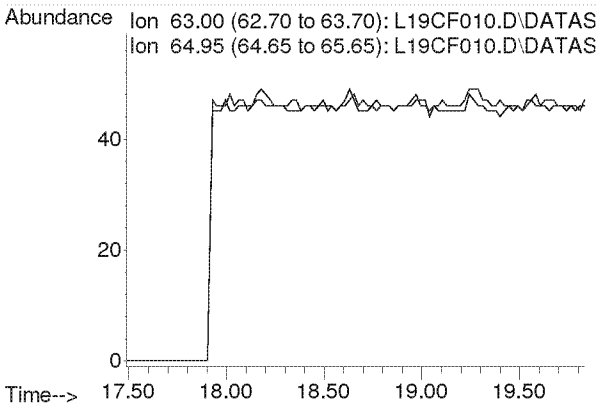


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

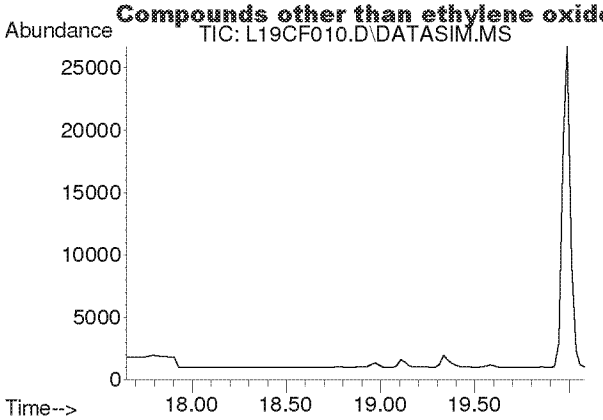
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

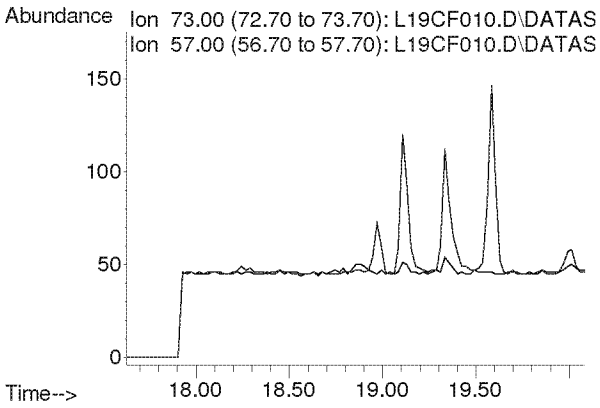


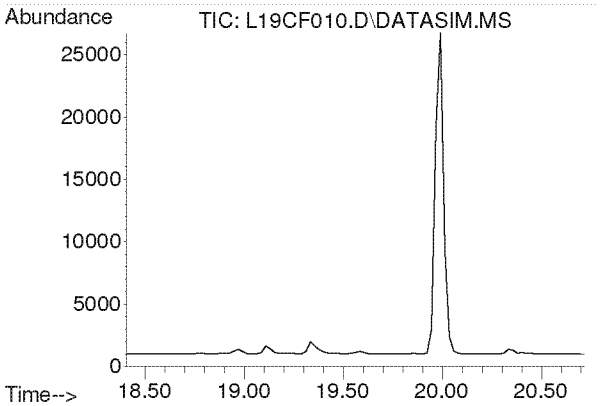
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



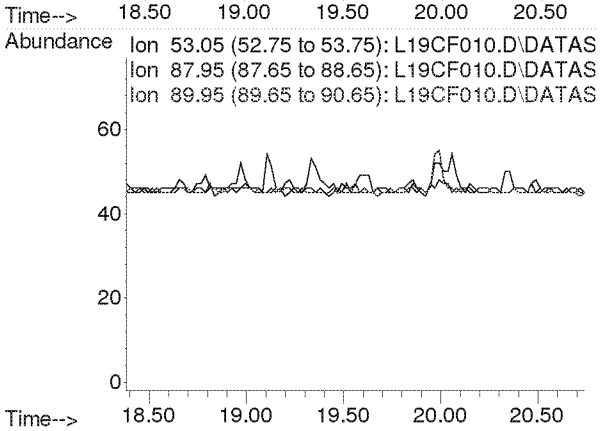


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

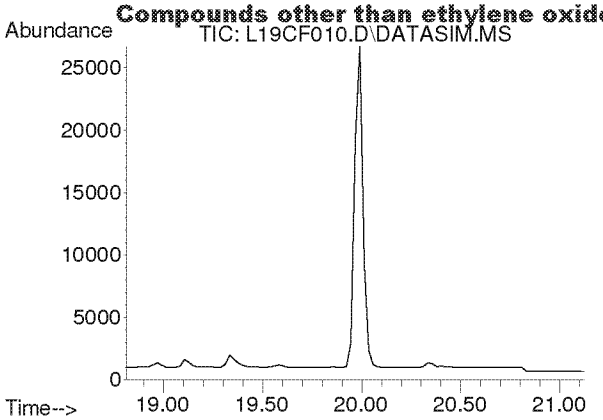
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

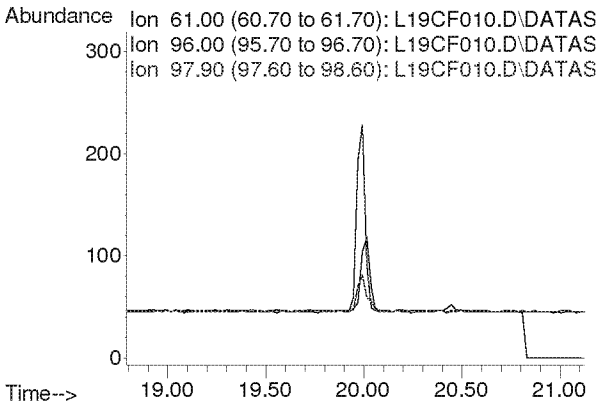


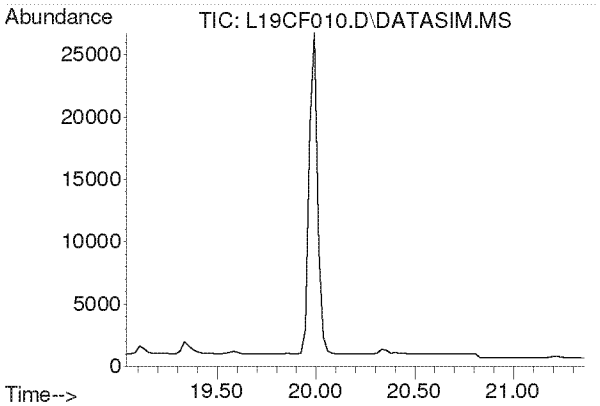
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



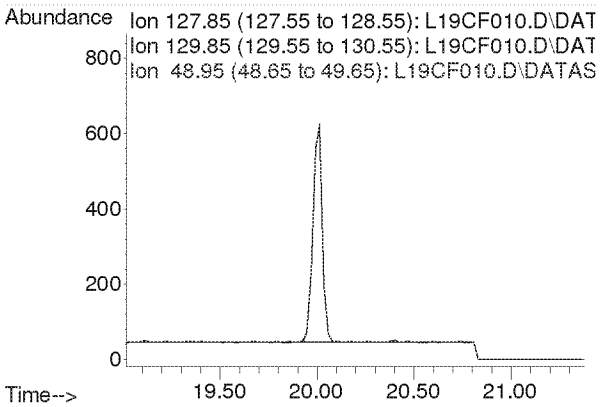


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

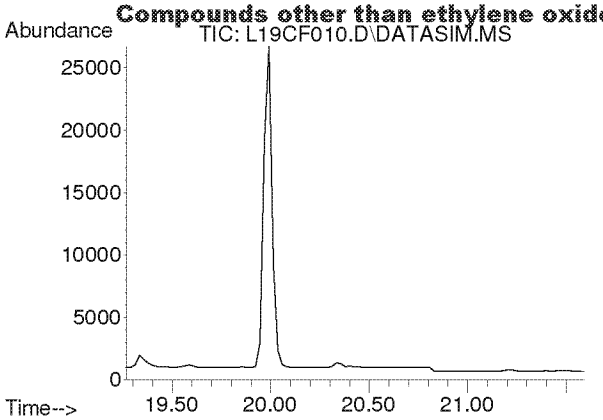
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

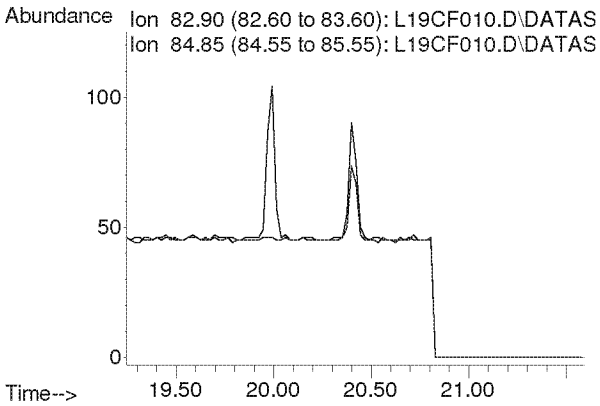


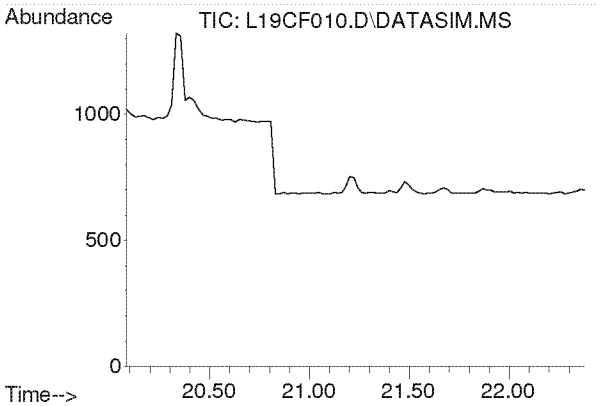
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



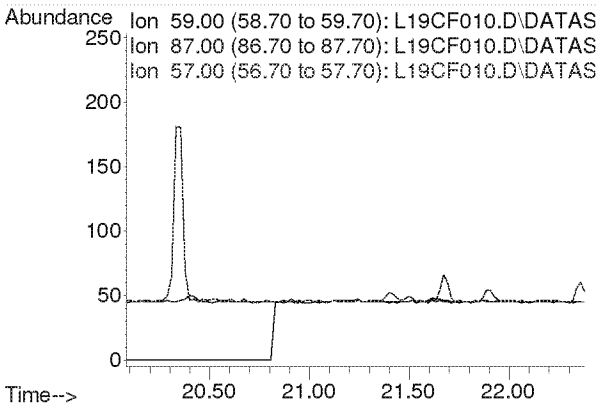


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

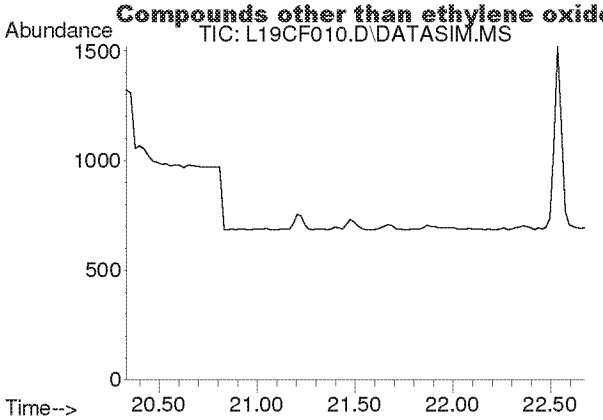
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

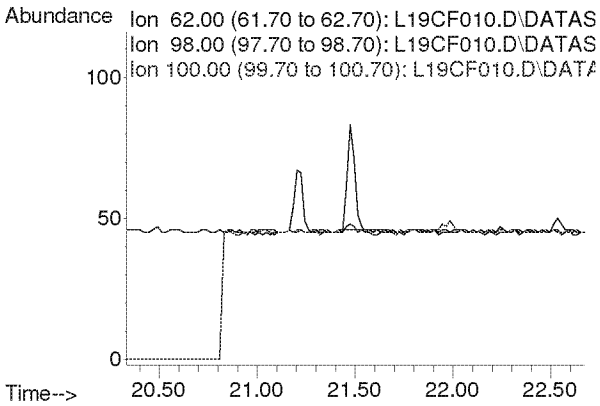


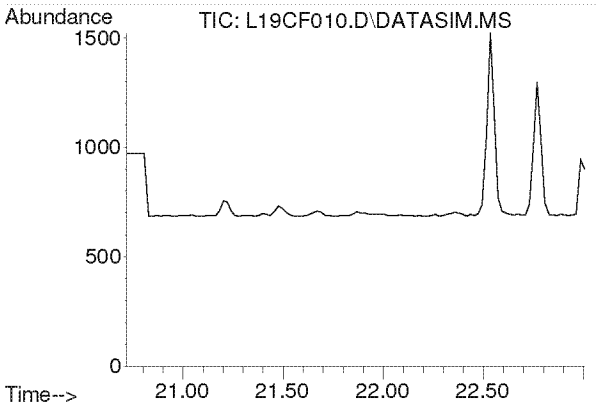
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



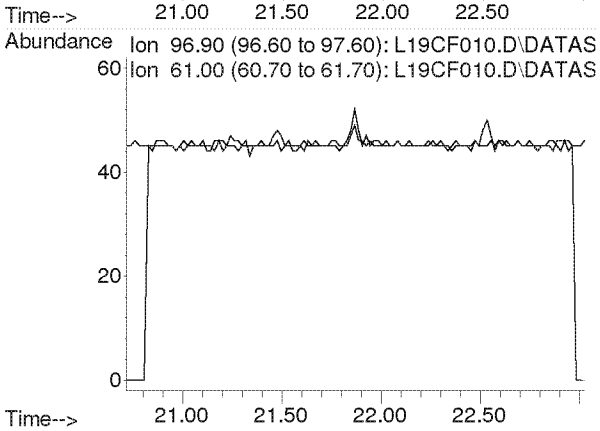


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

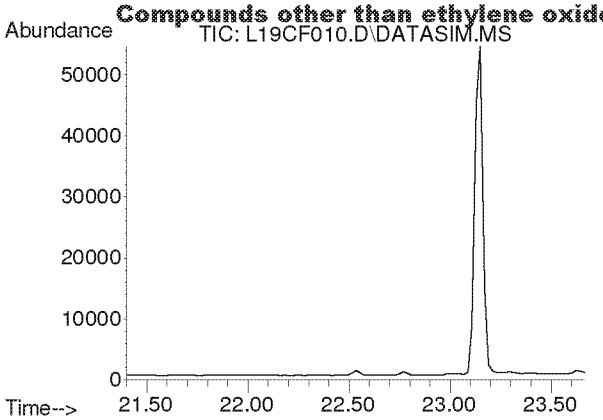
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

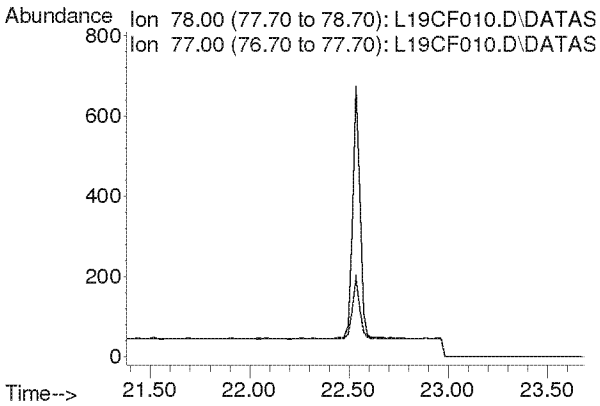


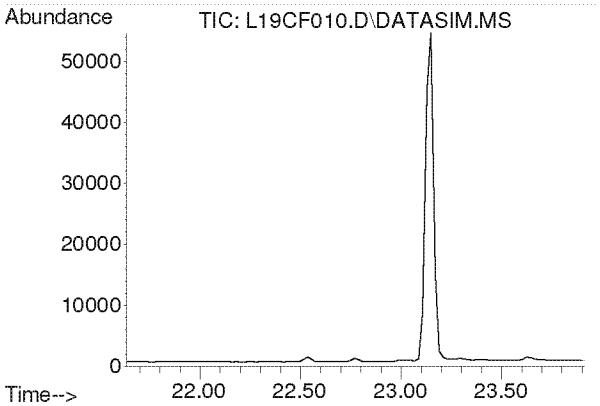
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



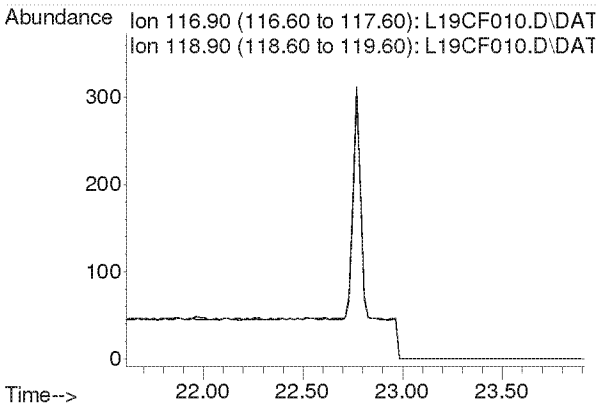


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

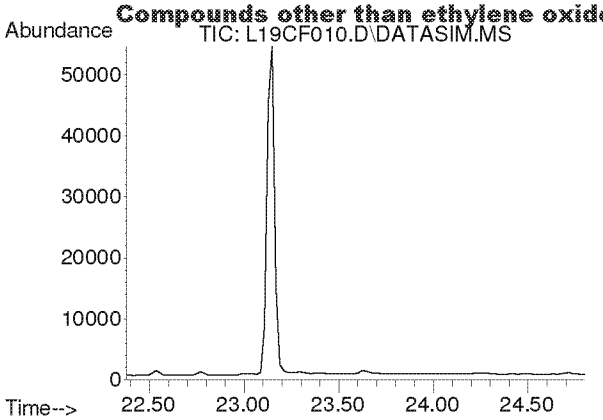
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

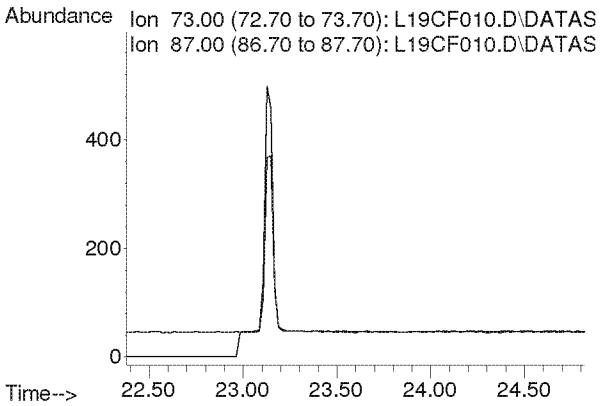


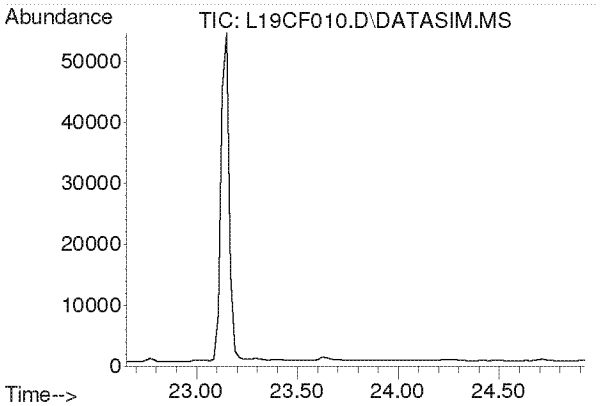
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



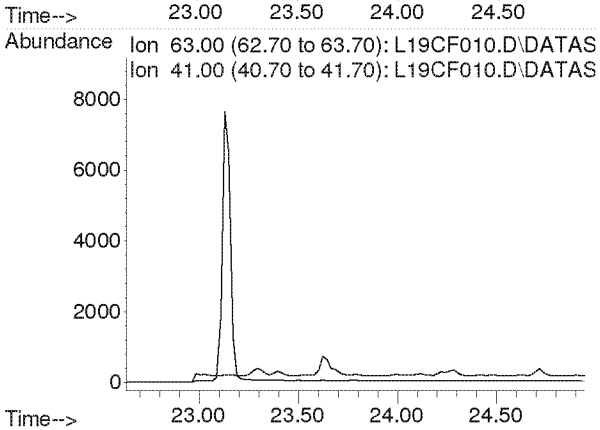


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

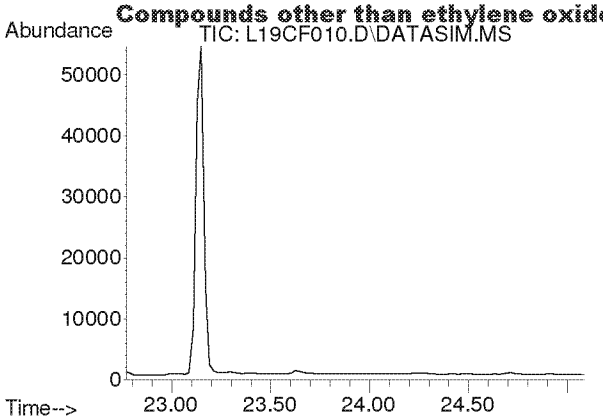
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

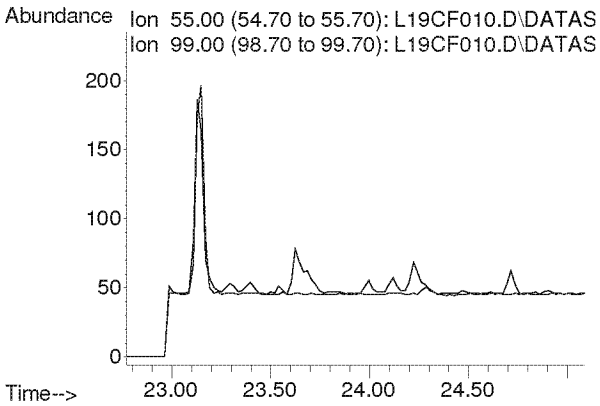


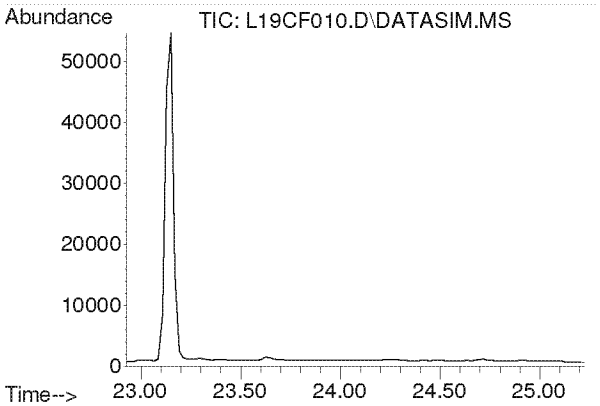
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



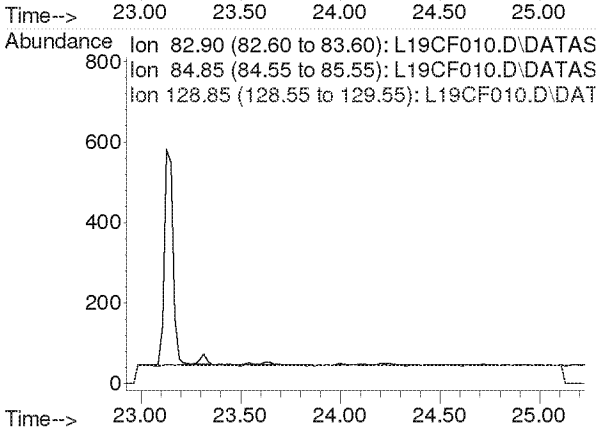


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

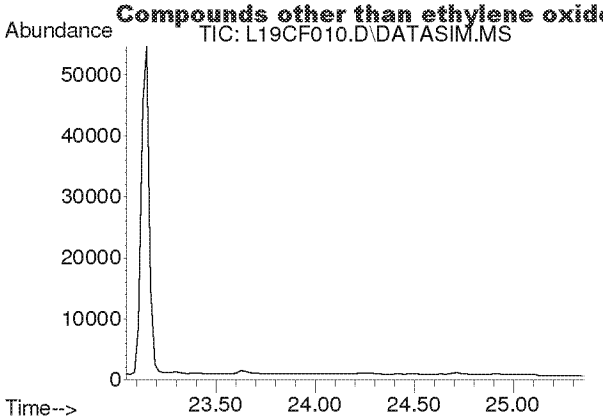
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

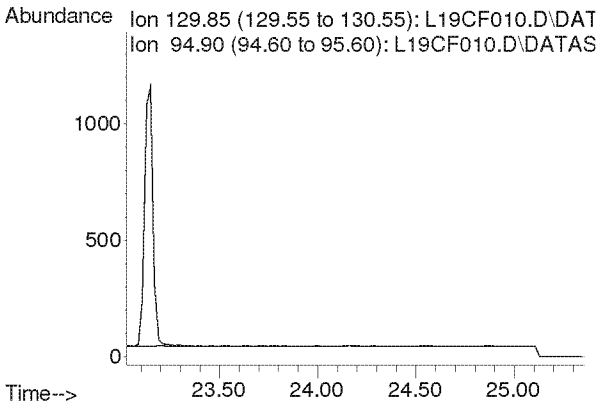


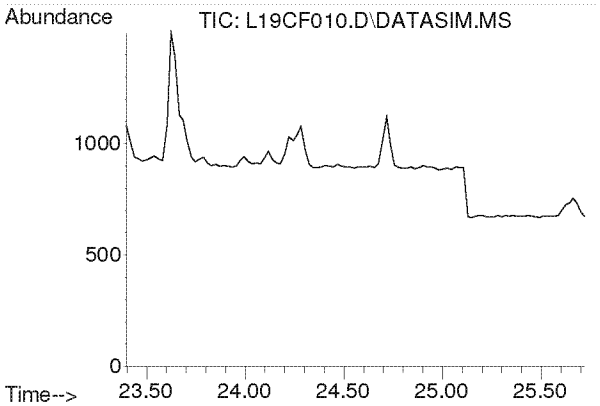
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



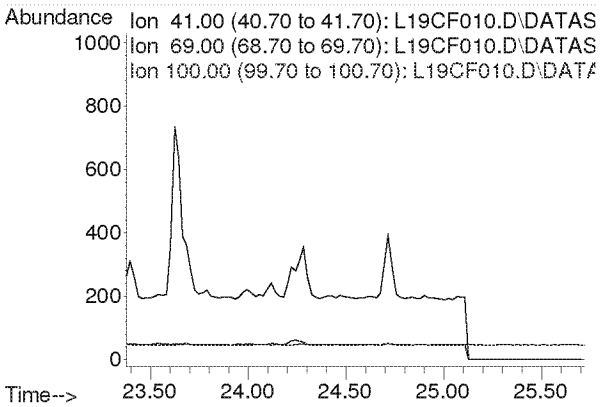


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

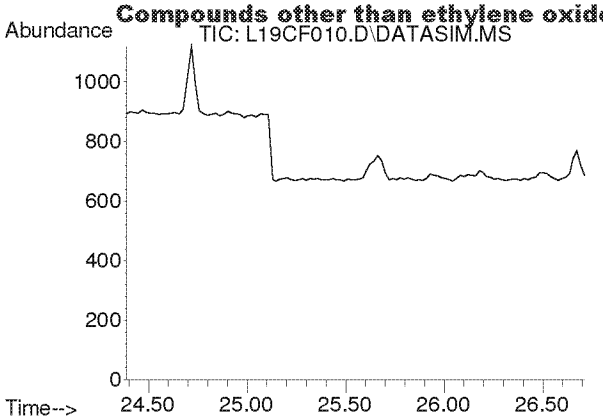
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

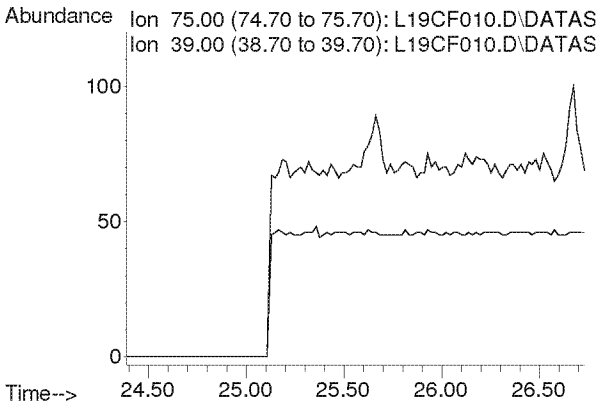


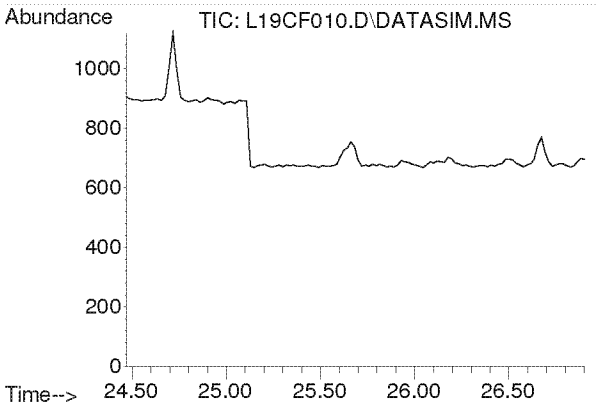
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



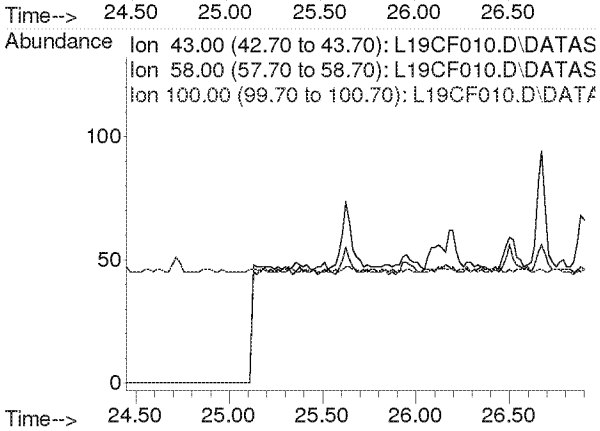


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

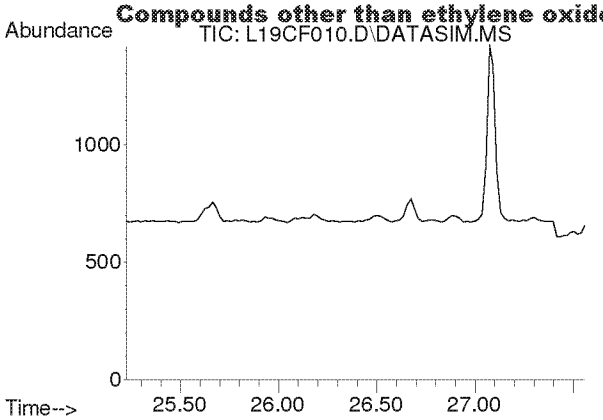
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

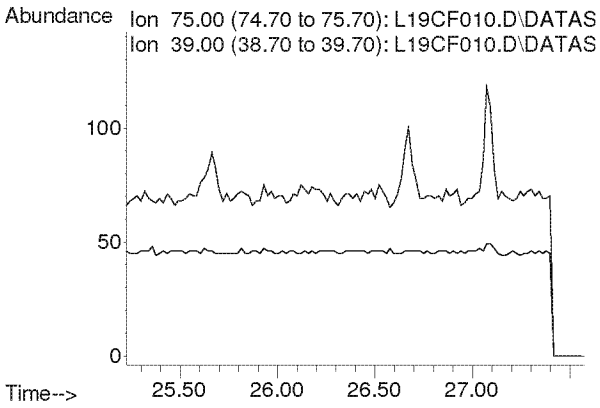


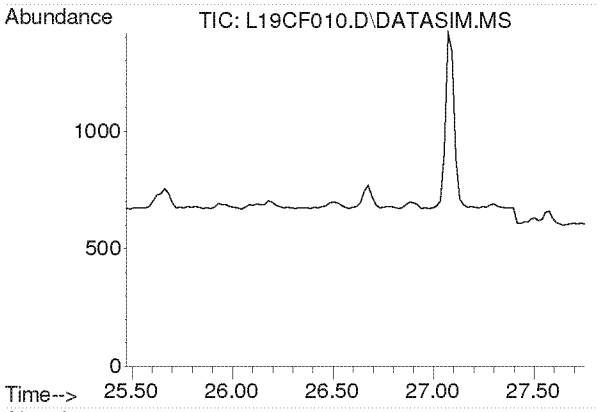
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



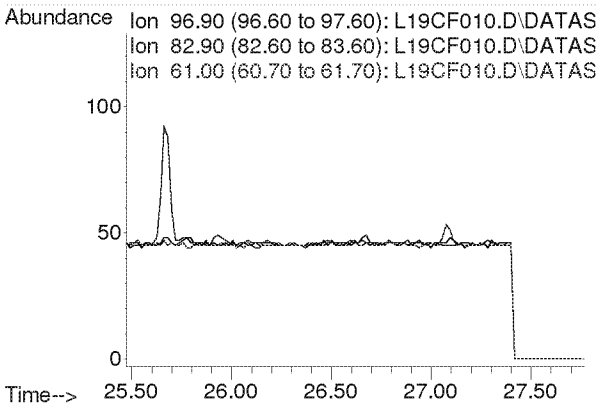


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

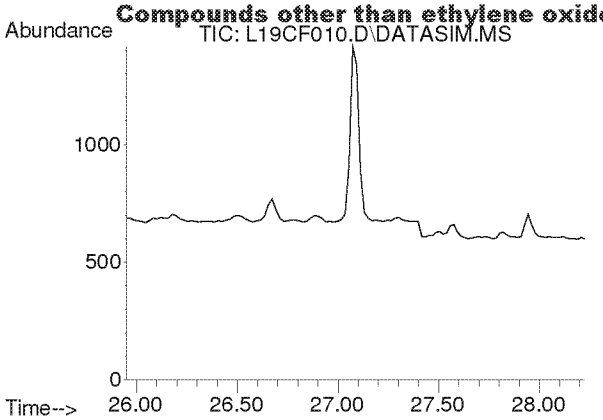
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

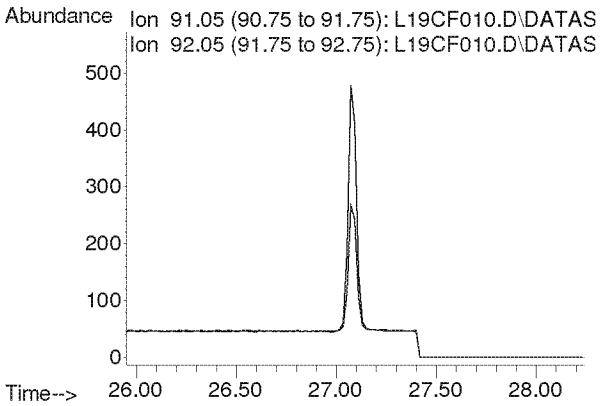


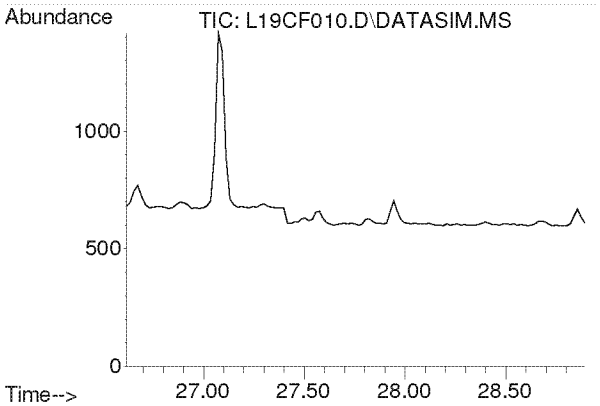
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



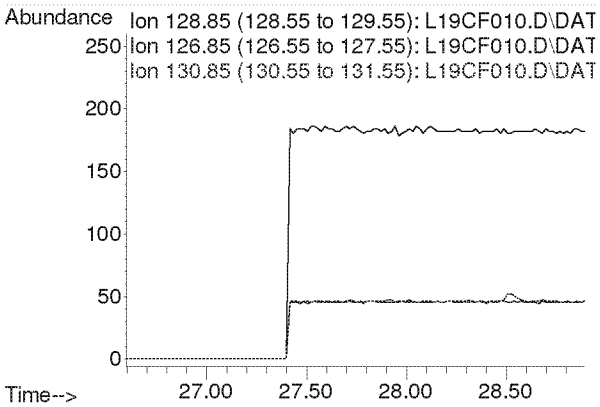


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

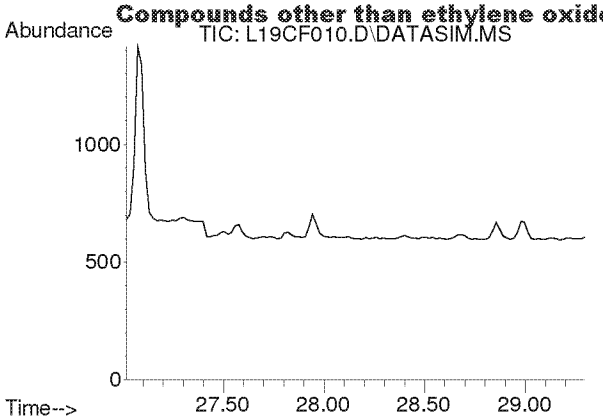
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

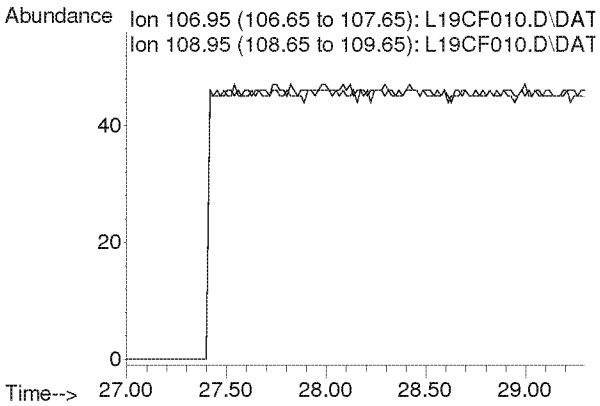


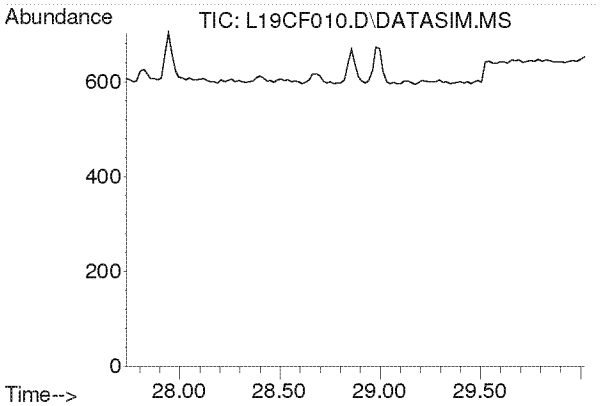
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



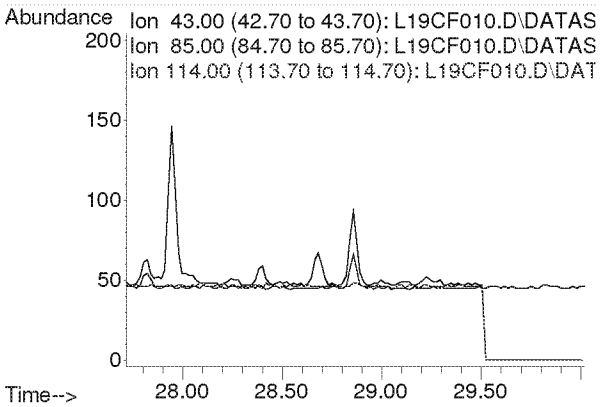


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

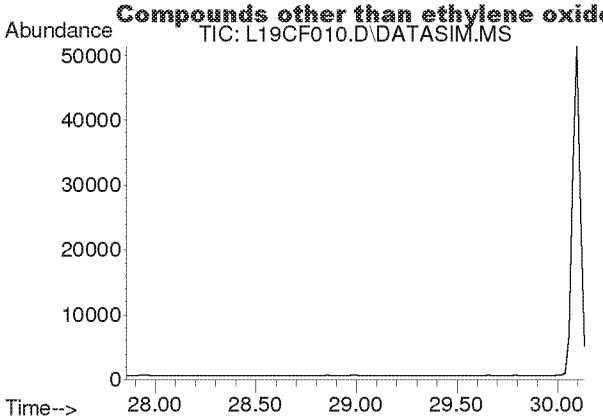
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

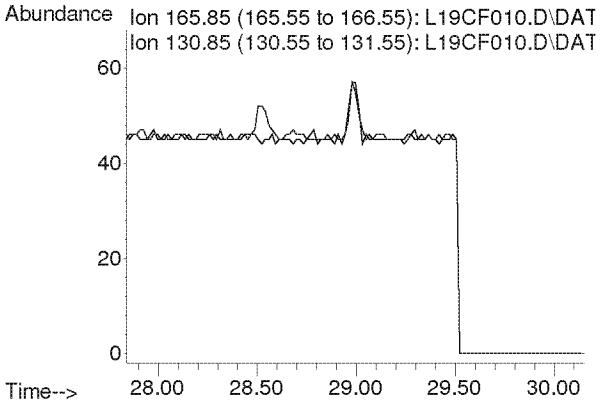


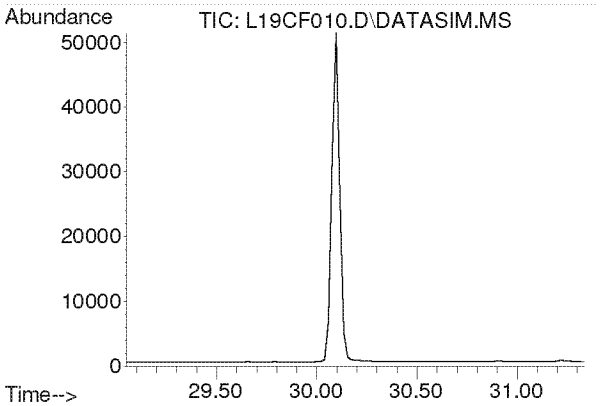
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



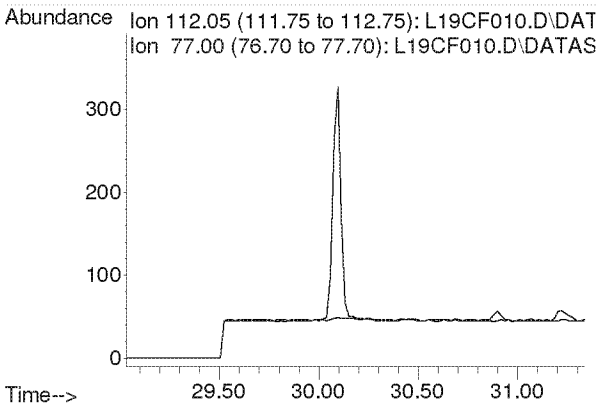


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

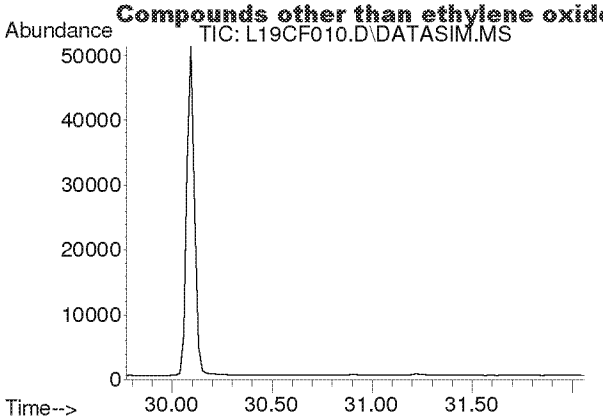
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

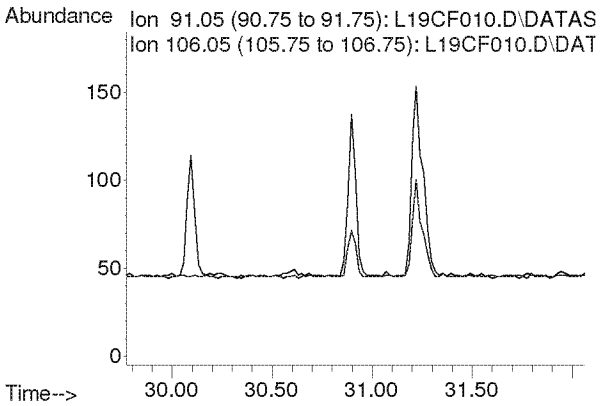


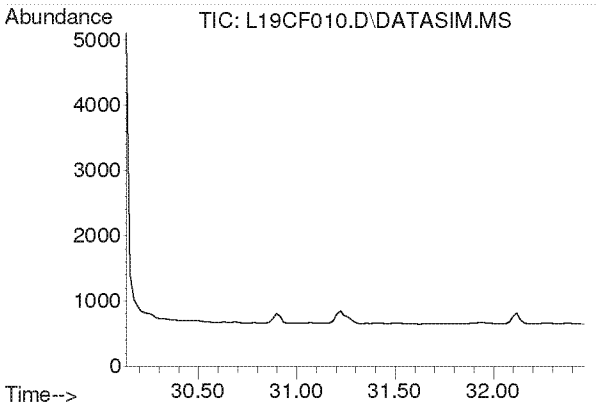
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



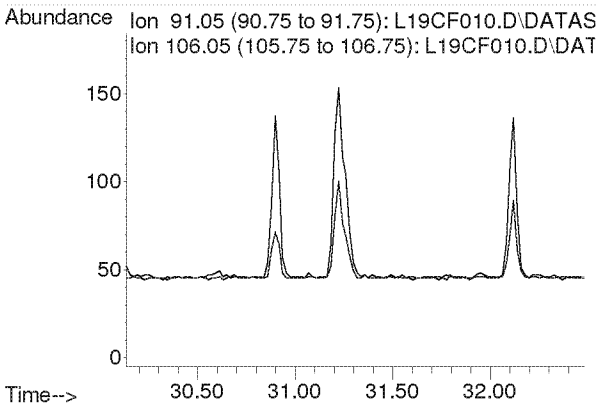


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

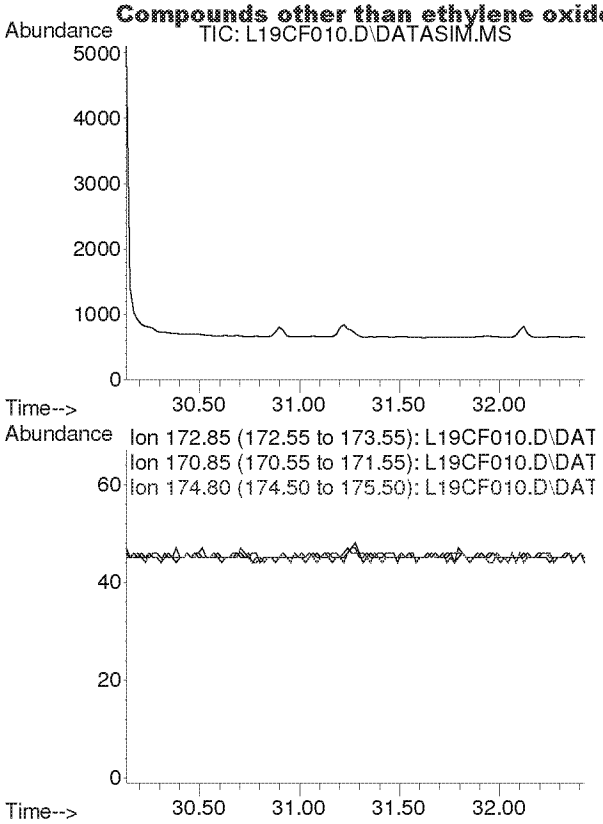
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

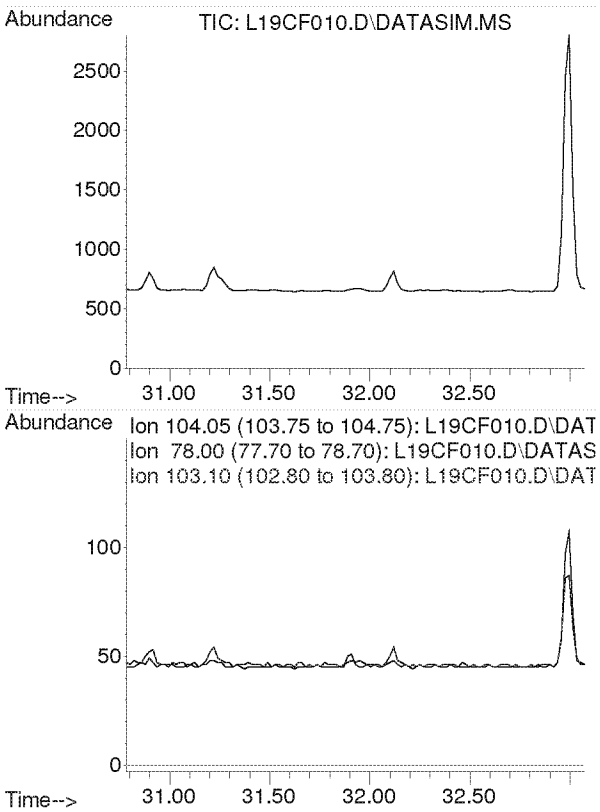


#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



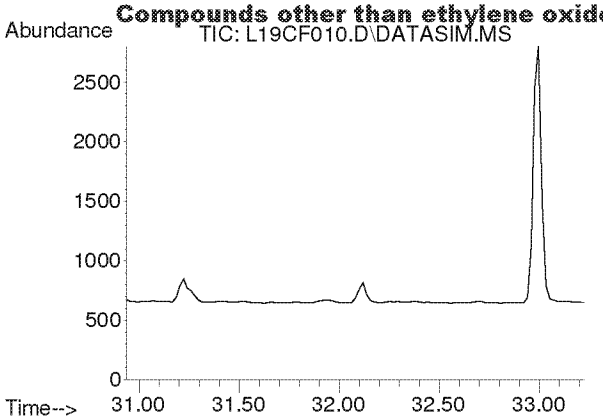
#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0

Compounds other than ethylene oxide were not quantitated.

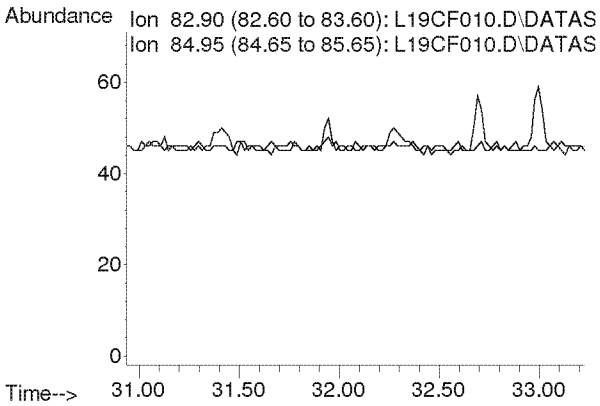


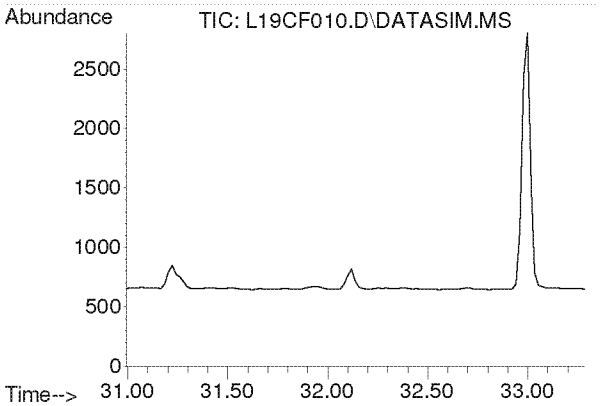
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



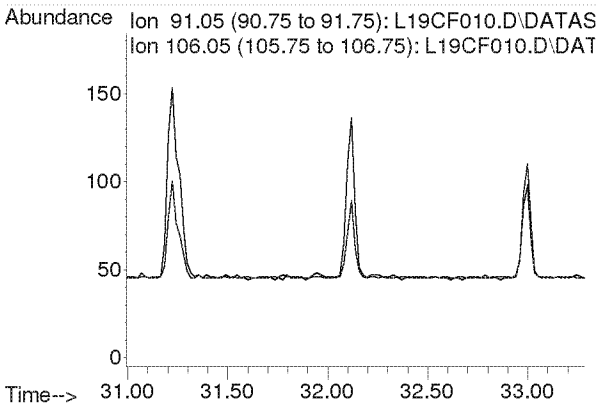


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

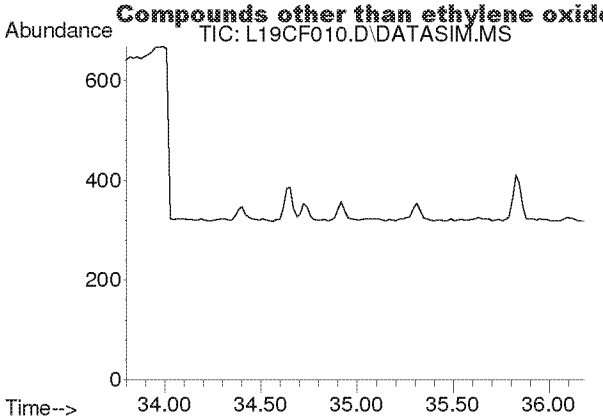
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

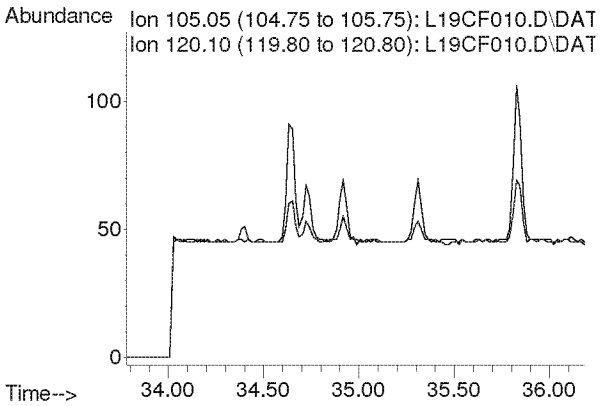


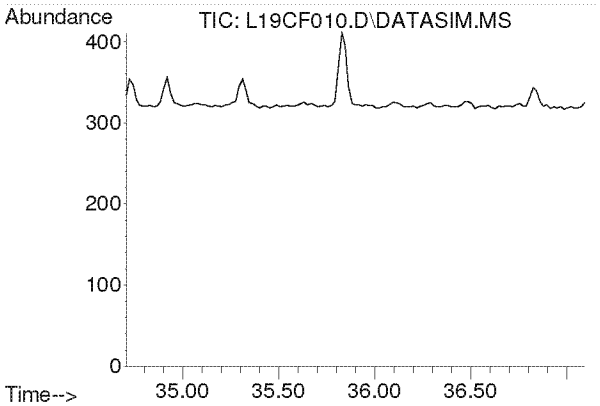
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



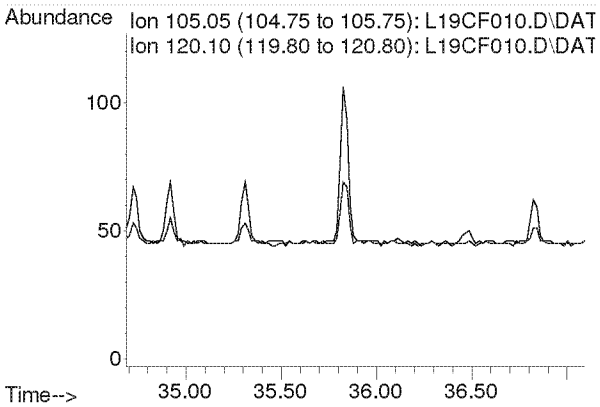


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

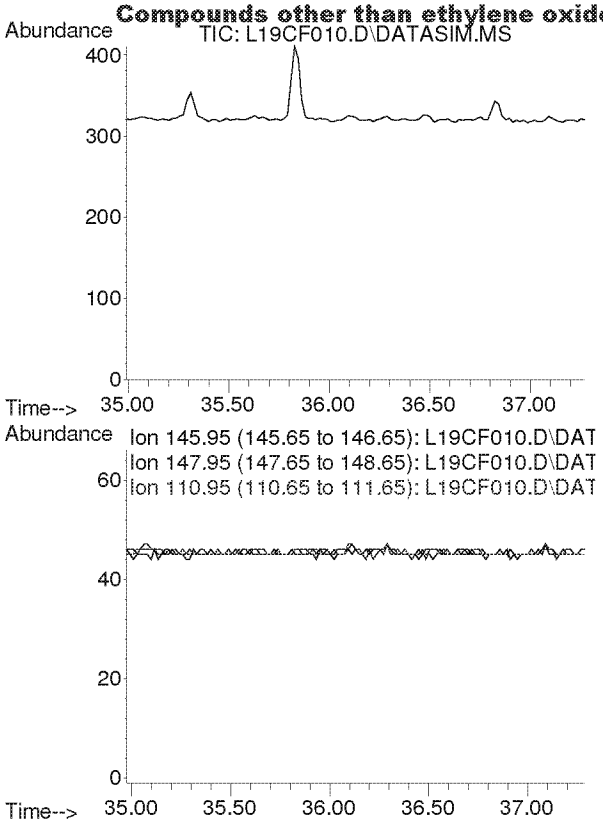
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

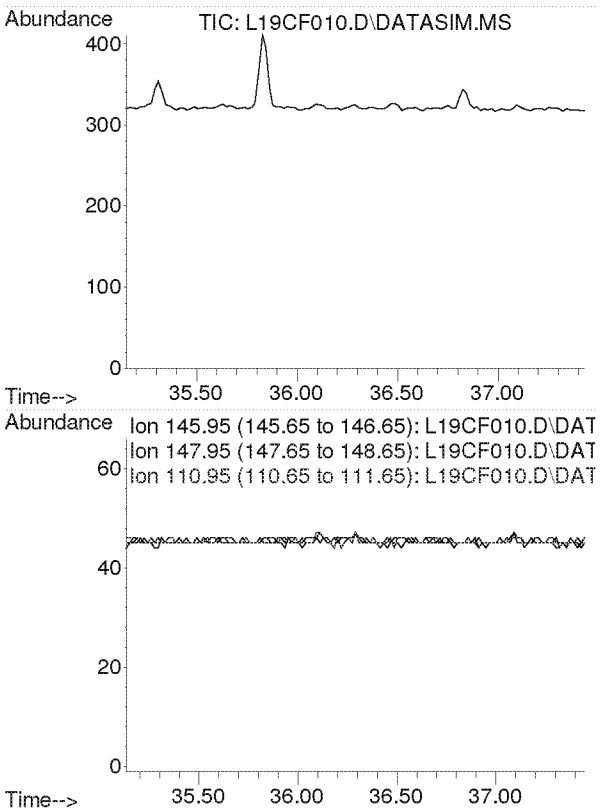


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



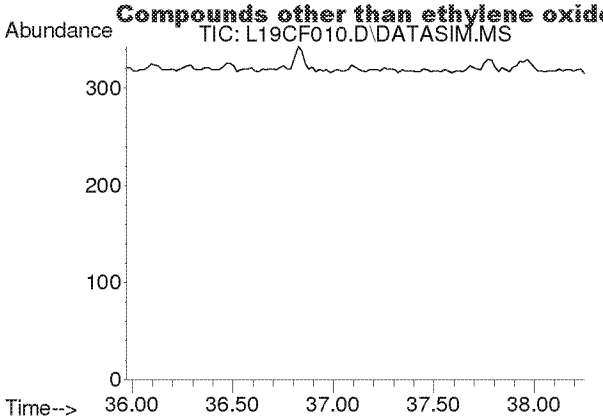
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

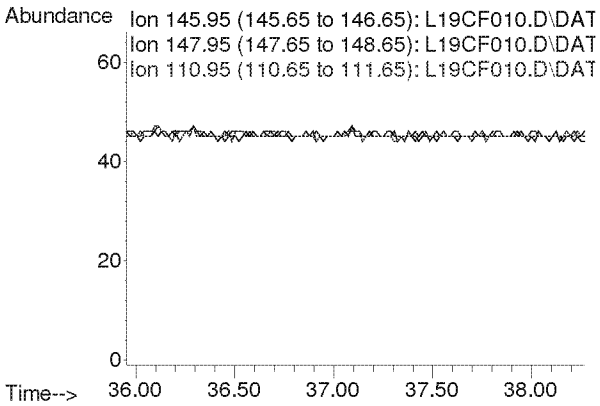


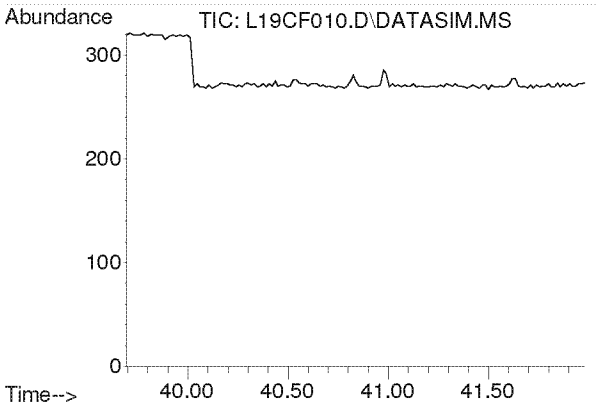
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



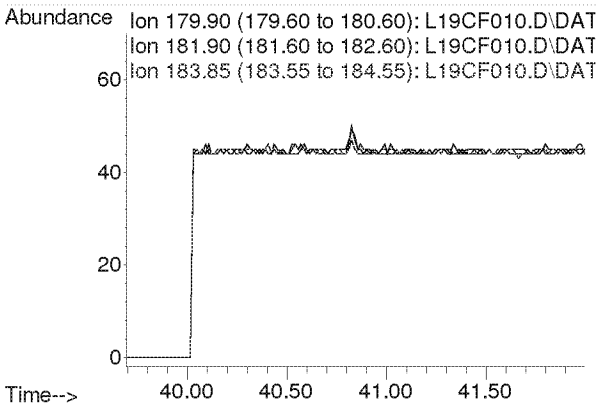


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

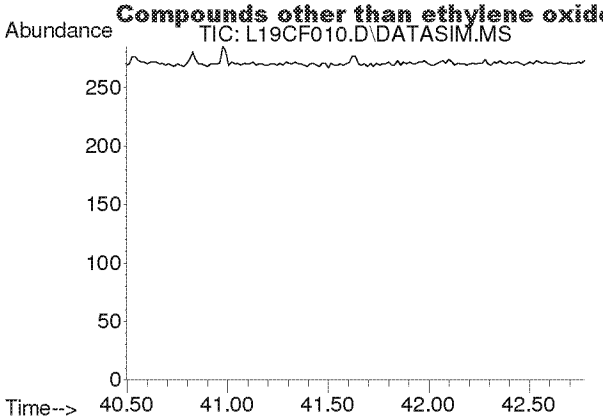
Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

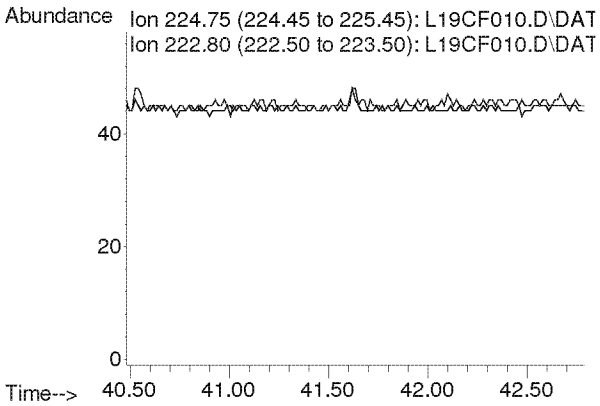


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19CF010.D
Acq: 6 Mar 2019 10:33 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4



Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CF\
Data File : L19CF011.D
Acq On : 6 Mar 2019 11:33 pm (#1); 06-Mar-19, 23:28:13 (#2)
Operator : MAH
Sample : B9C0605-DUP1
Misc : WB VILLAGE R1 HALL 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 07 06:35:45 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

d=nd

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.990	66	45726	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.148	114	118829	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.096	117	83478	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.	
9) Ethylene oxide	12.483	29	165m	0.0631 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.	
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.	
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\L19CF\
Data File : L19CF011.D
Acq On : 6 Mar 2019 11:33 pm (#1); 06-Mar-19, 23:28:13 (#2)
Operator : MAH
Sample : B9C0605-DUP1
Misc : WB VILLAGE R1 HALL 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 07 06:35:45 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 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.	

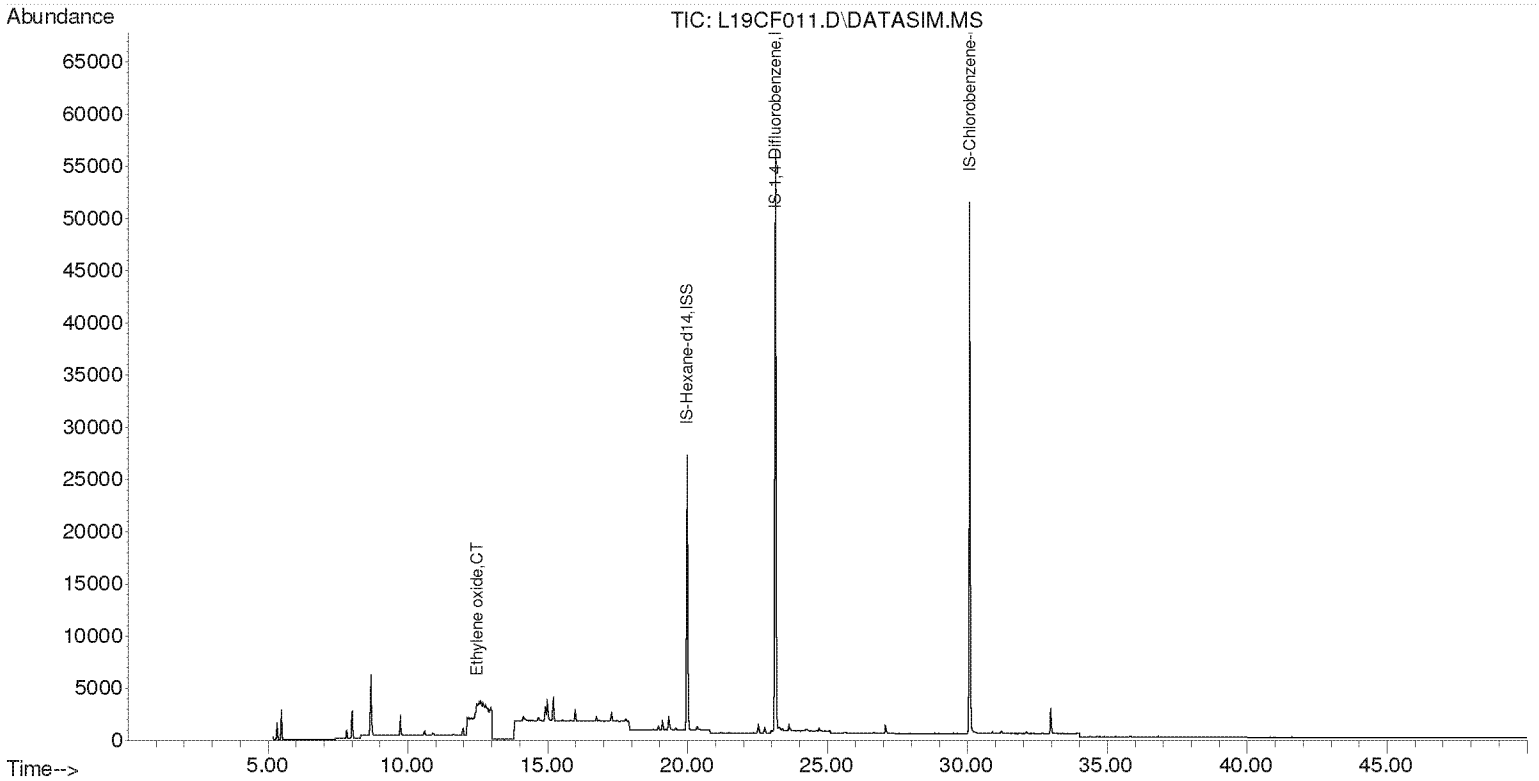
(#) = qualifier out of range (m) = manual integration (+) = signals summed

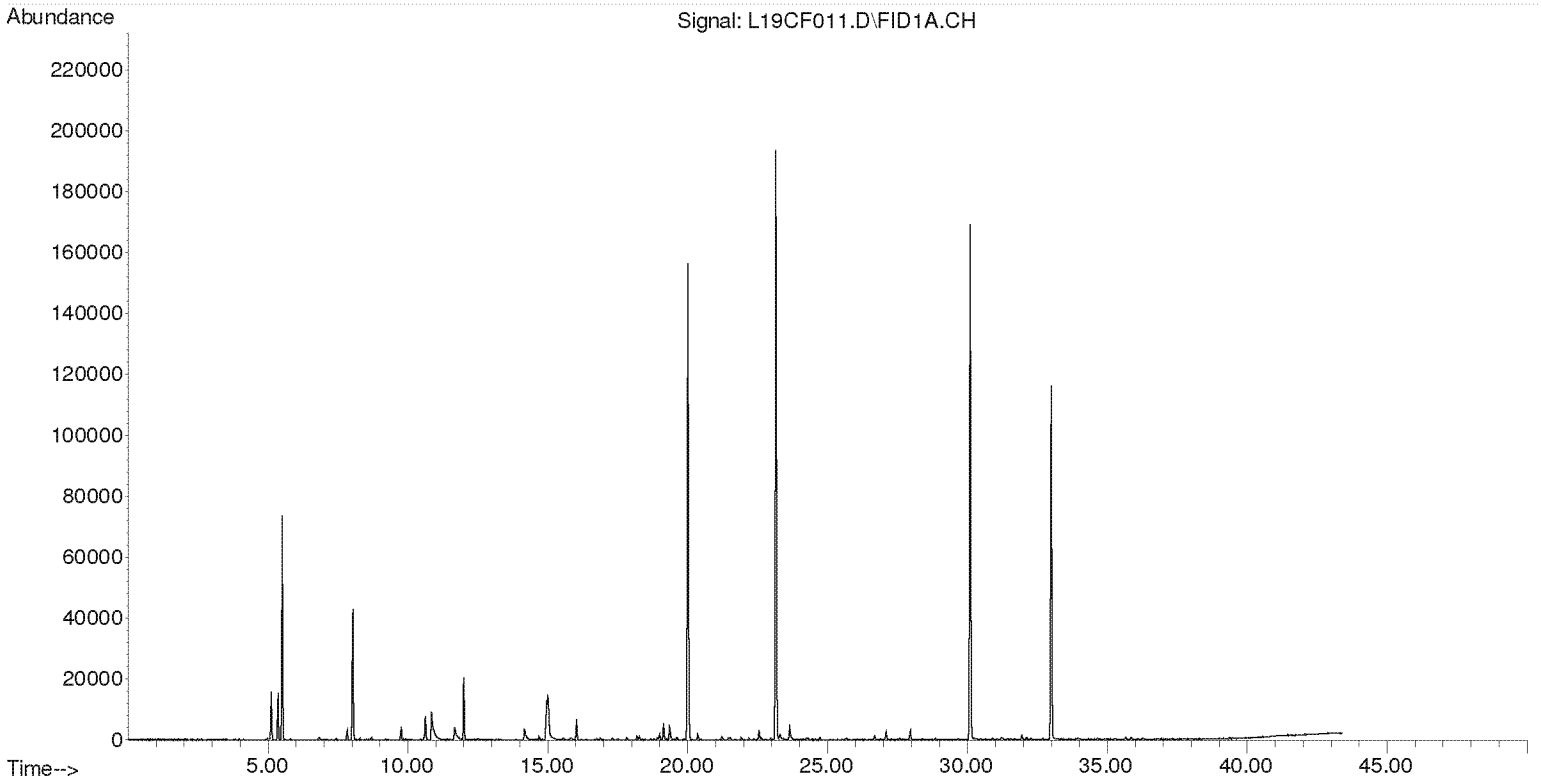
ED_002475_00000356-00284

Compounds other than ethylene oxide were not quantitated.

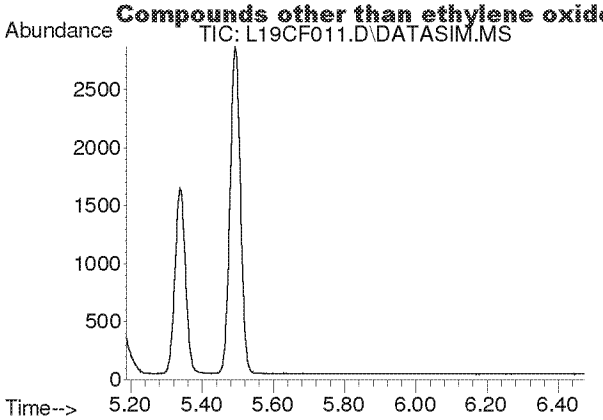
Data Path : Y:\MASS SPEC 1 DATA\L19CF\
Data File : L19CF011.D
Acq On : 6 Mar 2019 11:33 pm (#1); 06 Mar 2019 11:28 pm (#2)
Operator : MAH
Sample : B9C0605-DUP1
Misc : WB VILLAGE R1 HALL 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Mar 07 06:24:31 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





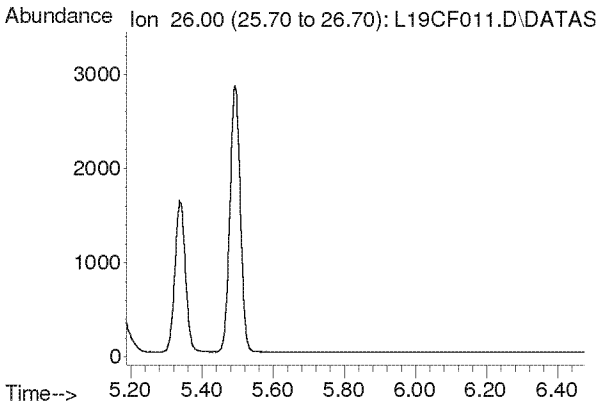
Compounds other than ethylene oxide were not quantitated.

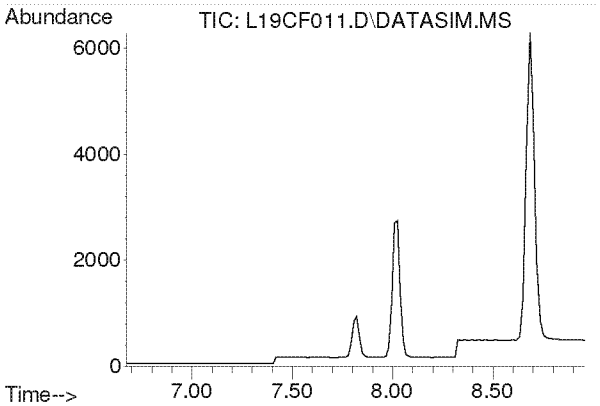


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 26



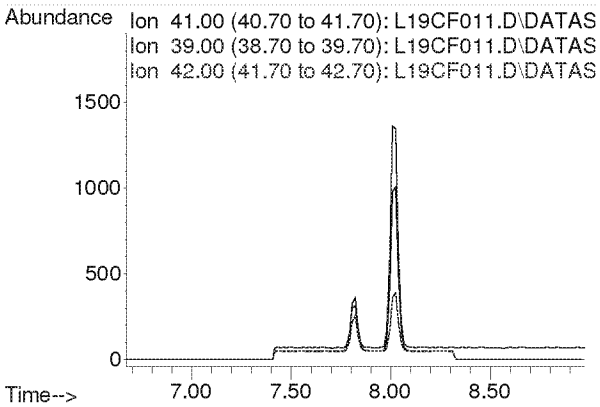


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

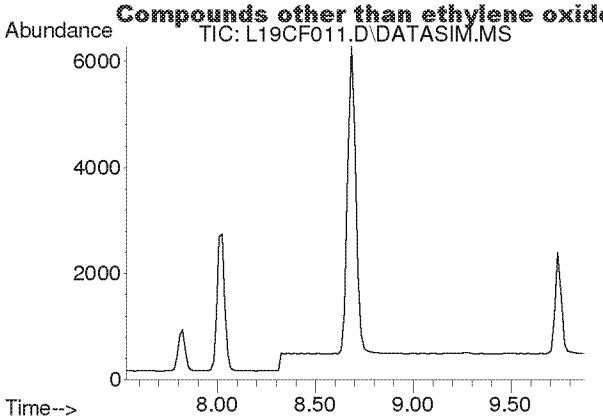
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

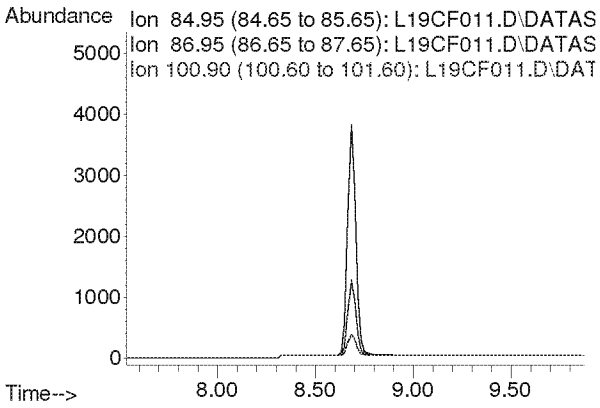


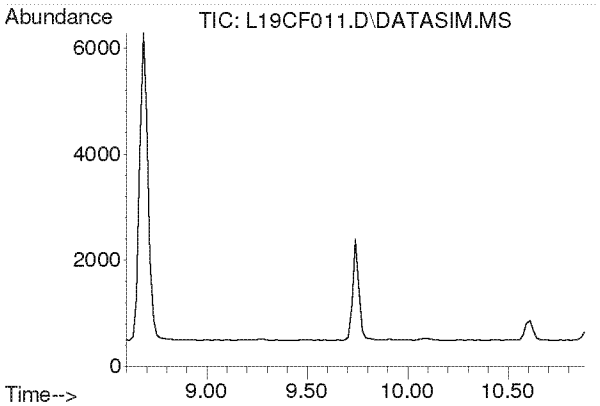
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



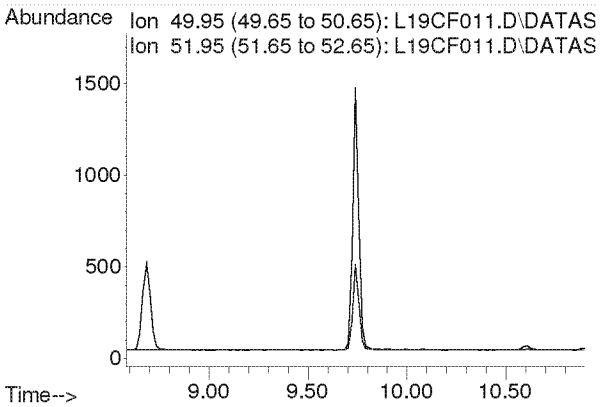


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

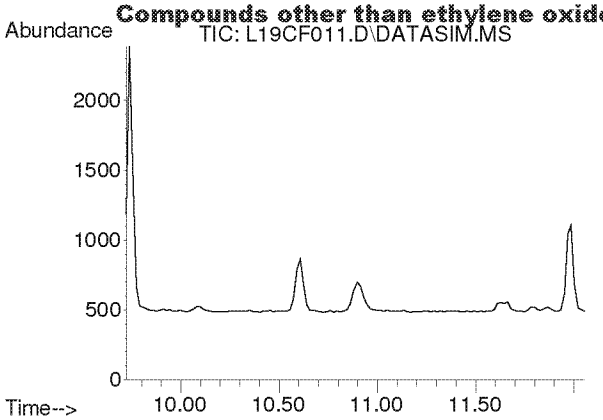
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

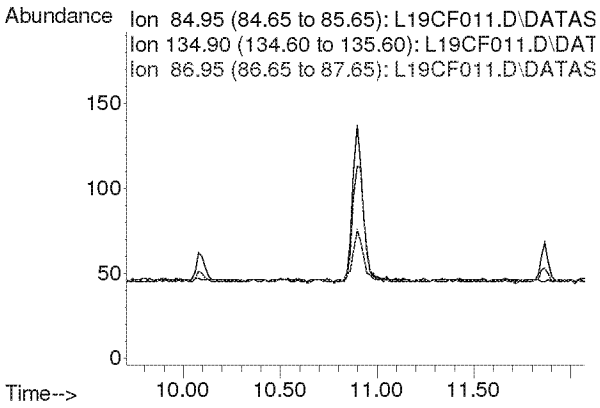


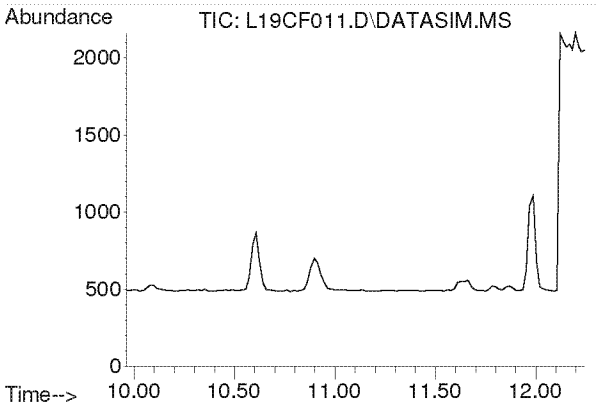
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



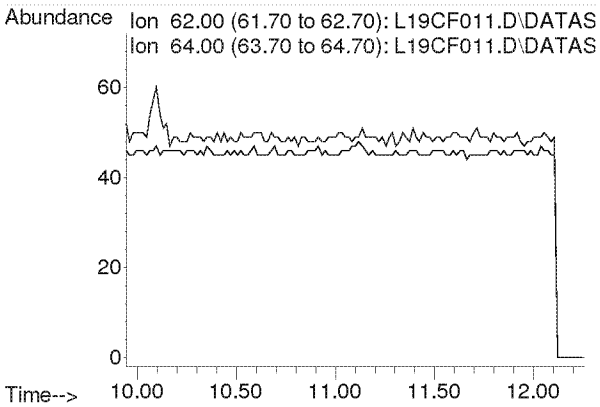


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

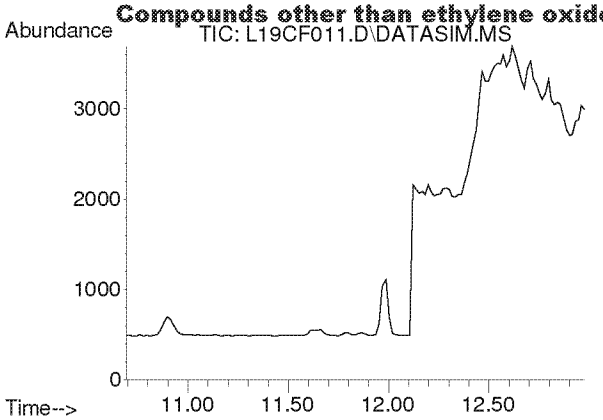
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

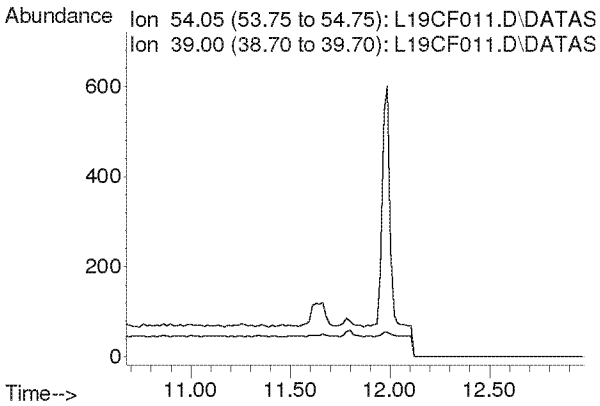


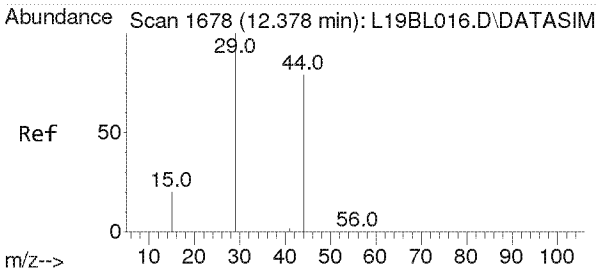
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

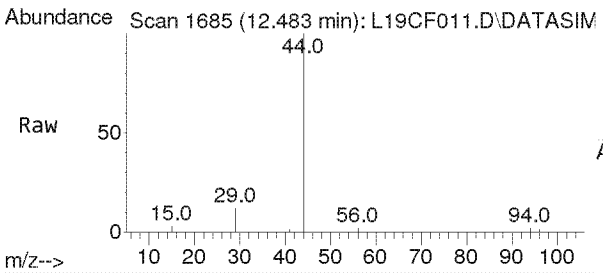


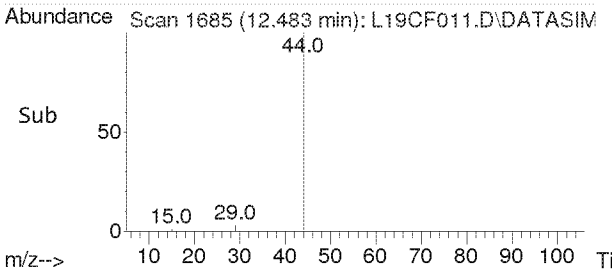


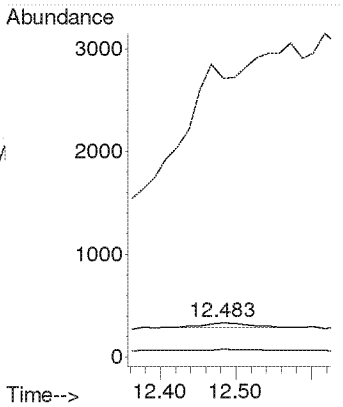
#9
Ethylene oxide
Concen: 0.063 ppbv m
RT: 12.483 min Scan# 1685
Delta R.T. 0.033 min
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 29 Resp: 165

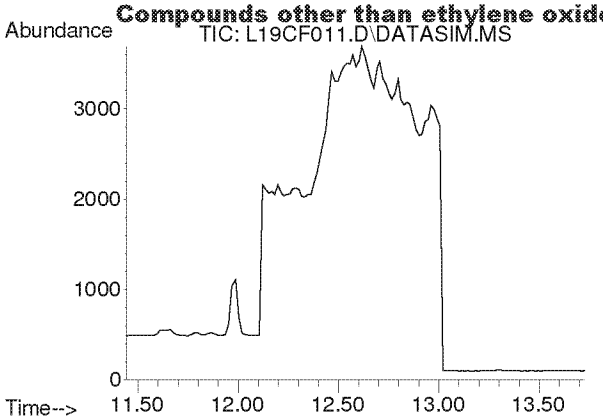
Ion	Ratio	Lower	Upper
29	100		
15	42.4	16.0	24.0#
44	0.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

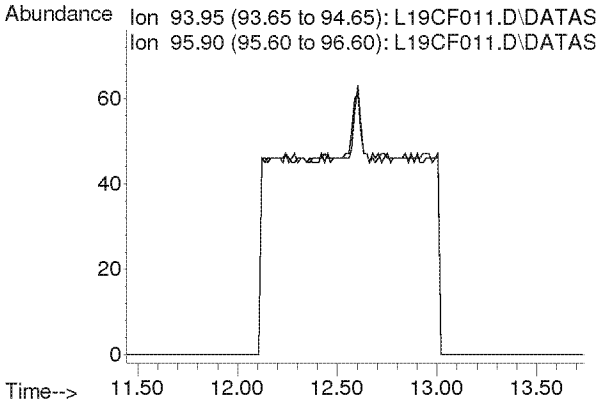


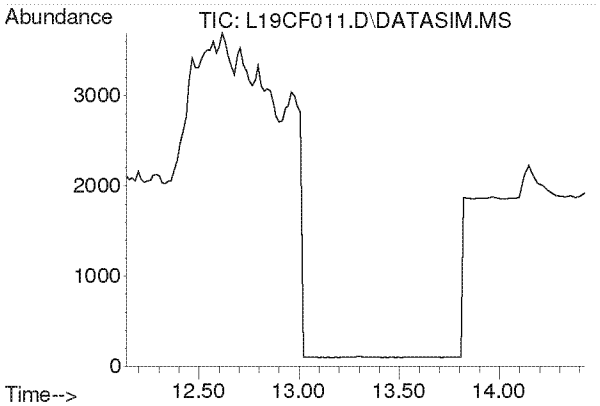
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



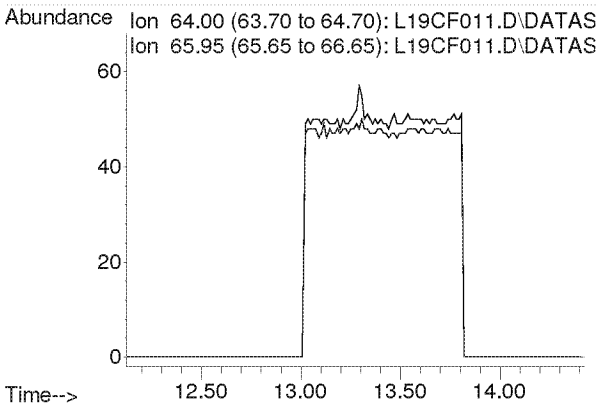


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

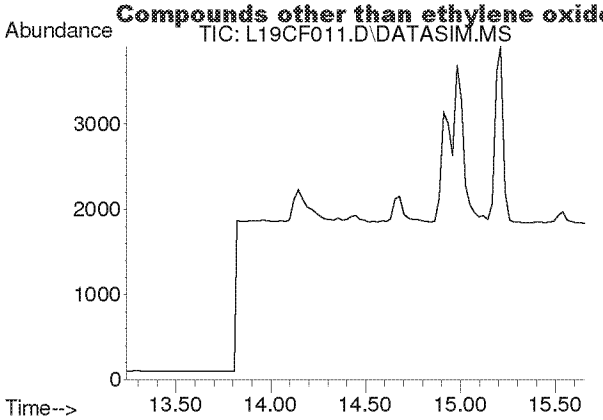
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

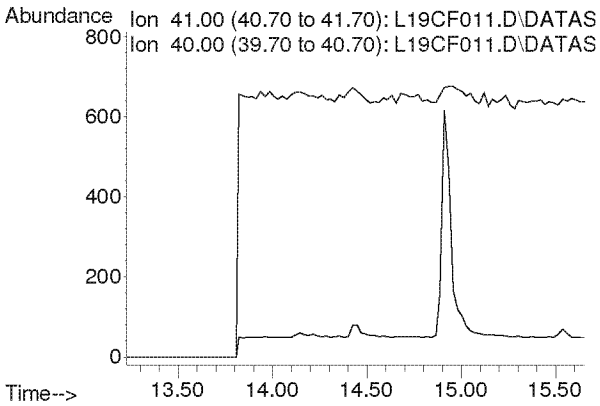


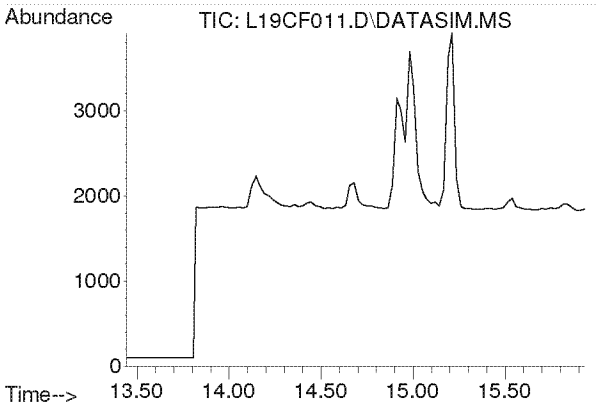
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



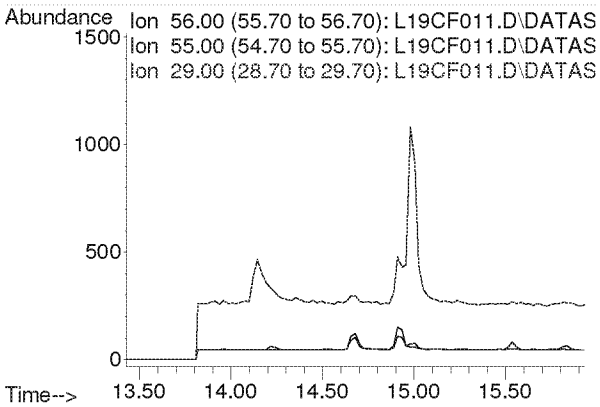


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

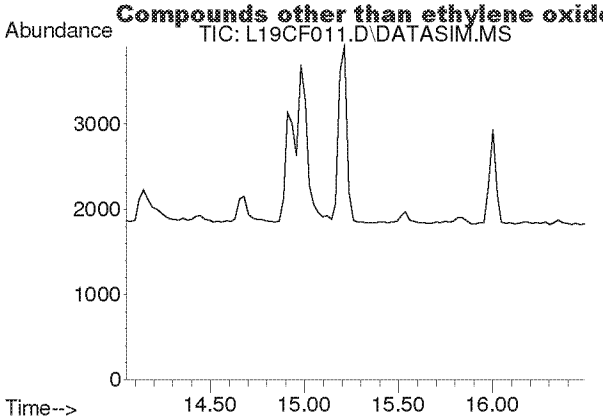
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

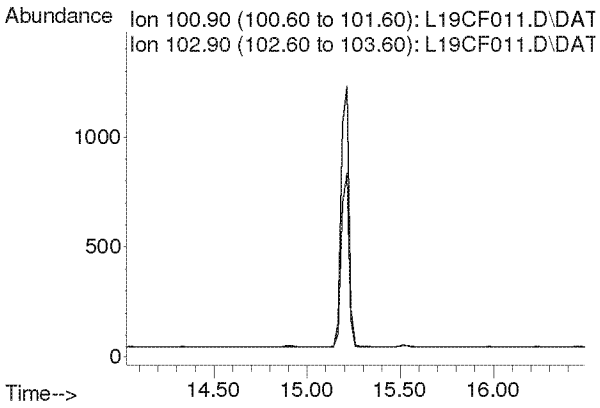


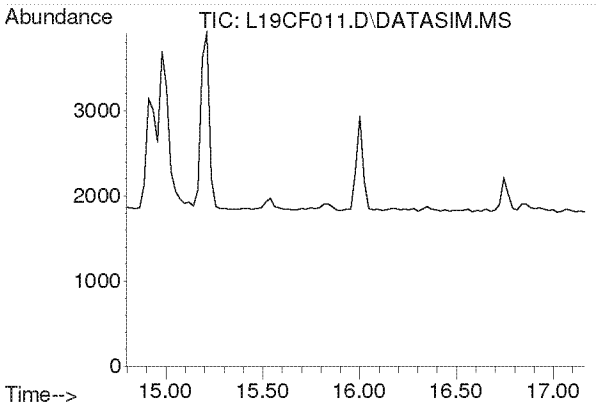
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



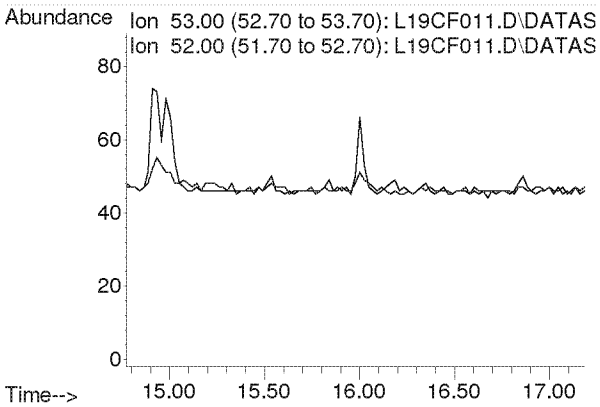


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

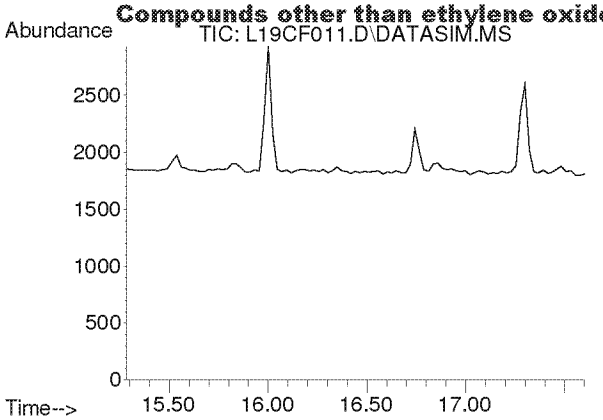
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

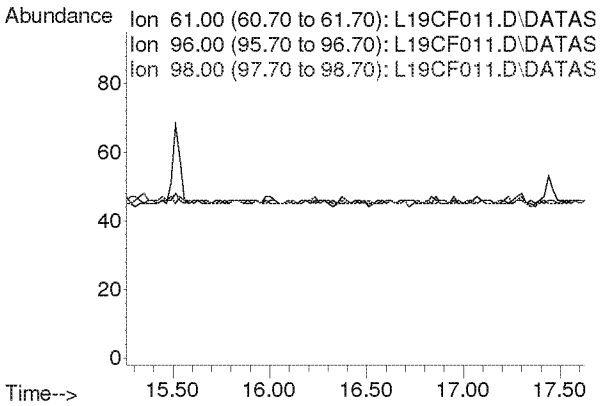


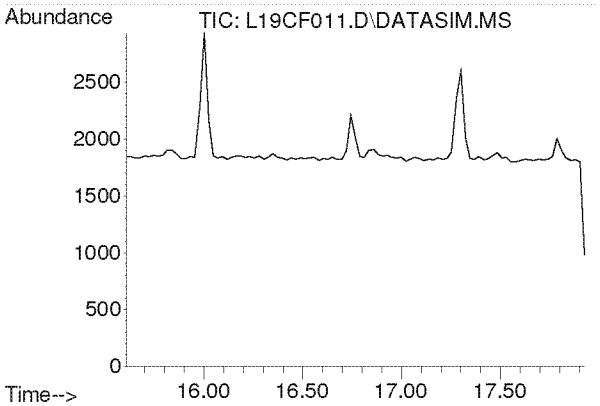
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



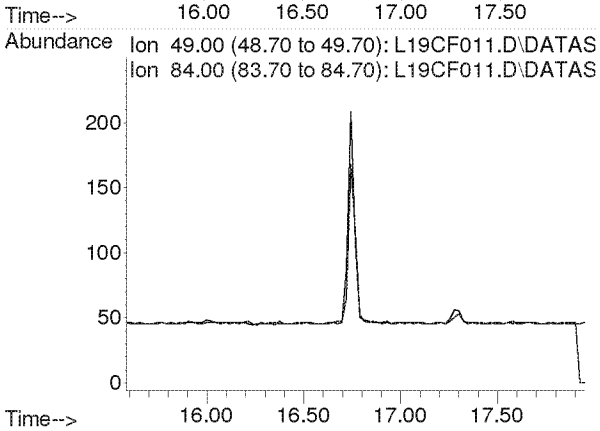


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

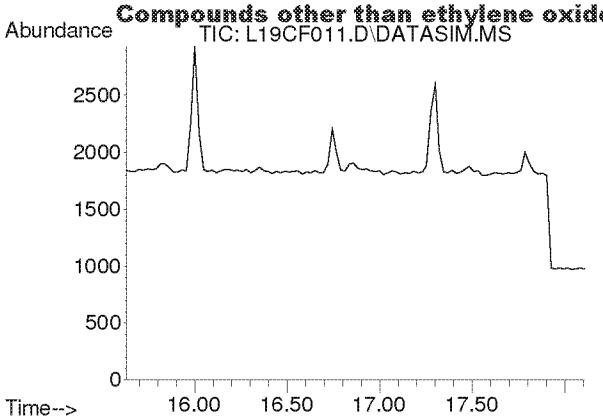
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

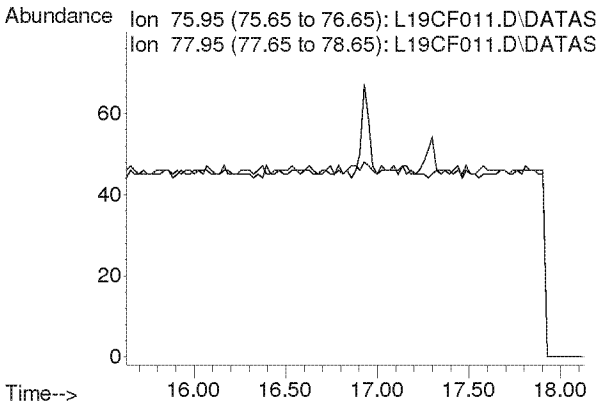


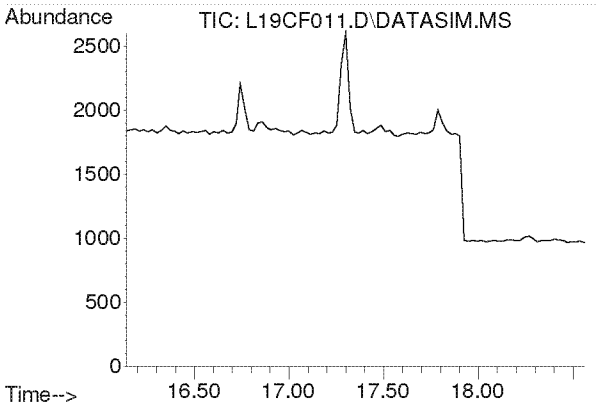
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



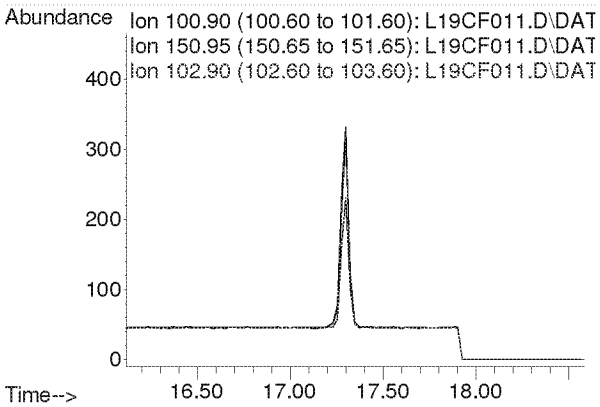


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

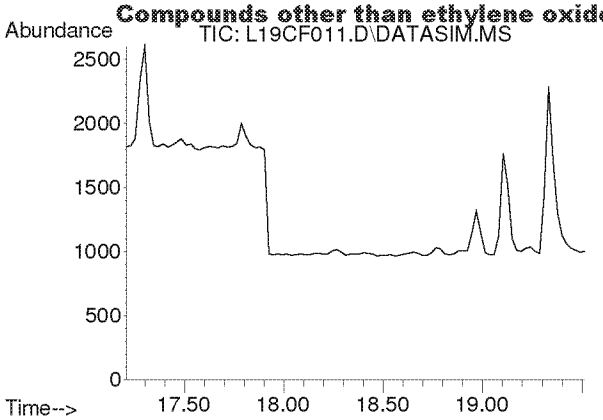
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

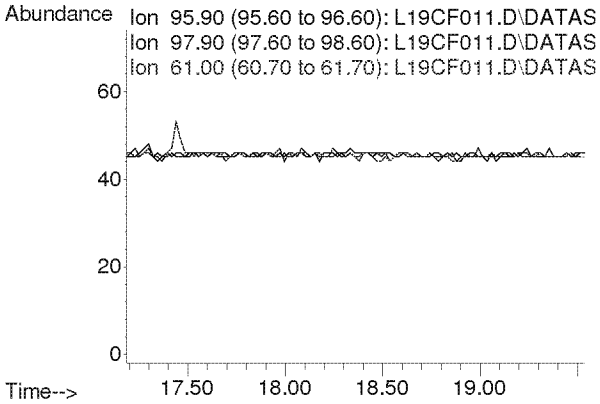


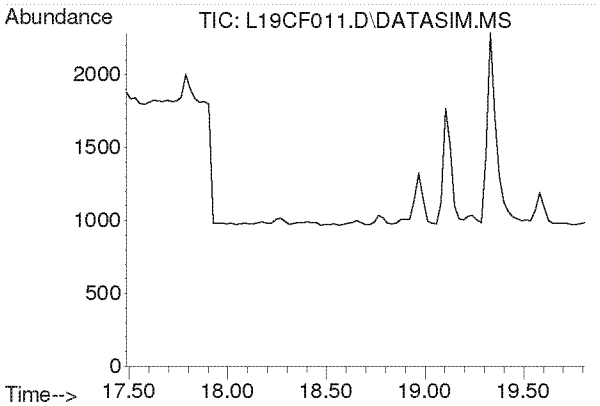
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



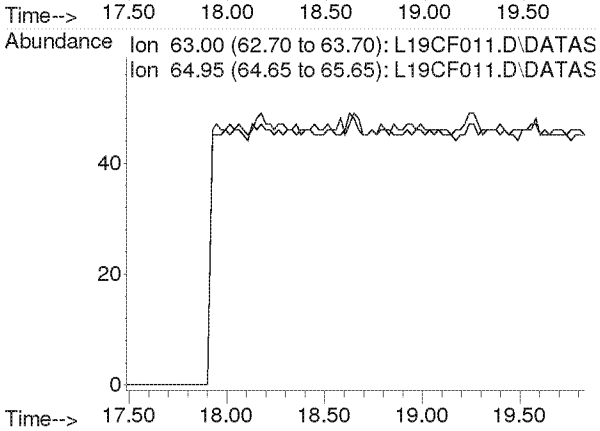


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

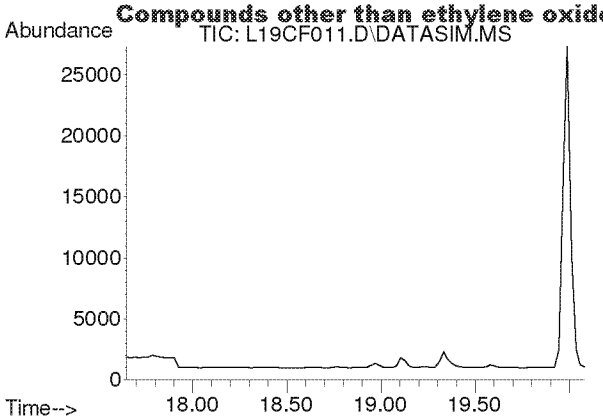
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

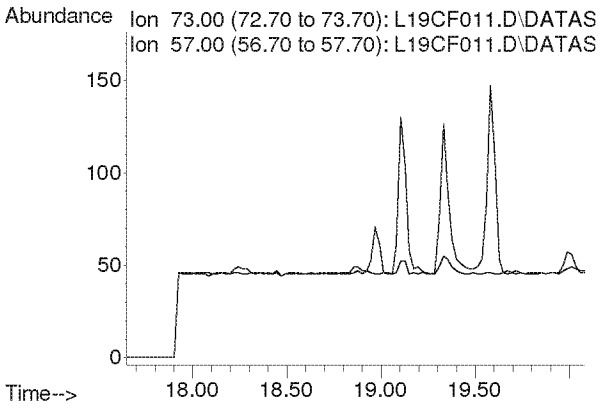


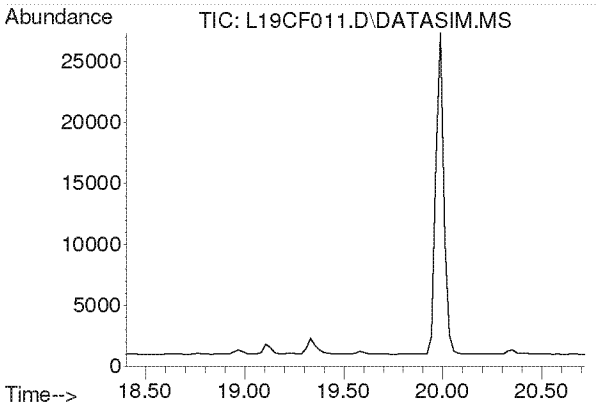
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



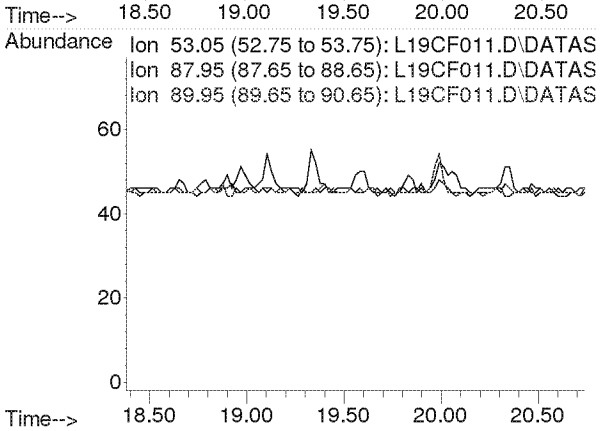


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

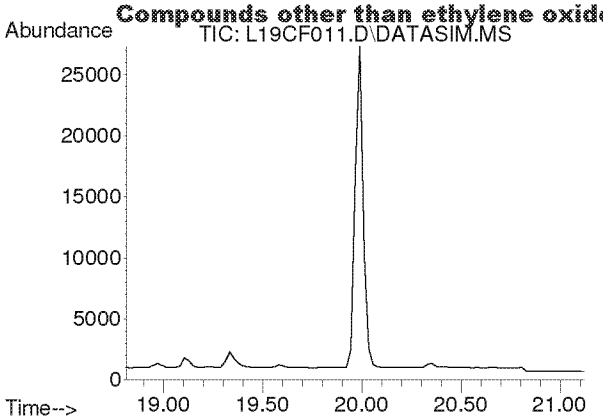
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

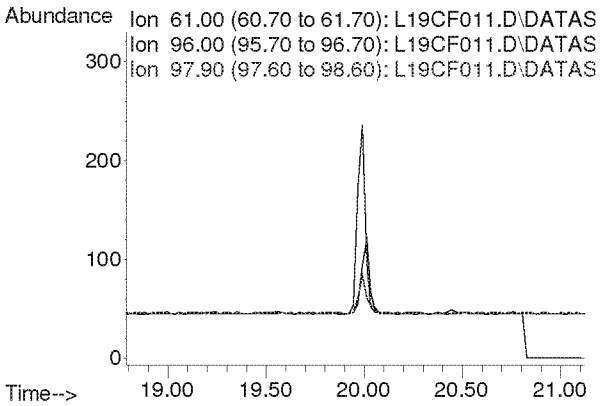


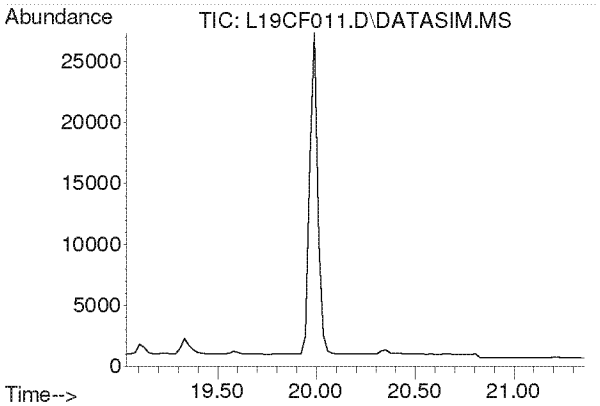
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



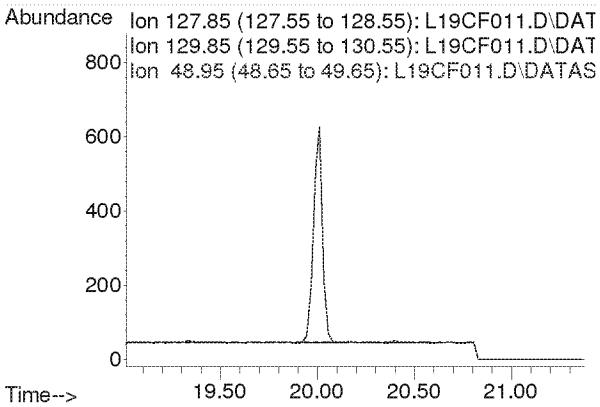


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

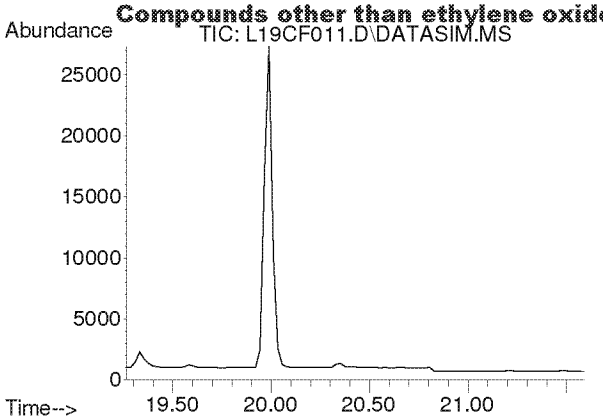
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

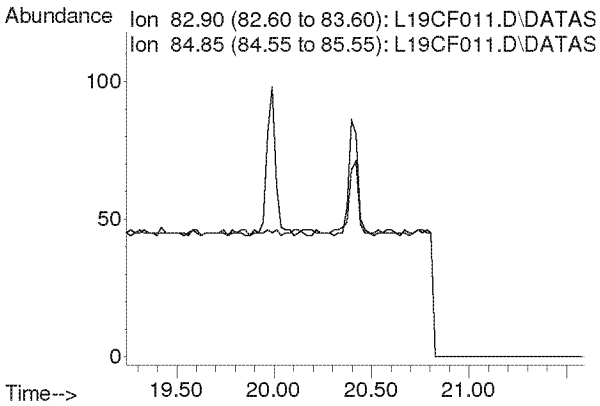


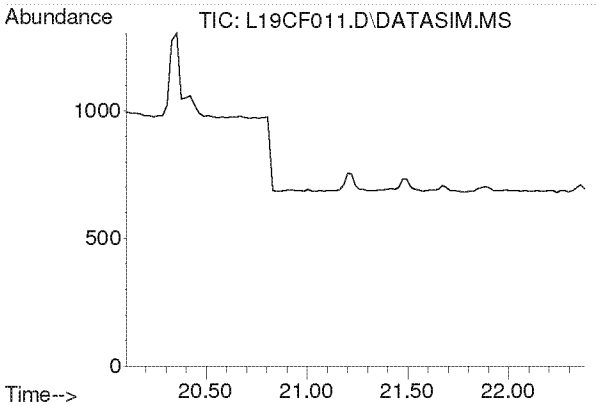
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



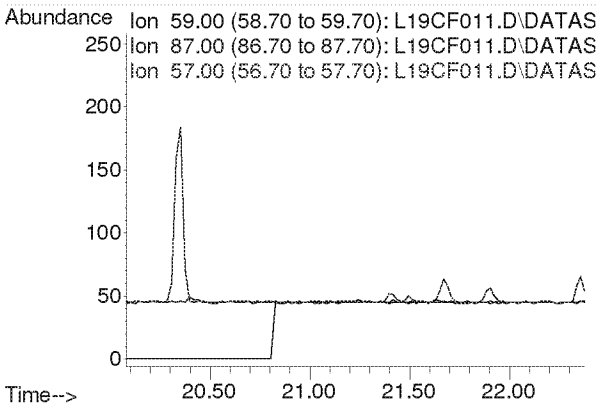


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

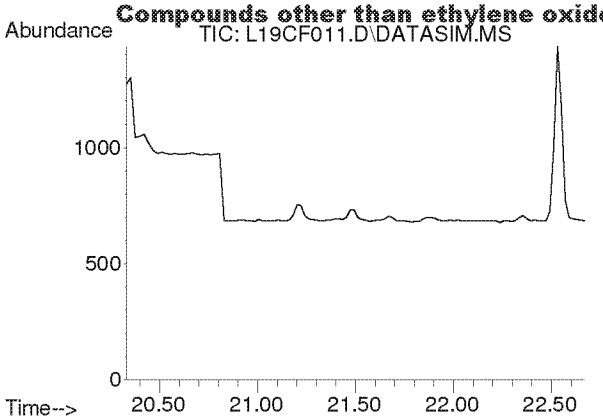
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

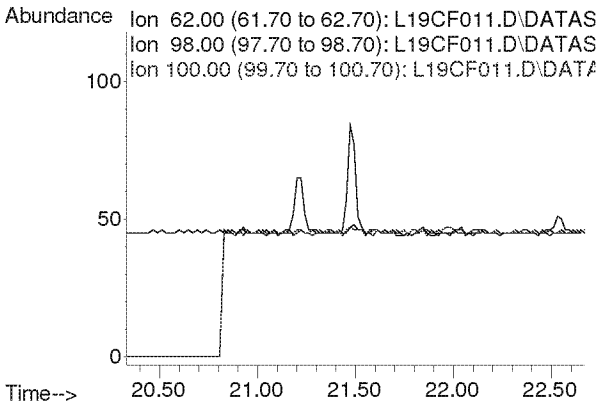


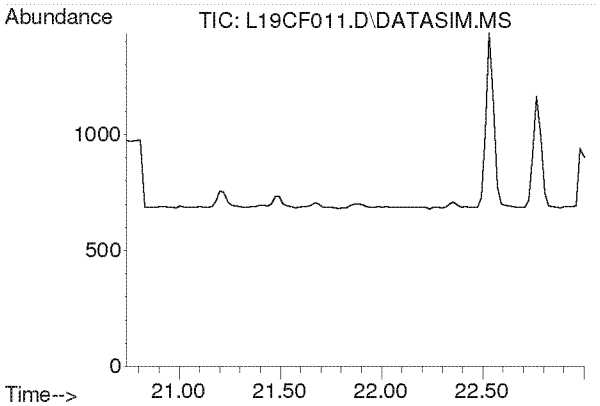
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



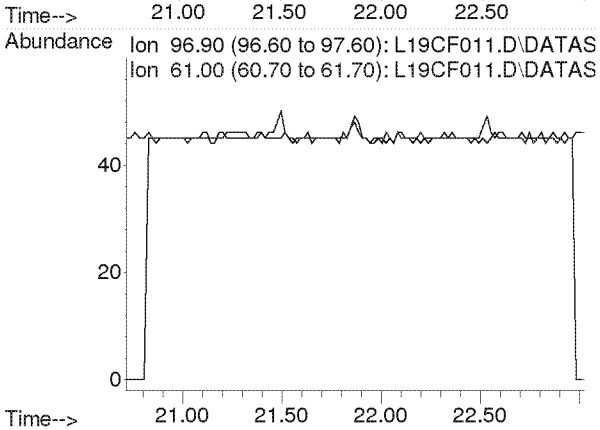


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

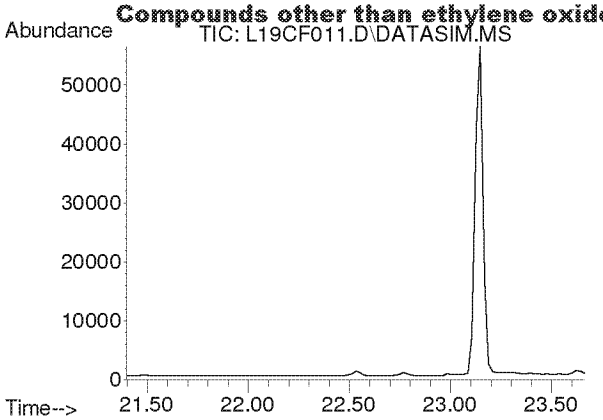
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

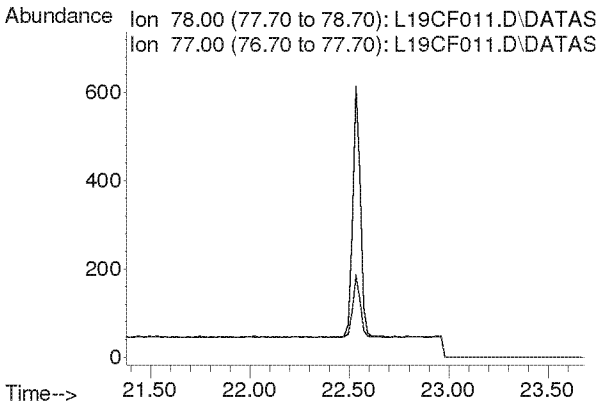


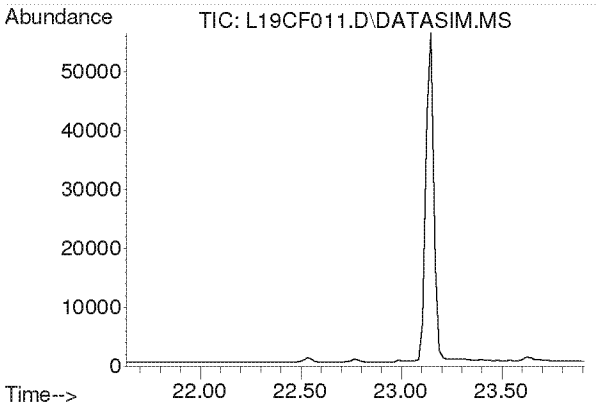
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



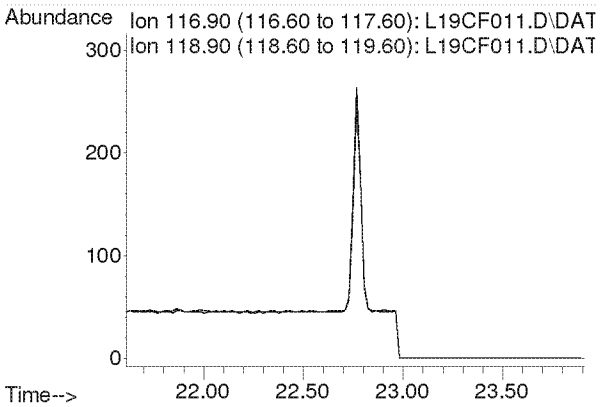


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

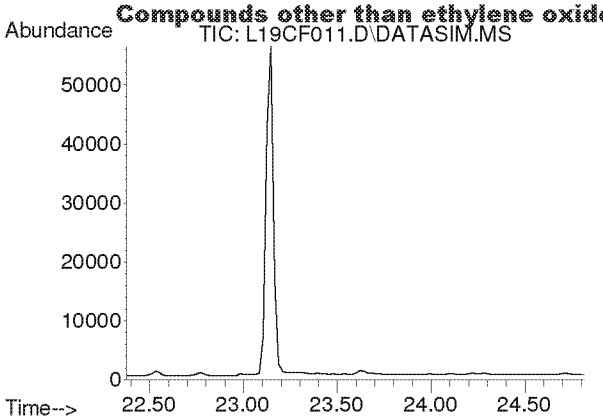
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

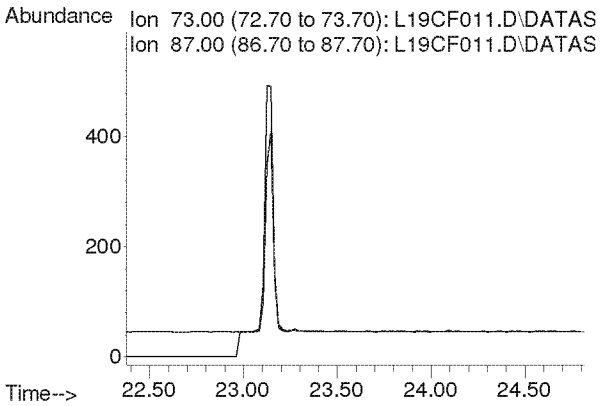


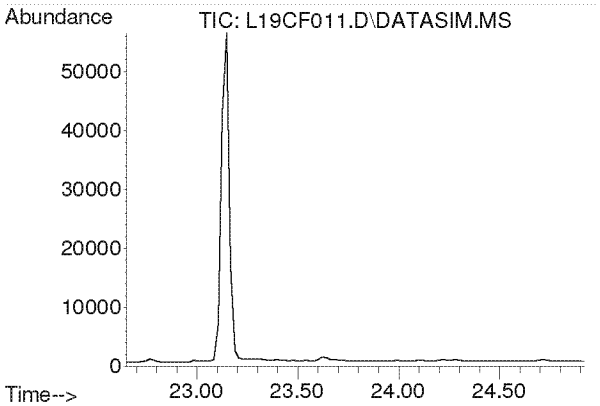
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



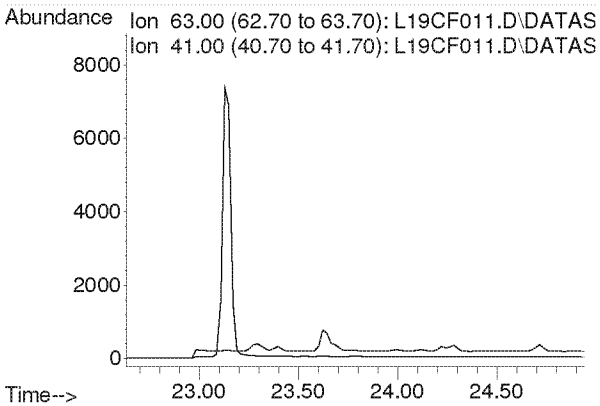


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

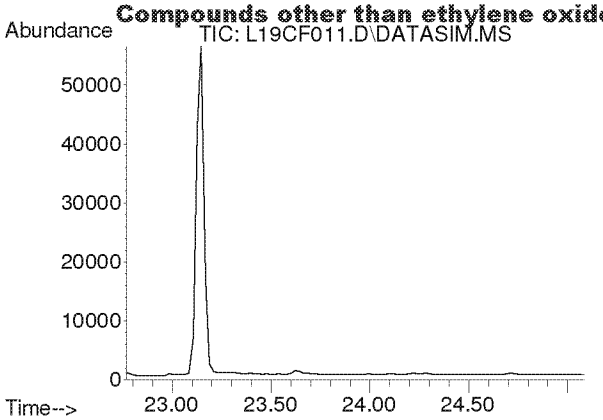
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

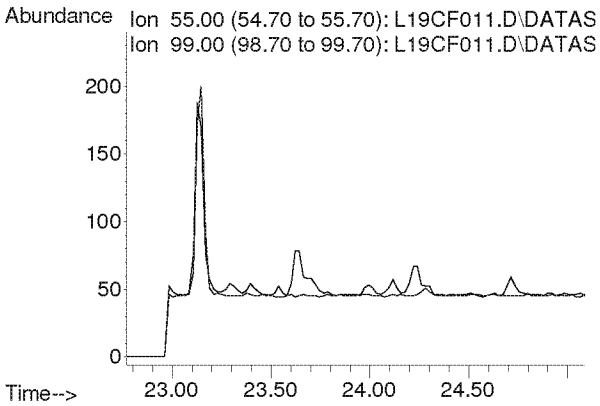


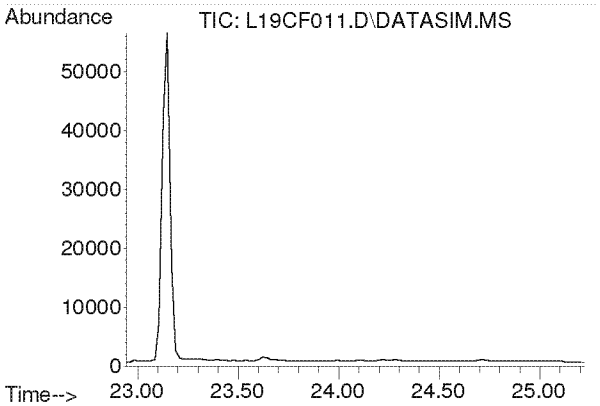
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



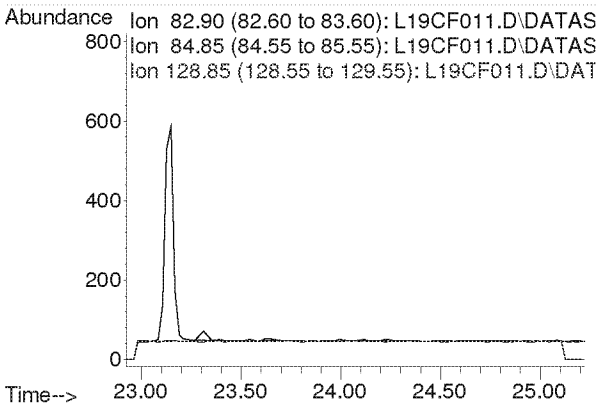


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

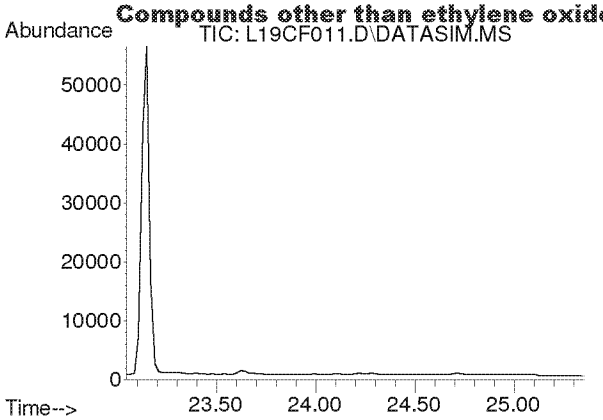
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

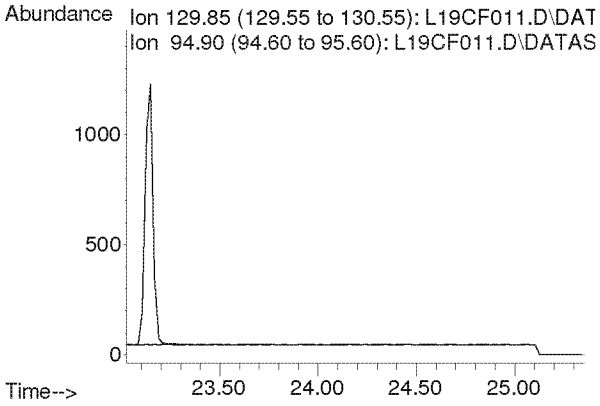


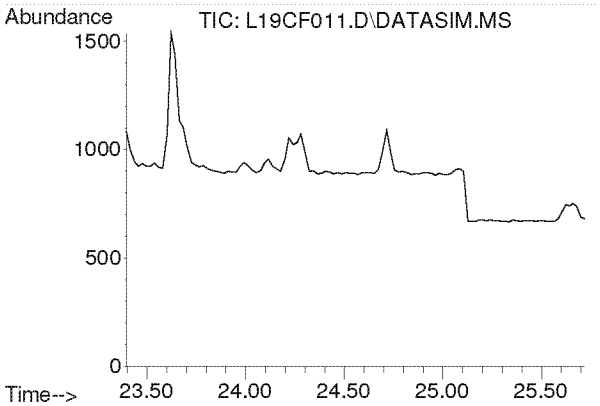
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



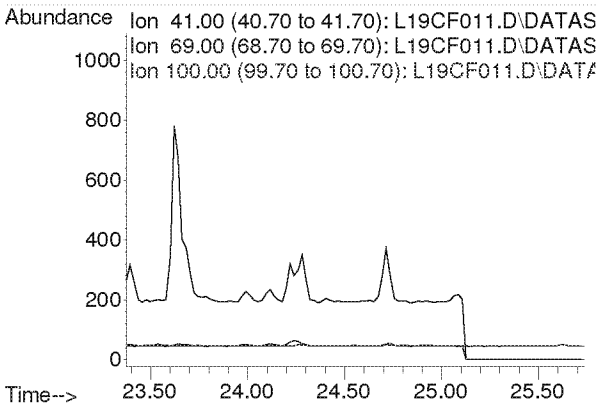


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

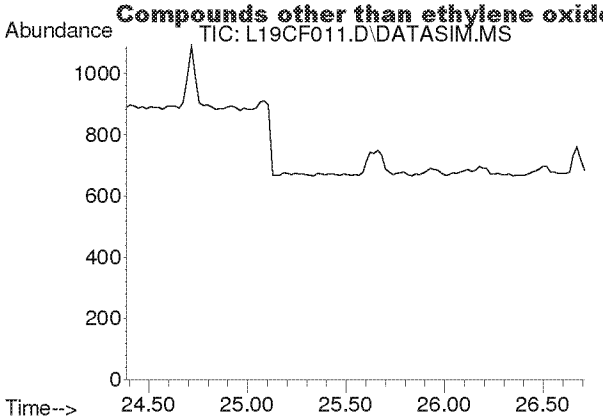
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

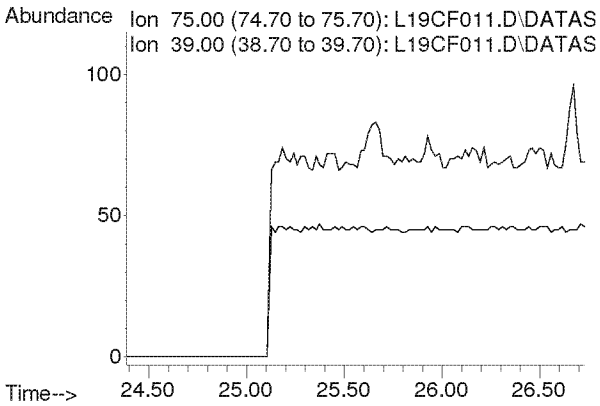


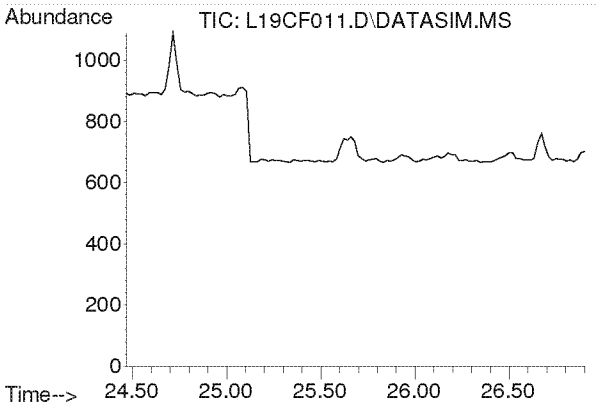
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



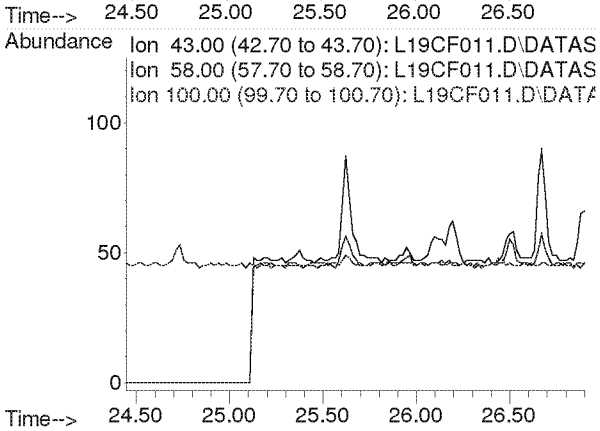


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

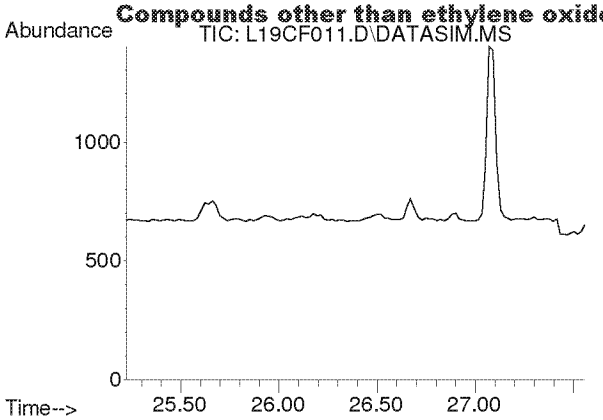
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

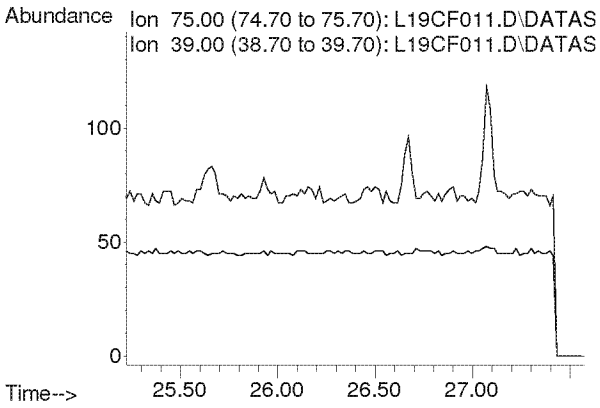


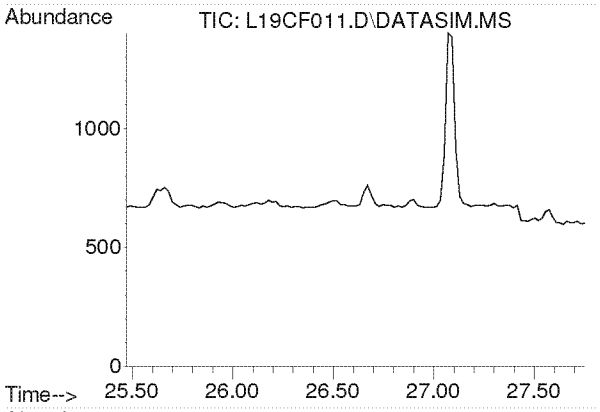
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



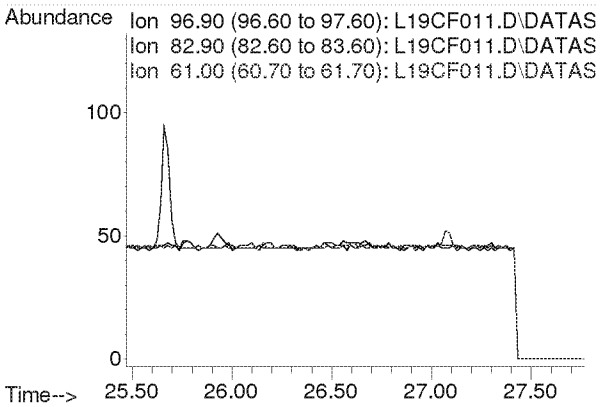


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

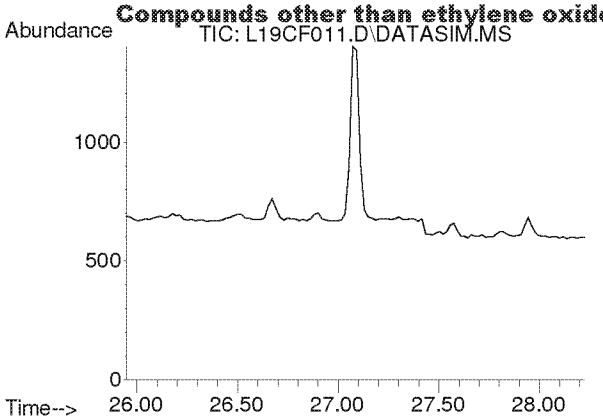
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

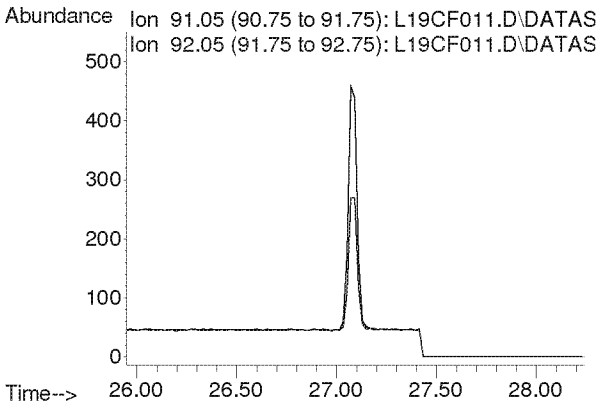


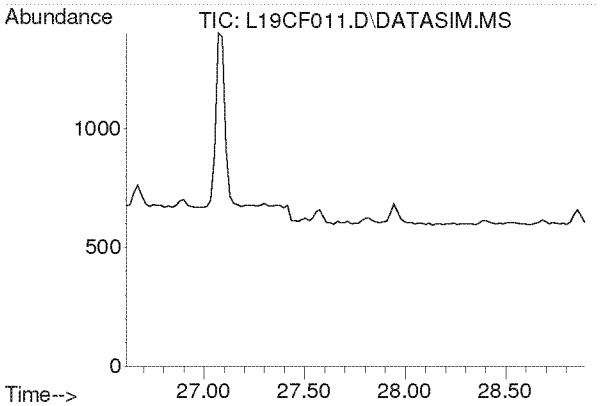
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



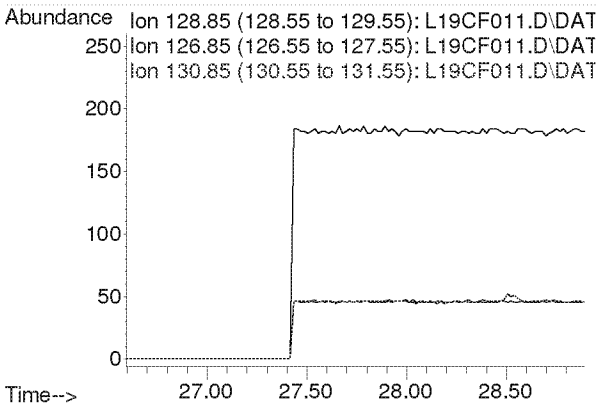


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

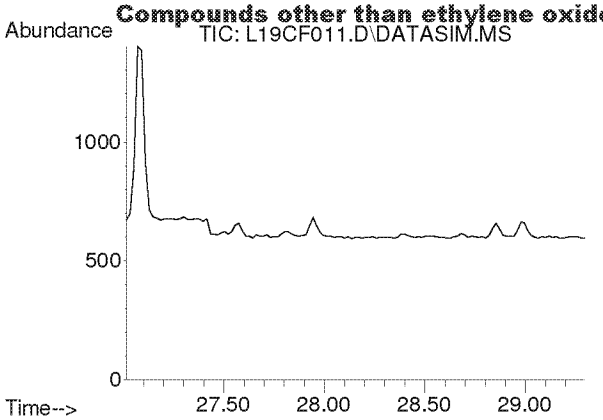
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

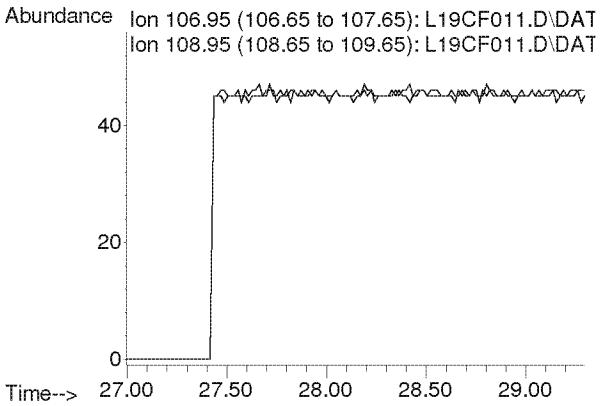


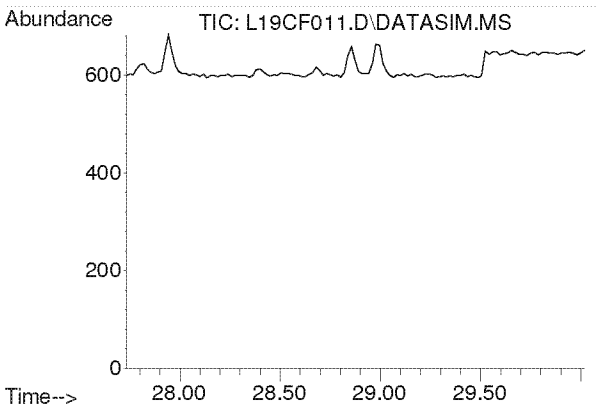
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



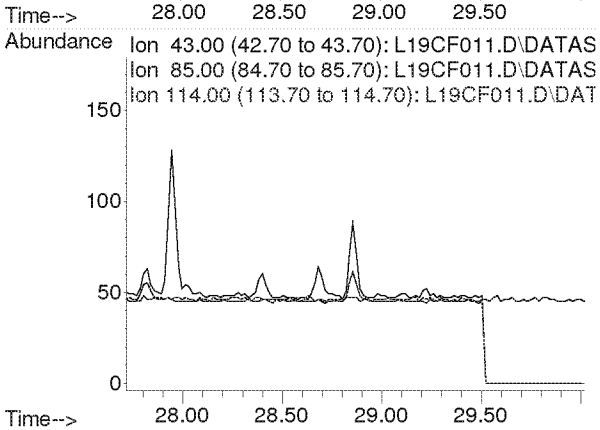


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

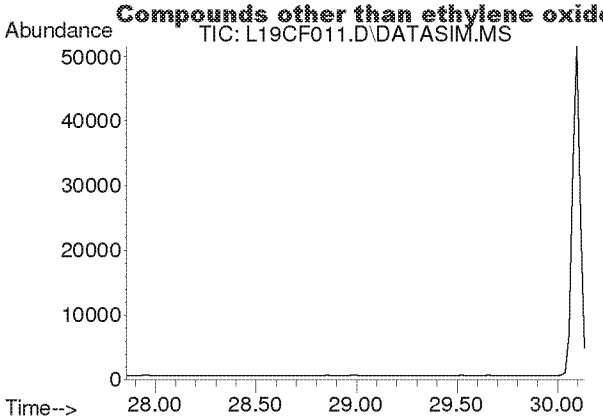
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

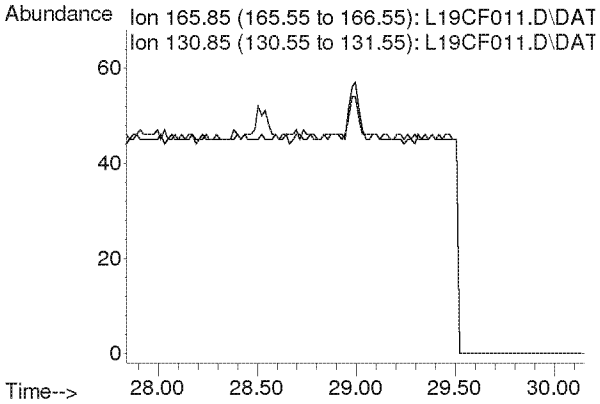


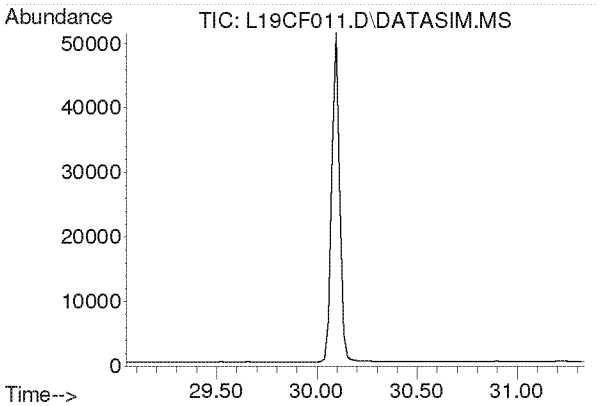
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



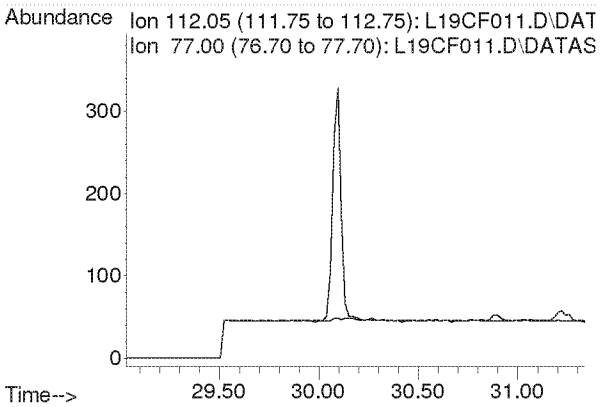


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

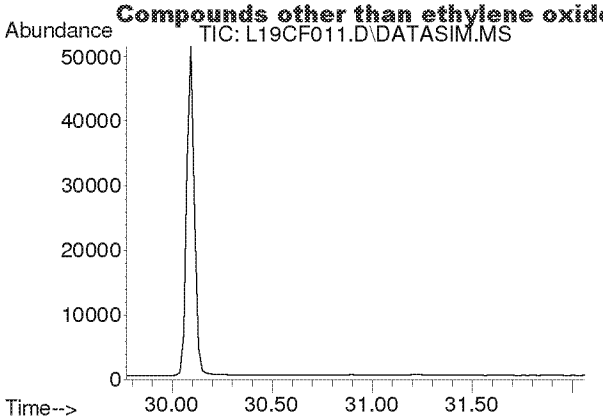
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

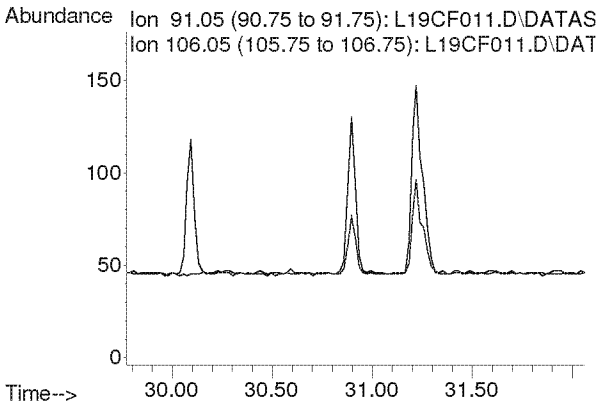


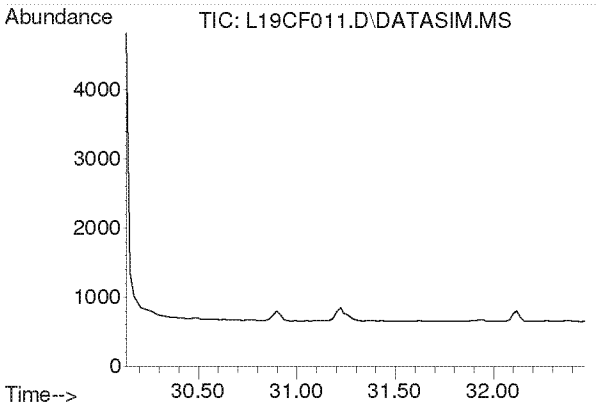
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



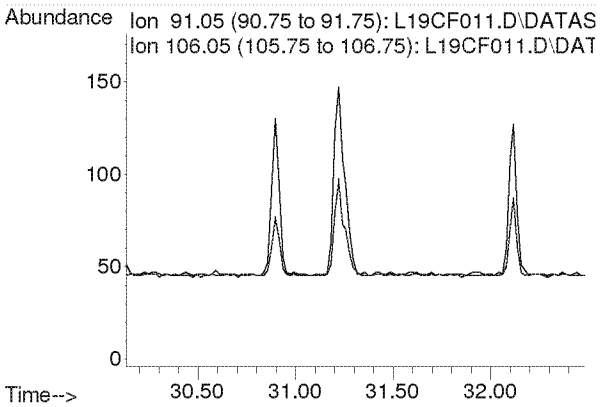


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

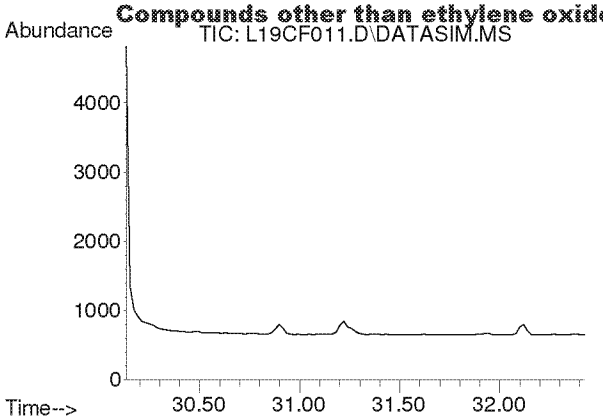
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

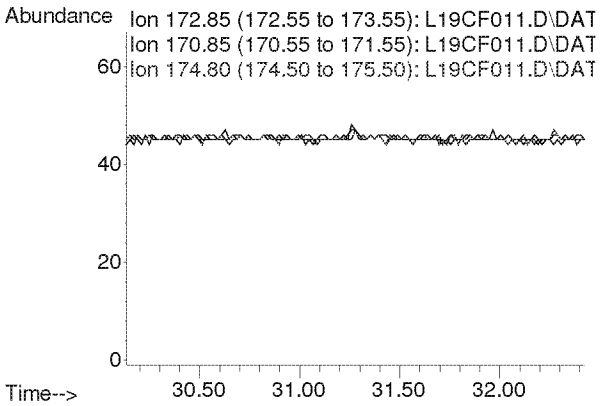


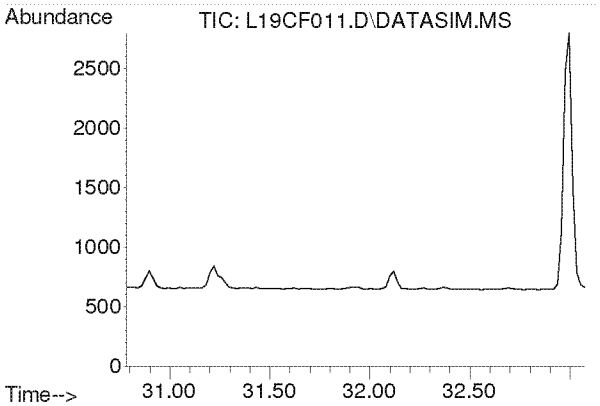
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



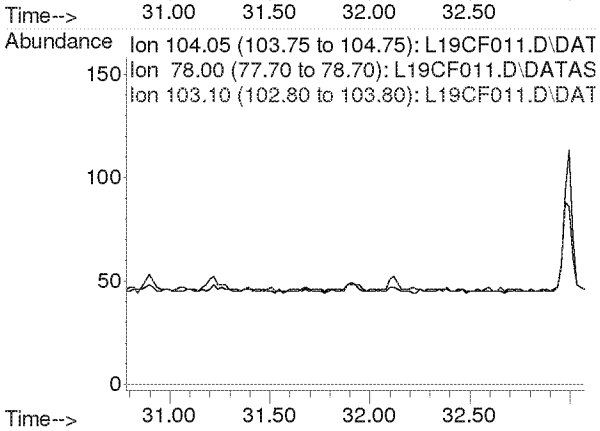


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

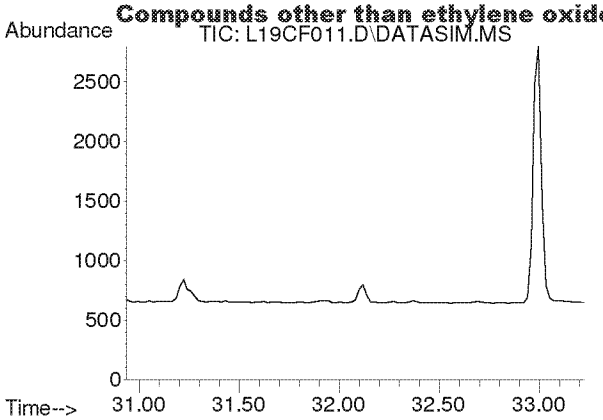
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

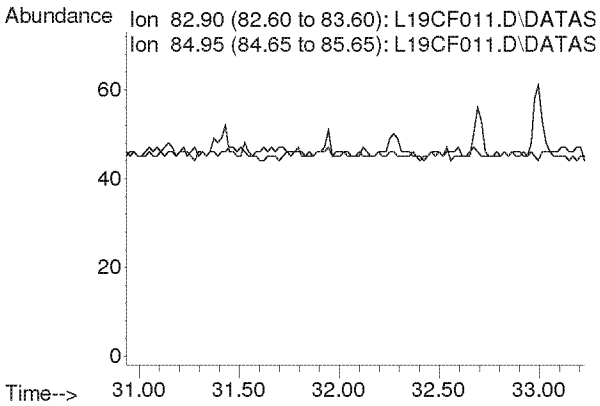


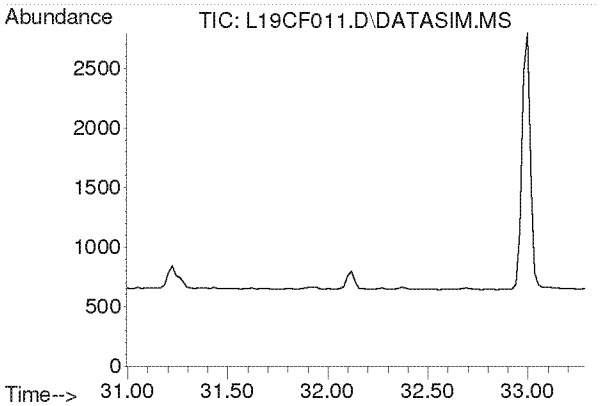
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



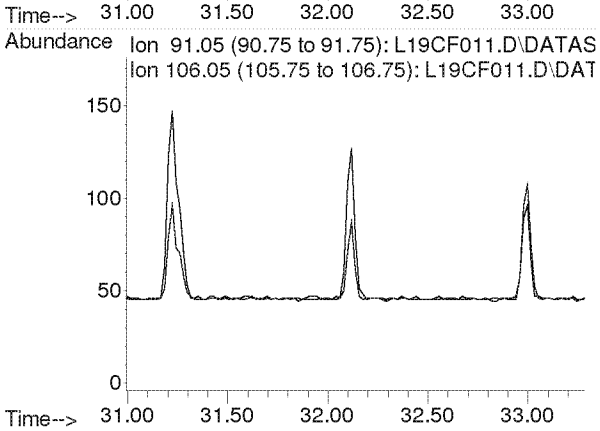


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

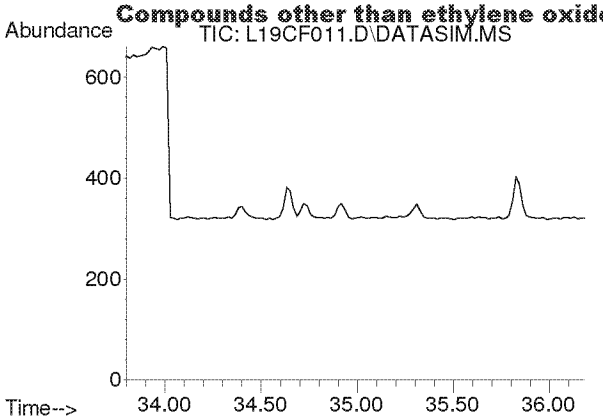
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

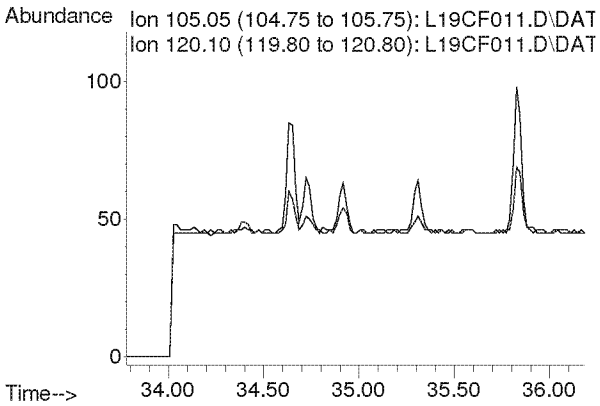


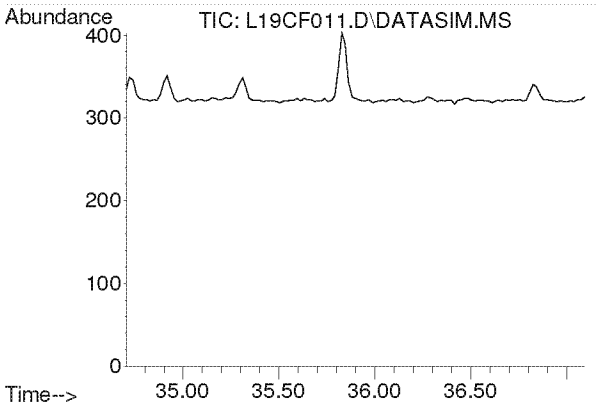
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



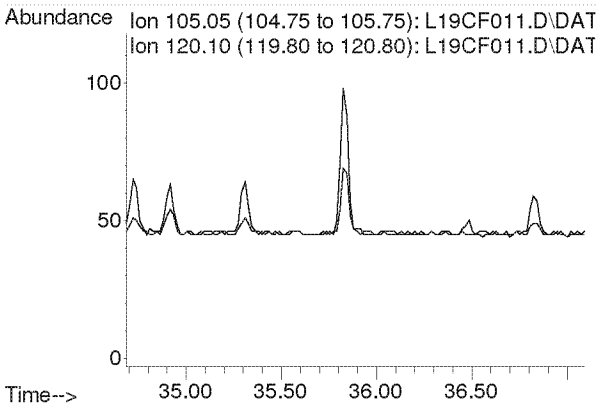


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

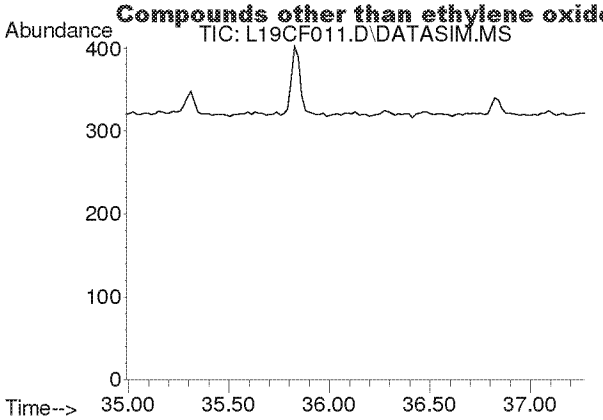
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

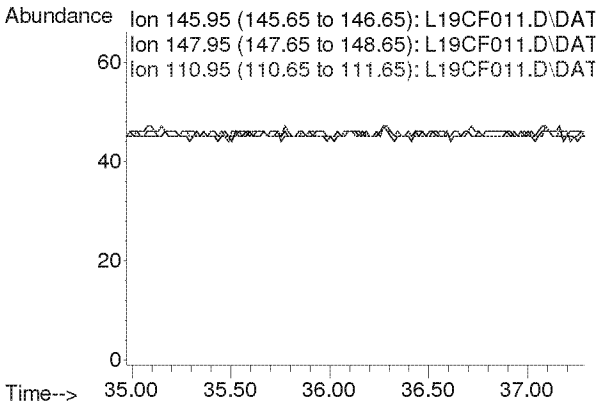


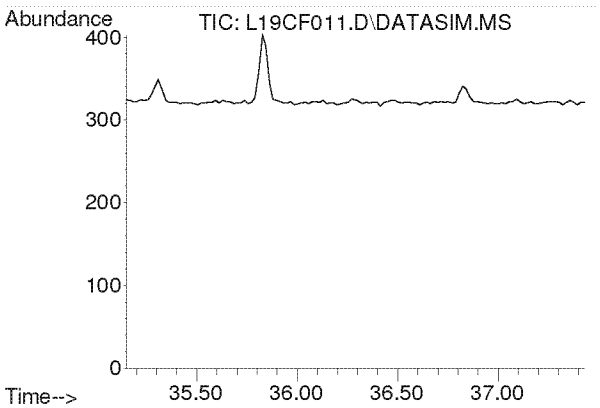
#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



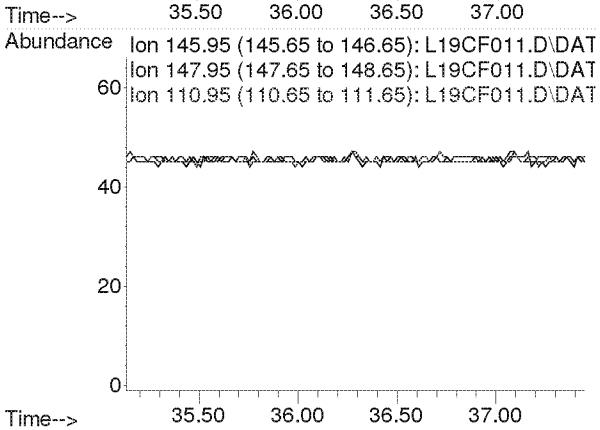


#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

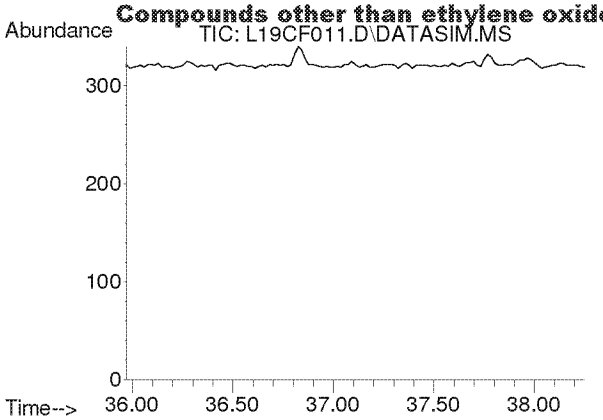
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7



Compounds other than ethylene oxide were not quantitated.

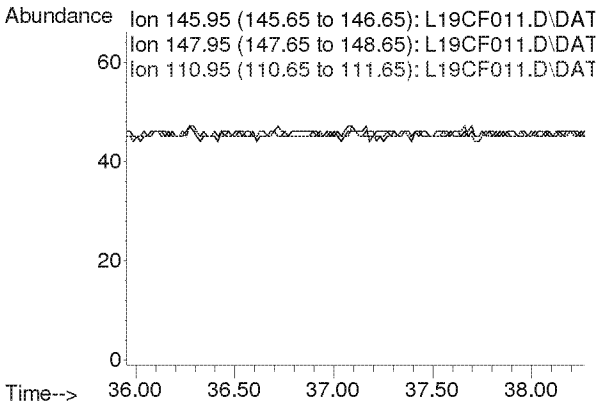


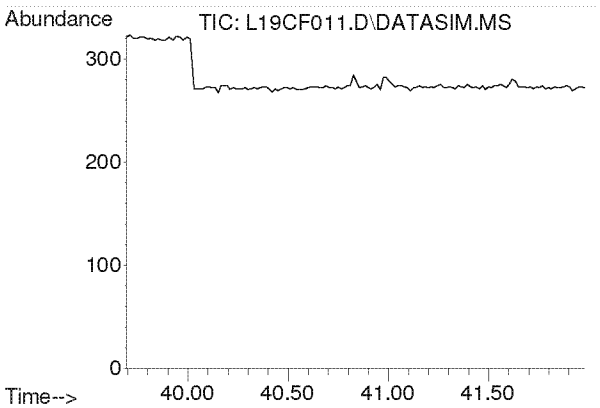
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



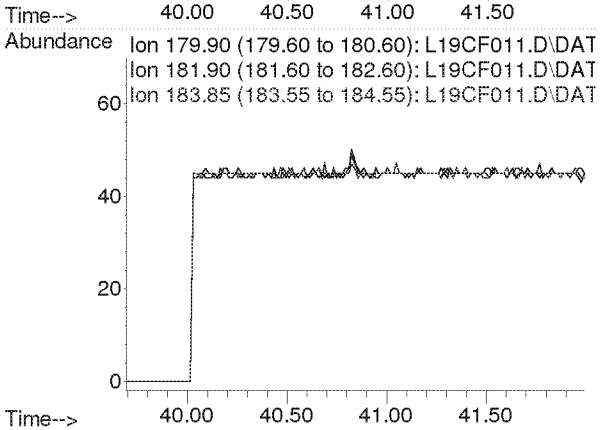


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

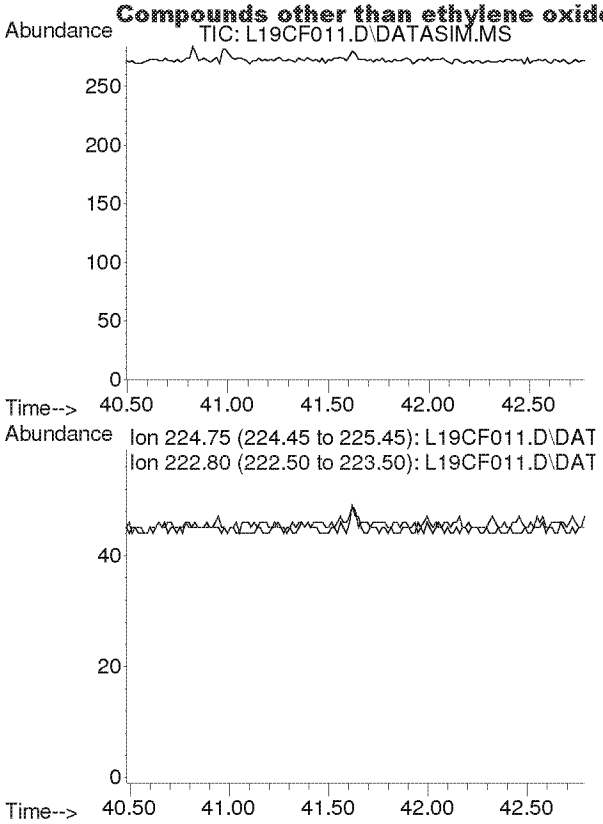
Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CF011.D
Acq: 6 Mar 2019 11:33 pm

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CF\
Data File : L19CF012.D
Acq On : 7 Mar 2019 12:33 am (#1); 07-Mar-19, 00:28:16 (#2)
Operator : MAH
Sample : B9C0605-DUP2
Misc : WB VILLAGE R2 HALL 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 07 06:36:24 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

d = MK

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	45547	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	116785	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	80816	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.	
9) Ethylene oxide	12.498	29	86m	0.0330 ppbv	
10) Bromomethane	0.000	94	0	N.D. d	
11) Chloroethane	0.000	64	0	N.D. d	
12) Acetonitrile	0.000	41	0	N.D. d	
13) Acrolein	0.000	56	0	N.D. d	
14) Trichlorofluoromethane	0.000	101	0	N.D. d	
15) Acrylonitrile	0.000	53	0	N.D. d	
16) 1,1-Dichloroethene	0.000	61	0	N.D.	
17) Methylene Chloride	0.000	49	0	N.D. d	
18) Carbon Disulfide	0.000	76	0	N.D. d	
19) Trichlorotrifluoroethane	0.000	101	0	N.D. d	
20) trans-1,2-Dichloroethy...	0.000	96	0	N.D.	
21) 1,1-Dichloroethane	0.000	63	0	N.D.	
22) Methyl tert-Butyl Ether	0.000	73	0	N.D. d	
23) Chloroprene	0.000	53	0	N.D.	
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.	
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\L19CF\
Data File : L19CF012.D
Acq On : 7 Mar 2019 12:33 am (#1); 07-Mar-19, 00:28:16 (#2)
Operator : MAH
Sample : B9C0605-DUP2
Misc : WB VILLAGE R2 HALL 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 07 06:36:24 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

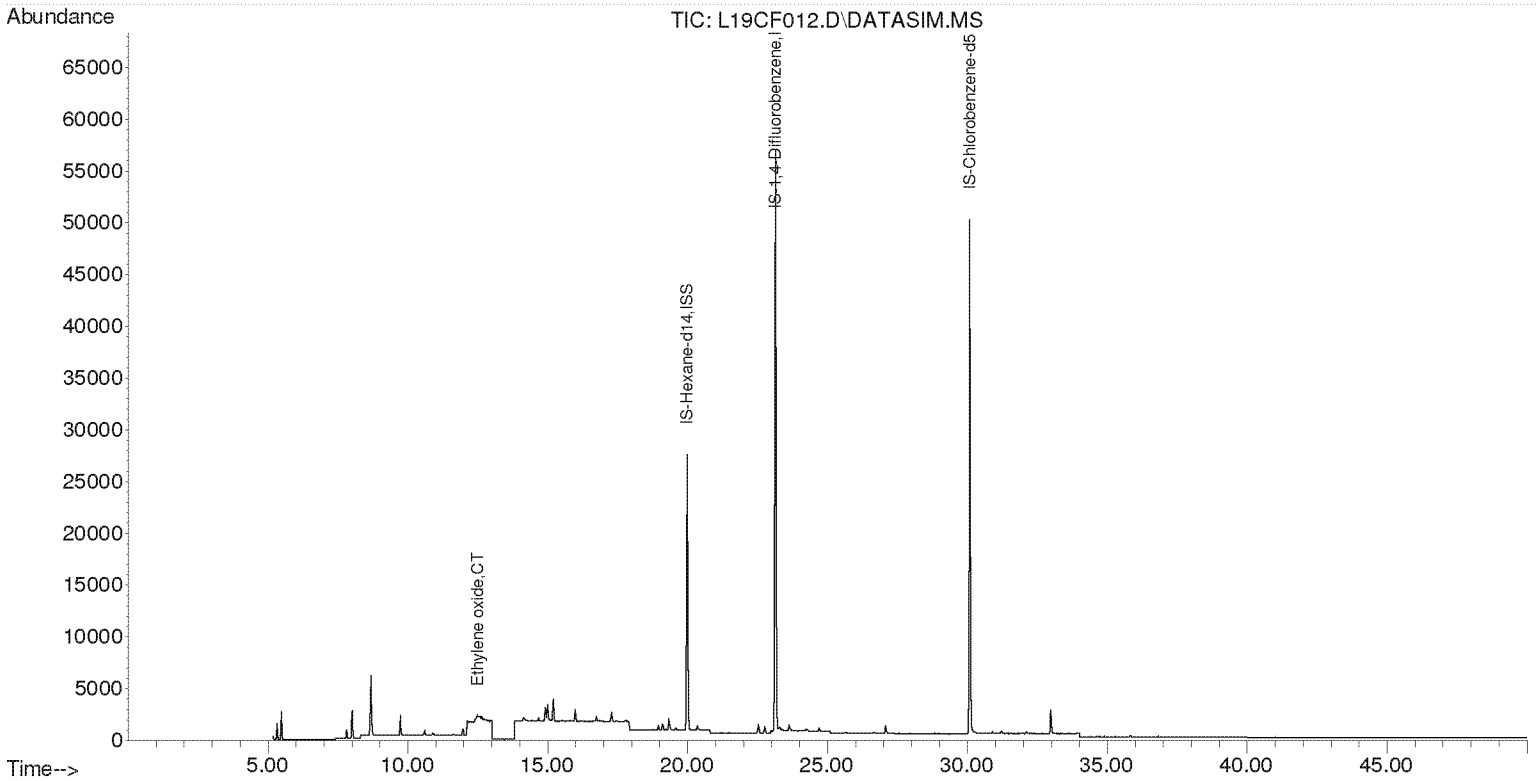
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

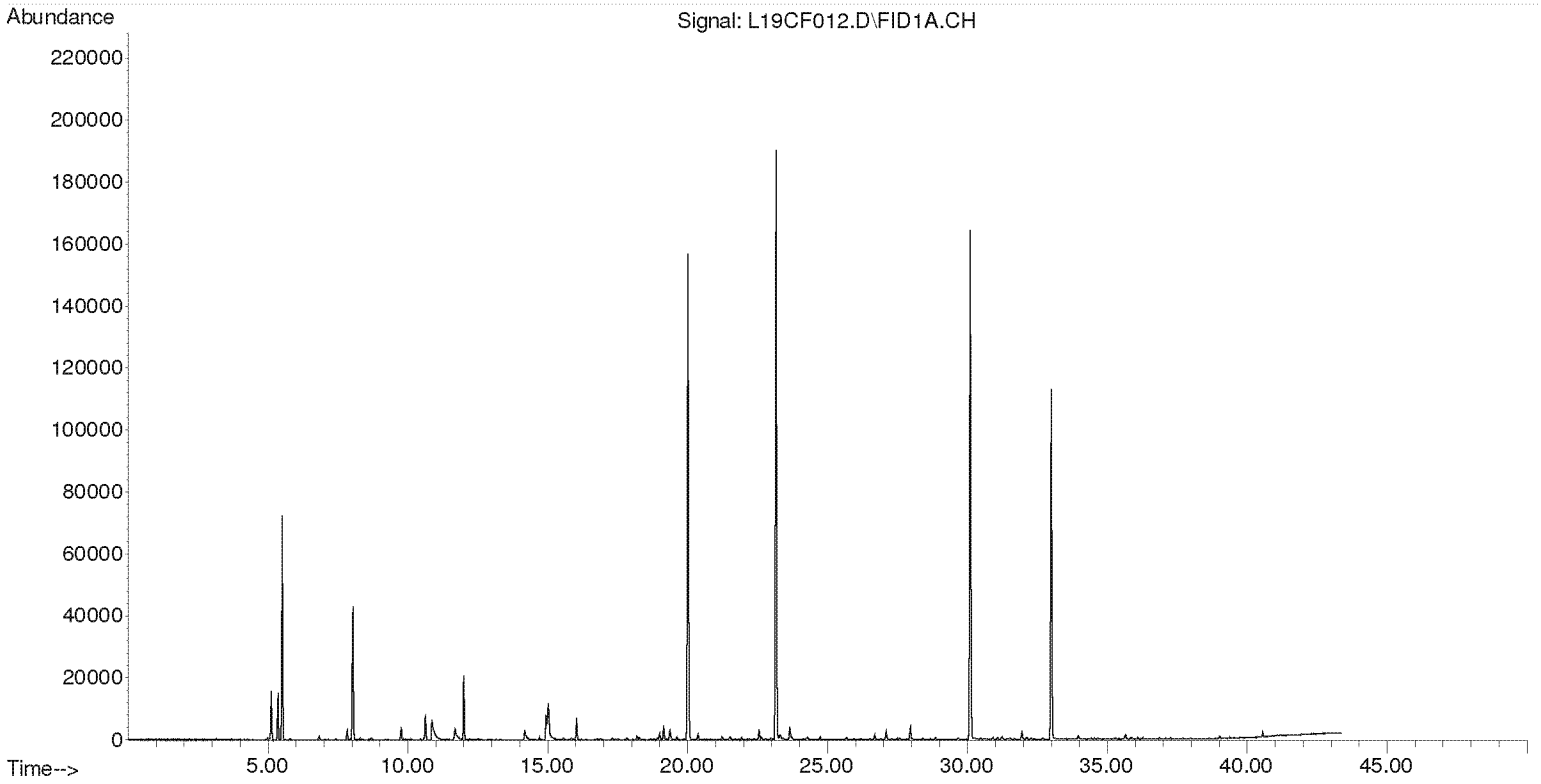
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

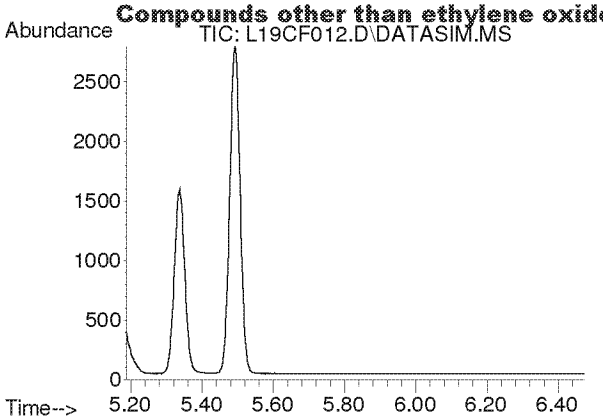
Data Path : Y:\MASS SPEC 1 DATA\L19CF\
Data File : L19CF012.D
Acq On : 7 Mar 2019 12:33 am (#1); 07 Mar 2019 0:28 am (#2)
Operator : MAH
Sample : B9C0605-DUP2
Misc : WB VILLAGE R2 HALL 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Mar 07 06:24:36 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





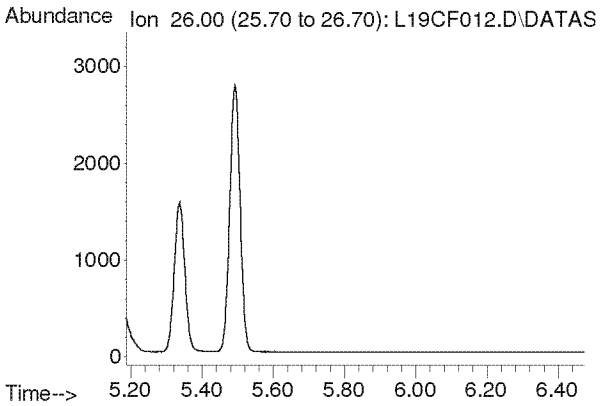
Compounds other than ethylene oxide were not quantitated.

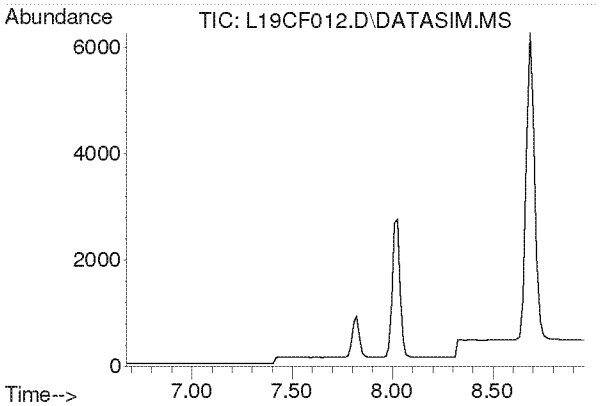


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 26



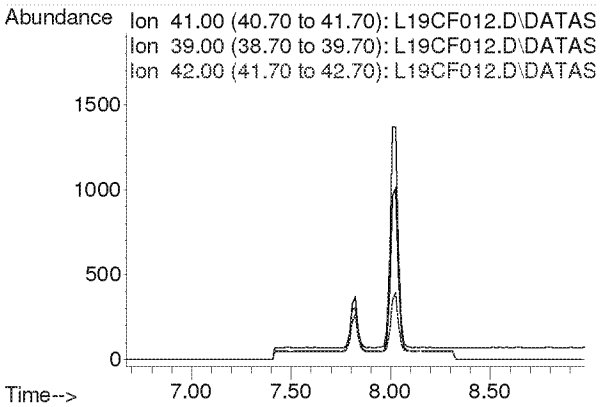


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

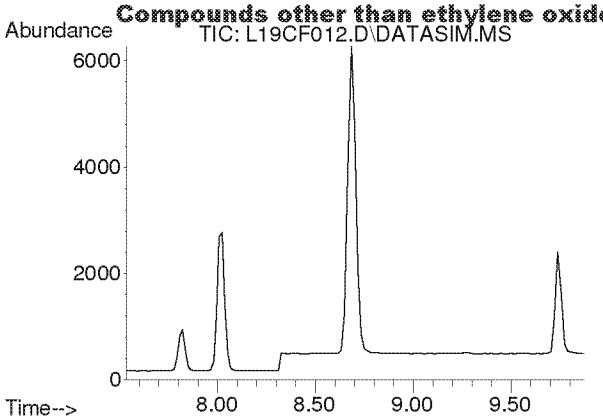
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

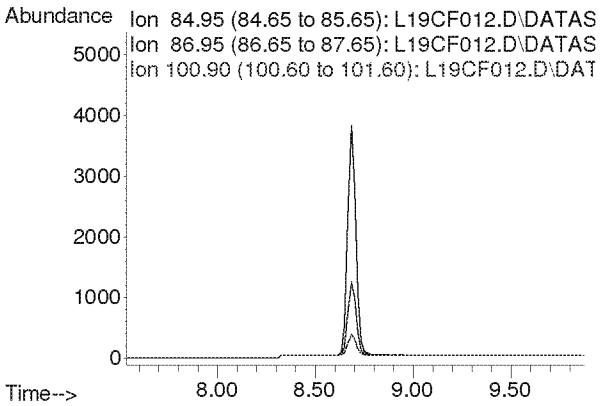


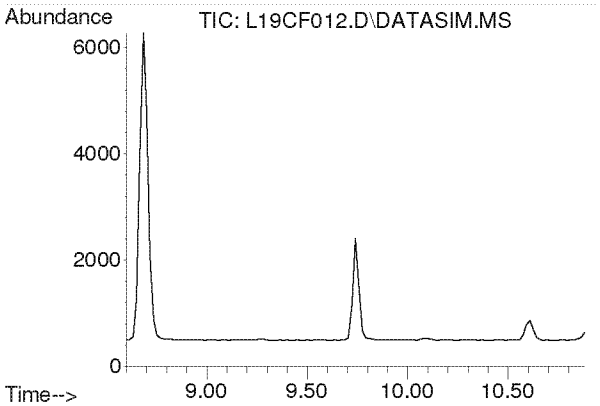
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



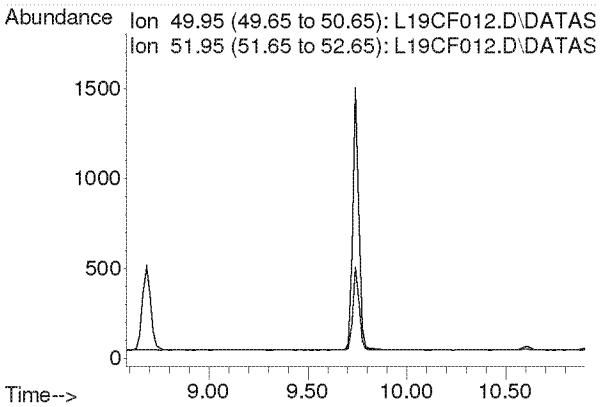


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

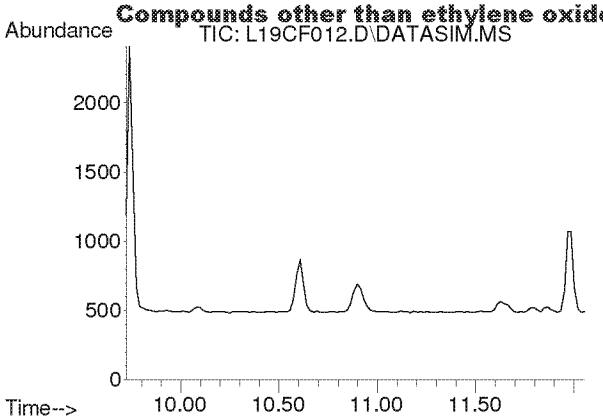
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

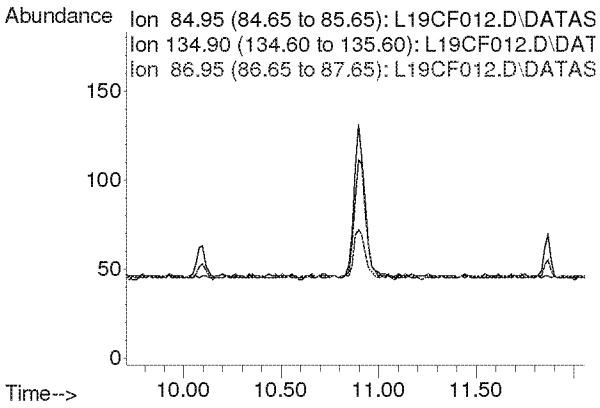


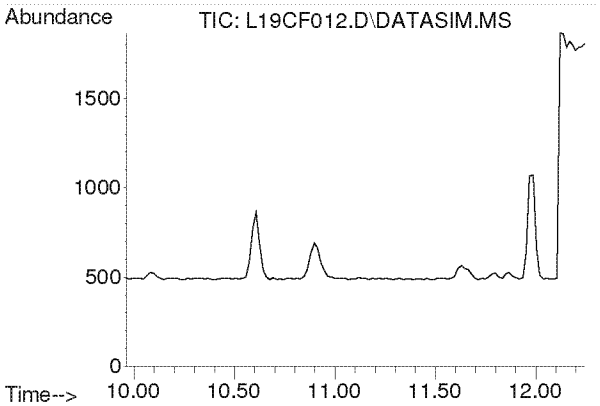
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



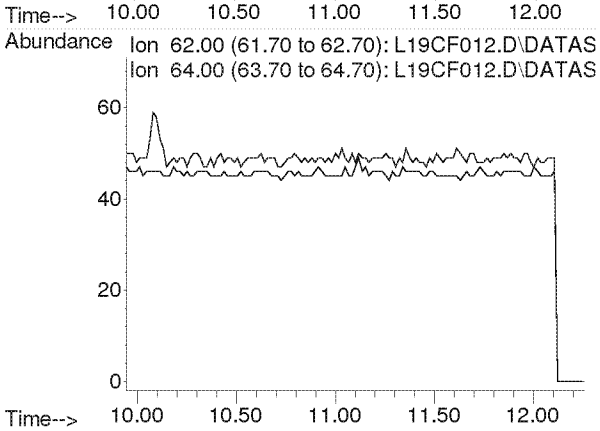


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

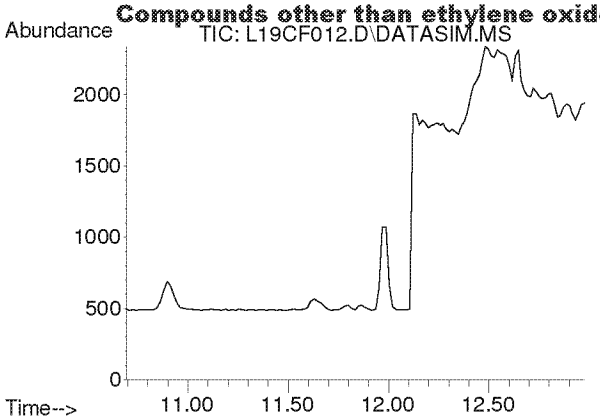
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

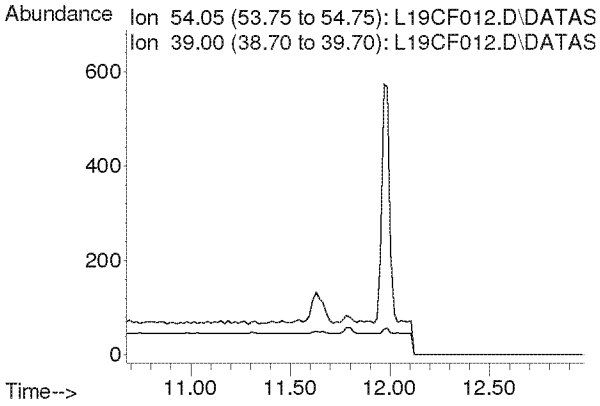


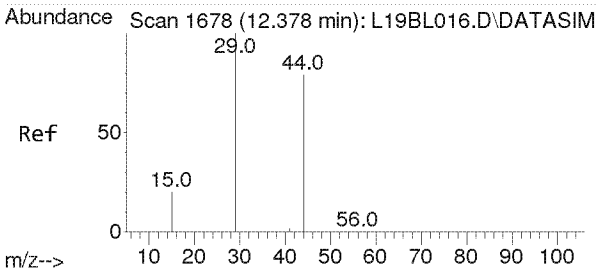
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

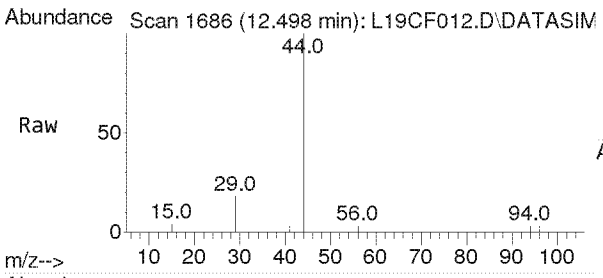


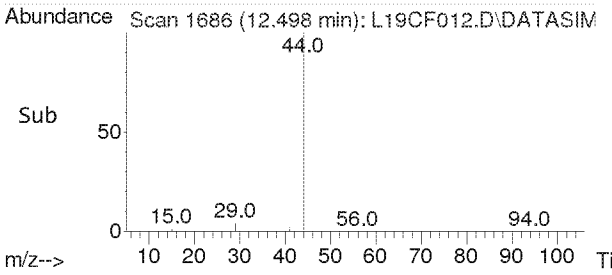


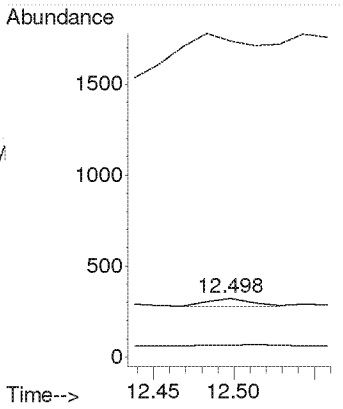
#9
Ethylene oxide
Concen: 0.033 ppbv m
RT: 12.498 min Scan# 1686
Delta R.T. 0.048 min
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 29 Resp: 86

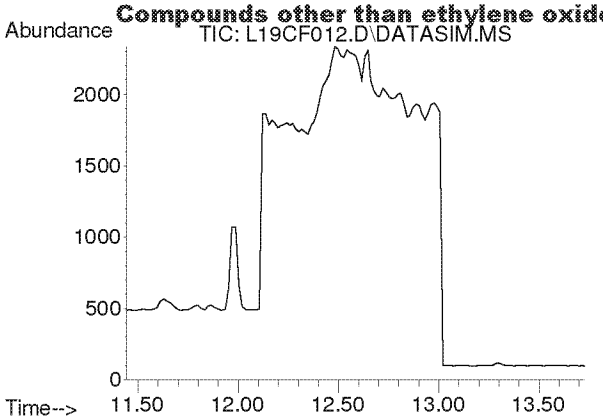
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.0	24.0#
44	6634.9	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

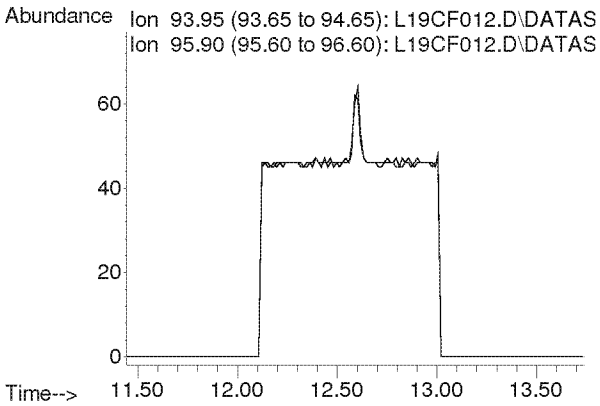


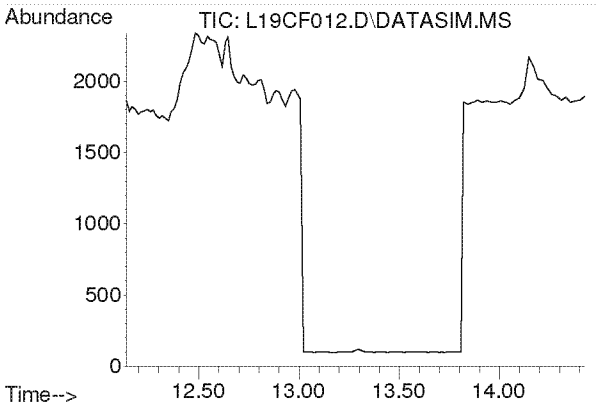
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



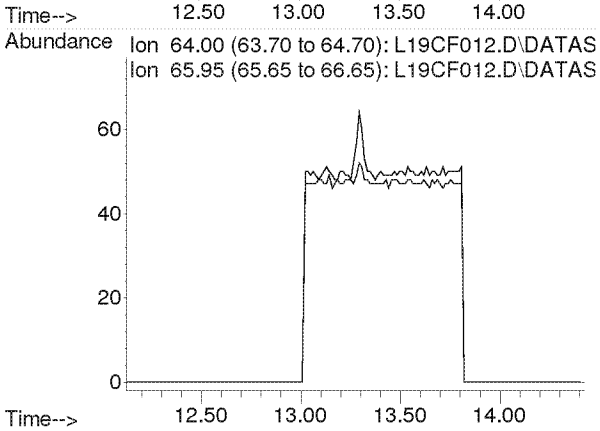


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

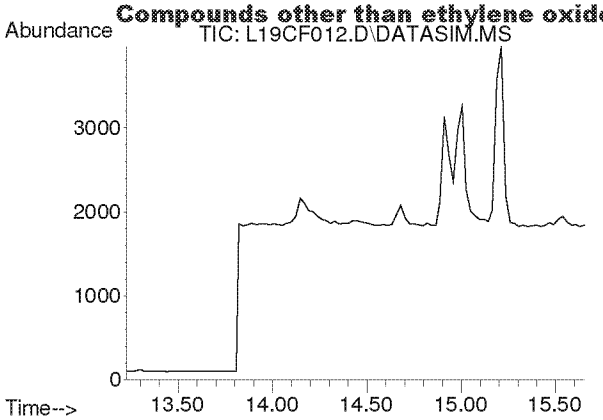
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

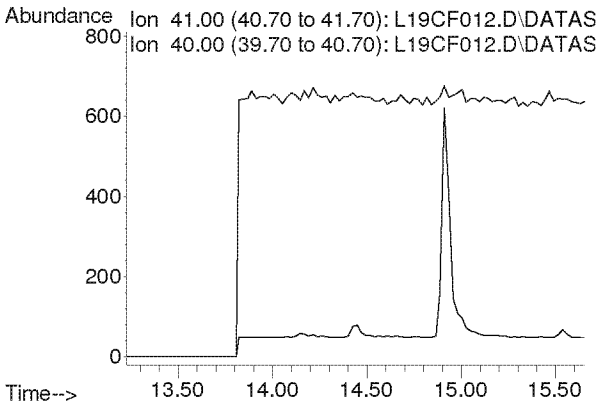


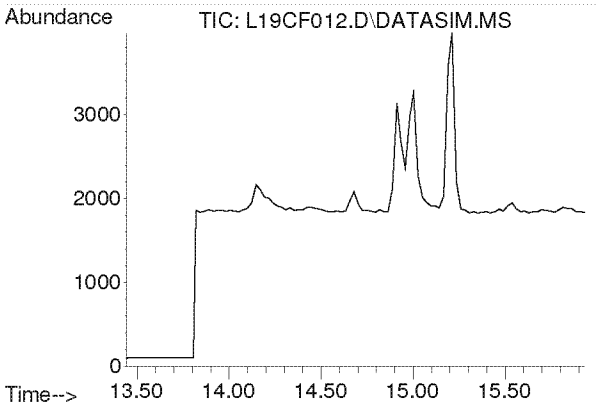
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



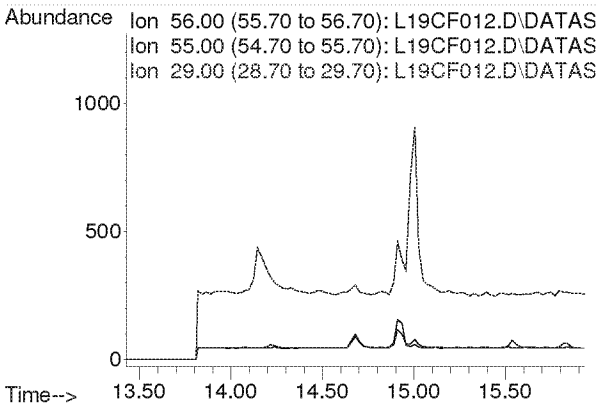


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

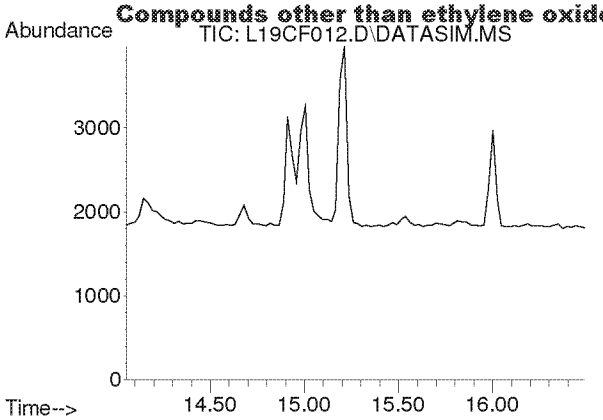
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

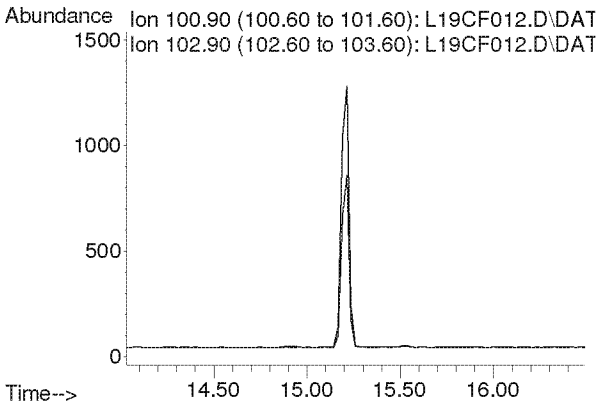


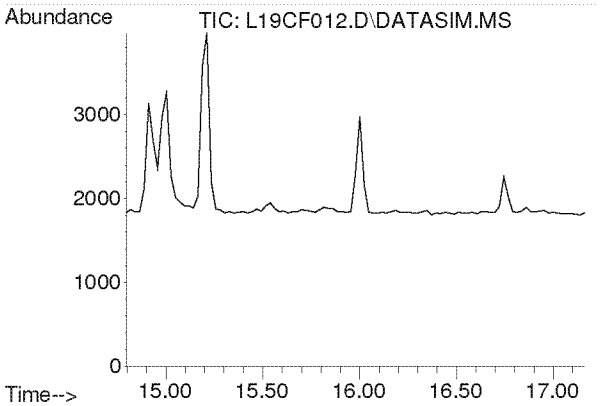
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



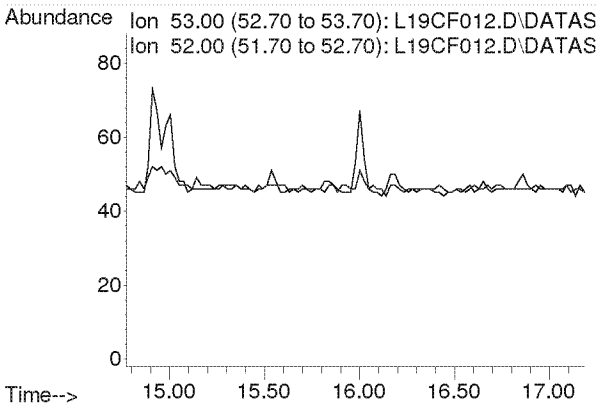


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

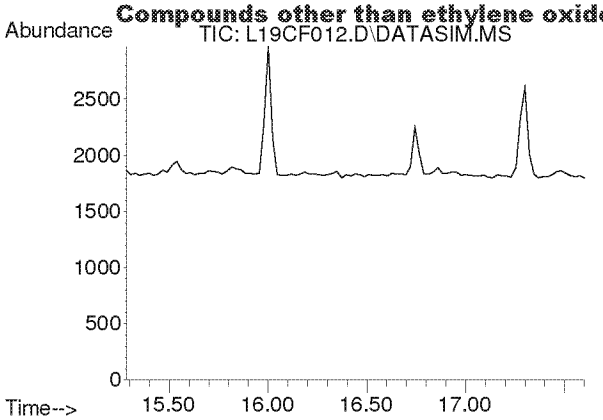
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

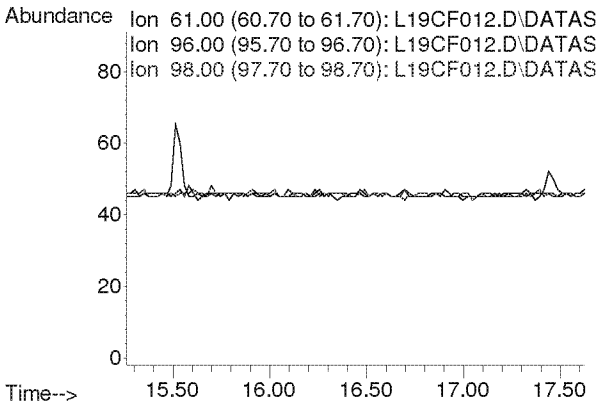


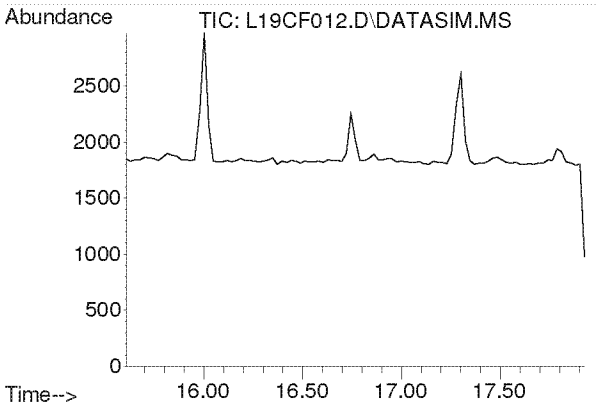
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



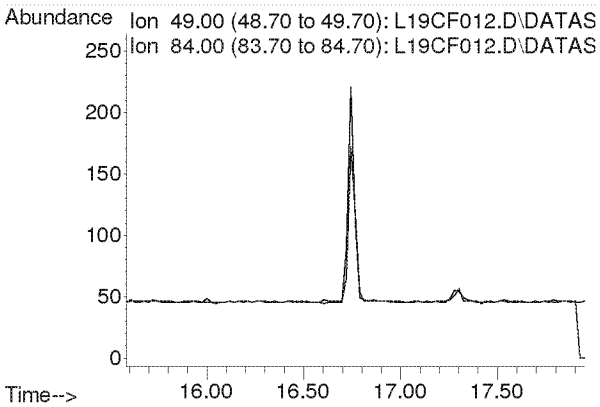


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

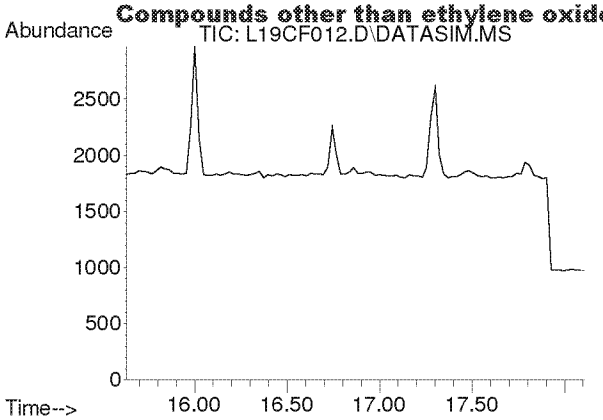
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

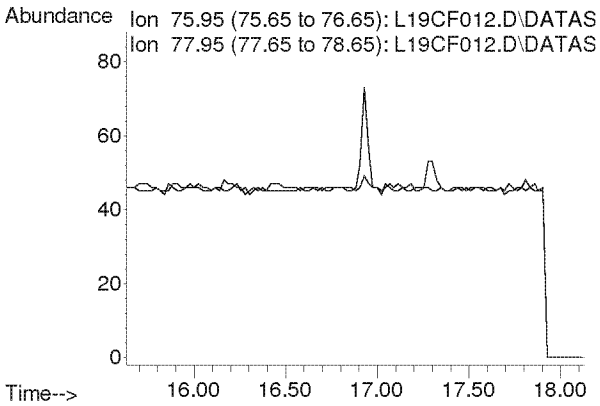


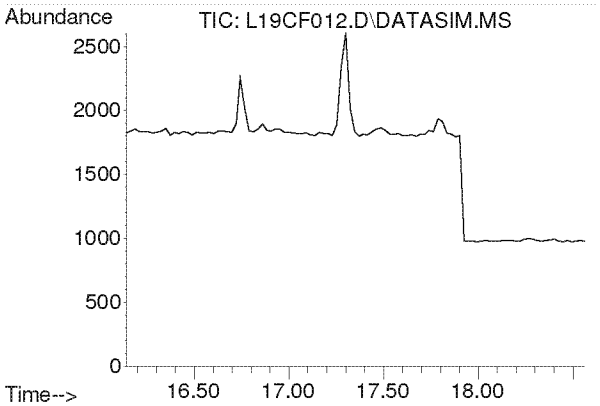
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



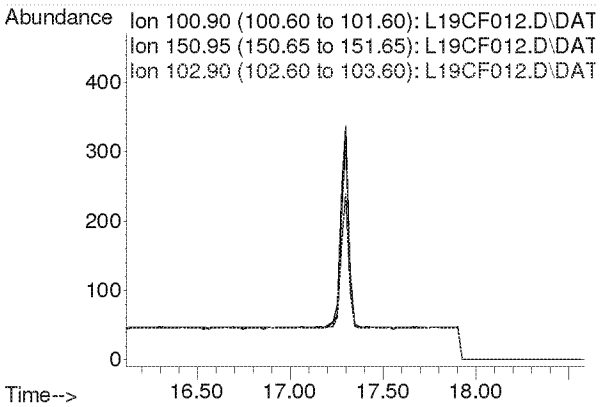


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

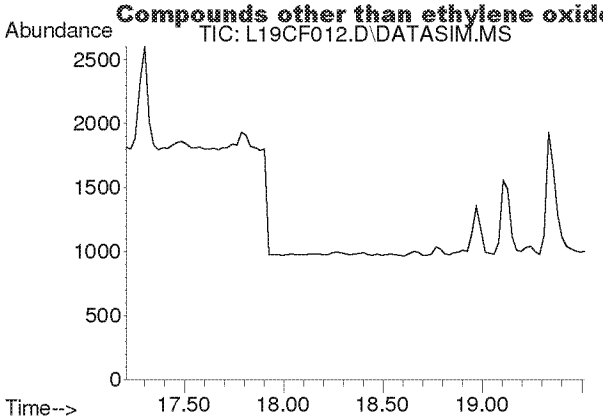
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

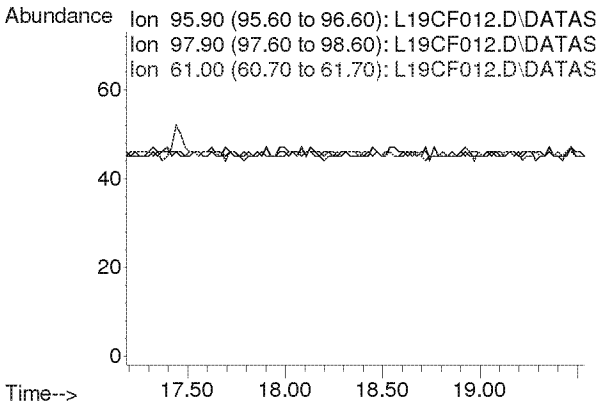


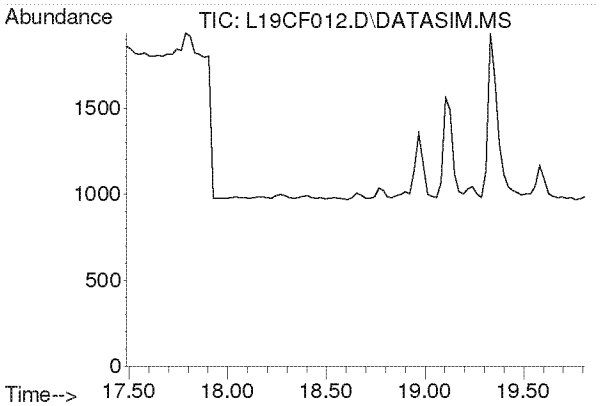
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



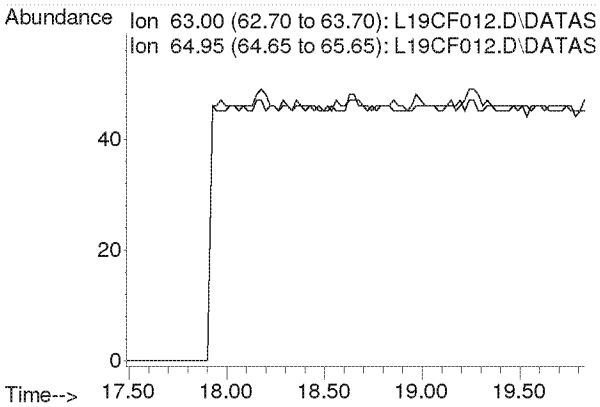


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

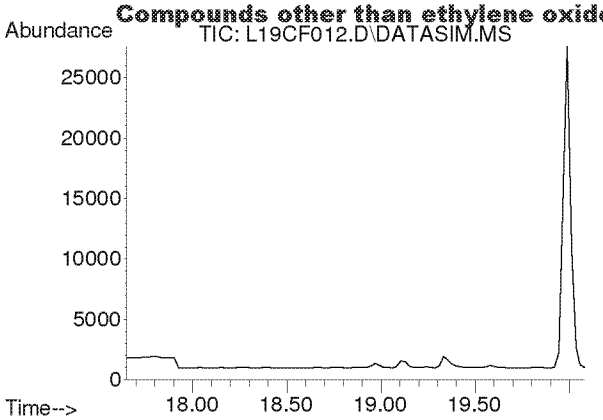
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

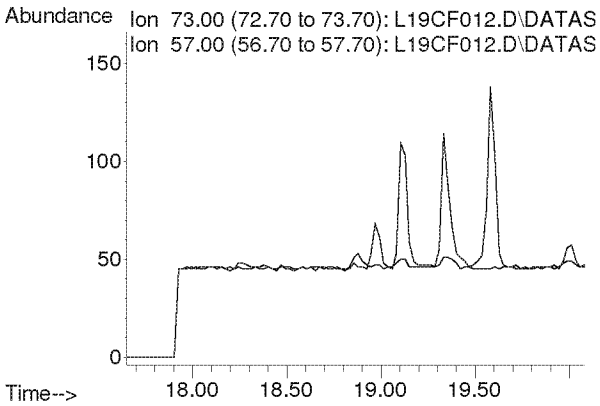


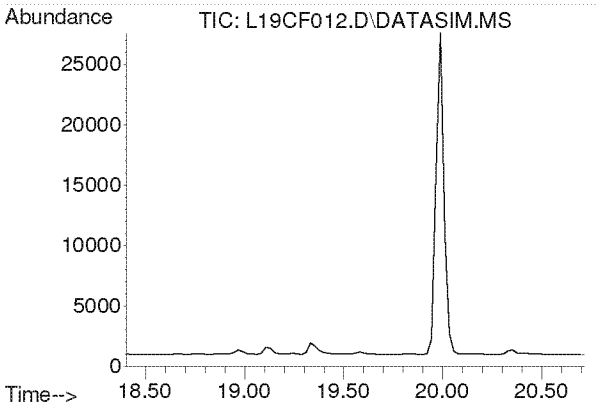
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



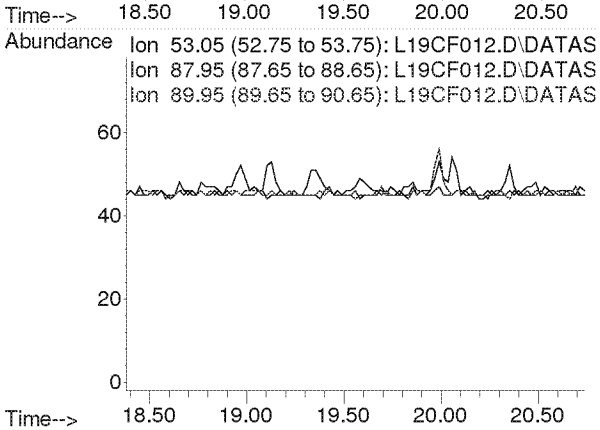


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

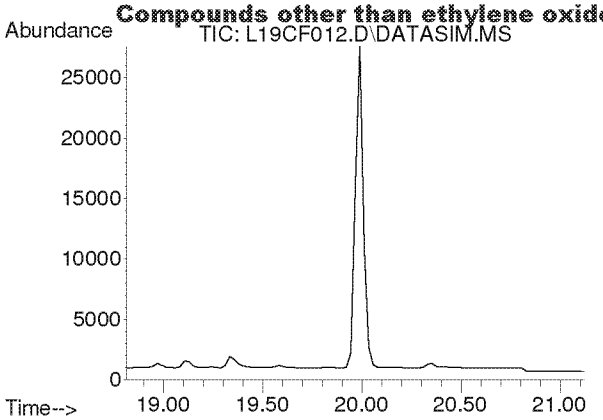
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

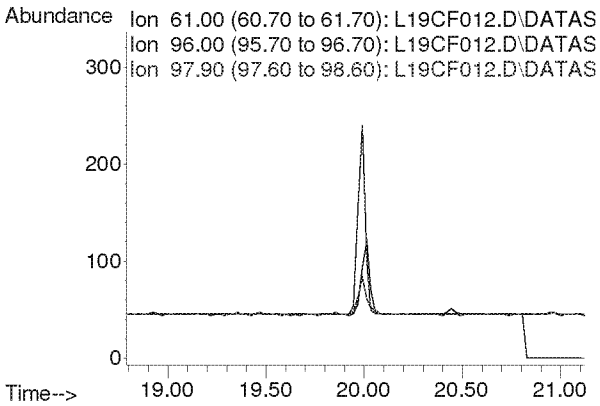


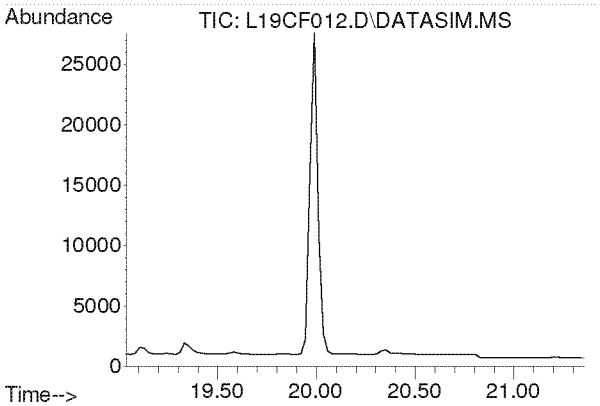
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



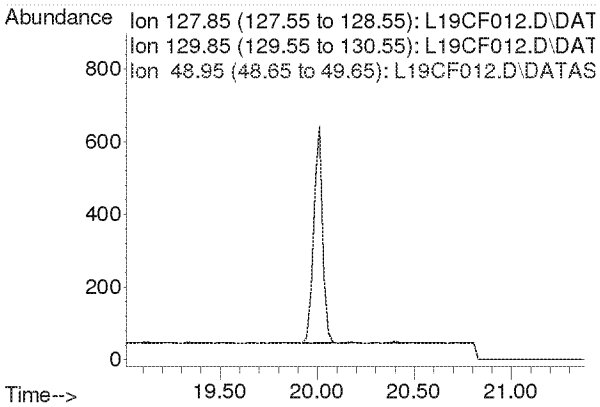


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

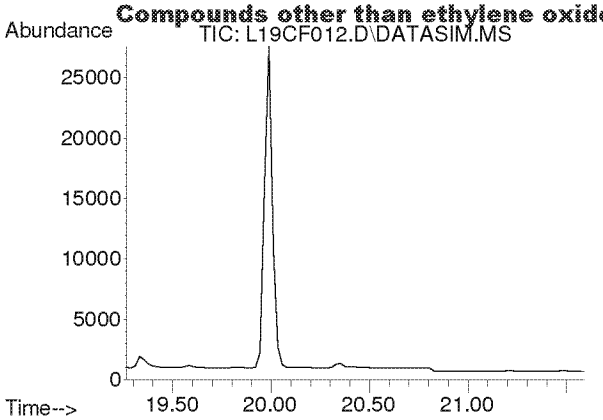
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

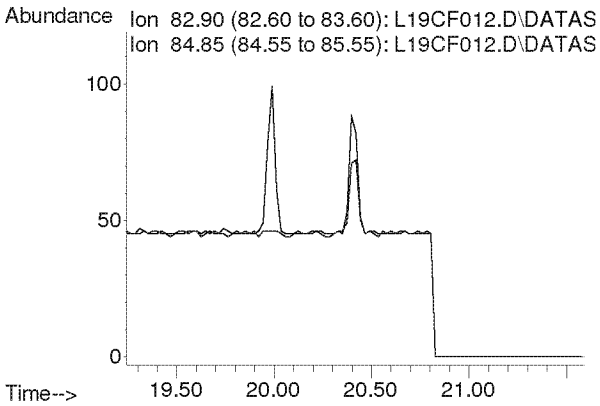


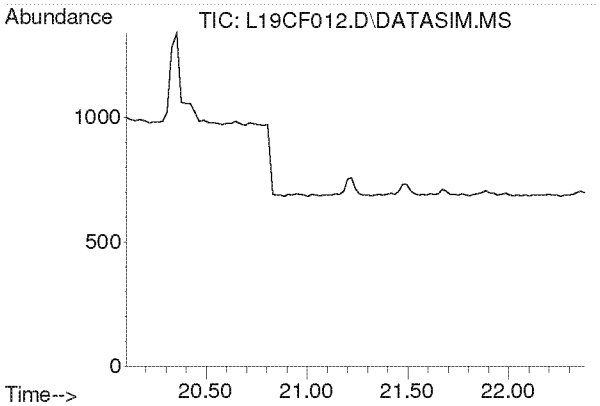
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



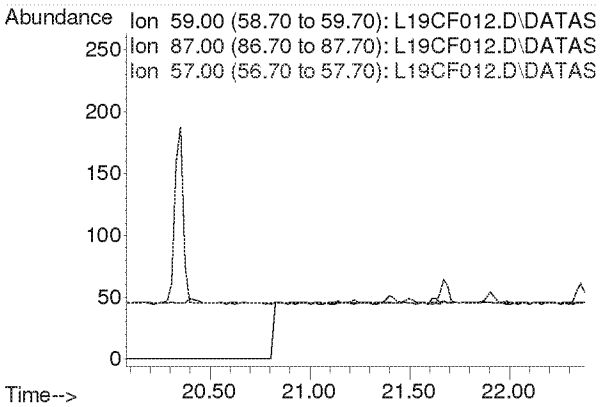


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

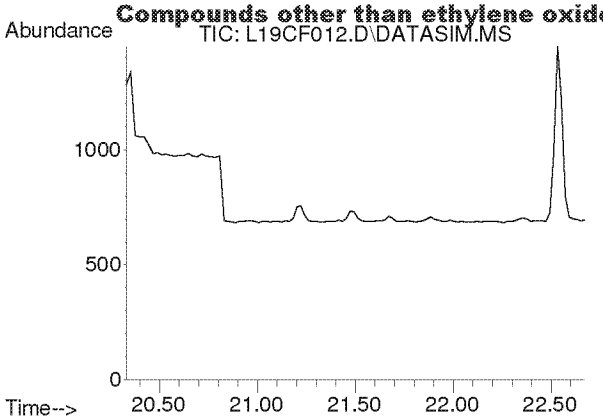
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

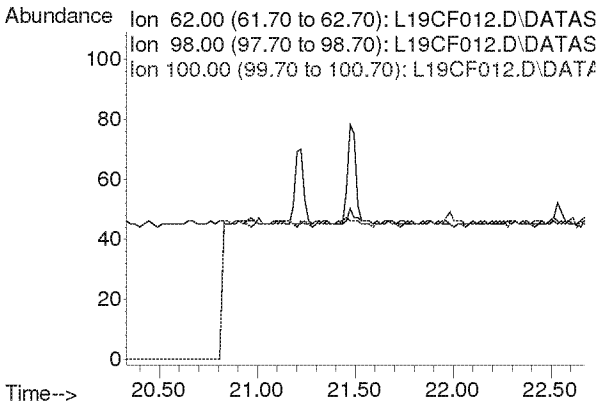


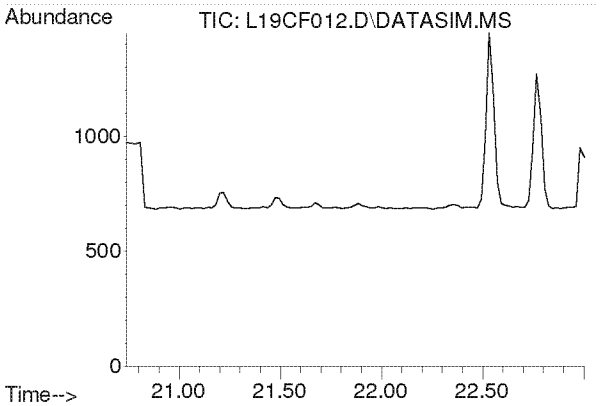
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



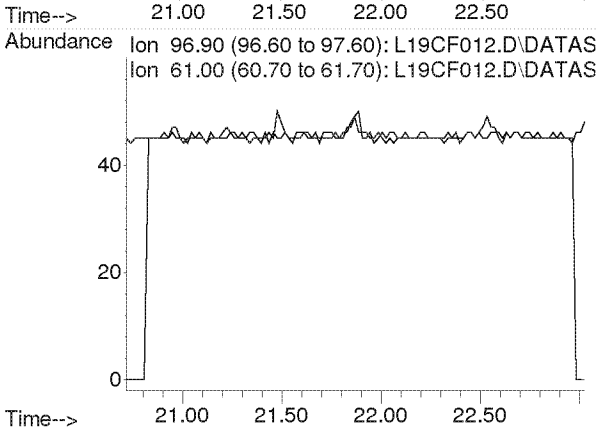


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

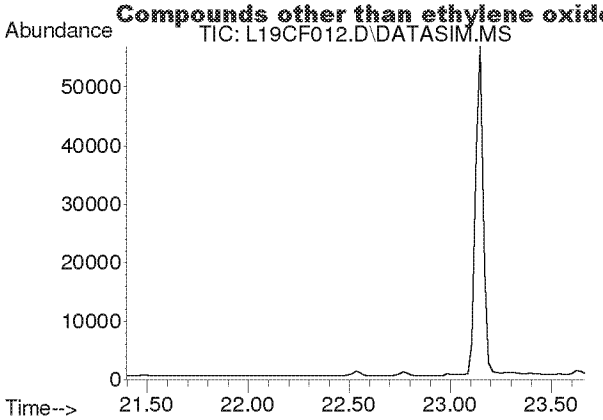
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

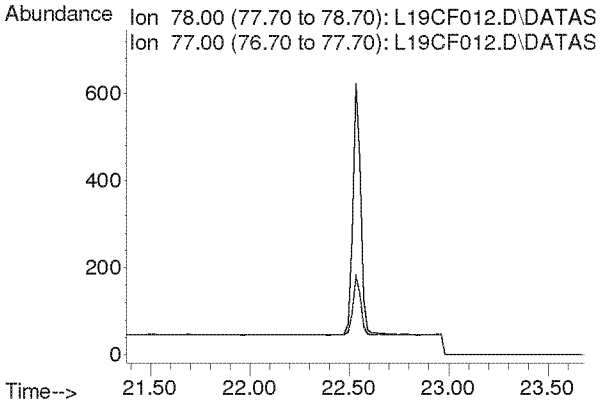


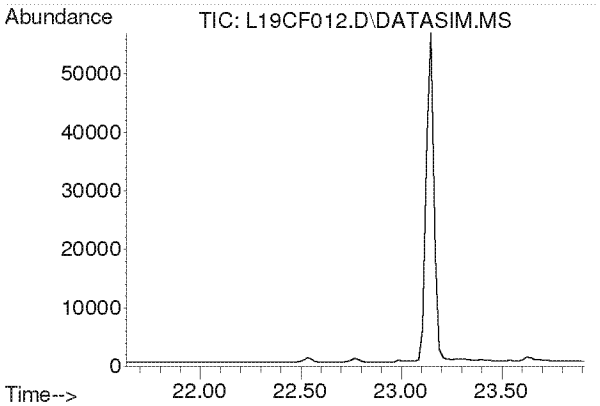
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



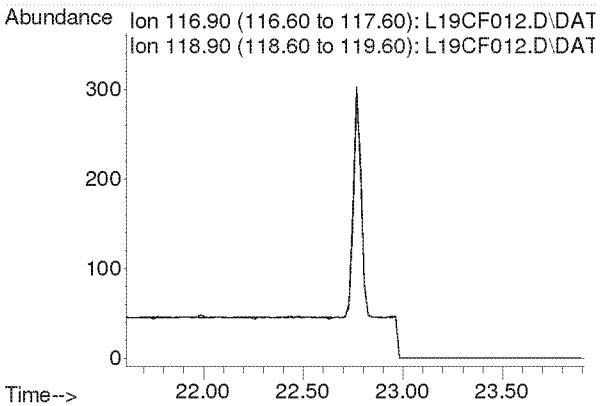


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

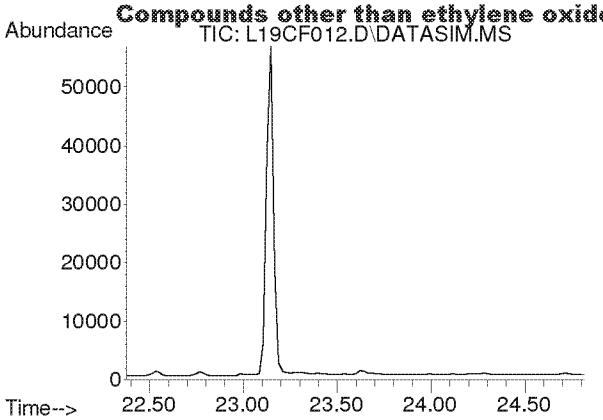
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

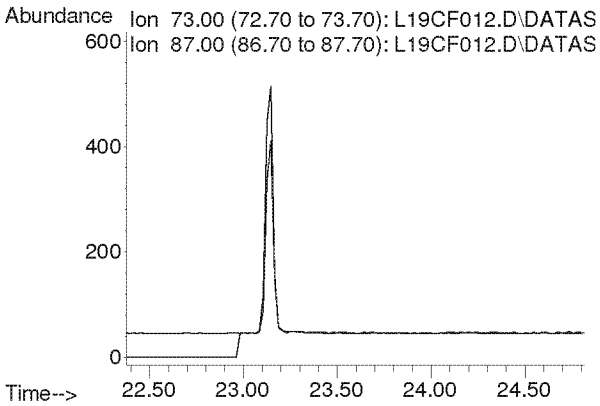


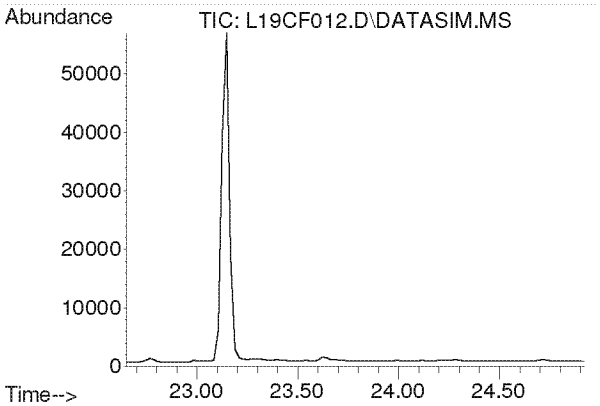
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



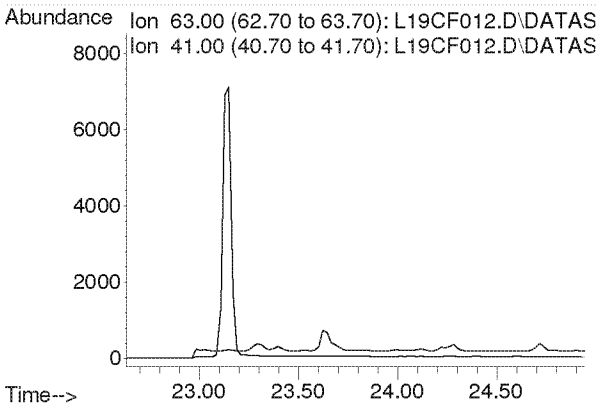


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

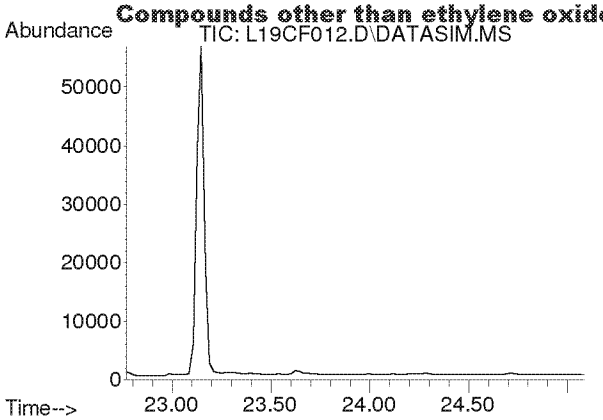
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

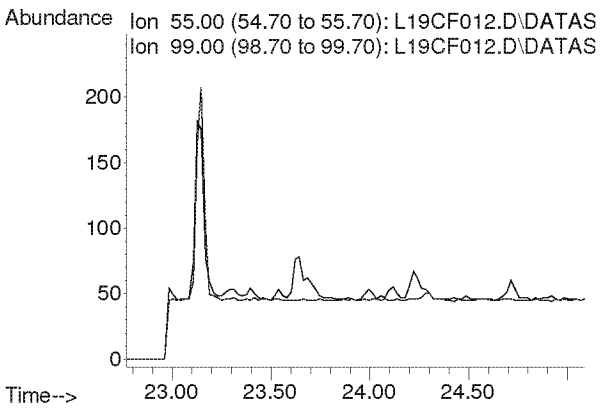


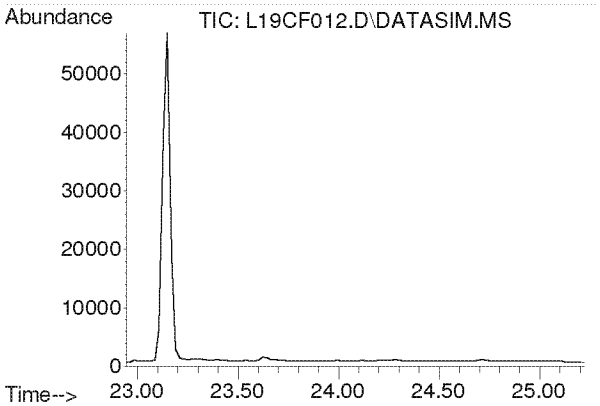
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



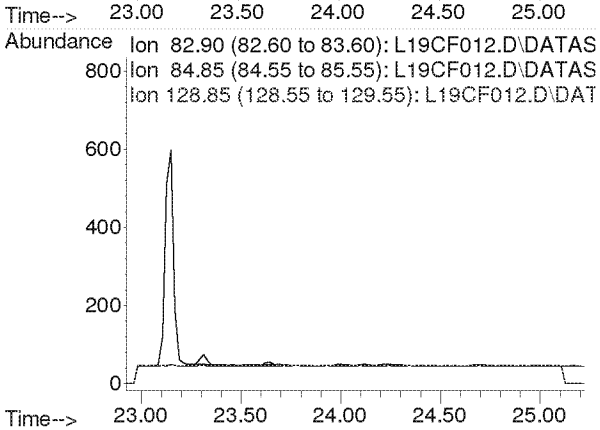


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

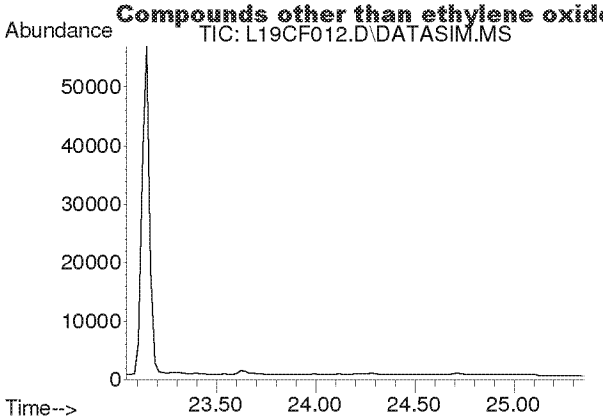
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

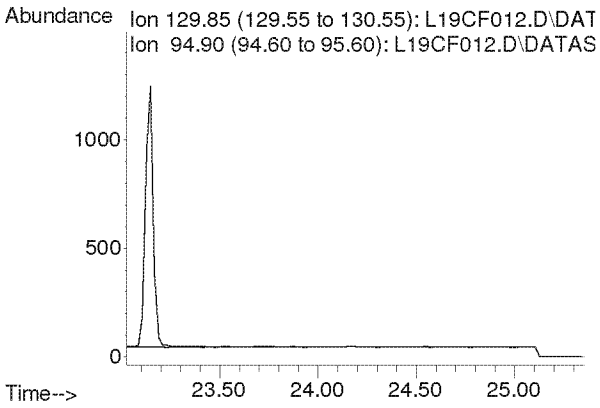


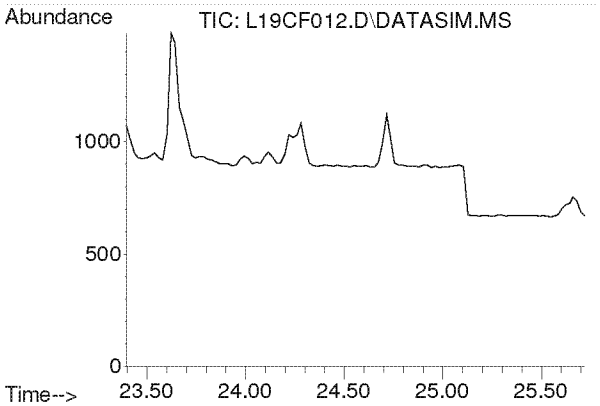
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



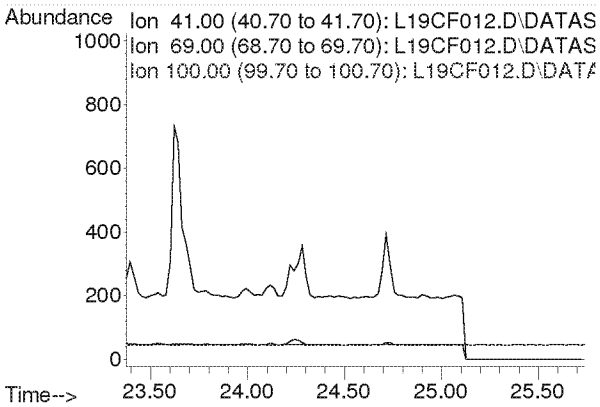


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

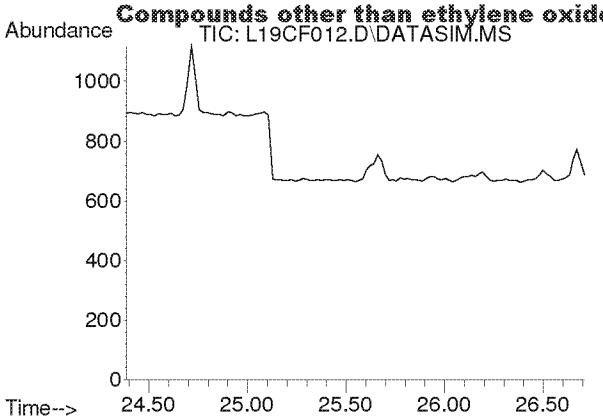
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

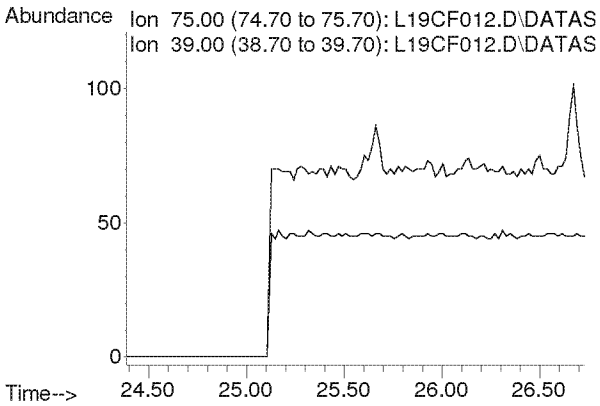


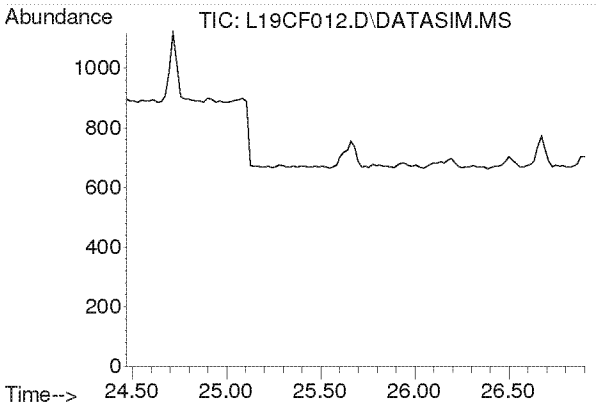
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



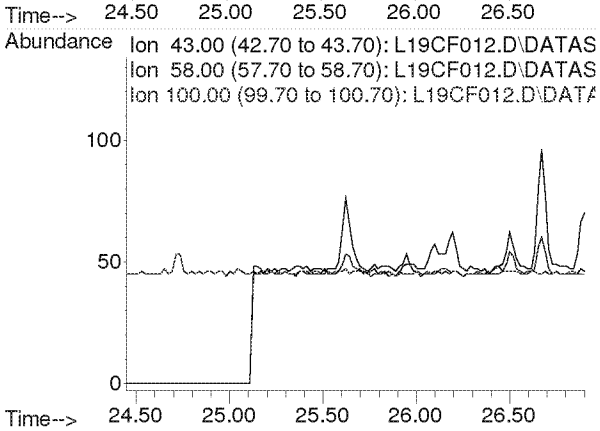


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

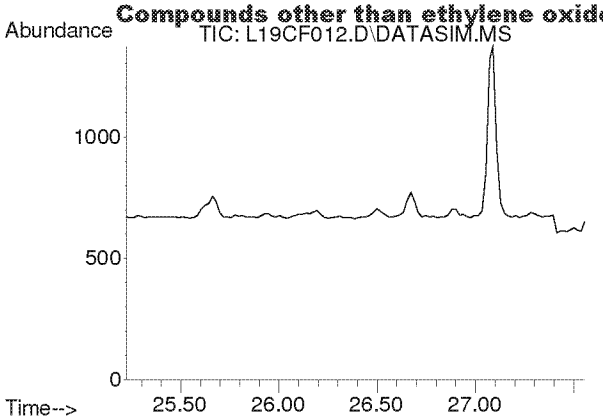
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

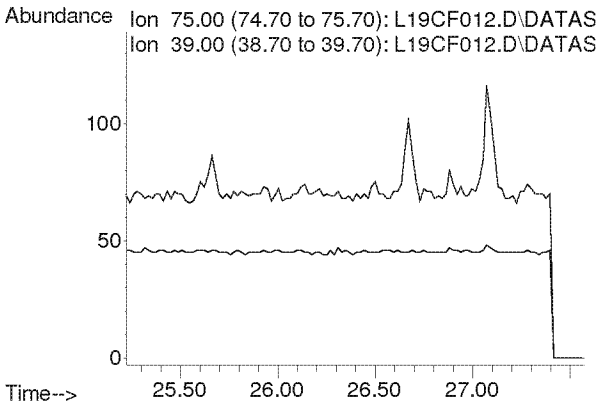


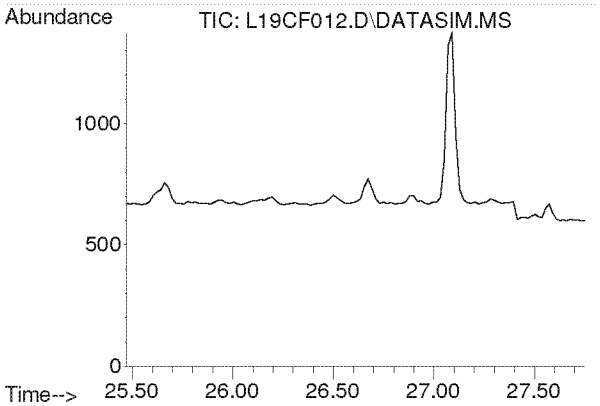
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



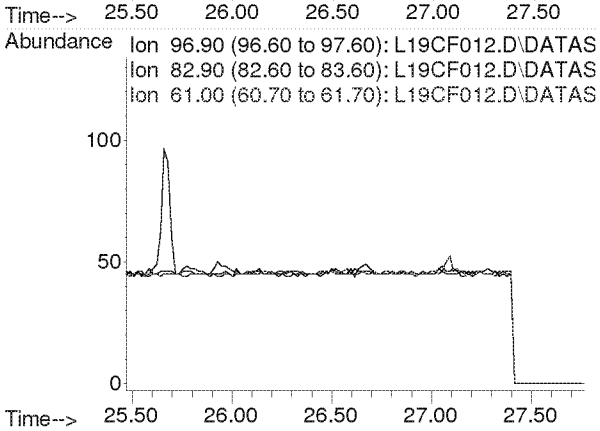


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

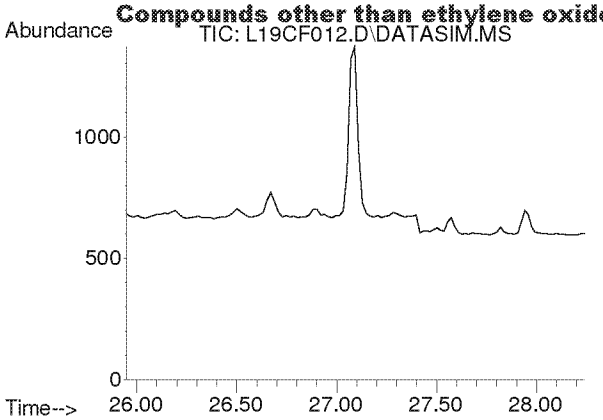
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

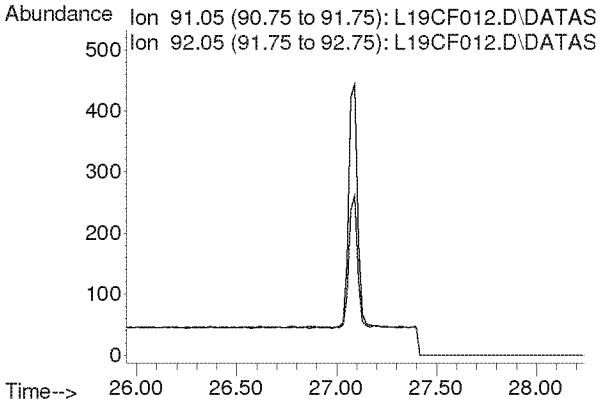


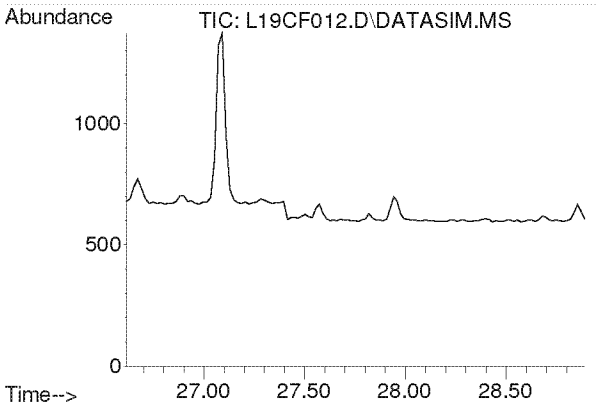
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



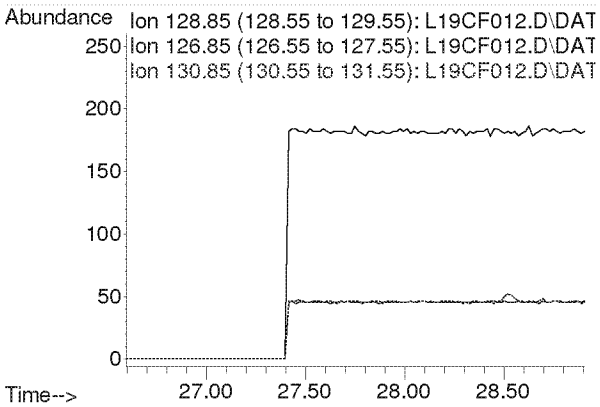


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

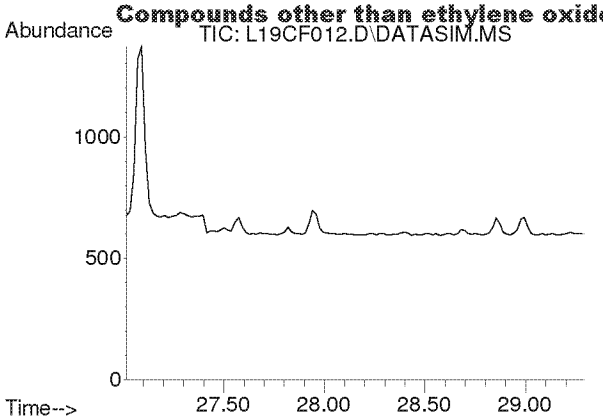
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

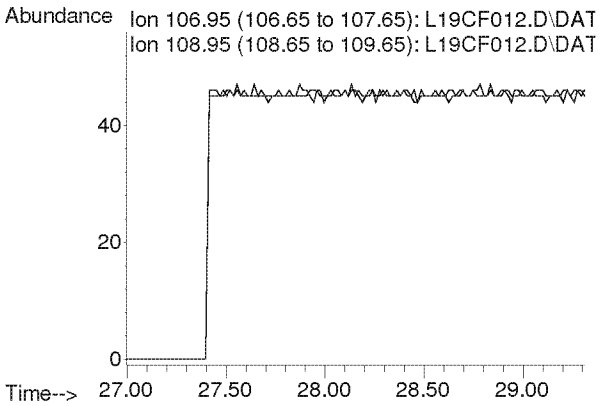


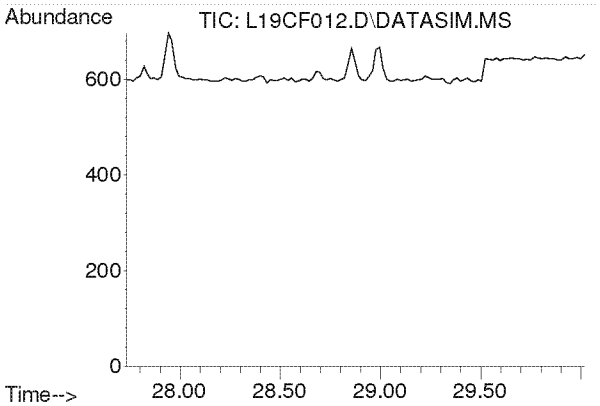
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



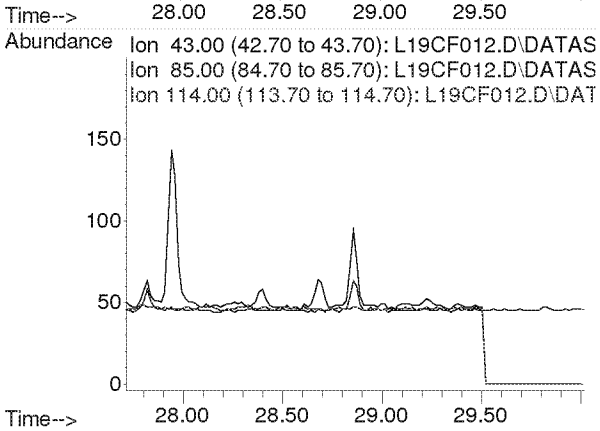


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

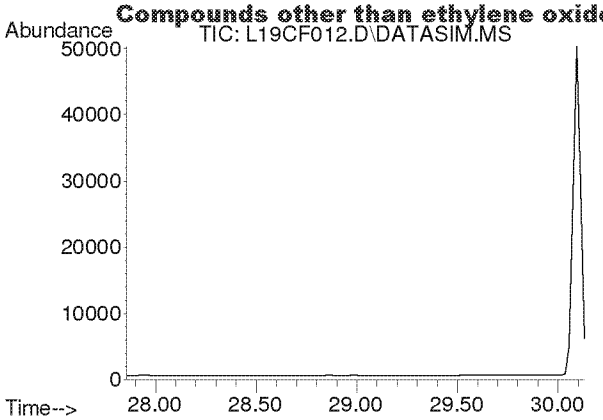
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

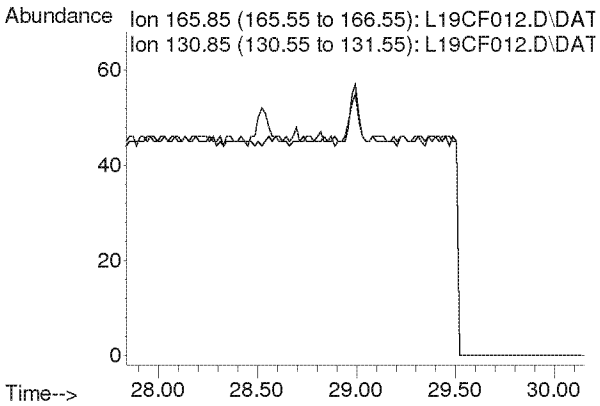


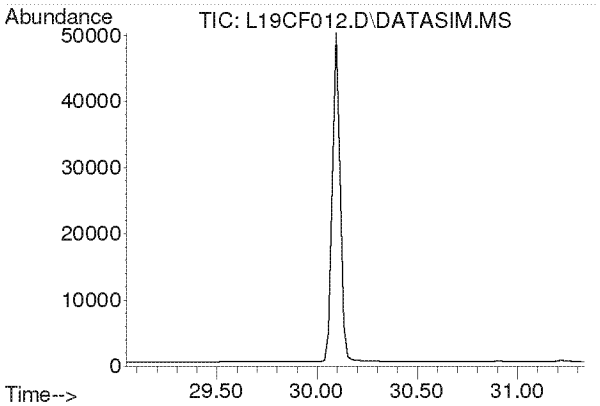
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



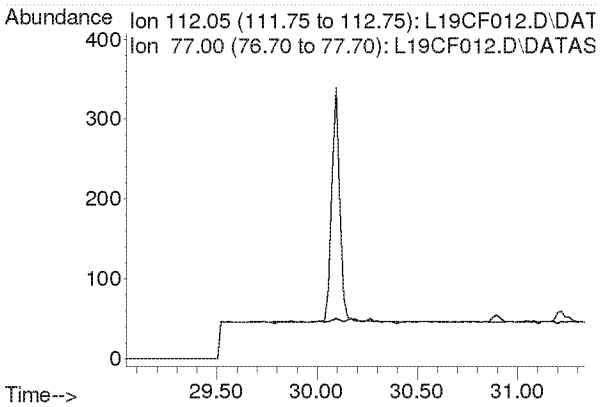


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

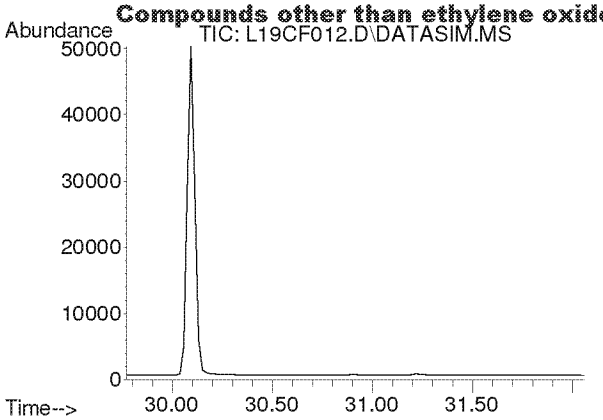
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

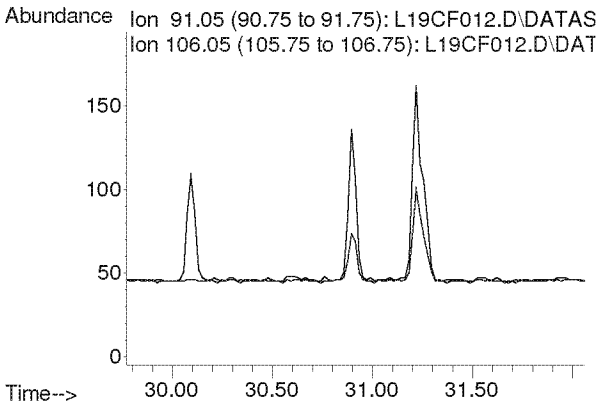


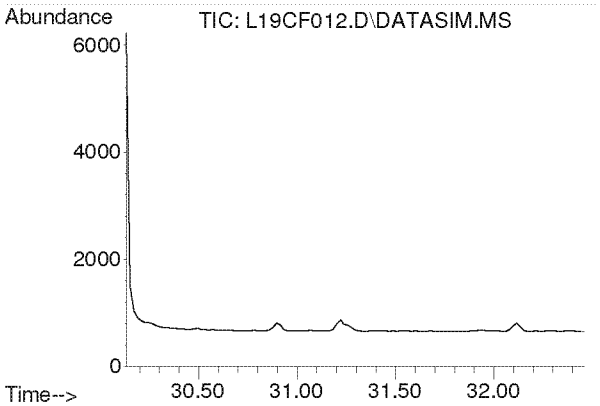
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



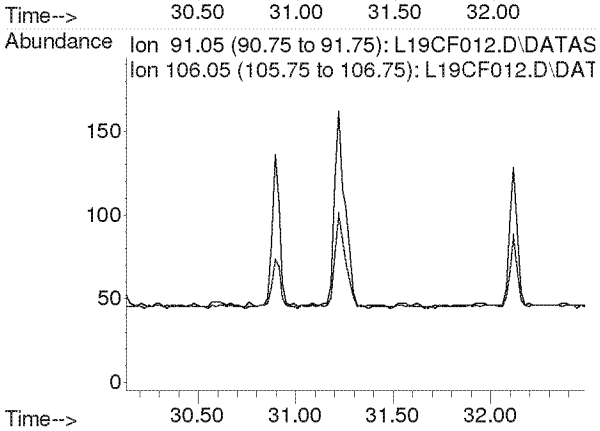


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

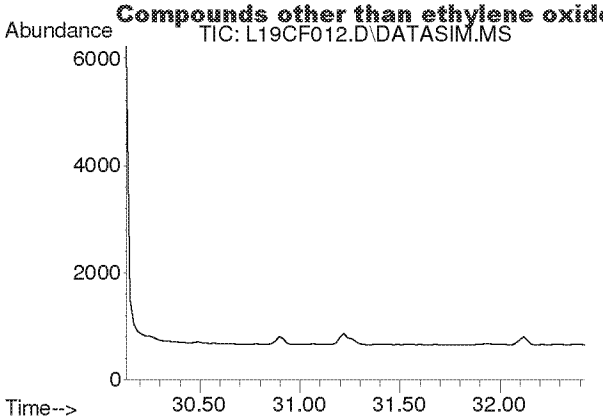
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

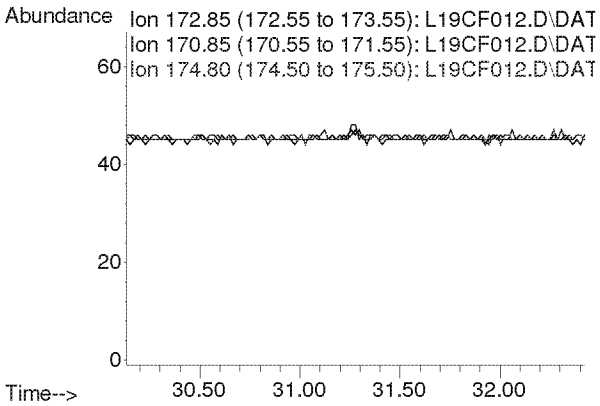


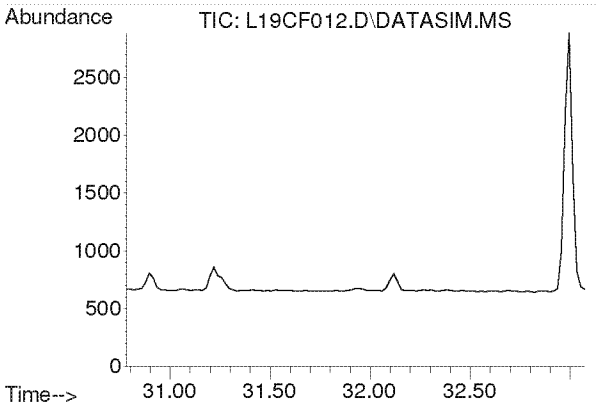
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



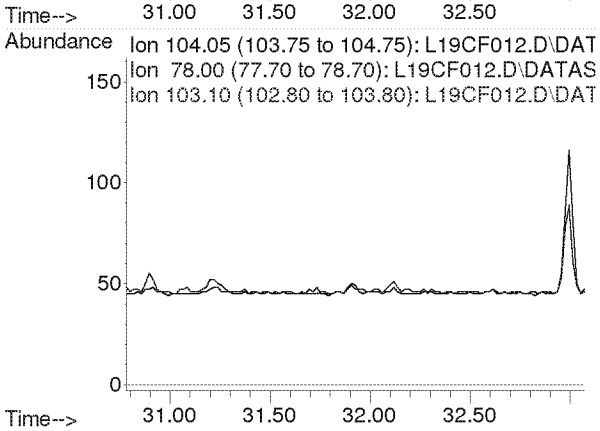


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

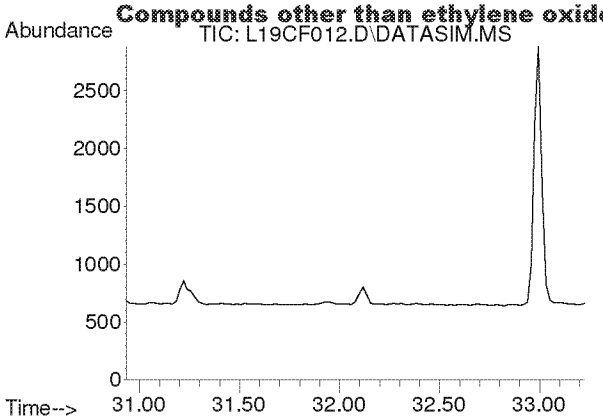
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

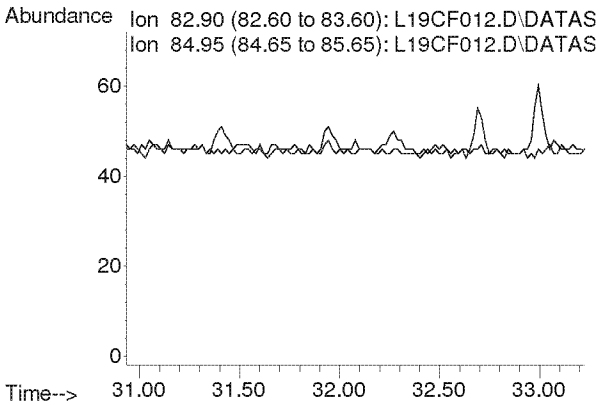


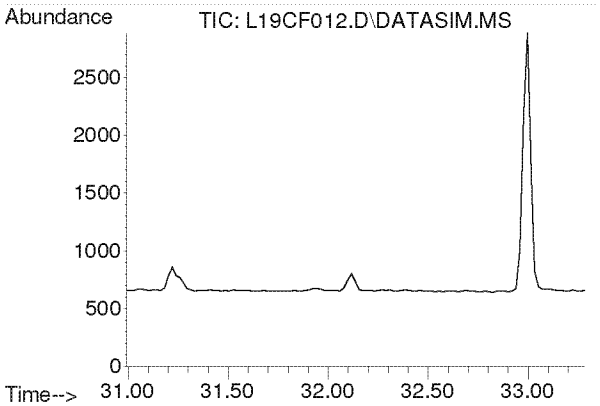
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



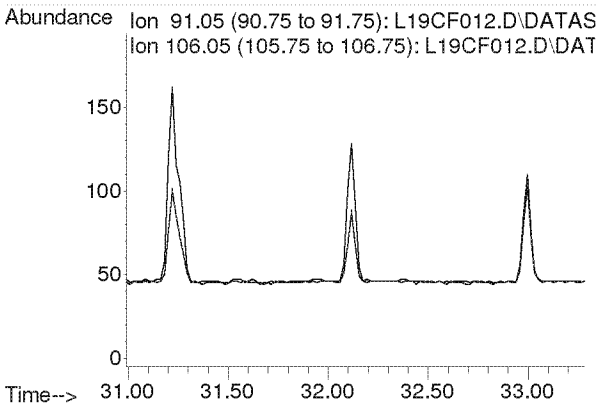


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

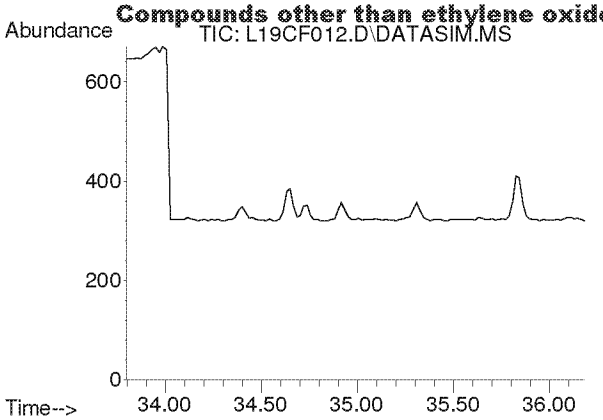
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

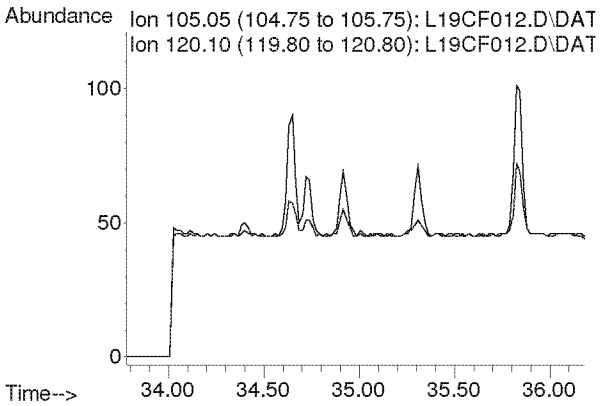


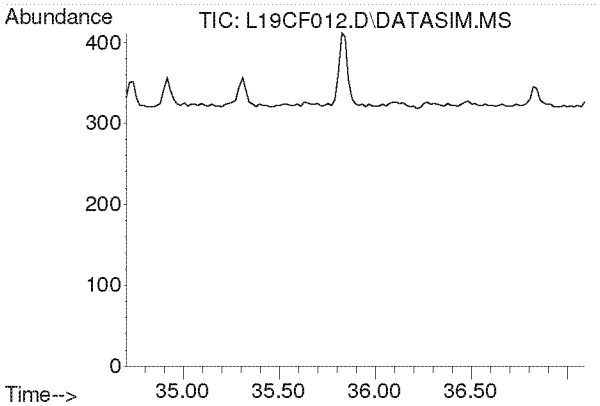
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



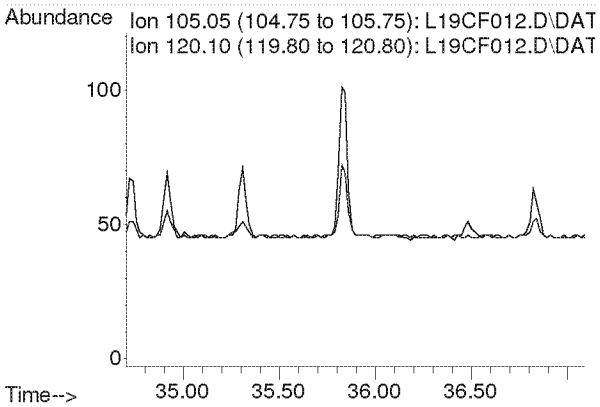


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

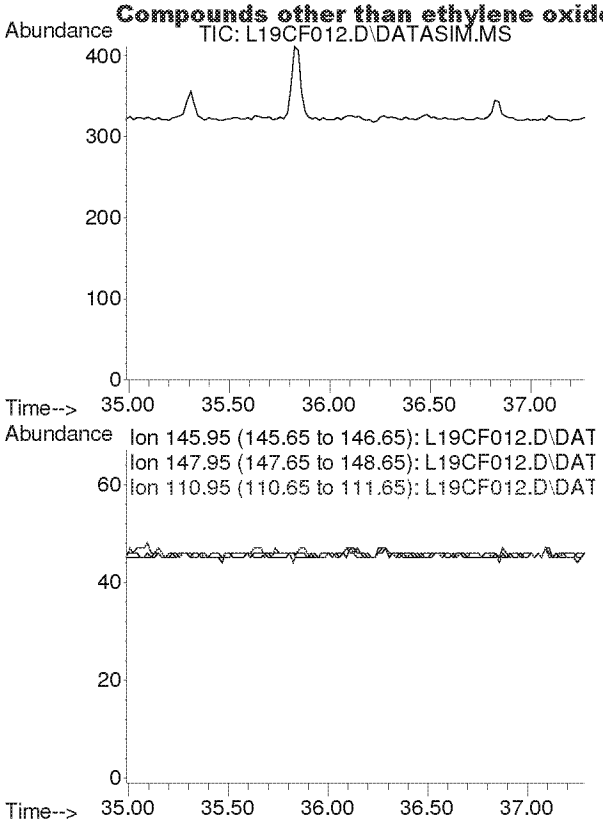
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

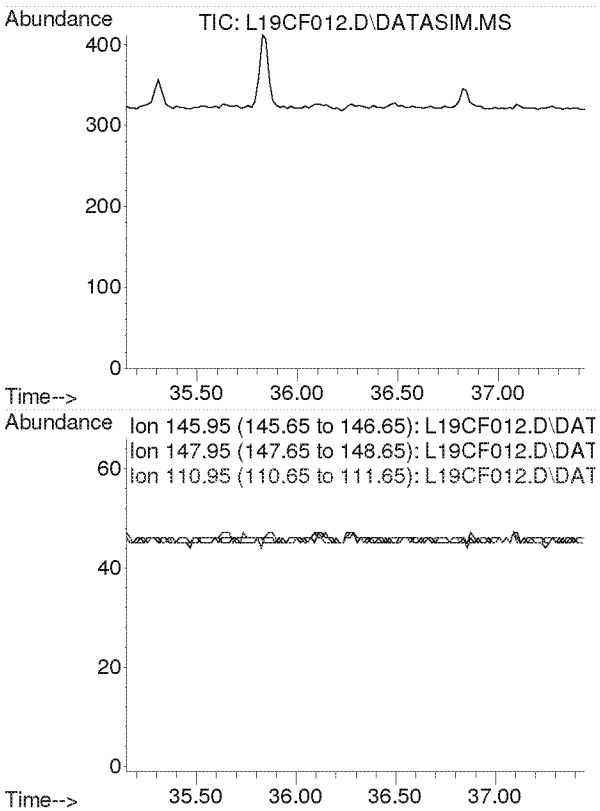


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



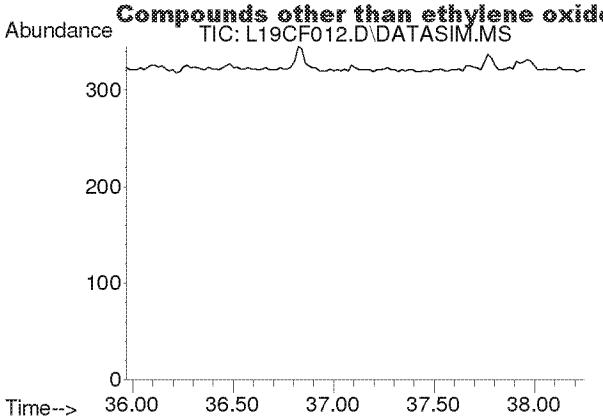
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

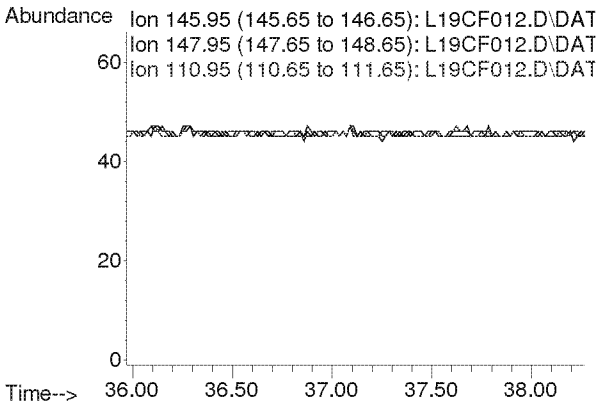


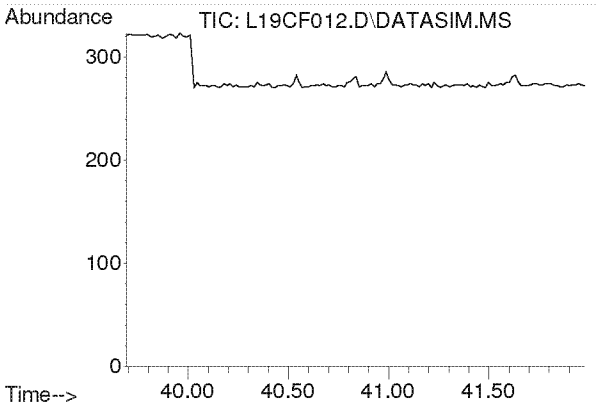
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



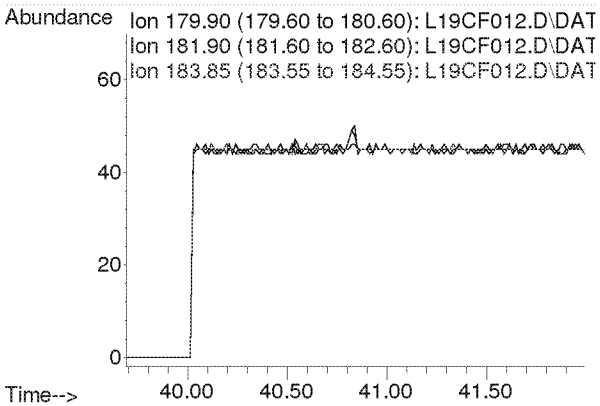


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

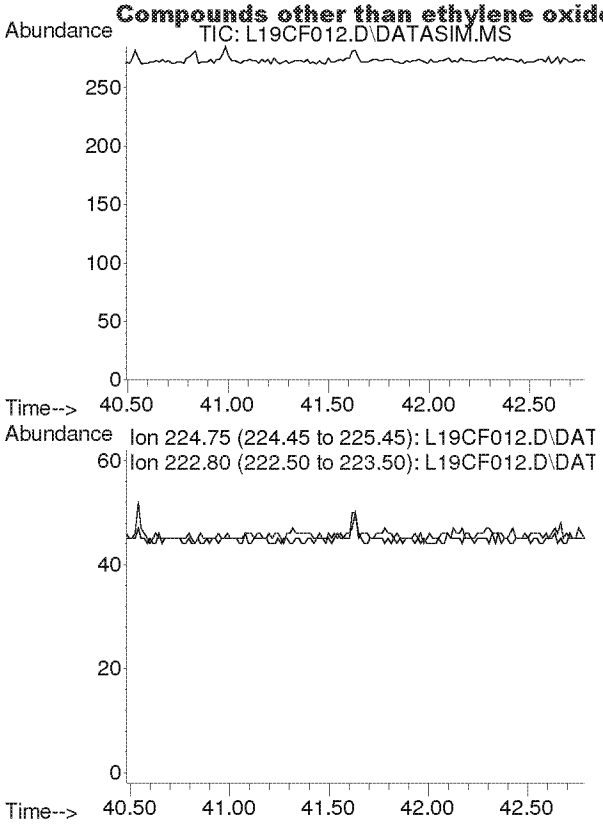
Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CF012.D
Acq: 7 Mar 2019 12:33 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\L19CF\
Data File : L19CF013.D
Acq On : 7 Mar 2019 1:33 am (#1); 07-Mar-19, 01:28:17 (#2)
Operator : MAH
Sample : 9030618-06
Misc : GOWER MS 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 07 06:36:47 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

EPA only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	46725	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	121721	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	85475	4.7400 ppbv	-0.02

System Monitoring Compounds

Target Compounds					Qvalue
2) Acetylene	0.000	26	0	N.D. d	
3) Propylene	0.000	41	0	N.D. d	
4) Dichlorodifluoromethane	0.000	85	0	N.D. d	
5) Chloromethane	0.000	50	0	N.D. d	
6) Dichlorotetrafluoroethane	0.000	85	0	N.D. d	
7) Vinyl Chloride	0.000	62	0	N.D.	
8) 1,3-Butadiene	0.000	54	0	N.D. d	
9) Ethylene oxide	0.000	29	0	N.D. d 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.	
36) Bromodichloromethane	0.000	83	0	N.D.	
37) Trichloroethylene	0.000	130	0	N.D.	
38) Methyl Methacrylate	0.000	41	0	N.D. d	
39) cis-1,3-Dichloropropene	0.000	75	0	N.D.	
40) Methyl Isobutyl Ketone	0.000	43	0	N.D. d	
41) trans-1,3-Dichloropropene	0.000	75	0	N.D.	
42) 1,1,2-Trichloroethane	0.000	97	0	N.D.	
44) Toluene	0.000	91	0	N.D. d	
45) Dibromochloromethane	0.000	129	0	N.D.	
46) 1,2-Dibromoethane	0.000	107	0	N.D.	
47) n-Octane	0.000	43	0	N.D. d	
48) Tetrachloroethylene	0.000	166	0	N.D. d	
49) Chlorobenzene	0.000	112	0	N.D.	
50) Ethylbenzene	0.000	91	0	N.D. d	

Compounds other than ethylene oxide were not quantitated.

Quantification Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CF\
Data File : L19CF013.D
Acq On : 7 Mar 2019 1:33 am (#1); 07-Mar-19, 01:28:17 (#2)
Operator : MAH
Sample : 9030618-06
Misc : GOWER MS 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 07 06:36:47 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 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.	
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.	

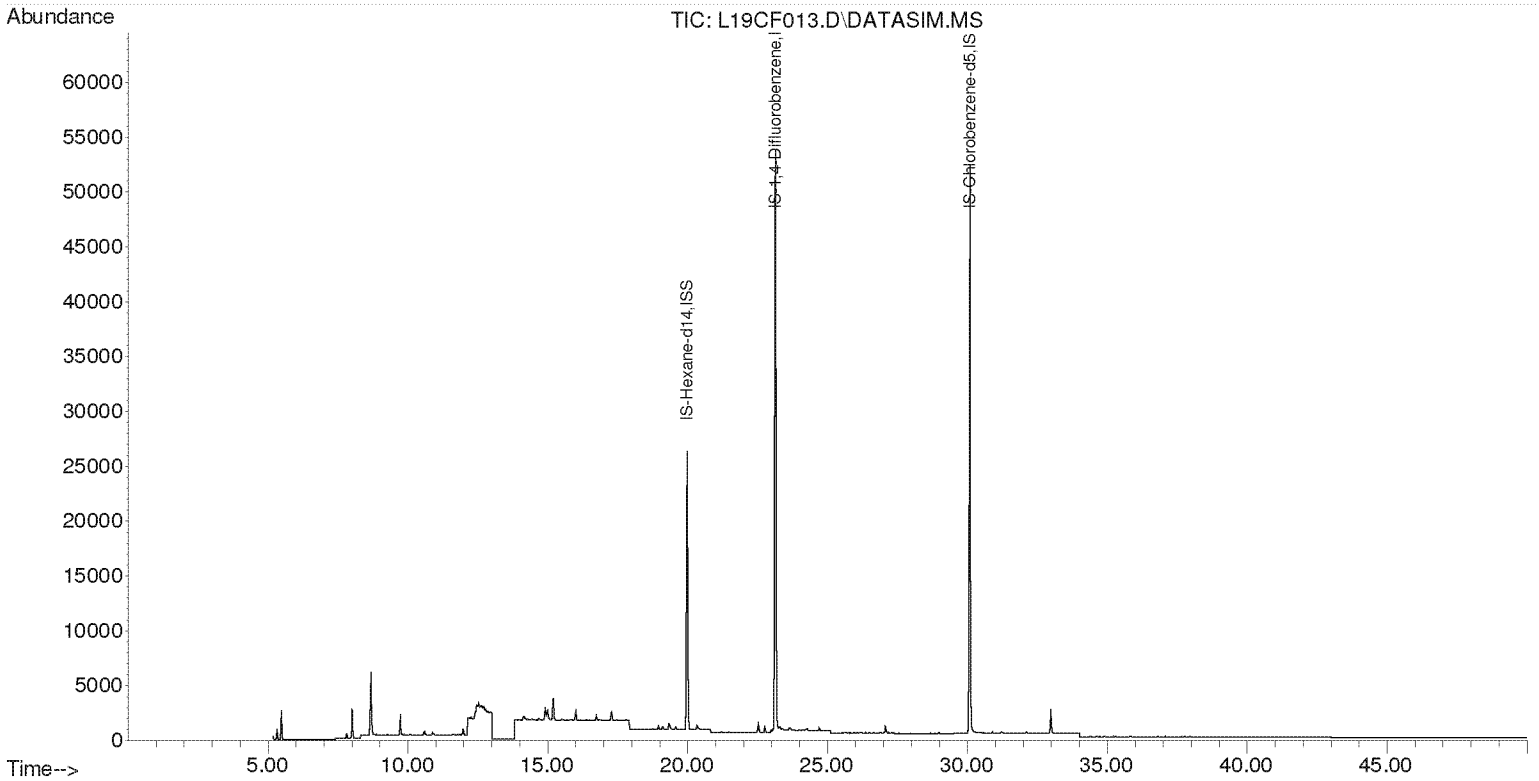
(#) = qualifier out of range (m) = manual integration (+) = signals summed

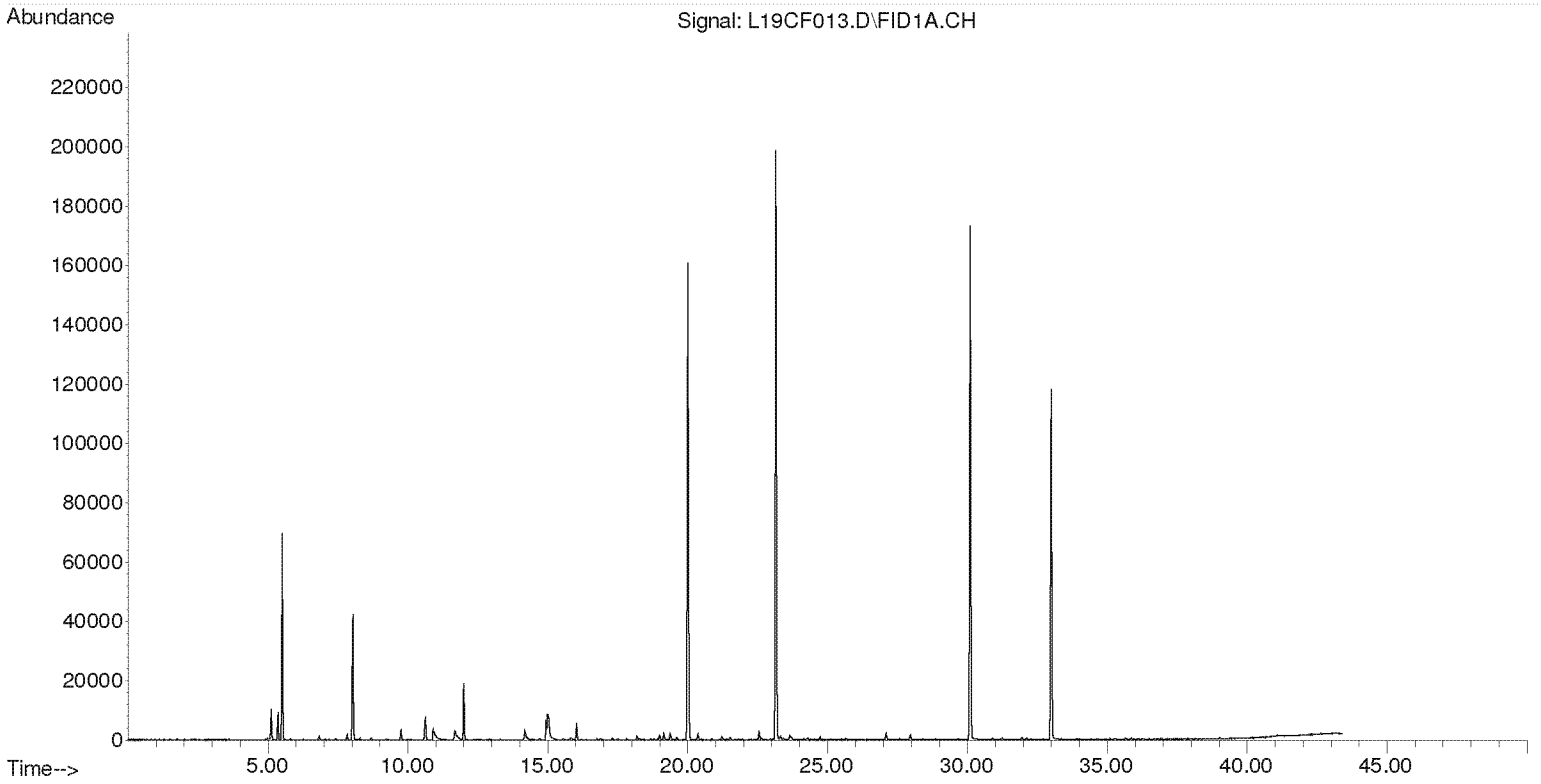
ED_002475_00000356-00350

Compounds other than ethylene oxide were not quantitated.

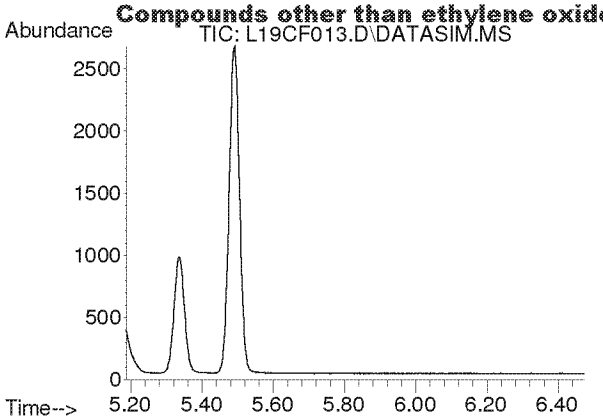
Data Path : Y:\MASS SPEC 1 DATA\L19CF\
Data File : L19CF013.D
Acq On : 7 Mar 2019 1:33 am (#1); 07 Mar 2019 1:28 am (#2)
Operator : MAH
Sample : 9030618-06
Misc : GOWER MS 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Mar 07 06:24:43 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





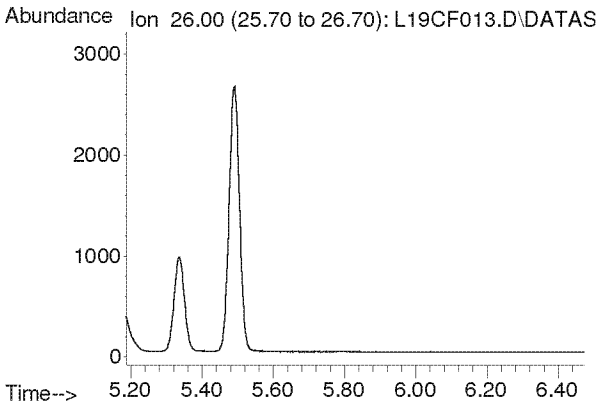
Compounds other than ethylene oxide were not quantitated.

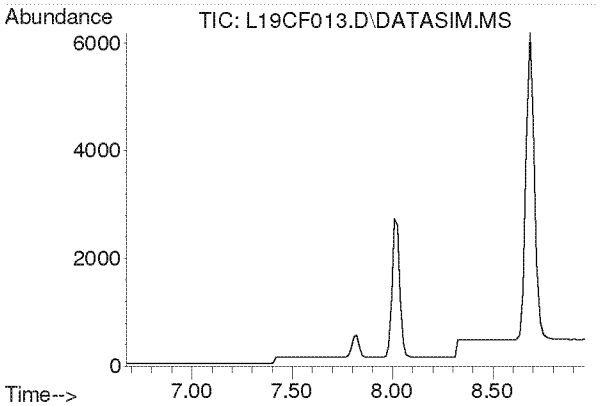


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 26



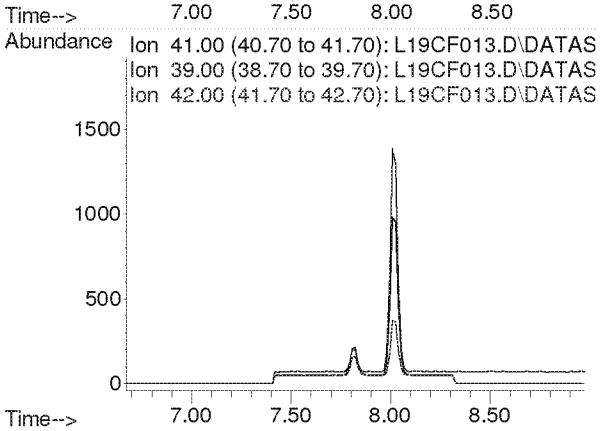


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

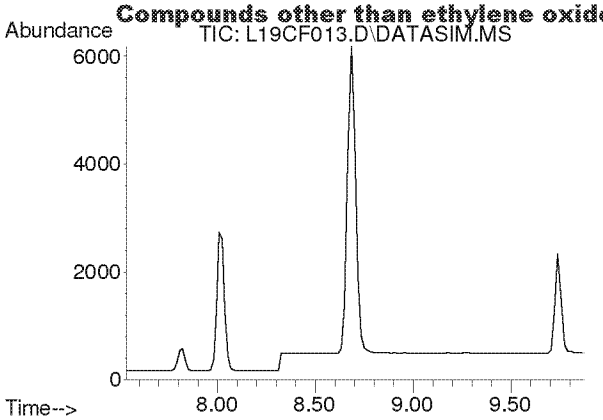
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

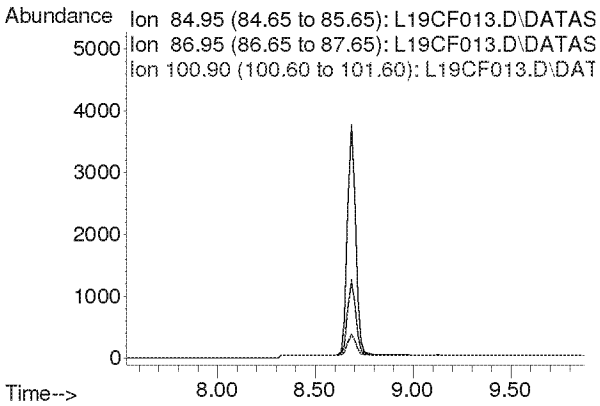


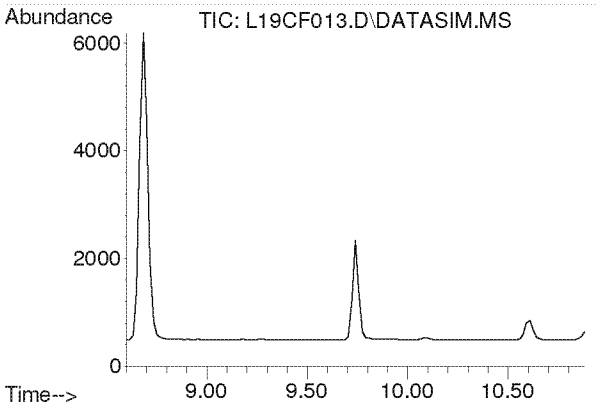
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



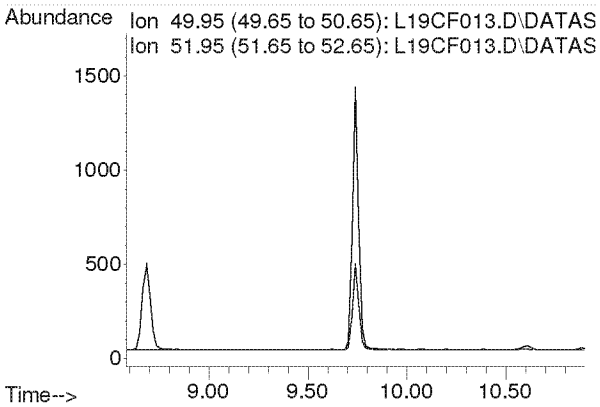


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

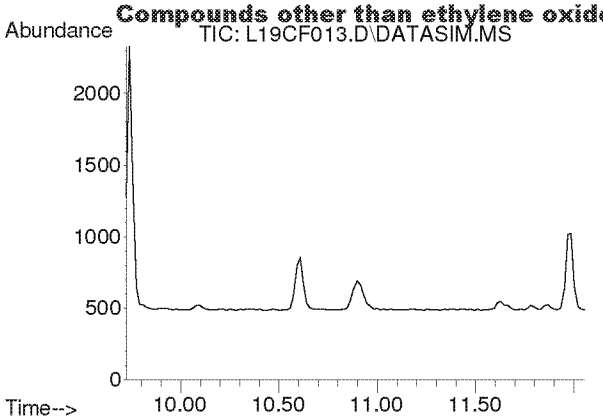
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

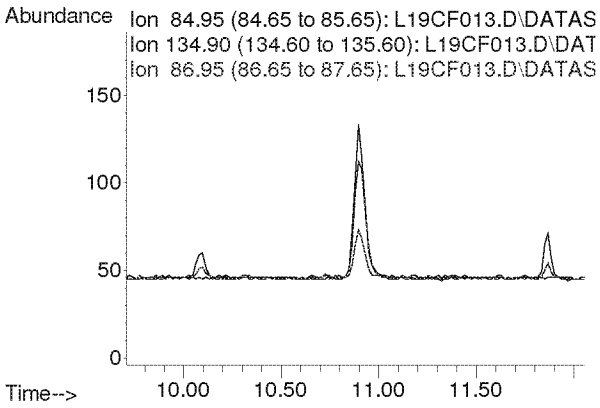


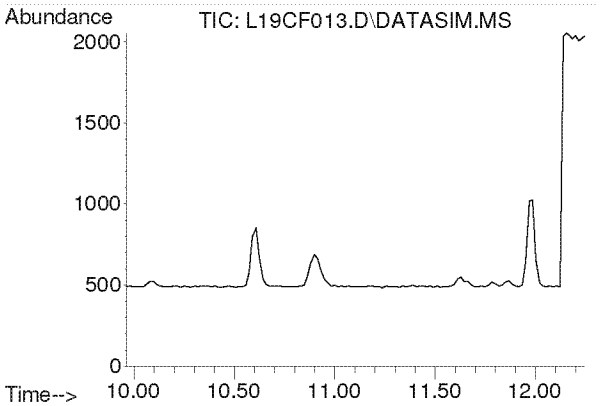
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



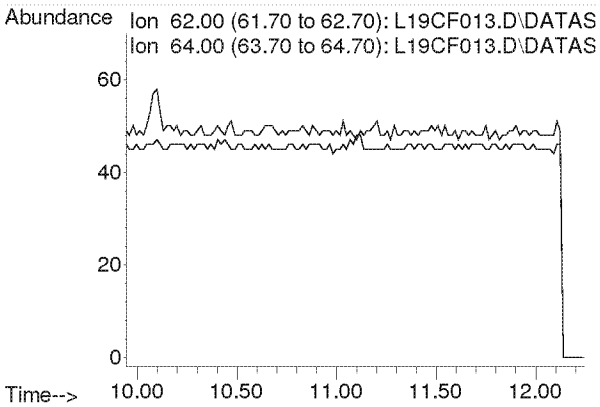


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

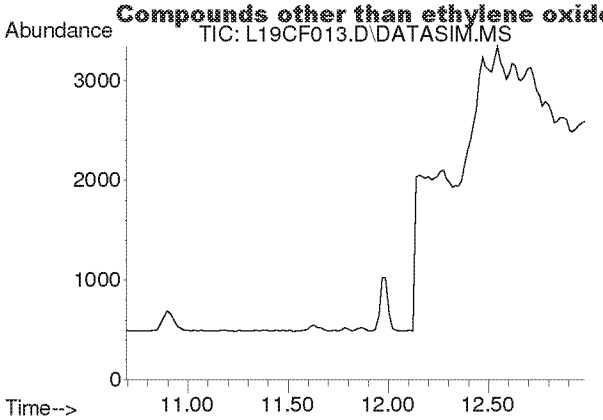
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

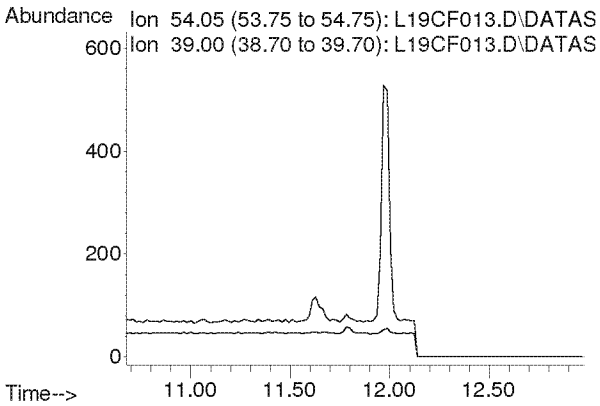


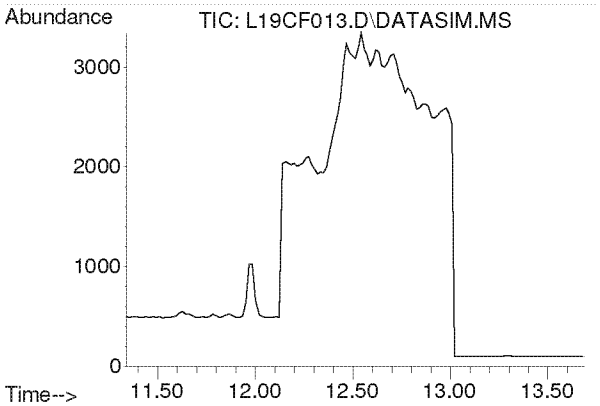
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



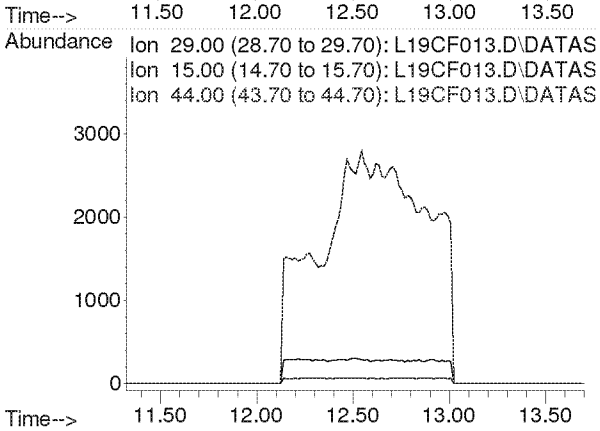


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

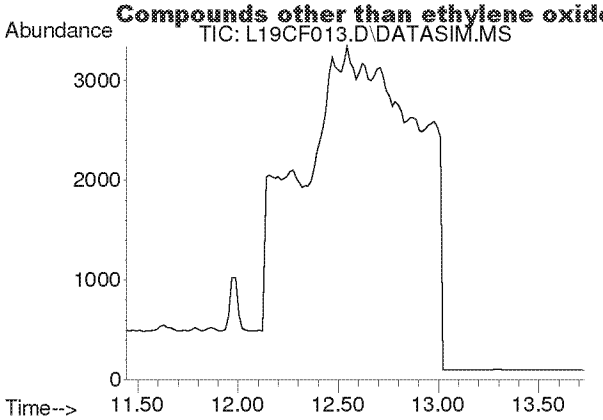
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

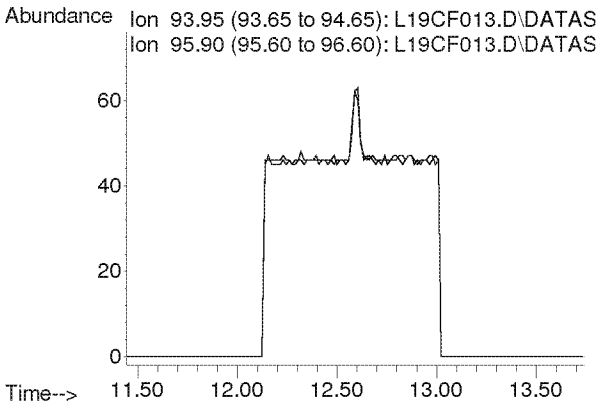


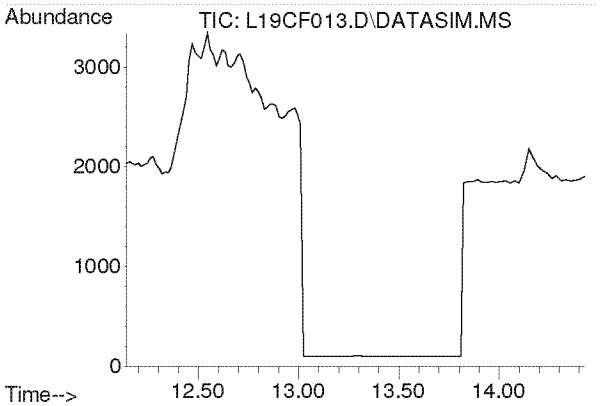
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



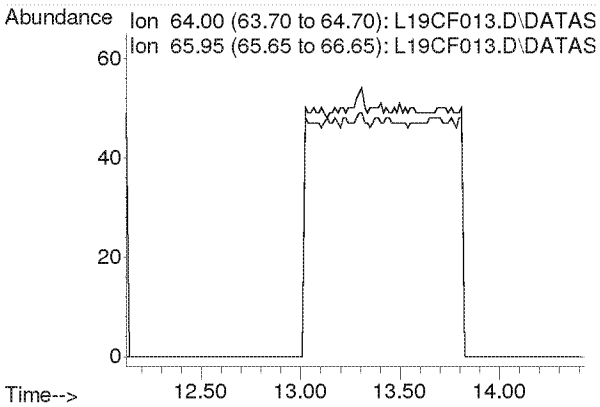


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

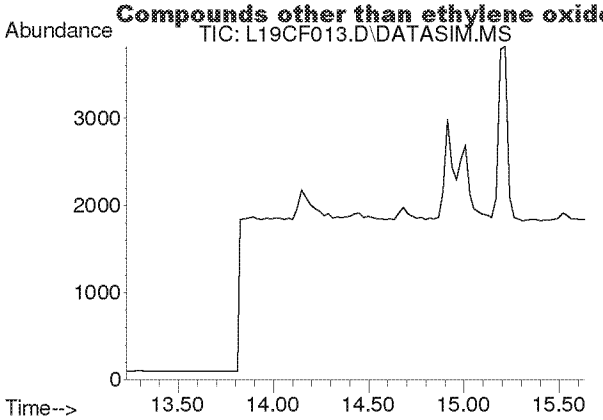
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

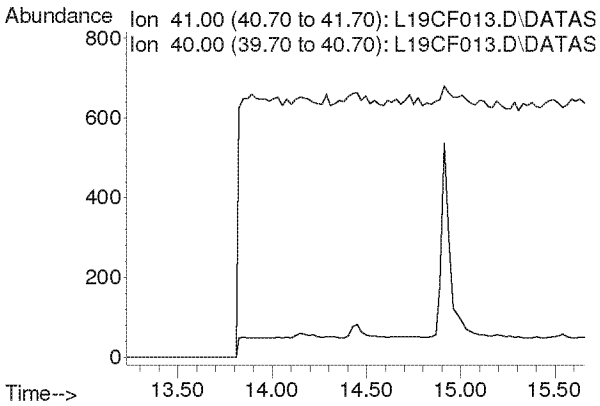


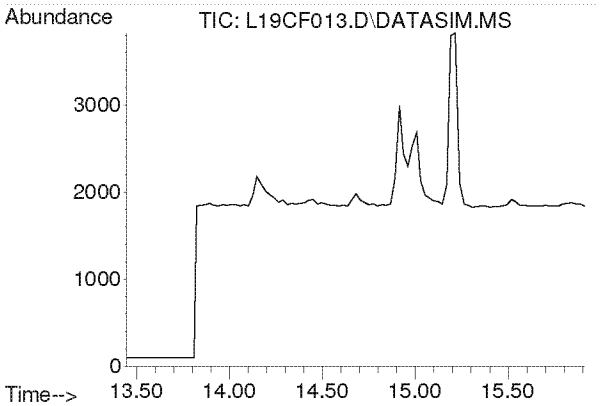
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



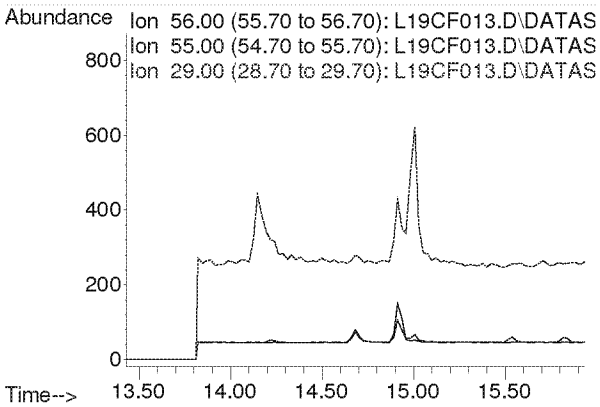


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

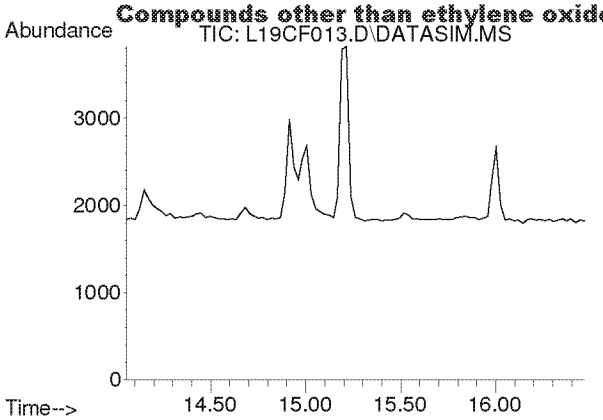
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

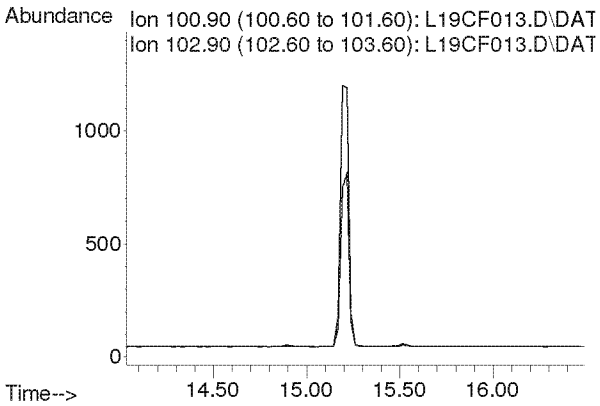


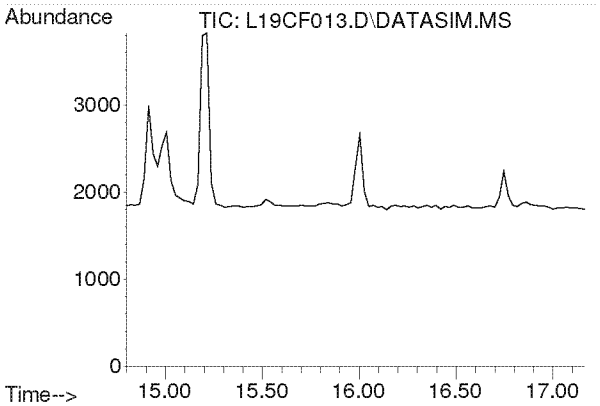
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



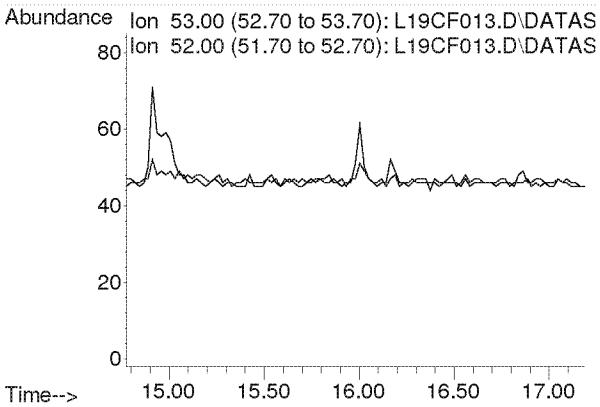


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

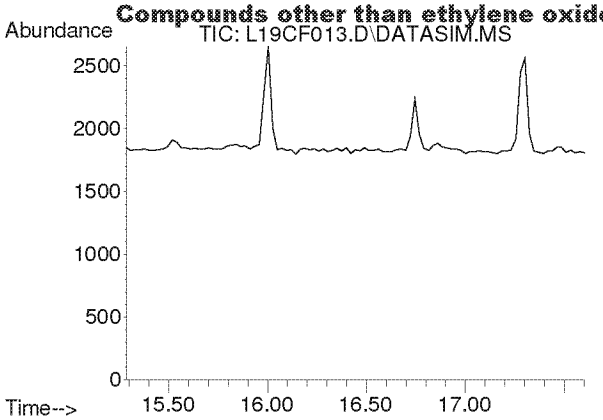
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

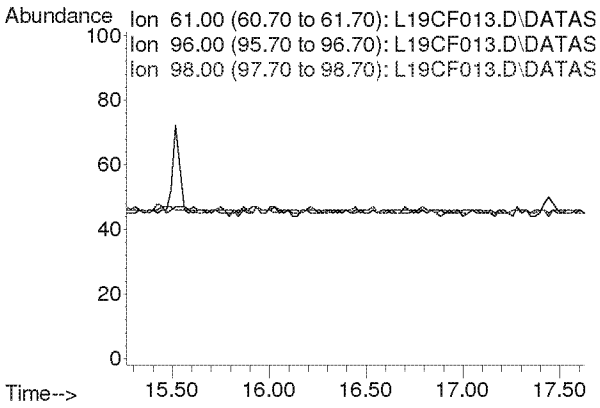


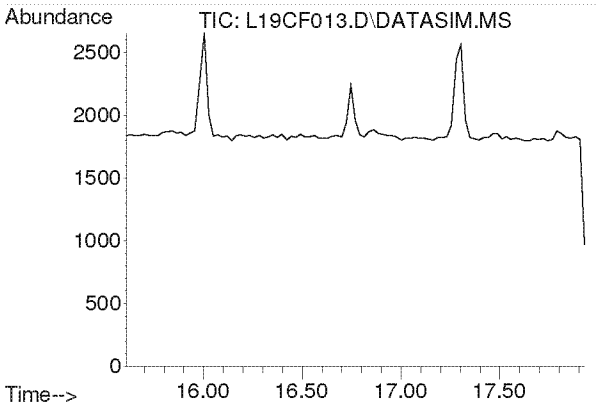
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



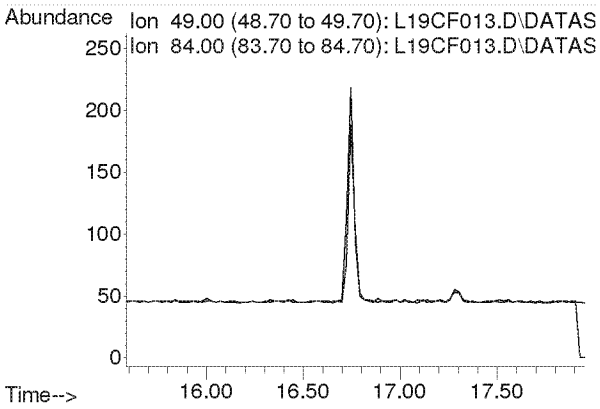


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

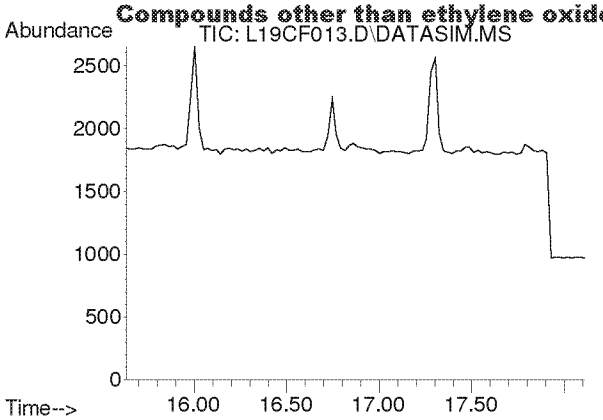
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

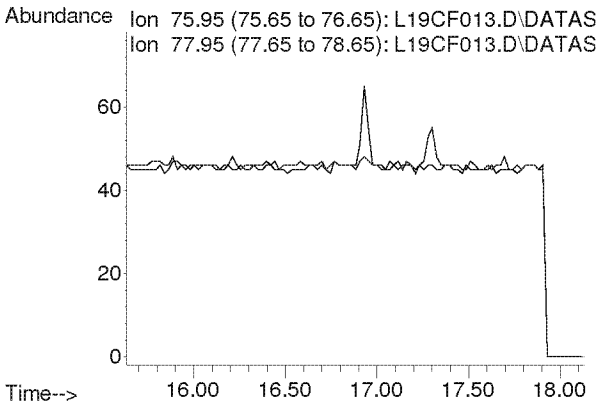


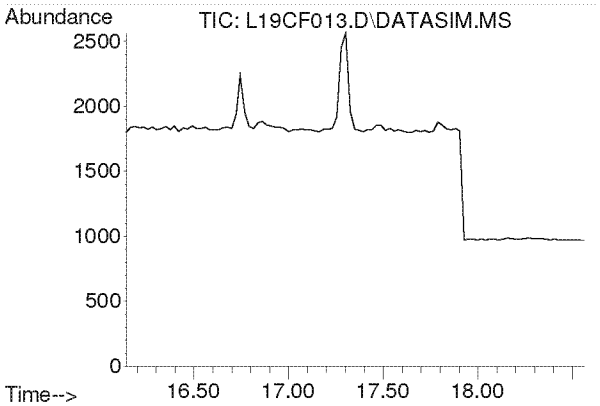
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



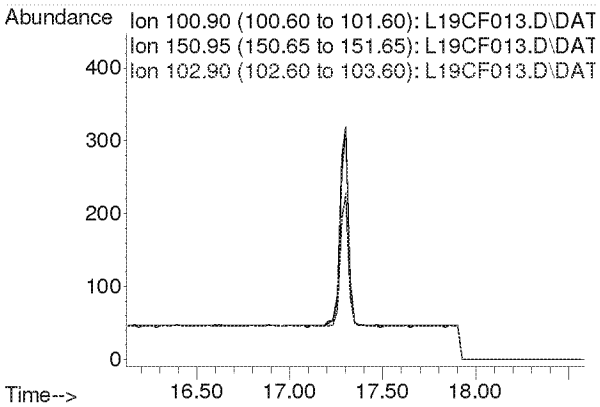


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

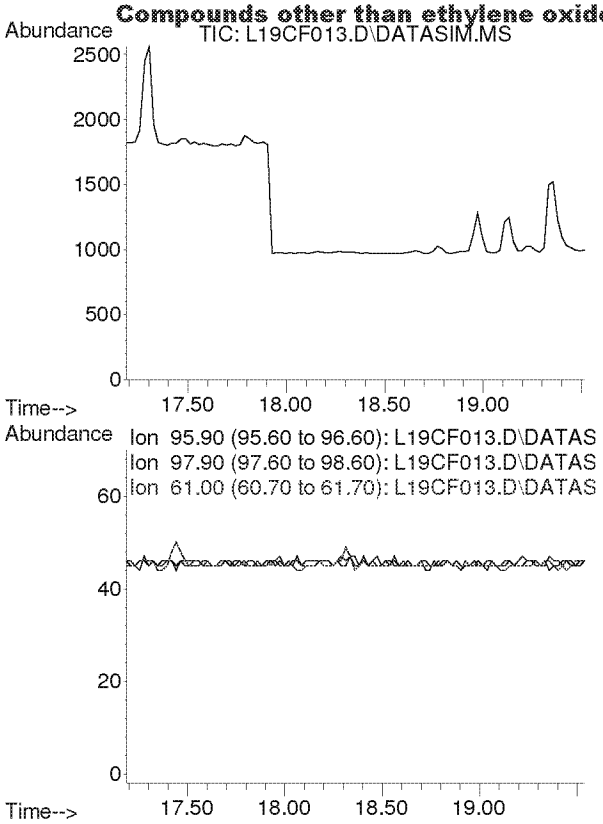
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

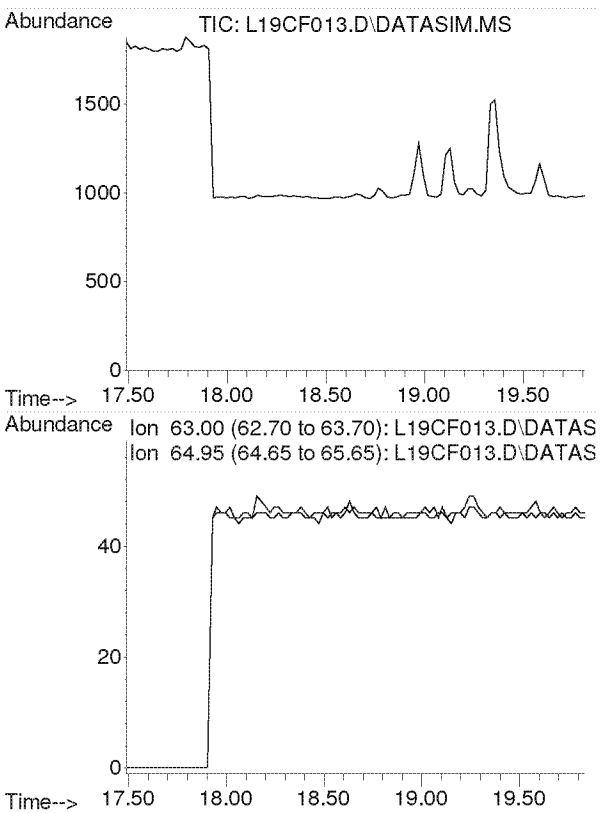


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



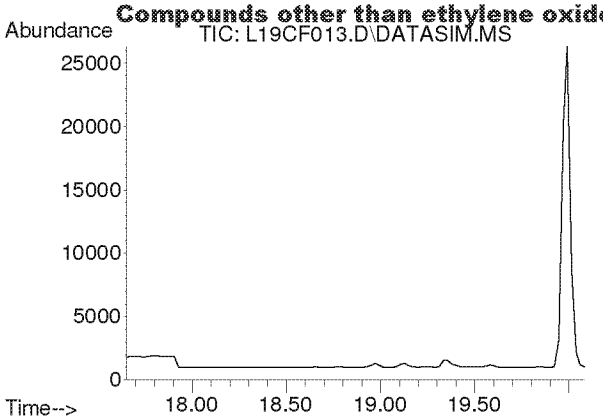
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7

Compounds other than ethylene oxide were not quantitated.

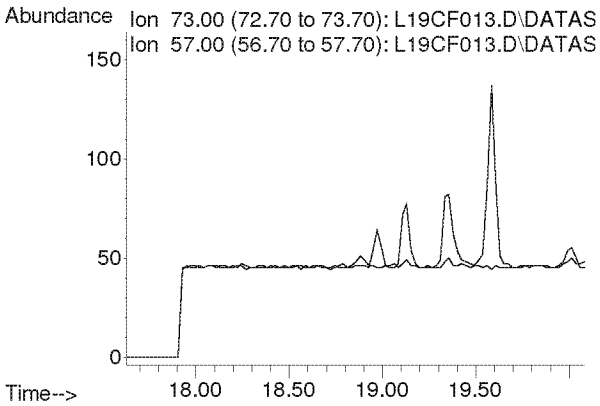


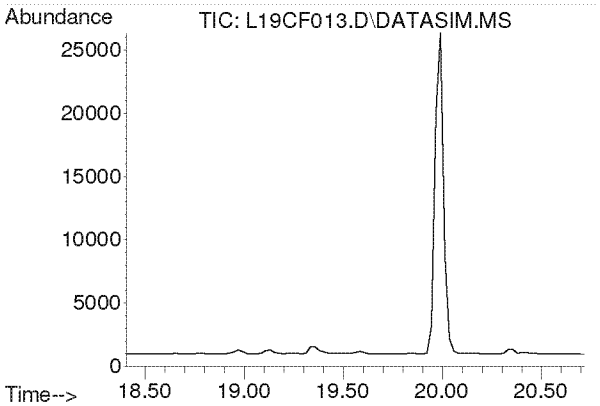
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



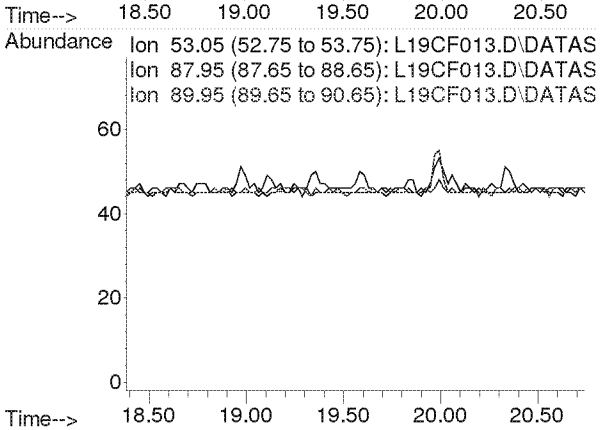


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

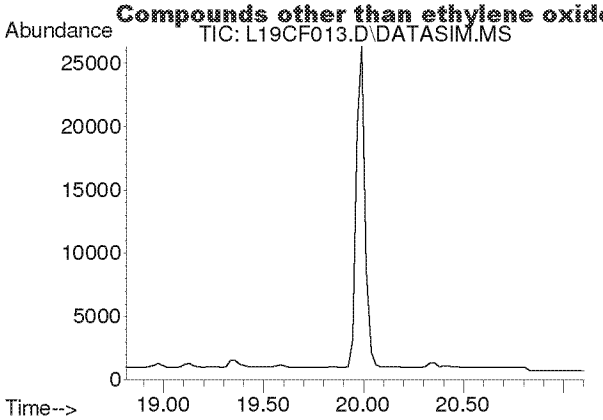
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

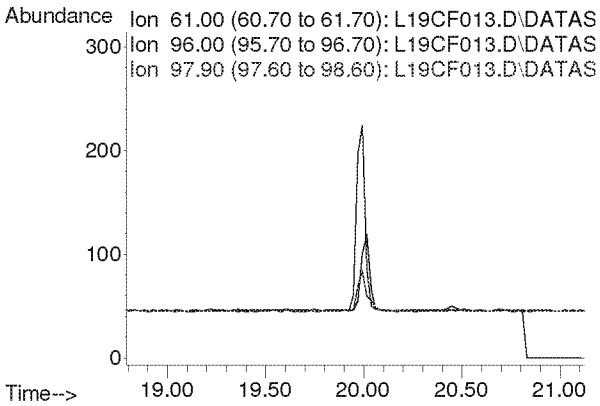


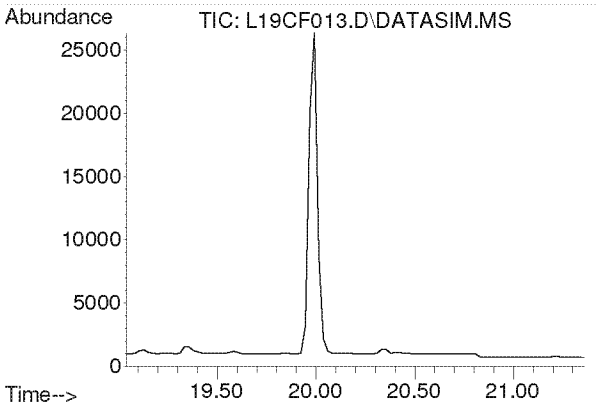
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



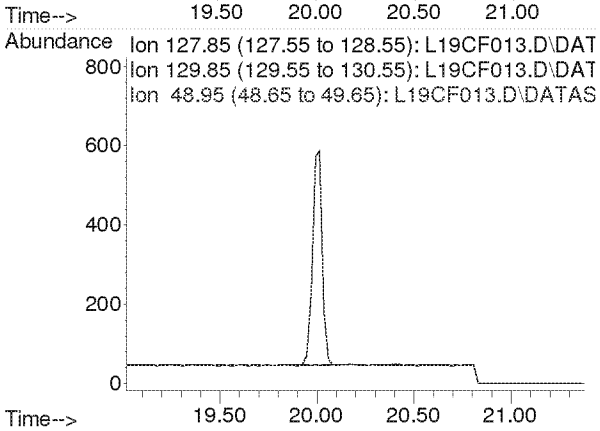


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

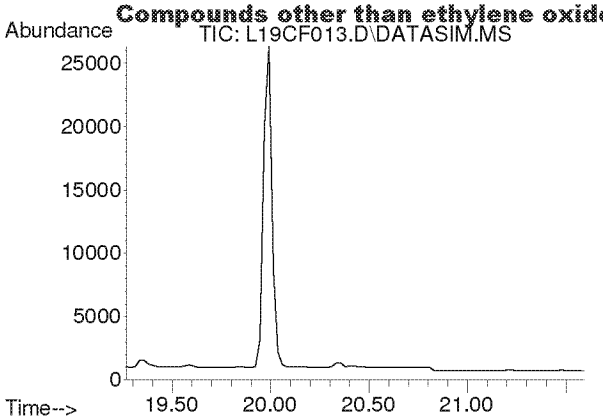
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

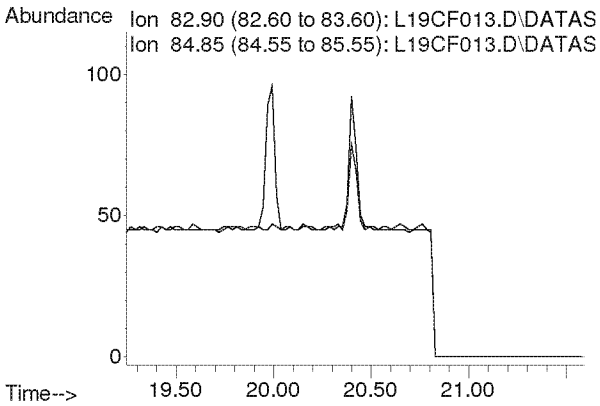


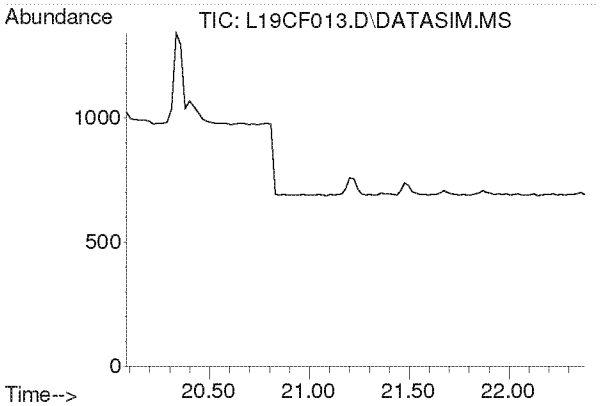
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



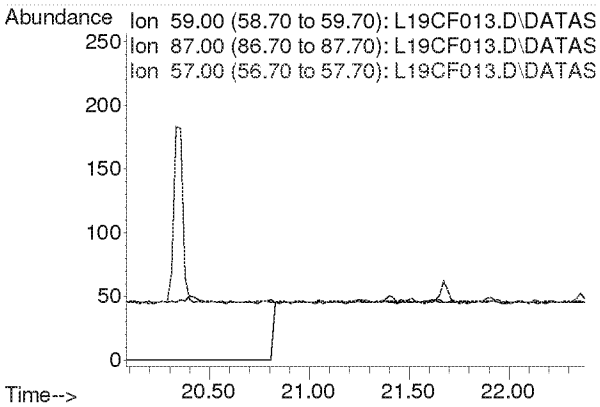


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

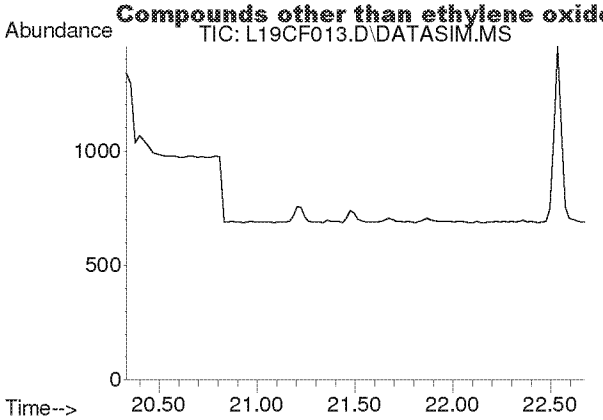
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

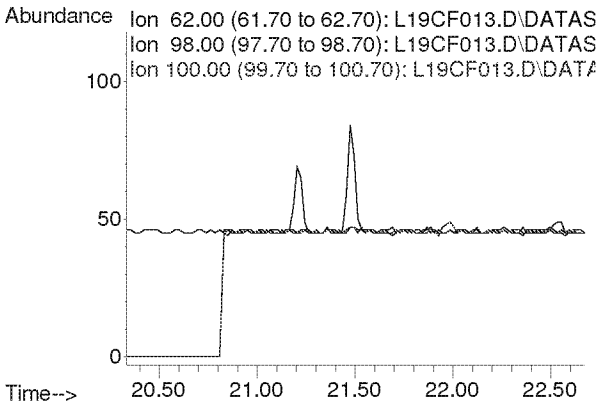


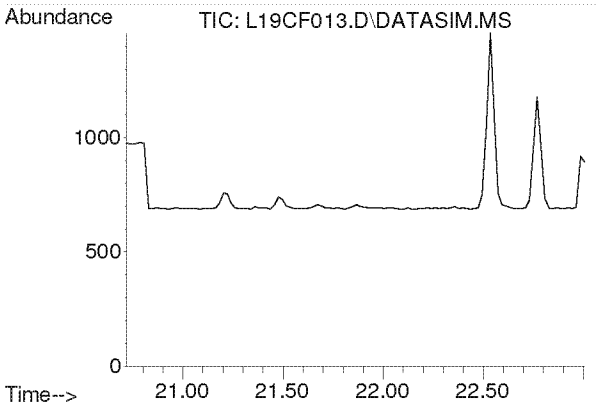
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



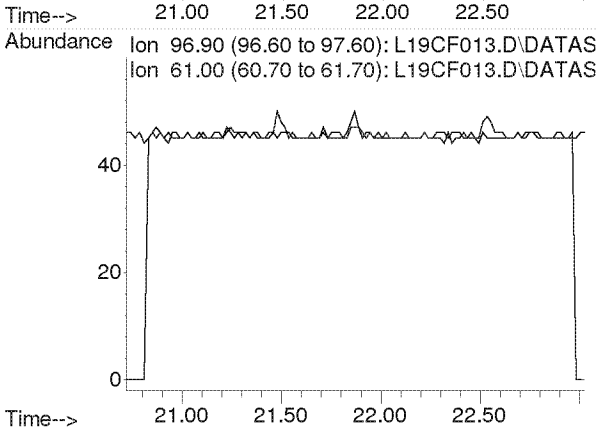


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

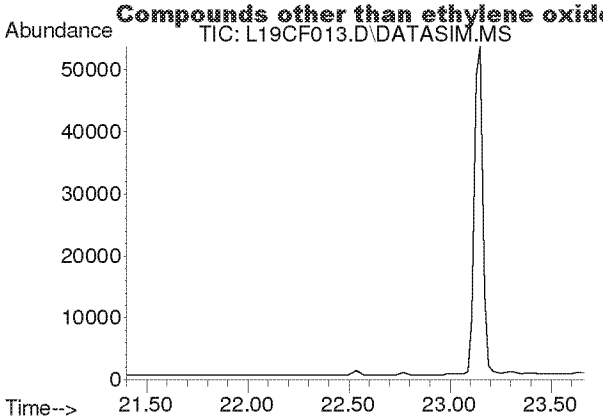
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

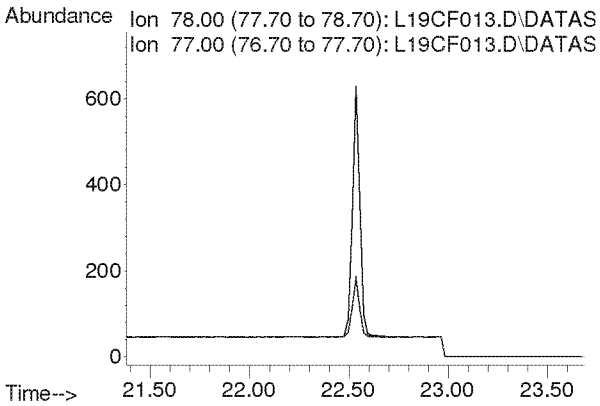


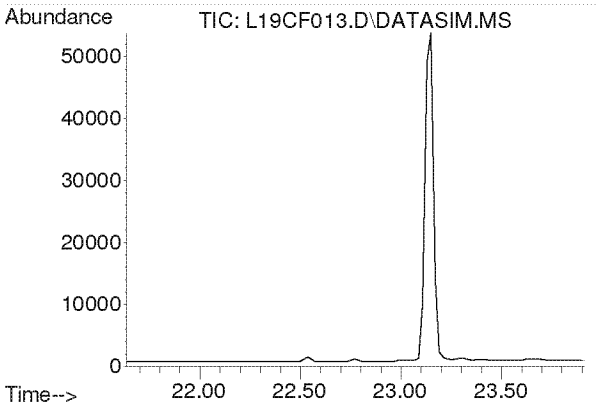
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



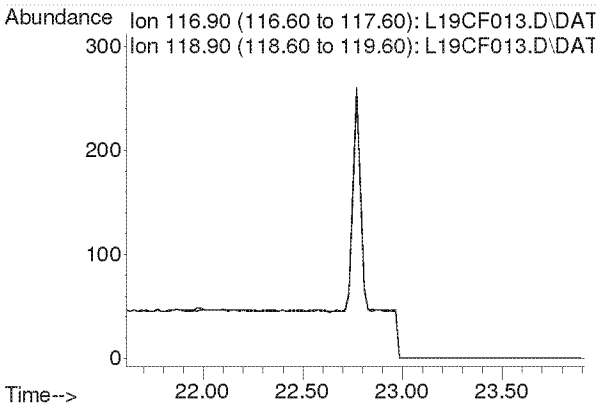


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

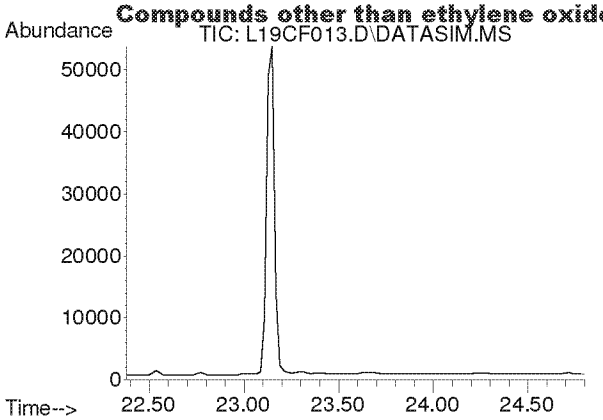
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

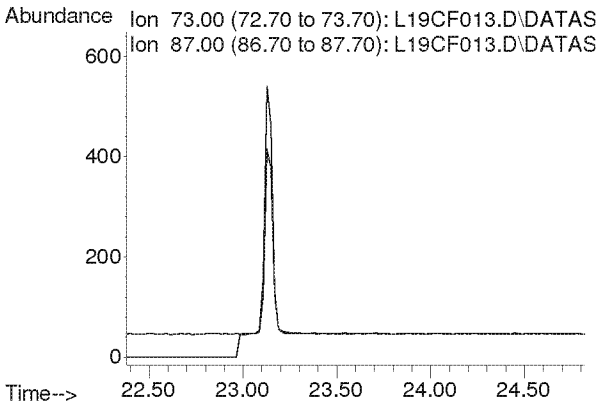


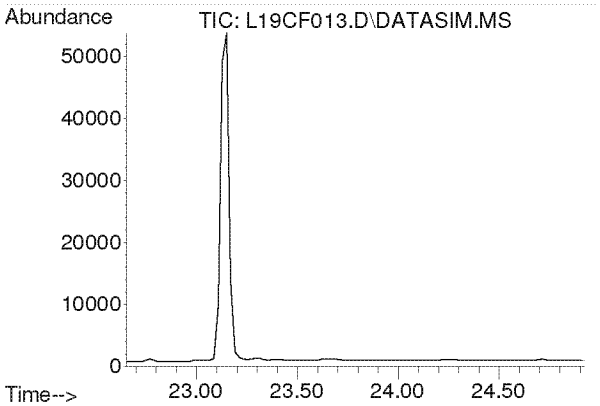
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



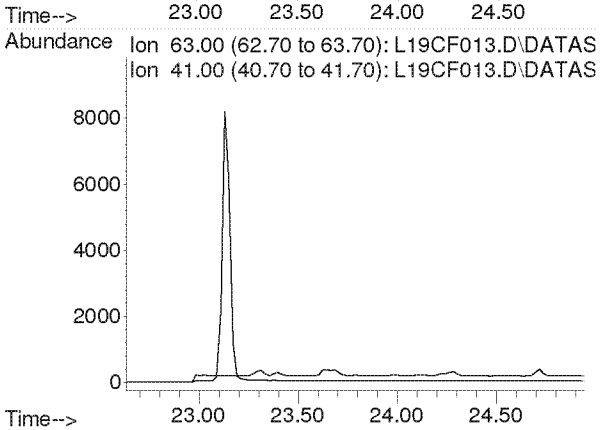


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

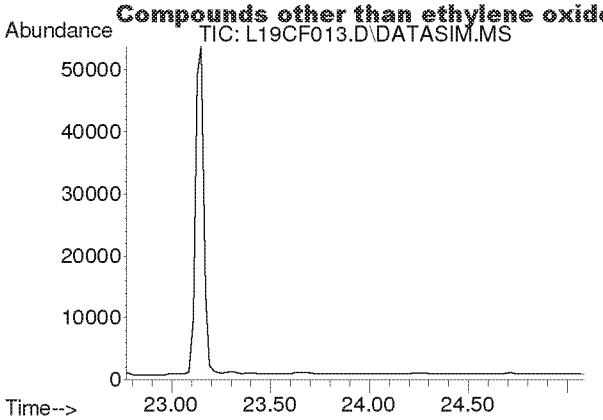
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

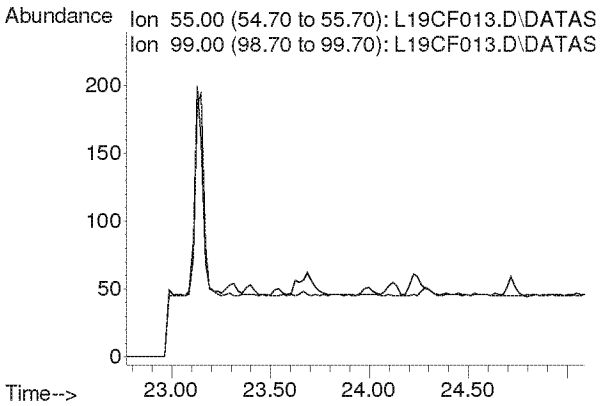


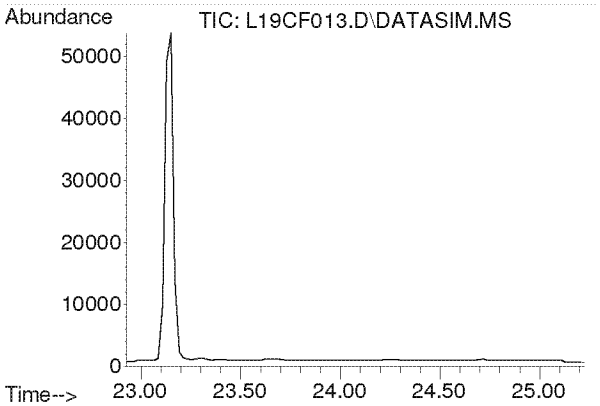
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



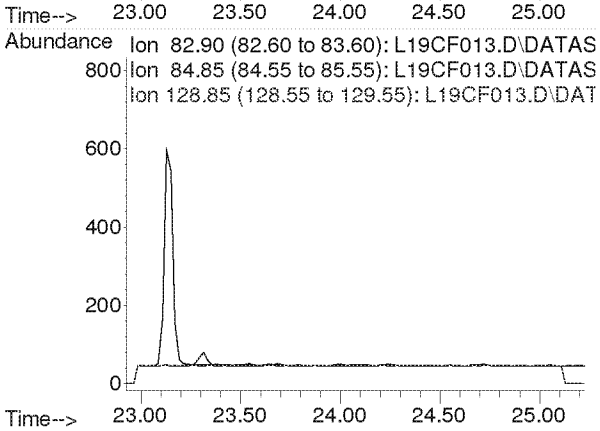


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

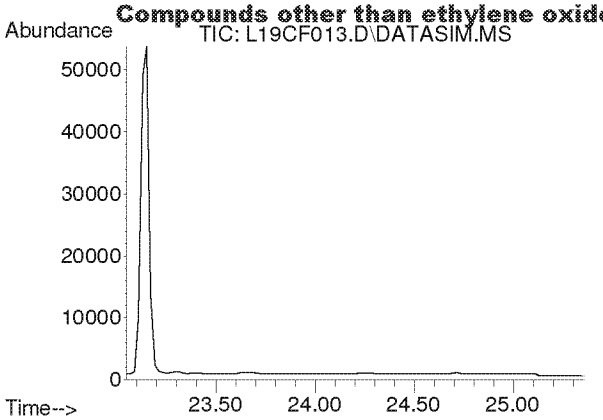
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

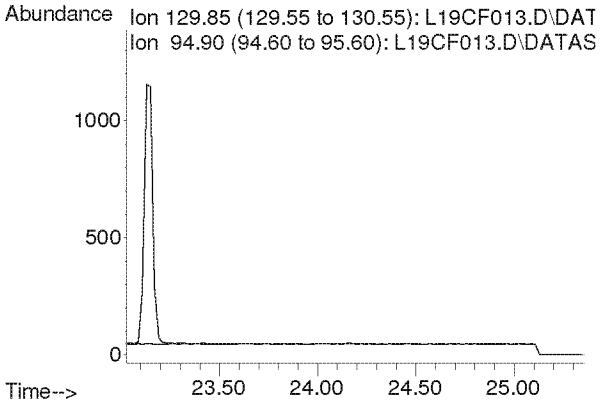


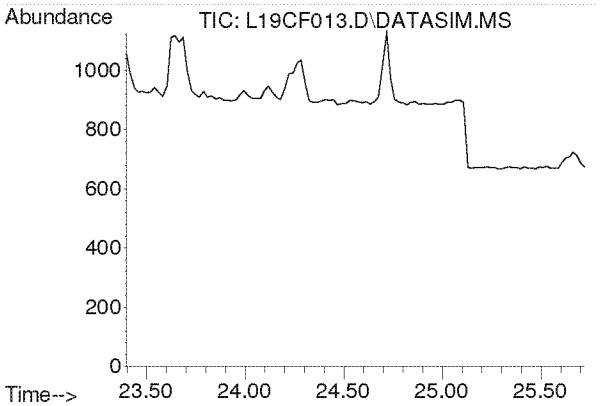
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



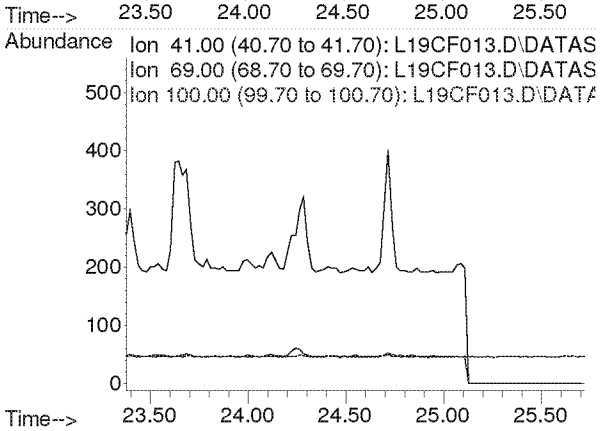


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

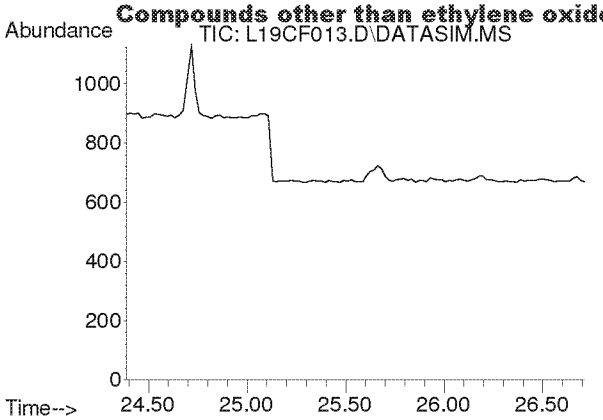
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

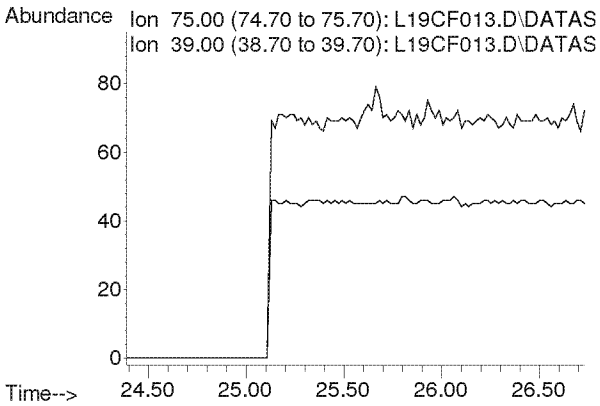


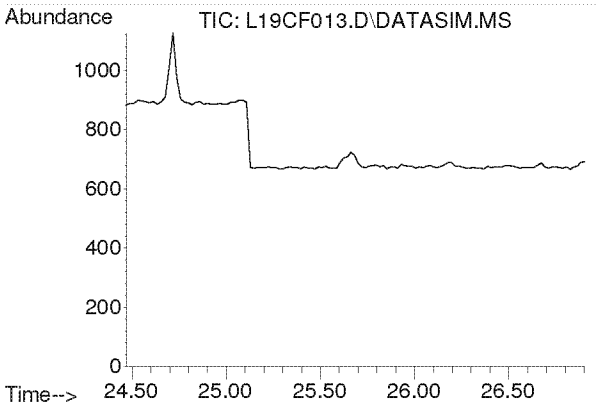
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



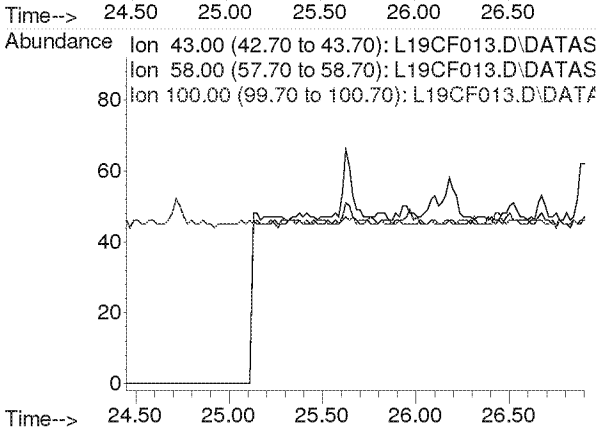


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

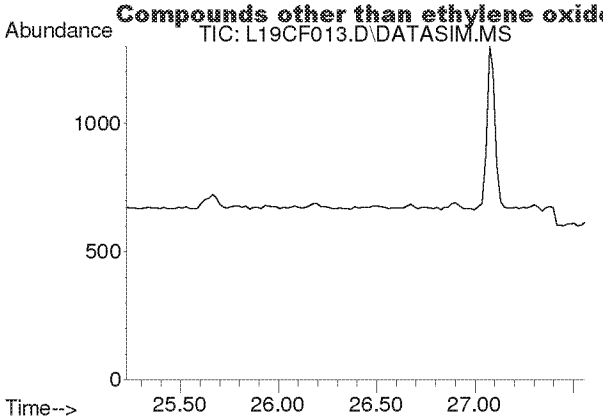
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

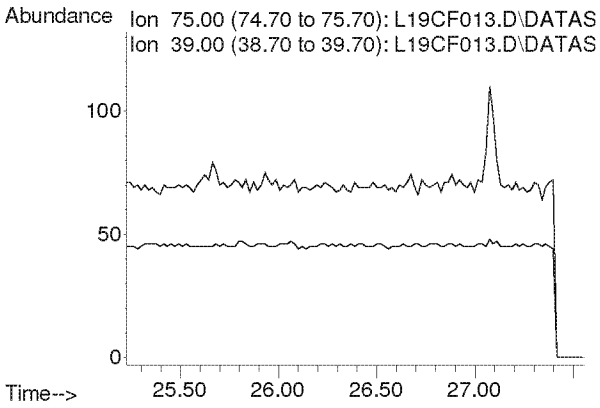


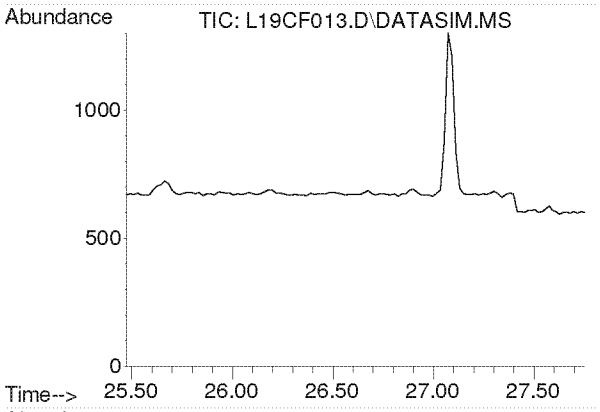
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



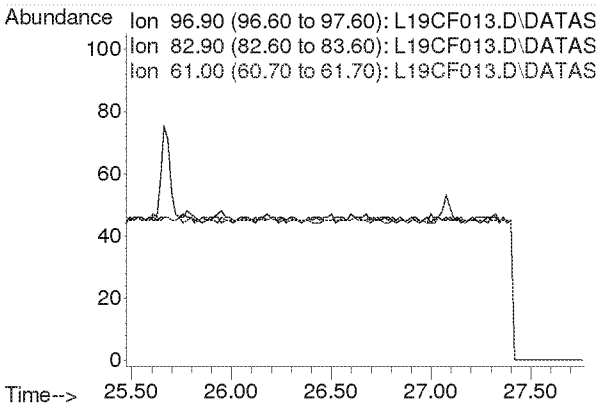


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

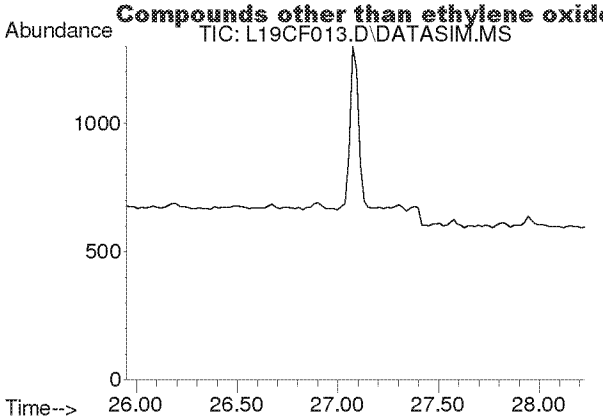
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

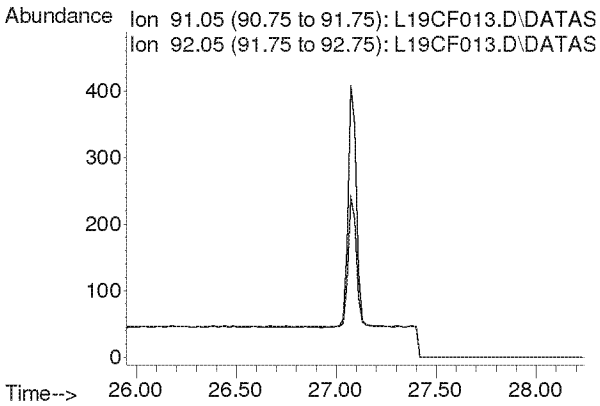


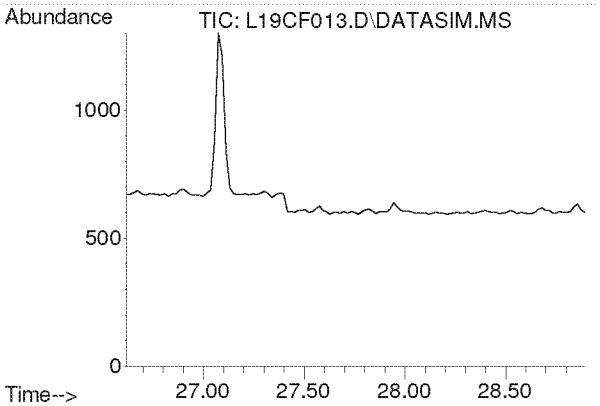
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



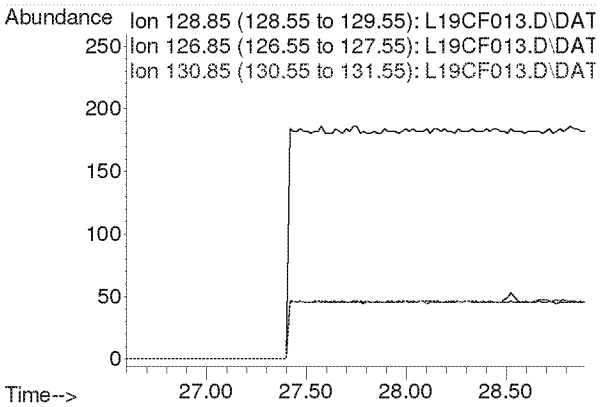


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

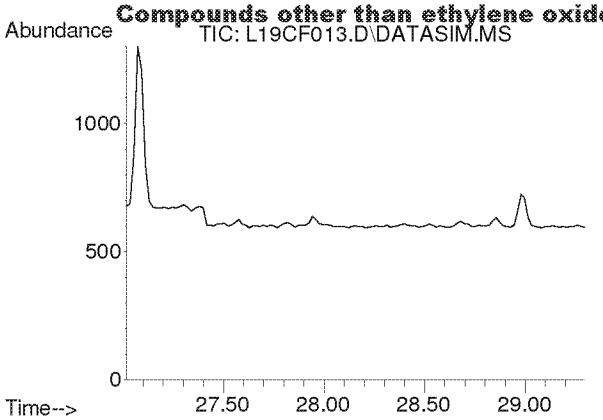
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

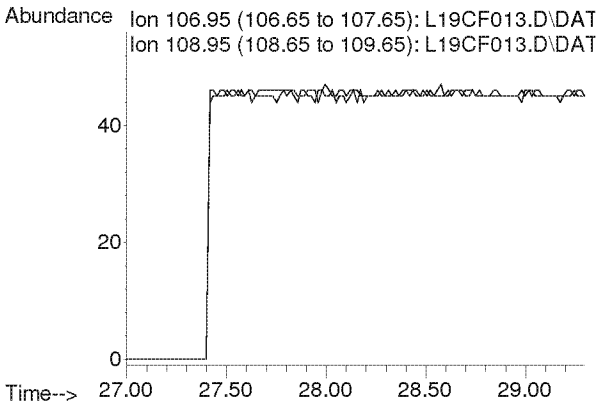


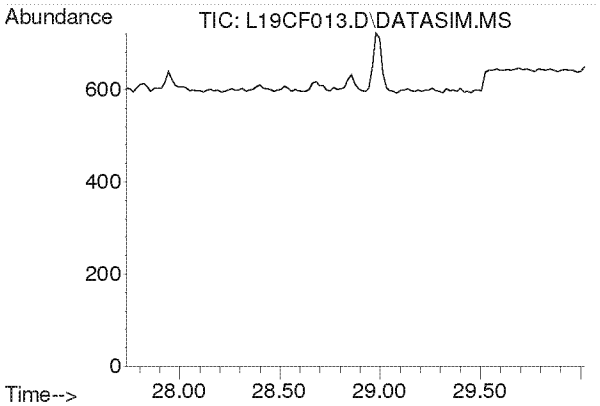
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



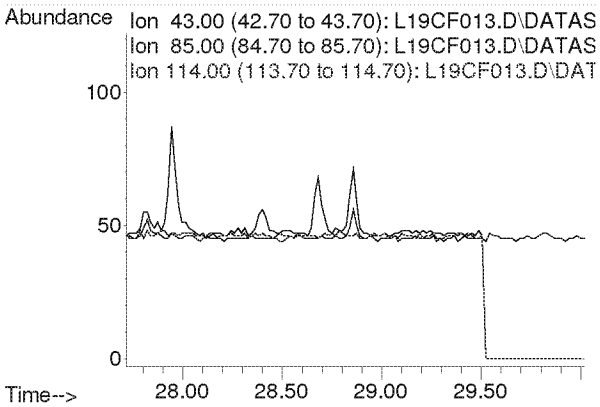


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

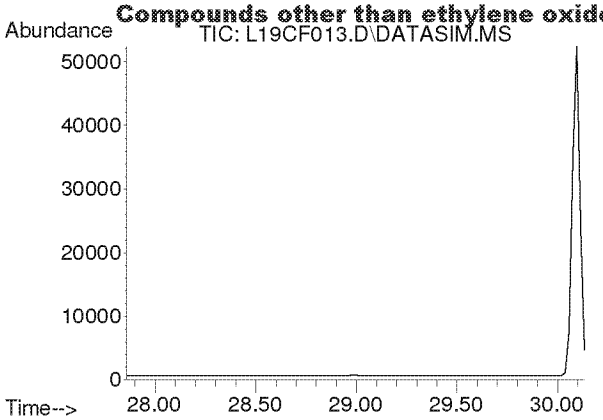
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

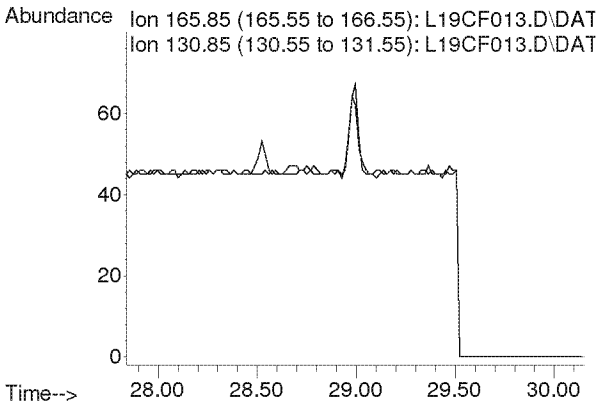


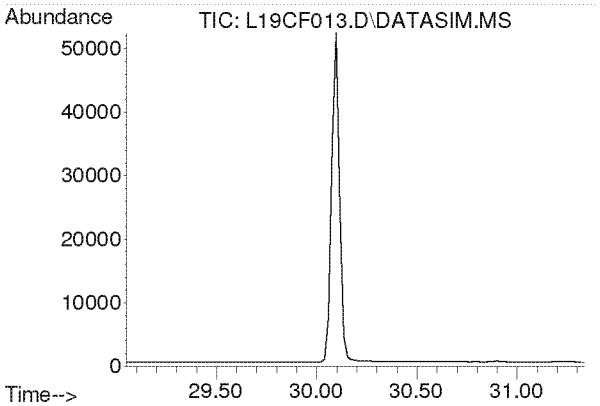
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



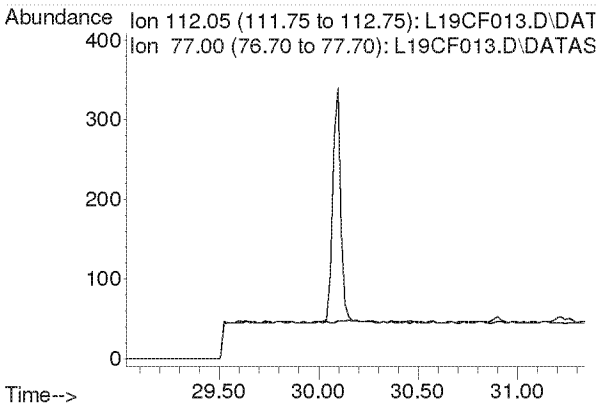


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

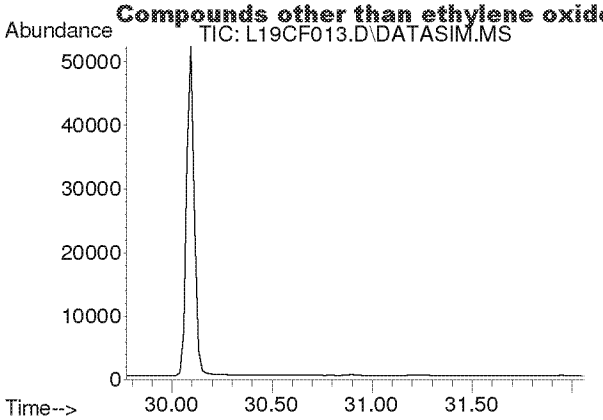
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

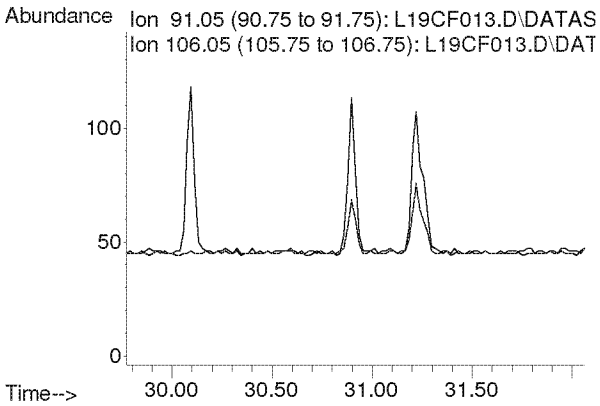


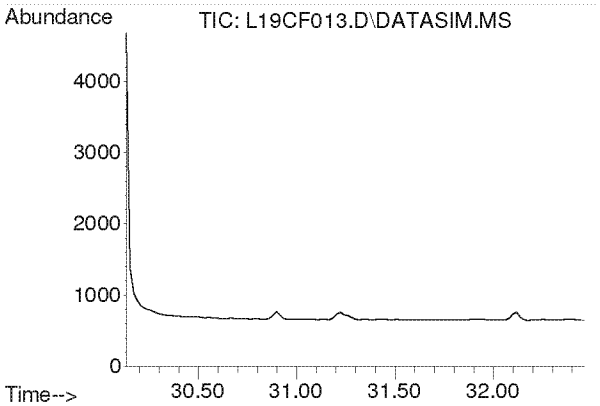
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



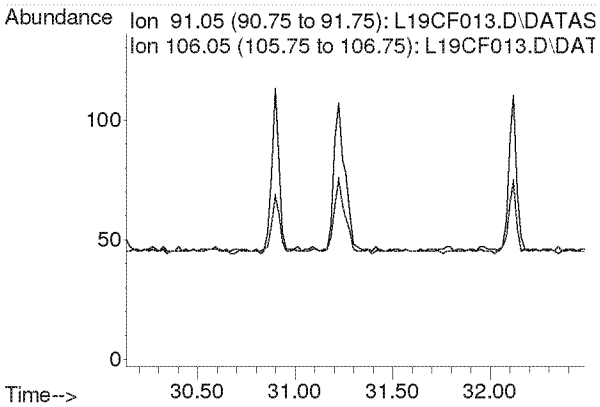


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

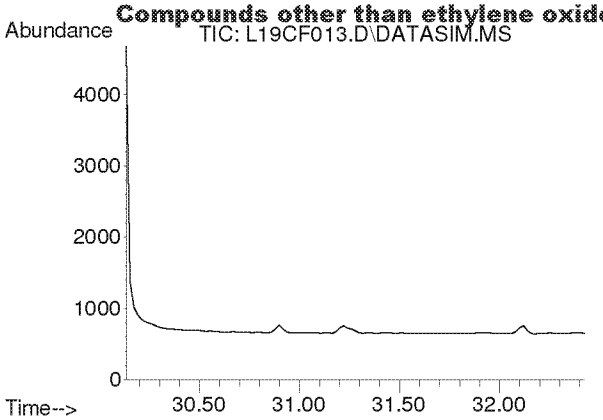
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

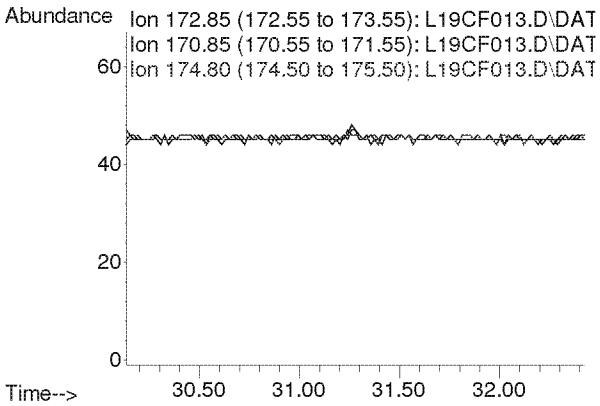


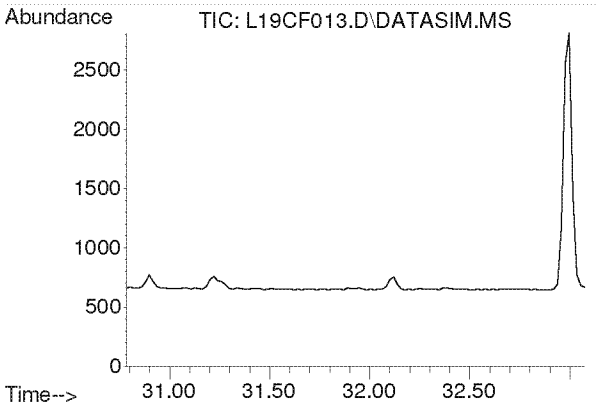
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



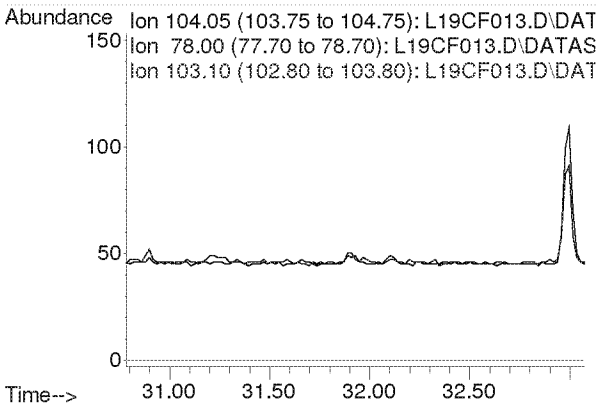


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

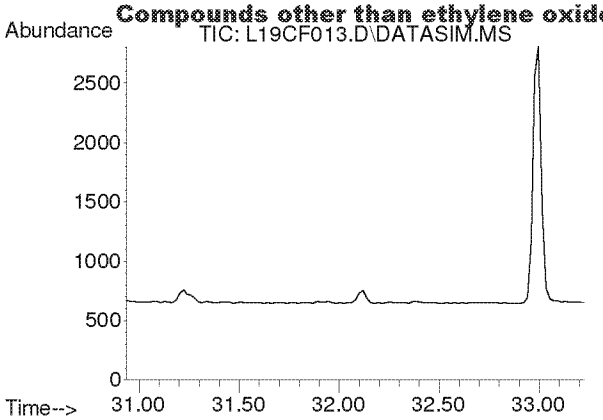
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

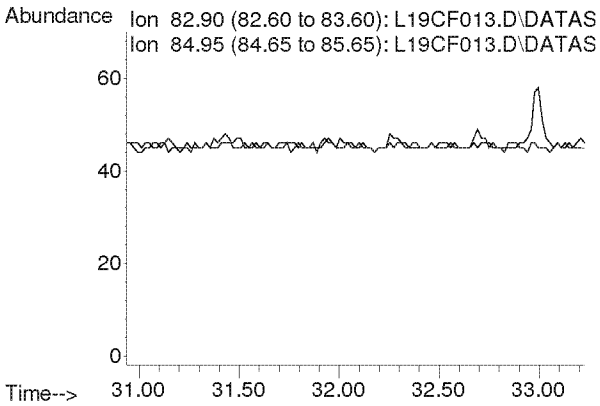


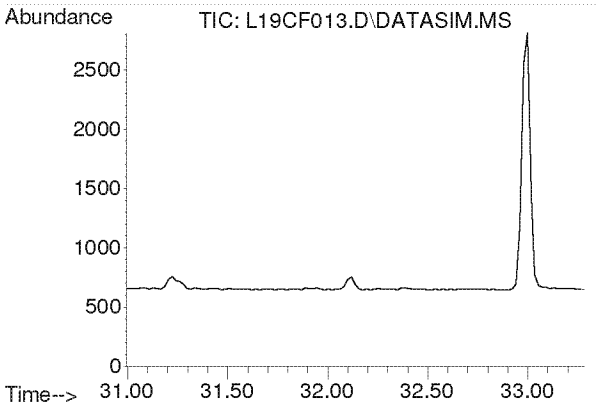
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



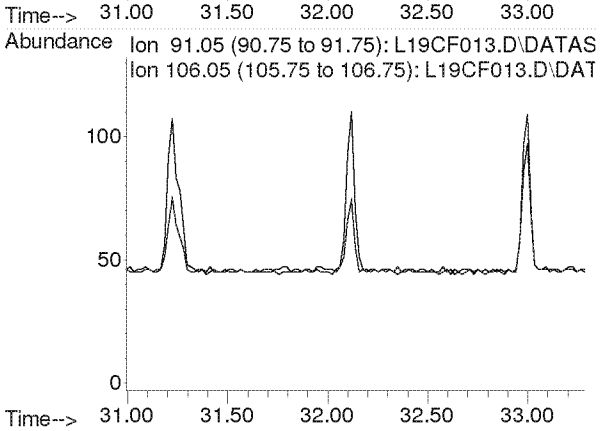


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

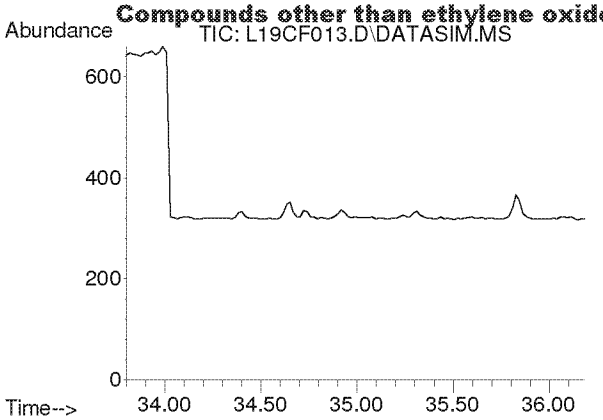
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

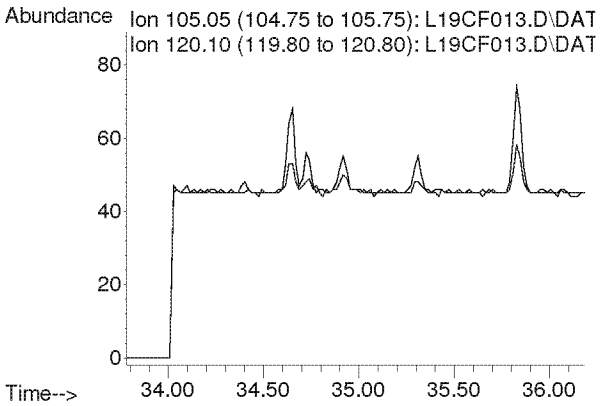


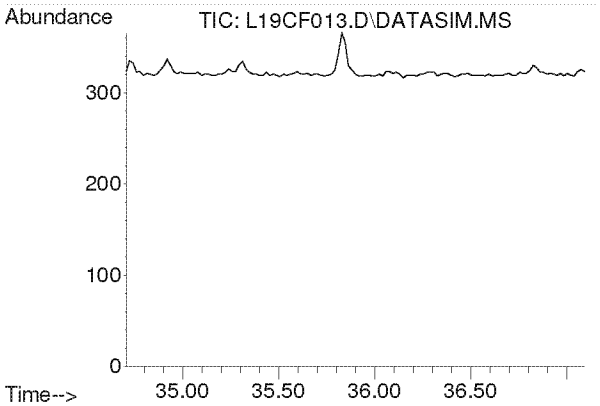
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



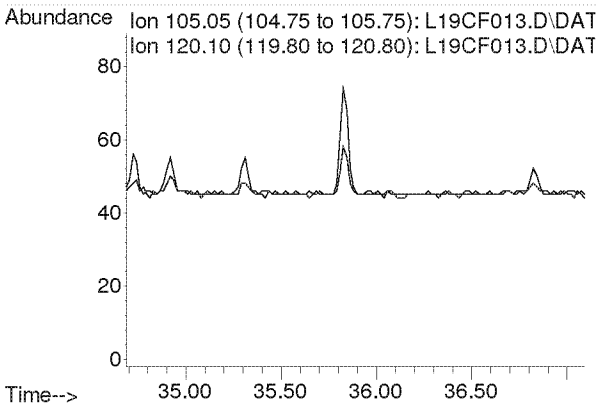


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

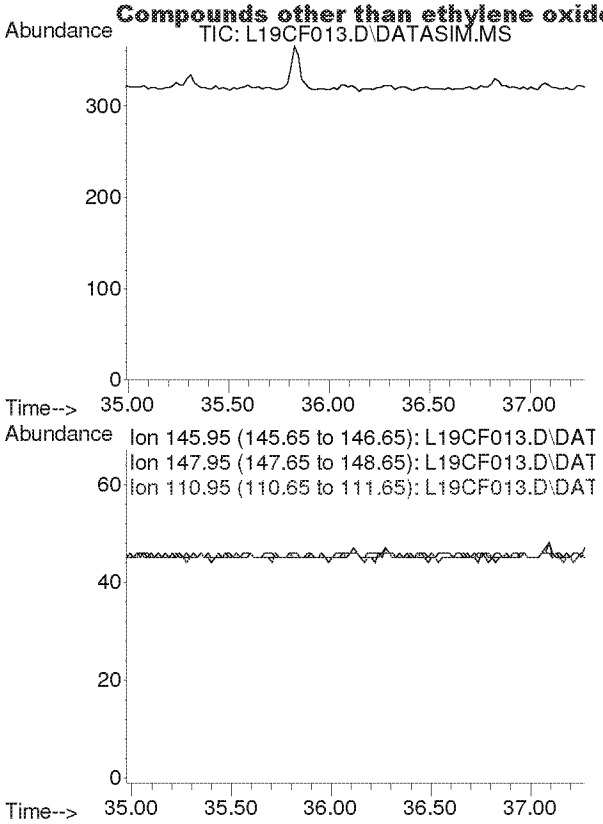
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

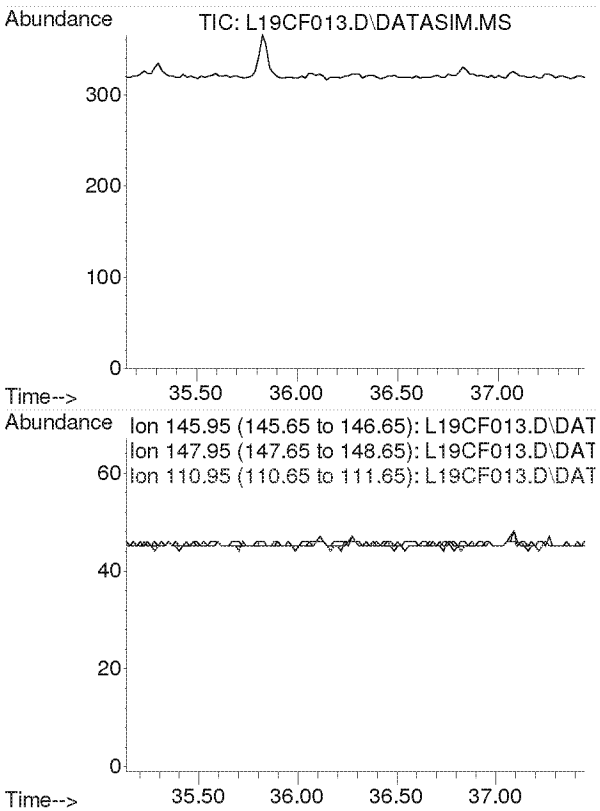


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



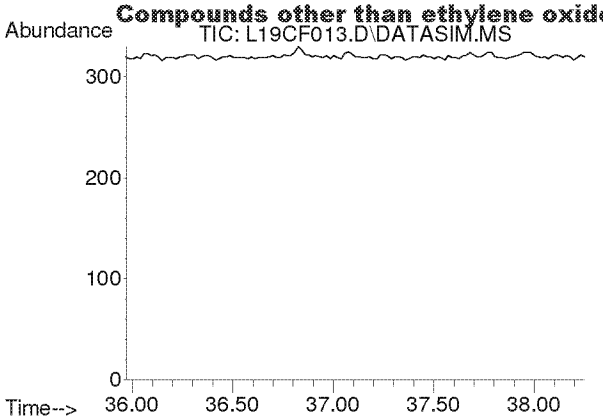
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

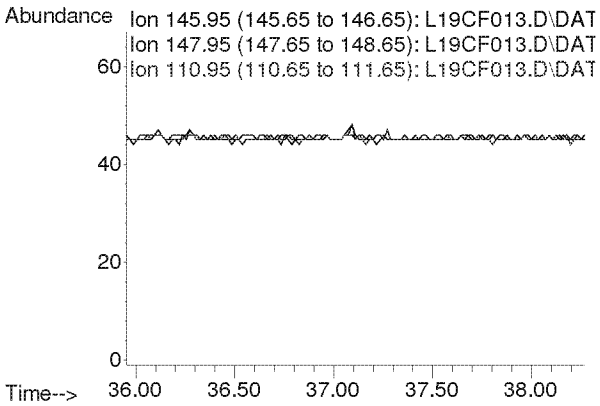


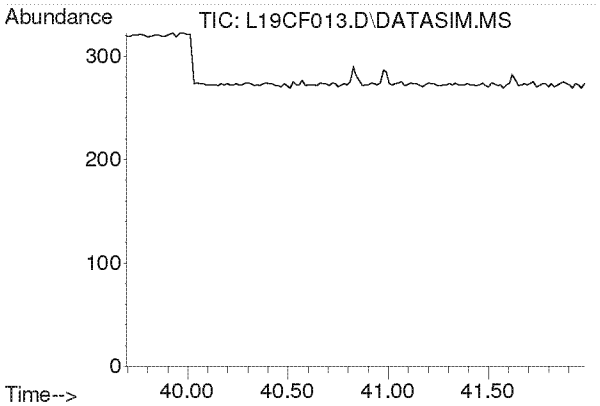
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



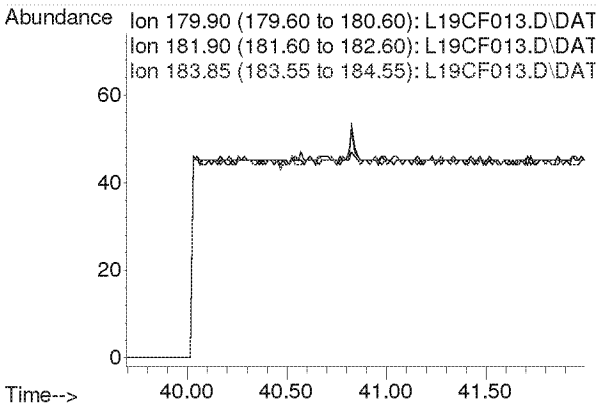


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

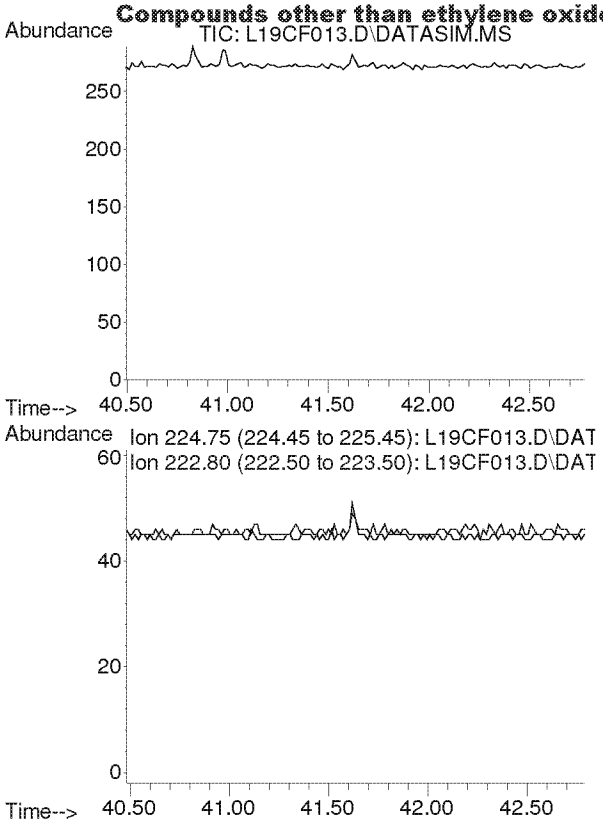
Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CF013.D
Acq: 7 Mar 2019 1:33 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\L19CF\
Data File : L19CF014.D
Acq On : 7 Mar 2019 2:33 am (#1); 07-Mar-19, 02:28:20 (#2)
Operator : MAH
Sample : 9030618-07
Misc : EPA WB WAREHOUSE 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 07 06:37:07 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

ETOt only

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.991	66	45610	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.149	114	117698	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.095	117	81389	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.	
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.	
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.	
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\L19CF\
Data File : L19CF014.D
Acq On : 7 Mar 2019 2:33 am (#1); 07-Mar-19, 02:28:20 (#2)
Operator : MAH
Sample : 9030618-07
Misc : EPA WB WAREHOUSE 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 07 06:37:07 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 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.	

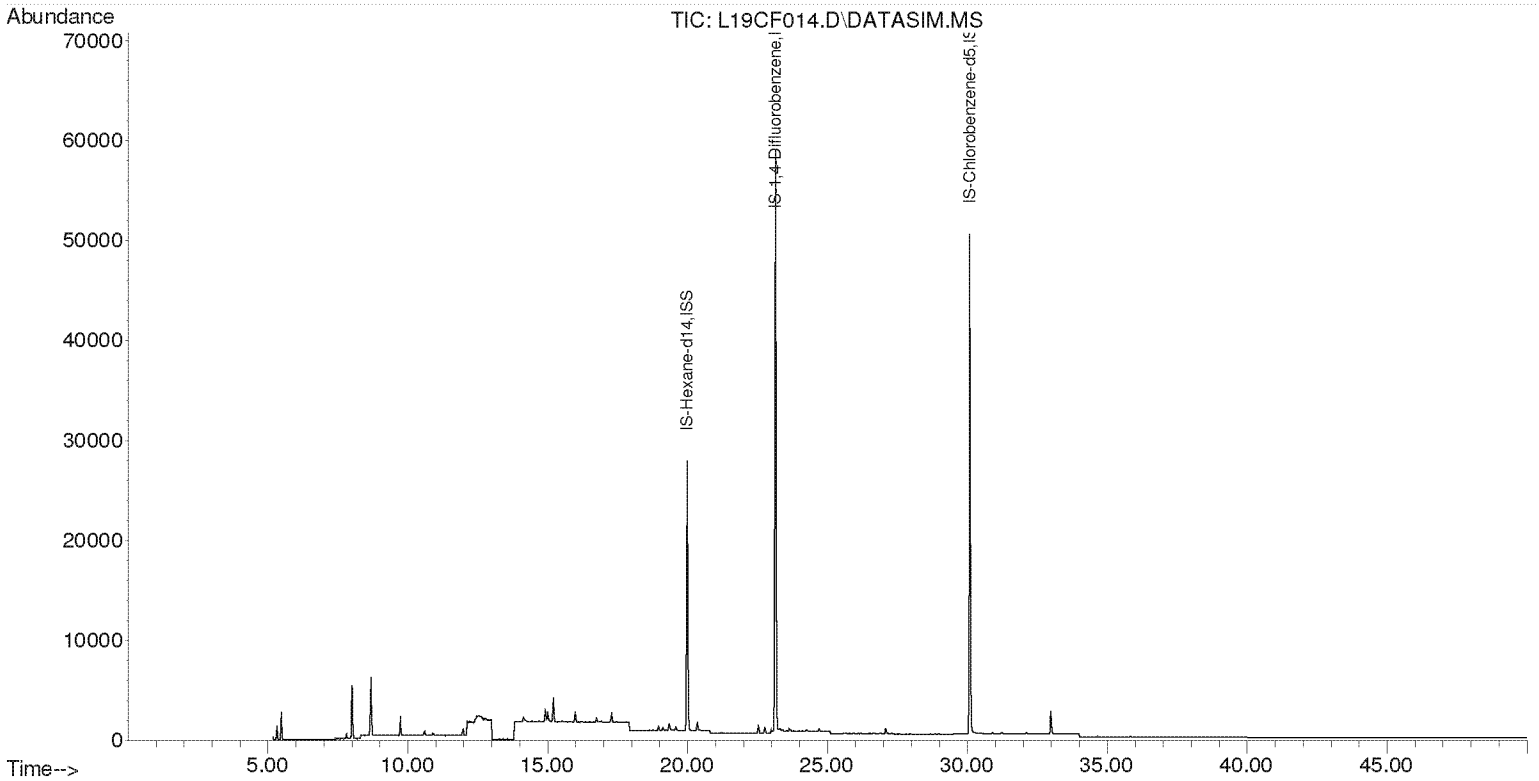
(#) = qualifier out of range (m) = manual integration (+) = signals summed

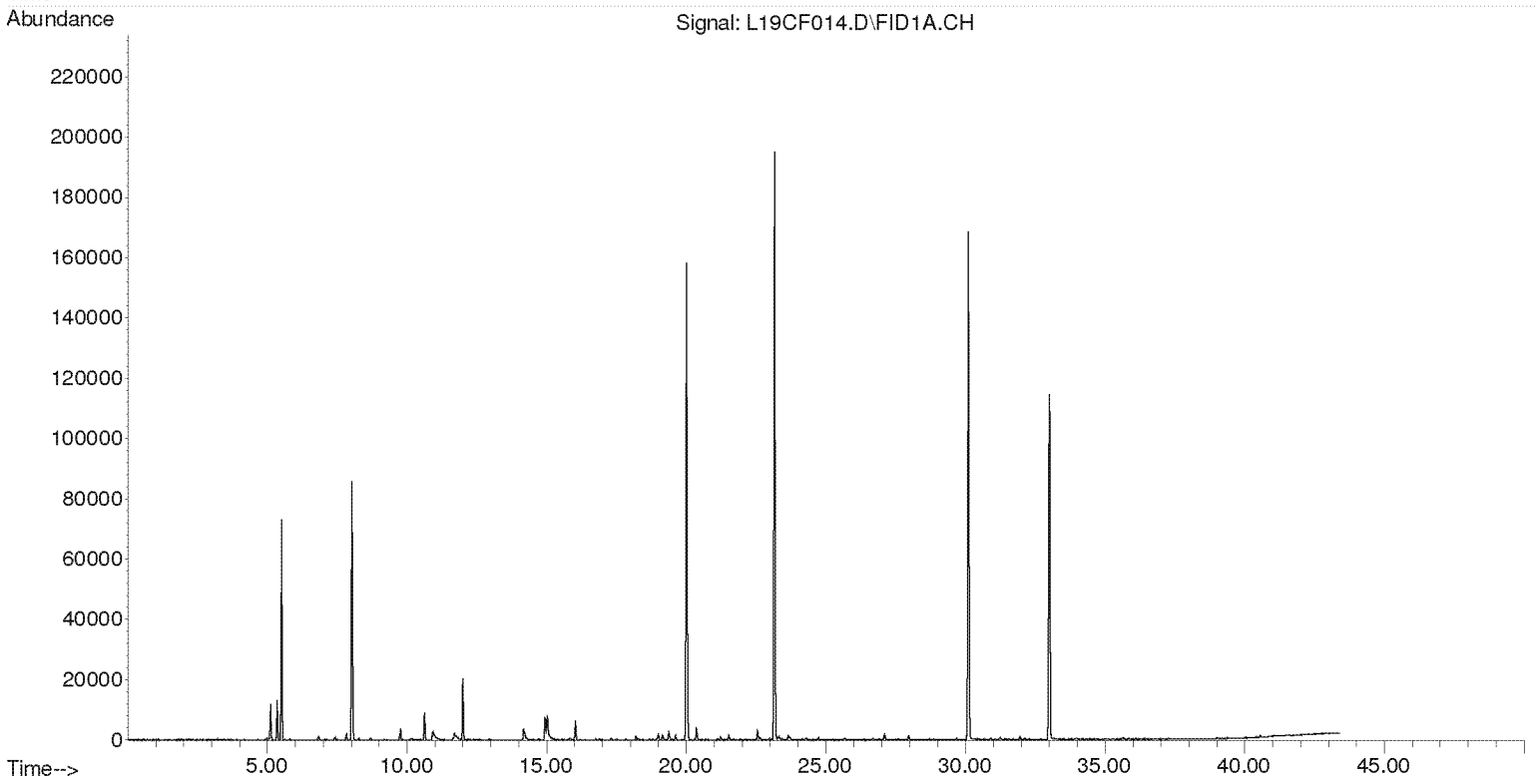
ED_002475_00000356-00383

Compounds other than ethylene oxide were not quantitated.

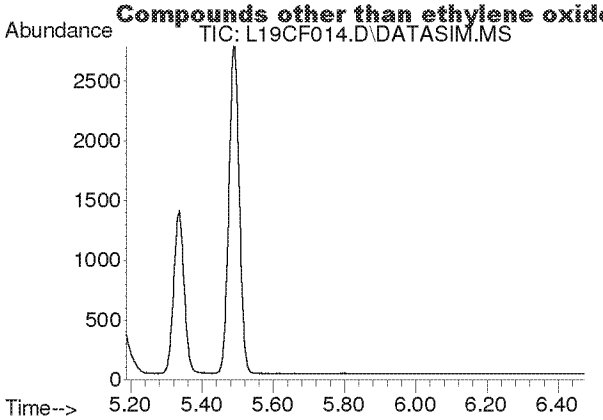
Data Path : Y:\MASS SPEC 1 DATA\L19CF\
Data File : L19CF014.D
Acq On : 7 Mar 2019 2:33 am (#1); 07 Mar 2019 2:28 am (#2)
Operator : MAH
Sample : 9030618-07
Misc : EPA WB WAREHOUSE 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Mar 07 06:24:49 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





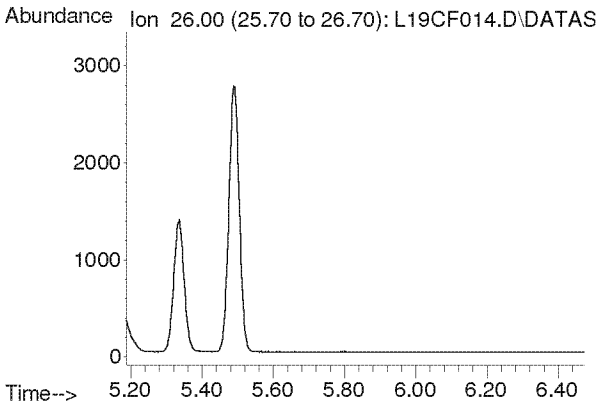
Compounds other than ethylene oxide were not quantitated.

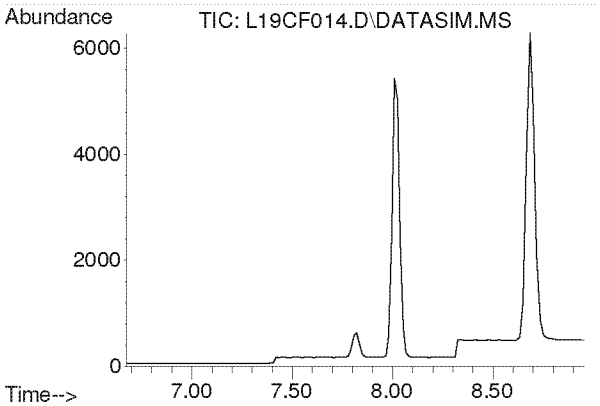


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 26



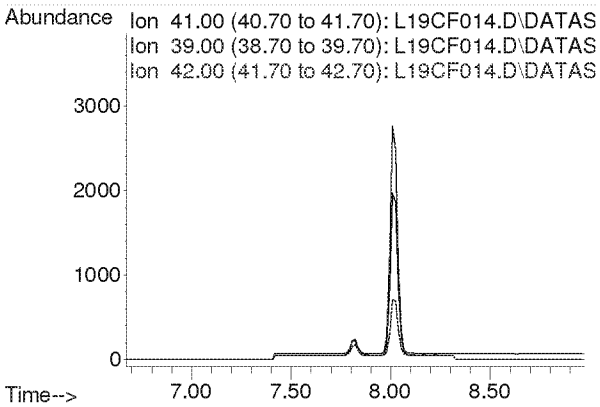


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

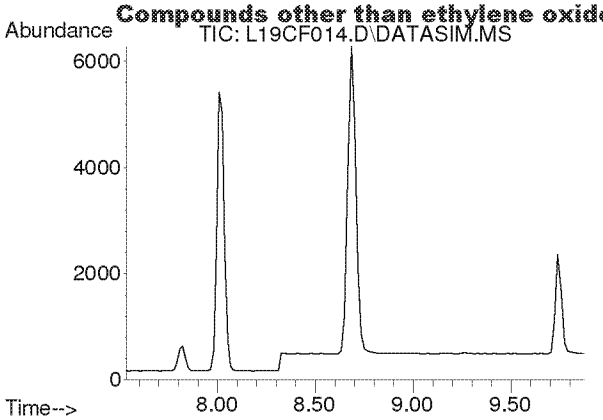
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

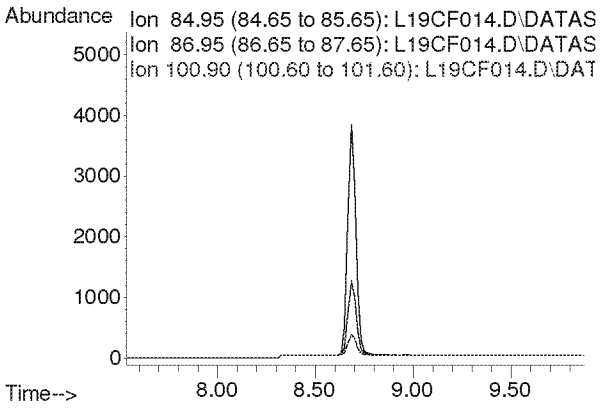


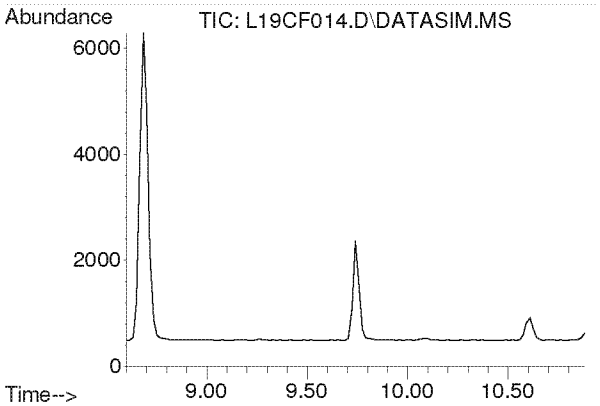
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



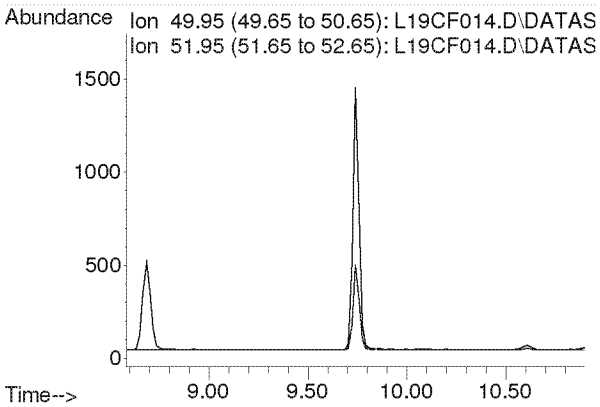


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

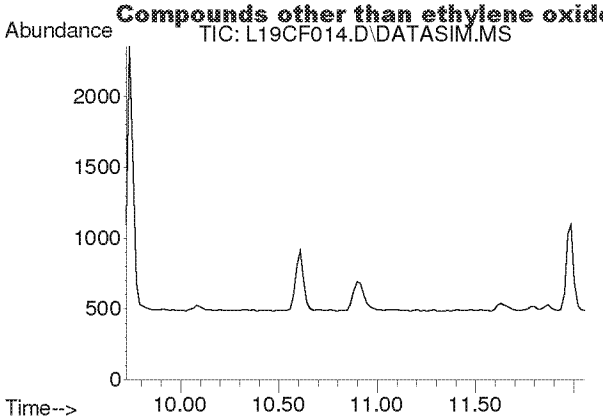
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

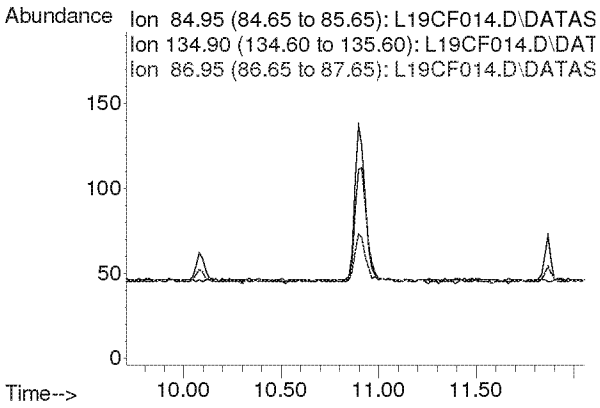


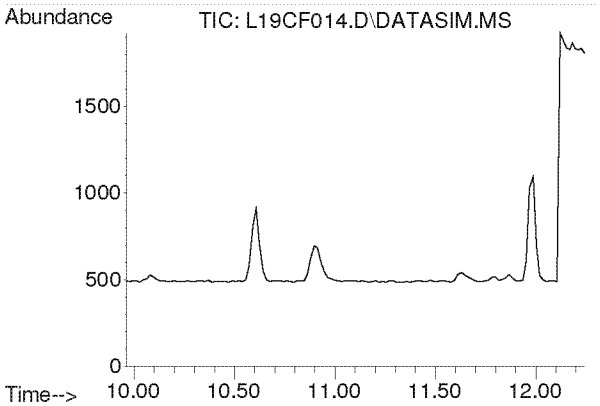
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



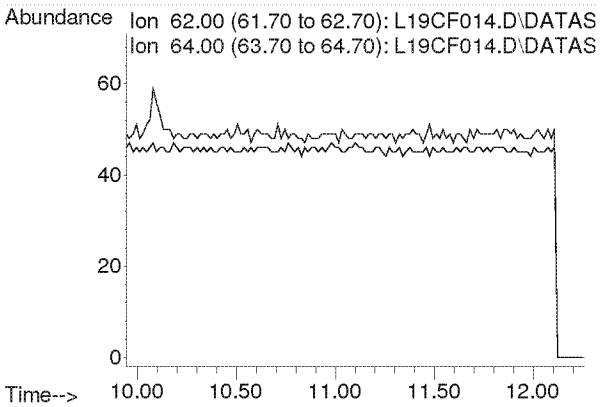


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

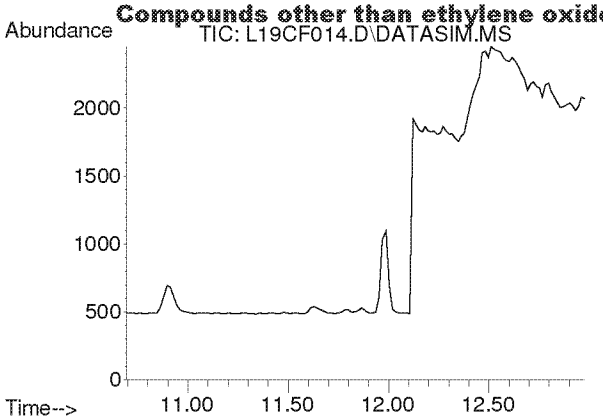
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

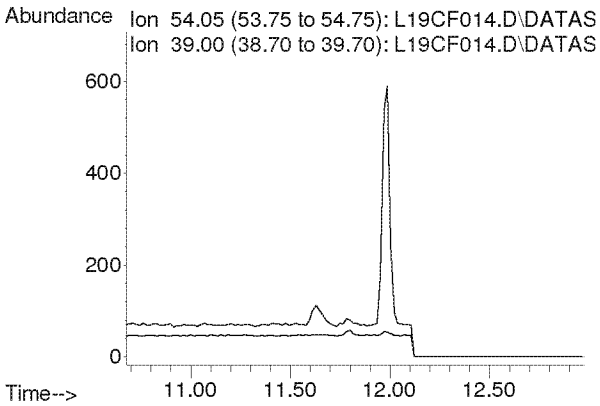


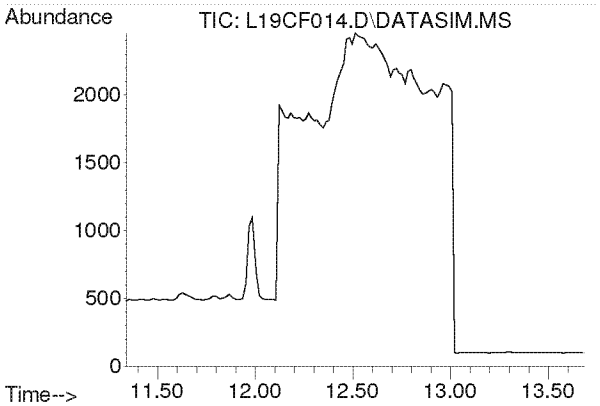
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0



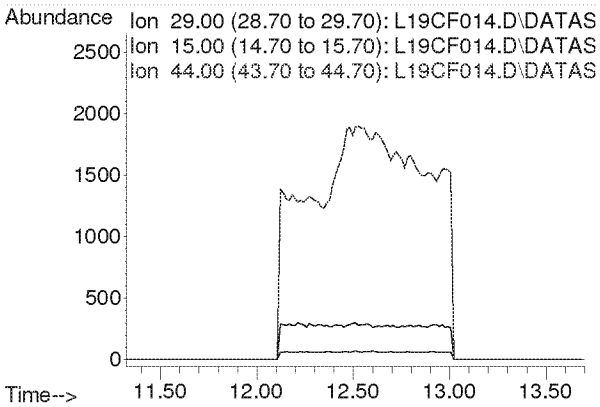


#9
Ethylene oxide
Concen: N.D.
Expected RT: 12.45 min

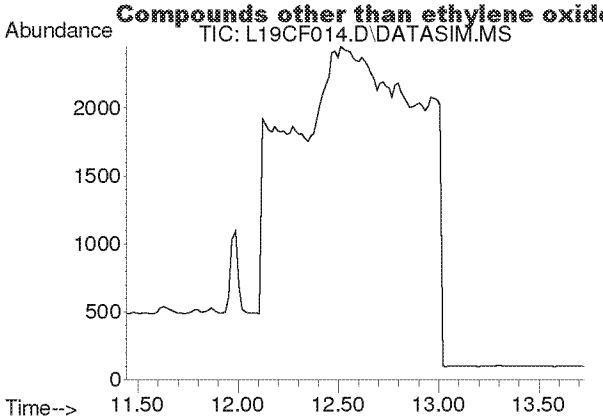
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 29

Sig	Exp Ratio
29	100
15	20.0
44	81.8



Compounds other than ethylene oxide were not quantitated.

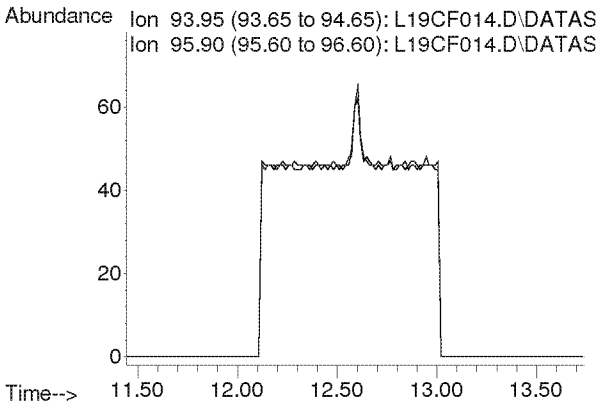


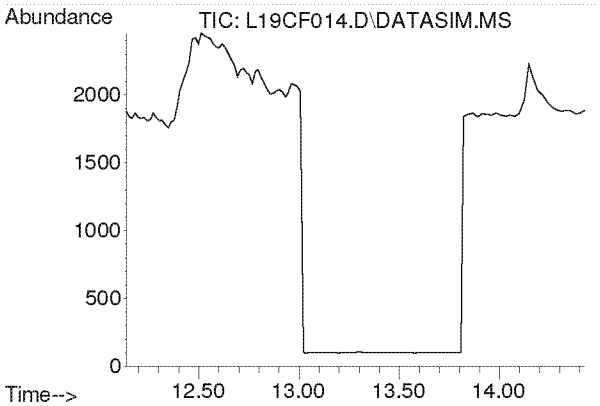
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



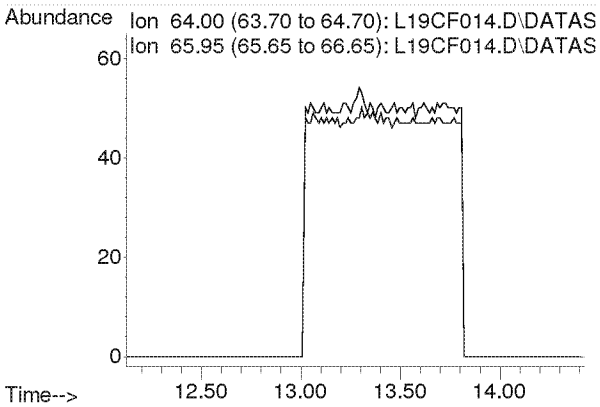


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

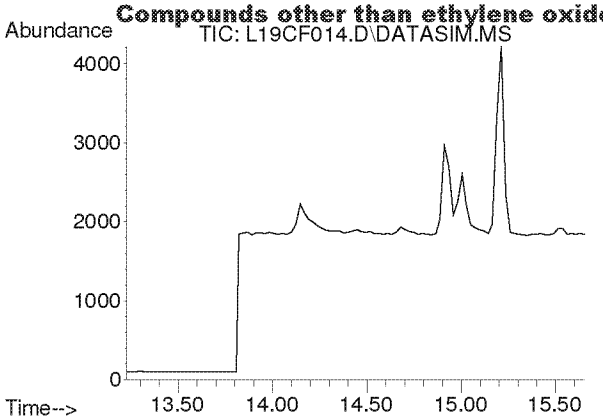
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

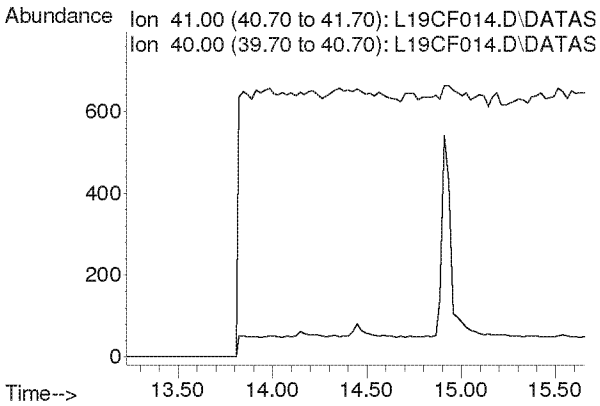


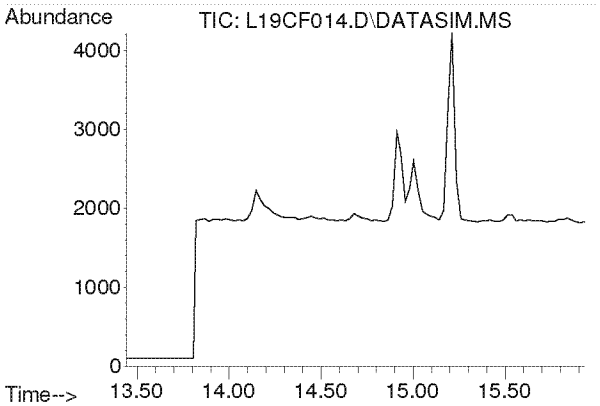
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



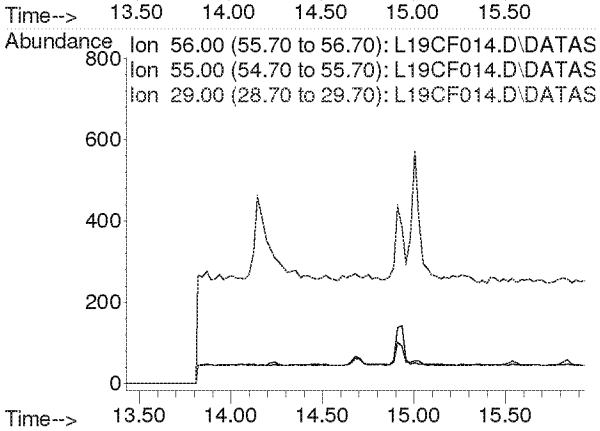


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

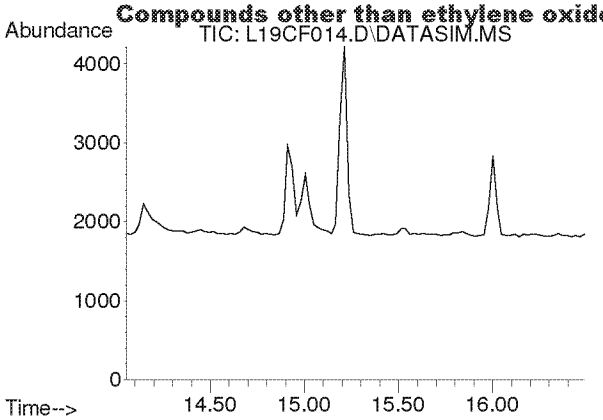
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

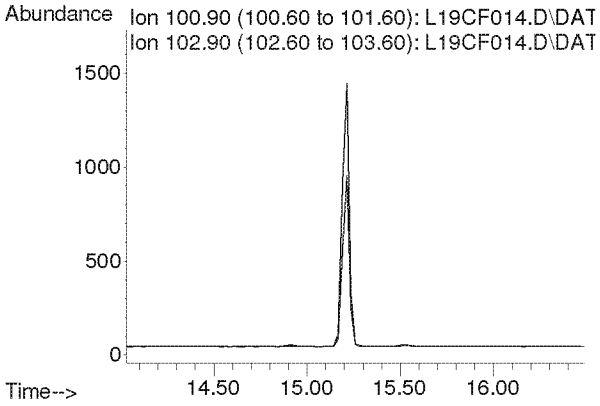


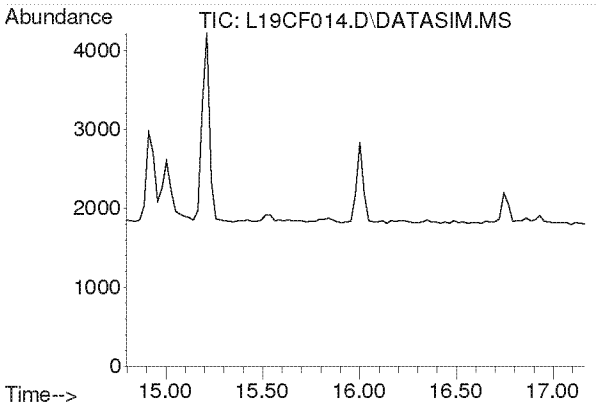
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



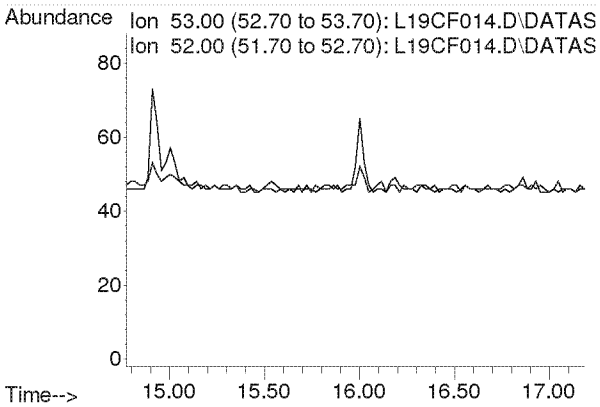


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

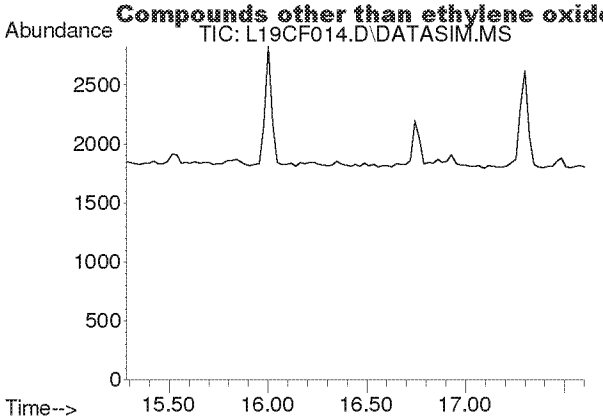
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

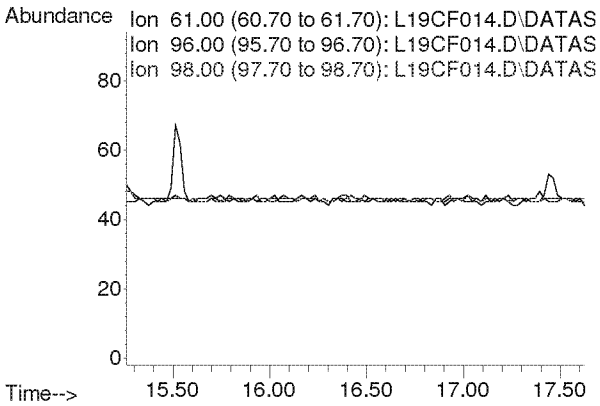


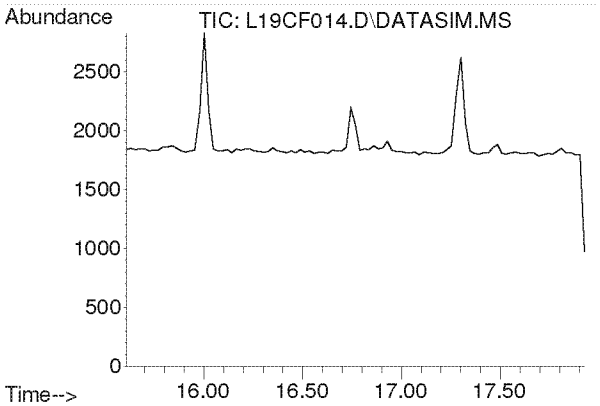
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



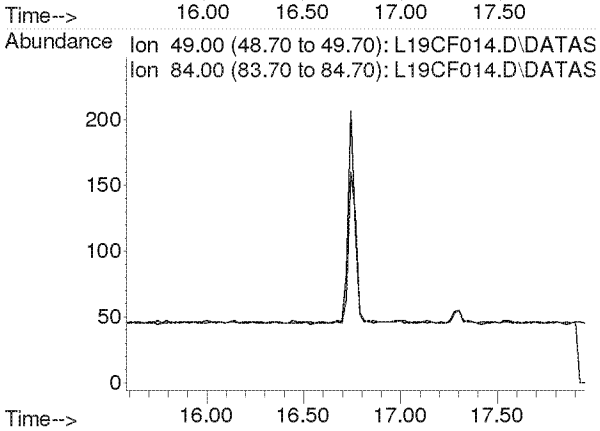


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

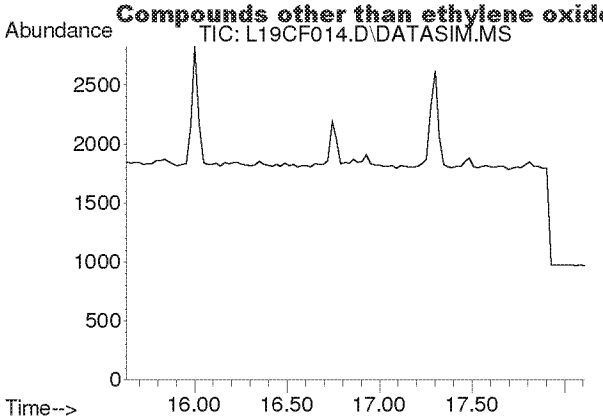
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

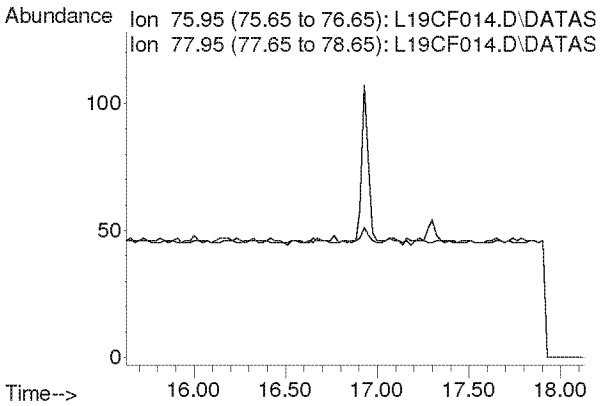


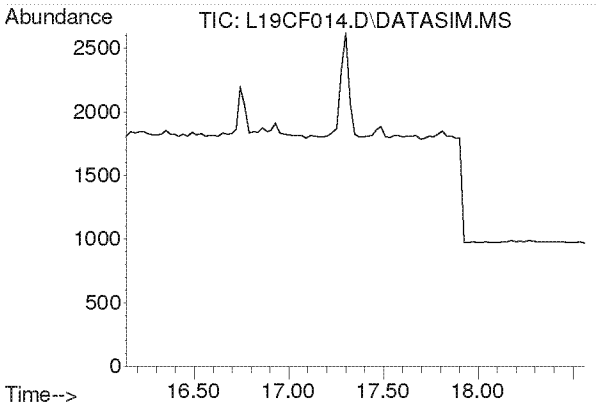
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



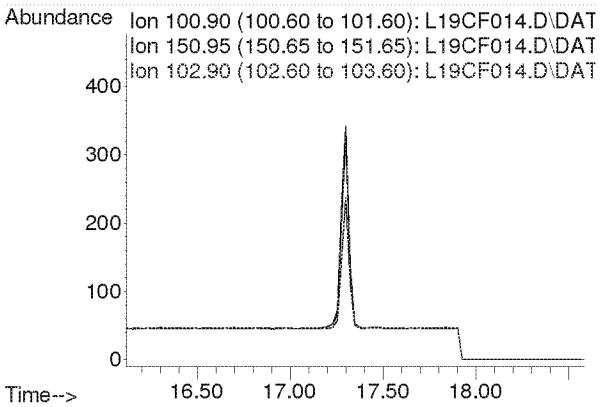


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

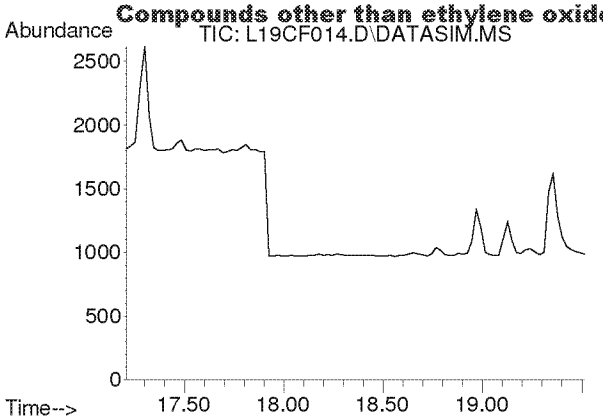
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

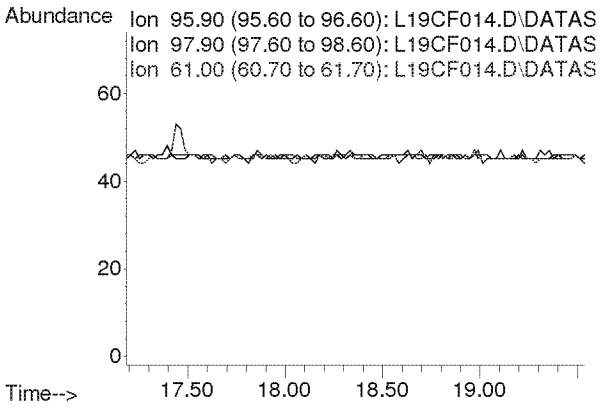


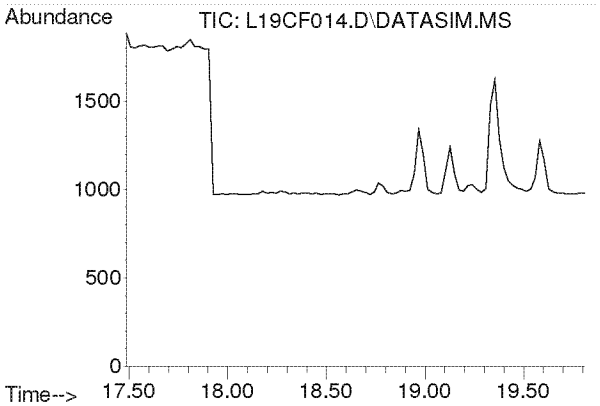
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



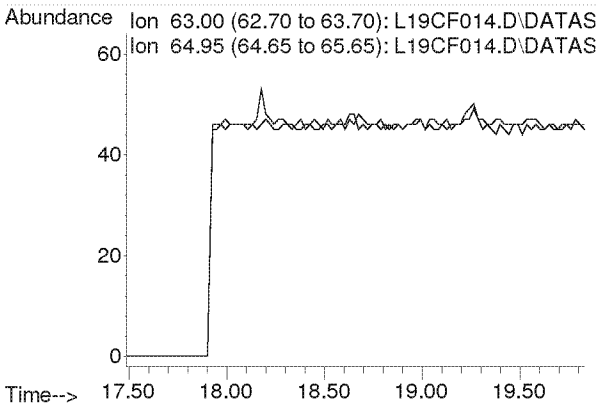


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

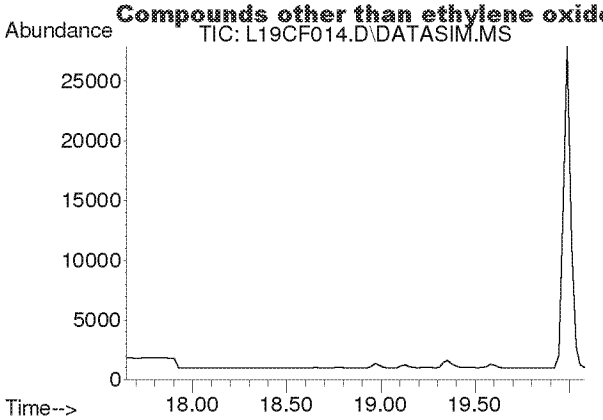
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

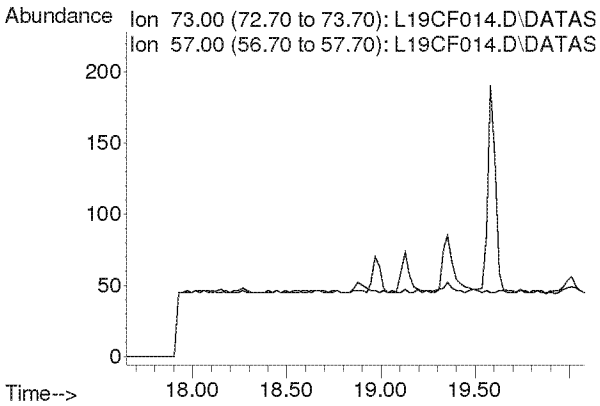


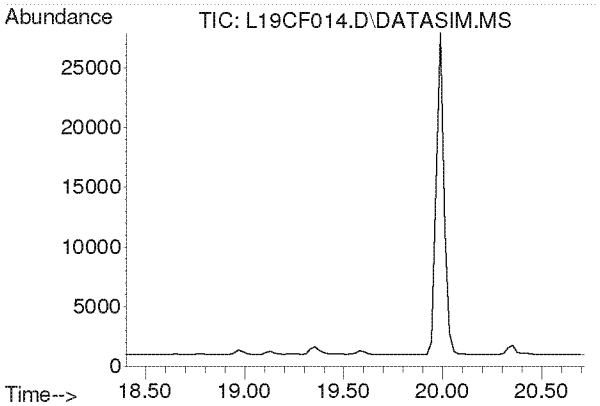
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



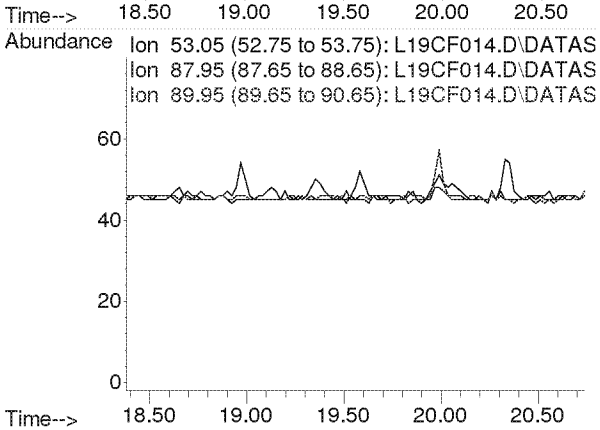


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

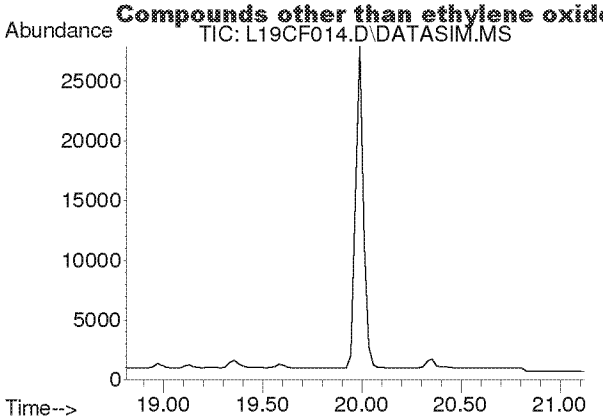
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

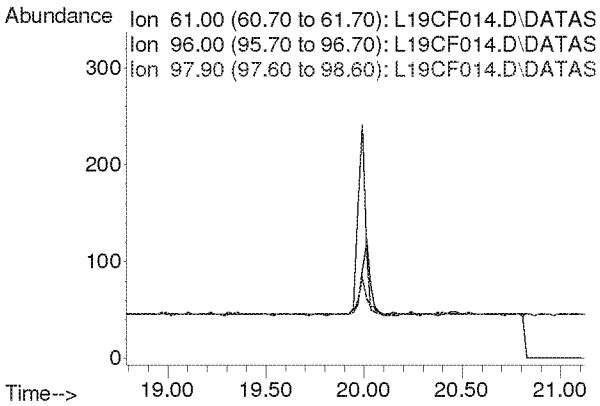


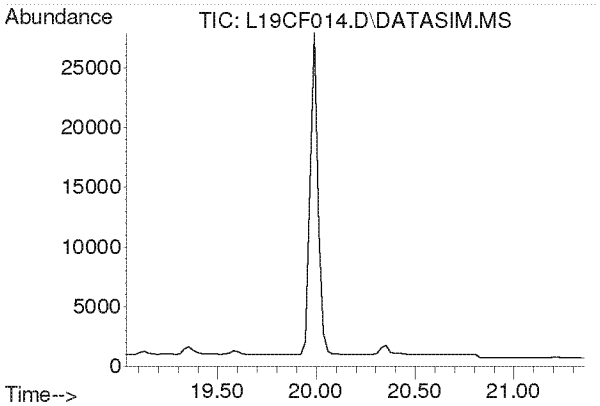
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



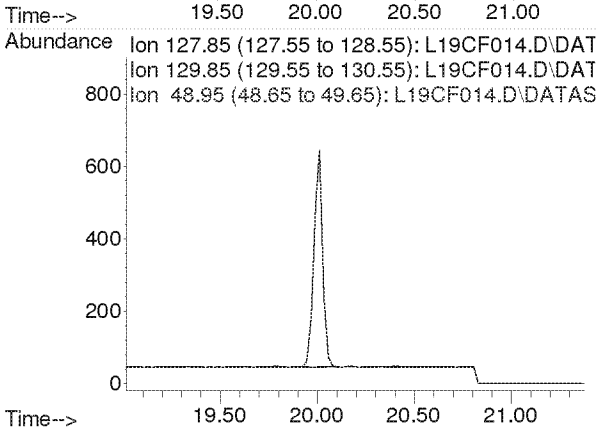


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

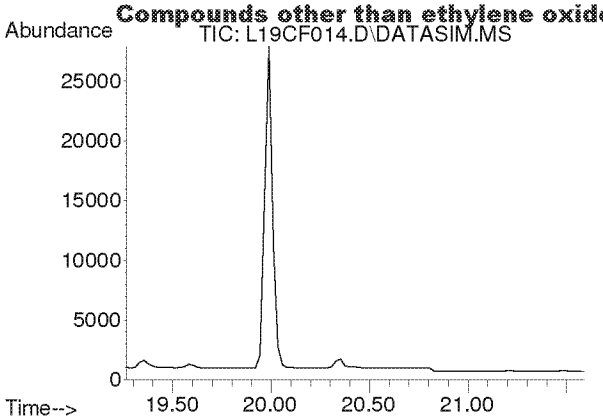
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

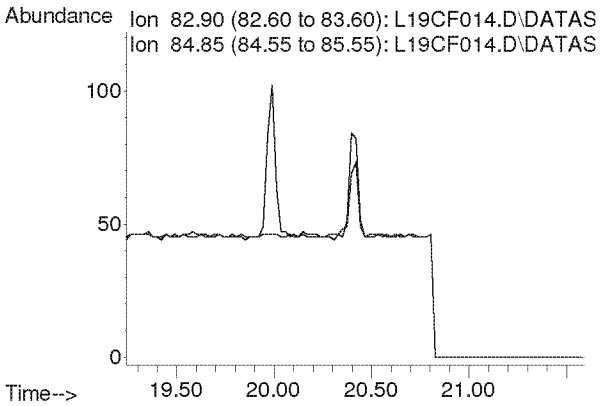


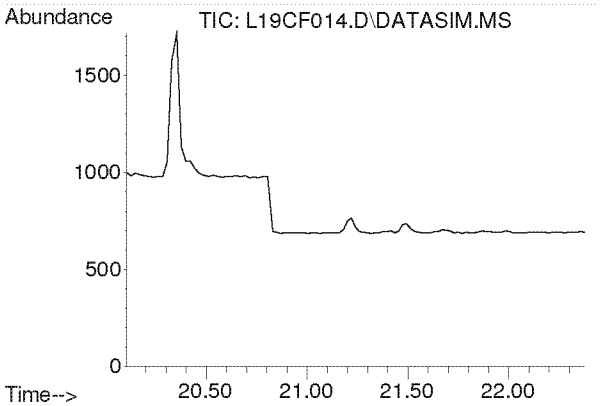
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



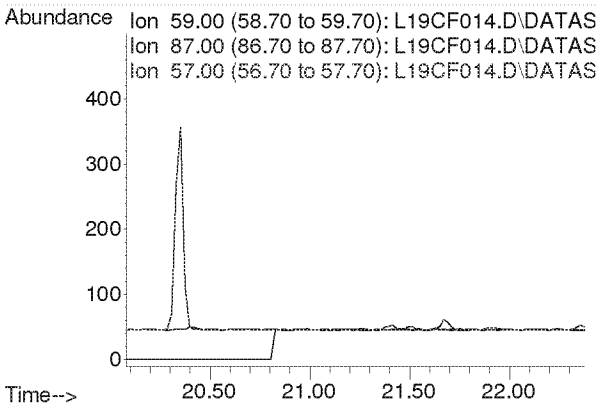


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

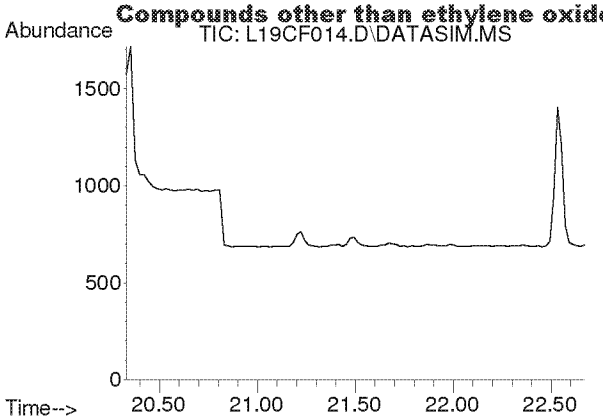
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

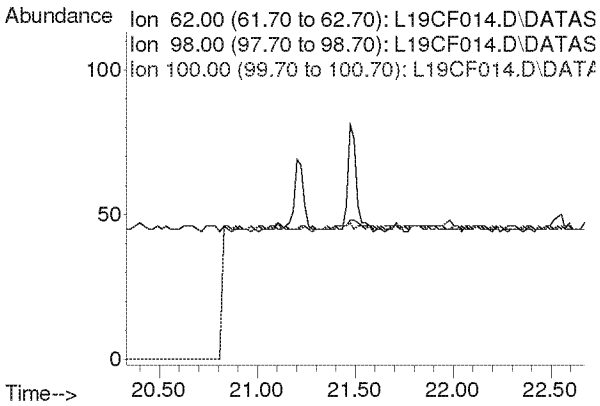


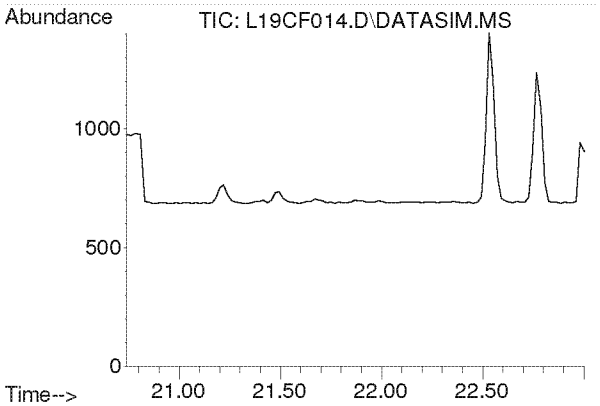
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



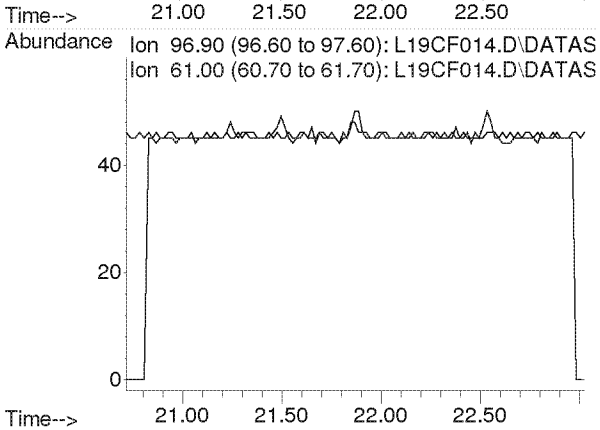


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

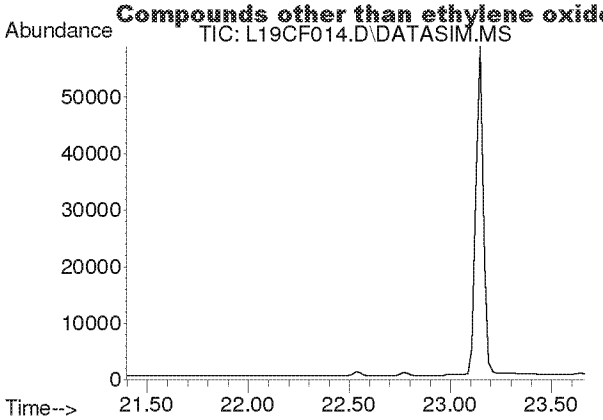
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

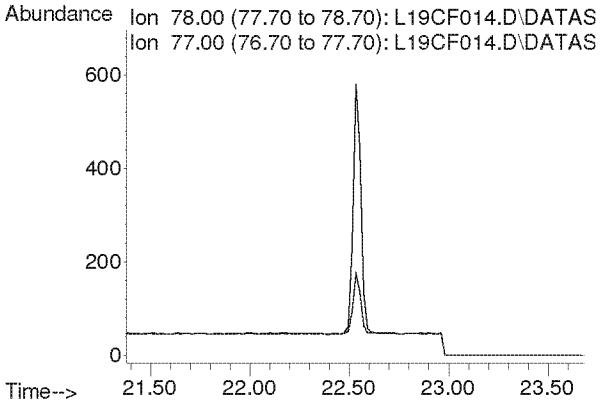


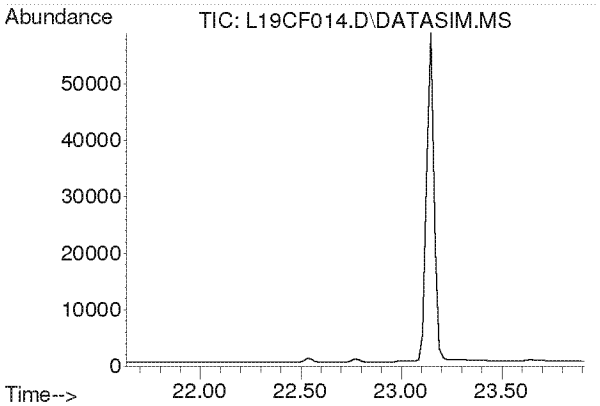
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



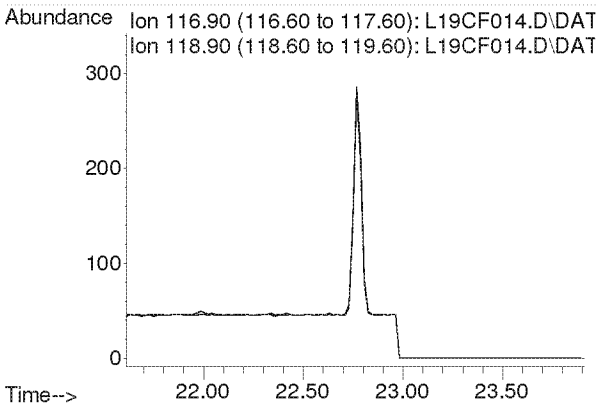


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

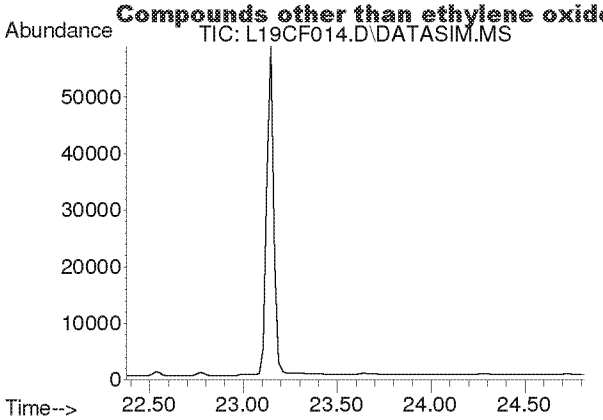
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

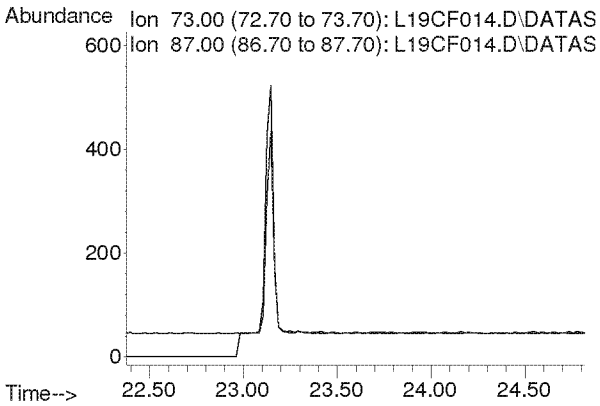


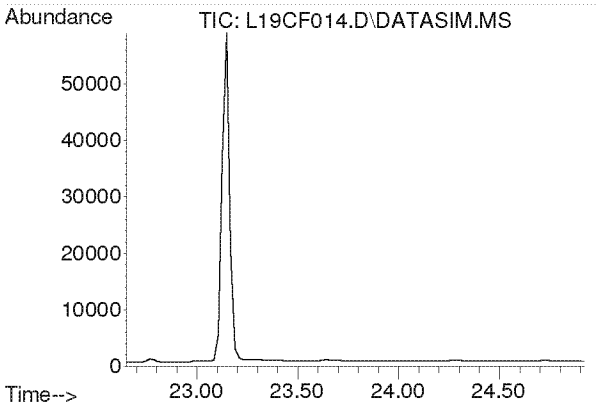
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



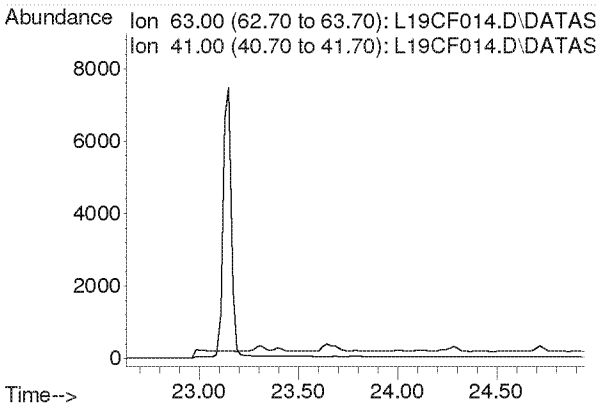


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

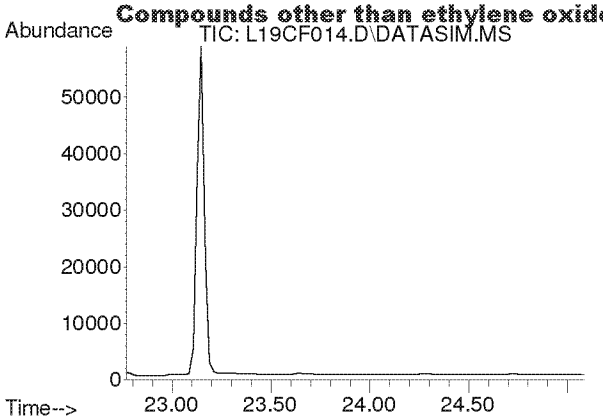
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

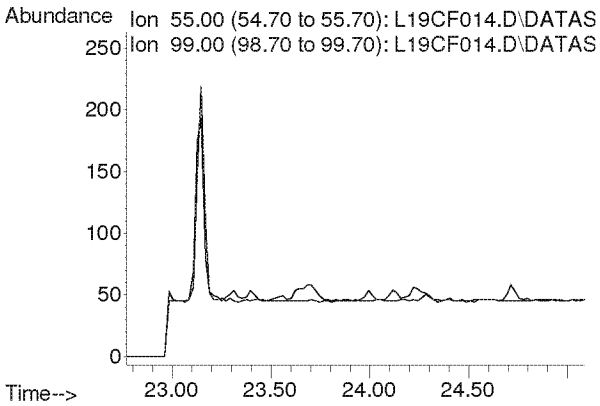


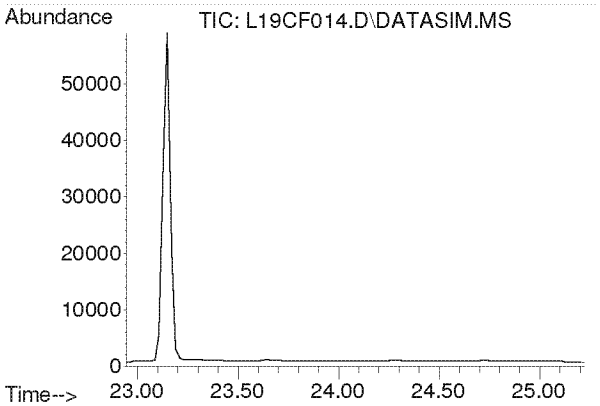
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



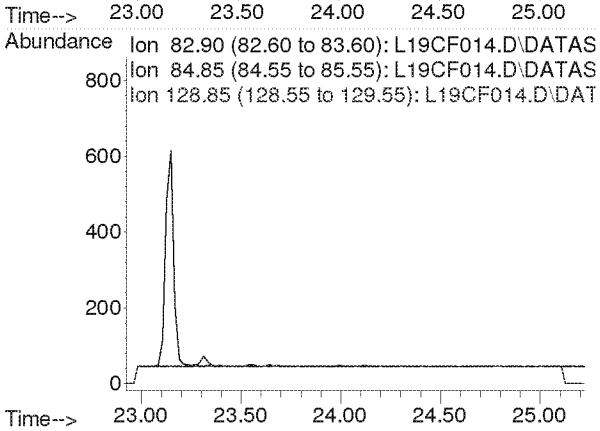


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

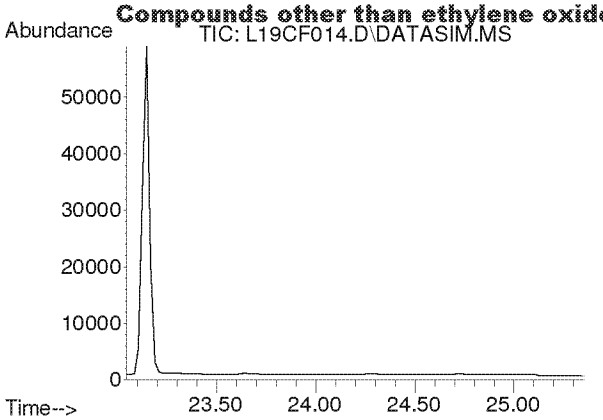
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

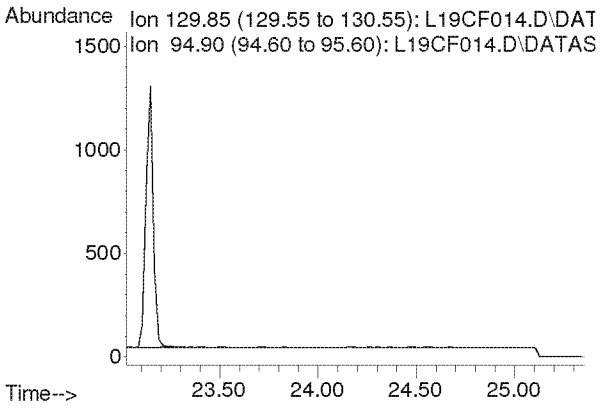


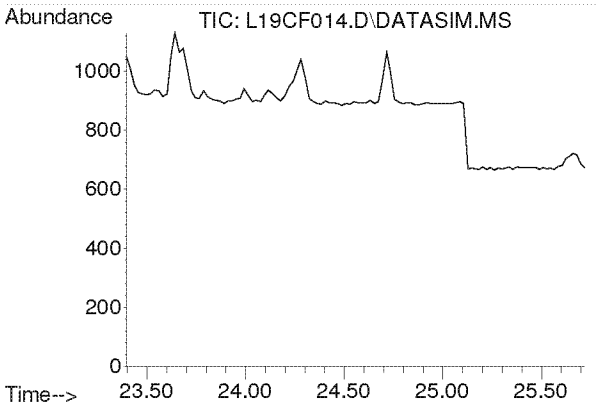
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



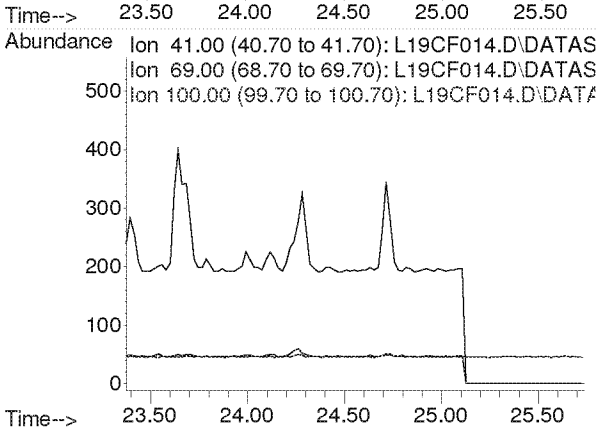


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

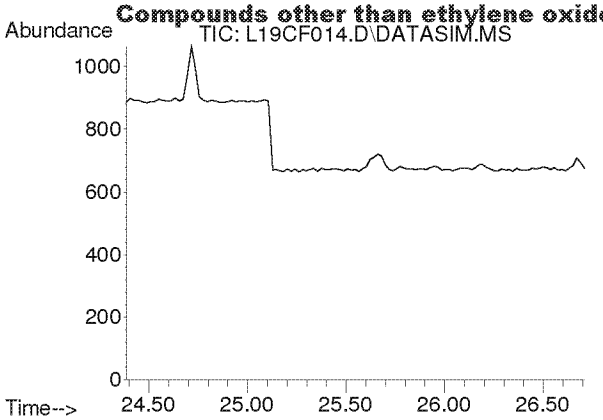
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

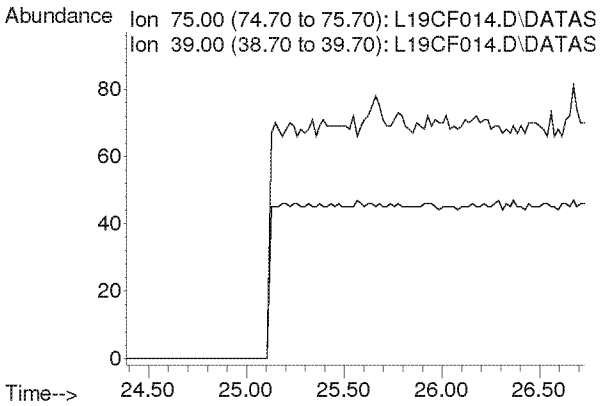


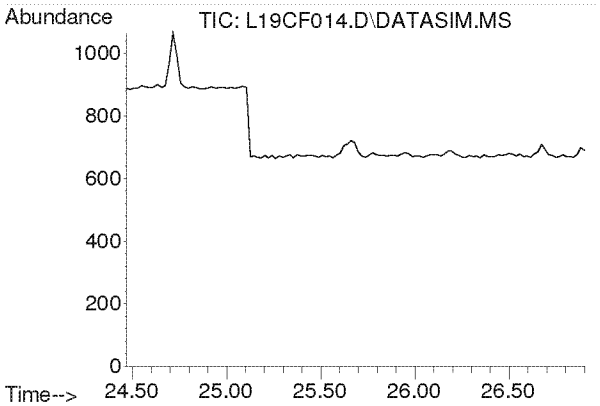
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



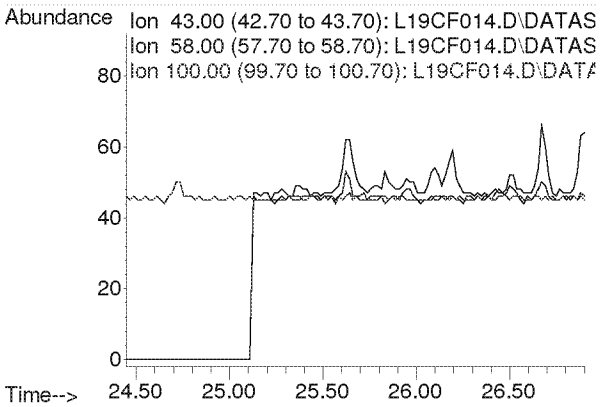


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

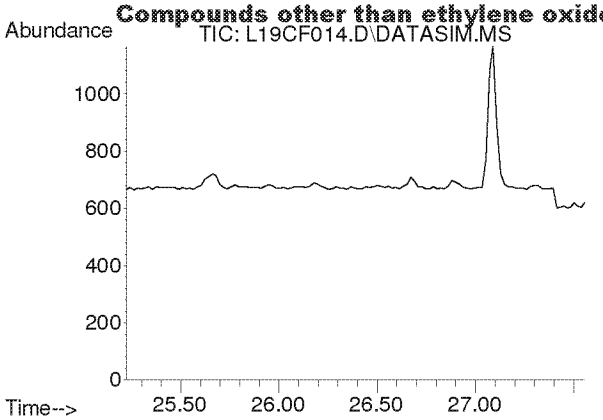
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

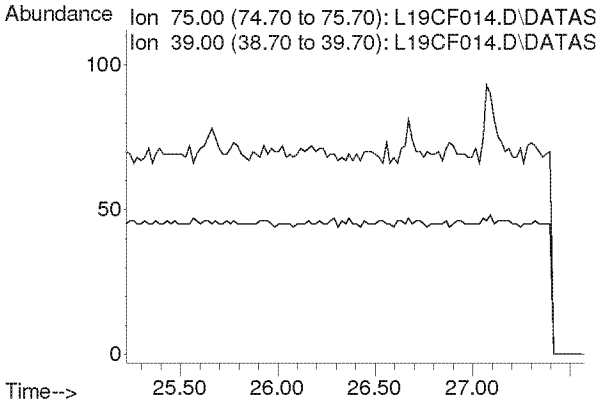


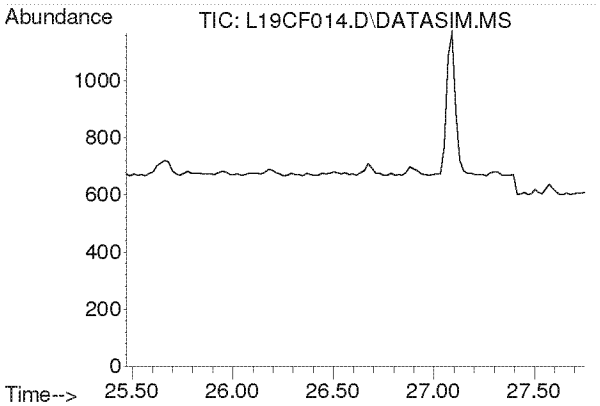
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



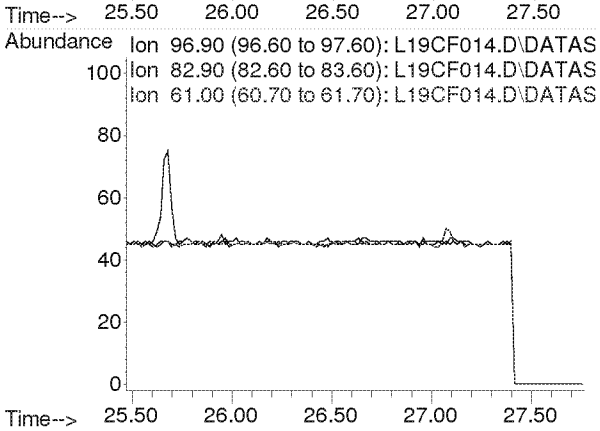


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

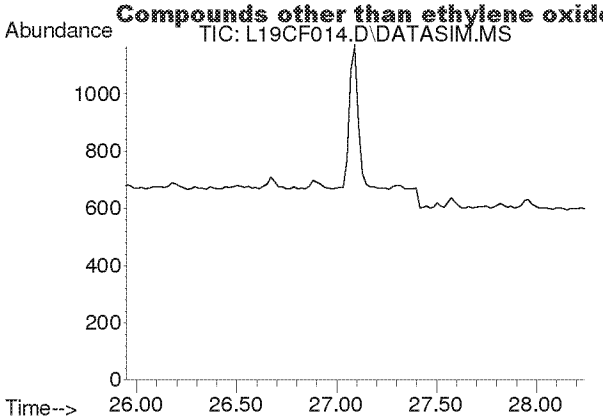
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

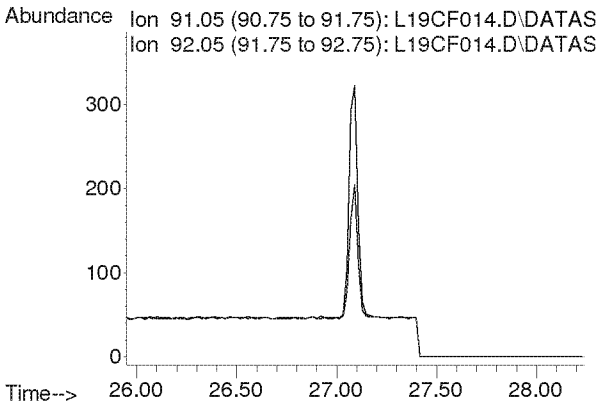


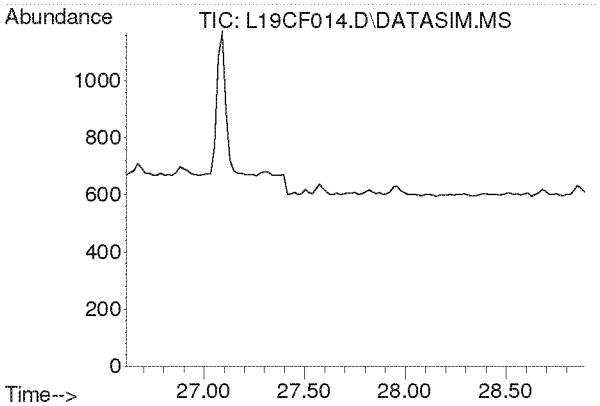
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



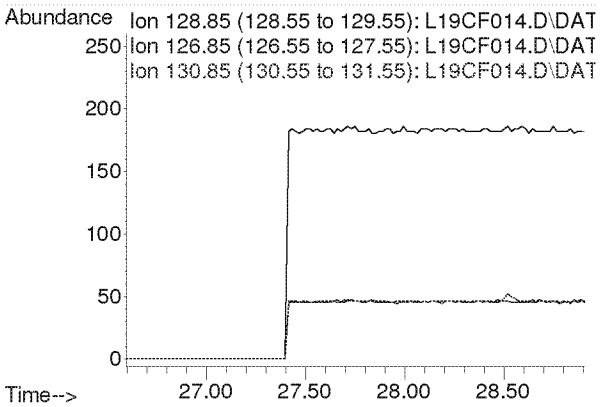


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

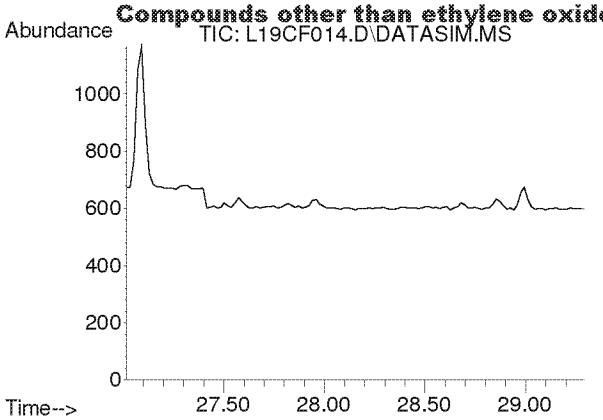
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

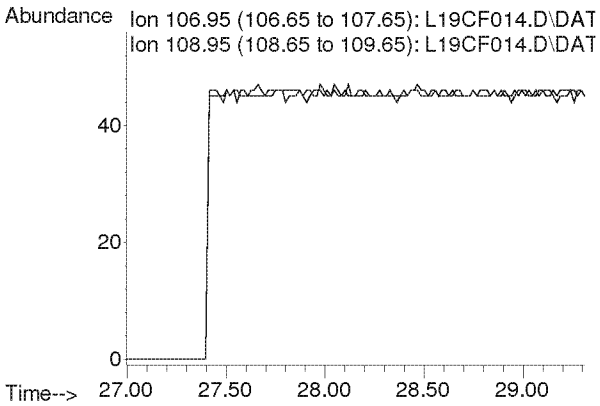


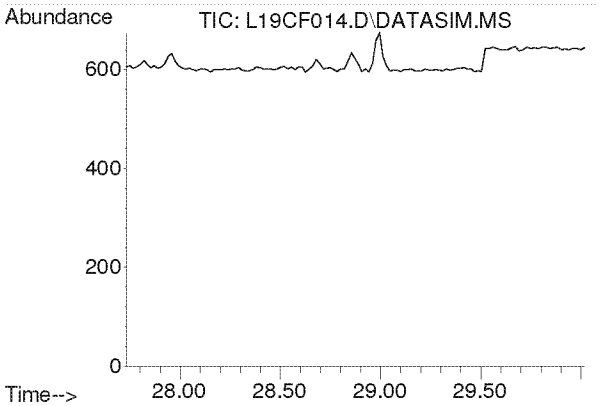
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



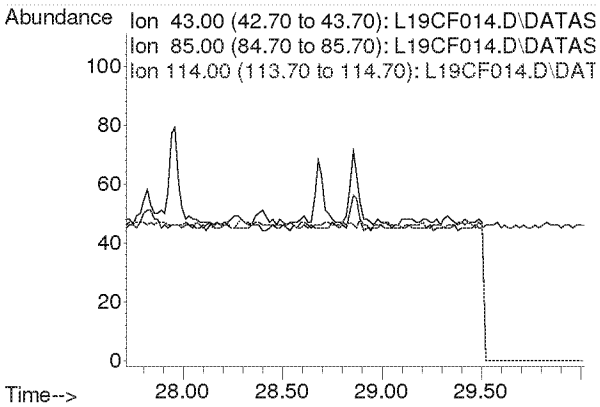


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

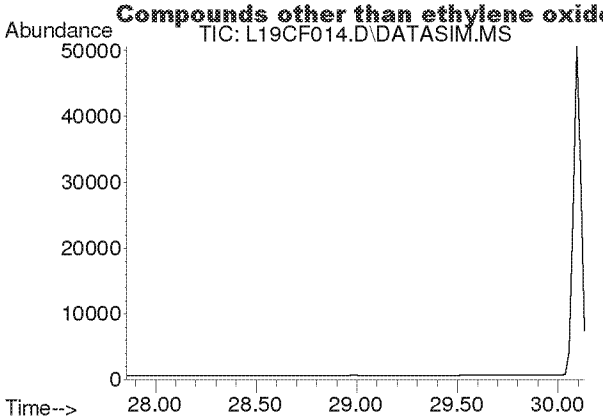
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

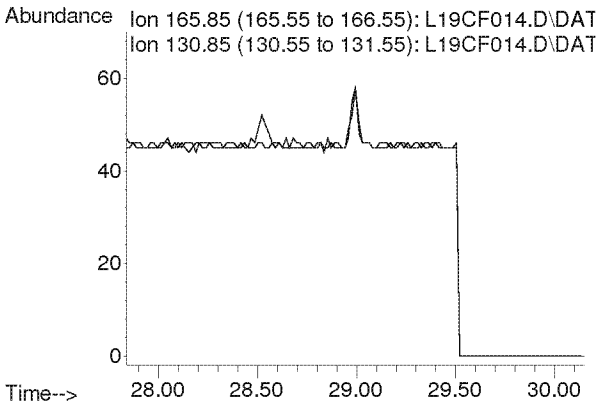


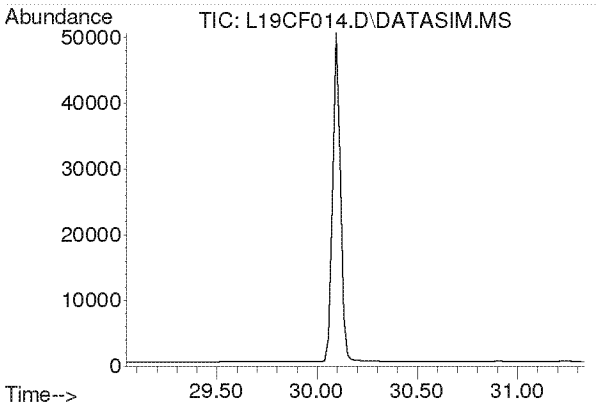
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



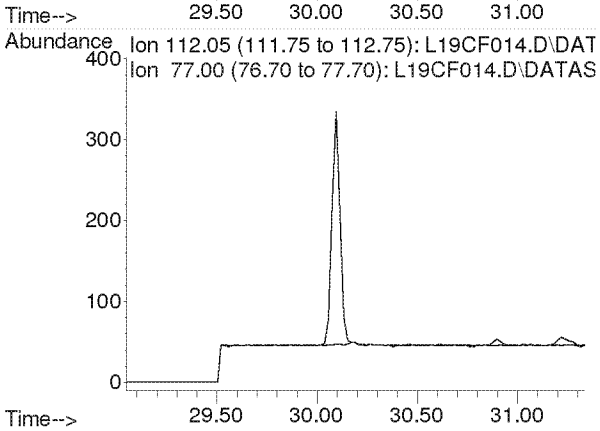


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

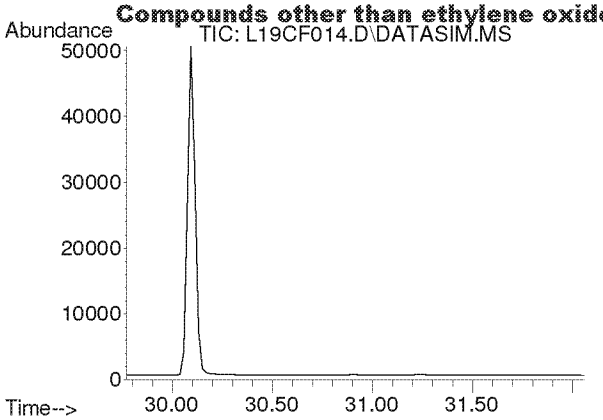
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

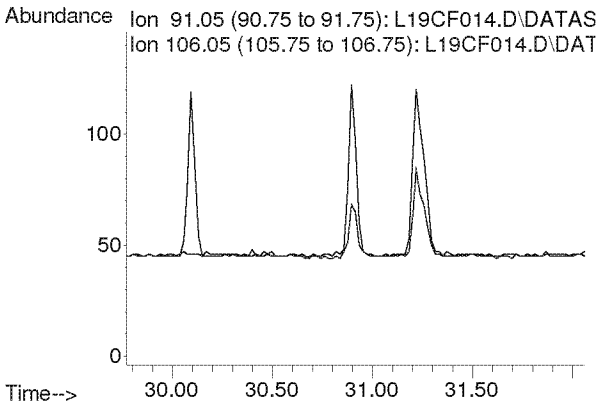


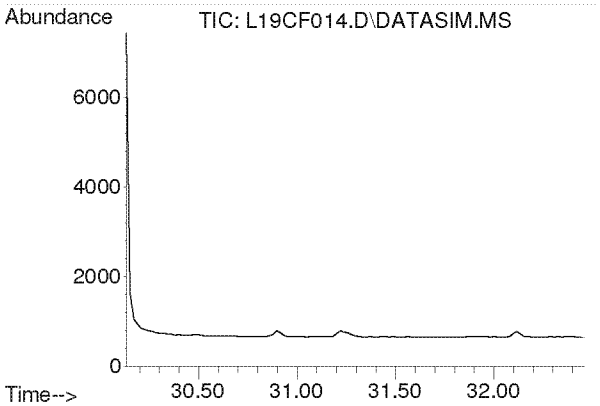
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



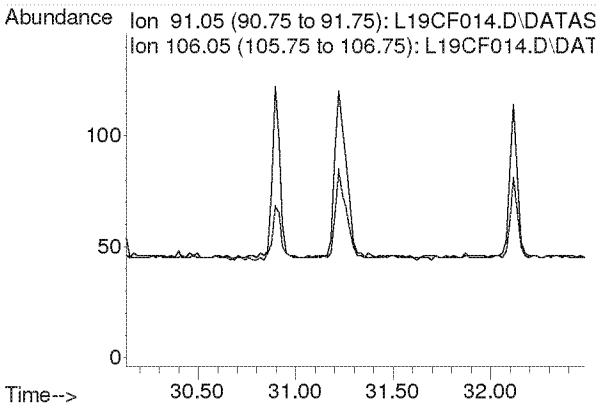


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

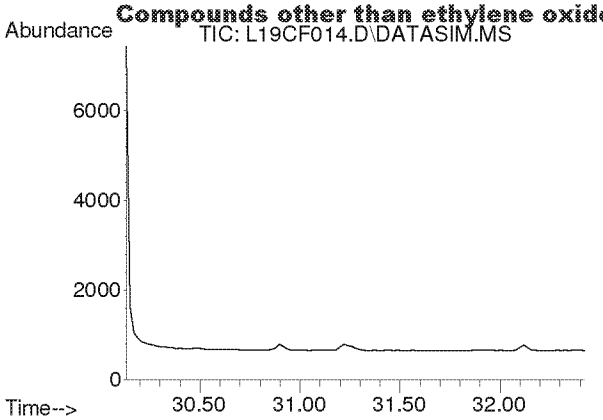
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

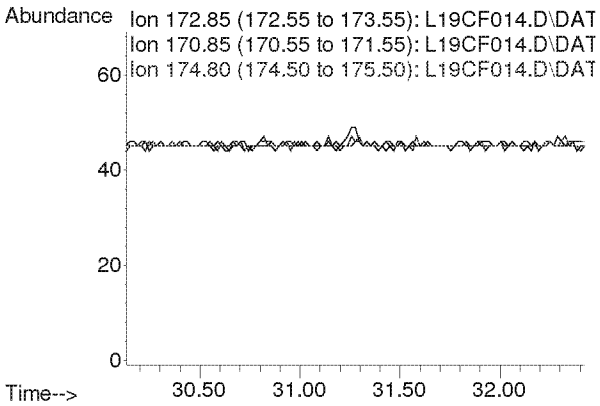


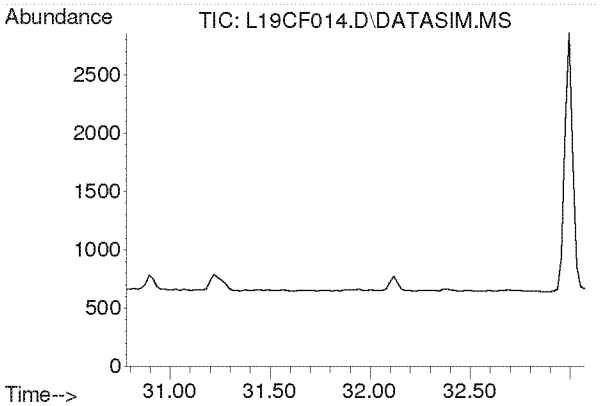
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



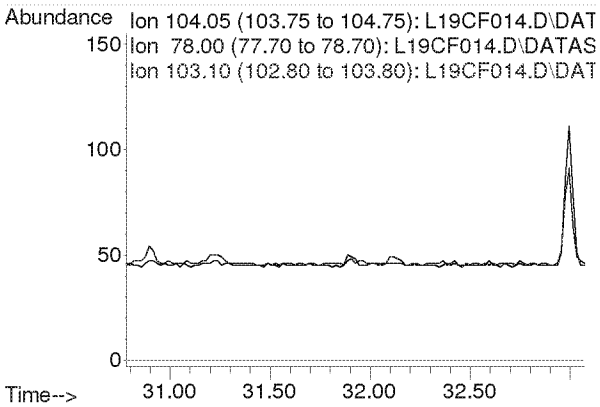


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

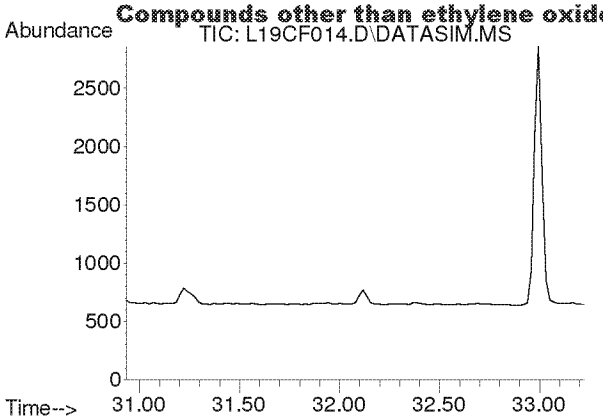
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

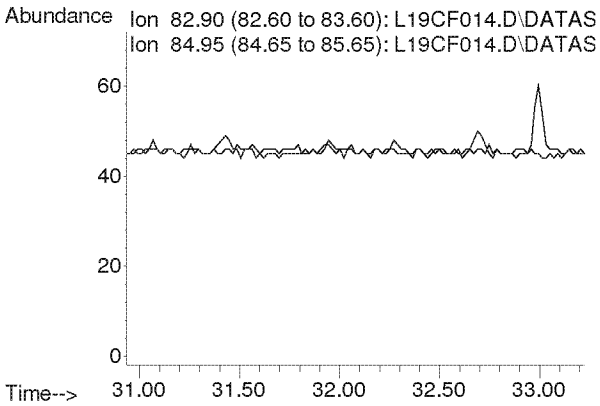


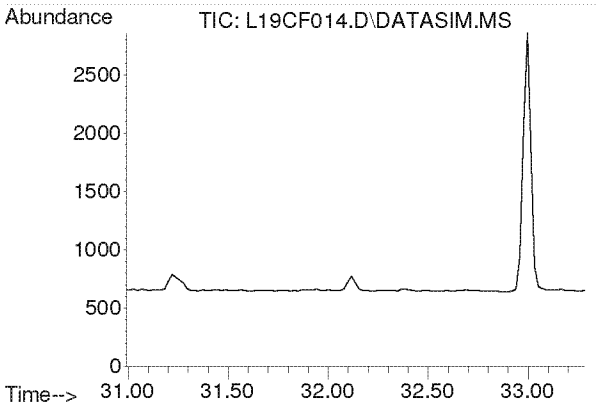
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



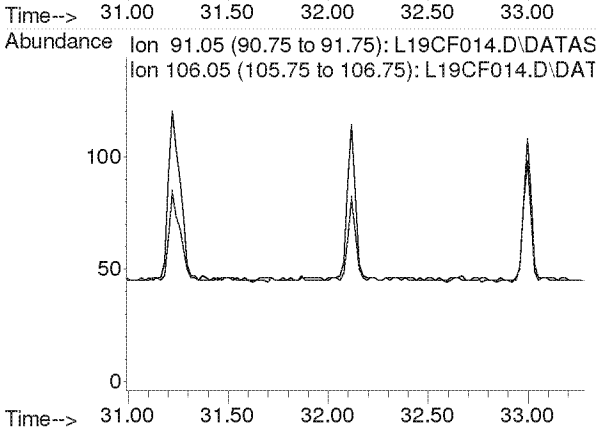


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

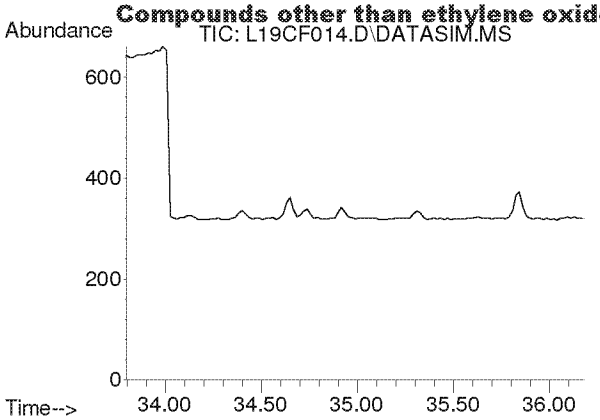
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

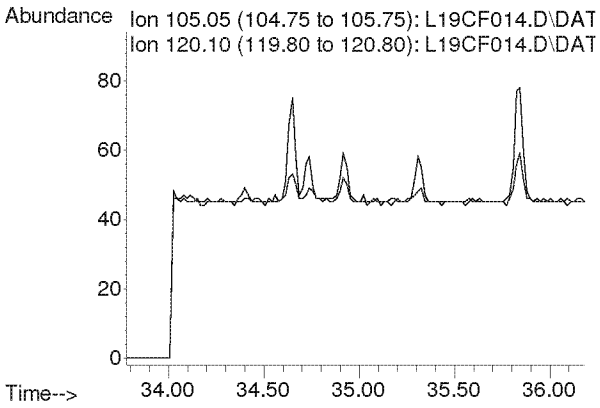


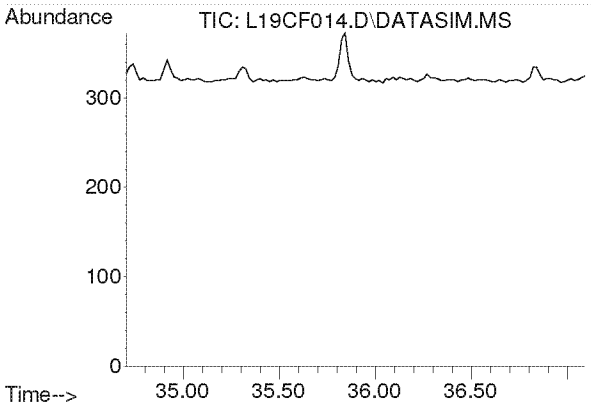
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



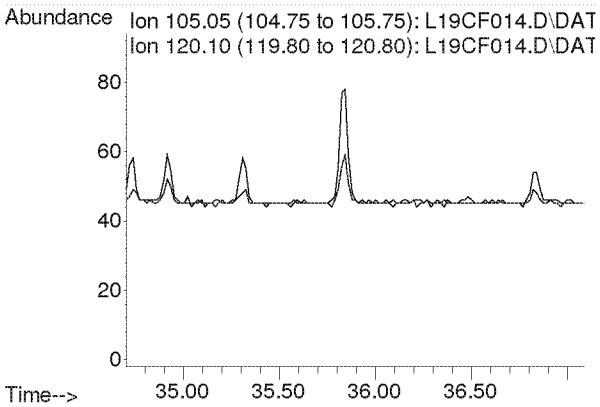


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

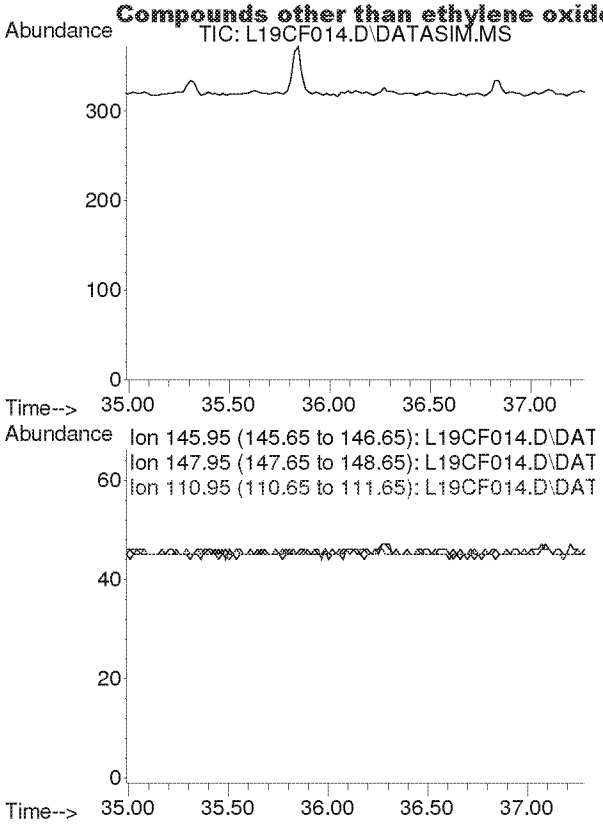
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

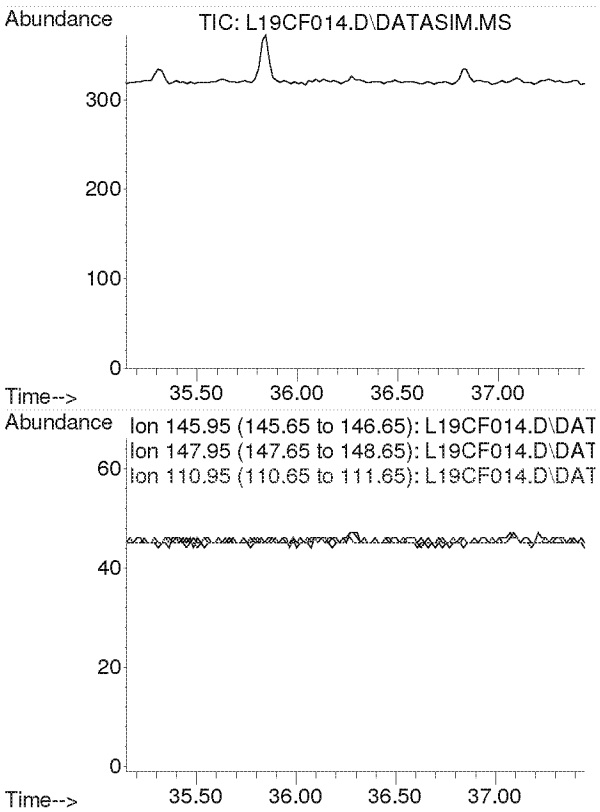


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



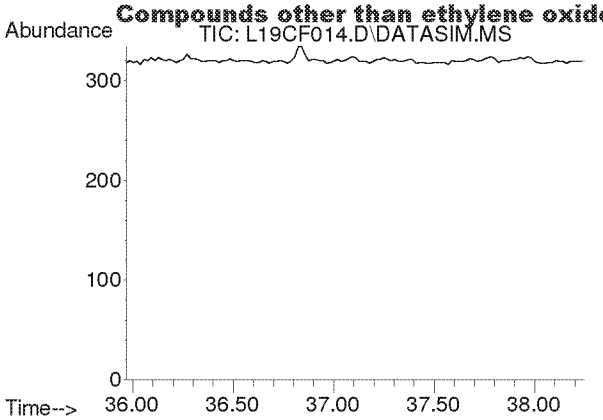
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

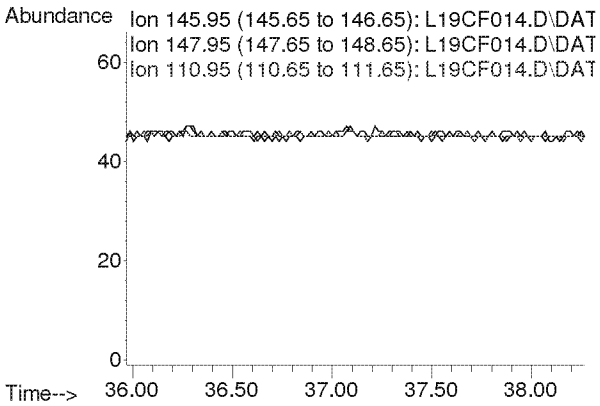


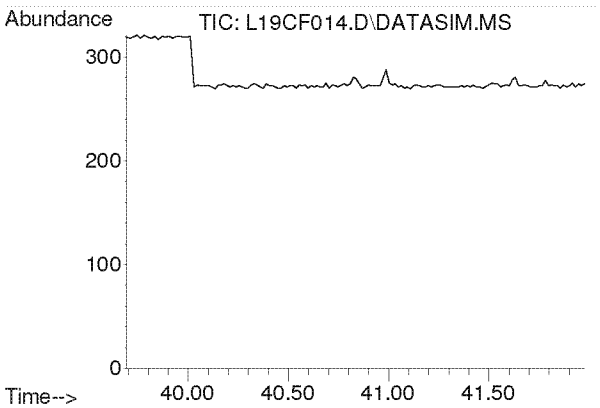
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



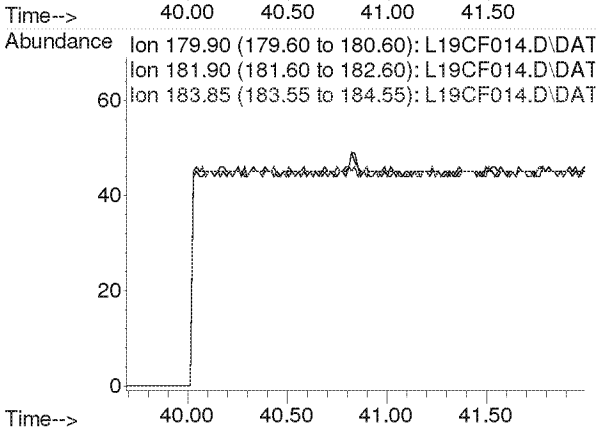


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

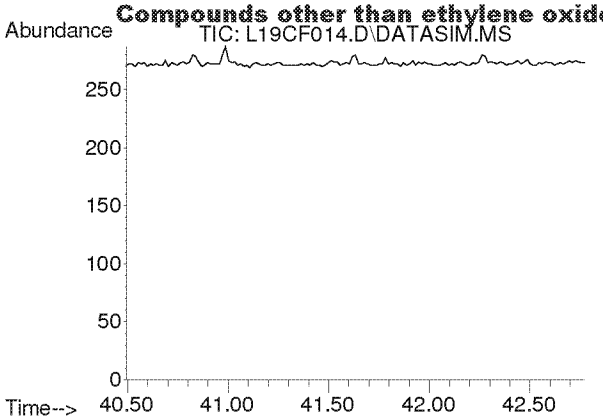
Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

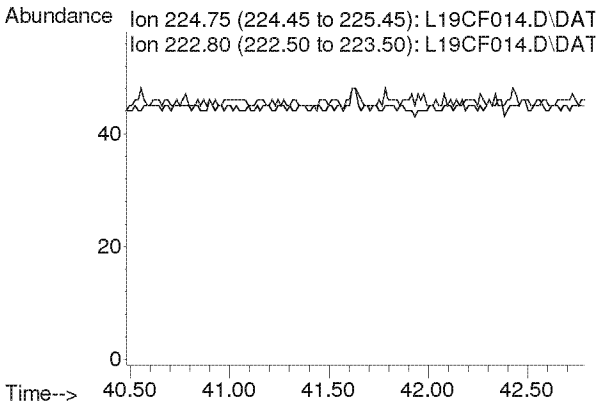


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19CF014.D
Acq: 7 Mar 2019 2:33 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\L19CF\
Data File : L19CF015.D
Acq On : 7 Mar 2019 3:36 am (#1); 07-Mar-19, 03:30:49 (#2)
Operator : MAH
Sample : 9030618-08
Misc : GOWER ES 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 07 06:37:51 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

d=nR

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	41948	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	105337	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	72774	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.	
9) Ethylene oxide	12.500	29	164m	0.0684 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.	
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.	
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	

ED_002475_00000356-00415

Compounds other than ethylene oxide were not quantitated.

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\L19CF\
Data File : L19CF015.D
Acq On : 7 Mar 2019 3:36 am (#1); 07-Mar-19, 03:30:49 (#2)
Operator : MAH
Sample : 9030618-08
Misc : GOWER ES 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 07 06:37:51 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

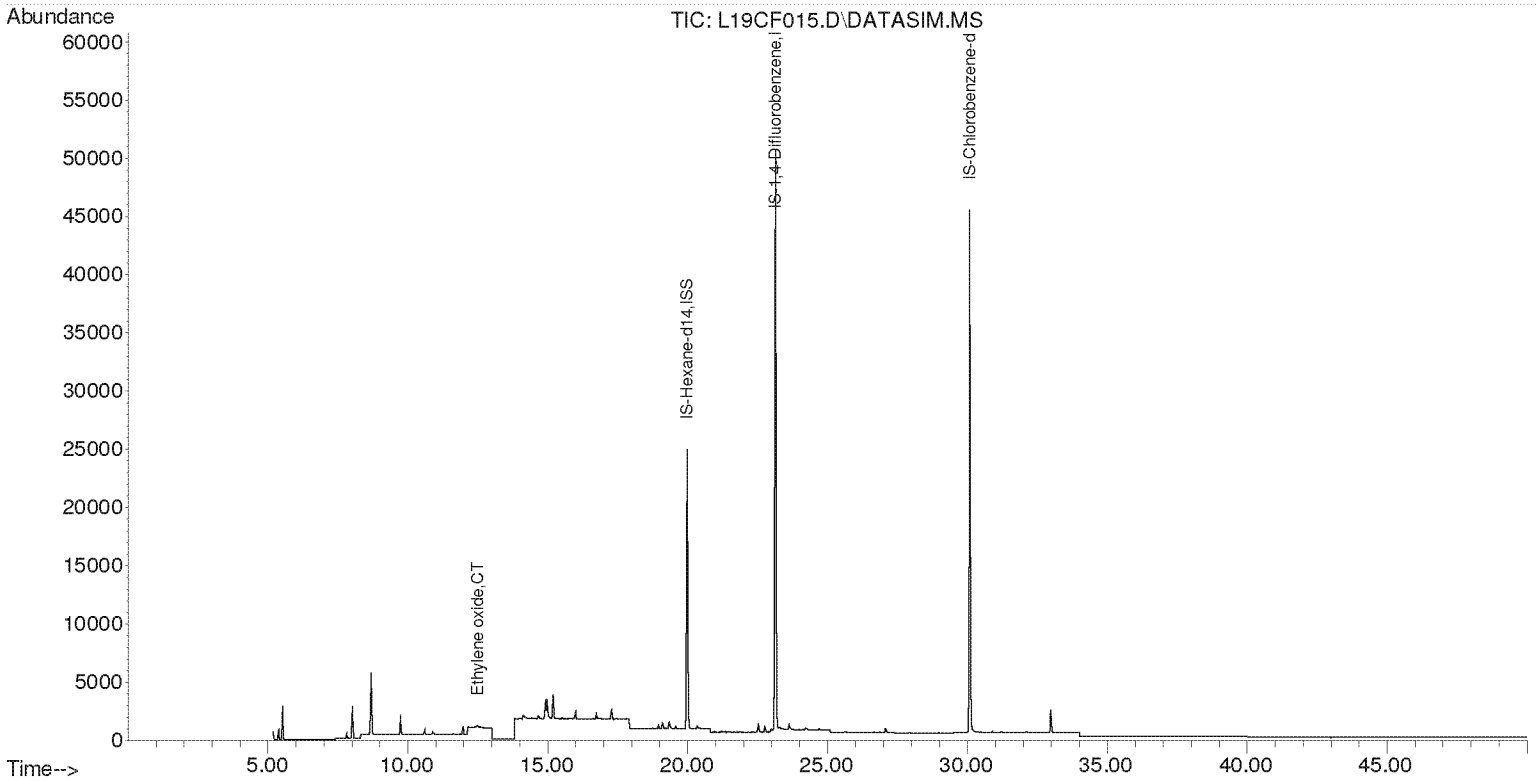
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	
57) 1,2,4-Trimethylbenzene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

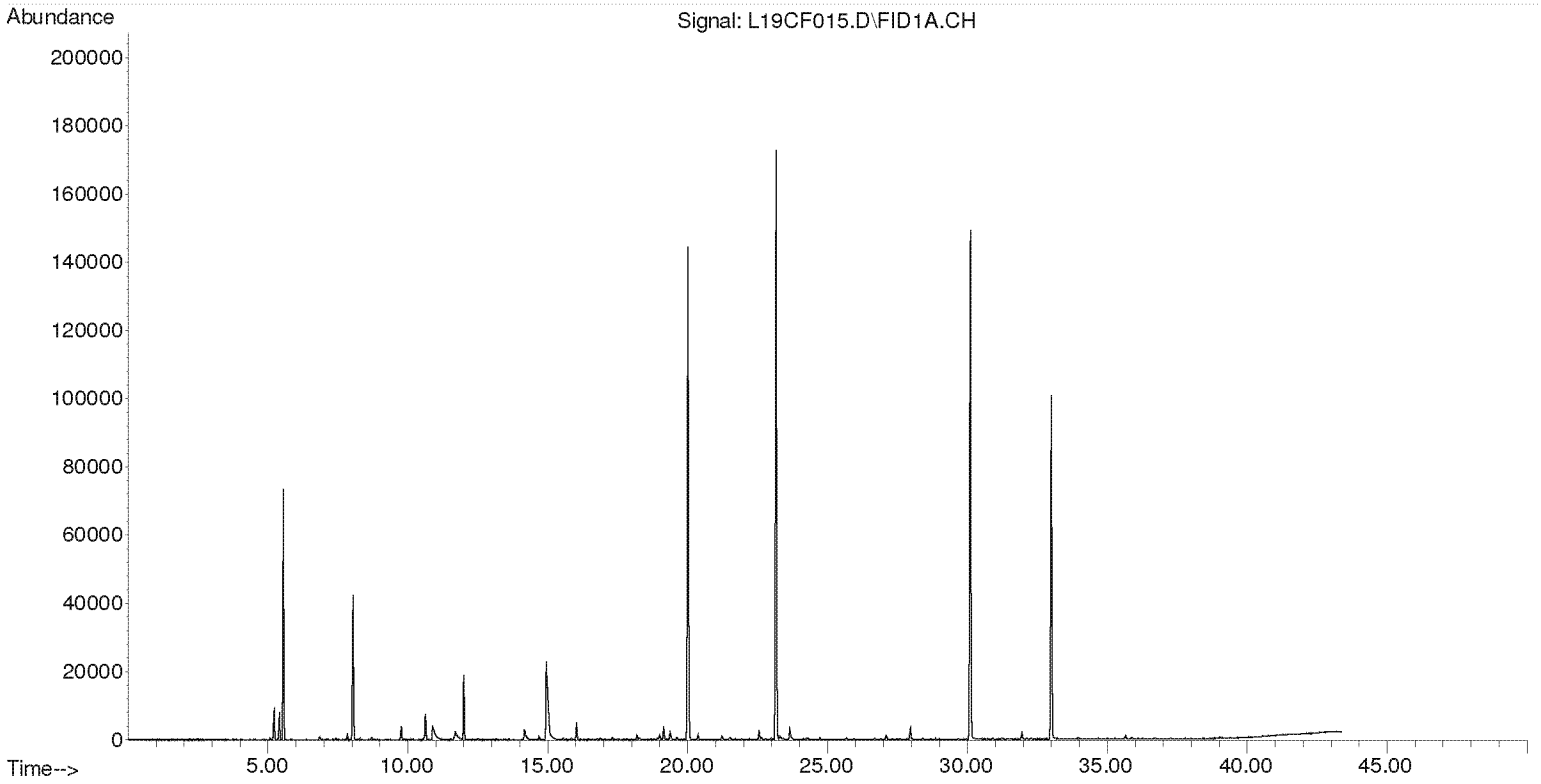
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

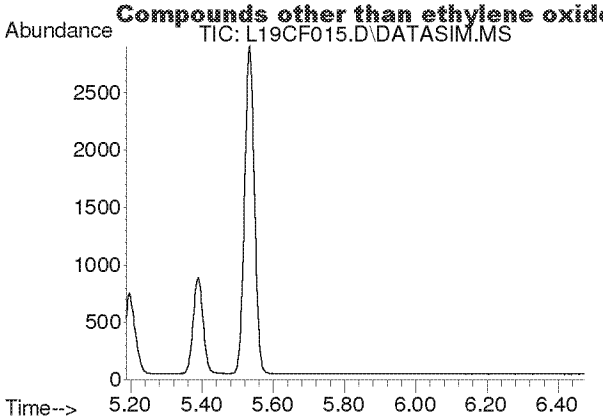
Data Path : Y:\MASS SPEC 1 DATA\L19CF\
Data File : L19CF015.D
Acq On : 7 Mar 2019 3:36 am (#1); 07 Mar 2019 3:30 am (#2)
Operator : MAH
Sample : 9030618-08
Misc : GOWER ES 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Mar 07 06:24:55 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





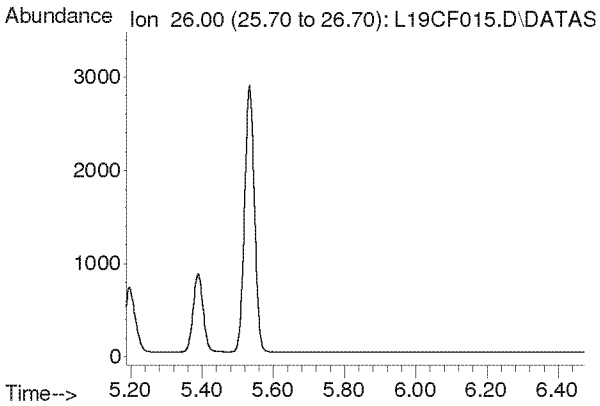
Compounds other than ethylene oxide were not quantitated.

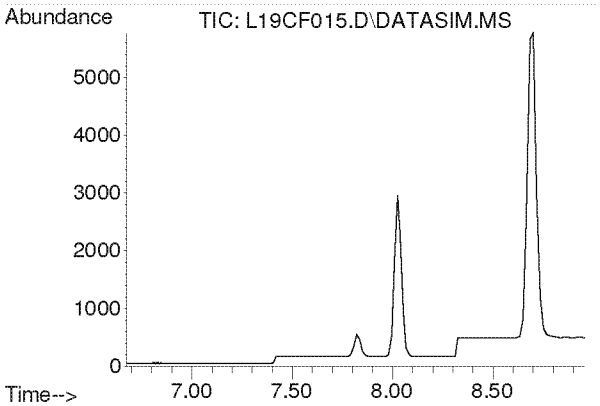


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 26



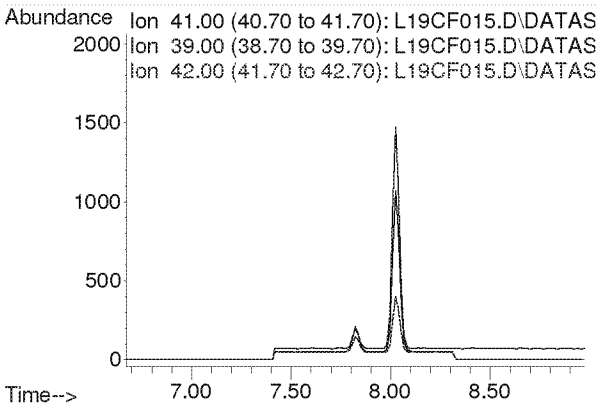


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

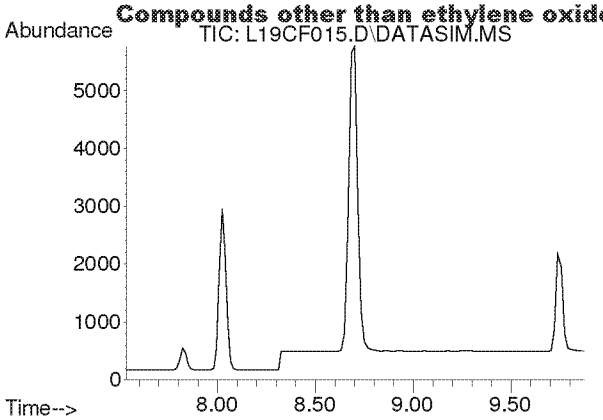
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

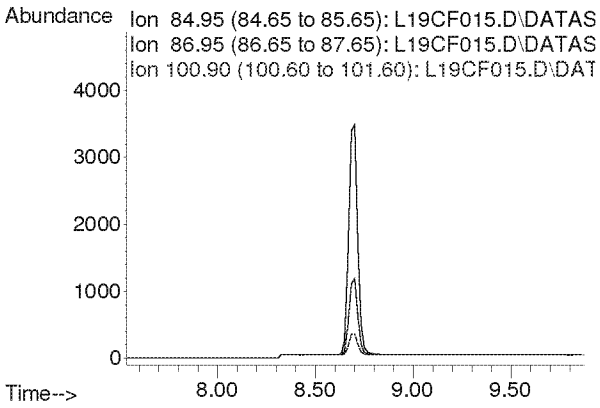


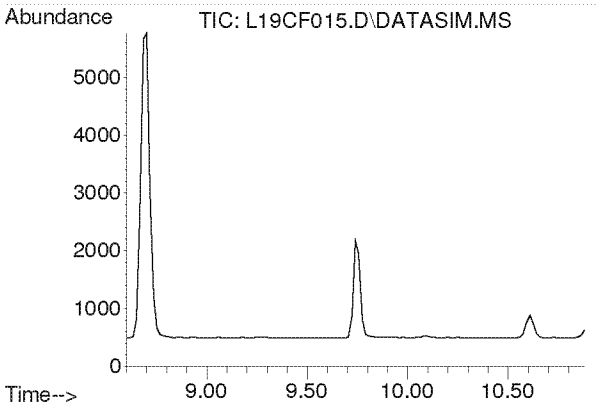
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



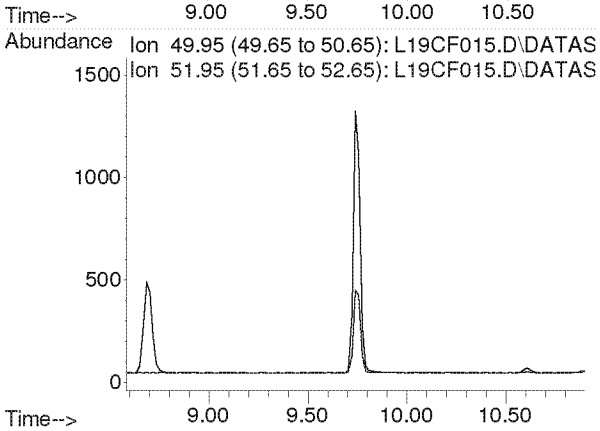


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

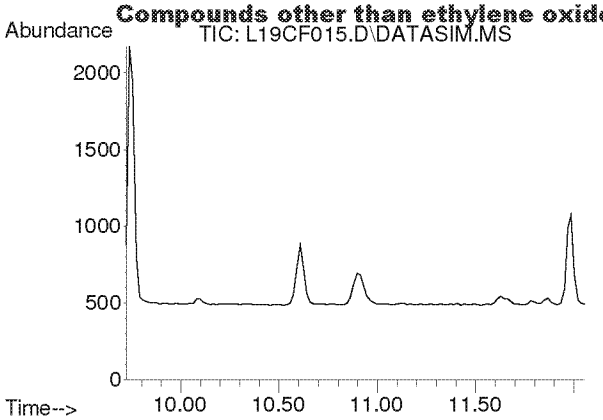
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

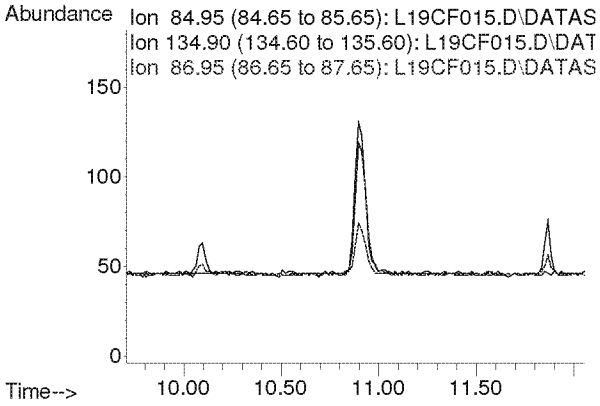


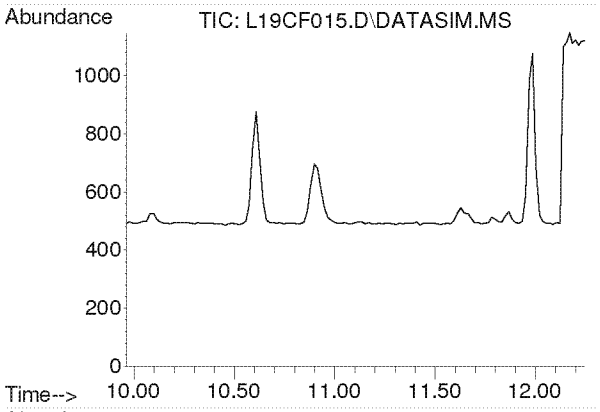
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



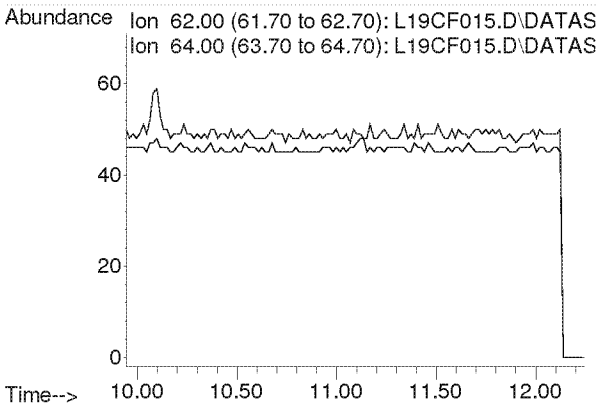


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

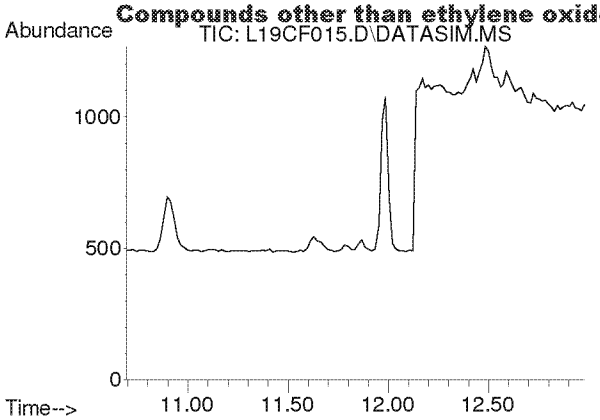
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

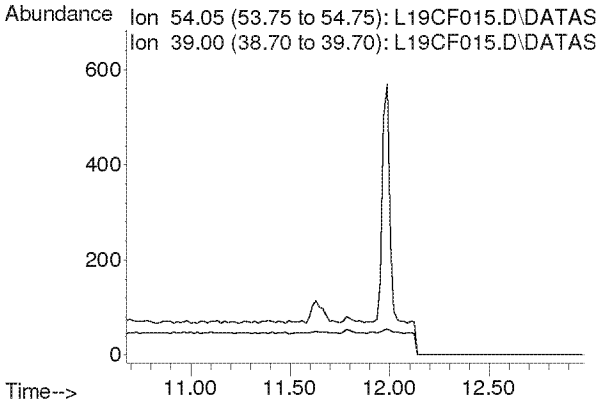


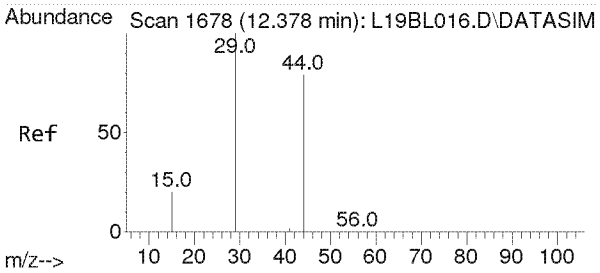
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

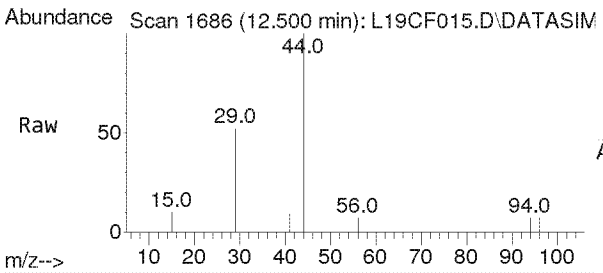


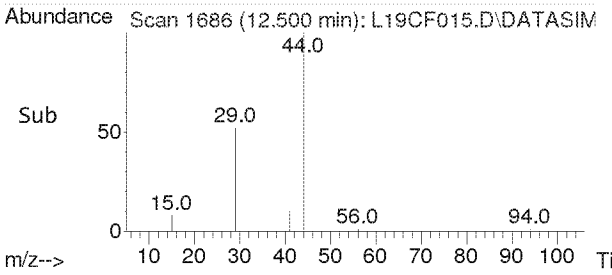


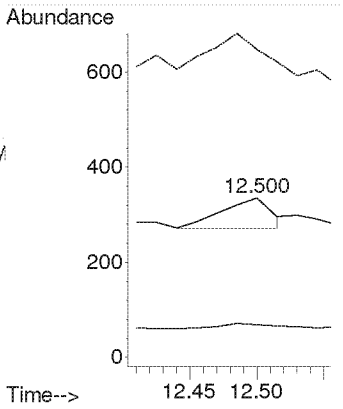
#9
Ethylene oxide
Concen: 0.068 ppbv m
RT: 12.500 min Scan# 1686
Delta R.T. 0.050 min
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 29 Resp: 164

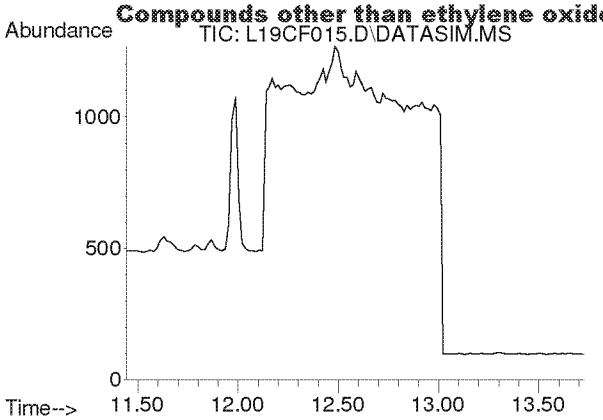
Ion	Ratio	Lower	Upper
29	100		
15	28.0	16.0	24.0#
44	439.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

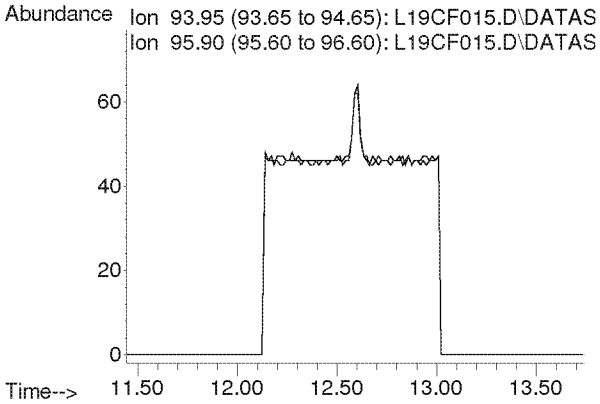


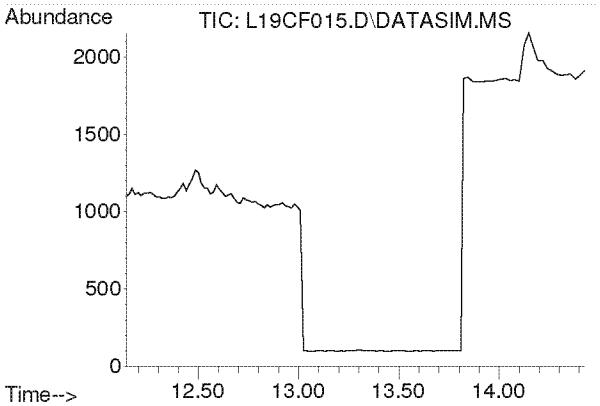
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



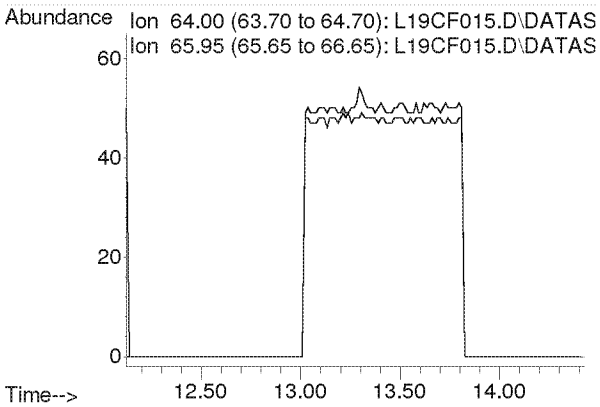


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

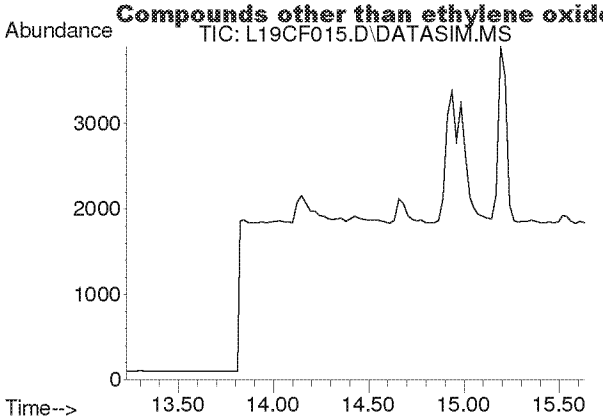
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

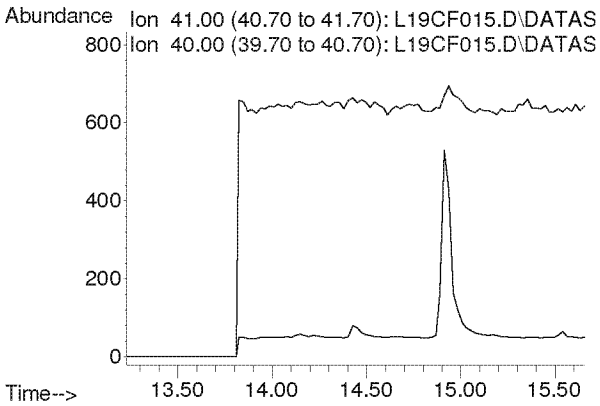


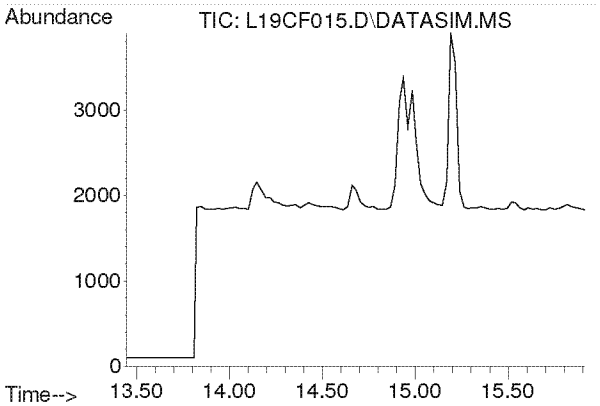
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



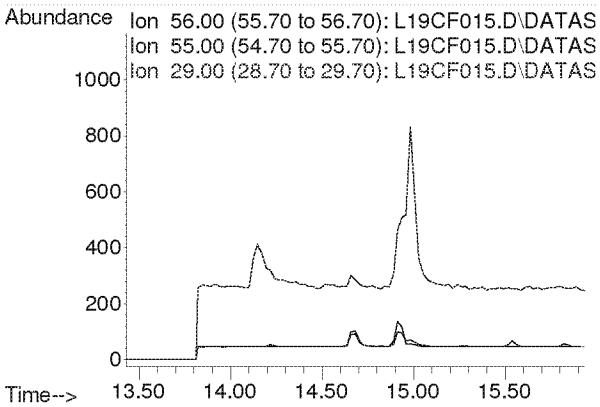


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

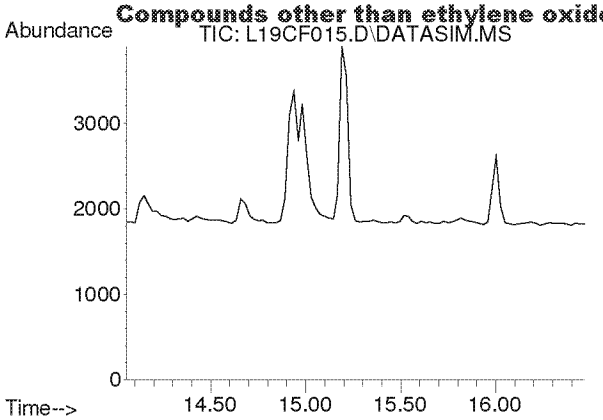
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

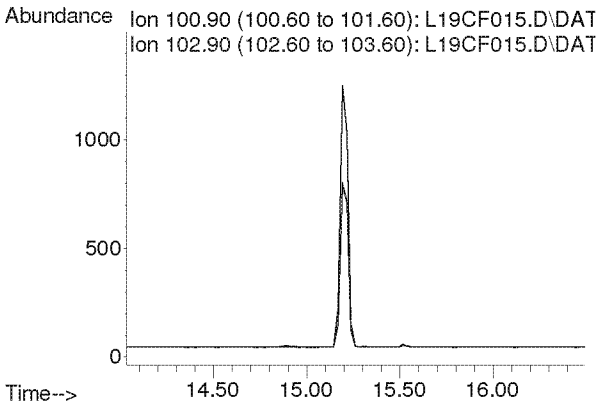


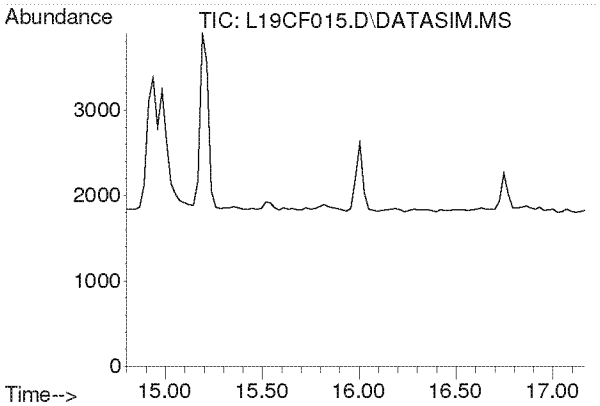
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



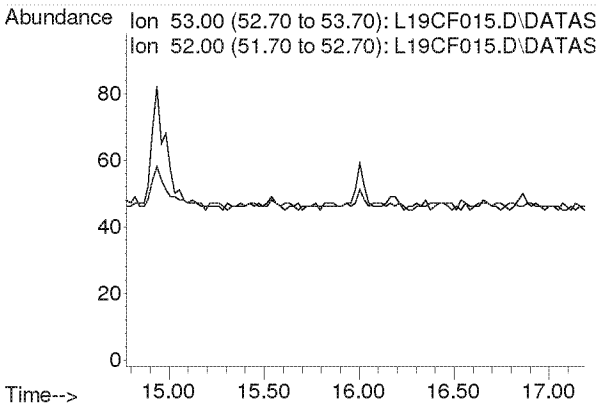


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

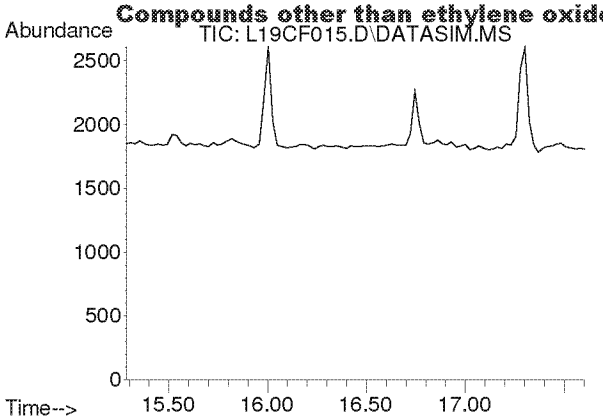
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

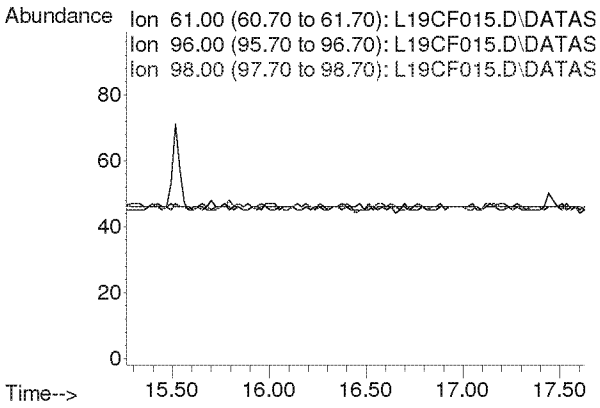


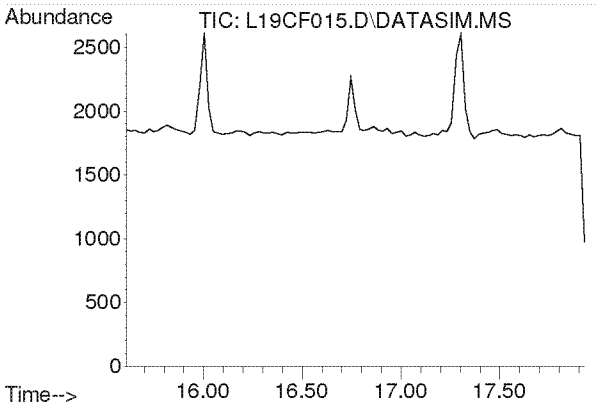
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



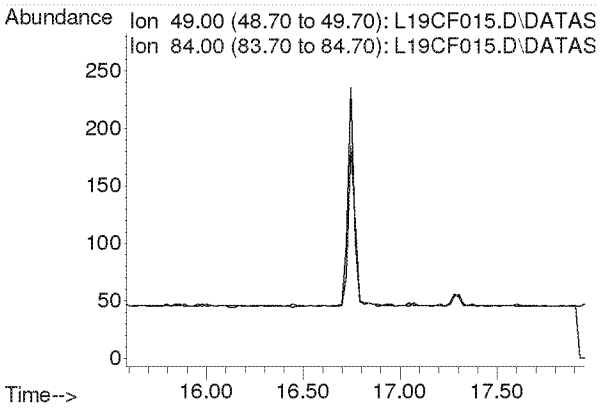


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

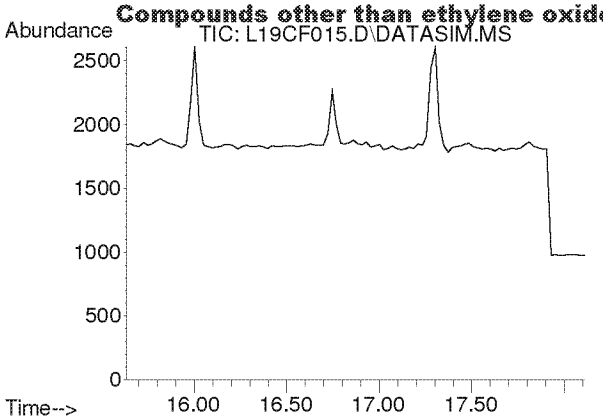
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

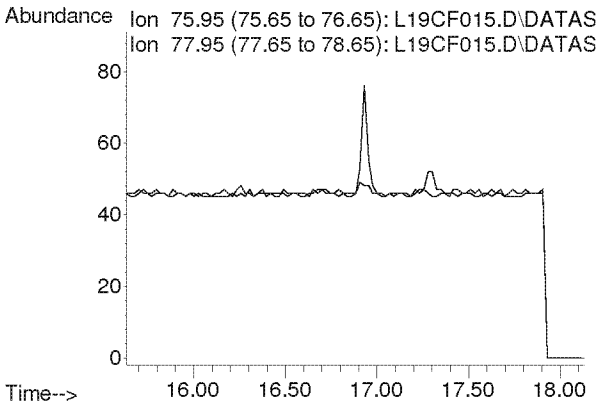


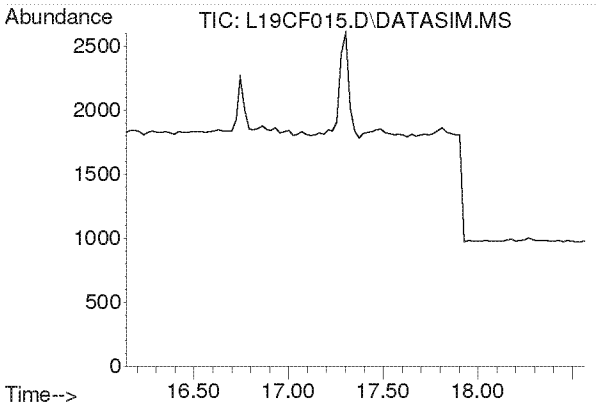
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



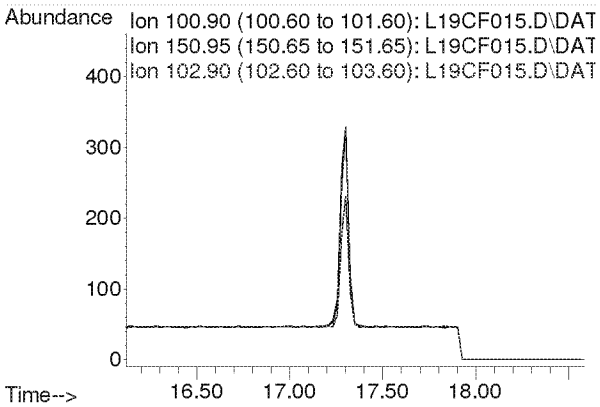


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

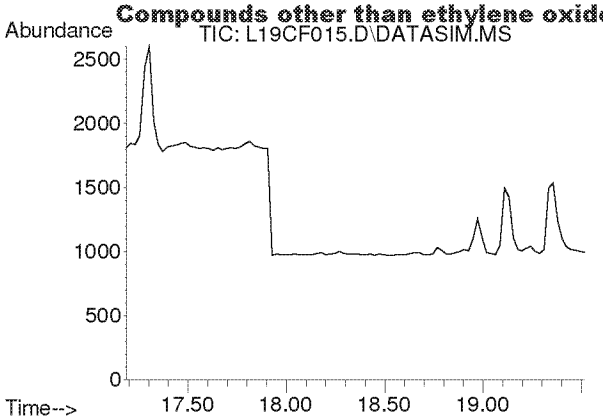
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

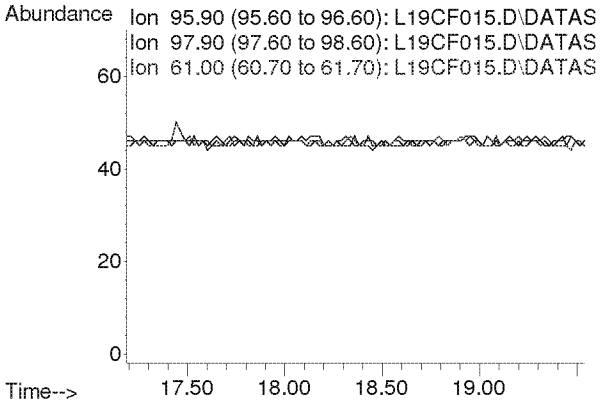


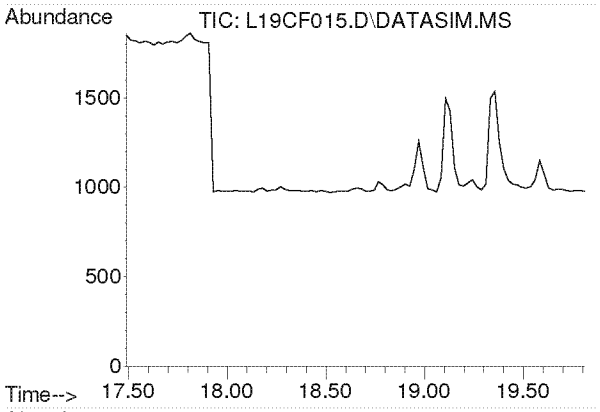
#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



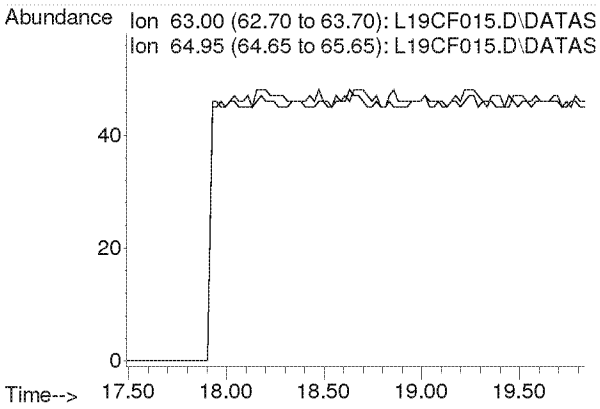


#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

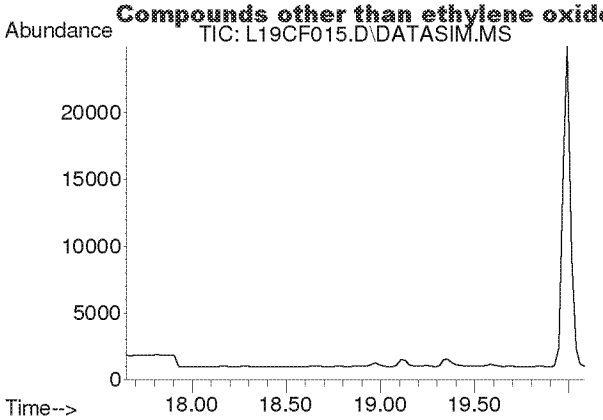
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7



Compounds other than ethylene oxide were not quantitated.

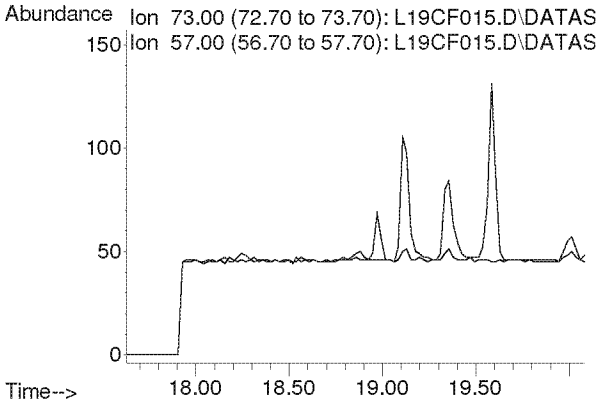


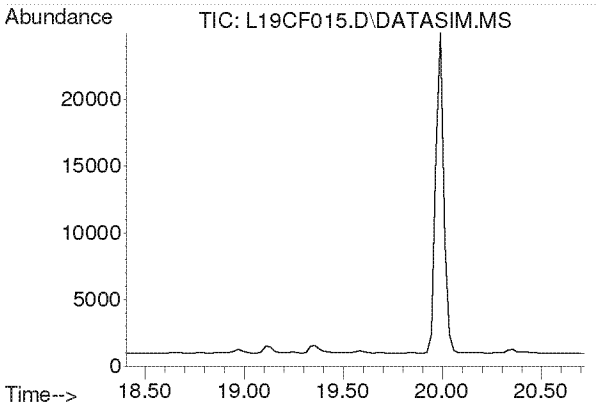
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



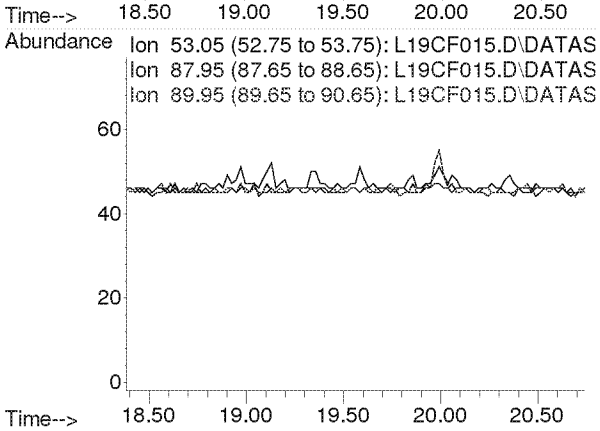


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

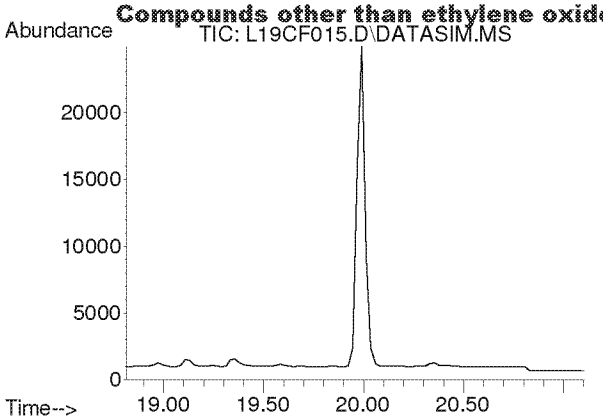
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

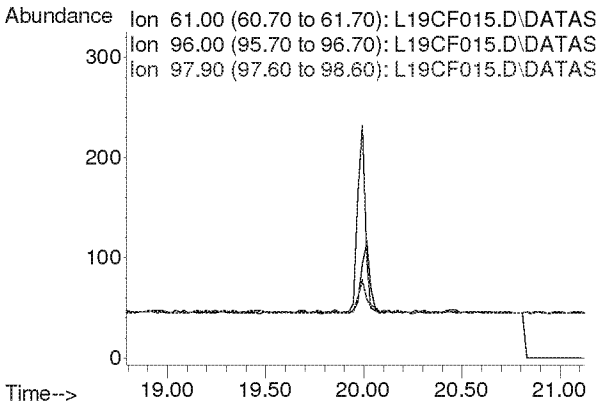


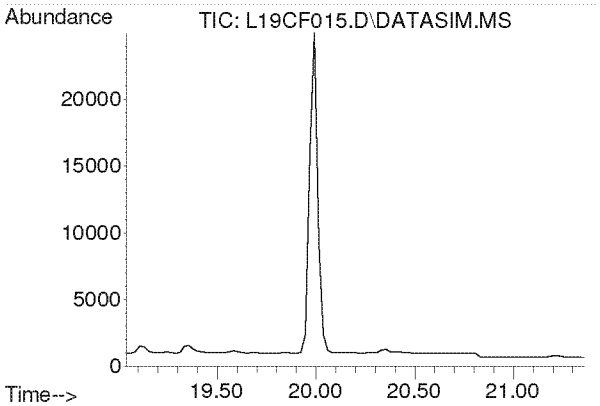
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



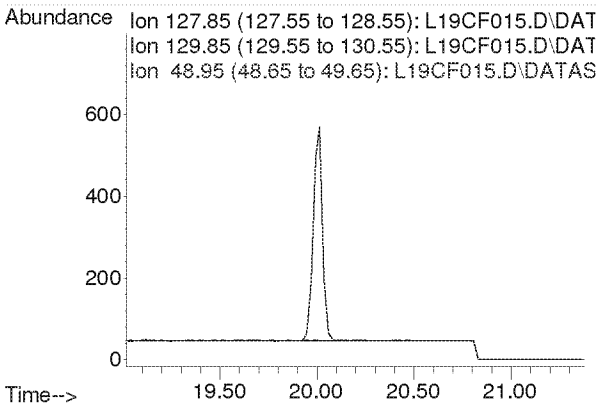


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

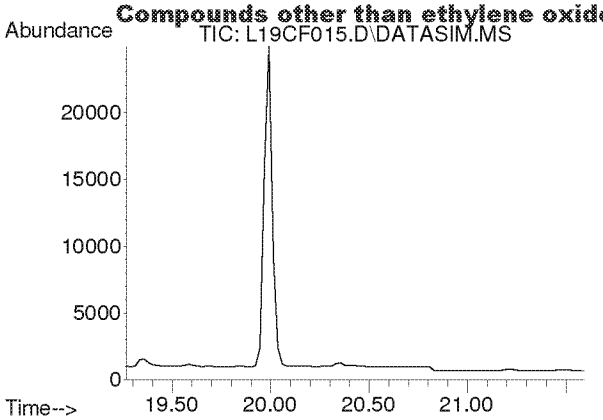
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

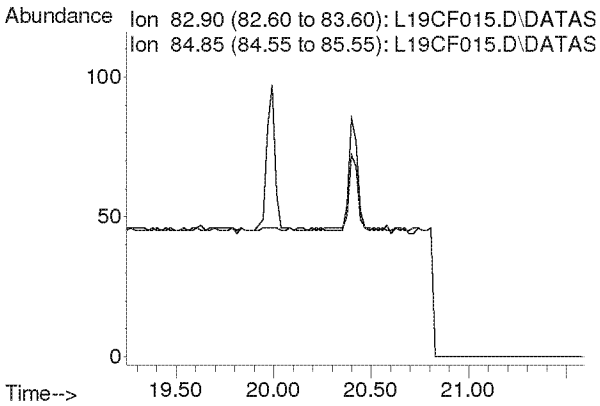


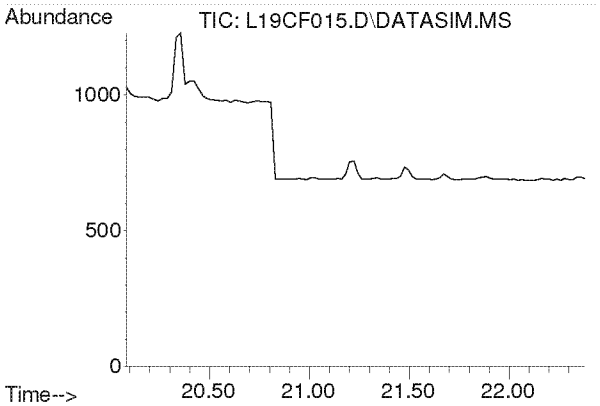
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



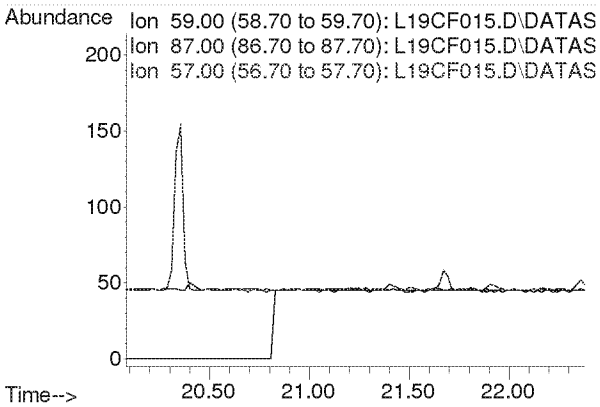


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

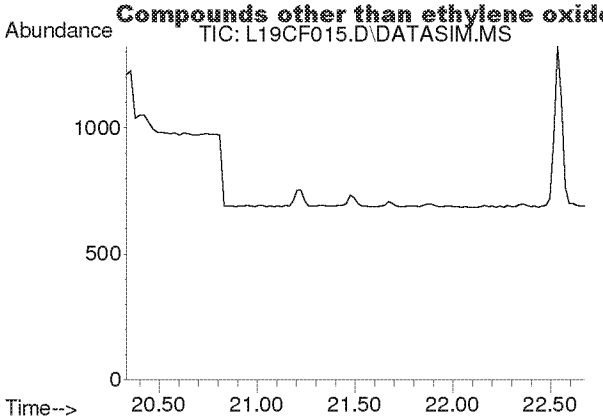
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

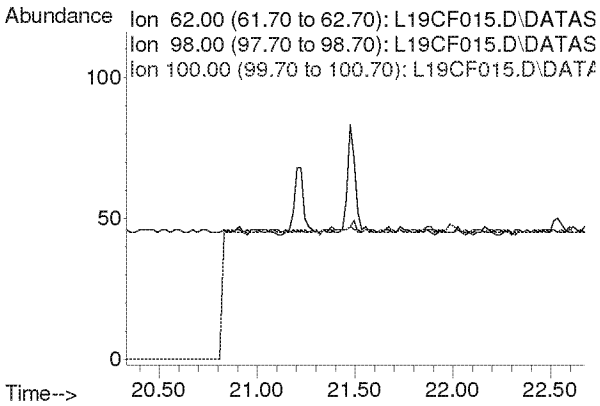


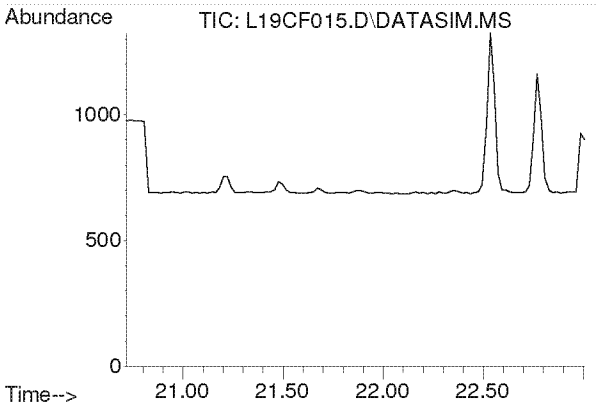
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



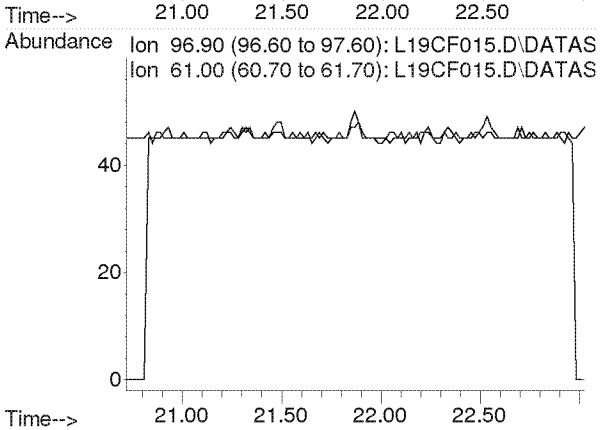


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

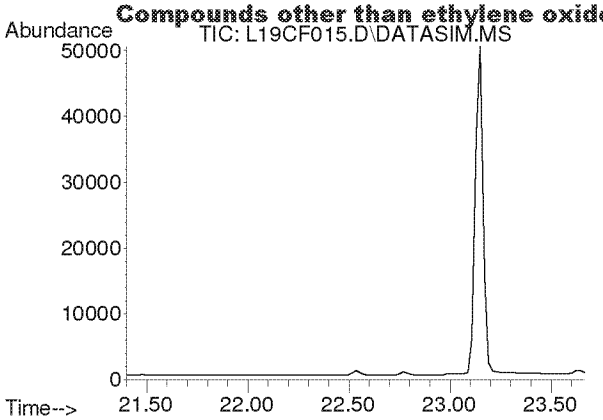
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

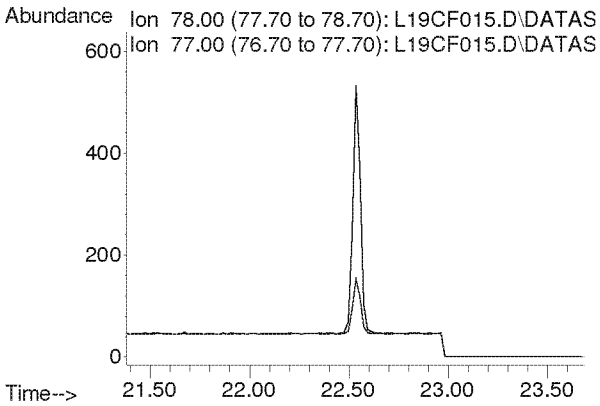


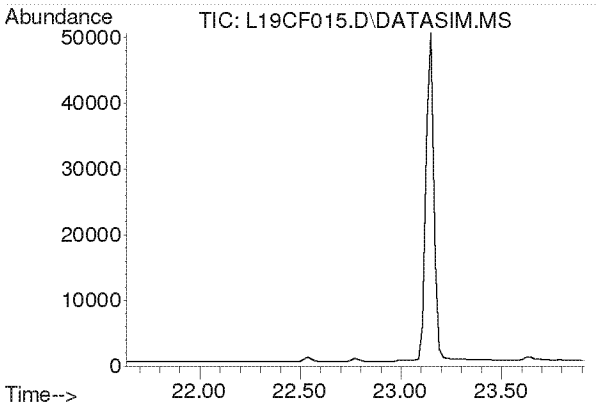
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



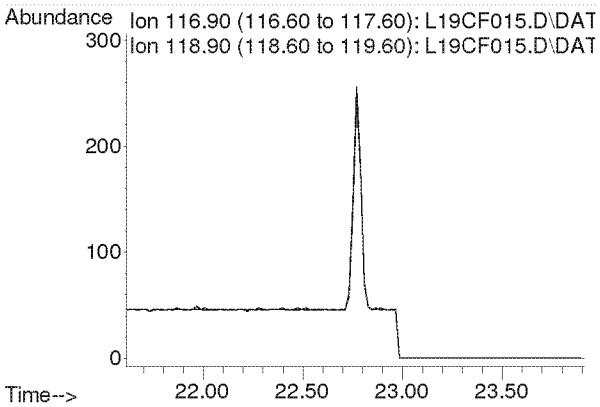


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

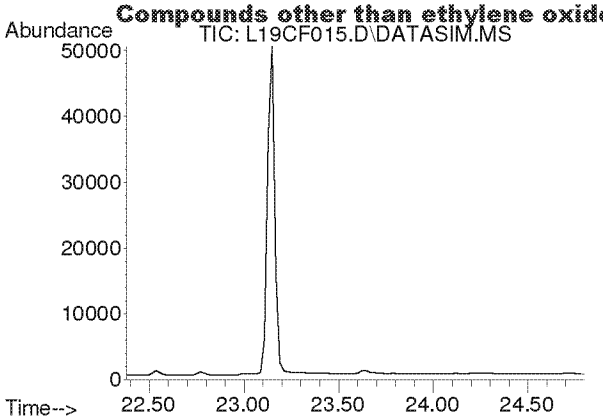
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

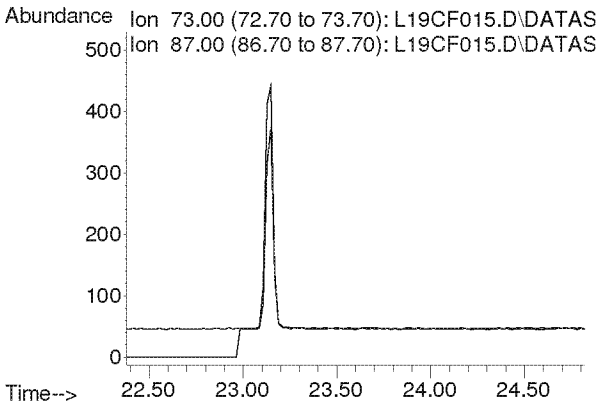


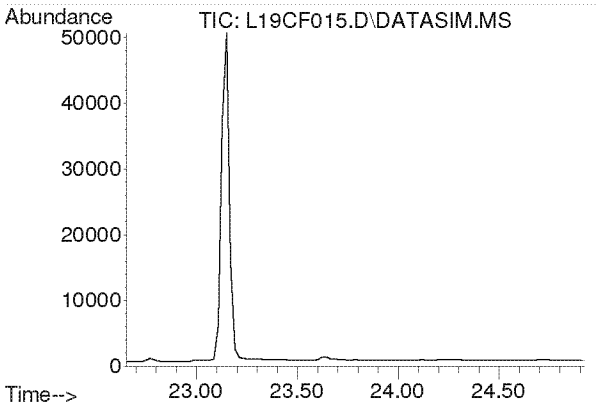
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



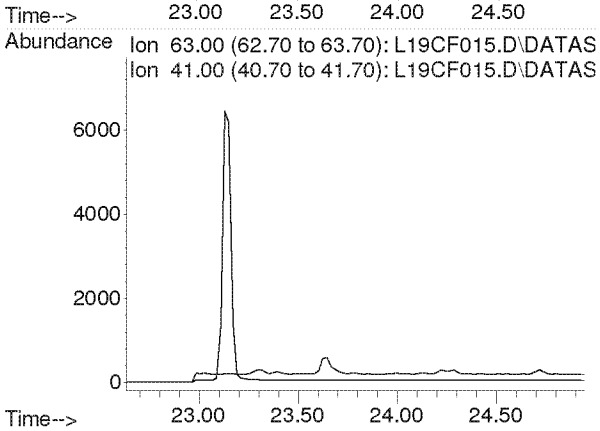


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

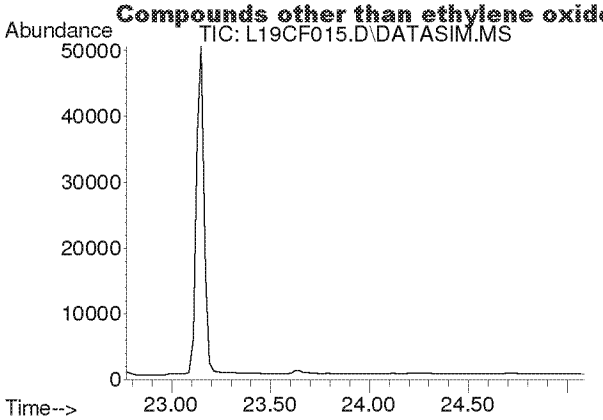
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

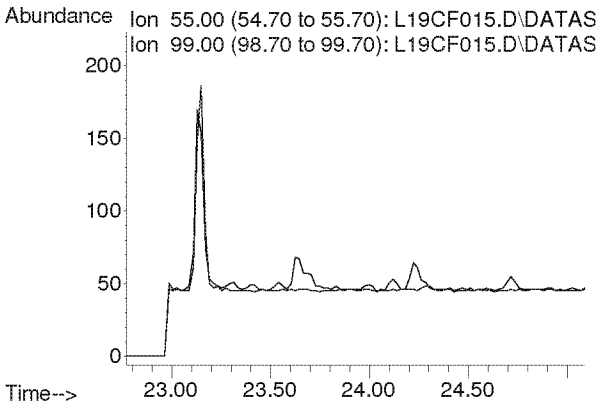


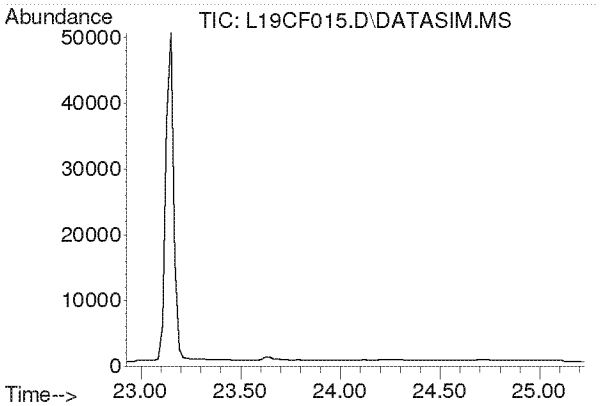
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



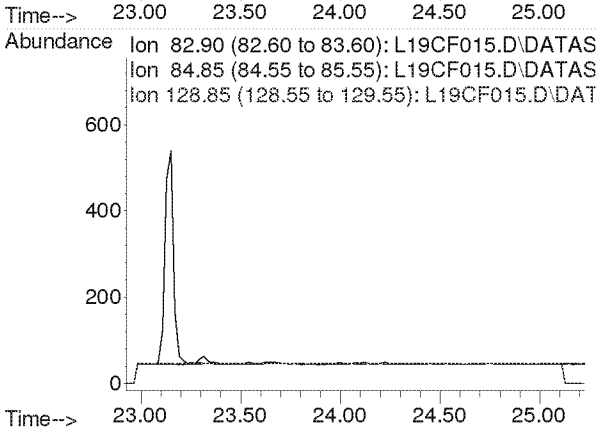


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

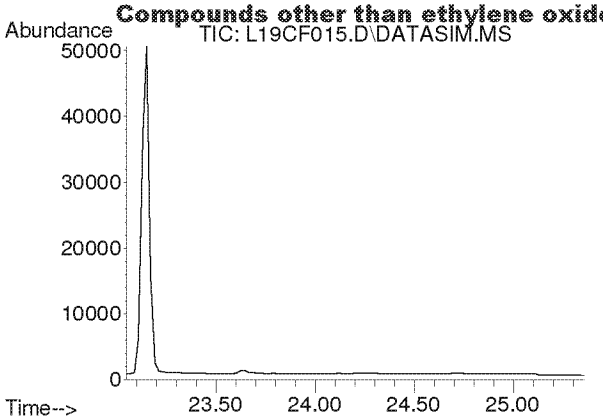
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

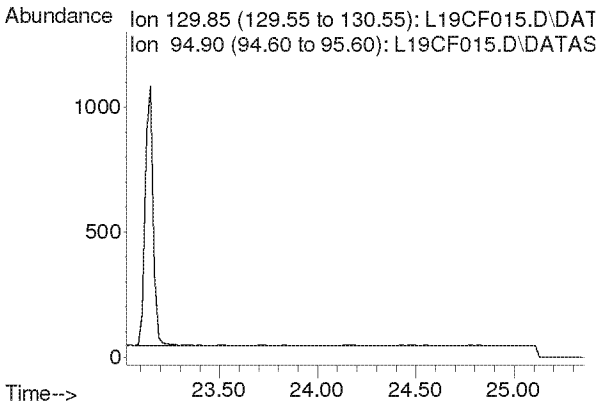


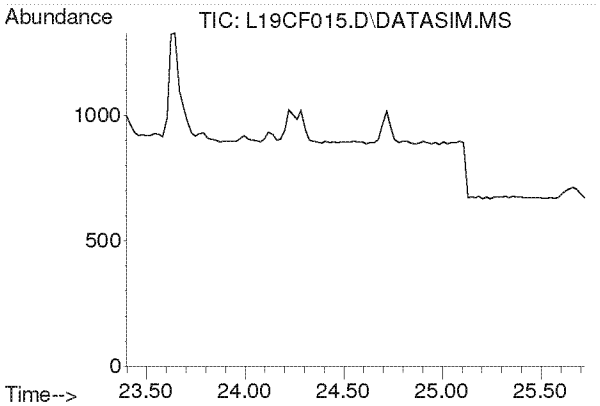
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



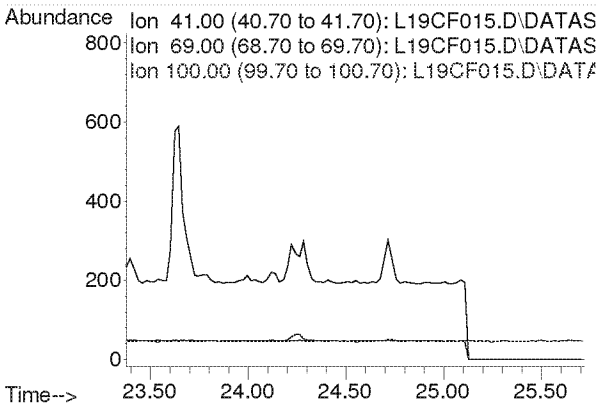


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

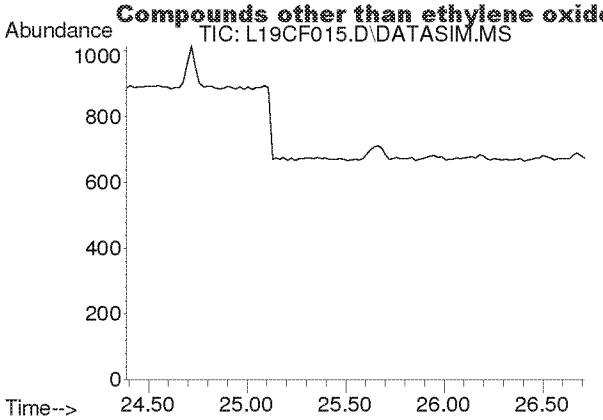
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

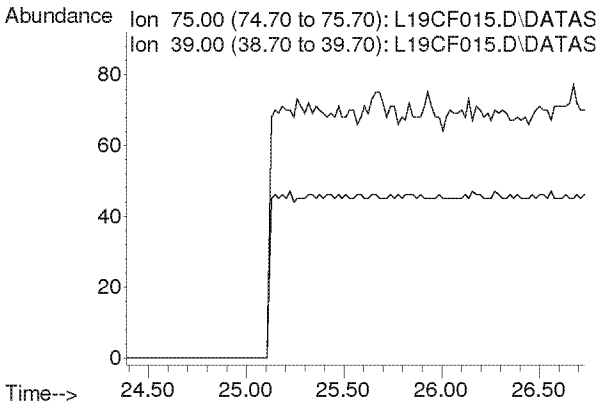


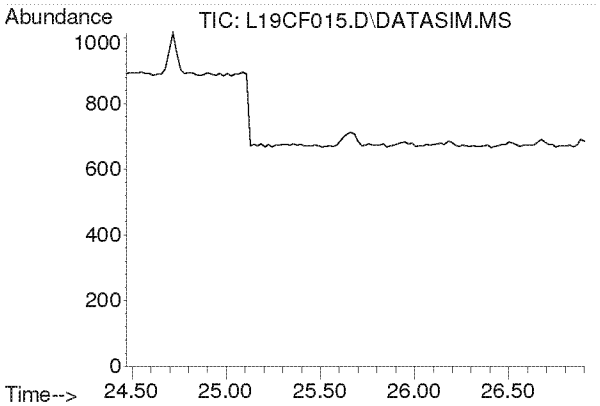
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



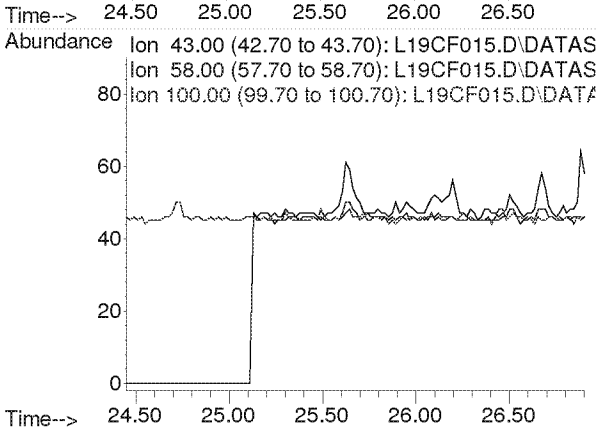


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

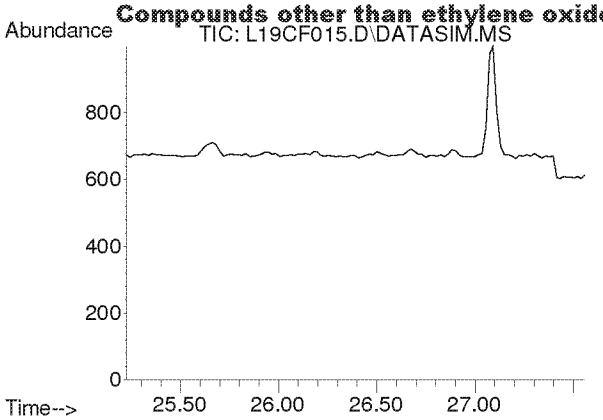
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

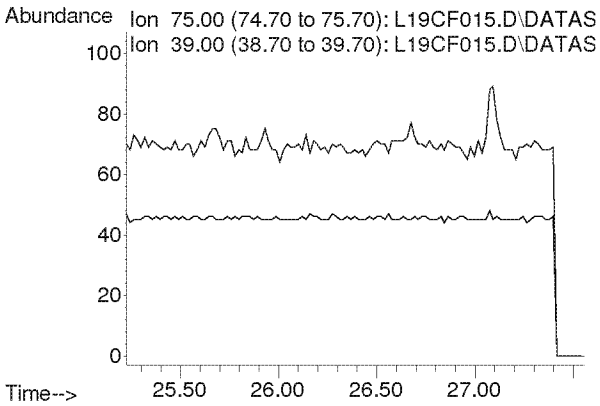


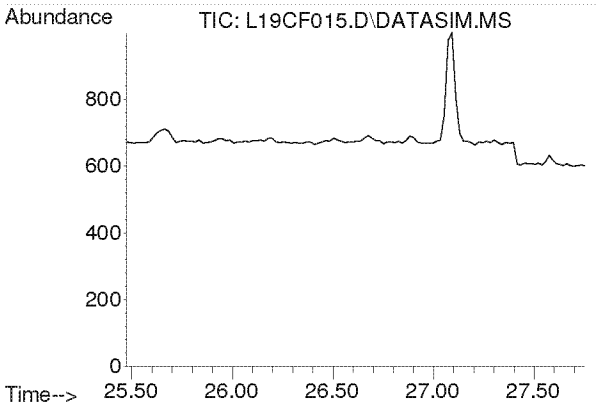
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



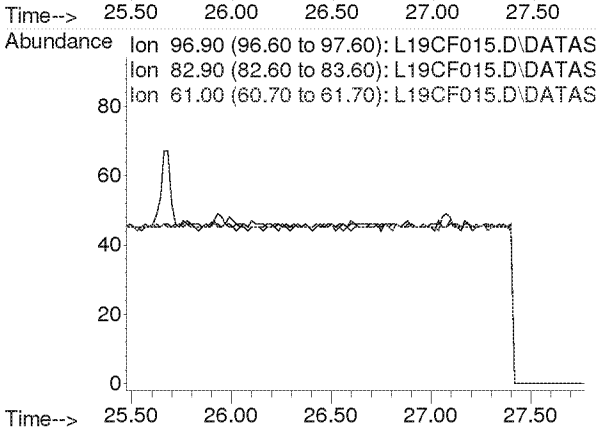


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

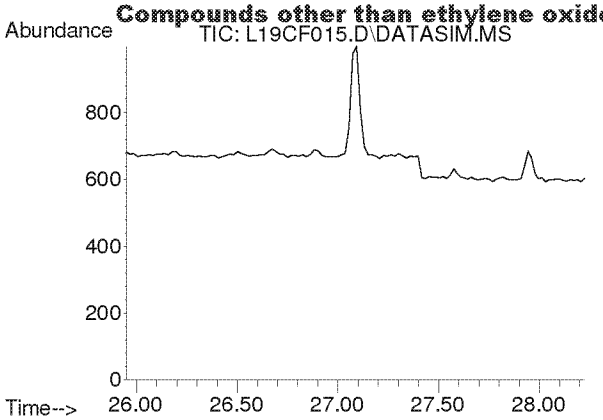
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

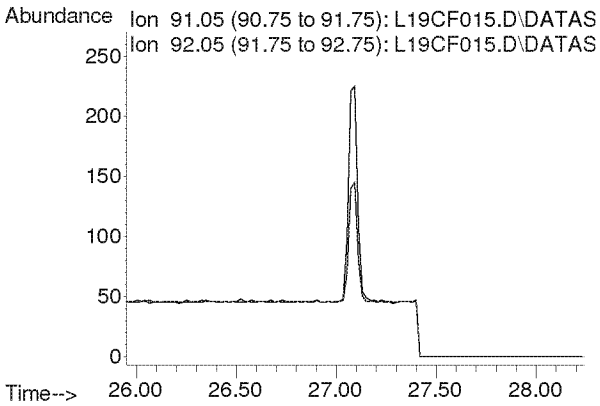


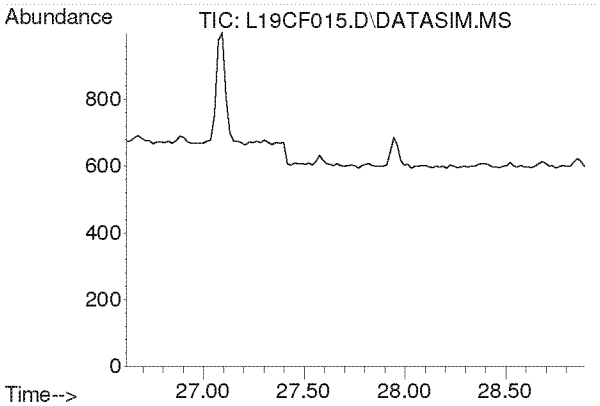
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



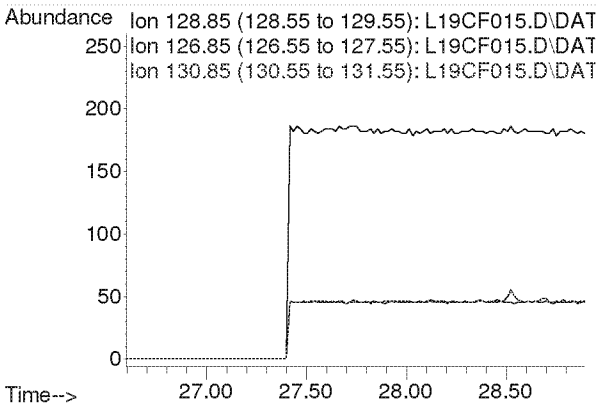


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

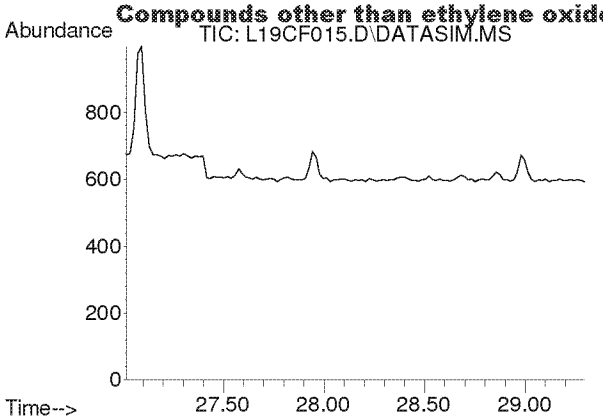
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

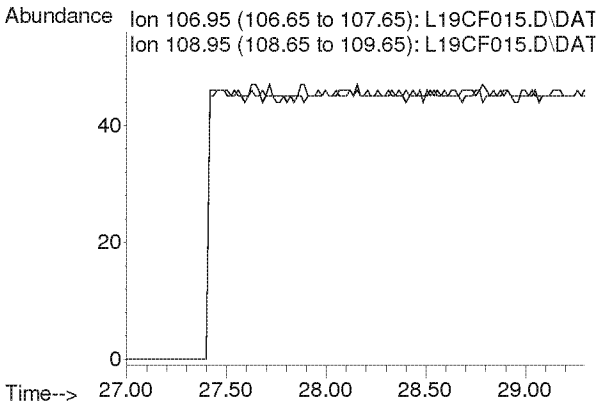


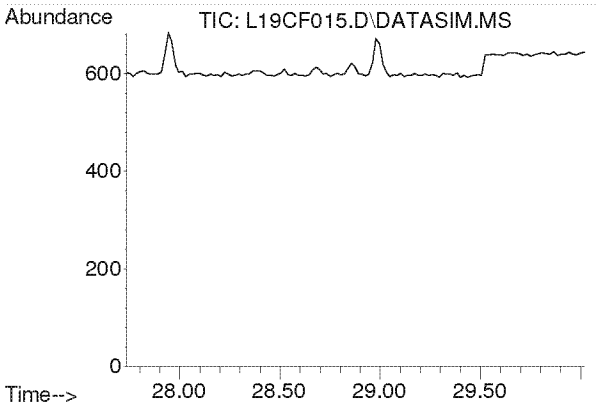
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



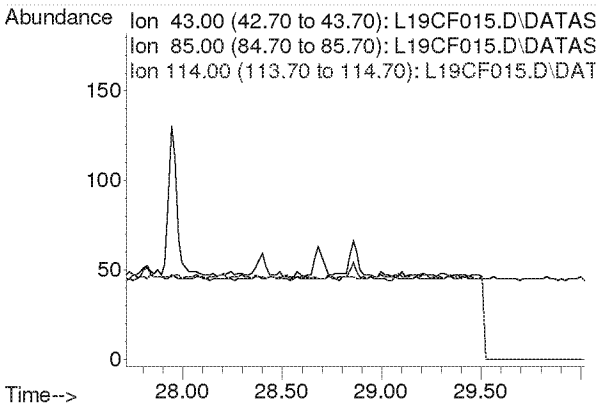


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

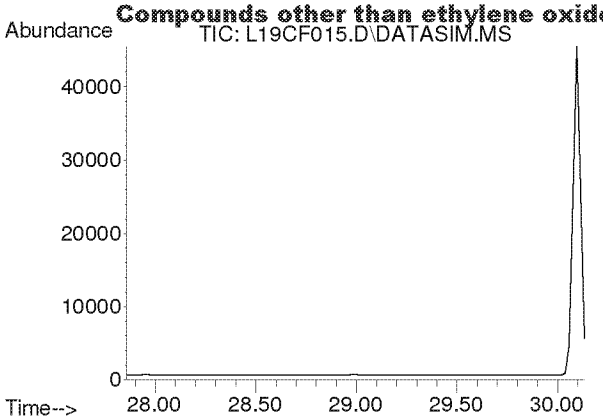
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

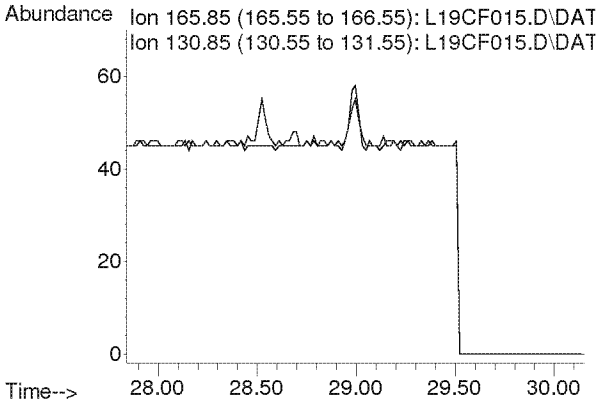


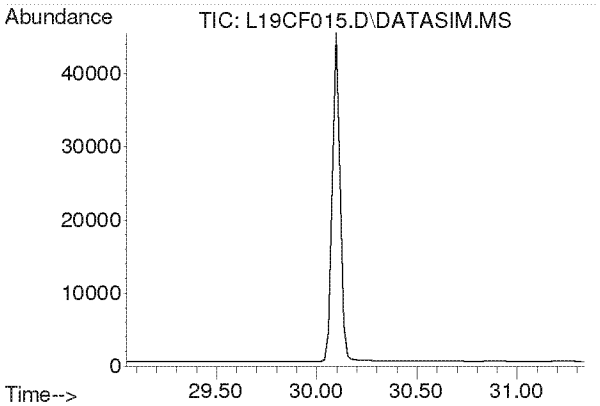
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



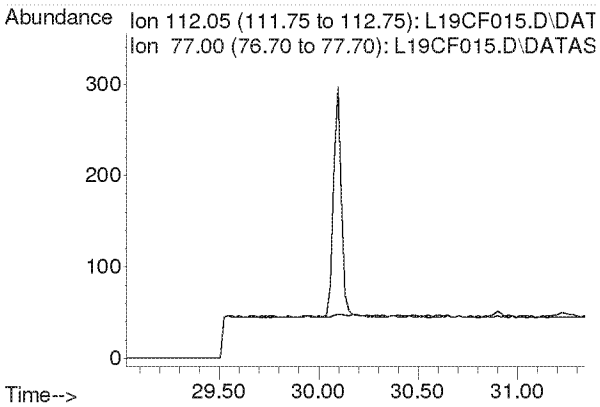


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

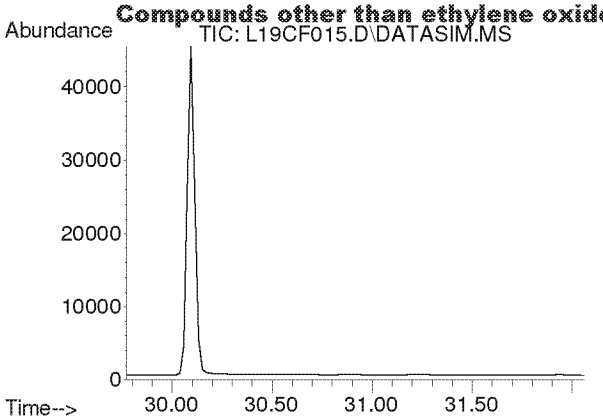
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

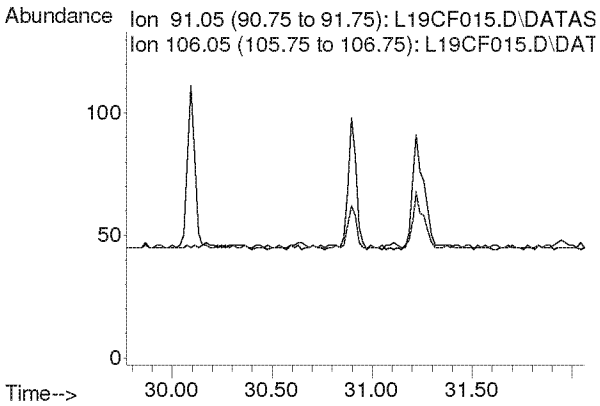


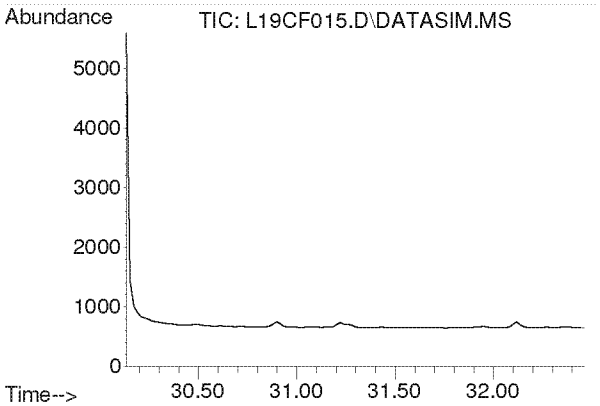
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



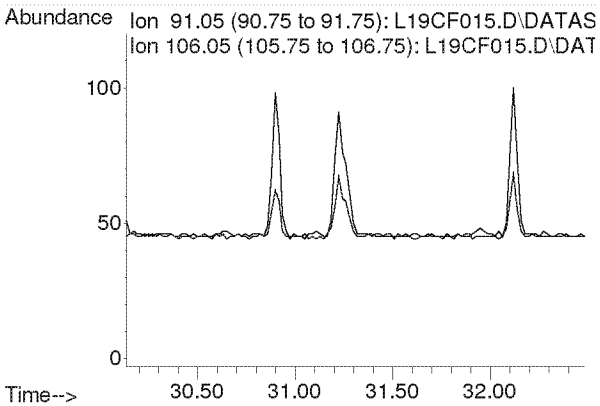


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

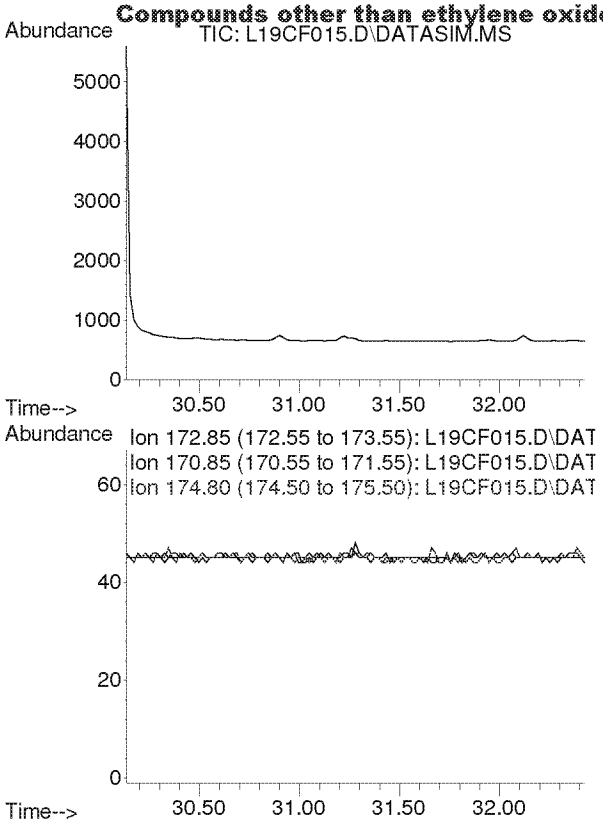
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

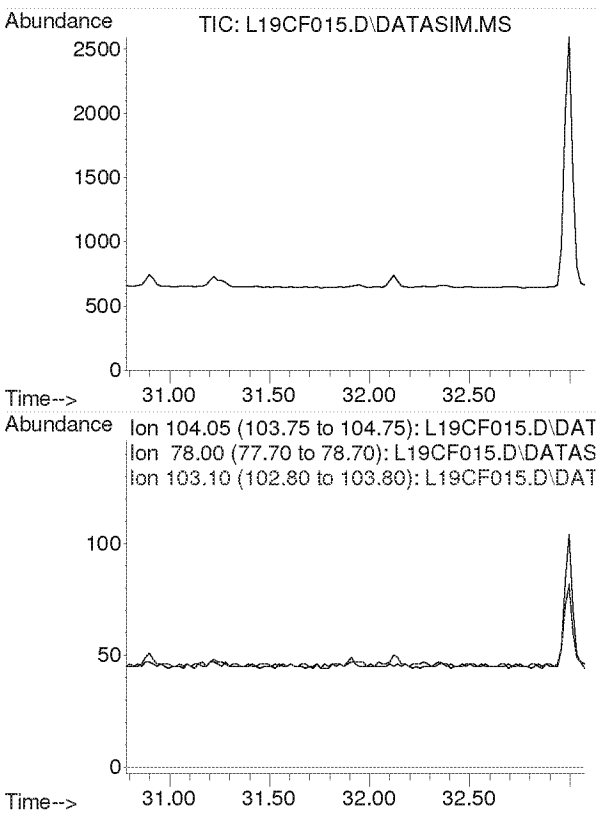


#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



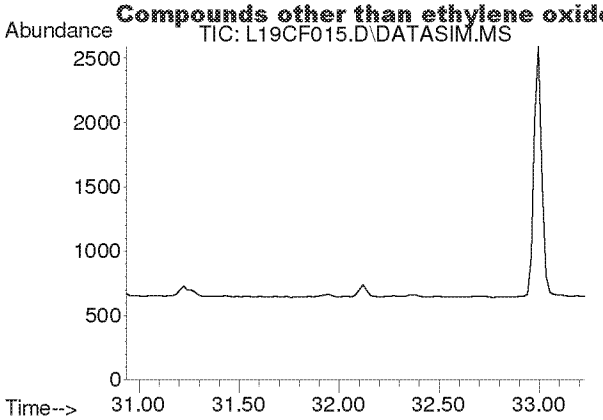
#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0

Compounds other than ethylene oxide were not quantitated.

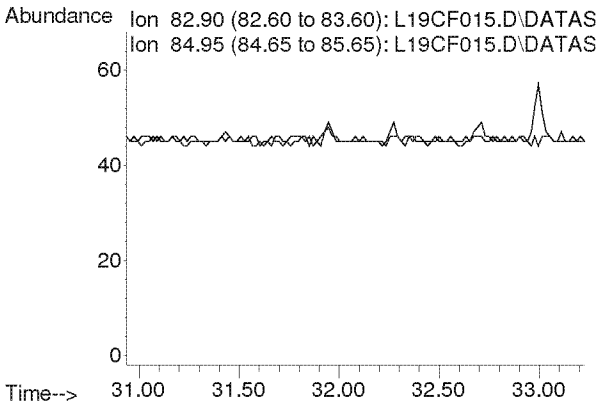


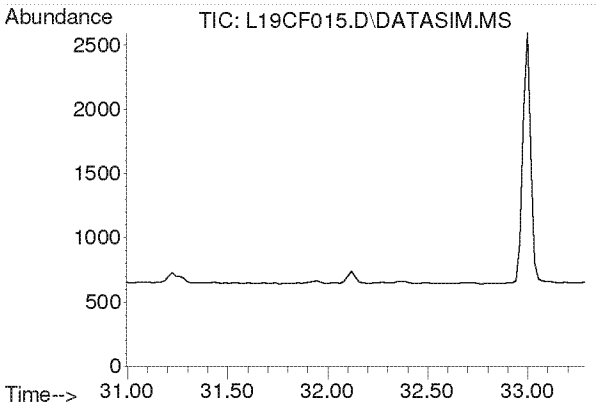
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



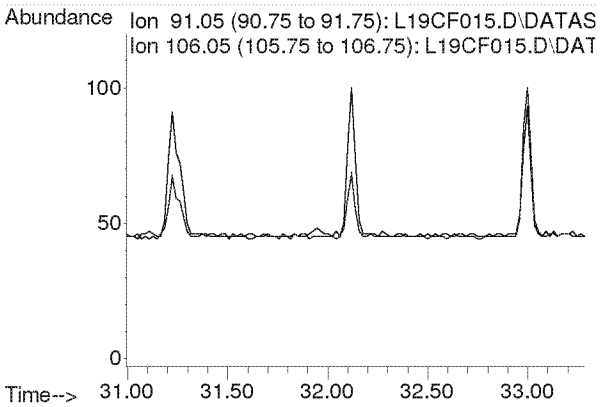


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

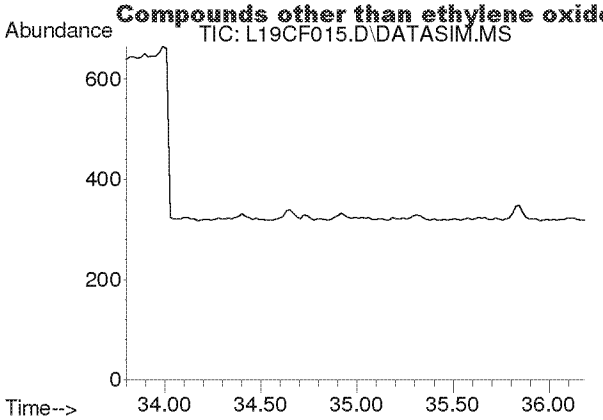
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

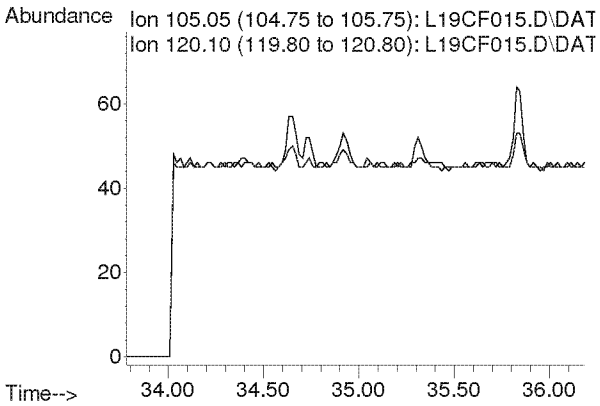


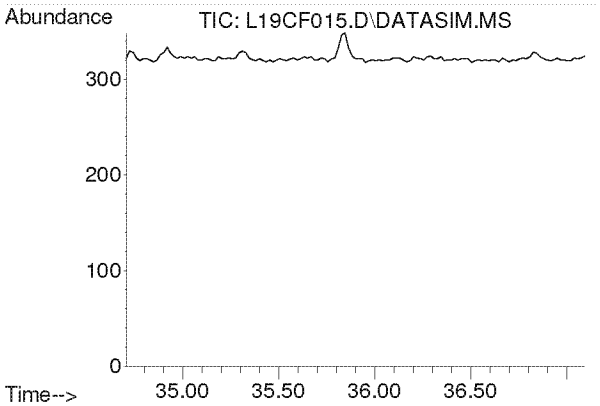
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



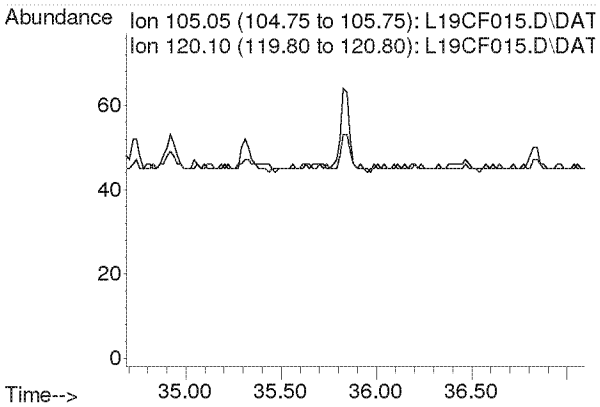


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

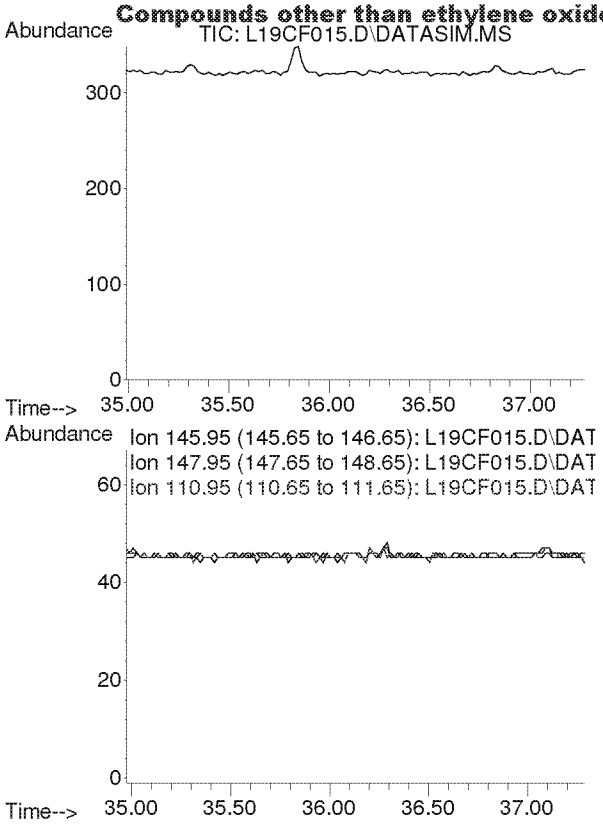
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

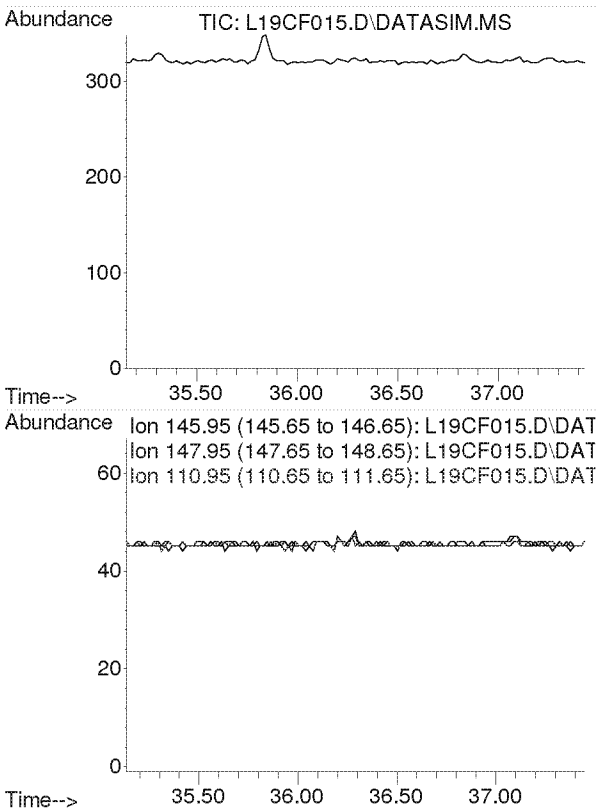


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



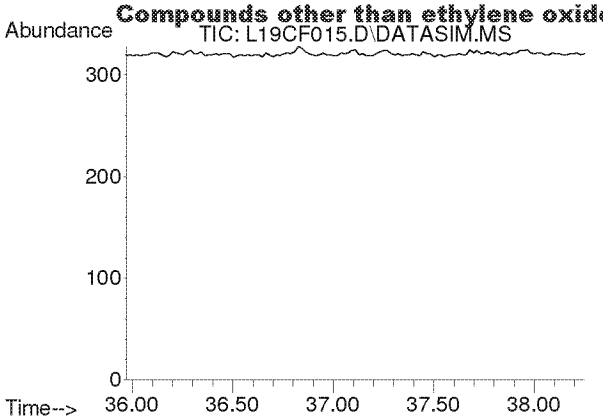
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

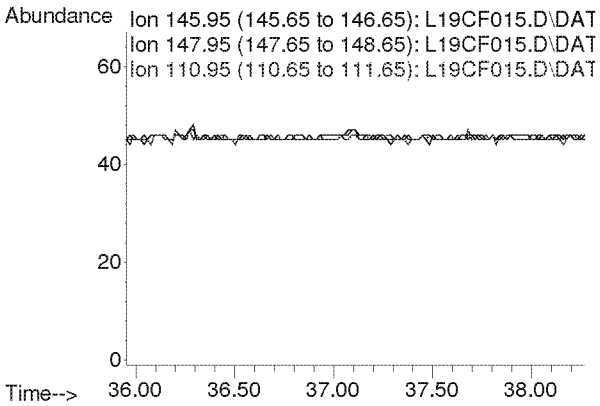


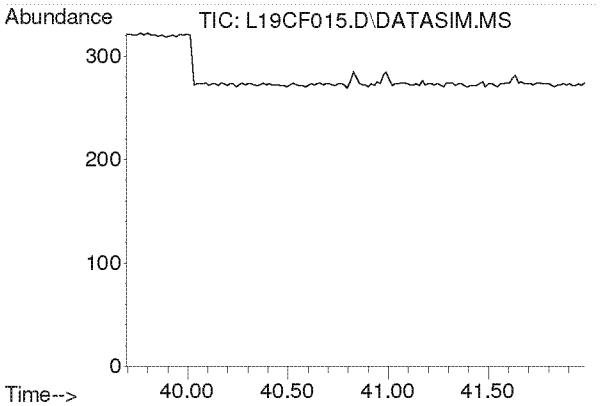
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



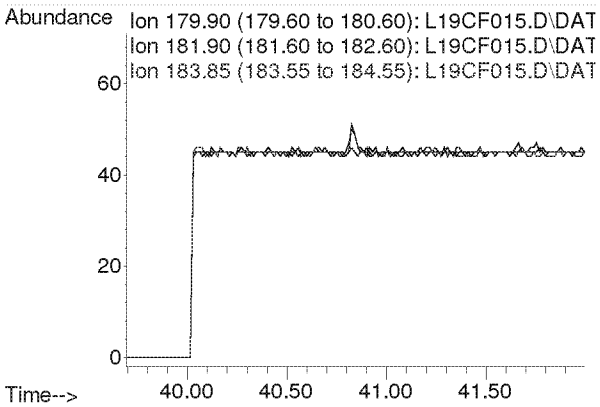


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

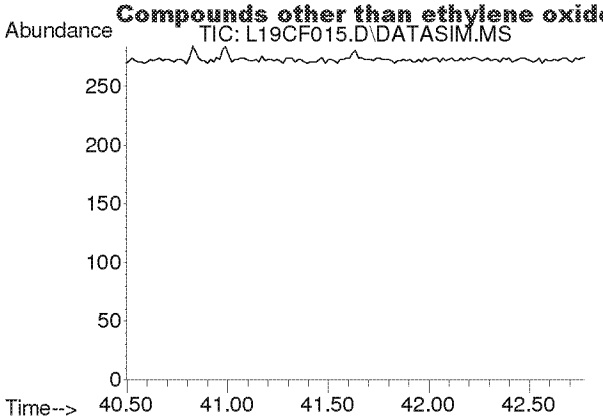
Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.

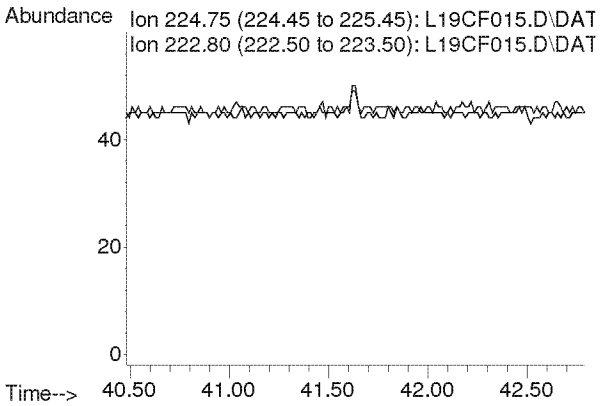


#62
Hexachloro-1,3-butadiene
Concen: N.D.
Expected RT: 41.63 min

Lab File: L19CF015.D
Acq: 7 Mar 2019 3:36 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\L19CF\
Data File : L19CF016.D
Acq On : 7 Mar 2019 4:36 am (#1); 07-Mar-19, 04:30:52 (#2)
Operator : MAH
Sample : 9030618-09
Misc : HINSDALE S. HS 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 07 06:38:25 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

d = MK

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
1) IS-Hexane-d14	19.993	66	44902	4.7700 ppbv	0.00
29) IS-1,4-Difluorobenzene	23.151	114	117435	4.9900 ppbv	0.00
43) IS-Chlorobenzene-d5	30.097	117	81907	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	173m 75	0.0674 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.	
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\L19CF\
Data File : L19CF016.D
Acq On : 7 Mar 2019 4:36 am (#1); 07-Mar-19, 04:30:52 (#2)
Operator : MAH
Sample : 9030618-09
Misc : HINSDALE S. HS 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 07 06:38:25 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration

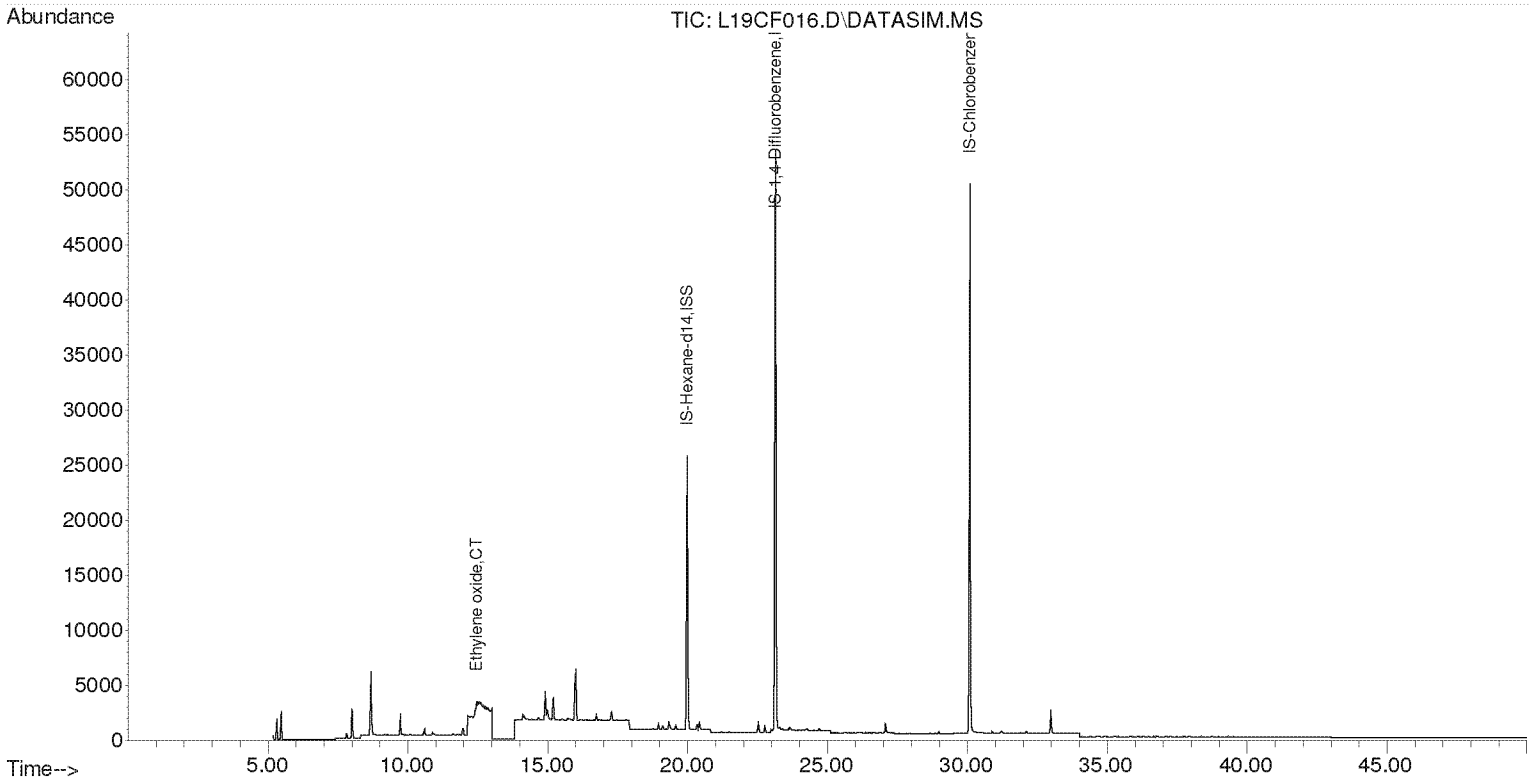
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
51) m,p-Xylene	0.000	91	0	N.D.	d
52) Bromoform	0.000	173	0	N.D.	
53) Styrene	0.000	104	0	N.D.	d
54) 1,1,2,2-Tetrachloroethane	0.000	83	0	N.D.	
55) o-Xylene	0.000	91	0	N.D.	d
56) 1,3,5-Trimethylbenzene	0.000	105	0	N.D.	d
57) 1,2,4-Trimethylbenzene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

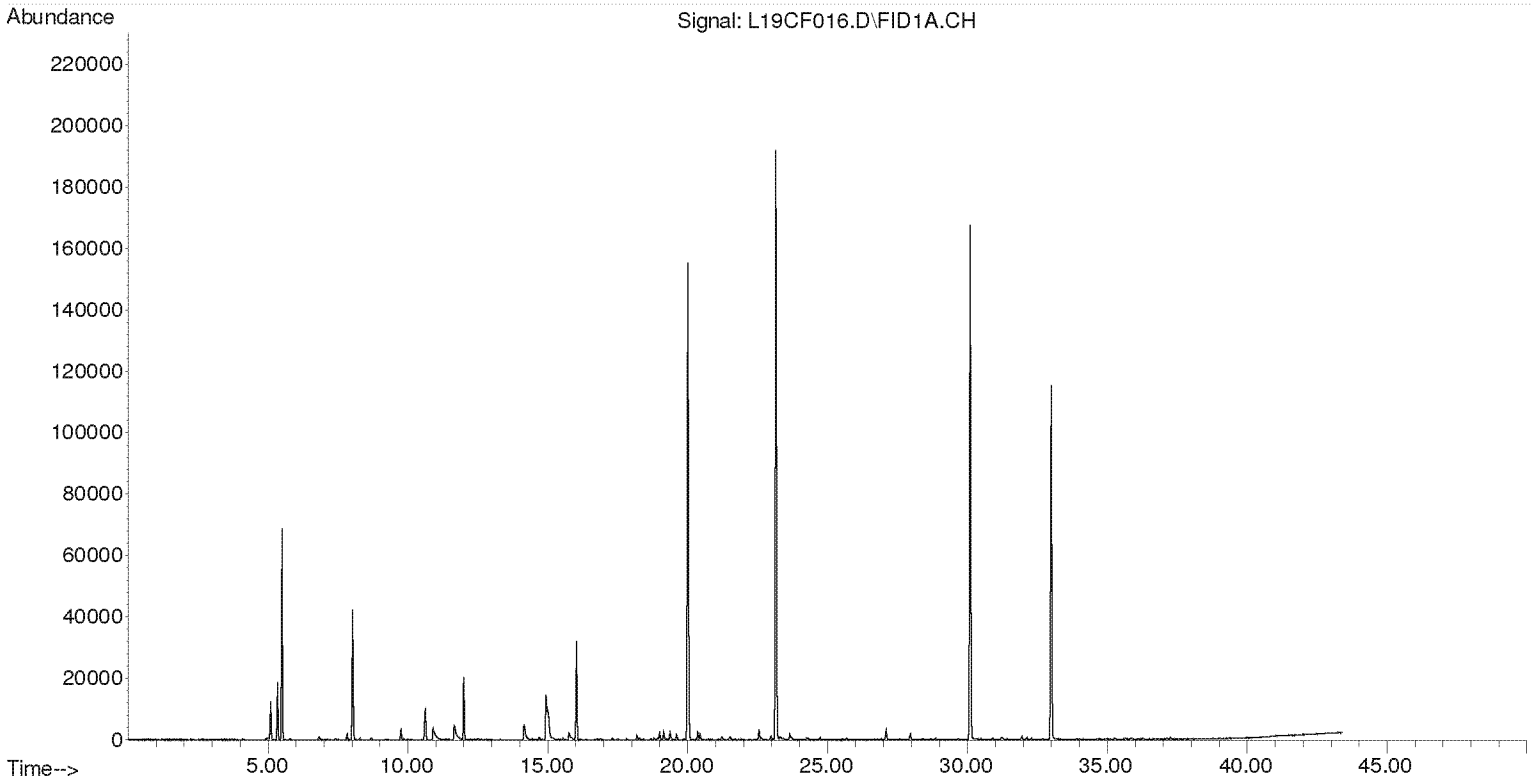
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Compounds other than ethylene oxide were not quantitated.

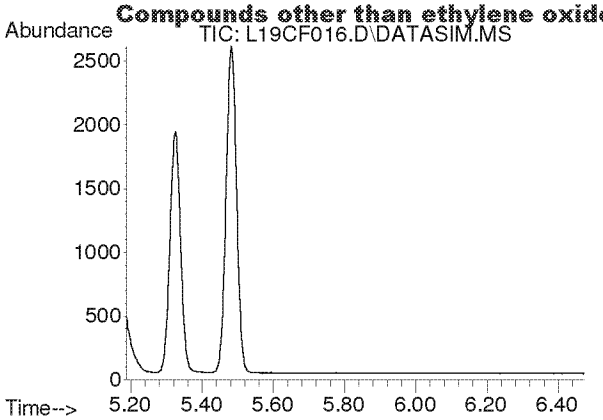
Data Path : Y:\MASS SPEC 1 DATA\L19CF\
Data File : L19CF016.D
Acq On : 7 Mar 2019 4:36 am (#1); 07 Mar 2019 4:30 am (#2)
Operator : MAH
Sample : 9030618-09
Misc : HINSDALE S. HS 3/5/19 (Sig #1); (Sig #2)
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Mar 07 06:25:01 2019
Quant Method : C:\msdchem\1\METHODS\9020003.M
Quant Title : TO-15 by Selective Ion Analysis
QLast Update : Wed Feb 13 06:44:42 2019
Response via : Initial Calibration





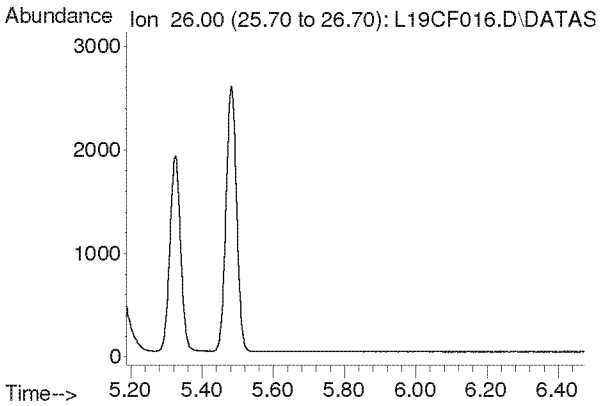
Compounds other than ethylene oxide were not quantitated.

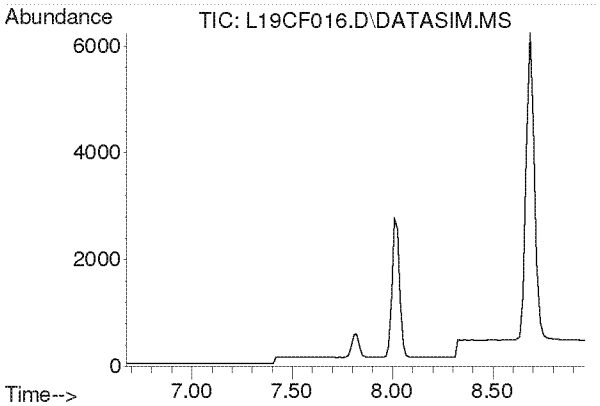


#2
Acetylene
Concen: N.D.
Expected RT: 5.40 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 26



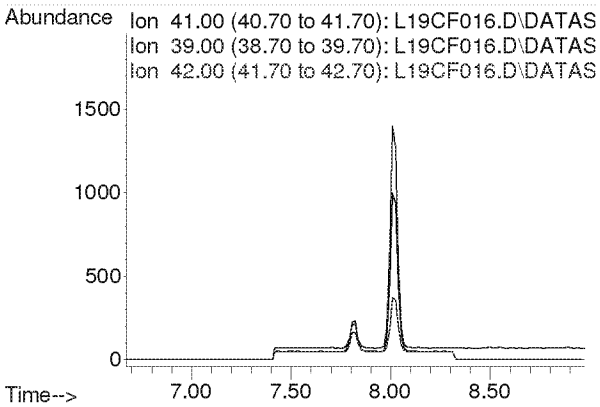


#3
Propylene
Concen: N.D.
Expected RT: 7.82 min

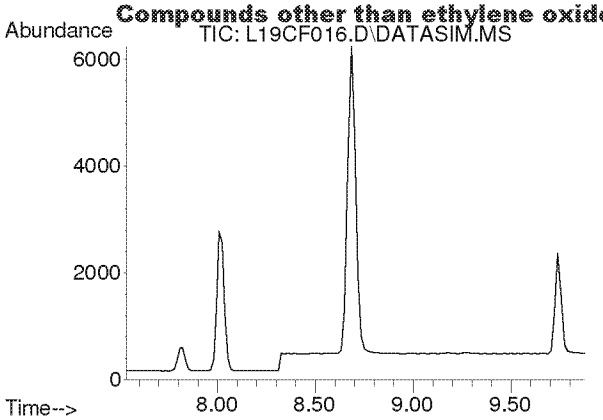
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
39	80.2
42	65.8



Compounds other than ethylene oxide were not quantitated.

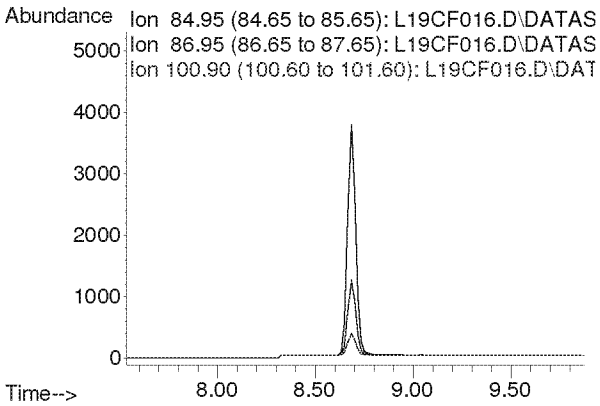


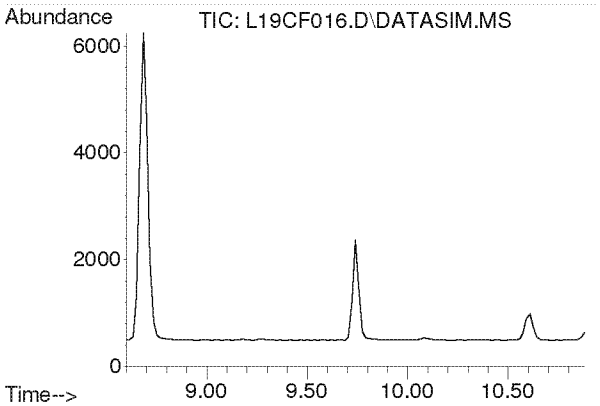
#4
Dichlorodifluoromethane
Concen: N.D.
Expected RT: 8.68 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
87	32.5
101	9.1



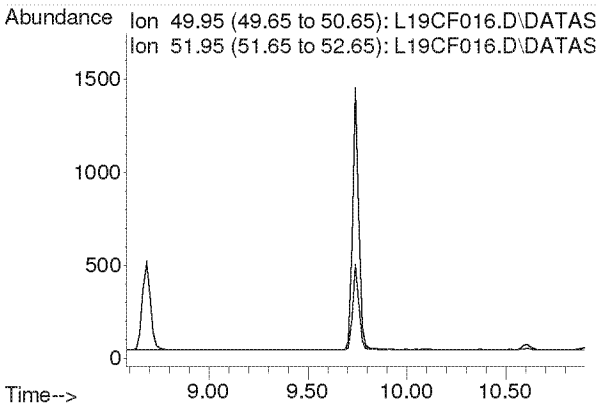


#5
Chloromethane
Concen: N.D.
Expected RT: 9.74 min

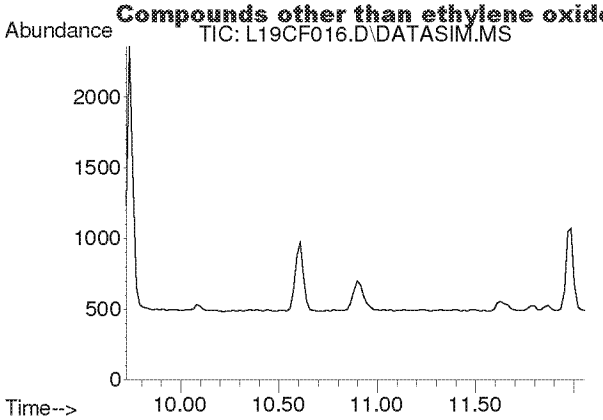
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 50

Sig	Exp Ratio
50	100
52	32.6



Compounds other than ethylene oxide were not quantitated.

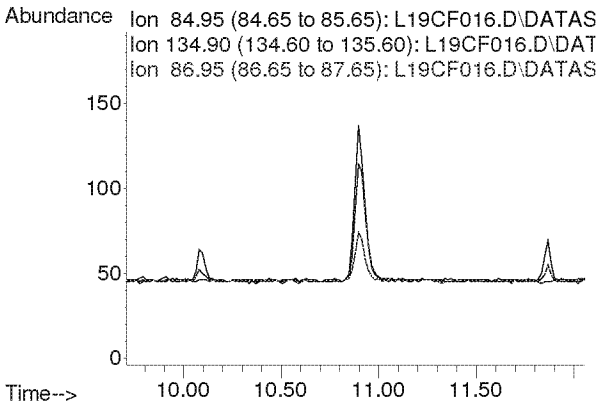


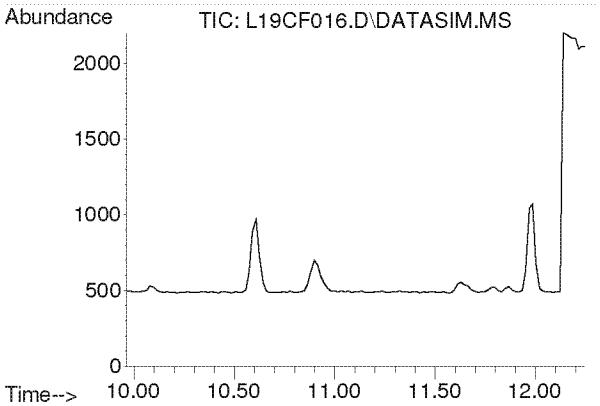
#6
Dichlorotetrafluoroethane
Concen: N.D.
Expected RT: 10.86 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 85

Sig	Exp Ratio
85	100
135	79.0
87	32.4



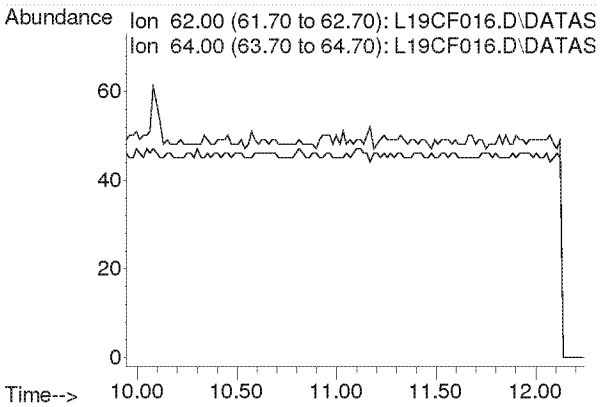


#7
Vinyl Chloride
Concen: N.D.
Expected RT: 11.10 min

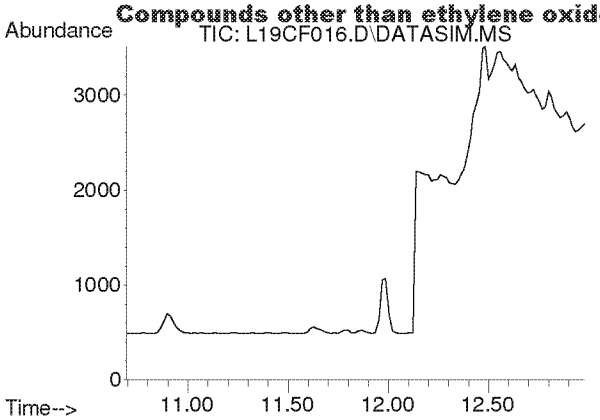
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
64	31.7



Compounds other than ethylene oxide were not quantitated.

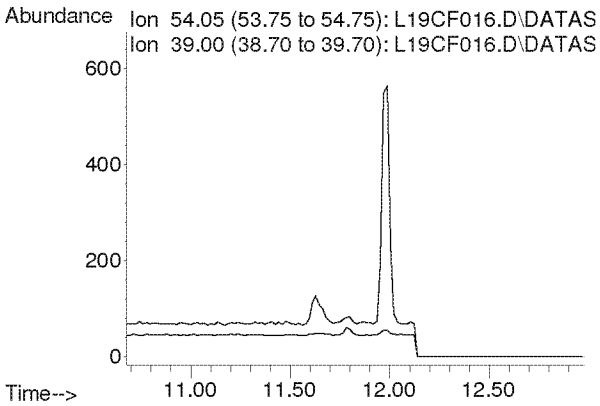


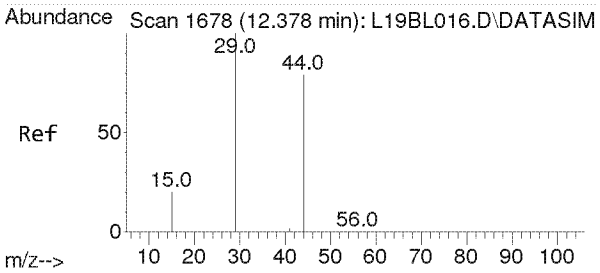
#8
1,3-Butadiene
Concen: N.D.
Expected RT: 11.78 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 54

Sig	Exp Ratio
54	100
39	102.0

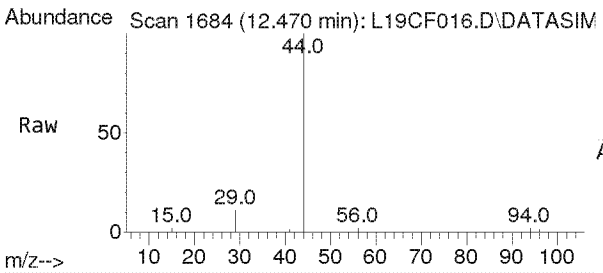


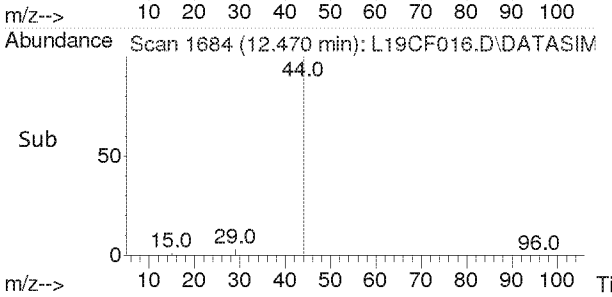


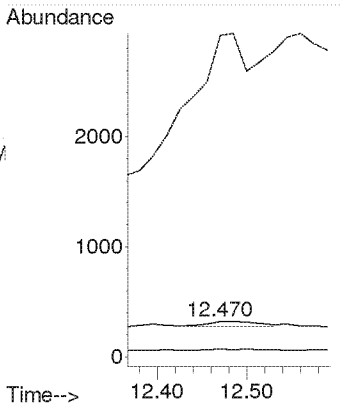
#9
Ethylene oxide
Concen: 0.067 ppbv m
RT: 12.470 min Scan# 1684
Delta R.T. 0.020 min
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 29 Resp: 173

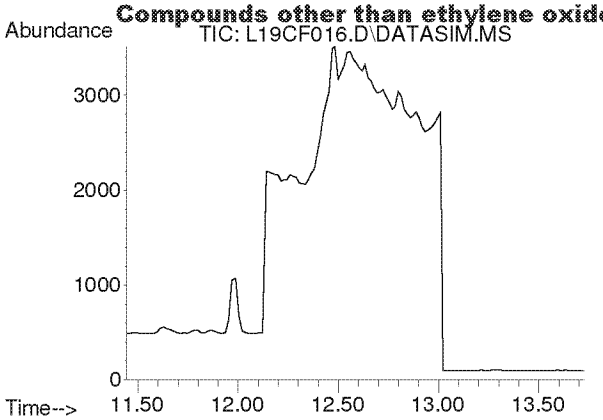
Ion	Ratio	Lower	Upper
29	100		
15	0.0	16.0	24.0#
44	7985.0	65.4	98.2#







Compounds other than ethylene oxide were not quantitated.

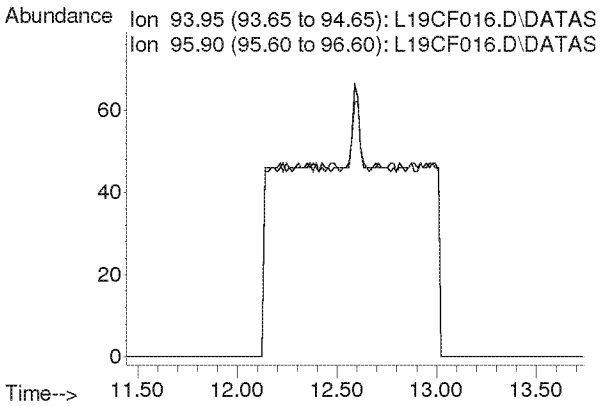


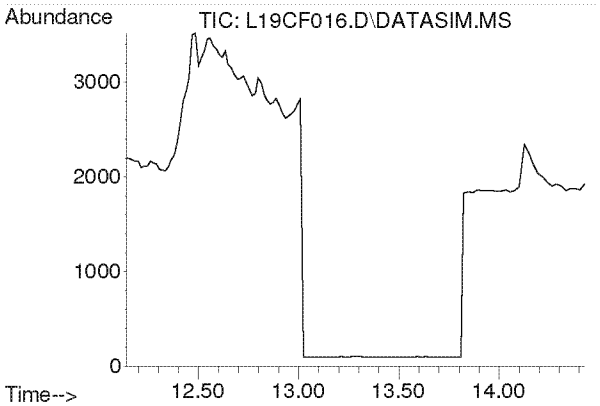
#10
Bromomethane
Concen: N.D.
Expected RT: 12.59 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 94

Sig	Exp Ratio
94	100
96	94.4



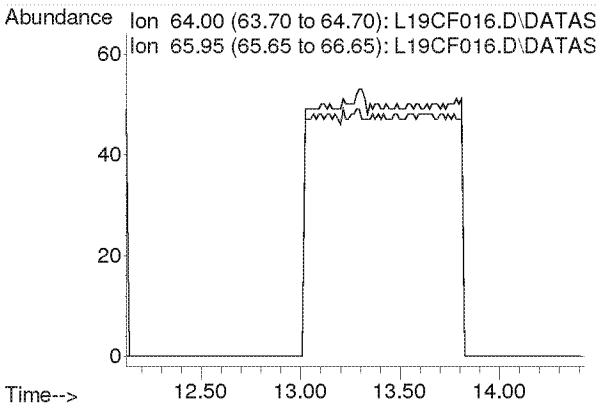


#11
Chloroethane
Concen: N.D.
Expected RT: 13.28 min

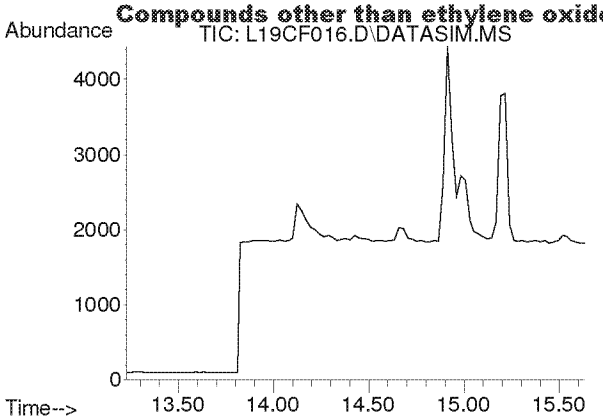
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 64

Sig	Exp Ratio
64	100
66	32.2



Compounds other than ethylene oxide were not quantitated.

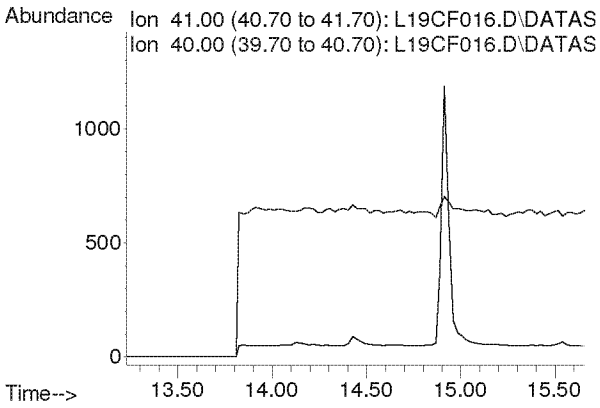


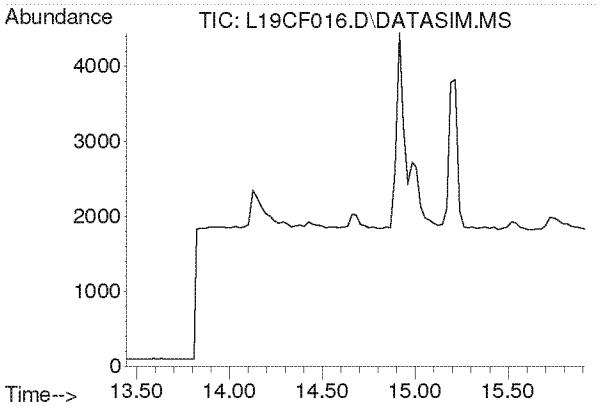
#12
Acetonitrile
Concen: N.D.
Expected RT: 14.36 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
40	52.8



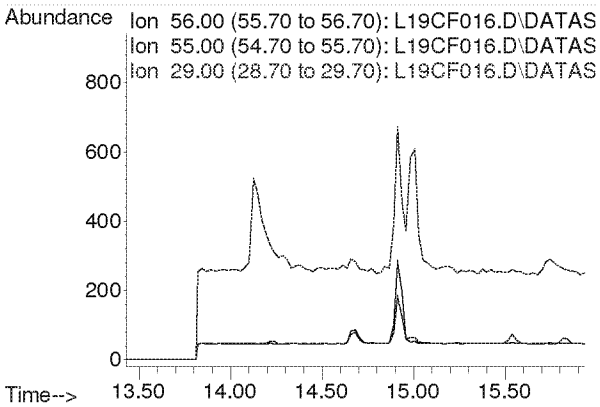


#13
Acrolein
Concen: N.D.
Expected RT: 14.63 min

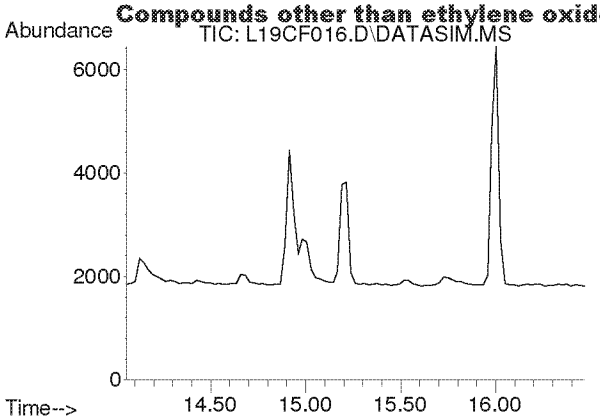
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 56

Sig	Exp Ratio
56	100
55	76.0
29	54.7



Compounds other than ethylene oxide were not quantitated.

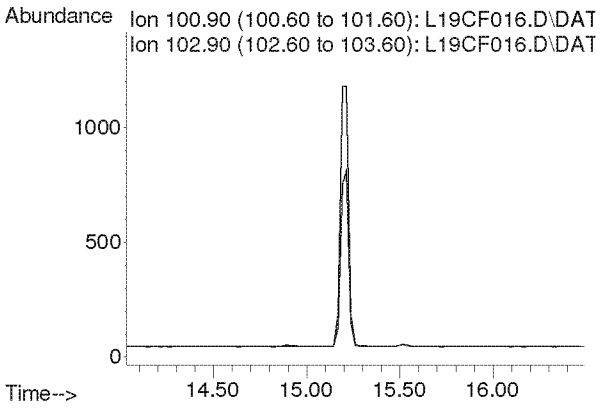


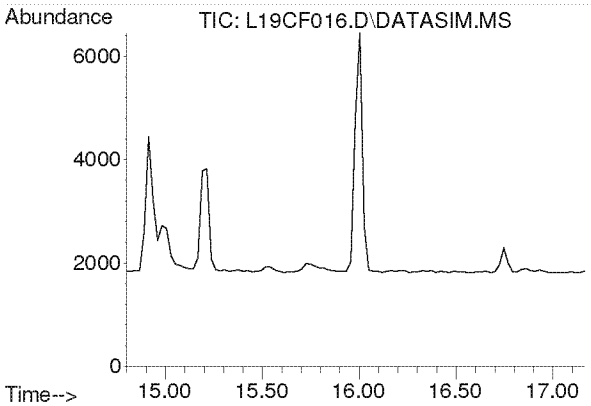
#14
Trichlorofluoromethane
Concen: N.D.
Expected RT: 15.19 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
103	64.6



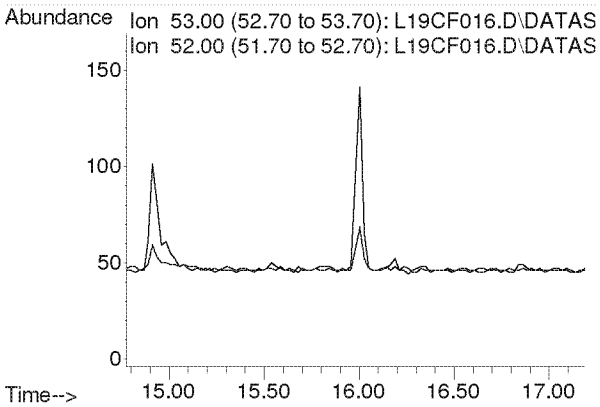


#15
Acrylonitrile
Concen: N.D.
Expected RT: 15.93 min

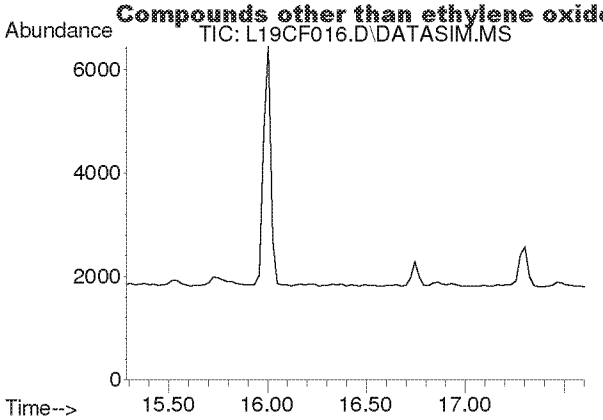
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
52	86.9



Compounds other than ethylene oxide were not quantitated.

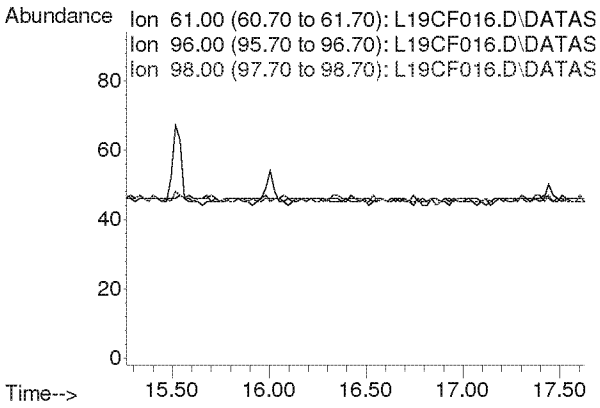


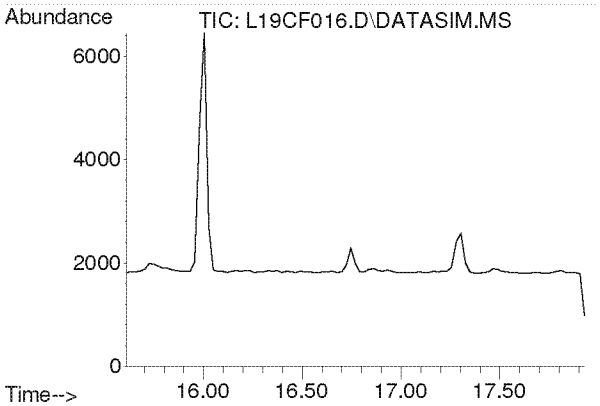
#16
1,1-Dichloroethene
Concen: N.D.
Expected RT: 16.42 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	59.1
98	38.2



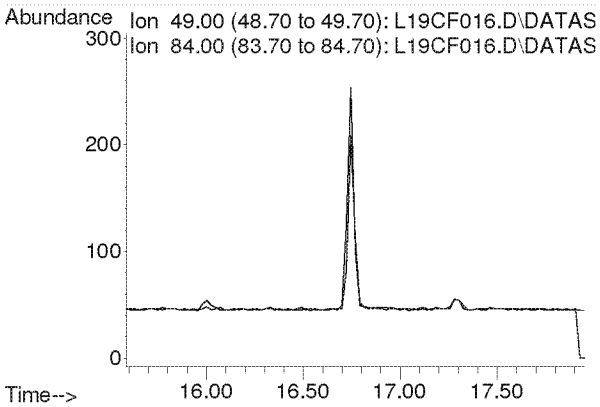


#17
Methylene Chloride
Concen: N.D.
Expected RT: 16.74 min

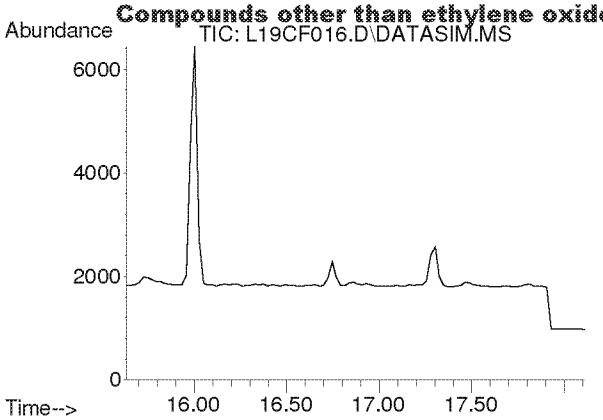
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 49

Sig	Exp Ratio
49	100
84	77.2



Compounds other than ethylene oxide were not quantitated.

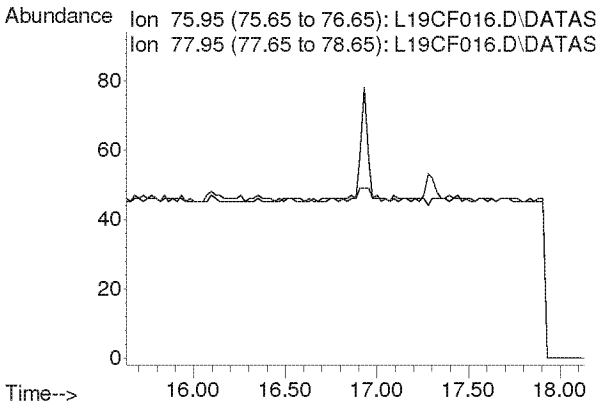


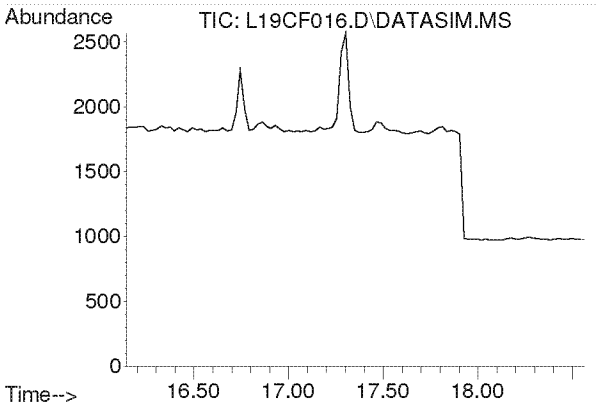
#18
Carbon Disulfide
Concen: N.D.
Expected RT: 16.93 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 76

Sig	Exp Ratio
76	100
78	9.2



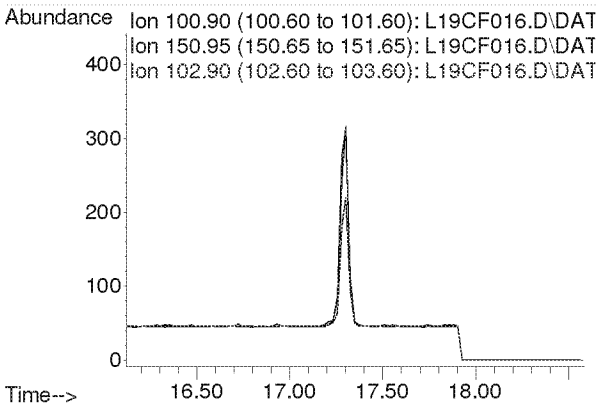


#19
Trichlorotrifluoroethane
Concen: N.D.
Expected RT: 17.28 min

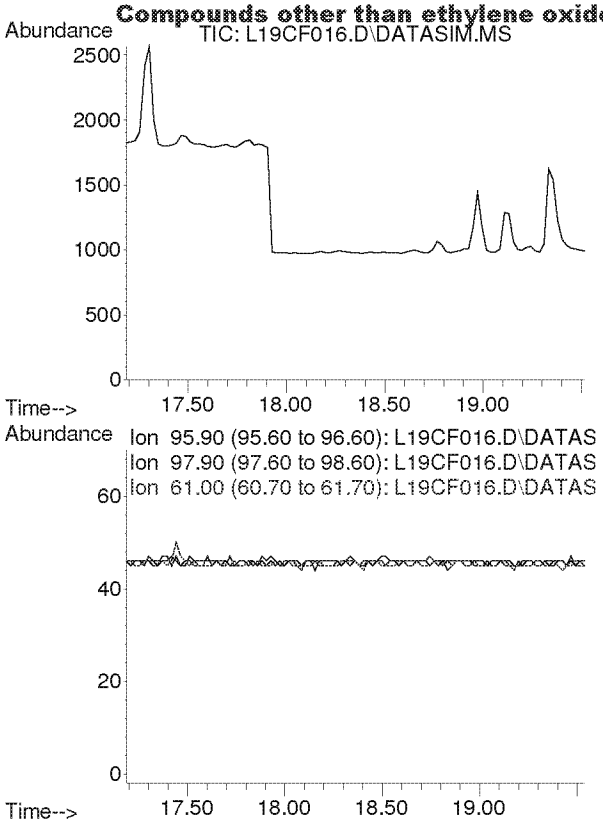
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 101

Sig	Exp Ratio
101	100
151	94.8
103	63.9



Compounds other than ethylene oxide were not quantitated.

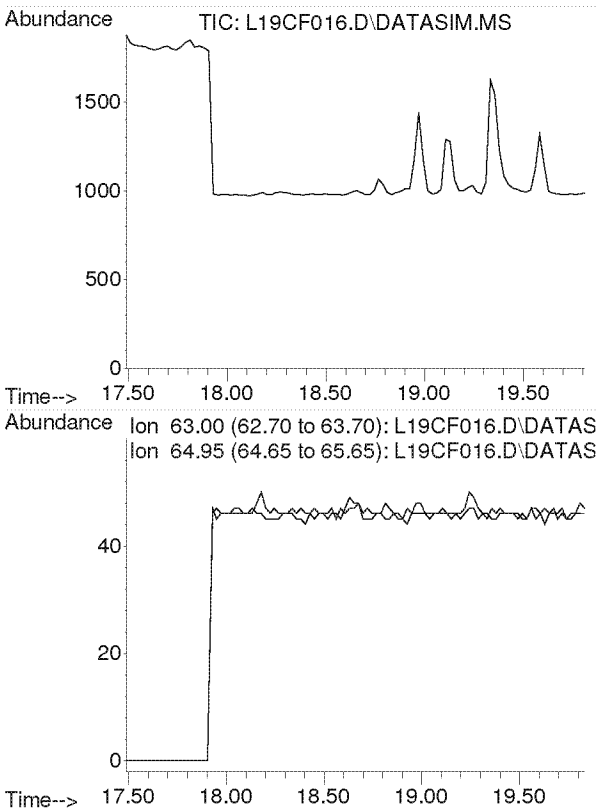


#20
trans-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 18.34 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 96

Sig	Exp Ratio
96	100
98	64.4
61	153.6



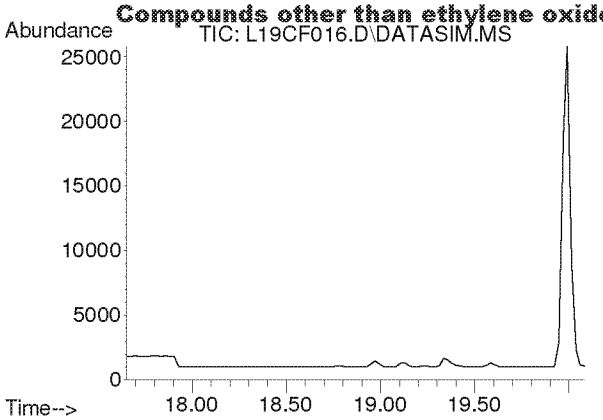
#21
1,1-Dichloroethane
Concen: N.D.
Expected RT: 18.63 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
65	31.7

Compounds other than ethylene oxide were not quantitated.

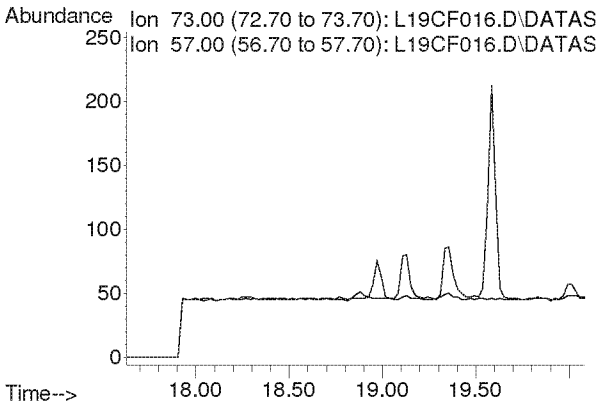


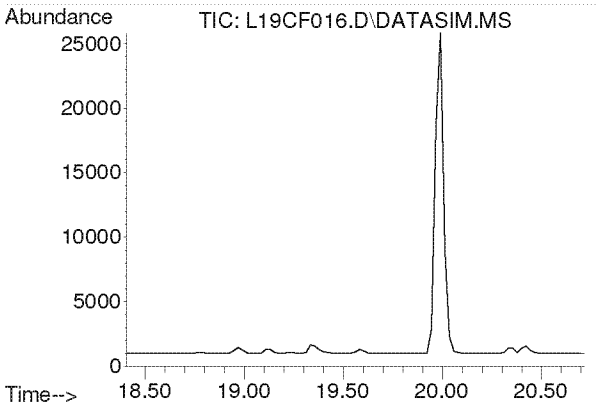
#22
Methyl tert-Butyl Ether
Concen: N.D.
Expected RT: 18.79 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
57	22.5



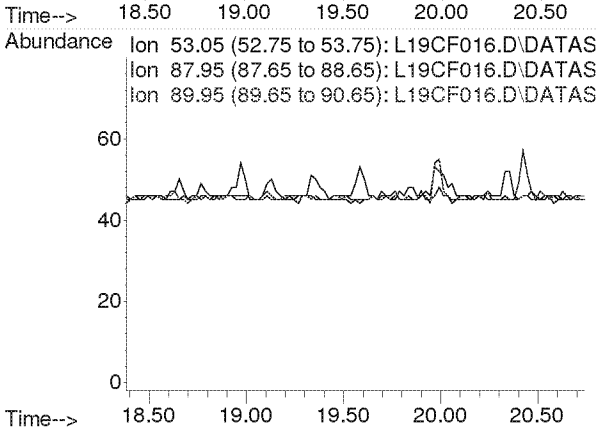


#23
Chloroprene
Concen: N.D.
Expected RT: 19.54 min

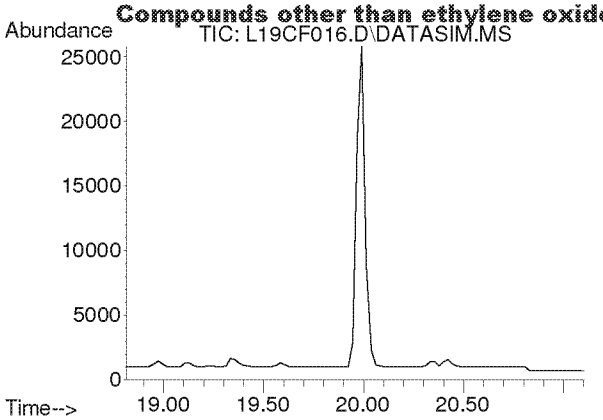
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 53

Sig	Exp Ratio
53	100
88	53.3
90	17.4



Compounds other than ethylene oxide were not quantitated.

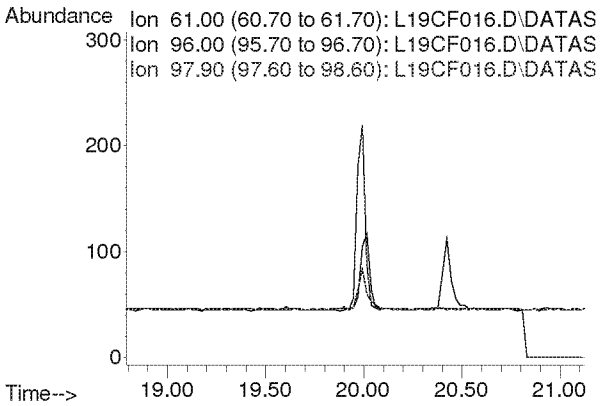


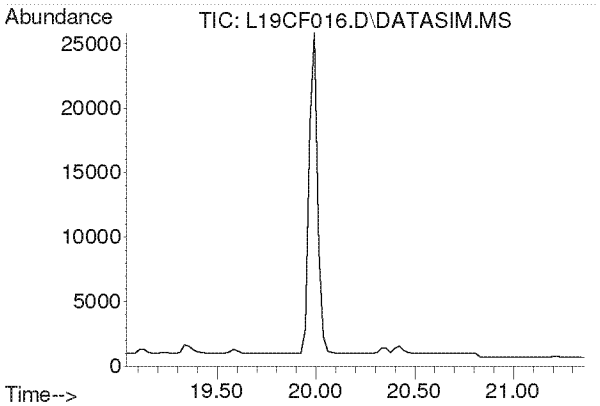
#24
cis-1,2-Dichloroethylene
Concen: N.D.
Expected RT: 19.95 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 61

Sig	Exp Ratio
61	100
96	73.8
98	47.0



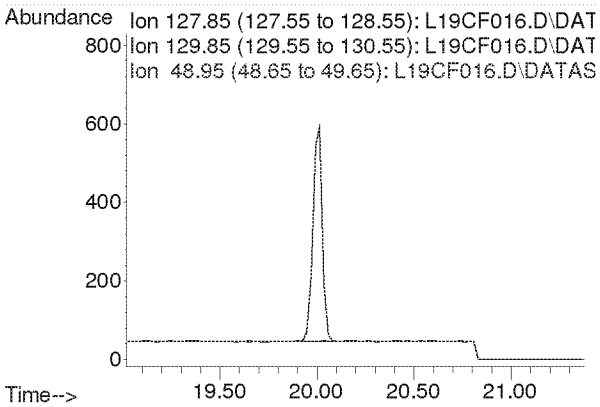


#25
Bromochloromethane
Concen: N.D.
Expected RT: 20.17 min

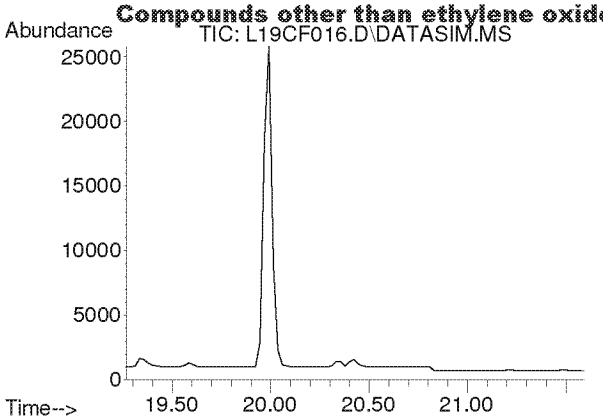
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 128

Sig	Exp Ratio
128	100
130	129.1
49	160.4



Compounds other than ethylene oxide were not quantitated.

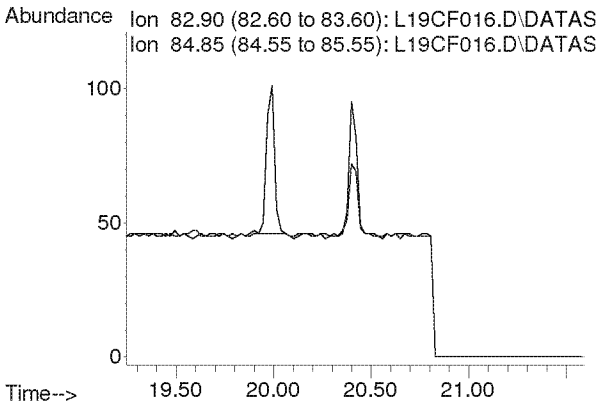


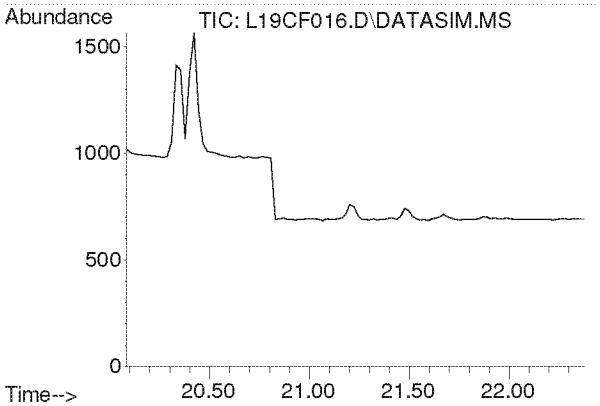
#26
Chloroform
Concen: N.D.
Expected RT: 20.40 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.4



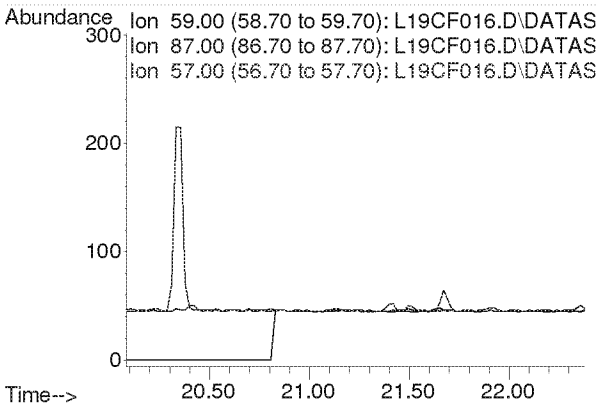


#27
Ethyl tert-Butyl Ether
Concen: N.D.
Expected RT: 21.18 min

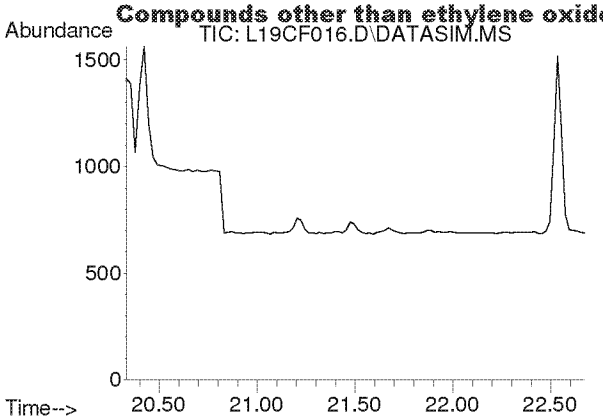
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 59

Sig	Exp Ratio
59	100
87	39.4
57	33.2



Compounds other than ethylene oxide were not quantitated.

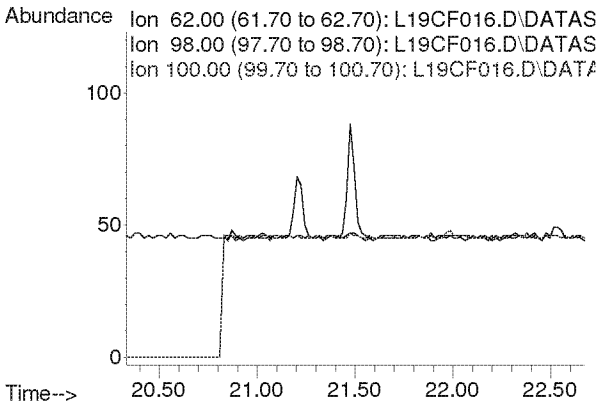


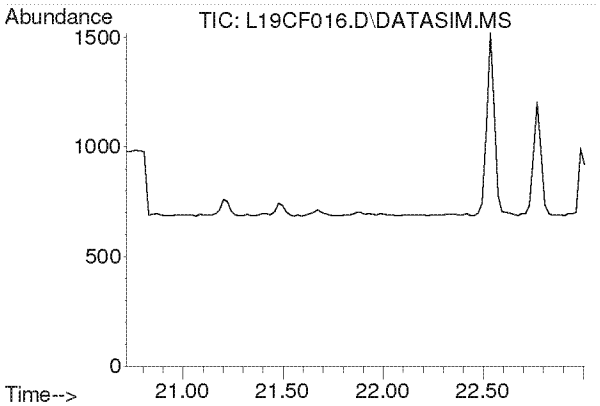
#28
1,2-Dichloroethane
Concen: N.D.
Expected RT: 21.48 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 62

Sig	Exp Ratio
62	100
98	6.3
100	4.0



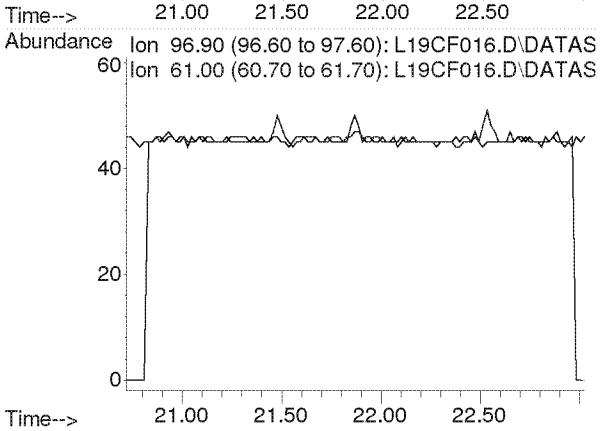


#30
1,1,1-Trichloroethane
Concen: N.D.
Expected RT: 21.87 min

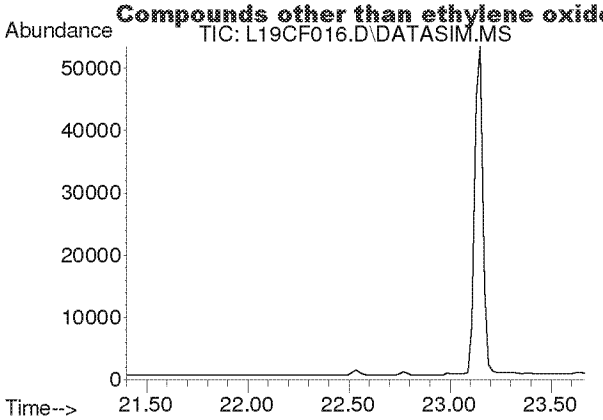
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
61	62.1



Compounds other than ethylene oxide were not quantitated.

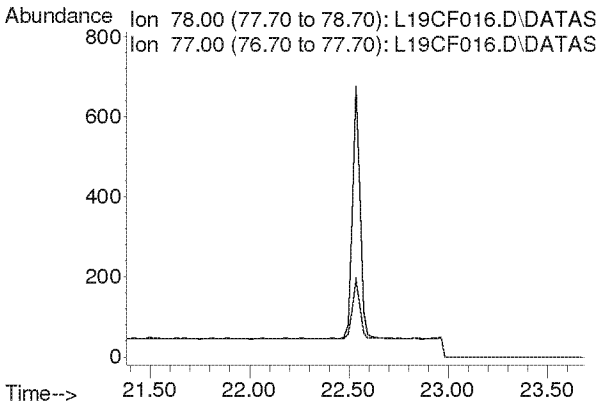


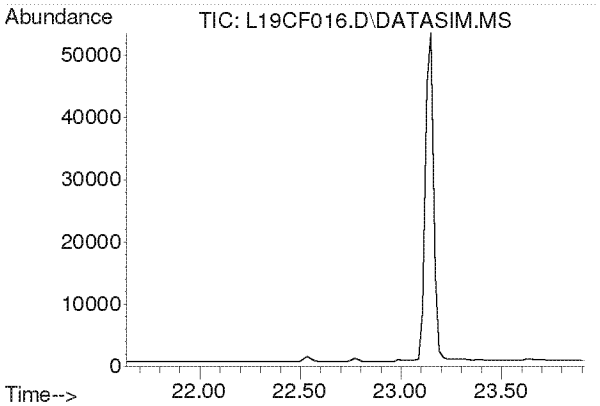
#31
Benzene
Concen: N.D.
Expected RT: 22.53 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 78

Sig	Exp Ratio
78	100
77	22.8



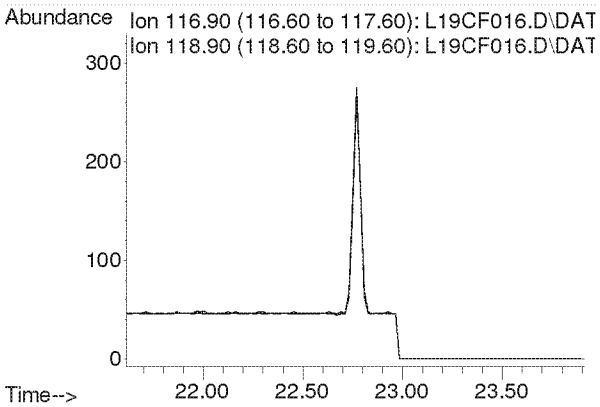


#32
Carbon Tetrachloride
Concen: N.D.
Expected RT: 22.77 min

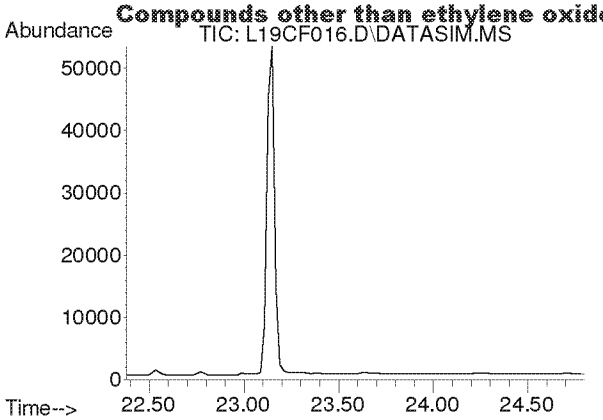
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 117

Sig	Exp Ratio
117	100
119	96.3



Compounds other than ethylene oxide were not quantitated.

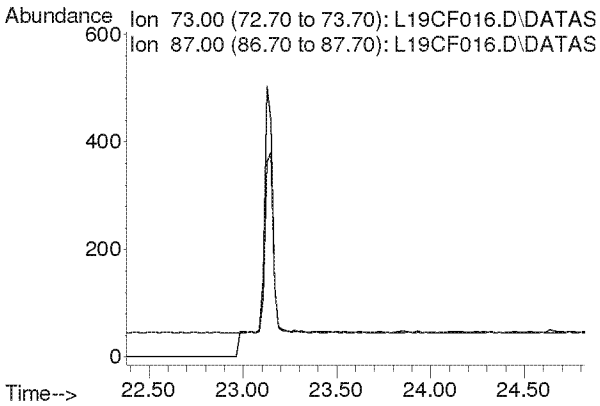


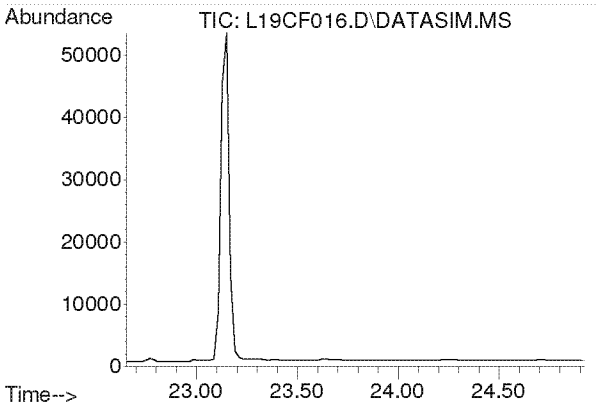
#33
tert-Amyl Methyl Ether
Concen: N.D.
Expected RT: 23.52 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 73

Sig	Exp Ratio
73	100
87	25.1



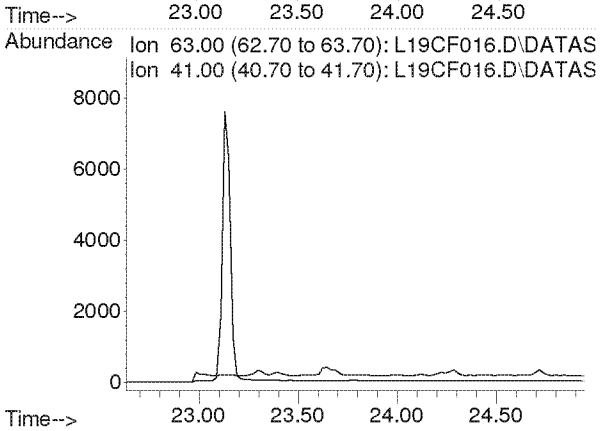


#34
1,2-Dichloropropane
Concen: N.D.
Expected RT: 23.79 min

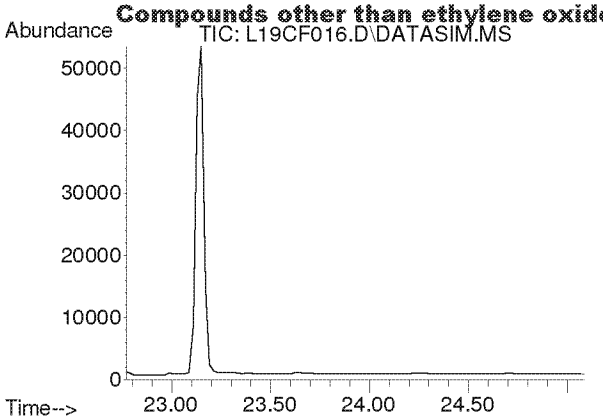
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 63

Sig	Exp Ratio
63	100
41	219.9



Compounds other than ethylene oxide were not quantitated.

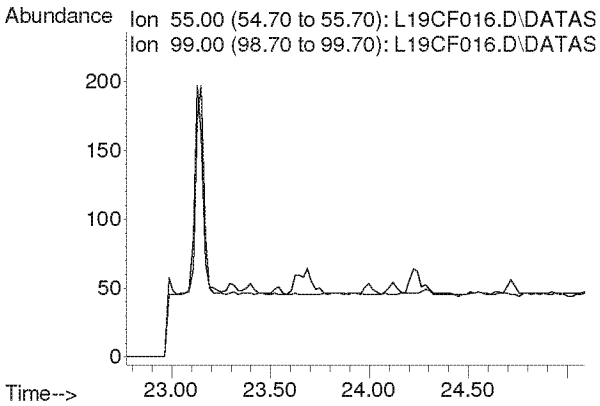


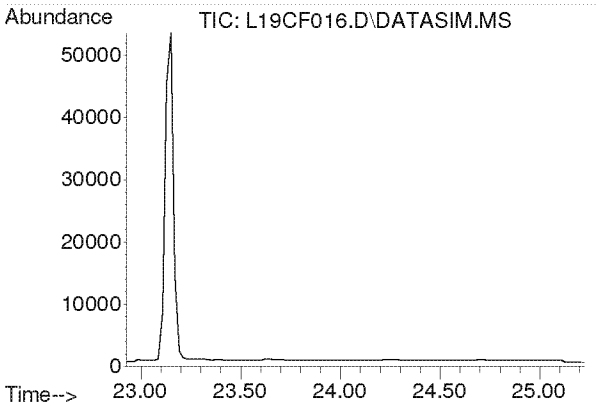
#35
Ethyl Acrylate
Concen: N.D.
Expected RT: 23.89 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 55

Sig	Exp Ratio
55	100
99	6.3



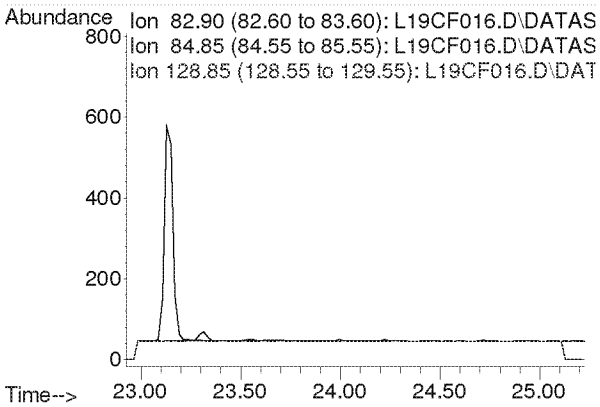


#36
Bromodichloromethane
Concen: N.D.
Expected RT: 24.08 min

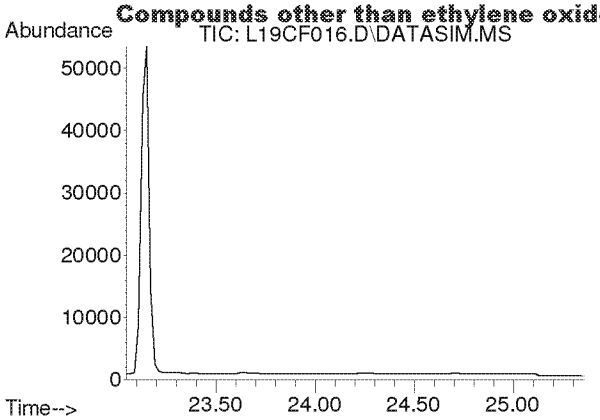
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	63.7
129	12.4



Compounds other than ethylene oxide were not quantitated.

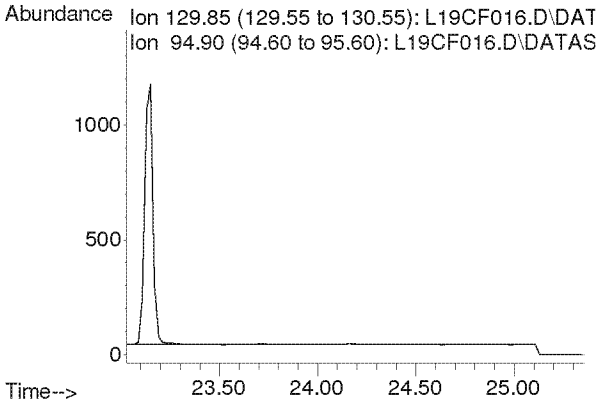


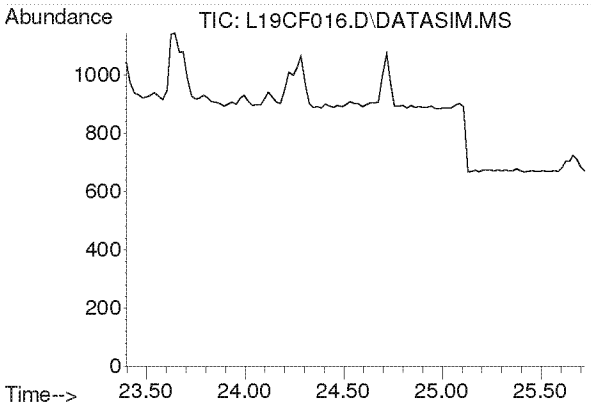
#37
Trichloroethylene
Concen: N.D.
Expected RT: 24.18 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 130

Sig	Exp Ratio
130	100
95	106.1



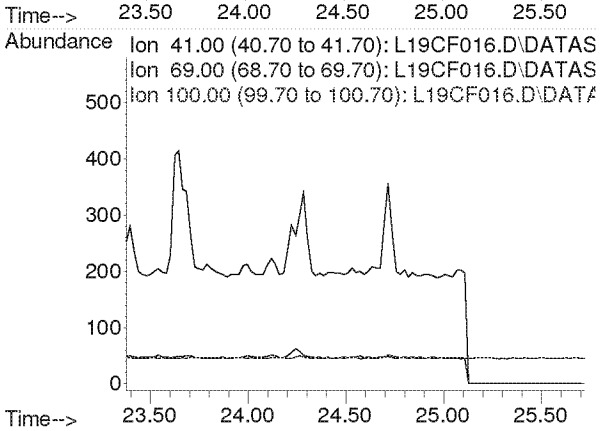


#38
Methyl Methacrylate
Concen: N.D.
Expected RT: 24.53 min

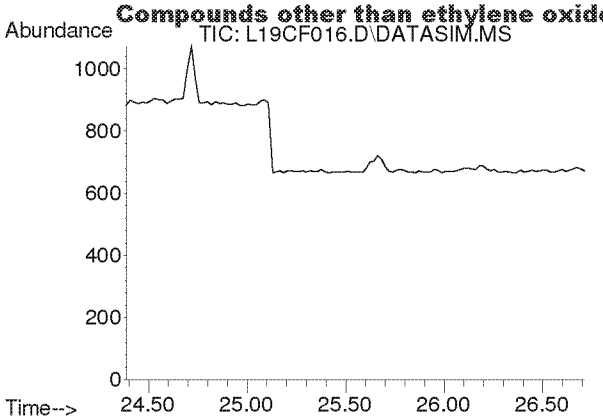
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 41

Sig	Exp Ratio
41	100
69	21.0
100	5.6



Compounds other than ethylene oxide were not quantitated.

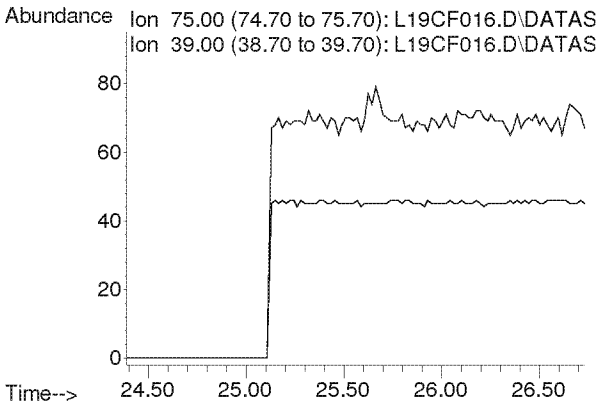


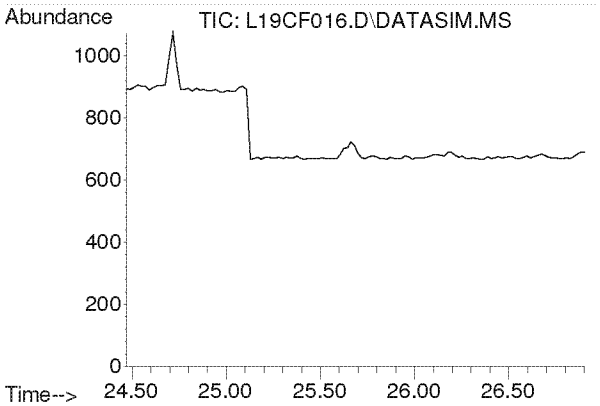
#39
cis-1,3-Dichloropropene
Concen: N.D.
Expected RT: 25.53 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	54.2



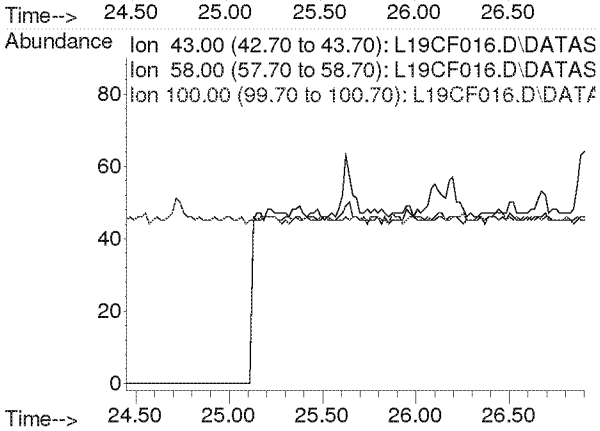


#40
Methyl Isobutyl Ketone
Concen: N.D.
Expected RT: 25.60 min

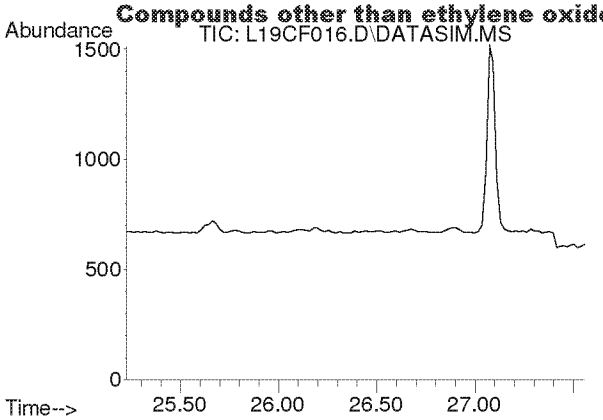
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
58	35.0
100	8.7



Compounds other than ethylene oxide were not quantitated.

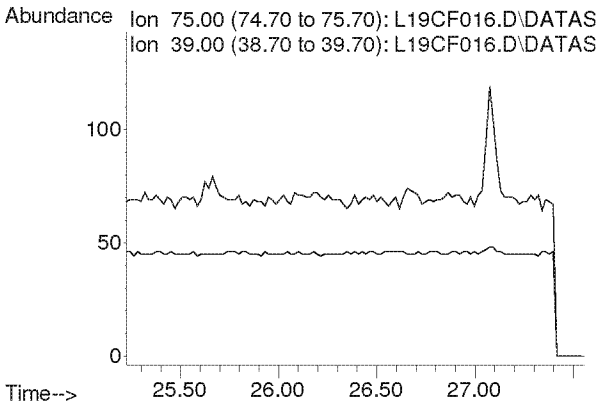


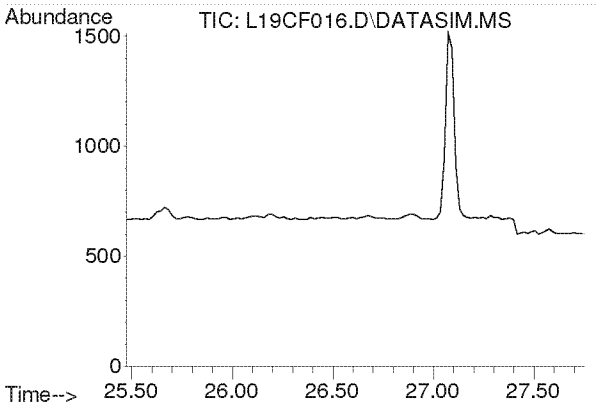
#41
trans-1,3-Dichloropropene
Concen: N.D.
Expected RT: 26.37 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 75

Sig	Exp Ratio
75	100
39	53.6



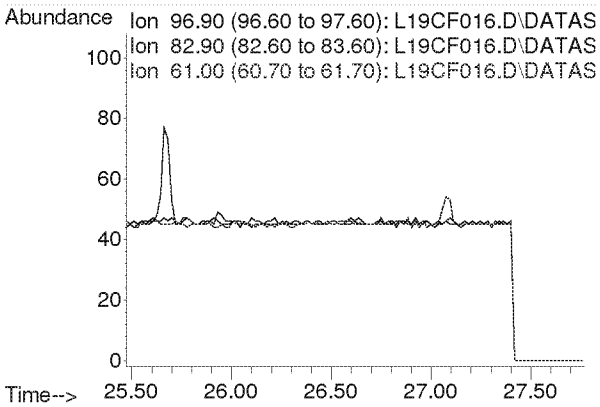


#42
1,1,2-Trichloroethane
Concen: N.D.
Expected RT: 26.62 min

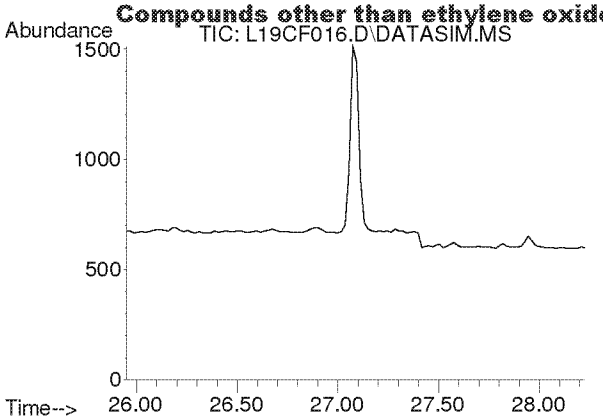
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 97

Sig	Exp Ratio
97	100
83	94.2
61	62.2



Compounds other than ethylene oxide were not quantitated.

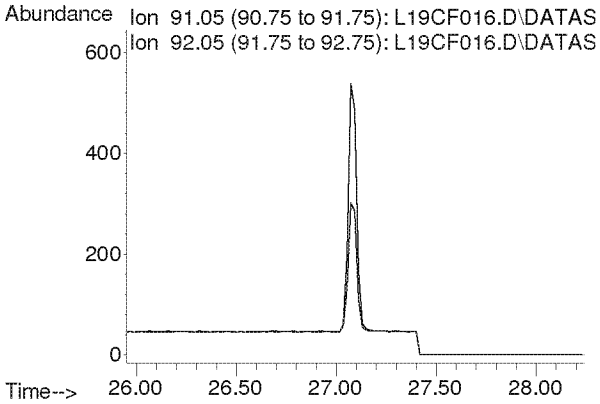


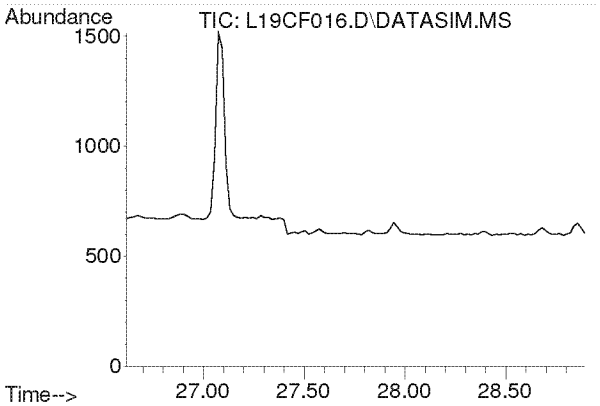
#44
Toluene
Concen: N.D.
Expected RT: 27.09 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
92	52.5



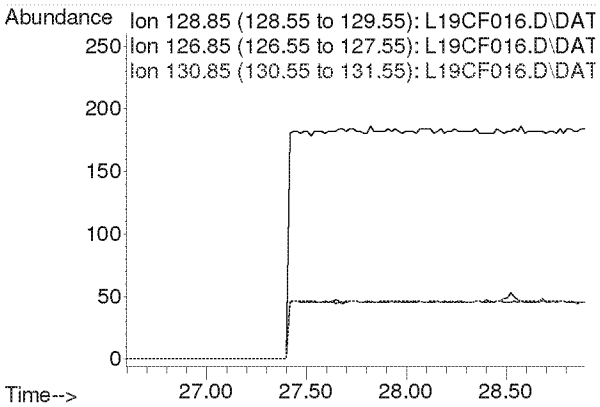


#45
Dibromochloromethane
Concen: N.D.
Expected RT: 27.75 min

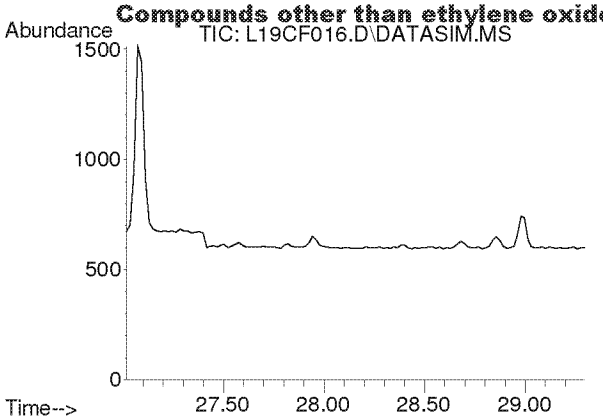
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 129

Sig	Exp Ratio
129	100
127	19.3
131	6.0



Compounds other than ethylene oxide were not quantitated.

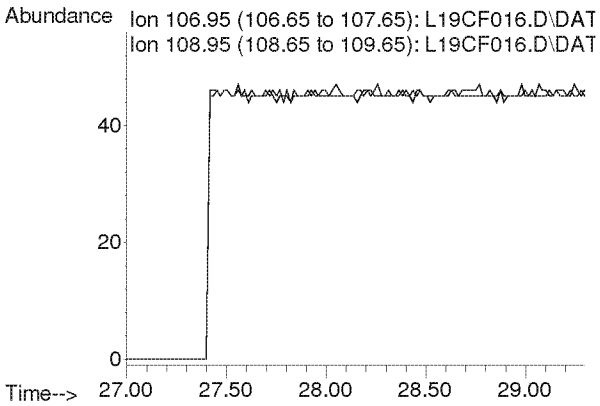


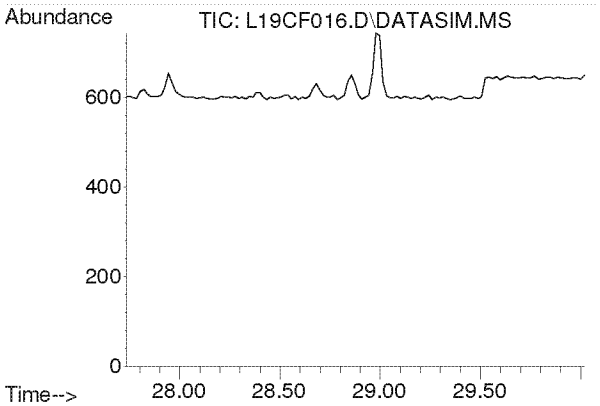
#46
1,2-Dibromoethane
Concen: N.D.
Expected RT: 28.15 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 107

Sig	Exp Ratio
107	100
109	94.2



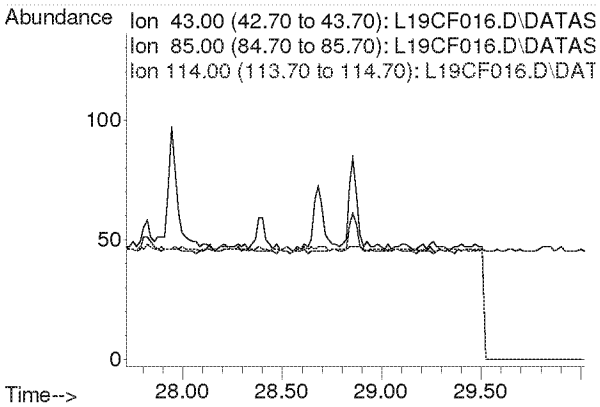


#47
n-Octane
Concen: N.D.
Expected RT: 28.87 min

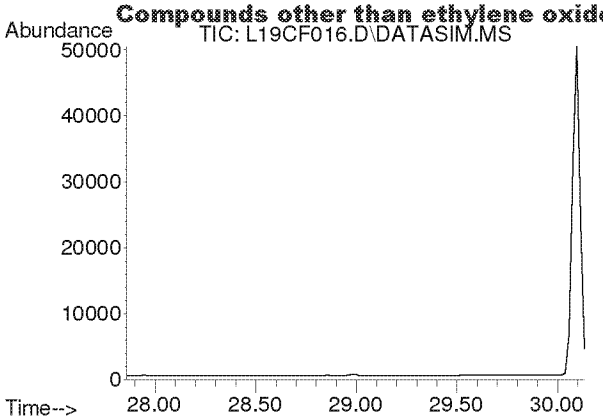
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 43

Sig	Exp Ratio
43	100
85	41.3
114	2.8



Compounds other than ethylene oxide were not quantitated.

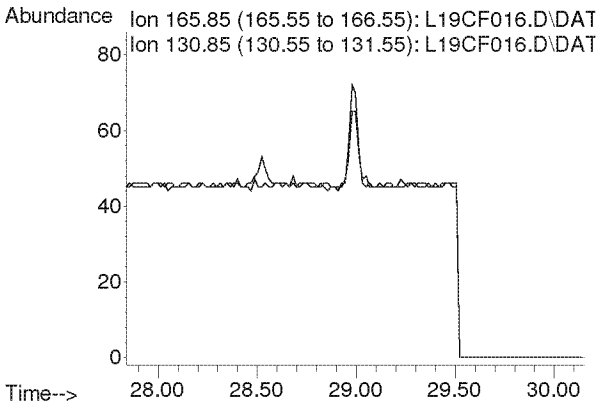


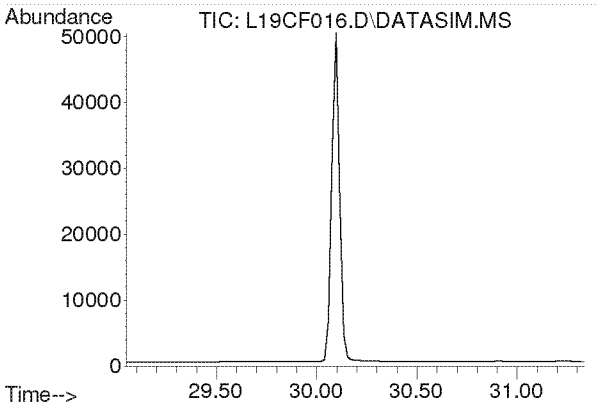
#48
Tetrachloroethylene
Concen: N.D.
Expected RT: 29.00 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 166

Sig	Exp Ratio
166	100
131	76.9



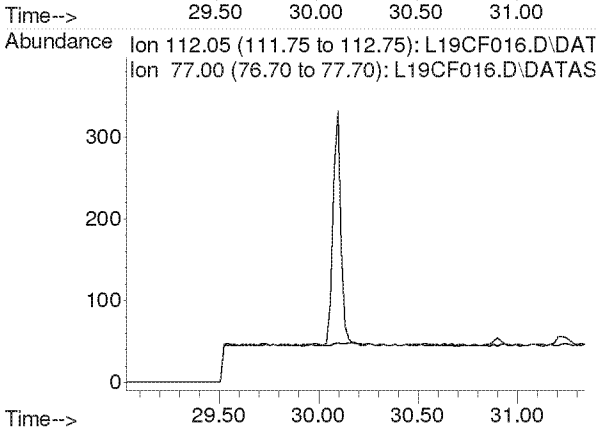


#49
Chlorobenzene
Concen: N.D.
Expected RT: 30.19 min

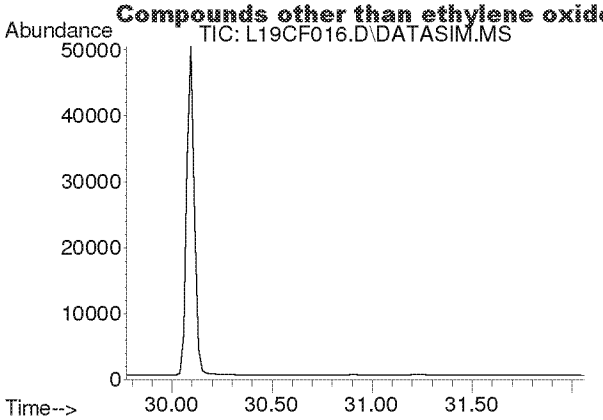
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 112

Sig	Exp Ratio
112	100
77	59.7



Compounds other than ethylene oxide were not quantitated.

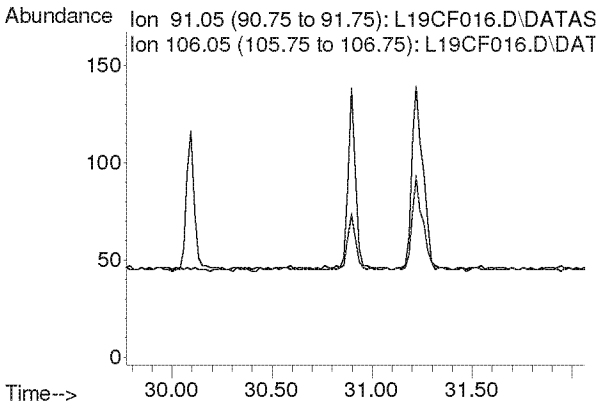


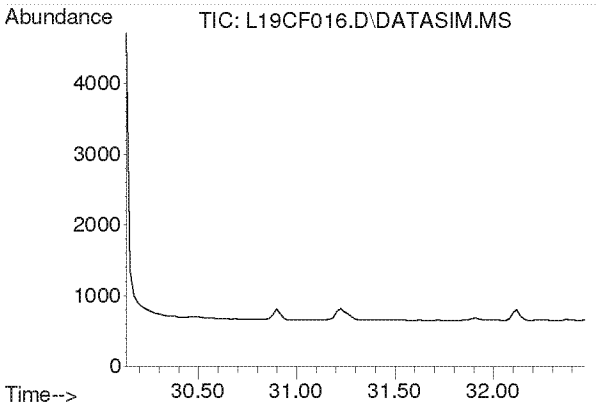
#50
Ethylbenzene
Concen: N.D.
Expected RT: 30.92 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	32.5



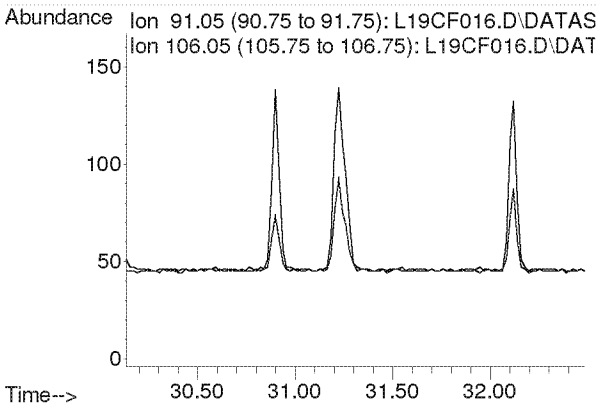


#51
m,p-Xylene
Concen: N.D.
Expected RT: 31.28 min

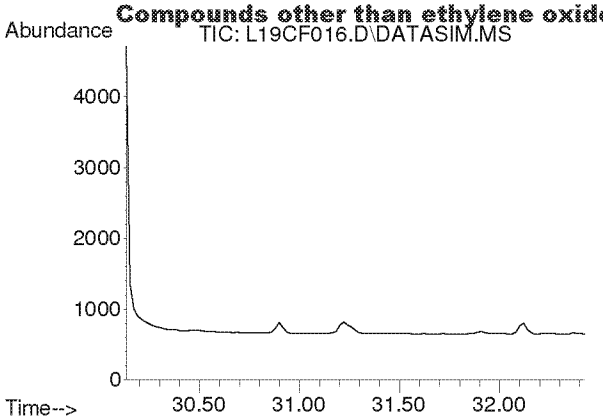
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	46.6



Compounds other than ethylene oxide were not quantitated.

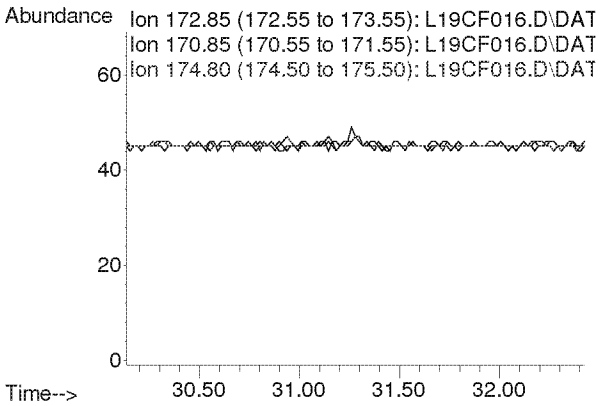


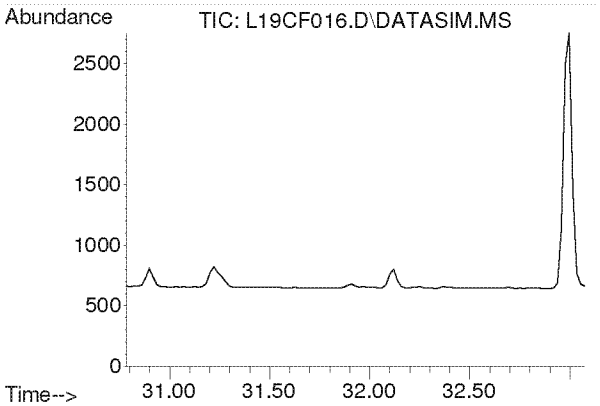
#52
Bromoform
Concen: N.D.
Expected RT: 31.28 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 173

Sig	Exp Ratio
173	100
171	51.3
175	48.9



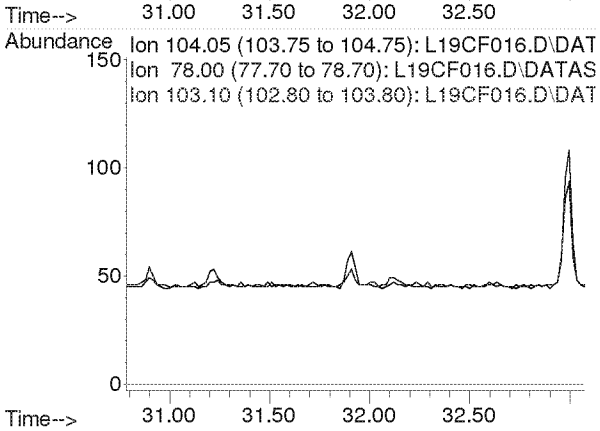


#53
Styrene
Concen: N.D.
Expected RT: 31.93 min

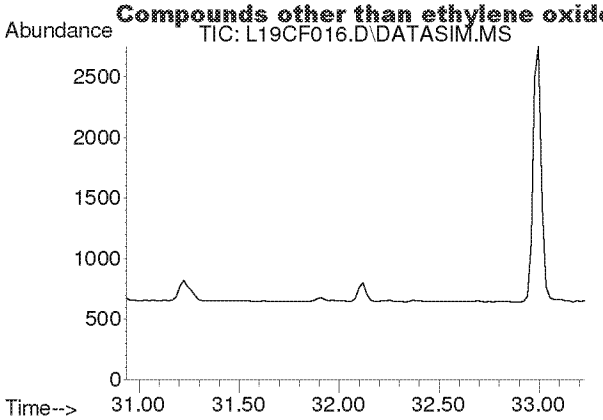
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 104

Sig	Exp Ratio
104	100
78	44.3
103	0.0



Compounds other than ethylene oxide were not quantitated.

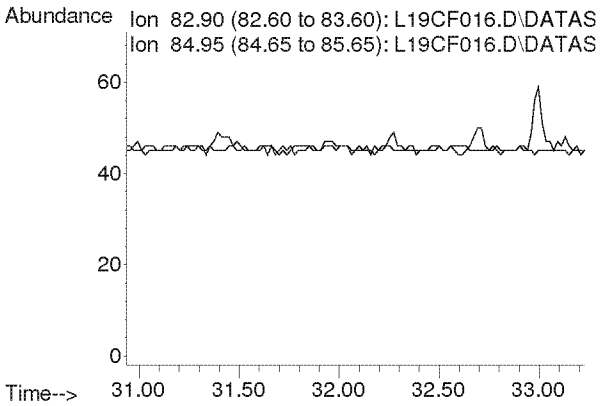


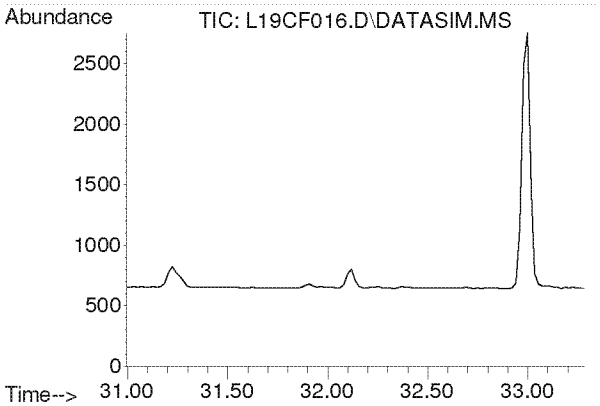
#54
1,1,2,2-Tetrachloroethane
Concen: N.D.
Expected RT: 32.08 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 83

Sig	Exp Ratio
83	100
85	64.5



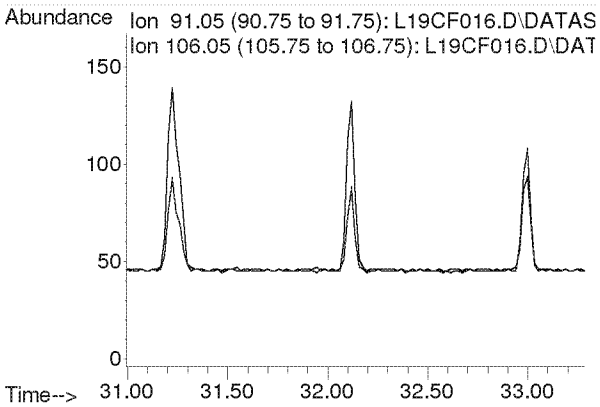


#55
o-Xylene
Concen: N.D.
Expected RT: 32.14 min

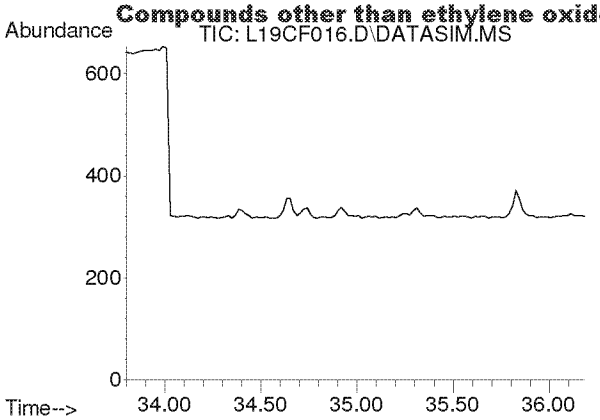
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 91

Sig	Exp Ratio
91	100
106	45.8



Compounds other than ethylene oxide were not quantitated.

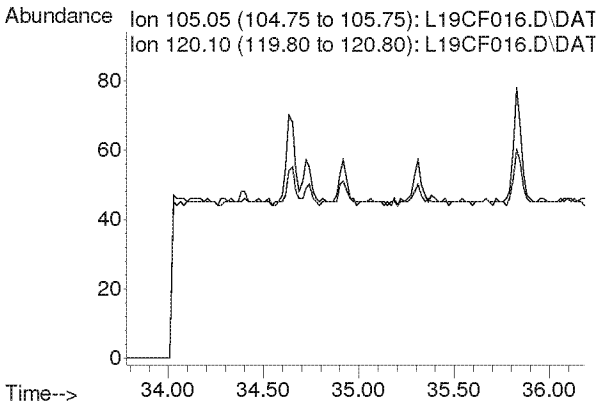


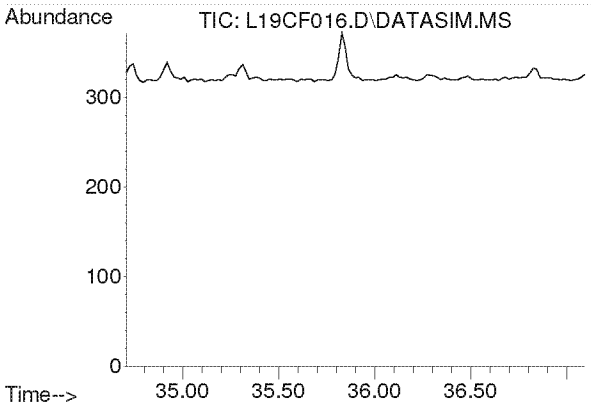
#56
1,3,5-Trimethylbenzene
Concen: N.D.
Expected RT: 34.94 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	46.0



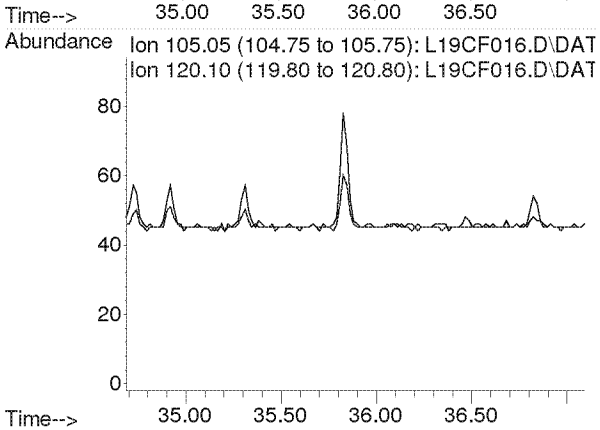


#57
1,2,4-Trimethylbenzene
Concen: N.D.
Expected RT: 35.85 min

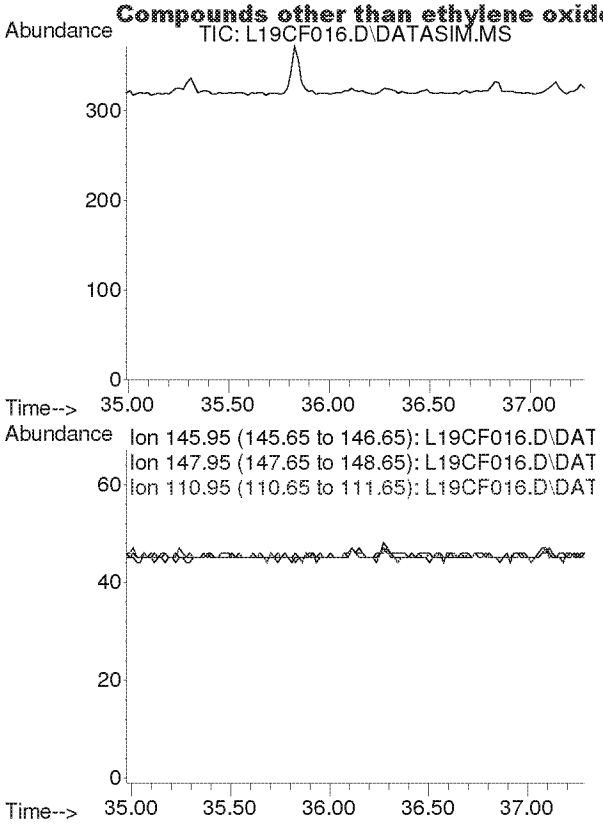
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 105

Sig	Exp Ratio
105	100
120	44.0



Compounds other than ethylene oxide were not quantitated.

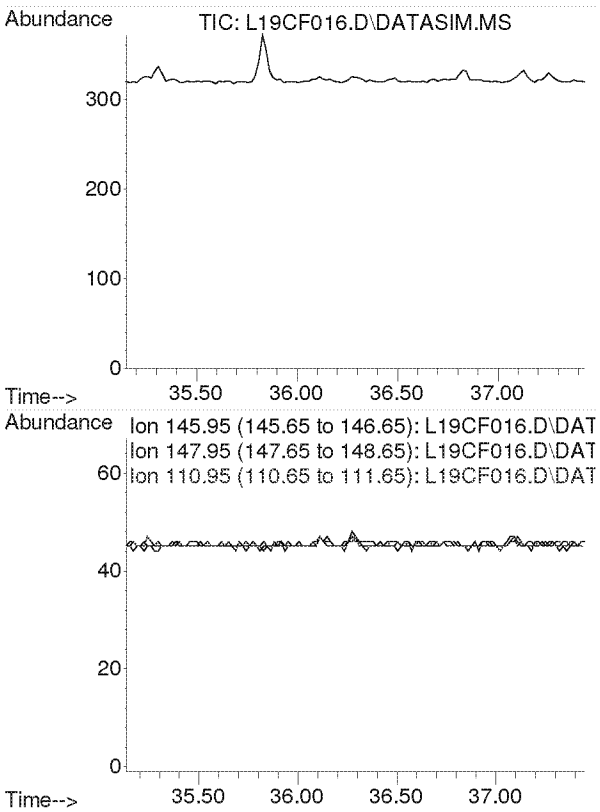


#58
m-Dichlorobenzene
Concen: N.D.
Expected RT: 36.13 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.1
111	40.1



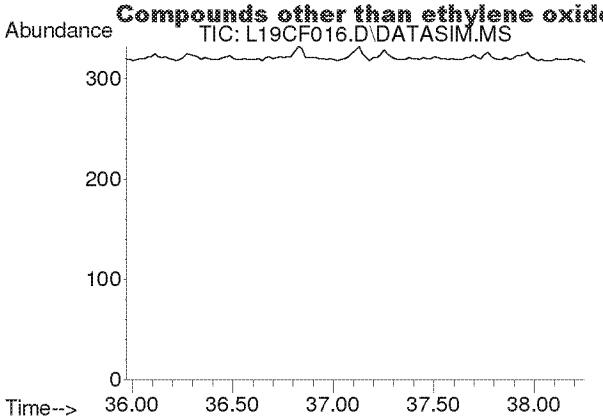
#59
p-Dichlorobenzene
Concen: N.D.
Expected RT: 36.29 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.3
111	38.7

Compounds other than ethylene oxide were not quantitated.

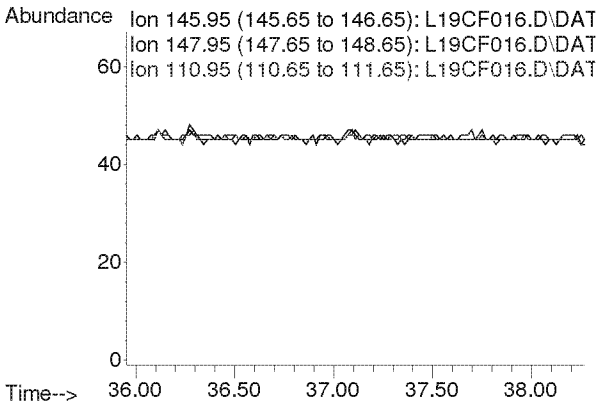


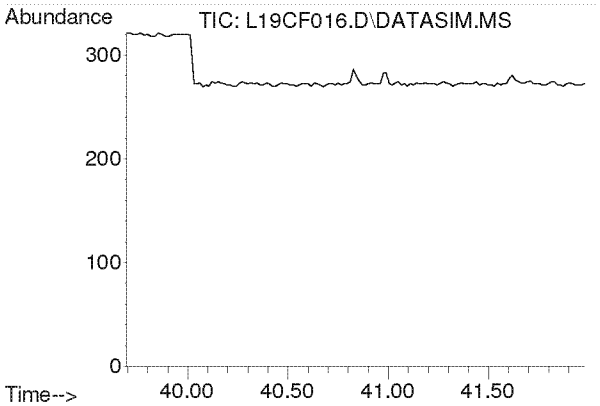
#60
o-Dichlorobenzene
Concen: N.D.
Expected RT: 37.11 min

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 146

Sig	Exp Ratio
146	100
148	64.0
111	40.8



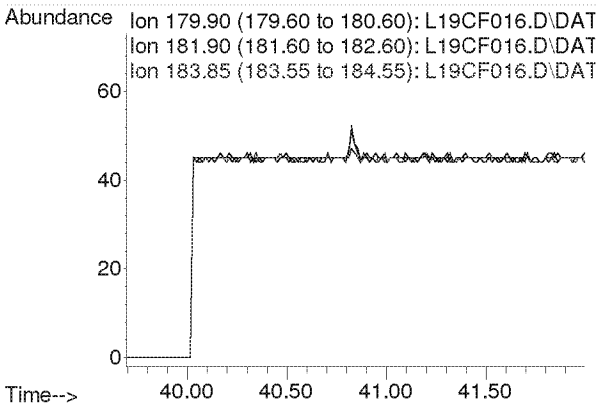


#61
1,2,4-Trichlorobenzene
Concen: N.D.
Expected RT: 40.84 min

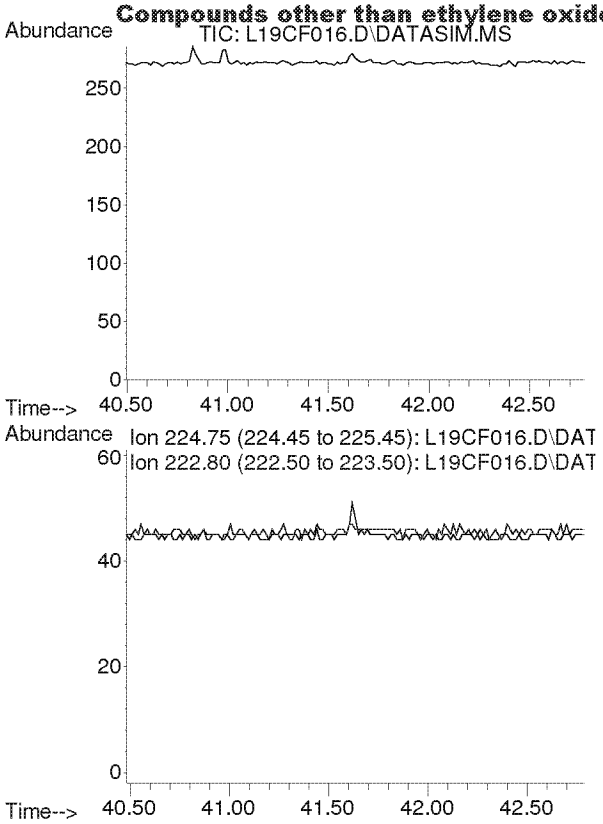
Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 180

Sig	Exp Ratio
180	100
182	94.6
184	30.2



Compounds other than ethylene oxide were not quantitated.



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

Lab File: L19CF016.D
Acq: 7 Mar 2019 4:36 am

Tgt Ion: 225

Sig	Exp Ratio
225	100
223	62.4

Compounds other than ethylene oxide were not quantitated.

PREPARATION BENCH SHEET

B9C0605

Eastern Research Group

Matrix: Air | **Prepared using: Air Toxics - Summa Canister Prep** | **Printed: 3/6/2019 3:23:21PM**

Lab Number	Prepared	Initial (ml)	Final (ml)	Spike ID	Source ID	ul Spike	Comments	
9030101-10 *TO-15 2019*	02/26/19 00:00	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9030618-01 *TO-15 2019*	03/05/19 10:51	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9030618-02 *TO-15 2019*	03/05/19 11:41	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9030618-03 *TO-15 2019*	03/05/19 10:44	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9030618-04 *TO-15 2019*	03/05/19 10:24	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9030618-05 *TO-15 2019*	03/05/19 10:24	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9030618-06 *TO-15 2019*	03/05/19 10:35	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9030618-07 *TO-15 2019*	03/05/19 10:17	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9030618-08 *TO-15 2019*	03/05/19 11:34	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
9030618-09 *TO-15 2019*	03/05/19 11:27	250	250	U.S. Environmental Protection Agency - OAQPS			Ethylene Oxide only	Ethylene Oxide only
B9C0605-BLK1	03/04/19 08:00	250	250				b-h1-574	
B9C0605-DUP1	03/05/19 10:24	250	250		9030618-04			
B9C0605-DUP2	03/05/19 10:24	250	250		9030618-05			

3-7-19

Date | Reviewed By | Date | Extracts Received By | Date

Compounds other than ethylene oxide were not quantitated.

TB 3

ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9030101-10

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Gover MS 2/26/19 JGC
City/State: ~~Dun Ridge~~, IL 2/26/19 JGC
AQS Code: N/A
Collection Date: 2/26/19
Options:
SNMOC (Y/N):
TOXICS (Y/N): Y
METHANE (Y/N):
Relinquished by: KR
Date: 2/20/19

Canister Number: A21033
Lab Initial Can. Press. ("Hg): 30
Cleaning Batch #: H1-562
Date Can. Cleaned: 2/14/19
Duplicate Event (Y/N): N
Duplicate Can #:

Field Setup

Received by: J. Coughlin
Date: 2/26/19
Operator: J Coughlin
System #: ~~JC3H~~ 2/26/19 JGC
Setup Date: 2/26/19
Field Initial Can. Press.: psig psia "Hg (Circle one)

MFC Setting: —
Elapsed Timer Reset (Y/N): —
Canister Valve Opened (Y/N): ~~Y~~ 2/26/19 JGC

Field Recovery

Recovery Date: 2/27/19
Operator: S. Hamilton
Field Final Can. Press.: psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Relinquished by: S Hamilton
Date: 2/27/19

Sample Duration (3 or 24 hr):
Elapsed Time:
Canister Valve Closed (Y/N):

Lab Recovery

Received by: KR
Date: 3/1/19
Lab Final Can. Press.: 30 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: TRIP BLANK
- Did not see trip blank designation when first filling out C.C. Corrected and properly used as a trip blank.
JGC

Filled to 4 in Hg on ERG Cleaning System 1

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

4

ERG Lab ID # 903618-01

ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Willow Pond Park
Canister Number: A21013
City/State: Willowbrook
Lab Initial Can. Press. ("Hg): 29.8
AQS Code: —
Cleaning Batch # : H2-569
Collection Date: 3/4/19
Date Can. Cleaned: 2/21/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 2/28/19

Field Setup

Received by: DeLisio
Date: 3/4/19
Operator: DeLisio
MFC Setting:
System #: 10294
Elapsed Timer Reset (Y/N):
Setup Date: 3/4/19
Canister Valve Opened (Y/N): 1133 am
Field Initial Can. Press.: -29 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 3/5/19
Sample Duration (3 or 24 hr): 24hr
Operator: DeLisio
Elapsed Time:
Field Final Can. Press.: -6 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): 1035 am
Relinquished by: DeLisio
Date: 3/5/19

Lab Recovery

Received by: KB
Date: 3/6/19
Lab Final Can. Press.: 4.50 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Deployment temp = 0 °F

Leak check @ 29" Hg

28.5 @ 1127 28.5 @ 1133

Collection temp = [illegible] Final pressure = -4 psig Hg

White: Sample Traveler Canary: Lab Copy Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

5

ERG Lab ID # 9030618-02

ERG
Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: West Neighborhood
Canister Number: 5046
City/State: Willowbrook, IL
Lab Initial Can. Press. ("Hg): 30
AQS Code: —
Cleaning Batch # : H1-565
Collection Date: 3/4/19
Date Can. Cleaned: 2/18/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 2/25/19

Field Setup

Received by: Delisio
Date: 3/4/19
Operator: Delisio
MFC Setting:
System #: 10310
Elapsed Timer Reset (Y/N):
Setup Date: 3/4/19
Canister Valve Opened (Y/N): Y @ 1227
Field Initial Can. Press.: [illegible] psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 3/5
Sample Duration (3 or 24 hr): [illegible]
Operator: [illegible]
Elapsed Time:
Field Final Can. Press.: [illegible] psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): [illegible]
Relinquished by: [illegible]
Date: [illegible]

Lab Recovery

Received by: KB
Date: 3/6/19
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: Deploy temp = 0°F

Leak Check @ 1220 - 28.8"Hg / 28.5 @ 1226

Collection temp = [illegible] = Final pressure 4 psig HG

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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ERG Lab ID # 9030618-03

ERG Eastern Research Group, Inc
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Water Tower
Canister Number: SAT026
City/State: Willowbrook
Lab Initial Can. Press. ("Hg): 30
AQS Code:
Cleaning Batch # : HZ-565
Collection Date: 3/4/19
Date Can. Cleaned: 2/18/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: MB
Date: 2/25/19

Field Setup

Received by: DeLisio
Date: 3/4/19
Operator: DeLisio
MFC Setting:
System #: 10312
Elapsed Timer Reset (Y/N):
Setup Date: 3/4/19
Canister Valve Opened (Y/N):
Field Initial Can. Press.: psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 3/5/19
Sample Duration (3 or 24 hr): 24 Hr
Operator: DeLisio
Elapsed Time:
Field Final Can. Press.: -3.5 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): 1044
Relinquished by: DeLisio
Date: 3/5/19

Lab Recovery

Received by: KB
Date: 3/6/19
Lab Final Can. Press.: 2.00 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 @ 0°F - 29.5 @ 1103 - 29.5 @ 1118
deploy temp = 0°F
collection temp. = 4°F
Final pressure -1 Psig Hg

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 90.30618-04

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Village Hall

City/State: Willowbrook, IL

AQS Code:

Collection Date: 3/4/19

Options:

SNMOC (Y/N):

TOXICS (Y/N): Y

METHANE (Y/N):

Canister Number: A22228

Lab Initial Can. Press. ("Hg): 29.8

Cleaning Batch # : HR-569

Date Can. Cleaned: 2/21/19

Duplicate Event (Y/N): Y

Duplicate Can # : 3639 A

Relinquished by: RMB Date: 2/28/19

Field Setup

Received by: Qazzaz Date: 3/4/19

Operator: Qazzaz

System #: 10313

Setup Date: 3/4/19

MFC Setting:

Elapsed Timer Reset (Y/N):

Canister Valve Opened (Y/N): 10:37am

Field Initial Can. Press.: -29.0 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 3/5/19

Operator: Qazzaz

Sample Duration (3 or 24 hr): 24

Elapsed Time:

Field Final Can. Press.: -3.5 psig psia "Hg (Circle one)

Status: **VALID** **VOID** (Circle one)

Canister Valve Closed (Y/N): 10:24am

Relinquished by: Qazzaz Date: 3/5/19

Lab Recovery

Received by: KB Date: 3/6/19

Lab Final Can. Press.: 2.3 psig "Hg (Circle one) Converted to psia:

Status: **VALID** **VOID** (Circle one)

Gauge: 1 2 (Circle one)

If void, why: Hess gauge

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check @ -29 @ 10:28am: -29.0 @ 10:33am
Temp at deployment = 0°C
Temp at collection = 14°C
Final pressure -1 psig Hg

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 # 930618-05

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Village Hall DYP

Canister Number: 3639A

City/State: Willoughby, OH

Lab Initial Can. Press. ("Hg): 29.8

AQS Code: —

Cleaning Batch # : H1-569

Collection Date: 3/4/19

Date Can. Cleaned: 2/21/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): Y

TOXICS (Y/N): Y

Duplicate Can # : A22228

METHANE (Y/N):

Relinquished by: RMB

Date: 2/28/19

Field Setup

Received by: Qazzar

Date: 3/4/19

Operator: Qazzar

MFC Setting:

System #: 10315

Elapsed Timer Reset (Y/N):

Setup Date: 3/4/19

Canister Valve Opened (Y/N): 10:33 am

Field Initial Can. Press.: -27.0 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 3/5/19

Sample Duration (3 or 24 hr): 24 hr

Operator: Qazzar

Elapsed Time:

Field Final Can. Press.: -6.0 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): 10:26 am

Relinquished by: Qazzar

Date: 3/5/19

Lab Recovery

Received by: KB

Date: 3/6/19

Lab Final Can. Press.: 4.50 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check: -29 in Hg @ 10:28 am: -28.0 in Hg @ 10:33 am
Temp @ deployment: 0°C
Temp @ collection: 14°C
Final pressure -4 psig Hg

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9030618-06

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Gower MS
Canister Number: A21055 RMB 2/25/19
City/State: Burr Ridge IL
Lab Initial Can. Press. ("Hg): 30
AQS Code: —
Cleaning Batch # : H1-565
Collection Date: 3/4/19
Date Can. Cleaned: 2/18/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 2/25/19

Field Setup

Received by: Delisio
Date: 3/4/19
Operator: Delisio
MFC Setting:
System #: 10311
Elapsed Timer Reset (Y/N):
Setup Date: 3/4/19
Canister Valve Opened (Y/N): 1052
Field Initial Can. Press.: [illegible] psig psia "Hg (Circle one)

Field Recovery

Recovery Date: [illegible]
Sample Duration (3 or 24 hr): [illegible]
Operator: [illegible]
Elapsed Time:
Field Final Can. Press.: [illegible] psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): [illegible]
Relinquished by: [illegible]
Date: [illegible]

Lab Recovery

Received by: KB
Date: 3/6/19
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: Deploy temp = 0°F

Leak check @ 1046 -29.5 "Hg -28.5 @ 1052

Collection temp = [illegible] final pressure -4.8 psig Hg

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9030618-07

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: WB Warehouse
Canister Number: 707
City/State: Willowbrook IL
Lab Initial Can. Press. ("Hg): 29.8
AQS Code: —
Cleaning Batch # : H1-569
Collection Date: 3/4/19
Date Can. Cleaned: 2/21/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 2/28/19

Field Setup

Received by: Qazzar
Date: 3/4/19
Operator: Qazzar
MFC Setting:
System #: 10314
Elapsed Timer Reset (Y/N):
Setup Date: 3/4/19
Canister Valve Opened (Y/N): ~~10:07am~~ 10:21am
Field Initial Can. Press.: 30.0 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 3/5/19
Sample Duration (3 or 24 hr): 24
Operator: Qazzar
Elapsed Time:
Field Final Can. Press.: -4.0 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): 10:17am
Relinquished by: Qazzar
Date: 3/5/19

Lab Recovery

Received by: RB
Date: 3/6/19
Lab Final Can. Press.: 1.6 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: -30+ in Hg [illegible] -30 [illegible] 10:14
Temp @ deployment: 0°C
Temp @ collection: [illegible]
Final pressure -1 psig Hg
-28.0 [illegible]

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

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ERG Eastern Research Group, Inc.
601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 9030618-08

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Gower E.S.
Canister Number: A21051
City/State: Willowbrook, DC
Lab Initial Can. Press. ("Hg): 29.8
AQS Code: ——
Cleaning Batch # : H2-569
Collection Date: 3/4/19
Date Can. Cleaned: 2/21/19
Options:
SNMOC (Y/N):
Duplicate Event (Y/N): N
TOXICS (Y/N): Y
Duplicate Can # :
METHANE (Y/N):
Relinquished by: RMB
Date: 2/28/19

Field Setup

Received by: Qazzaz
Date: 3/4/19
Operator: Qazzaz
MFC Setting:
System #: 10077
Elapsed Timer Reset (Y/N):
Setup Date: 3/4/19
Canister Valve Opened (Y/N): 12:13pm
Field Initial Can. Press.: -28.0 psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 3/5/19
Sample Duration (3 or 24 hr): 24
Operator: Qazzaz
Elapsed Time:
Field Final Can. Press.: -7.0 psig psia "Hg (Circle one)
Status: VALID VOID (Circle one)
Canister Valve Closed (Y/N): 11:34
Relinquished by: Qazzaz
Date: 3/5/19

Lab Recovery

Received by: KB
Date: 3/6/19
Lab Final Can. Press.: 6.50 psig "Hg (Circle one)
Converted to psia:
Status: VALID VOID (Circle one)
Gauge: 1 2 (Circle one)
If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Leak check: -28 in Hg @ 12:07pm: -28 in Hg @ 12:12pm
Temp @ deployment: 0°F
Temp @ collection: 14 F
Final pressure -6 psig Hg

White: Sample Traveler
Canary: Lab Copy
Pink: Field Copy

Compounds other than ethylene oxide were not quantitated.

1L

ERG Eastern Research Group, Inc.

601 Keystone Park Drive, Suite 700, Morrisville, NC 27560

ERG Lab ID # 96.3061 8-09

AIR TOXICS SAMPLE CHAIN OF CUSTODY

Lab Pre-Sampling

Site Code: Hindsdale South HS

Canister Number: ER025

City/State: Darien, IL

Lab Initial Can. Press. ("Hg): 29.8

AQS Code: —

Cleaning Batch # : H1-566

Collection Date: 3/4/19

Date Can. Cleaned: 2/20/19

Options:

SNMOC (Y/N):

Duplicate Event (Y/N): N

TOXICS (Y/N): Y

Duplicate Can # :

METHANE (Y/N):

Relinquished by: RMB

Date: 2/28/19

Field Setup

Received by: DeIsio

Date: 3/4/19

Operator: DeIsio

MFC Setting:

System #: 10076

Elapsed Timer Reset (Y/N):

Setup Date: 3/4/19

Canister Valve Opened (Y/N):

Field Initial Can. Press.: psig psia "Hg (Circle one)

Field Recovery

Recovery Date: 3/5/19

Sample Duration (3 or 24 hr): 24 hr

Operator: DeIsio

Elapsed Time:

Field Final Can. Press.: -5.5 psig psia "Hg (Circle one)

Status: VALID VOID (Circle one)

Canister Valve Closed (Y/N): 1127 am

Relinquished by: DeIsio

Date: 3/5/19

Lab Recovery

Received by: RB

Date: 3/6/19

Lab Final Can. Press.: 4.50 psig "Hg (Circle one)

Converted to psia:

Status: VALID VOID (Circle one)

Gauge: 1 2 (Circle one)

If void, why:

Samples stored in Air Tox Lab (Room 130)

5-2016

Comments: Deploy temp = 0°F

Leak Check @ 1151 [illegible] / -28.5 @ 1158

Collection temp = [illegible]°F

Final pressure = -3.5 psig Hg

White: Sample Traveler

Canary: Lab Copy

Pink: Field Copy